



REPORT No.: SZ26010469S01

Annex E Conducted Power

Note:

Conducted power unit: dBm

The target power was recorded in the manufacturer's document.



Full Power

GSM850				Burst Average Power (dBm)				Tune-up Limit (dBm)	Frame-Average Power (dBm)				Tune-up Limit (dBm)
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				31.51	31.56	31.53		32.50	22.51	22.56	22.53		23.50
GPRS 1 Tx slot				31.48	31.54	31.51		32.50	22.48	22.54	22.51		23.50
GPRS 2 Tx slots				31.16	31.39	31.24		32.00	25.16	25.39	25.24		26.00
GPRS 3 Tx slots				31.06	31.23	31.11		32.00	26.80	26.97	26.85		27.74
GPRS 4 Tx slots				31.50	31.54	31.49		32.50	28.50	28.54	28.49		29.50
EDGE 1 Tx slot				31.23	31.53	31.18		32.50	22.23	22.53	22.18		23.50
EDGE 2 Tx slots				31.03	30.92	31.19		32.00	25.03	24.92	25.19		26.00
EDGE 3 Tx slots				30.53	30.89	30.85		31.00	26.27	26.63	26.59		26.74
EDGE 4 Tx slots				30.44	30.60	30.45		31.00	27.44	27.60	27.45		28.00
Mode					Max.	31.56				Max.	28.54		
Attenuator				Cable Loss : 0.6									
Date				4/9									

GSM1900				Burst Average Power (dBm)				Tune-up Limit (dBm)	Frame-Average Power (dBm)				Tune-up Limit (dBm)
TX Channel				512	661	810			512	661	810		
Frequency (MHz)				1850.2	1860	1909.8			1850.2	1860	1909.8		
GSM 1 Tx slot				28.16	28.24	28.21		29.00	19.16	19.24	19.21		20.00
GPRS 1 Tx slot				28.10	28.17	27.99		29.00	19.10	19.17	18.99		20.00
GPRS 2 Tx slots				28.03	28.07	27.87		29.00	22.03	22.07	21.87		23.00
GPRS 3 Tx slots				27.93	27.97	27.75		28.50	23.67	23.71	23.49		24.24
GPRS 4 Tx slots				28.09	28.23	27.94		29.00	25.09	25.23	24.94		26.00
EDGE 1 Tx slot				27.85	27.90	27.89		28.50	18.85	18.90	18.89		19.50
EDGE 2 Tx slots				27.85	27.80	27.61		28.50	21.85	21.80	21.61		22.50
EDGE 3 Tx slots				27.69	27.80	27.46		28.50	23.43	23.54	23.20		24.24
EDGE 4 Tx slots				27.61	27.87	27.60		28.50	24.61	24.87	24.60		25.50
Mode					Max.	28.24				Max.	25.23		
Attenuator				Cable Loss : 0.8									
Date				4/9									

Band				WCDMA Band IV (dBm)				Tune-up Limit (dBm)	WCDMA Band V (dBm)				Tune-up Limit (dBm)
TX Channel				1312	1413	1513			4132	4182	4233		
Rx Channel				1537	1638	1738			4357	4407	4458		
Frequency (MHz)				1712.4	1732.6	1752.6			826.4	836.4	846.6		
3GPP Rel 99 RMC 12.2Kbps				23.18	23.42	23.32		24.00	23.04	23.09	23.05		24.00
3GPP Rel 5 HSDPA Subtest-1				22.31	22.68	22.54		23.50	22.12	22.05	22.16		23.00
3GPP Rel 5 HSDPA Subtest-2				22.52	22.71	22.73		23.00	22.25	22.16	22.39		23.00
3GPP Rel 5 HSDPA Subtest-3				22.35	22.21	22.29		23.00	22.14	22.06	22.42		23.00
3GPP Rel 5 HSDPA Subtest-4				22.36	22.25	22.18		23.00	22.16	22.07	22.34		23.00
3GPP Rel 6 HSUPA Subtest-1				22.64	22.75	22.70		23.00	22.66	22.57	22.80		23.00
3GPP Rel 6 HSUPA Subtest-2				21.95	22.18	22.11		23.00	21.94	21.88	21.81		23.00
3GPP Rel 6 HSUPA Subtest-3				22.78	22.73	22.80		23.00	22.76	22.49	22.43		23.00
3GPP Rel 6 HSUPA Subtest-4				22.35	22.66	22.55		23.00	22.11	22.05	22.14		23.00
3GPP Rel 6 HSUPA Subtest-5				22.46	22.76	22.78		23.00	22.11	22.15	22.18		23.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1				22.15	22.01	21.97		23.00	21.78	21.89	21.96		23.00
Attenuator					Cable Loss	0.8				Cable Loss	0.6		
Mode					Max.	23.42				Max.	23.09		
Date				4/9					4/9				



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	24
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	23.00	23.10	22.96	24
20	QPSK	1	49	22.91	22.83	22.78	
20	QPSK	1	99	22.88	22.50	22.50	23
20	QPSK	50	0	21.83	21.93	21.81	
20	QPSK	50	24	21.67	21.87	21.81	23
20	QPSK	50	50	21.59	21.70	21.68	
20	QPSK	100	0	21.62	21.81	21.80	23
20	16QAM	1	0	22.04	22.14	21.93	
20	16QAM	1	49	21.55	21.64	21.62	23
20	16QAM	1	99	21.58	21.61	21.59	
20	16QAM	50	0	21.76	21.90	21.89	23
20	16QAM	50	24	21.68	21.86	21.85	
20	16QAM	50	50	21.53	21.66	21.64	22.5
20	16QAM	100	0	21.71	21.78	21.77	
20	64QAM	1	0	21.12	21.30	21.28	22.5
20	64QAM	1	49	20.85	21.05	21.03	
20	64QAM	1	99	20.32	20.45	20.45	22.5
20	64QAM	50	0	21.75	21.92	21.90	
20	64QAM	50	24	21.66	21.83	21.82	22.5
20	64QAM	50	50	21.50	21.65	21.64	
20	64QAM	100	0	21.68	21.78	21.78	24
Channel				1867.5	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	24
15	QPSK	1	0	22.98	23.04	22.94	
15	QPSK	1	37	22.81	22.79	22.68	23
15	QPSK	1	74	22.76	22.37	22.44	
15	QPSK	36	0	21.79	21.91	21.78	23
15	QPSK	36	20	21.66	21.83	21.69	
15	QPSK	36	39	21.45	21.58	21.68	23
15	QPSK	75	0	21.47	21.75	21.73	
15	16QAM	1	0	22.03	22.04	21.83	23
15	16QAM	1	37	21.53	21.53	21.61	
15	16QAM	1	74	21.44	21.59	21.49	23
15	16QAM	36	0	21.74	21.88	21.74	
15	16QAM	36	20	21.62	21.79	21.72	22.5
15	16QAM	36	39	21.44	21.58	21.58	
15	16QAM	75	0	21.68	21.72	21.64	22.5
15	64QAM	1	0	21.02	21.26	21.22	
15	64QAM	1	37	20.72	21.01	20.90	22.5
15	64QAM	1	74	20.32	20.36	20.32	
15	64QAM	36	0	21.70	21.86	21.86	22.5
15	64QAM	36	20	21.59	21.79	21.78	
15	64QAM	36	39	21.41	21.54	21.49	24
15	64QAM	75	0	21.67	21.65	21.64	
Channel				18650	18900	19150	24
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	22.96	22.99	22.80	23
10	QPSK	1	25	22.69	22.74	22.59	
10	QPSK	1	49	22.69	22.24	22.39	23
10	QPSK	25	0	21.70	21.91	21.77	
10	QPSK	25	12	21.57	21.77	21.66	23
10	QPSK	25	25	21.37	21.44	21.64	
10	QPSK	50	0	21.46	21.75	21.66	23
10	16QAM	1	0	21.90	21.90	21.68	
10	16QAM	1	25	21.46	21.43	21.60	23
10	16QAM	1	49	21.29	21.54	21.37	
10	16QAM	25	0	21.62	21.82	21.71	23
10	16QAM	25	12	21.53	21.68	21.62	
10	16QAM	25	25	21.31	21.45	21.56	22.5
10	16QAM	50	0	21.58	21.63	21.62	
10	64QAM	1	0	20.92	21.13	21.22	22.5
10	64QAM	1	25	20.59	21.00	20.85	
10	64QAM	1	49	20.22	20.28	20.19	22.5
10	64QAM	25	0	21.66	21.79	21.80	
10	64QAM	25	12	21.53	21.66	21.76	22.5
10	64QAM	25	25	21.31	21.43	21.34	
10	64QAM	50	0	21.65	21.57	21.54	24
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	24
5	QPSK	1	0	22.85	22.95	22.77	
5	QPSK	1	12	22.65	22.68	22.50	23
5	QPSK	1	24	22.60	22.11	22.29	
5	QPSK	12	0	21.67	21.77	21.73	23
5	QPSK	12	7	21.52	21.73	21.59	
5	QPSK	12	13	21.32	21.43	21.52	23
5	QPSK	25	0	21.37	21.65	21.62	
5	16QAM	1	0	21.82	21.87	21.64	23
5	16QAM	1	12	21.36	21.31	21.49	
5	16QAM	1	24	21.16	21.48	21.25	23
5	16QAM	12	0	21.61	21.69	21.70	
5	16QAM	12	7	21.45	21.59	21.61	22.5
5	16QAM	12	13	21.18	21.35	21.53	
5	16QAM	25	0	21.47	21.53	21.57	22.5
5	64QAM	1	0	20.80	21.11	21.08	
5	64QAM	1	12	20.50	20.88	20.81	22.5
5	64QAM	1	24	20.14	20.25	20.08	
5	64QAM	12	0	21.65	21.70	21.69	22.5
5	64QAM	12	7	21.49	21.64	21.63	
5	64QAM	12	13	21.24	21.35	21.23	24
5	64QAM	25	0	21.61	21.42	21.46	
Channel				18615	18900	19185	24
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	22.84	22.90	22.64	24
3	QPSK	1	8	22.61	22.67	22.46	
3	QPSK	1	14	22.48	22.01	22.26	24
3	QPSK	8	0	21.62	21.70	21.61	

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	22.79	23.08	23.02	24
20	QPSK	1	49	22.91	23.06	23.01	
20	QPSK	1	99	22.84	22.90	22.82	23
20	QPSK	50	0	22.08	22.35	22.18	
20	QPSK	50	24	22.18	22.21	22.19	23
20	QPSK	50	50	22.12	22.15	22.06	
20	QPSK	100	0	22.12	22.17	22.06	23
20	16QAM	1	0	22.34	22.43	22.39	
20	16QAM	1	49	22.23	22.26	22.19	23
20	16QAM	1	99	22.03	22.07	21.97	
20	16QAM	50	0	22.04	22.12	22.07	23
20	16QAM	50	24	22.10	22.22	22.07	
20	16QAM	50	50	21.90	22.04	22.02	22
20	16QAM	100	0	22.09	22.18	22.15	
20	64QAM	1	0	21.05	21.07	21.03	22
20	64QAM	1	49	20.95	21.06	20.99	
20	64QAM	1	99	20.82	20.85	20.70	23
20	64QAM	50	0	22.10	22.15	22.07	
20	64QAM	50	24	21.98	22.12	21.98	23
20	64QAM	50	50	21.99	22.11	22.11	
20	64QAM	100	0	22.11	22.17	22.05	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	Tune-up limit (dBm)
15	QPSK	1	0	22.67	22.93	22.94	24
15	QPSK	1	37	22.84	22.97	23.01	
15	QPSK	1	74	22.75	22.82	22.78	23
15	QPSK	36	0	22.04	22.30	22.05	
15	QPSK	36	20	22.04	22.07	22.06	23
15	QPSK	36	39	22.03	22.11	21.97	
15	QPSK	75	0	22.10	22.14	21.99	23
15	16QAM	1	0	22.33	22.38	22.38	
15	16QAM	1	37	22.19	22.16	22.07	23
15	16QAM	1	74	21.91	21.94	21.92	
15	16QAM	36	0	21.93	22.04	21.96	23
15	16QAM	36	20	22.00	22.11	21.95	
15	16QAM	36	39	21.81	21.92	21.90	22
15	16QAM	75	0	22.02	22.10	22.03	
15	64QAM	1	0	20.98	21.03	20.92	22
15	64QAM	1	37	20.80	20.99	20.84	
15	64QAM	1	74	20.69	20.74	20.69	23
15	64QAM	36	0	21.97	22.02	21.95	
15	64QAM	36	20	21.88	22.08	21.89	23
15	64QAM	36	39	21.87	22.10	21.96	
15	64QAM	75	0	22.06	22.10	22.04	Tune-up limit (dBm)
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.57	22.78	22.88	24
10	QPSK	1	25	22.83	22.87	23.00	
10	QPSK	1	49	22.69	22.80	22.71	23
10	QPSK	25	0	22.01	22.20	22.03	
10	QPSK	25	12	22.01	21.99	21.98	23
10	QPSK	25	25	21.97	22.07	21.84	
10	QPSK	50	0	21.98	22.11	21.85	23
10	16QAM	1	0	22.24	22.29	22.32	
10	16QAM	1	25	22.16	22.05	21.92	23
10	16QAM	1	49	21.78	21.81	21.80	
10	16QAM	25	0	21.87	21.96	21.86	23
10	16QAM	25	12	21.86	21.99	21.90	
10	16QAM	25	25	21.68	21.79	21.76	22
10	16QAM	50	0	21.90	22.09	21.89	
10	64QAM	1	0	20.88	20.89	20.78	22
10	64QAM	1	25	20.68	20.88	20.84	
10	64QAM	1	49	20.62	20.64	20.63	23
10	64QAM	25	0	21.83	21.90	21.83	
10	64QAM	25	12	21.87	22.07	21.77	23
10	64QAM	25	25	21.81	21.98	21.95	
10	64QAM	50	0	21.97	21.99	21.94	Tune-up limit (dBm)
Channel				19975	20175	20375	
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	22.47	22.76	22.79	24
5	QPSK	1	12	22.77	22.73	22.94	
5	QPSK	1	24	22.61	22.68	22.67	23
5	QPSK	12	0	21.87	22.20	22.03	
5	QPSK	12	7	21.87	21.93	21.94	23
5	QPSK	12	13	21.86	21.97	21.78	
5	QPSK	25	0	21.92	22.03	21.71	23
5	16QAM	1	0	22.13	22.15	22.27	
5	16QAM	1	12	22.04	21.90	21.83	23
5	16QAM	1	24	21.78	21.79	21.66	
5	16QAM	12	0	21.87	21.95	21.75	23
5	16QAM	12	7	21.76	21.94	21.80	
5	16QAM	12	13	21.64	21.75	21.63	22
5	16QAM	25	0	21.89	22.00	21.88	
5	64QAM	1	0	20.75	20.78	20.68	22
5	64QAM	1	12	20.65	20.77	20.82	
5	64QAM	1	24	20.49	20.50	20.50	23
5	64QAM	12	0	21.69	21.80	21.71	
5	64QAM	12	7	21.75	22.00	21.68	23
5	64QAM	12	13	21.67	21.92	21.86	
5	64QAM	25	0	21.84	21.93	21.84	Tune-up limit (dBm)
Channel				19965	20175	20385	
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	22.34	22.74	22.76	24
3	QPSK	1	8	22.73	22.72	22.80	
3	QPSK	1	14	22.46	22.54	22.62	24
3	QPSK	8	0	21.72	22.12	21.95	



