



REPORT No.: SZ22120264S01

## Annex E Conducted Power

**Note:**

Conducted power unit: dBm

The target power was recorded in the manufacture document.



**Full Power for Ant0 & Ant 1 & Ant 3 & Ant 4 & Ant 5 & Ant 6**

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	128	189	251		128	189	251		
TX Channel	128	189	251		128	189	251		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	32.56	32.70	32.61	33.50	23.56	23.70	23.61	24.50	0.17
GPRS 1 Tx slot	32.58	32.73	32.66	33.50	23.58	23.73	23.66	24.50	
GPRS 2 Tx slots	30.18	30.28	30.23	31.00	24.18	24.28	24.23	25.00	0.10
GPRS 3 Tx slots	28.68	28.49	28.45	29.50	24.42	24.23	24.19	25.24	0.23
GPRS 4 Tx slots	27.65	27.75	27.59	28.50	24.65	24.75	24.59	25.50	0.16
EDGE 1 Tx slot	26.88	26.96	26.90	28.00	17.88	17.96	17.90	19.00	0.08
EDGE 2 Tx slots	25.12	25.22	25.08	26.00	19.12	19.22	19.08	20.00	0.14
EDGE 3 Tx slots	23.77	23.86	23.80	24.50	19.51	19.60	19.54	20.24	0.09
EDGE 4 Tx slots	22.62	22.68	22.56	23.50	19.62	19.68	19.56	20.50	0.12
Mode		Max.	32.73			Max.	24.75		
Attenuator	Cable Loss : 0.6								

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	512	661	810		512	661	810		
TX Channel	512	661	810		512	661	810		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	29.16	29.24	29.21	30.00	20.16	20.24	20.21	21.00	0.12
GPRS 1 Tx slot	29.18	29.28	29.24	30.00	20.18	20.28	20.24	21.00	
GPRS 2 Tx slots	27.05	27.09	26.96	28.00	21.05	21.09	20.96	22.00	0.13
GPRS 3 Tx slots	25.61	25.66	25.55	26.50	21.35	21.40	21.29	22.24	0.11
GPRS 4 Tx slots	24.56	24.73	24.66	25.50	21.56	21.73	21.66	22.50	0.17
EDGE 1 Tx slot	25.48	25.57	25.53	27.00	16.48	16.57	16.53	18.00	0.09
EDGE 2 Tx slots	23.64	23.86	23.74	24.50	17.64	17.86	17.74	18.50	0.22
EDGE 3 Tx slots	22.42	22.54	22.46	23.20	18.16	18.28	18.20	18.94	0.12
EDGE 4 Tx slots	22.09	22.32	22.22	23.20	19.09	19.32	19.22	20.20	0.23
Mode		Max.	29.28			Max.	21.73		
Attenuator	Cable Loss : 0.8								

Band	WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513		4132	4182	4233	
TX Channel	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	23.89	23.92	23.86	24.80	24.03	24.11	24.06	24.80	24.11	24.17	24.06	24.80
3GPP Rel 6 HSDPA Subtest-1	22.94	23.29	23.19	24.00	22.97	23.43	23.38	24.00	22.85	23.19	23.34	24.00
3GPP Rel 6 HSDPA Subtest-2	23.08	23.34	22.96	24.00	22.98	23.38	23.09	24.00	22.82	23.13	22.78	24.00
3GPP Rel 6 HSDPA Subtest-3	22.50	22.54	22.33	23.50	22.53	22.80	22.32	23.50	22.43	22.62	22.52	23.50
3GPP Rel 6 HSDPA Subtest-4	23.00	22.80	22.67	23.50	23.22	22.96	22.87	23.50	22.77	22.97	22.52	23.50
3GPP Rel 8 DC-HSDPA Subtest-1	23.29	23.06	22.98	24.00	23.40	23.22	22.94	24.00	23.43	23.07	22.96	24.00
3GPP Rel 8 DC-HSDPA Subtest-2	22.77	22.61	22.47	23.50	23.00	22.67	22.69	23.50	23.07	22.77	22.79	23.50
3GPP Rel 8 DC-HSDPA Subtest-3	22.66	22.35	22.20	23.00	22.33	22.36	22.06	23.00	22.37	22.33	21.92	23.00
3GPP Rel 8 DC-HSDPA Subtest-4	22.51	22.18	22.30	23.50	22.56	22.32	22.49	23.50	22.27	22.02	22.48	23.50
3GPP Rel 6 HSUPA Subtest-1	22.81	22.66	22.78	24.00	22.98	22.52	22.65	24.00	22.90	22.57	22.80	24.00
3GPP Rel 6 HSUPA Subtest-2	21.38	21.11	21.18	22.00	21.35	21.31	21.24	22.00	21.56	21.28	21.22	22.00
3GPP Rel 6 HSUPA Subtest-3	22.38	22.14	22.05	23.00	22.52	22.18	22.23	23.00	22.18	22.01	21.88	23.00
3GPP Rel 6 HSUPA Subtest-4	21.36	21.07	21.07	22.00	21.22	21.22	21.14	22.00	21.23	20.79	20.82	22.00
3GPP Rel 6 HSUPA Subtest-5	22.72	22.56	22.28	23.00	22.70	22.55	22.23	23.00	22.68	22.50	22.45	23.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	21.25	21.26	21.31	22.00	21.12	21.22	21.25	22.00	21.43	21.12	21.42	22.00
Attenuator	Cable Loss			0.8	Cable Loss			0.8	Cable Loss			0.6
Mode		Max.	23.92			Max.	24.11			Max.	24.17	





3	QPSK	15	0	22.97	23.04	22.96	23.8
3	16QAM	1	0	23.28	23.26	23.28	
3	16QAM	1	8	23.25	23.26	23.19	
3	16QAM	1	14	23.16	23.20	23.18	
3	16QAM	8	0	22.07	22.08	22.01	
3	16QAM	8	4	22.03	22.08	22.01	
3	16QAM	8	7	22.04	22.04	22.02	
3	16QAM	15	0	21.97	22.06	22.02	
3	64QAM	1	0	22.10	22.14	22.14	
3	64QAM	1	8	22.01	22.11	22.06	
3	64QAM	1	14	22.05	22.13	22.05	
3	64QAM	8	0	21.09	21.15	21.00	
3	64QAM	8	4	21.10	21.10	21.10	
3	64QAM	8	7	21.06	21.10	21.07	
3	64QAM	15	0	21.00	21.07	20.99	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.86	24.01	23.93	24.8
1.4	QPSK	1	3	23.80	23.87	23.86	
1.4	QPSK	1	5	23.77	23.88	23.86	
1.4	QPSK	3	0	23.83	23.92	23.89	
1.4	QPSK	3	1	23.95	23.98	23.88	
1.4	QPSK	3	3	23.89	23.93	23.90	
1.4	QPSK	6	0	22.97	23.07	22.99	
1.4	16QAM	1	0	23.25	23.24	23.21	23.8
1.4	16QAM	1	3	23.25	23.22	23.18	
1.4	16QAM	1	5	23.16	23.25	23.25	
1.4	16QAM	3	0	23.05	23.10	23.02	
1.4	16QAM	3	1	23.03	23.07	22.99	
1.4	16QAM	3	3	23.04	23.08	22.97	
1.4	16QAM	6	0	21.98	22.07	21.96	
1.4	64QAM	1	0	22.13	22.18	22.17	22.8
1.4	64QAM	1	3	22.05	22.09	22.06	
1.4	64QAM	1	5	22.05	22.09	22.06	
1.4	64QAM	3	0	22.14	22.08	22.01	
1.4	64QAM	3	1	22.11	22.09	22.06	
1.4	64QAM	3	3	22.04	22.05	22.03	
1.4	64QAM	6	0	20.97	21.03	20.95	

3	QPSK	15	0	22.83	22.81	22.76	23.6
3	16QAM	1	0	23.06	23.06	23.04	
3	16QAM	1	8	23.04	23.11	22.99	
3	16QAM	1	14	22.96	23.04	22.99	
3	16QAM	8	0	21.91	21.90	21.89	
3	16QAM	8	4	21.79	21.89	21.81	
3	16QAM	8	7	21.75	21.72	21.68	
3	16QAM	15	0	21.78	21.81	21.76	
3	64QAM	1	0	22.03	22.01	21.96	
3	64QAM	1	8	21.90	21.93	21.89	
3	64QAM	1	14	21.85	21.96	21.89	
3	64QAM	8	0	20.86	20.94	20.81	
3	64QAM	8	4	20.86	20.85	20.80	
3	64QAM	8	7	20.74	20.80	20.75	
3	64QAM	15	0	20.76	20.88	20.81	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	23.80	23.86	23.78	24.6
1.4	QPSK	1	3	23.68	23.70	23.70	
1.4	QPSK	1	5	23.61	23.71	23.68	
1.4	QPSK	3	0	23.69	23.78	23.72	
1.4	QPSK	3	1	23.72	23.73	23.65	
1.4	QPSK	3	3	23.53	23.58	23.59	
1.4	QPSK	6	0	22.77	22.81	22.75	
1.4	16QAM	1	0	23.10	23.08	23.03	23.6
1.4	16QAM	1	3	23.00	23.08	23.02	
1.4	16QAM	1	5	22.95	23.08	23.04	
1.4	16QAM	3	0	22.75	22.73	22.77	
1.4	16QAM	3	1	22.70	22.74	22.66	
1.4	16QAM	3	3	22.55	22.64	22.58	
1.4	16QAM	6	0	21.80	21.85	21.76	
1.4	64QAM	1	0	21.98	22.00	22.00	22.6
1.4	64QAM	1	3	21.91	21.96	21.89	
1.4	64QAM	1	5	21.92	21.93	21.91	
1.4	64QAM	3	0	21.70	21.73	21.67	
1.4	64QAM	3	1	21.65	21.70	21.65	
1.4	64QAM	3	3	21.62	21.67	21.59	
1.4	64QAM	6	0	20.78	20.82	20.80	





Band 12 (700MHz Low Band) (dBm) Part 27F(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23060	23095	23130	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	24.13	24.17	24.15	24.8
10	QPSK	1	25	24.07	24.11	24.05	
10	QPSK	1	49	24.04	24.08	24.06	
10	QPSK	25	0	23.24	23.28	23.25	23.8
10	QPSK	25	12	23.18	23.22	23.18	
10	QPSK	25	25	23.19	23.25	23.21	
10	QPSK	50	0	23.10	23.18	23.15	23.8
10	16QAM	1	0	23.46	23.52	23.47	
10	16QAM	1	25	23.46	23.50	23.47	
10	16QAM	1	49	23.41	23.48	23.45	22.8
10	16QAM	25	0	22.15	22.20	22.14	
10	16QAM	25	12	22.09	22.16	22.13	
10	16QAM	25	25	22.17	22.23	22.21	22.8
10	16QAM	50	0	22.13	22.17	22.14	
10	64QAM	1	0	22.28	22.33	22.25	
10	64QAM	1	25	22.24	22.32	22.30	21.8
10	64QAM	1	49	22.38	22.41	22.33	
10	64QAM	25	0	21.18	21.24	21.17	
10	64QAM	25	12	21.19	21.21	21.19	21.8
10	64QAM	25	25	21.16	21.17	21.09	
10	64QAM	50	0	21.15	21.23	21.18	
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	24.11	24.15	24.11	24.8
5	QPSK	1	12	24.05	24.09	23.98	
5	QPSK	1	24	23.98	24.03	24.01	
5	QPSK	12	0	23.17	23.27	23.16	23.8
5	QPSK	12	7	23.14	23.19	23.17	
5	QPSK	12	13	23.13	23.18	23.13	
5	QPSK	25	0	23.07	23.15	23.07	23.8
5	16QAM	1	0	23.41	23.44	23.39	
5	16QAM	1	12	23.42	23.49	23.43	
5	16QAM	1	24	23.37	23.45	23.39	22.8
5	16QAM	12	0	22.14	22.19	22.09	
5	16QAM	12	7	22.04	22.11	22.08	
5	16QAM	12	13	22.09	22.20	22.20	22.8
5	16QAM	25	0	22.08	22.12	22.13	
5	64QAM	1	0	22.25	22.32	22.23	
5	64QAM	1	12	22.22	22.30	22.22	21.8
5	64QAM	1	24	22.36	22.37	22.28	
5	64QAM	12	0	21.12	21.22	21.12	
5	64QAM	12	7	21.17	21.19	21.15	21.8
5	64QAM	12	13	21.10	21.13	21.02	
5	64QAM	25	0	21.12	21.18	21.14	
Channel				23025	23095	23165	
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.10	24.15	24.11	24.8
3	QPSK	1	8	24.03	24.06	23.98	
3	QPSK	1	14	23.97	24.06	24.03	
3	QPSK	8	0	23.16	23.22	23.17	23.8
3	QPSK	8	4	23.15	23.21	23.15	
3	QPSK	8	7	23.14	23.20	23.19	
3	QPSK	15	0	23.06	23.10	23.08	23.8
3	16QAM	1	0	23.35	23.46	23.41	
3	16QAM	1	8	23.40	23.44	23.44	
3	16QAM	1	14	23.40	23.47	23.37	22.8
3	16QAM	8	0	22.12	22.14	22.13	
3	16QAM	8	4	22.07	22.15	22.06	
3	16QAM	8	7	22.16	22.20	22.16	22.8
3	16QAM	15	0	22.08	22.11	22.06	
3	64QAM	1	0	22.27	22.25	22.19	
3	64QAM	1	8	22.16	22.28	22.25	22.8
3	64QAM	1	14	22.36	22.33	22.31	
3	64QAM	8	0	21.11	21.19	21.14	
3	64QAM	8	4	21.16	21.20	21.11	21.8
3	64QAM	8	7	21.10	21.11	21.08	
3	64QAM	15	0	20.69	20.79	20.73	
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.02	24.11	24.09	24.8
1.4	QPSK	1	3	23.96	24.01	23.98	
1.4	QPSK	1	5	23.97	24.00	23.99	
1.4	QPSK	3	0	24.00	24.10	23.99	23.8
1.4	QPSK	3	1	23.96	24.03	24.01	
1.4	QPSK	3	3	24.03	24.07	24.01	
1.4	QPSK	6	0	23.03	23.05	23.07	23.8
1.4	16QAM	1	0	23.35	23.43	23.39	
1.4	16QAM	1	3	23.34	23.44	23.38	
1.4	16QAM	1	5	23.29	23.35	23.33	23.8
1.4	16QAM	3	0	22.93	22.97	22.97	
1.4	16QAM	3	1	22.86	23.00	22.94	
1.4	16QAM	3	3	22.94	23.04	22.99	22.8
1.4	16QAM	6	0	22.00	22.11	22.05	
1.4	64QAM	1	0	22.16	22.25	22.19	
1.4	64QAM	1	3	22.11	22.24	22.17	22.8
1.4	64QAM	1	5	22.27	22.33	22.23	
1.4	64QAM	3	0	21.96	22.03	21.95	
1.4	64QAM	3	1	22.01	22.02	22.01	21.8
1.4	64QAM	3	3	21.95	22.00	21.93	
1.4	64QAM	6	0	20.66	20.72	20.72	

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		23.14		23.8
10	QPSK	1	25		23.12		
10	QPSK	1	49		23.08		
10	QPSK	25	0		22.20		22.8
10	QPSK	25	12		22.21		
10	QPSK	25	25		22.22		
10	QPSK	50	0		22.20		22.8
10	16QAM	1	0		22.57		
10	16QAM	1	25		22.50		
10	16QAM	1	49		22.44		21.8
10	16QAM	25	0		21.23		
10	16QAM	25	12		21.22		
10	16QAM	25	25		21.20		21.8
10	16QAM	50	0		21.17		
10	64QAM	1	0		21.37		
10	64QAM	1	25		21.41		21.8
10	64QAM	1	49		21.37		
10	64QAM	25	0		20.22		
10	64QAM	25	12		20.24		20.8
10	64QAM	25	25		20.23		
10	64QAM	50	0		20.20		
Channel				23205	23230	23255	
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.11	23.06	23.07	23.8
5	QPSK	1	12	23.07	23.11	23.08	
5	QPSK	1	24	23.07	23.07	23.07	
5	QPSK	12	0	22.18	22.13	22.13	22.8
5	QPSK	12	7	22.18	22.20	22.13	
5	QPSK	12	13	22.20	22.18	22.14	
5	QPSK	25	0	22.18	22.12	22.18	22.8
5	16QAM	1	0	22.50	22.50	22.49	
5	16QAM	1	12	22.47	22.45	22.45	
5	16QAM	1	24	22.39	22.36	22.42	21.8
5	16QAM	12	0	21.17	21.18	21.18	
5	16QAM	12	7	21.14	21.20	21.14	
5	16QAM	12	13	21.15	21.12	21.18	21.8
5	16QAM	25	0	21.09	21.12	21.09	
5	64QAM	1	0	21.34	21.35	21.35	
5	64QAM	1	12	21.39	21.33	21.39	21.8
5	64QAM	1	24	21.30	21.34	21.31	
5	64QAM	12	0	20.15	20.19	20.16	
5	64QAM	12	7	20.16	20.20	20.20	20.8
5	64QAM	12	13	20.22	20.22	20.17	
5	64QAM	25	0	20.15	20.19	20.14	



Band 17 (700MHz Band) (dBm)							
Part 27H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.15	24.17	24.13	
10	QPSK	1	25	24.13	24.14	24.12	
10	QPSK	1	49	24.04	24.12	24.11	
10	QPSK	25	0	23.24	23.27	23.22	23.8
10	QPSK	25	12	23.18	23.25	23.21	
10	QPSK	25	25	23.15	23.23	23.15	
10	QPSK	50	0	23.23	23.24	23.17	23.8
10	16QAM	1	0	23.44	23.47	23.41	
10	16QAM	1	25	23.41	23.46	23.41	
10	16QAM	1	49	23.35	23.42	23.41	22.8
10	16QAM	25	0	22.25	22.33	22.26	
10	16QAM	25	12	22.29	22.30	22.22	
10	16QAM	25	25	22.21	22.27	22.22	22.8
10	16QAM	50	0	22.23	22.25	22.18	
10	64QAM	1	0	22.35	22.38	22.33	
10	64QAM	1	25	22.32	22.35	22.32	22.8
10	64QAM	1	49	22.27	22.33	22.29	
10	64QAM	25	0	21.22	21.30	21.28	
10	64QAM	25	12	21.23	21.31	21.27	21.8
10	64QAM	25	25	21.25	21.27	21.25	
10	64QAM	50	0	21.19	21.22	21.21	
Channel				23755	23790	23825	
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.12	24.11	24.12	
5	QPSK	1	12	24.08	24.09	24.06	
5	QPSK	1	24	24.02	24.11	24.05	
5	QPSK	12	0	23.19	23.21	23.17	23.8
5	QPSK	12	7	23.16	23.19	23.13	
5	QPSK	12	13	23.09	23.17	23.12	
5	QPSK	25	0	23.20	23.17	23.10	23.8
5	16QAM	1	0	23.42	23.44	23.37	
5	16QAM	1	12	23.33	23.42	23.37	
5	16QAM	1	24	23.33	23.35	23.40	22.8
5	16QAM	12	0	22.20	22.31	22.20	
5	16QAM	12	7	22.23	22.25	22.18	
5	16QAM	12	13	22.13	22.24	22.20	22.8
5	16QAM	25	0	22.20	22.22	22.14	
5	64QAM	1	0	22.31	22.34	22.27	
5	64QAM	1	12	22.28	22.29	22.24	22.8
5	64QAM	1	24	22.23	22.28	22.28	
5	64QAM	12	0	21.21	21.29	21.23	
5	64QAM	12	7	21.16	21.23	21.24	21.8
5	64QAM	12	13	21.22	21.22	21.18	
5	64QAM	25	0	21.12	21.14	21.13	

Band 18 (835MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel					23925		
Frequency (MHz)					822.5		
15	QPSK	1	0		24.13		
15	QPSK	1	37		24.08		
15	QPSK	1	74		24.06		
15	QPSK	36	0		23.18		23.8
15	QPSK	36	20		23.15		
15	QPSK	36	39		23.20		
15	QPSK	75	0		23.17		23.8
15	16QAM	1	0		23.42		
15	16QAM	1	37		23.47		
15	16QAM	1	74		23.49		22.8
15	16QAM	36	0		22.20		
15	16QAM	36	20		22.16		
15	16QAM	36	39		22.15		22.8
15	16QAM	75	0		22.16		
15	64QAM	1	0		22.21		
15	64QAM	1	25		22.16		22.8
15	64QAM	1	49		22.13		
15	64QAM	25	0		21.18		
15	64QAM	25	12		21.22		21.8
15	64QAM	25	25		21.17		
15	64QAM	50	0		21.21		
Channel				23900	23925	23950	
Frequency (MHz)				820	822.5	825	
10	QPSK	1	0	24.05	24.10	24.05	
10	QPSK	1	25	24.01	24.02	24.03	
10	QPSK	1	49	24.01	24.03	24.00	
10	QPSK	25	0	23.11	23.12	23.10	23.8
10	QPSK	25	12	23.14	23.07	23.12	
10	QPSK	25	25	23.16	23.17	23.17	
10	QPSK	50	0	23.13	23.13	23.10	23.8
10	16QAM	1	0	23.36	23.35	23.39	
10	16QAM	1	25	23.43	23.39	23.39	
10	16QAM	1	49	23.45	23.43	23.46	22.8
10	16QAM	25	0	22.14	22.17	22.16	
10	16QAM	25	12	22.10	22.09	22.14	
10	16QAM	25	25	22.13	22.07	22.08	22.8
10	16QAM	50	0	22.13	22.15	22.13	
10	64QAM	1	0	22.18	22.18	22.14	
10	64QAM	1	25	22.12	22.13	22.10	22.8
10	64QAM	1	49	22.06	22.05	22.09	
10	64QAM	25	0	21.13	21.16	21.15	
10	64QAM	25	12	21.21	21.18	21.19	21.8
10	64QAM	25	25	21.13	21.13	21.14	
10	64QAM	50	0	21.18	21.13	21.18	
Channel				23875	23925	23975	
Frequency (MHz)				817.5	822.5	827.5	
5	QPSK	1	0	24.11	24.12	24.08	
5	QPSK	1	12	24.01	24.02	24.00	
5	QPSK	1	24	23.99	24.02	24.01	
5	QPSK	12	0	23.13	23.13	23.15	23.8
5	QPSK	12	7	23.13	23.14	23.07	
5	QPSK	12	13	23.12	23.14	23.18	
5	QPSK	25	0	23.13	23.14	23.10	23.8
5	16QAM	1	0	23.35	23.41	23.34	
5	16QAM	1	12	23.45	23.40	23.41	
5	16QAM	1	24	23.48	23.41	23.41	22.8
5	16QAM	12	0	22.12	22.18	22.12	
5	16QAM	12	7	22.13	22.09	22.15	
5	16QAM	12	13	22.08	22.08	22.10	22.8
5	16QAM	25	0	22.12	22.11	22.09	
5	64QAM	1	0	22.13	22.16	22.14	
5	64QAM	1	12	22.13	22.09	22.10	22.8
5	64QAM	1	24	22.05	22.10	22.08	
5	64QAM	12	0	21.14	21.12	21.17	
5	64QAM	12	7	21.19	21.20	21.14	21.8
5	64QAM	12	13	21.12	21.12	21.12	
5	64QAM	25	0	21.18	21.20	21.15	







