



REPORT No.: SZ23030174S01

Annex E Conducted Power

Note:

Conducted power unit: dBm

The target power was recorded in the manufacture document.



Full Power for Ant 0 & Ant 2 & Ant 3

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
TX Channel	128	189	251		128	189	251		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	32.60	32.64	32.61	33.50	23.60	23.64	23.61	24.50	0.07
GPRS 1 Tx slot	32.63	32.67	32.63	33.50	23.63	23.67	23.63	24.50	
GPRS 2 Tx slots	30.56	30.60	30.55	31.50	24.56	24.60	24.55	25.50	
GPRS 3 Tx slots	28.74	28.78	28.75	30.00	24.48	24.52	24.49	25.74	0.04
GPRS 4 Tx slots	27.42	27.46	27.43	29.00	24.42	24.46	24.43	26.00	0.04
EDGE 1 Tx slot	27.78	27.89	27.85	29.00	18.78	18.89	18.85	20.00	0.11
EDGE 2 Tx slots	26.54	26.67	26.65	27.50	20.54	20.67	20.65	21.50	0.13
EDGE 3 Tx slots	24.49	24.63	24.59	25.00	20.23	20.37	20.33	20.74	0.14
EDGE 4 Tx slots	22.17	22.28	22.24	22.50	19.17	19.28	19.24	19.50	0.11
Mode		Max.	32.67			Max.	24.60		
Attenuator	Cable Loss : 0.6								

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
TX Channel	512	661	810		512	661	810		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	29.52	29.81	29.80	30.50	20.52	20.81	20.80	21.50	0.33
GPRS 1 Tx slot	29.56	29.85	29.82	30.50	20.56	20.85	20.82	21.50	
GPRS 2 Tx slots	27.48	27.59	27.54	28.50	21.48	21.59	21.54	22.50	
GPRS 3 Tx slots	26.00	26.07	26.02	27.50	21.74	21.81	21.76	23.24	0.07
GPRS 4 Tx slots	24.10	24.12	24.18	25.50	21.10	21.12	21.18	22.50	0.08
EDGE 1 Tx slot	28.82	28.55	28.56	29.00	19.82	19.55	19.56	20.00	0.27
EDGE 2 Tx slots	28.66	28.51	28.21	29.00	22.66	22.51	22.21	23.00	0.45
EDGE 3 Tx slots	25.32	24.84	24.93	25.50	21.06	20.58	20.67	21.24	0.48
EDGE 4 Tx slots	23.65	23.58	23.23	23.80	20.65	20.58	20.23	20.80	0.42
Mode		Max.	29.85			Max.	22.66		
Attenuator	Cable Loss : 0.8								

Band	WCDMA Band II (dBm)				Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)
TX Channel	9262	9400	9538	1312		1413	1513	4132		4182	4233		
Rx Channel	9662	9800	9938	1537		1638	1738	4357		4407	4458		
Frequency (MHz)	1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6				
3GPP Rel 99	RMC 12.2Kbps	23.11	23.18	23.12	24.00	23.09	23.13	23.08	24.00	23.45	23.48	23.46	24.50
3GPP Rel 6	HSDPA Subtest-1	22.02	22.10	22.02	23.00	22.10	22.10	22.26	23.00	22.34	22.24	22.13	23.50
3GPP Rel 6	HSDPA Subtest-2	21.91	22.02	22.00	23.00	22.11	22.14	22.23	23.00	22.35	22.25	22.15	23.50
3GPP Rel 6	HSDPA Subtest-3	21.91	21.93	21.92	23.00	22.03	22.09	22.18	23.00	22.27	22.21	22.11	23.50
3GPP Rel 6	HSDPA Subtest-4	21.91	21.93	21.92	23.00	22.04	22.10	22.19	23.00	22.31	22.29	22.12	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.11	22.17	22.08	23.00	22.14	22.21	22.09	23.00	22.53	22.34	22.27	23.50
3GPP Rel 8	DC-HSDPA Subtest-2	22.15	22.14	22.06	23.00	22.18	22.27	22.14	23.00	22.59	22.38	22.34	23.50
3GPP Rel 8	DC-HSDPA Subtest-3	22.10	22.14	22.04	23.00	22.19	22.25	22.14	23.00	22.52	22.33	22.27	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	22.12	22.16	22.05	23.00	22.21	22.27	22.16	23.00	22.53	22.34	22.28	23.50
3GPP Rel 6	HSUPA Subtest-1	21.48	21.25	21.54	23.00	21.68	21.93	21.92	23.00	21.94	21.67	21.50	23.50
3GPP Rel 6	HSUPA Subtest-2	21.07	20.99	21.14	22.00	21.17	21.38	21.31	22.00	20.54	20.41	20.40	22.50
3GPP Rel 6	HSUPA Subtest-3	21.05	21.16	21.09	22.00	21.67	21.89	21.85	22.00	20.52	20.61	20.49	22.50
3GPP Rel 6	HSUPA Subtest-4	21.76	21.84	21.75	23.00	21.72	21.53	21.88	23.00	21.99	21.75	21.56	23.50
3GPP Rel 6	HSUPA Subtest-5	22.86	23.05	22.97	24.00	22.60	22.84	22.74	24.00	23.35	23.36	23.17	24.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	22.88	22.68	22.74	24.00	22.89	23.03	22.97	24.00	23.31	23.34	23.16	24.50
Attenuator		Cable Loss	0.8			Cable Loss	0.8			Cable Loss	0.6		
Mode		Max.	23.18			Max.	23.13			Max.	23.48		



Band 2 (1900MHz Band) (dBm) Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	22.55	22.66	22.58	23.5
20	QPSK	1	49	22.50	22.60	22.50	
20	QPSK	1	99	22.54	22.58	22.53	
20	QPSK	50	0	21.63	21.68	21.65	22.5
20	QPSK	50	24	21.43	21.53	21.48	
20	QPSK	50	50	21.41	21.48	21.41	
20	QPSK	100	0	21.47	21.52	21.48	22.5
20	16QAM	1	0	21.50	21.54	21.47	
20	16QAM	1	49	21.48	21.50	21.40	
20	16QAM	1	99	21.38	21.46	21.44	21.5
20	16QAM	50	0	20.45	20.48	20.45	
20	16QAM	50	24	20.38	20.47	20.44	
20	16QAM	50	50	20.36	20.45	20.38	21.5
20	16QAM	100	0	20.54	20.57	20.53	
20	64QAM	1	0	19.93	20.00	19.98	
20	64QAM	1	49	19.91	19.97	19.91	21.5
20	64QAM	1	99	19.88	19.98	19.96	
20	64QAM	50	0	18.76	18.80	18.72	
20	64QAM	50	24	18.70	18.78	18.70	20.5
20	64QAM	50	50	18.72	18.77	18.73	
20	64QAM	100	0	18.71	18.73	18.70	
Channel				1867.5	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	22.48	22.63	22.54	23.5
15	QPSK	1	37	22.40	22.50	22.42	
15	QPSK	1	74	22.44	22.55	22.43	
15	QPSK	36	0	21.61	21.67	21.61	22.5
15	QPSK	36	20	21.36	21.52	21.41	
15	QPSK	36	39	21.37	21.40	21.36	
15	QPSK	75	0	21.37	21.42	21.38	22.5
15	16QAM	1	0	21.46	21.47	21.38	
15	16QAM	1	37	21.46	21.41	21.36	
15	16QAM	1	74	21.33	21.37	21.34	21.5
15	16QAM	36	0	20.40	20.42	20.44	
15	16QAM	36	20	20.35	20.45	20.38	
15	16QAM	36	39	20.32	20.35	20.30	21.5
15	16QAM	75	0	20.45	20.53	20.48	
15	64QAM	1	0	19.87	19.98	19.92	
15	64QAM	1	37	19.84	19.94	19.87	21.5
15	64QAM	1	74	19.83	19.89	19.92	
15	64QAM	36	0	18.71	18.71	18.67	
15	64QAM	36	20	18.62	18.71	18.64	20.5
15	64QAM	36	39	18.68	18.69	18.66	
15	64QAM	75	0	18.61	18.69	18.65	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	22.50	22.58	22.51	23.5
10	QPSK	1	25	22.43	22.51	22.40	
10	QPSK	1	49	22.47	22.51	22.50	
10	QPSK	25	0	21.58	21.66	21.60	22.5
10	QPSK	25	12	21.41	21.52	21.46	
10	QPSK	25	25	21.39	21.40	21.32	
10	QPSK	50	0	21.45	21.46	21.46	22.5
10	16QAM	1	0	21.48	21.49	21.38	
10	16QAM	1	25	21.47	21.45	21.32	
10	16QAM	1	49	21.34	21.42	21.39	21.5
10	16QAM	25	0	20.39	20.44	20.38	
10	16QAM	25	12	20.37	20.45	20.43	
10	16QAM	25	25	20.35	20.39	20.36	21.5
10	16QAM	50	0	20.49	20.56	20.44	
10	64QAM	1	0	19.85	19.97	19.89	
10	64QAM	1	25	19.84	19.96	19.86	21.5
10	64QAM	1	49	19.85	19.89	19.93	
10	64QAM	25	0	18.74	18.70	18.63	
10	64QAM	25	12	18.69	18.72	18.63	20.5
10	64QAM	25	25	18.69	18.70	18.65	
10	64QAM	50	0	18.67	18.65	18.67	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	22.48	22.59	22.48	23.5
5	QPSK	1	12	22.47	22.55	22.45	
5	QPSK	1	24	22.52	22.49	22.46	
5	QPSK	12	0	21.61	21.59	21.55	22.5
5	QPSK	12	7	21.39	21.47	21.44	
5	QPSK	12	13	21.31	21.47	21.37	
5	QPSK	25	0	21.45	21.48	21.46	22.5
5	16QAM	1	0	21.40	21.52	21.43	
5	16QAM	1	12	21.42	21.48	21.34	
5	16QAM	1	24	21.32	21.38	21.42	21.5
5	16QAM	12	0	20.38	20.41	20.41	
5	16QAM	12	7	20.30	20.46	20.43	
5	16QAM	12	13	20.34	20.35	20.29	21.5
5	16QAM	25	0	20.51	20.56	20.50	
5	64QAM	1	0	19.88	19.99	19.89	
5	64QAM	1	12	19.85	19.95	19.83	21.5
5	64QAM	1	24	19.86	19.96	19.87	
5	64QAM	12	0	18.70	18.77	18.71	
5	64QAM	12	7	18.69	18.70	18.67	20.5
5	64QAM	12	13	18.66	18.69	18.69	
5	64QAM	25	0	18.64	18.68	18.65	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	22.46	22.60	22.50	23.5
3	QPSK	1	8	22.40	22.51	22.46	
3	QPSK	1	14	22.51	22.54	22.44	
3	QPSK	8	0	21.59	21.62	21.60	22.5
3	QPSK	8	4	21.34	21.49	21.43	
3	QPSK	8	7	21.39	21.47	21.35	

Band 4 (AWS Band) (dBm) Part 27L (only on channel required)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	22.47	22.52	22.41	23.5
20	QPSK	1	49	22.40	22.42	22.41	
20	QPSK	1	99	22.35	22.45	22.38	
20	QPSK	50	0	21.44	21.52	21.49	22.5
20	QPSK	50	24	21.35	21.40	21.33	
20	QPSK	50	50	21.30	21.38	21.37	
20	QPSK	100	0	21.39	21.42	21.32	22.5
20	16QAM	1	0	22.05	22.13	22.10	
20	16QAM	1	49	22.11	22.12	22.04	
20	16QAM	1	99	22.02	22.10	22.05	21.5
20	16QAM	50	0	19.95	19.99	19.98	
20	16QAM	50	24	19.92	19.96	19.93	
20	16QAM	50	50	19.91	19.95	19.92	21.5
20	16QAM	100	0	20.31	20.41	20.38	
20	64QAM	1	0	20.02	20.05	19.96	
20	64QAM	1	49	19.97	20.04	19.99	21.5
20	64QAM	1	99	19.93	20.00	19.99	
20	64QAM	50	0	18.92	18.94	18.88	
20	64QAM	50	24	18.89	18.92	18.85	20.5
20	64QAM	50	50	18.87	18.91	18.84	
20	64QAM	100	0	18.88	18.92	18.86	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	22.41	22.43	22.39	23.5
15	QPSK	1	37	22.36	22.37	22.32	
15	QPSK	1	74	22.29	22.37	22.37	
15	QPSK	36	0	21.34	21.46	21.44	22.5
15	QPSK	36	20	21.30	21.38	21.31	
15	QPSK	36	39	21.25	21.30	21.34	
15	QPSK	75	0	21.36	21.39	21.31	22.5
15	16QAM	1	0	21.95	22.03	22.09	
15	16QAM	1	37	22.02	22.04	21.96	
15	16QAM	1	74	21.93	22.09	22.01	21.5
15	16QAM	36	0	19.89	19.97	19.88	
15	16QAM	36	20	19.87	19.95	19.90	
15	16QAM	36	39	19.87	19.89	19.87	21.5
15	16QAM	75	0	20.24	20.39	20.28	
15	64QAM	1	0	19.93	19.95	19.88	
15	64QAM	1	37	19.89	19.96	19.89	21.5
15	64QAM	1	74	19.91	19.96	19.95	
15	64QAM	36	0	18.85	18.92	18.82	
15	64QAM	36	20	18.83	18.83	18.83	20.5
15	64QAM	36	39	18.85	18.83	18.76	
15	64QAM	75	0	18.81	18.84	18.80	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.38	22.51	22.40	23.5
10	QPSK	1	25	22.35	22.37	22.39	
10	QPSK	1	49	22.26	22.38	22.32	
10	QPSK	25	0	21.43	21.46	21.46	22.5
10	QPSK	25	12	21.26	21.38	21.30	
10	QPSK	25	25	21.22	21.36	21.28	
10	QPSK	50	0	21.34	21.40	21.28	22.5
10	16QAM	1	0	22.02	22.07	22.03	
10	16QAM	1	25	22.06	22.07	21.99	
10	16QAM	1	49	21.95	22.00	21.95	21.5
10	16QAM	25	0	19.88	19.94	19.95	
10	16QAM	25	12	19.82	19.93	19.84	
10	16QAM	25	25	19.88	19.93	19.89	21.5
10	16QAM	50	0	20.29	20.36	20.36	
10	64QAM	1	0	19.93	19.98	19.86	
10	64QAM	1	25	19.91	20.01	19.98	21.5
10	64QAM	1	49	19.91	19.99	19.91	
10	64QAM	25	0	18.82	18.90	18.86	
10	64QAM	25	12	18.83	18.85	18.82	20.5
10	64QAM	25	25	18.86	18.82	18.78	
10	64QAM	50	0	18.80	18.88	18.84	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	22.39	22.47	22.31	23.5
5	QPSK	1	12	22.32	22.39	22.33	
5	QPSK	1	24	22.25	22.35	22.33	
5	QPSK	12	0	21.42	21.45	21.42	22.5
5	QPSK	12	7	21.30	21.38	21.30	
5	QPSK	12	13	21.24	21.31	21.34	
5	QPSK	25	0	21.30	21.37	21.24	22.5
5	16QAM	1	0	21.96	22.03	22.07	
5	16QAM	1	12	22.02	22.10	22.02	
5	16QAM	1	24	22.01	22.00	21.96	21.5
5	16QAM	12	0	19.88	19.90	19.95	
5	16QAM	12	7	19.83	19.90	19.83	
5	16QAM	12	13	19.88	19.85	19.85	21.5
5	16QAM	25	0	20.21	20.33	20.33	
5	64QAM	1	0	19.92	20.02	19.89	
5	64QAM	1	12	19.94	19.94	19.97	21.5
5	64QAM	1	24	19.85	19.93	19.96	
5	64QAM	12	0	18.90	18.85	18.86	
5	64QAM	12	7	18.86	18.90	18.78	20.5
5	64QAM	12	13	18.79	18.88	18.76	
5	64QAM	25	0	18.83	18.90	18.79	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	22.41	22.51	22.40	23.5
3	QPSK	1	8	22.32	22.35	22.39	
3	QPSK	1	14	22.31	22.41	22.31	
3	QPSK	8	0	21.38	21.44	21.41	22.5
3	QPSK	8	4	21.25	21.39	21.25	
3	QPSK	8	7	21.20	21.32	21.30	



3	QPSK	15	0	21.43	21.47	21.43	22.5
3	16QAM	1	0	21.43	21.49	21.37	
3	16QAM	1	8	21.43	21.45	21.38	
3	16QAM	1	14	21.28	21.42	21.40	21.5
3	16QAM	8	0	20.36	20.47	20.38	
3	16QAM	8	4	20.34	20.42	20.43	
3	16QAM	8	7	20.34	20.39	20.32	21.5
3	16QAM	15	0	20.53	20.49	20.48	
3	64QAM	1	0	19.85	19.90	19.90	
3	64QAM	1	8	19.88	19.88	19.87	21.5
3	64QAM	1	14	19.81	19.92	19.86	
3	64QAM	8	0	18.67	18.78	18.71	
3	64QAM	8	4	18.60	18.69	18.61	20.5
3	64QAM	8	7	18.71	18.71	18.65	
3	64QAM	15	0	18.65	18.66	18.63	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	22.54	22.56	22.50	23.5
1.4	QPSK	1	3	22.43	22.50	22.49	
1.4	QPSK	1	5	22.49	22.55	22.46	
1.4	QPSK	3	0	22.53	22.47	22.58	
1.4	QPSK	3	1	22.39	22.49	22.43	
1.4	QPSK	3	3	22.32	22.41	22.34	
1.4	QPSK	6	0	21.43	21.51	21.44	22.5
1.4	16QAM	1	0	21.46	21.47	21.45	22.5
1.4	16QAM	1	3	21.38	21.42	21.33	
1.4	16QAM	1	5	21.31	21.45	21.37	
1.4	16QAM	3	0	21.38	21.42	21.37	
1.4	16QAM	3	1	21.34	21.42	21.40	
1.4	16QAM	3	3	21.33	21.42	21.29	
1.4	16QAM	6	0	20.53	20.47	20.52	21.5
1.4	64QAM	1	0	19.87	19.95	19.90	21.5
1.4	64QAM	1	3	19.82	19.90	19.89	
1.4	64QAM	1	5	19.78	19.91	19.95	
1.4	64QAM	3	0	19.66	19.77	19.64	
1.4	64QAM	3	1	19.62	19.75	19.66	
1.4	64QAM	3	3	19.70	19.67	19.67	
1.4	64QAM	6	0	18.64	18.63	18.65	20.5

3	QPSK	15	0	21.34	21.35	21.31	22.5
3	16QAM	1	0	22.02	22.08	22.07	
3	16QAM	1	8	22.10	22.08	21.98	
3	16QAM	1	14	21.96	22.09	22.01	21.5
3	16QAM	8	0	19.89	19.96	19.95	
3	16QAM	8	4	19.82	19.91	19.85	
3	16QAM	8	7	19.87	19.93	19.85	21.5
3	16QAM	15	0	20.25	20.32	20.35	
3	64QAM	1	0	19.93	20.04	19.87	
3	64QAM	1	8	19.96	20.00	19.95	20.5
3	64QAM	1	14	19.84	19.92	19.90	
3	64QAM	8	0	18.91	18.84	18.85	
3	64QAM	8	4	18.84	18.87	18.75	20.5
3	64QAM	8	7	18.77	18.86	18.76	
3	64QAM	15	0	18.85	18.84	18.84	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	22.39	22.49	22.37	23.5
1.4	QPSK	1	3	22.33	22.36	22.33	
1.4	QPSK	1	5	22.28	22.42	22.32	
1.4	QPSK	3	0	22.39	22.47	22.41	
1.4	QPSK	3	1	22.27	22.38	22.32	
1.4	QPSK	3	3	22.25	22.32	22.35	
1.4	QPSK	6	0	21.32	21.40	21.26	22.5
1.4	16QAM	1	0	21.96	22.04	22.02	22.5
1.4	16QAM	1	3	22.03	22.04	21.98	
1.4	16QAM	1	5	21.95	22.01	22.00	
1.4	16QAM	3	0	20.88	20.91	20.93	
1.4	16QAM	3	1	20.88	20.93	20.86	
1.4	16QAM	3	3	20.87	20.85	20.82	
1.4	16QAM	6	0	20.21	20.40	20.33	21.5
1.4	64QAM	1	0	19.99	20.01	19.91	21.5
1.4	64QAM	1	3	19.91	19.99	19.97	
1.4	64QAM	1	5	19.85	19.91	19.90	
1.4	64QAM	3	0	19.84	19.90	19.84	
1.4	64QAM	3	1	19.86	19.82	19.77	
1.4	64QAM	3	3	19.85	19.87	19.74	
1.4	64QAM	6	0	18.86	18.84	18.82	20.5