3	QPSK	8	4	21.46	21.59	21.53	23
3	QPSK	8	7	21.21	21.31	21.47	
3	QPSK	15	0	21.29	21.61	21.56	
3	16QAM	1	0	21.81	21.79	21.52	23
3	16QAM	1	8	21.26	21.24	21.35	
3	16QAM	1	14	21.16	21.39	21.22	
3	16QAM	8	0	21.58	21.66	21.62	23
3	16QAM	8	4	21.34	21.55	21.53	
3	16QAM	8	7	21.17	21.33	21.42	
3	16QAM	15	0	21.32	21.44	21.53	22.5
3	64QAM	1	0	20.74	20.98	20.98	
3	64QAM	1	8	20.47	20.75	20.81	
3	64QAM	1	14	20.10	20.14	19.99	22.5
3	64QAM	8	0	21.60	21.59	21.61	
3	64QAM	8	4	21.37	21.53	21.63	
3	64QAM	8	7	21.11	21.26	21.22	22.5
3	64QAM	15	0	21.61	21.29	21.41	
Channel				1860.7	1890.0	1919.3	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	22.83	22.82	22.53	
1.4	QPSK	1	3	22.52	22.66	22.44	24
1.4	QPSK	1	5	22.38	21.93	22.15	
1.4	QPSK	3	0	21.54	21.60	21.54	
1.4	QPSK	3	1	21.34	21.50	21.40	23
1.4	QPSK	3	3	21.18	21.27	21.41	
1.4	QPSK	6	0	21.22	21.54	21.52	
1.4	16QAM	1	0	21.80	21.70	21.44	23
1.4	16QAM	1	3	21.17	21.13	21.22	
1.4	16QAM	1	5	21.04	21.32	21.16	
1.4	16QAM	3	0	21.50	21.60	21.60	23
1.4	16QAM	3	1	21.31	21.52	21.50	
1.4	16QAM	3	3	21.13	21.21	21.36	
1.4	16QAM	6	0	21.30	21.37	21.38	23
1.4	64QAM	1	0	20.72	20.91	20.87	
1.4	64QAM	1	3	20.34	20.66	20.67	
1.4	64QAM	1	5	20.08	20.06	19.91	22.5
1.4	64QAM	3	0	21.60	21.52	21.60	
1.4	64QAM	3	1	21.31	21.44	21.60	
1.4	64QAM	3	3	21.06	21.14	21.12	22.5
1.4	64QAM	6	0	21.56	21.26	21.34	

3	QPSK	8	4	21.84	21.79	21.82	23
3	QPSK	8	7	21.75	21.85	21.73	
3	QPSK	15	0	21.82	21.90	21.56	
3	16QAM	1	0	22.01	22.11	22.27	23
3	16QAM	1	8	21.89	21.82	21.80	
3	16QAM	1	14	21.70	21.68	21.60	
3	16QAM	8	0	21.79	21.81	21.73	23
3	16QAM	8	4	21.75	21.86	21.66	
3	16QAM	8	7	21.55	21.74	21.58	
3	16QAM	15	0	21.84	21.96	21.80	22
3	64QAM	1	0	20.75	20.77	20.68	
3	64QAM	1	8	20.51	20.71	20.81	
3	64QAM	1	14	20.35	20.46	20.44	23
3	64QAM	8	0	21.55	21.78	21.64	
3	64QAM	8	4	21.72	21.97	21.59	
3	64QAM	8	7	21.62	21.89	21.75	23
3	64QAM	15	0	21.82	21.89	21.82	
Channel				1995.7	2017.5	2039.3	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	22.34	22.67	22.71	
1.4	QPSK	1	3	22.67	22.60	22.78	24
1.4	QPSK	1	5	22.42	22.41	22.53	
1.4	QPSK	3	0	21.69	22.11	21.95	
1.4	QPSK	3	1	21.80	21.67	21.72	23
1.4	QPSK	3	3	21.67	21.83	21.71	
1.4	QPSK	6	0	21.79	21.83	21.52	
1.4	16QAM	1	0	21.97	21.96	22.13	23
1.4	16QAM	1	3	21.77	21.72	21.72	
1.4	16QAM	1	5	21.61	21.61	21.54	
1.4	16QAM	3	0	21.75	21.72	21.69	23
1.4	16QAM	3	1	21.69	21.76	21.60	
1.4	16QAM	3	3	21.49	21.66	21.50	
1.4	16QAM	6	0	21.73	21.95	21.69	23
1.4	64QAM	1	0	20.68	20.73	20.64	
1.4	64QAM	1	3	20.46	20.71	20.74	
1.4	64QAM	1	5	20.34	20.31	20.38	22
1.4	64QAM	3	0	21.47	21.68	21.55	
1.4	64QAM	3	1	21.68	21.96	21.49	
1.4	64QAM	3	3	21.58	21.83	21.61	23
1.4	64QAM	6	0	21.79	21.78	21.70	



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	23.36	23.42	23.39	24
10	QPSK	1	25	23.27	23.36	23.26	
10	QPSK	1	49	23.20	23.34	23.33	
10	QPSK	25	0	22.03	22.12	22.02	23
10	QPSK	25	12	21.93	22.04	22.01	
10	QPSK	25	25	22.00	22.09	22.04	
10	QPSK	50	0	22.20	22.21	22.08	23
10	16QAM	1	0	22.48	22.53	22.48	
10	16QAM	1	25	22.39	22.41	22.39	
10	16QAM	1	49	22.21	22.21	22.11	22
10	16QAM	25	0	20.98	21.06	20.99	
10	16QAM	25	12	21.01	21.13	21.01	
10	16QAM	25	25	21.09	21.16	21.13	22
10	16QAM	50	0	20.90	21.05	20.93	
10	64QAM	1	0	21.47	21.47	21.42	
10	64QAM	1	25	21.33	21.36	21.34	21
10	64QAM	1	49	21.17	21.20	21.13	
10	64QAM	25	0	20.08	20.12	20.06	
10	64QAM	25	12	20.04	20.11	20.08	21
10	64QAM	25	25	20.09	20.10	20.01	
10	64QAM	50	0	20.01	20.05	19.96	
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	23.29	23.31	23.35	24
5	QPSK	1	12	23.19	23.25	23.20	
5	QPSK	1	24	23.16	23.31	23.27	
5	QPSK	12	0	21.89	21.99	21.93	23
5	QPSK	12	7	21.83	21.91	21.97	
5	QPSK	12	13	21.99	22.03	21.97	
5	QPSK	25	0	22.09	22.11	22.00	23
5	16QAM	1	0	22.37	22.48	22.39	
5	16QAM	1	12	22.26	22.40	22.25	
5	16QAM	1	24	22.12	22.20	22.00	22
5	16QAM	12	0	20.84	20.92	20.94	
5	16QAM	12	7	20.89	21.04	20.98	
5	16QAM	12	13	21.08	21.13	21.05	22
5	16QAM	25	0	20.86	20.91	20.91	
5	64QAM	1	0	21.45	21.33	21.35	
5	64QAM	1	12	21.25	21.31	21.28	21
5	64QAM	1	24	21.14	21.18	21.00	
5	64QAM	12	0	19.99	20.08	19.97	
5	64QAM	12	7	19.96	20.03	20.01	21
5	64QAM	12	13	20.06	20.08	19.94	
5	64QAM	25	0	19.90	19.91	19.82	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	23.28	23.21	23.28	24
3	QPSK	1	8	23.10	23.23	23.15	
3	QPSK	1	14	23.15	23.25	23.19	
3	QPSK	8	0	21.77	21.88	21.91	23
3	QPSK	8	4	21.69	21.89	21.86	
3	QPSK	8	7	21.92	21.96	21.88	
3	QPSK	15	0	22.03	22.09	21.89	23
3	16QAM	1	0	22.32	22.46	22.34	
3	16QAM	1	8	22.25	22.28	22.19	
3	16QAM	1	14	22.02	22.18	21.97	22
3	16QAM	8	0	20.79	20.89	20.86	
3	16QAM	8	4	20.75	21.01	20.86	
3	16QAM	8	7	21.00	21.07	20.94	22
3	16QAM	15	0	20.82	20.80	20.80	
3	64QAM	1	0	21.34	21.20	21.32	
3	64QAM	1	8	21.19	21.25	21.27	21
3	64QAM	1	14	21.06	21.16	20.96	
3	64QAM	8	0	19.87	20.04	19.87	
3	64QAM	8	4	19.90	19.95	19.89	21
3	64QAM	8	7	19.97	19.99	19.86	
3	64QAM	15	0	19.84	19.90	19.73	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	23.16	23.12	23.21	24
1.4	QPSK	1	3	23.03	23.10	23.13	
1.4	QPSK	1	5	23.09	23.13	23.19	
1.4	QPSK	3	0	21.76	21.77	21.88	23
1.4	QPSK	3	1	21.63	21.79	21.79	
1.4	QPSK	3	3	21.91	21.88	21.87	
1.4	QPSK	6	0	21.96	22.07	21.77	23
1.4	16QAM	1	0	22.21	22.35	22.23	
1.4	16QAM	1	3	22.18	22.13	22.17	
1.4	16QAM	1	5	21.93	22.04	21.96	22.5
1.4	16QAM	3	0	20.74	20.76	20.77	
1.4	16QAM	3	1	20.72	20.95	20.81	
1.4	16QAM	3	3	20.99	21.02	20.87	22
1.4	16QAM	6	0	20.70	20.68	20.72	
1.4	64QAM	1	0	21.22	21.06	21.19	
1.4	64QAM	1	3	21.15	21.18	21.21	22
1.4	64QAM	1	5	20.93	21.08	20.96	
1.4	64QAM	3	0	19.78	19.96	19.79	
1.4	64QAM	3	1	19.80	19.86	19.88	21
1.4	64QAM	3	3	19.95	19.97	19.80	
1.4	64QAM	6	0	19.81	19.87	19.70	

Band 7 (2600MHz Band) (dBm)							
Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	23.09	23.19	23.06	24
20	QPSK	1	49	22.98	23.03	22.88	
20	QPSK	1	99	22.93	22.99	22.91	
20	QPSK	50	0	21.79	21.93	21.92	23
20	QPSK	50	24	21.84	21.99	21.94	
20	QPSK	50	50	21.94	22.03	21.90	
20	QPSK	100	0	21.95	21.98	21.95	23
20	16QAM	1	0	22.43	22.48	22.48	
20	16QAM	1	49	22.11	22.14	22.07	
20	16QAM	1	99	21.99	22.06	22.00	22.5
20	16QAM	50	0	21.98	22.11	22.07	
20	16QAM	50	24	21.85	21.98	21.89	
20	16QAM	50	50	21.94	21.95	21.87	22
20	16QAM	100	0	21.94	21.96	21.87	
20	64QAM	1	0	21.39	21.45	21.41	
20	64QAM	1	49	21.09	21.23	21.16	22.5
20	64QAM	1	99	20.71	20.76	20.75	
20	64QAM	50	0	21.90	21.98	21.88	
20	64QAM	50	24	22.02	22.03	21.90	22.5
20	64QAM	50	50	22.08	22.12	22.03	
20	64QAM	100	0	21.91	22.05	21.96	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	23.14	23.17	22.97	24
15	QPSK	1	37	22.92	22.97	22.75	
15	QPSK	1	74	22.91	22.94	22.90	
15	QPSK	36	0	21.72	21.81	21.80	23
15	QPSK	36	20	21.82	21.85	21.89	
15	QPSK	36	39	21.92	21.89	21.82	
15	QPSK	75	0	21.83	21.85	21.93	23
15	16QAM	1	0	22.30	22.41	22.37	
15	16QAM	1	37	21.98	22.13	22.02	
15	16QAM	1	74	21.92	22.03	21.86	22.5
15	16QAM	36	0	21.85	21.98	22.03	
15	16QAM	36	20	21.74	21.93	21.81	
15	16QAM	36	39	21.92	21.81	21.87	22
15	16QAM	75	0	21.86	21.94	21.75	
15	64QAM	1	0	21.38	21.42	21.31	
15	64QAM	1	37	21.06	21.16	21.01	22.5
15	64QAM	1	74	20.70	20.63	20.72	
15	64QAM	36	0	21.79	21.86	21.81	
15	64QAM	36	20	21.95	21.92	21.86	22.5
15	64QAM	36	39	21.95	22.04	21.93	
15	64QAM	75	0	21.80	22.00	21.94	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	23.01	23.02	22.96	24
10	QPSK	1	25	22.80	22.92	22.72	
10	QPSK	1	49	22.91	22.91	22.82	
10	QPSK	25	0	21.60	21.76	21.79	23
10	QPSK	25	12	21.78	21.84	21.81	
10	QPSK	25	25	21.87	21.78	21.74	
10	QPSK	50	0	21.68	21.81	21.82	23
10	16QAM	1	0	22.20	22.39	22.37	
10	16QAM	1	25	21.95	22.12	21.90	
10	16QAM	1	49	21.84	21.99	21.86	22.5
10	16QAM	25	0	21.84	21.86	21.97	
10	16QAM	25	12	21.72	21.82	21.74	
10	16QAM	25	25	21.84	21.76	21.75	22
10	16QAM	50	0	21.78	21.80	21.71	
10	64QAM	1	0	21.23	21.36	21.26	
10	64QAM	1	25	21.03	21.15	21.00	22.5
10	64QAM	1	49	20.69	20.60	20.68	
10	64QAM	25	0	21.71	21.77	21.72	
10	64QAM	25	12	21.91	21.77	21.81	22.5
10	64QAM	25	25	21.86	21.91	21.82	
10	64QAM	50	0	21.66	21.92	21.79	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	22.93	22.87	22.83	24
5	QPSK	1	12	22.70	22.91	22.68	
5	QPSK	1	24	22.81	22.87	22.78	
5	QPSK	12	0	21.51	21.67	21.76	23
5	QPSK	12	7	21.74	21.80	21.74	
5	QPSK	12	13	21.87	21.66	21.72	
5	QPSK	25	0	22.64	21.71	21.68	23
5	16QAM	1	0	21.71	22.39	22.25	
5	16QAM	1	12	21.87	22.03	21.88	
5	16QAM	1	24	21.79	21.86	21.80	22.5
5	16QAM	12	0	21.80	21.76	21.87	
5	16QAM	12	7	21.67	21.75	21.65	
5	16QAM	12	13	21.82	21.72	21.63	22
5	16QAM	25	0	21.74	21.76	21.60	
5	64QAM	1	0	21.14	21.35	21.19	
5	64QAM	1	12	20.89	21.14	20.99	22.5
5	64QAM	1	24	20.67	20.53	20.60	
5	64QAM	12	0	21.58	21.70	21.62	
5	64QAM	12	7	21.86	21.63	21.77	22.5
5	64QAM	12	13	21.71	21.77	21.69	
5	64QAM	25	0	21.59	21.77	21.67	



