



REPORT No.: SZ24040284S01

## Annex E Conducted Power

**Note:**

Conducted power unit: dBm

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

**Full Power for ANT 0 & ANT 1 & ANT 2**

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	128	189	251		128	189	251		
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	32.56	32.71	32.76	33.50	23.56	23.71	23.76	24.50	
GPRS 1 Tx slot	32.53	32.68	32.73	33.30	23.53	23.68	23.73	24.30	0.23
GPRS 2 Tx slots	30.65	30.83	30.85	31.20	24.65	24.83	24.85	25.20	0.20
GPRS 3 Tx slots	28.47	28.66	28.71	29.70	24.21	24.40	24.45	25.44	0.24
GPRS 4 Tx slots	27.58	27.81	27.75	28.70	24.58	24.81	24.75	25.70	0.23
EDGE 1 Tx slot	26.76	26.91	26.93	27.90	17.76	17.91	17.93	18.90	0.17
EDGE 2 Tx slots	24.75	24.84	24.77	25.50	18.75	18.84	18.77	19.50	0.09
EDGE 3 Tx slots	22.69	22.86	22.84	23.70	18.43	18.60	18.58	19.44	0.17
EDGE 4 Tx slots	21.63	21.87	21.86	23.00	18.63	18.87	18.86	20.00	0.24
Mode		Max.	32.76			Max.	24.85		
Attenuator	Cable Loss : 0.6								

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	512	661	810		512	661	810		
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	29.79	30.05	30.07	30.50	20.79	21.05	21.07	21.50	
GPRS 1 Tx slot	29.64	29.86	29.91	30.20	20.64	20.86	20.91	21.20	0.43
GPRS 2 Tx slots	27.39	27.54	27.60	28.00	21.39	21.54	21.60	22.00	0.21
GPRS 3 Tx slots	25.65	25.82	25.86	26.20	21.39	21.56	21.60	21.94	0.21
GPRS 4 Tx slots	24.58	24.69	24.67	25.00	21.58	21.69	21.67	22.00	0.11
EDGE 1 Tx slot	25.93	26.08	26.04	26.50	16.93	17.08	17.04	17.50	0.15
EDGE 2 Tx slots	22.90	23.05	23.07	24.10	16.90	17.05	17.07	18.10	0.17
EDGE 3 Tx slots	21.02	21.11	21.13	22.00	16.76	16.85	16.87	17.74	0.11
EDGE 4 Tx slots	20.28	20.43	20.41	21.50	17.28	17.43	17.41	18.50	0.15
Mode		Max.	30.07			Max.	21.69		
Attenuator	Cable Loss : 0.8								

Band	WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)	
	9262	9400	9538		1312	1413	1513		4132	4182	4233		
TX Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458		
Rx Channel	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	22.95	22.98	22.89	23.80	22.83	22.87	22.76	23.80	23.50	23.61	23.58	24.30
3GPP Rel 5	HSDPA Subtest-1	22.36	22.18	21.75	23.00	22.00	21.85	21.69	23.00	22.62	22.67	22.26	23.50
3GPP Rel 5	HSDPA Subtest-2	21.34	21.15	21.06	22.00	20.94	20.88	20.77	21.50	21.78	21.89	21.27	22.50
3GPP Rel 5	HSDPA Subtest-3	20.57	20.49	20.06	21.50	20.21	20.19	19.93	21.00	20.93	21.02	20.49	22.00
3GPP Rel 5	HSDPA Subtest-4	20.48	20.34	19.98	21.00	20.16	20.12	19.87	21.00	20.83	20.86	20.42	21.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.40	22.47	22.07	23.00	21.93	21.84	21.64	22.50	22.53	22.58	22.39	23.50
3GPP Rel 8	DC-HSDPA Subtest-2	21.18	21.24	20.85	22.00	20.85	20.71	22.55	23.50	21.57	21.76	21.16	22.50
3GPP Rel 8	DC-HSDPA Subtest-3	20.29	20.35	19.95	21.00	19.70	19.80	19.62	20.50	20.66	20.72	20.65	21.50
3GPP Rel 8	DC-HSDPA Subtest-4	20.42	20.47	20.07	21.00	19.83	19.92	19.75	20.50	20.75	20.86	20.73	21.50
3GPP Rel 6	HSUPA Subtest-1	21.21	21.10	20.97	22.00	20.94	20.89	20.70	21.50	21.44	21.46	21.39	22.00
3GPP Rel 6	HSUPA Subtest-2	21.15	21.18	20.91	22.00	20.87	20.79	20.68	21.50	21.42	21.56	21.40	22.50
3GPP Rel 6	HSUPA Subtest-3	21.01	20.92	20.64	22.00	20.67	20.68	20.47	21.50	21.39	21.48	21.11	22.00
3GPP Rel 6	HSUPA Subtest-4	22.17	22.20	21.87	23.00	21.97	21.93	21.63	22.50	22.63	22.65	22.34	23.50
3GPP Rel 6	HSUPA Subtest-5	21.16	21.10	20.79	22.00	20.90	20.97	20.64	21.50	21.69	21.74	21.25	22.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	20.35	20.36	20.10	21.00	20.22	20.02	19.90	21.00	21.24	21.23	21.34	22.00
Attenuator		Cable Loss	0.8			Cable Loss	0.8			Cable Loss	0.6		
Mode		Max.	22.98			Max.	22.87			Max.	23.61		

Band 2 (1900MHz Band) (dBm)							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1880	1880	1900	
20	QPSK	1	0	22.36	22.41	22.20	23.3
20	QPSK	1	49	22.29	22.33	22.17	
20	QPSK	1	99	22.24	22.30	22.11	
20	QPSK	50	0	21.21	21.25	21.13	22.3
20	QPSK	50	24	21.15	21.20	21.05	
20	QPSK	50	50	21.04	21.11	20.98	
20	QPSK	100	0	21.12	21.17	21.02	22.3
20	16QAM	1	0	21.33	21.36	21.22	
20	16QAM	1	49	21.27	21.31	21.14	
20	16QAM	1	99	21.22	21.26	21.16	21.3
20	16QAM	50	0	20.23	20.28	20.14	
20	16QAM	50	24	20.17	20.24	20.09	
20	16QAM	50	50	20.10	20.15	20.01	21.3
20	16QAM	100	0	20.15	20.20	20.08	
20	64QAM	1	0	20.31	20.35	20.19	
20	64QAM	1	49	20.26	20.32	20.13	21.3
20	64QAM	1	99	20.20	20.27	20.14	
20	64QAM	50	0	19.22	19.26	19.12	
20	64QAM	50	24	19.19	19.23	19.05	20.3
20	64QAM	50	50	19.08	19.14	18.99	
20	64QAM	100	0	19.14	19.18	19.03	
Channel				18675	18900	19125	
Frequency (MHz)				18675	1880	1902.5	
15	QPSK	1	0	22.34	22.39	22.04	23.3
15	QPSK	1	37	22.14	22.37	22.16	
15	QPSK	1	74	22.09	22.20	22.17	
15	QPSK	36	0	21.34	21.36	21.07	22.3
15	QPSK	36	20	20.98	21.20	20.96	
15	QPSK	36	39	21.14	21.05	21.00	
15	QPSK	75	0	21.01	21.00	21.16	22.3
15	16QAM	1	0	21.35	21.39	21.16	
15	16QAM	1	37	21.08	21.18	21.21	
15	16QAM	1	74	21.28	21.30	21.16	21.3
15	16QAM	36	0	20.27	20.19	20.08	
15	16QAM	36	20	20.13	20.04	20.12	
15	16QAM	36	39	20.10	20.13	20.14	21.3
15	16QAM	75	0	19.96	20.11	20.09	
15	64QAM	1	0	20.43	20.16	20.34	
15	64QAM	1	37	20.30	20.28	20.07	21.3
15	64QAM	1	74	20.13	20.25	20.29	
15	64QAM	36	0	19.14	19.33	19.15	
15	64QAM	36	20	19.11	19.25	18.89	20.3
15	64QAM	36	39	19.04	19.11	18.88	
15	64QAM	75	0	19.11	18.98	19.07	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	22.29	22.34	22.28	23.3
10	QPSK	1	25	22.26	22.26	22.29	
10	QPSK	1	49	22.25	22.20	21.98	
10	QPSK	25	0	21.12	21.15	21.12	22.3
10	QPSK	25	12	21.24	21.24	20.98	
10	QPSK	25	25	20.85	21.04	20.92	
10	QPSK	50	0	21.10	21.14	21.11	22.3
10	16QAM	1	0	21.38	21.33	21.12	
10	16QAM	1	25	21.07	21.25	21.02	
10	16QAM	1	49	21.14	21.17	21.06	21.3
10	16QAM	25	0	20.14	20.17	20.08	
10	16QAM	25	12	20.19	20.15	20.08	
10	16QAM	25	25	19.94	20.20	19.93	21.3
10	16QAM	50	0	20.27	20.19	19.98	
10	64QAM	1	0	20.13	20.27	20.00	
10	64QAM	1	25	20.08	20.32	20.03	21.3
10	64QAM	1	49	20.03	20.39	20.08	
10	64QAM	25	0	19.03	19.31	19.00	
10	64QAM	25	12	19.05	19.30	19.01	20.3
10	64QAM	25	25	18.98	19.23	19.04	
10	64QAM	50	0	19.12	19.05	19.06	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	22.31	22.35	22.19	23.3
5	QPSK	1	12	22.34	22.17	22.00	
5	QPSK	1	24	22.21	22.29	22.00	
5	QPSK	12	0	21.29	21.21	20.93	22.3
5	QPSK	12	7	20.95	21.09	21.05	
5	QPSK	12	13	21.01	20.92	20.91	
5	QPSK	25	0	21.26	21.22	21.02	22.3
5	16QAM	1	0	21.30	21.44	21.25	
5	16QAM	1	12	21.42	21.42	21.08	
5	16QAM	1	24	21.19	21.08	21.10	21.3
5	16QAM	12	0	20.35	20.39	20.12	
5	16QAM	12	7	20.08	20.29	20.00	
5	16QAM	12	13	20.10	20.26	19.98	21.3
5	16QAM	25	0	20.15	20.29	19.97	
5	64QAM	1	0	20.19	20.29	20.11	
5	64QAM	1	12	20.37	20.37	20.03	21.3
5	64QAM	1	24	20.25	20.19	19.97	
5	64QAM	12	0	19.13	19.23	19.20	
5	64QAM	12	7	19.18	19.33	19.18	20.3
5	64QAM	12	13	18.91	19.29	18.94	
5	64QAM	25	0	19.11	19.02	19.04	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	22.28	22.38	22.25	23.3
3	QPSK	1	8	22.22	22.28	22.24	
3	QPSK	1	14	22.19	22.29	22.21	
3	QPSK	8	0	21.28	21.34	21.15	22.3
3	QPSK	8	4	21.07	21.11	20.92	
3	QPSK	8	7	20.87	21.06	20.95	

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				20950	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	22.86	22.95	22.92	23.8
20	QPSK	1	49	22.68	22.84	22.62	
20	QPSK	1	99	22.73	22.78	22.65	
20	QPSK	50	0	21.64	21.72	21.62	22.8
20	QPSK	50	24	21.56	21.69	21.47	
20	QPSK	50	50	21.42	21.56	21.49	
20	QPSK	100	0	21.53	21.68	21.61	22.8
20	16QAM	1	0	21.91	21.93	21.81	
20	16QAM	1	49	21.55	21.81	21.52	
20	16QAM	1	99	21.51	21.61	21.78	21.8
20	16QAM	50	0	20.81	20.80	20.41	
20	16QAM	50	24	20.59	20.63	20.47	
20	16QAM	50	50	20.81	20.73	20.47	21.8
20	16QAM	100	0	20.82	20.77	20.50	
20	64QAM	1	0	20.66	20.84	20.76	
20	64QAM	1	49	20.59	20.79	20.58	21.8
20	64QAM	1	99	20.75	20.75	20.75	
20	64QAM	50	0	19.59	19.85	19.60	
20	64QAM	50	24	19.46	19.80	19.56	20.8
20	64QAM	50	50	19.47	19.67	19.60	
20	64QAM	100	0	19.57	19.72	19.43	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	22.79	22.90	22.83	23.8
15	QPSK	1	37	22.82	22.72	22.64	
15	QPSK	1	74	22.59	22.83	22.56	
15	QPSK	36	0	21.60	21.78	21.57	22.8
15	QPSK	36	20	21.54	21.75	21.51	
15	QPSK	36	39	21.64	21.42	21.46	
15	QPSK	75	0	21.71	21.57	21.46	22.8
15	16QAM	1	0	21.61	21.82	21.77	
15	16QAM	1	37	21.81	21.85	21.74	
15	16QAM	1	74	21.83	21.58	21.62	21.8
15	16QAM	36	0	20.73	20.78	20.62	
15	16QAM	36	20	20.74	20.64	20.65	
15	16QAM	36	39	20.42	20.49	20.35	21.8
15	16QAM	75	0	20.54	20.59	20.56	
15	64QAM	1	0	20.79	20.80	20.49	
15	64QAM	1	37	20.54	20.78	20.48	21.8
15	64QAM	1	74	20.61	20.72	20.43	
15	64QAM	36	0	19.67	19.82	19.74	
15	64QAM	36	20	19.47	19.75	19.42	20.8
15	64QAM	36	39	19.68	19.71	19.46	
15	64QAM	75	0	19.75	19.64	19.51	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.68	22.91	22.85	23.8
10	QPSK	1	25	22.71	22.86	22.72	
10	QPSK	1	49	22.55	22.67	22.56	
10	QPSK	25	0	21.79	21.72	21.58	22.8
10	QPSK	25	12	21.50	21.69	21.52	
10	QPSK	25	25	21.60	21.45	21.48	
10	QPSK	50	0	21.70	21.61	21.51	22.8
10	16QAM	1	0	21.64	21.69	21.77	
10	16QAM	1	25	21.76	21.78	21.76	
10	16QAM	1	49	21.59	21.82	21.49	21.8
10	16QAM	25	0	20.58	20.88	20.72	
10	16QAM	25	12	20.60	20.78	20.61	



3	QPSK	15	0	21.11	21.08	21.13	22.3
3	16QAM	1	0	21.36	21.43	21.27	
3	16QAM	1	8	21.29	21.17	21.22	
3	16QAM	1	14	21.25	21.33	21.24	21.3
3	16QAM	8	0	20.08	20.30	20.00	
3	16QAM	8	4	20.25	20.15	19.90	
3	16QAM	8	7	20.21	20.14	19.93	21.3
3	16QAM	15	0	19.99	20.32	20.19	
3	64QAM	1	0	20.40	20.21	20.22	
3	64QAM	1	8	20.17	20.24	20.11	21.3
3	64QAM	1	14	20.26	20.34	20.18	
3	64QAM	8	0	19.14	19.27	19.04	
3	64QAM	8	4	19.12	19.13	19.08	20.3
3	64QAM	8	7	19.03	19.17	18.94	
3	64QAM	15	0	19.09	19.00	18.89	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	22.28	22.37	22.06	23.3
1.4	QPSK	1	3	22.15	22.24	22.25	
1.4	QPSK	1	5	22.22	22.14	22.02	
1.4	QPSK	3	0	21.13	21.25	21.16	
1.4	QPSK	3	1	21.26	21.09	20.88	
1.4	QPSK	3	3	21.05	20.94	20.90	
1.4	QPSK	6	0	21.07	21.03	20.97	22.3
1.4	16QAM	1	0	21.37	21.40	21.10	22.3
1.4	16QAM	1	3	21.24	21.24	21.22	
1.4	16QAM	1	5	21.14	21.33	21.02	
1.4	16QAM	3	0	20.31	20.21	20.06	
1.4	16QAM	3	1	20.27	20.16	19.89	
1.4	16QAM	3	3	19.91	20.04	19.88	
1.4	16QAM	6	0	20.22	20.20	20.22	21.3
1.4	64QAM	1	0	20.37	20.42	20.27	21.3
1.4	64QAM	1	3	20.33	20.13	20.06	
1.4	64QAM	1	5	20.25	20.33	20.11	
1.4	64QAM	3	0	19.26	19.22	19.06	
1.4	64QAM	3	1	19.32	19.37	18.97	
1.4	64QAM	3	3	19.05	19.27	18.95	
1.4	64QAM	6	0	19.07	19.10	19.15	20.3

3	QPSK	15	0	21.58	21.48	21.38	22.8
3	16QAM	1	0	21.87	21.78	21.74	
3	16QAM	1	8	21.69	21.85	21.64	
3	16QAM	1	14	21.73	21.82	21.71	21.8
3	16QAM	8	0	20.65	20.82	20.50	
3	16QAM	8	4	20.74	20.58	20.59	
3	16QAM	8	7	20.66	20.62	20.54	21.8
3	16QAM	15	0	20.43	20.48	20.44	
3	64QAM	1	0	20.66	20.77	20.70	
3	64QAM	1	8	20.77	20.79	20.72	21.8
3	64QAM	1	14	20.51	20.69	20.53	
3	64QAM	8	0	19.72	19.80	19.74	
3	64QAM	8	4	19.51	19.73	19.46	20.8
3	64QAM	8	7	19.66	19.76	19.55	
3	64QAM	15	0	19.56	19.64	19.44	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	22.78	22.88	22.80	23.8
1.4	QPSK	1	3	22.75	22.84	22.68	
1.4	QPSK	1	5	22.75	22.71	22.53	
1.4	QPSK	3	0	21.77	21.68	21.54	
1.4	QPSK	3	1	21.53	21.55	21.66	
1.4	QPSK	3	3	21.53	21.68	21.50	
1.4	QPSK	6	0	21.60	21.59	21.35	22.8
1.4	16QAM	1	0	21.86	21.76	21.54	22.8
1.4	16QAM	1	3	21.54	21.84	21.74	
1.4	16QAM	1	5	21.65	21.63	21.48	
1.4	16QAM	3	0	20.75	20.85	20.72	
1.4	16QAM	3	1	20.71	20.54	20.59	
1.4	16QAM	3	3	20.71	20.77	20.61	
1.4	16QAM	6	0	20.70	20.48	20.50	21.8
1.4	64QAM	1	0	20.71	20.84	20.73	21.8
1.4	64QAM	1	3	20.73	20.71	20.74	
1.4	64QAM	1	5	20.73	20.82	20.56	
1.4	64QAM	3	0	19.81	19.72	19.66	
1.4	64QAM	3	1	19.46	19.66	19.52	
1.4	64QAM	3	3	19.44	19.58	19.60	
1.4	64QAM	6	0	19.53	19.48	19.45	20.8

Band 5 (Cellular Band) (dBm) Part 22H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	24.3
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	23.46	23.54	23.51	24.3
10	QPSK	1	25	23.24	23.43	23.28	
10	QPSK	1	49	23.27	23.28	23.39	
10	QPSK	25	0	22.24	22.40	22.29	23.3
10	QPSK	25	12	22.16	22.39	22.19	
10	QPSK	25	25	22.23	22.16	22.08	
10	QPSK	50	0	22.07	22.17	22.20	23.3
10	16QAM	1	0	22.38	22.47	22.45	
10	16QAM	1	25	22.14	22.39	22.40	
10	16QAM	1	49	22.17	22.38	22.42	22.3
10	16QAM	25	0	21.35	21.38	21.34	
10	16QAM	25	12	21.16	21.29	21.30	
10	16QAM	25	25	21.18	21.23	21.12	22.3
10	16QAM	50	0	21.20	21.36	21.14	
10	64QAM	1	0	21.36	21.50	21.22	
10	64QAM	1	25	21.25	21.45	21.36	22.3
10	64QAM	1	49	21.27	21.43	21.47	
10	64QAM	25	0	20.13	20.27	20.17	
10	64QAM	25	12	20.07	20.13	20.36	21.3
10	64QAM	25	25	20.11	20.17	20.27	
10	64QAM	50	0	20.10	20.29	20.20	
Channel				20425	20525	20625	24.3
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	23.34	23.50	23.41	24.3
5	QPSK	1	12	23.29	23.41	23.24	
5	QPSK	1	24	23.31	23.34	23.22	
5	QPSK	12	0	22.25	22.46	22.37	23.3
5	QPSK	12	7	22.12	22.31	22.14	
5	QPSK	12	13	22.07	22.14	22.11	
5	QPSK	25	0	22.16	22.38	22.09	23.3
5	16QAM	1	0	22.22	22.46	22.37	
5	16QAM	1	12	22.35	22.23	22.28	
5	16QAM	1	24	22.24	22.45	22.25	22.3
5	16QAM	12	0	21.20	21.40	21.18	
5	16QAM	12	7	21.13	21.33	21.17	
5	16QAM	12	13	21.09	21.29	21.25	22.3
5	16QAM	25	0	21.13	21.29	21.18	
5	64QAM	1	0	21.25	21.49	21.39	
5	64QAM	1	12	21.09	21.26	21.35	22.3
5	64QAM	1	24	21.20	21.35	21.12	
5	64QAM	12	0	20.10	20.48	20.19	
5	64QAM	12	7	20.22	20.26	20.27	21.3
5	64QAM	12	13	20.24	20.20	20.15	
5	64QAM	25	0	20.15	20.06	20.22	
Channel				20415	20525	20635	24.3
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	23.35	23.51	23.38	24.3
3	QPSK	1	8	23.29	23.35	23.36	
3	QPSK	1	14	23.16	23.25	23.33	
3	QPSK	8	0	22.24	22.46	22.32	23.3
3	QPSK	8	4	22.19	22.32	22.12	
3	QPSK	8	7	22.22	22.26	22.18	
3	QPSK	15	0	22.03	22.39	22.08	23.3
3	16QAM	1	0	22.27	22.48	22.37	
3	16QAM	1	8	22.13	22.34	22.24	
3	16QAM	1	14	22.27	22.39	22.19	22.3
3	16QAM	8	0	21.10	21.46	21.19	
3	16QAM	8	4	21.23	21.47	21.10	
3	16QAM	8	7	21.09	21.30	21.29	22.3
3	16QAM	15	0	21.13	21.11	21.28	
3	64QAM	1	0	21.18	21.24	21.41	
3	64QAM	1	8	21.08	21.23	21.13	22.3
3	64QAM	1	14	21.18	21.42	21.30	
3	64QAM	8	0	20.23	20.40	20.14	
3	64QAM	8	4	20.17	20.44	20.31	21.3
3	64QAM	8	7	20.08	20.09	20.05	
3	64QAM	15	0	20.15	20.08	20.25	
Channel				20407	20525	20643	24.3
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	23.29	23.49	23.41	24.3
1.4	QPSK	1	3	23.37	23.33	23.40	
1.4	QPSK	1	5	23.29	23.31	23.21	
1.4	QPSK	3	0	22.33	22.43	22.26	23.3
1.4	QPSK	3	1	22.27	22.41	22.26	
1.4	QPSK	3	3	22.08	22.11	22.17	
1.4	QPSK	6	0	22.22	22.29	22.08	23.3
1.4	16QAM	1	0	22.11	22.33	22.31	
1.4	16QAM	1	3	22.13	22.31	22.25	
1.4	16QAM	1	5	22.28	22.24	22.41	23.3
1.4	16QAM	3	0	21.17	21.32	21.16	
1.4	16QAM	3	1	21.20	21.28	21.16	
1.4	16QAM	3	3	21.11	21.28	21.30	22.3
1.4	16QAM	6	0	21.17	21.30	21.25	
1.4	64QAM	1	0	21.38	21.26	21.19	
1.4	64QAM	1	3	21.29	21.36	21.32	22.3
1.4	64QAM	1	5	21.31	21.27	21.43	
1.4	64QAM	3	0	20.19	20.39	20.26	
1.4	64QAM	3	1	20.14	20.37	20.08	21.3
1.4	64QAM	3	3	20.11	20.35	20.24	
1.4	64QAM	6	0	20.07	20.29	20.16	

