

Band 2 (1900MHz Band) (dBm)

Part 24E

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Tune-up limit (dBm)	Middle Channel	Tune-up limit (dBm)	High Channel	Tune-up limit (dBm)
Channel				18700	1880	18900	19000	19100	19200
Frequency (MHz)				18600					
20	QPSK	1	0	22.87	23.5	23.32	24.0	24.38	25.0
20	QPSK	1	49	25.06	26.0	23.25	24.0	22.82	23.5
20	QPSK	1	99	23.60	24.5	24.65	25.5	24.00	25.0
20	QPSK	50	0	22.99	23.5	21.93	22.5	23.01	24.0
20	QPSK	50	24	23.78	24.5	22.22	23.0	22.17	23.0
20	QPSK	50	50	23.45	24.0	22.94	23.5	22.27	23.0
20	QPSK	100	0	23.26	24.0	22.52	23.5	22.53	23.5
20	16QAM	1	0	21.72	22.0	22.55	23.5	23.71	24.5
20	16QAM	1	49	24.10	25.0	22.56	23.5	22.13	23.0
20	16QAM	1	99	22.59	23.5	23.96	24.5	23.28	24.0
20	16QAM	50	0	21.84	22.5	22.17	23.0	23.46	24.0
20	16QAM	50	24	23.86	24.5	22.20	23.0	22.00	23.0
20	16QAM	50	50	22.86	23.5	23.56	24.5	22.86	23.5
20	16QAM	100	0	21.17	22.0	21.21	22.0	22.48	23.0
Channel				18675	18875	18900	19000	19125	19250
Frequency (MHz)				1857.5					
15	QPSK	1	0	22.77	23.5	23.30	24.0	24.35	25.0
15	QPSK	1	37	25.03	25.5	23.19	24.0	22.71	23.5
15	QPSK	1	74	23.59	24.5	24.53	25.5	23.95	24.5
15	QPSK	36	0	22.91	23.5	21.84	22.5	22.97	23.5
15	QPSK	36	19	23.71	24.5	22.12	23.0	22.10	23.0
15	QPSK	36	39	23.42	24.0	22.91	23.5	22.15	23.0
15	QPSK	75	0	23.16	24.0	22.42	23.0	22.51	23.5
15	16QAM	1	0	21.66	22.5	22.54	23.5	23.70	24.5
15	16QAM	1	37	24.09	25.0	22.46	23.0	22.02	23.0
15	16QAM	1	74	22.57	23.5	23.89	24.5	23.20	24.0
15	16QAM	36	0	21.82	22.5	22.14	23.0	23.43	24.0
15	16QAM	36	30	23.78	24.5	22.11	23.0	21.90	22.5
15	16QAM	36	61	22.85	23.5	23.44	24.0	22.86	23.5
15	16QAM	75	0	21.08	22.0	21.13	22.0	22.37	23.0
Channel				18650	18850	18900	19000	19150	19250
Frequency (MHz)				1855					
10	QPSK	1	0	22.84	23.5	23.25	24.0	24.28	25.0
10	QPSK	1	24	25.04	25.5	23.20	24.0	22.71	23.5
10	QPSK	1	49	23.57	24.5	24.57	25.5	23.94	24.5
10	QPSK	25	0	22.97	23.5	21.91	22.5	22.93	23.5
10	QPSK	25	12	23.78	24.5	22.21	23.0	22.14	23.0
10	QPSK	25	25	23.45	24.0	22.89	23.5	22.20	23.0
10	QPSK	50	0	23.16	24.0	22.47	23.0	22.42	23.0
10	16QAM	1	0	21.63	22.5	22.51	23.5	23.63	24.5
10	16QAM	1	24	24.00	25.0	22.51	23.5	22.02	23.0
10	16QAM	1	49	22.51	23.5	23.94	24.5	23.26	24.0
10	16QAM	25	0	21.81	22.5	22.14	23.0	23.44	24.0
10	16QAM	25	12	23.77	24.5	22.10	23.0	21.94	22.5
10	16QAM	25	25	22.84	23.5	23.55	24.5	22.79	23.5
10	16QAM	50	0	21.10	22.0	21.19	22.0	22.47	23.0
Channel				18625	18825	18900	19000	19175	19250
Frequency (MHz)				1852.5					
5	QPSK	1	0	22.78	23.5	23.23	24.0	24.27	25.0
5	QPSK	1	12	25.05	25.5	23.14	24.0	22.74	23.5
5	QPSK	1	24	23.54	24.5	24.57	25.5	24.00	25.0
5	QPSK	12	0	22.91	23.5	21.89	22.5	22.93	23.5
5	QPSK	12	7	23.70	24.5	22.21	23.0	22.08	23.0
5	QPSK	12	13	23.42	24.0	22.88	23.5	22.23	23.0
5	QPSK	25	0	23.14	24.0	22.43	23.0	22.46	23.0
5	16QAM	1	0	21.65	22.5	22.48	23.0	23.69	24.5
5	16QAM	1	12	24.07	25.0	22.46	23.0	22.04	23.0
5	16QAM	1	24	22.51	23.5	23.91	24.5	23.24	24.0
5	16QAM	12	0	21.77	22.5	22.09	23.0	23.38	24.0
5	16QAM	12	7	23.74	24.5	22.13	23.0	21.94	22.5
5	16QAM	12	13	22.77	23.5	23.50	24.5	22.82	23.5
5	16QAM	25	0	21.15	22.0	21.19	22.0	22.42	23.0
Channel				18615	18815	18900	19000	19185	19250
Frequency (MHz)				1851.5					
3	QPSK	1	0	22.84	23.5	23.23	24.0	24.36	25.0
3	QPSK	1	7	24.96	25.5	23.22	24.0	22.79	23.5
3	QPSK	1	14	23.51	24.5	24.59	25.5	23.95	24.5
3	QPSK	8	0	22.96	23.5	21.91	22.5	22.94	23.5

3	QPSK	8	3	23.71	24.5	22.12	23.0	22.08	23.0
3	QPSK	8	7	23.42	24.0	22.84	23.5	22.21	23.0
3	QPSK	15	0	23.20	24.0	22.48	23.0	22.47	23.0
3	16QAM	1	0	21.70	22.5	22.54	23.5	23.67	24.5
3	16QAM	1	7	24.10	25.0	22.54	23.5	22.01	23.0
3	16QAM	1	14	22.56	23.5	23.88	24.5	23.21	24.0
3	16QAM	8	0	21.82	22.5	22.10	23.0	23.35	24.0
3	16QAM	8	3	23.79	24.5	22.10	23.0	21.91	22.5
3	16QAM	8	7	22.76	23.5	23.47	24.0	22.82	23.5
3	16QAM	15	0	21.08	22.0	21.10	22.0	22.37	23.0
Channel				18607	Tune-up limit (dBm)	18900	Tune-up limit (dBm)	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7		1880		1909.3	
1.4	QPSK	1	0	22.86	23.5	23.28	24.0	24.28	25.0
1.4	QPSK	1	2	24.96	25.5	23.24	24.0	22.80	23.5
1.4	QPSK	1	5	23.57	24.5	24.58	25.5	23.89	24.5
1.4	QPSK	3	0	23.46	24.0	22.34	23.0	23.39	24.0
1.4	QPSK	3	1	24.18	25.0	22.71	23.5	22.63	23.5
1.4	QPSK	3	3	23.89	24.5	23.39	24.0	22.71	23.5
1.4	QPSK	6	0	23.23	24.0	22.49	23.0	22.45	23.0
1.4	16QAM	1	0	21.71	22.5	22.54	23.5	23.63	24.5
1.4	16QAM	1	2	24.08	25.0	22.49	23.0	22.04	23.0
1.4	16QAM	1	5	22.48	23.0	23.84	24.5	23.16	24.0
1.4	16QAM	3	0	22.00	23.0	22.31	23.0	23.62	24.5
1.4	16QAM	3	1	23.95	24.5	22.32	23.0	22.10	23.0
1.4	16QAM	3	3	22.95	23.5	23.75	24.5	22.95	23.5
1.4	16QAM	6	0	21.07	22.0	21.17	22.0	22.44	23.0

Band 4 (AWS Band) (dBm)

