



REPORT No.: SZ22120264S01

Annex E Conducted Power

Note:

Conducted power unit: dBm

The target power was recorded in the manufacture document.



Full Power for Ant0 & Ant 1 & Ant 3 & Ant 4 & Ant 5 & Ant 6

GSM850		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
TX Channel		128	189	251		128	189	251		
Frequency (MHz)		824.2	836.4	848.6		824.2	836.4	848.6		
GSM 1 Tx slot		32.56	32.70	32.61	33.50	23.56	23.70	23.61	24.50	0.17
GPRS 1 Tx slot		32.58	32.73	32.66	33.50	23.58	23.73	23.66	24.50	
GPRS 2 Tx slots		30.18	30.28	30.23	31.00	24.18	24.28	24.23	25.00	0.10
GPRS 3 Tx slots		28.68	28.49	28.45	29.50	24.42	24.23	24.19	25.24	0.23
GPRS 4 Tx slots		27.65	27.75	27.59	28.50	24.65	24.75	24.59	25.50	0.16
EDGE 1 Tx slot		26.88	26.96	26.90	28.00	17.88	17.96	17.90	19.00	0.08
EDGE 2 Tx slots		25.12	25.22	25.08	26.00	19.12	19.22	19.08	20.00	0.14
EDGE 3 Tx slots		23.77	23.86	23.80	24.50	19.51	19.60	19.54	20.24	0.09
EDGE 4 Tx slots		22.62	22.68	22.56	23.50	19.62	19.68	19.56	20.50	0.12
Mode			Max.	32.73			Max.	24.75		
Attenuator										

Cable Loss : 0.6

GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
TX Channel		512	661	810		512	661	810		
Frequency (MHz)		1850.2	1860	1909.8		1850.2	1860	1909.8		
GSM 1 Tx slot		29.16	29.24	29.21	30.00	20.16	20.24	20.21	21.00	0.12
GPRS 1 Tx slot		29.18	29.28	29.24	30.00	20.18	20.28	20.24	21.00	
GPRS 2 Tx slots		27.05	27.09	26.96	28.00	21.05	21.09	20.96	22.00	0.13
GPRS 3 Tx slots		25.61	25.66	25.55	26.50	21.35	21.40	21.29	22.24	0.11
GPRS 4 Tx slots		24.56	24.73	24.66	25.50	21.56	21.73	21.66	22.50	0.17
EDGE 1 Tx slot		25.48	25.57	25.53	27.00	16.48	16.57	16.53	18.00	0.09
EDGE 2 Tx slots		23.64	23.86	23.74	24.50	17.64	17.86	17.74	18.50	0.22
EDGE 3 Tx slots		22.42	22.54	22.46	23.20	18.16	18.28	18.20	18.94	0.12
EDGE 4 Tx slots		22.09	22.32	22.22	23.20	19.09	19.32	19.22	20.20	0.23
Mode			Max.	29.28			Max.	21.73		
Attenuator										

Cable Loss : 0.8

Band		WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	RMC 12.2Kbps	23.89	23.92	23.86	24.80	24.03	24.11	24.06	24.80	24.11	24.17	24.06	24.80
3GPP Rel 6	HSDPA Subtest-1	22.94	23.29	23.19	24.00	22.97	23.43	23.38	24.00	22.85	23.19	23.34	24.00
3GPP Rel 6	HSDPA Subtest-2	23.08	23.34	22.96	24.00	22.98	23.38	23.09	24.00	22.82	23.13	22.78	24.00
3GPP Rel 6	HSDPA Subtest-3	22.50	22.54	22.33	23.50	22.53	22.80	22.32	23.50	22.43	22.62	22.52	23.50
3GPP Rel 6	HSDPA Subtest-4	23.00	22.80	22.67	23.50	23.22	22.96	22.87	23.50	22.77	22.97	22.52	23.50
3GPP Rel 6	DC-HSDPA Subtest-1	23.29	23.06	22.98	24.00	23.40	23.22	22.94	24.00	23.43	23.07	22.96	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.77	22.61	22.47	23.50	23.00	22.67	22.69	23.50	23.07	22.77	22.79	23.50
3GPP Rel 8	DC-HSDPA Subtest-3	22.66	22.35	22.20	23.00	22.33	22.36	22.06	23.00	22.37	22.33	21.92	23.00
3GPP Rel 8	DC-HSDPA Subtest-4	22.51	22.18	22.30	23.50	22.56	22.32	22.49	23.50	22.27	22.02	22.48	23.50
3GPP Rel 6	HSUPA Subtest-1	22.81	22.66	22.78	24.00	22.98	22.52	22.65	24.00	22.90	22.57	22.80	24.00
3GPP Rel 6	HSUPA Subtest-2	21.38	21.11	21.18	22.00	21.35	21.31	21.24	22.00	21.56	21.28	21.22	22.00
3GPP Rel 6	HSUPA Subtest-3	22.38	22.14	22.05	23.00	22.52	22.18	22.23	23.00	22.18	22.01	21.88	23.00
3GPP Rel 6	HSUPA Subtest-4	21.36	21.07	21.07	22.00	21.22	21.22	21.14	22.00	21.23	20.79	20.82	22.00
3GPP Rel 6	HSUPA Subtest-5	22.72	22.56	22.26	23.00	22.70	22.55	22.23	23.00	22.68	22.50	22.45	23.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	21.25	21.26	21.31	22.00	21.12	21.22	21.25	22.00	21.43	21.12	21.42	22.00
Attenuator			Cable Loss	0.8			Cable Loss	0.8			Cable Loss	0.6	
Mode			Max.	23.92			Max.	24.11			Max.	24.17	



Band 2 (1900MHz Band) (dBm)							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	23.94	24.02	23.96	24.8
20	QPSK	1	49	23.87	23.93	23.89	
20	QPSK	1	99	23.85	23.91	23.90	
20	QPSK	50	0	23.11	23.18	23.08	23.8
20	QPSK	50	24	23.08	23.14	23.10	
20	QPSK	50	50	23.03	23.10	23.08	
20	QPSK	100	0	23.05	23.08	23.03	23.8
20	16QAM	1	0	23.29	23.31	23.29	
20	16QAM	1	49	23.26	23.28	23.20	
20	16QAM	1	99	23.23	23.27	23.26	22.8
20	16QAM	50	0	22.08	22.12	22.05	
20	16QAM	50	24	22.10	22.11	22.04	
20	16QAM	50	50	22.09	22.10	22.03	22.8
20	16QAM	100	0	22.02	22.08	22.04	
20	64QAM	1	0	22.15	22.22	22.19	
20	64QAM	1	49	22.08	22.16	22.11	21.8
20	64QAM	1	99	22.12	22.15	22.10	
20	64QAM	50	0	21.15	21.16	21.08	
20	64QAM	50	24	21.13	21.14	21.12	21.8
20	64QAM	50	50	21.07	21.11	21.08	
20	64QAM	100	0	21.02	21.08	21.02	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	23.91	23.97	23.90	24.8
15	QPSK	1	37	23.79	23.88	23.84	
15	QPSK	1	74	23.84	23.89	23.85	
15	QPSK	36	0	23.09	23.14	23.11	23.8
15	QPSK	36	20	23.00	23.07	23.09	
15	QPSK	36	39	23.01	23.08	23.07	
15	QPSK	75	0	23.03	23.00	22.96	23.8
15	16QAM	1	0	23.28	23.26	23.22	
15	16QAM	1	37	23.19	23.21	23.16	
15	16QAM	1	74	23.15	23.19	23.21	22.8
15	16QAM	36	0	22.02	22.05	22.04	
15	16QAM	36	20	22.05	22.10	21.98	
15	16QAM	36	39	22.07	22.04	21.95	22.8
15	16QAM	75	0	21.97	22.07	21.99	
15	64QAM	1	0	22.11	22.15	22.15	
15	64QAM	1	37	22.07	22.15	22.03	21.8
15	64QAM	1	74	22.10	22.13	22.09	
15	64QAM	36	0	21.13	21.11	21.03	
15	64QAM	36	20	21.11	21.10	21.06	21.8
15	64QAM	36	39	21.05	21.10	21.01	
15	64QAM	75	0	20.98	21.01	20.96	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	23.90	24.01	23.93	24.8
10	QPSK	1	25	23.80	23.88	23.83	
10	QPSK	1	49	23.78	23.87	23.82	
10	QPSK	25	0	23.14	23.11	23.11	23.8
10	QPSK	25	12	23.07	23.09	23.06	
10	QPSK	25	25	23.01	23.02	23.04	
10	QPSK	50	0	22.98	23.07	22.99	23.8
10	16QAM	1	0	23.22	23.23	23.25	
10	16QAM	1	25	23.23	23.21	23.12	
10	16QAM	1	49	23.17	23.21	23.18	22.8
10	16QAM	25	0	22.05	22.09	21.99	
10	16QAM	25	12	22.06	22.05	21.99	
10	16QAM	25	25	22.06	22.09	21.99	22.8
10	16QAM	50	0	21.95	22.06	22.00	
10	64QAM	1	0	22.13	22.18	22.16	
10	64QAM	1	25	22.05	22.12	22.04	21.8
10	64QAM	1	49	22.09	22.14	22.06	
10	64QAM	25	0	21.14	21.15	21.01	
10	64QAM	25	12	21.09	21.06	21.09	21.8
10	64QAM	25	25	21.05	21.10	21.07	
10	64QAM	50	0	20.98	21.06	20.95	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	23.88	23.95	23.92	24.8
5	QPSK	1	12	23.82	23.92	23.83	
5	QPSK	1	24	23.78	23.83	23.87	
5	QPSK	12	0	23.10	23.11	23.09	23.8
5	QPSK	12	7	23.01	23.06	23.02	
5	QPSK	12	13	22.99	23.08	23.04	
5	QPSK	25	0	23.03	23.01	22.98	23.8
5	16QAM	1	0	23.27	23.23	23.25	
5	16QAM	1	12	23.20	23.27	23.17	
5	16QAM	1	24	23.15	23.20	23.19	22.8
5	16QAM	12	0	22.01	22.08	21.98	
5	16QAM	12	7	22.08	22.10	21.99	
5	16QAM	12	13	22.05	22.04	22.02	22.8
5	16QAM	25	0	21.97	22.07	22.01	
5	64QAM	1	0	22.10	22.20	22.17	
5	64QAM	1	12	22.07	22.11	22.07	21.8
5	64QAM	1	24	22.10	22.14	22.05	
5	64QAM	12	0	21.13	21.14	21.07	
5	64QAM	12	7	21.10	21.06	21.07	21.8
5	64QAM	12	13	21.01	21.04	21.00	
5	64QAM	25	0	20.99	21.01	20.97	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	23.90	23.96	23.91	24.8
3	QPSK	1	8	23.83	23.85	23.87	
3	QPSK	1	14	23.83	23.88	23.85	
3	QPSK	8	0	23.11	23.14	23.12	23.8
3	QPSK	8	4	23.01	23.12	23.03	
3	QPSK	8	7	23.02	23.06	23.05	

Band 4 (AWS Band) (dBm)							
Part 27L (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	23.83	23.88	23.82	24.6
20	QPSK	1	49	23.74	23.77	23.76	
20	QPSK	1	99	23.66	23.73	23.71	
20	QPSK	50	0	22.90	22.94	22.87	23.6
20	QPSK	50	24	22.88	22.90	22.83	
20	QPSK	50	50	22.73	22.81	22.77	
20	QPSK	100	0	22.84	22.86	22.83	23.6
20	16QAM	1	0	23.11	23.14	23.10	
20	16QAM	1	49	23.08	23.12	23.07	
20	16QAM	1	99	23.01	23.09	23.05	22.6
20	16QAM	50	0	21.94	21.95	21.94	
20	16QAM	50	24	21.86	21.90	21.89	
20	16QAM	50	50	21.76	21.80	21.76	22.6
20	16QAM	100	0	21.81	21.89	21.84	
20	64QAM	1	0	22.04	22.05	22.03	
20	64QAM	1	49	21.93	22.00	21.97	22.6
20	64QAM	1	99	21.93	21.97	21.95	
20	64QAM	50	0	20.92	20.96	20.89	
20	64QAM	50	24	20.87	20.92	20.88	21.6
20	64QAM	50	50	20.79	20.87	20.81	
20	64QAM	100	0	20.82	20.90	20.87	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	23.80	23.84	23.78	24.6
15	QPSK	1	37	23.72	23.76	23.70	
15	QPSK	1	74	23.62	23.72	23.67	
15	QPSK	36	0	22.83	22.88	22.85	23.6
15	QPSK	36	20	22.84	22.88	22.80	
15	QPSK	36	39	22.72	22.80	22.73	
15	QPSK	75	0	22.76	22.85	22.76	23.6
15	16QAM	1	0	23.07	23.07	23.03	
15	16QAM	1	37	23.00	23.05	23.03	
15	16QAM	1	74	23.00	23.07	22.98	22.6
15	16QAM	36	0	21.93	21.87	21.88	
15	16QAM	36	20	21.84	21.89	21.82	
15	16QAM	36	39	21.72	21.76	21.72	22.6
15	16QAM	75	0	21.78	21.87	21.80	
15	64QAM	1	0	22.02	22.04	21.99	
15	64QAM	1	37	21.90	21.97	21.92	22.6
15	64QAM	1	74	21.88	21.92	21.92	
15	64QAM	36	0	20.90	20.94	20.87	
15	64QAM	36	20	20.83	20.84	20.87	21.6
15	64QAM	36	39	20.73	20.85	20.73	
15	64QAM	75	0	20.81	20.82	20.80	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	23.78	23.80	23.76	24.6
10	QPSK	1	25	23.69	23.76	23.69	
10	QPSK	1	49	23.63	23.71	23.68	
10	QPSK	25	0	22.83	22.87	22.82	23.6
10	QPSK	25	12	22.84	22.87	22.81	
10	QPSK	25	25	22.65	22.80	22.69	
10	QPSK	50	0	22.79	22.82	22.82	23.6
10	16QAM	1	0	23.10	23.09	23.09	
10	16QAM	1	25	23.03	23.10	23.03	
10	16QAM	1	49	22.94	23.06	23.02	22.6
10	16QAM	25	0	21.92	21.93	21.91	
10	16QAM	25	12	21.85	21.86	21.85	
10	16QAM	25	25	21.74	21.79	21.70	22.6
10	16QAM	50	0	21.73	21.85	21.82	
10	64QAM	1	0	21.97	22.03	21.99	
10	64QAM	1	25	21.86	21.93	21.92	22.6
10	64QAM	1	49	21.85	21.91	21.90	
10	64QAM	25	0	20.91	20.89	20.85	
10	64QAM	25	12	20.84	20.86	20.81	21.6
10	64QAM	25	25	20.71	20.79	20.76	
10	64QAM	50	0	20.77	20.86	20.80	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	23.80	23.81	23.79	24.6
5	QPSK	1	12	23.68	23.72	23.70	
5	QPSK	1	24	23.62	23.66	23.65	
5	QPSK	12	0	22.86	22.93	22.82	23.6
5	QPSK	12	7	22.87	22.85	22.78	
5	QPSK	12	13	22.68	22.79	22.69	
5	QPSK	25	0	22.82	22.82	22.76	23.6
5	16QAM	1	0	23.08	23.09	23.06	
5	16QAM	1	12	23.07	23.09	23.06	
5	16QAM	1	24	22.98	23.08	23.00	22.6
5	16QAM	12	0	21.91	21.94	21.86	
5	16QAM	12	7	21.78	21.84	21.84	
5	16QAM	12	13	21.68	21.75	21.68	22.6
5	16QAM	25	0	21.80	21.84	21.80	
5	64QAM	1	0	22.03	22.00	22.01	
5	64QAM	1	12	21.87	21.98	21.93	22.6
5	64QAM	1	24	21.90	21.92	21.87	
5	64QAM	12	0	20.84	20.90	20.88	
5	64QAM	12	7	20.79	20.90	20.84	21.6
5	64QAM	12	13	20.78	20.79	20.76	
5	64QAM	25	0	20.75	20.85	20.80	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	23.75	23.86	23.81	24.6
3	QPSK	1	8	23.69	23.74	23.70	
3	QPSK	1	14	23.59	23.72	23.67	
3	QPSK	8	0	22.88	22.93	22.84	23.6
3	QPSK	8	4	22.80	22.84	22.75	
3	QPSK	8	7	22.68	22.79	22.71	



3	QPSK	15	0	22.97	23.04	22.96	23.8
3	16QAM	1	0	23.28	23.26	23.28	
3	16QAM	1	8	23.25	23.26	23.19	
3	16QAM	1	14	23.16	23.20	23.18	22.8
3	16QAM	8	0	22.07	22.08	22.01	
3	16QAM	8	4	22.03	22.08	22.01	
3	16QAM	8	7	22.04	22.04	22.02	22.8
3	16QAM	15	0	21.97	22.06	22.02	
3	64QAM	1	0	22.10	22.14	22.14	
3	64QAM	1	8	22.01	22.11	22.06	21.8
3	64QAM	1	14	22.05	22.13	22.05	
3	64QAM	8	0	21.09	21.15	21.00	
3	64QAM	8	4	21.10	21.10	21.10	21.8
3	64QAM	8	7	21.06	21.10	21.07	
3	64QAM	15	0	21.00	21.07	20.99	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.86	24.01	23.93	24.8
1.4	QPSK	1	3	23.80	23.87	23.86	
1.4	QPSK	1	5	23.77	23.88	23.86	
1.4	QPSK	3	0	23.83	23.92	23.89	
1.4	QPSK	3	1	23.95	23.98	23.88	
1.4	QPSK	3	3	23.89	23.93	23.90	
1.4	QPSK	6	0	22.97	23.07	22.99	23.8
1.4	16QAM	1	0	23.25	23.24	23.21	23.8
1.4	16QAM	1	3	23.25	23.22	23.18	
1.4	16QAM	1	5	23.16	23.25	23.25	
1.4	16QAM	3	0	23.05	23.10	23.02	
1.4	16QAM	3	1	23.03	23.07	22.99	
1.4	16QAM	3	3	23.04	23.08	22.97	
1.4	16QAM	6	0	21.98	22.07	21.96	22.8
1.4	64QAM	1	0	22.13	22.18	22.17	22.8
1.4	64QAM	1	3	22.05	22.09	22.06	
1.4	64QAM	1	5	22.05	22.09	22.06	
1.4	64QAM	3	0	22.14	22.08	22.01	
1.4	64QAM	3	1	22.11	22.09	22.06	
1.4	64QAM	3	3	22.04	22.05	22.03	
1.4	64QAM	6	0	20.97	21.03	20.95	21.8

3	QPSK	15	0	22.83	22.81	22.76	23.6
3	16QAM	1	0	23.06	23.06	23.04	
3	16QAM	1	8	23.04	23.11	22.99	
3	16QAM	1	14	22.96	23.04	22.99	22.6
3	16QAM	8	0	21.91	21.90	21.89	
3	16QAM	8	4	21.79	21.89	21.81	
3	16QAM	8	7	21.75	21.72	21.68	22.6
3	16QAM	15	0	21.78	21.81	21.76	
3	64QAM	1	0	22.03	22.01	21.96	
3	64QAM	1	8	21.90	21.93	21.89	21.6
3	64QAM	1	14	21.85	21.96	21.89	
3	64QAM	8	0	20.86	20.94	20.81	
3	64QAM	8	4	20.86	20.85	20.80	21.6
3	64QAM	8	7	20.74	20.80	20.75	
3	64QAM	15	0	20.76	20.88	20.81	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	23.80	23.86	23.78	24.6
1.4	QPSK	1	3	23.68	23.70	23.70	
1.4	QPSK	1	5	23.61	23.71	23.68	
1.4	QPSK	3	0	23.69	23.78	23.72	
1.4	QPSK	3	1	23.72	23.73	23.65	
1.4	QPSK	3	3	23.53	23.58	23.59	
1.4	QPSK	6	0	22.77	22.81	22.75	23.6
1.4	16QAM	1	0	23.10	23.08	23.03	23.6
1.4	16QAM	1	3	23.00	23.08	23.02	
1.4	16QAM	1	5	22.95	23.08	23.04	
1.4	16QAM	3	0	22.75	22.73	22.77	
1.4	16QAM	3	1	22.70	22.74	22.66	
1.4	16QAM	3	3	22.55	22.64	22.58	
1.4	16QAM	6	0	21.80	21.85	21.76	22.6
1.4	64QAM	1	0	21.98	22.00	22.00	22.6
1.4	64QAM	1	3	21.91	21.96	21.89	
1.4	64QAM	1	5	21.92	21.93	21.91	
1.4	64QAM	3	0	21.70	21.73	21.67	
1.4	64QAM	3	1	21.65	21.70	21.65	
1.4	64QAM	3	3	21.62	21.67	21.59	
1.4	64QAM	6	0	20.78	20.82	20.80	21.6



Band 5 (Cellular Band) (dBm) Part 22H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	24.13	24.16	24.12	24.8
10	QPSK	1	25	24.00	24.08	24.00	
10	QPSK	1	49	23.98	24.06	24.04	
10	QPSK	25	0	23.11	23.14	23.08	23.8
10	QPSK	25	12	23.03	23.11	23.07	
10	QPSK	25	25	23.05	23.09	23.08	
10	QPSK	50	0	23.08	23.12	23.08	23.8
10	16QAM	1	0	23.41	23.45	23.37	
10	16QAM	1	25	23.36	23.42	23.38	
10	16QAM	1	49	23.35	23.39	23.32	22.8
10	16QAM	25	0	22.13	22.18	22.16	
10	16QAM	25	12	22.16	22.17	22.16	
10	16QAM	25	25	22.16	22.21	22.17	22.8
10	16QAM	50	0	22.10	22.15	22.12	
10	64QAM	1	0	22.19	22.20	22.18	
10	64QAM	1	25	22.06	22.10	22.08	21.8
10	64QAM	1	49	22.09	22.13	22.08	
10	64QAM	25	0	20.94	20.97	20.91	
10	64QAM	25	12	21.04	21.09	21.08	21.8
10	64QAM	25	25	21.10	21.17	21.09	
10	64QAM	50	0	20.97	21.04	21.03	
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	24.11	24.13	24.07	24.8
5	QPSK	1	12	23.93	24.06	23.97	
5	QPSK	1	24	23.94	24.05	23.97	
5	QPSK	12	0	23.05	23.07	23.10	23.8
5	QPSK	12	7	23.01	23.06	23.01	
5	QPSK	12	13	22.99	23.06	23.02	
5	QPSK	25	0	23.04	23.04	23.01	23.8
5	16QAM	1	0	23.37	23.37	23.31	
5	16QAM	1	12	23.30	23.37	23.35	
5	16QAM	1	24	23.28	23.36	23.30	22.8
5	16QAM	12	0	22.12	22.15	22.10	
5	16QAM	12	7	22.11	22.13	22.10	
5	16QAM	12	13	22.12	22.15	22.16	22.8
5	16QAM	25	0	22.08	22.10	22.08	
5	64QAM	1	0	22.13	22.19	22.17	
5	64QAM	1	12	22.05	22.08	22.07	21.8
5	64QAM	1	24	22.07	22.11	22.06	
5	64QAM	12	0	20.86	20.92	20.89	
5	64QAM	12	7	21.00	21.07	21.00	21.8
5	64QAM	12	13	21.09	21.09	21.08	
5	64QAM	25	0	20.92	21.03	21.00	
Channel				20415	20525	20635	
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.05	24.15	24.06	24.8
3	QPSK	1	8	23.93	24.06	23.95	
3	QPSK	1	14	23.93	23.99	23.99	
3	QPSK	8	0	23.06	23.06	23.07	23.8
3	QPSK	8	4	23.01	23.09	23.02	
3	QPSK	8	7	23.02	23.06	23.00	
3	QPSK	15	0	23.05	23.09	23.00	23.8
3	16QAM	1	0	23.36	23.42	23.29	
3	16QAM	1	8	23.35	23.40	23.36	
3	16QAM	1	14	23.28	23.32	23.24	22.8
3	16QAM	8	0	22.09	22.10	22.08	
3	16QAM	8	4	22.15	22.09	22.09	
3	16QAM	8	7	22.15	22.15	22.14	22.8
3	16QAM	15	0	22.07	22.10	22.08	
3	64QAM	1	0	22.18	22.18	22.14	
3	64QAM	1	8	22.03	22.03	22.04	21.8
3	64QAM	1	14	22.07	22.10	22.07	
3	64QAM	8	0	20.87	20.90	20.89	
3	64QAM	8	4	20.97	21.02	21.00	21.8
3	64QAM	8	7	21.09	21.10	21.08	
3	64QAM	15	0	20.93	20.98	21.00	
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	24.09	24.09	24.08	24.8
1.4	QPSK	1	3	23.98	24.06	23.99	
1.4	QPSK	1	5	23.96	24.05	23.98	
1.4	QPSK	3	0	24.01	23.98	23.93	23.8
1.4	QPSK	3	1	23.86	23.94	23.93	
1.4	QPSK	3	3	23.88	23.98	23.92	
1.4	QPSK	6	0	23.01	23.05	23.05	23.8
1.4	16QAM	1	0	23.38	23.43	23.30	
1.4	16QAM	1	3	23.30	23.41	23.37	
1.4	16QAM	1	5	23.33	23.31	23.24	23.8
1.4	16QAM	3	0	22.96	23.06	23.01	
1.4	16QAM	3	1	23.03	23.05	23.00	
1.4	16QAM	3	3	22.98	23.06	23.02	22.8
1.4	16QAM	6	0	22.07	22.10	22.10	
1.4	64QAM	1	0	22.12	22.13	22.10	
1.4	64QAM	1	3	21.99	22.05	22.07	22.8
1.4	64QAM	1	5	22.04	22.09	22.02	
1.4	64QAM	3	0	21.78	21.80	21.75	
1.4	64QAM	3	1	21.90	21.94	21.97	21.8
1.4	64QAM	3	3	21.96	22.06	21.94	
1.4	64QAM	6	0	20.95	21.01	21.00	

Band 7 (2600MHz Band) (dBm)							
Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	22.48	22.55	22.45	23.3
20	QPSK	1	49	22.37	22.45	22.42	
20	QPSK	1	99	22.34	22.41	22.37	
20	QPSK	50	0	21.58	21.63	21.56	22.3
20	QPSK	50	24	21.56	21.60	21.54	
20	QPSK	50	50	21.61	21.63	21.57	
20	QPSK	100	0	21.56	21.58	21.52	22.3
20	16QAM	1	0	21.61	21.66	21.60	
20	16QAM	1	49	21.71	21.72	21.70	
20	16QAM	1	99	21.81	21.85	21.78	21.3
20	16QAM	50	0	20.53	20.54	20.52	
20	16QAM	50	24	20.52	20.60	20.54	
20	16QAM	50	50	20.57	20.63	20.61	21.3
20	16QAM	100	0	20.53	20.59	20.54	
20	64QAM	1	0	20.51	20.58	20.57	
20	64QAM	1	49	20.54	20.56	20.48	21.3
20	64QAM	1	99	20.71	20.75	20.68	
20	64QAM	50	0	19.56	19.58	19.52	
20	64QAM	50	24	19.61	19.62	19.56	20.3
20	64QAM	50	50	19.59	19.67	19.62	
20	64QAM	100	0	19.58	19.60	19.54	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	22.45	22.51	22.44	23.3
15	QPSK	1	37	22.32	22.40	22.40	
15	QPSK	1	74	22.29	22.35	22.29	
15	QPSK	36	0	21.52	21.62	21.59	22.3
15	QPSK	36	20	21.48	21.57	21.48	
15	QPSK	36	39	21.58	21.60	21.56	
15	QPSK	75	0	21.49	21.53	21.51	22.3
15	16QAM	1	0	21.55	21.58	21.52	
15	16QAM	1	37	21.69	21.66	21.67	
15	16QAM	1	74	21.74	21.81	21.74	21.3
15	16QAM	36	0	20.47	20.49	20.45	
15	16QAM	36	20	20.47	20.56	20.49	
15	16QAM	36	39	20.52	20.55	20.56	21.3
15	16QAM	75	0	20.49	20.57	20.48	
15	64QAM	1	0	20.47	20.56	20.55	
15	64QAM	1	37	20.46	20.54	20.47	21.3
15	64QAM	1	74	20.65	20.69	20.65	
15	64QAM	36	0	19.53	19.53	19.48	
15	64QAM	36	20	19.57	19.60	19.48	20.3
15	64QAM	36	39	19.54	19.63	19.60	
15	64QAM	75	0	19.51	19.59	19.49	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	22.46	22.50	22.38	23.3
10	QPSK	1	25	22.34	22.44	22.35	
10	QPSK	1	49	22.26	22.39	22.34	
10	QPSK	25	0	21.48	21.55	21.61	22.3
10	QPSK	25	12	21.55	21.57	21.53	
10	QPSK	25	25	21.59	21.57	21.52	
10	QPSK	50	0	21.53	21.53	21.48	22.3
10	16QAM	1	0	21.56	21.60	21.58	
10	16QAM	1	25	21.63	21.66	21.64	
10	16QAM	1	49	21.75	21.84	21.73	21.3
10	16QAM	25	0	20.49	20.48	20.48	
10	16QAM	25	12	20.44	20.58	20.51	
10	16QAM	25	25	20.50	20.60	20.53	21.3
10	16QAM	50	0	20.46	20.51	20.51	
10	64QAM	1	0	20.49	20.51	20.50	
10	64QAM	1	25	20.51	20.55	20.41	21.3
10	64QAM	1	49	20.66	20.70	20.64	
10	64QAM	25	0	19.50	19.55	19.49	
10	64QAM	25	12	19.58	19.55	19.55	20.3
10	64QAM	25	25	19.54	19.60	19.56	
10	64QAM	50	0	19.55	19.59	19.53	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	22.43	22.50	22.38	23.3
5	QPSK	1	12	22.29	22.38	22.38	
5	QPSK	1	24	22.33	22.36	22.36	
5	QPSK	12	0	21.54	21.61	21.59	22.3
5	QPSK	12	7	21.55	21.56	21.52	
5	QPSK	12	13	21.55	21.58	21.56	
5	QPSK	25	0	21.48	21.55	21.48	22.3
5	16QAM	1	0	21.54	21.63	21.52	
5	16QAM	1	12	21.69	21.66	21.66	
5	16QAM	1	24	21.77	21.77	21.73	21.3
5	16QAM	12	0	20.51	20.51	20.48	
5	16QAM	12	7	20.50	20.57	20.48	
5	16QAM	12	13	20.56	20.56	20.58	21.3
5	16QAM	25	0	20.51	20.51	20.47	
5	64QAM	1	0	20.44	20.54	20.55	
5	64QAM	1	12	20.47	20.54	20.43	21.3
5	64QAM	1	24	20.66	20.73	20.63	
5	64QAM	12	0	19.54	19.51	19.48	
5	64QAM	12	7	19.60	19.59	19.54	20.3
5	64QAM	12	13	19.58	19.60	19.60	
5	64QAM	25	0	19.51	19.53	19.53	



Band 12 (700MHz Low Band) (dBm) Part 27F(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23090	23095	23130	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	24.13	24.17	24.15	24.8
10	QPSK	1	25	24.07	24.11	24.05	
10	QPSK	1	49	24.04	24.08	24.06	
10	QPSK	25	0	23.24	23.28	23.25	23.8
10	QPSK	25	12	23.18	23.22	23.18	
10	QPSK	25	25	23.19	23.25	23.21	
10	QPSK	50	0	23.10	23.18	23.15	23.8
10	16QAM	1	0	23.46	23.52	23.47	
10	16QAM	1	25	23.46	23.50	23.47	
10	16QAM	1	49	23.41	23.48	23.45	22.8
10	16QAM	25	0	22.15	22.20	22.14	
10	16QAM	25	12	22.09	22.16	22.13	
10	16QAM	25	25	22.17	22.23	22.21	22.8
10	16QAM	50	0	22.13	22.17	22.14	
10	64QAM	1	0	22.28	22.33	22.25	
10	64QAM	1	25	22.24	22.32	22.30	21.8
10	64QAM	1	49	22.38	22.41	22.33	
10	64QAM	25	0	21.18	21.24	21.17	
10	64QAM	25	12	21.19	21.21	21.19	21.8
10	64QAM	25	25	21.16	21.17	21.09	
10	64QAM	50	0	21.15	21.23	21.18	
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	24.11	24.15	24.11	24.8
5	QPSK	1	12	24.05	24.09	23.98	
5	QPSK	1	24	23.98	24.03	24.01	
5	QPSK	12	0	23.17	23.27	23.16	23.8
5	QPSK	12	7	23.14	23.19	23.17	
5	QPSK	12	13	23.13	23.18	23.13	
5	QPSK	25	0	23.07	23.15	23.07	23.8
5	16QAM	1	0	23.41	23.44	23.39	
5	16QAM	1	12	23.42	23.49	23.43	
5	16QAM	1	24	23.37	23.45	23.39	22.8
5	16QAM	12	0	22.14	22.19	22.09	
5	16QAM	12	7	22.04	22.11	22.08	
5	16QAM	12	13	22.09	22.20	22.20	22.8
5	16QAM	25	0	22.08	22.12	22.13	
5	64QAM	1	0	22.25	22.32	22.23	
5	64QAM	1	12	22.22	22.30	22.22	22.8
5	64QAM	1	24	22.36	22.37	22.28	
5	64QAM	12	0	21.12	21.22	21.12	
5	64QAM	12	7	21.17	21.19	21.15	21.8
5	64QAM	12	13	21.10	21.13	21.02	
5	64QAM	25	0	21.12	21.18	21.14	
Channel				23025	23095	23165	
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.10	24.15	24.11	24.8
3	QPSK	1	8	24.03	24.06	23.98	
3	QPSK	1	14	23.97	24.06	24.03	
3	QPSK	8	0	23.16	23.22	23.17	23.8
3	QPSK	8	4	23.15	23.21	23.15	
3	QPSK	8	7	23.14	23.20	23.19	
3	QPSK	15	0	23.06	23.10	23.08	23.8
3	16QAM	1	0	23.35	23.46	23.41	
3	16QAM	1	8	23.40	23.44	23.44	
3	16QAM	1	14	23.40	23.47	23.37	22.8
3	16QAM	8	0	22.12	22.14	22.13	
3	16QAM	8	4	22.07	22.15	22.06	
3	16QAM	8	7	22.16	22.20	22.16	22.8
3	16QAM	15	0	22.08	22.11	22.06	
3	64QAM	1	0	22.27	22.25	22.19	
3	64QAM	1	8	22.16	22.28	22.25	22.8
3	64QAM	1	14	22.36	22.33	22.31	
3	64QAM	8	0	21.11	21.19	21.14	
3	64QAM	8	4	21.16	21.20	21.11	21.8
3	64QAM	8	7	21.10	21.11	21.08	
3	64QAM	15	0	20.69	20.79	20.73	
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.02	24.11	24.09	24.8
1.4	QPSK	1	3	23.96	24.01	23.98	
1.4	QPSK	1	5	23.97	24.00	23.99	
1.4	QPSK	3	0	24.00	24.10	23.99	23.8
1.4	QPSK	3	1	23.96	24.03	24.01	
1.4	QPSK	3	3	24.03	24.07	24.01	
1.4	QPSK	6	0	23.03	23.05	23.07	23.8
1.4	16QAM	1	0	23.35	23.43	23.39	
1.4	16QAM	1	3	23.34	23.44	23.38	
1.4	16QAM	1	5	23.29	23.35	23.33	23.8
1.4	16QAM	3	0	22.93	22.97	22.97	
1.4	16QAM	3	1	22.86	23.00	22.94	
1.4	16QAM	3	3	22.94	23.04	22.99	22.8
1.4	16QAM	6	0	22.00	22.11	22.05	
1.4	64QAM	1	0	22.16	22.25	22.19	
1.4	64QAM	1	3	22.11	22.24	22.17	22.8
1.4	64QAM	1	5	22.27	22.33	22.23	
1.4	64QAM	3	0	21.96	22.03	21.95	
1.4	64QAM	3	1	22.01	22.02	22.01	21.8
1.4	64QAM	3	3	21.95	22.00	21.93	
1.4	64QAM	6	0	20.66	20.72	20.72	

Band 13(700MHz Band) (dBm) Part 27F							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23230			
Frequency (MHz)				782			
10	QPSK	1	0		23.14		23.8
10	QPSK	1	25		23.12		
10	QPSK	1	49		23.08		
10	QPSK	25	0		22.20		22.8
10	QPSK	25	12		22.21		
10	QPSK	25	25		22.22		
10	QPSK	50	0		22.20		22.8
10	16QAM	1	0		22.57		
10	16QAM	1	25		22.50		
10	16QAM	1	49		22.44		21.8
10	16QAM	25	0		21.23		
10	16QAM	25	12		21.22		
10	16QAM	25	25		21.20		21.8
10	16QAM	50	0		21.17		
10	64QAM	1	0		21.37		
10	64QAM	1	25		21.41		21.8
10	64QAM	1	49		21.37		
10	64QAM	25	0		20.22		
10	64QAM	25	12		20.24		20.8
10	64QAM	25	25		20.23		
10	64QAM	50	0		20.20		
Channel				23205	23230	23255	
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.11	23.06	23.07	23.8
5	QPSK	1	12	23.07	23.11	23.08	
5	QPSK	1	24	23.07	23.07	23.07	
5	QPSK	12	0	22.18	22.13	22.13	22.8
5	QPSK	12	7	22.18	22.20	22.13	
5	QPSK	12	13	22.20	22.18	22.14	
5	QPSK	25	0	22.18	22.12	22.18	22.8
5	16QAM	1	0	22.50	22.50	22.49	
5	16QAM	1	12	22.47	22.45	22.45	
5	16QAM	1	24	22.39	22.36	22.42	21.8
5	16QAM	12	0	21.17	21.18	21.18	
5	16QAM	12	7	21.14	21.20	21.14	
5	16QAM	12	13	21.15	21.12	21.18	21.8
5	16QAM	25	0	21.09	21.12	21.09	
5	64QAM	1	0	21.34	21.35	21.35	
5	64QAM	1	12	21.39	21.33	21.39	21.8
5	64QAM	1	24	21.30	21.34	21.31	
5	64QAM	12	0	20.15	20.19	20.16	
5	64QAM	12	7	20.16	20.20	20.20	20.8
5	64QAM	12	13	20.22	20.22	20.17	
5	64QAM	25	0	20.15	20.19	20.14	



Band 17 (700MHz Band) (dBm) Part 27H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.15	24.17	24.13	
10	QPSK	1	25	24.13	24.14	24.12	24.8
10	QPSK	1	49	24.04	24.12	24.11	
10	QPSK	25	0	23.24	23.27	23.22	
10	QPSK	25	12	23.18	23.25	23.21	23.8
10	QPSK	25	25	23.15	23.23	23.15	
10	QPSK	50	0	23.23	23.24	23.17	
10	16QAM	1	0	23.44	23.47	23.41	23.8
10	16QAM	1	25	23.41	23.46	23.41	
10	16QAM	1	49	23.35	23.42	23.41	
10	16QAM	25	0	22.25	22.33	22.26	22.8
10	16QAM	25	12	22.29	22.30	22.22	
10	16QAM	25	25	22.21	22.27	22.22	
10	16QAM	50	0	22.23	22.25	22.18	22.8
10	64QAM	1	0	22.35	22.38	22.33	
10	64QAM	1	25	22.32	22.35	22.32	
10	64QAM	1	49	22.27	22.33	22.29	21.8
10	64QAM	25	0	21.22	21.30	21.28	
10	64QAM	25	12	21.23	21.31	21.27	
10	64QAM	25	25	21.25	21.27	21.25	21.8
10	64QAM	50	0	21.19	21.22	21.21	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.12	24.11	24.12	
5	QPSK	1	12	24.08	24.09	24.06	24.8
5	QPSK	1	24	24.02	24.11	24.05	
5	QPSK	12	0	23.19	23.21	23.17	
5	QPSK	12	7	23.16	23.19	23.13	23.8
5	QPSK	12	13	23.09	23.17	23.12	
5	QPSK	25	0	23.20	23.17	23.10	
5	16QAM	1	0	23.42	23.44	23.37	23.8
5	16QAM	1	12	23.33	23.42	23.37	
5	16QAM	1	24	23.33	23.35	23.40	
5	16QAM	12	0	22.20	22.31	22.20	22.8
5	16QAM	12	7	22.23	22.25	22.18	
5	16QAM	12	13	22.13	22.24	22.20	
5	16QAM	25	0	22.20	22.22	22.14	22.8
5	64QAM	1	0	22.31	22.34	22.27	
5	64QAM	1	12	22.28	22.29	22.24	
5	64QAM	1	24	22.23	22.28	22.28	21.8
5	64QAM	12	0	21.21	21.29	21.23	
5	64QAM	12	7	21.16	21.23	21.24	
5	64QAM	12	13	21.22	21.22	21.18	21.8
5	64QAM	25	0	21.12	21.14	21.13	

Band 18 (835MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel					23925		
Frequency (MHz)					822.5		
15	QPSK	1	0		24.13		
15	QPSK	1	37		24.08		24.8
15	QPSK	1	74		24.06		
15	QPSK	36	0		23.18		
15	QPSK	36	20		23.15		23.8
15	QPSK	36	39		23.20		
15	QPSK	75	0		23.17		
15	16QAM	1	0		23.42		23.8
15	16QAM	1	37		23.47		
15	16QAM	1	74		23.49		
15	16QAM	36	0		22.20		22.8
15	16QAM	36	20		22.16		
15	16QAM	36	39		22.15		
15	16QAM	75	0		22.16		22.8
15	64QAM	1	0		22.21		
15	64QAM	1	25		22.16		
15	64QAM	1	49		22.13		21.8
15	64QAM	25	0		21.18		
15	64QAM	25	12		21.22		
15	64QAM	25	25		21.17		21.8
15	64QAM	50	0		21.21		
Channel				23900	23925	23950	Tune-up limit (dBm)
Frequency (MHz)				820	822.5	825	
10	QPSK	1	0	24.05	24.10	24.05	
10	QPSK	1	25	24.01	24.02	24.03	24.8
10	QPSK	1	49	24.01	24.03	24.00	
10	QPSK	25	0	23.11	23.12	23.10	
10	QPSK	25	12	23.14	23.07	23.12	23.8
10	QPSK	25	25	23.16	23.17	23.17	
10	QPSK	50	0	23.13	23.13	23.10	
10	16QAM	1	0	23.36	23.35	23.39	23.8
10	16QAM	1	25	23.43	23.39	23.39	
10	16QAM	1	49	23.45	23.43	23.46	
10	16QAM	25	0	22.14	22.17	22.16	22.8
10	16QAM	25	12	22.10	22.09	22.14	
10	16QAM	25	25	22.13	22.07	22.08	
10	16QAM	50	0	22.13	22.15	22.13	22.8
10	64QAM	1	0	22.18	22.18	22.14	
10	64QAM	1	25	22.12	22.13	22.10	
10	64QAM	1	49	22.06	22.05	22.09	21.8
10	64QAM	25	0	21.13	21.16	21.15	
10	64QAM	25	12	21.21	21.18	21.19	
10	64QAM	25	25	21.13	21.13	21.14	21.8
10	64QAM	50	0	21.18	21.13	21.18	
Channel				23875	23925	23975	Tune-up limit (dBm)
Frequency (MHz)				817.5	822.5	827.5	
5	QPSK	1	0	24.11	24.12	24.08	
5	QPSK	1	12	24.01	24.02	24.00	24.80
5	QPSK	1	24	23.99	24.02	24.01	
5	QPSK	12	0	23.13	23.13	23.15	
5	QPSK	12	7	23.13	23.14	23.07	23.8
5	QPSK	12	13	23.12	23.14	23.18	
5	QPSK	25	0	23.13	23.14	23.10	
5	16QAM	1	0	23.35	23.41	23.34	23.8
5	16QAM	1	12	23.45	23.40	23.41	
5	16QAM	1	24	23.48	23.41	23.41	
5	16QAM	12	0	22.12	22.18	22.12	22.8
5	16QAM	12	7	22.13	22.09	22.15	
5	16QAM	12	13	22.08	22.08	22.10	
5	16QAM	25	0	22.12	22.11	22.09	22.8
5	64QAM	1	0	22.13	22.16	22.14	
5	64QAM	1	12	22.13	22.09	22.10	
5	64QAM	1	24	22.05	22.10	22.08	21.8
5	64QAM	12	0	21.14	21.12	21.17	
5	64QAM	12	7	21.19	21.20	21.14	
5	64QAM	12	13	21.12	21.12	21.12	21.8
5	64QAM	25	0	21.18	21.20	21.15	



Band 25 (1900MHz Band) (dBm) Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26140	26365	26590	
Frequency (MHz)				1860	1882.5	1905	
20	QPSK	1	0	23.98	24.03	23.95	24.8
20	QPSK	1	49	23.88	23.92	23.85	
20	QPSK	1	99	23.84	23.91	23.89	
20	QPSK	50	0	23.12	23.15	23.10	23.8
20	QPSK	50	24	23.07	23.12	23.08	
20	QPSK	50	50	23.09	23.10	23.07	
20	QPSK	100	0	23.00	23.07	22.99	23.8
20	16QAM	1	0	23.31	23.34	23.26	
20	16QAM	1	49	23.21	23.29	23.26	
20	16QAM	1	99	23.14	23.21	23.18	22.8
20	16QAM	50	0	22.07	22.10	22.06	
20	16QAM	50	24	22.04	22.07	21.99	
20	16QAM	50	50	22.10	22.12	22.10	22.8
20	16QAM	100	0	22.03	22.10	22.03	
20	64QAM	1	0	22.18	22.20	22.18	22.8
20	64QAM	1	49	22.11	22.18	22.15	
20	64QAM	1	99	22.13	22.15	22.09	
20	64QAM	50	0	21.20	21.23	21.16	21.8
20	64QAM	50	24	21.13	21.19	21.11	
20	64QAM	50	50	21.14	21.15	21.11	
20	64QAM	100	0	21.06	21.12	21.10	
Channel				26115	26365	26615	
Frequency (MHz)				1857.5	1882.5	1907.5	Tune-up limit (dBm)
15	QPSK	1	0	23.94	24.00	23.94	24.8
15	QPSK	1	37	23.87	23.87	23.84	
15	QPSK	1	74	23.81	23.84	23.83	
15	QPSK	36	0	23.08	23.08	23.09	23.8
15	QPSK	36	20	23.02	23.11	23.00	
15	QPSK	36	39	23.06	23.06	23.00	
15	QPSK	75	0	22.98	23.01	22.96	23.8
15	16QAM	1	0	23.27	23.33	23.24	
15	16QAM	1	37	23.14	23.21	23.25	
15	16QAM	1	74	23.07	23.20	23.15	22.8
15	16QAM	36	0	22.04	22.08	22.01	
15	16QAM	36	20	21.99	22.05	21.98	
15	16QAM	36	39	22.07	22.11	22.09	22.8
15	16QAM	75	0	21.98	22.07	21.99	
15	64QAM	1	0	22.15	22.13	22.13	
15	64QAM	1	37	22.04	22.10	22.14	21.8
15	64QAM	1	74	22.05	22.11	22.06	
15	64QAM	36	0	21.12	21.15	21.14	
15	64QAM	36	20	21.09	21.16	21.07	21.8
15	64QAM	36	39	21.06	21.07	21.10	
15	64QAM	75	0	20.99	21.07	21.02	
Channel				26090	26365	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	23.90	23.97	23.91	24.8
10	QPSK	1	25	23.81	23.84	23.84	
10	QPSK	1	49	23.78	23.86	23.81	
10	QPSK	25	0	23.06	23.08	23.05	23.8
10	QPSK	25	12	23.06	23.04	23.01	
10	QPSK	25	25	23.08	23.09	23.04	
10	QPSK	50	0	22.97	23.06	22.94	23.8
10	16QAM	1	0	23.26	23.28	23.22	
10	16QAM	1	25	23.14	23.24	23.20	
10	16QAM	1	49	23.08	23.15	23.10	22.8
10	16QAM	25	0	22.05	22.05	22.05	
10	16QAM	25	12	21.98	22.00	21.92	
10	16QAM	25	25	22.06	22.08	22.04	22.8
10	16QAM	50	0	21.99	22.09	21.97	
10	64QAM	1	0	22.16	22.13	22.12	
10	64QAM	1	25	22.10	22.17	22.11	22.8
10	64QAM	1	49	22.08	22.12	22.01	
10	64QAM	25	0	21.16	21.16	21.11	
10	64QAM	25	12	21.05	21.14	21.05	21.8
10	64QAM	25	25	21.06	21.11	21.06	
10	64QAM	50	0	21.01	21.06	21.03	
Channel				26065	26365	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	QPSK	1	0	23.95	23.98	23.89	24.8
5	QPSK	1	12	23.83	23.91	23.82	
5	QPSK	1	24	23.79	23.90	23.82	
5	QPSK	12	0	23.07	23.07	23.05	23.8
5	QPSK	12	7	23.00	23.11	23.04	
5	QPSK	12	13	23.05	23.02	23.06	
5	QPSK	25	0	22.99	23.03	22.96	23.8
5	16QAM	1	0	23.25	23.26	23.19	
5	16QAM	1	12	23.16	23.25	23.24	
5	16QAM	1	24	23.09	23.17	23.15	22.8
5	16QAM	12	0	22.03	22.05	22.01	
5	16QAM	12	7	22.00	22.05	21.97	
5	16QAM	12	13	22.09	22.10	22.09	22.8
5	16QAM	25	0	22.00	22.05	22.02	
5	64QAM	1	0	22.16	22.16	22.17	
5	64QAM	1	12	22.04	22.16	22.11	22.8
5	64QAM	1	24	22.11	22.14	22.04	
5	64QAM	12	0	21.13	21.17	21.09	
5	64QAM	12	7	21.05	21.18	21.04	21.8
5	64QAM	12	13	21.13	21.13	21.10	
5	64QAM	25	0	21.01	21.08	21.02	
Channel				26055	26365	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	23.92	23.96	23.89	24.8
3	QPSK	1	8	23.84	23.89	23.84	
3	QPSK	1	14	23.83	23.85	23.87	
3	QPSK	8	0	23.04	23.12	23.05	23.8
3	QPSK	8	4	23.02	23.06	23.07	
3	QPSK	8	7	23.07	23.05	23.02	

Band 26 for FCC (dBm) (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	24.11	24.13	24.09	24.8
15	QPSK	1	37	24.08	24.11	24.10	
15	QPSK	1	74	24.05	24.08	24.03	
15	QPSK	36	0	23.14	23.18	23.12	23.8
15	QPSK	36	20	23.15	23.16	23.15	
15	QPSK	36	39	23.19	23.26	23.21	
15	QPSK	75	0	23.12	23.17	23.13	23.8
15	16QAM	1	0	23.39	23.40	23.38	
15	16QAM	1	37	23.43	23.44	23.39	
15	16QAM	1	74	23.35	23.39	23.32	22.8
15	16QAM	36	0	22.17	22.25	22.17	
15	16QAM	36	20	22.16	22.17	22.09	
15	16QAM	36	39	22.21	22.23	22.17	22.8
15	16QAM	75	0	22.13	22.20	22.17	
15	64QAM	1	0	22.24	22.27	22.23	
15	64QAM	1	37	22.26	22.30	22.26	22.8
15	64QAM	1	74	22.19	22.25	22.18	
15	64QAM	36	0	21.17	21.22	21.21	
15	64QAM	36	20	21.15	21.21	21.15	21.8
15	64QAM	36	39	21.12	21.19	21.14	
15	64QAM	75	0	21.12	21.20	21.15	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.03	24.11	24.04	24.8
10	QPSK	1	25	24.06	24.04	24.05	
10	QPSK	1	49	23.98	24.06	24.02	
10	QPSK	25	0	23.14	23.11	23.06	23.8
10	QPSK	25	12	23.07	23.14	23.08	
10	QPSK	25	25	23.17	23.19	23.20	
10	QPSK	50	0	23.04	23.09	23.07	23.8
10	16QAM	1	0	23.31	23.32	23.37	
10	16QAM	1	25	23.38	23.40	23.31	
10	16QAM	1	49	23.28	23.34	23.27	22.8
10	16QAM	25	0	22.09	22.18	22.16	
10	16QAM	25	12	22.09	22.16	22.02	
10	16QAM	25	25	22.15	22.15	22.09	22.8
10	16QAM	50	0	22.07	22.19	22.11	
10	64QAM	1	0	22.17	22.22	22.16	
10	64QAM	1	25	22.22	22.22	22.20	22.8
10	64QAM	1	49	22.15	22.21	22.16	
10	64QAM	25	0	21.10	21.19	21.13	
10	64QAM	25	12	21.13	21.17	21.13	21.8
10	64QAM	25	25	21.09	21.13	21.07	
10	64QAM	50	0	21.07	21.19	21.07	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.07	24.11	24.06	24.8
5	QPSK	1	12	24.03	24.04	24.09	
5	QPSK	1	24	24.04	24.04	24.00	
5	QPSK	12	0	23.08	23.15	23.12	23.8
5	QPSK	12	7	23.11	23.15	23.09	
5	QPSK	12	13	23.16	23.20	23.13	
5	QPSK	25	0	23.05	23.11	23.05	23.8
5	16QAM	1	0	23.35	23.39	23.35	
5	16QAM	1	12	23.39	23.36	23.34	
5	16QAM	1	24	23.32	23.34	23.27	22.8
5	16QAM	12	0	22.13	22.20	22.10	
5	16QAM	12	7	22.13	22.09	22.03	
5	16QAM	12	13	22.13	22.18	22.09	22.8
5	16QAM	25	0	22.05	22.18	22.16	
5	64QAM	1	0	22.17	22.24	22.22	
5	64QAM	1	12	22.22	22.27	22.24	22.8
5	64QAM	1	24	22.18	22.22	22.20	
5	64QAM	12	0	21.14	21.18	21.17	
5	64QAM	12	7	21.13	21.14	21.12	21.8
5	64QAM	12	13	21.10	21.11	21.08	
5	64QAM	25	0	21.05	21.12	21.11	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	24.09	24.09	24.02	24.8
3	QPSK	1	8	24.06	24.09	24.09	
3	QPSK	1	14	24.04	24.04	23.97	
3	QPSK	8	0	23.11	23.12	23.11	23.8
3	QPSK	8	4	23.11	23.15	23.08	
3	QPSK	8	7	23.18	23.20	23.14	
3	QPSK	15	0	23.11	23.10	23.05	23.8
3	16QAM	1	0	23.35	23.35	23.36	
3	16QAM	1	8	23.40	23.40	23.32	
3	16QAM	1	14	23.28	23.38	23.24	22.8
3	16QAM	8	0	22.14	22.21	22.15	
3	16QAM	8	4	22.12	22.16	22.02	
3	16QAM	8	7	22.15	22.19	22.13	22.8
3	16QAM	15	0	22.11	22.14	22.11	
3	64QAM	1	0	22.19	22.19	22.19	
3	64QAM	1	8	22.24	22.26	22.25	21.8
3	64QAM	1	14	22.18	22.21	22.15	
3	64QAM	8	0	21.15	21.18	21.17	
3	64QAM	8	4	21.07	21.17	21.10	21.8
3	64QAM	8	7	21.11	21.15	21.10	
3	64QAM	15	0	21.09	21.16	21.09	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.04	24.10	24.08	24.8
1.4	QPSK	1	3	24.02	24.03	24.02	
1.4	QPSK	1	5	24.01	24.02	23.95	
1.4	QPSK	3	0	23.94	24.02	23.91	
1.4	QPSK	3	1	23.98	23.93	23.96	
1.4	QPSK	3	3	24.01	24.08	24.00	



3	QPSK	15	0	22.92	23.00	22.95	23.8
3	16QAM	1	0	23.24	23.29	23.25	
3	16QAM	1	8	23.20	23.25	23.21	
3	16QAM	1	14	23.11	23.19	23.16	22.8
3	16QAM	8	0	22.01	22.06	22.01	
3	16QAM	8	4	22.02	22.01	21.95	
3	16QAM	8	7	22.02	22.04	22.02	22.8
3	16QAM	15	0	22.00	22.06	22.00	
3	64QAM	1	0	22.11	22.16	22.15	
3	64QAM	1	8	22.03	22.11	22.08	21.8
3	64QAM	1	14	22.10	22.11	22.04	
3	64QAM	8	0	21.16	21.19	21.13	
3	64QAM	8	4	21.09	21.11	21.07	21.8
3	64QAM	8	7	21.12	21.10	21.07	
3	64QAM	15	0	21.00	21.07	21.08	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	23.93	23.96	23.93	24.8
1.4	QPSK	1	3	23.85	23.87	23.79	
1.4	QPSK	1	5	23.80	23.84	23.81	
1.4	QPSK	3	0	23.95	24.02	23.94	
1.4	QPSK	3	1	23.92	23.95	23.96	
1.4	QPSK	3	3	23.94	23.97	23.96	23.8
1.4	QPSK	6	0	22.95	23.01	22.92	
1.4	16QAM	1	0	23.30	23.32	23.19	22.8
1.4	16QAM	1	3	23.14	23.25	23.21	
1.4	16QAM	1	5	23.06	23.15	23.16	
1.4	16QAM	3	0	22.90	22.95	22.89	
1.4	16QAM	3	1	22.93	22.93	22.85	
1.4	16QAM	3	3	22.97	22.97	22.92	21.8
1.4	16QAM	6	0	21.97	22.05	22.02	
1.4	64QAM	1	0	22.12	22.13	22.13	22.8
1.4	64QAM	1	3	22.05	22.17	22.12	
1.4	64QAM	1	5	22.07	22.12	22.07	
1.4	64QAM	3	0	22.03	22.10	22.00	
1.4	64QAM	3	1	21.97	22.02	21.99	
1.4	64QAM	3	3	22.02	22.01	21.99	21.8
1.4	64QAM	6	0	21.00	21.06	21.07	

1.4	QPSK	6	0	23.06	23.16	23.12	23.8
1.4	16QAM	1	0	23.32	23.32	23.36	23.8
1.4	16QAM	1	3	23.38	23.39	23.35	
1.4	16QAM	1	5	23.34	23.34	23.24	
1.4	16QAM	3	0	22.97	23.08	22.95	
1.4	16QAM	3	1	22.94	23.01	22.87	
1.4	16QAM	3	3	22.99	23.05	22.94	22.8
1.4	16QAM	6	0	22.09	22.13	22.11	
1.4	64QAM	1	0	22.22	22.24	22.17	22.8
1.4	64QAM	1	3	22.25	22.29	22.18	
1.4	64QAM	1	5	22.16	22.19	22.17	
1.4	64QAM	3	0	22.01	22.01	22.05	
1.4	64QAM	3	1	21.94	22.02	21.96	
1.4	64QAM	3	3	21.90	22.01	21.94	21.8
1.4	64QAM	6	0	21.07	21.15	21.07	



Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.79	23.90	23.81	24.6
20	QPSK	1	49	23.70	23.77	23.74	
20	QPSK	1	99	23.67	23.74	23.71	
20	QPSK	50	0	22.79	22.81	22.78	23.6
20	QPSK	50	24	22.81	22.87	22.85	
20	QPSK	50	50	22.71	22.79	22.76	
20	QPSK	100	0	22.84	22.85	22.81	23.6
20	16QAM	1	0	23.04	23.12	23.06	
20	16QAM	1	49	23.06	23.10	23.05	
20	16QAM	1	99	23.00	23.07	23.01	22.6
20	16QAM	50	0	21.84	21.85	21.80	
20	16QAM	50	24	21.75	21.81	21.74	
20	16QAM	50	50	21.81	21.85	21.82	22.6
20	16QAM	100	0	21.80	21.83	21.79	
20	64QAM	1	0	22.05	22.10	22.06	
20	64QAM	1	49	22.04	22.07	21.99	21.6
20	64QAM	1	99	22.02	22.04	21.97	
20	64QAM	50	0	20.82	20.90	20.85	
20	64QAM	50	24	20.80	20.88	20.82	21.6
20	64QAM	50	50	20.78	20.86	20.82	
20	64QAM	100	0	20.79	20.86	20.80	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.78	23.81	23.80	24.6
15	QPSK	1	37	23.62	23.76	23.72	
15	QPSK	1	74	23.60	23.66	23.68	
15	QPSK	36	0	22.73	22.76	22.72	23.6
15	QPSK	36	20	22.77	22.82	22.83	
15	QPSK	36	39	22.66	22.74	22.70	
15	QPSK	75	0	22.81	22.83	22.75	23.6
15	16QAM	1	0	23.00	23.11	23.02	
15	16QAM	1	37	23.04	23.08	23.01	
15	16QAM	1	74	22.97	23.06	22.93	22.6
15	16QAM	36	0	21.79	21.83	21.78	
15	16QAM	36	20	21.71	21.74	21.71	
15	16QAM	36	39	21.78	21.78	21.76	22.6
15	16QAM	75	0	21.74	21.77	21.74	
15	64QAM	1	0	21.98	22.09	22.00	
15	64QAM	1	37	21.98	22.00	21.97	21.6
15	64QAM	1	74	21.98	22.03	21.95	
15	64QAM	36	0	20.79	20.82	20.82	
15	64QAM	36	20	20.77	20.86	20.77	21.6
15	64QAM	36	39	20.75	20.81	20.80	
15	64QAM	75	0	20.78	20.79	20.76	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.71	23.78	23.80	24.6
10	QPSK	1	25	23.65	23.75	23.68	
10	QPSK	1	49	23.62	23.71	23.68	
10	QPSK	25	0	22.70	22.80	22.69	23.6
10	QPSK	25	12	22.79	22.86	22.79	
10	QPSK	25	25	22.69	22.71	22.69	
10	QPSK	50	0	22.80	22.77	22.74	23.6
10	16QAM	1	0	22.99	23.05	23.01	
10	16QAM	1	25	23.01	23.04	23.02	
10	16QAM	1	49	22.93	22.99	22.95	22.6
10	16QAM	25	0	21.76	21.80	21.78	
10	16QAM	25	12	21.72	21.74	21.72	
10	16QAM	25	25	21.74	21.79	21.79	22.6
10	16QAM	50	0	21.72	21.79	21.71	
10	64QAM	1	0	21.97	22.06	22.02	
10	64QAM	1	25	22.02	22.00	21.93	21.6
10	64QAM	1	49	21.98	22.00	21.96	
10	64QAM	25	0	20.78	20.84	20.84	
10	64QAM	25	12	20.79	20.80	20.78	21.6
10	64QAM	25	25	20.76	20.78	20.80	
10	64QAM	50	0	20.74	20.84	20.76	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.74	23.82	23.79	24.6
5	QPSK	1	12	23.66	23.74	23.69	
5	QPSK	1	24	23.64	23.71	23.65	
5	QPSK	12	0	22.74	22.80	22.73	23.6
5	QPSK	12	7	22.77	22.83	22.77	
5	QPSK	12	13	22.64	22.74	22.71	
5	QPSK	25	0	22.81	22.78	22.77	23.6
5	16QAM	1	0	22.97	23.05	23.00	
5	16QAM	1	12	23.05	23.03	23.02	
5	16QAM	1	24	22.93	23.01	22.99	22.6
5	16QAM	12	0	21.83	21.78	21.75	
5	16QAM	12	7	21.67	21.76	21.68	
5	16QAM	12	13	21.74	21.79	21.74	22.6
5	16QAM	25	0	21.74	21.81	21.71	
5	64QAM	1	0	22.02	22.08	22.01	
5	64QAM	1	12	21.96	22.06	21.91	21.6
5	64QAM	1	24	21.96	21.96	21.94	
5	64QAM	12	0	20.79	20.86	20.79	
5	64QAM	12	7	20.77	20.83	20.80	23.6
5	64QAM	12	13	20.75	20.82	20.76	
5	64QAM	25	0	20.78	20.83	20.73	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.77	23.80	23.75	24.6
3	QPSK	1	8	23.69	23.75	23.66	
3	QPSK	1	14	23.62	23.67	23.70	
3	QPSK	8	0	22.72	22.73	22.70	23.6
3	QPSK	8	4	22.78	22.84	22.84	
3	QPSK	8	7	22.68	22.72	22.71	

Band 71 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.13	24.19	24.14	24.8
20	QPSK	1	49	24.04	24.12	24.10	
20	QPSK	1	99	24.09	24.13	24.12	
20	QPSK	50	0	23.20	23.23	23.18	23.8
20	QPSK	50	24	23.16	23.21	23.13	
20	QPSK	50	50	23.15	23.18	23.13	
20	QPSK	100	0	23.14	23.22	23.16	23.8
20	16QAM	1	0	23.42	23.47	23.41	
20	16QAM	1	49	23.33	23.41	23.38	
20	16QAM	1	99	23.39	23.44	23.40	22.8
20	16QAM	50	0	22.22	22.26	22.23	
20	16QAM	50	24	22.17	22.24	22.21	
20	16QAM	50	50	22.16	22.23	22.18	22.8
20	16QAM	100	0	22.22	22.25	22.19	
20	64QAM	1	0	22.27	22.30	22.24	
20	64QAM	1	49	22.34	22.35	22.29	22.8
20	64QAM	1	99	22.32	22.33	22.28	
20	64QAM	50	0	21.18	21.26	21.20	
20	64QAM	50	24	21.21	21.29	21.26	21.8
20	64QAM	50	50	21.17	21.24	21.20	
20	64QAM	100	0	21.19	21.23	21.21	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.12	24.14	24.10	24.8
15	QPSK	1	37	24.01	24.08	24.05	
15	QPSK	1	74	24.07	24.06	24.08	
15	QPSK	36	0	23.20	23.20	23.17	23.8
15	QPSK	36	20	23.08	23.18	23.08	
15	QPSK	36	39	23.13	23.15	23.12	
15	QPSK	75	0	23.09	23.15	23.11	23.8
15	16QAM	1	0	23.39	23.44	23.39	
15	16QAM	1	37	23.30	23.37	23.35	
15	16QAM	1	74	23.37	23.36	23.38	22.8
15	16QAM	36	0	22.14	22.25	22.22	
15	16QAM	36	20	22.13	22.18	22.18	
15	16QAM	36	39	22.13	22.17	22.11	22.8
15	16QAM	75	0	22.15	22.18	22.14	
15	64QAM	1	0	22.19	22.29	22.17	
15	64QAM	1	37	22.29	22.34	22.22	22.8
15	64QAM	1	74	22.25	22.29	22.20	
15	64QAM	36	0	21.14	21.23	21.15	
15	64QAM	36	20	21.13	21.25	21.20	21.8
15	64QAM	36	39	21.10	21.20	21.15	
15	64QAM	75	0	21.17	21.18	21.15	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.11	24.12	24.06	24.8
10	QPSK	1	25	23.99	24.04	24.03	
10	QPSK	1	49	24.01	24.05	24.11	
10	QPSK	25	0	23.17	23.21	23.17	23.8
10	QPSK	25	12	23.11	23.19	23.07	
10	QPSK	25	25	23.12	23.11	23.08	
10	QPSK	50	0	23.10	23.20	23.13	23.8
10	16QAM	1	0	23.41	23.40	23.34	
10	16QAM	1	25	23.27	23.35	23.37	
10	16QAM	1	49	23.38	23.43	23.36	22.8
10	16QAM	25	0	22.19	22.25	22.21	
10	16QAM	25	12	22.13	22.18	22.18	
10	16QAM	25	25	22.15	22.17	22.15	22.8
10	16QAM	50	0	22.20	22.22	22.14	
10	64QAM	1	0	22.22	22.26	22.22	
10	64QAM	1	25	22.28	22.30	22.23	22.8
10	64QAM	1	49	22.29	22.29	22.22	
10	64QAM	25	0	21.12	21.19	21.18	
10	64QAM	25	12	21.18	21.27	21.19	21.8
10	64QAM	25	25	21.11	21.21	21.14	
10	64QAM	50	0	21.17	21.17	21.18	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.12	24.18	24.09	24.8
5	QPSK	1	12	24.00	24.06	24.08	
5	QPSK	1	24	24.04	24.11	24.10	
5	QPSK	12	0	23.15	23.16	23.15	23.8
5	QPSK	12	7	23.10	23.18	23.11	
5	QPSK	12	13	23.13	23.15	23.09	
5	QPSK	25	0	23.08	23.20	23.11	23.8
5	16QAM	1	0	23.41	23.39	23.35	
5	16QAM	1	12	23.31	23.38	23.31	
5	16QAM	1	24	23.32	23.37	23.35	22.8
5	16QAM	12	0	22.18	22.20	22.19	
5	16QAM	12	7	22.11	22.22	22.16	
5	16QAM	12	13	22.12	22.15	22.12	22.8
5	16QAM	25	0	22.20	22.17	22.14	
5	64QAM	1	0	22.24	22.25	22.18	
5	64QAM	1	12	22.27	22.27	22.22	22.8
5	64QAM	1	24	22.31	22.30	22.26	
5	64QAM	12	0	21.10	21.19	21.13	
5	64QAM	12	7	21.16	21.23	21.25	21.8
5	64QAM	12	13	21.12	21.17	21.13	
5	64QAM	25	0	21.11	21.18	21.15	



3	QPSK	15	0	22.83	22.83	22.75	23.6
3	16QAM	1	0	22.99	23.05	22.98	
3	16QAM	1	8	23.01	23.06	23.01	
3	16QAM	1	14	22.94	23.04	22.93	22.6
3	16QAM	8	0	21.79	21.83	21.77	
3	16QAM	8	4	21.70	21.73	21.72	
3	16QAM	8	7	21.74	21.81	21.76	22.6
3	16QAM	15	0	21.75	21.79	21.75	
3	64QAM	1	0	21.99	22.05	22.01	
3	64QAM	1	8	21.96	21.99	21.94	21.6
3	64QAM	1	14	21.96	22.00	21.91	
3	64QAM	8	0	20.76	20.82	20.80	
3	64QAM	8	4	20.73	20.80	20.79	21.6
3	64QAM	8	7	20.72	20.78	20.81	
3	64QAM	15	0	20.78	20.79	20.77	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.75	23.82	23.75	24.6
1.4	QPSK	1	3	23.63	23.76	23.73	
1.4	QPSK	1	5	23.62	23.72	23.68	
1.4	QPSK	3	0	23.64	23.70	23.64	
1.4	QPSK	3	1	23.68	23.74	23.69	
1.4	QPSK	3	3	23.59	23.67	23.64	
1.4	QPSK	6	0	22.82	22.84	22.73	23.6
1.4	16QAM	1	0	23.02	23.04	23.04	23.6
1.4	16QAM	1	3	22.98	23.04	23.01	
1.4	16QAM	1	5	22.93	23.00	22.99	
1.4	16QAM	3	0	22.69	22.70	22.63	
1.4	16QAM	3	1	22.58	22.65	22.60	
1.4	16QAM	3	3	22.66	22.74	22.65	
1.4	16QAM	6	0	21.75	21.82	21.74	22.6
1.4	64QAM	1	0	22.04	22.07	22.04	22.6
1.4	64QAM	1	3	22.03	22.05	21.95	
1.4	64QAM	1	5	21.96	21.99	21.90	
1.4	64QAM	3	0	21.70	21.76	21.74	
1.4	64QAM	3	1	21.66	21.76	21.69	
1.4	64QAM	3	3	21.62	21.73	21.71	
1.4	64QAM	6	0	20.76	20.82	20.74	21.6

**Band 38(only on channel required) (dBm)**

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	23.12	23.15	23.08	23.8
20	QPSK	1	49	23.04	23.11	23.09	
20	QPSK	1	99	23.07	23.10	23.08	
20	QPSK	50	0	22.10	22.13	22.05	22.8
20	QPSK	50	24	22.23	22.25	22.22	
20	QPSK	50	50	22.16	22.21	22.19	
20	QPSK	100	0	22.15	22.20	22.13	22.8
20	16QAM	1	0	22.31	22.36	22.32	
20	16QAM	1	49	22.32	22.35	22.27	
20	16QAM	1	99	22.35	22.36	22.30	21.8
20	16QAM	50	0	21.22	21.28	21.20	
20	16QAM	50	24	21.21	21.26	21.23	
20	16QAM	50	50	21.21	21.22	21.14	21.8
20	16QAM	100	0	21.21	21.24	21.23	
20	64QAM	1	0	21.21	21.23	21.16	
20	64QAM	1	49	21.14	21.18	21.13	21.8
20	64QAM	1	99	21.12	21.17	21.13	
20	64QAM	50	0	20.18	20.22	20.14	
20	64QAM	50	24	20.20	20.25	20.18	20.8
20	64QAM	50	50	20.25	20.28	20.23	
20	64QAM	100	0	20.20	20.21	20.14	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	23.06	23.12	23.01	
15	QPSK	1	37	23.00	23.07	23.08	23.8
15	QPSK	1	74	23.06	23.04	23.03	
15	QPSK	36	0	22.01	22.12	22.09	
15	QPSK	36	20	22.20	22.17	22.18	22.8
15	QPSK	36	39	22.09	22.16	22.15	
15	QPSK	75	0	22.11	22.12	22.11	
15	16QAM	1	0	22.29	22.34	22.27	22.8
15	16QAM	1	37	22.31	22.33	22.24	
15	16QAM	1	74	22.28	22.33	22.27	
15	16QAM	36	0	21.17	21.27	21.17	21.8
15	16QAM	36	20	21.18	21.21	21.20	
15	16QAM	36	39	21.20	21.14	21.13	
15	16QAM	75	0	21.18	21.22	21.18	21.8
15	64QAM	1	0	21.18	21.17	21.13	
15	64QAM	1	37	21.13	21.13	21.07	
15	64QAM	1	74	21.08	21.13	21.09	20.8
15	64QAM	36	0	20.14	20.14	20.11	
15	64QAM	36	20	20.19	20.18	20.15	
15	64QAM	36	39	20.17	20.26	20.16	20.8
15	64QAM	75	0	20.16	20.13	20.06	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	23.07	23.10	23.00	
10	QPSK	1	25	22.97	23.03	23.08	23.8
10	QPSK	1	49	23.04	23.08	23.05	
10	QPSK	25	0	22.08	22.09	22.05	
10	QPSK	25	12	22.17	22.17	22.18	22.8
10	QPSK	25	25	22.12	22.16	22.18	
10	QPSK	50	0	22.14	22.14	22.09	
10	16QAM	1	0	22.24	22.30	22.27	22.8
10	16QAM	1	25	22.31	22.31	22.24	
10	16QAM	1	49	22.28	22.29	22.22	
10	16QAM	25	0	21.16	21.22	21.18	21.8
10	16QAM	25	12	21.16	21.22	21.19	
10	16QAM	25	25	21.18	21.18	21.12	
10	16QAM	50	0	21.13	21.20	21.20	21.8
10	64QAM	1	0	21.16	21.18	21.10	
10	64QAM	1	25	21.13	21.10	21.09	
10	64QAM	1	49	21.07	21.16	21.05	20.8
10	64QAM	25	0	20.12	20.20	20.07	
10	64QAM	25	12	20.19	20.23	20.15	



10	64QAM	25	25	20.21	20.21	20.22	20.0
10	64QAM	50	0	20.19	20.15	20.11	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	23.08	23.13	23.05	23.8
5	QPSK	1	12	22.98	23.05	23.02	
5	QPSK	1	24	23.02	23.02	23.07	
5	QPSK	12	0	22.02	22.05	22.07	22.8
5	QPSK	12	7	22.22	22.22	22.18	
5	QPSK	12	13	22.08	22.15	22.18	
5	QPSK	25	0	22.09	22.19	22.11	
5	16QAM	1	0	22.24	22.31	22.26	22.8
5	16QAM	1	12	22.31	22.31	22.25	
5	16QAM	1	24	22.32	22.31	22.27	
5	16QAM	12	0	21.18	21.26	21.14	21.8
5	16QAM	12	7	21.19	21.18	21.17	
5	16QAM	12	13	21.13	21.17	21.06	
5	16QAM	25	0	21.20	21.21	21.15	
5	64QAM	1	0	21.19	21.18	21.08	21.8
5	64QAM	1	12	21.08	21.12	21.09	
5	64QAM	1	24	21.06	21.10	21.07	
5	64QAM	12	0	20.16	20.20	20.10	20.8
5	64QAM	12	7	20.16	20.19	20.14	
5	64QAM	12	13	20.24	20.22	20.21	
5	64QAM	25	0	20.16	20.20	20.11	



Band 41 (2496~2690MHz) (dBm)-PC2										
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39750	40165	40620	41055	41690		
Frequency (MHz)				2503.5	2549.3	2593	2638.5	2693		
20	QPSK	1	0	25.35	25.33	25.64	25.80	25.56	26.4	
20	QPSK	1	49	25.21	25.28	25.58	25.57	25.53		
20	QPSK	1	99	25.28	25.28	25.62	25.58	25.56		
20	QPSK	50	0	24.43	24.39	24.65	24.58	24.51		
20	QPSK	50	24	24.40	24.32	24.62	24.50	24.47	25.4	
20	QPSK	50	50	24.30	24.37	24.58	24.47	24.50		
20	QPSK	100	0	24.37	24.36	24.55	24.56	24.49		
20	16QAM	1	0	24.56	24.62	24.93	24.90	24.91		
20	16QAM	1	49	24.53	24.53	24.90	24.82	24.89	25.4	
20	16QAM	1	99	24.52	24.54	24.86	24.85	24.91		
20	16QAM	50	0	23.48	23.49	23.83	23.81	23.75		
20	16QAM	50	24	23.41	23.43	23.78	23.74	23.75		
20	16QAM	50	50	23.45	23.45	23.81	23.74	23.78	24.4	
20	16QAM	100	0	23.40	23.44	23.77	23.72	23.71		
20	64QAM	1	0	23.38	23.40	23.72	23.64	23.64		
20	64QAM	1	49	23.35	23.34	23.71	23.64	23.67		
20	64QAM	1	99	23.40	23.40	23.76	23.71	23.71	24.4	
20	64QAM	50	0	22.44	22.46	22.78	22.76	22.73		
20	64QAM	50	24	22.44	22.45	22.76	22.68	22.70		
20	64QAM	50	50	22.40	22.43	22.80	22.74	22.79		
20	64QAM	100	0	22.40	22.41	22.78	22.77	22.74	23.4	
Channel				39725	40173	40620	41068	41615	Tune-up limit (dBm)	
Frequency (MHz)				2503.5	2549.3	2593	2637.8	2692.5		
15	QPSK	1	0	25.33	25.26	25.58	25.57	25.57	26.4	
15	QPSK	1	37	25.14	25.22	25.53	25.52	25.52		
15	QPSK	1	74	25.26	25.24	25.58	25.56	25.48		
15	QPSK	36	0	24.39	24.36	24.72	24.62	24.70		
15	QPSK	36	20	24.34	24.35	24.68	24.62	24.59	25.4	
15	QPSK	36	39	24.28	24.36	24.63	24.64	24.80		
15	QPSK	75	0	24.29	24.33	24.72	24.62	24.65		
15	16QAM	1	0	24.54	24.59	24.85	24.83	24.88		
15	16QAM	1	37	24.51	24.45	24.83	24.78	24.91	25.4	
15	16QAM	1	74	24.50	24.48	24.82	24.82	24.75		
15	16QAM	36	0	23.40	23.46	23.81	23.77	23.68		
15	16QAM	36	20	23.36	23.37	23.71	23.70	23.72		
15	16QAM	36	39	23.44	23.38	23.79	23.67	23.70	24.4	
15	16QAM	75	0	23.34	23.37	23.76	23.64	23.67		
15	64QAM	1	0	23.35	23.38	23.68	23.56	23.63		
15	64QAM	1	37	23.29	23.29	23.66	23.60	23.62		
15	64QAM	1	74	23.39	23.38	23.72	23.65	23.65	23.4	
15	64QAM	36	0	22.42	22.45	22.76	22.72	22.72		
15	64QAM	36	20	22.40	22.43	22.74	22.62	22.67		
15	64QAM	36	39	22.43	22.39	22.72	22.67	22.72		
15	64QAM	75	0	22.35	22.38	22.74	22.76	22.69	Tune-up limit (dBm)	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	25.26	25.32	25.57	25.55	25.56	26.4	
10	QPSK	1	25	25.17	25.26	25.57	25.50	25.48		
10	QPSK	1	49	25.27	25.22	25.54	25.57	25.52		
10	QPSK	25	0	24.35	24.32	24.71	24.63	24.70		
10	QPSK	25	12	24.37	24.37	24.66	24.63	24.64	25.4	
10	QPSK	25	25	24.26	24.31	24.67	24.63	24.64		
10	QPSK	50	0	24.35	24.35	24.66	24.60	24.66		
10	16QAM	1	0	24.49	24.59	24.87	24.89	24.84		
10	16QAM	1	25	24.47	24.47	24.86	24.79	24.88	25.4	
10	16QAM	1	49	24.48	24.52	24.87	24.78	24.80		
10	16QAM	25	0	23.43	23.42	23.81	23.74	23.72		
10	16QAM	25	12	23.40	23.40	23.71	23.71	23.72		
10	16QAM	25	25	23.40	23.39	23.74	23.68	23.71	24.4	
10	16QAM	50	0	23.32	23.41	23.71	23.70	23.65		
10	64QAM	1	0	23.31	23.37	23.68	23.56	23.61		
10	64QAM	1	25	23.32	23.28	23.69	23.63	23.62		
10	64QAM	1	49	23.38	23.33	23.75	23.67	23.67	23.4	
10	64QAM	25	0	22.39	22.39	22.72	22.68	22.68		
10	64QAM	25	12	22.43	22.40	22.69	22.64	22.65		
10	64QAM	25	25	22.45	22.35	22.77	22.70	22.77		
10	64QAM	50	0	22.35	22.38	22.76	22.71	22.71	Tune-up limit (dBm)	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	25.33	25.28	25.58	25.56	25.51	26.4	
5	QPSK	1	12	25.16	25.27	25.54	25.54	25.47		
5	QPSK	1	24	25.22	25.21	25.57	25.52	25.54		
5	QPSK	12	0	24.41	24.34	24.74	24.65	24.65		
5	QPSK	12	7	24.39	24.31	24.71	24.69	24.65	25.4	
5	QPSK	12	13	24.29	24.30	24.64	24.62	24.60		
5	QPSK	25	0	24.20	24.34	24.72	24.61	24.68		
5	16QAM	1	0	24.54	24.60	24.85	24.86	24.87		
5	16QAM	1	12	24.50	24.47	24.89	24.74	24.84	25.4	
5	16QAM	1	24	24.44	24.49	24.82	24.82	24.80		
5	16QAM	12	0	23.47	23.41	23.81	23.73	23.70		
5	16QAM	12	7	23.36	23.40	23.75	23.73	23.72		
5	16QAM	12	13	23.44	23.42	23.76	23.67	23.75	24.4	
5	16QAM	25	0	23.36	23.40	23.69	23.67	23.64		
5	64QAM	1	0	23.34	23.37	23.69	23.61	23.60		
5	64QAM	1	12	23.31	23.31	23.64	23.61	23.60		
5	64QAM	1	24	23.34	23.35	23.75	23.64	23.70	23.4	
5	64QAM	12	0	22.37	22.38	22.73	22.68	22.68		
5	64QAM	12	7	22.36	22.37	22.73	22.63	22.63		
5	64QAM	12	13	22.48	22.41	22.76	22.70	22.72		
5	64QAM	25	0	22.39	22.38	22.70	22.70	22.70		

Band 41 (2496~2690MHz) (dBm)-PC3										
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	22.79	22.70	23.16	23.14	23.11	23.8	
20	QPSK	1	49	22.69	22.67	23.14	23.09	23.09		
20	QPSK	1	99	22.69	22.65	23.12	23.08	23.07		
20	QPSK	50	0	21.70	21.76	22.16	22.16	22.13		
20	QPSK	50	24	21.72	21.72	22.17	22.13	22.11	22.8	
20	QPSK	50	50	21.73	21.74	22.15	22.07	22.13		
20	QPSK	100	0	21.71	21.73	22.18	22.17	22.12		
20	16QAM	1	0	21.64	21.58	22.05	22.04	22.01		
20	16QAM	1	49	21.57	21.80	22.04	21.97	21.96	22.8	
20	16QAM	1	99	21.70	21.70	22.14	22.12	22.13		
20	16QAM	50	0	20.65	20.65	21.12	21.09	21.09		
20	16QAM	50	24	20.75	20.72	21.20	21.12	21.17		
20	16QAM	50	50	20.76	20.76	21.18	21.17	21.17	21.8	
20	16QAM	100	0	20.70	20.68	21.14	21.06	21.08		
20	64QAM	1	0	20.44	20.47	20.82	20.89	20.91		
20	64QAM	1	49	20.41	20.45	20.88	20.81	20.81		
20	64QAM	1	99	20.49	20.55	20.96	20.89	20.94	21.8	
20	64QAM	50	0	19.79	19.79	20.20	20.12	20.15		
20	64QAM	50	24	19.86	19.83	20.27	20.19	20.21		
20	64QAM	50	50	19.78	19.80	20.24	20.17	20.23		
20	64QAM	100	0	19.76	19.76	20.22	20.21	20.17	20.8	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	22.75	22.64	23.09	23.13	23.05	23.8	
15	QPSK	1	37	22.64	22.61	23.11	23.08	23.07		
15	QPSK	1	74	22.65	22.63	23.10	23.04	23.06		
15	QPSK	36	0	21.64	21.72	22.15	22.09	22.11		
15	QPSK	36	20	21.70	21.70	22.13	22.13	22.05	22.8	
15	QPSK	36	39	21.69	21.66	22.13	22.05	22.07		
15	QPSK	75	0	21.64	21.66	22.11	22.10	22.05		
15	16QAM	1	0	21.63	21.52	22.02	22.01	22.00		
15	16QAM	1	37	21.51	21.53	22.01	21.99	21.89	22.8	
15	16QAM	1	74	21.68	21.63	22.08	22.07	22.06		
15	16QAM	36	0	20.59	20.63	21.07	21.08	21.08		
15	16QAM	36	20	20.67	20.68	21.19	21.06	21.12		
15	16QAM	36	39	20.69	20.72	21.14	21.14	21.10	21.8	
15	16QAM	75	0	20.65	20.66	21.09	21.05	21.03		
15	64QAM	1	0	20.41	20.44	20.87	20.83	20.89		
15	64QAM	1	37	20.34	20.34	20.87	20.86	20.77		
15	64QAM	1	74	20.43	20.48	20.94	20.86	20.87	21.8	
15	64QAM	36	0	19.74	19.75	20.13	20.11	20.14		
15	64QAM	36	20	19.79	19.77	20.24	20.18	20.16		
15	64QAM	36	39	19.75	19.79	20.17	20.14	20.15		
15	64QAM	75	0	19.75	19.74	20.19	20.14	20.14	20.8	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	22.76	22.63	23.14	23.09	23.03	23.8	
10	QPSK	1	25	22.66	22.63	23.06	23.04	23.04		
10	QPSK	1	49	22.61	22.61	23.11	23.05	23.06		
10	QPSK	25	0	21.66	21.71	22.17	22.15	22.11		
10	QPSK	25	12	21.64	21.67	22.15	22.12	22.07	22.8	
10	QPSK	25	25	21.68	21.68	22.08	22.00	22.09		
10	QPSK	50	0	21.67	21.70	22.10	22.15	22.08		
10	16QAM	1	0	21.56	21.53	22.07	21.99	21.96		
10	16QAM	1	25	21.49	21.56	21.87	21.94	21.93	22.8	
10	16QAM	1	49	21.67	21.65	22.12	22.05	22.10		
10	16QAM	25	0	20.59	20.62	21.09	21.03	21.05		
10	16QAM	25	12	20.72	20.64	21.16	21.05	21.13		
10	16QAM	25	25	20.68	20.75	21.33	21.09	21.10	21.8	
10	16QAM	50	0	20.64	20.64	21.10	21.00	21.00		
10	64QAM	1	0	20.41	20.42	20.85	20.83	20.84		
10	64QAM	1	25	20.33	20.39	20.84	20.73	20.77		
10	64QAM	1	49	20.44	20.47	20.84	20.82	20.86	21.8	
10	64QAM	25	0	19.78	19.73	20.19	20.10	20.10		
10	64QAM	25	12	19.78	19.78	20.22	20.11	20.20		
10	64QAM	25	25	19.76	19.73	20.16	20.12	20.22		
10	64QAM	50	0	19.74	19.76	20.18	20.14	20.15	20.8	
Channel				39675	40148	40620	41093	41592	Tune-up limit (dBm)	
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	22.71	22.62	23.15	23.07	23.04	23.8	
5	QPSK	1	12	22.67	22.62	23.08	23.01	23.01		
5	QPSK	1	24	22.64	22.61	23.05	22.98	23.02		
5	QPSK	12	0	21.67	21.75	22.17	22.14	22.10		
5	QPSK	12	7	21.67	21.66	22.13	22.10	22.03	22.8	
5	QPSK	12	13	21.66	21.69	22.10	22.01	22.06		
5	QPSK	25	0	21.67	21.70	22.11	22.13	22.07		
5	16QAM	1	0	21.58	21.50	22.02	22.02	21.97		
5	16QAM	1	12	21.56	21.58	22.00	21.91	21.89	22.8	
5	16QAM	1	24	21.69	21.68	22.13	22.10	22.05		
5	16QAM	12	0	20.60	20.57	21.09	21.01	21.03		
5	16QAM	12	7	20.69	20.64	21.18	21.05	21.12		
5	16QAM	12	13	20.71	20.71	21.17	21.13	21.14	21.8	
5	16QAM	25	0	20.65	20.63	21.09	21.00	21.07		
5	64QAM	1	0	20.43	20.39	20.87	20.84	20.85		
5	64QAM	1	12	20.34	20.38	20.85	20.76	20.75		
5	64QAM	1	24	20.42	20.49	20.94	20.84	20.90	21.8	
5	64QAM	12	0	19.78	19.76	20.15	20.07	20.10		
5	64QAM	12	7	19.81	19.76	20.26	20.18	20.15		
5	64QAM	12	13	19.73	19.73	20.23	20.14	20.16		
5	64QAM	25	0	19.89	19.71	20.17	20.13	20.09	20.8	



Band 48 (3.5G Band) (dBm)									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Middle-Low Channel	Middle-Low Channel	Middle-High Channel	High Channel	Tune-up limit (dBm)
Channel				55340	55630	55990	56160	56640	Tune-up limit (dBm)
Frequency (MHz)				3655	3660	3625	3641	3652.5	
20	QPSK	1	0	23.25	23.17	23.31	23.24	23.28	23.8
20	QPSK	1	49	23.24	23.16	23.29	23.22	23.22	
20	QPSK	1	99	23.21	23.12	23.25	23.21	23.20	22.8
20	QPSK	50	0	22.24	22.17	22.28	22.23	22.27	
20	QPSK	50	24	22.17	22.13	22.25	22.17	22.23	22.8
20	QPSK	50	50	22.17	22.14	22.24	22.20	22.21	
20	QPSK	100	0	22.14	22.05	22.19	22.14	22.15	21.8
20	16QAM	1	0	22.10	22.01	22.18	22.10	22.12	
20	16QAM	1	49	22.12	22.02	22.17	22.11	22.16	21.8
20	16QAM	1	99	22.06	22.02	22.14	22.07	22.10	
20	16QAM	50	0	21.17	21.10	21.20	21.15	21.14	21.8
20	16QAM	50	24	21.11	21.05	21.16	21.14	21.15	
20	16QAM	50	50	21.09	21.02	21.17	21.15	21.13	21.8
20	16QAM	100	0	21.15	21.00	21.17	21.10	21.12	
20	64QAM	1	0	21.00	20.90	21.04	20.98	20.99	21.8
20	64QAM	1	49	20.95	20.87	21.02	20.99	20.96	
20	64QAM	1	99	20.97	20.88	21.03	21.01	20.98	20.8
20	64QAM	50	0	20.14	20.06	20.21	20.18	20.13	
20	64QAM	50	24	20.16	20.10	20.20	20.13	20.13	20.8
20	64QAM	50	50	20.15	20.08	20.18	20.12	20.14	
20	64QAM	100	0	20.12	20.05	20.15	20.13	20.07	Tune-up limit (dBm)
Channel				56315	56620	56990	56160	56665	
Frequency (MHz)				3657.5	3668	3625	3642	3652.5	Tune-up limit (dBm)
15	QPSK	1	0	23.21	23.13	23.27	23.19	23.22	
15	QPSK	1	37	23.23	23.11	23.26	23.17	23.20	23.8
15	QPSK	1	74	23.16	23.11	23.20	23.20	23.16	
15	QPSK	36	0	22.20	22.14	22.22	22.22	22.19	22.8
15	QPSK	36	20	22.11	22.05	22.20	22.13	22.21	
15	QPSK	36	39	22.09	22.07	22.18	22.16	22.15	22.8
15	QPSK	75	0	22.12	22.02	22.15	22.09	22.14	
15	16QAM	1	0	22.04	21.93	22.15	22.04	22.06	22.8
15	16QAM	1	37	22.06	21.95	22.11	22.09	22.13	
15	16QAM	1	74	22.01	22.00	22.07	22.06	22.03	21.8
15	16QAM	36	0	21.13	21.02	21.16	21.11	21.08	
15	16QAM	36	20	21.04	21.02	21.10	21.13	21.11	21.8
15	16QAM	36	39	21.06	20.96	21.14	21.11	21.10	
15	16QAM	75	0	21.11	20.97	21.12	21.09	21.11	21.8
15	64QAM	1	0	20.96	20.82	21.03	20.92	20.98	
15	64QAM	1	37	20.91	20.79	20.98	20.97	20.94	20.8
15	64QAM	1	74	20.90	20.81	21.00	20.96	20.95	
15	64QAM	36	0	20.09	20.05	20.15	20.16	20.06	20.8
15	64QAM	36	20	20.15	20.06	20.13	20.05	20.06	
15	64QAM	36	39	20.14	20.04	20.11	20.07	20.07	20.8
15	64QAM	75	0	20.10	19.97	20.11	20.12	19.99	
Channel				56290	56815	56990	56165	56660	Tune-up limit (dBm)
Frequency (MHz)				3655	3607.5	3625	3642.5	3655	
10	QPSK	1	0	23.19	23.09	23.24	23.20	23.26	23.8
10	QPSK	1	25	23.17	23.14	23.24	23.15	23.19	
10	QPSK	1	49	23.17	23.07	23.24	23.18	23.16	22.8
10	QPSK	25	0	22.19	22.14	22.23	22.15	22.22	
10	QPSK	25	12	22.16	22.07	22.21	22.15	22.16	22.8
10	QPSK	25	25	22.12	22.10	22.20	22.17	22.18	
10	QPSK	50	0	22.13	22.03	22.15	22.06	22.07	22.8
10	16QAM	1	0	22.07	21.94	22.17	22.04	22.06	
10	16QAM	1	25	22.04	21.97	22.11	22.06	22.11	21.8
10	16QAM	1	49	22.01	21.95	22.12	22.03	22.07	
10	16QAM	25	0	21.16	21.03	21.13	21.13	21.11	21.8
10	16QAM	25	12	21.06	21.01	21.15	21.12	21.14	
10	16QAM	25	25	21.08	20.94	21.10	21.13	21.12	21.8
10	16QAM	50	0	21.09	20.97	21.16	21.03	21.04	
10	64QAM	1	0	20.95	20.87	20.96	20.95	20.98	21.8
10	64QAM	1	25	20.87	20.86	20.95	20.94	20.88	
10	64QAM	1	49	20.90	20.84	20.96	21.00	20.94	20.8
10	64QAM	25	0	20.11	20.04	20.20	20.16	20.10	
10	64QAM	25	12	20.08	20.02	20.13	20.06	20.07	20.8
10	64QAM	25	25	20.14	20.02	20.14	20.08	20.07	
10	64QAM	50	0	20.11	19.97	20.12	20.11	20.05	Tune-up limit (dBm)
Channel				56265	56810	56990	56170	56175	
Frequency (MHz)				3652.5	3607	3625	3643	3607.5	Tune-up limit (dBm)
5	QPSK	1	0	23.19	23.12	23.25	23.23	23.21	
5	QPSK	1	12	23.16	23.12	23.23	23.19	23.17	23.8
5	QPSK	1	24	23.20	23.04	23.18	23.14	23.19	
5	QPSK	12	0	22.23	22.14	22.24	22.21	22.26	22.8
5	QPSK	12	7	22.13	22.08	22.19	22.09	22.16	
5	QPSK	12	13	22.10	22.06	22.22	22.12	22.16	22.8
5	QPSK	25	0	22.06	22.01	22.11	22.11	22.07	
5	16QAM	1	0	22.08	21.93	22.17	22.09	22.04	22.8
5	16QAM	1	12	22.09	21.94	22.15	22.05	22.11	
5	16QAM	1	24	21.98	21.94	22.12	22.06	22.07	21.8
5	16QAM	12	0	21.16	21.03	21.14	21.13	21.12	
5	16QAM	12	7	21.09	21.01	21.15	21.08	21.09	21.8
5	16QAM	12	13	21.01	20.95	21.15	21.06	21.11	
5	16QAM	25	0	21.09	20.99	21.15	21.09	21.04	21.8
5	64QAM	1	0	20.99	20.83	20.97	20.90	20.98	
5	64QAM	1	12	20.90	20.85	20.98	20.96	20.94	20.8
5	64QAM	1	24	20.90	20.81	21.00	20.99	20.94	
5	64QAM	12	0	20.13	20.03	20.16	20.17	20.12	20.8
5	64QAM	12	7	20.11	20.07	20.13	20.11	20.07	
5	64QAM	12	13	20.11	20.04	20.10	20.05	20.07	20.8
5	64QAM	25	0	20.05	19.98	20.07	20.08	19.99	



n2 (1850 ~ 1910MHz)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1850	1890	1900	
20	DFT-s-OFDM P1/2 BPSK	1	1	23.77	23.69	23.81	25.2
20		1	53	23.86	23.92	23.82	
20		1	104	23.61	23.74	23.76	
20		50	1	22.98	23.04	23.20	
20		50	25	23.25	23.05	23.16	24.2
20		50	50	22.68	22.79	22.67	
20		100	0	23.20	23.10	23.21	
20		1	1	23.96	24.02	23.99	
20		1	53	23.91	23.97	23.93	25.2
20		1	104	23.84	23.87	23.80	
20	DFT-s-OFDM QPSK	50	1	23.50	23.59	23.55	
20		50	25	23.35	23.37	23.51	
20		50	50	23.12	23.39	23.40	24.2
20		100	0	23.29	23.09	23.10	
20	DFT-s-OFDM 16QAM	1	1	23.67	23.59	23.76	24.2
20	DFT-s-OFDM 64QAM	1	1	22.19	22.25	22.30	23.2
20	DFT-s-OFDM 256QAM	1	1	19.80	19.63	19.82	20.7
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	23.96	23.85	23.87	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1890	1905	
10	DFT-s-OFDM QPSK	1	1	24.00	23.97	23.86	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1890	1907.5	
5	DFT-s-OFDM QPSK	1	1	23.95	23.92	23.94	25.2
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	CP-OFDM QPSK	1	1	23.04	22.73	22.86	23.7
20	CP-OFDM 16QAM	1	1	22.68	22.57	22.65	23.7
20	CP-OFDM	1	1	21.55	21.34	21.52	22.7
20	CP-OFDM 256QAM	1	1	17.73	17.83	17.84	18.7

n5 (824 ~ 849 MHz)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				165500	167300	167500	Tune-up limit (dBm)
Frequency (MHz)				824	836.5	839	
20	DFT-s-OFDM P1/2 BPSK	1	1	23.88	23.98	23.91	25.2
20		1	53	23.95	24.02	24.01	
20		1	104	24.00	24.02	23.92	
20		50	1	23.43	23.49	23.49	
20		50	25	23.48	23.52	23.48	24.2
20		50	50	23.47	23.51	23.43	
20		100	0	23.45	23.48	23.48	
20		1	1	24.02	24.05	23.92	
20		1	53	24.01	24.03	23.97	25.2
20		1	104	23.95	23.98	23.91	
20	DFT-s-OFDM QPSK	50	1	23.41	23.52	23.44	
20		50	25	23.45	23.49	23.45	
20		50	50	23.47	23.49	23.52	24.2
20		100	0	23.44	23.54	23.50	
20	DFT-s-OFDM 16QAM	1	1	23.48	23.44	23.54	24.2
20	DFT-s-OFDM 64QAM	1	1	22.25	22.25	21.97	23.2
20	DFT-s-OFDM 256QAM	1	1	19.58	19.52	19.63	20.7
Channel				165300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	DFT-s-OFDM QPSK	1	1	23.94	24.01	23.87	25.2
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	DFT-s-OFDM QPSK	1	1	23.85	23.90	23.82	25.2
Channel				165300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	DFT-s-OFDM QPSK	1	1	23.86	23.96	23.94	25.2
Channel				166800	167300	167800	Tune-up limit (dBm)
Frequency (MHz)				834	836.5	839	
20	CP-OFDM QPSK	1	1	22.85	23.05	23.03	23.7
20	CP-OFDM 16QAM	1	1	22.45	22.56	22.52	23.2
20	CP-OFDM	1	1	21.38	21.44	21.40	22.2
20	CP-OFDM 256QAM	1	1	17.55	17.58	17.65	18.2



n12 (699 ~ 716 MHz)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				141300	141500	141700	Tune-up limit (dBm)
Frequency (MHz)				706.5	707.5	708.5	
18	DFT-s-OFDM P12 BPSK	1	1	23.96	23.98	23.93	25.2
18		1	39	23.88	23.90	23.86	
15		1	77	23.83	23.87	23.85	
15		36	1	23.43	23.44	23.40	
15		36	18	23.41	23.42	23.35	24.2
15		36	36	23.35	23.38	23.29	
15		75	0	23.34	23.40	23.35	
15		1	1	24.00	24.04	24.01	
15		1	39	23.97	23.99	23.91	25.2
15		1	77	23.95	24.01	23.98	
15	DFT-s-OFDM QPSK	36	1	23.39	23.45	23.40	
15		36	18	23.38	23.40	23.36	
15		36	36	23.24	23.36	23.25	24.2
15		75	0	23.39	23.41	23.40	
15	DFT-s-OFDM 16QAM	1	1	23.55	23.56	23.52	24.2
15	DFT-s-OFDM 64QAM	1	1	22.06	22.05	22.04	23.2
15	DFT-s-OFDM 256QAM	1	1	19.71	19.71	19.63	20.7
Channel				140900	141500	142200	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	DFT-s-OFDM QPSK	1	1	23.85	23.91	23.82	25.2
Channel				140300	141500	142700	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	DFT-s-OFDM QPSK	1	1	23.90	23.95	23.89	25.2
Channel				141300	141500	141700	Tune-up limit (dBm)
Frequency (MHz)				706.5	707.5	708.5	
15	CP-OFDM QPSK	1	1	22.94	23.02	22.83	23.7
15	CP-OFDM 16QAM	1	1	22.41	22.55	22.52	23.2
15	CP-OFDM 64QAM	1	1	20.96	21.34	21.28	21.7
15	CP-OFDM 256QAM	1	1	17.73	17.71	17.78	18.7

n25							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	DFT-s-OFDM P12 BPSK	1	1	23.99	24.05	24.02	25.2
40		1	53	23.91	24.00	24.01	
40		1	105	23.95	24.04	23.97	
40		50	1	23.15	23.07	23.21	
40		50	25	23.11	23.08	23.26	24.2
40		50	50	23.04	23.09	23.31	
40		100	0	23.13	23.06	23.28	
40		1	1	24.06	24.07	24.03	
40		1	53	23.69	24.01	24.00	25.2
40		1	105	23.98	24.04	24.01	
40	DFT-s-OFDM QPSK	50	1	23.15	23.20	23.17	
40		50	25	23.12	23.16	23.12	24.2
40		50	50	23.07	23.12	23.10	
40		100	0	23.11	23.12	23.08	
40	DFT-s-OFDM 16QAM	1	1	23.24	23.45	23.25	24.2
40	DFT-s-OFDM 64QAM	1	1	21.88	21.93	21.89	23.2
40	DFT-s-OFDM 256QAM	1	1	19.46	19.50	19.44	20.7
Channel				373000	376500	380000	Tune-up limit (dBm)
Frequency (MHz)				1865	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	23.95	24.01	23.73	25.2
Channel				372000	376500	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	24.01	24.02	24.00	25.2
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	23.83	23.97	23.79	25.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	23.82	23.96	23.95	25.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	23.82	23.85	23.77	25.2
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	22.58	22.70	22.74	23.7
40	CP-OFDM 16QAM	1	1	22.28	22.16	22.27	22.7
40	CP-OFDM 64QAM	1	1	20.66	20.92	20.78	21.7
40	CP-OFDM 256QAM	1	1	17.45	17.40	17.46	18.2



n66 (1710 ~ 1780 MHz)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
40	DFT-s-OFDM P12 BPSK	1	1	24.11	24.18	24.91	25.2
40		1	53	24.10	24.15	24.14	
40		1	104	24.07	24.10	24.05	
40		53	1	23.16	23.41	23.35	
40		53	26	23.35	23.48	23.28	24.2
40		53	52	23.34	23.48	23.29	
40		106	0	23.33	23.41	23.35	
40		1	1	24.21	24.27	24.24	
40		1	53	24.19	24.22	24.21	25.2
40		1	104	24.21	24.26	24.17	
40	DFT-s-OFDM QPSK	53	1	23.34	23.49	23.46	
40		53	26	23.43	23.52	23.44	
40		53	52	23.45	23.48	23.45	24.2
40		106	0	22.97	23.29	23.25	
40	DFT-s-OFDM 16QAM	1	1	23.23	23.27	23.29	24.2
40	DFT-s-OFDM 64QAM	1	1	21.96	22.00	21.97	23.2
40	DFT-s-OFDM 256QAM	1	1	19.43	19.59	19.51	20.7
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	24.26	24.15	24.18	25.2
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	24.11	24.19	24.05	25.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	24.03	24.24	23.96	25.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	24.19	24.02	23.97	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	23.33	23.25	23.47	25.2
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1760	
40	CP-OFDM QPSK	1	1	22.76	22.74	22.63	23.7
40	CP-OFDM 16QAM	1	1	22.25	22.29	21.99	22.7
40	CP-OFDM 64QAM	1	1	20.95	20.88	20.78	21.7
40	CP-OFDM 256QAM	1	1	17.47	17.55	17.62	18.2

n71 (663 ~ 698 MHz)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	DFT-s-OFDM P12 BPSK	1	1	24.19	24.25	24.22	25.2
20		1	53	24.10	24.11	24.07	
20		1	104	24.11	23.93	23.89	
20		50	1	23.31	23.54	23.40	
20		50	25	23.61	23.43	23.36	24.2
20		50	50	23.52	23.32	23.27	
20		100	0	23.63	23.47	23.10	
20		1	1	24.25	24.28	24.22	
20		1	53	24.13	24.24	24.16	25.2
20		1	104	23.85	24.06	23.97	
20	DFT-s-OFDM QPSK	50	1	23.56	23.60	23.52	
20		50	25	23.59	23.47	23.37	
20		50	50	23.51	23.58	23.27	24.2
20		100	0	23.53	23.55	23.40	
20	DFT-s-OFDM 16QAM	1	1	23.92	23.53	23.65	24.2
20	DFT-s-OFDM 64QAM	1	1	22.34	22.27	22.18	23.2
20	DFT-s-OFDM 256QAM	1	1	19.73	19.77	19.77	20.7
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	DFT-s-OFDM QPSK	1	1	23.97	24.02	23.94	25.2
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	DFT-s-OFDM QPSK	1	1	23.89	23.99	23.88	25.2
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	DFT-s-OFDM QPSK	1	1	23.75	23.88	23.76	25.2
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	CP-OFDM QPSK	1	1	23.34	23.05	23.13	23.7
20	CP-OFDM 16QAM	1	1	22.82	22.65	22.62	23.2
20	CP-OFDM 64QAM	1	1	21.58	21.57	21.41	22.2
20	CP-OFDM 256QAM	1	1	17.84	17.96	17.81	18.7



n41 (2496 ~ 2690MHz) (PC2)													
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low-Middle Channel	Middle Channel	Middle-High Channel	High Channel		Tune-up limit (dBm)			
Channel				806000	818000	818088	822096	826000					
Frequency (MHz)				2446.01	2566.50	2566.99	2616.50	2646.50					
100	DFT-s-OFDM PUSCH	1	1	25.52	25.09	25.13	25.53	25.50	26.8				
100		1	136	25.48	25.50	25.72	25.60	25.63					
100		1	272	25.45	25.52	25.68	25.51	25.58					
100		136	1	25.09	25.16	25.22	25.10	25.09					
100		136	87	25.20	25.17	25.20	25.04	25.13					
100		136	136	25.28	25.37	25.31	25.31	25.24					
100		270	0	25.22	25.30	25.28	25.14	25.22					
100		1	1	25.75	25.66	25.90	25.68	25.63					
100		1	136	25.58	25.91	25.78	25.62	25.60					
100		1	272	25.68	25.85	25.76	25.85	25.73					
100	DFT-s-OFDM PUSCH	136	1	24.86	25.14	25.24	25.10	25.12	26.8				
100		136	87	24.97	25.21	25.19	25.04	25.05					
100		136	136	24.83	24.87	24.77	24.81	24.73					
100		270	0	24.73	24.82	24.76	24.67	24.71					
100		1	1	24.87	25.01	25.02	25.09	25.10					
100		DFT-s-OFDM PUSCH	1	1	23.39	23.59	23.66	23.63			23.60	24.3	
100		DFT-s-OFDM PUSCH	1	1	21.22	21.32	21.33	21.43			21.43	22.3	
Channel				806000	818000	818088	822096	826000					
Frequency (MHz)				2541	2586.995	2582.99	2618.985	2644.98					
90	DFT-s-OFDM PUSCH	1	1	25.25	25.54	25.6	25.6	25.87	26.8				
Channel				807004	819004	818988	824096	828000					
Frequency (MHz)				2536.02	2584.51	2582.99	2621.46	2649.99					
80	DFT-s-OFDM PUSCH	1	1	25.09	25.58	25.59	25.82	25.83	26.8				
Channel				808000	819000	818988	824096	828000					
Frequency (MHz)				2531.01	2582.00	2582.99	2624.00	2650.00					
70	DFT-s-OFDM PUSCH	1	1	25.14	25.45	25.62	25.43	25.49	26.8				
Channel				809000	819000	818988	824096	828000					
Frequency (MHz)				2525.00	2574.00	2574.00	2615.00	2640.00					
60	DFT-s-OFDM PUSCH	1	1	25.17	25.04	25.74	25.67	25.70	26.8				
Channel				809004	811401	810988	822796	822000					
Frequency (MHz)				2502.002	2567.905	2562.99	2624.99	2644.99					
50	DFT-s-OFDM PUSCH	1	1	25.73	25.88	25.76	25.88	25.89	26.8				
Channel				803002	810900	818988	824096	834000					
Frequency (MHz)				2316.61	2354.50	2352.99	2381.50	2409.00					
40	DFT-s-OFDM PUSCH	1	1	25.36	25.36	25.82	25.80	25.80	26.8				
Channel				802000	810902	818988	824096	834000					
Frequency (MHz)				2311.00	2352.00	2352.99	2383.99	2414.98					
30	DFT-s-OFDM PUSCH	1	1	25.60	25.49	25.85	25.83	25.78	26.8				
Channel				801204	809901	818988	822988	833988					
Frequency (MHz)				2309.40	2349.99	2349.99	2374.49	2393.99					
20	DFT-s-OFDM PUSCH	1	1	25.62	25.71	25.86	25.81	25.83	26.8				
Channel				800000	810900	818988	824096	834000					
Frequency (MHz)				2246.01	2306.50	2302.99	2316.50	2340.00					
BW (MHz) <th>Modulation</th> <th>RB Size</th> <th>RB Offset</th> <th>Low Channel</th> <th>Low-Middle Channel</th> <th>Middle Channel</th> <th>Middle-High Channel</th> <th>High Channel</th> <th></th> <th>Tune-up limit (dBm)</th>	Modulation	RB Size	RB Offset	Low Channel	Low-Middle Channel	Middle Channel	Middle-High Channel	High Channel		Tune-up limit (dBm)			
100	CP-OFDM PUSCH	1	1	23.99	24.09	24.43	24.33	24.13	25.3				
100	CP-OFDM PUSCH	1	1	23.41	23.73	23.76	23.68	23.65	25.3				
100	CP-OFDM PUSCH	1	1	22.06	22.46	22.46	22.45	22.83	23.8				
100	CP-OFDM PUSCH	1	1	18.73	19.14	19.14	19.16	19.11	19.8				

n41 (2496 ~ 2690MHz) (PC3)												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low-Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune-up limit (dBm)		
Channel				806002	819000	818988	824096	828000				
Frequency (MHz)				2446.01	2566.50	2566.99	2616.50	2643.50				
100	DFT-s-OFDM PUSCH	1	1	23.12	23.11	23.27	23.19	23.15	24.2			
100		1	136	23.08	23.08	23.18	23.06	23.02				
100		1	272	23.17	23.18	23.23	23.15	23.08				
100		136	1	22.18	22.16	22.17	22.14	22.04				
100		136	87	22.29	22.28	22.22	22.09	22.11				
100		136	136	22.12	22.37	22.34	22.32	22.37				
100		270	0	22.34	22.30	22.37	22.19	22.18				
100		1	1	23.17	23.20	23.30	23.26	23.24				
100		1	136	23.18	23.18	23.17	23.13	23.03				
100		1	272	23.13	23.17	23.25	23.21	23.21				
100	DFT-s-OFDM PUSCH	136	1	22.16	22.14	22.16	22.08	22.09	23.2			
100		136	87	22.34	22.28	22.16	22.05	22.07				
100		136	136	21.98	22.07	22.15	22.06	22.01				
100		270	0	22.06	22.08	22.11	22.04	22.03				
100		1	1	22.19	22.04	22.27	22.24	22.18				
100		1	1	22.07	22.06	22.09	21.94	22.00				
100		1	1	20.08	20.23	20.26	20.13	19.97				
Channel				806000	819000	818988	823797	828000				
Frequency (MHz)				2441	2586.995	2582.99	2618.985	2644.98			Tune-up limit (dBm)	
90	DFT-s-OFDM PUSCH	1	1	23.15	23.15	23.24	23.08	22.97	24.2			
Channel				807004	819004	818988	824096	828000				
Frequency (MHz)				2536.02	2584.51	2582.99	2621.46	2649.99		Tune-up limit (dBm)		
80	DFT-s-OFDM PUSCH	1	1	23.28	23.10	23.21	23.03	23.00	24.2			
Channel				808000	819000	818988	824096	828000				
Frequency (MHz)				2531.01	2582.00	2582.99	2624.00	2650.00		Tune-up limit (dBm)		
70	DFT-s-OFDM PUSCH	1	1	23.18	23.13	23.22	23.05	23.01	24.8			
Channel				809000	819000	818988	824096	828000				
Frequency (MHz)				2525.00	2574.00	2574.00	2615.00	2640.00		Tune-up limit (dBm)		
60	DFT-s-OFDM PUSCH	1	1	23.19	23.25	23.17	23.13	23.09	24.2			
Channel				809004	811401	810988	822796	822000				
Frequency (MHz)				2502.002	2567.905	2562.99	2624.99	2644.99		Tune-up limit (dBm)		
50	DFT-s-OFDM PUSCH	1	1	23.25	23.3	23.31	23.28	23.14	24.2			
Channel				803002	810900	818988	824096	834000				
Frequency (MHz)				2316.61	2354.50	2352.99	2381.50	2409.00		Tune-up limit (dBm)		
40	DFT-s-OFDM PUSCH	1	1	23.21	23.23	23.29	23.16	23.11	24.8			
Channel				802000	810902	818988	824096	834000				
Frequency (MHz)				2311.00	2352.00	2352.99	2383.99	2414.98		Tune-up limit (dBm)		
30	DFT-s-OFDM PUSCH	1	1	23.20	23.23	23.29	23.23	23.26	24.8			
Channel				801204	809901	818988	822988	833988				
Frequency (MHz)				2309.40	2349.99	2349.99	2374.49	2393.99		Tune-up limit (dBm)		
20	DFT-s-OFDM PUSCH	1	1	23.29	23.25	23.25	23.13	23.02	24.8			
Channel				800000	810900	818988	824096	834000				
Frequency (MHz)				2246.01	2306.50	2302.99	2316.50	2340.00		Tune-up limit (dBm)		
100	CP-OFDM PUSCH	1	1	22.23	22.14	21.93	22.00	21.92	22.7			
100	CP-OFDM PUSCH	1	1	22.34	22.16	22.03	21.89	21.84	22.7			
100	CP-OFDM PUSCH	1	1	21.55	21.77	21.70	21.62	21.30	22			
100	CP-OFDM PUSCH	1	1	18.15	18.52	18.26	18.18	17.87	18.7			