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	23.26	23.33	23.31	24
10	QPSK	1	25	22.95	23.02	23.02	
10	QPSK	1	49	23.10	23.22	23.10	
10	QPSK	25	0	21.95	22.03	22.01	
10	QPSK	25	12	21.87	21.95	21.82	23
10	QPSK	25	25	21.98	22.02	21.99	
10	QPSK	50	0	21.97	21.98	21.94	
10	16QAM	1	0	22.42	22.47	22.46	
10	16QAM	1	25	22.04	22.18	22.07	23
10	16QAM	1	49	22.31	22.42	22.38	
10	16QAM	25	0	21.04	21.09	20.99	
10	16QAM	25	12	20.91	21.01	20.95	
10	16QAM	25	25	20.97	20.98	20.85	22
10	16QAM	50	0	20.96	21.00	20.99	
10	64QAM	1	0	21.40	21.48	21.36	
10	64QAM	1	25	21.09	21.18	21.10	
10	64QAM	1	49	21.32	21.40	21.34	21
10	64QAM	25	0	20.00	20.09	20.05	
10	64QAM	25	12	19.91	20.02	19.87	
10	64QAM	25	25	19.86	19.96	19.93	
10	64QAM	50	0	19.91	20.00	19.98	
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	Tune-up limit (dBm)
5	QPSK	1	0	23.19	23.23	23.24	24
5	QPSK	1	12	22.85	23.01	22.97	
5	QPSK	1	24	22.97	23.09	22.97	
5	QPSK	12	0	21.89	22.00	21.96	
5	QPSK	12	7	21.76	21.90	21.68	23
5	QPSK	12	13	21.97	21.95	21.90	
5	QPSK	25	0	21.94	21.95	21.83	
5	16QAM	1	0	22.31	22.34	22.39	
5	16QAM	1	12	21.91	22.09	22.01	23
5	16QAM	1	24	22.31	22.41	22.34	
5	16QAM	12	0	20.97	21.06	20.95	
5	16QAM	12	7	20.81	20.97	20.90	
5	16QAM	12	13	20.93	20.90	20.83	22
5	16QAM	25	0	20.94	20.97	20.94	
5	64QAM	1	0	21.34	21.39	21.24	
5	64QAM	1	12	20.98	21.03	20.96	
5	64QAM	1	24	21.31	21.38	21.26	21
5	64QAM	12	0	19.93	19.99	19.93	
5	64QAM	12	7	19.83	19.91	19.83	
5	64QAM	12	13	19.72	19.95	19.92	
5	64QAM	25	0	19.86	19.87	19.93	
Channel				23025	23095	23165	
Frequency (MHz)				700.5	707.5	714.5	Tune-up limit (dBm)
3	QPSK	1	0	23.14	23.23	23.19	24
3	QPSK	1	8	22.79	22.91	22.86	
3	QPSK	1	14	22.87	23.01	22.96	
3	QPSK	8	0	21.88	21.92	21.82	
3	QPSK	8	4	21.75	21.82	21.63	23
3	QPSK	8	7	21.91	21.81	21.77	
3	QPSK	15	0	21.80	21.81	21.79	
3	16QAM	1	0	22.30	22.23	22.25	
3	16QAM	1	8	21.91	22.06	21.98	23
3	16QAM	1	14	22.20	22.38	22.24	
3	16QAM	8	0	20.84	21.05	20.95	
3	16QAM	8	4	20.71	20.88	20.88	
3	16QAM	8	7	20.79	20.84	20.78	22
3	16QAM	15	0	20.93	20.86	20.90	
3	64QAM	1	0	21.32	21.29	21.15	
3	64QAM	1	8	20.94	21.00	20.95	
3	64QAM	1	14	21.21	21.38	21.22	21
3	64QAM	8	0	19.90	19.93	19.79	
3	64QAM	8	4	19.71	19.84	19.71	
3	64QAM	8	7	19.65	19.92	19.78	
3	64QAM	15	0	19.79	19.83	19.79	
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	Tune-up limit (dBm)
1.4	QPSK	1	0	23.03	23.18	23.13	24
1.4	QPSK	1	3	22.72	22.87	22.77	
1.4	QPSK	1	5	22.77	22.87	22.88	
1.4	QPSK	3	0	21.76	21.89	21.69	
1.4	QPSK	3	1	21.69	21.80	21.61	23
1.4	QPSK	3	3	21.76	21.67	21.76	
1.4	QPSK	6	0	21.69	21.80	21.67	
1.4	16QAM	1	0	22.21	22.22	22.13	
1.4	16QAM	1	3	21.80	21.96	21.91	23
1.4	16QAM	1	5	22.19	22.34	22.12	
1.4	16QAM	3	0	20.77	20.91	20.93	
1.4	16QAM	3	1	20.65	20.74	20.86	
1.4	16QAM	3	3	20.65	20.69	20.77	22
1.4	16QAM	6	0	20.88	20.81	20.82	
1.4	64QAM	1	0	21.19	21.18	21.14	
1.4	64QAM	1	3	20.85	20.90	20.93	
1.4	64QAM	1	5	21.11	21.33	21.14	22
1.4	64QAM	3	0	19.79	19.83	19.72	
1.4	64QAM	3	1	19.63	19.79	19.67	
1.4	64QAM	3	3	19.59	19.91	19.73	
1.4	64QAM	6	0	19.67	19.78	19.74	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		22.79		23.5
10	QPSK	1	25		22.69		
10	QPSK	1	49		22.67		
10	QPSK	25	0		21.78		
10	QPSK	25	12		21.76		22.5
10	QPSK	25	25		21.59		
10	QPSK	50	0		21.93		
10	16QAM	1	0		22.09		
10	16QAM	1	25		22.01		22.5
10	16QAM	1	49		22.00		
10	16QAM	25	0		20.08		
10	16QAM	25	12		20.77		
10	16QAM	25	25		20.62		21.5
10	16QAM	50	0		20.78		
10	64QAM	1	0		20.92		
10	64QAM	1	25		20.72		
10	64QAM	1	49		20.82		21.5
10	64QAM	25	0		19.79		
10	64QAM	25	12		19.80		
10	64QAM	25	25		19.57		
10	64QAM	50	0		19.82		
Channel				23205	23230	23255	
Frequency (MHz)				779.5	782	784.5	Tune-up limit (dBm)
5	QPSK	1	0	22.55	22.65	22.70	23.5
5	QPSK	1	12	22.65	22.55	22.55	
5	QPSK	1	24	22.43	22.66	22.47	
5	QPSK	12	0	21.55	21.72	21.67	
5	QPSK	12	7	21.63	21.73	21.57	22.5
5	QPSK	12	13	21.48	21.54	21.39	
5	QPSK	25	0	21.75	21.85	21.82	
5	16QAM	1	0	21.94	21.97	22.05	
5	16QAM	1	12	21.96	21.90	21.82	22.5
5	16QAM	1	24	21.87	21.91	21.84	
5	16QAM	12	0	19.81	20.05	20.05	
5	16QAM	12	7	20.58	20.76	20.60	
5	16QAM	12	13	20.43	20.59	20.39	21.5
5	16QAM	25	0	20.64	20.67	20.72	
5	64QAM	1	0	20.73	20.77	20.72	
5	64QAM	1	12	20.56	20.60	20.57	
5	64QAM	1	24	20.71	20.69	20.60	21.5
5	64QAM	12	0	19.75	19.69	19.57	
5	64QAM	12	7	19.61	19.72	19.65	
5	64QAM	12	13	19.40	19.46	19.36	
5	64QAM	25	0	19.55	19.79	19.74	
Channel				23205	23230	23255	
Frequency (MHz)				779.5	782	784.5	Tune-up limit (dBm)

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		23.00		24
10	QPSK	1	25		22.88		
10	QPSK	1	49		22.90		
10	QPSK	25	0		21.77		23
10	QPSK	25	12		21.81		
10	QPSK	25	25		21.87		
10	QPSK	50	0		21.87		23
10	16QAM	1	0		22.24		
10	16QAM	1	25		22.12		
10	16QAM	1	49		22.20		23
10	16QAM	25	0		20.75		
10	16QAM	25	12		20.80		
10	16QAM	25	25		20.86		22
10	16QAM	50	0		20.80		
10	64QAM	1	0		21.00		
10	64QAM	1	25		20.81		22
10	64QAM	1	49		21.11		
10	64QAM	25	0		19.77		
10	64QAM	25	12		19.77		21
10	64QAM	25	25		19.86		
10	64QAM	50	0		19.81		
Channel				23305	23330	23355	Tune-up limit (dBm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	22.80	22.91	22.83	24
5	QPSK	1	12	22.70	22.84	22.76	
5	QPSK	1	24	22.69	22.77	22.76	
5	QPSK	12	0	21.47	21.62	21.52	23
5	QPSK	12	7	21.59	21.71	21.71	
5	QPSK	12	13	21.79	21.83	21.68	
5	QPSK	25	0	21.79	21.87	21.79	23
5	16QAM	1	0	22.16	22.23	22.19	
5	16QAM	1	12	21.96	22.06	21.96	
5	16QAM	1	24	21.96	22.06	22.00	23
5	16QAM	12	0	20.56	20.70	20.55	
5	16QAM	12	7	20.61	20.70	20.61	
5	16QAM	12	13	20.58	20.71	20.66	22
5	16QAM	25	0	20.64	20.67	20.63	
5	64QAM	1	0	20.78	20.89	20.83	
5	64QAM	1	12	20.71	20.80	20.79	22
5	64QAM	1	24	20.95	21.01	20.93	
5	64QAM	12	0	19.65	19.71	19.67	
5	64QAM	12	7	19.62	19.72	19.65	21
5	64QAM	12	13	19.81	19.84	19.78	
5	64QAM	25	0	19.66	19.67	19.63	

Band 17 (700MHz Band) (dBm) Part 27H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	23.39	23.40	23.26	24
10	QPSK	1	25	23.06	23.17	23.11	
10	QPSK	1	49	23.30	23.32	23.30	
10	QPSK	25	0	22.06	22.15	22.03	23
10	QPSK	25	12	22.26	22.30	22.18	
10	QPSK	25	25	22.11	22.23	22.20	
10	QPSK	50	0	22.12	22.19	22.15	23
10	16QAM	1	0	22.66	22.70	22.59	
10	16QAM	1	25	22.33	22.47	22.44	
10	16QAM	1	49	22.48	22.60	22.53	22
10	16QAM	25	0	21.08	21.14	20.99	
10	16QAM	25	12	21.30	21.31	21.28	
10	16QAM	25	25	21.02	21.16	21.05	22
10	16QAM	50	0	21.09	21.16	21.16	
10	64QAM	1	0	21.48	21.50	21.46	
10	64QAM	1	25	21.07	21.17	21.06	22
10	64QAM	1	49	21.29	21.40	21.38	
10	64QAM	25	0	20.03	20.07	19.99	
10	64QAM	25	12	20.14	20.20	20.11	21
10	64QAM	25	25	20.13	20.16	20.13	
10	64QAM	50	0	20.09	20.13	20.13	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	23.32	23.34	23.20	24
5	QPSK	1	12	22.96	23.09	23.03	
5	QPSK	1	24	23.27	23.27	23.26	
5	QPSK	12	0	22.04	22.12	22.02	23
5	QPSK	12	7	22.04	22.19	22.12	
5	QPSK	12	13	22.03	22.10	22.04	
5	QPSK	25	0	22.05	22.13	22.11	23
5	16QAM	1	0	22.47	22.58	22.51	
5	16QAM	1	12	22.34	22.45	22.32	
5	16QAM	1	24	22.51	22.60	22.53	22
5	16QAM	12	0	21.03	21.14	21.13	
5	16QAM	12	7	21.22	21.27	21.19	
5	16QAM	12	13	21.02	21.16	21.02	22
5	16QAM	25	0	20.93	21.07	21.06	
5	64QAM	1	0	21.30	21.44	21.37	
5	64QAM	1	12	20.98	21.12	21.08	22
5	64QAM	1	24	21.31	21.36	21.31	
5	64QAM	12	0	19.95	20.07	19.99	
5	64QAM	12	7	20.16	20.18	20.05	21
5	64QAM	12	13	20.07	20.08	20.05	
5	64QAM	25	0	19.92	20.00	19.98	



Band 18 (835MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23925			
Frequency (MHz)				822.5			
15	QPSK	1	0		23.15		24
15	QPSK	1	37		22.83		
15	QPSK	1	74		23.08		
15	QPSK	36	0		22.13		23
15	QPSK	36	20		22.12		
15	QPSK	36	39		22.04		
15	QPSK	75	0		22.13		23
15	16QAM	1	0		22.50		
15	16QAM	1	37		22.48		
15	16QAM	1	74		22.37		22.5
15	16QAM	36	0		22.13		
15	16QAM	36	20		22.10		
15	16QAM	36	39		22.01		22
15	16QAM	75	0		22.10		
15	64QAM	1	0		21.41		
15	64QAM	1	25		21.46		22.5
15	64QAM	1	49		21.34		
15	64QAM	25	0		22.12		
15	64QAM	25	12		22.11		22
15	64QAM	25	25		21.98		
15	64QAM	50	0		22.09		
Channel				23900	23925	23950	Tune-up limit (dBm)
Frequency (MHz)				820	822.5	825	
10	QPSK	1	0	22.97	23.10	22.99	24
10	QPSK	1	25	22.73	22.73	22.64	
10	QPSK	1	49	22.92	22.98	22.87	
10	QPSK	25	0	21.99	22.12	21.99	23
10	QPSK	25	12	21.97	22.02	22.01	
10	QPSK	25	25	21.89	21.99	21.85	
10	QPSK	50	0	22.08	22.09	22.07	23
10	16QAM	1	0	22.30	22.43	22.33	
10	16QAM	1	25	22.38	22.38	22.28	
10	16QAM	1	49	22.30	22.32	22.21	22.5
10	16QAM	25	0	21.94	22.06	21.91	
10	16QAM	25	12	21.93	22.00	22.00	
10	16QAM	25	25	21.85	21.95	21.95	22
10	16QAM	50	0	21.96	21.97	21.93	
10	64QAM	1	0	21.26	21.29	21.26	
10	64QAM	1	25	21.29	21.39	21.25	22.5
10	64QAM	1	49	21.18	21.24	21.18	
10	64QAM	25	0	21.95	22.05	21.92	
10	64QAM	25	12	21.94	21.98	21.89	22
10	64QAM	25	25	21.82	21.85	21.74	
10	64QAM	50	0	21.94	21.99	21.96	
Channel				23875	23925	23975	Tune-up limit (dBm)
Frequency (MHz)				817.5	822.5	827.5	
5	QPSK	1	0	23.08	23.10	22.99	24
5	QPSK	1	12	22.49	22.61	22.57	
5	QPSK	1	24	22.86	22.94	22.87	
5	QPSK	12	0	21.97	21.99	21.98	23
5	QPSK	12	7	21.90	21.95	21.91	
5	QPSK	12	13	21.79	21.90	21.88	
5	QPSK	25	0	21.90	21.97	21.85	23
5	16QAM	1	0	22.37	22.37	22.24	
5	16QAM	1	12	22.23	22.29	22.27	
5	16QAM	1	24	22.19	22.25	22.24	22.5
5	16QAM	12	0	21.90	22.02	21.95	
5	16QAM	12	7	21.86	21.94	21.85	
5	16QAM	12	13	21.69	21.81	21.68	22
5	16QAM	25	0	21.81	21.87	21.75	
5	64QAM	1	0	21.03	21.16	21.09	
5	64QAM	1	12	21.23	21.30	21.20	22.5
5	64QAM	1	24	21.02	21.15	21.07	
5	64QAM	12	0	21.90	22.00	21.98	
5	64QAM	12	7	21.92	21.95	21.80	22
5	64QAM	12	13	21.72	21.73	21.62	
5	64QAM	25	0	21.84	21.89	21.81	



Band 19 (835MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				24075			
Frequency (MHz)				837.5			
15	QPSK	1	0		23.16		24
15	QPSK	1	37		22.83		
15	QPSK	1	74		23.00		
15	QPSK	36	0		22.21		
15	QPSK	36	20		22.12		23
15	QPSK	36	39		22.08		
15	QPSK	75	0		22.12		
15	16QAM	1	0		22.61		
15	16QAM	1	37		22.50		23
15	16QAM	1	74		22.48		
15	16QAM	36	0		22.18		22.5
15	16QAM	36	20		22.13		
15	16QAM	36	39		22.07		
15	16QAM	75	0		22.15		
15	64QAM	1	0		21.32		22
15	64QAM	1	25		20.85		
15	64QAM	1	49		21.19		
15	64QAM	25	0		22.20		
15	64QAM	25	12		22.14		22.5
15	64QAM	25	25		22.03		
15	64QAM	50	0		22.14		
Channel				24050	24075	24100	Tune-up limit (dBm)
Frequency (MHz)				835	837.5	840	
10	QPSK	1	0	22.99	23.13	23.12	24
10	QPSK	1	25	22.62	22.73	22.72	
10	QPSK	1	49	22.77	22.89	22.83	
10	QPSK	25	0	22.14	22.18	22.05	
10	QPSK	25	12	21.97	22.06	22.04	23
10	QPSK	25	25	21.79	21.93	21.81	
10	QPSK	50	0	21.98	22.06	22.02	
10	16QAM	1	0	22.49	22.53	22.51	
10	16QAM	1	25	22.22	22.36	22.24	23
10	16QAM	1	49	22.31	22.41	22.30	
10	16QAM	25	0	21.94	22.08	21.95	
10	16QAM	25	12	21.94	22.06	21.98	
10	16QAM	25	25	21.88	21.97	21.97	22.5
10	16QAM	50	0	22.04	22.06	21.92	
10	64QAM	1	0	21.15	21.28	21.28	
10	64QAM	1	25	20.76	20.80	20.70	
10	64QAM	1	49	21.03	21.05	20.91	22
10	64QAM	25	0	22.07	22.18	22.05	
10	64QAM	25	12	21.93	22.04	22.03	
10	64QAM	25	25	21.92	21.93	21.87	
10	64QAM	50	0	21.89	22.02	21.99	22.5
Channel				24025	24075	24125	
Frequency (MHz)				832.5	837.5	842.5	Tune-up limit (dBm)
5	QPSK	1	0	22.94	23.07	22.99	
5	QPSK	1	12	22.61	22.62	22.51	24
5	QPSK	1	24	22.65	22.79	22.68	
5	QPSK	12	0	22.12	22.16	22.01	
5	QPSK	12	7	21.87	21.93	21.91	
5	QPSK	12	13	21.86	21.88	21.87	23
5	QPSK	25	0	22.01	22.04	21.94	
5	16QAM	1	0	22.36	22.39	22.33	
5	16QAM	1	12	22.17	22.22	22.13	
5	16QAM	1	24	22.24	22.30	22.24	23
5	16QAM	12	0	21.93	22.07	22.05	
5	16QAM	12	7	21.98	22.03	21.89	
5	16QAM	12	13	21.73	21.87	21.83	
5	16QAM	25	0	21.77	21.91	21.82	22.5
5	64QAM	1	0	21.11	21.23	21.15	
5	64QAM	1	12	20.65	20.70	20.66	
5	64QAM	1	24	20.89	21.01	20.95	
5	64QAM	12	0	22.12	22.14	22.00	22
5	64QAM	12	7	21.92	22.00	21.96	
5	64QAM	12	13	21.78	21.91	21.85	
5	64QAM	25	0	21.90	21.91	21.87	