Part 27L (only on channel required)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Tune-up limit (dBm)	Middle Channel	Tune-up limit (dBm)	High Channel	Tune-up limit (dBm)
Channel				20050	1720	20175	1732.5	20300	1745
Frequency (MHz)				1720		1732.5		1745	
20	QPSK	1	0	23.04	24.0	23.10	24.0	22.50	23.5
20	QPSK	1	49	23.15	24.0	22.80	23.5	23.14	24.0
20	QPSK	1	99	22.84	23.5	23.14	24.0	22.84	23.5
20	QPSK	50	0	22.06	23.0	22.10	23.0	21.94	22.5
20	QPSK	50	24	22.08	23.0	21.95	22.5	22.23	23.0
20	QPSK	50	50	22.05	23.0	22.03	23.0	22.31	23.0
20	QPSK	100	0	22.07	23.0	22.14	23.0	22.17	23.0
20	16QAM	1	0	22.30	23.0	22.51	23.5	21.91	22.5
20	16QAM	1	49	22.49	23.0	22.23	23.0	22.53	23.5
20	16QAM	1	99	22.15	23.0	22.58	23.5	22.32	23.0
20	16QAM	50	0	22.17	23.0	22.33	23.0	21.75	22.5
20	16QAM	50	24	22.19	23.0	22.00	23.0	22.26	23.0
20	16QAM	50	50	22.06	23.0	22.27	23.0	22.24	23.0
20	16QAM	100	0	21.23	22.0	21.36	22.0	20.93	21.5
Channel				20025	1717.5	20175	1732.5	20325	1747.5
Frequency (MHz)				1717.5		1732.5		1747.5	
15	QPSK	1	0	22.94	23.5	23.02	24.0	22.39	23.0
15	QPSK	1	37	23.08	24.0	22.75	23.5	23.09	24.0
15	QPSK	1	74	22.84	23.5	23.06	24.0	22.83	23.5
15	QPSK	36	0	21.95	22.5	22.00	23.0	21.85	22.5
15	QPSK	36	20	21.96	22.5	21.89	22.5	22.17	23.0
15	QPSK	36	39	21.99	22.5	22.02	23.0	22.28	23.0
15	QPSK	75	0	22.05	23.0	22.03	23.0	22.08	23.0
15	16QAM	1	0	22.24	23.0	22.41	23.0	21.79	22.5
15	16QAM	1	37	22.46	23.0	22.12	23.0	22.46	23.0
15	16QAM	1	74	22.06	23.0	22.54	23.5	22.21	23.0
15	16QAM	36	0	22.10	23.0	22.23	23.0	21.71	22.5
15	16QAM	36	20	22.14	23.0	22.00	23.0	22.19	23.0
15	16QAM	36	39	22.02	23.0	22.15	23.0	22.23	23.0
15	16QAM	75	0	21.18	22.0	21.30	22.0	20.82	21.5
Channel				20000	1715	20175	1732.5	20350	1750
Frequency (MHz)				1715		1732.5		1750	
10	QPSK	1	0	23.01	24.0	23.04	24.0	22.41	23.0
10	QPSK	1	25	23.08	24.0	22.70	23.5	23.04	24.0
10	QPSK	1	49	22.74	23.5	23.14	24.0	22.78	23.5
10	QPSK	25	0	22.02	23.0	22.08	23.0	21.89	22.5
10	QPSK	25	12	22.06	23.0	21.87	22.5	22.12	23.0
10	QPSK	25	25	21.94	22.5	21.91	22.5	22.26	23.0
10	QPSK	50	0	21.96	22.5	22.08	23.0	22.11	23.0
10	16QAM	1	0	22.20	23.0	22.46	23.0	21.91	22.5
10	16QAM	1	25	22.42	23.0	22.16	23.0	22.47	23.0
10	16QAM	1	49	22.05	23.0	22.53	23.5	22.23	23.0
10	16QAM	25	0	22.16	23.0	22.25	23.0	21.66	22.5
10	16QAM	25	12	22.15	23.0	21.98	22.5	22.21	23.0
10	16QAM	25	25	22.06	23.0	22.22	23.0	22.14	23.0
10	16QAM	50	0	21.12	22.0	21.33	22.0	20.83	21.5
Channel				19975	1712.5	20175	1732.5	20375	1752.5
Frequency (MHz)				1712.5		1732.5		1752.5	
5	QPSK	1	0	23.04	24.0	23.03	24.0	22.48	23.0
5	QPSK	1	12	23.13	24.0	22.69	23.5	23.09	24.0
5	QPSK	1	24	22.73	23.5	23.06	24.0	22.77	23.5
5	QPSK	12	0	22.00	23.0	22.03	23.0	21.88	22.5
5	QPSK	12	7	22.00	23.0	21.88	22.5	22.14	23.0
5	QPSK	12	13	21.96	22.5	21.97	22.5	22.27	23.0
5	QPSK	25	0	22.03	23.0	22.13	23.0	22.11	23.0
5	16QAM	1	0	22.27	23.0	22.50	23.5	21.82	22.5
5	16QAM	1	12	22.38	23.0	22.20	23.0	22.52	23.5
5	16QAM	1	24	22.13	23.0	22.57	23.5	22.24	23.0
5	16QAM	12	0	22.12	23.0	22.22	23.0	21.66	22.5
5	16QAM	12	7	22.13	23.0	21.92	22.5	22.25	23.0
5	16QAM	12	13	21.95	22.5	22.26	23.0	22.22	23.0
5	16QAM	25	0	21.16	22.0	21.30	22.0	20.85	21.5
Channel				19965	1711.5	20175	1732.5	20385	1753.5
Frequency (MHz)				1711.5		1732.5		1753.5	
3	QPSK	1	0	22.96	23.5	23.00	24.0	22.42	23.0
3	QPSK	1	8	23.07	24.0	22.69	23.5	23.05	24.0
3	QPSK	1	14	22.82	23.5	23.13	24.0	22.76	23.5
3	QPSK	8	0	22.01	23.0	22.09	23.0	21.89	22.5

3	QPSK	8	4	22.07	23.0	21.85	22.5	22.20	23.0
3	QPSK	8	7	22.02	23.0	21.91	22.5	22.29	23.0
3	QPSK	15	0	21.96	22.5	22.12	23.0	22.09	23.0
3	16QAM	1	0	22.24	23.0	22.41	23.0	21.80	22.5
3	16QAM	1	8	22.39	23.0	22.21	23.0	22.45	23.0
3	16QAM	1	14	22.03	23.0	22.58	23.5	22.21	23.0
3	16QAM	8	0	22.13	23.0	22.31	23.0	21.66	22.5
3	16QAM	8	4	22.10	23.0	21.93	22.5	22.26	23.0
3	16QAM	8	7	22.03	23.0	22.24	23.0	22.15	23.0
3	16QAM	15	0	21.16	22.0	21.24	22.0	20.87	21.5
Channel				19957	Tune-up limit (dBm)	20175	Tune-up limit (dBm)	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7		1732.5		1754.3	
1.4	QPSK	1	0	22.97	23.5	23.04	24.0	22.42	23.0
1.4	QPSK	1	3	23.09	24.0	22.70	23.5	23.07	24.0
1.4	QPSK	1	5	22.81	23.5	23.02	24.0	22.73	23.5
1.4	QPSK	3	0	22.35	23.0	22.42	23.0	22.30	23.0
1.4	QPSK	3	1	22.38	23.0	22.25	23.0	22.52	23.5
1.4	QPSK	3	3	22.42	23.0	22.34	23.0	22.70	23.5
1.4	QPSK	6	0	21.98	22.5	22.11	23.0	22.15	23.0
1.4	16QAM	1	0	22.26	23.0	22.44	23.0	21.83	22.5
1.4	16QAM	1	3	22.48	23.0	22.14	23.0	22.44	23.0
1.4	16QAM	1	5	22.04	23.0	22.55	23.5	22.21	23.0
1.4	16QAM	3	0	22.48	23.0	22.66	23.5	22.14	23.0
1.4	16QAM	3	1	22.53	23.5	22.38	23.0	22.56	23.5
1.4	16QAM	3	3	22.41	23.0	22.64	23.5	22.62	23.5
1.4	16QAM	6	0	21.12	22.0	21.29	22.0	20.92	21.5