3	QPSK	15	0	22.92	23.00	22.95	23.8
3	16QAM	1	0	23.24	23.29	23.25	
3	16QAM	1	8	23.20	23.25	23.21	
3	16QAM	1	14	23.11	23.19	23.16	
3	16QAM	8	0	22.01	22.06	22.01	
3	16QAM	8	4	22.02	22.01	21.95	
3	16QAM	8	7	22.02	22.04	22.02	
3	16QAM	15	0	22.00	22.06	22.00	
3	64QAM	1	0	22.11	22.16	22.15	
3	64QAM	1	8	22.03	22.11	22.08	
3	64QAM	1	14	22.10	22.11	22.04	
3	64QAM	8	0	21.16	21.19	21.13	
3	64QAM	8	4	21.09	21.11	21.07	
3	64QAM	8	7	21.12	21.10	21.07	
3	64QAM	15	0	21.00	21.07	21.08	
Channel				26947	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	23.93	23.96	23.93	24.8
1.4	QPSK	1	3	23.85	23.87	23.79	
1.4	QPSK	1	5	23.80	23.84	23.81	
1.4	QPSK	3	0	23.95	24.02	23.94	
1.4	QPSK	3	1	23.92	23.95	23.96	
1.4	QPSK	3	3	23.94	23.97	23.96	
1.4	QPSK	6	0	22.95	23.01	22.92	23.8
1.4	16QAM	1	0	23.30	23.32	23.19	22.8
1.4	16QAM	1	3	23.14	23.25	23.21	
1.4	16QAM	1	5	23.06	23.15	23.16	
1.4	16QAM	3	0	22.90	22.95	22.89	
1.4	16QAM	3	1	22.93	22.93	22.85	
1.4	16QAM	3	3	22.97	22.97	22.92	
1.4	16QAM	6	0	21.97	22.05	22.02	21.8
1.4	64QAM	1	0	22.12	22.13	22.13	22.8
1.4	64QAM	1	3	22.05	22.17	22.12	
1.4	64QAM	1	5	22.07	22.12	22.07	
1.4	64QAM	3	0	22.03	22.10	22.00	
1.4	64QAM	3	1	21.97	22.02	21.99	
1.4	64QAM	3	3	22.02	22.01	21.99	
1.4	64QAM	6	0	21.00	21.06	21.07	21.8

1.4	QPSK	6	0	23.06	23.16	23.12	23.8
1.4	16QAM	1	0	23.32	23.32	23.36	23.8
1.4	16QAM	1	3	23.38	23.39	23.35	
1.4	16QAM	1	5	23.34	23.34	23.24	
1.4	16QAM	3	0	22.97	23.08	22.95	
1.4	16QAM	3	1	22.94	23.01	22.87	
1.4	16QAM	3	3	22.99	23.05	22.94	
1.4	16QAM	6	0	22.09	22.13	22.11	22.8
1.4	64QAM	1	0	22.22	22.24	22.17	22.8
1.4	64QAM	1	3	22.25	22.29	22.18	
1.4	64QAM	1	5	22.16	22.19	22.17	
1.4	64QAM	3	0	22.01	22.01	22.05	
1.4	64QAM	3	1	21.94	22.02	21.96	
1.4	64QAM	3	3	21.90	22.01	21.94	
1.4	64QAM	6	0	21.07	21.15	21.07	21.8





3	QPSK	15	0	22.83	22.83	22.75	
3	16QAM	1	0	22.99	23.05	22.98	
3	16QAM	1	8	23.01	23.06	23.01	23.6
3	16QAM	1	14	22.94	23.04	22.93	
3	16QAM	8	0	21.79	21.83	21.77	
3	16QAM	8	4	21.70	21.73	21.72	22.6
3	16QAM	8	7	21.74	21.81	21.76	
3	16QAM	15	0	21.75	21.79	21.75	
3	64QAM	1	0	21.99	22.05	22.01	
3	64QAM	1	8	21.96	21.99	21.94	22.6
3	64QAM	1	14	21.96	22.00	21.91	
3	64QAM	8	0	20.76	20.82	20.80	
3	64QAM	8	4	20.73	20.80	20.79	21.6
3	64QAM	8	7	20.72	20.78	20.81	
3	64QAM	15	0	20.78	20.79	20.77	
Channel				131979	132322	132665	Tune-up limit
Frequency (MHz)				1710.7	1745	1779.3	(dBm)
1.4	QPSK	1	0	23.75	23.82	23.75	
1.4	QPSK	1	3	23.63	23.76	23.73	
1.4	QPSK	1	5	23.62	23.72	23.68	24.6
1.4	QPSK	3	0	23.64	23.70	23.64	
1.4	QPSK	3	1	23.68	23.74	23.69	
1.4	QPSK	3	3	23.59	23.67	23.64	
1.4	QPSK	6	0	22.82	22.84	22.73	23.6
1.4	16QAM	1	0	23.02	23.04	23.04	
1.4	16QAM	1	3	22.98	23.04	23.01	
1.4	16QAM	1	5	22.93	23.00	22.99	23.6
1.4	16QAM	3	0	22.69	22.70	22.63	
1.4	16QAM	3	1	22.58	22.65	22.60	
1.4	16QAM	3	3	22.66	22.74	22.65	
1.4	16QAM	6	0	21.75	21.82	21.74	22.6
1.4	64QAM	1	0	22.04	22.07	22.04	
1.4	64QAM	1	3	22.03	22.05	21.95	
1.4	64QAM	1	5	21.96	21.99	21.90	22.6
1.4	64QAM	3	0	21.70	21.76	21.74	
1.4	64QAM	3	1	21.66	21.76	21.69	
1.4	64QAM	3	3	21.62	21.73	21.71	
1.4	64QAM	6	0	20.76	20.82	20.74	21.6



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	23.12	23.15	23.08	23.8
20	QPSK	1	49	23.04	23.11	23.09	
20	QPSK	1	99	23.07	23.10	23.08	
20	QPSK	50	0	22.10	22.13	22.05	22.8
20	QPSK	50	24	22.23	22.25	22.22	
20	QPSK	50	50	22.16	22.21	22.19	
20	QPSK	100	0	22.15	22.20	22.13	22.8
20	16QAM	1	0	22.31	22.36	22.32	
20	16QAM	1	49	22.32	22.35	22.27	
20	16QAM	1	99	22.35	22.36	22.30	21.8
20	16QAM	50	0	21.22	21.28	21.20	
20	16QAM	50	24	21.21	21.26	21.23	
20	16QAM	50	50	21.21	21.22	21.14	21.8
20	16QAM	100	0	21.21	21.24	21.23	
20	64QAM	1	0	21.21	21.23	21.16	
20	64QAM	1	49	21.14	21.18	21.13	21.8
20	64QAM	1	99	21.12	21.17	21.13	
20	64QAM	50	0	20.18	20.22	20.14	
20	64QAM	50	24	20.20	20.25	20.18	20.8
20	64QAM	50	50	20.25	20.28	20.23	
20	64QAM	100	0	20.20	20.21	20.14	
Channel				37825	38000	38175	
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	23.06	23.12	23.01	23.8
15	QPSK	1	37	23.00	23.07	23.08	
15	QPSK	1	74	23.06	23.04	23.03	
15	QPSK	36	0	22.01	22.12	22.09	22.8
15	QPSK	36	20	22.20	22.17	22.18	
15	QPSK	36	39	22.09	22.16	22.15	
15	QPSK	75	0	22.11	22.12	22.11	22.8
15	16QAM	1	0	22.29	22.34	22.27	
15	16QAM	1	37	22.31	22.33	22.24	
15	16QAM	1	74	22.28	22.33	22.27	21.8
15	16QAM	36	0	21.17	21.27	21.17	
15	16QAM	36	20	21.18	21.21	21.20	
15	16QAM	36	39	21.20	21.14	21.13	21.8
15	16QAM	75	0	21.18	21.22	21.18	
15	64QAM	1	0	21.18	21.17	21.13	
15	64QAM	1	37	21.13	21.13	21.07	21.8
15	64QAM	1	74	21.08	21.13	21.09	
15	64QAM	36	0	20.14	20.14	20.11	
15	64QAM	36	20	20.19	20.18	20.15	20.8
15	64QAM	36	39	20.17	20.26	20.16	
15	64QAM	75	0	20.16	20.13	20.06	
Channel				37800	38000	38200	
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	23.07	23.10	23.00	23.8
10	QPSK	1	25	22.97	23.03	23.08	
10	QPSK	1	49	23.04	23.08	23.05	
10	QPSK	25	0	22.08	22.09	22.05	22.8
10	QPSK	25	12	22.17	22.17	22.18	
10	QPSK	25	25	22.12	22.16	22.18	
10	QPSK	50	0	22.14	22.14	22.09	22.8
10	16QAM	1	0	22.24	22.30	22.27	
10	16QAM	1	25	22.31	22.31	22.24	
10	16QAM	1	49	22.28	22.29	22.22	21.8
10	16QAM	25	0	21.16	21.22	21.18	
10	16QAM	25	12	21.16	21.22	21.19	
10	16QAM	25	25	21.18	21.18	21.12	21.8
10	16QAM	50	0	21.13	21.20	21.20	
10	64QAM	1	0	21.16	21.18	21.10	
10	64QAM	1	25	21.13	21.10	21.09	21.8
10	64QAM	1	49	21.07	21.16	21.05	
10	64QAM	25	0	20.12	20.20	20.07	
10	64QAM	25	12	20.19	20.23	20.15	20.8



10	64QAM	25	25	20.21	20.21	20.22	23.8
10	64QAM	50	0	20.19	20.15	20.11	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	23.08	23.13	23.05	23.8
5	QPSK	1	12	22.98	23.05	23.02	
5	QPSK	1	24	23.02	23.02	23.07	
5	QPSK	12	0	22.02	22.05	22.07	22.8
5	QPSK	12	7	22.22	22.22	22.18	
5	QPSK	12	13	22.08	22.15	22.18	
5	QPSK	25	0	22.09	22.19	22.11	
5	16QAM	1	0	22.24	22.31	22.26	22.8
5	16QAM	1	12	22.31	22.31	22.25	
5	16QAM	1	24	22.32	22.31	22.27	
5	16QAM	12	0	21.18	21.26	21.14	21.8
5	16QAM	12	7	21.19	21.18	21.17	
5	16QAM	12	13	21.13	21.17	21.06	
5	16QAM	25	0	21.20	21.21	21.15	
5	64QAM	1	0	21.19	21.18	21.08	
5	64QAM	1	12	21.08	21.12	21.09	21.8
5	64QAM	1	24	21.06	21.10	21.07	
5	64QAM	12	0	20.16	20.20	20.10	20.8
5	64QAM	12	7	20.16	20.19	20.14	
5	64QAM	12	13	20.24	20.22	20.21	
5	64QAM	25	0	20.16	20.20	20.11	







n2 (1850 ~ 1910MHz)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1850	1890	1930	
20	DFT-s-OFDM PVC BPSK	1	1	23.77	23.89	23.81	25.2
20		1	53	23.86	23.92	23.82	
20		1	104	23.61	23.74	23.76	
20		50	1	22.98	23.04	23.20	
20		50	25	23.25	23.05	23.16	
20		50	50	22.88	22.79	22.67	
20	DFT-s-OFDM QPSK	100	0	23.20	23.10	23.21	24.2
20		1	1	23.98	24.02	23.99	
20		1	53	23.91	23.97	23.93	
20		1	104	23.84	23.87	23.80	
20		50	1	23.50	23.59	23.55	
20		50	25	23.35	23.37	23.51	
20	DFT-s-OFDM 16QAM	50	50	23.12	23.39	23.40	24.2
20		100	0	23.29	23.09	23.10	
20		1	1	23.67	23.59	23.76	
20	DFT-s-OFDM 64QAM	1	1	22.19	22.25	22.30	23.2
20	DFT-s-OFDM 256QAM	1	1	19.80	19.83	19.82	20.7
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	23.96	23.85	23.87	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1890	1905	
10	DFT-s-OFDM QPSK	1	1	24.00	23.97	23.86	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1890	1907.5	
5	DFT-s-OFDM QPSK	1	1	23.95	23.92	23.94	25.2
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	CP-OFDM QPSK	1	1	23.04	22.73	22.86	23.7
20	CP-OFDM 16QAM	1	1	22.88	22.57	22.65	23.7
20	CP-OFDM 64QAM	1	1	21.55	21.34	21.52	22.7
20	CP-OFDM 256QAM	1	1	17.73	17.83	17.84	18.7

n5 (824 ~ 849 MHz)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				166500	167300	167800	
Frequency (MHz)				824	836.5	839	
20	DFT-s-OFDM PVC BPSK	1	1	23.98	23.98	23.91	25.2
20		1	53	23.95	24.02	24.01	
20		1	104	24.00	24.02	23.92	
20		50	1	23.43	23.49	23.49	
20		50	25	23.48	23.52	23.48	
20		50	50	23.47	23.51	23.43	
20	DFT-s-OFDM QPSK	100	0	23.45	23.48	23.48	24.2
20		1	1	24.02	24.05	23.92	
20		1	53	24.01	24.03	23.97	
20		1	104	23.95	23.98	23.91	
20		50	1	23.41	23.52	23.44	
20		50	25	23.45	23.49	23.45	
20	DFT-s-OFDM 16QAM	50	50	23.47	23.49	23.52	24.2
20		100	0	23.44	23.54	23.50	
20		1	1	23.48	23.44	23.54	
20	DFT-s-OFDM 64QAM	1	1	22.25	22.25	21.97	23.2
20	DFT-s-OFDM 256QAM	1	1	19.56	19.52	19.63	20.7
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	DFT-s-OFDM QPSK	1	1	23.94	24.01	23.87	25.2
Channel				166800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	DFT-s-OFDM QPSK	1	1	23.85	23.90	23.82	25.2
Channel				166300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	DFT-s-OFDM QPSK	1	1	23.86	23.96	23.94	25.2
Channel				166800	167300	167800	Tune-up limit (dBm)
Frequency (MHz)				834	836.5	839	
20	CP-OFDM QPSK	1	1	22.85	23.05	23.03	23.7
20	CP-OFDM 16QAM	1	1	22.45	22.56	22.52	23.2
20	CP-OFDM 64QAM	1	1	21.38	21.44	21.40	22.2
20	CP-OFDM 256QAM	1	1	17.55	17.96	17.65	18.2





n12 (699 ~ 716 MHz)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				141300	141500	141700	
Frequency (MHz)				706.5	707.5	708.5	
15	DFT-s-OFDM PVC BPSK	1	1	23.96	23.98	23.93	25.2
15		36	39	23.88	23.90	23.86	
15		1	77	23.83	23.87	23.85	
15		36	1	23.43	23.44	23.40	
15		36	18	23.41	23.42	23.35	
15		36	36	23.35	23.38	23.29	
15	DFT-s-OFDM QPSK	75	0	23.34	23.40	23.35	24.2
15		1	1	23.00	24.04	24.01	
15		1	39	23.97	23.99	23.91	
15		1	77	23.95	24.01	23.98	
15		36	1	23.39	23.45	23.40	
15		36	18	23.38	23.40	23.36	
15	36	36	23.24	23.36	23.25	24.2	
15	75	0	23.39	23.41	23.40		
15	DFT-s-OFDM 16QAM	1	1	23.55	23.56	23.52	24.2
15	DFT-s-OFDM 64QAM	1	1	22.06	22.05	22.04	23.2
15	DFT-s-OFDM 256QAM	1	1	19.71	19.71	19.63	20.7
Channel				140900	141500	142200	
Frequency (MHz)				704	707.5	711	
10	DFT-s-OFDM QPSK	1	1	23.85	23.91	23.82	25.2
Channel				140500	141500	142700	
Frequency (MHz)				701.5	707.5	713.5	
5	DFT-s-OFDM QPSK	1	1	23.90	23.95	23.89	25.2
Channel				141500	141500	141700	
Frequency (MHz)				706.5	707.5	708.5	
15	CP-OFDM QPSK	1	1	22.94	23.02	22.83	23.7
15	CP-OFDM 16QAM	1	1	22.41	22.55	22.52	23.2
15	CP-OFDM 64QAM	1	1	20.96	21.34	21.28	21.7
15	CP-OFDM 256QAM	1	1	17.73	17.71	17.78	18.7

n25							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	376500	379000	
Frequency (MHz)				1870	1882.5	1905	
40	DFT-s-OFDM PVC BPSK	1	1	23.99	24.05	24.02	25.2
40		53	53	23.91	24.00	24.01	
40		1	105	23.95	24.04	23.97	
40		50	1	23.15	23.07	23.21	
40		50	25	23.11	23.08	23.26	
40		50	50	23.04	23.09	23.31	
40	DFT-s-OFDM QPSK	100	0	23.13	23.06	23.28	24.2
40		1	1	23.08	24.07	24.03	
40		1	53	23.69	24.01	24.00	
40		1	105	23.98	24.04	24.01	
40		50	1	23.15	23.20	23.17	
40		50	25	23.12	23.16	23.12	
40	50	50	23.07	23.12	23.10	24.2	
40	100	0	23.11	23.12	23.08		
40	DFT-s-OFDM 16QAM	1	1	23.24	23.45	23.25	24.2
40	DFT-s-OFDM 64QAM	1	1	21.88	21.93	21.89	23.2
40	DFT-s-OFDM 256QAM	1	1	19.46	19.50	19.44	20.7
Channel				373000	376500	380000	
Frequency (MHz)				1865	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	23.95	24.01	23.73	25.2
Channel				372000	376500	381000	
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	24.01	24.02	24.00	25.2
Channel				371500	376500	381500	
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	23.83	23.97	23.79	25.2
Channel				371000	376500	382000	
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	23.82	23.96	23.95	25.2
Channel				370500	376500	382500	
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	23.82	23.85	23.77	25.2
Channel				374000	376500	379000	
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	22.58	22.70	22.74	23.7
40	CP-OFDM 16QAM	1	1	22.28	22.16	22.27	22.7
40	CP-OFDM 64QAM	1	1	20.66	20.92	20.78	21.7
40	CP-OFDM 256QAM	1	1	17.45	17.40	17.46	18.2



n66 (1710 ~ 1780 MHz)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				346000	349000	352000	
Frequency (MHz)				1725	1745	1765	
40	DFT-s-OFDM PVC BPSK	1	1	24.11	24.18	24.01	25.2
40		53	53	24.10	24.15	24.14	
40		1	104	24.07	24.10	24.05	
40		53	1	23.16	23.41	23.35	
40		53	26	23.35	23.48	23.28	
40		53	52	23.34	23.48	23.29	
40	DFT-s-OFDM QPSK	106	0	23.33	23.41	23.35	24.2
40		1	1	24.21	24.22	24.21	
40		1	53	24.19	24.22	24.21	
40		1	104	24.21	24.26	24.17	
40		53	1	23.34	23.49	23.46	
40		53	26	23.43	23.52	23.44	
40	DFT-s-OFDM 16QAM	53	52	23.45	23.48	23.45	24.2
40		106	0	22.97	23.29	23.25	
40		1	1	23.23	23.27	23.29	
40	DFT-s-OFDM 64QAM	1	1	21.96	22.00	21.97	23.2
40	DFT-s-OFDM 256QAM	1	1	19.43	19.59	19.51	20.7
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	24.26	24.15	24.18	25.2
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	24.11	24.19	24.05	25.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	24.03	24.24	23.96	25.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	24.19	24.02	23.97	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	23.33	23.25	23.47	25.2
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1760	
40	CP-OFDM QPSK	1	1	22.76	22.74	22.63	23.7
40	CP-OFDM 16QAM	1	1	22.25	22.29	21.99	22.7
40	CP-OFDM 64QAM	1	1	20.95	20.88	20.78	21.7
40	CP-OFDM 256QAM	1	1	17.47	17.55	17.62	18.2

