



REPORT No.: SZ22060386S01

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	32.54	32.55	32.57	33.50	23.54	23.55	23.57	24.50	0.06
GPRS 1 Tx slot	32.51	32.53	32.55	33.50	23.51	23.53	23.55	24.50	
GPRS 2 Tx slots	31.59	31.69	31.66	32.50	25.59	25.69	25.66	26.50	0.10
GPRS 3 Tx slots	29.72	29.75	29.80	30.50	25.46	25.49	25.54	26.24	0.08
GPRS 4 Tx slots	28.69	28.67	28.73	29.50	25.69	25.67	25.73	26.50	0.06
EDGE 1 Tx slot	26.27	26.21	26.33	27.00	17.27	17.21	17.33	18.00	0.12
EDGE 2 Tx slots	25.11	25.14	25.16	26.00	19.11	19.14	19.16	20.00	0.05
EDGE 3 Tx slots	22.73	22.85	22.79	23.50	18.47	18.59	18.53	19.24	0.12
EDGE 4 Tx slots	21.55	21.65	21.59	22.50	18.55	18.65	18.59	19.50	0.10
Mode		Max.	32.57			Max.	25.73		
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	29.81	29.77	29.74	30.50	20.81	20.77	20.74	21.50	0.07
GPRS 1 Tx slot	29.79	29.77	29.74	30.50	20.79	20.77	20.74	21.50	
GPRS 2 Tx slots	28.88	28.90	28.76	29.50	22.88	22.90	22.76	23.50	0.14
GPRS 3 Tx slots	26.91	26.83	26.81	27.50	22.65	22.57	22.55	23.24	0.10
GPRS 4 Tx slots	25.92	25.87	25.82	26.50	22.92	22.87	22.82	23.50	0.10
EDGE 1 Tx slot	25.61	25.64	25.69	26.50	16.61	16.64	16.69	17.50	0.08
EDGE 2 Tx slots	24.38	24.35	24.33	25.00	18.38	18.35	18.33	19.00	0.05
EDGE 3 Tx slots	22.12	22.16	22.10	23.00	17.86	17.90	17.84	18.74	0.06
EDGE 4 Tx slots	21.06	21.09	21.08	22.00	18.06	18.09	18.08	19.00	0.03
Mode		Max.	29.81			Max.	22.92		
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	22.87	22.78	22.73	23.50	22.84	22.86	22.85	23.50	23.25	23.14	23.21	24.00
3GPP Rel 6 HSDPA Subtest-1	22.17	22.08	21.99	23.00	22.32	22.34	22.31	23.00	22.83	22.78	22.94	23.50
3GPP Rel 6 HSDPA Subtest-2	22.14	22.05	22.00	23.00	22.31	22.39	22.29	23.00	22.82	22.77	22.85	23.50
3GPP Rel 6 HSDPA Subtest-3	21.67	21.55	21.49	22.50	21.87	21.88	21.81	22.50	22.34	22.29	22.37	23.00
3GPP Rel 6 HSDPA Subtest-4	21.67	21.55	21.50	22.50	21.85	21.87	21.82	22.50	22.34	22.28	22.35	23.00
3GPP Rel 6 HSUPA Subtest-1	20.65	20.50	20.49	21.50	20.83	20.87	20.81	21.50	22.33	22.29	22.88	23.00
3GPP Rel 6 HSUPA Subtest-2	21.15	21.08	20.99	22.00	21.31	21.36	21.32	22.00	22.81	22.78	22.88	23.50
3GPP Rel 6 HSUPA Subtest-3	19.65	19.55	19.49	20.50	19.86	19.87	19.80	20.50	21.86	21.78	21.87	22.50
3GPP Rel 6 HSUPA Subtest-4	22.14	22.03	21.94	23.00	22.29	22.34	22.31	23.00	22.81	22.78	22.93	23.50
3GPP Rel 6 HSUPA Subtest-5	20.15	20.07	19.98	21.00	20.35	20.39	20.34	21.00	20.79	21.77	21.87	22.50
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	19.70	19.59	19.53	20.50	19.88	19.89	19.84	20.50	20.41	20.35	20.41	21.00
Attenuator		Cable Loss	0.8			Cable Loss	0.8			Cable Loss	0.8	
Mode		Max.	22.87			Max.	22.86			Max.	23.25	

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	23.37	23.41	23.31	
20	QPSK	1	49	23.35	23.38	23.34	24
20	QPSK	1	99	23.33	23.31	23.29	
20	QPSK	50	0	22.39	22.46	22.34	
20	QPSK	50	24	22.42	22.44	22.30	23
20	QPSK	50	50	22.35	22.39	22.33	
20	QPSK	100	0	22.38	22.45	22.40	
20	16QAM	1	0	22.55	22.67	22.58	23.5
20	16QAM	1	49	22.59	22.85	22.69	
20	16QAM	1	99	22.61	22.74	22.75	
20	16QAM	50	0	21.33	21.46	21.34	22
20	16QAM	50	24	21.29	21.35	21.36	
20	16QAM	50	50	21.36	21.39	21.29	
20	16QAM	100	0	21.39	21.41	21.43	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	23.36	23.38	23.28	
15	QPSK	1	37	23.17	23.27	23.26	24
15	QPSK	1	74	23.31	23.33	23.37	
15	QPSK	36	0	22.25	22.52	22.29	
15	QPSK	36	20	22.33	22.54	22.15	23
15	QPSK	36	39	22.53	22.57	22.21	
15	QPSK	75	0	22.34	22.35	22.54	
15	16QAM	1	0	22.47	22.60	22.60	23.5
15	16QAM	1	37	22.62	22.94	22.50	
15	16QAM	1	74	22.49	22.91	22.85	
15	16QAM	36	0	21.38	21.31	21.37	22
15	16QAM	36	20	21.19	21.39	21.54	
15	16QAM	36	39	21.45	21.38	21.44	
15	16QAM	75	0	21.29	21.22	21.28	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	23.27	23.37	23.36	
10	QPSK	1	25	23.35	23.37	23.23	24
10	QPSK	1	49	23.29	23.32	23.39	
10	QPSK	25	0	22.27	22.66	22.53	
10	QPSK	25	12	22.60	22.57	22.23	23
10	QPSK	25	25	22.32	22.21	22.41	
10	QPSK	50	0	22.18	22.60	22.37	
10	16QAM	1	0	22.61	22.56	22.46	23.5
10	16QAM	1	25	22.65	22.89	22.70	
10	16QAM	1	49	22.58	22.84	22.65	
10	16QAM	25	0	21.33	21.57	21.34	22
10	16QAM	25	12	21.45	21.51	21.30	
10	16QAM	25	25	21.43	21.26	21.13	
10	16QAM	50	0	21.26	21.23	21.37	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	23.27	23.22	23.20	
5	QPSK	1	12	23.25	23.36	23.31	24
5	QPSK	1	24	23.32	23.11	23.30	
5	QPSK	12	0	22.46	22.37	22.46	
5	QPSK	12	7	22.35	22.34	22.25	23
5	QPSK	12	13	22.18	22.26	22.35	
5	QPSK	25	0	22.40	22.51	22.29	
5	16QAM	1	0	22.66	22.54	22.70	23.5
5	16QAM	1	12	22.64	22.92	22.58	
5	16QAM	1	24	22.47	22.76	22.62	
5	16QAM	12	0	21.47	21.58	21.24	22
5	16QAM	12	7	21.38	21.45	21.30	
5	16QAM	12	13	21.22	21.52	21.38	
5	16QAM	25	0	21.42	21.59	21.39	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	23.22	23.39	23.33	
3	QPSK	1	8	23.40	23.31	23.35	24
3	QPSK	1	14	23.35	23.36	23.16	
3	QPSK	8	0	22.37	22.47	22.43	
3	QPSK	8	4	22.50	22.27	22.22	23
3	QPSK	8	7	22.44	22.27	22.24	
3	QPSK	15	0	22.55	22.49	22.33	
3	16QAM	1	0	22.65	22.77	22.67	23.5
3	16QAM	1	8	22.49	22.85	22.67	
3	16QAM	1	14	22.48	22.59	22.86	
3	16QAM	8	0	21.26	21.42	21.43	22
3	16QAM	8	4	21.35	21.34	21.49	
3	16QAM	8	7	21.53	21.58	21.32	
3	16QAM	15	0	21.47	21.49	21.36	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.34	23.31	23.34	
1.4	QPSK	1	3	23.16	23.32	23.15	24
1.4	QPSK	1	5	23.21	23.38	23.21	
1.4	QPSK	3	0	22.20	22.58	22.29	
1.4	QPSK	3	1	22.42	22.41	22.28	23
1.4	QPSK	3	3	22.53	22.26	22.17	
1.4	QPSK	6	0	22.42	22.28	22.32	
1.4	16QAM	1	0	22.60	22.71	22.49	23.5
1.4	16QAM	1	3	22.69	22.85	22.76	
1.4	16QAM	1	5	22.62	22.64	22.79	
1.4	16QAM	3	0	21.35	21.40	21.17	22
1.4	16QAM	3	1	21.17	21.49	21.51	
1.4	16QAM	3	3	21.43	21.43	21.11	
1.4	16QAM	6	0	21.32	21.41	21.23	