Band 5 (Celluar Band) (dBm) Part 22H(only on channel required)								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	23.40	23.50	23.43	24.5	
10	QPSK	1	25	23.35	23.45	23.38		
10	QPSK	1	49	23.38	23.41	23.36		
10	QPSK	25	0	22.33	22.42	22.31	23.5	
10	QPSK	25	12	22.32	22.40	22.30		
10	QPSK	25	25	22.33	22.36	22.32		
10	QPSK	50	0	22.32	22.33	22.27	23.5	
10	16QAM	1	0	22.45	22.48	22.42		
10	16QAM	1	25	22.42	22.45	22.44		
10	16QAM	1	49	22.36	22.44	22.37	22.5	
10	16QAM	25	0	21.46	21.52	21.42		
10	16QAM	25	12	21.43	21.51	21.45		
10	16QAM	25	25	21.45	21.49	21.43	22.5	
10	16QAM	50	0	21.23	21.29	21.21		
10	64QAM	1	0	21.54	21.59	21.49		
10	64QAM	1	25	21.53	21.58	21.48	22.5	
10	64QAM	1	49	21.52	21.56	21.53		
10	64QAM	25	0	19.84	19.87	19.78		
10	64QAM	25	12	19.83	19.84	19.83	21.5	
10	64QAM	25	25	19.84	19.86	19.80		
10	64QAM	50	0	20.17	20.25	20.24		
Channel				20425	20525	20625	Tune-up limit (dBm)	
Frequency (MHz)				820.5	830.5	840.5		
5	QPSK	1	0	23.36	23.49	23.39	24.5	
5	QPSK	1	12	23.32	23.39	23.32		
5	QPSK	1	24	23.30	23.35	23.33		
5	QPSK	12	0	22.30	22.38	22.23	23.5	
5	QPSK	12	7	22.27	22.36	22.25		
5	QPSK	12	13	22.30	22.34	22.28		
5	QPSK	25	0	22.22	22.25	22.22	23.5	
5	16QAM	1	0	22.44	22.40	22.33		
5	16QAM	1	12	22.38	22.44	22.43		
5	16QAM	1	24	22.28	22.39	22.35	22.5	
5	16QAM	12	0	21.42	21.47	21.34		
5	16QAM	12	7	21.33	21.42	21.40		
5	16QAM	12	13	21.39	21.45	21.40	22.5	
5	16QAM	25	0	21.16	21.19	21.14		
5	64QAM	1	0	21.48	21.49	21.44		
5	64QAM	1	12	21.44	21.54	21.43	22.5	
5	64QAM	1	24	21.48	21.50	21.45		
5	64QAM	12	0	19.82	19.79	19.70		
5	64QAM	12	7	19.77	19.82	19.81	21.5	
5	64QAM	12	13	19.81	19.85	19.78		
5	64QAM	25	0	20.08	20.20	20.22		
Channel				20415	20525	20635	Tune-up limit (dBm)	
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	23.35	23.42	23.42	24.5	
3	QPSK	1	8	23.32	23.40	23.30		
3	QPSK	1	14	23.36	23.33	23.28		
3	QPSK	8	0	22.26	22.38	22.26	23.5	
3	QPSK	8	4	22.23	22.38	22.28		
3	QPSK	8	7	22.28	22.34	22.26		
3	QPSK	15	0	22.23	22.27	22.26	23.5	
3	16QAM	1	0	22.44	22.43	22.35		
3	16QAM	1	8	22.33	22.41	22.36		
3	16QAM	1	14	22.32	22.39	22.35	22.5	
3	16QAM	8	0	21.44	21.46	21.38		
3	16QAM	8	4	21.33	21.43	21.42		
3	16QAM	8	7	21.44	21.48	21.41	22.5	
3	16QAM	15	0	21.16	21.25	21.19		
3	64QAM	1	0	21.45	21.54	21.43		
3	64QAM	1	8	21.43	21.53	21.44	22.5	
3	64QAM	1	14	21.46	21.53	21.51		
3	64QAM	8	0	19.79	19.83	19.76		
3	64QAM	8	4	19.82	19.76	19.77	21.5	
3	64QAM	8	7	19.81	19.85	19.71		
3	64QAM	15	0	20.14	20.19	20.15		
Channel				20407	20525	20643	Tune-up limit (dBm)	
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	23.39	23.46	23.39	24.5	
1.4	QPSK	1	3	23.30	23.44	23.29		
1.4	QPSK	1	5	23.29	23.33	23.29		
1.4	QPSK	3	0	23.19	23.28	23.19	23.5	
1.4	QPSK	3	1	23.17	23.19	23.17		
1.4	QPSK	3	3	23.17	23.19	23.19		
1.4	QPSK	6	0	22.26	22.30	22.18	23.5	
1.4	16QAM	1	0	22.39	22.44	22.39		
1.4	16QAM	1	3	22.38	22.37	22.38		
1.4	16QAM	1	5	22.31	22.35	22.32	23.5	
1.4	16QAM	3	0	22.26	22.34	22.26		
1.4	16QAM	3	1	22.23	22.37	22.27		
1.4	16QAM	3	3	22.29	22.34	22.21	22.5	
1.4	16QAM	6	0	21.14	21.22	21.16		
1.4	64QAM	1	0	21.50	21.51	21.44		
1.4	64QAM	1	3	21.50	21.52	21.39	22.5	
1.4	64QAM	1	5	21.44	21.52	21.43		
1.4	64QAM	3	0	20.65	20.73	20.62		
1.4	64QAM	3	1	20.70	20.68	20.68	21.5	
1.4	64QAM	3	3	20.69	20.70	20.62		
1.4	64QAM	6	0	20.14	20.24	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		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	22.55	22.61	22.59	23.5	
20	QPSK	1	49	22.48	22.58	22.52		
20	QPSK	1	99	22.46	22.54	22.45		
20	QPSK	50	0	21.50	21.51	21.48	22.5	
20	QPSK	50	24	21.47	21.49	21.43		
20	QPSK	50	50	21.41	21.47	21.44		
20	QPSK	100	0	21.39	21.48	21.46	22.5	
20	16QAM	1	0	21.45	21.48	21.44		
20	16QAM	1	49	21.39	21.47	21.44		
20	16QAM	1	99	21.39	21.45	21.40	21.5	
20	16QAM	50	0	20.45	20.49	20.44		
20	16QAM	50	24	20.45	20.46	20.40		
20	16QAM	50	50	20.41	20.43	20.36	21.5	
20	16QAM	100	0	20.33	20.41	20.34		
20	64QAM	1	0	20.40	20.48	20.46		
20	64QAM	1	49	20.37	20.45	20.44	20.5	
20	64QAM	1	99	20.37	20.44	20.41		
20	64QAM	50	0	18.65	18.68	18.64		
20	64QAM	50	24	18.56	18.65	18.60	20.5	
20	64QAM	50	50	18.58	18.64	18.54		
20	64QAM	100	0	18.67	18.69	18.59		
Channel				20825	21100	21375	Tune-up limit (dBm)	
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	22.45	22.57	22.58	23.5	
15	QPSK	1	37	22.38	22.57	22.49		
15	QPSK	1	74	22.41	22.52	22.44		
15	QPSK	36	0	21.46	21.41	21.44	22.5	
15	QPSK	36	20	21.42	21.43	21.37		
15	QPSK	36	39	21.38	21.41	21.36		
15	QPSK	75	0	21.33	21.44	21.40	22.5	
15	16QAM	1	0	21.36	21.40	21.43		
15	16QAM	1	37	21.36	21.40	21.36		
15	16QAM	1	74	21.37	21.35	21.37	21.5	
15	16QAM	36	0	20.43	20.44	20.40		
15	16QAM	36	20	20.41	20.42	20.31		
15	16QAM	36	39	20.38	20.41	20.31	21.5	
15	16QAM	75	0	20.24	20.32	20.27		
15	64QAM	1	0	20.37	20.44	20.45		
15	64QAM	1	37	20.31	20.35	20.34	21.5	
15	64QAM	1	74	20.32	20.39	20.36		
15	64QAM	36	0	18.63	18.61	18.63		
15	64QAM	36	20	18.48	18.62	18.56	20.5	
15	64QAM	36	39	18.51	18.56	18.47		
15	64QAM	75	0	18.65	18.59	18.50		
Channel				20800	21100	21400	Tune-up limit (dBm)	
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	22.52	22.52	22.57	23.5	
10	QPSK	1	25	22.47	22.49	22.50		
10	QPSK	1	49	22.44	22.46	22.35		
10	QPSK	25	0	21.44	21.46	21.48	22.5	
10	QPSK	25	12	21.42	21.43	21.33		
10	QPSK	25	25	21.33	21.43	21.35		
10	QPSK	50	0	21.33	21.47	21.39	22.5	
10	16QAM	1	0	21.44	21.39	21.43		
10	16QAM	1	25	21.31	21.39	21.41		
10	16QAM	1	49	21.36	21.38	21.35	21.5	</



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		23.64		24.5
10	QPSK	1	25		23.61		
10	QPSK	1	49		23.59		
10	QPSK	25	0		22.45		
10	QPSK	25	12		22.40		23.5
10	QPSK	25	25		22.39		
10	QPSK	50	0		22.34		
10	16QAM	1	0		22.77		
10	16QAM	1	25		22.75		23.5
10	16QAM	1	49		22.74		
10	16QAM	25	0		21.35		
10	16QAM	25	12		21.33		
10	16QAM	25	25		21.34		22.5
10	16QAM	50	0		21.56		
10	64QAM	1	0		21.48		
10	64QAM	1	25		21.47		
10	64QAM	1	49		21.45		22.5
10	64QAM	25	0		19.80		
10	64QAM	25	12		19.77		
10	64QAM	25	25		19.89		
10	64QAM	50	0		20.11		21.5
Channel				23205	23230	23255	
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.58	23.59	23.52	
5	QPSK	1	12	23.52	23.56	23.55	
5	QPSK	1	24	23.56	23.56	23.50	
5	QPSK	12	0	22.43	22.42	22.40	
5	QPSK	12	7	22.30	22.33	22.38	23.5
5	QPSK	12	13	22.37	22.30	22.34	
5	QPSK	25	0	22.28	22.28	22.28	
5	16QAM	1	0	22.73	22.67	22.73	
5	16QAM	1	12	22.72	22.73	22.67	23.5
5	16QAM	1	24	22.69	22.65	22.68	
5	16QAM	12	0	21.34	21.32	21.27	
5	16QAM	12	7	21.30	21.31	21.23	
5	16QAM	12	13	21.30	21.31	21.24	22.5
5	16QAM	25	0	21.50	21.46	21.49	
5	64QAM	1	0	21.46	21.42	21.40	
5	64QAM	1	12	21.41	21.38	21.37	
5	64QAM	1	24	21.44	21.36	21.37	22.5
5	64QAM	12	0	19.70	19.73	19.78	
5	64QAM	12	7	19.72	19.76	19.72	
5	64QAM	12	13	19.79	19.81	19.86	
5	64QAM	25	0	20.04	20.02	20.10	21.5

Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	23.5
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	22.78	22.82	22.79	23.5
20	QPSK	1	49	22.70	22.78	22.76	
20	QPSK	1	99	22.66	22.75	22.67	
20	QPSK	50	0	21.46	21.55	21.50	22.5
20	QPSK	50	24	21.55	21.56	21.47	
20	QPSK	50	50	21.50	21.57	21.54	
20	QPSK	100	0	21.42	21.46	21.41	22.5
20	16QAM	1	0	22.06	22.14	22.06	
20	16QAM	1	49	22.07	22.12	22.03	
20	16QAM	1	99	22.02	22.10	22.02	21.5
20	16QAM	50	0	20.00	20.08	19.99	
20	16QAM	50	24	20.06	20.07	20.01	
20	16QAM	50	50	20.03	20.05	19.95	21.5
20	16QAM	100	0	20.07	20.14	20.06	
20	64QAM	1	0	20.28	20.35	20.27	
20	64QAM	1	49	20.25	20.33	20.28	21.5
20	64QAM	1	99	20.30	20.34	20.28	
20	64QAM	50	0	18.71	18.77	18.76	
20	64QAM	50	24	18.72	18.70	18.71	20.5
20	64QAM	50	50	18.67	18.72	18.71	
20	64QAM	100	0	18.72	18.81	18.78	
Channel				132047	132322	132597	23.5
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	22.73	22.73	22.71	23.5
15	QPSK	1	37	22.63	22.68	22.75	
15	QPSK	1	74	22.60	22.67	22.66	
15	QPSK	36	0	21.44	21.48	21.40	22.5
15	QPSK	36	20	21.48	21.54	21.43	
15	QPSK	36	39	21.40	21.55	21.50	
15	QPSK	75	0	21.40	21.43	21.36	22.5
15	16QAM	1	0	22.05	22.12	22.05	
15	16QAM	1	37	22.05	22.08	21.93	
15	16QAM	1	74	21.93	22.08	21.99	21.5
15	16QAM	36	0	19.94	20.06	19.89	
15	16QAM	36	20	20.01	20.04	19.93	
15	16QAM	36	39	19.99	19.99	19.90	21.5
15	16QAM	75	0	20.04	20.09	20.02	
15	64QAM	1	0	20.26	20.33	20.22	
15	64QAM	1	37	20.16	20.32	20.26	21.5
15	64QAM	1	74	20.24	20.26	20.20	
15	64QAM	36	0	18.61	18.67	18.75	
15	64QAM	36	20	18.71	18.63	18.68	20.5
15	64QAM	36	39	18.66	18.65	18.66	
15	64QAM	75	0	18.69	18.74	18.69	
Channel				132022	132322	132622	23.5
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	22.72	22.81	22.74	23.5
10	QPSK	1	25	22.68	22.74	22.72	
10	QPSK	1	49	22.65	22.70	22.61	
10	QPSK	25	0	21.36	21.50	21.42	22.5
10	QPSK	25	12	21.50	21.54	21.39	
10	QPSK	25	25	21.44	21.56	21.52	
10	QPSK	50	0	21.41	21.43	21.35	22.5
10	16QAM	1	0	22.05	22.05	21.96	
10	16QAM	1	25	22.03	22.03	21.94	
10	16QAM	1	49	21.93	22.07	21.92	21.5
10	16QAM	25	0	19.93	20.07	19.96	
10	16QAM	25	12	19.99	19.99	19.91	
10	16QAM	25	25	20.02	19.96	19.89	21.5
10	16QAM	50	0	20.00	20.07	20.04	
10	64QAM	1	0	20.23	20.27	20.17	
10	64QAM	1	25	20.18	20.28	20.24	20.5
10	64QAM	1	49	20.24	20.27	20.19	
10	64QAM	25	0	18.65	18.68	18.66	
10	64QAM	25	12	18.66	18.63	18.62	20.5
10	64QAM	25	25	18.62	18.68	18.62	
10	64QAM	50	0	18.69	18.72	18.69	
Channel				131997	132322	132647	23.5
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	22.71	22.73	22.75	23.5
5	QPSK	1	12	22.60	22.68	22.71	
5	QPSK	1	24	22.62	22.70	22.58	
5	QPSK	12	0	21.40	21.47	21.49	22.5
5	QPSK	12	7	21.52	21.47	21.44	
5	QPSK	12	13	21.46	21.49	21.45	
5	QPSK	25	0	21.32	21.37	21.35	22.5
5	16QAM	1	0	21.97	22.08	22.01	
5	16QAM	1	12	21.97	22.03	22.00	
5	16QAM	1	24	21.97	22.01	21.98	21.5
5	16QAM	12	0	19.99	19.98	19.93	
5	16QAM	12	7	19.99	20.06	19.95	
5	16QAM	12	13	20.01	20.04	19.91	21.5
5	16QAM	25	0	20.00	20.10	19.98	
5	64QAM	1	0	20.19	20.25	20.20	
5	64QAM	1	12	20.16	20.31	20.20	20.5
5	64QAM	1	24	20.21	20.33	20.19	
5	64QAM	12	0	18.70	18.69	18.66	
5	64QAM	12	7	18.66	18.65	18.65	20.5
5	64QAM	12	13	18.58	18.68	18.64	
5	64QAM	25	0	18.69	18.80	18.69	
Channel				131987	132322	132657	23.5
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	22.69	22.79	22.74	23.5
3	QPSK	1	8	22.60	22.75	22.71	
3	QPSK	1	14	22.62	22.68	22.58	
3	QPSK	8	0	21.43	21.50	21.49	22.5
3	QPSK	8	4	21.51	21.54	21.41	
3	QPSK	8	7	21.44	21.48	21.47	



3	QPSK	15	0	21.36	21.40	21.40	22.5
3	16QAM	1	0	22.02	22.13	22.03	
3	16QAM	1	8	22.05	22.10	22.01	
3	16QAM	1	14	21.94	22.09	21.92	21.5
3	16QAM	8	0	19.93	20.00	19.99	
3	16QAM	8	4	20.04	20.06	20.00	
3	16QAM	8	7	19.95	19.97	19.87	
3	16QAM	15	0	20.03	20.05	20.05	
3	64QAM	1	0	20.20	20.26	20.20	21.5
3	64QAM	1	8	20.16	20.28	20.20	
3	64QAM	1	14	20.23	20.24	20.19	
3	64QAM	8	0	18.67	18.69	18.72	20.5
3	64QAM	8	4	18.62	18.60	18.64	
3	64QAM	8	7	18.64	18.64	18.62	
3	64QAM	15	0	18.65	18.78	18.74	
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	Tune-up limit (dBm)
1.4	QPSK	1	0	22.74	22.74	22.72	23.5
1.4	QPSK	1	3	22.60	22.71	22.67	
1.4	QPSK	1	5	22.61	22.72	22.59	
1.4	QPSK	3	0	22.30	22.42	22.30	
1.4	QPSK	3	1	22.39	22.39	22.28	
1.4	QPSK	3	3	22.37	22.40	22.35	
1.4	QPSK	6	0	21.38	21.43	21.33	22.5
1.4	16QAM	1	0	21.98	22.07	21.97	22.5
1.4	16QAM	1	3	22.03	22.08	22.01	
1.4	16QAM	1	5	22.01	22.08	22.01	
1.4	16QAM	3	0	20.82	20.89	20.83	
1.4	16QAM	3	1	20.92	20.89	20.86	
1.4	16QAM	3	3	20.89	20.84	20.74	
1.4	16QAM	6	0	19.97	20.12	20.04	21.5
1.4	64QAM	1	0	20.25	20.33	20.25	21.5
1.4	64QAM	1	3	20.21	20.31	20.19	
1.4	64QAM	1	5	20.27	20.27	20.25	
1.4	64QAM	3	0	19.55	19.58	19.55	
1.4	64QAM	3	1	19.58	19.53	19.52	
1.4	64QAM	3	3	19.53	19.59	19.57	
1.4	64QAM	6	0	18.65	18.73	18.76	20.5



Band 38(only on channel required) (dBm)								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	23.10	23.14	23.05	24	
20	QPSK	1	49	23.09	23.10	23.07		
20	QPSK	1	99	23.01	23.09	23.01		
20	QPSK	50	0	21.70	21.88	21.75		
20	QPSK	50	24	21.64	21.66	21.64	23	
20	QPSK	50	50	21.61	21.63	21.60		
20	QPSK	100	0	21.42	21.46	21.45		
20	16QAM	1	0	21.23	21.32	21.23		
20	16QAM	1	49	21.20	21.30	21.25	23	
20	16QAM	1	99	21.25	21.28	21.21		
20	16QAM	50	0	20.64	20.74	20.65		
20	16QAM	50	24	20.61	20.71	20.62		
20	16QAM	50	50	20.64	20.70	20.69	22	
20	16QAM	100	0	20.34	20.42	20.36		
20	64QAM	1	0	20.03	20.13	20.03		
20	64QAM	1	49	20.04	20.10	20.04		
20	64QAM	1	99	20.05	20.09	20.03	22	
20	64QAM	50	0	19.30	19.37	19.35		
20	64QAM	50	24	19.29	19.36	19.34		
20	64QAM	50	50	19.28	19.34	19.26		
20	64QAM	100	0	19.24	19.25	19.15	21	
Channel				37825	38000	38175		
Frequency (MHz)				2577.5	2595	2612.5		Tune-up limit (dBm)
15	QPSK	1	0	23.08	23.11	23.00		24
15	QPSK	1	37	23.00	23.09	23.06		
15	QPSK	1	74	22.98	23.01	22.93		
15	QPSK	36	0	21.68	21.72	21.71		
15	QPSK	36	20	21.59	21.62	21.56	23	
15	QPSK	36	39	21.57	21.59	21.54		
15	QPSK	75	0	21.34	21.41	21.42		
15	16QAM	1	0	21.15	21.29	21.19		
15	16QAM	1	37	21.11	21.25	21.23	23	
15	16QAM	1	74	21.22	21.22	21.19		
15	16QAM	36	0	20.59	20.66	20.58		
15	16QAM	36	20	20.51	20.63	20.52		
15	16QAM	36	39	20.55	20.62	20.62	22	
15	16QAM	75	0	20.32	20.39	20.30		
15	64QAM	1	0	20.01	20.11	20.08		
15	64QAM	1	37	20.00	20.07	20.05		
15	64QAM	1	74	20.01	20.00	20.02	22	
15	64QAM	36	0	19.28	19.32	19.26		
15	64QAM	36	20	19.26	19.32	19.32		
15	64QAM	36	39	19.26	19.33	19.16		
15	64QAM	75	0	19.17	19.17	19.05	21	
Channel				37800	38000	38200		
Frequency (MHz)				2575	2595	2615		Tune-up limit (dBm)
10	QPSK	1	0	23.02	23.13	23.04		24
10	QPSK	1	25	23.07	23.03	22.98		
10	QPSK	1	49	22.96	22.99	22.95		
10	QPSK	25	0	21.64	21.72	21.72		
10	QPSK	25	12	21.60	21.57	21.60	23	
10	QPSK	25	25	21.60	21.60	21.50		
10	QPSK	50	0	21.41	21.40	21.41		
10	16QAM	1	0	21.15	21.26	21.21		
10	16QAM	1	25	21.15	21.22	21.18	23	
10	16QAM	1	49	21.21	21.26	21.20		
10	16QAM	25	0	20.63	20.69	20.60		
10	16QAM	25	12	20.51	20.61	20.61		
10	16QAM	25	25	20.60	20.65	20.64	22	
10	16QAM	50	0	20.33	20.41	20.32		
10	64QAM	1	0	20.06	20.08	20.05		
10	64QAM	1	25	20.05	20.04	20.03		
10	64QAM	1	49	20.03	20.00	20.01	21	
10	64QAM	25	0	19.23	19.31	19.32		
10	64QAM	25	12	19.28	19.30	19.27		
10	64QAM	25	25	19.25	19.33	19.25		
10	64QAM	50	0	19.22	19.16	19.05	21	
Channel				37775	38000	38225		
Frequency (MHz)				2572.5	2595	2617.5		Tune-up limit (dBm)
5	QPSK	1	0	23.02	23.07	23.00		24
5	QPSK	1	12	23.02	23.01	23.05		
5	QPSK	1	24	22.99	23.08	22.93		
5	QPSK	12	0	21.60	21.75	21.66		
5	QPSK	12	7	21.63	21.59	21.61	23	
5	QPSK	12	13	21.54	21.56	21.59		
5	QPSK	25	0	21.38	21.43	21.38		
5	16QAM	1	0	21.15	21.24	21.22		
5	16QAM	1	12	21.13	21.21	21.16	23	
5	16QAM	1	24	21.20	21.18	21.18		
5	16QAM	12	0	20.62	20.73	20.62		
5	16QAM	12	7	20.59	20.69	20.61		
5	16QAM	12	13	20.56	20.67	20.67	22	
5	16QAM	25	0	20.26	20.40	20.27		
5	64QAM	1	0	20.02	20.04	20.05		
5	64QAM	1	12	20.00	20.05	20.03		
5	64QAM	1	24	20.05	20.06	20.00	22	
5	64QAM	12	0	19.24	19.36	19.32		
5	64QAM	12	7	19.21	19.30	19.25		
5	64QAM	12	13	19.23	19.30	19.25		
5	64QAM	25	0	19.17	19.22	19.08	21	