n71 (663 ~ 698 MHz)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				134600	136100	137600	
Frequency (MHz)				673	680.5	688	
20	DFT-s-OFDM PVC BPSK	1	1	24.19	24.25	24.22	25.2
20		53	53	24.10	24.11	24.07	
20		1	104	24.11	23.93	23.89	
20		50	1	23.31	23.54	23.40	
20		50	25	23.61	23.43	23.36	
20		50	50	23.52	23.32	23.27	
20	DFT-s-OFDM QPSK	100	0	23.63	23.47	23.10	24.2
20		1	1	24.25	24.28	24.22	
20		1	53	24.13	24.24	24.16	
20		1	104	23.85	24.06	23.97	
20		50	1	23.56	23.60	23.52	
20		50	25	23.59	23.47	23.37	
20	DFT-s-OFDM 16QAM	50	50	23.51	23.58	23.27	24.2
20		100	0	23.53	23.55	23.40	
20		1	1	23.92	23.63	23.65	
20	DFT-s-OFDM 64QAM	1	1	22.34	22.27	22.18	23.2
20	DFT-s-OFDM 256QAM	1	1	19.73	19.77	19.77	20.7
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	DFT-s-OFDM QPSK	1	1	23.97	24.02	23.94	25.2
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	DFT-s-OFDM QPSK	1	1	23.89	23.99	23.88	25.2
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	DFT-s-OFDM QPSK	1	1	23.75	23.88	23.76	25.2
Channel				134600	139100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	CP-OFDM QPSK	1	1	23.34	23.05	23.13	23.7
20	CP-OFDM 16QAM	1	1	22.82	22.85	22.62	23.2
20	CP-OFDM 64QAM	1	1	21.58	21.57	21.41	22.2
20	CP-OFDM 256QAM	1	1	17.84	17.96	17.81	18.7



n41 (2496 ~ 2690MHz) (PC2)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	LowMiddle Channel	Midde Channel	MiddleHigh Channel	High Channel		Tune-up limit (dBm)
Channel										
Frequency (MHz)										
100	1	1	1	2548.01	2593.50	2639.00	2684.50	2730.00		
100	1	136		25.48	25.50	25.72	25.60	25.83		26.8
100	1	272		25.45	25.52	25.68	25.51	25.58		
100	135	1		25.00	25.16	25.22	25.10	25.08		
100	135	87		25.20	25.17	25.20	25.04	25.13		26.8
100	135	158		25.28	25.37	25.31	25.31	25.24		
100	270	0		25.22	25.30	25.28	25.14	25.22		
100	1	1		25.76	25.66	25.60	25.68	25.63		
100	1	136		25.58	25.51	25.76	25.62	25.80		26.8
100	1	272		25.68	25.85	25.76	25.85	25.73		
100	135	1		24.86	25.14	25.24	25.10	25.12		
100	135	87		24.97	25.21	25.19	25.04	25.05		26.8
100	135	158		24.83	24.87	24.77	24.81	24.73		
100	270	0		24.87	24.82	24.76	24.67	24.71		
100	1	1		24.87	25.81	25.02	25.09	25.10		26.8
100	DFT-s-OFDM 1024AM	1	1	23.39	23.59	23.66	23.63	23.60		24.5
100	DFT-s-OFDM 840AM	1	1	23.39	23.59	23.66	23.63	23.60		24.5
100	DFT-s-OFDM 550AM	1	1	21.22	21.32	21.33	21.43	21.43		22.3
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	25.25	25.54	25.6	25.6	25.67		26.8
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	26.00	26.56	26.59	26.52	26.63		26.8
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	25.14	25.45	25.62	25.43	25.49		26.8
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	25.17	25.04	25.14	25.07	25.10		26.8
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	25.73	25.88	25.76	25.88	25.89		26.8
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	26.01	25.50	25.62	25.50	25.60		26.8
Channel										
Frequency (MHz)										
30	DFT-s-OFDM QPSK	1	1	25.80	25.49	25.65	25.63	25.74		26.8
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	25.62	25.71	25.86	25.81	25.83		26.8
Channel										
Frequency (MHz)										
100	CP-OFDM	1	1	23.99	24.09	24.43	24.33	24.13		25.3
100	CP-OFDM	1	1	23.41	23.73	23.76	23.68	23.65		25.3
100	CP-OFDM	1	1	22.06	22.46	22.46	22.45	22.83		23.8
100	CP-OFDM	1	1	18.73	19.14	19.14	19.16	19.11		19.8

n41 (2496 ~ 2690MHz) (PC3)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	LowMiddle Channel	Midde Channel	MiddleHigh Channel	High Channel		Tune-up limit (dBm)
Channel										
Frequency (MHz)										
100	1	1	1	23.12	23.11	23.27	23.19	23.15		
100	1	136		23.08	23.08	23.18	23.06	23.02		24.2
100	1	272		23.17	23.18	23.23	23.15	23.19		
100	135	1		22.16	22.16	22.17	22.14	22.04		
100	135	87		22.29	22.28	22.29	22.09	22.11		23.2
100	135	158		22.12	22.37	22.34	22.32	22.37		
100	270	0		22.24	22.26	22.37	22.19	22.18		
100	1	1		23.17	23.20	23.30	23.26	23.34		
100	1	136		23.20	23.15	23.17	23.13	23.02		24.2
100	1	272		23.13	23.17	23.25	23.21	23.21		
100	135	1		22.16	22.14	22.16	22.08	22.09		
100	135	87		22.04	22.08	22.16	22.05	22.07		23.2
100	135	158		21.86	22.07	22.15	22.06	22.01		
100	270	0		22.06	22.07	22.11	22.04	22.03		
100	DFT-s-OFDM 1024AM	1	1	22.19	22.04	22.27	22.24	22.18		23.2
100	DFT-s-OFDM 840AM	1	1	22.07	22.06	22.09	21.94	22.00		23.2
100	DFT-s-OFDM 550AM	1	1	20.08	20.23	20.26	20.13	19.97		21.2
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	23.16	23.15	23.24	23.06	22.97		24.2
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	23.28	23.10	23.21	23.03	23.00		24.2
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	23.18	23.13	23.22	23.05	23.01		24.8
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	23.19	23.25	23.17	23.13	23.03		24.2
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	23.25	23.3	23.31	23.28	23.14		24.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	23.21	23.23	23.29	23.16	23.11		24.8
Channel										
Frequency (MHz)										
30	DFT-s-OFDM QPSK	1	1	23.20	23.23	23.29	23.23	23.26		24.8
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	23.29	23.25	23.25	23.13	23.02		24.8
Channel										
Frequency (MHz)										
100	CP-OFDM	1	1	22.23	22.14	21.93	22.00	21.92		22.7
100	CP-OFDM	1	1	22.34	22.16	22.03	21.89	21.64		22.7
100	CP-OFDM	1	1	21.55	21.77	21.70	21.62	21.30		22
100	CP-OFDM	1	1	18.15	18.52	18.26	18.18	17.87		18.7



n77 (3450 MHz ~ 3550 MHz) (PC2)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	1	1			24.53	24.53				
100	1	136			25.48	25.48			26.7	
100	1	271			25.41	25.41				
100	DFT-s-OFDM P2-BPSK	135	1		24.75	24.75				
100		135	67		24.73	24.73				
100		135	136		24.68	24.68			25.7	
100		270	0		24.62	24.62				
100	1	1			25.75	25.75				
100	1	136			25.68	25.68			26.7	
100		1	271		25.56	25.56				
100	DFT-s-OFDM QPSK	135	1		24.89	24.89				
100		135	67		24.86	24.86				
100		135	136		24.76	24.76			25.7	
100		270	0		24.69	24.69				
100	DFT-s-OFDM 16QAM	1	1		24.42	24.42			25.7	
100	DFT-s-OFDM 64QAM	1	1		23.38	23.38			24.7	
100	DFT-s-OFDM 256QAM	1	1		20.67	20.67			21.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P2-BPSK	1	1		25.70	25.73	25.66	25.65	25.61	26.7
Channel										
Frequency (MHz)										
85	DFT-s-OFDM P2-BPSK	1	1		25.02	25.03	25.01	25.04	25.05	26.7
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2-BPSK	1	1		25.56	25.61	25.68	25.64	25.61	26.7
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2-BPSK	1	1		25.69	25.69	25.69	25.70	25.63	26.7
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2-BPSK	1	1		25.80	25.81	25.72	25.70	25.58	25.7
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2-BPSK	1	1		25.84	25.71	25.71	25.63	25.49	25.7
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2-BPSK	1	1		25.66	25.71	25.66	25.67	25.58	26.7
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2-BPSK	1	1		25.68	25.71	25.69	25.59	25.50	26.7
Channel										
Frequency (MHz)										
100	CP-OFDM BPSK	1	1					23.83		24.7
100	CP-OFDM 16QAM	1	1					23.39		24.7
100	CP-OFDM 64QAM	1	1					22.04		22.7
100	CP-OFDM 256QAM	1	1					18.75		18.7

n77 (3450 MHz ~ 3550 MHz) (PC3)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	1	1				3500.01				
100	1	136				23.23				
100	1	271				23.28			24.2	
100	DFT-s-OFDM P2-BPSK	135	1			22.29				
100		135	67			22.18				23.2
100		135	136			22.11				
100		270	0			22.04				
100	1	1				23.38				24.2
100	1	136				23.30				
100		1	271			23.28				
100	DFT-s-OFDM QPSK	135	1			22.22				23.2
100		135	67			22.16				
100		135	136			22.10				
100		270	0			22.19				
100	DFT-s-OFDM 16QAM	1	1			22.22				23.2
100	DFT-s-OFDM 64QAM	1	1			22.25				22.2
100	DFT-s-OFDM 256QAM	1	1			20.38				21.7
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P2-BPSK	1	1		23.25	23.32	23.29	23.34	23.28	24.2
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2-BPSK	1	1		23.30	23.34	23.38	23.20	23.15	24.2
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2-BPSK	1	1		23.23	23.20	23.32	23.28	23.13	24.2
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2-BPSK	1	1		23.17	23.21	23.28	23.21	23.10	24.2
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2-BPSK	1	1		23.28	23.24	23.35	23.22	23.05	24.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2-BPSK	1	1		23.29	23.28	23.33	23.13	23.26	24.2
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2-BPSK	1	1		23.25	23.22	23.27	23.23	23.15	24.2
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2-BPSK	1	1		23.27	23.18	23.30	23.25	23.11	24.2
Channel										
Frequency (MHz)										
100	CP-OFDM BPSK	1	1					22.00		22.7
100	CP-OFDM 16QAM	1	1					21.35		22.7
100	CP-OFDM 64QAM	1	1					19.90		20.7
100	CP-OFDM 256QAM	1	1					18.01		18.7



n77 (3700 MHz ~ 3980 MHz) (PC2)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1	1	3700	3795	3840	3905			
100	1	136	1	25.68	25.63	25.66	25.70	25.60	26.7	
100	1	271	1	25.66	25.49	25.69	25.49	25.56		
100	135	1	1	24.63	24.67	24.69	24.61	24.62		
100	135	63	1	24.60	24.66	24.67	24.63	24.62		
100	135	136	1	24.62	24.45	24.41	24.38	24.38	25.7	
100	270	0	1	24.62	24.51	24.47	24.55	24.44		
100	1	1	1	25.78	25.71	25.68	25.75	25.80		
100	1	136	1	25.70	25.70	25.82	25.71	25.67	26.7	
100	1	271	1	25.74	25.95	25.80	25.63	25.56		
100	135	1	1	24.65	24.61	24.75	24.73	24.68		
100	135	63	1	24.64	24.65	24.72	24.70	24.61		
100	135	136	1	24.43	24.60	24.51	24.48	24.40	25.7	
100	270	0	1	24.46	24.38	24.57	24.45	24.51		
100	1	1	1	23.80	23.97	24.05	24.03	24.06	24.7	
100	135	1	1	22.46	22.51	22.63	22.55	22.58	23.7	
100	135	136	1	20.28	20.20	20.32	20.30	20.25	21.2	
Channel										
Frequency (MHz)										
90	1	1	1	35.55	35.58	35.69	35.67	35.63	26.7	
Channel										
Frequency (MHz)										
85	1	1	1	3740.01	3790.02	3840	3898.98	3939.99		
Channel										
Frequency (MHz)										
70	1	1	1	3700	3787.5	3840	3902.5	3945	26.7	
Channel										
Frequency (MHz)										
80	1	1	1	3700.02	3761.51	3840	3904.99	3949.98		
Channel										
Frequency (MHz)										
50	1	1	1	3725.01	3782.52	3840	3904.99	3954.98	26.7	
Channel										
Frequency (MHz)										
40	1	1	1	3700	3760	3840	3900	3960	25.7	
Channel										
Frequency (MHz)										
30	1	1	1	3715.02	3777.51	3840	3902.49	3954.98	26.7	
Channel										
Frequency (MHz)										
20	1	1	1	3710.01	3775.02	3840	3904.98	3959.99	26.7	
Channel										
Frequency (MHz)										
100	1	1	1	3700	3795	3840	3905	3920	24.7	
100	1	1	1	23.47	23.59	23.82	23.60	23.52	24.7	
100	1	1	1	23.20	23.28	23.29	23.35	23.30	24.7	
100	1	1	1	21.42	21.55	21.42	21.81	21.60	22.7	
100	1	1	1	17.90	18.16	18.03	18.36	18.25	19.7	

n77 (3700 MHz ~ 3980 MHz) (PC3)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1	1	3700	3795	3840	3905			
100	1	136	1	23.22	23.19	23.26	23.18	23.17	24.2	
100	1	271	1	23.18	23.16	23.15	23.17	23.13		
100	135	1	1	22.33	22.31	22.46	22.30	22.43		
100	135	63	1	22.43	22.45	22.61	22.40	22.48		
100	135	136	1	22.31	22.01	22.37	22.00	22.44	23.2	
100	270	0	1	22.45	22.41	22.36	22.38	22.49		
100	1	1	1	23.29	23.26	23.31	23.25	23.22		
100	1	136	1	23.05	23.18	23.20	23.18	23.15	24.2	
100	1	271	1	23.18	23.27	23.06	23.11	23.01		
100	135	1	1	22.32	22.29	22.42	22.29	22.38		
100	135	63	1	22.41	22.40	22.40	22.40	22.40		
100	135	136	1	22.43	22.52	22.33	22.48	22.42	23.2	
100	270	0	1	22.38	22.40	22.47	22.43	22.42		
100	1	1	1	22.40	22.14	22.37	22.42	22.41	23.2	
100	135	1	1	21.34	21.16	21.38	21.53	21.46	22.2	
100	135	136	1	20.46	20.26	20.38	20.41	20.45	21.2	
Channel										
Frequency (MHz)										
90	1	1	1	3744.99	3792.51	3840	3897.49	3934.98		
Channel										
Frequency (MHz)										
80	1	1	1	3700	3787.5	3840	3902.5	3945	24.2	
Channel										
Frequency (MHz)										
70	1	1	1	3700	3787.5	3840	3902.5	3945	24.2	
Channel										
Frequency (MHz)										
60	1	1	1	3700.02	3761.51	3840	3904.99	3949.98	24.2	
Channel										
Frequency (MHz)										
50	1	1	1	3725.01	3782.52	3840	3904.99	3954.98	23.2	
Channel										
Frequency (MHz)										
40	1	1	1	3700	3760	3840	3900	3960	23.2	
Channel										
Frequency (MHz)										
30	1	1	1	3715.02	3777.51	3840	3902.49	3954.98	24.2	
Channel										
Frequency (MHz)										
20	1	1	1	3710.01	3775.02	3840	3904.98	3959.99	24.2	
Channel										
Frequency (MHz)										
100	1	1	1	3700	3795	3840	3905	3920	22.7	
100	1	1	1	21.71	21.58	21.77	21.69	21.67	22.7	
100	1	1	1	21.74	21.58	21.71	21.70	21.68	22.7	
100	1	1	1	20.84	20.82	20.75	20.85	20.99	21.7	
100	1	1	1	18.45	18.42	18.50	18.50	18.42	19.7	



n78 (3450 MHz ~ 3550 MHz) (PC2)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel			Tune-up limit (dBm)
Channel										
Frequency (MHz)										
100		1	1		3300.01					
100		1	136		25.44					26.7
100		1	271		25.47					
100	DFT-s-OFDM P1/2 BPSK	135	1		24.74					
100		135	67		24.63					
100		135	136		24.58					25.7
100		270	0		24.50					
100		1	1		25.77					
100		1	136		25.74					26.7
100		1	271		25.73					
100	DFT-s-OFDM QPSK	135	1		24.96					
100		135	67		24.76					
100		135	136		24.72					25.7
100		270	0		24.68					
100	DFT-s-OFDM 16QAM	1	1		24.75					25.7
100	DFT-s-OFDM 64QAM	1	1		23.92					24.7
100	DFT-s-OFDM 256QAM	1	1		20.90					21.7
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1		3462	3497.52	3500.01	3522.5	3524.99	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1		3300.02	3495	3500.01	3504.99	3510	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1		25.63	25.56	25.75	25.71	25.75	26.7
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P1/2 BPSK	1	1		3300.01	3492.51	3500.01	3522.5	3524.99	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P1/2 BPSK	1	1		25.67	25.81	25.59	25.68	25.65	26.7
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1/2 BPSK	1	1		3475.02	3487.5	3500.01	3510	3520	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1/2 BPSK	1	1		25.89	25.76	25.68	25.79	25.71	26.7
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P1/2 BPSK	1	1		3300.01	3492.51	3500.01	3522.5	3524.99	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1/2 BPSK	1	1		25.81	25.89	25.96	25.85	25.88	26.7
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P1/2 BPSK	1	1		3300.01	3492.51	3500.01	3522.5	3524.99	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1				3500.01			24.7
100	CP-OFDM 16QAM	1	1				23.74			24.7
100	CP-OFDM 64QAM	1	1				22.02			22.7
100	CP-OFDM 256QAM	1	1				18.89			19.7

n78 (3450 MHz ~ 3550 MHz) (PC3)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel			Tune-up limit (dBm)
Channel										
Frequency (MHz)										
100		1	1		3300.01					
100		1	136		23.76					24.2
100		1	271		23.09					
100	DFT-s-OFDM P1/2 BPSK	135	1		22.22					
100		135	67		22.18					
100		135	136		22.28					23.2
100		270	0		22.26					
100		1	1		23.34					
100		1	136		23.25					24.2
100		1	271		23.13					
100	DFT-s-OFDM QPSK	135	1		22.23					
100		135	67		22.19					
100		135	136		22.18					23.2
100		270	0		22.23					
100	DFT-s-OFDM 16QAM	1	1		22.35					23.2
100	DFT-s-OFDM 64QAM	1	1		22.90					22.2
100	DFT-s-OFDM 256QAM	1	1		20.52					21.2
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1		3311	3339	3339	3337	3337	24.2
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1		3490.02	3495	3500.01	3504.99	3510	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1		23.17	23.09	23.12	23.07	23.02	24.2
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P1/2 BPSK	1	1		3300.01	3492.51	3500.01	3522.5	3524.99	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P1/2 BPSK	1	1		23.17	23.16	23.15	23.08	23.00	24.2
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1/2 BPSK	1	1		3475.02	3487.5	3500.01	3510	3520	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1/2 BPSK	1	1		23.14	23.03	23.09	22.99	22.92	24.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P1/2 BPSK	1	1		3300.01	3492.51	3500.01	3522.5	3524.99	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1/2 BPSK	1	1		23.24	23.31	23.23	23.28	23.17	24.2
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1/2 BPSK	1	1		3300.01	3492.51	3500.01	3522.5	3524.99	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P1/2 BPSK	1	1		23.30	23.13	23.25	23.06	23.05	24.2
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1				3500.01			22.7
100	CP-OFDM 16QAM	1	1				21.68			22.7
100	CP-OFDM 64QAM	1	1				20.91			21.7
100	CP-OFDM 256QAM	1	1				17.90			18.7



n78 (3700 MHz ~ 3800 MHz) (PC2)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Moderate/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100		1	1		3740.00	3750				26.7
100		1	136		25.06					
100		1	271		25.54					
100	DFT-s-OFDM P/LD BPSK	135	1		24.98					
100		135	67		24.52					
100		135	136		24.05					25.7
100		270	0		24.51					
100		1	136		25.06					26.7
100		1	271		25.55					
100	DFT-s-OFDM QPSK	135	1		24.91					
100		135	67		24.76					
100		135	136		24.59					25.7
100		270	0		24.55					
100	DFT-s-OFDM 16QAM	1	1		24.94					25.7
100	DFT-s-OFDM 64QAM	1	1		22.86					23.7
100	DFT-s-OFDM 256QAM	1	1		20.41					21.7
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1		64966	64968	65000	65096	65092	Tune-up limit (dBm)
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1		3740.01	3745.02	3750	3754.98	3759.99	Tune-up limit (dBm)
Channel										
Frequency (MHz)										
85	DFT-s-OFDM QPSK	1	1		25.47	25.52	25.57	25.62	25.69	26.7
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1		64900	64906	65000	65096	65100	Tune-up limit (dBm)
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1		25.47	25.41	25.64	25.65	25.61	26.7
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1		64968	64934	65000	65096	65132	Tune-up limit (dBm)
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1		25.61	25.58	25.51	25.59	25.80	26.7
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1		64934	64906	65000	65096	65196	Tune-up limit (dBm)
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1		25.59	25.80	25.64	25.48	25.51	26.7
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1		64800	64800	65000	65100	65200	Tune-up limit (dBm)
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1		25.58	25.50	25.53	25.59	25.42	26.7
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1		64734	64800	65000	65132	65296	Tune-up limit (dBm)
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1		25.50	25.53	25.47	25.50	25.55	26.7
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1			3750				24.7
100	CP-OFDM QPSK	1	1			23.32				24.7
100	CP-OFDM 16QAM	1	1			21.52				22.7
100	CP-OFDM 256QAM	1	1			18.20				19.7

n78 (3700 MHz ~ 3800 MHz) (PC3)											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Moderate/High Channel	High Channel	Tune-up limit (dBm)		
Channel											
Frequency (MHz)											
100		1	1		3740					24.2	
100		1	136		23.19						
100		1	271		23.08						
100	DFT-s-OFDM P/LD BPSK	135	1		22.23					23.2	
100		135	67		22.19						
100		135	136		22.22						
100		270	0		22.12						
100		1	136		23.26					24.2	
100		1	271		23.16						
100	DFT-s-OFDM QPSK	135	1		22.24					23.2	
100		135	67		22.22						
100		135	136		22.23					23.2	
100		270	0		22.07						
100	DFT-s-OFDM 16QAM	1	1		22.16					23.2	
100	DFT-s-OFDM 64QAM	1	1		22.10					23.2	
100	DFT-s-OFDM 256QAM	1	1		20.12					21.2	
Channel											
Frequency (MHz)											
90	DFT-s-OFDM QPSK	1	1		64968	64934	65000	65096	65196	65232	Tune-up limit (dBm)
Channel											
Frequency (MHz)											
90	DFT-s-OFDM QPSK	1	1		3740.01	3745.02	3750	3754.98	3759.99	3764.98	Tune-up limit (dBm)
Channel											
Frequency (MHz)											
80	DFT-s-OFDM QPSK	1	1		22.86	23.02	23.05	23.07	23.14	24.2	
Channel											
Frequency (MHz)											
70	DFT-s-OFDM QPSK	1	1		64900	64906	65000	65096	65100	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
70	DFT-s-OFDM QPSK	1	1		23.08	23.14	23.10	23.14	23.11	24.2	
Channel											
Frequency (MHz)											
80	DFT-s-OFDM QPSK	1	1		64968	64934	65000	65096	65132	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
80	DFT-s-OFDM QPSK	1	1		23.14	23.21	23.18	23.12	23.20	24.2	
Channel											
Frequency (MHz)											
90	DFT-s-OFDM QPSK	1	1		64934	64906	65000	65096	65196	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
90	DFT-s-OFDM QPSK	1	1		23.20	23.07	23.17	23.09	23.13	24.7	
Channel											
Frequency (MHz)											
40	DFT-s-OFDM QPSK	1	1		64800	64800	65000	65100	65200	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
40	DFT-s-OFDM QPSK	1	1		23.01	23.06	23.20	23.22	23.12	24.7	
Channel											
Frequency (MHz)											
20	DFT-s-OFDM QPSK	1	1		64734	64800	65000	65132	65296	Tune-up limit (dBm)	
Channel											
Frequency (MHz)											
20	DFT-s-OFDM QPSK	1	1		23.13	23.09	23.19	23.11	23.16	24.7	
Channel											
Frequency (MHz)											
100	CP-OFDM QPSK	1	1			3750				22.7	
100	CP-OFDM 16QAM	1	1			22.04				22.7	
100	CP-OFDM 64QAM	1	1			21.27				21.7	
100	CP-OFDM 256QAM	1	1			18.15				18.7	