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	23.64	23.81	23.68	24.5
20	QPSK	1	49	23.70	23.73	23.66	
20	QPSK	1	99	23.59	23.51	23.69	
20	QPSK	50	0	22.76	22.77	22.59	
20	QPSK	50	24	22.66	22.71	22.61	23.5
20	QPSK	50	50	22.51	22.81	22.68	
20	QPSK	100	0	22.62	22.82	22.57	
20	16QAM	1	0	22.75	22.91	22.83	
20	16QAM	1	49	22.86	22.93	22.80	23.5
20	16QAM	1	99	22.71	22.88	22.76	
20	16QAM	50	0	21.69	21.83	21.77	
20	16QAM	50	24	21.64	21.74	21.68	
20	16QAM	50	50	21.58	21.69	21.57	22.5
20	16QAM	100	0	21.66	21.79	21.63	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	23.72	23.69	23.70	24.5
15	QPSK	1	37	23.71	23.76	23.76	
15	QPSK	1	74	23.54	23.32	23.68	
15	QPSK	36	0	22.75	22.77	22.45	
15	QPSK	36	20	22.74	22.76	22.48	23.5
15	QPSK	36	39	22.53	22.89	22.56	
15	QPSK	75	0	22.57	22.62	22.62	
15	16QAM	1	0	22.83	23.01	22.79	
15	16QAM	1	37	22.93	23.02	22.67	23.5
15	16QAM	1	74	22.56	23.06	22.60	
15	16QAM	36	0	21.80	21.66	21.75	
15	16QAM	36	20	21.49	21.92	21.85	
15	16QAM	36	39	21.59	21.70	21.74	22.5
15	16QAM	75	0	21.54	21.72	21.83	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	23.61	23.76	23.64	24.5
10	QPSK	1	25	23.77	23.76	23.72	
10	QPSK	1	49	23.70	23.47	23.71	
10	QPSK	25	0	22.71	22.68	22.48	
10	QPSK	25	12	22.66	22.61	22.46	23.5
10	QPSK	25	25	22.54	22.88	22.76	
10	QPSK	50	0	22.43	22.92	22.46	
10	16QAM	1	0	22.59	22.77	22.89	
10	16QAM	1	25	23.01	22.98	22.86	23.5
10	16QAM	1	49	22.65	22.72	22.57	
10	16QAM	25	0	21.83	21.70	21.83	
10	16QAM	25	12	21.51	21.59	21.51	
10	16QAM	25	25	21.46	21.75	21.70	22.5
10	16QAM	50	0	21.63	21.82	21.45	
Channel				19975	20175	20375	
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	23.48	23.70	23.63	24.5
5	QPSK	1	12	23.75	23.74	23.58	
5	QPSK	1	24	23.44	23.49	23.71	
5	QPSK	12	0	22.56	22.73	22.69	
5	QPSK	12	7	22.63	22.62	22.62	23.5
5	QPSK	12	13	22.60	22.72	22.66	
5	QPSK	25	0	22.64	22.98	22.68	
5	16QAM	1	0	22.60	22.96	22.75	
5	16QAM	1	12	23.05	22.73	22.97	23.5
5	16QAM	1	24	22.62	22.89	22.75	
5	16QAM	12	0	21.63	21.92	21.87	
5	16QAM	12	7	21.78	21.89	21.64	
5	16QAM	12	13	21.57	21.88	21.51	22.5
5	16QAM	25	0	21.64	21.73	21.49	
Channel				19965	20175	20385	
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	23.62	23.73	23.61	24.5
3	QPSK	1	8	23.56	23.80	23.68	
3	QPSK	1	14	23.61	23.46	23.73	
3	QPSK	8	0	22.59	22.90	22.42	
3	QPSK	8	4	22.77	22.60	22.59	23.5
3	QPSK	8	7	22.40	22.75	22.75	
3	QPSK	15	0	22.59	22.68	22.68	
3	16QAM	1	0	22.70	23.03	22.96	
3	16QAM	1	8	23.06	23.05	22.66	23.5
3	16QAM	1	14	22.57	22.97	22.70	
3	16QAM	8	0	21.83	21.94	21.79	
3	16QAM	8	4	21.80	21.76	21.77	
3	16QAM	8	7	21.62	21.55	21.50	22.5
3	16QAM	15	0	21.83	21.95	21.64	
Channel				19957	20175	20393	
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	23.59	23.75	23.72	24.5
1.4	QPSK	1	3	23.74	23.68	23.75	
1.4	QPSK	1	5	23.65	23.37	23.49	
1.4	QPSK	3	0	22.80	22.67	22.63	
1.4	QPSK	3	1	22.81	22.51	22.80	23.5
1.4	QPSK	3	3	22.63	22.78	22.68	
1.4	QPSK	6	0	22.65	22.96	22.77	
1.4	16QAM	1	0	22.83	22.72	23.03	
1.4	16QAM	1	3	22.90	22.78	22.80	23.5
1.4	16QAM	1	5	22.68	22.95	22.73	
1.4	16QAM	3	0	21.51	21.75	21.92	
1.4	16QAM	3	1	21.57	21.78	21.77	
1.4	16QAM	3	3	21.63	21.79	21.51	22.5
1.4	16QAM	6	0	21.46	21.73	21.65	

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	23.90	23.93	23.84	24.5
10	QPSK	1	25	23.70	23.83	23.69	
10	QPSK	1	49	23.69	23.75	23.66	
10	QPSK	25	0	22.69	22.87	22.79	23.5
10	QPSK	25	12	22.75	22.83	22.70	
10	QPSK	25	25	22.76	22.86	22.73	
10	QPSK	50	0	22.63	22.90	22.81	24
10	16QAM	1	0	23.05	23.11	23.10	
10	16QAM	1	25	23.01	23.08	23.03	
10	16QAM	1	49	23.08	23.14	23.00	22.5
10	16QAM	25	0	21.75	21.90	21.88	
10	16QAM	25	12	21.69	21.87	21.78	
10	16QAM	25	25	21.77	21.81	21.83	
10	16QAM	50	0	21.68	21.75	21.76	
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	23.80	23.75	23.78	
5	QPSK	1	12	23.59	23.69	23.64	24.5
5	QPSK	1	24	23.52	23.55	23.80	
5	QPSK	12	0	22.65	22.95	22.74	
5	QPSK	12	7	22.72	22.81	22.61	23.5
5	QPSK	12	13	22.68	22.93	22.82	
5	QPSK	25	0	22.69	22.77	22.95	
5	16QAM	1	0	23.11	23.27	23.17	24
5	16QAM	1	12	22.93	23.08	23.08	
5	16QAM	1	24	23.13	23.25	22.86	
5	16QAM	12	0	21.63	21.91	21.96	22.5
5	16QAM	12	7	21.57	21.99	21.90	
5	16QAM	12	13	21.58	21.87	21.78	
5	16QAM	25	0	21.65	21.70	21.81	
Channel				20415	20525	20635	
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	23.71	23.61	23.69	
3	QPSK	1	8	23.63	23.67	23.49	24.5
3	QPSK	1	14	23.53	23.66	23.75	
3	QPSK	8	0	22.50	22.73	22.79	
3	QPSK	8	4	22.80	22.77	22.62	23.5
3	QPSK	8	7	22.78	22.82	22.79	
3	QPSK	15	0	22.64	23.09	22.81	
3	16QAM	1	0	22.98	23.17	23.03	24
3	16QAM	1	8	22.91	22.89	22.88	
3	16QAM	1	14	22.80	22.96	23.05	
3	16QAM	8	0	21.79	21.95	21.83	22.5
3	16QAM	8	4	21.56	21.93	21.97	
3	16QAM	8	7	21.71	21.81	21.74	
3	16QAM	15	0	21.79	21.58	21.93	
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	23.66	23.84	23.83	
1.4	QPSK	1	3	23.73	23.65	23.63	24.5
1.4	QPSK	1	5	23.85	23.88	23.64	
1.4	QPSK	3	0	22.79	22.68	22.89	
1.4	QPSK	3	1	22.62	22.69	22.70	23.5
1.4	QPSK	3	3	22.69	23.00	22.85	
1.4	QPSK	6	0	22.67	22.98	22.65	
1.4	16QAM	1	0	23.03	23.27	22.97	24
1.4	16QAM	1	3	22.93	22.96	22.86	
1.4	16QAM	1	5	23.12	23.09	22.88	
1.4	16QAM	3	0	21.90	21.92	21.89	22.5
1.4	16QAM	3	1	21.64	21.86	21.88	
1.4	16QAM	3	3	21.80	21.63	21.64	
1.4	16QAM	6	0	21.56	21.75	21.61	

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	23.81	23.96	23.86	24.5
10	QPSK	1	25	23.77	23.83	23.79	
10	QPSK	1	49	23.74	23.68	23.77	
10	QPSK	25	0	22.72	22.75	22.70	23.5
10	QPSK	25	12	22.73	22.71	22.61	
10	QPSK	25	25	22.80	22.69	22.66	
10	QPSK	50	0	22.75	22.81	22.68	24
10	16QAM	1	0	23.11	23.15	23.00	
10	16QAM	1	25	23.14	23.10	22.88	
10	16QAM	1	49	23.02	23.06	22.91	22.5
10	16QAM	25	0	21.75	21.91	21.66	
10	16QAM	25	12	21.81	21.87	21.70	
10	16QAM	25	25	21.86	21.84	21.57	
10	16QAM	50	0	21.65	21.75	21.49	
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	23.63	23.94	23.72	
5	QPSK	1	12	23.87	23.75	23.74	24.5
5	QPSK	1	24	23.84	23.58	23.78	
5	QPSK	12	0	22.54	22.86	22.84	
5	QPSK	12	7	22.88	22.73	22.80	23.5
5	QPSK	12	13	22.86	22.79	22.69	
5	QPSK	25	0	22.93	22.67	22.59	
5	16QAM	1	0	22.93	23.25	23.15	24
5	16QAM	1	12	23.30	22.98	22.68	
5	16QAM	1	24	23.08	22.97	22.92	
5	16QAM	12	0	21.85	21.83	21.70	22.5
5	16QAM	12	7	21.82	21.95	21.52	
5	16QAM	12	13	21.91	21.81	21.51	
5	16QAM	25	0	21.80	21.78	21.63	
Channel				23025	23095	23165	
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	23.73	23.70	23.89	
3	QPSK	1	8	23.89	23.92	23.68	24.5
3	QPSK	1	14	23.78	23.62	23.85	
3	QPSK	8	0	22.56	22.93	23.05	
3	QPSK	8	4	22.68	22.73	22.75	23.5
3	QPSK	8	7	22.84	22.74	22.76	
3	QPSK	15	0	22.61	22.74	22.83	
3	16QAM	1	0	23.11	23.17	23.20	24
3	16QAM	1	8	23.04	23.14	23.02	
3	16QAM	1	14	22.90	22.91	22.98	
3	16QAM	8	0	21.85	21.84	21.79	22.5
3	16QAM	8	4	21.64	21.84	21.87	
3	16QAM	8	7	22.03	21.89	21.38	
3	16QAM	15	0	21.65	21.69	21.49	
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	23.61	23.84	23.63	
1.4	QPSK	1	3	23.72	23.82	23.86	24.5
1.4	QPSK	1	5	23.63	23.73	23.76	
1.4	QPSK	3	0	22.76	22.56	22.74	
1.4	QPSK	3	1	22.75	22.68	22.63	23.5
1.4	QPSK	3	3	22.90	22.78	22.60	
1.4	QPSK	6	0	22.79	22.66	22.49	
1.4	16QAM	1	0	23.14	23.23	23.08	24
1.4	16QAM	1	3	23.21	23.01	23.02	
1.4	16QAM	1	5	22.82	23.08	22.92	
1.4	16QAM	3	0	21.78	21.91	21.60	22.5
1.4	16QAM	3	1	21.72	21.98	21.72	
1.4	16QAM	3	3	21.94	22.03	21.44	
1.4	16QAM	6	0	21.53	21.76	21.50	