Band 5 (Celluar Band) (dBm)

Part 22H(only on channel required)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Tune-up limit (dBm)	Middle Channel	Tune-up limit (dBm)	High Channel	Tune-up limit (dBm)
Channel				20450	23.0	20525	24.0	20600	24.0
Frequency (MHz)				829		836.5		844	
10	QPSK	1	0	22.46	23.0	23.18	24.0	23.30	24.0
10	QPSK	1	25	22.92	23.5	22.96	23.5	23.30	24.0
10	QPSK	1	49	23.28	24.0	22.71	23.5	22.46	23.0
10	QPSK	25	0	21.74	22.5	22.23	23.0	22.28	23.0
10	QPSK	25	12	22.02	23.0	22.04	23.0	22.26	23.0
10	QPSK	25	25	22.30	23.0	21.84	22.5	21.98	22.5
10	QPSK	50	0	22.40	23.0	22.06	23.0	22.14	23.0
10	16QAM	1	0	21.66	22.5	22.44	23.0	22.47	23.0
10	16QAM	1	25	22.07	23.0	22.42	23.0	22.51	23.5
10	16QAM	1	49	22.16	23.0	22.28	23.0	22.63	23.5
10	16QAM	25	0	21.70	22.5	22.34	23.0	22.27	23.0
10	16QAM	25	12	21.84	22.5	22.30	23.0	22.30	23.0
10	16QAM	25	25	21.89	22.5	22.27	23.0	22.39	23.0
10	16QAM	50	0	20.87	21.5	21.32	22.0	21.36	22.0
Channel				20425	23.0	20525	24.0	20625	24.0
Frequency (MHz)				826.5		836.5		846.5	
5	QPSK	1	0	22.36	23.0	23.10	24.0	23.27	24.0
5	QPSK	1	12	22.89	23.5	22.91	23.5	23.18	24.0
5	QPSK	1	24	23.18	24.0	22.61	23.5	22.37	23.0
5	QPSK	12	0	21.70	22.5	22.16	23.0	22.21	23.0
5	QPSK	12	7	22.01	23.0	21.92	22.5	22.17	23.0
5	QPSK	12	13	22.24	23.0	21.81	22.5	21.96	22.5
5	QPSK	25	0	21.93	22.5	22.01	23.0	22.11	23.0
5	16QAM	1	0	21.57	22.5	22.42	23.0	22.45	23.0
5	16QAM	1	12	22.05	23.0	22.38	23.0	22.42	23.0
5	16QAM	1	24	22.15	23.0	22.26	23.0	22.61	23.5
5	16QAM	12	0	21.67	22.5	22.27	23.0	22.17	23.0
5	16QAM	12	7	21.73	22.5	22.19	23.0	22.27	23.0
5	16QAM	12	13	21.89	22.5	22.21	23.0	22.32	23.0
5	16QAM	25	0	20.78	21.5	21.31	22.0	21.31	22.0
Channel				20415	23.0	20525	24.0	20635	24.0
Frequency (MHz)				825.5		836.5		847.5	
3	QPSK	1	0	22.42	23.0	23.17	24.0	23.24	24.0
3	QPSK	1	8	22.88	23.5	22.89	23.5	23.29	24.0
3	QPSK	1	14	23.18	24.0	22.66	23.5	22.43	23.0
3	QPSK	8	0	21.62	22.5	22.16	23.0	22.26	23.0
3	QPSK	8	4	21.97	22.5	22.00	23.0	22.24	23.0
3	QPSK	8	7	22.27	23.0	21.78	22.5	21.92	22.5
3	QPSK	15	0	21.95	22.5	22.04	23.0	22.10	23.0
3	16QAM	1	0	21.65	22.5	22.35	23.0	22.43	23.0
3	16QAM	1	8	22.00	23.0	22.40	23.0	22.51	23.5
3	16QAM	1	14	22.11	23.0	22.20	23.0	22.61	23.5
3	16QAM	8	0	21.69	22.5	22.29	23.0	22.26	23.0
3	16QAM	8	4	21.81	22.5	22.19	23.0	22.22	23.0
3	16QAM	8	7	21.87	22.5	22.18	23.0	22.39	23.0
3	16QAM	15	0	20.83	21.5	21.22	22.0	21.28	22.0
Channel				20407	23.0	20525	24.0	20643	24.0
Frequency (MHz)				824.7		836.5		848.3	
1.4	QPSK	1	0	22.39	23.0	23.12	24.0	23.28	24.0
1.4	QPSK	1	3	22.85	23.5	22.90	23.5	23.26	24.0
1.4	QPSK	1	5	23.19	24.0	22.70	23.5	22.39	23.0
1.4	QPSK	3	0	22.25	23.0	22.73	23.5	22.82	23.5
1.4	QPSK	3	1	22.54	23.5	22.58	23.5	22.79	23.5
1.4	QPSK	3	3	22.84	23.5	22.35	23.0	22.54	23.5
1.4	QPSK	6	0	21.93	22.5	22.03	23.0	22.04	23.0
1.4	16QAM	1	0	21.57	22.5	22.42	23.0	22.44	23.0
1.4	16QAM	1	3	21.98	22.5	22.38	23.0	22.41	23.0
1.4	16QAM	1	5	22.11	23.0	22.20	23.0	22.63	23.5
1.4	16QAM	3	0	22.28	23.0	22.87	23.5	22.80	23.5
1.4	16QAM	3	1	22.40	23.0	22.79	23.5	22.84	23.5
1.4	16QAM	3	3	22.49	23.0	22.80	23.5	22.98	23.5
1.4	16QAM	6	0	20.82	21.5	21.21	22.0	21.30	22.0

Band 7 (2600MHz Band) (dBm)