CA_41C-PC3 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	22.33	23.50
40620	40521	40719	QPSK	1	0	0	0	1	0	22.63	23.50
41490	41292	41490	QPSK	1	0	0	0	1	0	22.55	23.50
39750	39750	39948	16QAM	1	0	0	0	1	0	21.57	22.00
40620	40521	40719	16QAM	1	0	0	0	1	0	21.89	22.00
41490	41292	41490	16QAM	1	0	0	0	1	0	21.84	22.00
39750	39750	39948	64QAM	1	0	0	0	1	0	20.13	21.00
40620	40521	40719	64QAM	1	0	0	0	1	0	20.45	21.00
41490	41292	41490	64QAM	1	0	0	0	1	0	20.33	21.00
39750	39750	39948	QPSK	50	0	0	0	1	0	21.22	22.00
40620	40521	40719	QPSK	50	0	0	0	1	0	21.53	22.00
41490	41292	41490	QPSK	50	0	0	0	1	0	21.29	22.00

CA_48C Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
55340	55340	55538	QPSK	1	0	0	0	1	0	22.56	23.50
55990	55891	56089	QPSK	1	0	0	0	1	0	22.72	23.50
56640	56442	56640	QPSK	1	0	0	0	1	0	22.48	23.50
55340	55340	55538	16QAM	1	0	0	0	1	0	21.99	23.00
55990	55891	56089	16QAM	1	0	0	0	1	0	22.12	23.00
56640	56442	56640	16QAM	1	0	0	0	1	0	21.94	23.00
55340	55340	55538	64QAM	1	0	0	0	1	0	20.81	21.50
55990	55891	56089	64QAM	1	0	0	0	1	0	20.88	21.50
56640	56442	56640	64QAM	1	0	0	0	1	0	20.79	21.50
55340	55340	55538	QPSK	50	0	0	0	1	0	21.75	22.50
55990	55891	56089	QPSK	50	0	0	0	1	0	21.82	22.50
56640	56442	56640	QPSK	50	0	0	0	1	0	21.72	22.50





2CC LTE Uplink											
Configure	CA Configuration	PCC					SCC				Power
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Measured Power(dBm)
inter-band	CA_2A-12A	4	20	19100	1900	QPSK/1#0	12	10	23095	707.5	23.25
	CA_12A-66A	12	10	23095	707.5	QPSK/1#0	66	20	132322	1745	23.88



2CC LTE Downlink											
Configure	CA Configuration	PCC					SCC				Power
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	DL Channel	DL Fre. (MHz)	
Intra-band & inter-band	CA_2C	2	20	18902	1880.2	QPSK/1#0	2	20	19100	1900	23.21
	CA_2A-2A	2	20	18700	1860	QPSK/1#0	2	20	19100	1900	23.18
	CA_2A-13A	2	20	18700	1860	QPSK/1#0	13	10	23230	782	23.15
	CA_2A-4A	2	20	18700	1860	QPSK/1#0	4	20	20050	1720	21.85
	CA_2A-5A	2	20	18700	1860	QPSK/1#0	5	10	20450	829	23.37
	CA_2A-12A	2	20	18700	1860	QPSK/1#0	12	5	23035	701.5	23.26
	CA_2A-48A	2	20	18700	1860	QPSK/1#0	48	20	55990	3625	22.41
	CA_2A-66A	2	20	18700	1860	QPSK/1#0	66	20	67236	2190	21.78
	CA_2A-71A	2	20	18700	1860	QPSK/1#0	71	20	68786	637	23.34
	CA_4A-4A	4	20	20050	1720	QPSK/1#0	4	20	20300	1745	23.14
	CA_4A-5A	4	20	20050	1720	QPSK/1#0	5	10	20450	829	23.25
	CA_4A-12A	4	20	20050	1720	QPSK/1#0	12	5	23035	701.5	23.20
	CA_4A-13A	4	20	20050	1720	QPSK/1#0	13	10	23230	782	23.16
	CA_4A-48A	4	20	20050	1720	QPSK/1#0	48	20	55990	3625	22.25
	CA_4A-71A	4	20	20050	1720	QPSK/1#0	71	20	68786	637	23.31
	CA_5B	5	10	20476	831.6	QPSK/1#0	5	10	2600	889	23.85
	CA_5A-5A	5	10	20450	829	QPSK/1#0	5	10	2600	889	23.82
	CA_5A-7A	5	10	20450	829	QPSK/1#0	7	20	3100	2655	23.74
	CA_5A-48A	5	10	20450	829	QPSK/1#0	48	20	55990	3625	23.33
	CA_5A-66A	5	10	20450	829	QPSK/1#0	66	20	67236	2190	23.82
	CA_7C	7	20	21001	2525.1	QPSK/1#0	7	20	3199	2664.9	21.75
	CA_7A-7A	7	20	20850	2510	QPSK/1#0	7	20	3350	2680	21.70
	CA_7A-12A	7	20	21100	2535	QPSK/1#0	12	5	5155	743.5	21.65
	CA_7A-13A	7	20	21100	2535	QPSK/1#0	13	10	23230	782	21.77
	CA_12A-66A	12	5	23035	701.5	QPSK/1#0	66	20	67236	2190	23.72
	CA_13A-48A	13	10	23230	782	QPSK/1#0	48	20	55990	3625	22.01
	CA_13A-66A	13	10	23230	782	QPSK/1#0	66	20	67236	2190	23.12
	CA_25A-25A	25	20	26140	1860	QPSK/1#0	25	20	8590	1985	23.32
	CA_25A-26A	25	20	26140	1860	QPSK/1#0	26	15	26765	821.5	23.44
	CA_25A-41A	25	20	26140	1860	QPSK/1#0	41	20	41490	2680	21.72
	CA_41C	41	20	40521	2583.1	QPSK/1#0	41	20	40719	2602.9	25.20
	CA_41A-41A	41	20	39750	2506	QPSK/1#0	41	20	41490	2680	24.78
CA_48C	48	20	55340	3560	QPSK/1#0	48	20	55538	3579.8	21.83	
CA_48B	48	20	55891	3685.1	QPSK/1#0	48	20	56089	3704.9	21.78	
CA_48A-48A	48	20	55340	3560	QPSK/1#0	48	20	56640	3690	21.86	
CA_48A-66A	48	20	55340	3560	QPSK/1#0	66	20	67236	2190	22.15	
CA_66C	66	20	132323	1745	QPSK/1#0	66	20	66985	2164.9	23.18	
CA_66B	66	10	132622	1775	QPSK/1#0	66	10	67185	2184.9	23.25	
CA_66A-66A	66	20	132072	1720	QPSK/1#0	66	20	67236	2190	23.14	
CA_66A-71A	66	20	132072	1720	QPSK/1#0	71	20	68786	637	23.24	



Full Power for Ant 7

2.4GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %	
802.11b-1Mbps	CH 1	2412	20.46	22.00	20.00	100.00	
	CH 6	2437	20.47	22.00	20.00		
	CH 11	2462	20.63	22.00	20.00		
	802.11g-6Mbps	CH 1	2412	18.41	20.00	18.50	98.57
		CH 6	2437	18.42	20.00	18.50	
		CH 11	2462	18.07	18.00	16.00	
	802.11n-HT20 MCS9	CH 1	2412	18.22	20.00	18.50	98.57
		CH 6	2437	18.39	20.00	18.50	
		CH 11	2462	15.43	17.00	16.50	
802.11n-HT40 MCS9	CH 3	2422	18.38	20.00	18.00	95.00	
	CH 6	2437	15.75	17.50	14.50		
	CH 9	2452	13.90	15.50	13.00		
802.11ac-VHT20 MCS9	CH 1	2412	18.23	20.00	18.50	98.47	
	CH 6	2437	18.17	20.00	18.50		
	CH 11	2462	15.49	17.00	15.50		
802.11ac-VHT40 MCS9	CH 3	2422	18.23	20.00	18.00	95.05	
	CH 6	2437	15.71	17.50	14.50		
	CH 9	2452	13.96	15.00	13.00		

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a-6Mbps	CH 36	5180	18.88	20.50	18.50	98.10
	CH 44	5220	19.00	21.00	18.50	
	CH 48	5240	19.06	21.00	18.50	
802.11n-HT20 MCS9	CH 36	5180	19.25	21.00	18.50	98.57
	CH 44	5220	19.53	21.00	18.50	
	CH 48	5240	19.64	21.50	18.50	
802.11n-HT40 MCS9	CH 36	5190	19.49	21.50	18.50	98.94
	CH 46	5220	18.98	20.50	18.50	
	CH 50	5180	17.80	19.50	17.00	
802.11ac-VHT20 MCS9	CH 44	5220	17.92	19.50	17.00	98.48
	CH 48	5240	17.39	19.00	17.00	
	CH 52	5260	17.48	19.00	17.00	
802.11ac-VHT40 MCS9	CH 46	5230	17.72	19.50	17.00	95.96
	CH 48	5240	17.82	19.50	17.00	
	CH 42	5210	17.82	19.50	17.00	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a-6Mbps	CH 52	5260	19.24	21.00	18.50	98.57
	CH 60	5300	19.27	21.00	18.50	
	CH 64	5320	19.53	21.50	18.50	
802.11n-HT20 MCS9	CH 52	5260	19.77	21.50	18.50	98.57
	CH 60	5300	19.00	21.00	18.50	
	CH 64	5320	19.31	21.00	18.50	
802.11n-HT40 MCS9	CH 54	5270	19.38	21.00	18.50	98.94
	CH 62	5310	19.49	21.50	18.50	
	CH 52	5260	17.39	19.00	17.00	
802.11ac-VHT20 MCS9	CH 60	5300	17.85	19.50	17.00	98.48
	CH 64	5320	17.82	19.50	17.00	
	CH 54	5270	17.43	19.00	17.00	
802.11ac-VHT40 MCS9	CH 62	5310	18.12	20.00	17.00	98.97
	CH 60	5300	18.16	20.00	17.00	
	CH 58	5280	18.16	20.00	17.00	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a-6Mbps	CH 100	5500	18.77	20.50	17.00	98.57
	CH 144	5720	17.52	19.50	17.00	
	CH 120	5600	18.26	20.50	17.00	
802.11n-HT20 MCS9	CH 100	5500	18.98	20.50	17.00	98.47
	CH 120	5600	17.78	19.50	17.00	
	CH 144	5720	17.86	19.00	17.00	
802.11n-HT40 MCS9	CH 102	5510	18.85	20.50	17.00	98.94
	CH 126	5630	18.15	20.00	17.00	
	CH 142	5710	18.17	20.00	17.00	
802.11ac-VHT20 MCS9	CH 100	5500	17.65	19.50	17.00	98.48
	CH 120	5600	17.30	19.00	17.00	
	CH 144	5720	17.49	19.00	17.00	
802.11ac-VHT40 MCS9	CH 102	5510	17.85	19.50	17.00	98.97
	CH 126	5630	17.91	19.50	17.00	
	CH 142	5710	17.87	19.50	17.00	
802.11ac-VHT80 MCS9	CH 108	5530	17.96	19.50	17.00	94.00
	CH 122	5610	17.86	19.50	17.00	
	CH 138	5690	17.82	19.50	17.00	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a-6Mbps	CH 149	5745	18.84	20.50	18.50	98.57
	CH 157	5785	19.01	21.00	18.50	
	CH 165	5825	19.42	20.50	18.50	
802.11n-HT20 MCS9	CH 149	5745	18.99	20.50	18.50	98.47
	CH 157	5785	19.36	21.00	18.50	
	CH 165	5825	19.30	21.00	18.50	
802.11n-HT40 MCS9	CH 151	5755	19.35	21.00	18.50	98.94
	CH 159	5795	19.83	21.50	18.50	
	CH 149	5745	17.56	19.50	17.00	
802.11ac-VHT20 MCS9	CH 157	5785	17.80	19.50	17.00	97.97
	CH 165	5825	17.85	19.50	17.00	
	CH 151	5755	17.42	19.00	17.00	
802.11ac-VHT40 MCS9	CH 159	5795	18.33	20.00	17.00	98.97
	CH 155	5775	17.83	19.50	17.00	
	CH 155	5775	17.83	19.50	17.00	

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	11.91	9.96	10.71
	CH 39	2441	11.96	9.20	9.78
	CH 78	2480	11.33	8.81	9.85
Tune-up Limit			10.30	13.00	13.50
Duty Cycle %			76.8	60.47	77.33

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
LE	CH 00	2402	5.72	2.80	
	CH 19	2440	5.35	2.44	
	CH 39	2480	6.76	4.13	
Tune-up Limit			9.5	7	
Duty Cycle %			82.2	30.8	



Reduced Power Level 1 for Ant 1

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	128	189	251		128	189	251		
TX Channel	128	189	251		128	189	251		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	21.56	21.70	21.61	22.50	12.56	12.70	12.61	13.50	0.17
GPRS 1 Tx slot	21.58	21.73	21.66	22.50	12.58	12.73	12.66	13.50	
GPRS 2 Tx slots	19.18	19.28	19.23	20.00	13.18	13.28	13.23	14.00	0.10
GPRS 3 Tx slots	17.68	17.49	17.45	18.50	13.42	13.23	13.19	14.24	0.23
GPRS 4 Tx slots	16.65	16.75	16.59	17.50	13.65	13.75	13.59	14.50	0.16
EDGE 1 Tx slot	15.88	15.96	15.90	17.00	6.88	6.96	6.90	8.00	0.08
EDGE 2 Tx slots	14.12	14.22	14.08	15.00	8.12	8.22	8.08	9.00	0.14
EDGE 3 Tx slots	12.77	12.86	12.80	13.50	8.51	8.60	8.54	9.24	0.09
EDGE 4 Tx slots	11.62	11.68	11.56	12.50	8.62	8.68	8.56	9.50	0.12
Mode		Max.							
Attenuator			21.73				13.75		
Cable Loss : 0.6									

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	512	661	810		512	661	810		
TX Channel	512 <td>661 <td>810 <td></td> <td>512 <td>661 <td>810 <td></td> <td></td> </td></td></td></td></td>	661 <td>810 <td></td> <td>512 <td>661 <td>810 <td></td> <td></td> </td></td></td></td>	810 <td></td> <td>512 <td>661 <td>810 <td></td> <td></td> </td></td></td>		512 <td>661 <td>810 <td></td> <td></td> </td></td>	661 <td>810 <td></td> <td></td> </td>	810 <td></td> <td></td>		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	15.66	15.74	15.71	16.50	6.66	6.74	6.71	7.50	0.12
GPRS 1 Tx slot	15.68	15.78	15.74	16.50	6.68	6.78	6.74	7.50	
GPRS 2 Tx slots	13.55	13.59	13.46	14.50	7.55	7.59	7.46	8.50	0.13
GPRS 3 Tx slots	12.11	12.16	12.05	13.00	7.85	7.90	7.79	8.74	0.11
GPRS 4 Tx slots	11.06	11.23	11.16	12.00	8.06	8.23	8.16	9.00	0.17
EDGE 1 Tx slot	11.98	12.07	12.03	13.50	2.98	3.07	3.03	4.50	0.09
EDGE 2 Tx slots	10.14	10.36	10.24	11.00	4.14	4.36	4.24	5.00	0.22
EDGE 3 Tx slots	8.92	9.04	8.96	9.70	4.66	4.78	4.70	5.44	0.12
EDGE 4 Tx slots	8.59	8.82	8.72	9.70	5.59	5.82	5.72	6.70	0.23
Mode		Max.							
Attenuator			15.78				8.23		
Cable Loss : 0.8									

3.50

Band	WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)	
	9262	9400	9538		1312	1413	1513		4132	4182	4233		
TX Channel	9262	9400	9538		1312	1413	1513		4132	4182	4233		
Rx Channel	9602	9800	9938		1537	1638	1738		4557	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	14.39	14.42	14.36	15.30	15.03	15.11	15.06	15.80	20.61	20.67	20.56	21.30
3GPP Rel 6	HSDPA Subtest-1	13.44	13.79	13.69	14.50	13.97	14.43	14.38	15.00	19.35	19.69	19.84	20.50
3GPP Rel 6	HSDPA Subtest-2	13.58	13.84	13.46	5.00	13.98	14.38	14.09	6.00	19.32	19.63	19.28	17.00
3GPP Rel 6	HSDPA Subtest-3	13.00	13.04	12.83	4.50	13.53	13.80	13.32	5.50	18.93	19.12	19.02	16.50
3GPP Rel 6	HSDPA Subtest-4	13.50	13.30	13.17	4.50	14.22	13.96	13.87	5.50	19.27	19.47	19.02	16.50
3GPP Rel 8	DC-HSDPA Subtest-1	13.79	13.56	13.48	14.50	14.40	14.22	13.94	15.00	19.93	19.57	19.46	20.50
3GPP Rel 8	DC-HSDPA Subtest-2	13.27	13.11	12.97	14.00	14.00	13.67	13.69	14.50	19.57	19.27	19.29	20.00
3GPP Rel 8	DC-HSDPA Subtest-3	13.16	12.85	12.70	13.50	13.33	13.36	13.06	4.00	18.87	18.83	18.42	19.50
3GPP Rel 8	DC-HSDPA Subtest-4	13.01	12.68	12.80	4.50	13.56	13.32	13.49	5.50	18.77	18.52	18.98	16.50
3GPP Rel 8	HSUPA Subtest-1	13.31	13.16	13.28	14.50	13.98	13.52	13.65	15.00	19.40	19.07	19.30	20.50
3GPP Rel 8	HSUPA Subtest-2	11.88	11.61	11.68	12.50	12.35	12.31	12.24	13.00	18.06	17.78	17.72	18.50
3GPP Rel 8	HSUPA Subtest-3	12.88	12.64	12.55	13.50	13.52	13.18	13.23	14.00	18.68	18.51	18.38	19.50
3GPP Rel 8	HSUPA Subtest-4	11.96	11.57	11.57	12.50	12.22	12.22	12.14	13.00	17.73	17.29	17.32	18.50
3GPP Rel 8	HSUPA Subtest-5	13.22	13.06	12.76	13.50	13.70	13.55	13.23	14.00	19.18	19.00	18.95	19.50
3GPP Rel 7	HSPA (16QAM) Subtest-1	11.75	11.76	11.81	12.50	12.12	12.22	12.25	13.00	17.93	17.62	17.92	18.50
Attenuator			Cable Loss	0.8			Cable Loss	0.8			Cable Loss	0.6	
Mode			Max.	14.42			Max.	15.11			Max.	20.67	