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	23.41	23.45	23.38	24
20	QPSK	1	49	23.32	23.36	23.32	
20	QPSK	1	99	23.36	23.35	23.30	
20	QPSK	50	0	22.35	22.42	22.36	23
20	QPSK	50	24	22.29	22.46	22.33	
20	QPSK	50	50	22.31	22.39	22.37	
20	QPSK	100	0	22.37	22.48	22.40	23.5
20	16QAM	1	0	22.66	22.88	22.71	
20	16QAM	1	49	22.71	22.85	22.68	
20	16QAM	1	99	22.79	22.69	22.66	22
20	16QAM	50	0	21.42	21.46	21.40	
20	16QAM	50	24	21.29	21.45	21.33	
20	16QAM	50	50	21.33	21.43	21.35	22
20	16QAM	100	0	21.39	21.41	21.29	
Channel				26115	26365	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	23.37	23.35	23.34	24
15	QPSK	1	37	23.26	23.42	23.34	
15	QPSK	1	74	23.40	23.39	23.26	
15	QPSK	36	0	22.53	22.44	22.48	23
15	QPSK	36	20	22.26	22.53	22.13	
15	QPSK	36	39	22.31	22.36	22.53	
15	QPSK	75	0	22.28	22.62	22.47	23.5
15	16QAM	1	0	22.62	23.08	22.63	
15	16QAM	1	37	22.89	22.75	22.80	
15	16QAM	1	74	22.91	22.66	22.76	22
15	16QAM	36	0	21.39	21.30	21.47	
15	16QAM	36	20	21.09	21.40	21.53	
15	16QAM	36	39	21.40	21.47	21.22	22
15	16QAM	75	0	21.46	21.58	21.45	
Channel				26090	26365	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	23.22	23.33	23.24	24
10	QPSK	1	25	23.37	23.36	23.34	
10	QPSK	1	49	23.39	23.18	23.36	
10	QPSK	25	0	22.54	22.37	22.39	23
10	QPSK	25	12	22.21	22.64	22.23	
10	QPSK	25	25	22.18	22.47	22.50	
10	QPSK	50	0	22.41	22.67	22.44	23.5
10	16QAM	1	0	22.67	22.73	22.63	
10	16QAM	1	25	22.67	23.00	22.52	
10	16QAM	1	49	22.65	22.81	22.57	22
10	16QAM	25	0	21.45	21.54	21.54	
10	16QAM	25	12	21.39	21.31	21.22	
10	16QAM	25	25	21.42	21.56	21.24	22
10	16QAM	50	0	21.22	21.61	21.18	
Channel				26065	26365	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	QPSK	1	0	23.44	23.26	23.30	24
5	QPSK	1	12	23.22	23.20	23.42	
5	QPSK	1	24	23.37	23.23	23.43	
5	QPSK	12	0	22.42	22.44	22.29	23
5	QPSK	12	7	22.09	22.33	22.44	
5	QPSK	12	13	22.20	22.27	22.35	
5	QPSK	25	0	22.36	22.42	22.43	23.5
5	16QAM	1	0	22.80	22.89	22.75	
5	16QAM	1	12	22.51	22.69	22.59	
5	16QAM	1	24	22.89	22.57	22.63	22
5	16QAM	12	0	21.55	21.41	21.54	
5	16QAM	12	7	21.25	21.33	21.37	
5	16QAM	12	13	21.18	21.48	21.34	22
5	16QAM	25	0	21.51	21.61	21.23	
Channel				26055	26365	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	23.17	23.27	23.35	24
3	QPSK	1	8	23.32	23.44	23.26	
3	QPSK	1	14	23.36	23.34	23.23	
3	QPSK	8	0	22.52	22.48	22.52	23
3	QPSK	8	4	22.32	22.62	22.38	
3	QPSK	8	7	22.31	22.35	22.21	
3	QPSK	15	0	22.33	22.53	22.59	23.5
3	16QAM	1	0	22.81	22.95	22.90	
3	16QAM	1	8	22.83	22.93	22.48	
3	16QAM	1	14	22.97	22.83	22.83	22
3	16QAM	8	0	21.32	21.44	21.41	
3	16QAM	8	4	21.11	21.45	21.39	
3	16QAM	8	7	21.47	21.43	21.25	22
3	16QAM	15	0	21.29	21.41	21.49	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	23.37	23.37	23.31	24
1.4	QPSK	1	3	23.17	23.16	23.39	
1.4	QPSK	1	5	23.44	23.40	23.36	
1.4	QPSK	3	0	22.25	22.59	22.44	23
1.4	QPSK	3	1	22.31	22.31	22.26	
1.4	QPSK	3	3	22.17	22.25	22.40	
1.4	QPSK	6	0	22.28	22.29	22.51	23.5
1.4	16QAM	1	0	22.52	22.71	22.91	
1.4	16QAM	1	3	22.58	23.00	22.73	
1.4	16QAM	1	5	22.74	22.50	22.54	22
1.4	16QAM	3	0	21.53	21.56	21.58	
1.4	16QAM	3	1	21.53	21.51	21.57	
1.4	16QAM	3	3	21.57	21.54	21.55	22
1.4	16QAM	6	0	21.34	21.32	21.15	

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	23.80	23.86	23.69	24.5
15	QPSK	1	37	23.62	23.58	23.62	
15	QPSK	1	74	23.53	23.59	23.54	
15	QPSK	36	0	22.72	22.76	22.70	23.5
15	QPSK	36	20	22.75	22.73	22.63	
15	QPSK	36	39	22.63	22.69	22.67	
15	QPSK	75	0	22.68	22.66	22.68	24
15	16QAM	1	0	23.06	23.08	23.04	
15	16QAM	1	37	23.11	23.09	23.02	
15	16QAM	1	74	23.01	23.06	23.05	22.5
15	16QAM	36	0	21.70	21.66	21.59	
15	16QAM	36	20	21.59	21.59	21.64	
15	16QAM	36	39	21.62	21.55	21.65	
15	16QAM	75	0	21.73	21.66	21.58	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	23.52	23.40	23.61	24.5
10	QPSK	1	25	23.52	23.60	23.55	
10	QPSK	1	49	23.39	23.66	23.55	
10	QPSK	25	0	22.59	22.52	22.54	23.5
10	QPSK	25	12	22.71	22.78	22.79	
10	QPSK	25	25	22.50	22.58	22.85	
10	QPSK	50	0	22.74	22.79	22.58	24
10	16QAM	1	0	22.90	23.14	23.06	
10	16QAM	1	25	22.93	23.22	23.05	
10	16QAM	1	49	23.02	23.00	23.19	22.5
10	16QAM	25	0	21.82	21.57	21.49	
10	16QAM	25	12	21.51	21.73	21.59	
10	16QAM	25	25	21.50	21.41	21.73	
10	16QAM	50	0	21.63	21.67	21.62	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.64	23.59	23.63	24.5
5	QPSK	1	12	23.69	23.38	23.53	
5	QPSK	1	24	23.68	23.60	23.55	
5	QPSK	12	0	22.63	22.65	22.51	23.5
5	QPSK	12	7	22.63	22.93	22.72	
5	QPSK	12	13	22.67	22.66	22.78	
5	QPSK	25	0	22.75	22.58	22.75	24
5	16QAM	1	0	23.19	23.25	22.86	
5	16QAM	1	12	23.16	23.01	22.87	
5	16QAM	1	24	23.01	23.17	23.08	22.5
5	16QAM	12	0	21.90	21.55	21.71	
5	16QAM	12	7	21.60	21.74	21.76	
5	16QAM	12	13	21.51	21.40	21.58	
5	16QAM	25	0	21.90	21.49	21.75	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.40	23.50	23.39	24.5
3	QPSK	1	8	23.46	23.46	23.62	
3	QPSK	1	14	23.65	23.58	23.46	
3	QPSK	8	0	22.67	22.74	22.51	23.5
3	QPSK	8	4	22.94	22.89	22.58	
3	QPSK	8	7	22.80	22.82	22.64	
3	QPSK	15	0	22.67	22.76	22.72	24
3	16QAM	1	0	23.03	22.95	22.98	
3	16QAM	1	8	23.04	22.89	23.04	22.5
3	16QAM	1	14	23.11	23.16	23.01	
3	16QAM	8	0	21.67	21.69	21.77	
3	16QAM	8	4	21.76	21.55	21.47	
3	16QAM	8	7	21.49	21.70	21.75	
3	16QAM	15	0	21.91	21.80	21.85	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.58	23.60	23.59	24.5
1.4	QPSK	1	3	23.64	23.47	23.52	
1.4	QPSK	1	5	23.58	23.44	23.58	
1.4	QPSK	3	0	22.75	22.69	22.53	23.5
1.4	QPSK	3	1	22.90	22.68	22.64	
1.4	QPSK	3	3	22.57	22.67	22.82	
1.4	QPSK	6	0	22.55	22.72	22.51	24
1.4	16QAM	1	0	22.90	23.17	23.18	
1.4	16QAM	1	3	23.31	22.94	23.06	
1.4	16QAM	1	5	23.10	22.90	22.99	22.5
1.4	16QAM	3	0	21.53	21.61	21.72	
1.4	16QAM	3	1	21.58	21.63	21.55	
1.4	16QAM	3	3	21.71	21.67	21.81	
1.4	16QAM	6	0	21.91	21.61	21.68	