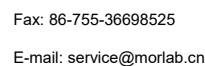


n77 (3450 MHz ~ 3550 MHz) (PC2)														
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)					
Channel														
Frequency (MHz)														
100	DFT-s-OFDM PUSCH	1	1			25.53			26.7					
100		1	136			25.48								
100		1	271			25.41								
100		136	1			24.75			25.7					
100		136	67			24.73								
100		136	136			24.68								
100		270	0			24.62			26.7					
100		1	1			25.73								
100		1	136			25.66								
100		1	271			25.56			25.7					
100	DFT-s-OFDM PDSCH	1	1			24.59								
100		136	1			24.85								
100		136	67			24.76					25.7			
100		270	0			24.69								
100		1	1			24.42			25.7					
100		DFT-s-OFDM PDSCH	1	1			23.38							
100		DFT-s-OFDM PDSCH	1	1			20.67							
Channel				63000	63168	63334	63500	63666	Tune-up limit (dBm)					
Frequency (MHz)				3495	3497.52	3500.01	3502.5	3504.98						
90		DFT-s-OFDM PUSCH	1	1	25.70	25.73	25.66	25.65	25.61	26.7				
Channel														
Frequency (MHz)														
80	1		1	25.72	25.63	25.69	25.69	25.50	26.7					
Channel														
Frequency (MHz)														
70	DFT-s-OFDM PUSCH		1	1	25.56	25.61	25.68	25.64	25.61	26.7				
Channel														
Frequency (MHz)														
60			1	1	25.69	25.58	25.55	25.70	25.63	26.7				
Channel														
Frequency (MHz)														
50		DFT-s-OFDM PUSCH	1	1	25.60	25.61	25.72	25.70	25.58	25.7				
Channel														
Frequency (MHz)														
40			1	1	25.64	25.71	25.71	25.63	25.49	25.7				
Channel														
Frequency (MHz)														
30	DFT-s-OFDM PUSCH		1	1	25.66	25.72	25.66	25.67	25.58	26.7				
Channel														
Frequency (MHz)														
20			1	1	25.68	25.71	25.69	25.59	25.50	26.7				
Channel														
Frequency (MHz)														
Channel									Tune-up limit (dBm)					
Frequency (MHz)														
100		CP-OFDM PUSCH	1	1			23.83			24.7				
100		CP-OFDM PDSCH	1	1			23.39			24.7				
100		CP-OFDM PDSCH	1	1			22.04			22.7				
100		CP-OFDM PDSCH	1	1			18.75			18.7				

n77 (3450 MHz ~ 3550 MHz) (PC3)													
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Medium Channel	Medium/High Channel	High Channel	Tune up limit (dBm)				
Channel													
Frequency (MHz)													
100	DFT-s-OFDM PUSCH	1	1			3500.01			24.2				
100		1	136			23.23							
100		1	271			23.29							
100		136	1			23.29			23.2				
100		136	67			22.18							
100		136	136			22.11							
100		270	0			22.04			24.2				
100		1	1			23.38							
100		1	136			23.30							
100		1	271			23.29			23.2				
100	DFT-s-OFDM PDSCH	1	1			22.22							
100		136	1			22.18							
100		136	67			22.10							
100		136	136			22.10			23.2				
100		270	0			22.10							
100		1	1			22.22			23.2				
100		1	1			22.23							
100		1	1			20.38							
Channel				63000	63168	63274	63400	63496	Tune-up limit (dBm)				
Frequency (MHz)				3490	3497.52	3500.01	3502.5	3504.98					
90	DFT-s-OFDM PUSCH	1	1	23.25	23.32	23.29	23.34	23.26	24.2				
Channel													
Frequency (MHz)													
80		1	1	23.30	23.34	23.35	23.20	23.15	24.2				
Channel													
Frequency (MHz)													
70		1	1	23.23	23.20	23.32	23.28	23.13	24.2				
Channel													
Frequency (MHz)													
60		1	1	23.17	23.21	23.35	23.21	23.09	24.2				
Channel													
Frequency (MHz)													
50	DFT-s-OFDM PUSCH	1	1	23.28	23.24	23.35	23.22	23.05	24.2				
Channel													
Frequency (MHz)													
40		1	1	23.29	23.28	23.33	23.13	23.26	24.2				
Channel													
Frequency (MHz)													
30		1	1	23.25	23.22	23.27	23.23	23.15	24.2				
Channel													
Frequency (MHz)													
20		1	1	23.27	23.18	23.30	23.25	23.11	24.2				
Channel													
Frequency (MHz)													
Channel									Tune up limit (dBm)				
Frequency (MHz)													
100	CP-OFDM PUSCH	1	1			22.02			22.7				
100	CP-OFDM PDSCH	1	1			21.35			22.7				
100	CP-OFDM PDSCH	1	1			19.92			20.7				
100	CP-OFDM PDSCH	1	1			18.01			18.7				



n77 (3700 MHz ~ 3980 MHz) (PC3)										
BW (MHz)	Modulation	Channel	RB Size	RB Offset	Low Channel 60000	LineChannel 9192	Main Channel 60000	Middle/High Channel 60000	Channel 60000	Tune-up limit (dBm)
100		Channel	1	1	23.22	25.19	23.26	23.18	23.22	24.2
100		Channel	1	136	23.18	23.17	23.18	23.17	23.25	
100		Channel	1	271	23.16	23.15	23.17	23.15	23.25	
100	DFT-OFDM PQ-SSB	Channel	136	1	23.23	23.21	22.46	23.20	23.43	
100		Channel	136	67	22.43	22.41	22.51	22.40	22.48	23.2
100		Channel	136	231	23.23	23.21	22.87	22.50	22.44	
100		Channel	270	0	22.43	22.41	22.36	22.38	22.49	
100		Channel	1	23.29	25.20	23.31	23.25	23.22	23.29	
100		Channel	1	136	23.05	23.18	23.20	23.16	23.15	24.2
100		Channel	1	271	23.16	23.27	23.08	23.11	23.01	
100		Channel	136	1	23.25	23.28	22.51	22.29	22.38	
100	DFT-OFDM PQ-SSB	Channel	136	67	22.41	22.40	22.49	22.40	22.45	
100		Channel	136	231	22.43	22.52	22.37	22.40	22.42	23.2
100		Channel	270	0	22.46	22.47	22.47	22.47	22.42	
100	DFT-OFDM PQ-SSB	Channel	1	1	22.40	22.42	22.37	22.42	22.41	
100	DFT-OFDM PQ-SSB	Channel	1	1	21.34	21.26	21.38	21.53	21.46	
100	DFT-OFDM PQ-SSB	Channel	1	1	20.48	20.26	20.38	20.41	20.45	21.2
		Channel			50598	50234	50500	50910	50232	Tune-up limit (dBm)
		Channel			5744.99	5792.51	5840	5887.49	5934.98	
90	DFT-OFDM PQ-SSB	Channel	1	1	23.22	23.12	23.21	23.19	23.19	24.2
		Channel			569334	569068	569000	569332	569068	Tune-up limit (dBm)
		Channel			5763.51	5765.02	5765.00	5766.49	5765.99	24.2
80	DFT-OFDM PQ-SSB	Channel	1	1	23.26	23.11	23.18	23.23	23.21	24.2
		Channel			505000	505000	505000	505000	505000	Tune-up limit (dBm)
70	DFT-OFDM PQ-SSB	Channel	1	1	23.26	23.12	23.40	23.23	23.14	24.2
		Channel			569068	569234	569000	569066	569332	Tune-up limit (dBm)
		Channel			5765.02	5764.51	5764.50	5764.99	5764.99	24.2
60	DFT-OFDM PQ-SSB	Channel	1	1	23.25	23.14	23.26	23.21	23.24	24.2
		Channel			568334	562168	565000	569832	563668	Tune-up limit (dBm)
		Channel			5725.51	5792.52	5840	5884.98	5954.98	24.2
50	DFT-OFDM PQ-SSB	Channel	1	1	23.26	23.28	23.23	23.28	23.23	23.2
		Channel			564000	565000	565000	566000	564000	Tune-up limit (dBm)
		Channel			5720	5780	5840	5900	5960	24.2
40	DFT-OFDM PQ-SSB	Channel	1	1	23.18	23.21	23.16	23.24	23.18	23.2
		Channel			547868	551834	554000	560186	554332	Tune-up limit (dBm)
		Channel			5715.02	5777.51	5840	5902.49	5954.98	24.2
30	DFT-OFDM PQ-SSB	Channel	1	1	23.29	23.10	23.25	23.23	23.23	24.2
		Channel			547334	551668	555000	560332	564668	Tune-up limit (dBm)
		Channel			5783.01	5774.02	5840	5904.98	5989.99	24.2
20	DFT-OFDM PQ-SSB	Channel	1	1	23.29	23.05	23.15	23.21	23.15	24.2
		Channel			5710.00	5700.00	5700.00	5700.00	5700.00	Tune-up limit (dBm)
BW (MHz)	Modulation	Channel	RB Size	RB Offset	Low Channel 60000	LineChannel 9192	Main Channel 60000	Middle/High Channel 60000	Channel 60000	Tune-up limit (dBm)
100	CP-OFDM	Channel	1	1	21.71	21.58	21.77	21.69	21.67	22.7
100	CP-OFDM	Channel	1	1	21.74	21.58	21.71	21.70	21.68	22.7
100	CP-OFDM	Channel	1	1	20.84	20.82	20.75	20.85	20.99	21.7
100	CP-OFDM	Channel	1	1	18.45	18.42	18.52	18.50	18.42	19.7





n78 (3450 MHz ~ 3550 MHz) (PC2)												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Medium/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1			25.90			26.7			
100		1	136			25.44						
100		1	271			25.47						
100		136	1			24.74						
100		136	67			24.63						
100		136	136			24.58			25.7			
100		270	0			24.50						
100		1	1			25.77						
100		1	136			25.74						
100		1	271			25.73			26.7			
100		136	1			24.79						
100		136	67			24.76						
100	136	136			24.72							
100	270	0			24.68							
100	DFT-s-OFDM PUSCH	1	1			24.75			25.7			
100	DFT-s-OFDM PUSCH	1	1			23.92						
100	DFT-s-OFDM PUSCH	1	1			20.90						
100	DFT-s-OFDM PUSCH	1	1			20.90			21.7			
Channel												
Frequency (MHz)												
90	DFT-s-OFDM PUSCH	1	1	25.70	3497.52	3500.01	3502.5	3504.99	26.7			
Channel												
Frequency (MHz)												
80	DFT-s-OFDM PUSCH	1	1	25.63	35.58	25.75	25.71	25.75	26.7			
Channel												
Frequency (MHz)												
70	DFT-s-OFDM PUSCH	1	1	25.62	35.64	25.68	25.67	25.68	26.7			
Channel												
Frequency (MHz)												
60	DFT-s-OFDM PUSCH	1	1	25.67	35.61	25.59	25.68	25.65	26.7			
Channel												
Frequency (MHz)												
50	DFT-s-OFDM PUSCH	1	1	25.69	35.76	25.63	25.70	25.71	26.7			
Channel												
Frequency (MHz)												
40	DFT-s-OFDM PUSCH	1	1	25.71	35.74	25.75	25.74	25.64	26.7			
Channel												
Frequency (MHz)												
30	DFT-s-OFDM PUSCH	1	1	25.81	35.82	25.66	25.65	25.58	26.7			
Channel												
Frequency (MHz)												
20	DFT-s-OFDM PUSCH	1	1	25.86	35.90	25.60	25.49	25.45	26.7			
Channel												
Frequency (MHz)												
10	DFT-s-OFDM PUSCH	1	1	25.91	35.99	25.66	25.65	25.58	26.7			
Channel												
Frequency (MHz)												
5	DFT-s-OFDM PUSCH	1	1	25.95	36.00	25.66	25.66	25.60	26.7			
Channel												
Frequency (MHz)												
2	DFT-s-OFDM PUSCH	1	1	25.99	36.02	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1	DFT-s-OFDM PUSCH	1	1	26.00	36.03	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.5	DFT-s-OFDM PUSCH	1	1	26.01	36.04	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.25	DFT-s-OFDM PUSCH	1	1	26.02	36.05	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.125	DFT-s-OFDM PUSCH	1	1	26.03	36.06	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.0625	DFT-s-OFDM PUSCH	1	1	26.04	36.07	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.03125	DFT-s-OFDM PUSCH	1	1	26.05	36.08	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.015625	DFT-s-OFDM PUSCH	1	1	26.06	36.09	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.0078125	DFT-s-OFDM PUSCH	1	1	26.07	36.10	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.00390625	DFT-s-OFDM PUSCH	1	1	26.08	36.11	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.001953125	DFT-s-OFDM PUSCH	1	1	26.09	36.12	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.0009765625	DFT-s-OFDM PUSCH	1	1	26.10	36.13	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.00048828125	DFT-s-OFDM PUSCH	1	1	26.11	36.14	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.000244140625	DFT-s-OFDM PUSCH	1	1	26.12	36.15	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
0.0001220703125	DFT-s-OFDM PUSCH	1	1	26.13	36.16	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
6.103515625e-05	DFT-s-OFDM PUSCH	1	1	26.14	36.17	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
3.0517578125e-05	DFT-s-OFDM PUSCH	1	1	26.15	36.18	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.52587890625e-05	DFT-s-OFDM PUSCH	1	1	26.16	36.19	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
7.62939453125e-06	DFT-s-OFDM PUSCH	1	1	26.17	36.20	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
3.814697265625e-06	DFT-s-OFDM PUSCH	1	1	26.18	36.21	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.9073486328125e-06	DFT-s-OFDM PUSCH	1	1	26.19	36.22	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
9.5367431640625e-07	DFT-s-OFDM PUSCH	1	1	26.20	36.23	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
4.76837158203125e-07	DFT-s-OFDM PUSCH	1	1	26.21	36.24	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
2.384185791015625e-07	DFT-s-OFDM PUSCH	1	1	26.22	36.25	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.1920928955078125e-07	DFT-s-OFDM PUSCH	1	1	26.23	36.26	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
5.9604644775390625e-08	DFT-s-OFDM PUSCH	1	1	26.24	36.27	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
2.98023223876953125e-08	DFT-s-OFDM PUSCH	1	1	26.25	36.28	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.4901161193847656e-08	DFT-s-OFDM PUSCH	1	1	26.26	36.29	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
7.450580596923828e-09	DFT-s-OFDM PUSCH	1	1	26.27	36.30	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
3.725290298461914e-09	DFT-s-OFDM PUSCH	1	1	26.28	36.31	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.862645149230957e-09	DFT-s-OFDM PUSCH	1	1	26.29	36.32	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
9.313225746154785e-10	DFT-s-OFDM PUSCH	1	1	26.30	36.33	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
4.656612873077392e-10	DFT-s-OFDM PUSCH	1	1	26.31	36.34	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
2.328306436538696e-10	DFT-s-OFDM PUSCH	1	1	26.32	36.35	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.164153218269348e-10	DFT-s-OFDM PUSCH	1	1	26.33	36.36	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
5.82076609134674e-11	DFT-s-OFDM PUSCH	1	1	26.34	36.37	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
2.91038304567337e-11	DFT-s-OFDM PUSCH	1	1	26.35	36.38	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.455191522836685e-11	DFT-s-OFDM PUSCH	1	1	26.36	36.39	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
7.275957614183425e-12	DFT-s-OFDM PUSCH	1	1	26.37	36.40	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
3.637978807091712e-12	DFT-s-OFDM PUSCH	1	1	26.38	36.41	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.818989403545856e-12	DFT-s-OFDM PUSCH	1	1	26.39	36.42	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
9.09494701772928e-13	DFT-s-OFDM PUSCH	1	1	26.40	36.43	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
4.54747350886464e-13	DFT-s-OFDM PUSCH	1	1	26.41	36.44	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
2.27373675443232e-13	DFT-s-OFDM PUSCH	1	1	26.42	36.45	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.13686837721616e-13	DFT-s-OFDM PUSCH	1	1	26.43	36.46	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
5.6843418860808e-14	DFT-s-OFDM PUSCH	1	1	26.44	36.47	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
2.8421709430404e-14	DFT-s-OFDM PUSCH	1	1	26.45	36.48	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.4210854715202e-14	DFT-s-OFDM PUSCH	1	1	26.46	36.49	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
7.105427357601e-15	DFT-s-OFDM PUSCH	1	1	26.47	36.50	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
3.5527136788005e-15	DFT-s-OFDM PUSCH	1	1	26.48	36.51	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.77635683940025e-15	DFT-s-OFDM PUSCH	1	1	26.49	36.52	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
8.88178419700125e-16	DFT-s-OFDM PUSCH	1	1	26.50	36.53	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
4.440892098500625e-16	DFT-s-OFDM PUSCH	1	1	26.51	36.54	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
2.2204460492503125e-16	DFT-s-OFDM PUSCH	1	1	26.52	36.55	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.1102230246251562e-16	DFT-s-OFDM PUSCH	1	1	26.53	36.56	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
5.551115123125781e-17	DFT-s-OFDM PUSCH	1	1	26.54	36.57	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
2.7755575615628905e-17	DFT-s-OFDM PUSCH	1	1	26.55	36.58	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.3877787807814452e-17	DFT-s-OFDM PUSCH	1	1	26.56	36.59	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
6.938893903907226e-18	DFT-s-OFDM PUSCH	1	1	26.57	36.60	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
3.469446951953613e-18	DFT-s-OFDM PUSCH	1	1	26.58	36.61	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.7347234759768065e-18	DFT-s-OFDM PUSCH	1	1	26.59	36.62	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
8.673617379884032e-19	DFT-s-OFDM PUSCH	1	1	26.60	36.63	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
4.336808689942016e-19	DFT-s-OFDM PUSCH	1	1	26.61	36.64	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
2.168404344971008e-19	DFT-s-OFDM PUSCH	1	1	26.62	36.65	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
1.084202172485504e-19	DFT-s-OFDM PUSCH	1	1	26.63	36.66	25.66	25.66	25.45	26.7			
Channel												
Frequency (MHz)												
5.42101086242752e-20	DFT-s-OFDM PUSCH											



n78 (3700 MHz ~ 3800 MHz) (PC2)									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mod/Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel									
Frequency (MHz)									
100	DFT-s-OFDM P2/BPSK	1	1				25.80	26.7	
100		1	136				25.95		
100		1	271				25.94		
100		135	1				24.98		
100		135	67				24.50		
100	DFT-s-OFDM QPSK	135	136				24.55	25.7	
100		270	0				24.51		
100		1	1				25.98		
100		1	136				25.91		
100		1	271				25.95		
100	DFT-s-OFDM 16QAM	135	67				24.75	25.7	
100		135	136				24.49		
100		270	0				24.55		
100		1	1				24.94		
100		1	1				22.89		
100	DFT-s-OFDM 64QAM	1	1				20.41	21.7	
100		1	1				66866		
100		1	1				3747.51		
100		1	1				3750		
100		1	1				3752.49		
Channel									
Frequency (MHz)									
90	DFT-s-OFDM QPSK	1	1	25.43	25.65	25.92	25.51	25.50	26.7
Channel									
Frequency (MHz)									
80	DFT-s-OFDM QPSK	1	1	25.47	25.92	25.97	25.62	25.59	26.7
Channel									
Frequency (MHz)									
70	DFT-s-OFDM QPSK	1	1	25.47	25.41	25.64	25.65	25.61	26.7
Channel									
Frequency (MHz)									
60	DFT-s-OFDM QPSK	1	1	25.61	25.58	25.51	25.59	25.60	26.7
Channel									
Frequency (MHz)									
50	DFT-s-OFDM QPSK	1	1	25.59	25.60	25.64	25.46	25.51	26.7
Channel									
Frequency (MHz)									
40	DFT-s-OFDM QPSK	1	1	25.59	25.59	25.59	25.59	25.42	26.7
Channel									
Frequency (MHz)									
20	DFT-s-OFDM QPSK	1	1	25.59	25.53	25.47	25.50	25.50	26.7
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mod/Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel									
Frequency (MHz)									
100	CP-OFDM QPSK	1	1				23.57	24.7	
100	CP-OFDM 16QAM	1	1				23.32		
100	CP-OFDM 64QAM	1	1				21.52		
100	CP-OFDM 256QAM	1	1				19.20		

n78 (3700 MHz ~ 3800 MHz) (PC3)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mod/Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	DFT-s-OFDM P2/BPSK	1	1			23.19		24.2		
100		1	136			23.12				
100		1	271			23.08				
100		135	1			22.23				
100		135	67			22.19				
100	DFT-s-OFDM QPSK	135	136			22.22		23.2		
100		270	0			22.12				
100		1	1			23.25				
100		1	136			23.16				
100		1	271			23.11				
100	DFT-s-OFDM 16QAM	135	1			22.24		23.2		
100		135	67			22.22				
100		135	136			22.23				
100		270	0			22.07				
100		1	1			22.16				
100	DFT-s-OFDM 64QAM	1	1			22.10		23.2		
100		1	1			20.12				
100		1	1			66866	64934		65000	Tuning limit (dBm)
100		1	1			3745.92	3747.51		3754.98	
100		1	1			66866	64934		65000	
90	DFT-s-OFDM QPSK	1	1	23.16	23.15	23.13	23.06	23.12	24.2	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	22.85	23.02	23.05	23.07	23.14	24.2	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	23.08	23.14	23.10	23.14	23.11	24.2	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	23.14	23.21	23.18	23.12	23.20	24.2	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	23.20	23.07	23.17	23.00	23.13	24.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	23.01	23.06	23.20	23.22	23.12	24.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	23.13	23.09	23.18	23.11	23.16	24.7	
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mod/Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1			22.07		22.7		
100	CP-OFDM 16QAM	1	1			22.04				
100	CP-OFDM 64QAM	1	1			21.27				
100	CP-OFDM 256QAM	1	1			18.15				



CA_41C-PC3 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	22.33	23.50
40620	40521	40719	QPSK	1	0	0	0	1	0	22.63	23.50
41490	41292	41490	QPSK	1	0	0	0	1	0	22.55	23.50
39750	39750	39948	16QAM	1	0	0	0	1	0	21.57	22.00
40620	40521	40719	16QAM	1	0	0	0	1	0	21.89	22.00
41490	41292	41490	16QAM	1	0	0	0	1	0	21.84	22.00
39750	39750	39948	64QAM	1	0	0	0	1	0	20.13	21.00
40620	40521	40719	64QAM	1	0	0	0	1	0	20.45	21.00
41490	41292	41490	64QAM	1	0	0	0	1	0	20.33	21.00
39750	39750	39948	QPSK	50	0	0	0	1	0	21.22	22.00
40620	40521	40719	QPSK	50	0	0	0	1	0	21.53	22.00
41490	41292	41490	QPSK	50	0	0	0	1	0	21.29	22.00

CA_48C Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
55340	55340	55538	QPSK	1	0	0	0	1	0	22.56	23.50
55990	55891	56089	QPSK	1	0	0	0	1	0	22.72	23.50
56640	56442	56640	QPSK	1	0	0	0	1	0	22.48	23.50
55340	55340	55538	16QAM	1	0	0	0	1	0	21.99	23.00
55990	55891	56089	16QAM	1	0	0	0	1	0	22.12	23.00
56640	56442	56640	16QAM	1	0	0	0	1	0	21.94	23.00
55340	55340	55538	64QAM	1	0	0	0	1	0	20.81	21.50
55990	55891	56089	64QAM	1	0	0	0	1	0	20.88	21.50
56640	56442	56640	64QAM	1	0	0	0	1	0	20.79	21.50
55340	55340	55538	QPSK	50	0	0	0	1	0	21.75	22.50
55990	55891	56089	QPSK	50	0	0	0	1	0	21.82	22.50
56640	56442	56640	QPSK	50	0	0	0	1	0	21.72	22.50



2CC LTE Uplink										
Configure	CA Configuration	PCC					SCC			
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)
inter-band	CA_2A-12A	4	20	19100	1900	QPSK/1#0	12	10	23095	707.5
	CA_12A-66A	12	10	23095	707.5	QPSK/1#0	66	20	132322	1745
							Measured Power(dBm)			
							23.25			
							23.88			



2CC LTE Downlink											
Configure	CA Configuration	PCC				SCC				Power	
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/ RB/Offset)	Band	BW (MHz)	DL Channel		DL Fre. (MHz)
Intra-band & inter-band	CA_2C	2	20	18902	1880.2	QPSK/1#0	2	20	19100	1900	23.21
	CA_2A-2A	2	20	18700	1860	QPSK/1#0	2	20	19100	1900	23.18
	CA_2A-13A	2	20	18700	1860	QPSK/1#0	13	10	23230	782	23.15
	CA_2A-4A	2	20	18700	1860	QPSK/1#0	4	20	20050	1720	21.85
	CA_2A-5A	2	20	18700	1860	QPSK/1#0	5	10	20450	829	23.37
	CA_2A-12A	2	20	18700	1860	QPSK/1#0	12	5	23035	701.5	23.26
	CA_2A-48A	2	20	18700	1860	QPSK/1#0	48	20	55990	3625	22.41
	CA_2A-66A	2	20	18700	1860	QPSK/1#0	66	20	67236	2190	21.78
	CA_2A-71A	2	20	18700	1860	QPSK/1#0	71	20	68786	637	23.34
	CA_4A-4A	4	20	20050	1720	QPSK/1#0	4	20	20300	1745	23.14
	CA_4A-5A	4	20	20050	1720	QPSK/1#0	5	10	20450	829	23.25
	CA_4A-12A	4	20	20050	1720	QPSK/1#0	12	5	23035	701.5	23.20
	CA_4A-13A	4	20	20050	1720	QPSK/1#0	13	10	23230	782	23.16
	CA_4A-48A	4	20	20050	1720	QPSK/1#0	48	20	55990	3625	22.25
	CA_4A-71A	4	20	20050	1720	QPSK/1#0	71	20	68786	637	23.31
	CA_5B	5	10	20476	831.6	QPSK/1#0	5	10	2600	889	23.85
	CA_5A-5A	5	10	20450	829	QPSK/1#0	5	10	2600	889	23.82
	CA_5A-7A	5	10	20450	829	QPSK/1#0	7	20	3100	2655	23.74
	CA_5A-48A	5	10	20450	829	QPSK/1#0	48	20	55990	3625	23.33
	CA_5A-66A	5	10	20450	829	QPSK/1#0	66	20	67236	2190	23.82
	CA_7C	7	20	21001	2525.1	QPSK/1#0	7	20	3199	2664.9	21.75
	CA_7A-7A	7	20	20850	2510	QPSK/1#0	7	20	3350	2680	21.70
	CA_7A-12A	7	20	21100	2535	QPSK/1#0	12	5	5155	743.5	21.65
	CA_7A-13A	7	20	21100	2535	QPSK/1#0	13	10	23230	782	21.77
	CA_12A-66A	12	5	23035	701.5	QPSK/1#0	66	20	67236	2190	23.72
	CA_13A-48A	13	10	23230	782	QPSK/1#0	48	20	55990	3625	22.01
	CA_13A-66A	13	10	23230	782	QPSK/1#0	66	20	67236	2190	23.12
	CA_25A-25A	25	20	26140	1860	QPSK/1#0	25	20	8590	1985	23.32
	CA_25A-26A	25	20	26140	1860	QPSK/1#0	26	15	26765	821.5	23.44
	CA_25A-41A	25	20	26140	1860	QPSK/1#0	41	20	41490	2680	21.72
	CA_41C	41	20	40521	2583.1	QPSK/1#0	41	20	40719	2602.9	25.20
	CA_41A-41A	41	20	39750	2506	QPSK/1#0	41	20	41490	2680	24.78
	CA_48C	48	20	55340	3560	QPSK/1#0	48	20	55538	3579.8	21.83
	CA_48B	48	20	55891	3685.1	QPSK/1#0	48	20	56089	3704.9	21.78
	CA_48A-48A	48	20	55340	3560	QPSK/1#0	48	20	56640	3690	21.86
	CA_48A-66A	48	20	55340	3560	QPSK/1#0	66	20	67236	2190	22.15
	CA_66C	66	20	132323	1745	QPSK/1#0	66	20	66985	2164.9	23.18
	CA_66B	66	10	132622	1775	QPSK/1#0	66	10	67185	2184.9	23.25
	CA_66A-66A	66	20	132072	1720	QPSK/1#0	66	20	67236	2190	23.14
	CA_66A-71A	66	20	132072	1720	QPSK/1#0	71	20	68786	637	23.24



Full Power for Ant 7

2.4GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Turn-Up Limit	Power Setting	Duty Cycle %
2.4GHz WLAN ANT 7	802.11a 1Mbps	CH 1	2412	20.46	22.00	100.00
		CH 6	2437	20.47	22.00	
		CH 11	2462	20.63	22.00	
	802.11g 6Mbps	CH 1	2412	18.41	20.00	98.57
		CH 6	2437	18.42	20.00	
		CH 11	2462	18.07	18.00	
	802.11n-HT20 MCS9	CH 1	2412	18.22	20.00	98.57
		CH 6	2437	18.19	20.00	
		CH 11	2462	15.45	17.00	
	802.11n-VHT40 MCS9	CH 3	2422	18.38	20.00	95.00
		CH 6	2437	15.75	17.00	
		CH 9	2452	15.90	15.00	
	802.11ac-VHT20 MCS9	CH 1	2412	18.23	20.00	98.47
		CH 6	2437	18.17	20.00	
		CH 11	2462	15.49	17.00	
	802.11ac-VHT40 MCS9	CH 3	2422	18.28	20.00	95.05
		CH 6	2437	15.71	17.00	
		CH 9	2452	13.96	15.00	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Turn-Up Limit	Power Setting	Duty Cycle %
5.2GHz WLAN ANT 7	802.11a 6Mbps	CH 36	5180	18.88	20.00	98.10
		CH 44	5220	19.00	21.00	
		CH 48	5240	19.06	21.00	
	802.11n-HT20 MCS9	CH 36	5180	19.25	21.00	98.57
		CH 44	5220	19.53	21.00	
		CH 48	5240	19.64	21.00	
	802.11n-VHT40 MCS9	CH 36	5190	19.49	21.00	98.94
		CH 40	5220	18.98	20.00	
		CH 44	5180	17.80	19.00	
	802.11ac-VHT20 MCS9	CH 44	5220	17.00	19.00	98.48
		CH 48	5240	17.09	19.00	
		CH 36	5190	17.48	19.00	
	802.11ac-VHT40 MCS9	CH 40	5230	17.72	19.00	95.96
		CH 44	5210	17.82	19.00	
		CH 42	5210	17.82	19.00	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Turn-Up Limit	Power Setting	Duty Cycle %
5.3GHz WLAN ANT 7	802.11a 6Mbps	CH 52	5260	19.24	21.00	98.57
		CH 60	5300	19.27	21.00	
		CH 64	5320	19.53	21.00	
	802.11n-HT20 MCS9	CH 52	5260	19.77	21.00	98.57
		CH 60	5300	19.00	21.00	
		CH 64	5320	19.31	21.00	
	802.11n-VHT40 MCS9	CH 54	5270	19.38	21.00	96.94
		CH 60	5310	19.86	21.00	
		CH 52	5260	17.39	19.00	
	802.11ac-VHT20 MCS9	CH 60	5300	17.85	19.00	98.48
		CH 64	5320	17.92	19.00	
		CH 54	5270	17.43	19.00	
	802.11ac-VHT40 MCS9	CH 60	5310	18.12	20.00	96.97
		CH 58	5290	18.16	20.00	
		CH 56	5290	18.16	20.00	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Turn-Up Limit	Power Setting	Duty Cycle %
5.8GHz WLAN ANT 7	802.11a 6Mbps	CH 100	5500	18.77	20.00	98.57
		CH 144	5720	17.50	19.00	
		CH 120	5600	18.06	20.00	
	802.11n-HT20 MCS9	CH 100	5500	18.28	20.00	98.47
		CH 120	5600	17.78	19.00	
		CH 144	5720	17.86	19.00	
	802.11n-VHT40 MCS9	CH 102	5510	18.86	20.00	96.94
		CH 126	5630	18.15	20.00	
		CH 142	5710	18.17	20.00	
	802.11ac-VHT20 MCS9	CH 100	5500	17.65	19.00	98.48
		CH 120	5600	17.30	19.00	
		CH 144	5720	17.48	19.00	
	802.11ac-VHT40 MCS9	CH 102	5510	17.95	19.00	96.97
		CH 126	5630	17.91	19.00	
		CH 142	5710	17.87	19.00	
	802.11ac-VHT80 MCS9	CH 108	5630	17.96	19.00	94.00
		CH 122	5610	17.66	19.00	
		CH 138	5690	17.62	19.00	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Turn-Up Limit	Power Setting	Duty Cycle %
5.8GHz WLAN ANT 7	802.11a 6Mbps	CH 149	5745	18.84	20.00	98.57
		CH 157	5785	19.01	21.00	
		CH 165	5825	18.42	20.00	
	802.11n-HT20 MCS9	CH 149	5745	18.99	20.00	98.47
		CH 157	5785	19.36	21.00	
		CH 165	5825	19.30	21.00	
	802.11n-VHT40 MCS9	CH 151	5755	19.35	21.00	96.94
		CH 159	5795	19.82	21.00	
		CH 149	5745	17.56	19.00	
	802.11ac-VHT20 MCS9	CH 157	5785	17.80	19.00	97.97
		CH 165	5825	17.85	19.00	
		CH 151	5755	17.42	19.00	
	802.11ac-VHT40 MCS9	CH 159	5795	18.33	20.00	96.97
		CH 155	5775	17.83	19.00	
		CH 153	5775	17.83	19.00	

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	11.91	9.96	10.71
	CH 39	2441	11.96	9.20	9.78
	CH 78	2480	11.33	8.81	9.85
Turn-up Limit			15.00	13.00	13.50
Duty Cycle %			76.8	63.47	77.33

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	
LE	CH 00	2402	5.72	2.80	
	CH 19	2440	5.35	2.44	
	CH 39	2480	6.76	4.13	
	Turn-up Limit		9.5	7	
Data Power %			83.2	33.6	



Reduced Power Level 1 for Ant 1

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	128	189	251		128	189	251		
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8		
Frequency (MHz)	21.56	21.70	21.61	22.50	12.56	12.70	12.61	13.50	0.17
GSM 1 Tx slot	21.58	21.73	21.66	22.50	12.58	12.73	12.66	13.50	
GPRS 2 Tx slots	19.18	19.28	19.23	20.00	13.18	13.28	13.23	14.00	0.10
GPRS 3 Tx slots	17.68	17.49	17.45	18.50	13.42	13.23	13.19	14.24	0.23
GPRS 4 Tx slots	16.65	16.75	16.59	17.50	13.65	13.75	13.59	14.50	0.16
EDGE 1 Tx slot	15.88	15.96	15.90	17.00	8.88	8.96	8.90	8.00	0.08
EDGE 2 Tx slots	14.12	14.22	14.08	15.00	8.12	8.22	8.08	9.00	0.14
EDGE 3 Tx slots	12.77	12.86	12.80	13.50	8.51	8.60	8.54	9.24	0.09
EDGE 4 Tx slots	11.62	11.68	11.56	12.50	8.62	8.68	8.56	9.50	0.12
Mode		Max.							
Attenuator			21.73				13.75		
Cable Loss : 0.6									

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	512	661	810		512	661	810		
TX Channel	1850.2	1860	1909.8		1850.2	1860	1909.8		
Frequency (MHz)	15.66	15.74	15.71	16.50	6.66	6.74	6.71	7.50	0.12
GSM 1 Tx slot	15.68	15.78	15.74	16.50	6.68	6.78	6.74	7.50	
GPRS 2 Tx slots	13.55	13.59	13.46	14.50	7.55	7.59	7.46	8.50	0.13
GPRS 3 Tx slots	12.11	12.16	12.05	13.00	7.85	7.90	7.79	8.74	0.11
GPRS 4 Tx slots	11.06	11.23	11.16	12.00	8.06	8.23	8.16	9.00	0.17
EDGE 1 Tx slot	11.98	12.07	12.03	13.50	2.98	3.07	3.03	4.50	0.09
EDGE 2 Tx slots	10.14	10.36	10.24	11.00	4.14	4.36	4.24	5.00	0.22
EDGE 3 Tx slots	8.92	9.04	8.96	9.70	4.66	4.78	4.70	5.44	0.12
EDGE 4 Tx slots	8.59	8.82	8.72	9.70	5.59	5.82	5.72	6.70	0.23
Mode		Max.							
Attenuator			15.78				8.23		
Cable Loss : 0.8									

3.50

Band	WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513		4132	4182	4233	
TX Channel	9602	9800	9938		1537	1638	1738		4357	4407	4458	
Rx Channel	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.8	
Frequency (MHz)	14.39	14.42	14.36	15.30	15.03	15.11	15.06	15.80	20.61	20.67	20.56	21.30
3GPP Rel 99 RMC 12.2Kbps	13.44	13.79	13.69	14.50	13.97	14.43	14.38	15.00	19.35	19.69	19.84	20.50
3GPP Rel 6 HSDPA Subtest-1	13.58	13.84	13.46	5.00	13.98	14.38	14.09	6.00	19.32	19.63	19.28	17.00
3GPP Rel 6 HSDPA Subtest-2	13.00	13.04	12.83	4.50	13.53	13.80	13.32	5.50	18.93	19.12	19.02	16.50
3GPP Rel 6 HSDPA Subtest-3	13.50	13.30	13.17	4.50	14.22	13.96	13.87	5.50	19.27	19.47	19.02	16.50
3GPP Rel 6 HSDPA Subtest-4	13.79	13.56	13.48	14.50	14.40	14.22	13.94	15.00	19.93	19.57	19.46	20.50
3GPP Rel 8 DC-HSDPA Subtest-1	13.27	13.11	12.97	14.00	14.00	13.67	13.69	14.50	19.57	19.27	19.29	20.00
3GPP Rel 8 DC-HSDPA Subtest-2	13.16	12.85	12.70	13.50	13.33	13.36	13.06	14.00	18.87	18.83	18.42	19.50
3GPP Rel 8 DC-HSDPA Subtest-3	13.01	12.68	12.80	4.50	13.56	13.32	13.49	5.50	18.77	18.52	18.98	16.50
3GPP Rel 8 DC-HSDPA Subtest-4	13.31	13.16	13.28	14.50	13.98	13.52	13.65	15.00	19.40	19.07	19.30	20.50
3GPP Rel 8 HSUPA Subtest-1	11.88	11.61	11.68	12.50	12.35	12.31	12.24	13.00	18.06	17.78	17.72	18.50
3GPP Rel 8 HSUPA Subtest-2	12.88	12.64	12.55	13.50	13.52	13.18	13.23	14.00	18.68	18.51	18.38	19.50
3GPP Rel 8 HSUPA Subtest-3	11.86	11.57	11.57	12.50	12.22	12.22	12.14	13.00	17.73	17.29	17.32	18.50
3GPP Rel 8 HSUPA Subtest-4	13.22	13.06	12.76	13.50	13.70	13.55	13.23	14.00	19.18	19.00	18.95	19.50
3GPP Rel 8 HSUPA Subtest-5	11.75	11.76	11.61	12.50	12.12	12.22	12.25	13.00	17.93	17.62	17.92	18.50
3GPP Rel 7 HSPA+ (16QAM) Subtest-1												
Attenuator		Cable Loss	0.8			Cable Loss	0.8			Cable Loss	0.6	
Mode		Max.	14.42			Max.	15.11			Max.	20.67	



Band 2 (1900MHz Band) (dBm) Part 24E							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	16.3
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	15.48	15.57	15.47	
20	QPSK	1	49	15.37	15.50	15.46	15.3
20	QPSK	1	99	15.39	15.46	15.45	
20	QPSK	50	0	14.62	14.71	14.62	
20	QPSK	50	24	14.58	14.69	14.67	15.1
20	QPSK	50	50	14.59	14.65	14.64	
20	QPSK	100	0	14.58	14.59	14.54	
20	16QAM	1	0	14.83	14.86	14.84	15.3
20	16QAM	1	49	14.77	14.82	14.71	
20	16QAM	1	99	14.78	14.80	14.79	
20	16QAM	50	0	13.63	13.64	13.59	14.3
20	16QAM	50	24	13.62	13.62	13.57	
20	16QAM	50	50	13.65	13.61	13.59	
20	16QAM	100	0	13.57	13.63	13.59	14.3
20	64QAM	1	0	13.67	13.73	13.75	
20	64QAM	1	49	13.59	13.70	13.64	
20	64QAM	1	99	13.68	13.69	13.62	13.3
20	64QAM	50	0	12.67	12.69	12.59	
20	64QAM	50	24	12.66	12.69	12.63	
20	64QAM	50	50	12.62	12.68	12.63	16.3
20	64QAM	100	0	12.56	12.65	12.53	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	16.3
15	QPSK	1	0	15.44	15.50	15.41	
15	QPSK	1	37	15.31	15.41	15.39	15.3
15	QPSK	1	74	15.35	15.42	15.38	
15	QPSK	36	0	14.63	14.69	14.67	
15	QPSK	36	20	14.55	14.62	14.64	15.3
15	QPSK	36	39	14.52	14.65	14.60	
15	QPSK	75	0	14.58	14.56	14.50	
15	16QAM	1	0	14.83	14.79	14.77	15.3
15	16QAM	1	37	14.73	14.74	14.71	
15	16QAM	1	74	14.65	14.71	14.77	
15	16QAM	36	0	13.54	13.56	13.55	14.3
15	16QAM	36	20	13.59	13.64	13.55	
15	16QAM	36	39	13.61	13.59	13.47	
15	16QAM	75	0	13.51	13.60	13.54	14.3
15	64QAM	1	0	13.62	13.67	13.68	
15	64QAM	1	37	13.63	13.71	13.60	
15	64QAM	1	74	13.67	13.69	13.60	13.3
15	64QAM	36	0	12.67	12.64	12.54	
15	64QAM	36	20	12.64	12.62	12.61	
15	64QAM	36	39	12.60	12.64	12.56	16.3
15	64QAM	75	0	12.52	12.52	12.51	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	16.3
10	QPSK	1	0	15.41	15.55	15.50	
10	QPSK	1	25	15.31	15.43	15.39	15.3
10	QPSK	1	49	15.29	15.42	15.35	
10	QPSK	25	0	14.65	14.62	14.64	15.3
10	QPSK	25	12	14.57	14.65	14.57	
10	QPSK	25	25	14.55	14.54	14.55	
10	QPSK	50	0	14.49	14.64	14.51	15.3
10	16QAM	1	0	14.77	14.77	14.76	
10	16QAM	1	25	14.77	14.76	14.67	
10	16QAM	1	49	14.74	14.74	14.70	14.3
10	16QAM	25	0	13.60	13.60	13.54	
10	16QAM	25	12	13.60	13.59	13.51	
10	16QAM	25	25	13.59	13.63	13.53	14.3
10	16QAM	50	0	13.49	13.59	13.56	
10	64QAM	1	0	13.66	13.73	13.72	
10	64QAM	1	25	13.62	13.65	13.57	13.3
10	64QAM	1	49	13.59	13.67	13.62	
10	64QAM	25	0	12.71	12.65	12.56	
10	64QAM	25	12	12.60	12.58	12.64	16.3
10	64QAM	25	25	12.60	12.65	12.61	
10	64QAM	50	0	12.50	12.59	12.52	
Channel				18625	18900	19175	16.3
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	15.40	15.46	15.44	15.3
5	QPSK	1	12	15.32	15.46	15.39	
5	QPSK	1	24	15.34	15.38	15.43	
5	QPSK	12	0	14.67	14.65	14.63	15.3
5	QPSK	12	7	14.55	14.61	14.53	
5	QPSK	12	13	14.50	14.59	14.57	
5	QPSK	25	0	14.59	14.54	14.50	15.3
5	16QAM	1	0	14.78	14.73	14.77	
5	16QAM	1	12	14.72	14.80	14.69	
5	16QAM	1	24	14.66	14.76	14.71	14.3
5	16QAM	12	0	13.56	13.65	13.50	
5	16QAM	12	7	13.61	13.66	13.53	
5	16QAM	12	13	13.59	13.55	13.54	14.3
5	16QAM	25	0	13.53	13.59	13.54	
5	64QAM	1	0	13.64	13.76	13.71	
5	64QAM	1	12	13.59	13.61	13.60	13.3
5	64QAM	1	24	13.66	13.67	13.60	
5	64QAM	12	0	12.69	12.64	12.61	
5	64QAM	12	7	12.65	12.60	12.59	16.3
5	64QAM	12	13	12.54	12.55	12.50	
5	64QAM	25	0	12.54	12.55	12.48	
Channel				18615	18900	19185	16.3
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	15.40	15.48	15.45	16.1
3	QPSK	1	8	15.35	15.38	15.42	
3	QPSK	1	14	15.37	15.42	15.38	
3	QPSK	8	0	14.66	14.68	14.63	16.1
3	QPSK	8	4	14.54	14.63	14.57	

Band 4 (AWS Band) (dBm) Part 27L (only on channel required)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	16.1
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	15.34	15.38	15.32	16.1
20	QPSK	1	49	15.31	15.29	15.31	
20	QPSK	1	99	15.21	15.26	15.27	
20	QPSK	50	0	14.46	14.46	14.39	15.1
20	QPSK	50	24	14.45	14.46	14.40	
20	QPSK	50	50	14.25	14.35	14.33	
20	QPSK	100	0	14.40	14.40	14.39	15.1
20	16QAM	1	0	14.65	14.70	14.64	
20	16QAM	1	49	14.64	14.63	14.61	
20	16QAM	1	99	14.55	14.63	14.62	14.1
20	16QAM	50	0	13.48	13.51	13.48	
20	16QAM	50	24	13.39	13.41	13.40	
20	16QAM	50	50	13.31	13.34	13.32	14.1
20	16QAM	100	0	13.33	13.45	13.36	
20	64QAM	1	0	13.57	13.56	13.57	
20	64QAM	1	49	13.44	13.55	13.50	14.1
20	64QAM	1	99	13.44	13.47	13.47	
20	64QAM	50	0	12.47	12.52	12.40	
20	64QAM	50	24	12.44	12.45	12.43	13.1
20	64QAM	50	50	12.33	12.40	12.36	
20	64QAM	100	0	12.34	12.40	12.41	
Channel				20025	20175	20325	16.1
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	15.31	15.37	15.32	16.1
15	QPSK	1	37	15.26	15.31	15.22	
15	QPSK	1	74	15.17	15.22	15.21	
15	QPSK	36	0	14.33	14.40	14.37	15.1
15	QPSK	36	20	14.36	14.40	14.32	
15	QPSK	36	39	14.26	14.33	14.28	
15	QPSK	75	0	14.30	14.38	14.27	15.1
15	16QAM	1	0	14.62	14.59	14.60	
15	16QAM	1	37	14.57	14.57	14.58	
15	16QAM	1	74	14.54	14.60	14.55	14.1
15	16QAM	36	0	13.50	13.44	13.44	
15	16QAM	36	20	13.35	13.39	13.35	
15	16QAM	36	39	13.26	13.33	13.27	14.1
15	16QAM	75	0	13.28	13.37	13.36	
15	64QAM	1	0	13.55	13.60	13.52	
15	64QAM	1	37	13.41	13.51	13.43	14.1
15	64QAM	1	74	13.42	13.46	13.48	
15	64QAM	36	0	12.41	12.47	12.38	
15	64QAM	36	20	12.36	12.34	12.39	13.1
15	64QAM	36	39	12.27	12.40	12.27	
15	64QAM	75	0	12.32	12.32	12.32	
Channel				20000	20175	20350	16.1
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	15.30	15.31	15.30	16.1
10	QPSK	1	25	15.19	15.28	15.26	
10	QPSK	1	49	15.18	15.22	15.23	
10	QPSK	25	0	14.38	14.38	14.33	15.1
10	QPSK	25	12	14.40	14.40	14.37	
10	QPSK	25	25	14.21	14.35	14.26	
10	QPSK	50	0	14.34	14.35	14.37	15.1
10	16QAM	1	0	14.62	14.63	14.64	
10	16QAM	1	25	14.58	14.66	14.55	
10	16QAM	1	49	14.50	14.61	14.58	14.1
10	16QAM	25	0	13.48	13.45	13.44	
10	16QAM	25	12	13.41	13.42	13.38	
10	16QAM	25	25	13.30	13.32	13.22	14.1
10	16QAM	50	0	13.23	13.36	13.35	
10	64QAM	1	0	13.53	13.53	13.53	
10	64QAM	1	25	13.38	13.49	13.44	14.1
10	64QAM	1	49	13.36	13.47	13.41	
10	64QAM	25	0	12.48	12.41	12.38	
10	64QAM	25	12	12.37	12.37	12.31	13.1
10	64QAM	25	25	12.27	12.30	12.31	
10	64QAM	50	0	12.32	12.43	12.35	
Channel				19975	20175	20375	16.1
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	15.30	15.32	15.32	16.1
5	QPSK	1	12	15.22	15.22	15.21	
5	QPSK	1	24	15.13	15.20	15.15	
5	QPSK	12	0	14.41	14.47	14.36	15.1
5	QPSK	12	7	14.41	14.39	14.33	
5	QPSK	12	13	14.24	14.34	14.20	
5	QPSK	25	0	14.33	14.32	14.32	15.1
5	16QAM	1	0	14.61	14.60	14.60	
5	16QAM	1	12	14.64	14.66	14.57	
5	16QAM	1	24	14.54	14.61	14.54	14.1
5	16QAM	12	0	13.47	13.48	13.38	
5	16QAM	12	7	13.28	13.39	13.34	
5	16QAM	12	13	13.25	13.29	13.18	14.1
5	16QAM	25	0	13.32	13.40	13.35	
5	64QAM	1	0	13.56	13.51	13.53	
5	64QAM	1	12	13.38	13.52	13.44	14.1
5	64QAM	1	24	13.45	13.46	13.41	
5	64QAM	12	0	12.38	12.41	12.44	
5	64QAM	12	7	12.31	12.46	12.40	13.1
5	64QAM	12	13	12.34	12.29	12.27	
5	64QAM	25	0	12.26	12.38	12.30	
Channel				19965	20175	20385	16.1
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	15.28	15.39	15.38	16.1
3	QPSK	1	8	15.21	15.28	15.27	
3	QPSK	1	14	15.09	15.24	15.18	
3	QPSK	8	0	14.40	14.49	14.40	
3	QPSK	8	4	14.30	14.35	14.29	



3	QPSK	8	7	14.56	14.57	14.57	15.3
3	QPSK	15	0	14.51	14.56	14.50	
3	16QAM	1	0	14.79	14.82	14.82	
3	16QAM	1	8	14.81	14.76	14.69	14.3
3	16QAM	1	14	14.68	14.76	14.71	
3	16QAM	8	0	13.62	13.61	13.54	
3	16QAM	8	4	13.59	13.62	13.56	14.3
3	16QAM	8	7	13.59	13.58	13.57	
3	16QAM	15	0	13.48	13.61	13.57	
3	64QAM	1	0	13.63	13.67	13.66	13.3
3	64QAM	1	8	13.56	13.64	13.56	
3	64QAM	1	14	13.56	13.66	13.56	
3	64QAM	8	0	12.62	12.71	12.52	13.3
3	64QAM	8	4	12.66	12.60	12.61	
3	64QAM	8	7	12.63	12.61	12.57	
3	64QAM	15	0	12.50	12.57	12.52	16.3
Channel				18607	18900	19193	
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	15.38	15.54	15.44	15.3
1.4	QPSK	1	3	15.33	15.41	15.40	
1.4	QPSK	1	5	15.28	15.42	15.42	
1.4	QPSK	3	0	15.39	15.48	15.41	15.3
1.4	QPSK	3	1	15.48	15.49	15.41	
1.4	QPSK	3	3	15.40	15.48	15.45	
1.4	QPSK	6	0	14.52	14.60	14.53	14.3
1.4	16QAM	1	0	14.78	14.79	14.74	
1.4	16QAM	1	3	14.78	14.77	14.72	
1.4	16QAM	1	5	14.70	14.80	14.81	14.3
1.4	16QAM	3	0	14.60	14.65	14.52	
1.4	16QAM	3	1	14.54	14.63	14.49	
1.4	16QAM	3	3	14.60	14.63	14.48	14.3
1.4	16QAM	6	0	13.49	13.58	13.51	
1.4	64QAM	1	0	13.69	13.72	13.67	
1.4	64QAM	1	3	13.56	13.60	13.60	13.3
1.4	64QAM	1	5	13.58	13.62	13.58	
1.4	64QAM	3	0	13.68	13.59	13.54	
1.4	64QAM	3	1	13.66	13.63	13.60	13.3
1.4	64QAM	3	3	13.61	13.61	13.54	
1.4	64QAM	6	0	12.52	12.56	12.49	

3	QPSK	8	7	14.18	14.31	14.23	15.1
3	QPSK	15	0	14.39	14.32	14.32	
3	16QAM	1	0	14.62	14.61	14.60	
3	16QAM	1	8	14.55	14.61	14.54	14.1
3	16QAM	1	14	14.49	14.59	14.49	
3	16QAM	8	0	13.46	13.41	13.42	
3	16QAM	8	4	13.32	13.39	13.32	13.1
3	16QAM	8	7	13.29	13.27	13.24	
3	16QAM	15	0	13.33	13.33	13.27	
3	64QAM	1	0	13.54	13.57	13.52	13.1
3	64QAM	1	8	13.46	13.45	13.42	
3	64QAM	1	14	13.40	13.50	13.42	
3	64QAM	8	0	12.41	12.45	12.31	13.1
3	64QAM	8	4	12.42	12.38	12.32	
3	64QAM	8	7	12.24	12.35	12.32	
3	64QAM	15	0	12.29	12.38	12.35	16.1
Channel				19957	20175	20393	
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	15.31	15.41	15.33	15.1
1.4	QPSK	1	3	15.23	15.23	15.21	
1.4	QPSK	1	5	15.17	15.23	15.23	
1.4	QPSK	3	0	15.21	15.31	15.29	15.1
1.4	QPSK	3	1	15.28	15.29	15.16	
1.4	QPSK	3	3	15.06	15.12	15.09	
1.4	QPSK	6	0	14.29	14.33	14.32	14.1
1.4	16QAM	1	0	14.65	14.59	14.55	
1.4	16QAM	1	3	14.57	14.59	14.55	
1.4	16QAM	1	5	14.50	14.60	14.60	14.1
1.4	16QAM	3	0	14.32	14.25	14.31	
1.4	16QAM	3	1	14.22	14.26	14.20	
1.4	16QAM	3	3	14.06	14.20	14.10	13.1
1.4	16QAM	6	0	13.32	13.37	13.29	
1.4	64QAM	1	0	13.49	13.55	13.54	
1.4	64QAM	1	3	13.46	13.51	13.42	13.1
1.4	64QAM	1	5	13.48	13.45	13.42	
1.4	64QAM	3	0	13.26	13.25	13.21	
1.4	64QAM	3	1	13.18	13.26	13.18	13.1
1.4	64QAM	3	3	13.13	13.19	13.10	
1.4	64QAM	6	0	12.32	12.33	12.31	



Band 5 (Celluar Band) (dBm) Part 22H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	21.18	21.24	21.16	
10	QPSK	1	25	21.02	21.09	21.03	21.8
10	QPSK	1	49	21.02	21.12	21.08	20.8
10	QPSK	25	0	20.15	20.20	20.15	
10	QPSK	25	12	20.06	20.14	20.09	
10	QPSK	25	25	20.11	20.11	20.10	20.8
10	QPSK	50	0	20.13	20.13	20.13	
10	16QAM	1	0	20.42	20.45	20.37	
10	16QAM	1	25	20.39	20.43	20.41	19.8
10	16QAM	1	49	20.36	20.39	20.32	
10	16QAM	25	0	19.16	19.19	19.19	
10	16QAM	25	12	19.21	19.22	19.23	19.8
10	16QAM	25	25	19.22	19.25	19.19	
10	16QAM	50	0	19.16	19.21	19.18	
10	64QAM	1	0	19.26	19.21	19.21	19.8
10	64QAM	1	25	19.13	19.16	19.14	
10	64QAM	1	49	19.10	19.15	19.11	
10	64QAM	25	0	17.98	17.99	17.95	18.8
10	64QAM	25	12	18.05	18.11	18.09	
10	64QAM	25	25	18.14	18.18	18.10	
10	64QAM	50	0	18.01	18.07	18.06	21.8
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	21.15	21.16	21.14	21.8
5	QPSK	1	12	20.99	21.10	20.98	
5	QPSK	1	24	20.96	21.12	21.01	
5	QPSK	12	0	20.08	20.11	20.15	20.8
5	QPSK	12	7	20.02	20.09	20.08	
5	QPSK	12	13	20.02	20.12	20.08	
5	QPSK	25	0	20.09	20.10	20.08	20.8
5	16QAM	1	0	20.38	20.39	20.35	
5	16QAM	1	12	20.37	20.39	20.38	
5	16QAM	1	24	20.35	20.41	20.34	19.8
5	16QAM	12	0	19.12	19.20	19.11	
5	16QAM	12	7	19.17	19.14	19.11	
5	16QAM	12	13	19.17	19.18	19.17	19.8
5	16QAM	25	0	19.10	19.14	19.11	
5	64QAM	1	0	19.14	19.23	19.22	
5	64QAM	1	12	19.12	19.12	19.12	18.8
5	64QAM	1	24	19.10	19.17	19.11	
5	64QAM	12	0	17.89	17.95	17.92	
5	64QAM	12	7	18.05	18.14	18.00	21.8
5	64QAM	12	13	18.13	18.09	18.11	
5	64QAM	25	0	17.98	18.06	18.02	
Channel				20415	20525	20635	21.8
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	21.11	21.20	21.16	
3	QPSK	1	8	20.96	21.08	20.96	20.8
3	QPSK	1	14	20.98	21.05	21.06	
3	QPSK	8	0	20.07	20.12	20.11	
3	QPSK	8	4	20.06	20.10	20.08	20.8
3	QPSK	8	7	20.07	20.13	20.07	
3	QPSK	15	0	20.07	20.10	20.06	
3	16QAM	1	0	20.41	20.46	20.32	20.8
3	16QAM	1	8	20.37	20.46	20.41	
3	16QAM	1	14	20.32	20.38	20.28	
3	16QAM	8	0	19.15	19.11	19.09	19.8
3	16QAM	8	4	19.20	19.11	19.12	
3	16QAM	8	7	19.22	19.20	19.15	
3	16QAM	15	0	19.10	19.12	19.10	19.8
3	64QAM	1	0	19.23	19.22	19.19	
3	64QAM	1	8	19.08	19.03	19.11	
3	64QAM	1	14	19.08	19.12	19.12	18.8
3	64QAM	8	0	17.89	17.94	17.96	
3	64QAM	8	4	17.98	18.07	18.01	
3	64QAM	8	7	18.09	18.15	18.14	21.8
3	64QAM	15	0	17.97	18.05	18.03	
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	21.8
1.4	QPSK	1	0	21.11	21.15	21.13	
1.4	QPSK	1	3	21.04	21.12	21.02	20.8
1.4	QPSK	1	5	20.98	21.08	21.03	
1.4	QPSK	3	0	21.07	21.00	20.99	20.8
1.4	QPSK	3	1	20.91	20.99	20.99	
1.4	QPSK	3	3	20.94	20.98	20.93	
1.4	QPSK	6	0	20.04	20.08	20.08	20.8
1.4	16QAM	1	0	20.39	20.45	20.35	
1.4	16QAM	1	3	20.35	20.46	20.40	
1.4	16QAM	1	5	20.40	20.33	20.29	19.8
1.4	16QAM	3	0	20.01	20.07	20.06	
1.4	16QAM	3	1	20.04	20.09	20.03	
1.4	16QAM	3	3	20.03	20.11	20.04	19.8
1.4	16QAM	6	0	19.07	19.14	19.14	
1.4	64QAM	1	0	19.14	19.16	19.13	
1.4	64QAM	1	3	19.01	19.11	19.09	19.8
1.4	64QAM	1	5	19.07	19.15	19.07	
1.4	64QAM	3	0	18.79	18.81	18.75	
1.4	64QAM	3	1	18.95	19.01	18.97	18.8
1.4	64QAM	3	3	19.02	19.08	18.99	
1.4	64QAM	6	0	18.02	18.02	18.04	

Band 7 (2600MHz Band) (dBm) Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	18.03	18.10	17.97	18.8
20	QPSK	1	49	17.87	18.00	17.97	
20	QPSK	1	99	17.85	17.96	17.89	
20	QPSK	50	0	17.12	17.14	17.10	17.8
20	QPSK	50	24	17.10	17.13	17.07	
20	QPSK	50	50	17.16	17.20	17.11	
20	QPSK	100	0	17.13	17.09	17.06	17.8
20	16QAM	1	0	17.11	17.20	17.14	
20	16QAM	1	49	17.23	17.24	17.27	
20	16QAM	1	99	17.32	17.42	17.31	16.8
20	16QAM	50	0	16.08	16.09	16.05	
20	16QAM	50	24	16.05	16.15	16.09	
20	16QAM	50	50	16.12	16.18	16.17	16.8
20	16QAM	100	0	16.10	16.12	16.06	
20	64QAM	1	0	16.07	16.13	16.12	
20	64QAM	1	49	16.07	16.06	16.01	16.8
20	64QAM	1	99	16.21	16.27	16.22	
20	64QAM	50	0	15.09	15.11	15.06	
20	64QAM	50	24	15.16	15.18	15.09	15.8
20	64QAM	50	50	15.12	15.20	15.17	
20	64QAM	100	0	15.15	15.17	15.04	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	18.01	18.06	17.99	18.8
15	QPSK	1	37	17.88	17.93	17.91	
15	QPSK	1	74	17.85	17.89	17.86	
15	QPSK	36	0	17.08	17.13	17.11	17.8
15	QPSK	36	20	17.05	17.08	16.99	
15	QPSK	36	39	17.08	17.11	17.12	
15	QPSK	75	0	17.05	17.09	17.02	17.8
15	16QAM	1	0	17.07	17.11	17.03	
15	16QAM	1	37	17.19	17.22	17.18	
15	16QAM	1	74	17.25	17.36	17.30	17.8
15	16QAM	1	111	17.32	17.42	17.35	
15	16QAM	36	0	16.02	16.06	15.99	
15	16QAM	36	20	16.00	16.07	16.03	16.8
15	16QAM	36	39	16.05	16.06	16.08	
15	16QAM	75	0	16.05	16.13	16.01	
15	64QAM	1	0	15.97	16.10	16.12	16.8
15	64QAM	1	37	15.96	16.10	15.97	
15	64QAM	1	74	16.19	16.25	16.18	
15	64QAM	36	0	15.03	15.06	15.03	15.8
15	64QAM	36	20	15.11	15.14	15.01	
15	64QAM	36	39	15.06	15.17	15.15	
15	64QAM	75	0	15.06	15.13	15.03	15.8
Channel				20800	21100	21400	
Frequency (MHz)				2505	2535	2565	Tune-up limit (dBm)
10	QPSK	1	0	18.00	18.05	17.88	18.8
10	QPSK	1	25	17.87	17.98	17.92	
10	QPSK	1	49	17.78	17.91	17.90	
10	QPSK	25	0	17.02	17.08	17.12	17.8
10	QPSK	25	12	17.05	17.13	17.03	
10	QPSK	25	25	17.15	17.08	17.06	
10	QPSK	50	0	17.07	17.04	17.00	17.8
10	16QAM	1	0	17.06	17.13	17.11	
10	16QAM	1	25	17.16	17.21	17.17	
10	16QAM	1	49	17.28	17.40	17.30	16.8
10	16QAM	25	0	16.00	16.01	15.98	
10	16QAM	25	12	15.97	16.15	16.02	
10	16QAM	25	25	16.05	16.10	16.07	16.8
10	16QAM	50	0	15.97	16.02	16.02	
10	64QAM	1	0	16.05	16.01	16.03	
10	64QAM	1	25	16.01	16.06	15.98	16.8
10	64QAM	1	49	16.22	16.20	16.16	
10	64QAM	25	0	15.05	15.09	15.02	
10	64QAM	25	12	15.09	15.10	15.11	15.8
10	64QAM	25	25	15.06	15.10	15.13	
10	64QAM	50	0	15.09	15.15	15.08	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	17.98	18.02	17.91	18.8
5	QPSK	1	12	17.80	17.95	17.94	
5	QPSK	1	24	17.86	17.93	17.92	
5	QPSK	12	0	17.05	17.17	17.13	17.8
5	QPSK	12	7	17.11	17.10	17.08	
5	QPSK	12	13	17.10	17.08	17.08	
5	QPSK	25	0	16.99	17.09	17.03	17.8
5	16QAM	1	0	17.08	17.14	17.03	
5	16QAM	1	12	17.22	17.17	17.22	
5	16QAM	1	24	17.32	17.31	17.25	17.8
5	16QAM	12	0	16.05	16.02	16.03	
5	16QAM	12	7	16.03	16.07	16.03	
5	16QAM	12	13	16.12	16.07	16.10	16.8
5	16QAM	25	0	16.05	16.07	16.00	
5	64QAM	1	0	15.94	16.10	16.08	
5	64QAM	1	12	16.03	16.05	16.00	16.8
5	64QAM	1	24	16.20	16.24	16.17	
5	64QAM	12	0	15.08	15.01	15.02	
5	64QAM	12	7	15.13	15.09	15.07	15.8
5	64QAM	12	13	15.10	15.13	15.12	
5	64QAM	25	0	15.04	15.07	15.08	



Band 12 (700MHz Low Band) (dBm) Part 27F(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23060	23095	23130	21.8
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	21.19	21.24	21.19	
10	QPSK	1	25	21.08	21.18	21.12	20.8
10	QPSK	1	49	21.07	21.13	21.07	
10	QPSK	25	0	20.29	20.33	20.27	
10	QPSK	25	12	20.22	20.27	20.24	20.8
10	QPSK	25	25	20.22	20.30	20.22	
10	QPSK	50	0	20.16	20.25	20.18	
10	16QAM	1	0	20.50	20.54	20.49	20.8
10	16QAM	1	25	20.47	20.53	20.52	
10	16QAM	1	49	20.47	20.49	20.45	
10	16QAM	25	0	19.21	19.24	19.17	19.8
10	16QAM	25	12	19.11	19.20	19.14	
10	16QAM	25	25	19.18	19.28	19.22	
10	16QAM	50	0	19.15	19.20	19.15	19.8
10	64QAM	1	0	19.30	19.38	19.28	
10	64QAM	1	25	19.26	19.33	19.31	
10	64QAM	1	49	19.42	19.46	19.34	18.8
10	64QAM	25	0	18.20	18.27	18.24	
10	64QAM	25	12	18.20	18.25	18.22	
10	64QAM	25	25	18.22	18.21	18.14	18.8
10	64QAM	50	0	18.18	18.29	18.23	
Channel				23035	23095	23155	21.8
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	21.15	21.18	21.14	
5	QPSK	1	12	21.08	21.16	21.03	20.8
5	QPSK	1	24	21.00	21.09	21.02	
5	QPSK	12	0	20.20	20.28	20.16	
5	QPSK	12	7	20.15	20.23	20.18	20.8
5	QPSK	12	13	20.14	20.20	20.17	
5	QPSK	25	0	20.08	20.18	20.11	
5	16QAM	1	0	20.42	20.46	20.40	20.8
5	16QAM	1	12	20.42	20.51	20.47	
5	16QAM	1	24	20.44	20.48	20.41	
5	16QAM	12	0	19.19	19.23	19.11	19.8
5	16QAM	12	7	19.09	19.15	19.11	
5	16QAM	12	13	19.14	19.24	19.26	
5	16QAM	25	0	19.13	19.12	19.20	19.8
5	64QAM	1	0	19.28	19.38	19.23	
5	64QAM	1	12	19.24	19.35	19.27	
5	64QAM	1	24	19.41	19.41	19.30	18.8
5	64QAM	12	0	18.13	18.23	18.12	
5	64QAM	12	7	18.20	18.23	18.17	
5	64QAM	12	13	18.13	18.14	18.04	18.8
5	64QAM	25	0	18.17	18.19	18.20	
Channel				23025	23095	23165	21.8
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	21.14	21.21	21.16	
3	QPSK	1	8	21.09	21.09	21.01	20.8
3	QPSK	1	14	20.98	21.11	21.05	
3	QPSK	8	0	20.20	20.26	20.22	
3	QPSK	8	4	20.16	20.23	20.19	20.8
3	QPSK	8	7	20.20	20.26	20.22	
3	QPSK	15	0	20.06	20.16	20.14	
3	16QAM	1	0	20.36	20.52	20.47	20.8
3	16QAM	1	8	20.46	20.45	20.45	
3	16QAM	1	14	20.44	20.48	20.42	
3	16QAM	8	0	19.12	19.18	19.15	19.8
3	16QAM	8	4	19.10	19.18	19.09	
3	16QAM	8	7	19.21	19.26	19.21	
3	16QAM	15	0	19.09	19.13	19.08	19.8
3	64QAM	1	0	19.31	19.31	19.22	
3	64QAM	1	8	19.22	19.33	19.26	
3	64QAM	1	14	19.37	19.37	19.34	18.8
3	64QAM	8	0	18.11	18.21	18.16	
3	64QAM	8	4	18.17	18.25	18.14	
3	64QAM	8	7	18.14	18.12	18.14	18.8
3	64QAM	15	0	17.72	17.80	17.75	
Channel				23017	23095	23173	21.8
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	21.09	21.18	21.11	
1.4	QPSK	1	3	20.98	21.07	21.00	20.8
1.4	QPSK	1	5	20.97	21.02	21.01	
1.4	QPSK	3	0	21.03	21.16	21.02	
1.4	QPSK	3	1	20.97	21.09	21.04	20.8
1.4	QPSK	3	3	21.05	21.10	21.03	
1.4	QPSK	6	0	20.07	20.12	20.11	
1.4	16QAM	1	0	20.41	20.49	20.40	20.8
1.4	16QAM	1	3	20.37	20.47	20.40	
1.4	16QAM	1	5	20.35	20.36	20.36	
1.4	16QAM	3	0	19.99	19.99	20.03	19.8
1.4	16QAM	3	1	19.93	20.01	19.95	
1.4	16QAM	3	3	19.96	20.07	20.05	
1.4	16QAM	6	0	19.06	19.16	19.06	19.8
1.4	64QAM	1	0	19.19	19.27	19.22	
1.4	64QAM	1	3	19.16	19.25	19.23	
1.4	64QAM	1	5	19.33	19.35	19.29	18.8
1.4	64QAM	3	0	18.99	19.05	18.99	
1.4	64QAM	3	1	19.08	19.09	19.03	
1.4	64QAM	3	3	19.02	19.02	18.96	18.8
1.4	64QAM	6	0	17.71	17.76	17.75	

Band 13(700MHz Band) (dBm) Part 27F							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23230			21.8
Frequency (MHz)				782			
10	QPSK	1	0		21.18		
10	QPSK	1	25		21.14		20.8
10	QPSK	1	49		21.12		
10	QPSK	25	0		20.34		
10	QPSK	25	12		20.27		20.8
10	QPSK	25	25		20.29		
10	QPSK	50	0		20.20		
10	16QAM	1	0		20.57		20.8
10	16QAM	1	25		20.50		
10	16QAM	1	49		20.53		
10	16QAM	25	0		19.27		19.8
10	16QAM	25	12		19.19		
10	16QAM	25	25		19.28		
10	16QAM	50	0		19.24		19.8
10	64QAM	1	0		19.34		
10	64QAM	1	25		19.39		
10	64QAM	1	49		19.42		18.8
10	64QAM	25	0		18.24		
10	64QAM	25	12		18.24		
10	64QAM	25	25		18.21		18.8
10	64QAM	50	0		18.23		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	21.15	21.17	21.10	21.8
5	QPSK	1	12	21.05	21.12	21.03	
5	QPSK	1	24	20.98	21.08	21.06	
5	QPSK	12	0	20.16	20.28	20.15	20.8
5	QPSK	12	7	20.18	20.20	20.16	
5	QPSK	12	13	20.17	20.19	20.15	
5	QPSK	25	0	20.07	20.18	20.11	20.8
5	16QAM	1	0	20.40	20.46	20.38	
5	16QAM	1	12	20.41	20.49	20.46	
5	16QAM	1	24	20.36	20.45	20.39	19.8
5	16QAM	12	0	19.16	19.21	19.11	
5	16QAM	12	7	19.06	19.15	19.12	
5	16QAM	12	13	19.11	19.20	19.24	19.8
5	16QAM	25	0	19.11	19.16	19.15	
5	64QAM	1	0	19.28	19.31	19.23	
5	64QAM	1	12	19.20	19.34	19.25	19.8
5	64QAM	1	24	19.35	19.36	19.33	
5	64QAM	12	0	18.15	18.25	18.15	
5	64QAM	12	7	18.19	18.23	18.20	18.8
5	64QAM	12	13	18.11	18.15	18.04	
5	64QAM	25	0	18.16	18.20	18.19	



Band 17 (700MHz Band) (dBm) Part 27H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	21.12	21.16	21.09	
10	QPSK	1	25	21.11	21.14	21.07	21.8
10	QPSK	1	49	20.99	21.07	21.11	
10	QPSK	25	0	20.25	20.23	20.22	
10	QPSK	25	12	20.13	20.24	20.22	20.8
10	QPSK	25	25	20.13	20.24	20.11	
10	QPSK	50	0	20.22	20.19	20.18	
10	16QAM	1	0	20.41	20.48	20.38	20.8
10	16QAM	1	25	20.37	20.47	20.43	
10	16QAM	1	49	20.37	20.40	20.40	
10	16QAM	25	0	19.25	19.28	19.21	19.8
10	16QAM	25	12	19.30	19.28	19.19	
10	16QAM	25	25	19.19	19.28	19.17	
10	16QAM	50	0	19.24	19.21	19.18	19.8
10	64QAM	1	0	19.31	19.34	19.30	
10	64QAM	1	25	19.32	19.33	19.32	
10	64QAM	1	49	19.25	19.32	19.27	18.8
10	64QAM	25	0	18.20	18.28	18.24	
10	64QAM	25	12	18.18	18.27	18.25	
10	64QAM	25	25	18.20	18.29	18.27	18.8
10	64QAM	50	0	18.19	18.23	18.23	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	21.13	21.16	21.10	
5	QPSK	1	12	21.09	21.07	21.04	21.8
5	QPSK	1	24	20.99	21.10	21.00	
5	QPSK	12	0	20.20	20.21	20.19	
5	QPSK	12	7	20.11	20.18	20.13	20.8
5	QPSK	12	13	20.05	20.15	20.09	
5	QPSK	25	0	20.19	20.14	20.08	
5	16QAM	1	0	20.44	20.39	20.33	20.8
5	16QAM	1	12	20.30	20.39	20.36	
5	16QAM	1	24	20.31	20.30	20.41	
5	16QAM	12	0	19.19	19.31	19.20	19.8
5	16QAM	12	7	19.24	19.22	19.13	
5	16QAM	12	13	19.10	19.22	19.22	
5	16QAM	25	0	19.18	19.23	19.12	19.8
5	64QAM	1	0	19.29	19.33	19.26	
5	64QAM	1	12	19.27	19.26	19.21	
5	64QAM	1	24	19.22	19.30	19.23	18.8
5	64QAM	12	0	18.19	18.31	18.22	
5	64QAM	12	7	18.14	18.24	18.26	
5	64QAM	12	13	18.23	18.22	18.17	18.8
5	64QAM	25	0	18.12	18.10	18.11	

Band 18 (835MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel					23925		
Frequency (MHz)					822.5		
15	QPSK	1	0		21.13		
15	QPSK	1	37		21.08		21.8
15	QPSK	1	74		21.06		
15	QPSK	36	0		20.16		
15	QPSK	36	20		20.15		20.8
15	QPSK	36	39		20.20		
15	QPSK	75	0		20.17		
15	16QAM	1	0		20.42		20.8
15	16QAM	1	37		20.47		
15	16QAM	1	74		20.49		
15	16QAM	36	0		19.20		19.8
15	16QAM	36	20		19.16		
15	16QAM	36	39		19.15		
15	16QAM	75	0		19.16		19.8
15	64QAM	1	0		19.21		
15	64QAM	1	25		19.16		
15	64QAM	1	49		19.13		18.8
15	64QAM	25	0		18.18		
15	64QAM	25	12		18.22		
15	64QAM	25	25		18.17		18.8
15	64QAM	50	0		18.21		
Channel				23900	23925	23950	Tune-up limit (dBm)
Frequency (MHz)				820	822.5	825	
10	QPSK	1	0	21.05	21.10	21.05	
10	QPSK	1	25	21.01	21.02	21.03	21.8
10	QPSK	1	49	21.01	21.03	21.00	
10	QPSK	25	0	20.11	20.12	20.10	
10	QPSK	25	12	20.14	20.07	20.12	20.8
10	QPSK	25	25	20.16	20.17	20.17	
10	QPSK	50	0	20.13	20.13	20.10	
10	16QAM	1	0	20.36	20.35	20.39	20.8
10	16QAM	1	25	20.43	20.39	20.39	
10	16QAM	1	49	20.45	20.43	20.46	
10	16QAM	25	0	19.14	19.17	19.16	19.8
10	16QAM	25	12	19.10	19.09	19.14	
10	16QAM	25	25	19.13	19.07	19.08	
10	16QAM	50	0	19.13	19.15	19.13	19.8
10	64QAM	1	0	19.18	19.18	19.14	
10	64QAM	1	25	19.12	19.13	19.10	
10	64QAM	1	49	19.06	19.05	19.09	18.8
10	64QAM	25	0	18.13	18.16	18.15	
10	64QAM	25	12	18.21	18.18	18.19	
10	64QAM	25	25	18.13	18.13	18.14	18.8
10	64QAM	50	0	18.18	18.13	18.18	
Channel				23875	23925	23975	Tune-up limit (dBm)
Frequency (MHz)				817.5	822.5	827.5	
5	QPSK	1	0	21.11	21.12	21.08	
5	QPSK	1	12	21.01	21.02	21.00	21.80
5	QPSK	1	24	20.99	21.02	21.01	
5	QPSK	12	0	20.13	20.13	20.15	
5	QPSK	12	7	20.13	20.14	20.07	20.8
5	QPSK	12	13	20.12	20.14	20.18	
5	QPSK	25	0	20.13	20.14	20.10	
5	16QAM	1	0	20.35	20.41	20.34	20.8
5	16QAM	1	12	20.45	20.40	20.41	
5	16QAM	1	24	20.48	20.41	20.41	
5	16QAM	12	0	19.12	19.18	19.12	19.8
5	16QAM	12	7	19.13	19.09	19.15	
5	16QAM	12	13	19.08	19.08	19.10	
5	16QAM	25	0	19.12	19.11	19.09	19.8
5	64QAM	1	0	19.13	19.16	19.14	
5	64QAM	1	12	19.13	19.09	19.10	
5	64QAM	1	24	19.05	19.10	19.08	18.8
5	64QAM	12	0	18.14	18.12	18.17	
5	64QAM	12	7	18.19	18.20	18.14	
5	64QAM	12	13	18.12	18.12	18.12	18.8
5	64QAM	25	0	18.18	18.20	18.15	



Band 25 (1900MHz Band) (dBm) Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26140	26365	26590	
Frequency (MHz)				1860	1882.5	1905	
20	QPSK	1	0	15.50	15.58	15.52	16.3
20	QPSK	1	49	15.45	15.42	15.41	
20	QPSK	1	99	15.36	15.42	15.45	
20	QPSK	50	0	14.64	14.66	14.67	
20	QPSK	50	24	14.63	14.64	14.62	15.3
20	QPSK	50	50	14.64	14.64	14.59	
20	QPSK	100	0	14.54	14.63	14.56	
20	16QAM	1	0	14.84	14.90	14.80	
20	16QAM	1	49	14.76	14.82	14.81	15.3
20	16QAM	1	99	14.66	14.74	14.72	
20	16QAM	50	0	13.59	13.67	13.59	
20	16QAM	50	24	13.61	13.60	13.51	
20	16QAM	50	50	13.64	13.66	13.60	14.3
20	16QAM	100	0	13.60	13.66	13.60	
20	64QAM	1	0	13.71	13.74	13.71	
20	64QAM	1	49	13.67	13.73	13.68	
20	64QAM	1	99	13.69	13.69	13.61	14.3
20	64QAM	50	0	12.72	12.74	12.67	
20	64QAM	50	24	12.63	12.73	12.62	
20	64QAM	50	50	12.69	12.68	12.64	
20	64QAM	100	0	12.61	12.68	12.66	
Channel				26115	26365	26615	
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	15.48	15.54	15.50	16.3
15	QPSK	1	37	15.39	15.39	15.39	
15	QPSK	1	74	15.33	15.40	15.39	
15	QPSK	36	0	14.63	14.59	14.63	
15	QPSK	36	20	14.57	14.64	14.51	15.3
15	QPSK	36	39	14.60	14.60	14.56	
15	QPSK	75	0	14.51	14.55	14.46	
15	16QAM	1	0	14.83	14.87	14.79	
15	16QAM	1	37	14.71	14.76	14.79	15.3
15	16QAM	1	74	14.62	14.71	14.66	
15	16QAM	36	0	13.59	13.63	13.52	
15	16QAM	36	20	13.52	13.60	13.50	
15	16QAM	36	39	13.59	13.62	13.59	14.3
15	16QAM	75	0	13.49	13.63	13.54	
15	64QAM	1	0	13.67	13.69	13.64	
15	64QAM	1	37	13.58	13.61	13.67	
15	64QAM	1	74	13.56	13.63	13.60	14.3
15	64QAM	36	0	12.67	12.66	12.69	
15	64QAM	36	20	12.59	12.72	12.61	
15	64QAM	36	39	12.59	12.60	12.64	
15	64QAM	75	0	12.53	12.58	12.58	
Channel				26090	26365	26640	
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	15.44	15.52	15.41	16.3
10	QPSK	1	25	15.35	15.38	15.34	
10	QPSK	1	49	15.29	15.40	15.32	
10	QPSK	25	0	14.56	14.58	14.59	
10	QPSK	25	12	14.58	14.58	14.52	15.3
10	QPSK	25	25	14.64	14.64	14.60	
10	QPSK	50	0	14.53	14.62	14.45	
10	16QAM	1	0	14.80	14.81	14.73	
10	16QAM	1	25	14.66	14.80	14.77	15.3
10	16QAM	1	49	14.59	14.72	14.61	
10	16QAM	25	0	13.59	13.55	13.60	
10	16QAM	25	12	13.51	13.53	13.47	
10	16QAM	25	25	13.58	13.60	13.58	14.3
10	16QAM	50	0	13.49	13.62	13.50	
10	64QAM	1	0	13.68	13.68	13.68	
10	64QAM	1	25	13.61	13.72	13.67	
10	64QAM	1	49	13.59	13.68	13.57	14.3
10	64QAM	25	0	12.71	12.67	12.65	
10	64QAM	25	12	12.56	12.65	12.57	
10	64QAM	25	25	12.59	12.62	12.58	
10	64QAM	50	0	12.52	12.61	12.56	
Channel				26065	26365	26665	
Frequency (MHz)				1852.5	1882.5	1912.5	
5	QPSK	1	0	15.47	15.52	15.42	16.3
5	QPSK	1	12	15.38	15.46	15.36	
5	QPSK	1	24	15.35	15.46	15.36	
5	QPSK	12	0	14.57	14.60	14.57	
5	QPSK	12	7	14.51	14.63	14.55	15.3
5	QPSK	12	13	14.60	14.57	14.58	
5	QPSK	25	0	14.54	14.58	14.47	
5	16QAM	1	0	14.76	14.79	14.70	
5	16QAM	1	12	14.69	14.80	14.76	15.3
5	16QAM	1	24	14.61	14.71	14.69	
5	16QAM	12	0	13.57	13.57	13.57	
5	16QAM	12	7	13.52	13.62	13.48	
5	16QAM	12	13	13.63	13.63	13.64	14.3
5	16QAM	25	0	13.51	13.59	13.55	
5	64QAM	1	0	13.69	13.70	13.71	
5	64QAM	1	12	13.60	13.72	13.68	
5	64QAM	1	24	13.67	13.68	13.56	14.3
5	64QAM	12	0	12.69	12.68	12.64	
5	64QAM	12	7	12.57	12.73	12.55	
5	64QAM	12	13	12.64	12.68	12.61	
5	64QAM	25	0	12.56	12.62	12.58	
Channel				26055	26365	26675	
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	15.43	15.52	15.40	16.3
3	QPSK	1	8	15.36	15.42	15.35	
3	QPSK	1	14	15.37	15.40	15.41	
3	QPSK	8	0	14.59	14.63	14.59	
3	QPSK	8	4	14.57	14.61	14.59	16.3
Channel				26055	26365	26675	
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	15.43	15.52	15.40	
3	QPSK	1	8	15.36	15.42	15.35	
3	QPSK	1	14	15.37	15.40	15.41	



3	QPSK	8	7	14.60	14.55	14.58	15.3
3	QPSK	15	0	14.45	14.54	14.52	
3	16QAM	1	0	14.75	14.84	14.79	
3	16QAM	1	8	14.73	14.75	14.74	14.3
3	16QAM	1	14	14.67	14.74	14.71	
3	16QAM	8	0	13.57	13.59	13.52	
3	16QAM	8	4	13.57	13.54	13.51	14.3
3	16QAM	8	7	13.58	13.54	13.59	
3	16QAM	15	0	13.56	13.58	13.52	
3	64QAM	1	0	13.68	13.66	13.70	14.3
3	64QAM	1	8	13.57	13.62	13.60	
3	64QAM	1	14	13.62	13.64	13.57	
3	64QAM	8	0	12.72	12.73	12.65	13.3
3	64QAM	8	4	12.64	12.66	12.60	
3	64QAM	8	7	12.62	12.63	12.60	
3	64QAM	15	0	12.51	12.61	12.63	Tune-up limit (dBm)
Channel				26047	26365	26683	
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	15.47	15.51	15.45	16.3
1.4	QPSK	1	3	15.36	15.39	15.29	
1.4	QPSK	1	5	15.34	15.36	15.32	
1.4	QPSK	3	0	15.46	15.54	15.51	15.3
1.4	QPSK	3	1	15.44	15.48	15.49	
1.4	QPSK	3	3	15.49	15.52	15.48	
1.4	QPSK	6	0	14.49	14.56	14.48	14.3
1.4	16QAM	1	0	14.83	14.82	14.75	
1.4	16QAM	1	3	14.66	14.82	14.74	
1.4	16QAM	1	5	14.57	14.70	14.67	13.3
1.4	16QAM	3	0	14.45	14.46	14.41	
1.4	16QAM	3	1	14.44	14.44	14.35	
1.4	16QAM	3	3	14.54	14.50	14.48	14.3
1.4	16QAM	6	0	13.50	13.57	13.59	
1.4	64QAM	1	0	13.64	13.69	13.68	
1.4	64QAM	1	3	13.60	13.70	13.67	13.3
1.4	64QAM	1	5	13.62	13.68	13.63	
1.4	64QAM	3	0	13.58	13.66	13.57	
1.4	64QAM	3	1	13.52	13.53	13.55	13.3
1.4	64QAM	3	3	13.54	13.57	13.54	
1.4	64QAM	6	0	12.54	12.57	12.63	

1.4	QPSK	3	3	21.47	21.53	21.51	21.3
1.4	QPSK	6	0	20.57	20.68	20.62	
1.4	16QAM	1	0	20.78	20.81	20.81	
1.4	16QAM	1	3	20.87	20.90	20.86	21.3
1.4	16QAM	1	5	20.81	20.80	20.74	
1.4	16QAM	3	0	20.46	20.53	20.43	
1.4	16QAM	3	1	20.40	20.52	20.39	20.3
1.4	16QAM	3	3	20.46	20.56	20.44	
1.4	16QAM	6	0	19.55	19.64	19.58	
1.4	64QAM	1	0	19.72	19.70	19.67	20.3
1.4	64QAM	1	3	19.75	19.78	19.69	
1.4	64QAM	1	5	19.66	19.64	19.63	
1.4	64QAM	3	0	19.47	19.50	19.56	19.3
1.4	64QAM	3	1	19.46	19.49	19.46	
1.4	64QAM	3	3	19.41	19.52	19.42	
1.4	64QAM	6	0	18.54	18.65	18.53	19.3



Band 66 (dBm)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	16.1
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	15.33	15.42	15.37	
20	QPSK	1	49	15.21	15.31	15.25	15.1
20	QPSK	1	99	15.23	15.29	15.26	
20	QPSK	50	0	14.34	14.34	14.30	
20	QPSK	50	24	14.35	14.41	14.39	15.1
20	QPSK	50	50	14.21	14.31	14.28	
20	QPSK	100	0	14.34	14.38	14.34	
20	16QAM	1	0	14.55	14.64	14.60	15.1
20	16QAM	1	49	14.58	14.65	14.56	
20	16QAM	1	99	14.57	14.59	14.56	
20	16QAM	50	0	13.39	13.38	13.35	14.1
20	16QAM	50	24	13.31	13.33	13.31	
20	16QAM	50	50	13.35	13.38	13.32	
20	16QAM	100	0	13.34	13.36	13.29	14.1
20	64QAM	1	0	13.59	13.62	13.62	
20	64QAM	1	49	13.55	13.64	13.50	
20	64QAM	1	99	13.55	13.57	13.50	13.1
20	64QAM	50	0	12.38	12.42	12.37	
20	64QAM	50	24	12.36	12.41	12.34	
20	64QAM	50	50	12.35	12.41	12.33	13.1
20	64QAM	100	0	12.31	12.42	12.35	
Channel				132047	132322	132597	16.1
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	15.30	15.32	15.37	
15	QPSK	1	37	15.16	15.31	15.24	15.1
15	QPSK	1	74	15.15	15.22	15.23	
15	QPSK	36	0	14.28	14.30	14.29	
15	QPSK	36	20	14.29	14.35	14.38	15.1
15	QPSK	36	39	14.17	14.29	14.26	
15	QPSK	75	0	14.36	14.37	14.31	
15	16QAM	1	0	14.56	14.64	14.57	15.1
15	16QAM	1	37	14.55	14.62	14.56	
15	16QAM	1	74	14.50	14.62	14.44	
15	16QAM	36	0	13.32	13.38	13.33	14.1
15	16QAM	36	20	13.28	13.25	13.24	
15	16QAM	36	39	13.30	13.31	13.28	
15	16QAM	75	0	13.24	13.33	13.24	14.1
15	64QAM	1	0	13.49	13.63	13.55	
15	64QAM	1	37	13.53	13.56	13.50	
15	64QAM	1	74	13.51	13.59	13.51	13.1
15	64QAM	36	0	12.29	12.32	12.34	
15	64QAM	36	20	12.32	12.41	12.27	
15	64QAM	36	39	12.30	12.35	12.33	13.1
15	64QAM	75	0	12.35	12.30	12.28	
Channel				132022	132322	132622	16.1
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	15.26	15.33	15.35	
10	QPSK	1	25	15.20	15.25	15.21	15.1
10	QPSK	1	49	15.12	15.28	15.18	
10	QPSK	25	0	14.21	14.33	14.24	
10	QPSK	25	12	14.34	14.41	14.34	15.1
10	QPSK	25	25	14.25	14.21	14.22	
10	QPSK	50	0	14.32	14.27	14.24	
10	16QAM	1	0	14.49	14.58	14.57	15.1
10	16QAM	1	25	14.54	14.55	14.59	
10	16QAM	1	49	14.48	14.54	14.50	
10	16QAM	25	0	13.32	13.34	13.29	14.1
10	16QAM	25	12	13.23	13.27	13.25	
10	16QAM	25	25	13.24	13.35	13.36	
10	16QAM	50	0	13.27	13.29	13.26	14.1
10	64QAM	1	0	13.49	13.60	13.57	
10	64QAM	1	25	13.57	13.55	13.50	
10	64QAM	1	49	13.49	13.57	13.51	13.1
10	64QAM	25	0	12.30	12.40	12.34	
10	64QAM	25	12	12.31	12.34	12.30	
10	64QAM	25	25	12.29	12.31	12.32	13.1
10	64QAM	50	0	12.26	12.38	12.30	
Channel				131997	132322	132647	16.1
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	15.28	15.38	15.36	
5	QPSK	1	12	15.19	15.30	15.19	15.1
5	QPSK	1	24	15.20	15.26	15.21	
5	QPSK	12	0	14.26	14.35	14.26	
5	QPSK	12	7	14.31	14.37	14.29	15.1
5	QPSK	12	13	14.19	14.26	14.24	
5	QPSK	25	0	14.35	14.34	14.34	
5	16QAM	1	0	14.52	14.60	14.56	15.1
5	16QAM	1	12	14.55	14.57	14.57	
5	16QAM	1	24	14.47	14.54	14.49	
5	16QAM	12	0	13.39	13.32	13.27	14.1
5	16QAM	12	7	13.18	13.30	13.23	
5	16QAM	12	13	13.25	13.30	13.25	
5	16QAM	25	0	13.29	13.31	13.27	14.1
5	64QAM	1	0	13.57	13.59	13.54	
5	64QAM	1	12	13.48	13.59	13.41	
5	64QAM	1	24	13.51	13.50	13.50	13.1
5	64QAM	12	0	12.30	12.38	12.34	
5	64QAM	12	7	12.29	12.34	12.31	
5	64QAM	12	13	12.27	12.36	12.26	13.1
5	64QAM	25	0	12.34	12.39	12.26	
Channel				131987	132322	132657	16.1
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	15.34	15.35	15.30	
3	QPSK	1	8	15.24	15.31	15.21	16.1
3	QPSK	1	14	15.18	15.22	15.22	
3	QPSK	8	0	14.27	14.26	14.22	
3	QPSK	8	4	14.34	14.40	14.37	16.1
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
3	QPSK	1	0	15.30	15.32	15.37	
3	QPSK	1	37	15.16	15.31	15.24	15.1
3	QPSK	1	74	15.15	15.22	15.23	
3	QPSK	36	0	14.28	14.30	14.29	
3	QPSK	36	20	14.29	14.35	14.38	15.1
3	QPSK	36	39	14.17	14.29	14.26	
3	QPSK	75	0	14.36	14.37	14.31	
3	16QAM	1	0	14.56	14.64	14.57	15.1
3	16QAM	1	37	14.55	14.62	14.56	
3	16QAM	1	74	14.50	14.62	14.44	
3	16QAM	36	0	13.32	13.38	13.33	14.1
3	16QAM	36	20	13.28	13.25	13.24	
3	16QAM	36	39	13.30	13.31	13.28	
3	16QAM	75	0	13.24	13.33	13.24	14.1
3	64QAM	1	0	13.49	13.63	13.55	
3	64QAM	1	37	13.53	13.56	13.50	
3	64QAM	1	74	13.51	13.59	13.51	13.1
3	64QAM	36	0	12.29	12.32	12.34	
3	64QAM	36	20	12.32	12.41	12.27	
3	64QAM	36	39	12.30	12.35	12.33	13.1
3	64QAM	75	0	12.35	12.30	12.28	
Channel				132022	132322	132622	16.1
Frequency (MHz)				1715	1745	1775	
3	QPSK	1	0	15.26	15.33	15.35	
3	QPSK	1	25	15.20	15.25	15.21	15.1
3	QPSK	1	49	15.12	15.28	15.18	
3	QPSK	25	0	14.21	14.33	14.24	
3	QPSK	25	12	14.34	14.41	14.34	15.1
3	QPSK	25	25	14.25	14.21	14.22	
3	QPSK	50	0	14.32	14.27	14.24	
3	16QAM	1	0	14.49	14.58	14.57	15.1
3	16QAM	1	25	14.54	14.55	14.59	
3	16QAM	1	49	14.48	14.54	14.50	
3	16QAM	25	0	13.32	13.34	13.29	14.1
3	16QAM	25	12	13.23	13.27	13.25	
3	16QAM	25	25	13.24	13.35	13.36	
3	16QAM	50	0	13.27	13.29	13.26	14.1
3	64QAM	1	0	13.49	13.60	13.57	
3	64QAM	1	25	13.57	13.55	13.50	
3	64QAM	1	49	13.49	13.57	13.51	13.1
3	64QAM	25	0	12.30	12.40	12.34	
3	64QAM	25	12	12.31	12.34	12.30	
3	64QAM	25	25	12.29	12.31	12.32	13.1
3	64QAM	50	0	12.26	12.38	12.30	
Channel				131997	132322	132647	16.1
Frequency (MHz)				1712.5	1745	1777.5	
3	QPSK	1	0	15.28	15.38	15.36	
3	QPSK	1	12	15.19	15.30	15.19	15.1
3	QPSK	1	24	15.20	15.26	15.21	
3	QPSK	12	0	14.26	14.35	14.26	
3	QPSK	12	7	14.31	14.37	14.29	15.1
3	QPSK	12	13	14.19	14.26	14.24	
3	QPSK	25	0	14.35	14.34	14.34	
3	16QAM	1	0	14.52	14.60	14.56	15.1
3	16QAM	1	12	14.55	14.57	14.57	
3	16QAM	1	24	14.47	14.54	14.49	
3	16QAM	12	0	13.39	13.32	13.27	14.1
3	16QAM	12	7	13.18	13.30	13.23	
3	16QAM	12	13	13.25	13.30	13.25	
3	16QAM	25	0	13.29	13.31	13.27	14.1



3	QPSK	8	7	14.20	14.25	14.26	15.1
3	QPSK	15	0	14.38	14.35	14.29	
3	16QAM	1	0	14.49	14.57	14.50	
3	16QAM	1	8	14.57	14.61	14.56	15.1
3	16QAM	1	14	14.45	14.57	14.48	
3	16QAM	8	0	13.32	13.40	13.30	
3	16QAM	8	4	13.27	13.29	13.25	14.1
3	16QAM	8	7	13.26	13.36	13.28	
3	16QAM	15	0	13.32	13.31	13.31	
3	64QAM	1	0	13.55	13.61	13.53	14.1
3	64QAM	1	8	13.48	13.53	13.47	
3	64QAM	1	14	13.47	13.55	13.48	
3	64QAM	8	0	12.30	12.37	12.33	13.1
3	64QAM	8	4	12.28	12.32	12.31	
3	64QAM	8	7	12.24	12.32	12.31	
3	64QAM	15	0	12.33	12.31	12.34	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	15.28	15.36	15.31	16.1
1.4	QPSK	1	3	15.17	15.31	15.28	
1.4	QPSK	1	5	15.17	15.26	15.19	
1.4	QPSK	3	0	15.20	15.23	15.17	
1.4	QPSK	3	1	15.25	15.29	15.19	
1.4	QPSK	3	3	15.13	15.17	15.16	
1.4	QPSK	6	0	14.34	14.38	14.27	15.1
1.4	16QAM	1	0	14.55	14.58	14.59	15.1
1.4	16QAM	1	3	14.52	14.57	14.55	
1.4	16QAM	1	5	14.47	14.51	14.55	
1.4	16QAM	3	0	14.19	14.21	14.20	
1.4	16QAM	3	1	14.08	14.19	14.15	
1.4	16QAM	3	3	14.22	14.25	14.17	
1.4	16QAM	6	0	13.32	13.36	13.29	14.1
1.4	64QAM	1	0	13.57	13.64	13.55	14.1
1.4	64QAM	1	3	13.58	13.62	13.50	
1.4	64QAM	1	5	13.46	13.54	13.43	
1.4	64QAM	3	0	13.27	13.31	13.25	
1.4	64QAM	3	1	13.19	13.30	13.21	
1.4	64QAM	3	3	13.14	13.26	13.25	
1.4	64QAM	6	0	12.30	12.36	12.29	13.1



Band 38(only on channel required) (dBm)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)		
Channel				37850	38000	38150			
Frequency (MHz)				2580	2595	2610			
20	QPSK	1	0	17.12	17.16	17.04	17.8		
20	QPSK	1	49	17.05	17.10	17.09			
20	QPSK	1	99	17.04	17.08	17.09			
20	QPSK	50	0	16.10	16.10	16.02	16.8		
20	QPSK	50	24	16.19	16.24	16.18			
20	QPSK	50	50	16.12	16.18	16.20			
20	QPSK	100	0	16.14	16.17	16.10	16.8		
20	16QAM	1	0	16.31	16.34	16.34			
20	16QAM	1	49	16.34	16.34	16.27			
20	16QAM	1	99	16.35	16.34	16.28	15.8		
20	16QAM	50	0	15.22	15.28	15.19			
20	16QAM	50	24	15.17	15.22	15.25			
20	16QAM	50	50	15.20	15.22	15.15	15.8		
20	16QAM	100	0	15.22	15.25	15.21			
20	64QAM	1	0	15.18	15.24	15.16			
20	64QAM	1	49	15.10	15.16	15.10	15.8		
20	64QAM	1	99	15.09	15.14	15.13			
20	64QAM	50	0	14.14	14.18	14.11			
20	64QAM	50	24	14.20	14.25	14.13	14.8		
20	64QAM	50	50	14.26	14.25	14.24			
20	64QAM	100	0	14.16	14.21	14.16			
Channel				37825	38000	38175	Tune-up limit (dBm)		
Frequency (MHz)				2577.6	2595	2612.5			
15	QPSK	1	0	17.08	17.09	16.98	17.8		
15	QPSK	1	37	17.00	17.03	17.10			
15	QPSK	1	74	17.03	17.04	16.98			
15	QPSK	36	0	16.03	16.08	16.11	16.8		
15	QPSK	36	20	16.20	16.19	16.20			
15	QPSK	36	39	16.05	16.15	16.17			
15	QPSK	75	0	16.09	16.10	16.10	16.8		
15	16QAM	1	0	16.25	16.29	16.26			
15	16QAM	1	37	16.30	16.31	16.22			
15	16QAM	1	74	16.26	16.34	16.27	15.8		
15	16QAM	36	0	15.16	15.25	15.17			
15	16QAM	36	20	15.19	15.18	15.16			
15	16QAM	36	39	15.18	15.10	15.13	15.8		
15	16QAM	75	0	15.19	15.20	15.16			
15	64QAM	1	0	15.13	15.14	15.09			
15	64QAM	1	37	15.15	15.11	15.06	15.8		
15	64QAM	1	74	15.05	15.11	15.09			
15	64QAM	36	0	14.11	14.14	14.11			
15	64QAM	36	20	14.16	14.14	14.16	14.8		
15	64QAM	36	39	14.17	14.22	14.11			
15	64QAM	75	0	14.18	14.12	14.02			
Channel				37800	38000	38200	Tune-up limit (dBm)		
Frequency (MHz)				2575	2595	2615			
10	QPSK	1	0	17.08	17.10	17.00	17.8		
10	QPSK	1	25	16.96	16.98	17.10			
10	QPSK	1	49	17.00	17.09	17.00			
10	QPSK	25	0	16.08	16.05	16.05	16.8		
10	QPSK	25	12	16.17	16.18	16.16			
10	QPSK	25	25	16.09	16.16	16.14			
10	QPSK	50	0	16.16	16.09	16.07	16.8		
10	16QAM	1	0	16.19	16.27	16.28			
10	16QAM	1	25	16.26	16.29	16.24			
10	16QAM	1	49	16.29	16.29	16.20	15.8		
10	16QAM	25	0	15.12	15.21	15.16			
10	16QAM	25	12	15.17	15.21	15.20			
10	16QAM	25	25	15.19	15.20	15.08	15.8		
10	16QAM	50	0	15.11	15.17	15.16			
10	64QAM	1	0	15.15	15.19	15.09			
10	64QAM	1	25	15.10	15.10	15.05	15.8		
10	64QAM	1	49	15.04	15.17	15.02			
10	64QAM	25	0	14.09	14.15	14.03			
10	64QAM	25	12	14.18	14.20	14.12	14.8		
10	64QAM	25	25	14.16	14.20	14.22			
10	64QAM	50	0	14.17	14.12	14.11			
Channel				37775	38000	38225	Tune-up limit (dBm)		
Frequency (MHz)				2572.5	2595	2617.5			
5	QPSK	1	0	16.42	17.07	16.43	17.8		
5	QPSK	1	12	16.48	16.32	16.45			
5	QPSK	1	24	16.49	16.26	16.49			
5	QPSK	12	0	15.37	15.22	15.35	16.8		
5	QPSK	12	7	15.36	15.15	15.37			
5	QPSK	12	13	15.34	15.15	15.28			
5	QPSK	25	0	15.42	15.22	15.31	16.8		
5	16QAM	1	0	15.34	15.20	15.28			
5	16QAM	1	12	15.24	15.13	15.29			
5	16QAM	1	24	15.25	15.10	15.28	15.8		
5	16QAM	12	0	14.35	14.15	14.30			
5	16QAM	12	7	14.35	14.20	14.33			
5	16QAM	12	13	14.41	14.19	14.39	15.8		
5	16QAM	25	0	14.36	14.15	14.30			
5	64QAM	1	0	14.90	14.72	14.87			
5	64QAM	1	12	14.96	14.73	14.89	15.8		
5	64QAM	1	24	14.99	14.80	14.96			
5	64QAM	12	0	13.80	13.65	13.85			
5	64QAM	12	7	13.86	13.70	13.91	14.8		
5	64QAM	12	13	13.80	13.67	13.84			
5	64QAM	25	0	13.81	13.70	13.83			

