



Full&Default&ECI4 Power Mode

GSM850-Air 5	Base Average Power (dBm)			TxPower Limit	Frame Average Power (dBm)			TxPower Limit
	15W	16W	20.1		15W	16W	20.1	
Frequency (MHz)	844.2	846.4	848.6	(dBm)	844.2	846.4	848.6	(dBm)
GPRS 1 Tx-Wall	31.61	31.63	31.63	33.28	22.51	22.51	22.60	24.00
GPRS 1 Tx-Wall	31.62	31.61	31.64	33.00	22.62	22.61	22.64	24.00
GPRS 2 Tx-Wall	30.47	30.50	30.45	32.00	24.47	24.50	24.45	26.00
GPRS 3 Tx-Wall	26.44	26.50	26.42	30.00	24.16	24.21	24.16	26.14
GPRS 4 Tx-Wall	27.33	27.30	27.31	29.00	24.33	24.30	24.31	26.00

GSM900 Air 6	Burst Average Power (dBm)			Tx Power Limit (dBm)	Frame Average Power (dBm)			Tx Power Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1860	1900.8		1850.2	1860	1900.8	
GSM 1 Tx slot	27.80	28.03	27.94	20.00	18.59	19.03	19.94	20.00
GPRS 1 Tx slot	27.91	27.92	27.80	20.00	18.91	18.62	18.80	20.00
GPRS 2 Tx slots	26.93	26.98	26.85	20.00	20.93	20.98	20.85	22.00
GPRS 3 Tx slots	24.92	24.99	24.89	20.00	20.66	20.73	20.63	21.74
GPRS 4 Tx slots	23.83	23.92	23.86	25.00	20.83	20.92	20.86	22.00

Base				WCDMA II Air 5				WCDMA IV Air 6				WCDMA V Air 6			
Tx Channel				TxPower Limit				TxPower Limit				TxPower Limit			
Rx Channel				Limit				Limit				Limit			
Frequency (MHz)				(dBm)				(dBm)				(dBm)			
ECI4 Tx-Wall	1852.4	1860	1867.6	22.00	22.01	22.12	22.11	20.00	24.20	24.31	24.27	20.00			



GSM450-Air 1		Rural Average Power (dBm)		Turn-up		Farm Average Power (dBm)		Turn-up	
Tx Channel		128	160	201	140	128	160	201	140
Frequency (MHz)		824.2	836.4	848.6	(dBm)	824.2	836.4	848.6	(dBm)
OPRR 1 Tx 40W		31.50	31.71	31.83	33.00	22.61	22.71	22.83	24.00
OPRR 1 Tx 40W		31.89	31.89	31.83	33.00	22.80	22.89	22.83	24.00
OPRR 2 Tx 40W		30.82	30.83	30.94	32.00	24.82	24.83	24.94	25.00
OPRR 3 Tx 40W		29.48	29.51	29.63	30.00	24.20	24.25	24.30	25.00
OPRR 4 Tx 40W		27.38	27.39	27.52	29.00	24.38	24.39	24.52	25.00

Band		WCDMA 6-Air 1		Turn-up		WCDMA 17-Air 1		Turn-up		WCDMA 17-Air 1		Turn-up	
Tx Channel		8262	8400	8638	140	1512	1415	1513	140	4132	4182	4213	140
Frequency (MHz)		955.2	959.0	969.8	(dBm)	1537	1538	1539	(dBm)	4307	4407	4456	(dBm)
GSPR-Bus 60		21.33	21.43	21.52	23.00	21.31	21.54	21.43	23.00	24.17	24.23	24.15	25.00
GSPR-Bus 60		21.33	21.43	21.52	23.00	21.31	21.54	21.43	23.00	24.17	24.23	24.15	25.00



GSM1900-A12		Total Average Power (dBm)			Turn-up		Power Density Power (dBm)			Turn-up	
Tx Channel		812	845	812	Loss		812	845	812	Loss	
Frequency (MHz)		1850.2	1880	1900.8			1850.2	1880	1900.8		
GSM 1 Tx slot		23.28	23.15	23.28	32.50		23.28	23.15	23.28	23.10	
GPRS 1 Tx slot		25.25	25.32	25.21	30.50		25.25	25.32	25.21	23.50	
GPRS 2 Tx slot		25.35	25.37	25.35	29.00		25.35	25.37	25.35	23.00	
GPRS 3 Tx slot		25.33	25.34	25.35	27.00		25.33	25.34	25.33	22.74	
GPRS 4 Tx slot		25.27	25.33	25.24	26.00		25.27	25.33	25.24	23.00	

Band		WCDMA-A12			Turn-up		WCDMA-A12			Turn-up	
Tx Channel		9352	9400	9538	Loss		9352	9400	9538	Loss	
Frequency (MHz)		1852.4	1880	1907.6			1852.4	1880	1907.6		
GPPR Band 8		23.00	23.24	23.10	24.00		23.00	23.11	23.10	24.00	



Band		WCDMA II-A/G-3			Time-to-go		WCDMA IV-A/G-3			Time-to-go	
TX Channel		9562	9450	9538	Less		9532	9415	9518	Less	
RX Channel		9562	9450	9538	(dBm)		9532	9415	9518	(dBm)	
Frequency (MHz)		1852.4	1840	1857.8			1712.8	1702.8	1702.8		
SCPP Ref ID		RNC 12 Phase			21.14		21.14	21.33	21.26	22.00	



Band 2 Ant 0								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Turn-up time (min)	MRR (dB)
Channel				18700	18900	19100		
Frequency (MHz)								
20	QPSK	1	0	22.67	22.71	22.84	24	0
20	QPSK	1	49	22.69	22.85	22.95		
20	QPSK	1	99	22.58	22.88	22.44		
20	QPSK	50	0	21.68	21.68	21.68		
20	QPSK	50	24	21.67	21.76	21.64	23	1
20	QPSK	50	50	21.59	21.73	21.48		
20	QPSK	100	0	21.55	21.67	21.58		
20	QPSK	100	0	21.55	21.67	21.58		

Band 4 Ant 0								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Time-up limit (min)	MRR (dB)
Channel				20950	20175	20950		
Frequency (MHz)				1720	1725.5	1745		
20	QPSK	1	0	22.67	22.77	22.68	24	0
20	QPSK	1	49	22.71	22.72	22.56		
20	QPSK	1	99	22.72	22.67	22.81		
20	QPSK	50	0	21.77	21.69	21.75	23	1
20	QPSK	50	24	21.71	21.84	21.58		
20	QPSK	50	50	21.69	21.88	21.82		
20	QPSK	100	0	21.60	21.83	21.70		

Band 5 Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq. 256QAM	Power Middle Ch / Freq. 256QAM	Power High Ch / Freq. 256QAM	Tx-to-BB Loss (dB)	MRR (dB)	
Channel				829	846.5	844			
Frequency (MHz)									
10	QPSK	1	0	23.17	23.35	23.21	24	0	
10	QPSK	1	25	23.09	23.11	23.02			
10	QPSK	1	40	23.21	23.24	23.18			
10	QPSK	25	0	22.06	22.23	22.16			
10	QPSK	25	10	22.10	22.15	22.11	23	1	
10	QPSK	25	25	22.17	22.14	22.08			
10	QPSK	50	0	22.20	22.25	22.16			
10	16QAM	1	0	22.47	22.50	22.49			
10	16QAM	1	25	22.32	22.38	22.37	23	1	
10	16QAM	1	40	22.32	22.44	22.33			
10	16QAM	25	0	21.30	21.28	21.27			
10	16QAM	25	12	21.23	21.21	21.23			
10	16QAM	25	20	21.16	21.25	21.21	22	2	
10	16QAM	50	0	21.27	21.23	21.18			
10	64QAM	1	0	21.26	21.37	21.35			
10	64QAM	1	25	21.23	21.32	21.27			
10	64QAM	1	40	21.27	21.30	21.20	22	2	
10	64QAM	25	0	20.36	20.36	20.28			
10	64QAM	25	12	20.28	20.39	20.25			
10	64QAM	25	25	20.16	20.21	20.11			
10	64QAM	50	0	20.28	20.36	20.23	21		
10	256QAM	1	0	18.28	18.26	18.24			
10	256QAM	1	25	18.21	18.25	18.09			
10	256QAM	1	40	18.12	18.25	18.18			
10	256QAM	25	0	18.14	18.22	18.10			
10	256QAM	25	12	18.22	18.23	18.19	19	5	
10	256QAM	25	25	18.20	18.30	18.29			
10	256QAM	50	0	18.14	18.23	18.12			
Channel									
Frequency (MHz)				826.5	836.5	840.5			
5	QPSK	1	0	23.14	23.30	23.18	24	0	
5	QPSK	1	12	23.02	23.08	23.00			
5	QPSK	1	24	23.11	23.17	23.16			
5	QPSK	12	0	21.98	22.13	22.06			
5	QPSK	12	7	22.01	22.06	22.01	23	1	
5	QPSK	12	13	22.11	22.12	22.00			
5	QPSK	25	0	22.19	22.17	22.11			
5	16QAM	1	0	22.37	22.47	22.37			
5	16QAM	1	12	22.24	22.33	22.27	23	1	
5	16QAM	1	24	22.30	22.34	22.28			
5	16QAM	12	0	21.26	21.15	21.15			
5	16QAM	12	7	21.17	21.18	21.12			
5	16QAM	12	13	21.12	21.19	21.11	22	2	
5	16QAM	25	0	21.16	21.18	21.07			
5	64QAM	1	0	21.25	21.31	21.22			
5	64QAM	1	12	21.13	21.16	21.17			
5	64QAM	1	24	21.16	21.24	21.14	21		
5	64QAM	12	0	20.32	20.33	20.24			
5	64QAM	12	7	20.34	20.33	20.22			
5	64QAM	12	13	20.07	20.15	20.05			
5	64QAM	25	0	20.18	20.29	20.20	19		
5	256QAM	1	0	18.23	18.21	18.23			
5	256QAM	1	12	18.13	18.22	18.07			
5	256QAM	1	24	18.09	18.20	18.09			
5	256QAM	12	0	18.15	18.15	18.06			
5	256QAM	12	7	18.18	18.17	18.15	19	5	
5	256QAM	12	13	18.15	18.28	18.27			
5	256QAM	25	0	18.08	18.12	18.03			
Channel									
Frequency (MHz)				826.5	836.5	847.5			
3	QPSK	1	0	23.08	23.30	23.13	24	0	
3	QPSK	1	8	23.00	23.07	22.97			
3	QPSK	1	14	23.16	23.20	23.14			
3	QPSK	8	0	22.00	22.14	22.14			
3	QPSK	8	4	22.05	22.11	22.01	23	1	
3	QPSK	8	7	22.11	22.08	22.04			
3	QPSK	16	0	22.18	22.23	22.13			
3	16QAM	1	0	22.37	22.44	22.42			
3	16QAM	1	8	22.22	22.36	22.34	23	1	
3	16QAM	1	14	22.26	22.36	22.29			
3	16QAM	8	0	21.22	21.17	21.06			
3	16QAM	8	4	21.20	21.13	21.17			
3	16QAM	8	7	21.00	21.15	21.11	22	1	
3	16QAM	15	0	21.21	21.19	21.08			
3	64QAM	1	0	21.16	21.38	21.28			
3	64QAM	1	8	21.12	21.26	21.22			
3	64QAM	1	14	21.20	21.26	21.17	22	2	
3	64QAM	8	0	20.33	20.29	20.21			
3	64QAM	8	4	20.18	20.30	20.15			
3	64QAM	8	7	20.11	20.18	20.08			
3	64QAM	15	0	20.26	20.28	20.14	21		
3	256QAM	1	0	18.07	18.24	18.13			
3	256QAM	1	8	18.16	18.17	18.02			
3	256QAM	1	14	18.08	18.22	18.17			
3	256QAM	8	0	18.15	18.13	17.09	19	5	
3	256QAM	8	4	18.15	18.22	18.08			
3	256QAM	8	7	18.12	18.25	18.21			
3	256QAM	15	0	18.07	18.13	18.07			
Channel									
Frequency (MHz)				824.7	838.5	848.5	Uplink Loss (dB)	MRR (dB)	
1.4	QPSK	1	0	23.05	23.19	23.06	24	0	
1.4	QPSK	1	3	23.05	23.14	22.98			
1.4	QPSK	1	5	23.04	23.08	23.00			
1.4	QPSK	3	0	22.96	23.12	23.10			
1.4	QPSK	3	1	22.99	23.17	23.04	23	1	
1.4	QPSK	3	3	23.00	23.01	23.04			
1.4	16QAM	1	0	22.11	22.12	21.81			
1.4	16QAM	1	3	22.05	22.19	22.12			
1.4	16QAM	1	5	21.99	22.28	21.89	23	1	
1.4	16QAM	3	0	22.16	22.22	22.09			
1.4	16QAM	3	1	22.09	22.14	22.13			
1.4	16QAM	3	3	22.04	22.16	22.01			
1.4	16QAM	6	0	21.18	21.28	21.23	22	2	
1.4	64QAM	1	0	21.30	21.24	21.12			
1.4	64QAM	1	3	21.08	21.14	21.05			
1.4	64QAM	1	5	21.17	21.19	21.15			
1.4	64QAM	3	0	21.12	21.27	20.86	22	2	
1.4	64QAM	3	1	20.97	21.11	21.08			
1.4	64QAM	3	3	21.02	21.14	21.08			
1.4	64QAM	6	0	20.16	20.29	20.11			
1.4	256QAM	1	0	18.34	18.35	18.22	21		
1.4	256QAM	1	3	18.19	18.39	18.23			
1.4	256QAM	1	5	18.22	18.28	18.31			
1.4	256QAM	3	0	18.11	18.08	18.11			
1.4	256QAM	3	1	18.06	18.16	18.21	19	5	
1.4	256QAM	3	3	18.20	18.21	18.08			
1.4	256QAM	6	0	17.59	18.16	17.66			
1.4	256QAM	6	0	17.59	18.16	17.66			

Band 7 Ant 0								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Turn-up (dB)	MRR (dB)
Channel				20960	21100	21260		
Frequency (MHz)				26.10	26.35	26.60		
20	QPSK	1	0	23.16	23.51	23.44	25	0
20	QPSK	1	49	23.12	23.44	23.38		
20	QPSK	1	99	23.12	23.42	23.39		
20	QPSK	50	0	22.27	22.63	22.60		
20	QPSK	50	24	22.23	22.54	22.48	24	1
20	QPSK	50	50	22.31	22.52	22.48		
20	QPSK	100	0	22.26	22.52	22.47		
20	QPSK	100	0	22.26	22.52	22.47		

Band 26 Ant 0											
RF Band	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Med Ch./Freq.	Power High Ch./Freq.	Turn-up rate (dB)	MFR (dB)			
Channel											
Frequency (MHz)											
15	QPSK	1	0	23.24	23.38	23.27	24	0			
15	QPSK	1	37	23.19	23.21	23.11					
15	QPSK	1	74	23.25	23.26	23.20					
15	QPSK	36	0	22.16	22.25	22.18					
15	QPSK	36	20	22.15	22.20	22.13	23	1			
15	QPSK	36	36	22.19	22.21	22.16					
15	QPSK	75	0	22.25	22.27	22.24					
15	HQAM	1	0	22.52	22.56	22.47					
15	HQAM	1	37	22.39	22.44	22.41	23	1			
15	HQAM	1	74	22.42	22.51	22.43					
15	HQAM	36	0	21.31	21.37	21.27					
15	HQAM	36	20	21.29	21.32	21.27					
15	HQAM	36	36	21.24	21.34	21.26	22	2			
15	HQAM	75	0	21.31	21.32	21.22					
15	64QAM	1	0	21.33	21.42	21.40					
15	64QAM	1	37	21.29	21.34	21.32					
15	64QAM	1	74	21.33	21.39	21.35	22	2			
15	64QAM	36	0	20.38	20.39	20.35					
15	64QAM	36	20	20.34	20.31	20.32					
15	64QAM	36	36	20.24	20.33	20.23					
15	64QAM	75	0	20.33	20.38	20.33	21	3			
15	256QAM	1	0	18.30	18.34	18.27					
15	256QAM	1	37	18.25	18.27	18.17					
15	256QAM	1	74	18.23	18.32	18.25					
15	256QAM	36	0	18.20	18.24	18.17	19	5			
15	256QAM	36	20	18.28	18.31	18.21					
15	256QAM	36	36	18.33	18.31	18.21					
15	256QAM	75	0	18.20	18.27	18.17					
Channel							Turn-up rate (dB)	MFR (dB)			
Frequency (MHz)											
10	QPSK	1	0	23.17	23.27	23.23	24	0			
10	QPSK	1	25	23.12	23.19	23.07					
10	QPSK	1	49	23.19	23.15	23.12					
10	QPSK	25	0	22.11	22.20	22.12					
10	QPSK	25	12	22.05	22.16	22.06	23	1			
10	QPSK	25	25	22.09	22.12	22.13					
10	QPSK	50	0	22.16	22.19	22.17					
10	HQAM	1	0	22.47	22.52	22.46					
10	HQAM	1	25	22.35	22.42	22.34	23	1			
10	HQAM	1	49	22.41	22.47	22.37					
10	HQAM	25	0	21.29	21.34	21.26					
10	HQAM	25	12	21.28	21.29	21.22					
10	HQAM	25	25	21.27	21.24	21.18	22	2			
10	HQAM	50	0	21.22	21.24	21.18					
10	64QAM	1	0	21.31	21.33	21.32					
10	64QAM	1	25	21.28	21.34	21.31					
10	64QAM	1	49	21.30	21.38	21.18	21	3			
10	64QAM	25	0	20.35	20.31	20.32					
10	64QAM	25	12	20.37	20.32	20.30					
10	64QAM	25	25	20.17	20.21	20.13					
10	64QAM	50	0	20.25	20.29	20.29	19	5			
10	256QAM	1	0	18.26	18.24	18.10					
10	256QAM	1	25	18.20	18.21	18.05					
10	256QAM	1	49	18.20	18.24	18.20					
10	256QAM	25	0	18.16	18.16	18.06	19	5			
10	256QAM	25	12	18.21	18.21	18.15					
10	256QAM	25	25	18.22	18.26	18.29					
10	256QAM	50	0	18.10	18.23	18.10					
Channel							Turn-up rate (dB)	MFR (dB)			
Frequency (MHz)											
5	QPSK	1	0	23.14	23.30	23.20	24	0			
5	QPSK	1	12	23.14	23.13	23.05					
5	QPSK	1	24	23.22	23.18	23.12					
5	QPSK	12	0	22.08	22.16	22.10					
5	QPSK	12	7	22.11	22.15	22.04	23	1			
5	QPSK	12	13	22.13	22.18	22.06					
5	QPSK	24	0	22.14	22.17	22.15					
5	HQAM	1	0	22.51	22.47	22.42					
5	HQAM	1	12	22.52	22.38	22.35	23	1			
5	HQAM	1	24	22.40	22.42	22.41					
5	HQAM	12	0	21.27	21.34	21.23					
5	HQAM	12	7	21.19	21.26	21.26					
5	HQAM	12	13	21.14	21.27	21.18	22	2			
5	HQAM	24	0	21.21	21.27	21.18					
5	64QAM	1	0	21.22	21.33	21.18					
5	64QAM	1	12	21.27	21.28	21.26					
5	64QAM	1	24	21.28	21.37	21.22	21	3			
5	64QAM	12	0	20.29	20.36	20.29					
5	64QAM	12	7	20.35	20.32	20.26					
5	64QAM	12	13	20.18	20.22	20.17					
5	64QAM	24	0	20.29	20.34	20.27	19	5			
5	256QAM	1	0	18.27	18.26	18.18					
5	256QAM	1	12	18.23	18.22	18.10					
5	256QAM	1	24	18.15	18.18	18.10					
5	256QAM	12	0	18.19	18.18	18.10	19	5			
5	256QAM	12	7	18.21	18.24	18.11					
5	256QAM	12	13	18.20	18.30	18.26					
5	256QAM	24	0	18.11	18.19	18.08					
Channel							Turn-up rate (dB)	MFR (dB)			
Frequency (MHz)											
3	QPSK	1	0	23.23	23.32	23.32	24	0			
3	QPSK	1	8	23.18	23.15	23.04					
3	QPSK	1	14	23.22	23.19	23.12					
3	QPSK	8	0	22.09	22.23	22.07					
3	QPSK	8	4	22.08	22.19	22.11	23	1			
3	QPSK	8	7	22.14	22.12	22.07					
3	QPSK	16	0	22.17	22.17	22.15					
3	HQAM	1	0	22.48	22.52	22.46					
3	HQAM	1	8	22.34	22.39	22.39	23	1			
3	HQAM	1	14	22.41	22.46	22.42					
3	HQAM	8	0	21.22	21.34	21.17					
3	HQAM	8	4	21.22	21.27	21.19					
3	HQAM	8	7	21.17	21.26	21.19	22	2			
3	HQAM	16	0	21.20	21.28	21.21					
3	64QAM	1	0	21.30	21.31	21.36					
3	64QAM	1	8	21.25	21.24	21.22					
3	64QAM	1	14	21.28	21.33	21.26	22	2			
3	64QAM	8	0	20.34	20.37	20.27					
3	64QAM	8	4	20.38	20.37	20.32					
3	64QAM	8	7	20.21	20.24	20.17					
3	HQAM	15	0	20.24	20.34	20.24	21	3			
3	256QAM	1	0	18.21	18.32	18.20					
3	256QAM	1	8	18.21	18.25	18.18					
3	256QAM	14	0	18.20	18.30	18.21					
3	256QAM	8	0	18.09	18.22	18.16	19	5			
3	256QAM	8	4	18.23	18.24	18.19					
3	256QAM	8	7	18.29	18.31	18.20					
3	256QAM	16	0	18.17	18.18	18.07	19	5			
3	256QAM	16	8	18.17	18.18	18.07					
Channel							Turn-up rate (dB)	MFR (dB)			
Frequency (MHz)											
1.4	QPSK	1	0	23.67	23.69	23.73	24	0			
1.4	QPSK	1	8	23.66	23.61	23.59					
1.4	QPSK	1	16	23.14	23.20	23.11					
1.4	QPSK	1	24	23.11	23.17	23.08					
1.4	QPSK	3	0	23.14	23.24	23.14	23	1			
1.4	QPSK	3	8	23.13	23.22	23.06					
1.4	QPSK	3	16	23.20	23.14	23.12					
1.4	QPSK	3	24	23.16	23.25	23.22					
1.4	HQAM	1	0	22.12	22.21	22.11	23	1			
1.4	HQAM	1	8	22.20	22.30	22.15					
1.4	HQAM	1	16	22.12	22.12	22.07					
1.4	HQAM	3	0	22.23	22.37	22.19					
1.4	HQAM	3	8	22.08	22.18	22.07	22	2			
1.4	HQAM	3	16	21.27	21.21	21.21					
1.4	HQAM	3	24	21.28	21.21	21.21					
1.4	HQAM	1	0	21.16	21.33	21.15					
1.4	HQAM	1	8	21.20	21.21	21.26	22	2			
1.4	HQAM	1	16	21.27	21.34	21.24					
1.4	HQAM	3	0	21.22	21.30	21.30					
1.4	HQAM	3	8	21.33	21.38	21.25					
1.4	HQAM	3	16	21.44	21.37	21.29	21	3			
1.4	HQAM	3	24	21.40	21.40	21.30					
1.4	HQAM	3	32	21.38	21.32	21.25					
1.4	HQAM	3	40	21.38	21.38	21.25					
1.4	HQAM	3	48	21.38	21.38	21.25	19	5			
1.4	HQAM	3	56	21.38	21.38	21.25					
1.4	HQAM	3	64	21.38	21.38	21.25					
1.4	HQAM	3	72	21.38	21.38	21.25					
1.4	HQAM	3	80	21.38	21.38	21.25	19	5			
1.4	HQAM	3	88	21.38	21.38	21.25					
1.4	HQAM	3	96	21.38	21.38	21.25					
1.4	HQAM	3	104	21.38	21.38	21.25					
1.4	HQAM	3	112	21.38	21.38	21.25	19	5			
1.4	HQAM	3	120	21.38	21.38	21.25					
1.4	HQAM	3	128	21.38	21.38	21.25					
1.4	HQAM	3	136	21.38	21.38	21.25					
1.4	HQAM	3	144	21.38	21.38	21.25	19	5			
1.4	HQAM	3	152	21.38	21.38	21.25					
1.4	HQAM	3	160	21.38	21.38	21.25					
1.4	HQAM	3	168	21.38	21.38	21.25					
1.4	HQAM	3	176	21.38	21.38	21.25	19	5			
1.4	HQAM	3	184	21.38	21.38	21.25					
1.4	HQAM	3	192	21.38	21.38	21.25					
1.4	HQAM	3	200	21.38	21.38	21.25					
1.4	HQAM	3	208	21.38	21.38	21.25	19	5			
1.4	HQAM	3	216	21.38	21.38	21.25					
1.4	HQAM	3	224	21.38	21.38	21.25					
1.4	HQAM	3	232	21.38	21.38	21.25					
1.4	HQAM	3	240	21.38	21.38	21.25	19	5			
1.4	HQAM	3	248	21.38	21.38	21.25					
1.4	HQAM	3	256	21.38	21.38	21.25					
1.4	HQAM	3	264	21.38	21.38	21.25					
1.4	HQAM	3	272	21.38	21.38	21.25	19	5			
1.4	HQAM	3	280	21.38	21.38	21.25					
1.4	HQAM	3	288	21.38	21.38	21.25					
1.4	HQAM	3	296	21.38	21.38	21.25					
1.4	HQAM	3	304	21.38	21.38	21.25					



Band 66 Ant 0								
ISW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				130072	130208	130272	24	0
Frequency (MHz)				1750	1745	1750		
20	QPSK	1	0	22.57	22.77	22.68		
20	QPSK	1	48	22.58	22.60	22.58		
20	QPSK	1	99	22.87	22.82	22.94	23	1
20	QPSK	50	0	21.68	21.79	21.81		
20	QPSK	50	24	21.69	21.61	21.62		
20	QPSK	50	50	21.84	21.62	21.84		
20	QPSK	100	0	21.59	21.70	21.62		



Band 38 Ant 0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dB)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				2550	2595	2610		
20	QPSK	1	0	23.55	23.57	23.45	25	0
20	QPSK	1	40	23.44	23.45	23.35		
20	QPSK	1	80	23.41	23.40	23.37		
20	QPSK	50	0	22.43	22.60	22.60	24	1
20	QPSK	50	24	22.48	22.53	22.42		
20	QPSK	50	50	22.46	22.53	22.45		
20	QPSK	100	0	22.39	22.52	22.39		

Band 41 Ant 0										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Mid Ch. / Freq.	Power Med. Ch. / Freq.	Power High-Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				23.64	23.635	23.63	23.645	23.64		
20	QPSK	1	0	23.72	23.72	23.61	23.61	23.64	25	0
20	QPSK	1	40	23.72	23.67	23.73	23.48	23.49		
20	QPSK	1	80	23.68	23.61	23.64	23.47	23.51		
20	QPSK	50	0	22.71	22.74	22.89	22.57	22.64	24	1
20	QPSK	50	24	22.69	22.61	22.72	22.56	22.58		
20	QPSK	50	50	22.61	22.77	22.67	22.60	23.63		
20	QPSK	100	0	22.85	22.62	22.67	22.59	22.80		

Band 41 HPUE Ant 0										
BW [MHz]	Modulation	RB Size	RB Offset	Power / Ch. / Freq.	Power / Ch. / Freq.	Power / Ch. / Freq.	Power / Ch. / Freq.	Power / Ch. / Freq.	Turn-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				25.64	25.64	25.63	25.64	25.64		
20	QPSK	1	0	25.22	25.14	25.27	25.07	25.21	28	0
20	QPSK	1	40	25.14	25.03	25.26	25.05	25.07		
20	QPSK	1	80	25.09	25.01	25.17	25.07	25.07		
20	QPSK	50	0	25.22	25.23	25.35	25.14	25.11	27	1
20	QPSK	50	24	25.25	25.15	25.32	25.11	25.05		
20	QPSK	50	50	25.09	25.27	25.19	25.13	25.20		
20	QPSK	100	0	25.08	25.13	25.19	25.10	25.09		



Band 2 Ant 1							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)
Channel				18700	18800	18900	MTR (dB)
Frequency [MHz]							
20	QPSK	1	0	22.86	22.89	22.90	24
20	QPSK	1	40	22.91	22.83	22.89	
20	QPSK	1	99	22.92	22.83	22.49	
20	QPSK	50	0	21.68	21.66	21.58	
20	QPSK	50	24	21.59	21.60	21.58	23
20	QPSK	50	50	21.54	21.94	21.52	
20	QPSK	100	0	21.42	21.68	21.51	
20	QPSK	100	0	21.42	21.68	21.51	

Band 4 Ant 1							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)
Channel				20950	20975	20980	MTR (dB)
Frequency [MHz]							
20	QPSK	1	0	22.93	22.89	22.90	24
20	QPSK	1	40	22.86	22.90	22.86	
20	QPSK	1	99	22.88	22.89	22.94	
20	QPSK	50	0	21.97	21.66	21.90	
20	QPSK	50	24	21.93	21.84	21.93	23
20	QPSK	50	50	21.94	21.94	21.88	
20	QPSK	100	0	21.91	21.90	21.90	
20	QPSK	100	0	21.91	21.90	21.90	

Band 5 Ant 1							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)
Channel				829	836.5	844	MTR (dB)
Frequency [MHz]							
10	QPSK	1	0	22.67	22.85	22.70	24
10	QPSK	1	25	22.61	22.87	22.58	
10	QPSK	1	40	22.61	22.67	22.73	
10	QPSK	25	0	21.73	21.62	21.67	
10	QPSK	25	10	21.66	21.76	21.60	23
10	QPSK	25	25	21.71	21.53	21.74	
10	QPSK	50	0	21.63	21.72	21.65	
10	16QAM	1	0	21.64	21.68	21.63	
10	16QAM	1	25	21.82	21.74	21.81	23
10	16QAM	1	40	21.70	21.58	21.76	
10	16QAM	25	0	20.69	20.84	20.72	
10	16QAM	25	12	20.83	20.68	20.93	
10	16QAM	25	25	20.71	20.62	20.81	22
10	16QAM	50	0	20.68	20.87	20.69	
10	64QAM	1	0	20.84	20.80	20.86	
10	64QAM	1	25	20.97	20.88	20.82	
10	64QAM	1	40	20.72	20.86	20.79	21
10	64QAM	25	0	19.80	19.86	19.72	
10	64QAM	25	12	19.97	19.85	19.84	
10	64QAM	25	25	19.71	19.95	19.69	
10	64QAM	50	0	19.83	19.75	19.70	19
10	256QAM	1	0	17.59	17.77	17.73	
10	256QAM	1	25	17.62	17.70	17.69	
10	256QAM	1	40	17.68	17.62	17.70	
10	256QAM	25	0	17.70	17.73	17.73	
10	256QAM	25	12	17.65	17.82	17.70	19
10	256QAM	25	25	17.58	17.72	17.69	
10	256QAM	50	0	17.72	17.64	17.77	
10	256QAM	50	0	17.72	17.64	17.77	
Channel				2042.5	2052.8	2062.5	Tune-up limit (dB)
Frequency [MHz]							
5	QPSK	1	0	22.84	22.73	22.85	24
5	QPSK	1	12	22.80	22.84	22.46	
5	QPSK	1	24	22.55	22.63	22.63	
5	QPSK	12	0	21.63	21.73	21.66	
5	QPSK	12	7	21.58	21.72	21.69	23
5	QPSK	12	13	21.63	21.45	21.68	
5	QPSK	25	0	21.59	21.64	21.68	
5	16QAM	1	0	21.62	21.67	21.76	
5	16QAM	1	12	21.54	21.85	21.58	23
5	16QAM	1	24	21.67	21.49	21.71	
5	16QAM	12	0	20.84	20.78	20.89	
5	16QAM	12	7	20.46	20.60	20.43	
5	16QAM	12	13	20.68	20.55	20.67	22
5	16QAM	25	0	20.64	20.64	20.77	
5	64QAM	1	0	20.54	20.73	20.51	
5	64QAM	1	12	20.50	20.68	20.57	
5	64QAM	1	24	20.65	20.62	20.71	21
5	64QAM	12	0	19.91	19.87	19.82	
5	64QAM	12	7	19.85	19.91	19.82	
5	64QAM	12	13	19.69	19.25	19.61	
5	64QAM	25	0	19.87	19.67	19.65	19
5	256QAM	1	0	17.54	17.68	17.61	
5	256QAM	1	12	17.58	17.61	17.61	
5	256QAM	1	24	17.65	17.58	17.69	
5	256QAM	12	0	17.64	17.72	17.67	
5	256QAM	12	7	17.61	17.73	17.60	19
5	256QAM	12	13	17.55	17.67	17.67	
5	256QAM	25	0	17.65	17.61	17.64	
5	256QAM	25	0	17.65	17.61	17.64	
Channel				2041.5	2052.8	2062.5	Tune-up limit (dB)
Frequency [MHz]							
3	QPSK	1	0	22.60	22.76	22.48	24
3	QPSK	1	8	22.51	22.63	22.50	
3	QPSK	1	14	22.59	22.81	22.66	
3	QPSK	8	0	21.66	21.76	21.61	
3	QPSK	8	4	21.58	21.68	21.59	23
3	QPSK	8	7	21.67	21.47	21.69	
3	QPSK	16	0	21.55	21.67	21.58	
3	16QAM	1	0	21.63	21.61	21.80	
3	16QAM	1	8	21.55	21.69	21.56	23
3	16QAM	1	14	21.66	21.53	21.68	
3	16QAM	8	0	20.68	20.82	20.61	
3	16QAM	8	4	20.43	20.60	20.43	
3	16QAM	8	7	20.45	20.53	20.62	22
3	16QAM	15	0	20.59	20.65	20.73	
3	64QAM	1	0	20.61	20.69	20.81	
3	64QAM	1	8	20.40	20.62	20.39	
3	64QAM	1	14	20.66	20.59	20.69	21
3	64QAM	8	0	19.58	19.56	19.63	
3	64QAM	8	4	19.48	19.50	19.54	
3	64QAM	8	7	19.62	19.47	19.65	
3	64QAM	15	0	19.62	19.74	19.64	19
3	256QAM	1	0	17.51	17.68	17.69	
3	256QAM	1	8	17.54	17.61	17.62	
3	256QAM	1	14	17.62	17.58	17.61	
3	256QAM	8	0	17.67	17.67	17.73	
3	256QAM	8	4	17.80	17.61	17.62	19
3	256QAM	8	7	17.52	17.70	17.54	
3	256QAM	15	0	17.65	17.67	17.67	
3	256QAM	15	0	17.65	17.67	17.67	
Channel				2040.7	2052.8	2062.5	Tune-up limit (dB)
Frequency [MHz]							
1.4	QPSK	1	0	22.45	22.75	22.24	24
1.4	QPSK	1	3	22.55	22.70	22.55	
1.4	QPSK	1	5	22.67	22.66	22.69	
1.4	QPSK	3	0	22.49	22.62	22.46	
1.4	QPSK	3	1	22.47	22.65	22.42	23
1.4	QPSK	3	3	22.52	22.56	22.61	
1.4	QPSK	6	0	21.46	21.69	21.71	
1.4	16QAM	1	0	21.59	21.69	21.68	
1.4	16QAM	1	3	21.48	21.69	21.62	23
1.4	16QAM	1	5	21.71	21.51	21.74	
1.4	16QAM	3	0	21.60	21.69	21.70	
1.4	16QAM	3	1	21.52	21.61	21.68	
1.4	16QAM	3	3	21.45	21.71	21.48	22
1.4	16QAM	6	0	20.56	20.71	20.63	
1.4	64QAM	1	0	20.63	20.76	20.73	
1.4	64QAM	1	3	20.52	20.64	20.69	
1.4	64QAM	1	5	20.89	20.52	20.68	22
1.4	64QAM	3	0	20.47	20.81	20.55	
1.4	64QAM	3	1	20.53	20.71	20.66	
1.4	64QAM	3	3	20.44	20.57	20.48	
1.4	64QAM	6	0	19.94	19.72	19.81	21
1.4	256QAM	1	0	17.61	17.80	17.68	
1.4	256QAM	1	3	17.68	17.68	17.60	
1.4	256QAM	1	5	17.61	17.67	17.65	
1.4	256QAM	3	0	17.67	17.70	17.72	
1.4	256QAM	3	1	17.80	17.75	17.79	19
1.4	256QAM	6	0	17.57	17.84	17.63	
1.4	256QAM	6	0	17.64	17.63	17.60	
1.4	256QAM	6	0	17.64	17.63	17.60	

Band 7 Ant 1							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)
Channel				20960	21000	21068	MTR (dB)
Frequency [MHz]							
20	QPSK	1	0	23.30	23.55	23.62	24
20	QPSK	1	40	23.28	23.60	23.52	
20	QPSK	1	99	23.26	23.46	23.51	
20	QPSK	50	0	22.51	22.66	22.69	
20	QPSK	50	24	22.31	22.53	22.57	23
20	QPSK	50	50	22.22	22.56	22.59	
20	QPSK	100	0	22.39	22.58	22.51	
20	QPSK	100	0	22.39	22.58	22.51	

Band 26 Ant 1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Max Ch./Freq.	Power High Ch./Freq.	Tune-up freq. (dBm)	Margin (dB)		
Channel							26745	-26865	26965	
Frequency (MHz)							831.5	831.5	841.5	
15	QPSK	1	0	22.88	22.91	22.86	24	0		
15	QPSK	1	37	22.84	22.89	22.83				
15	QPSK	1	74	22.77	22.78	22.69				
15	QPSK	36	0	21.80	21.85	21.79				
15	QPSK	36	20	21.75	21.80	21.70	23	1		
15	QPSK	36	36	21.64	21.73	21.65				
15	QPSK	75	0	21.84	21.88	21.76				
15	HQDM	1	0	22.15	22.16	22.13				
15	HQDM	1	37	22.07	22.11	22.03	23	1		
15	HQDM	1	74	22.07	22.12	22.06				
15	HQDM	36	0	20.95	21.04	21.00				
15	HQDM	36	20	20.95	21.03	21.00				
15	HQDM	36	36	21.00	21.05	20.99	22	2		
15	HQDM	75	0	20.98	21.05	20.96				
15	64QAM	1	0	21.00	21.07	21.03				
15	64QAM	1	74	21.01	21.05	20.99				
15	64QAM	1	74	20.94	21.01	20.90	21	3		
15	64QAM	36	0	20.07	20.16	20.05				
15	64QAM	36	20	20.07	20.14	20.03				
15	64QAM	36	36	20.02	20.09	20.00				
15	64QAM	75	0	20.12	20.13	20.10	19	5		
15	256QAM	1	0	17.97	18.06	17.90				
15	256QAM	1	37	17.94	18.04	17.96				
15	256QAM	1	74	17.91	18.01	17.96				
15	256QAM	36	0	17.95	18.02	17.97	19	5		
15	256QAM	36	20	17.95	17.97	17.96				
15	256QAM	36	36	17.94	18.01	17.93				
15	256QAM	75	0	18.00	18.03	17.97				
Channel							26745	26865	26965	
Frequency (MHz)							819	831.5	844	
10	QPSK	1	0	22.82	22.88	22.79	24	0		
10	QPSK	1	25	22.76	22.84	22.79				
10	QPSK	1	49	22.68	22.76	22.66				
10	QPSK	25	0	21.73	21.82	21.72				
10	QPSK	25	12	21.72	21.79	21.64	23	1		
10	QPSK	25	25	21.60	21.68	21.61				
10	QPSK	50	0	21.79	21.78	21.74				
10	HQDM	1	0	22.14	22.08	22.04				
10	HQDM	1	25	21.97	22.09	21.94	23	1		
10	HQDM	1	49	21.89	22.10	20.91				
10	HQDM	25	0	20.89	20.97	20.90				
10	HQDM	25	12	20.91	20.96	20.98				
10	HQDM	25	25	20.89	20.99	20.93	22	2		
10	HQDM	50	0	20.90	20.94	20.93				
10	64QAM	1	0	20.97	20.98	20.93				
10	64QAM	1	25	20.97	20.95	20.90				
10	64QAM	1	49	20.89	20.96	20.97	21	3		
10	64QAM	25	0	20.08	20.13	20.05				
10	64QAM	25	12	20.13	20.14	20.06				
10	64QAM	25	25	20.03	20.09	20.02				
10	64QAM	50	0	20.17	20.12	20.15	19	5		
10	256QAM	1	0	17.83	18.00	17.90				
10	256QAM	1	25	17.91	18.00	17.92				
10	256QAM	1	49	17.86	17.96	17.88				
10	256QAM	25	0	17.85	17.87	17.92	19	5		
10	256QAM	25	12	17.93	17.96	17.95				
10	256QAM	25	25	17.90	17.98	17.84				
10	256QAM	50	0	17.86	17.87	17.96				
Channel							26745	26865	26965	
Frequency (MHz)							816.5	831.5	846.5	
5	QPSK	1	0	22.82	22.88	22.79	24	0		
5	QPSK	1	12	22.80	22.83	22.80				
5	QPSK	1	24	22.72	22.71	22.63				
5	QPSK	12	0	21.69	21.80	21.68				
5	QPSK	12	7	21.67	21.72	21.65	23	1		
5	QPSK	12	13	21.63	21.64	21.59				
5	QPSK	24	0	21.82	21.83	21.69				
5	HQDM	1	0	22.04	22.15	22.03				
5	HQDM	1	12	21.99	22.04	21.99	23	1		
5	HQDM	1	24	21.95	22.07	21.96				
5	HQDM	12	0	20.92	20.95	21.00				
5	HQDM	12	7	20.89	21.01	20.94				
5	HQDM	12	13	20.91	21.03	20.95	22	2		
5	HQDM	24	0	20.89	20.94	20.88				
5	64QAM	1	0	20.89	20.98	20.94				
5	64QAM	1	12	20.95	20.95	20.96				
5	64QAM	1	24	20.87	20.97	20.80	21	3		
5	64QAM	12	0	20.16	20.17	20.98				
5	64QAM	12	7	20.05	20.07	20.00				
5	64QAM	12	13	19.97	20.15	20.03				
5	64QAM	24	0	20.12	20.19	20.14	19	5		
5	256QAM	1	0	17.84	18.04	17.80				
5	256QAM	1	12	17.88	18.01	17.94				
5	256QAM	1	24	17.86	17.96	17.91				
5	256QAM	12	0	17.85	18.00	17.80	19	5		
5	256QAM	12	7	17.89	17.89	17.88				
5	256QAM	12	13	17.93	17.92	17.88				
5	256QAM	24	0	17.90	17.94	17.90				
Channel							26795	26865	26925	
Frequency (MHz)							816.5	831.5	847.5	
3	QPSK	1	0	22.84	22.82	22.80	24	0		
3	QPSK	1	8	22.79	22.87	22.81				
3	QPSK	1	14	22.75	22.76	22.62				
3	QPSK	8	0	21.75	21.75	21.71				
3	QPSK	8	4	21.71	21.73	21.65	23	1		
3	QPSK	8	7	21.60	21.70	21.66				
3	QPSK	16	0	21.76	21.78	21.67				
3	HQDM	1	0	22.09	22.10	22.08				
3	HQDM	1	8	22.04	22.06	21.96	23	1		
3	HQDM	1	14	21.95	22.03	22.00				
3	HQDM	8	0	20.83	21.02	20.92				
3	HQDM	8	4	20.87	20.99	20.95				
3	HQDM	8	7	20.92	21.02	20.90	22	2		
3	HQDM	16	0	20.64	21.01	20.94				
3	64QAM	1	0	20.96	21.05	21.00				
3	64QAM	1	8	20.91	20.94	20.94				
3	64QAM	1	14	20.81	20.99	20.85	21	3		
3	64QAM	8	0	20.12	20.14	20.03				
3	64QAM	8	4	20.05	20.11	20.00				
3	64QAM	8	7	20.02	20.13	20.03				
3	HQDM	16	0	20.11	20.12	20.15	19	5		
3	256QAM	1	0	17.90	17.98	17.84				
3	256QAM	1	8	17.87	17.99	17.91				
3	256QAM	16	0	17.82	17.97	17.89				
3	256QAM	8	0	17.84	17.91	17.85	19	5		
3	256QAM	8	4	17.85	17.91	17.86				
3	256QAM	8	7	17.86	17.95	17.87				
3	256QAM	16	0							



Band 66 Ant 1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MPE (dB)
Channel				130072	130208	130272	24	0
Frequency (MHz)				1750	1745	1750		
20	QPSK	1	0	22.95	23.11	22.99		
20	QPSK	1	-48	22.92	23.00	22.93		
20	QPSK	1	99	22.91	22.97	22.91	23	1
20	QPSK	50	0	21.97	22.98	21.96		
20	QPSK	50	-24	21.95	22.93	21.93		
20	QPSK	50	50	22.04	22.92	21.92		
20	QPSK	100	0	22.00	22.92	21.99		



Band 38 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mode Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				24.64	24.64	24.64		
20	QPSK	1	0	23.50	23.50	23.53	25	0
20	QPSK	1	40	23.54	23.56	23.48		
20	QPSK	1	80	23.56	23.44	23.38		
20	QPSK	50	0	22.39	22.59	22.55	24	1
20	QPSK	50	24	22.48	22.47	22.47		
20	QPSK	50	50	22.52	22.46	22.41		
20	QPSK	100	0	22.52	22.55	22.62		

Band 41 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Mode Ch. / Freq.	Power High Ch. / Freq.	
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				24.64	24.63	24.63	24.64	24.64	
20	QPSK	1	0	23.58	23.58	23.57	23.46	23.54	25
20	QPSK	1	40	23.49	23.61	23.55	23.45	23.41	
20	QPSK	1	80	23.45	23.52	23.53	23.53	23.48	
20	QPSK	50	0	22.55	22.54	22.73	22.69	22.50	24
20	QPSK	50	24	22.54	22.49	22.58	22.47	22.47	
20	QPSK	50	50	22.43	22.40	22.52	22.50	22.52	
20	QPSK	100	0	22.52	22.58	22.67	22.65	22.80	1

Band 41 HPUE Ant 1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Mode Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				24.64	24.63	24.63	24.64	24.64		
20	QPSK	1	0	25.68	25.68	25.71	25.67	25.65	27	0
20	QPSK	1	40	25.55	25.55	25.63	25.61	25.51		
20	QPSK	1	80	25.51	25.65	25.57	25.60	25.59		
20	QPSK	50	0	24.71	24.64	24.77	24.70	24.64	26	1
20	QPSK	50	24	24.49	24.55	24.60	24.58	24.53		
20	QPSK	50	50	24.47	24.50	24.74	24.50	24.58		
20	QPSK	100	0	24.70	24.83	24.78	24.65	24.61		



Band 2 Ant 2								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
18700 18800 18900								
20	QPSK	1	0	23.37	23.38	23.53	24	0
20	QPSK	1	48	23.27	23.33	23.25		
20	QPSK	1	96	23.21	23.23	23.17		
20	QPSK	50	0	22.20	22.25	22.23	23	1
20	QPSK	50	24	22.25	22.24	22.33		
20	QPSK	50	50	22.22	22.14	22.26		
20	QPSK	100	0	22.16	22.33	22.29		

Band 4 Ant 2								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
17200 17300 17400								
20	QPSK	1	0	22.59	22.61	22.58	24	0
20	QPSK	1	48	22.59	22.54	22.49		
20	QPSK	1	96	22.59	22.54	22.52		
20	QPSK	50	0	21.57	21.60	21.60	23	1
20	QPSK	50	24	21.54	21.57	21.55		
20	QPSK	50	50	21.59	21.59	21.63		
20	QPSK	100	0	21.55	21.64	21.54		

Band 7 Ant 2								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
20400 21100 21200								
20	QPSK	1	0	23.53	23.65	23.64	25	0
20	QPSK	1	48	23.43	23.51	23.48		
20	QPSK	1	96	23.50	23.51	23.49		
20	QPSK	50	0	22.49	22.65	22.55	24	1
20	QPSK	50	24	22.37	22.53	22.49		
20	QPSK	50	50	22.47	22.44	22.49		
20	QPSK	100	0	22.60	22.68	22.57		



Band 25 Ant 2								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./ Freq.	Power Middle Ch./ Freq.	Power High Ch./ Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel				26140	26240	26340		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	23.33	23.30	23.29	24	0
20	QPSK	1	49	23.29	23.38	23.35		
20	QPSK	1	99	23.37	23.33	23.33		
20	QPSK	50	0	22.30	22.44	22.36	23	1
20	QPSK	50	24	22.38	22.41	22.35		
20	QPSK	50	50	22.24	22.24	22.32		
20	QPSK	100	0	22.38	22.45	22.34		

Band 66 Ant 2								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1740	1770		
20	QPSK	1	0	23.29	23.35	23.33	24	0
20	QPSK	1	49	23.22	23.34	23.28		
20	QPSK	1	99	23.13	23.22	23.26		
20	QPSK	50	0	22.31	22.41	22.34	23	1
20	QPSK	50	24	22.23	22.32	22.31		
20	QPSK	50	50	22.23	22.22	22.31		
20	QPSK	100	0	22.25	22.38	22.36		



Band 38 Ant 2								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				25.90	25.95	25.97		
20	QPSK	1	0	23.52	23.53	23.52	25	0
20	QPSK	1	40	23.50	23.38	23.41		
20	QPSK	1	80	23.34	23.45	23.43		
20	QPSK	50	0	22.54	22.51	22.54	24	1
20	QPSK	50	24	22.60	22.37	22.47		
20	QPSK	50	50	22.46	22.43	22.41		
20	QPSK	100	0	22.49	22.50	22.47		

Band 41 Ant 2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				23.61	23.615	23.63	23.645	23.65		
20	QPSK	1	0	23.61	23.61	23.64	23.66	23.62	25	0
20	QPSK	1	40	23.57	23.62	23.57	23.58	23.45		
20	QPSK	1	80	23.48	23.50	23.53	23.53	23.43		
20	QPSK	50	0	22.83	22.54	22.71	22.54	22.57	24	1
20	QPSK	50	24	22.55	22.64	22.51	22.47	22.50		
20	QPSK	50	50	22.43	22.60	22.48	22.52	22.44		
20	QPSK	100	0	22.82	22.54	22.67	22.66	22.80		

Band 41 HPUE Ant 2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				25.90	25.91	25.93	25.94	25.95		
20	QPSK	1	0	25.36	25.27	25.47	25.35	25.27	28	0
20	QPSK	1	40	25.20	25.19	25.29	25.33	25.23		
20	QPSK	1	80	25.26	25.35	25.24	25.27	25.22		
20	QPSK	50	0	25.31	25.29	25.40	25.30	25.28	27	1
20	QPSK	50	24	25.20	25.18	25.31	25.36	25.26		
20	QPSK	50	50	25.23	25.27	25.33	25.17	25.25		
20	QPSK	100	0	25.27	25.27	25.41	25.28	25.35		



Band 2 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intvl (dB)	MPL (dB)
Channel				18700	18800	18900		
Frequency (MHz)				18600	18800	18900		
20	QPSK	1	0	22.83	22.81	22.88	24	0
20	QPSK	1	48	22.86	22.89	22.81		
20	QPSK	1	99	22.90	22.85	22.79		
20	QPSK	50	0	21.85	21.87	21.88	23	1
20	QPSK	50	24	21.90	21.82	21.89		
20	QPSK	50	50	21.89	21.88	21.89		
20	QPSK	100	0	21.94	22.00	21.89		

Band 4 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intvl (dB)	MPL (dB)
Channel				20690	20715	20730		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	22.90	22.95	22.93	24	0
20	QPSK	1	48	22.81	22.93	22.87		
20	QPSK	1	99	22.82	22.83	22.83		
20	QPSK	50	0	21.82	22.07	21.83	23	1
20	QPSK	50	24	21.89	21.89	21.85		
20	QPSK	50	50	21.83	21.89	21.90		
20	QPSK	100	0	21.87	21.97	21.88		

Band 7 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intvl (dB)	MPL (dB)
Channel				23100	23100	23100		
Frequency (MHz)				23510	23635	23660		
20	QPSK	1	0	23.55	23.66	23.65	25	0
20	QPSK	1	48	23.53	23.59	23.54		
20	QPSK	1	99	23.54	23.51	23.57		
20	QPSK	50	0	22.50	22.64	22.58	24	1
20	QPSK	50	24	22.50	22.64	22.61		
20	QPSK	50	50	22.52	22.56	22.48		
20	QPSK	100	0	22.55	22.66	22.57		



Band 25 Ant 3								
SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel				20140	20240	20340		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	22.77	22.64	22.77	24	0
20	QPSK	1	49	22.76	22.81	22.71		
20	QPSK	1	99	22.81	22.76	22.79		
20	QPSK	50	0	21.85	21.92	21.89	23	1
20	QPSK	50	24	21.83	21.93	21.77		
20	QPSK	50	50	21.89	21.86	21.74		
20	QPSK	100	0	21.90	21.92	21.83		

Band 66 Ant 3								
SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1740	1770		
20	QPSK	1	0	22.93	23.06	22.99	24	0
20	QPSK	1	49	22.89	23.04	22.95		
20	QPSK	1	99	22.86	22.96	23.00		
20	QPSK	50	0	21.92	22.07	22.00	23	1
20	QPSK	50	24	21.94	22.05	21.98		
20	QPSK	50	50	21.85	21.95	22.02		
20	QPSK	100	0	21.90	22.10	22.01		



Band 38 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq	Power Main Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPS (dB)
Channel				37850	38000	38150		
Frequency (MHz)				22.86	22.95	23.04		
20	QPSK	1	0	22.86	22.95	22.94	24	0
20	QPSK	1	40	22.85	22.79	22.84		
20	QPSK	1	40	22.97	22.73	22.76		
20	QPSK	50	0	21.85	22.03	21.77	23	1
20	QPSK	50	24	21.86	21.95	21.76		
20	QPSK	50	56	21.84	21.80	21.76		
20	QPSK	100	0	21.84	21.94	21.86		

Band 41 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Mid Ch. / Freq.	Power Main Ch. / Freq.	Power High-Mid Ch. / Freq.	Power High Ch. / Freq.
Channel				38750	40185	40420	41055	41490
Frequency [MHz]				22.94	22.945	23.03	23.035	23.04
20	QPSK	1	0	22.96	23.02	23.05	23.01	22.96
20	QPSK	1	40	22.87	22.94	22.95	22.88	22.86
20	QPSK	1	40	22.90	22.82	22.93	22.84	22.80
20	QPSK	50	0	21.85	21.92	22.04	21.95	21.92
20	QPSK	50	24	21.81	21.90	21.99	21.75	21.77
20	QPSK	50	56	21.73	21.85	21.92	21.75	21.73
20	QPSK	100	0	21.90	21.92	21.94	21.82	21.81



Band 41 HPUE Ant 3										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Low-Mid Ch./Freq.	Power Mid Ch./Freq.	Power High-Mid Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dB)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				25.84	25.94	25.98	26.05	26.09		
20	QPSK	1	0	25.84	25.94	25.98	26.05	26.09	27	0
20	QPSK	1	40	25.82	25.84	25.91	25.93	25.75		
20	QPSK	1	80	25.78	25.87	25.87	25.81	25.78		
20	QPSK	50	0	24.76	24.85	24.95	24.89	24.87		
20	QPSK	50	34	24.76	24.88	24.95	24.88	24.76		
20	QPSK	50	68	24.77	24.82	24.89	24.88	24.89	26	1
20	QPSK	100	0	24.76	24.81	24.92	24.92	24.80		

Band 42 FCC Part27Q Ant 3										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dB)	MPR (dB)		
Channel				42190	42690	43090				
Frequency (MHz)				3462	3469	3475				
20	QPSK	1	0	23.55	23.75	23.52	24	0		
20	QPSK	1	40	23.66	23.71	23.67				
20	QPSK	1	80	23.71	23.73	23.64				
20	QPSK	50	0	22.63	22.85	22.79				
20	QPSK	50	34	22.70	22.81	22.79				
20	QPSK	50	68	22.69	22.75	22.73	23	1		
20	QPSK	100	0	22.78	22.83	22.79				
20	16QAM	1	0	22.68	22.74	22.68				
20	16QAM	1	40	22.59	22.65	22.56				
20	16QAM	1	80	22.59	22.65	22.50				
20	16QAM	50	0	21.36	21.37	21.29	22	2		
20	16QAM	50	34	21.37	21.38	21.33				
20	16QAM	50	68	21.30	21.36	21.34				
20	16QAM	100	0	21.32	21.36	21.34				
20	16QAM	1	0	21.35	21.45	21.35				
20	16QAM	1	40	21.34	21.42	21.40	22	2		
20	16QAM	1	80	21.32	21.39	21.28				
20	16QAM	50	0	20.40	20.50	20.41				
20	16QAM	50	34	20.37	20.46	20.37				
20	16QAM	50	68	20.34	20.45	20.42				
20	16QAM	100	0	20.46	20.47	20.44	21	3		
20	256QAM	1	0	18.61	18.66	18.58				
20	256QAM	1	40	18.56	18.60	18.52				
20	256QAM	1	80	18.53	18.57	18.56				
20	256QAM	50	0	18.54	18.56	18.47				
20	256QAM	50	34	18.49	18.57	18.54	19	5		
20	256QAM	50	68	18.59	18.60	18.53				
20	256QAM	100	0	18.53	18.56	18.52				
Channel				42185	42680	43015	Tune-up Int. (dB)		MPR (dB)	
Frequency (MHz)				3457.5	3465	3472.5				
10	QPSK	1	0	23.51	23.75	23.52	24	0		
10	QPSK	1	37	23.60	23.68	23.64				
10	QPSK	1	74	23.63	23.68	23.60				
10	QPSK	36	0	22.79	22.76	22.70				
10	QPSK	36	20	22.66	22.80	22.72				
10	QPSK	36	38	22.66	22.76	22.68	23	1		
10	QPSK	75	0	22.72	22.73	22.74				
10	16QAM	1	0	22.59	22.69	22.59				
10	16QAM	1	37	22.53	22.61	22.49				
10	16QAM	1	74	22.55	22.62	22.47				
10	16QAM	36	0	21.26	21.31	21.28	22	2		
10	16QAM	36	38	21.21	21.30	21.20				
10	16QAM	36	39	21.28	21.32	21.29				
10	16QAM	75	0	21.23	21.37	21.25				
10	16QAM	1	0	21.31	21.38	21.32				
10	16QAM	1	37	21.39	21.33	21.33	22	2		
10	16QAM	1	74	21.36	21.38	21.30				
10	16QAM	36	0	20.35	20.45	20.34				
10	16QAM	36	20	20.34	20.42	20.30				
10	16QAM	36	38	20.35	20.47	20.40				
10	16QAM	75	0	20.35	20.35	20.35	21	3		
10	256QAM	1	0	18.56	18.61	18.47				
10	256QAM	1	37	18.49	18.53	18.42				
10	256QAM	1	74	18.42	18.49	18.52				
10	256QAM	36	0	18.49	18.53	18.42				
10	256QAM	36	38	18.47	18.53	18.47	19	5		
10	256QAM	36	39	18.51	18.52	18.45				
10	256QAM	75	0	18.40	18.40	18.46				
Channel				42180	42675	43050	Tune-up Int. (dB)		MPR (dB)	
Frequency (MHz)				3455	3460	3465				
10	QPSK	1	0	23.49	23.71	23.47	24	0		
10	QPSK	1	35	23.58	23.67	23.56				
10	QPSK	1	40	23.65	23.62	23.64				
10	QPSK	25	0	22.75	22.75	22.74				
10	QPSK	25	12	22.69	22.74	22.75				
10	QPSK	25	25	22.64	22.72	22.63	23	1		
10	QPSK	80	0	22.71	22.76	22.77				
10	16QAM	1	0	22.63	22.68	22.61				
10	16QAM	1	25	22.48	22.67	22.59				
10	16QAM	1	40	22.52	22.61	22.53				
10	16QAM	25	0	21.25	21.34	21.20	22	2		
10	16QAM	25	14	21.19	21.32	21.23				
10	16QAM	25	15	21.28	21.28	21.27				
10	16QAM	50	0	21.19	21.32	21.28				
10	16QAM	1	0	21.29	21.34	21.29				
10	16QAM	1	25	21.29	21.38	21.35	22	2		
10	16QAM	1	40	21.29	21.33	21.18				
10	16QAM	25	0	20.38	20.43	20.34				
10	16QAM	25	12	20.28	20.39	20.34				
10	16QAM	25	25	20.24	20.42	20.38				
10	16QAM	50	0	20.36	20.45	20.36	21	3		
10	256QAM	1	0	18.59	18.63	18.52				
10	256QAM	1	25	18.51	18.54	18.46				
10	256QAM	1	40	18.48	18.50	18.52				
10	256QAM	25	0	18.49	18.49	18.42				
10	256QAM	25	12	18.41	18.47	18.44	19	5		
10	256QAM	25	25	18.53	18.52	18.43				
10	256QAM	50	0	18.51	18.55	18.47				
Channel				42175	42670	43065	Tune-up Int. (dB)		MPR (dB)	
Frequency (MHz)				3452.5	3460	3467.5				
5	QPSK	1	0	23.50	23.69	23.42	24	0		
5	QPSK	1	15	23.59	23.61	23.58				
5	QPSK	1	24	23.65	23.64	23.57				
5	QPSK	12	0	22.62	22.67	22.72				
5	QPSK	12	7	22.64	22.76	22.70				
5	QPSK	12	13	22.57	22.66	22.64	23	1		
5	QPSK	25	0	22.72	22.66	22.73				
5	16QAM	1	0	22.61	22.65	22.58				
5	16QAM	1	12	22.53	22.68	22.62				
5	16QAM	1	24	22.49	22.57	22.53				
5	16QAM	12	0	21.26	21.30	21.27	22	2		
5	16QAM	12	7	21.18	21.32	21.21				
5	16QAM	12	13	21.28	21.31	21.22				
5	16QAM	25	0	21.21	21.37	21.26				
5	16QAM	1	0	21.25	21.38	21.28				
5	16QAM	1	12	21.31	21.33	21.31	22	2		
5	16QAM	1	24	21.29	21.35	21.23				
5	16QAM	12	0	20.37	20.44	20.33				
5	16QAM	12	0	20.37	20.38	20.29				
5	16QAM	12	13	20.35	20.39	20.38				
5	16QAM	25	0	20.43	20.36	20.40	21	3		
5	256QAM	1	0	18.57	18.60	18.53				
5	256QAM	1	12	18.48	18.50	18.47				
5	256QAM	1	24	18.49	18.48	18.54				
5	256QAM	12	0	18.53	18.53	18.40				
5	256QAM	12	7	18.39	18.50	18.45	19	5		
5	256QAM	12	13	18.52	18.57	18.44				
5	256QAM	25	0	18.52	18.46	18.46				



Band 42 FCC Part27Q Ant8											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (min)	MPR (dB)			
Channel				42190	42590	42690	Turn-up time (min)	MPR (dB)			
Frequency (MHz)				42190	42590	42690					
20	QPSK	1	0	22.91	22.95	22.94	24	0			
20	QPSK	1	48	22.75	22.78	22.79					
20	QPSK	1	99	22.81	22.83	22.79					
20	QPSK	50	0	22.02	22.03	22.02	23	1			
20	QPSK	50	24	22.04	22.06	22.02					
20	QPSK	50	50	21.90	22.01	21.93					
20	QPSK	100	0	22.01	22.11	22.03	23	1			
20	HQAM	1	0	22.05	22.05	22.06					
20	HQAM	1	48	21.99	22.04	22.00					
20	HQAM	1	99	22.03	22.05	21.98	22	2			
20	HQAM	50	0	20.89	20.96	20.93					
20	HQAM	50	24	20.85	20.91	20.85					
20	HQAM	50	50	20.80	20.91	20.85	22	2			
20	HQAM	100	0	20.91	20.94	20.89					
20	HQAM	1	0	20.57	20.57	20.54					
20	HQAM	1	48	20.90	20.95	20.92	21	3			
20	HQAM	1	99	20.92	20.93	20.97					
20	HQAM	50	0	19.87	19.97	19.89					
20	HQAM	50	24	19.89	19.99	19.82	19	5			
20	HQAM	50	50	19.84	19.99	19.89					
20	HQAM	100	0	19.89	19.90	19.82					
20	256QAM	1	0	17.90	17.93	17.90	19	5			
20	256QAM	1	48	17.91	17.93	17.85					
20	256QAM	1	99	17.81	17.92	17.88					
20	256QAM	50	0	17.94	17.96	17.92	19	5			
20	256QAM	50	24	17.98	17.99	17.94					
20	256QAM	50	50	17.86	17.87	17.87					
20	256QAM	100	0	17.93	17.99	17.94	Turn-up time (min)				
Channel				42155 <th>42590</th> <th>42655</th> <th rowspan="2">Turn-up time (min)</th> <th colspan="2" rowspan="2">MPR (dB)</th>	42590	42655	Turn-up time (min)			MPR (dB)	
Frequency (MHz)				42155	42590	42655					
15	QPSK	1	0	22.17	22.57	22.51	24	0			
15	QPSK	1	37	22.73	22.70	22.61					
15	QPSK	1	74	22.80	22.80	22.73					
15	QPSK	36	0	22.01	21.97	21.94	23	1			
15	QPSK	36	20	21.95	21.98	21.95					
15	QPSK	36	36	21.89	21.98	21.96					
15	QPSK	75	0	21.98	22.09	22.01	23	1			
15	HQAM	1	0	22.04	22.04	22.04					
15	HQAM	1	37	21.96	22.01	21.98					
15	HQAM	1	74	21.94	22.01	21.93	22	2			
15	HQAM	36	0	20.88	20.98	20.92					
15	HQAM	36	20	20.74	20.83	20.82					
15	HQAM	36	36	20.71	20.83	20.81	22	2			
15	HQAM	75	0	20.83	20.88	20.81					
15	HQAM	1	0	20.79	20.84	20.85					
15	HQAM	1	37	20.83	20.91	20.82	21	3			
15	HQAM	1	74	20.84	20.86	20.77					
15	HQAM	36	0	19.82	19.85	19.83					
15	HQAM	36	20	19.79	19.88	19.85	19	5			
15	HQAM	36	36	19.90	19.92	19.87					
15	HQAM	75	0	19.84	19.93	19.75					
15	256QAM	1	0	17.89	17.87	17.83	19	5			
15	256QAM	1	37	17.85	17.84	17.76					
15	256QAM	1	74	17.78	17.83	17.81					
15	256QAM	36	0	17.92	17.87	17.83	19	5			
15	256QAM	36	20	17.90	17.89	17.88					
15	256QAM	36	36	17.83	17.96	17.83					
15	256QAM	75	0	17.86	17.86	17.84	Turn-up time (min)				
Channel				42140 <th>42590</th> <th>42640</th> <th rowspan="2">Turn-up time (min)</th> <th colspan="2" rowspan="2">MPR (dB)</th>	42590	42640	Turn-up time (min)			MPR (dB)	
Frequency (MHz)				42140 <th>42590</th> <th>42640</th>	42590	42640					
10	QPSK	1	0	22.83	22.86	22.83	24	0			
10	QPSK	1	25	22.88	22.88	22.88					
10	QPSK	1	49	22.75	22.80	22.78					
10	QPSK	36	0	22.00	22.03	21.96	23	1			
10	QPSK	25	12	21.90	21.96	22.00					
10	QPSK	25	25	21.81	21.92	21.91					
10	QPSK	50	0	21.97	22.04	22.00	23	1			
10	HQAM	1	0	21.98	22.03	22.04					
10	HQAM	1	25	21.99	22.03	21.98					
10	HQAM	1	49	21.94	22.03	21.99	22	2			
10	HQAM	25	0	20.81	20.90	20.87					
10	HQAM	25	12	20.74	20.86	20.82					
10	HQAM	25	25	20.70	20.83	20.81	22	2			
10	HQAM	50	0	20.86	20.83	20.82					
10	HQAM	1	0	20.94	20.87	20.98					
10	HQAM	1	25	20.89	20.85	20.89	22	2			
10	HQAM	1	49	20.85	20.89	20.83					
10	HQAM	25	0	19.79	19.80	19.81					
10	HQAM	25	12	19.79	19.91	19.83	21	3			
10	HQAM	25	25	19.90	19.88	19.91					
10	HQAM	50	0	19.79	19.82	19.75					
10	256QAM	1	0	17.85	17.84	17.81	19	5			
10	256QAM	1	25	17.88	17.81	17.74					
10	256QAM	1	49	17.71	17.82	17.83					
10	256QAM	25	0	17.90	17.84	17.84	19	5			
10	256QAM	25	12	17.88	17.86	17.87					
10	256QAM	25	25	17.83	17.95	17.77					
10	256QAM	50	0	17.91	17.90	17.88	Turn-up time (min)				
Channel				42115 <th>42590</th> <th>42665</th> <th rowspan="2">Turn-up time (min)</th> <th colspan="2" rowspan="2">MPR (dB)</th>	42590	42665	Turn-up time (min)			MPR (dB)	
Frequency (MHz)				42115 <th>42590</th> <th>42665</th>	42590	42665					
5	QPSK	1	0	22.83	22.82	22.84	24	0			
5	QPSK	1	15	22.89	22.87	22.84					
5	QPSK	1	24	22.71	22.74	22.72					
5	QPSK	12	0	21.98	22.04	21.99	23	1			
5	QPSK	12	7	21.95	21.97	21.91					
5	QPSK	12	13	21.88	21.92	21.91					
5	QPSK	25	0	21.97	22.02	21.96	23	1			
5	HQAM	1	0	21.97	22.06	21.95					
5	HQAM	1	12	21.96	22.01	21.99					
5	HQAM	1	24	22.00	22.01	21.94	22	2			
5	HQAM	12	0	20.83	20.97	20.89					
5	HQAM	12	7	20.84	20.83	20.73					
5	HQAM	12	13	20.77	20.89	20.76	22	2			
5	HQAM	25	0	20.82	20.88	20.85					
5	HQAM	1	0	20.81	20.88	20.85					
5	HQAM	1	12	20.88	20.84	20.90	22	2			
5	HQAM	1	24	20.83	20.91	20.79					
5	HQAM	12	0	19.76	19.86	19.87					
5	HQAM	12	7	19.80	19.92	19.83	21	3			
5	HQAM	12	13	19.91	19.87	19.89					
5	HQAM	25	0	19.84	19.81	19.90					
5	256QAM	1	0	17.89	17.84	17.85	19	5			
5	256QAM	1	12	17.81	17.84	17.79					
5	256QAM	1	24	17.78	17.84	17.80					
5	256QAM	12	0	17.83	17.88	17.81	19	5			
5	256QAM	12	7	17.84	17.87	17.85					
5	256QAM	12	13	17.85	17.91	17.79					
5	256QAM	25	0	17.89	17.91	17.84	Turn-up time (min)				



Reduced Power Mode for ECI 2

GSM-RS Ant G	Base Average Power (dBm)			Tx-to-tp Loss (dB)	Frame Average Power (dBm)			Tx-to-tp Loss (dB)
	TX Channel	186.2	186.4	186.6	186.2	186.4	186.6	186.6
Frequency (MHz)		824.2	836.4	848.6	824.2	836.4	848.6	
GPRS 1 Tx rate		31.55	31.55	31.60	31.00	22.61	22.60	24.00
GPRS 2 Tx rate		31.57	31.61	31.64	31.00	22.97	23.01	24.00
GPRS 3 Tx rate		30.47	30.50	30.45	32.00	24.47	24.56	24.43
GPRS 4 Tx rate		28.44	28.50	28.42	30.00	24.16	24.24	24.16
GPRS 5 Tx rate		27.33	27.30	27.31	28.00	24.33	24.39	24.31
GPRS 6 Tx rate								25.00

GSM-RS Ant G	Base Average Power (dBm)			Tx-to-tp Loss (dB)	Frame Average Power (dBm)			Tx-to-tp Loss (dB)
	TX Channel	512	561	610	512	561	610	610
Frequency (MHz)		824.2	836.4	848.6	824.2	836.4	848.6	
GPRS 1 Tx rate		27.80	28.03	27.94	29.00	18.93	19.03	20.00
GPRS 2 Tx rate		27.81	27.80	27.80	29.00	18.91	18.92	18.86
GPRS 3 Tx rate		26.50	26.46	26.50	28.00	20.63	20.69	20.69
GPRS 4 Tx rate		24.50	24.50	24.50	26.00	20.73	20.83	21.14
GPRS 5 Tx rate		23.83	23.50	23.86	25.00	20.83	20.92	20.88
GPRS 6 Tx rate								22.00

Base	WCDMA 3.1 Ant B			Tx-to-tp Loss (dB)	WCDMA 3.1 Ant B			Tx-to-tp Loss (dB)	WCDMA 3.1 Ant B			Tx-to-tp Loss (dB)
	TX Channel	9452	9450	9458	1412	1413	1413	1412	1412	1412	1413	1413
Frequency (MHz)		1862.5	1860.5	1862.5	1557	1556	1556	1557	1557	1557	1556	1556
SCPP Test Set		22.09	22.07	22.15	23.00	22.01	22.12	22.11	23.00	24.20	24.31	24.27



Band 66 Ant 0 EC12								
ISW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MPE (dB)
Channel				130072	130208	130272		
Frequency (MHz)				1750	1745	1750		
20	QPSK	1	0	23.14	23.27	23.15	24	0
20	QPSK	1	-48	23.07	23.12	23.08		
20	QPSK	1	99	23.13	23.19	23.10		
20	QPSK	60	0	22.14	22.25	22.12		
20	QPSK	90	-24	22.16	22.12	22.07	23	1
20	QPSK	90	50	22.13	22.16	22.13		
20	QPSK	100	0	22.05	22.24	22.09		



Band 38 Ant 0 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Medu Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				24.40	24.40	24.40		
20	QPSK	1	0	23.55	23.57	23.48	25	0
20	QPSK	1	40	23.44	23.45	23.35		
20	QPSK	1	80	23.41	23.40	23.37		
20	QPSK	50	0	22.43	22.52	22.60	24	1
20	QPSK	50	24	22.48	22.53	22.42		
20	QPSK	50	50	22.46	22.53	22.45		
20	QPSK	100	0	22.39	22.52	22.39		

Band 41 Ant 0 ECI2										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Midle Ch. / Freq.	Power Medu. Ch. / Freq.	Power High-Midle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				24.40	24.43	24.43	24.36	24.37		
20	QPSK	1	0	24.41	24.38	24.43	24.35	24.37	25	0
20	QPSK	1	40	24.42	24.27	24.48	24.17	24.18		
20	QPSK	1	80	24.31	24.31	24.39	24.21	24.24		
20	QPSK	50	0	23.38	23.42	23.57	23.29	23.34	24	1
20	QPSK	50	24	23.43	23.37	23.48	23.29	23.29		
20	QPSK	50	50	23.35	23.40	23.44	23.32	23.30		
20	QPSK	100	0	23.38	23.35	23.42	23.33	23.31		

Band 41 HPUE Ant 0 ECI2										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Midle Ch. / Freq.	Power Medu. Ch. / Freq.	Power High-Midle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency [MHz]				25.06	25.03	25.07	25.04	25.03		
20	QPSK	1	0	25.79	25.77	25.53	25.73	25.80	28	0
20	QPSK	1	40	25.73	25.55	25.85	25.61	25.52		
20	QPSK	1	80	25.73	25.68	25.80	25.60	25.59		
20	QPSK	50	0	25.83	25.80	25.55	25.72	25.73	27	1
20	QPSK	50	24	25.70	25.71	25.80	25.70	25.68		
20	QPSK	50	50	25.69	25.83	25.52	25.74	25.73		
20	QPSK	100	0	25.74	25.79	25.80	25.70	25.69		



GSM450 Airtel 1		Rural Average Power (dBm)		Turn-up		Farm Average Power (dBm)		Turn-up	
Tx Channel		128	180	251	140	128	180	251	140
Frequency (MHz)		824.2	836.4	848.6	(dBm)	824.2	836.4	848.6	(dBm)
OPRR 1 Tx 90%		31.5	31.7	31.3	33.20	22.6	22.1	22.3	24.50
OPRR 1 Tx 90%		31.89	31.85	31.83	33.59	22.50	22.85	22.53	24.90
OPRR 2 Tx 90%		30.62	30.63	30.54	32.00	24.62	24.63	24.54	25.00
OPRR 3 Tx 90%		28.48	28.51	28.48	30.00	24.20	24.25	24.23	25.14
OPRR 4 Tx 90%		27.38	27.39	27.32	29.00	24.38	24.39	24.32	25.00

Band		WCDMA 6-JAR 1		Turn-up		WCDMA 17-JAR 1		Turn-up		WCDMA 17-JAR 1		Turn-up	
Tx Channel		8262	8400	8538	140	1512	1415	1513	140	4132	4182	4213	140
Frequency (MHz)		9552.4	9590	9628	(dBm)	1537	1536	1538	(dBm)	4307	4407	4456	(dBm)
GPPR-Bus 60		21.33	21.43	21.32	23.00	21.31	21.54	21.43	23.00	24.17	24.23	24.15	25.00



GSM1900 Ant 2		Total Average Power (dBm)			Turn-up		Power Density Power (dBm)			Turn-up	
Tx Channel		912	861	810	Loss		912	861	810	Loss	
Frequency (MHz)		1930.2	1880	1830.8	(dBm)		1930.2	1880	1830.8	(dBm)	
GPRS 1 Tx slot		23.72	23.13	22.72	22.00		14.62	14.53	14.23	13.10	
GPRS 2 Tx slot		23.72	23.89	23.65	25.00		14.70	14.88	14.65	15.00	
GPRS 3 Tx slot		21.24	21.34	21.36	22.00		15.24	15.34	15.36	15.00	
GPRS 4 Tx slot		19.81	19.50	19.56	20.00		15.30	15.24	15.30	15.00	
GPRS 5 Tx slot		17.55	17.71	17.67	19.00		14.50	14.71	14.67	15.00	

Band		WCDMA 1900 Ant 2			Turn-up		WCDMA 1900 Ant 2			Turn-up	
Tx Channel		9550	9400	9338	Loss		1312	1413	1513	Loss	
Rx Channel		9602	9500	9408	(dBm)		1327	1406	1474	(dBm)	
Frequency (MHz)		1852.4	1880	1907.8			1722.4	1759.2	1795.8		
GPPF Band 8B		EMC 14.200pp	14.44	14.49	14.44	15.00	15.42	15.50	15.58	15.60	15.60



Band		WCDMA II-A/G-3			Time-to- Live		WCDMA IV-A/G-3			Time-to- Live	
TX Channel		9562	9450	9538	15m		9532	9418	9518	15m	
RX Channel		9562	9450	9538	(dBm)		9532	9418	9518	(dBm)	
Frequency (MHz)		1812.2	1830	1807.8			1712.8	1732.8	1752.8		
SCPP Ref ID		RNC 12 Phase			18.10		15.05			18.70	
		14.91	15.03	14.92			15.81	15.95	15.84		

Band 12 Ant 1 EC12														
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Mid Ch / Freq.	Power High Ch / Freq.	Tune-up Inst (dBm)	MPR (dB)						
Channel														
Frequency (MHz)														
10	QPSK	1	0	23.01	23.05	23.99	24	0						
10	QPSK	1	25	22.80	22.81	22.80								
10	QPSK	1	49	22.88	22.89	22.89								
10	QPSK	25	0	21.91	21.94	21.85								
10	QPSK	25	12	21.79	21.84	21.79	23	1						
10	QPSK	25	25	21.91	21.89	21.84								
10	QPSK	50	0	21.81	21.85	21.81								
10	16QAM	1	0	22.32	22.35	22.31								
10	16QAM	1	25	22.27	22.30	22.27	23	1						
10	16QAM	1	49	22.18	22.24	22.23								
10	16QAM	25	0	21.02	21.11	21.03								
10	16QAM	25	12	21.19	21.20	21.10								
10	16QAM	25	25	21.09	21.10	21.06	22	2						
10	16QAM	50	0	21.02	21.10	21.05								
10	16QAM	1	0	21.19	21.21	21.15								
10	16QAM	1	25	21.10	21.16	21.07								
10	16QAM	1	49	21.14	21.17	21.11	21	3						
10	16QAM	25	0	20.13	20.18	20.12								
10	16QAM	25	12	20.01	20.11	20.05								
10	16QAM	25	25	20.11	20.15	20.12								
10	16QAM	50	0	20.12	20.20	20.10	19	5						
10	256QAM	1	0	18.06	18.04	18.04								
10	256QAM	1	25	18.03	18.12	18.05								
10	256QAM	1	49	18.08	18.12	18.04								
10	256QAM	25	0	17.95	18.03	17.96	19	5						
10	256QAM	25	12	17.95	18.03	17.96								
10	256QAM	25	25	18.02	18.08	18.01								
10	256QAM	50	0	17.95	18.03	17.96								
Channel														
Frequency (MHz)														
5	QPSK	1	0	22.99	22.97	22.90	24	0						
5	QPSK	1	12	22.84	22.86	22.71								
5	QPSK	1	24	22.83	22.85	22.80								
5	QPSK	12	0	21.82	21.83	21.74								
5	QPSK	12	13	21.70	21.76	21.76	23	1						
5	QPSK	12	13	21.82	21.85	21.77								
5	QPSK	25	0	21.80	21.78	21.71								
5	16QAM	1	0	22.30	22.34	22.28								
5	16QAM	1	12	22.23	22.23	22.18	23	1						
5	16QAM	1	24	22.11	22.20	22.19								
5	16QAM	12	0	20.94	21.08	20.95								
5	16QAM	12	7	21.12	21.18	21.06								
5	16QAM	12	13	21.04	21.09	21.01	22	2						
5	16QAM	25	0	20.97	21.07	21.01								
5	16QAM	1	0	21.09	21.14	21.12								
5	16QAM	1	24	21.11	21.12	21.09								
5	16QAM	1	24	21.06	21.14	21.09	21	3						
5	16QAM	12	0	20.09	20.14	20.08								
5	16QAM	12	13	20.02	20.05	20.05								
5	16QAM	25	0	20.07	20.10	20.05								
5	256QAM	1	0	18.05	18.05	18.05	19	5						
5	256QAM	1	12	17.98	18.07	18.02								
5	256QAM	1	24	18.03	18.04	17.94								
5	256QAM	12	0	17.94	17.97	17.85								
5	256QAM	12	7	17.92	17.99	17.90	19	5						
5	256QAM	12	13	17.91	17.98	17.90								
5	256QAM	25	0	17.87	17.88	17.88								
5	256QAM	25	0	17.87	17.88	17.88								
Channel														
Frequency (MHz)														
3	QPSK	1	0	22.99	22.97	22.90	24	0						
3	QPSK	1	8	22.87	22.89	22.74								
3	QPSK	1	14	22.84	22.86	22.85								
3	QPSK	1	8	21.82	21.88	21.78								
3	QPSK	8	6	21.71	21.78	21.69	23	1						
3	QPSK	8	7	21.88	21.91	21.74								
3	QPSK	1	0	21.82	21.87	21.80								
3	16QAM	1	0	22.22	22.29	22.20								
3	16QAM	1	8	22.25	22.23	22.23	23	1						
3	16QAM	1	8	22.11	22.10	22.01								
3	16QAM	8	0	20.96	21.07	20.93								
3	16QAM	8	4	21.08	21.10	21.07								
3	16QAM	8	7	21.06	21.10	21.06	22	2						
3	16QAM	15	0	20.96	21.03	20.98								
3	16QAM	1	0	21.09	21.18	21.11								
3	16QAM	1	8	21.04	21.13	20.98								
3	16QAM	1	14	21.06	21.10	21.06	21	3						
3	16QAM	8	0	20.04	20.13	20.05								
3	16QAM	8	4	19.96	20.07	19.94								
3	16QAM	8	7	20.04	20.08	20.03								
3	16QAM	15	0	20.03	20.10	20.07	19	5						
3	256QAM	1	0	18.03	18.05	17.99								
3	256QAM	1	8	17.92	18.02	17.96								
3	256QAM	1	14	17.98	18.03	17.93								
3	256QAM	8	0	17.91	18.02	17.90	19	5						
3	256QAM	8	4	17.84	18.00	17.95								
3	256QAM	8	7	17.97	17.97	17.95								
3	256QAM	15	0	17.95	18.07	17.96								
Channel														
Frequency (MHz)														
1.4	QPSK	1	0	23.01	23.02	23.00	24	0						
1.4	QPSK	1	3	22.86	22.89	22.80								
1.4	QPSK	1	5	22.89	22.90	22.90								
1.4	QPSK	3	0	22.85	22.90	22.80								
1.4	QPSK	3	1	22.92	22.94	22.81	23	1						
1.4	QPSK	3	1	22.78	22.91	22.84								
1.4	QPSK	6	0	21.87	22.03	21.87								
1.4	16QAM	1	0	21.94	21.99	21.92								
1.4	16QAM	1	3	21.83	21.94	21.99	23	1						
1.4	16QAM	1	6	21.78	21.89	21.86								
1.4	16QAM	3	0	21.82	21.92	21.80								
1.4	16QAM	3	1	21.89	21.92	21.78								
1.4	16QAM	3	3	21.82	21.89	21.82	22	2						
1.4	16QAM	6	0	20.89	20.92	20.86								
1.4	16QAM	1	0	20.82	20.95	20.91								
1.4	16QAM	1	3	20.88	20.94	20.92								
1.4	16QAM	1	5	20.84	20.90	20.93	22	2						
1.4	16QAM	3	0	20.81	20.91	20.73								
1.4	16QAM	3	3	20.80	20.94	20.95								
1.4	16QAM	3	3	20.80	20.84	20.73								
1.4	16QAM	6	0	19.93	19.97	19.89	21	3						
1.4	256QAM	1	0	17.84	18.13	18.04								
1.4	256QAM	1	3	17.91	17.97	17.92								
1.4	256QAM	1	5	17.82	18.01	17.90								



Band 66 Ant 1 EC12								
ISW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MPE (dB)
Channel				130072	130208	130272	24	0
Frequency (MHz)				1750	1745	1750		
20	QPSK	1	0	22.95	23.11	22.99		
20	QPSK	1	-48	22.92	23.00	22.93	23	1
20	QPSK	1	99	22.91	22.97	22.91		
20	QPSK	50	0	21.97	22.98	21.96		
20	QPSK	50	-24	21.95	22.93	21.93	23	1
20	QPSK	50	50	22.04	22.92	21.92		
20	QPSK	100	0	22.00	22.92	21.99		



Band 38 Ant 1 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				24.64	24.64	24.64		
20	QPSK	1	0	23.50	23.50	23.53	25	0
20	QPSK	1	40	23.54	23.56	23.48		
20	QPSK	1	80	23.35	23.44	23.38		
20	QPSK	50	0	22.39	22.59	22.55	24	1
20	QPSK	50	24	22.48	22.47	22.47		
20	QPSK	50	50	22.52	22.46	22.41		
20	QPSK	100	0	22.52	22.55	22.61		

Band 41 Ant 1 ECI2										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Midle Ch. / Freq.	Power Med. Ch. / Freq.	Power High-Midle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				24.64	24.63	24.63	24.64	24.65		
20	QPSK	1	0	23.58	23.58	23.57	23.58	23.54	25	0
20	QPSK	1	40	23.49	23.61	23.55	23.45	23.41		
20	QPSK	1	80	23.40	23.52	23.53	23.53	23.48		
20	QPSK	50	0	22.50	22.54	22.73	22.69	22.50	24	1
20	QPSK	50	24	22.54	22.49	22.58	22.47	22.47		
20	QPSK	50	50	22.43	22.40	22.52	22.50	22.52		
20	QPSK	100	0	22.52	22.58	22.67	22.60	22.60		

Band 41 HPUE Ant 1 EC12										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Midle Ch. / Freq.	Power Med. Ch. / Freq.	Power High-Midle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				24.64	24.63	24.63	24.64	24.65		
20	QPSK	1	0	25.68	25.68	25.71	25.67	25.65	27	0
20	QPSK	1	40	25.55	25.55	25.63	25.61	25.51		
20	QPSK	1	80	25.51	25.60	25.57	25.60	25.59		
20	QPSK	50	0	24.71	24.64	24.77	24.70	24.64	26	1
20	QPSK	50	24	24.49	24.55	24.60	24.58	24.53		
20	QPSK	50	50	24.47	24.50	24.74	24.50	24.58		
20	QPSK	100	0	24.70	24.83	24.78	24.65	24.61		



Band 2 Ant 2 ECI2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Inst (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	10.87	10.89	10.88	12.1	0	
20	QPSK	1	48	10.80	10.68	10.65			
20	QPSK	1	99	10.83	10.83	10.87			
20	QPSK	50	0	10.86	10.72	10.61	12.1	0	
20	QPSK	50	24	10.84	10.71	10.58			
20	QPSK	50	50	10.59	10.57	10.83			
20	QPSK	100	0	10.81	10.72	10.67			

Band 4 Ant 2 ECI2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Inst. (dBm)	MFR (dB)	
Channel				20650	20725	20800			
Frequency (MHz)				17200	17325	17450			
20	QPSK	1	0	12.37	12.40	12.25	13.5	0	
20	QPSK	1	48	12.21	12.25	12.28			
20	QPSK	1	99	12.35	12.34	12.24			
20	QPSK	50	0	12.24	12.30	12.13	13.5	0	
20	QPSK	50	24	12.33	12.33	12.32			
20	QPSK	50	50	12.35	12.28	12.21			
20	QPSK	100	0	12.27	12.25	12.24			

Band 7 Ant 2 ECI2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Inst. (dBm)	MFR (dB)	
Channel				23450	23500	23550			
Frequency (MHz)				2510	2535	2560			
20	QPSK	1	0	14.20	14.20	14.17	15.4	0	
20	QPSK	1	49	14.09	14.22	14.13			
20	QPSK	1	99	14.05	14.27	14.14			
20	QPSK	50	0	14.10	14.21	14.16	15.4	0	
20	QPSK	50	24	14.16	14.11	14.12			
20	QPSK	50	50	14.12	14.16	14.13			
20	QPSK	100	0	14.08	14.18	14.12			

Band 25 Ant 2 EC12								
SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				28140	28240	28340		
Frequency (MHz)				1860	1860	1860		
20	QPSK	1	0	10.73	10.70	10.76	12.1	0
20	QPSK	1	49	10.84	10.75	10.75		
20	QPSK	1	99	10.84	10.71	10.82		
20	QPSK	50	0	10.71	10.71	10.84		
20	QPSK	50	24	10.73	10.75	10.74	12.1	0
20	QPSK	50	50	10.86	10.72	10.70		
20	QPSK	100	0	10.68	10.75	10.70		

Band 66 Ant 2 EC12								
SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	12.37	12.41	12.37	13.5	0
20	QPSK	1	49	12.34	12.36	12.29		
20	QPSK	1	99	12.33	12.40	12.31		
20	QPSK	50	0	12.32	12.41	12.19		
20	QPSK	50	24	12.37	12.38	12.34	13.5	0
20	QPSK	50	50	12.34	12.40	12.22		
20	QPSK	100	0	12.31	12.38	12.33		



Band 38 Ant 2 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				25.90	25.95	26.00		
20	QPSK	1	0	14.57	14.74	14.86	15.5	0
20	QPSK	1	49	14.68	14.67	14.60		
20	QPSK	1	99	14.48	14.67	14.47		
20	QPSK	50	0	14.54	14.70	14.83	15.5	0
20	QPSK	50	24	14.57	14.54	14.58		
20	QPSK	50	50	14.62	14.59	14.55		
20	QPSK	100	0	14.45	14.64	14.62		

Band 41 Ant 2 ECI2										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				25.94	26.015	26.03	26.065	26.08		
20	QPSK	1	0	14.63	14.71	14.73	14.74	14.88	15.5	0
20	QPSK	1	49	14.59	14.70	14.68	14.74	14.84		
20	QPSK	1	99	14.52	14.80	14.74	14.80	14.68		
20	QPSK	50	0	14.63	14.81	14.73	14.69	14.54	15.5	0
20	QPSK	50	24	14.62	14.87	14.87	14.67	14.87		
20	QPSK	50	50	14.62	14.83	14.85	14.80	14.81		
20	QPSK	100	0	14.56	14.81	14.66	14.58	14.58		

Band 41 HPUE Ant 2 ECI2										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				25.94	26.015	26.03	26.065	26.08		
20	QPSK	1	0	15.79	15.88	15.93	15.91	15.89	17.1	0
20	QPSK	1	49	15.80	15.76	15.84	15.84	15.82		
20	QPSK	1	99	15.71	15.74	15.84	15.78	15.79		
20	QPSK	50	0	15.76	15.87	15.91	15.78	15.73	17.1	0
20	QPSK	50	24	15.76	15.72	15.87	15.78	15.78		
20	QPSK	50	50	15.70	15.74	15.83	15.75	15.73		
20	QPSK	100	0	15.72	15.75	15.86	15.71	15.81		



Band 2 Ant 3 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intd (dB)	MPL (dB)	
Channel				18700	18800	18900			
Frequency (MHz)				18600	18800	18900			
20	QPSK	1	0	15.37	15.45	15.59	16.7	0	
20	QPSK	1	40	15.16	15.35	15.24			
20	QPSK	1	99	15.26	15.37	15.33			
20	QPSK	50	0	15.31	15.44	15.53	16.7	0	
20	QPSK	50	24	15.20	15.24	15.28			
20	QPSK	50	50	15.29	15.32	15.26			
20	QPSK	100	0	15.23	15.50	15.25			

Band 4 Ant 3 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MPL (dB)	
Channel				20550	20715	20800			
Frequency (MHz)				1720	1730.5	1740			
20	QPSK	1	0	14.11	14.31	14.22	15.5	0	
20	QPSK	1	49	14.10	14.19	14.11			
20	QPSK	1	99	14.15	14.17	14.01			
20	QPSK	50	0	14.10	14.26	14.07	15.5	0	
20	QPSK	50	24	14.04	14.19	14.06			
20	QPSK	50	50	14.04	14.17	14.15			
20	QPSK	100	0	14.08	14.23	14.07			

Band 7 Ant 3 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MPL (dB)	
Channel				23550	23700	23750	23450		
Frequency (MHz)				23510	23535	23550			
20	QPSK	1	0	15.26	15.29	15.28	16.3	0	
20	QPSK	1	49	15.11	15.21	15.14			
20	QPSK	1	99	15.15	15.24	15.23			
20	QPSK	50	0	15.07	15.25	15.20	16.3	0	
20	QPSK	50	24	15.18	15.31	15.24			
20	QPSK	50	50	15.15	15.22	15.20			
20	QPSK	100	0	15.09	15.26	15.14			



Band 25 Ant 3 EC12								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intvl (dBm)	MTR (dB)
Channel				28140	28240	28340		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	15.43	15.42	15.42	16.7	0
20	QPSK	1	49	15.27	15.42	15.31		
20	QPSK	1	99	15.38	15.38	15.40		
20	QPSK	50	0	15.37	15.42	15.34		
20	QPSK	50	24	15.29	15.37	15.40	16.7	0
20	QPSK	50	50	15.25	15.32	15.32		
20	QPSK	100	0	15.29	15.35	15.35		

Band 66 Ant 3 EC12								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intvl (dBm)	MTR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1740	1770		
20	QPSK	1	0	14.19	14.31	14.21	15.5	0
20	QPSK	1	49	14.15	14.26	14.23		
20	QPSK	1	99	14.18	14.27	14.12		
20	QPSK	50	0	14.13	14.30	14.20		
20	QPSK	50	24	14.22	14.27	14.21	15.5	0
20	QPSK	50	50	14.10	14.17	14.18		
20	QPSK	100	0	14.17	14.24	14.18		



Band 38 Ant 3 EC12								
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch / Freq	Power Main Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPS (dB)
Channel				37850	38000	38150		
Frequency [MHz]				2590	2595	2610		
20	QPSK	1	0	17.86	18.05	18.03	18.7	0
20	QPSK	1	40	17.87	17.85	17.93		
20	QPSK	1	40	17.86	17.87	17.82		
20	QPSK	50	0	17.75	18.01	17.80		
20	QPSK	50	24	17.87	17.85	17.82	18.7	0
20	QPSK	50	50	17.80	17.82	17.87		
20	QPSK	100	0	17.84	18.04	17.92		
20	QPSK	100	0	17.84	18.04	17.92		

Band 41 Ant 3 EC12										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Mid Ch. / Freq.	Power Main Ch. / Freq.	Power High-Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPE (dB)
Channel				38750	40185	40420	41055	41490		
Frequency [MHz]				2506	2506	2506	2506.5	2506		
20	QPSK	1	0	18.13	18.01	18.14	18.06	18.07	18.7	0
20	QPSK	1	40	18.09	18.04	18.07	17.94	18.00		
20	QPSK	1	40	17.96	17.89	18.09	17.96	17.99		
20	QPSK	50	0	18.05	17.90	18.11	17.96	17.94		
20	QPSK	50	24	17.97	17.89	18.07	18.01	17.95	18.7	0
20	QPSK	50	50	17.97	18.01	17.99	18.00	18.04		
20	QPSK	100	0	18.01	17.92	18.04	17.88	17.98		
20	QPSK	100	0	18.01	17.92	18.04	17.88	17.98		



Band 41 HPUE Ant 3 EC12										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Mid Ch. / Freq.	Power Mid Ch. / Freq.	Power High-Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MPR (dB)
Channel				38750	40185	40620	41055	41490		
Frequency [MHz]				2500	2594.5	2689	2783.5	2878		
20	QPSK	1	0	19.32	19.35	19.38	19.39	19.34	20.3	0
20	QPSK	1	40	19.29	19.35	19.28	19.35	19.32		
20	QPSK	1	80	19.33	19.33	19.31	19.17	19.20		
20	QPSK	50	0	19.21	19.28	19.36	19.20	19.26		
20	QPSK	50	34	19.24	19.21	19.32	19.34	19.29	20.3	0
20	QPSK	50	68	19.29	19.25	19.29	19.31	19.28		
20	QPSK	100	0	19.30	19.32	19.37	19.23	19.34		

Band 42 FCC Part27Q Ant 3 EC12										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MPR (dB)		
Channel				42190	42690	43090				
Frequency (MHz)				3400	3490	3580				
20	QPSK	1	0	15.67	15.76	15.69	16.7	0		
20	QPSK	1	40	15.66	15.72	15.64				
20	QPSK	1	80	15.70	15.70	15.60				
20	QPSK	50	0	15.51	15.60	15.45				
20	QPSK	50	24	15.58	15.63	15.56	16.7	0		
20	QPSK	50	48	15.67	15.68	15.55				
20	QPSK	100	0	15.55	15.63	15.47				
20	16QAM	1	0	15.65	15.67	15.54				
20	16QAM	1	40	15.72	15.69	15.52	16.7	0		
20	16QAM	50	0	15.51	15.68	15.44				
20	16QAM	50	24	15.65	15.68	15.53				
20	16QAM	50	50	15.50	15.65	15.51				
20	16QAM	100	0	15.57	15.67	15.41	16.7	0		
20	16QAM	1	0	15.55	15.71	15.52				
20	16QAM	1	40	15.49	15.66	15.46				
20	16QAM	50	0	15.57	15.74	15.56				
20	16QAM	50	24	15.54	15.69	15.49	16.7	0		
20	16QAM	50	50	15.61	15.62	15.57				
20	16QAM	100	0	15.70	15.69	15.55				
20	256QAM	1	0	15.50	15.73	15.46				
20	256QAM	1	40	15.53	15.69	15.58	16.7	0		
20	256QAM	1	80	15.66	15.66	15.56				
20	256QAM	50	0	15.51	15.70	15.48				
20	256QAM	50	24	15.50	15.64	15.49				
20	256QAM	50	50	15.63	15.69	15.57	16.7	0		
20	256QAM	100	0	15.75	15.70	15.53				
Channel				42185	42690	43015			Tune-up Int. (dBm)	MPR (dB)
Frequency (MHz)				3402.5	3490	3482.5				
10	QPSK	1	0	15.53	15.72	15.49	16.7	0		
10	QPSK	1	37	15.60	15.60	15.51				
10	QPSK	1	74	15.60	15.60	15.54				
10	QPSK	36	0	15.38	15.60	15.37				
10	QPSK	36	20	15.44	15.52	15.50	16.7	0		
10	QPSK	36	40	15.54	15.59	15.53				
10	QPSK	75	0	15.51	15.58	15.36				
10	16QAM	1	0	15.52	15.65	15.47				
10	16QAM	1	37	15.61	15.56	15.43	16.7	0		
10	16QAM	1	74	15.42	15.57	15.36				
10	16QAM	36	0	15.57	15.56	15.44				
10	16QAM	36	20	15.57	15.56	15.30				
10	16QAM	36	39	15.42	15.58	15.43	16.7	0		
10	16QAM	75	0	15.46	15.55	15.50				
10	16QAM	1	0	15.59	15.62	15.41				
10	16QAM	1	37	15.41	15.56	15.37				
10	16QAM	1	74	15.56	15.61	15.43	16.7	0		
10	16QAM	36	0	15.53	15.70	15.43				
10	16QAM	36	20	15.44	15.61	15.44				
10	16QAM	36	39	15.55	15.55	15.54				
10	16QAM	75	0	15.55	15.55	15.52	16.7	0		
10	256QAM	1	0	15.39	15.66	15.35				
10	256QAM	1	37	15.54	15.50	15.45				
10	256QAM	1	74	15.63	15.59	15.53				
10	256QAM	36	0	15.45	15.60	15.44	16.7	0		
10	256QAM	36	20	15.40	15.62	15.47				
10	256QAM	36	39	15.49	15.62	15.52				
10	256QAM	75	0	15.49	15.60	15.46				
Channel				42180	42690	43010	Tune-up Int. (dBm)		MPR (dB)	
Frequency (MHz)				3405	3500	3545				
10	QPSK	1	0	15.49	15.73	15.59	16.7	0		
10	QPSK	1	25	15.53	15.65	15.53				
10	QPSK	1	49	15.57	15.58	15.50				
10	QPSK	25	0	15.42	15.61	15.35				
10	QPSK	25	12	15.53	15.63	15.53	16.7	0		
10	QPSK	25	25	15.60	15.57	15.44				
10	16QAM	1	0	15.50	15.57	15.40				
10	16QAM	1	0	15.53	15.64	15.41				
10	16QAM	1	25	15.64	15.60	15.40	16.7	0		
10	16QAM	1	49	15.38	15.56	15.31				
10	16QAM	25	0	15.57	15.63	15.47				
10	16QAM	25	12	15.62	15.61	15.47				
10	16QAM	25	25	15.43	15.52	15.41	16.7	0		
10	16QAM	50	0	15.47	15.48	15.55				
10	16QAM	1	0	15.57	15.57	15.54				
10	16QAM	1	25	15.49	15.56	15.33				
10	16QAM	1	49	15.53	15.66	15.53	16.7	0		
10	16QAM	25	0	15.60	15.62	15.48				
10	16QAM	25	12	15.44	15.56	15.39				
10	16QAM	25	25	15.52	15.51	15.45				
10	16QAM	50	0	15.56	15.62	15.43	16.7	0		
10	256QAM	1	0	15.39	15.67	15.36				
10	256QAM	1	25	15.60	15.59	15.46				
10	256QAM	1	49	15.54	15.59	15.47				
10	256QAM	25	0	15.40	15.67	15.46	16.7	0		
10	256QAM	25	0	15.38	15.57	15.46				
10	256QAM	25	25	15.51	15.60	15.55				
10	256QAM	50	0	15.68	15.62	15.50				
Channel				42175	42690	43005	Tune-up Int. (dBm)		MPR (dB)	
Frequency (MHz)				3407.5	3500	3547.5				
5	QPSK	1	0	15.55	15.66	15.62	16.7	0		
5	QPSK	1	12	15.62	15.60	15.54				
5	QPSK	1	24	15.57	15.63	15.51				
5	QPSK	12	0	15.49	15.59	15.33				
5	QPSK	12	7	15.44	15.52	15.43	16.7	0		
5	QPSK	12	13	15.61	15.62	15.42				
5	QPSK	25	0	15.43	15.51	15.59				
5	16QAM	1	0	15.61	15.65	15.46				
5	16QAM	1	12	15.69	15.62	15.49	16.7	0		
5	16QAM	1	24	15.49	15.54	15.35				
5	16QAM	12	0	15.54	15.63	15.51				
5	16QAM	12	7	15.59	15.61	15.39				
5	16QAM	12	13	15.43	15.55	15.44	16.7	0		
5	16QAM	25	0	15.58	15.52	15.48				
5	16QAM	1	0	15.36	15.58	15.48				
5	16QAM	1	12	15.39	15.56	15.42				
5	16QAM	1	24	15.54	15.66	15.49	16.7	0		
5	16QAM	12	0	15.62	15.64	15.46				
5	16QAM	12	0	15.49	15.59	15.43				
5	16QAM	12	13	15.51	15.51	15.46				
5	16QAM	25	0	15.65	15.61	15.49	16.7	0		
5	256QAM	1	0	15.47	15.64	15.34				
5	256QAM	1	12	15.59	15.60	15.51				
5	256QAM	1	24	15.59	15.55	15.46				
5	256QAM	12	0	15.45	15.63	15.37	16.7	0		
5	256QAM	12	7	15.37	15.53	15.41				
5	256QAM	12	13	15.53	15.62	15.54				
5	256QAM	25	0	15.67	15.66	15.42				



Band 42 FCC Part27Q Ant4 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Turn-up time (min)	MPR (dB)	
Channel				42190	42590	42990	Turn-up time (min)	MPR (dB)	
Frequency (MHz)				42190	42590	42990			
20	QPSK	1	0	14.25	14.35	14.21	15.1	0	
20	QPSK	1	48	14.08	14.09	13.98			
20	QPSK	1	96	13.94	13.95	13.83	15.1	0	
20	QPSK	50	0	14.21	14.23	14.13			
20	QPSK	50	24	13.99	13.99	13.90	15.1	0	
20	QPSK	50	50	13.91	13.85	13.81			
20	QPSK	100	0	14.20	14.20	14.18	15.1	0	
20	HQAM	1	0	14.02	14.04	13.90			
20	HQAM	1	48	13.84	13.85	13.75	15.1	0	
20	HQAM	1	96	14.19	14.23	14.15			
20	HQAM	50	0	13.95	14.02	13.95	15.1	0	
20	HQAM	50	24	14.14	14.21	14.15			
20	HQAM	50	50	13.97	14.01	13.89	15.1	0	
20	HQAM	100	0	13.85	13.93	13.74			
20	HQAM	1	0	14.23	14.20	14.12	15.1	0	
20	HQAM	1	48	14.01	14.00	13.90			
20	256QAM	1	96	13.85	13.85	13.72	15.1	0	
20	256QAM	50	0	14.19	14.26	14.11			
20	256QAM	50	24	14.15	14.23	14.17	15.1	0	
20	256QAM	50	50	13.99	14.08	13.83			
20	256QAM	100	0	13.83	13.88	13.78	15.1	0	
Channel				42165	42590	43015			
Frequency (MHz)				3470.5	3690.5	3647.5	Turn-up time (min)	MPR (dB)	
15	QPSK	1	0	14.15	14.25	14.13		15.1	
15	QPSK	1	37	14.01	13.99	13.90	15.1	0	
15	QPSK	1	74	13.87	13.87	13.75			
15	QPSK	36	0	14.12	14.22	14.10	15.1	0	
15	QPSK	36	20	13.96	13.95	13.82			
15	QPSK	36	39	13.85	13.80	13.71	15.1	0	
15	QPSK	75	0	14.16	14.23	14.09			
15	HQAM	1	0	13.97	13.99	13.81	15.1	0	
15	HQAM	1	37	13.74	13.82	13.70			
15	HQAM	1	74	14.14	14.22	14.09	15.1	0	
15	HQAM	36	0	13.86	13.95	13.86			
15	HQAM	36	39	13.77	13.81	13.69	15.1	0	
15	HQAM	36	39	14.17	14.23	14.09			
15	HQAM	75	0	13.96	14.02	13.88	15.1	0	
15	HQAM	1	0	13.84	13.88	13.65			
15	HQAM	1	37	14.15	14.13	14.11	15.1	0	
15	HQAM	1	74	13.86	13.86	13.91			
15	HQAM	36	0	13.78	13.80	13.72	15.1	0	
15	HQAM	36	20	14.07	14.12	14.10			
15	HQAM	36	39	13.86	13.97	13.82	15.1	0	
15	HQAM	75	0	13.81	13.85	13.65			
15	256QAM	1	0	14.19	14.12	14.03	15.1	0	
15	256QAM	1	37	13.96	13.91	13.87			
15	256QAM	1	74	13.76	13.78	13.64	15.1	0	
15	256QAM	36	0	14.18	14.15	14.05			
15	256QAM	36	20	14.07	14.20	14.12	15.1	0	
15	256QAM	36	39	13.93	14.02	13.90			
15	256QAM	75	0	13.77	13.86	13.76	15.1	0	
15	256QAM	75	0	13.77	13.86	13.76			
Channel				42140	42565	43000	Turn-up time (min)	MPR (dB)	
Frequency (MHz)				3465	3690	3645	Turn-up time (min)	MPR (dB)	
10	QPSK	1	0	14.16	14.20	14.13		15.1	
10	QPSK	1	25	14.04	14.04	13.96	15.1	0	
10	QPSK	1	49	13.87	13.88	13.73			
10	QPSK	25	0	14.14	14.21	14.08	15.1	0	
10	QPSK	25	12	13.90	13.94	13.85			
10	QPSK	25	25	13.88	13.84	13.72	15.1	0	
10	QPSK	50	0	14.12	14.20	14.12			
10	HQAM	1	0	13.95	13.98	13.84	15.1	0	
10	HQAM	1	25	13.80	13.84	13.66			
10	HQAM	1	49	14.16	14.23	14.09	15.1	0	
10	HQAM	25	0	13.87	13.99	13.88			
10	HQAM	25	12	13.78	13.83	13.63	15.1	0	
10	HQAM	25	25	14.17	14.23	14.13			
10	HQAM	50	0	13.99	13.68	13.62	15.1	0	
10	HQAM	1	0	13.85	13.80	13.67			
10	HQAM	1	25	14.19	14.17	14.05	15.1	0	
10	HQAM	1	49	13.91	13.85	13.80			
10	HQAM	25	0	13.77	13.82	13.69	15.1	0	
10	HQAM	25	12	14.12	14.16	14.09			
10	HQAM	25	25	13.90	13.85	13.80	15.1	0	
10	HQAM	50	0	13.79	13.85	13.71			
10	256QAM	1	0	14.20	14.16	14.03	15.1	0	
10	256QAM	1	25	13.95	13.95	13.85			
10	256QAM	1	49	13.80	13.75	13.65	15.1	0	
10	256QAM	25	0	14.13	14.22	14.07			
10	256QAM	25	12	14.11	14.17	14.15	15.1	0	
10	256QAM	25	25	13.91	14.03	13.97			
10	256QAM	50	0	13.74	13.80	13.75	15.1	0	
10	256QAM	50	0	13.74	13.80	13.75			
Channel				42115 <th>42590<th>42965</th><th>Turn-up time (min)</th><th colspan="2">MPR (dB)</th></th>	42590 <th>42965</th> <th>Turn-up time (min)</th> <th colspan="2">MPR (dB)</th>	42965	Turn-up time (min)	MPR (dB)	
Frequency (MHz)				3462.5 <th>3690.5<th>3647.5<td rowspan="2">Turn-up time (min)</td><td colspan="2">MPR (dB)</td></th></th>	3690.5 <th>3647.5<td rowspan="2">Turn-up time (min)</td><td colspan="2">MPR (dB)</td></th>	3647.5 <td rowspan="2">Turn-up time (min)</td> <td colspan="2">MPR (dB)</td>	Turn-up time (min)	MPR (dB)	
5	QPSK	1	0	14.18	14.23	14.14		15.1	
5	QPSK	1	12	13.95	14.04	13.90	15.1	0	
5	QPSK	1	24	13.87	13.88	13.80			
5	QPSK	12	0	14.12	14.20	14.09	15.1	0	
5	QPSK	12	7	13.97	13.82	13.85			
5	QPSK	12	13	13.83	13.81	13.71	15.1	0	
5	QPSK	25	0	14.11	14.16	14.10			
5	HQAM	1	0	13.92	13.94	13.82	15.1	0	
5	HQAM	1	12	13.76	13.84	13.71			
5	HQAM	1	24	14.13	14.23	14.10	15.1	0	
5	HQAM	12	0	13.89	13.97	13.80			
5	HQAM	12	7	13.77	13.80	13.64	15.1	0	
5	HQAM	12	13	14.16	14.13	14.13			
5	HQAM	25	0	13.95	14.00	13.91	15.1	0	
5	HQAM	1	0	13.81	13.84	13.67			
5	HQAM	1	12	14.14	14.15	14.13	15.1	0	
5	HQAM	1	24	13.88	13.99	13.86			
5	HQAM	12	0	13.76	13.82	13.74	15.1	0	
5	HQAM	12	7	14.05	14.15	14.06			
5	HQAM	12	13	13.90	13.68	13.79	15.1	0	
5	HQAM	25	0	13.77	13.85	13.68			
5	256QAM	1	0	14.17	14.14	14.05	15.1	0	
5	256QAM	1	12	13.97	13.85	13.88			
5	256QAM	1	24	13.77	13.75	13.63	15.1	0	
5	256QAM	12	0	14.09	14.18	14.03			
5	256QAM	12	7	14.12	14.17	14.08	15.1	0	
5	256QAM	12	13	13.97	13.95	13.89			