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	24.8
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	23.54	23.63	23.55	24.8
20	QPSK	1	49	23.54	23.47	23.40	
20	QPSK	1	99	23.40	23.45	23.36	
20	QPSK	50	0	22.47	22.52	22.37	23.8
20	QPSK	50	24	22.43	22.39	22.30	
20	QPSK	50	50	22.23	22.37	22.40	
20	QPSK	100	0	22.26	22.41	22.35	23.8
20	16QAM	1	0	22.40	22.60	22.44	
20	16QAM	1	49	22.53	22.45	22.48	
20	16QAM	1	99	22.29	22.53	22.32	22.8
20	16QAM	50	0	21.45	21.53	21.50	
20	16QAM	50	24	21.34	21.51	21.44	
20	16QAM	50	50	21.37	21.51	21.38	22.8
20	16QAM	100	0	21.25	21.47	21.48	
20	64QAM	1	0	21.45	21.57	21.49	
20	64QAM	1	49	21.31	21.41	21.32	22.8
20	64QAM	1	99	21.35	21.39	21.48	
20	64QAM	50	0	20.47	20.52	20.39	
20	64QAM	50	24	20.31	20.27	20.37	21.8
20	64QAM	50	50	20.17	20.47	20.30	
20	64QAM	100	0	20.19	20.47	20.31	
Channel				20825	21100	21375	24.8
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	23.55	23.58	23.55	24.8
15	QPSK	1	37	23.37	23.38	23.47	
15	QPSK	1	74	23.32	23.44	23.40	
15	QPSK	36	0	22.37	22.47	22.43	23.8
15	QPSK	36	20	22.25	22.28	22.23	
15	QPSK	36	39	22.38	22.44	22.32	
15	QPSK	75	0	22.20	22.22	22.33	23.8
15	16QAM	1	0	22.53	22.55	22.46	
15	16QAM	1	37	22.38	22.48	22.33	
15	16QAM	1	74	22.43	22.45	22.42	22.8
15	16QAM	36	0	21.47	21.49	21.49	
15	16QAM	36	20	21.36	21.43	21.45	
15	16QAM	36	39	21.27	21.33	21.41	22.8
15	16QAM	75	0	21.30	21.48	21.44	
15	64QAM	1	0	21.29	21.54	21.49	
15	64QAM	1	37	21.45	21.46	21.41	22.8
15	64QAM	1	74	21.37	21.31	21.43	
15	64QAM	36	0	20.45	20.46	20.37	
15	64QAM	36	20	20.43	20.29	20.35	21.8
15	64QAM	36	39	20.24	20.29	20.32	
15	64QAM	75	0	20.35	20.42	20.32	
Channel				20800.88	21100.88	21400.88	24.8
Frequency (MHz)				2505.08	2535.08	2565.08	
10	QPSK	1	0	23.54	23.57	23.43	24.8
10	QPSK	1	25	23.45	23.43	23.34	
10	QPSK	1	49	23.50	23.42	23.36	
10	QPSK	25	0	22.38	22.50	22.28	23.8
10	QPSK	25	12	22.33	22.49	22.42	
10	QPSK	25	25	22.16	22.36	22.30	
10	QPSK	50	0	22.27	22.35	22.43	23.8
10	16QAM	1	0	22.43	22.56	22.40	
10	16QAM	1	25	22.45	22.55	22.38	
10	16QAM	1	49	22.33	22.51	22.46	22.8
10	16QAM	25	0	21.35	21.48	21.47	
10	16QAM	25	12	21.45	21.46	21.33	
10	16QAM	25	25	21.37	21.22	21.38	22.8
10	16QAM	50	0	21.25	21.36	21.39	
10	64QAM	1	0	21.29	21.57	21.41	
10	64QAM	1	25	21.29	21.39	21.49	22.8
10	64QAM	1	49	21.28	21.35	21.47	
10	64QAM	25	0	20.25	20.46	20.33	
10	64QAM	25	12	20.18	20.41	20.44	21.8
10	64QAM	2					

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	23.53	23.67	23.63	24.3
10	QPSK	1	25	23.37	23.60	23.61	
10	QPSK	1	49	23.36	23.39	23.36	
10	QPSK	25	0	22.39	22.49	22.46	23.3
10	QPSK	25	12	22.30	22.41	22.44	
10	QPSK	25	25	22.25	22.28	22.27	
10	QPSK	50	0	22.28	22.36	22.40	23.3
10	16QAM	1	0	22.47	22.66	22.64	
10	16QAM	1	25	22.43	22.48	22.44	
10	16QAM	1	49	22.40	22.56	22.47	22.3
10	16QAM	25	0	21.35	21.51	21.44	
10	16QAM	25	12	21.24	21.44	21.28	
10	16QAM	25	25	21.29	21.48	21.47	22.3
10	16QAM	50	0	21.30	21.44	21.36	
10	64QAM	1	0	21.48	21.63	21.53	
10	64QAM	1	25	21.52	21.61	21.51	22.3
10	64QAM	1	49	21.35	21.63	21.36	
10	64QAM	25	0	20.40	20.50	20.33	
10	64QAM	25	12	20.39	20.34	20.37	21.3
10	64QAM	25	25	20.21	20.47	20.43	
10	64QAM	50	0	20.27	20.45	20.39	
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	23.31	23.64	23.60	24.3
5	QPSK	1	12	23.50	23.45	23.49	
5	QPSK	1	24	23.39	23.57	23.57	
5	QPSK	12	0	22.44	22.49	22.45	23.3
5	QPSK	12	7	22.36	22.24	22.31	
5	QPSK	12	13	22.18	22.48	22.32	
5	QPSK	25	0	22.25	22.31	22.26	23.3
5	16QAM	1	0	22.52	22.57	22.53	
5	16QAM	1	12	22.36	22.56	22.44	
5	16QAM	1	24	22.47	22.48	22.50	22.3
5	16QAM	12	0	21.37	21.50	21.47	
5	16QAM	12	7	21.42	21.47	21.33	
5	16QAM	12	13	21.37	21.35	21.29	22.3
5	16QAM	25	0	21.23	21.43	21.42	
5	64QAM	1	0	21.35	21.60	21.51	
5	64QAM	1	12	21.42	21.57	21.56	22.3
5	64QAM	1	24	21.29	21.58	21.33	
5	64QAM	12	0	20.29	20.42	20.40	
5	64QAM	12	7	20.14	20.30	20.37	21.3
5	64QAM	12	13	20.32	20.41	20.22	
5	64QAM	25	0	20.32	20.48	20.35	
Channel				23025	23095	23165	
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	23.50	23.62	23.61	24.3
3	QPSK	1	8	23.51	23.59	23.52	
3	QPSK	1	14	23.39	23.54	23.46	
3	QPSK	8	0	22.30	22.53	22.32	23.3
3	QPSK	8	4	22.20	22.42	22.50	
3	QPSK	8	7	22.26	22.30	22.23	
3	QPSK	15	0	22.35	22.26	22.38	23.3
3	16QAM	1	0	22.38	22.59	22.51	
3	16QAM	1	8	22.49	22.57	22.45	
3	16QAM	1	14	22.35	22.56	22.39	22.3
3	16QAM	8	0	21.41	21.51	21.55	
3	16QAM	8	4	21.40	21.50	21.51	
3	16QAM	8	7	21.36	21.50	21.35	22.3
3	16QAM	15	0	21.31	21.43	21.52	
3	64QAM	1	0	21.50	21.56	21.53	
3	64QAM	1	8	21.43	21.62	21.44	22.3
3	64QAM	1	14	21.32	21.64	21.35	
3	64QAM	8	0	20.29	20.46	20.44	
3	64QAM	8	4	20.12	20.44	20.25	21.3
3	64QAM	8	7	20.35	20.42	20.31	
3	64QAM	15	0	20.20	20.41	20.30	
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	23.44	23.63	23.39	24.3
1.4	QPSK	1	3	23.45	23.39	23.40	
1.4	QPSK	1	5	23.31	23.47	23.49	
1.4	QPSK	3	0	22.25	22.60	22.60	23.3
1.4	QPSK	3	1	22.28	22.45	22.41	
1.4	QPSK	3	3	22.31	22.22	22.38	
1.4	QPSK	6	0	22.24	22.29	22.38	23.3
1.4	16QAM	1	0	22.40	22.49	22.41	
1.4	16QAM	1	3	22.43	22.53	22.53	
1.4	16QAM	1	5	22.44	22.60	22.42	23.3
1.4	16QAM	3	0	21.37	21.50	21.42	
1.4	16QAM	3	1	21.31	21.43	21.35	
1.4	16QAM	3	3	21.28	21.37	21.23	22.3
1.4	16QAM	6	0	21.31	21.57	21.55	
1.4	64QAM	1	0	21.51	21.55	21.52	
1.4	64QAM	1	3	21.46	21.45	21.49	22.3
1.4	64QAM	1	5	21.28	21.43	21.41	
1.4	64QAM	3	0	20.43	20.45	20.29	
1.4	64QAM	3	1	20.36	20.40	20.39	21.3
1.4	64QAM	3	3	20.25	20.33	20.26	
1.4	64QAM	6	0	20.17	20.21	20.22	

Band 13(700MHz Band) (dBm) Part 27F							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23230			
Frequency (MHz)				782			
10	QPSK	1	0		23.59		24.3
10	QPSK	1	25		23.47		
10	QPSK	1	49		23.42		
10	QPSK	25	0		22.46		23.3
10	QPSK	25	12		22.39		
10	QPSK	25	25		22.34		
10	QPSK	50	0		22.41		23.3
10	16QAM	1	0		22.47		
10	16QAM	1	25		22.40		
10	16QAM	1	49		22.36		22.3
10	16QAM	25	0		21.40		
10	16QAM	25	12		21.35		
10	16QAM	25	25		21.28		22.3
10	16QAM	50	0		21.33		
10	64QAM	1	0		21.53		
10	64QAM	1	25		21.48		22.3
10	64QAM	1	49		21.44		
10	64QAM	25	0		20.41		
10	64QAM	25	12		20.33		21.3
10	64QAM	25	25		20.30		
10	64QAM	50	0		20.36		
Channel				23205	23230	23255	
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.42	23.55	23.49	24.3
5	QPSK	1	12	23.47	23.48	23.45	
5	QPSK	1	24	23.30	23.42	23.41	
5	QPSK	12	0	22.26	22.41	22.27	23.3
5	QPSK	12	7	22.20	22.37	22.17	
5	QPSK	12	13	22.30	22.25	22.30	
5	QPSK	25	0	22.33	22.51	22.28	23.3
5	16QAM	1	0	22.44	22.50	22.49	
5	16QAM	1	12	22.42	22.47	22.30	
5	16QAM	1	24	22.46	22.46	22.42	22.3
5	16QAM	12	0	21.39	21.48	21.36	
5	16QAM	12	7	21.40	21.35	21.33	
5	16QAM	12	13	21.22	21.41	21.37	22.3
5	16QAM	25	0	21.28	21.36	21.31	
5	64QAM	1	0	21.36	21.59	21.51	
5	64QAM	1	12	21.52	21.57	21.45	22.3
5	64QAM	1	24	21.28	21.33	21.27	
5	64QAM	12	0	20.25	20.55	20.50	
5	64QAM	12	7	20.19	20.24	20.41	21.3
5	64QAM	12	13	20.31	20.36	20.25	
5	64QAM	25	0	20.18	20.33	20.19	

Band 17 (700MHz Band) (dBm) Part 27H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	23.48	23.58	23.54	24.3
10	QPSK	1	25	23.36	23.45	23.27	
10	QPSK	1	49	23.26	23.38	23.47	23.3
10	QPSK	25	0	22.22	22.40	22.32	
10	QPSK	25	12	22.23	22.28	22.26	23.3
10	QPSK	25	25	22.22	22.32	22.23	
10	QPSK	50	0	22.27	22.35	22.30	23.3
10	16QAM	1	0	22.44	22.52	22.38	
10	16QAM	1	25	22.34	22.42	22.28	22.3
10	16QAM	1	49	22.32	22.46	22.47	
10	16QAM	25	0	21.30	21.37	21.29	22.3
10	16QAM	25	12	21.21	21.35	21.23	
10	16QAM	25	25	21.15	21.29	21.20	22.3
10	16QAM	50	0	21.27	21.23	21.23	
10	64QAM	1	0	21.31	21.54	21.39	22.3
10	64QAM	1	25	21.35	21.53	21.23	
10	64QAM	1	49	21.27	21.48	21.42	21.3
10	64QAM	25	0	20.27	20.40	20.24	
10	64QAM	25	12	20.21	20.30	20.15	21.3
10	64QAM	25	25	20.21	20.35	20.23	
10	64QAM	50	0	20.24	20.33	20.26	
Channel				23755	23790	23825	
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	23.46	23.54	23.48	24.3
5	QPSK	1	12	23.36	23.33	23.45	
5	QPSK	1	24	23.30	23.42	23.33	23.3
5	QPSK	12	0	22.38	22.45	22.31	
5	QPSK	12	7	22.25	22.40	22.39	23.3
5	QPSK	12	13	22.22	22.29	22.33	
5	QPSK	25	0	22.26	22.34	22.24	23.3
5	16QAM	1	0	22.41	22.55	22.47	
5	16QAM	1	12	22.33	22.40	22.24	22.3
5	16QAM	1	24	22.30	22.39	22.36	
5	16QAM	12	0	21.33	21.49	21.47	22.3
5	16QAM	12	7	21.25	21.38	21.37	
5	16QAM	12	13	21.29	21.31	21.32	22.3
5	16QAM	25	0	21.12	21.33	21.21	
5	64QAM	1	0	21.50	21.46	21.40	22.3
5	64QAM	1	12	21.30	21.30	21.33	
5	64QAM	1	24	21.33	21.54	21.28	21.3
5	64QAM	12	0	20.35	20.46	20.45	
5	64QAM	12	7	20.28	20.42	20.28	21.3
5	64QAM	12	13	20.18	20.33	20.19	
5	64QAM	25	0	20.29	20.37	20.15	

Band 18 (835MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23925	23925	23925	
Frequency (MHz)				822.5	822.5	822.5	
15	QPSK	1	0		23.59		24.3
15	QPSK	1	37		23.52		
15	QPSK	1	74		23.45		23.3
15	QPSK	36	0		22.47		
15	QPSK	36	20		22.38		23.3
15	QPSK	36	39		22.32		
15	QPSK	75	0		22.35		23.3
15	16QAM	1	0		22.53		
15	16QAM	1	37		22.44		22.3
15	16QAM	1	74		22.45		
15	16QAM	36	0		21.43		22.3
15	16QAM	36	20		21.37		
15	16QAM	36	39		21.34		22.3
15	16QAM	75	0		21.36		
15	64QAM	1	0		21.50		22.3
15	64QAM	1	25		21.44		
15	64QAM	1	49		21.37		21.3
15	64QAM	25	0		20.44		
15	64QAM	25	12		20.38		21.3
15	64QAM	25	25		20.32		
15	64QAM	50	0		20.39		
Channel				23900	23925	23950	
Frequency (MHz)				820	822.5	825	
10	QPSK	1	0	23.48	23.54	23.45	24.3
10	QPSK	1	25	23.37	23.49	23.41	
10	QPSK	1	49	23.43	23.50	23.36	23.3
10	QPSK	25	0	22.39	22.48	22.41	
10	QPSK	25	12	22.35	22.41	22.45	23.3
10	QPSK	25	25	22.40	22.36	22.32	
10	QPSK	50	0	22.32	22.36	22.35	23.3
10	16QAM	1	0	22.49	22.50	22.44	
10	16QAM	1	25	22.34	22.45	22.33	22.3
10	16QAM	1	49	22.27	22.41	22.36	
10	16QAM	25	0	21.33	21.45	21.39	22.3
10	16QAM	25	12	21.29	21.41	21.32	
10	16QAM	25	25	21.25	21.33	21.37	22.3
10	16QAM	50	0	21.31	21.30	21.29	
10	64QAM	1	0	21.41	21.56	21.47	22.3
10	64QAM	1	25	21.36	21.38	21.38	
10	64QAM	1	49	21.28	21.42	21.34	21.3
10	64QAM	25	0	20.32	20.43	20.30	
10	64QAM	25	12	20.36	20.37	20.26	21.3
10	64QAM	25	25	20.28	20.35	20.27	
10	64QAM	50	0	20.29	20.34	20.21	
Channel				23875	23925	23975	
Frequency (MHz)				817.5	822.5	827.5	
5	QPSK	1	0	23.50	23.56	23.43	24.3
5	QPSK	1	12	23.46	23.54	23.40	
5	QPSK	1	24	23.37	23.48	23.33	23.3
5	QPSK	12	0	22.39	22.45	22.41	
5	QPSK	12	7	22.31	22.35	22.31	23.3
5	QPSK	12	13	22.33	22.37	22.36	
5	QPSK	25	0	22.27	22.40	22.26	23.3
5	16QAM	1	0	22.36	22.51	22.47	
5	16QAM	1	12	22.30	22.42	22.33	22.3
5	16QAM	1	24	22.29	22.47	22.35	
5	16QAM	12	0	21.41	21.47	21.44	22.3
5	16QAM	12	7	21.35	21.45	21.39	
5	16QAM	12	13	21.26	21.42	21.36	22.3
5	16QAM	25	0	21.29	21.41	21.32	
5	64QAM	1	0	21.44	21.52	21.41	22.3
5	64QAM	1	12	21.39	21.49	21.36	
5	64QAM	1	24	21.32	21.38	21.42	21.3
5	64QAM	12	0	20.39	20.44	20.40	
5	64QAM	12	7	20.35	20.41	20.29	21.3
5	64QAM	12	13	20.25	20.32	20.28	
5	64QAM	25	0	20.27	20.36	20.31	

Band 19 (835MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				24075			24.3
Frequency (MHz)				837.5			
15	QPSK	1	0		23.71		24.3
15	QPSK	1	37		23.68		
15	QPSK	1	74		23.52		
15	QPSK	36	0		22.60		23.3
15	QPSK	36	20		22.51		
15	QPSK	36	39		22.43		
15	QPSK	75	0		22.47		23.3
15	16QAM	1	0		22.65		
15	16QAM	1	37		22.59		
15	16QAM	1	74		22.53		22.3
15	16QAM	36	0		21.57		
15	16QAM	36	20		21.47		
15	16QAM	36	39		21.43		22.3
15	16QAM	75	0		21.46		
15	64QAM	1	0		21.66		
15	64QAM	1	25		21.63		22.3
15	64QAM	1	49		21.52		
15	64QAM	25	0		20.58		
15	64QAM	25	12		20.46		21.3
15	64QAM	25	25		20.54		
15	64QAM	50	0		20.45		
Channel				24050	24075	24100	Tune-up limit (dBm)
Frequency (MHz)				835	837.5	840	24.3
10	QPSK	1	0	23.65	23.66	23.57	
10	QPSK	1	25	23.50	23.58	23.48	23.3
10	QPSK	1	49	23.43	23.61	23.41	
10	QPSK	25	0	22.42	22.53	22.48	
10	QPSK	25	12	22.30	22.44	22.35	23.3
10	QPSK	25	25	22.39	22.50	22.46	
10	QPSK	50	0	22.41	22.46	22.33	
10	16QAM	1	0	22.59	22.61	22.48	23.3
10	16QAM	1	25	22.33	22.53	22.54	
10	16QAM	1	49	22.34	22.40	22.59	
10	16QAM	25	0	21.34	21.55	21.46	22.3
10	16QAM	25	12	21.27	21.38	21.50	
10	16QAM	25	25	21.31	21.48	21.37	
10	16QAM	50	0	21.36	21.51	21.59	22.3
10	64QAM	1	0	21.54	21.67	21.61	
10	64QAM	1	25	21.56	21.51	21.60	
10	64QAM	1	49	21.41	21.63	21.65	21.3
10	64QAM	25	0	20.41	20.53	20.44	
10	64QAM	25	12	20.45	20.50	20.38	
10	64QAM	25	25	20.35	20.44	20.36	21.3
10	64QAM	50	0	20.28	20.32	20.26	
Channel				24025	24075	24125	
Frequency (MHz)				832.5	837.5	842.5	24.3
5	QPSK	1	0	23.45	23.65	23.51	
5	QPSK	1	12	23.40	23.52	23.44	23.3
5	QPSK	1	24	23.37	23.46	23.33	
5	QPSK	12	0	22.52	22.55	22.50	
5	QPSK	12	7	22.38	22.39	22.41	23.3
5	QPSK	12	13	22.36	22.41	22.29	
5	QPSK	25	0	22.31	22.44	22.47	
5	16QAM	1	0	22.54	22.60	22.55	23.3
5	16QAM	1	12	22.53	22.39	22.38	
5	16QAM	1	24	22.42	22.47	22.47	
5	16QAM	12	0	21.53	21.56	21.47	22.3
5	16QAM	12	7	21.41	21.53	21.35	
5	16QAM	12	13	21.37	21.44	21.48	
5	16QAM	25	0	21.37	21.51	21.36	22.3
5	64QAM	1	0	21.45	21.59	21.48	
5	64QAM	1	12	21.39	21.52	21.51	
5	64QAM	1	24	21.36	21.43	21.45	21.3
5	64QAM	12	0	20.39	20.53	20.50	
5	64QAM	12	7	20.47	20.56	20.37	
5	64QAM	12	13	20.32	20.43	20.35	21.3
5	64QAM	25	0	20.31	20.25	20.39	