Part 27

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Tune-up limit (dBm)	Middle Channel	Tune-up limit (dBm)	High Channel	Tune-up limit (dBm)
Channel				20850	23.5	21100	24.5	21350	23.5
Frequency (MHz)				2510		2535		2560	
20	QPSK	1	0	22.85	23.5	23.57	24.5	22.62	23.5
20	QPSK	1	49	23.66	24.5	22.49	23.0	23.23	24.0
20	QPSK	1	99	24.58	25.5	22.77	23.5	22.16	23.0
20	QPSK	50	0	22.50	23.5	21.97	22.5	22.17	23.0
20	QPSK	50	24	22.99	23.5	21.61	22.5	22.20	23.0
20	QPSK	50	50	23.59	24.5	21.56	22.5	21.77	22.5
20	QPSK	100	0	23.21	24.0	21.82	22.5	22.05	23.0
20	16QAM	1	0	22.29	23.0	22.92	23.5	21.85	22.5
20	16QAM	1	49	23.19	24.0	21.96	22.5	22.56	23.5
20	16QAM	1	99	24.10	25.0	22.22	23.0	21.51	22.5
20	16QAM	50	0	22.18	23.0	22.50	23.5	21.82	22.5
20	16QAM	50	24	22.88	23.5	21.69	22.5	22.35	23.0
20	16QAM	50	50	23.95	24.5	21.87	22.5	21.43	22.0
20	16QAM	100	0	21.15	22.0	21.37	22.0	21.05	22.0
Channel				20825	23.5	21100	24.5	21375	23.5
Frequency (MHz)				2507.5		2535		2562.5	
15	QPSK	1	0	22.84	23.5	23.52	24.5	22.54	23.5
15	QPSK	1	37	23.61	24.5	22.39	23.0	23.18	24.0
15	QPSK	1	74	24.53	25.5	22.77	23.5	22.12	23.0
15	QPSK	36	0	22.47	23.0	21.92	22.5	22.07	23.0
15	QPSK	36	20	22.94	23.5	21.58	22.5	22.17	23.0
15	QPSK	36	39	23.50	24.5	21.50	22.5	21.69	22.5
15	QPSK	75	0	23.20	24.0	21.77	22.5	22.05	23.0
15	16QAM	1	0	22.24	23.0	22.83	23.5	21.85	22.5
15	16QAM	1	37	23.14	24.0	21.86	22.5	22.55	23.5
15	16QAM	1	74	24.01	25.0	22.17	23.0	21.46	22.0
15	16QAM	36	0	22.07	23.0	22.42	23.0	21.72	22.5
15	16QAM	36	20	22.79	23.5	21.67	22.5	22.30	23.0
15	16QAM	36	39	23.85	24.5	21.86	22.5	21.32	22.0
15	16QAM	75	0	21.14	22.0	21.29	22.0	20.97	21.5
Channel				20800	23.5	21100	24.5	21400	23.5
Frequency (MHz)				2505		2535		2565	
10	QPSK	1	0	22.81	23.5	23.57	24.5	22.51	23.5
10	QPSK	1	25	23.62	24.5	22.44	23.0	23.11	24.0
10	QPSK	1	49	24.51	25.5	22.66	23.5	22.12	23.0
10	QPSK	25	0	22.45	23.0	21.88	22.5	22.07	23.0
10	QPSK	25	12	22.88	23.5	21.58	22.5	22.11	23.0
10	QPSK	25	25	23.53	24.5	21.46	22.0	21.71	22.5
10	QPSK	50	0	23.20	24.0	21.71	22.5	21.94	22.5
10	16QAM	1	0	22.28	23.0	22.89	23.5	21.81	22.5
10	16QAM	1	25	23.14	24.0	21.89	22.5	22.48	23.0
10	16QAM	1	49	24.06	25.0	22.20	23.0	21.43	22.0
10	16QAM	25	0	22.14	23.0	22.46	23.0	21.79	22.5
10	16QAM	25	12	22.86	23.5	21.62	22.5	22.33	23.0
10	16QAM	25	25	23.86	24.5	21.75	22.5	21.37	22.0
10	16QAM	50	0	21.06	22.0	21.27	22.0	20.94	21.5
Channel				20775	23.5	21100	24.5	21425	23.5
Frequency (MHz)				2502.5		2535		2567.5	
5	QPSK	1	0	22.73	23.5	23.54	24.5	22.59	23.5
5	QPSK	1	12	23.64	24.5	22.38	23.0	23.15	24.0
5	QPSK	1	24	24.46	25.0	22.71	23.5	22.09	23.0
5	QPSK	12	0	22.41	23.0	21.95	22.5	22.05	23.0
5	QPSK	12	7	22.94	23.5	21.49	22.0	22.16	23.0
5	QPSK	12	13	23.58	24.5	21.48	22.0	21.70	22.5
5	QPSK	25	0	23.20	24.0	21.81	22.5	21.95	22.5
5	16QAM	1	0	22.27	23.0	22.90	23.5	21.84	22.5
5	16QAM	1	12	23.18	24.0	21.91	22.5	22.50	23.5
5	16QAM	1	24	24.07	25.0	22.16	23.0	21.47	22.0
5	16QAM	12	0	22.13	23.0	22.44	23.0	21.77	22.5
5	16QAM	12	7	22.84	23.5	21.68	22.5	22.29	23.0
5	16QAM	12	13	23.90	24.5	21.82	22.5	21.43	22.0
5	16QAM	25	0	21.14	22.0	21.27	22.0	20.96	21.5

Band 12 (700MHz Low Band) (dBm)

Part 27F(only on channel required)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Tune-up limit (dBm)	Middle Channel	Tune-up limit (dBm)	High Channel	Tune-up limit (dBm)
Channel				23060	23095	23095	23130	711	23130
Frequency (MHz)				704					
10	QPSK	1	0	23.74	24.5	22.99	23.5	22.79	23.5
10	QPSK	1	25	23.34	24.0	23.76	24.5	22.87	23.5
10	QPSK	1	49	24.07	25.0	23.63	24.5	22.73	23.5
10	QPSK	25	0	22.36	23.0	22.55	23.5	22.15	23.0
10	QPSK	25	12	22.44	23.0	22.89	23.5	22.03	23.0
10	QPSK	25	25	22.85	23.5	22.95	23.5	21.69	22.5
10	QPSK	50	0	22.60	23.5	22.74	23.5	21.94	22.5
10	16QAM	1	0	23.04	24.0	22.22	23.0	22.21	23.0
10	16QAM	1	25	22.47	23.0	22.78	23.5	22.55	23.5
10	16QAM	1	49	22.69	23.5	23.08	24.0	22.29	23.0
10	16QAM	25	0	22.50	23.5	22.22	23.0	22.20	23.0
10	16QAM	25	12	22.29	23.0	22.56	23.5	22.30	23.0
10	16QAM	25	25	22.26	23.0	22.77	23.5	22.26	23.0
10	16QAM	50	0	21.34	22.0	21.64	22.5	21.21	22.0
Channel				23035	23095	23095	23155	713.5	23155
Frequency (MHz)				701.5					
5	QPSK	1	0	23.72	24.5	22.94	23.5	22.78	23.5
5	QPSK	1	12	23.26	24.0	23.72	24.5	22.84	23.5
5	QPSK	1	24	24.03	25.0	23.58	24.5	22.63	23.5
5	QPSK	12	0	22.28	23.0	22.52	23.5	22.11	23.0
5	QPSK	12	7	22.41	23.0	22.85	23.5	21.96	22.5
5	QPSK	12	13	22.78	23.5	22.94	23.5	21.65	22.5
5	QPSK	25	0	22.59	23.5	22.62	23.5	21.94	22.5
5	16QAM	1	0	22.99	23.5	22.11	23.0	22.16	23.0
5	16QAM	1	12	22.43	23.0	22.73	23.5	22.48	23.0
5	16QAM	1	24	22.69	23.5	23.02	24.0	22.23	23.0
5	16QAM	12	0	22.41	23.0	22.14	23.0	22.19	23.0
5	16QAM	12	7	22.18	23.0	22.49	23.0	22.24	23.0
5	16QAM	12	13	22.22	23.0	22.76	23.5	22.15	23.0
5	16QAM	25	0	21.22	22.0	21.54	22.5	21.17	22.0
Channel				23025	23095	23095	23165	714.5	23165
Frequency (MHz)				700.5					
3	QPSK	1	0	23.72	24.5	22.88	23.5	22.74	23.5
3	QPSK	1	8	23.24	24.0	23.70	24.5	22.85	23.5
3	QPSK	1	14	24.03	25.0	23.59	24.5	22.70	23.5
3	QPSK	8	0	22.25	23.0	22.52	23.5	22.12	23.0
3	QPSK	8	4	22.33	23.0	22.83	23.5	21.91	22.5
3	QPSK	8	7	22.73	23.5	22.95	23.5	21.64	22.5
3	QPSK	15	0	22.51	23.5	22.62	23.5	21.84	22.5
3	16QAM	1	0	22.93	23.5	22.18	23.0	22.10	23.0
3	16QAM	1	8	22.38	23.0	22.66	23.5	22.52	23.5
3	16QAM	1	14	22.58	23.5	23.02	24.0	22.28	23.0
3	16QAM	8	0	22.38	23.0	22.18	23.0	22.16	23.0
3	16QAM	8	4	22.28	23.0	22.44	23.0	22.29	23.0
3	16QAM	8	7	22.15	23.0	22.73	23.5	22.21	23.0
3	16QAM	15	0	21.24	22.0	21.56	22.5	21.11	22.0
Channel				23017	23095	23095	23173	715.3	23173
Frequency (MHz)				699.7					
1.4	QPSK	1	0	23.69	24.5	22.94	23.5	22.77	23.5
1.4	QPSK	1	3	23.31	24.0	23.72	24.5	22.77	23.5
1.4	QPSK	1	5	24.04	25.0	23.55	24.5	22.67	23.5
1.4	QPSK	3	0	23.31	24.0	23.49	24.0	23.10	24.0
1.4	QPSK	3	1	23.41	24.0	23.85	24.5	22.96	23.5
1.4	QPSK	3	3	23.83	24.5	23.84	24.5	22.61	23.5
1.4	QPSK	6	0	22.56	23.5	22.62	23.5	21.85	22.5
1.4	16QAM	1	0	22.94	23.5	22.12	23.0	22.12	23.0
1.4	16QAM	1	3	22.44	23.0	22.70	23.5	22.46	23.0
1.4	16QAM	1	5	22.68	23.5	22.99	23.5	22.20	23.0
1.4	16QAM	3	0	23.49	24.0	23.11	24.0	23.16	24.0
1.4	16QAM	3	1	23.22	24.0	23.54	24.5	23.22	24.0
1.4	16QAM	3	3	23.18	24.0	23.73	24.5	23.22	24.0
1.4	16QAM	6	0	21.22	22.0	21.55	22.5	21.20	22.0