Band 42 FCC Part27Q Ant6 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (dBm)	MFR (dB)	
Channel				3479	3699	42990			
Frequency (MHz)				3479	3699	42990			
20	QPSK	1	0	15.28	15.42	15.37	16.3	0	
20	QPSK	1	48	15.24	15.34	15.25			
20	QPSK	1	96	15.38	15.40	15.30			
20	QPSK	50	0	15.18	15.37	15.26	16.3	0	
20	QPSK	50	24	15.20	15.25	15.15			
20	QPSK	50	48	15.27	15.35	15.28			
20	QPSK	100	0	15.21	15.38	15.26	16.3	0	
20	HQAM	1	0	15.17	15.29	15.21			
20	HQAM	1	48	15.30	15.33	15.26			
20	HQAM	50	0	15.19	15.38	15.34	16.3	0	
20	HQAM	50	24	15.17	15.32	15.16			
20	HQAM	50	24	15.20	15.32	15.28			
20	HQAM	50	50	15.20	15.31	15.30	16.3	0	
20	HQAM	100	0	15.17	15.25	15.22			
20	HQAM	1	0	15.33	15.35	15.25			
20	HQAM	1	48	15.29	15.33	15.29	16.3	0	
20	HQAM	1	96	15.24	15.33	15.34			
20	HQAM	50	0	15.14	15.29	15.22			
20	HQAM	50	24	15.33	15.35	15.28	16.3	0	
20	HQAM	50	50	15.23	15.28	15.28			
20	HQAM	100	0	15.17	15.30	15.14			
20	25GQAM	1	0	15.33	15.37	15.23	16.3	0	
20	25GQAM	1	48	15.21	15.35	15.32			
20	25GQAM	1	96	15.22	15.31	15.21			
20	25GQAM	50	0	15.28	15.31	15.22	16.3	0	
20	25GQAM	50	24	15.21	15.31	15.35			
20	25GQAM	50	50	15.19	15.28	15.18			
20	25GQAM	100	0	15.34	15.38	15.27			
Channel				42165	42590	43015	Turn-up time (dBm)	MFR (dB)	
Frequency (MHz)				3472.5	3703	3747.5			
15	QPSK	1	0	15.21	15.37	15.32	16.3	0	
15	QPSK	1	37	15.16	15.28	15.18			
15	QPSK	1	74	15.31	15.32	15.22			
15	QPSK	36	0	15.13	15.31	15.24	16.3	0	
15	QPSK	36	20	15.16	15.18	15.10			
15	QPSK	36	39	15.28	15.31	15.24			
15	QPSK	75	0	15.13	15.27	15.20	16.3	0	
15	HQAM	1	0	15.10	15.28	15.12			
15	HQAM	1	37	15.22	15.27	15.21			
15	HQAM	1	74	15.14	15.34	15.27	16.3	0	
15	HQAM	36	0	15.09	15.28	15.09			
15	HQAM	36	39	15.27	15.32	15.22			
15	HQAM	36	39	15.18	15.28	15.20	16.3	0	
15	HQAM	75	0	15.14	15.19	15.15			
15	HQAM	1	0	15.30	15.35	15.20			
15	HQAM	1	37	15.26	15.29	15.25	16.3	0	
15	HQAM	1	74	15.22	15.31	15.26			
15	HQAM	36	0	15.09	15.32	15.17			
15	HQAM	36	20	15.24	15.33	15.25	16.3	0	
15	HQAM	36	39	15.21	15.30	15.18			
15	HQAM	75	0	15.12	15.25	15.10			
15	25GQAM	1	0	15.23	15.30	15.19	16.3	0	
15	25GQAM	1	37	15.14	15.27	15.20			
15	25GQAM	1	74	15.18	15.25	15.18			
15	25GQAM	36	0	15.28	15.34	15.20	16.3	0	
15	25GQAM	36	20	15.15	15.23	15.27			
15	25GQAM	36	39	15.16	15.19	15.15			
15	25GQAM	75	0	15.20	15.25	15.20			
Channel				42140	42590	43015	Turn-up time (dBm)	MFR (dB)	
Frequency (MHz)				3465	3703	3745			
10	QPSK	1	0	15.19	15.33	15.26	16.3	0	
10	QPSK	1	25	15.17	15.30	15.22			
10	QPSK	1	49	15.31	15.33	15.20			
10	QPSK	25	0	15.08	15.32	15.19	16.3	0	
10	QPSK	25	12	15.16	15.19	15.12			
10	QPSK	25	25	15.22	15.31	15.24			
10	QPSK	50	0	15.13	15.30	15.18	16.3	0	
10	HQAM	1	0	15.12	15.20	15.15			
10	HQAM	1	25	15.21	15.27	15.19			
10	HQAM	1	49	15.10	15.29	15.20	16.3	0	
10	HQAM	25	0	15.14	15.25	15.12			
10	HQAM	25	12	15.22	15.25	15.18			
10	HQAM	25	25	15.17	15.27	15.28	16.3	0	
10	HQAM	50	0	15.12	15.19	15.15			
10	HQAM	1	0	15.27	15.37	15.17			
10	HQAM	1	25	15.22	15.24	15.23	16.3	0	
10	HQAM	1	49	15.21	15.25	15.28			
10	HQAM	25	0	15.10	15.23	15.18			
10	HQAM	25	12	15.27	15.30	15.24	16.3	0	
10	HQAM	25	25	15.16	15.33	15.23			
10	HQAM	50	0	15.10	15.21	15.07			
10	25GQAM	1	0	15.31	15.30	15.18	16.3	0	
10	25GQAM	1	25	15.14	15.26	15.24			
10	25GQAM	1	49	15.15	15.28	15.14			
10	25GQAM	25	0	15.26	15.29	15.16	16.3	0	
10	25GQAM	25	12	15.15	15.20	15.22			
10	25GQAM	25	25	15.11	15.22	15.15			
10	25GQAM	50	0	15.31	15.32	15.22			
Channel				3461.5	3703	3747.5	Turn-up time (dBm)	MFR (dB)	
Frequency (MHz)				3462.5	3703	3747.5			
5	QPSK	1	0	15.19	15.32	15.30	16.3	0	
5	QPSK	1	12	15.18	15.29	15.18			
5	QPSK	1	24	15.30	15.32	15.25			
5	QPSK	12	0	15.13	15.32	15.19	16.3	0	
5	QPSK	12	7	15.13	15.32	15.08			
5	QPSK	12	13	15.18	15.32	15.26			
5	QPSK	25	0	15.12	15.31	15.18	16.3	0	
5	HQAM	1	0	15.10	15.23	15.15			
5	HQAM	1	12	15.22	15.27	15.17			
5	HQAM	1	24	15.16	15.33	15.27	16.3	0	
5	HQAM	12	0	15.14	15.29	15.11			
5	HQAM	12	7	15.24	15.25	15.19			
5	HQAM	12	13	15.11	15.25	15.24	16.3	0	
5	HQAM	25	0	15.10	15.20	15.18			
5	HQAM	1	0	15.24	15.31	15.21			
5	HQAM	1	12	15.23	15.25	15.26	16.3	0	
5	HQAM	12	0	15.08	15.19	15.17			
5	HQAM	12	7	15.24	15.31	15.19			
5	HQAM	12	13	15.19	15.38	15.20	16.3	0	
5	HQAM	25	0	15.10	15.22	15.12			
5	25GQAM	1	0	15.24	15.33	15.18			
5	25GQAM	1	12	15.11	15.28	15.27	16.3	0	
5	25GQAM	1	24	15.16	15.29	15.11			
5	25GQAM	12	0	15.30	15.32	15.17			
5	25GQAM	12	7	15.12	15.26	15.30	16.3	0	
5	25GQAM	12	13	15.13	15.25	15.14			
5	25GQAM	25	0	15.32	15.25	15.17			

Band 42 FCC Part27Q Ant8 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Turnup time (dBm)	MPR (dB)	
Channel				42190	42590	42990			
Frequency (MHz)				3440	3660	42990			
20	QPSK	1	0	21.40	21.43	21.43	22.2	0	
20	QPSK	1	48	21.21	21.28	21.22			
20	QPSK	1	96	21.31	21.38	21.27			
20	QPSK	50	0	21.34	21.42	21.41	22.2	0	
20	QPSK	50	24	21.18	21.20	21.14			
20	QPSK	50	48	21.25	21.31	21.20			
20	QPSK	100	0	21.32	21.41	21.40	22.2	0	
20	HQAM	1	0	21.11	21.16	21.19			
20	HQAM	1	48	21.22	21.30	21.22			
20	HQAM	50	0	21.37	21.45	21.40	22	0.2	
20	HQAM	50	24	20.89	20.96	20.93			
20	HQAM	50	48	20.85	20.91	20.84			
20	HQAM	50	50	20.80	20.89	20.85	22	0.2	
20	HQAM	100	0	20.91	20.94	20.96			
20	HQAM	1	0	20.57	20.57	20.54			
20	HQAM	1	48	20.90	20.95	20.92	20	2.2	
20	HQAM	1	96	20.92	20.93	20.92			
20	HQAM	50	0	19.87	19.97	19.89			
20	HQAM	50	24	19.89	19.99	19.89	19	3.2	
20	HQAM	50	50	19.94	19.97	19.95			
20	HQAM	100	0	19.89	19.90	19.82			
20	256QAM	1	0	17.90	17.93	17.90	19	3.2	
20	256QAM	1	48	17.91	17.93	17.85			
20	256QAM	1	96	17.81	17.82	17.88			
20	256QAM	50	0	17.94	17.94	17.92	19	3.2	
20	256QAM	50	24	17.98	17.99	17.94			
20	256QAM	50	50	17.86	17.87	17.87			
20	256QAM	100	0	17.93	17.99	17.94			
Channel				42165	42590	48010	Turnup time (dBm)	MPR (dB)	
Frequency (MHz)				3407.5	3503	3547.5			
15	QPSK	1	0	18.29	18.43	18.31	22.2	0	
15	QPSK	1	37	18.19	18.20	18.18			
15	QPSK	1	74	18.24	18.20	18.19			
15	QPSK	36	0	18.25	18.32	18.33	22.2	0	
15	QPSK	36	20	18.16	18.13	18.08			
15	QPSK	36	49	18.15	18.20	18.10			
15	QPSK	75	0	18.27	18.40	18.36	22.2	0	
15	HQAM	1	0	18.02	18.09	18.10			
15	HQAM	1	37	18.11	18.20	18.17			
15	HQAM	1	74	18.31	18.30	18.32	22	0.2	
15	HQAM	36	0	20.88	20.98	20.92			
15	HQAM	36	20	20.74	20.83	20.82			
15	HQAM	36	39	20.71	20.83	20.81	22	0.2	
15	HQAM	75	0	20.83	20.86	20.81			
15	HQAM	1	0	20.79	20.84	20.85			
15	HQAM	1	37	20.83	20.91	20.82	20	2.2	
15	HQAM	1	74	20.84	20.86	20.77			
15	HQAM	36	0	19.82	19.85	19.83			
15	HQAM	36	20	19.79	19.88	19.85	19	3.2	
15	HQAM	36	39	19.80	19.87	19.87			
15	HQAM	75	0	19.84	19.93	19.75			
15	256QAM	1	0	17.89	17.87	17.83	19	3.2	
15	256QAM	1	37	17.85	17.84	17.76			
15	256QAM	1	74	17.78	17.83	17.81			
15	256QAM	36	0	17.92	17.87	17.83	19	3.2	
15	256QAM	36	20	17.90	17.88	17.88			
15	256QAM	36	39	17.83	17.96	17.83			
15	256QAM	75	0	17.86	17.86	17.84			
Channel				42160	42590	48010	Turnup time (dBm)	MPR (dB)	
Frequency (MHz)				3465	3503	3545			
10	QPSK	1	0	18.31	18.44	18.41	22.2	0	
10	QPSK	1	25	18.13	18.18	18.16			
10	QPSK	1	49	18.26	18.20	18.17			
10	QPSK	25	0	18.27	18.34	18.33	22.2	0	
10	QPSK	25	12	18.15	18.10	18.05			
10	QPSK	25	25	18.24	18.23	18.13			
10	QPSK	50	0	18.30	18.30	18.30	22.2	0	
10	HQAM	1	0	18.03	18.09	18.18			
10	HQAM	1	25	18.21	18.19	18.14			
10	HQAM	1	49	18.27	18.34	18.31	22	0.2	
10	HQAM	25	0	20.81	20.90	20.87			
10	HQAM	25	12	20.74	20.86	20.82			
10	HQAM	25	25	20.70	20.83	20.81	22	0.2	
10	HQAM	50	0	20.86	20.83	20.82			
10	HQAM	50	25	20.84	20.87	20.88			
10	HQAM	1	0	20.84	20.87	20.88	22	0.2	
10	HQAM	1	25	20.89	20.85	20.89			
10	HQAM	1	49	20.85	20.89	20.83			
10	HQAM	25	0	19.79	19.80	19.81	20	2.2	
10	HQAM	25	12	19.79	19.91	19.83			
10	HQAM	25	25	19.90	19.85	19.91			
10	HQAM	50	0	19.79	19.82	19.75	19	3.2	
10	256QAM	1	0	17.85	17.84	17.81			
10	256QAM	1	25	17.88	17.81	17.74			
10	256QAM	1	49	17.71	17.82	17.83	19	3.2	
10	256QAM	25	0	17.90	17.84	17.84			
10	256QAM	25	12	17.88	17.86	17.87			
10	256QAM	25	25	17.83	17.95	17.77	19	3.2	
10	256QAM	50	0	17.91	17.90	17.88			
Channel				42115	42590	42965	Turnup time (dBm)	MPR (dB)	
Frequency (MHz)				18.35	18.44	18.32			
5	QPSK	1	0	18.35	18.44	18.32	22.2	0	
5	QPSK	1	12	18.15	18.20	18.20			
5	QPSK	1	24	18.21	18.33	18.20			
5	QPSK	12	0	18.29	18.33	18.31	22.2	0	
5	QPSK	12	7	18.08	18.13	18.09			
5	QPSK	12	13	18.20	18.30	18.15			
5	QPSK	25	0	18.29	18.34	18.30	22.2	0	
5	HQAM	1	0	18.05	18.09	18.11			
5	HQAM	1	12	18.16	18.24	18.14			
5	HQAM	1	24	18.26	18.30	18.31	22	0.2	
5	HQAM	12	0	20.83	20.97	20.89			
5	HQAM	12	7	20.84	20.83	20.73			
5	HQAM	12	13	20.77	20.89	20.76	22	0.2	
5	HQAM	25	0	20.82	20.88	20.85			
5	HQAM	1	0	20.81	20.88	20.85			
5	HQAM	1	12	20.88	20.84	20.90	20	2.2	
5	HQAM	1	24	20.83	20.91	20.79			
5	HQAM	12	0	19.76	19.86	19.87			
5	HQAM	12	7	19.80	19.90	19.83	19	3.2	
5	HQAM	12	13	19.91	19.87	19.89			
5	HQAM	25	0	19.84	19.81	19.90			
5	256QAM	1	0	17.89	17.84	17.85	19	3.2	
5	256QAM	1	12	17.81	17.84	17.79			
5	256QAM	1	24	17.78	17.84	17.80			
5	256QAM	12	0	17.83	17.88	17.81	19	3.2	
5	256QAM	12	7	17.94	17.87	17.85			
5	256QAM	12	13	17.85	17.91	17.79			
5	256QAM	25	0	17.89	17.91	17.84			



GSM450-Air 1		Rural Average Power (dBm)		Turn-up		Farm Average Power (dBm)		Turn-up	
Tx Channel		128	160	201	140	128	160	201	140
Frequency (MHz)		824.2	836.4	848.6	(dBm)	824.2	836.4	848.6	(dBm)
OPRR 1 Tx 90%		31.5	31.7	31.3	33.0	22.6	22.7	22.3	24.0
OPRR 1 Tx 90%		31.89	31.85	31.83	33.59	22.89	22.85	22.83	24.59
OPRR 2 Tx 90%		30.82	30.83	30.84	32.00	24.82	24.83	24.84	25.00
OPRR 3 Tx 90%		28.48	28.51	28.49	30.00	24.20	24.25	24.22	25.14
OPRR 4 Tx 90%		27.38	27.39	27.32	29.00	24.38	24.39	24.32	25.00

Band		WCDMA 6-Air 1		Turn-up		WCDMA 17-Air 1		Turn-up		WCDMA 17-Air 1		Turn-up	
Tx Channel		8262	8400	8638	140	1512	1415	1513	140	4132	4182	4213	140
Frequency (MHz)		955.4	959.0	969.6	(dBm)	1537	1536	1538	(dBm)	4307	4407	4456	(dBm)
GPPR-Band 60		17.13	17.15	17.14	18.30	17.53	18.02	17.52	19.10	24.17	24.23	24.15	25.00
GPPR-Band 60		17.13	17.15	17.14	18.30	17.53	18.02	17.52	19.10	24.17	24.23	24.15	25.00



GSM1900-A12		Total Average Power (dBm)			Turn-up		Power Density Power (dBm)			Turn-up	
Tx Channel		912	861	810	Loss		912	861	810	Loss	
Frequency (MHz)		1850.2	1800	1609.8			1850.2	1800	1609.8		
GSM 1 Tx off		-28.72	-28.79	-28.66	22.00		-15.72	-15.79	-15.56	22.00	
GPRS 1 Tx off		-28.60	-28.75	-28.60	20.00		-15.60	-15.75	-15.60	20.00	
GPRS 2 Tx off		-28.23	-28.32	-28.21	20.00		-20.23	-20.32	-20.21	20.00	
GPRS 3 Tx off		-28.60	-28.32	-28.50	20.10		-20.30	-20.26	-20.34	20.00	
GPRS 4 Tx off		-22.72	-22.79	-22.70	23.00		-19.72	-19.79	-19.70	23.00	

Band		WCDMA-A12			Turn-up		WCDMA-A12			Turn-up	
Tx Channel		9350	9400	9538	Loss		1310	1413	1513	Loss	
Rx Channel		9600	9500	9600			1510	1406	1306		
Frequency (MHz)		1850.4	1800	1607.8			1722.4	1702.8	1702.8		
GPP Band 8		EMC 12.200pp	17.24	17.28	17.23	18.50	15.67	15.71	15.64	17.00	17.00



Band	WCDMA II AX 3			Time-to	WCDMA IV AX 3		
TX Channel	9562	9450	9538	Time-to	9532	9418	9518
TX Channel	9562	9450	9538	Loss	9532	9418	9518
Frequency (MHz)	1812.4	1800	1807.6	(dBm)	1712.4	1702.8	1702.8
SCPF Ref ID	RNC 12 Phase						
	16.83	16.85	16.88	17.90	18.78	18.83	18.85



Band 2 Ant 0 ECI3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)
Channel				18700	18800	18900	
Frequency [MHz]				18800	18800	18900	
20	QPSK	1	0	20.58	20.65	20.49	
20	QPSK	1	48	20.42	20.48	20.48	21.0
20	QPSK	1	96	20.53	20.54	20.51	
20	QPSK	50	0	20.37	20.57	20.48	
20	QPSK	50	24	20.35	20.40	20.50	
20	QPSK	50	50	20.53	20.52	20.38	21.5
20	QPSK	100	0	20.47	20.49	20.40	

Band 4 Ant 0 ECI3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)	MFR (dB)
Channel				20650	20715	20800		
Frequency [MHz]				1720	1730.5	1745		
20	QPSK	1	0	20.59	20.69	20.52		
20	QPSK	1	48	20.52	20.60	20.57	22	0
20	QPSK	1	96	20.61	20.54	20.57		
20	QPSK	50	0	20.57	20.65	20.60		
20	QPSK	50	24	20.53	20.48	20.50		
20	QPSK	50	50	20.41	20.58	20.35	22	0
20	QPSK	100	0	20.55	20.55	20.55		

Band 5 Ant 0 ECI3									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. [MHz]	Power Middle Ch. / Freq. [MHz]	Power High Ch. / Freq. [MHz]	Tune-up limit (dB)	MPE (dB)	
Channel				20450	20520	20600			
Frequency [MHz]				820	836.5	844			
10	QPSK	1	0	23.17	23.35	23.21			
10	QPSK	1	25	23.08	23.11	23.02	24	0	
10	QPSK	1	49	23.21	23.24	23.18			
10	QPSK	25	0	22.06	22.23	22.16			
10	QPSK	25	12	22.10	22.15	22.11	23	1	
10	QPSK	25	25	22.17	22.14	22.08			
10	QPSK	50	0	22.20	22.25	22.16			
10	16QAM	1	49	22.32	22.44	23.33	23	1	
10	16QAM	25	0	21.30	21.38	21.57			
10	16QAM	25	12	21.23	21.21	21.23	22	2	
10	16QAM	25	25	21.16	21.25	21.21			
10	16QAM	50	0	21.27	21.23	21.18			
10	64QAM	1	25	21.28	21.37	21.35			
10	64QAM	1	26	21.23	21.32	21.27	22	2	
10	64QAM	49	21.27	21.30	21.29				
10	256QAM	25	12	20.28	20.39	20.25	21	3	
10	256QAM	25	25	20.16	20.21	20.11			
10	256QAM	50	0	20.28	20.36	20.23			
10	256QAM	1	0	18.28	18.26	18.24			
10	256QAM	1	25	18.21	18.25	18.09	19	5	
10	256QAM	1	49	18.12	18.25	18.18			
10	256QAM	25	0	18.14	18.22	18.10			
10	256QAM	25	12	18.22	18.23	18.19			
10	256QAM	25	25	18.20	18.30	18.29	19	5	
10	256QAM	50	0	18.14	18.23	18.12			
Channel				20455	20525	20625	Tune-up limit (dB)	MPE (dB)	
Frequency [MHz]				826.5	836.5	846.5			
5	QPSK	1	0	23.14	23.30	23.18			
5	QPSK	1	12	23.02	23.08	23.00	24	0	
5	QPSK	1	24	23.11	23.17	23.18			
5	QPSK	12	0	21.98	22.13	22.06			
5	QPSK	12	7	22.01	22.06	22.01	23	1	
5	QPSK	12	13	22.11	22.12	22.09			
5	QPSK	25	0	22.19	22.17	22.11			
5	16QAM	1	0	22.37	22.47	22.37			
5	16QAM	1	12	22.24	22.33	22.27	23	1	
5	16QAM	1	24	22.30	22.34	22.28			
5	16QAM	12	0	21.26	21.15	21.15			
5	16QAM	12	7	21.17	21.18	21.12	22	2	
5	16QAM	12	13	21.12	21.19	21.11			
5	16QAM	25	0	21.16	21.18	21.07			
5	64QAM	1	0	21.25	21.31	21.22			
5	64QAM	1	12	21.15	21.18	21.17	22	2	
5	64QAM	1	24	21.15	21.25	21.14			
5	64QAM	12	0	20.32	20.33	20.24			
5	64QAM	12	7	20.34	20.33	20.22	21	3	
5	64QAM	12	13	20.07	20.15	20.05			
5	64QAM	25	0	20.18	20.29	20.20			
5	256QAM	1	0	18.23	18.21	18.23			
5	256QAM	1	12	18.13	18.22	18.07	19	5	
5	256QAM	1	24	18.09	18.20	18.09			
5	256QAM	12	0	18.15	18.15	18.06			
5	256QAM	12	7	18.18	18.17	18.15	19	5	
5	256QAM	12	13	18.15	18.28	18.27			
5	256QAM	25	0	18.08	18.12	18.03			
Channel				20455	20525	20625	Tune-up limit (dB)	MPE (dB)	
Frequency [MHz]				826.5	836.5	846.5			
3	QPSK	1	0	23.08	23.30	23.13			
3	QPSK	1	8	23.00	23.07	22.97	24	0	
3	QPSK	1	14	23.16	23.20	23.14			
3	QPSK	8	0	22.00	22.14	22.14			
3	QPSK	8	4	22.05	22.11	22.01	23	1	
3	QPSK	8	7	22.11	22.08	22.04			
3	QPSK	16	0	22.18	22.23	22.13			
3	16QAM	1	0	22.37	22.44	22.42			
3	16QAM	1	8	22.22	22.36	22.34	23	1	
3	16QAM	1	14	22.25	22.35	22.29			
3	16QAM	8	0	21.22	21.17	21.06			
3	16QAM	8	4	21.20	21.13	21.17	22	2	
3	16QAM	8	7	21.00	21.15	21.11			
3	16QAM	15	0	21.21	21.19	21.08			
3	64QAM	1	0	21.16	21.28	21.28			
3	64QAM	1	8	21.12	21.26	21.22	22	2	
3	64QAM	1	14	21.20	21.26	21.17			
3	64QAM	8	0	20.33	20.29	20.21			
3	64QAM	8	4	20.18	20.30	20.15	21	3	
3	64QAM	8	7	20.11	20.18	20.08			
3	64QAM	15	0	20.26	20.28	20.14			
3	256QAM	1	0	18.07	18.24	18.13			
3	256QAM	1	8	18.16	18.17	18.02	19	5	
3	256QAM	1	14	18.08	18.22	18.17			
3	256QAM	8	0	18.15	18.13	17.09			
3	256QAM	8	4	18.15	18.22	18.08	19	5	
3	256QAM	8	7	18.12	18.25	18.21			
3	256QAM	15	0	18.07	18.13	18.07			
Channel				20457	20525	20625	Tune-up limit (dB)	MPE (dB)	
Frequency [MHz]				824.7	836.5	846.5			
1.4	QPSK	1	0	23.05	23.19	23.06			
1.4	QPSK	1	3	23.05	23.14	22.89			
1.4	QPSK	1	5	23.04	23.08	23.00	24	0	
1.4	QPSK	3	0	22.96	23.12	23.10			
1.4	QPSK	3	1	22.99	23.17	23.04			
1.4	QPSK	3	3	23.00	23.01	23.04	23	1	
1.4	QPSK	6	0	22.11	22.32	22.10			
1.4	16QAM	1	0	22.11	22.12	21.81			
1.4	16QAM	1	3	22.05	22.19	22.12	23	1	
1.4	16QAM	1	5	21.99	22.28	21.89			
1.4	16QAM	3	0	22.16	22.22	22.09			
1.4	16QAM	3	1	22.09	22.14	22.13			
1.4	16QAM	3	3	22.04	22.16	22.01	22	2	
1.4	16QAM	6	0	21.18	21.28	21.23			
1.4	64QAM	1	0	21.30	21.24	21.12			
1.4	64QAM	1	3	21.08	21.14	21.05			
1.4	64QAM	1	5	21.17	21.19	21.15	22	2	
1.4	64QAM	3	0	21.12	21.27	20.86			
1.4	64QAM	3	1	20.97	21.11	21.08			
1.4	64QAM	3	3	21.02	21.14	21.08			
1.4	64QAM	6	0	20.16	20.29	20.11	21	3	
1.4	256QAM	1	0	18.34	18.30	18.22			
1.4	256QAM	1	3	18.19	18.39	18.23			
1.4	256QAM	1	5	18.22	18.28	18.31	19	5	
1.4	256QAM	3	0	18.11	18.08	18.11			
1.4	256QAM	3	1	18.06	18.16	18.21			
1.4	256QAM	0	3	18.20	18.21	18.08			
1.4	256QAM	6	0	17.59	18.19	17.68	19	5	

Band 7 Ant 0 ECI3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)	MFR (dB)
Channel				20660	21190	21390		
Frequency [MHz]				20.10	20.35	20.60		
20	QPSK	1	0	20.93	21.02	20.92		
20	QPSK	1	48	20.88	21.00	20.87	22.2	0
20	QPSK	1	96	20.95	20.89	20.88		
20	QPSK	50	0	20.90	20.97	20.92		
20	QPSK	50	24	20.80	20.93	20.85	22.2	0
20	QPSK	50	50	20.91	20.89	20.91		
20	QPSK	100	0	20.83	20.88	20.83		



Band 12 Ant 0 EC13									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up Int (dB)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	0	23.37	23.43	23.39	24	0	
10	QPSK	1	25	23.17	23.27	23.18			
10	QPSK	1	49	23.27	23.31	23.29			
10	QPSK	25	0	22.23	22.25	22.15			
10	QPSK	25	12	22.22	22.24	22.18	23	1	
10	QPSK	25	25	22.19	22.23	22.21			
10	QPSK	50	0	22.14	22.21	22.11			
10	16QAM	1	0	22.70	22.77	22.75			
10	16QAM	1	25	22.61	22.69	22.62	23	1	
10	16QAM	1	49	22.65	22.69	22.58			
10	16QAM	25	0	21.57	21.59	21.50			
10	16QAM	25	12	21.53	21.59	21.53			
10	16QAM	25	25	21.52	21.60	21.53	22	2	
10	16QAM	50	0	21.49	21.52	21.52			
10	16QAM	50	0	21.49	21.52	21.52			
10	16QAM	1	0	21.52	21.60	21.60			
10	16QAM	1	25	21.45	21.52	21.45	22	2	
10	16QAM	1	49	21.45	21.53	21.43			
10	16QAM	25	0	20.52	20.58	20.50			
10	16QAM	25	12	20.48	20.54	20.49			
10	16QAM	25	25	20.51	20.59	20.49	21	3	
10	16QAM	50	0	20.52	20.53	20.43			
10	256QAM	1	0	18.48	18.49	18.36			
10	256QAM	1	25	18.37	18.43	18.39			
10	256QAM	1	49	18.34	18.39	18.28	19	5	
10	256QAM	25	0	18.36	18.38	18.30			
10	256QAM	25	12	18.42	18.44	18.42			
10	256QAM	25	25	18.31	18.41	18.36			
10	256QAM	50	0	18.29	18.42	18.27			
Channel									
Frequency (MHz)									
5	QPSK	1	0	23.28	23.41	23.32	24	0	
5	QPSK	1	12	23.14	23.16	23.11			
5	QPSK	1	24	23.26	23.28	23.21			
5	QPSK	12	0	22.18	22.18	22.12			
5	QPSK	12	7	22.20	22.19	22.10	23	1	
5	QPSK	12	13	22.15	22.17	22.16			
5	QPSK	25	0	22.05	22.13	22.09			
5	16QAM	1	0	22.60	22.71	22.66			
5	16QAM	1	12	22.54	22.59	22.54	23	1	
5	16QAM	1	0	18.36	18.40	18.36			
5	16QAM	12	0	21.00	21.48	21.46			
5	16QAM	12	7	21.43	21.51	21.46			
5	16QAM	25	0	21.47	21.48	21.43	22	2	
5	16QAM	25	0	21.47	21.48	21.43			
5	16QAM	1	0	21.41	21.55	21.57			
5	16QAM	1	24	21.35	21.49	21.51			
5	16QAM	1	24	21.35	21.43	21.39	21	3	
5	16QAM	12	0	20.45	20.48	20.49			
5	16QAM	12	7	20.38	20.49	20.48			
5	16QAM	12	13	20.41	20.52	20.42			
5	16QAM	25	0	20.48	20.50	20.37	19	5	
5	256QAM	1	0	18.38	18.47	18.35			
5	256QAM	1	12	18.32	18.40	18.35			
5	256QAM	1	24	18.24	18.31	18.24			
5	256QAM	12	0	18.31	18.39	18.28	19	5	
5	256QAM	12	7	18.39	18.43	18.33			
5	256QAM	12	13	18.28	18.39	18.28			
5	256QAM	25	0	18.28	18.37	18.27			
Channel									
Frequency (MHz)									
3	QPSK	1	0	23.30	23.40	23.29	24	0	
3	QPSK	1	8	23.15	23.22	23.15			
3	QPSK	1	14	23.19	23.24	23.22			
3	QPSK	8	0	22.12	22.18	22.10			
3	QPSK	8	4	22.19	22.23	22.15	23	1	
3	QPSK	8	7	22.10	22.18	22.15			
3	QPSK	16	0	22.05	22.11	22.06			
3	16QAM	1	0	22.64	22.71	22.64			
3	16QAM	1	8	22.61	22.65	22.57	23	1	
3	16QAM	1	0	18.35	18.40	18.36			
3	16QAM	8	0	21.50	21.49	21.41			
3	16QAM	8	4	21.49	21.48	21.49			
3	16QAM	8	7	21.48	21.53	21.52	22	2	
3	16QAM	15	0	21.48	21.47	21.45			
3	16QAM	1	0	21.47	21.54	21.52			
3	16QAM	1	8	21.35	21.50	21.36			
3	16QAM	1	14	21.44	21.49	21.37	21	3	
3	16QAM	8	0	20.49	20.53	20.48			
3	16QAM	8	4	20.41	20.45	20.38			
3	16QAM	8	7	20.41	20.57	20.36			
3	16QAM	15	0	20.48	20.51	20.35	19	5	
3	256QAM	1	0	18.46	18.44	18.31			
3	256QAM	1	8	18.36	18.41	18.32			
3	256QAM	1	14	18.32	18.34	18.21			
3	256QAM	8	0	18.34	18.36	18.27	19	5	
3	256QAM	8	4	18.39	18.39	18.36			
3	256QAM	8	7	18.25	18.33	18.34			
3	256QAM	15	0	18.40	18.33	18.31			
Channel									
Frequency (MHz)									
1.4	QPSK	1	0	23.33	23.33	23.14	24	0	
1.4	QPSK	1	3	23.07	23.21	23.08			
1.4	QPSK	1	5	23.18	23.19	23.01			
1.4	QPSK	3	0	23.14	23.17	23.11			
1.4	QPSK	3	1	23.03	23.09	23.01	23	1	
1.4	QPSK	3	3	23.02	23.09	23.05			
1.4	QPSK	6	0	22.12	22.21	22.11			
1.4	16QAM	1	0	22.13	22.17	21.94			
1.4	16QAM	1	3	22.05	22.13	22.19	23	1	
1.4	16QAM	1	6	22.02	22.05	21.96			
1.4	16QAM	3	0	21.99	22.07	21.96			
1.4	16QAM	3	1	21.99	22.05	22.15			
1.4	16QAM	3	3	22.02	22.08	22.05	22	2	
1.4	16QAM	6	0	21.23	21.21	21.07			
1.4	16QAM	1	0	21.08	21.14	21.09			
1.4	16QAM	1	3	21.19	21.19	21.09			
1.4	16QAM	1	5	21.12	21.16	21.18	22	2	
1.4	16QAM	3	0	21.01	21.09	21.11			
1.4	16QAM	3	3	20.95	21.10	20.96			
1.4	16QAM	6	0	20.20	20.26	20.15			
1.4	256QAM	1	0	18.26	18.36	18.32	21	3	
1.4	256QAM	1	3	18.20	18.44	18.23			
1.4	256QAM	1	5	18.22	18.30	18.14			
1.4	256QAM	3	0	18.16	18.14	18.18			
1.4	256QAM	3	1	18.13	18.17	18.16	19	5	
1.4	256QAM	3	3	18.19	18.21	18.22			
1.4	256QAM	6	0	18.04	18.26	18.17			

Band 13 Ant 0 EC13												
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up Int (dB)	MPR (dB)				
Channel												
Frequency (MHz)												
10	QPSK	1	0		23.42		24	0				
10	QPSK	1	25		23.38							
10	QPSK	1	49		23.34							
10	QPSK	25	0		23.44							
10	QPSK	25	12		23.31		23	1				
10	QPSK	25	25		23.41							
10	QPSK	50	0		23.40							
10	16QAM	1	0		23.68							
10	16QAM	25	0		23.52		23	1				
10	16QAM	1	49		23.64							
10	16QAM	25	25		23.54							
10	16QAM	50	0		23.60							
10	16QAM	25	12		23.53		22	2				
10	16QAM	25	25		23.43							
10	16QAM	50	0		23.52							
10	16QAM	1	49		23.51							
10	16QAM	1	25		21.43		22	2				
10	16QAM	1	49		21.43							
10	16QAM	25	12		21.44							
10	16QAM	25	25		21.37							
10	16QAM	25	25		20.52		21	3				
10	16QAM	50	0		20.57							
10	16QAM	1	0		19.38							
10	25QAM	1	0		18.39							
10	25QAM	1	25		18.39		19	5				
10	25QAM	1	49		18.39							
10	25QAM	25	0		19.30							
10	25QAM	25	12		18.37							
10	25QAM	25	25		19.37		19	5				
10	25QAM	50	0		19.34							
Channel												
Frequency (MHz)												
5	QPSK	1	0	23.05	23.09	23.09	24	0				
5	QPSK	1	25	23.05	23.12	23.12						
5	QPSK	1	49	23.05	23.15	23.15						
5	QPSK	12	0	23.17	23.18	23.18						
5	QPSK	12	25	22.12	23.11	23.05	23	1				
5	QPSK	12	49	22.16	23.12	22.08						
5	QPSK	12	75	22.07	22.07	22.05						
5	QPSK	25	0	22.00	22.05	22.05						
5	16QAM	1	0	22.57	22.61	22.61	22	2				
5	16QAM	1	25	22.56	22.59	22.53						
5	16QAM	1	49	22.57	22.57	22.45						
5	16QAM	12	0	21.44	21.39	21.38						
5	16QAM	12	25	21.40	21.34	21.41	21	4				
5	16QAM	12	49	21.41	21.54	21.41						
5	16QAM	25	0	21.42	21.40	21.34						
5	16QAM	25	12	21.52	21.51	21.51						
5	16QAM	1	12	21.38	21.42	21.28	22	2				
5	16QAM	1	24	21.25	21.35	21.31						
5	16QAM	12	0	20.38	20.42	20.45						
5	16QAM	12	25	20.28	20.44	20.30						
5	16QAM	12	49	20.38	20.48	20.38	21	3				
5	16QAM	25	0	20.41	20.46	20.28						
5	16QAM	25	12	19.30	19.42	19.28						
5	25QAM	1	12	19.26	19.34	19.26						
5	25QAM	1	24	19.16	19.29	19.17	19	5				
5	25QAM	12	0	18.27	18.27	18.15						
5	25QAM	12	25	18.30	18.37	18.28						
5	25QAM	12	49	18.28	18.36	19.19						
5	25QAM	25	0	18.28	18.32	18.22	19	5				
5	25QAM	25	12	18.28	18.36	19.19						
5	25QAM	25	25	18.28	18.32	18.22						
5	25QAM	50	0	18.28	18.32	18.22						

Band 26 Ant 0 ECI3										
RF Band	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Meds Ch./Freq.	Power High Ch./Freq.	Turn-up time (dB)	Margin (dB)		
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.24	23.38	23.27	24	0		
15	QPSK	1	37	23.19	23.21	23.11				
15	QPSK	1	74	23.25	23.26	23.20				
15	QPSK	36	0	22.16	22.25	22.18	23	1		
15	QPSK	36	20	22.15	22.20	22.13				
15	QPSK	36	36	22.19	22.21	22.16				
15	QPSK	75	0	22.25	22.27	22.24	23	1		
15	16QAM	1	0	22.52	22.56	22.47				
15	16QAM	1	37	22.39	22.44	22.41				
15	16QAM	1	74	22.42	22.51	22.43	22	2		
15	16QAM	36	0	21.31	21.37	21.27				
15	16QAM	36	20	21.29	21.32	21.27				
15	16QAM	36	36	21.24	21.34	21.26	22	2		
15	16QAM	75	0	21.31	21.32	21.22				
15	64QAM	1	0	21.33	21.42	21.40				
15	64QAM	1	74	21.29	21.34	21.32	21	3		
15	64QAM	36	0	20.34	20.31	20.35				
15	64QAM	36	20	20.39	20.41	20.35				
15	64QAM	36	36	20.24	20.31	20.33	19	5		
15	64QAM	75	0	20.33	20.38	20.33				
15	256QAM	1	0	18.30	18.34	18.27				
15	256QAM	1	37	18.25	18.27	18.17	19	5		
15	256QAM	1	74	18.23	18.32	18.25				
15	256QAM	36	0	18.20	18.24	18.17				
15	256QAM	36	20	18.28	18.31	18.21	19	5		
15	256QAM	36	36	18.33	18.31	18.31				
15	256QAM	75	0	18.20	18.27	18.17				
Channel							Turn-up time (dB)	Margin (dB)		
Frequency (MHz)										
10	QPSK	1	0	23.17	23.27	23.23	24	0		
10	QPSK	1	25	23.12	23.19	23.07				
10	QPSK	1	49	23.19	23.15	23.12				
10	QPSK	25	0	22.11	22.20	22.12	23	1		
10	QPSK	25	12	22.05	22.16	22.06				
10	QPSK	25	25	22.09	22.12	22.13				
10	QPSK	50	0	22.16	22.19	22.17	23	1		
10	16QAM	1	0	22.47	22.52	22.46				
10	16QAM	1	25	22.35	22.42	22.34				
10	16QAM	1	49	22.41	22.47	22.37	22	2		
10	16QAM	25	0	21.29	21.34	21.26				
10	16QAM	25	12	21.28	21.29	21.22				
10	16QAM	25	25	21.27	21.24	21.18	21	3		
10	64QAM	1	0	21.31	21.33	21.32				
10	64QAM	1	25	21.28	21.34	21.31				
10	64QAM	1	49	21.30	21.38	21.18	19	5		
10	64QAM	25	0	20.35	20.31	20.32				
10	64QAM	25	12	20.37	20.32	20.30				
10	64QAM	25	25	20.17	20.21	20.13	19	5		
10	64QAM	50	0	20.25	20.29	20.29				
10	256QAM	1	0	18.25	18.24	18.10				
10	256QAM	1	25	18.20	18.21	18.05	19	5		
10	256QAM	1	49	18.20	18.24	18.20				
10	256QAM	25	0	18.15	18.16	18.06				
10	256QAM	25	12	18.21	18.21	18.15	19	5		
10	256QAM	25	25	18.22	18.26	18.29				
10	256QAM	50	0	18.10	18.23	18.10				
Channel							Turn-up time (dB)	Margin (dB)		
Frequency (MHz)										
5	QPSK	1	0	23.14	23.30	23.20	24	0		
5	QPSK	1	12	23.14	23.13	23.05				
5	QPSK	1	24	23.22	23.18	23.12				
5	QPSK	12	0	22.08	22.16	22.10	23	1		
5	QPSK	12	7	22.11	22.15	22.04				
5	QPSK	12	13	22.13	22.18	22.06				
5	QPSK	24	0	22.14	22.17	22.15	23	1		
5	16QAM	1	0	22.51	22.47	22.42				
5	16QAM	1	12	22.52	22.38	22.35				
5	16QAM	1	24	22.40	22.42	22.41	22	2		
5	16QAM	12	0	21.27	21.34	21.23				
5	16QAM	12	7	21.19	21.26	21.26				
5	16QAM	12	13	21.14	21.27	21.18	21	3		
5	64QAM	25	0	21.21	21.27	21.18				
5	64QAM	1	0	21.22	21.33	21.38				
5	64QAM	1	12	21.27	21.28	21.26	21	3		
5	64QAM	1	24	21.28	21.37	21.22				
5	64QAM	12	0	20.29	20.36	20.29				
5	64QAM	12	7	20.35	20.32	20.26	19	5		
5	64QAM	12	13	20.18	20.22	20.17				
5	64QAM	25	0	20.29	20.34	20.27				
5	256QAM	1	0	18.27	18.26	18.18	19	5		
5	256QAM	1	12	18.23	18.22	18.10				
5	256QAM	1	24	18.15	18.18	18.16				
5	256QAM	12	0	18.10	18.18	18.10	19	5		
5	256QAM	12	7	18.21	18.24	18.11				
5	256QAM	12	13	18.20	18.30	18.26				
5	256QAM	25	0	18.11	18.19	18.08				
Channel							Turn-up time (dB)	Margin (dB)		
Frequency (MHz)										
3	QPSK	1	0	23.23	23.32	23.32	24	0		
3	QPSK	1	8	23.18	23.15	23.04				
3	QPSK	1	14	23.22	23.19	23.12				
3	QPSK	8	0	22.09	22.23	22.07	23	1		
3	QPSK	8	4	22.08	22.19	22.11				
3	QPSK	8	7	22.14	22.12	22.07				
3	QPSK	16	0	22.17	22.17	22.15	23	1		
3	16QAM	1	0	22.48	22.52	22.46				
3	16QAM	1	8	22.34	22.39	22.39				
3	16QAM	1	14	22.41	22.46	22.42	22	2		
3	16QAM	8	0	21.22	21.34	21.17				
3	16QAM	8	4	21.22	21.27	21.19				
3	16QAM	8	7	21.17	21.26	21.19	21	3		
3	16QAM	16	0	21.20	21.28	21.21				
3	64QAM	1	0	21.30	21.31	21.36				
3	64QAM	1	8	21.25	21.24	21.22	22	2		
3	64QAM	1	14	21.28	21.33	21.26				
3	64QAM	8	0	20.37	20.37	20.32				
3	64QAM	8	4	20.21	20.24	20.17	19	5		
3	64QAM	8	7	20.24	20.34	20.24				
3	256QAM	1	0	18.21	18.32	18.20				
3	256QAM	1	8	18.21	18.25	18.16	19	5		
3	256QAM	1	14	18.20	18.30	18.26				
3	256QAM	8	0	18.09	18.22	18.16				
3	256QAM	8	4	18.23	18.24	18.18	19	5		
3	256QAM	8	7	18.31	18.33	18.31				
3	256QAM	16	0	18.17	18.18	18.07				
Channel							Turn-up time (dB)	Margin (dB)		
Frequency (MHz)										
1.4	QPSK	1	0	23.67	23.69	23.73	24	0		
1.4	QPSK	1	8	23.66	23.61	23.59				
1.4	QPSK	1	14	23.64	23.59	23.51				
1.4	QPSK	1	0	22.11	22.17	22.08	24	0		
1.4	QPSK	1	8	22.14	22.14	22.11				
1.4	QPSK	1	14	22.13	22.22	22.06				
1.4	QPSK	3	0	22.14	22.14	22.12	23	1		
1.4	QPSK	3	8	22.14	22.14	22.12				
1.4	QPSK	3	14	22.12	22.21	22.11				
1.4	QPSK	1	0	22.12	22.21	22.11	23	1		
1.4	QPSK	1	8	22.20	22.26	22.15				
1.4	QPSK	1	14	22.18	22.31	22.13				
1.4	QPSK	3	0	22.12	22.12	22.07	22	2		
1.4	QPSK	3	8	22.23	22.37	22.19				
1.4	QPSK	3	14	22.08	22.18	22.09				
1.4	QPSK	8	0	21.27	21.21	21.21	22	2		
1.4	QPSK	8	8	21.28	21.21	21.21				
1.4	QPSK	8	14	21.16	21.33	21.13				
1.4	QPSK	1	0	21.20	21.21	21.20	22	2		
1.4	QPSK	1	8	21.27	21.24	21.24				
1.4	QPSK	1	14	21.22	21.30	21.26				
1.4	QPSK	3	0	21.20	21.20	20.97	21	3		
1.4	QPSK	3	8	20.27	20.27	20.27				
1.4	QPSK	3	14	18.33	18.38	18.25				
1.4	QPSK	3	0	18.44	18.37	18.29	19	5		
1.4	QPSK	3	8	18.40	18.40	18.36				
1.4	QPSK	3	14	18.38	18.28	18.19				
1.4	QPSK	3	0	18.23	18.31	18.28	19	5		
1.4	QPSK	3	8	18.21	18.30	18.26				
1.4	QPSK	3	14	18.11	18.30	18.13				
1.4	QPSK	6	0	18.25	18.30	18.13	19	5		



Band 66 Ant 0 EC13								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MPE (dB)
Carrier				1300.92	1300.92	1300.92	22	0
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	20.89	-20.72	20.81		
20	QPSK	1	49	20.97	20.70	20.81	22	0
20	QPSK	1	99	20.88	-20.83	20.95		
20	QPSK	50	0	20.81	-20.68	20.81		
20	QPSK	50	14	20.88	20.55	20.45		
20	QPSK	50	50	20.95	-20.85	20.90		
20	QPSK	100	0	20.94	-20.65	20.95		



Band 38 Ant 0 EC13								
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Mode Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39850	39950	39950	23.2	0
Frequency (MHz)				22.10	22.10	22.10		
20	QPSK	1	0	22.23	22.23	22.24		
20	QPSK	1	48	22.10	22.18	22.22		
20	QPSK	1	88	22.20	22.13	22.10		
20	QPSK	50	0	22.10	22.25	22.21	23.2	0
20	QPSK	50	24	22.18	22.12	22.09		
20	QPSK	50	50	22.20	22.20	22.11		
20	QPSK	100	0	22.17	22.18	22.05		

Band 41 Ant 0 EC13								
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Mode Ch. / Freq.	Power High Ch. / Freq.
Channel				39750	40185	40620	41055	41490
Frequency (MHz)				22.10	22.13	22.13	22.26	22.26
20	QPSK	1	0	22.21	22.25	22.25	22.26	22.26
20	QPSK	1	48	22.20	22.16	22.25	22.28	22.21
20	QPSK	1	88	22.20	22.30	22.23	22.20	22.17
20	QPSK	50	0	22.23	22.28	22.30	22.29	22.15
20	QPSK	50	24	22.18	22.19	22.27	22.23	22.38
20	QPSK	50	50	22.17	22.17	22.30	22.20	22.18
20	QPSK	100	0	22.18	22.22	22.26	22.20	22.24

Band 41 HPUE Ant 0 EC13								
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Mode Ch. / Freq.	Power High Ch. / Freq.
Channel				39750	40185	40620	41055	41490
Frequency (MHz)				22.10	22.13	22.13	22.26	22.26
20	QPSK	1	0	22.51	22.51	22.51	22.56	22.49
20	QPSK	1	48	22.45	22.41	22.49	22.42	22.47
20	QPSK	1	88	22.46	22.55	22.59	22.45	22.42
20	QPSK	50	0	22.38	22.58	22.57	22.50	22.45
20	QPSK	50	24	22.39	22.57	22.48	22.58	22.35
20	QPSK	50	50	22.38	22.52	22.50	22.54	22.51
20	QPSK	100	0	22.44	22.44	22.53	22.47	22.52



Band 2 Ant 1 ECI3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up [dB]
Channel							
Frequency [MHz]							
18700 18800 18900							
20	QPSK	1	0	19.31	19.38	19.50	20.7
20	QPSK	1	48	19.18	19.25	19.28	
20	QPSK	1	96	19.30	19.21	19.13	
20	QPSK	50	0	19.22	19.33	19.28	20.7
20	QPSK	50	24	19.18	19.22	19.17	
20	QPSK	50	50	19.24	19.24	19.22	
20	QPSK	100	0	19.12	19.25	19.21	

Band 4 Ant 1 ECI3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up [dB]
Channel							
Frequency [MHz]							
20950 21015 21080							
20	QPSK	1	0	19.84	19.87	19.86	21.1
20	QPSK	1	48	19.83	19.85	19.81	
20	QPSK	1	96	19.80	19.87	19.78	
20	QPSK	50	0	19.73	19.85	19.80	21.1
20	QPSK	50	24	19.82	19.77	19.84	
20	QPSK	50	50	19.76	19.79	19.73	
20	QPSK	100	0	19.82	19.85	19.81	

Band 5 Ant 1 ECI3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up [dB]
Channel							
Frequency [MHz]							
20950 21024 21093							
10	QPSK	1	0	22.67	22.65	22.75	24
10	QPSK	1	25	22.61	22.67	22.58	
10	QPSK	1	49	22.61	22.67	22.73	
10	QPSK	25	0	21.73	21.62	21.67	23
10	QPSK	25	12	21.66	21.76	21.60	
10	QPSK	25	25	21.71	21.53	21.74	
10	QPSK	50	0	21.63	21.72	21.65	23
10	16QAM	1	0	21.64	21.68	21.63	
10	16QAM	1	25	21.82	21.74	21.81	
10	16QAM	1	49	21.70	21.58	21.76	22
10	16QAM	25	0	20.89	20.84	20.72	
10	16QAM	25	12	20.83	20.68	20.53	
10	16QAM	25	25	20.71	20.62	20.71	22
10	16QAM	50	0	20.68	20.67	20.69	
10	64QAM	1	0	20.84	20.80	20.86	
10	64QAM	1	25	20.57	20.66	20.62	22
10	64QAM	1	49	20.72	20.66	20.79	
10	64QAM	25	0	19.80	19.66	19.72	
10	64QAM	25	12	19.57	19.65	19.64	21
10	64QAM	25	25	19.71	19.56	19.69	
10	64QAM	50	0	19.63	19.75	19.70	
10	256QAM	1	0	17.59	17.77	17.73	19
10	256QAM	1	25	17.62	17.70	17.69	
10	256QAM	1	49	17.68	17.62	17.70	
10	256QAM	25	0	17.70	17.73	17.73	19
10	256QAM	25	12	17.65	17.82	17.70	
10	256QAM	25	25	17.58	17.72	17.69	
10	256QAM	50	0	17.72	17.64	17.77	
Channel							
Frequency [MHz]							
20950 21024 21093							
5	QPSK	1	0	22.64	22.73	22.65	24
5	QPSK	1	12	22.50	22.64	22.66	
5	QPSK	1	24	22.55	22.63	22.63	
5	QPSK	12	0	21.63	21.73	21.66	23
5	QPSK	12	7	21.58	21.72	21.69	
5	QPSK	12	13	21.63	21.45	21.68	
5	QPSK	25	0	21.59	21.64	21.68	23
5	16QAM	1	0	21.62	21.67	21.76	
5	16QAM	1	12	21.54	21.65	21.58	
5	16QAM	1	24	21.67	21.49	21.71	22
5	16QAM	12	0	20.64	20.78	20.69	
5	16QAM	12	7	20.46	20.60	20.43	
5	16QAM	12	13	20.68	20.55	20.67	21
5	16QAM	25	0	20.64	20.64	20.77	
5	64QAM	1	0	20.54	20.73	20.61	
5	64QAM	1	12	20.50	20.66	20.67	22
5	64QAM	1	24	20.65	20.62	20.71	
5	64QAM	12	0	19.51	19.57	19.62	
5	64QAM	12	7	19.45	19.51	19.57	21
5	64QAM	12	13	19.59	19.25	19.51	
5	64QAM	25	0	19.57	19.67	19.65	
5	256QAM	1	0	17.54	17.66	17.61	19
5	256QAM	1	12	17.58	17.61	17.61	
5	256QAM	1	24	17.65	17.56	17.69	
5	256QAM	12	0	17.64	17.72	17.67	19
5	256QAM	12	7	17.61	17.73	17.60	
5	256QAM	12	13	17.55	17.67	17.67	
5	256QAM	25	0	17.65	17.61	17.64	
Channel							
Frequency [MHz]							
20950 21024 21093							
3	QPSK	1	0	22.60	22.76	22.66	24
3	QPSK	1	8	22.51	22.63	22.50	
3	QPSK	1	14	22.59	22.61	22.66	
3	QPSK	8	0	21.66	21.76	21.61	23
3	QPSK	8	4	21.58	21.68	21.59	
3	QPSK	8	7	21.67	21.47	21.69	
3	QPSK	16	0	21.55	21.67	21.58	23
3	16QAM	1	0	21.63	21.61	21.80	
3	16QAM	1	8	21.55	21.69	21.56	
3	16QAM	1	14	21.66	21.53	21.68	22
3	16QAM	8	0	20.68	20.82	20.61	
3	16QAM	8	4	20.43	20.60	20.43	
3	16QAM	8	7	20.45	20.53	20.62	21
3	16QAM	15	0	20.59	20.65	20.73	
3	64QAM	1	0	20.61	20.69	20.61	
3	64QAM	1	8	20.40	20.62	20.59	22
3	64QAM	1	14	20.66	20.59	20.69	
3	64QAM	8	0	19.58	19.56	19.63	
3	64QAM	8	4	19.48	19.50	19.54	21
3	64QAM	8	7	19.62	19.47	19.65	
3	64QAM	15	0	19.62	19.74	19.64	
3	256QAM	1	0	17.51	17.68	17.63	19
3	256QAM	1	8	17.54	17.61	17.61	
3	256QAM	1	14	17.62	17.58	17.61	
3	256QAM	8	0	17.67	17.67	17.61	19
3	256QAM	8	4	17.80	17.61	17.62	
3	256QAM	8	7	17.52	17.70	17.54	
3	256QAM	15	0	17.65	17.57	17.67	
Channel							
Frequency [MHz]							
20950 21024 21093							
1.4	QPSK	1	0	22.45	22.75	22.24	24
1.4	QPSK	1	3	22.55	22.70	22.55	
1.4	QPSK	1	5	22.67	22.66	22.69	
1.4	QPSK	3	0	22.46	22.62	22.66	23
1.4	QPSK	3	1	22.47	22.65	22.42	
1.4	QPSK	3	3	22.52	22.56	22.61	
1.4	QPSK	6	0	21.46	21.69	21.71	23
1.4	16QAM	1	0	21.59	21.66	21.68	
1.4	16QAM	1	3	21.48	21.69	21.62	
1.4	16QAM	1	5	21.71	21.51	21.74	23
1.4	16QAM	3	0	21.60	21.69	21.70	
1.4	16QAM	3	1	21.52	21.61	21.68	
1.4	16QAM	3	3	21.45	21.71	21.48	22
1.4	16QAM	6	0	20.56	20.71	20.63	
1.4	64QAM	1	0	20.63	20.76	20.73	
1.4	64QAM	1	3	20.52	20.64	20.69	22
1.4	64QAM	1	5	20.69	20.52	20.68	
1.4	64QAM	3	0	20.47	20.61	20.55	
1.4	64QAM	3	1	20.53	20.71	20.66	21
1.4	64QAM	3	3	20.44	20.57	20.48	
1.4	64QAM	6	0	19.94	19.72	19.81	
1.4	256QAM	1	0	17.61	17.80	17.68	19
1.4	256QAM	1	3	17.68	17.68	17.60	
1.4	256QAM	1	5	17.61	17.67	17.65	
1.4	256QAM	3	0	17.67	17.70	17.72	19
1.4	256QAM	3	1	17.60	17.75	17.78	
1.4	256QAM	6	0	17.57	17.84	17.63	
1.4	256QAM	6	3	17.64	17.63	17.60	

Band 7 Ant 1 ECI3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up [dB]
Channel							
Frequency [MHz]							
20950 21000 21050							
20	QPSK	1	0	20.78	20.69	20.77	22
20	QPSK	1	48	20.87	20.63	20.68	
20	QPSK	1	96	20.79	20.77	20.84	
20	QPSK	50	0	20.65	20.62	20.74	22
20	QPSK	50	24	20.82	20.74	20.75	
20	QPSK	50	50	20.72	20.71	20.70	
20	QPSK	100	0	20.64	20.76	20.70	



Band 12 Ant 1 EC13														
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up Int. (dB)	MPR (dB)						
Channel														
Frequency (MHz)														
10	QPSK	1	0	23.01	23.05	22.99	24	0						
10	QPSK	1	25	22.90	22.91	22.89								
10	QPSK	1	49	22.88	22.89	22.88								
10	QPSK	25	0	21.91	21.94	21.85								
10	QPSK	25	12	21.79	21.84	21.79	23	1						
10	QPSK	25	25	21.91	21.89	21.84								
10	QPSK	50	0	21.81	21.85	21.81								
10	16QAM	1	0	22.32	22.35	22.31								
10	16QAM	1	25	22.27	22.30	22.27	23	1						
10	16QAM	1	49	22.18	22.24	22.23								
10	16QAM	25	0	21.02	21.11	21.03								
10	16QAM	25	12	21.19	21.20	21.10								
10	16QAM	25	25	21.09	21.15	21.08	22	2						
10	16QAM	50	0	21.02	21.10	21.05								
10	16QAM	1	0	21.19	21.21	21.15								
10	16QAM	1	25	21.10	21.16	21.07								
10	16QAM	1	49	21.14	21.17	21.11	21	3						
10	16QAM	25	0	20.13	20.18	20.12								
10	16QAM	25	12	20.01	20.13	20.05								
10	16QAM	25	25	20.11	20.15	20.12								
10	16QAM	50	0	20.12	20.20	20.10	19	5						
10	25QAM	1	0	18.03	18.12	18.04								
10	25QAM	1	25	18.03	18.12	18.05								
10	25QAM	1	49	18.08	18.12	18.04								
10	25QAM	25	0	18.02	18.07	18.00								
10	25QAM	25	12	17.95	18.03	17.96								
10	25QAM	25	25	18.02	18.08	18.01								
10	25QAM	50	0	18.05	18.08	18.05	19	5						
10	25QAM	50	12	17.95	18.03	17.96								
10	25QAM	50	25	18.02	18.08	18.01								
10	25QAM	1	0	18.05	18.08	18.05								
Channel														
Frequency (MHz)														
5	QPSK	1	0	22.99	22.97	22.90	24	0						
5	QPSK	1	12	22.84	22.84	22.71								
5	QPSK	1	24	22.83	22.85	22.80								
5	QPSK	12	0	21.82	21.83	21.74								
5	QPSK	12	13	21.70	21.76	21.76	23	1						
5	QPSK	12	13	21.82	21.85	21.77								
5	QPSK	25	0	21.80	21.78	21.71								
5	16QAM	1	0	22.30	22.34	22.28								
5	16QAM	1	12	22.23	22.23	22.18	23	1						
5	16QAM	1	24	22.11	22.20	22.18								
5	16QAM	12	0	20.94	21.08	20.95								
5	16QAM	12	7	21.12	21.18	21.06								
5	16QAM	25	0	20.97	21.07	21.01	22	2						
5	16QAM	25	0	20.97	21.07	21.01								
5	16QAM	25	12	21.10	21.12	21.03								
5	16QAM	25	12	21.06	21.14	21.09								
5	16QAM	25	12	21.06	21.14	21.09	21	3						
5	16QAM	25	12	21.02	21.05	20.98								
5	16QAM	25	12	21.02	21.05	20.95								
5	16QAM	25	12	21.02	21.05	20.95								
5	25QAM	1	0	18.05	18.05	18.05	19	5						
5	25QAM	1	12	17.98	18.07	18.02								
5	25QAM	1	24	18.03	18.04	17.94								
5	25QAM	12	0	17.84	17.87	17.80								
5	25QAM	12	7	17.92	17.99	17.90	19	5						
5	25QAM	12	7	17.92	17.99	17.90								
5	25QAM	12	13	17.91	17.88	18.00								
5	25QAM	25	0	17.87	17.88	17.86								
Channel														
Frequency (MHz)														
3	QPSK	1	0	22.98	22.93	22.90	24	0						
3	QPSK	1	8	22.87	22.85	22.74								
3	QPSK	1	14	22.84	22.86	22.85								
3	QPSK	8	0	21.82	21.88	21.78								
3	QPSK	8	6	21.71	21.78	21.69	23	1						
3	QPSK	8	7	21.88	21.91	21.74								
3	QPSK	1	0	21.82	21.87	21.80								
3	16QAM	1	0	22.22	22.29	22.20								
3	16QAM	1	8	22.25	22.23	22.23	23	1						
3	16QAM	1	8	22.11	22.15	22.21								
3	16QAM	8	0	20.96	21.07	20.93								
3	16QAM	8	4	21.08	21.10	21.07								
3	16QAM	8	7	21.06	21.10	21.06	22	2						
3	16QAM	15	0	20.96	21.03	20.98								
3	16QAM	1	0	21.09	21.18	21.11								
3	16QAM	1	8	21.04	21.13	20.98								
3	16QAM	1	14	21.06	21.15	21.08	21	3						
3	16QAM	8	0	20.04	20.13	20.05								
3	16QAM	8	4	19.96	20.07	19.94								
3	16QAM	8	7	20.04	20.08	20.03								
3	16QAM	15	0	20.03	20.18	20.07	19	5						
3	25QAM	1	0	18.03	18.05	17.99								
3	25QAM	1	8	17.92	18.02	17.96								
3	25QAM	1	14	17.98	18.03	17.93								
3	25QAM	8	0	17.81	17.82	17.80	19	5						
3	25QAM	8	4	17.84	18.00	17.95								
3	25QAM	8	7	17.97	17.97	17.95								
3	25QAM	15	0	17.85	18.07	17.96								
Channel														
Frequency (MHz)														
1.4	QPSK	1	0	23.01	23.02	23.00	24	0						
1.4	QPSK	1	3	22.86	22.89	22.80								
1.4	QPSK	1	5	22.89	22.90	22.92								
1.4	QPSK	3	0	22.85	22.90	22.80								
1.4	QPSK	3	1	22.92	22.94	22.81	23	1						
1.4	QPSK	3	1	22.78	22.91	22.84								
1.4	QPSK	6	0	21.87	22.03	21.87								
1.4	16QAM	1	0	21.94	21.99	21.92								
1.4	16QAM	1	3	21.83	21.94	21.99	23	1						
1.4	16QAM	1	6	21.78	21.89	21.86								
1.4	16QAM	3	0	21.82	21.82	21.80								
1.4	16QAM	3	1	21.89	21.82	21.78								
1.4	16QAM	3	3	21.82	21.89	21.82	22	2						
1.4	16QAM	6	0	20.89	20.92	20.86								
1.4	16QAM	1	0	20.82	20.95	20.91								
1.4	16QAM	1	3	20.88	20.94	20.92								
1.4	16QAM	1	5	20.84	20.95	20.93	22	4						
1.4	16QAM	3	0	20.81	20.91	20.73								
1.4	16QAM	3	3	20.80	20.94	20.95								
1.4	16QAM	3	3	20.80	20.94	20.73								
1.4	16QAM	6	0	19.93	19.97	19.89	21	3						
1.4	25QAM	1	0	17.84	18.13	18.04								
1.4	25QAM	1	3	17.91	17.97	17.92								
1.4	25QAM	1	5	17.82	18.01	17.90								
1.4	25QAM	3	0	17.88	17.96	17.97	19	5						
1.4	25QAM	3	1	17.88	17.85	17.88								
1.4	25QAM	3	3	17.96	17.98	17.96								
1.4	25QAM	6	0	17.80	17.93	17.83								



Band 66 Ant 1 ECi3									
ISW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MPE (dB)	
Channel				130072	130208	130344			
Frequency (MHz)				1750	1745	1750			
20	QPSK	1	0	19.84	19.83	19.85	21.1	0	
20	QPSK	1	-48	19.86	19.82	19.88			
20	QPSK	1	99	19.89	19.81	19.85			
20	QPSK	50	0	19.78	19.82	19.84			
20	QPSK	50	-24	19.81	19.79	19.85	21.1	0	
20	QPSK	50	50	19.83	19.89	19.80			
20	QPSK	100	0	19.84	19.80	19.84			



Band 38 Ant 1 EC13								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mode Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				20.90	20.95	20.95		
20	QPSK	1	0	21.23	21.31	21.25	22.1	0
20	QPSK	1	48	21.25	21.28	21.09		
20	QPSK	1	96	21.17	21.21	21.14		
20	QPSK	50	0	21.22	21.29	21.03	22.1	0
20	QPSK	50	24	21.09	21.21	21.09		
20	QPSK	50	50	21.12	21.18	21.09		
20	QPSK	100	0	21.12	21.17	21.07		

Band 41 Ant 1 EC13										
BW (MHz)	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Mode Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				20.90	20.95	21.03	20.95	20.90		
20	QPSK	1	0	21.26	21.28	21.35	21.22	21.27	22.1	0
20	QPSK	1	48	21.10	21.28	21.29	21.23	21.25		
20	QPSK	1	96	21.17	21.27	21.29	21.18	21.22		
20	QPSK	50	0	21.14	21.20	21.31	21.10	21.21	22.1	0
20	QPSK	50	24	21.38	21.26	21.25	21.18	21.30		
20	QPSK	50	50	21.11	21.20	21.23	21.17	21.23		
20	QPSK	100	0	21.15	21.23	21.32	21.26	21.18		

Band 41 HPUE Ant 1 EC13										
BW (MHz)	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Mode Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPE (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)						22.51	22.56	22.56		
20	QPSK	1	0	22.55	22.58	22.51	22.56	22.56	23.7	0
20	QPSK	1	48	22.50	22.44	22.57	22.48	22.51		
20	QPSK	1	96	22.55	22.47	22.51	22.49	22.53		
20	QPSK	50	0	22.48	22.48	22.50	22.49	22.48	23.7	0
20	QPSK	50	24	22.49	22.42	22.47	22.58	22.44		
20	QPSK	50	50	22.49	22.51	22.51	22.51	22.49		
20	QPSK	100	0	22.50	22.49	22.57	22.55	22.43		



Band 2 Ant 2 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up (dB)	MFR (dB)	
Channel				18700	18800	18900			
Frequency (MHz)				18800	18800	18900			
20	QPSK	1	0	15.26	15.26	15.17	16.4	0	
20	QPSK	1	46	15.13	15.21	15.03			
20	QPSK	1	99	15.00	15.15	15.08			
20	QPSK	50	0	15.13	15.26	15.16			
20	QPSK	50	24	15.18	15.25	15.15			
20	QPSK	50	50	15.15	15.15	15.08	16.4	0	
20	QPSK	100	0	15.16	15.24	15.13			

Band 4 Ant 2 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up (dB)	MFR (dB)	
Channel				20650	20725	20800			
Frequency (MHz)				17200	17325	17450			
20	QPSK	1	0	15.10	15.20	15.08	16.2	0	
20	QPSK	1	49	14.99	15.16	15.02			
20	QPSK	1	99	15.04	15.04	14.97			
20	QPSK	50	0	14.98	15.13	14.99			
20	QPSK	50	24	15.04	15.09	15.04			
20	QPSK	50	50	14.99	14.99	15.03	16.2	0	
20	QPSK	100	0	15.03	15.10	15.08			

Band 7 Ant 2 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up (dB)	MFR (dB)	
Channel				20450	20500	20550			
Frequency (MHz)				20100	20300	20500			
20	QPSK	1	0	16.75	16.83	16.81	18	0	
20	QPSK	1	49	16.65	16.68	16.81			
20	QPSK	1	99	16.73	16.80	16.69			
20	QPSK	50	0	16.66	16.79	16.72			
20	QPSK	50	24	16.70	16.69	16.76			
20	QPSK	50	50	16.72	16.73	16.71	18	0	
20	QPSK	100	0	16.69	16.79	16.67			



Band 25 Ant 2 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				26140	26240	26340		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	15.31	15.32	15.27	16.4	0
20	QPSK	1	49	15.23	15.32	15.12		
20	QPSK	1	99	15.23	15.25	15.23		
20	QPSK	50	0	15.21	15.32	15.14	16.4	0
20	QPSK	50	24	15.26	15.24	15.19		
20	QPSK	50	50	15.20	15.25	15.20		
20	QPSK	100	0	15.28	15.28	15.24		

Band 66 Ant 2 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	15.20	15.24	15.15	16.2	0
20	QPSK	1	49	15.05	15.19	15.15		
20	QPSK	1	99	15.02	15.09	15.08		
20	QPSK	50	0	15.04	15.20	15.16	16.2	0
20	QPSK	50	24	15.10	15.17	15.07		
20	QPSK	50	50	15.13	15.14	15.16		
20	QPSK	100	0	15.14	15.18	15.13		



Band 38 Ant 2 EC13								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dB)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				25.00	25.00	25.00		
20	QPSK	1	0	17.94	18.11	18.05	18.9	0
20	QPSK	1	40	17.87	17.94	18.05		
20	QPSK	1	80	17.87	17.95	18.10		
20	QPSK	50	0	17.95	18.10	17.90	18.9	0
20	QPSK	50	24	17.88	18.05	17.94		
20	QPSK	50	50	18.02	17.99	17.85		
20	QPSK	100	0	17.96	18.02	17.99		

Band 41 Ant 2 EC13									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel				39750	40185	40620	41055	41490	
Frequency [MHz]				25.00	25.00	25.00	25.00	25.00	
20	QPSK	1	0	18.06	18.06	18.17	18.04	18.04	18.9
20	QPSK	1	40	18.05	18.00	18.02	17.99	18.04	
20	QPSK	1	80	18.10	18.00	18.03	18.00	17.94	
20	QPSK	50	0	18.06	18.06	18.11	18.00	18.03	18.9
20	QPSK	50	24	18.08	18.04	18.10	18.02	18.01	
20	QPSK	50	50	18.02	17.97	18.06	18.01	18.03	
20	QPSK	100	0	18.03	17.93	18.07	18.01	18.02	

EC13Band 41 HPUE Ant 2									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel				39750	40185	40620	41055	41490	
Frequency [MHz]				25.00	25.00	25.00	25.00	25.00	
20	QPSK	1	0	19.37	19.36	19.44	19.34	19.33	20.5
20	QPSK	1	40	19.38	19.32	19.29	19.29	19.24	
20	QPSK	1	80	19.33	19.36	19.31	19.40	19.22	
20	QPSK	50	0	19.26	19.36	19.41	19.28	19.30	20.5
20	QPSK	50	24	19.34	19.31	19.31	19.35	19.22	
20	QPSK	50	50	19.30	19.32	19.30	19.34	19.28	
20	QPSK	100	0	19.26	19.22	19.32	19.24	19.23	



Band 2 Ant 3 EC13								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intn (dB)	MPL (dB)
Channel				18700	18800	18900		
Frequency (MHz)				18600	18800	18900		
20	QPSK	1	0	18.75	18.77	18.69	20.2	0
20	QPSK	1	48	18.55	18.69	18.58		
20	QPSK	1	99	18.65	18.68	18.61		
20	QPSK	50	0	18.66	18.72	18.63	20.2	0
20	QPSK	50	24	18.62	18.65	18.66		
20	QPSK	50	50	18.62	18.70	18.58		
20	QPSK	100	0	18.56	18.63	18.60		

Band 4 Ant 3 EC13								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MPL (dB)
Channel				20500	20715	20800		
Frequency (MHz)				1720	1732.5	1740		
20	QPSK	1	0	19.08	19.11	19.05	20.3	0
20	QPSK	1	48	19.02	19.02	19.00		
20	QPSK	1	99	18.95	19.04	19.02		
20	QPSK	50	0	19.02	19.10	18.97	20.3	0
20	QPSK	50	24	18.91	18.93	19.04		
20	QPSK	50	50	18.98	18.99	19.02		
20	QPSK	100	0	19.03	19.06	18.97		

Band 7 Ant 3 EC13								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MPL (dB)
Channel				23600	23700	23760		
Frequency (MHz)				23510	23535	23560		
20	QPSK	1	0	18.29	18.37	18.31	19.8	0
20	QPSK	1	48	18.25	18.28	18.25		
20	QPSK	1	99	18.25	18.26	18.32		
20	QPSK	50	0	18.30	18.31	18.27	19.8	0
20	QPSK	50	24	18.25	18.23	18.29		
20	QPSK	50	50	18.22	18.26	18.25		
20	QPSK	100	0	18.23	18.31	18.26		

Band 25 Ant 3 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./ Freq.	Power Middle Ch./ Freq.	Power High Ch./ Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel				26145	26245	26345		
Frequency (MHz)				1860	1860	1860		
20	QPSK	1	0	18.63	18.65	18.74	20.2	0
20	QPSK	1	48	18.69	18.77	18.73		
20	QPSK	1	96	18.76	18.79	18.72		
20	QPSK	50	0	18.71	18.62	18.73	20.2	0
20	QPSK	50	24	18.76	18.75	18.78		
20	QPSK	50	50	18.72	18.77	18.82		
20	QPSK	100	0	18.64	18.74	18.71		

Band 66 Ant 3 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	19.17	19.19	19.09	20.3	0
20	QPSK	1	48	19.11	19.12	19.11		
20	QPSK	1	96	19.09	19.12	19.02		
20	QPSK	50	0	19.06	19.18	19.06	20.3	0
20	QPSK	50	24	19.02	19.13	19.09		
20	QPSK	50	50	19.08	19.01	19.19		
20	QPSK	100	0	19.05	19.08	18.98		



Band 38 Ant 3 EC13								
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Main Ch. / Freq.	Power Hgn Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38000	38150	21.4	0
Frequency [MHz]				20.60	20.73	20.87		
20	QPSK	1	0	20.60	20.73	20.87		
20	QPSK	1	48	20.55	20.68	20.83		
20	QPSK	1	96	20.50	20.64	20.77		
20	QPSK	50	0	20.58	20.87	20.87	21.4	0
20	QPSK	50	24	20.52	20.82	20.88		
20	QPSK	50	50	20.49	20.82	20.90		
20	QPSK	100	0	20.58	20.82	20.83		

Band 41 Ant 3 EC13										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Mid Ch. / Freq.	Power Main Ch. / Freq.	Power High-Mid Ch. / Freq.	Power Hgn Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				38750	40185	40620	41055	41490	21.4	0
Frequency [MHz]				20.58	20.64	20.73	20.80	20.87		
20	QPSK	1	0	20.58	20.73	20.90	20.89	20.90		
20	QPSK	1	48	20.59	20.64	20.68	20.83	20.83		
20	QPSK	1	96	20.61	20.68	20.73	20.80	20.82		
20	QPSK	50	0	20.80	20.80	20.90	20.81	20.87	21.4	0
20	QPSK	50	24	20.58	20.65	20.84	20.87	20.87		
20	QPSK	50	50	20.61	20.83	20.83	20.89	20.89		
20	QPSK	100	0	20.59	20.63	20.84	20.82	20.81		



Band 41 HPUE Ant 3 EC13										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Time-up limit (dBm)	MPR (dB)
Channel				38750	40185	40620	41055	41490	23	0
Frequency (MHz)				20	20	20	20	20		
20	QPSK	1	0	21.85	21.84	21.81	21.80	21.84		
20	QPSK	1	49	21.73	21.80	21.75	21.82	21.77		
20	QPSK	1	99	21.76	21.80	21.77	21.74	21.76		
20	QPSK	50	0	21.77	21.80	21.80	21.78	21.82		
20	QPSK	50	24	21.76	21.83	21.81	21.76	21.79		
20	QPSK	50	50	21.87	21.81	21.80	21.78	21.77		
20	QPSK	100	0	21.81	21.84	21.88	21.79	21.76		

Band 42 FCC Part27Q Ant 3 EC13												
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)				
Channel				42190	42990	42990	19	0				
Frequency (MHz)				20	20	20						
20	QPSK	1	0	17.58	17.70	17.50				19	0	
20	QPSK	1	49	17.70	17.71	17.73						
20	QPSK	1	99	17.67	17.68	17.64						
20	QPSK	50	0	17.45	17.70	17.40						
20	QPSK	50	24	17.68	17.65	17.60	19	0				
20	QPSK	50	50	17.54	17.57	17.41						
20	QPSK	100	0	17.48	17.66	17.40						
20	16QAM	1	0	17.65	17.68	17.69						
20	16QAM	1	49	17.61	17.67	17.69	19	0				
20	16QAM	1	99	17.48	17.71	17.43						
20	16QAM	50	0	17.46	17.70	17.49						
20	16QAM	50	24	17.44	17.70	17.45						
20	16QAM	50	50	17.55	17.63	17.62	19	0				
20	16QAM	100	0	17.58	17.66	17.59						
20	256QAM	1	0	17.44	17.68	17.39						
20	256QAM	1	99	17.66	17.66	17.69	19	0				
20	256QAM	50	0	17.59	17.60	17.57						
20	256QAM	50	24	17.40	17.71	17.36						
20	256QAM	50	50	17.61	17.68	17.67	19	0				
20	256QAM	100	0	17.53	17.62	17.60						
Channel				42185	42990	43015				Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				15	15	15	19	0				
15	QPSK	1	0	17.50	17.60	17.41						
15	QPSK	1	37	17.68	17.60	17.65				19	0	
15	QPSK	1	74	17.59	17.65	17.58						
15	QPSK	36	0	17.54	17.64	17.34						
15	QPSK	36	20	17.63	17.61	17.54						
15	QPSK	36	38	17.63	17.50	17.49	19	0				
15	QPSK	75	0	17.38	17.63	17.37						
15	16QAM	1	0	17.53	17.54	17.67						
15	16QAM	1	37	17.51	17.57	17.54						
15	16QAM	1	74	17.40	17.67	17.35	19	0				
15	16QAM	36	0	17.53	17.58	17.52						
15	16QAM	36	20	17.45	17.52	17.48						
15	16QAM	36	39	17.49	17.59	17.41						
15	16QAM	75	0	17.48	17.47	17.52	19	0				
15	64QAM	1	0	17.58	17.48	17.59						
15	64QAM	1	37	17.59	17.60	17.33						
15	64QAM	1	74	17.59	17.56	17.52						
15	64QAM	36	0	17.55	17.51	17.51	19	0				
15	64QAM	36	20	17.30	17.67	17.42						
15	64QAM	36	39	17.52	17.52	17.54						
15	64QAM	75	0	17.46	17.54	17.48						
15	256QAM	1	0	17.59	17.63	17.36	19	0				
15	256QAM	1	37	17.55	17.54	17.65						
15	256QAM	1	74	17.51	17.50	17.48						
15	256QAM	36	0	17.30	17.69	17.30						
15	256QAM	36	20	17.58	17.53	17.36	19	0				
15	256QAM	36	39	17.49	17.63	17.56						
15	256QAM	75	0	17.45	17.49	17.47						
Channel				42180	42990	43040	Tune-up limit (dBm)	MPR (dB)				
Frequency (MHz)				10	10	10	19	0				
10	QPSK	1	0	17.52	17.60	17.59						
10	QPSK	1	25	17.51	17.62	17.69				19	0	
10	QPSK	1	49	17.64	17.59	17.80						
10	QPSK	25	0	17.42	17.67	17.32						
10	QPSK	25	12	17.60	17.62	17.47				19	0	
10	QPSK	25	25	17.47	17.52	17.51						
10	QPSK	80	0	17.43	17.67	17.31						
10	16QAM	1	0	17.59	17.62	17.60	19	0				
10	16QAM	1	25	17.54	17.62	17.56						
10	16QAM	1	49	17.42	17.66	17.34						
10	16QAM	25	0	17.43	17.56	17.62	19	0				
10	16QAM	25	12	17.52	17.54	17.52						
10	16QAM	25	25	17.45	17.63	17.38						
10	16QAM	50	0	17.44	17.49	17.67	19	0				
10	64QAM	1	0	17.57	17.54	17.54						
10	64QAM	1	25	17.35	17.65	17.31						
10	64QAM	1	49	17.62	17.53	17.61	19	0				
10	64QAM	25	0	17.52	17.50	17.41						
10	64QAM	25	12	17.41	17.62	17.38						
10	64QAM	50	0	17.59	17.60	17.47						
10	256QAM	1	0	17.51	17.53	17.27	19	0				
10	256QAM	1	25	17.58	17.60	17.63						
10	256QAM	1	49	17.44	17.47	17.44						
10	256QAM	25	0	17.45	17.65	17.32						
10	256QAM	25	0	17.45	17.56	17.51	19	0				
10	256QAM	25	25	17.57	17.55	17.60						
10	256QAM	50	0	17.54	17.58	17.50						
Channel				42115 <th>42990</th> <th>43065</th> <th>Tune-up limit (dBm)</th> <th>MPR (dB)</th> <th></th>	42990	43065	Tune-up limit (dBm)	MPR (dB)				
Frequency (MHz)				5	5	5	19	0				
5	QPSK	1	0	17.47	17.71	17.38						
5	QPSK	1	12	17.59	17.67	17.67				19	0	
5	QPSK	1	24	17.56	17.58	17.57						
5	QPSK	12	0	17.46	17.59	17.35						
5	QPSK	12	7	17.62	17.59	17.53						
5	QPSK	12	13	17.40	17.55	17.50	19	0				
5	QPSK	25	0	17.44	17.55	17.53						
5	16QAM	1	0	17.52	17.60	17.60						
5	16QAM	1	12	17.58	17.53	17.47						
5	16QAM	1	24	17.35	17.64	17.37	19	0				
5	16QAM	12	0	17.47	17.63	17.58						
5	16QAM	12	7	17.51	17.58	17.53						
5	16QAM	12	13	17.57	17.60	17.59	19	0				
5	16QAM	25	0	17.48	17.50	17.54						
5	64QAM	1	0	17.60	17.47	17.61						
5	64QAM	1	12	17.56	17.61	17.36	19	0				
5	64QAM	1	24	17.54	17.55	17.61						
5	64QAM	12	0	17.57	17.52	17.46						
5	64QAM	12	7	17.38	17.60	17.36						
5	64QAM	12	13	17.49	17.59	17.49	19	0				
5	64QAM	25	0	17.55	17.63	17.47						
5	256QAM	1	0	17.41	17.63	17.29						
5	256QAM	1	12	17.59	17.54	17.62						
5	256QAM	1	24	17.56	17.56	17.46	19	0				
5	256QAM	12	0	17.39	17.64	17.34						
5	256QAM	12	7	17.41	17.58	17.39						
5	256QAM	12	13	17.47	17.63	17.56	19	0				
5	256QAM	25	0	17.54	17.51	17.56						



Band 42 FCC Part27Q Ant4 EC13												
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (min)	MPR (dB)				
Channel				42190	42590	42990	Turn-up time (min)	MPR (dB)				
Frequency (MHz)				3457.5	3503	3547.5						
20	QPSK	1	0	16.60	16.61	16.46	17.8	0				
	QPSK	1	48	16.35	16.29	16.28						
	QPSK	1	96	16.25	16.21	16.18						
	QPSK	50	0	16.49	16.53	16.36						
	QPSK	50	24	16.21	16.27	16.21						
	QPSK	50	50	16.17	16.25	16.08						
	QPSK	100	0	16.45	16.47	16.32						
	HQAM	1	0	16.32	16.25	16.20						
	HQAM	1	48	16.20	16.20	16.13						
	HQAM	1	96	16.53	16.52	16.38						
20	HQAM	50	0	16.54	16.52	16.22	17.8	0				
	HQAM	50	24	16.16	16.24	16.05						
	HQAM	50	50	16.43	16.46	16.26						
	HQAM	100	0	16.16	16.22	16.17						
	HQAM	1	0	16.09	16.22	16.05						
	HQAM	1	48	16.31	16.33	16.28						
	HQAM	1	96	16.27	16.13	16.14						
	HQAM	50	0	16.15	16.12	16.03						
	HQAM	50	24	16.47	16.55	16.33						
	HQAM	50	50	16.47	16.57	16.37						
20	HQAM	100	0	16.26	16.18	16.22	17.8	0				
	25SQAM	1	0	16.11	16.27	16.07						
	25SQAM	1	48	16.42	16.44	16.27						
	25SQAM	1	96	16.11	16.13	16.12						
	25SQAM	36	0	16.54	16.13	16.04						
	25SQAM	50	24	16.31	16.38	16.20						
	25SQAM	50	50	16.27	16.17	16.13						
	25SQAM	100	0	16.08	16.17	16.05						
Channel				42165 <th>42590</th> <th>43015</th> <th>Turn-up time (min)</th> <th colspan="2">MPR (dB)</th>	42590	43015	Turn-up time (min)	MPR (dB)				
Frequency (MHz)				3457.5	3503	3547.5	Turn-up time (min)	MPR (dB)				
15	QPSK	1	0	16.17	16.15	16.17						
	QPSK	1	37	16.32	16.18	16.17	17.8					
	QPSK	1	74	16.18	16.19	16.16						
	QPSK	36	0	16.35	16.50	16.33						
	QPSK	36	20	16.17	16.15	16.13						
	QPSK	75	0	16.12	16.15	16.08						
	QPSK	75	0	16.32	16.40	16.22						
	HQAM	1	0	16.18	16.15	16.15						
	HQAM	1	37	16.10	16.17	16.08						
	HQAM	1	74	16.45	16.49	16.31						
15	HQAM	36	0	16.16	16.16	16.19	17.8	0				
	HQAM	36	20	16.10	16.13	16.05						
	HQAM	36	39	16.31	16.33	16.13						
	HQAM	75	0	16.14	16.11	16.09						
	HQAM	1	0	16.05	16.10	16.02						
	HQAM	1	37	16.22	16.29	16.19						
	HQAM	1	74	16.17	16.06	16.05						
	HQAM	36	0	16.02	16.02	16.03						
	HQAM	36	20	16.35	16.46	16.22						
	HQAM	36	39	16.41	16.40	16.24						
15	HQAM	75	0	16.17	16.14	16.14	17.8	0				
	25SQAM	1	0	16.08	16.20	16.04						
	25SQAM	1	37	16.30	16.35	16.20						
	25SQAM	1	74	16.02	16.06	16.07						
	25SQAM	36	0	16.07	16.10	16.09						
	25SQAM	36	20	16.19	16.24	16.17						
	25SQAM	36	39	16.14	16.04	16.03						
	25SQAM	75	0	16.36	16.05	16.00						
Channel				42140 <th>42590</th> <th>43040</th> <th>Turn-up time (min)</th> <th colspan="2">MPR (dB)</th>	42590	43040	Turn-up time (min)	MPR (dB)				
Frequency (MHz)				3457.5	3503	3547.5	Turn-up time (min)	MPR (dB)				
10	QPSK	1	0	16.59	16.58	16.46						
	QPSK	1	25	16.30	16.24	16.22	17.8					
	QPSK	1	49	16.19	16.19	16.14						
	QPSK	25	0	16.35	16.41	16.23						
	QPSK	25	12	16.14	16.17	16.11						
	QPSK	25	25	16.03	16.13	16.00						
	QPSK	50	0	16.14	16.20	16.18						
	HQAM	1	0	16.26	16.22	16.14						
	HQAM	1	25	16.10	16.10	16.01						
	HQAM	1	49	16.45	16.40	16.30						
10	HQAM	25	0	16.16	16.09	16.15	17.8	0				
	HQAM	25	12	16.10	16.15	16.05						
	HQAM	25	25	16.35	16.37	16.17						
	HQAM	50	0	16.11	16.10	16.06						
	HQAM	1	0	16.06	16.13	16.04						
	HQAM	1	25	16.27	16.20	16.20						
	HQAM	1	49	16.24	16.11	16.06						
	HQAM	25	0	16.03	16.01	16.09						
	HQAM	25	12	16.44	16.46	16.19						
	HQAM	25	25	16.40	16.51	16.32						
10	HQAM	50	0	16.23	16.13	16.08	17.8	0				
	25SQAM	1	0	16.09	16.14	16.06						
	25SQAM	1	25	16.59	16.42	16.22						
	25SQAM	1	49	16.08	16.10	16.06						
	25SQAM	25	0	16.00	16.08	16.09						
	25SQAM	25	12	16.24	16.20	16.11						
	25SQAM	25	25	16.19	16.13	16.03						
	25SQAM	50	0	16.00	16.13	16.03						
Channel				42115 <th>42590</th> <th>43065</th> <th>Turn-up time (min)</th> <th colspan="2">MPR (dB)</th>	42590	43065	Turn-up time (min)	MPR (dB)				
Frequency (MHz)				3457.5	3503	3547.5	Turn-up time (min)	MPR (dB)				
5	QPSK	1	0	16.54	16.57	16.38						
	QPSK	1	12	16.30	16.19	16.22	17.8					
	QPSK	1	24	16.17	16.19	16.05						
	QPSK	12	0	16.36	16.39	16.29						
	QPSK	12	7	16.10	16.14	16.08						
	QPSK	12	13	16.06	16.21	16.09						
	QPSK	25	0	16.33	16.40	16.29						
	HQAM	1	0	16.27	16.20	16.17						
	HQAM	1	12	16.12	16.13	16.05						
	HQAM	1	24	16.49	16.46	16.31						
5	HQAM	12	0	16.12	16.20	16.16	17.8	0				
	HQAM	12	7	16.08	16.16	16.06						
	HQAM	12	13	16.13	16.35	16.16						
	HQAM	25	0	16.04	16.11	16.04						
	HQAM	1	12	16.25	16.28	16.22						
	HQAM	1	24	16.16	16.13	16.06						
	HQAM	12	0	16.07	16.06	16.09						
	HQAM	12	7	16.37	16.53	16.20						
	HQAM	12	13	16.42	16.49	16.28						
	HQAM	25	0	16.16	16.12	16.12						
5	25SQAM	1	0	16.05	16.11	16.01	17.8	0				
	25SQAM	1	12	16.29	16.34	16.25						
	25SQAM	1	24	16.09	16.09	16.09						
	25SQAM	12	0	16.02	16.02	16.04						
	25SQAM	12	7	16.22	16.31	16.11						
	25SQAM	12	13	16.20	16.09	16.04						
	25SQAM	25	0	16.08	16.06	16.06						

Band 42 FCC Part27Q Ant6 EC13									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (dBm)	MPR (dB)	
Channel				42190	42990	43990	Turn-up time (dBm)	MPR (dB)	
Frequency (MHz)				3460	3660	3860			
20	QPSK	1	0	22.29	22.42	22.33	23.7	0	
20	QPSK	1	48	22.24	22.27	22.34			
20	QPSK	1	96	22.41	22.39	22.39			
20	QPSK	50	0	21.79	21.89	21.79	23	0.7	
20	QPSK	50	24	21.76	21.85	21.81			
20	QPSK	50	48	21.85	21.89	21.89			
20	QPSK	100	0	21.80	21.85	21.77	23	0.7	
20	16QAM	1	0	21.72	21.75	21.75			
20	16QAM	1	48	21.64	21.69	21.62			
20	16QAM	50	0	21.58	21.69	21.62	22	1.7	
20	16QAM	50	24	20.39	20.46	20.43			
20	16QAM	50	50	20.40	20.46	20.43			
20	16QAM	100	0	20.37	20.46	20.37	22	1.7	
20	16QAM	1	0	20.45	20.57	20.43			
20	16QAM	1	48	20.40	20.46	20.41			
20	16QAM	1	96	20.39	20.43	20.39	21	2.7	
20	16QAM	50	0	19.39	19.47	19.40			
20	16QAM	50	24	19.43	19.47	19.43			
20	16QAM	50	50	19.44	19.52	19.51	19	4.7	
20	16QAM	100	0	19.47	19.49	19.41			
20	256QAM	1	0	17.76	17.81	17.74			
20	256QAM	1	48	17.65	17.72	17.62	19	4.7	
20	256QAM	1	96	17.75	17.76	17.73			
20	256QAM	50	0	17.69	17.73	17.70			
20	256QAM	50	24	17.69	17.73	17.71	19	4.7	
20	256QAM	50	50	17.84	17.74	17.72			
20	256QAM	100	0	17.83	17.73	17.68			
Channel				42195 <th>42990</th> <th>43910</th> <th>Turn-up time (dBm)</th> <th colspan="2">MPR (dB)</th>	42990	43910	Turn-up time (dBm)	MPR (dB)	
Frequency (MHz)				3467.5	3660	3847.5	Turn-up time (dBm)	MPR (dB)	
15	QPSK	1	0	22.23	22.33	22.31		23.7	
15	QPSK	1	37	22.19	22.24	22.31			
15	QPSK	1	74	22.33	22.32	22.17			
15	QPSK	36	0	21.75	21.79	21.69	23	0.7	
15	QPSK	36	20	21.74	21.82	21.73			
15	QPSK	36	36	21.81	21.82	21.69			
15	QPSK	75	0	21.72	21.79	21.71	23	0.7	
15	16QAM	1	0	21.65	21.69	21.70			
15	16QAM	1	37	21.63	21.69	21.66			
15	16QAM	1	74	21.57	21.61	21.57	22	1.7	
15	16QAM	36	0	20.32	20.36	20.35			
15	16QAM	36	20	20.32	20.43	20.38			
15	16QAM	36	36	20.29	20.38	20.35	22	1.7	
15	16QAM	75	0	20.31	20.36	20.23			
15	16QAM	1	0	20.35	20.46	20.35			
15	16QAM	1	37	20.30	20.43	20.38	21	2.7	
15	16QAM	1	74	20.30	20.41	20.35			
15	16QAM	36	0	19.34	19.42	19.35			
15	16QAM	36	20	19.42	19.52	19.44	19	4.7	
15	16QAM	75	0	19.44	19.47	19.35			
15	256QAM	1	0	17.69	17.77	17.66			
15	256QAM	1	37	17.66	17.69	17.66	19	4.7	
15	256QAM	1	74	17.68	17.75	17.65			
15	256QAM	36	0	17.67	17.65	17.68			
15	256QAM	36	20	17.65	17.62	17.60	19	4.7	
15	256QAM	36	36	17.63	17.70	17.70			
15	256QAM	75	0	17.64	17.64	17.60			
Channel				43140	42990	43990	Turn-up time (dBm)	MPR (dB)	
Frequency (MHz)				3465	3600	3645	Turn-up time (dBm)	MPR (dB)	
10	QPSK	1	0	22.21	22.28	22.26		23.7	
10	QPSK	1	25	22.19	22.14	22.27			
10	QPSK	1	49	22.29	22.24	22.17			
10	QPSK	25	0	21.68	21.64	21.75	23	0.7	
10	QPSK	25	12	21.69	21.78	21.77			
10	QPSK	25	25	21.78	21.77	21.72			
10	QPSK	50	0	21.71	21.77	21.68	23	0.7	
10	16QAM	1	0	21.67	21.75	21.67			
10	16QAM	1	25	21.68	21.63	21.60			
10	16QAM	1	49	21.53	21.60	21.51	22	1.7	
10	16QAM	25	0	20.31	20.38	20.31			
10	16QAM	25	12	20.36	20.35	20.35			
10	16QAM	25	25	20.39	20.35	20.33	22	1.7	
10	16QAM	50	0	20.30	20.30	20.28			
10	16QAM	1	0	20.36	20.41	20.36			
10	16QAM	1	25	20.39	20.38	20.35	22	1.7	
10	16QAM	1	49	20.30	20.40	20.36			
10	16QAM	25	0	19.35	19.37	19.37			
10	16QAM	25	12	19.37	19.41	19.38	21	2.7	
10	16QAM	25	25	19.41	19.51	19.48			
10	16QAM	50	0	19.38	19.46	19.34			
10	256QAM	1	0	17.70	17.73	17.73	19	4.7	
10	256QAM	1	25	17.59	17.64	17.57			
10	256QAM	1	49	17.70	17.65	17.65			
10	256QAM	25	0	17.64	17.72	17.68	19	4.7	
10	256QAM	25	12	17.64	17.62	17.66			
10	256QAM	25	25	17.57	17.54	17.61			
10	256QAM	50	0	17.54	17.69	17.64	Turn-up time (dBm) <td data-cs="2" data-kind="parent" data-rs="2">MPR (dB)</td> <td data-kind="ghost"></td>	MPR (dB)	
Channel				43115 <th>42990</th> <th>43965</th>	42990	43965			
Frequency (MHz)				3462.5	3600	3647.5	Turn-up time (dBm)	MPR (dB)	
5	QPSK	1	0	22.27	22.26	22.24		23.7	
5	QPSK	1	16	22.19	22.14	22.27			
5	QPSK	1	24	22.32	22.29	22.19			
5	QPSK	12	0	21.78	21.79	21.71	23	0.7	
5	QPSK	12	7	21.67	21.63	21.71			
5	QPSK	12	13	21.75	21.82	21.79			
5	QPSK	25	0	21.75	21.84	21.73	23	0.7	
5	16QAM	1	0	21.65	21.71	21.64			
5	16QAM	1	12	21.58	21.67	21.62			
5	16QAM	1	24	21.47	21.65	21.52	22	1.7	
5	16QAM	12	0	20.33	20.40	20.37			
5	16QAM	12	7	20.35	20.42	20.27			
5	16QAM	12	13	20.38	20.38	20.38	22	1.7	
5	16QAM	25	0	20.31	20.31	20.28			
5	16QAM	1	0	20.41	20.47	20.38			
5	16QAM	1	12	20.37	20.43	20.34	21	2.7	
5	16QAM	12	0	19.37	19.39	19.33			
5	16QAM	12	7	19.32	19.46	19.39			
5	16QAM	12	13	19.42	19.49	19.49	19	4.7	
5	16QAM	25	0	19.36	19.41	19.36			
5	256QAM	1	0	17.74	17.79	17.70			
5	256QAM	1	12	17.59	17.68	17.60	19	4.7	
5	256QAM	1	24	17.68	17.67	17.69			
5	256QAM	12	0	17.66	17.73	17.61			
5	256QAM	12	7	17.65	17.71	17.60	19	4.7	
5	256QAM	12	13	17.63	17.72	17.70			
5	256QAM	25	0	17.67	17.67	17.67			

Band 42 FCC Part27Q Ant8 EC13										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (min)	MPR (dB)		
Channel				42190	42390	42590				
Frequency (MHz)				3440	3460	3480				
20	QPSK	1	0	21.48	21.48	21.41	22.8	0		
20	QPSK	1	48	21.29	21.33	21.20				
20	QPSK	1	96	21.30	21.30	21.31				
20	QPSK	50	0	21.34	21.37	21.35	22.8	0		
20	QPSK	50	24	21.21	21.23	21.15				
20	QPSK	50	48	21.28	21.25	21.25				
20	QPSK	100	0	21.34	21.35	21.29	22.8	0		
20	16QAM	1	0	21.21	21.25	21.10				
20	16QAM	1	48	21.19	21.20	21.20				
20	16QAM	50	0	21.30	21.19	21.17	22	0.8		
20	16QAM	50	24	20.52	20.56	20.44				
20	16QAM	50	48	20.51	20.47	20.44				
20	16QAM	50	50	20.38	20.41	20.32	22	0.8		
20	16QAM	100	0	20.40	20.52	20.44				
20	16QAM	1	0	20.57	20.57	20.94				
20	16QAM	1	48	20.90	20.95	20.92	22	0.8		
20	16QAM	1	96	20.92	20.93	20.97				
20	16QAM	50	0	19.87	19.97	19.89				
20	16QAM	50	24	19.89	19.89	19.89	21	1.8		
20	16QAM	50	50	19.94	19.97	19.95				
20	16QAM	100	0	19.89	19.90	19.82				
20	256QAM	1	0	17.90	17.93	17.90	19	3.8		
20	256QAM	1	48	17.91	17.93	17.95				
20	256QAM	1	96	17.81	17.92	17.88				
20	256QAM	50	0	17.94	17.94	17.92	19	3.8		
20	256QAM	50	24	17.98	17.99	17.94				
20	256QAM	50	50	17.86	17.87	17.87				
20	256QAM	100	0	17.93	17.99	17.94				
Channel				42195	42390	42595	Turn-up time (min)	MPR (dB)		
Frequency (MHz)				3447.5	3467.5	3487.5				
15	QPSK	1	0	21.36	21.36	21.33	22.8	0		
15	QPSK	1	37	21.23	21.24	21.09				
15	QPSK	1	74	21.23	21.29	21.29				
15	QPSK	36	0	21.23	21.29	21.23	22.8	0		
15	QPSK	36	20	21.19	21.17	21.08				
15	QPSK	36	39	21.17	21.17	21.10				
15	QPSK	75	0	21.28	21.22	21.24	22.8	0		
15	16QAM	1	0	21.13	21.19	21.00				
15	16QAM	1	37	21.16	21.12	21.21				
15	16QAM	1	74	21.22	21.10	21.09	22	0.8		
15	16QAM	36	0	20.88	20.98	20.92				
15	16QAM	36	39	20.74	20.83	20.82				
15	16QAM	36	39	20.71	20.83	20.81	22	0.8		
15	16QAM	75	0	20.83	20.88	20.81				
15	16QAM	1	0	20.79	20.94	20.85				
15	16QAM	1	37	20.83	20.91	20.82	22	0.8		
15	16QAM	1	74	20.84	20.86	20.77				
15	16QAM	36	0	19.82	19.85	19.83				
15	16QAM	36	20	19.79	19.88	19.85	21	1.8		
15	16QAM	36	39	19.89	19.87	19.87				
15	16QAM	75	0	19.84	19.93	19.75				
15	256QAM	1	0	17.89	17.87	17.83	19	3.8		
15	256QAM	1	37	17.85	17.84	17.76				
15	256QAM	1	74	17.78	17.83	17.81				
15	256QAM	36	0	17.92	17.88	17.83	19	3.8		
15	256QAM	36	20	17.90	17.89	17.88				
15	256QAM	36	39	17.83	17.96	17.83				
15	256QAM	75	0	17.86	17.86	17.84				
Channel				42410	42595	42780	Turn-up time (min)	MPR (dB)		
Frequency (MHz)				3455	3500	3545				
10	QPSK	1	0	21.39	21.32	21.36	22.8	0		
10	QPSK	1	25	21.20	21.27	21.15				
10	QPSK	1	49	21.19	21.28	21.28				
10	QPSK	36	0	21.25	21.35	21.23	22.8	0		
10	QPSK	25	12	21.17	21.13	21.03				
10	QPSK	25	25	21.19	21.16	21.19				
10	QPSK	50	0	21.24	21.22	21.21	22.8	0		
10	16QAM	1	0	21.08	21.29	20.99				
10	16QAM	1	25	21.17	21.06	21.16				
10	16QAM	1	49	21.22	21.13	21.10	22	0.8		
10	16QAM	25	0	20.81	20.90	20.87				
10	16QAM	25	12	20.74	20.86	20.82				
10	16QAM	25	25	20.70	20.83	20.81	22	0.8		
10	16QAM	50	0	20.86	20.83	20.82				
10	16QAM	1	0	20.84	20.87	20.98				
10	16QAM	1	25	20.89	20.85	20.89	22	0.8		
10	16QAM	1	49	20.85	20.89	20.83				
10	16QAM	25	0	19.79	19.80	19.81				
10	16QAM	25	12	19.79	19.91	19.83	21	1.8		
10	16QAM	25	25	19.90	19.88	19.91				
10	16QAM	50	0	19.79	19.82	19.75				
10	256QAM	1	0	17.85	17.84	17.81	19	3.8		
10	256QAM	1	25	17.88	17.81	17.74				
10	256QAM	1	49	17.71	17.87	17.83				
10	256QAM	25	0	17.90	17.84	17.84	19	3.8		
10	256QAM	25	12	17.88	17.86	17.87				
10	256QAM	25	25	17.83	17.95	17.77				
10	256QAM	50	0	17.91	17.90	17.88				
Channel				42415	42595	42785	Turn-up time (min)	MPR (dB)		
Frequency (MHz)				3452.5	3505	3547.5				
5	QPSK	1	0	21.35	21.25	21.30	22.8	0		
5	QPSK	1	12	21.25	21.27	21.11				
5	QPSK	1	24	21.17	21.17	21.19				
5	QPSK	12	0	21.29	21.26	21.30	22.8	0		
5	QPSK	12	7	21.14	21.15	21.06				
5	QPSK	12	13	21.22	21.25	21.25				
5	QPSK	25	0	21.28	21.23	21.25	22.8	0		
5	16QAM	1	0	21.11	21.15	21.02				
5	16QAM	1	12	21.11	21.18	21.17				
5	16QAM	1	24	21.26	21.11	21.06	22	0.8		
5	16QAM	12	0	20.83	20.97	20.89				
5	16QAM	12	7	20.84	20.83	20.73				
5	16QAM	12	13	20.77	20.89	20.76	22	0.8		
5	16QAM	25	0	20.82	20.88	20.85				
5	16QAM	1	0	20.81	20.88	20.85				
5	16QAM	1	12	20.88	20.94	20.90	21	1.8		
5	16QAM	1	24	20.83	20.91	20.79				
5	16QAM	12	0	19.76	19.86	19.87				
5	16QAM	12	7	19.85	19.95	19.83	19	3.8		
5	16QAM	12	13	19.91	19.87	19.89				
5	256QAM	1	0	17.89	17.88	17.85	19	3.8		
5	256QAM	1	12	17.88	17.87	17.84				
5	256QAM	1	24	17.81	17.86	17.79				
5	256QAM	12	0	17.87	17.88	17.81	19	3.8		
5	256QAM	12	7	17.84	17.87	17.84				
5	256QAM	12	13	17.85	17.89	17.78				
5	256QAM	25	0	17.89	17.91	17.85				



Reduced Power Mode for ECI 5

GSM-RS Ant G	Base Average Power (dBm)			Tx-to-tp	Frame Average Power (dBm)			Tx-to-tp
	TX Channel	186	186	201	186	186	186	186
Frequency (MHz)	824.2	836.4	848.6	(dBm)	824.2	836.4	848.6	(dBm)
GPRS 1 Tx rate	31.55	31.55	31.60	31.00	22.61	22.69	22.69	24.00
GPRS 2 Tx rate	31.57	31.61	31.64	31.00	22.97	23.01	23.04	24.00
GPRS 3 Tx rate	32.47	32.50	32.45	32.00	24.47	24.56	24.43	25.00
GPRS 4 Tx rate	28.44	28.50	28.42	30.00	24.16	24.24	24.16	25.14
GPRS 5 Tx rate	27.33	27.30	27.31	28.00	24.33	24.39	24.31	25.00

GSM-RS Ant G	Base Average Power (dBm)			Tx-to-tp	Frame Average Power (dBm)			Tx-to-tp
	TX Channel	512	561	610	512	561	610	512
Frequency (MHz)	824.2	836.4	848.6	(dBm)	1109.2	1109.3	1109.4	(dBm)
GPRS 1 Tx rate	27.80	28.03	27.94	29.00	18.93	19.03	18.94	20.00
GPRS 2 Tx rate	27.81	27.80	27.80	29.00	18.91	18.92	18.86	20.00
GPRS 3 Tx rate	24.50	24.50	24.50	26.00	20.63	20.69	20.69	22.00
GPRS 4 Tx rate	24.50	24.50	24.50	26.00	20.73	20.83	21.14	
GPRS 5 Tx rate	23.83	23.92	23.86	25.00	20.83	20.92	20.88	22.00

Base	WCDMA 3.1 Ant B			Tx-to-tp	WCDMA 3.1 Ant B			Tx-to-tp	WCDMA 3.1 Ant B			Tx-to-tp
	TX Channel	9482	9480	9488	1412	1413	1413	1412	4152	4152	4153	4152
Frequency (MHz)	1862.5	1862.5	1862.5	(dBm)	1557	1556	1556	(dBm)	4267	4267	4268	(dBm)
SCPP Test Set	1862.5	1862.5	1862.5	20.50	20.18	20.25	20.19	21.00	23.84	23.87	23.79	24.90



GSM450-Air 1		Rural Average Power (dBm)		Turn-up		Farm Average Power (dBm)		Turn-up	
Tx Channel		128	160	251	140	128	160	251	140
Frequency (MHz)		824.2	836.4	848.6	(dBm)	824.2	836.4	848.6	(dBm)
OPRR 1 Tx-Wire		31.5	31.7	31.3	33.0	22.6	22.1	22.3	24.0
OPRR 1 Tx-Wire		31.89	31.85	31.83	33.59	22.82	22.85	22.53	24.58
OPRR 2 Tx-Wire		30.82	30.83	30.94	32.00	24.82	24.83	24.94	25.00
OPRR 3 Tx-Wire		28.48	28.51	28.48	30.00	24.20	24.25	24.25	25.14
OPRR 4 Tx-Wire		27.38	27.39	27.32	29.00	24.38	24.39	24.32	25.00

Band		WCDMA 6-Air 1		Turn-up		WCDMA 17-Air 1		Turn-up		WCDMA 17-Air 1		Turn-up	
Tx Channel		8262	8400	8538	140	1512	1415	1513	140	4132	4182	4213	140
Frequency (MHz)		8952	8950	8958	(dBm)	1537	1536	1538	(dBm)	4307	4407	4456	(dBm)
GPPR-Bus 88		17.63	17.78	17.67	19.30	17.92	17.91	17.92	19.30	24.17	24.23	24.15	25.00



GSM1900-A12		Total Average Power (dBm)			Turn-up		Power Limits Power (dBm)			Turn-up	
Tx Channel		912	861	810	Limit		912	861	810	Limit	
Frequency (MHz)		1930.2	1880	1830.8	(dBm)		1930.2	1880	1830.8	(dBm)	
GSM 1 Tx slot		27.82	27.10	27.22	22.10		18.82	18.10	18.22	20.10	
GPRS 1 Tx slot		27.82	27.89	27.73	26.10		18.82	18.88	18.73	20.10	
GPRS 2 Tx slot		25.33	25.48	25.50	26.10		19.33	19.48	19.50	20.10	
GPRS 3 Tx slot		23.83	23.80	23.84	26.10		19.33	19.34	19.38	20.10	
GPRS 4 Tx slot		21.95	22.07	21.99	23.10		18.95	19.07	18.99	20.10	

Band		WCDMA-A12			Turn-up		WCDMA-T1-A12			Turn-up	
Tx Channel		9352	9400	9438	Limit		1912	1813	1513	Limit	
Rx Channel		9602	9550	9508	(dBm)		1937	1836	1736	(dBm)	
Frequency (MHz)		1852.4	1880	1907.6			1722.4	1702.6	1750.6		
SCPP Band 8		EMC 12.200pp	18.40	18.57	18.40	19.50	20.40	20.57	20.40	21.60	21.60



Band	WCDMA II-A/G-3			Time-to- Live	WCDMA IV-A/G-3			Time-to- Live
TX Channel	9562	9450	9538	(MHz)	9532	9418	9518	(MHz)
TX Channel	9562	9450	9538		9532	9418	9518	
Frequency (MHz)	1852.4	1880	1907.6		1712.8	1732.8	1752.8	
SCPF Per BW	RNC 12 Phases			20.00	21.19	21.28	21.27	22.00
	18.84	18.97	18.88					