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	23.5
20	QPSK	1	0	23.08	23.17	23.12	
20	QPSK	1	49	22.89	22.98	22.91	22.5
20	QPSK	1	99	22.59	22.62	22.50	
20	QPSK	50	0	21.98	22.06	21.99	22.5
20	QPSK	50	24	22.01	22.10	22.02	
20	QPSK	50	50	22.00	22.06	22.03	22.5
20	QPSK	100	0	21.93	22.06	21.96	
20	16QAM	1	0	22.25	22.34	22.20	22.5
20	16QAM	1	49	22.10	22.24	22.09	
20	16QAM	1	99	21.79	21.91	21.79	21.5
20	16QAM	50	0	21.99	22.10	22.02	
20	16QAM	50	24	21.97	22.11	22.08	22.5
20	16QAM	50	50	21.92	22.07	21.97	
20	16QAM	100	0	22.05	22.07	21.94	22.5
20	64QAM	1	0	21.32	21.38	21.34	
20	64QAM	1	49	21.29	21.30	21.19	22.5
20	64QAM	1	99	21.01	21.02	20.88	
20	64QAM	50	0	21.98	22.10	21.99	22.5
20	64QAM	50	24	21.97	22.12	22.06	
20	64QAM	50	50	21.96	22.05	22.02	22.5
20	64QAM	100	0	22.01	22.08	22.08	
Channel				26115	26365	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	22.94	22.96	22.94	23.5
15	QPSK	1	37	22.75	22.85	22.82	
15	QPSK	1	74	22.54	22.60	22.53	22.5
15	QPSK	36	0	21.83	21.92	21.89	
15	QPSK	36	20	21.95	22.09	22.04	22.5
15	QPSK	36	39	21.92	21.97	21.85	
15	QPSK	75	0	21.94	21.97	21.85	22.5
15	16QAM	1	0	22.12	22.24	22.10	
15	16QAM	1	37	22.14	22.14	22.05	22.5
15	16QAM	1	74	21.78	21.86	21.77	
15	16QAM	36	0	22.00	22.03	21.90	21.5
15	16QAM	36	20	21.99	22.04	21.92	
15	16QAM	36	39	21.93	22.03	21.90	22.5
15	16QAM	75	0	21.91	21.98	21.87	
15	64QAM	1	0	21.28	21.32	21.25	22.5
15	64QAM	1	37	21.08	21.23	21.09	
15	64QAM	1	74	20.82	20.95	20.90	22.5
15	64QAM	36	0	21.97	22.06	22.05	
15	64QAM	36	20	21.90	22.00	21.87	22.5
15	64QAM	36	39	22.03	22.05	21.99	
15	64QAM	75	0	21.97	22.02	21.93	22.5
Channel				26090	26365	26640	
Frequency (MHz)				1855	1882.5	1910	Tune-up limit (dBm)
10	QPSK	1	0	22.82	22.85	22.81	
10	QPSK	1	25	22.64	22.77	22.77	
10	QPSK	1	49	22.47	22.55	22.55	22.5
10	QPSK	25	0	21.78	21.89	21.88	
10	QPSK	25	12	21.93	22.04	21.94	22.5
10	QPSK	25	25	21.83	21.97	21.89	
10	QPSK	50	0	21.79	21.85	21.72	22.5
10	16QAM	1	0	22.08	22.11	22.02	
10	16QAM	1	25	22.07	22.13	22.08	22.5
10	16QAM	1	49	21.75	21.85	21.85	
10	16QAM	25	0	21.97	21.99	21.92	21.5
10	16QAM	25	12	22.01	22.02	21.90	
10	16QAM	25	25	21.91	21.93	21.79	22.5
10	16QAM	50	0	21.89	21.98	21.97	
10	64QAM	1	0	21.05	21.19	21.05	22.5
10	64QAM	1	25	21.06	21.13	21.08	
10	64QAM	1	49	20.84	20.86	20.78	22.5
10	64QAM	25	0	21.81	21.93	21.80	
10	64QAM	25	12	21.80	21.86	21.80	22.5
10	64QAM	25	25	22.00	22.01	22.00	
10	64QAM	50	0	21.86	21.98	21.88	22.5
Channel				26065	26365	26665	
Frequency (MHz)				1852.5	1882.5	1912.5	Tune-up limit (dBm)
5	QPSK	1	0	22.97	22.98	22.87	
5	QPSK	1	12	22.90	22.84	22.88	
5	QPSK	1	24	22.52	22.59	22.52	22.5
5	QPSK	12	0	21.93	21.94	21.87	
5	QPSK	12	7	22.07	21.97	21.91	22.5
5	QPSK	12	13	21.79	22.03	21.87	
5	QPSK	25	0	21.86	22.02	21.92	22.5
5	16QAM	1	0	22.23	22.32	22.13	
5	16QAM	1	12	22.12	22.17	22.06	22.5
5	16QAM	1	24	21.75	21.85	21.74	
5	16QAM	12	0	21.95	22.06	22.00	21.5
5	16QAM	12	7	21.84	22.04	21.93	
5	16QAM	12	13	21.84	22.03	21.84	22.5
5	16QAM	25	0	21.91	22.01	21.96	
5	64QAM	1	0	21.17	21.24	21.28	22.5
5	64QAM	1	12	21.18	21.17	21.21	
5	64QAM	1	24	20.87	21.00	20.87	22.5
5	64QAM	12	0	21.95	22.06	22.03	
5	64QAM	12	7	22.04	22.12	22.06	22.5
5	64QAM	12	13	21.95	22.05	21.83	
5	64QAM	25	0	21.93	22.00	21.83	22.5
Channel				26055	26365	26675	
Frequency (MHz)				1851.5	1882.5	1913.5	Tune-up limit (dBm)
3	QPSK	1	0	22.87	22.98	22.99	
3	QPSK	1	8	22.88	22.83	22.84	
3	QPSK	1	14	22.38	22.48	22.44	22.5
3	QPSK	8	0	21.86	21.94	21.95	



3	QPSK	8	4	21.87	22.02	21.97	22.5
3	QPSK	8	7	21.98	22.06	21.83	
3	QPSK	15	0	21.88	21.99	21.98	
3	16QAM	1	0	22.24	22.29	22.31	22.5
3	16QAM	1	8	22.08	22.20	22.15	
3	16QAM	1	14	21.63	21.81	21.71	
3	16QAM	8	0	21.94	22.05	22.06	21.5
3	16QAM	8	4	22.03	22.01	21.95	
3	16QAM	8	7	21.96	21.98	21.95	
3	16QAM	15	0	21.97	22.06	21.94	
3	64QAM	1	0	21.12	21.25	21.26	
3	64QAM	1	8	21.21	21.28	21.12	22.5
3	64QAM	1	14	20.94	20.98	20.90	
3	64QAM	8	0	22.00	22.01	22.04	
3	64QAM	8	4	22.03	22.07	21.91	22.5
3	64QAM	8	7	21.86	21.98	22.00	
3	64QAM	15	0	21.96	22.00	21.98	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	22.95	22.98	22.96	23.5
1.4	QPSK	1	3	22.83	22.94	22.89	
1.4	QPSK	1	5	22.56	22.58	22.45	
1.4	QPSK	3	0	21.91	21.92	21.94	
1.4	QPSK	3	1	21.94	22.07	22.00	
1.4	QPSK	3	3	21.91	21.97	21.92	
1.4	QPSK	6	0	21.91	22.05	21.86	22.5
1.4	16QAM	1	0	22.23	22.27	22.17	21.5
1.4	16QAM	1	3	22.02	22.24	21.94	
1.4	16QAM	1	5	21.71	21.80	21.74	
1.4	16QAM	3	0	21.90	22.02	21.96	
1.4	16QAM	3	1	21.93	22.10	22.05	
1.4	16QAM	3	3	21.80	21.93	21.90	
1.4	16QAM	6	0	21.94	22.04	21.85	20.5
1.4	64QAM	1	0	21.27	21.33	21.24	22.5
1.4	64QAM	1	3	21.24	21.30	21.17	
1.4	64QAM	1	5	21.00	20.95	20.76	
1.4	64QAM	3	0	21.86	22.05	21.95	
1.4	64QAM	3	1	21.93	22.12	21.91	
1.4	64QAM	3	3	21.82	21.99	21.94	
1.4	64QAM	6	0	21.91	22.06	22.08	22.5



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	23.26	23.40	23.29	
15	QPSK	1	37	22.80	22.89	22.78	24
15	QPSK	1	74	23.12	23.23	23.21	
15	QPSK	36	0	22.25	22.25	22.10	
15	QPSK	36	20	21.87	22.02	21.97	23
15	QPSK	36	39	21.81	21.87	21.81	
15	QPSK	75	0	21.92	22.05	21.97	
15	16QAM	1	0	22.46	22.54	22.41	23
15	16QAM	1	37	22.24	22.31	22.28	
15	16QAM	1	74	22.70	22.70	22.61	
15	16QAM	36	0	22.19	22.22	22.14	22.5
15	16QAM	36	20	21.96	22.00	21.92	
15	16QAM	36	39	21.74	21.88	21.83	
15	16QAM	75	0	21.98	22.03	21.97	22
15	64QAM	1	0	21.57	21.57	21.54	
15	64QAM	1	37	21.45	21.46	21.38	
15	64QAM	1	74	21.60	21.73	21.60	22.5
15	64QAM	36	0	22.12	22.24	22.18	
15	64QAM	36	20	21.94	22.01	21.92	
15	64QAM	36	39	21.88	21.89	21.84	
15	64QAM	75	0	21.97	22.04	22.01	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	23.32	23.40	23.26	24
10	QPSK	1	25	22.81	22.85	22.84	
10	QPSK	1	49	23.05	23.18	23.13	
10	QPSK	25	0	22.18	22.19	22.05	23
10	QPSK	25	12	21.88	21.94	21.93	
10	QPSK	25	25	21.72	21.81	21.70	
10	QPSK	50	0	21.92	22.00	21.85	23
10	16QAM	1	0	22.36	22.44	22.34	
10	16QAM	1	25	22.15	22.26	22.18	
10	16QAM	1	49	22.59	22.66	22.58	22.5
10	16QAM	25	0	22.13	22.20	22.09	
10	16QAM	25	12	21.90	22.00	21.87	
10	16QAM	25	25	21.77	21.82	21.70	22
10	16QAM	50	0	21.84	21.89	21.86	
10	64QAM	1	0	21.50	21.53	21.52	
10	64QAM	1	25	21.35	21.42	21.31	22.5
10	64QAM	1	49	21.62	21.62	21.50	
10	64QAM	25	0	22.13	22.19	22.05	
10	64QAM	25	12	21.83	21.94	21.82	
10	64QAM	25	25	21.79	21.89	21.81	
10	64QAM	50	0	21.99	21.99	21.85	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				818.5	831.5	846.5	
5	QPSK	1	0	23.28	23.29	23.16	24
5	QPSK	1	12	22.76	22.85	22.83	
5	QPSK	1	24	22.95	23.05	23.01	
5	QPSK	12	0	22.02	22.15	22.06	23
5	QPSK	12	7	21.72	21.86	21.83	
5	QPSK	12	13	21.71	21.73	21.63	
5	QPSK	25	0	21.82	21.93	21.90	23
5	16QAM	1	0	22.23	22.30	22.19	
5	16QAM	1	12	22.12	22.23	22.22	
5	16QAM	1	24	22.46	22.58	22.52	22.5
5	16QAM	12	0	22.13	22.16	22.08	
5	16QAM	12	7	21.93	21.99	21.97	
5	16QAM	12	13	21.60	21.69	21.55	22
5	16QAM	25	0	21.75	21.87	21.77	
5	64QAM	1	0	21.51	21.52	21.39	
5	64QAM	1	12	21.22	21.28	21.16	22.5
5	64QAM	1	24	21.46	21.59	21.55	
5	64QAM	12	0	22.00	22.08	22.08	
5	64QAM	12	7	21.78	21.91	21.91	
5	64QAM	12	13	21.71	21.84	21.83	
5	64QAM	25	0	21.86	21.96	21.87	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.35	23.36	23.23	24
3	QPSK	1	8	22.77	22.83	22.75	
3	QPSK	1	14	23.10	23.11	23.10	
3	QPSK	8	0	22.11	22.15	22.11	23
3	QPSK	8	4	21.76	21.88	21.80	
3	QPSK	8	7	21.82	21.83	21.81	
3	QPSK	15	0	21.90	21.93	21.92	23
3	16QAM	1	0	22.35	22.42	22.29	
3	16QAM	1	8	22.17	22.19	22.15	
3	16QAM	1	14	22.53	22.67	22.63	22.5
3	16QAM	8	0	22.19	22.21	22.15	
3	16QAM	8	4	21.83	21.86	21.77	
3	16QAM	8	7	21.71	21.78	21.71	22
3	16QAM	15	0	21.83	21.94	21.83	
3	64QAM	1	0	21.40	21.50	21.50	
3	64QAM	1	8	21.38	21.38	21.30	22.5
3	64QAM	1	14	21.49	21.63	21.58	
3	64QAM	8	0	22.03	22.12	21.97	
3	64QAM	8	4	21.78	21.90	21.84	
3	64QAM	8	7	21.71	21.75	21.64	
3	64QAM	15	0	21.87	21.95	21.80	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.29	23.40	23.30	24
1.4	QPSK	1	3	22.70	22.75	22.72	
1.4	QPSK	1	5	23.08	23.13	23.12	
1.4	QPSK	3	0	21.99	22.11	22.03	



1.4	QPSK	3	1	22.93	22.51	22.92	
1.4	QPSK	3	3	22.67	22.29	22.73	
1.4	QPSK	6	0	22.95	22.46	22.92	23
1.4	16QAM	1	0	22.36	22.50	22.40	
1.4	16QAM	1	3	22.23	22.25	22.22	
1.4	16QAM	1	5	22.66	22.68	22.65	23
1.4	16QAM	3	0	22.10	22.19	22.11	
1.4	16QAM	3	1	21.79	21.85	21.83	
1.4	16QAM	3	3	21.66	21.80	21.78	
1.4	16QAM	6	0	21.92	21.99	21.92	22.5
1.4	64QAM	1	0	20.45	21.01	20.42	
1.4	64QAM	1	3	20.23	20.84	20.22	
1.4	64QAM	1	5	20.63	21.13	20.59	
1.4	64QAM	3	0	21.04	21.60	21.02	
1.4	64QAM	3	1	20.81	21.41	20.77	
1.4	64QAM	3	3	20.77	21.39	20.82	
1.4	64QAM	6	0	21.99	22.00	21.86	22.5



