



REPORT No.: SZ23020326S01

Annex E Conducted Power

Note:

Conducted power unit: dBm

The target power was recorded in the manufacture document.



Full Power

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	848.8		824.2	836.4	848.8		
GSM 1 Tx slot		32.28	32.30	32.25	33.00	23.28	23.30	23.25	24.00	0.08
GPRS 1 Tx slot		32.24	32.28	32.22	33.00	23.24	23.28	23.22	24.00	
GPRS 2 Tx slots		29.51	29.56	29.52	30.50	23.51	23.56	23.52	24.50	0.05
GPRS 3 Tx slots		26.57	26.59	26.52	27.50	22.31	22.33	22.26	23.24	0.07
GPRS 4 Tx slots		24.54	24.57	24.55	25.50	21.54	21.57	21.55	22.50	0.03
EDGE 1 Tx slot		26.36	26.42	26.39	27.00	17.36	17.42	17.39	18.00	0.06
EDGE 2 Tx slots		24.15	24.21	24.18	25.00	18.15	18.21	18.18	19.00	0.06
EDGE 3 Tx slots		22.07	22.09	22.10	23.00	17.81	17.83	17.84	18.74	0.03
EDGE 4 Tx slots		20.02	20.05	20.04	21.00	17.02	17.05	17.04	18.00	0.03
Mode			Max.	32.30			Max.	23.56		
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	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot		29.31	29.35	29.33	30.00	20.31	20.35	20.33	21.00	0.05
GPRS 1 Tx slot		29.30	29.33	29.31	30.00	20.30	20.33	20.31	21.00	
GPRS 2 Tx slots		28.18	28.22	28.15	29.00	22.18	22.22	22.15	23.00	0.07
GPRS 3 Tx slots		26.13	26.20	26.17	27.00	21.87	21.94	21.91	22.74	0.07
GPRS 4 Tx slots		24.22	24.26	24.19	25.00	21.22	21.26	21.19	22.00	0.07
EDGE 1 Tx slot		25.16	25.24	25.18	26.00	16.16	16.24	16.18	17.00	0.08
EDGE 2 Tx slots		24.33	24.41	24.36	25.00	18.33	18.41	18.36	19.00	0.08
EDGE 3 Tx slots		22.10	22.15	22.13	23.00	17.84	17.89	17.87	18.74	0.05
EDGE 4 Tx slots		20.20	20.28	20.24	21.00	17.20	17.28	17.24	18.00	0.08
Mode			Max.	29.35			Max.	22.22		
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	
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	23.46	23.48	23.45	24.00	23.51	23.57	23.55	24.00	23.25	23.32	23.29	24.00
3GPP Rel 6	HSDPA Subtest-1	22.29	22.17	22.12	23.00	22.54	22.60	22.64	23.50	22.25	22.11	22.24	23.00
3GPP Rel 6	HSDPA Subtest-2	22.30	22.19	22.06	23.00	22.64	22.57	22.68	23.50	22.29	22.18	22.19	23.00
3GPP Rel 6	HSDPA Subtest-3	21.82	21.64	21.54	22.50	22.21	21.99	22.14	23.00	21.72	21.61	21.66	22.50
3GPP Rel 6	HSDPA Subtest-4	21.82	21.68	21.51	22.50	22.24	21.94	22.13	23.00	21.73	21.58	21.69	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.19	22.15	22.16	23.00	22.51	22.48	22.62	23.50	22.36	22.02	22.36	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.42	22.20	22.06	23.00	22.60	22.52	22.75	23.50	22.31	22.20	22.13	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.70	21.72	21.55	22.50	22.32	22.07	22.18	23.00	21.80	21.73	21.54	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.76	21.61	21.59	22.50	22.30	21.88	22.17	23.00	21.68	21.53	21.73	22.50
3GPP Rel 6	HSUPA Subtest-1	21.18	21.08	21.01	22.00	21.57	22.64	22.77	23.50	22.26	22.17	22.14	23.00
3GPP Rel 6	HSUPA Subtest-2	21.18	21.07	21.03	22.00	21.56	22.14	22.21	23.00	21.75	21.70	21.68	22.50
3GPP Rel 6	HSUPA Subtest-3	20.89	20.76	20.69	21.50	21.56	22.60	22.65	23.50	22.22	22.13	22.10	23.00
3GPP Rel 6	HSUPA Subtest-4	22.18	22.08	22.04	23.00	22.54	22.63	22.68	23.50	22.24	22.14	22.32	23.00
3GPP Rel 6	HSUPA Subtest-5	21.08	20.95	20.89	22.00	21.45	21.43	22.70	23.00	22.23	22.15	22.31	23.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	20.82	20.70	20.64	21.50	21.18	21.13	21.19	22.00	20.71	20.72	20.76	21.50
Attenuator		Cable Loss			0.8	Cable Loss			0.8	Cable Loss			0.6
Mode			Max.	23.48			Max.	23.57			Max.	23.32	



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	22.57	22.66	22.60	
20	QPSK	1	49	22.61	22.60	22.53	23.5
20	QPSK	1	99	22.46	22.57	22.55	
20	QPSK	50	0	21.63	21.80	21.79	
20	QPSK	50	24	21.55	21.65	21.60	22.5
20	QPSK	50	50	21.65	21.67	21.55	
20	QPSK	100	0	21.53	21.59	21.59	
20	16QAM	1	0	21.69	21.79	21.69	22.5
20	16QAM	1	49	21.79	21.64	21.71	
20	16QAM	1	99	21.76	21.60	21.70	
20	16QAM	50	0	20.75	20.74	20.68	21.5
20	16QAM	50	24	20.60	20.70	20.64	
20	16QAM	50	50	20.80	20.50	20.56	
20	16QAM	100	0	20.57	20.77	20.84	21.5
20	64QAM	1	0	20.59	20.58	20.53	
20	64QAM	1	49	20.62	20.66	20.52	
20	64QAM	1	99	20.82	20.77	20.61	20.5
20	64QAM	50	0	19.58	19.77	19.59	
20	64QAM	50	24	19.65	19.71	19.64	
20	64QAM	50	50	19.62	19.62	19.51	20.5
20	64QAM	100	0	19.56	19.59	19.79	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	22.58	22.63	22.62	
15	QPSK	1	37	22.61	22.55	22.58	23.5
15	QPSK	1	74	22.55	22.54	22.44	
15	QPSK	36	0	21.55	21.77	21.65	
15	QPSK	36	20	21.68	21.54	21.60	22.5
15	QPSK	36	39	21.77	21.53	21.63	
15	QPSK	75	0	21.59	21.70	21.59	
15	16QAM	1	0	21.68	21.81	21.60	22.5
15	16QAM	1	37	21.76	21.57	21.80	
15	16QAM	1	74	21.80	21.60	21.69	
15	16QAM	36	0	20.62	20.69	20.70	21.5
15	16QAM	36	20	20.64	20.58	20.76	
15	16QAM	36	39	20.85	20.63	20.74	
15	16QAM	75	0	20.52	20.63	20.56	21.5
15	64QAM	1	0	20.61	20.57	20.50	
15	64QAM	1	37	20.73	20.71	20.72	
15	64QAM	1	74	20.66	20.63	20.60	20.5
15	64QAM	36	0	19.54	19.73	19.77	
15	64QAM	36	20	19.51	19.60	19.63	
15	64QAM	36	39	19.66	19.63	19.68	20.5
15	64QAM	75	0	19.74	19.66	19.78	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	22.60	22.65	22.59	
10	QPSK	1	25	22.54	22.55	22.61	23.5
10	QPSK	1	49	22.53	22.60	22.54	
10	QPSK	25	0	21.73	21.82	21.66	
10	QPSK	25	12	21.57	21.58	21.68	22.5
10	QPSK	25	25	21.57	21.52	21.60	
10	QPSK	50	0	21.65	21.59	21.64	
10	16QAM	1	0	21.85	21.72	21.61	22.5
10	16QAM	1	25	21.75	21.62	21.65	
10	16QAM	1	49	21.64	21.64	21.57	
10	16QAM	25	0	20.71	20.81	20.68	21.5
10	16QAM	25	12	20.73	20.78	20.60	
10	16QAM	25	25	20.65	20.64	20.81	
10	16QAM	50	0	20.79	20.71	20.73	21.5
10	64QAM	1	0	20.80	20.70	20.57	
10	64QAM	1	25	20.62	20.75	20.79	
10	64QAM	1	49	20.59	20.63	20.65	20.5
10	64QAM	25	0	19.61	19.70	19.57	
10	64QAM	25	12	19.56	19.64	19.84	
10	64QAM	25	25	19.68	19.60	19.57	20.5
10	64QAM	50	0	19.66	19.77	19.72	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	22.56	22.64	22.59	
5	QPSK	1	12	22.63	22.58	22.60	23.5
5	QPSK	1	24	22.51	22.55	22.62	
5	QPSK	12	0	21.53	21.70	21.56	
5	QPSK	12	7	21.78	21.53	21.58	22.5
5	QPSK	12	13	21.87	21.62	21.53	
5	QPSK	25	0	21.63	21.78	21.76	
5	16QAM	1	0	21.80	21.74	21.71	22.5
5	16QAM	1	12	21.72	21.60	21.72	
5	16QAM	1	24	21.60	21.76	21.48	
5	16QAM	12	0	20.74	20.65	20.77	21.5
5	16QAM	12	7	20.67	20.54	20.72	
5	16QAM	12	13	20.83	20.77	20.67	
5	16QAM	25	0	20.46	20.50	20.80	21.5
5	64QAM	1	0	20.79	20.75	20.59	
5	64QAM	1	12	20.59	20.67	20.85	
5	64QAM	1	24	20.78	20.64	20.53	20.5
5	64QAM	12	0	19.71	19.74	19.59	
5	64QAM	12	7	19.74	19.84	19.67	
5	64QAM	12	13	19.53	19.64	19.73	20.5
5	64QAM	25	0	19.81	19.78	19.63	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	22.51	22.61	22.58	
3	QPSK	1	8	22.55	22.54	22.44	23.5
3	QPSK	1	14	22.54	22.57	22.50	
3	QPSK	8	0	21.78	21.65	21.59	
3	QPSK	8	4	21.57	21.52	21.75	22.5
3	QPSK	8	7	21.87	21.48	21.54	

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	22.70	22.74	22.63	23.5
20	QPSK	1	49	22.69	22.71	22.57	
20	QPSK	1	99	22.66	22.52	22.58	
20	QPSK	50	0	21.78	21.82	21.61	22.5
20	QPSK	50	24	21.78	21.68	21.73	
20	QPSK	50	50	21.62	21.57	21.75	
20	QPSK	100	0	21.67	21.64	21.61	22.5
20	16QAM	1	0	21.82	21.81	21.80	
20	16QAM	1	49	21.82	21.54	21.61	
20	16QAM	1	99	21.76	21.73	21.62	21.5
20	16QAM	50	0	20.81	20.77	20.68	
20	16QAM	50	24	20.71	20.65	20.65	
20	16QAM	50	50	20.83	20.63	20.51	21.5
20	16QAM	100	0	20.78	20.72	20.69	
20	64QAM	1	0	20.56	20.76	20.51	
20	64QAM	1	49	20.53	20.67	20.86	21.5
20	64QAM	1	99	20.82	20.65	20.62	
20	64QAM	50	0	19.72	19.60	19.67	
20	64QAM	50	24	19.75	19.73	19.78	20.5
20	64QAM	50	50	19.54	19.64	19.49	
20	64QAM	100	0	19.68	19.58	19.66	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	22.66	22.71	22.68	23.5
15	QPSK	1	37	22.66	22.51	22.56	
15	QPSK	1	74	22.60	22.64	22.51	
15	QPSK	36	0	21.67	21.67	21.58	22.5
15	QPSK	36	20	21.68	21.77	21.66	
15	QPSK	36	39	21.63	21.56	21.75	
15	QPSK	75	0	21.55	21.53	21.56	22.5
15	16QAM	1	0	21.60	21.67	21.68	
15	16QAM	1	37	21.73	21.74	21.77	
15	16QAM	1	74	21.61	21.67	21.75	21.5
15	16QAM	36	0	20.62	20.72	20.67	
15	16QAM	36	20	20.46	20.63	20.66	
15	16QAM	36	39	20.71	20.67	20.70	21.5
15	16QAM	75	0	20.53	20.71	20.73	
15	64QAM	1	0	20.63	20.59	20.55	
15	64QAM	1	37	20.83	20.68	20.58	21.5
15	64QAM	1	74	20.73	20.64	20.67	
15	64QAM	36	0	19.81	19.67	19.72	
15	64QAM	36	20	19.72	19.85	19.70	20.5
15	64QAM	36	39	19.53	19.58	19.68	
15	64QAM	75	0	19.59	19.54	19.80	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.61	22.69	22.66	23.5
10	QPSK	1	25	22.63	22.67	22.52	
10	QPSK	1	49	22.53	22.58	22.49	
10	QPSK	25	0	21.59	21.76	21.71	22.5
10	QPSK	25	12	21.79	21.49	21.81	
10	QPSK	25	25	21.56	21.64	21.54	
10	QPSK	50	0	21.41	21.55	21.58	22.5
10	16QAM	1	0	21.75	21.80	21.72	
10	16QAM	1	25	21.56	21.60	21.82	
10	16QAM	1	49	21.80	21.70	21.72	21.5
10	16QAM	25	0	20.92	20.76	20.69	
10	16QAM	25	12	20.72	20.72	20.76	
10	16QAM	25	25	20.68	20.67	20.78	21.5
10	16QAM	50	0	20.65	20.67	20.69	
10	64QAM	1	0	20.61	20.65	20.60	
10	64QAM	1	25	20.78	20.80	20.82	21.5
10	64QAM	1	49	20.75	20.69	20.47	
10	64QAM	25	0	19.77	19.59	19.64	
10	64QAM	25	12	19.57	19.60	19.77	20.5
10	64QAM	25	25	19.68	19.59	19.51	
10	64QAM	50	0	19.79	19.75	19.63	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	22.63	22.70	22.59	23.5
5	QPSK	1	12	22.65	22.69	22.52	
5	QPSK	1	24	22.63	22.57	22.55	
5	QPSK	12	0	21.57	21.81	21.67	22.5
5	QPSK	12	7	21.80	21.60	21.54	
5	QPSK	12	13	21.62	21.50	21.52	
5	QPSK	25	0	21.64	21.69	21.75	22.5
5	16QAM	1	0	21.75	21.68	21.63	
5	16QAM	1	12	21.74	21.70	21.70	
5	16QAM	1	24	21.80	21.51	21.71	21.5
5	16QAM	12	0	20.80	20.74	20.68	
5	16QAM	12	7	20.57	20.73	20.67	
5	16QAM	12	13	20.57	20.51	20.48	21.5
5	16QAM	25	0	20.44	20.66	20.55	
5	64QAM	1	0	20.54	20.59	20.56	
5	64QAM	1	12	20.58	20.73	20.58	21.5
5	64QAM	1	24	20.67	20.75	20.47	
5	64QAM	12	0	19.73	19.81	19.58	
5	64QAM	12	7	19.69	19.58	19.64	20.5
5	64QAM	12	13	19.60	19.58	19.60	
5	64QAM	25	0	19.70	19.57	19.59	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	22.56	22.68	22.68	23.5
3	QPSK	1	8	22.61	22.60	22.63	
3	QPSK	1	14	22.60	22.68	22.61	
3	QPSK	8	0	21.68	21.82	21.65	22.5
3	QPSK	8	4	21.59	21.52	21.80	
3	QPSK	8	7	21.63	21.68	21.54	