Band 26 Ant 0 ECI5										
RF (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Med Ch./Freq.	Power High Ch./Freq.	Turn-up time (dB)	Margin (dB)		
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.24	23.38	23.27	24	0		
15	QPSK	1	37	23.19	23.21	23.11				
15	QPSK	1	74	23.25	23.26	23.20				
15	QPSK	36	0	22.16	22.25	22.18	23	1		
15	QPSK	36	20	22.15	22.20	22.13				
15	QPSK	36	36	22.19	22.21	22.16				
15	QPSK	75	0	22.25	22.27	22.24	23	1		
15	16QAM	1	0	22.52	22.66	22.47				
15	16QAM	1	37	22.39	22.44	22.44				
15	16QAM	1	74	22.42	22.51	22.43	22	2		
15	16QAM	36	0	21.31	21.37	21.27				
15	16QAM	36	20	21.29	21.32	21.27				
15	16QAM	36	36	21.21	21.24	21.26	22	2		
15	16QAM	75	0	21.31	21.32	21.22				
15	64QAM	1	0	21.33	21.42	21.40				
15	64QAM	1	37	21.29	21.34	21.32	22	2		
15	64QAM	1	74	21.33	21.39	21.38				
15	64QAM	36	0	20.39	20.41	20.35				
15	64QAM	36	20	20.34	20.31	20.32	21	3		
15	64QAM	36	36	20.38	20.39	20.35				
15	64QAM	75	0	20.33	20.38	20.33				
15	256QAM	1	0	18.30	18.34	18.27	19	5		
15	256QAM	1	37	18.25	18.27	18.17				
15	256QAM	1	74	18.23	18.32	18.25				
15	256QAM	36	0	18.20	18.24	18.17	19	5		
15	256QAM	36	20	18.28	18.31	18.21				
15	256QAM	36	36	18.30	18.33	18.31				
15	256QAM	75	0	18.20	18.27	18.17				
Channel							Turn-up time (dB)	Margin (dB)		
Frequency (MHz)										
10	QPSK	1	0	23.17	23.27	23.23	24	0		
10	QPSK	1	25	23.12	23.19	23.07				
10	QPSK	1	49	23.19	23.15	23.12				
10	QPSK	25	0	22.11	22.20	22.12	23	1		
10	QPSK	25	12	22.05	22.16	22.06				
10	QPSK	25	25	22.09	22.12	22.13				
10	QPSK	50	0	22.16	22.19	22.17	23	1		
10	16QAM	1	0	22.47	22.52	22.46				
10	16QAM	1	25	22.35	22.42	22.34				
10	16QAM	1	49	22.41	22.47	22.37	22	2		
10	16QAM	25	0	21.29	21.34	21.26				
10	16QAM	25	12	21.28	21.29	21.22				
10	16QAM	25	25	21.23	21.24	21.18	21	3		
10	16QAM	50	0	21.22	21.24	21.18				
10	64QAM	1	0	21.31	21.33	21.32				
10	64QAM	1	25	21.28	21.34	21.31	22	2		
10	64QAM	1	49	21.30	21.38	21.18				
10	64QAM	25	0	20.35	20.31	20.32				
10	64QAM	25	12	20.37	20.32	20.30	21	3		
10	64QAM	25	25	20.17	20.21	20.13				
10	64QAM	50	0	20.25	20.29	20.29				
10	256QAM	1	0	18.25	18.24	18.15	19	5		
10	256QAM	1	25	18.20	18.21	18.05				
10	256QAM	1	49	18.20	18.24	18.20				
10	256QAM	25	0	18.15	18.16	18.06	19	5		
10	256QAM	25	12	18.21	18.21	18.15				
10	256QAM	25	25	18.22	18.26	18.29				
10	256QAM	50	0	18.10	18.23	18.10				
Channel							Turn-up time (dB)	Margin (dB)		
Frequency (MHz)										
5	QPSK	1	0	23.14	23.30	23.20	24	0		
5	QPSK	1	12	23.14	23.13	23.05				
5	QPSK	1	24	23.22	23.18	23.12				
5	QPSK	12	0	22.08	22.16	22.10	23	1		
5	QPSK	12	7	22.11	22.15	22.04				
5	QPSK	12	13	22.13	22.18	22.06				
5	QPSK	24	0	22.14	22.17	22.15	23	1		
5	16QAM	1	0	22.51	22.47	22.42				
5	16QAM	1	12	22.52	22.38	22.35				
5	16QAM	1	24	22.40	22.42	22.41	22	2		
5	16QAM	12	0	21.27	21.34	21.23				
5	16QAM	12	7	21.19	21.26	21.26				
5	16QAM	12	13	21.14	21.27	21.18	22	2		
5	16QAM	24	0	21.21	21.27	21.18				
5	64QAM	1	0	21.32	21.33	21.38				
5	64QAM	1	12	21.27	21.28	21.26	21	3		
5	64QAM	1	24	21.28	21.37	21.22				
5	64QAM	12	0	20.29	20.36	20.29				
5	64QAM	12	7	20.35	20.32	20.26	19	5		
5	64QAM	12	13	20.18	20.22	20.17				
5	64QAM	24	0	20.29	20.34	20.27				
5	256QAM	1	0	18.27	18.26	18.18	19	5		
5	256QAM	1	12	18.23	18.22	18.10				
5	256QAM	1	24	18.15	18.20	18.22				
5	256QAM	12	0	18.10	18.16	18.10	19	5		
5	256QAM	12	7	18.21	18.24	18.11				
5	256QAM	12	13	18.20	18.30	18.26				
5	256QAM	24	0	18.11	18.19	18.08				
Channel							Turn-up time (dB)	Margin (dB)		
Frequency (MHz)										
3	QPSK	1	0	23.23	23.32	23.32	24	0		
3	QPSK	1	8	23.18	23.15	23.04				
3	QPSK	1	14	23.22	23.19	23.12				
3	QPSK	8	0	22.09	22.23	22.07	23	1		
3	QPSK	8	4	22.08	22.19	22.11				
3	QPSK	8	7	22.14	22.12	22.07				
3	QPSK	16	0	22.17	22.17	22.15	23	1		
3	16QAM	1	0	22.48	22.52	22.46				
3	16QAM	1	8	22.34	22.39	22.39				
3	16QAM	1	14	22.41	22.46	22.42	22	2		
3	16QAM	8	0	21.22	21.34	21.17				
3	16QAM	8	4	21.22	21.27	21.19				
3	16QAM	8	7	21.17	21.26	21.19	21	3		
3	16QAM	16	0	21.20	21.28	21.21				
3	64QAM	1	0	21.30	21.31	21.36				
3	64QAM	1	8	21.25	21.24	21.22	22	2		
3	64QAM	1	14	21.28	21.33	21.26				
3	64QAM	8	0	20.34	20.37	20.32				
3	64QAM	8	4	20.38	20.37	20.32	21	3		
3	64QAM	8	7	20.21	20.24	20.17				
3	16QAM	15	0	20.24	20.34	20.24				
3	256QAM	1	0	18.21	18.32	18.20	19	5		
3	256QAM	1	8	18.21	18.25	18.16				
3	256QAM	1	14	18.30	18.32	18.20				
3	256QAM	8	0	18.09	18.22	18.16	19	5		
3	256QAM	8	4	18.23	18.24	18.18				
3	256QAM	8	7	18.25	18.31	18.25				
3	256QAM	16	0	18.17	18.18	18.07				
Channel							Turn-up time (dB)	Margin (dB)		
Frequency (MHz)										
1.4	QPSK	1	0	23.16	23.31	23.19	24	0		
1.4	QPSK	1	5	23.14	23.29	23.11				
1.4	QPSK	1	9	23.11	23.17	23.08				
1.4	QPSK	3	0	23.14	23.24	23.14	23	1		
1.4	QPSK	3	2	23.13	23.22	23.06				
1.4	QPSK	3	4	23.20	23.14	23.12				
1.4	QPSK	6	0	22.25	22.25	22.22	23	1		
1.4	QPSK	6	3	22.12	22.21	22.11				
1.4	QPSK	6	6	22.20	22.30	22.28				
1.4	QPSK	3	0	22.12	22.12	22.07	22	1		
1.4	QPSK	3	3	22.23	22.27	22.15				
1.4	QPSK	3	6	22.20	22.28	22.24				
1.4	QPSK	6	0	21.27	21.21	21.21	22	2		
1.4	QPSK	6	3	21.28	21.21	21.21				
1.4	QPSK	6	6	21.16	21.33	21.15				
1.4	QPSK	6	9	21.20	21.21	21.26	22	2		
1.4	QPSK	6	12	21.27	21.14	21.25				
1.4	QPSK	6	15	21.22	21.30	21.25				
1.4	QPSK	3	0	20.39	21.25	20.97	21	3		
1.4	QPSK	3	3	20.37	21.27	20.97				
1.4	QPSK	3	6	20.33	21.38	20.95				
1.4	QPSK	3	9	18.44	18.37	18.29	19	5		
1.4	QPSK	3	12	18.40	18.40	18.18				
1.4	QPSK	3	15	18.38	18.28	18.15				
1.4	QPSK	3	18	18.23	18.31	18.28	19	5		
1.4	QPSK	3	21	18.20	18.30	18.28				
1.4	QPSK	3	24	18.20	18.30	18.28				
1.4	QPSK	6	0	18.11	18.38	18.13	19	5		
1.4	QPSK	6	3	18.11	18.38	18.13				
1.4	QPSK	6	6	18.11	18.38	18.13				



Band 66 Ant 0 ECI5								
ISW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up test (dBm)	MPE (dB)
Channel				130072	130208	130344	21.3	0
Frequency (MHz)				1720	1740	1760		
20	QPSK	1	0	19.59	19.79	19.62	21.3	0
20	QPSK	1	-49	19.60	19.67	19.63		
20	QPSK	1	99	19.80	19.89	19.69		
20	QPSK	50	0	19.65	19.76	19.64		
20	QPSK	50	-24	19.65	19.67	19.69		
20	QPSK	50	50	19.80	19.59	19.62	21.3	0
20	QPSK	100	0	19.66	19.69	19.64		



Band 38 Ant 0 ECI5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Mode Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				37850	38050	38150	MPR (dB)
Frequency (MHz)				22.62	22.65	22.67	
20	QPSK	1	0	22.72	22.65	22.77	23.9
20	QPSK	1	48	22.70	22.77	22.85	0
20	QPSK	1	96	22.60	22.70	22.80	
20	QPSK	50	0	22.55	22.75	22.85	
20	QPSK	50	24	22.57	22.85	22.48	23.9
20	QPSK	50	50	22.65	22.83	22.55	0
20	QPSK	100	0	22.44	22.63	22.53	

Band 41 Ant 0 ECI5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Ch. / Freq.
Channel				39750	40185	40620	41055
Frequency (MHz)				22.61	22.63	22.65	22.68
20	QPSK	1	0	22.87	22.84	22.85	22.86
20	QPSK	1	48	22.89	22.83	22.83	22.80
20	QPSK	1	96	22.79	22.84	22.84	22.75
20	QPSK	50	0	22.62	22.75	22.80	22.65
20	QPSK	50	24	22.68	22.83	22.73	22.64
20	QPSK	50	50	22.60	22.75	22.74	22.60
20	QPSK	100	0	22.58	22.68	22.76	22.67

Band 41 HPUE Ant 0 ECI5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Ch. / Freq.
Channel				39750	40185	40620	41055
Frequency (MHz)				24.06	24.08	24.10	24.12
20	QPSK	1	0	24.07	24.03	24.02	24.05
20	QPSK	1	48	24.12	24.01	24.18	23.90
20	QPSK	1	96	23.99	23.90	24.04	23.90
20	QPSK	50	0	24.11	24.12	24.01	24.03
20	QPSK	50	24	24.18	23.99	24.15	23.98
20	QPSK	50	50	24.02	24.10	24.10	23.90
20	QPSK	100	0	24.02	24.08	24.14	24.04



Band 2 Ant 1 ECI5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)
Channel							
Frequency [MHz]							
18700 18800 18900							
20	QPSK	1	0	18.80	18.74	18.64	19.7
20	QPSK	1	40	18.80	18.88	18.90	
20	QPSK	1	99	18.84	18.72	18.81	
20	QPSK	50	0	18.84	18.70	18.60	19.7
20	QPSK	50	24	18.87	18.84	18.81	
20	QPSK	50	50	18.82	18.84	18.58	
20	QPSK	100	0	18.48	18.67	18.61	

Band 4 Ant 1 ECI5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)
Channel							
Frequency [MHz]							
20950 21075 21200							
20	QPSK	1	0	18.54	18.67	18.57	19.9
20	QPSK	1	40	18.43	18.58	18.38	
20	QPSK	1	99	18.46	18.62	18.46	
20	QPSK	50	0	18.58	18.60	18.48	19.9
20	QPSK	50	24	18.42	18.41	18.51	
20	QPSK	50	50	18.49	18.54	18.47	
20	QPSK	100	0	18.54	18.57	18.46	

Band 5 Ant 1 ECI5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)
Channel							
Frequency [MHz]							
20950 21075 21200							
10	QPSK	1	0	22.67	22.65	22.70	24
10	QPSK	1	25	22.61	22.67	22.58	
10	QPSK	1	49	22.61	22.67	22.73	
10	QPSK	25	0	21.73	21.62	21.67	23
10	QPSK	25	19	21.66	21.76	21.60	
10	QPSK	25	25	21.71	21.53	21.74	
10	QPSK	50	0	21.63	21.72	21.65	23
10	16QAM	1	0	21.64	21.68	21.63	
10	16QAM	1	25	21.82	21.74	21.81	
10	16QAM	1	49	21.70	21.58	21.76	22
10	16QAM	25	0	20.89	20.84	20.72	
10	16QAM	25	12	20.83	20.68	20.53	
10	16QAM	25	25	20.71	20.62	20.71	22
10	16QAM	50	0	20.68	20.87	20.69	
10	64QAM	1	0	20.84	20.80	20.86	
10	64QAM	1	25	20.57	20.88	20.62	22
10	64QAM	1	49	20.72	20.86	20.79	
10	64QAM	25	0	19.80	19.86	19.72	
10	64QAM	25	12	19.57	19.85	19.64	21
10	64QAM	25	25	19.71	19.58	19.69	
10	64QAM	50	0	19.83	19.75	19.70	
10	256QAM	1	0	17.59	17.77	17.73	19
10	256QAM	1	25	17.62	17.70	17.69	
10	256QAM	1	49	17.68	17.62	17.70	
10	256QAM	25	0	17.70	17.73	17.73	19
10	256QAM	25	12	17.65	17.82	17.70	
10	256QAM	25	25	17.58	17.72	17.69	
10	256QAM	50	0	17.72	17.64	17.77	
Channel							
Frequency [MHz]							
2042.5 2052.5 2062.5							
5	QPSK	1	0	22.64	22.70	22.65	24
5	QPSK	1	12	22.50	22.64	22.46	
5	QPSK	1	24	22.55	22.63	22.63	
5	QPSK	12	0	21.63	21.73	21.66	23
5	QPSK	12	7	21.58	21.72	21.69	
5	QPSK	12	13	21.63	21.45	21.68	
5	QPSK	25	0	21.59	21.64	21.68	23
5	16QAM	1	0	21.62	21.67	21.76	
5	16QAM	1	12	21.54	21.65	21.58	
5	16QAM	1	24	21.67	21.49	21.71	22
5	16QAM	12	0	20.64	20.78	20.69	
5	16QAM	12	7	20.46	20.60	20.43	
5	16QAM	12	13	20.68	20.55	20.62	21
5	16QAM	25	0	20.64	20.64	20.77	
5	64QAM	1	0	20.54	20.73	20.61	
5	64QAM	1	12	20.50	20.68	20.57	22
5	64QAM	1	24	20.65	20.62	20.71	
5	64QAM	12	0	19.51	19.57	19.62	
5	64QAM	12	7	19.45	19.51	19.46	21
5	64QAM	12	13	19.69	19.25	19.51	
5	64QAM	25	0	19.57	19.67	19.65	
5	256QAM	1	0	17.54	17.58	17.61	19
5	256QAM	1	12	17.58	17.61	17.61	
5	256QAM	1	24	17.65	17.58	17.69	
5	256QAM	12	0	17.64	17.72	17.61	19
5	256QAM	12	7	17.61	17.73	17.60	
5	256QAM	12	13	17.55	17.67	17.67	
5	256QAM	25	0	17.65	17.61	17.64	
Channel							
Frequency [MHz]							
2041.5 2052.5 2063.5							
3	QPSK	1	0	22.60	22.76	22.48	24
3	QPSK	1	8	22.51	22.63	22.50	
3	QPSK	1	14	22.59	22.61	22.66	
3	QPSK	8	0	21.66	21.76	21.61	23
3	QPSK	8	4	21.58	21.68	21.59	
3	QPSK	8	7	21.67	21.47	21.69	
3	QPSK	16	0	21.55	21.67	21.58	23
3	16QAM	1	0	21.63	21.61	21.80	
3	16QAM	1	8	21.55	21.69	21.56	
3	16QAM	1	14	21.66	21.53	21.68	22
3	16QAM	8	0	20.68	20.82	20.61	
3	16QAM	8	4	20.43	20.60	20.43	
3	16QAM	8	7	20.45	20.53	20.62	21
3	16QAM	15	0	20.59	20.65	20.73	
3	64QAM	1	0	20.61	20.69	20.61	
3	64QAM	1	8	20.40	20.62	20.39	22
3	64QAM	1	14	20.66	20.59	20.69	
3	64QAM	8	0	19.58	19.56	19.63	
3	64QAM	8	4	19.48	19.50	19.54	21
3	64QAM	8	7	19.62	19.47	19.65	
3	64QAM	15	0	19.62	19.74	19.64	
3	256QAM	1	0	17.51	17.68	17.69	19
3	256QAM	1	8	17.54	17.61	17.62	
3	256QAM	1	14	17.62	17.58	17.61	
3	256QAM	8	0	17.67	17.67	17.73	19
3	256QAM	8	4	17.80	17.61	17.62	
3	256QAM	8	7	17.52	17.70	17.54	
3	256QAM	15	0	17.65	17.57	17.67	
Channel							
Frequency [MHz]							
2040.7 2052.5 2063.5							
1.4	QPSK	1	0	22.45	22.75	22.24	24
1.4	QPSK	1	3	22.55	22.70	22.55	
1.4	QPSK	1	5	22.67	22.66	22.69	
1.4	QPSK	3	0	22.46	22.62	22.46	23
1.4	QPSK	3	1	22.47	22.65	22.42	
1.4	QPSK	3	3	22.52	22.56	22.61	
1.4	QPSK	6	0	21.66	21.69	21.71	23
1.4	16QAM	1	0	21.59	21.68	21.68	
1.4	16QAM	1	3	21.48	21.69	21.62	
1.4	16QAM	1	5	21.71	21.51	21.74	23
1.4	16QAM	3	0	21.60	21.69	21.70	
1.4	16QAM	3	1	21.52	21.61	21.68	
1.4	16QAM	3	3	21.45	21.71	21.48	22
1.4	16QAM	6	0	20.56	20.71	20.63	
1.4	64QAM	1	0	20.63	20.76	20.73	
1.4	64QAM	1	3	20.52	20.64	20.69	22
1.4	64QAM	1	5	20.89	20.52	20.68	
1.4	64QAM	3	0	20.47	20.61	20.55	
1.4	64QAM	3	1	20.53	20.71	20.66	21
1.4	64QAM	3	3	20.44	20.57	20.48	
1.4	64QAM	6	0	19.94	19.72	19.81	
1.4	256QAM	1	0	17.61	17.80	17.68	19
1.4	256QAM	1	3	17.68	17.68	17.60	
1.4	256QAM	1	5	17.61	17.67	17.65	
1.4	256QAM	3	0	17.67	17.70	17.72	19
1.4	256QAM	3	1	17.80	17.75	17.78	
1.4	256QAM	6	0	17.57	17.84	17.63	
1.4	256QAM	6	0	17.64	17.63	17.60	

Band 7 Ant 1 ECI5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)
Channel							
Frequency [MHz]							
20950 21000 21050							
20	QPSK	1	0	19.55	19.60	19.53	21
20	QPSK	1	40	19.61	19.48	19.45	
20	QPSK	1	99	19.61	19.58	19.48	
20	QPSK	50	0	19.45	19.50	19.42	21
20	QPSK	50	24	19.49	19.49	19.39	
20	QPSK	50	50	19.49	19.54	19.38	
20	QPSK	100	0	19.40	19.50	19.50	

Band 12 Ant 1 ECI5														
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Mid Ch / Freq.	Power High Ch / Freq.	Tune-up Int. (dBm)	MPR (dB)						
Channel														
Frequency (MHz)														
10	QPSK	1	0	23.01	23.05	22.99	24	0						
10	QPSK	1	25	22.90	22.91	22.90								
10	QPSK	1	49	22.88	22.89	22.89								
10	QPSK	25	0	21.91	21.94	21.86								
10	QPSK	25	12	21.79	21.84	21.79	23	1						
10	QPSK	25	25	21.91	21.89	21.84								
10	QPSK	50	0	21.81	21.85	21.81								
10	16QAM	1	0	22.32	22.35	22.31								
10	16QAM	1	25	22.27	22.30	22.27	23	1						
10	16QAM	1	49	22.18	22.24	22.23								
10	16QAM	25	0	21.02	21.11	21.03								
10	16QAM	25	12	21.19	21.20	21.10								
10	16QAM	25	25	21.09	21.15	21.08	22	2						
10	16QAM	50	0	21.02	21.10	21.05								
10	16QAM	1	0	21.19	21.21	21.15								
10	16QAM	1	25	21.10	21.16	21.07								
10	16QAM	1	49	21.14	21.17	21.11	21	3						
10	16QAM	25	0	20.13	20.18	20.12								
10	16QAM	25	12	20.01	20.11	20.05								
10	16QAM	25	25	20.11	20.15	20.12								
10	16QAM	50	0	20.12	20.20	20.10	19	5						
10	256QAM	1	0	18.08	18.14	18.04								
10	256QAM	1	25	18.03	18.12	18.05								
10	256QAM	1	49	18.08	18.12	18.04								
10	256QAM	25	0	18.02	18.07	18.00								
10	256QAM	25	12	17.95	18.03	17.96								
10	256QAM	25	25	18.02	18.08	18.01	19	5						
10	256QAM	50	0	18.00	18.08	18.00								
Channel														
Frequency (MHz)														
5	QPSK	1	0	22.99	22.97	22.90					24	0		
5	QPSK	1	12	22.84	22.84	22.71								
5	QPSK	1	24	22.83	22.85	22.80								
5	QPSK	12	0	21.82	21.83	21.74								
5	QPSK	12	13	21.70	21.76	21.76	23	1						
5	QPSK	12	13	21.82	21.85	21.77								
5	QPSK	25	0	21.80	21.78	21.71								
5	16QAM	1	0	22.30	22.34	22.28								
5	16QAM	1	12	22.23	22.23	22.18	23	1						
5	16QAM	1	24	22.11	22.20	22.19								
5	16QAM	12	0	20.94	21.08	20.95								
5	16QAM	12	7	21.12	21.18	21.06								
5	16QAM	12	13	21.02	21.05	21.01	22	2						
5	16QAM	25	0	20.97	21.07	21.01								
5	16QAM	1	0	21.09	21.14	21.12								
5	16QAM	1	24	21.11	21.12	21.09								
5	16QAM	1	24	21.06	21.14	21.09	21	3						
5	16QAM	12	0	20.09	20.14	20.08								
5	16QAM	12	13	20.02	20.09	20.05								
5	16QAM	25	0	20.07	20.10	20.06								
5	256QAM	1	0	18.05	18.05	18.00	19	5						
5	256QAM	1	12	17.98	18.01	18.02								
5	256QAM	1	24	18.03	18.04	17.94								
5	256QAM	12	0	17.94	17.97	17.95								
5	256QAM	12	7	17.92	17.99	17.90	19	5						
5	256QAM	12	13	17.91	17.98	17.90								
5	256QAM	25	0	17.87	17.98	17.86								
5	256QAM	25	0	17.87	17.98	17.86								
Channel														
Frequency (MHz)														
3	QPSK	1	0	22.98	22.93	22.90	24	0						
3	QPSK	1	8	22.87	22.85	22.74								
3	QPSK	1	14	22.84	22.86	22.85								
3	QPSK	8	0	21.82	21.88	21.78								
3	QPSK	8	4	21.71	21.78	21.69	23	1						
3	QPSK	8	7	21.88	21.91	21.74								
3	QPSK	1	0	21.82	21.87	21.80								
3	16QAM	1	0	22.22	22.29	22.20								
3	16QAM	1	8	22.25	22.23	22.23	23	1						
3	16QAM	1	8	22.11	22.15	22.21								
3	16QAM	8	0	20.96	21.07	20.93								
3	16QAM	8	4	21.08	21.10	21.07								
3	16QAM	8	7	21.06	21.10	21.06	22	2						
3	16QAM	15	0	20.96	21.03	20.98								
3	16QAM	1	0	21.09	21.18	21.11								
3	16QAM	1	8	21.04	21.13	20.98								
3	16QAM	1	14	21.06	21.15	21.08	21	3						
3	16QAM	8	0	20.04	20.13	20.05								
3	16QAM	8	4	19.96	20.07	19.94								
3	16QAM	8	7	20.04	20.08	20.03								
3	16QAM	15	0	20.03	20.10	20.07	19	5						
3	256QAM	1	0	18.03	18.05	17.99								
3	256QAM	1	8	17.92	18.02	17.96								
3	256QAM	1	14	17.98	18.03	17.93								
3	256QAM	8	0	17.91	18.00	17.90	19	5						
3	256QAM	8	4	17.84	18.00	17.96								
3	256QAM	8	7	17.97	17.97	17.96								
3	256QAM	15	0	17.95	17.97	17.95								
Channel														
Frequency (MHz)														
1.4	QPSK	1	0	23.01	23.01	22.90	24	0						
1.4	QPSK	1	3	22.86	22.88	22.80								
1.4	QPSK	1	5	22.89	22.90	22.90								
1.4	QPSK	3	0	22.85	22.90	22.80								
1.4	QPSK	3	1	22.92	22.94	22.81	23	1						
1.4	QPSK	3	1	22.78	22.91	22.84								
1.4	QPSK	6	0	21.87	22.03	21.87								
1.4	16QAM	1	0	21.94	21.99	21.90								
1.4	16QAM	1	3	21.83	21.94	21.99	23	1						
1.4	16QAM	1	6	21.78	21.89	21.86								
1.4	16QAM	3	0	21.82	21.89	21.80								
1.4	16QAM	3	1	21.89	21.82	21.78								
1.4	16QAM	3	3	21.82	21.89	21.82	22	2						
1.4	16QAM	6	0	20.89	20.92	20.86								
1.4	16QAM	1	0	20.82	20.95	20.91								
1.4	16QAM	1	3	20.88	20.94	20.92								
1.4	16QAM	1	5	20.84	20.95	20.93	22	4						
1.4	16QAM	3	0	20.81	20.91	20.73								
1.4	16QAM	3	3	20.80	20.94	20.95								
1.4	16QAM	6	0	19.93	19.97	19.89								
1.4	256QAM	1	0	17.84	18.13	18.04	21	3						
1.4	256QAM	1	3	17.91	17.97	17.92								
1.4	256QAM	1	5	17.82	18.01	17.90								
1.4	256QAM	3	0	17.88	17.96	17.97								
1.4	256QAM	3	1	17.88	17.96	17.89	19	5						
1.4	256QAM	3	1	17.88	17.96	17.87								
1.4	256QAM	3	3	17.85	17.99	17.90								



Band 66 Ant 1 ECI5								
ISW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MPE (dB)
Channel				130072	182208	132072	19.9	0
Frequency (MHz)				1720	1740	1770		
20	QPSK	1	0	18.50	18.67	18.59	19.9	0
20	QPSK	1	-49	18.50	18.58	18.44		
20	QPSK	1	99	18.56	18.53	18.05		
20	QPSK	50	0	18.55	18.61	18.49		
20	QPSK	50	-24	18.57	18.58	18.50		
20	QPSK	50	50	18.57	18.52	18.58	19.9	0
20	QPSK	100	0	18.62	18.65	18.59		



Band 38 Ant 1 ECI5								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mode Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				22.05	22.05	22.15		
20	QPSK	1	0	22.25	22.35	22.15	23.6	0
20	QPSK	1	48	22.22	22.28	22.17		
20	QPSK	1	88	22.11	22.11	22.12		
20	QPSK	50	0	22.08	22.23	22.15	23.6	0
20	QPSK	50	24	22.14	22.14	22.12		
20	QPSK	50	50	22.08	22.15	22.10		
20	QPSK	100	0	22.07	22.19	22.10		

Band 41 Ant 1 ECI5										
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Mode Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (s)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)					22.06	22.13	22.13	22.06		
20	QPSK	1	0	22.26	22.25	22.14	22.35	22.25	23.6	0
20	QPSK	1	48	22.29	22.28	22.29	22.19	22.18		
20	QPSK	1	88	22.26	22.23	22.26	22.17	22.20		
20	QPSK	50	0	22.27	22.24	22.31	22.21	22.13	23.6	0
20	QPSK	50	24	22.34	22.26	22.27	22.27	22.27		
20	QPSK	50	50	22.23	22.10	22.24	22.15	22.21		
20	QPSK	100	0	22.15	22.17	22.31	22.23	22.17		

Band 41 HPUE Ant 1 EC15										
BW (MHz)	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Mode Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPE (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)						22.06	22.07	22.06		
20	QPSK	1	0	23.76	23.72	23.50	23.70	23.68	25.2	0
20	QPSK	1	48	23.65	23.68	23.70	23.71	23.69		
20	QPSK	1	88	23.58	23.59	23.64	23.69	23.63		
20	QPSK	50	0	23.62	23.68	23.73	23.61	23.59	25.2	0
20	QPSK	50	24	23.71	23.69	23.70	23.68	23.66		
20	QPSK	50	50	23.60	23.71	23.69	23.61	23.61		
20	QPSK	100	0	23.68	23.69	23.71	23.70	23.61		



Band 2 Ant 2 ECI5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MFR (dB)	
Channel				18700	18800	18900			
Frequency (MHz)				18800	18800	18900			
20	QPSK	1	0	15.16	15.25	15.14	16.4	0	
20	QPSK	1	49	15.15	15.04	15.17			
20	QPSK	1	99	15.17	15.09	15.08			
20	QPSK	50	0	15.10	15.24	15.04			
20	QPSK	50	24	15.07	15.12	15.07			
20	QPSK	50	50	15.13	15.19	15.01	16.4	0	
20	QPSK	100	0	15.04	15.18	15.01			

Band 4 Ant 2 ECI5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up Int (dB)	MFR (dB)	
Channel				20650	20715	20800			
Frequency (MHz)				1720	1725	1740			
20	QPSK	1	0	18.08	18.10	18.06	19.2	0	
20	QPSK	1	49	17.00	18.05	17.05			
20	QPSK	1	99	17.05	17.91	18.04			
20	QPSK	50	0	17.97	18.05	17.92			
20	QPSK	50	24	17.97	18.01	17.98			
20	QPSK	50	50	17.95	17.91	17.83	19.2	0	
20	QPSK	100	0	17.97	18.04	17.89			

Band 7 Ant 2 ECI5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MFR (dB)	
Channel				20560	21160	21560			
Frequency (MHz)				2610	2630	2650			
20	QPSK	1	0	16.17	16.27	16.22	19.5	0	
20	QPSK	1	49	16.12	16.20	16.06			
20	QPSK	1	99	16.07	16.12	16.05			
20	QPSK	50	0	16.01	16.19	16.05			
20	QPSK	50	24	16.14	16.15	16.15			
20	QPSK	50	50	16.09	16.14	16.07	19.5	0	
20	QPSK	100	0	16.09	16.14	16.08			



Band 25 Ant 2 ECI5								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./ Freq.	Power Middle Ch./ Freq.	Power High Ch./ Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				28140	28240	28340		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	18.26	18.30	18.21	16.4	0
20	QPSK	1	49	18.18	18.12	18.18		
20	QPSK	1	99	18.19	18.24	18.07		
20	QPSK	50	0	18.09	18.24	18.11	16.4	0
20	QPSK	50	24	18.11	18.20	18.21		
20	QPSK	50	50	18.16	18.20	18.13		
20	QPSK	100	0	18.21	18.26	18.10		

Band 66 Ant 2 ECI5								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1740	1770		
20	QPSK	1	0	18.08	18.16	18.04	19.2	0
20	QPSK	1	49	18.08	18.09	18.04		
20	QPSK	1	99	18.06	18.06	18.08		
20	QPSK	50	0	18.00	18.10	17.99	19.2	0
20	QPSK	50	24	17.99	18.09	18.05		
20	QPSK	50	50	18.05	18.03	17.99		
20	QPSK	100	0	18.04	18.12	18.05		



Band 38 Ant 2 ECI5								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				24.9	24.9	24.9		
20	QPSK	1	0	19.52	19.52	19.52	20.8	0
20	QPSK	1	40	19.53	19.50	19.46		
20	QPSK	1	80	19.35	19.46	19.51		
20	QPSK	50	0	19.45	19.58	19.50	20.8	0
20	QPSK	50	24	19.44	19.40	19.42		
20	QPSK	50	50	19.44	19.43	19.39		
20	QPSK	100	0	19.40	19.55	19.33		

Band 41 Ant 2 ECI5										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				24.94	24.93	24.93	24.94	24.94		
20	QPSK	1	0	19.56	19.40	19.53	19.61	19.55	20.8	0
20	QPSK	1	40	19.49	19.61	19.58	19.53	19.45		
20	QPSK	1	80	19.44	19.52	19.58	19.64	19.49		
20	QPSK	50	0	19.52	19.50	19.59	19.51	19.55	20.8	0
20	QPSK	50	24	19.43	19.49	19.53	19.59	19.56		
20	QPSK	50	50	19.53	19.50	19.56	19.45	19.52		
20	QPSK	100	0	19.42	19.52	19.59	19.49	19.53		

Band 41 HPUE Ant 2 ECI5										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPE (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)						24.94	24.93	24.93		
20	QPSK	1	0	20.87	20.87	20.95	20.87	20.85	22.4	0
20	QPSK	1	40	20.75	20.81	20.88	20.83	20.75		
20	QPSK	1	80	20.72	20.79	20.83	20.73	20.69		
20	QPSK	50	0	20.70	20.80	20.90	20.81	20.70	22.4	0
20	QPSK	50	24	20.76	20.85	20.80	20.79	20.65		
20	QPSK	50	50	20.69	20.79	20.79	20.77	20.74		
20	QPSK	100	0	20.70	20.75	20.85	20.74	20.78		



Band 2 Ant 3 EC15								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intn (dB)	MFR (dB)
Channel				18700	18800	18900		
Frequency (MHz)				18600	18800	18900		
20	QPSK	1	0	21.22	21.35	21.24	22.6	0
20	QPSK	1	48	21.21	21.18	21.20		
20	QPSK	1	99	21.15	21.17	21.15		
20	QPSK	50	0	21.16	21.31	21.14	22.6	0
20	QPSK	50	24	21.17	21.21	21.14		
20	QPSK	50	50	21.12	21.27	21.22		
20	QPSK	100	0	21.14	21.25	21.16		

Band 4 Ant 3 ECI5								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MFR (dB)
Channel				20550	20715	20800		
Frequency (MHz)				1720	1732.5	1746		
20	QPSK	1	0	22.90	22.85	22.93	24	0
20	QPSK	1	48	22.81	22.83	22.87		
20	QPSK	1	99	22.82	22.83	22.83		
20	QPSK	50	0	21.82	22.07	21.83	23	1
20	QPSK	50	24	21.89	21.88	21.85		
20	QPSK	50	50	21.83	21.89	21.90		
20	QPSK	100	0	21.87	21.97	21.88		

Band 7 Ant 3 EC15								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MFR (dB)
Channel				25650	25700	25768		
Frequency (MHz)				25510	25535	25680		
20	QPSK	1	0	19.67	19.81	19.72	21.1	0
20	QPSK	1	48	19.65	19.62	19.65		
20	QPSK	1	99	19.63	19.70	19.67		
20	QPSK	50	0	19.56	19.77	19.62	21.1	0
20	QPSK	50	24	19.53	19.74	19.68		
20	QPSK	50	50	19.63	19.69	19.68		
20	QPSK	100	0	19.68	19.71	19.62		



Band 25 Ant 3 EC15								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel				20.145	20.245	20.345		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	21.33	21.33	21.33	22.6	0
20	QPSK	1	48	21.32	21.29	21.37		
20	QPSK	1	99	21.24	21.33	21.36		
20	QPSK	50	0	21.23	21.32	21.28		
20	QPSK	50	24	21.22	21.35	21.28	22.6	0
20	QPSK	50	50	21.25	21.33	21.29		
20	QPSK	100	0	21.30	21.35	21.33		

Band 66 Ant 3 EC15								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel				13.0072	13.0224	13.0372		
Frequency (MHz)				1720	1740	1770		
20	QPSK	1	0	22.93	23.06	22.99	24	0
20	QPSK	1	48	22.89	23.04	22.95		
20	QPSK	1	99	22.86	22.96	23.00		
20	QPSK	50	0	21.92	22.07	22.00		
20	QPSK	50	24	21.94	22.05	21.98	23	1
20	QPSK	50	50	21.85	21.95	22.02		
20	QPSK	100	0	21.90	22.00	22.01		



Band 38 Ant 3 EC15								
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)	MPR (dB)
Channel				37850	38000	38150		
Frequency [MHz]				2185	2190	2195		
20	QPSK	5	0	21.85	21.92	21.91	22.9	0
20	QPSK	1	49	21.87	21.90	21.70		
20	QPSK	1	49	21.79	21.87	21.76		
20	QPSK	50	0	21.85	21.91	21.88		
20	QPSK	50	24	21.90	21.80	21.74	22.9	0
20	QPSK	50	50	21.92	21.80	21.84		
20	QPSK	100	0	21.76	21.92	21.88		
20	QPSK	100	0	21.76	21.92	21.88		

Band 41 Ant 3 EC15								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				38750	40185	40420	41055	41490
Frequency [MHz]				2194	2194.5	2195	2195.5	2196
20	QPSK	1	0	21.94	22.06	22.07	21.98	21.99
20	QPSK	1	49	21.91	21.90	21.90	21.88	22.02
20	QPSK	1	49	22.01	21.93	21.97	21.90	21.99
20	QPSK	50	0	21.93	21.90	22.00	21.89	21.87
20	QPSK	50	24	21.85	21.94	21.95	21.82	21.93
20	QPSK	50	50	21.85	21.85	21.94	21.82	21.82
20	QPSK	100	0	21.85	21.89	21.95	21.82	21.82



Band 41 HPUE Ant 3 EC15										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Low-Mid Ch / Freq.	Power Mid Ch / Freq.	Power High-Mid Ch / Freq.	Power High Ch / Freq.	Tune-up Int. (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490	24.5	0
Frequency (MHz)				23.27	23.17	23.32	23.19	23.24		
20	QPSK	1	0	23.24	23.07	23.18	23.13	23.21		
20	QPSK	1	40	23.17	23.10	23.19	23.12	23.16		
20	QPSK	50	0	23.09	23.13	23.30	23.22	23.11		
20	QPSK	50	34	23.25	23.13	23.14	23.11	23.16	24.5	0
20	QPSK	50	30	23.17	23.07	23.16	23.08	23.09		
20	QPSK	100	0	23.17	23.06	23.26	23.08	23.15		

Band 42 FCC Part27Q Ant 3									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MPR (dB)	
Channel				42190	42690	43190	20	0	
Frequency (MHz)				18.54	18.57	18.57			
20	QPSK	1	0	18.54	18.57	18.57	20	0	
20	QPSK	1	40	18.72	18.71	18.71			
20	QPSK	1	80	18.70	18.70	18.68			
20	QPSK	50	0	18.45	18.72	18.52			
20	QPSK	50	24	18.61	18.60	18.68			
20	QPSK	50	30	18.62	18.57	18.57	20	0	
20	QPSK	100	0	18.48	18.64	18.50			
20	16QAM	1	0	18.69	18.57	18.62			
20	16QAM	1	40	18.61	18.66	18.66			
20	16QAM	1	80	18.49	18.60	18.52			
20	16QAM	50	24	18.66	18.60	18.60	20	0	
20	16QAM	50	50	18.46	18.69	18.51			
20	16QAM	100	0	18.60	18.65	18.55			
20	16QAM	1	1	18.57	18.65	18.59			
20	16QAM	1	40	18.44	18.69	18.65			
20	16QAM	1	80	18.58	18.67	18.60	20	0	
20	16QAM	50	0	18.61	18.61	18.60			
20	16QAM	50	24	18.43	18.69	18.47			
20	16QAM	50	50	18.69	18.61	18.64			
20	16QAM	100	0	18.66	18.63	18.62			
20	25QAM	1	0	18.61	18.66	18.58	19	1	
20	25QAM	1	40	18.59	18.60	18.52			
20	25QAM	1	80	18.53	18.57	18.56			
20	25QAM	50	0	18.54	18.59	18.47			
20	25QAM	50	24	18.49	18.57	18.54			
20	25QAM	50	50	18.59	18.60	18.63	19	1	
Channel				42165	42690	43015			
Frequency (MHz)				18.47	18.64	18.43			
19	QPSK	1	0	18.43	18.64	18.44	20	0	
19	QPSK	1	37	18.68	18.67	18.59			
19	QPSK	1	74	18.60	18.67	18.56			
19	QPSK	36	0	18.35	18.63	18.43			
19	QPSK	36	20	18.50	18.57	18.63			
19	QPSK	36	38	18.58	18.50	18.51	20	0	
19	QPSK	75	0	18.36	18.58	18.40			
19	16QAM	1	0	18.59	18.50	18.55			
19	16QAM	1	37	18.54	18.62	18.52			
19	16QAM	1	74	18.59	18.59	18.48			
19	16QAM	36	0	18.60	18.57	18.54	20	0	
19	16QAM	36	20	18.55	18.56	18.60			
19	16QAM	36	39	18.36	18.60	18.48			
19	16QAM	75	0	18.66	18.59	18.60			
19	16QAM	1	0	18.63	18.57	18.55			
19	16QAM	1	37	18.34	18.65	18.42	20	0	
19	16QAM	1	74	18.59	18.60	18.47			
19	16QAM	36	0	18.54	18.51	18.57			
19	16QAM	36	20	18.39	18.59	18.44			
19	16QAM	36	39	18.55	18.55	18.47			
19	16QAM	75	0	18.63	18.55	18.50	20	0	
19	25QAM	1	0	18.56	18.61	18.47			
19	25QAM	1	37	18.49	18.53	18.42			
19	25QAM	1	74	18.42	18.49	18.52			
19	25QAM	36	0	18.49	18.53	18.42			
19	25QAM	36	20	18.47	18.53	18.47	19	1	
19	25QAM	36	39	18.51	18.52	18.45			
19	25QAM	75	0	18.40	18.40	18.46			
Channel				42140	42690	43040			
Frequency (MHz)				18.43 <th>18.60</th> <th>18.46</th>	18.60	18.46			
19	QPSK	1	0	18.43	18.60 <td>18.46</td> <td rowspan="5">20</td> <td rowspan="5">0</td>	18.46	20	0	
19	QPSK	1	25	18.64	18.61	18.59			
19	QPSK	1	49	18.59	18.58	18.66			
19	QPSK	25	0	18.41	18.65	18.45			
19	QPSK	25	12	18.57	18.49	18.60			
19	QPSK	25	25	18.54	18.47	18.53	20	0	
19	QPSK	50	0	18.44	18.60	18.45			
19	16QAM	1	0	18.67	18.47	18.56			
19	16QAM	1	25	18.47	18.64	18.59			
19	16QAM	1	49	18.34	18.63	18.41	20	0	
19	16QAM	25	0	18.59	18.51	18.47			
19	16QAM	25	12	18.54	18.55	18.46			
19	16QAM	25	25	18.37	18.66	18.40			
19	16QAM	50	0	18.64	18.63	18.59			
19	16QAM	1	0	18.64	18.55	18.52	20	0	
19	16QAM	1	25	18.42	18.61	18.43			
19	16QAM	1	49	18.61	18.59	18.52			
19	16QAM	25	0	18.50	18.55	18.47			
19	16QAM	25	12	18.36	18.61	18.39			
19	16QAM	25	25	18.57	18.52	18.54	20	0	
19	16QAM	50	0	18.64	18.55	18.59			
19	25QAM	1	0	18.59	18.63	18.52			
19	25QAM	1	25	18.51	18.54	18.46			
19	25QAM	1	49	18.48	18.52	18.47			
19	25QAM	25	0	18.49	18.49	18.42	19	1	
19	25QAM	25	25	18.41	18.47	18.44			
19	25QAM	25	25	18.53	18.55	18.43			
19	25QAM	50	0	18.51	18.55	18.47			
Channel				42115	42690	43065			
Frequency (MHz)				18.43	18.72	18.46			
5	QPSK	1	0	18.43	18.72	18.46	20	0	
5	QPSK	1	15	18.59	18.60	18.58			
5	QPSK	1	24	18.57	18.62	18.54			
5	QPSK	12	0	18.59	18.64	18.44			
5	QPSK	12	7	18.52	18.50	18.55			
5	QPSK	12	13	18.59	18.50	18.47	20	0	
5	QPSK	25	0	18.44	18.60	18.40			
5	16QAM	1	0	18.62	18.45	18.59			
5	16QAM	1	12	18.52	18.58	18.54			
5	16QAM	1	24	18.33	18.59	18.48	20	0	
5	16QAM	12	0	18.62	18.52	18.47			
5	16QAM	12	7	18.54	18.53	18.57			
5	16QAM	12	13	18.33	18.64	18.41			
5	16QAM	25	0	18.65	18.58	18.57			
5	16QAM	1	0	18.48	18.55	18.51	20	0	
5	16QAM	1	12	18.32	18.64	18.43			
5	16QAM	1	24	18.59	18.57	18.52			
5	16QAM	12	0	18.48	18.55	18.51			
5	16QAM	12	0	18.35	18.64	18.33			
5	16QAM	12	13	18.56	18.59	18.55	20	0	
5	16QAM	25	0	18.62	18.50	18.58			
5	25QAM	1	0	18.57	18.60	18.53			
5	25QAM	1	12	18.48	18.50	18.47			
5	25QAM	1	24	18.49	18.48	18.54			
5	25QAM	12	0	18.53	18.53	18.40	19	1	
5	25QAM	12	7	18.39	18.50	18.45			
5	25QAM	12	13	18.52	18.57	18.44			
5	25QAM	25	0	18.52	18.48	18.46			



Band 42 FCC Part27Q Ant8 ECI5										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (min)	MPR (dB)		
Channel				42190	42590	42590				
Frequency (MHz)				3470	3490	3490				
20	QPSK	1	0	22.91	22.95	22.94	24	0		
20	QPSK	1	48	22.75	22.78	22.79				
20	QPSK	1	99	22.81	22.83	22.79	23	1		
20	QPSK	50	0	22.02	22.03	22.02				
20	QPSK	50	24	22.04	22.06	22.02	22	2		
20	QPSK	50	50	21.90	22.01	21.93				
20	QPSK	100	0	22.01	22.11	22.03	23	1		
20	HQAM	1	0	22.05	22.05	22.06				
20	HQAM	1	48	21.99	22.04	22.00	20	3		
20	HQAM	1	99	22.03	22.05	21.98				
20	HQAM	50	0	20.89	20.96	20.95	22	2		
20	HQAM	50	24	20.85	20.91	20.83				
20	HQAM	50	50	20.80	20.91	20.85	22	2		
20	HQAM	100	0	20.91	20.94	20.88				
20	HQAM	1	0	20.57	20.57	20.54	22	2		
20	HQAM	1	48	20.90	20.95	20.92				
20	HQAM	1	99	20.92	20.93	20.96	21	3		
20	HQAM	50	0	19.87	19.97	19.89				
20	HQAM	50	24	19.89	19.99	19.82	19	5		
20	HQAM	50	50	19.94	19.97	19.95				
20	256QAM	1	0	17.90	17.93	17.90	19	5		
20	256QAM	1	48	17.91	17.93	17.85				
20	256QAM	1	99	17.81	17.82	17.88	19	5		
20	256QAM	50	0	17.94	17.96	17.92				
20	256QAM	50	24	17.98	17.99	17.94	19	5		
20	256QAM	50	50	17.86	17.87	17.87				
20	256QAM	100	0	17.93	17.99	17.94	19	5		
Channel				42195 <th>42590<th>43015</th><th>Turn-up time (min)</th><th>MPR (dB)</th></th>	42590 <th>43015</th> <th>Turn-up time (min)</th> <th>MPR (dB)</th>	43015				Turn-up time (min)
Frequency (MHz)				3472.5	3503	3542.5				
15	QPSK	1	0	22.17	22.52	22.51	24			0
15	QPSK	1	37	22.73	22.70	22.61				
15	QPSK	1	74	22.80	22.80	22.73	23	1		
15	QPSK	36	0	22.01	21.97	21.94				
15	QPSK	36	20	21.95	21.98	21.95	23	1		
15	QPSK	36	56	21.89	21.88	21.96				
15	QPSK	75	0	21.08	22.09	22.01	23	1		
15	HQAM	1	0	22.04	22.04	22.04				
15	HQAM	1	37	21.95	22.01	21.98	22	2		
15	HQAM	1	74	21.94	22.01	21.93				
15	HQAM	36	0	20.88	20.98	20.92	22	2		
15	HQAM	36	20	20.74	20.83	20.82				
15	HQAM	36	39	20.71	20.83	20.81	22	2		
15	HQAM	75	0	20.83	20.88	20.81				
15	HQAM	1	0	20.79	20.84	20.85	21	3		
15	HQAM	1	37	20.83	20.91	20.82				
15	HQAM	1	74	20.84	20.86	20.77	21	3		
15	HQAM	36	0	19.82	19.85	19.83				
15	HQAM	36	20	19.79	19.88	19.85	19	5		
15	HQAM	36	39	19.89	19.90	19.87				
15	HQAM	75	0	19.84	19.93	19.75	19	5		
15	256QAM	1	0	17.89	17.87	17.83				
15	256QAM	1	37	17.85	17.84	17.76	19	5		
15	256QAM	1	74	17.78	17.83	17.81				
15	256QAM	36	0	17.92	17.87	17.83	19	5		
15	256QAM	36	20	17.90	17.89	17.88				
15	256QAM	36	39	17.83	17.96	17.83	19	5		
15	256QAM	75	0	17.86	17.86	17.84				
Channel				42140 <th>42590<th>42990</th><th>Turn-up time (min)</th><th>MPR (dB)</th></th>	42590 <th>42990</th> <th>Turn-up time (min)</th> <th>MPR (dB)</th>	42990	Turn-up time (min)			MPR (dB)
Frequency (MHz)				3475	3503	3545				
10	QPSK	1	0	22.83	22.86	22.83	24	0		
10	QPSK	1	25	22.88	22.88	22.88				
10	QPSK	1	49	22.75	22.80	22.78	23	1		
10	QPSK	25	0	22.00	22.03	21.95				
10	QPSK	25	12	21.90	21.98	22.00	23	1		
10	QPSK	25	25	21.81	21.92	21.91				
10	QPSK	50	0	21.97	22.04	22.00	23	1		
10	HQAM	1	0	21.98	22.03	22.04				
10	HQAM	1	25	21.99	22.03	21.98	22	2		
10	HQAM	1	49	21.94	22.03	21.99				
10	HQAM	25	0	20.81	20.90	20.87	22	2		
10	HQAM	25	12	20.74	20.86	20.82				
10	HQAM	25	25	20.70	20.83	20.81	22	2		
10	HQAM	50	0	20.86	20.83	20.82				
10	HQAM	1	0	20.94	20.87	20.98	22	2		
10	HQAM	1	25	20.89	20.85	20.89				
10	HQAM	1	49	20.85	20.89	20.83	21	3		
10	HQAM	25	0	19.79	19.80	19.81				
10	HQAM	25	12	19.79	19.91	19.83	19	5		
10	HQAM	25	25	19.90	19.88	19.91				
10	HQAM	50	0	19.79	19.82	19.75	19	5		
10	256QAM	1	0	17.85	17.84	17.81				
10	256QAM	1	25	17.88	17.81	17.74	19	5		
10	256QAM	1	49	17.71	17.87	17.83				
10	256QAM	25	0	17.90	17.84	17.84	19	5		
10	256QAM	25	12	17.88	17.86	17.87				
10	256QAM	25	25	17.83	17.95	17.77	19	5		
10	256QAM	50	0	17.91	17.90	17.88				
Channel				42115 <th>42590<th>43065</th><th>Turn-up time (min)</th><th>MPR (dB)</th></th>	42590 <th>43065</th> <th>Turn-up time (min)</th> <th>MPR (dB)</th>	43065	Turn-up time (min)			MPR (dB)
Frequency (MHz)				3462.5	3503	3547.5				
5	QPSK	1	0	22.83	22.82	22.84	24	0		
5	QPSK	1	15	22.89	22.87	22.84				
5	QPSK	1	24	22.71	22.74	22.72	23	1		
5	QPSK	12	0	21.98	22.04	21.98				
5	QPSK	12	7	21.95	21.97	21.91	23	1		
5	QPSK	12	13	21.88	21.92	21.91				
5	QPSK	25	0	21.97	22.02	21.96	23	1		
5	HQAM	1	0	21.97	22.06	21.95				
5	HQAM	1	12	21.96	22.01	21.90	22	2		
5	HQAM	1	24	22.00	22.01	21.94				
5	HQAM	12	0	20.83	20.97	20.89	22	2		
5	HQAM	12	7	20.84	20.83	20.73				
5	HQAM	12	13	20.77	20.89	20.76	22	2		
5	HQAM	25	0	20.82	20.88	20.85				
5	HQAM	1	0	20.81	20.88	20.85	21	3		
5	HQAM	1	12	20.88	20.84	20.90				
5	HQAM	1	24	20.83	20.91	20.79	19	5		
5	HQAM	12	0	19.76	19.86	19.87				
5	HQAM	12	7	19.85	19.92	19.83	19	5		
5	HQAM	12	13	19.91	19.87	19.89				
5	HQAM	25	0	19.84	19.81	19.90	19	5		
5	256QAM	1	0	17.89	17.84	17.85				
5	256QAM	1	12	17.81	17.84	17.79	19	5		
5	256QAM	1	24	17.78	17.84	17.80				
5	256QAM	12	0	17.83	17.88	17.81	19	5		
5	256QAM	12	7	17.94	17.87	17.85				
5	256QAM	12	13	17.85	17.91	17.79	19	5		
5	256QAM	25	0	17.89	17.91	17.84				



GSM450-Air 1		Rural Average Power (dBm)		Turn-up		Farm Average Power (dBm)		Turn-up	
Tx Channel		128	160	201	140	128	160	201	140
Frequency (MHz)		824.2	836.4	848.6	(dBm)	824.2	836.4	848.6	(dBm)
OPRR 1 Tx 90%		31.5	31.7	31.3	33.20	22.6	22.7	22.3	24.50
OPRR 1 Tx 90%		31.89	31.85	31.83	33.59	22.80	22.85	22.53	24.90
OPRR 2 Tx 90%		30.82	30.83	30.84	32.00	24.82	24.83	24.84	25.00
OPRR 3 Tx 90%		29.48	29.51	29.49	30.00	24.20	24.25	24.23	25.14
OPRR 4 Tx 90%		27.38	27.39	27.32	29.00	24.38	24.39	24.32	25.00

Band		WCDMA 6-Air 1		Turn-up		WCDMA 17-Air 1		Turn-up		WCDMA 17-Air 1		Turn-up	
Tx Channel		8262	8400	8638	140	1512	1415	1513	140	4132	4182	4213	140
Frequency (MHz)		955.4	9590	9695	(dBm)	1537	1536	1538	(dBm)	4307	4407	4456	(dBm)
GPPR-Bus 60 / RMC-12.2600%		21.33	21.43	21.32	22.40	21.31	21.54	21.43	23.00	24.17	24.23	24.15	25.00



GSM1900-A12		Total Average Power (dBm)			Turn-up		Power Density Power (dBm)			Turn-up	
Tx Channel		812	845	812	Limit		812	845	812	Limit	
Frequency (MHz)		1930.2	1930	1930.8	(dBm)		1930.2	1930	1930.8	(dBm)	
GSM 1 Tx slot		23.28	23.15	23.28	23.50		23.28	23.15	23.28	23.50	
GPRS 1 Tx slot		20.20	20.32	20.21	20.50		20.20	20.32	20.21	21.00	
GPRS 2 Tx slots		20.35	20.37	20.36	20.00		22.05	22.07	22.06	23.00	
GPRS 3 Tx slots		20.33	20.34	20.30	22.00		22.05	22.06	22.13	22.50	
GPRS 4 Tx slots		20.27	20.33	20.24	20.00		22.27	22.33	22.24	23.00	

Band		WCDMA-A12			Turn-up		WCDMA-A12			Turn-up	
Tx Channel		9352	9400	9538	Limit		1312	1413	1513	Limit	
Rx Channel		9602	9590	9598	(dBm)		1327	1336	1334	(dBm)	
Frequency (MHz)		1652.4	1650	1657.6			1722.4	1722	1726.6		
GPPB Band 60		20.66	20.76	20.65	21.00		20.37	20.40	20.36	21.50	



Band	WCDMA II AX 3			Time-to- Live	WCDMA IV AX 3			Time-to- Live
TX Channel	9562	9450	9538	(MHz)	9532	9418	9518	(MHz)
TX Channel	9562	9450	9538	(MHz)	9532	9418	9518	(MHz)
Frequency (MHz)	1812.4	1800	1807.6		1712.4	1702.8	1702.8	
SCPF Per M	WNC 12 Phase	18.54	19.88	19.87	20.75	19.85	19.88	21.00



Band 66 Ant 0 ECi6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up test (dBm)	MPE (dB)	
Channel				130072	130208	130344			
Frequency (MHz)				1750	1745	1750			
20	QPSK	1	0	22.25	22.32	22.25	23.9	0	
20	QPSK	1	-49	22.13	22.20	22.21			
20	QPSK	1	99	22.13	22.28	22.24			
20	QPSK	60	0	21.37	21.41	21.35			
20	QPSK	90	-24	21.22	21.25	21.30	23	0.9	
20	QPSK	90	50	21.20	21.27	21.32			
20	QPSK	100	0	21.31	21.46	21.34			



Band 38 Ant 0 ECI6							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Med. Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				37850	38050	38150	
Frequency (MHz)				24.41	24.43	24.45	
20	QPSK	1	0	23.55	23.57	23.45	25
20	QPSK	1	49	23.44	23.45	23.35	
20	QPSK	1	99	23.41	23.49	23.37	
20	QPSK	50	0	22.43	22.52	22.60	24
20	QPSK	50	24	22.48	22.53	22.42	
20	QPSK	50	50	22.46	22.53	22.45	
20	QPSK	100	0	22.39	22.52	22.39	1

Band 41 Ant 0 ECI6										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Midle Ch. / Freq.	Power Med. Ch. / Freq.	Power High-Midle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				24.41	24.42	24.43	24.46	24.46		
20	QPSK	1	0	24.41	24.42	24.43	24.26	24.39	25	0
20	QPSK	1	49	24.38	24.27	24.47	24.19	24.21		
20	QPSK	1	99	24.31	24.32	24.37	24.23	24.22		
20	QPSK	50	0	23.40	23.43	23.50	23.31	23.31	24	1
20	QPSK	50	24	23.40	23.38	23.46	23.34	23.37		
20	QPSK	50	50	23.32	23.43	23.43	23.33	23.37		
20	QPSK	100	0	23.36	23.33	23.43	23.29	23.29		

Band 41 HPUE Ant 0 ECI6										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Midle Ch. / Freq.	Power Med. Ch. / Freq.	Power High-Midle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				25.06	25.08.5	25.07	25.10.5	25.09		
20	QPSK	1	0	25.22	25.14	25.07	25.07	25.21	28	0
20	QPSK	1	49	25.14	25.03	25.26	25.05	25.07		
20	QPSK	1	99	25.09	25.01	25.17	25.07	25.07		
20	QPSK	50	0	25.22	25.23	25.35	25.14	25.11	27	1
20	QPSK	50	24	25.25	25.15	25.32	25.11	25.05		
20	QPSK	50	50	25.09	25.17	25.19	25.13	25.20		
20	QPSK	100	0	25.08	25.13	25.19	25.10	25.09		



Band 2 Ant 1 ECI6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MRR (dB)	
Channel				18700	18800	18900			
Frequency (MHz)									
20	QPSK	1	0	21.34	21.36	21.32	23	0	
20	QPSK	1	48	21.31	21.30	21.24			
20	QPSK	1	96	21.27	21.26	21.30			
20	QPSK	50	0	21.26	21.34	21.33			
20	QPSK	50	24	21.23	21.17	21.25	23	0	
20	QPSK	50	50	21.28	21.25	21.31			
20	QPSK	100	0	21.29	21.30	21.25			

Band 4 Ant 1 ECI6											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MRR (dB)			
Channel											
Frequency (MHz)											
20950 21015 21080											
20	QPSK	1	0	21.78	21.81	21.76	23	0			
20	QPSK	1	48	21.81	21.71	21.80					
20	QPSK	1	96	21.66	21.74	21.73					
20	QPSK	50	0	21.71	21.70	21.69					
20	QPSK	50	24	21.68	21.71	21.65	23	0			
20	QPSK	50	50	21.76	21.68	21.73					
20	QPSK	100	0	21.70	21.73	21.70					

Band 5 Ant 1 ECI6												
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MRR (dB)				
Channel												
Frequency (MHz)												
20950 20950 20950												
10	QPSK	1	0	22.67	22.65	22.70	24	0				
10	QPSK	1	25	22.61	22.68	22.73						
10	QPSK	1	49	22.61	22.67	22.73						
10	QPSK	25	0	21.73	21.60	21.67						
10	QPSK	25	19	21.66	21.76	21.60	23	1				
10	QPSK	25	25	21.71	21.53	21.74						
10	QPSK	50	0	21.63	21.72	21.65						
10	16QAM	1	49	21.70	21.58	21.76						
10	16QAM	25	0	20.89	20.84	20.72	23	1				
10	16QAM	25	12	20.83	20.68	20.73						
10	16QAM	25	20	20.71	20.62	20.71						
10	16QAM	50	0	20.68	20.87	20.69						
10	16QAM	50	12	20.54	20.80	20.62	22	2				
10	16QAM	50	20	20.57	20.88	20.62						
10	64QAM	1	26	20.57	20.66	20.69						
10	64QAM	25	0	19.80	19.86	19.72						
10	64QAM	25	12	19.57	19.85	19.64	21	3				
10	64QAM	25	25	19.71	19.56	19.69						
10	64QAM	50	0	19.63	19.75	19.70						
10	256QAM	1	0	17.59	17.77	17.73						
10	256QAM	1	25	17.62	17.70	17.69	19	5				
10	256QAM	1	49	17.68	17.62	17.70						
10	256QAM	25	0	17.70	17.73	17.73						
10	256QAM	25	12	17.65	17.82	17.70						
10	256QAM	25	25	17.58	17.72	17.69	19	5				
10	256QAM	50	0	17.72	17.64	17.77						
Channel												
Frequency (MHz)												
20950 20950 20950												
5	QPSK	1	0	22.64	22.70	22.65	24	0				
5	QPSK	1	12	22.50	22.64	22.46						
5	QPSK	1	24	22.55	22.63	22.63						
5	QPSK	12	0	21.63	21.73	21.66						
5	QPSK	12	7	21.58	21.72	21.69	23	1				
5	QPSK	12	13	21.63	21.45	21.68						
5	QPSK	25	0	21.59	21.64	21.68						
5	16QAM	1	0	21.62	21.67	21.76						
5	16QAM	1	12	21.54	21.65	21.58	23	1				
5	16QAM	1	24	21.67	21.49	21.71						
5	16QAM	12	0	20.64	20.78	20.69						
5	16QAM	12	7	20.46	20.60	20.43						
5	16QAM	12	13	20.68	20.55	20.67	22	2				
5	16QAM	25	0	20.64	20.64	20.77						
5	64QAM	1	0	20.54	20.73	20.51						
5	64QAM	1	19	20.50	20.68	20.57						
5	64QAM	1	24	20.65	20.62	20.71	21	3				
5	64QAM	12	0	19.51	19.57	19.62						
5	64QAM	12	7	19.45	19.51	19.57						
5	64QAM	12	13	19.59	19.25	19.51						
5	64QAM	25	0	19.57	19.67	19.65	19	5				
5	256QAM	1	0	17.54	17.68	17.71						
5	256QAM	1	12	17.58	17.61	17.61						
5	256QAM	1	24	17.65	17.56	17.69						
5	256QAM	12	0	17.64	17.72	17.61	19	5				
5	256QAM	12	7	17.61	17.73	17.60						
5	256QAM	12	13	17.55	17.67	17.67						
5	256QAM	25	0	17.65	17.61	17.64						
Channel												
Frequency (MHz)												
20950 20950 20950												
3	QPSK	1	0	22.60	22.74	22.48	24	0				
3	QPSK	1	8	22.51	22.63	22.50						
3	QPSK	1	14	22.59	22.61	22.66						
3	QPSK	8	0	21.66	21.76	21.61						
3	QPSK	8	4	21.58	21.68	21.59	23	1				
3	QPSK	8	7	21.67	21.47	21.69						
3	QPSK	16	0	21.55	21.67	21.58						
3	16QAM	1	0	21.63	21.61	21.80						
3	16QAM	1	8	21.55	21.69	21.56	23	1				
3	16QAM	1	14	21.66	21.53	21.68						
3	16QAM	8	0	20.68	20.82	20.61						
3	16QAM	8	4	20.43	20.60	20.43						
3	16QAM	8	7	20.45	20.53	20.62	22	2				
3	16QAM	15	0	20.59	20.65	20.73						
3	64QAM	1	0	20.61	20.69	20.81						
3	64QAM	1	14	20.66	20.59	20.69						
3	64QAM	8	0	19.58	19.56	19.63	21	3				
3	64QAM	8	4	19.48	19.50	19.54						
3	64QAM	8	7	19.62	19.47	19.65						
3	64QAM	15	0	19.62	19.74	19.64						
3	256QAM	1	0	17.51	17.68	17.69	19	5				
3	256QAM	1	8	17.54	17.61	17.61						
3	256QAM	1	14	17.62	17.58	17.61						
3	256QAM	8	0	17.67	17.67	17.73						
3	256QAM	8	4	17.80	17.61	17.62	19	5				
3	256QAM	8	7	17.52	17.70	17.54						
3	256QAM	15	0	17.65	17.57	17.67						
Channel												
Frequency (MHz)												
20950 20950 20950												
1.4	QPSK	1	0	22.65	22.75	22.24				24	0	
1.4	QPSK	1	3	22.55	22.70	22.55						
1.4	QPSK	1	5	22.67	22.66	22.69						
1.4	QPSK	3	0	22.60	22.62	22.66						
1.4	QPSK	3	1	22.47	22.65	22.42	23	1				
1.4	QPSK	3	3	22.52	22.56	22.61						
1.4	QPSK	6	0	21.66	21.69	21.71						
1.4	16QAM	1	0	21.59	21.68	21.68						
1.4	16QAM	1	3	21.48	21.69	21.62	23	1				
1.4	16QAM	1	5	21.71	21.51	21.74						
1.4	16QAM	3	0	21.60	21.69	21.70						
1.4	16QAM	3	1	21.61	21.67	21.68						
1.4	16QAM	6	0	21.45	21.71	21.66	22	2				
1.4	16QAM	6	0	20.56	20.71	20.63						
1.4	16QAM	6	3	20.76	20.67	20.73						
1.4	16QAM	6	1	20.52	20.64	20.69						
1.4	16QAM	6	5	20.59	20.52	20.68	22	2				
1.4	16QAM	6	8	20.61	20.59	20.63						
1.4	16QAM	6	3	20.53	20.71	20.66						
1.4	16QAM	6	3	20.44	20.57	20.48						
1.4	16QAM	6	8	20.72	20.67	20.78	21	3				
1.4	256QAM	1	0	17.61	17.68	17.68						
1.4	256QAM	1	3	17.68	17.68	17.68						
1.4	256QAM	1	5	17.72	17.67	17.68						
1.4	256QAM	3	0	17.67	17.70	17.72	19	5				
1.4	256QAM	3	1	17.60	17.75	17.73						
1.4	256QAM	6	0	17.66	17.67	17.67						
1.4	256QAM	6	0	17.64	17.63	17.69						

Band 12 Ant 1 ECI6														
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Mid Ch / Freq.	Power High Ch / Freq.	Tune-up Int. (dB)	MPR (dB)						
Channel														
Frequency (MHz)														
10	QPSK	1	0	23.01	23.05	22.89	24	0						
10	QPSK	1	25	22.80	22.81	22.80								
10	QPSK	1	49	22.88	22.89	22.89								
10	QPSK	25	0	21.91	21.94	21.85								
10	QPSK	25	12	21.79	21.84	21.79	23	1						
10	QPSK	25	25	21.91	21.89	21.84								
10	QPSK	50	0	21.81	21.85	21.81								
10	16QAM	1	0	22.32	22.35	22.31								
10	16QAM	1	25	22.27	22.30	22.27	23	1						
10	16QAM	1	49	22.18	22.24	22.23								
10	16QAM	25	0	21.02	21.11	21.03								
10	16QAM	25	12	21.15	21.20	21.10								
10	16QAM	25	25	21.09	21.15	21.08	22	2						
10	16QAM	50	0	21.02	21.10	21.05								
10	16QAM	1	0	21.19	21.21	21.15								
10	16QAM	1	25	21.10	21.16	21.07								
10	16QAM	1	49	21.14	21.17	21.11	21	3						
10	16QAM	25	0	20.13	20.18	20.12								
10	16QAM	25	12	20.01	20.13	20.05								
10	16QAM	25	25	20.11	20.15	20.10								
10	16QAM	50	0	20.12	20.20	20.10	19	5						
10	256QAM	1	0	18.06	18.14	18.04								
10	256QAM	1	25	18.03	18.12	18.05								
10	256QAM	1	49	18.08	18.12	18.04								
10	256QAM	25	0	18.02	18.07	18.02								
10	256QAM	25	12	17.95	18.03	17.96								
10	256QAM	25	25	18.02	18.08	18.01								
10	256QAM	50	0	17.95	18.02	17.95	19	5						
10	256QAM	50	12	17.95	18.03	17.96								
10	256QAM	50	25	18.02	18.08	18.01								
10	256QAM	1	0	18.05	18.05	18.05								
Channel														
Frequency (MHz)														
5	QPSK	1	0	22.39	22.37	22.30	24	0						
5	QPSK	1	12	22.84	22.84	22.71								
5	QPSK	1	24	22.83	22.85	22.80								
5	QPSK	12	0	21.82	21.83	21.74								
5	QPSK	12	13	21.70	21.76	21.76	23	1						
5	QPSK	12	13	21.82	21.85	21.77								
5	QPSK	25	0	21.80	21.78	21.71								
5	16QAM	1	0	22.30	22.34	22.28								
5	16QAM	1	12	22.23	22.23	22.18	23	1						
5	16QAM	1	24	22.11	22.20	22.19								
5	16QAM	12	0	20.94	21.08	20.95								
5	16QAM	12	7	21.12	21.18	21.06								
5	16QAM	12	13	21.02	21.05	21.01	22	2						
5	16QAM	25	0	20.97	21.07	21.01								
5	16QAM	1	0	21.09	21.14	21.12								
5	16QAM	1	24	21.11	21.12	21.09								
5	16QAM	1	24	21.06	21.14	21.09	21	3						
5	16QAM	12	0	20.09	20.14	20.08								
5	16QAM	12	13	20.02	20.09	20.05								
5	16QAM	25	0	20.07	20.10	20.05								
5	256QAM	1	0	18.05	18.05	18.05	19	5						
5	256QAM	1	12	17.98	18.07	18.02								
5	256QAM	1	24	18.03	18.04	17.94								
5	256QAM	12	0	17.94	17.97	17.95								
5	256QAM	12	7	17.92	17.99	17.90	19	5						
5	256QAM	12	13	17.91	17.98	17.90								
5	256QAM	25	0	17.87	17.88	17.88								
5	256QAM	25	0	17.87	17.88	17.88								
Channel														
Frequency (MHz)														
3	QPSK	1	0	22.09	22.03	22.00	24	0						
3	QPSK	1	8	22.87	22.85	22.74								
3	QPSK	1	14	22.84	22.88	22.85								
3	QPSK	8	0	21.82	21.88	21.78								
3	QPSK	8	7	21.71	21.78	21.69	23	1						
3	QPSK	8	7	21.88	21.91	21.74								
3	QPSK	1	0	21.87	21.87	21.80								
3	16QAM	1	0	22.22	22.29	22.20								
3	16QAM	1	8	22.25	22.23	22.23	23	1						
3	16QAM	1	8	22.11	22.10	22.01								
3	16QAM	8	0	20.96	21.07	20.93								
3	16QAM	8	4	21.08	21.10	21.07								
3	16QAM	8	7	21.06	21.10	21.06	22	2						
3	16QAM	15	0	20.96	21.03	20.98								
3	16QAM	1	0	21.09	21.18	21.11								
3	16QAM	1	8	21.04	21.13	20.98								
3	16QAM	1	14	21.06	21.15	21.08	21	3						
3	16QAM	8	0	20.04	20.13	20.05								
3	16QAM	8	4	19.96	20.07	19.94								
3	16QAM	8	7	20.04	20.08	20.03								
3	16QAM	15	0	20.03	20.10	20.07	19	5						
3	256QAM	1	0	18.03	18.05	17.99								
3	256QAM	1	8	17.92	18.02	17.96								
3	256QAM	1	14	17.98	18.03	17.93								
3	256QAM	8	0	17.91	17.95	17.90	19	5						
3	256QAM	8	4	17.84	18.00	17.95								
3	256QAM	8	7	17.97	17.97	17.95								
3	256QAM	15	0	17.95	18.07	17.96								
Channel														
Frequency (MHz)														
1.4	QPSK	1	0	23.51	23.57	23.50	24	0						
1.4	QPSK	1	3	23.86	23.89	23.80								
1.4	QPSK	1	5	22.89	22.90	22.92								
1.4	QPSK	3	0	22.85	22.90	22.85								
1.4	QPSK	3	1	22.92	22.94	22.81	23	1						
1.4	QPSK	3	1	22.78	22.91	22.84								
1.4	QPSK	6	0	21.87	22.03	21.87								
1.4	16QAM	1	0	21.94	21.99	21.92								
1.4	16QAM	1	3	21.83	21.94	21.99	23	1						
1.4	16QAM	1	6	21.78	21.89	21.86								
1.4	16QAM	3	0	21.82	21.82	21.80								
1.4	16QAM	3	1	21.89	21.82	21.78								
1.4	16QAM	3	3	21.82	21.89	21.82	22	2						
1.4	16QAM	6	0	20.89	20.92	20.86								
1.4	16QAM	1	0	20.82	20.95	20.91								
1.4	16QAM	1	3	20.88	20.94	20.92								
1.4	16QAM	1	5	20.84	20.95	20.93	22	2						
1.4	16QAM	3	0	20.81	20.91	20.73								
1.4	16QAM	3	3	20.80	20.94	20.95								
1.4	16QAM	3	3	20.80	20.84	20.73								
1.4	16QAM	6	0	19.93	19.97	19.92	21	3						
1.4	256QAM	1	0	17.84	18.13	18.04								
1.4	256QAM	1	3	17.91	17.97	17.92								
1.4	256QAM	1	5	17.82	18.01	17.90								
1.4	256QAM	3	0	17.88	17.96	17.92	19	5						
1.4	256QAM	3	1	17.88	17.85	17.88								
1.4	256QAM	3	3	17.96	17.98	17.93								
1.4	256QAM	6	0	17.80	17.93	17.83								

Band 26 Ant 1 ECI6										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Med Ch./Freq.	Power High Ch./Freq.	Tune-up freq. (dBm)	Margin (dB)		
Channel							26745	-26865	26965	
Frequency (MHz)							831.5	831.5	841.5	
15	QPSK	1	0	22.88	22.91	22.86	24	0		
15	QPSK	1	37	22.84	22.89	22.88				
15	QPSK	1	74	22.77	22.78	22.69				
15	QPSK	36	0	21.80	21.85	21.79				
15	QPSK	36	20	21.75	21.80	21.70	23	1		
15	QPSK	36	36	21.64	21.73	21.65				
15	QPSK	75	0	21.84	21.88	21.76				
15	HQDM	1	0	22.15	22.16	22.13				
15	HQDM	1	37	22.07	22.11	22.03	23	1		
15	HQDM	1	74	22.07	22.12	22.06				
15	HQDM	36	0	20.95	21.04	21.00				
15	HQDM	36	20	20.95	21.03	21.00				
15	HQDM	36	36	21.00	21.05	20.99	22	2		
15	HQDM	75	0	20.98	21.05	20.95				
15	64QAM	1	0	21.00	21.07	21.03				
15	64QAM	1	74	21.01	21.05	20.99				
15	64QAM	1	74	20.94	21.01	20.90	21	3		
15	64QAM	36	0	20.07	20.16	20.05				
15	64QAM	36	20	20.07	20.14	20.03				
15	64QAM	36	36	20.02	20.09	20.00				
15	64QAM	75	0	20.12	20.13	20.10	19	5		
15	256QAM	1	0	17.97	18.06	17.90				
15	256QAM	1	37	17.94	18.04	17.95				
15	256QAM	1	74	17.91	18.01	17.96				
15	256QAM	36	0	17.95	18.02	17.97	19	5		
15	256QAM	36	20	17.95	17.97	17.98				
15	256QAM	36	36	17.94	18.01	17.93				
15	256QAM	75	0	18.00	18.03	17.97				
Channel							26745	26865	26965	
Frequency (MHz)							819	831.5	844	
10	QPSK	1	0	22.82	22.88	22.79	24	0		
10	QPSK	1	25	22.76	22.84	22.79				
10	QPSK	1	49	22.68	22.76	22.66				
10	QPSK	25	0	21.73	21.82	21.72				
10	QPSK	25	12	21.72	21.79	21.64	23	1		
10	QPSK	25	25	21.60	21.68	21.61				
10	QPSK	50	0	21.79	21.78	21.74				
10	HQDM	1	0	22.14	22.08	22.04				
10	HQDM	1	25	21.97	22.09	21.94	23	1		
10	HQDM	1	49	21.89	22.10	20.91				
10	HQDM	25	0	20.89	20.97	20.90				
10	HQDM	25	12	20.91	20.96	20.98				
10	HQDM	25	25	20.89	20.99	20.93	22	2		
10	HQDM	50	0	20.90	20.94	20.93				
10	64QAM	1	0	20.97	20.98	20.93				
10	64QAM	1	25	20.97	20.95	20.90				
10	64QAM	1	49	20.89	20.96	20.97	21	3		
10	64QAM	25	0	20.08	20.13	20.05				
10	64QAM	25	12	20.13	20.14	20.06				
10	64QAM	25	25	20.03	20.09	20.02				
10	64QAM	50	0	20.17	20.12	20.15	19	5		
10	256QAM	1	0	17.83	18.00	17.90				
10	256QAM	1	25	17.91	18.00	17.92				
10	256QAM	1	49	17.86	17.96	17.88				
10	256QAM	25	0	17.85	17.87	17.92	19	5		
10	256QAM	25	12	17.83	17.96	17.95				
10	256QAM	25	25	17.90	17.98	17.84				
10	256QAM	50	0	17.86	17.87	17.96				
Channel							26745	26865	26965	
Frequency (MHz)							816.5	831.5	846.5	
5	QPSK	1	0	22.82	22.88	22.79	24	0		
5	QPSK	1	12	22.80	22.83	22.85				
5	QPSK	1	24	22.72	22.71	22.63				
5	QPSK	12	0	21.69	21.80	21.68				
5	QPSK	12	7	21.67	21.72	21.65	23	1		
5	QPSK	12	13	21.63	21.64	21.59				
5	QPSK	24	0	21.82	21.83	21.69				
5	HQDM	1	0	22.04	22.15	22.03				
5	HQDM	1	12	21.99	22.04	21.99	23	1		
5	HQDM	1	24	21.95	22.07	21.96				
5	HQDM	12	0	20.92	20.95	21.00				
5	HQDM	12	7	20.89	21.01	20.94				
5	HQDM	12	13	20.91	21.03	20.95	22	2		
5	HQDM	24	0	20.89	20.94	20.88				
5	64QAM	1	0	20.89	20.98	20.94				
5	64QAM	1	12	20.95	20.95	20.96				
5	64QAM	1	24	20.87	20.97	20.80	21	3		
5	64QAM	12	0	20.16	20.17	20.98				
5	64QAM	12	7	20.05	20.07	20.00				
5	64QAM	12	13	19.97	20.15	20.03				
5	64QAM	24	0	20.12	20.19	20.14	19	5		
5	256QAM	1	0	17.84	18.04	17.80				
5	256QAM	1	12	17.88	18.01	17.94				
5	256QAM	1	24	17.86	17.96	17.91				
5	256QAM	12	0	17.85	18.00	17.80	19	5		
5	256QAM	12	7	17.89	17.89	17.88				
5	256QAM	12	13	17.93	17.92	17.88				
5	256QAM	24	0	17.90	17.94	17.90				
Channel							26795	26865	27025	
Frequency (MHz)							816.5	831.5	847.5	
3	QPSK	1	0	22.84	22.82	22.80	24	0		
3	QPSK	1	8	22.79	22.87	22.81				
3	QPSK	1	14	22.75	22.76	22.62				
3	QPSK	8	0	21.75	21.75	21.71				
3	QPSK	8	4	21.71	21.73	21.65	23	1		
3	QPSK	8	7	21.60	21.70	21.66				
3	QPSK	16	0	21.76	21.78	21.67				
3	HQDM	1	0	22.09	22.10	22.08				
3	HQDM	1	8	22.04	22.06	21.96	23	1		
3	HQDM	1	14	21.95	22.03	22.00				
3	HQDM	8	0	20.83	21.02	20.92				
3	HQDM	8	4	20.87	20.99	20.95				
3	HQDM	8	7	20.92	21.02	20.90	22	2		
3	HQDM	16	0	20.64	21.01	20.94				
3	64QAM	1	0	20.96	21.05	21.00				
3	64QAM	1	8	20.91	20.94	20.94				
3	64QAM	1	14	20.81	20.99	20.85	21	3		
3	64QAM	8	0	20.12	20.14	20.03				
3	64QAM	8	4	20.05	20.11	20.00				
3	64QAM	8	7	20.02	20.13	20.03				
3	HQDM	16	0	20.11	20.12	20.15	19	5		
3	256QAM	1	0	17.90	17.98	17.84				
3	256QAM	1	8	17.87	17.99	17.91				
3	256QAM	16	0	17.82	17.97	17.89				
3	256QAM	8	0	17.84	17.91	17.85	19	5		
3	256QAM	8	4	17.85	17.91	17.85				
3	256QAM	8	7	17.86	17.95	17.87				
3	256QAM	16	0	17.85						



Band 66 Ant 1 ECI6								
ISW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up test (dBm)	MFR (dB)
Channel				130072	130208	130272	23	0
Frequency (MHz)				1750	1745	1750		
20	QPSK	1	0	21.84	21.85	21.85	23	0
20	QPSK	1	-48	21.87	21.78	21.73		
20	QPSK	1	99	21.76	21.79	21.76		
20	QPSK	50	0	21.78	21.83	21.77		
20	QPSK	50	-24	21.68	21.77	21.77		
20	QPSK	50	50	21.76	21.74	21.72	23	0
20	QPSK	100	0	21.66	21.75	21.73		



Band 38 Ant 1 ECI6							
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Mode Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				37850	38050	38150	
Frequency (MHz)				24.64	24.68	24.71	
20	QPSK	1	0	23.50	23.50	23.51	25
20	QPSK	1	40	23.54	23.50	23.48	
20	QPSK	1	80	23.56	23.44	23.38	
20	QPSK	50	0	22.39	22.50	22.50	24
20	QPSK	50	24	22.48	22.47	22.47	
20	QPSK	50	50	22.52	22.46	22.41	
20	QPSK	100	0	22.52	22.50	22.50	

Band 41 Ant 1 ECI6										
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Mode Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				24.64	24.67	24.67	24.66	24.66		
20	QPSK	1	0	23.58	23.58	23.57	23.46	23.54	25	0
20	QPSK	1	40	23.49	23.61	23.55	23.45	23.41		
20	QPSK	1	80	23.40	23.52	23.53	23.53	23.48		
20	QPSK	50	0	22.50	22.54	22.73	22.69	22.50	24	1
20	QPSK	50	24	22.54	22.49	22.58	22.47	22.47		
20	QPSK	50	50	22.43	22.40	22.52	22.50	22.52		
20	QPSK	100	0	22.52	22.58	22.67	22.60	22.60		

Band 41 HPUE Ant 1 ECI6										
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Mode Ch. / Freq.	Power Mode Ch. / Freq.	Power High Mode Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				24.64	24.67	24.67	24.66	24.66		
20	QPSK	1	0	25.68	25.68	25.71	25.67	25.65	27	0
20	QPSK	1	40	25.55	25.55	25.63	25.61	25.51		
20	QPSK	1	80	25.51	25.60	25.57	25.60	25.59		
20	QPSK	50	0	24.71	24.64	24.77	24.70	24.64	26	1
20	QPSK	50	24	24.49	24.55	24.60	24.58	24.53		
20	QPSK	50	50	24.47	24.50	24.74	24.50	24.61		
20	QPSK	100	0	24.70	24.63	24.76	24.65	24.61		



Band 2 Ant 2 ECI6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)	
Channel				18700	18800	18900			
Frequency (MHz)				18800	18800	18900			
20	QPSK	1	0	18.72	18.74	18.71	20.2	0	
20	QPSK	1	48	18.68	18.55	18.50			
20	QPSK	1	96	18.63	18.69	18.63			
20	QPSK	50	0	18.88	18.89	18.85	20.2	0	
20	QPSK	50	24	18.83	18.80	18.49			
20	QPSK	50	50	18.68	18.68	18.88			
20	QPSK	100	0	18.81	18.84	18.59			

Band 4 Ant 2 ECI6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)	
Channel				20650	20725	20800			
Frequency (MHz)				17200	17325	17400			
20	QPSK	1	0	18.51	18.50	18.51	19.7	0	
20	QPSK	1	48	18.46	18.50	18.39			
20	QPSK	1	96	18.44	18.40	18.39			
20	QPSK	50	0	18.41	18.51	18.38	19.7	0	
20	QPSK	50	24	18.38	18.39	18.38			
20	QPSK	50	50	18.44	18.48	18.32			
20	QPSK	100	0	18.43	18.55	18.45			

Band 7 Ant 2 ECI6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)	
Channel				2040	2050	2100			
Frequency (MHz)				2051	2053	2058			
20	QPSK	1	0	19.84	19.98	19.91	21.2	0	
20	QPSK	1	48	19.88	19.93	19.92			
20	QPSK	1	96	19.84	19.91	19.93			
20	QPSK	50	0	19.89	19.94	19.83	21.2	0	
20	QPSK	50	24	19.91	19.89	19.79			
20	QPSK	50	50	19.89	19.91	19.82			
20	QPSK	100	0	19.87	19.90	19.82			

Band 25 Ant 2 ECI6								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				26140	26240	26340		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	18.74	18.72	18.67	20.2	0
20	QPSK	1	49	18.61	18.63	18.63		
20	QPSK	1	99	18.67	18.68	18.69		
20	QPSK	50	0	18.60	18.72	18.64		
20	QPSK	50	24	18.59	18.71	18.57	20.2	0
20	QPSK	50	50	18.63	18.70	18.62		
20	QPSK	100	0	18.61	18.75	18.67		

Band 66 Ant 2 ECI6								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1740	1770		
20	QPSK	1	0	18.57	18.66	18.66	19.7	0
20	QPSK	1	49	18.57	18.57	18.53		
20	QPSK	1	99	18.55	18.61	18.48		
20	QPSK	50	0	18.44	18.62	18.47		
20	QPSK	50	24	18.55	18.49	18.46	19.7	0
20	QPSK	50	50	18.53	18.59	18.53		
20	QPSK	100	0	18.59	18.61	18.47		



Band 38 Ant 2 ECI6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				25.90	25.95	26.00		
20	QPSK	1	0	21.37	21.45	21.34	23	0
20	QPSK	1	40	21.33	21.23	21.34		
20	QPSK	1	80	21.28	21.28	21.21		
20	QPSK	50	0	21.31	21.43	21.25	23	0
20	QPSK	50	24	21.38	21.26	21.35		
20	QPSK	50	50	21.27	21.29	21.25		
20	QPSK	100	0	21.30	21.35	21.26		

Band 41 Ant 2 ECI6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				25.94	26.015	26.03	26.065	26.08	
20	QPSK	1	0	21.49	21.45	21.51	21.42	21.42	23 0
20	QPSK	1	40	21.40	21.35	21.36	21.35	21.28	
20	QPSK	1	80	21.30	21.42	21.34	21.33	21.30	
20	QPSK	50	0	21.27	21.41	21.51	21.30	21.33	23 0
20	QPSK	50	24	21.37	21.46	21.40	21.38	21.33	
20	QPSK	50	50	21.30	21.37	21.39	21.33	21.28	
20	QPSK	100	0	21.36	21.35	21.43	21.33	21.34	

Band 41 HPUE Ant 2 ECI6										
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (s)	MPE (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				25.94	26.015	26.03	26.065	26.08		
20	QPSK	1	0	23.81	23.76	23.59	23.82	23.79	24.6	0
20	QPSK	1	40	23.85	23.74	23.68	23.63	23.70		
20	QPSK	1	80	23.79	23.72	23.60	23.66	23.66		
20	QPSK	50	0	23.72	23.74	23.57	23.65	23.61	24.6	0
20	QPSK	50	24	23.77	23.70	23.76	23.61	23.66		
20	QPSK	50	50	23.61	23.72	23.80	23.72	23.63		
20	QPSK	100	0	23.75	23.68	23.76	23.66	23.69		



Band 2 Ant 3 ECI6								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MPL (dB)
Channel				18700	18800	18900		
Frequency (MHz)				18600	18800	18900		
20	QPSK	1	0	20.56	20.65	20.54	21.8	0
20	QPSK	1	48	20.30	20.39	20.43		
20	QPSK	1	99	20.42	20.44	20.38		
20	QPSK	50	0	20.40	20.55	20.40		
20	QPSK	50	24	20.40	20.47	20.49	21.8	0
20	QPSK	50	50	20.48	20.38	20.51		
20	QPSK	100	0	20.43	20.50	20.42		

Band 4 Ant 3 ECI6								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MPL (dB)
Channel				20500	20715	20900		
Frequency (MHz)				17200	17325	17460		
20	QPSK	1	0	19.00	19.10	19.00	20.6	0
20	QPSK	1	48	19.00	19.00	19.09		
20	QPSK	1	99	19.01	18.99	19.09		
20	QPSK	50	0	18.92	19.12	19.06		
20	QPSK	50	24	18.94	18.99	19.02	20.6	0
20	QPSK	50	50	19.05	18.99	19.02		
20	QPSK	100	0	18.93	19.10	18.98		

Band 7 Ant 3 ECI6								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MPL (dB)
Channel				20900	21100	21300		
Frequency (MHz)				20750	20935	21080		
20	QPSK	1	0	18.43	18.56	18.60	19.9	0
20	QPSK	1	48	18.34	18.47	18.40		
20	QPSK	1	99	18.35	18.43	18.43		
20	QPSK	50	0	18.36	18.53	18.40		
20	QPSK	50	24	18.36	18.42	18.38	19.9	0
20	QPSK	50	50	18.36	18.43	18.42		
20	QPSK	100	0	18.48	18.51	18.45		



Band 25 Ant 3 ECI6								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				18140	18240	18340		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	20.53	20.62	20.61	21.8	0
20	QPSK	1	48	20.47	20.55	20.51		
20	QPSK	1	96	20.47	20.48	20.52		
20	QPSK	50	0	20.48	20.62	20.47	21.8	0
20	QPSK	50	24	20.38	20.54	20.51		
20	QPSK	50	50	20.55	20.51	20.58		
20	QPSK	100	0	20.54	20.55	20.52		

Band 66 Ant 3 ECI6								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1740	1770		
20	QPSK	1	0	19.17	19.23	19.18	20.6	0
20	QPSK	1	48	19.16	19.14	19.20		
20	QPSK	1	96	19.09	19.11	19.04		
20	QPSK	50	0	19.01	19.17	19.08	20.6	0
20	QPSK	50	24	19.08	19.02	19.09		
20	QPSK	50	50	19.09	19.07	19.07		
20	QPSK	100	0	19.02	19.13	19.11		



Band 38 Ant 3 EC16								
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Main Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)	MPR (dB)
Channel				37850	38000	38150		
Frequency (MHz)				2546	2566	2586		
20	QPSK	5	0	20.42	20.44	20.41	22.2	0
20	QPSK	1	49	20.41	20.41	20.33		
20	QPSK	1	49	20.33	20.37	20.36		
20	QPSK	50	0	20.26	20.34	20.30		
20	QPSK	50	24	20.26	20.31	20.30	22.2	0
20	QPSK	50	56	20.22	20.32	20.28		
20	QPSK	100	0	20.32	20.37	20.29		

Band 41 Ant 3 EC16								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Mid Ch. / Freq.	Power Main Ch. / Freq.	Power High-Mid Ch. / Freq.	Power High Ch. / Freq.
Channel				38750	40185	40420	41055	41490
Frequency (MHz)				2566	2584.5	2593	2611.5	2620
20	QPSK	1	0	20.47	20.47	20.56	20.49	20.45
20	QPSK	1	49	20.39	20.41	20.43	20.40	20.48
20	QPSK	1	49	20.34	20.41	20.47	20.41	20.29
20	QPSK	50	0	20.30	20.40	20.40	20.44	20.34
20	QPSK	50	24	20.41	20.37	20.37	20.40	20.33
20	QPSK	50	56	20.29	20.31	20.41	20.35	20.32
20	QPSK	100	0	20.37	20.41	20.44	20.38	20.41



Band 41 HPUE Ant 3 ECI6										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low-Mid Ch / Freq	Power Mid Ch / Freq	Power High-Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				22.78	22.72	22.64	22.56	22.50		
20	QPSK	1	0	22.78	22.72	22.64	22.56	22.50	23.8	0
20	QPSK	1	49	22.68	22.77	22.70	22.63	22.72		
20	QPSK	1	99	22.66	22.69	22.70	22.69	22.70		
20	QPSK	50	0	22.73	22.71	22.67	22.62	22.70		
20	QPSK	50	24	22.68	22.63	22.72	22.60	22.71		
20	QPSK	50	50	22.60	22.68	22.71	22.60	22.74	23.8	0
20	QPSK	100	0	22.68	22.73	22.74	22.68	22.68		

Band 42 FCC Part27Q Ant 3 ECI6											
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low-Mid Ch / Freq	Power Mid Ch / Freq	Tune-up limit (dBm)	MPR (dB)	< Tune-up-2	> Tune-up	
Channel				42190	42590	42990					
Frequency (MHz)				18.40	18.40	18.40					
20	QPSK	1	0	20.64	20.77	20.72	22.1	0	1.46	1.33	
20	QPSK	1	49	20.62	20.68	20.67			1.48	1.42	
20	QPSK	1	99	20.70	20.70	20.69			1.45	1.40	
20	QPSK	50	0	20.44	20.73	20.40			1.60	1.37	
20	QPSK	50	24	20.52	20.63	20.62			1.58	1.47	
20	QPSK	50	50	20.65	20.62	20.70	22.1	0	1.54	1.40	
20	QPSK	100	0	20.50	20.69	20.46			1.62	1.41	
20	HQAM	1	0	20.54	20.59	20.64			1.56	1.46	
20	HQAM	1	49	20.65	20.67	20.62			1.48	1.43	
20	HQAM	1	99	20.43	20.66	20.44			1.67	1.44	
20	HQAM	50	0	20.61	20.64	20.59	22	0.1	1.44	1.36	
20	HQAM	50	24	20.64	20.65	20.59			1.41	1.35	
20	HQAM	50	50	20.50	20.70	20.40			1.67	1.30	
20	HQAM	100	0	20.47	20.62	20.50			1.42	1.40	
20	HQAM	1	0	20.44	20.75	20.25			1.25	1.25	
20	HQAM	1	49	20.52	20.67	20.56	22	0.1	1.48	1.43	
20	HQAM	1	99	20.62	20.65	20.55			1.61	1.36	
20	HQAM	50	0	20.40	20.50	20.41			0.90	0.90	
20	HQAM	50	24	20.37	20.46	20.37			0.93	0.94	
20	HQAM	50	50	20.34	20.45	20.42			0.95	0.93	
20	HQAM	100	0	20.46	20.47	20.44	21	1.1	0.96	0.93	
20	HQAM	1	0	18.61	18.66	18.58			0.42	0.34	
20	HQAM	1	49	18.56	18.60	18.52			0.46	0.40	
20	HQAM	1	99	18.53	18.57	18.56			0.47	0.43	
20	HQAM	50	0	18.54	18.56	18.47			0.53	0.42	
20	HQAM	50	24	18.49	18.57	18.54	19	3.1	0.51	0.43	
20	HQAM	50	50	18.59	18.60	18.53			0.47	0.40	
20	HQAM	100	0	18.43	18.58	18.52			0.48	0.40	
Channel				42195	42595	42995					
Frequency (MHz)				18.47	18.47	18.47					
15	QPSK	1	0	20.48	20.69	20.47	22.1	0	1.64	1.41	
15	QPSK	1	37	20.62	20.59	20.63			1.58	1.47	
15	QPSK	1	74	20.61	20.64	20.56			1.54	1.46	
15	QPSK	36	0	20.35	20.68	20.46			1.75	1.42	
15	QPSK	36	20	20.43	20.60	20.59			1.67	1.50	
15	QPSK	36	49	20.46	20.61	20.51	22.1	0	1.59	1.48	
15	QPSK	75	0	20.40	20.59	20.45			1.70	1.51	
15	HQAM	1	0	20.45	20.54	20.54			1.60	1.56	
15	HQAM	1	37	20.40	20.62	20.53			1.67	1.49	
15	HQAM	1	74	20.42	20.65	20.34			1.70	1.45	
15	HQAM	36	0	20.50	20.54	20.50	22	0.1	1.50	1.46	
15	HQAM	36	20	20.53	20.58	20.57			1.45	1.42	
15	HQAM	36	39	20.42	20.68	20.33			1.67	1.32	
15	HQAM	75	0	20.58	20.61	20.56			1.49	1.42	
15	HQAM	1	0	20.38	20.67	20.46			1.62	1.33	
15	HQAM	1	37	20.47	20.59	20.54	22	0.1	1.53	1.46	
15	HQAM	1	74	20.54	20.67	20.59			1.46	1.42	
15	HQAM	36	0	20.35	20.43	20.34			0.95	0.97	
15	HQAM	36	20	20.45	20.42	20.30			0.70	0.58	
15	HQAM	36	39	20.47	20.58	20.35			0.72	0.62	
15	HQAM	75	0	20.59	20.58	20.52	19	3.1	0.95	0.92	
15	HQAM	1	0	18.58	18.61	18.47			0.53	0.39	
15	HQAM	1	37	18.45	18.53	18.42			0.52	0.47	
15	HQAM	1	74	18.42	18.49	18.52			0.58	0.48	
15	HQAM	36	0	18.49	18.53	18.47			0.56	0.47	
15	HQAM	36	39	18.47	18.53	18.47	19	3.1	0.51	0.47	
15	HQAM	36	75	18.51	18.52	18.45			0.55	0.48	
15	HQAM	75	0	18.47	18.49	18.40			0.93	0.91	
Channel				42140	42540	42940					
Frequency (MHz)				18.45	18.45	18.45					
10	QPSK	1	0	20.48	20.71	20.46	22.1	0	1.52	1.45	
10	QPSK	1	25	20.58	20.65	20.64			1.52	1.45	
10	QPSK	1	49	20.65	20.64	20.58			1.52	1.45	
10	QPSK	25	0	20.36	20.65	20.38			1.74	1.46	
10	QPSK	25	12	20.50	20.54	20.51			1.60	1.56	
10	QPSK	25	25	20.56	20.63	20.46	22.1	0	1.64	1.47	
10	QPSK	50	0	20.48	20.64	20.41			1.64	1.46	
10	HQAM	1	0	20.45	20.56	20.55			1.60	1.50	
10	HQAM	1	25	20.63	20.67	20.64			1.56	1.47	
10	HQAM	1	49	20.35	20.60	20.39			1.75	1.50	
10	HQAM	25	0	20.54	20.62	20.46	22	0.1	1.54	1.38	
10	HQAM	25	12	20.61	20.61	20.57			1.43	1.30	
10	HQAM	25	25	20.45	20.68	20.38			1.62	1.32	
10	HQAM	50	0	20.59	20.52	20.59			1.48	1.41	
10	HQAM	1	0	20.34	20.65	20.42			1.66	1.56	
10	HQAM	1	25	20.41	20.54	20.54	22	0.1	1.50	1.40	
10	HQAM	1	49	20.57	20.60	20.52			1.48	1.40	
10	HQAM	25	0	20.38	20.43	20.34			0.86	0.97	
10	HQAM	25	12	20.28	20.39	20.34			0.72	0.81	
10	HQAM	25	25	20.24	20.42	20.38			0.76	0.99	
10	HQAM	50	0	20.36	20.43	20.36	21	1.1	0.84	0.97	
10	HQAM	25	0	18.68	18.69	18.52			0.48	0.37	
10	HQAM	1	0	18.51	18.54	18.46			0.52	0.46	
10	HQAM	1	49	18.48	18.52	18.50			0.52	0.48	
10	HQAM	25	0	18.48	18.49	18.42			0.58	0.51	
10	HQAM	25	12	18.41	18.47	18.44	19	3.1	0.50	0.50	
10	HQAM	25	25	18.53	18.55	18.43			0.57	0.45	
10	HQAM	50	0	18.51	18.55	18.47			0.53	0.45	
Channel				42115	42560	42960					
Frequency (MHz)				18.41	18.41	18.41					
5	QPSK	1	0	20.51	20.68	20.46	22.1	0	1.61	1.42	
5	QPSK	1	12	20.51	20.65	20.65			1.59	1.44	
5	QPSK	1	24	20.66	20.67	20.55			1.55	1.43	
5	QPSK	12	0	20.42	20.60	20.39			1.71	1.43	
5	QPSK	12	7	20.43	20.59	20.56			1.67	1.51	
5	QPSK	12	13	20.62	20.59	20.46	22.1	0	1.62	1.46	
5	QPSK	25	0	20.46	20.59	20.46			1.64	1.51	
5	HQAM	1	0	20.50	20.49	20.61			1.61	1.40	
5	HQAM	1	12	20.59	20.58	20.53			1.67	1.51	
5	HQAM	1	24	20.37	20.60	20.36			1.74	1.50	
5	HQAM	12	0	20.59	20.59	20.55	22	0.1	1.40	1.41	
5	HQAM	12	7	20.57	20.56	20.53			1.47	1.43	
5	HQAM	12	13	20.46	20.63	20.30			1.61	1.37	
5	HQAM	25	0	20.89	20.58	20.52			1.48	1.41	
5	HQAM	1	0	20.41	20.70	20.48			1.60	1.30	
5	HQAM	1	12	20.49	20.49	20.60	22	0.1	1.52	1.40	
5	HQAM	1	24	20.52							

Band 42 FCC Part27Q Ant4 EC16									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (dBm)	MPR (dB)	
Channel				42190	42990	43990	Turn-up time (dBm)	MPR (dB)	
Frequency (MHz)				3499	3599	3699			
20	QPSK	1	0	18.11	18.15	18.09	19.4	0	
20	QPSK	1	48	17.95	17.93	17.84			
20	QPSK	1	96	17.98	17.87	17.72			
20	QPSK	50	0	18.00	18.15	18.01			
20	QPSK	50	24	17.90	17.87	17.81	19.4	0	
20	QPSK	50	50	17.92	17.85	17.85			
20	QPSK	100	0	18.04	18.12	18.01			
20	HQAM	1	0	17.91	17.86	17.82			
20	HQAM	1	48	17.83	17.82	17.80	19.4	0	
20	HQAM	1	96	18.08	18.18	18.02			
20	HQAM	50	0	17.84	17.85	17.78			
20	HQAM	50	24	17.81	17.78	17.84			
20	HQAM	50	50	18.00	18.11	18.07	19.4	0	
20	HQAM	100	0	17.96	17.94	17.77			
20	HQAM	1	0	17.79	17.82	17.82			
20	HQAM	1	48	17.79	17.79	17.68			
20	HQAM	1	96	18.02	18.14	17.98	19.4	0	
20	HQAM	50	0	17.94	17.82	17.83			
20	HQAM	50	24	17.84	17.79	17.82			
20	HQAM	50	50	18.01	18.11	18.02			
20	HQAM	100	0	17.88	17.87	17.81	19	0.4	
20	256QAM	1	0	17.35	17.41	17.32			
20	256QAM	1	48	17.25	17.31	17.24			
20	256QAM	1	96	17.35	17.39	17.37			
20	256QAM	50	0	17.27	17.38	17.31	19	0.4	
20	256QAM	50	24	17.24	17.32	17.25			
20	256QAM	50	50	17.21	17.30	17.19			
20	256QAM	100	0	17.31	17.33	17.30			
Channel				42195	42990	43919	Turn-up time (dBm)	MPR (dB)	
Frequency (MHz)				3497.5	3593	3647.5	Turn-up time (dBm)	MPR (dB)	
15	QPSK	1	0	18.10	18.11	17.92		19.4	
15	QPSK	1	37	17.87	17.82	17.78			
15	QPSK	74	0	17.78	17.77	17.60			
15	QPSK	36	0	17.97	18.11	17.81			
15	QPSK	36	20	17.83	17.81	17.76	19.4	0	
15	QPSK	36	49	17.72	17.78	17.68			
15	QPSK	75	0	17.99	18.03	17.95			
15	HQAM	1	0	17.86	17.84	17.80			
15	HQAM	1	37	17.78	17.72	17.62	19.4	0	
15	HQAM	1	74	18.04	18.09	17.97			
15	HQAM	36	0	17.86	17.79	17.76			
15	HQAM	36	20	17.75	17.75	17.57			
15	HQAM	36	39	17.90	18.01	17.96	19.4	0	
15	HQAM	75	0	17.84	17.77	17.73			
15	HQAM	1	0	17.77	17.80	17.52			
15	HQAM	1	37	17.76	17.75	17.62			
15	HQAM	1	74	17.88	18.06	17.90	19.4	0	
15	HQAM	36	0	17.92	17.85	17.78			
15	HQAM	36	20	17.74	17.77	17.59			
15	HQAM	36	39	17.96	18.00	17.92			
15	HQAM	75	0	17.84	17.85	17.75	19	0.4	
15	256QAM	1	0	17.32	17.37	17.21			
15	256QAM	1	37	17.15	17.22	17.21			
15	256QAM	1	74	17.33	17.37	17.34			
15	256QAM	36	0	17.19	17.25	17.21	19	0.4	
15	256QAM	36	20	17.23	17.25	17.19			
15	256QAM	36	39	17.18	17.26	17.14			
15	256QAM	75	0	17.27	17.30	17.26			
Channel				43140	43990	44990	Turn-up time (dBm)	MPR (dB)	
Frequency (MHz)				3465	3593	3645	Turn-up time (dBm)	MPR (dB)	
10	QPSK	1	0	18.09	18.12	18.08		19.4	
10	QPSK	1	25	17.90	17.87	17.74			
10	QPSK	1	49	17.83	17.83	17.68			
10	QPSK	25	0	17.94	18.11	17.95			
10	QPSK	25	12	17.82	17.78	17.76	19.4	0	
10	QPSK	25	25	17.73	17.81	17.67			
10	QPSK	50	0	18.01	18.08	17.92			
10	HQAM	1	0	17.89	17.84	17.75			
10	HQAM	1	25	17.74	17.73	17.60	19.4	0	
10	HQAM	1	49	18.00	18.04	17.98			
10	HQAM	25	0	17.88	17.77	17.72			
10	HQAM	25	12	17.75	17.62	17.62			
10	HQAM	25	25	17.92	18.09	18.03	19.4	0	
10	HQAM	50	0	17.86	17.79	17.68			
10	HQAM	1	0	17.71	17.80	17.52			
10	HQAM	1	25	17.72	17.75	17.62			
10	HQAM	1	49	17.92	18.06	17.95	19.4	0	
10	HQAM	25	0	17.91	17.71	17.79			
10	HQAM	25	12	17.80	17.76	17.58			
10	HQAM	25	25	17.97	18.06	17.96			
10	HQAM	50	0	17.81	17.81	17.79	19	0.4	
10	256QAM	1	0	17.28	17.33	17.25			
10	256QAM	1	25	17.20	17.26	17.22			
10	256QAM	1	49	17.33	17.28	17.27			
10	256QAM	25	0	17.21	17.27	17.25	19	0.4	
10	256QAM	25	12	17.21	17.24	17.26			
10	256QAM	25	25	17.17	17.22	17.15			
10	256QAM	50	0	17.22	17.28	17.28			
Channel				3491.5	3593	3647.5	Turn-up time (dBm)	MPR (dB)	
Frequency (MHz)				3492.5	3593	3647.5	Turn-up time (dBm)	MPR (dB)	
5	QPSK	1	0	18.07	18.14	18.02		19.4	
5	QPSK	1	12	17.87	17.87	17.74			
5	QPSK	1	24	17.75	17.77	17.68			
5	QPSK	12	0	17.88	18.07	17.99			
5	QPSK	12	7	17.80	17.83	17.75	19.4	0	
5	QPSK	12	13	17.73	17.81	17.69			
5	QPSK	25	0	17.98	18.04	17.91			
5	HQAM	1	0	17.81	17.77	17.81			
5	HQAM	1	12	17.79	17.73	17.67	19.4	0	
5	HQAM	1	24	18.03	18.13	17.96			
5	HQAM	12	0	17.83	17.77	17.70			
5	HQAM	12	7	17.79	17.76	17.54			
5	HQAM	12	13	17.99	18.06	18.00	19.4	0	
5	HQAM	25	0	17.88	17.79	17.73			
5	HQAM	1	0	17.72	17.81	17.81			
5	HQAM	1	12	17.76	17.71	17.59			
5	HQAM	1	24	17.92	18.04	17.92	19.4	0	
5	HQAM	12	0	17.92	17.78	17.75			
5	HQAM	12	7	17.81	17.71	17.60			
5	HQAM	12	13	17.97	18.09	17.97			
5	HQAM	25	0	17.85	17.84	17.72	19	0.4	
5	256QAM	1	0	17.30	17.40	17.23			
5	256QAM	1	12	17.20	17.30	17.20			
5	256QAM	1	24	17.30	17.38	17.34			
5	256QAM	12	0	17.21	17.26	17.26	19	0.4	
5	256QAM	12	7	17.21	17.26	17.20			
5	256QAM	12	13	17.19	17.23	17.13			
5	256QAM	25	0	17.28	17.31	17.29			

Band 42 FCC Part27Q Ant6 EC16										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (dBm)	MPR (dB)		
Channel				42190	42590	42990	Turn-up time (dBm)	MPR (dB)		
Frequency (MHz)				42190	42590	42990				
20	QPSK	1	0	22.78	22.55	22.86	24	0		
20	QPSK	1	48	22.75	22.81	22.79				
20	QPSK	1	96	22.88	22.91	22.82				
20	QPSK	50	0	21.79	21.59	21.79	23	1		
20	QPSK	50	24	21.76	21.85	21.81				
20	QPSK	50	48	21.85	21.82	21.77				
20	16QAM	1	0	21.72	21.75	21.75	23	1		
20	16QAM	1	48	21.64	21.69	21.62				
20	16QAM	1	96	21.58	21.68	21.62				
20	16QAM	50	0	20.38	20.44	20.41	22	2		
20	16QAM	50	24	20.39	20.46	20.43				
20	16QAM	50	50	20.40	20.48	20.43				
20	16QAM	100	0	20.37	20.46	20.37	22	2		
20	16QAM	1	0	20.45	20.57	20.43				
20	16QAM	1	48	20.40	20.48	20.41				
20	16QAM	1	96	20.39	20.43	20.39	21	3		
20	16QAM	50	0	19.39	19.47	19.40				
20	16QAM	50	24	19.43	19.47	19.43				
20	16QAM	50	50	19.44	19.52	19.51	19	5		
20	16QAM	100	0	19.47	19.49	19.41				
20	256QAM	1	0	17.76	17.81	17.74				
20	256QAM	1	48	17.65	17.72	17.62	19	5		
20	256QAM	1	96	17.75	17.76	17.73				
20	256QAM	50	0	17.69	17.73	17.71				
20	256QAM	50	24	17.69	17.74	17.72	19	5		
20	256QAM	50	50	17.84	17.74	17.72				
20	256QAM	100	0	17.83	17.73	17.68				
Channel				42165 <th>42590</th> <th>43015</th> <th rowspan="2">Turn-up time (dBm)</th> <th rowspan="2">MPR (dB)</th> <th colspan="2"></th>	42590	43015	Turn-up time (dBm)	MPR (dB)		
Frequency (MHz)				42165	42590	43015				
15	QPSK	1	0	22.73	22.59	22.81	24	0		
15	QPSK	1	37	22.69	22.79	22.74				
15	QPSK	1	74	22.88	22.86	22.72				
15	QPSK	36	0	21.79	21.79	21.69	23	1		
15	QPSK	36	20	21.74	21.82	21.73				
15	QPSK	36	39	21.81	21.82	21.69				
15	QPSK	75	0	21.72	21.79	21.71	23	1		
15	16QAM	1	0	21.65	21.69	21.70				
15	16QAM	1	37	21.63	21.68	21.66				
15	16QAM	1	74	21.57	21.61	21.57	22	2		
15	16QAM	36	0	20.32	20.36	20.35				
15	16QAM	36	20	20.32	20.43	20.38				
15	16QAM	36	39	20.29	20.38	20.35	22	2		
15	16QAM	75	0	20.31	20.38	20.33				
15	16QAM	1	0	20.35	20.48	20.35				
15	16QAM	1	37	20.30	20.43	20.38	21	3		
15	16QAM	1	74	20.30	20.41	20.35				
15	16QAM	36	0	19.34	19.42	19.35				
15	16QAM	36	20	19.42	19.52	19.44	19	5		
15	16QAM	75	0	19.44	19.47	19.35				
15	256QAM	1	0	17.69	17.77	17.68				
15	256QAM	1	37	17.66	17.69	17.66	19	5		
15	256QAM	1	74	17.68	17.75	17.65				
15	256QAM	36	0	17.67	17.65	17.68				
15	256QAM	36	20	17.65	17.62	17.60	19	5		
15	256QAM	36	39	17.63	17.70	17.70				
15	256QAM	75	0	17.64	17.64	17.60				
Channel				42140 <th>42590<th>43040</th><th rowspan="2">Turn-up time (dBm)</th><th rowspan="2">MPR (dB)</th><th colspan="2"></th></th>	42590 <th>43040</th> <th rowspan="2">Turn-up time (dBm)</th> <th rowspan="2">MPR (dB)</th> <th colspan="2"></th>	43040	Turn-up time (dBm)	MPR (dB)		
Frequency (MHz)				42140 <th>42590<th>43040</th><th colspan="2"></th></th>	42590 <th>43040</th> <th colspan="2"></th>	43040				
10	QPSK	1	0	22.70	22.86	22.80	24	0		
10	QPSK	1	25	22.71	22.80	22.72				
10	QPSK	1	49	22.77	22.83	22.74				
10	QPSK	36	0	21.68	21.64	21.75	23	1		
10	QPSK	25	12	21.69	21.78	21.77				
10	QPSK	25	25	21.78	21.77	21.72				
10	QPSK	50	0	21.71	21.77	21.68	23	1		
10	16QAM	1	0	21.67	21.75	21.67				
10	16QAM	1	25	21.68	21.63	21.60				
10	16QAM	1	49	21.53	21.62	21.51	22	2		
10	16QAM	25	0	20.31	20.38	20.31				
10	16QAM	25	12	20.36	20.35	20.35				
10	16QAM	25	25	20.39	20.35	20.33	22	2		
10	16QAM	50	0	20.30	20.30	20.28				
10	16QAM	1	0	20.36	20.41	20.36				
10	16QAM	1	25	20.39	20.38	20.35	22	2		
10	16QAM	1	49	20.30	20.40	20.36				
10	16QAM	25	0	19.35	19.37	19.37				
10	16QAM	25	12	19.37	19.41	19.38	21	3		
10	16QAM	25	25	19.41	19.51	19.48				
10	16QAM	50	0	19.38	19.46	19.34				
10	256QAM	1	0	17.70	17.73	17.73	19	5		
10	256QAM	1	25	17.69	17.64	17.57				
10	256QAM	1	49	17.70	17.65	17.65				
10	256QAM	25	0	17.64	17.72	17.68	19	5		
10	256QAM	25	12	17.64	17.62	17.66				
10	256QAM	25	25	17.57	17.54	17.61				
Channel				42115 <th>42590</th> <th>43065</th> <th rowspan="2">Turn-up time (dBm)</th> <th rowspan="2">MPR (dB)</th> <th colspan="2"></th>	42590	43065	Turn-up time (dBm)	MPR (dB)		
Frequency (MHz)				42115 <th>42590</th> <th>43065</th> <th colspan="2"></th>	42590	43065				
5	QPSK	1	0	22.68	22.67	22.79	24	0		
5	QPSK	1	12	22.67	22.73	22.74				
5	QPSK	1	24	22.78	22.81	22.78				
5	QPSK	12	0	21.78	21.79	21.71	23	1		
5	QPSK	12	7	21.67	21.63	21.71				
5	QPSK	12	13	21.75	21.82	21.79				
5	QPSK	25	0	21.75	21.84	21.73	23	1		
5	16QAM	1	0	21.65	21.71	21.64				
5	16QAM	1	12	21.58	21.67	21.62				
5	16QAM	1	24	21.47	21.65	21.52	22	2		
5	16QAM	12	0	20.33	20.40	20.37				
5	16QAM	12	7	20.35	20.42	20.27				
5	16QAM	12	13	20.38	20.38	20.38	22	2		
5	16QAM	25	0	20.31	20.31	20.28				
5	16QAM	1	0	20.41	20.47	20.38				
5	16QAM	1	12	20.37	20.43	20.34	21	3		
5	16QAM	12	0	19.37	19.39	19.33				
5	16QAM	12	7	19.32	19.46	19.36				
5	16QAM	12	13	19.42	19.49	19.49	19	5		
5	16QAM	25	0	19.36	19.41	19.38				
5	256QAM	1	0	17.74	17.79	17.70				
5	256QAM	1	12	17.59	17.68	17.60	19	5		
5	256QAM	1	24	17.68	17.67	17.69				
5	256QAM	12	0	17.73	17.72	17.61	19	5		
5	256QAM	12	7	17.65	17.71	17.60				
5	256QAM	12	13	17.63	17.72	17.69	19	5		
5	256QAM	25	0	17.67	17.68	17.64				