Band 40 (2.3G Band-1) (dBm) Part 27D-1 2305MHz ~ 2315MHz							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				38750			
Frequency (MHz)				2310			
10	QPSK	1	0	22.96			24
10	QPSK	1	25	22.86			
10	QPSK	1	49	22.88			
10	QPSK	25	0	21.54			
10	QPSK	25	12	21.49			23
10	QPSK	25	25	21.48			
10	QPSK	50	0	21.44			
10	16QAM	1	0	21.21			
10	16QAM	1	25	21.18			23
10	16QAM	1	49	21.20			
10	16QAM	25	0	20.69			
10	16QAM	25	12	20.66			
10	16QAM	25	25	20.65			22
10	16QAM	50	0	20.74			
10	64QAM	1	0	20.11			
10	64QAM	1	25	20.08			
10	64QAM	1	49	20.06			22
10	64QAM	25	0	19.10			
10	64QAM	25	12	19.09			
10	64QAM	25	25	19.04			
10	64QAM	50	0	19.05			21
Channel				38725	38750	38775	
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.87	22.90	22.95	24
5	QPSK	1	12	22.77	22.83	22.82	
5	QPSK	1	24	22.81	22.81	22.78	
5	QPSK	12	0	21.51	21.52	21.46	
5	QPSK	12	7	21.44	21.43	21.43	23
5	QPSK	12	13	21.44	21.38	21.45	
5	QPSK	25	0	21.35	21.43	21.36	
5	16QAM	1	0	21.11	21.12	21.13	
5	16QAM	1	12	21.13	21.13	21.10	23
5	16QAM	1	24	21.18	21.19	21.13	
5	16QAM	12	0	20.59	20.62	20.67	
5	16QAM	12	7	20.56	20.65	20.61	
5	16QAM	12	13	20.56	20.55	20.55	22
5	16QAM	25	0	20.72	20.70	20.68	
5	64QAM	1	0	20.07	20.08	20.12	
5	64QAM	1	12	20.07	20.11	20.04	
5	64QAM	1	24	20.06	20.02	20.01	22
5	64QAM	12	0	19.07	19.13	19.10	
5	64QAM	12	7	19.04	19.09	19.10	
5	64QAM	12	13	19.00	18.99	19.00	
5	64QAM	25	0	19.03	19.06	19.04	21



Band 40 (2.3G Band-2) (dBm)							Tune-up limit (dBm)
Part 27D-2 2350MHz ~ 2360MHz							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	
Channel				39200			
Frequency (MHz)				2355			
10	QPSK	1	0	22.92			24
10	QPSK	1	25	22.84			
10	QPSK	1	49	22.86			
10	QPSK	25	0	21.52			
10	QPSK	25	12	21.47			23
10	QPSK	25	25	21.46			
10	QPSK	50	0	21.42			
10	16QAM	1	0	21.19			
10	16QAM	1	25	21.16			23
10	16QAM	1	49	21.18			
10	16QAM	25	0	20.67			
10	16QAM	25	12	20.64			
10	16QAM	25	25	20.63			22
10	16QAM	50	0	20.72			
10	64QAM	1	0	20.09			
10	64QAM	1	25	20.06			
10	64QAM	1	49	20.04			22
10	64QAM	25	0	19.08			
10	64QAM	25	12	19.07			
10	64QAM	25	25	19.02			
10	64QAM	50	0	19.03			
Channel				39175	39200	39225	
Frequency (MHz)				2352.5	2355	2357.5	Tune-up limit (dBm)
5	QPSK	1	0	22.88	22.85	22.82	
5	QPSK	1	12	22.77	22.74	22.78	
5	QPSK	1	24	22.81	22.80	22.76	
5	QPSK	12	0	21.46	21.44	21.42	
5	QPSK	12	7	21.44	21.42	21.45	23
5	QPSK	12	13	21.36	21.40	21.38	
5	QPSK	25	0	21.37	21.40	21.40	
5	16QAM	1	0	21.16	21.16	21.12	
5	16QAM	1	12	21.10	21.12	21.13	23
5	16QAM	1	24	21.17	21.08	21.11	
5	16QAM	12	0	20.58	20.58	20.65	
5	16QAM	12	7	20.61	20.54	20.62	
5	16QAM	12	13	20.56	20.53	20.54	22
5	16QAM	25	0	20.64	20.65	20.66	
5	64QAM	1	0	20.08	20.10	20.11	
5	64QAM	1	12	20.03	20.09	20.02	
5	64QAM	1	24	20.01	20.03	20.00	22
5	64QAM	12	0	19.07	19.02	19.05	
5	64QAM	12	7	19.05	19.07	19.04	
5	64QAM	12	13	19.05	18.98	19.02	
5	64QAM	25	0	18.97	19.03	19.05	21



Band 41 (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	24	
20	QPSK	1	0	23.03	22.95	23.08	22.89	23.02		
20	QPSK	1	49	22.95	22.97	23.04	22.97	22.96		
20	QPSK	1	99	23.00	22.91	23.01	22.91	22.92		
20	QPSK	50	0	22.03	22.01	22.06	22.05	22.02	23	
20	QPSK	50	24	21.93	21.89	21.99	21.95	21.93		
20	QPSK	50	50	22.04	22.03	22.08	22.06	22.01		
20	QPSK	100	0	21.71	21.65	21.72	21.67	21.67		
20	16QAM	1	0	21.55	21.63	21.64	21.62	21.55	23	
20	16QAM	1	49	21.62	21.55	21.63	21.55	21.53		
20	16QAM	1	99	21.58	21.58	21.61	21.53	21.58		
20	16QAM	50	0	20.79	20.78	20.82	20.79	20.74		
20	16QAM	50	24	20.93	20.97	21.00	20.95	20.99	22	
20	16QAM	50	50	20.94	20.91	21.01	20.93	20.95		
20	16QAM	100	0	20.66	20.73	20.74	20.73	20.70		
20	64QAM	1	0	20.93	20.97	20.99	20.95	20.98		
20	64QAM	1	49	20.88	20.89	20.97	20.96	20.95	22	
20	64QAM	1	99	20.89	20.95	20.96	20.88	20.90		
20	64QAM	50	0	19.85	19.83	19.92	19.86	19.90		
20	64QAM	50	24	19.82	19.86	19.90	19.86	19.82		
20	64QAM	50	50	19.81	19.82	19.88	19.83	19.79	21	
20	64QAM	100	0	19.78	19.74	19.80	19.74	19.76		
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	23.02	22.91	23.03	22.83	22.97	24	
15	QPSK	1	37	22.91	22.96	22.97	22.92	22.89		
15	QPSK	1	74	22.93	22.87	22.99	22.82	22.86		
15	QPSK	36	0	21.97	21.99	21.97	21.99	21.95		
15	QPSK	36	20	21.92	21.86	21.97	21.87	21.92	23	
15	QPSK	36	39	22.03	21.99	22.07	22.01	21.95		
15	QPSK	75	0	21.65	21.56	21.64	21.60	21.64		
15	16QAM	1	0	21.54	21.59	21.63	21.56	21.50		
15	16QAM	1	37	21.54	21.49	21.59	21.47	21.48	23	
15	16QAM	1	74	21.51	21.57	21.53	21.49	21.49		
15	16QAM	36	0	20.78	20.74	20.80	20.77	20.68		
15	16QAM	36	20	20.87	20.87	20.91	20.94	20.96		
15	16QAM	36	39	20.90	20.89	20.96	20.94	20.89	22	
15	16QAM	75	0	20.65	20.66	20.66	20.65	20.68		
15	64QAM	1	0	20.89	20.90	20.91	20.94	20.96		
15	64QAM	1	37	20.83	20.85	20.89	20.95	20.93		
15	64QAM	1	74	20.86	20.94	20.91	20.82	20.81	22	
15	64QAM	36	0	19.75	19.80	19.84	19.82	19.82		
15	64QAM	36	20	19.72	19.79	19.84	19.77	19.75		
15	64QAM	36	39	19.71	19.76	19.79	19.74	19.71		
15	64QAM	75	0	19.73	19.64	19.76	19.68	19.67	21	
Channel				40090	40365	40640	40915	41190		
Frequency (MHz)				2540	2567.5	2595	2622.5	2650	Tune-up limit (dBm)	
10	QPSK	1	0	22.99	22.90	23.07	22.83	23.00		24
10	QPSK	1	25	22.89	22.90	23.02	22.95	22.94		
10	QPSK	1	49	22.90	22.83	22.94	22.85	22.86		
10	QPSK	25	0	21.95	21.94	22.04	21.96	22.01		
10	QPSK	25	12	21.86	21.79	21.93	21.86	21.89	23	
10	QPSK	25	25	22.01	21.97	22.00	22.04	21.92		
10	QPSK	50	0	21.66	21.58	21.62	21.66	21.66		
10	16QAM	1	0	21.48	21.58	21.59	21.52	21.54		
10	16QAM	1	25	21.52	21.48	21.60	21.49	21.43	23	
10	16QAM	1	49	21.48	21.51	21.60	21.45	21.48		
10	16QAM	25	0	20.70	20.71	20.72	20.72	20.65		
10	16QAM	25	12	20.88	20.95	20.98	20.92	20.89		
10	16QAM	25	25	20.85	20.81	20.99	20.90	20.93	22	
10	16QAM	50	0	20.61	20.65	20.67	20.69	20.62		
10	64QAM	1	0	20.88	20.89	20.98	20.86	20.96		
10	64QAM	1	25	20.83	20.83	20.89	20.92	20.90		
10	64QAM	1	49	20.79	20.85	20.95	20.79	20.85	21	
10	64QAM	25	0	19.78	19.82	19.87	19.77	19.83		
10	64QAM	25	12	19.78	19.82	19.86	19.82	19.72		
10	64QAM	25	25	19.76	19.74	19.81	19.78	19.78		
10	64QAM	50	0	19.74	19.72	19.76	19.70	19.69		
Channel				40065	40353	40640	40928	41215	Tune-up limit (dBm)	
Frequency (MHz)				2537.5	2566.3	2595	2623.80	2652.5		
5	QPSK	1	0	23.02	22.88	23.01	22.82	22.98	24	
5	QPSK	1	12	22.85	22.94	22.95	22.96	22.91		
5	QPSK	1	24	22.90	22.86	22.93	22.85	22.91		
5	QPSK	12	0	21.93	21.96	21.97	21.98	21.99		
5	QPSK	12	7	21.85	21.81	21.96	21.86	21.89	23	
5	QPSK	12	13	21.96	21.93	22.06	21.99	21.94		
5	QPSK	25	0	21.68	21.60	21.65	21.65	21.62		
5	16QAM	1	0	21.51	21.53	21.55	21.61	21.46		
5	16QAM	1	12	21.54	21.52	21.60	21.49	21.52	23	
5	16QAM	1	24	21.56	21.53	21.54	21.50	21.50		
5	16QAM	12	0	20.71	20.69	20.80	20.74	20.65		
5	16QAM	12	7	20.88	20.92	20.98	20.90	20.96		
5	16QAM	12	13	20.90	20.86	20.94	20.87	20.93	22	
5	16QAM	25	0	20.56	20.65	20.65	20.65	20.63		
5	64QAM	1	0	20.88	20.93	20.89	20.94	20.94		
5	64QAM	1	12	20.78	20.79	20.92	20.95	20.89		
5	64QAM	1	24	20.81	20.93	20.89	20.82	20.83	21	
5	64QAM	12	0	19.83	19.73	19.82	19.82	19.85		
5	64QAM	12	7	19.81	19.82	19.83	19.82	19.76		
5	64QAM	12	13	19.72	19.75	19.78	19.73	19.78		
5	64QAM	25	0	19.70	19.69	19.71	19.67	19.68		



2.4GHz WLAN ANT 0

2.4GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11b 1Mbps	CH 1	2412	18.54	20.50	15.00	99.29
		CH 6	2437	18.15	20.00	15.00	
		CH 11	2462	18.54	20.50	15.00	
	802.11g 6Mbps	CH 1	2412	16.72	18.50	14.00	95.89
		CH 6	2437	16.81	18.50	14.00	
		CH 11	2462	16.74	18.50	14.00	
	802.11n-HT20 MCS0	CH 1	2412	16.75	18.50	14.00	95.16
		CH 6	2437	17.15	19.00	14.00	
		CH 11	2462	16.99	18.50	14.00	
	802.11n-HT40 MCS0	CH 3	2422	16.25	18.00	13.00	90.77
		CH 6	2437	15.99	17.50	13.00	
		CH 9	2452	14.94	16.50	13.00	

5GHz WLAN ANT 0

5.2GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	17.48	19.00	17.00	95.89
		CH 44	5220	17.62	19.50	17.00	
		CH 48	5240	17.27	19.00	17.00	
	802.11n-HT20 MCS0	CH 36	5180	17.65	19.50	17.00	95.16
		CH 44	5220	17.83	19.50	17.00	
		CH 48	5240	17.62	19.50	17.00	
	802.11n-HT40 MCS0	CH 36	5180	17.76	19.50	17.00	90.62
		CH 46	5230	17.51	19.50	17.00	
		CH 36	5180	17.70	19.50	17.00	95.24
	802.11ac-VHT20 MCS0	CH 44	5220	17.84	19.50	17.00	
		CH 48	5240	17.51	19.50	17.00	
	802.11ac-VHT40 MCS0	CH 36	5190	17.49	19.00	17.00	90.91
		CH 46	5230	17.22	19.00	17.00	
		CH 42	5210	17.37	19.00	17.00	83.10

5GHz WLAN ANT 0

5.3GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 52	5260	17.41	19.00	17.00	95.89
		CH 60	5300	16.88	18.50	17.00	
		CH 64	5320	16.53	18.50	17.00	
	802.11n-HT20 MCS0	CH 52	5260	17.66	19.50	17.00	95.16
		CH 60	5300	17.33	19.00	17.00	
		CH 64	5320	16.72	18.50	17.00	
	802.11n-HT40 MCS0	CH 54	5270	17.44	19.00	17.00	90.62
		CH 62	5310	16.81	18.50	17.00	
		CH 52	5260	17.63	19.50	17.00	95.24
	802.11ac-VHT20 MCS0	CH 60	5300	17.31	19.00	17.00	
		CH 64	5320	16.56	18.50	17.00	
	802.11ac-VHT40 MCS0	CH 54	5270	17.15	19.00	17.00	90.91
		CH 62	5310	16.56	18.50	17.00	
		CH 58	5290	17.04	19.00	17.00	83.10

5GHz WLAN ANT 0

5.5GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 100	5500	17.37	19.00	17.00	95.89
		CH 120	5600	17.94	19.50	17.00	
		CH 140	5700	17.68	19.00	17.00	
	802.11n-HT20 MCS0	CH 100	5500	17.54	19.50	17.00	95.16
		CH 120	5600	18.14	20.00	17.00	
		CH 140	5700	17.80	19.50	17.00	
	802.11n-HT40 MCS0	CH 102	5510	17.71	19.50	17.00	90.62
		CH 126	5630	17.74	19.50	17.00	
		CH 134	5670	17.71	19.50	17.00	95.24
	802.11ac-VHT20 MCS0	CH 100	5500	17.62	19.50	17.00	
		CH 120	5600	18.20	20.00	17.00	
		CH 140	5700	17.93	19.50	17.00	
	802.11ac-VHT40 MCS0	CH 102	5510	17.46	19.00	17.00	90.91
		CH 126	5630	17.46	19.00	17.00	
		CH 134	5670	17.46	19.00	17.00	83.10
	802.11ac-VHT80 MCS0	CH 106	5530	17.45	19.00	17.00	
		CH 122	5610	17.68	19.50	17.00	
		CH 138	5690	17.66	19.50	17.00	

5GHz WLAN ANT 0

5.8GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	17.51	19.50	17.00	95.89
		CH 157	5785	17.20	19.00	17.00	
		CH 165	5825	16.89	18.50	17.00	
	802.11n-HT20 MCS0	CH 149	5745	17.73	19.00	17.00	95.16
		CH 157	5785	17.42	19.00	17.00	
		CH 165	5825	16.89	18.50	17.00	
	802.11n-HT40 MCS0	CH 151	5755	17.52	19.50	17.00	90.62
		CH 159	5795	17.02	19.00	17.00	
		CH 149	5745	17.73	19.50	17.00	95.24
	802.11ac-VHT20 MCS0	CH 157	5785	17.41	19.00	17.00	
		CH 165	5825	16.92	18.50	17.00	
	802.11ac-VHT40 MCS0	CH 151	5755	17.28	19.00	17.00	90.91
		CH 159	5795	16.80	18.50	17.00	
		CH 155	5775	17.33	19.00	17.00	83.10

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	8.35	7.09	7.23
	CH 39	2441	8.34	6.86	7.00
	CH 76	2480	7.57	6.76	6.48
	Tune-up Limit		10	9	9
Duty Cycle %			77.6	77.73	77.71

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			1Mbps	2Mbps
LE	CH 00	2402	-1.62	-1.81
	CH 19	2440	-3.81	-3.26
	CH 39	2480	-4.42	-4.17
	Tune-up Limit		0.5	0.5
Duty Cycle %			31.8	32.8



Reduced Power Level 1 for ANT 2

GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel		512	661	810		512	661	810	
Frequency (MHz)		1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot		22.49	22.78	22.77	23.50	13.49	13.78	13.77	14.50
GPRS 1 Tx slot		22.53	22.82	22.79	23.50	13.53	13.82	13.79	14.50
GPRS 2 Tx slots		20.45	20.56	20.51	21.50	14.45	14.56	14.51	15.50
GPRS 3 Tx slots		18.97	19.04	18.99	20.50	14.71	14.78	14.73	16.24
GPRS 4 Tx slots		17.07	17.09	17.15	18.50	14.07	14.09	14.15	15.50
EDGE 1 Tx slot		21.82	21.55	21.56	22.00	12.82	12.55	12.56	13.00
EDGE 2 Tx slots		21.66	21.51	21.21	22.00	15.66	15.51	15.21	16.00
EDGE 3 Tx slots		18.32	17.84	17.93	18.50	14.06	13.58	13.67	14.24
EDGE 4 Tx slots		16.65	16.58	16.23	16.80	13.65	13.58	13.23	13.80
Mode			Max.	22.82			Max.	15.66	
Attenuator		Cable Loss : 0.8							

Band		WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99	RMC 12.2Kbps	15.59	15.66	15.60	16.50	17.55	17.59	17.54	18.50
3GPP Rel 6	HSDPA Subtest-1	14.52	14.60	14.52	15.50	16.60	16.60	16.76	17.50
3GPP Rel 6	HSDPA Subtest-2	14.41	14.52	14.50	15.50	16.61	16.64	16.73	17.50
3GPP Rel 6	HSDPA Subtest-3	14.41	14.43	14.42	15.50	16.53	16.59	16.68	17.50
3GPP Rel 6	HSDPA Subtest-4	14.41	14.43	14.42	15.50	16.54	16.60	16.69	17.50
3GPP Rel 8	DC-HSDPA Subtest-1	14.61	14.67	14.58	15.50	16.64	16.71	16.59	17.50
3GPP Rel 8	DC-HSDPA Subtest-2	14.65	14.64	14.56	15.50	16.68	16.77	16.64	17.50
3GPP Rel 8	DC-HSDPA Subtest-3	14.60	14.64	14.54	15.50	16.69	16.75	16.64	17.50
3GPP Rel 8	DC-HSDPA Subtest-4	14.62	14.66	14.55	15.50	16.71	16.77	16.66	17.50
3GPP Rel 6	HSUPA Subtest-1	13.98	13.75	14.04	15.50	16.18	16.43	16.42	17.50
3GPP Rel 6	HSUPA Subtest-2	13.57	13.49	13.64	14.50	15.67	15.88	15.81	16.50
3GPP Rel 6	HSUPA Subtest-3	13.55	13.66	13.59	14.50	16.17	16.39	16.35	16.50
3GPP Rel 6	HSUPA Subtest-4	14.26	14.34	14.25	15.50	16.22	16.03	16.38	17.50
3GPP Rel 6	HSUPA Subtest-5	15.36	15.55	15.47	16.50	17.10	17.34	17.24	18.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	15.38	15.18	15.24	16.50	17.39	17.53	17.47	18.50
Attenuator			Cable Loss	0.8			Cable Loss	0.8	
Mode			Max.	15.66			Max.	17.59	