3	QPSK	15	0	21.52	21.74	21.64	22.5
3	16QAM	1	0	21.82	21.70	21.60	
3	16QAM	1	8	21.85	21.50	21.59	
3	16QAM	1	14	21.47	21.74	21.58	21.5
3	16QAM	8	0	20.76	20.66	20.68	
3	16QAM	8	4	20.78	20.70	20.65	
3	16QAM	8	7	20.70	20.51	20.57	21.5
3	16QAM	15	0	20.63	20.50	20.69	
3	64QAM	1	0	20.51	20.65	20.50	
3	64QAM	1	8	20.53	20.73	20.56	21.5
3	64QAM	1	14	20.68	20.67	20.73	
3	64QAM	8	0	19.59	19.52	19.55	
3	64QAM	8	4	19.73	19.74	19.72	20.5
3	64QAM	8	7	19.50	19.41	19.47	
3	64QAM	15	0	19.51	19.73	19.61	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	22.57	22.60	22.57	23.5
1.4	QPSK	1	3	22.52	22.55	22.53	
1.4	QPSK	1	5	22.51	22.58	22.58	
1.4	QPSK	3	0	21.61	21.60	21.63	23.5
1.4	QPSK	3	1	21.81	21.77	21.59	
1.4	QPSK	3	3	21.79	21.64	21.58	
1.4	QPSK	6	0	21.61	21.84	21.69	22.5
1.4	16QAM	1	0	21.73	21.86	21.75	
1.4	16QAM	1	3	21.79	21.73	21.68	
1.4	16QAM	1	5	21.60	21.65	21.55	22.5
1.4	16QAM	3	0	20.76	20.82	20.87	
1.4	16QAM	3	1	20.55	20.74	20.85	
1.4	16QAM	3	3	20.72	20.60	20.58	21.5
1.4	16QAM	6	0	20.78	20.62	20.64	
1.4	64QAM	1	0	20.73	20.55	20.64	
1.4	64QAM	1	3	20.59	20.86	20.63	21.5
1.4	64QAM	1	5	20.49	20.86	20.44	
1.4	64QAM	3	0	19.58	19.53	19.58	
1.4	64QAM	3	1	19.61	19.85	19.82	20.5
1.4	64QAM	3	3	19.66	19.61	19.56	
1.4	64QAM	6	0	19.60	19.72	19.66	

3	QPSK	15	0	21.55	21.69	21.57	22.5
3	16QAM	1	0	21.88	21.89	21.63	
3	16QAM	1	8	21.62	21.74	21.87	
3	16QAM	1	14	21.57	21.57	21.75	21.5
3	16QAM	8	0	20.66	20.77	20.65	
3	16QAM	8	4	20.55	20.69	20.69	
3	16QAM	8	7	20.69	20.68	20.50	21.5
3	16QAM	15	0	20.64	20.74	20.81	
3	64QAM	1	0	20.47	20.53	20.58	
3	64QAM	1	8	20.54	20.78	20.55	21.5
3	64QAM	1	14	20.79	20.77	20.57	
3	64QAM	8	0	19.55	19.71	19.56	
3	64QAM	8	4	19.58	19.84	19.67	20.5
3	64QAM	8	7	19.59	19.63	19.46	
3	64QAM	15	0	19.78	19.76	19.85	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	22.66	22.69	22.54	23.5
1.4	QPSK	1	3	22.67	22.60	22.65	
1.4	QPSK	1	5	22.58	22.61	22.51	
1.4	QPSK	3	0	21.54	21.68	21.84	23.5
1.4	QPSK	3	1	21.68	21.66	21.88	
1.4	QPSK	3	3	21.88	21.63	21.61	
1.4	QPSK	6	0	21.47	21.75	21.77	22.5
1.4	16QAM	1	0	21.71	21.85	21.66	
1.4	16QAM	1	3	21.65	21.55	21.64	
1.4	16QAM	1	5	21.62	21.62	21.64	22.5
1.4	16QAM	3	0	20.78	20.58	20.70	
1.4	16QAM	3	1	20.60	20.71	20.82	
1.4	16QAM	3	3	20.60	20.66	20.50	21.5
1.4	16QAM	6	0	20.60	20.62	20.71	
1.4	64QAM	1	0	20.65	20.54	20.60	
1.4	64QAM	1	3	20.60	20.61	20.86	21.5
1.4	64QAM	1	5	20.61	20.75	20.67	
1.4	64QAM	3	0	19.56	19.74	19.58	
1.4	64QAM	3	1	19.62	19.54	19.78	20.5
1.4	64QAM	3	3	19.70	19.56	19.59	
1.4	64QAM	6	0	19.75	19.60	19.53	



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	23.5
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	22.55	22.61	22.57	22.5
10	QPSK	1	25	22.51	22.37	22.43	
10	QPSK	1	49	22.43	22.32	22.42	
10	QPSK	25	0	21.37	21.60	21.57	
10	QPSK	25	12	21.52	21.56	21.54	22.5
10	QPSK	25	25	21.58	21.47	21.57	
10	QPSK	50	0	21.38	21.49	21.54	
10	16QAM	1	0	21.51	21.56	21.54	
10	16QAM	1	25	21.62	21.58	21.55	21.5
10	16QAM	1	49	21.61	21.47	21.48	
10	16QAM	25	0	20.55	20.63	20.62	
10	16QAM	25	12	20.48	20.36	20.58	
10	16QAM	25	25	20.48	20.44	20.49	21.5
10	16QAM	50	0	20.58	20.48	20.49	
10	64QAM	1	0	20.46	20.54	20.43	
10	64QAM	1	25	20.59	20.54	20.42	
10	64QAM	1	49	20.59	20.56	20.50	20.5
10	64QAM	25	0	19.64	19.49	19.49	
10	64QAM	25	12	19.59	19.60	19.62	
10	64QAM	25	25	19.55	19.39	19.45	
10	64QAM	50	0	19.52	19.61	19.59	20.5
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	23.5
5	QPSK	1	0	22.52	22.58	22.51	
5	QPSK	1	12	22.53	22.38	22.29	22.5
5	QPSK	1	24	22.37	22.49	22.53	
5	QPSK	12	0	21.53	21.59	21.51	
5	QPSK	12	7	21.51	21.58	21.47	
5	QPSK	12	13	21.52	21.31	21.47	22.5
5	QPSK	25	0	21.38	21.44	21.64	
5	16QAM	1	0	21.48	21.55	21.60	
5	16QAM	1	12	21.64	21.61	21.50	
5	16QAM	1	24	21.49	21.40	21.47	21.5
5	16QAM	12	0	20.51	20.44	20.46	
5	16QAM	12	7	20.34	20.42	20.47	
5	16QAM	12	13	20.48	20.51	20.56	
5	16QAM	25	0	20.36	20.56	20.45	21.5
5	64QAM	1	0	20.48	20.59	20.49	
5	64QAM	1	12	20.48	20.56	20.45	
5	64QAM	1	24	20.56	20.47	20.64	
5	64QAM	12	0	19.62	19.50	19.55	20.5
5	64QAM	12	7	19.47	19.57	19.50	
5	64QAM	12	13	19.44	19.39	19.48	
5	64QAM	25	0	19.61	19.48	19.56	
Channel				20415	20525	20635	23.5
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	22.36	22.58	22.41	22.5
3	QPSK	1	8	22.29	22.55	22.35	
3	QPSK	1	14	22.34	22.49	22.52	
3	QPSK	8	0	21.36	21.54	21.64	
3	QPSK	8	4	21.63	21.57	21.60	22.5
3	QPSK	8	7	21.45	21.53	21.61	
3	QPSK	15	0	21.58	21.54	21.65	
3	16QAM	1	0	21.53	21.65	21.60	
3	16QAM	1	8	21.52	21.50	21.51	22.5
3	16QAM	1	14	21.61	21.48	21.47	
3	16QAM	8	0	20.61	20.50	20.68	
3	16QAM	8	4	20.58	20.32	20.54	
3	16QAM	8	7	20.50	20.45	20.44	21.5
3	16QAM	15	0	20.47	20.60	20.64	
3	64QAM	1	0	20.59	20.68	20.41	
3	64QAM	1	8	20.40	20.61	20.56	
3	64QAM	1	14	20.47	20.58	20.34	20.5
3	64QAM	8	0	19.55	19.37	19.52	
3	64QAM	8	4	19.67	19.57	19.52	
3	64QAM	8	7	19.26	19.47	19.67	
3	64QAM	15	0	19.50	19.49	19.47	20.5
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	23.5
1.4	QPSK	1	0	22.36	22.56	22.53	
1.4	QPSK	1	3	22.54	22.36	22.46	22.5
1.4	QPSK	1	5	22.34	22.32	22.54	
1.4	QPSK	3	0	21.65	21.61	21.52	
1.4	QPSK	3	1	21.60	21.56	21.51	
1.4	QPSK	3	3	21.59	21.51	21.58	22.5
1.4	QPSK	6	0	21.41	21.53	21.47	
1.4	16QAM	1	0	21.66	21.54	21.46	
1.4	16QAM	1	3	21.67	21.60	21.58	
1.4	16QAM	1	5	21.62	21.59	21.60	21.5
1.4	16QAM	3	0	20.54	20.62	20.61	
1.4	16QAM	3	1	20.62	20.54	20.52	
1.4	16QAM	3	3	20.66	20.59	20.68	
1.4	16QAM	6	0	20.38	20.45	20.53	21.5
1.4	64QAM	1	0	20.54	20.41	20.41	
1.4	64QAM	1	3	20.51	20.59	20.58	
1.4	64QAM	1	5	20.45	20.62	20.47	
1.4	64QAM	3	0	19.53	19.57	19.60	20.5
1.4	64QAM	3	1	19.55	19.53	19.52	
1.4	64QAM	3	3	19.56	19.53	19.62	
1.4	64QAM	6	0	19.45	19.56	19.57	