Band 42 FCC Part27Q Ant8 ECI6										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (dBm)	MPR (dB)		
Channel				42190	42590	42690	Turn-up time (dBm)	MPR (dB)		
Frequency (MHz)				42190	42590	42690				
20	QPSK	1	0	22.91	22.95	22.94	24	0		
20	QPSK	1	48	22.75	22.78	22.79				
20	QPSK	1	96	22.81	22.83	22.79				
20	QPSK	50	0	22.02	22.03	22.02				
20	QPSK	50	24	22.04	22.06	22.02	23	1		
20	QPSK	50	48	21.90	22.01	21.93				
20	QPSK	100	0	22.01	22.11	22.03				
20	HQAM	1	0	22.05	22.05	22.06				
20	HQAM	1	48	21.99	22.05	22.00	23	1		
20	HQAM	1	96	22.03	22.05	21.98				
20	HQAM	50	0	20.89	20.96	20.95				
20	HQAM	50	24	20.85	20.91	20.83				
20	HQAM	50	50	20.80	20.91	20.85	22	2		
20	HQAM	100	0	20.91	20.96	20.89				
20	HQAM	1	0	20.57	20.57	20.54				
20	HQAM	1	48	20.90	20.95	20.92				
20	HQAM	1	96	20.92	20.93	20.97	21	3		
20	HQAM	50	0	19.87	19.97	19.89				
20	HQAM	50	24	19.89	19.99	19.89				
20	HQAM	50	50	19.94	19.97	19.95				
20	HQAM	100	0	19.89	19.90	19.82	19	5		
20	256QAM	1	0	17.90	17.83	17.90				
20	256QAM	1	48	17.91	17.85	17.85				
20	256QAM	1	96	17.81	17.82	17.88				
20	256QAM	50	0	17.94	17.96	17.92	19	5		
20	256QAM	50	24	17.98	17.99	17.94				
20	256QAM	50	50	17.86	17.87	17.87				
20	256QAM	100	0	17.93	17.99	17.94				
Channel				42155 <th>42590</th> <th>43015</th> <th>Turn-up time (dBm)</th> <th colspan="2">MPR (dB)</th>	42590	43015	Turn-up time (dBm)	MPR (dB)		
Frequency (MHz)				42155 <th>42590</th> <th>43015</th> <th rowspan="5">Turn-up time (dBm)</th> <th colspan="2">MPR (dB)</th>	42590	43015	Turn-up time (dBm)	MPR (dB)		
15	QPSK	1	0	22.17	22.57	22.51		24	0	
15	QPSK	1	37	22.73	22.72	22.61				
15	QPSK	1	74	22.80	22.80	22.73				
15	QPSK	36	0	22.01	21.97	21.94				
15	QPSK	36	20	21.95	21.98	21.95	23	1		
15	QPSK	36	36	21.89	21.95	21.95				
15	QPSK	75	0	21.08	22.09	22.01				
15	HQAM	1	0	22.04	22.04	22.04				
15	HQAM	1	37	21.95	22.01	21.98	23	1		
15	HQAM	1	74	21.94	22.01	21.93				
15	HQAM	36	0	20.88	20.98	20.92				
15	HQAM	36	36	20.74	20.83	20.82				
15	HQAM	36	36	20.71	20.83	20.81	22	2		
15	HQAM	75	0	20.83	20.88	20.81				
15	HQAM	1	0	20.79	20.84	20.85				
15	HQAM	1	37	20.83	20.91	20.82				
15	HQAM	1	74	20.84	20.86	20.77	21	3		
15	HQAM	36	0	19.82	19.85	19.83				
15	HQAM	36	20	19.79	19.88	19.85				
15	HQAM	36	36	19.80	19.87	19.87				
15	HQAM	75	0	19.84	19.93	19.75	19	5		
15	256QAM	1	0	17.89	17.87	17.83				
15	256QAM	1	37	17.85	17.84	17.76				
15	256QAM	1	74	17.78	17.83	17.81				
15	256QAM	36	0	17.92	17.87	17.83	19	5		
15	256QAM	36	20	17.90	17.89	17.88				
15	256QAM	36	36	17.83	17.96	17.83				
15	256QAM	75	0	17.86	17.86	17.84				
Channel				42140 <th>42590</th> <th>42940</th> <th>Turn-up time (dBm)</th> <th colspan="2">MPR (dB)</th>	42590	42940	Turn-up time (dBm)	MPR (dB)		
Frequency (MHz)				42140 <th>42590</th> <th>42940</th> <th rowspan="5">Turn-up time (dBm)</th> <th colspan="2">MPR (dB)</th>	42590	42940	Turn-up time (dBm)	MPR (dB)		
10	QPSK	1	0	22.83	22.86	22.83		24	0	
10	QPSK	1	25	22.88	22.88	22.88				
10	QPSK	1	49	22.75	22.80	22.78				
10	QPSK	36	0	22.00	22.03	21.95				
10	QPSK	25	12	21.90	21.98	22.00	23	1		
10	QPSK	25	25	21.81	21.82	21.91				
10	QPSK	36	0	21.97	22.04	22.00				
10	HQAM	1	0	21.98	22.03	22.04				
10	HQAM	1	25	21.99	22.03	21.98	23	1		
10	HQAM	1	49	21.94	22.03	21.99				
10	HQAM	25	0	20.81	20.90	20.87				
10	HQAM	25	12	20.74	20.86	20.82				
10	HQAM	25	25	20.70	20.83	20.81	22	2		
10	HQAM	50	0	20.86	20.83	20.82				
10	HQAM	1	0	20.84	20.87	20.88				
10	HQAM	1	25	20.89	20.85	20.89				
10	HQAM	1	49	20.85	20.89	20.83	22	2		
10	HQAM	25	0	19.79	19.80	19.81				
10	HQAM	25	12	19.79	19.91	19.83				
10	HQAM	25	25	19.90	19.88	19.91				
10	HQAM	50	0	19.79	19.82	19.75	21	3		
10	256QAM	1	0	17.85	17.84	17.81				
10	256QAM	1	25	17.88	17.81	17.74				
10	256QAM	1	49	17.71	17.82	17.83				
10	256QAM	25	0	17.90	17.84	17.84	19	5		
10	256QAM	25	12	17.88	17.86	17.87				
10	256QAM	25	25	17.83	17.95	17.77				
10	256QAM	50	0	17.91	17.90	17.88				
Channel				42115 <th>42590</th> <th>42965</th> <th>Turn-up time (dBm)</th> <th colspan="2">MPR (dB)</th>	42590	42965	Turn-up time (dBm)	MPR (dB)		
Frequency (MHz)				42115 <th>42590</th> <th>42965</th> <th rowspan="5">Turn-up time (dBm)</th> <th colspan="2">MPR (dB)</th>	42590	42965	Turn-up time (dBm)	MPR (dB)		
5	QPSK	1	0	22.83	22.82	22.84		24	0	
5	QPSK	1	15	22.89	22.87	22.84				
5	QPSK	1	24	22.71	22.74	22.72				
5	QPSK	12	0	21.98	22.04	21.98				
5	QPSK	12	7	21.95	21.97	21.91	23	1		
5	QPSK	12	13	21.88	21.82	21.91				
5	QPSK	25	0	21.97	22.02	21.96				
5	HQAM	1	0	21.97	22.06	21.95				
5	HQAM	1	12	21.96	22.01	21.90	23	1		
5	HQAM	1	24	22.00	22.01	21.94				
5	HQAM	12	0	20.83	20.97	20.89				
5	HQAM	12	7	20.84	20.83	20.73				
5	HQAM	12	13	20.77	20.89	20.76	22	2		
5	HQAM	25	0	20.82	20.88	20.85				
5	HQAM	1	0	20.81	20.88	20.85				
5	HQAM	1	12	20.88	20.84	20.90				
5	HQAM	1	24	20.83	20.91	20.79	21	3		
5	HQAM	12	0	19.76	19.86	19.87				
5	HQAM	12	7	19.80	19.92	19.83				
5	HQAM	25	0	19.84	19.81	19.90				
5	256QAM	1	0	17.89	17.84	17.85	19	5		
5	256QAM	1	12	17.81	17.84	17.79				
5	256QAM	1	24	17.78	17.84	17.80				
5	256QAM	12	0	17.83	17.88	17.81				
5	256QAM	12	7	17.84	17.87	17.85	19	5		
5	256QAM	12	13	17.85	17.91	17.79				
5	256QAM	25	0	17.89	17.91	17.84				

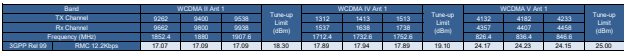


Reduced Power Mode for ECI 9

GSM-RS Ant 0	Base Average Power (dBm)			Tx-to-tp Loss (dB)	Frame Average Power (dBm)			Tx-to-tp Loss (dB)
	180	190	201		180	190	201	
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8	
Frequency (MHz)								
GPRS 1 Tx rate	31.83	31.89	31.89	33.00	22.61	22.69	22.69	24.00
GPRS 2 Tx rate	31.87	31.91	31.94	33.00	22.97	23.01	23.04	24.00
GPRS 3 Tx rate	32.47	32.50	32.45	32.00	24.47	24.56	24.43	25.00
GPRS 4 Tx rate	28.44	28.50	28.42	30.00	24.16	24.24	24.16	25.14
GPRS 5 Tx rate	27.33	27.30	27.31	29.00	24.33	24.39	24.31	25.00

GSM-RS Ant 0	Base Average Power (dBm)			Tx-to-tp Loss (dB)	Frame Average Power (dBm)			Tx-to-tp Loss (dB)
	512	561	610		512	561	610	
TX Channel								
Frequency (MHz)	27.52	28.03	27.95	29.00	18.92	19.03	19.05	20.00
GPRS 1 Tx rate	27.88	27.99	27.87	29.00	18.93	18.98	18.87	20.00
GPRS 2 Tx rate	26.99	26.96	26.92	27.00	18.99	20.04	19.98	21.00
GPRS 3 Tx rate	24.24	24.33	24.21	25.30	19.08	20.07	19.96	21.04
GPRS 4 Tx rate	22.92	23.02	22.88	24.10	19.02	20.02	19.98	21.00

Band		WCDMA II Ant 0			Tune-up Limit (dBm)	WCDMA IV Ant 0			Tune-up Limit (dBm)	WCDMA V Ant 0			Tune-up Limit (dBm)	
TX Channel	9262	9400	9538	1312		1413	1513	4192		4192	4293			
Rx Channel	9662	9800	9938	1537	1638	1738	4367	4407	4498					
Frequency (MHz)	1852.4	1860	1907.6	1712.4	1732.6	1752.6	4264	4304	448.6					
SCPP Test ID	RMC 12 200bps		15.82	15.84	15.78	17.00	18.52	18.54	18.48	19.70	24.20	24.31	24.27	25.00





GSM1900-A12		Total Average Power (dBm)			Turn-up		Power Density Power (dBm)			Turn-up	
Tx Channel		912	861	810	Leak		912	861	810	Leak	
Frequency (MHz)		1990.2	1980	1969.8	(dBm)		1990.2	1980	1969.8	(dBm)	
GPRS 1 Tx slot		22.67	22.79	22.70	22.60		13.62	13.70	13.52	13.50	
GPRS 2 Tx slot		22.74	22.77	22.55	23.93		13.74	13.77	13.58	14.90	
GPRS 3 Tx slot		20.13	20.27	20.16	20.90		14.13	14.27	14.16	14.90	
GPRS 4 Tx slot		18.52	18.45	18.30	16.10		14.50	14.76	14.12	13.44	
GPRS 5 Tx slot		16.66	16.67	16.62	17.90		13.60	13.67	13.62	14.90	

Band		WCDMA-A12			Turn-up		WCDMA-T1-A12			Turn-up	
Tx Channel		9550	9400	9538	Leak		1312	1413	1513	Leak	
Frequency (MHz)		9602	9590	9580	(dBm)		1527	1506	1734	(dBm)	
GPPF Band 8		1652.4	1680	1607.8	14.90		1712.4	1702.8	1705.6	14.50	
GPPF Band 8		13.53	13.58	13.47	14.90		13.50	13.43	13.56	14.50	



Band	WCDMA II-A/G-3			Time-to- Live	WCDMA IV-A/G-3			Time-to- Live
TX Channel	9562	9450	9538	(dBm)	9532	9418	9518	(dBm)
RX Channel	9562	9450	9538		9532	9418	9518	
Frequency (MHz)	1852.4	1840	1857.6		1712.8	1702.8	1702.8	
SCPP Ref ID	RNC 12 Phase			15.95	14.83	14.87	14.84	15.95



Band 2 Ant 0 ECI 9											
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MRR (dB)			
Channel											
Frequency (MHz)											
187001880018900											
20	QPSK	1	0	18.71	18.75	18.86	20.1	0			
20	QPSK	1	48	18.57	18.71	18.85					
20	QPSK	1	96	18.65	18.86	18.83					
20	QPSK	50	0	18.54	18.87	18.61					
20	QPSK	50	24	18.57	18.82	18.82	20.1	0			
20	QPSK	50	50	18.52	18.82	18.80					
20	QPSK	100	0	18.53	18.84	18.82					

Band 4 Ant 0 ECI 9											
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MRR (dB)			
Channel											
Frequency [MHz]											
20950 21015 21080											
20	QPSK	1	0	21.09	21.12	21.11	22.5	0			
20	QPSK	1	48	21.02	21.03	21.05					
20	QPSK	1	96	20.99	21.07	21.05					
20	QPSK	50	0	20.97	21.05	21.01					
20	QPSK	50	24	21.01	20.97	21.00	22.5	0			
20	QPSK	50	50	21.01	21.00	20.98					
20	QPSK	100	0	21.00	21.07	20.97					

Band 5 Ant 0 ECI 9												
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MRR (dB)				
Channel												
Frequency [MHz]												
829 836.5 844												
10	QPSK	1	0	23.17	23.35	23.21	24	0				
10	QPSK	1	25	23.08	23.11	23.02						
10	QPSK	1	49	23.21	23.24	23.18						
10	QPSK	25	0	22.06	22.23	22.16						
10	QPSK	25	12	22.10	22.15	22.11	23	1				
10	QPSK	25	25	22.17	22.14	22.08						
10	QPSK	50	0	22.20	22.25	22.16						
10	16QAM	1	0	22.47	22.50	22.49						
10	16QAM	1	25	22.32	22.38	22.37	23	1				
10	16QAM	1	49	22.32	22.44	22.33						
10	16QAM	25	0	21.30	21.38	21.37						
10	16QAM	25	12	21.23	21.21	21.23						
10	16QAM	25	20	21.16	21.25	21.21	22	2				
10	16QAM	50	0	21.27	21.23	21.18						
10	64QAM	1	0	21.25	21.37	21.35						
10	64QAM	1	25	21.23	21.32	21.27						
10	64QAM	1	48	21.27	21.30	21.30	21	3				
10	64QAM	25	0	20.36	20.36	20.28						
10	64QAM	25	12	20.28	20.39	20.25						
10	64QAM	25	25	20.16	20.21	20.11						
10	64QAM	50	0	20.28	20.36	20.23	19	5				
10	256QAM	1	0	18.28	18.28	18.24						
10	256QAM	1	25	18.21	18.25	18.09						
10	256QAM	1	48	18.12	18.25	18.18						
10	256QAM	25	0	18.14	18.22	18.10	19	5				
10	256QAM	25	12	18.22	18.23	18.19						
10	256QAM	25	25	18.20	18.30	18.29						
10	256QAM	50	0	18.14	18.23	18.18						
Channel												
Frequency [MHz]												
826.5 836.5 846.5												
5	QPSK	1	0	23.14	23.30	23.18	24	0				
5	QPSK	1	12	23.02	23.08	23.00						
5	QPSK	1	24	23.11	23.17	23.16						
5	QPSK	12	0	21.98	22.13	22.06						
5	QPSK	12	7	22.01	22.06	22.01	23	1				
5	QPSK	12	13	22.11	22.12	22.09						
5	QPSK	25	0	22.19	22.17	22.11						
5	16QAM	1	0	22.37	22.47	22.37						
5	16QAM	1	12	22.24	22.33	22.27	23	1				
5	16QAM	1	24	22.30	22.34	22.28						
5	16QAM	12	0	21.26	21.15	21.15						
5	16QAM	12	7	21.17	21.18	21.12						
5	16QAM	12	13	21.12	21.19	21.11	22	2				
5	16QAM	25	0	21.16	21.18	21.07						
5	64QAM	1	0	21.25	21.31	21.22						
5	64QAM	1	19	21.13	21.38	21.17						
5	64QAM	1	24	21.15	21.25	21.14	21	3				
5	64QAM	12	0	20.32	20.33	20.24						
5	64QAM	12	7	20.34	20.33	20.25						
5	64QAM	12	13	20.07	20.15	20.05						
5	64QAM	25	0	20.18	20.29	20.20	19	5				
5	256QAM	1	0	18.23	18.21	18.23						
5	256QAM	1	12	18.13	18.22	18.07						
5	256QAM	1	24	18.09	18.20	18.09						
5	256QAM	12	0	18.15	18.15	18.06	19	5				
5	256QAM	12	7	18.18	18.17	18.15						
5	256QAM	12	13	18.15	18.28	18.27						
5	256QAM	25	0	18.08	18.12	18.03						
Channel												
Frequency [MHz]												
826.5 836.5 846.5												
3	QPSK	1	0	23.08	23.30	23.13	24	0				
3	QPSK	1	8	23.00	23.07	22.97						
3	QPSK	1	14	23.16	23.20	23.14						
3	QPSK	8	0	22.00	22.14	22.14						
3	QPSK	8	4	22.05	22.11	22.01	23	1				
3	QPSK	8	7	22.11	22.08	22.04						
3	QPSK	16	0	22.18	22.23	22.13						
3	16QAM	1	0	22.37	22.44	22.42						
3	16QAM	1	8	22.22	22.36	22.34	23	1				
3	16QAM	1	14	22.25	22.36	22.29						
3	16QAM	8	0	21.22	21.17	21.06						
3	16QAM	8	4	21.20	21.13	21.17						
3	16QAM	8	7	21.00	21.15	21.11	22	2				
3	16QAM	15	0	21.21	21.19	21.08						
3	64QAM	1	0	21.16	21.38	21.28						
3	64QAM	1	8	21.12	21.26	21.22						
3	64QAM	1	14	21.20	21.26	21.17	21	3				
3	64QAM	8	0	20.33	20.29	20.21						
3	64QAM	8	4	20.18	20.30	20.15						
3	64QAM	8	7	20.11	20.18	20.08						
3	64QAM	15	0	20.26	20.28	20.14	19	5				
3	256QAM	1	0	18.27	18.24	18.23						
3	256QAM	1	8	18.16	18.17	18.02						
3	256QAM	1	14	18.08	18.22	18.17						
3	256QAM	8	0	18.15	18.13	17.99	19	5				
3	256QAM	8	4	18.15	18.22	18.08						
3	256QAM	8	7	18.12	18.25	18.21						
3	256QAM	15	0	18.07	18.13	18.07						
Channel												
Frequency [MHz]												
824.7 836.5 846.5												
1.4	QPSK	1	0	23.05	23.19	23.06	24	0				
1.4	QPSK	1	3	23.05	23.14	22.98						
1.4	QPSK	1	5	23.04	23.08	23.00						
1.4	QPSK	3	0	22.96	23.12	23.10						
1.4	QPSK	3	1	22.99	23.17	23.04	23	1				
1.4	QPSK	3	3	23.00	23.01	23.04						
1.4	QPSK	6	0	22.11	22.32	22.10						
1.4	16QAM	1	0	22.11	22.12	21.81						
1.4	16QAM	1	3	22.05	22.19	22.12	23	1				
1.4	16QAM	1	5	22.09	22.28	22.19						
1.4	16QAM	3	0	22.16	22.22	22.09						
1.4	16QAM	3	1	22.14	22.14	22.13						
1.4	16QAM	3	2	22.04	22.16	22.12	22	2				
1.4	16QAM	6	0	21.18	21.28	21.23						
1.4	16QAM	6	1	21.24	21.27	21.23						
1.4	16QAM	1	1	21.08	21.14	21.05						
1.4	16QAM	1	5	21.17	21.19	21.15	22	2				
1.4	16QAM	1	7	21.27	21.28	21.26						
1.4	16QAM	3	0	20.97	21.11	21.08						
1.4	16QAM	3	3	21.02	21.14	21.08						
1.4	16QAM	6	0	20.20	20.21	20.18	21	3				
1.4	16QAM	6	1	20.34	20.35	20.22						
1.4	16QAM	3	1	20.19	20.38	20.23						
1.4	16QAM	3	2	20.18	20.39	20.23						
1.4	16QAM	6	0	18.11	18.08	18.11	19	5				
1.4	16QAM	6	1	18.06	18.15	18.21						
1.4	16QAM	6	2	18.21	18.28	18.28						
1.4	256QAM	6	0	17.99	18.19	17.98						

Band 12 Ant 0 ECI 9														
BW (MHz)	Modulation	RS Size	RS Offset	Power Low Ch / Freq.	Power Mid Ch / Freq.	Power High Ch / Freq.	Tune-up Int. (dB)	MPR (dB)						
Channel														
Frequency (MHz)														
10	QPSK	1	0	23.37	23.43	23.39	24	0						
10	QPSK	1	25	23.17	23.27	23.19								
10	QPSK	1	49	23.27	23.31	23.29								
10	QPSK	25	0	22.23	22.25	22.15								
10	QPSK	25	12	22.22	22.24	22.18	23	1						
10	QPSK	25	25	22.19	22.23	22.21								
10	QPSK	50	0	22.14	22.21	22.11								
10	16QAM	1	0	22.70	22.77	22.75								
10	16QAM	1	25	22.61	22.69	22.62	23	1						
10	16QAM	1	49	22.65	22.69	22.58								
10	16QAM	25	0	21.57	21.59	21.50								
10	16QAM	25	12	21.53	21.59	21.53								
10	16QAM	25	25	21.52	21.60	21.53	22	2						
10	16QAM	50	0	21.49	21.50	21.52								
10	16QAM	50	0	21.49	21.50	21.52								
10	16QAM	50	0	21.49	21.50	21.52								
10	64QAM	1	25	21.45	21.52	21.45	22	2						
10	64QAM	1	49	21.45	21.53	21.43								
10	64QAM	25	0	20.52	20.58	20.50								
10	64QAM	25	12	20.48	20.54	20.49								
10	64QAM	25	25	20.51	20.59	20.49	21	3						
10	64QAM	50	0	20.52	20.53	20.43								
10	64QAM	50	0	20.52	20.53	20.43								
10	256QAM	1	25	18.37	18.49	18.38								
10	256QAM	1	25	18.37	18.42	18.39	19	5						
10	256QAM	1	49	18.34	18.39	18.28								
10	256QAM	25	0	18.36	18.40	18.31								
10	256QAM	25	12	18.42	18.44	18.42								
10	256QAM	25	25	18.31	18.41	18.36	19	5						
10	256QAM	50	0	18.35	18.42	18.37								
10	256QAM	50	0	18.35	18.42	18.37								
10	256QAM	50	0	18.35	18.42	18.37								
Channel														
Frequency (MHz)														
5	QPSK	1	0	23.28	23.41	23.32	24	0						
5	QPSK	1	12	23.14	23.16	23.11								
5	QPSK	1	24	23.26	23.28	23.21								
5	QPSK	12	0	22.18	22.18	22.12								
5	QPSK	12	7	22.20	22.19	22.10	23	1						
5	QPSK	12	13	22.15	22.17	22.16								
5	QPSK	25	0	22.05	22.10	22.09								
5	16QAM	1	0	22.60	22.71	22.66								
5	16QAM	1	12	22.54	22.59	22.54	23	1						
5	16QAM	1	9	18.36	18.40	18.36								
5	16QAM	12	0	21.00	21.48	21.46								
5	16QAM	12	7	21.43	21.51	21.46								
5	16QAM	25	0	21.47	21.48	21.43	22	2						
5	64QAM	1	0	21.41	21.55	21.57								
5	64QAM	1	24	21.59	22.01	22.01								
5	64QAM	1	24	21.35	21.42	21.39								
5	64QAM	12	7	20.58	20.60	20.48	21	3						
5	64QAM	12	13	20.41	20.54	20.42								
5	64QAM	25	0	20.48	20.50	20.37								
5	256QAM	1	0	18.38	18.47	18.35								
5	256QAM	1	12	18.36	18.40	18.36	19	5						
5	256QAM	1	24	18.24	18.39	18.24								
5	256QAM	12	0	18.31	18.36	18.28								
5	256QAM	12	7	18.39	18.43	18.33								
5	256QAM	12	13	18.28	18.39	18.28	19	5						
5	256QAM	25	0	18.38	18.37	18.27								
5	256QAM	25	0	18.38	18.37	18.27								
Channel														
Frequency (MHz)														
3	QPSK	1	0	23.30	23.40	23.32			24	0				
3	QPSK	1	8	23.15	23.22	23.15								
3	QPSK	1	14	23.19	23.24	23.22								
3	QPSK	8	0	22.12	22.18	22.16								
3	QPSK	8	4	22.19	22.23	22.15	23	1						
3	QPSK	8	7	22.10	22.18	22.15								
3	QPSK	16	0	22.05	22.11	22.09								
3	16QAM	1	0	22.64	22.71	22.64								
3	16QAM	1	8	22.61	22.60	22.57	23	1						
3	16QAM	1	8	22.65	22.68	22.54								
3	16QAM	8	0	21.50	21.49	21.41								
3	16QAM	8	7	21.48	21.53	21.52								
3	16QAM	8	7	21.48	21.53	21.52	22	2						
3	16QAM	15	0	21.48	21.47	21.45								
3	64QAM	1	0	21.47	21.54	21.52								
3	64QAM	1	8	21.35	21.50	21.36								
3	64QAM	1	14	21.44	21.49	21.37	21	3						
3	64QAM	8	0	20.49	20.53	20.48								
3	64QAM	8	4	20.41	20.45	20.38								
3	64QAM	8	7	20.41	20.57	20.36								
3	256QAM	1	0	18.46	18.44	18.31	19	5						
3	256QAM	1	8	18.36	18.41	18.32								
3	256QAM	1	14	18.32	18.34	18.21								
3	256QAM	8	0	18.34	18.36	18.27								
3	256QAM	8	4	18.39	18.39	18.36	19	5						
3	256QAM	8	7	18.26	18.33	18.34								
3	256QAM	15	0	18.40	18.33	18.31								
3	256QAM	15	0	18.40	18.33	18.31								
Channel														
Frequency (MHz)														
1.4	QPSK	1	0	23.32	23.32	23.14	24	0						
1.4	QPSK	1	3	23.07	23.21	23.08								
1.4	QPSK	1	5	23.18	23.19	23.01								
1.4	QPSK	3	0	23.14	23.17	23.11								
1.4	QPSK	3	1	23.03	23.09	23.01	23	1						
1.4	QPSK	3	3	23.02	23.09	23.05								
1.4	QPSK	6	0	22.12	22.21	22.11								
1.4	16QAM	1	0	22.13	22.17	21.94								
1.4	16QAM	1	3	22.05	22.13	22.19	23	1						
1.4	16QAM	1	6	22.02	22.05	21.99								
1.4	16QAM	3	0	21.99	22.07	21.96								
1.4	16QAM	3	1	21.99	22.05	22.15								
1.4	16QAM	3	3	22.02	22.08	22.05	22	2						
1.4	16QAM	6	0	21.23	21.21	21.07								
1.4	64QAM	1	0	21.08	21.14	21.09								
1.4	64QAM	1	3	21.19	21.19	21.09								
1.4	64QAM	1	5	21.12	21.16	21.18	22	2						
1.4	64QAM	3	0	21.18	21.30	21.05								
1.4	64QAM	3	1	21.01	21.09	21.11								
1.4	64QAM	3	3	20.95	21.10	20.96								
1.4	64QAM	3	3	20.95	21.10	20.96	21	3						
1.4	64QAM	6	0	20.96	21.09	21.02								
1.4	64QAM	6	1	18.28	18.28	18.22								
1.4	256QAM	1	0	18.24	18.44	18.23								
1.4	256QAM	1	3	18.30	18.32	18.24	19	5						
1.4	256QAM	3	0	18.16	18.14	18.18								
1.4	256QAM	3	1	18.13	18.17	18.16								
1.4	256QAM	3	3	18.04	18.10	18.04								
1.4	256QAM	6	0	18.04	18.06	18.17								
1.4	256QAM	6	0	18.04	18.06	18.17								

Band 26 Ant 0 ECI 9												
RF MHz	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Med Ch./Freq.	Power High Ch./Freq.	Turn-up time (dB)	MFR (dB)				
Channel												
				20745	20865	20985						
Frequency (MHz)				831.5	831.5	841.5						
15	QPSK	1	0	23.24	23.38	23.27	24	0				
15	QPSK	1	37	23.19	23.21	23.11						
15	QPSK	1	74	23.25	23.26	23.20						
15	QPSK	36	20	22.15	22.20	22.13						
15	QPSK	36	36	22.19	22.21	22.16	23	1				
15	QPSK	75	0	22.25	22.27	22.24						
15	16QAM	1	0	22.52	22.66	22.47						
15	16QAM	1	37	22.39	22.45	22.44						
15	16QAM	1	74	22.42	22.51	22.43	23	1				
15	16QAM	36	0	21.31	21.37	21.27						
15	16QAM	36	20	21.29	21.32	21.27						
15	16QAM	36	36	21.24	21.34	21.26						
15	16QAM	75	0	21.31	21.32	21.22	22	2				
15	256QAM	1	0	21.33	21.42	21.40						
15	256QAM	1	74	21.29	21.39	21.28						
15	256QAM	36	0	20.38	20.39	20.35						
15	256QAM	36	20	20.39	20.41	20.35	21	3				
15	256QAM	36	36	20.34	20.31	20.32						
15	256QAM	75	0	20.33	20.38	20.33						
15	256QAM	1	0	18.30	18.34	18.27						
15	256QAM	1	37	18.25	18.27	18.17	19	5				
15	256QAM	1	74	18.23	18.32	18.25						
15	256QAM	36	0	18.20	18.24	18.17						
15	256QAM	36	20	18.28	18.31	18.21						
15	256QAM	36	36	18.30	18.33	18.31	19	5				
15	256QAM	75	0	18.20	18.27	18.17						
Channel									20745	20865	20985	
Frequency (MHz)				819	831.5	844	Turn-up time (dB)	MFR (dB)				
10	QPSK	1	0	23.17	23.27	23.23	24	0				
10	QPSK	1	25	23.12	23.19	23.07						
10	QPSK	1	49	23.19	23.15	23.12						
10	QPSK	25	0	22.11	22.20	22.12						
10	QPSK	25	12	22.05	22.16	22.06	23	1				
10	QPSK	25	25	22.09	22.12	22.13						
10	QPSK	50	0	22.16	22.19	22.17						
10	16QAM	1	0	22.47	22.52	22.46						
10	16QAM	1	25	22.35	22.42	22.34	23	1				
10	16QAM	1	49	22.41	22.47	22.37						
10	16QAM	25	0	21.29	21.34	21.26						
10	16QAM	25	12	21.28	21.29	21.22						
10	16QAM	25	25	21.27	21.24	21.18	22	2				
10	16QAM	50	0	21.22	21.24	21.18						
10	64QAM	1	0	21.31	21.33	21.32						
10	64QAM	1	25	21.28	21.34	21.31						
10	64QAM	1	49	21.30	21.38	21.15	21	3				
10	64QAM	25	0	20.35	20.31	20.32						
10	64QAM	25	12	20.37	20.32	20.30						
10	64QAM	25	25	20.17	20.21	20.13						
10	64QAM	50	0	20.25	20.29	20.29	19	5				
10	256QAM	1	0	18.25	18.24	18.10						
10	256QAM	1	25	18.20	18.21	18.05						
10	256QAM	1	49	18.20	18.24	18.20						
10	256QAM	25	0	18.15	18.16	18.06	19	5				
10	256QAM	25	12	18.21	18.21	18.15						
10	256QAM	25	25	18.22	18.26	18.29						
10	256QAM	50	0	18.10	18.23	18.10						
Channel							20715	20865	21025			
Frequency (MHz)				816.5	831.5	846.5	Turn-up time (dB)	MFR (dB)				
5	QPSK	1	0	23.14	23.30	23.20	24	0				
5	QPSK	1	12	23.14	23.13	23.05						
5	QPSK	1	24	23.22	23.18	23.12						
5	QPSK	12	0	22.08	22.16	22.10						
5	QPSK	12	7	22.11	22.15	22.04	23	1				
5	QPSK	12	13	22.13	22.18	22.06						
5	QPSK	24	0	22.14	22.17	22.15						
5	16QAM	1	0	22.51	22.47	22.42						
5	16QAM	1	12	22.52	22.38	22.35	23	1				
5	16QAM	1	24	22.40	22.42	22.41						
5	16QAM	12	0	21.27	21.34	21.23						
5	16QAM	12	7	21.19	21.26	21.26						
5	16QAM	12	13	21.14	21.27	21.18	22	2				
5	16QAM	24	0	21.21	21.27	21.18						
5	64QAM	1	0	21.32	21.33	21.38						
5	64QAM	1	12	21.27	21.28	21.26						
5	64QAM	1	24	21.28	21.37	21.22	21	3				
5	64QAM	12	0	20.29	20.36	20.29						
5	64QAM	12	7	20.35	20.32	20.26						
5	64QAM	12	13	20.18	20.22	20.17						
5	64QAM	24	0	20.29	20.34	20.27	19	5				
5	256QAM	1	0	18.27	18.26	18.18						
5	256QAM	1	12	18.23	18.22	18.10						
5	256QAM	1	24	18.15	18.20	18.22						
5	256QAM	12	0	18.10	18.24	18.11	19	5				
5	256QAM	12	7	18.21	18.24	18.11						
5	256QAM	12	13	18.20	18.30	18.26						
5	256QAM	24	0	18.11	18.19	18.09						
Channel							20705	20865	21025			
Frequency (MHz)				813.5	831.5	847.5	Turn-up time (dB)	MFR (dB)				
3	QPSK	1	0	23.23	23.32	23.25	24	0				
3	QPSK	1	8	23.18	23.15	23.04						
3	QPSK	1	14	23.22	23.19	23.12						
3	QPSK	8	0	22.09	22.23	22.07						
3	QPSK	8	4	22.08	22.19	22.11	23	1				
3	QPSK	8	7	22.14	22.12	22.07						
3	QPSK	16	0	22.17	22.17	22.15						
3	16QAM	1	0	22.48	22.52	22.46						
3	16QAM	1	8	22.34	22.39	22.39	23	1				
3	16QAM	1	14	22.41	22.46	22.42						
3	16QAM	8	0	21.22	21.34	21.17						
3	16QAM	8	7	21.17	21.26	21.19						
3	16QAM	8	4	21.22	21.27	21.19	22	2				
3	16QAM	8	7	21.17	21.26	21.19						
3	16QAM	16	0	21.20	21.28	21.21						
3	64QAM	1	0	21.30	21.31	21.36						
3	64QAM	1	8	21.25	21.24	21.22	22	2				
3	64QAM	1	14	21.28	21.33	21.26						
3	64QAM	8	0	20.34	20.37	20.27						
3	64QAM	8	4	20.38	20.37	20.32						
3	64QAM	8	7	20.21	20.24	20.17	21	3				
3	16QAM	15	0	20.24	20.34	20.24						
3	256QAM	1	0	18.21	18.32	18.20						
3	256QAM	1	14	18.20	18.30	18.21	19	5				
3	256QAM	1	19	18.22	18.28	18.19						
3	256QAM	8	0	18.23	18.24	18.18						
3	256QAM	8	7	18.29	18.31	18.20						
3	256QAM	8	4	18.17	18.18	18.07	19	5				
Channel									20695	20865	21025	
Frequency (MHz)				810.5	831.5	848.5			Turn-up time (dB)	MFR (dB)		
14	QPSK	1	0	23.16	23.26	23.21	24	0				
14	QPSK	1	8	23.14	23.20	23.11						
14	QPSK	1	15	23.11	23.17	23.08						
14	QPSK	8	0	22.09	22.24	22.14						
14	QPSK	8	3	22.13	22.22	22.15	23	1				
14	QPSK	8	3	22.14	22.14	22.12						
14	QPSK	16	0	22.17	22.18	22.17						
14	16QAM	1	0	22.12	22.21	22.11						
14	16QAM	1	8	22.20	22.30	22.28	23	1				
14	16QAM	1	15	22.31	22.32	22.27						
14	16QAM	8	0	22.12	22.12	22.07						
14	16QAM	8	3	22.23	22.27	22.20						
14	16QAM	16	0	22.00	22.08	22.07	22	2				
14	16QAM	1	0	21.27	21.31	21.21						
14	16QAM	1	8	21.25	21.28	21.23						
14	16QAM	8	0	21.23	21.33	21.24						
14	16QAM	8	3	21.30	21.35	21.26	22	2				
14	16QAM	8	3	21.25	21.27	21.14						
14	16QAM	16	0	21.28	21.32	21.26						
14	64QAM	1	0	21.30	21.31	21.37						
14	64QAM	1	8	20.27	20.29	20.27	21	3				
14	64QAM	8	0	20.28	20.38	20.29						
14	64QAM	8	3	20.28	20.38	20.29						
14	64QAM	16	0	18.44	18.37	18.20						
14	256QAM	1	0	18.17	18.40	18.16	19	5				
14	256QAM	1	8	18.18	18.28	18.18						
14	256QAM	8	0	18.23	18.31	18.20						
14	256QAM	8	3	18.21	18.30	18.28						
14	256QAM	8	3	18.21	18.30	18.28	19	5				



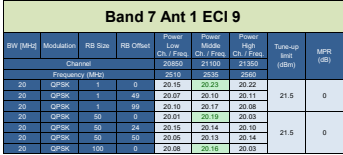
Band 66 Ant 0 ECI 9									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MPE (dB)	
Channel				130072	130208	130272			
Frequency [MHz]				1750	1745	1750			
20	QPSK	1	0	21.13	21.18	21.16	22.5	0	
20	QPSK	1	49	21.05	21.08	21.04			
20	QPSK	1	99	20.98	21.11	21.11			
20	QPSK	50	0	21.06	21.11	21.03			
20	QPSK	50	24	21.09	21.03	21.07	22.5	0	
20	QPSK	50	50	21.05	21.09	21.10			
20	QPSK	100	0	21.05	21.11	21.02			



Band 38 Ant 0 ECI 9								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				21.55	21.57	21.59		
20	QPSK	1	0	21.55	21.57	21.59	22.6	0
20	QPSK	1	48	21.55	21.53	21.52		
20	QPSK	1	96	21.59	21.57	21.60		
20	QPSK	50	0	21.58	21.57	21.54	22.6	0
20	QPSK	50	24	21.60	21.57	21.56		
20	QPSK	50	50	21.55	21.53	21.58		
20	QPSK	100	0	21.54	21.57	21.58		

Band 41 Ant 0 ECI 9										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				21.71	21.77	21.79	21.74	21.69		
20	QPSK	1	0	21.71	21.77	21.79	21.74	21.69	22.6	0
20	QPSK	1	48	21.70	21.67	21.77	21.67	21.68		
20	QPSK	1	96	21.64	21.67	21.68	21.69	21.68		
20	QPSK	50	0	21.65	21.61	21.75	21.63	21.65	22.6	0
20	QPSK	50	24	21.68	21.59	21.70	21.61	21.64		
20	QPSK	50	50	21.67	21.73	21.63	21.69	21.65		
20	QPSK	100	0	21.69	21.68	21.72	21.63	21.61		

Band 41 HPUE Ant 0 ECI 9										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (s)	MPE (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)										
20	QPSK	1	0	22.94	22.95	23.02	22.91	22.90	24.2	0
20	QPSK	1	48	22.88	22.90	22.95	22.89	22.81		
20	QPSK	1	96	22.82	22.80	22.87	22.83	22.83		
20	QPSK	50	0	22.85	22.89	22.96	22.85	22.90	24.2	0
20	QPSK	50	24	22.87	22.79	22.91	22.87	22.95		
20	QPSK	50	50	22.81	22.90	22.94	22.85	22.90		
20	QPSK	100	0	22.94	22.85	22.96	22.89	22.89		



Band 12 Ant 1 ECI 9														
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq. (MHz)	Power Mid Ch / Freq. (MHz)	Power High Ch / Freq. (MHz)	Tune-up Int. (sec)	MPR (dB)						
Channel														
Frequency (MHz)														
10	QPSK	1	0	23.01	23.05	23.99	24	0						
10	QPSK	1	25	22.80	22.81	22.80								
10	QPSK	1	49	22.88	22.89	22.89								
10	QPSK	25	0	21.91	21.94	21.85								
10	QPSK	25	12	21.79	21.84	21.79	23	1						
10	QPSK	25	25	21.91	21.89	21.84								
10	QPSK	50	0	21.81	21.85	21.81								
10	16QAM	1	0	22.32	22.35	22.31								
10	16QAM	1	25	22.27	22.30	22.27	23	1						
10	16QAM	1	49	22.18	22.24	22.23								
10	16QAM	25	0	21.02	21.11	21.03								
10	16QAM	25	12	21.15	21.20	21.08								
10	16QAM	25	25	21.09	21.10	21.06	22	2						
10	16QAM	50	0	21.02	21.10	21.05								
10	64QAM	1	0	21.19	21.21	21.15								
10	64QAM	1	25	21.10	21.16	21.07								
10	64QAM	1	49	21.14	21.17	21.11	21	3						
10	64QAM	25	0	20.13	20.18	20.12								
10	64QAM	25	12	20.01	20.13	20.05								
10	64QAM	25	25	20.11	20.15	20.12								
10	64QAM	50	0	20.12	20.20	20.10	19	5						
10	256QAM	1	0	18.06	18.14	18.04								
10	256QAM	1	25	18.03	18.12	18.05								
10	256QAM	1	49	18.08	18.12	18.04								
10	256QAM	25	0	17.95	18.03	17.96								
10	256QAM	25	12	17.95	18.03	17.96								
10	256QAM	25	25	18.02	18.08	18.01								
10	256QAM	50	0	17.95	18.03	17.96								
Channel														
Frequency (MHz)														
5	QPSK	1	0	22.99	22.97	22.90	24	0						
5	QPSK	1	12	22.84	22.86	22.71								
5	QPSK	1	24	22.83	22.85	22.80								
5	QPSK	12	0	21.82	21.83	21.74								
5	QPSK	12	13	21.70	21.76	21.76	23	1						
5	QPSK	12	13	21.82	21.85	21.77								
5	QPSK	25	0	21.80	21.78	21.71								
5	16QAM	1	0	22.30	22.34	22.28								
5	16QAM	1	12	22.23	22.23	22.18	23	1						
5	16QAM	1	24	22.11	22.20	22.19								
5	16QAM	12	0	20.94	21.08	20.95								
5	16QAM	12	7	21.12	21.18	21.06								
5	16QAM	12	13	21.04	21.06	21.01	22	2						
5	16QAM	25	0	20.97	21.07	21.01								
5	64QAM	1	0	21.09	21.14	21.12								
5	64QAM	1	24	21.11	21.22	21.19								
5	64QAM	1	24	21.06	21.14	21.09	21	3						
5	64QAM	12	0	20.09	20.14	20.08								
5	64QAM	12	13	20.02	20.05	20.05								
5	64QAM	25	0	20.07	20.10	20.05								
5	256QAM	1	0	18.05	18.05	18.05	19	5						
5	256QAM	1	12	17.98	18.01	18.02								
5	256QAM	1	24	18.03	18.04	17.94								
5	256QAM	12	0	17.94	17.97	17.95								
5	256QAM	12	7	17.92	17.99	17.90	19	5						
5	256QAM	12	13	17.91	17.88	18.00								
5	256QAM	25	0	17.87	17.88	17.88								
5	256QAM	25	0	17.87	17.88	17.88								
Channel														
Frequency (MHz)														
3	QPSK	1	0	22.99	22.97	22.90	24	0						
3	QPSK	1	8	22.87	22.89	22.74								
3	QPSK	1	14	22.84	22.86	22.85								
3	QPSK	1	8	21.82	21.88	21.78								
3	QPSK	8	6	21.71	21.79	21.69	23	1						
3	QPSK	8	7	21.88	21.91	21.74								
3	QPSK	1	0	21.82	21.87	21.80								
3	16QAM	1	0	22.22	22.29	22.20								
3	16QAM	1	8	22.25	22.23	22.23	23	1						
3	16QAM	1	8	22.11	22.10	22.21								
3	16QAM	8	0	20.96	21.07	20.93								
3	16QAM	8	4	21.08	21.10	21.07								
3	16QAM	8	7	21.06	21.10	21.06	22	2						
3	16QAM	15	0	20.96	21.03	20.98								
3	64QAM	1	0	21.09	21.18	21.11								
3	64QAM	1	8	21.04	21.13	21.08								
3	64QAM	1	14	21.06	21.10	21.06	21	3						
3	64QAM	8	0	20.04	20.13	20.05								
3	64QAM	8	4	19.96	20.07	19.94								
3	64QAM	8	7	20.04	20.08	20.03								
3	64QAM	15	0	20.03	20.10	20.07	19	5						
3	256QAM	1	0	18.03	18.05	17.99								
3	256QAM	1	8	17.92	18.02	17.96								
3	256QAM	1	14	17.98	18.03	17.93								
3	256QAM	8	0	17.91	18.02	17.90	19	5						
3	256QAM	8	4	17.84	18.00	17.95								
3	256QAM	8	7	17.97	17.97	17.96								
3	256QAM	15	0	17.95	18.07	17.96								
Channel														
Frequency (MHz)														
1.4	QPSK	1	0	23.01	23.01	23.00	24	0						
1.4	QPSK	1	3	23.06	23.08	23.00								
1.4	QPSK	1	5	22.89	22.90	22.92								
1.4	QPSK	3	0	22.92	22.94	22.81								
1.4	QPSK	3	1	22.78	22.91	22.84	23	1						
1.4	QPSK	3	1	22.78	22.93	22.87								
1.4	16QAM	1	0	21.84	21.89	21.82								
1.4	16QAM	1	3	21.83	21.94	21.90								
1.4	16QAM	1	6	21.78	21.89	21.86	23	1						
1.4	16QAM	3	0	21.82	21.89	21.80								
1.4	16QAM	3	1	21.89	21.82	21.78								
1.4	16QAM	3	3	21.82	21.89	21.82								
1.4	16QAM	6	0	20.89	20.92	20.86	22	2						
1.4	64QAM	1	0	20.82	20.95	20.91								
1.4	64QAM	1	3	20.88	20.94	20.92								
1.4	64QAM	1	5	20.84	20.95	20.93								
1.4	64QAM	3	0	20.81	20.91	20.73	22	2						
1.4	64QAM	3	3	20.82	20.94	20.81								
1.4	64QAM	6	0	19.93	19.97	19.89								
1.4	256QAM	1	0	17.84	18.13	18.04								
1.4	256QAM	1	3	17.81	17.97	17.92	21	3						
1.4	256QAM	1	5	17.82	18.01	17.90								
1.4	256QAM	3	0	17.88	17.86	17.97								
1.4	256QAM	3	1	17.88	17.87	17.98								
1.4	256QAM	3	3	17.85	17.89	17.88	20	5						
1.4	256QAM	6	0	16.93	17.03	17.03								
1.4	256QAM	6	3	16.93	17.03	17.03								
1.4	256QAM	6	6	16.93	17.03	17.03								

Band 26 Ant 1 EC1 9										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mids Ch./Freq.	Power High Ch./Freq.	Tune-up freq. (dBm)	MFR (dB)		
Channel							26745	26865	26965	
Frequency (MHz)							831.5	831.5	841.5	
15	QPSK	1	0	22.88	22.91	22.86	24	0		
15	QPSK	1	37	22.84	22.89	22.88				
15	QPSK	1	74	22.77	22.78	22.69				
15	QPSK	36	0	21.80	21.85	21.79				
15	QPSK	36	20	21.75	21.80	21.70	23	1		
15	QPSK	36	36	21.64	21.73	21.65				
15	QPSK	75	0	21.84	21.88	21.76				
15	HQDM	1	0	22.15	22.16	22.13				
15	HQDM	1	37	22.07	22.12	22.03	23	1		
15	HQDM	1	74	22.07	22.12	22.06				
15	HQDM	36	0	20.95	21.04	21.00				
15	HQDM	36	20	20.95	21.03	21.00				
15	HQDM	36	36	21.00	21.05	20.99	22	2		
15	HQDM	75	0	20.98	21.05	20.95				
15	64QAM	1	0	21.00	21.07	21.03				
15	64QAM	1	74	21.01	21.05	20.99				
15	64QAM	1	74	20.94	21.01	20.90	21	3		
15	64QAM	36	0	20.07	20.14	20.03				
15	64QAM	36	20	20.07	20.14	20.03				
15	64QAM	36	36	20.02	20.09	20.00				
15	64QAM	75	0	20.12	20.13	20.10	19	5		
15	256QAM	1	0	17.97	18.06	17.90				
15	256QAM	1	37	17.94	18.04	17.95				
15	256QAM	1	74	17.91	18.01	17.96				
15	256QAM	36	0	17.95	18.02	17.97	19	5		
15	256QAM	36	20	17.95	17.97	17.98				
15	256QAM	36	36	17.94	18.01	17.93				
15	256QAM	75	0	18.00	18.03	17.97				
Channel							26745	26865	26965	
Frequency (MHz)							819	831.5	844	
10	QPSK	1	0	22.82	22.88	22.79	24	0		
10	QPSK	1	25	22.76	22.84	22.79				
10	QPSK	1	49	22.68	22.76	22.66				
10	QPSK	25	0	21.73	21.82	21.72				
10	QPSK	25	12	21.72	21.79	21.64	23	1		
10	QPSK	25	25	21.60	21.68	21.61				
10	QPSK	50	0	21.79	21.78	21.74				
10	HQDM	1	0	22.14	22.08	22.04				
10	HQDM	1	25	21.97	22.09	21.94	23	1		
10	HQDM	1	49	21.89	22.10	20.91				
10	HQDM	25	0	20.89	20.97	20.90				
10	HQDM	25	12	20.91	20.96	20.98				
10	HQDM	25	25	20.89	20.99	20.93	22	2		
10	HQDM	50	0	20.90	20.94	20.93				
10	64QAM	1	0	20.97	20.98	20.93				
10	64QAM	1	25	20.97	20.95	20.90				
10	64QAM	1	49	20.89	20.96	20.97	21	3		
10	64QAM	25	0	20.08	20.13	20.05				
10	64QAM	25	12	20.13	20.14	20.06				
10	64QAM	25	25	20.03	20.09	20.02				
10	64QAM	50	0	20.17	20.12	20.15	19	5		
10	256QAM	1	0	17.83	18.00	17.90				
10	256QAM	1	25	17.91	18.00	17.92				
10	256QAM	1	49	17.86	17.96	17.88				
10	256QAM	25	0	17.85	17.87	17.90	19	5		
10	256QAM	25	12	17.93	17.96	17.95				
10	256QAM	25	25	17.90	17.98	17.84				
10	256QAM	50	0	17.86	17.87	17.96				
Channel							26745	26865	26965	
Frequency (MHz)							816.5	831.5	846.5	
5	QPSK	1	0	22.82	22.88	22.79	24	0		
5	QPSK	1	12	22.80	22.83	22.85				
5	QPSK	1	24	22.72	22.71	22.63				
5	QPSK	12	0	21.69	21.80	21.68				
5	QPSK	12	7	21.67	21.72	21.65	23	1		
5	QPSK	12	13	21.63	21.64	21.59				
5	QPSK	24	0	21.82	21.83	21.69				
5	HQDM	1	0	22.04	22.15	22.03				
5	HQDM	1	12	21.99	22.04	21.99	23	1		
5	HQDM	1	24	21.95	22.07	21.96				
5	HQDM	12	0	20.92	20.95	21.00				
5	HQDM	12	7	20.89	21.01	20.94				
5	HQDM	12	13	20.91	21.03	20.95	22	2		
5	HQDM	24	0	20.89	20.94	20.88				
5	64QAM	1	0	20.89	20.98	20.94				
5	64QAM	1	12	20.95	20.95	20.96				
5	64QAM	1	24	20.87	20.97	20.80	21	3		
5	64QAM	12	0	20.16	20.17	20.98				
5	64QAM	12	7	20.05	20.07	20.00				
5	64QAM	12	13	19.97	20.15	20.03				
5	64QAM	24	0	20.12	20.19	20.14	19	5		
5	256QAM	1	0	17.84	18.04	17.80				
5	256QAM	1	12	17.88	18.01	17.94				
5	256QAM	1	24	17.86	17.96	17.91				
5	256QAM	12	0	17.85	18.00	17.80	19	5		
5	256QAM	12	7	17.89	17.89	17.88				
5	256QAM	12	13	17.93	17.92	17.88				
5	256QAM	24	0	17.90	17.94	17.90				
Channel							26795	26865	27025	
Frequency (MHz)							816.5	831.5	847.5	
3	QPSK	1	0	22.84	22.82	22.80	24	0		
3	QPSK	1	8	22.79	22.87	22.81				
3	QPSK	1	14	22.75	22.76	22.62				
3	QPSK	8	0	21.75	21.75	21.71				
3	QPSK	8	4	21.71	21.73	21.65	23	1		
3	QPSK	8	7	21.60	21.70	21.66				
3	QPSK	16	0	21.76	21.78	21.67				
3	HQDM	1	0	22.09	22.10	22.08				
3	HQDM	1	8	22.04	22.06	21.96	23	1		
3	HQDM	1	14	21.95	22.03	22.00				
3	HQDM	8	0	20.83	21.02	20.92				
3	HQDM	8	4	20.87	20.99	20.95				
3	HQDM	8	7	20.92	21.02	20.90	22	2		
3	HQDM	16	0	20.64	21.01	20.94				
3	64QAM	1	0	20.96	21.05	21.00				
3	64QAM	1	8	20.91	20.94	20.94				
3	64QAM	1	14	20.81	20.99	20.85	21	3		
3	64QAM	8	0	20.12	20.14	20.03				
3	64QAM	8	4	20.05	20.11	20.00				
3	64QAM	8	7	20.02	20.13	20.03				
3	HQDM	16	0	20.11	20.12	20.15	19	5		
3	256QAM	1	0	17.90	17.96	17.84				
3	256QAM	1	8	17.87	17.99	17.91				
3	256QAM	16	0	17.82	17.97	17.89				
3	256QAM	8	0	17.84	17.91	17.85	19	5		
3	256QAM	8	4	17.85	17.91	17.85				
3	256QAM	8	7	17.86	17.95	17.87				
3	256QAM	16	0	17.85	17.97	17.87	19	5		
3	256QAM	16	8	17.86	17.97	17.87				
3	256QAM	16	14	17.87	17.97	17.87				
Channel							26697	26865	27025	
Frequency (MHz)							816.5	831.5	847.5	
1.4	QPSK	1	0	22.70	22.83	22.69	24	0		
1.4	QPSK	1	8	22.53	22.68	22.58				
1.4	QPSK	1	16	22.40	22.60	22.27				
1.4	QPSK	3	0	21.25	21.39	21.20				
1.4	QPSK	3	8	21.46	21.60	21.42	23	1		
1.4	QPSK	3	16	21.44	21.71	21.48				
1.4	HQDM	1	0	21.62	21.77	21.75				
1.4	HQDM	1	8	21.56	21.73	21.49				
1.4	HQDM	1	16	21.44	21.74	21.47	23	1		
1.4	HQDM	3	0	21.67	21.63	21.58				
1.4	HQDM	3	8	21.56	21.72	21.77				
1.4	HQDM	3	16	21.44	21.71	21.74				
1.4	HQDM	6	0	20.62	20.74	20.70	22	2		
1.4	HQDM	6	8	20.56	20.76	20.74				
1.4	HQDM	6	16	20.52	20.84	20.76				
1.4	HQDM	1	0	20.67	20.62	20.74				
1.4	HQDM	1	8	20.67	20.59	20.69	22	2		
1.4	HQDM	1	16	20.67	20.58	20.68				
1.4	HQDM	3	0	20.67	20.79	20.66				
1.4	HQDM	3	8	20.54	20.66	20.45				
1.4	HQDM	3	16	20.66	20.81	20.61	21	3		
1.4	HQDM	6	0	20.63	20.76	20.72				
1.4	HQDM	6	8	20.63	20.76	20.72				
1.4	HQDM	6	16	20.63	20.76	20.72				
1.4	HQDM	12	0	20.63	20.76	20.72	19	5		
1.4	HQDM	12	8	20.63	20.76	20.72				
1.4	HQDM	12	16	20.63	20.76	20.72				
1.4	HQDM	24	0	20.63	20.76	20.72				
1.4	HQDM	6	0	17.68	17.78	17.71	19	5		
1.4	HQDM	6	8	17.67	17.77	17.68				
1.4	HQDM	6	16	17.68	17.77	17.75				



Band 66 Ant 1 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Tune-up Int. (dBm)	MPE (dB)	
Channel				130072	130208	130344			
Frequency (MHz)				1720	1740	1760			
20	QPSK	1	0	18.52	18.56	18.55	19.8	0	
20	QPSK	1	48	18.50	18.50	18.52			
20	QPSK	1	96	18.41	18.56	18.51			
20	QPSK	50	0	18.45	18.57	18.42			
20	QPSK	50	24	18.52	18.50	18.45	19.8	0	
20	QPSK	50	50	18.47	18.49	18.49			
20	QPSK	100	0	18.44	18.49	18.47			



Band 38 Ant 1 ECI 9								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				25.80	25.85	25.90		
20	QPSK	1	0	19.82	19.72	19.85	20.9	0
20	QPSK	1	40	19.49	19.51	19.58		
20	QPSK	1	80	19.54	19.38	19.45		
20	QPSK	50	0	19.80	19.67	19.48	20.9	0
20	QPSK	50	24	19.49	19.63	19.52		
20	QPSK	50	50	19.56	19.52	19.51		
20	QPSK	100	0	19.49	19.61	19.58		

Band 41 Ant 1 ECI 9									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				25.84	25.83	25.83	25.85	25.86	
20	QPSK	1	0	19.68	19.71	19.74	19.68	19.68	20.9
20	QPSK	1	40	19.67	19.63	19.65	19.59	19.60	
20	QPSK	1	80	19.61	19.60	19.61	19.59	19.58	
20	QPSK	50	0	19.59	19.65	19.72	19.67	19.61	20.9
20	QPSK	50	24	19.54	19.60	19.68	19.66	19.58	
20	QPSK	50	50	19.57	19.61	19.62	19.60	19.60	
20	QPSK	100	0	19.54	19.55	19.70	19.61	19.63	0

Band 41 HPUE Ant 1 ECI 9										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (days)	MPE (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				25.84	25.83	25.83	25.85	25.86		
20	QPSK	1	0	21.00	20.97	21.05	20.98	21.02	22.5	0
20	QPSK	1	40	20.88	20.88	20.94	20.84	20.89		
20	QPSK	1	80	21.01	20.94	21.01	20.90	20.93		
20	QPSK	50	0	20.91	20.92	21.03	20.87	20.95	22.5	0
20	QPSK	50	24	20.99	20.88	20.94	20.88	20.92		
20	QPSK	50	50	20.94	20.87	20.93	20.95	21.01		
20	QPSK	100	0	20.90	20.94	20.96	20.90	20.88		



Band 2 Ant 2 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)	
Channel				18700	18900	19050			
Frequency (MHz)				1880	1890	1900			
20	QPSK	1	0	11.78	11.84	11.78	13.1	0	
20	QPSK	1	48	11.70	11.73	11.68			
20	QPSK	1	99	11.67	11.78	11.77			
20	QPSK	50	0	11.81	11.83	11.73	13.1	0	
20	QPSK	50	24	11.69	11.72	11.79			
20	QPSK	50	50	11.62	11.77	11.79			
20	QPSK	100	0	11.62	11.76	11.67			

Band 4 Ant 2 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)	
Channel				20050	20125	20200			
Frequency (MHz)				1720	1732.5	1740			
20	QPSK	1	0	9.89	10.02	9.96	11.3	0	
20	QPSK	1	48	9.34	9.97	9.33			
20	QPSK	1	99	9.84	9.85	9.88			
20	QPSK	50	0	9.91	10.03	9.91	11.3	0	
20	QPSK	50	24	9.85	9.93	9.88			
20	QPSK	50	50	9.80	9.84	9.91			
20	QPSK	100	0	9.86	9.94	9.79			

Band 7 Ant 2 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)	
Channel				20400	20500	20580			
Frequency (MHz)				2010	2030	2050			
20	QPSK	1	0	13.61	13.68	13.64	15	0	
20	QPSK	1	48	13.62	13.61	13.54			
20	QPSK	1	99	13.51	13.58	13.62			
20	QPSK	50	0	13.51	13.60	13.52	15	0	
20	QPSK	50	24	13.58	13.58	13.62			
20	QPSK	50	50	13.61	13.57	13.62			
20	QPSK	100	0	13.58	13.62	13.58			



Band 25 Ant 2 ECI 9								
SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				26140	26240	26340		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	11.86	11.82	11.86	13.1	0
20	QPSK	1	49	11.73	11.88	11.78		
20	QPSK	1	99	11.74	11.88	11.84		
20	QPSK	50	0	11.71	11.82	11.87	13.1	0
20	QPSK	50	24	11.80	11.80	11.75		
20	QPSK	50	50	11.74	11.87	11.88		
20	QPSK	100	0	11.77	11.85	11.75		

Band 66 Ant 2 ECI 9								
SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1740	1770		
20	QPSK	1	0	10.00	10.00	9.99	11.3	0
20	QPSK	1	49	10.00	9.97	9.93		
20	QPSK	1	99	9.99	9.95	9.90		
20	QPSK	50	0	9.95	10.02	9.92	11.3	0
20	QPSK	50	24	9.91	10.01	9.90		
20	QPSK	50	50	9.89	9.99	9.93		
20	QPSK	100	0	9.87	10.00	9.89		



Band 38 Ant 2 ECI 9								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				2500	2505	2610		
20	QPSK	1	0	16.45	16.51	16.57	17.3	0
20	QPSK	1	40	16.41	16.43	16.37		
20	QPSK	1	80	16.46	16.48	16.38		
20	QPSK	50	0	16.37	16.45	16.46	17.3	0
20	QPSK	50	24	16.46	16.43	16.41		
20	QPSK	50	50	16.43	16.40	16.42		
20	QPSK	100	0	16.39	16.43	16.35		

Band 41 Ant 2 ECI 9										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Midle Ch. / Freq.	Power Med. Ch. / Freq.	Power High-Midle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2400	2413.5	2403	2396.5	2400		
20	QPSK	1	0	16.51	16.55	16.55	16.52	16.54	17.3	0
20	QPSK	1	40	16.44	16.43	16.49	16.47	16.47		
20	QPSK	1	80	16.40	16.47	16.55	16.40	16.42		
20	QPSK	50	0	16.41	16.44	16.52	16.45	16.47	17.3	0
20	QPSK	50	24	16.40	16.40	16.47	16.44	16.46		
20	QPSK	50	50	16.41	16.41	16.44	16.40	16.40		
20	QPSK	100	0	16.44	16.46	16.51	16.40	16.46		

Band 41 HPUE Ant 2 ECI 9										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./ Freq.	Power Line-Midle Ch./ Freq.	Power Med. Ch./ Freq.	Power High-Midle Ch./ Freq.	Power High Ch./ Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2400	2413.5	2403	2396.5	2400		
20	QPSK	1	0	17.71	17.74	17.82	17.77	17.80	18.9	0
20	QPSK	1	40	17.61	17.69	17.74	17.68	17.71		
20	QPSK	1	80	17.73	17.74	17.74	17.70	17.72		
20	QPSK	50	0	17.69	17.64	17.70	17.70	17.68	18.9	0
20	QPSK	50	24	17.68	17.67	17.70	17.70	17.73		
20	QPSK	50	50	17.68	17.70	17.70	17.65	17.73		
20	QPSK	100	0	17.83	17.71	17.74	17.70	17.72		



Band 2 Ant 3 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up (mW)	MFR (dB)
Channel				18700	18800	18900		
Frequency (MHz)				18695	18800	18900		
20	QPSK	1	0	16.85	16.89	16.81	18.1	0
20	QPSK	1	48	16.81	16.80	16.83		
20	QPSK	1	99	16.80	16.84	16.86		
20	QPSK	50	0	16.84	16.85	16.82	18.1	0
20	QPSK	50	24	16.81	16.87	16.77		
20	QPSK	50	50	16.78	16.84	16.76		
20	QPSK	100	0	16.83	16.89	16.78		

Band 4 Ant 3 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up time (min)	MFR (dB)
Channel				20550	20715	20880		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	17.08	17.13	17.07	18.3	0
20	QPSK	1	49	17.01	17.10	17.06		
20	QPSK	1	99	17.03	16.97	17.03		
20	QPSK	50	0	17.00	17.12	17.00	18.3	0
20	QPSK	50	24	17.01	17.05	17.01		
20	QPSK	50	50	16.93	17.09	16.97		
20	QPSK	100	0	17.05	17.12	16.95		

Band 7 Ant 3 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up (dBm)	MFR (dB)
Channel				23650	23700	23750		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	13.72	13.75	13.72	15.2	0
20	QPSK	1	48	13.61	13.69	13.64		
20	QPSK	1	99	13.66	13.64	13.68		
20	QPSK	50	0	13.64	13.72	13.64	15.2	0
20	QPSK	50	24	13.84	13.69	13.65		
20	QPSK	50	50	13.61	13.63	13.67		
20	QPSK	100	0	13.61	13.66	13.65		



Band 25 Ant 3 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./ Freq.	Power Middle Ch./ Freq.	Power High Ch./ Freq.	Tune-up Int. (dBm)	MTR (dB)
Channel				26140	26240	26340		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	18.95	18.97	18.98	18.1	0
20	QPSK	1	49	18.85	18.95	18.90		
20	QPSK	1	99	18.86	18.91	18.93		
20	QPSK	50	0	18.92	18.92	18.91	18.1	0
20	QPSK	50	24	18.91	18.85	18.85		
20	QPSK	50	50	18.88	18.84	18.84		
20	QPSK	100	0	18.91	18.92	18.96		

Band 66 Ant 3 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MTR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	17.17	17.20	17.12	18.3	0
20	QPSK	1	49	17.09	17.17	17.10		
20	QPSK	1	99	17.10	17.09	17.14		
20	QPSK	50	0	17.11	17.18	17.10	18.3	0
20	QPSK	50	24	17.08	17.10	17.02		
20	QPSK	50	50	17.07	17.14	17.04		
20	QPSK	100	0	17.13	17.15	17.02		



Band 38 Ant 3 ECI 9								
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Main Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38000	38150		
Frequency (MHz)				2494	2495	2496		
20	QPSK	5	0	15.93	15.95	15.99	16.9	0
20	QPSK	1	40	15.96	16.02	15.98		
20	QPSK	1	40	15.95	15.93	15.92		
20	QPSK	50	0	15.92	15.94	15.98		
20	QPSK	50	24	15.83	15.92	15.93	16.9	0
20	QPSK	50	56	15.79	15.97	15.92		
20	QPSK	100	0	15.88	15.91	15.85		
20	QPSK	100	0	15.88	15.91	15.85		

Band 41 Ant 3 ECI 9										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Mid Ch. / Freq.	Power Main Ch. / Freq.	Power High-Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				38750	40185	40420	41055	41490		
Frequency (MHz)				2504	2505	2506	2507.5	2508		
20	QPSK	1	0	16.05	16.05	16.05	16.01	16.02	16.9	0
20	QPSK	1	40	16.05	15.98	16.06	16.08	16.01		
20	QPSK	1	40	16.09	16.01	15.99	16.01	16.09		
20	QPSK	50	0	15.93	15.91	16.07	16.09	15.99		
20	QPSK	50	24	15.96	15.89	16.02	16.01	15.98	16.9	0
20	QPSK	50	56	15.95	15.85	16.02	16.04	15.91		
20	QPSK	100	0	15.98	16.02	16.03	16.08	15.94		
20	QPSK	100	0	15.98	16.02	16.03	16.08	15.94		

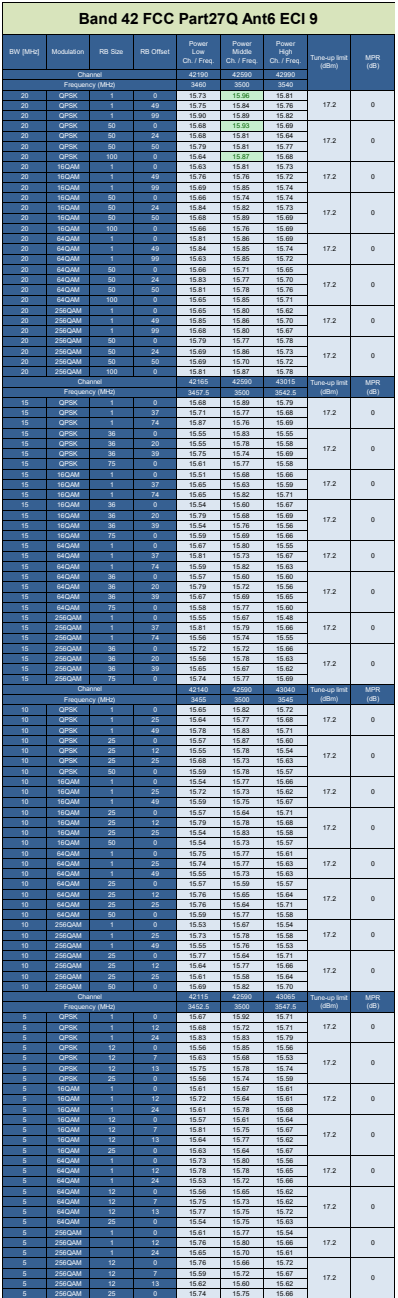


Band 41 HPUE Ant 3 ECI 9										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Low-Mid Ch / Freq.	Power Mid Ch / Freq.	Power High-Mid Ch / Freq.	Power High Ch / Freq.	Time-up Int. (dBm)	MPR (dB)
Channel				38750	40185	40620	41055	41490	18.5	0
Frequency (MHz)				2500	2594.5	2689	2684.5	2680		
20	QPSK	1	0	17.23	17.24	17.25	17.22	17.20		
20	QPSK	1	40	17.14	17.27	17.24	17.16	17.14		
20	QPSK	1	80	17.21	17.17	17.26	17.13	17.16		
20	QPSK	50	0	17.16	17.12	17.30	17.14	17.14	18.5	0
20	QPSK	50	34	17.21	17.22	17.23	17.12	17.08		
20	QPSK	50	68	17.19	17.27	17.18	17.10	17.22		
20	QPSK	100	0	17.21	17.21	17.26	17.25	17.20		

Band 42 FCC Part27Q Ant 3 ECI 9										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MPR (dB)		
Channel				42190	42690	42990	14.3	0		
Frequency (MHz)				3460	3560	3640				
20	QPSK	1	0	13.08	13.10	13.07			14.3	0
20	QPSK	1	40	13.11	13.24	13.22				
20	QPSK	1	80	13.20	13.16	13.15				
20	QPSK	50	0	13.00	13.07	12.91				
20	QPSK	50	24	13.07	13.17	13.16	14.3	0		
20	QPSK	50	48	13.20	13.11	13.05				
20	QPSK	100	0	12.97	13.23	12.89				
20	16QAM	1	0	13.07	13.13	13.18				
20	16QAM	1	40	13.22	13.13	13.02	14.3	0		
20	16QAM	1	80	13.09	13.20	12.93				
20	16QAM	50	0	13.06	13.19	13.19				
20	16QAM	50	24	13.16	13.06	13.07				
20	16QAM	50	50	13.02	13.27	12.92	14.3	0		
20	16QAM	100	0	13.02	13.22	13.10				
20	16QAM	1	0	13.17	13.05	13.07				
20	16QAM	1	40	12.95	13.22	12.83				
20	16QAM	1	80	13.15	13.15	13.15	14.3	0		
20	16QAM	50	0	13.15	13.14	13.10				
20	16QAM	50	24	13.22	13.14	13.12				
20	16QAM	50	50	13.02	13.25	13.03				
20	16QAM	100	0	13.04	13.13	13.08	14.3	0		
20	256QAM	1	0	13.14	13.09	13.06				
20	256QAM	1	40	13.20	13.04	13.03				
20	256QAM	1	80	12.95	13.25	12.85				
20	256QAM	50	0	13.01	13.22	13.16	14.3	0		
20	256QAM	50	24	12.98	13.25	12.88				
20	256QAM	50	50	13.01	13.19	13.09				
20	256QAM	100	0	13.23	13.10	13.08				
Channel				42165	42690	43015	Tune-up Int. (dBm)	MPR (dB)		
Frequency (MHz)				3457.5	3550	3643.5	14.3	0		
10	QPSK	1	0	13.10	13.24	13.11				
10	QPSK	1	37	12.97	13.11	13.11				
10	QPSK	1	74	13.23	13.10	13.09				
10	QPSK	36	0	12.87	13.21	12.81	14.3	0		
10	QPSK	36	20	12.99	13.10	13.10				
10	QPSK	36	38	13.08	13.08	12.99				
10	QPSK	75	0	12.91	13.18	12.85				
10	16QAM	1	0	12.96	12.99	13.09	14.3	0		
10	16QAM	1	37	13.15	13.05	12.93				
10	16QAM	1	74	12.99	13.07	12.88				
10	16QAM	36	0	12.99	13.17	13.14				
10	16QAM	36	20	13.13	12.98	13.06	14.3	0		
10	16QAM	36	39	12.95	13.20	12.88				
10	16QAM	75	0	12.91	13.20	12.96				
10	16QAM	1	0	13.12	12.95	12.97				
10	16QAM	1	37	12.89	13.19	12.81	14.3	0		
10	16QAM	1	74	12.91	13.08	13.03				
10	16QAM	36	0	13.03	13.10	13.06				
10	16QAM	36	20	13.12	13.11	13.10				
10	16QAM	36	39	12.93	13.13	12.97	14.3	0		
10	16QAM	75	0	12.94	13.25	13.00				
10	256QAM	1	0	13.03	12.86	12.96				
10	256QAM	1	37	13.15	12.96	12.90				
10	256QAM	1	74	12.90	13.19	12.78	14.3	0		
10	256QAM	36	0	12.92	13.14	13.13				
10	256QAM	36	20	12.99	13.20	13.02				
10	256QAM	36	39	12.89	13.13	12.97				
10	256QAM	75	0	13.15	12.84	12.94	14.3	0		
Channel				42140	42690	43040			Tune-up Int. (dBm)	MPR (dB)
Frequency (MHz)				3455	3500	3545			14.3 <th rowspan="4">0</th>	0
10	QPSK	1	0	12.88	13.26	12.87				
10	QPSK	1	25	13.06	13.10	13.12				
10	QPSK	1	49	13.23	13.07	13.09				
10	QPSK	25	0	12.95	13.21	12.83	14.3	0		
10	QPSK	25	12	12.95	13.09	13.02				
10	QPSK	50	0	12.86	13.10	12.83				
10	16QAM	1	0	12.86	13.10	13.04	14.3	0		
10	16QAM	1	25	13.14	13.08	12.96				
10	16QAM	1	49	12.99	13.09	12.87				
10	16QAM	25	0	13.01	13.17	13.09				
10	16QAM	25	12	13.12	13.03	12.85	14.3	0		
10	16QAM	25	25	12.93	13.17	12.85				
10	16QAM	50	0	12.91	13.02	12.98				
10	16QAM	1	0	13.11	13.02	12.98	14.3	0		
10	16QAM	1	25	13.14	13.08	13.03				
10	16QAM	1	49	12.99	13.09	12.87				
10	16QAM	25	0	13.13	13.09	13.03				
10	16QAM	25	12	13.09	13.11	13.05	14.3	0		
10	16QAM	25	25	12.92	13.22	12.87				
10	16QAM	50	0	12.95	13.05	13.05				
10	256QAM	1	0	13.01	12.97	12.99	14.3	0		
10	256QAM	1	25	13.01	13.02	12.92				
10	256QAM	1	49	12.93	13.13	12.77				
10	256QAM	25	0	12.92	13.17	13.04				
10	256QAM	25	12	12.86	13.13	12.76	14.3	0		
10	256QAM	25	25	12.97	13.13	12.97				
10	256QAM	50	0	13.13	12.87	13.02				
Channel				42115	42690	43065	Tune-up Int. (dBm)	MPR (dB)		
Frequency (MHz)				3452.5	35000	35477.5	14.3 <th rowspan="4">0</th>	0		
5	QPSK	1	0	12.95	13.25	12.87				
5	QPSK	1	15	12.98	13.10	13.12				
5	QPSK	1	24	13.18	13.05	13.05				
5	QPSK	12	7	13.03	13.10	13.11	14.3	0		
5	QPSK	12	13	13.15	13.07	12.93				
5	QPSK	25	0	12.91	13.12	12.82				
5	16QAM	1	0	12.97	13.11	13.13				
5	16QAM	1	12	13.12	13.07	12.90	14.3	0		
5	16QAM	1	24	13.02	13.16	12.95				
5	16QAM	12	7	13.04	13.04	12.99				
5	16QAM	12	13	12.92	13.15	12.86	14.3	0		
5	16QAM	25	0	12.86	13.17	12.97				
5	16QAM	1	0	13.10	12.85	13.03				
5	16QAM	1	12	12.87	13.16	12.81	14.3	0		
5	16QAM	1	24	12.98	13.07	13.10				
5	16QAM	12	0	13.03	13.03	12.98				
5	16QAM	12	0	13.20	13.05	13.09	14.3	0		
5	16QAM	25	0	12.97	13.06	12.95				
5	256QAM	1	0	13.11	13.01	12.94				
5	256QAM	1	12	13.06	12.80	12.94	14.3	0		
5	256QAM	1	24	12.85	13.12	12.82				
5	256QAM	12	0	12.97	13.13	13.04				
5	256QAM	12	7	12.94	13.23	12.80	14.3	0		
5	256QAM	12	13	12.91	13.11	13.04				
5	256QAM	25	0	13.14	13.07	12.96				



Band 42 FCC Part27Q Ant4 ECI 9										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (dBm)	MPR (dB)		
Channel				42190	42590	42990	Turn-up time (dBm)	MPR (dB)		
Frequency (MHz)				3474	3690	3747				
20	QPSK	1	0	14.08	14.14	14.08	15.3	0		
20	QPSK	1	48	13.89	14.00	13.81				
20	QPSK	1	96	13.86	13.85	13.74				
20	QPSK	50	0	14.02	14.00	13.94				
20	QPSK	50	24	13.85	13.81	13.72	15.3	0		
20	QPSK	50	50	13.76	13.77	13.67				
20	QPSK	100	0	13.99	14.00	14.00				
20	HQAM	1	0	13.78	13.81	13.72				
20	HQAM	1	48	13.83	13.77	13.87	15.3	0		
20	HQAM	50	0	13.97	14.07	14.00				
20	HQAM	50	24	13.86	13.86	13.74				
20	HQAM	50	50	13.74	13.85	13.81				
20	HQAM	100	0	13.77	13.82	13.78	15.3	0		
20	HQAM	50	0	13.79	13.75	13.85				
20	HQAM	1	0	13.79	13.75	13.85				
20	HQAM	1	48	14.01	14.07	13.83				
20	HQAM	50	24	13.95	14.11	13.93	15.3	0		
20	HQAM	50	50	13.88	13.88	13.79				
20	HQAM	100	0	13.76	13.72	13.81				
Channel				42165 <th>42560</th> <th>43010</th> <th>Turn-up time (dBm)</th> <th colspan="2">MPR (dB)</th>	42560	43010				Turn-up time (dBm)
Frequency (MHz)				3474.5	3690	3747.5	Turn-up time (dBm)	MPR (dB)		
15	QPSK	1	0	14.00	14.00	13.93				
15	QPSK	1	37	13.87	13.93	13.87	15.3	0		
15	QPSK	15	74	13.79	13.74	13.64				
15	QPSK	36	0	13.91	14.07	13.90				
15	QPSK	36	20	13.83	13.77	13.70				
15	QPSK	36	39	13.72	13.70	13.53	15.3	0		
15	QPSK	75	0	13.90	13.95	13.98				
15	HQAM	1	0	13.65	13.78	13.81				
15	HQAM	1	37	13.80	13.73	13.58				
15	HQAM	1	74	13.91	13.90	13.90	15.3	0		
15	HQAM	36	0	13.78	13.95	13.63				
15	HQAM	36	39	13.87	13.73	13.58				
15	HQAM	36	39	13.91	14.00	13.84				
15	HQAM	75	0	13.65	13.84	13.70	15.3	0		
15	HQAM	1	0	13.70	13.67	13.58				
15	HQAM	1	37	13.89	14.00	13.84				
15	HQAM	1	74	13.79	13.83	13.89				
15	HQAM	36	0	13.71	13.87	13.55	15.3	0		
15	HQAM	36	20	13.74	13.66	13.57				
15	HQAM	36	39	13.60	13.69	13.60				
15	HQAM	75	0	13.70	13.85	13.85				
15	25GQAM	1	0	13.70	13.65	13.53	15.3	0		
15	25GQAM	1	37	13.66	13.80	13.81				
15	25GQAM	1	74	13.71	13.73	13.90				
15	25GQAM	36	0	13.67	13.61	13.92				
15	25GQAM	36	20	13.84	13.99	13.81	15.3	0		
15	25GQAM	36	39	13.75	13.77	13.72				
15	25GQAM	75	0	13.71	13.61	13.80				
Channel				42140	42560	43010	Turn-up time (dBm)	MPR (dB)		
Frequency (MHz)				3465	3690	3645	Turn-up time (dBm)	MPR (dB)		
10	QPSK	1	0	13.98	14.10	13.99				
10	QPSK	1	25	13.75	13.95	13.73	15.3	0		
10	QPSK	1	49	13.81	13.75	13.61				
10	QPSK	36	0	13.88	13.88	13.91				
10	QPSK	25	12	13.77	13.79	13.67				
10	QPSK	25	25	13.72	13.75	13.65	15.3	0		
10	QPSK	50	0	13.90	14.00	13.96				
10	HQAM	1	0	13.87	13.80	13.68				
10	HQAM	1	25	13.74	13.64	13.62				
10	HQAM	1	49	13.90	13.94	13.88	15.3	0		
10	HQAM	25	0	13.80	13.88	13.68				
10	HQAM	25	12	13.72	13.78	13.57				
10	HQAM	25	25	13.89	13.94	13.81				
10	HQAM	50	0	13.83	13.85	13.69	15.3	0		
10	HQAM	1	0	13.73	13.68	13.58				
10	HQAM	1	25	13.98	13.99	13.87				
10	HQAM	1	49	13.73	13.61	13.70				
10	HQAM	25	0	13.70	13.62	13.55	15.3	0		
10	HQAM	25	12	13.74	13.62	13.59				
10	HQAM	25	25	13.90	13.87	13.89				
10	HQAM	50	0	13.80	13.89	13.81				
10	25GQAM	1	0	13.66	13.66	13.57	15.3	0		
10	25GQAM	1	25	13.74	13.62	13.58				
10	25GQAM	1	49	13.68	13.65	13.81				
10	25GQAM	25	0	13.83	13.85	13.95				
10	25GQAM	25	12	13.94	13.87	13.81	15.3	0		
10	25GQAM	25	25	13.99	13.97	13.81				
10	25GQAM	25	25	13.79	13.94	13.75				
10	25GQAM	50	0	13.65	13.60	13.49				
Channel				42115 <th>42560</th> <th>43010</th> <th>Turn-up time (dBm)</th> <th colspan="2">MPR (dB)</th>	42560	43010	Turn-up time (dBm)	MPR (dB)		
Frequency (MHz)				3462.5	3690	3647.5	Turn-up time (dBm)	MPR (dB)		
5	QPSK	1	0	13.98	14.04	13.95				
5	QPSK	1	12	13.86	13.87	13.78	15.3	0		
5	QPSK	1	24	13.84	13.89	13.67				
5	QPSK	12	0	13.96	13.97	13.83				
5	QPSK	12	7	13.78	13.85	13.66				
5	QPSK	12	13	13.72	13.69	13.61	15.3	0		
5	QPSK	25	0	13.95	14.02	13.90				
5	HQAM	1	0	13.89	13.81	13.64				
5	HQAM	1	12	13.77	13.75	13.64				
5	HQAM	1	24	13.86	13.85	13.58	15.3	0		
5	HQAM	12	0	13.78	13.88	13.84				
5	HQAM	12	7	13.62	13.76	13.53				
5	HQAM	12	13	13.82	13.94	13.91				
5	HQAM	25	0	13.71	13.80	13.69	15.3	0		
5	HQAM	1	0	13.68	13.65	13.81				
5	HQAM	1	12	13.84	14.04	13.88				
5	HQAM	1	24	13.77	13.88	13.65				
5	HQAM	12	0	13.78	13.64	13.62	15.3	0		
5	HQAM	12	7	13.89	13.61	13.64				
5	HQAM	12	13	13.93	14.00	13.95				
5	HQAM	25	0	13.76	13.81	13.68				
5	25GQAM	1	0	13.62	13.73	13.60	15.3	0		
5	25GQAM	1	12	13.68	13.84	13.60				
5	25GQAM	1	24	13.74	13.65	13.59				
5	25GQAM	12	0	13.95	13.98	13.89				
5	25GQAM	12	7	13.84	14.03	13.88	15.3	0		
5	25GQAM	12	13	13.78	13.83	13.73				
5	25GQAM	25	0	13.69	13.59	13.48				



Band 42 FCC Part27Q Ant8 ECI 9										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Turnup time (min)	MPR (dB)		
Channel				42190	42590	42990				
Frequency (MHz)										
20	QPSK	1	0	20.46	20.43	20.40	21.6	0		
20	QPSK	1	48	20.24	20.24	20.18				
20	QPSK	1	96	20.26	20.27	20.34				
20	QPSK	50	0	20.45	20.44	20.37	21.6	0		
20	QPSK	50	24	20.18	20.18	20.11				
20	QPSK	50	48	20.18	20.20	20.30				
20	QPSK	100	0	20.43	20.44	20.38	21.6	0		
20	HQAM	1	0	20.44	20.40	20.34				
20	HQAM	1	48	20.19	20.13	20.12				
20	HQAM	1	96	20.18	20.34	20.29	21.6	0		
20	HQAM	50	0	20.59	20.26	20.34				
20	HQAM	50	24	20.17	20.15	20.11				
20	HQAM	50	50	20.20	20.20	20.27	21.6	0		
20	HQAM	100	0	20.43	20.40	20.32				
20	HQAM	1	0	20.44	20.35	20.35				
20	HQAM	50	0	19.87	19.97	19.89	21	0.6		
20	HQAM	50	24	19.89	19.89	19.89				
20	HQAM	50	50	19.94	19.97	19.95				
20	HQAM	100	0	19.89	19.90	19.82	19	2.6		
20	25GQAM	1	0	17.90	17.83	17.90				
20	25GQAM	1	48	17.91	17.85	17.85				
20	25GQAM	1	96	17.81	17.82	17.88	19	2.6		
20	25GQAM	50	0	17.94	17.86	17.82				
20	25GQAM	50	24	17.98	17.99	17.94				
20	25GQAM	50	50	17.86	17.87	17.87	42165	42590	43015	
20	25GQAM	100	0	17.93	17.89	17.94				
Channel				42165	42590	43015	Turnup time (min)	MPR (dB)		
Frequency (MHz)										
15	QPSK	1	0	20.43	20.41	20.37	21.6	0		
15	QPSK	1	37	20.17	20.18	20.13				
15	QPSK	1	74	20.19	20.22	20.26				
15	QPSK	36	0	20.42	20.31	20.36	21.6	0		
15	QPSK	36	20	20.09	20.13	20.03				
15	QPSK	36	39	20.19	20.19	20.35				
15	QPSK	75	0	20.35	20.38	20.36	21.6	0		
15	HQAM	1	0	20.36	20.30	20.30				
15	HQAM	1	37	20.14	20.05	20.04		21.6	0	
15	HQAM	1	74	20.17	20.33	20.21				
15	HQAM	36	0	20.32	20.33	20.33	21.6	0		
15	HQAM	36	20	20.06	20.12	20.05				
15	HQAM	36	39	20.15	20.26	20.24		21.6	0	
15	HQAM	75	0	20.37	20.37	20.24				
15	HQAM	1	0	20.38	20.33	20.32	21.6	0		
15	HQAM	1	37	20.14	20.12	20.01				
15	HQAM	1	74	20.14	20.16	20.24		21	0.6	
15	HQAM	36	0	19.82	19.86	19.83				
15	HQAM	36	20	19.79	19.88	19.85	21	0.6		
15	HQAM	36	39	19.89	19.87	19.87				
15	HQAM	75	0	19.84	19.93	19.75		19	2.6	
15	25GQAM	1	0	17.89	17.87	17.83				
15	25GQAM	1	37	17.85	17.84	17.76	19	2.6		
15	25GQAM	1	74	17.78	17.83	17.81				
15	25GQAM	36	0	17.92	17.87	17.83	19	2.6		
15	25GQAM	36	20	17.90	17.88	17.88				
15	25GQAM	36	39	17.83	17.86	17.83		42165	42590	43015
15	25GQAM	75	0	17.86	17.86	17.84				
Channel				42140	42590	43040	Turnup time (min)	MPR (dB)		
Frequency (MHz)										
10	QPSK	1	0	20.41	20.37	20.36	21.6	0		
10	QPSK	1	25	20.18	20.16	20.12				
10	QPSK	1	49	20.19	20.33	20.31		21.6	0	
10	QPSK	25	0	20.35	20.33	20.29				
10	QPSK	25	12	20.09	20.10	20.09	21.6	0		
10	QPSK	25	25	20.09	20.22	20.21				
10	QPSK	50	0	20.38	20.40	20.29		21.6	0	
10	HQAM	1	0	20.42	20.30	20.29				
10	HQAM	1	25	20.14	20.08	20.06	21.6	0		
10	HQAM	1	49	20.10	20.24	20.20				
10	HQAM	25	0	20.34	20.32	20.24	21.6	0		
10	HQAM	25	12	20.15	20.09	20.04				
10	HQAM	25	25	20.15	20.23	20.19		21.6	0	
10	HQAM	50	0	20.32	20.38	20.28				
10	HQAM	1	0	20.42	20.29	20.30	21.6	0		
10	HQAM	1	25	20.14	20.07	20.10				
10	HQAM	1	49	20.10	20.20	20.25		21	0.6	
10	HQAM	25	0	19.79	19.80	19.81				
10	HQAM	25	12	19.79	19.91	19.83	19	2.6		
10	HQAM	25	25	19.90	19.88	19.91				
10	HQAM	50	0	19.79	19.82	19.75		19	2.6	
10	25GQAM	1	0	17.85	17.84	17.81				
10	25GQAM	1	25	17.88	17.81	17.74	19	2.6		
10	25GQAM	1	49	17.71	17.87	17.83				
10	25GQAM	25	0	17.90	17.84	17.84	19	2.6		
10	25GQAM	25	12	17.88	17.86	17.87				
10	25GQAM	25	25	17.83	17.86	17.83		42165	42590	43015
10	25GQAM	50	0	17.91	17.90	17.88				
Channel				42115	42590	43065	Turnup time (min)	MPR (dB)		
Frequency (MHz)										
5	QPSK	1	0	20.43	20.37	20.34	21.6	0		
5	QPSK	1	12	20.13	20.16	20.15				
5	QPSK	1	24	20.18	20.29	20.29		21.6	0	
5	QPSK	12	0	20.43	20.31	20.89				
5	QPSK	12	7	20.12	20.15	20.03	21.6	0		
5	QPSK	12	13	20.11	20.26	20.19				
5	QPSK	25	0	20.41	20.34	20.27		21.6	0	
5	HQAM	1	0	20.42	20.33	20.25				
5	HQAM	1	12	20.15	20.09	20.08	21.6	0		
5	HQAM	1	24	20.14	20.33	20.26				
5	HQAM	12	0	20.31	20.36	20.30	21.6	0		
5	HQAM	12	7	20.15	20.05	20.08				
5	HQAM	12	13	20.11	20.21	20.21		21.6	0	
5	HQAM	25	0	20.36	20.39	20.23				
5	HQAM	1	0	20.34	20.31	20.33	21.6	0		
5	HQAM	1	12	20.12	20.12	20.06				
5	HQAM	1	24	20.09	20.21	20.27		21	0.6	
5	HQAM	12	0	19.76	19.86	19.87				
5	HQAM	12	7	19.80	19.82	19.83	19	2.6		
5	HQAM	12	13	19.91	19.87	19.89				
5	HQAM	25	0	19.84	19.81	19.80		19	2.6	
5	25GQAM	1	0	17.89	17.84	17.85				
5	25GQAM	1	12	17.81	17.84	17.79	19	2.6		
5	25GQAM	1	24	17.78	17.84	17.80				
5	25GQAM	12	0	17.83	17.88	17.81		19	2.6	
5	25GQAM	12	7	17.94	17.87	17.85				
5	25GQAM	12	13	17.85	17.81	17.79				
5	25GQAM	25	0	17.89	17.91	17.84				

26.89	26.79	28.40	23.84	23.89	23.79	23.79
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GSM1900 Ant 0	Burst Average Power (dBm)			Time-up (dBm)	Frame-Average Power (dBm)			Time-up (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1860	1906.8	Limit (dBm)	1850.2	1860	1906.8	Limit (dBm)
GSM 1 Tx slot	27.89	28.03	27.54	29.00	18.93	19.03	18.94	20.00
GPRS 1 Tx slot	27.91	27.92	27.80	29.00	18.91	18.92	18.80	20.00
GPRS 2 Tx slots	26.93	26.98	26.85	28.00	20.93	20.98	20.85	22.00
GPRS 3 Tx slots	24.92	24.99	24.89	26.00	20.66	20.73	20.63	21.74
GPRS 4 Tx slots	23.83	23.92	23.86	25.00	20.83	20.92	20.86	22.00



GSM450-Air 1		Rural Average Power (dBm)		Turn-up		Farm Average Power (dBm)		Turn-up	
Tx Channel		128	180	251	140	128	180	251	140
Frequency (MHz)		824.2	836.4	848.6	(dBm)	824.2	836.4	848.6	(dBm)
OPRR 1 Tx 40W		31.5	31.5	31.5	33.25	22.5	22.5	22.5	24.5
OPRR 2 Tx 40W		31.89	31.89	31.83	33.59	22.89	22.89	22.53	24.93
OPRR 3 Tx 40W		30.82	30.83	30.94	32.00	24.82	24.83	24.94	25.00
OPRR 4 Tx 40W		29.48	29.51	29.63	30.00	24.20	24.25	24.35	25.16
OPRR 5 Tx 40W		27.38	27.39	27.32	29.00	24.38	24.39	24.32	25.00

Band		WCDMA 6-Air 1		Turn-up		WCDMA 17-Air 1		Turn-up		WCDMA 17-Air 1		Turn-up	
Tx Channel		8262	8400	8538	140	1512	1415	1513	140	4132	4182	4213	140
Frequency (MHz)		8952.4	8950	8958	(dBm)	1537	1536	1538	(dBm)	4307	4407	4456	(dBm)
GPPR-Band 60		18.15	18.13	18.13	17.00	16.41	16.43	16.39	17.80	24.17	24.23	24.15	25.00



GSM1900-A12		Total Average Power (dBm)			Turn-up		Power Density Power (dBm)			Turn-up	
Tx Channel		912	861	810	Leak		912	861	810	Leak	
Frequency (MHz)		912.2	861.2	810.8			912.2	861.2	810.8		
GSM 1 Tx off		23.21	23.19	23.20	24.50		14.23	14.18	14.28	15.30	
GPRS 1 Tx off		23.81	23.14	23.52	24.30		14.01	14.14	14.02	15.30	
GPRS 2 Tx off		20.84	20.89	20.95	21.30		14.64	14.69	14.55	15.30	
GPRS 3 Tx off		18.70	18.83	18.75	19.00		14.50	14.27	14.55	15.24	
GPRS 4 Tx off		17.24	17.28	17.27	18.30		14.24	14.28	14.27	15.30	

Band		WCDMA-A12			Turn-up		WCDMA-T1-A12			Turn-up	
Tx Channel		9552	9400	9538	Leak		1312	1413	1513	Leak	
Rx Channel		9602	9500	9588			1327	1306	1334		
Frequency (MHz)		9602.4	9580	9597.8			1322.4	1322.8	1325.8		
GPPF Band 88		EMC 12.200pp	12.86	12.98	12.90	13.90	14.71	14.79	14.78	15.10	15.10



Band	WCDMA II-A/G-3			Time-to- Live	WCDMA IV-A/G-3			Time-to- Live
TX Channel	9562	9450	9538	(MHz)	9512	9413	9513	(MHz)
TX Channel	9562	9450	9538		9512	9413	9513	
Frequency (MHz)	1812.4	1830	1807.6		1712.4	1732.6	1752.6	
SCPP Ref ID	RNC 12 Phase			17.40	18.89	18.05	18.94	18.50



Band 2 Ant 0 ECI10											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MRR (dB)			
Channel											
Frequency (MHz)											
18800 18900 19000											
20	QPSK	1	0	18.02	18.08	18.08	19.6	0			
20	QPSK	1	48	17.91	18.02	17.91					
20	QPSK	1	96	17.81	18.05	17.86					
20	QPSK	50	0	17.83	18.03	17.84					
20	QPSK	50	24	17.95	18.09	17.80	19.6	0			
20	QPSK	50	50	18.01	18.02	17.89					
20	QPSK	100	0	17.82	18.03	17.87					

Band 4 Ant 0 ECI10											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MRR (dB)			
Channel											
Frequency (MHz)											
20950 21015 21080											
20	QPSK	1	0	18.02	18.15	18.17	17.3	0			
20	QPSK	1	48	18.94	18.07	18.04					
20	QPSK	1	96	18.93	18.08	18.03					
20	QPSK	50	0	18.00	18.12	18.04					
20	QPSK	50	24	18.02	18.07	18.08	17.3	0			
20	QPSK	50	50	18.06	18.02	18.11					
20	QPSK	100	0	18.02	18.15	18.00					

Band 5 Ant 0 ECI10												
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MRR (dB)				
Channel												
Frequency (MHz)												
829 836.5 844												
10	QPSK	1	0	21.21	21.32	21.23	22.3	0				
10	QPSK	1	25	21.10	21.18	21.01						
10	QPSK	1	49	21.22	21.18	21.17						
10	QPSK	25	0	21.16	21.25	21.14						
10	QPSK	25	12	20.88	21.11	20.97	22.3	0				
10	QPSK	25	25	21.20	21.17	21.08						
10	QPSK	50	0	21.17	21.23	21.15						
10	16QAM	1	0	21.09	21.31	21.11						
10	16QAM	1	25	21.08	21.11	20.93	22.3	0				
10	16QAM	1	49	21.24	21.11	21.14						
10	16QAM	25	0	21.11	21.23	21.07						
10	16QAM	25	12	21.01	21.11	20.98						
10	16QAM	25	20	21.18	21.24	21.06	22	0.3				
10	16QAM	50	0	21.20	21.27	21.15						
10	16QAM	1	0	21.15	21.27	21.19						
10	16QAM	1	25	21.09	21.15	20.96						
10	16QAM	1	49	21.25	21.22	21.10	22	0.3				
10	16QAM	25	0	20.36	20.36	20.28						
10	16QAM	25	12	20.28	20.39	20.25						
10	16QAM	25	25	20.16	20.21	20.11						
10	16QAM	50	0	20.28	20.36	20.23	21	1.3				
10	256QAM	1	0	18.28	18.26	18.24						
10	256QAM	1	25	18.21	18.25	18.09						
10	256QAM	1	49	18.12	18.25	18.18						
10	256QAM	25	0	18.14	18.22	18.10	19	3.3				
10	256QAM	25	12	18.22	18.23	18.19						
10	256QAM	25	25	18.20	18.30	18.29						
10	256QAM	50	0	18.14	18.23	18.18						
Channel												
Frequency (MHz)												
826.5 836.5 846.5												
5	QPSK	1	0	21.14	21.28	21.20	22.3	0				
5	QPSK	1	12	21.08	21.15	20.91						
5	QPSK	1	24	21.12	21.20	21.06						
5	QPSK	12	0	21.11	21.20	21.05						
5	QPSK	12	7	20.93	21.07	20.89	22.3	0				
5	QPSK	12	13	21.12	21.11	21.03						
5	QPSK	25	0	21.15	21.20	21.07						
5	16QAM	1	0	21.08	21.22	21.06						
5	16QAM	1	12	21.05	21.01	20.87	22.3	0				
5	16QAM	1	24	21.22	21.07	21.12						
5	16QAM	12	0	21.01	21.18	21.13						
5	16QAM	12	7	20.94	21.06	20.91						
5	16QAM	12	13	21.08	21.21	21.08	22	0.3				
5	16QAM	25	0	21.10	21.18	21.07						
5	16QAM	1	0	21.06	21.23	21.13						
5	16QAM	1	12	21.05	21.09	20.98						
5	16QAM	1	24	21.18	21.15	20.99	21	1.3				
5	16QAM	12	0	20.32	20.33	20.24						
5	16QAM	12	7	20.34	20.39	20.28						
5	16QAM	12	13	20.07	20.15	20.05						
5	16QAM	25	0	20.18	20.29	20.20	19	3.3				
5	256QAM	1	0	18.23	18.21	18.23						
5	256QAM	1	12	18.13	18.22	18.07						
5	256QAM	1	24	18.09	18.20	18.09						
5	256QAM	12	0	18.15	18.16	18.05	19	3.3				
5	256QAM	12	7	18.18	18.17	18.15						
5	256QAM	12	13	18.15	18.28	18.27						
5	256QAM	25	0	18.08	18.12	18.03						
Channel												
Frequency (MHz)												
825.5 836.5 847.5												
3	QPSK	1	0	21.18	21.26	21.21	22.3	0				
3	QPSK	1	8	21.01	21.16	20.92						
3	QPSK	1	14	21.13	21.13	21.07						
3	QPSK	8	0	21.11	21.23	21.04						
3	QPSK	8	4	20.93	21.02	20.91	22.3	0				
3	QPSK	8	7	21.14	21.07	21.02						
3	QPSK	16	0	21.12	21.21	21.10						
3	16QAM	1	0	21.01	21.27	21.06						
3	16QAM	1	8	21.00	21.04	20.88	22.3	0				
3	16QAM	1	14	21.21	21.07	21.04						
3	16QAM	8	0	21.05	21.20	21.15						
3	16QAM	8	4	20.91	21.01	20.91						
3	16QAM	8	7	21.10	21.18	20.99	22	0.3				
3	16QAM	15	0	21.16	21.25	21.08						
3	16QAM	1	0	21.09	21.19	21.13						
3	16QAM	1	8	21.00	21.10	20.89						
3	16QAM	1	14	21.22	21.14	21.06	21	1.3				
3	16QAM	8	0	20.33	20.29	20.21						
3	16QAM	8	4	20.18	20.30	20.15						
3	16QAM	8	7	20.11	20.18	20.08						
3	16QAM	15	0	20.26	20.28	20.14	19	3.3				
3	256QAM	1	0	18.27	18.24	18.13						
3	256QAM	1	8	18.16	18.17	18.02						
3	256QAM	1	14	18.08	18.22	18.17						
3	256QAM	8	0	18.13	18.13	17.99	19	3.3				
3	256QAM	8	4	18.15	18.22	18.08						
3	256QAM	8	7	18.12	18.25	18.21						
3	256QAM	15	0	18.07	18.13	18.07						
Channel												
Frequency (MHz)												
824.7 836.5 848.3												
1.4	QPSK	1	0	21.18	21.27	21.19	22.3	0				
1.4	QPSK	1	3	21.06	21.08	20.94						
1.4	QPSK	1	5	21.20	21.14	21.11						
1.4	QPSK	3	0	21.11	21.26	21.20						
1.4	QPSK	3	1	21.03	21.14	20.95	22.3	0				
1.4	QPSK	3	3	21.19	21.16	21.11						
1.4	QPSK	6	0	21.14	21.16	21.08						
1.4	16QAM	1	0	20.89	21.06	20.92						
1.4	16QAM	1	3	21.12	21.11	20.94	22.3	0				
1.4	16QAM	1	5	21.13	21.14	21.06						
1.4	16QAM	3	0	21.03	21.24	21.21						
1.4	16QAM	3	1	21.13	21.09	20.92						
1.4	16QAM	3	3	21.09	21.13	20.97	21	1.3				
1.4	16QAM	6	0	21.20	21.19	21.12						
1.4	16QAM	6	1	21.08	21.21	21.13						
1.4	16QAM	1	0	21.17	21.17	20.99						
1.4	16QAM	1	3	21.11	21.21	21.14						
1.4	16QAM	1	5	21.20	21.19	21.11						
1.4	16QAM	3	0	21.05	21.08	20.88						
1.4	16QAM	3	1	21.20	21.21	21.04	21	1.3				
1.4	16QAM	6	0	20.29	20.21	20.11						
1.4	16QAM	6	1	18.34	18.35	18.22						
1.4	256QAM	1	3	18.19	18.39	18.23						
1.4	256QAM	1	5	18.20	18.38	18.24	19	3.3				
1.4	256QAM	3	0	18.11	18.08	18.11						
1.4	256QAM	3	1	18.06	18.16	18.21						
1.4	256QAM	6	0	18.21	18.08	18.08						
1.4	256QAM	6	0	17.99	18.19	17.98	19	3.3				



Band 12 Ant 0 EC110												
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq. (MHz)	Power Mid Ch / Freq. (MHz)	Power High Ch / Freq. (MHz)	Tune-up Int. (dB)	MPR (dB)				
Channel												
Frequency (MHz)												
10	QPSK	1	0	21.90	21.94	21.93	22.9	0				
10	QPSK	1	25	21.84	21.74	21.70						
10	QPSK	1	49	21.77	21.79	21.75						
10	QPSK	25	0	21.87	21.81	21.85						
10	QPSK	25	12	21.83	21.87	21.88	22.9	0				
10	QPSK	25	25	21.89	21.88	21.83						
10	QPSK	50	0	21.80	21.80	21.88						
10	16QAM	1	0	21.81	21.89	21.88						
10	16QAM	1	25	21.55	21.69	21.88	22.9	0				
10	16QAM	1	49	21.72	21.75	21.72						
10	16QAM	25	0	21.87	21.89	21.90						
10	16QAM	25	12	21.53	21.59	21.93						
10	16QAM	25	25	21.52	21.89	21.84	22	0.9				
10	16QAM	50	0	21.49	21.55	21.92						
10	16QAM	1	0	21.52	21.60	21.89						
10	16QAM	1	25	21.45	21.52	21.45						
10	64QAM	1	49	21.45	21.53	21.43	22	0.9				
10	64QAM	25	0	20.52	20.58	20.49						
10	64QAM	25	12	20.48	20.54	20.49						
10	64QAM	25	25	20.51	20.59	20.49						
10	64QAM	50	0	20.52	20.53	20.43	21	1.9				
10	256QAM	1	0	18.46	18.49	18.36						
10	256QAM	1	25	18.37	18.43	18.39						
10	256QAM	1	49	18.34	18.39	18.28						
10	256QAM	25	0	18.38	18.42	18.36	19	3.9				
10	256QAM	25	12	18.42	18.44	18.42						
10	256QAM	25	25	18.31	18.41	18.36						
10	256QAM	50	0	18.22	18.42	18.37						
Channel												
Frequency (MHz)												
5	QPSK	1	0	21.83	21.88	21.88	22.9	0				
5	QPSK	1	12	21.80	21.85	21.81						
5	QPSK	1	24	21.74	21.72	21.71						
5	QPSK	12	0	21.78	21.82	21.79						
5	QPSK	12	13	21.59	21.68	21.81	22.9	0				
5	QPSK	12	13	21.83	21.79	21.80						
5	QPSK	25	0	21.70	21.87	21.89						
5	16QAM	1	0	21.79	21.82	21.82						
5	16QAM	1	12	21.53	21.63	21.58	22.9	0				
5	16QAM	1	0	18.36	18.40	18.36						
5	16QAM	12	0	21.50	21.48	21.46						
5	16QAM	12	7	21.43	21.51	21.46						
5	16QAM	25	0	21.47	21.49	21.43	22	0.9				
5	64QAM	1	0	21.41	21.51	21.58						
5	64QAM	1	24	21.35	21.43	21.39						
5	64QAM	1	24	21.62	21.78	21.71						
5	64QAM	12	0	20.45	20.48	20.49	21	1.9				
5	64QAM	12	13	20.41	20.54	20.42						
5	64QAM	25	0	20.48	20.50	20.37						
5	256QAM	1	0	18.38	18.47	18.39						
5	256QAM	1	12	18.35	18.40	18.35	19	3.9				
5	256QAM	1	24	18.24	18.31	18.24						
5	256QAM	12	0	18.31	18.36	18.28						
5	256QAM	12	7	18.39	18.43	18.33						
5	256QAM	12	13	18.28	18.39	18.29	19	3.9				
5	256QAM	25	0	18.28	18.37	18.27						
Channel												
Frequency (MHz)												
3	QPSK	1	0	21.83	21.87	21.87	22.9	0				
3	QPSK	1	8	21.62	21.64	21.65						
3	QPSK	1	14	21.76	21.78	21.72						
3	QPSK	8	0	21.82	21.80	21.78						
3	QPSK	8	8	21.59	21.58	21.58	22.9	0				
3	QPSK	8	7	21.87	21.88	21.73						
3	16QAM	1	0	21.78	21.82	21.81						
3	16QAM	1	0	21.76	21.80	21.82						
3	16QAM	1	8	21.45	21.60	21.68	22.9	0				
3	16QAM	1	8	21.63	21.73	21.67						
3	16QAM	8	0	21.50	21.49	21.41						
3	16QAM	8	7	21.48	21.53	21.52						
3	16QAM	15	0	21.48	21.47	21.45	22	0.9				
3	64QAM	1	0	21.47	21.54	21.52						
3	64QAM	1	8	21.35	21.50	21.36						
3	64QAM	1	14	21.44	21.49	21.37						
3	64QAM	8	0	20.49	20.53	20.48	21	1.9				
3	64QAM	8	4	20.41	20.45	20.38						
3	64QAM	8	7	20.41	20.57	20.36						
3	64QAM	15	0	20.48	20.51	20.35						
3	256QAM	1	0	18.46	18.44	18.31	19	3.9				
3	256QAM	1	8	18.36	18.41	18.32						
3	256QAM	1	14	18.52	18.54	18.21						
3	256QAM	8	0	18.34	18.36	18.27						
3	256QAM	8	4	18.39	18.39	18.36						
3	256QAM	8	7	18.25	18.33	18.34	19	3.9				
3	256QAM	15	0	18.40	18.33	18.31						
Channel												
Frequency (MHz)												
1.4	QPSK	1	0	21.81	21.87	21.84				22.9	0	
1.4	QPSK	1	3	21.56	21.69	21.80						
1.4	QPSK	1	5	21.83	21.89	21.88						
1.4	QPSK	3	0	21.79	21.80	21.81						
1.4	QPSK	3	1	21.57	21.73	21.80	22.9	0				
1.4	QPSK	3	3	21.75	21.68	21.68						
1.4	16QAM	1	0	21.78	21.80	21.83						
1.4	16QAM	1	0	21.61	21.63	21.59						
1.4	16QAM	1	3	21.85	21.87	21.79	22.9	0				
1.4	16QAM	1	5	21.78	21.86	21.77						
1.4	16QAM	3	0	21.73	21.82	21.85						
1.4	16QAM	3	1	21.49	21.60	21.63						
1.4	16QAM	3	3	21.63	21.73	21.63	22	0.6				
1.4	16QAM	6	0	21.23	21.21	21.07						
1.4	64QAM	1	0	21.08	21.14	21.09						
1.4	64QAM	1	3	21.19	21.19	21.09						
1.4	64QAM	1	5	21.12	21.10	21.18	22	0.9				
1.4	64QAM	3	0	21.01	21.09	21.11						
1.4	64QAM	3	3	20.95	21.10	20.96						
1.4	64QAM	6	0	20.20	20.26	20.15						
1.4	256QAM	1	0	18.26	18.36	18.32	21	1.9				
1.4	256QAM	1	3	18.20	18.44	18.23						
1.4	256QAM	1	5	18.22	18.30	18.14						
1.4	256QAM	3	0	18.16	18.14	18.18						
1.4	256QAM	3	1	18.13	18.17	18.16	19	3.9				
1.4	256QAM	3	3	18.13	18.21	18.02						
1.4	256QAM	6	0	18.04	18.26	18.17						