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		22.32		23
10	QPSK	1	25		22.12		
10	QPSK	1	49		22.30		
10	QPSK	25	0		21.27		22
10	QPSK	25	12		21.19		
10	QPSK	25	25		21.26		
10	QPSK	50	0		21.20		22
10	16QAM	1	0		21.52		
10	16QAM	1	25		21.39		
10	16QAM	1	49		21.67		21
10	16QAM	25	0		20.27		
10	16QAM	25	12		20.21		
10	16QAM	25	25		20.29		21
10	16QAM	50	0		20.19		
10	64QAM	1	0		20.49		
10	64QAM	1	25		20.27		21
10	64QAM	1	49		20.54		
10	64QAM	25	0		19.21		
10	64QAM	25	12		19.21		20
10	64QAM	25	25		19.34		
10	64QAM	50	0		19.19		
Channel				27685	27710	27735	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.14	22.18	22.15	23
5	QPSK	1	12	22.02	21.99	21.89	
5	QPSK	1	24	22.17	22.26	22.21	
5	QPSK	12	0	21.22	21.20	21.12	22
5	QPSK	12	7	21.05	21.14	21.03	
5	QPSK	12	13	21.20	21.23	21.14	
5	QPSK	25	0	21.05	21.18	21.11	22
5	16QAM	1	0	21.38	21.40	21.37	
5	16QAM	1	12	21.30	21.36	21.26	
5	16QAM	1	24	21.44	21.58	21.59	22
5	16QAM	12	0	20.11	20.27	20.03	
5	16QAM	12	7	20.05	20.14	20.18	
5	16QAM	12	13	20.21	20.18	20.19	21
5	16QAM	25	0	20.01	20.07	19.99	
5	64QAM	1	0	20.30	20.40	20.25	
5	64QAM	1	12	20.18	20.20	20.13	21
5	64QAM	1	24	20.43	20.54	20.41	
5	64QAM	12	0	19.07	19.17	19.04	
5	64QAM	12	7	19.06	19.18	19.08	20
5	64QAM	12	13	19.21	19.29	19.13	
5	64QAM	25	0	19.00	19.13	18.94	



Band 38(only on channel required) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	23.68	23.75	23.63	24.5
20	QPSK	1	49	23.43	23.52	23.38	
20	QPSK	1	99	23.70	23.71	23.62	
20	QPSK	50	0	22.67	22.76	22.64	23.5
20	QPSK	50	24	22.59	22.63	22.49	
20	QPSK	50	50	22.75	22.83	22.76	
20	QPSK	100	0	22.66	22.76	22.66	23.5
20	16QAM	1	0	23.13	23.20	23.12	
20	16QAM	1	49	22.71	22.73	22.72	
20	16QAM	1	99	23.30	23.35	23.21	23.5
20	16QAM	50	0	22.68	22.70	22.68	
20	16QAM	50	24	22.53	22.66	22.54	
20	16QAM	50	50	22.73	22.79	22.76	23.5
20	16QAM	100	0	22.45	22.59	22.48	
20	64QAM	1	0	23.21	23.25	23.20	
20	64QAM	1	49	22.96	23.05	22.92	23.5
20	64QAM	1	99	23.15	23.18	23.17	
20	64QAM	50	0	22.60	22.73	22.66	
20	64QAM	50	24	22.66	22.71	22.66	23
20	64QAM	50	50	22.76	22.82	22.80	
20	64QAM	100	0	22.45	22.54	22.49	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	23.62	23.65	23.55	24.5
15	QPSK	1	37	23.42	23.39	23.24	
15	QPSK	1	74	23.68	23.69	23.56	
15	QPSK	36	0	22.59	22.67	22.52	23.5
15	QPSK	36	20	22.57	22.56	22.44	
15	QPSK	36	39	22.66	22.80	22.65	
15	QPSK	75	0	22.55	22.74	22.65	23.5
15	16QAM	1	0	23.06	23.08	23.10	
15	16QAM	1	37	22.58	22.71	22.64	
15	16QAM	1	74	23.21	23.29	23.14	23.5
15	16QAM	36	0	22.57	22.69	22.65	
15	16QAM	36	20	22.47	22.52	22.51	
15	16QAM	36	39	22.71	22.68	22.63	23.5
15	16QAM	75	0	22.37	22.49	22.42	
15	64QAM	1	0	23.16	23.23	23.06	
15	64QAM	1	37	22.90	22.99	22.82	23.5
15	64QAM	1	74	23.13	23.15	23.16	
15	64QAM	36	0	22.58	22.60	22.64	
15	64QAM	36	20	22.54	22.56	22.59	23
15	64QAM	36	39	22.73	22.72	22.71	
15	64QAM	75	0	22.39	22.51	22.36	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	23.61	23.53	23.44	24.5
10	QPSK	1	25	23.36	23.36	23.22	
10	QPSK	1	49	23.64	23.60	23.55	
10	QPSK	25	0	22.56	22.66	22.48	23.5
10	QPSK	25	12	22.50	22.50	22.30	
10	QPSK	25	25	22.54	22.70	22.60	
10	QPSK	50	0	22.48	22.60	22.64	23.5
10	16QAM	1	0	22.94	23.01	22.96	
10	16QAM	1	25	22.51	22.63	22.60	
10	16QAM	1	49	23.14	23.18	23.02	23.5
10	16QAM	25	0	22.50	22.57	22.50	
10	16QAM	25	12	22.46	22.46	22.50	
10	16QAM	25	25	22.57	22.63	22.61	23.5
10	16QAM	50	0	22.27	22.44	22.34	
10	64QAM	1	0	23.07	23.08	23.01	
10	64QAM	1	25	22.75	22.96	22.81	23
10	64QAM	1	49	23.03	23.14	23.13	
10	64QAM	25	0	22.58	22.59	22.62	
10	64QAM	25	12	22.43	22.47	22.50	23
10	64QAM	25	25	22.59	22.65	22.59	
10	64QAM	50	0	22.38	22.40	22.24	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	23.57	23.48	23.36	24.5
5	QPSK	1	12	23.23	23.35	23.16	
5	QPSK	1	24	23.64	23.45	23.48	
5	QPSK	12	0	22.46	22.57	22.42	23.5
5	QPSK	12	7	22.49	22.46	22.18	
5	QPSK	12	13	22.42	22.65	22.56	
5	QPSK	25	0	22.43	22.51	22.55	23.5
5	16QAM	1	0	22.84	22.93	22.84	
5	16QAM	1	12	22.37	22.60	22.48	
5	16QAM	1	24	23.14	23.04	22.93	23.5
5	16QAM	12	0	22.42	22.54	22.37	
5	16QAM	12	7	22.46	22.40	22.39	
5	16QAM	12	13	22.48	22.60	22.47	23.5
5	16QAM	25	0	22.25	22.33	22.32	
5	64QAM	1	0	23.00	22.97	22.93	
5	64QAM	1	12	22.72	22.82	22.71	23
5	64QAM	1	24	22.89	23.14	23.03	
5	64QAM	12	0	22.45	22.44	22.51	
5	64QAM	12	7	22.28	22.36	22.41	23
5	64QAM	12	13	22.48	22.60	22.58	
5	64QAM	25	0	22.28	22.31	22.10	

Band 40 (2.3G Band-1) (dBm) Part 27D-1 2305MHz ~ 2315MHz							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				38750			
Frequency (MHz)				2310			
10	QPSK	1	0	22.63			23.5
10	QPSK	1	25	22.43			
10	QPSK	1	49	22.59			
10	QPSK	25	0	21.39			
10	QPSK	25	12	21.26			22.5
10	QPSK	25	25	21.22			
10	QPSK	50	0	21.34			
10	16QAM	1	0	21.59			
10	16QAM	1	25	21.44			22.5
10	16QAM	1	49	21.77			
10	16QAM	25	0	20.41			
10	16QAM	25	12	20.30			
10	16QAM	25	25	20.33			21.5
10	16QAM	50	0	20.26			
10	64QAM	1	0	21.77			
10	64QAM	1	25	21.50			
10	64QAM	1	49	21.65			22
10	64QAM	25	0	20.35			
10	64QAM	25	12	20.24			
10	64QAM	25	25	20.16			
10	64QAM	50	0	20.22			20.5
Channel				38725	38750	38775	
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.56	22.48	22.62	
5	QPSK	1	12	22.30	22.33	22.42	
5	QPSK	1	24	22.57	22.53	22.54	
5	QPSK	12	0	21.25	21.33	21.25	
5	QPSK	12	7	21.12	21.12	21.15	22.5
5	QPSK	12	13	21.22	21.22	21.13	
5	QPSK	25	0	21.25	21.27	21.26	
5	16QAM	1	0	21.50	21.53	21.46	
5	16QAM	1	12	21.33	21.40	21.44	22.5
5	16QAM	1	24	21.67	21.70	21.74	
5	16QAM	12	0	20.30	20.32	20.28	
5	16QAM	12	7	20.20	20.20	20.16	
5	16QAM	12	13	20.22	20.20	20.23	21.5
5	16QAM	25	0	20.26	20.19	20.24	
5	64QAM	1	0	21.65	21.70	21.65	
5	64QAM	1	12	21.37	21.37	21.44	
5	64QAM	1	24	21.54	21.55	21.55	22
5	64QAM	12	0	20.27	20.33	20.32	
5	64QAM	12	7	20.12	20.22	20.10	
5	64QAM	12	13	20.09	20.04	20.11	
5	64QAM	25	0	20.11	20.14	20.08	20.5

Band 40 (2.3G Band-2) (dBm) Part 27D-2 2350MHz ~ 2360MHz							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				39200			
Frequency (MHz)				2355			
10	QPSK	1	0	22.54			23.5
10	QPSK	1	25	22.17			
10	QPSK	1	49	22.51			
10	QPSK	25	0	21.30			
10	QPSK	25	12	21.21			22.5
10	QPSK	25	25	21.27			
10	QPSK	50	0	21.28			
10	16QAM	1	0	21.62			
10	16QAM	1	25	21.55			22.5
10	16QAM	1	49	21.68			
10	16QAM	25	0	20.40			
10	16QAM	25	12	20.42			
10	16QAM	25	25	20.48			21.5
10	16QAM	50	0	20.40			
10	64QAM	1	0	21.59			
10	64QAM	1	25	21.42			
10	64QAM	1	49	21.76			22
10	64QAM	25	0	20.35			
10	64QAM	25	12	20.36			
10	64QAM	25	25	20.40			
10	64QAM	50	0	20.34			20.5
Channel				39175	39200	39225	
Frequency (MHz)				2352.5	2355	2357.5	
5	QPSK	1	0	22.45	22.45	22.44	
5	QPSK	1	12	22.17	22.04	22.02	
5	QPSK	1	24	22.39	22.45	22.48	
5	QPSK	12	0	21.20	21.21	21.23	
5	QPSK	12	7	21.20	21.21	21.20	22.5
5	QPSK	12	13	21.25	21.29	21.24	
5	QPSK	25	0	21.32	21.36	21.34	
5	16QAM	1	0	21.53	21.58	21.58	
5	16QAM	1	12	21.52	21.51	21.49	22.5
5	16QAM	1	24	21.63	21.64	21.56	
5	16QAM	12	0	20.39	20.39	20.31	
5	16QAM	12	7	20.35	20.32	20.36	
5	16QAM	12	13	20.42	20.36	20.38	21.5
5	16QAM	25	0	20.30	20.39	20.34	
5	64QAM	1	0	21.49	21.49	21.58	
5	64QAM	1	12	21.33	21.40	21.33	
5	64QAM	1	24	21.69	21.66	21.68	22
5	64QAM	12	0	20.28	20.32	20.25	
5	64QAM	12	7	20.35	20.33	20.35	
5	64QAM	12	13	20.34	20.37	20.38	
5	64QAM	25	0	20.28	20.20	20.20	20.5



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)					2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	0	22.96	23.03	23.17	23.14	23.06	24
20	QPSK	1	49	0	22.96	23.01	23.10	23.09	23.03	
20	QPSK	1	99	0	22.79	22.92	22.95	22.92	22.79	
20	QPSK	50	0	0	22.06	22.16	22.25	22.18	22.13	
20	QPSK	50	24	0	22.15	22.19	22.20	22.17	22.13	
20	QPSK	50	50	0	22.14	22.17	22.18	22.06	22.01	23
20	QPSK	100	0	0	22.19	22.22	22.26	22.12	22.09	
20	16QAM	1	0	0	22.32	22.35	22.40	22.25	22.16	
20	16QAM	1	49	0	22.17	22.26	22.35	22.28	22.27	
20	16QAM	1	99	0	22.38	22.49	22.55	22.45	22.37	
20	16QAM	50	0	0	22.17	22.17	22.19	22.18	22.11	22.5
20	16QAM	50	24	0	22.08	22.21	22.29	22.25	22.20	
20	16QAM	50	50	0	22.01	22.12	22.18	22.09	22.05	
20	16QAM	100	0	0	22.06	22.12	22.26	22.12	22.06	
20	64QAM	1	0	0	22.48	22.53	22.61	22.60	22.51	
20	64QAM	1	49	0	22.80	22.88	23.00	22.94	22.79	23
20	64QAM	1	99	0	22.37	22.38	22.49	22.48	22.42	
20	64QAM	50	0	0	22.08	22.21	22.24	22.10	22.06	
20	64QAM	50	24	0	22.13	22.17	22.19	22.13	22.00	
20	64QAM	50	50	0	22.08	22.11	22.16	22.10	22.00	
20	64QAM	100	0	0	22.20	22.28	22.33	22.28	22.22	
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	0	22.92	22.96	22.86	23.10	23.16	24
15	QPSK	1	37	0	22.86	22.90	22.93	23.02	22.98	
15	QPSK	1	74	0	22.77	22.67	22.75	22.85	22.92	
15	QPSK	36	0	0	21.95	21.92	22.00	22.24	22.18	
15	QPSK	36	20	0	22.12	22.02	22.07	22.17	22.15	
15	QPSK	36	39	0	22.11	22.04	22.08	22.13	22.05	23
15	QPSK	75	0	0	22.07	22.12	22.10	22.20	22.12	
15	16QAM	1	0	0	22.27	22.31	22.19	22.26	22.37	
15	16QAM	1	37	0	22.14	22.04	22.04	22.22	22.22	
15	16QAM	1	74	0	22.37	22.33	22.25	22.55	22.52	
15	16QAM	36	0	0	22.07	22.15	22.07	22.05	22.06	22.5
15	16QAM	36	20	0	22.07	22.04	22.04	22.26	22.23	
15	16QAM	36	39	0	21.86	21.96	21.87	22.09	22.06	
15	16QAM	75	0	0	21.97	22.00	22.04	22.17	22.26	
15	64QAM	1	0	0	22.41	22.37	22.39	22.56	22.47	
15	64QAM	1	37	0	22.73	22.70	22.79	22.87	22.89	23
15	64QAM	1	74	0	22.36	22.25	22.36	22.36	22.42	
15	64QAM	36	0	0	22.05	22.04	21.99	22.17	22.11	
15	64QAM	36	20	0	22.00	22.09	22.03	22.18	22.13	
15	64QAM	36	39	0	21.97	21.95	22.05	22.08	22.02	
15	64QAM	75	0	0	22.19	22.16	22.09	22.31	22.18	
Channel					39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)					2501	2547	2593	2639	2685	
10	QPSK	1	0	0	22.90	22.81	22.88	22.86	22.72	24
10	QPSK	1	25	0	22.75	22.74	22.72	22.85	22.84	
10	QPSK	1	49	0	22.74	22.65	22.65	22.71	22.68	
10	QPSK	25	0	0	21.81	21.83	21.95	21.97	21.98	
10	QPSK	25	12	0	22.02	21.97	22.11	21.94	21.96	
10	QPSK	25	25	0	22.10	22.06	21.99	22.04	22.06	23
10	QPSK	50	0	0	21.93	22.07	22.00	22.04	22.00	
10	16QAM	1	0	0	22.19	22.17	22.19	22.16	22.11	
10	16QAM	1	25	0	22.07	22.01	22.08	22.04	21.99	
10	16QAM	1	49	0	22.28	22.36	22.35	22.18	22.15	
10	16QAM	25	0	0	22.06	21.93	22.04	22.02	21.92	22.5
10	16QAM	25	12	0	21.96	22.03	21.97	21.94	21.90	
10	16QAM	25	25	0	21.80	21.76	21.74	21.82	21.81	
10	16QAM	50	0	0	21.86	21.94	21.94	22.02	21.98	
10	64QAM	1	0	0	22.38	22.36	22.35	22.25	22.38	
10	64QAM	1	25	0	22.71	22.72	22.62	22.73	22.67	23
10	64QAM	1	49	0	22.31	22.24	22.25	22.27	22.31	
10	64QAM	25	0	0	21.92	22.04	21.91	21.94	21.97	
10	64QAM	25	12	0	21.91	21.95	21.96	22.00	21.98	
10	64QAM	25	25	0	21.90	21.85	21.92	21.94	22.02	
10	64QAM	50	0	0	22.13	22.04	22.13	21.99	21.99	
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	0	22.85	22.87	22.77	22.82	22.87	24
5	QPSK	1	12	0	22.63	22.73	22.72	22.61	22.61	
5	QPSK	1	24	0	22.61	22.69	22.66	22.61	22.57	
5	QPSK	12	0	0	21.72	21.77	21.72	21.93	21.89	
5	QPSK	12	7	0	21.99	21.99	21.93	21.96	22.00	
5	QPSK	12	13	0	21.97	21.96	21.99	21.86	21.94	23
5	QPSK	25	0	0	21.89	21.91	21.91	21.96	21.93	
5	16QAM	1	0	0	22.12	22.13	22.15	22.07	22.13	
5	16QAM	1	12	0	22.04	21.95	22.03	22.01	22.05	
5	16QAM	1	24	0	22.21	22.16	22.16	22.24	22.28	
5	16QAM	12	0	0	22.03	22.01	22.00	21.91	21.99	22.5
5	16QAM	12	7	0	21.95	21.91	21.93	21.87	21.96	
5	16QAM	12	13	0	21.70	21.79	21.80	21.72	21.61	
5	16QAM	25	0	0	21.74	21.85	21.75	21.90	21.81	
5	64QAM	1	0	0	22.32	22.25	22.24	22.24	22.21	
5	64QAM	1	12	0	22.66	22.69	22.63	22.58	22.55	23
5	64QAM	1	24	0	22.16	22.19	22.28	22.19	22.10	
5	64QAM	12	0	0	21.81	21.78	21.87	21.76	21.82	
5	64QAM	12	7	0	21.77	21.78	21.78	21.89	21.85	
5	64QAM	12	13	0	21.87	21.88	21.88	21.80	21.79	
5	64QAM	25	0	0	22.09	22.12	22.13	22.09	22.00	
Channel					39650	40123	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)					2496.0	2543.3	2593	2640.30	2687.5	