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	24.3
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	23.55	23.66	23.63	24.3
15	QPSK	1	37	23.50	23.53	23.56	
15	QPSK	1	74	23.43	23.55	23.54	
15	QPSK	36	0	22.44	22.57	22.53	23.3
15	QPSK	36	20	22.39	22.49	22.31	
15	QPSK	36	39	22.28	22.31	22.46	
15	QPSK	75	0	22.33	22.40	22.30	23.3
15	16QAM	1	0	22.39	22.53	22.40	
15	16QAM	1	37	22.28	22.37	22.36	
15	16QAM	1	74	22.46	22.46	22.34	22.3
15	16QAM	36	0	21.38	21.59	21.39	
15	16QAM	36	20	21.23	21.55	21.51	
15	16QAM	36	39	21.42	21.58	21.43	22.3
15	16QAM	75	0	21.39	21.44	21.33	
15	64QAM	1	0	21.36	21.58	21.41	
15	64QAM	1	37	21.52	21.56	21.49	22.3
15	64QAM	1	74	21.28	21.48	21.35	
15	64QAM	36	0	20.47	20.53	20.49	
15	64QAM	36	20	20.44	20.50	20.46	21.3
15	64QAM	36	39	20.28	20.33	20.45	
15	64QAM	75	0	20.35	20.46	20.42	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	24.3
10	QPSK	1	0	23.46	23.64	23.57	
10	QPSK	1	25	23.29	23.51	23.43	23.3
10	QPSK	1	49	23.38	23.53	23.42	
10	QPSK	25	0	22.30	22.47	22.45	
10	QPSK	25	12	22.28	22.33	22.27	23.3
10	QPSK	25	25	22.32	22.41	22.30	
10	QPSK	50	0	22.22	22.30	22.29	
10	16QAM	1	0	22.64	22.44	22.59	23.3
10	16QAM	1	25	22.36	22.43	22.47	
10	16QAM	1	49	22.53	22.55	22.55	
10	16QAM	25	0	21.31	21.48	21.46	22.3
10	16QAM	25	12	21.20	21.37	21.39	
10	16QAM	25	25	21.28	21.32	21.22	
10	16QAM	50	0	21.31	21.35	21.34	22.3
10	64QAM	1	0	21.62	21.44	21.50	
10	64QAM	1	25	21.43	21.62	21.38	
10	64QAM	1	49	21.37	21.45	21.56	21.3
10	64QAM	25	0	20.39	20.58	20.52	
10	64QAM	25	12	20.29	20.41	20.35	
10	64QAM	25	25	20.34	20.57	20.28	21.3
10	64QAM	50	0	20.38	20.35	20.21	
Channel				26715	26865	27015	
Frequency (MHz)				816.5	831.5	846.5	24.3
5	QPSK	1	0	23.42	23.61	23.48	
5	QPSK	1	12	23.41	23.55	23.45	23.3
5	QPSK	1	24	23.34	23.39	23.36	
5	QPSK	12	0	22.40	22.49	22.44	
5	QPSK	12	7	22.27	22.41	22.37	23.3
5	QPSK	12	13	22.33	22.30	22.26	
5	QPSK	25	0	22.31	22.46	22.31	
5	16QAM	1	0	22.60	22.63	22.60	23.3
5	16QAM	1	12	22.35	22.62	22.40	
5	16QAM	1	24	22.41	22.50	22.51	
5	16QAM	12	0	21.50	21.53	21.50	22.3
5	16QAM	12	7	21.46	21.44	21.38	
5	16QAM	12	13	21.43	21.24	21.22	
5	16QAM	25	0	21.24	21.60	21.44	22.3
5	64QAM	1	0	21.39	21.63	21.47	
5	64QAM	1	12	21.28	21.59	21.59	
5	64QAM	1	24	21.34	21.61	21.44	21.3
5	64QAM	12	0	20.55	20.56	20.53	
5	64QAM	12	7	20.47	20.40	20.50	
5	64QAM	12	13	20.30	20.23	20.26	21.3
5	64QAM	25	0	20.12	20.34	20.24	
Channel				26705	26865	27025	
Frequency (MHz)				815.5	831.5	847.5	24.3
3	QPSK	1	0	23.48	23.62	23.53	
3	QPSK	1	8	23.56	23.55	23.55	23.3
3	QPSK	1	14	23.29	23.51	23.46	
3	QPSK	8	0	22.32	22.54	22.42	
3	QPSK	8	4	22.23	22.37	22.49	23.3
3	QPSK	8	7	22.32	22.34	22.23	
3	QPSK	15	0	22.32	22.25	22.42	
3	16QAM	1	0	22.44	22.62	22.49	23.3
3	16QAM	1	8	22.35	22.60	22.43	
3	16QAM	1	14	22.31	22.54	22.55	
3	16QAM	8	0	21.51	21.56	21.38	22.3
3	16QAM	8	4	21.29	21.49	21.34	
3	16QAM	8	7	21.33	21.43	21.22	
3	16QAM	15	0	21.26	21.34	21.47	22.3
3	64QAM	1	0	21.43	21.59	21.38	
3	64QAM	1	8	21.42	21.44	21.51	
3	64QAM	1	14	21.50	21.56	21.36	21.3
3	64QAM	8	0	20.30	20.53	20.52	
3	64QAM	8	4	20.31	20.52	20.45	
3	64QAM	8	7	20.28	20.40	20.42	21.3
3	64QAM	15	0	20.43	20.57	20.33	
Channel				26697	26865	27033	
Frequency (MHz)				814.7	831.5	848.3	24.3
1.4	QPSK	1	0				





1.4	QPSK	6	0	22.31	22.35	22.25	23.3
1.4	16QAM	1	0	22.48	22.54	22.51	23.3
1.4	16QAM	1	3	22.31	22.52	22.52	
1.4	16QAM	1	5	22.27	22.47	22.45	
1.4	16QAM	3	0	21.37	21.53	21.32	
1.4	16QAM	3	1	21.47	21.37	21.31	
1.4	16QAM	3	3	21.30	21.32	21.33	
1.4	16QAM	6	0	21.23	21.44	21.40	22.3
1.4	64QAM	1	0	21.32	21.62	21.38	22.3
1.4	64QAM	1	3	21.34	21.53	21.44	
1.4	64QAM	1	5	21.27	21.46	21.55	
1.4	64QAM	3	0	20.36	20.55	20.48	
1.4	64QAM	3	1	20.47	20.46	20.37	
1.4	64QAM	3	3	20.25	20.43	20.47	
1.4	64QAM	6	0	20.41	20.27	20.44	21.3

Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	22.92	22.96	22.87	23.8
20	QPSK	1	49	22.87	22.93	22.83	
20	QPSK	1	99	22.80	22.79	22.74	
20	QPSK	50	0	21.74	21.81	21.68	22.8
20	QPSK	50	24	21.68	21.74	21.59	
20	QPSK	50	50	21.64	21.69	21.65	
20	QPSK	100	0	21.62	21.65	21.67	22.8
20	16QAM	1	0	21.64	21.86	21.69	
20	16QAM	1	49	21.77	21.62	21.67	
20	16QAM	1	99	21.68	21.71	21.74	21.8
20	16QAM	50	0	20.71	20.84	20.75	
20	16QAM	50	24	20.56	20.82	20.62	
20	16QAM	50	50	20.61	20.65	20.65	21.8
20	16QAM	100	0	20.57	20.73	20.74	
20	64QAM	1	0	20.67	20.79	20.74	
20	64QAM	1	49	20.83	20.65	20.76	21.8
20	64QAM	1	99	20.72	20.71	20.68	
20	64QAM	50	0	19.71	19.84	19.67	
20	64QAM	50	24	19.64	19.76	19.68	20.8
20	64QAM	50	50	19.61	19.77	19.59	
20	64QAM	100	0	19.57	19.62	19.58	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	22.77	22.93	22.86	23.8
15	QPSK	1	37	22.70	22.80	22.79	
15	QPSK	1	74	22.64	22.85	22.85	
15	QPSK	36	0	21.71	21.86	21.63	22.8
15	QPSK	36	20	21.58	21.82	21.77	
15	QPSK	36	39	21.66	21.70	21.59	
15	QPSK	75	0	21.60	21.51	21.70	22.8
15	16QAM	1	0	21.75	21.86	21.84	
15	16QAM	1	37	21.73	21.73	21.66	
15	16QAM	1	74	21.65	21.64	21.64	21.8
15	16QAM	36	0	20.69	20.87	20.70	
15	16QAM	36	20	20.61	20.78	20.60	
15	16QAM	36	39	20.58	20.80	20.67	21.8
15	16QAM	75	0	20.63	20.74	20.71	
15	64QAM	1	0	20.64	20.87	20.66	
15	64QAM	1	37	20.67	20.82	20.86	21.8
15	64QAM	1	74	20.65	20.73	20.64	
15	64QAM	36	0	19.67	19.82	19.60	
15	64QAM	36	20	19.62	19.76	19.71	20.8
15	64QAM	36	39	19.50	19.65	19.60	
15	64QAM	75	0	19.54	19.72	19.61	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	22.86	22.94	22.71	23.8
10	QPSK	1	25	22.65	22.83	22.80	
10	QPSK	1	49	22.69	22.78	22.65	
10	QPSK	25	0	21.77	21.82	21.64	22.8
10	QPSK	25	12	21.55	21.74	21.78	
10	QPSK	25	25	21.58	21.70	21.61	
10	QPSK	50	0	21.62	21.67	21.57	22.8
10	16QAM	1	0	21.77	21.89	21.77	
10	16QAM	1	25	21.79	21.75	21.66	
10	16QAM	1	49	21.88	21.72	21.72	21.8
10	16QAM	25	0	20.69	20.82	20.81	
10	16QAM	25	12	20.65	20.68	20.63	
10	16QAM	25	25	20.58	20.79	20.60	21.8
10	16QAM	50	0	20.63	20.78	20.64	
10	64QAM	1	0	20.78	20.86	20.71	
10	64QAM	1	25	20.81	20.63	20.72	21.8
10	64QAM	1	49	20.73	20.69	20.65	
10	64QAM	25	0	19.65	19.73	19.69	
10	64QAM	25	12	19.60	19.84	19.64	20.8
10	64QAM	25	25	19.62	19.66	19.60	
10	64QAM	50	0	19.56	19.77	19.56	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	22.65	22.88	22.84	23.8
5	QPSK	1	12	22.75	22.79	22.76	
5	QPSK	1	24	22.68	22.83	22.78	
5	QPSK	12	0	21.63	21.80	21.59	22.8
5	QPSK	12	7	21.71	21.74	21.64	
5	QPSK	12	13	21.69	21.72	21.70	
5	QPSK	25	0	21.66	21.77	21.65	22.8
5	16QAM	1	0	21.77	21.87	21.83	
5	16QAM	1	12	21.76	21.72	21.84	
5	16QAM	1	24	21.65	21.68	21.68	21.8
5	16QAM	12	0	20.67	20.79	20.72	
5	16QAM	12	7	20.71	20.78	20.69	
5	16QAM	12	13	20.66	20.67	20.60	21.8
5	16QAM	25	0	20.62	20.83	20.73	
5	64QAM	1	0	20.73	20.86	20.67	
5	64QAM	1	12	20.67	20.69	20.82	21.8
5	64QAM	1	24	20.72	20.77	20.66	
5	64QAM	12	0	19.66	19.78	19.56	
5	64QAM	12	7	19.67	19.82	19.65	20.8
5	64QAM	12	13	19.57	19.59	19.63	
5	64QAM	25	0	19.63	19.79	19.72	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	22.76	22.92	22.83	23.8
3	QPSK	1	8	22.84	22.71	22.70	
3	QPSK	1	14	22.65	22.92	22.68	
3	QPSK	8	0	21.74	21.85	21.58	22.8
3	QPSK	8	4	21.55	21.56	21.69	
3	QPSK	8	7	21.63	21.76	21.60	



3	QPSK	15	0	21.53	21.73	21.59	
3	16QAM	1	0	21.76	21.90	21.86	
3	16QAM	1	8	21.69	21.62	21.62	22.8
3	16QAM	1	14	21.67	21.77	21.80	
3	16QAM	8	0	20.68	20.84	20.81	
3	16QAM	8	4	20.67	20.65	20.74	21.8
3	16QAM	8	7	20.60	20.68	20.65	
3	16QAM	15	0	20.46	20.52	20.65	
3	64QAM	1	0	20.75	20.94	20.72	
3	64QAM	1	8	20.68	20.88	20.82	21.8
3	64QAM	1	14	20.70	20.73	20.88	
3	64QAM	8	0	19.65	19.81	19.74	
3	64QAM	8	4	19.71	19.61	19.70	20.8
3	64QAM	8	7	19.62	19.75	19.60	
3	64QAM	15	0	19.57	19.65	19.62	
Channel				131979	132322	132665	Tune-up limit
Frequency (MHz)				1710.7	1745	1779.3	(dBm)
1.4	QPSK	1	0	22.82	22.89	22.81	
1.4	QPSK	1	3	22.75	22.80	22.70	
1.4	QPSK	1	5	22.72	22.87	22.62	23.8
1.4	QPSK	3	0	21.62	21.80	21.79	
1.4	QPSK	3	1	21.65	21.60	21.57	
1.4	QPSK	3	3	21.59	21.62	21.60	
1.4	QPSK	6	0	21.67	21.69	21.62	22.8
1.4	16QAM	1	0	21.88	21.91	21.89	
1.4	16QAM	1	3	21.72	21.77	21.90	
1.4	16QAM	1	5	21.73	21.82	21.81	22.8
1.4	16QAM	3	0	20.76	20.80	20.88	
1.4	16QAM	3	1	20.58	20.67	20.72	
1.4	16QAM	3	3	20.65	20.72	20.64	
1.4	16QAM	6	0	20.64	20.83	20.80	21.8
1.4	64QAM	1	0	20.76	20.87	20.79	
1.4	64QAM	1	3	20.82	20.81	20.80	
1.4	64QAM	1	5	20.71	20.70	20.73	21.8
1.4	64QAM	3	0	19.65	19.78	19.61	
1.4	64QAM	3	1	19.58	19.76	19.75	
1.4	64QAM	3	3	19.59	19.64	19.63	
1.4	64QAM	6	0	19.57	19.60	19.46	20.8

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	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	23.39	23.42	23.34	24.3
20	QPSK	1	49	23.36	23.21	23.15	
20	QPSK	1	99	23.27	23.18	23.23	
20	QPSK	50	0	22.33	22.35	22.19	23.3
20	QPSK	50	24	22.29	22.28	22.12	
20	QPSK	50	50	22.11	22.17	22.16	
20	QPSK	100	0	22.15	22.26	22.13	23.3
20	16QAM	1	0	22.34	22.39	22.36	
20	16QAM	1	49	22.25	22.20	22.15	
20	16QAM	1	99	22.21	22.13	22.26	22.3
20	16QAM	50	0	21.30	21.33	21.29	
20	16QAM	50	24	21.15	21.29	21.21	
20	16QAM	50	50	21.17	21.15	21.12	22.3
20	16QAM	100	0	21.13	21.09	21.12	
20	64QAM	1	0	21.34	21.38	21.28	
20	64QAM	1	49	21.36	21.24	21.35	22.3
20	64QAM	1	99	21.20	21.36	21.22	
20	64QAM	50	0	20.33	20.35	20.20	
20	64QAM	50	24	20.21	20.34	20.08	21.3
20	64QAM	50	50	20.12	20.19	20.18	
20	64QAM	100	0	20.16	20.30	20.14	
Channel				37625	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	23.37	23.39	23.28	24.3
15	QPSK	1	37	23.24	23.27	23.09	
15	QPSK	1	74	23.30	23.19	23.32	
15	QPSK	36	0	22.21	22.28	22.24	23.3
15	QPSK	36	20	22.17	22.23	22.00	
15	QPSK	36	39	22.12	22.19	22.11	
15	QPSK	75	0	22.16	22.29	22.07	23.3
15	16QAM	1	0	22.32	22.33	22.31	
15	16QAM	1	37	22.07	22.26	22.24	
15	16QAM	1	74	22.16	22.17	22.18	22.3
15	16QAM	36	0	21.20	21.28	21.23	
15	16QAM	36	20	21.11	21.08	21.12	
15	16QAM	36	39	21.04	21.09	21.06	22.3
15	16QAM	75	0	21.21	21.15	21.13	
15	64QAM	1	0	21.25	21.41	21.25	
15	64QAM	1	37	21.14	21.18	21.29	22.3
15	64QAM	1	74	21.09	21.32	21.16	
15	64QAM	36	0	20.27	20.32	20.15	
15	64QAM	36	20	20.21	20.34	20.07	21.3
15	64QAM	36	39	20.10	20.19	20.16	
15	64QAM	75	0	20.15	20.20	20.03	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	23.36	23.40	23.32	24.3
10	QPSK	1	25	23.29	23.24	23.25	
10	QPSK	1	49	23.17	23.29	23.10	
10	QPSK	25	0	22.21	22.27	22.20	23.3
10	QPSK	25	12	22.16	22.16	22.14	
10	QPSK	25	25	22.07	22.23	22.14	
10	QPSK	50	0	22.25	22.22	22.10	23.3
10	16QAM	1	0	22.20	22.38	22.19	
10	16QAM	1	25	22.20	22.24	22.36	
10	16QAM	1	49	22.13	22.11	22.14	22.3
10	16QAM	25	0	21.22	21.26	21.17	
10	16QAM	25	12	21.13	21.21	21.10	
10	16QAM	25	25	21.21	21.19	21.18	22.3
10	16QAM	50	0	21.10	21.21	21.08	
10	64QAM	1	0	21.33	21.34	21.28	
10	64QAM	1	25	21.20	21.30	21.20	22.3
10	64QAM	1	49	21.24	21.26	21.17	
10	64QAM	25	0	20.08	20.34	20.21	
10	64QAM	25	12	20.30	20.25	20.10	21.3
10	64QAM	25	25	20.18	20.21	20.18	
10	64QAM	50	0	20.08	20.12	20.07	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	23.32	23.38	23.17	24.3
5	QPSK	1	12	23.24	23.18	23.23	
5	QPSK	1	24	23.16	23.30	23.09	
5	QPSK	12	0	22.22	22.29	22.16	23.3
5	QPSK	12	7	22.17	22.21	22.08	
5	QPSK	12	13	22.06	22.12	22.12	
5	QPSK	25	0	22.07	22.14	22.09	23.3
5	16QAM	1	0	22.28	22.37	22.35	
5	16QAM	1	12	22.34	22.26	22.31	
5	16QAM	1	24	22.25	22.17	22.20	22.3
5	16QAM	12	0	21.26	21.26	21.09	
5	16QAM	12	7	21.10	21.12	21.20	
5	16QAM	12	13	21.22	21.15	21.09	22.3
5	16QAM	25	0	21.08	21.11	21.09	
5	64QAM	1	0	21.33	21.34	21.10	
5	64QAM	1	12	21.27	21.14	21.32	22.3
5	64QAM	1	24	21.04	21.24	21.35	
5	64QAM	12	0	20.16	20.26	20.17	
5	64QAM	12	7	20.07	20.09	20.05	21.3
5	64QAM	12	13	20.19	20.15	20.12	
5	64QAM	25	0	20.19	20.22	20.13	

Band 41 PC3 (2535~2655MHz) (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				40140	40390	40640	40890	41140	Tune-up limit (dBm)	
Frequency (MHz)				2545	2570	2595	2620	2645		
20	QPSK	1	0	23.41	23.57	23.59	23.52	23.54	24.3	
20	QPSK	1	49	23.36	23.44	23.46	23.35	23.40		
20	QPSK	1	99	23.27	23.49	23.48	23.40	23.48		
20	QPSK	50	0	22.33	22.46	22.47	22.42	22.43	23.3	
20	QPSK	50	24	22.27	22.43	22.38	22.37	22.36		
20	QPSK	50	50	22.25	22.41	22.34	22.30	22.32		
20	QPSK	100	0	22.29	22.37	22.35	22.41	22.44	23.3	
20	16QAM	1	0	22.39	22.50	22.54	22.42	22.47		
20	16QAM	1	49	22.31	22.41	22.50	22.38	22.45		
20	16QAM	1	99	22.20	22.39	22.43	22.30	22.39	22.3	
20	16QAM	50	0	21.35	21.43	21.45	21.41	21.33		
20	16QAM	50	24	21.22	21.31	21.42	21.36	21.39		
20	16QAM	50	50	21.28	21.33	21.31	21.28	21.24	22.3	
20	16QAM	100	0	21.27	21.28	21.36	21.37	21.34		
20	64QAM	1	0	21.37	21.52	21.55	21.43	21.51		
20	64QAM	1	49	21.35	21.27	21.49	21.37	21.32	22.3	
20	64QAM	1	99	21.32	21.40	21.42	21.26	21.34		
20	64QAM	50	0	20.32	20.44	20.46	20.38	20.43		
20	64QAM	50	24	20.36	20.43	20.36	20.41	20.21	21.3	
20	64QAM	50	50	20.23	20.32	20.39	20.34	20.19		
20	64QAM	100	0	20.20	20.33	20.34	20.22	20.30		
Channel				40115	40378	40640	40890	41165	Tune-up limit (dBm)	
Frequency (MHz)				2542.5	2568.8	2595	2621.3	2647.5		
15	QPSK	1	0	23.43	23.55	23.56	23.51	23.50	24.3	
15	QPSK	1	37	23.25	23.50	23.51	23.23	23.45		
15	QPSK	1	74	23.30	23.38	23.38	23.31	23.51		
15	QPSK	36	0	22.37	22.43	22.47	22.38	22.40	23.3	
15	QPSK	36	20	22.38	22.48	22.44	22.30	22.45		
15	QPSK	36	39	22.29	22.36	22.21	22.31	22.25		
15	QPSK	75	0	22.19	22.22	22.35	22.26	22.33	23.3	
15	16QAM	1	0	22.42	22.50	22.53	22.40	22.46		
15	16QAM	1	37	22.33	22.41	22.45	22.42	22.44		
15	16QAM	1	74	22.29	22.42	22.43	22.31	22.46	22.3	
15	16QAM	36	0	21.34	21.46	21.49	21.35	21.47		
15	16QAM	36	20	21.39	21.43	21.38	21.29	21.43		
15	16QAM	36	39	21.26	21.29	21.35	21.31	21.32	22.3	
15	16QAM	75	0	21.40	21.31	21.24	21.35	21.48		
15	64QAM	1	0	21.34	21.56	21.57	21.36	21.45		
15	64QAM	1	37	21.33	21.55	21.45	21.37	21.45	22.3	
15	64QAM	1	74	21.29	21.43	21.50	21.40	21.28		
15	64QAM	36	0	20.25	20.36	20.45	20.31	20.25		
15	64QAM	36	20	20.33	20.34	20.23	20.34	20.19	21.3	
15	64QAM	36	39	20.19	20.15	20.20	20.17	20.15		
15	64QAM	75	0	20.23	20.28	20.35	20.23	20.16		
Channel				40090	40365	40640	40915	41190	Tune-up limit (dBm)	
Frequency (MHz)				2540.5	2567.5	2595	2622.5	2650		
10	QPSK	1	0	23.39	23.52	23.57	23.42	23.48	24.3	
10	QPSK	1	25	23.37	23.50	23.46	23.55	23.41		
10	QPSK	1	49	23.44	23.49	23.53	23.34	23.45		
10	QPSK	25	0	22.30	22.36	22.46				