Band 13 Ant 0 EC110												
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Mid Ch / Freq.	Power High Ch / Freq.	Tune-up Int. (dB)	MPR (dB)				
Channel												
Frequency (MHz)												
10	QPSK	1	0		22.46		23.6	0				
10	QPSK	1	25		22.37							
10	QPSK	1	49		22.38							
10	QPSK	25	0		22.44							
10	QPSK	25	12		22.41		23	0.6				
10	QPSK	25	25		22.41							
10	QPSK	50	0		22.40							
10	16QAM	1	0		22.38							
10	16QAM	1	25		22.32		23	0.6				
10	16QAM	1	49		22.29							
10	16QAM	25	0		21.54		22	1.6				
10	16QAM	25	12		21.53							
10	16QAM	25	25		21.49							
10	16QAM	50	0		21.52							
10	16QAM	50	12		21.49		22	1.6				
10	16QAM	1	25		21.51							
10	16QAM	1	49		21.51		21	2.6				
10	16QAM	25	12		20.44							
10	16QAM	25	25		20.67							
10	16QAM	50	0		20.50							
10	256QAM	1	0		18.38		19	4.6				
10	256QAM	1	25		18.39							
10	256QAM	1	49		18.34							
10	256QAM	25	0		18.30							
10	256QAM	25	12		18.37		19	4.6				
10	256QAM	25	25		18.37							
10	256QAM	50	0		18.34		20	2.6				
Channel												
Frequency (MHz)												
5	QPSK	1	0	23.05	23.09	23.09				23.6	0	
5	QPSK	1	12	22.43	22.42	22.42						
5	QPSK	1	24	22.35	22.37	22.38						
5	QPSK	25	0	22.37	22.37	22.39						
5	QPSK	25	12	22.12	22.11	22.05	23	0.6				
5	QPSK	12	7	22.16	22.12	22.08						
5	QPSK	12	19	22.07	22.07	22.07						
5	QPSK	25	0	22.00	22.05	22.05						
5	16QAM	1	0	21.38	21.42	21.38	22	0.6				
5	16QAM	1	12	22.30	22.36	22.29						
5	16QAM	1	24	22.28	22.30	22.30						
5	16QAM	25	0	21.44	21.49	21.38						
5	16QAM	12	7	21.40	21.40	21.41	22	1.6				
5	16QAM	12	19	21.41	21.54	21.41						
5	16QAM	25	0	21.42	21.42	21.34						
5	16QAM	25	12	21.52	21.51	21.51						
5	16QAM	1	12	21.38	21.40	21.38	22	1.6				
5	16QAM	1	24	21.25	21.35	21.31						
5	16QAM	12	7	20.93	20.94	20.95						
5	16QAM	12	19	20.28	20.44	20.30						
5	16QAM	12	19	20.36	20.48	20.33	19	2.6				
5	16QAM	25	0	20.41	20.46	20.28						
5	16QAM	25	12	18.30	18.42	18.28						
5	256QAM	1	12	18.26	18.34	18.26						
5	256QAM	1	24	18.16	18.29	18.17	19	4.6				
5	256QAM	12	7	18.27	18.27	18.27						
5	256QAM	12	19	18.30	18.37	18.29						
5	256QAM	25	0	18.26	18.32	18.29						
5	256QAM	25	12	18.26	18.32	18.22	19	4.6				
5	256QAM	50	0	18.26	18.32	18.22						

Band 26 Ant 0 EC110										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Max Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dB)	Margin (dB)		
Channel				20745	20865	20985				
Frequency (MHz)				831.5	831.5	841.5				
15	QPSK	1	0	21.23	21.36	21.27	22.3	0		
15	QPSK	1	37	21.15	21.25	21.07				
15	QPSK	1	74	21.30	21.28	21.24				
15	QPSK	36	0	21.20	21.30	21.22				
15	QPSK	36	20	21.05	21.15	20.99	22.3	0		
15	QPSK	36	36	21.27	21.21	21.14				
15	QPSK	75	0	21.19	21.25	21.23				
15	16QAM	1	0	21.14	21.33	21.20				
15	16QAM	1	37	21.09	21.14	21.10	22.3	0		
15	16QAM	1	74	21.26	21.19	21.15				
15	16QAM	36	0	21.22	21.33	21.20				
15	16QAM	36	20	21.10	21.21	21.02				
15	16QAM	36	36	21.22	21.26	21.19	22	0.3		
15	16QAM	75	0	21.31	21.32	21.22				
15	64QAM	1	0	21.21	21.32	21.22				
15	64QAM	1	37	21.14	21.21	20.98				
15	64QAM	1	74	21.28	21.24	21.15	21	1.3		
15	64QAM	36	0	20.39	20.39	20.30				
15	64QAM	36	20	20.39	20.41	20.35				
15	64QAM	36	36	20.24	20.31	20.22				
15	64QAM	75	0	20.33	20.38	20.33	19	3.3		
15	256QAM	1	0	18.30	18.34	18.27				
15	256QAM	1	37	18.25	18.27	18.17				
15	256QAM	1	74	18.23	18.32	18.25				
15	256QAM	36	0	18.20	18.24	18.17	19	3.3		
15	256QAM	36	20	18.28	18.31	18.21				
15	256QAM	36	36	18.33	18.36	18.31				
15	256QAM	75	0	18.20	18.27	18.17				
Channel				20740	20865	20980	Tune-up Int. (dB)	Margin (dB)		
Frequency (MHz)				819	831.5	844				
10	QPSK	1	0	21.15	21.31	21.22	22.3	0		
10	QPSK	1	25	21.06	21.22	21.01				
10	QPSK	1	49	21.23	21.17	21.17				
10	QPSK	25	0	21.14	21.28	21.12				
10	QPSK	25	12	20.97	21.15	20.91	22.3	0		
10	QPSK	25	25	21.20	21.12	21.09				
10	QPSK	50	0	21.15	21.16	21.21				
10	16QAM	1	0	21.09	21.24	21.10				
10	16QAM	1	25	21.07	21.04	20.94	22.3	0		
10	16QAM	1	49	21.24	21.15	21.12				
10	16QAM	25	0	21.29	21.34	21.28				
10	16QAM	25	12	21.28	21.29	21.22				
10	16QAM	25	25	21.17	21.24	21.15	21	1.3		
10	16QAM	50	0	21.22	21.24	21.18				
10	64QAM	1	0	21.19	21.27	21.21				
10	64QAM	1	25	21.09	21.16	21.05				
10	64QAM	1	49	21.24	21.21	21.18	19	3.3		
10	64QAM	25	0	20.35	20.31	20.30				
10	64QAM	25	12	20.37	20.32	20.30				
10	64QAM	25	25	20.17	20.21	20.13				
10	64QAM	50	0	20.25	20.29	20.29	19	3.3		
10	256QAM	1	0	18.25	18.24	18.10				
10	256QAM	1	25	18.20	18.21	18.05				
10	256QAM	1	49	18.20	18.24	18.20				
10	256QAM	25	0	18.15	18.16	18.06	19	3.3		
10	256QAM	25	12	18.21	18.21	18.15				
10	256QAM	25	25	18.22	18.26	18.29				
10	256QAM	50	0	18.10	18.23	18.10				
Channel				20735	20865	21020	Tune-up Int. (dB)	Margin (dB)		
Frequency (MHz)				816.5	831.5	846.5				
5	QPSK	1	0	21.19	21.26	21.16	22.3	0		
5	QPSK	1	12	21.08	21.15	21.05				
5	QPSK	1	24	21.23	21.20	21.20				
5	QPSK	12	0	21.12	21.24	21.11				
5	QPSK	12	7	21.03	21.09	20.91	22.3	0		
5	QPSK	12	13	21.20	21.11	21.08				
5	QPSK	24	0	21.09	21.17	21.17				
5	16QAM	1	0	21.11	21.28	21.15				
5	16QAM	1	12	21.06	21.11	20.94	22.3	0		
5	16QAM	1	24	21.17	21.10	21.07				
5	16QAM	12	0	21.27	21.34	21.23				
5	16QAM	12	7	21.19	21.26	21.26				
5	16QAM	12	13	21.14	21.27	21.15	22	0.3		
5	64QAM	25	0	21.21	21.27	21.18				
5	64QAM	1	0	21.20	21.32	21.19				
5	64QAM	1	12	21.15	21.18	21.02				
5	64QAM	1	24	21.21	21.27	21.15	21	1.3		
5	64QAM	12	0	20.29	20.36	20.29				
5	64QAM	12	7	20.35	20.32	20.26				
5	64QAM	12	13	20.18	20.22	20.17				
5	64QAM	25	0	20.29	20.34	20.27	19	3.3		
5	256QAM	1	0	18.27	18.26	18.15				
5	256QAM	1	12	18.23	18.22	18.10				
5	256QAM	1	24	18.15	18.20	18.22				
5	256QAM	12	0	18.19	18.18	18.10	19	3.3		
5	256QAM	12	7	18.21	18.24	18.11				
5	256QAM	12	13	18.20	18.30	18.26				
5	256QAM	25	0	18.11	18.19	18.08				
Channel				20705	20865	21020	Tune-up Int. (dB)	Margin (dB)		
Frequency (MHz)				814.5	831.5	847.5				
3	QPSK	1	0	21.19	21.26	21.20	22.3	0		
3	QPSK	1	8	21.15	21.17	21.04				
3	QPSK	1	14	21.23	21.22	21.15				
3	QPSK	8	0	21.11	21.23	21.17				
3	QPSK	8	4	21.04	21.10	20.92	22.3	0		
3	QPSK	8	7	21.21	21.20	21.04				
3	QPSK	16	0	21.13	21.22	21.16				
3	16QAM	1	0	21.12	21.22	21.13				
3	16QAM	1	8	21.01	21.07	21.00	22.3	0		
3	16QAM	1	14	21.21	21.17	21.05				
3	16QAM	8	0	21.22	21.34	21.17				
3	16QAM	8	4	21.22	21.27	21.19				
3	16QAM	8	7	21.17	21.26	21.19	22	0.3		
3	16QAM	16	0	21.20	21.28	21.21				
3	64QAM	1	0	21.16	21.26	21.20				
3	64QAM	1	8	21.12	21.21	21.05				
3	64QAM	1	14	21.19	21.19	21.17	21	1.3		
3	64QAM	8	0	20.34	20.37	20.27				
3	64QAM	8	4	20.38	20.37	20.32				
3	64QAM	8	7	20.21	20.24	20.17				
3	16QAM	15	0	20.24	20.34	20.24	19	3.3		
3	256QAM	1	0	18.21	18.32	18.20				
3	256QAM	1	8	18.21	18.25	18.16	19	3.3		
3	256QAM	1	14	18.30	18.32	18.22				
3	256QAM	8	0	18.09	18.22	18.16				
3	256QAM	8	4	18.23	18.24	18.18				
3	256QAM	8	7	18.21	18.25	18.21	19	3.3		
3	256QAM	16	0	18.17	18.18	18.07				
3	256QAM	1	0	20.67	20.68	20.73				
3	256QAM	1	0	20.67	20.68	20.73				
Channel				20695	20865	21020	Tune-up Int. (dB)	Margin (dB)		
Frequency (MHz)				813.5	831.5	847.5				
14	QPSK	1	0	21.15	21.33	21.24	22.3	0		
14	QPSK	1	3	21.12	21.21	20.99				
14	QPSK	1	6	21.21	21.23	21.15				
14	QPSK	1	9	21.17	21.35	21.21				
14	QPSK	1	12	21.13	21.19	21.05	22.3	0		
14	QPSK	3	0	21.27	21.23	21.21				
14	QPSK	3	3	21.25	21.31	21.23				
14	QPSK	1	0	21.02	21.13	20.97				
14	16QAM	1	0	21.14	21.34	21.19	22.3	0		
14	16QAM	1	3	21.14	21.16	21.15				
14	16QAM	3	0	21.12	21.27	21.19				
14	16QAM	3	3	21.01	21.05	20.99				
14	16QAM	3	6	21.24	21.15	21.10	22	0.3		
14	16QAM	6	0	21.27	21.21	21.21				
14	16QAM	3	9	21.28	21.23	21.23				
14	16QAM	1	0	21.16	21.33	21.15				
14	16QAM	1	3	21.20	21.21	21.26	21	1.3		
14	16QAM	3	0	21.27	21.21	21.24				
14	16QAM	3	3	21.22	21.30	21.21				
14	16QAM	3	6	21.20	21.25	20.97				
14	16QAM	3	9	20.27	20.37	20.27	19	1.3		
14	16QAM	6	0	18.33	18.38	18.26				
14	16QAM	3	3	18.44	18.37	18.29				
14	16QAM	3	6	18.40	18.36	18.29				
14	16QAM	3	9	18.38	18.28	18.15	19	3.3		
14	256QAM	1	0	18.23	18.31	18.28				
14	256QAM	1	3	18.29	18.30	18.28				
14	256QAM	6	0	18.11	18.30	18.13				



Band 66 Ant 0 ECI10								
ISW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MPE (dB)
Channel				130072	162208	132072	17.3	0
Frequency (MHz)				1720	1740	1720		
20	QPSK	1	0	16.14	16.19	16.17	17.3	0
20	QPSK	1	49	16.04	16.14	16.12		
20	QPSK	1	99	16.00	16.16	16.06		
20	QPSK	50	0	16.03	16.16	16.10		
20	QPSK	50	24	16.11	16.11	16.10		
20	QPSK	50	50	16.03	16.07	16.13	17.3	0
20	QPSK	100	0	16.07	16.15	16.10		



Band 38 Ant 0 ECI10									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				37850	38050	38150			
Frequency (MHz)				22.12	22.16	22.18			
20	QPSK	1	0	22.12	22.16	22.18	22.8	0	
20	QPSK	1	48	21.95	22.07	21.97			
20	QPSK	1	96	22.03	22.05	22.02			
20	QPSK	50	0	22.04	22.17	22.07	22.8	0	
20	QPSK	50	24	22.03	22.16	22.01			
20	QPSK	50	50	22.01	22.08	22.06			
20	QPSK	100	0	22.03	22.17	22.01			

Band 41 Ant 0 ECI10										
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				22.18	22.19	22.21	22.24	22.25		
20	QPSK	1	0	22.18	22.18	22.22	22.18	22.23	22.8	0
20	QPSK	1	48	22.14	22.05	22.17	22.09	22.12		
20	QPSK	1	96	22.16	22.01	22.14	22.00	22.17		
20	QPSK	50	0	22.21	22.08	22.23	22.10	22.11	22.8	0
20	QPSK	50	24	22.17	22.04	22.21	22.10	22.15		
20	QPSK	50	50	22.15	22.11	22.14	22.12	22.11		
20	QPSK	100	0	22.14	22.11	22.19	22.08	22.15		

Band 41 HPUE Ant 0 ECI10										
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				22.18	22.19	22.21	22.24	22.25		
20	QPSK	1	0	23.43	23.46	23.50	23.46	23.48	24.4	0
20	QPSK	1	48	23.37	23.39	23.42	23.43	23.42		
20	QPSK	1	96	23.37	23.37	23.40	23.43	23.51		
20	QPSK	50	0	23.34	23.41	23.45	23.41	23.36	24.4	0
20	QPSK	50	24	23.35	23.33	23.38	23.33	23.43		
20	QPSK	50	50	23.31	23.42	23.41	23.41	23.34		
20	QPSK	100	0	23.37	23.37	23.38	23.32	23.35		



Band 2 Ant 1 ECI10									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up int. (dB)	MRR (dB)	
Channel									
Frequency (MHz)									
18700 18800 18900									
20	QPSK	1	0	17.02	17.05	18.99	18.2	0	
20	QPSK	1	40	17.00	17.05	18.95			
20	QPSK	1	99	17.01	16.98	17.01			
20	QPSK	50	0	17.02	17.05	18.92	18.2	0	
20	QPSK	50	24	16.99	16.92	17.01			
20	QPSK	50	50	16.93	16.91	16.98			
20	QPSK	100	0	16.89	17.01	16.94			

Band 4 Ant 1 ECI10									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up [mHz]	MRR (dB)	
Channel									
Frequency [MHz]									
2000 20100 20200									
20	QPSK	1	0	16.41	16.44	16.41	17.8	0	
20	QPSK	1	40	16.43	16.38	16.38			
20	QPSK	1	99	16.34	16.40	16.27			
20	QPSK	50	0	16.42	16.44	16.31	17.8	0	
20	QPSK	50	24	16.38	16.39	16.36			
20	QPSK	50	50	16.41	16.39	16.34			
20	QPSK	100	0	16.33	16.41	16.33			

Band 5 Ant 1 ECI10												
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up [mHz]	MRR [dB]				
Channel												
Frequency [MHz]												
10	QPSK	1	0	22.67	22.65	22.70	24	0				
10	QPSK	1	25	22.61	22.66	22.67						
10	QPSK	1	40	22.61	22.67	22.73						
10	QPSK	25	0	21.73	21.62	21.74	23	1				
10	QPSK	25	10	21.66	21.76	21.60						
10	QPSK	25	25	21.71	21.53	21.74						
10	QPSK	50	0	21.63	21.72	21.65	23	1				
10	16QAM	1	0	21.64	21.68	21.63						
10	16QAM	1	25	21.82	21.74	21.81						
10	16QAM	1	40	21.70	21.58	21.76	22	2				
10	16QAM	25	0	20.69	20.84	20.72						
10	16QAM	25	12	20.83	20.68	20.73						
10	16QAM	25	25	20.71	20.62	20.71	22	2				
10	16QAM	50	0	20.68	20.87	20.69						
10	64QAM	1	0	20.84	20.80	20.82						
10	64QAM	1	25	20.57	20.88	20.62	22	2				
10	64QAM	1	40	20.72	20.86	20.79						
10	64QAM	25	0	19.80	19.86	19.72						
10	64QAM	25	12	19.57	19.85	19.64	21	3				
10	64QAM	25	25	19.71	19.56	19.69						
10	64QAM	50	0	19.63	19.75	19.70						
10	256QAM	1	0	17.59	17.77	17.73	19	5				
10	256QAM	1	25	17.62	17.70	17.69						
10	256QAM	1	40	17.68	17.62	17.70						
10	256QAM	25	0	17.70	17.73	17.73	19	5				
10	256QAM	25	12	17.65	17.82	17.70						
10	256QAM	25	25	17.58	17.72	17.69						
10	256QAM	50	0	17.72	17.64	17.77	Channel					
Frequency [MHz]												
826.5 836.5 846.5												
5	QPSK	1	0	22.64	22.73	22.65	24	0				
5	QPSK	1	12	22.50	22.64	22.66						
5	QPSK	1	24	22.55	22.63	22.63						
5	QPSK	12	0	21.63	21.73	21.66	23	1				
5	QPSK	12	7	21.58	21.72	21.69						
5	QPSK	12	13	21.63	21.45	21.68						
5	QPSK	25	0	21.59	21.64	21.68	23	1				
5	16QAM	1	0	21.62	21.67	21.76						
5	16QAM	1	12	21.54	21.85	21.58						
5	16QAM	1	24	21.67	21.49	21.71	22	2				
5	16QAM	12	0	20.64	20.78	20.69						
5	16QAM	12	7	20.46	20.60	20.43						
5	16QAM	12	13	20.68	20.55	20.67	21	3				
5	16QAM	25	0	20.64	20.64	20.77						
5	64QAM	1	0	20.54	20.73	20.61						
5	64QAM	1	12	20.50	20.68	20.57	22	2				
5	64QAM	1	24	20.65	20.62	20.71						
5	64QAM	12	0	19.51	19.57	19.62						
5	64QAM	12	7	19.45	19.51	19.62	21	3				
5	64QAM	12	13	19.59	19.25	19.51						
5	64QAM	25	0	19.57	19.67	19.65						
5	256QAM	1	0	17.54	17.68	17.61	19	5				
5	256QAM	1	12	17.58	17.61	17.61						
5	256QAM	1	24	17.65	17.56	17.69						
5	256QAM	12	0	17.64	17.72	17.67	19	5				
5	256QAM	12	7	17.61	17.73	17.60						
5	256QAM	12	13	17.55	17.67	17.67						
5	256QAM	25	0	17.65	17.61	17.64	Channel					
Frequency [MHz]												
826.5 836.5 846.5												
3	QPSK	1	0	22.60	22.76	22.68	24	0				
3	QPSK	1	8	22.51	22.63	22.50						
3	QPSK	1	14	22.59	22.61	22.66						
3	QPSK	8	0	21.66	21.76	21.61	23	1				
3	QPSK	8	4	21.58	21.68	21.59						
3	QPSK	8	7	21.67	21.47	21.69						
3	QPSK	16	0	21.55	21.67	21.58	23	1				
3	16QAM	1	0	21.63	21.61	21.80						
3	16QAM	1	8	21.55	21.69	21.56						
3	16QAM	1	14	21.66	21.53	21.68	22	2				
3	16QAM	8	0	20.68	20.82	20.61						
3	16QAM	8	4	20.43	20.60	20.43						
3	16QAM	8	7	20.45	20.53	20.62	21	3				
3	16QAM	15	0	20.59	20.65	20.73						
3	64QAM	1	0	20.61	20.69	20.61						
3	64QAM	1	8	20.40	20.62	20.39	21	3				
3	64QAM	1	14	20.66	20.59	20.69						
3	64QAM	8	0	19.58	19.56	19.63						
3	64QAM	8	4	19.48	19.50	19.54	19	5				
3	64QAM	8	7	19.62	19.47	19.65						
3	64QAM	15	0	19.62	19.74	19.64						
3	256QAM	1	0	17.51	17.68	17.63	19	5				
3	256QAM	1	8	17.54	17.61	17.62						
3	256QAM	1	14	17.62	17.58	17.61						
3	256QAM	8	0	17.67	17.67	17.73	19	5				
3	256QAM	8	4	17.80	17.61	17.62						
3	256QAM	8	7	17.52	17.70	17.54						
3	256QAM	15	0	17.65	17.57	17.67	Channel					
Frequency [MHz]												
824.7 836.5 848.3												
1.4	QPSK	1	0	22.65	22.75	22.74	24	0				
1.4	QPSK	1	3	22.55	22.70	22.35						
1.4	QPSK	1	6	22.59	22.68	22.69						
1.4	QPSK	3	0	21.69	21.68	21.68	23	1				
1.4	QPSK	3	3	21.62	21.62	21.62						
1.4	QPSK	3	6	21.74	21.66	21.62						
1.4	QPSK	3	9	22.52	22.56	22.61	23	1				
1.4	QPSK	3	12	21.68	21.68	21.68						
1.4	16QAM	1	0	21.59	21.66	21.68						
1.4	16QAM	1	3	21.48	21.69	21.62	22	2				
1.4	16QAM	1	6	21.71	21.51	21.74						
1.4	16QAM	3	0	21.60	21.69	21.70						
1.4	16QAM	3	3	21.71	21.61	21.70	21	3				
1.4	16QAM	3	6	21.45	21.71	21.68						
1.4	16QAM	3	9	20.56	20.71	20.63						
1.4	16QAM	3	12	20.76	20.72	20.83	22	2				
1.4	16QAM	1	0	20.52	20.64	20.69						
1.4	16QAM	1	3	20.59	20.52	20.68						
1.4	16QAM	3	0	20.61	20.59	20.61	22	2				
1.4	16QAM	3	3	20.53	20.71	20.66						
1.4	16QAM	3	6	20.44	20.57	20.48						
1.4	16QAM	3	9	20.67	20.62	20.67	21	3				
1.4	256QAM	1	0	17.61	17.66	17.68						
1.4	256QAM	1	3	17.68	17.66	17.69						
1.4	256QAM	1	6	17.72	17.67	17.69	19	5				
1.4	256QAM	3	0	17.67	17.70	17.72						
1.4	256QAM	3	3	17.60	17.75	17.78						
1.4	256QAM	3	6	17.64	17.67	17.67	19	5				
1.4	256QAM	3	9	17.64	17.63	17.69						
1.4	256QAM	3	12	17.64	17.63	17.69						

Band 12 Ant 1 EC110														
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Mid Ch / Freq.	Power High Ch / Freq.	Tune-up Int. (dB)	MPR (dB)						
Channel														
Frequency (MHz)														
10	QPSK	1	0	23.01	23.05	22.99	24	0						
10	QPSK	1	25	22.80	22.81	22.80								
10	QPSK	1	49	22.88	22.89	22.88								
10	QPSK	25	12	21.79	21.84	21.79								
10	QPSK	25	25	21.91	21.93	21.84	23	1						
10	QPSK	50	0	21.81	21.85	21.81								
10	16QAM	1	0	22.32	22.35	22.31								
10	16QAM	1	25	22.27	22.30	22.27								
10	16QAM	1	49	22.18	22.24	22.23	23	1						
10	16QAM	25	0	21.02	21.11	21.03								
10	16QAM	25	12	21.19	21.20	21.10								
10	16QAM	25	25	21.09	21.15	21.08								
10	16QAM	50	0	21.02	21.10	21.05	22	2						
10	16QAM	1	0	21.19	21.21	21.15								
10	16QAM	1	25	21.10	21.16	21.07								
10	16QAM	1	49	21.14	21.17	21.11								
10	16QAM	25	0	20.13	20.18	20.12	21	3						
10	16QAM	25	12	20.01	20.11	20.05								
10	16QAM	25	25	20.11	20.15	20.12								
10	16QAM	50	0	20.12	20.20	20.10								
10	256QAM	1	0	18.06	18.14	18.04	19	5						
10	256QAM	1	25	18.03	18.12	18.05								
10	256QAM	1	49	18.08	18.12	18.04								
10	256QAM	25	0	17.95	18.03	17.96								
10	256QAM	25	12	17.95	18.03	17.96								
10	256QAM	25	25	18.02	18.08	18.01								
Channel														
Frequency (MHz)														
5	QPSK	1	0	22.99	22.97	22.99	24	0						
5	QPSK	1	12	22.84	22.84	22.71								
5	QPSK	1	24	22.83	22.85	22.80								
5	QPSK	12	0	21.82	21.83	21.74								
5	QPSK	12	7	21.70	21.76	21.71	23	1						
5	QPSK	12	13	21.82	21.85	21.77								
5	QPSK	25	0	21.80	21.78	21.71								
5	16QAM	1	0	22.30	22.34	22.28								
5	16QAM	1	12	22.23	22.23	22.18	23	1						
5	16QAM	1	24	22.11	22.20	22.19								
5	16QAM	12	0	20.94	21.08	20.95								
5	16QAM	12	7	21.12	21.18	21.06								
5	16QAM	25	0	20.97	21.07	21.01	22	2						
5	16QAM	25	0	20.97	21.07	21.01								
5	16QAM	25	12	21.11	21.12	21.02								
5	16QAM	25	12	21.06	21.14	21.09								
5	16QAM	25	12	21.06	21.14	21.09	21	3						
5	16QAM	25	12	21.02	21.09	21.06								
5	16QAM	25	12	21.02	21.05	21.05								
5	16QAM	25	12	21.02	21.05	21.05								
5	256QAM	1	0	18.05	18.09	18.02	19	5						
5	256QAM	1	12	17.98	18.01	18.02								
5	256QAM	1	24	18.03	18.04	17.94								
5	256QAM	12	0	17.94	17.97	17.95								
5	256QAM	12	7	17.92	17.99	17.90								
5	256QAM	12	13	17.91	17.88	18.00								
Channel														
Frequency (MHz)														
3	QPSK	1	0	22.99	22.97	22.99	24	0						
3	QPSK	1	8	22.87	22.88	22.74								
3	QPSK	1	14	22.84	22.86	22.85								
3	QPSK	1	8	21.82	21.88	21.78								
3	QPSK	8	6	21.71	21.78	21.69	23	1						
3	QPSK	8	7	21.88	21.91	21.74								
3	QPSK	1	0	21.82	21.87	21.80								
3	16QAM	1	0	22.22	22.29	22.20								
3	16QAM	1	8	22.25	22.23	22.23	23	1						
3	16QAM	1	8	22.11	22.10	22.21								
3	16QAM	8	0	20.96	21.07	20.93								
3	16QAM	8	4	21.08	21.10	21.07								
3	16QAM	8	7	21.06	21.10	21.06	22	2						
3	16QAM	15	0	20.96	21.03	20.98								
3	16QAM	1	0	21.09	21.18	21.11								
3	16QAM	1	8	21.04	21.13	21.08								
3	16QAM	1	14	21.06	21.10	21.06	21	3						
3	16QAM	8	0	20.04	20.13	20.05								
3	16QAM	8	4	19.96	20.07	19.94								
3	16QAM	8	7	20.04	20.08	20.03								
3	16QAM	15	0	20.03	20.18	20.07	19	5						
3	256QAM	1	0	18.03	18.05	17.99								
3	256QAM	1	8	17.92	18.02	17.96								
3	256QAM	1	14	17.98	18.03	17.93								
3	256QAM	8	0	17.91	18.03	17.90	19	5						
3	256QAM	8	4	17.84	18.00	17.95								
3	256QAM	8	7	17.97	17.97	17.96								
3	256QAM	15	0	17.95	18.07	17.96								
Channel														
Frequency (MHz)														
1.4	QPSK	1	0	23.01	23.01	23.00	24	0						
1.4	QPSK	1	3	22.86	22.89	22.80								
1.4	QPSK	1	5	22.89	22.90	22.92								
1.4	QPSK	3	0	22.85	22.90	22.85								
1.4	QPSK	3	1	22.92	22.94	22.81	23	1						
1.4	QPSK	3	1	22.78	22.91	22.84								
1.4	QPSK	6	0	21.87	22.03	21.87								
1.4	16QAM	1	0	21.94	21.99	21.92								
1.4	16QAM	1	3	21.83	21.94	21.99	23	1						
1.4	16QAM	1	6	21.78	21.89	21.86								
1.4	16QAM	3	0	21.82	21.82	21.80								
1.4	16QAM	3	1	21.89	21.82	21.78								
1.4	16QAM	3	3	21.82	21.89	21.82	22	2						
1.4	16QAM	6	0	20.89	20.92	20.86								
1.4	16QAM	1	0	20.82	20.95	20.91								
1.4	16QAM	1	3	20.88	20.94	20.92								
1.4	16QAM	1	5	20.84	20.92	20.93	22	2						
1.4	16QAM	3	0	20.81	20.91	20.73								
1.4	16QAM	3	3	20.80	20.84	20.73								
1.4	16QAM	3	3	20.80	20.84	20.73								
1.4	16QAM	6	0	19.93	19.97	19.89	21	3						
1.4	256QAM	1	0	17.84	18.13	18.04								
1.4	256QAM	1	3	17.91	17.97	17.92								
1.4	256QAM	1	5	17.82	18.01	17.90								
1.4	256QAM	1	7	17.96	17.96	17.97	19	5						
1.4	256QAM	3	1	17.88	17.95	17.88								
1.4	256QAM	3	3	17.85	17.89	17.80								
1.4	256QAM	3	3	17.85	17.89	17.80								

Band 26 Ant 1 EC110														
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Max Ch./Freq.	Power High Ch./Freq.	Tune-up freq. (dBm)	MFR (dB)						
Channel							26745	26865	26965					
Frequency (MHz)							831.5	831.5	841.5					
15	QPSK	1	0	22.88	22.91	22.86	24	0						
15	QPSK	1	37	22.84	22.89	22.88								
15	QPSK	1	74	22.77	22.78	22.69								
15	QPSK	36	0	21.80	21.85	21.79								
15	QPSK	36	20	21.75	21.80	21.70	23	1						
15	QPSK	36	36	21.64	21.73	21.65								
15	HQDM	1	0	22.15	22.16	22.13								
15	HQDM	1	37	22.07	22.12	22.03								
15	HQDM	1	74	22.07	22.12	22.06	22	2						
15	HQDM	36	0	20.95	21.04	21.00								
15	HQDM	36	20	20.95	21.03	21.00								
15	HQDM	36	36	21.00	21.05	20.99								
15	HQDM	75	0	20.98	21.05	20.96	21	3						
15	64QAM	1	0	21.00	21.07	21.03								
15	64QAM	1	74	21.01	21.05	20.99								
15	64QAM	1	74	20.94	21.01	20.90								
15	64QAM	36	0	20.07	20.14	20.03	21	3						
15	64QAM	36	20	20.07	20.14	20.03								
15	64QAM	36	36	20.02	20.09	20.00								
15	64QAM	75	0	20.12	20.13	20.10								
15	256QAM	1	0	17.97	18.06	17.90	19	5						
15	256QAM	1	37	17.94	18.04	17.96								
15	256QAM	1	74	17.91	18.01	17.96								
15	256QAM	36	0	17.95	18.02	17.97								
15	256QAM	36	20	17.95	17.97	17.98	19	5						
15	256QAM	36	36	17.94	18.01	17.93								
15	256QAM	75	0	18.00	18.03	17.97								
Channel											26745	26865	26965	
Frequency (MHz)							819	831.5	844					
10	QPSK	1	0	22.82	22.88	22.79	24	0						
10	QPSK	1	25	22.76	22.84	22.79								
10	QPSK	1	49	22.68	22.76	22.66								
10	QPSK	25	0	21.73	21.82	21.72								
10	QPSK	25	12	21.72	21.79	21.64	23	1						
10	QPSK	25	25	21.60	21.68	21.61								
10	QPSK	50	0	21.79	21.78	21.74								
10	HQDM	1	0	22.14	22.08	22.04								
10	HQDM	1	25	21.97	22.09	21.94	23	1						
10	HQDM	1	49	21.89	22.10	20.91								
10	HQDM	25	0	20.89	20.97	20.90								
10	HQDM	25	12	20.91	20.96	20.98								
10	HQDM	25	25	20.89	20.99	20.93	22	2						
10	HQDM	50	0	20.90	20.94	20.93								
10	64QAM	1	0	20.97	20.98	20.93								
10	64QAM	1	25	20.97	20.95	20.90								
10	64QAM	1	49	20.89	20.96	20.97	22	2						
10	64QAM	25	0	20.08	20.13	20.05								
10	64QAM	25	12	20.13	20.14	20.06								
10	64QAM	25	25	20.03	20.09	20.02								
10	64QAM	50	0	20.17	20.12	20.15	19	5						
10	256QAM	1	0	17.83	18.00	17.90								
10	256QAM	1	25	17.91	18.00	17.92								
10	256QAM	1	49	17.86	17.96	17.88								
10	256QAM	25	0	17.85	17.87	17.92	19	5						
10	256QAM	25	12	17.93	17.96	17.95								
10	256QAM	25	25	17.90	17.98	17.84								
10	256QAM	50	0	17.86	17.87	17.96								
Channel							26745	26865	26965					
Frequency (MHz)							816.5	831.5	846.5					
5	QPSK	1	0	22.82	22.88	22.79	24	0						
5	QPSK	1	12	22.80	22.83	22.80								
5	QPSK	1	24	22.72	22.71	22.63								
5	QPSK	12	0	21.69	21.80	21.68								
5	QPSK	12	7	21.67	21.72	21.65	23	1						
5	QPSK	12	13	21.63	21.64	21.59								
5	QPSK	24	0	21.82	21.83	21.69								
5	HQDM	1	0	22.04	22.15	22.03								
5	HQDM	1	12	21.99	22.04	21.99	23	1						
5	HQDM	1	24	21.95	22.07	21.96								
5	HQDM	12	0	20.92	20.95	21.00								
5	HQDM	12	7	20.89	21.01	20.94								
5	HQDM	12	13	20.91	21.03	20.95	22	2						
5	HQDM	24	0	20.89	20.94	20.88								
5	64QAM	1	0	20.89	20.98	20.94								
5	64QAM	1	12	20.95	20.95	20.96								
5	64QAM	1	24	20.87	20.97	20.80	22	2						
5	64QAM	12	0	20.16	20.17	20.98								
5	64QAM	12	7	20.05	20.07	20.00								
5	64QAM	12	13	19.97	20.15	20.03								
5	64QAM	24	0	20.12	20.19	20.14	19	5						
5	256QAM	1	0	17.84	18.04	17.80								
5	256QAM	1	12	17.88	18.01	17.94								
5	256QAM	1	24	17.86	17.96	17.91								
5	256QAM	12	0	17.85	18.00	17.80	19	5						
5	256QAM	12	7	17.89	17.89	17.88								
5	256QAM	12	13	17.93	17.92	17.88								
5	256QAM	24	0	17.90	17.94	17.90								
Channel							26795	26865	27025					
Frequency (MHz)							816.5	831.5	847.5					
3	QPSK	1	0	22.84	22.82	22.80	24	0						
3	QPSK	1	8	22.79	22.87	22.81								
3	QPSK	1	14	22.75	22.76	22.62								
3	QPSK	8	0	21.75	21.75	21.71								
3	QPSK	8	4	21.71	21.73	21.65	23	1						
3	QPSK	8	7	21.60	21.70	21.66								
3	QPSK	16	0	21.76	21.78	21.67								
3	HQDM	1	0	22.09	22.10	22.08								
3	HQDM	1	8	22.04	22.06	21.96	23	1						
3	HQDM	1	14	21.95	22.03	22.00								
3	HQDM	8	0	20.83	21.02	20.92								
3	HQDM	8	4	20.87	20.99	20.95								
3	HQDM	8	7	20.92	21.02	20.92	22	2						
3	HQDM	16	0	20.64	21.01	20.94								
3	64QAM	1	0	20.96	21.05	21.00								
3	64QAM	1	8	20.91	20.94	20.94								
3	64QAM	1	14	20.81	20.99	20.85	21	3						
3	64QAM	8	0	20.12	20.14	20.03								
3	64QAM	8	4	20.05	20.11	20.00								
3	64QAM	8	7	20.02	20.13	20.03								
3	HQDM	16	0	20.11	20.12	20.15	19	5						
3	256QAM	1	0	17.90	17.96	17.84								
3	256QAM	1	8	17.87	17.99	17.91								
3	256QAM	16	0	17.82	17.97	17.89								
3	256QAM	8	0	17.84	17.91	17.86	19	5						
3	256QAM	8	4	17.85	17.91	17.86								
3	256QAM	8	7	17.86	17.95	17.87								
3	256QAM	16	0	17.85	17.97	17.87	19	5						
Channel											26697	26865	27025	
Frequency (MHz)											816.5	831.5	847.5	
1.4	QPSK	1	0	22.70	22.83	22.69	24	0						
1.4	QPSK	1	8	22.53	22.68	22.58								
1.4	QPSK	1	16	22.46	22.60	22.46								
1.4	QPSK	8	0	22.60	22.60	22.52								
1.4	QPSK	8	4	22.48	22.54	22.43	23	1						
1.4	QPSK	8	7	22.37	22.49	22.37								
1.4	HQDM	1	0	21.62	21.77	21.75								
1.4	HQDM	1	8	21.56	21.73	21.49								
1.4	HQDM	1	16	21.44	21.71	21.48	23	1						
1.4	HQDM	8	0	21.67	21.63	21.58								
1.4	HQDM	8	4	21.56	21.72	21.77								
1.4	HQDM	8	7	21.58	21.74	21.78								
1.4	HQDM	16	0	20.62	20.74	20.70	22	2						
1.4	HQDM	16	8	20.62	20.76	20.74								
1.4	HQDM	16	16	20.58	20.78	20.74								
1.4	HQDM	16	24	20.52	20.84	20.74								
1.4	HQDM	1	0	20.67	20.62	20.74	22	2						
1.4	HQDM	1	8	20.67	20.69	20.69								
1.4	HQDM	1	16	20.67	20.75	20.68								
1.4	HQDM	1	24	20.67	20.79	20.68								
1.4	HQDM	8	0	20.03	20.06	20.45	21	3						
1.4	HQDM	8	4	20.03	20.06	20.41								
1.4	HQDM	8	7	20.03	20.06	20.41								
1.4	HQDM	16	0	20.03	20.06	20.41								
1.4	HQDM	8	0	17.62	17.67	17.68	19	5						
1.4	256QAM	3	0	17.54	17.68	17.51								
1.4	256QAM	3	4	17.54	17.69	17.60								
1.4	256QAM	3	7	17.54	17.69	17.60								
1.4	256QAM	3	0	17.54	17.68	17.51	19	5						
1.4	256QAM	3	4	17.54	17.69	17.60								
1.4	256QAM	3	7	17.54	17.69	17.60								
1.4	256QAM	3	10	17.54	17.69	17.60								
1.4	256QAM	3	0	17.54	17.68	17.51	19	5						
1.4	256QAM	3	4	17.54	17.69	17.60								
1.4	256QAM	3	7	17.54	17.69	17.60								
1.4	256QAM	3	10	17.54	17.69	17.60								
1.4	256QAM	3	0	17.54	17.68	17.51	19	5						
1.4	256QAM	3	4	17.54	17.69	17.60								
1.4	256QAM	3	7	17.54	17.69	17.60								
1.4	256QAM	3	10	17.54	17.69	17.60								
1.4	256QAM	3	0	17.54	17.68	17.51	19	5						
1.4	256QAM	3	4	17.54	17.69	17.60								
1.4	256QAM	3	7	17.54	17.69	17.60								
1.4	256QAM	3	10	17.54	17.69	17.60								
1.4	256QAM	3	0	17.54	17.68	17.51	19	5						
1.4	256QAM	3	4	17.54	17.69	17.60								
1.4	256QAM	3	7	17.54	17.69	17.60								
1.4	256QAM	3	10	17.54	17.69	17.60								



Band 66 Ant 1 ECI10									
ISW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MPE (dB)	
Channel				130072	163208	130072	17.8		
Frequency (MHz)				1750	1745	1750			
20	QPSK	1	0	16.53	16.57	16.52	17.8	0	
20	QPSK	1	-49	16.46	16.43	16.44			
20	QPSK	1	99	16.46	16.47	16.37			
20	QPSK	50	0	16.41	16.40	16.43			
20	QPSK	50	-24	16.42	16.40	16.40			
20	QPSK	50	50	16.43	16.41	16.44	17.8	0	
20	QPSK	100	0	16.38	16.46	16.39			



Band 38 Ant 1 ECI10								
BW [MHz]	Modulation	RB Size	RB Offset	Power/Line Ch. / Freq.	Power/Main Ch. / Freq.	Power/High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				2740	2740	2740		
20	QPSK	1	0	18.73	18.86	18.80	20.4	0
20	QPSK	1	40	18.69	18.82	18.72		
20	QPSK	1	80	18.65	18.85	18.75		
20	QPSK	50	0	18.75	18.77	18.83	20.4	0
20	QPSK	50	24	18.72	18.88	18.88		
20	QPSK	50	50	18.65	18.73	18.75		
20	QPSK	100	0	18.72	18.77	18.78		

Band 41 Ant 1 ECI10										
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line-Main Ch. / Freq.	Power Main Ch. / Freq.	Power High-Main Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (s)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2740	2743.5	2743	2746.5	2746		
20	QPSK	1	0	18.79	18.78	18.80	18.85	18.86	20.4	0
20	QPSK	1	40	18.69	18.79	18.79	18.80	18.76		
20	QPSK	1	80	18.74	18.70	18.89	18.80	18.76		
20	QPSK	50	0	18.74	18.83	18.89	18.77	18.80	20.4	0
20	QPSK	50	24	18.73	18.74	18.82	18.80	18.73		
20	QPSK	50	50	18.69	18.80	18.80	18.82	18.72		
20	QPSK	100	0	18.77	18.79	18.89	18.77	18.76		

Band 41 HPUE Ant 1 ECI10										
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Line-Main Ch. / Freq.	Power Main Ch. / Freq.	Power High-Main Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (days)	MPE (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2740	2743.5	2743	2746.5	2746		
20	QPSK	1	0	20.02	20.05	20.05	20.02	20.04	22	0
20	QPSK	1	40	20.04	20.02	20.00	20.01	20.05		
20	QPSK	1	80	20.03	20.05	20.03	20.03	20.02		
20	QPSK	50	0	20.01	20.00	20.00	20.02	20.02	22	0
20	QPSK	50	24	20.03	20.00	20.02	20.02	20.01		
20	QPSK	50	50	20.02	20.03	20.03	20.01	20.02		
20	QPSK	100	0	20.01	20.03	20.04	20.03	20.02		



Band 2 Ant 2 ECI10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Inst. (dBm)	MFR (dB)	
Channel				18700	18800	18900			
Frequency (MHz)				18800	18850	18900			
20	QPSK	1	0	12.23	12.31	12.30	13.3	0	
20	QPSK	1	46	12.15	12.18	12.22			
20	QPSK	1	99	12.17	12.18	12.15			
20	QPSK	50	0	12.13	12.23	12.19	13.3	0	
20	QPSK	50	24	12.10	12.15	12.15			
20	QPSK	50	50	12.11	12.22	12.19			
20	QPSK	100	0	12.12	12.25	12.21			

Band 4 Ant 2 ECI10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Inst. (dBm)	MFR (dB)	
Channel				20050	20125	20200			
Frequency (MHz)				1720	1732.5	1745			
20	QPSK	1	0	12.49	12.51	12.43	13.8	0	
20	QPSK	1	49	12.45	12.39	12.35			
20	QPSK	1	99	12.46	12.29	12.40			
20	QPSK	50	0	12.27	12.47	12.40	13.8	0	
20	QPSK	50	24	12.34	12.41	12.37			
20	QPSK	50	50	12.37	12.38	12.35			
20	QPSK	100	0	12.31	12.35	12.34			

Band 7 Ant 2 ECI10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Inst. (dBm)	MFR (dB)	
Channel				20400	21100	21200			
Frequency (MHz)				20100	20300	20500			
20	QPSK	1	0	13.10	13.18	13.09	14.2	0	
20	QPSK	1	49	13.10	13.13	13.09			
20	QPSK	1	99	13.05	13.05	13.07			
20	QPSK	50	0	13.08	13.11	13.05	14.2	0	
20	QPSK	50	24	13.02	13.09	13.05			
20	QPSK	50	50	12.98	13.08	13.03			
20	QPSK	100	0	13.03	13.09	13.03			



Band 25 Ant 2 ECI10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Intst (dBm)	MFR (dB)
Channel				26140	26240	26340		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	12.29	12.30	12.30	13.3	0
20	QPSK	1	49	12.24	12.32	12.26		
20	QPSK	1	99	12.26	12.24	12.21		
20	QPSK	50	0	12.22	12.30	12.29	13.3	0
20	QPSK	50	24	12.10	12.21	12.22		
20	QPSK	50	50	12.26	12.29	12.23		
20	QPSK	100	0	12.21	12.30	12.27		

Band 66 Ant 2 ECI10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up int. (dBm)	MFR (dB)
Channel				130072	130224	130376		
Frequency (MHz)				1720	1740	1770		
20	QPSK	1	0	12.52	12.53	12.50	13.8	0
20	QPSK	1	49	12.49	12.49	12.44		
20	QPSK	1	99	12.50	12.46	12.48		
20	QPSK	50	0	12.43	12.52	12.45	13.8	0
20	QPSK	50	24	12.48	12.49	12.41		
20	QPSK	50	50	12.51	12.41	12.45		
20	QPSK	100	0	12.39	12.53	12.49		



Band 38 Ant 2 ECI10								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38050	38150		
Frequency (MHz)				25.00	25.00	25.00		
20	QPSK	1	0	15.05	15.05	14.95	16.2	0
20	QPSK	1	49	14.98	15.05	14.86		
20	QPSK	1	99	14.92	14.91	15.05		
20	QPSK	50	0	14.99	15.05	14.95	16.2	0
20	QPSK	50	24	14.98	15.01	14.87		
20	QPSK	50	50	14.95	14.95	14.95		
20	QPSK	100	0	14.88	15.04	14.93		

Band 41 Ant 2 ECI10										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				25.04	25.13	25.03	25.04	25.05		
20	QPSK	1	0	15.08	15.10	15.15	15.05	15.09	16.2	0
20	QPSK	1	49	15.04	15.05	15.04	14.95	15.02		
20	QPSK	1	99	14.99	15.02	15.00	15.03	15.07		
20	QPSK	50	0	14.99	15.06	15.09	15.04	15.02	16.2	0
20	QPSK	50	24	15.06	15.01	15.01	14.97	15.05		
20	QPSK	50	50	14.92	15.03	15.01	14.92	15.01		
20	QPSK	100	0	14.90	14.95	15.05	14.99	15.00		

Band 41 HPUE Ant 2 ECI10										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Line-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				25.04	25.13	25.03	25.04	25.05		
20	QPSK	1	0	15.33	15.33	15.34	15.35	15.24	17.8	0
20	QPSK	1	49	15.24	15.20	15.25	15.22	15.18		
20	QPSK	1	99	15.20	15.20	15.25	15.22	15.15		
20	QPSK	50	0	15.25	15.23	15.30	15.25	15.25	17.8	0
20	QPSK	50	24	15.28	15.26	15.26	15.15	15.16		
20	QPSK	50	50	15.20	15.25	15.25	15.21	15.24		
20	QPSK	100	0	15.20	15.21	15.25	15.14	15.20		



Band 2 Ant 3 ECI10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MPL (dB)	
Channel				18700	18800	18900			
Frequency (MHz)				18600	18800	18900			
20	QPSK	1	0	18.28	18.35	18.29	19.5	0	
20	QPSK	1	49	18.14	18.28	18.19			
20	QPSK	1	99	18.19	18.19	18.19			
20	QPSK	50	0	18.23	18.27	18.20	19.5	0	
20	QPSK	50	24	18.00	18.21	18.23			
20	QPSK	50	50	18.19	18.18	18.23			
20	QPSK	100	0	18.12	18.24	18.11			

Band 4 Ant 3 ECI10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Int. (dBm)	MPL (dB)	
Channel				20500	20715	20800			
Frequency (MHz)				1720	1735	1745			
20	QPSK	1	0	19.67	19.70	19.68	21.2	0	
20	QPSK	1	49	19.59	19.59	19.52			
20	QPSK	1	99	19.59	19.61	19.59			
20	QPSK	50	0	19.55	19.60	19.60	21.2	0	
20	QPSK	50	24	19.54	19.58	19.54			
20	QPSK	50	50	19.56	19.63	19.60			
20	QPSK	100	0	19.58	19.67	19.57			

Band 7 Ant 3 ECI10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dB)	MPL (dB)	
Channel				20800	21000	21200			
Frequency (MHz)				20700	20835	20900			
20	QPSK	1	0	15.73	15.82	15.75	18.8	0	
20	QPSK	1	40	15.68	15.78	15.68			
20	QPSK	1	99	15.71	15.68	15.70			
20	QPSK	50	0	15.69	15.76	15.69	18.8	0	
20	QPSK	50	24	15.67	15.75	15.71			
20	QPSK	50	50	15.69	15.71	15.69			
20	QPSK	100	0	15.69	15.74	15.67			



Band 25 Ant 3 ECI10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel				26140	26240	26340		
Frequency (MHz)				1840	1860	1880		
20	QPSK	1	0	18.36	18.37	18.36	19.5	0
20	QPSK	1	49	18.28	18.35	18.24		
20	QPSK	1	99	18.21	18.28	18.30		
20	QPSK	50	0	18.26	18.32	18.24		
20	QPSK	50	24	18.20	18.29	18.25	19.5	0
20	QPSK	50	50	18.31	18.29	18.32		
20	QPSK	100	0	18.21	18.35	18.24		

Band 66 Ant 3 ECI10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up Intvl (dBm)	MFR (dB)
Channel				130072	130120	130172		
Frequency (MHz)				1720	1740	1770		
20	QPSK	1	0	19.66	19.75	19.75	21.2	0
20	QPSK	1	49	19.52	19.73	19.58		
20	QPSK	1	99	19.86	19.74	19.69		
20	QPSK	50	0	19.54	19.70	19.66		
20	QPSK	50	24	19.65	19.67	19.65	21.2	0
20	QPSK	50	50	19.85	19.65	19.68		
20	QPSK	100	0	19.59	19.64	19.63		



Band 38 Ant 3 ECI10								
BW [MHz]	Modulation	RB Size	RB Offset	Power Line Ch. / Freq.	Power Main Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38000	38150		
Frequency [MHz]				2546	2562	2578		
20	QPSK	5	0	17.41	17.45	17.41	18.8	0
20	QPSK	1	49	17.23	17.45	17.30		
20	QPSK	1	49	17.25	17.37	17.40		
20	QPSK	50	0	17.34	17.47	17.38		
20	QPSK	50	24	17.38	17.27	17.41	18.8	0
20	QPSK	50	50	17.35	17.31	17.45		
20	QPSK	100	0	17.28	17.40	17.35		
20	QPSK	100	0	17.28	17.40	17.35		

Band 41 Ant 3 ECI10									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Mid Ch. / Freq.	Power Main Ch. / Freq.	Power High-Mid Ch. / Freq.	Power High Ch. / Freq.	
Channel				38750	40185	40420	41055	41490	
Frequency [MHz]				2568	2584.5	2593	2601.5	2608	
20	QPSK	1	0	17.49	17.52	17.57	17.54	17.54	18.8
20	QPSK	1	49	17.42	17.38	17.54	17.41	17.39	
20	QPSK	1	50	17.41	17.40	17.47	17.41	17.39	
20	QPSK	50	0	17.49	17.55	17.55	17.47	17.43	
20	QPSK	50	24	17.45	17.59	17.41	17.51	17.53	18.8
20	QPSK	50	50	17.41	17.43	17.49	17.40	17.42	
20	QPSK	100	0	17.45	17.59	17.54	17.48	17.41	
20	QPSK	100	0	17.45	17.59	17.54	17.48	17.41	



Band 41 HPUE Ant 3 EC110										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Low-Mid Ch / Freq.	Power Mid Ch / Freq.	Power High-Mid Ch / Freq.	Power High Ch / Freq.	Time-up Int. (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490	20.4	0
Frequency (MHz)				2500	2549.5	2599	2648.5	2699		
20	QPSK	1	0	18.76	18.77	18.81	18.80	18.76		
20	QPSK	1	40	18.63	18.74	18.77	18.77	18.70		
20	QPSK	1	80	18.71	18.72	18.72	18.77	18.68		
20	QPSK	50	0	18.70	18.74	18.76	18.66	18.62		
20	QPSK	50	34	18.64	18.63	18.75	18.71	18.66	20.4	0
20	QPSK	50	50	18.70	18.75	18.69	18.69	18.64		
20	QPSK	100	0	18.64	18.63	18.74	18.72	18.69		

Band 42 FCC Part27Q Ant 3 EC110									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MPR (dB)	
Channel							42190	42690	42990
Frequency (MHz)							3469	3499	3499
20	QPSK	1	0	17.61	17.65	17.55	19	0	0
20	QPSK	1	40	17.67	17.76	17.69			
20	QPSK	1	80	17.74	17.70	17.70			
20	QPSK	50	0	17.52	17.72	17.50			
20	QPSK	50	24	17.59	17.66	17.85	19	0	0
20	QPSK	50	50	17.65	17.60	17.64			
20	QPSK	100	0	17.54	17.65	17.46			
20	16QAM	1	0	17.58	17.68	17.56			
20	16QAM	1	40	17.71	17.56	17.61	19	0	0
20	16QAM	1	80	17.48	17.71	17.41			
20	16QAM	50	0	17.56	17.69	17.66			
20	16QAM	50	24	17.58	17.66	17.60			
20	16QAM	50	50	17.54	17.79	17.46	19	0	0
20	16QAM	100	0	17.62	17.70	17.65			
20	16QAM	1	1	17.57	17.65	17.66			
20	16QAM	1	40	17.52	17.80	17.45			
20	16QAM	1	80	17.55	17.67	17.67	19	0	0
20	16QAM	50	0	17.70	17.65	17.60			
20	16QAM	50	24	17.48	17.79	17.42			
20	16QAM	50	50	17.62	17.72	17.65			
20	16QAM	100	0	17.69	17.63	17.59	19	0	0
20	256QAM	1	0	17.55	17.71	17.52			
20	256QAM	1	40	17.65	17.63	17.56			
20	256QAM	1	80	17.61	17.64	17.57			
20	256QAM	50	0	17.67	17.71	17.52	19	0	0
20	256QAM	50	24	17.48	17.75	17.46			
20	256QAM	50	50	17.54	17.69	17.61			
20	256QAM	100	0	17.72	17.65	17.64			
Channel							42195	42695	43015
Frequency (MHz)							3473.5	3500	3473.5
10	QPSK	1	0	17.47	17.79	17.48	19	0	0
10	QPSK	1	37	17.69	17.66	17.58			
10	QPSK	1	74	17.64	17.65	17.67			
10	QPSK	36	0	17.40	17.61	17.37			
10	QPSK	36	20	17.59	17.59	17.59	19	0	0
10	QPSK	36	56	17.62	17.50	17.69			
10	QPSK	75	0	17.44	17.58	17.38			
10	16QAM	1	0	17.52	17.58	17.49			
10	16QAM	1	37	17.64	17.48	17.48	19	0	0
10	16QAM	1	74	17.44	17.57	17.34			
10	16QAM	36	0	17.43	17.54	17.63			
10	16QAM	36	20	17.55	17.54	17.54			
10	16QAM	36	56	17.48	17.65	17.34	19	0	0
10	16QAM	75	0	17.55	17.69	17.59			
10	16QAM	1	0	17.60	17.50	17.42			
10	16QAM	1	37	17.42	17.71	17.35			
10	16QAM	1	74	17.53	17.56	17.59	19	0	0
10	16QAM	36	0	17.59	17.55	17.54			
10	16QAM	36	20	17.43	17.79	17.29			
10	16QAM	36	56	17.62	17.61	17.65			
10	16QAM	75	0	17.55	17.55	17.46	19	0	0
10	256QAM	1	0	17.42	17.69	17.46			
10	256QAM	1	37	17.63	17.53	17.63			
10	256QAM	1	74	17.54	17.52	17.51			
10	256QAM	36	0	17.48	17.62	17.42	19	0	0
10	256QAM	36	20	17.45	17.67	17.32			
10	256QAM	36	56	17.46	17.64	17.58			
10	256QAM	75	0	17.40	17.61	17.56			
Channel							43015	43015	43015
Frequency (MHz)							3473.5	3500	3473.5
5	QPSK	1	0	17.52	17.71	17.52	19	0	0
5	QPSK	1	25	17.55	17.63	17.63			
5	QPSK	1	40	17.69	17.65	17.66			
5	QPSK	25	0	17.42	17.68	17.48			
5	QPSK	25	12	17.50	17.56	17.62	19	0	0
5	QPSK	25	25	17.59	17.56	17.61			
5	QPSK	80	0	17.45	17.64	17.33			
5	16QAM	1	0	17.53	17.65	17.50			
5	16QAM	1	25	17.59	17.62	17.63	19	0	0
5	16QAM	1	40	17.45	17.67	17.71			
5	16QAM	25	0	17.51	17.60	17.55			
5	16QAM	25	12	17.58	17.64	17.60			
5	16QAM	25	25	17.46	17.68	17.39	19	0	0
5	16QAM	50	0	17.59	17.65	17.54			
5	16QAM	1	0	17.49	17.65	17.50			
5	16QAM	1	12	17.58	17.48	17.54			
5	16QAM	1	24	17.58	17.66	17.56	19	0	0
5	16QAM	12	0	17.52	17.55	17.63			
5	16QAM	12	7	17.63	17.66	17.52			
5	16QAM	12	13	17.48	17.67	17.38			
5	16QAM	25	0	17.52	17.65	17.55	19	0	0
5	16QAM	1	0	17.51	17.69	17.59			
5	16QAM	1	12	17.42	17.67	17.37			
5	16QAM	1	24	17.49	17.61	17.63			
5	16QAM	12	0	17.42	17.59	17.52	19	0	0
5	16QAM	12	7	17.59	17.75	17.30			
5	16QAM	12	13	17.53	17.68	17.62			
5	16QAM	25	0	17.50	17.51	17.49			
5	256QAM	1	0	17.48	17.65	17.45	19	0	0
5	256QAM	1	12	17.58	17.59	17.51			
5	256QAM	1	24	17.55	17.56	17.51			
5	256QAM	12	0	17.59	17.59	17.42			
5	256QAM	12	7	17.39	17.75	17.36	19	0	0
5	256QAM	12	13	17.48	17.62	17.49			
5	256QAM	25	0	17.61	17.55	17.57			



Band 42 FCC Part27Q Ant4 EC110									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (min)	MPR (dB)	
Channel				3440	3660	42990	Turn-up time (min)	MPR (dB)	
Frequency (MHz)				42190	42990	42990			
20	QPSK	1	0	13.15	13.15	13.05	14.4	0	
20	QPSK	1	48	12.86	12.89	12.84			
20	QPSK	1	96	12.79	12.81	12.72			
20	QPSK	50	0	13.08	13.14	12.99			
20	QPSK	50	24	12.87	12.82	12.70	14.4	0	
20	QPSK	50	50	12.69	12.73	12.83			
20	QPSK	100	0	13.07	13.08	13.01			
20	HQAM	1	0	12.84	12.85	12.72			
20	HQAM	1	48	12.72	12.73	12.81	14.4	0	
20	HQAM	1	96	13.07	13.05	13.02			
20	HQAM	50	0	12.88	12.85	12.77			
20	HQAM	50	24	12.73	12.87	12.85			
20	HQAM	50	50	13.10	13.06	12.91	14.4	0	
20	HQAM	100	0	12.84	12.85	12.78			
20	HQAM	1	0	12.73	12.77	12.85			
20	HQAM	1	48	13.01	13.13	12.94			
20	HQAM	1	96	12.87	12.83	12.76	14.4	0	
20	HQAM	50	0	12.73	12.88	12.84			
20	HQAM	50	24	13.09	13.05	12.99			
20	HQAM	50	50	12.90	12.81	12.73			
20	HQAM	100	0	12.72	12.80	12.80	14.4	0	
20	256QAM	1	0	13.10	13.05	13.02			
20	256QAM	1	48	12.81	12.85	12.71			
20	256QAM	1	96	12.69	12.86	12.68			
20	256QAM	50	0	13.02	13.10	13.02	14.4	0	
20	256QAM	50	24	13.08	13.12	12.95			
20	256QAM	50	50	12.82	12.84	12.81			
20	256QAM	100	0	12.85	12.84	12.81			
Channel				42165	42990	43015	Turn-up time (min)	MPR (dB)	
Frequency (MHz)				3427.5	3500	3547.5	Turn-up time (min)	MPR (dB)	
15	QPSK	1	0	13.07	13.05	13.02		14.4	
15	QPSK	1	37	12.85	12.80	12.78			
15	QPSK	1	74	12.74	12.80	12.86			
15	QPSK	36	0	12.99	13.05	12.88			
15	QPSK	36	20	12.73	12.88	12.60	14.4	0	
15	QPSK	36	39	12.63	12.86	12.46			
15	QPSK	75	0	12.98	13.02	12.98			
15	HQAM	1	0	12.79	12.75	12.62			
15	HQAM	1	37	12.86	12.80	12.52	14.4	0	
15	HQAM	1	74	13.00	13.02	12.95			
15	HQAM	36	0	12.81	12.81	12.64			
15	HQAM	36	20	12.70	12.83	12.57			
15	HQAM	36	39	12.97	12.98	12.86	14.4	0	
15	HQAM	75	0	12.76	12.89	12.67			
15	HQAM	1	0	12.70	12.84	12.84			
15	HQAM	1	37	12.97	13.10	12.87			
15	HQAM	1	74	12.77	12.86	12.72	14.4	0	
15	HQAM	36	0	12.80	12.82	12.81			
15	HQAM	36	20	12.98	13.04	12.82			
15	HQAM	36	39	12.82	12.87	12.61			
15	HQAM	75	0	12.80	12.75	12.40	14.4	0	
15	256QAM	1	0	13.08	12.93	12.89			
15	256QAM	1	37	12.78	12.83	12.88			
15	256QAM	1	74	12.84	12.82	12.98			
15	256QAM	36	0	12.91	13.05	12.97	14.4	0	
15	256QAM	36	20	12.95	13.07	12.85			
15	256QAM	36	39	12.76	12.89	12.72			
15	256QAM	75	0	12.83	12.71	12.55			
Channel				3434.0	42990	43015	Turn-up time (min)	MPR (dB)	
Frequency (MHz)				3465	3500	3545	Turn-up time (min)	MPR (dB)	
10	QPSK	1	0	13.12	13.08	13.01		14.4	
10	QPSK	1	25	12.93	12.88	12.72			
10	QPSK	1	49	12.86	12.84	12.70			
10	QPSK	36	0	12.97	13.05	12.94			
10	QPSK	25	12	12.83	12.79	12.67	14.4	0	
10	QPSK	25	25	12.69	12.74	12.54			
10	QPSK	50	0	13.09	13.04	12.92			
10	HQAM	1	0	12.73	12.83	12.68			
10	HQAM	1	25	12.70	12.75	12.58	14.4	0	
10	HQAM	1	49	12.99	13.02	12.94			
10	HQAM	25	0	12.84	12.84	12.75			
10	HQAM	25	12	12.60	12.81	12.56			
10	HQAM	25	25	13.00	12.95	12.86	14.4	0	
10	HQAM	50	0	12.78	12.87	12.70			
10	HQAM	1	0	12.82	12.75	12.58			
10	HQAM	1	25	12.91	12.99	12.97			
10	HQAM	1	49	12.73	12.81	12.65	14.4	0	
10	HQAM	25	0	12.66	12.80	12.60			
10	HQAM	25	12	13.01	13.01	12.89			
10	HQAM	25	25	12.78	12.85	12.71			
10	HQAM	50	0	12.66	12.72	12.48	14.4	0	
10	256QAM	1	0	13.06	12.98	12.98			
10	256QAM	1	25	12.76	12.87	12.58			
10	256QAM	1	49	12.55	12.82	12.62			
10	256QAM	25	0	12.83	13.04	12.95	14.4	0	
10	256QAM	25	12	12.83	12.85	12.69			
10	256QAM	25	25	12.72	12.93	12.71			
10	256QAM	50	0	12.69	12.75	12.52			
Channel				3431.5	3500	3547.5	Turn-up time (min)	MPR (dB)	
Frequency (MHz)				3492.5	3500	3547.5	Turn-up time (min)	MPR (dB)	
5	QPSK	1	0	13.07	13.05	12.92		14.4	
5	QPSK	1	12	12.83	12.87	12.81			
5	QPSK	1	24	12.77	12.77	12.62			
5	QPSK	12	0	13.06	13.06	12.89			
5	QPSK	12	7	12.81	12.75	12.81	14.4	0	
5	QPSK	12	13	12.83	12.87	12.52			
5	QPSK	25	0	13.01	12.98	12.91			
5	HQAM	1	0	12.79	12.87	12.64			
5	HQAM	1	12	12.83	12.75	12.67	14.4	0	
5	HQAM	1	24	13.02	12.88	12.95			
5	HQAM	12	0	12.79	12.91	12.85			
5	HQAM	12	7	12.70	12.74	12.54			
5	HQAM	12	13	12.99	12.99	12.84	14.4	0	
5	HQAM	25	0	12.72	12.83	12.73			
5	HQAM	1	0	12.68	12.74	12.83			
5	HQAM	1	12	12.87	13.05	12.82			
5	HQAM	1	24	12.75	12.81	12.71	14.4	0	
5	HQAM	12	0	12.71	12.82	12.93			
5	HQAM	12	7	13.06	13.02	12.86			
5	HQAM	12	13	12.87	12.77	12.69			
5	HQAM	25	0	12.68	12.72	12.53	14.4	0	
5	256QAM	1	0	13.04	12.97	12.97			
5	256QAM	1	12	12.81	12.85	12.65			
5	256QAM	1	24	12.65	12.83	12.57			
5	256QAM	12	0	12.88	13.04	12.97	14.4	0	
5	256QAM	12	7	13.05	13.07	12.81			
5	256QAM	12	13	12.77	12.91	12.72			
5	256QAM	25	0	12.62	12.74	12.50			

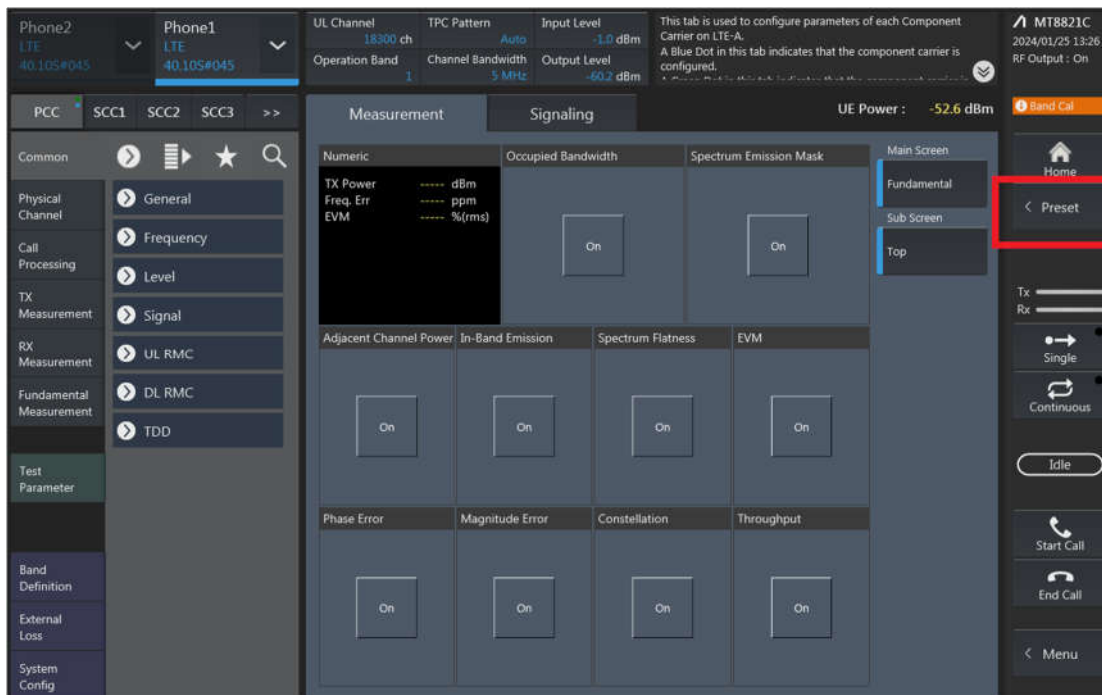


Band 42 FCC Part27Q Ant6 EC110									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up limit (dBm)	MPR (dB)	
Channel				3479	3569	3659	Turn-up limit (dBm)	MPR (dB)	
Frequency (MHz)				42190	42990	43990			
20	QPSK	1	0	16.27	16.45	16.31	17.3	0	
20	QPSK	1	48	16.21	16.28	16.33			
20	QPSK	1	96	16.34	16.41	16.36			
20	QPSK	50	0	16.19	16.47	16.16	17.3	0	
20	QPSK	50	24	16.16	16.18	16.29			
20	QPSK	50	50	16.31	16.35	16.32			
20	QPSK	100	0	16.21	16.35	16.19	17.3	0	
20	HQAM	1	0	16.08	16.13	16.23			
20	HQAM	1	48	16.23	16.32	16.30			
20	HQAM	50	0	16.16	16.32	16.27	17.3	0	
20	HQAM	50	24	16.12	16.16	16.29			
20	HQAM	50	50	16.31	16.38	16.26			
20	HQAM	50	50	16.14	16.57	16.26	17.3	0	
20	HQAM	100	0	16.15	16.22	16.29			
20	HQAM	1	0	16.26	16.34	16.25			
20	HQAM	1	48	16.21	16.35	16.19	17.3	0	
20	HQAM	1	96	16.14	16.33	16.16			
20	HQAM	50	0	16.26	16.47	16.26			
20	HQAM	50	24	16.24	16.40	16.27	17.3	0	
20	HQAM	50	50	16.16	16.14	16.25			
20	HQAM	100	0	16.25	16.38	16.31			
20	25SQAM	1	0	16.20	16.27	16.22	17.3	0	
20	25SQAM	1	48	16.15	16.22	16.31			
20	25SQAM	1	96	16.22	16.33	16.23			
20	25SQAM	50	0	16.16	16.29	16.29	17.3	0	
20	25SQAM	50	24	16.15	16.35	16.23			
20	25SQAM	50	50	16.15	16.14	16.23			
20	25SQAM	100	0	16.21	16.42	16.28			
Channel				42165	42590	43015	Turn-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3472.5	3570	3647.5	Turn-up limit (dBm)	MPR (dB)	
15	QPSK	1	0	16.16	16.32	16.27			
15	QPSK	1	37	16.15	16.12	16.27	17.3	0	
15	QPSK	1	74	16.31	16.42	16.26			
15	QPSK	36	0	16.13	16.32	16.09			
15	QPSK	36	20	16.03	16.06	16.21	17.3	0	
15	QPSK	36	39	16.17	16.33	16.26			
15	QPSK	75	0	16.14	16.23	16.16			
15	HQAM	1	0	16.07	16.00	16.14	17.3	0	
15	HQAM	1	37	16.10	16.24	16.17			
15	HQAM	1	74	16.14	16.24	16.24			
15	HQAM	36	0	16.06	16.05	16.24	17.3	0	
15	HQAM	36	20	16.22	16.31	16.23			
15	HQAM	36	39	16.11	16.24	16.25			
15	HQAM	75	0	16.02	16.10	16.26	17.3	0	
15	HQAM	1	0	16.23	16.25	16.26			
15	HQAM	1	37	16.09	16.28	16.17			
15	HQAM	1	74	16.06	16.06	16.16	17.3	0	
15	HQAM	36	0	16.16	16.20	16.25			
15	HQAM	36	20	16.15	16.57	16.15			
15	HQAM	36	39	16.10	16.02	16.13	17.3	0	
15	HQAM	75	0	16.16	16.30	16.25			
15	25SQAM	1	0	16.06	16.29	16.09			
15	25SQAM	1	37	16.07	16.13	16.22	17.3	0	
15	25SQAM	1	74	16.13	16.22	16.17			
15	25SQAM	36	0	16.05	16.22	16.23			
15	25SQAM	36	20	16.09	16.25	16.09	17.3	0	
15	25SQAM	36	39	16.03	16.03	16.19			
15	25SQAM	75	0	16.16	16.34	16.22			
Channel				42110	42506	43000	Turn-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3465	3500	3545	Turn-up limit (dBm)	MPR (dB)	
10	QPSK	1	0	16.24	16.40	16.26			
10	QPSK	1	25	16.13	16.23	16.26	17.3	0	
10	QPSK	1	49	16.28	16.31	16.30			
10	QPSK	25	0	16.16	16.28	16.11			
10	QPSK	25	12	16.03	16.10	16.24	17.3	0	
10	QPSK	25	25	16.22	16.31	16.27			
10	QPSK	50	0	16.17	16.28	16.07			
10	HQAM	1	0	16.05	16.04	16.16	17.3	0	
10	HQAM	1	25	16.12	16.23	16.26			
10	HQAM	1	49	16.06	16.30	16.21			
10	HQAM	25	0	16.02	16.06	16.26	17.3	0	
10	HQAM	25	12	16.19	16.31	16.21			
10	HQAM	25	25	16.06	16.24	16.25			
10	HQAM	50	0	16.02	16.09	16.27	17.3	0	
10	HQAM	1	0	16.17	16.28	16.22			
10	HQAM	1	25	16.09	16.29	16.08			
10	HQAM	1	49	16.01	16.08	16.13	17.3	0	
10	HQAM	25	0	16.19	16.37	16.22			
10	HQAM	25	12	16.14	16.33	16.19			
10	HQAM	25	25	16.08	16.10	16.18	17.3	0	
10	HQAM	50	0	16.21	16.27	16.18			
10	25SQAM	1	0	16.12	16.33	16.19			
10	25SQAM	1	25	16.06	16.17	16.22	17.3	0	
10	25SQAM	1	49	16.16	16.20	16.14			
10	25SQAM	25	0	16.08	16.25	16.17			
10	25SQAM	25	12	16.13	16.32	16.16	17.3	0	
10	25SQAM	25	25	16.05	16.00	16.16			
10	25SQAM	50	0	16.17	16.36	16.25			
Channel				42115	42501	43000	Turn-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3462.5	3506	3547.5	Turn-up limit (dBm)	MPR (dB)	
5	QPSK	1	0	16.23	16.27	16.22			
5	QPSK	1	12	16.12	16.22	16.27	17.3	0	
5	QPSK	1	24	16.27	16.39	16.22			
5	QPSK	12	0	16.11	16.27	16.13			
5	QPSK	12	7	16.10	16.11	16.20	17.3	0	
5	QPSK	12	13	16.23	16.30	16.29			
5	QPSK	25	0	16.10	16.28	16.16			
5	HQAM	1	0	16.04	16.04	16.13	17.3	0	
5	HQAM	1	12	16.13	16.23	16.21			
5	HQAM	1	24	16.06	16.23	16.17			
5	HQAM	12	0	16.04	16.12	16.19	17.3	0	
5	HQAM	12	7	16.20	16.26	16.13			
5	HQAM	12	13	16.00	16.27	16.20			
5	HQAM	25	0	16.07	16.11	16.21	17.3	0	
5	HQAM	1	0	16.24	16.26	16.22			
5	HQAM	1	12	16.15	16.22	16.16			
5	HQAM	1	24	16.06	16.06	16.06	17.3	0	
5	HQAM	12	0	16.21	16.31	16.26			
5	HQAM	12	7	16.20	16.33	16.22			
5	HQAM	12	13	16.12	16.62	16.16	17.3	0	
5	HQAM	25	0	16.17	16.21	16.23			
5	25SQAM	1	0	16.06	16.33	16.17			
5	25SQAM	1	12	16.12	16.17	16.19	17.3	0	
5	25SQAM	1	24	16.15	16.20	16.14			
5	25SQAM	12	0	16.12	16.30	16.25			
5	25SQAM	12	7	16.08	16.21	16.15	17.3	0	
5	25SQAM	12	13	16.08	16.06	16.11			
5	25SQAM	25	0	16.16	16.33	16.16			

Band 42 FCC Par27Q Ant8 EC110									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (min)	MPR (dB)	
Channel				42190	42590	42990	Turn-up time (min)	MPR (dB)	
Frequency (MHz)				3457.5	3600	3547.5			
20	QPSK	1	0	19.44	19.45	19.46	20.8	0	
20	QPSK	1	48	19.28	19.25	19.14			
20	QPSK	1	96	19.28	19.30	19.39			
20	QPSK	50	0	19.31	19.42	19.34	20.8	0	
20	QPSK	50	24	19.18	19.21	19.12			
20	QPSK	50	50	19.25	19.20	19.16			
20	QPSK	100	0	19.38	19.41	19.38	20.8	0	
20	HQAM	1	0	19.24	19.25	19.09			
20	HQAM	1	48	19.24	19.19	19.16			
20	HQAM	50	0	19.31	19.40	19.35	20.8	0	
20	HQAM	50	24	19.18	19.14	19.09			
20	HQAM	50	50	19.14	19.26	19.24			
20	HQAM	50	50	19.38	19.40	19.32	20.8	0	
20	HQAM	100	0	19.25	19.26	19.41			
20	HQAM	1	0	19.42	19.35	19.41			
20	HQAM	1	48	19.21	19.25	19.03	20.8	0	
20	HQAM	1	96	19.14	19.23	19.15			
20	HQAM	50	0	19.31	19.37	19.35			
20	HQAM	50	24	19.40	19.38	19.33	20.8	0	
20	HQAM	50	50	19.15	19.15	19.00			
20	HQAM	100	0	19.15	19.22	19.24			
20	256QAM	1	0	17.90	17.85	17.86	19	1.8	
20	256QAM	1	48	17.91	17.86	17.86			
20	256QAM	1	96	17.81	17.82	17.88			
20	256QAM	36	0	17.94	17.86	17.82	19	1.8	
20	256QAM	36	24	17.98	17.99	17.94			
20	256QAM	50	50	17.86	17.87	17.87			
20	256QAM	100	0	17.93	17.89	17.94	Turn-up time (min)	MPR (dB)	
Channel				42165 <th>42590</th> <th>43015</th>	42590	43015			
Frequency (MHz)				3457.5	3600	3547.5			
15	QPSK	1	0	19.41	19.44	19.44	20.8	0	
15	QPSK	1	25	19.24	19.20	19.08			
15	QPSK	1	49	19.20	19.18	19.23			
15	QPSK	36	0	19.24	19.30	19.31	20.8	0	
15	QPSK	25	12	19.06	19.10	19.06			
15	QPSK	25	25	19.16	19.18	19.12			
15	QPSK	50	0	19.31	19.35	19.30	20.8	0	
15	HQAM	1	0	19.20	19.19	19.01			
15	HQAM	1	25	19.15	19.11	19.10			
15	HQAM	1	49	19.21	19.34	19.29	20.8	0	
15	HQAM	25	0	19.11	19.03	19.02			
15	HQAM	25	12	19.00	19.13	19.16			
15	HQAM	25	25	19.32	19.35	19.23	20.8	0	
15	HQAM	50	0	19.20	19.31	19.32			
15	HQAM	1	0	19.36	19.33	19.28			
15	HQAM	1	25	19.17	19.17	19.08	20.8	0	
15	HQAM	1	49	19.09	19.11	19.08			
15	HQAM	25	0	19.21	19.24	19.22			
15	HQAM	25	12	19.26	19.32	19.22	20.8	0	
15	HQAM	25	25	19.02	19.05	19.06			
15	HQAM	50	0	19.06	19.08	19.12			
15	256QAM	1	0	17.85	17.84	17.81	19	1.8	
15	256QAM	1	25	17.88	17.81	17.74			
15	256QAM	1	49	17.71	17.87	17.83			
15	256QAM	25	0	17.90	17.84	17.84	19	1.8	
15	256QAM	25	12	17.88	17.86	17.87			
15	256QAM	25	25	17.83	17.85	17.77			
15	256QAM	50	0	17.81	17.86	17.88	Turn-up time (min)	MPR (dB)	
Channel				42165 <th>42590</th> <th>43015</th>	42590	43015			
Frequency (MHz)				3457.5	3600	3547.5			
5	QPSK	1	0	19.37	19.35	19.43	20.8	0	
5	QPSK	1	12	19.24	19.13	19.05			
5	QPSK	1	24	19.17	19.28	19.17			
5	QPSK	12	0	19.17	19.26	19.31	20.8	0	
5	QPSK	12	7	19.07	19.14	19.10			
5	QPSK	12	13	19.16	19.11	19.04			
5	QPSK	25	0	19.28	19.20	19.26	20.8	0	
5	HQAM	1	0	19.18	19.11	19.00			
5	HQAM	1	12	19.11	19.08	19.08			
5	HQAM	1	24	19.25	19.42	19.24	20.8	0	
5	HQAM	12	0	19.07	19.03	19.00			
5	HQAM	12	7	19.01	19.13	19.14			
5	HQAM	12	13	19.31	19.29	19.25	20.8	0	
5	HQAM	25	0	19.29	19.29	19.32			
5	HQAM	1	0	19.39	19.35	19.38			
5	HQAM	1	12	19.11	19.10	19.06	20.8	0	
5	HQAM	12	0	19.26	19.30	19.24			
5	HQAM	12	7	19.30	19.25	19.31			
5	HQAM	12	13	19.06	19.07	19.07	20.8	0	
5	HQAM	25	0	19.01	19.10	19.10			
5	256QAM	1	0	17.89	17.84	17.85	19	1.8	
5	256QAM	1	12	17.81	17.84	17.79			
5	256QAM	1	24	17.78	17.84	17.80			
5	256QAM	12	0	17.83	17.88	17.81	19	1.8	
5	256QAM	12	7	17.94	17.87	17.85			
5	256QAM	12	13	17.85	17.81	17.79			
5	256QAM	25	0	17.89	17.91	17.84			

LTE Uplink and Downlink Carrier Aggregation configurations:

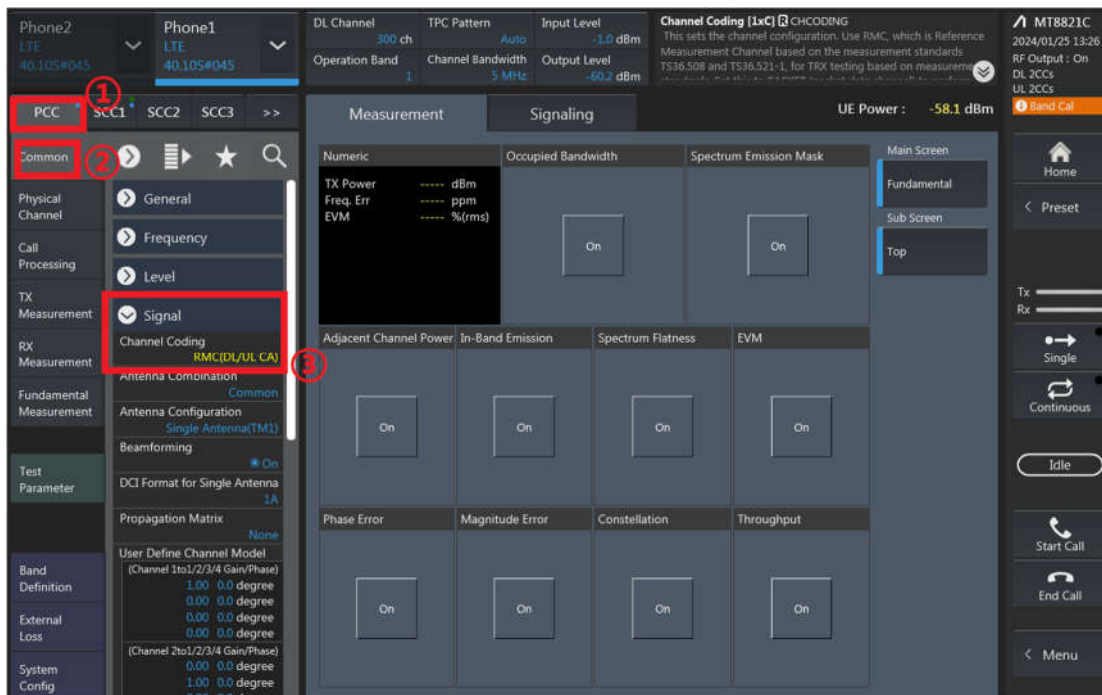
1. Change the Scenario in the Configuration of LTE Signaling and Preset.



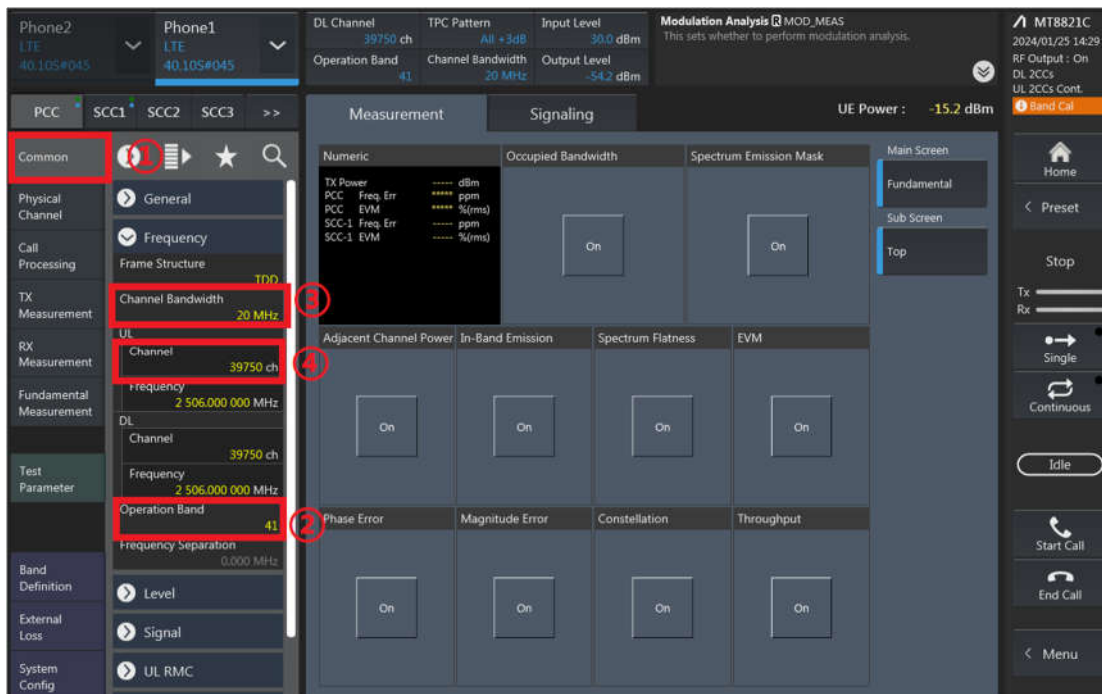
2. If Select "RMC (DL/UL CA)" for Uplink Carrier Aggregation;
If Select "RMC (DL CA)" for Downlink Carrier Aggregation.

For example, Uplink Carrier Aggregation:

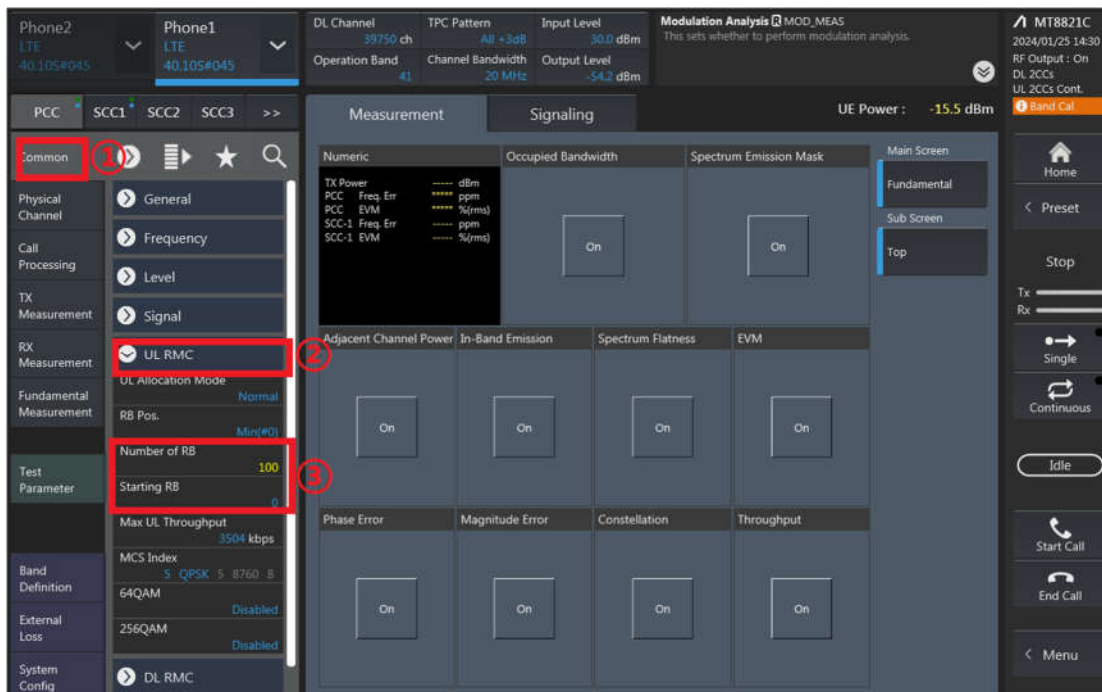
Detailed operation: PCC → Common → Signal → Channel Coding → Select 【RMC (DL/UL CA)】



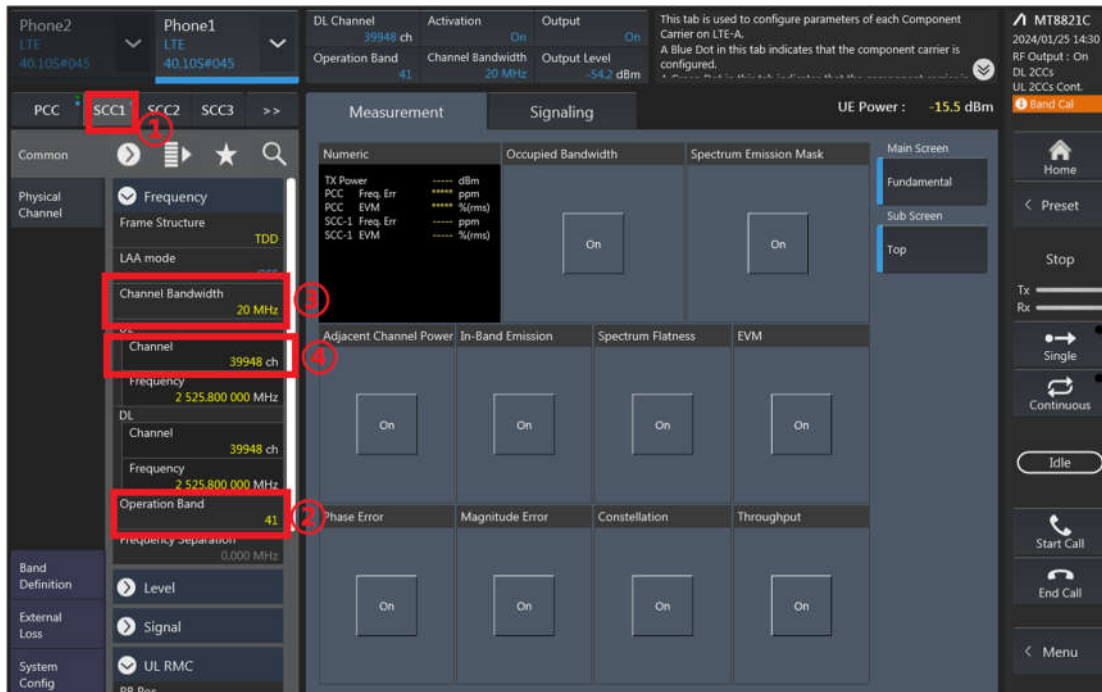
- PCC parameter Settings: on the screen, and then select the PCC tab and Set operating band, BW, channel and RB configurations for PCC;



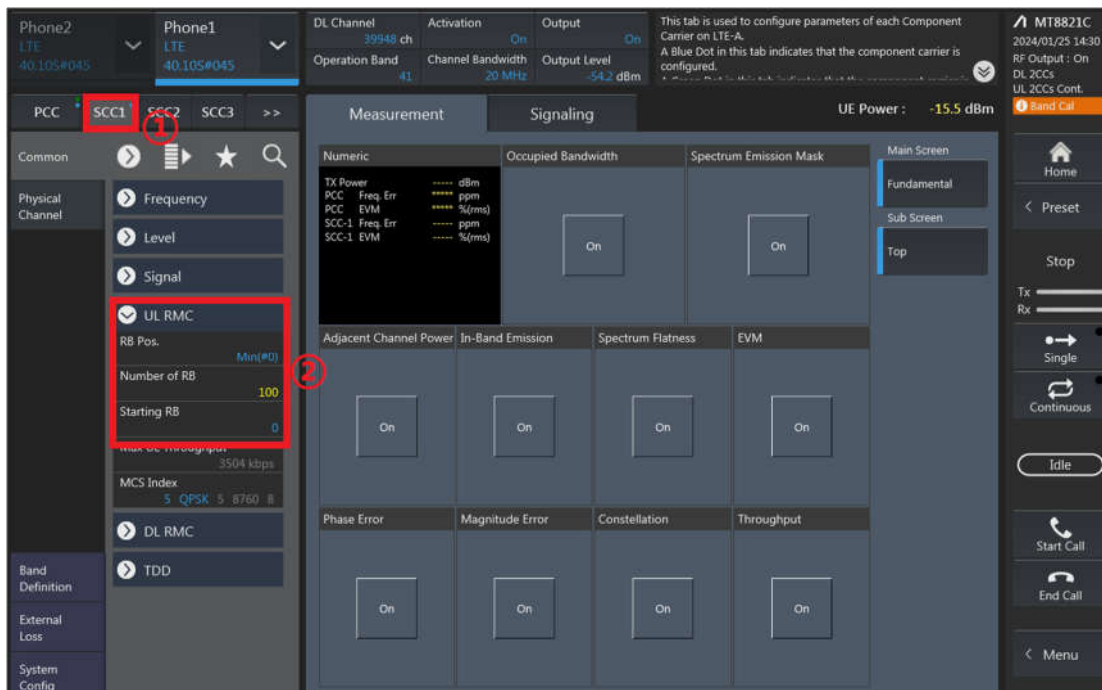
RB configurations (Number of RB / Starting RB) for PCC;



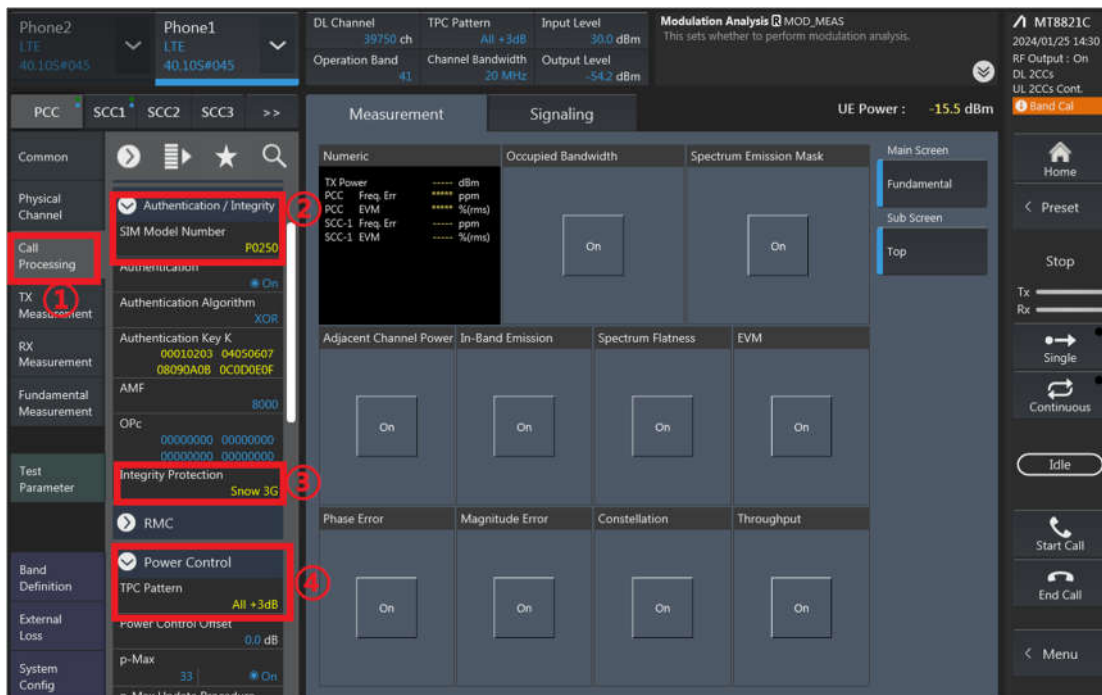
4. SCC parameter Settings: Select the SCC1 tab, Set operating band, BW, channel, and RB configurations for SCC1;



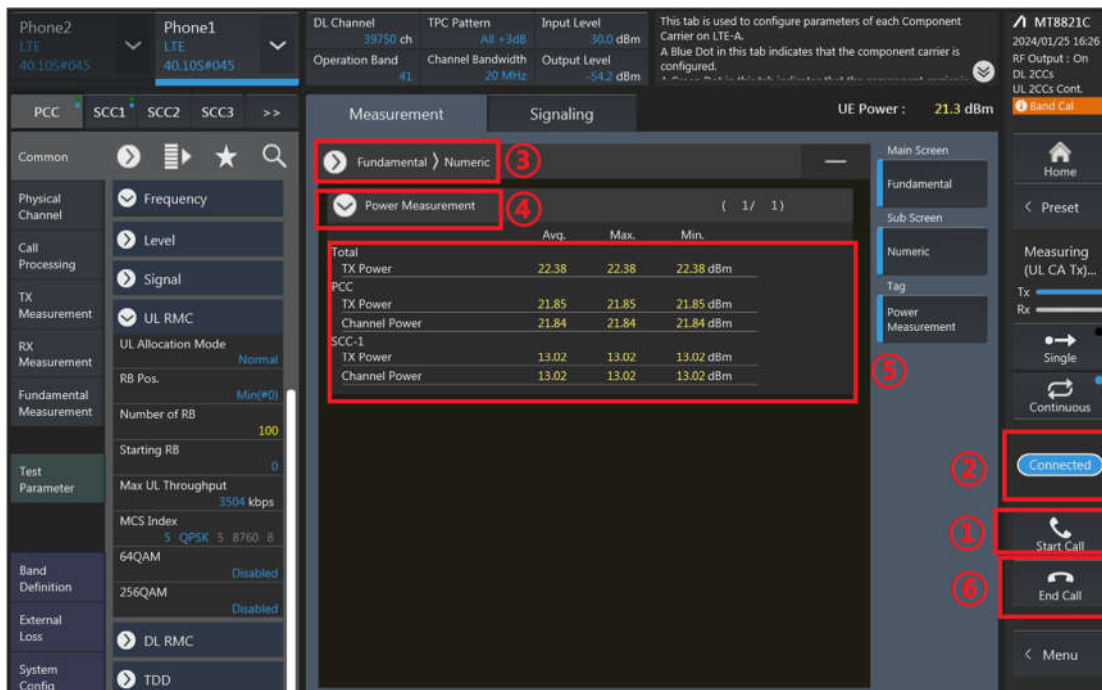
RB configurations (Number of RB / Starting RB) for SCC1;



- Select the PCC tab, then set “SIM Model Number” and select max power;



- Click the “Connect” button at the Right of the screen, if necessary, turn the Airplane mode on/off in the DUT



- The inter-band ULCA test method is similar to intra-band ULCA, and DLCA test method is similar to intra-band ULCA too.