3	QPSK	8	7	14.56	14.57	14.57	15.3	
3	QPSK	15	0	14.51	14.56	14.50		
3	16QAM	1	0	14.79	14.82	14.82		
3	16QAM	1	8	14.81	14.76	14.69	14.3	
3	16QAM	1	14	14.68	14.76	14.71		
3	16QAM	8	0	13.62	13.61	13.54		
3	16QAM	8	4	13.59	13.62	13.56	14.3	
3	16QAM	8	7	13.59	13.58	13.57		
3	16QAM	15	0	13.48	13.61	13.57		
3	64QAM	1	0	13.63	13.67	13.66	13.3	
3	64QAM	1	8	13.56	13.64	13.56		
3	64QAM	1	14	13.56	13.66	13.56		
3	64QAM	8	0	12.62	12.71	12.52	13.3	
3	64QAM	8	4	12.66	12.60	12.61		
3	64QAM	8	7	12.63	12.61	12.57		
3	64QAM	15	0	12.50	12.57	12.52	13.3	
Channel				18607	18900	19193		Tune-up limit
Frequency (MHz)				1850.7	1880	1909.3		(dBm)
1.4	QPSK	1	0	15.38	15.54	15.44	16.3	
1.4	QPSK	1	3	15.33	15.41	15.40		
1.4	QPSK	1	5	15.28	15.42	15.42		
1.4	QPSK	3	0	15.39	15.48	15.41	15.3	
1.4	QPSK	3	1	15.48	15.49	15.41		
1.4	QPSK	3	3	15.40	15.48	15.45		
1.4	QPSK	6	0	14.52	14.60	14.53	14.3	
1.4	16QAM	1	0	14.78	14.79	14.74		
1.4	16QAM	1	3	14.78	14.77	14.72		
1.4	16QAM	1	5	14.70	14.80	14.81	14.3	
1.4	16QAM	3	0	14.60	14.65	14.52		
1.4	16QAM	3	1	14.54	14.63	14.49		
1.4	16QAM	3	3	14.60	14.63	14.48	14.3	
1.4	16QAM	6	0	13.49	13.58	13.51		
1.4	64QAM	1	0	13.69	13.72	13.67		
1.4	64QAM	1	3	13.56	13.60	13.60	14.3	
1.4	64QAM	1	5	13.58	13.62	13.58		
1.4	64QAM	3	0	13.68	13.59	13.54		
1.4	64QAM	3	1	13.66	13.63	13.60	13.3	
1.4	64QAM	3	3	13.61	13.61	13.54		
1.4	64QAM	6	0	12.52	12.56	12.49		

3	QPSK	8	7	14.18	14.31	14.23	15.1	
3	QPSK	15	0	14.39	14.32	14.32		
3	16QAM	1	0	14.62	14.61	14.60		
3	16QAM	1	8	14.55	14.61	14.54	14.1	
3	16QAM	1	14	14.49	14.59	14.49		
3	16QAM	8	0	13.46	13.41	13.42		
3	16QAM	8	4	13.32	13.39	13.32	14.1	
3	16QAM	8	7	13.29	13.27	13.24		
3	16QAM	15	0	13.33	13.33	13.27		
3	64QAM	1	0	13.54	13.57	13.52	13.1	
3	64QAM	1	8	13.46	13.45	13.42		
3	64QAM	1	14	13.40	13.50	13.42		
3	64QAM	8	0	12.41	12.45	12.31	13.1	
3	64QAM	8	4	12.42	12.38	12.32		
3	64QAM	8	7	12.24	12.35	12.32		
3	64QAM	15	0	12.29	12.38	12.35	13.1	
Channel				19957	20175	20393		Tune-up limit
Frequency (MHz)				1710.7	1732.5	1754.3		(dBm)
1.4	QPSK	1	0	15.31	15.41	15.33	16.1	
1.4	QPSK	1	3	15.23	15.23	15.21		
1.4	QPSK	1	5	15.17	15.23	15.23		
1.4	QPSK	3	0	15.21	15.31	15.29	15.1	
1.4	QPSK	3	1	15.28	15.29	15.16		
1.4	QPSK	3	3	15.06	15.12	15.09		
1.4	QPSK	6	0	14.29	14.33	14.32	14.1	
1.4	16QAM	1	0	14.65	14.59	14.55		
1.4	16QAM	1	3	14.57	14.59	14.55		
1.4	16QAM	1	5	14.50	14.60	14.60	14.1	
1.4	16QAM	3	0	14.32	14.25	14.31		
1.4	16QAM	3	1	14.22	14.26	14.20		
1.4	16QAM	3	3	14.06	14.20	14.10	14.1	
1.4	16QAM	6	0	13.32	13.37	13.29		
1.4	64QAM	1	0	13.49	13.55	13.54		
1.4	64QAM	1	3	13.46	13.51	13.42	13.1	
1.4	64QAM	1	5	13.48	13.45	13.42		
1.4	64QAM	3	0	13.26	13.25	13.21		
1.4	64QAM	3	1	13.18	13.26	13.18	13.1	
1.4	64QAM	3	3	13.13	13.19	13.10		
1.4	64QAM	6	0	12.32	12.33	12.31		









Band 17 (700MHz Band) (dBm) Part 27H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	21.12	21.16	21.09	21.8
10	QPSK	1	25	21.11	21.14	21.07	
10	QPSK	1	49	20.99	21.07	21.11	
10	QPSK	25	0	20.25	20.23	20.22	20.8
10	QPSK	25	12	20.13	20.24	20.22	
10	QPSK	25	25	20.13	20.24	20.11	
10	QPSK	50	0	20.22	20.19	20.18	20.8
10	16QAM	1	0	20.41	20.48	20.38	
10	16QAM	1	25	20.37	20.47	20.43	
10	16QAM	1	49	20.37	20.40	20.40	20.8
10	16QAM	25	0	19.25	19.28	19.21	
10	16QAM	25	12	19.30	19.28	19.19	
10	16QAM	25	25	19.19	19.28	19.17	19.8
10	16QAM	50	0	19.24	19.21	19.18	
10	64QAM	1	0	19.31	19.34	19.30	
10	64QAM	1	25	19.32	19.33	19.32	19.8
10	64QAM	1	49	19.25	19.32	19.27	
10	64QAM	25	0	18.20	18.28	18.24	
10	64QAM	25	12	18.18	18.27	18.25	18.8
10	64QAM	25	25	18.20	18.29	18.27	
10	64QAM	50	0	18.19	18.23	18.23	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	21.13	21.16	21.10	21.8
5	QPSK	1	12	21.09	21.07	21.04	
5	QPSK	1	24	20.99	21.10	21.00	
5	QPSK	12	0	20.20	20.21	20.19	20.8
5	QPSK	12	7	20.11	20.18	20.13	
5	QPSK	12	13	20.05	20.15	20.09	
5	QPSK	25	0	20.19	20.14	20.08	20.8
5	16QAM	1	0	20.44	20.39	20.33	
5	16QAM	1	12	20.30	20.39	20.36	
5	16QAM	1	24	20.31	20.30	20.41	20.8
5	16QAM	12	0	19.19	19.31	19.20	
5	16QAM	12	7	19.24	19.22	19.13	
5	16QAM	12	13	19.10	19.22	19.22	19.8
5	16QAM	25	0	19.18	19.23	19.12	
5	64QAM	1	0	19.29	19.33	19.26	
5	64QAM	1	12	19.27	19.26	19.21	19.8
5	64QAM	1	24	19.22	19.30	19.23	
5	64QAM	12	0	18.19	18.31	18.22	
5	64QAM	12	7	18.14	18.24	18.26	18.8
5	64QAM	12	13	18.23	18.22	18.17	
5	64QAM	25	0	18.12	18.10	18.11	

Band 18 (835MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel					23925		
Frequency (MHz)					822.5		
15	QPSK	1	0		21.13		21.8
15	QPSK	1	37		21.08		
15	QPSK	1	74		21.06		
15	QPSK	36	0		20.16		20.8
15	QPSK	36	20		20.15		
15	QPSK	36	39		20.20		
15	QPSK	75	0		20.17		20.8
15	16QAM	1	0		20.42		
15	16QAM	1	37		20.47		
15	16QAM	1	74		20.49		20.8
15	16QAM	36	0		19.20		
15	16QAM	36	20		19.16		
15	16QAM	36	39		19.15		19.8
15	16QAM	75	0		19.16		
15	64QAM	1	0		19.21		
15	64QAM	1	25		19.16		19.8
15	64QAM	1	49		19.13		
15	64QAM	25	0		18.18		
15	64QAM	25	12		18.22		18.8
15	64QAM	25	25		18.17		
15	64QAM	50	0		18.21		
Channel				23900	23925	23950	Tune-up limit (dBm)
Frequency (MHz)				820	822.5	825	
10	QPSK	1	0	21.05	21.10	21.05	21.8
10	QPSK	1	25	21.01	21.02	21.03	
10	QPSK	1	49	21.01	21.03	21.00	
10	QPSK	25	0	20.11	20.12	20.10	20.8
10	QPSK	25	12	20.14	20.07	20.12	
10	QPSK	25	25	20.16	20.17	20.17	
10	QPSK	50	0	20.13	20.13	20.10	20.8
10	16QAM	1	0	20.36	20.35	20.39	
10	16QAM	1	25	20.43	20.39	20.39	
10	16QAM	1	49	20.45	20.43	20.46	20.8
10	16QAM	25	0	19.14	19.17	19.16	
10	16QAM	25	12	19.10	19.09	19.14	
10	16QAM	25	25	19.13	19.07	19.08	19.8
10	16QAM	50	0	19.13	19.15	19.13	
10	64QAM	1	0	19.18	19.18	19.14	
10	64QAM	1	25	19.12	19.13	19.10	19.8
10	64QAM	1	49	19.06	19.05	19.09	
10	64QAM	25	0	18.13	18.16	18.15	
10	64QAM	25	12	18.21	18.18	18.19	18.8
10	64QAM	25	25	18.13	18.13	18.14	
10	64QAM	50	0	18.18	18.13	18.18	
Channel				23875	23925	23975	Tune-up limit (dBm)
Frequency (MHz)				817.5	822.5	827.5	
5	QPSK	1	0	21.11	21.12	21.08	21.80
5	QPSK	1	12	21.01	21.02	21.00	
5	QPSK	1	24	20.99	21.02	21.01	
5	QPSK	12	0	20.13	20.13	20.15	20.8
5	QPSK	12	7	20.13	20.14	20.07	
5	QPSK	12	13	20.12	20.14	20.18	
5	QPSK	25	0	20.13	20.14	20.10	20.8
5	16QAM	1	0	20.35	20.41	20.34	
5	16QAM	1	12	20.45	20.40	20.41	
5	16QAM	1	24	20.48	20.41	20.41	20.8
5	16QAM	12	0	19.12	19.18	19.12	
5	16QAM	12	7	19.13	19.09	19.15	
5	16QAM	12	13	19.08	19.08	19.10	19.8
5	16QAM	25	0	19.12	19.11	19.09	
5	64QAM	1	0	19.13	19.16	19.14	
5	64QAM	1	12	19.13	19.09	19.10	19.8
5	64QAM	1	24	19.05	19.10	19.08	
5	64QAM	12	0	18.14	18.12	18.17	
5	64QAM	12	7	18.19	18.20	18.14	18.8
5	64QAM	12	13	18.12	18.12	18.12	
5	64QAM	25	0	18.18	18.20	18.15	

3





3	QPSK	8	7	14.60	14.55	14.58	15.3
3	QPSK	15	0	14.45	14.54	14.52	
3	16QAM	1	0	14.75	14.84	14.79	15.3
3	16QAM	1	8	14.73	14.75	14.74	
3	16QAM	1	14	14.67	14.74	14.71	14.3
3	16QAM	8	0	13.57	13.59	13.52	
3	16QAM	8	4	13.57	13.54	13.51	14.3
3	16QAM	8	7	13.58	13.54	13.59	
3	16QAM	15	0	13.56	13.58	13.52	14.3
3	64QAM	1	0	13.68	13.66	13.70	
3	64QAM	1	8	13.57	13.62	13.60	14.3
3	64QAM	1	14	13.62	13.64	13.57	
3	64QAM	8	0	12.72	12.73	12.65	13.3
3	64QAM	8	4	12.64	12.66	12.60	
3	64QAM	8	7	12.62	12.63	12.60	13.3
3	64QAM	15	0	12.51	12.61	12.63	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	15.47	15.51	15.45	16.3
1.4	QPSK	1	3	15.36	15.39	15.29	
1.4	QPSK	1	5	15.34	15.36	15.32	
1.4	QPSK	3	0	15.46	15.54	15.51	
1.4	QPSK	3	1	15.44	15.48	15.49	
1.4	QPSK	3	3	15.49	15.52	15.48	
1.4	QPSK	6	0	14.49	14.56	14.48	15.3
1.4	16QAM	1	0	14.83	14.82	14.75	14.3
1.4	16QAM	1	3	14.66	14.82	14.74	
1.4	16QAM	1	5	14.57	14.70	14.67	
1.4	16QAM	3	0	14.45	14.46	14.41	
1.4	16QAM	3	1	14.44	14.44	14.35	
1.4	16QAM	3	3	14.54	14.50	14.48	
1.4	16QAM	6	0	13.50	13.57	13.59	13.3
1.4	64QAM	1	0	13.64	13.69	13.68	14.3
1.4	64QAM	1	3	13.60	13.70	13.67	
1.4	64QAM	1	5	13.62	13.68	13.63	
1.4	64QAM	3	0	13.58	13.66	13.57	
1.4	64QAM	3	1	13.52	13.53	13.55	
1.4	64QAM	3	3	13.54	13.57	13.54	
1.4	64QAM	6	0	12.54	12.57	12.63	13.3

1.4	QPSK	3	3	21.47	21.53	21.51	21.3
1.4	QPSK	6	0	20.57	20.68	20.62	
1.4	16QAM	1	0	20.78	20.81	20.81	21.3
1.4	16QAM	1	3	20.87	20.90	20.86	
1.4	16QAM	1	5	20.81	20.80	20.74	
1.4	16QAM	3	0	20.46	20.53	20.43	
1.4	16QAM	3	1	20.40	20.52	20.39	
1.4	16QAM	3	3	20.46	20.56	20.44	
1.4	16QAM	6	0	19.55	19.64	19.58	20.3
1.4	64QAM	1	0	19.72	19.70	19.67	20.3
1.4	64QAM	1	3	19.75	19.78	19.69	
1.4	64QAM	1	5	19.66	19.64	19.63	
1.4	64QAM	3	0	19.47	19.50	19.56	
1.4	64QAM	3	1	19.46	19.49	19.46	
1.4	64QAM	3	3	19.41	19.52	19.42	
1.4	64QAM	6	0	18.54	18.65	18.53	19.3





3	QPSK	8	7	14.20	14.25	14.26	15.1
3	QPSK	15	0	14.38	14.35	14.29	
3	16QAM	1	0	14.49	14.57	14.50	
3	16QAM	1	8	14.57	14.61	14.56	15.1
3	16QAM	1	14	14.45	14.57	14.48	
3	16QAM	8	0	13.32	13.40	13.30	
3	16QAM	8	4	13.27	13.29	13.25	14.1
3	16QAM	8	7	13.26	13.36	13.28	
3	16QAM	15	0	13.32	13.31	13.31	
3	64QAM	1	0	13.55	13.61	13.53	14.1
3	64QAM	1	8	13.48	13.53	13.47	
3	64QAM	1	14	13.47	13.55	13.48	
3	64QAM	8	0	12.30	12.37	12.33	13.1
3	64QAM	8	4	12.28	12.32	12.31	
3	64QAM	8	7	12.24	12.32	12.31	
3	64QAM	15	0	12.33	12.31	12.34	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	15.28	15.36	15.31	16.1
1.4	QPSK	1	3	15.17	15.31	15.28	
1.4	QPSK	1	5	15.17	15.26	15.19	
1.4	QPSK	3	0	15.20	15.23	15.17	
1.4	QPSK	3	1	15.25	15.29	15.19	
1.4	QPSK	3	3	15.13	15.17	15.16	
1.4	QPSK	6	0	14.34	14.38	14.27	15.1
1.4	16QAM	1	0	14.55	14.58	14.59	
1.4	16QAM	1	3	14.52	14.57	14.55	15.1
1.4	16QAM	1	5	14.47	14.51	14.55	
1.4	16QAM	3	0	14.19	14.21	14.20	
1.4	16QAM	3	1	14.08	14.19	14.15	
1.4	16QAM	3	3	14.22	14.25	14.17	
1.4	16QAM	6	0	13.32	13.36	13.29	14.1
1.4	64QAM	1	0	13.57	13.64	13.55	
1.4	64QAM	1	3	13.58	13.62	13.50	14.1
1.4	64QAM	1	5	13.46	13.54	13.43	
1.4	64QAM	3	0	13.27	13.31	13.25	
1.4	64QAM	3	1	13.19	13.30	13.21	
1.4	64QAM	3	3	13.14	13.26	13.25	
1.4	64QAM	6	0	12.30	12.36	12.29	
1.4	64QAM	6	0	12.30	12.36	12.29	13.1







n2 (1850 ~ 1910MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1850	1890	1930	
20	DFT-s-OFDM PVC BPSK	1	1	15.27	15.19	15.31	16.7
20		1	53	15.36	15.42	15.32	
20		1	104	15.11	15.24	15.26	
20		50	1	14.48	14.54	14.70	
20		50	25	14.75	14.55	14.86	
20		50	50	14.18	14.28	14.17	
20	DFT-s-OFDM QPSK	100	0	14.70	14.89	14.71	15.7
20		1	1	15.48	15.52	15.49	
20		1	53	15.41	15.47	15.43	
20		1	104	15.34	15.37	15.30	
20		50	1	15.00	15.08	15.05	
20		50	25	14.85	14.87	15.01	
20	DFT-s-OFDM 16QAM	50	50	14.62	14.89	14.90	15.7
20		100	0	14.78	14.59	14.60	
20		1	1	15.17	15.09	15.26	
20	DFT-s-OFDM 64QAM	1	1	13.89	13.75	13.80	14.7
20	DFT-s-OFDM 256QAM	1	1	11.30	11.13	11.32	12.2
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	15.46	15.35	15.37	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1890	1905	
10	DFT-s-OFDM QPSK	1	1	15.50	15.47	15.36	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1890	1907.5	
5	DFT-s-OFDM QPSK	1	1	15.45	15.42	15.44	25.2
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	CP-OFDM QPSK	1	1	14.54	14.23	14.36	15.2
20	CP-OFDM 16QAM	1	1	14.18	14.07	14.15	6.7
20	CP-OFDM 64QAM	1	1	13.05	12.84	13.02	5.7
20	CP-OFDM 256QAM	1	1	9.23	9.33	9.34	1.7

n5 (824 ~ 849 MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				166500	167300	167800	
Frequency (MHz)				824	836.5	839	
20	DFT-s-OFDM PVC BPSK	1	1	20.88	20.98	20.91	22.2
20		1	53	20.95	21.02	21.01	
20		1	104	21.00	21.02	20.92	
20		50	1	20.43	20.49	20.49	
20		50	25	20.48	20.52	20.48	
20		50	50	20.47	20.51	20.43	
20	DFT-s-OFDM QPSK	100	0	20.45	20.48	20.48	21.2
20		1	1	21.02	21.05	20.92	
20		1	53	21.01	21.03	20.97	
20		1	104	20.95	20.98	20.91	
20		50	1	20.41	20.52	20.44	
20		50	25	20.45	20.49	20.45	
20	DFT-s-OFDM 16QAM	50	50	20.47	20.49	20.52	21.2
20		100	0	20.44	20.54	20.50	
20		1	1	20.48	20.44	20.54	
20	DFT-s-OFDM 64QAM	1	1	19.25	19.25	18.97	20.2
20	DFT-s-OFDM 256QAM	1	1	16.56	16.52	16.63	17.7
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	DFT-s-OFDM QPSK	1	1	20.94	21.01	20.87	22.2
Channel				166800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	DFT-s-OFDM QPSK	1	1	20.85	20.90	20.82	22.2
Channel				166300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	DFT-s-OFDM QPSK	1	1	20.86	20.96	20.94	22.2
Channel				166800	167300	167800	Tune-up limit (dBm)
Frequency (MHz)				834	836.5	839	
20	CP-OFDM QPSK	1	1	19.85	20.05	20.03	20.7
20	CP-OFDM 16QAM	1	1	19.45	19.56	19.52	20.2
20	CP-OFDM 64QAM	1	1	18.38	18.44	18.40	19.2
20	CP-OFDM 256QAM	1	1	14.55	14.96	14.65	15.2





n12 (699 ~ 716 MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				141300	141500	141700	
Frequency (MHz)				706.5	707.5	708.5	
15	DFT-s-OFDM P1/2 BPSK	1	1	20.96	20.98	20.93	22.2
15		1	39	20.88	20.90	20.86	
15		1	77	20.83	20.87	20.85	
15		36	1	20.43	20.44	20.40	
15		36	18	20.41	20.42	20.35	
15		36	36	20.35	20.38	20.29	
15	DFT-s-OFDM QPSK	75	0	20.34	20.40	20.35	21.2
15		1	1	21.00	21.04	21.01	
15		1	39	20.97	20.99	20.91	
15		1	77	20.95	21.01	20.98	
15		36	1	20.39	20.45	20.40	
15		36	18	20.38	20.40	20.36	
15	36	36	20.24	20.36	20.25	21.2	
15	75	0	20.39	20.41	20.40		
15	DFT-s-OFDM 16QAM	1	1	20.55	20.56	20.52	21.2
15	DFT-s-OFDM 64QAM	1	1	19.06	19.05	19.04	20.2
15	DFT-s-OFDM 256QAM	1	1	16.71	16.71	16.63	17.7
Channel				140900	141500	142200	
Frequency (MHz)				704	707.5	711	
10	DFT-s-OFDM QPSK	1	1	20.85	20.91	20.82	22.2
Channel				140500	141500	142700	
Frequency (MHz)				701.5	707.5	713.5	
5	DFT-s-OFDM QPSK	1	1	20.90	20.95	20.89	22.2
Channel				141500	141500	141700	
Frequency (MHz)				706.5	707.5	708.5	
15	CP-OFDM QPSK 16QAM	1	1	19.94	20.02	19.83	20.7
15	CP-OFDM 16QAM	1	1	19.41	19.55	19.52	20.2
15	CP-OFDM 64QAM	1	1	17.96	18.34	18.28	18.7
15	CP-OFDM 256QAM	1	1	14.73	14.71	14.78	15.7