2.4GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %	
802.11b 1Mbps	CH 1	2412	17.53	18.50	17.00	98.97	
	CH 6	2437	18.85	19.50	18.00		
	CH 11	2462	18.67	19.50	18.00		
	802.11g 6Mbps	CH 1	2412	13.09	14.00	13.00	98.38
		CH 6	2437	17.28	18.00	17.00	
		CH 11	2462	13.04	14.00	13.00	
	802.11n-HT20 MCS0	CH 1	2412	12.74	13.50	13.00	97.05
		CH 6	2437	16.96	17.50	17.00	
		CH 11	2462	12.80	13.50	13.00	
802.11n-HT40 MCS0	CH 3	2422	11.60	13.50	13.00	92.82	
	CH 6	2437	17.07	18.00	16.00		
	CH 9	2452	11.96	13.00	12.00		
802.11ac-VHT20 MCS0	CH 1	2412	12.79	13.50	13.00	94.99	
	CH 6	2437	16.66	17.50	16.50		
	CH 11	2462	13.81	14.50	13.00		
802.11ac-VHT40 MCS0	CH 3	2422	12.80	13.50	13.00	92.65	
	CH 6	2437	17.00	18.00	16.00		
	CH 9	2452	13.09	14.00	14.00		

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 36	5180	15.83	16.50	15.00	98.10
	CH 44	5220	16.99	17.50	16.00	
	CH 48	5240	17.12	18.00	16.00	
802.11n-HT20 MCS0	CH 36	5180	15.54	16.50	15.00	95.07
	CH 44	5220	16.71	17.50	16.00	
	CH 48	5240	17.17	18.00	16.00	
802.11n-HT40 MCS0	CH 38	5190	11.88	12.50	11.50	93.00
	CH 46	5230	14.81	15.50	15.00	
	CH 36	5180	15.54	16.50	15.00	
802.11ac-VHT20 MCS0	CH 36	5180	15.54	16.50	15.00	97.21
	CH 44	5220	16.81	17.50	16.00	
	CH 48	5240	17.07	18.00	16.00	
802.11ac-VHT40 MCS0	CH 38	5190	11.85	12.50	11.50	95.41
	CH 46	5230	14.87	15.50	15.00	
	CH 42	5210	11.11	12.00	11.00	

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 52	5260	17.63	18.50	16.00	98.57
	CH 60	5300	16.99	17.50	16.00	
	CH 64	5320	15.39	16.00	15.00	
802.11n-HT20 MCS0	CH 52	5260	17.29	18.00	16.00	95.07
	CH 60	5300	16.73	17.50	16.00	
	CH 64	5320	15.19	16.00	15.00	
802.11n-HT40 MCS0	CH 54	5270	14.75	15.50	15.00	93.00
	CH 62	5310	10.94	11.50	11.00	
	CH 52	5260	17.25	18.00	16.00	
802.11ac-VHT20 MCS0	CH 60	5300	16.76	17.50	16.00	95.07
	CH 64	5320	15.19	16.00	15.00	
	CH 54	5270	14.74	15.50	15.00	
802.11ac-VHT40 MCS0	CH 62	5310	10.94	11.50	11.00	90.48
	CH 58	5290	10.69	11.50	11.00	
	CH 58	5290	10.69	11.50	11.00	

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 100	5500	16.28	17.00	15.00	98.57
	CH 120	5600	16.90	17.50	15.50	
	CH 140	5700	15.41	16.00	14.00	
802.11n-HT20 MCS0	CH 100	5500	15.05	16.00	14.00	97.45
	CH 120	5600	17.54	18.50	16.00	
	CH 140	5700	15.76	16.50	14.50	
802.11n-HT40 MCS0	CH 102	5510	11.98	12.50	11.00	94.42
	CH 126	5630	15.80	16.50	15.00	
	CH 134	5670	15.67	16.50	15.00	
802.11ac-VHT20 MCS0	CH 100	5500	15.05	16.00	14.00	95.54
	CH 120	5600	17.50	18.50	16.00	
	CH 140	5700	15.68	16.50	14.50	
802.11ac-VHT40 MCS0	CH 102	5510	11.95	12.50	11.00	94.90
	CH 126	5630	15.81	16.50	15.00	
	CH 134	5670	15.69	16.50	15.00	
802.11ac-VHT80 MCS0	CH 108	5530	11.91	12.50	11.00	86.41
	CH 122	5610	15.60	16.50	15.00	

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 149	5745	17.45	18.00	16.00	98.57
	CH 157	5785	17.21	18.00	16.00	
	CH 165	5825	16.51	17.50	15.50	
802.11n-HT20 MCS0	CH 149	5745	16.43	17.00	15.50	96.95
	CH 157	5785	17.14	18.00	16.00	
	CH 165	5825	15.61	16.50	15.00	
802.11n-HT40 MCS0	CH 151	5755	15.31	16.00	15.00	93.00
	CH 159	5795	15.07	16.00	15.00	
	CH 149	5745	16.39	17.00	15.50	
802.11ac-VHT20 MCS0	CH 157	5785	17.24	18.00	16.00	97.21
	CH 165	5825	15.76	16.50	15.00	
	CH 151	5755	15.37	16.00	15.00	
802.11ac-VHT40 MCS0	CH 159	5795	15.04	16.00	15.00	94.44
	CH 155	5775	14.82	15.50	15.00	

Mode	Channel	Frequency (MHz)	1Mbps		2Mbps		3Mbps	
			Average power (dBm)	Tune-up Limit	Average power (dBm)	Tune-up Limit	Average power (dBm)	Tune-up Limit
BR / EDR	CH 00	2402	11.11	12.50	7.65	12.00	7.68	12.00
	CH 39	2441	11.49	12.50	7.80	12.00	7.92	12.00
	CH 76	2480	10.16	11.50	7.74	12.00	7.74	12.00
Duty Cycle %			77.17		77.03		77.07	

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			QPSK	16QAM
LE	CH 00	2402	5.27	
	CH 19	2440	5.55	
	CH 39	2480	6.05	
Tune-up Limit			11	
Duty Cycle %			82.9	

**Reduced Power Level 1 for ANT 1 & ANT 2**

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		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	29.56	29.71	29.76	30.50	20.56	20.71	20.76	21.50	0.23
GPRS 1 Tx slot	29.53	29.68	29.73	30.30	20.53	20.68	20.73	21.30	
GPRS 2 Tx slots	27.65	27.83	27.85	28.20	21.65	21.83	21.85	22.20	0.20
GPRS 3 Tx slots	25.47	25.66	25.71	26.70	21.21	21.40	21.45	22.44	0.24
GPRS 4 Tx slots	24.58	24.81	24.75	25.70	21.58	21.81	21.75	22.70	0.23
EDGE 1 Tx slot	23.76	23.91	23.93	24.90	14.76	14.91	14.93	15.90	0.17
EDGE 2 Tx slots	21.75	21.84	21.77	22.50	15.75	15.84	15.77	16.50	0.09
EDGE 3 Tx slots	19.69	19.86	19.84	20.70	15.43	15.60	15.58	16.44	0.17
EDGE 4 Tx slots	18.63	18.87	18.86	20.00	15.63	15.87	15.86	17.00	0.24
Mode		Max.	29.76			Max.	21.85		
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		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	26.29	26.55	26.57	27.00	17.29	17.55	17.57	18.00	0.43
GPRS 1 Tx slot	26.14	26.36	26.41	26.70	17.14	17.36	17.41	17.70	
GPRS 2 Tx slots	23.89	24.04	24.10	24.50	17.89	18.04	18.10	18.50	0.21
GPRS 3 Tx slots	22.15	22.32	22.36	22.70	17.89	18.06	18.10	18.44	0.21
GPRS 4 Tx slots	21.08	21.19	21.17	22.00	18.08	18.19	18.17	19.00	0.11
EDGE 1 Tx slot	22.43	22.58	22.54	23.00	13.43	13.58	13.54	14.00	0.15
EDGE 2 Tx slots	19.40	19.55	19.57	20.60	13.40	13.55	13.57	14.60	0.17
EDGE 3 Tx slots	17.52	17.61	17.63	18.50	13.26	13.35	13.37	14.24	0.11
EDGE 4 Tx slots	16.78	16.93	16.91	18.00	13.78	13.93	13.91	15.00	0.15
Mode		Max.	26.57			Max.	18.19		
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	
Rx Channel	9662	9800	9938		1557	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	15.95	15.98	15.89	16.80	15.33	15.37	15.26	16.30	21.00	21.11	21.08	21.80
3GPP Rel 5 HSDPA Subtest-1	15.36	15.18	14.75	16.00	14.50	14.35	14.19	15.50	20.12	20.17	19.76	21.00
3GPP Rel 5 HSDPA Subtest-2	14.34	14.15	14.06	15.00	13.44	13.38	13.27	14.00	19.28	19.39	18.77	20.00
3GPP Rel 5 HSDPA Subtest-3	13.57	13.49	13.06	14.50	12.71	12.69	12.43	13.50	18.43	18.52	17.99	19.50
3GPP Rel 5 HSDPA Subtest-4	13.48	13.34	12.98	14.00	12.66	12.62	12.37	13.50	18.33	18.36	17.92	19.00
3GPP Rel 8 DC-HSDPA Subtest-1	15.40	15.47	15.07	16.00	14.43	14.34	14.14	15.00	20.03	20.08	19.89	21.00
3GPP Rel 8 DC-HSDPA Subtest-2	14.18	14.24	13.85	15.00	13.35	13.21	13.05	16.00	19.07	19.26	18.66	20.00
3GPP Rel 8 DC-HSDPA Subtest-3	13.29	13.35	12.95	14.00	12.20	12.30	12.12	13.00	18.16	18.22	18.15	19.00
3GPP Rel 8 DC-HSDPA Subtest-4	13.42	13.47	13.07	14.00	12.33	12.42	12.25	13.00	18.25	18.36	18.23	19.00
3GPP Rel 6 HSUPA Subtest-1	14.21	14.10	13.97	15.00	13.44	13.39	13.20	14.00	18.94	18.96	18.89	19.50
3GPP Rel 6 HSUPA Subtest-2	14.15	14.18	13.91	15.00	13.37	13.29	13.18	14.00	18.92	19.06	18.90	20.00
3GPP Rel 6 HSUPA Subtest-3	14.01	13.92	13.64	15.00	13.17	13.18	12.97	14.00	18.89	18.98	18.61	19.50
3GPP Rel 6 HSUPA Subtest-4	15.17	15.20	14.87	16.00	14.47	14.43	14.13	15.00	20.13	20.15	19.84	21.00
3GPP Rel 6 HSUPA Subtest-5	14.16	14.10	13.79	15.00	13.40	13.47	13.14	14.00	19.19	19.24	18.75	20.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	13.35	13.36	13.10	14.00	12.72	12.52	12.40	13.50	18.74	18.73	18.84	19.50
Attenuator	Cable Loss			0.8	Cable Loss			0.8	Cable Loss			0.6
Mode		Max.	15.98			Max.	15.37			Max.	21.11	

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)				1880	1880	1900	
20	QPSK	1	0	15.86	15.91	15.70	16.8
20	QPSK	1	49	15.79	15.83	15.67	
20	QPSK	1	99	15.74	15.80	15.61	
20	QPSK	50	0	14.71	14.75	14.63	15.8
20	QPSK	50	24	14.65	14.70	14.55	
20	QPSK	50	50	14.54	14.61	14.48	
20	QPSK	100	0	14.62	14.67	14.52	15.8
20	16QAM	1	0	14.83	14.86	14.72	
20	16QAM	1	49	14.77	14.81	14.64	
20	16QAM	1	99	14.72	14.76	14.66	14.8
20	16QAM	50	0	13.73	13.78	13.64	
20	16QAM	50	24	13.67	13.74	13.59	
20	16QAM	50	50	13.60	13.65	13.51	14.8
20	16QAM	100	0	13.65	13.70	13.58	
20	16QAM	1	0	13.81	13.85	13.69	
20	64QAM	1	49	13.76	13.82	13.63	14.8
20	64QAM	1	99	13.70	13.77	13.64	
20	64QAM	50	0	12.72	12.76	12.62	
20	64QAM	50	24	12.69	12.73	12.55	13.8
20	64QAM	50	50	12.58	12.64	12.49	
20	64QAM	100	0	12.64	12.68	12.53	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	15.84	15.89	15.54	16.8
15	QPSK	1	37	15.64	15.87	15.66	
15	QPSK	1	74	15.59	15.70	15.67	
15	QPSK	36	0	14.84	14.86	14.57	15.8
15	QPSK	36	20	14.48	14.70	14.46	
15	QPSK	36	39	14.64	14.55	14.50	
15	QPSK	75	0	14.51	14.50	14.66	15.8
15	16QAM	1	0	14.85	14.89	14.66	
15	16QAM	1	37	14.58	14.68	14.71	
15	16QAM	1	74	14.78	14.80	14.66	14.8
15	16QAM	36	0	13.77	13.69	13.58	
15	16QAM	36	20	13.63	13.54	13.62	
15	16QAM	36	39	13.60	13.63	13.64	14.8
15	16QAM	75	0	13.46	13.61	13.59	
15	64QAM	1	0	13.33	13.66	13.84	
15	64QAM	1	37	13.20	13.78	13.57	14.8
15	64QAM	1	74	13.63	13.75	13.79	
15	64QAM	36	0	12.64	12.83	12.65	
15	64QAM	36	20	12.61	12.75	12.39	13.8
15	64QAM	36	39	12.54	12.61	12.38	
15	64QAM	75	0	12.61	12.48	12.57	
Channel				18550	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	15.79	15.84	15.78	16.8
10	QPSK	1	25	15.76	15.76	15.79	
10	QPSK	1	49	15.75	15.70	15.48	
10	QPSK	25	0	14.62	14.65	14.62	15.8
10	QPSK	25	12	14.74	14.74	14.48	
10	QPSK	25	25	14.35	14.54	14.42	
10	QPSK	50	0	14.60	14.64	14.61	15.8
10	16QAM	1	0	14.88	14.83	14.62	
10	16QAM	1	25	14.57	14.75	14.52	
10	16QAM	1	49	14.64	14.67	14.56	14.8
10	16QAM	25	0	13.64	13.67	13.58	
10	16QAM	25	12	13.69	13.65	13.58	
10	16QAM	25	25	13.44	13.70	13.43	14.8
10	16QAM	50	0	13.77	13.69	13.48	
10	64QAM	1	0	13.63	13.77	13.50	
10	64QAM	1	25	13.58	13.82	13.53	14.8
10	64QAM	1	49	13.53	13.89	13.58	
10	64QAM	25	0	12.53	12.81	12.50	
10	64QAM	25	12	12.55	12.80	12.51	13.8
10	64QAM	25	25	12.48	12.73	12.54	
10	64QAM	50	0	12.62	12.55	12.56	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	15.81	15.85	15.69	16.8
5	QPSK	1	12	15.84	15.67	15.50	
5	QPSK	1	24	15.71	15.79	15.50	
5	QPSK	12	0	14.79	14.71	14.43	15.8
5	QPSK	12	7	14.45	14.59	14.55	
5	QPSK	12	13	14.51	14.42	14.41	
5	QPSK	25	0	14.76	14.72	14.52	15.8
5	16QAM	1	0	14.80	14.94	14.75	
5	16QAM	1	12	14.92	14.92	14.58	
5	16QAM	1	24	14.69	14.58	14.60	14.8
5	16QAM	12	0	13.85	13.89	13.62	
5	16QAM	12	7	13.58	13.79	13.50	
5	16QAM	12	13	13.60	13.76	13.48	14.8
5	16QAM	25	0	13.65	13.79	13.47	
5	64QAM	1	0	13.69	13.79	13.61	
5	64QAM	1	12	13.87	13.87	13.53	14.8
5	64QAM	1	24	13.75	13.69	13.47	
5	64QAM	12	0	12.63	12.73	12.70	
5	64QAM	12	7	12.68	12.83	12.68	13.8
5	64QAM	12	13	12.41	12.79	12.44	
5	64QAM	25	0	12.61	12.52	12.54	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	15.78	15.88	15.75	16.8
3	QPSK	1	8	15.72	15.78	15.74	
3	QPSK	1	14	15.69	15.79	15.71	
3	QPSK	8	0	14.78	14.84	14.65	15.8
3	QPSK	8	4	14.57	14.61	14.42	
3	QPSK	8	7	14.37	14.56	14.45	
3	QPSK	15	0	14.61	14.58	14.63	15.8
3	16QAM	1	0	14.86	14.93	14.77	
3	16QAM	1	8	14.79	14.67	14.72	
3	16QAM	1	14	14.75	14.83	14.74	14.8
3	16QAM	8	0	13.58	13.80	13.50	
3	16QAM	8	4	13.75	13.65	13.40	
3	16QAM	8	7	13.71	13.64	13.43	14.8
3	16QAM	15	0	13.49	13.82	13.69	
3	64QAM	1	0	13.90	13.71	13.72	
3	64QAM	1	8	13.67	13.74	13.61	14.8
3	64QAM	1	14	13.76	13.84	13.68	
3	64QAM	8	0	12.64	12.77	12.54	
3	64QAM	8	4	12.62	12.63	12.58	

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	15.36	15.45	15.42	16.3
20	QPSK	1	49	15.18	15.34	15.12	
20	QPSK	1	99	15.23	15.28	15.15	
20	QPSK	50	0	14.14	14.22	14.12	15.3
20	QPSK	50	24	14.06	14.19	13.97	
20	QPSK	50	50	13.92	14.06	13.99	
20	QPSK	100	0	14.03	14.18	14.11	15.3
20	16QAM	1	0	14.41	14.43	14.31	
20	16QAM	1	49	14.05	14.31	14.02	
20	16QAM	1	99	14.01	14.11	14.28	14.3
20	16QAM	50	0	13.31	13.30	12.91	
20	16QAM	50	24	13.09	13.13	12.97	
20	16QAM	50	50	13.11	13.23	12.97	14.3
20	16QAM	100	0	13.12	13.27	13.00	
20	64QAM	1	0	13.16	13.34	13.26	
20	64QAM	1	49	13.09	13.29	13.08	14.3
20	64QAM	1	99	13.25	13.25	13.25	
20	64QAM	50	0	12.09	12.35	12.10	
20	64QAM	50	24	11.96	12.30	12.06	13.3
20	64QAM	50	50	11.97	12.17	12.10	
20	64QAM	100	0	12.07	12.22	11.93	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	15.29	15.40	15.33	16.3
15	QPSK	1	37	15.32	15.22	15.14	
15	QPSK	1	74	15.09	15.33	15.06	
15	QPSK	36	0	14.10	14.28	14.07	15.3
15	QPSK	36	20	14.04	14.25	14.01	
15	QPSK	36	39	14.14	13.92	13.96	
15	QPSK	75	0	14.21	14.07	13.96	15.3
15	16QAM	1	0	14.11	14.32	14.27	
15	16QAM	1	37	14.31	14.35	14.24	
15	16QAM	1	74	14.13	14.08	14.12	14.3
15	16QAM	36	0	13.23	13.28	13.12	
15	16QAM	36	20	13.24	13.14	13.15	
15	16QAM	36	39	12.92	12.99	12.85	14.3
15	16QAM	75	0	13.04	13.09	13.06	
15	64QAM	1	0	13.29	13.30	12.99	
15	64QAM	1	37	13.04	13.28	12.98	14.3
15	64QAM	1	74	13.11	13.22	12.93	
15	64QAM	36	0	12.17	12.32	12.24	
15	64QAM	36	20	11.97	12.25	11.92	13.3
15	64QAM	36	39	12.18	12.21	11.96	
15	64QAM	75	0	12.25	12.14	12.01	
Channel				20000			



3	64QAM	8	7	12.53	12.67	12.44	Tune-up limit (dBm)
3	64QAM	15	0	12.59	12.50	12.39	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	15.78	15.87	15.56	16.8
1.4	QPSK	1	3	15.65	15.74	15.75	
1.4	QPSK	1	5	15.72	15.64	15.52	
1.4	QPSK	3	0	14.63	14.75	14.66	
1.4	QPSK	3	1	14.76	14.59	14.38	
1.4	QPSK	3	3	14.55	14.44	14.40	
1.4	QPSK	6	0	14.57	14.53	14.47	15.8
1.4	16QAM	1	0	14.87	14.90	14.60	15.8
1.4	16QAM	1	3	14.74	14.74	14.72	
1.4	16QAM	1	5	14.64	14.83	14.52	
1.4	16QAM	3	0	13.81	13.71	13.56	
1.4	16QAM	3	1	13.77	13.66	13.39	
1.4	16QAM	3	3	13.41	13.54	13.38	
1.4	16QAM	6	0	13.72	13.70	13.72	14.8
1.4	64QAM	1	0	13.87	13.92	13.77	14.8
1.4	64QAM	1	3	13.83	13.63	13.56	
1.4	64QAM	1	5	13.75	13.83	13.61	
1.4	64QAM	3	0	12.76	12.72	12.56	
1.4	64QAM	3	1	12.82	12.87	12.47	
1.4	64QAM	3	3	12.55	12.77	12.45	
1.4	64QAM	6	0	12.57	12.60	12.65	13.8