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	14.52	14.63	14.55	15.5
20	QPSK	1	49	14.47	14.57	14.47	
20	QPSK	1	99	14.51	14.55	14.50	
20	QPSK	50	0	13.60	13.65	13.62	14.5
20	QPSK	50	24	13.40	13.50	13.45	
20	QPSK	50	50	13.38	13.45	13.38	
20	QPSK	100	0	13.44	13.49	13.45	14.5
20	16QAM	1	0	13.47	13.51	13.44	
20	16QAM	1	49	13.45	13.47	13.37	
20	16QAM	1	99	13.35	13.43	13.41	13.5
20	16QAM	50	0	12.42	12.45	12.42	
20	16QAM	50	24	12.35	12.44	12.41	
20	16QAM	50	50	12.33	12.42	12.35	13.5
20	16QAM	100	0	12.51	12.54	12.50	
20	64QAM	1	0	11.90	11.97	11.95	
20	64QAM	1	49	11.88	11.94	11.88	13.5
20	64QAM	1	99	11.85	11.95	11.93	
20	64QAM	50	0	10.73	10.77	10.69	12.5
20	64QAM	50	24	10.67	10.75	10.67	
20	64QAM	50	50	10.69	10.74	10.70	
20	64QAM	100	0	10.68	10.70	10.67	
Channel				1867.5	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	Tune-up limit (dBm)
15	QPSK	1	0	14.45	14.60	14.51	15.5
15	QPSK	1	37	14.37	14.47	14.39	
15	QPSK	1	74	14.41	14.52	14.40	
15	QPSK	36	0	13.58	13.64	13.58	14.5
15	QPSK	36	20	13.33	13.49	13.38	
15	QPSK	36	39	13.34	13.37	13.33	
15	QPSK	75	0	13.34	13.39	13.35	14.5
15	16QAM	1	0	13.43	13.44	13.35	
15	16QAM	1	37	13.43	13.38	13.33	
15	16QAM	1	74	13.30	13.34	13.31	13.5
15	16QAM	36	0	12.37	12.39	12.41	
15	16QAM	36	20	12.32	12.42	12.35	
15	16QAM	36	39	12.29	12.32	12.27	13.5
15	16QAM	75	0	12.42	12.50	12.45	
15	64QAM	1	0	11.84	11.95	11.89	
15	64QAM	1	37	11.81	11.91	11.84	13.5
15	64QAM	1	74	11.80	11.86	11.89	
15	64QAM	36	0	10.68	10.68	10.64	12.5
15	64QAM	36	20	10.59	10.68	10.61	
15	64QAM	36	39	10.65	10.66	10.63	
15	64QAM	75	0	10.58	10.66	10.62	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	Tune-up limit (dBm)
10	QPSK	1	0	14.47	14.55	14.48	15.5
10	QPSK	1	25	14.40	14.48	14.37	
10	QPSK	1	49	14.44	14.48	14.47	
10	QPSK	25	0	13.55	13.63	13.57	14.5
10	QPSK	25	12	13.38	13.49	13.43	
10	QPSK	25	25	13.36	13.37	13.29	
10	QPSK	50	0	13.42	13.43	13.43	14.5
10	16QAM	1	0	13.45	13.46	13.35	
10	16QAM	1	25	13.44	13.42	13.29	
10	16QAM	1	49	13.31	13.39	13.36	13.5
10	16QAM	25	0	12.36	12.41	12.35	
10	16QAM	25	12	12.34	12.42	12.40	
10	16QAM	25	25	12.32	12.36	12.33	13.5
10	16QAM	50	0	12.46	12.53	12.41	
10	64QAM	1	0	11.82	11.94	11.86	
10	64QAM	1	25	11.81	11.93	11.83	13.5
10	64QAM	1	49	11.82	11.86	11.90	
10	64QAM	25	0	10.71	10.67	10.60	12.5
10	64QAM	25	12	10.66	10.69	10.60	
10	64QAM	25	25	10.66	10.67	10.62	
10	64QAM	50	0	10.64	10.62	10.64	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	Tune-up limit (dBm)
5	QPSK	1	0	14.45	14.56	14.45	15.5
5	QPSK	1	12	14.44	14.52	14.42	
5	QPSK	1	24	14.49	14.46	14.43	
5	QPSK	12	0	13.58	13.56	13.52	14.5
5	QPSK	12	7	13.36	13.44	13.41	
5	QPSK	12	13	13.28	13.44	13.34	
5	QPSK	25	0	13.42	13.45	13.43	14.5
5	16QAM	1	0	13.37	13.49	13.40	
5	16QAM	1	12	13.39	13.45	13.31	
5	16QAM	1	24	13.29	13.35	13.39	13.5
5	16QAM	12	0	12.35	12.38	12.38	
5	16QAM	12	7	12.27	12.43	12.40	
5	16QAM	12	13	12.31	12.32	12.26	13.5
5	16QAM	25	0	12.48	12.53	12.47	
5	64QAM	1	0	11.85	11.96	11.86	
5	64QAM	1	12	11.82	11.92	11.80	13.5
5	64QAM	1	24	11.83	11.93	11.84	
5	64QAM	12	0	10.67	10.74	10.68	12.5
5	64QAM	12	7	10.66	10.67	10.64	
5	64QAM	12	13	10.63	10.66	10.66	
5	64QAM	25	0	10.61	10.65	10.62	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	Tune-up limit (dBm)
3	QPSK	1	0	14.43	14.57	14.47	15.5
3	QPSK	1	8	14.37	14.48	14.43	
3	QPSK	1	14	14.48	14.51	14.41	
3	QPSK	8	0	13.56	13.59	13.57	14.5
3	QPSK	8	4	13.31	13.46	13.40	
3	QPSK	8	7	13.36	13.44	13.32	

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	17.94	18.02	17.88	19
20	QPSK	1	49	17.87	17.89	17.88	
20	QPSK	1	99	17.82	17.92	17.85	
20	QPSK	50	0	16.91	16.99	16.96	18
20	QPSK	50	24	16.82	16.87	16.80	
20	QPSK	50	50	16.77	16.85	16.84	
20	QPSK	100	0	16.86	16.89	16.79	18
20	16QAM	1	0	17.52	17.60	17.57	
20	16QAM	1	49	17.58	17.59	17.51	
20	16QAM	1	99	17.49	17.57	17.52	17
20	16QAM	50	0	15.42	15.46	15.45	
20	16QAM	50	24	15.39	15.43	15.40	
20	16QAM	50	50	15.38	15.42	15.39	17
20	16QAM	100	0	15.78	15.88	15.85	
20	64QAM	1	0	15.49	15.52	15.43	
20	64QAM	1	49	15.44	15.51	15.46	17
20	64QAM	1	99	15.40	15.47	15.46	
20	64QAM	50	0	14.39	14.41	14.35	16
20	64QAM	50	24	14.36	14.39	14.32	
20	64QAM	50	50	14.34	14.38	14.31	
20	64QAM	100	0	14.35	14.39	14.33	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	17.88	17.90	17.86	19
15	QPSK	1	37	17.83	17.84	17.79	
15	QPSK	1	74	17.76	17.84	17.84	
15	QPSK	36	0	16.81	16.93	16.91	18
15	QPSK	36	20	16.77	16.85	16.78	
15	QPSK	36	39	16.72	16.77	16.81	
15	QPSK	75	0	16.83	16.86	16.78	18
15	16QAM	1	0	17.42	17.50	17.56	
15	16QAM	1	37	17.49	17.51	17.43	
15	16QAM	1	74	17.40	17.56	17.48	17
15	16QAM	36	0	15.36	15.44	15.35	
15	16QAM	36	20	15.34	15.42	15.37	
15	16QAM	36	39	15.34	15.36	15.34	17
15	16QAM	75	0	15.71	15.86	15.75	
15	64QAM	1	0	15.40	15.42	15.35	
15	64QAM	1	37	15.36	15.43	15.36	17
15	64QAM	1	74	15.38	15.43	15.42	
15	64QAM	36	0	14.32	14.39	14.29	16
15	64QAM	36	20	14.30	14.30	14.30	
15	64QAM	36	39	14.32	14.30	14.23	
15	64QAM	75	0	14.28	14.31	14.27	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	17.85	17.98	17.87	19
10	QPSK	1	25	17.82	17.84	17.86	
10	QPSK	1	49	17.73	17.85	17.79	
10	QPSK	25	0	16.90	16.93	16.93	18
10	QPSK	25	12	16.73	16.85	16.77	
10	QPSK	25	25	16.69	16.83	16.75	
10	QPSK	50	0	16.81	16.87	16.75	18
10	16QAM	1	0	17.49	17.54	17.50	
10	16QAM	1	25	17.53	17.54	17.46	
10	16QAM	1	49	17.42	17.47	17.42	17
10	16QAM	25	0	15.35	15.41	15.42	
10	16QAM	25	12	15.29	15.40	15.31	
10	16QAM	25	25	15.35	15.40	15.36	17
10	16QAM	50	0	15.76	15.83	15.83	
10	64QAM	1	0	15.40	15.45	15.33	
10	64QAM	1	25	15.38	15.48	15.45	17
10	64QAM	1	49	15.38	15.46	15.38	
10	64QAM	25	0	14.29	14.37	14.33	
10	64QAM	25	12	14.30	14.32	14.29	16
10	64QAM	25	25	14.33	14.29	14.25	
10	64QAM	50	0	14.27	14.35	14.31	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	17.86	17.94	17.78	19
5	QPSK	1	12	17.79	17.86	17.80	
5	QPSK	1	24	17.72	17.82	17.80	
5	QPSK	12	0	16.89	16.92	16.89	18
5	QPSK	12	7	16.77	16.85	16.77	
5	QPSK	12	13	16.71	16.78	16.81	
5	QPSK	25	0	16.77	16.84	16.71	18
5	16QAM	1	0	17.43	17.50	17.54	
5	16QAM	1	12	17.49	17.57	17.49	
5	16QAM	1	24	17.48	17.47	17.43	17
5	16QAM	12	0	15.35	15.37	15.42	
5	16QAM	12	7	15.30	15.37	15.30	
5	16QAM	12	13	15.35	15.32	15.32	17
5	16QAM	25	0	15.68	15.80	15.80	
5	64QAM	1	0	15.39	15.49	15.36	
5	64QAM	1	12	15.41	15.41	15.44	17
5	64QAM	1	24	15.32	15.40	15.43	
5	64QAM	12	0	14.37	14.32	14.33	
5	64QAM	12	7	14.33	14.37	14.25	16
5	64QAM	12	13	14.26	14.35	14.23	
5	64QAM	25	0	14.30	14.37	14.26	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	17.88	17.98	17.87	19
3	QPSK	1	8	17.79	17.82	17.86	
3	QPSK	1	14	17.78	17.88	17.78	
3	QPSK	8	0	16.85	16.91	16.88	18
3	QPSK	8	4	16.72	16.86	16.72	
3	QPSK	8	7	16.67	16.79	16.77	



3	QPSK	15	0	13.40	13.44	13.40	14.5
3	16QAM	1	0	13.40	13.46	13.34	
3	16QAM	1	8	13.40	13.42	13.35	
3	16QAM	1	14	13.25	13.39	13.37	13.5
3	16QAM	8	0	12.33	12.44	12.35	
3	16QAM	8	4	12.31	12.39	12.40	
3	16QAM	8	7	12.31	12.36	12.29	13.5
3	16QAM	15	0	12.50	12.46	12.45	
3	64QAM	1	0	11.82	11.87	11.87	
3	64QAM	1	8	11.85	11.85	11.84	13.5
3	64QAM	1	14	11.78	11.89	11.83	
3	64QAM	8	0	10.64	10.75	10.68	
3	64QAM	8	4	10.57	10.66	10.58	12.5
3	64QAM	8	7	10.68	10.68	10.62	
3	64QAM	15	0	10.62	10.63	10.60	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	14.51	14.53	14.47	15.5
1.4	QPSK	1	3	14.40	14.47	14.46	
1.4	QPSK	1	5	14.46	14.52	14.43	
1.4	QPSK	3	0	14.50	14.44	14.55	
1.4	QPSK	3	1	14.36	14.46	14.40	
1.4	QPSK	3	3	14.29	14.38	14.31	
1.4	QPSK	6	0	13.40	13.48	13.41	14.5
1.4	16QAM	1	0	13.43	13.44	13.42	14.5
1.4	16QAM	1	3	13.35	13.39	13.30	
1.4	16QAM	1	5	13.28	13.42	13.34	
1.4	16QAM	3	0	13.35	13.39	13.34	
1.4	16QAM	3	1	13.31	13.39	13.37	
1.4	16QAM	3	3	13.30	13.39	13.26	
1.4	16QAM	6	0	12.50	12.44	12.49	13.5
1.4	64QAM	1	0	11.84	11.92	11.87	13.5
1.4	64QAM	1	3	11.79	11.87	11.86	
1.4	64QAM	1	5	11.75	11.88	11.92	
1.4	64QAM	3	0	11.63	11.74	11.61	
1.4	64QAM	3	1	11.59	11.72	11.63	
1.4	64QAM	3	3	11.67	11.64	11.64	
1.4	64QAM	6	0	10.61	10.60	10.62	12.5

3	QPSK	15	0	16.81	16.82	16.78	18
3	16QAM	1	0	17.49	17.55	17.54	
3	16QAM	1	8	17.57	17.55	17.45	
3	16QAM	1	14	17.43	17.56	17.48	17
3	16QAM	8	0	15.36	15.43	15.42	
3	16QAM	8	4	15.29	15.38	15.32	
3	16QAM	8	7	15.34	15.40	15.32	17
3	16QAM	15	0	15.72	15.79	15.82	
3	64QAM	1	0	15.40	15.51	15.34	
3	64QAM	1	8	15.43	15.47	15.42	16
3	64QAM	1	14	15.31	15.39	15.37	
3	64QAM	8	0	14.38	14.31	14.32	
3	64QAM	8	4	14.31	14.34	14.22	19
3	64QAM	8	7	14.24	14.33	14.23	
3	64QAM	15	0	14.32	14.31	14.31	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	17.86	17.96	17.84	18
1.4	QPSK	1	3	17.80	17.83	17.80	
1.4	QPSK	1	5	17.75	17.89	17.79	
1.4	QPSK	3	0	17.86	17.94	17.88	
1.4	QPSK	3	1	17.74	17.85	17.79	
1.4	QPSK	3	3	17.72	17.79	17.82	
1.4	QPSK	6	0	16.79	16.87	16.73	18
1.4	16QAM	1	0	17.43	17.51	17.49	18
1.4	16QAM	1	3	17.50	17.51	17.45	
1.4	16QAM	1	5	17.42	17.48	17.47	
1.4	16QAM	3	0	16.35	16.38	16.40	
1.4	16QAM	3	1	16.35	16.40	16.33	
1.4	16QAM	3	3	16.34	16.32	16.29	
1.4	16QAM	6	0	15.68	15.87	15.80	17
1.4	64QAM	1	0	15.46	15.48	15.38	17
1.4	64QAM	1	3	15.38	15.46	15.44	
1.4	64QAM	1	5	15.32	15.38	15.37	
1.4	64QAM	3	0	15.31	15.37	15.31	
1.4	64QAM	3	1	15.33	15.29	15.24	
1.4	64QAM	3	3	15.32	15.34	15.21	
1.4	64QAM	6	0	14.33	14.31	14.29	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		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	17.03	17.09	17.07	18	
20	QPSK	1	49	16.96	17.06	17.00		
20	QPSK	1	99	16.94	17.02	16.93		
20	QPSK	50	0	15.98	15.99	15.96	17	
20	QPSK	50	24	15.95	15.97	15.91		
20	QPSK	50	50	15.89	15.95	15.92		
20	QPSK	100	0	15.87	15.96	15.94	17	
20	16QAM	1	0	15.93	15.96	15.92		
20	16QAM	1	49	15.87	15.95	15.92		
20	16QAM	1	99	15.87	15.93	15.88	16	
20	16QAM	50	0	14.93	14.97	14.92		
20	16QAM	50	24	14.93	14.94	14.88		
20	16QAM	50	50	14.89	14.91	14.84	16	
20	16QAM	100	0	14.81	14.89	14.82		
20	64QAM	1	0	14.88	14.96	14.94		
20	64QAM	1	49	14.85	14.93	14.92	16	
20	64QAM	1	99	14.85	14.92	14.89		
20	64QAM	50	0	13.13	13.16	13.12		
20	64QAM	50	24	13.04	13.13	13.08	15	
20	64QAM	50	50	13.06	13.12	13.02		
20	64QAM	100	0	13.15	13.17	13.07		
Channel				20825	21100	21375	Tune-up limit (dBm)	
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	16.93	17.05	17.06	18	
15	QPSK	1	37	16.86	17.05	16.97		
15	QPSK	1	74	16.89	17.00	16.92		
15	QPSK	36	0	15.94	15.89	15.92	17	
15	QPSK	36	20	15.90	15.91	15.85		
15	QPSK	36	39	15.86	15.89	15.84		
15	QPSK	75	0	15.81	15.92	15.88	17	
15	16QAM	1	0	15.84	15.88	15.91		
15	16QAM	1	37	15.84	15.88	15.84		
15	16QAM	1	74	15.85	15.83	15.85	16	
15	16QAM	36	0	14.91	14.92	14.88		
15	16QAM	36	20	14.89	14.90	14.79		
15	16QAM	36	39	14.86	14.89	14.79	16	
15	16QAM	75	0	14.72	14.80	14.75		
15	64QAM	1	0	14.85	14.92	14.93		
15	64QAM	1	37	14.79	14.83	14.82	16	
15	64QAM	1	74	14.80	14.87	14.84		
15	64QAM	36	0	13.11	13.09	13.11	15	
15	64QAM	36	20	12.96	13.10	13.04		
15	64QAM	36	39	12.99	13.04	12.95		
15	64QAM	75	0	13.13	13.07	12.98	15	
Channel				20800	21100	21400		
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	17.00	17.00	17.05	18	
10	QPSK	1	25	16.95	16.97	16.98		
10	QPSK	1	49	16.92	16.94	16.83		
10	QPSK	25	0	15.92	15.94	15.96	17	
10	QPSK	25	12	15.90	15.91	15.81		
10	QPSK	25	25	15.81	15.91	15.83		
10	QPSK	50	0	15.81	15.95	15.87	17	
10	16QAM	1	0	15.92	15.87	15.91		
10	16QAM	1	25	15.79	15.87	15.89		
10	16QAM	1	49	15.84	15.86	15.83	16	
10	16QAM	25	0	14.86	14.90	14.82		
10	16QAM	25	12	14.91	14.88	14.87		
10	16QAM	25	25	14.81	14.82	14.76	16	
10	16QAM	50	0	14.80	14.86	14.72		
10	64QAM	1	0	14.80	14.94	14.92		
10	64QAM	1	25	14.81	14.83	14.85	16	
10	64QAM	1	49	14.83	14.88	14.83		
10	64QAM	25	0	13.03	13.07	13.05		
10	64QAM	25	12	12.97	13.09	12.99	15	
10	64QAM	25	25	13.03	13.06	12.93		
10	64QAM	50	0	13.07	13.10	12.99		
Channel				20775	21100	21425	Tune-up limit (dBm)	
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	17.01	17.01	17.00	18	
5	QPSK	1	12	16.92	17.01	16.95		
5	QPSK	1	24	16.90	16.92	16.92		
5	QPSK	12	0	15.91	15.95	15.90	17	
5	QPSK	12	7	15.93	15.89	15.81		
5	QPSK	12	13	15.87	15.91	15.84		
5	QPSK	25	0	15.78	15.90	15.86	17	
5	16QAM	1	0	15.85	15.90	15.89		
5	16QAM	1	12	15.81	15.85	15.85		
5	16QAM	1	24	15.77	15.91	15.86	16	
5	16QAM	12	0	14.84	14.92	14.86		
5	16QAM	12	7	14.85	14.86	14.83		
5	16QAM	12	13	14.83	14.85	14.78	16	
5	16QAM	25	0	14.72	14.82	14.78		
5	64QAM	1	0	14.86	14.86	14.84		
5	64QAM	1	12	14.81	14.88	14.87	16	
5	64QAM	1	24	14.83	14.82	14.81		
5	64QAM	12	0	13.12	13.07	13.02		
5	64QAM	12	7	12.94	13.09	13.02	15	
5	64QAM	12	13	12.98	13.09	12.94		
5	64QAM	25	0	13.11	13.13	12.97		