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	23.77	23.86	23.79	24.5
20	QPSK	1	49	23.66	23.69	23.71	
20	QPSK	1	99	23.70	23.75	23.82	
20	QPSK	50	0	22.81	22.90	22.79	23.5
20	QPSK	50	24	22.69	22.83	22.80	
20	QPSK	50	50	22.78	22.76	22.66	
20	QPSK	100	0	22.73	22.75	22.68	23.5
20	16QAM	1	0	22.70	22.88	22.63	
20	16QAM	1	49	22.65	22.83	22.59	
20	16QAM	1	99	22.78	22.68	22.71	22.5
20	16QAM	50	0	21.89	21.95	21.83	
20	16QAM	50	24	21.77	21.89	21.67	
20	16QAM	50	50	21.68	21.76	21.79	22.5
20	16QAM	100	0	21.75	21.88	21.80	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.72	23.55	23.69	24.5
15	QPSK	1	37	23.82	23.75	23.79	
15	QPSK	1	74	23.61	23.82	23.53	
15	QPSK	36	0	22.79	22.82	22.96	23.5
15	QPSK	36	20	22.85	22.69	22.83	
15	QPSK	36	39	22.88	22.79	22.52	
15	QPSK	75	0	22.76	22.64	22.60	23.5
15	16QAM	1	0	22.52	22.80	22.55	
15	16QAM	1	37	22.70	22.94	22.71	
15	16QAM	1	74	22.68	22.85	22.59	22.5
15	16QAM	36	0	21.95	22.02	21.94	
15	16QAM	36	20	21.86	21.97	21.71	
15	16QAM	36	39	21.66	21.64	21.82	22.5
15	16QAM	75	0	21.90	21.76	21.82	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.58	23.69	23.69	24.5
10	QPSK	1	25	23.52	23.79	23.57	
10	QPSK	1	49	23.76	23.81	23.62	
10	QPSK	25	0	22.65	22.89	22.87	23.5
10	QPSK	25	12	22.56	22.72	22.60	
10	QPSK	25	25	22.91	22.83	22.47	
10	QPSK	50	0	22.72	22.55	22.54	23.5
10	16QAM	1	0	22.84	22.88	22.79	
10	16QAM	1	25	22.58	22.70	22.72	
10	16QAM	1	49	22.62	22.79	22.67	22.5
10	16QAM	25	0	21.87	21.80	21.87	
10	16QAM	25	12	21.82	21.75	21.75	
10	16QAM	25	25	21.74	21.83	21.59	22.5
10	16QAM	50	0	21.55	21.80	21.96	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.60	23.59	23.78	24.5
5	QPSK	1	12	23.46	23.85	23.59	
5	QPSK	1	24	23.66	23.57	23.80	
5	QPSK	12	0	22.67	22.90	22.89	23.5
5	QPSK	12	7	22.52	22.75	22.83	
5	QPSK	12	13	22.94	22.88	22.59	
5	QPSK	25	0	22.72	22.74	22.49	23.5
5	16QAM	1	0	22.90	22.96	22.55	
5	16QAM	1	12	22.64	22.98	22.61	
5	16QAM	1	24	22.59	22.84	22.52	22.5
5	16QAM	12	0	22.04	22.05	21.88	
5	16QAM	12	7	21.91	21.73	21.76	
5	16QAM	12	13	21.60	21.64	21.70	22.5
5	16QAM	25	0	21.68	21.81	21.68	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.81	23.63	23.72	24.5
3	QPSK	1	8	23.85	23.65	23.54	
3	QPSK	1	14	23.62	23.77	23.65	
3	QPSK	8	0	22.91	23.02	22.91	23.5
3	QPSK	8	4	22.53	22.88	22.69	
3	QPSK	8	7	22.79	22.85	22.70	
3	QPSK	15	0	22.82	22.72	22.57	23.5
3	16QAM	1	0	22.73	22.81	22.46	
3	16QAM	1	8	22.79	22.89	22.53	
3	16QAM	1	14	22.83	22.72	22.56	22.5
3	16QAM	8	0	21.87	22.00	22.01	
3	16QAM	8	4	21.60	21.96	21.69	
3	16QAM	8	7	21.78	21.71	21.96	22.5
3	16QAM	15	0	21.79	21.78	21.71	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.64	23.65	23.76	24.5
1.4	QPSK	1	3	23.84	23.60	23.81	
1.4	QPSK	1	5	23.82	23.83	23.70	
1.4	QPSK	3	0	22.83	22.92	22.91	23.5
1.4	QPSK	3	1	22.55	23.00	22.86	
1.4	QPSK	3	3	22.88	22.65	22.81	
1.4	QPSK	6	0	22.84	22.78	22.61	23.5
1.4	16QAM	1	0	22.73	22.95	22.52	
1.4	16QAM	1	3	22.47	22.75	22.53	
1.4	16QAM	1	5	22.68	22.64	22.62	23.5
1.4	16QAM	3	0	21.97	21.94	22.03	
1.4	16QAM	3	1	21.72	21.93	21.76	
1.4	16QAM	3	3	21.64	21.95	21.75	22.5
1.4	16QAM	6	0	21.64	21.92	21.63	

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	23.77	23.80	23.73	24.5
20	QPSK	1	49	23.65	23.76	23.62	
20	QPSK	1	99	23.70	23.67	23.66	
20	QPSK	50	0	22.97	23.03	22.94	23.5
20	QPSK	50	24	22.98	23.03	22.99	
20	QPSK	50	50	22.89	22.95	23.01	
20	QPSK	100	0	22.93	23.08	23.02	23.5
20	16QAM	1	0	22.90	23.00	22.99	
20	16QAM	1	49	23.04	23.03	22.98	
20	16QAM	1	99	22.96	23.02	22.94	22.5
20	16QAM	50	0	22.07	22.14	22.06	
20	16QAM	50	24	22.12	22.17	22.09	
20	16QAM	50	50	22.03	22.10	22.12	22.5
20	16QAM	100	0	22.11	22.09	22.15	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	23.58	23.65	23.61	24.5
15	QPSK	1	37	23.58	23.69	23.48	
15	QPSK	1	74	23.73	23.59	23.46	
15	QPSK	36	0	22.78	22.58	22.54	23.5
15	QPSK	36	20	22.72	22.77	22.79	
15	QPSK	36	39	22.58	22.59	22.71	
15	QPSK	75	0	22.74	22.62	22.74	23.5
15	16QAM	1	0	22.63	22.62	22.82	
15	16QAM	1	37	22.69	22.81	22.74	
15	16QAM	1	74	22.65	22.77	22.70	22.5
15	16QAM	36	0	21.91	21.84	21.83	
15	16QAM	36	20	21.88	21.87	21.90	
15	16QAM	36	39	21.91	21.91	21.93	22.5
15	16QAM	75	0	21.88	21.91	21.88	
Channel				133172	133272	133422	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	23.68	23.71	23.58	24.5
10	QPSK	1	25	23.49	23.69	23.60	
10	QPSK	1	49	23.60	23.57	23.54	
10	QPSK	25	0	22.87	22.77	22.70	23.5
10	QPSK	25	12	22.92	22.83	22.91	
10	QPSK	25	25	22.55	22.65	22.86	
10	QPSK	50	0	22.69	22.81	22.83	23.5
10	16QAM	1	0	22.78	22.74	22.88	
10	16QAM	1	25	22.71	22.85	22.68	
10	16QAM	1	49	22.86	22.86	22.73	22.5
10	16QAM	25	0	21.91	21.99	21.88	
10	16QAM	25	12	21.90	21.94	21.92	
10	16QAM	25	25	22.04	22.08	22.02	22.5
10	16QAM	50	0	21.95	22.05	22.00	
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	23.62	23.68	23.43	24.5
5	QPSK	1	12	23.30	23.61	23.60	
5	QPSK	1	24	23.40	23.52	23.67	
5	QPSK	12	0	22.75	22.77	22.68	23.5
5	QPSK	12	7	22.54	22.71	22.61	
5	QPSK	12	13	22.58	22.53	22.83	
5	QPSK	25	0	22.81	22.64	22.72	23.5
5	16QAM	1	0	22.62	22.76	22.64	
5	16QAM	1	12	22.72	22.78	22.70	
5	16QAM	1	24	22.53	22.67	22.77	22.5
5	16QAM	12	0	21.94	22.02	21.84	
5	16QAM	12	7	21.84	22.01	22.00	
5	16QAM	12	13	21.97	21.80	21.96	22.5
5	16QAM	25	0	21.79	21.75	22.00	