3	64QAM	8	7	12.16	12.26	12.05	Tune-up limit (dBm)
3	64QAM	15	0	12.06	12.14	11.94	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	15.28	15.38	15.30	16.3
1.4	QPSK	1	3	15.25	15.34	15.18	
1.4	QPSK	1	5	15.25	15.21	15.03	
1.4	QPSK	3	0	14.27	14.18	14.04	
1.4	QPSK	3	1	14.03	14.05	14.16	
1.4	QPSK	3	3	14.03	14.18	14.00	
1.4	QPSK	6	0	14.10	14.09	13.85	15.3
1.4	16QAM	1	0	14.36	14.26	14.04	15.3
1.4	16QAM	1	3	14.04	14.34	14.24	
1.4	16QAM	1	5	14.15	14.13	13.98	
1.4	16QAM	3	0	13.25	13.35	13.22	
1.4	16QAM	3	1	13.21	13.04	13.09	
1.4	16QAM	3	3	13.21	13.27	13.11	
1.4	16QAM	6	0	13.20	12.98	13.00	14.3
1.4	64QAM	1	0	13.21	13.34	13.23	14.3
1.4	64QAM	1	3	13.23	13.21	13.24	
1.4	64QAM	1	5	13.23	13.32	13.06	
1.4	64QAM	3	0	12.31	12.22	12.16	
1.4	64QAM	3	1	11.96	12.16	12.02	
1.4	64QAM	3	3	11.94	12.08	12.10	
1.4	64QAM	6	0	12.03	11.98	11.95	13.3



Band 5 (Cellular Band) (dBm)							
Part 22H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	21.8
Frequency (MHz)				529	836.5	844	
10	QPSK	1	0	20.96	21.04	21.01	21.8
10	QPSK	1	25	20.74	20.93	20.78	
10	QPSK	1	49	20.77	20.78	20.89	
10	QPSK	25	0	19.74	19.90	19.79	20.8
10	QPSK	25	12	19.66	19.89	19.69	
10	QPSK	25	25	19.73	19.66	19.58	
10	QPSK	50	0	18.75	19.67	19.70	20.8
10	16QAM	1	0	19.88	19.97	19.95	
10	16QAM	1	25	19.64	19.89	19.90	
10	16QAM	1	49	19.67	19.88	19.92	19.8
10	16QAM	25	0	18.85	18.88	18.84	
10	16QAM	25	12	18.66	18.79	18.80	
10	16QAM	25	25	18.68	18.73	18.62	19.8
10	16QAM	50	0	18.70	18.86	18.64	
10	64QAM	1	0	18.86	19.00	18.72	
10	64QAM	1	25	18.75	18.95	18.86	19.8
10	64QAM	1	49	18.77	18.93	18.97	
10	64QAM	25	0	17.63	17.77	17.67	
10	64QAM	25	12	17.57	17.63	17.86	18.8
10	64QAM	25	25	17.61	17.67	17.77	
10	64QAM	50	0	17.60	17.79	17.70	
Channel				20425	20525	20625	21.8
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	20.84	21.00	20.91	21.8
5	QPSK	1	12	20.79	20.91	20.74	
5	QPSK	1	24	20.81	20.84	20.72	
5	QPSK	12	0	19.75	19.96	19.87	20.8
5	QPSK	12	7	19.62	19.81	19.64	
5	QPSK	12	13	19.57	19.64	19.61	
5	QPSK	25	0	19.66	19.88	19.59	20.8
5	16QAM	1	0	19.72	19.96	19.87	
5	16QAM	1	12	19.85	19.73	19.78	
5	16QAM	1	24	19.74	19.95	19.75	19.8
5	16QAM	12	0	18.70	18.90	18.68	
5	16QAM	12	7	18.63	18.83	18.67	
5	16QAM	12	13	18.59	18.79	18.75	19.8
5	16QAM	25	0	18.63	18.79	18.68	
5	64QAM	1	0	18.75	18.99	18.89	
5	64QAM	1	12	18.59	18.78	18.85	19.8
5	64QAM	1	24	18.70	18.85	18.62	
5	64QAM	12	0	17.60	17.98	17.69	
5	64QAM	12	7	17.72	17.76	17.77	18.8
5	64QAM	12	13	17.74	17.70	17.85	
5	64QAM	25	0	17.65	17.56	17.72	
Channel				20415	20525	20635	21.8
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	20.85	21.01	20.88	21.8
3	QPSK	1	8	20.79	20.85	20.86	
3	QPSK	1	14	20.66	20.75	20.83	
3	QPSK	8	0	19.74	19.96	19.82	20.8
3	QPSK	8	4	19.69	19.82	19.62	
3	QPSK	8	7	19.72	19.76	19.68	
3	QPSK	15	0	19.53	19.89	19.58	20.8
3	16QAM	1	0	19.77	19.98	19.87	
3	16QAM	1	8	19.63	19.84	19.74	
3	16QAM	1	14	19.77	19.89	19.69	19.8
3	16QAM	8	0	18.60	18.96	18.69	
3	16QAM	8	4	18.73	18.97	18.60	
3	16QAM	8	7	18.59	18.80	18.79	19.8
3	16QAM	15	0	18.63	18.61	18.78	
3	64QAM	1	0	18.68	18.74	18.91	
3	64QAM	1	8	18.58	18.73	18.63	19.8
3	64QAM	1	14	18.68	18.92	18.80	
3	64QAM	8	0	17.73	17.90	17.64	
3	64QAM	8	4	17.67	17.94	17.81	18.8
3	64QAM	8	7	17.58	17.59	17.55	
3	64QAM	15	0	17.65	17.58	17.75	
Channel				20407	20525	20643	21.8
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	20.79	20.99	20.91	21.8
1.4	QPSK	1	3	20.87	20.83	20.90	
1.4	QPSK	1	5	20.79	20.81	20.71	
1.4	QPSK	3	0	19.83	19.93	19.76	20.8
1.4	QPSK	3	1	19.77	19.91	19.76	
1.4	QPSK	3	3	19.58	19.61	19.67	
1.4	QPSK	6	0	19.72	19.79	19.58	20.8
1.4	16QAM	1	0	19.61	19.83	19.81	
1.4	16QAM	1	3	19.63	19.81	19.75	
1.4	16QAM	1	5	19.78	19.74	19.91	20.8
1.4	16QAM	3	0	18.67	18.82	18.66	
1.4	16QAM	3	1	18.70	18.78	18.66	
1.4	16QAM	3	3	18.61	18.78	18.80	19.8
1.4	16QAM	6	0	18.67	18.80	18.75	
1.4	64QAM	1	0	18.88	18.76	18.69	
1.4	64QAM	1	3	18.79	18.86	18.82	19.8
1.4	64QAM	1	5	18.81	18.77	18.93	
1.4	64QAM	3	0	17.69	17.89	17.76	
1.4	64QAM	3	1	17.64	17.87	17.56	18.8
1.4	64QAM	3	3	17.61	17.85	17.74	
1.4	64QAM	6	0	17.57	17.79	17.66	

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	15.8
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	14.54	14.63	14.55	15.8
20	QPSK	1	49	14.54	14.47	14.40	
20	QPSK	1	99	14.40	14.45	14.36	
20	QPSK	50	0	13.47	13.52	13.37	14.8
20	QPSK	50	24	13.43	13.39	13.30	
20	QPSK	50	50	13.23	13.37	13.40	
20	QPSK	100	0	13.26	13.41	13.35	14.8
20	16QAM	1	0	13.40	13.60	13.44	
20	16QAM	1	49	13.53	13.45	13.48	
20	16QAM	1	99	13.29	13.53	13.32	13.8
20	16QAM	50	0	12.45	12.53	12.50	
20	16QAM	50	24	12.34	12.51	12.44	
20	16QAM	50	50	12.37	12.51	12.38	13.8
20	16QAM	100	0	12.25	12.47	12.48	
20	64QAM	1	0	12.45	12.57	12.49	
20	64QAM	1	49	12.31	12.41	12.32	13.8
20	64QAM	1	99	12.35	12.39	12.48	
20	64QAM	50	0	11.47	11.52	11.39	
20	64QAM	50	24	11.31	11.27	11.37	12.8
20	64QAM	50	50	11.17	11.47	11.30	
20	64QAM	100	0	11.19	11.47	11.31	
Channel				20825	21100	21375	15.8
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	14.55	14.58	14.55	15.8
15	QPSK	1	37	14.37	14.38	14.47	
15	QPSK	1	74	14.32	14.44	14.40	
15	QPSK	36	0	13.37	13.47	13.43	14.8
15	QPSK	36	20	13.25	13.28	13.23	
15	QPSK	36	39	13.38	13.44	13.32	
15	QPSK	75	0	13.20	13.22	13.33	14.8
15	16QAM	1	0	13.53	13.55	13.46	
15	16QAM	1	37	13.38	13.48	13.33	
15	16QAM	1	74	13.43	13.45	13.42	13.8
15	16QAM	36	0	12.47	12.49	12.49	
15	16QAM	36	20	12.36	12.43	12.45	
15	16QAM	36	39	12.27	12.33	12.41	13.8
15	16QAM	75	0	12.30	12.48	12.44	
15	64QAM	1	0	12.29	12.54	12.49	
15	64QAM	1	37	12.45	12.46	12.41	13.8
15	64QAM	1	74	12.37	12.31	12.43	
15	64QAM	36	0	11.45	11.46	11.37	
15	64QAM	36	20	11.43	11.29	11.35	12.8
15	64QAM	36	39	11.24	11.29	11.32	
15	64QAM	75	0	11.35	11.42	11.32	
Channel				20800.88	21100.88	21400.88	15.8
Frequency (MHz)				2505.08	2535.08	2565.08	
10	QPSK	1	0	14.54	14.57	14.43	15.8
10	QPSK	1	25	14.45	14.43	14.34	
10	QPSK	1	49	14.50	14.42	14.36	
10	QPSK	25	0	13.38	13.50	13.28	14.8
10	QPSK	25	12	13.33	13.49	13.42	
10	QPSK	25	25	13.16	13.36	13.30	
10	QPSK	50	0	13.27	13.35	13.43	14.8
10	16QAM	1	0	13.43	13.56	13.40	
10	16QAM	1	25	13.45	13.55	13.38	
10	16QAM	1	49	13.33	13.51	13.46	13.8
10	16QAM	25	0	12.35	12.48	12.47	
10	16QAM	25	12	12.45	12.46	12.33	
10	16QAM	25	25	12.37	12.22	12.38	13.8
10	16QAM	50	0	12.25	12.36	12.39	
10	64QAM	1	0	12.29	12.57	12.41	
10	64QAM	1	25	12.29	12.39	12.49	13.8
10	64QAM	1	49	12.28	12.35	12.47	
10	64QAM	25	0	11.25	11.46	11.33	
10	64QAM	25	12	11.18	11.41	11.44	12.8

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	22.3
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	21.55	21.66	21.63	21.3
15	QPSK	1	37	21.50	21.53	21.56	
15	QPSK	1	74	21.43	21.55	21.54	
15	QPSK	36	0	20.44	20.57	20.53	
15	QPSK	36	20	20.39	20.49	20.31	21.3
15	QPSK	36	39	20.28	20.31	20.46	
15	QPSK	75	0	20.33	20.40	20.30	
15	16QAM	1	0	20.39	20.53	20.40	
15	16QAM	1	37	20.28	20.37	20.36	21.3
15	16QAM	1	74	20.46	20.46	20.34	
15	16QAM	36	0	19.38	19.59	19.39	
15	16QAM	36	20	19.23	19.55	19.51	
15	16QAM	36	39	19.42	19.58	19.43	20.3
15	16QAM	75	0	19.39	19.44	19.33	
15	64QAM	1	0	19.36	19.58	19.41	
15	64QAM	1	37	19.52	19.56	19.49	
15	64QAM	1	74	19.28	19.48	19.35	20.3
15	64QAM	36	0	18.47	18.53	18.49	
15	64QAM	36	20	18.44	18.50	18.46	
15	64QAM	36	39	18.28	18.33	18.45	
15	64QAM	75	0	18.35	18.46	18.42	19.3
Channel				26740	26865	26990	
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	21.46	21.64	21.57	
10	QPSK	1	25	21.29	21.51	21.43	
10	QPSK	1	49	21.38	21.53	21.42	
10	QPSK	25	0	20.30	20.47	20.45	
10	QPSK	25	12	20.28	20.33	20.27	21.3
10	QPSK	25	25	20.32	20.41	20.30	
10	QPSK	50	0	20.22	20.30	20.29	
10	16QAM	1	0	20.64	20.44	20.59	
10	16QAM	1	25	20.36	20.43	20.47	21.3
10	16QAM	1	49	20.53	20.55	20.55	
10	16QAM	25	0	19.31	19.48	19.46	
10	16QAM	25	12	19.20	19.37	19.39	
10	16QAM	25	25	19.28	19.32	19.22	20.3
10	16QAM	50	0	19.31	19.35	19.34	
10	64QAM	1	0	19.62	19.44	19.50	
10	64QAM	1	25	19.43	19.62	19.38	
10	64QAM	1	49	19.37	19.45	19.56	20.3
10	64QAM	25	0	18.39	18.58	18.52	
10	64QAM	25	12	18.29	18.41	18.35	
10	64QAM	25	25	18.34	18.57	18.28	
10	64QAM	50	0	18.38	18.35	18.21	19.3
Channel				26715	26865	27015	
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	21.42	21.61	21.48	
5	QPSK	1	12	21.41	21.55	21.45	
5	QPSK	1	24	21.34	21.39	21.36	
5	QPSK	12	0	20.40	20.49	20.44	
5	QPSK	12	7	20.27	20.41	20.37	21.3
5	QPSK	12	13	20.33	20.30	20.26	
5	QPSK	25	0	20.31	20.46	20.31	
5	16QAM	1	0	20.60	20.63	20.60	
5	16QAM	1	12	20.35	20.62	20.40	21.3
5	16QAM	1	24	20.41	20.50	20.51	
5	16QAM	12	0	19.50	19.53	19.50	
5	16QAM	12	7	19.46	19.44	19.38	
5	16QAM	12	13	19.43	19.24	19.22	20.3
5	16QAM	25	0	19.24	19.60	19.44	
5	64QAM	1	0	19.39	19.63	19.47	
5	64QAM	1	12	19.28	19.59	19.59	
5	64QAM	1	24	19.34	19.61	19.44	20.3
5	64QAM	12	0	18.55	18.56	18.53	
5	64QAM	12	7	18.47	18.40	18.50	
5	64QAM	12	13	18.30	18.23	18.26	
5	64QAM	25	0	18.12	18.34	18.24	19.3
Channel				26705	26865	27025	
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	21.48	21.62	21.53	
3	QPSK	1	8	21.56	21.55	21.55	
3	QPSK	1	14	21.29	21.51	21.46	
3	QPSK	8	0	20.32	20.54	20.42	
3	QPSK	8	4	20.23	20.37	20.49	21.3
3	QPSK	8	7	20.32	20.34	20.23	
3	QPSK	15	0	20.32	20.25	20.42	
3	16QAM	1	0	20.44	20.62	20.49	
3	16QAM	1	8	20.35	20.60	20.43	21.3
3	16QAM	1	14	20.31	20.54	20.55	
3	16QAM	8	0	19.51	19.56	19.38	
3	16QAM	8	4	19.29	19.49	19.34	
3	16QAM	8	7	19.33	19.43	19.22	20.3
3	16QAM	15	0	19.26	19.34	19.47	
3	64QAM	1	0	19.43	19.59	19.38	
3	64QAM	1	8	19.42	19.44	19.51	
3	64QAM	1	14	19.50	19.56	19.36	20.3
3	64QAM	8	0	18.30	18.53	18.52	
3	64QAM	8	4	18.31	18.52	18.45	
3	64QAM	8	7	18.28	18.40	18.42	
3	64QAM	15	0	18.43	18.57	18.33	19.3
Channel				26697	26865	27033	
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	21.37	21.59	21.48	
1.4	QPSK	1	3	21.41	21.51	21.36	
1.4	QPSK	1	5	21.32	21.43	21.33	
1.4	QPSK	3	0	20.24	20.50	20.33	
1.4	QPSK	3	1	20.45	20.36	20.34	21.3
1.4	QPSK	3	3	20.28	20.39	20.28	
1.4	QPSK	6	0	20.31	20.35	20.25	
1.4	16QAM	1	0	20.48	20.54	20.51	
1.4	16QAM	1	3	20.31	20.52	20.52	21.3
1.4	16QAM	1	5	20.27	20.47	20.45	
1.4	16QAM	3	0	19.37	19.53	19.32	
1.4	16QAM	3	1	19.47	19.37	19.31	
1.4	16QAM	3	3	19.30	19.32	19.33	20.3
1.4	16QAM	6	0	19.23	19.44	19.40	
1.4	64QAM	1	0	19.32	19.62	19.38	
1.4	64QAM	1	3	19.34	19.53	19.44	
1.4	64QAM	1	5	19.27	19.46	19.55	20.3
1.4	64QAM	3	0	18.36	18.55	18.48	
1.4	64QAM	3	1	18.37	18.46	18.37	

Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	16.3
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	15.42	15.46	15.37	15.3
20	QPSK	1	49	15.37	15.43	15.33	
20	QPSK	1	99	15.30	15.29	15.24	
20	QPSK	50	0	14.24	14.31	14.18	
20	QPSK	50	24	14.18	14.24	14.09	15.3
20	QPSK	50	50	14.14	14.19	14.15	
20	QPSK	100	0	14.12	14.15	14.17	
20	16QAM	1	0	14.14	14.36	14.19	
20	16QAM	1	49	14.27	14.12	14.17	15.3
20	16QAM	1	99	14.18	14.21	14.24	
20	16QAM	50	0	13.21	13.34	13.25	
20	16QAM	50	24	13.06	13.32	13.12	
20	16QAM	50	50	13.11	13.15	13.15	14.3
20	16QAM	100	0	13.07	13.23	13.24	
20	64QAM	1	0	13.17	13.29	13.24	
20	64QAM	1	49	13.13	13.15	13.26	
20	64QAM	1	99	13.22	13.21	13.18	14.3
20	64QAM	50	0	12.21	12.34	12.17	
20	64QAM	50	24	12.14	12.26	12.18	
20	64QAM	50	50	12.11	12.27	12.09	
20	64QAM	100	0	12.07	12.12	12.08	13.3
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	15.27	15.43	15.36	
15	QPSK	1	37	15.20	15.30	15.29	
15	QPSK	1	74	15.14	15.35	15.35	
15	QPSK	36	0	14.21	14.38	14.33	
15	QPSK	36	20	14.08	14.32	14.27	15.3
15	QPSK	36	39	14.16	14.20	14.09	
15	QPSK	75	0	14.10	14.01	14.20	
15	16QAM	1	0	14.25	14.36	14.34	
15	16QAM	1	37	14.23	14.23	14.16	15.3
15	16QAM	1	74	14.15	14.14	14.14	
15	16QAM	36	0	13.19	13.37	13.20	
15	16QAM	36	20	13.11	13.28	13.10	
15	16QAM	36	39	13.08	13.30	13.17	14.3
15	16QAM	75	0	13.13	13.24	13.21	
15	64QAM	1	0	13.14	13.37	13.16	
15	64QAM	1	37	13.17	13.32	13.36	
15	64QAM	1	74	13.15	13.23	13.14	14.3
15	64QAM	36	0	12.17	12.32	12.10	
15	64QAM	36	20	12.12	12.26	12.21	
15	64QAM	36	39	12.00	12.15	12.10	
15	64QAM	75	0	12.04	12.22	12.11	13.3
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	15.36	15.44	15.21	
10	QPSK	1	25				



1.4	64QAM	3	3	18.25	18.43	18.47	
1.4	64QAM	6	0	18.41	18.27	18.44	19.3

3	64QAM	8	7	12.12	12.25	12.10	
3	64QAM	15	0	12.07	12.15	12.12	
Channel				131979	132322	132665	Tune-up limit
Frequency (MHz)				1710.7	1745	1779.3	(dBm)
1.4	QPSK	1	0	15.32	15.39	15.31	16.3
1.4	QPSK	1	3	15.25	15.30	15.20	
1.4	QPSK	1	5	15.22	15.37	15.12	
1.4	QPSK	3	0	14.12	14.30	14.29	
1.4	QPSK	3	1	14.15	14.10	14.07	
1.4	QPSK	3	3	14.09	14.12	14.10	
1.4	QPSK	6	0	14.17	14.19	14.12	15.3
1.4	16QAM	1	0	14.38	14.41	14.39	15.3
1.4	16QAM	1	3	14.22	14.27	14.40	
1.4	16QAM	1	5	14.23	14.32	14.31	
1.4	16QAM	3	0	13.26	13.30	13.38	
1.4	16QAM	3	1	13.08	13.17	13.22	
1.4	16QAM	3	3	13.15	13.22	13.14	
1.4	16QAM	6	0	13.14	13.33	13.30	14.3
1.4	64QAM	1	0	13.26	13.37	13.29	14.3
1.4	64QAM	1	3	13.32	13.31	13.30	
1.4	64QAM	1	5	13.21	13.20	13.23	
1.4	64QAM	3	0	12.15	12.28	12.11	
1.4	64QAM	3	1	12.08	12.26	12.25	
1.4	64QAM	3	3	12.09	12.14	12.13	
1.4	64QAM	6	0	12.07	12.10	11.96	13.3