	Band 7 (2600MHz Band) (dBm)							
	Part 27							
	BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
0.15	Channel				20850	21100	21350	
	Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	20.87	20.93	20.82	21.5	
20	QPSK	1	49	20.65	20.80	20.75		
20	QPSK	1	99	20.79	20.70	20.77		
20	QPSK	50	0	19.87	20.00	19.96		
20	QPSK	50	24	19.80	19.64	19.78	20.5	
20	QPSK	50	50	19.86	19.75	19.70		
20	QPSK	100	0	19.73	19.71	19.69		
20	16QAM	1	0	20.03	19.98	19.75		
20	16QAM	1	49	19.81	19.77	19.88	20.5	
20	16QAM	1	99	19.85	19.70	19.88		
20	16QAM	50	0	18.75	18.91	18.92		
20	16QAM	50	24	18.64	18.76	18.87		
20	16QAM	50	50	18.79	18.59	18.69	19.5	
20	16QAM	100	0	18.90	18.65	18.79		
20	64QAM	1	0	18.94	18.66	18.82		
20	64QAM	1	49	18.64	18.90	18.86		
20	64QAM	1	99	18.87	18.86	18.77	19.5	
20	64QAM	50	0	17.85	17.89	17.80		
20	64QAM	50	24	17.93	17.97	17.94		
20	64QAM	50	50	17.77	17.82	17.72		
20	64QAM	100	0	17.65	17.77	17.82		
Channel				20825	21100	21375		
Frequency (MHz)				2507.5	2535	2562.5	Tune-up limit (dBm)	
15	QPSK	1	0	20.80	20.89	20.71	21.5	
15	QPSK	1	37	20.73	20.83	20.74		
15	QPSK	1	74	20.60	20.72	20.59		
15	QPSK	36	0	19.87	19.85	19.88		
15	QPSK	36	20	19.86	19.71	19.94	20.5	
15	QPSK	36	39	19.95	19.87	19.88		
15	QPSK	75	0	19.53	19.71	19.90		
15	16QAM	1	0	20.02	19.99	19.84		
15	16QAM	1	37	19.81	19.75	19.92	20.5	
15	16QAM	1	74	19.60	19.92	19.81		
15	16QAM	36	0	18.85	18.69	18.87		
15	16QAM	36	20	18.68	18.85	18.97		
15	16QAM	36	39	18.76	18.59	18.61	19.5	
15	16QAM	75	0	18.77	18.77	18.88		
15	64QAM	1	0	18.81	18.63	18.67		
15	64QAM	1	37	18.66	18.85	18.86		
15	64QAM	1	74	18.91	18.99	18.60	19.5	
15	64QAM	36	0	17.97	17.68	17.65		
15	64QAM	36	20	17.90	17.92	17.71		
15	64QAM	36	39	17.76	17.66	17.84		
15	64QAM	75	0	17.93	17.71	17.68		
Channel				20800	21100	21400		
Frequency (MHz)				2505	2535	2565	Tune-up limit (dBm)	
10	QPSK	1	0	20.78	20.90	20.78	21.5	
10	QPSK	1	25	20.66	20.92	20.68		
10	QPSK	1	49	20.75	20.68	20.80		
10	QPSK	25	0	19.70	19.72	19.98		
10	QPSK	25	12	19.73	19.71	19.84	20.5	
10	QPSK	25	25	19.73	19.78	19.79		
10	QPSK	50	0	19.71	19.80	19.58		
10	16QAM	1	0	19.90	19.76	19.88		
10	16QAM	1	25	19.70	19.62	19.73	20.5	
10	16QAM	1	49	19.58	19.70	19.64		
10	16QAM	25	0	18.74	18.79	18.91		
10	16QAM	25	12	18.90	18.74	18.74		
10	16QAM	25	25	18.68	18.68	18.60	19.5	
10	16QAM	50	0	18.90	18.77	18.73		
10	64QAM	1	0	18.70	18.78	18.77		
10	64QAM	1	25	18.78	18.95	18.86		
10	64QAM	1	49	18.88	18.84	18.82	19.5	
10	64QAM	25	0	17.66	17.70	17.70		
10	64QAM	25	12	17.85	17.84	17.94		
10	64QAM	25	25	17.60	17.76	17.71		
10	64QAM	50	0	17.88	17.91	17.71		
Channel				20775	21100	21425		
Frequency (MHz)				2502.5	2535	2567.5	Tune-up limit (dBm)	
5	QPSK	1	0	20.71	20.91	20.79	21.5	
5	QPSK	1	12	20.78	20.76	20.71		
5	QPSK	1	24	20.73	20.70	20.63		
5	QPSK	12	0	19.80	19.96	19.90		
5	QPSK	12	7	19.76	19.74	19.88	20.5	
5	QPSK	12	13	19.97	19.64	19.73		
5	QPSK	25	0	19.69	19.74	19.72		
5	16QAM	1	0	19.84	19.80	19.63		
5	16QAM	1	12	19.92	19.67	19.81	20.5	
5	16QAM	1	24	19.81	19.63	19.91		
5	16QAM	12	0	19.00	18.74	18.90		
5	16QAM	12	7	18.67	18.74	18.83		
5	16QAM	12	13	18.90	18.83	18.93	19.5	
5	16QAM	25	0	18.70	18.71	18.68		
5	64QAM	1	0	18.82	18.86	18.81		
5	64QAM	1	12	18.80	18.85	18.83		
5	64QAM	1	24	18.95	18.99	18.86	19.5	
5	64QAM	12	0	17.81	17.79	17.85		
5	64QAM	12	7	17.60	17.68	17.79		
5	64QAM	12	13	17.67	17.85	17.76		
5	64QAM	25	0	17.78	17.86	17.65	18.5	



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	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	23.25	23.29	23.20	24
10	QPSK	1	25	23.06	23.16	23.04	
10	QPSK	1	49	23.23	23.20	23.19	
10	QPSK	25	0	22.33	22.38	22.29	
10	QPSK	25	12	22.15	22.21	22.19	23
10	QPSK	25	25	22.32	22.35	22.15	
10	QPSK	50	0	22.03	22.23	22.09	
10	16QAM	1	0	22.34	22.36	22.31	
10	16QAM	1	25	22.25	22.29	22.48	23
10	16QAM	1	49	22.10	22.29	22.40	
10	16QAM	25	0	21.26	21.35	21.32	
10	16QAM	25	12	21.30	21.23	21.24	
10	16QAM	25	25	21.35	21.12	21.09	22
10	16QAM	50	0	21.33	21.15	21.14	
10	64QAM	1	0	21.07	21.35	21.27	
10	64QAM	1	25	21.31	21.38	21.15	
10	64QAM	1	49	21.22	21.36	21.31	22
10	64QAM	25	0	20.25	20.35	20.25	
10	64QAM	25	12	20.14	20.22	20.38	
10	64QAM	25	25	20.05	20.06	20.38	
10	64QAM	50	0	20.17	20.09	20.17	21
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	Tune-up limit (dBm)
5	QPSK	1	0	23.20	23.24	23.19	24
5	QPSK	1	12	23.24	23.15	23.11	
5	QPSK	1	24	23.19	23.20	23.02	
5	QPSK	12	0	22.23	22.19	22.41	
5	QPSK	12	7	22.22	22.15	22.16	23
5	QPSK	12	13	22.30	22.31	22.26	
5	QPSK	25	0	22.12	22.35	22.36	
5	16QAM	1	0	22.41	22.49	22.15	
5	16QAM	1	12	22.20	22.31	22.23	23
5	16QAM	1	24	22.27	22.26	22.27	
5	16QAM	12	0	21.49	21.41	21.28	
5	16QAM	12	7	21.10	21.36	21.28	
5	16QAM	12	13	21.42	21.27	21.36	22
5	16QAM	25	0	21.22	21.13	21.40	
5	64QAM	1	0	21.35	21.33	21.06	
5	64QAM	1	12	21.42	21.35	21.35	
5	64QAM	1	24	21.26	21.37	21.16	22
5	64QAM	12	0	20.43	20.20	20.07	
5	64QAM	12	7	20.12	20.36	20.45	
5	64QAM	12	13	20.07	20.25	20.19	
5	64QAM	25	0	20.26	20.36	20.30	21
Channel				23025	23095	23165	
Frequency (MHz)				700.5	707.5	714.5	Tune-up limit (dBm)
3	QPSK	1	0	23.21	23.23	23.17	24
3	QPSK	1	8	23.16	23.10	23.06	
3	QPSK	1	14	23.14	23.15	23.11	
3	QPSK	8	0	22.10	22.33	22.30	
3	QPSK	8	4	22.19	22.28	22.22	23
3	QPSK	8	7	22.18	22.23	22.17	
3	QPSK	15	0	22.00	22.16	22.08	
3	16QAM	1	0	22.30	22.37	22.18	
3	16QAM	1	8	22.43	22.29	22.19	23
3	16QAM	1	14	22.10	22.39	22.07	
3	16QAM	8	0	21.24	21.22	21.35	
3	16QAM	8	4	21.26	21.19	21.27	
3	16QAM	8	7	21.40	21.29	21.14	22
3	16QAM	15	0	21.17	21.26	21.36	
3	64QAM	1	0	21.13	21.33	21.06	
3	64QAM	1	8	21.24	21.26	21.32	
3	64QAM	1	14	21.18	21.25	21.26	22
3	64QAM	8	0	20.21	20.25	20.12	
3	64QAM	8	4	20.25	20.17	20.40	
3	64QAM	8	7	20.03	20.05	20.13	
3	64QAM	15	0	20.36	20.23	20.12	21
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	Tune-up limit (dBm)
1.4	QPSK	1	0	23.16	23.26	23.17	24
1.4	QPSK	1	3	23.22	23.16	23.01	
1.4	QPSK	1	5	23.18	23.07	23.16	
1.4	QPSK	3	0	22.22	22.34	22.40	
1.4	QPSK	3	1	22.33	22.23	22.30	
1.4	QPSK	3	3	22.34	22.03	22.04	
1.4	QPSK	6	0	22.13	22.34	22.04	23
1.4	16QAM	1	0	22.24	22.30	22.18	
1.4	16QAM	1	3	22.34	22.25	22.20	
1.4	16QAM	1	5	22.28	22.32	22.32	
1.4	16QAM	3	0	21.27	21.22	21.32	
1.4	16QAM	3	1	21.18	21.20	21.38	
1.4	16QAM	3	3	21.29	21.25	21.08	22
1.4	16QAM	6	0	21.10	21.14	21.26	
1.4	64QAM	1	0	21.07	21.37	21.08	
1.4	64QAM	1	3	21.19	21.25	21.33	
1.4	64QAM	1	5	21.15	21.37	21.33	
1.4	64QAM	3	0	20.36	20.14	20.10	
1.4	64QAM	3	1	20.16	20.46	20.26	22
1.4	64QAM	3	3	20.01	20.24	20.40	
1.4	64QAM	6	0	20.28	20.14	20.32	21

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		23.24		24
10	QPSK	1	25		23.20		
10	QPSK	1	49		23.15		
10	QPSK	25	0		22.43		
10	QPSK	25	12		22.27		23
10	QPSK	25	25		22.16		
10	QPSK	50	0		22.34		
10	16QAM	1	0		22.29		
10	16QAM	1	25		22.38		23
10	16QAM	1	49		22.31		
10	16QAM	25	0		21.37		
10	16QAM	25	12		21.32		
10	16QAM	25	25		21.11		22
10	16QAM	50	0		21.16		
10	64QAM	1	0		21.32		
10	64QAM	1	25		21.25		
10	64QAM	1	49		21.04		22
10	64QAM	25	0		20.22		
10	64QAM	25	12		20.33		
10	64QAM	25	25		20.41		
10	64QAM	50	0		20.43		21
Channel				23205	23230	23255	
Frequency (MHz)				779.5	782	784.5	Tune-up limit (dBm)
5	QPSK	1	0	23.20	23.22	23.19	24
5	QPSK	1	12	23.13	23.19	23.18	
5	QPSK	1	24	23.16	23.18	23.21	
5	QPSK	12	0	22.38	22.37	22.33	
5	QPSK	12	7	22.19	22.18	22.19	23
5	QPSK	12	13	22.25	22.13	22.28	
5	QPSK	25	0	22.13	22.18	22.29	
5	16QAM	1	0	22.32	22.24	22.31	
5	16QAM	1	12	22.27	22.10	22.32	23
5	16QAM	1	24	22.26	22.41	22.37	
5	16QAM	12	0	21.28	21.44	21.32	
5	16QAM	12	7	21.31	21.10	21.19	
5	16QAM	12	13	21.26	21.15	21.19	22
5	16QAM	25	0	21.09	21.32	21.21	
5	64QAM	1	0	21.17	21.19	21.19	
5	64QAM	1	12	21.11	21.24	21.11	
5	64QAM	1	24	21.09	21.16	21.33	22
5	64QAM	12	0	20.32	20.26	20.17	
5	64QAM	12	7	20.32	20.30	20.18	
5	64QAM	12	13	20.08	20.20	20.19	
5	64QAM	25	0	20.39	20.29	20.34	21



Band 14 (700MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23330			
Frequency (MHz)				793			
10	QPSK	1	0		23.38		24
10	QPSK	1	25		23.16		
10	QPSK	1	49		23.07		
10	QPSK	25	0		22.44		
10	QPSK	25	12		22.23		23
10	QPSK	25	25		22.10		
10	QPSK	50	0		22.23		
10	16QAM	1	0		22.33		
10	16QAM	1	25		22.24		23
10	16QAM	1	49		22.30		
10	16QAM	25	0		21.41		
10	16QAM	25	12		21.25		
10	16QAM	25	25		21.26		22
10	16QAM	50	0		21.22		
10	64QAM	1	0		21.30		
10	64QAM	1	25		21.37		
10	64QAM	1	49		21.19		22
10	64QAM	25	0		20.24		
10	64QAM	25	12		20.38		
10	64QAM	25	25		20.23		
10	64QAM	50	0		20.23		21
Channel				23305	23330	23355	
Frequency (MHz)				790.5	793	795.5	Tune-up limit (dBm)
5	QPSK	1	0	23.08	23.34	23.24	24
5	QPSK	1	12	23.32	23.29	23.19	
5	QPSK	1	24	23.14	23.10	23.19	
5	QPSK	12	0	22.10	22.21	22.16	
5	QPSK	12	7	22.20	22.33	22.23	23
5	QPSK	12	13	22.24	22.07	22.03	
5	QPSK	25	0	22.15	22.29	22.31	
5	16QAM	1	0	22.29	22.13	22.13	
5	16QAM	1	12	22.36	22.12	22.25	23
5	16QAM	1	24	22.28	22.35	22.18	
5	16QAM	12	0	21.23	21.43	21.26	
5	16QAM	12	7	21.31	21.15	21.23	
5	16QAM	12	13	21.16	21.27	21.42	22
5	16QAM	25	0	21.06	21.09	21.18	
5	64QAM	1	0	21.37	21.13	21.07	
5	64QAM	1	12	21.34	21.40	21.38	
5	64QAM	1	24	21.43	21.17	21.14	22
5	64QAM	12	0	20.15	20.26	20.21	
5	64QAM	12	7	20.37	20.17	20.18	
5	64QAM	12	13	20.24	20.17	20.17	
5	64QAM	25	0	20.38	20.25	20.34	21