n25_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	376500	379000	
Frequency (MHz)				1870	1882.5	1895	
40	DFT-s-OFDM P1/2 BPSK	1	1	15.49	15.53	15.52	25.2
40		1	53	15.41	15.50	15.51	
40		1	105	15.45	15.54	15.47	
40		50	1	14.65	14.57	14.71	
40		50	25	14.61	14.58	14.76	
40		50	50	14.54	14.59	14.81	
40	DFT-s-OFDM QPSK	100	0	14.63	14.56	14.78	24.2
40		1	1	15.56	15.57	15.53	
40		1	53	15.19	15.51	15.50	
40		1	105	15.48	15.54	15.51	
40		50	1	14.65	14.70	14.67	
40		50	25	14.62	14.68	14.82	
40	50	50	14.57	14.62	14.60	24.2	
40	100	0	14.61	14.62	14.58		
40	DFT-s-OFDM 16QAM	1	1	14.74	14.95	14.75	24.2
40	DFT-s-OFDM 64QAM	1	1	13.38	13.43	13.39	23.2
40	DFT-s-OFDM 256QAM	1	1	10.96	11.00	10.94	20.7
Channel				373000	376500	380000	
Frequency (MHz)				1865	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	15.45	15.51	15.23	25.2
Channel				372000	376500	381000	
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	15.51	15.52	15.50	25.2
Channel				371500	376500	381500	
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	15.33	15.47	15.29	25.2
Channel				371000	376500	382000	
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	15.42	15.46	15.45	25.2
Channel				370500	376500	382500	
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	15.32	15.35	15.27	25.2
Channel				370000	376500	379000	
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	14.08	14.20	14.24	15.2
40	CP-OFDM 16QAM	1	1	13.76	13.66	13.77	14.2
40	CP-OFDM 64QAM	1	1	12.16	12.42	12.28	13.2
40	CP-OFDM 256QAM	1	1	8.95	8.90	8.96	9.7



n66 (1710 ~ 1780 MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				346000	349000	352000	
Frequency (MHz)				1725	1745	1765	
40	DFT-s-OFDM PVC BPSK	1	1	15.11	15.18	15.01	16.2
40		53	1	15.10	15.15	15.14	
40		1	104	15.07	15.10	15.05	
40		53	1	14.16	14.41	14.35	
40		53	26	14.35	14.48	14.28	
40		53	52	14.34	14.48	14.29	
40	DFT-s-OFDM QPSK	106	0	14.33	14.41	14.35	15.2
40		1	1	15.21	15.27	15.24	
40		1	53	15.19	15.22	15.21	
40		1	104	15.21	15.26	15.17	
40		53	1	14.34	14.49	14.46	
40		53	26	14.43	14.52	14.44	
40	53	52	14.45	14.48	14.45		
40	106	0	13.97	14.29	14.25		
40	DFT-s-OFDM 16QAM	1	1	14.23	14.27	14.29	15.2
40	DFT-s-OFDM 64QAM	1	1	12.96	13.00	12.97	14.2
40	DFT-s-OFDM 256QAM	1	1	10.43	10.59	10.51	11.7
Channel				345000	349000	353000	
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	15.26	15.15	15.18	16.2
Channel				344000	349000	354000	
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	15.11	15.19	15.05	16.2
Channel				343500	349000	354500	
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	15.03	15.24	14.96	16.2
Channel				343000	349000	355000	
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	15.19	15.02	14.97	25.2
Channel				342500	349000	355500	
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	14.33	14.25	14.47	25.2
Channel				348000	349000	352000	
Frequency (MHz)				1730	1745	1760	
40	CP-OFDM QPSK	1	1	13.76	13.74	13.63	14.7
40	CP-OFDM 16QAM	1	1	13.25	13.29	12.99	13.7
40	CP-OFDM 64QAM	1	1	11.95	11.88	11.76	12.7
40	CP-OFDM 256QAM	1	1	8.47	8.55	8.62	9.2

n71 (663 ~ 698 MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				134600	136100	137600	
Frequency (MHz)				673	680.5	688	
20	DFT-s-OFDM PVC BPSK	1	1	22.69	22.75	22.72	23.7
20		53	1	22.60	22.61	22.57	
20		1	104	22.61	22.43	22.39	
20		50	1	21.81	22.04	21.90	
20		50	25	22.11	21.93	21.86	
20		50	50	22.02	21.82	21.77	
20	DFT-s-OFDM QPSK	100	0	22.13	21.97	21.90	22.7
20		1	1	22.75	22.78	22.72	
20		1	53	22.63	22.74	22.66	
20		1	104	22.35	22.56	22.47	
20		50	1	22.06	22.10	22.02	
20		50	25	22.09	21.97	21.87	
20	50	50	22.01	22.08	21.77		
20	100	0	22.03	22.05	21.90		
20	DFT-s-OFDM 16QAM	1	1	22.42	22.03	22.15	22.7
20	DFT-s-OFDM 64QAM	1	1	20.84	20.77	20.68	21.7
20	DFT-s-OFDM 256QAM	1	1	18.23	18.27	18.27	19.2
Channel				134100	136100	138100	
Frequency (MHz)				670.5	680.5	690.5	
15	DFT-s-OFDM QPSK	1	1	22.47	22.52	22.44	23.7
Channel				133600	136100	138600	
Frequency (MHz)				668	680.5	693	
10	DFT-s-OFDM QPSK	1	1	22.39	22.49	22.38	23.7
Channel				133100	136100	139100	
Frequency (MHz)				665.5	680.5	695.5	
5	DFT-s-OFDM QPSK	1	1	22.25	22.38	22.26	23.7
Channel				134600	139100	137600	
Frequency (MHz)				673	680.5	688	
20	CP-OFDM QPSK	1	1	21.84	21.55	21.63	22.2
20	CP-OFDM 16QAM	1	1	21.32	21.15	21.12	21.7
20	CP-OFDM 64QAM	1	1	20.08	20.07	19.91	20.7
20	CP-OFDM 256QAM	1	1	16.34	16.46	16.31	17.2



n41 (2496 ~ 2690MHz) (PC2) _ANT 1										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune-up limit (dBm)
Channel										
Frequency (MHz)				2496.01	2593.93	2592.99	2618.50	2643.50		
100	DFT-s-OFDM P2/B-PSK	1	1	15.52	15.59	15.53	15.53	15.50		
100		1	136	15.48	15.50	15.72	15.60	15.63		16.8
100		1	272	15.45	15.52	15.68	15.51	15.58		
100		135	1	15.00	15.16	15.22	15.10	15.16		
100		135	87	15.20	15.17	15.20	15.04	15.13		15.8
100		135	136	15.28	15.37	15.31	15.31	15.24		
100		270	0	15.22	15.30	15.28	15.14	15.22		
100		1	1	15.76	15.66	15.60	15.68	15.63		16.8
100		1	136	15.58	15.51	15.76	15.62	15.60		
100		1	272	15.68	15.65	15.76	15.65	15.73		
100		135	1	14.86	15.14	15.24	15.10	15.12		15.8
100		135	87	14.97	15.21	15.19	15.04	15.09		15.8
100		135	136	14.83	14.87	14.77	14.81	14.73		
100		270	0	14.73	14.82	14.76	14.67	14.71		
100	DFT-s-OFDM 120QAM	1	1	14.87	15.81	15.02	15.09	15.10		15.8
100	DFT-s-OFDM 84QAM	1	1	13.39	13.59	13.66	13.63	13.60		14.5
100	DFT-s-OFDM 256QAM	1	1	11.22	11.32	11.33	11.43	11.43		12.3
Channel										
Frequency (MHz)				2500.00	2597.99	2592.99	2618.50	2643.50		
90	DFT-s-OFDM QPSK	1	1	15.25	15.54	15.6	15.6	15.67		16.2
Channel										
Frequency (MHz)				2502.02	2594.91	2592.99	2617.46	2643.99		
80	DFT-s-OFDM QPSK	1	1	15.00	15.56	15.59	15.52	15.63		16.8
Channel										
Frequency (MHz)				2503.01	2592.00	2592.99	2624.00	2650.00		
70	DFT-s-OFDM QPSK	1	1	15.14	15.45	15.62	15.43	15.49		16.8
Channel										
Frequency (MHz)				2502.00	2519.02	2592.99	2614.00	2649.99		
60	DFT-s-OFDM QPSK	1	1	15.17	15.04	15.24	15.07	15.20		16.8
Channel										
Frequency (MHz)				2502.04	2514.01	2592.99	2623.00	2629.99		
90	DFT-s-OFDM QPSK	1	1	15.73	15.88	15.76	15.88	15.89		16.8
Channel										
Frequency (MHz)				2502.02	2500.00	2592.99	2614.00	2649.99		
40	DFT-s-OFDM QPSK	1	1	15.30	15.20	15.62	15.50	15.60		16.8
Channel										
Frequency (MHz)				2502.00	2502.00	2592.99	2633.99	2674.98		
30	DFT-s-OFDM QPSK	1	1	15.60	15.49	15.85	15.83	15.78		16.8
Channel										
Frequency (MHz)				2502.04	2509.01	2592.99	2637.98	2639.98		
20	DFT-s-OFDM QPSK	1	1	15.62	15.71	15.86	15.81	15.83		16.8
Channel										
Frequency (MHz)				2502.02	2509.00	2592.99	2638.50	2640.00		
Channel										
Frequency (MHz)				2546.01	2598.50	2592.99	2618.50	2643.50		
100	CP-OFDM	1	1	13.39	14.09	14.43	14.33	14.13		15.3
100	CP-OFDM	1	1	13.41	13.73	13.76	13.68	13.65		15.3
100	CP-OFDM	1	1	12.06	12.46	12.46	12.45	12.53		13.8
100	CP-OFDM	1	1	8.73	9.14	9.14	9.16	9.11		9.8

n41 (2496 ~ 2690MHz) (PC3) _ANT 1										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel		Tune-up limit (dBm)
Channel										
Frequency (MHz)				2496.01	2593.93	2592.99	2618.50	2643.50		
100	DFT-s-OFDM P2/B-PSK	1	1	15.12	15.11	15.27	15.19	15.15		
100		1	136	15.08	15.08	15.18	15.06	15.02		16.2
100		1	272	15.17	15.18	15.23	15.15	15.19		
100		135	1	14.16	14.36	14.47	14.14	14.14		15.2
100		135	87	14.29	14.28	14.22	14.09	14.11		
100		135	136	14.12	14.37	14.34	14.32	14.37		
100		270	0	14.34	14.30	14.37	14.19	14.18		
100		1	1	15.17	15.20	15.26	15.26	15.24		16.2
100		1	136	15.20	15.15	15.17	15.13	15.02		16.2
100		1	272	15.13	15.17	15.25	15.21	15.21		
100		135	1	14.16	14.14	14.15	14.08	14.09		15.2
100		135	87	14.04	14.04	14.08	14.16	14.02		
100		135	136	13.96	14.07	14.15	14.06	14.01		
100		270	0	14.06	14.04	14.27	14.24	14.18		15.2
100	DFT-s-OFDM 120QAM	1	1	14.19	14.04	14.27	14.24	14.18		15.2
100	DFT-s-OFDM 84QAM	1	1	14.07	14.06	14.09	13.94	14.00		15.2
100	DFT-s-OFDM 256QAM	1	1	12.08	12.23	12.26	12.13	11.97		13.2
Channel										
Frequency (MHz)				2500.00	2597.99	2592.99	2618.50	2643.50		
90	DFT-s-OFDM QPSK	1	1	15.16	15.15	15.24	15.06	14.97		16.2
Channel										
Frequency (MHz)				2502.04	2502.04	2592.99	2621.49	2649.99		
80	DFT-s-OFDM QPSK	1	1	15.28	15.10	15.21	15.03	15.00		16.2
Channel										
Frequency (MHz)				2503.01	2502.00	2592.99	2624.00	2650.00		
70	DFT-s-OFDM QPSK	1	1	15.18	15.13	15.22	15.05	15.01		16.2
Channel										
Frequency (MHz)				2502.00	2519.02	2592.99	2614.00	2649.99		
60	DFT-s-OFDM QPSK	1	1	15.19	15.25	15.17	15.13	15.03		16.2
Channel										
Frequency (MHz)				2502.04	2514.01	2592.99	2623.00	2629.99		
90	DFT-s-OFDM QPSK	1	1	15.25	15.3	15.31	15.28	15.14		16.2
Channel										
Frequency (MHz)				2502.02	2500.00	2592.99	2614.00	2649.99		
40	DFT-s-OFDM QPSK	1	1	15.21	15.23	15.29	15.16	15.11		16.2
Channel										
Frequency (MHz)				2502.00	2502.00	2592.99	2633.99	2674.98		
30	DFT-s-OFDM QPSK	1	1	15.20	15.23	15.29	15.23	15.26		16.2
Channel										
Frequency (MHz)				2502.04	2509.01	2592.99	2637.98	2639.98		
20	DFT-s-OFDM QPSK	1	1	15.20	15.25	15.17	15.13	15.02		16.2
Channel										
Frequency (MHz)				2502.02	2509.00	2592.99	2638.50	2640.00		
Channel										
Frequency (MHz)				2546.01	2598.50	2592.99	2618.50	2643.50		
100	CP-OFDM	1	1	14.23	14.14	13.93	14.00	13.92		14.7
100	CP-OFDM	1	1	14.34	14.16	14.03	13.89	13.84		14.7
100	CP-OFDM	1	1	13.55	13.77	13.70	13.62	13.30		14
100	CP-OFDM	1	1	10.15	10.52	10.26	10.18	9.87		10.7



CA_41C-PC3_Ant 1 Combination:20MHz+20MHz(100RB+100RB)												
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)	
				RB Size	RB Offset	RB Size	RB Offset					
39750	39750	39948	QPSK	1	0	0	0	1	0	14.33	15.50	
40620	40521	40719	QPSK	1	0	0	0	1	0	14.63	15.50	
41490	41292	41490	QPSK	1	0	0	0	1	0	14.55	15.50	
39750	39750	39948	16QAM	1	0	0	0	1	0	13.57	14.00	
40620	40521	40719	16QAM	1	0	0	0	1	0	13.89	14.00	
41490	41292	41490	16QAM	1	0	0	0	1	0	13.84	14.00	
39750	39750	39948	64QAM	1	0	0	0	1	0	12.13	13.00	
40620	40521	40719	64QAM	1	0	0	0	1	0	12.45	13.00	
41490	41292	41490	64QAM	1	0	0	0	1	0	12.33	13.00	
39750	39750	39948	QPSK	50	0	0	0	1	0	13.22	14.00	
40620	40521	40719	QPSK	50	0	0	0	1	0	13.53	14.00	
41490	41292	41490	QPSK	50	0	0	0	1	0	13.29	14.00	



Reduced Power Level 1 for Ant 3 & Ant 4 & Ant 6

Band 48 (3.5G Band) (dBm)-ANT3

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Middle-Low Channel	Middle-Low Channel	Middle-High Channel	High Channel	Tune-up limit (dBm)	
Channel				5340	5380	5390	56150	56640	21.3	
Frequency (MHz)				3560	3609	3625	3641	3690		
20	QPSK	1	0	20.75	20.67	20.81	20.74	20.78		
20	QPSK	1	49	20.74	20.66	20.79	20.72	20.72		
20	QPSK	1	99	20.71	20.62	20.75	20.71	20.70		
20	QPSK	50	0	19.74	19.67	19.78	19.73	19.77		
20	QPSK	50	24	19.67	19.63	19.75	19.67	19.73		
20	QPSK	50	50	19.67	19.64	19.74	19.70	19.71		
20	QPSK	100	0	19.64	19.55	19.69	19.64	19.65		
20	16QAM	1	0	19.60	19.51	19.68	19.60	19.62		
20	16QAM	1	49	19.62	19.52	19.67	19.61	19.66		
20	16QAM	1	99	19.56	19.52	19.64	19.57	19.60		
20	16QAM	50	0	18.67	18.60	18.70	18.65	18.64		
20	16QAM	50	24	18.61	18.55	18.66	18.64	18.65		
20	16QAM	50	50	18.59	18.52	18.67	18.65	18.63		
20	16QAM	100	0	18.65	18.50	18.67	18.60	18.62		
20	64QAM	1	0	18.50	18.40	18.54	18.48	18.49		
20	64QAM	1	49	18.45	18.37	18.52	18.49	18.46		
20	64QAM	1	99	18.47	18.38	18.53	18.51	18.48		
20	64QAM	50	0	17.64	17.56	17.71	17.68	17.63		
20	64QAM	50	24	17.66	17.60	17.70	17.63	17.63		
20	64QAM	50	50	17.65	17.58	17.68	17.62	17.64		
20	64QAM	100	0	17.62	17.55	17.65	17.63	17.57		
Channel				55315	55820	55990	56160	56655		21.3
Frequency (MHz)				3657.5	3698	3625	3642	3692.5		
15	QPSK	1	0	20.71	20.63	20.77	20.69	20.72		
15	QPSK	1	37	20.73	20.61	20.76	20.67	20.70		
15	QPSK	1	74	20.66	20.61	20.70	20.70	20.66		
15	QPSK	36	0	19.70	19.64	19.72	19.72	19.69		
15	QPSK	36	20	19.61	19.55	19.70	19.63	19.71		
15	QPSK	36	39	19.59	19.57	19.68	19.68	19.65		
15	QPSK	75	0	19.62	19.52	19.65	19.59	19.64		
15	16QAM	1	0	19.54	19.43	19.65	19.54	19.56		
15	16QAM	1	37	19.55	19.45	19.61	19.59	19.63		
15	16QAM	1	74	19.51	19.50	19.57	19.56	19.53		
15	16QAM	36	0	18.63	18.52	18.66	18.61	18.58		
15	16QAM	36	20	18.54	18.52	18.60	18.63	18.61		
15	16QAM	36	39	18.56	18.46	18.64	18.61	18.60		
15	16QAM	75	0	18.61	18.47	18.62	18.59	18.61		
15	64QAM	1	0	18.46	18.32	18.53	18.42	18.48		
15	64QAM	1	37	18.41	18.29	18.48	18.47	18.44		
15	64QAM	1	74	18.40	18.31	18.50	18.46	18.46		
15	64QAM	36	0	17.59	17.55	17.65	17.66	17.56		
15	64QAM	36	20	17.65	17.56	17.63	17.55	17.56		
15	64QAM	36	39	17.64	17.54	17.61	17.57	17.57		
15	64QAM	75	0	17.60	17.47	17.61	17.62	17.49		
Channel				55290	55815	55990	56165	56690	21.3	
Frequency (MHz)				3555	3607.5	3625	3642.5	3695		
10	QPSK	1	0	20.69	20.59	20.74	20.70	20.76		
10	QPSK	1	25	20.67	20.64	20.74	20.65	20.69		
10	QPSK	1	49	20.67	20.57	20.74	20.66	20.66		
10	QPSK	25	0	19.69	19.64	19.73	19.65	19.72		
10	QPSK	25	12	19.66	19.57	19.71	19.65	19.66		
10	QPSK	25	25	19.62	19.60	19.70	19.67	19.68		
10	QPSK	50	0	19.63	19.53	19.65	19.58	19.57		
10	16QAM	1	0	19.57	19.44	19.67	19.54	19.56		
10	16QAM	1	25	19.54	19.47	19.61	19.56	19.61		
10	16QAM	1	49	19.51	19.45	19.62	19.53	19.57		
10	16QAM	25	0	18.66	18.53	18.63	18.63	18.61		
10	16QAM	25	12	18.56	18.51	18.65	18.62	18.64		
10	16QAM	25	25	18.58	18.44	18.60	18.63	18.62		
10	16QAM	50	0	18.59	18.47	18.66	18.53	18.54		
10	64QAM	1	0	18.45	18.37	18.46	18.45	18.48		
10	64QAM	1	25	18.37	18.36	18.45	18.44	18.38		
10	64QAM	1	49	18.40	18.34	18.46	18.50	18.44		
10	64QAM	25	0	17.61	17.54	17.70	17.66	17.60		
10	64QAM	25	12	17.58	17.52	17.63	17.56	17.57		
10	64QAM	25	25	17.64	17.52	17.64	17.58	17.57		
10	64QAM	50	0	17.61	17.47	17.62	17.61	17.55		
Channel				55205	55810	55990	56170	56175		21.3
Frequency (MHz)				3552.5	3607	3625	3643	3697.5		
5	QPSK	1	0	20.69	20.62	20.75	20.73	20.71		
5	QPSK	1	12	20.66	20.62	20.73	20.69	20.67		
5	QPSK	1	24	20.70	20.54	20.68	20.64	20.69		
5	QPSK	12	0	19.73	19.64	19.74	19.71	19.76		
5	QPSK	12	7	19.63	19.58	19.69	19.59	19.66		
5	QPSK	12	13	19.60	19.56	19.72	19.62	19.66		
5	QPSK	25	0	19.56	19.51	19.61	19.61	19.57		
5	16QAM	1	0	19.58	19.43	19.67	19.59	19.54		
5	16QAM	1	12	19.59	19.44	19.65	19.55	19.61		
5	16QAM	1	24	19.48	19.44	19.62	19.56	19.57		
5	16QAM	12	0	18.66	18.53	18.64	18.63	18.62		
5	16QAM	12	7	18.59	18.51	18.65	18.58	18.59		
5	16QAM	12	13	18.51	18.45	18.65	18.58	18.61		
5	16QAM	25	0	18.59	18.49	18.65	18.59	18.54		
5	64QAM	1	0	18.49	18.33	18.47	18.40	18.48		
5	64QAM	1	12	18.40	18.35	18.48	18.46	18.44		
5	64QAM	1	24	18.40	18.31	18.50	18.49	18.44		
5	64QAM	12	0	17.63	17.53	17.68	17.67	17.62		
5	64QAM	12	7	17.61	17.57	17.63	17.61	17.57		
5	64QAM	12	13	17.61	17.54	17.60	17.55	17.57		
5	64QAM	25	0	17.55	17.48	17.57	17.58	17.49		