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	19.5	
20	QPSK	1	0	18.24	18.28	18.25		
20	QPSK	1	49	18.16	18.24	18.22		
20	QPSK	1	99	18.12	18.21	18.13		
20	QPSK	50	0	16.92	17.01	16.96	18.5	
20	QPSK	50	24	17.01	17.02	16.93		
20	QPSK	50	50	16.96	17.03	17.00		
20	QPSK	100	0	16.88	16.92	16.87		
20	16QAM	1	0	17.52	17.60	17.52	18.5	
20	16QAM	1	49	17.53	17.58	17.49		
20	16QAM	1	99	17.48	17.56	17.48		
20	16QAM	50	0	15.46	15.54	15.45		
20	16QAM	50	24	15.52	15.53	15.47	17.5	
20	16QAM	50	50	15.49	15.51	15.41		
20	16QAM	100	0	15.53	15.60	15.52		
20	64QAM	1	0	15.74	15.81	15.73		
20	64QAM	1	49	15.71	15.79	15.74	17.5	
20	64QAM	1	99	15.76	15.80	15.74		
20	64QAM	50	0	14.17	14.23	14.22		
20	64QAM	50	24	14.18	14.16	14.17		
20	64QAM	50	50	14.13	14.18	14.17	16.5	
20	64QAM	100	0	14.18	14.27	14.24		
Channel				132047	132322	132597		Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	18.19	18.19	18.17	19.5	
15	QPSK	1	37	18.09	18.14	18.21		
15	QPSK	1	74	18.06	18.13	18.12		
15	QPSK	36	0	16.90	16.94	16.86		
15	QPSK	36	20	16.94	17.00	16.89	18.5	
15	QPSK	36	39	16.86	17.01	16.96		
15	QPSK	75	0	16.86	16.89	16.82		
15	16QAM	1	0	17.51	17.58	17.51		
15	16QAM	1	37	17.51	17.54	17.39	18.5	
15	16QAM	1	74	17.39	17.54	17.45		
15	16QAM	36	0	15.40	15.52	15.35		
15	16QAM	36	20	15.47	15.50	15.39		
15	16QAM	36	39	15.45	15.45	15.36	17.5	
15	16QAM	75	0	15.50	15.55	15.48		
15	64QAM	1	0	15.72	15.79	15.68		
15	64QAM	1	37	15.62	15.78	15.72		
15	64QAM	1	74	15.70	15.72	15.66	17.5	
15	64QAM	36	0	14.07	14.13	14.21		
15	64QAM	36	20	14.17	14.09	14.14		
15	64QAM	36	39	14.12	14.11	14.12		
15	64QAM	75	0	14.15	14.20	14.15	16.5	
Channel				132022	132322	132622		Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	18.18	18.27	18.20		19.5
10	QPSK	1	25	18.14	18.20	18.18		
10	QPSK	1	49	18.11	18.16	18.07		
10	QPSK	25	0	16.82	16.96	16.88		
10	QPSK	25	12	16.96	17.00	16.85	18.5	
10	QPSK	25	25	16.90	17.02	16.98		
10	QPSK	50	0	16.87	16.89	16.81		
10	16QAM	1	0	17.51	17.51	17.42		
10	16QAM	1	25	17.49	17.49	17.40	18.5	
10	16QAM	1	49	17.39	17.53	17.38		
10	16QAM	25	0	15.39	15.53	15.42		
10	25QAM	25	12	15.45	15.45	15.37		
10	16QAM	25	25	15.48	15.42	15.35	17.5	
10	16QAM	50	0	15.46	15.53	15.50		
10	64QAM	1	0	15.69	15.73	15.63		
10	64QAM	1	25	15.64	15.74	15.70		
10	64QAM	1	49	15.70	15.73	15.65	17.5	
10	64QAM	25	0	14.11	14.14	14.12		
10	24QAM	25	12	14.12	14.09	14.08		
10	64QAM	25	25	14.08	14.14	14.08		
10	64QAM	50	0	14.15	14.18	14.15	16.5	
Channel				131997	132322	132647		Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	18.17	18.19	18.21		19.5
5	QPSK	1	12	18.06	18.14	18.17		
5	QPSK	1	24	18.08	18.16	18.04		
5	QPSK	12	0	16.86	16.93	16.95		
5	QPSK	12	7	16.98	16.93	16.90	18.5	
5	QPSK	12	13	16.92	16.95	16.91		
5	QPSK	25	0	16.78	16.83	16.81		
5	16QAM	1	0	17.43	17.54	17.47		
5	16QAM	1	12	17.43	17.49	17.46	18.5	
5	16QAM	1	24	17.43	17.47	17.44		
5	16QAM	12	0	15.45	15.44	15.39		
5	16QAM	12	7	15.45	15.52	15.41		
5	16QAM	12	13	15.47	15.50	15.37	17.5	
5	16QAM	25	0	15.46	15.56	15.44		
5	64QAM	1	0	15.65	15.71	15.66		
5	64QAM	1	12	15.62	15.77	15.66		
5	64QAM	1	24	15.67	15.79	15.65	17.5	
5	64QAM	12	0	14.16	14.15	14.12		
5	64QAM	12	7	14.12	14.11	14.11		
5	64QAM	12	13	14.04	14.14	14.10		
5	64QAM	25	0	14.15	14.26	14.15	16.5	
Channel				131967	132322	132657		Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	18.15	18.25	18.20		19.5
3	QPSK	1	8	18.06	18.21	18.17		
3	QPSK	1	14	18.08	18.14	18.04		
3	QPSK	8	0	16.89	16.96	16.95		
3	QPSK	8	4	16.97	17.00	16.87	18.5	
3	QPSK	8	7	16.90	16.94	16.93		



3	QPSK	15	0	16.82	16.86	16.86	18.5
3	16QAM	1	0	17.48	17.59	17.49	
3	16QAM	1	8	17.51	17.56	17.47	
3	16QAM	1	14	17.40	17.55	17.38	17.5
3	16QAM	8	0	15.39	15.46	15.35	
3	16QAM	8	4	15.50	15.52	15.46	
3	16QAM	8	7	15.41	15.43	15.33	
3	16QAM	15	0	15.49	15.51	15.51	
3	64QAM	1	0	15.66	15.72	15.66	17.5
3	64QAM	1	8	15.62	15.74	15.66	
3	64QAM	1	14	15.69	15.70	15.65	
3	64QAM	8	0	14.13	14.15	14.18	16.5
3	64QAM	8	4	14.08	14.06	14.10	
3	64QAM	8	7	14.10	14.10	14.08	
3	64QAM	15	0	14.11	14.24	14.20	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	18.20	18.20	18.18	19.5
1.4	QPSK	1	3	18.06	18.17	18.13	
1.4	QPSK	1	5	18.07	18.18	18.05	
1.4	QPSK	3	0	17.76	17.88	17.76	
1.4	QPSK	3	1	17.85	17.85	17.74	
1.4	QPSK	3	3	17.83	17.86	17.81	
1.4	QPSK	6	0	16.84	16.89	16.79	18.5
1.4	16QAM	1	0	17.44	17.53	17.43	18.5
1.4	16QAM	1	3	17.49	17.54	17.47	
1.4	16QAM	1	5	17.47	17.54	17.47	
1.4	16QAM	3	0	16.28	16.35	16.29	
1.4	16QAM	3	1	16.38	16.35	16.32	
1.4	16QAM	3	3	16.35	16.30	16.20	
1.4	16QAM	6	0	15.43	15.58	15.50	17.5
1.4	64QAM	1	0	15.71	15.79	15.71	17.5
1.4	64QAM	1	3	15.67	15.77	15.65	
1.4	64QAM	1	5	15.73	15.73	15.71	
1.4	64QAM	3	0	15.01	15.04	15.01	
1.4	64QAM	3	1	15.04	14.99	14.98	
1.4	64QAM	3	3	14.99	15.05	15.03	
1.4	64QAM	6	0	14.11	14.19	14.22	16.5



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	21.58	21.60	21.51	22.5	
20	QPSK	1	49	21.55	21.56	21.53		
20	QPSK	1	99	21.47	21.55	21.47		
20	QPSK	50	0	20.16	20.34	20.21		
20	QPSK	50	24	20.10	20.12	20.10	21.5	
20	QPSK	50	50	20.07	20.09	20.06		
20	QPSK	100	0	19.88	19.92	19.91		
20	16QAM	1	0	19.69	19.78	19.69		
20	16QAM	1	49	19.66	19.76	19.71	21.5	
20	16QAM	1	99	19.71	19.74	19.67		
20	16QAM	50	0	19.10	19.20	19.11		
20	16QAM	50	24	19.07	19.17	19.08		
20	16QAM	50	50	19.10	19.16	19.15	20.5	
20	16QAM	100	0	18.80	18.88	18.82		
20	64QAM	1	0	18.52	18.59	18.51		
20	64QAM	1	49	18.50	18.56	18.52		
20	64QAM	1	99	18.51	18.55	18.55	19.5	
20	64QAM	50	0	17.76	17.83	17.81		
20	64QAM	50	24	17.75	17.82	17.80		
20	64QAM	50	50	17.74	17.80	17.72		
20	64QAM	100	0	17.70	17.71	17.61		
Channel				37825	38000	38175	Tune-up limit (dBm)	
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	21.54	21.57	21.46	22.5	
15	QPSK	1	37	21.46	21.55	21.52		
15	QPSK	1	74	21.44	21.47	21.39		
15	QPSK	36	0	20.14	20.18	20.17		
15	QPSK	36	20	20.05	20.08	20.02	21.5	
15	QPSK	36	39	20.03	20.05	20.00		
15	QPSK	75	0	19.80	19.87	19.88		
15	16QAM	1	0	19.61	19.75	19.65		
15	16QAM	1	37	19.57	19.71	19.69	21.5	
15	16QAM	1	74	19.68	19.68	19.65		
15	16QAM	36	0	19.05	19.12	19.04		
15	16QAM	36	20	18.97	19.09	18.98		
15	16QAM	36	39	19.01	19.08	19.08	20.5	
15	16QAM	75	0	18.78	18.85	18.76		
15	64QAM	1	0	18.51	18.57	18.54		
15	64QAM	1	37	18.50	18.53	18.51		
15	64QAM	1	74	18.53	18.54	18.58	19.5	
15	64QAM	36	0	17.74	17.78	17.72		
15	64QAM	36	20	17.72	17.78	17.78		
15	64QAM	36	39	17.72	17.79	17.62		
15	64QAM	75	0	17.63	17.63	17.51		
Channel				37900	38000	38200	Tune-up limit (dBm)	
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	21.48	21.59	21.50	22.5	
10	QPSK	1	25	21.53	21.49	21.44		
10	QPSK	1	49	21.42	21.45	21.41		
10	QPSK	25	0	20.10	20.18	20.18		
10	QPSK	25	12	20.06	20.03	20.06	21.5	
10	QPSK	25	25	20.06	20.06	19.96		
10	QPSK	50	0	19.87	19.86	19.87		
10	16QAM	1	0	19.61	19.72	19.67		
10	16QAM	1	25	19.61	19.68	19.64	21.5	
10	16QAM	1	49	19.67	19.72	19.66		
10	16QAM	25	0	19.09	19.15	19.06		
10	16QAM	25	12	18.97	19.07	19.07		
10	16QAM	25	25	19.06	19.11	19.10	20.5	
10	16QAM	50	0	18.79	18.87	18.78		
10	64QAM	1	0	18.52	18.54	18.51		
10	64QAM	1	25	18.51	18.50	18.59		
10	64QAM	1	49	18.52	18.53	18.58	19.5	
10	64QAM	25	0	17.69	17.77	17.78		
10	64QAM	25	12	17.74	17.76	17.73		
10	64QAM	25	25	17.71	17.79	17.71		
10	64QAM	50	0	17.68	17.62	17.51		
Channel				37775	38000	38225	Tune-up limit (dBm)	
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	21.48	21.53	21.46	22.5	
5	QPSK	1	12	21.48	21.47	21.51		
5	QPSK	1	24	21.45	21.54	21.39		
5	QPSK	12	0	20.06	20.21	20.12		
5	QPSK	12	7	20.09	20.05	20.07	21.5	
5	QPSK	12	13	20.00	20.02	20.05		
5	QPSK	25	0	19.84	19.89	19.84		
5	16QAM	1	0	19.61	19.70	19.68		
5	16QAM	1	12	19.59	19.67	19.62	21.5	
5	16QAM	1	24	19.66	19.64	19.64		
5	16QAM	12	0	19.08	19.19	19.08		
5	16QAM	12	7	19.05	19.15	19.07		
5	16QAM	12	13	19.02	19.13	19.13	20.5	
5	16QAM	25	0	18.72	18.86	18.73		
5	64QAM	1	0	18.56	18.50	18.51		
5	64QAM	1	12	18.51	18.51	18.51		
5	64QAM	1	24	18.51	18.52	18.50	19.5	
5	64QAM	12	0	17.70	17.82	17.78		
5	64QAM	12	7	17.67	17.76	17.71		
5	64QAM	12	13	17.69	17.76	17.71		
5	64QAM	25	0	17.63	17.68	17.54		

Band 40 (2.3G Band-1) (dBm) Part 27D-1 2305MHz ~ 2315MHz							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				38750			
Frequency (MHz)				2310			
10	QPSK	1	0	19.94			21
10	QPSK	1	25	19.84			
10	QPSK	1	49	19.86			
10	QPSK	25	0	18.52			
10	QPSK	25	12	18.47			20
10	QPSK	25	25	18.46			
10	QPSK	50	0	18.42			
10	16QAM	1	0	18.19			
10	16QAM	1	25	18.16			20
10	16QAM	1	49	18.18			
10	16QAM	25	0	17.67			
10	16QAM	25	12	17.64			
10	16QAM	25	25	17.63			19
10	16QAM	25	25	17.63			
10	16QAM	50	0	17.72			
10	64QAM	1	0	17.09			
10	64QAM	1	25	17.06			19
10	64QAM	1	49	17.04			
10	64QAM	25	0	16.08			
10	64QAM	25	12	16.07			
10	64QAM	25	25	16.02			18
10	64QAM	25	25	16.02			
10	64QAM	50	0	16.03			
Channel				38725	38750	38775	
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	19.85	19.88	19.93	21
5	QPSK	1	12	19.75	19.81	19.80	
5	QPSK	1	24	19.79	19.79	19.76	
5	QPSK	12	0	18.49	18.50	18.44	
5	QPSK	12	7	18.42	18.41	18.41	20
5	QPSK	12	13	18.42	18.36	18.43	
5	QPSK	25	0	18.33	18.41	18.34	
5	16QAM	1	0	18.09	18.10	18.11	
5	16QAM	1	12	18.11	18.11	18.08	20
5	16QAM	1	24	18.16	18.17	18.11	
5	16QAM	12	0	17.57	17.60	17.65	
5	16QAM	12	7	17.54	17.63	17.59	
5	16QAM	12	13	17.54	17.53	17.53	19
5	16QAM	25	0	17.70	17.68	17.66	
5	64QAM	1	0	17.05	17.06	17.10	
5	64QAM	1	12	17.05	17.09	17.02	
5	64QAM	1	24	17.04	17.00	16.99	19
5	64QAM	12	0	16.05	16.11	16.08	
5	64QAM	12	7	16.02	16.07	16.08	
5	64QAM	12	13	15.98	15.97	15.98	
5	64QAM	25	0	16.01	16.04	16.02	18



Band 40 (2.3G Band-2) (dBm) Part 27D-2 2350MHz ~ 2360MHz							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				39200			
Frequency (MHz)				2355			
10	QPSK	1	0	19.90			21
10	QPSK	1	25	19.86			
10	QPSK	1	49	19.88			
10	QPSK	25	0	18.54			
10	QPSK	25	12	18.49			20
10	QPSK	25	25	18.48			
10	QPSK	50	0	18.44			
10	16QAM	1	0	18.21			
10	16QAM	1	25	18.18			20
10	16QAM	1	49	18.20			
10	16QAM	25	0	17.69			
10	16QAM	25	12	17.66			
10	16QAM	25	25	17.65			19
10	16QAM	50	0	17.74			
10	64QAM	1	0	17.11			
10	64QAM	1	25	17.08			
10	64QAM	1	49	17.06			19
10	64QAM	25	0	16.10			
10	64QAM	25	12	16.09			
10	64QAM	25	25	16.04			
10	64QAM	50	0	16.05			18
Channel				39175	39200	39225	
Frequency (MHz)				2352.5	2355	2357.5	
5	QPSK	1	0	19.90	19.87	19.84	21
5	QPSK	1	12	19.79	19.76	19.80	
5	QPSK	1	24	19.83	19.82	19.78	
5	QPSK	12	0	18.48	18.46	18.44	
5	QPSK	12	7	18.46	18.44	18.47	20
5	QPSK	12	13	18.38	18.42	18.40	
5	QPSK	25	0	18.39	18.42	18.42	
5	16QAM	1	0	18.18	18.18	18.14	
5	16QAM	1	12	18.12	18.14	18.15	20
5	16QAM	1	24	18.19	18.10	18.13	
5	16QAM	12	0	17.60	17.60	17.67	
5	16QAM	12	7	17.63	17.56	17.64	
5	16QAM	12	13	17.58	17.55	17.56	19
5	16QAM	25	0	17.66	17.67	17.68	
5	64QAM	1	0	17.10	17.12	17.13	
5	64QAM	1	12	17.05	17.11	17.04	
5	64QAM	1	24	17.03	17.05	17.02	19
5	64QAM	12	0	16.09	16.04	16.07	
5	64QAM	12	7	16.07	16.09	16.06	
5	64QAM	12	13	16.07	16.00	16.04	
5	64QAM	25	0	15.99	16.05	16.07	18



Band 41 (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	21.00	20.92	21.05	20.86	20.99	22
20	QPSK	1	49	20.92	20.94	21.01	20.94	20.93	
20	QPSK	1	99	20.97	20.88	20.98	20.88	20.89	
20	QPSK	50	0	20.00	19.98	20.03	20.02	19.99	
20	QPSK	50	24	19.90	19.86	19.96	19.92	19.90	21
20	QPSK	50	50	20.01	20.00	20.05	20.03	19.98	
20	QPSK	100	0	19.68	19.62	19.69	19.64	19.64	
20	16QAM	1	0	19.52	19.60	19.61	19.59	19.52	
20	16QAM	1	49	19.59	19.52	19.60	19.52	19.50	21
20	16QAM	1	99	19.55	19.55	19.58	19.50	19.55	
20	16QAM	50	0	18.76	18.75	18.79	18.76	18.71	
20	16QAM	50	24	18.90	18.94	18.97	18.92	18.96	
20	16QAM	50	50	18.91	18.88	18.98	18.90	18.92	20
20	16QAM	100	0	18.63	18.70	18.71	18.70	18.67	
20	64QAM	1	0	18.90	18.94	18.96	18.92	18.95	
20	64QAM	1	49	18.85	18.86	18.94	18.93	18.92	
20	64QAM	1	99	18.86	18.92	18.93	18.85	18.87	19
20	64QAM	50	0	17.82	17.80	17.89	17.83	17.87	
20	64QAM	50	24	17.79	17.83	17.87	17.83	17.79	
20	64QAM	50	50	17.78	17.79	17.85	17.80	17.76	
20	64QAM	100	0	17.75	17.71	17.77	17.71	17.73	Tune-up limit (dBm)
Channel				40115	40378	40640	40903	41165	
Frequency (MHz)				2542.5	2568.8	2595	2621.3	2647.5	22
15	QPSK	1	0	20.99	20.88	21.00	20.80	20.94	
15	QPSK	1	37	20.88	20.93	20.94	20.89	20.86	21
15	QPSK	1	74	20.90	20.84	20.96	20.79	20.83	
15	QPSK	36	0	19.94	19.96	19.94	19.96	19.92	
15	QPSK	36	20	19.89	19.83	19.94	19.84	19.89	
15	QPSK	36	39	20.00	19.96	20.04	19.98	19.92	21
15	QPSK	75	0	19.62	19.53	19.61	19.57	19.61	
15	16QAM	1	0	19.51	19.56	19.60	19.53	19.47	
15	16QAM	1	37	19.51	19.46	19.56	19.44	19.45	
15	16QAM	1	74	19.48	19.54	19.50	19.46	19.46	20
15	16QAM	36	0	18.75	18.71	18.77	18.74	18.65	
15	16QAM	36	20	18.84	18.84	18.88	18.91	18.93	
15	16QAM	36	39	18.87	18.86	18.93	18.81	18.86	
15	16QAM	75	0	18.62	18.63	18.63	18.62	18.65	20
15	64QAM	1	0	18.86	18.87	18.88	18.91	18.93	
15	64QAM	1	37	18.80	18.82	18.86	18.92	18.90	
15	64QAM	1	74	18.83	18.91	18.88	18.79	18.78	
15	64QAM	36	0	17.72	17.77	17.81	17.79	17.79	19
15	64QAM	36	20	17.69	17.76	17.81	17.74	17.72	
15	64QAM	36	39	17.68	17.73	17.76	17.71	17.68	
15	64QAM	75	0	17.70	17.61	17.73	17.65	17.64	
Channel				40900	40365	40640	40915	41190	Tune-up limit (dBm)
Frequency (MHz)				2540	2567.5	2595	2622.5	2650	
10	QPSK	1	0	20.96	20.87	21.04	20.80	20.97	22
10	QPSK	1	25	20.86	20.87	20.99	20.92	20.91	
10	QPSK	1	49	20.87	20.80	20.91	20.82	20.83	
10	QPSK	25	0	19.92	19.91	20.01	19.93	19.98	
10	QPSK	25	12	19.83	19.76	19.90	19.83	19.86	21
10	QPSK	25	25	19.98	19.94	19.97	20.01	19.89	
10	QPSK	50	0	19.63	19.55	19.59	19.63	19.63	
10	16QAM	1	0	19.45	19.55	19.56	19.49	19.51	
10	16QAM	1	25	19.49	19.45	19.57	19.46	19.40	21
10	16QAM	1	49	19.45	19.48	19.57	19.42	19.45	
10	16QAM	25	0	18.67	18.68	18.69	18.69	18.62	
10	16QAM	25	12	18.85	18.92	18.95	18.89	18.86	
10	16QAM	25	25	18.82	18.78	18.96	18.87	18.90	20
10	16QAM	50	0	18.58	18.62	18.64	18.66	18.59	
10	64QAM	1	0	18.85	18.86	18.95	18.83	18.93	
10	64QAM	1	25	18.80	18.80	18.86	18.89	18.87	
10	64QAM	1	49	18.76	18.82	18.92	18.76	18.82	19
10	64QAM	25	0	17.75	17.79	17.84	17.74	17.80	
10	64QAM	25	12	17.75	17.79	17.83	17.79	17.69	
10	64QAM	25	25	17.73	17.71	17.78	17.75	17.75	
10	64QAM	50	0	17.71	17.69	17.73	17.67	17.66	Tune-up limit (dBm)
Channel				40065	40353	40640	40928	41215	
Frequency (MHz)				2537.5	2566.3	2595	2623.80	2652.5	22
5	QPSK	1	0	20.99	20.85	20.98	20.79	20.95	
5	QPSK	1	12	20.82	20.91	20.92	20.93	20.88	21
5	QPSK	1	24	20.87	20.83	20.90	20.82	20.88	
5	QPSK	12	0	19.90	19.93	19.94	19.95	19.96	
5	QPSK	12	7	19.82	19.78	19.93	19.83	19.86	
5	QPSK	12	13	19.93	19.90	20.03	19.96	19.91	21
5	QPSK	25	0	19.65	19.57	19.62	19.62	19.59	
5	16QAM	1	0	19.48	19.50	19.52	19.58	19.43	
5	16QAM	1	12	19.51	19.49	19.57	19.46	19.49	
5	16QAM	1	24	19.53	19.50	19.51	19.47	19.47	20
5	16QAM	12	0	18.68	18.66	18.77	18.71	18.62	
5	16QAM	12	7	18.85	18.89	18.95	18.87	18.93	
5	16QAM	12	13	18.87	18.83	18.91	18.84	18.90	
5	16QAM	25	0	18.53	18.62	18.62	18.62	18.60	20
5	64QAM	1	0	18.96	18.90	18.96	18.91	18.91	
5	64QAM	1	12	18.75	18.76	18.89	18.92	18.86	
5	64QAM	1	24	18.78	18.90	18.86	18.79	18.80	
5	64QAM	12	0	17.80	17.70	17.79	17.79	17.82	19
5	64QAM	12	7	17.78	17.79	17.80	17.79	17.73	
5	64QAM	12	13	17.69	17.72	17.75	17.70	17.75	
5	64QAM	25	0	17.67	17.66	17.68	17.64	17.65	