Band 41 (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)				2505	2549.5	2593	2636.5	2680		
20	QPSK	1	0	23.83	23.89	23.95	23.93	23.92	24.5	
20	QPSK	1	49	23.75	23.63	23.88	23.78	23.85		
20	QPSK	1	99	23.66	23.60	23.91	23.82	23.71		
20	QPSK	50	0	22.74	22.71	22.95	22.70	22.73		
20	QPSK	50	24	22.69	22.70	22.93	22.85	22.74	23.5	
20	QPSK	50	50	22.77	22.75	22.91	22.73	22.69		
20	QPSK	100	0	22.72	22.81	22.88	22.70	22.74		
20	16QAM	1	0	22.66	22.69	22.85	22.79	22.72		
20	16QAM	1	49	22.81	22.81	22.79	22.61	22.70	23.5	
20	16QAM	1	99	22.63	22.83	22.69	22.59	22.63		
20	16QAM	50	0	21.68	21.66	21.93	21.75	21.70		
20	16QAM	50	24	21.75	21.76	21.87	21.58	21.69		
20	16QAM	50	50	21.78	21.77	21.68	21.64	21.58	22.5	
20	16QAM	100	0	21.69	21.81	21.76	21.61	21.60		
Channel				39725	40173	40620	41068	41515		Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2590	2637.8	2682.5		
15	QPSK	1	0	23.81	23.83	23.65	23.81	23.87	24.5	
15	QPSK	1	37	23.67	23.63	23.66	23.69	23.90		
15	QPSK	1	74	23.66	23.59	23.92	23.63	23.91		
15	QPSK	36	0	22.92	22.81	23.14	22.57	22.53		
15	QPSK	36	20	22.81	22.81	22.99	22.71	22.85	23.5	
15	QPSK	36	39	22.89	22.80	22.80	22.64	22.71		
15	QPSK	75	0	22.85	22.75	22.82	22.62	22.69		
15	16QAM	1	0	22.65	22.64	22.97	22.96	22.52		
15	16QAM	1	37	22.75	22.82	22.87	22.77	22.70	23.5	
15	16QAM	1	74	22.64	23.02	22.79	22.55	22.50		
15	16QAM	36	0	21.72	21.51	21.80	21.69	21.54		
15	16QAM	36	20	21.81	21.59	21.86	21.62	21.85		
15	16QAM	36	39	21.72	21.92	21.76	21.46	21.39	22.5	
15	16QAM	75	0	21.65	21.62	21.73	21.74	21.62		
Channel				39700	40160	40620	41080	41540		Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	23.89	23.78	23.88	23.90	23.91	24.5	
10	QPSK	1	25	23.94	23.56	23.92	23.77	23.73		
10	QPSK	1	49	23.50	23.70	23.88	23.74	23.57		
10	QPSK	25	0	22.67	22.81	22.77	22.70	22.61		
10	QPSK	25	12	22.77	22.57	23.12	23.05	22.65	23.5	
10	QPSK	25	25	22.79	22.88	22.93	22.91	22.79		
10	QPSK	50	0	22.92	22.86	22.97	22.51	22.79		
10	16QAM	1	0	22.60	22.65	22.93	22.61	22.69		
10	16QAM	1	25	22.91	22.76	22.90	22.72	22.56	23.5	
10	16QAM	1	49	22.69	22.72	22.59	22.49	22.64		
10	16QAM	25	0	21.49	21.54	21.80	21.55	21.51		
10	16QAM	25	12	21.87	21.87	21.78	21.77	21.76		
10	16QAM	25	25	21.64	21.61	21.49	21.61	21.73	22.5	
10	16QAM	50	0	21.83	21.68	21.58	21.52	21.44		
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	23.55	23.68	23.75	23.92	23.66	24.5	
5	QPSK	1	12	23.82	23.64	23.76	23.86	23.64		
5	QPSK	1	24	23.58	23.61	23.75	23.75	23.64		
5	QPSK	12	0	22.81	22.84	23.15	22.63	22.68		
5	QPSK	12	7	22.65	22.52	23.07	23.04	22.66	23.5	
5	QPSK	12	13	22.88	22.87	22.84	22.81	22.89		
5	QPSK	25	0	22.74	22.87	22.70	22.83	22.77		
5	16QAM	1	0	22.62	22.63	22.97	22.94	22.72		
5	16QAM	1	12	22.88	22.75	22.61	22.57	22.55	23.5	
5	16QAM	1	24	22.43	22.68	22.51	22.54	22.83		
5	16QAM	12	0	21.59	21.60	22.11	21.71	21.89		
5	16QAM	12	7	21.62	21.91	22.04	21.68	21.71		
5	16QAM	12	13	21.88	21.68	21.56	21.54	21.42	22.5	
5	16QAM	25	0	21.67	21.76	21.71	21.54	21.52		

Band 41 (HPUE)											
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	26.68	26.74	26.80	26.78	26.77	27.5		
20	QPSK	1	49	26.60	26.68	26.73	26.63	26.70			
20	QPSK	1	99	26.51	26.65	26.76	26.67	26.56			
20	QPSK	50	0	25.59	25.56	25.80	25.55	25.58			
20	QPSK	50	24	25.54	25.55	25.78	25.70	25.59	26.5		
20	QPSK	50	50	25.62	25.60	25.76	25.58	25.54			
20	QPSK	100	0	25.57	25.66	25.73	25.55	25.59			
20	16QAM	1	0	25.51	25.54	25.70	25.64	25.57			
20	16QAM	1	49	25.66	25.66	25.64	25.46	25.55	26.5		
20	16QAM	1	99	25.48	25.68	25.54	25.44	25.48			
20	16QAM	50	0	24.53	24.51	24.78	24.60	24.55			
20	16QAM	50	24	24.60	24.61	24.72	24.43	24.54			
20	16QAM	50	50	24.63	24.62	24.53	24.49	24.43	25.5		
20	16QAM	100	0	24.54	24.66	24.61	24.46	24.45			
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	26.56	26.58	26.71	26.56	26.62	27.5		
15	QPSK	1	37	26.42	26.58	26.41	26.44	26.65			
15	QPSK	1	74	26.41	26.54	26.67	26.38	26.66			
15	QPSK	36	0	25.67	25.56	25.89	25.32	25.28			
15	QPSK	36	20	25.56	25.56	25.74	25.46	25.60	26.5		
15	QPSK	36	39	25.64	25.55	25.55	25.39	25.46			
15	QPSK	75	0	25.60	25.50	25.57	25.37	25.44			
15	16QAM	1	0	25.40	25.39	25.72	25.71	25.27			
15	16QAM	1	37	25.50	25.57	25.62	25.52	25.45	26.5		
15	16QAM	1	74	25.39	25.77	25.54	25.30	25.25			
15	16QAM	36	0	24.47	24.26	24.55	24.44	24.29			
15	16QAM	36	20	24.56	24.34	24.61	24.37	24.60			
15	16QAM	36	39	24.47	24.67	24.51	24.21	24.14	25.5		
15	16QAM	75	0	24.40	24.37	24.48	24.49	24.37			
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)		
Frequency (MHz)				2501	2547	2593	2639	2685			
10	QPSK	1	0	26.64	26.53	26.71	26.65	26.66	27.5		
10	QPSK	1	25	26.69	26.51	26.67	26.52	26.48			
10	QPSK	1	49	26.25	26.65	26.63	26.49	26.32			
10	QPSK	25	0	25.42	25.56	25.52	25.45	25.36			
10	QPSK	25	12	25.52	25.32	25.87	25.80	25.40	26.5		
10	QPSK	25	25	25.54	25.63	25.68	25.66	25.54			
10	QPSK	50	0	25.67	25.60	25.72	25.26	25.54			
10	16QAM	1	0	25.35	25.40	25.68	25.36	25.44			
10	16QAM	1	25	25.66	25.51	25.66	25.47	25.31	26.5		
10	16QAM	1	49	25.44	25.47	25.34	25.24	25.39			
10	16QAM	25	0	24.24	24.29	24.55	24.30	24.26			
10	16QAM	25	12	24.62	24.62	24.53	24.52	24.51			
10	16QAM	25	25	24.39	24.36	24.24	24.36	24.48	25.5		
10	16QAM	50	0	24.58	24.43	24.33	24.27	24.19			
Channel				39875	40148	40620	41093	41595	Tune-up limit (dBm)		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5			
5	QPSK	1	0	26.30	26.43	26.50	26.67	26.41	27.5		
5	QPSK	1	12	26.57	26.59	26.51	26.61	26.39			
5	QPSK	1	24	26.33	26.56	26.50	26.50	26.39			
5	QPSK	12	0	25.56	25.59	25.90	25.38	25.43			
5	QPSK	12	7	25.40	25.27	25.82	25.79	25.41	26.5		
5	QPSK	12	13	25.63	25.62	25.59	25.56	25.64			
5	QPSK	25	0	25.49	25.62	25.45	25.58	25.32			
5	16QAM	1	0	25.37	25.38	25.72	25.69	25.47			
5	16QAM	1	12	25.63	25.50	25.36	25.32	25.30	26.5		
5	16QAM	1	24	25.16	25.43	25.26	25.29	25.58			
5	16QAM	12	0	24.34	24.35	24.86	24.46	24.64			
5	16QAM	12	7	24.37	24.66	24.43	24.79	24.46			
5	16QAM	12	13	24.63	24.41	24.31	24.29	24.27	25.5		
5	16QAM	25	0	24.42	24.51	24.46	24.29	24.17			

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	16.30	17.00	18.00	99.52
		CH 6	2437	16.43	17.00	18.00	
		CH 11	2462	16.47	17.00	18.00	
	802.11g 6Mbps	CH 1	2412	15.46	16.50	17.50	96.94
		CH 6	2437	15.85	16.50	17.50	
		CH 11	2462	15.56	16.50	17.50	
	802.11n-HT20 MCS0	CH 1	2412	15.67	16.50	18.00	96.73
		CH 6	2437	15.99	16.50	18.00	
		CH 11	2462	15.82	16.50	18.00	
	802.11n-HT40 MCS0	CH 3	2422	13.20	14.00	15.00	93.91
		CH 6	2437	13.25	14.00	15.00	
		CH 9	2452	13.23	14.00	15.00	

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	5.39	3.17	3.15
	CH 39	2441	5.94	3.63	3.65
	CH 78	2480	9.26	6.28	6.34
Tune-up Limit			10	7	7
Duty Cycle %			76.8	76.8	77.2

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	
LE	CH 00	2402	-8.58	-11.73	
	CH 19	2440	-7.59	-10.83	
	CH 39	2480	-6.97	-10.05	
Tune-up Limit			-6.5	-9.5	
Duty Cycle %			61.06	31.73	

Reduced Power

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	21.37	21.28	21.23	22.00	21.34	21.36	21.35	22.00
3GPP Rel 6	HSDPA Subtest-1	20.67	20.58	20.49	21.50	20.82	20.84	20.81	21.50
3GPP Rel 6	HSDPA Subtest-2	20.64	20.55	20.50	21.50	20.81	20.89	20.79	21.50
3GPP Rel 6	HSDPA Subtest-3	20.17	20.05	19.99	21.00	20.37	20.38	20.31	21.00
3GPP Rel 6	HSDPA Subtest-4	20.17	20.05	20.00	21.00	20.35	20.37	20.32	21.00
3GPP Rel 6	HSUPA Subtest-1	19.15	19.00	18.99	20.00	19.33	19.37	19.31	20.00
3GPP Rel 6	HSUPA Subtest-2	19.65	19.58	19.49	20.50	19.81	19.86	19.82	21.50
3GPP Rel 6	HSUPA Subtest-3	18.15	18.05	17.99	19.00	18.36	18.37	18.30	19.00
3GPP Rel 6	HSUPA Subtest-4	20.64	20.53	20.44	21.50	20.79	20.84	20.81	21.50
3GPP Rel 6	HSUPA Subtest-5	18.65	18.57	18.48	19.50	18.85	18.89	18.84	19.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	18.20	18.09	18.03	19.00	18.38	18.39	18.34	19.00
Attenuator			Cable Loss	0.8			Cable Loss	0.8	
Mode			Max.	21.37			Max.	21.36	