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	24
10	QPSK	1	0	23.19	23.23	23.16	
10	QPSK	1	25	23.05	23.19	23.20	
10	QPSK	1	49	23.12	23.15	23.20	
10	QPSK	25	0	22.28	22.31	22.27	23
10	QPSK	25	12	22.18	22.27	22.22	
10	QPSK	25	25	22.13	22.23	22.11	
10	QPSK	50	0	22.26	22.13	22.12	
10	16QAM	1	0	22.30	22.36	22.07	23
10	16QAM	1	25	22.13	22.14	22.43	
10	16QAM	1	49	22.21	22.24	22.12	
10	16QAM	25	0	21.29	21.38	21.42	
10	16QAM	25	12	21.08	21.17	21.23	22
10	16QAM	25	25	21.39	21.07	21.27	
10	16QAM	50	0	21.32	21.37	21.49	
10	64QAM	1	0	21.18	21.30	21.09	
10	64QAM	1	25	21.42	21.24	21.38	22
10	64QAM	1	49	21.24	21.33	21.11	
10	64QAM	25	0	20.34	20.39	20.09	
10	64QAM	25	12	20.07	20.30	20.25	
10	64QAM	25	25	20.07	20.12	20.18	21
10	64QAM	50	0	20.13	20.09	20.18	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	23.14	23.20	23.16	24
5	QPSK	1	12	23.04	23.16	23.10	
5	QPSK	1	24	23.15	23.09	23.13	
5	QPSK	12	0	22.19	22.45	22.24	
5	QPSK	12	7	22.36	22.38	22.40	23
5	QPSK	12	13	22.29	22.19	22.09	
5	QPSK	25	0	22.14	22.16	22.20	
5	16QAM	1	0	22.26	22.34	22.17	
5	16QAM	1	12	22.27	22.16	22.27	23
5	16QAM	1	24	22.12	22.18	22.23	
5	16QAM	12	0	21.29	21.35	21.44	
5	16QAM	12	7	21.08	21.35	21.25	
5	16QAM	12	13	21.50	21.31	21.08	22
5	16QAM	25	0	21.32	21.19	21.20	
5	64QAM	1	0	21.12	21.41	21.23	
5	64QAM	1	12	21.29	21.38	21.11	
5	64QAM	1	24	21.30	21.27	21.37	22
5	64QAM	12	0	20.39	20.26	20.27	
5	64QAM	12	7	20.36	20.24	20.33	
5	64QAM	12	13	20.17	20.10	20.16	
5	64QAM	25	0	20.36	20.14	20.19	21



Band 18 (835MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23925	23925	23925	
Frequency (MHz)				822.5	822.5	822.5	
15	QPSK	1	0	22.73	22.83	22.77	23.5
15	QPSK	1	37	22.71	22.77	22.59	
15	QPSK	1	74	22.80	22.61	22.64	
15	QPSK	36	0	21.80	21.81	21.72	22.5
15	QPSK	36	20	21.58	21.59	21.65	
15	QPSK	36	39	21.70	21.55	21.72	
15	QPSK	75	0	21.59	21.75	21.68	22.5
15	16QAM	1	0	21.75	21.69	21.73	
15	16QAM	1	37	21.75	21.65	21.92	
15	16QAM	1	74	21.74	21.61	21.75	21.5
15	16QAM	36	0	20.98	20.87	20.90	
15	16QAM	36	20	20.82	20.79	20.73	
15	16QAM	36	39	20.77	20.56	20.63	21.5
15	16QAM	75	0	20.54	20.88	20.85	
15	64QAM	1	0	20.70	20.91	20.70	
15	64QAM	1	25	20.91	20.76	20.71	21.5
15	64QAM	1	49	20.90	20.82	20.75	
15	64QAM	25	0	19.77	19.68	19.82	
15	64QAM	25	12	19.56	19.80	19.76	20.5
15	64QAM	25	25	19.56	19.75	19.87	
15	64QAM	50	0	19.74	19.82	19.61	
Channel				23900	23925	23950	Tune-up limit (dBm)
Frequency (MHz)				820	822.5	825	
10	QPSK	1	0	22.72	22.80	22.75	23.5
10	QPSK	1	25	22.61	22.71	22.73	
10	QPSK	1	49	22.64	22.72	22.61	
10	QPSK	25	0	21.61	21.68	21.71	22.5
10	QPSK	25	12	21.81	21.85	21.71	
10	QPSK	25	25	21.95	21.69	21.59	
10	QPSK	50	0	21.65	21.92	21.88	22.5
10	16QAM	1	0	21.73	21.82	21.59	
10	16QAM	1	25	21.89	21.82	21.76	
10	16QAM	1	49	21.61	21.83	21.71	21.5
10	16QAM	25	0	20.88	20.66	20.77	
10	16QAM	25	12	20.59	20.66	20.72	
10	16QAM	25	25	20.86	20.53	20.88	21.5
10	16QAM	50	0	20.64	20.88	20.83	
10	64QAM	1	0	20.74	20.70	20.54	
10	64QAM	1	25	20.93	20.83	20.64	21.5
10	64QAM	1	49	20.59	20.93	20.85	
10	64QAM	25	0	19.82	19.90	19.80	
10	64QAM	25	12	19.60	19.65	19.91	20.5
10	64QAM	25	25	19.77	19.54	19.79	
10	64QAM	50	0	19.61	19.86	19.95	
Channel				23875	23925	23975	Tune-up limit (dBm)
Frequency (MHz)				817.5	822.5	827.5	
5	QPSK	1	0	22.67	22.81	22.65	23.5
5	QPSK	1	12	22.70	22.75	22.77	
5	QPSK	1	24	22.64	22.74	22.59	
5	QPSK	12	0	21.59	21.72	21.82	22.5
5	QPSK	12	7	21.95	21.65	21.77	
5	QPSK	12	13	21.93	21.74	21.69	
5	QPSK	25	0	21.51	21.74	21.83	22.5
5	16QAM	1	0	21.78	21.99	21.78	
5	16QAM	1	12	21.81	21.83	21.74	
5	16QAM	1	24	21.76	21.60	21.63	21.5
5	16QAM	12	0	20.96	20.82	20.89	
5	16QAM	12	7	20.64	20.81	20.83	
5	16QAM	12	13	20.94	20.83	20.90	21.5
5	16QAM	25	0	20.76	20.60	20.89	
5	64QAM	1	0	20.62	20.75	20.73	
5	64QAM	1	12	20.71	20.73	20.66	21.5
5	64QAM	1	24	20.64	20.69	20.85	
5	64QAM	12	0	19.81	19.69	19.58	20.5
5	64QAM	12	7	19.59	19.85	19.95	
5	64QAM	12	13	19.76	19.77	19.68	
5	64QAM	25	0	19.96	19.74	19.70	

Band 19 (835MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				24075	24075	24075	
Frequency (MHz)				837.5	837.5	837.5	
15	QPSK	1	0	22.59	22.65	22.60	23.5
15	QPSK	1	37	22.50	22.52	22.56	
15	QPSK	1	74	22.53	22.57	22.50	
15	QPSK	36	0	21.71	21.75	21.66	22.5
15	QPSK	36	20	21.58	21.58	21.51	
15	QPSK	36	39	21.54	21.56	21.59	
15	QPSK	75	0	21.58	21.68	21.57	22.5
15	16QAM	1	0	21.70	21.76	21.60	
15	16QAM	1	37	21.66	21.56	21.77	
15	16QAM	1	74	21.62	21.77	21.70	21.5
15	16QAM	36	0	20.62	20.81	20.84	
15	16QAM	36	20	20.53	20.58	20.68	
15	16QAM	36	39	20.63	20.64	20.72	21.5
15	16QAM	75	0	20.64	20.55	20.84	
15	64QAM	1	0	20.62	20.71	20.56	
15	64QAM	1	25	20.66	20.69	20.60	21.5
15	64QAM	1	49	20.61	20.68	20.58	
15	64QAM	25	0	19.66	19.61	19.75	
15	64QAM	25	12	19.55	19.66	19.65	20.5
15	64QAM	25	25	19.62	19.53	19.74	
15	64QAM	50	0	19.64	19.66	19.75	
Channel				24050	24075	24100	Tune-up limit (dBm)
Frequency (MHz)				835	837.5	840	
10	QPSK	1	0	22.59	22.62	22.60	23.5
10	QPSK	1	25	22.51	22.56	22.53	
10	QPSK	1	49	22.57	22.54	22.52	
10	QPSK	25	0	21.56	21.66	21.71	22.5
10	QPSK	25	12	21.60	21.69	21.63	
10	QPSK	25	25	21.66	21.58	21.61	
10	QPSK	50	0	21.61	21.62	21.57	22.5
10	16QAM	1	0	21.62	21.75	21.42	
10	16QAM	1	25	21.63	21.71	21.71	
10	16QAM	1	49	21.74	21.46	21.49	21.5
10	16QAM	25	0	20.63	20.84	20.73	
10	16QAM	25	12	20.45	20.44	20.66	
10	16QAM	25	25	20.62	20.58	20.57	21.5
10	16QAM	50	0	20.73	20.44	20.58	
10	64QAM	1	0	20.42	20.63	20.59	
10	64QAM	1	25	20.63	20.69	20.81	21.5
10	64QAM	1	49	20.72	20.81	20.47	
10	64QAM	25	0	19.51	19.58	19.66	
10	64QAM	25	12	19.47	19.72	19.81	20.5
10	64QAM	25	25	19.56	19.53	19.52	
10	64QAM	50	0	19.76	19.68	19.77	
Channel				24025	24075	24125	Tune-up limit (dBm)
Frequency (MHz)				832.5	837.5	842.5	
5	QPSK	1	0	22.58	22.61	22.51	20.84
5	QPSK	1	12	22.52	22.54	22.54	
5	QPSK	1	24	22.55	22.60	22.47	
5	QPSK	12	0	21.61	21.82	21.53	19.84
5	QPSK	12	7	21.55	21.50	21.62	
5	QPSK	12	13	21.74	21.56	21.55	
5	QPSK	25	0	21.48	21.49	21.49	19.84
5	16QAM	1	0	21.71	21.88	21.63	
5	16QAM	1	12	21.56	21.56	21.82	
5	16QAM	1	24	21.56	21.68	21.71	18.84
5	16QAM	12	0	20.80	20.67	20.53	
5	16QAM	12	7	20.62	20.54	20.70	
5	16QAM	12	13	20.70	20.43	20.47	18.84
5	16QAM	25	0	20.69	20.60	20.81	
5	64QAM	1	0	20.53	20.63	20.56	
5	64QAM	1	12	20.74	20.83	20.51	18.84
5	64QAM	1	24	20.74	20.59	20.59	
5	64QAM	12	0	19.80	19.54	19.54	17.84
5	64QAM	12	7	19.51	19.77	19.67	
5	64QAM	12	13	19.63	19.55	19.60	
5	64QAM	25	0	19.76	19.64	19.54	