Reduced Power Level 2 for ANT 0

2.4GHz WLAN ANT 0

2.4GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11b 1Mbps	CH 1	2412	18.06	18.00	12.00	99.29
		CH 6	2437	15.67	17.50	12.00	
		CH 11	2462	16.06	18.00	12.00	
	802.11g 6Mbps	CH 1	2412	14.24	16.00	11.00	95.89
		CH 6	2437	14.33	16.00	11.00	
		CH 11	2462	14.26	16.00	11.00	
	802.11n-HT20 MCS0	CH 1	2412	14.27	16.00	11.00	95.16
		CH 6	2437	14.67	16.50	11.00	
		CH 11	2462	14.51	16.00	11.00	
	802.11n-HT40 MCS0	CH 3	2422	13.77	15.50	10.00	90.77
		CH 6	2437	13.51	15.00	10.00	
		CH 9	2452	15.46	17.00	13.00	

5GHz WLAN ANT 0

5.2GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	13.99	15.50	13.00	95.89
		CH 44	5220	14.13	16.00	13.00	
		CH 48	5240	13.78	15.50	13.00	
	802.11n-HT20 MCS0	CH 36	5180	14.16	16.00	13.00	95.16
		CH 44	5220	14.34	16.00	13.00	
		CH 48	5240	14.03	16.00	13.00	
	802.11n-HT40 MCS0	CH 38	5190	14.27	16.00	13.00	90.62
		CH 46	5230	14.02	16.00	13.00	
		CH 36	5180	14.31	16.00	13.00	
	802.11ac-VHT20 MCS0	CH 44	5220	14.36	16.00	13.00	95.24
		CH 48	5240	14.02	16.00	13.00	
		CH 38	5190	14.00	15.50	13.00	
	802.11ac-VHT40 MCS0	CH 46	5230	13.73	15.50	13.00	90.91
		CH 42	5210	13.68	15.50	13.00	
		CH 42	5210	13.68	15.50	13.00	83.10

5GHz WLAN ANT 0

5.3GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 52	5260	14.96	16.50	14.00	95.89
		CH 60	5300	14.43	16.00	14.00	
		CH 64	5320	14.06	16.00	14.00	
	802.11n-HT20 MCS0	CH 52	5260	16.21	17.00	14.00	95.16
		CH 60	5300	14.88	16.50	14.00	
		CH 64	5320	14.27	16.00	14.00	
	802.11n-HT40 MCS0	CH 54	5270	14.99	16.50	14.00	90.62
		CH 62	5310	14.36	16.00	14.00	
		CH 52	5260	15.18	17.00	14.00	
	802.11ac-VHT20 MCS0	CH 60	5300	14.86	16.50	14.00	95.24
		CH 64	5320	14.13	16.00	14.00	
		CH 54	5270	14.70	16.50	14.00	
	802.11ac-VHT40 MCS0	CH 62	5310	14.11	16.00	14.00	90.91
		CH 58	5290	14.59	16.50	14.00	
		CH 58	5290	14.59	16.50	14.00	83.10

5GHz WLAN ANT 0

5.5GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 100	5500	10.87	12.50	10.00	95.89
		CH 120	5600	11.44	13.00	10.00	
		CH 140	5700	11.18	12.50	10.00	
	802.11n-HT20 MCS0	CH 100	5500	11.04	13.00	10.00	95.16
		CH 120	5600	11.64	13.50	10.00	
		CH 140	5700	11.40	13.00	10.00	
	802.11n-HT40 MCS0	CH 102	5510	11.21	13.00	10.00	90.62
		CH 126	5630	11.24	13.00	10.00	
		CH 134	5670	11.21	13.00	10.00	
	802.11ac-VHT20 MCS0	CH 100	5500	11.12	13.00	10.00	95.24
		CH 120	5600	11.79	13.50	10.00	
		CH 140	5700	11.43	13.00	10.00	
	802.11ac-VHT40 MCS0	CH 102	5510	10.96	12.50	10.00	90.91
		CH 126	5630	10.96	12.50	10.00	
		CH 134	5670	10.96	12.50	10.00	
	802.11ac-VHT80 MCS0	CH 106	5530	10.95	12.50	10.00	83.10
		CH 122	5610	11.18	13.00	10.00	
		CH 138	5690	11.16	13.00	10.00	

5GHz WLAN ANT 0

5.8GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	13.07	15.00	12.00	95.89
		CH 157	5785	12.76	14.50	12.00	
		CH 165	5825	12.24	14.00	12.00	
	802.11n-HT20 MCS0	CH 149	5745	13.29	14.50	12.00	95.16
		CH 157	5785	12.98	14.50	12.00	
		CH 165	5825	12.45	14.00	12.00	
	802.11n-HT40 MCS0	CH 151	5755	13.08	15.00	12.00	90.62
		CH 159	5795	12.58	14.50	12.00	
		CH 149	5745	13.29	15.00	12.00	
	802.11ac-VHT20 MCS0	CH 157	5785	12.97	14.50	12.00	95.24
		CH 165	5825	12.48	14.00	12.00	
		CH 151	5755	12.84	14.50	12.00	
	802.11ac-VHT40 MCS0	CH 159	5795	12.36	14.00	12.00	90.91
		CH 155	5775	12.89	14.50	12.00	
		CH 155	5775	12.89	14.50	12.00	83.10



Reduced Power Level 3 for ANT 2

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.02	29.31	29.30	30.00	20.02	20.31	20.30	21.00
GPRS 1 Tx slot	29.06	29.35	29.32	30.00	20.06	20.35	20.32	21.00
GPRS 2 Tx slot	26.98	27.09	27.04	28.00	20.98	21.09	21.04	22.00
GPRS 3 Tx slots	25.50	25.57	25.52	27.00	21.24	21.31	21.26	22.74
GPRS 4 Tx slots	23.60	23.62	23.68	25.00	20.60	20.62	20.68	22.00
EDGE 1 Tx slot	28.32	28.05	28.06	28.50	19.32	19.05	19.06	19.50
EDGE 2 Tx slots	28.16	28.01	27.71	28.50	22.16	22.01	21.71	22.50
EDGE 3 Tx slots	24.82	24.34	24.43	25.00	20.56	20.08	20.17	20.74
EDGE 4 Tx slots	23.15	23.08	22.73	23.30	20.15	20.08	19.73	20.30
Mode		Max.	29.35			Max.	22.16	
Attenuator	Cable Loss : 0.8							

Band	WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)
TX Channel	9262	9400	9538		1312	1413	1513	
Rx Channel	9662	9800	9938		1537	1638	1738	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99 RMC 12.2Kbps	19.58	19.65	19.59	20.50	20.56	20.60	20.55	21.50
3GPP Rel 6 HSDPA Subtest-1	18.49	18.57	18.49	19.50	19.57	19.57	19.73	20.50
3GPP Rel 6 HSDPA Subtest-2	18.38	18.49	18.47	19.50	19.58	19.61	19.70	20.50
3GPP Rel 6 HSDPA Subtest-3	18.38	18.40	18.39	19.50	19.50	19.56	19.65	20.50
3GPP Rel 6 HSDPA Subtest-4	18.38	18.40	18.39	19.50	19.51	19.57	19.66	20.50
3GPP Rel 8 DC-HSDPA Subtest-1	18.58	18.64	18.55	19.50	19.61	19.68	19.56	20.50
3GPP Rel 8 DC-HSDPA Subtest-2	18.62	18.61	18.53	19.50	19.65	19.74	19.61	20.50
3GPP Rel 8 DC-HSDPA Subtest-3	18.57	18.61	18.51	19.50	19.66	19.72	19.61	20.50
3GPP Rel 8 DC-HSDPA Subtest-4	18.59	18.63	18.52	19.50	19.68	19.74	19.63	20.50
3GPP Rel 6 HSUPA Subtest-1	17.95	17.72	18.01	19.50	19.15	19.40	19.39	20.50
3GPP Rel 6 HSUPA Subtest-2	17.54	17.46	17.61	18.50	18.64	18.85	18.78	19.50
3GPP Rel 6 HSUPA Subtest-3	17.52	17.63	17.56	18.50	19.14	19.36	19.32	19.50
3GPP Rel 6 HSUPA Subtest-4	18.23	18.31	18.22	19.50	19.19	19.00	19.35	20.50
3GPP Rel 6 HSUPA Subtest-5	19.33	19.52	19.44	20.50	20.07	20.31	20.21	21.50
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	19.35	19.15	19.21	20.50	20.36	20.50	20.44	21.50
Attenuator		Cable Loss	0.8			Cable Loss	0.8	
Mode		Max.	19.65			Max.	20.60	



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	19.57	19.68	19.80	20.5
20	QPSK	1	49	19.52	19.62	19.52	
20	QPSK	1	99	19.56	19.60	19.55	
20	QPSK	50	0	18.65	18.70	18.67	19.5
20	QPSK	50	24	18.45	18.55	18.50	
20	QPSK	50	50	18.43	18.50	18.43	
20	QPSK	100	0	18.49	18.54	18.50	19.5
20	16QAM	1	0	18.52	18.56	18.49	
20	16QAM	1	49	18.50	18.52	18.42	
20	16QAM	1	99	18.40	18.48	18.46	18.5
20	16QAM	50	0	17.47	17.50	17.47	
20	16QAM	50	24	17.40	17.49	17.46	
20	16QAM	50	50	17.38	17.47	17.40	18.5
20	16QAM	100	0	17.56	17.59	17.55	
20	64QAM	1	0	16.95	17.02	17.00	
20	64QAM	1	49	16.93	16.99	16.93	18.5
20	64QAM	1	99	16.90	17.00	16.98	
20	64QAM	50	0	15.78	15.82	15.74	
20	64QAM	50	24	15.72	15.80	15.72	17.5
20	64QAM	50	50	15.74	15.79	15.75	
20	64QAM	100	0	15.73	15.75	15.72	
Channel				1867.5	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	19.48	19.63	19.54	20.5
15	QPSK	1	37	19.40	19.50	19.42	
15	QPSK	1	74	19.44	19.55	19.43	
15	QPSK	36	0	18.61	18.67	18.61	19.5
15	QPSK	36	20	18.36	18.52	18.41	
15	QPSK	36	39	18.37	18.40	18.36	
15	QPSK	75	0	18.37	18.42	18.38	19.5
15	16QAM	1	0	18.46	18.47	18.38	
15	16QAM	1	37	18.46	18.41	18.36	
15	16QAM	1	74	18.33	18.37	18.34	18.5
15	16QAM	36	0	17.40	17.42	17.44	
15	16QAM	36	20	17.35	17.45	17.38	
15	16QAM	36	39	17.32	17.35	17.30	18.5
15	16QAM	75	0	17.45	17.53	17.48	
15	64QAM	1	0	16.87	16.98	16.92	
15	64QAM	1	37	16.84	16.94	16.87	18.5
15	64QAM	1	74	16.83	16.89	16.92	
15	64QAM	36	0	15.71	15.71	15.67	
15	64QAM	36	20	15.62	15.71	15.64	17.5
15	64QAM	36	39	15.68	15.69	15.66	
15	64QAM	75	0	15.61	15.69	15.65	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	19.50	19.58	19.51	20.5
10	QPSK	1	25	19.43	19.51	19.40	
10	QPSK	1	49	19.47	19.51	19.50	
10	QPSK	25	0	18.58	18.66	18.60	19.5
10	QPSK	25	12	18.41	18.52	18.46	
10	QPSK	25	25	18.39	18.40	18.32	
10	QPSK	50	0	18.45	18.46	18.46	19.5
10	16QAM	1	0	18.48	18.49	18.38	
10	16QAM	1	25	18.47	18.45	18.32	
10	16QAM	1	49	18.34	18.42	18.39	18.5
10	16QAM	25	0	17.39	17.44	17.38	
10	16QAM	25	12	17.37	17.45	17.43	
10	16QAM	25	25	17.35	17.39	17.36	18.5
10	16QAM	50	0	17.49	17.56	17.44	
10	64QAM	1	0	16.85	16.97	16.89	
10	64QAM	1	25	16.84	16.96	16.86	18.5
10	64QAM	1	49	16.85	16.89	16.93	
10	64QAM	25	0	15.74	15.70	15.63	
10	64QAM	25	12	15.69	15.72	15.63	17.5
10	64QAM	25	25	15.69	15.70	15.65	
10	64QAM	50	0	15.67	15.65	15.67	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	19.48	19.59	19.48	20.5
5	QPSK	1	12	19.47	19.55	19.45	
5	QPSK	1	24	19.52	19.49	19.46	
5	QPSK	12	0	18.61	18.59	18.55	19.5
5	QPSK	12	7	18.39	18.47	18.44	
5	QPSK	12	13	18.31	18.47	18.37	
5	QPSK	25	0	18.45	18.48	18.46	19.5
5	16QAM	1	0	18.40	18.52	18.43	
5	16QAM	1	12	18.42	18.48	18.34	
5	16QAM	1	24	18.32	18.38	18.42	18.5
5	16QAM	12	0	17.38	17.41	17.41	
5	16QAM	12	7	17.30	17.46	17.43	
5	16QAM	12	13	17.34	17.35	17.29	18.5
5	16QAM	25	0	17.51	17.56	17.50	
5	64QAM	1	0	16.88	16.99	16.89	
5	64QAM	1	12	16.85	16.95	16.83	18.5
5	64QAM	1	24	16.86	16.96	16.87	
5	64QAM	12	0	15.70	15.77	15.71	
5	64QAM	12	7	15.69	15.70	15.67	17.5
5	64QAM	12	13	15.66	15.69	15.69	
5	64QAM	25	0	15.64	15.68	15.65	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	19.46	19.60	19.50	20.5
3	QPSK	1	8	19.40	19.51	19.46	
3	QPSK	1	14	19.51	19.54	19.44	
3	QPSK	8	0	18.59	18.62	18.60	19.5
3	QPSK	8	4	18.34	18.49	18.43	
3	QPSK	8	7	18.39	18.47	18.35	

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				20650	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	20.97	21.02	20.91	22
20	QPSK	1	49	20.90	20.92	20.91	
20	QPSK	1	99	20.85	20.95	20.88	
20	QPSK	50	0	19.94	20.02	19.99	21
20	QPSK	50	24	19.85	19.90	19.83	
20	QPSK	50	50	19.80	19.88	19.87	
20	QPSK	100	0	19.89	19.92	19.82	21
20	16QAM	1	0	20.55	20.63	20.60	
20	16QAM	1	49	20.61	20.62	20.54	
20	16QAM	1	99	20.52	20.60	20.55	20
20	16QAM	50	0	18.45	18.49	18.48	
20	16QAM	50	24	18.42	18.46	18.43	
20	16QAM	50	50	18.41	18.45	18.42	20
20	16QAM	100	0	18.81	18.91	18.88	
20	64QAM	1	0	18.52	18.55	18.46	
20	64QAM	1	49	18.47	18.54	18.49	20
20	64QAM	1	99	18.43	18.50	18.49	
20	64QAM	50	0	17.42	17.44	17.38	
20	64QAM	50	24	17.39	17.42	17.35	19
20	64QAM	50	50	17.37	17.41	17.34	
20	64QAM	100	0	17.38	17.42	17.36	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	20.91	20.93	20.89	22
15	QPSK	1	37	20.86	20.87	20.82	
15	QPSK	1	74	20.79	20.87	20.87	
15	QPSK	36	0	19.84	19.96	19.94	21
15	QPSK	36	20	19.80	19.88	19.81	
15	QPSK	36	39	19.75	19.80	19.84	
15	QPSK	75	0	19.86	19.89	19.81	21
15	16QAM	1	0	20.45	20.53	20.59	
15	16QAM	1	37	20.52	20.54	20.46	
15	16QAM	1	74	20.43	20.59	20.51	20
15	16QAM	36	0	18.39	18.47	18.38	
15	16QAM	36	20	18.37	18.45	18.40	
15	16QAM	36	39	18.37	18.39	18.37	20
15	16QAM	75	0	18.74	18.89	18.78	
15	64QAM	1	0	18.43	18.45	18.38	
15	64QAM	1	37	18.39	18.46	18.39	20
15	64QAM	1	74	18.41	18.46	18.45	
15	64QAM	36	0	17.35	17.42	17.32	
15	64QAM	36	20	17.33	17.33	17.33	19
15	64QAM	36	39	17.35	17.33	17.26	
15	64QAM	75	0	17.31	17.34	17.30	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	20.88	21.01	20.90	22
10	QPSK	1	25	20.85	20.87	20.89	
10	QPSK	1	49	20.76	20.88	20.82	
10	QPSK	25	0	19.93	19.96	19.96	21
10	QPSK	25	12	19.76	19.88	19.80	
10	QPSK	25	25	19.72	19.86	19.78	
10	QPSK	50	0	19.84	19.90	19.78	21
10	16QAM	1	0	20.52	20.57	20.53	
10	16QAM	1	25	20.56	20.57	20.49	
10	16QAM	1	49	20.45	20.50	20.45	2



3	QPSK	15	0	18.43	18.47	18.43	19.5
3	16QAM	1	0	18.43	18.49	18.37	
3	16QAM	1	8	18.43	18.45	18.38	
3	16QAM	1	14	18.28	18.42	18.40	18.5
3	16QAM	8	0	17.36	17.47	17.38	
3	16QAM	8	4	17.34	17.42	17.43	
3	16QAM	8	7	17.34	17.39	17.32	18.5
3	16QAM	15	0	17.53	17.49	17.48	
3	64QAM	1	0	16.85	16.90	16.90	
3	64QAM	1	8	16.88	16.88	16.87	17.5
3	64QAM	1	14	16.81	16.92	16.86	
3	64QAM	8	0	15.67	15.78	15.71	
3	64QAM	8	4	15.60	15.69	15.61	17.5
3	64QAM	8	7	15.71	15.71	15.65	
3	64QAM	15	0	15.65	15.66	15.63	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	19.54	19.56	19.50	20.5
1.4	QPSK	1	3	19.43	19.50	19.49	
1.4	QPSK	1	5	19.49	19.55	19.46	
1.4	QPSK	3	0	19.53	19.47	19.58	
1.4	QPSK	3	1	19.39	19.49	19.43	
1.4	QPSK	3	3	19.32	19.41	19.34	
1.4	QPSK	6	0	18.43	18.51	18.44	19.5
1.4	16QAM	1	0	18.46	18.47	18.45	19.5
1.4	16QAM	1	3	18.38	18.42	18.33	
1.4	16QAM	1	5	18.31	18.45	18.37	
1.4	16QAM	3	0	18.38	18.42	18.37	
1.4	16QAM	3	1	18.34	18.42	18.40	
1.4	16QAM	3	3	18.33	18.42	18.29	
1.4	16QAM	6	0	17.53	17.47	17.52	18.5
1.4	64QAM	1	0	16.87	16.95	16.90	18.5
1.4	64QAM	1	3	16.82	16.90	16.89	
1.4	64QAM	1	5	16.78	16.91	16.95	
1.4	64QAM	3	0	16.66	16.77	16.64	
1.4	64QAM	3	1	16.62	16.75	16.66	
1.4	64QAM	3	3	16.70	16.67	16.67	
1.4	64QAM	6	0	15.64	15.63	15.65	17.5