Band 41 (2496~2690MHz) (dBm)-PC2									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	15.36	15.34	15.71	15.61	15.58	16.4
20	QPSK	1	49	15.28	15.30	15.64	15.58	15.57	
20	QPSK	1	99	15.31	15.29	15.67	15.60	15.60	
20	QPSK	50	0	14.44	14.43	14.69	14.64	14.57	15.4
20	QPSK	50	24	14.41	14.36	14.68	14.56	14.50	
20	QPSK	50	50	14.36	14.43	14.63	14.50	14.56	
20	QPSK	100	0	14.40	14.41	14.58	14.61	14.49	15.4
20	16QAM	1	0	14.69	14.62	15.00	14.93	14.95	
20	16QAM	1	49	14.56	14.54	14.90	14.89	14.91	
20	16QAM	1	99	14.59	14.58	14.92	14.87	14.83	14.4
20	16QAM	50	0	13.50	13.53	13.85	13.86	13.78	
20	16QAM	50	24	13.48	13.43	13.85	13.75	13.79	
20	16QAM	50	50	13.47	13.47	13.86	13.78	13.79	14.4
20	16QAM	100	0	13.43	13.46	13.77	13.75	13.77	
20	64QAM	1	0	13.39	13.46	13.74	13.67	13.66	
20	64QAM	1	49	13.36	13.36	13.75	13.66	13.73	14.4
20	64QAM	1	99	13.41	13.43	13.81	13.75	13.73	
20	64QAM	50	0	12.47	12.53	12.78	12.77	12.76	
20	64QAM	50	24	12.48	12.48	12.76	12.75	12.73	13.4
20	64QAM	50	50	12.55	12.43	12.85	12.78	12.81	
20	64QAM	100	0	12.41	12.42	12.84	12.84	12.74	
Channel				39725	40173	40620	41088	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5	
15	QPSK	1	0	15.34	15.31	15.63	15.57	15.63	16.4
15	QPSK	1	37	15.15	15.25	15.60	15.52	15.56	
15	QPSK	1	74	15.32	15.25	15.60	15.63	15.50	
15	QPSK	36	0	14.45	14.41	14.75	14.67	14.72	15.4
15	QPSK	36	20	14.34	14.38	14.70	14.63	14.65	
15	QPSK	36	39	14.29	14.42	14.70	14.66	14.65	
15	QPSK	75	0	14.34	14.39	14.75	14.62	14.66	15.4
15	16QAM	1	0	14.58	14.66	14.89	14.85	14.90	
15	16QAM	1	37	14.55	14.51	14.88	14.80	14.82	
15	16QAM	1	74	14.50	14.52	14.83	14.85	14.82	14.4
15	16QAM	36	0	13.44	13.48	13.88	13.79	13.69	
15	16QAM	36	20	13.36	13.41	13.71	13.71	13.75	
15	16QAM	36	39	13.45	13.42	13.82	13.73	13.74	14.4
15	16QAM	75	0	13.37	13.41	13.77	13.65	13.74	
15	64QAM	1	0	13.39	13.46	13.73	13.66	13.69	
15	64QAM	1	37	13.34	13.31	13.72	13.64	13.63	14.4
15	64QAM	1	74	13.44	13.45	13.79	13.69	13.68	
15	64QAM	36	0	12.45	12.47	12.80	12.78	12.73	
15	64QAM	36	20	12.46	12.46	12.76	12.68	12.71	13.4
15	64QAM	36	39	12.49	12.41	12.78	12.69	12.75	
15	64QAM	75	0	12.39	12.39	12.78	12.78	12.75	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	15.33	15.33	15.58	15.61	15.63	16.4
10	QPSK	1	25	15.22	15.29	15.63	15.51	15.49	
10	QPSK	1	49	15.27	15.23	15.59	15.60	15.54	
10	QPSK	25	0	14.41	14.38	14.75	14.63	14.76	15.4
10	QPSK	25	12	14.38	14.43	14.69	14.63	14.66	
10	QPSK	25	25	14.31	14.33	14.74	14.65	14.64	
10	QPSK	50	0	14.39	14.41	14.72	14.66	14.73	15.4
10	16QAM	1	0	14.53	14.61	14.87	14.96	14.90	
10	16QAM	1	25	14.48	14.50	14.93	14.83	14.95	
10	16QAM	1	49	14.49	14.58	14.94	14.85	14.87	14.4
10	16QAM	25	0	13.46	13.47	13.84	13.81	13.77	
10	16QAM	25	12	13.43	13.43	13.76	13.73	13.74	
10	16QAM	25	25	13.44	13.41	13.75	13.70	13.77	14.4
10	16QAM	50	0	13.39	13.44	13.76	13.70	13.69	
10	64QAM	1	0	13.34	13.37	13.74	13.56	13.67	
10	64QAM	1	25	13.36	13.32	13.70	13.70	13.67	14.4
10	64QAM	1	49	13.39	13.33	13.81	13.70	13.70	
10	64QAM	25	0	12.40	12.45	12.79	12.71	12.69	
10	64QAM	25	12	12.46	12.45	12.73	12.65	12.72	13.4
10	64QAM	25	25	12.51	12.38	12.80	12.71	12.82	
10	64QAM	50	0	12.42	12.43	12.82	12.74	12.71	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	15.31	15.38	15.61	15.69	15.61	16.4
5	QPSK	1	12	15.18	15.20	15.60	15.56	15.51	
5	QPSK	1	24	15.29	15.33	15.60	15.63	15.55	
5	QPSK	12	0	14.39	14.33	14.76	14.69	14.73	15.4
5	QPSK	12	7	14.41	14.43	14.71	14.68	14.69	
5	QPSK	12	13	14.29	14.33	14.74	14.69	14.65	
5	QPSK	25	0	14.36	14.38	14.71	14.62	14.70	15.4
5	16QAM	1	0	14.54	14.60	14.87	14.94	14.90	
5	16QAM	1	12	14.49	14.48	14.95	14.85	14.94	
5	16QAM	1	24	14.55	14.53	14.90	14.78	14.86	14.4
5	16QAM	12	0	13.46	13.49	13.87	13.76	13.75	
5	16QAM	12	7	13.44	13.46	13.72	13.72	13.75	
5	16QAM	12	13	13.46	13.43	13.75	13.71	13.77	14.4
5	16QAM	25	0	13.39	13.47	13.73	13.72	13.72	
5	64QAM	1	0	13.34	13.37	13.71	13.63	13.62	
5	64QAM	1	12	13.35	13.33	13.74	13.67	13.64	14.4
5	64QAM	1	24	13.40	13.39	13.80	13.72	13.74	
5	64QAM	12	0	12.40	12.39	12.78	12.72	12.68	
5	64QAM	12	7	12.46	12.40	12.70	12.68	12.69	13.4
5	64QAM	12	13	12.51	12.35	12.80	12.76	12.78	
5	64QAM	25	0	12.37	12.43	12.80	12.74	12.72	



Band 41 (2496~2690MHz) (dBm)-PC3									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	14.79	14.70	15.16	15.14	15.11	15.8
20	QPSK	1	49	14.69	14.67	15.14	15.09	15.09	
20	QPSK	1	99	14.69	14.65	15.12	15.06	15.07	
20	QPSK	50	0	13.70	13.76	14.18	14.16	14.13	14.8
20	QPSK	50	24	13.72	13.72	14.17	14.13	14.11	
20	QPSK	50	50	13.73	13.74	14.15	14.07	14.13	
20	QPSK	100	0	13.71	13.73	14.18	14.17	14.12	14.8
20	16QAM	1	0	13.64	13.58	14.05	14.04	14.01	
20	16QAM	1	49	13.57	13.60	14.04	13.97	13.96	
20	16QAM	1	99	13.70	13.70	14.14	14.12	14.13	13.8
20	16QAM	50	0	12.65	12.65	13.12	13.09	13.09	
20	16QAM	50	24	12.75	12.72	13.20	13.12	13.17	
20	16QAM	50	50	12.76	12.76	13.18	13.17	13.17	12.8
20	16QAM	100	0	12.70	12.68	13.14	13.06	13.08	
20	64QAM	1	0	12.44	12.47	12.92	12.89	12.91	
20	64QAM	1	49	12.41	12.45	12.88	12.81	12.81	12.8
20	64QAM	1	99	12.49	12.55	12.96	12.89	12.94	
20	64QAM	50	0	11.79	11.79	12.20	12.12	12.15	
20	64QAM	50	24	11.86	11.83	12.27	12.19	12.21	12.8
20	64QAM	50	50	11.78	11.90	12.24	12.17	12.23	
20	64QAM	100	0	11.76	11.76	12.22	12.21	12.17	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2603.6	2648.3	2693	2637.8	2682.5	
15	QPSK	1	0	14.75	14.64	15.09	15.13	15.05	15.8
15	QPSK	1	37	14.64	14.61	15.11	15.08	15.07	
15	QPSK	1	74	14.65	14.63	15.10	15.04	15.06	
15	QPSK	36	0	13.64	13.72	14.15	14.09	14.11	14.8
15	QPSK	36	20	13.70	13.70	14.13	14.10	14.05	
15	QPSK	36	39	13.69	13.66	14.13	14.05	14.07	
15	QPSK	75	0	13.64	13.66	14.11	14.10	14.05	14.8
15	16QAM	1	0	13.63	13.52	14.02	14.01	14.00	
15	16QAM	1	37	13.51	13.53	14.01	13.90	13.89	
15	16QAM	1	74	13.68	13.63	14.08	14.07	14.06	13.8
15	16QAM	36	0	12.69	12.63	13.07	13.08	13.08	
15	16QAM	36	20	12.67	12.68	13.19	13.06	13.12	
15	16QAM	36	39	12.69	12.72	13.14	13.14	13.10	12.8
15	16QAM	75	0	12.65	12.66	13.09	13.05	13.03	
15	64QAM	1	0	12.41	12.44	12.87	12.83	12.89	
15	64QAM	1	37	12.34	12.40	12.86	12.77	12.77	12.8
15	64QAM	1	74	12.43	12.48	12.94	12.86	12.87	
15	64QAM	36	0	11.74	11.75	12.13	12.11	12.14	
15	64QAM	36	20	11.79	11.77	12.24	12.18	12.16	12.8
15	64QAM	36	39	11.75	11.79	12.17	12.14	12.15	
15	64QAM	75	0	11.75	11.74	12.19	12.14	12.14	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	14.78	14.63	15.14	15.09	15.03	15.8
10	QPSK	1	25	14.66	14.63	15.08	15.04	15.04	
10	QPSK	1	49	14.61	14.61	15.11	15.05	15.06	
10	QPSK	25	0	13.66	13.71	14.17	14.15	14.11	14.8
10	QPSK	25	12	13.64	13.67	14.15	14.12	14.07	
10	QPSK	25	25	13.68	13.68	14.08	14.00	14.09	
10	QPSK	50	0	13.67	13.70	14.10	14.15	14.08	14.8
10	16QAM	1	0	13.56	13.53	13.97	13.99	13.99	
10	16QAM	1	25	13.49	13.56	13.97	13.94	13.93	
10	16QAM	1	49	13.67	13.65	14.12	14.05	14.10	13.8
10	16QAM	25	0	12.69	12.62	13.09	13.03	13.05	
10	16QAM	25	12	12.72	12.64	13.16	13.05	13.13	
10	16QAM	25	25	12.68	12.75	13.13	13.09	13.10	13.8
10	16QAM	50	0	12.64	12.64	13.10	13.00	13.00	
10	64QAM	1	0	12.41	12.42	12.85	12.83	12.84	
10	64QAM	1	25	12.33	12.39	12.84	12.73	12.77	12.8
10	64QAM	1	49	12.44	12.47	12.94	12.82	12.86	
10	64QAM	25	0	11.78	11.73	12.19	12.10	12.10	
10	64QAM	25	12	11.78	11.78	12.22	12.11	12.20	12.8
10	64QAM	25	25	11.76	11.73	12.16	12.12	12.22	
10	64QAM	50	0	11.74	11.68	12.18	12.14	12.10	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	14.71	14.62	15.15	15.07	15.04	15.8
5	QPSK	1	12	14.67	14.62	15.08	15.01	15.01	
5	QPSK	1	24	14.64	14.61	15.05	14.98	15.02	
5	QPSK	12	0	13.67	13.75	14.17	14.14	14.10	14.8
5	QPSK	12	7	13.67	13.66	14.13	14.10	14.03	
5	QPSK	12	13	13.66	13.69	14.10	14.01	14.06	
5	QPSK	25	0	13.67	13.70	14.11	14.13	14.07	14.8
5	16QAM	1	0	13.58	13.50	14.02	14.02	13.97	
5	16QAM	1	12	13.56	13.58	14.00	13.91	13.89	
5	16QAM	1	24	13.69	13.68	14.13	14.10	14.05	13.8
5	16QAM	12	0	12.60	12.57	13.09	13.01	13.03	
5	16QAM	12	7	12.69	12.64	13.18	13.05	13.12	
5	16QAM	12	13	12.71	12.71	13.17	13.13	13.14	13.8
5	16QAM	25	0	12.65	12.63	13.09	13.00	13.07	
5	64QAM	1	0	12.43	12.39	12.87	12.84	12.85	
5	64QAM	1	12	12.34	12.38	12.85	12.76	12.75	12.8
5	64QAM	1	24	12.42	12.49	12.94	12.84	12.90	
5	64QAM	12	0	11.78	11.76	12.15	12.07	12.10	
5	64QAM	12	7	11.81	11.78	12.26	12.13	12.15	12.8
5	64QAM	12	13	11.73	11.73	12.23	12.14	12.16	
5	64QAM	25	0	11.69	11.71	12.17	12.13	12.09	



n2 (1850 ~ 1910MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1850	1890	1900	
20	DFT-s-OFDM P1/2 BPSK	1	1	15.27	15.19	15.31	16.7
20		1	53	15.36	15.42	15.32	
20		1	104	15.11	15.24	15.26	
20		50	1	14.48	14.54	14.70	
20		50	25	14.75	14.55	14.66	15.7
20		50	50	14.18	14.26	14.17	
20		100	0	14.70	14.60	14.71	
20		1	1	15.48	15.52	15.49	
20		1	53	15.41	15.47	15.43	16.7
20		1	104	15.34	15.37	15.30	
20	DFT-s-OFDM QPSK	50	1	15.00	15.06	15.05	
20		50	25	14.85	14.87	15.01	
20		50	50	14.62	14.89	14.90	15.7
20		100	0	14.78	14.59	14.60	
20	DFT-s-OFDM 16QAM	1	1	15.17	15.09	15.26	15.7
20	DFT-s-OFDM 64QAM	1	1	13.69	13.75	13.80	14.7
20	DFT-s-OFDM 256QAM	1	1	11.30	11.13	11.32	12.2
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	15.46	15.35	15.37	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1890	1905	
10	DFT-s-OFDM QPSK	1	1	15.50	15.47	15.36	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1890	1907.5	
5	DFT-s-OFDM QPSK	1	1	15.45	15.42	15.44	25.2
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	CP-OFDM QPSK	1	1	14.54	14.23	14.36	15.2
20	CP-OFDM 16QAM	1	1	14.18	14.07	14.15	6.7
20	CP-OFDM	1	1	13.05	12.84	13.02	5.7
20	CP-OFDM 256QAM	1	1	9.23	9.33	9.34	1.7

n5 (824 ~ 849 MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				165500	167300	167500	Tune-up limit (dBm)
Frequency (MHz)				824	836.5	839	
20	DFT-s-OFDM P1/2 BPSK	1	1	20.88	20.96	20.91	22.2
20		1	53	20.95	21.02	21.01	
20		1	104	21.00	21.02	20.92	
20		50	1	20.43	20.49	20.49	
20		50	25	20.48	20.52	20.48	21.2
20		50	50	20.47	20.51	20.43	
20		100	0	20.45	20.48	20.48	
20		1	1	21.02	21.05	20.92	
20		1	53	21.01	21.03	20.97	22.2
20		1	104	20.95	20.98	20.91	
20	DFT-s-OFDM QPSK	50	1	20.41	20.52	20.44	
20		50	25	20.45	20.49	20.45	
20		50	50	20.47	20.49	20.52	21.2
20		100	0	20.44	20.54	20.50	
20	DFT-s-OFDM 16QAM	1	1	20.48	20.44	20.54	21.2
20	DFT-s-OFDM 64QAM	1	1	19.25	19.25	18.97	20.2
20	DFT-s-OFDM 256QAM	1	1	16.56	16.52	16.63	17.7
Channel				165300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	DFT-s-OFDM QPSK	1	1	20.94	21.01	20.87	22.2
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	DFT-s-OFDM QPSK	1	1	20.85	20.90	20.82	22.2
Channel				165300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	DFT-s-OFDM QPSK	1	1	20.86	20.96	20.94	22.2
Channel				166800	167300	167800	Tune-up limit (dBm)
Frequency (MHz)				834	836.5	839	
20	CP-OFDM QPSK	1	1	19.85	20.05	20.03	20.7
20	CP-OFDM 16QAM	1	1	19.45	19.56	19.52	20.2
20	CP-OFDM	1	1	18.38	18.44	18.40	19.2
20	CP-OFDM 256QAM	1	1	14.55	14.56	14.65	15.2



n12 (699 ~ 716 MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				141300	141500	141700	Tune-up limit (dBm)
Frequency (MHz)				706.5	707.5	708.5	
18	DFT-s-OFDM P12 BPSK	1	1	20.96	20.98	20.93	22.2
18		1	39	20.88	20.90	20.86	
15		1	77	20.83	20.87	20.85	
15		36	1	20.43	20.44	20.40	
15		36	18	20.41	20.42	20.35	21.2
15		36	36	20.35	20.38	20.29	
15		75	0	20.34	20.40	20.35	
15		1	1	21.00	21.04	21.01	
15		1	39	20.97	20.99	20.91	22.2
15		1	77	20.95	21.01	20.98	
15	DFT-s-OFDM QPSK	36	1	20.39	20.45	20.40	
15		36	18	20.38	20.40	20.36	
15		36	36	20.24	20.36	20.25	21.2
15		75	0	20.39	20.41	20.40	
15	DFT-s-OFDM 16QAM	1	1	20.55	20.56	20.52	21.2
15	DFT-s-OFDM 64QAM	1	1	19.06	19.05	19.04	20.2
15	DFT-s-OFDM 256QAM	1	1	16.71	16.71	16.63	17.7
Channel				140900	141500	142200	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	DFT-s-OFDM QPSK	1	1	20.85	20.91	20.82	22.2
Channel				140300	141500	142700	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	DFT-s-OFDM QPSK	1	1	20.90	20.95	20.89	22.2
Channel				141300	141500	141700	Tune-up limit (dBm)
Frequency (MHz)				706.5	707.5	708.5	
15	CP-OFDM QPSK	1	1	19.94	20.02	19.83	20.7
15	CP-OFDM 16QAM	1	1	19.41	19.55	19.52	20.2
15	CP-OFDM 64QAM	1	1	17.96	18.34	18.28	18.7
15	CP-OFDM 256QAM	1	1	14.73	14.71	14.78	15.7

n25_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	DFT-s-OFDM P12 BPSK	1	1	15.40	15.55	15.52	25.2
40		1	53	15.41	15.50	15.51	
40		1	105	15.45	15.54	15.47	
40		50	1	14.65	14.57	14.71	
40		50	25	14.61	14.58	14.76	24.2
40		50	50	14.54	14.59	14.81	
40		100	0	14.63	14.56	14.78	
40		1	1	15.56	15.57	15.53	
40		1	53	15.19	15.51	15.50	25.2
40		1	105	15.48	15.54	15.51	
40	DFT-s-OFDM QPSK	50	1	14.65	14.70	14.67	
40		50	25	14.62	14.68	14.82	
40		50	50	14.57	14.62	14.60	24.2
40		100	0	14.61	14.62	14.58	
40	DFT-s-OFDM 16QAM	1	1	14.74	14.95	14.75	24.2
40	DFT-s-OFDM 64QAM	1	1	13.38	13.43	13.39	23.2
40	DFT-s-OFDM 256QAM	1	1	10.96	11.00	10.94	20.7
Channel				373000	376500	380000	Tune-up limit (dBm)
Frequency (MHz)				1865	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	15.45	15.51	15.23	25.2
Channel				372000	376500	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	15.51	15.52	15.50	25.2
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	15.33	15.47	15.29	25.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	15.42	15.46	15.45	25.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	15.32	15.35	15.27	25.2
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	14.08	14.20	14.24	15.2
40	CP-OFDM 16QAM	1	1	13.78	13.86	13.77	14.2
40	CP-OFDM 64QAM	1	1	12.16	12.42	12.28	13.2
40	CP-OFDM 256QAM	1	1	8.95	8.90	8.96	9.7



n66 (1710 ~ 1780 MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
40	DFT-s-OFDM P12 BPSK	1	1	15.11	15.18	15.01	16.2
40		1	53	15.10	15.15	15.14	
40		1	104	15.07	15.10	15.05	
40		53	1	14.16	14.41	14.35	
40		53	26	14.35	14.48	14.28	15.2
40		53	52	14.34	14.48	14.29	
40		106	0	14.33	14.41	14.35	
40		1	1	15.21	15.27	15.24	
40		1	53	15.19	15.22	15.21	16.2
40		1	104	15.21	15.26	15.17	
40	DFT-s-OFDM QPSK	53	1	14.34	14.49	14.46	
40		53	26	14.43	14.52	14.44	
40		53	52	14.45	14.48	14.45	15.2
40		106	0	13.97	14.29	14.25	
40	DFT-s-OFDM 16QAM	1	1	14.23	14.27	14.29	15.2
40	DFT-s-OFDM 64QAM	1	1	12.96	13.00	12.97	14.2
40	DFT-s-OFDM 256QAM	1	1	10.43	10.59	10.51	11.7
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	15.26	15.15	15.18	16.2
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	15.11	15.19	15.05	16.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	15.03	15.24	14.96	16.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	15.19	15.02	14.97	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	14.33	14.25	14.47	25.2
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1765	
40	CP-OFDM QPSK	1	1	13.76	13.74	13.63	14.7
40	CP-OFDM 16QAM	1	1	13.25	13.29	12.99	13.7
40	CP-OFDM 64QAM	1	1	11.95	11.88	11.76	12.7
40	CP-OFDM 256QAM	1	1	8.47	8.55	8.62	9.2

n71 (663 ~ 698 MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	DFT-s-OFDM P12 BPSK	1	1	22.69	22.75	22.72	23.7
20		1	53	22.60	22.61	22.57	
20		1	104	22.61	22.43	22.39	
20		50	1	21.81	22.04	21.90	
20		50	25	22.11	21.93	21.86	22.7
20		50	50	22.02	21.82	21.77	
20		100	0	22.13	21.97	21.90	
20		1	1	22.75	22.78	22.72	
20		1	53	22.63	22.74	22.66	23.7
20		1	104	22.35	22.56	22.47	
20	DFT-s-OFDM QPSK	50	1	22.06	22.10	22.02	
20		50	25	22.09	21.97	21.87	
20		50	50	22.01	22.08	21.77	22.7
20		100	0	22.03	22.05	21.90	
20	DFT-s-OFDM 16QAM	1	1	22.42	22.03	22.15	22.7
20	DFT-s-OFDM 64QAM	1	1	20.84	20.77	20.68	21.7
20	DFT-s-OFDM 256QAM	1	1	18.23	18.27	18.27	19.2
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	DFT-s-OFDM QPSK	1	1	22.47	22.52	22.44	23.7
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	DFT-s-OFDM QPSK	1	1	22.39	22.49	22.38	23.7
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	DFT-s-OFDM QPSK	1	1	22.25	22.38	22.26	23.7
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	CP-OFDM QPSK	1	1	21.84	21.55	21.63	22.2
20	CP-OFDM 16QAM	1	1	21.32	21.15	21.12	21.7
20	CP-OFDM 64QAM	1	1	20.08	20.07	19.91	20.7
20	CP-OFDM 256QAM	1	1	16.34	16.46	16.31	17.2



n41 (2496 ~ 2690MHz) (PC2) _ANT 1										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune-up limit (dBm)
Channel										
Frequency (MHz)				8060.02	8190.00	8189.98	8229.96	8269.90		
				2148.01	2149.50	2149.50	2149.50	2149.50		
100	DFT-s-OFDM PUSCH	1	1	15.52	15.09	15.13	15.13	15.10		
100		1	136	15.48	15.00	15.72	15.60	15.63	16.8	
100		1	272	15.45	15.52	15.68	15.51	15.58		
100		136	1	15.09	15.16	15.22	15.10	15.19		
100		136	87	15.20	15.17	15.20	15.04	15.13	15.8	
100		136	136	15.28	15.37	15.31	15.31	15.24		
100	DFT-s-OFDM PUSCH	272	0	15.22	15.30	15.28	15.14	15.22		
100		1	1	15.75	15.86	15.90	15.68	15.63		
100		1	136	15.58	15.51	15.76	15.62	15.60	16.8	
100		1	272	15.68	15.85	15.76	15.85	15.73		
100		136	1	14.98	15.14	15.24	15.10	15.12		
100		136	87	14.97	15.21	15.19	15.04	15.05		
100	DFT-s-OFDM PUSCH	136	136	14.83	14.87	14.77	14.81	14.73	15.8	
100		272	0	14.73	14.82	14.76	14.67	14.71		
100		1	1	14.87	15.01	15.02	15.09	15.10	15.8	
100		1	1	13.39	13.59	13.66	13.63	13.60	14.5	
100		1	1	11.22	11.32	11.33	11.43	11.43	12.5	
Frequency (MHz)				8060.00	8190.00	8189.98	8229.96	8269.90		
				2541	2548.995	2552.99	2518.995	2544.98		
90	DFT-s-OFDM PUSCH	1	1	15.25	15.04	15.6	15.6	15.87	16.8	
Channel										
Frequency (MHz)				8070.04	8190.04	8189.98	8249.96	8289.90		
				2036.02	2044.51	2042.99	2021.46	2049.99		
80	DFT-s-OFDM PUSCH	1	1	15.09	15.56	15.59	15.52	15.63	16.8	
Channel										
Frequency (MHz)				8080.0	8190.0	8189.98	8249.96	8289.90		
				2031.01	2042.00	2042.99	2024.00	2049.99		
70	DFT-s-OFDM PUSCH	1	1	15.14	15.45	15.62	15.43	15.49	16.8	
Channel										
Frequency (MHz)				8090.00	8190.00	8189.98	8250.00	8290.00		
				2121.00	2124.00	2124.99	2102.00	2124.99		
60	DFT-s-OFDM PUSCH	1	1	15.17	15.04	15.74	15.67	15.70	16.8	
Channel										
Frequency (MHz)				8090.04	8116.01	8105.98	8257.96	8297.90		
				2021.02	2057.995	2062.99	2028.99	2064.99		
50	DFT-s-OFDM PUSCH	1	1	15.73	15.68	15.76	15.68	15.69	16.8	
Channel										
Frequency (MHz)				8030.02	8100.00	8189.98	8259.96	8340.00		
				2116.01	2124.51	2122.99	2101.50	2122.99		
40	DFT-s-OFDM PUSCH	1	1	15.36	15.36	15.82	15.80	15.80	16.8	
Channel										
Frequency (MHz)				8020.00	8100.02	8189.98	8260.00	8340.00		
				2011.00	2024.00	2022.99	2033.99	2014.98		
30	DFT-s-OFDM PUSCH	1	1	15.60	15.49	15.85	15.83	15.78	16.8	
Channel										
Frequency (MHz)				8012.04	8090.01	8189.98	8272.98	8359.98		
				2009.00	2049.99	2048.99	2034.49	2033.99		
20	DFT-s-OFDM PUSCH	1	1	15.62	15.71	15.86	15.81	15.83	16.8	
Channel										
Frequency (MHz)				8000.00	8100.00	8189.98	8259.96	8350.00		
				2046.01	2058.50	2052.99	2016.50	2040.00		
100	CP-OFDM PUSCH	1	1	13.99	14.09	14.43	14.33	14.13	15.3	
100	CP-OFDM PUSCH	1	1	13.41	13.73	13.76	13.68	13.65	15.3	
100	CP-OFDM PUSCH	1	1	12.06	12.46	12.46	12.45	12.53	13.8	
100	CP-OFDM PUSCH	1	1	8.73	9.14	9.14	9.16	9.11	9.8	

n41 (2496 ~ 2690MHz) (PC3) _ANT 1											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune-up limit (dBm)	
Channel											
Frequency (MHz)				8060.02	8190.00	8189.98	8230.96	8269.90			
				2148.01	2149.50	2149.50	2149.50	2149.50			
100	DFT-s-OFDM PUSCH	1	1	15.12	15.11	15.27	15.19	15.15			
100		1	136	15.08	15.08	15.18	15.06	15.02	16.2		
100		1	272	15.17	15.18	15.23	15.15	15.19			
100		136	1	14.16	14.16	14.17	14.14	14.04			
100		136	87	14.29	14.29	14.22	14.09	14.11	15.2		
100		136	136	14.12	14.37	14.34	14.32	14.37			
100		272	0	14.34	14.34	14.37	14.19	14.18			
100		1	1	15.17	15.20	15.30	15.26	15.24			
100		1	136	15.20	15.15	15.17	15.13	15.02	16.2		
100		1	272	15.13	15.17	15.25	15.21	15.21			
100	DFT-s-OFDM PUSCH	136	1	14.10	14.14	14.16	14.08	14.09			
100		136	87	14.04	14.04	14.15	14.05	14.07	15.2		
100		136	136	13.98	14.07	14.15	14.06	14.01			
100		272	0	14.06	14.08	14.11	14.04	14.03			
100		1	1	14.19	14.04	14.27	14.24	14.18	15.2		
100		1	1	14.07	14.06	14.09	13.94	14.00	15.2		
100		1	1	12.08	12.23	12.26	12.13	11.97	13.2		
Frequency (MHz)				8060.00	8190.00	8189.98	8230.96	8269.90			
				2541	2548.995	2552.99	2518.995	2544.98			
90	DFT-s-OFDM PUSCH	1	1	15.16	15.15	15.24	15.08	14.97	16.2		
Channel											
Frequency (MHz)				8070.04	8190.04	8189.98	8240.96	8289.90			
				2036.02	2044.51	2042.99	2021.46	2049.99			
80	DFT-s-OFDM PUSCH	1	1	15.28	15.10	15.21	15.03	15.00	16.2		
Channel											
Frequency (MHz)				8080.00	8190.00	8189.98	8240.96	8289.90			
				2031.01	2042.00	2042.99	2024.00	2049.99			
70	DFT-s-OFDM PUSCH	1	1	15.18	15.13	15.22	15.05	15.01	16.2		
Channel											
Frequency (MHz)				8090.00	8116.02	8189.98	8250.00	8290.00			
				2121.00	2124.00	2124.99	2102.00	2124.99			
60	DFT-s-OFDM PUSCH	1	1	15.19	15.25	15.17	15.13	15.09	16.2		
Channel											
Frequency (MHz)				8090.04	8116.01	8105.98	8257.96	8297.90			
				2021.02	2057.995	2062.99	2028.99	2064.99			
50	DFT-s-OFDM PUSCH	1	1	15.25	15.3	15.31	15.28	15.14	16.2		
Channel											
Frequency (MHz)				8030.02	8100.00	8189.98	8259.96	8340.00			
				2116.01	2124.51	2122.99	2101.50	2122.99			
40	DFT-s-OFDM PUSCH	1	1	15.21	15.23	15.20	15.16	15.11	16.2		
Channel											
Frequency (MHz)				8020.00	8100.02	8189.98	8260.00	8340.00			
				2011.00	2024.00	2022.99	2033.99	2014.98			
30	DFT-s-OFDM PUSCH	1	1	15.20	15.23	15.29	15.23	15.26	16.2		
Channel											
Frequency (MHz)				8012.04	8090.01	8189.98	8272.98	8359.98			
				2009.00	2049.99	2048.99	2034.49	2033.99			
20	DFT-s-OFDM PUSCH	1	1	15.29	15.25	15.28	15.13	15.02	16.2		
Channel											
Frequency (MHz)				8000.00	8100.00	8189.98	8259.96	8350.00			
				2046.01	2058.50	2052.99	2016.50	2040.00			
100	CP-OFDM PUSCH	1	1	14.23	14.14	14.03	14.00	13.92	14.7		
100	CP-OFDM PUSCH	1	1	14.34	14.16	14.03	13.89	13.84	14.7		
100	CP-OFDM PUSCH	1	1	13.55	13.77	13.70	13.62	13.30	14		
100	CP-OFDM PUSCH	1	1	10.15	10.52	10.26	10.18	9.87	10.7		



CA_41C-PC3_Ant 1 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	14.33	15.50
40620	40521	40719	QPSK	1	0	0	0	1	0	14.63	15.50
41490	41292	41490	QPSK	1	0	0	0	1	0	14.55	15.50
39750	39750	39948	16QAM	1	0	0	0	1	0	13.57	14.00
40620	40521	40719	16QAM	1	0	0	0	1	0	13.89	14.00
41490	41292	41490	16QAM	1	0	0	0	1	0	13.84	14.00
39750	39750	39948	64QAM	1	0	0	0	1	0	12.13	13.00
40620	40521	40719	64QAM	1	0	0	0	1	0	12.45	13.00
41490	41292	41490	64QAM	1	0	0	0	1	0	12.33	13.00
39750	39750	39948	QPSK	50	0	0	0	1	0	13.22	14.00
40620	40521	40719	QPSK	50	0	0	0	1	0	13.53	14.00
41490	41292	41490	QPSK	50	0	0	0	1	0	13.29	14.00



Reduced Power Level 1 for Ant 3 & Ant 4 & Ant 6

Band 48 (3.5G Band) (dBm)-ANT3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Mid-Low Channel	Mid-Low Channel	Mid-High Channel	High Channel	Tune-up limit (dBm)
Channel				55340	55830	55990	56150	56640	21.3
Frequency (MHz)				3560	3609	3625	3641	3690	
20	QPSK	1	0	20.75	20.67	20.81	20.74	20.78	20.3
20	QPSK	1	49	20.74	20.66	20.79	20.72	20.72	
20	QPSK	1	99	20.71	20.62	20.75	20.71	20.70	
20	QPSK	50	0	19.74	19.67	19.78	19.73	19.77	
20	QPSK	50	24	19.67	19.63	19.75	19.67	19.73	20.3
20	QPSK	50	50	19.67	19.64	19.74	19.70	19.71	
20	QPSK	100	0	19.64	19.55	19.69	19.64	19.65	
20	16QAM	1	0	19.60	19.51	19.68	19.60	19.62	
20	16QAM	1	49	19.62	19.52	19.67	19.61	19.66	19.3
20	16QAM	1	99	19.56	19.52	19.64	19.57	19.60	
20	16QAM	50	0	18.67	18.60	18.70	18.65	18.64	
20	16QAM	50	24	18.61	18.55	18.66	18.64	18.65	
20	16QAM	50	50	18.59	18.52	18.67	18.65	18.63	19.3
20	16QAM	100	0	18.65	18.50	18.67	18.60	18.62	
20	64QAM	1	0	18.50	18.40	18.54	18.48	18.49	
20	64QAM	1	49	18.45	18.37	18.52	18.49	18.46	
20	64QAM	1	99	18.47	18.38	18.53	18.51	18.48	18.3
20	64QAM	50	0	17.64	17.56	17.71	17.68	17.63	
20	64QAM	50	24	17.66	17.60	17.70	17.63	17.63	
20	64QAM	50	50	17.65	17.58	17.68	17.62	17.64	
20	64QAM	100	0	17.62	17.55	17.65	17.63	17.57	Tune-up limit (dBm)
Channel				55315	55800	55960	56160	56655	
Frequency (MHz)				3557.5	3608	3625	3642	3692.5	21.3
15	QPSK	1	0	20.71	20.63	20.77	20.69	20.72	
15	QPSK	1	37	20.73	20.61	20.76	20.67	20.70	20.3
15	QPSK	1	74	20.66	20.61	20.70	20.70	20.66	
15	QPSK	36	0	19.70	19.64	19.72	19.72	19.69	
15	QPSK	36	20	19.61	19.55	19.70	19.63	19.71	
15	QPSK	36	39	19.59	19.57	19.68	19.68	19.65	20.3
15	QPSK	75	0	19.62	19.52	19.65	19.59	19.64	
15	16QAM	1	0	19.54	19.43	19.65	19.54	19.56	
15	16QAM	1	37	19.55	19.45	19.61	19.59	19.63	
15	16QAM	1	74	19.51	19.50	19.57	19.56	19.53	19.3
15	16QAM	36	0	18.63	18.52	18.66	18.61	18.58	
15	16QAM	36	20	18.54	18.52	18.60	18.63	18.61	
15	16QAM	36	39	18.56	18.46	18.64	18.61	18.60	
15	16QAM	75	0	18.61	18.47	18.62	18.59	18.61	19.3
15	64QAM	1	0	18.46	18.32	18.53	18.42	18.48	
15	64QAM	1	37	18.41	18.29	18.48	18.47	18.44	
15	64QAM	1	74	18.40	18.31	18.50	18.46	18.46	
15	64QAM	36	0	17.59	17.55	17.65	17.66	17.56	18.3
15	64QAM	36	20	17.65	17.56	17.63	17.55	17.56	
15	64QAM	36	39	17.64	17.54	17.61	17.57	17.57	
15	64QAM	75	0	17.60	17.47	17.61	17.62	17.49	
Channel				55290	55815	55990	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3625	3642.5	3695	
10	QPSK	1	0	20.69	20.59	20.74	20.70	20.76	21.3
10	QPSK	1	25	20.67	20.64	20.74	20.65	20.69	
10	QPSK	1	49	20.67	20.57	20.74	20.69	20.66	
10	QPSK	25	0	19.69	19.64	19.73	19.65	19.72	
10	QPSK	25	12	19.66	19.57	19.71	19.65	19.66	20.3
10	QPSK	25	25	19.62	19.60	19.70	19.67	19.68	
10	QPSK	50	0	19.63	19.53	19.65	19.58	19.57	
10	16QAM	1	0	19.57	19.44	19.67	19.54	19.56	
10	16QAM	1	25	19.54	19.47	19.61	19.56	19.61	19.3
10	16QAM	1	49	19.51	19.45	19.62	19.53	19.57	
10	16QAM	25	0	18.66	18.53	18.63	18.63	18.61	
10	16QAM	25	12	18.56	18.51	18.65	18.62	18.64	
10	16QAM	25	25	18.58	18.44	18.60	18.63	18.62	19.3
10	16QAM	50	0	18.59	18.47	18.66	18.53	18.54	
10	64QAM	1	0	18.45	18.37	18.46	18.45	18.48	
10	64QAM	1	25	18.37	18.36	18.45	18.44	18.38	
10	64QAM	1	49	18.40	18.34	18.46	18.50	18.44	18.3
10	64QAM	25	0	17.61	17.54	17.70	17.66	17.60	
10	64QAM	25	12	17.58	17.52	17.63	17.56	17.57	
10	64QAM	25	25	17.64	17.52	17.64	17.58	17.57	
10	64QAM	50	0	17.61	17.47	17.62	17.61	17.55	Tune-up limit (dBm)
Channel				55205	55810	55990	56170	56175	
Frequency (MHz)				3552.5	3607	3625	3643	3697.5	21.3
5	QPSK	1	0	20.69	20.62	20.75	20.73	20.71	
5	QPSK	1	12	20.66	20.62	20.73	20.69	20.67	20.3
5	QPSK	1	24	20.70	20.54	20.68	20.64	20.69	
5	QPSK	12	0	19.73	19.64	19.74	19.71	19.76	
5	QPSK	12	7	19.63	19.58	19.69	19.59	19.66	
5	QPSK	12	13	19.60	19.56	19.72	19.62	19.66	20.3
5	QPSK	25	0	19.56	19.51	19.61	19.61	19.57	
5	16QAM	1	0	19.58	19.43	19.67	19.59	19.54	
5	16QAM	1	12	19.59	19.44	19.65	19.55	19.61	
5	16QAM	1	24	19.48	19.44	19.62	19.56	19.57	19.3
5	16QAM	12	0	18.66	18.53	18.64	18.63	18.62	
5	16QAM	12	7	18.59	18.51	18.65	18.58	18.59	
5	16QAM	12	13	18.51	18.45	18.65	18.58	18.61	
5	16QAM	25	0	18.59	18.49	18.65	18.59	18.54	19.3
5	64QAM	1	0	18.49	18.33	18.47	18.40	18.48	
5	64QAM	1	12	18.40	18.35	18.48	18.46	18.44	
5	64QAM	1	24	18.40	18.31	18.50	18.49	18.44	
5	64QAM	12	0	17.63	17.53	17.68	17.67	17.62	18.3
5	64QAM	12	7	17.61	17.57	17.63	17.61	17.57	
5	64QAM	12	13	17.61	17.54	17.60	17.55	17.57	
5	64QAM	25	0	17.55	17.48	17.57	17.58	17.49	

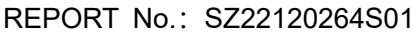


n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT 3&6											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	DFT-s-OFDM PUSCH	1	1			21.03			22.2		
100		1	136			20.98					
100		1	271			20.91					
100		136	1			20.26					
100		136	67			20.23					
100		136	136			20.18				21.2	
100		270	0			20.12					
100		1	1			21.23			22.2		
100		1	136			21.16					
100		1	271			21.06					
100	DFT-s-OFDM CP-OFDM	136	1			20.30			21.2		
100		136	67			20.26					
100		136	136			20.23					
100		270	0			20.19					
100		1	1			19.92				21.2	
100		DFT-s-OFDM 100MHz	1	1			18.88			20.2	
100		DFT-s-OFDM 250MHz	1	1			16.17			17.2	
Channel											
Frequency (MHz)											
90		DFT-s-OFDM PUSCH	1	1	3499	3497.52	3500.01	3502.5	3504.49		
Channel											
Frequency (MHz)											
80	DFT-s-OFDM PUSCH	1	1	21.22	21.13	21.19	21.22	20.93	22.2		
Channel											
Frequency (MHz)											
70	DFT-s-OFDM PUSCH	1	1	21.06	21.01	21.05	21.07	21.14			
Channel											
Frequency (MHz)											
60	DFT-s-OFDM PUSCH	1	1	21.19	21.08	21.05	21.20	21.13	22.2		
Channel											
Frequency (MHz)											
50	DFT-s-OFDM PUSCH	1	1	21.10	21.11	21.22	21.20	21.08	21.2		
Channel											
Frequency (MHz)											
40	DFT-s-OFDM PUSCH	1	1	21.14	21.21	21.21	21.13	20.99	21.2		
Channel											
Frequency (MHz)											
30	DFT-s-OFDM PUSCH	1	1	21.16	21.21	21.16	21.17	21.08	22.2		
Channel											
Frequency (MHz)											
20	DFT-s-OFDM PUSCH	1	1	21.18	21.21	21.19	21.06	21.00	22.2		
Channel											
Frequency (MHz)											
100	OFDM	1	1			19.33			20.2		
100	OFDM	1	1			18.89			20.2		
100	OFDM	1	1			17.45			18.2		
100	OFDM	1	1			14.24			15.2		

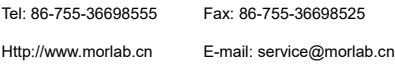
n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT 3&6											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	DFT-s-OFDM PUSCH	1	1			3500.01			21.2		
100		1	136			20.23					
100		1	271			20.20					
100		136	1			20.28					
100		136	67			19.29					
100		136	136			19.11			20.2		
100		270	0			19.04					
100		1	1			20.38					
100		1	136			20.30				21.2	
100		1	271			20.29					
100	DFT-s-OFDM OFDM	136	1			19.22			20.2		
100		136	67			19.18					
100		136	136			19.10					
100		270	0			19.19					
100		1	1			19.22				20.2	
100		DFT-s-OFDM SSBM	1	1			19.23			19.2	
100		DFT-s-OFDM SSBM	1	1			17.38			18.7	
Channel											
Frequency (MHz)											
90		DFT-s-OFDM PUSCH	1	1	20.25	3497.52	3500.01	3502.5	3504.98	21.2	
Channel											
Frequency (MHz)											
80	DFT-s-OFDM PUSCH	1	1	20.30	3490.02	3500.01	3504.98	3509.9	21.2		
Channel											
Frequency (MHz)											
70	DFT-s-OFDM PUSCH	1	1	20.23	3480.04	3500.01	3507.48	3514.98	21.2		
Channel											
Frequency (MHz)											
60	DFT-s-OFDM PUSCH	1	1	20.17	3470.01	3500.01	3507.48	3514.98	21.2		
Channel											
Frequency (MHz)											
50	DFT-s-OFDM PUSCH	1	1	20.28	3460.02	3500.01	3507.48	3514.98	21.2		
Channel											
Frequency (MHz)											
40	DFT-s-OFDM PUSCH	1	1	20.29	3450.02	3500.01	3507.48	3514.98	21.2		
Channel											
Frequency (MHz)											
30	DFT-s-OFDM PUSCH	1	1	20.25	3440.02	3500.01	3507.48	3514.98	21.2		
Channel											
Frequency (MHz)											
20	DFT-s-OFDM PUSCH	1	1	20.27	3430.02	3500.01	3507.48	3514.98	21.2		
Channel											
Frequency (MHz)											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	OFDM	1	1			19.02			19.7		
100	OFDM	1	1			18.35			19.7		
100	OFDM	1	1			16.91			17.7		
100	OFDM	1	1			15.02			15.7		



n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT 4											
BW (MHz)	Modulation	Channel	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Mid/high Channel	High Channel	Tune-up limit (dBm)	
Frequency (MHz)											
100	DFT-s-OFDM P-V2 BPSK	1	1				22.53			23.7	
100		1	1	136			22.48				
100		1	1	271			22.41				
100		136	1				21.75			22.7	
100		136	67				21.73				
100		136	136				21.68				
100		270	0				21.62			23.7	
100		1	1				22.73				
100		1	1	136			22.66				
100		1	1	271			22.56				
100	DFT-s-OFDM QPSK	136	1				21.89			22.7	
100		136	67				21.85				
100		136	136				21.76				
100		270	0				21.69			22.7	
100		1	1				21.42				
100		1	1				20.38				
100		DFT-s-OFDM BPSK	1	1				17.67			21.7
100		DFT-s-OFDM 25QAM	1	1				17.67			
100		Channel			630000	630168	630334	630500	630666	Tune-up limit (dBm)	
Frequency (MHz)					3495	3497.52	3500.01	3502.5	3504.98		
90		DFT-s-OFDM P-V2 BPSK	1	1		22.70	22.73	22.66	22.65	22.61	23.7
Channel					630668	630000	633334	634996	634000	Tune-up limit (dBm)	
Frequency (MHz)					3490.02	3495	3500.01	3504.98	3510		
80		DFT-s-OFDM P-V2 BPSK	1	1		22.72	22.63	22.69	22.72	22.43	23.7
80	1		1		630234	630854	630334	630892	634332	Tune-up limit (dBm)	
80	1		1		3466.01	3462.51	3500.01	3507.48	3514.98	Tune-up limit (dBm)	
80	1		1		22.56	22.61	22.68	22.64	22.61	23.7	
70	DFT-s-OFDM P-V2 BPSK	1	1		630000	630668	633334	634000	634668	Tune-up limit (dBm)	
70		1	1		3460	3462.52	3500.01	3510	3513.99	23.7	
70		1	1		22.69	22.58	22.55	22.70	22.63	23.7	
70		1	1		631668	632000	633334	634166	635000	Tune-up limit (dBm)	
70		1	1		3475.02	3487.5	3500.01	3510	3520	Tune-up limit (dBm)	
70		1	1		22.60	22.61	22.72	22.70	22.58	22.7	
60	DFT-s-OFDM P-V2 BPSK	1	1		631334	632334	633334	634332	635332	Tune-up limit (dBm)	
60		1	1		3470.01	3485.01	3500.01	3514.98	3520.98	Tune-up limit (dBm)	
60		1	1		22.64	22.71	22.71	22.63	22.49	23.7	
60		1	1		631000	632168	633334	634500	635596	Tune-up limit (dBm)	
60		1	1		3465	3482.52	3500.01	3517.5	3534.99	Tune-up limit (dBm)	
60		1	1		22.66	22.71	22.66	22.67	22.58	23.7	
50	DFT-s-OFDM P-V2 BPSK	1	1		630668	632000	633334	634996	635000	Tune-up limit (dBm)	
50		1	1		3460.02	3480	3500.01	3510.99	3540	Tune-up limit (dBm)	
50		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
50		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
40	DFT-s-OFDM P-V2 BPSK	1	1		22.68	22.71	22.69	22.59	22.50	23.7	
40		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
40		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
40		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
40		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
40		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
40		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
40		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
40		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
40		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
30	DFT-s-OFDM P-V2 BPSK	1	1		22.66	22.71	22.66	22.67	22.58	23.7	
30		1	1		630668	632000	633334	634996	635000	Tune-up limit (dBm)	
30		1	1		3460.02	3480	3500.01	3510.99	3540	Tune-up limit (dBm)	
30		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
30		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
30		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
30		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
30		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
30		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
30		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20	DFT-s-OFDM P-V2 BPSK	1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
20		1	1		22.68	22.71	22.69	22.59	22.50	23.7	
Channel											
Frequency (MHz)											
100	QPSK	1	1				20.83			21.7	
100	QPSK	1	1				20.39			21.7	
100	QPSK	1	1				19.04			19.7	
100	QPSK	1	1				15.75			16.7	



n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT 3										
Bin (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Modulation	Mid/High Channel	High Channel	High Channel	Turn-up limit (dBm)
Channel				60000	60000	60000	60000	60000	60000	
Frequency (MHz)				3700	3700	3700	3700	3700	3700	
100		1	1	16.72	16.68	16.76	16.76	16.72	16.72	
100		1	136	16.68	16.67	16.68	16.67	16.67	16.67	17.7
100		1	271	16.60	16.65	16.67	16.63	16.62	16.62	
100	DFT-OFDM	1	1	15.81	15.80	15.83	15.83	15.81	15.81	
100	PB-BPSC	135	0	15.93	15.95	16.01	16.01	15.90	15.98	
100	136	136	136	15.81	16.01	15.87	16.00	15.94	15.94	
100	270	0	15.90	15.91	15.96	15.98	15.98	15.96	15.96	
100	1	1	16.75	16.73	16.75	16.81	16.75	16.72	16.72	
100	136	136	136	16.65	16.68	16.70	16.68	16.66	16.66	17.7
100	271	0	16.68	16.77	16.76	16.81	16.81	16.81	16.81	
100	135	1	15.82	15.79	15.80	15.79	15.80	15.80	15.80	
100	DFT-OFDM	136	0	15.91	15.90	15.90	15.90	15.90	15.90	16.7
100	PB-BPSC	135	136	15.93	16.00	16.03	16.03	15.99	15.92	
100	20	0	15.88	15.90	15.97	15.93	15.93	15.93	15.93	
100	DFT-OFDM	1	1	15.90	15.84	15.87	15.92	15.91	15.91	16.7
100	DFT-OFDM	136	1	14.84	14.68	14.88	15.03	14.90	14.90	15.7
100	DFT-OFDM	270	1	13.96	13.76	13.88	13.91	13.90	13.90	14.7
Channel				64966	64964	64965	64966	64962	64962	Turn-up limit (dBm)
Frequency (MHz)				3744.96	3742.51	3744	3744.99	3744.98	3744.98	
50	DFT-OFDM	1	1	16.72	16.62	16.71	16.69	16.69	16.69	17.7
Channel				3743.01	3743.01	3743.01	3743.01	3743.01	3743.01	Turn-up limit (dBm)
Frequency (MHz)				3743.01	3743.02	3744	3743.98	3743.99	3743.99	
80	DFT-OFDM	1	1	16.76	16.61	16.68	16.73	16.71	16.71	17.7
Channel				64900	64900	64900	64900	64900	64900	Turn-up limit (dBm)
Frequency (MHz)				3743.01	3743.01	3743.01	3743.01	3743.01	3743.01	Turn-up limit (dBm)
30	DFT-OFDM	1	1	16.75	16.62	16.72	16.73	16.64	16.74	17.7
Channel				64968	64964	64969	64969	64969	64969	Turn-up limit (dBm)
Frequency (MHz)				3746.02	3746.01	3746	3746.00	3746.00	3746.00	
60	DFT-OFDM	1	1	16.75	16.64	16.76	16.71	16.74	16.74	17.7
Channel				64974	64974	64974	64974	64974	64974	Turn-up limit (dBm)
Frequency (MHz)				3749.01	3749.02	3748	3749.00	3749.00	3749.00	
50	DFT-OFDM	1	1	16.76	16.78	16.73	16.78	16.73	16.73	16.7
Channel				64900	64900	64900	64900	64900	64900	Turn-up limit (dBm)
Frequency (MHz)				3750.02	3750.01	3750	3750.00	3750.00	3750.00	
40	DFT-OFDM	1	1	16.68	16.71	16.66	16.74	16.66	16.74	16.7
Channel				64768	64824	64900	64966	64932	64932	Turn-up limit (dBm)
Frequency (MHz)				3751.02	3757.51	3840	3802.40	3804.88	3804.88	
30	DFT-OFDM	1	1	16.75	16.60	16.75	16.73	16.73	16.73	17.7
Channel				64734	65168	65000	65002	64696	64696	Turn-up limit (dBm)
Frequency (MHz)				3757.51	3757.52	3840	3802.40	3804.88	3804.88	
20	DFT-OFDM	1	1	16.74	16.24	16.65	16.71	16.60	16.71	17.7
Channel				64734	65168	65000	65002	64696	64696	Turn-up limit (dBm)
Frequency (MHz)				3757.51	3757.52	3840	3802.40	3804.88	3804.88	
Bin (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Modulation	Mid/High Channel	High Channel	High Channel	Turn-up limit (dBm)
Channel				60000	60000	60000	60000	60000	60000	
Frequency (MHz)				3700	3700	3700	3700	3700	3700	
100	OFDM-DM	1	1	16.21	15.08	15.27	15.19	15.17	15.17	
100	OFDM-DM	1	1	15.24	15.08	15.21	15.20	15.18	15.18	16.2
100	OFDM-DM	1	1	14.34	14.32	14.25	14.35	14.40	15.2	
100	OFDM-DM	1	1	11.95	11.92	12.02	12.00	11.90	13.2	





n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT 4									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				650000	653000	656000	659000	662000	Tune-up limit (dBm)
Frequency (MHz)				3750	3795	3840	3885	3930	
100	DFT-s-OFDM PI/2 BPSK	1	1	22.70	22.67	22.78	22.72	22.75	23.7
100		1	136	22.69	22.63	22.66	22.70	22.60	
100		1	271	22.65	22.49	22.69	22.49	22.55	
100		135	1	21.63	21.67	21.69	21.61	21.62	
100		135	67	21.55	21.66	21.67	21.53	21.62	
100	DFT-s-OFDM QPSK	135	136	21.52	21.45	21.41	21.38	21.36	22.7
100		270	0	21.62	21.51	21.47	21.55	21.44	
100		1	1	22.79	22.71	22.88	22.75	22.80	
100		1	136	22.76	22.70	22.82	22.71	22.61	
100		1	271	22.74	22.55	22.80	22.53	22.56	
100	DFT-s-OFDM QPSK	135	1	21.65	21.61	21.79	21.73	21.68	22.7
100		135	67	21.64	21.55	21.72	21.70	21.61	
100		135	136	21.43	21.60	21.51	21.48	21.49	
100		270	0	21.46	21.38	21.57	21.45	21.51	
100		1	1	20.80	20.97	21.05	21.03	21.08	
100	DFT-s-OFDM 16QAM	1	1	19.48	19.51	19.63	19.55	19.58	20.7
100	DFT-s-OFDM 64QAM	1	1	17.28	17.20	17.32	17.30	17.25	18.2
Channel				649666	652834	656000	659166	662332	Tune-up limit (dBm)
Frequency (MHz)				3744.99	3792.51	3840	3887.49	3934.98	
90	DFT-s-OFDM PI/2 BPSK	1	1	22.55	22.58	22.69	22.67	22.63	23.7
Channel				649334	652668	656000	659332	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99	
80	DFT-s-OFDM PI/2 BPSK	1	1	22.65	22.59	22.72	22.56	22.63	23.7
Channel				649000	652500	656000	659500	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3787.5	3840	3892.5	3945	
70	DFT-s-OFDM PI/2 BPSK	1	1	22.63	22.43	22.78	22.74	22.63	23.7
Channel				648668	652334	656000	659666	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98	
60	DFT-s-OFDM PI/2 BPSK	1	1	22.55	22.72	22.77	22.67	22.72	23.7
Channel				648334	652168	656000	659832	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3782.52	3840	3894.99	3954.99	
50	DFT-s-OFDM PI/2 BPSK	1	1	22.49	22.58	22.80	22.76	22.73	22.7
Channel				648000	652000	656000	660000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3780	3840	3900	3960	
40	DFT-s-OFDM PI/2 BPSK	1	1	22.63	22.66	22.82	22.72	22.80	22.7
Channel				647668	651834	656000	660166	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98	
30	DFT-s-OFDM PI/2 BPSK	1	1	22.64	22.72	22.80	22.73	22.75	23.7
Channel				647334	651668	656000	660332	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99	
20	DFT-s-OFDM PI/2 BPSK	1	1	22.77	22.75	22.81	22.80	22.79	23.7
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				650000	653000	656000	659000	662000	Tune-up limit (dBm)
Frequency (MHz)				3750	3795	3840	3885	3930	
100	CP-OFDM QPSK	1	1	20.47	20.59	20.82	20.60	20.52	21.7
100	CP-OFDM 16QAM	1	1	20.20	20.28	20.29	20.35	20.30	21.7
100	CP-OFDM 64QAM	1	1	18.42	18.55	18.42	18.81	18.60	19.7
100	CP-OFDM 256QAM	1	1	14.90	15.16	15.03	15.36	15.25	16.7



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT 6														
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Medium/High Channel	High Channel	Tune-up limit (dBm)					
Channel														
Frequency (MHz)														
100	DFT-s-OFDM P2/BPSK	1	1	19.70	19.67	19.70	19.72	19.73	20.7					
				17.00	17.00	17.00	17.00	17.00						
				19.69	19.63	19.66	19.70	19.60						
				19.65	19.49	19.69	19.49	19.50						
				18.63	18.67	18.69	18.61	18.62						
				18.55	18.66	18.67	18.53	18.62						
				18.52	18.45	18.41	18.36	18.36						
				18.62	18.51	18.47	18.55	18.44						
				19.70	19.71	19.66	19.75	19.80						
				19.76	19.70	19.82	19.71	19.61						
100	DFT-s-OFDM QPSK	1	271	19.74	19.55	19.80	19.53	19.56	20.7					
				18.65	18.61	18.70	18.73	18.68						
				18.64	18.55	18.72	18.70	18.61						
				18.43	18.62	18.51	18.48	18.40						
				18.46	18.38	18.57	18.45	18.51						
				17.80	17.97	18.05	18.03	18.06						
				16.48	16.51	16.63	16.55	16.56						
				14.28	14.20	14.32	14.30	14.25						
				3744.99	3742.51	3840	3837.49	3934.98						
				19.55	19.58	19.69	19.67	19.63						
100	DFT-s-OFDM P2/BPSK	1	1	19.63	19.43	19.78	19.74	19.63	20.7					
				18.66	18.63	18.69	18.61	18.62						
				17.00	17.00	17.00	17.00	17.00						
				19.69	19.63	19.66	19.70	19.60						
				19.65	19.49	19.69	19.49	19.50						
				18.63	18.67	18.69	18.61	18.62						
				18.55	18.66	18.67	18.53	18.62						
				18.52	18.45	18.41	18.36	18.36						
				18.62	18.51	18.47	18.55	18.44						
				19.70	19.71	19.66	19.75	19.80						
100	DFT-s-OFDM P2/BPSK	1	1	19.63	19.43	19.78	19.74	19.63	20.7					
				18.66	18.63	18.69	18.61	18.62						
				17.00	17.00	17.00	17.00	17.00						
				19.69	19.63	19.66	19.70	19.60						
				19.65	19.49	19.69	19.49	19.50						
				18.63	18.67	18.69	18.61	18.62						
				18.55	18.66	18.67	18.53	18.62						
				18.52	18.45	18.41	18.36	18.36						
				18.62	18.51	18.47	18.55	18.44						
				19.70	19.71	19.66	19.75	19.80						
100	DFT-s-OFDM P2/BPSK	1	1	19.63	19.43	19.78	19.74	19.63	20.7					
				18.66	18.63	18.69	18.61	18.62						
				17.00	17.00	17.00	17.00	17.00						
				19.69	19.63	19.66	19.70	19.60						
				19.65	19.49	19.69	19.49	19.50						
				18.63	18.67	18.69	18.61	18.62						
				18.55	18.66	18.67	18.53	18.62						
				18.52	18.45	18.41	18.36	18.36						
				18.62	18.51	18.47	18.55	18.44						
				19.70	19.71	19.66	19.75	19.80						
100	DFT-s-OFDM P2/BPSK	1	1	19.63	19.43	19.78	19.74	19.63	20.7					
				18.66	18.63	18.69	18.61	18.62						
				17.00	17.00	17.00	17.00	17.00						
				19.69	19.63	19.66	19.70	19.60						
				19.65	19.49	19.69	19.49	19.50						
				18.63	18.67	18.69	18.61	18.62						
				18.55	18.66	18.67	18.53	18.62						
				18.52	18.45	18.41	18.36	18.36						
				18.62	18.51	18.47	18.55	18.44						
				19.70	19.71	19.66	19.75	19.80						
100	DFT-s-OFDM P2/BPSK	1	1	19.63	19.43	19.78	19.74	19.63	20.7					
				18.66	18.63	18.69	18.61	18.62						
				17.00	17.00	17.00	17.00	17.00						
				19.69	19.63	19.66	19.70	19.60						
				19.65	19.49	19.69	19.49	19.50						
				18.63	18.67	18.69	18.61	18.62						
				18.55	18.66	18.67	18.53	18.62						
				18.52	18.45	18.41	18.36	18.36						
				18.62	18.51	18.47	18.55	18.44						
				19.70	19.71	19.66	19.75	19.80						
100	DFT-s-OFDM P2/BPSK	1	1	19.63	19.43	19.78	19.74	19.63	20.7					
				18.66	18.63	18.69	18.61	18.62						
				17.00	17.00	17.00	17.00	17.00						
				19.69	19.63	19.66	19.70	19.60						
				19.65	19.49	19.69	19.49	19.50						
				18.63	18.67	18.69	18.61	18.62						
				18.55	18.66	18.67	18.53	18.62						
				18.52	18.45	18.41	18.36	18.36						
				18.62	18.51	18.47	18.55	18.44						
				19.70	19.71	19.66	19.75	19.80						
100	DFT-s-OFDM P2/BPSK	1	1	19.63	19.43	19.78	19.74	19.63	20.7					
				18.66	18.63	18.69	18.61	18.62						
				17.00	17.00	17.00	17.00	17.00						
				19.69	19.63	19.66	19.70	19.60						
				19.65	19.49	19.69	19.49	19.50						
				18.63	18.67	18.69	18.61	18.62						
				18.55	18.66	18.67	18.53	18.62						
				18.52	18.45	18.41	18.36	18.36						
				18.62	18.51	18.47	18.55	18.44						
				19.70	19.71	19.66	19.75	19.80						
100	DFT-s-OFDM P2/BPSK	1	1	19.63	19.43	19.78	19.74	19.63	20.7					
				18.66	18.63	18.69	18.61	18.62						
				17.00	17.00	17.00	17.00	17.00						
				19.69	19.63	19.66	19.70	19.60						
				19.65	19.49	19.69	19.49	19.50						
				18.63	18.67	18.69	18.61	18.62						
				18.55	18.66	18.67	18.53	18.62						
				18.52	18.45	18.41	18.36	18.36						
				18.62	18.51	18.47	18.55	18.44						
				19.70	19.71	19.66	19.75	19.80						
100	DFT-s-OFDM P2/BPSK	1	1	19.63	19.43	19.78	19.74	19.63	2					



n78 (3450 MHz ~ 3550 MHz) (PC2) _ANT 3&6												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1		3500.01	21.06			22.2			
100		1	136		20.94							
100		1	271		20.87							
100		136	1		20.24							
100		136	67		20.13							
100		136	136		20.08							
100		270	0		20.00							
100		1	1		21.07							
100		1	136		21.24				22.2			
100		1	271		21.23							
100	DFT-s-OFDM PDSCH	136	1		20.30							
100	136	67		20.26								
100	136	136		20.22						21.2		
100	270	0		20.18								
100	1	1		20.25								
100	DFT-s-OFDM 64QAM	1	1		19.42						20.2	
100	1	1		19.42								
100	DFT-s-OFDM 256QAM	1	1		16.00							
Channel												
Frequency (MHz)												
80	DFT-s-OFDM PUSCH	1	1		3500.00	630168	630334	630500	630666	Tune-up limit (dBm)		
90	DFT-s-OFDM PUSCH	1	1	3495	587.52	630334	630502	3504.90				
				21.20	21.16	21.08	21.15	21.14	22.2			
				630334	630500	630666	630832					
80	DFT-s-OFDM PUSCH	1	1	3490.00	3495	3500.01	3504.99	3510		Tune-up limit (dBm)		
				21.13	21.06	21.25	21.21	21.25	22.2			
				630234	630334	630334	630332	634332	Tune-up limit (dBm)			
70	DFT-s-OFDM PUSCH	1	1	3485.01	3485.51	3500.01	3507.48	3514.98				
				21.12	21.14	21.18	21.17	21.18	22.2			
				630208	630668	630334	634500	634996	Tune-up limit (dBm)			
60	DFT-s-OFDM PUSCH	1	1	3480	3480.52	3500.01	3510	3519.99				
				21.17	21.11	21.09	21.18	21.15	22.2			
				631668	630500	630334	634166	635000	Tune-up limit (dBm)			
50	DFT-s-OFDM PUSCH	1	1	3475.00	3487.5	3500.01	3510	3520				
				21.19	21.26	21.13	21.20	21.21	22.2			
				631334	630234	630334	634332	630332	Tune-up limit (dBm)			
40	DFT-s-OFDM PUSCH	1	1	3470.01	3488.01	3500.01	3514.98	3529.98				
				21.21	21.24	21.25	21.21	21.14	22.2			
				631000	632168	630334	634500	630666	Tune-up limit (dBm)			
30	DFT-s-OFDM PUSCH	1	1	3465	3462.52	3500.01	3517.5	3534.99				
				21.19	21.19	21.16	21.15	21.08	22.2			
				630668	632000	630334	634066	630500	Tune-up limit (dBm)			
20	DFT-s-OFDM PUSCH	1	1	3450.00	3480	3500.01	3510.99	3520				
				21.16	20.95	21.10	20.96	20.95	22.2			
				630000	632000	630334	634066	630500	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
BW (MHz) <th>Modulation</th> <th>RB Size</th> <th>RB Offset</th> <th>Low Channel</th> <th>Low/Middle Channel</th> <th>Middle Channel</th> <th>Middle/High Channel</th> <th>High Channel</th> <th colspan="2">Tune-up limit (dBm)</th>	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	CP-OFDM	1	1			19.40			20.2			
100	CP-OFDM	1	1			19.24						
100	CP-OFDM	1	1			17.82						
100	CP-OFDM	1	1			14.09						
100	CP-OFDM	1	1									

n78 (3450 MHz ~ 3550 MHz) (PC3) _ANT 3&6											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	DFT-s-OFDM PUSCH	1	1			20.16			21.2		
100		1	136			20.12					
100		1	271			20.09					
100		136	1			19.22					
100		136	67			19.15					
100		136	136			19.08			20.2		
100		270	0			19.05					
100		1	1			20.34	20.34				
100		1	136			20.25				21.2	
100		1	271			20.13					
100	DFT-s-OFDM PDSCH	136	1	1		19.23			20.2		
100	136	67			19.14						
100	136	136			19.10						
100	270	0			19.23						
100	DFT-s-OFDM PDSCH	1	1			19.32					
100	DFT-s-OFDM PDSCH	1	1			19.90			19.2		
100	DFT-s-OFDM PDSCH	1	1			17.52			18.2		
Channel											
Frequency (MHz)											
				633000	633168	633334	633500	633666	Tune-up limit (dBm)		
				3485	3497.02	3500.01	3502.5	3504.98			
80	DFT-s-OFDM PUSCH	1	1	20.11	20.08	20.08	20.07	20.12	21.2		
Channel											
Frequency (MHz)											
80	DFT-s-OFDM PUSCH	1	1	20.17	20.09	20.12	20.07	20.02	21.2		
Channel											
Frequency (MHz)											
				632334	632834	633334	633832	634332	Tune-up limit (dBm)		
				3486.01	3492.51	3500.01	3507.48	3514.98			
70	DFT-s-OFDM PUSCH	1	1	20.10	20.08	20.10	19.88	19.98	21.2		
Channel											
Frequency (MHz)											
				632000	632668	633334	634006	634666	Tune-up limit (dBm)		
				3482	3489.02	3500.01	3510	3516.98			
60	DFT-s-OFDM PUSCH	1	1	20.17	20.16	20.15	20.08	20.00	21.2		
Channel											
Frequency (MHz)											
				631666	632000	633334	634166	635000	Tune-up limit (dBm)		
				3479.02	3487.5	3500.01	3510	3525			
50	DFT-s-OFDM PUSCH	1	1	20.14	20.03	20.09	19.99	19.92	24.2		
Channel											
Frequency (MHz)											
				631334	632034	633334	634332	635332	Tune-up limit (dBm)		
				3470.01	3485.01	3500.01	3514.98	3529.98			
40	DFT-s-OFDM PUSCH	1	1	20.24	20.31	20.23	20.28	20.17	24.2		
Channel											
Frequency (MHz)											
				631000	632168	633334	634500	635666	Tune-up limit (dBm)		
				3465	3482.52	3500.01	3517.5	3534.99			
30	DFT-s-OFDM PUSCH	1	1	20.17	20.27	20.22	20.09	20.02	34.2		
Channel											
Frequency (MHz)											
				630666	632000	633334	634666	636000	Tune-up limit (dBm)		
				3450.02	3485	3500.01	3519.99	3540			
20	DFT-s-OFDM PUSCH	1	1	20.30	20.13	20.25	19.98	19.95	34.2		
Channel											
Frequency (MHz)											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	CP-OFDM	1	1			18.74			19.7		
100	CP-OFDM	1	1			18.68					
100	CP-OFDM	1	1			17.91					
100	CP-OFDM	1	1			14.90					
100	CP-OFDM	1	1								



n78 (3450 MHz ~ 3550 MHz) (PC2) _ANT 4									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM Pi/2 BPSK	1	1			22.56			23.7
100		1	136			22.44			
100		1	271			22.47			
100		136	1			21.74			22.7
100		136	67			21.63			
100		136	136			21.58			
100		270	0			21.50			
100		1	1			22.77			23.7
100		1	136			22.74			
100		1	271			22.73			
100	DFT-s-OFDM QPSK	136	1			21.80			22.7
100		136	67			21.79			
100		136	136			21.72			
100		270	0			21.68			
100		1	1			21.75			
100	DFT-s-OFDM 16QAM	1	1						22.7
100	DFT-s-OFDM 64QAM	1	1			20.92			21.7
100	DFT-s-OFDM 256QAM	1	1			17.50			18.7
Channel				633000	633168	633334	633500	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3497.52	3500.01	3502.5	3504.99	
90	DFT-s-OFDM Pi/2 BPSK	1	1	22.70	22.66	22.58	22.65	22.64	23.7
Channel				632668	633000	633334	633666	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM Pi/2 BPSK	1	1	22.63	22.56	22.75	22.71	22.75	23.7
Channel				632334	632634	633334	633632	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM Pi/2 BPSK	1	1	22.62	22.64	22.68	22.67	22.68	23.7
Channel				632000	632668	633334	634000	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM Pi/2 BPSK	1	1	22.67	22.61	22.59	22.68	22.65	23.7
Channel				631668	632500	633334	634166	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3487.5	3500.01	3510	3525	
50	DFT-s-OFDM Pi/2 BPSK	1	1	22.69	22.76	22.63	22.70	22.71	23.7
Channel				631334	632334	633334	634332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM Pi/2 BPSK	1	1	22.71	22.74	22.75	22.71	22.64	23.7
Channel				631000	632168	633334	634500	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM Pi/2 BPSK	1	1	22.51	22.69	22.66	22.65	22.58	23.7
Channel				630668	632000	633334	634666	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM Pi/2 BPSK	1	1	22.66	22.45	22.60	22.46	22.45	23.7
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	CP-OFDM QPSK	1	1			20.90			21.7
100	CP-OFDM 16QAM	1	1			20.74			21.7
100	CP-OFDM 64QAM	1	1			19.02			19.7
100	CP-OFDM 256QAM	1	1			15.59			16.7



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT 3											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	DFT-s-OFDM PUSCH	1	1			16.80			17.7		
100		1	136			16.56					
100		1	271			16.54					
100		135	1			15.58					
100		135	67			15.52					
100		135	136			15.55					
100		270	0			15.51					
100		1	1			16.58					
100		1	136			16.61			17.7		
100		1	271			16.55					
100	DFT-s-OFDM PUSCH	135	1			15.51					
100		135	67			16.75				16.7	
100		135	136			15.49					
100		270	0			16.55					
100		1	1			15.84					
100		1	1			13.66					
100		1	1			11.41					
Channel				64966	64934	65000	65032	65066	Tune-up limit (dBm)		
Frequency (MHz)				3745.02	3747.51	3750	3752.49	3754.98			
90	DFT-s-OFDM PUSCH	1	1	16.43	16.65	16.52	16.51	16.50	17.7		
Channel											
Frequency (MHz)											
80	DFT-s-OFDM PUSCH	1	1	16.47	16.52	16.57	16.62	16.59	17.7		
Channel				64934	64966	65000	65032	65066	Tune-up limit (dBm)		
Frequency (MHz)				3740.01	3745.02	3750	3754.98	3759.99			
70	DFT-s-OFDM PUSCH	1	1	16.47	16.41	16.64	16.65	16.61	17.7		
Channel				64868	64934	65000	65066	65132	Tune-up limit (dBm)		
Frequency (MHz)				3730.02	3740.01	3750	3759.99	3769.98			
60	DFT-s-OFDM PUSCH	1	1	16.61	16.58	16.51	16.56	16.60	17.7		
Channel				64934	64966	65000	65032	65066	Tune-up limit (dBm)		
Frequency (MHz)				3735.01	3740.01	3750	3759.99	3769.98			
50	DFT-s-OFDM PUSCH	1	1	16.50	16.80	16.64	16.46	16.51	17.7		
Channel				64800	64900	65000	65100	65200	Tune-up limit (dBm)		
Frequency (MHz)				3720	3735	3750	3765	3780			
40	DFT-s-OFDM PUSCH	1	1	16.56	16.50	16.53	16.56	16.42	17.7		
Channel				64934	64966	65000	65032	65066	Tune-up limit (dBm)		
Frequency (MHz)				3730.01	3735.02	3750	3759.99	3769.98			
20	DFT-s-OFDM PUSCH	1	1	16.56	16.53	16.47	16.50	16.55	17.7		
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	CP-OFDM	1	1			14.57			15.7		
100	CP-OFDM	1	1			14.32			15.7		
100	CP-OFDM	1	1			12.52			13.7		
100	CP-OFDM	1	1			9.20			15.7		

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT 3											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dB)		
Channel											
Frequency (MHz)											
100	DFT-s-OFDM PUSCH	1	1			15.89			16.9		
100		1	136			15.82					
100		1	271			15.78					
100		135	1			14.93					
100		135	67			14.89					
100		135	136			14.92			15.9		
100		270	0			14.82					
100		1	1			15.55					
100		1	136			15.86					
100		1	271			15.81					
100	DFT-s-OFDM PUSCH	135	1			15.94			15.9		
100		135	67			14.92					
100		135	136			14.93					
100		270	0			14.77					
100		1	1			14.86					
100		1	1			14.80			15.9		
100		1	1			12.82					
Channel				64966	64934	65000	65032	65066	Tune-up limit (dB)		
Frequency (MHz)				3745.02	3747.51	3750	3752.49	3754.98			
90	DFT-s-OFDM PUSCH	1	1	15.86	15.85	15.83	15.76	15.82	16.9		
Channel				64934	64966	65000	65032	65066	Tune-up limit (dB)		
Frequency (MHz)				3740.01	3745.02	3750	3754.98	3759.99			
80	DFT-s-OFDM PUSCH	1	1	15.55	15.72	15.75	15.77	15.84	16.9		
Channel				64934	64966	65000	65032	65066	Tune-up limit (dB)		
Frequency (MHz)				3735.01	3740.01	3750	3759.99	3769.98			
70	DFT-s-OFDM PUSCH	1	1	15.78	15.84	15.80	15.84	15.81	16.9		
Channel				64868	64934	65000	65066	65132	Tune-up limit (dB)		
Frequency (MHz)				3730.02	3740.01	3750	3759.99	3769.98			
60	DFT-s-OFDM PUSCH	1	1	15.84	15.91	15.88	15.82	15.90	16.9		
Channel				64934	64966	65000	65032	65066	Tune-up limit (dB)		
Frequency (MHz)				3735.01	3740.01	3750	3759.99	3769.98			
50	DFT-s-OFDM PUSCH	1	1	15.90	15.77	15.87	15.79	15.83	14.7		
Channel				64800	64900	65000	65100	65200	Tune-up limit (dB)		
Frequency (MHz)				3720	3735	3750	3765	3780			
40	DFT-s-OFDM PUSCH	1	1	15.71	15.76	15.90	15.92	15.82	14.7		
Channel				64934	64966	65000	65032	65066	Tune-up limit (dB)		
Frequency (MHz)				3730.01	3735.02	3750	3759.99	3769.98			
20	DFT-s-OFDM PUSCH	1	1	15.83	15.79	15.88	15.81	15.86	14.7		
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dB)		
Channel											
Frequency (MHz)											
100	CP-OFDM	1	1			14.77			15.4		
100	CP-OFDM	1	1			14.74			15.4		
100	CP-OFDM	1	1			13.97			14.4		
100	CP-OFDM	1	1			10.85			11.4		

**n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT 4**

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						650000			
Frequency (MHz)						3750			
100	DFT-s-OFDM PI/2 BPSK	1	1			22.60			23.7
100		1	136			22.56			
100		1	271			22.54			
100		135	1			21.58			22.7
100		135	67			21.50			
100		135	136			21.55			
100		270	0			21.51			
100	DFT-s-OFDM QPSK	1	1			22.68			23.7
100		1	136			22.61			
100		1	271			22.55			
100		135	1			21.81			22.7
100		135	67			21.75			
100		135	136			21.69			
100		270	0			21.55			
100	DFT-s-OFDM 16QAM	1	1			21.84			22.7
100	DFT-s-OFDM 64QAM	1	1			19.66			20.7
100	DFT-s-OFDM 256QAM	1	1			17.41			18.7
Channel				649668	649834	650000	650166	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3747.51	3750	3752.49	3754.98	
90	DFT-s-OFDM QPSK	1	1	22.43	22.65	22.52	22.51	22.50	23.7
Channel				649334	649668	650000	650332	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3745.02	3750	3754.98	3759.99	
80	DFT-s-OFDM QPSK	1	1	22.47	22.52	22.57	22.62	22.59	23.7
Channel				649000	649500	650000	650500	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3742.5	3750	3757.5	3765	
70	DFT-s-OFDM QPSK	1	1	22.47	22.41	22.64	22.65	22.61	23.7
Channel				648668	649334	650000	650666	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3740.01	3750	3759.99	3769.98	
60	DFT-s-OFDM QPSK	1	1	22.61	22.58	22.51	22.56	22.60	23.7
Channel				648334	649168	650000	650832	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3737.52	3750	3759.99	3774.99	
50	DFT-s-OFDM QPSK	1	1	22.59	22.60	22.64	22.46	22.51	23.7
Channel				648000	649000	650000	651000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3735	3750	3765	3780	
40	DFT-s-OFDM QPSK	1	1	22.58	22.50	22.53	22.56	22.42	23.7
Channel				647334	648668	650000	651332	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3730.02	3750	3769.98	3789.99	
20	DFT-s-OFDM QPSK	1	1	22.56	22.53	22.47	22.60	22.58	23.7
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						650000			
Frequency (MHz)						3750			
100	CP-OFDM QPSK	1	1			20.57			21.7
100	CP-OFDM 16QAM	1	1			20.32			21.7
100	CP-OFDM 64QAM	1	1			18.52			19.7
100	CP-OFDM 256QAM	1	1			15.20			16.7



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT 6													
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
100	DFT-s-OFDM P2/BPSK	1	1			20.10			21.2				
100		1	136			20.08							
100		1	271			20.04							
100		135	1			19.08							
100		135	67			19.02							
100	DFT-s-OFDM QPSK	135	136			19.05			20.2				
100		270	0			19.01							
100		1	1			20.16							
100		1	136			20.11							
100		1	271			20.05							
100	DFT-s-OFDM 16QAM	135	1			19.31			21.2				
100		135	67			19.25							
100		135	136			19.19							
100		270	0			19.05							
100		1	1			19.34							
100	DFT-s-OFDM 64QAM	1	1			17.16			16.2				
100		1	1			17.16							
100		1	1			14.91							
Channel													
Frequency (MHz)													
90	DFT-s-OFDM QPSK	1	1	19.93	20.15	20.02	20.01	20.00	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
80	DFT-s-OFDM QPSK	1	1	19.97	20.02	20.07	20.12	20.09	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
70	DFT-s-OFDM QPSK	1	1	19.97	19.91	20.14	20.15	20.11	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
60	DFT-s-OFDM QPSK	1	1	20.11	20.08	20.01	20.09	20.10	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
50	DFT-s-OFDM QPSK	1	1	20.09	20.10	20.14	19.96	20.01	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
40	DFT-s-OFDM QPSK	1	1	20.08	20.00	20.09	20.09	19.92	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
20	DFT-s-OFDM QPSK	1	1	20.06	20.03	19.97	20.10	20.00	Tune-up limit (dBm)				
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
100	CP-OFDM QPSK	1	1			18.07			19.2				
100	CP-OFDM 16QAM	1	1			17.82			19.2				
100	CP-OFDM 64QAM	1	1			16.02			17.2				
100	CP-OFDM 256QAM	1	1			12.70			14.2				

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT 6												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM P2/BPSK	1	1			19.39			20.4			
100		1	136			19.32						
100		1	271			19.28						
100		135	1			18.43						
100		135	67			18.39						
100	DFT-s-OFDM QPSK	135	136			18.42			19.4			
100		270	0			18.32						
100		1	1			19.45						
100		1	136			19.38						
100		1	271			19.31						
100	DFT-s-OFDM 16QAM	135	1			18.44			19.4			
100		135	67			18.42						
100		135	136			18.43						
100		270	0			18.27						
100		1	1			18.36						
100	DFT-s-OFDM 64QAM	1	1			18.30			19.4			
100		1	1			18.30						
100		1	1			16.32						
Channel												
Frequency (MHz)												
90	DFT-s-OFDM QPSK	1	1	19.36	19.35	19.33	19.26	19.32	20.4			
Channel												
Frequency (MHz)												
80	DFT-s-OFDM QPSK	1	1	19.05	19.22	19.25	19.27	19.34	20.4			
Channel												
Frequency (MHz)												
70	DFT-s-OFDM QPSK	1	1	19.28	19.34	19.30	19.34	19.31	20.4			
Channel												
Frequency (MHz)												
60	DFT-s-OFDM QPSK	1	1	19.34	19.41	19.38	19.32	19.40	20.4			
Channel												
Frequency (MHz)												
50	DFT-s-OFDM QPSK	1	1	19.40	19.27	19.37	19.29	19.33	24.7			
Channel												
Frequency (MHz)												
40	DFT-s-OFDM QPSK	1	1	19.21	19.26	19.40	19.42	19.32	24.7			
Channel												
Frequency (MHz)												
20	DFT-s-OFDM QPSK	1	1	19.33	19.29	19.38	19.31	19.36	24.7			
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	CP-OFDM QPSK	1	1			18.27			18.9			
100	CP-OFDM 16QAM	1	1			18.24			18.9			
100	CP-OFDM 64QAM	1	1			17.47			17.9			
100	CP-OFDM 256QAM	1	1			14.35			14.9			



CA_48C_Ant 3 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
55340	55340	55538	QPSK	1	0	0	0	1	0	20.06	21.00
55990	55891	56089	QPSK	1	0	0	0	1	0	20.22	21.00
56640	56442	56640	QPSK	1	0	0	0	1	0	19.98	21.00
55340	55340	55538	16QAM	1	0	0	0	1	0	19.49	20.50
55990	55891	56089	16QAM	1	0	0	0	1	0	19.62	20.50
56640	56442	56640	16QAM	1	0	0	0	1	0	19.44	20.50
55340	55340	55538	64QAM	1	0	0	0	1	0	18.31	19.00
55990	55891	56089	64QAM	1	0	0	0	1	0	18.38	19.00
56640	56442	56640	64QAM	1	0	0	0	1	0	18.29	19.00
55340	55340	55538	QPSK	50	0	0	0	1	0	19.25	20.00
55990	55891	56089	QPSK	50	0	0	0	1	0	19.32	20.00
56640	56442	56640	QPSK	50	0	0	0	1	0	19.22	20.00



Reduced Power Level 1 for Ant 7

2.4GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Time-Up Limit	Power Setting	Duty Cycle %
2.4GHz WLAN ANT 1	802.11b 1Mbps	CH 1	2412	15.46	17.00	15.00
		CH 6	2437	15.67	17.50	15.00
		CH 11	2462	15.63	17.50	15.00
	802.11g 9Mbps	CH 1	2412	13.41	15.00	13.50
		CH 6	2437	13.42	15.00	13.50
		CH 11	2462	11.07	13.00	11.00
	802.11n-HT20 MCS0	CH 1	2412	13.22	15.00	13.50
		CH 6	2437	13.19	15.00	13.50
		CH 11	2462	10.43	12.00	13.50
	802.11n-HT40 MCS0	CH 3	2422	13.28	15.00	13.00
		CH 6	2437	10.75	12.50	9.50
		CH 9	2452	8.92	10.50	8.00
	802.11ac-VHT20 MCS0	CH 1	2412	13.23	15.00	13.50
		CH 6	2437	13.17	15.00	13.50
		CH 11	2462	10.49	12.00	10.50
	802.11ac-VHT40 MCS0	CH 3	2422	13.23	15.00	13.00
		CH 6	2437	10.71	12.50	9.50
		CH 9	2452	8.96	10.50	8.00

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Time-Up Limit	Power Setting	Duty Cycle %
5.2GHz WLAN ANT 1	802.11a 6Mbps	CH 36	5180	12.19	14.00	12.00
		CH 44	5220	12.50	14.50	12.00
		CH 48	5240	12.56	14.50	12.00
	802.11n-HT20 MCS0	CH 36	5180	12.75	14.50	12.00
		CH 44	5220	13.03	15.00	12.00
		CH 48	5240	13.14	15.00	12.00
	802.11n-HT40 MCS0	CH 36	5180	13.19	15.00	12.00
		CH 48	5230	12.46	14.00	12.00
		CH 36	5180	11.10	13.00	10.50
	802.11ac-VHT20 MCS0	CH 44	5220	11.42	13.00	10.50
		CH 48	5240	10.79	12.50	10.50
		CH 36	5180	10.98	12.50	10.50
	802.11ac-VHT40 MCS0	CH 48	5230	11.22	13.00	10.50
		CH 42	5210	11.32	13.00	10.50

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Time-Up Limit	Power Setting	Duty Cycle %
5.8GHz WLAN ANT 1	802.11a 6Mbps	CH 52	5260	12.74	14.50	12.00
		CH 60	5300	12.77	14.50	12.00
		CH 64	5320	13.03	15.00	12.00
	802.11n-HT20 MCS0	CH 52	5260	13.27	15.00	12.00
		CH 60	5300	12.50	14.50	12.00
		CH 64	5320	12.81	14.50	12.00
	802.11n-HT40 MCS0	CH 54	5270	12.88	14.50	12.00
		CH 62	5310	13.39	15.00	12.00
		CH 52	5260	10.89	12.50	10.50
	802.11ac-VHT20 MCS0	CH 60	5300	11.05	13.00	10.50
		CH 64	5320	11.42	13.00	10.50
		CH 54	5270	10.93	12.50	10.50
	802.11ac-VHT40 MCS0	CH 62	5310	11.02	13.00	10.50
		CH 58	5290	11.06	13.00	10.50

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Time-Up Limit	Power Setting	Duty Cycle %
5.8GHz WLAN ANT 1	802.11a 6Mbps	CH 100	5500	14.27	16.00	12.50
		CH 120	5600	14.36	16.00	12.50
		CH 144	5720	13.02	15.00	12.50
	802.11n-HT20 MCS0	CH 100	5500	14.08	16.00	12.50
		CH 120	5600	13.28	15.00	12.50
		CH 144	5720	13.36	15.00	12.50
	802.11n-HT40 MCS0	CH 102	5510	14.36	16.00	12.50
		CH 126	5630	13.65	15.50	12.50
		CH 142	5710	13.67	15.50	12.50
	802.11ac-VHT20 MCS0	CH 100	5500	13.15	15.00	12.50
		CH 120	5600	12.80	14.50	12.50
		CH 144	5720	12.99	14.50	12.50
	802.11ac-VHT40 MCS0	CH 102	5510	13.45	15.00	12.50
		CH 126	5630	13.41	15.00	12.50
		CH 142	5710	13.37	15.00	12.50
	802.11ac-VHT80 MCS0	CH 106	5630	13.46	15.00	12.50
		CH 122	5610	13.16	15.00	12.50
		CH 138	5690	13.12	15.00	12.50

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Time-Up Limit	Power Setting	Duty Cycle %
5.8GHz WLAN ANT 1	802.11a 6Mbps	CH 148	5745	15.14	17.00	15.00
		CH 157	5785	15.51	17.50	15.00
		CH 165	5825	14.92	16.50	15.00
	802.11n-HT20 MCS0	CH 148	5745	15.49	17.00	15.00
		CH 157	5785	15.86	17.50	15.00
		CH 165	5825	15.80	17.50	15.00
	802.11n-HT40 MCS0	CH 151	5755	15.85	17.50	15.00
		CH 159	5795	16.33	18.00	15.00
		CH 149	5745	14.06	16.00	13.50
	802.11ac-VHT20 MCS0	CH 157	5785	14.10	16.00	13.50
		CH 165	5825	14.35	16.00	13.50
		CH 161	5795	13.92	15.50	13.50
	802.11ac-VHT40 MCS0	CH 159	5795	14.83	16.50	13.50
		CH 155	5775	14.13	16.00	13.50

**Reduced power Level 2 for Ant 0**

Band		WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99	RMC 12.2Kbps	20.39	20.42	20.36	21.30	20.53	20.61	20.56	21.30
3GPP Rel 6	HSDPA Subtest-1	19.44	19.79	19.69	20.50	19.47	19.93	19.88	20.50
3GPP Rel 6	HSDPA Subtest-2	19.58	19.84	19.46	20.50	19.48	19.88	19.59	20.50
3GPP Rel 6	HSDPA Subtest-3	19.00	19.04	18.83	20.00	19.03	19.30	18.82	20.00
3GPP Rel 6	HSDPA Subtest-4	19.50	19.30	19.17	20.00	19.72	19.46	19.37	20.00
3GPP Rel 8	DC-HSDPA Subtest-1	19.79	19.56	19.48	20.50	19.90	19.72	19.44	20.50
3GPP Rel 8	DC-HSDPA Subtest-2	19.27	19.11	18.97	20.00	19.50	19.17	19.19	20.00
3GPP Rel 8	DC-HSDPA Subtest-3	19.16	18.85	18.70	19.50	18.83	18.86	18.56	19.50
3GPP Rel 8	DC-HSDPA Subtest-4	19.01	18.68	18.80	20.00	19.06	18.82	18.99	20.00
3GPP Rel 6	HSUPA Subtest-1	19.31	19.16	19.28	20.50	19.48	19.02	19.15	20.50
3GPP Rel 6	HSUPA Subtest-2	17.88	17.61	17.68	18.50	17.85	17.81	17.74	18.50
3GPP Rel 6	HSUPA Subtest-3	18.88	18.64	18.55	19.50	19.02	18.68	18.73	19.50
3GPP Rel 6	HSUPA Subtest-4	17.86	17.57	17.57	18.50	17.72	17.72	17.64	18.50
3GPP Rel 6	HSUPA Subtest-5	19.22	19.06	18.76	19.50	19.20	19.05	18.73	19.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	17.75	17.76	17.81	18.50	17.62	17.72	17.75	18.50
Attenuator		Cable Loss				Cable Loss			
Mode		Max.				Max.			



Band 2 (1900MHz Band) (dBm)							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	20.44	20.52	20.46	
20	QPSK	1	49	20.37	20.43	20.39	21.3
20	QPSK	1	99	20.35	20.41	20.40	
20	QPSK	50	0	19.61	19.68	19.58	
20	QPSK	50	24	19.58	19.64	19.60	20.3
20	QPSK	50	50	19.53	19.60	19.58	
20	QPSK	100	0	19.55	19.58	19.53	
20	16QAM	1	0	19.79	19.81	19.79	20.3
20	16QAM	1	49	19.76	19.78	19.70	
20	16QAM	1	99	19.73	19.77	19.76	
20	16QAM	50	0	18.58	18.62	18.55	19.3
20	16QAM	50	24	18.60	18.61	18.54	
20	16QAM	50	50	18.59	18.60	18.53	
20	16QAM	100	0	18.52	18.58	18.54	19.3
20	64QAM	1	0	18.65	18.72	18.69	
20	64QAM	1	49	18.58	18.66	18.61	
20	64QAM	1	99	18.62	18.65	18.60	18.3
20	64QAM	50	0	17.65	17.66	17.58	
20	64QAM	50	24	17.63	17.64	17.62	
20	64QAM	50	50	17.57	17.61	17.58	
20	64QAM	100	0	17.52	17.58	17.52	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	20.41	20.47	20.40	
15	QPSK	1	37	20.29	20.38	20.34	21.3
15	QPSK	1	74	20.34	20.39	20.35	
15	QPSK	36	0	19.59	19.64	19.61	
15	QPSK	36	20	19.50	19.57	19.59	20.3
15	QPSK	36	39	19.51	19.58	19.57	
15	QPSK	75	0	19.53	19.50	19.46	
15	16QAM	1	0	19.78	19.76	19.72	20.3
15	16QAM	1	37	19.69	19.71	19.66	
15	16QAM	1	74	19.65	19.69	19.71	
15	16QAM	36	0	18.52	18.55	18.54	19.3
15	16QAM	36	20	18.55	18.60	18.48	
15	16QAM	36	39	18.57	18.54	18.45	
15	16QAM	75	0	18.47	18.57	18.49	19.3
15	64QAM	1	0	18.61	18.65	18.65	
15	64QAM	1	37	18.57	18.65	18.53	
15	64QAM	1	74	18.60	18.63	18.59	18.3
15	64QAM	36	0	17.63	17.61	17.53	
15	64QAM	36	20	17.61	17.60	17.56	
15	64QAM	36	39	17.55	17.60	17.51	
15	64QAM	75	0	17.48	17.51	17.46	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	20.40	20.51	20.43	
10	QPSK	1	25	20.30	20.38	20.33	21.3
10	QPSK	1	49	20.28	20.37	20.32	
10	QPSK	25	0	19.64	19.61	19.61	
10	QPSK	25	12	19.57	19.59	19.56	20.3
10	QPSK	25	25	19.51	19.52	19.54	
10	QPSK	50	0	19.48	19.57	19.49	
10	16QAM	1	0	19.72	19.73	19.75	20.3
10	16QAM	1	25	19.73	19.71	19.62	
10	16QAM	1	49	19.67	19.71	19.68	
10	16QAM	25	0	18.55	18.59	18.49	19.3
10	16QAM	25	12	18.56	18.55	18.49	
10	16QAM	25	25	18.56	18.59	18.49	
10	16QAM	50	0	18.45	18.56	18.50	19.3
10	64QAM	1	0	18.63	18.68	18.66	
10	64QAM	1	25	18.55	18.62	18.54	
10	64QAM	1	49	18.59	18.64	18.56	18.3
10	64QAM	25	0	17.64	17.65	17.51	
10	64QAM	25	12	17.59	17.56	17.59	
10	64QAM	25	25	17.55	17.60	17.57	
10	64QAM	50	0	17.48	17.56	17.45	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	20.38	20.45	20.42	
5	QPSK	1	12	20.32	20.42	20.33	21.3
5	QPSK	1	24	20.28	20.33	20.37	
5	QPSK	12	0	19.60	19.61	19.59	
5	QPSK	12	7	19.51	19.56	19.52	20.3
5	QPSK	12	13	19.49	19.58	19.54	
5	QPSK	25	0	19.53	19.51	19.48	
5	16QAM	1	0	19.77	19.73	19.75	20.3
5	16QAM	1	12	19.70	19.77	19.67	
5	16QAM	1	24	19.65	19.70	19.69	
5	16QAM	12	0	18.51	18.58	18.48	19.3
5	16QAM	12	7	18.58	18.60	18.49	
5	16QAM	12	13	18.55	18.54	18.52	
5	16QAM	25	0	18.47	18.57	18.51	19.3
5	64QAM	1	0	18.60	18.70	18.67	
5	64QAM	1	12	18.57	18.61	18.57	
5	64QAM	1	24	18.60	18.64	18.55	18.3
5	64QAM	12	0	17.63	17.64	17.57	
5	64QAM	12	7	17.60	17.56	17.57	
5	64QAM	12	13	17.51	17.54	17.50	
5	64QAM	25	0	17.49	17.51	17.47	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	20.40	20.46	20.41	
3	QPSK	1	8	20.33	20.35	20.37	21.3
3	QPSK	1	14	20.33	20.38	20.35	
3	QPSK	8	0	19.61	19.64	19.62	
3	QPSK	8	4	19.51	19.62	19.53	20.3
3	QPSK	8	7	19.52	19.56	19.55	

Band 4 (AWS Band) (dBm)							
Part 27L (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	20.33	20.38	20.32	
20	QPSK	1	49	20.24	20.27	20.26	21.1
20	QPSK	1	99	20.16	20.23	20.21	
20	QPSK	50	0	19.40	19.44	19.37	
20	QPSK	50	24	19.38	19.40	19.33	20.1
20	QPSK	50	50	19.23	19.31	19.27	
20	QPSK	100	0	19.34	19.36	19.33	
20	16QAM	1	0	19.61	19.64	19.60	20.1
20	16QAM	1	49	19.58	19.62	19.57	
20	16QAM	1	99	19.51	19.59	19.55	
20	16QAM	50	0	18.44	18.45	18.44	19.1
20	16QAM	50	24	18.36	18.40	18.39	
20	16QAM	50	50	18.26	18.30	18.26	
20	16QAM	100	0	18.31	18.39	18.34	19.1
20	64QAM	1	0	18.54	18.55	18.53	
20	64QAM	1	49	18.43	18.50	18.47	
20	64QAM	1	99	18.43	18.47	18.45	18.1
20	64QAM	50	0	17.42	17.46	17.39	
20	64QAM	50	24	17.37	17.42	17.38	
20	64QAM	50	50	17.29	17.37	17.31	
20	64QAM	100	0	17.32	17.40	17.37	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	20.30	20.34	20.28	
15	QPSK	1	37	20.22	20.26	20.20	21.1
15	QPSK	1	74	20.12	20.22	20.17	
15	QPSK	36	0	19.33	19.38	19.35	
15	QPSK	36	20	19.34	19.38	19.30	20.1
15	QPSK	36	39	19.22	19.30	19.23	
15	QPSK	75	0	19.26	19.35	19.26	
15	16QAM	1	0	19.57	19.57	19.53	20.1
15	16QAM	1	37	19.50	19.55	19.53	
15	16QAM	1	74	19.50	19.57	19.48	
15	16QAM	36	0	18.43	18.37	18.38	19.1
15	16QAM	36	20	18.34	18.39	18.32	
15	16QAM	36	39	18.22	18.26	18.22	
15	16QAM	75	0	18.28	18.37	18.30	19.1
15	64QAM	1	0	18.52	18.54	18.49	
15	64QAM	1	37	18.40	18.47	18.42	
15	64QAM	1	74	18.38	18.42	18.42	18.1
15	64QAM	36	0	17.40	17.44	17.37	
15	64QAM	36	20	17.33	17.34	17.37	
15	64QAM	36	39	17.23	17.35	17.23	
15	64QAM	75	0	17.31	17.32	17.30	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	20.28	20.30	20.26	
10	QPSK	1	25	20.19	20.26	20.19	21.1
10	QPSK	1	49	20.13	20.21	20.18	
10	QPSK	25	0	19.33	19.37	19.32	
10	QPSK	25	12	19.34	19.37	19.31	20.1
10	QPSK	25	25	19.15	19.30	19.19	
10	QPSK	50	0	19.29	19.32	19.32	
10	16QAM	1	0	19.60	19.59	19.59	20.1



3	QPSK	15	0	19.47	19.54	19.46	20.3
3	16QAM	1	0	19.78	19.76	19.78	
3	16QAM	1	8	19.75	19.76	19.69	
3	16QAM	1	14	19.66	19.70	19.68	19.3
3	16QAM	8	0	18.57	18.58	18.51	
3	16QAM	8	4	18.53	18.58	18.51	
3	16QAM	8	7	18.54	18.54	18.52	19.3
3	16QAM	15	0	18.47	18.56	18.52	
3	64QAM	1	0	18.60	18.64	18.64	
3	64QAM	1	8	18.51	18.61	18.56	18.3
3	64QAM	1	14	18.55	18.63	18.55	
3	64QAM	8	0	17.59	17.65	17.50	
3	64QAM	8	4	17.60	17.60	17.60	18.3
3	64QAM	8	7	17.56	17.60	17.57	
3	64QAM	15	0	17.50	17.57	17.49	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	20.36	20.51	20.43	21.3
1.4	QPSK	1	3	20.30	20.37	20.36	
1.4	QPSK	1	5	20.27	20.38	20.36	
1.4	QPSK	3	0	20.33	20.42	20.39	
1.4	QPSK	3	1	20.45	20.48	20.38	
1.4	QPSK	3	3	20.39	20.43	20.40	
1.4	QPSK	6	0	19.47	19.57	19.49	20.3
1.4	16QAM	1	0	19.75	19.74	19.71	20.3
1.4	16QAM	1	3	19.75	19.72	19.68	
1.4	16QAM	1	5	19.66	19.75	19.75	
1.4	16QAM	3	0	19.55	19.60	19.52	
1.4	16QAM	3	1	19.53	19.57	19.49	
1.4	16QAM	3	3	19.54	19.58	19.47	
1.4	16QAM	6	0	18.48	18.57	18.46	19.3
1.4	64QAM	1	0	18.63	18.68	18.67	19.3
1.4	64QAM	1	3	18.55	18.59	18.56	
1.4	64QAM	1	5	18.55	18.59	18.56	
1.4	64QAM	3	0	18.64	18.58	18.51	
1.4	64QAM	3	1	18.61	18.59	18.56	
1.4	64QAM	3	3	18.54	18.55	18.53	
1.4	64QAM	6	0	17.47	17.53	17.45	18.3

3	QPSK	15	0	19.33	19.31	19.26	20.1
3	16QAM	1	0	19.56	19.56	19.54	
3	16QAM	1	8	19.54	19.61	19.49	
3	16QAM	1	14	19.46	19.54	19.49	19.1
3	16QAM	8	0	18.41	18.40	18.39	
3	16QAM	8	4	18.29	18.39	18.31	
3	16QAM	8	7	18.25	18.22	18.18	19.1
3	16QAM	15	0	18.28	18.31	18.26	
3	64QAM	1	0	18.53	18.51	18.46	
3	64QAM	1	8	18.40	18.43	18.39	18.1
3	64QAM	1	14	18.35	18.46	18.39	
3	64QAM	8	0	17.36	17.44	17.31	
3	64QAM	8	4	17.36	17.35	17.30	18.1
3	64QAM	8	7	17.24	17.30	17.25	
3	64QAM	15	0	17.26	17.38	17.31	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	20.30	20.36	20.28	21.1
1.4	QPSK	1	3	20.18	20.20	20.20	
1.4	QPSK	1	5	20.11	20.21	20.18	
1.4	QPSK	3	0	20.19	20.28	20.22	
1.4	QPSK	3	1	20.22	20.23	20.15	
1.4	QPSK	3	3	20.03	20.08	20.09	
1.4	QPSK	6	0	19.27	19.31	19.25	20.1
1.4	16QAM	1	0	19.60	19.58	19.53	20.1
1.4	16QAM	1	3	19.50	19.58	19.52	
1.4	16QAM	1	5	19.45	19.58	19.54	
1.4	16QAM	3	0	19.25	19.23	19.27	
1.4	16QAM	3	1	19.20	19.24	19.16	
1.4	16QAM	3	3	19.05	19.14	19.08	
1.4	16QAM	6	0	18.30	18.35	18.26	19.1
1.4	64QAM	1	0	18.46	18.50	18.50	19.1
1.4	64QAM	1	3	18.41	18.46	18.39	
1.4	64QAM	1	5	18.42	18.43	18.41	
1.4	64QAM	3	0	18.20	18.23	18.17	
1.4	64QAM	3	1	18.15	18.20	18.15	
1.4	64QAM	3	3	18.12	18.17	18.09	
1.4	64QAM	6	0	17.28	17.32	17.30	18.1



Band 25 (1900MHz Band) (dBm)							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26140	26365	26590	
Frequency (MHz)				1860	1882.5	1905	
20	QPSK	1	0	20.48	20.53	20.45	21.3
20	QPSK	1	49	20.38	20.42	20.35	
20	QPSK	1	99	20.34	20.41	20.39	
20	QPSK	50	0	19.62	19.65	19.60	20.3
20	QPSK	50	24	19.57	19.62	19.58	
20	QPSK	50	50	19.59	19.60	19.57	
20	QPSK	100	0	19.50	19.57	19.49	20.3
20	16QAM	1	0	19.81	19.84	19.76	
20	16QAM	1	49	19.71	19.79	19.76	
20	16QAM	1	99	19.64	19.71	19.68	19.3
20	16QAM	50	0	18.57	18.60	18.56	
20	16QAM	50	24	18.54	18.57	18.49	
20	16QAM	50	50	18.60	18.62	18.60	19.3
20	16QAM	100	0	18.53	18.60	18.53	
20	64QAM	1	0	18.68	18.70	18.68	
20	64QAM	1	49	18.61	18.68	18.65	19.3
20	64QAM	1	99	18.63	18.65	18.59	
20	64QAM	50	0	17.70	17.73	17.66	
20	64QAM	50	24	17.63	17.69	17.61	18.3
20	64QAM	50	50	17.64	17.65	17.61	
20	64QAM	100	0	17.56	17.62	17.60	
Channel				26115	26365	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	20.44	20.50	20.44	21.3
15	QPSK	1	37	20.37	20.37	20.34	
15	QPSK	1	74	20.31	20.34	20.33	
15	QPSK	36	0	19.58	19.58	19.59	20.3
15	QPSK	36	20	19.52	19.61	19.50	
15	QPSK	36	39	19.56	19.56	19.50	
15	QPSK	75	0	19.48	19.51	19.46	20.3
15	16QAM	1	0	19.77	19.83	19.74	
15	16QAM	1	37	19.64	19.71	19.75	
15	16QAM	1	74	19.57	19.70	19.65	19.3
15	16QAM	36	0	18.54	18.58	18.51	
15	16QAM	36	20	18.49	18.55	18.48	
15	16QAM	36	39	18.57	18.61	18.59	19.3
15	16QAM	75	0	18.48	18.57	18.49	
15	64QAM	1	0	18.65	18.63	18.63	
15	64QAM	1	37	18.54	18.60	18.64	19.3
15	64QAM	1	74	18.55	18.61	18.56	
15	64QAM	36	0	17.62	17.65	17.64	
15	64QAM	36	20	17.59	17.66	17.57	18.3
15	64QAM	36	39	17.56	17.57	17.60	
15	64QAM	75	0	17.49	17.57	17.52	
Channel				26090	26365	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	20.40	20.47	20.41	21.3
10	QPSK	1	25	20.31	20.34	20.34	
10	QPSK	1	49	20.28	20.36	20.31	
10	QPSK	25	0	19.56	19.58	19.55	20.3
10	QPSK	25	12	19.56	19.54	19.51	
10	QPSK	25	25	19.58	19.59	19.54	
10	QPSK	50	0	19.47	19.56	19.44	20.3
10	16QAM	1	0	19.76	19.78	19.72	
10	16QAM	1	25	19.64	19.74	19.70	
10	16QAM	1	49	19.58	19.65	19.60	19.3
10	16QAM	25	0	18.55	18.55	18.55	
10	16QAM	25	12	18.48	18.50	18.42	
10	16QAM	25	25	18.56	18.58	18.54	19.3
10	16QAM	50	0	18.49	18.59	18.47	
10	64QAM	1	0	18.66	18.63	18.62	
10	64QAM	1	25	18.60	18.67	18.61	19.3
10	64QAM	1	49	18.58	18.62	18.51	
10	64QAM	25	0	17.66	17.66	17.61	
10	64QAM	25	12	17.55	17.64	17.55	18.3
10	64QAM	25	25	17.56	17.61	17.56	
10	64QAM	50	0	17.51	17.56	17.53	
Channel				26065	26365	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	QPSK	1	0	20.45	20.48	20.39	21.3
5	QPSK	1	12	20.33	20.41	20.32	
5	QPSK	1	24	20.29	20.40	20.32	
5	QPSK	12	0	19.57	19.57	19.55	20.3
5	QPSK	12	7	19.50	19.61	19.54	
5	QPSK	12	13	19.55	19.52	19.56	
5	QPSK	25	0	19.49	19.53	19.46	20.3
5	16QAM	1	0	19.75	19.76	19.69	
5	16QAM	1	12	19.66	19.75	19.74	
5	16QAM	1	24	19.59	19.67	19.65	19.3
5	16QAM	12	0	18.53	18.55	18.51	
5	16QAM	12	7	18.50	18.55	18.47	
5	16QAM	12	13	18.59	18.60	18.59	19.3
5	16QAM	25	0	18.50	18.55	18.52	
5	64QAM	1	0	18.66	18.66	18.67	
5	64QAM	1	12	18.54	18.66	18.61	19.3
5	64QAM	1	24	18.61	18.64	18.54	
5	64QAM	12	0	17.63	17.67	17.59	
5	64QAM	12	7	17.55	17.68	17.54	18.3
5	64QAM	12	13	17.63	17.63	17.60	
5	64QAM	25	0	17.51	17.58	17.52	
Channel				26059	26365	26679	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	20.42	20.46	20.39	21.3
3	QPSK	1	8	20.34	20.39	20.34	
3	QPSK	1	14	20.33	20.35	20.37	
3	QPSK	8	0	19.54	19.62	19.55	20.3
3	QPSK	8	4	19.52	19.56	19.57	
3	QPSK	8	7	19.57	19.55	19.52	

Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	19.79	19.90	19.81	20.6
20	QPSK	1	49	19.70	19.77	19.74	
20	QPSK	1	99	19.67	19.74	19.71	
20	QPSK	50	0	18.79	18.81	18.78	19.6
20	QPSK	50	24	18.81	18.87	18.85	
20	QPSK	50	50	18.71	18.79	18.76	
20	QPSK	100	0	18.84	18.85	18.81	19.6
20	16QAM	1	0	19.04	19.12	19.06	
20	16QAM	1	49	19.06	19.10	19.05	
20	16QAM	1	99	19.00	19.07	19.01	18.6
20	16QAM	50	0	17.84	17.85	17.80	
20	16QAM	50	24	17.75	17.81	17.74	
20	16QAM	50	50	17.81	17.85	17.82	18.6
20	16QAM	100	0	17.80	17.83	17.79	
20	64QAM	1	0	18.05	18.10	18.06	
20	64QAM	1	49	18.04	18.07	17.99	18.6
20	64QAM	1	99	18.02	18.04	17.97	
20	64QAM	50	0	16.82	16.90	16.85	17.6
20	64QAM	50	24	16.80	16.88	16.82	
20	64QAM	50	50	16.78	16.86	16.82	
20	64QAM	100	0	16.79	16.86	16.80	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	19.78	19.81	19.80	20.6
15	QPSK	1	37	19.62	19.76	19.72	
15	QPSK	1	74	19.60	19.66	19.68	
15	QPSK	36	0	18.73	18.76	18.72	19.6
15	QPSK	36	20	18.77	18.82	18.83	
15	QPSK	36	39	18.66	18.74	18.70	
15	QPSK	75	0	18.81	18.83	18.75	19.6
15	16QAM	1	0	19.00	19.11	19.02	
15	16QAM	1	37	19.04	19.08	19.01	
15	16QAM	1	74	18.97	19.06	18.93	18.6
15	16QAM	36	0	17.79	17.83	17.78	
15	16QAM	36	20	17.71	17.74	17.71	
15	16QAM	36	39	17.78	17.78	17.76	18.6
15	16QAM	75	0	17.74	17.77	17.74	
15	64QAM	1	0	17.98	18.09	18.00	
15	64QAM	1	37	17.98	18.00	17.97	18.6
15	64QAM	1	74	17.98	18.03	17.95	
15	64QAM	36	0	16.79	16.82	16.82	17.6
15	64QAM	36	20	16.77	16.86	16.77	
15	64QAM	36	39	16.75	16.81	16.80	
15	64QAM	75	0	16.78	16.79	16.76	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	19.71	19.78	19.80	20.6
10	QPSK	1	25	19.65	19.75	19.68	
10	QPSK	1	49	19.62	19.71	19.68	
10	QPSK	25	0	18.70	18.80	18.69	19.6
10	QPSK	25	12	18.79	18.86	18.79	
10	QPSK	25	25	18.69	18.71	18.69	
10	QPSK	50	0	18.80	18.77	18.74	19.6
10	16QAM	1	0	18.99	19.05	19.01	
10	16QAM	1	25	19.01	19.04	19.02	18.6
10	16QAM	1	49	18.93	18.99	18.95	
10	16QAM	25	0	17.76	17.80	17.78	
10	16QAM	25	12	17.72	17.74	17.72	18.6
10	16QAM	25	25	17.74	17.79	17.79	
10	16QAM	50	0	17.72	17.79	17.71	
10	64QAM	1	0	17.97	18.06	18.02	18.6
10	64QAM	1	25	18.02	18.00	17.93	
10	64QAM	1	49	17.98	18.00	17.96	
10	64QAM	25	0	16.78	16.84	16.84	17.6
10	64QAM	25	12	16.79	16.80	16.80	
10	64QAM	25	25	16.76	16.78	16.80	
10	64QAM	50	0	16.74	16.84	16.76	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	19.74	19.82	19.79	20.6
5	QPSK	1	12	19.66	19.74	19.69	
5	QPSK	1	24	19.64	19.71	19.65	
5	QPSK	12	0	18.74	18.80	18.73	19.6
5	QPSK	12	7	18.77	18.83	18.77	
5	QPSK	12	13	18.64	18.74	18.71	
5	QPSK	25	0	18.81	18.78	18.77	19.6
5	16QAM	1	0	18.97	19.05	19.00	
5	16QAM	1	12	19.05	19.03	19.02	
5	16QAM	1	24	18.93	19.01	18.99	18.6
5	16QAM	12	0	17.83	17.78	17.75	
5	16QAM	12	7	17.67	17.76	17.68	
5	16QAM	12	13	17.74	17.79	17.74	18.6
5	16QAM	25	0	17.74	17.81	17.71	
5	64QAM	1	0	18.02	18.08	18.01	
5	64QAM	1	12	17.96	18.06	17.91	18.6
5	64QAM	1	24	17.96	17.96	17.94	
5	64QAM	12	0	16.79	16.86	16.79	
5	64QAM	12	7	16.77	16.83	16.80	17.6
5	64QAM	12	13	16.75	16.82	16.76	
5	64QAM	25	0	16.78	16.83	16.73	Tune-up limit (dBm)
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	19.77	19.80	19.75	20.6
3	QPSK	1	8	19.69	19.75	19.66	
3	QPSK	1	14	19.62	19.67	19.70	
3	QPSK	8	0	18.72	18.73	18.70	19.6
3	QPSK	8	4	18.78	18.84	18.84	
3	QPSK	8	7	18.68	18.72	18.71	



3	QPSK	15	0	19.42	19.50	19.45	20.3
3	16QAM	1	0	19.74	19.79	19.75	
3	16QAM	1	8	19.70	19.75	19.71	
3	16QAM	1	14	19.61	19.69	19.66	19.3
3	16QAM	8	0	18.51	18.56	18.51	
3	16QAM	8	4	18.52	18.51	18.45	
3	16QAM	8	7	18.52	18.54	18.52	19.3
3	16QAM	15	0	18.50	18.56	18.50	
3	64QAM	1	0	18.61	18.66	18.65	
3	64QAM	1	8	18.53	18.61	18.58	19.3
3	64QAM	1	14	18.60	18.61	18.54	
3	64QAM	8	0	17.66	17.69	17.63	
3	64QAM	8	4	17.59	17.61	17.57	18.3
3	64QAM	8	7	17.62	17.60	17.57	
3	64QAM	15	0	17.50	17.57	17.58	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	20.43	20.46	20.43	21.3
1.4	QPSK	1	3	20.35	20.37	20.29	
1.4	QPSK	1	5	20.30	20.34	20.31	
1.4	QPSK	3	0	20.45	20.52	20.44	
1.4	QPSK	3	1	20.42	20.45	20.46	
1.4	QPSK	3	3	20.44	20.47	20.46	
1.4	QPSK	6	0	19.45	19.51	19.42	20.3
1.4	16QAM	1	0	19.80	19.82	19.69	19.3
1.4	16QAM	1	3	19.64	19.75	19.71	
1.4	16QAM	1	5	19.56	19.65	19.66	
1.4	16QAM	3	0	19.40	19.45	19.39	
1.4	16QAM	3	1	19.43	19.43	19.35	
1.4	16QAM	3	3	19.47	19.47	19.42	
1.4	16QAM	6	0	18.47	18.55	18.52	18.3
1.4	64QAM	1	0	18.62	18.63	18.63	19.3
1.4	64QAM	1	3	18.55	18.67	18.62	
1.4	64QAM	1	5	18.57	18.62	18.57	
1.4	64QAM	3	0	18.53	18.60	18.50	
1.4	64QAM	3	1	18.47	18.52	18.49	
1.4	64QAM	3	3	18.52	18.51	18.49	
1.4	64QAM	6	0	17.50	17.56	17.57	18.3

3	QPSK	15	0	18.83	18.83	18.75	19.6
3	16QAM	1	0	18.99	19.05	18.98	
3	16QAM	1	8	19.01	19.06	19.01	
3	16QAM	1	14	18.94	19.04	18.93	18.6
3	16QAM	8	0	17.79	17.83	17.77	
3	16QAM	8	4	17.70	17.73	17.72	
3	16QAM	8	7	17.74	17.81	17.76	18.6
3	16QAM	15	0	17.75	17.79	17.75	
3	64QAM	1	0	17.99	18.05	18.01	
3	64QAM	1	8	17.96	17.99	17.94	17.6
3	64QAM	1	14	17.96	18.00	17.91	
3	64QAM	8	0	16.76	16.82	16.80	
3	64QAM	8	4	16.73	16.80	16.79	20.6
3	64QAM	8	7	16.72	16.78	16.81	
3	64QAM	15	0	16.78	16.79	16.77	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	19.75	19.82	19.75	19.6
1.4	QPSK	1	3	19.63	19.76	19.73	
1.4	QPSK	1	5	19.62	19.72	19.68	
1.4	QPSK	3	0	19.64	19.70	19.64	
1.4	QPSK	3	1	19.68	19.74	19.69	
1.4	QPSK	3	3	19.59	19.67	19.64	
1.4	QPSK	6	0	18.82	18.84	18.73	19.6
1.4	16QAM	1	0	19.02	19.04	19.04	18.6
1.4	16QAM	1	3	18.98	19.04	19.01	
1.4	16QAM	1	5	18.93	19.00	18.99	
1.4	16QAM	3	0	18.69	18.70	18.63	
1.4	16QAM	3	1	18.58	18.65	18.60	
1.4	16QAM	3	3	18.66	18.74	18.65	
1.4	16QAM	6	0	17.75	17.82	17.74	18.6
1.4	64QAM	1	0	18.04	18.07	18.04	17.6
1.4	64QAM	1	3	18.03	18.05	17.95	
1.4	64QAM	1	5	17.96	17.99	17.90	
1.4	64QAM	3	0	17.70	17.76	17.74	
1.4	64QAM	3	1	17.66	17.76	17.69	
1.4	64QAM	3	3	17.62	17.73	17.71	
1.4	64QAM	6	0	16.76	16.82	16.74	17.6



Band 41 (2496~2690MHz) (dBm)-PC2									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2496	2541.5	2587	2632.5	2678	
30	QPSK	1	0	22.85	22.93	23.14	23.10	23.98	23.9
30	QPSK	1	49	22.71	22.78	23.08	23.07	23.03	
30	QPSK	1	99	22.78	22.76	23.12	23.08	23.05	
20	QPSK	50	0	21.93	21.89	22.15	22.08	22.61	22.9
20	QPSK	50	24	21.90	21.82	22.12	22.00	21.87	
20	QPSK	50	50	21.80	21.87	22.06	21.97	22.00	
20	QPSK	100	0	21.87	21.86	22.05	22.06	21.99	21.9
20	16QAM	1	0	22.06	22.12	22.43	22.40	22.41	
20	16QAM	1	49	22.03	22.03	22.40	22.32	22.39	
20	16QAM	1	99	22.02	22.04	22.38	22.35	22.31	21.9
20	16QAM	50	0	20.96	20.99	21.23	21.21	21.25	
20	16QAM	50	24	20.91	20.93	21.29	21.24	21.25	
20	16QAM	50	50	20.95	20.95	21.31	21.24	21.28	21.9
20	16QAM	100	0	20.90	20.94	21.27	21.22	21.21	
20	64QAM	1	0	20.88	20.90	21.22	21.14	21.14	
20	64QAM	1	49	20.85	20.84	21.21	21.14	21.17	21.9
20	64QAM	1	99	20.90	20.90	21.26	21.21	21.21	
20	64QAM	50	0	19.94	19.96	20.28	20.26	20.23	20.9
20	64QAM	50	24	19.94	19.95	20.28	20.18	20.20	
20	64QAM	50	50	19.99	19.93	20.30	20.24	20.29	
20	64QAM	100	0	19.90	19.91	20.28	20.27	20.24	20.9
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2603.5	2648.3	2693	2637.8	2682.5	
15	QPSK	1	0	22.83	22.76	23.08	23.07	23.07	23.9
15	QPSK	1	37	22.64	22.72	23.03	23.02	23.02	
15	QPSK	1	74	22.76	22.74	23.08	23.08	22.98	
15	QPSK	36	0	21.89	21.86	22.22	22.12	22.29	22.9
15	QPSK	36	20	21.84	21.85	22.18	22.12	22.09	
15	QPSK	36	36	21.78	21.86	22.13	22.14	22.10	
15	QPSK	75	0	21.79	21.83	22.22	22.12	22.15	22.9
15	16QAM	1	0	22.04	22.09	22.39	22.33	22.38	
15	16QAM	1	37	22.01	21.95	22.33	22.28	22.31	
15	16QAM	1	74	22.00	21.98	22.32	22.32	22.25	21.9
15	16QAM	36	0	20.90	20.96	21.31	21.27	21.18	
15	16QAM	36	20	20.86	20.87	21.21	21.20	21.22	
15	16QAM	36	36	20.94	20.86	21.29	21.17	21.20	21.9
15	16QAM	75	0	20.84	20.87	21.28	21.14	21.17	
15	64QAM	1	0	20.85	20.88	21.18	21.08	21.13	21.9
15	64QAM	1	37	20.79	20.79	21.16	21.10	21.12	
15	64QAM	1	74	20.89	20.88	21.22	21.15	21.15	
15	64QAM	36	0	19.89	19.93	20.24	20.22	20.22	20.9
15	64QAM	36	20	19.90	19.93	20.24	20.12	20.17	
15	64QAM	36	36	19.93	19.89	20.22	20.17	20.22	
15	64QAM	75	0	19.85	19.88	20.24	20.26	20.19	20.9
Channel				39700	40180	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	22.78	22.82	23.07	23.05	23.08	23.9
10	QPSK	1	26	22.67	22.76	23.07	23.06	23.06	
10	QPSK	1	49	22.77	22.72	23.04	23.07	23.02	
10	QPSK	25	0	21.85	21.82	22.21	22.13	22.20	22.9
10	QPSK	25	12	21.87	21.87	22.16	22.13	22.14	
10	QPSK	25	25	21.76	21.81	22.17	22.13	22.14	
10	QPSK	50	0	21.85	21.85	22.16	22.16	22.18	22.9
10	16QAM	1	0	21.99	22.09	22.37	22.30	22.34	
10	16QAM	1	25	21.97	21.97	22.38	22.29	22.38	
10	16QAM	1	49	21.98	22.02	22.37	22.28	22.30	21.9
10	16QAM	25	0	20.93	20.92	21.31	21.24	21.22	
10	16QAM	25	12	20.90	20.90	21.21	21.21	21.22	
10	16QAM	25	25	20.90	20.89	21.24	21.18	21.21	21.9
10	16QAM	50	0	20.82	20.91	21.21	21.20	21.15	
10	64QAM	1	0	20.81	20.87	21.18	21.08	21.11	21.9
10	64QAM	1	25	20.82	20.78	21.19	21.13	21.12	
10	64QAM	1	49	20.88	20.83	21.25	21.17	21.17	
10	64QAM	25	0	19.89	19.89	20.22	20.18	20.18	20.9
10	64QAM	25	12	19.93	19.90	20.19	20.14	20.15	
10	64QAM	25	25	19.95	19.85	20.27	20.20	20.27	
10	64QAM	50	0	19.85	19.88	20.28	20.21	20.21	20.9
Channel				39675	40148	40620	41093	41555	Tune-up limit (dBm)
Frequency (MHz)				2496.5	2542.5	2589	2635.5	2681.5	
5	QPSK	1	0	22.83	22.78	23.08	23.08	23.01	23.9
5	QPSK	1	12	22.86	22.77	23.04	23.04	22.97	
5	QPSK	1	24	22.72	22.71	23.07	23.02	23.04	
5	QPSK	12	0	21.91	21.84	22.24	22.15	22.15	22.9
5	QPSK	12	7	21.89	21.81	22.21	22.19	22.15	
5	QPSK	12	13	21.79	21.80	22.14	22.12	22.10	
5	QPSK	25	0	21.79	21.84	22.22	22.11	22.19	22.9
5	16QAM	1	0	22.04	22.10	22.35	22.36	22.37	
5	16QAM	1	12	22.00	21.97	22.39	22.24	22.34	
5	16QAM	1	24	21.94	21.99	22.32	22.32	22.30	21.9
5	16QAM	12	0	20.97	20.91	21.31	21.23	21.20	
5	16QAM	12	7	20.86	20.90	21.25	21.23	21.22	
5	16QAM	12	13	20.94	20.92	21.26	21.17	21.25	21.9
5	16QAM	25	0	20.86	20.90	21.19	21.17	21.14	
5	64QAM	1	0	20.84	20.87	21.19	21.11	21.10	
5	64QAM	1	12	20.81	20.81	21.14	21.11	21.10	21.9
5	64QAM	1	24	20.84	20.85	21.23	21.14	21.20	
5	64QAM	12	0	19.87	19.88	20.23	20.18	20.18	
5	64QAM	12	7	19.88	19.87	20.23	20.13	20.13	20.9
5	64QAM	12	13	19.98	19.91	20.26	20.20	20.22	
5	64QAM	25	0	19.89	19.88	20.20	20.20	20.20	

Band 41 (2496~2690MHz) (dBm)-PC3									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up test (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2496	2548.5	2593	2636.5	2679	
20	QPSK	1	0	22.29	22.29	22.65	22.64	22.81	23.3
20	QPSK	1	49	22.19	22.17	22.64	22.59	22.59	
20	QPSK	1	99	22.19	22.15	22.62	22.56	22.57	
20	QPSK	50	0	21.20	21.28	21.68	21.68	21.83	22.3
20	QPSK	50	24	21.22	21.22	21.67	21.63	21.61	
20	QPSK	50	50	21.23	21.24	21.65	21.57	21.63	
20	QPSK	100	0	21.21	21.23	21.68	21.67	21.62	22.3
20	16QAM	1	0	21.14	21.08	21.55	21.54	21.51	
20	16QAM	1	49	21.07	21.10	21.54	21.47	21.46	
20	16QAM	50	0	20.20	20.20	20.64	20.62	20.63	21.3
20	16QAM	50	24	20.25	20.22	20.70	20.62	20.67	
20	16QAM	50	50	20.26	20.26	20.68	20.67	20.67	
20	16QAM	100	0	20.20	20.18	20.64	20.58	20.58	21.3
20	64QAM	1	0	19.94	19.97	20.42	20.39	20.41	
20	64QAM	1	49	19.91	19.95	20.38	20.31	20.31	
20	64QAM	1	99	19.99	20.05	20.46	20.39	20.44	21.3
20	64QAM	50	0	19.29	19.29	19.70	19.62	19.65	
20	64QAM	50	24	19.36	19.33	19.77	19.69	19.71	
20	64QAM	50	50	19.28	19.30	19.74	19.67	19.73	21.3
20	64QAM	100	0	19.20	19.20	19.72	19.71	19.67	
Channel				39725	40173	40620	41068	41515	
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	22.25	22.14	22.59	22.63	22.55	23.3
15	QPSK	1	37	22.14	22.11	22.61	22.58	22.57	
15	QPSK	1	74	22.15	22.13	22.65	22.54	22.56	
15	QPSK	36	0	21.14	21.02	21.63	21.59	21.61	22.3
15	QPSK	36	20	21.20	21.20	21.63	21.60	21.55	
15	QPSK	36	36	21.19	21.16	21.63	21.55	21.57	
15	QPSK	75	0	21.14	21.16	21.61	21.60	21.55	22.3
15	16QAM	1	0	21.13	21.02	21.52	21.51	21.50	
15	16QAM	1	37	21.01	21.03	21.51	21.40	21.39	
15	16QAM	1	74	21.18	21.13	21.58	21.57	21.56	21.3
15	16QAM	36	0	20.09	20.13	20.57	20.58	20.58	
15	16QAM	36	20	20.17	20.18	20.59	20.56	20.62	
15	16QAM	36	36	20.18	20.22	20.64	20.64	20.60	21.3
15	16QAM	75	0	20.15	20.18	20.69	20.55	20.53	
15	64QAM	1	0	19.91	19.94	20.37	20.33	20.29	
15	64QAM	1	37	19.94	19.96	20.36	20.27	20.27	21.3
15	64QAM	1	74	19.93	19.98	20.39	20.36	20.37	
15	64QAM	36	0	19.24	19.25	19.63	19.61	19.64	
15	64QAM	36	20	19.29	19.27	19.74	19.68	19.66	20.3
15	64QAM	36	36	19.25	19.29	19.67	19.64	19.65	
15	64QAM	75	0	19.20	19.24	19.69	19.64	19.64	
Channel				39701	40156	40603	41050	41497	Tuneup limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
15	QPSK	1	0	22.26	22.13	22.64	22.59	22.63	23.3
15	QPSK	1	25	22.16	22.13	22.66	22.54	22.54	
15	QPSK	1	49	22.11	22.11	22.61	22.55	22.56	
15	QPSK	25	0	21.16	21.21	21.67	21.66	21.61	22.3
15	QPSK	25	12	21.16	21.17	21.65	21.62	21.57	
15	QPSK	25	25	21.18	21.18	21.58	21.50	21.49	
15	QPSK	50	0	21.17	21.20	21.60	21.65	21.58	22.3
15	16QAM	1	0	21.08	21.03	21.47	21.49	21.49	
15	16QAM	1	24	20.99	21.03	21.48	21.44	21.43	
15	16QAM	1	49	21.17	21.15	21.62	21.56	21.53	21.3
15	16QAM	25	0	20.09	20.12	20.69	20.63	20.65	
15	16QAM	25	12	20.22	20.14	20.66	20.55	20.63	
15	16QAM	25	25	20.18	20.25	20.63	20.59	20.60	21.3
15	16QAM	50	0	20.14	20.14	20.64	20.54	20.50	
15	64QAM	1	0	19.91	19.92	20.35	20.33	20.34	
15	64QAM	1	25	19.83	19.89	20.34	20.23	20.27	21.3
15	64QAM	1	49	19.94	19.97	20.44	20.32	20.36	
15	64QAM	25	0	19.28	19.23	19.69	19.60	19.60	
15	64QAM	25	12	19.28	19.28	19.70	19.64	19.70	20.3
15	64QAM	25	25	19.26	19.23	19.66	19.62	19.72	
15	64QAM	50	0	19.24	19.18	19.68	19.64	19.60	
Channel				39679	40148	40603	41050	41496	Tuneup limit (dBm)
Frequency (MHz)				2497	2543	2588	2634.5	2679	
5	QPSK	1	0	22.21	22.12	22.58	22.57	22.54	23.3
5	QPSK	1	24	22.17	22.12	22.58	22.51	22.51	
5	QPSK	12	0	22.14	22.11	22.56	22.48	22.52	
5	QPSK	12	0	21.17	21.25	21.67	21.64	21.63	22.3
5	QPSK	12	7	21.17	21.16	21.63	21.60	21.53	
5	QPSK	12	13	21.18	21.18	21.60	21.51	21.58	
5	QPSK	25	0	21.17	21.20	21.61	21.63	21.57	22.3
5	16QAM	1	0	21.08	21.09	21.52	21.52	21.47	
5	16QAM	1	12	21.08	21.08	21.50	21.41	21.39	
5	16QAM	1	24	21.19	21.16	21.63	21.60	21.59	21.3
5	16QAM	12	0	20.10	20.09	20.59	20.51	20.53	
5	16QAM	12	7	20.19	20.14	20.68	20.55	20.62	
5	16QAM	12	13	20.21	20.21	20.67	20.63	20.64	21.3
5	16QAM	25	0	20.15	20.13	20.59	20.50	20.57	
5	16QAM	25	12	20.16	20.15	20.57	20.54	20.56	
5	64QAM	1	12	19.84	19.88	20.35	20.26	20.25	21.3
5	64QAM	1	24	19.92	19.99	20.44	20.34	20.40	
5	64QAM	12	0	19.28	19.26	19.65	19.57	19.60	
5	64QAM	12	13	19.31	19.29	19.73	19.63	19.65	20.3
5	64QAM	25	0	19.19	19.21	19.67	19.63	19.59	



n2 (1850 ~ 1910MHz)_ANT0							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1850	1890	1900	
20	DFT-s-OFDM P12 BPSK	1	1	19.77	19.89	19.81	21.2
20		1	53	19.86	19.92	19.82	
20		1	104	19.61	19.74	19.76	
20		50	1	19.98	19.04	19.20	20.2
20		50	25	19.25	19.05	19.16	
20		50	50	18.68	18.79	18.67	
20	DFT-s-OFDM QPSK	100	0	19.20	19.10	19.21	21.2
20		1	1	19.96	20.02	19.99	
20		1	53	19.91	19.97	19.93	
20		1	104	19.84	19.87	19.80	20.2
20		50	1	19.50	19.59	19.55	
20		50	25	19.35	19.37	19.51	
20	DFT-s-OFDM 16QAM	50	50	19.12	19.39	19.40	20.2
20		100	0	19.29	19.09	19.10	
20	DFT-s-OFDM 64QAM	1	1	19.67	19.59	19.76	20.2
20	DFT-s-OFDM 256QAM	1	1	18.19	18.25	18.30	19.2
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	19.96	19.85	19.87	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1865	1890	1905	
10	DFT-s-OFDM QPSK	1	1	20.00	19.97	19.86	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	DFT-s-OFDM QPSK	1	1	19.95	19.92	19.94	25.2
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	CP-OFDM QPSK	1	1	19.04	18.73	18.86	19.7
20	CP-OFDM 16QAM	1	1	18.68	18.57	18.65	19.7
20	CP-OFDM	1	1	17.55	17.34	17.52	18.7
20	CP-OFDM 256QAM	1	1	13.73	13.83	13.84	14.7

n25_ANT0							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	DFT-s-OFDM P12 BPSK	1	1	19.99	20.05	20.02	21.2
40		1	53	19.91	20.00	20.01	
40		1	105	19.95	20.04	19.97	
40		50	1	19.15	19.07	19.21	20.2
40		50	25	19.11	19.08	19.26	
40		50	50	19.04	19.09	19.31	
40	DFT-s-OFDM QPSK	100	0	19.13	19.06	19.28	25.2
40		1	1	20.06	20.07	20.03	
40		1	53	19.69	20.01	20.00	
40		1	105	19.98	20.04	20.01	24.2
40		50	1	19.15	19.20	19.17	
40		50	25	19.12	19.16	19.12	
40	DFT-s-OFDM 16QAM	50	50	19.07	19.12	19.10	20.2
40		100	0	19.11	19.12	19.08	
40	DFT-s-OFDM 64QAM	1	1	19.24	19.45	19.25	19.2
40	DFT-s-OFDM 256QAM	1	1	17.88	17.93	17.89	19.2
Channel				373000	376500	380000	Tune-up limit (dBm)
Frequency (MHz)				1865	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	19.95	20.01	19.73	25.2
Channel				372000	376500	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	20.01	20.02	20.00	21.2
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	19.83	19.97	19.79	21.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	19.92	19.96	19.95	21.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	19.82	19.85	19.77	25.2
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	18.59	18.70	18.74	23.7
40	CP-OFDM 16QAM	1	1	18.28	18.16	18.27	22.7
40	CP-OFDM 64QAM	1	1	16.66	16.92	16.78	21.7
40	CP-OFDM 256QAM	1	1	13.45	13.40	13.46	18.2



n66 (1710 ~ 1780 MHz)_ANT0							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
40	DFT-s-OFDM P12 BPSK	1	1	20.11	20.18	20.01	21.2
40		1	53	20.10	20.15	20.14	
40		1	104	20.07	20.10	20.05	
40		53	1	19.16	19.41	19.35	
40		53	26	19.35	19.48	19.28	
40		53	52	19.34	19.48	19.29	20.2
40		106	0	19.33	19.41	19.35	
40		1	1	20.21	20.27	20.24	
40		1	53	20.19	20.22	20.21	
40		1	104	20.21	20.26	20.17	
40	DFT-s-OFDM QPSK	53	1	19.34	19.49	19.46	20.2
40		53	26	19.43	19.52	19.44	
40		53	52	19.45	19.48	19.45	
40		106	0	19.97	19.29	19.25	
40	DFT-s-OFDM 16QAM	1	1	19.23	19.27	19.29	20.2
40	DFT-s-OFDM 64QAM	1	1	17.96	18.00	17.97	19.2
40	DFT-s-OFDM 256QAM	1	1	15.43	15.59	15.51	16.7
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	20.26	20.15	20.18	21.2
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	20.11	20.19	20.05	21.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	20.03	20.24	19.96	21.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	20.19	20.02	19.97	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	19.33	19.25	19.47	25.2
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1765	
40	CP-OFDM QPSK	1	1	18.76	18.74	18.63	19.7
40	CP-OFDM 16QAM	1	1	18.25	18.29	17.99	18.7
40	CP-OFDM 64QAM	1	1	16.95	16.88	16.78	17.7
40	CP-OFDM 256QAM	1	1	13.47	13.55	13.62	14.2

n71 (663 ~ 698 MHz)_ANT0							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	DFT-s-OFDM P12 BPSK	1	1	24.19	24.25	24.22	25.2
20		1	53	24.10	24.11	24.07	
20		1	104	24.11	23.93	23.89	
20		50	1	23.31	23.54	23.40	
20		50	25	23.61	23.43	23.36	24.2
20		50	50	23.52	23.32	23.27	
20		100	0	23.63	23.47	23.10	
20		1	1	24.25	24.28	24.22	
20		1	53	24.13	24.24	24.16	
20		1	104	23.85	24.06	23.97	
20	DFT-s-OFDM QPSK	50	1	23.56	23.60	23.52	24.2
20		50	25	23.59	23.47	23.37	
20		50	50	23.51	23.58	23.27	
20		100	0	23.53	23.55	23.40	
20	DFT-s-OFDM 16QAM	1	1	23.92	23.53	23.65	24.2
20	DFT-s-OFDM 64QAM	1	1	22.34	22.27	22.18	23.2
20	DFT-s-OFDM 256QAM	1	1	19.73	19.77	19.77	20.7
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	DFT-s-OFDM QPSK	1	1	23.97	24.02	23.94	25.2
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	DFT-s-OFDM QPSK	1	1	23.89	23.99	23.88	25.2
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	DFT-s-OFDM QPSK	1	1	23.75	23.88	23.76	25.2
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	CP-OFDM QPSK	1	1	23.34	23.05	23.13	23.7
20	CP-OFDM 16QAM	1	1	22.82	22.65	22.62	23.2
20	CP-OFDM 64QAM	1	1	21.58	21.57	21.41	22.2
20	CP-OFDM 256QAM	1	1	17.84	17.96	17.81	18.7



n41 (2496 ~ 2690MHz) (PC2) _ANT0									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				509202	513900	518598	523296	528000	24.3
Frequency (MHz)				2546.01	2569.50	2592.99	2616.50	2640.00	
100	DFT-s-OFDM P/2 BPSK	1	1	23.02	23.09	23.03	23.03	23.00	23.3
100		1	136	22.98	23.00	23.22	23.10	23.13	
100		1	272	22.95	23.02	23.18	23.01	23.08	
100		135	1	22.59	22.66	22.72	22.60	22.59	
100		135	67	22.70	22.67	22.70	22.54	22.63	
100	DFT-s-OFDM QPSK	135	136	22.78	22.87	22.81	22.81	22.74	24.3
100		270	0	22.72	22.80	22.78	22.64	22.72	
100		1	1	23.25	23.16	23.42	23.18	23.13	
100		1	136	23.06	23.01	23.26	23.12	23.10	
100		1	272	23.18	23.35	23.26	23.35	23.23	
100	DFT-s-OFDM 16QAM	135	1	22.48	22.64	22.74	22.60	22.62	23.3
100		135	67	22.47	22.71	22.69	22.54	22.56	
100		135	136	22.33	22.37	22.27	22.31	22.23	
100		270	0	22.23	22.32	22.26	22.17	22.21	
100		1	1	22.37	22.51	22.52	22.59	22.60	
100	DFT-s-OFDM 64QAM	1	1	20.89	21.09	21.16	21.13	21.10	21.8
100	DFT-s-OFDM 256QAM	1	1	18.72	18.82	18.83	18.93	18.93	19.8
Channel				508200	513399	518598	523797	528996	24.3
Frequency (MHz)				2541	2566.995	2592.99	2618.985	2644.98	
90	DFT-s-OFDM QPSK	1	1	22.75	23.04	23.1	23.1	23.17	24.3
Channel				507204	512904	518598	524298	529998	24.3
Frequency (MHz)				2536.02	2564.51	2592.99	2621.49	2649.99	
80	DFT-s-OFDM QPSK	1	1	22.59	23.06	23.09	23.02	23.13	24.3
Channel				50620	512400	518598	524800	531000	26.8
Frequency (MHz)				2531.01	2562.00	2592.99	2624.00	2655.00	
70	DFT-s-OFDM QPSK	1	1	22.64	22.95	23.12	22.93	22.99	24.3
Channel				505200	511902	518598	525300	531996	26.8
Frequency (MHz)				2526.00	2559.50	2592.99	2626.49	2659.98	
60	DFT-s-OFDM QPSK	1	1	22.67	22.54	23.24	23.17	23.20	24.3
Channel				504204	511401	518598	525798	532998	26.8
Frequency (MHz)				2521.02	2557.005	2592.99	2628.99	2664.99	
50	DFT-s-OFDM QPSK	1	1	23.23	23.18	23.26	23.18	23.39	24.3
Channel				503202	510900	518598	526296	534000	26.8
Frequency (MHz)				2516.01	2554.50	2592.99	2631.50	2670.00	
40	DFT-s-OFDM QPSK	1	1	22.86	22.86	23.32	23.30	23.30	26.8
Channel				502200	510402	518598	526800	534996	26.8
Frequency (MHz)				2511.00	2552.00	2592.99	2633.99	2674.98	
30	DFT-s-OFDM QPSK	1	1	23.10	22.99	23.35	23.33	23.28	26.8
Channel				501204	509901	518598	527298	535998	26.8
Frequency (MHz)				2506.02	2549.505	2592.99	2636.49	2679.99	
20	DFT-s-OFDM QPSK	1	1	23.12	23.21	23.36	23.31	23.33	26.8
Channel				509202	513900	518598	523296	528000	22.8
Frequency (MHz)				2546.01	2569.50	2592.99	2616.50	2640.00	
100	CP-OFDM QPSK	1	1	21.49	21.59	21.93	21.83	21.63	22.8
100	CP-OFDM 16QAM	1	1	20.91	21.23	21.26	21.18	21.15	21.3
100	CP-OFDM 64QAM	1	1	19.56	19.96	19.96	19.95	20.03	17.3
100	CP-OFDM 256QAM	1	1	16.23	16.64	16.64	16.66	16.61	



CA_41C-PC3_Ant 0 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	21.83	23.00
40620	40521	40719	QPSK	1	0	0	0	1	0	22.13	23.00
41490	41292	41490	QPSK	1	0	0	0	1	0	22.05	23.00
39750	39750	39948	16QAM	1	0	0	0	1	0	21.07	21.50
40620	40521	40719	16QAM	1	0	0	0	1	0	21.39	21.50
41490	41292	41490	16QAM	1	0	0	0	1	0	21.34	21.50
39750	39750	39948	64QAM	1	0	0	0	1	0	19.63	20.50
40620	40521	40719	64QAM	1	0	0	0	1	0	19.95	20.50
41490	41292	41490	64QAM	1	0	0	0	1	0	19.83	20.50
39750	39750	39948	QPSK	50	0	0	0	1	0	20.72	21.50
40620	40521	40719	QPSK	50	0	0	0	1	0	21.03	21.50
41490	41292	41490	QPSK	50	0	0	0	1	0	20.79	21.50

**Reduced Power Level 2 for Ant 1**

GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel		512	661	810		512	661	810	
Frequency (MHz)		1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot		19.16	19.24	19.21	20.00	10.16	10.24	10.21	11.00
GPRS 1 Tx slot		19.18	19.28	19.24	20.00	10.18	10.28	10.24	11.00
GPRS 2 Tx slots		17.05	17.09	16.96	18.00	11.05	11.09	10.96	12.00
GPRS 3 Tx slots		15.61	15.66	15.55	16.50	11.35	11.40	11.29	12.24
GPRS 4 Tx slots		14.56	14.73	14.66	15.50	11.56	11.73	11.66	12.50
EDGE 1 Tx slot		15.48	15.57	15.53	17.00	6.48	6.57	6.53	8.00
EDGE 2 Tx slots		13.64	13.86	13.74	14.50	7.64	7.86	7.74	8.50
EDGE 3 Tx slots		12.42	12.54	12.46	13.20	8.16	8.28	8.20	8.94
EDGE 4 Tx slots		12.09	12.32	12.22	13.20	9.09	9.32	9.22	10.20
Mode			Max.	19.28			Max.	11.73	
Attenuator		Cable Loss : 0.8							

Band		WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99	RMC 12.2Kbps	19.39	19.42	19.36	20.30	20.53	20.61	20.56	21.30
3GPP Rel 6	HSDPA Subtest-1	18.44	18.79	18.69	19.50	19.47	19.93	19.88	20.50
3GPP Rel 6	HSDPA Subtest-2	18.58	18.84	18.46	19.50	19.48	19.88	19.59	20.50
3GPP Rel 6	HSDPA Subtest-3	18.00	18.04	17.83	19.00	19.03	19.30	18.82	20.00
3GPP Rel 6	HSDPA Subtest-4	18.50	18.30	18.17	19.00	19.72	19.46	19.37	20.00
3GPP Rel 8	DC-HSDPA Subtest-1	18.79	18.56	18.48	19.50	19.90	19.72	19.44	20.50
3GPP Rel 8	DC-HSDPA Subtest-2	18.27	18.11	17.97	19.00	19.50	19.17	19.19	20.00
3GPP Rel 8	DC-HSDPA Subtest-3	18.16	17.85	17.70	18.50	18.83	18.86	18.56	19.50
3GPP Rel 8	DC-HSDPA Subtest-4	18.01	17.68	17.80	19.00	19.06	18.82	18.99	20.00
3GPP Rel 6	HSUPA Subtest-1	18.31	18.16	18.28	19.50	19.48	19.02	19.15	20.50
3GPP Rel 6	HSUPA Subtest-2	16.88	16.61	16.68	17.50	17.85	17.81	17.74	18.50
3GPP Rel 6	HSUPA Subtest-3	17.88	17.64	17.55	18.50	19.02	18.68	18.73	19.50
3GPP Rel 6	HSUPA Subtest-4	16.86	16.57	16.57	17.50	17.72	17.72	17.64	18.50
3GPP Rel 6	HSUPA Subtest-5	18.22	18.06	17.76	18.50	19.20	19.05	18.73	19.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	16.75	16.76	16.81	17.50	17.62	17.72	17.75	18.50
Attenuator			Cable Loss	0.8			Cable Loss	0.8	
Mode			Max.	19.42			Max.	20.61	



Band 2 (1900MHz Band) (dBm)							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	20.44	20.52	20.46	
20	QPSK	1	49	20.37	20.43	20.39	21.3
20	QPSK	1	99	20.35	20.41	20.40	
20	QPSK	50	0	19.61	19.68	19.58	
20	QPSK	50	24	19.58	19.64	19.60	20.3
20	QPSK	50	50	19.53	19.60	19.58	
20	QPSK	100	0	19.55	19.58	19.53	
20	16QAM	1	0	19.79	19.81	19.79	20.3
20	16QAM	1	49	19.76	19.78	19.70	
20	16QAM	1	99	19.73	19.77	19.76	
20	16QAM	50	0	18.58	18.62	18.55	19.3
20	16QAM	50	24	18.60	18.61	18.54	
20	16QAM	50	50	18.59	18.60	18.53	
20	16QAM	100	0	18.52	18.58	18.54	19.3
20	64QAM	1	0	18.65	18.72	18.69	
20	64QAM	1	49	18.58	18.66	18.61	
20	64QAM	1	99	18.62	18.65	18.60	18.3
20	64QAM	50	0	17.65	17.66	17.58	
20	64QAM	50	24	17.63	17.64	17.62	
20	64QAM	50	50	17.57	17.61	17.58	
20	64QAM	100	0	17.52	17.58	17.52	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	21.3
15	QPSK	1	0	20.41	20.47	20.40	
15	QPSK	1	37	20.29	20.38	20.34	20.3
15	QPSK	1	74	20.34	20.39	20.35	
15	QPSK	36	0	19.59	19.64	19.61	
15	QPSK	36	20	19.50	19.57	19.59	20.3
15	QPSK	36	39	19.51	19.58	19.57	
15	QPSK	75	0	19.53	19.50	19.46	
15	16QAM	1	0	19.78	19.76	19.72	20.3
15	16QAM	1	37	19.69	19.71	19.66	
15	16QAM	1	74	19.65	19.69	19.71	
15	16QAM	36	0	18.52	18.55	18.54	19.3
15	16QAM	36	20	18.55	18.60	18.48	
15	16QAM	36	39	18.57	18.54	18.45	
15	16QAM	75	0	18.47	18.57	18.49	19.3
15	64QAM	1	0	18.61	18.65	18.65	
15	64QAM	1	37	18.57	18.65	18.53	
15	64QAM	1	74	18.60	18.63	18.59	18.3
15	64QAM	36	0	17.63	17.61	17.53	
15	64QAM	36	20	17.61	17.60	17.56	
15	64QAM	36	39	17.55	17.60	17.51	
15	64QAM	75	0	17.48	17.51	17.46	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	21.3
10	QPSK	1	0	20.40	20.51	20.43	
10	QPSK	1	25	20.30	20.38	20.33	20.3
10	QPSK	1	49	20.28	20.37	20.32	
10	QPSK	25	0	19.64	19.61	19.61	20.3
10	QPSK	25	12	19.57	19.59	19.56	
10	QPSK	25	25	19.51	19.52	19.54	
10	QPSK	50	0	19.48	19.57	19.49	20.3
10	16QAM	1	0	19.72	19.73	19.75	
10	16QAM	1	25	19.73	19.71	19.62	
10	16QAM	1	49	19.67	19.71	19.68	19.3
10	16QAM	25	0	18.55	18.59	18.49	
10	16QAM	25	12	18.56	18.55	18.49	
10	16QAM	25	25	18.56	18.59	18.49	19.3
10	16QAM	50	0	18.45	18.56	18.50	
10	64QAM	1	0	18.63	18.68	18.66	
10	64QAM	1	25	18.55	18.62	18.54	18.3
10	64QAM	1	49	18.59	18.64	18.56	
10	64QAM	25	0	17.64	17.65	17.51	
10	64QAM	25	12	17.59	17.56	17.59	
10	64QAM	25	25	17.55	17.60	17.57	
10	64QAM	50	0	17.48	17.56	17.45	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	21.3
5	QPSK	1	0	20.38	20.45	20.42	
5	QPSK	1	12	20.32	20.42	20.33	20.3
5	QPSK	1	24	20.28	20.33	20.37	
5	QPSK	12	0	19.60	19.61	19.59	20.3
5	QPSK	12	7	19.51	19.56	19.52	
5	QPSK	12	13	19.49	19.58	19.54	
5	QPSK	25	0	19.53	19.51	19.48	20.3
5	16QAM	1	0	19.77	19.73	19.75	
5	16QAM	1	12	19.70	19.77	19.67	
5	16QAM	1	24	19.65	19.70	19.69	19.3
5	16QAM	12	0	18.51	18.58	18.48	
5	16QAM	12	7	18.58	18.60	18.49	
5	16QAM	12	13	18.55	18.54	18.52	19.3
5	16QAM	25	0	18.47	18.57	18.51	
5	64QAM	1	0	18.60	18.70	18.67	
5	64QAM	1	12	18.57	18.61	18.57	18.3
5	64QAM	1	24	18.60	18.64	18.55	
5	64QAM	12	0	17.63	17.64	17.57	
5	64QAM	12	7	17.60	17.56	17.57	
5	64QAM	12	13	17.51	17.54	17.50	
5	64QAM	25	0	17.49	17.51	17.47	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	21.3
3	QPSK	1	0	20.40	20.46	20.41	
3	QPSK	1	8	20.33	20.35	20.37	20.3
3	QPSK	1	14	20.33	20.38	20.35	
3	QPSK	8	0	19.61	19.64	19.62	
3	QPSK	8	4	19.51	19.62	19.53	
3	QPSK	8	7	19.52	19.56	19.55	

Band 4 (AWS Band) (dBm)							
Part 27L (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	20.33	20.38	20.32	21.1
20	QPSK	1	49	20.24	20.27	20.26	
20	QPSK	1	99	20.16	20.23	20.21	
20	QPSK	50	0	19.40	19.44	19.37	20.1
20	QPSK	50	24	19.38	19.40	19.33	
20	QPSK	50	50	19.23	19.31	19.27	
20	QPSK	100	0	19.34	19.36	19.33	20.1
20	16QAM	1	0	19.61	19.64	19.60	
20	16QAM	1	49	19.58	19.62	19.57	
20	16QAM	1	99	19.51	19.59	19.55	19.1
20	16QAM	50	0	18.44	18.45	18.44	
20	16QAM	50	24	18.36	18.40	18.39	
20	16QAM	50	50	18.26	18.30	18.26	19.1
20	16QAM	100	0	18.31	18.39	18.34	
20	64QAM	1	0	18.54	18.55	18.53	
20	64QAM	1	49	18.43	18.50	18.47	19.1
20	64QAM	1	99	18.43	18.47	18.45	
20	64QAM	50	0	17.42	17.46	17.39	18.1
20	64QAM	50	24	17.37	17.42	17.38	
20	64QAM	50	50	17.29	17.37	17.31	
20	64QAM	100	0	17.32	17.40	17.37	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	21.1
15	QPSK	1	0	20.30	20.34	20.28	
15	QPSK	1	37	20.22	20.26	20.20	20.1
15	QPSK	1	74	20.12	20.22	20.17	
15	QPSK	36	0	19.33	19.38	19.35	20.1
15	QPSK	36	20	19.34	19.38	19.30	
15	QPSK	36	39	19.22	19.30	19.23	
15	QPSK	75	0	19.26	19.35	19.26	20.1
15	16QAM	1	0	19.57	19.57	19.53	
15	16QAM	1	37	19.50	19.55	19.53	
15	16QAM	1	74	19.50	19.57	19.48	19.1
15	16QAM	36	0	18.43	18.37	18.38	
15	16QAM	36	20	18.34	18.39	18.32	
15	16QAM	36	39	18.22	18.26	18.22	19.1
15	16QAM	75	0	18.28	18.37	18.30	
15	64QAM	1	0	18.52	18.54	18.49	
15	64QAM	1	37	18.40	18.47	18.42	19.1
15	64QAM	1	74	18.38	18.42	18.42	
15	64QAM	36	0	17.40	17.44	17.37	18.1
15	64QAM	36	20	17.33	17.34	17.37	
15	64QAM	36	39	17.23	17.35	17.23	
15	64QAM	75	0	17.31	17.32	17.30	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	21.1
10	QPSK	1	0	20.28	20.30	20.26	
10	QPSK	1	25	20.19	20.26	20.19	20.1
10	QPSK	1	49	20.13	20.21	20.18	
10	QPSK	25	0	19.33	19.37	19.32	20.1
10	QPSK	25	12	19.34	19.37	19.31	
10	QPSK	25	25	19.15	19.30	19.19	
10	QPSK	50	0	19.29	19.32	19.32	20.1
10	16QAM	1	0	19.60	19.59	19.59	
10	16QAM	1	25	19.53	19.60	19.53	
10	16QAM	1	49	19.44	19.56	19.52	19.1
10	16QAM	25	0	18.42	18.43	18.41	
10	16QAM	25	12	18.35	18.36	18.35	
10	16QAM	25	25	18.24	18.29	18.20	19.1
10	16QAM	50	0	18.23	18.35	18.32	
10	64QAM	1	0	18.47	18.53	18.49	
10	64QAM	1	25	18.36	18.43	18.42	19.1
10	64QAM	1	49	18.35	18.41	18.40	
10	64QAM	25	0	17.41	17.39	17.35	18.1
10	64QAM	25	12	17.34	17.36	17.31	
10	64QAM	25	25	17.21	17.29	17.26	
10	64QAM	50	0	17.27	17.36	17.30	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	21.1
5	QPSK	1	0	20.30	20.31	20.29	
5	QPSK	1	12	20.18	20.22	20.20	20.1
5	QPSK	1	24	20.12	20.16	20.15	
5	QPSK	12	0	19.36	19.43	19.32	20.1
5	QPSK	12	7	19.37	19.35	19.28	
5	QPSK	12	13	19.18	19.29	19.19	
5	QPSK	25	0	19.32	19.32	19.26	20.1
5	16QAM	1	0	19.58	19.59	19.56	
5	16QAM	1	12	19.57	19.59	19.56	
5	16QAM	1	24	19.48	19.58	19.50	19.1
5	16QAM	12	0	18.41	18.44	18.36	
5	16QAM	12	7	18.28	18.34	18.34	
5	16QAM	12	13	18.18	18.25	18.18	19.1
5	16QAM	25	0	18.30	18.34	18.30	
5	64QAM	1	0	18.53	18.50	18.51	
5	64QAM	1	12	18.37	18.48	18.43	18.1
5	64QAM	1	24	18.40	18.42	18.37	
5	64QAM	12	0	17.34	17.40	17.38	
5	64QAM	12	7	17.29	17.40	17.34	18.1
5	64QAM	12	13	17.28	17.29	17.26	
5	64QAM	25	0	17.25	17.35	17.30	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	21.1
3	QPSK	1	0	20.25	20.36	20.31	
3	QPSK	1	8	20.19	20.24	20.20	20.1
3	QPSK	1	14	20.09	20.22	20.17	
3	QPSK	8	0	19.38	19.43	19.34	20.1
3	QPSK	8	4	19.30	19.34	19.25	
3	QPSK	8	7	19.18	19.29	19.21	



3	QPSK	15	0	19.47	19.54	19.46	20.3
3	16QAM	1	0	19.78	19.76	19.78	
3	16QAM	1	8	19.75	19.76	19.69	
3	16QAM	1	14	19.66	19.70	19.68	19.3
3	16QAM	8	0	18.57	18.58	18.51	
3	16QAM	8	4	18.53	18.58	18.51	
3	16QAM	8	7	18.54	18.54	18.52	19.3
3	16QAM	15	0	18.47	18.56	18.52	
3	64QAM	1	0	18.60	18.64	18.64	
3	64QAM	1	8	18.51	18.61	18.56	18.3
3	64QAM	1	14	18.55	18.63	18.55	
3	64QAM	8	0	17.59	17.65	17.50	
3	64QAM	8	4	17.60	17.60	17.60	18.3
3	64QAM	8	7	17.56	17.60	17.57	
3	64QAM	15	0	17.50	17.57	17.49	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	20.36	20.51	20.43	21.3
1.4	QPSK	1	3	20.30	20.37	20.36	
1.4	QPSK	1	5	20.27	20.38	20.36	
1.4	QPSK	3	0	20.33	20.42	20.39	
1.4	QPSK	3	1	20.45	20.48	20.38	
1.4	QPSK	3	3	20.39	20.43	20.40	
1.4	QPSK	6	0	19.47	19.57	19.49	20.3
1.4	16QAM	1	0	19.75	19.74	19.71	20.3
1.4	16QAM	1	3	19.75	19.72	19.68	
1.4	16QAM	1	5	19.66	19.75	19.75	
1.4	16QAM	3	0	19.55	19.60	19.52	
1.4	16QAM	3	1	19.53	19.57	19.49	
1.4	16QAM	3	3	19.54	19.58	19.47	
1.4	16QAM	6	0	18.48	18.57	18.46	19.3
1.4	64QAM	1	0	18.63	18.68	18.67	19.3
1.4	64QAM	1	3	18.55	18.59	18.56	
1.4	64QAM	1	5	18.55	18.59	18.56	
1.4	64QAM	3	0	18.64	18.58	18.51	
1.4	64QAM	3	1	18.61	18.59	18.56	
1.4	64QAM	3	3	18.54	18.55	18.53	
1.4	64QAM	6	0	17.47	17.53	17.45	18.3

3	QPSK	15	0	19.33	19.31	19.26	20.1
3	16QAM	1	0	19.56	19.56	19.54	
3	16QAM	1	8	19.54	19.61	19.49	
3	16QAM	1	14	19.46	19.54	19.49	19.1
3	16QAM	8	0	18.41	18.40	18.39	
3	16QAM	8	4	18.29	18.39	18.31	
3	16QAM	8	7	18.25	18.22	18.18	19.1
3	16QAM	15	0	18.28	18.31	18.26	
3	64QAM	1	0	18.53	18.51	18.46	
3	64QAM	1	8	18.40	18.43	18.39	18.1
3	64QAM	1	14	18.35	18.46	18.39	
3	64QAM	8	0	17.36	17.44	17.31	
3	64QAM	8	4	17.36	17.35	17.30	18.1
3	64QAM	8	7	17.24	17.30	17.25	
3	64QAM	15	0	17.26	17.38	17.31	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	20.30	20.36	20.28	21.1
1.4	QPSK	1	3	20.18	20.20	20.20	
1.4	QPSK	1	5	20.11	20.21	20.18	
1.4	QPSK	3	0	20.19	20.28	20.22	
1.4	QPSK	3	1	20.22	20.23	20.15	
1.4	QPSK	3	3	20.03	20.08	20.09	
1.4	QPSK	6	0	19.27	19.31	19.25	20.1
1.4	16QAM	1	0	19.60	19.58	19.53	20.1
1.4	16QAM	1	3	19.50	19.58	19.52	
1.4	16QAM	1	5	19.45	19.58	19.54	
1.4	16QAM	3	0	19.25	19.23	19.27	
1.4	16QAM	3	1	19.20	19.24	19.16	
1.4	16QAM	3	3	19.05	19.14	19.08	
1.4	16QAM	6	0	18.30	18.35	18.26	19.1
1.4	64QAM	1	0	18.46	18.50	18.50	19.1
1.4	64QAM	1	3	18.41	18.46	18.39	
1.4	64QAM	1	5	18.42	18.43	18.41	
1.4	64QAM	3	0	18.20	18.23	18.17	
1.4	64QAM	3	1	18.15	18.20	18.15	
1.4	64QAM	3	3	18.12	18.17	18.09	
1.4	64QAM	6	0	17.28	17.32	17.30	18.1



Band 7 (2600MHz Band) (dBm)							
Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	20.98	21.05	20.95	21.8
20	QPSK	1	49	20.87	20.95	20.92	
20	QPSK	1	99	20.84	20.91	20.87	
20	QPSK	50	0	20.08	20.13	20.06	20.8
20	QPSK	50	24	20.06	20.10	20.04	
20	QPSK	50	50	20.11	20.13	20.07	
20	QPSK	100	0	20.06	20.08	20.02	20.8
20	16QAM	1	0	20.11	20.16	20.10	
20	16QAM	1	49	20.21	20.22	20.20	
20	16QAM	1	99	20.31	20.35	20.28	19.8
20	16QAM	50	0	19.03	19.04	19.02	
20	16QAM	50	24	19.02	19.10	19.04	
20	16QAM	50	50	19.07	19.13	19.11	19.8
20	16QAM	100	0	19.03	19.09	19.04	
20	64QAM	1	0	19.01	19.08	19.07	
20	64QAM	1	49	19.04	19.06	18.98	19.8
20	64QAM	1	99	19.21	19.25	19.18	
20	64QAM	50	0	18.06	18.08	18.02	
20	64QAM	50	24	18.11	18.12	18.06	18.8
20	64QAM	50	50	18.09	18.17	18.12	
20	64QAM	100	0	18.08	18.10	18.04	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	20.95	21.01	20.94	21.8
15	QPSK	1	37	20.82	20.90	20.90	
15	QPSK	1	74	20.79	20.85	20.79	
15	QPSK	36	0	20.02	20.12	20.09	20.8
15	QPSK	36	20	19.98	20.07	19.98	
15	QPSK	36	39	20.08	20.10	20.06	
15	QPSK	75	0	19.99	20.03	20.01	20.8
15	16QAM	1	0	20.05	20.08	20.02	
15	16QAM	1	37	20.19	20.16	20.17	
15	16QAM	1	74	20.24	20.31	20.24	19.8
15	16QAM	36	0	18.97	18.99	18.95	
15	16QAM	36	20	18.97	19.06	18.99	
15	16QAM	36	39	19.02	19.05	19.06	19.8
15	16QAM	75	0	18.99	19.07	18.98	
15	64QAM	1	0	18.97	19.06	19.05	
15	64QAM	1	37	18.96	19.04	18.97	19.8
15	64QAM	1	74	19.15	19.19	19.15	
15	64QAM	36	0	18.03	18.03	17.98	
15	64QAM	36	20	18.07	18.10	17.98	18.8
15	64QAM	36	39	18.04	18.13	18.10	
15	64QAM	75	0	18.01	18.09	17.99	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	20.96	21.00	20.88	21.8
10	QPSK	1	25	20.84	20.94	20.85	
10	QPSK	1	49	20.76	20.89	20.84	
10	QPSK	25	0	19.98	20.05	20.11	20.8
10	QPSK	25	12	20.05	20.07	20.03	
10	QPSK	25	25	20.09	20.07	20.02	
10	QPSK	50	0	20.03	20.03	19.98	20.8
10	16QAM	1	0	20.06	20.10	20.08	
10	16QAM	1	25	20.13	20.16	20.14	
10	16QAM	1	49	20.25	20.34	20.23	19.8
10	16QAM	25	0	18.99	18.98	18.98	
10	16QAM	25	12	18.94	19.08	19.01	
10	16QAM	25	25	19.00	19.10	19.03	19.8
10	16QAM	50	0	18.96	19.01	19.01	
10	64QAM	1	0	18.99	19.01	19.00	
10	64QAM	1	25	19.01	19.05	18.91	19.8
10	64QAM	1	49	19.16	19.20	19.14	
10	64QAM	25	0	18.00	18.05	17.99	
10	64QAM	25	12	18.08	18.05	18.05	18.8
10	64QAM	25	25	18.04	18.10	18.06	
10	64QAM	50	0	18.05	18.09	18.03	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	20.93	21.00	20.88	21.8
5	QPSK	1	12	20.79	20.88	20.88	
5	QPSK	1	24	20.83	20.86	20.86	
5	QPSK	12	0	20.04	20.11	20.09	20.8
5	QPSK	12	7	20.05	20.06	20.02	
5	QPSK	12	13	20.05	20.08	20.06	
5	QPSK	25	0	19.98	20.05	19.98	20.8
5	16QAM	1	0	20.04	20.13	20.02	
5	16QAM	1	12	20.19	20.16	20.16	
5	16QAM	1	24	20.27	20.27	20.23	19.8
5	16QAM	12	0	19.01	19.01	18.98	
5	16QAM	12	7	19.00	19.07	18.98	
5	16QAM	12	13	19.06	19.06	19.08	19.8
5	16QAM	25	0	19.01	19.01	18.97	
5	64QAM	1	0	18.94	19.04	19.05	
5	64QAM	1	12	18.97	19.04	18.93	19.8
5	64QAM	1	24	19.16	19.23	19.13	
5	64QAM	12	0	18.04	18.01	17.98	
5	64QAM	12	7	18.10	18.09	18.04	18.8
5	64QAM	12	13	18.08	18.10	18.10	
5	64QAM	25	0	18.01	18.03	18.03	

Band 25 (1900MHz Band) (dBm)								
Part 24E								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				26140	26365	26590		
Frequency (MHz)				1860	1882.5	1905	21.3	
20	QPSK	1	0	20.48	20.53	20.45		
20	QPSK	1	49	20.38	20.42	20.35		
20	QPSK	1	99	20.34	20.41	20.39		
20	QPSK	50	0	19.62	19.65	19.60		
20	QPSK	50	24	19.57	19.62	19.58	20.3	
20	QPSK	50	50	19.59	19.60	19.57		
20	QPSK	100	0	19.50	19.57	19.49		
20	16QAM	1	0	19.81	19.84	19.76		
20	16QAM	1	49	19.71	19.79	19.76		
20	16QAM	1	99	19.64	19.71	19.68	20.3	
20	16QAM	50	0	18.57	18.60	18.56		
20	16QAM	50	24	18.54	18.57	18.49		
20	16QAM	50	50	18.60	18.62	18.60		
20	16QAM	100	0	18.53	18.60	18.53		
20	64QAM	1	0	18.68	18.70	18.68	19.3	
20	64QAM	1	49	18.61	18.68	18.65		
20	64QAM	1	99	18.63	18.65	18.59		
20	64QAM	50	0	17.70	17.73	17.66		
20	64QAM	50	24	17.63	17.69	17.61		
20	64QAM	50	50	17.64	17.65	17.61	18.3	
20	64QAM	100	0	17.56	17.62	17.60		
Channel				26115	26365	26615		Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5		
15	QPSK	1	0	20.44	20.50	20.44		21.3
15	QPSK	1	37	20.37	20.37	20.34		
15	QPSK	1	74	20.31	20.34	20.33		
15	QPSK	36	0	19.58	19.58	19.59		
15	QPSK	36	20	19.52	19.61	19.50		
15	QPSK	36	39	19.56	19.56	19.50	20.3	
15	QPSK	75	0	19.48	19.51	19.46		
15	16QAM	1	0	19.77	19.83	19.74		
15	16QAM	1	37	19.64	19.71	19.75		
15	16QAM	1	74	19.57	19.70	19.65		
15	16QAM	36	0	18.54	18.58	18.51	19.3	
15	16QAM	36	20	18.49	18.55	18.48		
15	16QAM	36	39	18.57	18.61	18.59		
15	16QAM	75	0	18.48	18.57	18.49		
15	64QAM	1	0	18.65	18.63	18.63		
15	64QAM	1	37	18.54	18.60	18.64	19.3	
15	64QAM	1	74	18.55	18.61	18.56		
15	64QAM	36	0	17.62	17.65	17.64		
15	64QAM	36	20	17.59	17.66	17.57		
15	64QAM	36	39	17.56	17.57	17.60		
15	64QAM	75	0	17.49	17.57	17.52	18.3	
Channel				26090	26365	26640		Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910		
10	QPSK	1	0	20.40	20.47	20.41		21.3
10	QPSK	1	25	20.31	20.34	20.34		
10	QPSK	1	49	20.28	20.36	20.31		
10	QPSK	25	0	19.56	19.58	19.55		
10	QPSK	25	12	19.56	19.54	19.51		
10	QPSK	25	25	19.58	19.59	19.54	20.3	
10	QPSK	50	0	19.47	19.56	19.44		
10	16QAM	1	0	19.76	19.78	19.72		
10	16QAM	1	25	19.64	19.74	19.70		
10	16QAM	1	49	19.58	19.65	19.60		
10	16QAM	25	0	18.55	18.55	18.55	19.3	
10	16QAM	25	12	18.48	18.50	18.42		
10	16QAM	25	25	18.56	18.58	18.54		
10	16QAM	50	0	18.49	18.59	18.47		
10	64QAM	1	0	18.66	18.63	18.62		
10	64QAM	1	25	18.60	18.67	18.61	19.3	
10	64QAM	1	49	18.58	18.62	18.51		
10	64QAM	25	0	17.66	17.66	17.61		
10	64QAM	25	12	17.55	17.64	17.55		
10	64QAM	25	25	17.56	17.61	17.56		
10	64QAM	50	0	17.51	17.56	17.53	18.3	
Channel				26065	26365	26665		Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5		
5	QPSK	1	0	20.45	20.48	20.39		21.3
5	QPSK	1	12	20.33	20.41	20.32		
5	QPSK	1	24	20.29	20.40	20.32		
5	QPSK	12	0	19.57	19.57	19.55		
5	QPSK	12	7	19.50	19.61	19.54		
5	QPSK	12	13	19.55	19.52	19.56	20.3	
5	QPSK	25	0	19.49	19.53	19.46		
5	16QAM	1	0	19.75	19.76	19.69		
5	16QAM	1	12	19.66	19.75	19.74		
5	16QAM	1	24	19.59	19.67	19.65		
5	16QAM	12	0	18.53	18.55	18.51	19.3	
5	16QAM	12	7	18.50	18.55	18.47		
5	16QAM	12	13	18.59	18.60	18.59		
5	16QAM	25	0	18.50	18.55	18.52		
5	64QAM	1	0	18.66	18.66	18.67		
5	64QAM	1	12	18.54	18.66	18.61	19.3	
5	64QAM	1	24	18.61	18.64	18.54		
5	64QAM	12	0	17.63	17.67	17.59		
5	64QAM	12	7	17.55	17.68	17.54		
5	64QAM	12	13	17.63	17.63	17.60		
5	64QAM	25	0	17.51	17.58	17.52	18.3	
Channel				26055	26365	26675		Tune-up limit (dBm)
Frequency (MHz)				1851.5	1882.5	1913.5		
3	QPSK	1	0	20.42	20.46	20.39		21.3
3	QPSK	1	8	20.34	20.39	20.34		
3	QPSK	1	14	20.33	20.35	20.37		
3	QPSK	8	0	19.54	19.62	19.55		
3	QPSK	8	4	19.52	19.56	19.57		
3	QPSK	8	7	19.57	19.55	19.52	20.3	



3	QPSK	15	0	19.42	19.50	19.45	20.3
3	16QAM	1	0	19.74	19.79	19.75	
3	16QAM	1	8	19.70	19.75	19.71	
3	16QAM	1	14	19.61	19.69	19.66	19.3
3	16QAM	8	0	18.51	18.56	18.51	
3	16QAM	8	4	18.52	18.51	18.45	
3	16QAM	8	7	18.52	18.54	18.52	
3	16QAM	15	0	18.50	18.56	18.50	
3	64QAM	1	0	18.61	18.66	18.65	19.3
3	64QAM	1	8	18.53	18.61	18.58	
3	64QAM	1	14	18.60	18.61	18.54	
3	64QAM	8	0	17.66	17.69	17.63	18.3
3	64QAM	8	4	17.59	17.61	17.57	
3	64QAM	8	7	17.62	17.60	17.57	
3	64QAM	15	0	17.50	17.57	17.58	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	20.43	20.46	20.43	21.3
1.4	QPSK	1	3	20.35	20.37	20.29	
1.4	QPSK	1	5	20.30	20.34	20.31	
1.4	QPSK	3	0	20.45	20.52	20.44	
1.4	QPSK	3	1	20.42	20.45	20.46	
1.4	QPSK	3	3	20.44	20.47	20.46	
1.4	QPSK	6	0	19.45	19.51	19.42	20.3
1.4	16QAM	1	0	19.80	19.82	19.69	19.3
1.4	16QAM	1	3	19.64	19.75	19.71	
1.4	16QAM	1	5	19.56	19.65	19.66	
1.4	16QAM	3	0	19.40	19.45	19.39	
1.4	16QAM	3	1	19.43	19.43	19.35	
1.4	16QAM	3	3	19.47	19.47	19.42	
1.4	16QAM	6	0	18.47	18.55	18.52	18.3
1.4	64QAM	1	0	18.62	18.63	18.63	19.3
1.4	64QAM	1	3	18.55	18.67	18.62	
1.4	64QAM	1	5	18.57	18.62	18.57	
1.4	64QAM	3	0	18.53	18.60	18.50	
1.4	64QAM	3	1	18.47	18.52	18.49	
1.4	64QAM	3	3	18.52	18.51	18.49	
1.4	64QAM	6	0	17.50	17.56	17.57	18.3



Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	20.29	20.40	20.31	21.1
20	QPSK	1	49	20.20	20.27	20.24	
20	QPSK	1	99	20.17	20.24	20.21	
20	QPSK	50	0	19.29	19.31	19.28	20.1
20	QPSK	50	24	19.31	19.37	19.35	
20	QPSK	50	50	19.21	19.29	19.26	
20	QPSK	100	0	19.34	19.35	19.31	20.1
20	16QAM	1	0	19.54	19.62	19.56	
20	16QAM	1	49	19.56	19.60	19.55	
20	16QAM	1	99	19.50	19.57	19.51	19.1
20	16QAM	50	0	18.34	18.35	18.30	
20	16QAM	50	24	18.25	18.31	18.24	
20	16QAM	50	50	18.31	18.35	18.32	19.1
20	16QAM	100	0	18.30	18.33	18.29	
20	64QAM	1	0	18.55	18.60	18.56	
20	64QAM	1	49	18.54	18.57	18.49	19.1
20	64QAM	1	99	18.52	18.54	18.47	
20	64QAM	50	0	17.32	17.40	17.35	18.1
20	64QAM	50	24	17.30	17.38	17.32	
20	64QAM	50	50	17.28	17.36	17.32	
20	64QAM	100	0	17.29	17.36	17.30	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	20.28	20.31	20.30	21.1
15	QPSK	1	37	20.12	20.26	20.22	
15	QPSK	1	74	20.10	20.16	20.18	
15	QPSK	36	0	19.23	19.26	19.22	20.1
15	QPSK	36	20	19.27	19.32	19.33	
15	QPSK	36	39	19.16	19.24	19.20	
15	QPSK	75	0	19.31	19.33	19.25	20.1
15	16QAM	1	0	19.50	19.61	19.52	
15	16QAM	1	37	19.54	19.58	19.51	
15	16QAM	1	74	19.47	19.56	19.43	19.1
15	16QAM	36	0	18.29	18.33	18.28	
15	16QAM	36	20	18.21	18.24	18.21	
15	16QAM	36	39	18.28	18.28	18.26	19.1
15	16QAM	75	0	18.24	18.27	18.24	
15	64QAM	1	0	18.48	18.59	18.50	
15	64QAM	1	37	18.48	18.50	18.47	19.1
15	64QAM	1	74	18.48	18.53	18.45	
15	64QAM	36	0	17.29	17.32	17.32	18.1
15	64QAM	36	20	17.27	17.36	17.27	
15	64QAM	36	39	17.25	17.31	17.30	
15	64QAM	75	0	17.28	17.29	17.26	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	20.21	20.28	20.30	21.1
10	QPSK	1	25	20.15	20.25	20.18	
10	QPSK	1	49	20.12	20.21	20.18	
10	QPSK	25	0	19.20	19.30	19.19	20.1
10	QPSK	25	12	19.29	19.36	19.29	
10	QPSK	25	25	19.19	19.21	19.19	
10	QPSK	50	0	19.30	19.27	19.24	20.1
10	16QAM	1	0	19.49	19.55	19.51	
10	16QAM	1	25	19.51	19.54	19.52	
10	16QAM	1	49	19.43	19.49	19.45	19.1
10	16QAM	25	0	18.26	18.30	18.28	
10	16QAM	25	12	18.22	18.24	18.22	
10	16QAM	25	25	18.24	18.29	18.29	19.1
10	16QAM	50	0	18.22	18.29	18.21	
10	64QAM	1	0	18.47	18.56	18.52	
10	64QAM	1	25	18.52	18.50	18.43	19.1
10	64QAM	1	49	18.48	18.50	18.46	
10	64QAM	25	0	17.28	17.34	17.34	18.1
10	64QAM	25	12	17.29	17.30	17.28	
10	64QAM	25	25	17.26	17.28	17.30	
10	64QAM	50	0	17.24	17.34	17.26	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	20.24	20.32	20.29	21.1
5	QPSK	1	12	20.16	20.24	20.19	
5	QPSK	1	24	20.14	20.21	20.15	
5	QPSK	12	0	19.24	19.30	19.23	20.1
5	QPSK	12	7	19.27	19.33	19.27	
5	QPSK	12	13	19.14	19.24	19.21	
5	QPSK	25	0	19.31	19.28	19.27	20.1
5	16QAM	1	0	19.47	19.55	19.50	
5	16QAM	1	12	19.55	19.53	19.52	
5	16QAM	1	24	19.43	19.51	19.49	19.1
5	16QAM	12	0	18.33	18.28	18.25	
5	16QAM	12	7	18.17	18.26	18.18	
5	16QAM	12	13	18.24	18.29	18.24	19.1
5	16QAM	25	0	18.24	18.31	18.21	
5	64QAM	1	0	18.52	18.58	18.51	
5	64QAM	1	12	18.46	18.56	18.41	19.1
5	64QAM	1	24	18.46	18.46	18.44	
5	64QAM	12	0	17.29	17.36	17.29	18.1
5	64QAM	12	7	17.27	17.33	17.30	
5	64QAM	12	13	17.25	17.32	17.26	
5	64QAM	25	0	17.28	17.33	17.23	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	20.27	20.30	20.25	21.1
3	QPSK	1	8	20.19	20.25	20.16	
3	QPSK	1	14	20.12	20.17	20.20	
3	QPSK	8	0	19.22	19.23	19.20	20.1
3	QPSK	8	4	19.28	19.34	19.34	
3	QPSK	8	7	19.18	19.22	19.21	



3	QPSK	15	0	19.33	19.33	19.25	20.1
3	16QAM	1	0	19.49	19.55	19.48	
3	16QAM	1	8	19.51	19.56	19.51	
3	16QAM	1	14	19.44	19.54	19.43	19.1
3	16QAM	8	0	18.29	18.33	18.27	
3	16QAM	8	4	18.20	18.23	18.22	
3	16QAM	8	7	18.24	18.31	18.26	19.1
3	16QAM	15	0	18.25	18.29	18.25	
3	64QAM	1	0	18.49	18.55	18.51	
3	64QAM	1	8	18.46	18.49	18.44	18.1
3	64QAM	1	14	18.46	18.50	18.41	
3	64QAM	8	0	17.26	17.32	17.30	
3	64QAM	8	4	17.23	17.30	17.29	18.1
3	64QAM	8	7	17.22	17.28	17.31	
3	64QAM	15	0	17.28	17.29	17.27	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	20.25	20.32	20.25	21.1
1.4	QPSK	1	3	20.13	20.26	20.23	
1.4	QPSK	1	5	20.12	20.22	20.18	
1.4	QPSK	3	0	20.14	20.20	20.14	
1.4	QPSK	3	1	20.18	20.24	20.19	
1.4	QPSK	3	3	20.09	20.17	20.14	20.1
1.4	QPSK	6	0	19.32	19.34	19.23	
1.4	16QAM	1	0	19.52	19.54	19.54	20.1
1.4	16QAM	1	3	19.48	19.54	19.51	
1.4	16QAM	1	5	19.43	19.50	19.49	
1.4	16QAM	3	0	19.19	19.20	19.13	
1.4	16QAM	3	1	19.08	19.15	19.10	
1.4	16QAM	3	3	19.16	19.24	19.15	19.1
1.4	16QAM	6	0	18.25	18.32	18.24	
1.4	64QAM	1	0	18.54	18.57	18.54	19.1
1.4	64QAM	1	3	18.53	18.55	18.45	
1.4	64QAM	1	5	18.46	18.49	18.40	
1.4	64QAM	3	0	18.20	18.26	18.24	
1.4	64QAM	3	1	18.16	18.26	18.19	
1.4	64QAM	3	3	18.12	18.23	18.21	18.1
1.4	64QAM	6	0	17.26	17.32	17.24	



Band 41 (2496~2690MHz) (dBm)-PC2										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	18.85	18.83	19.14	19.10	19.08	19.9	
20	QPSK	1	49	18.71	18.78	19.09	19.07	19.03		
20	QPSK	1	99	18.78	18.78	19.12	19.08	19.06		
20	QPSK	50	0	17.93	17.89	18.15	18.08	18.01		
20	QPSK	50	24	17.90	17.82	18.12	18.00	17.97	18.9	
20	QPSK	50	50	17.80	17.87	18.08	17.97	17.90		
20	QPSK	100	0	17.87	17.86	18.05	18.06	17.99		
20	16QAM	1	0	18.06	18.12	18.43	18.40	18.41		
20	16QAM	1	49	18.03	18.03	18.40	18.32	18.39	18.9	
20	16QAM	1	99	18.02	18.04	18.39	18.35	18.31		
20	16QAM	50	0	16.98	16.99	17.33	17.31	17.25		
20	16QAM	50	24	16.91	16.93	17.29	17.24	17.25		
20	16QAM	50	50	16.95	16.95	17.31	17.24	17.28	17.9	
20	16QAM	100	0	16.90	16.94	17.27	17.22	17.21		
20	64QAM	1	0	16.88	16.90	17.22	17.14	17.14		
20	64QAM	1	49	16.85	16.84	17.21	17.14	17.17		
20	64QAM	1	99	16.90	16.90	17.26	17.21	17.21	17.9	
20	64QAM	50	0	15.94	15.96	16.28	16.26	16.23		
20	64QAM	50	24	15.94	15.95	16.26	16.18	16.20		
20	64QAM	50	50	15.99	15.93	16.30	16.24	16.29		
20	64QAM	100	0	15.92	15.91	16.28	16.27	16.24	16.9	
Channel				2503.5	2547.5	2591	2635.5	2679.5	Tune-up limit (dBm)	
Frequency (MHz)				2503.5	2547.5	2591	2635.5	2679.5		
15	QPSK	1	0	18.83	18.76	19.08	19.07	19.07	19.9	
15	QPSK	1	37	18.04	18.72	19.03	19.02	19.02		
15	QPSK	1	74	18.76	18.74	19.08	19.06	18.98		
15	QPSK	36	0	17.89	17.86	18.22	18.12	18.20		
15	QPSK	36	20	17.84	17.85	18.18	18.12	18.09	18.9	
15	QPSK	36	39	17.78	17.88	18.13	18.14	18.10		
15	QPSK	75	0	17.79	17.83	18.22	18.12	18.15		
15	16QAM	1	0	18.04	18.09	18.35	18.33	18.38		
15	16QAM	1	37	18.01	17.95	18.33	18.26	18.31	18.9	
15	16QAM	1	74	18.00	17.98	18.32	18.32	18.25		
15	16QAM	36	0	16.90	16.96	17.21	17.27	17.18		
15	16QAM	36	20	16.86	16.87	17.21	17.20	17.22		
15	16QAM	36	39	16.94	16.88	17.29	17.17	17.20	17.9	
15	16QAM	75	0	16.84	16.87	17.26	17.14	17.17		
15	64QAM	1	0	16.85	16.88	17.18	17.06	17.13		
15	64QAM	1	37	16.79	16.79	17.16	17.10	17.12		
15	64QAM	1	74	16.89	16.88	17.22	17.15	17.15	17.9	
15	64QAM	36	0	16.82	16.82	16.96	16.92	16.92		
15	64QAM	36	20	15.90	15.93	16.24	16.12	16.17		
15	64QAM	36	39	15.93	15.89	16.22	16.17	16.22		
15	64QAM	75	0	15.85	15.88	16.24	16.26	16.19	16.9	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	18.78	18.82	19.07	19.05	19.06	19.9	
10	QPSK	1	25	18.67	18.76	19.07	19.00	18.96		
10	QPSK	1	49	18.77	18.72	19.04	19.07	19.02		
10	QPSK	25	0	17.85	17.82	18.21	18.13	18.20		
10	QPSK	25	12	17.87	17.87	18.16	18.13	18.14	18.9	
10	QPSK	25	25	17.76	17.81	18.17	18.13	18.14		
10	QPSK	50	0	17.85	17.85	18.16	18.10	18.18		
10	16QAM	1	0	17.99	18.09	18.37	18.39	18.34		
10	16QAM	1	25	17.97	17.97	18.39	18.29	18.38	18.9	
10	16QAM	1	49	17.98	18.02	18.37	18.28	18.30		
10	16QAM	25	0	16.93	16.92	17.31	17.24	17.22		
10	16QAM	25	12	16.90	16.90	17.21	17.21	17.22		
10	16QAM	25	25	16.90	16.89	17.24	17.16	17.21	17.9	
10	16QAM	50	0	16.82	16.91	17.21	17.20	17.15		
10	64QAM	1	0	16.81	16.87	17.18	17.06	17.11		
10	64QAM	1	25	16.82	16.78	17.19	17.13	17.12		
10	64QAM	1	49	16.86	16.83	17.25	17.17	17.17	17.9	
10	64QAM	25	0	15.89	15.89	16.22	16.19	16.16		
10	64QAM	25	12	15.93	15.90	16.19	16.14	16.15		
10	64QAM	25	25	15.95	15.85	16.27	16.20	16.27		
10	64QAM	50	0	15.85	15.88	16.26	16.21	16.21	16.9	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	
Frequency (MHz)				2498.5	2545.8	2593	2641.3	2688.5		
5	QPSK	1	0	18.93	19.78	19.03	19.06	19.01	19.9	
5	QPSK	1	12	18.66	18.77	19.04	19.04	18.97		
5	QPSK	1	24	18.72	18.71	19.07	19.02	19.04		
5	QPSK	12	0	17.91	17.84	18.24	18.15	18.15		
5	QPSK	12	7	17.89	17.81	18.21	18.19	18.15	18.9	
5	QPSK	12	13	17.79	17.80	18.14	18.12	18.10		
5	QPSK	25	0	17.79	17.84	18.22	18.11	18.19		
5	16QAM	1	0	18.04	18.10	18.35	18.36	18.37		
5	16QAM	1	12	18.00	17.97	18.39	18.24	18.34	18.9	
5	16QAM	1	24	17.94	17.99	18.32	18.32	18.30		
5	16QAM	12	0	16.97	16.91	17.31	17.23	17.20		
5	16QAM	12	7	16.94	16.92	17.25	17.17	17.25		
5	16QAM	12	13	16.94	16.92	17.25	17.17	17.25	17.9	
5	16QAM	25	0	16.98	16.90	17.19	17.17	17.14		
5	64QAM	1	0	16.84	16.87	17.19	17.11	17.10		
5	64QAM	1	12	16.81	16.81	17.14	17.11	17.10		
5	64QAM	1	24	16.84	16.85	17.23	17.14	17.20	17.9	
5	64QAM	12	0	15.87	15.88	16.23	16.18	16.18		
5	64QAM	12	7	15.88	15.87	16.23	16.13	16.13		
5	64QAM	12	13	15.98	15.91	16.28	16.20	16.22		
5	64QAM	25	0	15.89	15.88	16.20	16.20	16.20	16.9	

Band 41 (2496~2690MHz) (dBm)-PC3										
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel		Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	18.29	18.20	18.66	18.64	18.61	19.3	
20	QPSK	1	49	18.19	18.17	18.64	18.59	18.59		
20	QPSK	1	99	18.19	18.15	18.62	18.56	18.57		
20	QPSK	50	0	17.20	17.26	17.68	17.66	17.63		
20	QPSK	50	24	17.22	17.22	17.67	17.63	17.61	18.3	
20	QPSK	50	50	17.23	17.24	17.65	17.57	17.63		
20	QPSK	100	0	17.21	17.23	17.68	17.67	17.62		
20	16QAM	1	0	17.14	17.08	17.56	17.54	17.51		
20	16QAM	1	49	17.07	17.10	17.54	17.47	17.46	18.3	
20	16QAM	1	99	17.20	17.20	17.64	17.62	17.63		
20	16QAM	50	0	16.15	16.15	16.62	16.59	16.59		
20	16QAM	50	24	16.25	16.22	16.70	16.62	16.67		
20	16QAM	50	50	16.26	16.26	16.68	16.67	16.67	17.3	
20	16QAM	100	0	16.20	16.18	16.64	16.56	16.58		
20	64QAM	1	0	15.94	15.97	16.42	16.39	16.41		
20	64QAM	1	49	15.91	15.95	16.38	16.31	16.31		
20	64QAM	1	99	15.99	16.05	16.46	16.39	16.44	17.3	
20	64QAM	50	0	15.29	15.29	15.70	15.62	15.65		
20	64QAM	50	24	15.36	15.33	15.77	15.69	15.71		
20	64QAM	50	50	15.28	15.30	15.74	15.67	15.73		
20	64QAM	100	0	15.26	15.26	15.72	15.71	15.67	16.3	
Channel				2507.5	2551.5	2595	2639.8	2684.5		Tune-up limit (dBm)
Frequency (MHz)				2507.5	2551.5	2595	2639.8	2684.5		
15	QPSK	1	0	18.25	18.14	18.59	18.63	18.55	19.3	
15	QPSK	1	39	18.14	18.11	18.61	18.56	18.57		
15	QPSK	1	74	18.15	18.13	18.60	18.54	18.56		
15	QPSK	36	0	17.14	17.22	17.65	17.59	17.61		
15	QPSK	36	20	17.20	17.20	17.63	17.60	17.55	18.3	
15	QPSK	36	39	17.19	17.16	17.63	17.55	17.57		
15	QPSK	75	0	17.14	17.16	17.61	17.60	17.51		
15	16QAM	1	0	17.13	17.02	17.52	17.51	17.50		
15	16QAM	1	39	17.01	17.03	17.45	17.40	17.49	18.3	
15	16QAM	1	74	17.18	17.13	17.58	17.57	17.56		
15	16QAM	36	0	16.09	16.13	16.57	16.58	16.58		
15	16QAM	36	20	16.17	16.18	16.69	16.56	16.62		
15	16QAM	36	39	16.19	16.22	16.64	16.64	16.60	17.3	
15	16QAM	75	0	16.15	16.16	16.59	16.55	16.53		
15	64QAM	1	0	15.91	15.94	16.39	16.35	16.35		
15	64QAM	1	37	15.84	15.90	16.36	16.27	16.27		
15	64QAM	1	74	15.93	15.98	16.44	16.36	16.37	16.3	
15	64QAM	36	0	15.24	15.25	15.63	15.61	15.64		
15	64QAM	36	20	15.29	15.27	15.74	15.68	15.66		
15	64QAM	36	39	15.25	15.29	15.67	15.64	15.65		
15	64QAM	75	0	15.25	15.24	15.69	15.64	15.64		
Channel				2510.5	2554.5	2599	2643.8	2688.5		Tune-up limit (dBm)
Frequency (MHz)				2510.5	2554.5	2599	2643.8	2688.5		
10	QPSK	1	0	18.26	18.13	18.64	18.59	18.53	19.3	
10	QPSK	1	20	18.16	18.13	18.56	18.54	18.54		
10	QPSK	1	49	18.11	18.11	18.61	18.55	18.56		
10	QPSK	25	0	17.16	17.21	17.67	17.65	17.61		
10	QPSK	25	12	17.14	17.17	17.65	17.62	17.57	18.3	
10	QPSK	25	25	17.18	17.18	17.58	17.50	17.59		
10	QPSK	50	0	17.17	17.20	17.69	17.65	17.58		
10	QPSK	50	12	17.08	17.03	17.61	17.51	17.49		
10	16QAM	1	25	16.99	17.06	17.47	17.44	17.43	18.3	
10	16QAM	1	49	17.17	17.15	17.62	17.55	17.60		
10	16QAM	25	0	16.09	16.12	16.59	16.53	16.55		
10	16QAM	25	12	16.22	16.14	16.66	16.55	16.63		
10	16QAM	25	25	16.18	16.25	16.63	16.59	16.60	17.3	
10	16QAM	50	0	16.16	16.14	16.60	16.50	16.50		
10	64QAM	1	0	15.91	15.92	16.36	16.33	16.34		
10	64QAM	1	25	15.83	15.89	16.34	16.23	16.27		
10	64QAM	1	49	15.94	15.97	16.44	16.32	16.36	16.3	
10	64QAM	25	0	15.28	15.23	15.69	15.60	15.60		
10	64QAM	25	12	15.28	15.28	15.72	15.61	15.70		
10	64QAM	25	25	15.26	15.23	15.66	15.62	15.72		
10	64QAM	50	0	15.24	15.18	15.68	15.64	15.60		
Channel				2513.5	2557.5	2603	2647.3	2692.5		Tune-up limit (dBm)
Frequency (MHz)				2513.5	2557.5	2603	2647.3	2692.5		
5	QPSK	1	0	18.21	18.12	18.65	18.57	18.54	19.3	
5	QPSK	1	12	18.17	18.12	18.58	18.51	18.51		
5	QPSK	1	24	18.14	18.11	18.55	18.48	18.52		
5	QPSK	12	0	17.17	17.25	17.67	17.64	17.60		
5	QPSK	12	6	17.17	17.16	17.67	17.60	17.53	18.3	
5	QPSK	12	18	17.16	17.19	17.60	17.51	17.56		
5	QPSK	25	0	17.17	17.20	17.61	17.63	17.57		
5	16QAM	1	0	17.08	17.00	17.52	17.52	17.47		
5	16QAM	1	12	17.06	17.08	17.50	17.41	17.39	18.3	
5	16QAM	1	24	17.19	17.18	17.63	17.60	17.55		
5	16QAM	12	0	16.10	16.07	16.59	16.51	16.53		
5	16QAM	12	6	16.19	16.14	16.66	16.55	16.62		
5	16QAM	12	13	16.21	16.21	16.67	16.63	16.64	17.3	
5	16QAM	25	0	16.15	16.13	16.59	16.50	16.57		
5	64QAM	1	0	15.93	15.89	16.37	16.34	16.35		
5	64QAM	1	12	15.84	15.88	16.35	16.26	16.25		
5	64QAM	1	24	15.92	15.99	16.44	16.34	16.40	16.3	
5	64QAM	12	0	15.28	15.26	15.70	15.57	15.60		
5	64QAM	12	7	15.31	15.28	15.76	15.63	15.65		
5	64QAM	12	13	15.23	15.23	15.73	15.64	15.66		
5	64QAM	25	0	15.19	15.21	15.67	15.63	15.59		



n2 (1850 ~ 1910MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1850	1890	1900	
20	DFT-s-OFDM P12 BPSK	1	1	19.77	19.89	19.81	21.2
20		1	53	19.86	19.92	19.82	
20		1	104	19.61	19.74	19.76	
20		50	1	19.98	19.04	19.20	20.2
20		50	25	19.25	19.05	19.16	
20		50	50	18.68	18.79	18.67	
20		100	0	19.20	19.10	19.21	
20		1	1	19.96	20.02	19.99	
20		1	53	19.91	19.97	19.93	
20		1	104	19.84	19.87	19.80	
20	DFT-s-OFDM QPSK	50	1	19.50	19.59	19.55	20.2
20		50	25	19.35	19.37	19.51	
20		50	50	19.12	19.39	19.40	
20		100	0	19.29	19.09	19.10	
20	DFT-s-OFDM 16QAM	1	1	19.67	19.59	19.76	20.2
20	DFT-s-OFDM 64QAM	1	1	18.19	18.25	18.30	19.2
20	DFT-s-OFDM 256QAM	1	1	15.80	15.63	15.82	16.7
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	19.96	19.85	19.87	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1865	1890	1905	
10	DFT-s-OFDM QPSK	1	1	20.00	19.97	19.86	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	DFT-s-OFDM QPSK	1	1	19.95	19.92	19.94	25.2
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	CP-OFDM QPSK	1	1	19.04	18.73	18.86	19.7
20	CP-OFDM 16QAM	1	1	18.68	18.57	18.65	19.7
20	CP-OFDM	1	1	17.55	17.34	17.52	18.7
20	CP-OFDM 256QAM	1	1	13.73	13.83	13.84	14.7

n25_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	DFT-s-OFDM P12 BPSK	1	1	19.90	19.05	19.02	20.2
40		1	53	18.91	19.00	19.01	
40		1	105	18.95	19.04	18.97	
40		50	1	18.15	18.07	18.21	19.2
40		50	25	18.11	18.08	18.26	
40		50	50	18.04	18.09	18.31	
40		100	0	18.13	18.06	18.28	
40		1	1	19.06	19.07	19.03	
40		1	53	18.69	19.01	19.00	
40		1	105	18.98	19.04	19.01	
40	DFT-s-OFDM QPSK	50	1	18.15	18.20	18.17	19.2
40		50	25	18.12	18.16	18.12	
40		50	50	18.07	18.12	18.10	
40		100	0	18.11	18.12	18.08	
40	DFT-s-OFDM 16QAM	1	1	18.24	18.45	18.25	19.2
40	DFT-s-OFDM 64QAM	1	1	16.88	16.93	16.89	18.2
40	DFT-s-OFDM 256QAM	1	1	14.46	14.50	14.44	15.7
Channel				373000	376500	380000	Tune-up limit (dBm)
Frequency (MHz)				1865	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	18.95	19.01	18.73	19.2
Channel				372000	376500	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	19.01	19.02	19.00	20.2
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	18.83	18.97	18.79	20.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	18.92	18.96	18.95	20.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	18.82	18.85	18.77	19.2
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	17.58	17.70	17.74	18.7
40	CP-OFDM 16QAM	1	1	17.28	17.16	17.27	17.7
40	CP-OFDM 64QAM	1	1	15.66	15.92	15.78	16.7
40	CP-OFDM 256QAM	1	1	12.45	12.40	12.46	13.2



n66 (1710 ~ 1780 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
40	DFT-s-OFDM P12 BPSK	1	1	20.11	20.18	20.01	21.2
40		1	53	20.10	20.15	20.14	
40		1	104	20.07	20.10	20.05	
40		53	1	19.16	19.41	19.35	
40		53	26	19.35	19.48	19.28	20.2
40		53	52	19.34	19.48	19.29	
40		106	0	19.33	19.41	19.35	
40		1	1	20.21	20.27	20.24	
40		1	53	20.19	20.22	20.21	21.2
40		1	104	20.21	20.26	20.17	
40	DFT-s-OFDM QPSK	53	1	19.34	19.49	19.46	
40		53	26	19.43	19.52	19.44	
40		53	52	19.45	19.48	19.45	20.2
40		106	0	19.97	19.29	19.25	
40	DFT-s-OFDM 16QAM	1	1	19.23	19.27	19.29	20.2
40	DFT-s-OFDM 64QAM	1	1	17.96	18.00	17.97	19.2
40	DFT-s-OFDM 256QAM	1	1	15.43	15.59	15.51	16.7
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	20.26	20.15	20.18	21.2
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	20.11	20.19	20.05	21.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	20.03	20.24	19.96	21.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	20.19	20.02	19.97	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	19.33	19.25	19.47	25.2
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1765	
40	CP-OFDM QPSK	1	1	18.76	18.74	18.63	19.7
40	CP-OFDM 16QAM	1	1	18.25	18.29	17.99	14.7
40	CP-OFDM 64QAM	1	1	16.95	16.88	16.78	9.7
40	CP-OFDM 256QAM	1	1	13.47	13.55	13.62	2.2

n71 (663 ~ 698 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	DFT-s-OFDM P12 BPSK	1	1	24.19	24.25	24.22	25.2
20		1	53	24.10	24.11	24.07	
20		1	104	24.11	23.93	23.89	
20		50	1	23.31	23.54	23.40	
20		50	25	23.61	23.43	23.36	24.2
20		50	50	23.52	23.32	23.27	
20		100	0	23.63	23.47	23.10	
20		1	1	24.25	24.28	24.22	
20		1	53	24.13	24.24	24.16	25.2
20		1	104	23.85	24.06	23.97	
20	DFT-s-OFDM QPSK	50	1	23.56	23.60	23.52	
20		50	25	23.59	23.47	23.37	
20		50	50	23.51	23.58	23.27	24.2
20		100	0	23.53	23.55	23.40	
20	DFT-s-OFDM 16QAM	1	1	23.92	23.53	23.65	24.2
20	DFT-s-OFDM 64QAM	1	1	22.34	22.27	22.18	23.2
20	DFT-s-OFDM 256QAM	1	1	19.73	19.77	19.77	20.7
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	DFT-s-OFDM QPSK	1	1	23.97	24.02	23.94	25.2
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	DFT-s-OFDM QPSK	1	1	23.89	23.99	23.88	25.2
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	DFT-s-OFDM QPSK	1	1	23.75	23.88	23.76	25.2
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	CP-OFDM QPSK	1	1	23.34	23.05	23.13	23.7
20	CP-OFDM 16QAM	1	1	22.82	22.65	22.62	23.2
20	CP-OFDM 64QAM	1	1	21.58	21.57	21.41	22.2
20	CP-OFDM 256QAM	1	1	17.84	17.96	17.81	18.7



n41 (2496 ~ 2690MHz) (PC2) _ANT1										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune-up limit (dBm)
Channel										
Frequency (MHz)				866002	819000	818998	822996	826000		
100		1		2148.01	2593.50	2592.99	2616.50	2640.00		
100		1		19.02	19.09	19.13	19.13	19.02		
100		1	136	18.98	19.00	19.22	19.10	19.13		20.3
100		1	272	18.95	19.02	19.18	19.01	19.08		
100		136	1	18.99	18.98	18.72	18.80	18.89		
100		136	87	18.70	18.87	18.70	18.94	18.85		
100		136	136	18.78	18.87	18.81	18.81	18.74		19.3
100		270	0	18.72	18.80	18.78	18.64	18.72		
100		1	1	19.26	19.16	19.45	19.18	19.13		
100		1	136	19.08	19.01	19.28	19.12	19.10		20.3
100		1	272	19.18	19.35	19.26	19.35	19.23		
100		136	1	18.46	18.84	18.74	18.80	18.82		
100		136	87	18.47	18.71	18.59	18.94	18.80		
100		136	136	18.33	18.37	18.27	18.31	18.23		19.3
100		270	0	18.23	18.32	18.26	18.17	18.21		
100		1	1	18.37	18.51	18.52	18.59	18.65		19.3
100		1	1	18.89	17.09	17.16	17.13	17.10		17.8
100		1	1	14.72	14.82	14.83	14.93	14.93		15.8
Channel				506000	512004	512002	520000	520000		
Frequency (MHz)				2541	2586.995	2592.99	2618.995	2644.99		
90		1	1	18.75	19.04	19.1	19.1	19.17		20.3
Channel										
Frequency (MHz)				507004	512004	518998	524296	529998		
80		1	1	2036.02	2584.51	2592.99	2621.49	2649.99		
Channel										
Frequency (MHz)				508000	512000	518999	524000	529999		
70		1	1	2031.01	2582.00	2592.99	2624.00	2655.00		
Channel										
Frequency (MHz)				508500	512000	518998	523500	529998		
60		1	1	18.87	18.94	19.24	19.17	19.20		20.3
Channel										
Frequency (MHz)				509004	511601	518998	522798	529998		
50		1	1	2021.02	2587.995	2592.99	2628.99	2664.99		
Channel										
Frequency (MHz)				509500	512000	518998	523000	529998		
40		1	1	18.86	18.86	19.32	19.30	19.30		20.3
Channel										
Frequency (MHz)				510000	510992	518998	523600	529998		
30		1	1	19.10	18.99	19.35	19.33	19.28		20.3
Channel										
Frequency (MHz)				510504	509901	518998	527298	533998		
20		1	1	19.12	19.21	19.36	19.31	19.33		20.3
Channel										
Frequency (MHz)				511000	511000	518998	525000	530000		
100		1	1	17.49	17.59	17.93	17.83	17.83		18.8
100		1	1	16.91	17.23	17.26	17.18	17.15		18.8
100		1	1	15.96	15.96	15.96	15.95	16.03		17.3
100		1	1	12.23	12.64	12.84	12.66	12.61		13.3

n41 (2496 ~ 2690MHz) (PC3) _ANT1										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune-up limit (dBm)
Channel										
Frequency (MHz)				866002	819000	818998	822996	826000		
100		1	1	2148.01	2593.50	2592.99	2616.50	2640.00		
100		1	136	18.12	18.61	18.77	18.69	18.65		19.7
100		1	272	18.67	18.68	18.73	18.65	18.69		
100		136	1	17.86	17.86	17.87	17.84	17.84		18.7
100		136	87	17.79	17.79	17.75	17.89	17.81		
100		136	136	17.82	17.87	17.84	17.87	17.87		
100		270	0	17.84	17.80	17.87	17.89	17.88		
100		1	1	18.87	18.79	18.80	18.78	18.74		
100		1	136	18.70	18.68	18.67	18.63	18.62		19.7
100		1	272	18.63	18.67	18.75	18.71	18.71		
100		136	1	17.80	17.84	17.85	17.88	17.89		
100		136	87	17.54	17.58	17.66	17.55	17.57		18.7
100		136	136	17.46	17.57	17.65	17.56	17.51		
100		270	0	17.58	17.58	17.61	17.64	17.53		
100		1	1	17.59	17.54	17.77	17.74	17.68		18.7
100		1	1	17.57	17.56	17.59	17.44	17.50		18.7
100		1	1	15.98	15.73	15.76	15.63	15.47		16.7
Channel										
Frequency (MHz)				508500	512000	518998	523798	529998		
90		1	1	18.66	18.65	18.74	18.68	18.47		19.7
Channel										
Frequency (MHz)				509004	512004	518998	524296	529998		
80		1	1	2036.02	2584.51	2592.99	2621.49	2649.99		
Channel										
Frequency (MHz)				509500	512000	518998	523798	529998		
70		1	1	18.88	18.63	18.72	18.65	18.61		24.8
Channel										
Frequency (MHz)				510000	512000	518998	523000	529998		
60		1	1	18.89	18.75	18.87	18.63	18.53		19.7
Channel										
Frequency (MHz)				510504	511601	518998	522798	529998		
50		1	1	2021.02	2587.995	2592.99	2628.99	2664.99		
Channel										
Frequency (MHz)				511000	510992	518998	523600	529998		
40		1	1	18.71	18.73	19.70	18.66	18.61		24.8
Channel										
Frequency (MHz)				511500	510992	518998	523600	529998		
30		1	1	18.70	18.73	18.79	18.79	18.76		24.8
Channel										
Frequency (MHz)				512004	509901	518998	527298	533998		
20		1	1	18.79	18.75	18.75	18.63	18.62		24.8
Channel										
Frequency (MHz)				512500	512500	518998	525000	530000		
100		1	1	17.73	17.64	17.43	17.50	17.42		18.2
100		1	1	17.84	17.66	17.53	17.39	17.14		18.2
100		1	1	17.05	17.27	17.20	17.12	16.80		17.5
100		1	1	13.65	14.02	13.76	13.68	13.37		14.2



CA_41C-PC3_Ant 1 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	17.83	19.00
40620	40521	40719	QPSK	1	0	0	0	1	0	18.13	19.00
41490	41292	41490	QPSK	1	0	0	0	1	0	18.05	19.00
39750	39750	39948	16QAM	1	0	0	0	1	0	17.07	17.50
40620	40521	40719	16QAM	1	0	0	0	1	0	17.39	17.50
41490	41292	41490	16QAM	1	0	0	0	1	0	17.34	17.50
39750	39750	39948	64QAM	1	0	0	0	1	0	15.63	16.50
40620	40521	40719	64QAM	1	0	0	0	1	0	15.95	16.50
41490	41292	41490	64QAM	1	0	0	0	1	0	15.83	16.50
39750	39750	39948	QPSK	50	0	0	0	1	0	16.72	17.50
40620	40521	40719	QPSK	50	0	0	0	1	0	17.03	17.50
41490	41292	41490	QPSK	50	0	0	0	1	0	16.79	17.50



Reduced Power Level 2 for Ant 3 & Ant 4 & Ant5

Band 48 (3.5G Band) (dBm)-ANT4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Middle-Low Channel	Middle-Low Channel	Middle-High Channel	High Channel	Turn-up limit (dBm)
Channel				55340	55830	55990	56150	56640	
Frequency (MHz)				3697.5	3697.5	3697.5	3697.5	3697.5	
20	QPSK	1	0	18.76	18.67	18.81	18.74	18.78	19.3
20	QPSK	1	48	18.74	18.68	18.79	18.72	18.72	
20	QPSK	1	96	18.71	18.62	18.75	18.71	18.70	18.3
20	QPSK	50	0	17.74	17.67	17.78	17.73	17.77	
20	QPSK	50	24	17.67	17.63	17.76	17.67	17.76	17.3
20	QPSK	50	50	17.67	17.64	17.74	17.70	17.71	
20	QPSK	100	0	17.64	17.55	17.69	17.64	17.65	16.3
20	16QAM	1	0	17.60	17.51	17.68	17.60	17.62	
20	16QAM	1	48	17.62	17.52	17.67	17.61	17.66	17.3
20	16QAM	1	96	17.56	17.52	17.64	17.57	17.60	
20	16QAM	50	0	16.67	16.60	16.70	16.65	16.64	17.3
20	16QAM	50	24	16.61	16.55	16.66	16.64	16.65	
20	16QAM	50	50	16.59	16.52	16.67	16.65	16.63	16.3
20	16QAM	100	0	16.65	16.60	16.67	16.60	16.62	
20	BQAM	1	0	16.50	16.40	16.54	16.48	16.48	17.3
20	BQAM	1	48	16.45	16.37	16.52	16.48	16.48	
20	BQAM	1	96	16.47	16.38	16.53	16.51	16.48	16.3
20	BQAM	50	0	15.84	15.56	15.71	15.68	15.63	
20	BQAM	50	24	15.66	15.60	15.70	15.63	15.63	16.3
20	BQAM	50	50	15.65	15.58	15.68	15.62	15.64	
20	BQAM	100	0	15.62	15.56	15.66	15.63	15.57	
Channel				56315	56820	56980	56180	56660	
Frequency (MHz)				3697.5	3698	3697.5	3697.5	3697.5	
15	QPSK	1	0	18.71	18.63	18.77	18.69	18.72	19.3
15	QPSK	1	37	18.73	18.61	18.76	18.67	18.70	
15	QPSK	1	14	18.66	18.61	18.70	18.70	18.68	18.3
15	QPSK	36	0	17.70	17.64	17.72	17.72	17.69	
15	QPSK	36	20	17.61	17.55	17.70	17.63	17.71	17.3
15	QPSK	36	36	17.59	17.57	17.68	17.68	17.65	
15	QPSK	75	0	17.62	17.52	17.65	17.59	17.64	18.3
15	16QAM	1	0	17.54	17.43	17.65	17.54	17.58	
15	16QAM	1	37	17.55	17.45	17.61	17.59	17.63	17.3
15	16QAM	1	74	17.51	17.50	17.57	17.56	17.53	
15	16QAM	36	0	16.83	16.52	16.66	16.61	16.58	16.3
15	16QAM	36	20	16.54	16.52	16.59	16.63	16.61	
15	16QAM	36	36	16.56	16.46	16.54	16.61	16.60	17.3
15	16QAM	75	0	16.61	16.47	16.62	16.59	16.61	
15	BQAM	1	0	16.46	16.32	16.53	16.42	16.48	16.3
15	BQAM	1	37	16.41	16.29	16.48	16.47	16.44	
15	BQAM	1	74	16.40	16.31	16.50	16.46	16.46	16.3
15	BQAM	36	0	15.59	15.55	15.65	15.58	15.56	
15	BQAM	36	20	15.65	15.56	15.63	15.55	15.56	16.3
15	BQAM	36	36	15.64	15.54	15.61	15.57	15.57	
15	BQAM	75	0	15.60	15.47	15.61	15.62	15.49	
Channel				56290	56815	56990	56180	56690	
Frequency (MHz)				3697.5	3697.5	3697.5	3697.5	3697.5	
10	QPSK	1	0	18.69	18.59	18.74	18.70	18.76	19.3
10	QPSK	1	25	18.67	18.64	18.74	18.65	18.69	
10	QPSK	1	49	18.67	18.67	18.74	18.68	18.66	18.3
10	QPSK	25	0	17.69	17.64	17.73	17.65	17.72	
10	QPSK	25	12	17.66	17.57	17.71	17.65	17.68	17.3
10	QPSK	25	25	17.62	17.60	17.70	17.67	17.68	
10	QPSK	50	0	17.63	17.53	17.65	17.58	17.57	18.3
10	16QAM	1	0	17.57	17.44	17.67	17.54	17.56	
10	16QAM	1	25	17.54	17.47	17.61	17.56	17.61	17.3
10	16QAM	1	49	17.51	17.45	17.62	17.53	17.57	
10	16QAM	25	0	16.66	16.53	16.63	16.63	16.61	16.3
10	16QAM	25	12	16.56	16.51	16.65	16.62	16.64	
10	16QAM	25	25	16.58	16.44	16.60	16.63	16.62	17.3
10	16QAM	50	0	16.59	16.47	16.66	16.53	16.54	
10	BQAM	1	0	16.45	16.37	16.48	16.45	16.48	17.3
10	BQAM	1	25	16.37	16.36	16.45	16.44	16.38	
10	BQAM	1	49	16.40	16.34	16.46	16.50	16.44	16.3
10	BQAM	25	0	15.61	15.54	15.70	15.66	15.60	
10	BQAM	25	12	15.58	15.52	15.63	15.56	15.57	16.3
10	BQAM	25	25	15.64	15.52	15.64	15.58	15.57	
10	BQAM	50	0	15.61	15.47	15.62	15.61	15.55	
Channel				56770	56770	56770	56770	56770	
Frequency (MHz)				3697.5	3697	3697.5	3697.5	3697.5	
5	QPSK	1	0	18.69	18.62	18.75	18.73	18.71	19.3
5	QPSK	1	12	18.66	18.62	18.73	18.69	18.67	
5	QPSK	1	24	18.70	18.54	18.68	18.64	18.69	18.3
5	QPSK	12	0	17.73	17.64	17.74	17.71	17.76	
5	QPSK	12	7	17.63	17.58	17.69	17.59	17.66	17.3
5	QPSK	12	13	17.60	17.56	17.72	17.62	17.66	
5	QPSK	25	0	17.56	17.51	17.61	17.61	17.57	18.3
5	16QAM	1	0	17.58	17.43	17.67	17.59	17.54	
5	16QAM	1	12	17.59	17.44	17.65	17.56	17.61	17.3
5	16QAM	1	24	17.48	17.44	17.62	17.56	17.57	
5	16QAM	12	0	16.66	16.53	16.64	16.63	16.62	16.3
5	16QAM	12	7	16.59	16.51	16.65	16.58	16.59	
5	16QAM	12	13	16.51	16.49	16.69	16.58	16.61	17.3
5	16QAM	25	0	16.59	16.49	16.65	16.59	16.54	
5	BQAM	1	0	16.49	16.33	16.47	16.40	16.48	17.3
5	BQAM	1	12	16.40	16.35	16.48	16.46	16.44	
5	BQAM	1	24	16.40	16.31	16.50	16.49	16.44	16.3
5	BQAM	12	0	15.63	15.53	15.68	15.67	15.62	
5	BQAM	12	7	15.61	15.57	15.63	15.61	15.57	16.3
5	BQAM	12	13	15.61	15.54	15.60	15.55	15.57	
5	BQAM	25	0	15.55	15.48	15.57	15.58	15.48	



n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT4												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1		17.53	3500.01			18.7			
100		1	136		17.48							
100		1	271		17.41				17.7			
100		136	1		16.75							
100		136	67		16.73				18.7			
100		136	136		16.68							
100		270	0		16.62				17.7			
100		1	1		17.73							
100		1	136		17.68				18.7			
100		1	271		17.56							
100	DFT-s-OFDM PDSCH	1	1		16.89				17.7			
100		136	67		16.85							
100		136	136		16.76				18.7			
100		270	0		16.69							
100		1	1		16.42				17.7			
100		1	1		15.38							
100		1	1		12.67				16.7			
100		1	1									
Channel												
Frequency (MHz)												
90		DFT-s-OFDM PUSCH	1	1	3499	3497.52	3500.01	3500.5	3504.99	18.7		
Channel												
Frequency (MHz)												
80	DFT-s-OFDM PUSCH	1	1	17.72	17.63	17.69	17.72	17.43	18.7			
Channel												
Frequency (MHz)												
70	DFT-s-OFDM PUSCH	1	1	17.56	17.61	17.68	17.64	17.61	18.7			
Channel												
Frequency (MHz)												
60	DFT-s-OFDM PUSCH	1	1	17.69	17.58	17.55	17.70	17.63	18.7			
Channel												
Frequency (MHz)												
50	DFT-s-OFDM PUSCH	1	1	17.60	17.61	17.72	17.70	17.58	17.7			
Channel												
Frequency (MHz)												
40	DFT-s-OFDM PUSCH	1	1	17.64	17.71	17.71	17.63	17.49	17.7			
Channel												
Frequency (MHz)												
30	DFT-s-OFDM PUSCH	1	1	17.66	17.71	17.66	17.67	17.58	18.7			
Channel												
Frequency (MHz)												
20	DFT-s-OFDM PUSCH	1	1	17.68	17.71	17.69	17.59	17.50	18.7			
Channel												
Frequency (MHz)												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	CP-OFDM PDSCH	1	1		15.83				16.7			
100	CP-OFDM PDSCH	1	1		15.39				16.7			
100	CP-OFDM PDSCH	1	1		14.04				14.7			
100	CP-OFDM PDSCH	1	1		10.75				11.7			

n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT4												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1		17.73	3500.01			18.7			
100		1	136		17.79							
100		1	271		17.76				17.7			
100		136	1		16.79							
100		136	67		16.68				18.7			
100		136	136		16.61							
100		270	0		16.54				17.7			
100		1	1		17.80							
100		1	136		17.80				18.7			
100		1	271		17.76							
100	DFT-s-OFDM PDSCH	1	1		16.72				17.7			
100		136	1		16.65							
100		136	67		16.65				18.7			
100		136	136		16.60							
100		270	0		16.69				17.7			
100		1	1		16.72							
100		1	1		16.73				16.7			
100		1	1		14.88							
Channel												
Frequency (MHz)												
90		DFT-s-OFDM PUSCH	1	1	17.75	17.82	17.79	17.84	17.76	18.7		
Channel												
Frequency (MHz)												
80	DFT-s-OFDM PUSCH	1	1	17.80	17.84	17.85	17.70	17.65	18.7			
Channel												
Frequency (MHz)												
70	DFT-s-OFDM PUSCH	1	1	17.73	17.70	17.82	17.78	17.63	18.7			
Channel												
Frequency (MHz)												
60	DFT-s-OFDM PUSCH	1	1	17.67	17.71	17.74	17.71	17.59	18.7			
Channel												
Frequency (MHz)												
50	DFT-s-OFDM PUSCH	1	1	17.78	17.74	17.85	17.72	17.65	18.7			
Channel												
Frequency (MHz)												
40	DFT-s-OFDM PUSCH	1	1	17.79	17.78	17.83	17.83	17.76	18.7			
Channel												
Frequency (MHz)												
30	DFT-s-OFDM PUSCH	1	1	17.75	17.72	17.77	17.73	17.65	18.7			
Channel												
Frequency (MHz)												
20	DFT-s-OFDM PUSCH	1	1	17.77	17.68	17.80	17.75	17.61	18.7			
Channel												
Frequency (MHz)												
100	CP-OFDM	1	1		16.52				17.2			
100	CP-OFDM	1	1		15.85				17.2			
100	CP-OFDM	1	1		14.42				15.2			
100	CP-OFDM	1	1		12.51				13.2			



n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT5														
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)					
Channel														
Frequency (MHz)														
100	DFT-s-OFDM PUSCH	1	1			3500.01			22.7					
100		1	1			21.53								
100		1	136			21.48								
100		1	271			21.41								
100		136	1			20.75								
100		136	67			20.73								
100		136	136			20.68				21.7				
100		270	0			20.62								
100		1	1			21.73			22.7					
100		1	136			21.68								
100	1	271			21.56									
100	DFT-s-OFDM PUSCH	136	1			20.30			21.7					
100		136	67			20.85								
100		136	136			20.78								
100		270	0			20.69								
100		1	1			20.42				21.7				
100		DFT-s-OFDM PUSCH	1	1			19.38			20.7				
100		DFT-s-OFDM PUSCH	1	1			18.67			17.7				
Channel														
Frequency (MHz)														
90	DFT-s-OFDM PUSCH	1	1	349.09	3497.52	3500.01	3502.5	3504.49	Tune-up limit (dBm)					
90	DFT-s-OFDM PUSCH	1	1	21.70	21.73	21.68	21.65	21.61	22.7					
				Channel										
				Frequency (MHz)										
80	DFT-s-OFDM PUSCH	1	1	21.72	21.63	21.69	21.72	21.43	22.7					
				Channel										
				Frequency (MHz)										
70	DFT-s-OFDM PUSCH	1	1	21.66	21.61	21.68	21.64	21.61	22.7					
				Channel										
				Frequency (MHz)										
60	DFT-s-OFDM PUSCH	1	1	21.69	21.58	21.55	21.70	21.63	22.7					
				Channel										
				Frequency (MHz)										
50	DFT-s-OFDM PUSCH	1	1	21.60	21.61	21.72	21.70	21.58	21.7					
				Channel										
				Frequency (MHz)										
40	DFT-s-OFDM PUSCH	1	1	21.64	21.71	21.71	21.63	21.49	21.7					
				Channel										
				Frequency (MHz)										
30	DFT-s-OFDM PUSCH	1	1	21.66	21.71	21.66	21.67	21.58	22.7					
				Channel										
				Frequency (MHz)										
20	DFT-s-OFDM PUSCH	1	1	21.68	21.71	21.69	21.59	21.50	22.7					
				Channel										
				Frequency (MHz)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)					
Channel														
Frequency (MHz)														
100	OFDM	1	1			19.83			20.7					
100	OFDM	1	1			19.39			20.7					
100	OFDM	1	1			18.04			18.7					
100	OFDM	1	1			14.75			15.7					

n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT5																				
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)											
Channel																				
Frequency (MHz)																				
100	DFT-s-OFDM PUSCH	1	1		3500.01				22.7											
100		1	136		21.73						21.7									
100		1	271		21.79								21.7							
100		136	1		20.79										21.7					
100		136	67		20.68												21.7			
100		136	136		20.61														21.7	
100		270	0		20.54															
100		1	1		21.88				22.7											
100		1	136		21.80						21.7									
100		1	271		21.79								21.7							
100	DFT-s-OFDM CP-OFDM	136	1		20.72			21.7												
100	136	67		20.68							21.7									
100	136	136		20.60										21.7						
100	DFT-s-OFDM sPUSCH	270	0		20.59			21.7												
100	1	1		20.72							21.7									
100	DFT-s-OFDM sPUSCH	1	1		20.73			20.7												
100	DFT-s-OFDM sPUSCH	1	1		18.88						20.2									
Channel																				
Frequency (MHz)																				
90	DFT-s-OFDM PUSCH	1	1	21.75	21.82	21.79	21.84	21.76	Tune-up limit (dBm)											
Channel																				
Frequency (MHz)																				
80	DFT-s-OFDM PUSCH	1	1	21.80	21.84	21.85	21.70	21.65	Tune-up limit (dBm)											
Channel																				
Frequency (MHz)																				
70	DFT-s-OFDM PUSCH	1	1	21.73	21.70	21.62	21.78	21.63	Tune-up limit (dBm)											
Channel																				
Frequency (MHz)																				
60	DFT-s-OFDM PUSCH	1	1	21.67	21.71	21.76	21.71	21.59	Tune-up limit (dBm)											
Channel																				
Frequency (MHz)																				
50	DFT-s-OFDM PUSCH	1	1	21.78	21.74	21.85	21.72	21.55	Tune-up limit (dBm)											
Channel																				
Frequency (MHz)																				
40	DFT-s-OFDM PUSCH	1	1	21.79	21.78	21.83	21.63	21.76	Tune-up limit (dBm)											
Channel																				
Frequency (MHz)																				
30	DFT-s-OFDM PUSCH	1	1	21.75	21.72	21.77	21.73	21.65	Tune-up limit (dBm)											
Channel																				
Frequency (MHz)																				
20	DFT-s-OFDM PUSCH	1	1	21.77	21.68	21.80	21.75	21.61	Tune-up limit (dBm)											
Channel																				
Frequency (MHz)																				
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)											
Channel																				
Frequency (MHz)																				
100	CP-OFDM	1	1		20.52				21.2											
100	CP-OFDM	1	1		19.85				21.2											
100	CP-OFDM	1	1		18.42				19.2											
100	CP-OFDM	1	1		16.51				17.2											