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	22.89	22.92	22.85	23.5
20	QPSK	1	49	22.84	22.80	22.83	
20	QPSK	1	99	22.63	22.69	22.78	
20	QPSK	50	0	21.86	21.96	21.84	22.5
20	QPSK	50	24	21.80	21.81	21.87	
20	QPSK	50	50	21.73	21.79	21.83	
20	QPSK	100	0	21.86	21.94	21.88	22.5
20	16QAM	1	0	21.96	21.95	21.98	
20	16QAM	1	49	21.90	21.90	21.97	
20	16QAM	1	99	21.76	21.94	21.71	21.5
20	16QAM	50	0	20.84	20.92	20.99	
20	16QAM	50	24	20.89	20.95	20.90	
20	16QAM	50	50	20.92	20.97	20.95	21.5
20	16QAM	100	0	20.68	20.74	20.97	
20	64QAM	1	0	20.78	20.74	20.81	
20	64QAM	1	49	20.83	20.90	20.74	21.5
20	64QAM	1	99	20.74	20.85	20.96	
20	64QAM	50	0	19.94	19.73	19.90	
20	64QAM	50	24	19.88	19.81	19.79	20.5
20	64QAM	50	50	19.80	19.79	19.67	
20	64QAM	100	0	19.74	19.79	19.76	
Channel				26115	26365	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	22.85	22.90	22.78	23.5
15	QPSK	1	37	22.75	22.77	22.89	
15	QPSK	1	74	22.63	22.80	22.83	
15	QPSK	36	0	21.71	21.90	21.81	22.5
15	QPSK	36	20	21.92	21.88	21.83	
15	QPSK	36	39	21.78	21.77	21.82	
15	QPSK	75	0	21.54	21.77	21.87	22.5
15	16QAM	1	0	21.77	21.90	21.79	
15	16QAM	1	37	21.84	21.67	21.86	
15	16QAM	1	74	21.76	21.74	21.87	21.5
15	16QAM	36	0	20.90	20.85	20.85	
15	16QAM	36	20	20.74	20.62	20.79	
15	16QAM	36	39	20.88	20.88	20.85	21.5
15	16QAM	75	0	20.76	20.98	20.91	
15	64QAM	1	0	20.94	20.79	20.71	
15	64QAM	1	37	20.78	20.84	20.79	21.5
15	64QAM	1	74	20.72	20.86	20.82	
15	64QAM	36	0	19.88	19.74	19.82	
15	64QAM	36	20	19.78	19.79	19.78	20.5
15	64QAM	36	39	19.64	19.92	19.86	
15	64QAM	75	0	19.84	19.76	19.71	
Channel				26690	26365	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	22.74	22.89	22.79	23.5
10	QPSK	1	25	22.75	22.74	22.80	
10	QPSK	1	49	22.88	22.76	22.68	
10	QPSK	25	0	21.75	21.84	21.92	22.5
10	QPSK	25	12	21.81	21.89	21.73	
10	QPSK	25	25	21.76	21.77	21.87	
10	QPSK	50	0	21.71	21.77	21.69	22.5
10	16QAM	1	0	21.90	21.86	21.73	
10	16QAM	1	25	21.99	21.73	21.86	
10	16QAM	1	49	21.74	21.99	21.74	21.5
10	16QAM	25	0	20.79	20.83	20.91	
10	16QAM	25	12	20.77	20.87	20.98	
10	16QAM	25	25	20.77	20.90	20.73	21.5
10	16QAM	50	0	20.79	20.96	20.84	
10	64QAM	1	0	20.79	20.88	20.88	
10	64QAM	1	25	20.92	20.87	20.80	21.5
10	64QAM	1	49	20.91	20.78	20.66	
10	64QAM	25	0	19.80	19.75	19.77	
10	64QAM	25	12	19.83	19.92	19.83	20.5
10	64QAM	25	25	19.70	19.77	19.79	
10	64QAM	50	0	19.81	19.91	19.76	
Channel				26065	26365	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	QPSK	1	0	22.66	22.85	22.68	23.5
5	QPSK	1	12	22.65	22.79	22.70	
5	QPSK	1	24	22.59	22.55	22.75	
5	QPSK	12	0	21.74	21.87	21.73	22.5
5	QPSK	12	7	21.77	21.78	21.84	
5	QPSK	12	13	21.74	21.78	21.64	
5	QPSK	25	0	21.63	21.76	21.83	22.5
5	16QAM	1	0	21.82	21.88	21.78	
5	16QAM	1	12	21.89	21.81	21.80	
5	16QAM	1	24	21.74	21.72	21.79	21.5
5	16QAM	12	0	20.91	20.94	20.85	
5	16QAM	12	7	20.66	20.86	20.83	
5	16QAM	12	13	20.77	20.68	20.74	21.5
5	16QAM	25	0	20.91	20.84	20.80	
5	64QAM	1	0	20.96	20.97	20.76	
5	64QAM	1	12	20.76	20.83	20.91	21.5
5	64QAM	1	24	20.87	20.95	20.89	
5	64QAM	12	0	19.89	19.79	19.70	
5	64QAM	12	7	19.84	19.86	19.75	20.5
5	64QAM	12	13	19.84	19.86	19.81	
5	64QAM	25	0	19.79	19.87	19.83	
Channel				26055	26365	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	22.84	22.88	22.79	23.5
3	QPSK	1	8	22.58	22.73	22.68	
3	QPSK	1	14	22.81	22.86	22.62	
3	QPSK	8	0	21.70	21.78	21.73	22.5
3	QPSK	8	4	21.79	21.81	21.79	
3	QPSK	8	7	21.76	21.70	21.85	

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	23.5
15	QPSK	1	0	22.71	22.76	22.70	
15	QPSK	1	37	22.67	22.75	22.73	
15	QPSK	1	74	22.74	22.58	22.61	
15	QPSK	36	0	21.59	21.87	21.80	
15	QPSK	36	20	21.76	21.85	21.75	22.5
15	QPSK	36	39	21.77	21.83	21.73	
15	QPSK	75	0	21.83	21.72	21.82	
15	16QAM	1	0	21.78	21.89	21.91	22.5
15	16QAM	1	37	21.82	21.66	21.83	
15	16QAM	1	74	21.68	21.93	21.87	
15	16QAM	36	0	20.95	20.88	20.94	21.5
15	16QAM	36	20	20.88	20.81	20.70	
15	16QAM	36	39	20.92	20.88	20.88	
15	16QAM	75	0	20.79	20.91	20.74	
15	64QAM	1	0	20.93	20.86	20.80	
15	64QAM	1	37	20.93	20.78	20.75	21.5
15	64QAM	1	74	20.81	20.79	20.75	
15	64QAM	36	0	19.89	19.89	19.75	
15	64QAM	36	20	19.74	19.81	19.70	20.5
15	64QAM	36	39	19.76	19.66	19.82	
15	64QAM	75	0	19.82	19.87	19.97	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	22.70	22.73	22.71	23.5
10	QPSK	1	25	22.61	22.67	22.59	
10	QPSK	1	49	22.67	22.66	22.61	
10	QPSK	25	0	21.69	21.78	21.79	22.5
10	QPSK	25	12	21.79	21.81	21.76	
10	QPSK	25	25	21.76	21.65	21.80	
10	QPSK	50	0	21.68	21.76	21.89	22.5
10	16QAM	1	0	21.81	21.79	21.76	
10	16QAM	1	25	21.93	21.83	21.71	
10	16QAM	1	49	21.74	21.94	21.90	21.5
10	16QAM	25	0	20.95	20.93	20.87	
10	16QAM	25	12	20.71	20.79	20.83	
10	16QAM	25	25	20.74	20.72	20.76	21.5
10	16QAM	50	0	20.92	20.84	20.98	
10	64QAM	1	0	20.68	20.84	20.70	
10	64QAM	1	25	20.92	20.97	20.77	21.5
10	64QAM	1	49	20.92	20.89	20.95	
10	64QAM	25	0	20.05	19.98	19.81	
10	64QAM	25	12	19.72	20.05	20.01	20.5
10	64QAM	25	25	19.64	19.66	20.00	
10	64QAM	50	0	19.82	19.75	20.01	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	22.73	22.74	22.68	23.5
5	QPSK	1	12	22.62	22.67	22.69	
5	QPSK	1	24	22.66	22.62	22.71	
5	QPSK	12	0	21.67	21.83	21.78	22.5
5	QPSK	12	7	21.78	21.67	21.80	
5	QPSK	12	13	21.73	21.84	21.71	
5	QPSK	25	0	21.88	21.81	21.77	22.5
5	16QAM	1	0	21.94	21.73	21.72	
5	16QAM	1	12	21.79	21.75	21.82	
5	16QAM	1	24	21.95	21.79	21.95	21.5
5	16QAM	12	0	20.83	20.86	20.89	
5	16QAM	12	7	20.90	20.85	20.73	
5	16QAM	12	13	20.85	20.93	20.78	21.5
5	16QAM	25	0	20.68	20.70	20.85	
5	64QAM	1	0	20.77	20.72	20.83	
5	64QAM	1	12	20.72	20.76	20.92	21.5
5	64QAM	1	24	20.86	20.84	20.72	
5	64QAM	12	0	19.76	19.80	19.77	
5	64QAM	12	7	19.75	19.90	19.88	20.5
5	64QAM	12	13	19.71	19.65	19.83	
5	64QAM	25	0	19.88	19.85	19.79	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	22.69	22.71	22.65	23.5
3	QPSK	1	8	22.62	22.59	22.67	
3	QPSK	1	14	22.67	22.66	22.61	
3	QPSK	8	0	21.63	21.92	21.80	22.5
3	QPSK	8	4	21.76	21.73	21.91	
3	QPSK	8	7	21.78	21.87	21.62	
3	QPSK	15	0	21.62	21.94	21.69	22.5
3	16QAM	1	0	21.91	22.10	21.71	
3	16QAM	1	8	21.75	21.88	22.03	
3	16QAM	1	14	21.66	21.70	21.96	21.5
3	16QAM	8	0	21.05	20.76	20.86	
3	16QAM	8	4	20.82	20.82	21.03	
3	16QAM	8	7	20.80	20.67	20.88	21.5
3	16QAM	15	0	20.84	21.00	21.09	
3	64QAM	1	0	20.75	20.99	20.89	
3	64QAM	1	8	21.05	20.89	20.76	21.5
3	64QAM	1	14	20.73	20.90	20.95	
3	64QAM	8	0	20.02	19.84	20.00	
3	64QAM	8	4	19.90	19.94	19.97	20.5
3	64QAM	8	7	19.62	19.80	19.68	
3	64QAM	15	0	19.76	19.85	19.87	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	22.66	22.70	22.67	23.5
1.4	QPSK	1	3	22.64	22.62	22.64	
1.4	QPSK	1	5	22.63	22.65	22.67	
1.4	QPSK	3	0	21.83	21.79	21.91	
1.4	QPSK	3	1	21.81	21.77	21.93	
1.4	QPSK	3	3	21.88	21.61	21.69	



3	QPSK	15	0	21.69	21.72	21.79	
3	16QAM	1	0	21.89	21.94	21.93	
3	16QAM	1	8	21.74	21.82	21.91	22.5
3	16QAM	1	14	21.72	21.88	21.71	
3	16QAM	8	0	20.87	20.88	20.90	
3	16QAM	8	4	20.91	20.68	20.72	21.5
3	16QAM	8	7	20.82	20.65	20.89	
3	16QAM	15	0	20.78	20.86	20.93	
3	64QAM	1	0	20.83	20.91	20.86	
3	64QAM	1	8	20.85	20.77	20.91	21.5
3	64QAM	1	14	20.76	20.84	20.66	
3	64QAM	8	0	19.84	19.74	19.82	
3	64QAM	8	4	19.80	19.79	19.75	20.5
3	64QAM	8	7	19.55	19.58	19.71	
3	64QAM	15	0	19.72	19.72	19.89	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	22.84	22.87	22.76	
1.4	QPSK	1	3	22.77	22.75	22.57	
1.4	QPSK	1	5	22.80	22.72	22.61	23.5
1.4	QPSK	3	0	21.80	21.92	21.89	
1.4	QPSK	3	1	21.84	21.67	21.86	
1.4	QPSK	3	3	21.89	21.90	21.77	
1.4	QPSK	6	0	21.73	21.83	21.94	22.5
1.4	16QAM	1	0	21.73	21.94	21.81	
1.4	16QAM	1	3	21.80	21.82	21.95	
1.4	16QAM	1	5	21.90	21.74	21.81	21.5
1.4	16QAM	3	0	20.79	21.09	21.20	
1.4	16QAM	3	1	20.74	20.85	20.92	
1.4	16QAM	3	3	20.86	20.92	20.93	
1.4	16QAM	6	0	20.80	20.72	20.92	20.5
1.4	64QAM	1	0	20.70	20.98	20.69	
1.4	64QAM	1	3	20.71	20.87	20.85	
1.4	64QAM	1	5	20.83	20.86	20.77	21.5
1.4	64QAM	3	0	19.88	19.85	19.88	
1.4	64QAM	3	1	19.80	19.81	19.79	
1.4	64QAM	3	3	19.90	19.80	19.84	
1.4	64QAM	6	0	19.72	19.79	19.87	20.5

1.4	QPSK	6	0	21.60	21.92	21.77	22.5
1.4	16QAM	1	0	21.90	21.84	21.81	
1.4	16QAM	1	3	21.77	21.70	21.77	
1.4	16QAM	1	5	21.87	21.82	21.79	22.5
1.4	16QAM	3	0	20.78	20.88	20.77	
1.4	16QAM	3	1	20.68	20.68	20.84	
1.4	16QAM	3	3	20.84	20.75	20.55	
1.4	16QAM	6	0	20.93	20.77	20.79	21.5
1.4	64QAM	1	0	20.85	20.67	20.66	
1.4	64QAM	1	3	20.73	20.75	20.69	
1.4	64QAM	1	5	20.92	20.84	20.73	21.5
1.4	64QAM	3	0	19.98	19.77	19.88	
1.4	64QAM	3	1	19.78	19.75	19.79	
1.4	64QAM	3	3	19.87	19.90	19.72	
1.4	64QAM	6	0	19.91	19.70	19.94	20.5



Band 30 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				27710			
Frequency (MHz)				2310			
10	QPSK	1	0		22.89		23.5
10	QPSK	1	25		22.87		
10	QPSK	1	49		22.81		
10	QPSK	25	0		21.90		
10	QPSK	25	12		21.92		22.5
10	QPSK	25	25		21.85		
10	QPSK	50	0		21.94		
10	16QAM	1	0		21.89		
10	16QAM	1	25		21.64		22.5
10	16QAM	1	49		21.71		
10	16QAM	25	0		20.84		
10	16QAM	25	12		20.63		
10	16QAM	25	25		20.67		21.5
10	16QAM	50	0		20.67		
10	64QAM	1	0		20.67		
10	64QAM	1	25		20.78		
10	64QAM	1	49		20.84		21.5
10	64QAM	25	0		19.79		
10	64QAM	25	12		19.81		
10	64QAM	25	25		19.85		
10	64QAM	50	0		19.76		20.5
Channel				27685	27710	27735	
Frequency (MHz)				2307.5	2310	2312.5	Tune-up limit (dBm)
5	QPSK	1	0	22.74	22.85	22.82	
5	QPSK	1	12	22.67	22.67	22.57	23.5
5	QPSK	1	24	22.72	22.68	22.62	
5	QPSK	12	0	21.69	21.84	22.11	
5	QPSK	12	7	21.78	21.83	21.73	
5	QPSK	12	13	21.73	21.69	21.75	22.5
5	QPSK	25	0	21.69	21.93	21.68	
5	16QAM	1	0	21.66	21.79	21.84	
5	16QAM	1	12	21.73	21.86	21.81	
5	16QAM	1	24	21.88	21.93	21.95	22.5
5	16QAM	12	0	20.89	20.79	20.80	
5	16QAM	12	7	20.92	20.68	20.78	
5	16QAM	12	13	20.84	20.63	20.69	
5	16QAM	25	0	20.79	20.71	21.05	21.5
5	64QAM	1	0	20.81	20.81	20.96	
5	64QAM	1	12	20.76	20.74	20.85	
5	64QAM	1	24	20.72	20.81	20.95	
5	64QAM	12	0	19.92	19.78	19.90	20.5
5	64QAM	12	7	19.87	19.77	19.86	
5	64QAM	12	13	19.60	19.76	19.96	
5	64QAM	25	0	19.81	19.79	19.86	