DL CA Power

2CA DL

CA List	PCC									SCC					Power	
	LTE Band	BW Ant	BW (MHz)	UL Freq (MHz)	UL Channel	Mod.	UL# RB	UL Offset	UL DL Antenna Configuration	LTE Band	BW	DL Freq (MHz)	DL Channel	DL DL Antenna Configuration	With CA Tx Power (dBm)	Without CA Tx Power (dBm)
	Band	Ant								Band						
CA_26A-41A	Band 26	Ant 0	15M	831.5	26865	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	23.32	23.38
	Band 26	Ant 1	15M	831.5	26865	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	22.85	22.91
CA_26A-66A	Band 26	Ant 0	15M	831.5	26865	QPSK	1	0		Band 66	20M	2155	66886	4x4MIMO	23.37	23.38
	Band 26	Ant 1	15M	831.5	26865	QPSK	1	0		Band 66	20M	2155	66886	4x4MIMO	22.84	22.91
CA_2A-17A	Band 2	Ant 0	10M	1880	18900	QPSK	1	0	4x4MIMO	Band 17	10M	740	5790		22.64	22.71
	Band 2	Ant 1	10M	1880	18900	QPSK	1	0	4x4MIMO	Band 17	10M	740	5790		22.67	22.69
	Band 2	Ant 2	10M	1880	18900	QPSK	1	0	4x4MIMO	Band 17	10M	740	5790		23.34	23.38
	Band 2	Ant 3	10M	1880	18900	QPSK	1	0	4x4MIMO	Band 17	10M	740	5790		22.87	22.91
	Band 17	Ant 0	10M	710	23790	QPSK	1	0		Band 2	10M	1960	900	4x4MIMO	23.33	23.36
CA_2A-38A	Band 17	Ant 1	10M	710	23790	QPSK	1	0		Band 2	10M	1960	900	4x4MIMO	22.86	22.95
	Band 2	Ant 0	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 26	15M	876.5	8865		22.85	22.71
	Band 2	Ant 1	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 26	15M	876.5	8865		22.58	22.69
	Band 2	Ant 2	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 26	15M	876.5	8865		23.31	23.38
	Band 2	Ant 3	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 26	15M	876.5	8865		22.85	22.91
CA_2A-38A	Band 26	Ant 0	15M	831.5	26865	QPSK	1	0		Band 2	10M	1960	900	4x4MIMO	23.33	23.38
	Band 26	Ant 1	15M	831.5	26865	QPSK	1	0		Band 2	10M	1960	900	4x4MIMO	22.86	22.91
	Band 2	Ant 0	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	22.63	22.71
	Band 2	Ant 1	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	22.67	22.69
	Band 2	Ant 2	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	23.31	23.38
	Band 2	Ant 3	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	22.85	22.91
	Band 38	Ant 0	20M	2596	38000	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900	4x4MIMO	23.51	23.57
	Band 38	Ant 1	20M	2596	38000	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900	4x4MIMO	23.59	23.69
	Band 38	Ant 2	20M	2596	38000	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900	4x4MIMO	23.48	23.53
	Band 38	Ant 3	20M	2596	38000	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900	4x4MIMO	22.91	22.96
CA_2C	Band 2	Ant 0	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 2	20M	1979.8	1098	4x4MIMO	22.64	22.71
	Band 2	Ant 1	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 2	20M	1979.8	1098	4x4MIMO	22.52	22.69
	Band 2	Ant 2	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 2	20M	1979.8	1098	4x4MIMO	23.28	23.38
	Band 2	Ant 3	20M	1880	18900	QPSK	1	0	4x4MIMO	Band 2	20M	1979.8	1098	4x4MIMO	22.86	22.91
CA_38C	Band 2	Ant 0	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	23.42	23.57
	Band 38	Ant 1	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	23.58	23.69
	Band 38	Ant 2	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	23.44	23.53
	Band 38	Ant 3	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	22.92	22.98
CA_41A-42A	Band 41	Ant 0	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 42	20M	3500	42590	4x4MIMO	23.69	23.81
	Band 41	Ant 1	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 42	20M	3500	42590	4x4MIMO	23.52	23.67
	Band 41	Ant 2	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 42	20M	3500	42590	4x4MIMO	23.62	23.64
	Band 41	Ant 3	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 42	20M	3500	42590	4x4MIMO	22.95	23.05
	Band 42	Ant 3	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 41	20M	2593	40620	4x4MIMO	23.75	23.78
	Band 42	Ant 4	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 41	20M	2593	40620	4x4MIMO	23.12	23.15
	Band 42	Ant 6	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 41	20M	2593	40620	4x4MIMO	22.76	22.83
	Band 42	Ant 8	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 41	20M	2593	40620	4x4MIMO	22.84	22.95
	Band 42	Ant 3	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 42	5M	3547.5	43065	4x4MIMO	23.72	23.78
	Band 42	Ant 4	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 42	5M	3547.5	43065	4x4MIMO	23.10	23.15
CA_42A-42A	Band 42	Ant 6	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 42	5M	3547.5	43065	4x4MIMO	22.85	22.93
	Band 42	Ant 8	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 42	5M	3547.5	43065	4x4MIMO	22.84	22.95
	Band 4	Ant 0	10M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 17	10M	740	5790		22.74	22.77
	Band 4	Ant 1	10M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 17	10M	740	5790		22.95	22.98
CA_4A-17A	Band 4	Ant 2	10M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 17	10M	740	5790		22.98	22.81
	Band 4	Ant 3	10M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 17	10M	740	5790		22.89	22.85
	Band 17	Ant 0	10M	710	23790	QPSK	1	0		Band 4	10M	2132.5	2175	4x4MIMO	23.33	23.38
	Band 17	Ant 1	10M	710	23790	QPSK	1	0		Band 4	10M	2132.5	2175	4x4MIMO	22.84	22.95
	Band 66	Ant 0	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2164.3	66979	4x4MIMO	22.73	22.77
CA_66B	Band 66	Ant 1	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2164.3	66979	4x4MIMO	23.00	23.11
	Band 66	Ant 2	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2164.3	66979	4x4MIMO	23.23	23.35
	Band 66	Ant 3	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2164.3	66979	4x4MIMO	22.98	23.06
	Band 66	Ant 0	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	22.70	22.77
CA_66C	Band 66	Ant 1	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	23.00	23.11
	Band 66	Ant 2	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	23.25	23.35
	Band 66	Ant 3	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	22.92	23.06
CA_7A-7A	Band 7	Ant 0	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2687.5	3425	4x4MIMO	23.43	23.51
	Band 7	Ant 1	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2687.5	3425	4x4MIMO	23.51	23.55
	Band 7	Ant 2	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2687.5	3425	4x4MIMO	23.57	23.65
	Band 7	Ant 3	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2687.5	3425	4x4MIMO	23.49	23.68
	Band 7	Ant 0	15M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2544.3	3193	4x4MIMO	23.35	23.51
CA_7B	Band 7	Ant 1	15M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2544.3	3193	4x4MIMO	23.51	23.55
	Band 7	Ant 2	15M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2544.3	3193	4x4MIMO	23.62	23.65
	Band 7	Ant 3	15M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2544.3	3193	4x4MIMO	23.61	23.66

3CA List	SCC										SCC1										SCC2										Power	
	LTE	BW	BW	UL	UL		UL#	UL			LTE	BW	DL	DL		LTE	BW	DL	DL		LTE	BW	DL	DL		With CA	Without CA					
	Band	Ant.	(MHz)	Freq. (MHz)	Channel	Mod.	RB	RB	Offset	DL Antenna Configuration	Band	Ant.	(MHz)	Freq. (MHz)	Channel	DL Antenna Configuration	Band	Ant.	(MHz)	Freq. (MHz)	Channel	DL Antenna Configuration	Band	Ant.	(MHz)	Freq. (MHz)	Channel	Tx Power (dBm)	Tx Power (dBm)			
CA_2A-2A-4A	Band 2	Ant 0	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	22.64	22.71								
	Band 2	Ant 1	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	22.67	22.69								
	Band 2	Ant 2	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	23.25	23.38								
	Band 2	Ant 3	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	22.88	22.91								
CA_2A-2A-5A	Band 4	Ant 0	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	22.75	22.77								
	Band 4	Ant 1	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	22.84	22.99								
	Band 4	Ant 2	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	23.45	22.61								
	Band 4	Ant 3	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	22.92	22.95								
CA_2A-2A-6A	Band 2	Ant 0	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	22.59	22.71								
	Band 2	Ant 1	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	22.66	22.69								
	Band 2	Ant 2	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	22.92	22.91								
	Band 2	Ant 3	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	23.29	23.38								
CA_2A-2A-7A	Band 5	Ant 0	10M	836.5	20525	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	22.82	22.91								
	Band 5	Ant 1	10M	836.5	20525	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	22.74	22.85								
	Band 2	Ant 0	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 2	20M	2132.5	2175	4xMMIMO	4xMMIMO	22.65	22.71								
	Band 2	Ant 1	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	23.38	23.38								
CA_2A-2A-8A	Band 2	Ant 0	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	22.58	22.69								
	Band 2	Ant 1	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	23.26	23.26								
	Band 2	Ant 2	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	23.38	23.38								
	Band 2	Ant 3	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 2	5M	1987.5	1175	4xMMIMO	4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	23.38	23.38								
CA_2A-4A-4A	Band 2	Ant 0	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	22.61	22.71								
	Band 2	Ant 1	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	22.61	22.69								
	Band 2	Ant 2	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	23.27	23.38								
	Band 2	Ant 3	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	22.75	22.91								
CA_2A-4A-5A	Band 4	Ant 0	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 4	5M	2152.5	2375	4xMMIMO	4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	22.73	22.77								
	Band 4	Ant 1	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 4	5M	2152.5	2375	4xMMIMO	4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	22.84	22.99								
	Band 4	Ant 2	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 4	5M	2152.5	2375	4xMMIMO	4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	23.23	22.93								
	Band 4	Ant 3	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 4	5M	2152.5	2375	4xMMIMO	4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	22.75	22.95								
CA_2A-4A-6A	Band 2	Ant 0	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	22.68	22.71								
	Band 2	Ant 1	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	22.92	22.99								
	Band 2	Ant 2	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	23.24	23.38								
	Band 2	Ant 3	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	22.86	22.91								
CA_2A-4A-7A	Band 4	Ant 0	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	22.87	22.96								
	Band 4	Ant 1	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	23.30	23.35								
	Band 4	Ant 2	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	22.68	22.85								
	Band 4	Ant 3	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	22.57	22.71								
CA_2A-5A-6A	Band 2	Ant 0	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	22.65	22.69								
	Band 2	Ant 1	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	23.28	23.38								
	Band 2	Ant 2	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	23.33	22.91								
	Band 4	Ant 0	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	22.77	22.77								
CA_2A-5A-7A	Band 4	Ant 1	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	22.91	22.99								
	Band 4	Ant 2	20M	1732.5	20175	QPSK	1	0		4xMMIMO	Band 7	20M	2655	3100	4xMMIMO	4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	22.50	22.61								
	Band 7	Ant 0	20M	2535	21100	QPSK	1	0		4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	23.41	23.51								
	Band 7	Ant 1	20M	2535	21100	QPSK	1	0		4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	23.43	23.55								
CA_2A-6A-6A	Band 7	Ant 2	20M	2535	21100	QPSK	1	0		4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	Band 4	20M	2132.5	2175	4xMMIMO	4xMMIMO	23.53	23.65								
	Band 2	Ant 0	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	Band 6	20M	2155	6888	4xMMIMO	4xMMIMO	22.58	22.71								
	Band 2	Ant 1	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	Band 6	20M	2155	6888	4xMMIMO	4xMMIMO	22.59	22.69								
	Band 2	Ant 2	20M	1880	18800	QPSK	1	0		4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	Band 6	20M	2155	6888	4xMMIMO	4xMMIMO	23.38	23.38								
CA_2A-6A-7A	Band 5	Ant 0	10M	836.5	20525	QPSK	1	0		4xMMIMO	Band 6	20M	2155	6888	4xMMIMO	4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	22.76	22.91								
	Band 5	Ant 1	10M	836.5	20525	QPSK	1	0		4xMMIMO	Band 6	20M	2155	6888	4xMMIMO	4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	23.31	23.35								
	Band 6	Ant 0	20M	1745	13232	QPSK	1	0		4xMMIMO	Band 2	20M	1880	900	4xMMIMO	4xMMIMO	Band 5	10M	891.5	2525	4xMMIMO	4xMMIMO	22.70	22.77								
	Band 6	Ant 1	20M																													

3CA List	PCC										SCC1										SCC2										Power	
	LTE	BW	BW	UL	UL	Mod.	RB	RB	UL Offset	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	With CA	Without CA										
	Band	Ant	(MHz)	Freq (MHz)	Channel						Band	(MHz)	Freq (MHz)	Channel		Band	(MHz)	Freq (MHz)	Channel		Tx Power (dBm)	Tx Power (dBm)										
CA_5A-5A-66A	Band 5	Ant 0	10M	836.5	20525	QPSK	1	0			Band 5	5M	891.5	2625			Band 66	20M	2155	66886	4x4MMMO	23.26	23.35									
	Band 5	Ant 1	10M	836.5	20525	QPSK	1	0			Band 5	5M	891.5	2625			Band 66	20M	2155	66886	4x4MMMO	22.75	22.85									
	Band 66	Ant 0	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 5	10M	881.5	2525			Band 5	5M	891.5	2625		22.68	22.77									
	Band 66	Ant 1	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 5	10M	881.5	2525			Band 5	5M	891.5	2625		22.96	23.11									
	Band 66	Ant 2	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 5	10M	881.5	2525			Band 5	5M	891.5	2625		23.30	23.35									
	Band 66	Ant 3	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 5	10M	881.5	2525			Band 5	5M	891.5	2625		22.96	23.06									
	Band 5	Ant 0	10M	836.5	20525	QPSK	1	0			Band 66	20M	2155	66886	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO	23.25	23.35									
	Band 5	Ant 1	10M	836.5	20525	QPSK	1	0			Band 66	20M	2155	66886	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO	22.77	22.85									
	Band 7	Ant 0	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 5	10M	881.5	2525			Band 66	20M	2155	66886	4x4MMMO	23.42	23.51									
	Band 7	Ant 1	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 5	10M	881.5	2525			Band 66	20M	2155	66886	4x4MMMO	23.39	23.55									
CA_5A-7A-66A	Band 7	Ant 2	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 5	10M	881.5	2525			Band 66	20M	2155	66886	4x4MMMO	23.48	23.65									
	Band 7	Ant 3	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 5	10M	881.5	2525			Band 66	20M	2155	66886	4x4MMMO	23.58	23.66									
	Band 66	Ant 0	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 5	10M	881.5	2525		22.72	22.77									
	Band 66	Ant 1	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 5	10M	881.5	2525		22.95	23.11									
	Band 66	Ant 2	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 5	10M	881.5	2525		23.21	23.35									
	Band 66	Ant 3	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 5	10M	881.5	2525		23.02	23.06									
	Band 5	Ant 0	10M	836.5	20525	QPSK	1	0			Band 7	20M	2655	3100	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO	23.19	23.35									
	Band 5	Ant 1	10M	836.5	20525	QPSK	1	0			Band 7	20M	2655	3100	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO	22.78	22.85									
	Band 7	Ant 0	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO		Band 5	10M	881.5	2525		23.40	23.51									
	Band 7	Ant 1	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO		Band 5	10M	881.5	2525		23.38	23.55									
CA_5A-7C	Band 7	Ant 2	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO		Band 5	10M	881.5	2525		23.58	23.66									
	Band 7	Ant 3	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO		Band 5	10M	881.5	2525		23.56	23.66									
	Band 5	Ant 0	10M	836.5	20525	QPSK	1	0			Band 66	20M	2155	66886	4x4MMMO		Band 66	5M	2197.5	67311	4x4MMMO	23.28	23.35									
	Band 5	Ant 1	10M	836.5	20525	QPSK	1	0			Band 66	20M	2155	66886	4x4MMMO		Band 66	5M	2197.5	67311	4x4MMMO	22.71	22.85									
	Band 66	Ant 0	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 66	5M	2197.5	67311	4x4MMMO		Band 5	10M	881.5	2525		22.59	22.77									
	Band 66	Ant 1	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 66	5M	2197.5	67311	4x4MMMO		Band 5	10M	881.5	2525		23.01	23.11									
	Band 66	Ant 2	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 66	5M	2197.5	67311	4x4MMMO		Band 5	10M	881.5	2525		23.30	23.35									
	Band 66	Ant 3	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 66	5M	2197.5	67311	4x4MMMO		Band 5	10M	881.5	2525		23.04	23.06									
	Band 7	Ant 0	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 26	10M	751	5230			Band 66	20M	2155	66886	4x4MMMO	23.38	23.51									
	Band 7	Ant 1	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 26	10M	751	5230			Band 66	20M	2155	66886	4x4MMMO	23.43	23.55									
CA_5A-66A-66A	Band 7	Ant 2	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 26	10M	751	5230			Band 66	20M	2155	66886	4x4MMMO	23.48	23.65									
	Band 7	Ant 3	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 26	10M	751	5230			Band 66	20M	2155	66886	4x4MMMO	23.57	23.66									
	Band 26	Ant 0	20M	831.5	26865	QPSK	1	0			Band 66	20M	2155	66886	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO	23.28	23.38									
	Band 26	Ant 1	20M	831.5	26865	QPSK	1	0			Band 66	20M	2155	66886	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO	22.78	22.91									
	Band 66	Ant 0	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 26	10M	751	5230		22.73	22.77									
	Band 66	Ant 1	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 26	10M	751	5230		23.06	23.11									
	Band 66	Ant 2	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 26	10M	751	5230		23.29	23.35									
	Band 66	Ant 3	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 26	10M	751	5230		22.89	23.06									
	Band 7	Ant 0	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO		Band 66	20M	2155	66886	4x4MMMO	23.37	23.51									
	Band 7	Ant 1	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO		Band 66	20M	2155	66886	4x4MMMO	23.52	23.55									
CA_7C-66A	Band 7	Ant 2	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO		Band 66	20M	2155	66886	4x4MMMO	23.62	23.66									
	Band 7	Ant 3	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO		Band 66	20M	2155	66886	4x4MMMO	23.59	23.65									
	Band 66	Ant 0	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO	23.46	23.66									
	Band 66	Ant 1	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO	22.74	22.77									
	Band 66	Ant 2	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO	22.86	23.11									
	Band 66	Ant 3	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO	23.23	23.35									
	Band 66	Ant 0	20M	1745	132322	QPSK	1	0	4x4MMMO		Band 7	20M	2655	3100	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO	23.03	23.06									
	Band 7	Ant 1	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 42	20M	3500	42590	4x4MMMO		Band 42	5M	3547.5	43065	4x4MMMO	23.35	23.51									
	Band 7	Ant 2	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 42	20M	3500	42590	4x4MMMO		Band 42	5M	3547.5	43065	4x4MMMO	23.39	23.55									
	Band 7	Ant 3	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 42	20M	3500	42590	4x4MMMO		Band 42	5M	3547.5	43065	4x4MMMO	23.61	23.65									
CA_7A-26A-66A	Band 7	Ant 0	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 42	20M	3500	42590	4x4MMMO		Band 42	5M	3547.5	43065	4x4MMMO	23.55	23.66									
	Band 42	Ant 0	20M	3500	42590	QPSK	1	0	4x4MMMO		Band 42	5M	3547.5	43065	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO	23.71	23.78									
	Band 42	Ant 1	20M	3500	42590	QPSK	1	0	4x4MMMO		Band 42	5M	3547.5	43065	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO	23.23	23.35									
	Band 42	Ant 2	20M	3500	42590	QPSK	1	0	4x4MMMO		Band 42	5M	3547.5	43065	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO	22.82	22.92									
	Band 42	Ant 3	20M	3500	42590	QPSK	1	0	4x4MMMO		Band 42	5M	3547.5	43065	4x4MMMO		Band 7	20M	2554.8	3298	4x4MMMO	22.81	22.95									
	Band 7	Ant 0	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 38	20M	2599.8	38048	4x4MMMO		Band 66	20M	2155	66886	4x4MMMO	23.45	23.51									
	Band 7	Ant 1	20M	2535	21100	QPSK	1	0	4x4MMMO		Band 38	20M	2599.8	38048	4x4MMMO		Band 66	20M	2155	66886	4x4MMMO	23.47	23.55									
	Band 7	Ant 2	20M	2535	21100	Q																										

Uplink CA Power

Full&Default& ECI4 Power Mode

CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.92	24.00
21100	21298	QPSK	1	99	1	0	22.02	24.00
21350	21152	QPSK	1	99	1	0	22.93	24.00

CA_38C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	23.3	25.00
37901	38099	QPSK	1	99	1	0	23.35	25.00
38150	37952	QPSK	1	99	1	0	23.24	25.00

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.71	24.00
21100	21298	QPSK	1	99	1	0	22.7	24.00
21350	21152	QPSK	1	99	1	0	22.71	24.00

CA_38C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.62	24.00
37901	38099	QPSK	1	99	1	0	22.69	24.00
38150	37952	QPSK	1	99	1	0	22.65	24.00

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.59	24.00
21100	21298	QPSK	1	99	1	0	22.59	24.00
21350	21152	QPSK	1	99	1	0	22.48	24.00

CA_38C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	23.11	25.00
37901	38099	QPSK	1	99	1	0	23.21	25.00
38150	37952	QPSK	1	99	1	0	23.08	25.00

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.44	24.00
21100	21298	QPSK	1	99	1	0	22.5	24.00
21350	21152	QPSK	1	99	1	0	22.48	24.00

CA_38C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.7	25.00
37901	38099	QPSK	1	99	1	0	22.78	25.00
38150	37952	QPSK	1	99	1	0	22.69	25.00

CA_41C Ant 2									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	23.1	25.00	
40185	40383	QPSK	1	99	1	0	23.25	25.00	
40620	40818	QPSK	1	99	1	0	23.35	25.00	
41055	41253	QPSK	1	99	1	0	23.27	25.00	
41490	41292	QPSK	1	0	1	99	23.23	25.00	

CA_41C HPUE Ant 2									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	26.07	28.00	
40185	40383	QPSK	1	99	1	0	26.20	28.00	
40620	40818	QPSK	1	99	1	0	26.32	28.00	
41055	41253	QPSK	1	99	1	0	26.1	28.00	
41490	41292	QPSK	1	0	1	99	26.16	28.00	

CA_41C Ant 3									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	22.41	24.00	
40185	40383	QPSK	1	99	1	0	22.54	24.00	
40620	40818	QPSK	1	99	1	0	22.76	24.00	
41055	41253	QPSK	1	99	1	0	22.57	24.00	
41490	41292	QPSK	1	0	1	99	22.65	24.00	

CA_41C HPUE Ant 3									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	25.5	27.00	
40185	40383	QPSK	1	99	1	0	25.51	27.00	
40620	40818	QPSK	1	99	1	0	25.64	27.00	
41055	41253	QPSK	1	99	1	0	25.54	27.00	
41490	41292	QPSK	1	0	1	99	25.43	27.00	

CA_41C Ant 0									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	23.03	25.00	
40185	40383	QPSK	1	99	1	0	23.1	25.00	
40620	40818	QPSK	1	99	1	0	23.26	25.00	
41055	41253	QPSK	1	99	1	0	23.21	25.00	
41490	41292	QPSK	1	0	1	99	23.11	25.00	

CA_41C HPUE Ant 0									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	25.91	28.00	
40185	40383	QPSK	1	99	1	0	25.92	28.00	
40620	40818	QPSK	1	99	1	0	26.03	28.00	
41055	41253	QPSK	1	99	1	0	25.81	28.00	
41490	41292	QPSK	1	0	1	99	25.97	28.00	

CA_41C Ant 1									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	22.63	25.00	
40185	40383	QPSK	1	99	1	0	22.64	25.00	
40620	40818	QPSK	1	99	1	0	22.86	25.00	
41055	41253	QPSK	1	99	1	0	22.76	25.00	
41490	41292	QPSK	1	0	1	99	22.71	25.00	

CA_41C HPUE Ant 1									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	25.79	27.00	
40185	40383	QPSK	1	99	1	0	25.77	27.00	
40620	40818	QPSK	1	99	1	0	25.87	27.00	
41055	41253	QPSK	1	99	1	0	25.69	27.00	
41490	41292	QPSK	1	0	1	99	25.65	27.00	

CA_42C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	22.69	24.00
42590	42788	QPSK	1	99	1	0	22.83	24.00
42990	42792	QPSK	1	0	1	99	22.75	24.00

CA_42C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	22.34	24.00
42590	42788	QPSK	1	99	1	0	22.46	24.00
42990	42792	QPSK	1	0	1	99	22.41	24.00

CA_42C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	23.49	24.00
42590	42788	QPSK	1	99	1	0	23.61	24.00
42990	42792	QPSK	1	0	1	99	23.42	24.00

CA_42C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	22.58	24.00
42590	42788	QPSK	1	99	1	0	22.71	24.00
42990	42792	QPSK	1	0	1	99	22.57	24.00

Reduced Power Mode for ECI2

CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	13.91	15.40
21100	21298	QPSK	1	99	1	0	13.95	15.40
21350	21152	QPSK	1	99	1	0	13.92	15.40

CA_38C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	14.46	15.50
37901	38099	QPSK	1	99	1	0	14.51	15.50
38150	37952	QPSK	1	99	1	0	14.4	15.50

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	15.15	16.30
21100	21298	QPSK	1	99	1	0	15.19	16.30
21350	21152	QPSK	1	99	1	0	15.04	16.30

CA_38C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	17.82	18.70
37901	38099	QPSK	1	99	1	0	17.85	18.70
38150	37952	QPSK	1	99	1	0	17.81	18.70

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.59	24.00
21100	21298	QPSK	1	99	1	0	22.59	24.00
21350	21152	QPSK	1	99	1	0	22.48	24.00

CA_38C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	23.11	25.00
37901	38099	QPSK	1	99	1	0	23.21	25.00
38150	37952	QPSK	1	99	1	0	23.08	25.00

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.44	24.00
21100	21298	QPSK	1	99	1	0	22.5	24.00
21350	21152	QPSK	1	99	1	0	22.48	24.00

CA_38C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.7	25.00
37901	38099	QPSK	1	99	1	0	22.78	25.00
38150	37952	QPSK	1	99	1	0	22.69	25.00

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	14.45	15.50
40185	40383	QPSK	1	99	1	0	14.53	15.50
40620	40818	QPSK	1	99	1	0	14.62	15.50
41055	41253	QPSK	1	99	1	0	14.56	15.50
41490	41292	QPSK	1	0	1	99	14.48	15.50

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	15.47	17.10
40185	40383	QPSK	1	99	1	0	15.53	17.10
40620	40818	QPSK	1	99	1	0	15.65	17.10
41055	41253	QPSK	1	99	1	0	15.41	17.10
41490	41292	QPSK	1	0	1	99	15.57	17.10

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	17.79	18.70
40185	40383	QPSK	1	99	1	0	17.77	18.70
40620	40818	QPSK	1	99	1	0	17.92	18.70
41055	41253	QPSK	1	99	1	0	17.87	18.70
41490	41292	QPSK	1	0	1	99	17.73	18.70

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19	20.30
40185	40383	QPSK	1	99	1	0	19.03	20.30
40620	40818	QPSK	1	99	1	0	19.03	20.30
41055	41253	QPSK	1	99	1	0	18.97	20.30
41490	41292	QPSK	1	0	1	99	18.94	20.30

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.03	25.00
40185	40383	QPSK	1	99	1	0	23.1	25.00
40620	40818	QPSK	1	99	1	0	23.26	25.00
41055	41253	QPSK	1	99	1	0	23.21	25.00
41490	41292	QPSK	1	0	1	99	23.11	25.00

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.91	28.00
40185	40383	QPSK	1	99	1	0	25.92	28.00
40620	40818	QPSK	1	99	1	0	26.03	28.00
41055	41253	QPSK	1	99	1	0	25.81	28.00
41490	41292	QPSK	1	0	1	99	25.97	28.00

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.63	25.00
40185	40383	QPSK	1	99	1	0	22.64	25.00
40620	40818	QPSK	1	99	1	0	22.86	25.00
41055	41253	QPSK	1	99	1	0	22.76	25.00
41490	41292	QPSK	1	0	1	99	22.71	25.00

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.79	27.00
40185	40383	QPSK	1	99	1	0	25.77	27.00
40620	40818	QPSK	1	99	1	0	25.87	27.00
41055	41253	QPSK	1	99	1	0	25.69	27.00
41490	41292	QPSK	1	0	1	99	25.65	27.00

CA_42C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	14.15	15.10
42590	42788	QPSK	1	99	1	0	14.2	15.10
42990	42792	QPSK	1	0	1	99	14.04	15.10

CA_42C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	15.03	16.30
42590	42788	QPSK	1	99	1	0	15.04	16.30
42990	42792	QPSK	1	0	1	99	14.95	16.30

CA_42C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	15.24	16.70
42590	42788	QPSK	1	99	1	0	15.39	16.70
42990	42792	QPSK	1	0	1	99	15.35	16.70

CA_42C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	20.95	22.20
42590	42788	QPSK	1	99	1	0	21.06	22.20
42990	42792	QPSK	1	0	1	99	20.99	22.20

Reduced Power Mode for ECI3

CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	16.56	18.00
21100	21298	QPSK	1	99	1	0	16.66	18.00
21350	21152	QPSK	1	99	1	0	16.65	18.00

CA_38C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	17.88	18.90
37901	38099	QPSK	1	99	1	0	17.98	18.90
38150	37952	QPSK	1	99	1	0	17.95	18.90

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	18.24	19.60
21100	21298	QPSK	1	99	1	0	18.25	19.60
21350	21152	QPSK	1	99	1	0	18.16	19.60

CA_38C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	20.51	21.40
37901	38099	QPSK	1	99	1	0	20.54	21.40
38150	37952	QPSK	1	99	1	0	20.41	21.40

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	20.77	22.20
21100	21298	QPSK	1	99	1	0	20.88	22.20
21350	21152	QPSK	1	99	1	0	20.85	22.20

CA_38C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.04	23.20
37901	38099	QPSK	1	99	1	0	22.14	23.20
38150	37952	QPSK	1	99	1	0	22.11	23.20

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	20.62	22.00
21100	21298	QPSK	1	99	1	0	20.75	22.00
21350	21152	QPSK	1	99	1	0	20.72	22.00

CA_38C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	21.07	22.10
37901	38099	QPSK	1	99	1	0	21.11	22.10
38150	37952	QPSK	1	99	1	0	21.1	22.10

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	17.57	18.90
40185	40383	QPSK	1	99	1	0	17.62	18.90
40620	40818	QPSK	1	99	1	0	17.71	18.90
41055	41253	QPSK	1	99	1	0	17.58	18.90
41490	41292	QPSK	1	0	1	99	17.68	18.90

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.92	20.50
40185	40383	QPSK	1	99	1	0	18.92	20.50
40620	40818	QPSK	1	99	1	0	18.96	20.50
41055	41253	QPSK	1	99	1	0	19.02	20.50
41490	41292	QPSK	1	0	1	99	18.92	20.50

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.26	21.40
40185	40383	QPSK	1	99	1	0	20.18	21.40
40620	40818	QPSK	1	99	1	0	20.34	21.40
41055	41253	QPSK	1	99	1	0	20.31	21.40
41490	41292	QPSK	1	0	1	99	20.24	21.40

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.4	23.00
40185	40383	QPSK	1	99	1	0	21.52	23.00
40620	40818	QPSK	1	99	1	0	21.6	23.00
41055	41253	QPSK	1	99	1	0	21.48	23.00
41490	41292	QPSK	1	0	1	99	21.5	23.00

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.63	23.20
40185	40383	QPSK	1	99	1	0	21.61	23.20
40620	40818	QPSK	1	99	1	0	21.76	23.20
41055	41253	QPSK	1	99	1	0	21.59	23.20
41490	41292	QPSK	1	0	1	99	21.53	23.20

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.01	24.80
40185	40383	QPSK	1	99	1	0	23.11	24.80
40620	40818	QPSK	1	99	1	0	23.19	24.80
41055	41253	QPSK	1	99	1	0	23.1	24.80
41490	41292	QPSK	1	0	1	99	23.07	24.80

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.98	22.10
40185	40383	QPSK	1	99	1	0	20.97	22.10
40620	40818	QPSK	1	99	1	0	21.1	22.10
41055	41253	QPSK	1	99	1	0	20.95	22.10
41490	41292	QPSK	1	0	1	99	20.95	22.10

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.19	23.70
40185	40383	QPSK	1	99	1	0	22.20	23.70
40620	40818	QPSK	1	99	1	0	22.42	23.70
41055	41253	QPSK	1	99	1	0	22.29	23.70
41490	41292	QPSK	1	0	1	99	22.15	23.70

CA_42C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	16.31	17.80
42590	42788	QPSK	1	99	1	0	16.48	17.80
42990	42792	QPSK	1	0	1	99	16.44	17.80

CA_42C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	22.16	23.70
42590	42788	QPSK	1	99	1	0	22.3	23.70
42990	42792	QPSK	1	0	1	99	22.2	23.70

CA_42C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	17.52	19.00
42590	42788	QPSK	1	99	1	0	17.59	19.00
42990	42792	QPSK	1	0	1	99	17.57	19.00

CA_42C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	21.26	22.80
42590	42788	QPSK	1	99	1	0	21.32	22.80
42990	42792	QPSK	1	0	1	99	21.23	22.80

Reduced Power Mode for EC19

CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	13.44	15.00
21100	21298	QPSK	1	99	1	0	13.45	15.00
21350	21152	QPSK	1	99	1	0	13.38	15.00

CA_38C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	16.21	17.30
37901	38099	QPSK	1	99	1	0	16.29	17.30
38150	37952	QPSK	1	99	1	0	16.2	17.30

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	13.47	15.20
21100	21298	QPSK	1	99	1	0	13.59	15.20
21350	21152	QPSK	1	99	1	0	13.47	15.20

CA_38C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	15.66	16.90
37901	38099	QPSK	1	99	1	0	15.76	16.90
38150	37952	QPSK	1	99	1	0	15.73	16.90

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	20.16	21.80
21100	21298	QPSK	1	99	1	0	20.28	21.80
21350	21152	QPSK	1	99	1	0	20.27	21.80

CA_38C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	21.41	22.60
37901	38099	QPSK	1	99	1	0	21.51	22.60
38150	37952	QPSK	1	99	1	0	21.42	22.60

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.97	21.50
21100	21298	QPSK	1	99	1	0	20.06	21.50
21350	21152	QPSK	1	99	1	0	20.05	21.50

CA_38C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	19.37	20.90
37901	38099	QPSK	1	99	1	0	19.4	20.90
38150	37952	QPSK	1	99	1	0	19.36	20.90

CA_41C Ant 2							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
39750	39948	QPSK	1	99	1	0	16.11
40185	40383	QPSK	1	99	1	0	16.17
40620	40818	QPSK	1	99	1	0	16.27
41055	41253	QPSK	1	99	1	0	16.22
41490	41292	QPSK	1	0	1	99	16.22

CA_41C HPUE Ant 2							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
39750	39948	QPSK	1	99	1	0	17.36
40185	40383	QPSK	1	99	1	0	17.5
40620	40818	QPSK	1	99	1	0	17.59
41055	41253	QPSK	1	99	1	0	17.56
41490	41292	QPSK	1	0	1	99	17.54

CA_41C Ant 3							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
39750	39948	QPSK	1	99	1	0	15.63
40185	40383	QPSK	1	99	1	0	15.81
40620	40818	QPSK	1	99	1	0	15.87
41055	41253	QPSK	1	99	1	0	15.68
41490	41292	QPSK	1	0	1	99	15.77

CA_41C HPUE Ant 3							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
39750	39948	QPSK	1	99	1	0	16.96
40185	40383	QPSK	1	99	1	0	16.83
40620	40818	QPSK	1	99	1	0	17.01
41055	41253	QPSK	1	99	1	0	16.93
41490	41292	QPSK	1	0	1	99	16.84

CA_41C Ant 0							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
39750	39948	QPSK	1	99	1	0	21.38
40185	40383	QPSK	1	99	1	0	21.54
40620	40818	QPSK	1	99	1	0	21.57
41055	41253	QPSK	1	99	1	0	21.51
41490	41292	QPSK	1	0	1	99	21.42

CA_41C HPUE Ant 0							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
39750	39948	QPSK	1	99	1	0	22.7
40185	40383	QPSK	1	99	1	0	22.65
40620	40818	QPSK	1	99	1	0	22.83
41055	41253	QPSK	1	99	1	0	22.81
41490	41292	QPSK	1	0	1	99	22.7

CA_41C Ant 1							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
39750	39948	QPSK	1	99	1	0	19.32
40185	40383	QPSK	1	99	1	0	19.38
40620	40818	QPSK	1	99	1	0	19.5
41055	41253	QPSK	1	99	1	0	19.45
41490	41292	QPSK	1	0	1	99	19.47

CA_41C HPUE Ant 1							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
39750	39948	QPSK	1	99	1	0	20.66
40185	40383	QPSK	1	99	1	0	20.62
40620	40818	QPSK	1	99	1	0	20.76
41055	41253	QPSK	1	99	1	0	20.58
41490	41292	QPSK	1	0	1	99	20.62

CA_42C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	13.89	15.30
42590	42788	QPSK	1	99	1	0	13.99	15.30
42990	42792	QPSK	1	0	1	99	13.9	15.30

CA_42C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	15.54	17.20
42590	42788	QPSK	1	99	1	0	15.55	17.20
42990	42792	QPSK	1	0	1	99	15.53	17.20

CA_42C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	12.86	14.30
42590	42788	QPSK	1	99	1	0	12.94	14.30
42990	42792	QPSK	1	0	1	99	12.84	14.30

CA_42C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	20.2	21.60
42590	42788	QPSK	1	99	1	0	20.3	21.60
42990	42792	QPSK	1	0	1	99	20.25	21.60

Reduced Power Mode for ECI6

CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.71	21.20
21100	21298	QPSK	1	99	1	0	19.72	21.20
21350	21152	QPSK	1	99	1	0	19.66	21.20

CA_38C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	21.22	23.00
37901	38099	QPSK	1	99	1	0	21.25	23.00
38150	37952	QPSK	1	99	1	0	21.18	23.00

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	18.22	19.90
21100	21298	QPSK	1	99	1	0	18.3	19.90
21350	21152	QPSK	1	99	1	0	18.23	19.90

CA_38C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	20.31	22.20
37901	38099	QPSK	1	99	1	0	20.33	22.20
38150	37952	QPSK	1	99	1	0	20.24	22.20

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	21.88	23.70
21100	21298	QPSK	1	99	1	0	21.91	23.70
21350	21152	QPSK	1	99	1	0	21.84	23.70

CA_38C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	23.11	25.00
37901	38099	QPSK	1	99	1	0	23.21	25.00
38150	37952	QPSK	1	99	1	0	23.08	25.00

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.44	23.80
21100	21298	QPSK	1	99	1	0	22.5	23.80
21350	21152	QPSK	1	99	1	0	22.48	23.80

CA_38C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.7	25.00
37901	38099	QPSK	1	99	1	0	22.78	25.00
38150	37952	QPSK	1	99	1	0	22.69	25.00

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.14	23.00
40185	40383	QPSK	1	99	1	0	21.16	23.00
40620	40818	QPSK	1	99	1	0	21.35	23.00
41055	41253	QPSK	1	99	1	0	21.32	23.00
41490	41292	QPSK	1	0	1	99	21.25	23.00

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.53	24.60
40185	40383	QPSK	1	99	1	0	23.45	24.60
40620	40818	QPSK	1	99	1	0	23.64	24.60
41055	41253	QPSK	1	99	1	0	23.5	24.60
41490	41292	QPSK	1	0	1	99	23.43	24.60

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.04	22.20
40185	40383	QPSK	1	99	1	0	20.14	22.20
40620	40818	QPSK	1	99	1	0	20.27	22.20
41055	41253	QPSK	1	99	1	0	20.16	22.20
41490	41292	QPSK	1	0	1	99	20.08	22.20

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.33	23.80
40185	40383	QPSK	1	99	1	0	22.45	23.80
40620	40818	QPSK	1	99	1	0	22.49	23.80
41055	41253	QPSK	1	99	1	0	22.39	23.80
41490	41292	QPSK	1	0	1	99	22.37	23.80

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.03	25.00
40185	40383	QPSK	1	99	1	0	23.1	25.00
40620	40818	QPSK	1	99	1	0	23.26	25.00
41055	41253	QPSK	1	99	1	0	23.21	25.00
41490	41292	QPSK	1	0	1	99	23.11	25.00

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.91	28.00
40185	40383	QPSK	1	99	1	0	25.92	28.00
40620	40818	QPSK	1	99	1	0	26.03	28.00
41055	41253	QPSK	1	99	1	0	25.81	28.00
41490	41292	QPSK	1	0	1	99	25.97	28.00

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.63	25.00
40185	40383	QPSK	1	99	1	0	22.64	25.00
40620	40818	QPSK	1	99	1	0	22.86	25.00
41055	41253	QPSK	1	99	1	0	22.76	25.00
41490	41292	QPSK	1	0	1	99	22.71	25.00

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.79	27.00
40185	40383	QPSK	1	99	1	0	25.77	27.00
40620	40818	QPSK	1	99	1	0	25.87	27.00
41055	41253	QPSK	1	99	1	0	25.69	27.00
41490	41292	QPSK	1	0	1	99	25.65	27.00

CA_42C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	17.92	19.40
42590	42788	QPSK	1	99	1	0	17.97	19.40
42990	42792	QPSK	1	0	1	99	17.94	19.40

CA_42C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	22.34	24.00
42590	42788	QPSK	1	99	1	0	22.46	24.00
42990	42792	QPSK	1	0	1	99	22.41	24.00

CA_42C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	20.53	22.10
42590	42788	QPSK	1	99	1	0	20.65	22.10
42990	42792	QPSK	1	0	1	99	20.49	22.10

CA_42C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	22.58	24.00
42590	42788	QPSK	1	99	1	0	22.71	24.00
42990	42792	QPSK	1	0	1	99	22.57	24.00

Reduced Power Mode for ECI5

CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	18.18	19.50
21100	21298	QPSK	1	99	1	0	18.19	19.50
21350	21152	QPSK	1	99	1	0	18.13	19.50

CA_38C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	19.52	20.80
37901	38099	QPSK	1	99	1	0	19.58	20.80
38150	37952	QPSK	1	99	1	0	19.5	20.80

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.51	21.10
21100	21298	QPSK	1	99	1	0	19.66	21.10
21350	21152	QPSK	1	99	1	0	19.59	21.10

CA_38C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	21.81	22.90
37901	38099	QPSK	1	99	1	0	21.91	22.90
38150	37952	QPSK	1	99	1	0	21.75	22.90

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.83	21.20
21100	21298	QPSK	1	99	1	0	19.92	21.20
21350	21152	QPSK	1	99	1	0	19.87	21.20

CA_38C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.62	23.90
37901	38099	QPSK	1	99	1	0	22.71	23.90
38150	37952	QPSK	1	99	1	0	22.68	23.90

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.48	21.00
21100	21298	QPSK	1	99	1	0	19.51	21.00
21350	21152	QPSK	1	99	1	0	19.48	21.00

CA_38C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.09	23.60
37901	38099	QPSK	1	99	1	0	22.13	23.60
38150	37952	QPSK	1	99	1	0	22.04	23.60

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.35	20.80
40185	40383	QPSK	1	99	1	0	19.2	20.80
40620	40818	QPSK	1	99	1	0	19.36	20.80
41055	41253	QPSK	1	99	1	0	19.28	20.80
41490	41292	QPSK	1	0	1	99	19.27	20.80

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.47	22.40
40185	40383	QPSK	1	99	1	0	20.5	22.40
40620	40818	QPSK	1	99	1	0	20.55	22.40
41055	41253	QPSK	1	99	1	0	20.52	22.40
41490	41292	QPSK	1	0	1	99	20.6	22.40

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.85	22.90
40185	40383	QPSK	1	99	1	0	21.71	22.90
40620	40818	QPSK	1	99	1	0	21.92	22.90
41055	41253	QPSK	1	99	1	0	21.8	22.90
41490	41292	QPSK	1	0	1	99	21.69	22.90

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.95	24.50
40185	40383	QPSK	1	99	1	0	22.89	24.50
40620	40818	QPSK	1	99	1	0	23.05	24.50
41055	41253	QPSK	1	99	1	0	22.94	24.50
41490	41292	QPSK	1	0	1	99	23.04	24.50

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.28	23.90
40185	40383	QPSK	1	99	1	0	22.3	23.90
40620	40818	QPSK	1	99	1	0	22.46	23.90
41055	41253	QPSK	1	99	1	0	22.39	23.90
41490	41292	QPSK	1	0	1	99	22.41	23.90

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.53	25.50
40185	40383	QPSK	1	99	1	0	23.6	25.50
40620	40818	QPSK	1	99	1	0	23.74	25.50
41055	41253	QPSK	1	99	1	0	23.66	25.50
41490	41292	QPSK	1	0	1	99	23.7	25.50

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.98	23.60
40185	40383	QPSK	1	99	1	0	21.97	23.60
40620	40818	QPSK	1	99	1	0	22.06	23.60
41055	41253	QPSK	1	99	1	0	21.99	23.60
41490	41292	QPSK	1	0	1	99	21.92	23.60

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.61	25.20
40185	40383	QPSK	1	99	1	0	23.63	25.20
40620	40818	QPSK	1	99	1	0	23.65	25.20
41055	41253	QPSK	1	99	1	0	23.59	25.20
41490	41292	QPSK	1	0	1	99	23.59	25.20

CA_42C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	20.48	21.80
42590	42788	QPSK	1	99	1	0	20.57	21.80
42990	42792	QPSK	1	0	1	99	20.49	21.80

CA_42C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	19.14	20.60
42590	42788	QPSK	1	99	1	0	19.22	20.60
42990	42792	QPSK	1	0	1	99	19.21	20.60

CA_42C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	18.39	20.00
42590	42788	QPSK	1	99	1	0	18.53	20.00
42990	42792	QPSK	1	0	1	99	18.46	20.00

CA_42C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	22.58	24.00
42590	42788	QPSK	1	99	1	0	22.71	24.00
42990	42792	QPSK	1	0	1	99	22.57	24.00

Reduced Power Mode for ECI10

CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	13.02	14.20
21100	21298	QPSK	1	99	1	0	13.07	14.20
21350	21152	QPSK	1	99	1	0	12.97	14.20

CA_38C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	14.9	16.20
37901	38099	QPSK	1	99	1	0	15.02	16.20
38150	37952	QPSK	1	99	1	0	14.97	16.20

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	15.67	16.80
21100	21298	QPSK	1	99	1	0	15.72	16.80
21350	21152	QPSK	1	99	1	0	15.67	16.80

CA_38C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	17.32	18.80
37901	38099	QPSK	1	99	1	0	17.35	18.80
38150	37952	QPSK	1	99	1	0	17.31	18.80

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.21	20.60
21100	21298	QPSK	1	99	1	0	19.3	20.60
21350	21152	QPSK	1	99	1	0	19.16	20.60

CA_38C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.05	22.80
37901	38099	QPSK	1	99	1	0	22.06	22.80
38150	37952	QPSK	1	99	1	0	21.99	22.80

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	17.55	18.70
21100	21298	QPSK	1	99	1	0	17.63	18.70
21350	21152	QPSK	1	99	1	0	17.58	18.70

CA_38C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	18.57	20.40
37901	38099	QPSK	1	99	1	0	18.61	20.40
38150	37952	QPSK	1	99	1	0	18.58	20.40

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	14.85	16.20
40185	40383	QPSK	1	99	1	0	14.95	16.20
40620	40818	QPSK	1	99	1	0	15.05	16.20
41055	41253	QPSK	1	99	1	0	14.98	16.20
41490	41292	QPSK	1	0	1	99	14.82	16.20

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	16.06	17.80
40185	40383	QPSK	1	99	1	0	16.01	17.80
40620	40818	QPSK	1	99	1	0	16.09	17.80
41055	41253	QPSK	1	99	1	0	16.02	17.80
41490	41292	QPSK	1	0	1	99	16.01	17.80

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	17.31	18.80
40185	40383	QPSK	1	99	1	0	17.13	18.80
40620	40818	QPSK	1	99	1	0	17.37	18.80
41055	41253	QPSK	1	99	1	0	17.22	18.80
41490	41292	QPSK	1	0	1	99	17.25	18.80

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.47	20.40
40185	40383	QPSK	1	99	1	0	18.43	20.40
40620	40818	QPSK	1	99	1	0	18.58	20.40
41055	41253	QPSK	1	99	1	0	18.52	20.40
41490	41292	QPSK	1	0	1	99	18.47	20.40

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.06	22.80
40185	40383	QPSK	1	99	1	0	21.94	22.80
40620	40818	QPSK	1	99	1	0	22.16	22.80
41055	41253	QPSK	1	99	1	0	22.05	22.80
41490	41292	QPSK	1	0	1	99	21.93	22.80

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.16	24.40
40185	40383	QPSK	1	99	1	0	23.07	24.40
40620	40818	QPSK	1	99	1	0	23.2	24.40
41055	41253	QPSK	1	99	1	0	23.17	24.40
41490	41292	QPSK	1	0	1	99	23.15	24.40

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.6	20.40
40185	40383	QPSK	1	99	1	0	18.58	20.40
40620	40818	QPSK	1	99	1	0	18.66	20.40
41055	41253	QPSK	1	99	1	0	18.59	20.40
41490	41292	QPSK	1	0	1	99	18.56	20.40

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.87	22.00
40185	40383	QPSK	1	99	1	0	19.84	22.00
40620	40818	QPSK	1	99	1	0	20.03	22.00
41055	41253	QPSK	1	99	1	0	19.97	22.00
41490	41292	QPSK	1	0	1	99	19.95	22.00

CA_42C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	12.9	14.40
42590	42788	QPSK	1	99	1	0	13.05	14.40
42990	42792	QPSK	1	0	1	99	13.01	14.40

CA_42C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	16.15	17.30
42590	42788	QPSK	1	99	1	0	16.23	17.30
42990	42792	QPSK	1	0	1	99	16.19	17.30

CA_42C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	17.49	19.00
42590	42788	QPSK	1	99	1	0	17.6	19.00
42990	42792	QPSK	1	0	1	99	17.48	19.00

CA_42C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	99	1	0	19.32	20.80
42590	42788	QPSK	1	99	1	0	19.43	20.80
42990	42792	QPSK	1	0	1	99	19.3	20.80



Full&Default& ECI4 Power Mode_Other PA

n7 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	24.0	0.0
Frequency (MHz)				23.52	23.55	23.45		
50	QPSK	1	1	23.52	23.55	23.45		
50	QPSK	1	135	23.49	23.47	23.39	23.0	1.0
50	QPSK	1	268	23.25	23.47	23.28		
50	QPSK	135	0	22.34	22.34	22.18		
50	QPSK	135	68	23.29	23.24	23.38	23.0	1.0
50	QPSK	135	135	22.44	22.43	22.18		
50	QPSK	270	0	22.30	22.48	22.35		

n41 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509002	516598	528008	24.0	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	23.16	23.25	23.15	24.0	0.0
100	QPSK	1	137	23.15	23.10	23.09		
100	QPSK	1	271	23.07	23.16	23.11	23.0	1.0
100	QPSK	135	0	22.17	22.31	22.14		
100	QPSK	135	69	23.10	23.21	23.12	24.0	0.0
100	QPSK	135	138	22.15	22.21	22.24	23.0	1.0
100	QPSK	270	0	22.24	22.33	22.18		



Reduced Power Mode for EC12_Other PA

n7 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000		
Frequency (MHz)				21925	21935	21945		
50	QPSK	1	1	15.50	15.51	15.50	16.4	0.0
50	QPSK	1	135	15.42	15.44	15.48		
50	QPSK	1	268	15.35	15.48	15.44		
50	QPSK	135	0	15.36	15.37	15.37	16.4	0.0
50	QPSK	135	68	15.40	15.45	15.32	16.4	0.0
50	QPSK	135	135	15.30	15.31	15.29	16.4	0.0
50	QPSK	270	0	15.35	15.45	15.30		



n41 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPR (dB)
Channel				546000	518598	529000		
Frequency (MHz)				2546.01	2592.99	2640	14.8	0.0
100	QPSK	1	1	13.87	13.99	13.91		
100	QPSK	1	137	13.80	13.77	13.85	14.8	0.0
100	QPSK	1	271	13.68	13.67	13.70		
100	QPSK	135	0	13.80	13.86	13.76	14.8	0.0
100	QPSK	135	69	13.88	13.95	13.85	14.8	0.0
100	QPSK	135	138	13.79	13.78	13.68	14.8	0.0
100	QPSK	270	0	13.78	13.82	13.71		



Reduced Power Mode for EC13_Other PA

n7 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000		
Frequency (MHz)				2195	2335	2545		
50	QPSK	1	1	18.63	18.69	18.59	19.9	0.0
50	QPSK	1	135	18.63	18.57	18.58		
50	QPSK	1	268	18.55	18.61	18.58		
50	QPSK	135	0	18.44	18.54	18.47	19.9	0.0
50	QPSK	135	68	18.58	18.62	18.38	19.9	0.0
50	QPSK	135	135	18.40	18.44	18.33	19.9	0.0
50	QPSK	270	0	18.46	18.58	18.42		



n41 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPR (dB)
Channel				546000	518598	529000		
Frequency (MHz)				2546.01	2592.99	2640	19.1	0.0
100	QPSK	1	1	17.80	17.86	17.81		
100	QPSK	1	137	17.66	17.78	17.63		
100	QPSK	1	271	17.70	17.83	17.66		
100	QPSK	135	0	17.76	17.72	17.75		
100	QPSK	135	69	17.77	17.79	17.77	19.1	0.0
100	QPSK	135	138	17.73	17.71	17.71	19.1	0.0
100	QPSK	270	0	17.74	17.75	17.71		



Reduced Power Mode for EC15_Other PA

n7 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	21.7	0.0
Frequency (MHz)				2325	2335	2345		
50	QPSK	1	1	20.34	20.41	20.36		
50	QPSK	1	135	20.28	20.37	20.31	21.7	0.0
50	QPSK	1	268	20.28	20.26	20.14		
50	QPSK	135	0	20.20	20.30	20.19		
50	QPSK	135	68	20.19	20.29	20.29	21.7	0.0
50	QPSK	135	135	20.11	20.27	20.25		
50	QPSK	270	0	20.19	20.29	20.16		



n41 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPR (dB)
Channel				506202	518598	528500		
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	18.36	18.45	18.38	20.0	0.0
100	QPSK	1	137	18.25	18.23	18.09		
100	QPSK	1	271	18.13	18.18	18.10		
100	QPSK	135	0	18.13	18.22	18.14	20.0	0.0
100	QPSK	135	69	18.30	18.39	18.32	20.0	0.0
100	QPSK	135	138	18.18	18.19	18.10	20.0	0.0
100	QPSK	270	0	18.28	18.30	18.23		



Reduced Power Mode for ECI6_Other PA

n7 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000		
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	18.08	18.17	18.10	19.3	0.0
50	QPSK	1	135	18.09	18.04	17.89		
50	QPSK	1	268	17.85	18.02	17.79		
50	QPSK	135	0	17.90	18.00	17.72	19.3	0.0
50	QPSK	135	68	17.88	18.08	17.95	19.3	0.0
50	QPSK	135	135	17.94	18.00	17.88	19.3	0.0
50	QPSK	270	0	17.88	18.01	17.95		



n41 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPR (dB)
Channel				546000	518598	526000		
Frequency (MHz)				2546.01	2592.99	2640	18.4	0.0
100	QPSK	1	1	17.39	17.41	17.39		
100	QPSK	1	137	17.31	17.23	17.25	18.4	0.0
100	QPSK	1	271	17.33	17.34	17.22		
100	QPSK	135	0	17.28	17.25	17.29	18.4	0.0
100	QPSK	135	69	17.38	17.40	17.31	18.4	0.0
100	QPSK	135	138	17.29	17.26	17.31	18.4	0.0
100	QPSK	270	0	17.37	17.38	17.33		



Reduced Power Mode for EC19_Other PA

n7 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000		
Frequency (MHz)				2325	2335	2345		
50	QPSK	1	1	14.55	14.59	14.57	15.4	0.0
50	QPSK	1	135	14.52	14.53	14.43		
50	QPSK	1	268	14.28	14.49	14.21		
50	QPSK	135	0	14.35	14.37	14.20	15.4	0.0
50	QPSK	135	68	14.37	14.29	14.49	15.4	0.0
50	QPSK	135	135	14.45	14.49	14.21	15.4	0.0
50	QPSK	270	0	14.28	14.54	14.40		



n41 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPR (dB)
Channel Frequency (MHz)				506020	518598	528000		
				2546.01	2592.99	2640		
100	QPSK	1	1	12.75	12.79	12.56	14.1	0.0
100	QPSK	1	137	12.68	12.70	12.45		
100	QPSK	1	271	12.47	12.68	12.36		
100	QPSK	135	0	12.54	12.50	12.35	14.1	0.0
100	QPSK	135	69	12.45	12.67	12.38	14.1	0.0
100	QPSK	135	138	12.43	12.44	12.44	14.1	0.0
100	QPSK	270	0	12.31	12.66	12.31		



Reduced Power Mode for ECi10_Other PA

n7 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000		
Frequency (MHz)				2520	2535	2550		
50	QPSK	1	1	16.35	16.47	16.51	17.8	0.0
50	QPSK	1	135	16.29	16.27	16.24		
50	QPSK	1	268	16.11	16.34	16.08		
50	QPSK	135	0	16.14	16.24	15.97	17.8	0.0
50	QPSK	135	68	16.16	16.38	16.24	17.8	0.0
50	QPSK	135	135	16.20	16.28	16.00	17.8	0.0
50	QPSK	270	0	16.13	16.39	16.14		



n41 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (dBm)	MPR (dB)
Channel				546000	518598	526000		
Frequency (MHz)				2546.01	2592.99	2640	14.4	0.0
100	QPSK	1	1	13.33	13.41	13.35		
100	QPSK	1	137	13.22	13.32	13.21	14.4	0.0
100	QPSK	1	271	13.26	13.22	13.24		
100	QPSK	135	0	13.23	13.24	13.31	14.4	0.0
100	QPSK	135	69	13.38	13.39	13.32	14.4	0.0
100	QPSK	135	138	13.27	13.20	13.24	14.4	0.0
100	QPSK	270	0	13.31	13.37	13.32		



Full&Default& EC14 Power Mode

n2 Ant 0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				1470	1480	1490	24.0	0.0
Frequency (MHz)				374000	376000	378000		
40	QPSK	1	1	22.90	22.91	22.77		
40	QPSK	1	108	22.77	22.90	22.80		
40	QPSK	1	214	22.75	22.79	22.78	23.0	1.0
40	QPSK	108	0	21.74	21.75	21.67		
40	QPSK	108	54	22.73	22.85	22.70		
40	QPSK	108	108	21.82	21.67	21.67		
40	QPSK	216	0	21.71	21.77	21.72	23.0	1.0

n5 Ant 0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167900	24.0	0.0
Frequency (MHz)				834	836.5	832		
20	PV2 BPSK	1	1	23.15	23.22	23.10		
20	PV2 BPSK	1	53	23.07	23.06	23.14		
20	PV2 BPSK	1	104	23.11	23.13	22.99	23.5	0.5
20	PV2 BPSK	50	0	22.54	22.61	22.59		
20	PV2 BPSK	50	28	23.06	23.15	23.10		
20	PV2 BPSK	50	56	22.87	22.53	22.41		
20	PV2 BPSK	100	0	22.58	22.66	22.38	24.0	0.0
20	QPSK	1	1	23.06	23.22	22.96		
20	QPSK	1	53	23.04	23.08	22.81		
20	QPSK	1	104	23.00	23.01	22.94		
20	QPSK	50	0	21.84	21.93	21.73	23.0	1.0
20	QPSK	50	28	23.02	23.11	22.92		
20	QPSK	50	56	21.86	22.02	21.81		
20	QPSK	100	0	21.96	21.99	21.69		
20	16QAM	1	1	21.86	21.89	21.81	21.5	2.5
20	64QAM	1	1	20.63	20.60	20.36		
20	256QAM	1	1	19.14	19.22	19.17		
Channel				166300	167300	168300		
Frequency (MHz)				831.5	836.5	841.5	24.0	0.0
15	QPSK	1	1	22.88	23.02	22.86		
Channel				165300	167300	169300		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	22.88	23.05	22.79	24.0	0.0
Channel				165300	167300	169300		
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	22.87	23.06	22.85		

n7 Ant 0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	24.0	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	23.08	23.20	23.05		
50	QPSK	1	135	23.07	23.19	22.94		
50	QPSK	1	268	23.01	23.01	22.91	23.0	1.0
50	QPSK	135	0	21.92	21.97	21.81		
50	QPSK	135	68	23.00	23.10	22.93		
50	QPSK	135	135	21.95	21.95	21.81		
50	QPSK	270	0	21.93	22.03	21.82	23.0	1.0



n26 Ant 0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				164800	166300	167800	24.0	0.0
Frequency (MHz)				834	831.5	839		
20	PI2 BPSK	1	1	23.01	23.05	23.09	24.0	0.0
20	PI2 BPSK	1	53	23.11	23.11	23.11		
20	PI2 BPSK	1	104	23.20	23.17	23.19		
20	PI2 BPSK	50	0	22.77	22.76	22.77	23.5	0.5
20	PI2 BPSK	50	28	23.20	23.12	23.15	24.0	0.0
20	PI2 BPSK	50	56	22.80	22.75	22.75	23.5	0.5
20	PI2 BPSK	100	0	22.72	22.80	22.80		
20	QPSK	1	1	23.25	23.27	23.22	24.0	0.0
20	QPSK	1	53	23.11	23.21	23.19		
20	QPSK	1	104	23.12	23.19	23.17		
20	QPSK	50	0	22.12	22.21	22.18	23.0	1.0
20	QPSK	50	28	23.17	23.22	23.14	24.0	0.0
20	QPSK	50	56	22.32	22.33	22.26	23.0	1.0
20	QPSK	100	0	22.29	22.33	22.29		
20	16QAM	1	1	21.90	21.93	21.90	23.0	1.0
20	64QAM	1	1	20.52	20.56	20.48	21.5	2.5
20	256QAM	1	1	19.00	19.16	19.14	19.5	4.5
Channel				164300	166300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				821.5	831.5	841.5	24.0	0.0
15	QPSK	1	1	23.15	23.26	23.20		
Channel				155100	155300	155500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844	24.0	0.0
10	QPSK	1	1	23.23	23.22	23.12		
Channel				163300	163300	166000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5	24.0	0.0
5	QPSK	1	1	23.19	23.26	23.15		

n66 Ant 0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				346000	349000	352000	24.0	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	22.87	22.95	22.83	24.0	0.0
40	QPSK	1	108	22.81	22.80	22.68		
40	QPSK	1	214	22.70	22.82	22.68		
40	QPSK	108	0	21.67	21.76	21.58	23.0	1.0
40	QPSK	108	54	22.68	22.89	22.62	24.0	0.0
40	QPSK	108	108	21.69	21.71	21.65	23.0	1.0
40	QPSK	216	0	21.61	21.77	21.49		



n38 Ant 0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				518004	519000	519996	24.0	0.0
Frequency (MHz)				2590.02	2595	2599.98		
40	QPSK	1	1	23.19	23.24	23.15	24.0	0.0
40	QPSK	1	53	23.08	23.08	22.92		
40	QPSK	1	104	22.85	23.06	22.94		
40	QPSK	50	0	22.00	22.05	21.78	23.0	1.0
40	QPSK	50	28	22.92	23.09	22.90	24.0	0.0
40	QPSK	50	56	21.95	21.97	21.90	23.0	1.0
40	QPSK	100	0	21.94	22.11	21.78		

n41 Ant 0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000	23.0	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	21.61	21.71	21.64	23.0	0.0
100	QPSK	1	137	21.64	21.65	21.61		
100	QPSK	1	271	21.48	21.56	21.42		
100	QPSK	135	0	21.46	21.53	21.48	23.0	0.0
100	QPSK	135	69	21.59	21.61	21.56	23.0	0.0
100	QPSK	135	135	21.37	21.45	21.33	23.0	0.0
100	QPSK	270	0	21.45	21.60	21.55		



n2 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	24.0	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	23.17	23.19	23.10		
40	QPSK	1	108	22.07	22.06	22.96	23.0	1.0
40	QPSK	1	214	22.93	23.08	22.95		
40	QPSK	108	0	21.95	22.02	21.83		
40	QPSK	108	54	23.02	23.04	22.86	24.0	0.0
40	QPSK	108	168	21.96	21.92	21.87	23.0	1.0
40	QPSK	216	0	21.89	22.08	21.73		

n5 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800	24.0	0.0
Frequency (MHz)				834	836.5	839		
20	PI2 BPSK	1	1	22.77	22.75	22.69		
20	PI2 BPSK	1	53	22.60	22.63	22.74	23.5	0.5
20	PI2 BPSK	1	104	22.61	22.64	22.43		
20	PI2 BPSK	50	0	22.07	22.12	22.08		
20	PI2 BPSK	50	28	22.61	22.68	22.62	24.0	0.0
20	PI2 BPSK	50	56	21.82	22.03	21.89	23.5	0.5
20	PI2 BPSK	100	0	22.10	22.28	22.02		
20	QPSK	1	1	22.77	22.83	22.74		
20	QPSK	1	53	22.80	22.88	22.48	24.0	0.0
20	QPSK	1	104	22.67	22.76	22.63		
20	QPSK	50	0	21.56	21.67	21.45		
20	QPSK	50	28	22.64	22.78	22.64	24.0	0.0
20	QPSK	50	56	21.65	21.61	21.57	23.0	1.0
20	QPSK	100	0	21.52	21.63	21.45		
20	16QAM	1	1	21.48	21.55	21.47		
20	64QAM	1	1	20.21	20.21	20.08	21.5	2.5
20	256QAM	1	1	18.79	18.85	18.83	19.5	4.5
Channel				168300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	22.64	22.65	22.64	24.0	0.0
Channel				165800	167300	166800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826	836.5	844		
10	QPSK	1	1	22.58	22.71	22.58	24.0	0.0
Channel				165300	167300	165300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	22.61	22.67	22.63	24.0	0.0

n7 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				558000	507000	509000	24.0	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	22.67	22.86	22.78		
50	QPSK	1	135	22.74	22.68	22.55	23.0	1.0
50	QPSK	1	268	22.55	22.65	22.53		
50	QPSK	135	0	21.58	21.68	21.56		
50	QPSK	135	68	22.67	22.76	22.62	24.0	0.0
50	QPSK	135	135	21.67	21.63	21.61	23.0	1.0
50	QPSK	270	0	21.50	21.56	21.37		



n26 Ant 1									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 164800	Power Middle Ch. / Freq. 166300	Power High Ch. / Freq. 167800	Tune-up limit (dbm)	MPR (db)	
Channel				824	831.5	839	24.0	0.0	
Frequency (MHz)				22.71	22.77	22.69			
20	PI2 BPSK	1	1	22.71	22.77 <td>22.69</td>	22.69			
20	PI2 BPSK	1	53	22.73	22.83	22.73			
20	PI2 BPSK	1	104	22.76	22.85	22.81	23.5	0.5	
20	PI2 BPSK	50	0	22.36	22.41	22.32			
20	PI2 BPSK	50	28	22.80	22.85	22.83			
20	PI2 BPSK	50	56	22.32	22.41	22.31			
20	PI2 BPSK	100	0	22.29	22.39	22.34	23.5	0.5	
20	QPSK	1	1	22.81	22.88	22.82			
20	QPSK	1	53	22.81	22.85	22.78			
20	QPSK	1	104	22.78	22.81	22.71			
20	QPSK	50	0	21.80	21.88	21.87	23.0	1.0	
20	QPSK	50	28	22.76	22.83	22.76			
20	QPSK	50	56	21.89	21.95	21.90			
20	QPSK	100	0	21.82	21.93	21.87			
20	16QAM	1	1	21.47	21.55	21.52	23.0	1.0	
20	64QAM	1	1	20.12	20.15	20.10			
20	256QAM	1	1	18.66	18.75	18.74			
Channel				164300	166300	168300			
Channel				821.5	831.5	841.5	Tune-up limit (dbm)	MPR (db)	
15	QPSK	1	1	22.71	22.83	22.73	24.0	0.0	
Channel				163800	166300	168800			
Channel				818	831.5	844	Tune-up limit (dbm)	MPR (db)	
10	QPSK	1	1	22.72	22.80	22.76	24.0	0.0	
Channel				163300	166300	169300			
Channel				816.5	831.5	846.5			
Frequency (MHz)				22.78 <td>22.87</td> <td>22.78</td>	22.87	22.78			
5	QPSK	1	1	22.78	22.87	22.78	24.0	0.0	

n66 Ant 1									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)	
Channel				1730	1745	1760	24.0	0.0	
Frequency (MHz)				23.30	23.38	23.25			
40	QPSK	1	1	23.30	23.38	23.25			
40	QPSK	1	108	23.14	23.19	23.08			
40	QPSK	1	214	23.11	23.25	22.97	23.0	1.0	
40	QPSK	108	0	22.06	22.04	21.89			
40	QPSK	108	54	23.21	23.27	23.01			
40	QPSK	108	108	22.18	22.12	22.01			
40	QPSK	216	0	21.98	22.13	21.93	23.0	1.0	



n38 Ant 1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				518004	519000	519996	24.0	0.0
Frequency (MHz)				2590.02	2595	2599.98		
40	QPSK	1	1	22.93	22.98	22.74		
40	QPSK	1	53	22.85	22.77	22.85	23.0	1.0
40	QPSK	1	104	22.73	22.83	22.72		
40	QPSK	50	0	21.70	21.77	21.52		
40	QPSK	50	28	22.79	22.88	22.64	24.0	0.0
40	QPSK	50	56	21.77	21.73	21.63		
40	QPSK	100	0	21.57	21.79	21.52		

n41 Ant 1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000	23.0	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	21.61	21.63	21.48		
100	QPSK	1	137	21.46	21.55	21.46	23.0	0.0
100	QPSK	1	271	21.33	21.51	21.33		
100	QPSK	135	0	21.36	21.45	21.38		
100	QPSK	135	69	21.46	21.58	21.48	23.0	0.0
100	QPSK	135	135	21.41	21.37	21.29		
100	QPSK	270	0	21.36	21.46	21.38		



n2 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)
Channel				1870	1880	1890	24.0	0.0
Frequency (MHz)								
40	QPSK	1	1	22.92	23.03	22.84		
40	QPSK	1	108	22.83	22.84	22.81		
40	QPSK	1	214	22.84	22.82	22.68	23.0	1.0
40	QPSK	108	0	21.87	21.76	21.49		
40	QPSK	108	54	22.72	22.89	22.59		
40	QPSK	108	108	21.71	21.71	21.84		
40	QPSK	216	0	21.65	21.83	21.48	23.0	1.0

n7 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 506000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 509000	Tune-up limit (dBm)	MPR (dB)
Channel				506000	507000	509000	24.0	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	23.12	23.17	23.01		
50	QPSK	1	135	23.03	22.99	22.89		
50	QPSK	1	268	22.83	22.98	22.84	23.0	1.0
50	QPSK	135	0	21.78	21.90	21.70		
50	QPSK	135	68	22.98	23.06	22.85		
50	QPSK	135	135	21.79	21.94	21.86		
50	QPSK	270	0	21.77	21.96	21.58	23.0	1.0

n66 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 348000	Power High Ch. / Freq. 350000	Tune-up limit (dBm)	MPR (dB)
Channel				346000	348000	350000	24.0	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	22.83	22.97	22.84		
40	QPSK	1	108	22.89	22.71	22.82		
40	QPSK	1	214	22.81	22.77	22.82	23.0	1.0
40	QPSK	108	0	21.72	21.79	21.63		
40	QPSK	108	54	22.80	22.88	22.54		
40	QPSK	108	108	21.81	21.72	21.53		
40	QPSK	216	0	21.58	21.72	21.40	23.0	1.0



n38 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				518004	519000	519996	24.0	0.0
Frequency (MHz)				2590.02	2595	2599.98		
40	QPSK	1	1	22.92	22.99	22.92		
40	QPSK	1	53	22.85	22.87	22.84	24.0	0.0
40	QPSK	1	104	22.76	22.88	22.88	23.0	1.0
40	QPSK	50	0	21.76	21.75	21.69	23.0	1.0
40	QPSK	50	28	22.76	22.98	22.71	24.0	0.0
40	QPSK	50	56	21.74	21.80	21.63	23.0	1.0
40	QPSK	100	0	21.65	21.75	21.58	23.0	1.0

n41 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000	24.0	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	23.03	23.05	23.00		
100	QPSK	1	137	22.87	22.97	22.89	24.0	0.0
100	QPSK	1	271	22.89	23.03	22.93	24.0	0.0
100	QPSK	135	0	22.82	22.93	22.94	24.0	0.0
100	QPSK	135	69	22.88	23.00	22.91	24.0	0.0
100	QPSK	135	134	22.86	22.89	22.83	24.0	0.0
100	QPSK	270	0	22.91	22.97	22.89	24.0	0.0



n2 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	24.0	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	23.12	23.15	23.11		
40	QPSK	1	108	23.10	23.01	22.93	23.0	1.0
40	QPSK	1	214	22.83	22.98	22.84		
40	QPSK	108	0	21.88	21.91	21.74		
40	QPSK	108	54	22.97	23.12	22.92	24.0	0.0
40	QPSK	108	108	21.97	21.97	21.78	23.0	1.0
40	QPSK	216	0	21.92	22.05	21.88		

n7 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	24.0	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	23.29	23.40	23.28		
50	QPSK	1	135	23.20	23.25	23.15	23.0	1.0
50	QPSK	1	268	23.00	23.22	22.99		
50	QPSK	135	0	22.14	22.17	21.90		
50	QPSK	135	68	23.12	23.31	23.20	24.0	0.0
50	QPSK	135	135	22.23	22.27	21.98	23.0	1.0
50	QPSK	270	0	22.11	22.30	22.10		

n66 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				348000	349000	350000	24.0	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	23.05	23.09	22.99		
40	QPSK	1	108	22.99	22.93	22.81	23.0	1.0
40	QPSK	1	214	22.75	22.97	22.86		
40	QPSK	108	0	21.87	21.89	21.70		
40	QPSK	108	54	22.82	23.10	22.83	24.0	0.0
40	QPSK	108	108	21.94	21.83	21.87	23.0	1.0
40	QPSK	216	0	21.79	21.95	21.68		



n38 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				518004	519000	519996	24.0	0.0
Frequency (MHz)				2590.02	2595	2599.98		
40	QPSK	1	1	23.28	23.42	23.23		
40	QPSK	1	53	23.28	23.22	23.01		
40	QPSK	1	104	23.10	23.31	23.12	23.0	1.0
40	QPSK	50	0	22.15	22.10	22.05		
40	QPSK	50	28	23.18	23.31	23.07		
40	QPSK	50	56	22.10	22.11	21.59		
40	QPSK	100	0	22.01	22.14	21.94	23.0	1.0

n41 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				508202	518598	528000	22.0	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	21.05	21.10	21.09		
100	QPSK	1	137	20.96	21.05	20.97		
100	QPSK	1	271	20.89	20.96	20.95	22.0	0.0
100	QPSK	135	0	20.96	21.04	20.96		
100	QPSK	135	69	21.01	21.12	21.05		
100	QPSK	135	138	20.96	20.98	20.91		
100	QPSK	270	0	20.91	21.04	20.98	22.0	0.0

Part270 n77 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	656000	662000	24.0	0.0
Frequency (MHz)				3735	3840	3930		
100	Pi/2 BPSK	1	1	23.86	23.62	23.49		
100	Pi/2 BPSK	1	137	23.55	23.61	23.58		
100	Pi/2 BPSK	1	271	23.46	23.51	23.42	24.0	0.0
100	Pi/2 BPSK	135	0	23.43	23.54	23.49		
100	Pi/2 BPSK	135	69	23.48	23.59	23.53		
100	Pi/2 BPSK	135	138	23.37	23.44	23.47		
100	Pi/2 BPSK	270	0	23.52	23.56	23.32	24.0	0.0
100	QPSK	1	1	23.88	23.74	23.69	24.0	0.0
100	QPSK	1	137	23.63	23.67	23.64		
100	QPSK	1	271	23.44	23.62	23.58		
100	QPSK	135	0	23.55	23.65	23.55		
100	QPSK	135	69	23.83	23.71	23.58	24.0	0.0
100	QPSK	135	138	23.51	23.59	23.50	24.0	0.0
100	QPSK	270	0	23.54	23.60	23.52		
100	16QAM	1	1	23.45	23.62	23.53		
100	64QAM	1	1	23.44	23.48	23.44		
100	256QAM	1	1	22.10	22.21	22.15	22.5	1.5
Channel				662000	668000	674000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3840	3935.01		
90	QPSK	1	1	23.84	23.68	23.65		
Channel				649334	656000	662668		
Frequency (MHz)				3740.01	3840	3940.02	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	23.69	23.72	23.65	24.0	0.0
Channel				648000	656000	663000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3840	3945		
70	QPSK	1	1	23.62	23.65	23.66	24.0	0.0
Channel				646000	652000	658334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	23.64	23.65	23.68	24.0	0.0
Channel				648334	656000	663668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3840	3955.01		
50	QPSK	1	1	23.83	23.67	23.67	24.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3950		
40	QPSK	1	1	23.62	23.67	23.62	24.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	1	23.61	23.67	23.60	24.0	0.0
Channel				647334	656000	664500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3712.5	3840	3967.5		
25	QPSK	1	1	23.61	23.66	23.65	24.0	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	1	23.88	23.72	23.62	24.0	0.0
Channel				647168	656000	664834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3840	3972.51		
15	QPSK	1	1	23.86	23.68	23.60	24.0	0.0
Channel				647000	656000	665000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3840	3975		
10	QPSK	1	1	23.82	23.63	23.68	24.0	0.0

Part270 n77 HPUE Ant 3								
BIW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq. 650000	Power Middle Ch. F.Freq. 656000	Power High Ch. F.Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	Pv2 BPSK	1	1	26.47	26.57	26.47	27.5	0.0
100	Pv2 BPSK	1	137	26.39	26.41	26.41		
100	Pv2 BPSK	1	271	26.30	26.32	26.27		
100	Pv2 BPSK	135	0	25.86	25.88	25.83	27.0	0.5
100	Pv2 BPSK	135	69	26.30	26.46	26.39	27.5	0.0
100	Pv2 BPSK	135	138	25.91	25.78	25.72	27.0	0.5
100	Pv2 BPSK	270	0	25.89	25.96	25.78		
100	QPSK	1	1	26.61	26.72	26.45		
100	QPSK	1	137	26.47	26.49	26.40	27.5	0.0
100	QPSK	1	271	26.22	26.54	26.36	26.5	1.0
100	QPSK	135	0	25.31	25.46	25.21		
100	QPSK	135	69	26.43	26.64	26.21		
100	QPSK	135	138	25.37	25.40	25.22	26.5	1.0
100	QPSK	270	0	25.28	25.54	25.12	26.5	1.0
100	16QAM	1	1	25.22	25.32	25.15		
100	64QAM	1	1	23.89	23.92	23.80	25.0	2.5
100	256QAM	1	1	21.50	21.61	21.61	23.0	4.5
Channel				646868	656000	662334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3840	3935.01		
90	QPSK	1	1	26.57	26.67	26.37	27.5	0.0
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	1	26.53	26.71	26.35	27.5	0.0
Channel				649000	656000	663000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3840	3945		
70	QPSK	1	1	26.59	26.62	26.41	27.5	0.0
Channel				646868	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	26.62	26.61	26.43	27.5	0.0
Channel				648334	656000	663668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3840	3955.05		
50	QPSK	1	1	26.54	26.67	26.43	27.5	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	26.59	26.64	26.44	27.5	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	1	26.55	26.69	26.37	27.5	0.0
Channel				647300	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3712.5	3840	3967.5		
25	QPSK	1	1	26.54	26.66	26.42	27.5	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	1	26.58	26.70	26.34	27.5	0.0
Channel				647168	656000	664834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3840	3972.51		
15	QPSK	1	1	26.57	26.68	26.41	27.5	0.0
Channel				647000	656000	665000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3840	3975		
10	QPSK	1	1	26.68	26.62	26.41	27.5	0.0

Part270 n78 Ant 3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel							
Frequency (MHz)				3750			
100	PV2 BPSK	1	1		23.46		
100	PV2 BPSK	1	137		23.50		
100	PV2 BPSK	1	271		23.35		
100	PV2 BPSK	135	0		23.40	24.0	0.0
100	PV2 BPSK	135	69		23.55	24.0	0.0
100	PV2 BPSK	135	138		23.35	24.0	0.0
100	PV2 BPSK	270	0		23.43	24.0	0.0
100	QPSK	1	1		23.61		
100	QPSK	1	137		23.56	24.0	0.0
100	QPSK	1	271		23.46		
100	QPSK	135	0		23.51	24.0	0.0
100	QPSK	135	69		23.53	24.0	0.0
100	QPSK	135	138		23.47	24.0	0.0
100	QPSK	270	0		23.35	24.0	0.0
100	16QAM	1	1		23.45	24.0	0.0
100	16QAM	1	1		23.41	24.0	0.0
100	256QAM	1	1		22.20	22.5	1.5
Channel				649668	650000	650334	
Frequency (MHz)				3745.02	3750	3755.01	
90	QPSK	1	1		23.56	23.51	23.57
Channel				649334	650000	650668	
Frequency (MHz)				3740.01	3750	3760.02	
80	QPSK	1	1		23.53	23.54	23.58
Channel				649000	650000	651000	
Frequency (MHz)				3735	3750	3765	
70	QPSK	1	1		23.57	23.58	23.55
Channel				648668	650000	651334	
Frequency (MHz)				3730.02	3750	3770.01	
60	QPSK	1	1		23.51	23.52	23.51
Channel				648334	650000	651668	
Frequency (MHz)				3725.01	3750	3775.02	
50	QPSK	1	1		23.58	23.58	23.60
Channel				648000	650000	652000	
Frequency (MHz)				3720	3750	3760	
40	QPSK	1	1		23.59	23.58	23.54
Channel				647668	650000	652334	
Frequency (MHz)				3715.02	3750	3785.01	
30	QPSK	1	1		23.54	23.59	23.53
Channel				647334	650000	652668	
Frequency (MHz)				3712.5	3750	3787.5	
25	QPSK	1	1		23.52	23.58	23.51
Channel				647000	650000	653000	
Frequency (MHz)				3710.01	3750	3790.02	
20	QPSK	1	1		23.59	23.52	23.53
Channel				647168	650000	652834	
Frequency (MHz)				3707.52	3750	3792.51	
15	QPSK	1	1		23.54	23.56	23.53
Channel				647000	650000	653000	
Frequency (MHz)				3705	3750	3795	
10	QPSK	1	1		23.52	23.56	23.60

Part270 n78 HPUE Ant 3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel							
Frequency (MHz)				3750			
100	PV2 BPSK	1	1		26.43		
100	PV2 BPSK	1	137		26.31		
100	PV2 BPSK	1	271		26.22		
100	PV2 BPSK	135	0		25.83	27.0	0.5
100	PV2 BPSK	135	69		26.35	27.5	0.0
100	PV2 BPSK	135	138		25.74	27.0	0.5
100	PV2 BPSK	270	0		25.87	27.0	0.5
100	QPSK	1	1		26.57		
100	QPSK	1	137		26.31	27.5	0.0
100	QPSK	1	271		26.41		
100	QPSK	135	0		25.42	26.5	1.0
100	QPSK	135	69		26.48	27.5	0.0
100	QPSK	135	138		25.21	26.5	1.0
100	QPSK	270	0		25.46	26.5	1.0
100	16QAM	1	1		25.19	26.5	1.0
100	64QAM	1	1		23.75	25.0	2.5
100	256QAM	1	1		21.48	23.0	4.5
Channel				649668	650000	650334	
Frequency (MHz)				3745.02	3750	3755.01	
90	QPSK	1	1		26.49	26.50	26.47
Channel				649334	650000	650668	
Frequency (MHz)				3740.01	3750	3760.02	
80	QPSK	1	1		26.50	26.52	26.50
Channel				649000	650000	651000	
Frequency (MHz)				3735	3750	3765	
70	QPSK	1	1		26.52	26.51	26.48
Channel				648668	650000	651334	
Frequency (MHz)				3730.02	3750	3770.01	
60	QPSK	1	1		26.48	26.51	26.50
Channel				648334	650000	651668	
Frequency (MHz)				3725.01	3750	3775.02	
50	QPSK	1	1		26.52	26.50	26.58
Channel				648000	650000	652000	
Frequency (MHz)				3720	3750	3760	
40	QPSK	1	1		26.52	26.48	26.53
Channel				647668	650000	652334	
Frequency (MHz)				3715.02	3750	3785.01	
30	QPSK	1	1		26.54	26.51	26.48
Channel				647334	650000	652668	
Frequency (MHz)				3712.5	3750	3787.5	
25	QPSK	1	1		26.55	26.47	26.51
Channel				647000	650000	653000	
Frequency (MHz)				3710.01	3750	3790.02	
20	QPSK	1	1		26.50	26.54	26.55
Channel				647168	650000	652834	
Frequency (MHz)				3707.52	3750	3792.51	
15	QPSK	1	1		26.50	26.56	26.49
Channel				647000	650000	653000	
Frequency (MHz)				3705	3750	3795	
10	QPSK	1	1		26.50	26.50	26.48

Part270 n77 Ant 4									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000	24.0	0.0	
Frequency (MHz)				3750	3840	3930			
100	PI/2 BPSK	1	1	23.14	23.19	23.16			
100	PI/2 BPSK	1	137	23.13	23.28	23.08			
100	PI/2 BPSK	1	271	23.08	23.06	23.01	24.0	0.0	
100	PI/2 BPSK	135	0	23.07	23.12	23.04			
100	PI/2 BPSK	135	69	23.01	23.04	22.92			
100	PI/2 BPSK	135	138	23.06	23.06	22.96			
100	PI/2 BPSK	270	0	23.02	23.05	22.95	24.0	0.0	
100	QPSK	1	1	23.21	23.32	23.27			
100	QPSK	1	137	23.10	23.18	23.12			
100	QPSK	1	271	22.96	23.07	22.99			
100	QPSK	135	0	23.06	23.12	23.05	24.0	0.0	
100	QPSK	135	69	23.11	23.16	23.13			
100	QPSK	135	138	22.96	23.10	22.98			
100	QPSK	270	0	23.07	23.10	23.02			
100	16QAM	1	1	22.92	23.11	23.00	24.0	0.0	
100	64QAM	1	1	22.88	22.96	22.94			
100	256QAM	1	1	21.73	21.81	21.83			
Channel				660668	656000	662334	Tune-up limit (dB)	MPR	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	23.11	23.24	23.21	24.0	0.0	
Channel				649334	656000	662668	Tune-up limit (dB)	MPR	
Frequency (MHz)				3740.01	3840	3940.02			
80	QPSK	1	1	23.14	23.28	23.20	24.0	0.0	
Channel				649000	656000	663000	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	23.15	23.31	23.23	24.0	0.0	
Channel				647500	656000	663334	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3730.02	3840	3950.01			
60	QPSK	1	1	23.13	23.26	23.26	24.0	0.0	
Channel				648334	656000	663668	Tune-up limit (dB)	MPR	
Frequency (MHz)				3725.01	3840	3955.02			
50	QPSK	1	1	23.18	23.27	23.20	24.0	0.0	
Channel				648000	656000	664000	Tune-up limit (dB)	MPR	
Frequency (MHz)				3720	3840	3960			
40	QPSK	1	1	23.14	23.24	23.20	24.0	0.0	
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	23.18	23.28	23.20	24.0	0.0	
Channel				647500	656000	664500	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3712.5	3840	3967.5			
25	QPSK	1	1	23.17	23.27	23.21	24.0	0.0	
Channel				647334	656000	664668	Tune-up limit (dB)	MPR	
Frequency (MHz)				3710.01	3840	3970.02			
20	QPSK	1	1	23.11	23.23	23.20	24.0	0.0	
Channel				647168	656000	664834	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3707.52	3840	3972.51			
15	QPSK	1	1	23.15	23.22	23.18	24.0	0.0	
Channel				647000	656000	665000	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	23.16	23.21	23.23	24.0	0.0	

Part270 n77 HPUE Ant 4									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000	27.0	0.0	
Frequency (MHz)				3750	3840	3930			
100	PI/2 BPSK	1	1	26.12	26.13	26.16			
100	PI/2 BPSK	1	137	25.97	25.98	26.05			
100	PI/2 BPSK	1	271	25.93	26.05	25.94	27.0	0.5	
100	PI/2 BPSK	135	0	25.42	25.57	25.45			
100	PI/2 BPSK	135	69	26.08	26.03	25.94			
100	PI/2 BPSK	135	138	25.46	25.51	25.46			
100	PI/2 BPSK	270	0	25.43	25.59	25.39	27.0	0.0	
100	QPSK	1	1	26.23	26.37	26.18			
100	QPSK	1	137	26.17	26.20	25.98			
100	QPSK	1	271	25.96	26.14	26.03			
100	QPSK	135	0	25.02	25.05	24.92	26.0	1.0	
100	QPSK	135	69	25.99	26.15	26.01			
100	QPSK	135	138	25.11	25.08	25.00			
100	QPSK	270	0	24.86	25.15	24.86			
100	16QAM	1	1	24.96	24.97	24.89	26.0	1.0	
100	64QAM	1	1	23.58	23.63	23.51			
100	256QAM	1	1	22.23	22.26	22.31			
Channel				649668	656000	662334	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	26.14	26.26	26.15	27.0	0.0	
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3740.01	3840	3940.02			
80	QPSK	1	1	26.14	26.31	26.11	27.0	0.0	
Channel				649000	656000	663000	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	26.13	26.33	26.15	27.0	0.0	
Channel				647500	656000	663334	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3730.02	3840	3950.01			
60	QPSK	1	1	26.17	26.29	26.08	27.0	0.0	
Channel				648334	656000	663668	Tune-up limit (dB)	MPR	
Frequency (MHz)				3725.01	3840	3955.02			
50	QPSK	1	1	26.12	26.32	26.10	27.0	0.0	
Channel				648000	656000	664000	Tune-up limit (dB)	MPR	
Frequency (MHz)				3720	3840	3960			
40	QPSK	1	1	26.13	26.34	26.09	27.0	0.0	
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	26.20	26.29	26.12	27.0	0.0	
Channel				647500	656000	664500	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3712.5	3840	3967.5			
25	QPSK	1	1	26.14	26.30	26.12	27.0	0.0	
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3710.01	3840	3970.02			
20	QPSK	1	1	26.21	26.26	26.15	27.0	0.0	
Channel				647168	656000	664834	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3707.52	3840	3972.51			
15	QPSK	1	1	26.16	26.28	26.14	27.0	0.0	
Channel				647000	656000	665000	Tune-up limit (dBm)	MPR	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	26.18	26.33	26.16	27.0	0.0	

Part270 n78 Ant 4							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel					650000		
Frequency (MHz)					3750		
100	PI2 BPSK	1	1		23.23		
100	PI2 BPSK	1	137		23.23		
100	PI2 BPSK	1	271		23.03		24.0
100	PI2 BPSK	135	0		23.07		24.0 0.0
100	PI2 BPSK	135	69		23.08		24.0 0.0
100	PI2 BPSK	135	138		23.07		24.0 0.0
100	PI2 BPSK	270	0		23.09		24.0 0.0
100	QPSK	1	1		23.27		
100	QPSK	1	137		23.15		24.0 0.0
100	QPSK	1	271		23.14		
100	QPSK	135	0		23.15		24.0 0.0
100	QPSK	135	69		23.22		24.0 0.0
100	QPSK	135	138		23.05		24.0 0.0
100	QPSK	270	0		23.11		24.0 0.0
100	16QAM	1	1		23.11		24.0 0.0
100	64QAM	1	1		23.02		24.0 0.0
100	256QAM	1	1		21.77		22.5 1.5
Channel				649668	650000	650334	Tune-up limit MPR
Frequency (MHz)				3745.02	3750	3755.01	(dBm)
90	QPSK	1	1	23.21	23.22	23.19	24.0 0.0
Channel				649334	650000	650668	Tune-up limit MPR
Frequency (MHz)				3740.01	3750	3760.02	(dBm)
80	QPSK	1	1	23.24	23.19	23.19	24.0 0.0
Channel				649000	650000	651000	Tune-up limit MPR
Frequency (MHz)				3735	3750	3765	(dBm)
70	QPSK	1	1	23.23	23.25	23.26	24.0 0.0
Channel				648668	650000	651334	Tune-up limit MPR
Frequency (MHz)				3730.02	3750	3770.01	(dBm)
60	QPSK	1	1	23.17	23.19	23.20	24.0 0.0
Channel				648334	650000	651668	Tune-up limit MPR
Frequency (MHz)				3725.01	3750	3785.02	(dBm)
50	QPSK	1	1	23.17	23.25	23.17	24.0 0.0
Channel				648000	650000	652000	Tune-up limit MPR
Frequency (MHz)				3720	3750	3780	(dBm)
40	QPSK	1	1	23.19	23.25	23.22	24.0 0.0
Channel				647668	650000	652334	Tune-up limit MPR
Frequency (MHz)				3715.02	3750	3785.01	(dBm)
30	QPSK	1	1	23.19	23.21	23.17	24.0 0.0
Channel				647334	650000	652500	Tune-up limit MPR
Frequency (MHz)				3712.5	3750	3787.5	(dBm)
25	QPSK	1	1	23.18	23.19	23.22	24.0 0.0
Channel				647334	650000	652668	Tune-up limit MPR
Frequency (MHz)				3710.01	3750	3790.02	(dBm)
20	QPSK	1	1	23.17	23.21	23.24	24.0 0.0
Channel				647168	650000	652834	Tune-up limit MPR
Frequency (MHz)				3707.52	3750	3792.51	(dBm)
15	QPSK	1	1	23.22	23.19	23.22	24.0 0.0
Channel				647000	650000	653000	Tune-up limit MPR
Frequency (MHz)				3705	3750	3795	(dBm)
10	QPSK	1	1	23.18	23.19	23.18	24.0 0.0

Part270 n78 HPUE Ant 4							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel					650000		
Frequency (MHz)					3750		
100	PI2 BPSK	1	1		26.26		
100	PI2 BPSK	1	137		26.17		27.0
100	PI2 BPSK	1	271		26.03		0.0
100	PI2 BPSK	135	0		25.67		26.5
100	PI2 BPSK	135	69		26.11		27.0
100	PI2 BPSK	135	138		25.54		26.5
100	PI2 BPSK	270	0		25.84		0.5
100	QPSK	1	1		26.36		
100	QPSK	1	137		26.21		27.0
100	QPSK	1	271		26.27		0.0
100	QPSK	135	0		25.20		26.0
100	QPSK	135	69		26.26		27.0
100	QPSK	135	138		25.17		26.0
100	QPSK	270	0		25.21		27.0
100	16QAM	1	1		25.02		26.0
100	64QAM	1	1		23.59		24.5
100	256QAM	1	1		21.98		22.5
Channel				649668	650000	650334	Tune up limit MPR
Frequency (MHz)				3745.02	3750	3755.01	(dBm)
90	QPSK	1	1	26.32	26.26	26.29	27.0
Channel				649334	650000	650668	Tune up limit MPR
Frequency (MHz)				3740.01	3750	3760.02	(dBm)
80	QPSK	1	1	26.27	26.31	26.32	27.0
Channel				649000	650000	651000	Tune up limit MPR
Frequency (MHz)				3735	3750	3765	(dBm)
70	QPSK	1	1	26.26	26.29	26.32	27.0
Channel				648668	650000	651334	Tune up limit MPR
Frequency (MHz)				3730.02	3750	3770.01	(dBm)
60	QPSK	1	1	26.32	26.25	26.35	27.0
Channel				648334	650000	651668	Tune up limit MPR
Frequency (MHz)				3725.01	3750	3785.02	(dBm)
50	QPSK	1	1	26.32	26.29	26.32	27.0
Channel				648000	650000	652000	Tune up limit MPR
Frequency (MHz)				3720	3750	3780	(dBm)
40	QPSK	1	1	26.29	26.30	26.29	27.0
Channel				647668	650000	652334	Tune up limit MPR
Frequency (MHz)				3715.02	3750	3785.01	(dBm)
30	QPSK	1	1	26.30	26.25	26.31	27.0
Channel				647334	650000	652500	Tune up limit MPR
Frequency (MHz)				3712.5	3750	3787.5	(dBm)
25	QPSK	1	1	26.32	26.26	26.34	27.0
Channel				647334	650000	652668	Tune up limit MPR
Frequency (MHz)				3710.01	3750	3790.02	(dBm)
20	QPSK	1	1	26.33	26.29	26.29	27.0
Channel				647168	650000	652834	Tune up limit MPR
Frequency (MHz)				3707.52	3750	3792.51	(dBm)
15	QPSK	1	1	26.31	26.30	26.29	27.0
Channel				647000	650000	653000	Tune up limit MPR
Frequency (MHz)				3705	3750	3795	(dBm)
10	QPSK	1	1	26.31	26.26	26.34	27.0

Part270 n77 Ant 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel				3750	3840	3930			
Frequency (MHz)									
100	PI/2 BPSK	1	1	23.05	23.18	23.15	24.0	0.0	
100	PI/2 BPSK	1	137	23.15	23.18	23.08			
100	PI/2 BPSK	1	271	23.03	23.12	23.07			
100	PI/2 BPSK	135	0	22.63	22.70	22.69	23.5	0.5	
100	PI/2 BPSK	135	69	23.15	23.18	23.15	24.0	0.0	
100	PI/2 BPSK	135	138	22.68	22.83	22.73	23.5	0.5	
100	PI/2 BPSK	270	0	22.69	22.74	22.71			
100	QPSK	1	1	23.14	23.19	23.12			
100	QPSK	1	137	23.09	23.16	23.11	24.0	0.0	
100	QPSK	1	271	23.06	23.11	23.13	23.0	1.0	
100	QPSK	135	0	22.15	22.27	22.18			
100	QPSK	135	69	23.07	23.15	23.14			
100	QPSK	135	138	22.20	22.28	22.19	23.0	1.0	
100	QPSK	270	0	22.15	22.20	22.18	23.0	1.0	
100	16QAM	1	1	22.15	22.19	22.24			
100	64QAM	1	1	20.86	20.74	20.73	21.5	2.5	
100	256QAM	1	1	18.65	18.67	18.69	19.5	4.5	
Channel				649698	656000	662334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
90	QPSK	1	1	23.10	23.10	23.02	24.0	0.0	
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
80	QPSK	1	1	23.09	23.17	23.01	24.0	0.0	
Channel				649000	656000	663000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
70	QPSK	1	1	23.13	23.08	23.11	24.0	0.0	
Channel				3730.02	3840	3950.01	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
60	QPSK	1	1	23.06	23.18	23.06	23.0	25.0	0.0
Channel				643334	656000	663668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
50	QPSK	1	1	23.10	23.16	23.07	24.0	0.0	
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
40	QPSK	1	1	23.06	23.09	23.11	24.0	0.0	
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
30	QPSK	1	1	23.13	23.12	23.03	24.0	0.0	
Channel				3712.5	3840	3967.5	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
25	QPSK	1	1	23.03	23.16	23.10	24.0	0.0	
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
20	QPSK	1	1	23.11	23.17	23.07	24.0	0.0	
Channel				647168	656000	664834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
15	QPSK	1	1	23.09	23.16	23.03	24.0	0.0	
Channel				3705	3840	3975	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
10	QPSK	1	1	23.08	23.10	23.06	24.0	0.0	

Part270 n77 HPUE Ant 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./ Freq. 650000	Power Middle Ch./ Freq. 656000	Power High Ch./ Freq. 662000	Tuneup limit (dBm)	MPR (dB)	
Channel				3750	3840	3930			
Frequency (MHz)									
100	PI2 BPSK	1	1	23.42	23.46	23.35	25.0	0.0	
100	PI2 BPSK	1	137	23.32	23.29	23.26			
100	PI2 BPSK	1	271	23.23	23.27	23.15			
100	PI2 BPSK	135	0	22.68	22.83	22.75	24.5	0.5	
100	PI2 BPSK	135	69	23.33	23.31	23.18	25.0	0.0	
100	PI2 BPSK	135	138	22.57	22.75	22.66	24.5	0.5	
100	PI2 BPSK	270	0	22.74	22.76	22.63			
100	QPSK	1	1	23.48	23.49	23.42			
100	QPSK	1	137	23.48	23.32	23.18	25.0	0.0	
100	QPSK	1	271	23.16	23.34	23.22	24.0	1.0	
100	QPSK	135	0	22.21	22.29	22.07			
100	QPSK	135	69	23.24	23.46	23.19			
100	QPSK	135	138	22.30	22.24	22.17	24.0	1.0	
100	QPSK	270	0	22.16	22.29	22.03	24.0	1.0	
100	16QAM	1	1	22.15	22.23	22.03			
100	64QAM	1	1	20.89	20.86	20.75	22.5	2.5	
100	256QAM	1	1	18.93	18.96	18.86	20.5	4.5	
Channel				649334	656000	662334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
90	QPSK	1	1	23.42	23.36	23.28	25.0	0.0	
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
80	QPSK	1	1	23.41	23.43	23.29	25.0	0.0	
Channel				649000	656000	663000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
70	QPSK	1	1	23.44	23.43	23.33	25.0	0.0	
Channel				3730.02	3840	3950.01	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
60	QPSK	1	1	23.42	23.36	23.29	25.0	0.0	
Channel				643334	656000	663668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
50	QPSK	1	1	23.43	23.44	23.36	25.0	0.0	
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
40	QPSK	1	1	23.38	23.41	23.32	25.0	0.0	
Channel				647334	656000	664334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
30	QPSK	1	1	23.38	23.42	23.32	25.0	0.0	
Channel				3712.5	3840	3967.5	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
25	QPSK	1	1	23.39	23.42	23.32	25.0	0.0	
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
20	QPSK	1	1	23.39	23.42	23.30	25.0	0.0	
Channel				647168	656000	664834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
15	QPSK	1	1	23.41	23.44	23.33	25.0	0.0	
Channel				3705	3840	3975	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
10	QPSK	1	1	23.35	23.36	23.37	25.0	0.0	

Part270 n78 Ant 6							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq.	
Channel							
Frequency (MHz)				3750			
100	Pl2 BPSK	1	1	23.43			
100	Pl2 BPSK	1	137	23.50			24.0
100	Pl2 BPSK	1	271	23.45			
100	Pl2 BPSK	135	0	23.01			23.5
100	Pl2 BPSK	135	69	23.47			24.0
100	Pl2 BPSK	135	138	23.17			
100	Pl2 BPSK	270	0	23.03			23.5
100	QPSK	1	1	23.52			
100	QPSK	1	137	23.45			24.0
100	QPSK	1	271	23.41			
100	QPSK	135	0	22.80			23.0
100	QPSK	135	69	23.49			24.0
100	QPSK	135	138	22.62			23.0
100	QPSK	270	0	22.62			23.0
100	16QAM	1	1	22.50			23.0
100	64QAM	1	1	21.08			21.5
100	256QAM	1	1	18.94			19.5
Channel				649668	650000	650334	
Frequency (MHz)				3745.02	3750	3755.01	
90	QPSK	1	1	23.49	23.45	23.50	24.0
Channel				649334	650000	650668	
Frequency (MHz)				3740.01	3750	3760.02	
80	QPSK	1	1	23.50	23.50	23.49	24.0
Channel				649000	650000	651000	
Frequency (MHz)				3735	3750	3765	
70	QPSK	1	1	23.44	23.47	23.49	24.0
Channel				648668	650000	651334	
Frequency (MHz)				3730.02	3750	3770.01	
60	QPSK	1	1	23.51	23.42	23.43	24.0
Channel				648334	650000	651668	
Frequency (MHz)				3725.01	3750	3775.02	
50	QPSK	1	1	23.48	23.42	23.49	24.0
Channel				648000	650000	652000	
Frequency (MHz)				3720	3750	3780	
40	QPSK	1	1	23.49	23.45	23.47	24.0
Channel				647668	650000	652334	
Frequency (MHz)				3715.02	3750	3785.01	
30	QPSK	1	1	23.45	23.49	23.44	24.0
Channel				647334	650000	652668	
Frequency (MHz)				3710.01	3750	3790.02	
25	QPSK	1	1	23.43	23.49	23.51	24.0
Channel				647000	650000	653000	
Frequency (MHz)				3705	3750	3795	
20	QPSK	1	1	23.47	23.41	23.42	24.0
Channel				647168	650000	652834	
Frequency (MHz)				3707.52	3750	3792.51	
15	QPSK	1	1	23.50	23.44	23.42	24.0
Channel				647000	650000	653000	
Frequency (MHz)				3705	3750	3795	
10	QPSK	1	1	23.46	23.50	23.47	24.0

Part270 n78 HPUE Ant 6							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq.	
Channel							
Frequency (MHz)				3750			
100	Pl2 BPSK	1	1	23.72			
100	Pl2 BPSK	1	137	23.68			25.0
100	Pl2 BPSK	1	271	23.60			
100	Pl2 BPSK	135	0	23.09			24.5
100	Pl2 BPSK	135	69	23.40			25.0
100	Pl2 BPSK	135	138	23.04			
100	Pl2 BPSK	270	0	23.04			24.5
100	QPSK	1	1	23.75			
100	QPSK	1	137	23.69			25.0
100	QPSK	1	271	23.64			
100	QPSK	135	0	22.86			24.0
100	QPSK	135	69	23.72			25.0
100	QPSK	135	138	22.77			24.0
100	QPSK	270	0	22.79			24.0
100	16QAM	1	1	22.87			24.0
100	64QAM	1	1	21.45			22.5
100	256QAM	1	1	19.26			20.5
Channel				649668	650000	650334	
Frequency (MHz)				3745.02	3750	3755.01	
90	QPSK	1	1	23.71	23.68	23.73	25.0
Channel				649334	650000	650668	
Frequency (MHz)				3740.01	3750	3760.02	
80	QPSK	1	1	23.74	23.72	23.72	25.0
Channel				649000	650000	651000	
Frequency (MHz)				3735	3750	3765	
70	QPSK	1	1	23.68	23.67	23.70	25.0
Channel				648668	650000	651334	
Frequency (MHz)				3730.02	3750	3770.01	
60	QPSK	1	1	23.65	23.73	23.66	25.0
Channel				648334	650000	651668	
Frequency (MHz)				3725.01	3750	3775.02	
50	QPSK	1	1	23.68	23.65	23.67	25.0
Channel				648000	650000	652000	
Frequency (MHz)				3720	3750	3780	
40	QPSK	1	1	23.71	23.68	23.70	25.0
Channel				647668	650000	652334	
Frequency (MHz)				3715.02	3750	3785.01	
30	QPSK	1	1	23.67	23.69	23.70	25.0
Channel				647334	650000	652668	
Frequency (MHz)				3710.01	3750	3790.02	
25	QPSK	1	1	23.72	23.65	23.66	25.0
Channel				647000	650000	653000	
Frequency (MHz)				3705	3750	3795	
20	QPSK	1	1	23.69	23.71	23.68	25.0
Channel				647168	650000	652834	
Frequency (MHz)				3707.52	3750	3792.51	
15	QPSK	1	1	23.68	23.72	23.66	25.0
Channel				647000	650000	653000	
Frequency (MHz)				3705	3750	3795	
10	QPSK	1	1	23.71	23.73	23.67	25.0

Part270 n77 Ant 8											
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)			
Channel											
Frequency (MHz)											
100	PI2 BPSK	1	1	22.95	23.10	23.06	24.0	0.0			
100	PI2 BPSK	1	137	23.03	23.08	23.01					
100	PI2 BPSK	1	271	22.94	23.04	22.98					
100	PI2 BPSK	135	0	22.58	22.64	22.57	23.5	0.5			
100	PI2 BPSK	135	69	23.04	23.04	23.03	24.0	0.0			
100	PI2 BPSK	135	138	22.57	22.68	22.65	23.5	0.5			
100	PI2 BPSK	270	0	22.59	22.64	22.63					
100	QPSK	1	1	23.05	23.13	23.09					
100	QPSK	1	137	22.95	23.08	23.00	24.0	0.0			
100	QPSK	1	271	23.00	23.05	23.00	23.0	1.0			
100	QPSK	135	0	22.04	22.18	22.12					
100	QPSK	135	69	22.98	23.11	23.01					
100	QPSK	135	138	22.07	22.13	22.11	23.0	1.0			
100	QPSK	270	0	22.01	22.16	22.08	23.0	1.0			
100	16QAM	1	1	22.08	22.08	22.10	23.0	1.0			
100	64QAM	1	1	20.55	20.60	20.62	21.5	2.5			
100	256QAM	1	1	18.58	18.59	18.55	19.5	4.5			
Channel											
Frequency (MHz)											
90	QPSK	1	1	23.01	23.05	23.00	24.0	0.0			
Channel											
Frequency (MHz)											
80	QPSK	1	1	23.04	23.05	23.00	24.0	0.0			
Channel											
Frequency (MHz)											
70	QPSK	1	1	22.98	23.02	22.97	24.0	0.0			
Channel											
Frequency (MHz)											
60	QPSK	1	1	22.94	23.10	22.97	24.0	0.0			
Channel											
Frequency (MHz)											
50	QPSK	1	1	23.02	23.05	23.02	24.0	0.0			
Channel											
Frequency (MHz)											
40	QPSK	1	1	22.92	23.03	22.99	24.0	0.0			
Channel											
Frequency (MHz)											
30	QPSK	1	1	23.02	23.04	23.05	24.0	0.0			
Channel											
Frequency (MHz)											
25	QPSK	1	1	23.00	23.05	23.04	24.0	0.0			
Channel											
Frequency (MHz)											
20	QPSK	1	1	22.97	23.05	22.99	24.0	0.0			
Channel											
Frequency (MHz)											
15	QPSK	1	1	22.99	23.00	23.00	24.0	0.0			
Channel											
Frequency (MHz)											
10	QPSK	1	1	22.99	23.05	22.99	24.0	0.0			

Part270 n77 HPUE Ant 8											
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 560000	Power Middle Ch. Freq. 565000	Power High Ch. Freq. 569000	Tune-up limit (dBm)	MPR (dB)			
Channel											
Frequency (MHz)											
100	PI2 BPSK	1	1	23.38	23.48	23.33	25.0	0.0			
100	PI2 BPSK	1	137	23.21	23.29	23.23					
100	PI2 BPSK	1	271	23.22	23.28	23.18					
100	PI2 BPSK	135	0	22.74	22.79	22.68	24.5	0.5			
100	PI2 BPSK	135	69	23.20	23.33	23.25	25.0	0.0			
100	PI2 BPSK	135	138	22.53	22.74	22.60	24.5	0.5			
100	PI2 BPSK	270	0	22.69	22.78	22.61					
100	QPSK	1	1	23.47	23.49	23.38					
100	QPSK	1	137	23.34	23.39	23.15	25.0	0.0			
100	QPSK	1	271	23.30	23.44	23.19	24.0	1.0			
100	QPSK	135	0	22.28	22.29	22.10					
100	QPSK	135	69	23.44	23.47	23.44					
100	QPSK	135	138	22.29	22.37	22.18	24.0	1.0			
100	QPSK	270	0	22.12	22.30	22.06	24.0	1.0			
100	16QAM	1	1	22.55	22.21	22.10	24.0	1.0			
100	64QAM	1	1	20.89	20.84	20.68	22.5	2.5			
100	256QAM	1	1	18.88	18.85	18.85	20.5	4.5			
Channel											
Frequency (MHz)											
90	QPSK	1	1	23.38	23.40	23.27	25.0	0.0			
Channel											
Frequency (MHz)											
80	QPSK	1	1	23.43	23.39	23.34	25.0	0.0			
Channel											
Frequency (MHz)											
70	QPSK	1	1	23.36	23.38	23.31	25.0	0.0			
Channel											
Frequency (MHz)											
60	QPSK	1	1	23.42	23.44	23.32	25.0	0.0			
Channel											
Frequency (MHz)											
50	QPSK	1	1	23.40	23.39	23.25	25.0	0.0			
Channel											
Frequency (MHz)											
40	QPSK	1	1	23.42	23.42	23.31	25.0	0.0			
Channel											
Frequency (MHz)											
30	QPSK	1	1	23.36	23.42	23.34	25.0	0.0			
Channel											
Frequency (MHz)											
25	QPSK	1	1	23.39	23.45	23.27	25.0	0.0			
Channel											
Frequency (MHz)											
20	QPSK	1	1	23.38	23.41	23.30	25.0	0.0			
Channel											
Frequency (MHz)											
15	QPSK	1	1	23.37	23.44	23.31	25.0	0.0			
Channel											
Frequency (MHz)											
10	QPSK	1	1	23.40	23.39	23.33	25.0	0.0			

Part270 n78 Ant 8							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel							
Frequency (MHz)				3750			
100	PV2 BPSK	1	1		23.37		
100	PV2 BPSK	1	137		23.38		24.0
100	PV2 BPSK	1	271		23.38		
100	PV2 BPSK	135	0		22.98	23.5	0.5
100	PV2 BPSK	135	69		23.31	24.0	0.0
100	PV2 BPSK	135	138		22.94		
100	PV2 BPSK	270	0		22.92	23.5	0.5
100	QPSK	1	1		23.43		
100	QPSK	1	137		23.40	24.0	0.0
100	QPSK	1	271		23.34		
100	QPSK	135	0		22.49	23.0	1.0
100	QPSK	135	69		23.42	24.0	0.0
100	QPSK	135	138		22.45		
100	QPSK	270	0		22.46	23.0	1.0
100	16QAM	1	1		22.39	23.0	1.0
100	64QAM	1	1		20.90	21.5	2.5
100	256QAM	1	1		18.94	19.5	4.5
Channel				649968	650000	650334	
Frequency (MHz)				3745.02	3750	3755.01	
90	QPSK	1	1	23.33	23.38	23.38	24.0
Channel				649334	650000	650968	
Frequency (MHz)				3740.01	3750	3760.02	
80	QPSK	1	1	23.32	23.41	23.39	24.0
Channel				649000	650000	651000	
Frequency (MHz)				3735 <td>3750</td> <td>3765</td> <th></th>	3750	3765	
70	QPSK	1	1	23.35	23.36	23.41	24.0
Channel				649000	650000	651334	
Frequency (MHz)				3730.02 <td>3750</td> <td>3770.01</td> <th></th>	3750	3770.01	
60	QPSK	1	1	23.38	23.36	23.34	24.0
Channel				649334	650000	651668	
Frequency (MHz)				3725.01 <td>3750</td> <td>3775.02</td> <th></th>	3750	3775.02	
50	QPSK	1	1	23.42	23.42	23.34	24.0
Channel				648000	650000	652000	
Frequency (MHz)				3720 <td>3750</td> <td>3760</td> <th></th>	3750	3760	
40	QPSK	1	1	23.32	23.42	23.40	24.0
Channel				647668	650000	652334	
Frequency (MHz)				3715.02 <td>3750</td> <td>3785.01</td> <th></th>	3750	3785.01	
30	QPSK	1	1	23.42	23.33	23.39	24.0
Channel				647500	650000	652668	
Frequency (MHz)				3712.5 <td>3750</td> <td>3787.5</td> <th></th>	3750	3787.5	
25	QPSK	1	1	23.39	23.37	23.39	24.0
Channel				647334	650000	652668	
Frequency (MHz)				3710.01 <td>3750</td> <td>3790.02</td> <th></th>	3750	3790.02	
20	QPSK	1	1	23.40	23.40	23.35	24.0
Channel				647168	650000	652834	
Frequency (MHz)				3707.52 <td>3750</td> <td>3792.51</td> <th></th>	3750	3792.51	
15	QPSK	1	1	23.38	23.41	23.38	24.0
Channel				647000	650000	653000	
Frequency (MHz)				3705 <td>3750</td> <td>3795</td> <th></th>	3750	3795	
10	QPSK	1	1	23.38	23.38	23.42	24.0

Part27O n78 HPUE Ant 8							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel							
Frequency (MHz)				3750			
100	PV2 BPSK	1	1		23.70		
100	PV2 BPSK	1	137		23.54		25.0
100	PV2 BPSK	1	271		23.43		0.0
100	PV2 BPSK	135	0		22.90	24.5	0.5
100	PV2 BPSK	135	69		23.50	25.0	0.0
100	PV2 BPSK	135	138		22.91		0.5
100	PV2 BPSK	270	0		23.13	24.5	0.5
100	QPSK	1	1		23.73		
100	QPSK	1	137		23.71	25.0	0.0
100	QPSK	1	271		23.64		
100	QPSK	135	0		22.51	24.0	1.0
100	QPSK	135	69		23.62	25.0	0.0
100	QPSK	135	138		22.57		1.0
100	QPSK	270	0		22.48	24.0	1.0
100	16QAM	1	1		22.75	24.0	1.0
100	64QAM	1	1		21.25	22.5	2.5
100	256QAM	1	1		18.52	20.5	4.5
Channel				649698	650000	650334	
Frequency (MHz)				3745.02	3750	3755.01	Time-up limit (dBm)
90	QPSK	1	1	23.62	23.67	23.63	25.0
Channel				649334	650000	650968	
Frequency (MHz)				3740.01	3750	3760.02	Time-up limit (dBm)
80	QPSK	1	1	23.60	23.64	23.63	25.0
Channel				649000	650000	651000	
Frequency (MHz)				3735	3750	3765	Time-up limit (dBm)
70	QPSK	1	1	23.67	23.66	23.61	25.0
Channel				649000	650000	651334	
Frequency (MHz)				3730.02	3750	3770.01	Time-up limit (dBm)
60	QPSK	1	1	23.62	23.66	23.60	25.0
Channel				648334	650000	651668	
Frequency (MHz)				3725.01	3750	3785.02	Time-up limit (dBm)
50	QPSK	1	1	23.66	23.62	23.65	25.0
Channel				648000	650000	652000	
Frequency (MHz)				3720	3750	3760	Time-up limit (dBm)
40	QPSK	1	1	23.59	23.63	23.69	25.0
Channel				647668	650000	652334	
Frequency (MHz)				3715.02	3750	3785.01	Time-up limit (dBm)
30	QPSK	1	1	23.62	23.66	23.59	25.0
Channel				647000	650000	652668	
Frequency (MHz)				3712.5	3750	3787.5	Time-up limit (dBm)
25	QPSK	1	1	23.59	23.62	23.66	25.0
Channel				647334	650000	652668	
Frequency (MHz)				3710.01	3750	3790.02	Time-up limit (dBm)
20	QPSK	1	1	23.58	23.65	23.61	25.0
Channel				647168	650000	652834	
Frequency (MHz)				3707.52	3750	3792.51	Time-up limit (dBm)
15	QPSK	1	1	23.61	23.58	23.63	25.0
Channel				647000	650000	653000	
Frequency (MHz)				3705	3750	3795	Time-up limit (dBm)
10	QPSK	1	1	23.60	23.68	23.62	25.0



Reduced Power Mode for EC12

n2 Ant 0 EC12

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				1470	1480	1490	24.0	0.0
Frequency (MHz)				374000	376000	378000		
40	QPSK	1	1	22.89	23.01	22.86		
40	QPSK	1	108	22.79	22.92	22.82	23.0	1.0
40	QPSK	1	214	22.74	22.87	22.86		
40	QPSK	108	0	21.74	21.79	21.71		
40	QPSK	108	54	22.80	22.94	22.76	23.0	1.0
40	QPSK	108	108	21.74	21.76	21.70		
40	QPSK	216	0	21.79	21.83	21.70		

n5 Ant 0 EC12

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800	24.0	0.0
Frequency (MHz)				834	836.5	839		
20	PV2 BPSK	1	1	23.15	23.22	23.10		
20	PV2 BPSK	1	53	23.07	23.06	23.14	23.5	0.5
20	PV2 BPSK	1	104	23.11	23.13	22.99		
20	PV2 BPSK	50	0	22.54	22.61	22.59		
20	PV2 BPSK	50	28	23.06	23.15	23.10	23.5	0.5
20	PV2 BPSK	50	56	22.87	22.53	22.41		
20	PV2 BPSK	100	0	22.58	22.66	22.38		
20	QPSK	1	1	23.06	23.22	22.96	24.0	0.0
20	QPSK	1	53	23.04	23.08	22.81		
20	QPSK	1	104	23.00	23.01	22.94		
20	QPSK	50	0	21.84	21.93	21.73	24.0	0.0
20	QPSK	50	28	23.02	23.11	22.92		
20	QPSK	50	56	21.86	22.02	21.81		
20	QPSK	100	0	21.96	21.99	21.69	23.0	1.0
20	16QAM	1	1	21.86	21.89	21.81		
20	64QAM	1	1	20.83	20.80	20.36		
20	256QAM	1	1	19.14	19.22	19.17	19.5	4.5
Channel				166300	167300	168300	24.0	0.0
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	22.88	23.02	22.86		
Channel				165300	167300	169300	24.0	0.0
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	22.88	23.05	22.79		
Channel				165300	167300	169300	24.0	0.0
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	22.87	23.06	22.85		

n7 Ant 0 EC12

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				2626	2636	2646	24.0	0.0
Frequency (MHz)				505000	507000	509000		
50	QPSK	1	1	23.08	23.20	23.05		
50	QPSK	1	135	23.07	23.19	22.94	23.0	1.0
50	QPSK	1	268	23.01	23.01	22.91		
50	QPSK	135	0	21.92	21.97	21.81		
50	QPSK	135	68	23.00	23.10	22.93	23.0	1.0
50	QPSK	135	135	21.95	21.95	21.81		
50	QPSK	270	0	21.93	22.03	21.82		



n26 Ant 0 ECI2									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dbm)	MPR (db)	
Channel				164800	166300	167800			
Frequency (MHz)				824	831.5	839			
20	PI2 BPSK	1	1	23.01	23.05	23.09	24.0	0.0	
20	PI2 BPSK	1	53	23.11	23.11	23.11			
20	PI2 BPSK	1	104	23.20	23.17	23.19			
20	PI2 BPSK	50	0	22.77	22.76	22.77	23.5	0.5	
20	PI2 BPSK	50	28	23.20	23.12	23.15	24.0	0.0	
20	PI2 BPSK	50	56	22.80	22.75	22.75	23.5	0.5	
20	PI2 BPSK	100	0	22.72	22.80	22.80			
20	QPSK	1	1	23.25	23.27	23.22			
20	QPSK	1	53	23.11	23.21	23.19	24.0	0.0	
20	QPSK	1	104	23.12	23.19	23.17			
20	QPSK	50	0	22.12	22.21	22.18	23.0	1.0	
20	QPSK	50	28	23.17	23.22	23.14	24.0	0.0	
20	QPSK	50	56	22.32	22.33	22.26	23.0	1.0	
20	QPSK	100	0	22.29	22.33	22.29	23.0	1.0	
20	16QAM	1	1	21.90	21.93	21.90			
20	64QAM	1	1	20.52	20.56	20.48	21.5	2.5	
20	256QAM	1	1	19.09	19.16	19.14	19.5	4.5	
Channel				164300	166300	168300	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				821.5 <th>831.5<th>841.5<th colspan="3"></th></th></th>	831.5 <th>841.5<th colspan="3"></th></th>	841.5 <th colspan="3"></th>			
15	QPSK	1	1	23.15	23.26	23.20	24.0	0.0	
Channel				155100	155300	155500	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				819 <th>831.5<th>844<th colspan="3"></th></th></th>	831.5 <th>844<th colspan="3"></th></th>	844 <th colspan="3"></th>			
10	QPSK	1	1	23.23	23.22	23.12	24.0	0.0	
Channel				163300	163300	166000	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				816.5 <th>831.5<th>846.5<th colspan="3"></th></th></th>	831.5 <th>846.5<th colspan="3"></th></th>	846.5 <th colspan="3"></th>			
5	QPSK	1	1	23.19	23.26	23.15	24.0	0.0	

n66 Ant 0 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				346000	349000	352000		
Frequency				1730	1745	1760		
40	QPSK	1	1	22.97	23.02	22.91	24.0	0.0
40	QPSK	1	108	22.87	22.84	22.70		
40	QPSK	1	214	22.76	22.86	22.78		
40	QPSK	108	0	21.77	21.82	21.59	23.0	1.0
40	QPSK	108	54	22.78	22.97	22.71	24.0	0.0
40	QPSK	108	108	21.76	21.79	21.71	23.0	1.0
40	QPSK	216	0	21.66	21.85	21.57		



n38 Ant 0 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				518004	519000	519996	24.0	0.0
Frequency (MHz)				2590.02	2595	2599.98		
40	QPSK	1	1	23.19	23.24	23.15		
40	QPSK	1	53	23.08	23.08	22.92	23.0	1.0
40	QPSK	1	104	22.85	23.06	22.94		
40	QPSK	50	0	22.00	22.05	21.78		
40	QPSK	50	28	22.92	23.09	22.90	24.0	0.0
40	QPSK	50	56	21.95	21.97	21.90	23.0	1.0
40	QPSK	100	0	21.94	22.11	21.78		

n41 Ant 0 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000	23.0	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	21.61	21.71	21.64		
100	QPSK	1	137	21.64	21.65	21.61	23.0	0.0
100	QPSK	1	271	21.48	21.56	21.42		
100	QPSK	135	0	21.46	21.53	21.48		
100	QPSK	135	69	21.59	21.61	21.56	23.0	0.0
100	QPSK	135	135	21.37	21.45	21.33	23.0	0.0
100	QPSK	270	0	21.45	21.60	21.55		



n2 Ant 1 EC12

n2 Ant 1 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				374000	376000	378000		
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	23.17	23.19	23.10		
40	QPSK	1	108	23.07	23.06	22.96	24.0	0.0
40	QPSK	1	214	22.93	23.08	22.95		
40	QPSK	108	0	21.95	22.02	21.83	23.0	1.0
40	QPSK	108	54	23.02	23.14	22.86	24.0	0.0
40	QPSK	108	168	21.96	21.92	21.87		
40	QPSK	216	0	21.89	22.08	21.73	23.0	1.0

n5 Ant 1 EC12

n5 Ant 1 EC2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dbm)	MPR (db)
Channel				166800	167300	167800	24.0	0.0
Frequency (MHz)				834	836.5	839		
20	PI2 BPSK	1	1	22.77	22.75	22.69	24.0	0.0
20	PI2 BPSK	1	53	22.60	22.63	22.74		
20	PI2 BPSK	1	104	22.61	22.64	22.43		
20	PI2 BPSK	50	0	22.07	22.12	22.08	23.5	0.5
20	PI2 BPSK	50	28	22.61	22.68	22.62	24.0	0.0
20	PI2 BPSK	50	56	21.82	22.03	21.89	23.5	0.5
20	PI2 BPSK	100	0	22.10	22.28	22.02	24.0	0.0
20	QPSK	1	1	22.77	22.83	22.74		
20	QPSK	1	53	22.80	22.88	22.48		
20	QPSK	1	104	22.67	22.76	22.63	23.0	1.0
20	QPSK	50	0	21.56	21.67	21.45		
20	QPSK	50	28	22.64	22.78	22.64		
20	QPSK	50	56	21.65	21.61	21.57	23.0	0.0
20	QPSK	100	0	21.52	21.63	21.45	23.0	1.0
20	16QAM	1	1	21.48	21.55	21.47		
20	64QAM	1	1	20.21	20.21	20.08		
20	256QAM	1	1	18.79	18.85	18.83	19.5	4.5
Channel				166300	167300	168300	Tune-up limit (dbm)	MPR (db)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	22.64	22.65	22.64	24.0	0.0
Channel				165800	167300	166800	Tune-up limit (dbm)	MPR (db)
Frequency (MHz)				826	836.5	844		
10	QPSK	1	1	22.58	22.71	22.58	24.0	0.0
Channel				165300	167300	165300	Tune-up limit (dbm)	MPR (db)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	22.61	22.67	22.63	24.0	0.0

n7 Ant 1 EC12

n7 Ant 1 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 558000	Power Mid Ch. / Freq. 507000	Power High Ch. / Freq. 509000	Time-up limit (dBm)	MPR (dB)
Channel Frequency (MHz)				2525	2535	2545	24.0	0.0
50	QPSK	1	1	22.67	22.86	22.78		
50	QPSK	1	135	22.74	22.68	22.58		
50	QPSK	1	268	22.55	22.65	22.53		
50	QPSK	135	0	21.58	21.68	21.56		
50	QPSK	135	68	22.67	22.76	22.62		
50	QPSK	135	135	21.67	21.63	21.61		
50	QPSK	270	0	21.50	21.55	21.37		



n26 Ant 1 EC12									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 164800	Power Middle Ch. / Freq. 166300	Power High Ch. / Freq. 167800	Tune-up limit (dBm)	MPR (db)	
Channel				824	831.5	839	24.0	0.0	
Frequency (MHz)				22.71	22.77	22.69			
20	PI2 BPSK	1	1	22.71	22.77	22.69			
20	PI2 BPSK	1	53	22.73	22.83	22.73			
20	PI2 BPSK	1	104	22.76	22.85	22.81	23.5	0.5	
20	PI2 BPSK	50	0	22.36	22.41	22.32			
20	PI2 BPSK	50	28	22.80	22.85	22.83			
20	PI2 BPSK	50	56	22.32	22.41	22.31			
20	PI2 BPSK	100	0	22.29	22.39	22.34	23.5	0.5	
20	QPSK	1	1	22.81	22.88	22.82			
20	QPSK	1	53	22.81	22.85	22.78			
20	QPSK	1	104	22.78	22.81	22.71			
20	QPSK	50	0	21.80	21.88	21.87	23.0	1.0	
20	QPSK	50	28	22.76	22.83	22.76			
20	QPSK	50	56	21.89	21.95	21.90			
20	QPSK	100	0	21.82	21.93	21.87			
20	16QAM	1	1	21.47	21.55	21.52	23.0	1.0	
20	64QAM	1	1	20.12	20.15	20.10			
20	256QAM	1	1	18.66	18.75	18.74			
Channel				164300	166300	168300			
Frequency (MHz)				821.5	831.5	841.5	Tune-up limit (dBm)	MPR (db)	
15	QPSK	1	1	22.71	22.83	22.73	24.0	0.0	
Channel				163800	166300	168800			
Frequency (MHz)				818	831.5	844			
10	QPSK	1	1	22.72	22.80	22.76			
Channel				163300	166300	169300	Tune-up limit (dBm)	MPR (db)	
Frequency (MHz)				816.5	831.5	846.5	24.0 <th colspan="2">0.0</th>	0.0	
5	QPSK	1	1	22.78	22.87	22.78	24.0	0.0	

n66 Ant 1 EC12									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)	
Channel				1730	1745	1760	24.0	0.0	
Frequency (MHz)				23.30	23.38	23.25			
40	QPSK	1	1	23.30	23.38	23.25			
40	QPSK	1	108	23.14	23.19	23.08			
40	QPSK	1	214	23.11	23.25	22.97	23.0	1.0	
40	QPSK	108	0	22.06	22.04	21.89			
40	QPSK	108	54	23.21	23.27	23.01			
40	QPSK	108	108	22.18	22.12	22.01			
40	QPSK	216	0	21.96	22.13	21.93	23.0	1.0	



n38 Ant 1 EC12								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				518004	519000	519996	24.0	0.0
Frequency (MHz)				2590.02	2595	2599.98		
40	QPSK	1	1	22.93	22.98	22.74		
40	QPSK	1	53	22.85	22.77	22.85	23.0	1.0
40	QPSK	1	104	22.73	22.83	22.72		
40	QPSK	50	0	21.70	21.77	21.52		
40	QPSK	50	28	22.79	22.88	22.64	24.0	0.0
40	QPSK	50	56	21.77	21.73	21.63		
40	QPSK	100	0	21.57	21.79	21.52		

n41 Ant 1 EC12								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000	23.0	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	21.61	21.63	21.48		
100	QPSK	1	137	21.46	21.55	21.46	23.0	0.0
100	QPSK	1	271	21.33	21.51	21.33		
100	QPSK	135	0	21.36	21.45	21.38		
100	QPSK	135	69	21.46	21.58	21.48	23.0	0.0
100	QPSK	135	135	21.41	21.37	21.29		
100	QPSK	270	0	21.36	21.46	21.38		



n2 Ant 2 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)
Channel				1870	1880	1890	15.3	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	14.25	14.34	14.32		
40	QPSK	1	108	14.19	14.31	14.21		
40	QPSK	1	214	14.14	14.22	14.17		
40	QPSK	108	0	14.18	14.20	14.22	15.3	0.0
40	QPSK	108	54	14.21	14.25	14.17	15.3	0.0
40	QPSK	108	108	14.09	14.20	14.13	15.3	0.0
40	QPSK	216	0	14.12	14.21	14.09	15.3	0.0

n7 Ant 2 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 506000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 509000	Tune-up limit (dBm)	MPR (dB)
Channel				2525	2535	2545	16.8	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	15.92	15.98	15.85		
50	QPSK	1	135	15.85	15.87	15.87		
50	QPSK	1	268	15.77	15.90	15.78		
50	QPSK	135	0	15.80	15.84	15.79	16.8	0.0
50	QPSK	135	68	15.80	15.85	15.79	16.8	0.0
50	QPSK	135	135	15.67	15.78	15.74	16.8	0.0
50	QPSK	270	0	15.68	15.83	15.74	16.8	0.0

n66 Ant 2 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 348000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel				1730	1745	1760	16.1	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	15.24	15.32	15.23		
40	QPSK	1	108	15.20	15.28	15.11		
40	QPSK	1	214	15.13	15.19	15.12		
40	QPSK	108	0	15.16	15.15	15.19	16.1	0.0
40	QPSK	108	54	15.23	15.25	15.09	16.1	0.0
40	QPSK	108	108	15.11	15.07	15.00	16.1	0.0
40	QPSK	216	0	15.12	15.22	15.10	16.1	0.0



n41 Ant 2 EC12								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				508202	518598	528000	15.8	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	14.98	15.05	14.99	15.8	0.0
100	QPSK	1	137	14.86	14.89	15.04		
100	QPSK	1	271	14.99	14.87	14.79	15.8	0.0
100	QPSK	135	0	14.72	14.95	14.78		
100	QPSK	135	69	14.89	14.99	14.90	15.8	0.0
100	QPSK	135	138	14.79	14.90	14.73		
100	QPSK	270	0	14.85	14.90	14.88	15.8	0.0



n2 Ant 3 EC12								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	17.9	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	16.98	16.99	16.86		
40	QPSK	1	108	16.89	16.93	16.88	17.9	0.0
40	QPSK	1	214	16.79	16.92	16.77		
40	QPSK	108	0	16.62	16.72	16.67		
40	QPSK	108	54	16.74	16.82	16.76	17.9	0.0
40	QPSK	108	108	16.62	16.72	16.70	17.9	0.0
40	QPSK	216	0	16.80	16.81	16.73		

n7 Ant 3 EC12								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	16.4	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	15.54	15.55	15.52		
50	QPSK	1	135	15.45	15.42	15.42	16.4	0.0
50	QPSK	1	268	15.37	15.52	15.44		
50	QPSK	135	0	15.42	15.38	15.37		
50	QPSK	135	68	15.45	15.47	15.33	16.4	0.0
50	QPSK	135	135	15.33	15.32	15.28	16.4	0.0
50	QPSK	270	0	15.39	15.42	15.28		

n66 Ant 3 EC12								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				348000	349000	350000	18.5	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	17.44	17.59	17.49		
40	QPSK	1	108	17.36	17.43	17.51	18.5	0.0
40	QPSK	1	214	17.35	17.45	17.33		
40	QPSK	108	0	17.37	17.40	17.42		
40	QPSK	108	54	17.36	17.46	17.29	18.5	0.0
40	QPSK	108	108	17.27	17.26	17.21	18.5	0.0
40	QPSK	216	0	17.30	17.39	17.29		



n41 Ant 3 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509002	516598	526000		
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	15.86	15.90	15.83	16.8	0.0
100	QPSK	1	137	15.73	15.75	15.76		
100	QPSK	1	271	15.57	15.83	15.63		
100	QPSK	135	0	15.73	15.80	15.73	16.8	0.0
100	QPSK	135	69	15.81	15.85	15.80	16.8	0.0
100	QPSK	135	138	15.72	15.75	15.58	16.8	0.0
100	QPSK	270	0	15.67	15.79	15.60		