Band 38(only on channel required) (dBm)									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)		
Channel				37850	38000	38150			
Frequency (MHz)				2580	2595	2610			
20	QPSK	1	0	17.39	17.42	17.34	18.3		
20	QPSK	1	49	17.36	17.21	17.15			
20	QPSK	1	99	17.27	17.18	17.23			
20	QPSK	50	0	16.33	16.35	16.19	17.3		
20	QPSK	50	24	16.29	16.28	16.12			
20	QPSK	50	50	16.11	16.17	16.16			
20	QPSK	100	0	16.15	16.26	16.13	17.3		
20	16QAM	1	0	16.34	16.39	16.36			
20	16QAM	1	49	16.25	16.20	16.15			
20	16QAM	1	99	16.21	16.13	16.26	16.3		
20	16QAM	50	0	15.30	15.33	15.29			
20	16QAM	50	24	15.15	15.29	15.21			
20	16QAM	50	50	15.17	15.15	15.12	16.3		
20	16QAM	100	0	15.13	15.09	15.12			
20	64QAM	1	0	15.34	15.38	15.28			
20	64QAM	1	49	15.36	15.24	15.35	16.3		
20	64QAM	1	99	15.20	15.36	15.22			
20	64QAM	50	0	14.33	14.35	14.20			
20	64QAM	50	24	14.21	14.34	14.08	15.3		
20	64QAM	50	50	14.12	14.19	14.18			
20	64QAM	100	0	14.16	14.30	14.14			
Channel				37825	38000	38175	Tune-up limit (dBm)		
Frequency (MHz)				2577.5	2595	2612.5			
15	QPSK	1	0	17.37	17.39	17.28	18.3		
15	QPSK	1	37	17.24	17.27	17.09			
15	QPSK	1	74	17.30	17.19	17.32			
15	QPSK	36	0	16.21	16.28	16.24	17.3		
15	QPSK	36	20	16.17	16.23	16.00			
15	QPSK	36	39	16.12	16.19	16.11			
15	QPSK	75	0	16.16	16.29	16.07	17.3		
15	16QAM	1	0	16.32	16.33	16.31			
15	16QAM	1	37	16.07	16.26	16.24			
15	16QAM	1	74	16.16	16.17	16.18	16.3		
15	16QAM	36	0	15.26	15.26	15.23			
15	16QAM	36	20	15.11	15.08	15.12			
15	16QAM	36	39	15.04	15.09	15.06	16.3		
15	16QAM	75	0	15.21	15.15	15.13			
15	64QAM	1	0	15.25	15.41	15.25			
15	64QAM	1	37	15.14	15.18	15.29	16.3		
15	64QAM	1	74	15.09	15.32	15.16			
15	64QAM	36	0	14.27	14.32	14.15			
15	64QAM	36	20	14.21	14.34	14.07	15.3		
15	64QAM	36	39	14.10	14.19	14.16			
15	64QAM	75	0	14.15	14.20	14.03			
Channel				37800	38000	38200	Tune-up limit (dBm)		
Frequency (MHz)				2575	2595	2615			
10	QPSK	1	0	17.36	17.40	17.32	18.3		
10	QPSK	1	25	17.29	17.24	17.25			
10	QPSK	1	49	17.17	17.29	17.10			
10	QPSK	25	0	16.21	16.27	16.20	17.3		
10	QPSK	25	12	16.16	16.16	16.14			
10	QPSK	25	25	16.07	16.23	16.14			
10	QPSK	50	0	16.25	16.22	16.10	17.3		
10	16QAM	1	0	16.20	16.38	16.19			
10	16QAM	1	25	16.20	16.24	16.36			
10	16QAM	1	49	16.13	16.11	16.14	16.3		
10	16QAM	25	0	15.22	15.26	15.17			
10	16QAM	25	12	15.13	15.21	15.10			
10	16QAM	25	25	15.21	15.19	15.18	16.3		
10	16QAM	50	0	15.10	15.21	15.08			
10	64QAM	1	0	15.33	15.34	15.28			
10	64QAM	1	25	15.20	15.30	15.20	16.3		
10	64QAM	1	49	15.24	15.26	15.17			
10	64QAM	25	0	14.08	14.34	14.21			
10	64QAM	25	12	14.30	14.25	14.10	15.3		
10	64QAM	25	25	14.16	14.21	14.18			
10	64QAM	50	0	14.08	14.12	14.07			
Channel				37775	38000	38225	Tune-up limit (dBm)		
Frequency (MHz)				2572.5	2595	2617.5			
5	QPSK	1	0	17.32	17.38	17.17	18.3		
5	QPSK	1	12	17.24	17.18	17.23			
5	QPSK	1	24	17.16	17.30	17.09			
5	QPSK	12	0	16.22	16.29	16.16	17.3		
5	QPSK	12	7	16.17	16.21	16.08			
5	QPSK	12	13	16.06	16.12	16.12			
5	QPSK	25	0	16.07	16.14	16.09	17.3		
5	16QAM	1	0	16.28	16.37	16.35			
5	16QAM	1	12	16.34	16.26	16.31			
5	16QAM	1	24	16.25	16.17	16.20	17.3		
5	16QAM	12	0	15.26	15.26	15.09			
5	16QAM	12	7	15.10	15.12	15.20			
5	16QAM	12	13	15.22	15.15	15.09	16.3		
5	16QAM	25	0	15.08	15.11	15.09			
5	64QAM	1	0	15.33	15.34	15.10			
5	64QAM	1	12	15.27	15.14	15.32	16.3		
5	64QAM	1	24	15.04	15.24	15.35			
5	64QAM	12	0	14.16	14.26	14.17			
5	64QAM	12	7	14.07	14.09	14.05	15.3		
5	64QAM	12	13	14.19	14.15	14.12			
5	64QAM	25	0	14.19	14.22	14.13			

Band 41 PC3 (2535~2655MHz) (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				40140	40390	40640	40890	41140			
Frequency (MHz)				2545	2570	2595	2620	2645			
20	QPSK	1	0	16.91	17.07	17.09	17.02	17.04	17.8		
20	QPSK	1	49	16.86	16.94	16.96	16.85	16.90			
20	QPSK	1	99	16.77	16.99	16.98	16.90	16.98			
20	QPSK	50	0	15.83	15.96	15.97	15.92	15.93	16.8		
20	QPSK	50	24	15.77	15.93	15.88	15.87	15.86			
20	QPSK	50	50	15.75	15.91	15.84	15.80	15.82			
20	QPSK	100	0	15.79	15.87	15.85	15.91	15.94	16.8		
20	16QAM	1	0	15.89	16.00	16.04	15.92	15.97			
20	16QAM	1	49	15.81	15.91	16.00	15.88	15.95			
20	16QAM	1	99	15.70	15.89	15.93	15.80	15.89	15.8		
20	16QAM	50	0	14.85	14.93	14.95	14.91	14.83			
20	16QAM	50	24	14.72	14.81	14.92	14.86	14.89			
20	16QAM	50	50	14.78	14.83	14.81	14.78	14.74	15.8		
20	16QAM	100	0	14.77	14.78	14.86	14.87	14.84			
20	64QAM	1	0	14.87	15.02	15.05	14.93	15.01			
20	64QAM	1	49	14.85	14.77	14.99	14.87	14.82	15.8		
20	64QAM	1	99	14.82	14.90	14.92	14.76	14.84			
20	64QAM	50	0	13.82	13.94	13.96	13.88	13.93			
20	64QAM	50	24	13.86	13.93	13.86	13.91	13.71	14.8		
20	64QAM	50	50	13.73	13.82	13.89	13.84	13.69			
20	64QAM	100	0	13.70	13.83	13.84	13.72	13.80			
Channel				40115	40378	40640	40903	41165	Tune-up limit (dBm)		
Frequency (MHz)				2542.5	2568.8	2595	2621.3	2647.5			
15	QPSK	1	0	16.93	17.05	17.06	17.01	17.00	17.8		
15	QPSK	1	37	16.75	17.00	17.01	16.73	16.95			
15	QPSK	1	74	16.80	16.88	16.88	16.81	17.01			
15	QPSK	36	0	15.87	15.93	15.97	15.88	15.90	16.8		
15	QPSK	36	20	15.88	15.98	15.94	15.80	15.95			
15	QPSK	36	39	15.79	15.86	15.71	15.81	15.75			
15	QPSK	75	0	15.69	15.72	15.85	15.76	15.83	16.8		
15	16QAM	1	0	15.92	16.00	16.03	15.90	15.96			
15	16QAM	1	37	15.83	15.91	15.95	15.82	15.94			
15	16QAM	1	74	15.79	15.92	15.93	15.81	15.96	15.8		
15	16QAM	36	0	14.84	14.96	14.99	14.85	14.97			
15	16QAM	36	20	14.89	14.93	14.85	14.79	14.93			
15	16QAM	36	39	14.76	14.79	14.85	14.81	14.82	15.8		
15	16QAM	75	0	14.90	14.81	14.74	14.85	14.98			
15	64QAM	1	0	14.84	15.06	15.07	14.86	14.95			
15	64QAM	1	37	14.83	15.05	14.95	14.87	14.95	15.8		
15	64QAM	1	74	14.79	14.93	15.00	14.90	14.78			
15	64QAM	36	0	13.75	13.86	13.95	13.81	13.75			
15	64QAM	36	20	13.83	13.84	13.73	13.84	13.69	14.8		
15	64QAM	36	39	13.69	13.65	13.70	13.67	13.65			
15	64QAM	75	0	13.73	13.78	13.85	13.73	13.66			
Channel				40090	40365	40640	40915	41190	Tune-up limit (dBm)		
Frequency (MHz)				2540	2567.5	2595	2623.0	2650.5			
10	QPSK	1	0	16.89	17.02	17.07	16.92	16.98	17.8		
10	QPSK	1	25	16.87	17.00	16.96	17.05	16.91			
10	QPSK	1	49	16.94	16.99	17.03	16.84	16.95			
10	QPSK	25	0	15.80	15.86	15.96	15.75	15.79	16.8		
10	QPSK	25	12	15.68	15.89	15.87	15.93	15.86			
10	QPSK	25	25	15.82	15.88	15.78	15.82	15.81			
10	QPSK	50	0	15.74	15.85	15.90	15.65	15.65	16.8		
10	16QAM	1	0	15.93	15.97	16.04	15.86	15.89			
10	16QAM	1	25	15.86	15.96	15.95</					

2.4GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11b 1Mbps	CH 1	2412	14.03	15.00	13.50	98.97
	CH 6	2437	16.36	17.00	15.50	
	CH 11	2462	15.17	16.00	14.50	
802.11g 6Mbps	CH 1	2412	13.09	14.00	13.00	98.38
	CH 6	2437	14.76	15.50	14.50	
	CH 11	2462	13.04	14.00	13.00	
802.11n-HT20 MCSO	CH 1	2412	12.74	13.50	13.00	97.05
	CH 6	2437	14.46	15.00	14.50	
	CH 11	2462	12.80	13.50	13.00	
802.11n-HT40 MCSO	CH 3	2422	11.60	13.50	13.00	92.82
	CH 6	2437	13.57	14.50	12.50	
	CH 9	2452	11.96	13.00	12.00	
802.11ac-VHT20 MCSO	CH 1	2412	12.79	13.50	13.00	94.99
	CH 6	2437	14.16	15.00	14.00	
	CH 11	2462	13.81	14.50	13.00	
802.11ac-VHT40 MCSO	CH 3	2422	12.80	13.50	13.00	92.65
	CH 6	2437	13.50	14.50	12.50	
	CH 9	2452	13.09	14.00	14.00	

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 36	5180	13.83	14.50	13.00	98.10
	CH 44	5220	14.99	15.50	14.00	
	CH 48	5240	15.12	16.00	14.00	
802.11n-HT20 MCSO	CH 36	5180	13.54	14.50	13.00	95.07
	CH 44	5220	14.71	15.50	14.00	
	CH 48	5240	15.17	16.00	14.00	
802.11n-HT40 MCSO	CH 38	5190	9.88	10.50	9.50	93.00
	CH 46	5230	12.81	13.50	13.00	
	CH 36	5180	13.54	14.50	13.00	
802.11ac-VHT20 MCSO	CH 44	5220	14.81	15.50	14.00	97.21
	CH 48	5240	15.07	16.00	14.00	
	CH 38	5190	9.85	10.50	9.50	
802.11ac-VHT40 MCSO	CH 38	5190	9.85	10.50	9.50	95.41
	CH 46	5230	12.87	13.50	13.00	
	CH 42	5210	9.11	10.00	9.00	

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 52	5260	15.83	16.50	14.00	98.57
	CH 60	5300	14.99	15.50	14.00	
	CH 64	5320	13.99	14.00	13.00	
802.11n-HT20 MCSO	CH 52	5260	15.29	16.00	14.00	95.07
	CH 60	5300	14.73	15.50	14.00	
	CH 64	5320	13.19	14.00	13.00	
802.11n-HT40 MCSO	CH 54	5270	12.75	13.50	13.00	93.00
	CH 62	5310	8.94	9.50	9.00	
	CH 52	5260	15.25	16.00	14.00	
802.11ac-VHT20 MCSO	CH 60	5300	14.76	15.50	14.00	95.07
	CH 64	5320	13.19	14.00	13.00	
	CH 54	5270	12.74	13.50	13.00	
802.11ac-VHT40 MCSO	CH 54	5270	12.74	13.50	13.00	90.48
	CH 62	5310	8.94	9.50	9.00	
	CH 58	5290	8.69	9.50	9.00	

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 100	5500	13.28	14.00	12.00	98.57
	CH 120	5600	13.90	14.50	12.50	
	CH 140	5700	12.41	13.00	11.00	
802.11n-HT20 MCSO	CH 100	5500	13.55	14.50	12.50	97.45
	CH 120	5600	14.54	15.50	13.00	
	CH 140	5700	13.76	14.50	12.50	
802.11n-HT40 MCSO	CH 102	5510	8.98	9.50	8.00	94.42
	CH 126	5630	12.80	13.50	12.00	
	CH 134	5670	12.67	13.50	12.00	
802.11ac-VHT20 MCSO	CH 100	5500	12.05	13.00	11.00	95.54
	CH 120	5600	14.50	15.50	13.00	
	CH 140	5700	12.68	13.50	11.50	
802.11ac-VHT40 MCSO	CH 102	5510	8.95	9.50	8.00	94.90
	CH 126	5630	12.81	13.50	12.00	
	CH 134	5670	12.69	13.50	12.00	
802.11ac-VHT80 MCSO	CH 106	5530	8.91	9.50	8.00	86.41
	CH 122	5610	12.60	13.50	12.00	

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 149	5745	14.45	15.50	13.00	98.57
	CH 157	5785	14.21	15.00	13.00	
	CH 165	5825	13.51	14.50	12.50	
802.11n-HT20 MCSO	CH 149	5745	13.43	14.00	12.50	96.95
	CH 157	5785	14.14	15.00	13.00	
	CH 165	5825	12.61	13.50	12.00	
802.11n-HT40 MCSO	CH 151	5755	12.31	13.00	12.00	93.00
	CH 159	5795	12.07	13.00	12.00	
	CH 149	5745	13.39	14.00	12.50	
802.11ac-VHT20 MCSO	CH 157	5785	14.24	15.00	13.00	97.21
	CH 165	5825	12.78	13.50	12.00	
	CH 151	5755	12.37	13.00	12.00	
802.11ac-VHT40 MCSO	CH 159	5795	12.04	13.00	12.00	94.44
	CH 155	5775	11.82	12.50	12.00	

**Reduced Power Level 2 for ANT 1 & ANT 2**

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	9900	9938		1637	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6	1712.4	1732.6	1752.6		
3GPP Rel 99	RMC 12.2Kbps	18.95	18.97	18.89	19.80	19.33	19.36	19.26	20.30
3GPP Rel 5	HSDPA Subtest-1	18.36	18.18	17.75	19.00	18.50	18.35	18.19	19.50
3GPP Rel 5	HSDPA Subtest-2	17.34	17.15	17.06	18.00	17.44	17.38	17.27	18.00
3GPP Rel 5	HSDPA Subtest-3	16.57	16.49	16.06	17.50	16.71	16.69	16.43	17.50
3GPP Rel 5	HSDPA Subtest-4	16.48	16.34	15.98	17.00	16.66	16.62	16.37	17.50
3GPP Rel 8	DC-HSDPA Subtest-1	18.40	18.47	18.07	19.00	18.43	18.34	18.14	19.00
3GPP Rel 8	DC-HSDPA Subtest-2	17.18	17.24	16.85	18.00	17.35	17.21	19.05	20.00
3GPP Rel 8	DC-HSDPA Subtest-3	16.29	16.35	15.95	17.00	16.20	16.30	16.12	17.00
3GPP Rel 8	DC-HSDPA Subtest-4	16.42	16.47	16.07	17.00	16.33	16.42	16.25	17.00
3GPP Rel 6	HSUPA Subtest-1	17.21	17.10	16.97	18.00	17.44	17.39	17.20	18.00
3GPP Rel 6	HSUPA Subtest-2	17.15	17.18	16.91	18.00	17.37	17.29	17.18	18.00
3GPP Rel 6	HSUPA Subtest-3	17.01	16.92	16.64	18.00	17.17	17.18	16.97	18.00
3GPP Rel 6	HSUPA Subtest-4	18.17	18.20	17.87	19.00	18.47	18.43	18.13	19.00
3GPP Rel 6	HSUPA Subtest-5	17.16	17.10	16.79	18.00	17.40	17.47	17.14	18.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	16.35	16.36	16.10	17.00	16.72	16.52	16.40	17.50
Attenuator			Cable Loss	0.8		Cable Loss	0.8		
Mode			Max.	18.97		Max.	19.36		

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	20.3
Frequency (MHz)				18600	18800	19000	
20	QPSK	1	0	19.36	19.41	19.20	19.3
20	QPSK	1	49	19.29	19.33	19.17	
20	QPSK	1	99	19.24	19.30	19.11	19.3
20	QPSK	50	0	18.21	18.25	18.13	
20	QPSK	50	24	18.15	18.20	18.05	19.3
20	QPSK	50	50	18.04	18.11	17.98	
20	QPSK	100	0	18.12	18.17	18.02	19.3
20	16QAM	1	0	18.33	18.36	18.22	
20	16QAM	1	49	18.27	18.31	18.14	19.3
20	16QAM	1	99	18.22	18.26	18.16	
20	16QAM	50	0	17.23	17.28	17.14	18.3
20	16QAM	50	24	17.17	17.24	17.09	
20	16QAM	50	50	17.10	17.15	17.01	18.3
20	16QAM	100	0	17.15	17.20	17.08	
20	64QAM	1	0	17.31	17.35	17.19	18.3
20	64QAM	1	49	17.26	17.32	17.13	
20	64QAM	1	99	17.20	17.27	17.14	17.3
20	64QAM	50	0	16.22	16.26	16.12	
20	64QAM	50	24	16.19	16.23	16.05	17.3
20	64QAM	50	50	16.08	16.14	15.99	
20	64QAM	100	0	16.14	16.18	16.03	
Channel				18675	18900	19125	20.3
Frequency (MHz)				1857.5	18800	1902.5	
15	QPSK	1	0	19.34	19.39	19.04	19.3
15	QPSK	1	37	19.14	19.37	19.16	
15	QPSK	1	74	19.09	19.20	19.17	19.3
15	QPSK	36	0	18.34	18.36	18.07	
15	QPSK	36	20	17.98	18.20	17.96	19.3
15	QPSK	36	39	18.14	18.05	18.00	
15	QPSK	75	0	18.01	18.00	18.16	19.3
15	16QAM	1	0	18.35	18.39	18.16	
15	16QAM	1	37	18.08	18.18	18.21	18.3
15	16QAM	1	74	18.28	18.30	18.16	
15	16QAM	36	0	17.27	17.19	17.08	18.3
15	16QAM	36	20	17.13	17.04	17.12	
15	16QAM	36	39	17.10	17.13	17.14	18.3
15	16QAM	75	0	16.96	17.11	17.09	
15	64QAM	1	0	17.43	17.16	17.34	18.3
15	64QAM	1	37	17.30	17.28	17.07	
15	64QAM	1	74	17.13	17.25	17.29	17.3
15	64QAM	36	0	16.14	16.33	16.15	
15	64QAM	36	20	16.11	16.25	15.89	17.3
15	64QAM	36	39	16.04	16.11	15.88	
15	64QAM	75	0	16.11	15.98	16.07	
Channel				18650	18900	19150	20.3
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	19.29	19.34	19.28	19.3
10	QPSK	1	25	19.26	19.26	19.29	
10	QPSK	1	49	19.25	19.20	18.98	19.3
10	QPSK	25	0	18.12	18.15	18.12	
10	QPSK	25	12	18.24	18.24	17.96	19.3
10	QPSK	25	25	17.85	18.04	17.92	
10	QPSK	50	0	18.10	18.14	18.11	19.3
10	16QAM	1	0	18.38	18.33	18.12	
10	16QAM	1	25	18.07	18.25	18.02	18.3
10	16QAM	1	49	18.14	18.17	18.06	
10	16QAM	25	0	17.14	17.17	17.08	18.3
10	16QAM	25	12	17.19	17.15	17.08	
10	16QAM	25	25	16.94	17.20	16.93	18.3
10	16QAM	50	0	17.27	17.19	16.98	
10	64QAM	1	0	17.13	17.27	17.00	18.3
10	64QAM	1	25	17.08	17.32	17.03	
10	64QAM	1	49	17.03	17.39	17.08	17.3
10	64QAM	25	0	16.03	16.31	16.00	
10	64QAM	25	12	16.05	16.30	16.01	17.3
10	64QAM	25	25	15.98	16.23	16.04	
10	64QAM	50	0	16.12	16.05	16.06	
Channel				18625	18900	19175	20.3
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	19.31	19.35	19.19	19.3
5	QPSK	1	12	19.34	19.17	19.00	
5	QPSK	1	24	19.21	19.29	19.00	19.3
5	QPSK	12	0	18.29	18.21	17.93	
5	QPSK	12	7	17.95	18.09	18.05	19.3
5	QPSK	12	13	18.01	17.92	17.91	
5	QPSK	25	0	18.26	18.22	18.02	19.3
5	16QAM	1	0	18.30	18.44	18.25	
5	16QAM	1	12	18.42	18.42	18.08	19.3
5	16QAM	1	24	18.19	18.08	18.10	
5	16QAM	12	0	17.35	17.39	17.12	18.3
5	16QAM	12	7	17.08	17.29	17.00	
5	16QAM	12	13	17.10	17.26	16.98	18.3
5	16QAM	25	0	17.15	17.29	16.97	
5	64QAM	1	0	17.19	17.29	17.11	18.3
5	64QAM	1	12	17.37	17.37	17.03	
5	64QAM	1	24	17.25	17.19	16.97	17.3
5	64QAM	12	0	16.13	16.23	16.20	
5	64QAM	12	7	16.18	16.33	16.18	17.3
5	64QAM	12	13	15.91	16.29	15.94	
5	64QAM	25	0	16.11	16.02	16.04	
Channel				18615	18900	19185	20.3
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	19.28	19.38	19.25	19.3
3	QPSK	1	8	19.22	19.28	19.24	
3	QPSK	1	14	19.19	19.29	19.21	19.3
3	QPSK	8	0	18.28	18.34	18.15	
3	QPSK	8	4	18.07	18.11	17.92	19.3
3	QPSK	8	7	17.87	18.06	17.95	
3	QPSK	15	0	18.11	18.08	18.13	19.3
3	16QAM	1	0	18.36	18.43	18.27	
3	16QAM	1	8	18.29	18.17	18.22	18.3
3	16QAM	1	14	18.25	18.33	18.24	
3	16QAM	8	0	17.08	17.30	17.00	18.3
3	16QAM	8	4	17.25	17.15	16.90	
3	16QAM	8	7	17.21	17.14	16.93	18.3
3	16QAM	15	0	16.99	17.32	17.19	
3	64QAM	1	0	17.40	17.21	17.22	18.3
3	64QAM	1	8	17.17	17.24	17.11	
3	64QAM	1	14	17.26	17.34	17.18	17.3
3	64QAM	8	0	16.14	16.27	16.04	
3	64QAM	8	4	16.12	16.13	16.08	