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	23.5
20	QPSK	1	0	22.66	22.81	22.66	
20	QPSK	1	49	22.56	22.58	22.55	22.5
20	QPSK	1	99	22.70	22.77	22.66	
20	QPSK	50	0	21.76	21.84	21.81	22.5
20	QPSK	50	24	21.73	21.78	21.76	
20	QPSK	50	50	21.65	21.61	21.75	22.5
20	QPSK	100	0	21.71	21.66	21.66	
20	16QAM	1	0	21.74	21.86	21.81	22.5
20	16QAM	1	49	21.71	21.69	21.79	
20	16QAM	1	99	21.67	21.90	21.77	21.5
20	16QAM	50	0	20.79	20.83	20.79	
20	16QAM	50	24	20.65	20.80	20.85	21.5
20	16QAM	50	50	20.85	20.87	20.87	
20	16QAM	100	0	20.66	20.72	20.73	21.5
20	64QAM	1	0	20.57	20.81	20.79	
20	64QAM	1	49	20.88	20.85	20.82	21.5
20	64QAM	1	99	20.81	20.83	20.68	
20	64QAM	50	0	19.65	19.85	19.73	20.5
20	64QAM	50	24	19.68	19.77	19.63	
20	64QAM	50	50	19.72	19.72	19.88	20.5
20	64QAM	100	0	19.79	19.83	19.80	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	22.72	22.77	22.78	23.5
15	QPSK	1	37	22.60	22.74	22.65	
15	QPSK	1	74	22.67	22.66	22.57	22.5
15	QPSK	36	0	21.75	21.74	21.69	
15	QPSK	36	20	21.84	21.88	21.80	22.5
15	QPSK	36	39	21.86	21.80	21.86	
15	QPSK	75	0	21.65	21.67	21.68	22.5
15	16QAM	1	0	21.79	21.92	21.66	
15	16QAM	1	37	21.74	21.56	21.79	21.5
15	16QAM	1	74	21.66	21.68	21.65	
15	16QAM	36	0	20.85	20.72	20.95	21.5
15	16QAM	36	20	20.83	20.84	20.73	
15	16QAM	36	39	20.79	20.73	20.76	21.5
15	16QAM	75	0	20.70	20.69	20.83	
15	64QAM	1	0	20.83	20.61	20.51	21.5
15	64QAM	1	37	20.62	20.71	20.72	
15	64QAM	1	74	20.70	20.73	20.66	20.5
15	64QAM	36	0	19.77	19.82	19.69	
15	64QAM	36	20	19.69	19.81	19.95	20.5
15	64QAM	36	39	19.77	19.50	19.71	
15	64QAM	75	0	19.89	19.75	19.74	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	22.62	22.79	22.76	23.5
10	QPSK	1	25	22.73	22.57	22.63	
10	QPSK	1	49	22.57	22.55	22.71	22.5
10	QPSK	25	0	21.86	21.78	21.89	
10	QPSK	25	12	21.81	21.63	21.79	22.5
10	QPSK	25	25	21.67	21.70	21.76	
10	QPSK	50	0	21.77	21.80	21.82	22.5
10	16QAM	1	0	21.86	21.79	21.56	
10	16QAM	1	25	21.66	21.88	21.79	21.5
10	16QAM	1	49	21.60	21.65	21.82	
10	16QAM	25	0	20.91	20.85	20.77	21.5
10	16QAM	25	12	20.74	20.81	20.89	
10	16QAM	25	25	20.79	20.75	20.72	21.5
10	16QAM	50	0	20.84	20.85	20.82	
10	64QAM	1	0	20.63	20.71	20.53	21.5
10	64QAM	1	25	20.70	20.69	20.62	
10	64QAM	1	49	20.85	20.74	20.79	20.5
10	64QAM	25	0	19.65	19.88	19.65	
10	64QAM	25	12	19.78	19.90	19.75	20.5
10	64QAM	25	25	19.55	19.61	19.78	
10	64QAM	50	0	19.92	19.68	19.94	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	22.66	22.78	22.77	23.5
5	QPSK	1	12	22.69	22.63	22.61	
5	QPSK	1	24	22.68	22.52	22.67	22.5
5	QPSK	12	0	21.82	21.83	21.87	
5	QPSK	12	7	21.94	21.85	21.86	22.5
5	QPSK	12	13	21.82	21.53	21.71	
5	QPSK	25	0	21.69	21.91	21.73	22.5
5	16QAM	1	0	21.81	21.84	21.65	
5	16QAM	1	12	21.86	21.55	21.75	22.5
5	16QAM	1	24	21.82	21.72	21.89	
5	16QAM	12	0	20.97	20.95	20.77	21.5
5	16QAM	12	7	20.60	20.51	20.83	
5	16QAM	12	13	20.73	20.62	20.77	21.5
5	16QAM	25	0	20.67	20.58	20.88	
5	64QAM	1	0	20.74	20.86	20.56	21.5
5	64QAM	1	12	20.69	20.77	20.74	
5	64QAM	1	24	20.67	20.77	20.87	20.5
5	64QAM	12	0	19.95	19.62	19.58	
5	64QAM	12	7	19.56	19.79	19.91	20.5
5	64QAM	12	13	19.64	19.61	19.86	
5	64QAM	25	0	19.80	19.66	19.84	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	22.60	22.77	22.74	23.5
3	QPSK	1	8	22.55	22.62	22.72	
3	QPSK	1	14	22.72	22.50	22.66	22.5
3	QPSK	8	0	21.76	21.77	21.89	
3	QPSK	8	4	21.77	21.82	21.74	22.5
3	QPSK	8	7	21.73	21.85	21.82	



3	QPSK	15	0	21.46	21.75	21.58	22.5
3	16QAM	1	0	21.70	21.85	21.91	
3	16QAM	1	8	21.82	21.84	21.73	
3	16QAM	1	14	21.89	21.75	21.68	21.5
3	16QAM	8	0	20.98	20.67	20.87	
3	16QAM	8	4	20.77	20.85	20.87	
3	16QAM	8	7	20.83	20.65	20.92	
3	16QAM	15	0	20.70	20.60	20.95	
3	64QAM	1	0	20.72	20.67	20.75	21.5
3	64QAM	1	8	20.66	20.85	20.67	
3	64QAM	1	14	20.87	20.88	20.80	
3	64QAM	8	0	19.80	19.88	19.71	20.5
3	64QAM	8	4	19.63	19.75	19.57	
3	64QAM	8	7	19.79	19.69	19.89	
3	64QAM	15	0	19.75	19.84	19.78	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	22.68	22.79	22.68	23.5
1.4	QPSK	1	3	22.78	22.58	22.55	
1.4	QPSK	1	5	22.70	22.60	22.74	
1.4	QPSK	3	0	21.63	21.82	21.84	
1.4	QPSK	3	1	21.68	21.88	21.81	
1.4	QPSK	3	3	21.87	21.70	21.81	22.5
1.4	QPSK	6	0	21.50	21.59	21.82	
1.4	16QAM	1	0	21.87	21.82	21.61	22.5
1.4	16QAM	1	3	21.67	21.84	21.86	
1.4	16QAM	1	5	21.86	21.87	21.68	
1.4	16QAM	3	0	20.81	20.84	20.78	
1.4	16QAM	3	1	20.59	20.60	20.91	
1.4	16QAM	3	3	20.76	20.66	20.74	21.5
1.4	16QAM	6	0	20.56	20.67	20.72	
1.4	64QAM	1	0	20.66	20.60	20.78	21.5
1.4	64QAM	1	3	20.62	20.91	20.95	
1.4	64QAM	1	5	20.77	20.73	20.56	
1.4	64QAM	3	0	19.70	19.78	19.59	
1.4	64QAM	3	1	19.67	19.71	19.80	
1.4	64QAM	3	3	19.56	19.57	19.56	20.5
1.4	64QAM	6	0	19.75	19.59	19.81	



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	22.60	22.63	22.58	23.5
20	QPSK	1	49	22.56	22.55	22.50	
20	QPSK	1	99	22.53	22.51	22.57	
20	QPSK	50	0	21.62	21.74	21.69	22.5
20	QPSK	50	24	21.57	21.64	21.52	
20	QPSK	50	50	21.53	21.51	21.38	
20	QPSK	100	0	21.56	21.65	21.57	22.5
20	16QAM	1	0	21.70	21.75	21.58	
20	16QAM	1	49	21.54	21.58	21.58	
20	16QAM	1	99	21.38	21.45	21.64	21.5
20	16QAM	50	0	20.62	20.64	20.81	
20	16QAM	50	24	20.54	20.59	20.70	
20	16QAM	50	50	20.56	20.41	20.70	21.5
20	16QAM	100	0	20.64	20.62	20.78	
20	64QAM	1	0	20.68	20.65	20.59	
20	64QAM	1	49	20.61	20.66	20.60	21.5
20	64QAM	1	99	20.59	20.76	20.66	
20	64QAM	50	0	19.74	19.57	19.58	
20	64QAM	50	24	19.43	19.61	19.48	20.5
20	64QAM	50	50	19.58	19.61	19.53	
20	64QAM	100	0	19.73	19.55	19.59	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	22.54	22.59	22.50	23.5
15	QPSK	1	37	22.58	22.54	22.46	
15	QPSK	1	74	22.57	22.28	22.53	
15	QPSK	36	0	21.52	21.80	21.70	22.5
15	QPSK	36	20	21.72	21.68	21.70	
15	QPSK	36	39	21.70	21.56	21.66	
15	QPSK	75	0	21.39	21.43	21.61	22.5
15	16QAM	1	0	21.59	21.74	21.57	
15	16QAM	1	37	21.64	21.48	21.50	
15	16QAM	1	74	21.42	21.57	21.58	21.5
15	16QAM	36	0	20.55	20.44	20.60	
15	16QAM	36	20	20.60	20.57	20.55	
15	16QAM	36	39	20.58	20.58	20.66	21.5
15	16QAM	75	0	20.42	20.45	20.63	
15	64QAM	1	0	20.64	20.54	20.39	
15	64QAM	1	37	20.64	20.60	20.58	21.5
15	64QAM	1	74	20.47	20.79	20.54	
15	64QAM	36	0	19.67	19.59	19.44	
15	64QAM	36	20	19.63	19.55	19.77	20.5
15	64QAM	36	39	19.47	19.48	19.51	
15	64QAM	75	0	19.61	19.54	19.68	
Channel				133172	133272	133422	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	22.59	22.61	22.58	23.5
10	QPSK	1	25	22.42	22.52	22.43	
10	QPSK	1	49	22.47	22.51	22.52	
10	QPSK	25	0	21.47	21.65	21.60	22.5
10	QPSK	25	12	21.79	21.46	21.66	
10	QPSK	25	25	21.59	21.46	21.64	
10	QPSK	50	0	21.55	21.62	21.59	22.5
10	16QAM	1	0	21.78	21.61	21.70	
10	16QAM	1	25	21.75	21.56	21.59	
10	16QAM	1	49	21.47	21.48	21.71	21.5
10	16QAM	25	0	20.74	20.62	20.81	
10	16QAM	25	12	20.59	20.64	20.56	
10	16QAM	25	25	20.62	20.58	20.45	21.5
10	16QAM	50	0	20.48	20.59	20.62	
10	64QAM	1	0	20.65	20.67	20.38	
10	64QAM	1	25	20.71	20.57	20.62	21.5
10	64QAM	1	49	20.49	20.66	20.53	
10	64QAM	25	0	19.74	19.62	19.44	
10	64QAM	25	12	19.46	19.49	19.73	20.5
10	64QAM	25	25	19.52	19.60	19.62	
10	64QAM	50	0	19.74	19.46	19.51	
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	22.56	22.59	22.55	23.5
5	QPSK	1	12	22.51	22.54	22.57	
5	QPSK	1	24	22.42	22.45	22.50	
5	QPSK	12	0	21.61	21.52	21.49	22.5
5	QPSK	12	7	21.45	21.60	21.53	
5	QPSK	12	13	21.44	21.63	21.64	
5	QPSK	25	0	21.48	21.69	21.56	22.5
5	16QAM	1	0	21.74	21.86	21.65	
5	16QAM	1	12	21.64	21.44	21.51	
5	16QAM	1	24	21.49	21.70	21.44	21.5
5	16QAM	12	0	20.59	20.75	20.73	
5	16QAM	12	7	20.69	20.55	20.62	
5	16QAM	12	13	20.60	20.50	20.51	21.5
5	16QAM	25	0	20.52	20.54	20.72	
5	64QAM	1	0	20.61	20.54	20.62	
5	64QAM	1	12	20.46	20.71	20.57	21.5
5	64QAM	1	24	20.48	20.59	20.40	
5	64QAM	12	0	19.65	19.70	19.57	
5	64QAM	12	7	19.43	19.60	19.48	20.5
5	64QAM	12	13	19.44	19.57	19.46	
5	64QAM	25	0	19.72	19.66	19.41	