Band 13(700MHz Band) (dBm)

Part 27F

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Tune-up limit (dBm)	Middle Channel	Tune-up limit (dBm)	High Channel	Tune-up limit (dBm)
Channel					Tune-up limit (dBm)	23230	Tune-up limit (dBm)		Tune-up limit (dBm)
Frequency (MHz)						782			
10	QPSK	1	0			23.55	24.5		
10	QPSK	1	25			22.90	23.5		
10	QPSK	1	49			23.20	24.0		
10	QPSK	25	0			22.39	23.0		
10	QPSK	25	12			22.22	23.0		
10	QPSK	25	25			22.23	23.0		
10	QPSK	50	0			22.30	23.0		
10	16QAM	1	0			22.85	23.5		
10	16QAM	1	25			22.57	23.5		
10	16QAM	1	49			22.33	23.0		
10	16QAM	25	0			22.52	23.5		
10	16QAM	25	12			22.43	23.0		
10	16QAM	25	25			22.31	23.0		
10	16QAM	50	0			21.38	22.0		
Channel				23205	Tune-up limit (dBm)	23230	Tune-up limit (dBm)	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5		782		784.5	
5	QPSK	1	0	23.45	24.0	23.51	24.5	23.54	24.5
5	QPSK	1	12	22.83	23.5	22.87	23.5	22.86	23.5
5	QPSK	1	24	23.16	24.0	23.16	24.0	23.19	24.0
5	QPSK	12	0	22.35	23.0	22.27	23.0	22.37	23.0
5	QPSK	12	7	22.17	23.0	22.14	23.0	22.17	23.0
5	QPSK	12	13	22.13	23.0	22.13	23.0	22.18	23.0
5	QPSK	25	0	22.27	23.0	22.28	23.0	22.25	23.0
5	16QAM	1	0	22.73	23.5	22.76	23.5	22.84	23.5
5	16QAM	1	12	22.56	23.5	22.53	23.5	22.55	23.5
5	16QAM	1	24	22.24	23.0	22.29	23.0	22.23	23.0
5	16QAM	12	0	22.51	23.5	22.46	23.0	22.49	23.0
5	16QAM	12	7	22.32	23.0	22.41	23.0	22.31	23.0
5	16QAM	12	13	22.27	23.0	22.22	23.0	22.24	23.0
5	16QAM	25	0	21.34	22.0	21.33	22.0	21.31	22.0

Band 25 (1900MHz Band) (dBm)

Part 24E

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Tune-up limit (dBm)	Middle Channel	Tune-up limit (dBm)	High Channel	Tune-up limit (dBm)
Channel				26140	26365	1882.5	26590	1905	26590
Frequency (MHz)				1860					
20	QPSK	1	0	22.40	23.0	23.19	24.0	23.23	24.0
20	QPSK	1	49	24.77	25.5	23.18	24.0	22.48	23.0
20	QPSK	1	99	23.11	24.0	24.73	25.5	22.65	23.5
20	QPSK	50	0	22.56	23.5	21.88	22.5	21.42	22.0
20	QPSK	50	24	23.43	24.0	22.25	23.0	21.74	22.5
20	QPSK	50	50	23.21	24.0	23.05	24.0	22.48	23.0
20	QPSK	100	0	22.97	23.5	22.53	23.5	21.98	22.5
20	16QAM	1	0	21.22	22.0	22.52	23.5	22.60	23.5
20	16QAM	1	49	23.76	24.5	22.42	23.0	21.84	22.5
20	16QAM	1	99	22.12	23.0	24.00	25.0	22.13	23.0
20	16QAM	50	0	21.31	22.0	22.14	23.0	22.05	23.0
20	16QAM	50	24	23.36	24.0	22.16	23.0	21.51	22.5
20	16QAM	50	50	22.49	23.0	23.58	24.5	22.53	23.5
20	16QAM	100	0	20.65	21.5	20.97	21.5	20.80	21.5
Channel				26115	26365	1882.5	26615	1907.5	26615
Frequency (MHz)				1857.5					
15	QPSK	1	0	22.37	23.0	23.11	24.0	23.12	24.0
15	QPSK	1	37	24.70	25.5	23.12	24.0	22.45	23.0
15	QPSK	1	74	23.04	24.0	24.71	25.5	22.59	23.5
15	QPSK	36	0	22.53	23.5	21.80	22.5	21.34	22.0
15	QPSK	36	20	23.37	24.0	22.17	23.0	21.69	22.5
15	QPSK	36	39	23.19	24.0	22.98	23.5	22.36	23.0
15	QPSK	75	0	22.96	23.5	22.51	23.5	21.95	22.5
15	16QAM	1	0	21.18	22.0	22.45	23.0	22.52	23.5
15	16QAM	1	37	23.67	24.5	22.40	23.0	21.83	22.5
15	16QAM	1	74	22.02	23.0	23.97	24.5	22.12	23.0
15	16QAM	36	0	21.23	22.0	22.06	23.0	21.97	22.5
15	16QAM	36	20	23.35	24.0	22.16	23.0	21.47	22.0
15	16QAM	36	39	22.49	23.0	23.50	24.5	22.43	23.0
15	16QAM	75	0	20.60	21.5	20.89	21.5	20.78	21.5
Channel				26090	26365	1882.5	26640	1910	26640
Frequency (MHz)				1855					
10	QPSK	1	0	22.38	23.0	23.14	24.0	23.16	24.0
10	QPSK	1	25	24.75	25.5	23.09	24.0	22.37	23.0
10	QPSK	1	49	23.09	24.0	24.70	25.5	22.62	23.5
10	QPSK	25	0	22.45	23.0	21.79	22.5	21.37	22.0
10	QPSK	25	12	23.35	24.0	22.22	23.0	21.62	22.5
10	QPSK	25	25	23.10	24.0	22.96	23.5	22.40	23.0
10	QPSK	50	0	22.80	23.5	22.47	23.0	21.93	22.5
10	16QAM	1	0	21.18	22.0	22.48	23.0	22.54	23.5
10	16QAM	1	25	23.66	24.5	22.41	23.0	21.81	22.5
10	16QAM	1	49	22.06	23.0	23.95	24.5	22.06	23.0
10	16QAM	25	0	21.27	22.0	22.07	23.0	22.00	23.0
10	16QAM	25	12	23.31	24.0	22.06	23.0	21.47	22.0
10	16QAM	25	25	22.47	23.0	23.54	24.5	22.52	23.5
10	16QAM	50	0	20.57	21.5	20.87	21.5	20.71	21.5
Channel				26065	26365	1882.5	26665	1912.5	26665
Frequency (MHz)				1852.5					
5	QPSK	1	0	22.30	23.0	23.14	24.0	23.18	24.0
5	QPSK	1	12	24.69	25.5	23.12	24.0	22.40	23.0
5	QPSK	1	24	23.08	24.0	24.62	25.5	22.63	23.5
5	QPSK	12	0	22.56	23.5	21.77	22.5	21.36	22.0
5	QPSK	12	7	23.38	24.0	22.24	23.0	21.65	22.5
5	QPSK	12	13	23.10	24.0	22.99	23.5	22.42	23.0
5	QPSK	25	0	22.90	23.5	22.49	23.0	21.94	22.5
5	16QAM	1	0	21.15	22.0	22.51	23.5	22.55	23.5
5	16QAM	1	12	23.68	24.5	22.34	23.0	21.79	22.5
5	16QAM	1	24	22.05	23.0	23.92	24.5	22.13	23.0
5	16QAM	12	0	21.24	22.0	22.09	23.0	22.04	23.0
5	16QAM	12	7	23.26	24.0	22.12	23.0	21.43	22.0
5	16QAM	12	13	22.41	23.0	23.47	24.0	22.51	23.5
5	16QAM	25	0	20.64	21.5	20.89	21.5	20.75	21.5
Channel				26055	26365	1882.5	26675	1913.5	26675
Frequency (MHz)				1851.5					
3	QPSK	1	0	22.32	23.0	23.19	24.0	23.15	24.0
3	QPSK	1	8	24.76	25.5	23.12	24.0	22.38	23.0
3	QPSK	1	14	23.05	24.0	24.72	25.5	22.54	23.5
3	QPSK	8	0	22.54	23.5	21.86	22.5	21.39	22.0