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	21.37	21.41	21.31	
20	QPSK	1	49	21.35	21.38	21.34	22
20	QPSK	1	99	21.33	21.31	21.29	
20	QPSK	50	0	20.39	20.46	20.34	
20	QPSK	50	24	20.42	20.44	20.30	21
20	QPSK	50	50	20.35	20.39	20.33	
20	QPSK	100	0	20.38	20.45	20.40	
20	16QAM	1	0	20.55	20.67	20.58	21.5
20	16QAM	1	49	20.59	20.85	20.69	
20	16QAM	1	99	20.61	20.74	20.75	
20	16QAM	50	0	19.33	19.46	19.34	20
20	16QAM	50	24	19.29	19.35	19.36	
20	16QAM	50	50	19.36	19.39	19.29	
20	16QAM	100	0	19.39	19.41	19.43	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	21.36	21.38	21.28	
15	QPSK	1	37	21.17	21.27	21.26	22
15	QPSK	1	74	21.31	21.33	21.37	
15	QPSK	36	0	20.25	20.52	20.29	
15	QPSK	36	20	20.33	20.54	20.15	21
15	QPSK	36	39	20.53	20.57	20.21	
15	QPSK	75	0	20.34	20.35	20.54	
15	16QAM	1	0	20.47	20.60	20.60	21.5
15	16QAM	1	37	20.62	20.94	20.50	
15	16QAM	1	74	20.49	20.91	20.85	
15	16QAM	36	0	19.38	19.31	19.37	20
15	16QAM	36	20	19.19	19.39	19.54	
15	16QAM	36	39	19.45	19.38	19.44	
15	16QAM	75	0	19.29	19.22	19.28	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	21.27	21.37	21.36	
10	QPSK	1	25	21.35	21.37	21.23	22
10	QPSK	1	49	21.29	21.32	21.39	
10	QPSK	25	0	20.27	20.66	20.53	
10	QPSK	25	12	20.60	20.57	20.23	21
10	QPSK	25	25	20.32	20.21	20.41	
10	QPSK	50	0	20.18	20.60	20.37	
10	16QAM	1	0	20.61	20.56	20.46	21.5
10	16QAM	1	25	20.65	20.89	20.70	
10	16QAM	1	49	20.58	20.84	20.65	
10	16QAM	25	0	19.33	19.57	19.34	20
10	16QAM	25	12	19.45	19.51	19.30	
10	16QAM	25	25	19.43	19.26	19.13	
10	16QAM	50	0	19.26	19.23	19.37	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	21.27	21.22	21.20	
5	QPSK	1	12	21.25	21.36	21.31	22
5	QPSK	1	24	21.32	21.11	21.30	
5	QPSK	12	0	20.46	20.37	20.46	
5	QPSK	12	7	20.35	20.34	20.25	21
5	QPSK	12	13	20.18	20.26	20.35	
5	QPSK	25	0	20.40	20.51	20.29	
5	16QAM	1	0	20.66	20.54	20.70	21.5
5	16QAM	1	12	20.64	20.92	20.58	
5	16QAM	1	24	20.47	20.76	20.62	
5	16QAM	12	0	19.47	19.58	19.24	20
5	16QAM	12	7	19.38	19.45	19.30	
5	16QAM	12	13	19.22	19.52	19.38	
5	16QAM	25	0	19.42	19.59	19.39	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	21.22	21.39	21.33	
3	QPSK	1	8	21.40	21.31	21.35	22
3	QPSK	1	14	21.35	21.36	21.16	
3	QPSK	8	0	20.37	20.47	20.43	
3	QPSK	8	4	20.50	20.27	20.22	21
3	QPSK	8	7	20.44	20.27	20.24	
3	QPSK	15	0	20.55	20.49	20.33	
3	16QAM	1	0	20.65	20.77	20.67	21.5
3	16QAM	1	8	20.49	20.85	20.67	
3	16QAM	1	14	20.48	20.59	20.86	
3	16QAM	8	0	19.26	19.42	19.43	20
3	16QAM	8	4	19.35	19.34	19.49	
3	16QAM	8	7	19.53	19.58	19.32	
3	16QAM	15	0	19.47	19.49	19.36	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	21.34	21.31	21.34	
1.4	QPSK	1	3	21.16	21.32	21.15	22
1.4	QPSK	1	5	21.21	21.38	21.21	
1.4	QPSK	3	0	20.20	20.58	20.29	
1.4	QPSK	3	1	20.42	20.41	20.28	21
1.4	QPSK	3	3	20.53	20.26	20.17	
1.4	QPSK	6	0	20.42	20.28	20.32	
1.4	16QAM	1	0	20.60	20.71	20.49	21.5
1.4	16QAM	1	3	20.69	20.85	20.76	
1.4	16QAM	1	5	20.62	20.64	20.79	
1.4	16QAM	3	0	19.35	19.40	19.17	20
1.4	16QAM	3	1	19.17	19.49	19.51	
1.4	16QAM	3	3	19.43	19.43	19.11	
1.4	16QAM	6	0	19.32	19.41	19.23	

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	21.64	21.81	21.68	
20	QPSK	1	49	21.70	21.73	21.66	
20	QPSK	1	99	21.59	21.51	21.69	
20	QPSK	50	0	20.76	20.77	20.59	21.5
20	QPSK	50	24	20.66	20.71	20.61	
20	QPSK	50	50	20.51	20.81	20.68	
20	QPSK	100	0	20.62	20.82	20.57	21.5
20	16QAM	1	0	20.75	20.91	20.83	
20	16QAM	1	49	20.86	20.93	20.80	
20	16QAM	1	99	20.71	20.88	20.76	20.5
20	16QAM	50	0	19.69	19.83	19.77	
20	16QAM	50	24	19.64	19.74	19.68	
20	16QAM	50	50	19.58	19.69	19.57	
20	16QAM	100	0	19.66	19.79	19.63	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	21.72	21.69	21.70	22.5
15	QPSK	1	37	21.71	21.76	21.76	
15	QPSK	1	74	21.54	21.32	21.68	
15	QPSK	36	0	20.75	20.77	20.45	21.5
15	QPSK	36	20	20.74	20.76	20.48	
15	QPSK	36	39	20.53	20.89	20.56	
15	QPSK	75	0	20.57	20.62	20.62	21.5
15	16QAM	1	0	20.83	21.01	20.79	
15	16QAM	1	37	20.93	21.02	20.67	
15	16QAM	1	74	20.56	21.06	20.60	20.5
15	16QAM	36	0	19.80	19.66	19.75	
15	16QAM	36	20	19.49	19.92	19.85	
15	16QAM	36	39	19.59	19.70	19.74	
15	16QAM	75	0	19.54	19.72	19.83	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	21.61	21.76	21.64	22.5
10	QPSK	1	25	21.77	21.76	21.72	
10	QPSK	1	49	21.70	21.47	21.71	
10	QPSK	25	0	20.71	20.68	20.48	21.5
10	QPSK	25	12	20.66	20.61	20.46	
10	QPSK	25	25	20.54	20.88	20.76	
10	QPSK	50	0	20.43	20.92	20.46	21.5
10	16QAM	1	0	20.59	20.77	20.89	
10	16QAM	1	25	21.01	20.98	20.86	
10	16QAM	1	49	20.65	20.72	20.57	20.5
10	16QAM	25	0	19.83	19.70	19.83	
10	16QAM	25	12	19.51	19.59	19.51	
10	16QAM	25	25	19.46	19.75	19.70	
10	16QAM	50	0	19.63	19.82	19.45	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	21.48	21.70	21.63	22.5
5	QPSK	1	12	21.75	21.74	21.58	
5	QPSK	1	24	21.44	21.49	21.71	
5	QPSK	12	0	20.56	20.73	20.69	21.5
5	QPSK	12	7	20.63	20.62	20.62	
5	QPSK	12	13	20.60	20.72	20.66	
5	QPSK	25	0	20.64	20.98	20.68	21.5
5	16QAM	1	0	20.60	20.96	20.75	
5	16QAM	1	12	21.05	20.73	20.97	
5	16QAM	1	24	20.62	20.89	20.75	20.5
5	16QAM	12	0	19.63	19.92	19.87	
5	16QAM	12	7	19.78	19.89	19.64	
5	16QAM	12	13	19.57	19.88	19.51	
5	16QAM	25	0	19.64	19.73	19.49	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	21.62	21.73	21.61	22.5
3	QPSK	1	8	21.56	21.70	21.68	
3	QPSK	1	14	21.61	21.46	21.73	
3	QPSK	8	0	20.59	20.90	20.42	21.5
3	QPSK	8	4	20.77	20.60	20.59	
3	QPSK	8	7	20.40	20.75	20.75	
3	QPSK	15	0	20.59	20.68	20.68	21.5
3	16QAM	1	0	20.70	21.03	20.96	
3	16QAM	1	8	21.06	21.05	20.66	
3	16QAM	1	14	20.57	20.97	20.70	20.5
3	16QAM	8	0	19.83	19.94	19.79	
3	16QAM	8	4	19.80	19.76	19.77	
3	16QAM	8	7	19.62	19.55	19.50	
3	16QAM	15	0	19.83	19.95	19.64	
Channel				19967	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	21.59	21.75	21.72	22.5
1.4	QPSK	1	3	21.74	21.68	21.75	
1.4	QPSK	1	5	21.65	21.37	21.49	
1.4	QPSK	3	0	20.80	20.67	20.63	21.5
1.4	QPSK	3	1	20.81	20.51	20.80	
1.4	QPSK	3	3	20.63	20.78	20.68	
1.4	QPSK	6	0	20.65	20.96	20.77	21.5
1.4	16QAM	1	0	20.83	20.72	21.03	
1.4	16QAM	1	3	20.90	20.78	20.80	
1.4	16QAM	1	5	20.68	20.95	20.73	21.5
1.4	16QAM	3	0	19.51	19.75	19.92	
1.4	16QAM	3	1	19.57	19.78	19.77	
1.4	16QAM	3	3	19.63	19.79	19.51	20.5
1.4	16QAM	6	0	19.46	19.73	19.65	