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	23.21	23.30	23.25	24
20	QPSK	1	49	23.19	23.29	23.18	
20	QPSK	1	99	23.14	23.19	23.05	
20	QPSK	50	0	22.40	22.40	22.39	
20	QPSK	50	24	22.28	22.40	22.32	23
20	QPSK	50	50	22.21	22.34	22.29	
20	QPSK	100	0	22.36	22.40	22.31	
20	16QAM	1	0	22.48	22.51	22.43	
20	16QAM	1	49	22.52	22.57	22.47	23
20	16QAM	1	99	22.84	22.91	22.87	
20	16QAM	50	0	22.28	22.37	22.35	
20	16QAM	50	24	22.35	22.43	22.37	
20	16QAM	50	50	22.29	22.38	22.21	22.5
20	16QAM	100	0	22.41	22.42	22.39	
20	64QAM	1	0	21.35	21.48	21.47	
20	64QAM	1	49	21.47	21.53	21.43	
20	64QAM	1	99	21.65	21.72	21.71	22.5
20	64QAM	50	0	22.25	22.37	22.26	
20	64QAM	50	24	22.38	22.41	22.30	
20	64QAM	50	50	22.26	22.37	22.32	
20	64QAM	100	0	22.29	22.42	22.32	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.10	23.26	23.14	24
15	QPSK	1	37	23.10	23.25	23.13	
15	QPSK	1	74	23.00	23.17	22.98	
15	QPSK	36	0	22.26	22.26	22.25	
15	QPSK	36	20	22.27	22.29	22.19	23
15	QPSK	36	39	22.19	22.31	22.19	
15	QPSK	75	0	22.32	22.31	22.21	
15	16QAM	1	0	22.39	22.49	22.29	
15	16QAM	1	37	22.42	22.45	22.41	23
15	16QAM	1	74	22.84	22.85	22.77	
15	16QAM	36	0	22.20	22.34	22.21	
15	16QAM	36	20	22.29	22.43	22.32	
15	16QAM	36	39	22.27	22.32	22.10	22.5
15	16QAM	75	0	22.33	22.31	22.29	
15	64QAM	1	0	21.23	21.45	21.34	
15	64QAM	1	37	21.41	21.42	21.34	
15	64QAM	1	74	21.52	21.65	21.59	22.5
15	64QAM	36	0	22.14	22.30	22.23	
15	64QAM	36	20	22.32	22.36	22.23	
15	64QAM	36	39	22.25	22.31	22.27	
15	64QAM	75	0	22.22	22.28	22.21	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.08	23.23	23.06	24
10	QPSK	1	25	22.96	23.25	22.99	
10	QPSK	1	49	22.93	23.14	22.95	
10	QPSK	25	0	22.19	22.20	22.17	
10	QPSK	25	12	22.16	22.21	22.18	23
10	QPSK	25	25	22.12	22.19	22.07	
10	QPSK	50	0	22.24	22.26	22.08	
10	16QAM	1	0	22.38	22.39	22.24	
10	16QAM	1	25	22.33	22.37	22.33	23
10	16QAM	1	49	22.80	22.84	22.77	
10	16QAM	25	0	22.18	22.29	22.19	
10	16QAM	25	12	22.28	22.32	22.26	
10	16QAM	25	25	22.16	22.28	22.06	22.5
10	16QAM	50	0	22.29	22.25	22.23	
10	64QAM	1	0	21.23	21.43	21.19	
10	64QAM	1	25	21.36	21.31	21.32	
10	64QAM	1	49	21.43	21.61	21.49	22.5
10	64QAM	25	0	22.11	22.18	22.09	
10	64QAM	25	12	22.19	22.22	22.08	
10	64QAM	25	25	22.24	22.19	22.21	
10	64QAM	50	0	22.10	22.19	22.10	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.06	23.12	23.00	24
5	QPSK	1	12	22.82	23.12	22.91	
5	QPSK	1	24	22.83	23.02	22.83	
5	QPSK	12	0	22.12	22.16	22.04	
5	QPSK	12	7	22.03	22.09	22.06	23
5	QPSK	12	13	22.05	22.04	22.01	
5	QPSK	25	0	22.19	22.13	22.05	
5	16QAM	1	0	22.37	22.33	22.17	
5	16QAM	1	12	22.26	22.36	22.30	23
5	16QAM	1	24	22.77	22.73	22.74	
5	16QAM	12	0	22.14	22.21	22.08	
5	16QAM	12	7	22.25	22.24	22.15	
5	16QAM	12	13	22.06	22.22	22.04	22.5
5	16QAM	25	0	22.21	22.24	22.23	
5	64QAM	1	0	21.22	21.31	21.05	
5	64QAM	1	12	21.21	21.19	21.29	
5	64QAM	1	24	21.31	21.48	21.43	22.5
5	64QAM	12	0	22.01	22.09	21.95	
5	64QAM	12	7	22.18	22.10	21.98	
5	64QAM	12	13	22.12	22.05	22.20	
5	64QAM	25	0	21.99	22.06	21.97	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	22.98	23.06	23.00	24
3	QPSK	1	8	22.80	23.05	22.91	
3	QPSK	1	14	22.75	22.93	22.70	
3	QPSK	8	0	22.04	22.04	22.02	

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	22.77	22.83	22.71	24
20	QPSK	1	49	23.03	23.11	22.99	
20	QPSK	1	99	22.78	22.81	22.72	
20	QPSK	50	0	21.64	21.64	21.60	
20	QPSK	50	24	21.53	21.60	21.60	23
20	QPSK	50	50	21.54	21.59	21.63	
20	QPSK	100	0	21.58	21.62	21.59	
20	16QAM	1	0	21.22	21.29	21.17	
20	16QAM	1	49	22.35	22.40	22.28	23
20	16QAM	1	99	22.23	22.35	22.26	
20	16QAM	50	0	21.50	21.60	21.57	
20	16QAM	50	24	21.84	21.98	21.87	
20	16QAM	50	50	22.01	22.04	21.96	22.5
20	16QAM	100	0	21.68	21.77	21.72	
20	64QAM	1	0	20.93	21.08	20.98	
20	64QAM	1	49	21.22	21.24	21.16	
20	64QAM	1	99	21.09	21.20	21.17	22
20	64QAM	50	0	21.58	21.70	21.70	
20	64QAM	50	24	21.92	22.00	21.94	
20	64QAM	50	50	21.85	21.99	21.89	
20	64QAM	100	0	21.66	21.79	21.78	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	22.72	22.83	22.60	24
15	QPSK	1	37	22.79	22.81	22.86	
15	QPSK	1	74	22.79	22.85	22.85	
15	QPSK	36	0	21.52	21.60	21.49	
15	QPSK	36	20	21.85	21.98	21.82	23
15	QPSK	36	39	21.91	21.95	21.92	
15	QPSK	75	0	21.52	21.72	21.71	
15	16QAM	1	0	21.13	21.17	21.16	
15	16QAM	1	37	22.33	22.37	22.16	23
15	16QAM	1	74	22.16	22.27	22.14	
15	16QAM	36	0	21.44	21.53	21.54	
15	16QAM	36	20	21.76	21.90	21.83	
15	16QAM	36	39	21.98	21.94	21.93	22.5
15	16QAM	75	0	21.66	21.67	21.63	
15	64QAM	1	0	20.81	21.00	20.95	
15	64QAM	1	37	21.18	21.17	21.10	
15	64QAM	1	74	20.95	21.10	21.08	22
15	64QAM	36	0	21.52	21.63	21.61	
15	64QAM	36	20	21.82	21.87	21.92	
15	64QAM	36	39	21.71	21.91	21.80	
15	64QAM	75	0	21.63	21.67	21.78	
Channel				133172	133272	133422	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	22.61	22.81	22.47	24
10	QPSK	1	25	22.98	22.93	22.72	
10	QPSK	1	49	22.74	22.77	22.76	
10	QPSK	25	0	21.38	21.51	21.44	
10	QPSK	25	12	21.72	21.92	21.78	23
10	QPSK	25	25	21.76	21.92	21.87	
10	QPSK	50	0	21.41	21.58	21.58	
10	16QAM	1	0	21.07	21.02	21.04	
10	16QAM	1	25	22.27	22.30	22.10	23
10	16QAM	1	49	22.15	22.14	22.06	
10	16QAM	25	0	21.38	21.40	21.46	
10	16QAM	25	12	21.69	21.89	21.78	
10	16QAM	25	25	21.88	21.82	21.82	22.5
10	16QAM	50	0	21.65	21.60	21.50	
10	64QAM	1	0	20.76	20.93	20.90	
10	64QAM	1	25	21.15	21.14	21.07	22
10	64QAM	1	49	20.94	21.03	21.05	
10	64QAM	25	0	21.41	21.59	21.57	
10	64QAM	25	12	21.73	21.75	21.91	
10	64QAM	25	25	21.68	21.89	21.79	22.5
10	64QAM	50	0	21.57	21.57	21.78	
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	22.75	22.83	22.69	24
5	QPSK	1	12	22.95	22.97	22.90	
5	QPSK	1	24	22.71	22.91	22.74	
5	QPSK	12	0	21.56	21.56	21.53	
5	QPSK	12	7	21.86	21.98	21.90	23
5	QPSK	12	13	21.85	21.88	21.83	
5	QPSK	25	0	21.61	21.79	21.69	
5	16QAM	1	0	21.21	21.18	21.15	
5	16QAM	1	12	22.33	22.33	22.15	23
5	16QAM	1	24	22.20	22.22	22.12	
5	16QAM	12	0	21.42	21.54	21.44	
5	16QAM	12	7	21.76	21.90	21.80	
5	16QAM	12	13	21.96	21.96	21.85	22.5
5	16QAM	25	0	21.66	21.75	21.69	
5	64QAM	1	0	20.79	20.96	20.91	
5	64QAM	1	12	21.20	21.13	21.08	
5	64QAM	1	24	21.02	21.17	21.09	22
5	64QAM	12	0	21.47	21.58	21.63	
5	64QAM	12	7	21.81	21.87	21.85	
5	64QAM	12	13	21.82	21.97	21.82	
5	64QAM	25	0	21.60	21.74	21.67	22.5



3	QPSK	8	4	21.90	22.06	21.98	23
3	QPSK	8	7	22.03	21.93	21.93	
3	QPSK	15	0	22.06	22.11	22.04	
3	16QAM	1	0	22.27	22.19	22.11	23
3	16QAM	1	8	22.20	22.26	22.30	
3	16QAM	1	14	22.64	22.63	22.72	
3	16QAM	8	0	22.11	22.06	21.93	22.5
3	16QAM	8	4	22.11	22.17	22.05	
3	16QAM	8	7	21.99	22.08	22.04	
3	16QAM	15	0	22.09	22.20	22.14	
3	64QAM	1	0	21.08	21.30	21.05	22.5
3	64QAM	1	8	21.11	21.13	21.25	
3	64QAM	1	14	21.20	21.45	21.41	
3	64QAM	8	0	21.91	22.06	21.95	22.5
3	64QAM	8	4	22.08	22.08	21.92	
3	64QAM	8	7	22.04	22.00	22.15	
3	64QAM	15	0	21.97	22.01	21.96	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.08	23.29	23.18	24
1.4	QPSK	1	3	23.08	23.21	23.17	
1.4	QPSK	1	5	23.07	23.16	22.96	
1.4	QPSK	3	0	22.32	22.38	22.37	
1.4	QPSK	3	1	22.21	22.40	22.30	
1.4	QPSK	3	3	22.20	22.32	22.19	
1.4	QPSK	6	0	22.24	22.33	22.29	23
1.4	16QAM	1	0	22.41	22.40	22.35	23
1.4	16QAM	1	3	22.47	22.49	22.34	
1.4	16QAM	1	5	22.73	22.88	22.84	
1.4	16QAM	3	0	22.23	22.37	22.23	
1.4	16QAM	3	1	22.23	22.28	22.29	
1.4	16QAM	3	3	22.20	22.29	22.09	
1.4	16QAM	6	0	22.41	22.36	22.16	22.5
1.4	64QAM	1	0	21.21	21.41	21.34	
1.4	64QAM	1	3	21.38	21.39	21.34	
1.4	64QAM	1	5	21.54	21.58	21.64	
1.4	64QAM	3	0	22.24	22.33	22.16	
1.4	64QAM	3	1	22.27	22.36	22.17	
1.4	64QAM	3	3	22.21	22.31	22.17	
1.4	64QAM	6	0	22.27	22.38	22.28	



CA_7C													
Combination:20MHz+20MHz(100RB+100RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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	2510	21048	2529.8	QPSK	1	0	0	0	1	0	22.93	23.50
21100	21001	2525.1	21199	2544.9	QPSK	1	0	0	0	1	0	22.76	23.50
21350	21152	2540.2	21350	2560	QPSK	1	0	0	0	1	0	22.56	23.50
20850	20850	2510	21048	2529.8	16QAM	1	0	0	0	1	0	21.75	22.50
21100	21001	2525.1	21199	2544.9	16QAM	1	0	0	0	1	0	21.61	22.50
21350	21152	2540.2	21350	2560	16QAM	1	0	0	0	1	0	21.50	22.50
20850	20850	2510	21048	2529.8	64QAM	1	0	0	0	1	0	20.89	21.50
21100	21001	2525.1	21199	2544.9	64QAM	1	0	0	0	1	0	20.62	21.50
21350	21152	2540.2	21350	2560	64QAM	1	0	0	0	1	0	20.54	21.50
20850	20850	2510	21048	2529.8	QPSK	50	0	0	0	1	0	21.84	22.50
21100	21001	2525.1	21199	2544.9	QPSK	50	0	0	0	1	0	21.6	22.50
21350	21152	2540.2	21350	2560	QPSK	50	0	0	0	1	0	21.53	22.50