3	QPSK	8	4	23.34	24.0	22.18	23.0	21.63	22.5
3	QPSK	8	7	23.11	24.0	22.94	23.5	22.47	23.0
3	QPSK	15	0	22.89	23.5	22.42	23.0	21.91	22.5
3	16QAM	1	0	21.16	22.0	22.40	23.0	22.58	23.5
3	16QAM	1	8	23.65	24.5	22.34	23.0	21.79	22.5
3	16QAM	1	14	22.04	23.0	23.88	24.5	22.04	23.0
3	16QAM	8	0	21.29	22.0	22.13	23.0	21.97	22.5
3	16QAM	8	4	23.28	24.0	22.07	23.0	21.45	22.0
3	16QAM	8	7	22.46	23.0	23.50	24.5	22.52	23.5
3	16QAM	15	0	20.53	21.5	20.90	21.5	20.79	21.5
Channel				26047	Tune-up limit (dBm)	26365	Tune-up limit (dBm)	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7		1882.5		1914.3	
1.4	QPSK	1	0	22.35	23.0	23.14	24.0	23.18	24.0
1.4	QPSK	1	3	24.70	25.5	23.11	24.0	22.48	23.0
1.4	QPSK	1	5	23.01	24.0	24.65	25.5	22.65	23.5
1.4	QPSK	3	0	23.16	24.0	22.40	23.0	21.97	22.5
1.4	QPSK	3	1	23.96	24.5	22.83	23.5	22.25	23.0
1.4	QPSK	3	3	23.76	24.5	23.63	24.5	23.08	24.0
1.4	QPSK	6	0	22.97	23.5	22.43	23.0	21.92	22.5
1.4	16QAM	1	0	21.11	22.0	22.51	23.5	22.50	23.5
1.4	16QAM	1	3	23.72	24.5	22.32	23.0	21.80	22.5
1.4	16QAM	1	5	22.10	23.0	23.91	24.5	22.04	23.0
1.4	16QAM	3	0	21.81	22.5	22.68	23.5	22.60	23.5
1.4	16QAM	3	1	23.88	24.5	22.76	23.5	22.04	23.0
1.4	16QAM	3	3	23.01	24.0	24.09	25.0	23.04	24.0
1.4	16QAM	6	0	20.65	21.5	20.88	21.5	20.74	21.5

Band 66 (dBm)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Tune-up limit (dBm)	Middle Channel	Tune-up limit (dBm)	High Channel	Tune-up limit (dBm)
Channel				132072	132322	1745	132572	1770	
Frequency (MHz)				1720					
20	QPSK	1	0	23.46	24.00	22.62	23.50	22.90	23.50
20	QPSK	1	49	23.40	24.00	23.15	24.00	22.36	23.00
20	QPSK	1	99	22.95	23.50	23.13	24.00	22.76	23.50
20	QPSK	50	0	22.50	23.50	21.92	22.50	21.57	22.50
20	QPSK	50	24	22.43	23.00	22.27	23.00	21.52	22.50
20	QPSK	50	50	22.25	23.00	22.39	23.00	21.57	22.50
20	QPSK	100	0	22.40	23.00	22.16	23.00	21.59	22.50
20	16QAM	1	0	22.69	23.50	21.85	22.50	22.21	23.00
20	16QAM	1	49	22.70	23.50	22.48	23.00	21.82	22.50
20	16QAM	1	99	22.29	23.00	22.47	23.00	22.09	23.00
20	16QAM	50	0	22.39	23.00	21.66	22.50	21.88	22.50
20	16QAM	50	24	22.33	23.00	22.19	23.00	21.55	22.50
20	16QAM	50	50	22.22	23.00	22.29	23.00	21.73	22.50
20	16QAM	100	0	21.61	22.50	20.77	21.50	20.94	21.50
Channel				132047	132322	1745	132597	1772.5	
Frequency (MHz)				1717.5					
15	QPSK	1	0	23.44	24.00	22.58	23.50	22.78	23.50
15	QPSK	1	37	23.33	24.00	23.04	24.00	22.32	23.00
15	QPSK	1	74	22.86	23.50	23.05	24.00	22.74	23.50
15	QPSK	36	0	22.45	23.00	21.86	22.50	21.48	22.00
15	QPSK	36	20	22.40	23.00	22.23	23.00	21.41	22.00
15	QPSK	36	39	22.19	23.00	22.36	23.00	21.53	22.50
15	QPSK	75	0	22.34	23.00	22.11	23.00	21.59	22.50
15	16QAM	1	0	22.68	23.50	21.75	22.50	22.18	23.00
15	16QAM	1	37	22.70	23.50	22.38	23.00	21.74	22.50
15	16QAM	1	74	22.23	23.00	22.41	23.00	21.99	22.50
15	16QAM	36	0	22.30	23.00	21.56	22.50	21.81	22.50
15	16QAM	36	20	22.25	23.00	22.18	23.00	21.48	22.00
15	16QAM	36	39	22.22	23.00	22.27	23.00	21.61	22.50
15	16QAM	75	0	21.57	22.50	20.67	21.50	20.83	21.50
Channel				132022	132322	1745	132622	1775	
Frequency (MHz)				1715					
10	QPSK	1	0	23.43	24.00	22.60	23.50	22.82	23.50
10	QPSK	1	25	23.36	24.00	23.08	24.00	22.35	23.00
10	QPSK	1	49	22.87	23.50	23.09	24.00	22.73	23.50
10	QPSK	25	0	22.47	23.00	21.91	22.50	21.57	22.50
10	QPSK	25	12	22.38	23.00	22.23	23.00	21.49	22.00
10	QPSK	25	25	22.14	23.00	22.35	23.00	21.48	22.00
10	QPSK	50	0	22.38	23.00	22.13	23.00	21.53	22.50
10	16QAM	1	0	22.66	23.50	21.78	22.50	22.13	23.00
10	16QAM	1	25	22.63	23.50	22.41	23.00	21.80	22.50
10	16QAM	1	49	22.26	23.00	22.46	23.00	22.04	23.00
10	16QAM	25	0	22.30	23.00	21.60	22.50	21.79	22.50
10	16QAM	25	12	23.32	24.00	22.14	23.00	21.48	22.00
10	16QAM	25	25	22.17	23.00	22.27	23.00	21.63	22.50
10	16QAM	50	0	21.60	22.50	20.69	21.50	20.85	21.50
Channel				131997	132322	1745	132647	1777.5	
Frequency (MHz)				1712.5					
5	QPSK	1	0	23.43	24.00	22.51	23.50	22.86	23.50
5	QPSK	1	12	23.29	24.00	23.11	24.00	22.34	23.00
5	QPSK	1	24	22.91	23.50	23.04	24.00	22.65	23.50
5	QPSK	12	0	22.47	23.00	21.86	22.50	21.55	22.50
5	QPSK	12	7	22.37	23.00	22.19	23.00	21.48	22.00
5	QPSK	12	13	22.24	23.00	22.38	23.00	21.54	22.50
5	QPSK	25	0	22.40	23.00	22.15	23.00	21.56	22.50
5	16QAM	1	0	22.64	23.50	21.83	22.50	22.19	23.00
5	16QAM	1	12	22.68	23.50	22.47	23.00	21.72	22.50
5	16QAM	1	24	22.28	23.00	22.37	23.00	22.02	23.00
5	16QAM	12	0	22.27	23.00	21.65	22.50	21.86	22.50
5	16QAM	12	7	22.30	23.00	22.13	23.00	21.44	22.00
5	16QAM	12	13	22.18	23.00	22.19	23.00	21.65	22.50
5	16QAM	25	0	21.54	22.50	20.77	21.50	20.87	21.50
Channel				131987	132322	1745	132657	1778.5	
Frequency (MHz)				1711.5					
3	QPSK	1	0	23.34	24.00	22.59	23.50	22.89	23.50
3	QPSK	1	8	23.37	24.00	23.15	24.00	22.36	23.00
3	QPSK	1	14	22.89	23.50	23.05	24.00	22.67	23.50
3	QPSK	8	0	22.39	23.00	21.86	22.50	21.48	22.00