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT3											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel				650000	650000	650000	650000	650000			
Frequency (MHz)				3750	3750	3940	3940	3950			
100	DFT-s-OFDM P2/BPSK	1	1	18.70	18.67	18.78	18.72	18.75	19.7		
			1	18.69	18.63	18.66	18.70	18.60			
			1	18.65	18.49	18.69	18.49	18.55			
			1	17.63	17.67	17.69	17.61	17.62			
			1	17.55	17.66	17.67	17.63	17.62			
			1	17.52	17.45	17.41	17.38	17.38			
			1	17.62	17.51	17.47	17.55	17.44			
			1	18.79	18.71	18.82	18.75	18.80			
			1	18.76	18.70	18.80	18.71	18.81			
			1	18.74	18.55	18.80	18.53	18.56			
100	DFT-s-OFDM QPSK	1	1	17.65	17.61	17.72	17.73	17.68	19.7		
			1	17.64	17.57	17.79	17.70	17.61			
			1	17.43	17.62	17.48	17.48	17.48			
			1	17.46	17.38	17.57	17.45	17.51			
			1	18.80	18.97	17.05	17.03	17.08			
			1	15.48	15.51	15.63	15.55	15.58			
			1	13.28	13.20	13.32	13.30	13.25			
			646696	646694	650000	649996	646332				
			3744.99	3752.51	3840	3837.49	3834.98				
			18.55	18.58	18.69	18.67	18.63				
80	DFT-s-OFDM P2/BPSK	1	1	646696	646694	650000	649996	646332	19.7		
			3740.01	3750.02	3840	3838.98	3839.99				
			18.65	18.59	18.72	18.56	18.63				
			646696	646694	650000	649996	646332				
			3750	3767.5	3840	3862.5	3840				
			18.63	18.43	18.78	18.74	18.63				
			646696	646334	650000	649996	646332				
			3730.02	3763.51	3840	3854.99	3843.98				
			18.56	18.72	18.77	18.67	18.72				
			646334	646165	650000	649996	646096				
50	DFT-s-OFDM P2/BPSK	1	1	3725.01	3762.52	3840	3864.99	3864.98	18.7		
			18.49	18.58	18.80	18.76	18.73				
			648000	652000	656000	660000	654000				
			3720	3760	3840	3900	3900				
			18.63	18.66	18.82	18.72	18.80				
			647698	651834	656000	650166	654332				
			3715.02	3777.51	3840	3902.49	3904.98				
			18.64	18.72	18.80	18.73	18.75				
			647334	651669	656000	650332	654666				
			3710.01	3775.02	3840	3904.98	3909.99				
20	DFT-s-OFDM P2/BPSK	1	1	18.77	18.75	18.81	18.80	18.79	19.7		
			650000	653000	658000	663000	657000				
			3750	3895	3940	3945	3920				
			16.47	16.59	16.82	16.60	16.52				
			16.20	16.28	16.29	16.35	16.30				
			14.42	14.55	14.42	14.81	14.60				
			10.90	11.16	11.03	11.36	11.25				
			10.90	11.16	11.03	11.36	11.25				
			10.90	11.16	11.03	11.36	11.25				
			10.90	11.16	11.03	11.36	11.25				

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT3												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)			
Channel				650000	650000	650000	650000	650000				
Frequency (MHz)				3750	3750	3940	3940	3950				
100	DFT-s-OFDM P2/BPSK	1	1	18.72	18.69	18.70	18.68	18.72	19.7			
			1	1.36	18.68	18.67	18.68					
			1	271	18.66	18.65	18.67					
			136	1	17.83	17.81	17.86					
			136	48	17.83	17.85	18.01					
			136	136	17.81	18.01	17.87					
100	DFT-s-OFDM P2/BPSK	1	270	0	17.95	17.91	17.86	17.90	18.7			
			1	1	18.79	18.78	18.81	18.78				
			1	136	18.55	18.68	18.70	18.68				
			1	271	18.68	18.77	18.56	18.61				
			136	1	17.82	17.79	17.92	17.90				
			136	48	17.81	17.80	17.86	17.88				
100	DFT-s-OFDM P2/BPSK	1	136	136	17.80	18.02	17.83	17.89	18.7			
			270	0	17.88	17.90	17.87	17.93				
			1	1	17.90	17.84	17.87	17.92				
			1	1	18.84	18.66	18.88	17.93				
			1	1	15.96	15.76	15.88	15.91				
			1	1	15.96	15.76	15.88	15.91				
90	DFT-s-OFDM P2/BPSK	1	Channel				646696	646334	650000	649996	646332	Tune-up limit (dBm)
			Channel				3744.99	3752.51	3840	3837.49	3834.98	
			Channel				18.72	18.62	18.71	18.69	18.69	
			Channel				646696	646694	650000	649996	646332	
			Channel				3740.01	3750.02	3840	3838.98	3839.99	
			Channel				18.76	18.61	18.68	18.73	18.71	
80	DFT-s-OFDM P2/BPSK	1	Channel				646696	646694	650000	649996	646332	Tune-up limit (dBm)
			Channel				3750	3767.5	3840	3862.5	3840	
			Channel				18.75	18.62	18.72	18.73	18.64	
			Channel				646696	646334	650000	649996	646332	
			Channel				3730.02	3763.51	3840	3854.99	3843.98	
			Channel				18.75	18.64	18.76	18.71	18.74	
70	DFT-s-OFDM P2/BPSK	1	Channel				646334	646166	650000	646032	646098	Tune-up limit (dBm)
			Channel				3725.01	3762.52	3840	3864.99	3864.98	
			Channel				18.76	18.78	18.73	18.78	18.73	
			Channel				648000	652000	656000	660000	654000	
			Channel				3720	3760	3840	3900	3900	
			Channel				18.68	18.71	18.66	18.74	18.68	
60	DFT-s-OFDM P2/BPSK	1	Channel				647698	651834	656000	650166	654332	Tune-up limit (dBm)
			Channel				3715.02	3777.51	3840	3902.49	3904.98	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
50	DFT-s-OFDM P2/BPSK	1	Channel				650000	653000	658000	663000	657000	Tune-up limit (dBm)
			Channel				3750	3750	3940	3940	3950	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
40	DFT-s-OFDM P2/BPSK	1	Channel				647698	651834	656000	650166	654332	Tune-up limit (dBm)
			Channel				3715.02	3777.51	3840	3902.49	3904.98	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
30	DFT-s-OFDM P2/BPSK	1	Channel				650000	653000	658000	663000	657000	Tune-up limit (dBm)
			Channel				3750	3750	3940	3940	3950	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
20	DFT-s-OFDM P2/BPSK	1	Channel				647698	651834	656000	650166	654332	Tune-up limit (dBm)
			Channel				3715.02	3777.51	3840	3902.49	3904.98	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
10	DFT-s-OFDM P2/BPSK	1	Channel				650000	653000	658000	663000	657000	Tune-up limit (dBm)
			Channel				3750	3750	3940	3940	3950	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
5	DFT-s-OFDM P2/BPSK	1	Channel				647698	651834	656000	650166	654332	Tune-up limit (dBm)
			Channel				3715.02	3777.51	3840	3902.49	3904.98	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
2	DFT-s-OFDM P2/BPSK	1	Channel				650000	653000	658000	663000	657000	Tune-up limit (dBm)
			Channel				3750	3750	3940	3940	3950	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
1	DFT-s-OFDM P2/BPSK	1	Channel				647698	651834	656000	650166	654332	Tune-up limit (dBm)
			Channel				3715.02	3777.51	3840	3902.49	3904.98	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.5	DFT-s-OFDM P2/BPSK	1	Channel				650000	653000	658000	663000	657000	Tune-up limit (dBm)
			Channel				3750	3750	3940	3940	3950	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.25	DFT-s-OFDM P2/BPSK	1	Channel				647698	651834	656000	650166	654332	Tune-up limit (dBm)
			Channel				3715.02	3777.51	3840	3902.49	3904.98	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.125	DFT-s-OFDM P2/BPSK	1	Channel				650000	653000	658000	663000	657000	Tune-up limit (dBm)
			Channel				3750	3750	3940	3940	3950	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.0625	DFT-s-OFDM P2/BPSK	1	Channel				647698	651834	656000	650166	654332	Tune-up limit (dBm)
			Channel				3715.02	3777.51	3840	3902.49	3904.98	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.03125	DFT-s-OFDM P2/BPSK	1	Channel				650000	653000	658000	663000	657000	Tune-up limit (dBm)
			Channel				3750	3750	3940	3940	3950	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.015625	DFT-s-OFDM P2/BPSK	1	Channel				647698	651834	656000	650166	654332	Tune-up limit (dBm)
			Channel				3715.02	3777.51	3840	3902.49	3904.98	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.0078125	DFT-s-OFDM P2/BPSK	1	Channel				650000	653000	658000	663000	657000	Tune-up limit (dBm)
			Channel				3750	3750	3940	3940	3950	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.00390625	DFT-s-OFDM P2/BPSK	1	Channel				647698	651834	656000	650166	654332	Tune-up limit (dBm)
			Channel				3715.02	3777.51	3840	3902.49	3904.98	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.001953125	DFT-s-OFDM P2/BPSK	1	Channel				650000	653000	658000	663000	657000	Tune-up limit (dBm)
			Channel				3750	3750	3940	3940	3950	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.0009765625	DFT-s-OFDM P2/BPSK	1	Channel				647698	651834	656000	650166	654332	Tune-up limit (dBm)
			Channel				3715.02	3777.51	3840	3902.49	3904.98	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.00048828125	DFT-s-OFDM P2/BPSK	1	Channel				650000	653000	658000	663000	657000	Tune-up limit (dBm)
			Channel				3750	3750	3940	3940	3950	
			Channel				18.79	18.60	18.75	18.73	18.73	
			Channel				647334	651669	656000	650332	654666	
			Channel				3710.01	3775.02	3840	3904.98	3909.99	
			Channel				18.79	18.54	18.65	18.71	18.65	
0.000244140625	DFT-s-OFDM P2/BPSK	1	Channel				647698	651834	6560			



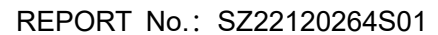
n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT4											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel				650000	650000	650000	650000	650000			
Frequency (MHz)				3750	3795	3840	3885	3930			
100	DFT-s-OFDM PUSCH	1	1	17.70	17.67	17.78	17.72	17.76			
100		1	136	17.69	17.63	17.66	17.70	17.60			
100		1	271	17.65	17.49	17.69	17.49	17.53			
100		135	1	16.63	16.67	16.69	16.61	16.62			
100		135	61	16.55	16.66	16.67	16.53	16.62			
100		135	136	16.52	16.45	16.41	16.36	16.36			
100		270	0	16.62	16.51	16.47	16.55	16.44			
100		1	1	17.79	17.71	17.82	17.75	17.80			
100		1	136	17.76	17.70	17.88	17.71	17.61			
100		1	271	17.74	17.56	17.85	17.63	17.65			
100	DFT-s-OFDM CP-OFDM	135	1	16.65	16.61	16.70	16.73	16.68			
100		135	61	16.64	16.55	16.72	16.70	16.61			
100		135	136	16.43	16.60	16.51	16.48	16.40			
100		270	0	16.46	16.38	16.57	16.45	16.51			
100		1	1	15.80	15.97	16.05	16.03	16.06			
100		1	1	14.48	14.51	14.63	14.55	14.58			
100		1	1	12.28	12.20	12.32	12.30	12.25			
Channel				648666	650034	650000	650996	652332	Tune-up limit (dBm)		
Frequency (MHz)				3744.99	3752.51	3840	3887.49	3934.98			
90		DFT-s-OFDM PUSCH	1	1	17.55	17.58	17.69	17.67	17.63		
Channel				649334	650666	650000	650332	650666	Tune-up limit (dBm)		
Frequency (MHz)				3740.01	3750.02	3840	3898.98	3939.99			
80	1		1	17.65	17.59	17.72	17.56	17.63			
Channel				648000	650000	650000	650990	653000	Tune-up limit (dBm)		
Frequency (MHz)				3735	3787.5	3840	3892.5	3945			
70	1		1	17.63	17.43	17.78	17.74	17.63			
Channel				647668	650334	650000	649992	649332	Tune-up limit (dBm)		
Frequency (MHz)				3730.02	3783.51	3840	3854.99	3943.98			
60	1		1	17.61	17.32	17.77	17.67	17.72			
Channel				648334	650334	650000	650992	650666	Tune-up limit (dBm)		
Frequency (MHz)				3725.01	3782.52	3840	3894.99	3944.98			
50	DFT-s-OFDM PUSCH	1	1	17.49	17.58	17.80	17.76	17.73			
Channel				648000	650000	650000	650000	654000	Tune-up limit (dBm)		
Frequency (MHz)				3720	3760	3840	3900	3960			
40		1	1	17.63	17.66	17.82	17.72	17.80			
Channel				647668	651634	650000	650166	654332	Tune-up limit (dBm)		
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98			
30		1	1	17.64	17.72	17.80	17.73	17.75			
Channel				647334	651668	650000	650332	654666	Tune-up limit (dBm)		
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99			
20		1	1	17.77	17.75	17.81	17.80	17.79			
BW (MHz)											
Modulation				650000	Low/Middle Channel 650000	3840	Middle/High Channel 650000	High Channel 650000			
Frequency (MHz)				3750	3795	3840	3885	3930			
100	CP-OFDM	1	1	15.47	15.59	15.82	15.60	15.52			
100	CP-OFDM	1	1	15.20	15.28	15.29	15.35	15.30			
100	CP-OFDM	1	1	13.42	13.55	13.42	13.81	13.60			
100	CP-OFDM	1	1	9.90	10.16	10.03	10.36	10.25			

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT4											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune up limit (dBm)		
Channel				650000	650000	650000	650000	650000			
Frequency (MHz)				3750	3750	3840	3890	3900			
100	DFT-s-OFDM PUSCH	1	1	17.72	17.69	17.76	17.68	17.72			
100		1	136	17.68	17.67	17.68	17.67	17.75	16.7		
100		1	271	17.66	17.65	17.67	17.67	17.52			
100		135	1	16.83	16.81	16.96	16.83	16.93			
100		135	67	16.53	16.55	17.01	16.50	16.58			
100		135	136	16.51	17.02	16.87	17.00	16.94	17.7		
100		270	0	16.95	16.91	16.99	16.89	16.99			
100		1	1	17.79	17.76	17.81	17.76	17.72			
100		1	136	17.55	17.68	17.70	17.68	17.65	16.7		
100		1	271	17.68	17.77	17.56	17.61	17.51			
100	DFT-s-OFDM CP-OFDM	135	1	16.82	16.79	16.92	16.79	16.88			
100		135	67	16.51	16.50	16.99	16.90	16.95	17.7		
100		135	136	16.30	17.02	16.83	16.98	16.92			
100		270	0	16.88	16.90	16.97	16.93	16.92			
100		1	1	16.90	16.94	16.87	16.92	16.91	17.7		
100		1	1	15.84	15.66	15.88	16.03	15.96	16.7		
100		1	1	14.96	14.76	14.88	14.91	14.95	15.7		
Channel				649999	650000	650000	649999	650000			
Frequency (MHz)				3744.99	3752.51	3840	3937.49	3934.98			
90	DFT-s-OFDM PUSCH	1	1	17.72	17.62	17.71	17.69	17.69			
Channel				648834	650666	650000	649999	650666			
Frequency (MHz)				3740.01	3750.02	3840	3898.98	3939.99			
80		1	1	17.76	17.61	17.68	17.73	17.71	16.7		
Channel				650000	650000	650000	650000	650000			
Frequency (MHz)				3735	3787.5	3840	3892.5	3945			
70		1	1	17.75	17.62	17.72	17.73	17.64	16.7		
Channel				648668	650334	650000	649999	649332			
Frequency (MHz)				3730.02	3783.51	3840	3854.99	3943.98			
60		1	1	17.75	17.64	17.74	17.71	17.74	16.7		
Channel				649334	650334	650000	650332	650666			
Frequency (MHz)				3725.01	3782.52	3840	3894.98	3944.98			
50	DFT-s-OFDM PUSCH	1	1	17.76	17.78	17.73	17.78	17.73	17.7		
Channel				648000	650000	650000	650000	654000			
Frequency (MHz)				3720	3760	3840	3900	3960			
40		1	1	17.68	17.71	17.66	17.74	17.68	17.7		
Channel				647668	651634	650000	650166	654332			
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98			
30		1	1	17.79	17.80	17.75	17.73	17.73	16.7		
Channel				647334	651668	650000	650332	654666			
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99			
20		1	1	17.79	17.54	17.65	17.71	17.65	16.7		
Channel				647000	651334	650000	650332	654000			
Frequency (MHz)				3705.02	3767.51	3840	3899.99	3962.49			
Channel				646668	651000	650000	650332	654000			
Frequency (MHz)				3700.01	3762.52	3840	3894.98	3959.99			
10	1	1	17.79	17.54	17.65	17.71	17.65	16.7			
Channel				646334	650668	650000	650332	654000			
Frequency (MHz)				3695.02	3757.51	3840	3889.99	3952.49			
Channel				646000	650334	650000	650332	654000			
Frequency (MHz)				3690.01	3752.52	3840	3884.98	3957.49			
5	1	1	17.79	17.54	17.65	17.71	17.65	16.7			
Channel				645668	650000	650000	650332	654000			
Frequency (MHz)				3685.02	3747.51	3840	3879.99	3952.49			
Channel				645334	649668	650000	650332	654000			
Frequency (MHz)				3680.01	3742.52	3840	3874.98	3947.49			
Channel				645000	649334	650000	650332	654000			
Frequency (MHz)				3675.01	3737.52	3840	3869.98	3942.49			
Channel				644668	649000	650000	650332	654000			
Frequency (MHz)				3670.01	3732.52	3840	3864.98	3937.49			
Channel				644334	648668	650000	650332	654000			
Frequency (MHz)				3665.01	3727.52	3840	3859.98	3932.49			
Channel				644000	648334	650000	650332	654000			
Frequency (MHz)				3660.01	3722.52	3840	3854.98	3927.49			
Channel				643668	648000	650000	650332	654000			
Frequency (MHz)				3655.01	3717.52	3840	3849.98	3922.49			
Channel				643334	647668	650000	650332	654000			
Frequency (MHz)				3650.01	3712.52	3840	3844.98	3917.49			
Channel				643000	647334	650000	650332	654000			
Frequency (MHz)				3645.01	3707.52	3840	3839.98	3912.49			
Channel				642668	647000	650000	650332	654000			
Frequency (MHz)				3640.01	3702.52	3840	3834.98	3907.49			
Channel				642334	646668	650000	650332	654000			
Frequency (MHz)				3635.01	3697.52	3840	3829.98	3902.49			
Channel				642000	646334	650000	650332	654000			
Frequency (MHz)				3630.01	3692.52	3840	3824.98	3897.49			
Channel				641668	646000	650000	650332	654000			
Frequency (MHz)				3625.01	3687.52	3840	3819.98	3892.49			
Channel				641334	645668	650000	650332	654000			
Frequency (MHz)				3620.01	3682.52	3840	3814.98	3887.49			
Channel				641000	645334	650000	650332	654000			
Frequency (MHz)				3615.01	3677.52	3840	3809.98	3882.49			
Channel				640668	645000	650000	650332	654000			
Frequency (MHz)				3610.01	3672.52	3840	3804.98	3877.49			
Channel				640334	644668	650000	650332	654000			
Frequency (MHz)				3605.01	3667.52	3840	3799.98	3872.49			
Channel				640000	644334	650000	650332	654000			
Frequency (MHz)				3600.01	3662.52	3840	3794.98	3867.49			
Channel				639668	644000	650000	650332	654000			
Frequency (MHz)				3595.01	3657.52	3840	3789.98	3862.49			
Channel				639334	643668	650000	650332	654000			
Frequency (MHz)				3590.01	3652.52	3840	3784.98	3857.49			
Channel				639000	643334	650000	650332	654000			
Frequency (MHz)				3585.01	3647.52	3840	3779.98	3852.49			
Channel				638668	643000	650000	650332	654000			
Frequency (MHz)				3580.01	3642.52	3840	3774.98	3847.49			
Channel				638334	642668	650000	650332	654000			
Frequency (MHz)				3575.01	3637.52	3840	3769.98	3842.49			
Channel				638000	642334	650000	650332	654000			
Frequency (MHz)				3570.01	3632.52	3840	3764.98	3837.49			
Channel				637668	642000	650000	650332	654000			
Frequency (MHz)				3565.01	3627.52	3840	3759.98	3832.49			
Channel				637334	641668	650000	650332	654000			
Frequency (MHz)				3560.01	3622.52	3840	3754.98	3827.49			
Channel				637000	641334	650000	650332	654000			
Frequency (MHz)				3555.01	3617.52	3840	3749.98	3822.49			
Channel				636668	641000	650000	650332	654000			
Frequency (MHz)				3550.01	3612.52	3840	3744.98	3817.49			
Channel				636334	640668	650000	650332	654000			
Frequency (MHz)				3545.01	3607.52	3840	3739.98	3812.49			
Channel				636000	640334	650000	650332	654000			
Frequency (MHz)				3540.01	3602.52	3840	3734.98	3807.49			
Channel				635668	640000	650000	650332	654000			
Frequency (MHz)				3535.01	3597.52	3840	3729.98	3802.49			
Channel				635334	639668	650000	650332	654000			
Frequency (MHz)				3530.01	3592.52	3840	3724.98	3797.49			
Channel				635000	639334	650000	650332	654000			
Frequency (MHz)				3525.01	3587.52	3840	3719.98	3792.49			
Channel				634668	639000	650000	650332	654000			
Frequency (MHz)				3520.01	3582.52	3840	3714.98	3787.49			
Channel				634334	638668	650000	650332	654000			
Frequency (MHz)				3515.01	3577.52	3840	3709.98	3782.49			
Channel				634000	638334	650000	650332	654000			
Frequency (MHz)				3510.01	3572.52	3840	3704.98	3777.49			
Channel				633668	638000	650000	650332	654000			
Frequency (MHz)				3505.01	3567.52	3840	3699.98	3772.49			
Channel				633334	637668	650000	650332	654000			
Frequency (MHz)				3500.01	3562.52	3840	3694.98	3767.49			
Channel				633000	637334	650000	650332	654000			
Frequency (MHz)				3495.01	3557.52	3840	3689.98	3762.49			
Channel				632668	637000	650000	650332	654000			
Frequency (MHz)				3490.01	3552.52	3840	3684.98	3757.49			
Channel				632334	636668	650000	650332	654000			
Frequency (MHz)				3485.01	3547.52	3840	3679.98	3752.49			
Channel				632000	636334	650000	650332	654000			
Frequency (MHz)				3480.01	3542.52	3840	3674.98	3747.49			
Channel				631668	636000	650000	650332	654000			
Frequency (MHz)				3475.01	3537.52	3840	3669.98	3742.49			
Channel				631334	635668	650000	650332	654000			
Frequency (MHz)				3470.01	3532.52	3840	3664.98	3737.49			
Channel				631000	635334	650000	650332	654000			
Frequency (MHz)				3465.01	3527.52	3840	3659.98	3732.49			
Channel				630668	635000	650000	650332	654000			
Frequency (MHz)				3460.01	3522.52	3840	3654.98	3727.49			
Channel				630334	634668	650000	650332	654000			
Frequency (MHz)				3455.01	3517.52	3840	3649.98	3722.49			
Channel				630000	634334	650000	650332	654000			
Frequency (MHz)				3450.01	3512.52	3840	3644.98	3717.49			
Channel				629668	634000	650000	650332	654000			
Frequency (MHz)				3445.01	3507.52	3840	3639.98	3712.49			
Channel				629334	633668	650000	650332	654000			
Frequency (MHz)				3440.01	3502.52	3840	3634.98	3707.49			
Channel				629000	633334	650000	650332	654000			
Frequency (MHz)				3435.01	3497.52	3840	3629.98	3702.49			
Channel				628668	633000	650000	650332	654000			



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT5													
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
100	DFT-s-OFDM PUSCH	1	1	21.70	21.67	21.70	21.72	21.73	22.7				
100		1	136	21.69	21.63	21.68	21.70	21.69					
100		1	271	21.66	21.49	21.69	21.49	21.56					
100		136	1	20.63	20.67	20.69	20.61	20.62					
100		136	67	20.59	20.56	20.67	20.63	20.62					
100		136	136	20.62	20.45	20.41	20.38	20.38	21.7				
100		270	0	20.62	20.51	20.47	20.55	20.44					
100		1	1	21.70	21.71	21.68	21.75	21.80					
100		1	136	21.70	21.70	21.82	21.71	21.67					
100		1	271	21.74	21.55	21.80	21.53	21.56					
100	DFT-s-OFDM CP-OFDM	136	1	20.65	20.61	20.79	20.73	20.68	21.7				
100		136	67	20.64	20.55	20.72	20.70	20.61					
100		136	136	20.43	20.60	20.51	20.48	20.40					
100		270	0	20.46	20.38	20.57	20.45	20.51					
100		1	1	19.80	19.97	20.05	20.03	20.06					
100		DFT-s-OFDM 4QAM	1	1	18.48	18.51	18.63	18.55	18.58	20.7			
100			1	1	16.28	16.20	16.32	16.30	16.25				
100			Channel		66696	66694	66690	66696	66692			Tune-up limit (dBm)	
100			Frequency (MHz)		3744.99	3792.51	3840	3937.49	3934.98				
100			Frequency (MHz)		21.65	21.58	21.69	21.67	21.63				
100	DFT-s-OFDM PUSCH		1	1	646934	646968	646900	646932	646966	22.7			
100			Frequency (MHz)		3740.01	3790.02	3840	3888.98	3939.99				
100			Frequency (MHz)		21.65	21.59	21.72	21.56	21.63				
100			Channel		646900	646900	646900	646900	646900	Tune-up limit (dBm)			
100			Frequency (MHz)		3736	3787.5	3840	3892.5	3945				
100		Frequency (MHz)		21.63	21.43	21.78	21.74	21.63					
100		DFT-s-OFDM PUSCH	1	1	646968	646934	646900	646966	646932	Tune-up limit (dBm)			
100			Frequency (MHz)		3730.02	3780.01	3840	3894.99	3945.98				
100			Frequency (MHz)		21.66	21.52	21.77	21.67	21.72				
100			Frequency (MHz)		646934	646900	646900	646932	646900				
100	DFT-s-OFDM PUSCH		1	1	3725.01	3780.02	3840	3894.99	3945.98	Tune-up limit (dBm)			
100			Frequency (MHz)		21.49	21.58	21.80	21.76	21.73				
100			Frequency (MHz)		648000	652000	656000	660000	664000	Tune-up limit (dBm)			
100			Frequency (MHz)		3720	3760	3800	3840	3880				
100			Frequency (MHz)		21.63	21.66	21.82	21.72	21.80				
100			DFT-s-OFDM PUSCH	1	1	647668	651634	656000	660166	664332	Tune-up limit (dBm)		
100		Frequency (MHz)		3715.02	3777.51	3840	3902.49	3964.98					
100		Frequency (MHz)		21.64	21.72	21.80	21.73	21.75					
100		DFT-s-OFDM PUSCH		1	1	647334	651668	656000	660332	664666	Tune-up limit (dBm)		
100				Frequency (MHz)		3710.01	3775.02	3840	3904.98	3969.99			
100	DFT-s-OFDM PUSCH			1	1	21.77	21.75	21.81	21.80	21.79	22.7		
100				Frequency (MHz)		3750	3795	3840	3895	3940			
100				Frequency (MHz)		19.47	19.59	19.82	19.80	19.52			
100				Frequency (MHz)		19.20	19.28	19.28	19.35	19.30			
100				Frequency (MHz)		17.42	17.55	17.42	17.81	17.60			
100			Frequency (MHz)		13.90	14.16	14.03	14.36	14.25	15.7			
100			Frequency (MHz)		19.47	19.59	19.82	19.80	19.52				
100			Frequency (MHz)		19.20	19.28	19.28	19.35	19.30				
100		Frequency (MHz)		17.42	17.55	17.42	17.81	17.60					
100		Frequency (MHz)		13.90	14.16	14.03	14.36	14.25					

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT5												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1	21.72	21.69	21.70	21.68	21.72	22.7			
100		1	136	21.68	21.67	21.68	21.67	21.75				
100		1	271	21.66	21.65	21.67	21.63	21.62				
100		136	1	20.63	20.61	20.66	20.63	20.60				
100		136	67	20.63	20.65	21.01	20.60	20.58				
100		136	136	20.61	21.01	20.87	21.00	20.94	21.7			
100		270	0	20.66	20.91	20.86	20.88	20.99				
100		1	1	21.79	21.68	21.81	21.76	21.72				
100		1	136	21.55	21.68	21.70	21.68	21.65				
100		1	271	21.68	21.77	21.61	21.61	21.51				
100	DFT-s-OFDM CP-OFDM	136	1	20.62	20.79	20.92	20.79	20.88	21.7			
100		136	67	20.61	20.60	20.99	20.60	20.55				
100		136	136	20.59	21.02	20.83	20.98	20.92				
100		270	0	20.58	20.90	20.97	20.93	20.92				
100		1	1	20.90	20.94	20.87	20.92	20.91				
100		DFT-s-OFDM SRS	1	1	19.84	19.66	19.88	20.03	19.96		20.7	
100		DFT-s-OFDM SRS	1	1	18.96	18.76	18.88	18.91	18.95		18.7	
Channel												
Frequency (MHz)												
100		DFT-s-OFDM PUSCH	1	1	3744.99	3792.51	3840	3937.49	3934.98		Tune-up limit (dBm)	
100	DFT-s-OFDM PUSCH	1	1	21.72	21.62	21.71	21.69	21.69	22.7			
100	DFT-s-OFDM PUSCH	1	1	646934	646968	646900	646932	646966	Tune-up limit (dBm)			
100	DFT-s-OFDM PUSCH	1	1	3740.01	3790.02	3840	3888.98	3939.99	Tune-up limit (dBm)			
80	DFT-s-OFDM PUSCH	1	1	21.76	21.61	21.68	21.73	21.71	22.7			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1	646900	646900	646900	646900	646900	Tune-up limit (dBm)			
100	DFT-s-OFDM PUSCH	1	1	3736	3787.5	3840	3892.5	3945	Tune-up limit (dBm)			
100	DFT-s-OFDM PUSCH	1	1	21.75	21.62	21.72	21.73	21.64	22.7			
100	DFT-s-OFDM PUSCH	1	1	646968	646934	646900	646966	646932	Tune-up limit (dBm)			
100	DFT-s-OFDM PUSCH	1	1	3730.02	3780.01	3840	3894.99	3945.98	Tune-up limit (dBm)			
100	DFT-s-OFDM PUSCH	1	1	21.75	21.64	21.76	21.71	21.74	22.7			
100	DFT-s-OFDM PUSCH	1	1	646934	646900	646900	646932	646900	Tune-up limit (dBm)			
100	DFT-s-OFDM PUSCH	1	1	3725.01	3780.02	3840	3894.99	3945.98	Tune-up limit (dBm)			
100	DFT-s-OFDM PUSCH	1	1	21.76	21.78	21.73	21.78	21.73	21.7			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1	646900	650000	656000	660000	664000	Tune-up limit (dBm)			
100	DFT-s-OFDM PUSCH	1	1	3720	3760	3800	3840	3880	Tune-up limit (dBm)			
40	DFT-s-OFDM PUSCH	1	1	21.68	21.71	21.66	21.74	21.68	21.7			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1	647668	651634	656000	660166	664332	Tune-up limit (dBm)			
100	DFT-s-OFDM PUSCH	1	1	3715.02	3777.51	3840	3902.49	3964.98	Tune-up limit (dBm)			
100	DFT-s-OFDM PUSCH	1	1	21.79	21.80	21.75	21.73	21.73	22.7			
100	DFT-s-OFDM PUSCH	1	1	647334	651668	656000	660332	664666	Tune-up limit (dBm)			
100	DFT-s-OFDM PUSCH	1	1	3710.01	3775.02	3840	3904.98	3969.99	Tune-up limit (dBm)			
20	DFT-s-OFDM PUSCH	1	1	21.79	21.54	21.65	21.71	21.65	22.7			
Channel												
Frequency (MHz)												
100	CP-OFDM CP-OFDM	1	1	20.21	20.08	20.27	20.19	20.17	21.2			
100	CP-OFDM SRS	1	1	20.24	20.08	20.21	20.20	20.18	21.2			
100	CP-OFDM SRS	1	1	19.34	19.32	19.25	19.35	19.49	20.2			
100	CP-OFDM SRS	1	1	16.95	16.92	17.02	17.00	16.92	18.2			
Channel												
Frequency (MHz)												
100	CP-OFDM CP-OFDM	1	1	20.21	20.08	20.27	20.19	20.17	21.2			
100	CP-OFDM SRS	1	1	20.24	20.08	20.21	20.20	20.18	21.2			
100	CP-OFDM SRS	1	1	19.34	19.32	19.25	19.35	19.49	20.2			
100	CP-OFDM SRS	1	1	16.95	16.92	17.02	17.00	16.92	18.2			



n78 (3450 MHz ~ 3550 MHz) (PC3)_ANT4									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel									
Frequency (MHz)					3504.01	633334			
100	DFT-s-OFDM PQ PSFK	1	1		17.56				18.7
100		1	136		17.62				
100		1	271		17.59				
100		136	1		16.72				
100		136	67		16.59				
100		136	136		16.58				17.7
100		270	0		16.56				
100		1	1		17.54	17.54			
100		1	136		17.75				
100		1	271		17.63				
100	DFT-s-OFDM QPSK	136	1		16.70	16.70			17.7
100		136	67		16.64	16.64			
100		136	136		16.68				17.7
100		270	0		16.73				
100	DFT-s-OFDM 16QAM	1	1		16.62				17.7
100	DFT-s-OFDM 64QAM	1	1		17.40				16.7
100	DFT-s-OFDM 256QAM	1	1		15.02				15.7
Channel									
Frequency (MHz)				633000	633168	633334	633500	633666	Tune-up limit (dBm)
				3495	3497.52	3500.01	3502.51	3504.99	
50	DFT-s-OFDM PQ PSFK	1	1	17.61	17.57	17.58	17.67	17.62	18.7
50					3495.01	3497.52	3500.01	3502.51	
Channel				3495.02	3496	3500.01	3504.99	3512	Tune-up limit (dBm)
80	DFT-s-OFDM PQ psk	1	1	17.67	17.59	17.62	17.57	17.52	18.7
80									
Channel				632334	632834	633334	633832	634332	Tune-up limit (dBm)
Frequency (MHz)				3498.51	3492.51	3500.51	3507.48	3514.98	
70	DFT-s-OFDM PQ PSFK	1	1	17.60	17.38	17.80	17.38	17.48	18.7
70									
Channel				632000	632668	633334	634006	634668	Tune-up limit (dBm)
Frequency (MHz)				3498	3495.52	3504.01	3510	3518.89	
60	DFT-s-OFDM PQ psk	1	1	17.67	17.56	17.65	17.58	17.50	18.7
60									
Channel				631968	632000	633334	634156	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3487.5	3500.01	3510	3521	
50	DFT-s-OFDM PQ PSFK	1	1	17.64	17.53	17.59	17.49	17.42	24.2
50									
Channel				631334	632034	633334	634032	635032	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM PQ psk	1	1	17.74	17.81	17.73	17.78	17.67	24.2
40									
Channel				631000	632168	633334	634500	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3462.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM PQ psk	1	1	17.67	17.77	17.72	17.59	17.52	24.2
30									
Channel				630968	632000	633334	634668	635900	Tune-up limit (dBm)
Frequency (MHz)				3493.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM PQ psk	1	1	17.80	17.83	17.76	17.48	17.45	24.2
20									
Channel									
Frequency (MHz) <td></td> <td></td> <td>633334</td> <td></td> <td></td> <td>Tune-up limit (dBm)</td>						633334			Tune-up limit (dBm)
100	DFT-s-OFDM QPSK	1	1		16.24				17.2
100									
100	DFT-s-OFDM 16QAM	1	1		16.18				17.2
100	DFT-s-OFDM 64QAM	1	1		15.41				16.2
100	DFT-s-OFDM 256QAM	1	1		12.40				13.2



n78 (3450 MHz ~ 3550 MHz) (PC2)_ANT5											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	DFT-s-OFDM PUSCH	1	1			21.56			22.7		
100		1	136			21.44					
100		1	271			21.47					
100		136	1			20.74					
100		136	67			20.63					
100		136	136			20.58					
100		270	0			20.50					
100		1	1			21.77					
100		1	136			21.74					
100		1	271			21.73					
100	DFT-s-OFDM PUSCH	136	1			20.80			21.7		
100		136	67			20.79					
100		136	136			20.78					
100		270	0			20.75					
100		1	1			20.68					
100		1	1			19.92					
100		1	1			19.90					
100		1	1			19.90					
100		1	1			19.90					
100		1	1			19.90					
Channel											
Frequency (MHz)											
90	DFT-s-OFDM PUSCH	1	1		3495	3497.52	3500.01	3502.5	3504.99	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
80	DFT-s-OFDM PUSCH	1	1		3492.04	3494.56	3497.08	3500.01	3502.5	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
80	DFT-s-OFDM PUSCH	1	1		21.63	21.56	21.75	21.71	21.75	22.7	
Channel											
Frequency (MHz)											
70	DFT-s-OFDM PUSCH	1	1		21.62	21.54	21.68	21.67	21.68	22.7	
Channel											
Frequency (MHz)											
60	DFT-s-OFDM PUSCH	1	1		21.67	21.61	21.59	21.68	21.65	22.7	
Channel											
Frequency (MHz)											
50	DFT-s-OFDM PUSCH	1	1		21.69	21.76	21.63	21.70	21.71	22.7	
Channel											
Frequency (MHz)											
40	DFT-s-OFDM PUSCH	1	1		21.71	21.74	21.75	21.71	21.74	22.7	
Channel											
Frequency (MHz)											
30	DFT-s-OFDM PUSCH	1	1		21.81	21.89	21.66	21.65	21.58	22.7	
Channel											
Frequency (MHz)											
20	DFT-s-OFDM PUSCH	1	1		21.86	21.45	21.50	21.46	21.45	22.7	
Channel											
Frequency (MHz)											
100	CP-OFDM	1	1			19.90				20.7	
100	CP-OFDM	1	1			19.74				20.7	
100	CP-OFDM	1	1			19.82				18.7	
100	CP-OFDM	1	1			14.89				15.7	

n78 (3450 MHz ~ 3550 MHz) (PC3)_ANT5										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low-Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM PUSCH	1	1			21.66			22.7	
100		1	136			21.42				
100		1	271			21.59				
100		136	1			20.72			21.7	
100		136	67			20.65				
100		136	136			20.58				
100		270	0			20.55				
100		1	1			21.84			22.7	
100		1	136			21.75				
100		1	271			21.63				
100	136	1			20.79			21.7		
100	136	67			20.64					
100	136	136			20.58					
100	270	0			20.73					
100	DFT-s-OFDM RS-SM	1	1			20.82				
100	DFT-s-OFDM RS-SM	1	1			21.40				20.7
100	DFT-s-OFDM RS-SM	1	1			19.02				19.7
Channel										
Frequency (MHz)										
50	DFT-s-OFDM PUSCH	1	1	635050	631668	633334	635000	636666	Time-up limit (dBm)	
				3495	3497.52	3500.01	3502.5	3504.98		
				21.61	21.58	21.58	21.57	21.62	22.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM PUSCH	1	1	635050	631668	633334	635000	636666	Time-up limit (dBm)	
				3495.52	3495	3500.01	3504.98	3515		
				21.67	21.59	21.62	21.57	21.52	22.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM PUSCH	1	1	632334	630834	633334	635832	634332	Time-up limit (dBm)	
				3449.51	3452.51	3500.01	3507.46	3514.98		
				21.60	21.58	21.60	21.38	21.48	22.7	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM PUSCH	1	1	635050	631668	633334	635000	636666	Time-up limit (dBm)	
				3495.52	3495	3500.01	3510	3519.98		
				21.67	21.66	21.65	21.58	21.50	22.7	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM PUSCH	1	1	631668	630500	633334	634166	635000	Time-up limit (dBm)	
				3475.52	3487.5	3500.01	3510	3525		
				21.64	21.53	21.59	21.49	21.42	24.2	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM PUSCH	1	1	631334	632334	633334	634332	635332	Time-up limit (dBm)	
				3472.51	3484.5	3500.01	3515.98	3524.98		
				21.74	21.81	21.73	21.78	21.67	24.2	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM PUSCH	1	1	631000	632166	633334	634500	635666	Time-up limit (dBm)	
				3465	3462.52	3500.01	3517.5	3524.98		
				21.77	21.73	21.72	21.59	21.52	24.2	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM PUSCH	1	1	630666	632000	633334	634666	635000	Time-up limit (dBm)	
				3472.52	3482.5	3500.01	3515.98			
				21.80	21.83	21.75	21.48	21.45	24.2	
Channel										
Frequency (MHz)										
100	CP-OFDM	1	1			20.24			21.2	
100	CP-OFDM	1	1			20.18			21.2	
100	CP-OFDM	1	1			19.41			20.2	
100	CP-OFDM	1	1			16.40			17.2	



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT3										
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	Mid/High Channel	High Channel	Turn-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM P2/BPSK	1	1			16.60			17.7	
100		1	136			16.58				
100		1	271			16.54				
100		135	67			15.50				
100		135	136			15.50				
100	DFT-s-OFDM QPSK	270	0			15.51			16.7	
100		1	1			16.68				
100		1	136			16.61				
100		1	271			16.59				
100		135	1			15.51				
100	DFT-s-OFDM 16QAM	135	67			15.75			16.7	
100		135	136			15.69				
100		270	0			15.55				
100		1	1			15.84				
100		DFT-s-OFDM 64QAM	1	1			13.86			
100	DFT-s-OFDM 256QAM	1	1			11.41			12.7	
Channel										
Frequency (MHz)										
				849865	849834	850000	850165	850332	Turn-up limit (dBm)	
				3745.02	3744.51	3750	3752.49	3754.81	17.7	
90	DFT-s-OFDM QPSK	1	1	16.43	16.65	16.52	16.51	16.50	17.7	
Channel										
Frequency (MHz)										
				849334	849958	850000	850032	850096	Turn-up limit (dBm)	
				3745.01	3749.50	3750	3754.58	3769.48	17.7	
80	DFT-s-OFDM QPSK	1	1	16.47	16.52	16.57	16.62	16.59	17.7	
Channel										
Frequency (MHz)										
				849000	849550	850000	850050	851090	17.7	
				3735	3742.5	3750	3757.5	3765		
70	DFT-s-OFDM QPSK	1	1	16.47	16.41	16.64	16.65	16.61	17.7	
Channel										
Frequency (MHz)										
				849868	849334	850000	850066	851132	Turn-up limit (dBm)	
				3745.02	3749.51	3750	3764.99	3769.48	17.7	
60	DFT-s-OFDM QPSK	1	1	16.61	16.58	16.51	16.56	16.60	17.7	
Channel										
Frequency (MHz)										
				849334	849168	850000	850032	851666	Turn-up limit (dBm)	
				3725.01	3737.52	3750	3769.99	3774.99		
50	DFT-s-OFDM QPSK	1	1	16.59	16.60	16.64	16.46	16.51	17.7	
Channel										
Frequency (MHz)										
				849000	849500	850000	851000	852000	Turn-up limit (dBm)	
40	DFT-s-OFDM QPSK	1	1	16.59	16.50	16.53	16.56	16.42	17.7	
Channel										
Frequency (MHz)										
				849334	848868	850000	851032	852096	Turn-up limit (dBm)	
				3735.01	3739.50	3750	3769.58	3789.49		
30	DFT-s-OFDM QPSK	1	1	16.56	16.53	16.47	16.50	16.55	17.7	
Channel										
Frequency (MHz)										
				849000	849500	850000	851000	852000	Turn-up limit (dBm)	
20	DFT-s-OFDM QPSK	1	1	16.56	16.53	16.47	16.50	16.55	17.7	
Channel										
Frequency (MHz)										
				849000	849500	850000	851000	852000	Turn-up limit (dBm)	
100	CP-OFDM QPSK	1	1			14.57			15.7	
100	CP-OFDM 16QAM	1	1			14.32			15.7	
100	CP-OFDM 64QAM	1	1			12.52			13.7	
100	CP-OFDM 256QAM	1	1			9.20			10.7	

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM P2/BPSK	1	1			16.19			17.2	
100		1	136			16.12				
100		1	271			16.08				
100		135	1			15.23				
100		135	67			15.19				
100	DFT-s-OFDM QPSK	135	136			15.22			16.2	
100		270	0			15.12				
100		1	1			16.25				
100		1	136			16.16				
100		1	271			16.11				
100	DFT-s-OFDM 16QAM	135	1			15.24			17.2	
100		135	67			15.22				
100		135	136			15.23				
100		270	0			15.07				
100		1	1			15.16				
100	DFT-s-OFDM 64QAM	1	1			15.10			16.2	
100		1	1			15.10				
100		1	1			13.12				
100		1	1			84986	84954	85000		
100		1	1			8745.92	3747.51	3750		
90	DFT-s-OFDM QPSK	1	1		16.16	16.15	16.13	16.06	16.12	17.2
80		1	1		16.16	16.12	16.05	16.07	16.14	17.2
70		1	1		16.08	16.14	16.10	16.14	16.11	17.2
60		1	1		16.14	16.09	16.06	16.10	16.07	17.2
50		1	1		16.20	16.07	16.17	16.09	16.13	24.7
40	DFT-s-OFDM QPSK	1	1		16.01	16.06	16.20	16.22	16.12	24.7
30		1	1		16.13	16.09	16.18	16.11	16.16	24.7
20		1	1		16.13	16.09	16.18	16.11	16.16	24.7
10		1	1		16.13	16.09	16.18	16.11	16.16	24.7
100		DFT-s-OFDM QPSK	1	1			15.07			15.7
100	1		1			15.04				
100	1		1			14.27				
100	1		1			11.15				
100	1		1			11.15				



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT4												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM P2/BPSK	1	1			17.40			16.7			
100		1	136			17.56						
100		1	271			17.54						
100		135	1			16.56						
100		135	67			16.52						
100	DFT-s-OFDM QPSK	135	136			16.55			17.7			
100		270	0			16.51						
100		1	1			17.56						
100		1	136			17.51						
100		1	271			17.55						
100	DFT-s-OFDM 16QAM	135	1			16.51			17.7			
100		135	67			16.75						
100		135	136			16.59						
100		270	0			16.55						
100		1	1			16.84						
100	DFT-s-OFDM 64QAM	1	1			14.86			15.7			
100		1	1			12.41						
100	DFT-s-OFDM 256QAM	1	1			64866	64864	65000	Tune-up limit (dBm)			
Channel												
90	DFT-s-OFDM QPSK	1	1	3746.02	3747.01	3750	3752.49	3754.98	16.7			
Channel												
Frequency (MHz)												
80	DFT-s-OFDM QPSK	1	1	17.47	17.52	17.57	17.62	17.59	16.7			
Channel												
Frequency (MHz)												
70	DFT-s-OFDM QPSK	1	1	17.47	17.41	17.64	17.65	17.61	16.7			
Channel												
Frequency (MHz)												
60	DFT-s-OFDM QPSK	1	1	17.61	17.58	17.51	17.56	17.60	16.7			
Channel												
Frequency (MHz)												
50	DFT-s-OFDM QPSK	1	1	17.59	17.60	17.64	17.46	17.51	16.7			
Channel												
Frequency (MHz)												
40	DFT-s-OFDM QPSK	1	1	17.56	17.59	17.53	17.56	17.42	16.7			
Channel												
Frequency (MHz)												
20	DFT-s-OFDM QPSK	1	1	17.56	17.53	17.47	17.60	17.45	16.7			
Channel												
Frequency (MHz)												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune-up limit (dBm)		
Channel												
Frequency (MHz)												
100	CP-OFDM QPSK	1	1			15.57			16.7			
100		1	1			15.32						
100		1	1			13.52						
100		1	1			10.20						

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT4												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM P2/BPSK	1	1			21.19			22.2			
100		1	136			21.12						
100		1	271			21.06						
100		135	1			20.23						
100		135	67			20.19						
100	DFT-s-OFDM QPSK	135	136			20.22			21.2			
100		270	0			20.12						
100		1	1			21.25						
100		1	136			21.16						
100		1	271			21.11						
100	DFT-s-OFDM 16QAM	135	1			20.24			21.2			
100		135	67			20.22						
100		135	136			20.23						
100		270	0			20.07						
100		1	1			20.16						
100	DFT-s-OFDM 64QAM	1	1			20.10			21.2			
100		1	1			18.12						
100	DFT-s-OFDM 256QAM	1	1			18.12			19.2			
Channel												
90	DFT-s-OFDM QPSK	1	1	64868	64864	65000	65006	65032	Tune-up limit (dBm)			
Frequency (MHz)												
3745.02 3747.51 3750 3752.49 3754.98												
80	DFT-s-OFDM QPSK	1	1	21.16	21.15	21.13	21.06	21.12	22.2			
Channel												
648334 648668 650000 650332 650666												
80	DFT-s-OFDM QPSK	1	1	20.85	21.02	21.05	21.07	21.14	22.2			
Channel												
648500 648834 650000 650332 650666												
70	DFT-s-OFDM QPSK	1	1	21.08	21.14	21.10	21.14	21.11	22.2			
Channel												
648334 648668 650000 650332 650666												
60	DFT-s-OFDM QPSK	1	1	21.14	21.21	21.16	21.12	21.20	22.2			
Channel												
648334 648668 650000 650332 650666												
50	DFT-s-OFDM QPSK	1	1	21.20	21.07	21.17	21.00	21.13	24.7			
Channel												
648500 648834 650000 650332 650666												
40	DFT-s-OFDM QPSK	1	1	21.61	21.06	21.26	21.22	21.12	24.7			
Channel												
647834 648368 650000 651332 652666												
20	DFT-s-OFDM QPSK	1	1	21.13	21.09	21.18	21.11	21.16	24.7			
Channel												
647834 648368 650000 651332 652666												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	CP-OFDM QPSK	1	1			20.07			20.7			
100		1	1			20.04						
100		1	1			19.27						
100		1	1			16.15						



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT5											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/Mod/High Channel	High Channel	Tune-up limit (dBm)			
Channel											
Frequency (MHz)											
100	DFT-s-OFDM P2/BPSK	1	1			21.80			22.7		
100		1	136			21.58					
100		1	271			21.54					
100		135	1			20.58					
100		135	67			20.52					
100		135	136			20.55					
100		270	0			20.51					
100		1	1			21.68					
100		1	136			21.61					
100		1	271			21.55					
100	DFT-s-OFDM QPSK	1	1			20.51			21.7		
100		135	1			20.51					
100		135	67			20.75					
100		135	136			20.59					
100		270	0			20.55					
100		1	1			20.84					
100		1	1			18.86					
100		1	1			18.41					
100		1	1			65000	65032				
100		1	1			3750	3752.48	3754.98			
90	DFT-s-OFDM QPSK	1	1	21.43	21.65	21.52	21.51	21.50			
90		Channel									
90		Frequency (MHz)									
90		649334	649668	650000	650332	650666		Tune-up limit (dBm)			
90		3740.01	3745.02	3750	3754.98	3759.99					
80	DFT-s-OFDM QPSK	1	1	21.47	21.52	21.57	21.62	21.59			
80		Channel									
80		Frequency (MHz)									
80		649000	649334	650000	650332	650666		Tune-up limit (dBm)			
80		3735	3742.5	3750	3757.5	3765					
70	DFT-s-OFDM QPSK	1	1	21.47	21.41	21.64	21.65	21.61			
70		Channel									
70		Frequency (MHz)									
70		648668	649004	650000	650666	651332		Tune-up limit (dBm)			
70		3730.02	3740.01	3750	3759.99	3769.98					
60	DFT-s-OFDM QPSK	1	1	21.61	21.58	21.51	21.56	21.60			
60		Channel									
60		Frequency (MHz)									
60		648334	648668	650000	650332	650666		Tune-up limit (dBm)			
60		3725.01	3735.02	3750	3759.99	3769.98					
50	DFT-s-OFDM QPSK	1	1	21.50	21.80	21.64	21.46	21.51			
50		Channel									
50		Frequency (MHz)									
50		648000	648000	650000	651000	652000		Tune-up limit (dBm)			
50		3720	3735	3750	3765	3780					
40	DFT-s-OFDM QPSK	1	1	21.58	21.50	21.53	21.56	21.42			
40		Channel									
40		Frequency (MHz)									
40		647334	648000	650000	651332	652666		Tune-up limit (dBm)			
40		3710.01	3720.02	3750	3759.99	3769.98					
30	DFT-s-OFDM QPSK	1	1	21.50	21.53	21.47	21.80	21.55			
30		Channel									
30		Frequency (MHz)									
30		647000	648000	650000	651000	652000		Tune-up limit (dBm)			
30		3705	3720	3750	3765	3780					
20	DFT-s-OFDM QPSK	1	1	21.50	21.53	21.47	21.80	21.55			
20		Channel									
20		Frequency (MHz)									
20		646668	648000	650000	651000	652000		Tune-up limit (dBm)			
20		3700	3715	3750	3765	3780					
10	DFT-s-OFDM QPSK	1	1	21.50	21.53	21.47	21.80	21.55			
10		Channel									
10		Frequency (MHz)									
10		646334	648000	650000	651000	652000		Tune-up limit (dBm)			
10		3695	3710	3750	3765	3780					
5	DFT-s-OFDM QPSK	1	1	21.50	21.53	21.47	21.80	21.55			
5		Channel									
5		Frequency (MHz)									
5		646000	648000	650000	651000	652000		Tune-up limit (dBm)			
5		3690	3705	3750	3765	3780					

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT5											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/Mod/High Channel	High Channel	Tune-up limit (dBm)			
Channel											
Frequency (MHz)											
100	DFT-s-OFDM P2/BPSK	1	1			21.19		22.2			
100		1	136			21.12					
100		1	271			21.08					
100		135	1			20.23					
100		135	67			20.19					
100		135	136			20.22					
100		270	0			20.12					
100		1	1			21.25					
100		1	136			21.18					
100		1	271			21.11					
100	DFT-s-OFDM QPSK	135	1			20.24		21.2			
100		135	67			20.22					
100		135	136			20.23					
100		270	0			20.07					
100		1	1			20.16					
100		1	1			20.10					
100		DFT-s-OFDM 256QAM	1	1			18.12				
100		Channel									
100		Frequency (MHz)									
100		648668	648634	650000		650166	650332			Tune-up limit (dBm)	
90	DFT-s-OFDM QPSK	1	1	21.16	21.15	21.13	21.06	21.12	22.2		
90	Channel										
90	Frequency (MHz)										
90	648334	648668	650000		650332	650666		Tune-up limit (dBm)			
80	DFT-s-OFDM QPSK	1	1	20.85	21.02	21.05	21.07	21.14	22.2		
80	Channel										
80	Frequency (MHz)										
80	648000	648668	650000		650666	651000		Tune-up limit (dBm)			
70	DFT-s-OFDM QPSK	1	1	21.08	21.14	21.10	21.14	21.11	22.2		
70	Channel										
70	Frequency (MHz)										
70	648668	649334	650000		650666	651332		Tune-up limit (dBm)			
60	DFT-s-OFDM QPSK	1	1	21.14	21.21	21.18	21.12	21.20	22.2		
60	Channel										
60	Frequency (MHz)										
60	648334	648668	650000		650832	651666		Tune-up limit (dBm)			
50	DFT-s-OFDM QPSK	1	1	21.20	21.07	21.17	21.09	21.13	24.7		
50	Channel										
50	Frequency (MHz)										
50	648000	649000	650000		651000	652000		Tune-up limit (dBm)			
40	DFT-s-OFDM QPSK	1	1	21.01	21.06	21.20	21.22	21.12	24.7		
40	Channel										
40	Frequency (MHz)										
40	647934	648888	650000		651832	652666		Tune-up limit (dBm)			
30	DFT-s-OFDM QPSK	1	1	21.13	21.09	21.18	21.11	21.16	24.7		
30	Channel										
30	Frequency (MHz)										
30	647800	648200	650000		650600	651000		Tune-up limit (dBm)			
100	Channel										
100	Frequency (MHz)										
100	3790										
100	Channel										
100	Frequency (MHz)										
100	648000										
100	Channel										
100	Frequency (MHz)										
100	648000										
100	Channel										
100	Frequency (MHz)										
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CA_48C_Ant 4 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
55340	55340	55538	QPSK	1	0	0	0	1	0	18.56	19.50
55990	55891	56089	QPSK	1	0	0	0	1	0	18.72	19.50
56640	56442	56640	QPSK	1	0	0	0	1	0	18.48	19.50
55340	55340	55538	16QAM	1	0	0	0	1	0	17.99	19.00
55990	55891	56089	16QAM	1	0	0	0	1	0	18.12	19.00
56640	56442	56640	16QAM	1	0	0	0	1	0	17.94	19.00
55340	55340	55538	64QAM	1	0	0	0	1	0	16.81	17.50
55990	55891	56089	64QAM	1	0	0	0	1	0	16.88	17.50
56640	56442	56640	64QAM	1	0	0	0	1	0	16.79	17.50
55340	55340	55538	QPSK	50	0	0	0	1	0	17.75	18.50
55990	55891	56089	QPSK	50	0	0	0	1	0	17.82	18.50
56640	56442	56640	QPSK	50	0	0	0	1	0	17.72	18.50



Reduced Power Level 2 for Ant7

5GHz WLAN ANT 7

5.2GHz WLAN ANT 7	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	17.69	19.50	17.50	98.10
		CH 44	5220	18.00	20.00	17.50	
		CH 48	5240	18.06	20.00	17.50	
	802.11n-HT20 MCS0	CH 36	5180	18.25	20.00	17.50	98.57
		CH 44	5220	18.53	20.50	17.50	
		CH 48	5240	18.64	20.50	17.50	
	802.11n-HT40 MCS0	CH 38	5190	18.69	20.50	17.50	96.94
		CH 46	5230	17.98	19.50	17.50	
	802.11ac-VHT20 MCS0	CH 36	5180	16.60	18.50	16.00	98.48
		CH 44	5220	16.92	18.50	16.00	
		CH 48	5240	16.29	18.00	16.00	
	802.11ac-VHT40 MCS0	CH 38	5190	16.48	18.00	16.00	95.96
		CH 46	5230	16.72	18.50	16.00	
	802.11ac-VHT80 MCS0	CH 42	5210	16.82	18.50	16.00	92.00

5GHz WLAN ANT 7

5.3GHz WLAN ANT 7	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 52	5260	16.24	18.00	15.50	98.57
		CH 60	5300	16.27	18.00	15.50	
		CH 64	5320	16.53	18.50	15.50	
	802.11n-HT20 MCS0	CH 52	5260	16.77	18.50	15.50	98.57
		CH 60	5300	16.00	18.00	15.50	
		CH 64	5320	16.31	18.00	15.50	
	802.11n-HT40 MCS0	CH 54	5270	16.38	18.00	15.50	96.94
		CH 62	5310	16.89	18.50	15.50	
	802.11ac-VHT20 MCS0	CH 52	5260	14.39	16.00	14.00	98.48
		CH 60	5300	14.55	16.50	14.00	
		CH 64	5320	14.92	16.50	14.00	
	802.11ac-VHT40 MCS0	CH 54	5270	14.43	16.00	14.00	96.97
		CH 62	5310	15.12	17.00	14.00	
	802.11ac-VHT80 MCS0	CH 58	5290	15.16	17.00	14.00	94.00

5GHz WLAN ANT 7

5.5GHz WLAN ANT 7	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 100	5500	16.77	18.50	15.00	98.57
		CH 120	5600	16.86	18.50	15.00	
		CH 144	5720	15.52	17.50	15.00	
	802.11n-HT20 MCS0	CH 100	5500	16.58	18.50	15.00	98.47
		CH 120	5600	15.78	17.50	15.00	
		CH 144	5720	15.86	17.50	15.00	
	802.11n-HT40 MCS0	CH 102	5510	16.86	18.50	15.00	96.94
		CH 126	5630	16.15	18.00	15.00	
		CH 142	5710	16.17	18.00	15.00	
	802.11ac-VHT20 MCS0	CH 100	5500	15.65	17.50	15.00	98.48
		CH 120	5600	15.30	17.00	15.00	
		CH 144	5720	15.49	17.00	15.00	
	802.11ac-VHT40 MCS0	CH 102	5510	15.95	17.50	15.00	96.97
		CH 126	5630	15.91	17.50	15.00	
		CH 142	5710	15.87	17.50	15.00	
	802.11ac-VHT80 MCS0	CH 106	5530	15.96	17.50	15.00	94.00
		CH 122	5610	15.66	17.50	15.00	
		CH 138	5690	15.62	17.50	15.00	

5GHz WLAN ANT 7

5.8GHz WLAN ANT 7	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	16.64	18.50	16.50	98.57
		CH 157	5785	17.01	19.00	16.50	
		CH 165	5825	16.42	18.00	16.50	
	802.11n-HT20 MCS0	CH 149	5745	16.99	18.50	16.50	98.47
		CH 157	5785	17.36	19.00	16.50	
		CH 165	5825	17.30	19.00	16.50	
	802.11n-HT40 MCS0	CH 151	5755	17.35	19.00	16.50	96.94
		CH 159	5795	17.83	19.50	16.50	
	802.11ac-VHT20 MCS0	CH 149	5745	15.56	17.50	15.00	97.97
		CH 157	5785	15.60	17.50	15.00	
		CH 165	5825	15.85	17.50	15.00	
	802.11ac-VHT40 MCS0	CH 151	5755	15.42	17.00	15.00	96.97
		CH 159	5795	16.33	18.00	15.00	
	802.11ac-VHT80 MCS0	CH 155	5775	15.63	17.50	15.00	94.00



Reduced Power Level 3 for Ant1

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	128	189	251		128	189	251		
TX Channel	824.2	836.4	848.6		824.2	836.4	848.6		
Frequency (MHz)	1850.2	1880	1900.8		1850.2	1880	1900.8		
GSM 1 Tx slot	12.66	12.74	12.71	13.50	3.66	3.74	3.71	4.50	0.17
GPRS 1 Tx slot	12.68	12.78	12.74	13.50	3.68	3.78	3.74	4.50	0.10
GPRS 2 Tx slots	10.55	10.59	10.46	11.50	4.55	4.59	4.46	5.50	0.23
GPRS 3 Tx slots	9.11	9.16	9.05	10.00	4.85	4.90	4.79	5.74	0.16
GPRS 4 Tx slots	8.06	8.23	8.16	9.00	5.06	5.23	5.16	6.00	0.08
EDGE 1 Tx slot	8.96	9.07	9.03	10.50	-0.02	0.07	0.03	1.50	0.14
EDGE 2 Tx slots	7.14	7.36	7.24	8.00	1.14	1.36	1.24	2.00	0.09
EDGE 3 Tx slots	5.92	6.04	5.96	6.70	1.66	1.78	1.70	2.44	0.12
EDGE 4 Tx slots	5.59	5.82	5.72	6.70	2.59	2.82	2.72	3.70	0.23
Mode	Max.	18.73			Max.	10.75			
Attenuator	Cable Loss : 0.6								

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	512	661	810		512	661	810		
TX Channel	1850.2	1880	1900.8		1850.2	1880	1900.8		
Frequency (MHz)	12.66	12.74	12.71	13.50	3.66	3.74	3.71	4.50	0.12
GSM 1 Tx slot	12.68	12.78	12.74	13.50	3.68	3.78	3.74	4.50	0.13
GPRS 1 Tx slot	10.55	10.59	10.46	11.50	4.55	4.59	4.46	5.50	0.11
GPRS 2 Tx slots	9.11	9.16	9.05	10.00	4.85	4.90	4.79	5.74	0.17
GPRS 3 Tx slots	8.06	8.23	8.16	9.00	5.06	5.23	5.16	6.00	0.09
GPRS 4 Tx slots	8.96	9.07	9.03	10.50	-0.02	0.07	0.03	1.50	0.22
EDGE 1 Tx slot	7.14	7.36	7.24	8.00	1.14	1.36	1.24	2.00	0.12
EDGE 2 Tx slots	5.92	6.04	5.96	6.70	1.66	1.78	1.70	2.44	0.23
EDGE 3 Tx slots	5.59	5.82	5.72	6.70	2.59	2.82	2.72	3.70	
EDGE 4 Tx slots	5.59	5.82	5.72	6.70	2.59	2.82	2.72	3.70	
Mode	Max.	12.78			Max.	5.23			
Attenuator	Cable Loss : 0.8								

Band		WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
TX Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Rx Channel		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
Frequency (MHz)		10.89	10.92	10.86	11.80	11.53	11.61	11.56	12.30	16.61	16.67	16.56	17.30
3GPP Rel 99	RMC 12.2Kbps	9.94	10.29	10.19	11.00	10.47	10.93	10.88	11.50	15.35	15.69	15.84	16.50
3GPP Rel 6	HSDPA Subtest-1	10.08	10.34	9.96	11.00	10.48	10.88	10.59	11.50	15.32	15.63	15.28	16.50
3GPP Rel 6	HSDPA Subtest-2	9.50	9.54	9.33	10.50	10.03	10.30	9.82	11.00	14.93	15.12	15.02	16.00
3GPP Rel 6	HSDPA Subtest-3	10.00	9.80	9.67	10.50	10.72	10.46	10.37	-1.50	15.27	15.47	15.02	16.00
3GPP Rel 6	HSDPA Subtest-4	10.29	10.06	9.98	11.00	10.90	10.72	10.44	11.50	15.93	15.57	15.46	16.50
3GPP Rel 8	DC-HSDPA Subtest-1	9.77	9.61	9.47	10.50	10.50	10.17	10.19	11.00	15.57	15.27	15.29	16.00
3GPP Rel 8	DC-HSDPA Subtest-2	9.66	9.35	9.20	10.00	9.83	9.86	9.56	10.50	14.67	14.83	14.42	15.50
3GPP Rel 8	DC-HSDPA Subtest-3	9.51	9.18	9.30	10.50	10.06	9.82	9.99	11.00	14.77	14.52	14.98	16.00
3GPP Rel 8	DC-HSDPA Subtest-4	9.81	9.66	9.78	11.00	10.48	10.02	10.15	11.50	15.40	15.07	15.30	16.50
3GPP Rel 6	HSUPA Subtest-1	8.38	8.11	8.18	9.00	8.85	8.81	8.74	9.50	14.06	13.78	13.72	14.50
3GPP Rel 6	HSUPA Subtest-2	9.38	9.14	9.05	10.00	10.02	9.68	9.73	10.50	14.68	14.51	14.38	15.50
3GPP Rel 6	HSUPA Subtest-3	8.36	8.07	8.07	9.00	8.72	8.72	8.64	9.50	13.73	13.29	13.32	14.50
3GPP Rel 6	HSUPA Subtest-4	9.72	9.56	9.26	10.00	10.20	10.05	9.73	10.50	15.18	15.00	14.95	15.50
3GPP Rel 6	HSUPA Subtest-5	8.25	8.26	8.31	9.00	8.62	8.72	8.75	9.50	13.93	13.62	13.92	14.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1												
Attenuator		Cable Loss			0.8	Cable Loss			0.8	Cable Loss			0.6
Mode		Max.	10.92			Max.	11.61			Max.	16.67		



Band 2 (1900MHz Band) (dBm) Part 24E							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	13.3
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	12.44	12.52	12.46	12.3
20	QPSK	1	49	12.37	12.43	12.39	
20	QPSK	1	99	12.35	12.41	12.40	
20	QPSK	50	0	11.61	11.68	11.58	
20	QPSK	50	24	11.58	11.64	11.60	12.3
20	QPSK	50	50	11.53	11.60	11.58	
20	QPSK	100	0	11.55	11.58	11.53	
20	16QAM	1	0	11.79	11.81	11.79	
20	16QAM	1	49	11.76	11.78	11.70	12.3
20	16QAM	1	99	11.73	11.77	11.76	
20	16QAM	50	0	10.58	10.62	10.55	
20	16QAM	50	24	10.60	10.61	10.54	
20	16QAM	50	50	10.59	10.60	10.53	11.3
20	16QAM	100	0	10.52	10.58	10.54	
20	64QAM	1	0	10.65	10.72	10.69	
20	64QAM	1	49	10.58	10.66	10.61	
20	64QAM	1	99	10.62	10.65	10.60	10.3
20	64QAM	50	0	9.65	9.66	9.58	
20	64QAM	50	24	9.63	9.64	9.62	
20	64QAM	50	50	9.57	9.61	9.58	
20	64QAM	100	0	9.52	9.58	9.52	13.3
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	12.3
15	QPSK	1	0	12.41	12.47	12.40	
15	QPSK	1	37	12.29	12.38	12.34	12.3
15	QPSK	1	74	12.34	12.39	12.35	
15	QPSK	36	0	11.59	11.64	11.61	
15	QPSK	36	20	11.50	11.57	11.59	
15	QPSK	36	39	11.51	11.58	11.57	12.3
15	QPSK	75	0	11.53	11.50	11.46	
15	16QAM	1	0	11.78	11.76	11.72	
15	16QAM	1	37	11.69	11.71	11.66	
15	16QAM	1	74	11.65	11.69	11.71	11.3
15	16QAM	36	0	10.52	10.55	10.54	
15	16QAM	36	20	10.55	10.60	10.48	
15	16QAM	36	39	10.57	10.54	10.45	
15	16QAM	75	0	10.47	10.57	10.49	11.3
15	64QAM	1	0	10.61	10.65	10.65	
15	64QAM	1	37	10.57	10.65	10.53	
15	64QAM	1	74	10.60	10.63	10.59	
15	64QAM	36	0	9.63	9.61	9.53	10.3
15	64QAM	36	20	9.61	9.60	9.56	
15	64QAM	36	39	9.55	9.60	9.51	
15	64QAM	75	0	9.48	9.51	9.46	
Channel				18650	18900	19150	13.3
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	12.40	12.51	12.43	12.3
10	QPSK	1	25	12.30	12.38	12.33	
10	QPSK	1	49	12.28	12.37	12.32	
10	QPSK	25	0	11.64	11.61	11.61	
10	QPSK	25	12	11.57	11.59	11.56	12.3
10	QPSK	25	25	11.51	11.52	11.54	
10	QPSK	50	0	11.48	11.57	11.49	
10	16QAM	1	0	11.72	11.73	11.75	
10	16QAM	1	25	11.73	11.71	11.62	12.3
10	16QAM	1	49	11.67	11.71	11.68	
10	16QAM	25	0	10.55	10.59	10.49	
10	16QAM	25	12	10.56	10.55	10.49	
10	16QAM	25	25	10.56	10.59	10.49	11.3
10	16QAM	50	0	10.45	10.56	10.50	
10	64QAM	1	0	10.63	10.68	10.66	
10	64QAM	1	25	10.55	10.62	10.54	
10	64QAM	1	49	10.59	10.64	10.56	10.3
10	64QAM	25	0	9.64	9.65	9.51	
10	64QAM	25	12	9.59	9.56	9.59	
10	64QAM	25	25	9.55	9.60	9.57	
10	64QAM	50	0	9.48	9.56	9.45	13.3
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	12.3
5	QPSK	1	0	12.38	12.45	12.42	
5	QPSK	1	12	12.32	12.42	12.33	12.3
5	QPSK	1	24	12.28	12.33	12.37	
5	QPSK	12	0	11.60	11.61	11.59	
5	QPSK	12	7	11.51	11.56	11.52	12.3
5	QPSK	12	13	11.49	11.58	11.54	
5	QPSK	25	0	11.53	11.51	11.48	
5	16QAM	1	0	11.77	11.73	11.75	
5	16QAM	1	12	11.70	11.77	11.67	12.3
5	16QAM	1	24	11.65	11.70	11.69	
5	16QAM	12	0	10.51	10.58	10.48	
5	16QAM	12	7	10.58	10.60	10.49	
5	16QAM	12	13	10.55	10.54	10.52	11.3
5	16QAM	25	0	10.47	10.57	10.51	
5	64QAM	1	0	10.60	10.70	10.67	
5	64QAM	1	12	10.57	10.61	10.57	
5	64QAM	1	24	10.60	10.64	10.55	10.3
5	64QAM	12	0	9.63	9.64	9.57	
5	64QAM	12	7	9.60	9.56	9.57	
5	64QAM	12	13	9.51	9.54	9.50	
5	64QAM	25	0	9.49	9.51	9.47	13.3
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	13.3
3	QPSK	1	0	12.40	12.46	12.41	
3	QPSK	1	8	12.33	12.35	12.37	13.3
3	QPSK	1	14	12.33	12.38	12.35	
3	QPSK	8	0	11.61	11.64	11.62	13.3
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	

Band 4 (AWS Band) (dBm) Part 27L (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	12.33	12.38	12.32	13.1
20	QPSK	1	49	12.24	12.27	12.26	
20	QPSK	1	99	12.16	12.23	12.21	
20	QPSK	50	0	11.40	11.44	11.37	
20	QPSK	50	24	11.38	11.40	11.33	12.1
20	QPSK	50	50	11.23	11.31	11.27	
20	QPSK	100	0	11.34	11.36	11.33	
20	16QAM	1	0	11.61	11.64	11.60	
20	16QAM	1	49	11.58	11.62	11.57	12.1
20	16QAM	1	99	11.51	11.59	11.55	
20	16QAM	50	0	10.44	10.45	10.44	
20	16QAM	50	24	10.36	10.40	10.39	
20	16QAM	50	50	10.26	10.30	10.26	11.1
20	16QAM	100	0	10.31	10.39	10.34	
20	64QAM	1	0	10.54	10.55	10.53	
20	64QAM	1	49	10.43	10.50	10.47	
20	64QAM	1	99	10.43	10.47	10.45	11.1
20	64QAM	50	0	9.42	9.46	9.39	
20	64QAM	50	24	9.37	9.42	9.38	
20	64QAM	50	50	9.29	9.37	9.31	
20	64QAM	100	0	9.32	9.40	9.37	10.1
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	Tune-up limit (dBm)
15	QPSK	1	0	12.30	12.34	12.28	13.1
15	QPSK	1	37	12.22	12.26	12.20	
15	QPSK	1	74	12.12	12.22	12.17	
15	QPSK	36	0	11.33	11.38	11.35	
15	QPSK	36	20	11.34	11.38	11.30	12.1
15	QPSK	36	39	11.22	11.30	11.23	
15	QPSK	75	0	11.26	11.35	11.26	
15	16QAM	1	0	11.57	11.57	11.53	
15	16QAM	1	37	11.50	11.55	11.53	12.1
15	16QAM	1	74	11.50	11.57	11.48	
15	16QAM	36	0	10.43	10.37	10.38	
15	16QAM	36	20	10.34	10.39	10.32	
15	16QAM	36	39	10.22	10.26	10.22	11.1
15	16QAM	75	0	10.28	10.37	10.30	
15	64QAM	1	0	10.52	10.54	10.49	
15	64QAM	1	37	10.40	10.47	10.42	
15	64QAM	1	74	10.38	10.42	10.42	11.1
15	64QAM	36	0	9.40	9.44	9.37	
15	64QAM	36	20	9.33	9.34	9.37	
15	64QAM	36	39	9.23	9.35	9.23	
15	64QAM	75	0	9.31	9.32	9.30	10.1
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	Tune-up limit (dBm)
10	QPSK	1	0	12.28	12.30	12.26	13.1
10	QPSK	1	25	12.19	12.26	12.19	
10	QPSK	1	49	12.13	12.21	12.18	
10	QPSK	25	0	11.33	11.37	11.32	
10	QPSK	25	12	11.34	11.37	11.31	12.1
10	QPSK	25	25	11.15	11.30	11.19	
10	QPSK	50	0	11.29	11.32	11.32	
10	16QAM	1	0	11.60	11.59	11.59	
10	16QAM	1	25	11.53	11.60	11.53	12.1
10	16QAM	1	49	11.44	11.56	11.52	
10	16QAM	25	0	10.42	10.43	10.41	
10	16QAM	25	12	10.35	10.36	10.35	
10	16QAM	25	25	10.24	10.29	10.20	11.1
10	16QAM	50	0	10.23	10.35	10.32	
10	64QAM	1	0	10.47	10.53	10.49	
10	64QAM	1	25	10.36	10.43	10.42	
10	64QAM	1	49	10.35	10.41	10.40	11.1
10	64QAM	25	0	9.41	9.39	9.35	
10	64QAM	25	12	9.34	9.36	9.31	
10	64QAM	25	25	9.21	9.29	9.28	
10	64QAM	50	0	9.27	9.36	9.30	10.1
Channel				19975	20175	20375	
Frequency (MHz)				1712.5	1732.5	1752.5	Tune-up limit (dBm)
5	QPSK	1	0	12.30	12.31	12.29	13.1
5	QPSK	1	12	12.18	12.22	12.20	
5	QPSK	1	24	12.12	12.16	12.15	
5	QPSK	12	0	11.36	11.43	11.32	
5	QPSK	12	7	11.37	11.35	11.28	12.1
5	QPSK	12	13	11.18	11.29	11.19	
5	QPSK	25	0	11.32	11.32	11.26	
5	16QAM	1	0	11.58	11.59	11.56	
5	16QAM	1	12	11.57	11.59	11.56	12.1
5	16QAM	1	24	11.48	11.58	11.50	
5	16QAM	12	0	10.41	10.44	10.36	
5	16QAM	12	7	10.28	10.34	10.34	
5	16QAM	12	13	10.18	10.25	10.18	11.1
5	16QAM	25	0	10.30	10.34	10.30	
5	64QAM	1	0	10.53	10.50	10.51	
5	64QAM	1	12	10.37	10.48	10.43	
5	64QAM	1	24	10.40	10.42	10.37	11.1
5	64QAM	12	0	9.34	9.40	9.38	
5	64QAM	12	7	9.29	9.40	9.34	
5	64QAM	12	13	9.28	9.29	9.26	
5	64QAM	25	0	9.25	9.35	9.30	10.1
Channel				19965	20175	20385	
Frequency (MHz)				1711.5	1732.5	1753.5	Tune-up limit (dBm)
3	QPSK	1	0	12.25	12.36	12.31	13.1
3	QPSK	1	8	12.19	12.24	12.20	
3	QPSK	1	14	12.09	12.22	12.17	
3	QPSK	8	0	11.38	11.43	11.34	



3	QPSK	8	4	11.51	11.62	11.53	12.3
3	QPSK	8	7	11.52	11.56	11.55	
3	QPSK	15	0	11.47	11.54	11.46	
3	16QAM	1	0	11.78	11.76	11.78	12.3
3	16QAM	1	8	11.75	11.76	11.69	
3	16QAM	1	14	11.66	11.70	11.68	
3	16QAM	8	0	10.57	10.58	10.51	11.3
3	16QAM	8	4	10.53	10.58	10.51	
3	16QAM	8	7	10.54	10.54	10.52	
3	16QAM	15	0	10.47	10.56	10.52	11.3
3	64QAM	1	0	10.60	10.64	10.64	
3	64QAM	1	8	10.51	10.61	10.56	
3	64QAM	1	14	10.55	10.63	10.55	10.3
3	64QAM	8	0	9.59	9.65	9.50	
3	64QAM	8	4	9.60	9.60	9.60	
3	64QAM	8	7	9.56	9.60	9.57	10.3
3	64QAM	15	0	9.50	9.57	9.49	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	12.36	12.51	12.43	
1.4	QPSK	1	3	12.30	12.37	12.36	13.3
1.4	QPSK	1	5	12.27	12.38	12.36	
1.4	QPSK	3	0	12.33	12.42	12.39	
1.4	QPSK	3	1	12.45	12.48	12.38	12.3
1.4	QPSK	3	3	12.39	12.43	12.40	
1.4	QPSK	6	0	11.47	11.57	11.49	
1.4	16QAM	1	0	11.75	11.74	11.71	12.3
1.4	16QAM	1	3	11.75	11.72	11.68	
1.4	16QAM	1	5	11.66	11.75	11.75	
1.4	16QAM	3	0	11.55	11.60	11.52	11.3
1.4	16QAM	3	1	11.53	11.57	11.49	
1.4	16QAM	3	3	11.54	11.58	11.47	
1.4	16QAM	6	0	10.48	10.57	10.46	11.3
1.4	64QAM	1	0	10.63	10.68	10.67	
1.4	64QAM	1	3	10.55	10.59	10.56	
1.4	64QAM	1	5	10.55	10.59	10.56	11.3
1.4	64QAM	3	0	10.64	10.58	10.51	
1.4	64QAM	3	1	10.61	10.59	10.56	
1.4	64QAM	3	3	10.54	10.55	10.53	10.3
1.4	64QAM	6	0	9.47	9.53	9.45	

3	QPSK	8	4	11.30	11.34	11.25	12.1
3	QPSK	8	7	11.18	11.29	11.21	
3	QPSK	15	0	11.33	11.31	11.26	
3	16QAM	1	0	11.56	11.56	11.54	12.1
3	16QAM	1	8	11.54	11.61	11.49	
3	16QAM	1	14	11.46	11.54	11.49	
3	16QAM	8	0	10.41	10.40	10.39	11.1
3	16QAM	8	4	10.29	10.39	10.31	
3	16QAM	8	7	10.25	10.22	10.18	
3	16QAM	15	0	10.28	10.31	10.26	11.1
3	64QAM	1	0	10.53	10.51	10.46	
3	64QAM	1	8	10.40	10.43	10.39	
3	64QAM	1	14	10.35	10.46	10.39	10.1
3	64QAM	8	0	9.38	9.44	9.31	
3	64QAM	8	4	9.36	9.35	9.30	
3	64QAM	8	7	9.24	9.30	9.25	10.1
3	64QAM	15	0	9.26	9.38	9.31	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	12.30	12.36	12.28	
1.4	QPSK	1	3	12.18	12.20	12.20	13.1
1.4	QPSK	1	5	12.11	12.21	12.18	
1.4	QPSK	3	0	12.19	12.28	12.22	
1.4	QPSK	3	1	12.22	12.23	12.15	12.1
1.4	QPSK	3	3	12.03	12.08	12.09	
1.4	QPSK	6	0	11.27	11.31	11.25	
1.4	16QAM	1	0	11.60	11.58	11.53	12.1
1.4	16QAM	1	3	11.50	11.58	11.52	
1.4	16QAM	1	5	11.45	11.58	11.54	
1.4	16QAM	3	0	11.25	11.23	11.27	11.1
1.4	16QAM	3	1	11.20	11.24	11.16	
1.4	16QAM	3	3	11.05	11.14	11.08	
1.4	16QAM	6	0	10.30	10.35	10.26	11.1
1.4	64QAM	1	0	10.48	10.50	10.50	
1.4	64QAM	1	3	10.41	10.46	10.39	
1.4	64QAM	1	5	10.42	10.43	10.41	11.1
1.4	64QAM	3	0	10.20	10.23	10.17	
1.4	64QAM	3	1	10.15	10.20	10.15	
1.4	64QAM	3	3	10.12	10.17	10.09	10.1
1.4	64QAM	6	0	9.28	9.32	9.30	



Band 5 (Cellular Band) (dBm) Part 22H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	17.63	17.66	17.62	18.3
10	QPSK	1	25	17.50	17.58	17.50	
10	QPSK	1	49	17.48	17.56	17.54	
10	QPSK	25	0	16.61	16.64	16.58	17.3
10	QPSK	25	12	16.53	16.61	16.57	
10	QPSK	25	25	16.55	16.59	16.58	
10	QPSK	50	0	16.58	16.62	16.58	17.3
10	16QAM	1	0	16.91	16.95	16.87	
10	16QAM	1	25	16.86	16.92	16.88	
10	16QAM	1	49	16.85	16.89	16.82	16.3
10	16QAM	25	0	15.63	15.68	15.66	
10	16QAM	25	12	15.66	15.67	15.66	
10	16QAM	25	25	15.66	15.71	15.67	16.3
10	16QAM	50	0	15.60	15.65	15.62	
10	64QAM	1	0	15.69	15.70	15.68	
10	64QAM	1	25	15.56	15.60	15.58	16.3
10	64QAM	1	49	15.59	15.63	15.58	
10	64QAM	25	0	14.44	14.47	14.41	
10	64QAM	25	12	14.54	14.59	14.58	15.3
10	64QAM	25	25	14.60	14.67	14.59	
10	64QAM	50	0	14.47	14.54	14.53	
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	17.61	17.63	17.57	18.3
5	QPSK	1	12	17.43	17.56	17.47	
5	QPSK	1	24	17.44	17.55	17.47	
5	QPSK	12	0	16.55	16.57	16.80	17.3
5	QPSK	12	7	16.51	16.56	16.51	
5	QPSK	12	13	16.49	16.56	16.52	
5	QPSK	25	0	16.54	16.54	16.51	17.3
5	16QAM	1	0	16.87	16.87	16.81	
5	16QAM	1	12	16.80	16.87	16.85	
5	16QAM	1	24	16.78	16.86	16.80	16.3
5	16QAM	12	0	15.62	15.65	15.60	
5	16QAM	12	7	15.61	15.63	15.60	
5	16QAM	12	13	15.62	15.65	15.66	16.3
5	16QAM	25	0	15.58	15.60	15.58	
5	64QAM	1	0	15.63	15.69	15.67	
5	64QAM	1	12	15.55	15.58	15.57	16.3
5	64QAM	1	24	15.57	15.61	15.56	
5	64QAM	12	0	14.36	14.42	14.39	
5	64QAM	12	7	14.50	14.57	14.50	15.3
5	64QAM	12	13	14.59	14.59	14.58	
5	64QAM	25	0	14.42	14.53	14.50	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	17.55	17.65	17.56	18.3
3	QPSK	1	8	17.43	17.56	17.45	
3	QPSK	1	14	17.43	17.49	17.49	
3	QPSK	8	0	16.56	16.56	16.57	17.3
3	QPSK	8	4	16.51	16.59	16.52	
3	QPSK	8	7	16.52	16.56	16.50	
3	QPSK	15	0	16.55	16.59	16.50	17.3
3	16QAM	1	0	16.86	16.92	16.79	
3	16QAM	1	8	16.85	16.90	16.86	
3	16QAM	1	14	16.78	16.82	16.74	16.3
3	16QAM	8	0	15.59	15.60	15.58	
3	16QAM	8	4	15.65	15.59	15.59	
3	16QAM	8	7	15.65	15.65	15.64	16.3
3	16QAM	15	0	15.57	15.60	15.58	
3	64QAM	1	0	15.68	15.68	15.64	
3	64QAM	1	8	15.53	15.53	15.54	16.3
3	64QAM	1	14	15.57	15.60	15.57	
3	64QAM	8	0	14.37	14.40	14.39	
3	64QAM	8	4	14.47	14.52	14.50	15.3
3	64QAM	8	7	14.59	14.60	14.58	
3	64QAM	15	0	14.43	14.48	14.50	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	17.59	17.59	17.58	18.3
1.4	QPSK	1	3	17.48	17.56	17.49	
1.4	QPSK	1	5	17.46	17.55	17.48	
1.4	QPSK	3	0	17.51	17.48	17.43	17.3
1.4	QPSK	3	1	17.36	17.44	17.43	
1.4	QPSK	3	3	17.38	17.48	17.42	
1.4	QPSK	6	0	16.51	16.55	16.55	17.3
1.4	16QAM	1	0	16.88	16.93	16.80	
1.4	16QAM	1	3	16.80	16.91	16.87	
1.4	16QAM	1	5	16.83	16.81	16.74	17.3
1.4	16QAM	3	0	16.46	16.56	16.51	
1.4	16QAM	3	1	16.53	16.55	16.50	
1.4	16QAM	3	3	16.48	16.56	16.52	16.3
1.4	16QAM	6	0	15.57	15.60	15.60	
1.4	64QAM	1	0	15.62	15.63	15.60	
1.4	64QAM	1	3	15.49	15.55	15.57	16.3
1.4	64QAM	1	5	15.54	15.59	15.52	
1.4	64QAM	3	0	15.28	15.30	15.25	
1.4	64QAM	3	1	15.40	15.44	15.47	16.3
1.4	64QAM	3	3	15.46	15.56	15.44	
1.4	64QAM	6	0	14.45	14.51	14.50	

Band 7 (2600MHz Band) (dBm) Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	14.48	14.55	14.45	15.3
20	QPSK	1	49	14.37	14.45	14.42	
20	QPSK	1	99	14.34	14.41	14.37	
20	QPSK	50	0	13.58	13.63	13.56	14.3
20	QPSK	50	24	13.56	13.60	13.54	
20	QPSK	50	50	13.61	13.63	13.57	
20	QPSK	100	0	13.56	13.58	13.52	14.3
20	16QAM	1	0	13.61	13.66	13.60	
20	16QAM	1	49	13.71	13.72	13.70	
20	16QAM	1	99	13.81	13.85	13.78	13.3
20	16QAM	50	0	12.53	12.54	12.52	
20	16QAM	50	24	12.52	12.60	12.54	
20	16QAM	50	50	12.57	12.63	12.61	13.3
20	16QAM	100	0	12.53	12.59	12.54	
20	64QAM	1	0	12.51	12.58	12.57	
20	64QAM	1	49	12.54	12.56	12.48	13.3
20	64QAM	1	99	12.71	12.75	12.68	
20	64QAM	50	0	11.56	11.58	11.52	
20	64QAM	50	24	11.61	11.62	11.56	12.3
20	64QAM	50	50	11.59	11.67	11.62	
20	64QAM	100	0	11.58	11.60	11.54	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	14.45	14.51	14.44	15.3
15	QPSK	1	37	14.32	14.40	14.40	
15	QPSK	1	74	14.29	14.35	14.29	
15	QPSK	36	0	13.52	13.62	13.59	14.3
15	QPSK	36	20	13.48	13.57	13.48	
15	QPSK	36	39	13.58	13.60	13.56	
15	QPSK	75	0	13.49	13.53	13.51	14.3
15	16QAM	1	0	13.55	13.58	13.52	
15	16QAM	1	37	13.69	13.66	13.67	
15	16QAM	1	74	13.74	13.81	13.74	13.3
15	16QAM	36	0	12.47	12.49	12.45	
15	16QAM	36	20	12.47	12.56	12.49	
15	16QAM	36	39	12.52	12.55	12.56	13.3
15	16QAM	75	0	12.49	12.57	12.48	
15	64QAM	1	0	12.47	12.56	12.55	
15	64QAM	1	37	12.46	12.54	12.47	13.3
15	64QAM	1	74	12.65	12.69	12.65	
15	64QAM	36	0	11.53	11.53	11.48	
15	64QAM	36	20	11.57	11.60	11.48	12.3
15	64QAM	36	39	11.54	11.63	11.60	
15	64QAM	75	0	11.51	11.59	11.49	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	14.46	14.50	14.38	15.3
10	QPSK	1	25	14.34	14.44	14.35	
10	QPSK	1	49	14.26	14.39	14.34	
10	QPSK	25	0	13.48	13.55	13.61	14.3
10	QPSK	25	12	13.55	13.57	13.53	
10	QPSK	25	25	13.59	13.57	13.52	
10	QPSK	50	0	13.53	13.53	13.48	14.3
10	16QAM	1	0	13.56	13.60	13.58	
10	16QAM	1	25	13.63	13.66	13.64	
10	16QAM	1	49	13.75	13.84	13.73	13.3
10	16QAM	25	0	12.49	12.48	12.48	
10	16QAM	25	12	12.44	12.58	12.51	
10	16QAM	25	25	12.50	12.60	12.53	13.3
10	16QAM	50	0	12.46	12.51	12.51	
10	64QAM	1	0	12.49	12.51	12.50	
10	64QAM	1	25	12.51	12.55	12.41	13.3
10	64QAM	1	49	12.66	12.70	12.64	
10	64QAM	25	0	11.50	11.55	11.49	
10	64QAM	25	12	11.58	11.55	11.55	12.3
10	64QAM	25	25	11.54	11.60	11.56	
10	64QAM	50	0	11.55	11.59	11.53	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	14.43	14.50	14.38	15.3
5	QPSK	1	12	14.29	14.38	14.38	
5	QPSK	1	24	14.33	14.36	14.36	
5	QPSK	12	0	13.54	13.61	13.59	14.3
5	QPSK	12	7	13.55	13.56	13.52	
5	QPSK	12	13	13.55	13.58	13.56	
5	QPSK	25	0	13.48	13.55	13.48	14.3
5	16QAM	1	0	13.54	13.63	13.52	
5	16QAM	1	12	13.69	13.66	13.66	
5	16QAM	1	24	13.77	13.77	13.73	13.3
5	16QAM	12	0	12.51	12.51	12.48	
5	16QAM	12	7	12.50	12.57	12.48	
5	16QAM	12	13	12.56	12.56	12.58	13.3
5	16QAM	25	0	12.51	12.51	12.47	
5	64QAM	1	0	12.44	12.54	12.55	
5	64QAM	1	12	12.47	12.54	12.43	13.3
5	64QAM	1	24	12.66	12.73	12.63	
5	64QAM	12	0	11.54	11.51	11.48	
5	64QAM	12	7	11.60	11.59	11.54	12.3
5	64QAM	12	13	11.58	11.60	11.60	
5	64QAM	25	0	11.51	11.53	11.53	



Band 12 (700MHz Low Band) (dBm) Part 27F(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23060	23095	23130	17.8
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	17.13	17.17	17.15	16.8
10	QPSK	1	25	17.07	17.11	17.05	
10	QPSK	1	49	17.04	17.08	17.06	15.8
10	QPSK	25	0	16.24	16.28	16.25	
10	QPSK	25	12	16.18	16.22	16.18	16.8
10	QPSK	25	25	16.19	16.25	16.21	
10	QPSK	50	0	16.10	16.18	16.15	15.8
10	16QAM	1	0	16.46	16.52	16.47	
10	16QAM	1	25	16.46	16.50	16.47	14.8
10	16QAM	1	49	16.41	16.48	16.45	
10	16QAM	25	0	15.15	15.20	15.14	15.8
10	16QAM	25	12	15.09	15.16	15.13	
10	16QAM	25	25	15.17	15.23	15.21	15.8
10	16QAM	50	0	15.13	15.17	15.14	
10	64QAM	1	0	15.28	15.33	15.25	14.8
10	64QAM	1	25	15.24	15.32	15.30	
10	64QAM	1	49	15.38	15.41	15.33	14.8
10	64QAM	25	0	14.18	14.24	14.17	
10	64QAM	25	12	14.19	14.21	14.19	14.8
10	64QAM	25	25	14.16	14.17	14.09	
10	64QAM	50	0	14.15	14.23	14.18	14.8
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	17.8
5	QPSK	1	0	17.11	17.15	17.11	
5	QPSK	1	12	17.05	17.09	16.98	16.8
5	QPSK	1	24	16.98	17.03	17.01	
5	QPSK	12	0	16.17	16.27	16.16	15.8
5	QPSK	12	7	16.14	16.19	16.17	
5	QPSK	12	13	16.13	16.18	16.13	16.8
5	QPSK	25	0	16.07	16.15	16.07	
5	16QAM	1	0	16.41	16.44	16.39	15.8
5	16QAM	1	12	16.42	16.49	16.43	
5	16QAM	1	24	16.37	16.45	16.39	14.8
5	16QAM	12	0	15.14	15.19	15.09	
5	16QAM	12	7	15.04	15.11	15.08	15.8
5	16QAM	12	13	15.09	15.20	15.20	
5	16QAM	25	0	15.08	15.12	15.13	15.8
5	64QAM	1	0	15.25	15.32	15.23	
5	64QAM	1	12	15.22	15.30	15.22	14.8
5	64QAM	1	24	15.36	15.37	15.28	
5	64QAM	12	0	14.12	14.22	14.12	14.8
5	64QAM	12	7	14.17	14.19	14.15	
5	64QAM	12	13	14.10	14.13	14.02	14.8
5	64QAM	25	0	14.12	14.18	14.14	
Channel				23025	23095	23165	17.8
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	17.10	17.15	17.11	16.8
3	QPSK	1	8	17.03	17.06	16.98	
3	QPSK	1	14	16.97	17.06	17.03	16.8
3	QPSK	8	0	16.16	16.22	16.17	
3	QPSK	8	4	16.15	16.21	16.15	16.8
3	QPSK	8	7	16.14	16.20	16.19	
3	QPSK	15	0	16.06	16.10	16.08	15.8
3	16QAM	1	0	16.35	16.46	16.41	
3	16QAM	1	8	16.40	16.44	16.44	15.8
3	16QAM	1	14	16.40	16.47	16.37	
3	16QAM	8	0	15.12	15.14	15.13	15.8
3	16QAM	8	4	15.07	15.15	15.06	
3	16QAM	8	7	15.16	15.20	15.16	15.8
3	16QAM	15	0	15.08	15.11	15.06	
3	64QAM	1	0	15.27	15.25	15.19	14.8
3	64QAM	1	8	15.16	15.28	15.25	
3	64QAM	1	14	15.36	15.33	15.31	14.8
3	64QAM	8	0	14.11	14.19	14.14	
3	64QAM	8	4	14.16	14.20	14.11	14.8
3	64QAM	8	7	14.10	14.11	14.08	
3	64QAM	15	0	13.69	13.79	13.73	14.8
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	17.8
1.4	QPSK	1	0	17.02	17.11	17.09	
1.4	QPSK	1	3	16.96	17.01	16.98	16.8
1.4	QPSK	1	5	16.97	17.00	16.99	
1.4	QPSK	3	0	17.00	17.10	16.99	16.8
1.4	QPSK	3	1	16.96	17.03	17.01	
1.4	QPSK	3	3	17.03	17.07	17.01	16.8
1.4	QPSK	6	0	16.03	16.05	16.07	
1.4	16QAM	1	0	16.35	16.43	16.39	15.8
1.4	16QAM	1	3	16.34	16.44	16.38	
1.4	16QAM	1	5	16.29	16.35	16.33	15.8
1.4	16QAM	3	0	15.93	15.97	15.97	
1.4	16QAM	3	1	15.86	16.00	15.94	15.8
1.4	16QAM	3	3	15.94	16.04	15.99	
1.4	16QAM	6	0	15.00	15.11	15.05	15.8
1.4	64QAM	1	0	15.16	15.25	15.19	
1.4	64QAM	1	3	15.11	15.24	15.17	15.8
1.4	64QAM	1	5	15.27	15.33	15.23	
1.4	64QAM	3	0	14.96	15.03	14.95	14.8
1.4	64QAM	3	1	15.01	15.02	15.01	
1.4	64QAM	3	3	14.95	15.00	14.93	14.8
1.4	64QAM	6	0	13.66	13.72	13.72	

Band 13(700MHz Band) (dBm)							
Part 27F							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23230			
Frequency (MHz)				782			
10	QPSK	1	0		16.14		16.8
10	QPSK	1	25		16.12		
10	QPSK	1	49		16.08		
10	QPSK	25	0		15.20		15.8
10	QPSK	25	12		15.21		
10	QPSK	25	25		15.22		
10	QPSK	50	0		15.20		15.8
10	16QAM	1	0		15.57		
10	16QAM	1	25		15.50		
10	16QAM	1	49		15.44		14.8
10	16QAM	25	0		14.23		
10	16QAM	25	12		14.22		
10	16QAM	25	25		14.20		14.8
10	16QAM	50	0		14.17		
10	64QAM	1	0		14.37		
10	64QAM	1	25		14.41		14.8
10	64QAM	1	49		14.37		
10	64QAM	25	0		13.22		
10	64QAM	25	12		13.24		13.8
10	64QAM	25	25		13.23		
10	64QAM	50	0		13.20		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	16.11	16.06	16.07	16.8
5	QPSK	1	12	16.07	16.11	16.08	
5	QPSK	1	24	16.07	16.07	16.07	
5	QPSK	12	0	15.18	15.13	15.13	15.8
5	QPSK	12	7	15.18	15.20	15.13	
5	QPSK	12	13	15.20	15.18	15.14	
5	QPSK	25	0	15.18	15.12	15.18	15.8
5	16QAM	1	0	15.50	15.50	15.49	
5	16QAM	1	12	15.47	15.45	15.45	
5	16QAM	1	24	15.39	15.36	15.42	14.8
5	16QAM	12	0	14.17	14.18	14.18	
5	16QAM	12	7	14.14	14.20	14.14	
5	16QAM	12	13	14.15	14.12	14.18	14.8
5	16QAM	25	0	14.09	14.12	14.09	
5	64QAM	1	0	14.34	14.35	14.35	
5	64QAM	1	12	14.39	14.33	14.39	14.8
5	64QAM	1	24	14.30	14.34	14.31	
5	64QAM	12	0	13.15	13.19	13.16	
5	64QAM	12	7	13.16	13.20	13.20	13.8
5	64QAM	12	13	13.22	13.22	13.17	
5	64QAM	25	0	13.15	13.19	13.14	



Band 17 (700MHz Band) (dBm) Part 27H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	17.15	17.17	17.13	
10	QPSK	1	25	17.13	17.14	17.12	17.8
10	QPSK	1	49	17.04	17.12	17.11	
10	QPSK	25	0	16.24	16.27	16.22	
10	QPSK	25	12	16.18	16.25	16.21	16.8
10	QPSK	25	25	16.15	16.23	16.15	
10	QPSK	50	0	16.23	16.24	16.17	
10	16QAM	1	0	16.44	16.47	16.41	16.8
10	16QAM	1	25	16.41	16.46	16.41	
10	16QAM	1	49	16.35	16.42	16.41	
10	16QAM	25	0	15.25	15.33	15.26	15.8
10	16QAM	25	12	15.29	15.30	15.22	
10	16QAM	25	25	15.21	15.27	15.22	
10	16QAM	50	0	15.23	15.25	15.18	15.8
10	64QAM	1	0	15.35	15.38	15.33	
10	64QAM	1	25	15.32	15.35	15.32	
10	64QAM	1	49	15.27	15.33	15.29	14.8
10	64QAM	25	0	14.22	14.30	14.28	
10	64QAM	25	12	14.23	14.31	14.27	
10	64QAM	25	25	14.25	14.27	14.25	14.8
10	64QAM	50	0	14.19	14.22	14.21	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	17.12	17.11	17.12	
5	QPSK	1	12	17.08	17.09	17.06	17.8
5	QPSK	1	24	17.02	17.11	17.05	
5	QPSK	12	0	16.19	16.21	16.17	
5	QPSK	12	7	16.16	16.19	16.13	16.8
5	QPSK	12	13	16.09	16.17	16.12	
5	QPSK	25	0	16.20	16.17	16.10	
5	16QAM	1	0	16.42	16.44	16.37	16.8
5	16QAM	1	12	16.33	16.42	16.37	
5	16QAM	1	24	16.33	16.35	16.40	
5	16QAM	12	0	15.20	15.31	15.20	15.8
5	16QAM	12	7	15.23	15.25	15.18	
5	16QAM	12	13	15.13	15.24	15.20	
5	16QAM	25	0	15.20	15.22	15.14	15.8
5	64QAM	1	0	15.31	15.34	15.27	
5	64QAM	1	12	15.28	15.29	15.24	
5	64QAM	1	24	15.23	15.28	15.28	14.8
5	64QAM	12	0	14.21	14.29	14.23	
5	64QAM	12	7	14.16	14.23	14.24	
5	64QAM	12	13	14.22	14.22	14.16	14.8
5	64QAM	25	0	14.12	14.14	14.13	