n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT 3&6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1			210.0					
100	1	136			20.98					22.2
100	1	271			20.91					
100	135	1			20.25					
100	135	63			20.23					
100	135	136			20.18					21.2
100	270	0			20.12					
100	1	1			21.26					
100	1	136			21.16					22.2
100	1	271			21.06					
100	135	1			20.39					
100	135	63			20.36					
100	135	136			20.26					21.2
100	270	0			20.19					
100	1	1			19.92					21.2
100	1	1			18.88					20.2
100	1	1			18.17					17.2
Channel										
Frequency (MHz)										
90	1	1		21.20	21.23	21.16	21.15	21.11	21.11	22.2
Channel										
Frequency (MHz)										
85	1	1		3490.02	3495	3500.01	3504.99	3510	3510	22.2
Channel										
Frequency (MHz)										
70	1	1		3460.01	3462.51	3500.01	3507.48	3514.98	3514.98	22.2
Channel										
Frequency (MHz)										
80	1	1		3475.02	3487.5	3500.01	3510	3510	3510	21.2
Channel										
Frequency (MHz)										
50	1	1		21.10	21.11	21.22	21.20	21.08	21.08	21.2
Channel										
Frequency (MHz)										
40	1	1		21.22	21.13	21.19	21.22	20.93	20.93	21.2
Channel										
Frequency (MHz)										
30	1	1		21.14	21.21	21.21	21.13	20.99	20.99	21.2
Channel										
Frequency (MHz)										
20	1	1		21.16	21.21	21.19	21.06	21.00	21.00	22.2
Channel										
Frequency (MHz)										
100	1	1			19.93					20.2
100	1	1			18.89					20.2
100	1	1			17.84					18.2
100	1	1			14.25					15.2

n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT 3&6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1			20.23					
100	1	136			20.28					21.2
100	1	271			20.28					
100	135	1			19.29					
100	135	63			19.18					
100	135	136			19.11					20.2
100	270	0			19.04					
100	1	1			20.38					
100	1	136			20.30					21.2
100	1	271			20.28					
100	135	1			19.22					
100	135	63			19.16					
100	135	136			19.10					20.2
100	270	0			19.19					
100	1	1			19.22					20.2
100	1	1			19.25					19.2
100	1	1			17.38					18.7
Channel										
Frequency (MHz)										
90	1	1		20.25	20.32	20.29	20.34	20.28	20.28	21.2
Channel										
Frequency (MHz)										
80	1	1		3490.02	3495	3500.01	3504.99	3510	3510	21.2
Channel										
Frequency (MHz)										
70	1	1		3460.01	3462.51	3500.01	3507.48	3514.98	3514.98	21.2
Channel										
Frequency (MHz)										
80	1	1		3475.02	3487.5	3500.01	3510	3510	3510	21.2
Channel										
Frequency (MHz)										
50	1	1		20.28	20.24	20.35	20.22	20.05	20.05	21.2
Channel										
Frequency (MHz)										
40	1	1		20.17	20.21	20.28	20.21	20.10	20.10	21.2
Channel										
Frequency (MHz)										
30	1	1		20.25	20.22	20.27	20.23	20.15	20.15	21.2
Channel										
Frequency (MHz)										
20	1	1		20.27	20.18	20.30	20.25	20.11	20.11	21.2
Channel										
Frequency (MHz)										
100	1	1			19.02					19.7
100	1	1			18.30					19.7
100	1	1			16.92					17.7
100	1	1			15.01					15.7



n77 (3450 MHz ~ 3550 MHz) (PC2_ANT 4)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel			Tune-up limit (dBm)
Channel										
Frequency (MHz)										
100		1	1			633334				
100		1	136			22.53				
100		1	271			22.48				23.7
100	DFT-s-OFDM P2/BPSK	135	1			21.75				
100		135	61			21.73				
100		135	136			21.68				22.7
100		270	0			21.62				
100		1	136			20.75				23.7
100		1	271			22.56				
100	DFT-s-OFDM OFDM	135	1			21.88				
100		135	61			21.86				
100		135	136			21.76				22.7
100		270	0			21.69				
100	DFT-s-OFDM 16QAM	1	1			21.42				22.7
100	DFT-s-OFDM 64QAM	1	1			20.38				21.7
100	DFT-s-OFDM 256QAM	1	1			17.67				18.7
Channel										
Frequency (MHz)										
90		360		63068	63000	63334	63666	63998		Tune-up limit (dBm)
90	DFT-s-OFDM P2/BPSK	1	1	22.70	22.73	22.66	22.65	22.61		23.7
Channel										
Frequency (MHz)										
85		360		63068	63000	63334	63666	63998		Tune-up limit (dBm)
85	DFT-s-OFDM P2/BPSK	1	1	22.72	22.63	22.69	22.72	22.43		23.7
Channel										
Frequency (MHz)										
70		360		63068	63000	63334	63666	63998		Tune-up limit (dBm)
70	DFT-s-OFDM P2/BPSK	1	1	22.56	22.61	22.68	22.64	22.61		23.7
Channel										
Frequency (MHz)										
80		360		63068	63000	63334	63666	63998		Tune-up limit (dBm)
80	DFT-s-OFDM P2/BPSK	1	1	22.89	22.58	22.55	22.70	22.43		23.7
Channel										
Frequency (MHz)										
90		360		63068	63000	63334	63666	63998		Tune-up limit (dBm)
90	DFT-s-OFDM P2/BPSK	1	1	22.80	22.61	22.72	22.70	22.58		22.7
Channel										
Frequency (MHz)										
40		360		63068	63000	63334	63666	63998		Tune-up limit (dBm)
40	DFT-s-OFDM P2/BPSK	1	1	22.84	22.71	22.71	22.63	22.49		22.7
Channel										
Frequency (MHz)										
30		360		63068	63000	63334	63666	63998		Tune-up limit (dBm)
30	DFT-s-OFDM P2/BPSK	1	1	22.86	22.71	22.66	22.67	22.58		23.7
Channel										
Frequency (MHz)										
20		360		63068	63000	63334	63666	63998		Tune-up limit (dBm)
20	DFT-s-OFDM P2/BPSK	1	1	22.88	22.71	22.69	22.59	22.50		23.7
Channel										
Frequency (MHz)										
100		1	1			633334				
100	CP-OFDM BPSK	1	1			20.83				21.7
100	CP-OFDM 16QAM	1	1			20.39				21.7
100	CP-OFDM 64QAM	1	1			19.04				19.7
100	CP-OFDM 256QAM	1	1			15.75				16.7



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT 3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/High Channel	MSB Channel	Mid/High Channel	High Channel	Turn-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM P1+BPSSK	1	1	16.70	16.67	16.76	16.72	16.75	17.7	
100	DFT-s-OFDM P1+BPSSK	1	136	16.69	16.63	16.69	16.70	16.60	17.7	
100	DFT-s-OFDM P1+BPSSK	1	271	16.69	16.49	16.69	16.49	16.50	17.7	
100	DFT-s-OFDM P1+BPSSK	1	135	15.83	15.87	15.89	15.81	15.82	16.7	
100	DFT-s-OFDM P1+BPSSK	135	67	15.85	15.86	15.87	15.53	15.82	16.7	
100	DFT-s-OFDM P1+BPSSK	135	136	15.82	15.45	15.41	15.26	15.26	16.7	
100	DFT-s-OFDM P1+BPSSK	271	6	15.82	15.51	15.47	15.55	15.44	16.7	
100	DFT-s-OFDM P1+BPSSK	1	1	16.70	16.71	16.69	16.75	16.89	17.7	
100	DFT-s-OFDM P1+BPSSK	1	136	16.70	16.70	16.62	16.71	16.61	17.7	
100	DFT-s-OFDM P1+BPSSK	1	271	16.74	16.55	16.50	16.53	16.56	17.7	
100	DFT-s-OFDM P1+BPSSK	135	67	15.84	15.85	15.72	15.70	15.81	16.7	
100	DFT-s-OFDM P1+BPSSK	135	136	15.43	15.80	15.51	15.48	15.49	16.7	
100	DFT-s-OFDM P1+BPSSK	270	6	15.46	15.38	15.37	15.45	15.51	16.7	
100	DFT-s-OFDM P1+BPSSK	1	1	14.80	14.97	15.05	15.03	15.08	15.7	
100	DFT-s-OFDM P1+BPSSK	1	1	13.48	13.51	13.63	13.55	13.58	14.7	
100	DFT-s-OFDM P1+BPSSK	1	1	11.28	11.20	11.32	11.30	11.25	12.2	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P1+BPSSK	1	1	16.55	16.58	16.60	16.67	16.63	17.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1+BPSSK	1	1	16.55	16.58	16.60	16.67	16.63	17.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P1+BPSSK	1	1	16.83	16.43	16.78	16.74	16.83	17.7	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P1+BPSSK	1	1	16.55	16.72	16.77	16.87	16.72	17.7	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1+BPSSK	1	1	16.40	16.50	16.40	16.70	16.73	16.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P1+BPSSK	1	1	16.63	16.66	16.82	16.72	16.80	16.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1+BPSSK	1	1	16.64	16.72	16.80	16.73	16.75	17.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P1+BPSSK	1	1	16.77	16.75	16.81	16.80	16.79	17.7	
Channel										
Frequency (MHz)										
100	CP-OFDM IQSSK	1	1	14.47	14.59	14.82	14.80	14.52	15.7	
100	CP-OFDM IQSSK	1	1	14.20	14.28	14.29	14.35	14.30	15.7	
100	CP-OFDM IQSSK	1	1	12.42	12.65	12.42	12.81	12.60	13.7	
100	CP-OFDM IQSSK	1	1	8.90	9.16	9.03	9.38	9.25	10.7	

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT 3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/High Channel	MSB Channel	Mid/High Channel	High Channel	Turn-up limit (dBm)	
Channel										
Frequency (MHz)										
100	DFT-s-OFDM P1+BPSSK	1	1	16.72	16.69	16.76	16.68	16.72	17.7	
100	DFT-s-OFDM P1+BPSSK	1	136	16.69	16.67	16.69	16.67	16.75	17.7	
100	DFT-s-OFDM P1+BPSSK	1	271	16.69	16.49	16.69	16.49	16.52	17.7	
100	DFT-s-OFDM P1+BPSSK	135	67	15.83	15.81	15.86	15.83	15.83	16.7	
100	DFT-s-OFDM P1+BPSSK	135	136	15.82	15.85	15.81	15.50	15.88	16.7	
100	DFT-s-OFDM P1+BPSSK	270	6	15.81	15.81	15.81	15.87	15.80	16.7	
100	DFT-s-OFDM P1+BPSSK	270	136	15.82	15.51	15.85	15.88	15.88	16.7	
100	DFT-s-OFDM P1+BPSSK	1	1	16.70	16.70	16.61	16.75	16.72	17.7	
100	DFT-s-OFDM P1+BPSSK	1	136	16.69	16.68	16.70	16.68	16.65	17.7	
100	DFT-s-OFDM P1+BPSSK	1	271	16.69	16.77	16.55	16.41	16.51	17.7	
100	DFT-s-OFDM P1+BPSSK	135	67	15.82	15.79	15.82	15.79	15.88	16.7	
100	DFT-s-OFDM P1+BPSSK	135	136	15.81	15.90	15.89	15.90	15.85	16.7	
100	DFT-s-OFDM P1+BPSSK	270	6	15.88	15.90	15.87	15.93	15.92	16.7	
100	DFT-s-OFDM P1+BPSSK	1	1	15.90	15.94	15.87	15.92	15.91	16.7	
100	DFT-s-OFDM P1+BPSSK	1	1	14.84	14.86	14.88	15.03	14.90	15.7	
100	DFT-s-OFDM P1+BPSSK	1	1	13.96	13.76	13.88	13.91	13.95	14.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P1+BPSSK	1	1	16.72	16.62	16.71	16.69	16.69	17.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1+BPSSK	1	1	16.70	16.51	16.60	16.68	16.73	17.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P1+BPSSK	1	1	16.75	16.62	16.72	16.73	16.64	17.7	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P1+BPSSK	1	1	16.70	16.84	16.76	16.71	16.74	17.7	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1+BPSSK	1	1	16.70	16.70	16.70	16.70	16.70	16.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P1+BPSSK	1	1	16.68	16.71	16.68	16.74	16.68	16.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1+BPSSK	1	1	16.70	16.80	16.75	16.73	16.73	17.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P1+BPSSK	1	1	16.70	16.54	16.65	16.71	16.65	17.7	
Channel										
Frequency (MHz)										
100	CP-OFDM IQSSK	1	1	15.21	15.08	15.27	15.19	15.17	16.2	
100	CP-OFDM IQSSK	1	1	15.24	15.08	15.21	15.20	15.18	16.2	
100	CP-OFDM IQSSK	1	1	14.34	14.32	14.25	14.35	14.49	15.2	
100	CP-OFDM IQSSK	1	1	11.95	11.92	12.02	12.00	11.92	13.2	





n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT 4											
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel				650000	653000	656000	659000	662000			
Frequency (MHz)				3750	3795	3840	3885	3930			
100	DFT-s-OFDM PI/2 BPSK	1	1	22.70	22.67	22.78	22.72	22.75	23.7		
100		1	136	22.69	22.63	22.66	22.70	22.60			
100		1	271	22.65	22.49	22.69	22.49	22.55			
100		135	1	21.63	21.67	21.69	21.61	21.62			
100		135	67	21.55	21.66	21.67	21.53	21.62			
100		135	136	21.52	21.45	21.41	21.38	21.36			
100	DFT-s-OFDM QPSK	270	0	21.62	21.51	21.47	21.55	21.44	22.7		
100		1	1	22.79	22.71	22.88	22.75	22.80			
100		1	136	22.76	22.70	22.82	22.71	22.61			
100		1	271	22.74	22.55	22.80	22.53	22.56			
100		135	1	21.65	21.61	21.79	21.73	21.68			
100		135	67	21.43	21.55	21.72	21.70	21.61			
100		135	136	21.43	21.60	21.51	21.48	21.49			
100		270	0	21.46	21.38	21.57	21.45	21.51			
100		DFT-s-OFDM 16QAM	1	1	20.80	20.97	21.05	21.03		21.08	21.7
100		DFT-s-OFDM 64QAM	1	1	19.48	19.51	19.63	19.55		19.58	20.7
100	DFT-s-OFDM 256QAM	1	1	17.28	17.20	17.32	17.30	17.25	18.2		
Channel				649666	652834	656000	659166	662332			
Frequency (MHz)				3744.99	3792.51	3840	3887.49	3934.98			
90	DFT-s-OFDM PI/2 BPSK	1	1	22.55	22.58	22.69	22.67	22.63	23.7		
Channel				649334	652668	656000	659332	662666			
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99			
80	DFT-s-OFDM PI/2 BPSK	1	1	22.65	22.59	22.72	22.56	22.63	23.7		
Channel				649000	652500	656000	659000	663000			
Frequency (MHz)				3735	3787.5	3840	3892.5	3945			
70	DFT-s-OFDM PI/2 BPSK	1	1	22.63	22.43	22.78	22.74	22.63	23.7		
Channel				648668	652334	656000	659666	663332			
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98			
60	DFT-s-OFDM PI/2 BPSK	1	1	22.55	22.72	22.77	22.67	22.72	23.7		
Channel				648334	652168	656000	659332	663666			
Frequency (MHz)				3725.01	3782.52	3840	3894.99	3954.99			
50	DFT-s-OFDM PI/2 BPSK	1	1	22.49	22.58	22.80	22.76	22.73	22.7		
Channel				648000	652000	656000	660000	664000			
Frequency (MHz)				3720	3780	3840	3900	3960			
40	DFT-s-OFDM PI/2 BPSK	1	1	22.63	22.66	22.82	22.72	22.80	22.7		
Channel				647668	651834	656000	660166	664332			
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98			
30	DFT-s-OFDM PI/2 BPSK	1	1	22.64	22.72	22.80	22.73	22.75	23.7		
Channel				647334	651668	656000	660332	664666			
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99			
20	DFT-s-OFDM PI/2 BPSK	1	1	22.77	22.75	22.81	22.80	22.79	23.7		
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)		
Channel				650000	653000	656000	659000	662000			
Frequency (MHz)				3750	3795	3840	3885	3930			
100	CP-OFDM QPSK	1	1	20.47	20.59	20.82	20.60	20.52	21.7		
100	CP-OFDM 16QAM	1	1	20.20	20.28	20.29	20.35	20.30	21.7		
100	CP-OFDM 64QAM	1	1	18.42	18.55	18.42	18.81	18.60	19.7		
100	CP-OFDM 256QAM	1	1	14.90	15.16	15.03	15.36	15.25	16.7		





n78 (3450 MHz ~ 3550 MHz) (PC2) _ANT 3&6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		21.00					
100		1	136		20.94			22.2		
100		1	271		20.97					
100	DFT-s-OFDM P2/BPSK	135	1		20.24					
100		135	67		20.13			21.2		
100		135	136		20.08					
100		270	0		20.00					
100		1	1		21.07					
100		1	136		21.24			22.2		
100		1	271		21.23					
100	DFT-s-OFDM QPSK	135	1		20.30					
100		135	67		20.26			21.2		
100		135	136		20.22					
100		270	0		20.18					
100	DFT-s-OFDM 16QAM	1	1		20.25			21.2		
100	DFT-s-OFDM 64QAM	1	1		19.42			20.2		
100	DFT-s-OFDM 256QAM	1	1		16.00			17.2		
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		21.20			21.14	22.2	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		3490.02	3495	3500.01	3504.99	3510	22.2
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		21.13	21.06	21.25	21.21	21.25	22.2
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1		3490.01	3492.01	3494.01	3496.01	3498.01	22.2
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2/BPSK	1	1		21.17	21.11	21.09	21.18	21.15	22.2
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1		3476.02	3477.5	3500.01	3510	3520	22.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1		21.19	21.26	21.13	21.29	21.21	22.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1		3470.01	3465.01	3500.01	3510.01	3520.01	22.2
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1		21.01	21.19	21.16	21.15	21.08	22.2
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1		3460.02	3460.02	3500.01	3510.01	3520.01	22.2
Channel										
Frequency (MHz)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		3500.01			20.2		
100	CP-OFDM 16QAM	1	1				19.24	20.2		
100	CP-OFDM 64QAM	1	1				17.82	18.2		
100	CP-OFDM 256QAM	1	1				14.09	15.2		

n78 (3450 MHz ~ 3550 MHz) (PC3) _ANT 3&6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		3500.01					
100		1	136		20.16			21.2		
100		1	271		20.09					
100	DFT-s-OFDM P2/BPSK	135	1		19.22					
100		135	67		19.18			20.2		
100		135	136		19.08					
100		270	0		18.05					
100		1	1		20.34					
100		1	136		20.25			21.2		
100		1	271		20.13					
100	DFT-s-OFDM QPSK	135	1		19.23					
100		135	67		19.14			20.2		
100		135	136		19.18					
100		270	0		19.23					
100	DFT-s-OFDM 16QAM	1	1		19.35			20.2		
100	DFT-s-OFDM 64QAM	1	1		19.30			19.2		
100	DFT-s-OFDM 256QAM	1	1		17.52			18.2		
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		20.11	20.09	20.08	20.07	20.12	21.2
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		3490.02	3495	3500.01	3504.99	3510	21.2
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1		20.10	20.09	20.10	19.88	19.98	21.2
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2/BPSK	1	1		20.17	20.16	20.15	20.08	20.00	21.2
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1		20.14	20.03	20.09	19.99	19.92	24.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1		3470.01	3465.01	3500.01	3510.01	3520.01	21.2
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1		20.17	20.27	20.22	20.09	20.02	24.2
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1		20.30	20.13	20.25	19.98	19.95	24.2
Channel										
Frequency (MHz)										
BW (MHz) <th>Modulation</th> <th>RB Size</th> <th>RB Offset</th> <th>Low Channel</th> <th>Low/Mid/High Channel</th> <th>Mid/High Channel</th> <th>High Channel</th> <th>Tune-up limit (dBm)</th> <th colspan="2"></th>	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		3500.01			18.74		19.7
100	CP-OFDM 16QAM	1	1				18.68			19.7
100	CP-OFDM 64QAM	1	1				17.91			18.7
100	CP-OFDM 256QAM	1	1				14.90			15.7



n78 (3450 MHz ~ 3550 MHz) (PC2) _ANT 4									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM P/2 BPSK	1	1			22.56			23.7
100		1	138			22.44			
100		1	271			22.47			
100		135	1			21.74			22.7
100		135	67			21.63			
100		135	138			21.58			
100		270	0			21.50			
100	DFT-s-OFDM QPSK	1	1			22.77			23.7
100		1	138			22.74			
100		1	271			22.73			
100		135	1			21.80			22.7
100		135	67			21.79			
100		135	138			21.72			
100		270	0			21.68			
100	DFT-s-OFDM 16QAM	1	1			21.75			22.7
100	DFT-s-OFDM 64QAM	1	1			20.92			21.7
100	DFT-s-OFDM 256QAM	1	1			17.50			18.7
Channel				633000	633168	633334	633500	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3497.52	3500.01	3502.5	3504.99	
90	DFT-s-OFDM P/2 BPSK	1	1	22.70	22.66	22.58	22.65	22.64	23.7
Channel				632668	633000	633334	633666	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM P/2 BPSK	1	1	22.63	22.56	22.75	22.71	22.75	23.7
Channel				633334	632834	633334	633832	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM P/2 BPSK	1	1	22.62	22.64	22.68	22.67	22.68	23.7
Channel				632000	632668	633334	634000	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM P/2 BPSK	1	1	22.67	22.61	22.59	22.68	22.65	23.7
Channel				631668	632500	633334	634166	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3487.5	3500.01	3510	3525	
50	DFT-s-OFDM P/2 BPSK	1	1	22.69	22.76	22.63	22.70	22.71	23.7
Channel				631334	632334	633334	634332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM P/2 BPSK	1	1	22.71	22.74	22.75	22.71	22.64	23.7
Channel				631000	632168	633334	634500	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM P/2 BPSK	1	1	22.51	22.69	22.66	22.65	22.58	23.7
Channel				630668	632000	633334	634666	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM P/2 BPSK	1	1	22.66	22.45	22.60	22.46	22.45	23.7
Channel						633334			Tune-up limit (dBm)
Frequency (MHz)						3500.01			
100	CP-OFDM BPSK	1	1			20.90			21.7
100	CP-OFDM 16QAM	1	1			20.74			21.7
100	CP-OFDM 64QAM	1	1			19.02			19.7
100	CP-OFDM 256QAM	1	1			15.59			16.7