3	QPSK	15	0	19.84	19.85	19.81	21
3	16QAM	1	0	20.52	20.58	20.57	
3	16QAM	1	8	20.60	20.58	20.48	
3	16QAM	1	14	20.46	20.59	20.51	20
3	16QAM	8	0	18.39	18.46	18.45	
3	16QAM	8	4	18.32	18.41	18.35	
3	16QAM	8	7	18.37	18.43	18.35	20
3	16QAM	15	0	18.75	18.82	18.85	
3	64QAM	1	0	18.43	18.54	18.37	
3	64QAM	1	8	18.46	18.50	18.45	19
3	64QAM	1	14	18.34	18.42	18.40	
3	64QAM	8	0	17.41	17.34	17.35	
3	64QAM	8	4	17.34	17.37	17.25	19
3	64QAM	8	7	17.27	17.36	17.26	
3	64QAM	15	0	17.35	17.34	17.34	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	20.89	20.99	20.87	22
1.4	QPSK	1	3	20.83	20.86	20.83	
1.4	QPSK	1	5	20.78	20.92	20.82	
1.4	QPSK	3	0	20.89	20.97	20.91	
1.4	QPSK	3	1	20.77	20.88	20.82	
1.4	QPSK	3	3	20.75	20.82	20.85	
1.4	QPSK	6	0	19.82	19.90	19.76	21
1.4	16QAM	1	0	20.46	20.54	20.52	21
1.4	16QAM	1	3	20.53	20.54	20.48	
1.4	16QAM	1	5	20.45	20.51	20.50	
1.4	16QAM	3	0	19.38	19.41	19.43	
1.4	16QAM	3	1	19.38	19.43	19.36	
1.4	16QAM	3	3	19.37	19.35	19.32	
1.4	16QAM	6	0	18.71	18.90	18.83	20
1.4	64QAM	1	0	18.49	18.51	18.41	20
1.4	64QAM	1	3	18.41	18.49	18.47	
1.4	64QAM	1	5	18.35	18.41	18.40	
1.4	64QAM	3	0	18.34	18.40	18.34	
1.4	64QAM	3	1	18.36	18.32	18.27	
1.4	64QAM	3	3	18.35	18.37	18.24	
1.4	64QAM	6	0	17.36	17.34	17.32	19



Band 7 (2600MHz Band) (dBm) Part 27								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	22.05	22.11	22.09	23	
20	QPSK	1	49	21.96	22.08	22.02		
20	QPSK	1	99	21.96	22.04	21.95		
20	QPSK	50	0	21.00	21.01	20.98		
20	QPSK	50	24	20.97	20.99	20.93	22	
20	QPSK	50	50	20.91	20.97	20.94		
20	QPSK	100	0	20.89	20.98	20.96		
20	16QAM	1	0	20.95	20.98	20.94		
20	16QAM	1	49	20.89	20.97	20.94	22	
20	16QAM	1	99	20.89	20.95	20.90		
20	16QAM	50	0	19.95	19.99	19.94		
20	16QAM	50	24	19.95	19.96	19.90		
20	16QAM	50	50	19.91	19.93	19.86	21	
20	16QAM	100	0	19.83	19.91	19.84		
20	64QAM	1	0	19.90	19.98	19.96		
20	64QAM	1	49	19.87	19.95	19.94		
20	64QAM	1	99	19.87	19.94	19.91	21	
20	64QAM	50	0	18.15	18.18	18.14		
20	64QAM	50	24	18.06	18.15	18.10		
20	64QAM	50	50	18.08	18.14	18.04		
20	64QAM	100	0	18.17	18.19	18.09	20	
Channel				20825	21100	21375		
Frequency (MHz)				2507.5	2535	2562.5	Tune-up limit (dBm)	
15	QPSK	1	0	21.95	22.07	22.08	23	
15	QPSK	1	37	21.88	22.07	21.99		
15	QPSK	1	74	21.91	22.02	21.94		
15	QPSK	36	0	20.96	20.91	20.94		
15	QPSK	36	20	20.92	20.93	20.87	22	
15	QPSK	36	39	20.88	20.91	20.86		
15	QPSK	75	0	20.83	20.94	20.90		
15	16QAM	1	0	20.86	20.90	20.93		
15	16QAM	1	37	20.86	20.90	20.86	22	
15	16QAM	1	74	20.87	20.85	20.87		
15	16QAM	36	0	19.93	19.94	19.90		
15	16QAM	36	20	19.91	19.92	19.81		
15	16QAM	36	39	19.88	19.91	19.81	21	
15	16QAM	75	0	19.74	19.82	19.77		
15	64QAM	1	0	19.87	19.94	19.95		
15	64QAM	1	37	19.81	19.85	19.84		
15	64QAM	1	74	19.82	19.89	19.86	21	
15	64QAM	36	0	18.13	18.11	18.13		
15	64QAM	36	20	17.98	18.12	18.06		
15	64QAM	36	39	18.01	18.06	17.97		
15	64QAM	75	0	18.15	18.09	18.00	20	
Channel				20800	21100	21400		
Frequency (MHz)				2505	2535	2565	Tune-up limit (dBm)	
10	QPSK	1	0	22.02	22.02	22.07	23	
10	QPSK	1	25	21.97	21.99	22.00		
10	QPSK	1	49	21.94	21.96	21.85		
10	QPSK	25	0	20.94	20.96	20.98		
10	QPSK	25	12	20.92	20.93	20.83	22	
10	QPSK	25	25	20.83	20.93	20.85		
10	QPSK	50	0	20.83	20.97	20.89		
10	16QAM	1	0	20.94	20.89	20.93		
10	16QAM	1	25	20.81	20.89	20.91	22	
10	16QAM	1	49	20.86	20.88	20.85		
10	16QAM	25	0	19.88	19.92	19.84		
10	16QAM	25	12	19.93	19.90	19.89		
10	16QAM	25	25	19.83	19.84	19.78	21	
10	16QAM	50	0	19.82	19.88	19.74		
10	64QAM	1	0	19.82	19.96	19.94		
10	64QAM	1	25	19.83	19.85	19.87		
10	64QAM	1	49	19.85	19.90	19.85	21	
10	64QAM	25	0	18.05	18.09	18.07		
10	64QAM	25	12	17.99	18.11	18.01		
10	64QAM	25	25	18.05	18.08	17.95		
10	64QAM	50	0	18.09	18.12	18.01	20	
Channel				20775	21100	21425		
Frequency (MHz)				2502.5	2535	2567.5	Tune-up limit (dBm)	
5	QPSK	1	0	22.03	22.03	22.02	23	
5	QPSK	1	12	21.94	22.03	21.97		
5	QPSK	1	24	21.92	21.94	21.94		
5	QPSK	12	0	20.93	20.97	20.92		
5	QPSK	12	7	20.95	20.91	20.83	22	
5	QPSK	12	13	20.89	20.93	20.86		
5	QPSK	25	0	20.80	20.92	20.88		
5	16QAM	1	0	20.87	20.92	20.91		
5	16QAM	1	12	20.83	20.87	20.87	22	
5	16QAM	1	24	20.79	20.93	20.88		
5	16QAM	12	0	19.86	19.94	19.88		
5	16QAM	12	7	19.87	19.88	19.85		
5	16QAM	12	13	19.85	19.87	19.80	21	
5	16QAM	25	0	19.74	19.84	19.80		
5	64QAM	1	0	19.88	19.88	19.86		
5	64QAM	1	12	19.83	19.90	19.89		
5	64QAM	1	24	19.85	19.84	19.83	21	
5	64QAM	12	0	18.14	18.09	18.04		
5	64QAM	12	7	17.96	18.11	18.04		
5	64QAM	12	13	18.00	18.11	17.96		
5	64QAM	25	0	18.13	18.15	17.99	20	
Channel				20775	21100	21425		
Frequency (MHz)				2502.5	2535	2567.5	Tune-up limit (dBm)	

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	21	
20	QPSK	1	0	20.28	20.32	20.29		
20	QPSK	1	49	20.20	20.28	20.26		
20	QPSK	1	99	20.16	20.25	20.17		
20	QPSK	50	0	18.96	19.05	19.00	20	
20	QPSK	50	24	19.05	19.06	18.97		
20	QPSK	50	50	19.00	19.07	19.04		
20	QPSK	100	0	18.92	18.96	18.91		
20	16QAM	1	0	19.56	19.64	19.56	20	
20	16QAM	1	49	19.57	19.62	19.53		
20	16QAM	1	99	19.52	19.60	19.52		
20	16QAM	50	0	17.50	17.58	17.49		
20	16QAM	50	24	17.56	17.57	17.51	19	
20	16QAM	50	50	17.53	17.55	17.45		
20	16QAM	100	0	17.57	17.64	17.56		
20	64QAM	1	0	17.78	17.85	17.77		
20	64QAM	1	49	17.75	17.83	17.78	19	
20	64QAM	1	99	17.80	17.84	17.78		
20	64QAM	50	0	16.21	16.27	16.26		
20	64QAM	50	24	16.22	16.20	16.21		
20	64QAM	50	50	16.17	16.22	16.21	18	
20	64QAM	100	0	16.22	16.31	16.28		
Channel				132047	132322	132597		Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	20.23	20.23	20.21	21	
15	QPSK	1	37	20.13	20.18	20.25		
15	QPSK	1	74	20.10	20.17	20.16		
15	QPSK	36	0	18.94	18.98	18.90		
15	QPSK	36	20	18.98	19.04	18.93	20	
15	QPSK	36	39	18.90	19.05	19.00		
15	QPSK	75	0	18.90	18.93	18.86		
15	16QAM	1	0	19.55	19.62	19.55		
15	16QAM	1	37	19.55	19.58	19.43	20	
15	16QAM	1	74	19.43	19.58	19.49		
15	16QAM	36	0	17.44	17.56	17.39		
15	16QAM	36	20	17.51	17.54	17.43		
15	16QAM	36	39	17.49	17.49	17.40	19	
15	16QAM	75	0	17.54	17.59	17.52		
15	64QAM	1	0	17.76	17.83	17.72		
15	64QAM	1	37	17.66	17.82	17.76		
15	64QAM	1	74	17.74	17.76	17.70	19	
15	64QAM	36	0	16.11	16.17	16.25		
15	64QAM	36	20	16.21	16.13	16.18		
15	64QAM	36	39	16.16	16.15	16.16		
15	64QAM	75	0	16.19	16.24	16.19	18	
Channel				132022	132322	132622		Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	20.22	20.31	20.24	21	
10	QPSK	1	25	20.18	20.24	20.22		
10	QPSK	1	49	20.15	20.20	20.11		
10	QPSK	25	0	18.86	19.00	18.92		
10	QPSK	25	12	19.00	19.04	18.89	20	
10	QPSK	25	25	18.94	19.06	19.02		
10	QPSK	50	0	18.91	18.93	18.85		
10	16QAM	1	0	19.55	19.55	19.46		
10	16QAM	1	25	19.53	19.53	19.44	20	
10	16QAM	1	49	19.43	19.57	19.42		
10	16QAM	25	0	17.43	17.57	17.46		
10	16QAM	25	12	17.49	17.49	17.41		
10	16QAM	25	25	17.52	17.46	17.39	19	
10	16QAM	50	0	17.50	17.57	17.54		
10	64QAM	1	0	17.73	17.77	17.67		
10	64QAM	1	25	17.68	17.78	17.74		
10	64QAM	1	49	17.74	17.77	17.69	19	
10	64QAM	25	0	16.15	16.18	16.16		
10	64QAM	25	12	16.16	16.13	16.12		
10	64QAM	25	25	16.12	16.18	16.12		
10	64QAM	50	0	16.19	16.22	16.19	18	
Channel				131997	132322	132647		Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	20.21	20.23	20.25	21	
5	QPSK	1	12	20.10	20.18	20.21		
5	QPSK	1	24	20.12	20.20	20.08		
5	QPSK	12	7	19.02	18.97	18.94		
5	QPSK	12	13	18.96	18.99	18.95	20	
5	QPSK	25	0	18.82	18.87	18.85		
5	16QAM	1	0	19.47	19.58	19.51		
5	16QAM	1	12	19.47	19.53	19.50		
5	16QAM	1	24	19.47	19.51	19.48	20	
5	16QAM	12	0	17.49	17.48	17.43		
5	16QAM	12	7	17.49	17.56	17.45		
5	16QAM	12	13	17.51	17.54	17.41		
5	16QAM	25	0	17.50	17.60	17.48	19	
5	64QAM	1	0	17.69	17.75	17.70		
5	64QAM	1	12	17.66	17.81	17.70		
5	64QAM	1	24	17.71	17.83	17.69		
5	64QAM	12	0	16.20	16.19	16.16	18	
5	64QAM	12	7	16.16	16.15	16.15		
5	64QAM	12	13	16.08	16.18	16.14		
5	64QAM	25	0	16.19	16.30	16.19		
Channel				131987	132322	132657	Tune-up limit (dBm)	
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	20.19	20.29	20.24	21	
3	QPSK	1	8	20.10	20.25	20.21		
3	QPSK	1	14	20.12	20.18	20.08		
3	QPSK	8	0	18.93	19.00	18.99		
3	QPSK	8	4	19.01	19.04	18.91	20	
3	QPSK	8	7	18.94	18.98	18.97		



3	QPSK	15	0	18.86	18.90	18.90	20
3	16QAM	1	0	19.52	19.63	19.53	
3	16QAM	1	8	19.55	19.60	19.51	
3	16QAM	1	14	19.44	19.59	19.42	19
3	16QAM	8	0	17.43	17.50	17.39	
3	16QAM	8	4	17.54	17.56	17.50	
3	16QAM	8	7	17.45	17.47	17.37	
3	16QAM	15	0	17.53	17.55	17.55	
3	64QAM	1	0	17.70	17.76	17.70	19
3	64QAM	1	8	17.66	17.78	17.70	
3	64QAM	1	14	17.73	17.74	17.69	
3	64QAM	8	0	16.17	16.19	16.22	18
3	64QAM	8	4	16.12	16.10	16.14	
3	64QAM	8	7	16.14	16.14	16.12	
3	64QAM	15	0	16.15	16.28	16.24	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	20.24	20.24	20.22	21
1.4	QPSK	1	3	20.10	20.21	20.17	
1.4	QPSK	1	5	20.11	20.22	20.09	
1.4	QPSK	3	0	19.80	19.92	19.80	
1.4	QPSK	3	1	19.89	19.89	19.78	
1.4	QPSK	3	3	19.87	19.90	19.85	
1.4	QPSK	6	0	18.88	18.93	18.83	20
1.4	16QAM	1	0	19.46	19.57	19.47	20
1.4	16QAM	1	3	19.53	19.58	19.51	
1.4	16QAM	1	5	19.51	19.58	19.51	
1.4	16QAM	3	0	18.32	18.39	18.33	
1.4	16QAM	3	1	18.42	18.39	18.36	
1.4	16QAM	3	3	18.39	18.34	18.24	
1.4	16QAM	6	0	17.47	17.62	17.54	19
1.4	64QAM	1	0	17.75	17.83	17.75	19
1.4	64QAM	1	3	17.71	17.81	17.69	
1.4	64QAM	1	5	17.77	17.77	17.75	
1.4	64QAM	3	0	17.05	17.08	17.05	
1.4	64QAM	3	1	17.08	17.03	17.02	
1.4	64QAM	3	3	17.03	17.09	17.07	
1.4	64QAM	6	0	16.15	16.23	16.26	18

**Reduced Power Level 4 for ANT 3**

Band		WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99	RMC 12.2Kbps	21.61	21.68	21.62	22.50	20.59	20.63	20.58	21.50
3GPP Rel 6	HSDPA Subtest-1	20.52	20.60	20.52	21.50	19.60	19.60	19.76	20.50
3GPP Rel 6	HSDPA Subtest-2	20.41	20.52	20.50	21.50	19.61	19.64	19.73	20.50
3GPP Rel 6	HSDPA Subtest-3	20.41	20.43	20.42	21.50	19.53	19.59	19.68	20.50
3GPP Rel 6	HSDPA Subtest-4	20.41	20.43	20.42	21.50	19.54	19.60	19.69	20.50
3GPP Rel 8	DC-HSDPA Subtest-1	20.61	20.67	20.58	21.50	19.64	19.71	19.59	20.50
3GPP Rel 8	DC-HSDPA Subtest-2	20.65	20.64	20.56	21.50	19.68	19.77	19.64	20.50
3GPP Rel 8	DC-HSDPA Subtest-3	20.60	20.64	20.54	21.50	19.69	19.75	19.64	20.50
3GPP Rel 8	DC-HSDPA Subtest-4	20.62	20.66	20.55	21.50	19.71	19.77	19.66	20.50
3GPP Rel 6	HSUPA Subtest-1	19.98	19.75	20.04	21.50	19.18	19.43	19.42	20.50
3GPP Rel 6	HSUPA Subtest-2	19.57	19.49	19.64	20.50	18.67	18.88	18.81	19.50
3GPP Rel 6	HSUPA Subtest-3	19.55	19.66	19.59	20.50	19.17	19.39	19.35	19.50
3GPP Rel 6	HSUPA Subtest-4	20.26	20.34	20.25	21.50	19.22	19.03	19.38	20.50
3GPP Rel 6	HSUPA Subtest-5	21.36	21.55	21.47	22.50	20.10	20.34	20.24	21.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	21.38	21.18	21.24	22.50	20.39	20.53	20.47	21.50
Attenuator			Cable Loss	0.8			Cable Loss	0.8	
Mode			Max.	21.68			Max.	20.63	



Band 2 (1900MHz Band) (dBm) Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	21.55	21.66	21.58	22.5
20	QPSK	1	49	21.50	21.60	21.50	
20	QPSK	1	99	21.54	21.58	21.53	
20	QPSK	50	0	20.63	20.68	20.65	21.5
20	QPSK	50	24	20.43	20.53	20.48	
20	QPSK	50	50	20.41	20.48	20.41	
20	QPSK	100	0	20.47	20.52	20.48	21.5
20	16QAM	1	0	20.50	20.54	20.47	
20	16QAM	1	49	20.48	20.50	20.40	
20	16QAM	1	99	20.38	20.46	20.44	20.5
20	16QAM	50	0	19.45	19.48	19.45	
20	16QAM	50	24	19.38	19.47	19.44	
20	16QAM	50	50	19.36	19.45	19.38	20.5
20	16QAM	100	0	19.54	19.57	19.53	
20	64QAM	1	0	18.93	19.00	18.98	
20	64QAM	1	49	18.91	18.97	18.91	20.5
20	64QAM	1	99	18.88	18.98	18.96	
20	64QAM	50	0	17.76	17.80	17.72	
20	64QAM	50	24	17.70	17.78	17.70	19.5
20	64QAM	50	50	17.72	17.77	17.73	
20	64QAM	100	0	17.71	17.73	17.70	
Channel				1867.5	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	21.48	21.63	21.54	22.5
15	QPSK	1	37	21.40	21.50	21.42	
15	QPSK	1	74	21.44	21.55	21.43	
15	QPSK	36	0	20.61	20.67	20.61	21.5
15	QPSK	36	20	20.36	20.52	20.41	
15	QPSK	36	39	20.37	20.40	20.36	
15	QPSK	75	0	20.37	20.42	20.38	21.5
15	16QAM	1	0	20.46	20.47	20.38	
15	16QAM	1	37	20.46	20.41	20.36	
15	16QAM	1	74	20.33	20.37	20.34	20.5
15	16QAM	36	0	19.40	19.42	19.44	
15	16QAM	36	20	19.35	19.45	19.38	
15	16QAM	36	39	19.32	19.35	19.30	20.5
15	16QAM	75	0	19.45	19.53	19.48	
15	64QAM	1	0	18.87	18.98	18.92	
15	64QAM	1	37	18.84	18.94	18.87	20.5
15	64QAM	1	74	18.83	18.89	18.92	
15	64QAM	36	0	17.71	17.71	17.67	
15	64QAM	36	20	17.62	17.71	17.64	19.5
15	64QAM	36	39	17.68	17.69	17.66	
15	64QAM	75	0	17.61	17.69	17.65	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	21.50	21.58	21.51	22.5
10	QPSK	1	25	21.43	21.51	21.40	
10	QPSK	1	49	21.47	21.51	21.50	
10	QPSK	25	0	20.58	20.66	20.60	21.5
10	QPSK	25	12	20.41	20.52	20.46	
10	QPSK	25	25	20.39	20.40	20.32	
10	QPSK	50	0	20.45	20.46	20.46	21.5
10	16QAM	1	0	20.48	20.49	20.38	
10	16QAM	1	25	20.47	20.45	20.32	
10	16QAM	1	49	20.34	20.42	20.39	20.5
10	16QAM	25	0	19.39	19.44	19.38	
10	16QAM	25	12	19.37	19.45	19.43	
10	16QAM	25	25	19.35	19.39	19.36	20.5
10	16QAM	50	0	19.49	19.56	19.44	
10	64QAM	1	0	18.85	18.97	18.89	
10	64QAM	1	25	18.84	18.96	18.86	20.5
10	64QAM	1	49	18.85	18.89	18.93	
10	64QAM	25	0	17.74	17.70	17.63	
10	64QAM	25	12	17.69	17.72	17.63	19.5
10	64QAM	25	25	17.69	17.70	17.65	
10	64QAM	50	0	17.67	17.65	17.67	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	21.48	21.59	21.48	22.5
5	QPSK	1	12	21.47	21.55	21.45	
5	QPSK	1	24	21.52	21.49	21.46	
5	QPSK	12	0	20.61	20.59	20.55	21.5
5	QPSK	12	7	20.39	20.47	20.44	
5	QPSK	12	13	20.31	20.47	20.37	
5	QPSK	25	0	20.45	20.48	20.46	21.5
5	16QAM	1	0	20.40	20.52	20.43	
5	16QAM	1	12	20.42	20.48	20.34	
5	16QAM	1	24	20.32	20.38	20.42	20.5
5	16QAM	12	0	19.38	19.41	19.41	
5	16QAM	12	7	19.30	19.46	19.43	
5	16QAM	12	13	19.34	19.35	19.29	20.5
5	16QAM	25	0	19.51	19.56	19.50	
5	64QAM	1	0	18.88	18.99	18.89	
5	64QAM	1	12	18.85	18.95	18.83	20.5
5	64QAM	1	24	18.86	18.96	18.87	
5	64QAM	12	0	17.70	17.77	17.71	
5	64QAM	12	7	17.69	17.70	17.67	19.5
5	64QAM	12	13	17.66	17.69	17.69	
5	64QAM	25	0	17.64	17.68	17.65	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	21.46	21.60	21.50	22.5
3	QPSK	1	8	21.40	21.51	21.46	
3	QPSK	1	14	21.51	21.54	21.44	
3	QPSK	8	0	20.59	20.62	20.60	21.5
3	QPSK	8	4	20.34	20.49	20.43	
3	QPSK	8	7	20.39	20.47	20.35	