Band 4 (AWS Band) (dBm)							
Part 27I (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	20.3
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	19.36	19.45	19.42	19.3
20	QPSK	1	49	19.18	19.34	19.12	
20	QPSK	1	99	19.23	19.28	19.15	19.3
20	QPSK	50	0	18.14	18.22	18.12	
20	QPSK	50	24	18.06	18.19	17.97	19.3
20	QPSK	50	50	17.92	18.06	17.99	
20	QPSK	100	0	18.03	18.18	18.11	19.3
20	16QAM	1	0	18.41	18.43	18.31	
20	16QAM	1	49	18.05	18.31	18.02	19.3
20	16QAM	1	99	18.01	18.11	18.28	
20	16QAM	50	0	17.31	17.30	16.91	18.3
20	16QAM	50	24	17.09	17.13	16.97	
20	16QAM	50	50	17.11	17.23	16.97	18.3
20	16QAM	100	0	17.12	17.27	17.00	
20	64QAM	1	0	17.16	17.34	17.26	18.3
20	64QAM	1	49	17.09	17.29	17.08	
20	64QAM	1	99	17.25	17.25	17.25	17.3
20	64QAM	50	0	16.09	16.35	16.10	
20	64QAM	50	24	15.96	16.30	16.06	17.3
20	64QAM	50	50	15.97	16.17	16.10	
20	64QAM	100	0	16.07	16.22	15.93	
Channel				20025	20175	20325	20.3
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	19.29	19.40	19.33	19.3
15	QPSK	1	37	19.32	19.22	19.14	
15	QPSK	1	74	19.09	19.33	19.06	19.3
15	QPSK	36	0	18.10	18.28	18.07	
15	QPSK	36	20	18.04	18.25	18.01	19.3
15	QPSK	36	39	18.14	17.92	17.96	
15	QPSK	75	0	18.21	18.07	17.96	19.3
15	16QAM	1	0	18.11	18.32	18.27	
15	16QAM	1	37	18.31	18.35	18.24	18.3
15	16QAM	1	74	18.13	18.08	18.12	
15	16QAM	36	0	17.23	17.28	17.12	18.3
15	16QAM	36	20	17.24	17.14	17.15	
15	16QAM	36	39	16.92	16.99	16.85	18.3
15	16QAM	75	0	17.04	17.09	17.06	
15	64QAM	1	0	17.29	17.30	16.99	18.3
15	64QAM	1	37	17.04	17.28	16.98	
15	64QAM	1	74	17.11	17.22	16.93	17.3
15							



3	64QAM	8	7	16.03	16.17	15.94	Tune-up limit (dBm)
3	64QAM	15	0	16.09	16.00	15.89	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	19.28	19.37	19.06	20.3
1.4	QPSK	1	3	19.15	19.24	19.25	
1.4	QPSK	1	5	19.22	19.14	19.02	
1.4	QPSK	3	0	18.13	18.25	18.16	
1.4	QPSK	3	1	18.26	18.09	17.88	
1.4	QPSK	3	3	18.05	17.94	17.90	
1.4	QPSK	6	0	18.07	18.03	17.97	19.3
1.4	16QAM	1	0	18.37	18.40	18.10	19.3
1.4	16QAM	1	3	18.24	18.24	18.22	
1.4	16QAM	1	5	18.14	18.33	18.02	
1.4	16QAM	3	0	17.31	17.21	17.06	
1.4	16QAM	3	1	17.27	17.16	16.89	
1.4	16QAM	3	3	16.91	17.04	16.88	
1.4	16QAM	6	0	17.22	17.20	17.22	18.3
1.4	64QAM	1	0	17.37	17.42	17.27	18.3
1.4	64QAM	1	3	17.33	17.13	17.06	
1.4	64QAM	1	5	17.25	17.33	17.11	
1.4	64QAM	3	0	16.26	16.22	16.06	
1.4	64QAM	3	1	16.32	16.37	15.97	
1.4	64QAM	3	3	16.05	16.27	15.95	
1.4	64QAM	6	0	16.07	16.10	16.15	17.3

3	64QAM	8	7	16.16	16.26	16.05	Tune-up limit (dBm)
3	64QAM	15	0	16.06	16.14	15.94	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	19.28	19.38	19.30	20.3
1.4	QPSK	1	3	19.25	19.34	19.18	
1.4	QPSK	1	5	19.25	19.21	19.03	
1.4	QPSK	3	0	18.27	18.18	18.04	
1.4	QPSK	3	1	18.03	18.05	18.16	
1.4	QPSK	3	3	18.03	18.18	18.00	
1.4	QPSK	6	0	18.10	18.09	17.85	20.3
1.4	16QAM	1	0	18.36	18.26	18.04	20.3
1.4	16QAM	1	3	18.04	18.34	18.24	
1.4	16QAM	1	5	18.15	18.13	17.98	
1.4	16QAM	3	0	17.25	17.35	17.22	
1.4	16QAM	3	1	17.21	17.04	17.09	
1.4	16QAM	3	3	17.21	17.27	17.11	
1.4	16QAM	6	0	17.20	16.98	17.00	20.3
1.4	64QAM	1	0	17.21	17.34	17.23	20.3
1.4	64QAM	1	3	17.23	17.21	17.24	
1.4	64QAM	1	5	17.23	17.32	17.06	
1.4	64QAM	3	0	16.31	16.22	16.16	
1.4	64QAM	3	1	15.96	16.16	16.02	
1.4	64QAM	3	3	15.94	16.08	16.10	
1.4	64QAM	6	0	16.03	15.98	15.95	20.3



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	17.54	17.63	17.55	18.8
20	QPSK	1	49	17.54	17.47	17.40	
20	QPSK	1	99	17.40	17.45	17.36	
20	QPSK	50	0	16.47	16.52	16.37	17.8
20	QPSK	50	24	16.43	16.39	16.30	
20	QPSK	50	50	16.23	16.37	16.40	
20	QPSK	100	0	16.26	16.41	16.35	17.8
20	16QAM	1	0	16.40	16.60	16.44	
20	16QAM	1	49	16.53	16.45	16.48	
20	16QAM	1	99	16.29	16.53	16.32	16.8
20	16QAM	50	0	15.45	15.53	15.50	
20	16QAM	50	24	15.34	15.51	15.44	
20	16QAM	50	50	15.37	15.51	15.38	16.8
20	16QAM	100	0	15.25	15.47	15.48	
20	64QAM	1	0	15.45	15.57	15.49	
20	64QAM	1	49	15.31	15.41	15.32	16.8
20	64QAM	1	99	15.35	15.39	15.48	
20	64QAM	50	0	14.47	14.52	14.39	
20	64QAM	50	24	14.31	14.27	14.37	15.8
20	64QAM	50	50	14.17	14.47	14.30	
20	64QAM	100	0	14.19	14.47	14.31	
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	17.55	17.58	17.55	18.8
15	QPSK	1	37	17.37	17.38	17.47	
15	QPSK	1	74	17.32	17.44	17.40	
15	QPSK	36	0	16.37	16.47	16.43	17.8
15	QPSK	36	20	16.25	16.28	16.23	
15	QPSK	36	39	16.38	16.44	16.32	
15	QPSK	75	0	16.20	16.22	16.33	17.8
15	16QAM	1	0	16.53	16.55	16.46	
15	16QAM	1	37	16.38	16.48	16.33	
15	16QAM	1	74	16.43	16.45	16.42	16.8
15	16QAM	36	0	15.47	15.49	15.49	
15	16QAM	36	20	15.36	15.43	15.45	
15	16QAM	36	39	15.27	15.33	15.41	16.8
15	16QAM	75	0	15.30	15.48	15.44	
15	64QAM	1	0	15.29	15.54	15.49	
15	64QAM	1	37	15.45	15.46	15.41	16.8
15	64QAM	1	74	15.37	15.31	15.43	
15	64QAM	36	0	14.45	14.46	14.37	
15	64QAM	36	20	14.43	14.29	14.35	15.8
15	64QAM	36	39	14.24	14.29	14.32	
15	64QAM	75	0	14.35	14.42	14.32	
Channel				20800.88	21100.88	21400.88	
Frequency (MHz)				2505.08	2535.08	2565.08	
10	QPSK	1	0	17.54	17.57	17.43	18.8
10	QPSK	1	25	17.45	17.43	17.34	
10	QPSK	1	49	17.50	17.42	17.36	
10	QPSK	25	0	16.38	16.50	16.28	17.8
10	QPSK	25	12	16.33	16.49	16.42	
10	QPSK	25	25	16.16	16.36	16.30	
10	QPSK	50	0	16.27	16.35	16.43	17.8
10	16QAM	1	0	16.43	16.56	16.40	
10	16QAM	1	25	16.45	16.55	16.38	
10	16QAM	1	49	16.33	16.51	16.46	16.8
10	16QAM	25	0	15.35	15.48	15.47	
10	16QAM	25	12	15.45	15.46	15.33	
10	16QAM	25	25	15.37	15.22	15.38	16.8
10	16QAM	50	0	15.25	15.36	15.39	
10	64QAM	1	0	15.29	15.57	15.41	
10	64QAM	1	25	15.29	15.39	15.49	16.8
10	64QAM	1	49	15.28	15.35	15.47	
10	64QAM	25	0	14.25	14.46	14.33	
10	64QAM	25	12	14.18	14.41	14.44	15.8
10	64QAM	25	25	14.14	14.42	14.28	
10	64QAM	50	0	14.15	14.30	14.28	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	17.42	17.56	17.53	18.8
5	QPSK	1	12	17.28	17.45	17.43	
5	QPSK	1	24	17.24	17.46	17.32	
5	QPSK	12	0	16.37	16.49	16.41	17.8
5	QPSK	12	7	16.22	16.42	16.20	
5	QPSK	12	13	16.26	16.34	16.23	
5	QPSK	25	0	16.23	16.47	16.39	17.8
5	16QAM	1	0	16.51	16.55	16.50	
5	16QAM	1	12	16.29	16.49	16.53	
5	16QAM	1	24	16.42	16.48	16.39	16.8
5	16QAM	12	0	15.34	15.50	15.42	
5	16QAM	12	7	15.19	15.31	15.37	
5	16QAM	12	13	15.23	15.30	15.29	16.8
5	16QAM	25	0	15.35	15.34	15.44	
5	64QAM	1	0	15.37	15.52	15.36	
5	64QAM	1	12	15.27	15.47	15.32	16.8
5	64QAM	1	24	15.25	15.42	15.46	
5	64QAM	12	0	14.46	14.48	14.41	
5	64QAM	12	7	14.47	14.37	14.19	15.8
5	64QAM	12	13	14.24	14.31	14.16	
5	64QAM	25	0	14.31	14.28	14.18	

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	19.42	19.46	19.37	20.3
20	QPSK	1	49	19.37	19.43	19.33	
20	QPSK	1	99	19.30	19.29	19.24	
20	QPSK	50	0	18.24	18.31	18.18	19.3
20	QPSK	50	24	18.18	18.24	18.09	
20	QPSK	50	50	18.14	18.19	18.15	
20	QPSK	100	0	18.12	18.15	18.17	19.3
20	16QAM	1	0	18.14	18.36	18.19	
20	16QAM	1	49	18.27	18.12	18.17	
20	16QAM	1	99	18.18	18.21	18.24	18.3
20	16QAM	50	0	17.21	17.34	17.25	
20	16QAM	50	24	17.06	17.32	17.12	
20	16QAM	50	50	17.11	17.15	17.15	18.3
20	16QAM	100	0	17.07	17.23	17.24	
20	64QAM	1	0	17.17	17.29	17.24	
20	64QAM	1	49	17.13	17.15	17.26	18.3
20	64QAM	1	99	17.22	17.21	17.18	
20	64QAM	50	0	16.21	16.34	16.17	
20	64QAM	50	24	16.14	16.26	16.18	17.3
20	64QAM	50	50	16.11	16.27	16.09	
20	64QAM	100	0	16.07	16.12	16.08	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	19.27	19.43	19.36	20.3
15	QPSK	1	37	19.20	19.30	19.29	
15	QPSK	1	74	19.14	19.35	19.35	
15	QPSK	36	0	18.21	18.38	18.33	19.3
15	QPSK	36	20	18.08	18.32	18.27	
15	QPSK	36	39	18.16	18.20	18.09	
15	QPSK	75	0	18.10	18.01	18.20	19.3
15	16QAM	1	0	18.25	18.36	18.34	
15	16QAM	1	37	18.23	18.23	18.16	
15	16QAM	1	74	18.15	18.14	18.14	18.3
15	16QAM	36	0	17.19	17.37	17.20	
15	16QAM	36	20	17.11	17.28	17.10	
15	16QAM	36	39	17.08	17.30	17.17	18.3
15	16QAM	75	0	17.13	17.24	17.21	
15	64QAM	1	0	17.14	17.37	17.16	
15	64QAM	1	37	17.17	17.32	17.36	18.3
15	64QAM	1	74	17.15	17.23	17.14	
15	64QAM	36	0	16.17	16.32	16.10	
15	64QAM	36	20	16.12	16.26	16.21	17.3
15	64QAM	36	39	16.00	16.15	16.10	
15	64QAM	75	0	16.04	16.22	16.11	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	19.36	19.44	19.21	20.3
10	QPSK	1	25	19.15	19.33	19.30	
10	QPSK	1	49	19.19	19.28	19.15	
10	QPSK	25	0	18.27	18.32	18.14	19.3
10	QPSK	25	12	18.05	18.24	18.28	
10	QPSK	25	25	18.08	18.20	18.11	
10	QPSK	50	0	18.12	18.17	18.07	19.3
10	16QAM	1	0	18.27	18.39	18.27	
10	16QAM	1	25	18.29	18.25	18.16	
10	16QAM	1	49	18.18	18.22	18.22	18.3
10	16QAM	25	0	17.19	17.32	17.31	
10	16QAM	25	12	17.15	17.18	17.13	
10	16QAM	25	25	17.08	17.29	17.10	18.3
10	16QAM	50	0	17.13	17.28	17.14	
10	64QAM	1	0	17.28	17.36	17.21	
10	64QAM	1	25	17.31	17.13	17.22	18.3
10	64QAM	1	49	17.23	17.19	17.15	
10	64QAM	25	0	16.15	16.23	16.19	
10	64QAM	25	12	16.10	16.34	16.14	17.3



3	64QAM	8	7	16.12	16.25	16.10	17.3
3	64QAM	15	0	16.07	16.15	16.12	
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	Tune-up limit (dBm)
1.4	QPSK	1	0	19.32	19.39	19.31	20.3
1.4	QPSK	1	3	19.25	19.30	19.20	
1.4	QPSK	1	5	19.22	19.37	19.12	
1.4	QPSK	3	0	18.12	18.30	18.29	
1.4	QPSK	3	1	18.15	18.10	18.07	
1.4	QPSK	3	3	18.09	18.12	18.10	
1.4	QPSK	6	0	18.17	18.19	18.12	19.3
1.4	16QAM	1	0	18.38	18.41	18.39	19.3
1.4	16QAM	1	3	18.22	18.27	18.40	
1.4	16QAM	1	5	18.23	18.32	18.31	
1.4	16QAM	3	0	17.26	17.30	17.38	
1.4	16QAM	3	1	17.08	17.17	17.22	
1.4	16QAM	3	3	17.15	17.22	17.14	
1.4	16QAM	6	0	17.14	17.33	17.30	18.3
1.4	64QAM	1	0	17.26	17.37	17.29	18.3
1.4	64QAM	1	3	17.32	17.31	17.30	
1.4	64QAM	1	5	17.21	17.20	17.23	
1.4	64QAM	3	0	16.15	16.28	16.11	
1.4	64QAM	3	1	16.08	16.26	16.25	
1.4	64QAM	3	3	16.09	16.14	16.13	
1.4	64QAM	6	0	16.07	16.10	15.96	17.3

Band 41 PC3 (2535~2655MHz) (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				40140	40390	40640	40890	41140	
Frequency (MHz)				2545	2570	2595	2620	2645	
20	QPSK	1	0	21.41	21.57	21.59	21.52	21.54	22.3
20	QPSK	1	49	21.36	21.44	21.46	21.35	21.40	
20	QPSK	1	99	21.27	21.49	21.48	21.40	21.48	
20	QPSK	50	0	20.33	20.46	20.47	20.42	20.43	21.3
20	QPSK	50	24	20.27	20.43	20.38	20.37	20.36	
20	QPSK	50	50	20.25	20.41	20.34	20.30	20.32	
20	QPSK	100	0	20.29	20.37	20.35	20.41	20.44	21.3
20	16QAM	1	0	20.39	20.50	20.54	20.42	20.47	
20	16QAM	1	49	20.31	20.41	20.50	20.38	20.45	
20	16QAM	1	99	20.20	20.39	20.43	20.30	20.39	20.3
20	16QAM	50	0	19.35	19.43	19.45	19.41	19.33	
20	16QAM	50	24	19.22	19.31	19.42	19.36	19.39	
20	16QAM	50	50	19.28	19.33	19.31	19.28	19.24	20.3
20	16QAM	100	0	19.27	19.28	19.36	19.37	19.34	
20	64QAM	1	0	19.37	19.52	19.55	19.43	19.51	
20	64QAM	1	49	19.35	19.27	19.49	19.37	19.32	20.3
20	64QAM	1	99	19.32	19.40	19.42	19.26	19.34	
20	64QAM	50	0	18.32	18.44	18.46	18.38	18.43	
20	64QAM	50	24	18.36	18.43	18.36	18.41	18.21	19.3
20	64QAM	50	50	18.23	18.32	18.39	18.34	18.19	
20	64QAM	100	0	18.20	18.33	18.34	18.22	18.30	
Channel				40115	40378	40640	40903	41165	
Frequency (MHz)				2542.5	2568.8	2595	2621.3	2647.5	
15	QPSK	1	0	21.43	21.55	21.56	21.51	21.50	22.3
15	QPSK	1	37	21.25	21.50	21.51	21.23	21.45	
15	QPSK	1	74	21.30	21.38	21.38	21.31	21.51	
15	QPSK	36	0	20.37	20.43	20.47	20.38	20.40	21.3
15	QPSK	36	20	20.38	20.48	20.44	20.30	20.45	
15	QPSK	36	39	20.29	20.36	20.21	20.31	20.25	
15	QPSK	75	0	20.19	20.22	20.35	20.26	20.33	21.3
15	16QAM	1	0	20.42	20.50	20.53	20.40	20.46	
15	16QAM	1	37	20.33	20.41	20.45	20.42	20.44	
15	16QAM	1	74	20.29	20.42	20.43	20.31	20.46	20.3
15	16QAM	36	0	19.34	19.46	19.49	19.35	19.47	
15	16QAM	36	20	19.39	19.43	19.38	19.29	19.43	
15	16QAM	36	39	19.26	19.29	19.35	19.31	19.32	20.3
15	16QAM	75	0	19.40	19.31	19.24	19.35	19.48	
15	64QAM	1	0	19.34	19.56	19.57	19.36	19.45	
15	64QAM	1	37	19.33	19.55	19.45	19.37	19.45	20.3
15	64QAM	1	74	19.29	19.43	19.50	19.40	19.28	
15	64QAM	36	0	18.25	18.36	18.45	18.31	18.25	
15	64QAM	36	20	18.33	18.34	18.23	18.34	18.19	19.3
15	64QAM	36	39	18.19	18.15	18.20	18.17	18.15	
15	64QAM	75	0	18.23	18.28	18.35	18.23	18.16	
Channel				40090	40365	40640	40915	41190	
Frequency (MHz)				2540	2567.5	2595	2622.5	2650	
10	QPSK	1	0	21.39	21.52	21.57	21.42	21.48	22.3
10	QPSK	1	25	21.37	21.50	21.46	21.55	21.41	
10	QPSK	1	49	21.44	21.49	21.53	21.34	21.45	
10	QPSK	25	0	20.30	20.36	20.46	20.25	20.29	21.3
10	QPSK	25	12	20.18	20.39	20.37	20.43	20.36	
10	QPSK	25	25	20.32	20.18	20.28	20.32	20.31	
10	QPSK	50	0	20.24	20.35	20.40	20.17	20.15	21.3
10	16QAM	1	0	20.43	20.47	20.54	20.36	20.39	
10	16QAM	1	25	20.36	20.46	20.45	20.29	20.43	
10	16QAM	1	49	20.38	20.31	20.37	20.44	20.32	20.3
10	16QAM	25	0	19.30	19.27	19.45	19.29	19.43	
10	16QAM	25	12	19.19	19.39	19.36	19.31	19.44	
10	16QAM	25	25	19.25	19.23	19.39	19.26	19.34	20.3
10	16QAM	50	0	19.16	19.28	19.33	19.36	19.41	
10	64QAM	1	0	19.40	19.50	19.54	19.47	19.47	
10	64QAM	1	25	19.24	19.40	19.33	19.35	19.23	20.3
10	64QAM	1	49	19.45	19.42	19.46	19.33	19.41	
10	64QAM	25	0	18.33	18.35	18.47	18.39	18.41	
10	64QAM	25	12	18.26	18.47	18.29	18.44	18.21	19.3
10	64QAM	25	25	18.22	18.33	18.35	18.30	18.36	
10	64QAM	50	0	18.21	18.29	18.37	18.27	18.41	
Channel				40065	40353	40640	40928	41215	
Frequency (MHz)				2537.5	2566.3	2595	2623.80	2652.5	
5	QPSK	1	0	21.42	21.50	21.55	21.53	21.44	22.3
5	QPSK	1	12	21.25	21.37	21.43	21.29	21.32	
5	QPSK	1	24	21.23	21.41	21.39	21.28	21.37	
5	QPSK	12	0	20.38	20.44	20.47	20.39	20.36	21.3
5	QPSK	12	7	20.35	20.39	20.43	20.41	20.38	
5	QPSK	12	13	20.30	20.29	20.17	20.30	20.30	
5	QPSK	25	0	20.33	20.45	20.31	20.37	20.21	21.3
5	16QAM	1	0	20.55	20.62	20.57	20.34	20.54	
5	16QAM	1	12	20.42	20.51	20.34	20.29	20.48	
5	16QAM	1	24	20.29	20.46	20.54	20.44	20.28	20.3
5	16QAM	12	0	19.36	19.28	19.45	19.23	19.35	
5	16QAM	12	7	19.23	19.40	19.33	19.22	19.40	
5	16QAM	12	13	19.26	19.19	19.29	19.30	19.27	20.3
5	16QAM	25	0	19.34	19.27	19.34	19.24	19.28	
5	64QAM	1	0	19.46	19.38	19.54	19.37	19.38	
5	64QAM	1	12	19.33	19.35	19.45	19.17	19.33	20.3
5	64QAM	1	24	19.16	19.31	19.41	19.34	19.44	
5	64QAM	12	0	18.39	18.44	18.46	18.35	18.42	
5	64QAM	12	7	18.32	18.21	18.37	18.42	18.43	19.3
5	64QAM	12	13	18.27	18.41	18.42	18.24	18.43	
5	64QAM	25	0	18.36	18.34	18.39	18.25	18.30	