Band 18 (835MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel					23925		
Frequency (MHz)					822.5		
15	QPSK	1	0		17.13		
15	QPSK	1	37		17.08		17.8
15	QPSK	1	74		17.06		
15	QPSK	36	0		16.18		
15	QPSK	36	20		16.15		16.8
15	QPSK	36	39		16.20		
15	QPSK	75	0		16.17		
15	16QAM	1	0		16.42		16.8
15	16QAM	1	37		16.47		
15	16QAM	1	74		16.49		
15	16QAM	36	0		15.20		15.8
15	16QAM	36	20		15.16		
15	16QAM	36	39		15.15		
15	16QAM	75	0		15.16		15.8
15	64QAM	1	0		15.21		
15	64QAM	1	25		15.16		
15	64QAM	1	49		15.13		14.8
15	64QAM	25	0		14.18		
15	64QAM	25	12		14.22		
15	64QAM	25	25		14.17		14.8
15	64QAM	50	0		14.21		
Channel				23900	23925	23950	Tune-up limit (dBm)
Frequency (MHz)				820	822.5	825	
10	QPSK	1	0	17.05	17.10	17.05	
10	QPSK	1	25	17.01	17.02	17.03	17.8
10	QPSK	1	49	17.01	17.03	17.00	
10	QPSK	25	0	16.11	16.12	16.10	
10	QPSK	25	12	16.14	16.07	16.12	16.8
10	QPSK	25	25	16.16	16.17	16.17	
10	QPSK	50	0	16.13	16.13	16.10	
10	16QAM	1	0	16.36	16.35	16.39	16.8
10	16QAM	1	25	16.43	16.39	16.39	
10	16QAM	1	49	16.45	16.43	16.46	
10	16QAM	25	0	15.14	15.17	15.16	15.8
10	16QAM	25	12	15.10	15.09	15.14	
10	16QAM	25	25	15.13	15.07	15.08	
10	16QAM	50	0	15.13	15.15	15.13	15.8
10	64QAM	1	0	15.18	15.18	15.14	
10	64QAM	1	25	15.12	15.13	15.10	
10	64QAM	1	49	15.06	15.05	15.09	14.8
10	64QAM	25	0	14.13	14.16	14.15	
10	64QAM	25	12	14.21	14.18	14.19	
10	64QAM	25	25	14.13	14.13	14.14	14.8
10	64QAM	50	0	14.18	14.13	14.18	
Channel				23875	23925	23975	Tune-up limit (dBm)
Frequency (MHz)				817.5	822.5	827.5	
5	QPSK	1	0	17.11	17.12	17.08	
5	QPSK	1	12	17.01	17.02	17.00	17.8
5	QPSK	1	24	16.99	17.02	17.01	
5	QPSK	12	0	16.13	16.13	16.15	
5	QPSK	12	7	16.13	16.14	16.07	16.8
5	QPSK	12	13	16.12	16.14	16.18	
5	QPSK	25	0	16.13	16.14	16.10	
5	16QAM	1	0	16.35	16.41	16.34	16.8
5	16QAM	1	12	16.45	16.40	16.41	
5	16QAM	1	24	16.48	16.41	16.41	
5	16QAM	12	0	15.12	15.18	15.12	15.8
5	16QAM	12	7	15.13	15.09	15.15	
5	16QAM	12	13	15.08	15.08	15.10	
5	16QAM	25	0	15.12	15.11	15.09	15.8
5	64QAM	1	0	15.13	15.16	15.14	
5	64QAM	1	12	15.13	15.09	15.10	
5	64QAM	1	24	15.05	15.10	15.08	14.8
5	64QAM	12	0	14.14	14.12	14.17	
5	64QAM	12	7	14.19	14.20	14.14	
5	64QAM	12	13	14.12	14.12	14.12	14.8
5	64QAM	25	0	14.18	14.20	14.15	



Band 25 (1900MHz Band) (dBm) Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26140	26365	26590	
Frequency (MHz)				1860	1882.5	1905	
20	QPSK	1	0	12.48	12.53	12.45	13.3
20	QPSK	1	49	12.38	12.42	12.35	
20	QPSK	1	99	12.34	12.41	12.39	
20	QPSK	50	0	11.62	11.65	11.60	12.3
20	QPSK	50	24	11.57	11.62	11.58	
20	QPSK	50	50	11.59	11.60	11.57	
20	QPSK	100	0	11.50	11.57	11.49	12.3
20	16QAM	1	0	11.81	11.84	11.76	
20	16QAM	1	49	11.71	11.79	11.76	
20	16QAM	1	99	11.64	11.71	11.68	11.3
20	16QAM	50	0	10.57	10.60	10.56	
20	16QAM	50	24	10.54	10.57	10.49	
20	16QAM	50	50	10.60	10.62	10.60	11.3
20	16QAM	100	0	10.53	10.60	10.53	
20	64QAM	1	0	10.68	10.70	10.68	
20	64QAM	1	49	10.61	10.68	10.65	11.3
20	64QAM	1	99	10.63	10.65	10.59	
20	64QAM	50	0	9.70	9.73	9.66	
20	64QAM	50	24	9.63	9.69	9.61	10.3
20	64QAM	50	50	9.64	9.65	9.61	
20	64QAM	100	0	9.56	9.62	9.60	
Channel				26115	26365	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	12.44	12.50	12.44	13.3
15	QPSK	1	37	12.37	12.37	12.34	
15	QPSK	1	74	12.31	12.34	12.33	
15	QPSK	36	0	11.58	11.58	11.59	12.3
15	QPSK	36	20	11.52	11.61	11.50	
15	QPSK	36	39	11.56	11.56	11.50	
15	QPSK	75	0	11.48	11.51	11.46	12.3
15	16QAM	1	0	11.77	11.83	11.74	
15	16QAM	1	37	11.64	11.71	11.75	
15	16QAM	1	74	11.57	11.70	11.65	11.3
15	16QAM	36	0	10.54	10.58	10.51	
15	16QAM	36	20	10.49	10.55	10.48	
15	16QAM	36	39	10.57	10.61	10.59	11.3
15	16QAM	75	0	10.48	10.57	10.49	
15	64QAM	1	0	10.65	10.63	10.63	
15	64QAM	1	37	10.54	10.60	10.64	11.3
15	64QAM	1	74	10.55	10.61	10.56	
15	64QAM	36	0	9.62	9.65	9.64	
15	64QAM	36	20	9.59	9.66	9.57	10.3
15	64QAM	36	39	9.56	9.57	9.60	
15	64QAM	75	0	9.49	9.57	9.52	
Channel				26090	26365	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	12.40	12.47	12.41	13.3
10	QPSK	1	25	12.31	12.34	12.34	
10	QPSK	1	49	12.28	12.36	12.31	
10	QPSK	25	0	11.56	11.58	11.55	12.3
10	QPSK	25	12	11.56	11.54	11.51	
10	QPSK	25	25	11.58	11.59	11.54	
10	QPSK	50	0	11.47	11.56	11.44	12.3
10	16QAM	1	0	11.76	11.78	11.72	
10	16QAM	1	25	11.64	11.74	11.70	
10	16QAM	1	49	11.58	11.65	11.60	11.3
10	16QAM	25	0	10.55	10.55	10.55	
10	16QAM	25	12	10.48	10.50	10.42	
10	16QAM	25	25	10.56	10.58	10.54	11.3
10	16QAM	50	0	10.49	10.59	10.47	
10	64QAM	1	0	10.66	10.63	10.62	
10	64QAM	1	25	10.60	10.67	10.61	11.3
10	64QAM	1	49	10.58	10.62	10.51	
10	64QAM	25	0	9.66	9.66	9.61	
10	64QAM	25	12	9.55	9.64	9.55	10.3
10	64QAM	25	25	9.56	9.61	9.56	
10	64QAM	50	0	9.51	9.56	9.53	
Channel				26065	26365	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	QPSK	1	0	12.45	12.48	12.39	13.3
5	QPSK	1	12	12.33	12.41	12.32	
5	QPSK	1	24	12.29	12.40	12.32	
5	QPSK	12	0	11.57	11.57	11.55	12.3
5	QPSK	12	7	11.50	11.61	11.54	
5	QPSK	12	13	11.55	11.52	11.56	
5	QPSK	25	0	11.49	11.53	11.46	12.3
5	16QAM	1	0	11.75	11.76	11.69	
5	16QAM	1	12	11.66	11.75	11.74	
5	16QAM	1	24	11.59	11.67	11.65	11.3
5	16QAM	12	0	10.53	10.55	10.51	
5	16QAM	12	7	10.50	10.55	10.47	
5	16QAM	12	13	10.59	10.60	10.59	11.3
5	16QAM	25	0	10.50	10.55	10.52	
5	64QAM	1	0	10.66	10.66	10.67	
5	64QAM	1	12	10.54	10.66	10.61	11.3
5	64QAM	1	24	10.61	10.64	10.54	
5	64QAM	12	0	9.63	9.67	9.59	
5	64QAM	12	7	9.55	9.68	9.54	10.3
5	64QAM	12	13	9.63	9.63	9.60	
5	64QAM	25	0	9.51	9.58	9.52	
Channel				26055	26365	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	12.42	12.46	12.39	13.3
3	QPSK	1	8	12.34	12.39	12.34	
3	QPSK	1	14	12.33	12.35	12.37	
3	QPSK	8	0	11.54	11.62	11.55	

Band 26 for FCC (dBm) (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	17.61	17.63	17.59	18.3
15	QPSK	1	37	17.58	17.61	17.60	
15	QPSK	1	74	17.55	17.58	17.53	
15	QPSK	36	0	16.64	16.68	16.62	17.3
15	QPSK	36	20	16.65	16.66	16.65	
15	QPSK	36	39	16.69	16.76	16.71	
15	QPSK	75	0	16.62	16.67	16.63	17.3
15	16QAM	1	0	16.89	16.90	16.88	
15	16QAM	1	37	16.93	16.94	16.89	
15	16QAM	1	74	16.85	16.89	16.82	16.3
15	16QAM	36	0	15.67	15.75	15.67	
15	16QAM	36	20	15.66	15.67	15.59	
15	16QAM	36	39	15.71	15.73	15.67	16.3
15	16QAM	75	0	15.63	15.70	15.67	
15	64QAM	1	0	15.74	15.77	15.73	
15	64QAM	1	37	15.76	15.80	15.76	16.3
15	64QAM	1	74	15.69	15.75	15.68	
15	64QAM	36	0	14.67	14.72	14.71	
15	64QAM	36	20	14.65	14.71	14.65	15.3
15	64QAM	36	39	14.62	14.69	14.64	
15	64QAM	75	0	14.62	14.70	14.65	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	17.53	17.61	17.54	18.3
10	QPSK	1	25	17.56	17.54	17.55	
10	QPSK	1	49	17.48	17.56	17.52	
10	QPSK	25	0	16.84	16.61	16.56	17.3
10	QPSK	25	12	16.57	16.64	16.58	
10	QPSK	25	25	16.67	16.69	16.70	
10	QPSK	50	0	16.54	16.59	16.57	17.3
10	16QAM	1	0	16.81	16.82	16.87	
10	16QAM	1	25	16.88	16.90	16.81	
10	16QAM	1	49	16.78	16.84	16.77	16.3
10	16QAM	25	0	15.59	15.68	15.66	
10	16QAM	25	12	15.59	15.66	15.52	
10	16QAM	25	25	15.65	15.65	15.59	16.3
10	16QAM	50	0	15.57	15.69	15.61	
10	64QAM	1	0	15.67	15.72	15.66	
10	64QAM	1	25	15.72	15.72	15.70	15.3
10	64QAM	1	49	15.65	15.71	15.66	
10	64QAM	25	0	14.60	14.69	14.63	
10	64QAM	25	12	14.63	14.67	14.63	15.3
10	64QAM	25	25	14.59	14.63	14.57	
10	64QAM	50	0	14.57	14.69	14.57	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	17.57	17.61	17.56	18.3
5	QPSK	1	12	17.53	17.54	17.59	
5	QPSK	1	24	17.54	17.54	17.50	
5	QPSK	12	0	16.58	16.65	16.62	17.3
5	QPSK	12	7	16.61	16.65	16.59	
5	QPSK	12	13	16.66	16.70	16.63	
5	QPSK	25	0	16.55	16.61	16.55	17.3
5	16QAM	1	0	16.85	16.89	16.85	
5	16QAM	1	12	16.89	16.86	16.84	
5	16QAM	1	24	16.82	16.84	16.77	16.3
5	16QAM	12	0	15.63	15.70	15.60	
5	16QAM	12	7	15.63	15.59	15.53	
5	16QAM	12	13	15.63	15.68	15.59	16.3
5	16QAM	25	0	15.55	15.68	15.66	
5	64QAM	1	0	15.67	15.74	15.72	
5	64QAM	1	12	15.72	15.77	15.74	16.3
5	64QAM	1	24	15.68	15.72	15.60	
5	64QAM	12	0	14.64	14.68	14.67	
5	64QAM	12	7	14.63	14.64	14.62	15.3
5	64QAM	12	13	14.60	14.61	14.58	
5	64QAM	25	0	14.55	14.62	14.61	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	17.59	17.59	17.52	18.3
3	QPSK	1	8	17.56	17.59	17.59	
3	QPSK	1	14	17.54	17.54	17.47	
3	QPSK	8	0	16.61	16.62	16.61	17.3
3	QPSK	8	4	16.61	16.65	16.58	
3	QPSK	8	7	16.68	16.70	16.64	
3	QPSK	15	0	16.61	16.60	16.55	17.3
3	16QAM	1	0	16.85	16.85	16.86	
3	16QAM	1	8	16.90	16.90	16.82	
3	16QAM	1	14	16.78	16.88	16.74	16.3
3	16QAM	8	0	15.64	15.71	15.65	
3	16QAM	8	4	15.62	15.66	15.52	
3	16QAM	8	7	15.65	15.69	15.63	16.3
3	16QAM	15	0	15.61	15.64	15.61	
3	64QAM	1	0	15.69	15.69	15.69	
3	64QAM	1	8	15.74	15.76	15.75	16.3
3	64QAM	1	14	15.68	15.71	15.65	
3	64QAM	8	0	14.65	14.68	14.67	
3	64QAM	8	4	14.57	14.67	14.60	15.3
3	64QAM	8	7	14.61	14.65	14.60	
3	64QAM	15	0	14.59	14.66	14.59	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	17.54	17.60	17.58	18.3
1.4	QPSK	1	3	17.52	17.63	17.52	
1.4	QPSK	1	5	17.51	17.52	17.45	
1.4	QPSK	3	0	17.44	17.52	17.41	



3	QPSK	8	4	11.52	11.56	11.57	12.3
3	QPSK	8	7	11.57	11.55	11.52	
3	QPSK	15	0	11.42	11.50	11.45	
3	16QAM	1	0	11.74	11.79	11.75	12.3
3	16QAM	1	8	11.70	11.75	11.71	
3	16QAM	1	14	11.61	11.69	11.66	
3	16QAM	8	0	10.51	10.56	10.51	11.3
3	16QAM	8	4	10.52	10.51	10.45	
3	16QAM	8	7	10.52	10.54	10.52	
3	16QAM	15	0	10.50	10.56	10.50	11.3
3	64QAM	1	0	10.61	10.66	10.65	
3	64QAM	1	8	10.53	10.61	10.58	
3	64QAM	1	14	10.60	10.61	10.54	10.3
3	64QAM	8	0	9.66	9.69	9.63	
3	64QAM	8	4	9.59	9.61	9.57	
3	64QAM	8	7	9.62	9.60	9.57	10.3
3	64QAM	15	0	9.50	9.57	9.58	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	12.43	12.46	12.43	13.3
1.4	QPSK	1	3	12.35	12.37	12.29	
1.4	QPSK	1	5	12.30	12.34	12.31	
1.4	QPSK	3	0	12.45	12.52	12.44	
1.4	QPSK	3	1	12.42	12.45	12.46	
1.4	QPSK	3	3	12.44	12.47	12.46	12.3
1.4	QPSK	6	0	11.45	11.51	11.42	
1.4	16QAM	1	0	11.80	11.82	11.69	
1.4	16QAM	1	3	11.64	11.75	11.71	11.3
1.4	16QAM	1	5	11.56	11.65	11.66	
1.4	16QAM	3	0	11.40	11.45	11.39	
1.4	16QAM	3	1	11.43	11.43	11.35	
1.4	16QAM	3	3	11.47	11.47	11.42	
1.4	16QAM	6	0	10.47	10.55	10.52	10.3
1.4	64QAM	1	0	10.62	10.63	10.63	11.3
1.4	64QAM	1	3	10.55	10.67	10.62	
1.4	64QAM	1	5	10.57	10.62	10.57	
1.4	64QAM	3	0	10.53	10.60	10.50	
1.4	64QAM	3	1	10.47	10.52	10.49	
1.4	64QAM	3	3	10.52	10.51	10.49	10.3
1.4	64QAM	6	0	9.50	9.56	9.57	

1.4	QPSK	3	1	17.48	17.43	17.46	17.3
1.4	QPSK	3	3	17.51	17.58	17.50	
1.4	QPSK	6	0	16.56	16.66	16.62	
1.4	16QAM	1	0	16.82	16.82	16.86	17.3
1.4	16QAM	1	3	16.88	16.89	16.85	
1.4	16QAM	1	5	16.84	16.84	16.74	
1.4	16QAM	3	0	16.47	16.58	16.45	
1.4	16QAM	3	1	16.44	16.51	16.37	
1.4	16QAM	3	3	16.49	16.55	16.44	16.3
1.4	16QAM	6	0	15.59	15.63	15.61	
1.4	64QAM	1	0	15.72	15.74	15.67	
1.4	64QAM	1	3	15.75	15.79	15.68	16.3
1.4	64QAM	1	5	15.66	15.69	15.67	
1.4	64QAM	3	0	15.51	15.51	15.55	
1.4	64QAM	3	1	15.44	15.52	15.46	
1.4	64QAM	3	3	15.40	15.51	15.44	
1.4	64QAM	6	0	14.57	14.65	14.57	15.3



Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	12.29	12.40	12.31	13.1
20	QPSK	1	49	12.20	12.27	12.24	
20	QPSK	1	99	12.17	12.24	12.21	
20	QPSK	50	0	11.29	11.31	11.28	12.1
20	QPSK	50	24	11.31	11.37	11.35	
20	QPSK	50	50	11.21	11.29	11.26	
20	QPSK	100	0	11.34	11.35	11.31	12.1
20	16QAM	1	0	11.54	11.62	11.56	
20	16QAM	1	49	11.56	11.60	11.55	
20	16QAM	1	99	11.50	11.57	11.51	11.1
20	16QAM	50	0	10.34	10.35	10.30	
20	16QAM	50	24	10.25	10.31	10.24	
20	16QAM	50	50	10.31	10.35	10.32	11.1
20	16QAM	100	0	10.30	10.33	10.29	
20	64QAM	1	0	10.55	10.60	10.56	
20	64QAM	1	49	10.54	10.57	10.49	11.1
20	64QAM	1	99	10.52	10.54	10.47	
20	64QAM	50	0	9.32	9.40	9.35	10.1
20	64QAM	50	24	9.30	9.38	9.32	
20	64QAM	50	50	9.28	9.36	9.32	
20	64QAM	100	0	9.29	9.36	9.30	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	12.28	12.31	12.30	13.1
15	QPSK	1	37	12.12	12.26	12.22	
15	QPSK	1	74	12.10	12.16	12.18	
15	QPSK	36	0	11.23	11.26	11.22	12.1
15	QPSK	36	20	11.27	11.32	11.33	
15	QPSK	36	39	11.16	11.24	11.20	
15	QPSK	75	0	11.31	11.33	11.25	12.1
15	16QAM	1	0	11.50	11.61	11.52	
15	16QAM	1	37	11.54	11.58	11.51	
15	16QAM	1	74	11.47	11.56	11.43	11.1
15	16QAM	36	0	10.29	10.33	10.28	
15	16QAM	36	20	10.21	10.24	10.21	
15	16QAM	36	39	10.28	10.28	10.26	11.1
15	16QAM	75	0	10.24	10.27	10.24	
15	64QAM	1	0	10.48	10.59	10.50	
15	64QAM	1	37	10.48	10.50	10.47	11.1
15	64QAM	1	74	10.48	10.53	10.45	
15	64QAM	36	0	9.29	9.32	9.32	10.1
15	64QAM	36	20	9.27	9.36	9.27	
15	64QAM	36	39	9.25	9.31	9.30	
15	64QAM	75	0	9.28	9.29	9.26	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	12.21	12.28	12.30	13.1
10	QPSK	1	25	12.15	12.25	12.18	
10	QPSK	1	49	12.12	12.21	12.18	
10	QPSK	25	0	11.20	11.30	11.19	12.1
10	QPSK	25	12	11.29	11.36	11.29	
10	QPSK	25	25	11.19	11.21	11.19	
10	QPSK	50	0	11.30	11.27	11.24	12.1
10	16QAM	1	0	11.49	11.55	11.51	
10	16QAM	1	25	11.51	11.54	11.52	
10	16QAM	1	49	11.43	11.49	11.45	11.1
10	16QAM	25	0	10.26	10.30	10.28	
10	16QAM	25	12	10.22	10.24	10.22	
10	16QAM	25	25	10.24	10.29	10.29	11.1
10	16QAM	50	0	10.22	10.29	10.21	
10	64QAM	1	0	10.47	10.56	10.52	
10	64QAM	1	25	10.52	10.50	10.43	11.1
10	64QAM	1	49	10.48	10.50	10.46	
10	64QAM	25	0	9.28	9.34	9.34	
10	64QAM	25	12	9.29	9.30	9.28	10.1
10	64QAM	25	25	9.26	9.28	9.30	
10	64QAM	50	0	9.24	9.34	9.26	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	12.24	12.32	12.29	13.1
5	QPSK	1	12	12.16	12.24	12.19	
5	QPSK	1	24	12.14	12.21	12.15	
5	QPSK	12	0	11.24	11.30	11.23	12.1
5	QPSK	12	7	11.27	11.33	11.27	
5	QPSK	12	13	11.14	11.24	11.21	
5	QPSK	25	0	11.31	11.28	11.27	12.1
5	16QAM	1	0	11.47	11.55	11.50	
5	16QAM	1	12	11.55	11.53	11.52	
5	16QAM	1	24	11.43	11.51	11.49	11.1
5	16QAM	12	0	10.33	10.28	10.25	
5	16QAM	12	7	10.17	10.26	10.18	
5	16QAM	12	13	10.24	10.29	10.24	11.1
5	16QAM	25	0	10.24	10.31	10.21	
5	64QAM	1	0	10.52	10.58	10.51	
5	64QAM	1	12	10.46	10.56	10.41	11.1
5	64QAM	1	24	10.46	10.46	10.44	
5	64QAM	12	0	9.29	9.36	9.29	
5	64QAM	12	7	9.27	9.33	9.30	10.1
5	64QAM	12	13	9.25	9.32	9.26	
5	64QAM	25	0	9.28	9.33	9.23	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	12.27	12.30	12.25	13.1
3	QPSK	1	8	12.19	12.25	12.16	
3	QPSK	1	14	12.12	12.17	12.20	
3	QPSK	8	0	11.22	11.23	11.20	

Band 71 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	19.63	19.69	19.64	20.3
20	QPSK	1	49	19.54	19.62	19.60	
20	QPSK	1	99	19.59	19.63	19.62	
20	QPSK	50	0	18.70	18.73	18.68	19.3
20	QPSK	50	24	18.66	18.71	18.63	
20	QPSK	50	50	18.65	18.68	18.63	
20	QPSK	100	0	18.64	18.72	18.66	19.3
20	16QAM	1	0	18.92	18.97	18.91	
20	16QAM	1	49	18.83	18.91	18.88	
20	16QAM	1	99	18.89	18.94	18.90	18.3
20	16QAM	50	0	17.72	17.76	17.73	
20	16QAM	50	24	17.67	17.74	17.71	
20	16QAM	50	50	17.66	17.73	17.68	18.3
20	16QAM	100	0	17.72	17.75	17.69	
20	64QAM	1	0	17.77	17.80	17.74	
20	64QAM	1	49	17.84	17.85	17.79	18.3
20	64QAM	1	99	17.82	17.83	17.78	
20	64QAM	50	0	16.68	16.76	16.70	17.3
20	64QAM	50	24	16.71	16.79	16.76	
20	64QAM	50	50	16.67	16.74	16.70	
20	64QAM	100	0	16.69	16.73	16.71	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	19.62	19.64	19.60	20.3
15	QPSK	1	37	19.51	19.58	19.55	
15	QPSK	1	74	19.57	19.56	19.58	
15	QPSK	36	0	18.70	18.70	18.67	19.3
15	QPSK	36	20	18.58	18.68	18.58	
15	QPSK	36	39	18.63	18.65	18.62	
15	QPSK	75	0	18.59	18.65	18.61	19.3
15	16QAM	1	0	18.89	18.94	18.89	
15	16QAM	1	37	18.80	18.87	18.85	
15	16QAM	1	74	18.87	18.86	18.88	18.3
15	16QAM	36	0	17.64	17.75	17.72	
15	16QAM	36	20	17.63	17.68	17.68	
15	16QAM	36	39	17.63	17.67	17.61	18.3
15	16QAM	75	0	17.65	17.68	17.64	
15	64QAM	1	0	17.69	17.79	17.67	
15	64QAM	1	37	17.79	17.84	17.72	18.3
15	64QAM	1	74	17.75	17.79	17.70	
15	64QAM	36	0	16.64	16.73	16.65	17.3
15	64QAM	36	20	16.63	16.75	16.70	
15	64QAM	36	39	16.60	16.70	16.65	
15	64QAM	75	0	16.67	16.68	16.65	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	19.61	19.62	19.56	20.3
10	QPSK	1	25	19.49	19.54	19.53	
10	QPSK	1	49	19.51	19.55	19.61	
10	QPSK	25	0	18.67	18.71	18.67	19.3
10	QPSK	25	12	18.61	18.69	18.57	
10	QPSK	25	25	18.62	18.61	18.58	
10	QPSK	50	0	18.60	18.70	18.63	19.3
10	16QAM	1	0	18.91	18.90	18.84	
10	16QAM	1	25	18.77	18.85	18.87	
10	16QAM	1	49	18.88	18.93	18.86	18.3
10	16QAM	25	0	17.69	17.75	17.71	
10	16QAM	25	12	17.63	17.68	17.68	
10	16QAM	25	25	17.65	17.67	17.65	18.3
10	16QAM	50	0	17.70	17.72	17.64	
10	64QAM	1	0	17.72	17.76	17.72	
10	64QAM	1	25	17.78	17.80	17.73	18.3
10	64QAM	1	49	17.79	17.79	17.72	
10	64QAM	25	0	16.62	16.69	16.68	
10	64QAM	25	12	16.68	16.77	16.69	17.3
10	64QAM	25	25	16.61	16.71	16.64	
10	64QAM	50	0	16.67	16.67	16.68	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	19.62	19.68	19.59	20.3
5	QPSK	1	12	19.50	19.56	19.58	
5	QPSK	1	24	19.54	19.61	19.60	
5	QPSK	12	0	18.65	18.66	18.65	19.3
5	QPSK	12	7	18.60	18.68	18.61	
5	QPSK	12	13	18.63	18.65	18.59	
5	QPSK	25	0	18.58	18.70	18.61	19.3
5	16QAM	1	0	18.91	18.89	18.85	
5	16QAM	1	12	18.81	18.88	18.81	
5	16QAM	1	24	18.82	18.87	18.85	18.3
5	16QAM	12	0	17.68	17.70	17.69	
5	16QAM	12	7	17.61	17.72	17.66	
5	16QAM	12	13	17.62	17.65	17.62	18.3
5	16QAM	25	0	17.70	17.67	17.64	
5	64QAM	1	0	17.74	17.75	17.68	
5	64QAM	1	12	17.77	17.77	17.72	18.3
5	64QAM	1	24	17.81	17.80	17.76	
5	64QAM	12	0	16.60	16.69	16.63	
5	64QAM	12	7	16.66	16.73	16.75	17.3
5	64QAM	12	13	16.62	16.67	16.63	
5	64QAM	25	0	16.61	16.68	16.65	



3	QPSK	8	4	11.28	11.34	11.34	12.1
3	QPSK	8	7	11.18	11.22	11.21	
3	QPSK	15	0	11.33	11.33	11.25	
3	16QAM	1	0	11.49	11.55	11.48	12.1
3	16QAM	1	8	11.51	11.56	11.51	
3	16QAM	1	14	11.44	11.54	11.43	
3	16QAM	8	0	10.29	10.33	10.27	11.1
3	16QAM	8	4	10.20	10.23	10.22	
3	16QAM	8	7	10.24	10.31	10.28	
3	16QAM	15	0	10.25	10.29	10.25	11.1
3	64QAM	1	0	10.49	10.55	10.51	
3	64QAM	1	8	10.46	10.49	10.44	
3	64QAM	1	14	10.46	10.50	10.41	10.1
3	64QAM	8	0	9.26	9.32	9.30	
3	64QAM	8	4	9.23	9.30	9.29	
3	64QAM	8	7	9.22	9.28	9.31	10.1
3	64QAM	15	0	9.28	9.29	9.27	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	12.25	12.32	12.25	13.1
1.4	QPSK	1	3	12.13	12.26	12.23	
1.4	QPSK	1	5	12.12	12.22	12.18	
1.4	QPSK	3	0	12.14	12.20	12.14	
1.4	QPSK	3	1	12.18	12.24	12.19	
1.4	QPSK	3	3	12.09	12.17	12.14	12.1
1.4	QPSK	6	0	11.32	11.34	11.23	
1.4	16QAM	1	0	11.52	11.54	11.54	
1.4	16QAM	1	3	11.48	11.54	11.51	
1.4	16QAM	1	5	11.43	11.50	11.49	
1.4	16QAM	3	0	11.19	11.20	11.13	11.1
1.4	16QAM	3	1	11.08	11.15	11.10	
1.4	16QAM	3	3	11.16	11.24	11.15	
1.4	16QAM	6	0	10.25	10.32	10.24	
1.4	64QAM	1	0	10.54	10.57	10.54	
1.4	64QAM	1	3	10.53	10.55	10.45	11.1
1.4	64QAM	1	5	10.46	10.49	10.40	
1.4	64QAM	3	0	10.20	10.26	10.24	
1.4	64QAM	3	1	10.16	10.26	10.19	
1.4	64QAM	3	3	10.12	10.23	10.21	
1.4	64QAM	6	0	9.26	9.32	9.24	10.1



Band 38(only on channel required) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37850	38000	38150	13.8
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	13.12	13.15	13.08	
20	QPSK	1	49	13.04	13.11	13.09	12.8
20	QPSK	1	99	13.07	13.10	13.08	
20	QPSK	50	0	12.10	12.13	12.05	
20	QPSK	50	24	12.23	12.25	12.22	12.8
20	QPSK	50	50	12.16	12.21	12.19	
20	QPSK	100	0	12.15	12.20	12.13	
20	16QAM	1	0	12.31	12.36	12.32	11.8
20	16QAM	1	49	12.32	12.35	12.27	
20	16QAM	1	99	12.35	12.36	12.30	
20	16QAM	50	0	11.22	11.28	11.20	11.8
20	16QAM	50	24	11.21	11.26	11.23	
20	16QAM	50	50	11.21	11.22	11.14	
20	16QAM	100	0	11.21	11.24	11.23	11.8
20	64QAM	1	0	11.21	11.23	11.16	
20	64QAM	1	49	11.14	11.18	11.13	
20	64QAM	1	99	11.12	11.17	11.13	10.8
20	64QAM	50	0	10.18	10.22	10.14	
20	64QAM	50	24	10.20	10.25	10.18	
20	64QAM	50	50	10.25	10.28	10.23	10.8
20	64QAM	100	0	10.20	10.21	10.14	
Channel				37825	38000	38175	13.8
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	13.06	13.12	13.01	
15	QPSK	1	37	13.00	13.07	13.08	12.8
15	QPSK	1	74	13.06	13.04	13.03	
15	QPSK	36	0	12.01	12.12	12.09	
15	QPSK	36	20	12.20	12.17	12.18	12.8
15	QPSK	36	39	12.09	12.16	12.15	
15	QPSK	75	0	12.11	12.12	12.11	
15	16QAM	1	0	12.29	12.34	12.27	12.8
15	16QAM	1	37	12.31	12.33	12.24	
15	16QAM	1	74	12.28	12.33	12.27	
15	16QAM	36	0	11.17	11.27	11.17	11.8
15	16QAM	36	20	11.18	11.21	11.20	
15	16QAM	36	39	11.20	11.14	11.13	
15	16QAM	75	0	11.18	11.22	11.18	11.8
15	64QAM	1	0	11.18	11.17	11.13	
15	64QAM	1	37	11.13	11.13	11.07	
15	64QAM	1	74	11.08	11.13	11.09	10.8
15	64QAM	36	0	10.14	10.14	10.11	
15	64QAM	36	20	10.19	10.18	10.15	
15	64QAM	36	39	10.17	10.26	10.16	10.8
15	64QAM	75	0	10.16	10.13	10.06	
Channel				37800	38000	38200	13.8
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	13.07	13.10	13.00	
10	QPSK	1	25	12.97	13.03	13.08	12.8
10	QPSK	1	49	13.04	13.08	13.05	
10	QPSK	25	0	12.08	12.09	12.05	
10	QPSK	25	12	12.17	12.17	12.18	12.8
10	QPSK	25	25	12.12	12.16	12.18	
10	QPSK	50	0	12.14	12.14	12.09	
10	16QAM	1	0	12.24	12.30	12.27	12.8
10	16QAM	1	25	12.31	12.31	12.24	
10	16QAM	1	49	12.28	12.29	12.22	
10	16QAM	25	0	11.16	11.22	11.18	11.8
10	16QAM	25	12	11.16	11.22	11.19	
10	16QAM	25	25	11.18	11.18	11.12	
10	16QAM	50	0	11.13	11.20	11.20	11.8
10	64QAM	1	0	11.16	11.18	11.10	
10	64QAM	1	25	11.13	11.10	11.09	
10	64QAM	1	49	11.07	11.16	11.05	10.8
10	64QAM	25	0	10.12	10.20	10.07	
10	64QAM	25	12	10.19	10.23	10.15	
10	64QAM	25	25	10.21	10.21	10.22	10.8
10	64QAM	50	0	10.19	10.15	10.11	
Channel				37775	38000	38225	13.8
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	13.08	13.13	13.05	
5	QPSK	1	12	12.98	13.05	13.02	12.8
5	QPSK	1	24	13.02	13.02	13.07	
5	QPSK	12	0	12.02	12.05	12.07	
5	QPSK	12	7	12.22	12.22	12.18	12.8
5	QPSK	12	13	12.08	12.15	12.18	
5	QPSK	25	0	12.09	12.19	12.11	
5	16QAM	1	0	12.24	12.31	12.26	12.8
5	16QAM	1	12	12.31	12.31	12.25	
5	16QAM	1	24	12.32	12.31	12.27	
5	16QAM	12	0	11.18	11.26	11.14	11.8
5	16QAM	12	7	11.19	11.18	11.17	
5	16QAM	12	13	11.13	11.17	11.06	
5	16QAM	25	0	11.20	11.21	11.15	11.8
5	64QAM	1	0	11.19	11.18	11.08	
5	64QAM	1	12	11.08	11.12	11.09	
5	64QAM	1	24	11.06	11.10	11.07	10.8
5	64QAM	12	0	10.16	10.20	10.10	
5	64QAM	12	7	10.16	10.19	10.14	
5	64QAM	12	13	10.24	10.22	10.21	10.8
5	64QAM	25	0	10.16	10.20	10.11	

Band 41 (2496~2690MHz) (dBm)-PC2										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel		Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	11.85	11.83	12.14	12.10	12.08	12.9	
20	QPSK	1	49	11.71	11.78	12.09	12.07	12.03		
20	QPSK	1	99	11.78	11.76	12.12	12.08	12.05		
20	QPSK	50	0	10.93	10.89	11.15	11.08	11.01	11.9	
20	QPSK	50	24	10.90	10.82	11.12	11.00	10.97		
20	QPSK	50	50	10.80	10.87	11.08	10.97	11.00		
20	QPSK	100	0	10.87	10.86	11.05	11.06	10.99	11.9	
20	16QAM	1	0	11.06	11.12	11.43	11.40	11.41		
20	16QAM	1	49	11.03	11.03	11.40	11.32	11.39		
20	16QAM	1	99	11.02	11.04	11.38	11.35	11.31	11.9	
20	16QAM	50	0	9.98	9.99	10.33	10.31	10.25		
20	16QAM	50	24	9.91	9.93	10.29	10.24	10.25		
20	16QAM	50	50	9.95	9.95	10.31	10.24	10.28	10.9	
20	16QAM	100	0	9.90	9.94	10.27	10.22	10.21		
20	64QAM	1	0	9.88	9.90	10.22	10.14	10.14		
20	64QAM	1	49	9.85	9.84	10.21	10.14	10.17	10.9	
20	64QAM	1	99	9.90	9.90	10.26	10.21	10.21		
20	64QAM	50	0	8.94	8.96	9.28	9.26	9.23		
20	64QAM	50	24	8.94	8.95	9.26	9.18	9.20	9.9	
20	64QAM	50	50	8.99	8.93	9.30	9.24	9.29		
20	64QAM	100	0	8.90	8.91	9.28	9.27	9.24		
Channel				39725	40173	40620	41068	41515		Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	11.83	11.76	12.08	12.07	12.07	12.9	
15	QPSK	1	37	11.64	11.72	12.03	12.02	12.02		
15	QPSK	1	74	11.76	11.74	12.08	12.06	11.98		
15	QPSK	36	0	10.89	10.86	11.22	11.12	11.20	11.9	
15	QPSK	36	20	10.84	10.85	11.18	11.12	11.09		
15	QPSK	36	39	10.78	10.86	11.13	11.14	11.10		
15	QPSK	75	0	10.79	10.83	11.22	11.12	11.15	11.9	
15	16QAM	1	0	11.04	11.09	11.35	11.33	11.38		
15	16QAM	1	37	11.01	10.95	11.33	11.26	11.31		
15	16QAM	1	74	11.00	10.98	11.32	11.32	11.25	11.9	
15	16QAM	36	0	9.90	9.96	10.31	10.27	10.18		
15	16QAM	36	20	9.86	9.87	10.21	10.20	10.22		
15	16QAM	36	39	9.94	9.88	10.29	10.17	10.20	10.9	
15	16QAM	75	0	9.84	9.87	10.26	10.14	10.17		
15	64QAM	1	0	9.85	9.88	10.18	10.06	10.13		
15	64QAM	1	37	9.79	9.79	10.16	10.10	10.12	10.9	
15	64QAM	1	74	9.89	9.88	10.22	10.15	10.15		
15	64QAM	36	0	8.92	8.95	9.24	9.22	9.22		
15	64QAM	36	20	8.90	8.93	9.24	9.12	9.17	9.9	
15	64QAM	36	39	8.93	8.89	9.22	9.17	9.22		
15	64QAM	75	0	8.85	8.88	9.24	9.26	9.19		
Channel				39700	40160	40620	41080	41540		Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	11.78	11.82	12.07	12.05	12.06	12.9	
10	QPSK	1	25	11.67	11.76	12.07	12.00	11.98		
10	QPSK	1	49	11.77	11.72	12.04	12.07	12.02		
10	QPSK	25	0	10.85	10.82	11.21	11.13	11.20	11.9	
10	QPSK	25	12	10.87	10.87	11.16	11.13	11.14		
10	QPSK	25	25	10.76	10.81	11.17	11.13	11.14		
10	QPSK	50	0	10.85	10.85	11.16	11.10	11.18	11.9	
10	16QAM	1	0	10.99	11.09	11.37	11.39	11.34		
10	16QAM	1	25	10.97	10.97	11.39	11.29	11.38		
10	16QAM	1	49	10.98	11.02	11.37	11.28	11.30	11.9	
10	16QAM	25	0	9.93	9.92	10.31	10.24	10.22		
10	16QAM	25	12	9.90	9.90	10.21	10.21	10.22		
10	16QAM	25	25	9.90	9.89	10.24	10.18	10.21	10.9	
10	16QAM	50	0	9.82	9.91	10.21	10.20	10.15		
10	64QAM	1	0	9.81	9.87	10.18	10.06	10.11		
10	64QAM	1	25	9.82	9.78	10.19	10.13	10.12	10.9	
10	64QAM	1	49	9.88	9.83	10.25	10.17	10.17		
10	64QAM	25	0	8.89	8.89	9.22	9.18	9.18		
10	64QAM	25	12	8.93	8.90	9.19	9.14	9.15	9.9	
10	64QAM	25	25	8.95	8.85	9.27	9.20	9.27		
10	64QAM	50	0	8.85	8.88	9.26	9.21	9.21		
Channel				39675	40148	40620	41093	41565		Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	11.83	11.78	12.08	12.06	12.01	12.9	
5	QPSK	1	12	11.66	11.77	12.04	12.04	11.97		
5	QPSK	1	24	11.72	11.71	12.07	12.02	12.04		
5	QPSK	12	0	10.91	10.84	11.24	11.15	11.15	11.9	
5	QPSK	12	7	10.89	10.81	11.21	11.19	11.15		
5	QPSK	12	13	10.79	10.80	11.14	11.12	11.10		
5	QPSK	25	0	10.79	10.84	11.22	11.11	11.19	11.9	
5	16QAM	1	0	11.04	11.10	11.35	11.36	11.37		
5	16QAM	1	12	11.00	10.97	11.39	11.24	11.34		
5	16QAM	1	24	10.94	10.99	11.32	11.32	11.30	11.9	
5	16QAM	12	0	9.97	9.91	10.31	10.23	10.20		
5	16QAM	12	7	9.86	9.90	10.25	10.23	10.22		
5	16QAM	12	13	9.94	9.92	10.26	10.17	10.25	10.9	
5	16QAM	25	0	9.86	9.90	10.19	10.17	10.14		
5	64QAM	1	0	9.84	9.87	10.19	10.11	10.10		
5	64QAM	1	12	9.81	9.81	10.14	10.11	10.10	10.9	
5	64QAM	1	24	9.84	9.85	10.23	10.14	10.20		
5	64QAM	12	0	8.87	8.88	9.23	9.18	9.18		
5	64QAM	12	7	8.88	8.87	9.23	9.13	9.13	9.9	
5	64QAM	12	13	8.98	8.91	9.26	9.20	9.22		
5	64QAM	25	0	8.89	8.88	9.20	9.20	9.20		



Band 41 (2496~2690MHz) (dBm)-PC3									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	Tune-up limit (dBm)
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	12.79	12.70	13.16	13.14	13.11	13.8
20	QPSK	1	49	12.69	12.67	13.14	13.09	13.09	
20	QPSK	1	99	12.69	12.65	13.12	13.06	13.07	
20	QPSK	50	0	11.70	11.76	12.18	12.16	12.13	12.8
20	QPSK	50	24	11.72	11.72	12.17	12.13	12.11	
20	QPSK	50	50	11.73	11.74	12.15	12.07	12.13	
20	QPSK	100	0	11.71	11.73	12.18	12.17	12.12	12.8
20	16QAM	1	0	11.64	11.58	12.05	12.04	12.01	
20	16QAM	1	49	11.57	11.60	12.04	11.97	11.96	
20	16QAM	1	99	11.70	11.70	12.14	12.12	12.13	11.8
20	16QAM	50	0	10.65	10.65	11.12	11.09	11.09	
20	16QAM	50	24	10.75	10.72	11.20	11.12	11.17	
20	16QAM	50	50	10.76	10.76	11.18	11.17	11.17	11.8
20	16QAM	100	0	10.70	10.68	11.14	11.06	11.08	
20	64QAM	1	0	10.44	10.47	10.92	10.89	10.91	
20	64QAM	1	49	10.41	10.45	10.88	10.81	10.81	11.8
20	64QAM	1	99	10.49	10.55	10.96	10.89	10.94	
20	64QAM	50	0	9.79	9.79	10.20	10.12	10.15	
20	64QAM	50	24	9.86	9.83	10.27	10.19	10.21	10.8
20	64QAM	50	50	9.78	9.80	10.24	10.17	10.23	
20	64QAM	100	0	9.76	9.76	10.22	10.21	10.17	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	12.75	12.64	13.09	13.13	13.05	13.8
15	QPSK	1	37	12.64	12.61	13.11	13.08	13.07	
15	QPSK	1	74	12.65	12.63	13.10	13.04	13.06	
15	QPSK	38	0	11.64	11.72	12.15	12.09	12.11	12.8
15	QPSK	38	20	11.70	11.70	12.13	12.10	12.05	
15	QPSK	38	39	11.69	11.66	12.13	12.05	12.07	
15	QPSK	75	0	11.64	11.66	12.11	12.10	12.05	12.8
15	16QAM	1	0	11.63	11.52	12.02	12.01	12.00	
15	16QAM	1	37	11.51	11.53	12.01	11.90	11.89	
15	16QAM	1	74	11.68	11.63	12.08	12.07	12.06	11.8
15	16QAM	38	0	10.59	10.63	11.07	11.08	11.08	
15	16QAM	38	20	10.67	10.68	11.19	11.06	11.12	
15	16QAM	38	39	10.69	10.72	11.14	11.14	11.10	11.8
15	16QAM	75	0	10.65	10.66	11.09	11.05	11.03	
15	64QAM	1	0	10.41	10.44	10.87	10.83	10.89	
15	64QAM	1	37	10.34	10.40	10.86	10.77	10.77	11.8
15	64QAM	1	74	10.43	10.48	10.94	10.86	10.87	
15	64QAM	38	0	9.74	9.75	10.13	10.11	10.14	
15	64QAM	38	20	9.79	9.77	10.24	10.18	10.16	10.8
15	64QAM	38	39	9.75	9.79	10.17	10.14	10.15	
15	64QAM	75	0	9.75	9.74	10.19	10.14	10.14	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	12.76	12.63	13.14	13.09	13.03	13.8
10	QPSK	1	25	12.66	12.63	13.06	13.04	13.04	
10	QPSK	1	49	12.61	12.61	13.11	13.05	13.06	
10	QPSK	25	0	11.66	11.71	12.17	12.15	12.11	12.8
10	QPSK	25	12	11.64	11.67	12.15	12.12	12.07	
10	QPSK	25	25	11.68	11.68	12.08	12.00	12.09	
10	QPSK	50	0	11.67	11.70	12.10	12.15	12.08	12.8
10	16QAM	1	0	11.56	11.53	11.97	11.99	11.99	
10	16QAM	1	25	11.49	11.56	11.97	11.94	11.93	
10	16QAM	1	49	11.67	11.65	12.12	12.05	12.10	11.8
10	16QAM	25	0	10.59	10.62	11.09	11.03	11.05	
10	16QAM	25	12	10.72	10.64	11.16	11.05	11.13	
10	16QAM	25	25	10.68	10.75	11.13	11.09	11.10	11.8
10	16QAM	50	0	10.64	10.64	11.10	11.00	11.00	
10	64QAM	1	0	10.41	10.42	10.85	10.83	10.84	
10	64QAM	1	25	10.33	10.39	10.84	10.73	10.77	10.8
10	64QAM	1	49	10.44	10.47	10.94	10.82	10.86	
10	64QAM	25	0	9.78	9.73	10.19	10.10	10.10	
10	64QAM	25	12	9.78	9.78	10.22	10.11	10.20	10.8
10	64QAM	25	25	9.76	9.73	10.16	10.12	10.22	
10	64QAM	50	0	9.74	9.68	10.18	10.14	10.10	
Channel				39675	40148	40620	41093	41555	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	12.71	12.62	13.15	13.07	13.04	13.8
5	QPSK	1	12	12.67	12.62	13.08	13.01	13.01	
5	QPSK	1	24	12.64	12.61	13.05	12.98	13.02	
5	QPSK	12	0	11.67	11.75	12.17	12.14	12.10	12.8
5	QPSK	12	7	11.67	11.66	12.13	12.10	12.03	
5	QPSK	12	13	11.66	11.69	12.10	12.01	12.06	
5	QPSK	25	0	11.67	11.70	12.11	12.13	12.07	12.8
5	16QAM	1	0	11.58	11.50	12.02	12.02	11.97	
5	16QAM	1	12	11.56	11.58	12.00	11.91	11.89	
5	16QAM	1	24	11.69	11.68	12.13	12.10	12.05	11.8
5	16QAM	12	0	10.60	10.57	11.09	11.01	11.03	
5	16QAM	12	7	10.69	10.64	11.18	11.05	11.12	
5	16QAM	12	13	10.71	10.71	11.17	11.13	11.14	11.8
5	16QAM	25	0	10.65	10.63	11.09	11.00	11.07	
5	64QAM	1	0	10.43	10.39	10.87	10.84	10.85	
5	64QAM	1	12	10.34	10.38	10.85	10.76	10.75	11.8
5	64QAM	1	24	10.42	10.49	10.94	10.84	10.90	
5	64QAM	12	0	9.78	9.76	10.15	10.07	10.10	
5	64QAM	12	7	9.81	9.78	10.26	10.13	10.15	10.8
5	64QAM	12	13	9.73	9.73	10.23	10.14	10.16	
5	64QAM	25	0	9.69	9.71	10.17	10.13	10.09	



CA_41C-PC3_Ant 1 Combination 20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (SOPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	12.33	13.50
40620	40521	40719	QPSK	1	0	0	0	1	0	12.63	13.50
41490	41292	41490	QPSK	1	0	0	0	1	0	12.55	13.50
39750	39750	39948	16QAM	1	0	0	0	1	0	11.57	12.00
40620	40521	40719	16QAM	1	0	0	0	1	0	11.89	12.00
41490	41292	41490	16QAM	1	0	0	0	1	0	11.84	12.00
39750	39750	39948	64QAM	1	0	0	0	1	0	10.13	11.00
40620	40521	40719	64QAM	1	0	0	0	1	0	10.45	11.00
41490	41292	41490	64QAM	1	0	0	0	1	0	10.33	11.00
39750	39750	39948	QPSK	50	0	0	0	1	0	11.22	12.00
40620	40521	40719	QPSK	50	0	0	0	1	0	11.53	12.00
41490	41292	41490	QPSK	50	0	0	0	1	0	11.29	12.00



Reduced Power Level 3 for Ant 3 & Ant 6

Band 48 (3.5G Band) (dBm)_Ant3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Middle-Low Channel	Middle-Low Channel	Middle-High Channel	High Channel	Tune-up limit (dBm)
Channel				55340	55830	55990	56150	56640	17.8
Frequency (MHz)				3560	3609	3625	3641	3690	
20	QPSK	1	0	17.25	17.17	17.21	17.24	17.28	17.8
20	QPSK	1	49	17.24	17.18	17.29	17.22	17.22	
20	QPSK	1	99	17.21	17.12	17.25	17.21	17.29	16.8
20	QPSK	50	0	16.24	16.17	16.28	16.23	16.27	
20	QPSK	50	24	16.17	16.13	16.25	16.17	16.23	15.8
20	QPSK	50	50	16.17	16.14	16.24	16.20	16.21	
20	QPSK	100	0	16.14	16.05	16.19	16.14	16.15	14.8
20	16QAM	1	0	16.10	16.01	16.18	16.10	16.12	
20	16QAM	1	49	16.12	16.02	16.17	16.11	16.16	13.8
20	16QAM	1	99	16.06	16.02	16.14	16.07	16.10	
20	16QAM	50	0	15.17	15.10	15.20	15.15	15.14	12.8
20	16QAM	50	24	15.11	15.05	15.16	15.14	15.15	
20	16QAM	50	50	15.09	15.02	15.17	15.15	15.13	11.8
20	16QAM	100	0	15.15	15.00	15.17	15.10	15.12	
20	64QAM	1	0	15.00	14.90	15.04	14.96	14.96	10.8
20	64QAM	1	49	14.95	14.87	15.02	14.99	14.96	
20	64QAM	1	99	14.97	14.88	15.03	15.01	14.98	9.8
20	64QAM	50	0	14.14	14.06	14.21	14.18	14.13	
20	64QAM	50	24	14.16	14.10	14.20	14.13	14.13	8.8
20	64QAM	50	50	14.15	14.08	14.18	14.12	14.14	
20	64QAM	100	0	14.12	14.05	14.15	14.13	14.07	7.8
Channel				55315	55520	55990	56160	56605	
Frequency (MHz)				3557.5	3608	3625	3642	3692.5	17.8
15	QPSK	1	0	17.21	17.13	17.27	17.19	17.22	
15	QPSK	1	37	17.23	17.11	17.26	17.17	17.20	16.8
15	QPSK	1	74	17.16	17.11	17.20	17.20	17.16	
15	QPSK	36	0	16.20	16.14	16.22	16.22	16.19	15.8
15	QPSK	36	20	16.11	16.06	16.20	16.13	16.21	
15	QPSK	36	36	16.09	16.07	16.18	16.18	16.15	14.8
15	QPSK	75	0	16.12	16.02	16.15	16.09	16.14	
15	16QAM	1	0	16.04	15.93	16.15	16.04	16.06	13.8
15	16QAM	1	37	16.05	15.95	16.11	16.09	16.13	
15	16QAM	1	74	16.01	16.00	16.07	16.06	16.03	12.8
15	16QAM	36	0	15.15	15.07	15.16	15.13	15.08	
15	16QAM	36	20	15.04	15.02	15.10	15.13	15.11	11.8
15	16QAM	36	36	15.06	14.96	15.14	15.11	15.10	
15	16QAM	75	0	15.11	14.97	15.12	15.09	15.11	10.8
15	64QAM	1	0	14.96	14.82	15.03	14.92	14.98	
15	64QAM	1	37	14.91	14.79	14.98	14.97	14.94	9.8
15	64QAM	1	74	14.80	14.81	15.00	14.96	14.96	
15	64QAM	36	0	14.09	14.05	14.15	14.16	14.06	8.8
15	64QAM	36	20	14.15	14.06	14.13	14.05	14.06	
15	64QAM	36	36	14.14	14.04	14.11	14.07	14.07	7.8
15	64QAM	75	0	14.10	13.97	14.11	14.12	13.99	
Channel				55290	55815	55990	56165	56690	17.8
Frequency (MHz)				3555	3607.5	3625	3642.5	3695	
10	QPSK	1	0	17.19	17.09	17.24	17.20	17.26	17.8
10	QPSK	1	25	17.17	17.14	17.24	17.15	17.19	
10	QPSK	1	49	17.17	17.07	17.24	17.18	17.18	16.8
10	QPSK	25	0	16.19	16.14	16.23	16.15	16.22	
10	QPSK	25	12	16.16	16.07	16.21	16.15	16.16	15.8
10	QPSK	25	25	16.12	16.10	16.20	16.17	16.18	
10	QPSK	50	0	16.13	16.03	16.15	16.08	16.07	14.8
10	16QAM	1	0	16.07	15.94	16.17	16.04	16.06	
10	16QAM	1	25	16.04	15.97	16.11	16.06	16.11	13.8
10	16QAM	1	49	16.01	15.95	16.12	16.03	16.07	
10	16QAM	25	0	15.16	15.03	15.13	15.13	15.11	12.8
10	16QAM	25	12	15.06	15.01	15.15	15.12	15.14	
10	16QAM	25	25	15.08	14.94	15.10	15.13	15.12	11.8
10	16QAM	50	0	15.09	14.97	15.16	15.03	15.04	
10	64QAM	1	0	14.85	14.87	14.96	14.95	14.98	10.8
10	64QAM	1	25	14.87	14.86	14.95	14.94	14.95	
10	64QAM	1	49	14.90	14.84	14.95	15.00	14.94	9.8
10	64QAM	25	0	14.11	14.04	14.20	14.16	14.10	
10	64QAM	25	12	14.08	14.02	14.13	14.06	14.07	8.8
10	64QAM	25	25	14.14	14.02	14.14	14.08	14.07	
10	64QAM	50	0	14.11	13.97	14.12	14.11	14.05	7.8
Channel				55265	55810	55990	56170	56175	
Frequency (MHz)				3552.5	3607	3625	3643	3697.5	17.8
5	QPSK	1	0	17.19	17.12	17.25	17.23	17.21	
5	QPSK	1	12	17.16	17.12	17.23	17.19	17.17	16.8
5	QPSK	1	24	17.20	17.04	17.18	17.14	17.19	
5	QPSK	12	0	16.23	16.14	16.24	16.21	16.26	15.8
5	QPSK	12	7	16.13	16.08	16.19	16.09	16.16	
5	QPSK	12	13	16.10	16.06	16.22	16.12	16.16	14.8
5	QPSK	25	0	16.06	16.01	16.11	16.11	16.07	
5	16QAM	1	0	16.08	15.93	16.17	16.09	16.04	13.8
5	16QAM	1	12	16.09	15.94	16.15	16.05	16.11	
5	16QAM	1	24	15.98	15.94	16.12	16.06	16.07	12.8
5	16QAM	12	0	15.16	15.03	15.14	15.13	15.12	
5	16QAM	12	7	15.09	15.01	15.15	15.06	15.09	11.8
5	16QAM	12	13	15.01	14.95	15.15	15.08	15.11	
5	16QAM	25	0	15.09	14.99	15.15	15.09	15.04	10.8
5	64QAM	1	0	14.99	14.83	14.97	14.90	14.98	
5	64QAM	1	12	14.90	14.85	14.98	14.96	14.94	9.8
5	64QAM	1	24	14.90	14.81	15.00	14.99	14.94	
5	64QAM	12	0	14.13	14.03	14.18	14.17	14.12	8.8
5	64QAM	12	7	14.11	14.07	14.13	14.11	14.07	
5	64QAM	12	13	14.11	14.04	14.10	14.05	14.07	7.8
5	64QAM	25	0	14.05	13.98	14.07	14.08	13.99	

Band 48 (3.5G Band) (dBm)_Ant 6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Middle-Low Channel	Middle-Low Channel	Middle-High Channel	High Channel	Time-up limit (dBm)
Channel				55340	55830	55990	56150	56640	
Frequency (MHz)				3560	3609	3625	3641	3690	
20	QPSK	1	0	20.25	20.17	20.31	20.24	20.28	20.8
20	QPSK	1	49	20.24	20.16	20.29	20.22	20.22	
20	QPSK	1	99	20.21	20.12	20.25	20.21	20.20	19.8
20	QPSK	50	0	19.24	19.17	19.28	19.23	19.27	
20	QPSK	50	24	19.17	19.13	19.25	19.17	19.23	18.8
20	QPSK	50	50	19.17	19.14	19.24	19.20	19.21	
20	QPSK	100	0	19.14	19.05	19.19	19.14	19.15	17.8
20	16QAM	1	0	19.10	19.01	19.18	19.10	19.12	
20	16QAM	1	49	19.12	19.02	19.17	19.11	19.16	16.8
20	16QAM	1	99	19.08	19.02	19.14	19.07	19.10	
20	16QAM	50	0	18.17	18.10	18.20	18.15	18.14	15.8
20	16QAM	50	24	18.11	18.05	18.16	18.14	18.15	
20	16QAM	50	50	18.09	18.02	18.17	18.15	18.13	14.8
20	16QAM	100	0	18.15	18.00	18.17	18.10	18.12	
20	64QAM	1	0	18.00	17.90	18.04	17.98	17.99	13.8
20	64QAM	1	49	17.95	17.87	18.02	17.99	17.97	
20	64QAM	1	99	17.97	17.88	18.03	18.01	17.98	12.8
20	64QAM	50	0	17.14	17.06	17.21	17.18	17.13	
20	64QAM	50	24	17.16	17.10	17.20	17.13	17.13	11.8
20	64QAM	50	50	17.15	17.08	17.18	17.12	17.14	
20	64QAM	100	0	17.12	17.05	17.17	17.13	17.07	10.8
Channel				55315	55620	55990	56160	56605	
Frequency (MHz)				3557.5	3608	3625	3642	3692.5	Time-up limit (dBm)
15	QPSK	1	0	20.21	20.13	20.27	20.19	20.22	20.8
15	QPSK	1	37	20.23	20.11	20.26	20.17	20.20	
15	QPSK	1	74	20.16	20.11	20.20	20.20	20.16	19.8
15	QPSK	36	0	19.20	19.14	19.22	19.22	19.19	
15	QPSK	36	20	19.11	19.05	19.20	19.13	19.21	18.8
15	QPSK	36	39	19.09	19.07	19.18	19.18	19.15	
15	QPSK	75	0	19.12	19.02	19.15	19.09	19.14	17.8
15	16QAM	1	0	19.04	18.93	19.15	19.04	19.06	
15	16QAM	1	37	19.05	18.97	19.06	19.11	19.13	16.8
15	16QAM	1	74	19.01	19.00	19.07	19.06	19.03	
15	16QAM	36	0	18.13	18.02	18.16	18.11	18.08	15.8
15	16QAM	36	20	18.04	18.02	18.10	18.13	18.10	
15	16QAM	36	39	18.06	17.96	18.14	18.11	18.11	14.8
15	16QAM	75	0	18.11	17.97	18.12	18.09	18.11	
15	16QAM	1	0	17.88	17.82	17.83	17.86	17.88	13.8
15	16QAM	1	37	17.91	17.79	17.88	17.97	17.94	
15	64QAM	1	74	17.93	17.81	18.00	17.96	17.96	12.8
15	64QAM	36	0	17.09	17.05	17.15	17.16	17.06	
15	64QAM	36	20	17.15	17.06	17.13	17.05	17.06	11.8
15	64QAM	36	39	17.14	17.04	17.11	17.07	17.07	
15	64QAM	75	0	17.10	16.97	17.11	17.12	16.99	10.8
Channel				55340	55830	55990	56150	56640	
Frequency (MHz)				3560	3609	3625	3642	3690	Time-up limit (dBm)
10	QPSK	1	0	20.19	20.09	20.24	20.20	20.26	20.8
10	QPSK	1	25	20.17	20.14	20.24	20.20	20.19	
10	QPSK	1	49	20.17	20.07	20.24	20.18	20.16	19.8
10	QPSK	25	0	19.19	19.14	19.23	19.15	19.22	
10	QPSK	25	12	19.16	19.07	19.21	19.15	19.16	18.8
10	QPSK	25	25	19.12	19.10	19.20	19.17	19.18	
10	QPSK	50	0	19.13	19.03	19.15	19.08	19.07	17.8
10	16QAM	1	0	19.07	18.94	19.11	19.04	19.06	
10	16QAM	1	25	19.04	18.97	19.11	19.06	19.06	16.8
10	16QAM	1	49	19.01	18.95	19.12	19.03	19.07	
10	16QAM	25	0	18.16	18.03	18.13	18.13	18.11	15.8
10	16QAM	25	12	18.06	18.01	18.15	18.12	18.14	
10	16QAM	25	25	18.08	17.94	18.10	18.13	18.12	14.8
10	16QAM	50	0	17.88	17.97	17.98	18.00	17.98	
10	16QAM	1	0	17.85	17.82	17.88	17.95	17.94	13.8
10	64QAM	1	25	17.87	17.86	17.95	17.94	17.88	
10	64QAM	1	49	17.90	17.84	17.96	18.00	17.94	12.8
10	64QAM	25	0	17.11	17.04	17.20	17.16	17.10	
10	64QAM	25	12	17.08	17.02	17.13	17.06	17.07	11.8
10	64QAM	25	25	17.14	17.02	17.14	17.08	17.07	
10	64QAM	50	0	17.11	16.97	17.12	17.11	17.05	10.8
Channel				55340	55830	55990	56150	56640	
Frequency (MHz)				3560	3609	3625	3642	3690	Time-up limit (dBm)
5	QPSK	1	0	20.19	20.12	20.25	20.23	20.21	20.8
5	QPSK	1	12	20.16	20.12	20.23	20.19	20.17	
5	QPSK	1	24	20.20	20.04	20.18	20.14	20.19	19.8
5	QPSK	12	0	19.23	19.14	19.24	19.21	19.26	
5	QPSK	12	7	19.13	19.08	19.19	19.08	19.16	18.8
5	QPSK	12	12	19.12	19.06	19.22	19.12	19.16	
5	QPSK	25	0	19.06	19.01	19.11	19.11	19.07	17.8
5	16QAM	1	0	19.08	18.93	19.17	19.09	19.04	
5	16QAM	1	12	19.09	18.94	19.15	19.05	19.11	16.8
5	16QAM	1	24	18.96	18.94	19.12	19.06	19.07	
5	16QAM	12	0	18.16	18.03	18.14	18.13	18.12	15.8
5	16QAM	12	7	18.09	18.01	18.15	18.08	18.09	
5	16QAM	12	13	18.01	17.95	18.15	18.08	18.11	14.8
5	16QAM	25	0	18.09	17.99	18.15	18.09	18.04	
5	64QAM	1	0	17.99	17.83	17.97	17.90	17.98	13.8
5	64QAM	1	12	17.90	17.85	17.98	17.96	17.94	
5	64QAM	1	24	17.90	17.81	18.00	17.99	17.94	12.8
5	64QAM	12	0	17.13	17.03	17.18	17.17	17.12	
5	64QAM	12	7	17.11	17.07	17.13	17.11	17.07	11.8
5	64QAM	12	13	17.11	17.04	17.10	17.05	17.07	
5	64QAM	25	0	17.05	16.98	17.07	17.08	16.99	



Reduced Power Level 3 for Ant 1 & Ant 3 & Ant 4 & Ant 6

n2 (1850 ~ 1910MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	DFT-s-OFDM P+2 BPSK	1	1	13.27	13.19	13.31	14.7
20		1	53	13.36	13.42	13.32	
20		1	104	13.11	13.24	13.28	
20		50	1	12.48	12.54	12.70	
20		50	25	12.75	12.55	12.68	
20		50	50	12.18	12.29	12.17	13.7
20		100	0	12.70	12.80	12.71	
20		1	1	13.46	13.32	13.49	
20		1	53	13.47	13.47	13.43	
20		1	104	13.34	13.37	13.30	
20	DFT-s-OFDM QPSK	50	1	13.00	13.08	13.05	13.7
20		50	25	12.85	12.87	13.01	
20		50	50	12.62	12.89	12.90	
20		100	0	12.78	12.59	12.60	
20		1	1	13.17	13.09	13.26	
20	DFT-s-OFDM 16QAM	1	1	11.69	11.75	11.80	12.7
20	DFT-s-OFDM 64QAM	1	1	9.30	9.13	9.32	10.2
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	13.46	13.35	13.37	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	DFT-s-OFDM QPSK	1	1	13.50	13.47	13.36	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	DFT-s-OFDM QPSK	1	1	13.45	13.42	13.44	25.2
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	CP-OFDM QPSK	1	1	12.54	12.23	12.36	23.7
20	CP-OFDM 16QAM	1	1	12.18	12.07	12.15	23.7
20	CP-OFDM 64QAM	1	1	11.05	10.84	11.02	22.7
20	CP-OFDM 256QAM	1	1	7.23	7.33	7.34	18.7

n5 (824 ~ 849 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				165800	167300	167800	Tune-up limit (dBm)
Frequency (MHz)				834	836.5	839	
20	DFT-s-OFDM P+2 BPSK	1	1	18.86	18.96	18.91	20.2
20		1	53	18.90	19.02	19.01	
20		1	104	19.00	19.02	18.92	
20		50	1	18.43	18.49	18.49	
20		50	25	18.48	18.52	18.48	
20		50	50	18.47	18.51	18.43	19.2
20		100	0	18.45	18.48	18.48	
20		1	1	19.02	19.05	18.92	
20		1	53	19.01	19.03	18.97	
20		1	104	18.95	18.98	18.91	
20	DFT-s-OFDM QPSK	50	1	18.41	18.52	18.44	19.2
20		50	25	18.45	18.49	18.45	
20		50	50	18.47	18.49	18.52	
20		100	0	18.44	18.54	18.50	
20		1	1	18.48	18.44	18.54	
20	DFT-s-OFDM 16QAM	1	1	17.25	17.25	16.97	18.2
20	DFT-s-OFDM 256QAM	1	1	14.56	14.52	14.63	15.7
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	DFT-s-OFDM QPSK	1	1	18.94	19.01	18.87	20.2
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	DFT-s-OFDM QPSK	1	1	18.85	18.90	18.82	20.2
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	DFT-s-OFDM QPSK	1	1	18.86	18.96	18.94	20.2
Channel				166800	167300	167800	Tune-up limit (dBm)
Frequency (MHz)				834	836.5	839	
20	CP-OFDM QPSK	1	1	17.85	18.05	18.03	23.7
20	CP-OFDM 16QAM	1	1	17.45	17.56	17.52	23.2
20	CP-OFDM 64QAM	1	1	16.38	16.44	16.40	22.2
20	CP-OFDM 256QAM	1	1	12.55	12.56	12.65	18.2



n12 (699 ~ 716 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				141300	141500	141700	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	708.5	
15	DFT-s-OFDM P12 BPSK	1	1	20.96	20.98	20.83	22.2
15		1	39	20.98	20.90	20.86	
15		1	77	20.83	20.87	20.85	
15		36	1	20.43	20.44	20.40	
15		36	18	20.41	20.42	20.35	
15		36	36	20.35	20.38	20.29	21.2
15		75	0	20.34	20.40	20.35	
15		1	1	21.06	21.04	21.01	
15		1	39	20.97	20.99	20.91	
15		1	77	20.95	21.01	20.98	
15	DFT-s-OFDM QPSK	36	1	20.39	20.45	20.40	21.2
15		36	18	20.38	20.40	20.36	
15		36	36	20.24	20.36	20.25	
15		75	0	20.38	20.41	20.40	
15	DFT-s-OFDM 16QAM	1	1	20.55	20.56	20.52	21.2
15	DFT-s-OFDM 64QAM	1	1	19.06	19.05	19.04	20.2
15	DFT-s-OFDM 256QAM	1	1	16.71	16.71	16.63	17.7
Channel				140800	141000	142200	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	DFT-s-OFDM QPSK	1	1	20.85	20.91	20.82	22.2
Channel				140300	141000	142700	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	DFT-s-OFDM QPSK	1	1	20.90	20.95	20.89	22.2
Channel				141300	141500	141700	Tune-up limit (dBm)
Frequency (MHz)				706.5	707.5	708.5	
15	CP-OFDM QPSK	1	1	19.94	20.02	19.83	23.7
15	CP-OFDM 16QAM	1	1	19.41	19.55	19.52	23.2
15	CP-OFDM 64QAM	1	1	17.96	18.34	18.28	21.7
15	CP-OFDM 256QAM	1	1	14.73	14.71	14.78	18.7

n25_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1710	1882.5	1895	
40	DFT-s-OFDM P12 BPSK	1	1	12.96	13.05	13.02	14.2
40		1	53	12.91	13.00	13.01	
40		1	105	12.95	13.04	12.97	
40		50	1	12.15	12.07	12.21	
40		50	25	12.11	12.08	12.26	
40		50	50	12.04	12.09	12.31	13.2
40		100	0	12.13	12.08	12.28	
40		1	1	13.06	13.07	13.03	
40		1	53	12.89	13.01	13.00	
40		1	105	12.98	13.04	13.01	
40	DFT-s-OFDM QPSK	50	1	12.15	12.20	12.17	24.2
40		50	25	12.12	12.16	12.12	
40		50	50	12.07	12.12	12.10	
40		100	0	12.11	12.12	12.08	
40	DFT-s-OFDM 16QAM	1	1	12.24	12.45	12.25	13.2
40	DFT-s-OFDM 64QAM	1	1	10.88	10.93	10.89	12.2
40	DFT-s-OFDM 256QAM	1	1	8.48	8.50	8.44	9.7
Channel				373000	376500	380000	Tune-up limit (dBm)
Frequency (MHz)				1865	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	12.95	13.01	12.73	25.2
Channel				372000	376500	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	13.01	13.02	13.00	14.2
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	12.83	12.97	12.79	14.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	12.92	12.96	12.95	14.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	12.82	12.85	12.77	25.2
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	11.58	11.70	11.74	23.7
40	CP-OFDM 16QAM	1	1	11.26	11.16	11.27	22.7
40	CP-OFDM 64QAM	1	1	9.66	9.92	9.76	21.7
40	CP-OFDM 256QAM	1	1	6.45	6.40	6.46	18.2



n66 (1710 ~ 1780 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1769	
40	DFT-s-OFDM P+2 BPSK	1	1	12.61	12.88	12.51	13.7
40		53	1	12.60	12.65	12.64	
40		1	104	12.57	12.60	12.55	
40		53	1	11.66	11.91	11.85	
40		53	26	11.85	11.96	11.78	
40		53	52	11.84	11.98	11.79	12.7
40		106	0	11.83	11.91	11.85	
40		1	1	12.71	12.77	12.74	
40		1	53	12.69	12.72	12.71	
40		1	104	12.71	12.76	12.67	
40	DFT-s-OFDM QPSK	53	1	11.84	11.99	11.96	12.7
40		53	26	11.93	12.02	11.94	
40		53	52	11.95	11.98	11.95	
40		106	0	11.47	11.79	11.75	
40	DFT-s-OFDM 16QAM	1	1	11.73	11.77	11.79	12.7
40	DFT-s-OFDM 64QAM	1	1	10.46	10.50	10.47	11.7
40	DFT-s-OFDM 256QAM	1	1	7.93	8.09	8.01	9.2
Channel				346000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1765	
30	DFT-s-OFDM QPSK	1	1	12.76	12.65	12.68	13.7
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	12.61	12.69	12.55	13.7
Channel				343000	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	12.53	12.74	12.46	13.7
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	12.69	12.62	12.47	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	11.83	11.75	11.97	25.2
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1760	
40	CP-OFDM QPSK	1	1	11.26	11.24	11.13	23.7
40	CP-OFDM 16QAM	1	1	10.75	10.79	10.49	22.7
40	CP-OFDM 64QAM	1	1	9.45	9.38	9.26	21.7
40	CP-OFDM 256QAM	1	1	5.97	6.05	6.12	18.2

n71 (663 ~ 698 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	DFT-s-OFDM P+2 BPSK	1	1	21.16	21.25	21.22	22.2
20		1	53	21.10	21.11	21.07	
20		1	104	21.11	20.93	20.89	
20		50	1	20.31	20.54	20.40	
20		50	25	20.61	20.43	20.36	
20		50	50	20.52	20.32	20.27	21.2
20		100	0	20.63	20.47	20.10	
20		1	1	21.25	21.28	21.22	
20		1	53	21.13	21.24	21.16	
20		1	104	20.85	21.06	20.97	
20	DFT-s-OFDM QPSK	50	1	20.56	20.60	20.52	21.2
20		50	25	20.59	20.47	20.37	
20		50	50	20.51	20.58	20.27	
20		100	0	20.53	20.55	20.40	
20	DFT-s-OFDM 16QAM	1	1	20.92	20.53	20.65	21.2
20	DFT-s-OFDM 64QAM	1	1	19.34	19.27	19.18	20.2
20	DFT-s-OFDM 256QAM	1	1	16.73	16.77	16.77	17.7
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	DFT-s-OFDM QPSK	1	1	20.97	21.02	20.94	22.2
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	DFT-s-OFDM QPSK	1	1	20.89	20.99	20.88	22.2
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	DFT-s-OFDM QPSK	1	1	20.75	20.88	20.76	22.2
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	CP-OFDM QPSK	1	1	20.34	20.05	20.13	23.7
20	CP-OFDM 16QAM	1	1	19.82	19.65	19.62	23.2
20	CP-OFDM 64QAM	1	1	18.58	18.57	18.41	22.2
20	CP-OFDM 256QAM	1	1	14.84	14.96	14.81	18.7

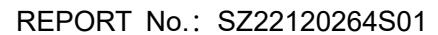


n41 (2496 ~ 2690MHz) (PC2) _ANT3											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low-Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune-up limit (dBm)	
Channel											
Frequency (MHz)				8060.02	8190.05	8189.98	8229.96	8269.95			
				2148.01	2149.50	2149.50	2149.50	2149.50			
100	DFT-s-OFDM PUSCH	1	1	15.52	15.59	15.53	15.53	15.50			
100		1	136	15.48	15.50	15.72	15.60	15.63	16.8		
100		1	272	15.45	15.52	15.68	15.51	15.58			
100		136	1	15.05	15.16	15.22	15.50	15.19			
100		136	87	15.07	15.17	15.20	15.04	15.13			
100		136	136	15.28	15.37	15.31	15.31	15.24	15.8		
100		272	0	15.22	15.30	15.28	15.14	15.22			
100		1	1	15.75	15.66	15.90	15.68	15.63			
100		1	136	15.58	15.51	15.76	15.62	15.60	16.8		
100		1	272	15.68	15.85	15.76	15.85	15.73			
100	DFT-s-OFDM PUSCH	136	1	14.98	15.14	15.24	15.10	15.12			
100		136	87	14.97	15.21	15.19	15.04	15.05			
100		136	136	14.83	14.87	14.77	14.81	14.73	15.8		
100		272	0	14.73	14.82	14.76	14.67	14.71			
100		1	1	14.87	15.01	15.02	15.09	15.10	15.8		
100		1	1	13.39	13.59	13.66	13.63	13.60	14.3		
100		1	1	11.22	11.32	11.33	11.43	11.43	12.3		
Frequency (MHz)				8060.02	8190.05	8189.98	8229.97	8269.96			
				2141	2146.995	2152.99	2118.995	2144.98			
90	DFT-s-OFDM PUSCH	1	1	15.25	15.54	15.6	15.6	15.67	16.8		
Channel											
Frequency (MHz)				8070.04	8190.04	8189.98	8249.98	8299.96			
				2036.02	2044.51	2052.99	2021.46	2049.99			
80	DFT-s-OFDM PUSCH	1	1	15.09	15.56	15.59	15.62	15.63	16.8		
Channel											
Frequency (MHz)				8080.0	8190.0	8189.98	8250.0	8300.0			
				2031.01	2042.00	2052.99	2024.00	2050.00			
70	DFT-s-OFDM PUSCH	1	1	15.14	15.45	15.62	15.43	15.49	16.8		
Channel											
Frequency (MHz)				8090.00	8190.02	8189.98	8260.00	8310.00			
				2121.00	2134.00	2142.99	2112.00	2139.00			
60	DFT-s-OFDM PUSCH	1	1	15.17	15.04	15.74	15.67	15.70	16.8		
Channel											
Frequency (MHz)				8090.04	8116.01	8105.98	8227.98	8220.98			
				2021.02	2057.995	2062.99	2028.99	2064.99			
50	DFT-s-OFDM PUSCH	1	1	15.73	15.88	15.76	15.68	15.89	16.8		
Channel											
Frequency (MHz)				8030.02	8100.00	8189.98	8269.96	8340.00			
				2116.01	2124.50	2132.99	2101.50	2130.00			
40	DFT-s-OFDM PUSCH	1	1	15.36	15.36	15.82	15.80	15.80	16.8		
Channel											
Frequency (MHz)				8020.00	8100.02	8189.98	8260.00	8340.00			
				2011.00	2024.00	2032.99	2003.99	2014.98			
30	DFT-s-OFDM PUSCH	1	1	15.60	15.49	15.85	15.83	15.78	16.8		
Channel											
Frequency (MHz)				8012.04	8090.01	8189.98	8272.98	8339.98			
				2006.00	2016.99	2024.99	2004.99	2013.99			
20	DFT-s-OFDM PUSCH	1	1	15.62	15.71	15.86	15.81	15.83	16.8		
Channel											
Frequency (MHz)				8002.00	8100.00	8189.98	8259.96	8300.00			
				2046.01	2058.50	2062.99	2016.50	2040.00			
100	CP-OFDM PUSCH	1	1	13.99	14.09	14.43	14.33	14.13	15.3		
100	CP-OFDM PUSCH	1	1	13.41	13.73	13.76	13.68	13.65	15.3		
100	CP-OFDM PUSCH	1	1	12.06	12.46	12.46	12.45	12.53	13.8		
100	CP-OFDM PUSCH	1	1	8.73	9.14	9.14	9.16	9.11	9.8		

n41 (2496 ~ 2690MHz) (PC3) _ANT3											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune-up limit (dBm)	
Channel											
Frequency (MHz)				8060.01	2546.99	2552.99	2616.99	2646.00			
100	DFT-s-OFDM PUSCH	1	1	13.12	13.11	13.27	13.19	13.15			
100		1	136	13.08	13.08	13.18	13.06	13.02	14.2		
100		1	272	13.17	13.18	13.23	13.15	13.19			
100		136	1	12.16	12.16	12.17	12.14	12.34			
100		136	87	12.29	12.28	12.22	12.09	12.11	13.2		
100		136	136	12.12	12.37	12.34	12.32	12.37			
100		272	0	12.34	12.30	12.37	12.19	12.18			
100		1	1	13.17	13.20	13.30	13.26	13.24			
100		1	136	13.20	13.15	13.17	13.13	13.05	14.2		
100		1	272	13.13	13.17	13.25	13.21	13.21			
100	DFT-s-OFDM PUSCH	136	1	12.16	12.14	12.16	12.08	12.09			
100		136	87	12.34	12.34	12.16	12.05	12.07	13.2		
100		136	136	11.96	12.07	12.15	12.06	12.01			
100		272	0	12.06	12.08	12.11	12.04	12.03			
100		1	1	12.19	12.04	12.27	12.24	12.18	13.2		
100		DFT-s-OFDM PUSCH	1	1	12.07	12.06	12.09	11.94	12.00	13.2	
100		DFT-s-OFDM PUSCH	1	1	10.08	10.23	10.26	10.13	9.97	11.2	
Frequency (MHz)				8060.01	5119.99	5189.98	8237.97	5299.96			
				2541	2546.995	2552.99	2616.995	2644.98			
90	DFT-s-OFDM PUSCH	1	1	13.16	13.15	13.24	13.08	12.97	14.2		
Channel											
Frequency (MHz)				8070.04	5120.04	5189.98	8249.96	5299.96			
				2036.02	2044.51	2052.99	2021.46	2049.99			
80	DFT-s-OFDM PUSCH	1	1	13.28	13.10	13.21	13.03	13.00	14.2		
Channel											
Frequency (MHz)				8080.0	5140.00	5189.98	8249.96	5300.00			
				2031.01	2042.00	2052.99	2024.00	2050.00			
70	DFT-s-OFDM PUSCH	1	1	13.18	13.13	13.22	13.05	13.01	24.8		
Channel											
Frequency (MHz)				8090.00	5119.02	5189.98	8250.00	5310.00			
				2121.00	2134.00	2142.99	2112.00	2139.00			
60	DFT-s-OFDM PUSCH	1	1	13.19	13.25	13.17	13.13	13.09	14.2		
Channel											
Frequency (MHz)				8090.04	5116.01	5189.98	8227.98	5300.00			
				2021.02	2057.995	2062.99	2028.99	2064.99			
50	DFT-s-OFDM PUSCH	1	1	13.25	13.3	13.31	13.28	13.14	14.2		
Channel											
Frequency (MHz)				8030.02	5100.00	5189.98	8269.96	5340.00			
				2116.01	2124.50	2132.99	2101.50	2130.00			
40	DFT-s-OFDM PUSCH	1	1	13.21	13.23	13.29	13.16	13.11	24.8		
Channel											
Frequency (MHz)				8020.00	5100.02	5189.98	8260.00	5340.00			
				2011.00	2024.00	2032.99	2003.99	2014.98			
30	DFT-s-OFDM PUSCH	1	1	13.20	13.23	13.29	13.23	13.26	24.8		
Channel											
Frequency (MHz)				8012.04	5090.01	5189.98	8272.98	5339.98			
				2006.00	2016.99	2024.99	2004.99	2013.99			
20	DFT-s-OFDM PUSCH	1	1	13.29	13.25	13.25	13.13	13.02	24.8		
Channel											
Frequency (MHz)				8002.00	5100.00	5189.98	8259.96	5300.00			
				2046.01	2058.50	2062.99	2016.50	2040.00			
100	CP-OFDM PUSCH	1	1	12.23	12.14	11.93	12.00	11.92	22.7		
100	CP-OFDM PUSCH	1	1	12.34	12.16	12.03	11.89	11.84	22.7		
100	CP-OFDM PUSCH	1	1	11.55	11.77	11.70	11.62	11.30	22		
100	CP-OFDM PUSCH	1	1	8.15	8.52	8.26	8.18	7.87	18.7		



n41 (2496 ~ 2690MHz) (PC2) _ANT4									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				509202	513900	518598	523296	528000	24.8
Frequency (MHz)				2546.01	2569.50	2592.99	2616.50	2640.00	
100	DFT-s-OFDM PI/2 BPSK	1	1	23.52	23.59	23.53	23.53	23.50	24.8
100		1	136	23.48	23.50	23.72	23.60	23.63	
100		1	272	23.45	23.52	23.68	23.51	23.58	
100		135	1	23.09	23.16	23.22	23.10	23.09	
100		135	67	23.20	23.17	23.20	23.04	23.13	
100		135	136	23.28	23.37	23.31	23.31	23.24	
100	DFT-s-OFDM QPSK	270	0	23.22	23.30	23.28	23.14	23.22	24.8
100		1	1	23.75	23.66	23.92	23.68	23.63	
100		1	136	23.56	23.51	23.76	23.62	23.60	
100		1	272	23.68	23.85	23.76	23.85	23.73	
100		135	1	22.98	23.14	23.24	23.10	23.12	
100		135	67	22.97	23.21	23.19	23.04	23.06	
100	DFT-s-OFDM 16QAM	135	136	22.83	22.87	22.77	22.81	22.73	23.8
100		270	0	22.73	22.82	22.78	22.67	22.71	
100	DFT-s-OFDM 256QAM	1	1	22.87	23.01	23.02	23.09	23.10	23.8
100	DFT-s-OFDM 16QAM	1	1	21.39	21.59	21.66	21.63	21.60	22.3
100	DFT-s-OFDM 256QAM	1	1	19.22	19.32	19.33	19.43	19.43	20.3
Channel				508200	513399	518598	523797	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2566.995	2592.99	2618.985	2644.98	
90	DFT-s-OFDM QPSK	1	1	23.25	23.54	23.6	23.6	23.67	24.8
Channel				507204	512904	518598	524298	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2564.51	2592.99	2621.49	2649.99	
80	DFT-s-OFDM QPSK	1	1	23.09	23.56	23.59	23.52	23.63	24.8
Channel				50620	512400	518598	524800	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2562.00	2592.99	2624.00	2655.00	
70	DFT-s-OFDM QPSK	1	1	23.14	23.45	23.62	23.43	23.49	24.8
Channel				505200	511902	518598	525300	531996	Tune-up limit (dBm)
Frequency (MHz)				2526.00	2559.50	2592.99	2626.49	2659.98	
60	DFT-s-OFDM QPSK	1	1	23.17	23.04	23.74	23.67	23.70	24.8
Channel				504204	511401	518598	525798	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2557.005	2592.99	2628.99	2664.99	
50	DFT-s-OFDM QPSK	1	1	23.73	23.68	23.76	23.68	23.89	24.8
Channel				503202	510900	518598	526296	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2554.50	2592.99	2631.50	2670.00	
40	DFT-s-OFDM QPSK	1	1	23.36	23.36	23.82	23.80	23.80	24.8
Channel				502200	510402	518598	526800	534998	Tune-up limit (dBm)
Frequency (MHz)				2511.00	2552.00	2592.99	2633.99	2674.98	
30	DFT-s-OFDM QPSK	1	1	23.60	23.49	23.85	23.83	23.78	24.8
Channel				501204	509901	518598	527298	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2549.505	2592.99	2636.49	2679.99	
20	DFT-s-OFDM QPSK	1	1	23.62	23.71	23.86	23.81	23.83	24.8
Channel				509202	513900	518598	523296	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2569.50	2592.99	2616.50	2640.00	
100	CP-OFDM QPSK	1	1	21.99	22.09	22.43	22.33	22.13	23.3
100	CP-OFDM 16QAM	1	1	21.41	21.73	21.76	21.68	21.65	23.3
100	CP-OFDM 64QAM	1	1	20.06	20.46	20.46	20.45	20.53	21.8
100	CP-OFDM 256QAM	1	1	16.73	17.14	17.14	17.16	17.11	17.8



n77 (3450 MHz ~ 3550 MHz) (PC3) _ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/High Channel	Main/High Channel	Mid/High Channel	High Channel		Tune-up limit (dBm)
100	Channel									
	Frequency (MHz)					3500.01				
100	1	1	1			17.73				
100	1	1	136			17.79				18.7
100	1	1	211			17.78				
100	DFT-s-OFDM	136	1			16.67				
100	136	1				16.68				17.7
100	136	136				16.61				
100	220	0				16.54				
100	1	1	1			17.85				
100	1	1	136			17.80				18.7
100	1	1	211			17.79				
100	DFT-s-OFDM	136	1			16.72				
100	136	1				16.68				17.7
100	136	136				16.60				
100	220	0				16.69				
100	DFT-s-OFDM	1	1			16.72				17.7
100	DFT-s-OFDM	1	1			16.73				16.7
100	DFT-s-OFDM	1	1			14.88				16.2
	Channel				630005	631168	633334	633505	633686	
	Frequency (MHz)				3499	3497.52	3500.01	3500.5	3504.98	
30	DFT-s-OFDM	1	1		17.73	17.82	17.79	17.84	17.78	18.7
	Channel				630068	630007			634009	
	Frequency (MHz)				3490.02	3495	3500.01	3504.96	3505	Tune-up limit (dBm)
80	DFT-s-OFDM	1	1		17.80	17.84	17.85	17.70	17.65	18.7
	Channel				630354	630834	633334	633632	634332	
	Frequency (MHz)				3505.01	3492.51	3500.01	3507.48	3514.98	Tune-up limit (dBm)
70	DFT-s-OFDM	1	1		17.73	17.70	17.82	17.78	17.83	18.7
	Channel				630068	630007			634009	
	Frequency (MHz)				3490	3490.02	3500.01	3515	3519.98	Tune-up limit (dBm)
60	DFT-s-OFDM	1	1		17.87	17.71	17.78	17.71	17.58	18.7
	Channel				631668	630500	633334	634166	635005	
	Frequency (MHz)				3475.02	3487.5	3500.01	3510	3525	Tune-up limit (dBm)
50	DFT-s-OFDM	1	1		17.78	17.74	17.85	17.72	17.58	18.7
	Channel				631334	632334	633334	634332	635332	Tune-up limit (dBm)
	Frequency (MHz)				3505.01	3495.01	3500.01	3514.98	3524.98	Tune-up limit (dBm)
40	DFT-s-OFDM	1	1		17.78	17.78	17.83	17.83	17.78	18.7
	Channel				631000	632108	633334	634500	635598	
	Frequency (MHz)				3485	3492.52	3500.01	3517.5	3524.99	Tune-up limit (dBm)
30	DFT-s-OFDM	1	1		17.75	17.72	17.77	17.73	17.65	18.7
	Channel				630068	632000	633334	634066	635005	Tune-up limit (dBm)
	Frequency (MHz)				3500.02	3495.01	3500.01	3514.98	3524.98	
20	DFT-s-OFDM	1	1		17.77	17.68	17.70	17.75	17.61	18.7
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/High Channel	Main/High Channel	Mid/High Channel	High Channel		Tune-up limit (dBm)
	Frequency (MHz)					3500.01				
100	OFDM	1	1			16.52				17.2
100	OFDM	1	1			15.85				17.2
100	OFDM	1	1			14.41				15.2
100	OFDM	1	1			12.52				13.2



n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT4												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1			3500.01			22.7			
100		1	136			21.53						
100		1	271			21.48						
100		136	1			21.41						
100		136	67			20.75						
100		136	136			20.73						
100		270	0			20.68				21.7		
100		1	1			21.73			22.7			
100		1	136			21.68						
100		1	271			21.56						
100	DFT-s-OFDM PDSCH	136	1		20.39							
100		136	67		20.85					21.7		
100		136	136		20.75							
100		270	0		20.42							
100		DFT-s-OFDM PDSCH	1	1		20.89					21.7	
100		DFT-s-OFDM PDSCH	1	1		19.38					20.7	
100		DFT-s-OFDM PDSCH	1	1		18.67					17.7	
Channel												
Frequency (MHz)												
90	DFT-s-OFDM PUSCH	1	1	3499	3497.52	3500.01	3502.5	3504.49	Tune-up limit (dBm)			
90	DFT-s-OFDM PUSCH	1	1	21.70	21.73	21.68	21.65	21.61	22.7			
Channel												
Frequency (MHz)												
80	DFT-s-OFDM PUSCH	1	1	3500.01	3499.00	3500.01	3504.99	3510	Tune-up limit (dBm)			
80	DFT-s-OFDM PUSCH	1	1	21.72	21.63	21.69	21.72	21.43	22.7			
Channel												
Frequency (MHz)												
70	DFT-s-OFDM PUSCH	1	1	3498.01	3493.51	3500.01	3507.48	3514.48	Tune-up limit (dBm)			
70	DFT-s-OFDM PUSCH	1	1	21.69	21.61	21.68	21.64	21.61	22.7			
Channel												
Frequency (MHz)												
60	DFT-s-OFDM PUSCH	1	1	3490	3480.52	3500.01	3510	3519.99	Tune-up limit (dBm)			
60	DFT-s-OFDM PUSCH	1	1	21.69	21.58	21.55	21.70	21.63	22.7			
Channel												
Frequency (MHz)												
50	DFT-s-OFDM PUSCH	1	1	3492.02	3487.00	3500.01	3510	3520	Tune-up limit (dBm)			
50	DFT-s-OFDM PUSCH	1	1	21.60	21.61	21.72	21.70	21.58	21.7			
Channel												
Frequency (MHz)												
40	DFT-s-OFDM PUSCH	1	1	3493.04	3488.04	3500.01	3510.04	3520.04	Tune-up limit (dBm)			
40	DFT-s-OFDM PUSCH	1	1	21.64	21.71	21.71	21.63	21.49	21.7			
Channel												
Frequency (MHz)												
30	DFT-s-OFDM PUSCH	1	1	3495	3490.52	3500.01	3517.5	3524.49	Tune-up limit (dBm)			
30	DFT-s-OFDM PUSCH	1	1	21.66	21.71	21.66	21.67	21.58	22.7			
Channel												
Frequency (MHz)												
20	DFT-s-OFDM PUSCH	1	1	3495	3490.52	3500.01	3517.5	3524.49	Tune-up limit (dBm)			
20	DFT-s-OFDM PUSCH	1	1	21.68	21.71	21.69	21.59	21.50	22.7			
Channel												
Frequency (MHz)												
100	OFDM	1	1			19.83			20.7			
100	OFDM	1	1			19.39			20.7			
100	OFDM	1	1			18.04			18.7			
100	OFDM	1	1			14.75			15.7			

n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM PUSCH	1	1		3500.01				23.7	
100		1	136		22.73					
100		1	271		22.78					
100		136	1		21.79					
100		136	67		21.68					
100		136	136		21.61					
100		270	0		21.54					
100		1	1		22.98				23.7	
100		1	136		22.80					
100		1	271		22.78					
100	DFT-s-OFDM PDSCH	136	1		21.72				22.7	
100		136	67		21.68					
100		136	136		21.60					
100		270	0		21.69					
100		1	1		21.72					
100		1	1		21.73					
100		DFT-s-OFDM PDSCH	1	1		19.88				
Channel										
Frequency (MHz)										
90	DFT-s-OFDM PUSCH	1	1	22.75	22.82	22.79	22.84	22.78	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM PUSCH	1	1	22.80	22.84	22.85	22.70	22.65	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM PUSCH	1	1	22.73	22.70	22.82	22.78	22.68	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM PUSCH	1	1	22.67	22.71	22.78	22.71	22.59	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM PUSCH	1	1	22.78	22.74	22.85	22.72	22.35	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM PUSCH	1	1	22.79	22.78	22.83	22.63	22.76	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM PUSCH	1	1	22.75	22.72	22.77	22.73	22.65	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM PUSCH	1	1	22.77	22.68	22.80	22.75	22.61	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	OFDM	1	1		21.52				22.2	
100	OFDM	1	1		20.85				22.2	
100	OFDM	1	1		19.42				20.2	
100	OFDM	1	1		17.51				18.2	



n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT6													
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Medium/High Channel	High Channel	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
100	DFT-s-OFDM PUSCH	1	1			18.53			19.7				
100		1	136			18.48							
100		1	271			18.41			18.7				
100		136	1			17.75							
100		136	67			17.73			19.7				
100		136	136			17.68							
100		270	0			17.62			18.7				
100		1	1			18.73							
100		1	136			18.68			19.7				
100		1	271			18.56							
100	DFT-s-OFDM PDSCH	1	1			17.89			18.7				
100		136	67			17.85							
100		136	136			17.78			19.7				
100		270	0			17.89							
100		1	1			17.42			18.7				
100		1	1			18.38							
100		1	1			18.67			14.7				
100		1	1			13.67							
Channel													
Frequency (MHz)													
90		DFT-s-OFDM PUSCH	1	1	18.70	18.73	18.68	18.65	18.61	19.7			
Channel													
Frequency (MHz)													
80	DFT-s-OFDM PUSCH	1	1	18.72	18.63	18.69	18.72	18.43	19.7				
Channel													
Frequency (MHz)													
70	DFT-s-OFDM PUSCH	1	1	18.56	18.61	18.68	18.64	18.61	19.7				
Channel													
Frequency (MHz)													
60	DFT-s-OFDM PUSCH	1	1	18.60	18.58	18.55	18.70	18.63	19.7				
Channel													
Frequency (MHz)													
50	DFT-s-OFDM PUSCH	1	1	18.60	18.61	18.72	18.70	18.58	18.7				
Channel													
Frequency (MHz)													
40	DFT-s-OFDM PUSCH	1	1	18.64	18.71	18.71	18.63	18.49	18.7				
Channel													
Frequency (MHz)													
30	DFT-s-OFDM PUSCH	1	1	18.66	18.71	18.66	18.67	18.58	19.7				
Channel													
Frequency (MHz)													
20	DFT-s-OFDM PUSCH	1	1	18.68	18.71	18.69	18.59	18.50	19.7				
Channel													
Frequency (MHz)													
10	DFT-s-OFDM PUSCH	1	1	18.68	18.71	18.69	18.59	18.50	19.7				
Channel													
Frequency (MHz)													
100	OFDM CP-OFDM	1	1			18.83			17.7				
100	OFDM CP-OFDM	1	1			16.39			17.7				
100	OFDM CP-OFDM	1	1			15.04			15.7				
100	OFDM CP-OFDM	1	1			11.75			12.7				

n77 (3450 MHz ~ 3550 MHz) (PC3) _ANT6												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Medium Channel	Medium/High Channel	High Channel	Tune up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1			3500.01			19.2			
100		1	136			18.23						
100		1	271			18.29			18.2			
100		136	1			18.28						
100		136	67			17.18			19.2			
100		136	136			17.11						
100		270	0			17.04			18.2			
100		1	1			18.30						
100		1	136			17.10			19.2			
100		1	271			18.29						
100	DFT-s-OFDM PDSCH	1	1			17.22			18.2			
100		136	1			17.18						
100		136	67			17.10			19.2			
100		136	136			17.10						
100		270	0			17.19			18.2			
100		1	1			17.22						
100		DFT-s-OFDM PDSCH	1	1			17.23			17.2		
100		DFT-s-OFDM PDSCH	1	1			15.38					
Channel												
Frequency (MHz)												
90		DFT-s-OFDM PUSCH	1	1	3499	3477.52	3500.01	3500.5	3504.98	19.2		
Channel												
Frequency (MHz)												
80	DFT-s-OFDM PUSCH	1	1	18.30	18.34	18.35	18.20	18.15	19.2			
Channel												
Frequency (MHz)												
70	DFT-s-OFDM PUSCH	1	1	18.23	18.20	18.32	18.28	18.13	19.2			
Channel												
Frequency (MHz)												
60	DFT-s-OFDM PUSCH	1	1	18.17	18.21	18.26	18.21	18.09	19.2			
Channel												
Frequency (MHz)												
50	DFT-s-OFDM PUSCH	1	1	18.28	18.24	18.35	18.22	18.05	19.2			
Channel												
Frequency (MHz)												
40	DFT-s-OFDM PUSCH	1	1	18.29	18.28	18.33	18.13	18.26	19.2			
Channel												
Frequency (MHz)												
30	DFT-s-OFDM PUSCH	1	1	18.25	18.22	18.27	18.23	18.15	19.2			
Channel												
Frequency (MHz)												
20	DFT-s-OFDM PUSCH	1	1	18.27	18.18	18.30	18.25	18.11	19.2			
Channel												
Frequency (MHz)												
10	DFT-s-OFDM PUSCH	1	1			17.02			17.7			
100	DFT-s-OFDM PDSCH	1	1			16.35			17.7			
100	DFT-s-OFDM PDSCH	1	1			14.92			15.7			
100	DFT-s-OFDM PDSCH	1	1			13.01			13.7			



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT3												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1	13.70	13.67	13.78	13.72	13.73	14.7			
100		1	136	13.69	13.63	13.66	13.70	13.69				
100		1	271	13.65	13.49	13.69	13.49	13.59				
100		136	1	12.63	12.67	12.89	12.61	12.62				
100		136	67	12.59	12.66	12.67	12.53	12.62				
100		136	136	12.52	12.45	12.41	12.38	12.36	13.7			
100		270	0	12.62	12.51	12.47	12.55	12.44				
100		1	1	13.79	13.71	13.88	13.76	13.80				
100		1	136	13.76	13.70	13.82	13.71	13.67				
100		1	271	13.74	13.55	13.86	13.53	13.56				
100	DFT-s-OFDM CP-OFDM	136	1	12.65	12.61	12.79	12.73	12.68	14.7			
100		136	67	12.64	12.55	12.72	12.70	12.61				
100		136	136	12.43	12.50	12.48	12.48	12.40				
100		270	0	12.46	12.38	12.57	12.45	12.51				
100		1	1	11.80	11.97	12.05	12.03	12.08	12.7			
100		1	1	10.48	10.51	10.63	10.55	10.58				
100		1	1	8.28	8.20	8.32	8.30	8.25				
100		Channel								Tune-up limit (dBm)		
Frequency (MHz)												
90	DFT-s-OFDM PUSCH	1	1	13.55	13.58	13.69	13.67	13.63				
Channel								14.7				
Frequency (MHz)												
80	DFT-s-OFDM PUSCH	1	1	13.65	13.59	13.72	13.56					13.63
Channel								14.7				
Frequency (MHz)												
70	DFT-s-OFDM PUSCH	1	1	13.63	13.43	13.78	13.74					13.63
Channel								14.7				
Frequency (MHz)												
60	DFT-s-OFDM PUSCH	1	1	13.50	13.72	13.77	13.67					13.72
Channel								14.7				
Frequency (MHz)												
50	DFT-s-OFDM PUSCH	1	1	13.49	13.58	13.80	13.76					13.73
Channel								13.7				
Frequency (MHz)												
40	DFT-s-OFDM PUSCH	1	1	13.63	13.66	13.82	13.72					13.80
Channel								13.7				
Frequency (MHz)												
30	DFT-s-OFDM PUSCH	1	1	13.64	13.72	13.80	13.73					13.75
Channel								14.7				
Frequency (MHz)												
20	DFT-s-OFDM PUSCH	1	1	13.77	13.75	13.81	13.80					13.79
Channel								14.7				
Frequency (MHz)												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Mid/High Channel					High Channel
Channel												
Frequency (MHz)												
100	OFDM	1	1	11.47	11.59	11.82	11.80	11.52	12.7			
100	OFDM	1	1	11.20	11.28	11.29	11.35	11.30	12.7			
100	OFDM	1	1	9.42	9.55	9.42	9.81	9.80	10.7			
100	OFDM	1	1	5.90	6.16	6.03	6.36	6.25	7.7			

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT3												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Medium/High Channel	High Channel	Tune up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1	13.72	13.69	13.70	13.68	13.72	14.7			
100		1	136	13.68	13.67	13.68	13.67	13.75				
100		1	271	13.66	13.65	13.67	13.63	13.52				
100		136	1	12.83	12.81	12.86	12.83	12.93				
100		136	67	12.93	12.92	13.01	12.90	12.98				
100		136	136	12.81	13.01	12.87	13.00	12.94	13.7			
100		270	0	12.95	12.91	12.86	12.88	12.99				
100		1	1	13.79	13.76	13.81	13.75	13.72				
100		1	136	13.55	13.68	13.70	13.68	13.65				
100		1	271	13.68	13.77	13.56	13.61	13.51				
100	DFT-s-OFDM CP-OFDM	1	1	12.82	12.79	12.82	12.79	12.88	14.7			
100		136	67	12.91	12.90	12.99	12.90	12.95				
100		136	136	12.93	13.03	12.83	12.98	12.92				
100		270	0	12.88	12.90	12.87	12.89	12.92				
100		1	1	12.90	12.84	12.87	12.92	12.91	13.7			
100		1	1	11.84	11.66	11.88	12.03	11.96				
100		1	1	10.96	10.76	10.88	10.91	10.95				
100		Channel								Tune-up limit (dBm)		
100		Frequency (MHz)										
90	DFT-s-OFDM PUSCH	1	1	13.72	13.62	13.71	13.69	13.69				
100	Channel											
100	Frequency (MHz)											
80	DFT-s-OFDM PUSCH	1	1	13.76	13.61	13.68	13.73	13.71				
100	Channel											
100	Frequency (MHz)											
70	DFT-s-OFDM PUSCH	1	1	13.75	13.62	13.72	13.73	13.64				
100	Channel											
100	Frequency (MHz)											
60	DFT-s-OFDM PUSCH	1	1	13.75	13.64	13.76	13.71	13.74				
100	Channel											
100	Frequency (MHz)											
50	DFT-s-OFDM PUSCH	1	1	13.76	13.78	13.73	13.78	13.73				
100	Channel											
100	Frequency (MHz)											
40	DFT-s-OFDM PUSCH	1	1	13.68	13.71	13.66	13.74	13.68				
100	Channel											
100	Frequency (MHz)											
30	DFT-s-OFDM PUSCH	1	1	13.79	13.80	13.75	13.73	13.73				
100	Channel											
100	Frequency (MHz)											
20	DFT-s-OFDM PUSCH	1	1	13.79	13.54	13.65	13.71	13.65				
100	Channel											
100	Frequency (MHz)											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Medium/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	OFDM	1	1	12.21	12.08	12.27	12.19	12.17	13.2			
100	OFDM	1	1	12.24	12.08	12.21	12.20	12.18	13.2			
100	OFDM	1	1	11.34	11.32	11.25	11.35	11.49	12.2			
100	OFDM	1	1	8.95	8.92	9.02	9.00	8.92	10.2			



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM PUSCH	1	1	3700	3700	3740	3740	3780	21.2	
100		1	136	20.19	20.13	20.28	20.20	20.20		
100		1	271	20.19	19.99	20.19	19.99	20.09		
100		136	1	19.13	19.17	19.19	19.11	19.12		
100		136	67	19.05	19.16	19.17	19.03	19.12		
100	DFT-s-OFDM PUSCH	136	136	19.02	19.05	19.01	18.86	18.86	20.2	
100		270	0	19.12	19.01	19.07	19.05	18.84		
100		1	1	20.29	20.21	20.36	20.26	20.30		
100		1	136	20.26	20.20	20.32	20.21	20.11		
100		1	271	20.24	20.05	20.30	20.03	20.06		
100	DFT-s-OFDM PUSCH	136	1	19.15	19.11	19.22	19.23	19.18	21.2	
100		136	67	19.14	19.05	19.20	19.20	19.11		
100		136	136	19.03	19.10	19.01	18.86	18.86		
100		270	0	18.96	18.88	19.07	18.95	19.01		
100		1	1	18.30	18.47	18.55	18.53	18.58		
100	DFT-s-OFDM PUSCH	1	1	16.96	17.01	17.13	17.05	17.08	18.2	
100		1	1	14.78	14.70	14.82	14.80	14.75		
100		1	1	14.78	14.70	14.82	14.80	14.75		
100		1	1	14.78	14.70	14.82	14.80	14.75		
100		1	1	14.78	14.70	14.82	14.80	14.75		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM PUSCH	1	1	3744.99	3744.99	3744	3817.49	3744.99	21.2	
90		1	1	3744.99	3744.99	3744	3817.49	3744.99		
90		1	1	3744.99	3744.99	3744	3817.49	3744.99		
90		1	1	3744.99	3744.99	3744	3817.49	3744.99		
90		1	1	3744.99	3744.99	3744	3817.49	3744.99		
80	DFT-s-OFDM PUSCH	1	1	3740.01	3740.01	3740	3889.99	3740.01	21.2	
80		1	1	3740.01	3740.01	3740	3889.99	3740.01		
80		1	1	3740.01	3740.01	3740	3889.99	3740.01		
80		1	1	3740.01	3740.01	3740	3889.99	3740.01		
80		1	1	3740.01	3740.01	3740	3889.99	3740.01		
Channel										
Frequency (MHz)										
70	DFT-s-OFDM PUSCH	1	1	3735.03	3735.03	3735	3892.5	3735.03	21.2	
70		1	1	3735.03	3735.03	3735	3892.5	3735.03		
70		1	1	3735.03	3735.03	3735	3892.5	3735.03		
70		1	1	3735.03	3735.03	3735	3892.5	3735.03		
70		1	1	3735.03	3735.03	3735	3892.5	3735.03		
60	DFT-s-OFDM PUSCH	1	1	3730.02	3730.02	3730	3894.99	3730.02	21.2	
60		1	1	3730.02	3730.02	3730	3894.99	3730.02		
60		1	1	3730.02	3730.02	3730	3894.99	3730.02		
60		1	1	3730.02	3730.02	3730	3894.99	3730.02		
60		1	1	3730.02	3730.02	3730	3894.99	3730.02		
Channel										
Frequency (MHz)										
50	DFT-s-OFDM PUSCH	1	1	3725.01	3725.01	3725	3904.99	3725.01	20.2	
50		1	1	3725.01	3725.01	3725	3904.99	3725.01		
50		1	1	3725.01	3725.01	3725	3904.99	3725.01		
50		1	1	3725.01	3725.01	3725	3904.99	3725.01		
50		1	1	3725.01	3725.01	3725	3904.99	3725.01		
Channel										
Frequency (MHz)										
40	DFT-s-OFDM PUSCH	1	1	3720.00	3720.00	3720	3906.99	3720.00	20.2	
40		1	1	3720.00	3720.00	3720	3906.99	3720.00		
40		1	1	3720.00	3720.00	3720	3906.99	3720.00		
40		1	1	3720.00	3720.00	3720	3906.99	3720.00		
40		1	1	3720.00	3720.00	3720	3906.99	3720.00		
Channel										
Frequency (MHz)										
30	DFT-s-OFDM PUSCH	1	1	3715.02	3715.02	3715	3902.49	3715.02	21.2	
30		1	1	3715.02	3715.02	3715	3902.49	3715.02		
30		1	1	3715.02	3715.02	3715	3902.49	3715.02		
30		1	1	3715.02	3715.02	3715	3902.49	3715.02		
30		1	1	3715.02	3715.02	3715	3902.49	3715.02		
Channel										
Frequency (MHz)										
20	DFT-s-OFDM PUSCH	1	1	3710.01	3710.01	3710	3903.99	3710.01	21.2	
20		1	1	3710.01	3710.01	3710	3903.99	3710.01		
20		1	1	3710.01	3710.01	3710	3903.99	3710.01		
20		1	1	3710.01	3710.01	3710	3903.99	3710.01		
20		1	1	3710.01	3710.01	3710	3903.99	3710.01		
Channel										
Frequency (MHz)										
100	DFT-s-OFDM PUSCH	1	1	3705.00	3705.00	3705	3903.99	3705.00	19.2	
100		1	1	3705.00	3705.00	3705	3903.99	3705.00		
100		1	1	3705.00	3705.00	3705	3903.99	3705.00		
100		1	1	3705.00	3705.00	3705	3903.99	3705.00		
100		1	1	3705.00	3705.00	3705	3903.99	3705.00		
Channel										
Frequency (MHz)										
100	DFT-s-OFDM PUSCH	1	1	17.97	18.09	18.32	18.10	18.02	19.2	
100		1	1	17.70	17.79	17.79	17.85	17.80		
100		1	1	15.92	16.05	15.92	16.31	16.10		
100		1	1	12.40	12.66	12.53	12.86	12.75		
100		1	1	12.40	12.66	12.53	12.86	12.75		