Part270 n77 HPUE Ant 3 EC12									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000			
Frequency (MHz)				37500	38400	39300			
100	PI2 BPSK	1	1	17.47	17.65	17.38	18.6	0.0	
100	PI2 BPSK	1	137	17.41	17.44	17.38			
100	PI2 BPSK	1	271	17.19	17.51	17.28			
100	PI2 BPSK	135	0	17.49	17.75	17.36	18.6	0.0	
100	PI2 BPSK	135	69	17.52	17.75	17.43	18.6	0.0	
100	PI2 BPSK	135	138	17.36	17.43	17.42	18.6	0.0	
100	PI2 BPSK	270	0	17.22	17.49	17.35			
100	QPSK	1	1	17.57	17.76	17.44	18.6	0.0	
100	QPSK	1	137	17.46	17.51	17.43			
100	QPSK	1	271	17.26	17.58	17.36			
100	QPSK	135	0	17.49	17.66	17.38	18.6	0.0	
100	QPSK	135	69	17.44	17.72	17.18	18.6	0.0	
100	QPSK	135	138	17.54	17.65	17.35	18.6	0.0	
100	QPSK	270	0	17.50	17.69	17.40			
100	16QAM	1	1	17.43	17.47	17.32	18.6	0.0	
100	64QAM	1	1	17.17	17.53	17.29	18.6	0.0	
100	256QAM	1	1	17.17	17.49	17.35	18.6	0.0	
Channel				649668	650000	650334	Tune-up limit	MPR	
Frequency (MHz)				3745.02	3840	3935.01	(dBm)	(dB)	
90	QPSK	1	1	17.52	17.70	17.37	18.6	0.0	
Channel				649334	650000	650668	Tune-up limit	MPR	
Frequency (MHz)				3740.01	3840	3940.02	(dBm)	(dB)	
80	QPSK	1	1	17.55	17.73	17.35	18.6	0.0	
Channel				649000	650000	651000	Tune-up limit	MPR	
Frequency (MHz)				3735	3840	3945	(dBm)	(dB)	
70	QPSK	1	1	17.46	17.66	17.41	18.6	0.0	
Channel				648968	650000	651334	Tune-up limit	MPR	
Frequency (MHz)				3730.02	3840	3950.01	(dBm)	(dB)	
60	QPSK	1	1	17.54	17.72	17.38	18.6	0.0	
Channel				648334	650000	653668	Tune-up limit	MPR	
Frequency (MHz)				3725.01	3840	3955.02	(dBm)	(dB)	
50	QPSK	1	1	17.50	17.72	17.40	18.6	0.0	
Channel				648000	650000	654000	Tune-up limit	MPR	
Frequency (MHz)				3720	3840	3960	(dBm)	(dB)	
40	QPSK	1	1	17.53	17.73	17.35	18.6	0.0	
Channel				647668	650000	654334	Tune-up limit	MPR	
Frequency (MHz)				3715.02	3840	3965.01	(dBm)	(dB)	
30	QPSK	1	1	17.52	17.68	17.42	18.6	0.0	
Channel				647330	650000	654668	Tune-up limit	MPR	
Frequency (MHz)				3712.5	3840	3967.5	(dBm)	(dB)	
25	QPSK	1	1	17.50	17.70	17.39	18.6	0.0	
Channel				647334	650000	654668	Tune-up limit	MPR	
Frequency (MHz)				3710.01	3840	3970.02	(dBm)	(dB)	
20	QPSK	1	1	17.54	17.68	17.40	18.6	0.0	
Channel				647168	650000	654834	Tune-up limit	MPR	
Frequency (MHz)				3707.52	3840	3972.51	(dBm)	(dB)	
15	QPSK	1	1	17.46	17.68	17.41	18.6	0.0	
Channel				647000	650000	655000	Tune-up limit	MPR	
Frequency (MHz)				3705	3840	3975	(dBm)	(dB)	
10	QPSK	1	1	17.47	17.73	17.41	18.6	0.0	

Part270 n78 HPUE Ant 3 ECI2										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel					3750					
Frequency (MHz)										
100	PI2 BPSK	1	1		17.46		18.6	0.0		
100	PI2 BPSK	1	137		17.25					
100	PI2 BPSK	1	271		17.35					
100	PI2 BPSK	135	0		17.42		18.6	0.0		
100	PI2 BPSK	135	69		17.51		18.6	0.0		
100	PI2 BPSK	135	138		17.30		18.6	0.0		
100	PI2 BPSK	270	0		17.30					
100	QPSK	1	1		17.53		18.6	0.0		
100	QPSK	1	137		17.35					
100	QPSK	1	271		17.36					
100	QPSK	135	0		17.45		18.6	0.0		
100	QPSK	135	69		17.45		18.6	0.0		
100	QPSK	135	138		17.25		18.6	0.0		
100	QPSK	270	0		17.37					
100	16QAM	1	1		17.52		18.6	0.0		
100	64QAM	1	1		17.27		18.6	0.0		
100	256QAM	1	1		17.29		18.6	0.0		
Channel				648668	650000	650334	Tune-up limit	MPR		
Frequency (MHz)				3745.02	3750	3755.01	(dBm)	(dB)		
90	QPSK	1	1	17.44	17.49	17.46	18.6	0.0		
Channel				649334	650000	650668	Tune-up limit	MPR		
Frequency (MHz)				3740.01	3750	3763.02	(dBm)	(dB)		
80	QPSK	1	1	17.45	17.50	17.50	18.6	0.0		
Channel				649000	650000	651000	Tune-up limit	MPR		
Frequency (MHz)				3735	3750	3765	(dBm)	(dB)		
70	QPSK	1	1	17.49	17.43	17.47	18.6	0.0		
Channel				648968	650000	651334	Tune-up limit	MPR		
Frequency (MHz)				3730.02	3750	3770.01	(dBm)	(dB)		
60	QPSK	1	1	17.45	17.44	17.50	18.6	0.0		
Channel				648334	650000	651668	Tune-up limit	MPR		
Frequency (MHz)				3725.01	3750	3775.02	(dBm)	(dB)		
50	QPSK	1	1	17.51	17.42	17.49	18.6	0.0		
Channel				648000	650000	652000	Tune-up limit	MPR		
Frequency (MHz)				3720	3750	3760	(dBm)	(dB)		
40	QPSK	1	1	17.44	17.50	17.44	18.6	0.0		
Channel				647668	650000	652334	Tune-up limit	MPR		
Frequency (MHz)				3715.02	3750	3765.01	(dBm)	(dB)		
30	QPSK	1	1	17.44	17.48	17.43	18.6	0.0		
Channel				647530	650000	652668	Tune-up limit	MPR		
Frequency (MHz)				3712.5	3750	3767.5	(dBm)	(dB)		
25	QPSK	1	1	17.45	17.44	17.49	18.6	0.0		
Channel				647334	650000	652668	Tune-up limit	MPR		
Frequency (MHz)				3710.01	3750	3760.02	(dBm)	(dB)		
20	QPSK	1	1	17.44	17.44	17.49	18.6	0.0		
Channel				647168	650000	652834	Tune-up limit	MPR		
Frequency (MHz)				3707.52	3750	3762.51	(dBm)	(dB)		
15	QPSK	1	1	17.49	17.44	17.42	18.6	0.0		
Channel				647000	650000	653000	Tune-up limit	MPR		
Frequency (MHz)				3705	3750	3765	(dBm)	(dB)		
10	QPSK	1	1	17.52	17.44	17.50	18.6	0.0		

Part270 n77 HPUE Ant 4 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel				3750	3840	3930	16.4	0.0
Frequency (MHz)				15.12	15.28	15.13		
100	PI/2 BPSK	1	1	15.12	15.28	15.22		
100	PI/2 BPSK	1	137	15.12	15.28	15.22		
100	PI/2 BPSK	1	271	15.15	15.28	15.14	16.4	0.0
100	PI/2 BPSK	135	0	15.14	15.25	15.14		
100	PI/2 BPSK	135	69	15.13	15.33	15.21		
100	PI/2 BPSK	135	138	15.11	15.23	15.15		
100	PI/2 BPSK	270	0	15.14	15.30	15.14	16.4	0.0
100	QPSK	1	1	15.18	15.34	15.23		
100	QPSK	1	137	15.18	15.19	15.02		
100	QPSK	1	271	14.98	15.11	15.00		
100	QPSK	135	0	15.18	15.25	15.20	16.4	0.0
100	QPSK	135	69	15.14	15.29	15.15		
100	QPSK	135	138	15.16	15.10	15.00		
100	QPSK	270	0	14.97	15.07	14.92		
100	16QAM	1	1	15.08	15.30	15.21	16.4	0.0
100	64QAM	1	1	15.13	15.11	14.99		
100	256QAM	1	1	14.87	15.02	14.90		
Channel				649568	656000	662334	Tune-up limit (dBm)	MPR
Frequency (MHz)				3745.02	3840	3935.01		
90	QPSK	1	1	15.15	15.16	14.95	16.4	0.0
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR
Frequency (MHz)				3743.01	3840	3940.02		
80	QPSK	1	1	15.12	15.09	14.93	16.4	0.0
Channel				649000	656000	663000	Tune-up limit (dBm)	MPR
Frequency (MHz)				3735	3840	3945		
70	QPSK	1	1	15.11	15.13	14.97	16.4	0.0
Channel				648968	656000	663334	Tune-up limit (dBm)	MPR
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	15.14	15.15	14.94	16.4	0.0
Channel				648334	656000	663668	Tune-up limit (dBm)	MPR
Frequency (MHz)				3725.01	3840	3955.02		
50	QPSK	1	1	15.11	15.13	14.93	16.4	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	15.17	15.10	14.98	16.4	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	1	15.14	15.15	15.00	16.4	0.0
Channel				647500	656000	664500	Tune-up limit (dBm)	MPR
Frequency (MHz)				3712.5	3840	3967.5		
25	QPSK	1	1	15.08	15.09	14.96	16.4	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	1	15.11	15.18	14.93	16.4	0.0
Channel				647168	656000	664834	Tune-up limit (dBm)	MPR
Frequency (MHz)				3707.52	3840	3972.51		
15	QPSK	1	1	15.09	15.28	14.98	16.4	0.0
Channel				647000	656000	665000	Tune-up limit (dBm)	MPR
Frequency (MHz)				3705	3840	3975		
10	QPSK	1	1	15.08	15.16	14.94	16.4	0.0

Part270 n78 HPUE Ant 4 EC12								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel				3750			16.4	0.0
Frequency (MHz)				15.30				
100	PI2 BPSK	1	1	15.12				
100	PI2 BPSK	1	137	15.12				
100	PI2 BPSK	1	271	15.19			16.4	0.0
100	PI2 BPSK	135	0	15.30				
100	PI2 BPSK	135	69	15.31				
100	PI2 BPSK	135	138	15.10				
100	PI2 BPSK	270	0	15.21			16.4	0.0
100	QPSK	1	1	15.33				
100	QPSK	1	137	15.18				
100	QPSK	1	271	15.25				
100	QPSK	135	0	15.26			16.4	0.0
100	QPSK	135	69	15.31				
100	QPSK	135	138	15.10				
100	QPSK	270	0	15.17				
100	16QAM	1	1	15.30			16.4	0.0
100	64QAM	1	1	15.14				
100	256QAM	1	1	15.18				
Channel				649668	650000	660334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	15.27	15.30	15.31		
Channel				649334	650000	660668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3743.01	3750	3763.02		
80	QPSK	1	1	15.26	15.30	15.25		
Channel				649000	650000	661000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	15.30	15.28	15.30	16.4	0.0
Channel				648668	650000	661334		
Frequency (MHz)				3730.02	3750	3770.01		
Channel				648334	650000	661668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
60	QPSK	1	1	15.26	15.23	15.25		
Channel				648000	650000	662000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
50	QPSK	1	1	15.25	15.31	15.31		
Channel				648000	650000	662000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	15.27	15.27	15.22		
Channel				647668	650000	662334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	15.23	15.28	15.25		
Channel				647500	650000	662500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3712.5	3750	3787.5		
25	QPSK	1	1	15.27	15.30	15.29		
Channel				647334	650000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3789.02		
20	QPSK	1	1	15.26	15.26	15.25		
Channel				647168	650000	662834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3750	3792.51		
15	QPSK	1	1	15.28	15.23	15.30		
Channel				647000	650000	663000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	15.24	15.24	15.27		

Part270 n77 HPUE Ant 6 EC12							
BW (MHz)	Modulation	Channel	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 662000
		Frequency (MHz)			3750	3840	3930
100	PV2 BPSK	1	1		13.56	13.61	13.48
100	PV2 BPSK	1	137		13.46	13.61	13.61
100	PV2 BPSK	1	271		13.39	13.60	13.44
100	PV2 BPSK	135	0		13.42	13.41	13.36
100	PV2 BPSK	135	69		13.44	13.42	13.32
100	PV2 BPSK	135	138		13.36	13.48	13.34
100	PV2 BPSK	270	0		13.41	13.53	13.38
100	QPSK	1	1		13.53	13.75	13.53
100	QPSK	1	137		13.64	13.65	13.64
100	QPSK	1	271		13.53	13.65	13.50
100	QPSK	135	0		13.54	13.61	13.62
100	QPSK	135	69		13.80	13.71	13.63
100	QPSK	135	138		13.51	13.56	13.48
100	QPSK	270	0		13.52	13.68	13.59
100	16QAM	1	1		13.48	13.54	13.46
100	64QAM	1	1		13.43	13.45	13.43
100	256QAM	1	1		13.47	13.63	13.72
		Channel			648934	650000	662068
		Frequency (MHz)			3745.02	3840	3935.01
90	QPSK	1	1		13.45	13.74	13.47
		Channel			648934	650000	662068
		Frequency (MHz)			3745.01	3840	3940.02
80	QPSK	1	1		13.50	13.68	13.52
		Channel			648000	650000	663000
		Frequency (MHz)			3735	3840	3945
70	QPSK	1	1		13.52	13.73	13.42
		Channel			3730.02	3840	3950.01
60	QPSK	1	1		13.49	13.72	13.44
		Channel			648334	650000	663668
		Frequency (MHz)			3725.01	3840	3965.02
50	QPSK	1	1		13.49	13.72	13.44
		Channel			648000	650000	664000
		Frequency (MHz)			3720	3840	3970
40	QPSK	1	1		13.43	13.71	13.50
		Channel			647668	650000	664334
		Frequency (MHz)			3715.02	3840	3965.01
30	QPSK	1	1		13.43	13.65	13.47
		Channel			3710.01	3840	3970.02
		Frequency (MHz)			3712.5	3840	3967.5
25	QPSK	1	1		13.46	13.70	13.51
		Channel			647334	650000	664668
		Frequency (MHz)			3707.52	3840	3972.51
20	QPSK	1	1		13.51	13.67	13.45
		Channel			647168	650000	664834
		Frequency (MHz)			3707.52	3840	3972.51
15	QPSK	1	1		13.45	13.72	13.51
		Channel			647000	650000	665000
		Frequency (MHz)			3705	3840	3975
10	QPSK	1	1		13.50	13.64	13.42

Part270 n78 HPUE Ant 6 EC12							
BW (MHz)	Modulation	Channel	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 662000
		Frequency (MHz)			3750		
100	PV2 BPSK	1	1		13.39		
100	PV2 BPSK	1	137		13.51		
100	PV2 BPSK	1	271		13.32		
100	PV2 BPSK	135	0		13.30		
100	PV2 BPSK	135	69		13.38		
100	PV2 BPSK	135	138		13.32		
100	PV2 BPSK	270	0		13.37		
100	QPSK	1	1		13.61		
100	QPSK	1	137		13.54		
100	QPSK	1	271		13.45		
100	QPSK	135	0		13.53		
100	QPSK	135	69		13.57		
100	QPSK	135	138		13.43		
100	QPSK	270	0		13.46		
100	16QAM	1	1		13.43		
100	64QAM	1	1		13.32		
100	256QAM	1	1		13.35		
		Channel			648668	650000	660334
		Frequency (MHz)			3745.02	3750	3755.01
90	QPSK	1	1		13.59	13.54	13.51
		Channel			648934	650000	650668
		Frequency (MHz)			3740.01	3750	3740.02
80	QPSK	1	1		13.54	13.55	13.53
		Channel			648000	650000	651000
		Frequency (MHz)			3735	3750	3765
70	QPSK	1	1		13.50	13.52	13.57
		Channel			3730.02	3750	3770.01
60	QPSK	1	1		13.57	13.56	13.58
		Channel			648334	650000	651668
		Frequency (MHz)			3725.01	3750	3775.02
50	QPSK	1	1		13.53	13.50	13.56
		Channel			648000	650000	652000
		Frequency (MHz)			3720	3750	3780
40	QPSK	1	1		13.53	13.55	13.50
		Channel			647668	650000	652334
		Frequency (MHz)			3715.02	3750	3785.01
30	QPSK	1	1		13.53	13.51	13.58
		Channel			647334	650000	652668
		Frequency (MHz)			3710.01	3750	3780.02
25	QPSK	1	1		13.52	13.57	13.56
		Channel			647000	650000	652834
		Frequency (MHz)			3707.52	3750	3782.51
20	QPSK	1	1		13.55	13.57	13.59
		Channel			647168	650000	652634
		Frequency (MHz)			3707.52	3750	3782.51
15	QPSK	1	1		13.52	13.58	13.55
		Channel			647000	650000	653000
		Frequency (MHz)			3705	3750	3795
10	QPSK	1	1		13.59	13.59	13.53

Part270 n77 HPUE Ant 8 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel				3750	3640	3930		
Frequency (MHz)				16.82	16.77	16.66		
100	PI/2 BPSK	1	1	16.82	16.77	16.66		
100	PI/2 BPSK	1	137	16.85	16.86	16.71	17.9	0.0
100	PI/2 BPSK	1	271	16.81	16.78	16.81		
100	PI/2 BPSK	135	0	16.73	16.85	16.60	17.9	0.0
100	PI/2 BPSK	135	69	16.68	16.75	16.51	17.9	0.0
100	PI/2 BPSK	135	138	16.61	16.60	16.52		
100	PI/2 BPSK	270	0	16.74	16.79	16.60	17.9	0.0
100	QPSK	1	1	16.83	17.05	16.85		
100	QPSK	1	137	16.86	16.83	16.83	17.9	0.0
100	QPSK	1	271	16.73	16.77	16.62		
100	QPSK	135	0	16.64	16.80	16.74	17.9	0.0
100	QPSK	135	69	16.66	16.93	16.69	17.9	0.0
100	QPSK	135	138	16.74	16.73	16.69		
100	QPSK	270	0	16.72	16.86	16.67	17.9	0.0
100	16QAM	1	1	16.70	16.77	16.62	17.9	0.0
100	64QAM	1	1	16.64	16.83	16.64	17.9	0.0
100	256QAM	1	1	16.73	16.92	16.76	17.9	0.0
Channel				659668	656000	662334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3640	3935.01		
90	QPSK	1	1	16.76	16.88	16.82	17.9	0.0
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3743.01	3640	3940.02		
80	QPSK	1	1	16.73	16.92	16.75	17.9	0.0
Channel				649000	656000	663000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3640	3945		
70	QPSK	1	1	16.74	16.91	16.81	17.9	0.0
Channel				649000	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3640	3950.01		
60	QPSK	1	1	16.73	16.89	16.81	17.9	0.0
Channel				648334	656000	663668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3640	3955.02		
50	QPSK	1	1	16.80	16.92	16.83	17.9	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3640	3960		
40	QPSK	1	1	16.74	16.94	16.81	17.9	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3640	3965.01		
30	QPSK	1	1	16.79	16.93	16.81	17.9	0.0
Channel				647000	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3712.5	3640	3967.5		
25	QPSK	1	1	16.79	16.90	16.76	17.9	0.0
Channel				647334	656000	664998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3640	3970.02		
20	QPSK	1	1	16.77	16.94	16.83	17.9	0.0
Channel				647168	656000	664834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3640	3972.51		
15	QPSK	1	1	16.75	16.96	16.74	17.9	0.0
Channel				647000	656000	665000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3640	3975		
10	QPSK	1	1	16.79	16.91	16.79	17.9	0.0

Part270 n78 HPUE Ant 8 ECI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel					3750			
Frequency (MHz)					16.88			
100	PI2 BPSK	1	1		16.88		17.9	0.0
100	PI2 BPSK	1	137		16.88			
100	PI2 BPSK	1	271		16.86			
100	PI2 BPSK	135	0		16.89		17.9	0.0
100	PI2 BPSK	135	69		16.70		17.9	0.0
100	PI2 BPSK	135	138		16.81		17.9	0.0
100	PI2 BPSK	270	0		16.80			
100	QPSK	1	1		17.03			
100	QPSK	1	137		16.89		17.9	0.0
100	QPSK	1	271		16.70			
100	QPSK	135	0		16.79		17.9	0.0
100	QPSK	135	69		16.85		17.9	0.0
100	QPSK	135	138		16.74		17.9	0.0
100	QPSK	270	0		16.84			
100	16QAM	1	1		16.70		17.9	0.0
100	64QAM	1	1		16.76		17.9	0.0
100	256QAM	1	1		16.75		17.9	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	16.99	16.98	16.95	17.9	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3743.01	3750	3750.02		
80	QPSK	1	1	16.94	16.99	16.93	17.9	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	16.93	17.02	16.95	17.9	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
60	QPSK	1	1	17.00	16.92	16.99	17.9	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	16.92	16.94	16.99	17.9	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	16.99	16.95	17.00	17.9	0.0
Channel				647000	650000	652500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3712.5	3750	3787.5		
25	QPSK	1	1	16.96	17.01	16.98	17.9	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	16.97	16.98	16.99	17.9	0.0
Channel				647168	650000	652834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3750	3792.51		
15	QPSK	1	1	16.98	17.00	17.00	17.9	0.0
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	16.93	16.97	16.98	17.9	0.0



Reduced Power Mode for EC13

n2 Ant 0 EC13

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				1470	1480	1490	22.1	0.0
Frequency (MHz)				374000	376000	378000		
40	QPSK	1	1	21.00	21.10	21.09		
40	QPSK	1	108	20.87	21.05	20.79	22.1	0.0
40	QPSK	1	214	20.75	20.96	20.76		
40	QPSK	108	0	20.86	20.93	20.82		
40	QPSK	108	54	20.80	21.05	20.86	22.1	0.0
40	QPSK	108	108	20.76	20.89	20.80	22.1	0.0
40	QPSK	216	0	20.88	20.99	20.90		

n5 Ant 0 EC13

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800	24.0	0.0
Frequency (MHz)				834	836.5	839		
20	PI2 BPSK	1	1	23.15	23.22	23.10		
20	PI2 BPSK	1	53	23.07	23.06	23.14	23.5	0.5
20	PI2 BPSK	1	104	23.11	23.13	22.99		
20	PI2 BPSK	50	0	22.54	22.61	22.59		
20	PI2 BPSK	50	28	23.06	23.15	23.10	24.0	0.0
20	PI2 BPSK	50	56	22.87	22.53	22.41	23.5	0.5
20	PI2 BPSK	100	0	22.58	22.66	22.38		
20	QPSK	1	1	23.06	23.22	22.96		
20	QPSK	1	53	23.04	23.08	22.81	24.0	0.0
20	QPSK	1	104	23.00	23.01	22.94		
20	QPSK	50	0	21.84	21.93	21.73		
20	QPSK	50	28	23.02	23.11	22.92	24.0	0.0
20	QPSK	50	56	21.86	22.02	21.81	23.0	1.0
20	QPSK	100	0	21.96	21.99	21.69		
20	16QAM	1	1	21.86	21.89	21.81	23.0	1.0
20	64QAM	1	1	20.83	20.80	20.36	21.5	2.5
20	256QAM	1	1	19.14	19.22	19.17	19.5	4.5
Channel				166300	167300	168300	Tune-up limit	MPR
Frequency (MHz)				831.5	836.5	841.5	(dBm)	(dB)
15	QPSK	1	1	22.88	23.02	22.86	24.0	0.0
Channel				165300	167300	169300	Tune-up limit	MPR
Frequency (MHz)				829	836.5	844	(dBm)	(dB)
10	QPSK	1	1	22.88	23.05	22.79	24.0	0.0
Channel				165300	167300	169300	Tune-up limit	MPR
Frequency (MHz)				826.5	836.5	846.5	(dBm)	(dB)
5	QPSK	1	1	22.87	23.06	22.85	24.0	0.0

n7 Ant 0 EC13

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				2025	2035	2045	21.7	0.0
Frequency (MHz)				505000	507000	509000		
50	QPSK	1	1	20.67	20.73	20.64		
50	QPSK	1	135	20.57	20.61	20.60	21.7	0.0
50	QPSK	1	268	20.50	20.58	20.59		
50	QPSK	135	0	20.45	20.55	20.42		
50	QPSK	135	68	20.47	20.63	20.37	21.7	0.0
50	QPSK	135	135	20.41	20.53	20.45	21.7	0.0
50	QPSK	270	0	20.46	20.51	20.48		



n26 Ant 0 ECI3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				164800	166300	167800	24.0	0.0
Frequency (MHz)				834	831.5	839		
20	PI2 BPSK	1	1	23.01	23.05	23.09	24.0	0.0
20	PI2 BPSK	1	53	23.11	23.11	23.11		
20	PI2 BPSK	1	104	23.20	23.17	23.19		
20	PI2 BPSK	50	0	22.77	22.76	22.77	23.5	0.5
20	PI2 BPSK	50	28	23.20	23.12	23.15	24.0	0.0
20	PI2 BPSK	50	56	22.80	22.75	22.75	23.5	0.5
20	PI2 BPSK	100	0	22.72	22.80	22.80		
20	QPSK	1	1	23.25	23.27	23.22		
20	QPSK	1	53	23.11	23.21	23.19	24.0	0.0
20	QPSK	1	104	23.12	23.19	23.17		
20	QPSK	50	0	22.12	22.21	22.18		
20	QPSK	50	28	23.17	23.22	23.14	24.0	0.0
20	QPSK	50	56	22.32	22.33	22.26	23.0	1.0
20	QPSK	100	0	22.29	22.33	22.29		
20	16QAM	1	1	21.90	21.93	21.90	23.0	1.0
20	64QAM	1	1	20.52	20.56	20.48	21.5	2.5
20	256QAM	1	1	19.00	19.16	19.14	19.5	4.5
Channel				164300	166300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				821.5	831.5	841.5	24.0	0.0
15	QPSK	1	1	23.15	23.26	23.20		
Channel				155100	155300	155500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844	24.0	0.0
10	QPSK	1	1	23.23	23.22	23.12		
Channel				163300	163300	166000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5	24.0	0.0
5	QPSK	1	1	23.19	23.26	23.15		

n66 Ant 0 ECI3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				346000	349000	352000	23.8	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	22.59	22.69	22.61	23.8	0.0
40	QPSK	1	108	22.53	22.60	22.51		
40	QPSK	1	214	22.52	22.56	22.51		
40	QPSK	108	0	21.81	21.94	21.89	23.0	0.8
40	QPSK	108	54	22.57	22.59	22.53	23.8	0.0
40	QPSK	108	108	21.77	21.84	21.79	23.0	0.8
40	QPSK	216	0	21.75	21.89	21.63		



n41 Ant 0 EC13								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				508202	518098	528000	21.3	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	20.10	20.26	20.22		
100	QPSK	1	137	20.03	20.12	20.09	21.3	0.0
100	QPSK	1	271	20.12	20.12	20.03		
100	QPSK	135	0	20.01	20.19	20.07		
100	QPSK	135	69	20.03	20.21	20.11	21.3	0.0
100	QPSK	135	138	20.00	20.11	19.92		
100	QPSK	270	0	20.11	20.12	19.98		



n2 Ant 1 ECI3

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	24.0	0.0
Frequency [MHz]				1870	1880	1890		
40	QPSK	1	1	23.17	23.19	23.10		
40	QPSK	1	108	22.07	22.06	22.96		
40	QPSK	1	214	22.93	22.08	22.95	23.0	1.0
40	QPSK	108	0	21.95	22.02	21.83		
40	QPSK	108	54	23.02	23.04	22.86	24.0	0.0
40	QPSK	108	168	21.96	21.92	21.87	23.0	1.0
40	QPSK	216	0	21.89	22.08	21.73		

n5 Ant 1 ECI3

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)		
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.				
Channel				166800	167300	167800	24.0	0.0		
Frequency (MHz)				834	836.5	839				
20	PI2 BPSK	1	1	22.77	22.75	22.69			23.5	0.5
20	PI2 BPSK	1	53	22.60	22.63	22.74				
20	PI2 BPSK	1	104	22.61	22.64	22.43	23.5	0.5		
20	PI2 BPSK	50	0	22.07	22.12	22.08				
20	PI2 BPSK	50	28	22.61	22.68	22.62	24.0	0.0		
20	PI2 BPSK	50	56	21.82	22.03	21.89	23.5	0.5		
20	PI2 BPSK	100	0	22.10	22.28	22.02				
20	QPSK	1	1	22.77	22.83	22.74	24.0	0.0		
20	QPSK	1	53	22.80	22.68	22.48				
20	QPSK	1	104	22.67	22.76	22.63				
20	QPSK	50	0	21.56	21.67	21.45				
20	QPSK	50	28	22.64	22.78	22.64	24.0	0.0		
20	QPSK	50	56	21.65	21.61	21.57	23.0	1.0		
20	QPSK	100	0	21.52	21.63	21.45				
20	16QAM	1	1	21.48	21.55	21.47	23.0	1.0		
20	64QAM	1	1	20.21	20.21	20.08	21.5	2.5		
20	256QAM	1	1	18.79	18.85	18.83	19.5	4.5		
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				831.5	836.5	841.5				
15	QPSK	1	1	22.64	22.65	22.64	24.0	0.0		
Channel				166800	167300	168800	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				836	836.5	844				
10	QPSK	1	1	22.58	22.71	22.56	24.0	0.0		
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				826.5	836.5	846.5				
5	QPSK	1	1	22.61	22.67	22.63	24.0	0.0		

n7 Ant 1 ECI3

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)		
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.				
Channel				508000	507000	509000	22.9	0.0		
Frequency (MHz)				2525	2535	2545				
50	QPSK	1	1	21.63	21.77	21.71			22.9	0.0
50	QPSK	1	135	21.63	21.73	21.63				
50	QPSK	1	268	21.55	21.62	21.59	22.9	0.0		
50	QPSK	135	0	21.52	21.73	21.54				
50	QPSK	135	68	21.60	21.74	21.62	22.9	0.0		
50	QPSK	135	135	21.56	21.59	21.50	22.9	0.0		
50	QPSK	270	0	21.64	21.69	21.62				



n26 Ant 1 EC13									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 164800	Power Middle Ch. / Freq. 166300	Power High Ch. / Freq. 167800	Tune-up limit (dBm)	MPR (db)	
Channel				824	831.5	839			
Frequency (MHz)				22.71	22.77	22.69			
20	PI2 BPSK	1	1	22.71	22.77	22.69	24.0	0.0	
20	PI2 BPSK	1	53	22.73	22.83	22.73			
20	PI2 BPSK	1	104	22.76	22.85	22.81			
20	PI2 BPSK	50	0	22.36	22.41	22.32	23.5	0.5	
20	PI2 BPSK	50	28	22.80	22.85	22.83	24.0	0.0	
20	PI2 BPSK	50	56	22.32	22.41	22.31	23.5	0.5	
20	PI2 BPSK	100	0	22.29	22.39	22.34			
20	QPSK	1	1	22.81	22.88	22.82			
20	QPSK	1	53	22.81	22.85	22.78	24.0	0.0	
20	QPSK	1	104	22.78	22.81	22.71			
20	QPSK	50	0	21.80	21.88	21.87	23.0	1.0	
20	QPSK	50	28	22.76	22.83	22.76	24.0	0.0	
20	QPSK	50	56	21.89	21.95	21.90	23.0	1.0	
20	QPSK	100	0	21.82	21.93	21.87			
20	16QAM	1	1	21.47	21.55	21.52	23.0	1.0	
20	64QAM	1	1	20.12	20.15	20.10	21.5	2.5	
20	256QAM	1	1	18.66	18.75	18.74	19.5	4.5	
Channel				164300	166300	168300	Tune-up limit (dBm)	MPR (db)	
Frequency (MHz)				831.5	831.5	841.5			
15	QPSK	1	1	22.71	22.83	22.73	24.0	0.0	
Channel				163800	166300	168800	Tune-up limit (dBm)	MPR (db)	
Frequency (MHz)				819	831.5	844			
10	QPSK	1	1	22.72	22.80	22.76	24.0	0.0	
Channel				163300	166300	169300	Tune-up limit (dBm)	MPR (db)	
Frequency (MHz)				816.5	831.5	846.5			
5	QPSK	1	1	22.78	22.87	22.78	24.0	0.0	

n66 Ant 1 ECI3									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Mid Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)	
Channel				1730	1745	1760			
Frequency (MHz)				22.29	22.38	22.32			
40	QPSK	1	1	22.29	22.38	22.32	23.5	0.0	
40	QPSK	1	108	22.20	22.22	22.23			
40	QPSK	1	214	22.17	22.23	22.14			
40	QPSK	108	0	22.04	22.12	21.96	23.0	0.5	
40	QPSK	108	54	22.27	22.34	22.30	23.5	0.0	
40	QPSK	108	108	22.14	22.12	22.00	23.0	0.5	
40	QPSK	216	0	22.01	22.18	21.98			



n41 Ant 1 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power		Power		Tune-up limit (dBm)	MPR (dB)
				Low	High	Low	High		
				Ch. / Freq.	Ch. / Freq.	Ch. / Freq.	Ch. / Freq.		
Channel				508202	518598	528990			
Frequency (MHz)				2546.01	2592.99	2640			
100	QPSK	1	1	19.60	19.61	19.57			
100	QPSK	1	137	19.55	19.53	19.38		20.6	0.0
100	QPSK	1	271	19.37	19.48	19.31			
100	QPSK	135	0	19.31	19.49	19.48		20.6	0.0
100	QPSK	135	69	19.49	19.54	19.53		20.6	0.0
100	QPSK	135	138	19.40	19.42	19.37			
100	QPSK	270	0	19.38	19.47	19.43			



n2 Ant 2 ECI3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)
Channel				1870	1880	1890	17.8	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	16.81	16.90	16.85		
40	QPSK	1	108	16.77	16.79	16.76		
40	QPSK	1	214	16.70	16.77	16.84	17.8	0.0
40	QPSK	108	0	16.74	16.75	16.72		
40	QPSK	108	54	16.75	16.77	16.70		
40	QPSK	108	108	16.63	16.67	16.57		
40	QPSK	216	0	16.59	16.73	16.60	17.8	0.0

n7 Ant 2 ECI3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 506000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 509000	Tune-up limit (dBm)	MPR (dB)
Channel				2525	2535	2545	20.0	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	18.94	18.95	18.91		
50	QPSK	1	135	18.92	18.92	18.73		
50	QPSK	1	268	18.82	18.91	18.88	20.0	0.0
50	QPSK	135	0	18.91	18.91	18.81		
50	QPSK	135	68	18.82	18.98	18.81		
50	QPSK	135	135	18.86	18.98	18.74		
50	QPSK	270	0	18.82	18.87	18.78	20.0	0.0

n66 Ant 2 ECI3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 348000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel				1730	1745	1760	19.3	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	18.24	18.37	18.31		
40	QPSK	1	108	18.16	18.22	18.21		
40	QPSK	1	214	18.12	18.18	18.07	19.3	0.0
40	QPSK	108	0	18.16	18.26	18.15		
40	QPSK	108	54	18.16	18.28	18.25		
40	QPSK	108	108	18.10	18.20	18.08		
40	QPSK	216	0	18.17	18.25	18.13	19.3	0.0



n41 Ant 2 EC13								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				508202	518598	528990	19.0	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	17.59	17.74	17.68		
100	QPSK	1	137	17.48	17.51	17.45	19.0	0.0
100	QPSK	1	271	17.67	17.56	17.54		
100	QPSK	135	0	17.51	17.52	17.34		
100	QPSK	135	69	17.53	17.86	17.44	19.0	0.0
100	QPSK	135	138	17.44	17.62	17.43		
100	QPSK	270	0	17.47	17.62	17.39		



n2 Ant 3 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	21.1	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	19.98	20.13	20.04		
40	QPSK	1	108	19.94	20.08	19.92	21.1	0.0
40	QPSK	1	214	20.06	20.07	19.86		
40	QPSK	108	0	19.92	20.02	20.01		
40	QPSK	108	54	20.10	20.11	20.01	21.1	0.0
40	QPSK	108	108	19.91	19.90	20.00	21.1	0.0
40	QPSK	216	0	19.95	20.08	19.92		

n7 Ant 3 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	19.9	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	18.69	18.75	18.59		
50	QPSK	1	135	18.62	18.62	18.58	19.9	0.0
50	QPSK	1	268	18.58	18.58	18.66		
50	QPSK	135	0	18.54	18.56	18.45		
50	QPSK	135	68	18.65	18.67	18.38	19.9	0.0
50	QPSK	135	135	18.62	18.46	18.38	19.9	0.0
50	QPSK	270	0	18.52	18.61	18.47		

n66 Ant 3 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch. / Freq	Power Ch. / Freq	Power Ch. / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				348000	349000	352000	21.6	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	20.40	20.59	20.45		
40	QPSK	1	108	20.41	20.54	20.42		
40	QPSK	1	214	20.30	20.44	20.25		
40	QPSK	108	0	20.40	20.34	20.37	21.6	0.0
40	QPSK	108	54	20.41	20.53	20.34	21.6	0.0
40	QPSK	108	108	20.19	20.39	20.34	21.6	0.0
40	QPSK	216	0	20.28	20.38	20.34		



n41 Ant 3 ECI3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	516598	526000	MPR (dB)
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	19.70	19.72	19.60	
100	QPSK	1	137	19.47	19.54	19.55	20.7
100	QPSK	1	271	19.39	19.57	19.42	
100	QPSK	135	0	19.50	19.61	19.45	20.7
100	QPSK	135	69	19.58	19.62	19.55	20.7
100	QPSK	135	138	19.53	19.52	19.41	20.7
100	QPSK	270	0	19.53	19.60	19.45	

Part270 n77 HPUE Ant 3 ECI3									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000			
Frequency (MHz)				3750	3840	3930			
100	PI2 BPSK	1	1	19.12	19.16	18.98			
100	PI2 BPSK	1	137	18.99	18.94	18.81	20.6		
100	PI2 BPSK	1	271	18.75	18.98	18.81			
100	PI2 BPSK	135	0	19.03	19.22	18.93	20.6		
100	PI2 BPSK	135	69	19.08	19.21	18.98	20.6		
100	PI2 BPSK	135	138	18.99	18.95	18.75	20.6		
100	PI2 BPSK	270	0	18.70	19.00	18.90			
100	QPSK	1	1	19.14	19.24	19.00			
100	QPSK	1	137	18.96	19.01	18.85	20.6		
100	QPSK	1	271	18.77	19.09	18.84			
100	QPSK	135	0	18.91	18.96	18.76	20.6		
100	QPSK	135	69	18.13	19.15	18.91	20.6		
100	QPSK	135	138	18.86	18.99	18.74	20.6		
100	QPSK	270	0	18.73	19.08	18.83			
100	16QAM	1	1	19.10	19.23	18.97	20.6		
100	64QAM	1	1	18.92	18.97	18.81	20.6		
100	256QAM	1	1	18.69	18.99	18.83	20.5		
Channel				650000	656000	662000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	19.10	19.22	18.95	20.6		
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3840	3940.02			
80	QPSK	1	1	19.01	19.20	18.99	20.6		
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	19.07	19.10	18.93	20.6		
Channel				648568	650000	651334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3840	3950.01			
60	QPSK	1	1	19.03	19.23	18.99	20.6		
Channel				648134	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3840	3955.02			
50	QPSK	1	1	19.05	19.14	18.90	20.6		
Channel				648000	650000	654000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3840	3960			
40	QPSK	1	1	18.89	19.00	18.80	20.6		
Channel				647688	650000	654334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	18.94	18.91	18.82	20.6		
Channel				647500	650000	654000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3840	3967.5			
25	QPSK	1	1	18.86	19.00	18.79	20.6		
Channel				647334	650000	654668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3840	3970.02			
20	QPSK	1	1	18.89	18.92	18.79	20.6		
Channel				647168	650000	654834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3840	3972.51			
15	QPSK	1	1	18.89	18.84	18.81	20.6		
Channel				647000	650000	655000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	18.93	18.96	18.80	20.6		

Part270 n78 HPUE Ant 3 ECI3									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000			
Frequency (MHz)				3750					
100	PI2 BPSK	1	1	19.11					
100	PI2 BPSK	1	137	18.98			20.6		
100	PI2 BPSK	1	271	18.91					
100	PI2 BPSK	135	0	19.11			20.6		
100	PI2 BPSK	135	69	19.12			20.6		
100	PI2 BPSK	135	138	18.94			20.6		
100	PI2 BPSK	270	0	18.91					
100	QPSK	1	1	19.14					
100	QPSK	1	137	19.00			20.6		
100	QPSK	1	271	19.00					
100	QPSK	135	0	18.92			20.6		
100	QPSK	135	69	19.12			20.6		
100	QPSK	135	138	18.95			20.6		
100	QPSK	270	0	19.05					
100	16QAM	1	1	19.12			20.6		
100	64QAM	1	1	18.89			20.6		
100	256QAM	1	1	18.94			20.5		
Channel				650000	656000	659334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1	19.04	18.06	18.90	20.6		
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3750	3762.02			
80	QPSK	1	1	19.02	19.01	18.98	20.6		
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1	18.99	19.00	18.90	20.6		
Channel				648568	650000	651334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1	19.03	19.06	18.89	20.6		
Channel				648134	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3750	3775.02			
50	QPSK	1	1	19.09	19.05	18.90	20.6		
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3780			
40	QPSK	1	1	19.06	19.07	18.87	20.6		
Channel				647688	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3750	3785.01			
30	QPSK	1	1	19.07	19.08	18.93	20.6		
Channel				647500	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3750	3787.5			
25	QPSK	1	1	19.09	19.06	18.85	20.6		
Channel				647334	650000	652998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3750	3790.02			
20	QPSK	1	1	19.03	19.03	18.85	20.6		
Channel				647168	650000	652834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3750	3792.51			
15	QPSK	1	1	19.05	19.07	18.86	20.6		
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3750	3795			
10	QPSK	1	1	19.05	18.99	18.87	20.6		

Part27O n77 HPUE Ant 4 ECI3							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	
Channel							
Frequency (MHz)							
100	PI/2 BPSK	1	1	3750	3840	3930	
100	PI/2 BPSK	1	137	18.12	18.38	18.12	
100	PI/2 BPSK	1	271	18.17	18.14	17.92	19.7
100	PI/2 BPSK	135	0	18.10	18.36	18.09	19.7
100	PI/2 BPSK	135	69	18.11	18.38	18.13	19.7
100	PI/2 BPSK	135	138	18.13	18.14	17.90	19.7
100	PI/2 BPSK	270	0	17.94	18.11	18.04	19.7
100	QPSK	1	1	18.20	18.42	18.16	
100	QPSK	1	137	18.22	18.17	18.02	19.7
100	QPSK	1	271	18.03	18.14	18.05	
100	QPSK	135	0	18.20	18.09	17.96	19.7
100	QPSK	135	69	18.16	18.36	18.06	19.7
100	QPSK	135	138	18.14	18.07	17.95	19.7
100	QPSK	270	0	17.96	18.11	17.94	19.7
100	16QAM	1	1	18.17	18.34	18.11	19.7
100	64QAM	1	1	18.14	18.07	17.94	19.7
100	256QAM	1	1	17.99	18.11	17.97	19.7
Channel							
Frequency (MHz)							
90	QPSK	1	1	18.19	18.33	18.13	19.7
Channel							
Frequency (MHz)							
80	QPSK	1	1	18.17	18.35	18.12	19.7
Channel							
Frequency (MHz)							
70	QPSK	1	1	3735	3840	3945	
70	QPSK	1	1	18.15	18.33	18.07	19.7
Channel							
Frequency (MHz)							
60	QPSK	1	1	3730.02	3840	3950.01	
60	QPSK	1	1	18.17	18.40	18.07	19.7
Channel							
Frequency (MHz)							
50	QPSK	1	1	649334	656000	663668	
50	QPSK	1	1	18.19	18.32	18.12	19.7
Channel							
Frequency (MHz)							
40	QPSK	1	1	648000	656000	664000	
40	QPSK	1	1	18.14	18.39	18.14	19.7
Channel							
Frequency (MHz)							
30	QPSK	1	1	647668	656000	663334	
30	QPSK	1	1	18.17	18.32	18.14	19.7
Channel							
Frequency (MHz)							
25	QPSK	1	1	3712.5	3840	3967.5	
25	QPSK	1	1	18.10	18.38	18.13	19.7
Channel							
Frequency (MHz)							
20	QPSK	1	1	647334	656000	664668	
20	QPSK	1	1	18.11	18.31	18.06	19.7
Channel							
Frequency (MHz)							
15	QPSK	1	1	647168	656000	664834	
15	QPSK	1	1	3707.52	3840	3972.51	
15	QPSK	1	1	18.14	18.41	18.10	19.7
Channel							
Frequency (MHz)							
10	QPSK	1	1	647000	656000	665000	
10	QPSK	1	1	3705	3840	3975	
10	QPSK	1	1	18.17	18.33	18.14	19.7

Part27O n78 HPUE Ant 4 ECI3							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	
Channel							
Frequency (MHz)							
100	PI/2 BPSK	1	1		3750		
100	PI/2 BPSK	1	137		18.31		
100	PI/2 BPSK	1	271		18.08		19.7
100	PI/2 BPSK	135	0		18.31		19.7
100	PI/2 BPSK	135	69		18.30		19.7
100	PI/2 BPSK	135	138		18.07		19.7
100	PI/2 BPSK	270	0		18.01		19.7
100	QPSK	1	1		18.52		
100	QPSK	1	137		18.15		19.7
100	QPSK	1	271		18.10		
100	QPSK	135	0		18.02		19.7
100	QPSK	135	69		18.28		19.7
100	QPSK	135	138		17.97		19.7
100	QPSK	270	0		18.01		19.7
100	16QAM	1	1		18.25		19.7
100	64QAM	1	1		18.00		19.7
100	256QAM	1	1		18.10		19.7
Channel							
Frequency (MHz)							
90	QPSK	1	1	649668	650000	650334	
90	QPSK	1	1	3745.02	3750	3755.01	
90	QPSK	1	1	18.09	18.28	18.07	19.7
Channel							
Frequency (MHz)							
80	QPSK	1	1	649334	650000	650668	
80	QPSK	1	1	3743.01	3750	3763.02	
80	QPSK	1	1	18.09	18.23	18.09	19.7
Channel							
Frequency (MHz)							
70	QPSK	1	1	649000	650000	651000	
70	QPSK	1	1	3735	3750	3765	
70	QPSK	1	1	18.12	18.23	18.05	19.7
Channel							
Frequency (MHz)							
60	QPSK	1	1	648668	650000	651334	
60	QPSK	1	1	3730.02	3750	3770.01	
60	QPSK	1	1	18.09	18.30	18.03	19.7
Channel							
Frequency (MHz)							
50	QPSK	1	1	648334	650000	651668	
50	QPSK	1	1	3725.01	3750	3775.02	
50	QPSK	1	1	18.15	18.23	18.07	19.7
Channel							
Frequency (MHz)							
40	QPSK	1	1	648000	650000	652000	
40	QPSK	1	1	3720	3750	3780	
40	QPSK	1	1	18.12	18.31	18.06	19.7
Channel							
Frequency (MHz)							
30	QPSK	1	1	647668	650000	652334	
30	QPSK	1	1	3715.02	3750	3765.01	
30	QPSK	1	1	18.13	18.29	18.04	19.7
Channel							
Frequency (MHz)							
25	QPSK	1	1	647334	650000	652668	
25	QPSK	1	1	3712.5	3750	3767.5	
25	QPSK	1	1	18.12	18.30	18.03	19.7
Channel							
Frequency (MHz)							
20	QPSK	1	1	647000	650000	653000	
20	QPSK	1	1	3705	3750	3795	
20	QPSK	1	1	18.10	18.28	18.08	19.7
Channel							
Frequency (MHz)							
15	QPSK	1	1	646668	650000	652834	
15	QPSK	1	1	3707.52	3750	3792.51	
15	QPSK	1	1	18.09	18.31	18.09	19.7
Channel							
Frequency (MHz)							
10	QPSK	1	1	646334	650000	653000	
10	QPSK	1	1	3705	3750	3795	
10	QPSK	1	1	18.10	18.28	18.08	19.7

Part270 n77 HPUE Ant 6 EC13									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel				3750	3840	3930	18.7	0.0	
Frequency (MHz)				17.55	17.55	17.52			
100	PV2 BPSK	1	1	17.55	17.55	17.52			
100	PV2 BPSK	1	137	17.52	17.67	17.58			
100	PV2 BPSK	1	271	17.40	17.55	17.45	18.7	0.0	
100	PV2 BPSK	135	0	17.40	17.51	17.36			
100	PV2 BPSK	135	69	17.43	17.41	17.29			
100	PV2 BPSK	135	138	17.36	17.47	17.39			
100	PV2 BPSK	270	0	17.46	17.49	17.44	18.7	0.0	
100	QPSK	1	1	17.57	17.75	17.50			
100	QPSK	1	137	17.60	17.62	17.62			
100	QPSK	1	271	17.36	17.71	17.51			
100	QPSK	135	0	17.51	17.67	17.64	18.7	0.0	
100	QPSK	135	69	17.62	17.69	17.57			
100	QPSK	135	138	17.43	17.60	17.52			
100	QPSK	270	0	17.55	17.62	17.56			
100	16QAM	1	1	17.47	17.50	17.40	18.7	0.0	
100	64QAM	1	1	17.48	17.48	17.48			
100	256QAM	1	1	17.61	17.66	17.54			
Channel				648968	650000	662334	18.7	MPR (dB)	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	17.55	17.73	17.55		18.7	
Channel				648934	650000	662068			
Frequency (MHz)				3743.01	3840	3940.02			
80	QPSK	1	1	17.58	17.70	17.59	18.7	0.0	
Channel				649000	650000	663000			
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	17.62	17.67	17.53		18.7	
Channel				3730.02	3840	3950.01			
Frequency (MHz)				17.60	17.71	17.56		18.7	
60	QPSK	1	1	17.60	17.71	17.56			
Channel				648934	650000	663068	18.7	MPR (dB)	
Frequency (MHz)				3728.01	3840	3955.02			
50	QPSK	1	1	17.60	17.65	17.55		18.7	
Channel				648000	650000	664000			
Frequency (MHz)				3720	3750	3790			
40	QPSK	1	1	17.59	17.68	17.53	18.7	0.0	
Channel				647668	650000	664334			
Frequency (MHz)				3718.02	3840	3965.01			
30	QPSK	1	1	17.63	17.66	17.62		18.7	
Channel				3712.01	3840	3970.02			
Frequency (MHz)				3712.5	3840	3967.5			
25	QPSK	1	1	17.57	17.63	17.52	18.7	0.0	
Channel				647334	650000	664668			
Frequency (MHz)				3707.52	3840	3972.51			
20	QPSK	1	1	17.57	17.69	17.55		18.7	
Channel				647168	650000	664834			
Frequency (MHz)				3707.52	3840	3972.51			
15	QPSK	1	1	17.60	17.63	17.57	18.7	0.0	
Channel				647000	650000	665000			
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	17.59	17.67	17.53		18.7	

Part270 n78 HPUE Ant 6 EC13									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel				3750			18.7	0.0	
Frequency (MHz)				17.44					
100	PV2 BPSK	1	1	17.44					
100	PV2 BPSK	1	137	17.44					
100	PV2 BPSK	1	271	17.33			18.7	0.0	
100	PV2 BPSK	135	0	17.38					
100	PV2 BPSK	135	69	17.35					
100	PV2 BPSK	135	138	17.32					
100	PV2 BPSK	270	0	17.37			18.7	0.0	
100	QPSK	1	1	17.65					
100	QPSK	1	137	17.46					
100	QPSK	1	271	17.40					
100	QPSK	135	0	17.60			18.7	0.0	
100	QPSK	135	69	17.62					
100	QPSK	135	138	17.46					
100	QPSK	270	0	17.41					
100	16QAM	1	1	17.39			18.7	0.0	
100	64QAM	1	1	17.33					
100	256QAM	1	1	17.31					
Channel				648668	650000	660334	18.7	MPR (dB)	
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1	17.58	17.59	17.61		18.7	
Channel				648934	650000	660668			
Frequency (MHz)				3743.01	3750	3749.02			
80	QPSK	1	1	17.60	17.59	17.62	18.7	0.0	
Channel				649000	650000	661000			
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1	17.58	17.58	17.64		18.7	
Channel				3730.02	3750	3770.01			
Frequency (MHz)				17.62	17.58	17.61		18.7	
60	QPSK	1	1	17.62	17.58	17.61			
Channel				648934	650000	661668	18.7	MPR (dB)	
Frequency (MHz)				3728.01	3750	3775.02			
50	QPSK	1	1	17.62	17.57	17.64		18.7	
Channel				648000	650000	662000			
Frequency (MHz)				3720	3750	3790			
40	QPSK	1	1	17.53	17.58	17.56	18.7	0.0	
Channel				647668	650000	662334			
Frequency (MHz)				3718.02	3750	3785.01			
30	QPSK	1	1	17.55	17.63	17.55		18.7	
Channel				647334	650000	662668			
Frequency (MHz)				3712.01	3750	3780.02			
25	QPSK	1	1	17.57	17.63	17.62	18.7	0.0	
Channel				647334	650000	662868			
Frequency (MHz)				3707.52	3750	3792.51			
20	QPSK	1	1	17.63	17.64	17.60		18.7	
Channel				647168	650000	662834			
Frequency (MHz)				3707.52	3750	3792.51			
15	QPSK	1	1	17.62	17.57	17.60	18.7	0.0	
Channel				647000	650000	663000			
Frequency (MHz)				3705	3750	3795			
10	QPSK	1	1	17.63	17.58	17.63		18.7	

Part270 n77 HPUE Ant 8 EC13									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	3750 / 3840	662000			
Frequency (MHz)									
100	PI2 BPSK	1	1	19.34	19.32	19.15	20.2	0.0	
100	PI2 BPSK	1	137	19.32	19.33	19.27			
100	PI2 BPSK	1	271	19.27	19.25	19.32			
100	PI2 BPSK	135	0	19.28	19.36	19.11	20.2	0.0	
100	PI2 BPSK	135	69	19.11	19.21	19.05	20.2	0.0	
100	PI2 BPSK	135	138	19.19	19.19	19.04	20.2	0.0	
100	PI2 BPSK	270	0	19.19	19.19	19.08			
100	QPSK	1	1	19.25	19.53	19.37			
100	QPSK	1	137	19.34	19.31	19.33	20.2	0.0	
100	QPSK	1	271	19.21	19.26	19.14	20.2	0.0	
100	QPSK	135	0	19.17	19.31	19.22			
100	QPSK	135	69	19.28	19.42	19.24			
100	QPSK	135	138	19.20	19.24	19.24	20.2	0.0	
100	QPSK	270	0	19.20	19.33	19.19	20.2	0.0	
100	16QAM	1	1	19.21	19.25	19.16			
100	64QAM	1	1	19.13	19.12	19.16			
100	256QAM	1	1	19.05	19.02	19.07	20.2	0.0	
Channel				649968	650000	662334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	19.06	19.03	19.13	20.2	0.0	
Channel				649334	650000	662668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3742.01	3840	3943.02			
80	QPSK	1	1	19.06	19.03	19.13	20.2	0.0	
Channel				649000	650000	663000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	19.10	19.10	19.10	20.2	0.0	
Channel				648334	650000	663334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3840	3950.01			
60	QPSK	1	1	19.10	19.05	19.07	20.2	0.0	
Channel				648334	650000	663668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3840	3955.02			
50	QPSK	1	1	19.11	19.06	19.12	20.2	0.0	
Channel				648000	650000	664000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3840	3950			
40	QPSK	1	1	19.04	19.08	19.09	20.2	0.0	
Channel				647668	650000	664334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	19.10	19.09	19.13	20.2	0.0	
Channel				647334	650000	664668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3840	3967.5			
25	QPSK	1	1	19.07	19.07	19.10	20.2	0.0	
Channel				647334	650000	664868	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3840	3972.51			
15	QPSK	1	1	19.06	19.10	19.07	20.2	0.0	
Channel				647000	650000	665000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	19.10	19.05	19.12	20.2	0.0	

Part270 n78 HPUE Ant 8 EC13									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	3750				
Frequency (MHz)									
100	PI2 BPSK	1	1	19.35			20.2	0.0	
100	PI2 BPSK	1	137	19.44					
100	PI2 BPSK	1	271	19.37					
100	PI2 BPSK	135	0	19.41			20.2	0.0	
100	PI2 BPSK	135	69	19.18			20.2	0.0	
100	PI2 BPSK	135	138	19.05			20.2	0.0	
100	PI2 BPSK	270	0	19.31					
100	QPSK	1	1	19.49					
100	QPSK	1	137	19.34			20.2	0.0	
100	QPSK	1	271	19.12			20.2	0.0	
100	QPSK	135	0	19.33					
100	QPSK	135	69	19.42					
100	QPSK	135	138	19.26			20.2	0.0	
100	QPSK	270	0	19.34			20.2	0.0	
100	16QAM	1	1	19.25					
100	64QAM	1	1	19.23					
100	256QAM	1	1	19.30			20.2	0.0	
Channel				649934	650000	660334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3750	3756.01			
90	QPSK	1	1	19.06	19.06	19.13	20.2	0.0	
Channel				649334	650000	660668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3742.01	3750	3763.02			
80	QPSK	1	1	19.06	19.06	19.10	20.2	0.0	
Channel				649000	650000	661000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1	19.11	19.04	19.12	20.2	0.0	
Channel				648334	650000	661334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1	19.09	19.08	19.12	20.2	0.0	
Channel				648334	650000	661668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3750	3775.02			
50	QPSK	1	1	19.04	19.07	19.10	20.2	0.0	
Channel				648000	650000	662000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3770			
40	QPSK	1	1	19.08	19.09	19.07	20.2	0.0	
Channel				647668	650000	662334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3750	3765.01			
30	QPSK	1	1	19.07	19.05	19.08	20.2	0.0	
Channel				647334	650000	662668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3750	3767.5			
25	QPSK	1	1	19.08	19.06	19.06	20.2	0.0	
Channel				647334	650000	662834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3750	3762.51			
15	QPSK	1	1	19.06	19.10	19.08	20.2	0.0	
Channel				647000	650000	663000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3750	3765			
10	QPSK	1	1	19.08	19.08	19.13	20.2	0.0	



Reduced Power Mode for EC15

n2 Ant 0 EC15

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000		
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	20.52	20.60	20.56		
40	QPSK	1	108	20.39	20.48	20.41	21.8	0.0
40	QPSK	1	214	20.45	20.46	20.28		
40	QPSK	108	0	20.44	20.44	20.42	21.8	0.0
40	QPSK	108	54	20.43	20.55	20.42	21.8	0.0
40	QPSK	108	108	20.29	20.42	20.30	21.8	0.0
40	QPSK	216	0	20.42	20.46	20.32		

n5 Ant 0 EC15

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PV2 BPSK	1	1	23.15	23.22	23.10		
20	PV2 BPSK	1	53	23.07	23.06	23.14	24.0	0.0
20	PV2 BPSK	1	104	23.11	23.13	22.99		
20	PV2 BPSK	50	0	22.54	22.61	22.59	23.5	0.5
20	PV2 BPSK	50	28	23.06	23.15	23.10	24.0	0.0
20	PV2 BPSK	50	56	22.87	22.53	22.41	23.5	0.5
20	PV2 BPSK	100	0	22.58	22.66	22.38		
20	QPSK	1	1	23.06	23.22	22.96		
20	QPSK	1	53	23.04	23.08	22.81	24.0	0.0
20	QPSK	1	104	23.00	23.01	22.94		
20	QPSK	50	0	21.84	21.93	21.73	23.0	1.0
20	QPSK	50	28	23.02	23.11	22.92	24.0	0.0
20	QPSK	50	56	21.86	22.02	21.81		
20	QPSK	100	0	21.96	21.99	21.69	23.0	1.0
20	16QAM	1	1	21.86	21.89	21.81	23.0	1.0
20	64QAM	1	1	20.63	20.60	20.36	21.5	2.5
20	256QAM	1	1	19.14	19.22	19.17	19.5	4.5
Channel				166800	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5	24.0	0.0
15	QPSK	1	1	22.88	23.02	22.86	24.0	0.0
Channel				165500	167000	168500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844	24.0	0.0
10	QPSK	1	1	22.88	23.05	22.79	24.0	0.0
Channel				165000	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5	24.0	0.0
5	QPSK	1	1	22.87	23.06	22.85	24.0	0.0

n7 Ant 0 EC15

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000		
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	19.95	19.99	19.87		
50	QPSK	1	135	19.85	19.91	19.81	21.1	0.0
50	QPSK	1	268	19.77	19.91	19.89		
50	QPSK	135	0	19.71	19.68	19.62	21.1	0.0
50	QPSK	135	68	19.80	19.94	19.68	21.1	0.0
50	QPSK	135	135	19.72	19.87	19.68	21.1	0.0
50	QPSK	270	0	19.70	19.91	19.59		



n26 Ant 0 EC15								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				164800	166300	167800	24.0	0.0
Frequency (MHz)				834	831.5	839		
20	PI2 BPSK	1	1	23.01	23.05	23.09	24.0	0.0
20	PI2 BPSK	1	53	23.11	23.11	23.11		
20	PI2 BPSK	1	104	23.20	23.17	23.19		
20	PI2 BPSK	50	0	22.77	22.76	22.77	23.5	0.5
20	PI2 BPSK	50	28	23.20	23.12	23.15	24.0	0.0
20	PI2 BPSK	50	56	22.80	22.75	22.75	23.5	0.5
20	PI2 BPSK	100	0	22.72	22.80	22.80		
20	QPSK	1	1	23.25	23.27	23.22		
20	QPSK	1	53	23.11	23.21	23.19	24.0	0.0
20	QPSK	1	104	23.12	23.19	23.17		
20	QPSK	50	0	22.12	22.21	22.18		
20	QPSK	50	28	23.17	23.22	23.14	24.0	0.0
20	QPSK	50	56	22.32	22.33	22.26	23.0	1.0
20	QPSK	100	0	22.29	22.33	22.29		
20	16QAM	1	1	21.90	21.93	21.90	23.0	1.0
20	64QAM	1	1	20.52	20.56	20.48	21.5	2.5
20	256QAM	1	1	19.09	19.16	19.14	19.5	4.5
Channel				164300	166300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				821.5	831.5	841.5	24.0	0.0
15	QPSK	1	1	23.15	23.26	23.20		
Channel				155100	155300	155500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844	24.0	0.0
10	QPSK	1	1	23.23	23.22	23.12		
Channel				163300	163300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5	24.0	0.0
5	QPSK	1	1	23.19	23.26	23.15		

n66 Ant 0 EC15								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				346000	349000	352000	21.2	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	19.82	19.95	19.88	21.2	0.0
40	QPSK	1	108	19.66	19.88	19.77		
40	QPSK	1	214	19.75	19.78	19.69		
40	QPSK	108	0	19.80	19.70	19.67	21.2	0.0
40	QPSK	108	54	19.81	19.89	19.81	21.2	0.0
40	QPSK	108	108	19.84	19.78	19.69	21.2	0.0
40	QPSK	216	0	19.70	19.84	19.73		



n41 Ant 0 EC15									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low		Power High		Tune-up limit (dB)	MPR (dB)
				Ch / Freq	Ch / Freq	Ch / Freq	Ch / Freq		
Channel				508202	518598	528500			
Frequency (MHz)				2546.01	2592.96	2640			
100	QPSK	1	1	19.67	19.75	19.65			
100	QPSK	1	137	19.52	19.55	19.52	20.8		0.0
100	QPSK	1	271	19.47	19.56	19.39			
100	QPSK	135	0	19.59	19.54	19.50	20.8		0.0
100	QPSK	135	69	19.59	19.70	19.50	20.8		0.0
100	QPSK	135	138	19.42	19.61	19.40			
100	QPSK	270	0	19.42	19.65	19.44			



n2 Ant 1 ECI5

BW [MHz]	Modulation	RB Size	RB Offset	Power Low	Power Middle	Power High	Tune-up limit (dBm)	MPR (dB)
				Ch. / Freq.	Ch. / Freq.	Ch. / Freq.		
Channel				374000	376000	378000	21.0	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	19.82	19.98	19.93		
40	QPSK	1	108	19.88	19.95	19.92		
40	QPSK	1	214	19.91	19.87	19.74	21.0	0.0
40	QPSK	108	0	19.87	19.91	19.84	21.0	0.0
40	QPSK	108	54	19.81	19.92	19.91	21.0	0.0
40	QPSK	108	168	19.71	19.86	19.73	21.0	0.0
40	QPSK	216	0	19.82	19.89	19.84		

n5 Ant 1 ECI5

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)		
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.				
Channel				166800	167300	167800	24.0	0.0		
Frequency (MHz)				834	836.5	839				
20	PI2 BPSK	1	1	22.77	22.75	22.69			23.5	0.5
20	PI2 BPSK	1	53	22.80	22.63	22.74				
20	PI2 BPSK	1	104	22.61	22.64	22.43				
20	PI2 BPSK	50	0	22.07	22.12	22.08				
20	PI2 BPSK	50	28	22.61	22.68	22.62	24.0	0.0		
20	PI2 BPSK	50	56	21.82	22.03	21.89	23.5	0.5		
20	PI2 BPSK	100	0	22.10	22.28	22.02	24.0	0.0		
20	QPSK	1	1	22.77	22.83	22.74				
20	QPSK	1	53	22.80	22.68	22.48				
20	QPSK	1	104	22.61	22.76	22.63				
20	QPSK	50	0	21.56	21.67	21.45	23.0	1.0		
20	QPSK	50	28	22.64	22.78	22.64	24.0	0.0		
20	QPSK	50	56	21.65	21.61	21.57	23.0	1.0		
20	QPSK	100	0	21.52	21.63	21.45				
20	16QAM	1	1	21.48	21.55	21.47	23.0	1.0		
20	64QAM	1	1	20.21	20.21	20.08	21.5	2.5		
20	256QAM	1	1	18.79	18.85	18.83	19.5	4.5		
Channel				168300	167300	168300	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				831.5	836.5	841.5				
15	QPSK	1	1	22.64	22.65	22.64	24.0	0.0		
Channel				165800	167300	165800	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				828	836.5	844				
10	QPSK	1	1	22.58	22.71	22.58	24.0	0.0		
Channel				165300	167300	165300	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				826.5	836.5	846.5				
5	QPSK	1	1	22.61	22.67	22.63	24.0	0.0		

n7 Ant 1 ECI5

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				558000	507000	509000	21.7	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	20.69	20.88	20.84		
50	QPSK	1	135	20.63	20.78	20.71		
50	QPSK	1	268	20.75	20.68	20.54	21.7	0.0
50	QPSK	135	0	20.69	20.69	20.73		
50	QPSK	135	68	20.73	20.76	20.75	21.7	0.0
50	QPSK	135	135	20.54	20.65	20.48	21.7	0.0
50	QPSK	270	0	20.58	20.77	20.60		



n26 Ant 1 EC15									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 164800	Power Middle Ch. / Freq. 166300	Power High Ch. / Freq. 167800	Tune-up limit (dBm)	MPR (dB)	
Channel				824	831.5	839			
Frequency (MHz)				22.71	22.77	22.69			
20	PI2 BPSK	1	1	22.71	22.77	22.69	24.0	0.0	
20	PI2 BPSK	1	53	22.73	22.83	22.73			
20	PI2 BPSK	1	104	22.76	22.85	22.81			
20	PI2 BPSK	50	0	22.36	22.41	22.32	23.5	0.5	
20	PI2 BPSK	50	28	22.80	22.85	22.83	24.0	0.0	
20	PI2 BPSK	50	56	22.32	22.41	22.31	23.5	0.5	
20	PI2 BPSK	100	0	22.29	22.39	22.34			
20	QPSK	1	1	22.81	22.88	22.82			
20	QPSK	1	53	22.81	22.85	22.78	24.0	0.0	
20	QPSK	1	104	22.78	22.81	22.71			
20	QPSK	50	0	21.80	21.88	21.87	23.0	1.0	
20	QPSK	50	28	22.76	22.83	22.76	24.0	0.0	
20	QPSK	50	56	21.89	21.95	21.90	23.0	1.0	
20	QPSK	100	0	21.82	21.93	21.87			
20	16QAM	1	1	21.47	21.55	21.52	23.0	1.0	
20	64QAM	1	1	20.12	20.15	20.10	21.5	2.5	
20	256QAM	1	1	18.68	18.75	18.74	19.5	4.5	
Channel				164300	166300	168300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				821.5	831.5	841.5			
15	QPSK	1	1	22.71	22.83	22.73	24.0	0.0	
Channel				163800	166300	168800	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				818	831.5	844			
10	QPSK	1	1	22.72	22.80	22.76	24.0	0.0	
Channel				163300	166300	169300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				816.5	831.5	846.5			
5	QPSK	1	1	22.78	22.87	22.78	24.0	0.0	

n66 Ant 1 EC15									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)	
Channel				1730	1745	1760			
Frequency (MHz)				20.62	20.75	20.73			
40	QPSK	1	1	20.62	20.75	20.73	22.0	0.0	
40	QPSK	1	108	20.46	20.69	20.57			
40	QPSK	1	214	20.59	20.58	20.42			
40	QPSK	108	0	20.56	20.55	20.55	22.0	0.0	
40	QPSK	108	54	20.62	20.71	20.68	22.0	0.0	
40	QPSK	108	108	20.53	20.62	20.44	22.0	0.0	
40	QPSK	216	0	20.52	20.62	20.58			



n41 Ant 1 EC15								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				508202	518598	528000	22.1	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	20.58	20.68	20.51		
100	QPSK	1	137	20.44	20.59	20.52	22.1	0.0
100	QPSK	1	271	20.63	20.50	20.40		
100	QPSK	135	0	20.48	20.52	20.44		
100	QPSK	135	69	20.55	20.61	20.49	22.1	0.0
100	QPSK	135	138	20.43	20.52	20.55		
100	QPSK	270	0	20.52	20.60	20.43		



n2 Ant 2 ECI5								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)
Channel				1870	1880	1890	18.9	0.0
Frequency (MHz)								
40	QPSK	1	1	17.70	17.82	17.75		
40	QPSK	1	108	17.75	17.76	17.87		
40	QPSK	1	214	17.57	17.71	17.68		
40	QPSK	108	0	17.65	17.66	17.68	18.9	0.0
40	QPSK	108	54	17.57	17.74	17.63	18.9	0.0
40	QPSK	108	108	17.52	17.66	17.42	18.9	0.0
40	QPSK	216	0	17.50	17.67	17.53		

n7 Ant 2 ECI5								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 506000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 509000	Tune-up limit (dBm)	MPR (dB)
Channel				2525	2535	2545	19.8	0.0
Frequency (MHz)								
50	QPSK	1	1	18.68	18.81	18.70		
50	QPSK	1	135	18.74	18.79	18.72		
50	QPSK	1	268	18.59	18.67	18.71		
50	QPSK	135	0	18.70	18.62	18.68	19.8	0.0
50	QPSK	135	68	18.63	18.77	18.53	19.8	0.0
50	QPSK	135	135	18.58	18.65	18.45		
50	QPSK	270	0	18.54	18.76	18.58	19.8	0.0

n66 Ant 2 ECI5								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 348000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel				1730	1745	1760	20.8	0.0
Frequency (MHz)								
40	QPSK	1	1	19.63	19.77	19.62		
40	QPSK	1	108	19.85	19.87	19.51		
40	QPSK	1	214	19.56	19.60	19.57		
40	QPSK	108	0	19.54	19.52	19.53	20.8	0.0
40	QPSK	108	54	19.52	19.62	19.61	20.8	0.0
40	QPSK	108	108	19.51	19.54	19.43		
40	QPSK	216	0	19.51	19.61	19.55	20.8	0.0



n41 Ant 2 EC15								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low	Middle	High		
				Ch. / Freq.	Ch. / Freq.	Ch. / Freq.		
Channel				508202	518598	528990		
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	17.52	17.67	17.62	19.1	0.0
100	QPSK	1	137	17.40	17.59	17.42		
100	QPSK	1	271	17.50	17.57	17.48		
100	QPSK	135	0	17.51	17.36	17.36	19.1	0.0
100	QPSK	135	69	17.46	17.85	17.53	19.1	0.0
100	QPSK	135	138	17.32	17.42	17.31	19.1	0.0
100	QPSK	270	0	17.35	17.51	17.45		



n2 Ant 3 ECI5								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	22.7	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	21.35	21.53	21.44		
40	QPSK	1	108	21.31	21.49	21.32	22.7	0.0
40	QPSK	1	214	21.27	21.41	21.26		
40	QPSK	108	0	21.38	21.38	21.35		
40	QPSK	108	54	21.27	21.41	21.32	22.7	0.0
40	QPSK	108	108	21.24	21.33	21.26		
40	QPSK	216	0	21.29	21.38	21.30	22.7	0.0

n7 Ant 3 ECI5								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	21.7	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	20.36	20.43	20.35		
50	QPSK	1	135	20.32	20.42	20.30	21.7	0.0
50	QPSK	1	268	20.24	20.35	20.10		
50	QPSK	135	0	20.28	20.31	20.24		
50	QPSK	135	68	20.19	20.42	20.32	21.7	0.0
50	QPSK	135	135	20.18	20.33	20.30		
50	QPSK	270	0	20.27	20.30	20.18	21.7	0.0

n66 Ant 3 ECI5								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				348000	349000	350000	24.0	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	23.05	23.09	22.99		
40	QPSK	1	108	22.99	22.93	22.81	23.0	1.0
40	QPSK	1	214	22.75	22.97	22.86		
40	QPSK	108	0	21.87	21.89	21.70		
40	QPSK	108	54	22.82	23.10	22.83	24.0	0.0
40	QPSK	108	108	21.94	21.83	21.87		
40	QPSK	216	0	21.78	21.95	21.68	23.0	1.0



n41 Ant 3 ECI5								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509002	516598	526000		
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	18.75	18.81	18.80	20.2	0.0
100	QPSK	1	137	19.68	18.75	18.64		
100	QPSK	1	271	18.59	18.69	18.62		
100	QPSK	135	0	18.60	18.65	18.49	20.2	0.0
100	QPSK	135	69	18.70	18.74	18.55	20.2	0.0
100	QPSK	135	138	18.41	18.59	18.43	20.2	0.0
100	QPSK	270	0	18.43	18.60	18.54		

Part270 n77 HPUE Ant 3 EC15									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000			
Frequency (MHz)				3750	3840	3930			
100	PI2 BPSK	1	1	20.00	20.15	19.89	21.6	0.0	
100	PI2 BPSK	1	137	19.90	19.87	19.85			
100	PI2 BPSK	1	271	19.68	19.95	19.79			
100	PI2 BPSK	135	0	20.04	20.10	19.89	21.6	0.0	
100	PI2 BPSK	135	69	20.04	20.12	19.86	21.6	0.0	
100	PI2 BPSK	135	138	19.91	19.92	19.78	21.6	0.0	
100	PI2 BPSK	270	0	19.66	19.91	19.78			
100	QPSK	1	1	20.08	20.19	19.96	21.6	0.0	
100	QPSK	1	137	20.00	19.97	19.88			
100	QPSK	1	271	19.73	20.00	19.86			
100	QPSK	135	0	19.99	20.11	19.88	21.6	0.0	
100	QPSK	135	69	19.99	20.12	19.86	21.6	0.0	
100	QPSK	135	138	19.97	19.91	19.84			
100	QPSK	270	0	18.67	19.90	19.77	21.6	0.0	
100	16QAM	1	1	20.03	20.13	19.89	21.6	0.0	
100	64QAM	1	1	19.92	19.89	19.79	21.6	0.0	
100	256QAM	1	1	19.67	19.94	19.83	21.6	0.0	
Channel				649998	650000	650002	Tune-up limit		
Frequency (MHz)				3745.02	3840	3935.01	(dBm)		
90	QPSK	1	1	19.97	19.88	19.80	21.6	0.0	
Channel				649334	650000	650668	Tune-up limit		
Frequency (MHz)				3740.01	3840	3940.02	(dBm)		
80	QPSK	1	1	19.92	19.92	19.90	21.6	0.0	
Channel				649000	650000	653000	Tune-up limit		
Frequency (MHz)				3735	3840	3945	(dBm)		
70	QPSK	1	1	19.94	19.91	19.94	21.6	0.0	
Channel				648568	650000	653314	Tune-up limit		
Frequency (MHz)				3730.02	3840	3950.01	(dBm)		
60	QPSK	1	1	19.94	19.92	19.79	21.6	0.0	
Channel				648134	650000	653668	Tune-up limit		
Frequency (MHz)				3725.01	3840	3950.02	(dBm)		
50	QPSK	1	1	19.95	19.88	19.79	21.6	0.0	
Channel				648000	650000	654000	Tune-up limit		
Frequency (MHz)				3720	3840	3960	(dBm)		
40	QPSK	1	1	19.97	19.93	19.89	21.6	0.0	
Channel				647688	650000	654334	Tune-up limit		
Frequency (MHz)				3715.02	3840	3965.01	(dBm)		
30	QPSK	1	1	19.94	19.93	19.79	21.6	0.0	
Channel				647500	650000	654900	Tune-up limit		
Frequency (MHz)				3712.5	3840	3967.5	(dBm)		
25	QPSK	1	1	19.90	19.93	19.78	21.6	0.0	
Channel				647334	650000	654668	Tune-up limit		
Frequency (MHz)				3710.01	3840	3970.02	(dBm)		
20	QPSK	1	1	19.90	19.93	19.80	21.6	0.0	
Channel				647168	650000	654834	Tune-up limit		
Frequency (MHz)				3707.52	3840	3972.51	(dBm)		
15	QPSK	1	1	19.90	19.88	19.80	21.6	0.0	
Channel				647000	650000	655000	Tune-up limit		
Frequency (MHz)				3705	3840	3975	(dBm)		
10	QPSK	1	1	19.95	19.89	19.85	21.6	0.0	

Part270 n78 HPUE Ant 3 EC15									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel					3750				
100	PI2 BPSK	1	1		19.98		21.6	0.0	
100	PI2 BPSK	1	137		19.79				
100	PI2 BPSK	1	271		19.79				
100	PI2 BPSK	135	0		19.95		21.6	0.0	
100	PI2 BPSK	135	69		20.00		21.6	0.0	
100	PI2 BPSK	135	138		19.77		21.6	0.0	
100	PI2 BPSK	270	0		19.81				
100	QPSK	1	1		20.04		21.6	0.0	
100	QPSK	1	137		19.80				
100	QPSK	1	271		19.86				
100	QPSK	135	0		19.91		21.6	0.0	
100	QPSK	135	69		19.95		21.6	0.0	
100	QPSK	135	138		19.75				
100	QPSK	270	0		19.79		21.6	0.0	
100	16QAM	1	1		20.02		21.6	0.0	
100	64QAM	1	1		19.71		21.6	0.0	
100	256QAM	1	1		19.63		21.6	0.0	
Channel				649998	650000	650002	Tune-up limit		
Frequency (MHz)				3745.02	3750	3755.01	(dBm)		
90	QPSK	1	1	19.93	19.89	19.78	21.6	0.0	
Channel				649334	650000	650668	Tune-up limit		
Frequency (MHz)				3740.01	3750	3763.02	(dBm)		
80	QPSK	1	1	19.94	19.93	19.79	21.6	0.0	
Channel				649000	650000	651000	Tune-up limit		
Frequency (MHz)				3735	3750	3765	(dBm)		
70	QPSK	1	1	19.92	19.89	19.84	21.6	0.0	
Channel				648568	650000	651314	Tune-up limit		
Frequency (MHz)				3730.02	3750	3770.01	(dBm)		
60	QPSK	1	1	19.92	19.92	19.83	21.6	0.0	
Channel				648134	650000	651668	Tune-up limit		
Frequency (MHz)				3725.01	3750	3775.02	(dBm)		
50	QPSK	1	1	19.96	19.91	19.84	21.6	0.0	
Channel				648000	650000	652000	Tune-up limit		
Frequency (MHz)				3720	3750	3780	(dBm)		
40	QPSK	1	1	19.92	19.88	19.80	21.6	0.0	
Channel				647688	650000	652334	Tune-up limit		
Frequency (MHz)				3715.02	3750	3785.01	(dBm)		
30	QPSK	1	1	19.95	19.90	19.79	21.6	0.0	
Channel				647500	650000	652900	Tune-up limit		
Frequency (MHz)				3712.5	3750	3787.5	(dBm)		
25	QPSK	1	1	19.97	19.93	19.83	21.6	0.0	
Channel				647334	650000	652668	Tune-up limit		
Frequency (MHz)				3710.01	3750	3790.02	(dBm)		
20	QPSK	1	1	19.95	19.92	19.83	21.6	0.0	
Channel				647168	650000	652834	Tune-up limit		
Frequency (MHz)				3707.52	3750	3792.51	(dBm)		
15	QPSK	1	1	19.94	19.93	19.82	21.6	0.0	
Channel				647000	650000	653000	Tune-up limit		
Frequency (MHz)				3705	3750	3795	(dBm)		
10	QPSK	1	1	19.93	19.94	19.83	21.6	0.0	

Part270 n77 HPUE Ant 4 ECI5									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel				Frequency (MHz)					
				3750	3840	3930			
100	PI/2 BPSK	1	1	21.13	21.32	21.16	22.5		0.0
100	PI/2 BPSK	1	137	21.11	21.15	20.95			
100	PI/2 BPSK	1	271	20.98	21.06	20.95			
100	PI/2 BPSK	135	0	21.14	21.30	21.15			
100	PI/2 BPSK	135	69	21.14	21.31	21.12	22.5		0.0
100	PI/2 BPSK	135	138	21.10	21.11	20.91	22.5		0.0
100	PI/2 BPSK	270	0	20.94	21.07	20.95			
100	QPSK	1	1	21.22	21.38	21.20	22.5		0.0
100	QPSK	1	137	21.19	21.19	21.00			
100	QPSK	1	271	21.02	21.13	21.01			
100	QPSK	135	0	21.17	21.32	21.14			
100	QPSK	135	69	21.20	21.34	21.18	22.5		0.0
100	QPSK	135	138	21.16	21.11	20.98	22.5		0.0
100	QPSK	270	0	20.94	21.18	20.92			
100	16QAM	1	1	21.20	21.32	21.11	22.5		0.0
100	64QAM	1	1	21.10	21.12	20.98	22.5		0.0
100	256QAM	1	1	20.93	21.04	20.99			
Channel				649668	656000	662334	Tune-up limit (dBm)	MPR (dB)	
				3745.02	3840	3935.01			
90	QPSK	1	1	21.15	21.33	21.16	22.5		0.0
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)	
				3740.01	3840	3940.02			
80	QPSK	1	1	21.16	21.29	21.14	22.5		0.0
Channel				649000	656000	663000	Tune-up limit (dBm)	MPR (dB)	
				3735	3840	3945			
70	QPSK	1	1	21.17	21.28	21.16	22.5		0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)	
				3730.02	3840	3950.01			
60	QPSK	1	1	21.15	21.30	21.15	22.5		0.0
Channel				648334	656000	663668	Tune-up limit (dBm)	MPR (dB)	
				3725.01	3840	3955.02			
50	QPSK	1	1	21.17	21.35	21.12	22.5		0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)	
				3720	3840	3960			
40	QPSK	1	1	21.16	21.36	21.17	22.5		0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)	
				3715.02	3840	3965.01			
30	QPSK	1	1	21.20	21.34	21.17	22.5		0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)	
				3712.5	3840	3967.5			
25	QPSK	1	1	21.13	21.29	21.11	22.5		0.0
Channel				647000	656000	665000	Tune-up limit (dBm)	MPR (dB)	
				3710.01	3840	3970.02			
20	QPSK	1	1	21.15	21.30	21.10	22.5		0.0
Channel				647168	656000	664834	Tune-up limit (dBm)	MPR (dB)	
				3707.52	3840	3972.51			
15	QPSK	1	1	21.14	21.29	21.16	22.5		0.0
Channel				647000	656000	665000	Tune-up limit (dBm)	MPR (dB)	
				3705	3840	3975			
10	QPSK	1	1	21.15	21.35	21.15	22.5		0.0

Part270 n78 HPUE Ant 4 ECi5										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)		
Channel				Frequency (MHz)						
				3750						
100	PI2 BPSK	1	1	21.24			22.5	0.0		
100	PI2 BPSK	1	137	21.14						
100	PI2 BPSK	1	271	21.22						
100	PI2 BPSK	135	0	21.28						
100	PI2 BPSK	135	69	21.24			22.5	0.0		
100	PI2 BPSK	135	138	21.10			22.5	0.0		
100	PI2 BPSK	270	0	21.23						
100	QPSK	1	1	21.33			22.5	0.0		
100	QPSK	1	137	21.17						
100	QPSK	1	271	21.30						
100	QPSK	135	0	21.31						
100	QPSK	135	69	21.28			22.5	0.0		
100	QPSK	135	138	21.12			22.5	0.0		
100	QPSK	270	0	21.22						
100	16QAM	1	1	21.25			22.5	0.0		
100	64QAM	1	1	21.09			22.5	0.0		
100	256QAM	1	1	21.23						
Channel				649668	650000	660334	Tune-up limit (dBm)	MPR (dB)		
Channel				3745.02	3750	3765.01				
90	QPSK	1	1	21.28	21.28	21.21	22.5	0.0		
Channel				649334	650000	660968	Tune-up limit (dBm)	MPR (dB)		
Channel				3740.01	3750	3760.02				
80	QPSK	1	1	21.23	21.23	21.29	22.5	0.0		
Channel				649000	650000	661000	Tune-up limit (dBm)	MPR (dB)		
Channel				3735	3750	3765				
70	QPSK	1	1	21.22	21.27	21.26	22.5	0.0		
Channel				648668	650000	661334	Tune-up limit (dBm)	MPR (dB)		
Channel				3730.02	3750	3770.01				
60	QPSK	1	1	21.28	21.22	21.27	22.5	0.0		
Channel				648334	650000	661668	Tune-up limit (dBm)	MPR (dB)		
Channel				3725.01	3750	3775.02				
50	QPSK	1	1	21.25	21.22	21.28	22.5	0.0		
Channel				648000	650000	662000	Tune-up limit (dBm)	MPR (dB)		
Channel				3720	3750	3780				
40	QPSK	1	1	21.21	21.25	21.23	22.5	0.0		
Channel				647668	650000	662334	Tune-up limit (dBm)	MPR (dB)		
Channel				3715.02	3750	3785.01				
30	QPSK	1	1	21.25	21.28	21.22	22.5	0.0		
Channel				647334	650000	662668	Tune-up limit (dBm)	MPR (dB)		
Channel				3712.5	3750	3787.5				
25	QPSK	1	1	21.22	21.22	21.28	22.5	0.0		
Channel				647000	650000	662968	Tune-up limit (dBm)	MPR (dB)		
Channel				3710.01	3750	3790.02				
20	QPSK	1	1	21.22	21.28	21.23	22.5	0.0		
Channel				647168	650000	663034	Tune-up limit (dBm)	MPR (dB)		
Channel				3707.52	3750	3792.51				
15	QPSK	1	1	21.23	21.26	21.28	22.5	0.0		
Channel				647000	650000	663000	Tune-up limit (dBm)	MPR (dB)		
Channel				3705	3750	3795				
10	QPSK	1	1	21.27	21.24	21.28	22.5	0.0		

Part270 n77 HPUE Ant 6 EC15							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 662000	
Channel				3750	3840	3930	
Frequency (MHz)				17.55	17.55	17.52	
100	PV2 BPSK	1	1	17.55	17.55	17.52	19.1
100	PV2 BPSK	1	137	17.52	17.67	17.58	
100	PV2 BPSK	1	271	17.40	17.55	17.45	
100	PV2 BPSK	135	0	17.40	17.51	17.36	19.1
100	PV2 BPSK	135	69	17.43	17.41	17.29	19.1
100	PV2 BPSK	135	138	17.36	17.47	17.39	19.1
100	PV2 BPSK	270	0	17.46	17.49	17.44	
100	PV2 BPSK	270	0	17.46	17.49	17.44	
100	QPSK	1	1	17.57	17.75	17.50	19.1
100	QPSK	1	137	17.60	17.62	17.62	
100	QPSK	1	271	17.36	17.71	17.51	
100	QPSK	135	0	17.51	17.67	17.64	19.1
100	QPSK	135	69	17.62	17.69	17.57	19.1
100	QPSK	135	138	17.43	17.60	17.52	19.1
100	QPSK	270	0	17.55	17.62	17.56	
100	QPSK	270	0	17.55	17.62	17.56	
100	16QAM	1	1	17.47	17.50	17.40	19.1
100	64QAM	1	1	17.48	17.48	17.48	19.1
100	256QAM	1	1	17.61	17.66	17.54	19.1
Channel				648968	650000	662334	
Frequency (MHz)				3745.02	3840	3935.01	
90	QPSK	1	1	17.55	17.73	17.55	19.1
Channel				648934	650000	662068	
Frequency (MHz)				3743.01	3840	3940.02	
80	QPSK	1	1	17.58	17.70	17.59	19.1
Channel				648000	650000	663000	
Frequency (MHz)				3735	3840	3945	
70	QPSK	1	1	17.62	17.67	17.53	19.1
Channel				3730.02	3840	3950.01	
Frequency (MHz)				17.60	17.71	17.56	19.1
60	QPSK	1	1	17.60	17.71	17.56	19.1
Channel				648334	650000	663068	
Frequency (MHz)				3728.01	3840	3955.02	
50	QPSK	1	1	17.60	17.65	17.55	19.1
Channel				648000	650000	664000	
Frequency (MHz)				3720	3750	3790	
40	QPSK	1	1	17.59	17.68	17.53	19.1
Channel				647668	650000	664334	
Frequency (MHz)				3718.02	3840	3965.01	
30	QPSK	1	1	17.63	17.66	17.62	19.1
Channel				3718.01	3840	3965.02	
Frequency (MHz)				3712.5	3840	3967.5	
25	QPSK	1	1	17.57	17.63	17.52	19.1
Channel				647334	650000	664668	
Frequency (MHz)				3718.01	3840	3970.02	
20	QPSK	1	1	17.57	17.69	17.55	19.1
Channel				647168	650000	664834	
Frequency (MHz)				3707.52	3840	3972.51	
15	QPSK	1	1	17.60	17.63	17.57	19.1
Channel				647000	650000	665000	
Frequency (MHz)				3705	3840	3975	
10	QPSK	1	1	17.59	17.67	17.53	19.1

Part270 n78 HPUE Ant 6 EC15							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	
Channel				3750			
Frequency (MHz)				17.55			
100	PV2 BPSK	1	1		17.44		19.1
100	PV2 BPSK	1	137		17.44		
100	PV2 BPSK	1	271		17.33		
100	PV2 BPSK	135	0		17.38		19.1
100	PV2 BPSK	135	69		17.35		19.1
100	PV2 BPSK	135	138		17.32		19.1
100	PV2 BPSK	270	0		17.37		
100	PV2 BPSK	270	0		17.37		
100	QPSK	1	1		17.65		19.1
100	QPSK	1	137		17.46		
100	QPSK	1	271		17.40		
100	QPSK	135	0		17.60		19.1
100	QPSK	135	69		17.62		19.1
100	QPSK	135	138		17.46		19.1
100	QPSK	270	0		17.41		19.1
100	16QAM	1	1		17.39		19.1
100	64QAM	1	1		17.33		19.1
100	256QAM	1	1		17.31		19.1
Channel				648668	650000	660334	
Frequency (MHz)				3745.02	3750	3755.01	
90	QPSK	1	1	17.58	17.59	17.61	19.1
Channel				648934	650000	660668	
Frequency (MHz)				3743.01	3750	3749.02	
80	QPSK	1	1	17.60	17.59	17.62	19.1
Channel				648000	650000	661000	
Frequency (MHz)				3735	3750	3765	
70	QPSK	1	1	17.58	17.58	17.64	19.1
Channel				3730.02	3750	3770.01	
Frequency (MHz)				17.62	17.58	17.61	19.1
60	QPSK	1	1	17.62	17.58	17.61	19.1
Channel				648334	650000	661668	
Frequency (MHz)				3728.01	3750	3775.02	
50	QPSK	1	1	17.62	17.57	17.64	19.1
Channel				648000	650000	662000	
Frequency (MHz)				3720	3750	3790	
40	QPSK	1	1	17.63	17.58	17.60	19.1
Channel				647668	650000	662334	
Frequency (MHz)				3718.02	3750	3785.01	
30	QPSK	1	1	17.55	17.63	17.55	19.1
Channel				647334	650000	662668	
Frequency (MHz)				3718.01	3750	3780.02	
25	QPSK	1	1	17.57	17.63	17.62	19.1
Channel				647334	650000	662868	
Frequency (MHz)				3718.01	3750	3780.02	
20	QPSK	1	1	17.63	17.64	17.60	19.1
Channel				647168	650000	662834	
Frequency (MHz)				3707.52	3750	3792.51	
15	QPSK	1	1	17.62	17.57	17.60	19.1
Channel				647000	650000	663000	
Frequency (MHz)				3705	3750	3795	
10	QPSK	1	1	17.63	17.58	17.63	19.1

Part270 n77 HPUE Ant 8 EC15									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000			
Frequency (MHz)				3750	3840	3930			
100	PI2 BPSK	1	1	19.34	19.32	19.15	21.0	0.0	
100	PI2 BPSK	1	137	19.32	19.33	19.27			
100	PI2 BPSK	1	271	19.27	19.25	19.32			
100	PI2 BPSK	135	0	19.28	19.36	19.11	21.0	0.0	
100	PI2 BPSK	135	69	19.11	19.21	19.05	21.0	0.0	
100	PI2 BPSK	135	138	19.19	19.19	19.04	21.0	0.0	
100	PI2 BPSK	270	0	19.19	19.26	19.08			
100	QPSK	1	1	19.25	19.53	19.37			
100	QPSK	1	137	19.34	19.31	19.33	21.0	0.0	
100	QPSK	1	271	19.21	19.26	19.14	21.0	0.0	
100	QPSK	135	0	19.17	19.31	19.22			
100	QPSK	135	69	19.28	19.42	19.24		0.0	
100	QPSK	135	138	19.20	19.24	19.24	21.0	0.0	
100	QPSK	270	0	19.20	19.33	19.19			
100	16QAM	1	1	19.21	19.25	19.16	21.0	0.0	
100	64QAM	1	1	19.13	19.12	19.16	21.0	0.0	
100	256QAM	1	1	19.05	19.02	19.07	20.5	0.5	
Channel				649934	650000	662088	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	19.06	19.03	19.13	21.0	0.0	
Channel				649334	650000	662088	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3742.01	3840	3940.02			
80	QPSK	1	1	19.06	19.03	19.13	21.0	0.0	
Channel				649000	650000	663000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	19.10	19.10	19.10	21.0	0.0	
Channel				3730.02	3840	3950.01	Tune-up limit (dBm)		
Frequency (MHz)				3730.02	3840	3950.01			
60	QPSK	1	1	19.10	19.05	19.07	21.0	0.0	
Channel				648334	650000	663696	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3724.01	3840	3955.02			
50	QPSK	1	1	19.11	19.06	19.12	21.0	0.0	
Channel				648000	650000	664000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3840	3960			
40	QPSK	1	1	19.04	19.08	19.09	21.0	0.0	
Channel				647668	650000	664334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	19.10	19.09	19.13	21.0	0.0	
Channel				647334	650000	664500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3840	3967.5			
25	QPSK	1	1	19.07	19.07	19.10	21.0	0.0	
Channel				647334	650000	664688	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.5	3840	3970.02			
20	QPSK	1	1	19.08	19.02	19.12	21.0	0.0	
Channel				647168	650000	664834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3840	3972.51			
15	QPSK	1	1	19.06	19.10	19.07	21.0	0.0	
Channel				647000	650000	665000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	19.10	19.05	19.12	21.0	0.0	

Part270 n78 HPUE Ant 8 EC15									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	3750				
Frequency (MHz)									
100	PI2 BPSK	1	1		19.35		21.0	0.0	
100	PI2 BPSK	1	137		19.44				
100	PI2 BPSK	1	271		19.37				
100	PI2 BPSK	135	0		19.41		21.0	0.0	
100	PI2 BPSK	135	69		19.18		21.0	0.0	
100	PI2 BPSK	135	138		19.05		21.0	0.0	
100	PI2 BPSK	270	0		19.31				
100	QPSK	1	1		19.49				
100	QPSK	1	137		19.34		21.0	0.0	
100	QPSK	1	271		19.12		21.0	0.0	
100	QPSK	135	0		19.33				
100	QPSK	135	69		19.42				
100	QPSK	135	138		19.26		21.0	0.0	
100	QPSK	270	0		19.34		21.0	0.0	
100	16QAM	1	1		19.25				
100	64QAM	1	1		19.23				
100	256QAM	1	1		19.30		20.5	0.5	
Channel				649968	650000	660394	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1	19.06	19.09	19.13	21.0	0.0	
Channel				649334	650000	660688	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3750	3760.02			
80	QPSK	1	1	19.06	19.09	19.10	21.0	0.0	
Channel				649000	650000	661000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735 <th>3750<th>3765<th></th><th colspan="2"></th></th></th>	3750 <th>3765<th></th><th colspan="2"></th></th>	3765 <th></th> <th colspan="2"></th>			
70	QPSK	1	1	19.11	19.04	19.12	21.0	0.0	
Channel				648668	650000	661334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1	19.09	19.08	19.12	21.0	0.0	
Channel				648334	650000	661688	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3724.01	3750	3775.02			
50	QPSK	1	1	19.04	19.07	19.10	21.0	0.0	
Channel				648000	650000	662000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720 <th>3750<th>3780</th><th></th><th colspan="2"></th></th>	3750 <th>3780</th> <th></th> <th colspan="2"></th>	3780			
40	QPSK	1	1	19.08	19.09	19.07	21.0	0.0	
Channel				647668	650000	662334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02 <th>3750<th>3785.01<th></th><th colspan="2"></th></th></th>	3750 <th>3785.01<th></th><th colspan="2"></th></th>	3785.01 <th></th> <th colspan="2"></th>			
30	QPSK	1	1	19.07	19.05	19.08	21.0	0.0	
Channel				647334	650000	662500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5 <th>3750<th>3787.5<th></th><th colspan="2"></th></th></th>	3750 <th>3787.5<th></th><th colspan="2"></th></th>	3787.5 <th></th> <th colspan="2"></th>			
25	QPSK	1	1	19.08	19.06	19.06	21.0	0.0	
Channel				647334	650000	662688	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.51 <th>3750<th>3789.52<th></th><th colspan="2"></th></th></th>	3750 <th>3789.52<th></th><th colspan="2"></th></th>	3789.52 <th></th> <th colspan="2"></th>			
20	QPSK	1	1	19.04	19.10	19.10	21.0	0.0	
Channel				647168	650000	662834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52 <th>3750<th>3792.51<th></th><th colspan="2"></th></th></th>	3750 <th>3792.51<th></th><th colspan="2"></th></th>	3792.51 <th></th> <th colspan="2"></th>			
15	QPSK	1	1	19.06	19.10	19.08	21.0	0.0	
Channel				647000	650000	663000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705 <td>3750</td> <td>3795</td> <th></th> <th colspan="2"></th>	3750	3795			
10	QPSK	1	1	19.08	19.08	19.13	21.0	0.0	



n2 Ant 0 ECI 6

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				1470	1480	1490	24.0	0.0
Frequency (MHz)				374000	376000	378000		
40	QPSK	1	1	22.90	22.91	22.77		
40	QPSK	1	108	22.77	22.90	22.80	23.0	1.0
40	QPSK	1	214	22.75	22.79	22.78		
40	QPSK	108	0	21.74	21.75	21.67		
40	QPSK	108	54	22.73	22.85	22.70	23.0	1.0
40	QPSK	108	108	21.82	21.67	21.67		
40	QPSK	216	0	21.71	21.77	21.72		