Band 41 PC2 (2496~2690MHz) (dBm)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39760	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	25.36	25.40	25.44	25.41	25.21	26	
20	QPSK	1	49	25.18	25.33	25.35	25.30	25.28		
20	QPSK	1	99	25.15	25.24	25.31	25.34	25.13		
20	QPSK	50	0	24.30	24.31	24.46	24.38	24.34		
20	QPSK	50	24	24.19	24.29	24.44	24.37	24.21	25	
20	QPSK	50	50	24.15	24.24	24.39	24.22	24.20		
20	QPSK	100	0	24.27	24.37	24.36	24.28	24.24		
20	16QAM	1	0	24.26	24.32	24.39	24.35	24.14		
20	16QAM	1	49	24.32	24.27	24.31	24.25	24.25	25	
20	16QAM	1	99	24.26	24.29	24.38	24.17	24.07		
20	16QAM	50	0	23.33	23.40	23.45	23.34	23.28		
20	16QAM	50	24	23.28	23.17	23.38	23.31	23.21		
20	16QAM	50	50	23.17	23.24	23.40	23.42	23.23	24	
20	16QAM	100	0	23.21	23.36	23.43	23.29	23.13		
20	64QAM	1	0	23.40	23.38	23.39	23.31	23.20		
20	64QAM	1	49	23.24	23.23	23.33	23.35	23.30		
20	64QAM	1	99	23.31	23.24	23.36	23.18	23.25	24	
20	64QAM	50	0	22.26	22.40	22.41	22.37	22.35		
20	64QAM	50	24	22.34	22.28	22.40	22.32	22.41		
20	64QAM	50	50	22.35	22.21	22.36	22.27	22.19		
20	64QAM	100	0	22.28	22.41	22.39	22.37	22.26	23	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2543.3	2593	2637.8	2682.5		
15	QPSK	1	0	25.32	25.37	25.42	25.28	25.25	26	
15	QPSK	1	37	25.26	25.22	25.38	25.37	25.17		
15	QPSK	1	74	25.25	25.28	25.27	25.23	25.24		
15	QPSK	36	0	24.30	24.37	24.44	24.37	24.39		
15	QPSK	36	20	24.25	24.40	24.19	24.34	24.30	25	
15	QPSK	36	36	24.18	24.20	24.37	24.30	24.29		
15	QPSK	75	0	24.25	24.38	24.39	24.31	24.30		
15	16QAM	1	0	24.21	24.35	24.40	24.42	24.15		
15	16QAM	1	37	24.40	24.26	24.36	24.48	24.28	25	
15	16QAM	1	74	24.49	24.41	24.42	24.40	24.24		
15	16QAM	36	0	23.23	23.43	23.39	23.30	23.30		
15	16QAM	36	20	23.24	23.20	23.37	23.41	23.22		
15	16QAM	36	39	23.38	23.45	23.23	23.45	23.17	24	
15	16QAM	75	0	23.39	23.30	23.29	23.39	23.23		
15	64QAM	1	0	23.26	23.25	23.28	23.26	23.27		
15	64QAM	1	37	23.36	23.33	23.19	23.37	23.35		
15	64QAM	1	74	23.27	23.44	23.36	23.19	23.35	24	
15	64QAM	36	0	22.50	22.28	22.36	22.28	22.33		
15	64QAM	36	20	22.27	22.44	22.43	22.46	22.32		
15	64QAM	36	39	22.35	22.28	22.22	22.46	22.39		
15	64QAM	75	0	22.28	22.27	22.32	22.44	22.31	23	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	25.23	25.32	25.43	25.37	25.35	26	
10	QPSK	1	25	25.27	25.28	25.40	25.14	25.09		
10	QPSK	1	49	25.20	25.35	25.23	25.40	25.23		
10	QPSK	25	0	24.22	24.27	24.41	24.33	24.26		
10	QPSK	25	12	24.19	24.37	24.35	24.41	24.26	25	
10	QPSK	25	25	24.33	24.30	24.42	24.33	24.29		
10	QPSK	50	0	24.27	24.43	24.29	24.31	24.35		
10	16QAM	1	0	24.29	24.28	24.27	24.33	24.42		
10	16QAM	1	25	24.37	24.26	24.25	24.30	24.25	25	
10	16QAM	1	49	24.20	24.34	24.19	24.36	24.14		
10	16QAM	25	0	23.28	23.33	23.40	23.37	23.25		
10	16QAM	25	12	23.20	23.42	23.39	23.40	23.11		
10	16QAM	25	25	23.36	23.47	23.19	23.26	23.36	24	
10	16QAM	50	0	23.31	23.24	23.13	23.44	23.45		
10	64QAM	1	0	23.42	23.21	23.27	23.30	23.16		
10	64QAM	1	25	23.25	23.30	23.43	23.47	23.41		
10	64QAM	1	49	23.21	23.44	23.15	23.25	23.21	24	
10	64QAM	25	0	22.42	22.31	22.36	22.39	22.38		
10	64QAM	25	12	22.30	22.30	22.39	22.28	22.27		
10	64QAM	25	25	22.31	22.20	22.40	22.24	22.35		
10	64QAM	50	0	22.35	22.34	22.39	22.47	22.27	23	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	25.29	25.33	25.40	25.31	25.34	26	
5	QPSK	1	12	25.32	25.24	25.22	25.37	25.28		
5	QPSK	1	24	25.34	25.39	25.42	25.18	25.41		
5	QPSK	12	0	24.23	24.48	24.48	24.35	24.20		
5	QPSK	12	7	24.32	24.29	24.42	24.42	24.39	25	
5	QPSK	12	13	24.28	24.20	24.34	24.27	24.32		
5	QPSK	25	0	24.20	24.29	24.40	24.28	24.33		
5	16QAM	1	0	24.40	24.31	24.47	24.34	24.30		
5	16QAM	1	12	24.10	24.33	24.37	24.28	24.30	25	
5	16QAM	1	24	24.48	24.18	24.41	24.31	24.07		
5	16QAM	12	0	23.20	23.35	23.48	23.47	23.37		
5	16QAM	12	7	23.39	23.40	23.22	23.22	23.31		
5	16QAM	12	13	23.42	23.41	23.27	23.47	23.37	24	
5	16QAM	25	0	23.22	23.38	23.25	23.33	23.38		
5	64QAM	1	0	23.40	23.28	23.28	23.42	23.45		
5	64QAM	1	12	23.46	23.49	23.43	23.40	23.31		
5	64QAM	1	24	23.24	23.17	23.43	23.37	23.27	24	
5	64QAM	12	0	22.30	22.41	22.41	22.29	22.21		
5	64QAM	12	7	22.22	22.45	22.32	22.37	22.24		
5	64QAM	12	13	22.22	22.28	22.44	22.32	22.30		
5	64QAM	25	0	22.19	22.41	22.31	22.39	22.22	23	

Band 41 PC3 (2496~2690MHz) (dBm)											
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	23.51	23.60	23.69	23.63	23.54	24.7		
20	QPSK	1	49	23.44	23.50	23.63	23.43	23.55			
20	QPSK	1	99	23.41	23.48	23.57	23.41	23.61			
20	QPSK	50	0	22.89	22.68	22.82	22.71	22.60			
20	QPSK	50	50	22.50	22.60	22.67	22.66	22.70	23.7		
20	QPSK	100	0	22.47	22.44	22.66	22.49	22.61			
20	16QAM	1	0	22.73	22.67	22.75	22.56	22.40			
20	16QAM	1	49	22.35	22.56	22.72	22.50	22.85			
20	16QAM	1	99	21.57	22.46	22.59	22.55	22.48	23.7		
20	16QAM	50	0	21.58	21.62	21.71	21.60	21.59			
20	16QAM	50	24	21.66	21.67	21.67	21.51	21.63			
20	16QAM	50	50	21.51	21.54	21.56	21.52	21.63			
20	16QAM	100	0	21.49	21.74	21.61	21.64	21.62	22.7		
20	64QAM	1	0	21.59	21.74	21.64	21.55	21.38			
20	64QAM	1	49	21.69	21.51	21.61	21.54	21.46			
20	64QAM	1	99	21.61	21.49	21.56	21.51	21.40			
20	64QAM	50	0	20.60	20.74	20.75	20.86	20.81	21.7		
20	64QAM	50	24	20.66	20.60	20.71	20.56	20.52			
20	64QAM	50	50	20.52	20.67	20.65	20.60	20.56			
20	64QAM	100	0	20.49	20.50	20.61	20.70	20.58			
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	23.61	23.64	23.66	23.61	23.57	24.7		
15	QPSK	1	37	23.52	23.60	23.61	23.36	23.58			
15	QPSK	1	74	23.53	23.55	23.55	23.39	23.58			
15	QPSK	36	0	22.43	22.74	22.72	22.64	22.73			
15	QPSK	36	20	22.62	22.51	22.67	22.60	22.70	23.7		
15	QPSK	36	39	22.40	22.37	22.50	22.38	22.50			
15	QPSK	75	0	22.59	22.66	22.66	22.61	22.64			
15	16QAM	1	0	22.41	22.62	22.39	22.51	22.33			
15	16QAM	1	37	22.55	22.56	22.58	22.47	22.64	23.7		
15	16QAM	1	74	22.50	22.53	22.38	22.57	22.32			
15	16QAM	36	0	21.43	21.77	21.71	21.61	21.60			
15	16QAM	36	20	21.59	21.68	21.53	21.57	21.48			
15	16QAM	36	39	21.58	21.76	21.59	21.54	21.70	22.7		
15	16QAM	75	0	21.61	21.73	21.60	21.49	21.60			
15	64QAM	1	0	21.55	21.70	21.65	21.55	21.37			
15	64QAM	1	37	21.52	21.45	21.44	21.66	21.29			
15	64QAM	1	74	21.44	21.64	21.68	21.38	21.45	21.7		
15	64QAM	36	0	20.79	20.70	20.65	20.85	20.71			
15	64QAM	36	20	20.60	20.70	20.65	20.55	20.72			
15	64QAM	36	39	20.59	20.46	20.46	20.52	20.52			
15	64QAM	75	0	20.59	20.55	20.67	20.53	20.68			
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)		
Frequency (MHz)				2501	2547	2593	2639	2685			
10	QPSK	1	0	23.47	23.64	23.67	23.62	23.36	24.7		
10	QPSK	1	25	23.54	23.54	23.59	23.67	23.61			
10	QPSK	1	49	23.46	23.39	23.55	23.50	23.50			
10	QPSK	25	0	22.71	22.87	22.80	22.70	22.58			
10	QPSK	25	12	22.57	22.47	22.61	22.49	22.50	23.7		
10	QPSK	25	25	22.44	22.55	22.47	22.57	22.48			
10	QPSK	50	0	22.61	22.54	22.74	22.55	22.44			
10	16QAM	1	0	22.57	22.67	22.64	22.52	22.50			
10	16QAM	1	25	22.29	22.45	22.65	22.64	22.48	22.7		
10	16QAM	1	49	22.63	22.69	22.35	22.47	22.51			
10	16QAM	25	0	21.46	21.84	21.64	21.77	21.71			
10	16QAM	25	12	21.59	21.52	21.60	21.71	21.49			
10	16QAM	25	25	21.74	21.45	21.47	21.44	21.44	22.7		
10	16QAM	1	0	21.61	21.41	21.41	21.76	21.20			
10	64QAM	1	0	21.49	21.61	21.60	21.75	21.45			
10	64QAM	1	25	21.62	21.48	21.59	21.68	21.53			
10	64QAM	1	49	21.83	21.39	21.56	21.48	21.48	22.7		
10	64QAM	25	0	20.58	20.84	20.68	20.74	20.69			
10	64QAM	25	12	20.64	20.60	20.61	20.70	20.62			
10	64QAM	25	25	20.54	20.38	20.37	20.46	20.59			
10	64QAM	50	0	20.53	20.47	20.70	20.45	20.42	21.7		
Channel				39675	40148	40620	41093	41555		Tune-up limit (dBm)	
Frequency (MHz)				2498.5	2545.8	2591.5	2638.0	2683.5			
5	QPSK	1	0	23.51	23.44	23.67	23.62	23.43		24.7	
5	QPSK	1	12	23.44	23.46	23.59	23.33	23.57			
5	QPSK	12	0	22.52	22.84	22.68	22.65	22.68			
5	QPSK	12	7	22.39	22.74	22.54	22.51	22.73			
5	QPSK	12	13	22.47	22.56	22.49	22.47	22.54	23.7		
5	QPSK	25	0	22.48	22.59	22.47	22.42	22.69			
5	16QAM	1	0	22.57	22.79	22.63	22.78	22.48			
5	16QAM	1	12	22.27	22.58	22.53	22.53	22.62			
5	16QAM	1	24	22.53	22.50	22.55	22.55	22.51	23.7		
5	16QAM	12	0	21.68	21.55	21.63	21.50	21.63			
5	16QAM	12	7	21.54	21.54	21.54	21.54	21.54			
5	16QAM	12	13	21.52	21.74	21.51	21.57	21.69			
5	16QAM	25	0	21.35	21.58	21.38	21.70	21.38	22.7		
5	64QAM	1	0	21.53	21.46	21.63	21.59	21.59			
5	64QAM	1	12	21.74	21.47	21.61	21.50	21.53			
5	64QAM	1	24	21.65	21.50	21.46	21.49	21.45			
5	64QAM	12	0	20.60	20.81	20.62	20.63	20.70	21.7		
5	64QAM	12	7	20.62	20.51	20.57	20.72	20.53			
5	64QAM	25	0	20.58	20.56	20.56	20.56	20.56			
5	64QAM	25	7	20.44	20.76	20.42	20.62	20.58			