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100		1	1	3700	3700	3840	3840	3900		
100		1	1	2152	2159	2198	2198	2152		
100		1	136	2118	2118	2118	2117	2120		22.2
100		1	211	2118	2118	2117	2117	2120		21.2
100	DFT-s-OFDM	136	1	2038	2031	2046	2033	2043		
100	PUSCH	136	67	2043	2043	2051	2048	2048		
100		136	136	2043	2043	2051	2047	2048		21.2
100		270	0	2043	2040	2056	2056	2048		
100		1	1	2120	2120	2121	2121	2120		
100		1	136	2106	2118	2120	2120	2120		22.2
100		1	211	2118	2127	2106	2111	2107		
100	DFT-s-OFDM	136	1	2032	2028	2042	2029	2038		
100	CP-OFDM	136	67	2041	2040	2049	2040	2043		
100		136	211	2041	2048	2058	2043	2043		21.2
100		270	0	2038	2040	2047	2043	2042		
100	DFT-s-OFDM	1	1	2040	2040	2047	2042	2041		21.2
100	CP-OFDM	1	1	1934	1936	1938	1933	1946		20.2
100	DFT-s-OFDM	1	1	1846	1826	1838	1841	1845		19.2
Channel										
Frequency (MHz)										
90		1	1	64696	64634	65000	65096	66232		Tune-up limit (dBm)
	DFT-s-OFDM	1	1	2744	2749	2792	2840	2887		20.4
90	PUSCH	1	1	2122	2112	2121	2119	2119		22.2
	DFT-s-OFDM	1	1	64634	64634	64633	64632	64632		Tune-up limit (dBm)
	PUSCH	1	1	7462.01	3790.02	3840	3846	3939.98		21.2
80	DFT-s-OFDM	1	1	2126	2111	2118	2123	2121		22.2
Channel										
Frequency (MHz)										
70		1	1	64600	65000	65000	65000	66300		Tune-up limit (dBm)
	DFT-s-OFDM	1	1	3700	2747	6340	3922.5	3945		21.4
70	PUSCH	1	1	2125	2110	2122	2121	2124		22.2
	DFT-s-OFDM	1	1	64600	65000	65000	65000	66300		Tune-up limit (dBm)
	PUSCH	1	1	3700.02	3790.01	3840	3944.98	3949.98		21.2
60	DFT-s-OFDM	1	1	2125	2114	2126	2121	2124		22.2
Channel										
Frequency (MHz)										
50		1	1	646334	652168	656000	656932	663696		Tune-up limit (dBm)
	DFT-s-OFDM	1	1	2120	2132	2123	2128	2129		21.2
50	PUSCH	1	1	2130	2128	2123	2128	2129		21.2
Channel										
Frequency (MHz)										
40		1	1	646000	65000	65000	65000	66400		Tune-up limit (dBm)
	DFT-s-OFDM	1	1	3700	3790	3840	3900	3940		21.2
40	PUSCH	1	1	2118	2121	2116	2124	2118		21.2
Channel										
Frequency (MHz)										
30		1	1	647668	651934	656000	656916	664332		Tune-up limit (dBm)
	DFT-s-OFDM	1	1	2752.02	3777.01	3840	3922.00	3954.98		21.2
30	DFT-s-OFDM	1	1	2129	2110	2125	2123	2125		22.2
Channel										
Frequency (MHz)										
20		1	1	647234	651090	656000	660002	664096		Tune-up limit (dBm)
	DFT-s-OFDM	1	1	2120	2130	2124	2126	2126		21.2
20	PUSCH	1	1	2120	2104	2115	2121	2115		22.2
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	CP-OFDM	1	1	19.71	19.58	19.77	19.69	19.67		20.7
100	CP-OFDM	1	1	19.74	19.58	19.71	19.70	19.68		20.7
100	CP-OFDM	1	1	18.84	18.82	18.75	18.85	18.90		19.7
100	CP-OFDM	1	1	16.45	16.42	16.52	16.50	16.42		17.7



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT6											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune-up limit (dBm)	
Channel											
Frequency (MHz)				650000	650000	650000	650000	650000			
				3750	3755	3840	3885	3930			
100	DFT-s-OFDM PUSCH	1	1	16.70	16.67	16.78	16.72	16.75			
100		1	136	16.69	16.63	16.66	16.70	16.60		17.7	
100		1	271	16.65	16.49	16.69	16.49	16.50			
100		136	1	15.63	15.67	15.69	15.61	15.62			
100		136	61	15.55	15.66	15.67	15.53	15.62			
100		136	136	15.52	15.45	15.41	15.36	15.36		16.7	
100		270	0	15.62	15.51	15.47	15.55	15.44			
100		1	1	16.79	16.71	16.68	16.75	16.80			
100		1	136	16.76	16.70	16.82	16.71	16.81		17.7	
100		1	271	16.74	16.55	16.83	16.53	16.56			
100	DFT-s-OFDM CP-OFDM	136	1	15.65	15.51	15.79	15.73	15.68			
100		136	61	15.64	15.55	15.72	15.70	15.61			
100		136	136	15.43	15.60	15.51	15.48	15.40		16.7	
100		270	0	15.46	15.38	15.57	15.45	15.51			
100		1	1	14.80	14.97	15.05	15.03	15.06		15.7	
100		1	1	13.48	13.51	13.63	13.55	13.58		14.7	
100		1	1	11.28	11.20	11.32	11.30	11.25		12.2	
Channel				659996	659994	659990	659996	659992		Tune-up limit (dBm)	
				3744.99	3752.51	3840	3897.49	3934.96			
90	DFT-s-OFDM PUSCH	1	1	16.55	16.58	16.69	16.67	16.63		17.7	
Channel											
Frequency (MHz)				649334	650668	650000	659332	650666		Tune-up limit (dBm)	
				3740.01	3750.02	3840	3898.98	3939.99			
80	DFT-s-OFDM PUSCH	1	1	16.65	16.59	16.72	16.56	16.63		17.7	
Channel											
Frequency (MHz)				650000	650700	650000	659000	650000		Tune-up limit (dBm)	
				3750	3787.5	3840	3892.5	3945			
70	DFT-s-OFDM PUSCH	1	1	16.63	16.43	16.78	16.74	16.63		17.7	
Channel											
Frequency (MHz)				648668	650334	650000	659666	650332		Tune-up limit (dBm)	
				3730.02	3763.51	3840	3854.99	3943.96			
60	DFT-s-OFDM PUSCH	1	1	16.50	16.72	16.77	16.67	16.72		17.7	
Channel											
Frequency (MHz)				648334	650165	650000	659332	650166		Tune-up limit (dBm)	
				3725.01	3782.52	3840	3894.99	3944.96			
50	DFT-s-OFDM PUSCH	1	1	16.49	16.58	16.80	16.76	16.73		16.7	
Channel											
Frequency (MHz)				648000	650000	650000	650000	654000		Tune-up limit (dBm)	
				3720	3760	3840	3900	3960			
40	DFT-s-OFDM PUSCH	1	1	16.63	16.66	16.82	16.72	16.80		16.7	
Channel											
Frequency (MHz)				647668	651634	650000	650166	654332		Tune-up limit (dBm)	
				3715.02	3777.51	3840	3902.49	3964.96			
30	DFT-s-OFDM PUSCH	1	1	16.64	16.72	16.80	16.73	16.75		17.7	
Channel											
Frequency (MHz)				647334	651669	650000	650332	654666		Tune-up limit (dBm)	
				3710.01	3775.02	3840	3904.98	3969.99			
20	DFT-s-OFDM PUSCH	1	1	16.77	16.75	16.81	16.80	16.79		17.7	
Channel											
Frequency (MHz)				647000	651600	650000	650000	654000		Tune-up limit (dBm)	
				3700	3795	3840	3895	3920			
100	CP-OFDM CP-OFDM CP-OFDM CP-OFDM CP-OFDM CP-OFDM CP-OFDM CP-OFDM CP-OFDM CP-OFDM	1	1	14.47	14.59	14.82	14.80	14.52		15.7	
100		1	1	14.20	14.28	14.29	14.35	14.30		15.7	
100		1	1	12.42	12.55	12.42	12.81	12.60		13.7	
100		1	1	8.90	9.16	9.03	9.36	9.25		10.7	

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT6											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune up limit (dBm)	
Channel											
Frequency (MHz)				650000	650000	650000	650000	650000			
				3750	3750	3840	3945	3950			
100	DFT-s-OFDM PUSCH	1	1	16.72	16.69	16.76	16.68	16.72			
100		1	136	16.68	16.67	16.68	16.67	16.75		17.7	
100		1	271	16.66	16.65	16.67	16.63	16.52			
100		136	1	15.83	15.81	15.96	15.83	15.93			
100		136	61	15.63	15.65	15.61	15.60	15.68		16.7	
100		136	136	15.81	15.81	15.87	15.87	15.94			
100		270	0	15.95	15.91	15.86	15.88	15.99			
100		1	1	16.79	16.76	16.81	16.76	16.72			
100		1	136	16.55	16.68	16.70	16.68	16.65		17.7	
100		1	271	16.68	16.77	16.56	16.61	16.51			
100	DFT-s-OFDM CP-OFDM	136	1	15.82	15.79	15.92	15.79	15.88			
100		136	61	15.91	15.90	15.99	15.90	15.95		16.7	
100		136	136	15.93	16.02	15.83	15.98	15.92		16.7	
100		270	0	15.88	15.90	15.97	15.93	15.92			
100		1	1	15.90	15.84	15.87	15.92	15.91		16.7	
100		DFT-s-OFDM PUSCH	1	1	14.84	14.66	14.88	15.03	14.96		15.7
100		DFT-s-OFDM PUSCH	1	1	13.96	13.76	13.88	13.91	13.95		14.7
Channel				659996	659994	659990	659996	659992		Tune-up limit (dBm)	
				3744.99	3752.51	3840	3937.49	3934.96			
90	DFT-s-OFDM PUSCH	1	1	16.72	16.62	16.71	16.69	16.69		17.7	
Channel											
Frequency (MHz)				648834	650666	650000	659332	650666		Tune-up limit (dBm)	
				3740.01	3750.02	3840	3898.98	3939.99			
80	DFT-s-OFDM PUSCH	1	1	16.76	16.61	16.68	16.73	16.71		17.7	
Channel											
Frequency (MHz)				649000	650700	650000	659000	650000		Tune-up limit (dBm)	
				3750	3787.5	3840	3892.5	3945			
70	DFT-s-OFDM PUSCH	1	1	16.75	16.62	16.72	16.73	16.64		17.7	
Channel											
Frequency (MHz)				648668	650334	650000	659666	650332		Tune-up limit (dBm)	
				3730.02	3763.51	3840	3854.99	3943.96			
60	DFT-s-OFDM PUSCH	1	1	16.75	16.64	16.76	16.71	16.74		17.7	
Channel											
Frequency (MHz)				648334	650166	650000	659332	650166		Tune-up limit (dBm)	
				3725.01	3782.52	3840	3894.99	3944.96			
50	DFT-s-OFDM PUSCH	1	1	16.76	16.78	16.73	16.78	16.73		16.7	
Channel											
Frequency (MHz)				648000	650000	650000	650000	654000		Tune-up limit (dBm)	
				3720	3760	3840	3900	3960			
40	DFT-s-OFDM PUSCH	1	1	16.68	16.71	16.66	16.74	16.68		16.7	
Channel											
Frequency (MHz)				647668	651634	650000	650166	654332		Tune-up limit (dBm)	
				3715.02	3777.51	3840	3902.49	3964.96			
30	DFT-s-OFDM PUSCH	1	1	16.79	16.80	16.76	16.73	16.73		17.7	
Channel											
Frequency (MHz)				647334	651669	650000	650332	654666		Tune-up limit (dBm)	
				3710.01	3775.02	3840	3904.98	3969.99			
20	DFT-s-OFDM PUSCH	1	1	16.79	16.54	16.65	16.71	16.65		17.7	
Channel											
Frequency (MHz)				647000	651600	650000	650000	654000		Tune-up limit (dBm)	
				3700	3795	3840	3895	3920			
100	CP-OFDM	1	1	15.21	15.08	15.27	15.19	15.17		16.2	
100	CP-OFDM	1	1	15.24	15.08	15.21	15.20	15.18		16.2	
100	CP-OFDM	1	1	14.34	14.32	14.25	14.35	14.49		15.2	
100	CP-OFDM	1	1	11.95	11.92	12.02	12.00	11.92		13.2	



n78 (3450 MHz ~ 3550 MHz) (PC2)_ANT3											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	DFT-s-OFDM PUSCH	1	1			3500.01			20.2		
100		1	136			18.96					
100		1	271			18.94					
100		136	1			18.97					
100		136	67			18.24					
100		136	136			18.13				19.2	
100		270	0			18.08					
100		1	1			18.27			20.2		
100		1	136			18.24					
100		1	271			18.23					
100	DFT-s-OFDM PUSCH	136	1			18.26					
100		136	67			18.26					
100		136	136			18.22				19.2	
100		270	0			18.18					
100		1	1			18.25			19.2		
100		1	1			17.42			18.2		
100		1	1			14.00			15.2		
Channel											
Frequency (MHz)											
90	DFT-s-OFDM PUSCH	1	1	18.20	18.16	19.08	19.15	19.14	20.2		
Channel											
Frequency (MHz)											
80	DFT-s-OFDM PUSCH	1	1	18.13	18.06	19.25	19.21	19.25	20.2		
Channel											
Frequency (MHz)											
70	DFT-s-OFDM PUSCH	1	1	18.12	18.14	19.18	19.17	19.18	20.2		
Channel											
Frequency (MHz)											
60	DFT-s-OFDM PUSCH	1	1	18.17	18.11	19.09	19.18	19.15	20.2		
Channel											
Frequency (MHz)											
50	DFT-s-OFDM PUSCH	1	1	18.19	18.26	19.13	19.20	19.21	20.2		
Channel											
Frequency (MHz)											
40	DFT-s-OFDM PUSCH	1	1	18.21	18.24	19.25	19.31	19.28	20.2		
Channel											
Frequency (MHz)											
30	DFT-s-OFDM PUSCH	1	1	18.01	18.19	19.16	19.15	19.08	20.2		
Channel											
Frequency (MHz)											
20	DFT-s-OFDM PUSCH	1	1	18.10	18.25	19.10	18.25	18.25	20.2		
Channel											
Frequency (MHz)											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	CP-OFDM	1	1			17.40			18.2		
100	CP-OFDM	1	1			17.24			18.2		
100	CP-OFDM	1	1			15.82			16.2		
100	CP-OFDM	1	1			12.09			13.2		

n78 (3450 MHz ~ 3550 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM PUSCH	1	1			3500.01			19.2	
100		1	136			18.16				
100		1	271			18.09				
100		136	1			17.22				
100		136	67			17.16				18.2
100		136	136			17.08				
100		270	0			17.05			19.2	
100		1	1			18.34				
100		1	136			18.26				
100		1	271			18.13				
100	136	1			17.23					
100	136	67			17.19			18.2		
100	136	136			17.18			18.14		
100	270	0			17.23					
100	DFT-s-OFDM PUSCH	1	1			17.32			18.2	
100	DFT-s-OFDM PUSCH	1	1			17.90			17.2	
100	DFT-s-OFDM PUSCH	1	1			15.52			16.2	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM PUSCH	1	1		630505	631866	633534	635505	636666	Tune-up limit (dBm)
				3485	3487.52	3500.01	3502.5	3504.96		
				58.11	18.08	18.08	18.07	18.12	19.2	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM PUSCH	1	1		630932	633655	636378	639101	641824	Tune-up limit (dBm)
				3490.52	3495	3500.01	3504.96	3510		
				58.17	18.09	18.12	18.07	18.02	19.2	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM PUSCH	1	1		632354	633834	635314	636793	638273	Tune-up limit (dBm)
				3495.01	3497.51	3500.01	3507.48	3514.96		
				58.10	18.08	18.10	17.88	17.98	19.2	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM PUSCH	1	1		632905	634595	636285	637975	639665	Tune-up limit (dBm)
				3490	3490.52	3500.01	3510	3519.99		
				58.17	18.16	18.15	18.08	18.00	19.2	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM PUSCH	1	1		631866	633505	635144	636783	638422	Tune-up limit (dBm)
				3475.02	3487.5	3500.01	3510	3525		
				58.14	18.03	18.09	17.99	17.92	24.2	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM PUSCH	1	1		631334	632334	633334	634332	635332	Tune-up limit (dBm)
				3470.53	3484.01	3500.01	3514.96	3529.94		
				58.24	18.31	18.23	18.28	18.17	24.2	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM PUSCH	1	1		631030	632168	633304	634450	635596	Tune-up limit (dBm)
				3465	3482.52	3500.01	3517.5	3534.99		
				58.17	18.27	18.22	18.09	18.02	24.2	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM PUSCH	1	1		630965	632200	633434	634666	635900	Tune-up limit (dBm)
				3464.02	3480.01	3500.01	3519.99	3539.99		
				58.30	18.13	18.25	17.98	17.95	24.2	
Channel										
Frequency (MHz)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune up limit (dBm)	
Channel										
Frequency (MHz)										
100	CP-OFDM	1	1			16.74			17.7	
100	CP-OFDM	1	1			16.68			17.7	
100	CP-OFDM	1	1			15.91			16.7	
100	CP-OFDM	1	1			12.90			13.7	



n78 (3450 MHz ~ 3550 MHz) (PC2)_ANT4											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	DFT-s-OFDM PUSCH	1	1			22.56			23.7		
100		1	136			22.44					
100		1	271			22.47					
100		136	1			21.74					
100		136	67			21.63			22.7		
100		136	136			21.58					
100		270	0			21.50					
100		1	1			22.77			23.7		
100		1	136			22.74					
100		1	271			22.73					
100	DFT-s-OFDM PUSCH	136	1			21.80			22.7		
100		136	67			21.79					
100		136	136			21.72					
100		270	0			21.68			22.7		
100		1	1			21.75					
100		DFT-s-OFDM PUSCH	1	1			20.92			21.7	
100		DFT-s-OFDM PUSCH	1	1			17.90			18.7	
Channel											
Frequency (MHz)											
90	DFT-s-OFDM PUSCH	1	1		633009	633084	633334	633900	633686	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
90	DFT-s-OFDM PUSCH	1	1		3495	3497.52	3500.01	3502.5	3504.99	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
80	DFT-s-OFDM PUSCH	1	1		22.60	22.66	22.58	22.65	22.64	23.7	
Channel											
Frequency (MHz)											
80	DFT-s-OFDM PUSCH	1	1		22.63	22.56	22.75	22.71	22.75	23.7	
Channel											
Frequency (MHz)											
70	DFT-s-OFDM PUSCH	1	1		632334	633684	633334	633932	634332	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
70	DFT-s-OFDM PUSCH	1	1		3485.01	3484.51	3500.01	3507.48	3514.98	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
70	DFT-s-OFDM PUSCH	1	1		22.62	22.62	22.68	22.67	22.68	23.7	
Channel											
Frequency (MHz)											
60	DFT-s-OFDM PUSCH	1	1		632009	633686	633334	634002	634598	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
60	DFT-s-OFDM PUSCH	1	1		3482	3486.52	3500.01	3510	3519.99	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
60	DFT-s-OFDM PUSCH	1	1		22.67	22.61	22.39	22.68	22.65	23.7	
Channel											
Frequency (MHz)											
50	DFT-s-OFDM PUSCH	1	1		631686	633000	633334	634166	635000	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
50	DFT-s-OFDM PUSCH	1	1		3475.02	3487.5	3500.01	3510	3525	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
50	DFT-s-OFDM PUSCH	1	1		22.69	22.76	22.63	22.70	22.71	23.7	
Channel											
Frequency (MHz)											
40	DFT-s-OFDM PUSCH	1	1		631334	632334	633334	634332	635332	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
40	DFT-s-OFDM PUSCH	1	1		3470.01	3474.51	3500.01	3514.98	3524.98	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
40	DFT-s-OFDM PUSCH	1	1		22.71	22.74	22.75	22.71	22.64	23.7	
Channel											
Frequency (MHz)											
30	DFT-s-OFDM PUSCH	1	1		631000	632108	633334	634500	635686	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
30	DFT-s-OFDM PUSCH	1	1		3465	3482.52	3500.01	3517.5	3524.99	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
30	DFT-s-OFDM PUSCH	1	1		22.51	22.59	22.66	22.65	22.58	23.7	
Channel											
Frequency (MHz)											
30	DFT-s-OFDM PUSCH	1	1		630686	632000	633334	634066	635000	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
20	DFT-s-OFDM PUSCH	1	1		3460.02			3519.99		Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
20	DFT-s-OFDM PUSCH	1	1		22.66	22.45	22.46	22.49	22.45	23.7	
Channel											
Frequency (MHz)											
20	DFT-s-OFDM PUSCH	1	1		630334	631656	633000	634500	636000	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
100	CP-OFDM	1	1			20.90			21.7		
100	CP-OFDM	1	1			20.74			21.7		
100	CP-OFDM	1	1			19.82			18.7		
100	CP-OFDM	1	1			15.89			16.7		

n78 (3450 MHz ~ 3550 MHz) (PC3)_ANT4											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	DFT-s-OFDM PUSCH	1	1			3500.01			24.2		
100		1	136			23.16					
100		1	271			23.12					
100		136	1			23.09					
100		136	67			22.22			23.2		
100		136	136			22.08					
100		270	0			22.05					
100		1	1			23.34			24.2		
100		1	136			23.25					
100		1	271			23.13					
100	DFT-s-OFDM PUSCH	136	1			22.23			23.2		
100		136	67			22.19					
100		136	136			22.18			23.2		
100		270	0			22.23					
100		DFT-s-OFDM PUSCH	1	1			22.32			23.2	
100		DFT-s-OFDM PUSCH	1	1			22.90			22.2	
100		DFT-s-OFDM PUSCH	1	1			20.52			21.2	
Channel											
Frequency (MHz)											
90	DFT-s-OFDM PUSCH	1	1		3495	3497.52	3500.01	3502.5	3504.96	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
80	DFT-s-OFDM PUSCH	1	1		3490.02	3498	3500.01	3502.99	3510	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
70	DFT-s-OFDM PUSCH	1	1		3485.01	3488	3500.01	3507.48	3514.96	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
60	DFT-s-OFDM PUSCH	1	1		3480	3489.02	3500.01	3510	3519.99	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
50	DFT-s-OFDM PUSCH	1	1		3475.02	3487.5	3500.01	3510	3525	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
40	DFT-s-OFDM PUSCH	1	1		3470.01	3481.01	3500.01	3514.96	3524.96	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
30	DFT-s-OFDM PUSCH	1	1		3465	3482.52	3500.01	3517.5	3524.96	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
20	DFT-s-OFDM PUSCH	1	1		3460.02	3478	3500.01	3517.5	3524.96	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
100	CP-OFDM	1	1			21.74			22.7		
100	CP-OFDM	1	1			21.68			22.7		
100	CP-OFDM	1	1			20.91			21.7		
100	CP-OFDM	1	1			17.90			18.7		



n78 (3450 MHz ~ 3550 MHz) (PC2) _ANT6									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel									
Frequency (MHz)									
100	DFT-s-OFDM PUSCH	1	1			18.58			19.7
100		1	136			18.44			
100		1	271			18.47			
100		136	1			17.74			18.7
100		136	67			17.63			
100		136	136			17.58			
100		270	0			17.50			19.7
100		1	1			18.17			
100		1	136			18.74			
100		1	271			18.73			18.7
100	DFT-s-OFDM CP-OFDM	136	1			17.80			
100		136	67			17.76			
100		136	136			17.79			
100		136	136			17.72			18.7
100		270	0			17.68			
100		1	1			17.75			
100	DFT-s-OFDM 16QAM	1	1			18.92			19.7
100	DFT-s-OFDM 16QAM	1	1			16.92			17.7
100	DFT-s-OFDM 256QAM	1	1			13.90			14.7
Channel									
				633000	633168	633334	633500	633666	Tune-up limit (dBm)
Frequency (MHz)									
90	DFT-s-OFDM PUSCH	1	1	3470	3487.52	3500.01	3502.5	3504.99	19.7
Channel									
				633000	633168	633334	633500	633666	Tune-up limit (dBm)
Frequency (MHz)									
80	DFT-s-OFDM PUSCH	1	1	18.63	18.68	18.68	18.75	18.75	19.7
Channel									
				633234	633034	633334	633382	634332	Tune-up limit (dBm)
Frequency (MHz)									
70	DFT-s-OFDM PUSCH	1	1	3486.01	3482.51	3500.01	3507.48	3514.98	19.7
Channel									
				18.62	18.64	18.68	18.67	18.88	19.7
Frequency (MHz)									
60	DFT-s-OFDM PUSCH	1	1	633200	633668	633334	634500	634966	Tune-up limit (dBm)
Channel									
				3486	3480.52	3500.01	3510	3519.99	19.7
Frequency (MHz)									
50	DFT-s-OFDM PUSCH	1	1	18.67	18.81	18.59	18.68	18.65	19.7
Channel									
				633668	633590	633334	634166	633900	Tune-up limit (dBm)
Frequency (MHz)									
40	DFT-s-OFDM PUSCH	1	1	3475.02	3487.5	3500.01	3510	3520	19.7
Channel									
				18.69	18.76	18.63	18.70	18.71	19.7
Frequency (MHz)									
30	DFT-s-OFDM PUSCH	1	1	631134	632334	633334	634332	635332	Tune-up limit (dBm)
Channel									
				3470.01	3486.01	3500.01	3514.98	3529.98	19.7
Frequency (MHz)									
40	DFT-s-OFDM PUSCH	1	1	18.71	18.74	18.75	18.71	18.84	19.7
Channel									
				631000	632168	633334	634500	635666	Tune-up limit (dBm)
Frequency (MHz)									
30	DFT-s-OFDM PUSCH	1	1	3485	3482.52	3500.01	3517.5	3534.99	19.7
Channel									
				635668	632000	633334	634866	635000	Tune-up limit (dBm)
Frequency (MHz)									
20	DFT-s-OFDM PUSCH	1	1	3490.02	3488	3500.01	3519.99	3530	19.7
Channel									
				18.68	18.45	18.60	18.46	18.45	19.7
Frequency (MHz)									
Channel									
				635001					Tune-up limit (dBm)
Frequency (MHz)									
100	CP-OFDM	1	1			16.90			17.7
100	CP-OFDM	1	1			16.74			17.7
100	CP-OFDM	1	1			15.82			16.7
100	CP-OFDM	1	1			11.89			12.7

n78 (3450 MHz ~ 3550 MHz) (PC3) _ANT6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM PUSCH	1	1			3500.01			19.2	
100		1	136			18.16				
100		1	271			18.12				
100		136	1			18.09			18.2	
100		136	67			17.22				
100		136	136			17.16				
100		270	0			17.08			19.2	
100		1	1			17.05				
100		1	1			18.34	18.25			
100		1	271			18.13			18.2	
100	DFT-s-OFDM CPUSCH	136	1			17.23				
100	136	67			17.14					
100	136	136			17.18					
100	270	0			17.23			18.2		
100	DFT-s-OFDM HQAM	1	1			17.32				
100	DFT-s-OFDM HQAM	1	1			17.90				
100	DFT-s-OFDM HQAM	1	1			15.52			17.2	
100	DFT-s-OFDM HQAM	1	1			15.52			16.2	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM PUSCH	1	1		633000	633168	633334	633500	633666	Tune-up limit (dBm)
				3460	3487.02	3500.01	3502.51	3504.98		
80	DFT-s-OFDM PUSCH	1	1		18.10	18.08	18.08	18.07	18.12	19.2
				3460.02	3460.02	3460.02	3460.02	3460.02		Tune-up limit (dBm)
80	DFT-s-OFDM PUSCH	1	1		18.17	18.09	18.02	18.01	18.02	19.2
Channel										
Frequency (MHz)										
70	DFT-s-OFDM PUSCH	1	1		632334	632334	633334	633332	634332	Tune-up limit (dBm)
				3488.01	3492.51	3500.01	3507.48	3514.98		
70	DFT-s-OFDM PUSCH	1	1		18.10	18.08	18.10	17.88	17.88	19.2
				632000	632000	633000	634000	634998		Tune-up limit (dBm)
60	DFT-s-OFDM PUSCH	1	1		18.08	18.05	18.02	18.01	18.02	19.2
60	DFT-s-OFDM PUSCH	1	1		18.17	18.16	18.15	18.08	18.00	19.2
Channel										
Frequency (MHz)										
50	DFT-s-OFDM PUSCH	1	1		631968	632000	633168	633200	634200	Tune-up limit (dBm)
				3479.02	3487.51	3500.01	3510	3525		
50	DFT-s-OFDM PUSCH	1	1		18.14	18.03	18.09	17.99	17.92	24.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM PUSCH	1	1		631334	632334	633334	634332	635332	Tune-up limit (dBm)
				3470.01	3485.01	3500.01	3514.98	3529.98		
40	DFT-s-OFDM PUSCH	1	1		18.24	18.31	18.23	18.28	18.17	24.2
				631000	632168	633334	634500	635666		Tune-up limit (dBm)
30	DFT-s-OFDM PUSCH	1	1		3465	3482.52	3500.01	3517.51	3534.99	
30	DFT-s-OFDM PUSCH	1	1		18.17	18.27	18.22	18.09	18.02	24.2
Channel										
Frequency (MHz)										
20	DFT-s-OFDM PUSCH	1	1		630968	632000	633334	634998	636200	Tune-up limit (dBm)
				3450.02	3485	3500.01	3519.99	3540		
20	DFT-s-OFDM PUSCH	1	1		18.30	18.13	18.26	17.98	17.95	24.2
Channel										
Frequency (MHz)										
100	CP-OFDM	1	1			16.74			17.7	
100	CP-OFDM	1	1			16.68			17.7	
100	CP-OFDM	1	1			15.91			16.7	
100	CP-OFDM	1	1			12.90			13.7	



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM P2/BPSK	1	1			13.80			14.7	
100		1	136			13.56				
100		1	271			13.54				
100		135	1			12.58				
100		135	67			12.50				
100	DFT-s-OFDM QPSK	135	136			12.56			13.7	
100		270	0			12.51				
100		1	1			13.58				
100		1	136			13.61				
100		1	271			13.55				
100	DFT-s-OFDM 16QAM	135	1			12.51			14.7	
100		135	67			12.75				
100		135	136			12.69				
100		270	0			12.55				
100		1	1			12.84				
100	DFT-s-OFDM 64QAM	1	1			10.86			13.7	
100		1	1			10.86				
100		1	1			8.41				
100		1	1			8.41				
100		1	1			8.41				
100		1	1			8.41				
100		1	1			8.41				
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	13.43	13.65	13.52	13.51	13.50	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	13.47	13.52	13.57	13.62	13.59	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	13.47	13.41	13.64	13.65	13.61	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	13.61	13.58	13.51	13.56	13.60	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	13.59	13.80	13.64	13.46	13.51	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	13.56	13.50	13.53	13.56	13.42	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	13.56	13.53	13.47	13.50	13.55	Tune-up limit (dBm)	
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1			11.57			12.7	
100	CP-OFDM 16QAM	1	1			11.32				
100	CP-OFDM 64QAM	1	1			9.52				
100	CP-OFDM 256QAM	1	1			6.20				

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Line Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM P2/BPSK	1	1			12.89			13.9	
100		1	136			12.82				
100		1	271			12.78				
100		135	1			11.93				
100		135	67			11.89				
100	DFT-s-OFDM P2/QPSK	135	136			11.92			12.9	
100		270	0			11.82				
100		1	1			12.95				
100		1	136			11.92				
100		1	271			12.81				
100	DFT-s-OFDM P2/16QAM	135	1			11.54			13.9	
100		135	67			11.92				
100		135	136			11.93				
100		270	0			11.77				
100		1	1			11.86				
100	DFT-s-OFDM P2/64QAM	1	1			11.80			12.9	
100		1	1			11.80				
100		1	1			9.82				
100		1	1			9.82				
100		1	1			9.82				
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	12.86	12.85	12.83	12.76	12.82	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	12.85	12.72	12.75	12.77	12.84	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	12.78	12.84	12.80	12.84	12.81	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	12.84	12.91	12.88	12.82	12.90	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	12.90	12.77	12.87	12.79	12.83	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	12.71	12.76	12.90	12.82	12.82	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	12.83	12.79	12.88	12.81	12.86	Tune-up limit (dBm)	
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	CP-OFDM	1	1			11.77			12.4	
100	CP-OFDM	1	1			11.74			12.4	
100	CP-OFDM	1	1			10.97			11.4	
100	CP-OFDM	1	1			7.85			8.4	



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dB)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM P2/BPSK	1	1			22.60			23.7	
100		1	136			22.58				
100		1	271			22.54				
100		135	1			21.58			22.7	
100		135	67			21.50				
100		135	136			21.51				
100		270	0			21.50				
100		1	1			22.58			23.7	
100		1	136			22.61				
100		1	271			22.55				
100	DFT-s-OFDM QPSK	135	1			21.81			22.7	
100		135	67			21.75				
100		135	136			21.59				
100		270	0			21.55				
100		DFT-s-OFDM	1	1			21.84			22.7
100		DFT-s-OFDM	1	1			19.86			20.7
100		DFT-s-OFDM	1	1			17.41			16.7
Channel										
Frequency (MHz)										
90	DFT-s-OFDM	1	1	22.43	22.65	22.52	22.51	22.50	Tune-up limit (dB)	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM	1	1	22.47	22.52	22.57	22.62	22.59	Tune-up limit (dB)	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM	1	1	22.47	22.41	22.64	22.65	22.61	Tune-up limit (dB)	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM	1	1	22.61	22.58	22.61	22.56	22.60	Tune-up limit (dB)	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM	1	1	22.50	22.80	22.64	22.46	22.51	Tune-up limit (dB)	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM	1	1	22.59	22.50	22.59	22.56	22.42	Tune-up limit (dB)	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM	1	1	22.50	22.53	22.47	22.60	22.55	Tune-up limit (dB)	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM	1	1	22.50	22.53	22.47	22.60	22.55	Tune-up limit (dB)	
Channel										
Frequency (MHz)										
100	CP-OFDM	1	1			20.57			21.7	
100	CP-OFDM	1	1			20.32			21.7	
100	CP-OFDM	1	1			18.52			19.7	
100	CP-OFDM	1	1			15.20			16.7	



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT6													
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
100	DFT-s-OFDM P2 BPSK	1	1			17.10			16.2				
100		1	136			17.06							
100		1	271			17.04							
100		135	1			16.06							
100		135	67			16.02							
100	DFT-s-OFDM QPSK	135	136			16.05			17.2				
100		270	0			16.01							
100		1	1			17.16							
100		1	136			17.11							
100		1	271			17.05							
100	DFT-s-OFDM 16QAM	135	1			16.31			17.2				
100		135	67			16.25							
100		135	136			16.19							
100		270	0			16.05							
100		1	1			16.34							
100	DFT-s-OFDM 64QAM	1	1			14.16			15.2				
100		1	1			11.91							
Channel													
Frequency (MHz)													
90	DFT-s-OFDM QPSK	1	1	16.93	17.15	17.02	17.01	17.00	16.2				
Channel													
80	DFT-s-OFDM QPSK	1	1	16.97	17.02	17.07	17.12	17.09	16.2				
Channel													
70	DFT-s-OFDM QPSK	1	1	16.97	16.91	17.14	17.15	17.11	16.2				
Channel													
60	DFT-s-OFDM QPSK	1	1	17.11	17.08	17.01	17.06	17.10	16.2				
Channel													
50	DFT-s-OFDM QPSK	1	1	17.00	17.10	17.14	16.96	17.01	16.2				
Channel													
40	DFT-s-OFDM QPSK	1	1	17.06	17.09	17.09	17.06	16.92	16.2				
Channel													
20	DFT-s-OFDM QPSK	1	1	17.06	17.03	16.97	17.10	17.05	16.2				
Channel													
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
100	CP-OFDM QPSK	1	1			15.07			16.2				
100	CP-OFDM 16QAM	1	1			14.82			16.2				
100	CP-OFDM 64QAM	1	1			13.02			14.2				
100	CP-OFDM 256QAM	1	1			9.70			11.2				

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM P2/BPSK	1	1			16.39			17.4	
100		1	136			16.32				
100		1	271			16.28				
100		135	1			15.43				
100		135	67			15.39				
100	DFT-s-OFDM QPSK	135	136			15.42			16.4	
100		270	0			15.32				
100		1	1			16.45				
100		1	136			16.38				
100		1	271			16.31				
100	DFT-s-OFDM 16QAM	135	1			15.44			16.4	
100		135	67			15.42				
100		135	136			15.43				
100		270	0			15.27				
100		1	1			15.36				
100	DFT-s-OFDM 64QAM	1	1			15.30			16.4	
100		DFT-s-OFDM 256QAM	1	1			13.32			
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	56505	56534	56500	56516	56532	Tune-up limit (dBm)	
				3740.02	3747.51	3750	3752.49	3754.98		
90	DFT-s-OFDM QPSK	1	1	16.36	16.35	16.33	16.26	16.32	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	56504	56498	56500	56532	56506	Tune-up limit (dBm)	
				3740.01	3745.99	3750	3754.98	3749.98		
80	DFT-s-OFDM QPSK	1	1	16.05	16.22	16.25	16.27	16.34	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	56505	56505	56500	56505	55100	Tune-up limit (dBm)	
				3735	3742.5	3750	3757.5	3765		
70	DFT-s-OFDM QPSK	1	1	16.28	16.34	16.30	16.34	16.31	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	56498	56534	56500	56506	56532	Tune-up limit (dBm)	
				3740.01	3745.99	3750	3756.98	3749.98		
60	DFT-s-OFDM QPSK	1	1	16.34	16.41	16.38	16.32	16.40	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	56534	56516	56500	56516	56556	Tune-up limit (dBm)	
				3725.01	3737.52	3750	3759.99	3774.99		
50	DFT-s-OFDM QPSK	1	1	16.40	16.27	16.37	16.20	16.33	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	56500	56500	56500	55100	55200	Tune-up limit (dBm)	
				3730	3735	3750	3765	3780		
40	DFT-s-OFDM QPSK	1	1	16.21	16.26	16.40	16.42	16.32	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	56534	56588	56500	561032	56266	Tune-up limit (dBm)	
				3733.01	3735.99	3750	3758.98	3769.98		
20	DFT-s-OFDM QPSK	1	1	16.33	16.29	16.38	16.31	16.36	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	CP-OFDM	1	1			15.27			15.9	
100	CP-OFDM	1	1			15.24			15.9	
100	CP-OFDM	1	1			14.47			14.9	
100	CP-OFDM	1	1			11.35			11.9	



CA_48C_Ant 3 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
55340	55340	55538	QPSK	1	0	0	0	1	0	16.56	17.50
55990	55891	56089	QPSK	1	0	0	0	1	0	16.72	17.50
56640	56442	56640	QPSK	1	0	0	0	1	0	16.48	17.50
55340	55340	55538	16QAM	1	0	0	0	1	0	15.99	17.00
55990	55891	56089	16QAM	1	0	0	0	1	0	16.12	17.00
56640	56442	56640	16QAM	1	0	0	0	1	0	15.94	17.00
55340	55340	55538	64QAM	1	0	0	0	1	0	14.81	15.50
55990	55891	56089	64QAM	1	0	0	0	1	0	14.88	15.50
56640	56442	56640	64QAM	1	0	0	0	1	0	14.79	15.50
55340	55340	55538	QPSK	50	0	0	0	1	0	15.75	16.50
55990	55891	56089	QPSK	50	0	0	0	1	0	15.82	16.50
56640	56442	56640	QPSK	50	0	0	0	1	0	15.72	16.50



CA_48C_Ant 6 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
55340	55340	55538	QPSK	1	0	0	0	1	0	19.56	20.50
55990	55891	56089	QPSK	1	0	0	0	1	0	19.72	20.50
56640	56442	56640	QPSK	1	0	0	0	1	0	19.48	20.50
55340	55340	55538	16QAM	1	0	0	0	1	0	18.99	20.00
55990	55891	56089	16QAM	1	0	0	0	1	0	19.12	20.00
56640	56442	56640	16QAM	1	0	0	0	1	0	18.94	20.00
55340	55340	55538	64QAM	1	0	0	0	1	0	17.81	18.50
55990	55891	56089	64QAM	1	0	0	0	1	0	17.88	18.50
56640	56442	56640	64QAM	1	0	0	0	1	0	17.79	18.50
55340	55340	55538	QPSK	50	0	0	0	1	0	18.75	19.50
55990	55891	56089	QPSK	50	0	0	0	1	0	18.82	19.50
56640	56442	56640	QPSK	50	0	0	0	1	0	18.72	19.50



Reduced Power Level 3 for Ant 7

2.4GHz WLAN ANT 1

2.4GHz WLAN ANT 7	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 1Mbps	CH 1	2412	13.48	15.00	13.00	100.00
		CH 6	2437	13.67	15.50	13.00	
		CH 11	2462	13.63	15.50	13.00	
	802.11g 6Mbps	CH 1	2412	11.41	13.00	11.50	98.57
		CH 6	2437	11.42	13.00	11.50	
		CH 11	2462	9.07	11.00	9.00	
	802.11n-HT20 MCS0	CH 1	2412	11.22	13.00	11.50	98.57
		CH 6	2437	11.19	13.00	11.50	
		CH 11	2462	8.43	10.00	11.50	
	802.11n-HT40 MCS0	CH 3	2422	11.28	13.00	11.00	95.00
		CH 6	2437	8.75	10.50	7.50	
		CH 9	2452	6.92	8.50	6.00	
	802.11ac-VHT20 MCS0	CH 1	2412	11.23	13.00	11.50	98.47
		CH 6	2437	11.17	13.00	11.50	
		CH 11	2462	8.49	10.00	8.50	
	802.11ac-VHT40 MCS0	CH 3	2422	11.23	13.00	11.00	95.05
		CH 6	2437	8.71	10.50	7.50	
		CH 9	2452	6.96	8.50	6.00	

5GHz WLAN ANT 1

5.2GHz WLAN ANT 7	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	9.19	11.00	10.00	98.10
		CH 44	5220	9.50	11.50	10.00	
		CH 48	5240	9.56	11.50	10.00	
	802.11n-HT20 MCS0	CH 36	5180	9.75	11.50	10.00	98.57
		CH 44	5220	10.03	12.00	10.00	
		CH 48	5240	10.14	12.00	10.00	
	802.11n-HT40 MCS0	CH 38	5190	10.19	12.00	10.00	96.94
		CH 46	5230	9.48	11.00	10.00	
		CH 36	5180	8.10	10.00	8.50	
	802.11ac-VHT20 MCS0	CH 44	5220	8.42	10.00	8.50	98.48
		CH 48	5240	7.79	9.50	8.50	
		CH 38	5190	7.98	9.50	8.50	
	802.11ac-VHT40 MCS0	CH 46	5230	8.22	10.00	8.50	95.96
		CH 42	5210	8.32	10.00	8.50	
	802.11ac-VHT80 MCS0	CH 42	5210	8.32	10.00	8.50	92.00

5GHz WLAN ANT 1

5.3GHz WLAN ANT 7	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 52	5280	8.74	10.50	8.00	98.57
		CH 60	5300	8.77	10.50	8.00	
		CH 64	5320	9.03	11.00	8.00	
	802.11n-HT20 MCS0	CH 52	5280	9.27	11.00	8.00	98.57
		CH 60	5300	8.50	10.50	8.00	
		CH 64	5320	8.81	10.50	8.00	
	802.11n-HT40 MCS0	CH 54	5270	8.88	10.50	8.00	96.94
		CH 62	5310	9.38	11.00	8.00	
		CH 52	5280	6.89	8.50	6.50	
	802.11ac-VHT20 MCS0	CH 60	5300	7.05	9.00	6.50	98.48
		CH 64	5320	7.42	9.00	6.50	
		CH 54	5270	6.93	8.50	6.50	
	802.11ac-VHT40 MCS0	CH 62	5310	7.62	9.50	6.50	96.97
		CH 58	5290	7.66	9.50	6.50	
	802.11ac-VHT80 MCS0	CH 58	5290	7.66	9.50	6.50	94.00

5GHz WLAN ANT 1

5.5GHz WLAN ANT 7	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 100	5500	10.77	12.50	9.00	98.57
		CH 120	5600	10.86	12.50	9.00	
		CH 144	5720	9.52	11.50	9.00	
	802.11n-HT20 MCS0	CH 100	5500	10.58	12.50	9.00	98.47
		CH 120	5600	9.78	11.50	9.00	
		CH 144	5720	9.89	11.50	9.00	
	802.11n-HT40 MCS0	CH 102	5510	10.86	12.50	9.00	98.94
		CH 126	5630	10.15	12.00	9.00	
		CH 142	5710	10.17	12.00	9.00	
	802.11ac-VHT20 MCS0	CH 100	5500	9.65	11.30	9.00	98.48
		CH 120	5600	9.30	11.00	9.00	
		CH 144	5720	9.49	11.00	9.00	
	802.11ac-VHT40 MCS0	CH 102	5510	9.95	11.50	9.00	96.97
		CH 126	5630	9.91	11.50	9.00	
		CH 142	5710	9.87	11.50	9.00	
	802.11ac-VHT80 MCS0	CH 106	5530	9.96	11.50	9.00	94.00
		CH 122	5610	9.66	11.50	9.00	
	802.11ac-VHT80 MCS0	CH 138	5690	9.62	11.50	9.00	94.00

5GHz WLAN ANT 1

5.8GHz WLAN ANT 7	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	12.14	14.00	12.00	98.57
		CH 157	5785	12.51	14.50	12.00	
		CH 165	5825	11.62	13.50	12.00	
	802.11n-HT20 MCS0	CH 149	5745	12.49	14.00	12.00	98.47
		CH 157	5785	12.86	14.50	12.00	
		CH 165	5825	12.80	14.50	12.00	
	802.11n-HT40 MCS0	CH 151	5755	12.85	14.50	12.00	98.94
		CH 159	5795	13.33	15.00	12.00	
		CH 149	5745	11.08	13.00	10.50	
	802.11ac-VHT20 MCS0	CH 157	5785	11.10	13.00	10.50	97.97
		CH 165	5825	11.35	13.00	10.50	
		CH 151	5755	10.82	12.50	10.50	
	802.11ac-VHT40 MCS0	CH 159	5795	11.83	13.50	10.50	96.97
		CH 155	5775	11.13	13.00	10.50	
	802.11ac-VHT80 MCS0	CH 155	5775	11.13	13.00	10.50	94.00



Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	7.91	5.96	6.71
	CH 39	2441	7.96	5.20	5.78
	CH 78	2480	7.33	4.81	5.85
Tune-up Limit			11.00	9.00	9.50
Duty Cycle %			76.8	63.47	77.33

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	
LE	CH 00	2402	5.72	2.80	
	CH 19	2440	5.35	2.44	
	CH 39	2480	6.76	4.13	
Tune-up Limit			9.5	7	
Duty Cycle %			63.2	33.6	



Reduced Power Level 4 for Ant0

Band		WCDMA Band II (dBm)_Ant0			Tune-up Limit (dBm)	WCDMA Band IV (dBm)_Ant0			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99	RMC 12.2Kbps	16.89	16.92	16.86	17.80	17.03	17.11	17.06	17.80
3GPP Rel 6	HSDPA Subtest-1	15.94	16.29	16.19	17.00	15.97	16.43	16.38	17.00
3GPP Rel 6	HSDPA Subtest-2	16.08	16.34	15.96	10.00	15.98	16.38	16.09	10.00
3GPP Rel 6	HSDPA Subtest-3	15.50	15.54	15.33	9.50	15.53	15.80	15.32	9.50
3GPP Rel 6	HSDPA Subtest-4	16.00	15.80	15.67	9.50	16.22	15.96	15.87	9.50
3GPP Rel 8	DC-HSDPA Subtest-1	16.29	16.06	15.98	17.00	16.40	16.22	15.94	17.00
3GPP Rel 8	DC-HSDPA Subtest-2	15.77	15.61	15.47	16.50	16.00	15.67	15.69	16.50
3GPP Rel 8	DC-HSDPA Subtest-3	15.66	15.35	15.20	16.00	15.33	15.36	15.06	16.00
3GPP Rel 8	DC-HSDPA Subtest-4	15.51	15.18	15.30	9.50	15.56	15.32	15.49	9.50
3GPP Rel 6	HSUPA Subtest-1	15.81	15.66	15.78	17.00	15.98	15.52	15.65	17.00
3GPP Rel 6	HSUPA Subtest-2	14.38	14.11	14.18	15.00	14.35	14.31	14.24	15.00
3GPP Rel 6	HSUPA Subtest-3	15.38	15.14	15.05	16.00	15.52	15.18	15.23	16.00
3GPP Rel 6	HSUPA Subtest-4	14.36	14.07	14.07	15.00	14.22	14.22	14.14	15.00
3GPP Rel 6	HSUPA Subtest-5	15.72	15.56	15.26	16.00	15.70	15.55	15.23	16.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	14.25	14.26	14.31	15.00	14.12	14.22	14.25	15.00
Attenuator			Cable Loss	0.8			Cable Loss	0.8	
Mode			Max.	16.92			Max.	17.11	



Band 2 (1900MHz Band) (dBm)_Ant0 Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				18800	18900	19000	
20	QPSK	1	0	16.94	17.02	16.96	17.8
20	QPSK	1	49	16.87	16.93	16.89	
20	QPSK	1	99	16.85	16.91	16.90	
20	QPSK	50	0	16.11	16.18	16.08	16.8
20	QPSK	50	24	16.08	16.14	16.10	
20	QPSK	50	50	16.03	16.10	16.08	
20	QPSK	100	0	16.05	16.08	16.03	16.8
20	16QAM	1	0	16.29	16.31	16.29	
20	16QAM	1	49	16.26	16.28	16.20	
20	16QAM	1	99	16.23	16.27	16.26	15.8
20	16QAM	50	0	15.08	15.12	15.05	
20	16QAM	50	24	15.10	15.11	15.04	
20	16QAM	50	50	15.09	15.10	15.03	15.8
20	16QAM	100	0	15.02	15.08	15.04	
20	64QAM	1	0	15.15	15.22	15.19	
20	64QAM	1	49	15.08	15.16	15.11	15.8
20	64QAM	1	99	15.12	15.15	15.10	
20	64QAM	50	0	14.15	14.16	14.08	
20	64QAM	50	24	14.13	14.14	14.12	14.8
20	64QAM	50	50	14.07	14.11	14.08	
20	64QAM	100	0	14.02	14.08	14.02	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	18800	1902.5	
15	QPSK	1	0	16.91	16.97	16.90	17.8
15	QPSK	1	37	16.79	16.88	16.84	
15	QPSK	1	74	16.84	16.89	16.85	
15	QPSK	36	0	16.09	16.14	16.11	16.8
15	QPSK	36	20	16.00	16.07	16.09	
15	QPSK	36	39	16.01	16.08	16.07	
15	QPSK	75	0	16.03	16.00	15.96	16.8
15	16QAM	1	0	16.28	16.26	16.22	
15	16QAM	1	37	16.19	16.21	16.16	
15	16QAM	1	74	16.15	16.19	16.21	15.8
15	16QAM	36	0	15.02	15.05	15.04	
15	16QAM	36	20	15.05	15.10	14.98	
15	16QAM	36	39	15.07	15.04	14.95	15.8
15	16QAM	75	0	14.97	15.07	14.99	
15	64QAM	1	0	15.11	15.15	15.15	
15	64QAM	1	37	15.07	15.15	15.03	15.8
15	64QAM	1	74	15.10	15.13	15.09	
15	64QAM	36	0	14.13	14.11	14.03	
15	64QAM	36	20	14.11	14.10	14.06	14.8
15	64QAM	36	39	14.05	14.10	14.01	
15	64QAM	75	0	13.98	14.01	13.96	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	18800	1905	
10	QPSK	1	0	16.90	17.01	16.93	17.8
10	QPSK	1	25	16.80	16.88	16.83	
10	QPSK	1	49	16.78	16.87	16.82	
10	QPSK	25	0	16.14	16.11	16.11	16.8
10	QPSK	25	12	16.07	16.09	16.06	
10	QPSK	25	25	16.01	16.02	16.04	
10	QPSK	50	0	15.98	16.07	15.99	16.8
10	16QAM	1	0	16.22	16.23	16.25	
10	16QAM	1	25	16.23	16.21	16.12	
10	16QAM	1	49	16.17	16.21	16.18	15.8
10	16QAM	25	0	15.05	15.09	14.99	
10	16QAM	25	12	15.06	15.05	14.99	
10	16QAM	25	25	15.06	15.09	14.99	15.8
10	16QAM	50	0	14.95	15.06	15.00	
10	64QAM	1	0	15.13	15.18	15.16	
10	64QAM	1	25	15.05	15.12	15.04	15.8
10	64QAM	1	49	15.09	15.14	15.06	
10	64QAM	25	0	14.14	14.15	14.01	
10	64QAM	25	12	14.09	14.06	14.09	14.8
10	64QAM	25	25	14.05	14.10	14.07	
10	64QAM	50	0	13.98	14.06	13.95	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	18800	1907.5	
5	QPSK	1	0	16.88	16.95	16.92	17.8
5	QPSK	1	12	16.82	16.92	16.83	
5	QPSK	1	24	16.78	16.83	16.87	
5	QPSK	12	0	16.10	16.11	16.09	16.8
5	QPSK	12	7	16.01	16.06	16.02	
5	QPSK	12	13	15.99	16.08	16.04	
5	QPSK	25	0	16.03	16.01	15.98	16.8
5	16QAM	1	0	16.27	16.23	16.25	
5	16QAM	1	12	16.20	16.27	16.17	
5	16QAM	1	24	16.15	16.20	16.19	15.8
5	16QAM	12	0	15.01	15.08	14.98	
5	16QAM	12	7	15.08	15.10	14.99	
5	16QAM	12	13	15.05	15.04	15.02	15.8
5	64QAM	1	0	15.10	15.20	15.17	
5	64QAM	1	12	15.07	15.11	15.07	
5	64QAM	1	24	15.10	15.14	15.05	14.8
5	64QAM	12	0	14.13	14.14	14.07	
5	64QAM	12	7	14.10	14.06	14.07	
5	64QAM	12	13	14.01	14.04	14.00	16.8
5	64QAM	25	0	13.99	14.01	13.97	
5	64QAM	8	7	16.02	16.06	16.05	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	18800	1908.5	
3	QPSK	1	0	16.90	16.96	16.91	17.8
3	QPSK	1	8	16.83	16.85	16.87	
3	QPSK	1	14	16.83	16.88	16.85	
3	QPSK	8	0	16.11	16.14	16.12	16.8
3	QPSK	8	4	16.01	16.12	16.03	
3	QPSK	8	7	16.02	16.06	16.05	

Band 4 (AWS Band) (dBm)_Ant0 Part 27L (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	16.33	16.38	16.32	17.1
20	QPSK	1	49	16.24	16.27	16.26	
20	QPSK	1	99	16.16	16.23	16.21	
20	QPSK	50	0	15.40	15.44	15.37	16.1
20	QPSK	50	24	15.38	15.40	15.33	
20	QPSK	50	50	15.23	15.31	15.27	
20	QPSK	100	0	15.34	15.36	15.33	16.1
20	16QAM	1	0	15.61	15.64	15.60	
20	16QAM	1	49	15.58	15.62	15.57	
20	16QAM	1	99	15.51	15.59	15.55	15.1
20	16QAM	50	0	14.44	14.45	14.44	
20	16QAM	50	24	14.36	14.40	14.39	
20	16QAM	50	50	14.26	14.30	14.26	15.1
20	16QAM	100	0	14.31	14.39	14.34	
20	64QAM	1	0	14.54	14.55	14.53	
20	64QAM	1	49	14.43	14.50	14.47	15.1
20	64QAM	1	99	14.43	14.47	14.45	
20	64QAM	50	0	13.42	13.46	13.39	
20	64QAM	50	24	13.37	13.42	13.38	14.1
20	64QAM	50	50	13.29	13.37	13.31	
20	64QAM	100	0	13.32	13.40	13.37	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	16.30	16.34	16.28	17.1
15	QPSK	1	37	16.22	16.26	16.20	
15	QPSK	1	74	16.12	16.22	16.17	
15	QPSK	36	0	15.33	15.38	15.35	16.1
15	QPSK	36	20	15.34	15.38	15.30	
15	QPSK	36	39	15.22	15.30	15.23	
15	QPSK	75	0	15.26	15.35	15.26	16.1
15	16QAM	1	0	15.57	15.57	15.53	
15	16QAM	1	37	15.50	15.55	15.53	
15	16QAM	1	74	15.50	15.57	15.48	15.1
15	16QAM	36	0	14.43	14.37	14.38	
15	16QAM	36	20	14.34	14.39	14.32	
15	16QAM	36	39	14.22	14.26	14.22	15.1
15	16QAM	75	0	14.28	14.37	14.30	
15	64QAM	1	0	14.52	14.54	14.49	
15	64QAM	1	37	14.40	14.47	14.42	15.1
15	64QAM	1	74	14.38	14.42	14.42	
15	64QAM	36	0	13.40	13.44	13.37	
15	64QAM	36	20	13.33	13.34	13.37	14.1
15	64QAM	36	39	13.23	13.35	13.23	
15	64QAM	75	0	13.31	13.32	13.30	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	16.28	16.30	16.26	17.1
10	QPSK	1	25	16.19	16.26	16.19	
10	QPSK	1	49	16.13	16.21	16.18	
10	QPSK	25	0	15.33	15.37	15.32	16.1
10	QPSK	25	12	15.34	15.37	15.31	
10	QPSK	25	25	15.15	15.30	15.19	
10	QPSK	50	0	15.29	15.32	15.32	16.1
10	16QAM	1	0	15.60	15.59	15.59	
10	16QAM	1	25	15.53	15.60	15.53	
10	16QAM	1	49	15.44	15.56	15.52	15.1
10	16QAM	25	0	14.42	14.43	14.41	
10	16QAM	25	12	14.35	14.36	14.35	
10	16QAM	25	25	14.24	14.29	14.20	14.1
10	16QAM	50	0	14.23	14.35	14.32	
10	64QAM	1	0	14.47	14.53	14.49	
10	64QAM	1	25	14.36	14.43	14.42	15.1
10	64QAM	1	49	14.35	14.41	14.40	
10	64QAM	25	0	13.41	13.39	13.35	
10	64QAM	25	12	13.34	13.36	13.31	14.1
10	64QAM	25	25	13.21	13.29	13.26	
10	64QAM	50	0	13.27	13.36	13.30	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	16.30	16.31	16.29	17.1
5	QPSK	1	12	16.18	16.22	16.20	
5	QPSK	1	24	16.12	16.16	16.15	
5	QPSK	12	0	15.36	15.43	15.32	16.1
5	QPSK	12	7	15.37	15.35	15.28	
5	QPSK	12	13	15.18	15.29	15.19	
5	QPSK	25	0	15.32	15.32	15.26	16.1
5	16QAM	1	0	15.58	15.59	15.56	
5	16QAM	1	12	15.57	15.59	15.56	
5	16QAM	1	24	15.48	15.58	15.50	15.1
5	16QAM	12	0	14.41	14.44	14.36	
5	16QAM	12	7	14.28	14.34	14.34	
5	16QAM	12	13	14.18	14.25	14.18	14.1
5	16QAM	25	0	14.30	14.34	14.30	
5	64QAM	1	0	14.53	14.50	14.51	
5	64QAM	1	12	14.37	14.48	14.43	15.1
5	64QAM	1	24	14.40	14.42	14.37	
5	64QAM	12	0	13.34	13.40	13.38	
5	64QAM	12	7	13.29	13.40	13.34	14.1
5	64QAM	12	13	13.28	13.29	13.26	
5	64QAM	25	0	13.25	13.35	13.30	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	16.25	16.36	16.31	17.1
3	QPSK	1	8	16.19	16.24	16.20	
3	QPSK	1	14	16.09	16.22	16.17	
3	QPSK	8	0	15.38	15.43	15.34	16.1
3	QPSK	8	4	15.30	15.34	15.25	
3	QPSK	8	7	15.18	15.29	15.21	



3	QPSK	15	0	15.97	16.04	15.96	16.8
3	16QAM	1	0	16.28	16.26	16.28	
3	16QAM	1	8	16.25	16.26	16.19	
3	16QAM	1	14	16.16	16.20	16.18	15.8
3	16QAM	8	0	15.07	15.08	15.01	
3	16QAM	8	4	15.03	15.08	15.01	
3	16QAM	8	7	15.04	15.04	15.02	15.8
3	16QAM	15	0	14.97	15.06	15.02	
3	64QAM	1	0	15.10	15.14	15.14	
3	64QAM	1	8	15.01	15.11	15.06	14.8
3	64QAM	1	14	15.05	15.13	15.05	
3	64QAM	8	0	14.09	14.15	14.00	
3	64QAM	8	4	14.10	14.10	14.10	14.8
3	64QAM	8	7	14.06	14.10	14.07	
3	64QAM	15	0	14.00	14.07	13.99	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	16.86	17.01	16.93	17.8
1.4	QPSK	1	3	16.80	16.87	16.86	
1.4	QPSK	1	5	16.77	16.88	16.86	
1.4	QPSK	3	0	16.83	16.92	16.89	
1.4	QPSK	3	1	16.95	16.98	16.88	
1.4	QPSK	3	3	16.89	16.93	16.90	
1.4	QPSK	6	0	15.97	16.07	15.99	16.8
1.4	16QAM	1	0	16.25	16.24	16.21	16.8
1.4	16QAM	1	3	16.25	16.22	16.18	
1.4	16QAM	1	5	16.16	16.25	16.25	
1.4	16QAM	3	0	16.05	16.10	16.02	
1.4	16QAM	3	1	16.03	16.07	15.99	
1.4	16QAM	3	3	16.04	16.08	15.97	
1.4	16QAM	6	0	14.98	15.07	14.96	15.8
1.4	64QAM	1	0	15.13	15.18	15.17	15.8
1.4	64QAM	1	3	15.05	15.09	15.06	
1.4	64QAM	1	5	15.05	15.09	15.06	
1.4	64QAM	3	0	15.14	15.08	15.01	
1.4	64QAM	3	1	15.11	15.09	15.06	
1.4	64QAM	3	3	15.04	15.05	15.03	
1.4	64QAM	6	0	13.97	14.03	13.95	14.8

3	QPSK	15	0	15.33	15.31	15.26	16.1
3	16QAM	1	0	15.56	15.56	15.54	
3	16QAM	1	8	15.54	15.61	15.49	
3	16QAM	1	14	15.46	15.54	15.49	15.1
3	16QAM	8	0	14.41	14.40	14.39	
3	16QAM	8	4	14.29	14.39	14.31	
3	16QAM	8	7	14.25	14.22	14.18	15.1
3	16QAM	15	0	14.28	14.31	14.26	
3	64QAM	1	0	14.53	14.51	14.46	
3	64QAM	1	8	14.40	14.43	14.39	14.1
3	64QAM	1	14	14.35	14.46	14.39	
3	64QAM	8	0	13.36	13.44	13.31	
3	64QAM	8	4	13.36	13.35	13.30	14.1
3	64QAM	8	7	13.24	13.30	13.25	
3	64QAM	15	0	13.26	13.38	13.31	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	16.30	16.36	16.28	17.1
1.4	QPSK	1	3	16.18	16.20	16.20	
1.4	QPSK	1	5	16.11	16.21	16.18	
1.4	QPSK	3	0	16.19	16.28	16.22	
1.4	QPSK	3	1	16.22	16.23	16.15	
1.4	QPSK	3	3	16.03	16.08	16.09	
1.4	QPSK	6	0	15.27	15.31	15.25	16.1
1.4	16QAM	1	0	15.60	15.58	15.53	16.1
1.4	16QAM	1	3	15.50	15.58	15.52	
1.4	16QAM	1	5	15.45	15.58	15.54	
1.4	16QAM	3	0	15.25	15.23	15.27	
1.4	16QAM	3	1	15.20	15.24	15.16	
1.4	16QAM	3	3	15.05	15.14	15.08	
1.4	16QAM	6	0	14.30	14.35	14.26	15.1
1.4	64QAM	1	0	14.46	14.50	14.50	15.1
1.4	64QAM	1	3	14.41	14.46	14.39	
1.4	64QAM	1	5	14.42	14.43	14.41	
1.4	64QAM	3	0	14.20	14.23	14.17	
1.4	64QAM	3	1	14.15	14.20	14.15	
1.4	64QAM	3	3	14.12	14.17	14.09	
1.4	64QAM	6	0	13.28	13.32	13.30	14.1



Band 7 (2600MHz Band) (dBm)_Ant0 Part 27								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560	19.8	
20	QPSK	1	0	18.98	19.05	18.95		
20	QPSK	1	49	18.87	18.95	18.92		
20	QPSK	1	99	18.84	18.91	18.87		
20	QPSK	50	0	18.08	18.13	18.06	18.8	
20	QPSK	50	24	18.06	18.10	18.04		
20	QPSK	50	50	18.11	18.13	18.07		
20	QPSK	100	0	18.06	18.08	18.02		
20	16QAM	1	0	18.11	18.16	18.10	18.8	
20	16QAM	1	49	18.21	18.22	18.20		
20	16QAM	1	99	18.31	18.35	18.28		
20	16QAM	50	0	17.03	17.04	17.02		
20	16QAM	50	24	17.02	17.10	17.04	17.8	
20	16QAM	50	50	17.07	17.13	17.11		
20	16QAM	100	0	17.03	17.09	17.04		
20	64QAM	1	0	17.01	17.08	17.07		
20	64QAM	1	49	17.04	17.06	16.98	17.8	
20	64QAM	1	99	17.21	17.25	17.18		
20	64QAM	50	0	16.06	16.08	16.02		
20	64QAM	50	24	16.11	16.12	16.06		
20	64QAM	50	50	16.09	16.17	16.12	16.8	
20	64QAM	100	0	16.08	16.10	16.04		
Channel				20825	21100	21375		Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	18.95	19.01	18.94	19.8	
15	QPSK	1	37	18.82	18.90	18.90		
15	QPSK	1	74	18.79	18.85	18.79		
15	QPSK	36	0	18.02	18.12	18.09		
15	QPSK	36	20	17.98	18.07	17.98	18.8	
15	QPSK	36	39	18.08	18.10	18.06		
15	QPSK	75	0	17.99	18.03	18.01		
15	16QAM	1	0	18.05	18.08	18.02		
15	16QAM	1	37	18.19	18.16	18.17	18.8	
15	16QAM	1	74	18.24	18.31	18.24		
15	16QAM	36	0	16.97	16.99	16.95		
15	16QAM	36	20	16.97	17.06	16.99		
15	16QAM	36	39	17.02	17.05	17.06	17.8	
15	16QAM	75	0	16.99	17.07	16.98		
15	64QAM	1	0	16.97	17.06	17.05		
15	64QAM	1	37	16.96	17.04	16.97		
15	64QAM	1	74	17.15	17.19	17.15	17.8	
15	64QAM	36	0	16.03	16.03	15.98		
15	64QAM	36	20	16.07	16.10	15.98		
15	64QAM	36	39	16.04	16.13	16.10		
15	64QAM	75	0	16.01	16.09	15.99	16.8	
Channel				20800	21100	21400		Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	18.96	19.00	18.88		19.8
10	QPSK	1	25	18.84	18.94	18.85		
10	QPSK	1	49	18.76	18.89	18.84		
10	QPSK	25	0	17.98	18.05	18.11		
10	QPSK	25	12	18.05	18.07	18.03	18.8	
10	QPSK	25	25	18.09	18.07	18.02		
10	QPSK	50	0	18.03	18.03	17.98		
10	16QAM	1	0	18.06	18.10	18.08		
10	16QAM	1	25	18.13	18.16	18.14	18.8	
10	16QAM	1	49	18.25	18.34	18.23		
10	16QAM	25	0	16.99	16.98	16.98		
10	16QAM	25	12	16.94	17.08	17.01		
10	16QAM	25	25	17.00	17.10	17.03	17.8	
10	16QAM	50	0	16.96	17.01	17.01		
10	64QAM	1	0	16.99	17.01	17.00		
10	64QAM	1	25	17.01	17.05	16.91		
10	64QAM	1	49	17.16	17.20	17.14	17.8	
10	64QAM	25	0	16.00	16.05	15.99		
10	64QAM	25	12	16.08	16.05	16.05		
10	64QAM	25	25	16.04	16.10	16.06		
10	64QAM	50	0	16.05	16.09	16.03	16.8	
Channel				20775	21100	21425		Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	18.93	19.00	18.88		19.8
5	QPSK	1	12	18.79	18.88	18.88		
5	QPSK	1	24	18.83	18.86	18.86		
5	QPSK	12	0	18.04	18.11	18.09		
5	QPSK	12	7	18.05	18.06	18.02	18.8	
5	QPSK	12	13	18.05	18.08	18.06		
5	QPSK	25	0	17.98	18.05	17.98		
5	16QAM	1	0	18.04	18.13	18.02		
5	16QAM	1	12	18.19	18.16	18.16	18.8	
5	16QAM	1	24	18.27	18.27	18.23		
5	16QAM	12	0	17.01	17.01	16.98		
5	16QAM	12	7	17.00	17.07	16.98		
5	16QAM	12	13	17.06	17.06	17.08	17.8	
5	16QAM	25	0	17.01	17.01	16.97		
5	64QAM	1	0	16.94	17.04	17.05		
5	64QAM	1	12	16.97	17.04	16.93		
5	64QAM	1	24	17.16	17.23	17.13	17.8	
5	64QAM	12	0	16.04	16.01	15.98		
5	64QAM	12	7	16.10	16.09	16.04		
5	64QAM	12	13	16.08	16.10	16.10		
5	64QAM	25	0	16.01	16.03	16.03	16.8	

Band 25 (1900MHz Band) (dBm)_Ant0							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26140	26365	26590	
Frequency (MHz)				1860	1882.5	1905	17.8
20	QPSK	1	0	16.98	17.03	16.95	
20	QPSK	1	49	16.88	16.92	16.85	
20	QPSK	1	99	16.84	16.91	16.89	
20	QPSK	50	0	16.12	16.15	16.10	
20	QPSK	50	24	16.07	16.12	16.08	16.8
	QPSK	50	50	16.09	16.10	16.07	
	QPSK	100	0	16.00	16.07	15.99	
20	16QAM	1	0	16.31	16.34	16.26	16.8
	16QAM	1	49	16.21	16.29	16.26	
	16QAM	1	99	16.14	16.21	16.18	
20	16QAM	50	0	15.07	15.10	15.06	15.8
	16QAM	50	24	15.04	15.07	14.99	
	16QAM	50	50	15.10	15.12	15.10	
20	16QAM	100	0	15.03	15.10	15.03	15.8
	64QAM	1	0	15.18	15.20	15.18	
	64QAM	1	49	15.11	15.18	15.15	
20	64QAM	1	99	15.13	15.15	15.09	14.8
	64QAM	50	0	14.20	14.23	14.16	
	64QAM	50	24	14.13	14.19	14.11	
20	64QAM	50	50	14.14	14.15	14.11	
20	64QAM	100	0	14.06	14.12	14.10	
Channel				26115	26365	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	16.94	17.00	16.94	17.8
15	QPSK	1	37	16.87	16.87	16.84	
15	QPSK	1	74	16.81	16.84	16.83	
15	QPSK	36	0	16.08	16.08	16.09	16.8
15	QPSK	36	20	16.02	16.11	16.00	
15	QPSK	36	39	16.06	16.06	16.00	
15	QPSK	75	0	15.98	16.01	15.96	16.8
15	16QAM	1	0	16.27	16.33	16.24	
15	16QAM	1	37	16.14	16.21	16.25	
15	16QAM	1	74	16.07	16.20	16.15	15.8
15	16QAM	36	0	15.04	15.08	15.01	
15	16QAM	36	20	14.99	15.05	14.98	
15	16QAM	36	39	15.07	15.11	15.09	
15	16QAM	75	0	14.98	15.07	14.99	
15	64QAM	1	0	15.15	15.13	15.13	15.8
15	64QAM	1	37	15.04	15.10	15.14	
15	64QAM	1	74	15.05	15.11	15.06	
15	64QAM	36	0	14.12	14.15	14.14	14.8
15	64QAM	36	20	14.09	14.16	14.07	
15	64QAM	36	39	14.06	14.07	14.10	
15	64QAM	75	0	13.99	14.07	14.02	
Channel				26090	26365	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	16.90	16.97	16.91	17.8
10	QPSK	1	25	16.81	16.84	16.84	
10	QPSK	1	49	16.78	16.86	16.81	
10	QPSK	25	0	16.06	16.08	16.05	16.8
10	QPSK	25	12	16.06	16.04	16.01	
10	QPSK	25	25	16.08	16.09	16.04	
10	QPSK	50	0	15.97	16.06	15.94	16.8
10	16QAM	1	0	16.26	16.28	16.22	
10	16QAM	1	25	16.14	16.24	16.20	
10	16QAM	1	49	16.08	16.15	16.10	15.8
10	16QAM	25	0	15.05	15.05	15.05	
10	16QAM	25	12	14.98	15.00	14.92	
10	16QAM	25	25	15.06	15.08	15.04	
10	16QAM	50	0	14.99	15.09	14.97	
10	64QAM	1	0	15.16	15.13	15.12	15.8
10	64QAM	1	25	15.10	15.17	15.11	
10	64QAM	1	49	15.08	15.12	15.01	
10	64QAM	25	0	14.16	14.16	14.11	14.8
10	64QAM	25	12	14.05	14.14	14.05	
10	64QAM	25	25	14.06	14.11	14.06	
10	64QAM	50	0	14.01	14.06	14.03	
Channel				26065	26365	26665	
Frequency (MHz)				1852.5	1882.5	1912.5	
5	QPSK	1	0	16.95	16.98	16.89	17.8
5	QPSK	1	12	16.83	16.91	16.82	
5	QPSK	1	24	16.79	16.90	16.82	
5	QPSK	12	0	16.07	16.07	16.05	16.8
5	QPSK	12	7	16.00	16.11	16.04	
5	QPSK	12	13	16.05	16.02	16.06	
5	QPSK	25	0	15.99	16.03	15.96	16.8
5	16QAM	1	0	16.25	16.26	16.19	
5	16QAM	1	12	16.16	16.25	16.24	
5	16QAM	1	24	16.09	16.17	16.15	15.8
5	16QAM	12	0	15.03	15.05	15.01	
5	16QAM	12	13	15.09	15.10	15.09	
5	16QAM	25	0	15.00	15.05	15.02	15.8
5	64QAM	1	0	15.16	15.16	15.17	
5	64QAM	1	12	15.04	15.16	15.11	
5	64QAM	1	24	15.11	15.14	15.04	14.8
5	64QAM	12	0	14.13	14.17	14.09	
5	64QAM	12	7	14.05	14.18	14.04	
5	64QAM	12	13	14.13	14.13	14.10	
5	64QAM	25	0	14.01	14.08	14.02	
Channel				26055	26365	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	16.92	16.96	16.89	17.8
3	QPSK	1	8	16.84	16.89	16.84	
3	QPSK	1	14	16.83	16.85	16.87	
3	QPSK	8	0	16.04	16.12	16.05	16.8
3	QPSK	8	4	16.02	16.06	16.07	
3	QPSK	8	7	16.07	16.05	16.02	



3	QPSK	15	0	15.92	16.00	15.95	16.8
3	16QAM	1	0	16.24	16.29	16.25	
3	16QAM	1	8	16.20	16.25	16.21	
3	16QAM	1	14	16.11	16.19	16.16	15.8
3	16QAM	8	0	15.01	15.06	15.01	
3	16QAM	8	4	15.02	15.01	14.95	
3	16QAM	8	7	15.02	15.04	15.02	
3	16QAM	15	0	15.00	15.06	15.00	
3	64QAM	1	0	15.11	15.16	15.15	15.8
3	64QAM	1	8	15.03	15.11	15.08	
3	64QAM	1	14	15.10	15.11	15.04	
3	64QAM	8	0	14.16	14.19	14.13	14.8
3	64QAM	8	4	14.09	14.11	14.07	
3	64QAM	8	7	14.12	14.10	14.07	
3	64QAM	15	0	14.00	14.07	14.08	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	16.93	16.96	16.93	17.8
1.4	QPSK	1	3	16.85	16.87	16.79	
1.4	QPSK	1	5	16.80	16.84	16.81	
1.4	QPSK	3	0	16.95	17.02	16.94	
1.4	QPSK	3	1	16.92	16.95	16.96	
1.4	QPSK	3	3	16.94	16.97	16.96	
1.4	QPSK	6	0	15.95	16.01	15.92	16.8
1.4	16QAM	1	0	16.30	16.32	16.19	15.8
1.4	16QAM	1	3	16.14	16.25	16.21	
1.4	16QAM	1	5	16.06	16.15	16.16	
1.4	16QAM	3	0	15.90	15.95	15.89	
1.4	16QAM	3	1	15.93	15.93	15.85	
1.4	16QAM	3	3	15.97	15.97	15.92	
1.4	16QAM	6	0	14.97	15.05	15.02	14.8
1.4	64QAM	1	0	15.12	15.13	15.13	15.8
1.4	64QAM	1	3	15.05	15.17	15.12	
1.4	64QAM	1	5	15.07	15.12	15.07	
1.4	64QAM	3	0	15.03	15.10	15.00	
1.4	64QAM	3	1	14.97	15.02	14.99	
1.4	64QAM	3	3	15.02	15.01	14.99	
1.4	64QAM	6	0	14.00	14.06	14.07	14.8



Band 66 (dBm)_Ant0							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	17.29	17.40	17.31	18.1
20	QPSK	1	49	17.20	17.27	17.24	
20	QPSK	1	99	17.17	17.24	17.21	
20	QPSK	50	0	16.29	16.31	16.28	17.1
20	QPSK	50	24	16.31	16.37	16.35	
20	QPSK	50	50	16.21	16.29	16.26	
20	QPSK	100	0	16.34	16.35	16.31	17.1
20	16QAM	1	0	16.54	16.62	16.56	
20	16QAM	1	49	16.56	16.60	16.55	
20	16QAM	1	99	16.50	16.57	16.51	16.1
20	16QAM	50	0	15.34	15.35	15.30	
20	16QAM	50	24	15.25	15.31	15.24	
20	16QAM	50	50	15.31	15.35	15.32	16.1
20	16QAM	100	0	15.30	15.33	15.29	
20	64QAM	1	0	15.55	15.60	15.56	
20	64QAM	1	49	15.54	15.57	15.49	16.1
20	64QAM	1	99	15.52	15.54	15.47	
20	64QAM	50	0	14.32	14.40	14.35	15.1
20	64QAM	50	24	14.30	14.38	14.32	
20	64QAM	50	50	14.28	14.36	14.32	
20	64QAM	100	0	14.29	14.36	14.30	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	17.28	17.31	17.30	18.1
15	QPSK	1	37	17.12	17.26	17.22	
15	QPSK	1	74	17.10	17.16	17.18	
15	QPSK	36	0	16.23	16.26	16.22	17.1
15	QPSK	36	20	16.27	16.32	16.33	
15	QPSK	36	39	16.16	16.24	16.20	
15	QPSK	75	0	16.31	16.33	16.25	17.1
15	16QAM	1	0	16.50	16.61	16.52	
15	16QAM	1	37	16.54	16.58	16.51	
15	16QAM	1	74	16.47	16.56	16.43	16.1
15	16QAM	36	0	15.29	15.33	15.28	
15	16QAM	36	20	15.21	15.24	15.21	
15	16QAM	36	39	15.28	15.28	15.26	16.1
15	16QAM	75	0	15.24	15.27	15.24	
15	64QAM	1	0	15.48	15.59	15.50	
15	64QAM	1	37	15.48	15.50	15.47	16.1
15	64QAM	1	74	15.48	15.53	15.45	
15	64QAM	36	0	14.29	14.32	14.32	15.1
15	64QAM	36	20	14.27	14.36	14.27	
15	64QAM	36	39	14.25	14.31	14.30	
15	64QAM	75	0	14.28	14.29	14.26	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	17.21	17.28	17.30	18.1
10	QPSK	1	25	17.15	17.25	17.18	
10	QPSK	1	49	17.12	17.21	17.18	
10	QPSK	25	0	16.20	16.30	16.19	17.1
10	QPSK	25	12	16.29	16.36	16.29	
10	QPSK	25	25	16.19	16.21	16.19	
10	QPSK	50	0	16.30	16.27	16.24	17.1
10	16QAM	1	0	16.49	16.55	16.51	
10	16QAM	1	25	16.51	16.54	16.52	
10	16QAM	1	49	16.43	16.49	16.45	16.1
10	16QAM	25	0	15.26	15.30	15.28	
10	16QAM	25	12	15.22	15.24	15.22	
10	16QAM	25	25	15.24	15.29	15.29	16.1
10	16QAM	50	0	15.22	15.29	15.21	
10	64QAM	1	0	15.47	15.56	15.52	
10	64QAM	1	25	15.52	15.50	15.43	16.1
10	64QAM	1	49	15.48	15.50	15.46	
10	64QAM	25	0	14.28	14.34	14.34	15.1
10	64QAM	25	12	14.29	14.30	14.28	
10	64QAM	25	25	14.26	14.28	14.30	
10	64QAM	50	0	14.24	14.34	14.26	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	17.24	17.32	17.29	18.1
5	QPSK	1	12	17.16	17.24	17.19	
5	QPSK	1	24	17.14	17.21	17.15	
5	QPSK	12	0	16.24	16.30	16.23	17.1
5	QPSK	12	7	16.27	16.33	16.27	
5	QPSK	12	13	16.14	16.24	16.21	
5	QPSK	25	0	16.31	16.28	16.27	17.1
5	16QAM	1	0	16.47	16.55	16.50	
5	16QAM	1	12	16.55	16.53	16.52	
5	16QAM	1	24	16.43	16.51	16.49	16.1
5	16QAM	12	0	15.33	15.28	15.25	
5	16QAM	12	7	15.17	15.26	15.18	
5	16QAM	12	13	15.24	15.29	15.24	16.1
5	16QAM	25	0	15.24	15.31	15.21	
5	64QAM	1	0	15.52	15.58	15.51	
5	64QAM	1	12	15.46	15.56	15.41	16.1
5	64QAM	1	24	15.46	15.46	15.44	
5	64QAM	12	0	14.29	14.36	14.29	15.1
5	64QAM	12	7	14.27	14.33	14.30	
5	64QAM	12	13	14.25	14.32	14.26	
5	64QAM	25	0	14.28	14.33	14.23	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	17.27	17.30	17.25	18.1
3	QPSK	1	8	17.19	17.25	17.16	
3	QPSK	1	14	17.12	17.17	17.20	
3	QPSK	8	0	16.22	16.23	16.20	17.1
3	QPSK	8	4	16.28	16.34	16.34	
3	QPSK	8	7	16.18	16.22	16.21	



3	QPSK	15	0	16.33	16.33	16.25	17.1
3	16QAM	1	0	16.49	16.55	16.48	
3	16QAM	1	8	16.51	16.56	16.51	
3	16QAM	1	14	16.44	16.54	16.43	16.1
3	16QAM	8	0	15.29	15.33	15.27	
3	16QAM	8	4	15.20	15.23	15.22	
3	16QAM	8	7	15.24	15.31	15.26	16.1
3	16QAM	15	0	15.25	15.29	15.25	
3	64QAM	1	0	15.49	15.55	15.51	
3	64QAM	1	8	15.46	15.49	15.44	15.1
3	64QAM	1	14	15.46	15.50	15.41	
3	64QAM	8	0	14.26	14.32	14.30	
3	64QAM	8	4	14.23	14.30	14.29	15.1
3	64QAM	8	7	14.22	14.28	14.31	
3	64QAM	15	0	14.28	14.29	14.27	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	17.25	17.32	17.25	18.1
1.4	QPSK	1	3	17.13	17.26	17.23	
1.4	QPSK	1	5	17.12	17.22	17.18	
1.4	QPSK	3	0	17.14	17.20	17.14	
1.4	QPSK	3	1	17.18	17.24	17.19	
1.4	QPSK	3	3	17.09	17.17	17.14	17.1
1.4	QPSK	6	0	16.32	16.34	16.23	
1.4	16QAM	1	0	16.52	16.54	16.54	17.1
1.4	16QAM	1	3	16.48	16.54	16.51	
1.4	16QAM	1	5	16.43	16.50	16.49	
1.4	16QAM	3	0	16.19	16.20	16.13	
1.4	16QAM	3	1	16.08	16.15	16.10	
1.4	16QAM	3	3	16.16	16.24	16.15	16.1
1.4	16QAM	6	0	15.25	15.32	15.24	
1.4	64QAM	1	0	15.54	15.57	15.54	16.1
1.4	64QAM	1	3	15.53	15.55	15.45	
1.4	64QAM	1	5	15.46	15.49	15.40	
1.4	64QAM	3	0	15.20	15.26	15.24	
1.4	64QAM	3	1	15.16	15.26	15.19	
1.4	64QAM	3	3	15.12	15.23	15.21	15.1
1.4	64QAM	6	0	14.26	14.32	14.24	



Band 41 (2496~2690MHz) (dBm)-PC2_Ant0										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	18.85	18.83	19.14	19.10	19.08	19.9	
20	QPSK	1	49	18.71	18.78	19.09	19.07	19.03		
20	QPSK	1	99	18.78	18.78	19.12	19.06	19.06		
20	QPSK	50	0	17.93	17.89	18.15	18.08	18.01		
20	QPSK	50	24	17.90	17.82	18.12	18.00	17.97	18.9	
20	QPSK	50	50	17.80	17.87	18.08	17.97	17.90		
20	QPSK	100	0	17.87	17.86	18.05	18.06	17.99		
20	16QAM	1	0	18.06	18.12	18.43	18.40	18.41		
20	16QAM	1	49	18.03	18.03	18.40	18.32	18.39	18.9	
20	16QAM	1	99	18.02	18.04	18.39	18.35	18.31		
20	16QAM	50	0	16.98	16.99	17.33	17.31	17.25		
20	16QAM	50	24	16.91	16.93	17.29	17.24	17.25		
20	16QAM	50	50	16.95	16.95	17.31	17.24	17.28	17.9	
20	16QAM	100	0	16.90	16.94	17.27	17.22	17.21		
20	64QAM	1	0	16.88	16.90	17.22	17.14	17.14		
20	64QAM	1	49	16.85	16.84	17.21	17.14	17.17		
20	64QAM	1	99	16.90	16.90	17.26	17.21	17.21	17.9	
20	64QAM	50	0	15.94	15.96	16.28	16.26	16.23		
20	64QAM	50	24	15.94	15.95	16.26	16.18	16.20		
20	64QAM	50	50	15.99	15.93	16.30	16.24	16.29		
20	64QAM	100	0	15.92	15.91	16.28	16.27	16.24	16.9	
Channel				2503.5	2547.5	2591	2635.5	2679.5	Tune-up limit (dBm)	
Frequency (MHz)				2503.5	2547.5	2591	2635.5	2679.5		
15	QPSK	1	0	18.83	18.76	19.08	19.07	19.07	19.9	
15	QPSK	1	37	18.04	18.72	19.03	19.02	19.02		
15	QPSK	1	74	18.76	18.74	19.08	19.06	18.98		
15	QPSK	36	0	17.89	17.86	18.22	18.12	18.20		
15	QPSK	36	20	17.84	17.85	18.18	18.12	18.09	18.9	
15	QPSK	36	39	17.78	17.88	18.13	18.14	18.10		
15	QPSK	75	0	17.79	17.83	18.22	18.12	18.15		
15	16QAM	1	0	18.04	18.09	18.35	18.33	18.38		
15	16QAM	1	37	18.01	17.95	18.33	18.26	18.31	18.9	
15	16QAM	1	74	18.00	17.98	18.32	18.32	18.25		
15	16QAM	36	0	16.90	16.96	17.21	17.27	17.18		
15	16QAM	36	20	16.86	16.87	17.21	17.20	17.22		
15	16QAM	36	39	16.94	16.88	17.29	17.17	17.20	17.9	
15	16QAM	75	0	16.84	16.87	17.26	17.14	17.17		
15	64QAM	1	0	16.85	16.88	17.18	17.06	17.13		
15	64QAM	1	37	16.79	16.79	17.16	17.10	17.12		
15	64QAM	1	74	16.89	16.88	17.22	17.15	17.15	17.9	
15	64QAM	36	0	16.82	16.82	16.96	16.92	16.92		
15	64QAM	36	20	15.90	15.93	16.24	16.12	16.17		
15	64QAM	36	39	15.93	15.89	16.22	16.17	16.22		
15	64QAM	75	0	15.85	15.88	16.24	16.26	16.19	16.9	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	18.78	18.82	19.07	19.05	19.06	19.9	
10	QPSK	1	25	18.67	18.76	19.07	19.00	18.96		
10	QPSK	1	49	18.77	18.72	19.04	19.07	19.02		
10	QPSK	25	0	17.85	17.82	18.21	18.13	18.20		
10	QPSK	25	12	17.87	17.87	18.16	18.13	18.14	18.9	
10	QPSK	25	25	17.76	17.81	18.17	18.13	18.14		
10	QPSK	50	0	17.85	17.85	18.16	18.10	18.18		
10	16QAM	1	0	17.99	18.09	18.37	18.39	18.34		
10	16QAM	1	25	17.97	17.97	18.39	18.29	18.38	18.9	
10	16QAM	1	49	17.98	18.02	18.37	18.28	18.30		
10	16QAM	25	0	16.93	16.92	17.31	17.24	17.22		
10	16QAM	25	12	16.90	16.90	17.21	17.21	17.22		
10	16QAM	25	25	16.90	16.89	17.24	17.16	17.21	17.9	
10	16QAM	50	0	16.82	16.91	17.21	17.20	17.15		
10	64QAM	1	0	16.81	16.87	17.18	17.06	17.11		
10	64QAM	1	25	16.82	16.78	17.19	17.13	17.12		
10	64QAM	1	49	16.86	16.83	17.25	17.17	17.17	17.9	
10	64QAM	25	0	15.89	15.89	16.22	16.19	16.16		
10	64QAM	25	12	15.93	15.90	16.19	16.14	16.15		
10	64QAM	25	25	15.95	15.85	16.27	16.20	16.27		
10	64QAM	50	0	15.85	15.88	16.26	16.21	16.21	16.9	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	
Frequency (MHz)				2498.5	2545.8	2593	2641.3	2688.5		
5	QPSK	1	0	18.93	19.78	19.03	19.06	19.01	19.9	
5	QPSK	1	12	18.66	18.77	19.04	19.04	18.97		
5	QPSK	1	24	18.72	18.71	19.07	19.02	19.04		
5	QPSK	12	0	17.91	17.84	18.24	18.15	18.15		
5	QPSK	12	7	17.89	17.81	18.21	18.19	18.15	18.9	
5	QPSK	12	13	17.79	17.80	18.14	18.12	18.10		
5	QPSK	25	0	17.79	17.84	18.22	18.11	18.19		
5	16QAM	1	0	18.04	18.10	18.35	18.36	18.37		
5	16QAM	1	12	18.00	17.97	18.39	18.24	18.34	18.9	
5	16QAM	1	24	17.94	17.99	18.32	18.32	18.30		
5	16QAM	12	0	16.97	16.91	17.31	17.23	17.20		
5	16QAM	12	7	16.94	16.92	17.26	17.17	17.25		
5	16QAM	12	13	16.94	16.92	17.26	17.17	17.25	17.9	
5	16QAM	25	0	16.98	16.90	17.19	17.17	17.14		
5	64QAM	1	0	16.84	16.87	17.19	17.11	17.10		
5	64QAM	1	12	16.81	16.81	17.14	17.11	17.10		
5	64QAM	1	24	16.84	16.85	17.23	17.14	17.20	16.9	
5	64QAM	12	0	15.87	15.88	16.23	16.18	16.18		
5	64QAM	12	7	15.88	15.97	16.23	16.13	16.13		
5	64QAM	12	13	15.98	15.91	16.26	16.20	16.22		
5	64QAM	25	0	15.89	15.88	16.20	16.20	16.20	16.9	

Band 41 (2496~2690MHz) (dBm)-PC3_Ant0										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel		Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	18.29	18.20	18.66	18.64	18.61	19.3	
20	QPSK	1	49	18.19	18.17	18.64	18.59	18.59		
20	QPSK	1	99	18.19	18.15	18.62	18.56	18.57		
20	QPSK	50	0	17.20	17.26	17.68	17.66	17.63		
20	QPSK	50	24	17.22	17.22	17.67	17.63	17.61	18.3	
20	QPSK	50	50	17.23	17.24	17.68	17.57	17.63		
20	QPSK	100	0	17.21	17.23	17.68	17.67	17.62		
20	16QAM	1	0	17.14	17.08	17.55	17.54	17.51		
20	16QAM	1	49	17.07	17.10	17.54	17.47	17.46	18.3	
20	16QAM	1	99	17.20	17.20	17.64	17.62	17.63		
20	16QAM	50	0	16.15	16.15	16.62	16.59	16.59		
20	16QAM	50	24	16.25	16.25	16.70	16.65	16.67		
20	16QAM	50	50	16.26	16.26	16.68	16.67	16.67	17.3	
20	16QAM	100	0	16.20	16.18	16.64	16.56	16.58		
20	64QAM	1	0	15.94	15.97	16.42	16.39	16.41		
20	64QAM	1	49	15.91	15.95	16.38	16.31	16.31		
20	64QAM	1	99	15.99	16.05	16.46	16.39	16.44	17.3	
20	64QAM	50	0	15.29	15.29	15.70	15.62	15.65		
20	64QAM	50	24	15.36	15.33	15.77	15.69	15.71		
20	64QAM	50	50	15.28	15.30	15.74	15.67	15.73		
20	64QAM	100	0	15.26	15.26	15.72	15.71	15.67	16.3	
Channel				2503.5	2547.5	2593	2637.8	2682.5		Tune-up limit (dBm)
Frequency (MHz)				2503.5	2547.5	2593	2637.8	2682.5		
15	QPSK	1	0	18.25	18.14	18.59	18.63	18.55	19.3	
15	QPSK	1	37	18.14	18.11	18.61	18.59	18.57		
15	QPSK	1	74	18.15	18.13	18.63	18.54	18.56		
15	QPSK	36	0	17.14	17.22	17.65	17.59	17.61		
15	QPSK	36	20	17.20	17.20	17.63	17.60	17.55	18.3	
15	QPSK	36	39	17.19	17.16	17.63	17.55	17.57		
15	QPSK	75	0	17.14	17.16	17.61	17.60	17.55		
15	16QAM	1	0	17.13	17.02	17.52	17.51	17.50		
15	16QAM	1	37	17.01	17.03	17.51	17.40	17.39	18.3	
15	16QAM	1	74	17.18	17.15	17.68	17.57	17.58		
15	16QAM	36	0	16.09	16.13	16.57	16.58	16.56		
15	16QAM	36	20	16.17	16.18	16.69	16.56	16.62		
15	16QAM	36	39	16.19	16.22	16.64	16.64	16.60	17.3	
15	16QAM	75	0	16.15	16.16	16.59	16.55	16.53		
15	64QAM	1	0	15.91	15.94	16.37	16.33	16.39		
15	64QAM	1	37	15.84	15.90	16.36	16.27	16.27		
15	64QAM	1	74	15.93	15.98	16.44	16.36	16.37	17.3	
15	64QAM	36	0	15.24	15.25	15.63	15.61	15.64		
15	64QAM	36	20	15.29	15.27	15.74	15.68	15.66		
15	64QAM	36	39	15.25	15.29	15.67	15.64	15.65		
15	64QAM	75	0	15.25	15.24	15.69	15.64	15.64	16.3	
Channel				2501	2547	2593	2639	2685		Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	18.26	18.13	18.64	18.59	18.53	19.3	
10	QPSK	1	25	18.16	18.13	18.63	18.54	18.54		
10	QPSK	1	49	18.11	18.11	18.61	18.55	18.56		
10	QPSK	25	0	17.16	17.21	17.67	17.65	17.61		
10	QPSK	25	12	17.14	17.17	17.65	17.62	17.57	18.3	
10	QPSK	25	25	17.18	17.18	17.58	17.50	17.59		
10	QPSK	50	0	17.17	17.20	17.60	17.65	17.58		
10	QPSK	1	0	17.06	17.03	17.47	17.49	17.49		
10	16QAM	1	0	16.99	17.06	17.47	17.44	17.43	18.3	
10	16QAM	1	49	17.17	17.15	17.62	17.55	17.50		
10	16QAM	25	0	16.09	16.12	16.59	16.53	16.55		
10	16QAM	25	12	16.22	16.14	16.66	16.55	16.63		
10	16QAM	25	25	16.18	16.25	16.63	16.59	16.60	17.3	
10	16QAM	50	0	16.14	16.14	16.60	16.50	16.60		
10	16QAM	1	0	15.91	15.90	16.35	16.33	16.34		
10	64QAM	1	25	15.83	15.89	16.35	16.23	16.27		
10	64QAM	1	49	15.94	15.97	16.44	16.32	16.36	17.3	
10	64QAM	25	0	15.28	15.23	15.69	15.60	15.60		
10	64QAM	25	12	15.28	15.28	15.72	15.61	15.70		
10	64QAM	25	25	15.26	15.23	15.66	15.62	15.72		
10	64QAM	50	0	15.24	15.18	15.64	15.64	15.64	16.3	
Channel				2498.5	2544.5	2590	2636.5	2682.5		Tune-up limit (dBm)
Frequency (MHz)				2498.5	2544.5	2590	2636.5	2682.5		
5	QPSK	1	0	18.21	18.12	18.65	18.57	18.54	19.3	
5	QPSK	1	12	18.17	18.12	18.58	18.51	18.51		
5	QPSK	1	24	18.14	18.11	18.55	18.48	18.52		
5	QPSK	12	0	17.17	17.25	17.67	17.64	17.60		
5	QPSK	12	7	17.17	17.16	17.63	17.60	17.53	18.3	
5	QPSK	12	13	17.18	17.19	17.63	17.51	17.56		
5	QPSK	25	0	17.17	17.20	17.61	17.63	17.57		
5	16QAM	1	0	17.08	17.00	17.52	17.52	17.47		
5	16QAM	1	12	17.06	17.08	17.50	17.41	17.39	18.3	
5	16QAM	1	24	17.19	17.18	17.63	17.60	17.55		
5	16QAM	12	0	16.10	16.07	16.59	16.51	16.53		
5	16QAM	12	7	16.19	16.14	16.68	16.55	16.56		
5	16QAM	12	13	16.27	16.21	16.67	16.63	16.64	17.3	
5	16QAM	25	0	16.15	16.13	16.59	16.50	16.57		
5	64QAM	1	0	15.93	15.89	16.37	16.34	16.35		
5	64QAM	1	12	15.84	15.88	16.35	16.26	16.25		
5	64QAM	1	24	15.92	15.99	16.44	16.34	16.40	17.3	
5	64QAM	12	0	15.28	15.26	15.65	15.57	15.60		
5	64QAM	12	7	15.31	15.26	15.73	15.63	15.65		
5	64QAM	12	13	15.23	15.23	15.73	15.64	15.66		
5	64QAM	25	0	15.19	15.21	15.67	15.63	15.59	16.3	



n2 (1850 ~ 1910MHz)_ANT0							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune up limit (dBm)
Channel				372000	376000	380000	19.7
Frequency (MHz)				1850	1860	1900	
20	DFT-s-OFDM P/2 BPSK	1	1	12.77	18.19	18.31	19.7
20		53	1	12.86	18.42	18.32	
20		1	104	18.11	18.24	18.26	
20		50	1	17.48	17.54	17.70	
20		50	25	17.75	17.85	17.86	
20	DFT-s-OFDM QPSK	50	50	17.18	17.29	17.17	18.7
20		100	0	17.70	17.60	17.71	
20		1	1	18.46	18.52	18.49	
20		1	53	18.41	18.47	18.43	
20		1	104	18.34	18.37	18.30	
20	DFT-s-OFDM QPSK	50	1	18.00	18.05	18.05	18.7
20		50	25	17.85	17.87	18.01	
20		50	50	17.62	17.69	17.60	
20		100	0	17.79	17.59	17.60	
20		1	1	18.17	18.09	18.26	
20	DFT-s-OFDM 16QAM	1	1	16.69	16.75	16.80	17.7
20	DFT-s-OFDM 256QAM	1	1	14.30	14.13	14.32	15.2
Channel				371500	376000	380500	Turn-up limit (dBm)
Frequency (MHz)				1867.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	18.46	18.35	18.37	25.2
Channel				371000	376000	381000	Turn-up limit (dBm)
Frequency (MHz)				1850	1860	1905	
10	DFT-s-OFDM QPSK	1	1	18.50	18.47	18.36	25.2
Channel				370500	376000	381500	Turn-up limit (dBm)
Frequency (MHz)				1852.5	1860	1907.5	
5	DFT-s-OFDM QPSK	1	1	18.45	18.42	18.44	25.2
Channel				372000	376000	380000	Turn-up limit (dBm)
Frequency (MHz)				1860	1860	1900	
20	CP-OFDM QPSK	1	1	17.54	17.23	17.36	18.2
20	CP-OFDM 16QAM	1	1	17.18	17.07	17.15	18.2
20	CP-OFDM 64QAM	1	1	16.05	15.64	16.02	17.2
20	CP-OFDM 256QAM	1	1	12.23	12.33	12.34	13.2

n25_ANT0							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune up limit (dBm)
Channel				374000	376000	378000	19.7
Frequency (MHz)				1870	1882.5	1895	
40	DFT-s-OFDM P/2 BPSK	1	1	18.49	18.55	18.52	19.7
40		1	53	18.41	18.50	18.51	
40		1	105	18.45	18.54	18.47	
40		50	1	17.65	17.27	17.71	
40		50	25	17.61	17.59	17.76	
40	DFT-s-OFDM QPSK	50	50	17.54	17.59	17.81	18.7
40		100	0	17.63	17.56	17.78	
40		1	1	18.56	18.57	18.53	
40		1	53	18.19	18.51	18.50	
40		1	105	18.48	18.54	18.51	
40	DFT-s-OFDM QPSK	50	1	17.85	17.75	17.87	24.2
40		50	25	17.82	17.66	17.82	
40		50	50	17.57	17.62	17.60	
40		100	0	17.61	17.62	17.58	
40		1	1	17.74	17.95	17.75	
40	DFT-s-OFDM 16QAM	1	1	16.38	16.43	16.39	17.7
40	DFT-s-OFDM 256QAM	1	1	13.96	14.00	13.94	15.2
Channel				375000	376000	380000	Turn-up limit (dBm)
Frequency (MHz)				1880	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	18.45	18.51	18.23	25.2
Channel				372000	376000	381000	Turn-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	18.51	18.52	18.50	19.7
Channel				371500	376000	381500	Turn-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	18.33	18.47	18.29	19.7
Channel				371000	376000	382000	Turn-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	18.42	18.46	18.45	19.7
Channel				370500	376000	382500	Turn-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	18.32	18.35	18.27	25.2
Channel				374000	376000	379000	Turn-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	17.08	17.20	17.24	18.2
40	CP-OFDM 16QAM	1	1	16.76	16.66	16.77	17.2
40	CP-OFDM 64QAM	1	1	15.16	15.42	15.26	16.2
40	CP-OFDM 256QAM	1	1	11.95	11.90	11.96	12.7



CA_41C-PC3_Ant 0 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	17.83	19.00
40620	40521	40719	QPSK	1	0	0	0	1	0	18.13	19.00
41490	41292	41490	QPSK	1	0	0	0	1	0	18.05	19.00
39750	39750	39948	16QAM	1	0	0	0	1	0	17.07	17.50
40620	40521	40719	16QAM	1	0	0	0	1	0	17.39	17.50
41490	41292	41490	16QAM	1	0	0	0	1	0	17.34	17.50
39750	39750	39948	64QAM	1	0	0	0	1	0	15.63	16.50
40620	40521	40719	64QAM	1	0	0	0	1	0	15.95	16.50
41490	41292	41490	64QAM	1	0	0	0	1	0	15.83	16.50
39750	39750	39948	QPSK	50	0	0	0	1	0	16.72	17.50
40620	40521	40719	QPSK	50	0	0	0	1	0	17.03	17.50
41490	41292	41490	QPSK	50	0	0	0	1	0	16.79	17.50



Reduced Power Level 4 for Ant 1 & Ant 3 & Ant 4

GSM1900_Ant1	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8	
Frequency (MHz)	15.66	15.74	15.71	16.50	6.66	6.74	6.71	7.50
GSM 1 Tx slot	15.68	15.78	15.74	16.50	6.68	6.78	6.74	7.50
GPRS 2 Tx slots	13.55	13.59	13.46	14.50	7.55	7.59	7.46	8.50
GPRS 3 Tx slots	12.11	12.16	12.05	13.00	7.85	7.90	7.79	8.74
GPRS 4 Tx slots	11.06	11.23	11.16	12.00	8.06	8.23	8.16	9.00
EDGE 1 Tx slot	11.98	12.07	12.03	13.50	2.98	3.07	3.03	4.50
EDGE 2 Tx slots	10.14	10.36	10.24	11.00	4.14	4.36	4.24	5.00
EDGE 3 Tx slots	8.92	9.04	8.96	9.70	4.66	4.78	4.70	5.44
EDGE 4 Tx slots	8.59	8.82	8.72	9.70	5.59	5.82	5.72	6.70
Mode		Max.	15.78			Max.	8.23	
Attenuator	Cable Loss : 0.8							

Band	WCDMA Band II (dBm)_Ant1			Tune-up Limit (dBm)	WCDMA Band IV (dBm)_Ant1			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513	
TX Channel	9662	9800	9938		1537	1638	1738	
Rx Channel	1852.4	1880	1907.6		1712.4	1732.6	1752.6	
Frequency (MHz)	16.39	16.42	16.36	17.30	16.03	16.11	16.06	16.80
3GPP Rel 99 RMC 12.2Kbps	15.44	15.79	15.69	16.50	14.97	15.43	15.38	16.00
3GPP Rel 6 HSDPA Subtest-1	15.58	15.84	15.46	9.00	14.98	15.38	15.09	8.00
3GPP Rel 6 HSDPA Subtest-2	15.00	15.04	14.83	8.50	14.53	14.80	14.32	7.50
3GPP Rel 6 HSDPA Subtest-3	15.50	15.30	15.17	8.50	15.22	14.96	14.87	7.50
3GPP Rel 6 HSDPA Subtest-4	15.79	15.56	15.48	16.50	15.40	15.22	14.94	16.00
3GPP Rel 8 DC-HSDPA Subtest-1	15.27	15.11	14.97	16.00	15.00	14.67	14.69	15.50
3GPP Rel 8 DC-HSDPA Subtest-2	15.16	14.85	14.70	15.50	14.33	14.36	14.06	15.00
3GPP Rel 8 DC-HSDPA Subtest-3	15.01	14.68	14.80	8.50	14.56	14.32	14.49	7.50
3GPP Rel 8 DC-HSDPA Subtest-4	15.31	15.16	15.28	16.50	14.98	14.52	14.65	16.00
3GPP Rel 6 HSUPA Subtest-1	13.88	13.61	13.68	14.50	13.35	13.31	13.24	14.00
3GPP Rel 6 HSUPA Subtest-2	14.88	14.64	14.55	15.50	14.52	14.18	14.23	15.00
3GPP Rel 6 HSUPA Subtest-3	13.86	13.57	13.57	14.50	13.22	13.22	13.14	14.00
3GPP Rel 6 HSUPA Subtest-4	15.22	15.06	14.76	15.50	14.70	14.55	14.23	15.00
3GPP Rel 6 HSUPA Subtest-5	13.75	13.76	13.81	14.50	13.12	13.22	13.25	14.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1								
Attenuator	Cable Loss			0.8	Cable Loss			0.8
Mode		Max.	16.42			Max.	16.11	