Reduced Power Mode for ECI6

n5 Ant 0 ECI 6

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167900	24.0	0.0
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	23.15	23.22	23.10		
20	PI/2 BPSK	1	53	23.07	23.06	23.14	23.5	0.5
20	PI/2 BPSK	1	104	23.11	23.13	22.99		
20	PI/2 BPSK	50	0	22.54	22.61	22.59		
20	PI/2 BPSK	50	28	23.06	23.15	23.10	23.5	0.5
20	PI/2 BPSK	50	56	22.87	22.53	22.41		
20	PI/2 BPSK	100	0	22.58	22.66	22.38		
20	QPSK	1	1	23.06	23.22	22.96	24.0	0.0
20	QPSK	1	53	23.04	23.08	22.81		
20	QPSK	1	104	23.00	23.01	22.94		
20	QPSK	50	0	21.84	21.93	21.73	24.0	0.0
20	QPSK	50	28	23.02	23.11	22.92		
20	QPSK	50	56	21.86	22.02	21.81		
20	QPSK	100	0	21.96	21.99	21.69	23.0	1.0
20	16QAM	1	1	21.86	21.89	21.81		
20	64QAM	1	1	20.63	20.60	20.36		
20	256QAM	1	1	19.14	19.22	19.17	19.5	4.5
Channel				166300	167300	168300	24.0	0.0
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	22.88	23.02	22.86		
Channel				165300	167300	169300	24.0	0.0
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	22.88	23.05	22.79		
Channel				165300	167300	169300	24.0	0.0
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	22.87	23.06	22.85		

n7 Ant 0 ECI 6

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				2626	2636	2646	24.0	0.0
Frequency (MHz)				505000	507000	509000		
50	QPSK	1	1	23.08	23.20	23.05		
50	QPSK	1	135	23.07	23.19	22.94	23.0	1.0
50	QPSK	1	268	23.01	23.01	22.91		
50	QPSK	135	0	21.92	21.97	21.81		
50	QPSK	135	68	23.00	23.10	22.93	23.0	1.0
50	QPSK	135	135	21.95	21.95	21.81		
50	QPSK	270	0	21.93	22.03	21.82		



n26 Ant 0 ECI 6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				164800	166300	167800	24.0	0.0
Frequency (MHz)				834	831.5	839		
20	PI2 BPSK	1	1	23.01	23.05	23.09		
20	PI2 BPSK	1	53	23.11	23.11	23.11		
20	PI2 BPSK	1	104	23.20	23.17	23.19	23.5	0.5
20	PI2 BPSK	50	0	22.77	22.76	22.77		
20	PI2 BPSK	50	28	23.20	23.12	23.15		
20	PI2 BPSK	50	56	22.80	22.75	22.75		
20	PI2 BPSK	100	0	22.72	22.80	22.80	23.5	0.5
20	QPSK	1	1	23.25	23.27	23.22		
20	QPSK	1	53	23.11	23.21	23.19		
20	QPSK	1	104	23.12	23.19	23.17		
20	QPSK	50	0	22.12	22.21	22.18	23.0	1.0
20	QPSK	50	28	23.17	23.22	23.14		
20	QPSK	50	56	22.32	22.33	22.26		
20	QPSK	100	0	22.29	22.33	22.29		
20	16QAM	1	1	21.90	21.93	21.90	23.0	1.0
20	64QAM	1	1	20.52	20.56	20.48		
20	256QAM	1	1	19.00	19.16	19.14		
20	256QAM	1	1	19.00	19.16	19.14		
Channel				164300	166300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	1	23.15	23.26	23.20		
Channel				155100	155300	155500		
Frequency (MHz)				819	831.5	844	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	23.23	23.22	23.12		
Channel				163300	163300	169300		
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	1	23.19	23.26	23.15	24.0	0.0

n66 Ant 0 ECI 6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				346000	349000	352000	24.0	0.0
Frequency (MHz)				1130	1145	1160		
40	QPSK	1	1	22.87	22.95	22.83		
40	QPSK	1	108	22.81	22.80	22.68		
40	QPSK	1	214	22.70	22.82	22.68	23.0	1.0
40	QPSK	108	0	21.67	21.76	21.58		
40	QPSK	108	54	22.68	22.89	22.62		
40	QPSK	108	108	21.69	21.71	21.65		
40	QPSK	216	0	21.61	21.77	21.49	23.0	1.0



n38 Ant 0 ECI 6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				518004	519000	519996	24.0	0.0
Frequency (MHz)				2590.02	2595	2599.98		
40	QPSK	1	11	23.19	23.24	23.15	24.0	0.0
40	QPSK	1	53	23.08	23.08	22.92		
40	QPSK	1	104	22.85	23.06	22.94		
40	QPSK	50	0	22.00	22.05	21.78	23.0	1.0
40	QPSK	50	28	22.92	23.09	22.90	24.0	0.0
40	QPSK	50	56	21.95	21.97	21.90	23.0	1.0
40	QPSK	100	0	21.94	22.11	21.78		

n41 Ant 0 ECI 6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000	23.0	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	21.61	21.71	21.64	23.0	0.0
100	QPSK	1	137	21.64	21.65	21.61		
100	QPSK	1	271	21.48	21.56	21.42		
100	QPSK	135	0	21.46	21.53	21.48	23.0	0.0
100	QPSK	135	69	21.59	21.61	21.56	23.0	0.0
100	QPSK	135	135	21.37	21.45	21.33	23.0	0.0
100	QPSK	270	0	21.45	21.60	21.55		



n2 Ant 1 ECI 6

n2 Ant 1 ECI 6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. Channel	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
				374000	376000	378000		
				1870	1880	1890		
40	QPSK	1	1	23.17	23.19	23.10		
40	QPSK	1	108	23.07	23.06	22.96	24.0	0.0
40	QPSK	1	214	22.93	23.08	22.95		
40	QPSK	108	0	21.95	22.02	21.83	23.0	1.0
40	QPSK	108	54	23.02	23.14	22.86	24.0	0.0
40	QPSK	108	168	21.96	21.92	21.87		
40	QPSK	216	0	21.89	22.08	21.73	23.0	1.0

n5 Ant 1 ECI 6

n5 Ant 1 ECI 6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 166800	Power Middle Ch. / Freq. 167300	Power High Ch. / Freq. 167800	Tune-up limit (dBm)	MPR (db)
Channel				834	836.5	839	24.0	0.0
Frequency (MHz)								
20	PI2 BPSK	1	1	22.77	22.75	22.69		
20	PI2 BPSK	1	53	22.60	22.63	22.74		
20	PI2 BPSK	1	104	22.61	22.64	22.43	23.5	0.5
20	PI2 BPSK	50	0	22.07	22.12	22.08		
20	PI2 BPSK	50	28	22.61	22.68	22.62	24.0	0.0
20	PI2 BPSK	50	56	21.82	22.03	21.89	23.5	0.5
20	PI2 BPSK	100	0	22.10	22.28	22.02		
20	QPSK	1	1	22.77	22.83	22.74	24.0	0.0
20	QPSK	1	53	22.80	22.88	22.48		
20	QPSK	1	104	22.67	22.76	22.63		
20	QPSK	50	0	21.56	21.67	21.45		
20	QPSK	50	28	22.64	22.78	22.64	24.0	0.0
20	QPSK	50	56	21.65	21.61	21.57	23.0	1.0
20	QPSK	100	0	21.52	21.63	21.45		
20	16QAM	1	1	21.48	21.55	21.47	23.0	1.0
20	64QAM	1	1	20.21	20.21	20.08	21.5	2.5
20	256QAM	1	1	18.79	18.85	18.83	19.5	4.5
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	22.64	22.65	22.64	24.0	0.0
Channel				165800	167300	166800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826	836.5	844		
10	QPSK	1	1	22.58	22.71	22.58	24.0	0.0
Channel				165300	167300	165300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	22.61	22.67	22.63	24.0	0.0

n7 Ant 1 ECI 6

n7 Ant 1 ECI 6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 558000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 509000	Tune-up limit (dBm)	MPR (dB)
Channel Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	22.67	22.86	22.78		
50	QPSK	1	135	22.74	22.68	22.58	24.0	0.0
50	QPSK	1	268	22.55	22.65	22.53		
50	QPSK	135	0	21.58	21.68	21.56	23.0	1.0
50	QPSK	135	68	22.67	22.76	22.62	24.0	0.0
50	QPSK	135	135	21.67	21.63	21.61		
50	QPSK	270	0	21.50	21.55	21.37	23.0	1.0



n26 Ant 1 ECI 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 164800	Power Middle Ch. / Freq. 166300	Power High Ch. / Freq. 167800	Tune-up limit (dbm)	MPR (db)	
Channel				824	831.5	839			
Frequency (MHz)				22.71	22.77	22.69			
20	PI2 BPSK	1	1	22.71	22.77	22.69	24.0	0.0	
20	PI2 BPSK	1	53	22.73	22.83	22.73			
20	PI2 BPSK	1	104	22.76	22.85	22.81			
20	PI2 BPSK	50	0	22.36	22.41	22.32	23.5	0.5	
20	PI2 BPSK	50	28	22.80	22.85	22.83	24.0	0.0	
20	PI2 BPSK	50	56	22.32	22.41	22.31	23.5	0.5	
20	PI2 BPSK	100	0	22.29	22.39	22.34			
20	QPSK	1	1	22.81	22.88	22.82			
20	QPSK	1	53	22.81	22.85	22.78	24.0	0.0	
20	QPSK	1	104	22.78	22.81	22.71			
20	QPSK	50	0	21.80	21.88	21.87	23.0	1.0	
20	QPSK	50	28	22.76	22.83	22.76	24.0	0.0	
20	QPSK	50	56	21.89	21.95	21.90	23.0	1.0	
20	QPSK	100	0	21.82	21.93	21.87			
20	16QAM	1	1	21.47	21.55	21.52	23.0	1.0	
20	64QAM	1	1	20.12	20.15	20.10	21.5	2.5	
20	256QAM	1	1	18.66	18.75	18.74	19.5	4.5	
Channel				164300	166300	168300	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				821.5	831.5	841.5			
15	QPSK	1	1	22.71	22.83	22.73	24.0	0.0	
Channel				163800	166300	168800	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				818	831.5	844			
10	QPSK	1	1	22.72	22.80	22.76	24.0	0.0	
Channel				163300	166300	169300	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				816.5	831.5	846.5			
5	QPSK	1	1	22.78	22.87	22.78	24.0	0.0	

n66 Ant 1 ECI 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)	
Channel				1730	1745	1760			
Frequency (MHz)				23.30	23.38	23.25			
40	QPSK	1	1	23.30	23.38	23.25	24.0	0.0	
40	QPSK	1	108	23.14	23.19	23.08			
40	QPSK	1	214	23.11	23.25	22.97			
40	QPSK	108	0	22.06	22.04	21.89	23.0	1.0	
40	QPSK	108	54	23.21	23.27	23.01	24.0	0.0	
40	QPSK	108	108	22.18	22.12	22.01	23.0	1.0	
40	QPSK	216	0	21.96	22.13	21.93			



n38 Ant 1 ECI 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dB)	MPR (dB)	
Channel				518004	519000	519996			
Frequency (MHz)				2590.02	2595	2599.98			
40	QPSK	1	1	22.93	22.98	22.74	24.0	0.0	
40	QPSK	1	53	22.85	22.77	22.65			
40	QPSK	1	104	22.73	22.83	22.72			
40	QPSK	50	0	21.70	21.77	21.52	23.0	1.0	
40	QPSK	50	28	22.79	22.88	22.64	24.0	0.0	
40	QPSK	50	56	21.77	21.73	21.63	23.0	1.0	
40	QPSK	100	0	21.57	21.79	21.52			

n41 Ant 1 ECI 6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.96	2640		
100	QPSK	1	1	21.61	21.63	21.48	23.0	0.0
100	QPSK	1	137	21.46	21.55	21.46		
100	QPSK	1	271	21.33	21.51	21.33		
100	QPSK	135	0	21.36	21.45	21.38	23.0	0.0
100	QPSK	135	69	21.46	21.58	21.48	23.0	0.0
100	QPSK	135	135	21.41	21.37	21.29	23.0	0.0
100	QPSK	270	0	21.36	21.46	21.38		



n2 Ant 2 ECI 6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)
Channel				1870	1880	1890	21.1	0.0
Frequency (MHz)								
40	QPSK	1	1	19.80	19.93	19.75		
40	QPSK	1	108	19.66	19.72	19.80		
40	QPSK	1	214	19.55	19.79	19.46		
40	QPSK	108	0	19.58	19.66	19.38	21.1	0.0
40	QPSK	108	54	19.71	19.86	19.55	21.1	0.0
40	QPSK	108	108	19.63	19.59	19.54	21.1	0.0
40	QPSK	216	0	19.41	19.71	19.28		

n7 Ant 2 ECI 6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 506000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 509000	Tune-up limit (dBm)	MPR (dB)
Channel				2525	2535	2545	22.6	0.0
Frequency (MHz)								
50	QPSK	1	1	21.31	21.36	21.21		
50	QPSK	1	135	21.23	21.13	21.07		
50	QPSK	1	268	21.05	21.23	21.02		
50	QPSK	135	0	20.92	21.14	20.93	22.6	0.0
50	QPSK	135	68	21.18	21.26	20.97	22.6	0.0
50	QPSK	135	135	21.04	21.20	21.06	22.6	0.0
50	QPSK	270	0	20.98	21.12	20.88		

n66 Ant 2 ECI 6								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel				1730	1745	1760	21.9	0.0
Frequency (MHz)								
40	QPSK	1	1	20.71	20.74	20.59		
40	QPSK	1	108	20.50	20.63	20.56		
40	QPSK	1	214	20.45	20.48	20.50		
40	QPSK	108	0	20.60	20.51	20.45	21.9	0.0
40	QPSK	108	54	20.60	20.73	20.47	21.9	0.0
40	QPSK	108	108	20.49	20.54	20.35	21.9	0.0
40	QPSK	216	0	20.39	20.52	20.31		



n41 Ant 2 ECI 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low		Power High		Turn-up limit (dBm)	MPR (dB)
				Ch / Freq	Ch / Freq	Ch / Freq	Ch / Freq		
				Channel		508202	518598		
Frequency (MHz)				2546.01	2592.96	2640			
100	QPSK	1	1	20.65	20.66	20.49	21.6	0.0	
100	QPSK	1	137	20.56	20.51	20.36			
100	QPSK	1	271	20.48	20.44	20.37			
100	QPSK	135	0	20.54	20.32	20.28	21.6	0.0	
100	QPSK	135	69	20.40	20.35	20.32	21.6	0.0	
100	QPSK	135	138	20.49	20.48	20.45	21.6	0.0	
100	QPSK	270	0	20.57	20.58	20.44			



n2 Ant 3 ECI 6								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	23.6	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	22.82	22.86	22.64		
40	QPSK	1	108	22.81	22.83	22.59	23.0	0.6
40	QPSK	1	214	22.47	22.59	22.39		
40	QPSK	108	0	21.96	22.02	21.81		
40	QPSK	108	54	22.50	22.59	22.55	23.6	0.0
40	QPSK	108	108	22.02	22.02	21.88		
40	QPSK	216	0	22.03	22.08	21.98	23.0	0.6

n7 Ant 3 ECI 6								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	19.3	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	18.11	18.27	18.10		
50	QPSK	1	135	18.13	18.06	17.88	19.3	0.0
50	QPSK	1	268	17.89	18.01	17.86		
50	QPSK	135	0	17.97	18.02	17.74		
50	QPSK	135	68	17.93	18.11	17.94	19.3	0.0
50	QPSK	135	135	18.01	18.05	17.92		
50	QPSK	270	0	17.91	18.10	18.00	19.3	0.0

n66 Ant 3 ECI 6								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				348000	349000	352000	22.9	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	21.61	21.63	21.53		
40	QPSK	1	108	21.54	21.40	21.27	22.9	0.0
40	QPSK	1	214	21.21	21.45	21.33		
40	QPSK	108	0	21.35	21.42	21.14		
40	QPSK	108	54	21.32	21.55	21.26	22.9	0.0
40	QPSK	108	108	21.34	21.51	21.39		
40	QPSK	216	0	21.38	21.40	21.10	22.9	0.0



n41 Ant 3 ECI 6							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel				509002	516598	526000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	19.10	15.18	19.07	
100	QPSK	1	137	19.98	19.01	18.88	20.1
100	QPSK	1	271	18.93	19.02	18.83	
100	QPSK	135	0	18.92	18.96	18.69	20.1
100	QPSK	135	69	18.88	18.99	18.73	20.1
100	QPSK	135	138	18.84	18.94	18.75	
100	QPSK	270	0	18.84	19.02	18.73	20.1

Part270 n77 HPUE Ant 3 ECI 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000			
Frequency (MHz)				3750	3840	3930			
100	PI2 BPSK	1	1	22.54	22.73	22.36		23.9	0.0
100	PI2 BPSK	1	137	22.45	22.41	22.41			
100	PI2 BPSK	1	271	22.17	22.50	22.23			
100	PI2 BPSK	135	0	22.57	22.75	22.43	23.9	0.0	
100	PI2 BPSK	135	69	22.57	22.75	22.36	23.9	0.0	
100	PI2 BPSK	135	138	22.40	22.39	22.37		23.9	0.0
100	PI2 BPSK	270	0	22.14	22.50	22.32			
100	QPSK	1	1	22.61	22.77	22.44		23.9	0.0
100	QPSK	1	137	22.45	22.44	22.43			
100	QPSK	1	271	22.23	22.48	22.34		23.9	0.0
100	QPSK	135	0	22.51	22.67	22.36	23.9		
100	QPSK	135	69	22.51	22.72	22.41	23.9	0.0	
100	QPSK	135	138	22.44	22.37	22.36		23.9	0.0
100	QPSK	270	0	22.15	22.66	22.49			
100	16QAM	1	1	22.52	22.67	22.37	23.9	0.0	
100	64QAM	1	1	22.45	22.34	22.41	23.9	0.0	
100	256QAM	1	1	21.50	21.61	21.61	23.0	0.9	
Channel				649698	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	22.60	22.68	22.40	23.9	0.0	
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3840	3940.02			
80	QPSK	1	1	22.51	22.71	22.35	23.9	0.0	
Channel				649000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	22.60	22.70	22.34	23.9	0.0	
Channel				648668	650000	653334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3840	3950.01			
60	QPSK	1	1	22.54	22.74	22.42	23.9	0.0	
Channel				648334	650000	653668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3840	3955.02			
50	QPSK	1	1	22.50	22.71	22.41	23.9	0.0	
Channel				648000	650000	654000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3840	3960			
40	QPSK	1	1	22.52	22.74	22.39	23.9	0.0	
Channel				647688	650000	654334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	22.58	22.69	22.39	23.9	0.0	
Channel				647350	650000	654668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3840	3967.5			
25	QPSK	1	1	22.56	22.76	22.33	23.9	0.0	
Channel				647334	650000	654668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.61	3840	3970.02			
20	QPSK	1	1	22.57	22.69	22.35	23.9	0.0	
Channel				647188	650000	654834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3840	3972.51			
15	QPSK	1	1	22.58	22.70	22.34	23.9	0.0	
Channel				647000	650000	655000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	22.57	22.67	22.39	23.9	0.0	

Part270 n78 HPUE Ant 3 ECI 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000			
Frequency (MHz)				3750					
100	PI2 BPSK	1	1		22.54			23.9	0.0
100	PI2 BPSK	1	137		22.15				
100	PI2 BPSK	1	271		22.29				
100	PI2 BPSK	135	0		22.46		23.9	0.0	
100	PI2 BPSK	135	69		22.47		23.9	0.0	
100	PI2 BPSK	135	138		22.23			23.9	0.0
100	PI2 BPSK	270	0		22.33				
100	QPSK	1	1		22.56			23.9	0.0
100	QPSK	1	137		22.28				
100	QPSK	1	271		22.36			23.9	0.0
100	QPSK	135	0		22.49		23.9		
100	QPSK	135	69		22.55			23.9	0.0
100	QPSK	135	138		22.24		23.9		
100	QPSK	270	0		22.28			23.9	0.0
100	16QAM	1	1		22.52		23.9		
100	64QAM	1	1		22.19		23.9	0.0	
100	256QAM	1	1		21.46		23.0	0.9	
Channel				648698	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1	22.55	22.51	22.53	23.9	0.0	
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3750	3763.02			
80	QPSK	1	1	22.43	22.47	22.51	23.9	0.0	
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1	22.52	22.53	22.53	23.9	0.0	
Channel				648668	650000	653334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1	22.54	22.48	22.54	23.9	0.0	
Channel				648334	650000	653668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3750	3775.02			
50	QPSK	1	1	22.48	22.49	22.48	23.9	0.0	
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3760			
40	QPSK	1	1	22.51	22.47	22.54	23.9	0.0	
Channel				647688	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3750	3765.01			
30	QPSK	1	1	22.48	22.54	22.53	23.9	0.0	
Channel				647350	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3750	3767.5			
25	QPSK	1	1	22.55	22.45	22.50	23.9	0.0	
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.61	3750	3760.02			
20	QPSK	1	1	22.53	22.49	22.52	23.9	0.0	
Channel				647188	650000	652834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3750	3762.51			
15	QPSK	1	1	22.53	22.48	22.48	23.9	0.0	
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3750	3765			
10	QPSK	1	1	22.46	22.47	22.54	23.9	0.0	

Part27O n77 HPUE Ant 4 ECI 6							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	
Channel							
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	17.66	17.73	17.82	
100	PI/2 BPSK	1	137	17.55	17.68	17.43	19.1
100	PI/2 BPSK	1	271	17.49	17.57	17.47	
100	PI/2 BPSK	135	0	17.59	17.77	17.70	19.1
100	PI/2 BPSK	135	69	17.63	17.73	17.61	19.1
100	PI/2 BPSK	135	138	17.59	17.60	17.40	19.1
100	PI/2 BPSK	270	0	17.47	17.60	17.51	
100	QPSK	1	1	17.68	17.83	17.72	
100	QPSK	1	137	17.62	17.70	17.46	19.1
100	QPSK	1	271	17.53	17.64	17.53	
100	QPSK	135	0	17.63	17.72	17.70	19.1
100	QPSK	135	69	17.62	17.74	17.65	19.1
100	QPSK	135	138	17.56	17.62	17.38	19.1
100	QPSK	270	0	17.43	17.57	17.45	19.1
100	16QAM	1	1	17.63	17.81	17.67	19.1
100	64QAM	1	1	17.58	17.85	17.43	19.1
100	256QAM	1	1	17.47	17.59	17.51	19.1
Channel				649334	656000	662668	
Frequency (MHz)				3745.02	3840	3935.01	
90	QPSK	1	1	17.61	17.72	17.61	19.1
Channel				649334	656000	662668	
Frequency (MHz)				3743.01	3840	3933.02	
80	QPSK	1	1	17.65	17.77	17.64	19.1
Channel				649000	656000	663000	
Frequency (MHz)				3735	3840	3945	
70	QPSK	1	1	17.65	17.76	17.63	19.1
Channel				649000	656000	663334	
Frequency (MHz)				3730.02	3840	3950.01	
60	QPSK	1	1	17.66	17.80	17.67	19.1
Channel				648334	656000	663668	
Frequency (MHz)				3725.01	3840	3955.02	
50	QPSK	1	1	17.61	17.73	17.61	19.1
Channel				648000	656000	664000	
Frequency (MHz)				3720	3740	3760	
40	QPSK	1	1	17.69	17.75	17.62	19.1
Channel				647668	656000	664334	
Frequency (MHz)				3715.02	3840	3965.01	
30	QPSK	1	1	17.66	17.82	17.68	19.1
Channel				647334	656000	664668	
Frequency (MHz)				3712.51	3840	3967.51	
25	QPSK	1	1	17.65	17.74	17.67	19.1
Channel				647334	656000	664668	
Frequency (MHz)				3710.01	3840	3970.02	
20	QPSK	1	1	17.64	17.76	17.63	19.1
Channel				647168	656000	664834	
Frequency (MHz)				3707.52	3840	3972.51	
15	QPSK	1	1	17.67	17.73	17.65	19.1
Channel				647000	656000	665000	
Frequency (MHz)				3705	3840	3975	
10	QPSK	1	1	17.61	17.82	17.70	19.1

Part270 n78 HPUE Ant 4 ECI 6							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	
Channel							
Frequency (MHz)				3750			
100	PI2 BPSK	1	1	17.75			
100	PI2 BPSK	1	137	17.49			19.1
100	PI2 BPSK	1	271	17.51			19.1
100	PI2 BPSK	135	0	17.72			19.1
100	PI2 BPSK	135	69	17.61			19.1
100	PI2 BPSK	135	138	17.60			19.1
100	PI2 BPSK	270	0	17.59			19.1
100	QPSK	1	1	17.61			19.1
100	QPSK	1	137	17.83			19.1
100	QPSK	1	271	17.60			19.1
100	QPSK	135	0	17.65			19.1
100	QPSK	135	69	17.70			19.1
100	QPSK	135	138	17.59			19.1
100	QPSK	270	0	17.52			19.1
100	16QAM	1	1	17.77			19.1
100	64QAM	1	1	17.61			19.1
100	256QAM	1	1	17.62			19.1
Channel				649668	650000	650334	
Frequency (MHz)				3745.02	3750	3755.01	MPR (db)
90	QPSK	1	1	17.69	17.69	17.75	19.1
Channel				649334	650000	650668	
Frequency (MHz)				3743.01	3750	3763.02	MPR (db)
80	QPSK	1	1	17.74	17.74	17.69	19.1
Channel				649000	650000	651000	
Frequency (MHz)				3735	3750	3765 <td>MPR (db)</td>	MPR (db)
70	QPSK	1	1	17.76	17.68	17.75	19.1
Channel				648668	650000	651334	
Frequency (MHz)				3730.02	3750	3770.01 <td>MPR (db)</td>	MPR (db)
60	QPSK	1	1	17.70	17.70	17.71	19.1
Channel				648334	650000	651668	
Frequency (MHz)				3725.01	3750	3765.02 <td>MPR (db)</td>	MPR (db)
50	QPSK	1	1	17.74	17.68	17.74	19.1
Channel				648000	650000	652000	
Frequency (MHz)				3720	3750	3760 <td>MPR (db)</td>	MPR (db)
40	QPSK	1	1	17.69	17.74	17.75	19.1
Channel				647668	650000	652334	
Frequency (MHz)				3715.02	3750	3765.01 <td>MPR (db)</td>	MPR (db)
30	QPSK	1	1	17.75	17.68	17.72	19.1
Channel				647334	650000	652668	
Frequency (MHz)				3712.51	3750	3767.51 <td>MPR (db)</td>	MPR (db)
25	QPSK	1	1	17.69	17.69	17.75	19.1
Channel				647334	650000	652668	
Frequency (MHz)				3710.01	3750	3769.02 <td>MPR (db)</td>	MPR (db)
20	QPSK	1	1	17.75	17.75	17.73	19.1
Channel				647168	650000	652834	
Frequency (MHz)				3707.52	3750	3752.51 <td>MPR (db)</td>	MPR (db)
15	QPSK	1	1	17.74	17.68	17.70	19.1
Channel				647000	650000	653000	
Frequency (MHz)				3705	3750	3795 <td>MPR (db)</td>	MPR (db)
10	QPSK	1	1	17.70	17.68	17.71	19.1

Part270 n77 Ant 6 ECI 6							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 662000	
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3750	3840	3930	
100	PV2 BPSK	1	1	19.02	19.11	19.05	
100	PV2 BPSK	1	137	18.93	19.11	19.12	20.5
100	PV2 BPSK	1	271	18.93	19.10	18.88	0.0
100	PV2 BPSK	135	0	18.96	18.94	18.86	20.5
100	PV2 BPSK	135	69	18.98	18.94	18.78	20.5
100	PV2 BPSK	135	138	18.91	19.00	18.92	20.5
100	PV2 BPSK	270	0	18.88	19.01	19.92	0.0
100	QPSK	1	1	19.10	19.23	19.06	
100	QPSK	1	137	19.08	19.13	19.19	20.5
100	QPSK	1	271	19.07	19.22	19.05	0.0
100	QPSK	135	0	19.05	19.11	19.12	20.5
100	QPSK	135	69	19.12	19.18	19.08	20.5
100	QPSK	135	138	19.00	19.10	19.03	20.5
100	QPSK	270	0	19.11	19.14	19.06	0.0
100	16QAM	1	1	18.97	18.99	18.91	20.5
100	64QAM	1	1	18.88	19.02	18.94	20.5
100	256QAM	1	1	18.98	19.07	18.97	20.5
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3745.02	3840	3935.01	
90	QPSK	1	1	19.01	19.13	19.03	20.5
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3740.01	3840	3940.02	
80	QPSK	1	1	19.07	19.19	18.99	20.5
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3735.00	3840	3945.03	
70	QPSK	1	1	19.02	19.17	18.99	20.5
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3730.02	3840	3950.01	
60	QPSK	1	1	19.01	19.12	18.98	20.5
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3725.01	3840	3955.02	
50	QPSK	1	1	19.06	19.14	18.98	20.5
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3720.00	3840	3960.00	
40	QPSK	1	1	19.07	19.17	18.95	20.5
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3715.02	3840	3965.01	
30	QPSK	1	1	19.01	19.19	18.97	20.5
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3710.01	3840	3970.02	
25	QPSK	1	1	19.00	19.19	19.02	20.5
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3707.52	3840	3972.51	
20	QPSK	1	1	19.02	19.13	18.95	20.5
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3707.52	3840	3972.51	
15	QPSK	1	1	19.00	19.19	19.02	20.5
Channel				Tune-up limit (dBm)		MPR (dB)	
Frequency (MHz)				3705.00	3840	3975.00	
10	QPSK	1	1	19.01	19.19	19.00	20.5

Part270 n78 Ant 6 ECI 6							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel				650000	650000		
Frequency (MHz)				3750			
100	PV2 BPSK	1	1		18.94		
100	PV2 BPSK	1	137		18.99		20.5
100	PV2 BPSK	1	271		18.81		0.0
100	PV2 BPSK	135	0		18.78		20.5
100	PV2 BPSK	135	69		18.94		20.5
100	PV2 BPSK	135	138		18.83		20.5
100	PV2 BPSK	270	0		18.83		0.0
100	QPSK	1	1		19.16		
100	QPSK	1	137		19.00		20.5
100	QPSK	1	271		18.96		0.0
100	QPSK	135	0		19.02		20.5
100	QPSK	135	69		19.07		20.5
100	QPSK	135	138		18.93		20.5
100	QPSK	270	0		19.06		0.0
100	16QAM	1	1		19.92		20.5
100	64QAM	1	1		18.80		20.5
100	256QAM	1	1		19.02		20.5
Channel				649668	650000	650334	Tune-up limit (dBm) MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01	19.08 20.5 0.0
90	QPSK	1	1	19.10	19.16	19.08	20.5
Channel				649334	650000	650668	Tune-up limit (dBm) MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02	19.07 20.5 0.0
80	QPSK	1	1	19.15	19.13	19.07	20.5
Channel				649000	650000	651000	Tune-up limit (dBm) MPR (dB)
Frequency (MHz)				3735	3750	3765	19.10 20.5 0.0
70	QPSK	1	1	19.10	19.09	19.12	20.5
Channel				648668	650000	651334	Tune-up limit (dBm) MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01	19.15 20.5 0.0
60	QPSK	1	1	19.16	19.11	19.09	20.5
Channel				648334	650000	651668	Tune-up limit (dBm) MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02	19.15 20.5 0.0
50	QPSK	1	1	19.10	19.11	19.15	20.5
Channel				648000	650000	652000	Tune-up limit (dBm) MPR (dB)
Frequency (MHz)				3720	3750	3790	19.16 20.5 0.0
40	QPSK	1	1	19.16	19.13	19.15	20.5
Channel				647668	650000	652334	Tune-up limit (dBm) MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01	19.17 20.5 0.0
30	QPSK	1	1	19.09	19.09	19.17	20.5
Channel				647334	650000	652668	Tune-up limit (dBm) MPR (dB)
Frequency (MHz)				3710.01	3750	3780.02	19.16 20.5 0.0
25	QPSK	1	1	19.12	19.14	19.16	20.5
Channel				647334	650000	652888	Tune-up limit (dBm) MPR (dB)
Frequency (MHz)				3710.01	3750	3780.02	19.17 20.5 0.0
20	QPSK	1	1	19.08	19.13	19.12	20.5
Channel				647168	650000	652834	Tune-up limit (dBm) MPR (dB)
Frequency (MHz)				3707.52	3750	3782.51	19.15 20.5 0.0
15	QPSK	1	1	19.14	19.10	19.07	20.5
Channel				647000	650000	653000	Tune-up limit (dBm) MPR (dB)
Frequency (MHz)				3705	3750	3795	19.15 20.5 0.0
10	QPSK	1	1	19.09	19.15	19.09	20.5

Part27O n77 Ant 8 ECI 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	3750	3840	662000		
Frequency (MHz)				3750	3840	3930			
100	PI2 BPSK	1	1	17.77	17.84	17.61	19.5		0.0
100	PI2 BPSK	1	137	17.80	17.90	17.76			
100	PI2 BPSK	1	271	17.76	17.76	17.80			
100	PI2 BPSK	135	0	17.75	17.81	17.59	19.5	0.0	
100	PI2 BPSK	135	69	17.67	17.68	17.55	19.5	0.0	
100	PI2 BPSK	135	138	17.86	17.69	17.56	19.5	0.0	
100	PI2 BPSK	270	0	17.72	17.80	17.67			
100	QPSK	1	1	17.84	18.04	17.92	19.5		0.0
100	QPSK	1	137	17.84	17.91	17.82			
100	QPSK	1	271	17.67	17.78	17.60			
100	QPSK	135	0	17.70	17.82	17.72	19.5	0.0	
100	QPSK	135	69	17.83	17.93	17.66	19.5	0.0	
100	QPSK	135	138	17.76	17.78	17.73	19.5	0.0	
100	QPSK	270	0	17.77	17.85	17.68			
100	16QAM	1	1	17.77	17.77	17.65	19.5	0.0	
100	64QAM	1	1	17.68	17.62	17.67	19.5	0.0	
100	256QAM	1	1	17.70	17.76	17.72	19.5	0.0	
Channel				649968	650000	662334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	17.78	17.93	17.89	19.5	0.0	
Channel				649334	650000	662668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3742.01	3840	3940.02			
80	QPSK	1	1	17.76	17.97	17.63	19.5	0.0	
Channel				649000	650000	663000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	17.75	18.01	17.65	19.5	0.0	
Channel				648668	650000	663334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3840	3950.01			
60	QPSK	1	1	17.80	17.94	17.89	19.5	0.0	
Channel				648334	650000	663668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3840	3955.02			
50	QPSK	1	1	17.83	17.99	17.81	19.5	0.0	
Channel				648000	650000	664000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3840	3960			
40	QPSK	1	1	17.75	17.95	17.90	19.5	0.0	
Channel				647668	650000	664334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	17.77	17.99	17.84	19.5	0.0	
Channel				647334	650000	664668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3840	3967.5			
25	QPSK	1	1	17.80	17.94	17.84	19.5	0.0	
Channel				647334	650000	664668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3840	3972.51			
20	QPSK	1	1	17.74	18.00	17.61	19.5	0.0	
Channel				647000	650000	665000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3840	3975			
15	QPSK	1	1	17.75	18.03	17.88	19.5	0.0	
Channel				646700	650000	665000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	17.76	18.00	17.83	19.5	0.0	

Part27O n78 Ant 8 ECI 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	3750				
Frequency (MHz)									
100	PI2 BPSK	1	1		17.84		19.5	0.0	
100	PI2 BPSK	1	137		17.91				
100	PI2 BPSK	1	271		17.88				
100	PI2 BPSK	135	0		17.89		19.5	0.0	
100	PI2 BPSK	135	69		17.70		19.5	0.0	
100	PI2 BPSK	135	138		17.84		19.5	0.0	
100	PI2 BPSK	270	0		17.71				
100	QPSK	1	1		18.01		19.5	0.0	
100	QPSK	1	137		17.84				
100	QPSK	1	271		17.86				
100	QPSK	135	0		17.74		19.5	0.0	
100	QPSK	135	69		17.91		19.5	0.0	
100	QPSK	135	138		17.74		19.5	0.0	
100	QPSK	270	0		17.82				
100	16QAM	1	1		17.77		19.5	0.0	
100	64QAM	1	1		17.70		19.5	0.0	
100	256QAM	1	1		17.78		19.5	0.0	
Channel				649998	650000	660334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1		17.91	17.96	17.92	19.5	0.0
Channel				649334	650000	660668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3750	3760.02			
80	QPSK	1	1		17.99	17.92	17.97	19.5	0.0
Channel				649000	650000	661000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1		17.91	17.94	17.95	19.5	0.0
Channel				648668	650000	661334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1		17.96	17.92	17.91	19.5	0.0
Channel				648334	650000	661668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3750	3775.02			
50	QPSK	1	1		17.94	17.96	17.94	19.5	0.0
Channel				648000	650000	662000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3770			
40	QPSK	1	1		17.94	17.96	17.91	19.5	0.0
Channel				647668	650000	662334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3750	3785.01			
30	QPSK	1	1		18.00	17.97	17.96	19.5	0.0
Channel				647334	650000	662668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3750	3786.02			
25	QPSK	1	1		17.90	17.96	17.90	19.5	0.0
Channel				647334	650000	662668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.01	3750	3792.02			
20	QPSK	1	1		17.95	17.95	17.93	19.5	0.0
Channel				647168	650000	662834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3750	3792.51			
15	QPSK	1	1		17.91	17.96	17.94	19.5	0.0
Channel				647000	650000	663000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3750	3795			
10	QPSK	1	1		17.95	17.97	17.91	19.5	0.0



Reduced Power Mode for ECI9

n2 Ant 0 ECI 9

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				1870	1880	1890	21.3	0.0
Frequency (MHz)				374000	376000	378000		
40	QPSK	1	1	20.02	20.20	19.99	21.3	0.0
40	QPSK	1	108	19.83	19.91	19.82		
40	QPSK	1	214	19.75	19.87	19.90	21.3	0.0
40	QPSK	108	0	19.91	19.95	19.78		
40	QPSK	108	54	20.09	20.20	19.94	21.3	0.0
40	QPSK	108	108	19.97	20.13	19.82		
40	QPSK	216	0	20.07	20.14	20.00	21.3	0.0

n5 Ant 0 ECI 9

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167900	24.0	0.0
Frequency (MHz)				834	836.5	839		
20	PV2 BPSK	1	1	23.15	23.22	23.10	24.0	0.0
20	PV2 BPSK	1	53	23.07	23.06	23.14		
20	PV2 BPSK	1	104	23.11	23.13	22.99	23.5	0.5
20	PV2 BPSK	50	9	22.54	22.61	22.59		
20	PV2 BPSK	50	28	23.06	23.15	23.10	24.0	0.0
20	PV2 BPSK	50	56	22.37	22.53	22.41		
20	PV2 BPSK	100	0	22.58	22.66	22.38	23.5	0.5
20	QPSK	1	1	23.06	23.22	22.96		
20	QPSK	1	53	23.04	23.08	22.81	24.0	0.0
20	QPSK	1	104	23.00	23.01	22.94		
20	QPSK	50	0	21.84	21.93	21.73	23.0	1.0
20	QPSK	50	28	23.02	23.11	22.92		
20	QPSK	50	56	21.86	22.02	21.81	23.0	1.0
20	QPSK	100	0	21.96	21.99	21.69		
20	16QAM	1	1	21.86	21.89	21.81	23.0	1.0
20	64QAM	1	1	20.83	20.60	20.36		
20	256QAM	1	1	19.14	19.22	19.17	19.5	4.5
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5	24.0	0.0
15	QPSK	1	1	22.88	23.02	22.86	24.0	0.0
Channel				165300	167300	169300		
Frequency (MHz)				829	836.5	844	24.0	0.0
10	QPSK	1	1	22.88	23.05	22.79		
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5	24.0	0.0
5	QPSK	1	1	22.87	23.06	22.85	24.0	0.0

n7 Ant 0 ECI 9

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	21.3	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	20.18	20.23	20.13	21.3	0.0
50	QPSK	1	135	20.12	20.19	19.96		
50	QPSK	1	268	20.10	20.07	20.06	21.3	0.0
50	QPSK	135	0	20.01	20.02	20.02		
50	QPSK	135	68	20.04	20.14	20.07	21.3	0.0
50	QPSK	135	135	20.02	19.98	19.85		
50	QPSK	270	0	20.00	20.15	19.92	21.3	0.0



n26 Ant 0 ECI 9									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				164800	166300	167800	24.0	0.0	
Frequency (MHz)				831.5	833	835			
20	PI2 BPSK	1	1	23.01	23.05	23.09			
20	PI2 BPSK	1	53	23.11	23.11	23.11	23.5	0.5	
20	PI2 BPSK	1	104	23.20	23.17	23.19			
20	PI2 BPSK	50	0	22.77	22.76	22.77			
20	PI2 BPSK	50	28	23.20	23.12	23.15	24.0	0.0	
20	PI2 BPSK	50	56	22.80	22.75	22.75	23.5	0.5	
20	PI2 BPSK	100	0	22.72	22.80	22.80			
20	QPSK	1	1	23.25	23.27	23.22			
20	QPSK	1	53	23.11	23.21	23.19	24.0	0.0	
20	QPSK	1	104	23.12	23.19	23.17			
20	QPSK	50	0	22.12	22.21	22.18			
20	QPSK	50	28	23.17	23.22	23.14	24.0	0.0	
20	QPSK	50	56	22.32	22.33	22.26	23.0	1.0	
20	QPSK	100	0	22.29	22.33	22.29	23.0	1.0	
20	16QAM	1	1	21.90	21.93	21.90			
20	64QAM	1	1	20.52	20.58	20.48		21.5	
20	256QAM	1	1	19.00	19.16	19.14	19.5	4.5	
Channel				164300	166300	168300	Tune-up limit	MPR	
Frequency (MHz)				821.5	831.5	841.5	(dBm)	(dB)	
15	QPSK	1	1	23.15	23.26	23.20	24.0	0.0	
Channel				155100	155300	155500	Tune-up limit	MPR	
Frequency (MHz)				819	831.5	844	(dBm)	(dB)	
10	QPSK	1	1	23.23	23.22	23.12	24.0	0.0	
Channel				163300	163300	169000	Tune-up limit	MPR	
Frequency (MHz)				816.5	831.5	846.5	(dBm)	(dB)	
5	QPSK	1	1	23.19	23.26	23.15	24.0	0.0	

n66 Ant 0 ECI 9									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				346000	349000	352000	20.4	0.0	
Frequency (MHz)				1730	1745	1760			
40	QPSK	1	1	19.54	19.63	19.60			
40	QPSK	1	108	19.56	19.53	19.32	20.4	0.0	
40	QPSK	1	214	19.48	19.59	19.43			
40	QPSK	108	0	19.36	19.58	19.28			
40	QPSK	108	54	19.43	19.64	19.45	20.4	0.0	
40	QPSK	108	108	19.39	19.46	19.36	20.4	0.0	
40	QPSK	216	0	19.29	19.55	19.21			



n41 Ant 0 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				508202	518598	528990	21.5	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	20.19	20.27	20.24		
100	QPSK	1	137	20.05	20.07	19.91	21.5	0.0
100	QPSK	1	271	19.96	20.01	19.91		
100	QPSK	135	0	19.93	20.03	19.72		
100	QPSK	135	69	20.11	20.13	19.98	21.5	0.0
100	QPSK	135	138	19.90	19.99	20.03		
100	QPSK	270	0	20.04	20.12	20.05		



n2 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)
Channel				1870	1880	1890		
Frequency (MHz)								
40	QPSK	1	1	23.17	23.19	23.10	24.0	0.0
40	QPSK	1	108	22.07	23.06	22.96		
40	QPSK	1	214	22.93	23.08	22.95		
40	QPSK	108	0	21.95	22.02	21.83		
40	QPSK	108	54	23.02	23.14	22.86	24.0	1.0
40	QPSK	108	168	21.96	21.92	21.87	23.0	1.0
40	QPSK	216	0	21.89	22.08	21.73		

n5 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 166800	Power Middle Ch. / Freq. 167300	Power High Ch. / Freq. 167800	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.77	22.75	22.69	24.0	0.0
20	PI2 BPSK	1	53	22.60	22.63	22.74		
20	PI2 BPSK	1	104	22.61	22.64	22.43		
20	PI2 BPSK	50	0	22.07	22.12	22.08		
20	PI2 BPSK	50	28	22.61	22.68	22.62	24.0	0.0
20	PI2 BPSK	50	56	21.82	22.03	21.89	23.5	0.5
20	PI2 BPSK	100	0	22.10	22.28	22.02	24.0	0.0
20	QPSK	1	1	22.77	22.83	22.74		
20	QPSK	1	53	22.80	22.98	22.48		
20	QPSK	1	104	22.57	22.76	22.63		
20	QPSK	50	0	21.56	21.67	21.45	23.0	1.0
20	QPSK	50	28	22.64	22.78	22.64	24.0	0.0
20	QPSK	50	56	21.65	21.61	21.57	23.0	1.0
20	QPSK	100	0	21.52	21.63	21.45		
20	16QAM	1	1	21.48	21.55	21.47	23.0	1.0
20	64QAM	1	1	20.21	20.21	20.08	21.5	2.5
20	256QAM	1	1	18.79	18.85	18.83	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.64	22.65	22.64	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.58	22.71	22.58	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.61	22.67	22.63	24.0	0.0

n7 Ant 1 ECI 9

BW [MHz]	Modulation	RB Size	RB Offset	Power Low	Power Middle	Power High	Tune-up limit (dBm)	MPR (dB)
				Ch. / Freq.	Ch. / Freq.	Ch. / Freq.		
				Channel				
				2505	2535	2545		
50	QPSK	1	1	20.76	20.83	20.77	21.8	0.0
50	QPSK	1	135	20.80	20.66	20.54		
50	QPSK	1	268	20.53	20.65	20.59		
50	QPSK	135	0	20.67	20.63	20.61		
50	QPSK	135	68	20.64	20.75	20.66	21.8	0.0
50	QPSK	135	135	20.61	20.68	20.57	21.8	0.0
50	QPSK	270	0	20.51	20.57	20.41		



n26 Ant 1 ECI 9									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 164800	Power Middle Ch. / Freq. 166300	Power High Ch. / Freq. 167800	Tune-up limit (dbm)	MPR (db)	
Channel				824	831.5	839	24.0	0.0	
Frequency (MHz)				22.71	22.77	22.69			
20	PI2 BPSK	1	1	22.71	22.77	22.69			
20	PI2 BPSK	1	53	22.73	22.83	22.73			
20	PI2 BPSK	1	104	22.76	22.85	22.81	23.5	0.5	
20	PI2 BPSK	50	0	22.36	22.41	22.32			
20	PI2 BPSK	50	28	22.80	22.85	22.83			
20	PI2 BPSK	50	56	22.32	22.41	22.31			
20	PI2 BPSK	100	0	22.29	22.39	22.34	23.5	0.5	
20	QPSK	1	1	22.81	22.88	22.82			
20	QPSK	1	53	22.81	22.85	22.78			
20	QPSK	1	104	22.78	22.81	22.71			
20	QPSK	50	0	21.80	21.88	21.87	23.0	1.0	
20	QPSK	50	28	22.76	22.83	22.76			
20	QPSK	50	56	21.89	21.95	21.90			
20	QPSK	100	0	21.82	21.93	21.87			
20	16QAM	1	1	21.47	21.55	21.52	23.0	1.0	
20	64QAM	1	1	20.12	20.15	20.10			
20	256QAM	1	1	18.66	18.75	18.74			
Channel				164300	166300	168300			
Frequency (MHz)				821.5	831.5	841.5	Tune-up limit (dbm)	MPR (db)	
15	QPSK	1	1	22.71	22.83	22.73	24.0	0.0	
Channel				163800	166300	168800			
Frequency (MHz)				819	831.5	844			
10	QPSK	1	1	22.72	22.80	22.76			
Channel				163300	166300	169300	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				816.5	831.5	846.5	24.0 <th colspan="2">0.0</th>	0.0	
5	QPSK	1	1	22.78	22.87	22.78	24.0	0.0	

n66 Ant 1 ECI 9									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)	
Channel				1730	1745	1760	22.9	0.0	
Frequency (MHz)				21.74	21.86	21.77			
40	QPSK	1	1	21.74	21.86	21.77			
40	QPSK	1	108	21.63	21.72	21.70			
40	QPSK	1	214	21.62	21.75	21.48	22.9	0.0	
40	QPSK	108	0	21.63	21.60	21.41			
40	QPSK	108	54	21.78	21.86	21.51			
40	QPSK	108	108	21.72	21.59	21.45			
40	QPSK	216	0	21.47	21.69	21.37	22.9	0.0	



n41 Ant 1 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low		Power High		Tune-up limit (dBm)	MPR (dB)
				Ch / Freq	Ch / Freq	Ch / Freq	Ch / Freq		
Channel				508202	518598	528990			
Frequency (MHz)				2546.01	2592.99	2640			
100	QPSK	1	1	18.74	18.75	18.74			
100	QPSK	1	137	18.64	18.59	18.40		20.3	0.0
100	QPSK	1	271	18.46	18.60	18.42			
100	QPSK	135	0	18.58	18.49	18.33		20.3	0.0
100	QPSK	135	69	18.50	18.72	18.50		20.3	0.0
100	QPSK	135	138	18.40	18.52	18.45			
100	QPSK	270	0	18.38	18.57	18.33		20.3	0.0



n2 Ant 2 ECI 9								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)
Channel				1870	1880	1890	13.6	0.0
Frequency (MHz)								
40	QPSK	1	1	12.40	12.42	12.40		
40	QPSK	1	108	12.26	12.22	12.12		
40	QPSK	1	214	12.21	12.32	12.12	13.6	0.0
40	QPSK	108	0	12.25	12.34	12.19		
40	QPSK	108	54	12.24	12.40	12.06		
40	QPSK	108	108	12.21	12.22	12.16		
40	QPSK	216	0	12.10	12.39	11.93	13.6	0.0

n7 Ant 2 ECI 9								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 506000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 509000	Tune-up limit (dBm)	MPR (dB)
Channel				2525	2535	2545	15.7	0.0
Frequency (MHz)								
50	QPSK	1	1	14.31	14.39	14.18		
50	QPSK	1	135	14.08	14.12	14.02		
50	QPSK	1	268	13.99	14.06	13.92	15.7	0.0
50	QPSK	135	0	13.87	14.08	13.76		
50	QPSK	135	68	14.01	14.17	13.98		
50	QPSK	135	135	14.05	14.19	13.97		
50	QPSK	270	0	13.95	14.17	13.99	15.7	0.0

n66 Ant 2 ECI 9								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel				1730	1745	1760	14.4	0.0
Frequency (MHz)								
40	QPSK	1	1	13.21	13.33	13.27		
40	QPSK	1	108	13.21	13.05	13.95		
40	QPSK	1	214	12.97	13.09	13.07	14.4	0.0
40	QPSK	108	0	13.05	13.13	12.97		
40	QPSK	108	54	13.05	13.24	12.93		
40	QPSK	108	108	13.00	13.09	12.78		
40	QPSK	216	0	12.88	13.20	12.78	14.4	0.0



n41 Ant 2 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				508202	518598	528990	14.7	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	13.45	13.63	13.51		
100	QPSK	1	137	13.42	13.55	13.35	14.7	0.0
100	QPSK	1	271	13.40	13.48	13.29		
100	QPSK	135	0	13.40	13.45	13.19		
100	QPSK	135	69	13.35	13.54	13.36	14.7	0.0
100	QPSK	135	138	13.34	13.50	13.41		
100	QPSK	270	0	13.49	13.50	13.48		



n2 Ant 3 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	18.1	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	16.98	16.99	16.91		
40	QPSK	1	108	16.92	16.96	16.73	18.1	0.0
40	QPSK	1	214	16.89	16.89	16.70		
40	QPSK	108	0	16.79	16.84	16.61		
40	QPSK	108	54	16.82	16.97	16.77	18.1	0.0
40	QPSK	108	108	16.79	16.92	16.67	18.1	0.0
40	QPSK	216	0	16.78	16.96	16.71		

n7 Ant 3 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	15.4	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	14.60	14.73	14.61		
50	QPSK	1	135	14.56	14.50	14.50	15.4	0.0
50	QPSK	1	268	14.33	14.55	14.31		
50	QPSK	135	0	14.36	14.38	14.24		
50	QPSK	135	68	14.42	14.62	14.49	15.4	0.0
50	QPSK	135	135	14.49	14.54	14.18	15.4	0.0
50	QPSK	270	0	14.29	14.55	14.45		

n66 Ant 3 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch. / Freq.	Power Ch. / Freq.	Power Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				348000	349000	352000	17.8	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	16.52	16.58	16.45		
40	QPSK	1	108	16.39	16.44	16.19	17.8	0.0
40	QPSK	1	214	16.18	16.41	16.39		
40	QPSK	108	0	16.38	16.46	16.16		
40	QPSK	108	54	16.25	16.44	16.21	17.8	0.0
40	QPSK	108	108	16.39	16.31	16.32	17.8	0.0
40	QPSK	216	0	16.33	16.35	16.11		



n41 Ant 3 ECI 9							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel				509002	516598	526000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	14.67	14.69	14.53	
100	QPSK	1	137	14.58	14.61	14.37	16.1
100	QPSK	1	271	14.39	14.55	14.32	
100	QPSK	135	0	14.44	14.42	14.27	16.1
100	QPSK	135	69	14.35	14.60	14.29	16.1
100	QPSK	135	138	14.34	14.37	14.37	
100	QPSK	270	0	14.24	14.58	14.21	16.1

Part270 n77 HPUE Ant 3 ECI 9							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI2 BPSK	1	1	15.53	15.61	15.36	
100	PI2 BPSK	1	137	15.43	15.41	15.37	17.0
100	PI2 BPSK	1	271	15.16	15.51	15.30	
100	PI2 BPSK	135	0	15.50	15.70	15.39	17.0
100	PI2 BPSK	135	69	15.51	15.66	15.45	17.0
100	PI2 BPSK	135	138	15.37	15.44	15.30	
100	PI2 BPSK	270	0	15.17	15.48	15.27	17.0
100	QPSK	1	1	15.63	15.74	15.48	
100	QPSK	1	137	15.48	15.53	15.40	17.0
100	QPSK	1	271	15.29	15.56	15.36	
100	QPSK	135	0	15.54	15.62	15.39	17.0
100	QPSK	135	69	15.53	15.69	15.39	
100	QPSK	135	138	15.38	15.45	15.29	17.0
100	QPSK	270	0	15.16	15.48	15.29	
100	16QAM	1	1	15.54	15.70	15.40	17.0
100	64QAM	1	1	15.39	15.49	15.28	17.0
100	256QAM	1	1	15.12	15.49	15.27	17.0
Channel				660668	666000	669334	
Frequency (MHz)				3745.02	3840	3935.01	
90	QPSK	1	1	15.59	15.65	15.36	17.0
Channel				649334	650000	662668	
Frequency (MHz)				3740.01	3840	3943.02	
80	QPSK	1	1	15.53	15.65	15.43	17.0
Channel				649000	650000	663000	
Frequency (MHz)				3735	3840	3945	
70	QPSK	1	1	15.53	15.63	15.42	17.0
Channel				647668	650000	663334	
Frequency (MHz)				3730.02	3840	3950.01	
60	QPSK	1	1	15.53	15.66	15.43	17.0
Channel				647334	650000	663668	
Frequency (MHz)				3725.01	3840	3955.02	
50	QPSK	1	1	15.52	15.63	15.36	17.0
Channel				648000	650000	664000	
Frequency (MHz)				3720	3840	3960	
40	QPSK	1	1	15.53	15.63	15.41	17.0
Channel				647668	650000	664334	
Frequency (MHz)				3715.02	3840	3965.01	
30	QPSK	1	1	15.51	15.65	15.40	17.0
Channel				647334	650000	664668	
Frequency (MHz)				3710.01	3840	3970.02	
25	QPSK	1	1	15.53	15.65	15.40	17.0
Channel				647334	650000	664968	
Frequency (MHz)				3705.01	3840	3975.02	
20	QPSK	1	1	15.56	15.63	15.36	17.0
Channel				647168	650000	664834	
Frequency (MHz)				3707.52	3840	3972.51	
15	QPSK	1	1	15.51	15.70	15.45	17.0
Channel				647000	650000	665000	
Frequency (MHz)				3705	3840	3975	
10	QPSK	1	1	15.53	15.68	15.41	17.0

Part270 n78 HPUE Ant 3 ECI 9							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	
Channel				650000	656000	662000	
Frequency (MHz)				3750			
100	PI2 BPSK	1	1		15.59		
100	PI2 BPSK	1	137		15.20		17.0
100	PI2 BPSK	1	271		15.35		
100	PI2 BPSK	135	0		15.56		17.0
100	PI2 BPSK	135	69		15.59		17.0
100	PI2 BPSK	135	138		15.28		
100	PI2 BPSK	270	0		15.35		17.0
100	QPSK	1	1		15.60		
100	QPSK	1	137		15.30		17.0
100	QPSK	1	271		15.40		
100	QPSK	135	0		15.57		17.0
100	QPSK	135	69		15.59		
100	QPSK	135	138		15.22		17.0
100	QPSK	270	0		15.30		
100	16QAM	1	1		15.50		17.0
100	64QAM	1	1		15.20		17.0
100	256QAM	1	1		15.31		17.0
Channel				668668	650000	650334	
Frequency (MHz)				3745.02	3750	3755.01	
90	QPSK	1	1	15.29	15.36	15.35	17.0
Channel				649334	650000	650668	
Frequency (MHz)				3740.01	3750	3763.02	
80	QPSK	1	1	15.37	15.39	15.37	17.0
Channel				649000	650000	651000	
Frequency (MHz)				3735	3750	3765	
70	QPSK	1	1	15.25	15.24	15.32	17.0
Channel				647668	650000	651334	
Frequency (MHz)				3730.02	3750	3770.01	
60	QPSK	1	1	15.33	15.31	15.32	17.0
Channel				647334	650000	651668	
Frequency (MHz)				3725.01	3750	3775.02	
50	QPSK	1	1	15.32	15.32	15.32	17.0
Channel				648000	650000	652000	
Frequency (MHz)				3720	3750	3760	
40	QPSK	1	1	15.32	15.39	15.37	17.0
Channel				647668	650000	652334	
Frequency (MHz)				3715.02	3750	3765.01	
30	QPSK	1	1	15.37	15.37	15.32	17.0
Channel				647500	650000	652668	
Frequency (MHz)				3710.01	3750	3760.02	
25	QPSK	1	1	15.35	15.34	15.39	17.0
Channel				647334	650000	652968	
Frequency (MHz)				3705.01	3750	3765.02	
20	QPSK	1	1	15.35	15.39	15.36	17.0
Channel				647168	650000	652834	
Frequency (MHz)				3707.52	3750	3762.51	
15	QPSK	1	1	15.34	15.37	15.34	17.0
Channel				647000	650000	653000	
Frequency (MHz)				3705	3750	3765	
10	QPSK	1	1	15.36	15.37	15.33	17.0

Part27O n77 HPUE Ant 4 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750	3840	3930		
100	PI2 BPSK	1	1	12.60	12.81	12.61	14.4	0.0
100	PI2 BPSK	1	137	12.57	12.81	12.48		
100	PI2 BPSK	1	271	12.45	12.55	12.42		
100	PI2 BPSK	135	0	12.61	12.81	12.60		
100	PI2 BPSK	135	69	12.60	12.83	12.52	14.4	0.0
100	PI2 BPSK	135	138	12.57	12.58	12.47	14.4	0.0
100	PI2 BPSK	270	0	12.41	12.60	12.42		
100	QPSK	1	1	12.68	12.82	12.63	14.4	0.0
100	QPSK	1	137	12.68	12.67	12.50		
100	QPSK	1	271	12.45	12.61	12.48		
100	QPSK	135	0	12.62	12.83	12.60		
100	QPSK	135	69	12.61	12.86	12.57	14.4	0.0
100	QPSK	135	138	12.59	12.68	12.50	14.4	0.0
100	QPSK	270	0	12.42	12.75	12.53		
100	16QAM	1	1	12.64	12.86	12.61	14.4	0.0
100	64QAM	1	1	12.59	12.57	12.45	14.4	0.0
100	256QAM	1	1	12.53	12.54	12.44	14.4	0.0
Channel				649668	656000	662034	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3840	3935.01		
90	QPSK	1	1	12.61	12.91	12.57	14.4	0.0
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3743.01	3840	3943.02		
80	QPSK	1	1	12.61	12.84	12.52	14.4	0.0
Channel				649000	656000	663000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3840	3945		
70	QPSK	1	1	12.60	12.81	12.58	14.4	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	12.58	12.88	12.58	14.4	0.0
Channel				648334	656000	663668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3840	3955.02		
50	QPSK	1	1	12.58	12.86	12.56	14.4	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3740	3960		
40	QPSK	1	1	12.59	12.91	12.53	14.4	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	1	12.63	12.88	12.55	14.4	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3712.5	3840	3967.5		
25	QPSK	1	1	12.64	12.89	12.60	14.4	0.0
Channel				647000	656000	665000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	1	12.65	12.88	12.54	14.4	0.0
Channel				647168	656000	664834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3840	3972.51		
15	QPSK	1	1	12.64	12.87	12.58	14.4	0.0
Channel				647000	656000	665000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3840	3975		
10	QPSK	1	1	12.64	12.91	12.58	14.4	0.0

Part27O n78 HPUE Ant 4 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750				
100	PI2 BPSK	1	1	12.75	12.53		14.4	0.0
100	PI2 BPSK	1	137	12.53				
100	PI2 BPSK	1	271	12.48				
100	PI2 BPSK	135	0	12.72				
100	PI2 BPSK	135	69	12.81			14.4	0.0
100	PI2 BPSK	135	138	12.52			14.4	0.0
100	PI2 BPSK	270	0	12.51				
100	QPSK	1	1	12.89			14.4	0.0
100	QPSK	1	137	12.61				
100	QPSK	1	271	12.57				
100	QPSK	135	0	12.82				
100	QPSK	135	69	12.83			14.4	0.0
100	QPSK	135	138	12.61			14.4	0.0
100	QPSK	270	0	12.51				
100	16QAM	1	1	12.75			14.4	0.0
100	64QAM	1	1	12.53			14.4	0.0
100	256QAM	1	1	12.50			14.4	0.0
Channel				649668	650000	660334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	12.54	12.86	12.50	14.4	0.0
Channel				649334	650000	660668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3743.01	3750	3763.02		
80	QPSK	1	1	12.56	12.85	12.50	14.4	0.0
Channel				649000	650000	661000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	12.50	12.80	12.51	14.4	0.0
Channel				648668	650000	661334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	12.54	12.85	12.48	14.4	0.0
Channel				648334	650000	661668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3765.02		
50	QPSK	1	1	12.55	12.88	12.55	14.4	0.0
Channel				648000	650000	662000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3770		
40	QPSK	1	1	12.58	12.85	12.49	14.4	0.0
Channel				647668	650000	662334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3765.01		
30	QPSK	1	1	12.59	12.88	12.55	14.4	0.0
Channel				647334	650000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3769.02		
25	QPSK	1	1	12.53	12.82	12.49	14.4	0.0
Channel				647000	650000	663000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3750	3759.51		
15	QPSK	1	1	12.54	12.86	12.48	14.4	0.0
Channel				647000	650000	663000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	12.53	12.86	12.55	14.4	0.0

Part270 n77 HPUE Ant 6 ECI 9									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel				3750	3840	3930	13.6	0.0	
Frequency (MHz)				12.09	12.07	12.04			
100	PV2 BPSK	1	1	11.94	12.15	12.08			
100	PV2 BPSK	1	137	11.94	12.15	11.91			
100	PV2 BPSK	1	271	11.91	12.05	11.91	13.6	0.0	
100	PV2 BPSK	135	0	11.95	11.95	11.95	13.6	0.0	
100	PV2 BPSK	135	69	11.96	11.94	11.80	13.6	0.0	
100	PV2 BPSK	135	138	11.96	11.97	11.88	13.6	0.0	
100	PV2 BPSK	270	0	11.98	12.06	11.95	13.6	0.0	
100	QPSK	1	1	12.06	12.12	12.06	13.6	0.0	
100	QPSK	1	137	12.16	12.11	12.13			
100	QPSK	1	271	12.02	12.18	12.04			
100	QPSK	135	0	12.03	12.13	12.17			
100	QPSK	135	69	12.14	12.18	12.10	13.6	0.0	
100	QPSK	135	138	11.97	12.09	11.97	13.6	0.0	
100	QPSK	270	0	12.04	12.19	12.02	13.6	0.0	
100	16QAM	1	1	12.02	12.05	11.94	13.6	0.0	
100	64QAM	1	1	12.01	12.11	11.97	13.6	0.0	
100	256QAM	1	1	12.00	12.17	12.05	13.6	0.0	
Channel				649668	650000	662334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3752.02	3840	3935.01	13.6	0.0	
90	QPSK	1	1	12.01	12.17	11.85			
Channel				649334	650000	662068	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3840	3940.02	13.6	0.0	
80	QPSK	1	1	12.02	12.12	11.97			
Channel				649000	650000	663000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3840	3945	13.6	0.0	
70	QPSK	1	1	12.00	12.16	12.04			
Channel				3730.02	3840	3950.01			
Frequency (MHz)				3730.02	3840	3950.01			
60	QPSK	1	1	11.97	12.13	12.04	13.6	0.0	
Channel				648334	650000	663668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3840	3955.02	13.6	0.0	
50	QPSK	1	1	11.98	12.14	11.95			
Channel				648000	650000	664000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3840	3960	13.6	0.0	
40	QPSK	1	1	12.04	12.20	12.03			
Channel				647668	650000	664334			
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	12.04	12.11	11.97	13.6	0.0	
Channel				647500	650000	664500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3840	3967.5	13.6	0.0	
25	QPSK	1	1	11.97	12.18	12.03			
Channel				647334	650000	664668			
Frequency (MHz)				3710.01	3840	3970.02			
20	QPSK	1	1	11.99	12.18	12.01	13.6	0.0	
Channel				647168	650000	664834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3840	3972.51	13.6	0.0	
15	QPSK	1	1	12.02	12.19	12.02			
Channel				647000	650000	665000			
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	11.97	12.13	12.00	13.6	0.0	

Part270 n78 HPUE Ant 6 ECI 9									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000			13.6	0.0	
Frequency (MHz)				3750					
100	Pi2 BPSK	1	1	11.94					
100	Pi2 BPSK	1	137	11.95					
100	Pi2 BPSK	1	271	11.80			13.6	0.0	
100	Pi2 BPSK	135	0	11.82					
100	Pi2 BPSK	135	69	11.94					
100	Pi2 BPSK	135	138	11.90					
100	Pi2 BPSK	270	0	11.78			13.6	0.0	
100	QPSK	1	1	12.17					
100	QPSK	1	137	11.98					
100	QPSK	1	271	11.99					
100	QPSK	135	0	12.07			13.6	0.0	
100	QPSK	135	69	12.08					
100	QPSK	135	138	11.99					
100	QPSK	270	0	11.95					
100	16QAM	1	1	11.95			13.6	0.0	
100	64QAM	1	1	11.82					
100	256QAM	1	1	11.91					
100	256QAM	1	1	11.91					
Channel				646668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3750	3755.01	13.6	0.0	
90	QPSK	1	1	11.92	12.14	11.91			
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3750	3760.02	13.6	0.0	
80	QPSK	1	1	11.93	12.13	11.87			
Channel				649000	650000	651000			
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1	11.93	12.08	11.93	13.6	0.0	
Channel				648668	650000	651334			
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1	11.98	12.16	11.87			
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3750	3775.02	13.6	0.0	
50	QPSK	1	1	11.98	12.12	11.89			
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3780	13.6	0.0	
40	QPSK	1	1	11.94	12.09	11.90			
Channel				647668	650000	652334			
Frequency (MHz)				3715.02	3750	3785.01			
30	QPSK	1	1	11.98	12.14	11.94	13.6	0.0	
Channel				647500	650000	652500			
Frequency (MHz)				3712.5	3750	3787.5			
25	QPSK	1	1	11.95	12.11	11.86			
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3750	3790.02	13.6	0.0	
20	QPSK	1	1	11.91	12.14	11.90			
Channel				647168	650000	652834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3750	3792.51	13.6	0.0	
15	QPSK	1	1	11.94	12.16	11.91			
Channel				647000	650000	653000			
Frequency (MHz)				3705	3750	3795			
10	QPSK	1	1	11.93	12.07	11.87	13.6	0.0	

Part270 n77 HPUE Ant 8 ECI 9									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	3750 / 3840	660000 / 3930			
Frequency (MHz)									
100	PI2 BPSK	1	1	13.77	13.75	13.66	15.3	0.0	
100	PI2 BPSK	1	137	13.85	13.83	13.73			
100	PI2 BPSK	1	271	13.80	13.78	13.81			
100	PI2 BPSK	135	0	13.74	13.77	13.58			
100	PI2 BPSK	135	69	13.65	13.74	13.54	15.3	0.0	
100	PI2 BPSK	135	138	13.67	13.64	13.57	15.3	0.0	
100	PI2 BPSK	270	0	13.78	13.73	13.65			
100	QPSK	1	1	13.77	13.98	13.91	15.3	0.0	
100	QPSK	1	137	13.89	13.83	13.83			
100	QPSK	1	271	13.68	13.74	13.64			
100	QPSK	135	0	13.64	13.79	13.73			
100	QPSK	135	69	13.86	13.98	13.72	15.3	0.0	
100	QPSK	135	138	13.70	13.74	13.69	15.3	0.0	
100	QPSK	270	0	13.74	13.79	13.64			
100	16QAM	1	1	13.77	13.78	13.63	15.3	0.0	
100	64QAM	1	1	13.67	13.63	13.67	15.3	0.0	
100	256QAM	1	1	13.67	13.91	13.77	15.3	0.0	
Channel				649934	650000	662334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	13.66	13.93	13.89	15.3	0.0	
Channel				648334	650000	662668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3742.01	3840	3940.02			
80	QPSK	1	1	13.68	13.91	13.90	15.3	0.0	
Channel				648000	650000	663000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	13.69	13.97	13.83	15.3	0.0	
Channel				649000	650000	663334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3840	3950.01			
60	QPSK	1	1	13.68	13.94	13.67	15.3	0.0	
Channel				648334	650000	663668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3840	3955.02			
50	QPSK	1	1	13.67	13.91	13.82	15.3	0.0	
Channel				648000	650000	664000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3840	3960			
40	QPSK	1	1	13.67	13.91	13.89	15.3	0.0	
Channel				647668	650000	664334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	13.73	13.92	13.88	15.3	0.0	
Channel				647334	650000	664668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3840	3967.5			
25	QPSK	1	1	13.68	13.88	13.89	15.3	0.0	
Channel				647334	650000	664668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3840	3972.51			
15	QPSK	1	1	13.69	13.96	13.88	15.3	0.0	
Channel				647000	650000	665000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	13.70	13.91	13.90	15.3	0.0	

Part270 n78 HPUE Ant 8 ECI 9									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel					3750				
Frequency (MHz)									
100	PI2 BPSK	1	1	13.85			15.3	0.0	
100	PI2 BPSK	1	137	13.87					
100	PI2 BPSK	1	271	13.83					
100	PI2 BPSK	135	0	13.81					
100	PI2 BPSK	135	69	13.76			15.3	0.0	
100	PI2 BPSK	135	138	13.63			15.3	0.0	
100	PI2 BPSK	270	0	13.74					
100	QPSK	1	1	13.95			15.3	0.0	
100	QPSK	1	137	13.89					
100	QPSK	1	271	13.86					
100	QPSK	135	0	13.82					
100	QPSK	135	69	13.88			15.3	0.0	
100	QPSK	135	138	13.75			15.3	0.0	
100	QPSK	270	0	13.67					
100	16QAM	1	1	13.73			15.3	0.0	
100	64QAM	1	1	13.75			15.3	0.0	
100	256QAM	1	1	13.75			15.3	0.0	
Channel				649668	650000	660394	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1	13.75	13.90	13.79	15.3	0.0	
Channel				649334	650000	660668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3750	3760.02			
80	QPSK	1	1	13.71	13.91	13.77	15.3	0.0	
Channel				649000	650000	661000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1	13.72	13.87	13.74	15.3	0.0	
Channel				648668	650000	661334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1	13.69	13.89	13.76	15.3	0.0	
Channel				648334	650000	661668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3750	3775.02			
50	QPSK	1	1	13.70	13.88	13.72	15.3	0.0	
Channel				648000	650000	662000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3790			
40	QPSK	1	1	13.72	13.85	13.76	15.3	0.0	
Channel				647668	650000	662334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3750	3785.01			
30	QPSK	1	1	13.72	13.85	13.73	15.3	0.0	
Channel				647334	650000	662668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3750	3780.02			
25	QPSK	1	1	13.68	13.85	13.77	15.3	0.0	
Channel				647334	650000	662668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3750	3792.51			
15	QPSK	1	1	13.71	13.86	13.77	15.3	0.0	
Channel				647000	650000	663000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3750	3795			
10	QPSK	1	1	13.74	13.91	13.77	15.3	0.0	



Reduced Power Mode for EC10

n2 Ant 0 EC10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	20.3	0.0
Frequency (MHz)				18.10	18.30	18.50		
40	QPSK	1	1	18.45	18.48	18.38		
40	QPSK	1	108	18.40	18.41	18.34	20.3	0.0
40	QPSK	1	214	18.32	18.37	18.38		
40	QPSK	108	0	18.21	18.38	18.30		
40	QPSK	108	54	18.34	18.47	18.34	20.3	0.0
40	QPSK	108	108	18.24	18.29	18.28	20.3	0.0
40	QPSK	216	0	18.33	18.35	18.33		

n5 Ant 0 EC10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800	24.0	0.0
Frequency (MHz)				83.4	836.5	838		
20	PI2 BPSK	1	1	23.15	23.22	23.10		
20	PI2 BPSK	1	53	23.07	23.06	23.14	23.5	0.5
20	PI2 BPSK	1	104	23.11	23.13	22.99		
20	PI2 BPSK	50	0	22.54	22.61	22.59		
20	PI2 BPSK	50	28	23.06	23.15	23.10	24.0	0.0
20	PI2 BPSK	50	56	22.87	22.53	22.41	23.5	0.5
20	PI2 BPSK	100	0	22.58	22.66	22.38		
20	QPSK	1	1	23.06	23.22	22.96		
20	QPSK	1	53	23.04	23.08	22.81	24.0	0.0
20	QPSK	1	104	23.00	23.01	22.94		
20	QPSK	50	0	21.84	21.93	21.73		
20	QPSK	50	28	23.02	23.11	22.92	24.0	0.0
20	QPSK	50	56	21.86	22.02	21.81	23.0	1.0
20	QPSK	100	0	21.96	21.99	21.69		
20	16QAM	1	1	21.86	21.89	21.81	23.0	1.0
20	64QAM	1	1	20.83	20.80	20.36	21.5	2.5
20	256QAM	1	1	19.14	19.22	19.17	19.5	4.5
Channel				166800	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5	24.0	0.0
15	QPSK	1	1	22.88	23.02	22.86	24.0	0.0
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844	24.0	0.0
10	QPSK	1	1	22.88	23.05	22.79	24.0	0.0
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				828.5	836.5	846.5	24.0	0.0
5	QPSK	1	1	22.87	23.06	22.85	24.0	0.0

n7 Ant 0 EC10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	20.0	0.0
Frequency (MHz)				25.25	25.35	25.45		
50	QPSK	1	1	18.70	18.82	18.59		
50	QPSK	1	135	18.70	18.71	18.55	20.0	0.0
50	QPSK	1	268	18.54	18.70	18.50		
50	QPSK	135	0	18.57	18.65	18.42		
50	QPSK	135	68	18.61	18.67	18.53	20.0	0.0
50	QPSK	135	135	18.55	18.53	18.39	20.0	0.0
50	QPSK	270	0	18.50	18.58	18.46		



n26 Ant 0 ECI 10									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dbm)	MPR (dbi)	
Channel				164800	166300	167800			
Frequency (MHz)				834	831.5	839			
20	PI2 BPSK	1	1	22.17	22.20	22.15	23.6	0.0	
20	PI2 BPSK	1	53	22.03	22.24	22.09			
20	PI2 BPSK	1	104	22.03	22.17	22.15			
20	PI2 BPSK	50	0	22.19	22.18	22.11	23.5	0.1	
20	PI2 BPSK	50	28	22.15	22.17	22.16	23.6	0.0	
20	PI2 BPSK	50	56	22.03	22.21	22.12	23.5	0.1	
20	PI2 BPSK	100	0	21.99	22.17	22.15			
20	QPSK	1	1	22.25	22.26	22.18			
20	QPSK	1	53	22.12	22.25	22.20	23.6	0.0	
20	QPSK	1	104	22.08	22.21	22.16			
20	QPSK	50	0	22.12	22.21	22.16			
20	QPSK	50	28	22.06	22.23	22.13	23.6	0.0	
20	QPSK	50	56	22.11	22.16	22.16	23.0	0.6	
20	QPSK	100	0	22.05	22.19	22.13	23.0	0.6	
20	16QAM	1	1	21.90	21.93	21.90			
20	64QAM	1	1	20.52	20.56	20.48	21.5	2.1	
20	256QAM	1	1	19.09	19.16	19.14	19.5	4.1	
Channel				164300	166300	168300	Tune-up limit (dbm)	MPR (dbi)	
Frequency (MHz)				821.5	831.5	841.5			
15	QPSK	1	1	22.06	22.16	22.11	23.6	0.0	
Channel				159300	161300	163300	Tune-up limit (dbm)	MPR (dbi)	
Frequency (MHz)				819	831.5	844			
10	QPSK	1	1	22.09	22.23	22.09	23.6	0.0	
Channel				163300	165300	169300	Tune-up limit (dbm)	MPR (dbi)	
Frequency (MHz)				816.5	831.5	846.5			
5	QPSK	1	1	22.03	22.15	22.11	23.6	0.0	

n66 Ant 0 ECI 10								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dbm)	MPR (db)
Channel				346000	349000	352000		
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	18.07	18.08	18.01	19.1	0.0
40	QPSK	1	108	17.97	17.92	17.65		
40	QPSK	1	214	17.82	17.92	17.73		
40	QPSK	108	0	17.80	17.88	17.59	19.1	0.0
40	QPSK	108	54	17.78	17.88	17.65	19.1	0.0
40	QPSK	108	108	17.77	17.77	17.74	19.1	0.0
40	QPSK	216	0	17.74	17.86	17.59		



n41 Ant 0 ECI 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				508202	518098	528090	19.7	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	18.41	18.47	18.39		
100	QPSK	1	137	18.33	18.15	17.97	19.7	0.0
100	QPSK	1	271	18.01	18.18	18.11		
100	QPSK	135	0	18.11	18.08	17.96		
100	QPSK	135	69	18.14	18.23	18.06	19.7	0.0
100	QPSK	135	138	18.16	18.22	18.10		
100	QPSK	270	0	18.14	18.30	18.14		



n2 Ant 1 ECI 10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	19.2	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	18.11	18.12	18.04		
40	QPSK	1	108	19.02	17.96	17.97		
40	QPSK	1	214	17.82	18.05	17.98	19.2	0.0
40	QPSK	108	0	17.99	17.94	17.76		
40	QPSK	108	54	17.93	18.09	17.78	19.2	0.0
40	QPSK	108	168	17.94	17.84	17.76	19.2	0.0
40	QPSK	216	0	17.79	17.99	17.88		

n5 Ant 1 ECI 10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800	24.0	0.0
Frequency (MHz)				834	836.5	839		
20	PI2 BPSK	1	1	22.77	22.75	22.69		
20	PI2 BPSK	1	53	22.60	22.63	22.74		
20	PI2 BPSK	1	104	22.61	22.64	22.43	23.5	0.5
20	PI2 BPSK	50	0	22.07	22.12	22.08		
20	PI2 BPSK	50	28	22.61	22.68	22.62	24.0	0.0
20	PI2 BPSK	50	56	21.82	22.03	21.89	23.5	0.5
20	PI2 BPSK	100	0	22.10	22.28	22.02		
20	QPSK	1	1	22.77	22.83	22.74	24.0	0.0
20	QPSK	1	53	22.80	22.98	22.48		
20	QPSK	1	104	22.67	22.76	22.63		
20	QPSK	50	0	21.56	21.67	21.45		
20	QPSK	50	28	22.64	22.78	22.64	24.0	0.0
20	QPSK	50	56	21.65	21.61	21.57	23.0	1.0
20	QPSK	100	0	21.52	21.63	21.45		
20	16QAM	1	1	21.48	21.55	21.47	23.0	1.0
20	64QAM	1	1	20.21	20.21	20.08	21.5	2.5
20	256QAM	1	1	18.79	18.85	18.83	19.5	4.5
Channel				168300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5	24.0	0.0
15	QPSK	1	1	22.64	22.65	22.64		
Channel				165800	167300	166800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826	836.5	844	24.0	0.0
10	QPSK	1	1	22.58	22.71	22.58		
Channel				165300	167300	165300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5	24.0	0.0
5	QPSK	1	1	22.61	22.67	22.63		

n7 Ant 1 ECI 10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				558000	507000	509000	20.8	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	19.87	19.95	19.89		
50	QPSK	1	135	19.87	19.82	19.83		
50	QPSK	1	268	19.68	19.89	19.72	20.8	0.0
50	QPSK	135	0	19.67	19.78	19.63		
50	QPSK	135	68	19.76	19.85	19.81	20.8	0.0
50	QPSK	135	135	19.76	19.70	19.83	20.8	0.0
50	QPSK	270	0	19.70	19.75	19.51		



n26 Ant 1 ECI 10									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 164800	Power Middle Ch. / Freq. 166300	Power High Ch. / Freq. 167800	Tune-up limit (dBm)	MPR (dB)	
Channel				824	831.5	839			
Frequency (MHz)				22.71	22.77	22.69			
20	PI2 BPSK	1	1	22.71	22.77	22.69	24.0	0.0	
20	PI2 BPSK	1	53	22.73	22.83	22.73			
20	PI2 BPSK	1	104	22.76	22.85	22.81			
20	PI2 BPSK	50	0	22.36	22.41	22.32	23.5	0.5	
20	PI2 BPSK	50	28	22.80	22.85	22.83	24.0	0.0	
20	PI2 BPSK	50	56	22.32	22.41	22.31	23.5	0.5	
20	PI2 BPSK	100	0	22.29	22.39	22.34			
20	QPSK	1	1	22.81	22.88	22.82			
20	QPSK	1	53	22.81	22.85	22.78	24.0	0.0	
20	QPSK	1	104	22.78	22.81	22.71			
20	QPSK	50	0	21.80	21.88	21.87	23.0	1.0	
20	QPSK	50	28	22.76	22.83	22.76	24.0	0.0	
20	QPSK	50	56	21.89	21.95	21.90	23.0	1.0	
20	QPSK	100	0	21.82	21.93	21.87			
20	16QAM	1	1	21.47	21.55	21.52	23.0	1.0	
20	64QAM	1	1	20.12	20.15	20.10	21.5	2.5	
20	256QAM	1	1	18.66	18.75	18.74	19.5	4.5	
Channel				164300	166300	168300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				831.5	831.5	841.5			
15	QPSK	1	1	22.71	22.83	22.73	24.0	0.0	
Channel				163800	166300	168800	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				818	831.5	844			
10	QPSK	1	1	22.72	22.80	22.76	24.0	0.0	
Channel				163300	166300	169300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				816.5	831.5	846.5			
5	QPSK	1	1	22.78	22.87	22.78	24.0	0.0	

n66 Ant 1 ECI 10									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)	
Channel				1730	1745	1760			
40	QPSK	1	1	16.66	16.74	16.72	17.6	0.0	
40	QPSK	1	108	16.57	16.68	16.52			
40	QPSK	1	214	16.60	16.53	16.55			
40	QPSK	108	0	16.50	16.65	16.56	17.6	0.0	
40	QPSK	108	54	16.62	16.70	16.67	17.6	0.0	
40	QPSK	108	108	16.51	16.55	16.55	17.6	0.0	
40	QPSK	216	0	16.58	16.63	16.59			



n41 Ant 1 ECI 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dbm)	MPR (db)
				Low	High	High		
				Ch / Freq	Ch / Freq	Ch / Freq		
Channel				508202	518598	528990		
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	18.17	18.22	18.19	19.3	0.0
100	QPSK	1	137	18.18	18.15	17.99		
100	QPSK	1	271	17.88	17.98	17.92	19.3	0.0
100	QPSK	135	0	17.99	17.93	17.84		
100	QPSK	135	69	17.95	18.13	18.02	19.3	0.0
100	QPSK	135	138	17.94	17.90	17.93		
100	QPSK	270	0	17.79	18.06	17.63	19.3	0.0



n2 Ant 2 ECI 10								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	13.7	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	12.45	12.48	12.35		
40	QPSK	1	108	12.27	12.38	12.15		
40	QPSK	1	214	12.22	12.32	12.14	13.7	0.0
40	QPSK	108	0	12.18	12.28	11.94		
40	QPSK	108	54	12.28	12.43	12.18		
40	QPSK	108	108	12.15	12.18	12.06		
40	QPSK	216	0	12.09	12.37	11.96	13.7	0.0

n7 Ant 2 ECI 10								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				506000	507000	509000	16.0	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	14.75	14.87	14.73		
50	QPSK	1	135	14.62	14.68	14.57		
50	QPSK	1	268	14.61	14.64	14.55	16.0	0.0
50	QPSK	135	0	14.47	14.63	14.47		
50	QPSK	135	68	14.69	14.74	14.54		
50	QPSK	135	135	14.56	14.71	14.58		
50	QPSK	270	0	14.44	14.57	14.34	16.0	0.0

n66 Ant 2 ECI 10								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				346000	349000	352000	15.6	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	14.24	14.26	14.15		
40	QPSK	1	108	14.06	14.02	14.01		
40	QPSK	1	214	13.93	14.11	14.06	15.6	0.0
40	QPSK	108	0	14.10	13.99	13.90		
40	QPSK	108	54	14.04	14.11	13.87		
40	QPSK	108	108	14.02	14.01	13.81		
40	QPSK	216	0	13.95	14.15	13.81	15.6	0.0



n41 Ant 2 ECI 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				508202	518598	528990	14.7	0.0
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	13.53	13.64	13.35		
100	QPSK	1	137	13.46	13.48	13.32	14.7	0.0
100	QPSK	1	271	13.38	13.43	13.32		
100	QPSK	135	0	13.30	13.28	13.21		
100	QPSK	135	69	13.28	13.54	13.29	14.7	0.0
100	QPSK	135	138	13.42	13.48	13.35	14.7	0.0
100	QPSK	270	0	13.40	13.46	13.42		



n2 Ant 3 ECI 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376000	378000	22.8	0.0
Frequency (MHz)				1870	1880	1890		
40	QPSK	1	1	21.67	21.71	21.62		
40	QPSK	1	108	21.59	21.62	21.50	22.8	0.0
40	QPSK	1	214	21.42	21.51	21.50		
40	QPSK	108	0	21.54	21.46	21.41		
40	QPSK	108	54	21.59	21.61	21.52	22.8	0.0
40	QPSK	108	108	21.46	21.53	21.38		
40	QPSK	216	0	21.51	21.67	21.47		

n7 Ant 3 ECI 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000	17.8	0.0
Frequency (MHz)				2525	2535	2545		
50	QPSK	1	1	16.37	16.48	16.39		
50	QPSK	1	135	16.29	16.29	16.25	17.8	0.0
50	QPSK	1	268	16.15	16.38	16.11		
50	QPSK	135	0	16.20	16.26	15.95		
50	QPSK	135	68	16.17	16.46	16.21	17.8	0.0
50	QPSK	135	135	16.18	16.30	16.09		
50	QPSK	270	0	16.15	16.38	16.10		

n66 Ant 3 ECI 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				348000	349000	350000	20.9	0.0
Frequency (MHz)				1730	1745	1760		
40	QPSK	1	1	19.55	19.63	19.44		
40	QPSK	1	108	19.47	19.49	19.29	20.9	0.0
40	QPSK	1	214	19.30	19.40	19.34		
40	QPSK	108	0	19.48	19.50	19.37		
40	QPSK	108	54	19.49	19.58	19.57	20.9	0.0
40	QPSK	108	108	19.38	19.37	19.37		
40	QPSK	216	0	19.25	19.37	19.11		



n41 Ant 3 ECI 10								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509002	516598	526000		
Frequency (MHz)				2546.01	2592.99	2640		
100	QPSK	1	1	15.28	15.29	15.11	16.1	0.0
100	QPSK	1	137	15.15	15.07	15.02		
100	QPSK	1	271	15.03	15.05	14.94		
100	QPSK	135	0	15.09	15.01	14.83	16.1	0.0
100	QPSK	135	69	14.94	15.19	14.79	16.1	0.0
100	QPSK	135	138	15.06	14.88	14.90	16.1	0.0
100	QPSK	270	0	14.89	15.18	14.78		

Part270 n77 HPUE Ant 3									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000			
Frequency (MHz)				3750	3840	3930			
100	PI2 BPSK	1	1	18.05	18.14	17.83	19.4	0.0	
100	PI2 BPSK	1	137	17.90	17.96	17.82			
100	PI2 BPSK	1	271	17.69	17.95	17.82			
100	PI2 BPSK	135	0	18.02	18.10	17.90	19.4	0.0	
100	PI2 BPSK	135	69	18.05	18.16	17.86	19.4	0.0	
100	PI2 BPSK	135	138	17.92	17.99	17.89	19.4	0.0	
100	PI2 BPSK	270	0	17.71	17.96	17.81			
100	QPSK	1	1	18.11	18.19	17.92	19.4	0.0	
100	QPSK	1	137	17.94	18.01	17.90			
100	QPSK	1	271	17.76	18.02	17.89			
100	QPSK	135	0	18.08	18.15	17.83	19.4	0.0	
100	QPSK	135	69	18.04	18.17	17.86	19.4	0.0	
100	QPSK	135	138	17.90	17.88	17.85	19.4	0.0	
100	QPSK	270	0	17.72	18.06	17.87	19.4	0.0	
100	16QAM	1	1	18.04	18.15	17.89			
100	64QAM	1	1	17.88	17.97	17.82	19.4	0.0	
100	256QAM	1	1	17.71	17.99	17.85	19.4	0.0	
Channel				649998	650000	650002	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	17.85	17.91	17.82	19.4	0.0	
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3840	3940.02			
80	QPSK	1	1	17.85	17.90	17.81	19.4	0.0	
Channel				649000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	17.85	17.96	17.82	19.4	0.0	
Channel				648568	650000	652314	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3840	3950.01			
60	QPSK	1	1	17.88	18.00	17.84	19.4	0.0	
Channel				648134	650000	653668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3840	3955.02			
50	QPSK	1	1	17.92	17.95	17.86	19.4	0.0	
Channel				648000	650000	654000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3840	3960			
40	QPSK	1	1	17.85	17.85	17.87	19.4	0.0	
Channel				647688	650000	654334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	17.93	17.92	17.81	19.4	0.0	
Channel				647500	650000	654500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3840	3967.5			
25	QPSK	1	1	17.84	17.97	17.87	19.4	0.0	
Channel				647334	650000	654668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3840	3970.02			
20	QPSK	1	1	17.93	17.94	17.81	19.4	0.0	
Channel				647168	650000	654834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3840	3972.51			
15	QPSK	1	1	17.84	17.90	17.83	19.4	0.0	
Channel				647000	650000	655000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	17.88	17.95	17.89	19.4	0.0	

Part270 n78 HPUE Ant 3									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel					3750				
Frequency (MHz)									
100	PI2 BPSK	1	1		18.07		19.4	0.0	
100	PI2 BPSK	1	137		17.73				
100	PI2 BPSK	1	271		17.87				
100	PI2 BPSK	135	0		18.00		19.4	0.0	
100	PI2 BPSK	135	69		18.01		19.4	0.0	
100	PI2 BPSK	135	138		17.72		19.4	0.0	
100	PI2 BPSK	270	0		17.83				
100	QPSK	1	1		18.12		19.4	0.0	
100	QPSK	1	137		17.80				
100	QPSK	1	271		17.91				
100	QPSK	135	0		18.03		19.4	0.0	
100	QPSK	135	69		18.07		19.4	0.0	
100	QPSK	135	138		17.70		19.4	0.0	
100	QPSK	270	0		17.82		19.4	0.0	
100	16QAM	1	1		17.99				
100	64QAM	1	1		17.75		19.4	0.0	
100	256QAM	1	1		17.62		19.4	0.0	
Channel				649998	650000	650002	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1		17.83	18.04	17.73	19.4	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3750	3763.02			
80	QPSK	1	1		17.85	18.03	17.73	19.4	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1		17.86	18.09	17.75	19.4	0.0
Channel				648568	650000	651334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1		17.96	18.07	17.74	19.4	0.0
Channel				648134	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3750	3775.02			
50	QPSK	1	1		17.90	18.05	17.77	19.4	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3780			
40	QPSK	1	1		17.97	18.06	17.79	19.4	0.0
Channel				647688	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3750	3785.01			
30	QPSK	1	1		17.92	18.04	17.80	19.4	0.0
Channel				647500	650000	652500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3750	3787.5			
25	QPSK	1	1		17.96	18.02	17.75	19.4	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3750	3790.02			
20	QPSK	1	1		17.94	18.10	17.74	19.4	0.0
Channel				647168	650000	652834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3750	3792.51			
15	QPSK	1	1		17.86	18.11	17.80	19.4	0.0
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3750	3795			
10	QPSK	1	1		17.89	18.05	17.79	19.4	0.0

Part270 n77 HPUE Ant 4									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dbm)	MPR (db)	
Channel									
Frequency (MHz)				3750	3840	3930			
100	PI/2 BPSK	1	1	13.19	13.33	13.03	14.5	0.0	
100	PI/2 BPSK	1	137	13.11	13.20	12.94			
100	PI/2 BPSK	1	271	12.94	13.07	12.96			
100	PI/2 BPSK	135	0	13.11	13.33	13.03			
100	PI/2 BPSK	135	69	13.11	13.33	13.04	14.5	0.0	
100	PI/2 BPSK	135	138	13.14	13.13	12.99	14.5	0.0	
100	PI/2 BPSK	270	0	12.93	13.14	12.99	14.5	0.0	
100	QPSK	1	1	13.21	13.35	13.14	14.5	0.0	
100	QPSK	1	137	13.16	13.24	13.03			
100	QPSK	1	271	13.03	13.16	13.01			
100	QPSK	135	0	13.20	13.30	13.11			
100	QPSK	135	69	13.16	13.33	13.04	14.5	0.0	
100	QPSK	135	138	13.08	13.20	12.99	14.5	0.0	
100	QPSK	270	0	13.00	13.14	12.92	14.5	0.0	
100	16QAM	1	1	13.15	13.33	13.10	14.5	0.0	
100	64QAM	1	1	13.10	13.20	12.93	14.5	0.0	
100	256QAM	1	1	13.00	13.12	12.96	14.5	0.0	
Channel				649668	650000	652334	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	13.05	13.22	12.94	14.5	0.0	
Channel				649334	650000	652668	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				3740.01	3840	3940.02			
80	QPSK	1	1	13.15	13.15	12.96	14.5	0.0	
Channel				649000	650000	653000	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	13.10	13.19	12.93	14.5	0.0	
Channel				648668	650000	653334	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				3730.02	3840	3950.01			
60	QPSK	1	1	13.07	13.20	13.01	14.5	0.0	
Channel				648334	650000	653668	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				3725.01	3840	3955.02			
50	QPSK	1	1	13.08	13.19	12.94	14.5	0.0	
Channel				648000	650000	654000	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				3720	3840	3960			
40	QPSK	1	1	13.09	13.16	13.00	14.5	0.0	
Channel				647668	650000	654334	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	13.06	13.20	13.00	14.5	0.0	
Channel				647334	650000	654668	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				3712.5	3840	3967.5			
25	QPSK	1	1	13.15	13.22	12.94	14.5	0.0	
Channel				647334	650000	654668	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				3710.01	3840	3970.02			
20	QPSK	1	1	13.05	13.17	12.96	14.5	0.0	
Channel				647168	650000	654834	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				3707.52	3840	3972.51			
15	QPSK	1	1	13.14	13.15	13.01	14.5	0.0	
Channel				647000	650000	655000	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	13.08	13.20	12.94	14.5	0.0	

Part270 n78 HPUE Ant 4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				3750					
100	PI2 BPSK	1	1		13.28		14.5	0.0	
100	PI2 BPSK	1	137		13.17				
100	PI2 BPSK	1	271		13.15				
100	PI2 BPSK	135	0		13.22				
100	PI2 BPSK	135	69		13.30		14.5	0.0	
100	PI2 BPSK	135	138		13.18		14.5	0.0	
100	PI2 BPSK	270	0		13.17		14.5	0.0	
100	QPSK	1	1		13.32		14.5		
100	QPSK	1	137		13.24				
100	QPSK	1	271		13.24				
100	QPSK	135	0		13.23				
100	QPSK	135	69		13.29		14.5	0.0	
100	QPSK	135	138		13.16		14.5	0.0	
100	QPSK	270	0		13.17		14.5	0.0	
100	16QAM	1	1		13.22		14.5	0.0	
100	64QAM	1	1		13.13		14.5	0.0	
100	256QAM	1	1		13.18		14.5	0.0	
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1	13.25	13.23	13.27	14.5	0.0	
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3750	3760.02			
80	QPSK	1	1	13.25	13.20	13.29	14.5	0.0	
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1	13.30	13.22	13.24	14.5	0.0	
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1	13.22	13.30	13.23	14.5	0.0	
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3750	3775.02			
50	QPSK	1	1	13.30	13.27	13.26	14.5	0.0	
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3760			
40	QPSK	1	1	13.23	13.31	13.21	14.5	0.0	
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3750	3765.01			
30	QPSK	1	1	13.27	13.28	13.23	14.5	0.0	
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3750	3769.02			
25	QPSK	1	1	13.29	13.25	13.22	14.5	0.0	
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3750	3769.02			
20	QPSK	1	1	13.30	13.22	13.26	14.5	0.0	
Channel				647168	650000	652834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3750	3769.51			
15	QPSK	1	1	13.22	13.25	13.23	14.5	0.0	
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3750	3765			
10	QPSK	1	1	13.30	13.21	13.31	14.5	0.0	



Part270 n77 HPUE Ant 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 660000	Power High Ch. / Freq. 665000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	P2 BPSK	1	1	12.51	12.64	12.51	14.3	0.0	
100	P2 BPSK	1	137	12.42	12.66	12.54			
100	P2 BPSK	1	271	12.43	12.57	12.37			
100	P2 BPSK	135	0	12.47	12.41	12.37			
100	P2 BPSK	135	69	12.39	12.41	12.35	14.3	0.0	
100	P2 BPSK	135	138	12.35	12.52	12.40	14.3	0.0	
100	P2 BPSK	270	0	12.43	12.53	12.42			
100	QPSK	1	1	12.58	12.76	12.60	14.3	0.0	
100	QPSK	1	137	12.58	12.63	12.68			
100	QPSK	1	271	12.51	12.69	12.50			
100	QPSK	135	0	12.56	12.64	12.64			
100	QPSK	135	69	12.56	12.67	12.59	14.3	0.0	
100	QPSK	135	138	12.49	12.61	12.54	14.3	0.0	
100	QPSK	270	0	12.61	12.66	12.55			
100	16QAM	1	1	12.47	12.52	12.45	14.3	0.0	
100	64QAM	1	1	12.38	12.53	12.48	14.3	0.0	
100	256QAM	1	1	12.32	12.47	12.40	14.3	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	12.32	12.52	12.38	14.3	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	12.35	12.49	12.39	14.3	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	12.31	12.44	12.41	14.3	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	12.31	12.44	12.41	14.3	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	12.31	12.43	12.43	14.3	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	12.34	12.43	12.43	14.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	12.31	12.44	12.42	14.3	0.0	
Channel									
Frequency (MHz)									
25	P2 QPSK	1	1	12.49	12.47	12.38	14.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	12.31	12.44	12.45	14.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	12.34	12.43	12.47	14.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	12.33	12.47	12.38	14.3	0.0	

Part270 n78 HPUE Ant 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	Pl2 BPSK	1	1	12.41	3750		14.3	0.0	
100	Pl2 BPSK	1	137	12.55					
100	Pl2 BPSK	1	271	12.38					
100	Pl2 BPSK	135	0	12.36					
100	Pl2 BPSK	135	69	12.41			14.3	0.0	
100	Pl2 BPSK	135	138	12.35			14.3	0.0	
100	Pl2 BPSK	270	0	12.32					
100	QPSK	1	1	12.62			14.3	0.0	
100	QPSK	1	137	12.46					
100	QPSK	1	271	12.41					
100	QPSK	135	0	12.59					
100	QPSK	135	69	12.59			14.3	0.0	
100	QPSK	135	138	12.43			14.3	0.0	
100	QPSK	270	0	12.40					
100	16QAM	1	1	12.43			14.3	0.0	
100	64QAM	1	1	12.36			14.3	0.0	
100	256QAM	1	1	12.44			14.3	0.0	
Channel									
				649668	650000	650334	Tune-up limit		MPR
				3745.92	3750	3765.01	(dBm)		
90	QPSK	1	1	12.51	12.56	12.59	14.3	0.0	
Channel									
				649334	650000	650666	Tune-up limit		MPR
				3740.01	3750	3760.02	(dBm)		
80	QPSK	1	1	12.57	12.53	12.40	14.3	0.0	
Channel									
				650000	650000	650000	Tune-up limit		MPR
				3735	3750	3765	(dBm)		
70	QPSK	1	1	12.55	12.58	12.59	14.3	0.0	
Channel									
				649668	650000	651334	Tune-up limit		MPR
				3730.02	3750	3750.01	(dBm)		
60	QPSK	1	1	12.60	12.51	12.55	14.3	0.0	
Channel									
				643334	650000	651668	Tune-up limit		MPR
				3720.01	3750	3775.02	(dBm)		
50	QPSK	1	1	12.58	12.54	12.51	14.3	0.0	
Channel									
				649000	650000	652000	Tune-up limit		MPR
				3730	3750	3780	(dBm)		
40	QPSK	1	1	12.60	12.53	12.56	14.3	0.0	
Channel									
				643668	650000	653334	Tune-up limit		MPR
				3715.02	3750	3785.01	(dBm)		
30	QPSK	1	1	12.59	12.53	12.54	14.3	0.0	
Channel									
				647500	650000	652500	Tune-up limit		MPR
				3712.5	3750	3787.5	(dBm)		
25	QPSK	1	1	12.59	12.61	12.53	14.3	0.0	
Channel									
				647334	650000	652668	Tune-up limit		MPR
				3710.01	3750	3790.02	(dBm)		
20	QPSK	1	1	12.59	12.60	12.41	14.3	0.0	
Channel									
				647168	650000	652334	Tune-up limit		MPR
				3707.52	3750	3792.51	(dBm)		
15	QPSK	1	1	12.56	12.52	12.54	14.3	0.0	
Channel									
				647000	650000	652000	Tune-up limit		MPR
				3705	3750	3795	(dBm)		
10	QPSK	1	1	12.56	12.58	12.51	14.3	0.0	

Part270 n77 HPUE Ant 8									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				3750	3840	3930			
100	PI/2 BPSK	1	1	14.27	14.28	14.18			
100	PI/2 BPSK	1	137	14.31	14.36	14.23	15.7	0.0	
100	PI/2 BPSK	1	271	14.31	14.25	14.26			
100	PI/2 BPSK	135	0	14.32	14.32	14.08	15.7	0.0	
100	PI/2 BPSK	135	69	14.10	14.23	14.07	15.7	0.0	
100	PI/2 BPSK	135	138	14.12	14.12	14.02			
100	PI/2 BPSK	270	0	14.22	14.25	14.14	15.7	0.0	
100	QPSK	1	1	14.30	14.57	14.40			
100	QPSK	1	137	14.38	14.34	14.33	15.7	0.0	
100	QPSK	1	271	14.17	14.31	14.13			
100	QPSK	135	0	14.23	14.30	14.23	15.7	0.0	
100	QPSK	135	69	14.38	14.42	14.19	15.7	0.0	
100	QPSK	135	138	14.18	14.20	14.22	15.7	0.0	
100	QPSK	270	0	14.18	14.30	14.26			
100	16QAM	1	1	14.21	14.29	14.14	15.7	0.0	
100	64QAM	1	1	14.18	14.15	14.11	15.7	0.0	
100	256QAM	1	1	14.10	14.13	14.09	15.7	0.0	
Channel				659568	659000	662334	MPR		
Frequency (MHz)				3745.02	3840	3935.01	(dBm)		
90	QPSK	1	1	14.35	14.36	14.18	15.7	0.0	
Channel				649334	656000	662668	Tune-up limit	MPR	
Frequency (MHz)				3740.01	3840	3940.02	(dBm)		
80	QPSK	1	1	14.29	14.38	14.12	15.7	0.0	
Channel				649000	656000	663000	Tune-up limit	MPR	
Frequency (MHz)				3735	3840	3945	(dBm)		
70	QPSK	1	1	14.22	14.37	14.09	15.7	0.0	
Channel				649068	656000	663334	Tune-up limit	MPR	
Frequency (MHz)				3730.02	3840	3950.01	(dBm)		
60	QPSK	1	1	14.28	14.34	14.10	15.7	0.0	
Channel				648334	656000	663668	Tune-up limit	MPR	
Frequency (MHz)				3725.01	3840	3965.02	(dBm)		
50	QPSK	1	1	14.37	14.39	14.10	15.7	0.0	
Channel				648000	656000	664000	Tune-up limit	MPR	
Frequency (MHz)				3720	3940	3960	(dBm)		
40	QPSK	1	1	14.31	14.38	14.12	15.7	0.0	
Channel				647668	656000	664334	Tune-up limit	MPR	
Frequency (MHz)				3715.02	3840	3965.01	(dBm)		
30	QPSK	1	1	14.36	14.39	14.17	15.7	0.0	
Channel				647000	656000	664668	Tune-up limit	MPR	
Frequency (MHz)				3712.5	3840	3967.5	(dBm)		
25	QPSK	1	1	14.27	14.36	14.16	15.7	0.0	
Channel				647334	656000	664668	Tune-up limit	MPR	
Frequency (MHz)				3710.01	3840	3970.02	(dBm)		
20	QPSK	1	1	14.35	14.34	14.11	15.7	0.0	
Channel				647168	656000	664834	Tune-up limit	MPR	
Frequency (MHz)				3707.52	3840	3972.51	(dBm)		
15	QPSK	1	1	14.32	14.35	14.14	15.7	0.0	
Channel				647000	656000	665000	Tune-up limit	MPR	
Frequency (MHz)				3705	3840	3975	(dBm)		
10	QPSK	1	1	14.31	14.35	14.14	15.7	0.0	

Part270 n78 HPUE Ant 8									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				3750					
100	PI/2 BPSK	1	1		14.34				
100	PI/2 BPSK	1	137		14.37		15.7	0.0	
100	PI/2 BPSK	1	271		14.36				
100	PI/2 BPSK	135	0		14.37		15.7	0.0	
100	PI/2 BPSK	135	69		14.27		15.7	0.0	
100	PI/2 BPSK	135	138		14.13				
100	PI/2 BPSK	270	0		14.21		15.7	0.0	
100	QPSK	1	1		14.56				
100	QPSK	1	137		14.33		15.7	0.0	
100	QPSK	1	271		14.16				
100	QPSK	135	0		14.32		15.7	0.0	
100	QPSK	135	69		14.34		15.7	0.0	
100	QPSK	135	138		14.25		15.7	0.0	
100	QPSK	270	0		14.32				
100	16QAM	1	1		14.24		15.7	0.0	
100	64QAM	1	1		14.18		15.7	0.0	
100	256QAM	1	1		14.23		15.7	0.0	
Channel				659668	659000	662634	MPR		
Frequency (MHz)				3745.02	3750	3755.01	(dBm)		
90	QPSK	1	1		14.30	14.33	14.07	15.7	
Channel				649334	656000	660668	Tune-up limit	MPR	
Frequency (MHz)				3740.01	3750	3745.02	(dBm)		
80	QPSK	1	1		14.33	14.30	14.11	15.7	
Channel				649000	656000	661000	Tune-up limit	MPR	
Frequency (MHz)				3735	3750	3765	(dBm)		
70	QPSK	1	1		14.24	14.35	14.08	15.7	
Channel				649068	656000	661334	Tune-up limit	MPR	
Frequency (MHz)				3730.02	3750	3770.01	(dBm)		
60	QPSK	1	1		14.30	14.33	14.08	15.7	
Channel				648334	656000	661668	Tune-up limit	MPR	
Frequency (MHz)				3725.01	3750	3775.02	(dBm)		
50	QPSK	1	1		14.24	14.28	14.12	15.7	
Channel				648000	656000	662000	Tune-up limit	MPR	
Frequency (MHz)				3720	3750	3780	(dBm)		
40	QPSK	1	1		14.25	14.34	14.08	15.7	
Channel				647668	656000	662334	Tune-up limit	MPR	
Frequency (MHz)				3715.02	3750	3785.01	(dBm)		
30	QPSK	1	1		14.34	14.28	14.09	15.7	
Channel				647000	656000	662668	Tune-up limit	MPR	
Frequency (MHz)				3712.5	3750	3787.5	(dBm)		
25	QPSK	1	1		14.30	14.26	14.14	15.7	
Channel				647334	656000	662668	Tune-up limit	MPR	
Frequency (MHz)				3710.01	3750	3790.02	(dBm)		
20	QPSK	1	1		14.31	14.31	14.10	15.7	
Channel				647168	656000	662834	Tune-up limit	MPR	
Frequency (MHz)				3707.52	3750	3792.51	(dBm)		
15	QPSK	1	1		14.30	14.24	14.16	15.7	
Channel				647000	656000	663000	Tune-up limit	MPR	
Frequency (MHz)				3705	3750	3795	(dBm)		
10	QPSK	1	1		14.34	14.28	14.12	15.7	



WLAN/Bluetooth Power

2.4GHz WLAN				Ant 7 Head Standalone		Ant 7 open Hotspot		Ant 7 Extremity Standalone		Ant 5 close Body-worn Standalone		Ant 5 close Hotspot		Ant 5 open Body-worn Standalone		Duty Cycle %
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	
2.4GHz WLAN	802.11b-18Mbps	1	2412		16.00		12.50		19.50		19.50		19.50		19.50	100
		6	2437	14.33	16.00	10.71	12.50	18.36	19.50		19.50	10.70	12.50	16.31	18.00	
		11	2462	14.07	16.00		12.50		19.50	17.04	19.50		12.50		19.00	

5.2GHz WLAN				Ant 7 close Hotspot		Ant 5 Head Standalone		Ant 5 open Hotspot		Duty Cycle %
5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	
5.2GHz WLAN	802.11a-6Mbps	36	5180		17.00		18.00		19.50	96.97
		40	5200		17.00		18.00		19.50	
		44	5220		17.00		18.00		19.50	
		48	5240		17.00		18.00		19.50	
	802.11a-HT20 MCS0	36	5180	Not Required	17.00	Not Required	18.00	Not Required	19.00	96.77
		40	5200		17.00		18.00		19.50	
		44	5220		17.00		18.00		19.50	
		48	5240		17.00		18.00		19.50	
	802.11a-HT40 MCS0	38	5190		17.00		18.00		19.50	93.70
		46	5230	15.27	17.00	16.47	18.00	17.80	19.50	
		36	5180		17.00		18.00		19.00	
		40	5200		17.00		18.00		19.50	
	802.11a-VHT20 MCS0	44	5240		17.00		18.00		19.50	96.79
		48	5240		17.00		18.00		19.50	
		38	5190		17.00		18.00		19.50	
		46	5230		17.00		18.00		19.50	
	802.11a-VHT40 MCS0	42	5210		12.00		13.00		13.00	88.19
		42	5210	Not Required		Not Required		Not Required		
		36	5180		17.00		18.00		19.50	
		40	5200		17.00		18.00		19.50	
	802.11a-HE20 MCS0	44	5230		17.00		18.00		19.50	95.89
		48	5240		17.00		18.00		19.50	
		38	5190		17.00		18.00		19.50	
		46	5230		17.00		18.00		19.50	
	802.11a-HE80 MCS0	42	5210		12.50		13.50		13.50	86.84
		42	5210		12.50		13.50		13.50	
		38	5190		17.00		18.00		19.50	
		46	5230		17.00		18.00		19.50	

5.3GHz WLAN				Ant 5 Full power Extremity Standalone open Body-worn Standalone close Body-worn Standalone		Ant 5 Head Standalone		Duty Cycle %
5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	
5.3GHz WLAN	802.11a-6Mbps	52	5280		20.00		18.00	96.97
		56	5280		20.00		18.00	
		60	5300		20.00		18.00	
		64	5320		20.00		18.00	
	802.11a-HT20 MCS0	52	5280	Not Required	20.00	Not Required	18.00	96.77
		56	5280		20.00		18.00	
		60	5300		20.00		18.00	
		64	5320		20.00		18.00	
	802.11a-HT40 MCS0	54	5270	19.29	19.00	16.31	18.00	93.70
		62	5310		19.50		18.00	
		52	5280		20.00		18.00	
		56	5280		20.00		18.00	
	802.11a-VHT20 MCS0	60	5300		20.00		18.00	96.79
		64	5320		20.00		18.00	
		54	5270		21.00		18.00	
		62	5310		19.50		18.00	
	802.11a-VHT40 MCS0	58	5290	Not Required	15.50	Not Required	15.50	88.19
		52	5280		20.00		18.00	
		56	5280		20.00		18.00	
		60	5300		21.00		18.00	
	802.11a-HE20 MCS0	64	5320		21.00		18.00	95.89
		64	5320		21.00		18.00	
		54	5270		21.00		18.00	
		62	5310		19.50		18.00	
	802.11a-HE80 MCS0	58	5290		15.50		15.50	86.84
		58	5290		15.50		15.50	
		54	5270		19.50		18.00	
		62	5310		19.50		18.00	

5.5GHz WLAN				Ant 5 Full power Extremity Standalone close Body-worn Standalone		Ant 5 Head Standalone		Ant 7 open Body-worn Standalone		Duty Cycle %
5.5GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	
5.5GHz WLAN	802.11a-6Mbps	100	5500		19.50		17.00		19.50	96.97
		116	5580		19.50		17.00		19.50	
		124	5620		19.50		17.00		19.50	
		132	5660		19.50		17.00		19.50	
		140	5700		19.50		17.00		19.50	
		144	5720		20.00		17.00		19.50	
		100	5500		20.00		17.00		19.50	
		116	5580		20.00		17.00		19.50	
	802.11a-HT20 MCS0	124	5620		20.00		17.00		19.50	96.77
		132	5660		20.00		17.00		19.50	
		140	5700		19.50		17.00		19.50	
		144	5720		20.00		17.00		19.50	
		102	5510		19.00		17.00		18.50	
		110	5550		20.50		17.00		19.50	
		126	5630	Not Required	20.50	Not Required	17.00	Not Required	19.50	
		134	5670		21.00		17.00		19.50	
	802.11a-HT40 MCS0	142	5710		20.50		17.00		19.50	93.78
		108	5530		19.00		17.00		18.50	
		116	5560		20.50		17.00		19.50	
		124	5620		20.00		17.00		19.50	
		132	5660		20.00		17.00		19.50	
		140	5700		19.50		17.00		19.50	
		144	5720		20.00		17.00		19.50	
		102	5510		19.00		17.00		18.50	
	802.11a-VHT20 MCS0	110	5550		20.50		17.00		19.50	93.78
		126	5630	Not Required	20.50	Not Required	17.00	Not Required	19.50	
		134	5670		21.00		17.00		19.50	
		142	5710		21.00		17.00		19.50	
		108	5530		16.50		16.50		16.00	
		122	5610	19.23	21.00	15.20	17.00	17.74	19.50	
		138	5690		21.00		17.00		19.50	
		100	5500		20.00		17.00		19.50	
	802.11a-HE20 MCS0	116	5580		20.00		17.00		19.50	95.89
		124	5620		20.50		17.00		19.50	
		132	5660		20.50		17.00		19.50	
		140	5700		20.00		17.00		19.50	
		144	5720		20.00		17.00		19.50	
		102	5510		19.00		17.00		18.50	
		110	5550	Not Required	21.00	Not Required	17.00	Not Required	19.50	
		126	5630		21.00		17.00		19.50	
	802.11a-HE80 MCS0	134	5670		21.00		17.00		19.50	92.46
		142	5710		21.00		17.00		19.50	
		106	5520		16.50		16.50		16.50	
		122	5610		21.00		17.00		19.50	
		138	5690		21.00		17.00		19.50	
		100	5500		20.00		17.00		19.50	
		116	5580		20.00		17.00		19.50	
		132	5660		20.50		17.00		19.50	

5.8GHz WLAN				Ant 5 Head Standalone		Ant 5 open Hotspot		Ant 5 Extremity Standalone		Ant 5 close Hotspot		Ant 5 open Body-worn Standalone		Ant 7 close Body-worn Standalone		Duty Cycle %
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	
5.8GHz WLAN	802.11a-6Mbps	149	5745		16.00		13.50		20.00		14.00		19.50		21.00	96.97
		157	5785		16.00		13.50		20.00		14.00		19.50		21.00	
		165	5825		16.00		13.50		20.00		14.00		19.50		21.00	
		149	5745		16.00		13.50		20.00		14.00		19.50		21.00	
	802.11a-HT20 MCS0	157	5785		16.00		13.50		20.00		14.00		19.50		21.00	96.77
		165	5825		16.00		13.50		20.00		14.00		19.50		21.00	
	802.11a-HT40 MCS0	151	5775	Not Required	16.00	Not Required	13.50	Not Required	20.00	14.00	Not Required	19.50	Not Required	20.50	93.76	
		159	5795	Not Required	16.00	Not Required	13.50	Not Required	20.00	14.00	Not Required	19.50	Not Required	20.50		
	802.11a-WF20 MCS0	149	5745		16.00		13.50		20.00		14.00		19.50		21.00	96.79
		157	5785		16.00		13.50		20.00		14.00		19.50		21.00	
		165	5825		16.00		13.50		20.00		14.00		19.50		21.00	
		151	5775		16.00		13.50		20.00		14.00		19.50		20.50	
	802.11a-WF40 MCS0	159	5795		16.00		13.50		20.00		14.00		19.50		20.50	93.78
		155	5775	14.23	16.00	11.76	13.50	18.18	20.00	12.28	14.00	17.81	19.50	19.35	21.00	88.19
	802.11a-WF80 MCS0	149	5745		16.00		13.50		20.00		14.00		19.50		21.00	95.89
		157	5785		16.00		13.50		20.00		14.00		19.50		21.00	
165		5825		16.00		13.50		20.00		14.00		19.50		21.00		
151		5775	Not Required	16.00	Not Required	13.50	Not Required	20.00	Not Required	14.00	Not Required	19.50	Not Required	20.50		
802.11a-HS20 MCS0	159	5795		16.00		13.50		20.00		14.00		19.50		20.50	92.45	
	155	5775		16.00		13.50		20.00		14.00		19.50		21.00	86.84	



BT BR/EDR

Ant 7 Full power

Mode	Channel	Frequency (Mhz)	Average power (dBm)
			1Mbps
BR / EDR	CH 39	2441	18.80
Tune-up Limit			19.5

BT BR/EDR

Ant 7 For open Body-worn Standalone
close Body-worn

Mode	Channel	Frequency (Mhz)	Average power (dBm)
			1Mbps
BR / EDR	CH 39	2441	12.20
Tune-up Limit			13.5

BT BR/EDR

For Ant 7 Head Standalone

Mode	Channel	Frequency (Mhz)	Average power (dBm)
			1Mbps
BR / EDR	CH 39	2441	8.45
Tune-up Limit			9.5

BT BR/EDR

For Ant 7 Head Simultaneous open Body-worn Simultaneous open&close Hotspot Extremity Simultaneous

Mode	Channel	Frequency (Mhz)	Average power (dBm)
			1Mbps
BR / EDR	CH 39	2441	7.47
Tune-up Limit			8.5

WiFi 6E				Ant 7		Ant 5		Ant 5+7		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
WiFi 6E	802.11ax-HE80 MCS0	7	5985			8.84	10.50		13.50	86.93
		71	6305	10.75	12.50				15.00	
		119	6545			10.66	12.50		15.00	
		167	6785			10.65	12.50		15.00	
		215	7025	10.61	12.00				14.50	