3	QPSK	8	4	22.32	23.00	22.23	23.00	21.41	22.00
3	QPSK	8	7	22.20	23.00	22.32	23.00	21.47	22.00
3	QPSK	15	0	22.32	23.00	22.16	23.00	21.56	22.50
3	16QAM	1	0	22.69	23.50	21.84	22.50	22.11	23.00
3	16QAM	1	8	22.69	23.50	22.46	23.00	21.75	22.50
3	16QAM	1	14	22.27	23.00	22.43	23.00	21.99	22.50
3	16QAM	8	0	22.32	23.00	21.60	22.50	21.81	22.50
3	16QAM	8	4	22.25	23.00	22.15	23.00	21.54	22.50
3	16QAM	8	7	22.13	23.00	22.22	23.00	21.66	22.50
3	16QAM	15	0	21.56	22.50	20.71	21.50	20.90	21.50
Channel				131979	Tune-up limit (dBm)	132322	Tune-up limit (dBm)	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7		1745		1779.3	
1.4	QPSK	1	0	22.36	23.00	22.53	23.50	22.89	23.50
1.4	QPSK	1	3	23.33	24.00	23.08	24.00	22.27	23.00
1.4	QPSK	1	5	22.93	23.50	23.11	24.00	22.74	23.50
1.4	QPSK	3	0	22.99	23.50	22.49	23.00	22.11	23.00
1.4	QPSK	3	1	22.92	23.50	22.86	23.50	22.11	23.00
1.4	QPSK	3	3	22.79	23.50	22.91	23.50	22.07	23.00
1.4	QPSK	6	0	22.33	23.00	22.14	23.00	21.57	22.50
1.4	16QAM	1	0	22.62	23.50	21.75	22.50	22.10	23.00
1.4	16QAM	1	3	22.61	23.50	22.45	23.00	21.80	22.50
1.4	16QAM	1	5	22.27	23.00	22.46	23.00	22.07	23.00
1.4	16QAM	3	0	22.97	23.50	22.20	23.00	22.37	23.00
1.4	16QAM	3	1	22.84	23.50	22.71	23.50	22.04	23.00
1.4	16QAM	3	3	22.73	23.50	22.78	23.50	22.22	23.00
1.4	16QAM	6	0	21.59	22.50	20.70	21.50	20.92	21.50

Band 38(only on channel required) (dBm)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Tune-up limit (dBm)	Middle Channel	Tune-up limit (dBm)	High Channel	Tune-up limit (dBm)
Channel				37850		38000		38150	
Frequency (MHz)				2580		2595		2610	
20	QPSK	1	0	23.38	24.0	23.34	24.0	22.69	23.5
20	QPSK	1	49	23.23	24.0	23.20	24.0	22.85	23.5
20	QPSK	1	99	23.10	24.0	23.05	24.0	22.77	23.5
20	QPSK	50	0	22.32	23.0	22.33	23.0	21.87	22.5
20	QPSK	50	24	22.28	23.0	22.26	23.0	21.92	22.5
20	QPSK	50	50	22.32	23.0	22.18	23.0	21.92	22.5
20	QPSK	100	0	22.27	23.0	22.31	23.0	21.91	22.5
20	16QAM	1	0	22.42	23.0	22.47	23.0	21.86	22.5
20	16QAM	1	49	22.34	23.0	22.33	23.0	22.02	23.0
20	16QAM	1	99	22.22	23.0	22.18	23.0	21.94	22.5
20	16QAM	50	0	22.42	23.0	22.43	23.0	21.86	22.5
20	16QAM	50	24	22.33	23.0	22.16	23.0	21.96	22.5
20	16QAM	50	50	22.26	23.0	22.06	23.0	21.95	22.5
20	16QAM	100	0	21.54	22.5	21.43	22.0	20.93	21.5
Channel				37825	Tune-up limit (dBm)	38000	Tune-up limit (dBm)	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5		2595		2612.5	
15	QPSK	1	0	23.36	24.0	23.30	24.0	22.56	23.5
15	QPSK	1	37	23.16	24.0	23.20	24.0	22.76	23.5
15	QPSK	1	74	22.99	23.5	23.00	24.0	22.77	23.5
15	QPSK	36	0	22.31	23.0	22.28	23.0	21.78	22.5
15	QPSK	36	20	22.24	23.0	22.22	23.0	21.86	22.5
15	QPSK	36	39	22.21	23.0	22.06	23.0	21.89	22.5
15	QPSK	75	0	22.23	23.0	22.30	23.0	21.84	22.5
15	16QAM	1	0	22.37	23.0	22.43	23.0	21.83	22.5
15	16QAM	1	37	22.25	23.0	22.29	23.0	21.93	22.5
15	16QAM	1	74	22.14	23.0	22.11	23.0	21.93	22.5
15	16QAM	36	0	22.30	23.0	22.31	23.0	21.81	22.5
15	16QAM	36	20	22.30	23.0	22.06	23.0	21.91	22.5
15	16QAM	36	39	22.23	23.0	22.03	23.0	21.91	22.5
15	16QAM	75	0	21.50	22.5	21.35	22.0	20.81	21.5
Channel				37800	Tune-up limit (dBm)	38000	Tune-up limit (dBm)	38200	Tune-up limit (dBm)
Frequency (MHz)				2575		2595		2615	
10	QPSK	1	0	23.34	24.0	23.34	24.0	22.61	23.5
10	QPSK	1	25	23.14	24.0	23.14	24.0	22.63	23.5
10	QPSK	1	49	23.05	24.0	22.99	23.5	22.71	23.5
10	QPSK	25	0	22.28	23.0	22.25	23.0	21.77	22.5
10	QPSK	25	12	22.22	23.0	22.15	23.0	21.83	22.5
10	QPSK	25	25	22.28	23.0	22.10	23.0	21.92	22.5
10	QPSK	50	0	22.25	23.0	22.20	23.0	21.84	22.5
10	16QAM	1	0	22.36	23.0	22.37	23.0	21.82	22.5
10	16QAM	1	25	22.27	23.0	22.31	23.0	21.94	22.5
10	16QAM	1	49	22.22	23.0	22.14	23.0	21.92	22.5
10	16QAM	25	0	22.32	23.0	22.42	23.0	21.85	22.5
10	16QAM	25	12	22.28	23.0	22.11	23.0	21.92	22.5
10	16QAM	25	25	22.23	23.0	21.98	22.5	21.95	22.5
10	16QAM	50	0	21.54	22.5	21.34	22.0	20.82	21.5
Channel				37775	Tune-up limit (dBm)	38000	Tune-up limit (dBm)	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5		2595		2617.5	
5	QPSK	1	0	23.37	24.0	23.28	24.0	22.59	23.5
5	QPSK	1	12	23.18	24.0	23.11	24.0	22.84	23.5
5	QPSK	1	24	23.02	24.0	22.99	23.5	22.70	23.5
5	QPSK	12	0	22.24	23.0	22.30	23.0	21.81	22.5
5	QPSK	12	7	22.21	23.0	22.26	23.0	21.81	22.5
5	QPSK	12	13	22.31	23.0	22.16	23.0	21.80	22.5
5	QPSK	25	0	22.22	23.0	22.25	23.0	21.80	22.5
5	16QAM	1	0	22.32	23.0	22.35	23.0	21.83	22.5
5	16QAM	1	12	22.25	23.0	22.28	23.0	22.00	23.0
5	16QAM	1	24	22.19	23.0	22.08	23.0	21.83	22.5
5	16QAM	12	0	22.38	23.0	23.31	24.0	21.79	22.5
5	16QAM	12	7	22.32	23.0	22.06	23.0	21.66	22.5
5	16QAM	12	13	22.20	23.0	22.02	23.0	21.87	22.5
5	16QAM	25	0	21.47	22.0	21.41	22.0	20.91	21.5