CA_41C													
Combination:20MHz+20MHz(100RB+100RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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	2506	39948	2525.8	QPSK	1	0	0	0	1	0	22.97	23.50
40620	40521	2583.1	40719	2602.9	QPSK	1	0	0	0	1	0	22.79	23.50
41490	41292	2660.2	41490	2680	QPSK	1	0	0	0	1	0	22.69	23.50
39750	39750	2506	39948	2525.8	16QAM	1	0	0	0	1	0	21.88	22.50
40620	40521	2583.1	40719	2602.9	16QAM	1	0	0	0	1	0	21.79	22.50
41490	41292	2660.2	41490	2680	16QAM	1	0	0	0	1	0	21.64	22.50
39750	39750	2506	39948	2525.8	64QAM	1	0	0	0	1	0	20.97	21.50
40620	40521	2583.1	40719	2602.9	64QAM	1	0	0	0	1	0	20.81	21.50
41490	41292	2660.2	41490	2680	64QAM	1	0	0	0	1	0	20.75	21.50
39750	39750	2506	39948	2525.8	QPSK	50	0	0	0	1	0	21.87	22.50
40620	40521	2583.1	40719	2602.9	QPSK	50	0	0	0	1	0	21.64	22.50
41490	41292	2660.2	41490	2680	QPSK	50	0	0	0	1	0	21.62	22.50

2CC LTE Downlink											
CA Configuration	PCC					SCC				Power	
	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	CA TX (dBm)	Tune-up limit(dBm)
CA_2A-2A	2	20	18700	1860	QPSK/1#0	2	20	19100	1900	22.88	23.50
CA_2A-4A	2	20	18700	1860	QPSK/1#0	4	20	20300	1745	22.82	23.50
CA_2A-5A	2	20	18700	1860	QPSK/1#0	5	5	20600	844	22.87	23.50
CA_2A-12A	2	20	18700	1860	QPSK/1#0	12	5	23155	713.5	22.87	23.50
CA_2A-13A	2	10	18900	1880	QPSK/1#0	13	10	23230	782	22.58	23.50
CA_2A-17A	2	10	18900	1880	QPSK/1#0	17	10	23790	710	22.9	23.50
CA_2A-29A	2	10	18900	1880	QPSK/1#0	29	10	9720	723	22.87	23.50
CA_2A-66A	2	10	18900	1880	QPSK/1#0	66	20	132572	1770	22.88	23.50
CA_2A-71A	2	10	18700	1860	QPSK/1#0	71	10	133422	693	22.86	23.50
CA_4A-5A	4	20	20050	1720	QPSK/1#0	5	5	20600	844	22.88	23.50
CA_4A-12A	4	20	20050	1720	QPSK/1#0	12	5	23155	713.5	22.79	23.50
CA_4A-13A	4	10	20350	1750	QPSK/1#0	13	10	23230	782	22.54	23.50
CA_4A-17A	4	10	20350	1750	QPSK/1#0	17	10	23790	710	22.86	23.50
CA_4A-29A	4	10	20350	1750	QPSK/1#0	29	10	9720	723	22.79	23.50
CA_5A-5A	5	10	20450	829	QPSK/1#0	5	10	20600	844	23.15	24.00
CA_5A-7A	5	10	20450	829	QPSK/1#0	7	10	21400	2565	22.98	23.50
CA_5A-30A	5	10	20525	836.5	QPSK/1#0	30	10	27710	2310	23.05	24.00
CA_5A-38A	5	10	20525	836.5	QPSK/1#0	38	10	38200	2610	23.15	24.00
CA_5A-40A	5	10	20525	836.5	QPSK/1#0	40	20	39600	2395	22.33	23.00
CA_5A-41A	5	10	20450	829	QPSK/1#0	41	20	41292	2660.2	22.88	23.50
CA_5A-66A	5	10	20525	836.5	QPSK/1#0	66	20	132572	1770	23.04	24.00
CA_7A-7A	7	20	21100	2535	QPSK/1#0	7	10	21400	2565	22.92	23.50
CA_7A-12A	7	20	21100	2535	QPSK/1#0	12	5	23155	713.5	22.96	23.50
CA_12A-30A	12	10	23060	704	QPSK/1#0	30	10	27710	2310	22.91	23.50

**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	16.43	17.00	16.00	98.21
		CH 7	2442	16.24	17.00	16.00	
		CH 13	2472	17.08	18.00	16.00	
	802.11g 6Mbps	CH 1	2412	16.01	17.00	16.00	98.35
		CH 7	2442	15.69	16.50	16.00	
		CH 13	2472	16.52	17.50	16.00	
	802.11n-HT20 MCS0	CH 1	2412	15.85	16.50	16.00	98.13
		CH 7	2442	15.49	16.00	16.00	
		CH 13	2472	16.35	17.00	16.00	

5.2GHz 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	14.34	15.00	16.00	98.06
		CH 44	5220	14.17	15.00	16.00	
		CH 48	5240	13.70	14.50	16.00	
	802.11n-HT20 MCS0	CH 36	5180	14.07	15.00	16.00	97.94
		CH 44	5220	14.00	15.00	16.00	
		CH 48	5240	13.50	14.50	16.00	
	802.11n-HT40 MCS0	CH 36	5180	14.27	15.00	16.00	95.83
		CH 46	5230	13.91	14.50	16.00	
		CH 36	5180	14.11	15.00	16.00	
	802.11ac-VHT20 MCS0	CH 44	5220	14.05	15.00	16.00	97.94
		CH 48	5240	13.52	14.50	16.00	
		CH 38	5190	14.23	15.00	16.00	
	802.11ac-VHT40 MCS0	CH 46	5230	13.93	14.50	16.00	95.92
		CH 42	5210	14.13	15.00	16.00	
	802.11ac-VHT80 MCS0	CH 42	5210	14.13	15.00	16.00	93.88

5.3GHz 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	13.86	14.50	16.00	98.06
		CH 60	5300	13.57	14.50	16.00	
		CH 64	5320	13.09	14.00	16.00	
	802.11n-HT20 MCS0	CH 52	5260	13.69	14.50	16.00	97.94
		CH 60	5300	13.46	14.00	16.00	
		CH 64	5320	12.99	13.50	16.00	
	802.11n-HT40 MCS0	CH 54	5270	13.71	14.50	16.00	95.83
		CH 62	5310	13.24	14.00	16.00	
	802.11ac-VHT20 MCS0	CH 52	5260	13.72	14.50	16.00	97.94
		CH 60	5300	13.46	14.00	16.00	
		CH 64	5320	13.01	14.00	16.00	
	802.11ac-VHT40 MCS0	CH 54	5270	13.73	14.50	16.00	95.92
		CH 62	5310	13.54	14.50	16.00	
	802.11ac-VHT80 MCS0	CH 58	5290	13.55	14.50	16.00	92.00

5.5GHz 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	12.04	13.00	16.00	98.06
		CH 116	5580	11.47	12.00	16.00	
		CH 144	5720	13.31	14.00	16.00	
	802.11n-HT20 MCS0	CH 100	5500	11.61	12.50	16.00	97.92
		CH 116	5580	11.40	12.00	16.00	
		CH 144	5720	13.21	14.00	16.00	
	802.11n-HT40 MCS0	CH 102	5510	11.82	12.50	16.00	95.83
		CH 110	5550	11.91	12.50	16.00	
		CH 142	5710	13.41	14.00	16.00	
	802.11ac-VHT20 MCS0	CH 100	5500	11.64	12.50	16.00	97.94
		CH 116	5580	11.44	12.00	16.00	
		CH 144	5720	13.23	14.00	16.00	
	802.11ac-VHT40 MCS0	CH 102	5510	11.92	12.50	16.00	97.98
		CH 110	5550	12.00	13.00	16.00	
		CH 142	5710	13.54	14.50	16.00	
	802.11ac-VHT80 MCS0	CH 106	5530	11.81	12.50	16.00	93.88
		CH 122	5610	12.93	13.00	16.00	

5.8GHz 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	13.72	14.50	16.00	98.06
		CH 157	5785	14.12	15.00	16.00	
		CH 165	5825	14.52	15.50	16.00	
	802.11n-HT20 MCS0	CH 149	5745	13.60	14.50	16.00	97.92
		CH 157	5785	14.04	15.00	16.00	
		CH 165	5825	14.41	15.00	16.00	
	802.11n-HT40 MCS0	CH 151	5755	14.07	15.00	16.00	95.83
		CH 159	5795	14.27	15.00	16.00	
	802.11ac-VHT20 MCS0	CH 149	5745	13.61	14.50	16.00	97.94
		CH 157	5785	14.01	15.00	16.00	
		CH 165	5825	14.44	15.00	16.00	
	802.11ac-VHT40 MCS0	CH 151	5755	14.16	15.00	16.00	97.94
		CH 159	5795	14.36	15.00	16.00	
		CH 155	5775	14.27	15.00	16.00	

BR/EDR Ant1

Mode	Channel	Frequency (MHz)	1Mbps		2Mbps		3Mbps		powersetting
			Average power (dBm)	Tune-up Limit	Average power (dBm)	Tune-up Limit	Average power (dBm)	Tune-up Limit	
BR / EDR	CH 0	2402	5.71	6.50	2.69	3.50	2.69	3.50	8.00
	CH 39	2441	6.62	7.50	3.53	4.50	3.52	4.50	
	CH 78	2480	6.32	7.00	3.79	4.50	3.74	4.50	
Duty Cycle %			77.01		77.07		77.12		

BLEAnt1

Mode	Channel	Frequency (MHz)	1M		2M		powersetting
			Average power (dBm)	Tune-up Limit	Average power (dBm)	Tune-up Limit	
BLE	CH 0	2402	4.72	5.50	1.95	2.50	Default
	CH 15	2440	5.54	6.50	2.98	3.50	
	CH 39	2480	5.61	6.50	2.92	3.50	
Duty Cycle %			62.51		33.36		



Reduced Power

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8	
Frequency (MHz)								
GSM 1 Tx slot	29.51	29.56	29.53	30.50	20.51	20.56	20.53	21.50
GPRS 1 Tx slot	29.48	29.54	29.51	30.50	20.48	20.54	20.51	21.50
GPRS 2 Tx slots	29.16	29.39	29.24	30.00	23.16	23.39	23.24	24.00
GPRS 3 Tx slots	29.06	29.23	29.11	30.00	24.80	24.97	24.85	25.74
GPRS 4 Tx slots	29.50	29.54	29.49	30.50	26.50	26.54	26.49	27.50
EDGE 1 Tx slot	29.23	29.53	29.18	30.50	20.23	20.53	20.18	21.50
EDGE 2 Tx slots	29.03	28.92	29.19	30.00	23.03	22.92	23.19	24.00
EDGE 3 Tx slots	28.53	28.89	28.85	29.00	24.27	24.63	24.59	24.74
EDGE 4 Tx slots	28.44	28.60	28.45	29.00	25.44	25.60	25.45	26.00
Mode		Max.	29.56			Max.	26.54	
Attenuator	Cable Loss : 0.6							

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8	
Frequency (MHz)								
GSM 1 Tx slot	23.66	23.74	23.71	24.50	14.66	14.74	14.71	15.50
GPRS 1 Tx slot	23.60	23.67	23.49	24.50	14.60	14.67	14.49	15.50
GPRS 2 Tx slots	23.53	23.57	23.37	24.50	17.53	17.57	17.37	18.50
GPRS 3 Tx slots	23.43	23.47	23.25	24.00	19.17	19.21	18.99	19.74
GPRS 4 Tx slots	23.09	23.23	22.94	24.50	20.09	20.23	19.94	21.50
EDGE 1 Tx slot	23.35	23.40	23.39	24.00	14.35	14.40	14.39	15.00
EDGE 2 Tx slots	23.35	23.30	23.11	24.00	17.35	17.30	17.11	18.00
EDGE 3 Tx slots	23.19	23.30	22.96	24.00	18.93	19.04	18.70	19.74
EDGE 4 Tx slots	23.11	23.37	23.10	24.00	20.11	20.37	20.10	21.00
Mode		Max.	23.74			Max.	20.37	
Attenuator	Cable Loss : 0.8							
Date	4/9							

Band		WCDMA Band IV (dBm)			Tune-up Limit (dBm)
TX Channel		1312	1413	1513	
Rx Channel		1537	1638	1738	
Frequency (MHz)		1712.4	1732.6	1752.6	
3GPP Rel 99	RMC 12.2Kbps	20.71	20.79	20.78	21.00
3GPP Rel 5	HSDPA Subtest-1	19.31	19.68	19.54	20.50
3GPP Rel 5	HSDPA Subtest-2	19.52	19.71	19.73	20.00
3GPP Rel 5	HSDPA Subtest-3	19.35	19.21	19.29	20.00
3GPP Rel 5	HSDPA Subtest-4	19.36	19.25	19.18	20.00
3GPP Rel 6	HSUPA Subtest-1	19.64	19.75	19.70	20.00
3GPP Rel 6	HSUPA Subtest-2	18.95	19.18	19.11	20.00
3GPP Rel 6	HSUPA Subtest-3	19.78	19.73	19.80	20.00
3GPP Rel 6	HSUPA Subtest-4	19.35	19.66	19.55	20.00
3GPP Rel 6	HSUPA Subtest-5	19.46	19.76	19.78	20.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	19.15	19.01	18.97	20.00
Attenuator		Cable Loss			0.8
Mode		Max.	20.79		

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	18.79	19.08	19.02	20
20	QPSK	1	49	18.91	19.06	19.01	
20	QPSK	1	99	18.84	18.90	18.82	
20	QPSK	50	0	18.08	18.35	18.18	19
20	QPSK	50	24	18.18	18.21	18.19	
20	QPSK	50	50	18.12	18.15	18.06	
20	QPSK	100	0	18.12	18.17	18.06	19
20	16QAM	1	0	18.34	18.43	18.39	
20	16QAM	1	49	18.23	18.26	18.19	
20	16QAM	1	99	18.03	18.07	17.97	19
20	16QAM	50	0	18.04	18.12	18.07	
20	16QAM	50	24	18.10	18.22	18.07	
20	16QAM	50	50	17.90	18.04	18.02	19
20	16QAM	100	0	18.09	18.18	18.15	
20	64QAM	1	0	17.05	17.07	17.03	18
20	64QAM	1	49	16.95	17.06	16.99	
20	64QAM	1	99	16.82	16.85	16.70	
20	64QAM	50	0	18.10	18.15	18.07	19
20	64QAM	50	24	17.98	18.12	17.98	
20	64QAM	50	50	17.99	18.11	18.11	
20	64QAM	100	0	18.11	18.17	18.05	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	18.67	18.93	18.94	20
15	QPSK	1	37	18.84	18.97	19.01	
15	QPSK	1	74	18.75	18.82	18.78	
15	QPSK	36	0	18.04	18.30	18.05	19
15	QPSK	36	20	18.04	18.07	18.06	
15	QPSK	36	39	18.03	18.11	17.97	
15	QPSK	75	0	18.10	18.14	17.99	19
15	16QAM	1	0	18.33	18.38	18.38	
15	16QAM	1	37	18.19	18.16	18.07	
15	16QAM	1	74	17.91	17.94	17.92	19
15	16QAM	36	0	17.93	18.04	17.96	
15	16QAM	36	20	18.00	18.11	17.95	
15	16QAM	36	39	17.81	17.92	17.90	18
15	16QAM	75	0	18.02	18.10	18.03	
15	64QAM	1	0	16.98	17.03	16.92	
15	64QAM	1	37	16.80	16.99	16.84	19
15	64QAM	1	74	16.69	16.74	16.69	
15	64QAM	36	0	17.97	18.02	17.95	
15	64QAM	36	20	17.88	18.08	17.89	19
15	64QAM	36	39	17.87	18.10	17.96	
15	64QAM	75	0	22.06	22.10	22.04	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	18.57	18.78	18.88	20
10	QPSK	1	25	18.83	18.87	19.00	
10	QPSK	1	49	18.69	18.80	18.71	
10	QPSK	25	0	18.01	18.20	18.03	19
10	QPSK	25	12	18.01	17.99	17.98	
10	QPSK	25	25	17.97	18.07	17.84	
10	QPSK	50	0	17.98	18.11	17.85	19
10	16QAM	1	0	18.24	18.29	18.32	
10	16QAM	1	25	18.16	18.05	17.92	
10	16QAM	1	49	17.78	17.81	17.80	19
10	16QAM	25	0	17.87	17.96	17.86	
10	16QAM	25	12	17.86	17.99	17.90	
10	16QAM	25	25	17.68	17.79	17.76	18
10	16QAM	50	0	17.90	18.09	17.89	
10	64QAM	1	0	16.88	16.89	16.78	
10	64QAM	1	25	16.68	16.88	16.84	19
10	64QAM	1	49	16.62	16.64	16.63	
10	64QAM	25	0	17.83	17.90	17.83	
10	64QAM	25	12	17.87	18.07	17.77	19
10	64QAM	25	25	17.81	17.98	17.95	
10	64QAM	50	0	17.97	17.99	17.94	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	18.47	18.76	18.79	20
5	QPSK	1	12	18.77	18.73	18.94	
5	QPSK	1	24	18.61	18.68	18.67	
5	QPSK	12	0	17.87	18.20	18.03	19
5	QPSK	12	7	17.87	17.93	17.94	
5	QPSK	12	13	17.86	17.97	17.78	
5	QPSK	25	0	17.92	18.03	17.71	19
5	16QAM	1	0	18.13	18.15	18.27	
5	16QAM	1	12	18.04	17.90	17.83	
5	16QAM	1	24	17.78	17.79	17.66	19
5	16QAM	12	0	17.87	17.95	17.75	
5	16QAM	12	7	17.76	17.94	17.80	
5	16QAM	12	13	17.64	17.75	17.63	18
5	16QAM	25	0	17.89	18.00	17.88	
5	64QAM	1	0	16.75	16.78	16.68	
5	64QAM	1	12	16.65	16.77	16.82	19
5	64QAM	1	24	16.49	16.50	16.50	
5	64QAM	12	0	17.69	17.80	17.71	
5	64QAM	12	7	17.75	18.00	17.68	19
5	64QAM	12	13	17.67	17.92	17.86	
5	64QAM	25	0	17.84	17.93	17.84	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	18.34	18.74	18.76	20
3	QPSK	1	8	18.73	18.72	18.80	
3	QPSK	1	14	18.46	18.54	18.62	
3	QPSK	8	0	17.72	18.12	17.95	

Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	19.21	19.30	19.25	20
20	QPSK	1	49	19.19	19.29	19.18	
20	QPSK	1	99	19.14	19.19	19.05	
20	QPSK	50	0	18.40	18.40	18.39	19
20	QPSK	50	24	18.28	18.40	18.32	
20	QPSK	50	50	18.21	18.34	18.29	
20	QPSK	100	0	18.36	18.40	18.31	19
20	16QAM	1	0	18.48	18.51	18.43	
20	16QAM	1	49	18.52	18.57	18.47	
20	16QAM	1	99	18.84	18.91	18.87	18.5
20	16QAM	50	0	18.28	18.37	18.35	
20	16QAM	50	24	18.35	18.43	18.37	
20	16QAM	50	50	18.29	18.36	18.21	18.5
20	16QAM	100	0	18.41	18.42	18.30	
20	64QAM	1	0	17.35	17.48	17.47	
20	64QAM	1	49	17.47	17.53	17.43	18.5
20	64QAM	1	99	17.65	17.72	17.71	
20	64QAM	50	0	18.25	18.37	18.26	
20	64QAM	50	24	18.38	18.41	18.30	18.5
20	64QAM	50	50	18.26	18.37	18.32	
20	64QAM	100	0	18.29	18.42	18.39	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	19.10	19.26	19.14	20
15	QPSK	1	37	19.10	19.25	19.13	
15	QPSK	1	74	19.00	19.17	18.98	
15	QPSK	36	0	18.26	18.26	18.25	19
15	QPSK	36	20	18.27	18.29	18.19	
15	QPSK	36	39	18.19	18.31	18.19	
15	QPSK	75	0	18.32	18.31	18.21	19
15	16QAM	1	0	18.39	18.49	18.29	
15	16QAM	1	37	18.42	18.45	18.41	
15	16QAM	1	74	18.84	18.85	18.77	18.5
15	16QAM	36	0	18.20	18.34	18.21	
15	16QAM	36	20	18.29	18.43	18.32	
15	16QAM	36	39	18.27	18.32	18.10	18.5
15	16QAM	75	0	18.33	18.31	18.29	
15	64QAM	1	0	17.23	17.45	17.34	
15	64QAM	1	37	17.41	17.42	17.34	18.5
15	64QAM	1	74	17.52	17.65	17.59	
15	64QAM	36	0	18.14	18.30	18.23	18.5
15	64QAM	36	20	18.32	18.36	18.23	
15	64QAM	36	39	18.25	18.31	18.27	
15	64QAM	75	0	18.22	18.28	18.21	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	19.08	19.23	19.06	20
10	QPSK	1	25	18.96	19.25	18.99	
10	QPSK	1	49	18.93	19.14	18.95	
10	QPSK	25	0	18.19	18.20	18.17	19
10	QPSK	25	12	18.16	18.21	18.18	
10	QPSK	25	25	18.12	18.19	18.07	
10	QPSK	50	0	18.24	18.26	18.08	19
10	16QAM	1	0	18.38	18.39	18.24	
10	16QAM	1	25	18.33	18.37	18.33	
10	16QAM	1	49	18.80	18.84	18.77	18.5
10	16QAM	25	0	18.18	18.29	18.19	
10	16QAM	25	12	18.28	18.32	18.26	
10	16QAM	25	25	18.16	18.28	18.06	18.5
10	16QAM	50	0	18.29	18.25	18.23	
10	64QAM	1	0	17.23	17.43	17.19	
10	64QAM	1	25	17.36	17.31	17.32	18.5
10	64QAM	1	49	17.43	17.61	17.49	
10	64QAM	25	0	18.11	18.18	18.09	18.5
10	64QAM	25	12	18.19	18.22	18.08	
10	64QAM	25	25	18.24	18.19	18.21	
10	64QAM	50	0	18.10	18.19	18.10	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	19.06	19.12	19.00	20
5	QPSK	1	12	18.82	19.12	18.91	
5	QPSK	1	24	18.83	19.02	18.83	
5	QPSK	12	0	18.12	18.16	18.04	19
5	QPSK	12	7	18.03	18.09	18.06	
5	QPSK	12	13	18.05	18.04	18.01	
5	QPSK	25	0	18.19	18.13	18.05	19
5	16QAM	1	0	18.37	18.33	18.17	
5	16QAM	1	12	18.26	18.36	18.30	
5	16QAM	1	24	18.77	18.73	18.74	18.5
5	16QAM	12	0	18.14	18.21	18.08	
5	16QAM	12	7	18.25	18.24	18.15	
5	16QAM	12	13	18.06	18.22	18.04	18.5
5	16QAM	25	0	18.21	18.24	18.23	
5	64QAM	1	0	17.22	17.31	17.05	
5	64QAM	1	12	17.21	17.19	17.29	18.5
5	64QAM	1	24	17.31	17.48	17.43	
5	64QAM	12	0	18.01	18.09	17.95	18.5
5	64QAM	12	7	18.18	18.10	17.98	
5	64QAM	12	13	18.12	18.05	18.20	
5	64QAM	25	0	17.99	18.06	17.97	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	19.88	19.06	19.00	20
3	QPSK	1	8	18.80	19.05	18.91	
3	QPSK	1	14	18.75	18.93	18.70	
3	QPSK	8	0	18.04	18.04	18.02	



3	QPSK	8	4	17.84	17.79	17.82	19
3	QPSK	8	7	17.75	17.85	17.73	
3	QPSK	15	0	17.82	17.90	17.56	
3	16QAM	1	0	18.01	18.11	18.27	19
3	16QAM	1	8	17.89	17.82	17.80	
3	16QAM	1	14	17.70	17.68	17.60	
3	16QAM	8	0	17.79	17.81	17.73	19
3	16QAM	8	4	17.75	17.86	17.66	
3	16QAM	8	7	17.55	17.74	17.58	
3	16QAM	15	0	17.84	17.96	17.80	18
3	64QAM	1	0	16.75	16.77	16.68	
3	64QAM	1	8	16.51	16.71	16.81	
3	64QAM	1	14	16.35	16.46	16.44	19
3	64QAM	8	0	17.55	17.78	17.64	
3	64QAM	8	4	17.72	17.97	17.59	
3	64QAM	8	7	17.62	17.89	17.75	19
3	64QAM	15	0	17.82	17.89	17.82	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	18.34	18.67	18.71	20
1.4	QPSK	1	3	18.67	18.60	18.78	
1.4	QPSK	1	5	18.42	18.41	18.53	
1.4	QPSK	3	0	17.69	18.11	17.95	19
1.4	QPSK	3	1	17.80	17.67	17.72	
1.4	QPSK	3	3	17.67	17.83	17.71	
1.4	QPSK	6	0	17.79	17.83	17.52	19
1.4	16QAM	1	0	17.97	17.96	18.13	
1.4	16QAM	1	3	17.77	17.72	17.72	
1.4	16QAM	1	5	17.61	17.61	17.54	19
1.4	16QAM	3	0	17.75	17.72	17.69	
1.4	16QAM	3	1	17.69	17.76	17.60	
1.4	16QAM	3	3	17.49	17.66	17.50	19
1.4	16QAM	6	0	17.73	17.95	17.69	
1.4	64QAM	1	0	16.68	16.73	16.64	
1.4	64QAM	1	3	16.46	16.71	16.74	18
1.4	64QAM	1	5	16.34	16.31	16.38	
1.4	64QAM	3	0	17.47	17.68	17.55	
1.4	64QAM	3	1	17.68	17.96	17.49	19
1.4	64QAM	3	3	17.58	17.83	17.61	
1.4	64QAM	6	0	21.79	21.78	21.70	

3	QPSK	8	4	17.90	18.06	17.98	19
3	QPSK	8	7	18.03	17.93	17.93	
3	QPSK	15	0	18.06	18.11	18.04	
3	16QAM	1	0	18.27	18.19	18.11	19
3	16QAM	1	8	18.20	18.26	18.30	
3	16QAM	1	14	18.64	18.63	18.72	
3	16QAM	8	0	18.11	18.06	17.93	18.5
3	16QAM	8	4	18.11	18.17	18.05	
3	16QAM	8	7	17.99	18.08	18.04	
3	16QAM	15	0	18.09	18.20	18.14	18.5
3	64QAM	1	0	17.08	17.30	17.05	
3	64QAM	1	8	17.11	17.13	17.25	
3	64QAM	1	14	17.20	17.45	17.41	18.5
3	64QAM	8	0	17.91	18.06	17.95	
3	64QAM	8	4	18.08	18.08	17.92	
3	64QAM	8	7	18.04	18.00	18.15	18.5
3	64QAM	15	0	17.97	18.01	17.96	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	19.08	19.29	19.18	20
1.4	QPSK	1	3	19.08	19.21	19.17	
1.4	QPSK	1	5	19.07	19.16	18.96	
1.4	QPSK	3	0	18.32	18.38	18.37	19
1.4	QPSK	3	1	18.21	18.40	18.30	
1.4	QPSK	3	3	18.20	18.32	18.19	
1.4	QPSK	6	0	18.24	18.33	18.29	19
1.4	16QAM	1	0	18.41	18.40	18.35	
1.4	16QAM	1	3	18.47	18.49	18.34	
1.4	16QAM	1	5	18.73	18.88	18.84	19
1.4	16QAM	3	0	18.23	18.37	18.23	
1.4	16QAM	3	1	18.23	18.28	18.29	
1.4	16QAM	3	3	18.20	18.29	18.09	18.5
1.4	16QAM	6	0	18.41	18.36	18.16	
1.4	64QAM	1	0	17.21	17.41	17.34	
1.4	64QAM	1	3	17.38	17.39	17.34	18.5
1.4	64QAM	1	5	17.54	17.58	17.64	
1.4	64QAM	3	0	18.24	18.33	18.16	
1.4	64QAM	3	1	18.27	18.36	18.17	18.5
1.4	64QAM	3	3	18.21	18.31	18.17	
1.4	64QAM	6	0	18.27	18.38	18.28	

**5.2GHz 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	12.34	13.00	14.00	98.06
		CH 44	5220	12.17	13.00	14.00	
		CH 48	5240	11.70	12.50	14.00	
	802.11n-HT20 MCS0	CH 36	5180	12.07	13.00	14.00	97.94
		CH 44	5220	12.00	13.00	14.00	
		CH 48	5240	11.50	12.50	14.00	
	802.11n-HT40 MCS0	CH 38	5190	12.27	13.00	14.00	95.83
		CH 46	5230	11.91	12.50	14.00	
	802.11ac-VHT20 MCS0	CH 36	5180	12.11	13.00	14.00	97.94
		CH 44	5220	12.05	13.00	14.00	
		CH 48	5240	11.52	12.50	14.00	
	802.11ac-VHT40 MCS0	CH 38	5190	12.23	13.00	14.00	95.92
		CH 46	5230	11.93	12.50	14.00	
	802.11ac-VHT80 MCS0	CH 42	5210	12.13	13.00	14.00	93.88

5.3GHz 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	11.86	12.50	14.00	98.06
		CH 60	5300	11.57	12.50	14.00	
		CH 64	5320	11.09	12.00	14.00	
	802.11n-HT20 MCS0	CH 52	5260	11.69	12.50	14.00	97.94
		CH 60	5300	11.46	12.00	14.00	
		CH 64	5320	10.99	11.50	14.00	
	802.11n-HT40 MCS0	CH 54	5270	11.71	12.50	14.00	95.83
		CH 62	5310	11.24	12.00	14.00	
	802.11ac-VHT20 MCS0	CH 52	5260	11.72	12.50	14.00	97.94
		CH 60	5300	11.46	12.00	14.00	
		CH 64	5320	11.01	12.00	14.00	
	802.11ac-VHT40 MCS0	CH 54	5270	11.73	12.50	14.00	95.92
		CH 62	5310	11.54	12.50	14.00	
	802.11ac-VHT80 MCS0	CH 58	5290	11.55	12.50	14.00	92.00

5.5GHz 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	10.04	11.00	14.00	98.06
		CH 116	5580	9.47	10.00	14.00	
		CH 144	5720	11.31	12.00	14.00	
	802.11n-HT20 MCS0	CH 100	5500	9.61	10.50	14.00	97.92
		CH 116	5580	9.40	10.00	14.00	
		CH 144	5720	11.21	12.00	14.00	
	802.11n-HT40 MCS0	CH 102	5510	9.82	10.50	14.00	95.83
		CH 110	5550	9.91	10.50	14.00	
		CH 142	5710	11.41	12.00	14.00	
	802.11ac-VHT20 MCS0	CH 100	5500	9.64	10.50	14.00	97.94
		CH 116	5580	9.44	10.00	14.00	
		CH 144	5720	11.23	12.00	14.00	
	802.11ac-VHT40 MCS0	CH 102	5510	9.92	10.50	14.00	97.98
		CH 110	5550	10.00	11.00	14.00	
		CH 142	5710	11.54	12.50	14.00	
	802.11ac-VHT80 MCS0	CH 106	5530	9.81	10.50	14.00	93.88
		CH 122	5610	10.03	11.00	14.00	

5.8GHz 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	11.72	12.50	14.00	98.06
		CH 157	5785	12.12	13.00	14.00	
		CH 165	5825	12.52	13.50	14.00	
	802.11n-HT20 MCS0	CH 149	5745	11.60	12.50	14.00	97.92
		CH 157	5785	12.04	13.00	14.00	
		CH 165	5825	12.41	13.00	14.00	
	802.11n-HT40 MCS0	CH 151	5755	12.07	13.00	14.00	95.83
		CH 159	5795	12.27	13.00	14.00	
	802.11ac-VHT20 MCS0	CH 149	5745	11.61	12.50	14.00	97.94
		CH 157	5785	12.01	13.00	14.00	
		CH 165	5825	12.44	13.00	14.00	
	802.11ac-VHT40 MCS0	CH 151	5755	12.16	13.00	14.00	97.94
		CH 159	5795	12.36	13.00	14.00	
	802.11ac-VHT80 MCS0	CH 155	5775	12.27	13.00	14.00	93.88