Band 4 (AWS Band) (dBm) Part 27L (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	20.97	21.02	20.91	22
20	QPSK	1	49	20.90	20.92	20.91	
20	QPSK	1	99	20.85	20.95	20.88	
20	QPSK	50	0	19.94	20.02	19.99	21
20	QPSK	50	24	19.85	19.90	19.83	
20	QPSK	50	50	19.80	19.88	19.87	
20	QPSK	100	0	19.89	19.92	19.82	21
20	16QAM	1	0	20.55	20.63	20.60	
20	16QAM	1	49	20.61	20.62	20.54	
20	16QAM	1	99	20.52	20.60	20.55	20
20	16QAM	50	0	18.45	18.49	18.48	
20	16QAM	50	24	18.42	18.46	18.43	
20	16QAM	50	50	18.41	18.45	18.42	20
20	16QAM	100	0	18.81	18.91	18.88	
20	64QAM	1	0	18.52	18.55	18.46	
20	64QAM	1	49	18.47	18.54	18.49	20
20	64QAM	1	99	18.43	18.50	18.49	
20	64QAM	50	0	17.42	17.44	17.38	
20	64QAM	50	24	17.39	17.42	17.35	19
20	64QAM	50	50	17.37	17.41	17.34	
20	64QAM	100	0	17.38	17.42	17.36	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	20.91	20.93	20.89	22
15	QPSK	1	37	20.86	20.87	20.82	
15	QPSK	1	74	20.79	20.87	20.87	
15	QPSK	36	0	19.84	19.96	19.94	21
15	QPSK	36	20	19.80	19.88	19.81	
15	QPSK	36	39	19.75	19.80	19.84	
15	QPSK	75	0	19.86	19.89	19.81	21
15	16QAM	1	0	20.45	20.53	20.59	
15	16QAM	1	37	20.52	20.54	20.46	
15	16QAM	1	74	20.43	20.59	20.51	20
15	16QAM	36	0	18.39	18.47	18.38	
15	16QAM	36	20	18.37	18.45	18.40	
15	16QAM	36	39	18.37	18.39	18.37	20
15	16QAM	75	0	18.74	18.89	18.78	
15	64QAM	1	0	18.43	18.45	18.38	
15	64QAM	1	37	18.39	18.46	18.39	20
15	64QAM	1	74	18.41	18.46	18.45	
15	64QAM	36	0	17.35	17.42	17.32	
15	64QAM	36	20	17.33	17.33	17.33	19
15	64QAM	36	39	17.35	17.33	17.26	
15	64QAM	75	0	17.31	17.34	17.30	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	20.88	21.01	20.90	22
10	QPSK	1	25	20.85	20.87	20.89	
10	QPSK	1	49	20.76	20.88	20.82	
10	QPSK	25	0	19.93	19.96	19.96	21
10	QPSK	25	12	19.76	19.88	19.80	
10	QPSK	25	25	19.72	19.86	19.78	
10	QPSK	50	0	19.84	19.90	19.78	21
10	16QAM	1	0	20.52	20.57	20.53	
10	16QAM	1	25	20.56	20.57	20.49	
10	16QAM	1	49	20.45	20.50	20.45	2



3	QPSK	15	0	20.43	20.47	20.43	21.5
3	16QAM	1	0	20.43	20.49	20.37	
3	16QAM	1	8	20.43	20.45	20.38	
3	16QAM	1	14	20.28	20.42	20.40	20.5
3	16QAM	8	0	19.36	19.47	19.38	
3	16QAM	8	4	19.34	19.42	19.43	
3	16QAM	8	7	19.34	19.39	19.32	20.5
3	16QAM	15	0	19.53	19.49	19.48	
3	64QAM	1	0	18.85	18.90	18.90	
3	64QAM	1	8	18.88	18.88	18.87	19.5
3	64QAM	1	14	18.81	18.92	18.86	
3	64QAM	8	0	17.67	17.78	17.71	
3	64QAM	8	4	17.60	17.69	17.61	19.5
3	64QAM	8	7	17.71	17.71	17.65	
3	64QAM	15	0	17.65	17.66	17.63	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	21.54	21.56	21.50	22.5
1.4	QPSK	1	3	21.43	21.50	21.49	
1.4	QPSK	1	5	21.49	21.55	21.46	
1.4	QPSK	3	0	21.53	21.47	21.58	
1.4	QPSK	3	1	21.39	21.49	21.43	
1.4	QPSK	3	3	21.32	21.41	21.34	
1.4	QPSK	6	0	20.43	20.51	20.44	21.5
1.4	16QAM	1	0	20.46	20.47	20.45	21.5
1.4	16QAM	1	3	20.38	20.42	20.33	
1.4	16QAM	1	5	20.31	20.45	20.37	
1.4	16QAM	3	0	20.38	20.42	20.37	
1.4	16QAM	3	1	20.34	20.42	20.40	
1.4	16QAM	3	3	20.33	20.42	20.29	
1.4	16QAM	6	0	19.53	19.47	19.52	20.5
1.4	64QAM	1	0	18.87	18.95	18.90	20.5
1.4	64QAM	1	3	18.82	18.90	18.89	
1.4	64QAM	1	5	18.78	18.91	18.95	
1.4	64QAM	3	0	18.66	18.77	18.64	
1.4	64QAM	3	1	18.62	18.75	18.66	
1.4	64QAM	3	3	18.70	18.67	18.67	
1.4	64QAM	6	0	17.64	17.63	17.65	19.5

3	QPSK	15	0	19.84	19.85	19.81	21
3	16QAM	1	0	20.52	20.58	20.57	
3	16QAM	1	8	20.60	20.58	20.48	
3	16QAM	1	14	20.46	20.59	20.51	20
3	16QAM	8	0	18.39	18.46	18.45	
3	16QAM	8	4	18.32	18.41	18.35	
3	16QAM	8	7	18.37	18.43	18.35	20
3	16QAM	15	0	18.75	18.82	18.85	
3	64QAM	1	0	18.43	18.54	18.37	
3	64QAM	1	8	18.46	18.50	18.45	19
3	64QAM	1	14	18.34	18.42	18.40	
3	64QAM	8	0	17.41	17.34	17.35	
3	64QAM	8	4	17.34	17.37	17.25	19
3	64QAM	8	7	17.27	17.36	17.26	
3	64QAM	15	0	17.35	17.34	17.34	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	20.89	20.99	20.87	22
1.4	QPSK	1	3	20.83	20.86	20.83	
1.4	QPSK	1	5	20.78	20.92	20.82	
1.4	QPSK	3	0	20.89	20.97	20.91	
1.4	QPSK	3	1	20.77	20.88	20.82	
1.4	QPSK	3	3	20.75	20.82	20.85	
1.4	QPSK	6	0	19.82	19.90	19.76	21
1.4	16QAM	1	0	20.46	20.54	20.52	21
1.4	16QAM	1	3	20.53	20.54	20.48	
1.4	16QAM	1	5	20.45	20.51	20.50	
1.4	16QAM	3	0	19.38	19.41	19.43	
1.4	16QAM	3	1	19.38	19.43	19.36	
1.4	16QAM	3	3	19.37	19.35	19.32	
1.4	16QAM	6	0	18.71	18.90	18.83	20
1.4	64QAM	1	0	18.49	18.51	18.41	20
1.4	64QAM	1	3	18.41	18.49	18.47	
1.4	64QAM	1	5	18.35	18.41	18.40	
1.4	64QAM	3	0	18.34	18.40	18.34	
1.4	64QAM	3	1	18.36	18.32	18.27	
1.4	64QAM	3	3	18.35	18.37	18.24	
1.4	64QAM	6	0	17.36	17.34	17.32	19



Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	20.78	20.82	20.79	21.5
20	QPSK	1	49	20.70	20.78	20.76	
20	QPSK	1	99	20.66	20.75	20.67	
20	QPSK	50	0	19.46	19.55	19.50	20.5
20	QPSK	50	24	19.55	19.56	19.47	
20	QPSK	50	50	19.50	19.57	19.54	
20	QPSK	100	0	19.42	19.46	19.41	20.5
20	16QAM	1	0	20.06	20.14	20.06	
20	16QAM	1	49	20.07	20.12	20.03	
20	16QAM	1	99	20.02	20.10	20.02	19.5
20	16QAM	50	0	18.00	18.08	17.99	
20	16QAM	50	24	18.06	18.07	18.01	
20	16QAM	50	50	18.03	18.05	17.95	19.5
20	16QAM	100	0	18.07	18.14	18.06	
20	64QAM	1	0	18.28	18.35	18.27	
20	64QAM	1	49	18.25	18.33	18.28	18.5
20	64QAM	1	99	18.30	18.34	18.28	
20	64QAM	50	0	16.71	16.77	16.76	
20	64QAM	50	24	16.72	16.70	16.71	18.5
20	64QAM	50	50	16.67	16.72	16.71	
20	64QAM	100	0	16.72	16.81	16.78	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	20.73	20.73	20.71	21.5
15	QPSK	1	37	20.63	20.68	20.75	
15	QPSK	1	74	20.60	20.67	20.66	
15	QPSK	36	0	19.44	19.48	19.40	20.5
15	QPSK	36	20	19.48	19.54	19.43	
15	QPSK	36	39	19.40	19.55	19.50	
15	QPSK	75	0	19.40	19.43	19.36	20.5
15	16QAM	1	0	20.05	20.12	20.05	
15	16QAM	1	37	20.05	20.08	19.93	
15	16QAM	1	74	19.93	20.08	19.99	19.5
15	16QAM	36	0	17.94	18.06	17.89	
15	16QAM	36	20	18.01	18.04	17.93	
15	16QAM	36	39	17.99	17.99	17.90	19.5
15	16QAM	75	0	18.04	18.09	18.02	
15	64QAM	1	0	18.26	18.33	18.22	
15	64QAM	1	37	18.16	18.32	18.26	18.5
15	64QAM	1	74	18.24	18.26	18.20	
15	64QAM	36	0	16.61	16.67	16.75	
15	64QAM	36	20	16.71	16.63	16.68	18.5
15	64QAM	36	39	16.66	16.65	16.66	
15	64QAM	75	0	16.69	16.74	16.69	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	20.72	20.81	20.74	21.5
10	QPSK	1	25	20.68	20.74	20.72	
10	QPSK	1	49	20.65	20.70	20.61	
10	QPSK	25	0	19.36	19.50	19.42	20.5
10	QPSK	25	12	19.50	19.54	19.39	
10	QPSK	25	25	19.44	19.56	19.52	
10	QPSK	50	0	19.41	19.43	19.35	20.5
10	16QAM	1	0	20.05	20.05	19.96	
10	16QAM	1	25	20.03	20.03	19.94	
10	16QAM	1	49	19.93	20.07	19.92	19.5
10	16QAM	25	0	17.93	18.07	17.96	
10	16QAM	25	12	17.99	17.99	17.91	
10	16QAM	25	25	18.02	17.96	17.89	19.5
10	16QAM	50	0	18.00	18.07	18.04	
10	64QAM	1	0	18.23	18.27	18.17	
10	64QAM	1	25	18.18	18.28	18.24	18.5
10	64QAM	1	49	18.24	18.27	18.19	
10	64QAM	25	0	16.65	16.68	16.66	
10	64QAM	25	12	16.66	16.63	16.62	18.5
10	64QAM	25	25	16.62	16.68	16.62	
10	64QAM	50	0	16.69	16.72	16.69	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	20.71	20.73	20.75	21.5
5	QPSK	1	12	20.60	20.68	20.71	
5	QPSK	1	24	20.62	20.70	20.58	
5	QPSK	12	0	19.40	19.47	19.49	20.5
5	QPSK	12	7	19.52	19.47	19.44	
5	QPSK	12	13	19.46	19.49	19.45	
5	QPSK	25	0	19.32	19.37	19.35	20.5
5	16QAM	1	0	19.97	20.08	20.01	
5	16QAM	1	12	19.97	20.03	20.00	
5	16QAM	1	24	19.97	20.01	19.98	19.5
5	16QAM	12	0	17.99	17.98	17.93	
5	16QAM	12	7	17.99	18.06	17.95	
5	16QAM	12	13	18.01	18.04	17.91	19.5
5	16QAM	25	0	18.00	18.10	17.98	
5	64QAM	1	0	18.19	18.25	18.20	
5	64QAM	1	12	18.16	18.31	18.20	18.5
5	64QAM	1	24	18.21	18.33	18.19	
5	64QAM	12	0	16.70	16.69	16.66	
5	64QAM	12	7	16.66	16.65	16.65	18.5
5	64QAM	12	13	16.58	16.68	16.64	
5	64QAM	25	0	16.69	16.80	16.69	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	20.69	20.79	20.74	21.5
3	QPSK	1	8	20.60	20.75	20.71	
3	QPSK	1	14	20.62	20.68	20.58	
3	QPSK	8	0	19.43	19.50	19.49	20.5
3	QPSK	8	4	19.51	19.54	19.41	
3	QPSK	8	7	19.44	19.48	19.47	



3	QPSK	15	0	19.36	19.40	19.40	20.5
3	16QAM	1	0	20.02	20.13	20.03	
3	16QAM	1	8	20.05	20.10	20.01	
3	16QAM	1	14	19.94	20.09	19.92	19.5
3	16QAM	8	0	17.93	18.00	17.89	
3	16QAM	8	4	18.04	18.06	18.00	
3	16QAM	8	7	17.95	17.97	17.87	19.5
3	16QAM	15	0	18.03	18.05	18.05	
3	64QAM	1	0	18.20	18.26	18.20	
3	64QAM	1	8	18.16	18.28	18.20	18.5
3	64QAM	1	14	18.23	18.24	18.19	
3	64QAM	8	0	16.67	16.69	16.72	
3	64QAM	8	4	16.62	16.60	16.64	18.5
3	64QAM	8	7	16.64	16.64	16.62	
3	64QAM	15	0	16.65	16.78	16.74	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	20.74	20.74	20.72	21.5
1.4	QPSK	1	3	20.60	20.71	20.67	
1.4	QPSK	1	5	20.61	20.72	20.59	
1.4	QPSK	3	0	20.30	20.42	20.30	
1.4	QPSK	3	1	20.39	20.39	20.28	
1.4	QPSK	3	3	20.37	20.40	20.35	20.5
1.4	QPSK	6	0	19.38	19.43	19.33	
1.4	16QAM	1	0	19.98	20.07	19.97	20.5
1.4	16QAM	1	3	20.03	20.08	20.01	
1.4	16QAM	1	5	20.01	20.08	20.01	
1.4	16QAM	3	0	18.82	18.89	18.83	
1.4	16QAM	3	1	18.92	18.89	18.86	
1.4	16QAM	3	3	18.89	18.84	18.74	19.5
1.4	16QAM	6	0	17.97	18.12	18.04	
1.4	64QAM	1	0	18.25	18.33	18.25	19.5
1.4	64QAM	1	3	18.21	18.31	18.19	
1.4	64QAM	1	5	18.27	18.27	18.25	
1.4	64QAM	3	0	17.55	17.58	17.55	
1.4	64QAM	3	1	17.58	17.53	17.52	
1.4	64QAM	3	3	17.53	17.59	17.57	18.5
1.4	64QAM	6	0	16.65	16.73	16.76	

Reduced Power Level 5 for ANT 0

5GHz WLAN ANT 0

5.8GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	16.51	18.50	16.00	95.89
		CH 157	5785	16.20	18.00	16.00	
		CH 165	5825	15.68	17.50	16.00	
	802.11n-HT20 MCS0	CH 149	5745	16.72	18.00	16.00	95.16
		CH 157	5785	16.42	18.00	16.00	
		CH 165	5825	15.89	17.50	16.00	
	802.11n-HT40 MCS0	CH 151	5755	16.52	18.50	16.00	90.62
		CH 159	5795	16.02	18.00	16.00	
	802.11ac-VHT20 MCS0	CH 149	5745	16.73	18.50	16.00	95.24
		CH 157	5785	16.41	18.00	16.00	
		CH 165	5825	15.92	17.50	16.00	
	802.11ac-VHT40 MCS0	CH 151	5755	16.28	18.00	16.00	90.91
		CH 159	5795	15.80	17.50	16.00	
	802.11ac-VHT80 MCS0	CH 155	5775	16.33	18.00	16.00	83.10



Reduced Power Level 6 for ANT 0

5GHz WLAN ANT 0

5.2GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	11.98	13.50	11.00	95.89
		CH 44	5220	12.12	14.00	11.00	
		CH 48	5240	11.77	13.50	11.00	
	802.11n-HT20 MCS0	CH 36	5180	12.15	14.00	11.00	95.16
		CH 44	5220	12.33	14.00	11.00	
		CH 48	5240	12.02	14.00	11.00	
	802.11n-HT40 MCS0	CH 38	5190	12.28	14.00	11.00	90.62
		CH 46	5230	12.01	14.00	11.00	
	802.11ac-VHT20 MCS0	CH 36	5180	12.20	14.00	11.00	95.24
		CH 44	5220	12.34	14.00	11.00	
		CH 48	5240	12.01	14.00	11.00	
	802.11ac-VHT40 MCS0	CH 38	5190	11.99	13.50	11.00	90.91
		CH 46	5230	11.72	13.50	11.00	
	802.11ac-VHT80 MCS0	CH 42	5210	11.87	13.50	11.00	83.10

5GHz WLAN ANT 0

5.3GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 52	5260	12.91	14.50	12.00	95.89
		CH 60	5300	12.38	14.00	12.00	
		CH 64	5320	12.03	14.00	12.00	
	802.11n-HT20 MCS0	CH 52	5260	13.16	15.00	12.00	95.16
		CH 60	5300	12.83	14.50	12.00	
		CH 64	5320	12.22	14.00	12.00	
	802.11n-HT40 MCS0	CH 54	5270	12.94	14.50	12.00	90.62
		CH 62	5310	12.31	14.00	12.00	
	802.11ac-VHT20 MCS0	CH 52	5260	13.13	15.00	12.00	95.24
		CH 60	5300	12.81	14.50	12.00	
		CH 64	5320	12.08	14.00	12.00	
	802.11ac-VHT40 MCS0	CH 54	5270	12.65	14.50	12.00	90.91
		CH 62	5310	12.06	14.00	12.00	
	802.11ac-VHT80 MCS0	CH 58	5290	12.54	14.50	12.00	83.10

5GHz WLAN ANT 0

5.5GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 100	5500	9.87	11.50	9.00	95.89
		CH 120	5600	10.44	12.00	9.00	
		CH 140	5700	10.18	11.50	9.00	
	802.11n-HT20 MCS0	CH 100	5500	10.04	12.00	9.00	95.16
		CH 120	5600	10.64	12.50	9.00	
		CH 140	5700	10.40	12.00	9.00	
	802.11n-HT40 MCS0	CH 102	5510	10.21	12.00	9.00	90.62
		CH 126	5630	10.24	12.00	9.00	
		CH 134	5670	10.21	12.00	9.00	
	802.11ac-VHT20 MCS0	CH 100	5500	10.12	12.00	9.00	95.24
		CH 120	5600	10.70	12.50	9.00	
		CH 140	5700	10.43	12.00	9.00	
	802.11ac-VHT40 MCS0	CH 102	5510	9.96	11.50	9.00	90.91
		CH 126	5630	9.96	11.50	9.00	
		CH 134	5670	9.96	11.50	9.00	
	802.11ac-VHT80 MCS0	CH 106	5530	9.95	11.50	9.00	83.10
		CH 122	5610	10.18	12.00	9.00	
		CH 138	5690	10.16	12.00	9.00	

5GHz WLAN ANT 0

5.8GHz WLAN ANT 0	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	11.01	13.00	10.00	95.89
		CH 157	5785	10.70	12.50	10.00	
		CH 165	5825	10.18	12.00	10.00	
	802.11n-HT20 MCS0	CH 149	5745	11.23	12.50	10.00	95.16
		CH 157	5785	10.92	12.50	10.00	
		CH 165	5825	10.39	12.00	10.00	
	802.11n-HT40 MCS0	CH 151	5755	11.02	13.00	10.00	90.62
		CH 159	5795	10.52	12.50	10.00	
	802.11ac-VHT20 MCS0	CH 149	5745	11.23	13.00	10.00	95.24
		CH 157	5785	10.91	12.50	10.00	
	802.11ac-VHT40 MCS0	CH 165	5825	10.42	12.00	10.00	90.91
		CH 151	5755	10.78	12.50	10.00	
	802.11ac-VHT80 MCS0	CH 155	5775	10.83	12.50	10.00	83.10

Reduced Power Level 7 for ANT 0

5GHz WLAN ANT 1

5.8GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	15.01	17.00	14.00	95.89
		CH 157	5785	14.70	16.50	14.00	
		CH 165	5825	14.18	16.00	14.00	
	802.11n-HT20 MCS0	CH 149	5745	15.22	16.50	14.00	95.16
		CH 157	5785	14.92	16.50	14.00	
		CH 165	5825	14.39	16.00	14.00	
	802.11n-HT40 MCS0	CH 151	5755	15.02	17.00	14.00	90.62
		CH 159	5795	14.52	16.50	14.00	
	802.11ac-VHT20 MCS0	CH 149	5745	15.23	17.00	14.00	95.24
		CH 157	5785	14.91	16.50	14.00	
		CH 165	5825	14.42	16.00	14.00	
	802.11ac-VHT40 MCS0	CH 151	5755	14.78	16.50	14.00	90.91
		CH 159	5795	14.30	16.00	14.00	
	802.11ac-VHT80 MCS0	CH 155	5775	14.83	16.50	14.00	83.10