CA_7C											
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				
20850	20850	21048	QPSK	1	0	0	0	1	0	20.48	21.50
21100	21001	21199	QPSK	1	0	0	0	1	0	20.53	21.50
21350	21152	21350	QPSK	1	0	0	0	1	0	20.29	21.50
20850	20850	21048	16QAM	1	0	0	0	1	0	19.62	20.50
21100	21001	21199	16QAM	1	0	0	0	1	0	19.64	20.50
21350	21152	21350	16QAM	1	0	0	0	1	0	19.35	20.50
20850	20850	21048	64QAM	1	0	0	0	1	0	18.52	19.50
21100	21001	21199	64QAM	1	0	0	0	1	0	18.57	19.50
21350	21152	21350	64QAM	1	0	0	0	1	0	18.36	19.50
20850	20850	21048	QPSK	50	0	0	0	1	0	20.01	21.00
21100	21001	21199	QPSK	50	0	0	0	1	0	20.03	21.00
21350	21152	21350	QPSK	50	0	0	0	1	0	19.88	21.00

CA_41C (Class 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				
39750	39750	39948	QPSK	1	0	0	0	1	0	22.12	23.00
40521	40521	40719	QPSK	1	0	0	0	1	0	22.16	23.00
41292	41292	41490	QPSK	1	0	0	0	1	0	22.07	23.00
39750	39750	39948	16QAM	1	0	0	0	1	0	21.17	22.00
40521	40521	40719	16QAM	1	0	0	0	1	0	21.21	22.00
41292	41292	41490	16QAM	1	0	0	0	1	0	21.15	22.00
39750	39750	39948	64QAM	1	0	0	0	1	0	20.06	21.00
40521	40521	40719	64QAM	1	0	0	0	1	0	20.13	21.00
41292	41292	41490	64QAM	1	0	0	0	1	0	20.09	21.00
39750	39750	39948	QPSK	50	0	0	0	1	0	21.60	22.50
40521	40521	40719	QPSK	50	0	0	0	1	0	21.65	22.50
41292	41292	41490	QPSK	50	0	0	0	1	0	21.62	22.50



2CC LTE Downlink													
Configure	CA Configuration	Ant	PCC				SCC				Power		
			Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	DL Channel	DL Fre. (MHz)	CA TX (dBm)	Rel.8 TX (dBm)
Intra-band & Inter-band	CA_2C	Ant 1	2	20	18801	1870.1	QPSK/1#0	2	20	18999	1889.9	22.43	22.66
	CA_2A-2A	Ant 1	2	20	18700	1860	QPSK/1#0	2	20	19100	1900.0	22.30	22.66
	CA_2A-4A	Ant 1	2	20	18700	1860	QPSK/1#0	4	20	20300	1745.0	22.37	22.66
	CA_2A-5A	Ant 1	2	20	18700	1860	QPSK/1#0	5	10	20600	844.0	22.28	22.66
	CA_2A-7A	Ant 1	2	20	18700	1860	QPSK/1#0	7	20	21350	2560.0	22.29	22.66
	CA_2A-12A	Ant 1	2	20	18700	1860	QPSK/1#0	12	10	23095	707.5	22.32	22.66
	CA_2A-13A	Ant 1	2	20	18700	1860	QPSK/1#0	13	10	23230	782.0	22.45	22.66
	CA_2A-14A	Ant 1	2	20	18700	1860	QPSK/1#0	14	10	23330	793.0	22.39	22.66
	CA_2A-17A	Ant 1	2	20	18700	1860	QPSK/1#0	17	10	23790	710.0	22.30	22.66
	CA_2A-66A	Ant 1	2	20	18700	1860	QPSK/1#0	66	20	132572	1770.0	22.23	22.66
	CA_2A-71A	Ant 1	2	20	18700	1860	QPSK/1#0	71	20	133322	683.0	22.25	22.66
	CA_4A-4A	Ant 1	4	20	20050	1720	QPSK/1#0	4	20	20300	1745.0	22.20	22.74
	CA_4A-5A	Ant 1	4	20	20050	1720	QPSK/1#0	5	10	20600	844.0	22.41	22.74
	CA_4A-7A	Ant 1	4	20	20050	1720	QPSK/1#0	7	20	21350	2560.0	22.32	22.74
	CA_4A-12A	Ant 1	4	20	20050	1720	QPSK/1#0	12	10	23095	707.5	22.18	22.74
	CA_4A-13A	Ant 1	4	20	20050	1720	QPSK/1#0	13	10	23230	782.0	22.35	22.74
	CA_4A-17A	Ant 1	4	20	20050	1720	QPSK/1#0	17	10	23790	710.0	22.16	22.74
	CA_4A-71A	Ant 1	4	20	20050	1720	QPSK/1#0	71	20	133322	683.0	22.24	22.74
	CA_5A-30A	Ant 1	5	10	20450	829	QPSK/1#0	30	10	27710	2310.0	22.41	22.61
	CA_5A-41A	Ant 1	5	10	20450	829	QPSK/1#0	41	20	41490	2680.0	22.36	22.61
	CA_5A-5A	Ant 1	5	10	20450	829	QPSK/1#0	5	10	20600	844.0	22.30	22.61
	CA_5A-66A	Ant 1	5	10	20450	829	QPSK/1#0	66	20	132572	1770.0	22.32	22.61
	CA_5A-7A	Ant 1	5	10	20450	829	QPSK/1#0	7	20	21350	2560.0	22.35	22.61
	CA_5B	Ant 1	5	10	20476	831.6	QPSK/1#0	5	10	20575	841.5	22.38	22.61
	CA_7A-7A	Ant 1	7	20	20850	2510	QPSK/1#0	7	20	21350	2560.0	22.69	22.79
	CA_7C	Ant 1	7	20	21001	2525.1	QPSK/1#0	7	20	21199	2544.9	22.70	22.79
	CA_12A-30A	Ant 1	12	10	23095	707.5	QPSK/1#0	30	10	27710	2310.0	22.72	23.29
	CA_12A-66A	Ant 1	12	10	23095	707.5	QPSK/1#0	66	20	132572	1770.0	22.80	23.29
	CA_13A-66A	Ant 1	13	10	23230	782	QPSK/1#0	66	20	132572	1770.0	22.65	23.24
	CA_14A-30A	Ant 1	14	10	23330	793	QPSK/1#0	30	10	27710	2310.0	22.76	23.38
	CA_14A-66A	Ant 1	14	10	23330	793	QPSK/1#0	66	20	132572	1770.0	22.73	23.38
	CA_25A-25A	Ant 1	25	20	26140	1860	QPSK/1#0	25	20	26590	1905.0	22.36	22.92
	CA_25A-26A	Ant 1	25	20	26140	1860	QPSK/1#0	26	15	26865	831.5	22.27	22.92
	CA_25A-41A	Ant 1	25	20	26140	1860	QPSK/1#0	41	20	41490	2680.0	22.25	22.92
	CA_26A-41A	Ant 1	26	15	26865	831.5	QPSK/1#0	41	20	41490	2680.0	22.31	22.76
	CA_41A-41A	Ant 1	41	20	39750	2506	QPSK/1#0	41	20	41490	2680.0	24.61	25.44
	CA_41C	Ant 1	41	20	40521	2583.1	QPSK/1#0	66	20	40719	2602.9	24.56	25.44
	CA_66A-66A	Ant 1	66	20	132072	1720	QPSK/1#0	66	20	132572	1770.0	22.28	22.81
	CA_66A-71A	Ant 1	66	20	132072	1720	QPSK/1#0	71	20	133322	683.0	22.25	22.81
	CA_66B	Ant 1	66	10	132373	1750.1	QPSK/1#0	66	10	132472	1760.0	21.79	22.81
	CA_66C	Ant 1	66	20	132323	1745.1	QPSK/1#0	66	20	132521	1764.9	22.14	22.81



2.4GHz WLAN ANT 1

2.4GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11b 1Mbps	CH 1	2412	18.97	19.50	17.00	98.60
		CH 6	2437	18.26	19.00	17.00	
		CH 11	2462	18.74	19.50	17.00	
	802.11g 6Mbps	CH 1	2412	17.85	18.50	17.00	98.38
		CH 6	2437	17.38	18.00	17.00	
		CH 11	2462	17.72	18.50	17.00	
	802.11n-HT20 MCS0	CH 1	2412	17.86	18.50	17.00	98.38
		CH 6	2437	17.40	18.00	17.00	
		CH 11	2462	17.69	18.50	17.00	
	802.11n-HT40 MCS0	CH 3	2422	17.60	18.50	16.00	95.00
		CH 6	2437	17.29	18.00	16.00	
		CH 9	2452	17.63	18.50	16.00	

5GHz WLAN ANT 1

5.2GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	17.00	18.00	20.00	98.10
		CH 44	5220	17.94	18.00	20.00	
		CH 48	5240	17.12	18.00	20.00	
	802.11n-HT20 MCS0	CH 36	5180	16.16	17.00	19.50	98.47
		CH 44	5220	16.53	17.00	19.50	
		CH 48	5240	16.33	17.50	19.50	
	802.11n-HT40 MCS0	CH 38	5190	16.94	17.00	17.00	95.96
		CH 46	5230	16.34	17.50	17.00	
		CH 36	5180	16.81	17.50	20.00	
	802.11ac-VHT20 MCS0	CH 44	5220	16.53	17.50	20.00	97.97
		CH 48	5240	16.87	17.50	20.00	
		CH 38	5190	17.00	18.00	17.00	
	802.11ac-VHT40 MCS0	CH 46	5230	16.57	17.50	17.00	95.92
		CH 42	5210	16.65	17.50	18.50	

5GHz WLAN ANT 1

5.3GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 52	5260	17.02	18.00	20.00	98.10
		CH 60	5300	17.62	18.50	20.00	
		CH 64	5320	17.20	18.00	20.00	
	802.11n-HT20 MCS0	CH 52	5260	16.23	17.00	19.50	98.47
		CH 60	5300	16.69	17.50	19.50	
		CH 64	5320	16.46	17.00	19.50	
	802.11n-HT40 MCS0	CH 54	5270	16.51	17.50	16.00	95.96
		CH 62	5310	16.25	17.00	16.00	
		CH 52	5260	16.74	17.50	20.00	
	802.11ac-VHT20 MCS0	CH 60	5300	17.37	18.00	20.00	97.97
		CH 64	5320	17.07	18.00	20.00	
		CH 54	5270	16.66	17.50	16.00	
	802.11ac-VHT40 MCS0	CH 62	5310	16.32	17.00	16.00	95.92
		CH 58	5290	16.24	17.00	18.00	

5GHz WLAN ANT 1

5.5GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 100	5500	17.89	18.50	20.05	98.10
		CH 120	5600	17.27	18.00	20.05	
		CH 144	5720	17.55	18.50	20.05	
	802.11n-HT20 MCS0	CH 100	5500	16.99	17.50	18.50	98.47
		CH 120	5600	17.16	18.00	18.50	
		CH 144	5720	16.84	17.50	18.50	
	802.11n-HT40 MCS0	CH 102	5510	16.62	17.50	16.00	95.96
		CH 126	5630	17.41	18.00	16.00	
		CH 134	5670	17.26	18.00	16.00	
	802.11ac-VHT20 MCS0	CH 100	5500	17.03	18.00	18.50	97.97
		CH 120	5600	17.22	18.00	18.50	
		CH 144	5720	16.85	17.50	18.50	
	802.11ac-VHT40 MCS0	CH 102	5510	16.40	17.00	16.00	95.92
		CH 126	5630	17.14	18.00	16.00	
		CH 134	5670	16.85	17.50	16.00	
	802.11ac-VHT80 MCS0	CH 106	5530	16.67	17.50	17.50	92.00
		CH 122	5610	16.43	17.00	17.50	

5GHz WLAN ANT 1

5.8GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	17.06	18.00	20.00	98.10
		CH 157	5785	17.89	18.50	20.00	
		CH 165	5825	17.21	18.00	20.00	
	802.11n-HT20 MCS0	CH 149	5745	17.01	18.00	19.00	98.47
		CH 157	5785	16.47	17.00	19.00	
		CH 165	5825	16.49	17.00	19.00	
	802.11n-HT40 MCS0	CH 151	5755	17.60	18.50	15.50	95.96
		CH 159	5795	16.58	17.50	15.50	
		CH 149	5745	17.05	18.00	19.00	
	802.11ac-VHT20 MCS0	CH 157	5785	16.46	17.00	19.00	97.97
		CH 165	5825	16.39	17.00	19.00	
		CH 151	5755	17.42	18.00	15.50	
	802.11ac-VHT40 MCS0	CH 159	5795	16.47	17.00	15.50	95.92
		CH 155	5775	16.32	17.00	19.00	

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	8.39	5.42	5.22
	CH 39	2441	7.94	4.64	4.42
	CH 76	2480	8.57	5.93	6.02
Tune-up Limit		9	6.5	7	
Duty Cycle %		77.07	77.33	77.33	

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			OFDM	OFDM
LE	CH 00	2402	7.81	
	CH 19	2440	6.98	
	CH 39	2480	8.15	
Tune-up Limit		9		
Duty Cycle %		62.96		