**5GHz WLAN ANT 2**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.2GHz WLAN ANT 2	802.11a 6Mbps	CH 36	5180	15.83	16.50	15.00	98.10
		CH 44	5220	15.99	16.50	15.00	
		CH 48	5240	16.12	17.00	15.00	
	802.11n-HT20 MCS0	CH 36	5180	15.54	16.50	15.00	95.07
		CH 44	5220	15.71	16.50	15.00	
		CH 48	5240	16.17	17.00	15.00	
	802.11n-HT40 MCS0	CH 38	5190	11.88	12.50	11.50	93.00
		CH 46	5230	14.81	15.50	15.00	
	802.11ac-VHT20 MCS0	CH 36	5180	15.54	16.50	15.00	97.21
		CH 44	5220	15.81	16.50	15.00	
		CH 48	5240	16.07	17.00	15.00	
	802.11ac-VHT40 MCS0	CH 38	5190	11.85	12.50	11.50	95.41
CH 46		5230	14.87	15.50	15.00		
802.11ac-VHT80 MCS0	CH 42	5210	11.11	12.00	11.00	86.27	

**5GHz WLAN ANT 2**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.3GHz WLAN ANT 2	802.11a 6Mbps	CH 52	5260	15.63	16.50	14.00	98.57
		CH 60	5300	14.99	15.50	14.00	
		CH 64	5320	15.39	16.00	15.00	
	802.11n-HT20 MCS0	CH 52	5260	15.29	16.00	14.00	95.07
		CH 60	5300	14.73	15.50	14.00	
		CH 64	5320	15.19	16.00	15.00	
	802.11n-HT40 MCS0	CH 54	5270	14.75	15.50	15.00	93.00
		CH 62	5310	10.94	11.50	11.00	
	802.11ac-VHT20 MCS0	CH 52	5260	15.25	16.00	14.00	95.07
		CH 60	5300	14.76	15.50	14.00	
		CH 64	5320	15.19	16.00	15.00	
	802.11ac-VHT40 MCS0	CH 54	5270	14.74	15.50	15.00	90.48
CH 62		5310	10.94	11.50	11.00		
802.11ac-VHT80 MCS0	CH 58	5290	10.69	11.50	11.00	83.93	

**5GHzWLAN ANT 2**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.5GHz WLAN ANT 2	802.11a 6Mbps	CH 100	5500	16.28	17.00	15.00	98.57
		CH 120	5600	15.90	16.50	14.50	
		CH 140	5700	15.41	16.00	14.00	
	802.11n-HT20 MCS0	CH 100	5500	15.05	16.00	14.00	97.45
		CH 120	5600	16.54	17.50	15.00	
		CH 140	5700	15.76	16.50	14.50	
	802.11n-HT40 MCS0	CH 102	5510	11.98	12.50	11.00	94.42
		CH 126	5630	15.80	16.50	15.00	
		CH 134	5670	15.67	16.50	15.00	
	802.11ac-VHT20 MCS0	CH 100	5500	15.05	16.00	14.00	95.54
		CH 120	5600	16.50	17.50	15.00	
		CH 140	5700	15.68	16.50	14.50	
	802.11ac-VHT40 MCS0	CH 102	5510	11.95	12.50	11.00	94.90
		CH 126	5630	15.81	16.50	15.00	
		CH 134	5670	15.69	16.50	15.00	
802.11ac-VHT80 MCS0	CH 106	5530	11.91	12.50	11.00	86.41	
	CH 122	5610	15.60	16.50	15.00		

**Reduced Power Level 3 for ANT 1 & ANT 2**
**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	14.86	14.91	14.70	15.8
20	QPSK	1	49	14.79	14.83	14.67	
20	QPSK	1	99	14.74	14.80	14.61	
20	QPSK	50	0	13.71	13.75	13.63	14.8
20	QPSK	50	24	13.65	13.70	13.55	
20	QPSK	50	50	13.54	13.61	13.48	
20	QPSK	100	0	13.62	13.67	13.52	14.8
20	16QAM	1	0	13.83	13.86	13.72	
20	16QAM	1	49	13.77	13.81	13.64	
20	16QAM	1	99	13.72	13.76	13.66	13.8
20	16QAM	50	0	12.73	12.78	12.64	
20	16QAM	50	24	12.67	12.74	12.59	
20	16QAM	50	50	12.60	12.65	12.51	13.8
20	16QAM	100	0	12.65	12.70	12.58	
20	64QAM	1	0	12.81	12.85	12.69	
20	64QAM	1	49	12.76	12.82	12.63	13.8
20	64QAM	1	99	12.70	12.77	12.64	
20	64QAM	50	0	11.72	11.76	11.62	
20	64QAM	50	24	11.69	11.73	11.55	12.8
20	64QAM	50	50	11.58	11.64	11.49	
20	64QAM	100	0	11.64	11.68	11.53	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	14.84	14.89	14.54	15.8
15	QPSK	1	37	14.64	14.87	14.66	
15	QPSK	1	74	14.59	14.70	14.67	
15	QPSK	36	0	13.84	13.86	13.57	14.8
15	QPSK	36	20	13.48	13.70	13.46	
15	QPSK	36	39	13.64	13.55	13.50	
15	QPSK	75	0	13.51	13.50	13.66	14.8
15	16QAM	1	0	13.85	13.89	13.66	
15	16QAM	1	37	13.58	13.68	13.71	
15	16QAM	1	74	13.78	13.80	13.66	13.8
15	16QAM	36	0	12.77	12.69	12.58	
15	16QAM	36	20	12.63	12.54	12.62	
15	16QAM	36	39	12.60	12.63	12.64	13.8
15	16QAM	75	0	12.46	12.61	12.59	
15	64QAM	1	0	12.93	12.66	12.84	
15	64QAM	1	37	12.80	12.78	12.57	13.8
15	64QAM	1	74	12.63	12.75	12.79	
15	64QAM	36	0	11.64	11.83	11.65	
15	64QAM	36	20	11.61	11.75	11.39	12.8
15	64QAM	36	39	11.54	11.61	11.38	
15	64QAM	75	0	11.61	11.48	11.57	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	14.79	14.84	14.78	15.8
10	QPSK	1	25	14.76	14.76	14.79	
10	QPSK	1	49	14.75	14.70	14.48	
10	QPSK	25	0	13.62	13.65	13.62	14.8
10	QPSK	25	12	13.74	13.74	13.48	
10	QPSK	25	25	13.35	13.54	13.42	
10	QPSK	50	0	13.60	13.64	13.61	14.8
10	16QAM	1	0	13.88	13.83	13.62	
10	16QAM	1	25	13.57	13.75	13.52	
10	16QAM	1	49	13.64	13.67	13.56	13.8
10	16QAM	25	0	12.64	12.67	12.58	
10	16QAM	25	12	12.69	12.65	12.58	
10	16QAM	25	25	12.44	12.70	12.43	13.8
10	16QAM	50	0	12.77	12.69	12.48	
10	64QAM	1	0	12.63	12.77	12.50	
10	64QAM	1	25	12.58	12.82	12.53	13.8
10	64QAM	1	49	12.53	12.89	12.58	
10	64QAM	25	0	11.53	11.81	11.50	
10	64QAM	25	12	11.55	11.80	11.51	12.8
10	64QAM	25	25	11.48	11.73	11.54	
10	64QAM	50	0	11.62	11.55	11.56	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	14.81	14.85	14.69	15.8
5	QPSK	1	12	14.84	14.67	14.50	
5	QPSK	1	24	14.71	14.79	14.50	
5	QPSK	12	0	13.79	13.71	13.43	14.8
5	QPSK	12	7	13.45	13.59	13.55	
5	QPSK	12	13	13.51	13.42	13.41	
5	QPSK	25	0	13.76	13.72	13.52	14.8
5	16QAM	1	0	13.80	13.94	13.75	
5	16QAM	1	12	13.92	13.92	13.58	
5	16QAM	1	24	13.69	13.58	13.60	13.8
5	16QAM	12	0	12.85	12.89	12.62	
5	16QAM	12	7	12.58	12.79	12.50	
5	16QAM	12	13	12.60	12.76	12.48	13.8
5	16QAM	25	0	12.65	12.79	12.47	
5	64QAM	1	0	12.69	12.79	12.61	
5	64QAM	1	12	12.87	12.87	12.53	13.8
5	64QAM	1	24	12.75	12.69	12.47	
5	64QAM	12	0	11.63	11.73	11.70	
5	64QAM	12	7	11.68	11.83	11.68	12.8
5	64QAM	12	13	11.41	11.79	11.44	
5	64QAM	25	0	11.61	11.52	11.54	
Channel				18615	18900	19165	
Frequency (MHz)				1851.5	1880	1906.5	
3	QPSK	1	0	14.78	14.88	14.75	15.8
3	QPSK	1	8	14.72	14.78	14.74	
3	QPSK	1	14	14.69	14.79	14.71	
3	QPSK	8	0	13.78	13.84	13.65	14.8
3	QPSK	8	4	13.57	13.61	13.42	
3	QPSK	8	7	13.37	13.56	13.45	
3	QPSK	15	0	13.61	13.58	13.63	14.8
3	16QAM	1	0	13.86	13.93	13.77	
3	16QAM	1	8	13.79	13.67	13.72	
3	16QAM	1	14	13.75	13.83	13.74	13.8
3	16QAM	8	0	12.58	12.80	12.50	
3	16QAM	8	4	12.75	12.65	12.40	
3	16QAM	8	7	12.71	12.64	12.43	13.8
3	16QAM	15	0	12.49	12.82	12.69	
3	64QAM	1	0	12.90	12.71	12.72	
3	64QAM	1	8	12.67	12.74	12.61	13.8
3	64QAM	1	14	12.76	12.84	12.68	



3	64QAM	8	0	11.64	11.77	11.54	12.8
3	64QAM	8	4	11.62	11.63	11.58	
3	64QAM	8	7	11.53	11.67	11.44	
3	64QAM	15	0	11.59	11.50	11.39	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	14.78	14.87	14.56	15.8
1.4	QPSK	1	3	14.65	14.74	14.75	
1.4	QPSK	1	5	14.72	14.64	14.52	
1.4	QPSK	3	0	13.63	13.75	13.66	
1.4	QPSK	3	1	13.76	13.59	13.38	
1.4	QPSK	3	3	13.55	13.44	13.40	
1.4	QPSK	6	0	13.57	13.53	13.47	14.8
1.4	16QAM	1	0	13.87	13.90	13.60	14.8
1.4	16QAM	1	3	13.74	13.74	13.72	
1.4	16QAM	1	5	13.64	13.83	13.52	
1.4	16QAM	3	0	12.81	12.71	12.56	
1.4	16QAM	3	1	12.77	12.66	12.39	
1.4	16QAM	3	3	12.41	12.54	12.38	
1.4	16QAM	6	0	12.72	12.70	12.72	13.8
1.4	64QAM	1	0	12.87	12.92	12.77	13.8
1.4	64QAM	1	3	12.83	12.63	12.56	
1.4	64QAM	1	5	12.75	12.83	12.61	
1.4	64QAM	3	0	11.76	11.72	11.56	
1.4	64QAM	3	1	11.82	11.87	11.47	
1.4	64QAM	3	3	11.55	11.77	11.45	
1.4	64QAM	6	0	11.57	11.60	11.65	12.8

2.4GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11b 1Mbps	CH 1	2412	14.03	15.00	13.50	98.97
	CH 6	2437	15.36	16.00	14.50	
	CH 11	2462	15.17	16.00	14.50	
802.11g 6Mbps	CH 1	2412	13.09	14.00	13.00	98.38
	CH 6	2437	14.76	15.50	14.50	
	CH 11	2462	13.04	14.00	13.00	
802.11n-HT20 MCS0	CH 1	2412	12.74	13.50	13.00	97.05
	CH 6	2437	14.46	15.00	14.50	
	CH 11	2462	12.80	13.50	13.00	
802.11n-HT40 MCS0	CH 3	2422	11.60	13.50	13.00	92.82
	CH 6	2437	13.57	14.50	12.50	
	CH 9	2452	11.96	13.00	12.00	
802.11ac-VHT20 MCS0	CH 1	2412	12.79	13.50	13.00	94.99
	CH 6	2437	14.16	15.00	14.00	
	CH 11	2462	13.81	14.50	13.00	
802.11ac-VHT40 MCS0	CH 3	2422	12.80	13.50	13.00	92.65
	CH 6	2437	13.50	14.50	12.50	
	CH 9	2452	13.09	14.00	14.00	

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 36	5180	12.33	13.00	11.50	98.10
	CH 44	5220	13.49	14.00	12.50	
	CH 48	5240	13.62	14.50	12.50	
802.11n-HT20 MCS0	CH 36	5180	12.04	13.00	11.50	95.07
	CH 44	5220	13.21	14.00	12.50	
	CH 48	5240	13.67	14.50	12.50	
802.11n-HT40 MCS0	CH 38	5190	8.38	9.00	8.00	93.00
	CH 46	5230	11.31	12.00	11.50	
	CH 36	5180	12.04	13.00	11.50	
802.11ac-VHT20 MCS0	CH 44	5220	13.31	14.00	12.50	97.21
	CH 48	5240	13.57	14.50	12.50	
	CH 38	5190	8.35	9.00	8.00	
802.11ac-VHT40 MCS0	CH 46	5230	11.37	12.00	11.50	95.41
	CH 42	5210	7.61	8.50	7.50	
	CH 42	5210	7.61	8.50	7.50	

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 52	5260	14.13	15.00	12.50	98.57
	CH 60	5300	13.49	14.00	12.50	
	CH 64	5320	11.89	12.50	11.50	
802.11n-HT20 MCS0	CH 52	5260	13.79	14.50	12.50	95.07
	CH 60	5300	13.23	14.00	12.50	
	CH 64	5320	11.69	12.50	11.50	
802.11n-HT40 MCS0	CH 54	5270	11.25	12.00	11.50	93.00
	CH 62	5310	7.44	8.00	7.50	
	CH 52	5260	13.75	14.50	12.50	
802.11ac-VHT20 MCS0	CH 60	5300	13.26	14.00	12.50	95.07
	CH 64	5320	11.69	12.50	11.50	
	CH 54	5270	11.24	12.00	11.50	
802.11ac-VHT40 MCS0	CH 62	5310	7.44	8.00	7.50	90.48
	CH 58	5290	7.19	8.00	7.50	
	CH 58	5290	7.19	8.00	7.50	

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 100	5500	11.28	12.00	10.00	98.57
	CH 120	5600	11.90	12.50	10.50	
	CH 140	5700	10.41	11.00	9.00	
802.11n-HT20 MCS0	CH 100	5500	11.55	12.50	10.50	97.45
	CH 120	5600	12.54	13.50	11.00	
	CH 140	5700	11.76	12.50	10.50	
802.11n-HT40 MCS0	CH 102	5510	6.98	7.50	6.00	94.42
	CH 126	5630	10.80	11.50	10.00	
	CH 134	5670	10.67	11.50	10.00	
802.11ac-VHT20 MCS0	CH 100	5500	10.05	11.00	9.00	95.54
	CH 120	5600	12.50	13.50	11.00	
	CH 140	5700	10.68	11.50	9.50	
802.11ac-VHT40 MCS0	CH 102	5510	6.95	7.50	6.00	94.90
	CH 126	5630	10.81	11.50	10.00	
	CH 134	5670	10.69	11.50	10.00	
802.11ac-VHT80 MCS0	CH 106	5530	6.91	7.50	6.00	86.41
	CH 122	5610	10.60	11.50	10.00	
	CH 122	5610	10.60	11.50	10.00	

5GHz WLAN ANT 2

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 149	5745	12.45	13.50	11.00	98.57
	CH 157	5785	12.21	13.00	11.00	
	CH 165	5825	11.51	12.50	10.50	
802.11n-HT20 MCS0	CH 149	5745	11.43	12.00	10.50	96.95
	CH 157	5785	12.14	13.00	11.00	
	CH 165	5825	10.61	11.50	10.00	
802.11n-HT40 MCS0	CH 151	5755	10.31	11.00	10.00	93.00
	CH 159	5795	10.07	11.00	10.00	
	CH 149	5745	11.39	12.00	10.50	
802.11ac-VHT20 MCS0	CH 157	5785	12.24	13.00	11.00	97.21
	CH 165	5825	10.78	11.50	10.00	
	CH 151	5755	10.37	11.00	10.00	
802.11ac-VHT40 MCS0	CH 159	5795	10.04	11.00	10.00	94.44
	CH 155	5775	9.82	10.50	10.00	
	CH 155	5775	9.82	10.50	10.00	

**Reduced Power Level 4 for ANT 2**
**5GHz WLAN ANT 1**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.2GHz WLAN ANT 1	802.11a 6Mbps	CH 36	5180	12.83	13.50	12.00	98.10
		CH 44	5220	12.99	13.50	12.00	
		CH 48	5240	13.12	14.00	12.00	
	802.11n-HT20 MCS0	CH 36	5180	12.54	13.50	12.00	95.07
		CH 44	5220	12.71	13.50	12.00	
		CH 48	5240	13.19	14.00	12.00	
	802.11n-HT40 MCS0	CH 38	5190	11.88	12.50	11.50	93.00
		CH 46	5230	11.81	12.50	12.00	
	802.11ac-VHT20 MCS0	CH 36	5180	12.54	13.50	12.00	97.21
		CH 44	5220	12.81	13.50	12.00	
		CH 48	5240	13.07	14.00	12.00	
	802.11ac-VHT40 MCS0	CH 38	5190	11.85	12.50	11.50	95.41
		CH 46	5230	11.87	12.50	12.00	
	802.11ac-VHT80 MCS0	CH 42	5210	11.11	12.00	11.00	86.27

**5GHz WLAN ANT 1**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.3GHz WLAN ANT 1	802.11a 6Mbps	CH 52	5260	13.61	14.50	12.00	98.57
		CH 60	5300	12.99	13.50	12.00	
		CH 64	5320	12.39	13.00	12.00	
	802.11n-HT20 MCS0	CH 52	5260	13.29	14.00	12.00	95.07
		CH 60	5300	12.73	13.50	12.00	
		CH 64	5320	12.19	13.00	12.00	
	802.11n-HT40 MCS0	CH 54	5270	11.75	12.50	12.00	93.00
		CH 62	5310	10.94	11.50	11.00	
	802.11ac-VHT20 MCS0	CH 52	5260	13.25	14.00	12.00	95.07
		CH 60	5300	12.76	13.50	12.00	
		CH 64	5320	12.19	13.00	12.00	
	802.11ac-VHT40 MCS0	CH 54	5270	11.74	12.50	12.00	90.48
		CH 62	5310	10.94	11.50	11.00	
	802.11ac-VHT80 MCS0	CH 58	5290	10.69	11.50	11.00	83.93

**5GHz WLAN ANT 1**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.5GHz WLAN ANT 1	802.11a 6Mbps	CH 100	5500	14.28	15.00	13.00	98.57
		CH 120	5600	14.40	15.00	13.00	
		CH 140	5700	14.41	15.00	13.00	
	802.11n-HT20 MCS0	CH 100	5500	14.05	15.00	13.00	97.45
		CH 120	5600	14.51	15.50	13.00	
		CH 140	5700	14.26	15.00	13.00	
	802.11n-HT40 MCS0	CH 102	5510	11.98	12.50	11.00	94.42
		CH 126	5630	13.80	14.50	13.00	
		CH 134	5670	13.67	14.50	13.00	
	802.11ac-VHT20 MCS0	CH 100	5500	14.05	15.00	13.00	95.54
		CH 120	5600	14.50	15.50	13.00	
		CH 140	5700	14.18	15.00	13.00	
	802.11ac-VHT40 MCS0	CH 102	5510	11.95	12.50	11.00	94.90
		CH 126	5630	13.81	14.50	13.00	
		CH 134	5670	13.69	14.50	13.00	
802.11ac-VHT80 MCS0	CH 106	5530	11.91	12.50	11.00	86.41	
	CH 122	5610	13.60	14.50	13.00		

**5GHz WLAN ANT 1**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.8GHz WLAN ANT 1	802.11a 6Mbps	CH 149	5745	14.47	15.50	13.00	98.57
		CH 157	5785	14.21	15.00	13.00	
		CH 165	5825	14.01	15.00	13.00	
	802.11n-HT20 MCS0	CH 149	5745	13.93	14.50	13.00	96.95
		CH 157	5785	14.14	15.00	13.00	
		CH 165	5825	13.61	14.50	13.00	
	802.11n-HT40 MCS0	CH 151	5755	13.31	14.00	13.00	93.00
		CH 159	5795	13.07	14.00	13.00	
	802.11ac-VHT20 MCS0	CH 149	5745	13.89	14.50	13.00	97.21
		CH 157	5785	14.24	15.00	13.00	
		CH 165	5825	13.78	14.50	13.00	
	802.11ac-VHT40 MCS0	CH 151	5755	13.37	14.00	13.00	94.44
		CH 159	5795	13.04	14.00	13.00	
	802.11ac-VHT80 MCS0	CH 155	5775	12.82	13.50	13.00	85.44