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	21.41	21.45	21.38	22
20	QPSK	1	49	21.32	21.36	21.32	
20	QPSK	1	99	21.36	21.35	21.30	
20	QPSK	50	0	20.35	20.42	20.36	21
20	QPSK	50	24	20.29	20.46	20.33	
20	QPSK	50	50	20.31	20.39	20.37	
20	QPSK	100	0	20.37	20.48	20.40	21.5
20	16QAM	1	0	20.66	20.88	20.71	
20	16QAM	1	49	20.71	20.85	20.68	
20	16QAM	1	99	20.79	20.69	20.66	20
20	16QAM	50	0	19.42	19.46	19.40	
20	16QAM	50	24	19.29	19.45	19.33	
20	16QAM	50	50	19.33	19.43	19.35	
20	16QAM	100	0	19.39	19.41	19.29	
Channel				26115	26365	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	21.37	21.35	21.34	22
15	QPSK	1	37	21.26	21.42	21.34	
15	QPSK	1	74	21.40	21.39	21.26	
15	QPSK	36	0	20.53	20.44	20.48	21
15	QPSK	36	20	20.26	20.53	20.13	
15	QPSK	36	39	20.31	20.36	20.53	
15	QPSK	75	0	20.28	20.62	20.47	21.5
15	16QAM	1	0	20.62	21.08	20.63	
15	16QAM	1	37	20.89	20.75	20.80	
15	16QAM	1	74	20.91	20.66	20.76	20
15	16QAM	36	0	19.39	19.30	19.47	
15	16QAM	36	20	19.09	19.40	19.53	
15	16QAM	36	39	19.40	19.47	19.22	
15	16QAM	75	0	19.46	19.58	19.45	
Channel				26090	26365	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	21.22	21.33	21.24	22
10	QPSK	1	25	21.37	21.36	21.34	
10	QPSK	1	49	21.39	21.18	21.36	
10	QPSK	25	0	20.54	20.37	20.39	21
10	QPSK	25	12	20.21	20.64	20.23	
10	QPSK	25	25	20.18	20.47	20.50	
10	QPSK	50	0	20.41	20.67	20.44	21.5
10	16QAM	1	0	20.67	20.73	20.63	
10	16QAM	1	25	20.67	21.00	20.52	
10	16QAM	1	49	20.65	20.81	20.57	20
10	16QAM	25	0	19.45	19.54	19.54	
10	16QAM	25	12	19.39	19.31	19.22	
10	16QAM	25	25	19.42	19.56	19.24	
10	16QAM	50	0	19.22	19.61	19.18	
Channel				26065	26365	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	QPSK	1	0	21.44	21.26	21.30	22
5	QPSK	1	12	21.22	21.20	21.42	
5	QPSK	1	24	21.37	21.23	21.43	
5	QPSK	12	0	20.42	20.44	20.29	21
5	QPSK	12	7	20.09	20.33	20.44	
5	QPSK	12	13	20.20	20.27	20.35	
5	QPSK	25	0	20.36	20.42	20.43	21.5
5	16QAM	1	0	20.80	20.89	20.75	
5	16QAM	1	12	20.51	20.69	20.59	
5	16QAM	1	24	20.89	20.57	20.63	20
5	16QAM	12	0	19.55	19.41	19.54	
5	16QAM	12	7	19.25	19.33	19.37	
5	16QAM	12	13	19.18	19.48	19.34	
5	16QAM	25	0	19.51	19.61	19.23	
Channel				26055	26365	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	21.17	21.27	21.35	22
3	QPSK	1	8	21.32	21.44	21.26	
3	QPSK	1	14	21.36	21.34	21.23	
3	QPSK	8	0	20.52	20.48	20.52	21
3	QPSK	8	4	20.32	20.62	20.38	
3	QPSK	8	7	20.31	20.35	20.21	
3	QPSK	15	0	20.33	20.53	20.59	21.5
3	16QAM	1	0	20.81	20.95	20.90	
3	16QAM	1	8	20.83	20.93	20.48	
3	16QAM	1	14	20.97	20.83	20.83	20
3	16QAM	8	0	19.32	19.44	19.41	
3	16QAM	8	4	19.11	19.45	19.39	
3	16QAM	8	7	19.47	19.43	19.25	
3	16QAM	15	0	19.29	19.41	19.49	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	21.37	21.37	21.31	22
1.4	QPSK	1	3	21.17	21.16	21.39	
1.4	QPSK	1	5	21.44	21.40	21.36	
1.4	QPSK	3	0	20.25	20.59	20.44	21
1.4	QPSK	3	1	20.31	20.31	20.26	
1.4	QPSK	3	3	20.17	20.25	20.40	
1.4	QPSK	6	0	20.28	20.29	20.51	23.5
1.4	16QAM	1	0	20.52	20.71	20.91	
1.4	16QAM	1	3	20.58	21.00	20.73	
1.4	16QAM	1	5	20.74	20.50	20.54	
1.4	16QAM	3	0	19.53	19.56	19.58	
1.4	16QAM	3	1	19.53	19.51	19.57	
1.4	16QAM	3	3	19.57	19.54	19.55	22
1.4	16QAM	6	0	19.34	19.32	19.15	

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	20.77	20.86	20.79	21.5
20	QPSK	1	49	20.66	20.69	20.71	
20	QPSK	1	99	20.70	20.75	20.82	
20	QPSK	50	0	19.81	19.90	19.79	20.5
20	QPSK	50	24	19.69	19.83	19.80	
20	QPSK	50	50	19.78	19.76	19.66	
20	QPSK	100	0	19.73	19.75	19.68	20.5
20	16QAM	1	0	19.70	19.88	19.63	
20	16QAM	1	49	19.65	19.83	19.59	
20	16QAM	1	99	19.78	19.68	19.71	19.5
20	16QAM	50	0	18.89	18.95	18.83	
20	16QAM	50	24	18.77	18.89	18.67	
20	16QAM	50	50	18.68	18.76	18.79	
20	16QAM	100	0	18.75	18.88	18.80	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	20.72	20.55	20.69	21.5
15	QPSK	1	37	20.82	20.75	20.79	
15	QPSK	1	74	20.61	20.82	20.53	
15	QPSK	36	0	19.79	19.82	19.96	20.5
15	QPSK	36	20	19.85	19.69	19.83	
15	QPSK	36	39	19.88	19.79	19.52	
15	QPSK	75	0	19.76	19.64	19.60	20.5
15	16QAM	1	0	19.52	19.80	19.55	
15	16QAM	1	37	19.70	19.94	19.71	
15	16QAM	1	74	19.68	19.85	19.59	19.5
15	16QAM	36	0	18.95	19.02	18.94	
15	16QAM	36	20	18.86	18.97	18.71	
15	16QAM	36	39	18.66	18.64	18.82	
15	16QAM	75	0	18.90	18.76	18.82	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	20.58	20.69	20.69	21.5
10	QPSK	1	25	20.52	20.79	20.57	
10	QPSK	1	49	20.76	20.81	20.62	
10	QPSK	25	0	19.65	19.89	19.87	20.5
10	QPSK	25	12	19.56	19.72	19.60	
10	QPSK	25	25	19.91	19.83	19.47	
10	QPSK	50	0	19.72	19.55	19.54	20.5
10	16QAM	1	0	19.84	19.88	19.79	
10	16QAM	1	25	19.58	19.70	19.72	
10	16QAM	1	49	19.62	19.79	19.67	19.5
10	16QAM	25	0	18.87	18.80	18.87	
10	16QAM	25	12	18.82	18.75	18.75	
10	16QAM	25	25	18.74	18.83	18.59	
10	16QAM	50	0	18.55	18.80	18.96	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	20.60	20.59	20.78	21.5
5	QPSK	1	12	20.46	20.85	20.59	
5	QPSK	1	24	20.66	20.57	20.80	
5	QPSK	12	0	19.67	19.90	19.89	20.5
5	QPSK	12	7	19.52	19.75	19.63	
5	QPSK	12	13	19.94	19.88	19.59	
5	QPSK	25	0	19.72	19.74	19.49	20.5
5	16QAM	1	0	19.90	19.96	19.55	
5	16QAM	1	12	19.64	19.98	19.61	19.5
5	16QAM	1	24	19.59	19.84	19.52	
5	16QAM	12	0	19.04	19.05	18.88	
5	16QAM	12	7	18.91	18.73	18.76	
5	16QAM	12	13	18.60	18.64	18.70	
5	16QAM	25	0	18.68	18.81	18.68	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	20.81	20.63	20.72	21.5
3	QPSK	1	8	20.85	20.65	20.54	
3	QPSK	1	14	20.62	20.77	20.65	
3	QPSK	8	0	19.91	20.02	19.91	20.5
3	QPSK	8	4	19.53	19.88	19.69	
3	QPSK	8	7	19.79	19.85	19.70	
3	QPSK	15	0	19.82	19.72	19.57	20.5
3	16QAM	1	0	19.73	19.81	19.46	
3	16QAM	1	8	19.79	19.89	19.53	
3	16QAM	1	14	19.83	19.72	19.56	19.5
3	16QAM	8	0	18.87	19.00	19.01	
3	16QAM	8	4	18.60	18.96	18.69	
3	16QAM	8	7	18.78	18.71	18.96	
3	16QAM	15	0	18.79	18.78	18.71	
Channel				131979	132322	132685	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	20.64	20.65	20.76	21.5
1.4	QPSK	1	3	20.84	20.60	20.81	
1.4	QPSK	1	5	20.82	20.83	20.70	
1.4	QPSK	3	0	19.83	19.92	19.91	20.5
1.4	QPSK	3	1	19.55	20.00	19.86	
1.4	QPSK	3	3	19.86	19.65	19.81	
1.4	QPSK	6	0	19.84	19.78	19.81	20.5
1.4	16QAM	1	0	19.73	19.95	19.52	
1.4	16QAM	1	3	19.47	19.75	19.53	
1.4	16QAM	1	5	19.68	19.64	19.62	20.5
1.4	16QAM	3	0	18.97	18.94	19.03	
1.4	16QAM	3	1	18.72	18.93	18.76	
1.4	16QAM	3	3	18.64	18.95	18.75	19.5
1.4	16QAM	6	0	18.64	18.92	18.63	