Band 2 (1900MHz Band) (dBm)_Ant1 Part 24E							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	16.94	17.02	16.96	17.8
20	QPSK	1	49	16.87	16.93	16.89	
20	QPSK	1	99	16.85	16.91	16.90	
20	QPSK	50	0	16.11	16.15	16.08	16.8
20	QPSK	50	24	16.08	16.14	16.10	
20	QPSK	50	50	16.03	16.10	16.08	
20	QPSK	100	0	16.05	16.08	16.03	16.8
20	16QAM	1	0	16.29	16.31	16.29	
20	16QAM	1	49	16.26	16.28	16.20	
20	16QAM	1	99	16.23	16.27	16.26	15.8
20	16QAM	50	0	15.08	15.12	15.05	
20	16QAM	50	24	15.10	15.11	15.04	
20	16QAM	50	50	15.09	15.10	15.03	15.8
20	16QAM	100	0	15.02	15.08	15.04	
20	64QAM	1	0	15.15	15.22	15.19	
20	64QAM	1	49	15.08	15.16	15.11	14.8
20	64QAM	1	99	15.12	15.15	15.10	
20	64QAM	50	0	14.15	14.16	14.08	
20	64QAM	50	24	14.13	14.14	14.12	14.8
20	64QAM	50	50	14.07	14.11	14.08	
20	64QAM	100	0	14.02	14.08	14.02	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	16.91	16.97	16.90	17.8
15	QPSK	1	37	16.79	16.88	16.84	
15	QPSK	1	74	16.84	16.89	16.85	
15	QPSK	36	0	16.09	16.14	16.11	16.8
15	QPSK	36	20	16.00	16.07	16.09	
15	QPSK	36	39	16.01	16.08	16.07	
15	QPSK	75	0	16.03	16.00	15.96	16.8
15	16QAM	1	0	16.28	16.26	16.22	
15	16QAM	1	37	16.19	16.21	16.16	
15	16QAM	1	74	16.15	16.19	16.21	15.8
15	16QAM	36	0	15.02	15.05	15.04	
15	16QAM	36	20	15.05	15.10	14.98	
15	16QAM	36	39	15.07	15.04	14.95	15.8
15	16QAM	75	0	14.97	15.07	14.99	
15	64QAM	1	0	15.11	15.15	15.15	
15	64QAM	1	37	15.07	15.15	15.03	15.8
15	64QAM	1	74	15.10	15.13	15.09	
15	64QAM	36	0	14.13	14.11	14.03	14.8
15	64QAM	36	20	14.11	14.10	14.06	
15	64QAM	36	39	14.05	14.10	14.01	
15	64QAM	75	0	13.98	14.01	13.96	Tune-up limit (dBm)
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	16.90	17.01	16.93	17.8
10	QPSK	1	25	16.80	16.88	16.83	
10	QPSK	1	49	16.78	16.87	16.82	
10	QPSK	25	0	16.14	16.11	16.11	16.8
10	QPSK	25	12	16.07	16.09	16.06	
10	QPSK	25	25	16.01	16.02	16.04	
10	QPSK	50	0	15.98	16.07	15.99	16.8
10	16QAM	1	0	16.22	16.23	16.25	
10	16QAM	1	25	16.23	16.21	16.12	
10	16QAM	1	49	16.17	16.21	16.18	15.8
10	16QAM	25	0	15.05	15.09	14.99	
10	16QAM	25	12	15.06	15.05	14.99	
10	16QAM	25	25	15.06	15.09	14.99	15.8
10	16QAM	50	0	14.95	15.06	15.00	
10	64QAM	1	0	15.13	15.18	15.16	
10	64QAM	1	25	15.05	15.12	15.04	15.8
10	64QAM	1	49	15.09	15.14	15.06	
10	64QAM	25	0	14.14	14.15	14.01	
10	64QAM	25	12	14.09	14.06	14.09	14.8
10	64QAM	25	25	14.05	14.10	14.07	
10	64QAM	50	0	13.98	14.06	13.95	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	16.88	16.95	16.92	17.8
5	QPSK	1	12	16.82	16.92	16.83	
5	QPSK	1	24	16.78	16.83	16.87	
5	QPSK	12	0	16.10	16.11	16.09	16.8
5	QPSK	12	7	16.01	16.06	16.02	
5	QPSK	12	13	15.99	16.08	16.04	
5	QPSK	25	0	16.03	16.01	15.98	16.8
5	16QAM	1	0	16.27	16.23	16.25	
5	16QAM	1	12	16.20	16.27	16.17	
5	16QAM	1	24	16.15	16.20	16.19	15.8
5	16QAM	12	0	15.01	15.08	14.98	
5	16QAM	12	7	15.08	15.10	14.99	
5	16QAM	12	13	15.05	15.04	15.02	15.8
5	16QAM	25	0	14.97	15.07	15.01	
5	64QAM	1	0	15.10	15.20	15.17	
5	64QAM	1	12	15.07	15.11	15.07	15.8
5	64QAM	1	24	15.10	15.14	15.05	
5	64QAM	12	0	14.13	14.14	14.07	
5	64QAM	12	7	14.10	14.06	14.07	14.8
5	64QAM	12	13	14.01	14.04	14.00	
5	64QAM	25	0	13.99	14.01	13.97	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	16.90	16.96	16.91	17.8
3	QPSK	1	8	16.83	16.85	16.87	
3	QPSK	1	14	16.83	16.88	16.85	
3	QPSK	8	0	16.11	16.14	16.12	16.8
3	QPSK	8	4	16.01	16.12	16.03	
3	QPSK	8	7	16.02	16.06	16.05	

Band 4 (AWS Band) (dBm)_Ant1 Part 27L (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	15.83	15.88	15.82	16.6
20	QPSK	1	49	15.74	15.77	15.76	
20	QPSK	1	99	15.66	15.73	15.71	
20	QPSK	50	0	14.90	14.94	14.87	15.6
20	QPSK	50	24	14.88	14.90	14.83	
20	QPSK	50	50	14.73	14.81	14.77	
20	QPSK	100	0	14.84	14.86	14.83	15.6
20	16QAM	1	0	15.11	15.14	15.10	
20	16QAM	1	49	15.08	15.12	15.07	
20	16QAM	1	99	15.01	15.09	15.05	14.6
20	16QAM	50	0	13.94	13.95	13.94	
20	16QAM	50	24	13.86	13.90	13.89	
20	16QAM	50	50	13.76	13.80	13.76	14.6
20	16QAM	100	0	13.81	13.89	13.84	
20	64QAM	1	0	14.04	14.05	14.03	
20	64QAM	1	49	13.93	14.00	13.97	14.6
20	64QAM	1	99	13.93	13.97	13.95	
20	64QAM	50	0	12.92	12.96	12.89	
20	64QAM	50	24	12.87	12.92	12.88	13.6
20	64QAM	50	50	12.79	12.87	12.81	
20	64QAM	100	0	12.82	12.90	12.87	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	15.80	15.84	15.78	16.6
15	QPSK	1	37	15.72	15.76	15.70	
15	QPSK	1	74	15.62	15.72	15.67	
15	QPSK	36	0	14.83	14.88	14.85	15.6
15	QPSK	36	20	14.84	14.88	14.80	
15	QPSK	36	39	14.72	14.80	14.73	
15	QPSK	75	0	14.76	14.85	14.76	15.6
15	16QAM	1	0	15.07	15.07	15.03	
15	16QAM	1	37	15.00	15.05	15.03	
15	16QAM	1	74	15.00	15.07	14.98	14.6
15	16QAM	36	0	13.93	13.87	13.88	
15	16QAM	36	20	13.84	13.89	13.82	
15	16QAM	36	39	13.72	13.76	13.72	14.6
15	16QAM	75	0	13.78	13.87	13.80	
15	64QAM	1	0	14.02	14.04	13.99	
15	64QAM	1	37	13.90	13.97	13.92	14.6
15	64QAM	1	74	13.88	13.92	13.92	
15	64QAM	36	0	12.90	12.94	12.87	
15	64QAM	36	20	12.83	12.84	12.87	13.6
15	64QAM	36	39	12.73	12.85	12.73	
15	64QAM	75	0	12.81	12.82	12.80	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	15.78	15.80	15.76	16.6
10	QPSK	1	25	15.69	15.76	15.69	
10	QPSK	1	49	15.63	15.71	15.68	
10	QPSK	25	0	14.83	14.87	14.82	15.6
10	QPSK	25	12	14.84	14.87	14.81	
10	QPSK	25	25	14.65	14.80	14.69	
10	QPSK	50	0	14.79	14.82	14.82	15.6
10	16QAM	1	0	15.10	15.09	15.09	
10	16QAM	1	25	15.03	15.10	15.03	
10	16QAM	1	49	14.94	15.06	15.02	14.6
10	16QAM	25	0	13.92	13.93	13.91	
10	16QAM	25	12	13.85	13.86	13.85	
10	16QAM	25	25	13.74	13.79	13.70	14.6
10	16QAM	50	0	13.73	13.85	13.82	
10	64QAM	1	0	13.97	14.03	13.99	
10	64QAM	1	25	13.86	13.93	13.92	14.6
10	64QAM	1	49	13.85	13.91	13.90	
10	64QAM	25	0	12.91	12.89	12.85	
10	64QAM	25	12	12.84	12.86	12.81	13.6
10	64QAM	25	25	12.71	12.79	12.76	
10	64QAM	50	0	12.77	12.86	12.80	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	15.80	15.81	15.79	16.6
5	QPSK	1	12	15.68	15.72	15.70	
5	QPSK	1	24	15.62	15.66	15.65	
5	QPSK	12	0	14.86	14.93	14.82	15.6
5	QPSK	12	7	14.87	14.85	14.78	
5	QPSK	12	13	14.68	14.79	14.69	
5	QPSK	25	0	14.82	14.82	14.76	15.6
5	16QAM	1	0	15.08	15.09	15.06	
5	16QAM	1	12	15.07	15.09	15.06	
5	16QAM	1	24	14.98	15.08	15.00	14.6
5	16QAM	12	0	13.91	13.94	13.86	
5	16QAM	12	7	13.78	13.84	13.84	
5	16QAM	12	13	13.68	13.75	13.68	14.6
5	16QAM	25	0	13.80	13.84	13.80	
5	64QAM	1	0	14.03	14.00	14.01	
5	64QAM	1	12	13.87	13.98	13.93	14.6
5	64QAM	1	24	13.90	13.92	13.87	
5	64QAM	12	0	12.84	12.90	12.88	
5	64QAM	12	7	12.79	12.90	12.84	13.6
5	64QAM	12	13	12.78	12.79	12.76	
5	64QAM	25	0	12.75	12.85	12.80	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	15.75	15.86	15.81	16.6
3	QPSK	1	8	15.69	15.74	15.70	
3	QPSK	1	14	15.59	15.72	15.67	
3	QPSK	8	0	14.88	14.93	14.84	15.6
3	QPSK	8	4	14.80	14.84	14.75	
3	QPSK	8	7	14.68	14.79	14.71	



3	QPSK	15	0	15.97	16.04	15.96	16.8
3	16QAM	1	0	16.28	16.26	16.28	
3	16QAM	1	8	16.25	16.26	16.19	
3	16QAM	1	14	16.16	16.20	16.18	15.8
3	16QAM	8	0	15.07	15.08	15.01	
3	16QAM	8	4	15.03	15.08	15.01	
3	16QAM	8	7	15.04	15.04	15.02	15.8
3	16QAM	15	0	14.97	15.06	15.02	
3	64QAM	1	0	15.10	15.14	15.14	
3	64QAM	1	8	15.01	15.11	15.06	14.8
3	64QAM	1	14	15.05	15.13	15.05	
3	64QAM	8	0	14.09	14.15	14.00	
3	64QAM	8	4	14.10	14.10	14.10	14.8
3	64QAM	8	7	14.06	14.10	14.07	
3	64QAM	15	0	14.00	14.07	13.99	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	16.86	17.01	16.93	17.8
1.4	QPSK	1	3	16.80	16.87	16.86	
1.4	QPSK	1	5	16.77	16.88	16.86	
1.4	QPSK	3	0	16.83	16.92	16.89	
1.4	QPSK	3	1	16.95	16.98	16.88	
1.4	QPSK	3	3	16.89	16.93	16.90	
1.4	QPSK	6	0	15.97	16.07	15.99	16.8
1.4	16QAM	1	0	16.25	16.24	16.21	
1.4	16QAM	1	3	16.25	16.22	16.18	
1.4	16QAM	1	5	16.16	16.25	16.25	15.8
1.4	16QAM	3	0	16.05	16.10	16.02	
1.4	16QAM	3	1	16.03	16.07	15.99	
1.4	16QAM	3	3	16.04	16.08	15.97	15.8
1.4	16QAM	6	0	14.98	15.07	14.96	
1.4	64QAM	1	0	15.13	15.18	15.17	
1.4	64QAM	1	3	15.05	15.09	15.06	14.8
1.4	64QAM	1	5	15.05	15.09	15.06	
1.4	64QAM	3	0	15.14	15.08	15.01	
1.4	64QAM	3	1	15.11	15.09	15.06	
1.4	64QAM	3	3	15.04	15.05	15.03	
1.4	64QAM	6	0	13.97	14.03	13.95	

3	QPSK	15	0	14.83	14.81	14.76	15.6
3	16QAM	1	0	15.06	15.06	15.04	
3	16QAM	1	8	15.04	15.11	14.99	
3	16QAM	1	14	14.96	15.04	14.99	14.6
3	16QAM	8	0	13.91	13.90	13.89	
3	16QAM	8	4	13.79	13.89	13.81	
3	16QAM	8	7	13.75	13.72	13.68	14.6
3	16QAM	15	0	13.78	13.81	13.76	
3	64QAM	1	0	14.03	14.01	13.96	
3	64QAM	1	8	13.90	13.93	13.89	13.6
3	64QAM	1	14	13.85	13.96	13.89	
3	64QAM	8	0	12.86	12.94	12.81	
3	64QAM	8	4	12.86	12.85	12.80	13.6
3	64QAM	8	7	12.74	12.80	12.75	
3	64QAM	15	0	12.76	12.88	12.81	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	15.80	15.86	15.78	16.6
1.4	QPSK	1	3	15.68	15.70	15.70	
1.4	QPSK	1	5	15.61	15.71	15.68	
1.4	QPSK	3	0	15.69	15.78	15.72	
1.4	QPSK	3	1	15.72	15.73	15.65	
1.4	QPSK	3	3	15.53	15.58	15.59	
1.4	QPSK	6	0	14.77	14.81	14.75	15.6
1.4	16QAM	1	0	15.10	15.08	15.03	
1.4	16QAM	1	3	15.00	15.08	15.02	
1.4	16QAM	1	5	14.95	15.08	15.04	14.6
1.4	16QAM	3	0	14.75	14.73	14.77	
1.4	16QAM	3	1	14.70	14.74	14.66	
1.4	16QAM	3	3	14.55	14.64	14.58	14.6
1.4	16QAM	6	0	13.80	13.85	13.76	
1.4	64QAM	1	0	13.98	14.00	14.00	
1.4	64QAM	1	3	13.91	13.96	13.89	13.6
1.4	64QAM	1	5	13.92	13.93	13.91	
1.4	64QAM	3	0	13.70	13.73	13.67	
1.4	64QAM	3	1	13.65	13.70	13.65	
1.4	64QAM	3	3	13.62	13.67	13.59	
1.4	64QAM	6	0	12.78	12.82	12.80	



Band 7 (2600MHz Band) (dBm)_Ant1 Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	15.48	15.55	15.45	16.3
20	QPSK	1	49	15.37	15.45	15.42	
20	QPSK	1	99	15.34	15.41	15.37	
20	QPSK	50	0	14.58	14.63	14.56	15.3
20	QPSK	50	24	14.56	14.60	14.54	
20	QPSK	50	50	14.61	14.63	14.57	
20	QPSK	100	0	14.56	14.58	14.52	15.3
20	16QAM	1	0	14.61	14.66	14.60	
20	16QAM	1	49	14.71	14.72	14.70	
20	16QAM	1	99	14.81	14.85	14.78	14.3
20	16QAM	50	0	13.53	13.54	13.52	
20	16QAM	50	24	13.52	13.60	13.54	
20	16QAM	50	50	13.57	13.63	13.61	14.3
20	16QAM	100	0	13.53	13.59	13.54	
20	64QAM	1	0	13.51	13.58	13.57	
20	64QAM	1	49	13.54	13.56	13.48	13.3
20	64QAM	1	99	13.71	13.75	13.68	
20	64QAM	50	0	12.56	12.58	12.52	
20	64QAM	50	24	12.61	12.62	12.56	13.3
20	64QAM	50	50	12.59	12.67	12.62	
20	64QAM	100	0	12.58	12.60	12.54	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	15.45	15.51	15.44	16.3
15	QPSK	1	37	15.32	15.40	15.40	
15	QPSK	1	74	15.29	15.35	15.29	
15	QPSK	36	0	14.52	14.62	14.59	15.3
15	QPSK	36	20	14.48	14.57	14.48	
15	QPSK	36	39	14.58	14.60	14.56	
15	QPSK	75	0	14.49	14.53	14.51	15.3
15	16QAM	1	0	14.55	14.58	14.52	
15	16QAM	1	37	14.69	14.66	14.67	
15	16QAM	1	74	14.74	14.81	14.74	14.3
15	16QAM	36	0	13.47	13.49	13.45	
15	16QAM	36	20	13.47	13.56	13.49	
15	16QAM	36	39	13.52	13.55	13.56	14.3
15	16QAM	75	0	13.49	13.57	13.48	
15	64QAM	1	0	13.47	13.56	13.55	
15	64QAM	1	37	13.46	13.54	13.47	14.3
15	64QAM	1	74	13.65	13.69	13.65	
15	64QAM	36	0	12.53	12.53	12.48	
15	64QAM	36	20	12.57	12.60	12.48	13.3
15	64QAM	36	39	12.54	12.63	12.60	
15	64QAM	75	0	12.51	12.59	12.49	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	15.46	15.50	15.38	16.3
10	QPSK	1	25	15.34	15.44	15.35	
10	QPSK	1	49	15.26	15.39	15.34	
10	QPSK	25	0	14.48	14.55	14.61	15.3
10	QPSK	25	12	14.55	14.57	14.53	
10	QPSK	25	25	14.59	14.57	14.52	
10	QPSK	50	0	14.53	14.53	14.48	15.3
10	16QAM	1	0	14.56	14.60	14.58	
10	16QAM	1	25	14.63	14.66	14.64	
10	16QAM	1	49	14.75	14.84	14.73	14.3
10	16QAM	25	0	13.49	13.48	13.48	
10	16QAM	25	12	13.44	13.58	13.51	
10	16QAM	25	25	13.50	13.60	13.53	14.3
10	16QAM	50	0	13.46	13.51	13.51	
10	64QAM	1	0	13.49	13.51	13.50	
10	64QAM	1	25	13.51	13.55	13.41	14.3
10	64QAM	1	49	13.66	13.70	13.64	
10	64QAM	25	0	12.50	12.55	12.49	
10	64QAM	25	12	12.58	12.55	12.55	13.3
10	64QAM	25	25	12.54	12.60	12.56	
10	64QAM	50	0	12.55	12.59	12.53	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	15.43	15.50	15.38	16.3
5	QPSK	1	12	15.29	15.38	15.38	
5	QPSK	1	24	15.33	15.36	15.36	
5	QPSK	12	0	14.54	14.61	14.59	15.3
5	QPSK	12	7	14.55	14.56	14.52	
5	QPSK	12	13	14.55	14.58	14.56	
5	QPSK	25	0	14.48	14.55	14.48	15.3
5	16QAM	1	0	14.54	14.63	14.52	
5	16QAM	1	12	14.69	14.66	14.66	
5	16QAM	1	24	14.77	14.77	14.73	14.3
5	16QAM	12	0	13.51	13.51	13.48	
5	16QAM	12	7	13.50	13.57	13.48	
5	16QAM	12	13	13.56	13.56	13.58	14.3
5	16QAM	25	0	13.51	13.51	13.47	
5	64QAM	1	0	13.44	13.54	13.55	
5	64QAM	1	12	13.47	13.54	13.43	14.3
5	64QAM	1	24	13.66	13.73	13.63	
5	64QAM	12	0	12.54	12.51	12.48	
5	64QAM	12	7	12.60	12.59	12.54	13.3
5	64QAM	12	13	12.58	12.60	12.60	
5	64QAM	25	0	12.51	12.53	12.53	

Band 25 (1900MHz Band) (dBm)_Ant1							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26140	26365	26590	
Frequency (MHz)				1860	1882.5	1905	17.8
20	QPSK	1	0	16.98	17.03	16.95	
20	QPSK	1	49	16.88	16.92	16.85	
20	QPSK	1	99	16.84	16.91	16.89	16.8
20	QPSK	50	0	16.12	16.15	16.10	
20	QPSK	50	24	16.07	16.12	16.08	
20	QPSK	50	50	16.09	16.10	16.07	16.8
20	QPSK	100	0	16.00	16.07	15.99	
20	16QAM	1	0	16.31	16.34	16.26	
20	16QAM	1	49	16.21	16.29	16.26	16.8
20	16QAM	1	99	16.14	16.21	16.18	
20	16QAM	50	0	15.07	15.10	15.06	
20	16QAM	50	24	15.04	15.07	14.99	15.8
20	16QAM	50	50	15.10	15.12	15.10	
20	16QAM	100	0	15.03	15.10	15.03	
20	64QAM	1	0	15.18	15.20	15.18	15.8
20	64QAM	1	49	15.11	15.18	15.15	
20	64QAM	1	99	15.13	15.15	15.09	
20	64QAM	50	0	14.20	14.23	14.16	14.8
20	64QAM	50	24	14.13	14.19	14.11	
20	64QAM	50	50	14.14	14.15	14.11	
20	64QAM	100	0	14.06	14.12	14.10	Tune-up limit (dBm)
Channel				26115	26365	26615	
Frequency (MHz)				1857.5	1882.5	1907.5	17.8
15	QPSK	1	0	16.94	17.00	16.94	
15	QPSK	1	37	16.87	16.87	16.84	
15	QPSK	1	74	16.81	16.84	16.83	16.8
15	QPSK	36	0	16.08	16.08	16.09	
15	QPSK	36	20	16.02	16.11	16.00	
15	QPSK	36	39	16.06	16.06	16.00	16.8
15	QPSK	75	0	15.98	16.01	15.96	
15	16QAM	1	0	16.27	16.33	16.24	
15	16QAM	1	37	16.14	16.21	16.25	16.8
15	16QAM	1	74	16.07	16.20	16.15	
15	16QAM	36	0	15.04	15.08	15.01	
15	16QAM	36	20	14.99	15.05	14.98	15.8
15	16QAM	36	39	15.07	15.11	15.09	
15	16QAM	75	0	14.98	15.07	14.99	
15	64QAM	1	0	15.15	15.13	15.13	15.8
15	64QAM	1	37	15.04	15.10	15.14	
15	64QAM	1	74	15.05	15.11	15.06	
15	64QAM	36	0	14.12	14.15	14.14	14.8
15	64QAM	36	20	14.09	14.16	14.07	
15	64QAM	36	39	14.06	14.07	14.10	
15	64QAM	75	0	13.99	14.07	14.02	Tune-up limit (dBm)
Channel				26090	26365	26640	
Frequency (MHz)				1855	1882.5	1910	17.8
10	QPSK	1	0	16.90	16.97	16.91	
10	QPSK	1	25	16.81	16.84	16.84	
10	QPSK	1	49	16.78	16.86	16.81	16.8
10	QPSK	25	0	16.06	16.08	16.05	
10	QPSK	25	12	16.06	16.04	16.01	
10	QPSK	25	25	16.08	16.09	16.04	16.8
10	QPSK	50	0	15.97	16.06	15.94	
10	16QAM	1	0	16.26	16.28	16.22	
10	16QAM	1	25	16.14	16.24	16.20	16.8
10	16QAM	1	49	16.08	16.15	16.10	
10	16QAM	25	0	15.05	15.05	15.05	
10	16QAM	25	12	14.98	15.00	14.92	15.8
10	16QAM	25	25	15.06	15.08	15.04	
10	16QAM	50	0	14.99	15.09	14.97	
10	64QAM	1	0	15.16	15.13	15.12	15.8
10	64QAM	1	25	15.10	15.17	15.11	
10	64QAM	1	49	15.08	15.12	15.01	
10	64QAM	25	0	14.16	14.16	14.11	14.8
10	64QAM	25	12	14.05	14.14	14.05	
10	64QAM	25	25	14.06	14.11	14.06	
10	64QAM	50	0	14.01	14.06	14.03	Tune-up limit (dBm)
Channel				26065	26365	26665	
Frequency (MHz)				1852.5	1882.5	1912.5	17.8
5	QPSK	1	0	16.95	16.98	16.89	
5	QPSK	1	12	16.83	16.91	16.82	
5	QPSK	1	24	16.79	16.90	16.82	16.8
5	QPSK	12	0	16.07	16.07	16.05	
5	QPSK	12	7	16.00	16.11	16.04	
5	QPSK	12	13	16.05	16.02	16.06	16.8
5	QPSK	25	0	15.99	16.03	15.96	
5	16QAM	1	0	16.25	16.26	16.19	
5	16QAM	1	12	16.16	16.25	16.24	16.8
5	16QAM	1	24	16.09	16.17	16.15	
5	16QAM	12	0	15.03	15.05	15.01	
5	16QAM	12	7	15.00	15.05	14.97	15.8
5	16QAM	12	13	15.09	15.10	15.09	
5	16QAM	25	0	15.00	15.05	15.02	
5	64QAM	1	0	15.16	15.16	15.17	15.8
5	64QAM	1	12	15.04	15.16	15.11	
5	64QAM	1	24	15.11	15.14	15.04	
5	64QAM	12	0	14.13	14.17	14.09	14.8
5	64QAM	12	7	14.05	14.18	14.04	
5	64QAM	12	13	14.13	14.13	14.10	
5	64QAM	25	0	14.01	14.08	14.02	Tune-up limit (dBm)
Channel				26055	26365	26675	
Frequency (MHz)				1851.5	1882.5	1913.5	17.8
3	QPSK	1	0	16.92	16.96	16.89	
3	QPSK	1	8	16.84	16.89	16.84	
3	QPSK	1	14	16.83	16.85	16.87	16.8
3	QPSK	8	0	16.04	16.12	16.05	
3	QPSK	8	4	16.02	16.06	16.07	
3	QPSK	8	7	16.07	16.05	16.02	16.8



3	QPSK	15	0	15.92	16.00	15.95	16.8
3	16QAM	1	0	16.24	16.29	16.25	
3	16QAM	1	8	16.20	16.25	16.21	
3	16QAM	1	14	16.11	16.19	16.16	15.8
3	16QAM	8	0	15.01	15.06	15.01	
3	16QAM	8	4	15.02	15.01	14.95	
3	16QAM	8	7	15.02	15.04	15.02	
3	16QAM	15	0	15.00	15.06	15.00	
3	64QAM	1	0	15.11	15.16	15.15	15.8
3	64QAM	1	8	15.03	15.11	15.08	
3	64QAM	1	14	15.10	15.11	15.04	
3	64QAM	8	0	14.16	14.19	14.13	14.8
3	64QAM	8	4	14.09	14.11	14.07	
3	64QAM	8	7	14.12	14.10	14.07	
3	64QAM	15	0	14.00	14.07	14.08	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	16.93	16.96	16.93	17.8
1.4	QPSK	1	3	16.85	16.87	16.79	
1.4	QPSK	1	5	16.80	16.84	16.81	
1.4	QPSK	3	0	16.95	17.02	16.94	
1.4	QPSK	3	1	16.92	16.95	16.96	
1.4	QPSK	3	3	16.94	16.97	16.96	
1.4	QPSK	6	0	15.95	16.01	15.92	16.8
1.4	16QAM	1	0	16.30	16.32	16.19	15.8
1.4	16QAM	1	3	16.14	16.25	16.21	
1.4	16QAM	1	5	16.06	16.15	16.16	
1.4	16QAM	3	0	15.90	15.95	15.89	
1.4	16QAM	3	1	15.93	15.93	15.85	
1.4	16QAM	3	3	15.97	15.97	15.92	
1.4	16QAM	6	0	14.97	15.05	15.02	14.8
1.4	64QAM	1	0	15.12	15.13	15.13	15.8
1.4	64QAM	1	3	15.05	15.17	15.12	
1.4	64QAM	1	5	15.07	15.12	15.07	
1.4	64QAM	3	0	15.03	15.10	15.00	
1.4	64QAM	3	1	14.97	15.02	14.99	
1.4	64QAM	3	3	15.02	15.01	14.99	
1.4	64QAM	6	0	14.00	14.06	14.07	14.8



Band 66 (dBm)_Ant1											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Turn-up limit (dBm)				
Channel				130772	132322	133972					
Frequency (MHz)				1720	1745	1770					
20	QPSK	1	0	15.79	15.50	15.81	16.6				
20	QPSK	1	49	15.70	15.77	15.74					
20	QPSK	1	99	15.67	15.74	15.71					
20	QPSK	50	0	14.79	14.61	14.78	15.6				
20	QPSK	50	24	14.81	14.87	14.85					
20	QPSK	50	50	14.71	14.79	14.76					
20	QPSK	100	0	14.84	14.86	14.81	15.6				
20	16QAM	1	0	15.04	15.12	15.06					
20	16QAM	1	49	15.06	15.10	15.05					
20	16QAM	1	99	15.00	15.07	15.01	14.6				
20	16QAM	50	0	13.84	13.85	13.80					
20	16QAM	50	24	13.75	13.81	13.74					
20	16QAM	50	50	13.81	13.85	13.82	14.6				
20	16QAM	100	0	13.80	13.83	13.79					
20	64QAM	1	0	14.05	14.10	14.06					
20	64QAM	1	49	14.04	14.07	13.99	14.6				
20	64QAM	1	99	14.02	14.04	13.97					
20	64QAM	50	0	12.82	12.90	12.85					
20	64QAM	50	24	12.80	12.88	12.82	13.6				
20	64QAM	50	50	12.78	12.86	12.82					
20	64QAM	100	0	12.79	12.86	12.80					
Channel				130922	132522	133972	Turn-up limit (dBm)				
Frequency (MHz)				1717.5	1745	1772.5					
15	QPSK	1	0	15.78	15.79	15.80	16.6				
15	QPSK	1	37	15.62	15.75	15.72					
15	QPSK	1	74	15.60	15.66	15.68					
15	QPSK	36	0	14.73	14.76	14.72	15.6				
15	QPSK	36	20	14.77	14.82	14.83					
15	QPSK	36	39	14.66	14.74	14.70					
15	QPSK	75	0	14.81	14.83	14.75	15.6				
15	16QAM	1	0	15.00	15.11	15.02					
15	16QAM	1	37	15.04	15.08	15.01					
15	16QAM	1	74	14.97	15.06	14.93	14.6				
15	16QAM	36	0	13.79	13.83	13.78					
15	16QAM	36	20	13.71	13.74	13.71					
15	16QAM	75	0	13.74	13.77	13.74	14.6				
15	64QAM	1	0	13.98	14.09	14.00					
15	64QAM	1	37	13.98	14.00	13.97					
15	64QAM	1	74	13.96	14.03	13.96	13.6				
15	64QAM	36	0	12.79	12.82	12.82					
15	64QAM	36	20	12.77	12.80	12.77					
15	64QAM	36	39	12.75	12.81	12.80	13.6				
15	64QAM	75	0	12.78	12.79	12.76					
Channel				130922	132522	133972		Turn-up limit (dBm)			
Frequency (MHz)				1715	1745	1775					
10	QPSK	1	0	15.71	15.78	15.80	16.6				
10	QPSK	1	25	15.65	15.75	15.68					
10	QPSK	1	49	15.62	15.71	15.68					
10	QPSK	25	0	14.70	14.80	14.69	15.6				
10	QPSK	25	12	14.79	14.86	14.79					
10	QPSK	25	25	14.69	14.71	14.69					
10	QPSK	50	0	14.80	14.77	14.74	15.6				
10	16QAM	1	0	14.99	15.05	15.01					
10	16QAM	1	25	15.01	15.04	15.02					
10	16QAM	1	49	14.93	14.99	14.95	14.6				
10	16QAM	25	0	13.76	13.80	13.78					
10	16QAM	25	12	13.72	13.74	13.72					
10	16QAM	25	25	13.74	13.79	13.79	14.6				
10	16QAM	50	0	13.72	13.79	13.71					
10	64QAM	1	0	13.97	14.06	14.02					
10	64QAM	1	25	14.02	14.00	13.93	14.6				
10	64QAM	1	49	13.98	14.00	13.96					
10	64QAM	25	0	12.78	12.84	12.84					
10	64QAM	25	12	12.79	12.80	12.78	13.6				
10	64QAM	25	25	12.76	12.78	12.80					
10	64QAM	50	0	12.74	12.84	12.76					
Channel				131122	132722	133722	Turn-up limit (dBm)				
Frequency (MHz)				1712.5	1745	1777.5					
5	QPSK	1	0	15.74	15.82	15.79	16.6				
5	QPSK	1	12	15.66	15.74	15.69					
5	QPSK	1	24	15.64	15.71	15.65					
5	QPSK	12	0	14.74	14.80	14.73	15.6				
5	QPSK	12	7	14.77	14.83	14.77					
5	QPSK	12	13	14.64	14.74	14.71					
5	QPSK	25	0	14.81	14.78	14.77	15.6				
5	16QAM	1	0	14.97	15.05	15.00					
5	16QAM	1	12	15.05	15.03	15.02					
5	16QAM	1	24	14.93	15.01	14.99	14.6				
5	16QAM	12	0	13.83	13.78	13.75					
5	16QAM	12	7	13.87	13.75	13.68					
5	16QAM	12	13	13.74	13.79	13.74	14.6				
5	16QAM	25	0	13.74	13.81	13.71					
5	64QAM	1	0	14.02	14.08	14.01					
5	64QAM	1	12	13.96	14.06	13.91	14.6				
5	64QAM	1	24	13.96	13.96	13.94					
5	64QAM	12	0	12.79	12.86	12.79					
5	64QAM	12	7	12.77	12.83	12.80	13.6				
5	64QAM	12	13	12.75	12.78	12.76					
5	64QAM	25	0	12.78	12.83	12.73					
Channel				131122	132522	133722	Turn-up limit (dBm)				
Frequency (MHz)				1711.5	1745	1779.5					
3	QPSK	1	0	15.77	15.80	15.75	16.6				
3	QPSK	1	8	15.69	15.75	15.66					
3	QPSK	1	14	15.62	15.67	15.70					
3	QPSK	8	0	14.72	14.73	14.70	15.6				
3	QPSK	8	4	14.76	14.84	14.84					
3	QPSK	8	7	14.68	14.72	14.71					
3	QPSK	15	0	14.83	14.83	14.75	15.6				
3	16QAM	1	0	14.99	15.05	14.98					
3	16QAM	1	8	15.01	15.06	15.01					
3	16QAM	1	14	14.94	15.04	14.93	14.6				
3	16QAM	8	0	13.79	13.83	13.77					
3	16QAM	8	4	13.70	13.73	13.72					
3	16QAM	8	7	13.74	13.81	13.76	14.6				
3	16QAM	15	0	13.75	13.79	13.75					
3	64QAM	1	0	13.99	14.05	14.01					
3	64QAM	1	8	13.96	13.99	13.94	14.6				
3	64QAM	1	14	13.96	14.00	13.91					
3	64QAM	8	0	12.76	12.82	12.80					
3	64QAM	8	4	12.73	12.80	12.79	13.6				
3	64QAM	8	7	12.72	12.75	12.81					
3	64QAM	15	0	12.78	12.79	12.77					
Channel				131979	132522	132665	Turn-up limit (dBm)				
Frequency (MHz)				1710.7	1745	1779.3					
1.4	QPSK	1	0	15.75	15.82	15.75	16.6				
1.4	QPSK	1	5	15.63	15.75	15.73					
1.4	QPSK	1	5	15.62	15.72	15.68					
1.4	QPSK	3	0	15.64	15.70	15.64	15.6				
1.4	QPSK	3	1	15.68	15.74	15.69					
1.4	QPSK	3	3	15.59	15.67	15.64					
1.4	QPSK	6	0	14.82	14.84	14.75	15.6				
1.4	16QAM	1	0	15.02	15.04	15.04	15.6				
1.4	16QAM	1	4	14.98	15.04	15.01					
1.4	16QAM	1	9	14.94	15.00	14.94					
1.4	16QAM	3	0	14.69	14.70	14.63	15.6				
1.4	16QAM	3	1	14.58	14.65	14.60					
1.4	16QAM	3	3	14.66	14.74	14.65					
1.4	16QAM	6	0	13.75	13.82	13.74	14.6				
1.4	16QAM	6	1	14.04	14.07	14.04	14.6				
1.4	16QAM	6	3	13.93	14.05	13.95					
1.4	64QAM	1	5	13.96	13.99	13.99					
1.4	64QAM	3	0	13.70	13.76	13.74	14.6				
1.4	64QAM	3	1	13.65	13.75	13.69					
1.4	64QAM	3	3	13.62	13.73	13.71					
1.4	64QAM	6	0	12.76	12.82	12.74	13.6				



Band 25 (1900MHz Band) (dBm)_Ant4									
Part 24E									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)		
Channel				26140	26365	26590			
Frequency (MHz)				1860	1882.5	1905			
20	QPSK	1	0	19.98	20.03	19.95	20.8		
20	QPSK	1	49	19.88	19.92	19.85			
20	QPSK	1	99	19.84	19.91	19.89			
20	QPSK	50	0	19.12	19.15	19.10			
20	QPSK	50	24	19.07	19.12	19.08	19.8		
20	QPSK	50	50	19.09	19.10	19.07			
20	QPSK	100	0	19.00	19.05	19.07			
20	16QAM	1	0	19.91	19.94	19.26	19.8		
20	16QAM	1	49	19.21	19.29	19.26			
20	16QAM	1	99	19.14	19.21	19.18			
20	16QAM	50	0	18.07	18.10	18.06			
20	16QAM	50	24	18.04	18.07	17.99	18.8		
20	16QAM	50	50	18.10	18.12	18.10			
20	16QAM	100	0	18.03	18.10	18.03			
20	64QAM	1	0	18.18	18.20	18.18			
20	64QAM	1	49	18.11	18.13	18.15	18.8		
20	64QAM	1	99	18.13	18.15	18.09			
20	64QAM	50	0	17.20	17.23	17.16			
20	64QAM	50	24	17.13	17.19	17.11			
20	64QAM	50	50	17.14	17.15	17.11	17.8		
20	64QAM	100	0	17.06	17.12	17.10			
Channel				26115	26365	26615	Tune-up limit (dBm)		
Frequency (MHz)				1857.5	1882.5	1907.5			
15	QPSK	1	0	19.94	20.00	19.94	20.8		
15	QPSK	1	37	19.87	19.87	19.84			
15	QPSK	1	74	19.81	19.84	19.83			
15	QPSK	36	0	19.08	19.08	19.09			
15	QPSK	36	20	19.02	19.11	19.00	19.8		
15	QPSK	36	39	19.06	19.08	19.00			
15	QPSK	75	0	18.96	19.01	18.96			
15	16QAM	1	0	19.27	19.33	19.24			
15	16QAM	1	37	19.14	19.21	19.25	19.8		
15	16QAM	1	74	19.07	19.20	19.15			
15	16QAM	36	0	18.04	18.08	18.01			
15	16QAM	36	20	17.99	18.05	17.98			
15	16QAM	36	39	18.07	18.11	18.09	18.8		
15	16QAM	75	0	17.98	18.07	17.99			
15	64QAM	1	0	18.16	18.07	18.13			
15	64QAM	1	37	18.04	18.10	18.14			
15	64QAM	1	74	18.05	18.11	18.06	18.8		
15	64QAM	36	0	17.12	17.15	17.14			
15	64QAM	36	20	17.09	17.18	17.07			
15	64QAM	36	39	17.06	17.07	17.10			
15	64QAM	75	0	16.99	17.07	17.02	17.8		
Channel				25575	25595	25615	Tune-up limit (dBm)		
Frequency (MHz)				1855	1882.5	1910			
10	QPSK	1	0	19.90	19.97	19.91	20.8		
10	QPSK	1	25	19.81	19.84	19.84			
10	QPSK	1	49	19.78	19.85	19.81			
10	QPSK	25	0	19.06	19.08	19.05			
10	QPSK	25	12	19.06	19.04	19.01	19.8		
10	QPSK	25	25	19.08	19.09	19.04			
10	QPSK	50	0	18.97	19.06	18.94			
10	16QAM	1	0	19.26	19.28	19.22			
10	16QAM	1	25	19.14	19.24	19.20	19.8		
10	16QAM	1	49	19.08	19.15	19.10			
10	16QAM	25	0	18.05	18.05	18.05			
10	16QAM	25	12	17.98	18.00	17.92			
10	16QAM	25	25	18.05	18.08	18.04	18.8		
10	16QAM	50	0	17.99	18.09	17.97			
10	64QAM	1	0	18.16	18.13	18.12			
10	64QAM	1	25	18.10	18.17	18.11			
10	64QAM	1	49	18.08	18.12	18.01	18.8		
10	64QAM	25	0	17.16	17.16	17.11			
10	64QAM	25	12	17.05	17.14	17.05			
10	64QAM	25	25	17.06	17.11	17.06			
10	64QAM	50	0	17.01	17.08	17.03	17.8		
Channel				25575	25595	25615	Tune-up limit (dBm)		
Frequency (MHz)				1852.5	1882.5	1912.5			
5	QPSK	1	0	19.95	19.98	19.89	20.8		
5	QPSK	1	12	19.83	19.91	19.82			
5	QPSK	1	24	19.79	19.80	19.80			
5	QPSK	12	0	19.07	19.07	19.05			
5	QPSK	12	7	19.00	19.11	19.04	19.8		
5	QPSK	12	13	19.05	19.02	19.06			
5	QPSK	25	0	18.99	19.03	18.96			
5	16QAM	1	0	19.25	19.26	19.19			
5	16QAM	1	12	19.16	19.25	19.24	19.8		
5	16QAM	1	24	19.09	19.17	19.15			
5	16QAM	12	0	18.03	18.05	18.01			
5	16QAM	12	7	18.00	18.05	17.97			
5	16QAM	12	13	18.09	18.10	18.09	18.8		
5	16QAM	25	0	18.00	18.05	18.02			
5	64QAM	1	0	18.16	18.16	18.17			
5	64QAM	1	12	18.04	18.16	18.11			
5	64QAM	1	24	18.11	18.14	18.04	18.8		
5	64QAM	12	0	17.13	17.17	17.09			
5	64QAM	12	7	17.05	17.18	17.04			
5	64QAM	12	13	17.13	17.13	17.10			
5	64QAM	25	0	17.01	17.08	17.02	17.8		
Channel				26065	26365	26665	Tune-up limit (dBm)		
Frequency (MHz)				1851.5	1882.5	1913.5			
3	QPSK	1	0	19.92	19.96	19.89	20.8		
3	QPSK	1	8	19.84	19.89	19.84			
3	QPSK	1	14	19.83	19.85	19.87			
3	QPSK	8	0	19.04	19.12	19.05			
3	QPSK	8	4	19.02	19.05	19.07	19.8		
3	QPSK	8	7	19.07	19.05	19.02			
3	QPSK	15	0	18.92	19.00	18.95			
3	16QAM	1	0	19.24	19.29	19.25			
3	16QAM	1	8	19.20	19.25	19.21	19.8		
3	16QAM	1	14	19.11	19.19	19.16			
3	16QAM	8	0	18.01	18.06	18.01			
3	16QAM	8	4	18.02	18.01	17.95			
3	16QAM	8	7	18.02	18.04	18.02	18.8		
3	16QAM	15	0	18.00	18.06	18.00			
3	64QAM	1	0	18.11	18.16	18.15			
3	64QAM	1	8	18.03	18.11	18.08			
3	64QAM	1	14	18.10	18.11	18.04	18.8		
3	64QAM	8	0	17.16	17.19	17.13			
3	64QAM	8	4	17.09	17.11	17.07			
3	64QAM	8	7	17.12	17.10	17.07			
3	64QAM	15	0	17.00	17.07	17.08	17.8		
Channel				26047	26365	26663	Tune-up limit (dBm)		
Frequency (MHz)				1850.7	1882.5	1914.3			
1.4	QPSK	1	0	19.93	19.95	19.93	20.8		
1.4	QPSK	1	5	19.85	19.87	19.79			
1.4	QPSK	1	5	19.80	19.84	19.81			
1.4	QPSK	3	0	19.95	20.02	19.94			
1.4	QPSK	3	1	19.92	19.95	19.96	19.8		
1.4	QPSK	3	3	19.94	19.97	19.96			
1.4	QPSK	6	0	18.95	19.01	18.92			
1.4	16QAM	1	0	19.30	19.32	19.19			
1.4	16QAM	1	3	19.14	19.25	19.21	19.8		
1.4	16QAM	1	6	19.06	19.16	19.16			
1.4	16QAM	3	0	19.00	19.05	18.99			
1.4	16QAM	3	1	18.93	18.99	18.85			
1.4	16QAM	3	3	18.97	18.97	18.92	18.8		
1.4	16QAM	6	0	18.07	18.12	18.07			
1.4	16QAM	3	1	18.03	18.10	18.05			
1.4	16QAM	3	1	17.97	18.02	17.99			
1.4	16QAM	3	3	18.02	18.01	17.99	17.8		
1.4	16QAM	3	6	17.00	17.08	17.07			



Band 66 (dBm)_Ant4									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)		
Channel				132072	132322	132572			
Frequency (MHz)				1720	1745	1770			
20	QPSK	1	0	20.29	20.40	20.31	21.1		
20	QPSK	1	40	20.20	20.27	20.24			
20	QPSK	1	99	20.17	20.24	20.21			
20	QPSK	50	0	19.29	19.31	19.28			
20	QPSK	50	24	19.31	19.37	19.35	20.1		
20	QPSK	50	50	19.21	19.29	19.26			
20	QPSK	100	0	19.34	19.36	19.31			
20	16QAM	1	0	19.54	19.62	19.56			
20	16QAM	1	40	19.56	19.60	19.55	20.1		
20	16QAM	1	99	19.50	19.57	19.51			
20	16QAM	50	0	18.34	18.36	18.30			
20	16QAM	50	24	18.25	18.31	18.24			
20	16QAM	50	50	18.31	18.35	18.32	19.1		
20	16QAM	100	0	18.30	18.33	18.29			
20	64QAM	1	0	18.55	18.60	18.56			
20	64QAM	1	40	18.54	18.57	18.49			
20	64QAM	1	99	18.52	18.54	18.47	19.1		
20	64QAM	50	0	17.32	17.40	17.35			
20	64QAM	50	24	17.30	17.38	17.32			
20	64QAM	50	50	17.28	17.36	17.32			
20	64QAM	100	0	17.29	17.36	17.30	18.1		
Channel				132047	132322	132597			
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	0	20.28	20.31	20.30	21.1		
15	QPSK	1	37	20.12	20.26	20.22			
15	QPSK	1	74	20.10	20.16	20.18			
15	QPSK	36	0	19.23	19.26	19.22			
15	QPSK	36	20	19.27	19.32	19.33	20.1		
15	QPSK	36	39	19.16	19.24	19.20			
15	QPSK	75	0	19.31	19.33	19.25			
15	16QAM	1	0	19.50	19.61	19.52			
15	16QAM	1	37	19.54	19.58	19.51	20.1		
15	16QAM	1	74	19.47	19.56	19.43			
15	16QAM	36	0	18.29	18.33	18.28			
15	16QAM	36	20	18.21	18.24	18.21			
15	16QAM	36	39	18.28	18.28	18.26	19.1		
15	16QAM	75	0	18.24	18.27	18.24			
15	64QAM	1	0	18.48	18.59	18.50			
15	64QAM	1	37	18.46	18.50	18.47			
15	64QAM	1	74	18.48	18.53	18.45	19.1		
15	64QAM	36	0	17.29	17.32	17.32			
15	64QAM	36	20	17.27	17.36	17.27			
15	64QAM	36	39	17.25	17.31	17.30			
15	64QAM	75	0	17.28	17.29	17.26	18.1		
Channel				132022	132322	132622			
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	0	20.21	20.26	20.30	21.1		
10	QPSK	1	20	20.15	20.25	20.18			
10	QPSK	1	40	20.12	20.21	20.18			
10	QPSK	25	0	19.20	19.30	19.19			
10	QPSK	25	12	19.29	19.36	19.29	20.1		
10	QPSK	25	25	19.19	19.21	19.19			
10	QPSK	50	0	19.30	19.27	19.24			
10	16QAM	1	0	19.49	19.55	19.51			
10	16QAM	1	25	19.51	19.54	19.52	20.1		
10	16QAM	1	40	19.43	19.49	19.45			
10	16QAM	25	0	18.26	18.30	18.28			
10	16QAM	25	12	18.22	18.24	18.22			
10	16QAM	25	25	18.24	18.29	18.29	19.1		
10	16QAM	50	0	18.22	18.23	18.21			
10	64QAM	1	0	18.47	18.56	18.52			
10	64QAM	1	25	18.52	18.50	18.43			
10	64QAM	1	40	18.48	18.50	18.46	19.1		
10	64QAM	25	0	17.28	17.34	17.34			
10	64QAM	25	12	17.29	17.36	17.28			
10	64QAM	25	25	17.26	17.28	17.30			
10	64QAM	50	0	17.24	17.34	17.26	18.1		
Channel				131997	132322	132647			
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	0	20.24	20.32	20.29	21.1		
5	QPSK	1	12	20.16	20.24	20.19			
5	QPSK	1	24	20.14	20.21	20.15			
5	QPSK	12	0	19.24	19.30	19.23			
5	QPSK	12	7	19.27	19.33	19.27	20.1		
5	QPSK	12	13	19.14	19.24	19.21			
5	QPSK	25	0	19.31	19.28	19.27			
5	QPSK	25	0	19.31	19.28	19.27			
5	16QAM	1	0	19.47	19.55	19.50	20.1		
5	16QAM	1	12	19.55	19.53	19.52			
5	16QAM	1	24	19.43	19.51	19.49			
5	16QAM	12	0	18.33	18.28	18.25			
5	16QAM	12	7	18.17	18.26	18.18	19.1		
5	16QAM	12	13	18.24	18.29	18.24			
5	16QAM	25	0	18.24	18.31	18.21			
5	64QAM	1	0	18.52	18.58	18.51			
5	64QAM	1	12	18.46	18.56	18.41	19.1		
5	64QAM	1	24	18.46	18.46	18.44			
5	64QAM	12	0	17.29	17.36	17.29			
5	64QAM	12	7	17.27	17.33	17.30			
5	64QAM	12	13	17.25	17.32	17.26	18.1		
5	64QAM	25	0	17.28	17.33	17.23			
Channel				131972	132322	132637			
Frequency (MHz)				1711.5	1745	1778.5			
3	QPSK	1	0	20.27	20.30	20.25	21.1		
3	QPSK	1	8	20.19	20.25	20.16			
3	QPSK	1	14	20.12	20.17	20.20			
3	QPSK	8	0	19.22	19.23	19.20			
3	QPSK	8	4	19.28	19.34	19.34	20.1		
3	QPSK	8	7	19.18	19.22	19.21			
3	QPSK	15	0	19.33	19.33	19.25			
3	16QAM	1	0	19.49	19.55	19.48			
3	16QAM	1	8	19.51	19.56	19.51	20.1		
3	16QAM	1	14	19.44	19.54	19.43			
3	16QAM	8	0	18.29	18.33	18.27			
3	16QAM	8	4	18.20	18.23	18.22			
3	16QAM	8	7	18.24	18.31	18.26	19.1		
3	16QAM	15	0	18.25	18.29	18.25			
3	64QAM	1	0	18.49	18.55	18.51			
3	64QAM	1	8	18.46	18.49	18.44			
3	64QAM	1	14	18.46	18.50	18.41	19.1		
3	64QAM	8	0	17.26	17.32	17.30			
3	64QAM	8	4	17.23	17.30	17.29			
3	64QAM	8	7	17.22	17.28	17.31			
3	64QAM	15	0	17.28	17.29	17.27	18.1		
Channel				131879	132322	132695			
Frequency (MHz)				1710.7	1745	1779.3			
1.4	QPSK	1	0	20.25	20.32	20.25	21.1		
1.4	QPSK	1	3	20.13	20.26	20.23			
1.4	QPSK	1	5	20.12	20.22	20.18			
1.4	QPSK	3	0	20.14	20.20	20.14			
1.4	QPSK	3	1	20.18	20.24	20.19	20.1		
1.4	QPSK	3	3	20.09	20.17	20.14			
1.4	QPSK	6	0	19.32	19.34	19.23			
1.4	16QAM	1	0	19.52	19.54	19.54	20.1		
1.4	16QAM	1	3	19.43	19.54	19.51			
1.4	16QAM	1	5	19.43	19.50	19.48			
1.4	16QAM	3	0	19.19	19.20	19.13			
1.4	16QAM	3	3	19.16	19.24	19.15	19.1		
1.4	16QAM	6	0	18.52	18.52	18.24			
1.4	64QAM	1	0	18.54	18.57	18.54			
1.4	64QAM	1	3	18.53	18.55	18.45			
1.4	64QAM	1	5	18.46	18.49	18.40	19.1		
1.4	64QAM	3	0	18.20	18.26	18.24			
1.4	64QAM	3	1	18.16	18.26	18.19			
1.4	64QAM	3	3	18.12	18.23	18.21			
1.4	64QAM	3	5	17.26	17.32	17.26	18.1		



Band 41 (2496~2690MHz) (dBm)-PC2_Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2501	2549.5	2593	2636.5	2680		
20	QPSK	1	0	15.35	15.33	15.64	15.60	15.58	16.4	
20	QPSK	1	49	15.21	15.28	15.59	15.57	15.53		
20	QPSK	1	99	15.28	15.28	15.62	15.58	15.56		
20	QPSK	50	0	14.43	14.39	14.05	14.58	14.51		
20	QPSK	50	24	14.40	14.32	14.62	14.50	14.47	15.4	
20	QPSK	50	50	14.30	14.37	14.58	14.47	14.50		
20	QPSK	100	0	14.37	14.36	14.55	14.56	14.49		
20	16QAM	1	0	14.56	14.62	14.53	14.50	14.91		
20	16QAM	1	49	14.35	14.53	14.50	14.82	14.89	15.4	
20	16QAM	1	99	14.52	14.54	14.89	14.85	14.81		
20	16QAM	50	0	13.48	13.49	13.83	13.81	13.75		
20	16QAM	50	24	13.41	13.43	13.79	13.74	13.75		
20	16QAM	50	50	13.45	13.45	13.81	13.74	13.78	14.4	
20	16QAM	100	0	13.40	13.44	13.77	13.72	13.71		
20	64QAM	1	0	13.38	13.40	13.72	13.64	13.64		
20	64QAM	1	49	13.35	13.34	13.71	13.64	13.67		
20	64QAM	1	99	13.40	13.40	13.76	13.71	13.71	14.4	
20	64QAM	50	0	12.44	12.46	12.78	12.76	12.73		
20	64QAM	50	24	12.44	12.45	12.76	12.68	12.70		
20	64QAM	50	50	12.49	12.43	12.80	12.74	12.79		
20	64QAM	100	0	12.40	12.41	12.78	12.77	12.74	13.4	
Channel				2501.5	2511.5	2521	2531.5	2541.5		
Frequency (MHz)				2501.5	2549.5	2593	2637.5	2682.5		
15	QPSK	1	0	15.33	15.26	15.58	15.57	15.57	16.4	
15	QPSK	1	37	15.14	15.22	15.53	15.52	15.52		
15	QPSK	1	74	15.26	15.24	15.58	15.56	15.48		
15	QPSK	36	0	14.39	14.36	14.72	14.62	14.70		
15	QPSK	36	20	14.34	14.35	14.68	14.62	14.59	15.4	
15	QPSK	36	39	14.28	14.38	14.63	14.54	14.60		
15	QPSK	75	0	14.29	14.33	14.72	14.62	14.65		
15	16QAM	1	0	14.54	14.59	14.85	14.83	14.88		
15	16QAM	1	37	14.51	14.45	14.83	14.76	14.81	15.4	
15	16QAM	1	74	14.50	14.48	14.82	14.82	14.75		
15	16QAM	36	0	13.40	13.46	13.81	13.77	13.68		
15	16QAM	36	20	13.36	13.37	13.71	13.70	13.72		
15	16QAM	36	39	13.44	13.38	13.79	13.67	13.70	14.4	
15	16QAM	75	0	13.34	13.37	13.76	13.64	13.67		
15	64QAM	1	0	13.35	13.38	13.68	13.56	13.63		
15	64QAM	1	37	13.29	13.29	13.68	13.60	13.62		
15	64QAM	1	74	13.39	13.38	13.72	13.65	13.65	14.4	
15	64QAM	36	0	12.42	12.46	12.74	12.72	12.67		
15	64QAM	36	20	12.40	12.43	12.74	12.62	12.67		
15	64QAM	36	39	12.43	12.39	12.72	12.67	12.72		
15	64QAM	75	0	12.35	12.38	12.74	12.76	12.69	13.4	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	15.28	15.32	15.57	15.55	15.56	16.4	
10	QPSK	1	25	15.17	15.26	15.57	15.50	15.48		
10	QPSK	1	49	15.27	15.22	15.54	15.57	15.52		
10	QPSK	25	0	14.35	14.32	14.71	14.63	14.70		
10	QPSK	25	12	14.37	14.37	14.66	14.63	14.64	15.4	
10	QPSK	25	25	14.26	14.31	14.67	14.63	14.64		
10	QPSK	50	0	14.35	14.35	14.66	14.60	14.68		
10	16QAM	1	0	14.49	14.59	14.87	14.89	14.84		
10	16QAM	1	25	14.47	14.47	14.89	14.79	14.88	15.4	
10	16QAM	1	49	14.48	14.52	14.87	14.78	14.90		
10	16QAM	25	0	13.43	13.42	13.81	13.74	13.72		
10	16QAM	25	12	13.40	13.40	13.71	13.71	13.72		
10	16QAM	25	25	13.40	13.39	13.74	13.68	13.71	14.4	
10	16QAM	50	0	13.32	13.41	13.71	13.70	13.65		
10	64QAM	1	0	13.31	13.37	13.68	13.56	13.61		
10	64QAM	1	25	13.32	13.28	13.69	13.63	13.62		
10	64QAM	1	49	13.36	13.33	13.75	13.67	13.67	14.4	
10	64QAM	25	0	12.39	12.39	12.72	12.68	12.68		
10	64QAM	25	12	12.43	12.40	12.69	12.64	12.65		
10	64QAM	25	25	12.45	12.35	12.72	12.70	12.77		
10	64QAM	50	0	12.35	12.38	12.76	12.71	12.71	13.4	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2501.5	2547.5	2593	2639.5	2685.5		
5	QPSK	1	0	15.33	15.28	15.53	15.56	15.51	16.4	
5	QPSK	1	12	15.16	15.27	15.54	15.54	15.47		
5	QPSK	1	24	15.22	15.21	15.57	15.52	15.54		
5	QPSK	12	0	14.41	14.34	14.74	14.65	14.65		
5	QPSK	12	7	14.39	14.31	14.71	14.69	14.65	15.4	
5	QPSK	12	13	14.29	14.30	14.64	14.62	14.60		
5	QPSK	25	0	14.29	14.34	14.72	14.61	14.69		
5	16QAM	1	0	14.54	14.60	14.85	14.86	14.87		
5	16QAM	1	12	14.50	14.47	14.89	14.74	14.84	15.4	
5	16QAM	1	24	14.44	14.49	14.82	14.82	14.80		
5	16QAM	12	0	13.47	13.41	13.81	13.73	13.70		
5	16QAM	12	7	13.36	13.40	13.75	13.73	13.72		
5	16QAM	12	13	13.44	13.42	13.76	13.67	13.75	14.4	
5	16QAM	25	0	13.36	13.40	13.69	13.67	13.64		
5	64QAM	1	0	13.34	13.37	13.69	13.61	13.60		
5	64QAM	1	12	13.31	13.31	13.64	13.61	13.60		
5	64QAM	1	24	13.34	13.35	13.73	13.64	13.70	14.4	
5	64QAM	12	0	12.37	12.38	12.73	12.68	12.68		
5	64QAM	12	7	12.38	12.37	12.73	12.63	12.63		
5	64QAM	12	13	12.48	12.41	12.78	12.70	12.72		
5	64QAM	25	0	12.39	12.38	12.70	12.70	12.70	13.4	

Band 41 (2496~2690MHz) (dBm)-PC3_Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	14.79	14.70	15.16	15.14	15.11	15.8	
20	QPSK	1	49	14.69	14.67	15.14	15.09	15.09		
20	QPSK	1	99	14.69	14.65	15.12	15.06	15.07		
20	QPSK	50	0	13.70	13.76	14.18	14.16	14.13		
20	QPSK	50	24	13.72	13.72	14.17	14.13	14.11	14.8	
20	QPSK	50	50	13.73	13.74	14.15	14.07	14.13		
20	QPSK	100	0	13.71	13.73	14.18	14.17	14.12		
20	16QAM	1	0	13.64	13.68	14.05	14.04	14.01		
20	16QAM	1	49	13.57	13.60	14.04	13.97	13.96	14.8	
20	16QAM	1	99	13.70	13.70	14.14	14.12	14.13		
20	16QAM	50	0	12.65	12.65	13.12	13.09	13.09		
20	16QAM	50	24	12.75	12.72	13.20	13.12	13.17		
20	16QAM	50	50	12.76	12.76	13.18	13.17	13.17	13.8	
20	16QAM	100	0	12.70	12.68	13.14	13.06	13.08		
20	64QAM	1	0	12.44	12.47	12.92	12.89	12.91		
20	64QAM	1	49	12.41	12.45	12.88	12.81	12.81		
20	64QAM	1	99	12.49	12.55	12.96	12.89	12.94	13.8	
20	64QAM	50	0	11.79	11.79	12.20	12.12	12.15		
20	64QAM	50	24	11.86	11.83	12.27	12.19	12.21		
20	64QAM	50	50	11.78	11.80	12.24	12.17	12.23	12.8	
20	64QAM	100	0	11.76	11.76	12.22	12.21	12.17		
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	14.75	14.64	15.09	15.13	15.05	15.8	
15	QPSK	1	37	14.64	14.61	15.11	15.08	15.07		
15	QPSK	1	74	14.65	14.63	15.10	15.04	15.06		
15	QPSK	1	74	13.64	13.72	14.13	14.09	14.11		
15	QPSK	36	0	13.70	13.70	14.13	14.10	14.05	14.8	
15	QPSK	36	39	13.69	13.66	14.13	14.05	14.07		
15	QPSK	75	0	13.64	13.66	14.11	14.10	14.05		
15	16QAM	1	0	13.63	13.62	14.02	14.01	14.00		
15	16QAM	1	37	13.51	13.53	14.01	13.90	13.89	14.8	
15	16QAM	1	74	13.68	13.63	14.08	14.07	14.06		
15	16QAM	36	0	12.60	12.63	13.09	13.08	13.08		
15	16QAM	36	20	12.67	12.68	13.19	13.06	13.12		
15	16QAM	36	39	12.69	12.72	13.14	13.14	13.10	13.8	
15	16QAM	75	0	12.65	12.66	13.09	13.05	13.03		
15	64QAM	1	0	12.41	12.44	12.87	12.83	12.89		
15	64QAM	1	37	12.34	12.40	12.86	12.77	12.74		
15	64QAM	1	74	12.43	12.46	12.86	12.86	12.87	13.8	
15	64QAM	36	0	11.74	11.75	12.13	12.11	12.11		
15	64QAM	36	20	11.79	11.77	12.24	12.18	12.16		
15	64QAM	36	39	11.75	11.79	12.17	12.14	12.15		
15	64QAM	75	0	11.75	11.74	12.19	12.14	12.14	12.8	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	14.76	14.63	15.14	15.09	15.03	15.8	
10	QPSK	1	25	14.66	14.63	15.06	15.04	15.05		
10	QPSK	1	49	14.61	14.61	15.01	15.00	15.08		
10	QPSK	25	0	13.66	13.71	14.17	14.15	14.11		
10	QPSK	25	12	13.64	13.67	14.15	14.12	14.07	14.8	
10	QPSK	25	25	13.68	13.68	14.08	14.00	14.09		
10	QPSK	50	0	13.67	13.70	14.10	14.15	14.09		
10	16QAM	1	0	13.56	13.53	13.97	13.99	13.99		
10	16QAM	1	25	13.49	13.51	13.98	13.84	13.87	13.8	
10	16QAM	1	49	13.67	13.65	14.12	14.08	14.10		
10	16QAM	25	0	12.59	12.62	13.09	13.03	13.06		
10	16QAM	25	12	12.72	12.64	13.16	13.05	13.13		
10	16QAM	25	25	12.68	12.75	13.13	13.09	13.13	13.8	
10	16QAM	50	0	12.64	12.64	13.10	13.00	13.00		
10	64QAM	1	0	12.41	12.42	12.85	12.83	12.84		
10	64QAM	1	25	12.33	12.39	12.84	12.73	12.77		
10	64QAM	1	49	12.44	12.47	12.84	12.82	12.86	13.8	
10	64QAM	25	0	11.76	11.73	12.19	12.10	12.10		
10	64QAM	25	12	11.78	11.78	12.22	12.11	12.20		
10	64QAM	25	25	11.76	11.73	12.16	12.12	12.22		
10	64QAM	50	0	11.74	11.68	12.18	12.14	12.12	12.8	
Channel				39675	40148	40620	41093	41605		
Frequency (MHz)				2498.5	2543.3	2593	2639.8	2690		
8	QPSK	1	1	14.71	14.62	15.15	15.07	15.04	15.8	
8	QPSK	1	12	14.67	14.62	15.08	15.01	15.01		
8	QPSK	1	24	14.64	14.61	15.05	14.98	15.02		
8	QPSK	12	7	13.67	13.75	14.17	14.14	14.10		
8	QPSK	12	7	13.67	13.66	14.13	14.10	14.03	14.8	
8	QPSK	12	13	13.66	13.69	14.10	14.01	14.06		
8	QPSK	12	13	13.67	13.70	14.11	14.13	14.07		
8	16QAM	1	0	13.56	13.50	14.02	14.02	13.97		
8	16QAM	1	12	13.56	13.58	14.00	13.91	13.89	14.8	
8	16QAM	1	24	13.69	13.68	14.13	14.10	14.05		
8	16QAM	12	12	12.60	12.57	13.09	13.01	13.03		
8	16QAM	12	7	12.69	12.64	13.18	13.05	13.13		
8	16QAM	25	13	12.71	12.77	13.17	13.13	13.14	13.8	
8	16QAM	25	4	12.65	12.63	13.10	13.00	13.07		
8	64QAM	1	0	12.43	12.39	12.87	12.84	12.85		
8	64QAM	1	12	12.34	12.38	12.85	12.76	12.75		
8	64QAM	1	24	12.42	12.49	12.94	12.84	12.90	13.8	
8	64QAM	12	6	11.78	11.76	12.15	12.07	12.10		
8	64QAM	12	7	11.81	11.78	12.26	12.13	12.15		
8	64QAM	12	13	11.73	11.73	12.23	12.14	12.16		
8	64QAM	12	0	11.92	11.71	12.17	12.13	12.09	12.8	



Band 48 (3.5G Band) (dBm)_Ant4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Middle-Low Channel	Middle-Low Channel	Middle-High Channel	High Channel	Tune-up limit (dBm)
Channel				55340	55930	55990	56150	56640	
Frequency (MHz)				3660	3609	3625	3641	3690	
20	QPSK	1	0	14.75	14.67	14.81	14.74	14.78	15.3
20	QPSK	1	49	14.74	14.66	14.79	14.72	14.72	
20	QPSK	1	99	14.71	14.62	14.75	14.71	14.70	
20	QPSK	50	0	13.74	13.67	13.78	13.73	13.77	
20	QPSK	50	24	13.67	13.63	13.75	13.67	13.73	
20	QPSK	50	50	13.67	13.64	13.74	13.70	13.71	14.3
20	QPSK	100	0	13.64	13.55	13.69	13.64	13.65	
20	16QAM	1	0	13.60	13.51	13.68	13.60	13.62	
20	16QAM	1	49	13.62	13.52	13.67	13.61	13.66	
20	16QAM	1	99	13.56	13.52	13.64	13.57	13.60	
20	16QAM	50	0	12.67	12.60	12.70	12.65	12.64	13.3
20	16QAM	50	24	12.61	12.55	12.66	12.64	12.65	
20	16QAM	50	50	12.59	12.52	12.67	12.65	12.63	
20	16QAM	100	0	12.65	12.50	12.67	12.60	12.62	
20	64QAM	1	0	12.50	12.40	12.54	12.48	12.49	
20	64QAM	1	49	12.45	12.37	12.52	12.48	12.48	13.3
20	64QAM	1	99	12.47	12.38	12.53	12.51	12.48	
20	64QAM	50	0	11.64	11.56	11.71	11.68	11.63	
20	64QAM	50	24	11.66	11.60	11.70	11.63	11.63	
20	64QAM	50	50	11.65	11.58	11.68	11.62	11.64	
20	64QAM	100	0	11.62	11.56	11.66	11.63	11.57	
Channel				56315	56905	56965	57125	57615	
Frequency (MHz)				3557.5	3608	3625	3642	3692.5	Tune-up limit (dBm)
15	QPSK	1	0	14.71	14.63	14.77	14.69	14.72	15.3
15	QPSK	1	37	14.73	14.61	14.76	14.67	14.70	
15	QPSK	1	74	14.66	14.61	14.70	14.70	14.66	
15	QPSK	36	0	13.70	13.64	13.72	13.72	13.69	
15	QPSK	36	20	13.61	13.55	13.70	13.63	13.71	
15	QPSK	36	39	13.59	13.57	13.68	13.68	13.65	14.3
15	QPSK	75	0	13.62	13.52	13.65	13.59	13.64	
15	16QAM	1	0	13.54	13.43	13.65	13.54	13.56	
15	16QAM	1	37	13.55	13.45	13.61	13.59	13.63	
15	16QAM	1	74	13.51	13.50	13.57	13.56	13.53	
15	16QAM	36	0	12.63	12.52	12.66	12.61	12.58	13.3
15	16QAM	36	20	12.54	12.52	12.60	12.63	12.61	
15	16QAM	36	39	12.56	12.46	12.54	12.61	12.60	
15	16QAM	75	0	12.61	12.47	12.62	12.59	12.61	
15	64QAM	1	0	12.46	12.32	12.53	12.42	12.48	
15	64QAM	1	37	12.41	12.29	12.48	12.47	12.44	13.3
15	64QAM	1	74	12.40	12.31	12.50	12.46	12.46	
15	64QAM	36	0	11.59	11.56	11.65	11.66	11.56	
15	64QAM	36	20	11.65	11.56	11.63	11.55	11.56	
15	64QAM	36	39	11.64	11.54	11.61	11.57	11.57	
15	64QAM	75	0	11.60	11.47	11.61	11.62	11.49	
Channel				55090	55616	55990	56165	56690	
Frequency (MHz)				3555	3607.5	3625	3642.5	3695	Tune-up limit (dBm)
10	QPSK	1	0	14.69	14.59	14.74	14.70	14.76	15.3
10	QPSK	1	25	14.67	14.64	14.74	14.65	14.69	
10	QPSK	1	49	14.67	14.57	14.74	14.68	14.65	
10	QPSK	25	0	13.69	13.64	13.73	13.65	13.72	
10	QPSK	25	12	13.66	13.57	13.71	13.65	13.66	
10	QPSK	25	25	13.62	13.60	13.70	13.67	13.68	14.3
10	QPSK	50	0	13.63	13.53	13.65	13.58	13.57	
10	16QAM	1	0	13.57	13.44	13.67	13.54	13.56	
10	16QAM	1	25	13.54	13.47	13.61	13.56	13.61	
10	16QAM	1	49	13.51	13.45	13.62	13.53	13.57	
10	16QAM	25	0	12.66	12.53	12.63	12.63	12.61	13.3
10	16QAM	25	12	12.56	12.51	12.65	12.62	12.64	
10	16QAM	25	25	12.58	12.44	12.60	12.63	12.62	
10	16QAM	50	0	12.59	12.47	12.66	12.53	12.54	
10	64QAM	1	0	12.45	12.37	12.46	12.45	12.48	
10	64QAM	1	25	12.37	12.36	12.45	12.44	12.38	13.3
10	64QAM	1	49	12.40	12.34	12.46	12.50	12.44	
10	64QAM	25	0	11.61	11.54	11.70	11.66	11.60	
10	64QAM	25	12	11.58	11.52	11.63	11.56	11.57	
10	64QAM	25	25	11.64	11.52	11.64	11.58	11.57	
10	64QAM	50	0	11.61	11.47	11.62	11.61	11.55	
Channel				55265	55810	55990	56170	56175	
Frequency (MHz)				3552.5	3603	3625	3643	3693.5	Tune-up limit (dBm)
5	QPSK	1	0	14.69	14.62	14.75	14.73	14.71	15.3
5	QPSK	1	12	14.66	14.62	14.73	14.69	14.67	
5	QPSK	1	24	14.70	14.54	14.68	14.64	14.69	
5	QPSK	12	0	13.73	13.64	13.74	13.71	13.76	
5	QPSK	12	7	13.63	13.58	13.69	13.59	13.66	
5	QPSK	12	13	13.60	13.56	13.72	13.62	13.66	14.3
5	QPSK	25	0	13.56	13.51	13.61	13.61	13.57	
5	16QAM	1	0	13.58	13.43	13.67	13.59	13.54	
5	16QAM	1	12	13.59	13.44	13.65	13.55	13.61	
5	16QAM	1	24	13.48	13.44	13.62	13.56	13.57	
5	16QAM	12	0	12.66	12.53	12.64	12.63	12.62	13.3
5	16QAM	12	7	12.59	12.51	12.65	12.56	12.59	
5	16QAM	12	13	12.51	12.45	12.65	12.58	12.61	
5	16QAM	25	0	12.59	12.49	12.65	12.59	12.54	
5	64QAM	1	0	12.49	12.33	12.47	12.40	12.48	
5	64QAM	1	12	12.40	12.35	12.48	12.46	12.44	13.3
5	64QAM	1	24	12.40	12.31	12.50	12.49	12.44	
5	64QAM	12	0	11.63	11.53	11.68	11.67	11.62	
5	64QAM	12	7	11.61	11.57	11.63	11.61	11.57	
5	64QAM	12	13	11.61	11.54	11.60	11.55	11.57	
5	64QAM	25	0	11.55	11.48	11.57	11.58	11.49	



n2 (1850 ~ 1910MHz)_ANT1							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	18.7
Frequency (MHz)				1860	1880	1900	
20	DFT-s-OFDM PI/2 BPSK	1	1	17.27	17.19	17.31	18.7
20		1	53	17.38	17.42	17.32	
20		1	104	17.11	17.24	17.26	
20		50	1	16.46	16.54	16.70	
20		50	25	16.75	16.55	16.66	
20		50	50	16.18	16.29	16.17	
20	DFT-s-OFDM QPSK	100	0	16.70	16.60	16.71	17.7
20		1	1	17.46	17.52	17.49	
20		1	53	17.41	17.47	17.43	
20		1	104	17.34	17.37	17.30	
20		50	1	17.00	17.08	17.05	
20		50	25	16.85	16.87	17.01	
20	DFT-s-OFDM 16QAM	50	50	16.02	16.89	16.30	17.7
20		100	0	16.75	16.59	16.60	
20	DFT-s-OFDM 16QAM	1	1	17.17	17.09	17.26	17.7
20	DFT-s-OFDM 64QAM	1	1	15.69	15.75	15.80	16.7
20	DFT-s-OFDM 256QAM	1	1	13.30	13.13	13.32	14.2
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	17.46	17.35	17.37	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	DFT-s-OFDM QPSK	1	1	17.50	17.47	17.36	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	DFT-s-OFDM QPSK	1	1	17.45	17.42	17.44	25.2
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	CP-OFDM QPSK	1	1	16.54	16.23	16.36	17.2
20	CP-OFDM 16QAM	1	1	16.18	16.07	16.15	17.2
20	CP-OFDM 64QAM	1	1	15.05	14.84	15.02	16.2
20	CP-OFDM 256QAM	1	1	11.23	11.33	11.34	12.2

n25_ANT1							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	376500	379000	18.2
Frequency (MHz)				1870	1882.5	1895	
40	DFT-s-OFDM PI/2 BPSK	1	1	16.99	17.05	17.02	17.2
40		1	53	16.91	17.00	17.01	
40		1	105	16.95	17.04	16.97	
40		50	1	16.15	16.07	16.21	
40		50	25	16.11	16.08	16.26	
40		50	50	16.04	16.09	16.31	
40	DFT-s-OFDM QPSK	100	0	16.13	16.06	16.28	25.2
40		1	1	17.06	17.07	17.03	
40		1	53	16.69	17.01	17.00	
40		1	105	16.98	17.04	17.01	
40		50	1	16.15	16.20	16.17	
40		50	25	16.12	16.16	16.12	
40	DFT-s-OFDM 16QAM	50	50	16.07	16.12	16.10	24.2
40		100	0	16.11	16.12	16.08	
40	DFT-s-OFDM 16QAM	1	1	16.24	16.45	16.25	17.2
40	DFT-s-OFDM 64QAM	1	1	14.88	14.93	14.89	16.2
40	DFT-s-OFDM 256QAM	1	1	12.46	12.50	12.44	13.7
Channel				373000	376500	380000	Tune-up limit (dBm)
Frequency (MHz)				1865	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	16.95	17.01	16.73	25.2
Channel				372000	376500	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	17.01	17.02	17.00	18.2
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	16.83	16.97	16.79	18.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	16.92	16.96	16.95	18.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	16.82	16.85	16.77	25.2
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	15.58	15.70	15.74	16.7
40	CP-OFDM 16QAM	1	1	15.26	15.16	15.27	15.7
40	CP-OFDM 64QAM	1	1	13.66	13.92	13.76	14.7
40	CP-OFDM 256QAM	1	1	10.45	10.40	10.46	11.2



n66 (1710 ~ 1780 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				346000	349000	352000	
Frequency (MHz)				1730	1745	1760	
40	DFT-s-OFDM PI/2 BPSK	1	1	18.11	18.18	18.01	19.2
40		1	53	18.10	18.15	18.14	
40		1	104	18.07	18.10	18.05	
40		53	1	17.16	17.41	17.35	18.2
40		53	26	17.35	17.46	17.28	
40		53	52	17.34	17.48	17.29	
40	DFT-s-OFDM QPSK	106	0	17.33	17.41	17.35	19.2
40		1	1	18.21	18.27	18.24	
40		1	53	18.19	18.22	18.21	
40		1	104	18.21	18.26	18.17	18.2
40		53	1	17.34	17.49	17.46	
40		53	26	17.43	17.52	17.44	
40	DFT-s-OFDM 16QAM	53	52	17.45	17.48	17.45	18.2
40		106	0	16.97	17.29	17.25	
40		1	1	17.23	17.27	17.29	
40	DFT-s-OFDM 64QAM	1	1	15.96	16.00	15.97	17.2
40	DFT-s-OFDM 256QAM	1	1	13.43	13.59	13.51	14.7
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	18.26	18.15	18.18	19.2
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	18.11	18.19	18.05	19.2
Channel				343000	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	18.03	18.24	17.96	19.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	18.19	18.02	17.97	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	17.33	17.25	17.47	25.2
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1760	
40	CP-OFDM QPSK	1	1	16.76	16.74	16.63	17.7
40	CP-OFDM 16QAM	1	1	16.25	16.29	15.99	16.7
40	CP-OFDM 64QAM	1	1	14.95	14.88	14.76	15.7
40	CP-OFDM 256QAM	1	1	11.47	11.55	11.62	12.2



n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT3												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Medium/High Channel	High Channel	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1			22.53			23.7			
100		1	136			22.48						
100		1	271			22.41						
100		136	1			21.75						
100		136	67			21.73						
100		136	136			21.68			22.7			
100		270	0			21.62						
100		1	1			22.73						
100		1	136			22.66						
100		1	271			22.56						
100	DFT-s-OFDM PUSCH	1	1			21.59			23.7			
100		136	1			21.85						
100		136	67			21.75						
100		136	136			21.68						
100		270	0			21.89						
100		1	1			21.42			22.7			
100		1	1			20.38						
100		1	1			20.38						
100		1	1			17.67						
Channel												
Frequency (MHz)												
90		DFT-s-OFDM PUSCH	1	1	633006	634164	633834	633900		633666	Tune-up limit (dBm)	
90	1		1	3495	3497.52	3500.01	3502.5	3504.98				
Channel												
Frequency (MHz)												
80	1		1	22.70	22.73	22.66	22.65	22.61	23.7			
Channel												
Frequency (MHz)												
80	1		1	22.72	22.63	22.69	22.72	22.43	23.7			
Channel												
Frequency (MHz)												
70	DFT-s-OFDM PUSCH		1	1	3485.01	3490.51	3488.01	3507.48	3514.98	Tune-up limit (dBm)		
70			1	1	22.56	22.61	22.68	22.64	22.61	23.7		
Channel												
Frequency (MHz)												
60		1	1	22.69	22.58	22.55	22.70	22.63	23.7			
Channel												
Frequency (MHz)												
60		1	1	22.69	22.58	22.55	22.70	22.63	23.7			
Channel												
Frequency (MHz)												
50		DFT-s-OFDM PUSCH	1	1	3415.02	3421.52	3418.01	3508.01	3515.01	Tune-up limit (dBm)		
50			1	1	22.60	22.61	22.72	22.70	22.58	22.7		
Channel												
Frequency (MHz)												
40	1		1	3413.04	3420.04	3418.04	3504.02	3510.02	Tune-up limit (dBm)			
40	1		1	3410.01	3416.51	3418.51	3514.56	3520.56				
Channel												
Frequency (MHz)												
40	1		1	22.64	22.71	22.71	22.63	22.49	22.7			
Channel												
Frequency (MHz)												
30	DFT-s-OFDM PUSCH		1	1	3405	3406.52	3400.01	3517.5	3524.99	Tune-up limit (dBm)		
30		1	1	22.66	22.71	22.66	22.67	22.58	23.7			
Channel												
Frequency (MHz)												
20		1	1	630066	632000	633011	634966	636000	Tune-up limit (dBm)			
20		1	1	3400.00	3400.50	3400.52	3515.50	3516.00	23.7			
Channel												
Frequency (MHz)												
20		DFT-s-OFDM PUSCH	1	1	22.68	22.71	22.69	22.59	22.50	23.7		
Channel												
RB Size												
RB Offset												
Low Channel												
Low/Middle Channel												
Middle Channel												
Medium/High Channel												
High Channel												
Tune-up limit (dBm)												
100	OFDM CP-OFDM 100MHz	1	1			20.83			21.7			
100		1	1			20.39			21.7			
100		1	1			19.04			19.7			
100		1	1			15.75			16.7			
100		1	1									

n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT3												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Medium/High Channel	High Channel	Tune up limit (dBm)			
Channel												
Frequency (MHz)												
100	DFT-s-OFDM PUSCH	1	1		3500.01				22.2			
100		1	136		21.23							
100		1	271		21.29							
100		136	1		20.29							
100		136	67		20.18							
100		136	136		20.11				21.2			
100		270	0		20.04							
100		1	1		21.38							
100		1	136		21.30							
100		1	271		21.29							
100	DFT-s-OFDM CP-OFDM	1	1		20.22				22.2			
100		136	1		20.15							
100		136	67		20.18							
100		136	136		20.10					21.2		
100		270	0		20.19							
100		1	1		20.22							
100		DFT-s-OFDM SC-FDMA	1	1		20.23					20.2	
100		DFT-s-OFDM SC-FDMA	1	1		18.38						
Channel												
Frequency (MHz)												
90		DFT-s-OFDM PUSCH	1	1	21.25	3457.52	3500.01	3500.5	3504.96	Tune-up limit (dBm)		
Channel												
Frequency (MHz)												
80	1		1	21.30	3460.92	3500.01	3500.99	3504.96	22.2			
Channel												
Frequency (MHz)												
70	1		1	21.23	3463.91	3500.01	3500.99	3504.96	Tune-up limit (dBm)			
Channel												
Frequency (MHz)												
60	1		1	21.17	3466.91	3500.01	3500.99	3504.96	22.2			
Channel												
Frequency (MHz)												
50	1	1	21.28	3469.92	3500.01	3500.99	3504.96	Tune-up limit (dBm)				
Channel												
Frequency (MHz)												
40	1	1	21.29	3472.93	3500.01	3500.99	3504.96	22.2				
Channel												
Frequency (MHz)												
30	1	1	21.25	3475.94	3500.01	3500.99	3504.96	22.2				
Channel												
Frequency (MHz)												
20	1	1	21.27	3478.95	3500.01	3500.99	3504.96	22.2				
Channel												
Frequency (MHz)												
100	DFT-s-OFDM CP-OFDM	1	1		3500.01				Tune-up limit (dBm)			
100		1	1		20.02				20.7			
100		1	1		19.35				20.7			
100		1	1		17.92				18.7			
100		1	1		16.01				16.7			



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT3													
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
100	DFT-s-OFDM PUSCH	1	1	16.20	16.17	16.28	16.22	16.26	17.2				
100		1	136	16.19	16.13	16.16	16.20	16.10					
100		1	271	16.19	15.99	16.19	15.99	16.09					
100		136	1	15.13	15.17	15.19	15.11	15.12					
100		136	67	15.05	15.18	15.17	15.03	15.12					
100		136	136	14.92	14.96	14.91	14.88	14.86					
100		270	0	15.12	15.01	14.97	15.05	14.84					
100		1	1	16.29	16.21	16.38	16.25	16.30					
100		1	136	16.26	16.20	16.32	16.21	16.11					
100		1	271	16.24	16.05	16.30	16.03	16.06					
100	DFT-s-OFDM CP-ICH	136	1	15.15	15.11	15.20	15.23	15.18	17.2				
100		136	67	15.14	15.05	15.22	15.20	15.11					
100		136	136	14.93	15.12	15.01	14.98	14.89					
100		270	0	14.96	14.88	15.07	14.95	15.01					
100		1	1	14.30	14.47	14.55	14.53	14.56					
100		1	1	12.98	13.01	13.13	13.05	13.06					
100		1	1	10.78	10.70	10.82	10.80	10.75					
Channel													
Frequency (MHz)													
90	DFT-s-OFDM PUSCH	1	1	16.05	16.08	16.19	16.17	16.13	17.2				
Channel													
Frequency (MHz)													
80	DFT-s-OFDM PUSCH	1	1	16.15	16.09	16.22	16.06	16.13	17.2				
Channel													
Frequency (MHz)													
70	DFT-s-OFDM PUSCH	1	1	16.13	15.93	16.28	16.24	16.13	17.2				
Channel													
Frequency (MHz)													
60	DFT-s-OFDM PUSCH	1	1	16.05	16.22	16.27	16.17	16.22	17.2				
Channel													
Frequency (MHz)													
50	DFT-s-OFDM PUSCH	1	1	15.90	16.08	16.30	16.26	16.23	16.2				
Channel													
Frequency (MHz)													
40	DFT-s-OFDM PUSCH	1	1	16.13	16.16	16.32	16.22	16.30	16.2				
Channel													
Frequency (MHz)													
30	DFT-s-OFDM PUSCH	1	1	16.14	16.22	16.30	16.23	16.25	17.2				
Channel													
Frequency (MHz)													
20	DFT-s-OFDM PUSCH	1	1	16.27	16.25	16.31	16.30	16.29	17.2				
Channel													
Frequency (MHz)													
Channel													
Frequency (MHz)													
100	CP-OFDM PUSCH	1	1	13.97	14.09	14.32	14.19	14.02	15.2				
100	CP-OFDM PUSCH	1	1	13.70	13.78	13.79	13.85	13.80	15.2				
100	CP-OFDM PUSCH	1	1	11.92	12.05	11.92	12.31	12.19	13.2				
100	CP-OFDM PUSCH	1	1	8.40	8.66	8.53	8.86	8.75	10.2				

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT3													
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)				
Channel													
Frequency (MHz)													
100	DFT-s-OFDM PUSCH	1	1	16.22	16.19	16.20	16.16	16.22	17.2				
100		1	136	16.18	16.17	16.18	16.17	16.25					
100		1	271	16.16	16.15	16.17	16.13	16.02					
100		136	1	15.33	15.31	15.46	15.33	15.43					
100		136	61	15.43	15.45	15.51	15.40	15.48					
100	DFT-s-OFDM PUSCH	136	136	15.31	15.31	15.37	15.30	15.44					
100		270	0	15.45	15.41	15.36	15.38	15.49					
100		1	1	16.20	16.20	16.31	16.25	16.22					
100		1	136	16.05	16.18	16.20	16.18	16.15					
100		1	271	16.18	16.27	16.06	16.11	16.01					
100	DFT-s-OFDM PUSCH	136	1	15.32	15.29	15.42	15.29	15.38	17.2				
100		136	61	15.41	15.40	15.49	15.40	15.45					
100		136	136	15.43	15.52	15.33	15.48	15.42					
100		270	0	15.38	15.40	15.47	15.43	15.42					
100		1	1	15.40	15.14	15.37	15.42	15.41					
100	DFT-s-OFDM PUSCH	1	1	14.34	14.16	14.38	14.53	14.46	15.2				
100		1	1	13.46	13.26	13.38	13.41	13.45					
Channel													
Frequency (MHz)													
90		DFT-s-OFDM PUSCH	1	1	16.22	16.12	16.21	16.19			16.19	17.2	
Channel													
Frequency (MHz)													
80	DFT-s-OFDM PUSCH	1	1	16.26	16.11	16.18	16.23	16.21	17.2				
Channel													
Frequency (MHz)													
70	DFT-s-OFDM PUSCH	1	1	16.25	16.12	16.22	16.23	16.14			17.2		
Channel													
Frequency (MHz)													
60	DFT-s-OFDM PUSCH	1	1	16.25	16.14	16.26	16.21	16.24	17.2				
Channel													
Frequency (MHz)													
50	DFT-s-OFDM PUSCH	1	1	16.26	16.28	16.23	16.28	16.23			16.2		
Channel													
Frequency (MHz)													
40	DFT-s-OFDM PUSCH	1	1	16.18	16.21	16.16	16.24	16.18	16.2				
Channel													
Frequency (MHz)													
30	DFT-s-OFDM PUSCH	1	1	16.29	16.10	16.25	16.23	16.23			17.2		
Channel													
Frequency (MHz)													
20	DFT-s-OFDM PUSCH	1	1	16.29	16.04	16.15	16.21	16.15	17.2				
Channel													
Frequency (MHz)													
Channel													
Frequency (MHz)													
100	CP-OFDM PUSCH	1	1	14.71	14.58	14.77	14.69	14.67	15.7				
100	CP-OFDM PUSCH	1	1	14.74	14.58	14.71	14.70	14.68					
100	CP-OFDM PUSCH	1	1	13.84	13.82	13.75	13.85	13.99					
100	CP-OFDM PUSCH	1	1	11.45	11.42	11.52	11.50	11.42					
100	CP-OFDM PUSCH	1	1	11.45	11.42	11.52	11.50	11.42					



n78 (3450 MHz ~ 3550 MHz) (PC2)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM PUSCH	1	1			3500.01			24.2	
100		1	136			22.94				
100		1	271			22.97				
100		136	1			22.24				
100		136	67			22.13			23.2	
100		136	136			22.08				
100		270	0			22.00				
100		1	1			23.27			24.2	
100		1	136			23.24				
100		1	271			23.23				
100	DFT-s-OFDM PUSCH	136	1			22.30			23.2	
100		136	67			22.26				
100		136	136			22.22				
100		270	0			22.18			23.2	
100		1	1			22.25				
100		1	1			21.42				
100		DFT-s-OFDM PUSCH	1	1			18.00			22.2
100		DFT-s-OFDM PUSCH	1	1			18.00			19.2
Channel										
Frequency (MHz)										
90		DFT-s-OFDM PUSCH	1	1	633000	633168	633334	633500	633666	Tune-up limit (dBm)
Channel										
Frequency (MHz)										
90	DFT-s-OFDM PUSCH	1	1	3495	3497.52	3500.01	3502.5	3504.99	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM PUSCH	1	1	23.30	23.35	23.08	23.15	23.14	24.2	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM PUSCH	1	1	633000	633168	633334	633500	633666	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM PUSCH	1	1	23.13	23.08	23.25	23.21	23.25	24.2	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM PUSCH	1	1	632334	633000	633334	633500	634332	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM PUSCH	1	1	3485.01	3494.51	3500.01	3507.48	3514.98	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM PUSCH	1	1	23.12	23.14	23.18	23.17	23.18	24.2	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM PUSCH	1	1	632000	632666	633334	634000	634666	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM PUSCH	1	1	3482	3489.52	3500.01	3510	3519.99	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM PUSCH	1	1	23.17	23.11	23.09	23.18	23.15	24.2	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM PUSCH	1	1	631666	632000	633334	634166	635000	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM PUSCH	1	1	3475.02	3487.5	3500.01	3510	3525	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM PUSCH	1	1	23.19	23.26	23.13	23.20	23.21	24.2	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM PUSCH	1	1	631334	632334	633334	634332	635332	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM PUSCH	1	1	3470.01	3481.51	3500.01	3514.98	3524.98	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM PUSCH	1	1	23.21	23.24	23.25	23.21	23.14	24.2	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM PUSCH	1	1	631000	632166	633334	634500	635666	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM PUSCH	1	1	3465	3482.52	3500.01	3517.5	3524.99	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM PUSCH	1	1	23.01	23.19	23.16	23.15	23.08	24.2	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM PUSCH	1	1	630666	632000	633334	634666	636000	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM PUSCH	1	1	3460.02	3475	3500.01	3519.99	3529.99	24.2	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM PUSCH	1	1	23.16	22.95	23.10	23.09	22.95	24.2	
Channel										
Frequency (MHz)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	CP-OFDM	1	1			21.40			22.2	
100	CP-OFDM	1	1			21.24			22.2	
100	CP-OFDM	1	1			19.82			20.2	
100	CP-OFDM	1	1			16.09			17.2	

n78 (3450 MHz ~ 3550 MHz) (PC3)_ANT3									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune up limit (dBm)
Channel									
Frequency (MHz)									
100	DFT-s-OFDM PUSCH	1	1			3500.01			22.2
100		1	136			21.12			
100		1	271			21.09			
100		136	1			20.22			21.2
100		136	67			20.16			
100		136	136			20.08			
100		270	0			20.05			22.2
100		1	1			21.34			
100		1	136			21.25			
100		1	271			21.13			
100	136	1			20.22			21.2	
100	136	67			20.19				
100	136	136			20.12				
100	270	0			20.23			21.2	
100	DFT-s-OFDM PUSCH	1	1			20.32			
100	DFT-s-OFDM PUSCH	1	1			20.30			20.2
100	DFT-s-OFDM PUSCH	1	1			18.92			19.2
Channel									
Frequency (MHz)									
50	DFT-s-OFDM PUSCH	1	1	21.11	21.08	21.08	21.07	21.12	22.2
Channel									
Frequency (MHz)									
80	DFT-s-OFDM PUSCH	1	1	21.17	21.09	21.12	21.07	21.02	22.2
Channel									
Frequency (MHz)									
70	DFT-s-OFDM PUSCH	1	1	21.11	21.02	21.01	20.97	20.98	22.2
Channel									
Frequency (MHz)									
60	DFT-s-OFDM PUSCH	1	1	21.17	21.16	21.15	21.08	21.00	22.2
Channel									
Frequency (MHz)									
50	DFT-s-OFDM PUSCH	1	1	21.14	21.03	21.09	20.99	20.92	24.2
Channel									
Frequency (MHz)									
40	DFT-s-OFDM PUSCH	1	1	21.24	21.31	21.23	21.26	21.17	24.2
Channel									
Frequency (MHz)									
30	DFT-s-OFDM PUSCH	1	1	21.17	21.27	21.27	21.09	21.02	24.2
Channel									
Frequency (MHz)									
20	DFT-s-OFDM PUSCH	1	1	21.30	21.19	21.25	20.90	20.95	24.2
Channel									
Frequency (MHz)									
BW (MHz) <th>Modulation</th> <th>RB Size</th> <th>RB Offset</th> <th>Low Channel</th> <th>Low/Middle Channel</th> <th>Middle Channel</th> <th>Middle/High Channel</th> <th>High Channel</th> <th>Tune up limit (dBm)</th>	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune up limit (dBm)
Channel									
Frequency (MHz)									
100	CP-OFDM	1	1			19.74			20.7
100	CP-OFDM	1	1			19.68			20.7
100	CP-OFDM	1	1			18.91			19.7
100	CP-OFDM	1	1			15.90			16.7



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT3											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	DFT-s-OFDM P2/BPSK	1	1			14.80			15.7		
100		1	136			14.56					
100		1	271			14.54					
100		135	1			13.58					
100		135	67			13.50					
100	DFT-s-OFDM QPSK	135	136			13.55			14.7		
100		270	0			13.51					
100		1	1			14.58					
100		1	136			14.61					
100		1	271			14.56					
100	DFT-s-OFDM 16QAM	135	1			13.51			15.7		
100		135	67			13.75					
100		135	136			13.59					
100		270	0			13.55					
100		1	1			13.84					
100	DFT-s-OFDM 64QAM	1	1			11.86			14.7		
100		1	1			12.7					
100		1	1			9.41					
100		1	1			86866	84654	85000			85002
100		1	1			8745.92	3747.51	3750			3752.49
90	DFT-s-OFDM QPSK	1	1	14.43	14.65	14.52	14.51	14.50	15.7		
90		1	1	14.43	14.65	14.52	14.51	14.50			
90		1	1	14.43	14.65	14.52	14.51	14.50			
90		1	1	14.43	14.65	14.52	14.51	14.50			
90		1	1	14.43	14.65	14.52	14.51	14.50			
80	DFT-s-OFDM QPSK	1	1	14.47	14.52	14.57	14.62	14.69	15.7		
80		1	1	14.47	14.52	14.57	14.62	14.69			
80		1	1	14.47	14.52	14.57	14.62	14.69			
80		1	1	14.47	14.52	14.57	14.62	14.69			
80		1	1	14.47	14.52	14.57	14.62	14.69			
70	DFT-s-OFDM QPSK	1	1	14.47	14.41	14.64	14.65	14.61	15.7		
70		1	1	14.47	14.41	14.64	14.65	14.61			
70		1	1	14.47	14.41	14.64	14.65	14.61			
70		1	1	14.47	14.41	14.64	14.65	14.61			
70		1	1	14.47	14.41	14.64	14.65	14.61			
60	DFT-s-OFDM QPSK	1	1	14.61	14.58	14.51	14.56	14.60	15.7		
60		1	1	14.61	14.58	14.51	14.56	14.60			
60		1	1	14.61	14.58	14.51	14.56	14.60			
60		1	1	14.61	14.58	14.51	14.56	14.60			
60		1	1	14.61	14.58	14.51	14.56	14.60			
50	DFT-s-OFDM QPSK	1	1	14.50	14.80	14.64	14.46	14.51	15.7		
50		1	1	14.50	14.80	14.64	14.46	14.51			
50		1	1	14.50	14.80	14.64	14.46	14.51			
50		1	1	14.50	14.80	14.64	14.46	14.51			
50		1	1	14.50	14.80	14.64	14.46	14.51			
40	DFT-s-OFDM QPSK	1	1	14.50	14.50	14.53	14.56	14.42	15.7		
40		1	1	14.50	14.50	14.53	14.56	14.42			
40		1	1	14.50	14.50	14.53	14.56	14.42			
40		1	1	14.50	14.50	14.53	14.56	14.42			
40		1	1	14.50	14.50	14.53	14.56	14.42			
30	DFT-s-OFDM QPSK	1	1	14.50	14.53	14.47	14.50	14.55	15.7		
30		1	1	14.50	14.53	14.47	14.50	14.55			
30		1	1	14.50	14.53	14.47	14.50	14.55			
30		1	1	14.50	14.53	14.47	14.50	14.55			
30		1	1	14.50	14.53	14.47	14.50	14.55			
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	CP-OFDM	1	1			12.57			13.7		
100	CP-OFDM	1	1			12.32					
100	CP-OFDM	1	1			10.52					
100	CP-OFDM	1	1			7.20					

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT3											
BW (MHz)	Modulation	RB Size	RB Offset	Line Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	DFT-s-OFDM P2/BPSK	1	1			17.69			18.7		
100		1	136			17.62					
100		1	271			17.58					
100		135	1			16.73					
100		135	67			16.69					
100	DFT-s-OFDM QPSK	135	136			16.72			17.7		
100		270	0			16.62					
100		1	1			17.75					
100		1	136			17.68					
100		1	271			17.61					
100	DFT-s-OFDM 16QAM	135	1			16.74			18.7		
100		135	67			16.72					
100		135	136			16.73					
100		270	0			16.57					
100		1	1			16.66					
100	DFT-s-OFDM 64QAM	1	1			16.60			17.7		
100		1	1			16.60					
100		1	1			14.62					
100		1	1			84666	84654	85000			85002
100		1	1			3745.92	3747.51	3750			3752.49
90	DFT-s-OFDM QPSK	1	1	17.66	17.65	17.63	17.56	17.62	18.7		
90		1	1	17.66	17.65	17.63	17.56	17.62			
90		1	1	17.66	17.65	17.63	17.56	17.62			
90		1	1	17.66	17.65	17.63	17.56	17.62			
90		1	1	17.66	17.65	17.63	17.56	17.62			
80	DFT-s-OFDM QPSK	1	1	17.35	17.32	17.55	17.67	17.64	18.7		
80		1	1	17.35	17.32	17.55	17.67	17.64			
80		1	1	17.35	17.32	17.55	17.67	17.64			
80		1	1	17.35	17.32	17.55	17.67	17.64			
80		1	1	17.35	17.32	17.55	17.67	17.64			
70	DFT-s-OFDM QPSK	1	1	17.58	17.64	17.60	17.64	17.61	18.7		
70		1	1	17.58	17.64	17.60	17.64	17.61			
70		1	1	17.58	17.64	17.60	17.64	17.61			
70		1	1	17.58	17.64	17.60	17.64	17.61			
70		1	1	17.58	17.64	17.60	17.64	17.61			
60	DFT-s-OFDM QPSK	1	1	17.64	17.71	17.68	17.62	17.70	18.7		
60		1	1	17.64	17.71	17.68	17.62	17.70			
60		1	1	17.64	17.71	17.68	17.62	17.70			
60		1	1	17.64	17.71	17.68	17.62	17.70			
60		1	1	17.64	17.71	17.68	17.62	17.70			
50	DFT-s-OFDM QPSK	1	1	17.70	17.57	17.67	17.59	17.63	18.7		
50		1	1	17.70	17.57	17.67	17.59	17.63			
50		1	1	17.70	17.57	17.67	17.59	17.63			
50		1	1	17.70	17.57	17.67	17.59	17.63			
50		1	1	17.70	17.57	17.67	17.59	17.63			
40	DFT-s-OFDM QPSK	1	1	17.51	17.56	17.70	17.72	17.62	18.7		
40		1	1	17.51	17.56	17.70	17.72	17.62			
40		1	1	17.51	17.56	17.70	17.72	17.62			
40		1	1	17.51	17.56	17.70	17.72	17.62			
40		1	1	17.51	17.56	17.70	17.72	17.62			
30	DFT-s-OFDM QPSK	1	1	17.63	17.69	17.68	17.61	17.66	18.7		
30		1	1	17.63	17.69	17.68	17.61	17.66			
30		1	1	17.63	17.69	17.68	17.61	17.66			
30		1	1	17.63	17.69	17.68	17.61	17.66			
30		1	1	17.63	17.69	17.68	17.61	17.66			
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100	CP-OFDM	1	1			16.57			17.2		
100		1	1			16.54					
100		1	1			16.54					
100		1	1			15.77					
100		1	1			12.85					



CA_41C-PC3_Ant 1 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	14.33	15.50
40620	40521	40719	QPSK	1	0	0	0	1	0	14.63	15.50
41490	41292	41490	QPSK	1	0	0	0	1	0	14.55	15.50
39750	39750	39948	16QAM	1	0	0	0	1	0	13.57	14.00
40620	40521	40719	16QAM	1	0	0	0	1	0	13.89	14.00
41490	41292	41490	16QAM	1	0	0	0	1	0	13.84	14.00
39750	39750	39948	64QAM	1	0	0	0	1	0	12.13	13.00
40620	40521	40719	64QAM	1	0	0	0	1	0	12.45	13.00
41490	41292	41490	64QAM	1	0	0	0	1	0	12.33	13.00
39750	39750	39948	QPSK	50	0	0	0	1	0	13.22	14.00
40620	40521	40719	QPSK	50	0	0	0	1	0	13.53	14.00
41490	41292	41490	QPSK	50	0	0	0	1	0	13.29	14.00



CA_48C_Ant 4 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
55340	55340	55538	QPSK	1	0	0	0	1	0	14.06	15.00
55990	55891	56089	QPSK	1	0	0	0	1	0	14.22	15.00
56640	56442	56640	QPSK	1	0	0	0	1	0	13.98	15.00
55340	55340	55538	16QAM	1	0	0	0	1	0	13.49	14.50
55990	55891	56089	16QAM	1	0	0	0	1	0	13.62	14.50
56640	56442	56640	16QAM	1	0	0	0	1	0	13.44	14.50
55340	55340	55538	64QAM	1	0	0	0	1	0	12.31	13.00
55990	55891	56089	64QAM	1	0	0	0	1	0	12.38	13.00
56640	56442	56640	64QAM	1	0	0	0	1	0	12.29	13.00
55340	55340	55538	QPSK	50	0	0	0	1	0	13.25	14.00
55990	55891	56089	QPSK	50	0	0	0	1	0	13.32	14.00
56640	56442	56640	QPSK	50	0	0	0	1	0	13.22	14.00



Reduced Power Level 4 for Ant 7

2.4GHz WLAN ANT 1

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Turn-Up Limit	Power Setting	Duty Cycle %
2.4GHz WLAN ANT 1	802.11b 18Mbps	CH 1	2412	17.96	19.50	17.50	100.00
		CH 6	2437	18.97	20.00	17.50	
		CH 11	2462	18.13	20.00	17.50	
	802.11g 6Mbps	CH 1	2412	15.91	17.50	16.00	98.57
		CH 6	2437	15.92	17.50	16.00	
		CH 11	2462	13.57	15.50	13.50	
	802.11n-HT20 MCS9	CH 1	2412	15.73	17.50	16.00	98.57
		CH 6	2437	15.99	17.50	16.00	
		CH 11	2462	12.99	14.50	16.00	
	802.11n-HT40 MCS9	CH 3	2422	15.76	17.50	15.50	95.00
		CH 6	2437	13.35	15.00	12.00	
		CH 9	2452	11.42	13.00	10.50	
	802.11ac-VHT20 MCS9	CH 1	2412	15.73	17.50	16.00	98.47
		CH 6	2437	15.67	17.50	16.00	
		CH 11	2462	12.99	14.50	13.00	
	802.11ac-VHT40 MCS9	CH 3	2422	15.75	17.50	15.50	95.05
		CH 6	2437	13.21	15.00	12.00	
		CH 9	2452	11.46	13.00	10.50	

5GHz WLAN ANT 1

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Turn-Up Limit	Power Setting	Duty Cycle %
5GHz WLAN ANT 1	802.11a 6Mbps	CH 36	5180	16.19	16.00	14.00	98.10
		CH 40	5220	14.50	16.00	14.00	
		CH 48	5260	14.56	16.50	14.00	
	802.11n-HT20 MCS9	CH 36	5180	14.79	16.00	14.00	98.57
		CH 44	5220	15.03	17.00	14.00	
		CH 48	5240	15.14	17.00	14.00	
	802.11n-HT40 MCS9	CH 36	5190	15.19	17.00	14.00	96.94
		CH 46	5230	14.48	16.00	14.00	
		CH 50	5180	13.10	15.00	12.50	
	802.11ac-VHT20 MCS9	CH 44	5220	15.42	15.00	12.50	98.48
		CH 48	5260	12.79	14.50	12.50	
		CH 38	5190	12.98	14.50	12.50	
	802.11ac-VHT40 MCS9	CH 46	5230	13.22	15.00	12.50	95.96
		CH 40	5210	13.32	15.00	12.50	
		CH 42	5210	13.32	15.00	12.50	

5GHz WLAN ANT 1

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Turn-Up Limit	Power Setting	Duty Cycle %
5GHz WLAN ANT 1	802.11a 6Mbps	CH 52	5260	13.74	15.50	13.00	98.57
		CH 60	5300	13.77	15.50	13.00	
		CH 64	5320	14.03	16.00	13.00	
	802.11n-HT20 MCS9	CH 52	5260	14.27	16.00	13.00	98.57
		CH 60	5300	13.00	15.50	13.00	
		CH 64	5320	13.81	15.50	13.00	
	802.11n-HT40 MCS9	CH 54	5270	13.88	15.50	13.00	96.94
		CH 62	5310	14.39	16.00	13.00	
		CH 52	5260	11.89	13.00	11.50	
	802.11ac-VHT20 MCS9	CH 60	5300	12.05	14.00	11.50	98.48
		CH 64	5320	12.42	14.00	11.50	
		CH 54	5270	11.93	13.50	11.50	
	802.11ac-VHT40 MCS9	CH 62	5310	12.62	14.50	11.50	98.97
		CH 58	5290	12.66	14.50	11.50	
		CH 56	5290	12.66	14.50	11.50	

5GHz WLAN ANT 1

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Turn-Up Limit	Power Setting	Duty Cycle %
5GHz WLAN ANT 1	802.11a 6Mbps	CH 100	5600	12.27	14.00	10.50	98.57
		CH 120	5680	12.36	14.00	10.50	
		CH 144	5720	11.02	13.00	10.50	
	802.11n-HT20 MCS9	CH 100	5600	12.08	14.00	10.50	98.47
		CH 120	5680	11.28	13.00	10.50	
		CH 144	5720	11.36	13.00	10.50	
	802.11n-HT40 MCS9	CH 102	5610	12.36	14.00	10.50	96.94
		CH 126	5630	11.65	13.00	10.50	
		CH 142	5710	11.67	13.00	10.50	
	802.11ac-VHT20 MCS9	CH 100	5600	11.15	13.00	10.50	98.48
		CH 120	5680	10.80	12.50	10.50	
		CH 144	5720	10.99	12.50	10.50	
	802.11ac-VHT40 MCS9	CH 102	5610	11.46	13.00	10.50	98.97
		CH 126	5630	11.41	13.00	10.50	
		CH 142	5710	11.37	13.00	10.50	
	802.11ac-VHT80 MCS9	CH 106	5630	11.46	13.00	10.50	94.00
		CH 122	5610	11.16	13.00	10.50	
		CH 138	5690	11.12	13.00	10.50	

5GHz WLAN ANT 1

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Turn-Up Limit	Power Setting	Duty Cycle %
5GHz WLAN ANT 1	802.11a 6Mbps	CH 149	5745	13.64	15.50	13.50	98.57
		CH 157	5785	14.01	16.00	13.50	
		CH 165	5825	13.42	15.00	13.50	
	802.11n-HT20 MCS9	CH 149	5745	13.99	15.50	13.50	98.47
		CH 157	5785	14.36	16.00	13.50	
		CH 162	5825	14.30	16.00	13.50	
	802.11n-HT40 MCS9	CH 151	5755	14.35	16.00	13.50	96.94
		CH 159	5795	14.83	16.50	13.50	
		CH 149	5745	12.96	14.50	12.00	
	802.11ac-VHT20 MCS9	CH 157	5785	12.80	14.50	12.00	97.97
		CH 165	5825	12.85	14.50	12.00	
		CH 151	5755	12.42	14.00	12.00	
	802.11ac-VHT40 MCS9	CH 159	5795	13.33	15.00	12.00	96.97
		CH 155	5775	12.63	14.50	12.00	
		CH 153	5775	12.63	14.50	12.00	