Band 41 (2496~2690MHz) (dBm)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Tune-up limit (dBm)	Middle Low Channel	Tune-up limit (dBm)	Middle Channel	Tune-up limit (dBm)	Middle High Channel	Tune-up limit (dBm)	High Channel	Tune-up limit (dBm)
Channel				39750	2506	40185	2549.5	40620	2593	41055	2636.5	41490	2680
Frequency (MHz)				2506		2549.5		2593		2636.5		2680	
20	QPSK	1	0	22.49	23.0	22.43	23.0	22.55	23.5	22.31	23.0	22.43	23.0
20	QPSK	1	49	22.44	23.0	22.30	23.0	22.42	23.0	22.18	23.0	22.16	23.0
20	QPSK	1	99	22.55	23.5	22.10	23.0	22.22	23.0	21.98	22.5	21.75	22.5
20	QPSK	50	0	21.58	22.5	21.43	22.0	21.55	22.5	21.31	22.0	21.45	22.0
20	QPSK	50	24	21.71	22.5	21.40	22.0	21.52	22.5	21.28	22.0	21.29	22.0
20	QPSK	50	50	21.81	22.5	21.34	22.0	21.46	22.0	21.22	22.0	21.11	22.0
20	QPSK	100	0	21.65	22.5	21.42	22.0	21.54	22.5	21.30	22.0	21.31	22.0
20	16QAM	1	0	21.48	22.0	21.53	22.5	21.65	22.5	21.41	22.0	21.61	22.5
20	16QAM	1	49	21.76	22.5	21.47	22.0	21.59	22.5	21.35	22.0	21.41	22.0
20	16QAM	1	99	21.77	22.5	21.27	22.0	21.39	22.0	21.15	22.0	20.97	21.5
20	16QAM	50	0	21.55	22.5	21.52	22.5	21.64	22.5	21.40	22.0	21.54	22.5
20	16QAM	50	24	21.60	22.5	21.41	22.0	21.53	22.5	21.29	22.0	21.31	22.0
20	16QAM	50	50	21.73	22.5	21.31	22.0	21.43	22.0	21.19	22.0	20.98	21.5
20	16QAM	100	0	20.49	21.0	20.64	21.5	20.76	21.5	20.52	21.5	20.53	21.5
Channel				39725	2503.5	40173	2548.3	40620	2593	41068	2637.8	41515	2682.5
Frequency (MHz)				2503.5		2548.3		2593		2637.8		2682.5	
15	QPSK	1	0	22.46	23.0	22.38	23.0	22.51	23.5	22.26	23.0	22.36	23.0
15	QPSK	1	37	22.43	23.0	22.25	23.0	22.30	23.0	22.13	23.0	22.10	23.0
15	QPSK	1	74	22.49	23.0	22.05	23.0	22.19	23.0	21.93	22.5	21.65	22.5
15	QPSK	36	0	21.48	22.0	21.38	22.0	21.47	22.0	21.26	22.0	21.37	22.0
15	QPSK	36	20	21.69	22.5	21.35	22.0	21.51	22.5	21.23	22.0	21.23	22.0
15	QPSK	36	39	21.78	22.5	21.29	22.0	21.36	22.0	21.17	22.0	20.99	21.5
15	QPSK	75	0	21.58	22.5	21.37	22.0	21.45	22.0	21.25	22.0	21.24	22.0
15	16QAM	1	0	21.39	22.0	21.48	22.0	21.57	22.5	21.36	22.0	21.57	22.5
15	16QAM	1	37	21.67	22.5	21.42	22.0	21.51	22.5	21.30	22.0	21.41	22.0
15	16QAM	1	74	21.75	22.5	21.22	22.0	21.36	22.0	21.10	22.0	20.94	21.5
15	16QAM	36	0	21.45	22.0	21.47	22.0	21.63	22.5	21.35	22.0	21.47	22.0
15	16QAM	36	20	21.50	22.5	21.36	22.0	21.45	22.0	21.24	22.0	21.24	22.0
15	16QAM	36	39	21.71	22.5	21.26	22.0	21.39	22.0	21.14	22.0	20.97	21.5
15	16QAM	75	0	20.45	21.0	20.59	21.5	20.68	21.5	20.47	21.0	20.53	21.5
Channel				39700	2501	40160	2547	40620	2593	41080	2639	41540	2685
Frequency (MHz)				2501		2547		2593		2639		2685	
10	QPSK	1	0	22.47	23.0	22.33	23.0	22.50	23.5	22.21	23.0	22.36	23.0
10	QPSK	1	25	22.40	23.0	22.20	23.0	22.33	23.0	22.08	23.0	22.05	23.0
10	QPSK	1	49	22.51	23.5	22.00	23.0	22.17	23.0	21.88	22.5	21.66	22.5
10	QPSK	25	0	21.52	22.5	21.33	22.0	21.54	22.5	21.21	22.0	21.41	22.0
10	QPSK	25	12	21.69	22.5	21.30	22.0	21.42	22.0	21.18	22.0	21.24	22.0
10	QPSK	25	25	21.74	22.5	21.24	22.0	21.36	22.0	21.12	22.0	21.04	22.0
10	QPSK	50	0	21.63	22.5	21.32	22.0	21.45	22.0	21.20	22.0	21.28	22.0
10	16QAM	1	0	21.39	22.0	21.43	22.0	21.65	22.5	21.31	22.0	21.53	22.5
10	16QAM	1	25	21.65	22.5	21.37	22.0	21.57	22.5	21.25	22.0	21.36	22.0
10	16QAM	1	49	21.76	22.5	21.17	22.0	21.31	22.0	21.05	22.0	20.88	21.5
10	16QAM	25	0	21.47	22.0	21.42	22.0	21.58	22.5	21.30	22.0	21.45	22.0
10	16QAM	25	12	21.57	22.5	21.31	22.0	21.46	22.0	21.19	22.0	21.29	22.0
10	16QAM	25	25	21.70	22.5	21.21	22.0	21.42	22.0	21.09	22.0	20.92	21.5
10	16QAM	50	0	20.48	21.0	20.54	21.5	20.64	21.5	20.42	21.0	20.46	21.0
Channel				39675	2498.5	40148	2545.8	40620	2593	41093	2640.30	41565	2687.5
Frequency (MHz)				2498.5		2545.8		2593		2640.30		2687.5	
5	QPSK	1	0	22.39	23.0	22.28	23.0	22.45	23.0	22.16	23.0	22.33	23.0
5	QPSK	1	12	22.37	23.0	22.15	23.0	22.35	23.0	22.03	23.0	22.11	23.0
5	QPSK	1	24	22.52	23.5	21.95	22.5	22.15	23.0	21.83	22.5	21.74	22.5
5	QPSK	12	0	21.47	22.0	21.28	22.0	21.43	22.0	21.16	22.0	21.35	22.0
5	QPSK	12	7	21.68	22.5	21.25	22.0	21.44	22.0	21.13	22.0	21.20	22.0
5	QPSK	12	13	21.74	22.5	21.19	22.0	21.36	22.0	21.07	22.0	20.99	21.5
5	QPSK	25	0	21.64	22.5	21.27	22.0	21.50	22.5	21.15	22.0	21.31	22.0
5	16QAM	1	0	21.37	22.0	21.38	22.0	21.54	22.5	21.26	22.0	21.54	22.5
5	16QAM	1	12	21.71	22.5	21.32	22.0	21.50	22.5	21.20	22.0	21.34	22.0
5	16QAM	1	24	21.72	22.5	21.12	22.0	21.30	22.0	21.00	22.0	20.87	21.5
5	16QAM	12	0	21.46	22.0	21.37	22.0	21.60	22.5	21.25	22.0	21.46	22.0
5	16QAM	12	7	21.51	22.5	21.26	22.0	21.44	22.0	21.14	22.0	21.22	22.0
5	16QAM	12	13	21.70	22.5	21.16	22.0	21.43	22.0	21.04	22.0	20.95	21.5
5	16QAM	25	0	20.43	21.0	20.49	21.0	20.65	21.5	20.37	21.0	20.43	21.0