Band 41 (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	Tune-up limit (dBm)
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	16.83	16.89	16.93	16.90	16.88	17.5
20	QPSK	1	49	16.75	16.63	16.88	16.78	16.85	
20	QPSK	1	99	16.66	16.60	16.91	16.82	16.71	
20	QPSK	50	0	15.74	15.71	15.95	15.70	15.73	
20	QPSK	50	34	15.69	15.70	15.93	15.85	15.74	
20	QPSK	50	50	15.77	15.75	15.91	15.73	15.69	16.5
20	QPSK	100	0	15.72	15.81	15.88	15.70	15.74	
20	16QAM	1	0	15.66	15.69	15.85	15.79	15.72	
20	16QAM	1	49	15.81	15.81	15.79	15.61	15.70	
20	16QAM	1	99	15.63	15.83	15.69	15.59	15.63	
20	16QAM	50	0	14.68	14.66	14.83	14.75	14.70	15.5
20	16QAM	50	24	14.75	14.76	14.87	14.58	14.69	
20	16QAM	50	50	14.78	14.77	14.68	14.64	14.58	
20	16QAM	100	0	14.69	14.81	14.76	14.61	14.60	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	Tune-up limit (dBm)
15	QPSK	1	0	16.81	16.83	16.65	16.81	16.87	
15	QPSK	1	37	16.67	16.63	16.66	16.69	16.90	17.5
15	QPSK	1	74	16.66	16.59	16.92	16.83	16.91	
15	QPSK	36	0	15.92	15.81	16.14	15.57	15.53	
15	QPSK	36	20	15.91	15.81	15.99	15.71	15.85	
15	QPSK	36	39	15.89	15.80	15.80	15.64	15.71	
15	QPSK	75	0	15.85	15.76	15.82	15.62	15.69	16.5
15	16QAM	1	0	15.65	15.64	15.97	15.96	15.52	
15	16QAM	1	37	15.75	15.82	15.87	15.77	15.70	
15	16QAM	1	74	15.64	16.02	15.79	15.55	15.50	
15	16QAM	36	0	14.72	14.51	14.80	14.69	14.54	
15	16QAM	36	20	14.81	14.59	14.86	14.62	14.85	15.5
15	16QAM	36	39	14.72	14.92	14.76	14.46	14.39	
15	16QAM	75	0	14.65	14.62	14.73	14.74	14.62	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	Tune-up limit (dBm)
10	QPSK	1	0	16.89	16.78	16.88	16.90	16.91	
10	QPSK	1	25	16.88	16.56	16.92	16.77	16.73	17.5
10	QPSK	1	49	16.50	16.70	16.88	16.74	16.57	
10	QPSK	25	0	15.67	15.81	15.77	15.70	15.61	
10	QPSK	25	12	15.77	15.57	16.12	16.05	15.65	
10	QPSK	25	25	15.79	15.88	15.93	15.91	15.79	
10	QPSK	50	0	15.92	15.86	15.97	15.51	15.79	16.5
10	16QAM	1	0	15.60	15.65	15.93	15.61	15.69	
10	16QAM	1	25	15.91	15.76	15.90	15.72	15.56	
10	16QAM	1	49	15.69	15.72	15.59	15.49	15.64	
10	16QAM	25	0	14.49	14.54	14.80	14.55	14.51	
10	16QAM	25	12	14.87	14.87	14.78	14.77	14.76	15.5
10	16QAM	25	25	14.64	14.61	14.49	14.61	14.73	
10	16QAM	50	0	15.33	15.18	15.08	15.02	14.94	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2543.8	2593	2639.30	2677.5	Tune-up limit (dBm)
5	QPSK	1	0	16.55	16.68	16.75	16.92	16.66	
5	QPSK	1	12	16.82	16.64	16.76	16.96	16.64	17.5
5	QPSK	1	34	16.68	16.61	16.75	16.75	16.64	
5	QPSK	12	0	15.81	15.84	16.15	15.63	15.68	
5	QPSK	12	7	15.65	15.52	16.07	16.04	15.66	
5	QPSK	12	13	15.68	15.87	15.84	15.81	15.89	
5	QPSK	25	0	15.74	15.87	15.70	15.83	15.77	16.5
5	16QAM	1	0	15.62	15.63	15.97	15.94	15.72	
5	16QAM	1	12	15.88	15.76	15.61	15.57	15.55	
5	16QAM	1	34	15.43	15.68	15.51	15.54	15.83	
5	16QAM	12	0	14.59	14.60	15.11	14.71	14.89	
5	16QAM	12	7	14.62	14.91	15.04	14.98	14.71	15.5
5	16QAM	12	13	14.68	14.86	14.56	14.54	14.42	
5	16QAM	25	0	14.67	14.76	14.71	14.54	14.52	

Band 41 (HPUE)									
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	20.68	20.74	20.80	20.78	20.77	21.5
20	QPSK	1	49	20.60	20.68	20.73	20.63	20.70	
20	QPSK	1	99	20.51	20.65	20.76	20.67	20.56	
20	QPSK	50	0	19.59	19.56	19.70	19.55	19.58	20.5
20	QPSK	50	24	19.54	19.55	19.78	19.70	19.59	
20	QPSK	50	50	19.62	19.60	19.76	19.58	19.54	
20	QPSK	100	0	19.57	19.66	19.73	19.55	19.59	20.5
20	16QAM	1	0	19.51	19.54	19.70	19.64	19.57	
20	16QAM	1	49	19.66	19.66	19.64	19.46	19.55	
20	16QAM	1	99	19.48	19.68	19.54	19.44	19.48	19.5
20	16QAM	50	0	18.53	18.51	18.78	18.80	18.55	
20	16QAM	50	24	18.60	18.61	18.72	18.43	18.54	
20	16QAM	50	50	18.63	18.62	18.53	18.49	18.43	19.5
20	16QAM	100	0	18.54	18.66	18.61	18.46	18.45	
Channel				39725	40173	40620	41068	41515	
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	Tune-up limit (dBm)
15	QPSK	1	0	20.56	20.58	20.71	20.56	20.62	
15	QPSK	1	37	20.42	20.58	20.41	20.44	20.65	21.5
15	QPSK	1	74	20.41	20.54	20.67	20.38	20.66	
15	QPSK	36	0	19.67	19.56	19.89	19.32	19.28	
15	QPSK	36	20	19.56	19.56	19.74	19.46	19.60	20.5
15	QPSK	36	39	19.64	19.55	19.55	19.39	19.46	
15	QPSK	75	0	19.60	19.50	19.57	19.37	19.44	
15	16QAM	1	0	19.40	19.39	19.72	19.71	19.27	20.5
15	16QAM	1	37	19.50	19.57	19.62	19.62	19.45	
15	16QAM	1	74	19.39	19.77	19.54	19.30	19.25	
15	16QAM	36	0	18.47	18.26	18.55	18.44	18.29	19.5
15	16QAM	36	20	18.56	18.34	18.61	18.37	18.60	
15	16QAM	36	39	18.47	18.67	18.51	18.21	18.14	
15	16QAM	75	0	18.40	18.37	18.48	18.49	18.37	Tune-up limit (dBm)
Channel				39700	40160	40620	41080	41540	
Frequency (MHz)				2501	2547	2593	2639	2685	Tune-up limit (dBm)
10	QPSK	1	0	20.84	20.53	20.71	20.85	20.86	
10	QPSK	1	25	20.68	20.51	20.67	20.52	20.48	21.5
10	QPSK	1	49	20.25	20.65	20.63	20.49	20.32	
10	QPSK	25	0	19.42	19.56	19.52	19.45	19.36	
10	QPSK	25	12	19.52	19.32	19.87	19.80	19.40	20.5
10	QPSK	25	25	19.54	19.63	19.68	19.66	19.54	
10	QPSK	50	0	19.67	19.61	19.72	19.26	19.54	
10	16QAM	1	0	19.35	19.40	19.68	19.36	19.44	20.5
10	16QAM	1	25	19.66	19.51	19.65	19.47	19.31	
10	16QAM	1	49	19.44	19.47	19.34	19.24	19.39	
10	16QAM	25	0	18.24	18.29	18.55	18.30	18.26	19.5
10	16QAM	25	12	18.62	18.62	18.53	18.52	18.51	
10	16QAM	25	25	18.39	18.36	18.24	18.36	18.48	
10	16QAM	50	0	18.58	18.43	18.33	18.27	18.19	Tune-up limit (dBm)
Channel				39675	40148	40620	41093	41565	
Frequency (MHz)				2498.5	2543.8	2593	2639.30	2677.5	Tune-up limit (dBm)
5	QPSK	1	0	20.30	20.43	20.50	20.67	20.41	
5	QPSK	1	12	20.57	20.59	20.51	20.61	20.39	21.5
5	QPSK	1	24	20.33	20.56	20.50	20.50	20.39	
5	QPSK	12	0	19.56	19.59	19.90	19.38	19.43	
5	QPSK	12	7	19.40	19.27	19.62	19.79	19.41	20.5
5	QPSK	12	13	19.63	19.62	19.59	19.56	19.64	
5	QPSK	25	0	19.49	19.62	19.45	19.58	19.52	
5	16QAM	1	0	19.37	19.38	19.72	19.69	19.47	20.5
5	16QAM	1	12	19.63	19.50	19.36	19.32	19.39	
5	16QAM	1	24	19.18	19.43	19.26	19.29	19.58	
5	16QAM	12	0	18.34	18.35	18.86	18.46	18.64	19.5
5	16QAM	12	7	18.37	18.66	18.79	18.43	18.66	
5	16QAM	12	13	18.63	18.41	18.31	18.29	18.17	
5	16QAM	25	0	18.42	18.51	18.46	18.29	18.27	