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT 3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100		1	1		14.40					
100		1	136		16.56				17.7	
100		1	271		16.54					
100	DFT-s-OFDM P1/2 BPSK	135	1		15.58					
100		135	67		15.52					
100		135	136		15.55				16.7	
100		270	0		15.51					
100		1	1		16.56					
100		1	136		16.61				17.7	
100		1	271		16.55					
100	DFT-s-OFDM QPSK	135	1		15.81					
100		135	67		15.76					
100		135	136		15.89				16.7	
100		270	0		15.55					
100	DFT-s-OFDM 16QAM	1	1		15.84				16.7	
100	DFT-s-OFDM 64QAM	1	1		13.66				14.7	
100	DFT-s-OFDM 256QAM	1	1		11.41				12.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	16.43	16.65	16.52	16.51	16.50	17.7	
Channel										
Frequency (MHz)										
85	DFT-s-OFDM QPSK	1	1	16.47	16.52	16.57	16.62	16.59	17.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	16.47	16.41	16.64	16.65	16.61	17.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	16.61	16.58	16.51	16.59	16.60	17.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	16.50	16.80	16.64	16.48	16.51	17.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	16.50	16.50	16.53	16.50	16.42	17.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	16.50	16.53	16.47	16.50	16.50	17.7	
Channel										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		14.57				15.7	
100	CP-OFDM 16QAM	1	1		14.32				15.7	
100	CP-OFDM 64QAM	1	1		12.52				13.7	
100	CP-OFDM 256QAM	1	1		9.20				10.7	

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT 3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100		1	1		13.59					
100		1	136		15.82				16.9	
100		1	271		15.78					
100	DFT-s-OFDM P1/2 BPSK	135	1		14.93					
100		135	67		14.82					
100		135	136		14.92				15.9	
100		270	0		14.82					
100		1	1		15.86					
100		1	136		15.86				16.9	
100		1	271		16.81					
100	DFT-s-OFDM QPSK	135	1		14.94					
100		135	67		14.92					
100		135	136		14.93				15.9	
100		270	0		14.77					
100	DFT-s-OFDM 16QAM	1	1		14.86				15.9	
100	DFT-s-OFDM 64QAM	1	1		14.80				15.9	
100	DFT-s-OFDM 256QAM	1	1		12.82				13.9	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	15.86	15.85	15.83	15.76	15.82	16.9	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	15.85	15.72	15.76	15.77	15.84	16.9	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	15.78	15.84	15.80	15.84	15.81	16.9	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	15.84	15.81	15.88	15.82	15.90	16.9	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	15.90	15.77	15.87	15.79	15.83	16.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	15.71	15.76	15.90	15.92	15.82	16.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	15.83	15.79	15.88	15.81	15.86	16.7	
Channel										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		14.77				15.4	
100	CP-OFDM 16QAM	1	1		14.74				15.4	
100	CP-OFDM 64QAM	1	1		13.87				14.4	
100	CP-OFDM 256QAM	1	1		10.85				11.4	



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT 4									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						650000			
Frequency (MHz)						3750			
100	DFT-s-OFDM PI/2 BPSK	1	1			22.60			23.7
100		1	136			22.56			
100		1	271			22.54			
100		135	1			21.58			22.7
100		135	67			21.50			
100		135	136			21.55			
100		270	0			21.51			
100	DFT-s-OFDM QPSK	1	1			22.68			23.7
100		1	136			22.61			
100		1	271			22.55			
100		135	1			21.81			22.7
100		135	67			21.75			
100		135	136			21.69			
100		270	0			21.55			
100	DFT-s-OFDM 16QAM	1	1			21.84			22.7
100	DFT-s-OFDM 64QAM	1	1			19.66			20.7
100	DFT-s-OFDM 256QAM	1	1			17.41			18.7
Channel				649668	649834	650000	650166	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3747.51	3750	3752.49	3754.98	
90	DFT-s-OFDM QPSK	1	1	22.43	22.65	22.52	22.51	22.50	23.7
Channel				649334	649668	650000	650332	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3745.02	3750	3754.98	3759.99	
80	DFT-s-OFDM QPSK	1	1	22.47	22.52	22.57	22.62	22.59	23.7
Channel				649000	649500	650000	650500	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3742.5	3750	3757.5	3765	
70	DFT-s-OFDM QPSK	1	1	22.47	22.41	22.64	22.65	22.61	23.7
Channel				648668	649334	650000	650666	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3740.01	3750	3759.99	3769.98	
60	DFT-s-OFDM QPSK	1	1	22.61	22.58	22.51	22.56	22.60	23.7
Channel				648334	649168	650000	650832	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3737.52	3750	3759.99	3774.99	
50	DFT-s-OFDM QPSK	1	1	22.59	22.60	22.64	22.46	22.51	23.7
Channel				648000	649000	650000	651000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3735	3750	3765	3780	
40	DFT-s-OFDM QPSK	1	1	22.58	22.50	22.53	22.56	22.42	23.7
Channel				647334	648668	650000	651332	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3730.02	3750	3769.98	3789.99	
20	DFT-s-OFDM QPSK	1	1	22.56	22.53	22.47	22.60	22.58	23.7
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						650000			
Frequency (MHz)						3750			
100	CP-OFDM QPSK	1	1			20.57			21.7
100	CP-OFDM 16QAM	1	1			20.32			21.7
100	CP-OFDM 64QAM	1	1			18.52			19.7
100	CP-OFDM 256QAM	1	1			15.20			16.7



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT 6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		20.10					
100		1	136		20.06				21.2	
100		1	271		20.04					
100	DFT-s-OFDM P1/2 BPSK	135	1		19.08					
100		135	67		19.02					
100		135	136		19.05				20.2	
100		270	0		19.01					
100		1	1		20.16					
100		1	136		20.11				21.2	
100		1	271		20.05					
100	DFT-s-OFDM QPSK	135	1		19.31					
100		135	67		19.25					
100		135	136		19.19				20.2	
100		270	0		19.05					
100	DFT-s-OFDM 16QAM	1	1		19.34					20.2
100	DFT-s-OFDM 64QAM	1	1		17.16					18.2
100	DFT-s-OFDM 256QAM	1	1		14.91					16.2
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1		19.93	20.15	20.02	20.01	20.00	21.2
Channel										
Frequency (MHz)										
85	DFT-s-OFDM QPSK	1	1		19.97	20.02	20.07	20.12	20.09	21.2
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1		19.97	19.91	20.14	20.15	20.11	21.2
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1		20.11	20.08	20.01	20.09	20.10	21.2
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1		20.00	20.10	20.14	19.98	20.01	21.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1		20.08	20.00	20.09	20.09	19.92	21.2
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1		20.06	20.03	19.97	20.10	20.05	21.2
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		18.07					19.2
100	CP-OFDM 16QAM	1	1		17.82					18.9
100	CP-OFDM 64QAM	1	1		16.02					17.2
100	CP-OFDM 256QAM	1	1		12.70					14.2

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT 6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		19.39					
100		1	136		19.32				20.4	
100		1	271		19.28					
100	DFT-s-OFDM P1/2 BPSK	135	1		18.43					
100		135	67		18.39					
100		135	136		18.42				19.4	
100		270	0		18.32					
100		1	1		19.45					
100		1	136		19.38				20.4	
100		1	271		19.31					
100	DFT-s-OFDM QPSK	135	1		18.44					
100		135	67		18.42					
100		135	136		18.43				19.4	
100		270	0		18.27					
100	DFT-s-OFDM 16QAM	1	1		18.36					19.4
100	DFT-s-OFDM 64QAM	1	1		18.30					19.4
100	DFT-s-OFDM 256QAM	1	1		16.32					17.4
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1		19.36	19.35	19.33	19.26	19.32	20.4
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1		19.05	19.22	19.25	19.27	19.34	20.4
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1		19.28	19.34	19.30	19.34	19.31	20.4
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1		19.34	19.41	19.38	19.32	19.40	20.4
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1		19.40	19.27	19.37	19.29	19.33	24.7
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1		19.21	19.26	19.40	19.42	19.32	24.7
Channel										
Frequency (MHz)										
30	DFT-s-OFDM QPSK	1	1		19.33	19.29	19.34	19.31	19.36	24.7
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		18.27					18.9
100	CP-OFDM 16QAM	1	1		18.24					18.9
100	CP-OFDM 64QAM	1	1		17.47					17.9
100	CP-OFDM 256QAM	1	1		14.35					14.9



CA_48C_Ant 3 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
55340	55340	55538	QPSK	1	0	0	0	1	0	20.06	21.00
55990	55891	56089	QPSK	1	0	0	0	1	0	20.22	21.00
56640	56442	56640	QPSK	1	0	0	0	1	0	19.98	21.00
55340	55340	55538	16QAM	1	0	0	0	1	0	19.49	20.50
55990	55891	56089	16QAM	1	0	0	0	1	0	19.62	20.50
56640	56442	56640	16QAM	1	0	0	0	1	0	19.44	20.50
55340	55340	55538	64QAM	1	0	0	0	1	0	18.31	19.00
55990	55891	56089	64QAM	1	0	0	0	1	0	18.38	19.00
56640	56442	56640	64QAM	1	0	0	0	1	0	18.29	19.00
55340	55340	55538	QPSK	50	0	0	0	1	0	19.25	20.00
55990	55891	56089	QPSK	50	0	0	0	1	0	19.32	20.00
56640	56442	56640	QPSK	50	0	0	0	1	0	19.22	20.00





Reduced Power Level 1 for Ant 7

2.4GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11b 1Mbps	CH 1	2412	15.46	17.00	15.00	100.00
	CH 6	2437	15.67	17.50	15.00	
	CH 11	2462	15.63	17.50	15.00	
802.11g 6Mbps	CH 1	2412	13.41	15.00	13.50	98.57
	CH 6	2437	13.42	15.00	13.50	
	CH 11	2462	11.87	13.00	11.00	
802.11n-HT20 MCS0	CH 1	2412	13.22	15.00	13.50	98.57
	CH 6	2437	13.10	15.00	13.50	
	CH 11	2462	13.43	12.00	13.50	
802.11n-HT40 MCS0	CH 3	2422	13.28	15.00	13.00	95.00
	CH 6	2437	10.75	12.50	9.50	
	CH 9	2452	8.92	10.50	8.00	
802.11ac-VHT20 MCS0	CH 1	2412	13.23	15.00	13.50	98.47
	CH 6	2437	13.17	15.00	13.50	
	CH 11	2462	10.49	12.00	10.50	
802.11ac-VHT40 MCS0	CH 3	2422	13.23	15.00	13.00	95.05
	CH 6	2437	10.71	12.50	9.50	
	CH 9	2452	8.96	10.50	8.00	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 36	5180	12.19	14.00	12.00	98.10
	CH 44	5220	12.50	14.50	12.00	
	CH 48	5240	12.56	14.50	12.00	
802.11n-HT20 MCS0	CH 36	5180	12.75	14.50	12.00	98.57
	CH 44	5220	13.03	15.00	12.00	
	CH 48	5240	13.14	15.00	12.00	
802.11n-HT40 MCS0	CH 36	5180	13.19	15.00	12.00	96.94
	CH 44	5220	12.48	14.00	12.00	
	CH 38	5180	11.10	13.00	10.50	
802.11ac-VHT20 MCS0	CH 44	5220	11.42	13.00	10.50	98.48
	CH 48	5240	10.79	12.50	10.50	
	CH 38	5180	10.98	12.50	10.50	
802.11ac-VHT40 MCS0	CH 44	5220	11.22	13.00	10.50	95.96
	CH 48	5240	11.22	13.00	10.50	
	CH 42	5210	11.32	13.00	10.50	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 52	5260	12.74	14.50	12.00	98.57
	CH 60	5300	12.77	14.50	12.00	
	CH 64	5320	13.03	15.00	12.00	
802.11n-HT20 MCS0	CH 52	5260	13.27	15.00	12.00	98.57
	CH 60	5300	12.50	14.50	12.00	
	CH 64	5320	12.81	14.50	12.00	
802.11n-HT40 MCS0	CH 54	5270	12.88	14.50	12.00	96.94
	CH 62	5310	13.39	15.00	12.00	
	CH 52	5260	10.89	12.50	10.50	
802.11ac-VHT20 MCS0	CH 60	5300	11.05	13.00	10.50	98.48
	CH 64	5320	11.42	13.00	10.50	
	CH 54	5270	10.93	12.50	10.50	
802.11ac-VHT40 MCS0	CH 62	5310	11.62	13.50	10.50	96.97
	CH 58	5290	11.66	13.50	10.50	
	CH 58	5290	11.66	13.50	10.50	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 100	5600	14.27	16.00	12.50	98.57
	CH 120	5600	14.36	16.00	12.50	
	CH 144	5720	13.62	15.00	12.50	
802.11n-HT20 MCS0	CH 100	5600	14.08	16.00	12.50	98.47
	CH 120	5600	13.28	15.00	12.50	
	CH 144	5720	13.36	15.00	12.50	
802.11n-HT40 MCS0	CH 102	5510	14.36	16.00	12.50	96.94
	CH 126	5630	13.65	15.50	12.50	
	CH 142	5710	13.67	15.50	12.50	
802.11ac-VHT20 MCS0	CH 100	5600	13.15	15.00	12.50	98.48
	CH 120	5600	12.80	14.50	12.50	
	CH 144	5720	12.99	14.50	12.50	
802.11ac-VHT40 MCS0	CH 126	5630	13.41	15.00	12.50	96.97
	CH 142	5710	13.37	15.00	12.50	
	CH 106	5630	13.46	15.00	12.50	
802.11ac-VHT80 MCS0	CH 122	5610	13.16	15.00	12.50	94.00
	CH 122	5610	13.16	15.00	12.50	
	CH 138	5690	13.12	15.00	12.50	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 148	5745	15.14	17.00	15.00	98.57
	CH 157	5785	15.51	17.50	15.00	
	CH 165	5825	14.92	16.50	15.00	
802.11n-HT20 MCS0	CH 148	5745	15.49	17.00	15.00	98.47
	CH 157	5785	15.86	17.50	15.00	
	CH 165	5825	15.80	17.50	15.00	
802.11n-HT40 MCS0	CH 151	5755	15.85	17.50	15.00	96.94
	CH 159	5795	16.33	18.00	15.00	
	CH 149	5745	14.06	16.00	13.50	
802.11ac-VHT20 MCS0	CH 157	5785	14.10	16.00	13.50	97.97
	CH 165	5825	14.35	16.00	13.50	
	CH 151	5755	13.92	15.50	13.50	
802.11ac-VHT40 MCS0	CH 159	5795	14.83	16.50	13.50	96.97
	CH 155	5775	14.13	16.00	13.50	
	CH 155	5775	14.13	16.00	13.50	



**Reduced power Level 2 for Ant 0**

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	20.39	20.42	20.36	21.30	20.53	20.61	20.56	21.30
3GPP Rel 6	HSDPA Subtest-1	19.44	19.79	19.69	20.50	19.47	19.93	19.88	20.50
3GPP Rel 6	HSDPA Subtest-2	19.58	19.84	19.46	20.50	19.48	19.88	19.59	20.50
3GPP Rel 6	HSDPA Subtest-3	19.00	19.04	18.83	20.00	19.03	19.30	18.82	20.00
3GPP Rel 6	HSDPA Subtest-4	19.50	19.30	19.17	20.00	19.72	19.46	19.37	20.00
3GPP Rel 8	DC-HSDPA Subtest-1	19.79	19.56	19.48	20.50	19.90	19.72	19.44	20.50
3GPP Rel 8	DC-HSDPA Subtest-2	19.27	19.11	18.97	20.00	19.50	19.17	19.19	20.00
3GPP Rel 8	DC-HSDPA Subtest-3	19.16	18.85	18.70	19.50	18.83	18.86	18.56	19.50
3GPP Rel 8	DC-HSDPA Subtest-4	19.01	18.68	18.80	20.00	19.06	18.82	18.99	20.00
3GPP Rel 6	HSUPA Subtest-1	19.31	19.16	19.28	20.50	19.48	19.02	19.15	20.50
3GPP Rel 6	HSUPA Subtest-2	17.88	17.61	17.68	18.50	17.85	17.81	17.74	18.50
3GPP Rel 6	HSUPA Subtest-3	18.88	18.64	18.55	19.50	19.02	18.68	18.73	19.50
3GPP Rel 6	HSUPA Subtest-4	17.86	17.57	17.57	18.50	17.72	17.72	17.64	18.50
3GPP Rel 6	HSUPA Subtest-5	19.22	19.06	18.76	19.50	19.20	19.05	18.73	19.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	17.75	17.76	17.81	18.50	17.62	17.72	17.75	18.50
Attenuator			Cable Loss	0.8		Cable Loss	0.8		
Mode			Max.	20.42		Max.	20.61		





3	QPSK	15	0	19.47	19.54	19.46	20.3
3	16QAM	1	0	19.78	19.76	19.78	
3	16QAM	1	8	19.75	19.76	19.69	
3	16QAM	1	14	19.66	19.70	19.68	
3	16QAM	8	0	18.57	18.58	18.51	
3	16QAM	8	4	18.53	18.58	18.51	
3	16QAM	8	7	18.54	18.54	18.52	
3	16QAM	15	0	18.47	18.56	18.52	
3	64QAM	1	0	18.60	18.64	18.64	
3	64QAM	1	8	18.51	18.61	18.56	
3	64QAM	1	14	18.55	18.63	18.55	
3	64QAM	8	0	17.59	17.65	17.50	
3	64QAM	8	4	17.60	17.60	17.60	
3	64QAM	8	7	17.56	17.60	17.57	
3	64QAM	15	0	17.50	17.57	17.49	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	20.36	20.51	20.43	21.3
1.4	QPSK	1	3	20.30	20.37	20.36	
1.4	QPSK	1	5	20.27	20.38	20.36	
1.4	QPSK	3	0	20.33	20.42	20.39	
1.4	QPSK	3	1	20.45	20.48	20.38	
1.4	QPSK	3	3	20.39	20.43	20.40	
1.4	QPSK	6	0	19.47	19.57	19.49	20.3
1.4	16QAM	1	0	19.75	19.74	19.71	20.3
1.4	16QAM	1	3	19.75	19.72	19.68	
1.4	16QAM	1	5	19.66	19.75	19.75	
1.4	16QAM	3	0	19.55	19.60	19.52	
1.4	16QAM	3	1	19.53	19.57	19.49	
1.4	16QAM	3	3	19.54	19.58	19.47	
1.4	16QAM	6	0	18.48	18.57	18.46	19.3
1.4	64QAM	1	0	18.63	18.68	18.67	19.3
1.4	64QAM	1	3	18.55	18.59	18.56	
1.4	64QAM	1	5	18.55	18.59	18.56	
1.4	64QAM	3	0	18.64	18.58	18.51	
1.4	64QAM	3	1	18.61	18.59	18.56	
1.4	64QAM	3	3	18.54	18.55	18.53	
1.4	64QAM	6	0	17.47	17.53	17.45	18.3

3	QPSK	15	0	19.33	19.31	19.26	20.1
3	16QAM	1	0	19.56	19.56	19.54	
3	16QAM	1	8	19.54	19.61	19.49	
3	16QAM	1	14	19.46	19.54	19.49	
3	16QAM	8	0	18.41	18.40	18.39	
3	16QAM	8	4	18.29	18.39	18.31	
3	16QAM	8	7	18.25	18.22	18.18	
3	16QAM	15	0	18.28	18.31	18.26	
3	64QAM	1	0	18.53	18.51	18.46	
3	64QAM	1	8	18.40	18.43	18.39	
3	64QAM	1	14	18.35	18.46	18.39	
3	64QAM	8	0	17.38	17.44	17.31	
3	64QAM	8	4	17.36	17.35	17.30	
3	64QAM	8	7	17.24	17.30	17.25	
3	64QAM	15	0	17.26	17.38	17.31	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	20.30	20.36	20.28	21.1
1.4	QPSK	1	3	20.18	20.20	20.20	
1.4	QPSK	1	5	20.11	20.21	20.18	
1.4	QPSK	3	0	20.19	20.28	20.22	
1.4	QPSK	3	1	20.22	20.23	20.15	
1.4	QPSK	3	3	20.03	20.08	20.09	
1.4	QPSK	6	0	19.27	19.31	19.25	20.1
1.4	16QAM	1	0	19.60	19.58	19.53	20.1
1.4	16QAM	1	3	19.50	19.58	19.52	
1.4	16QAM	1	5	19.45	19.58	19.54	
1.4	16QAM	3	0	19.25	19.23	19.27	
1.4	16QAM	3	1	19.20	19.24	19.16	
1.4	16QAM	3	3	19.05	19.14	19.08	
1.4	16QAM	6	0	18.30	18.35	18.26	19.1
1.4	64QAM	1	0	18.46	18.50	18.50	19.1
1.4	64QAM	1	3	18.41	18.46	18.39	
1.4	64QAM	1	5	18.42	18.43	18.41	
1.4	64QAM	3	0	18.20	18.23	18.17	
1.4	64QAM	3	1	18.15	18.20	18.15	
1.4	64QAM	3	3	18.12	18.17	18.09	
1.4	64QAM	6	0	17.28	17.32	17.30	18.1





3	QPSK	15	0	19.42	19.50	19.45	20.3
3	16QAM	1	0	19.74	19.79	19.75	
3	16QAM	1	8	19.70	19.75	19.71	
3	16QAM	1	14	19.61	19.69	19.66	19.3
3	16QAM	8	0	18.51	18.56	18.51	
3	16QAM	8	4	18.52	18.51	18.45	
3	16QAM	8	7	18.52	18.54	18.52	19.3
3	16QAM	15	0	18.50	18.56	18.50	
3	64QAM	1	0	18.61	18.66	18.65	
3	64QAM	1	8	18.53	18.61	18.58	18.3
3	64QAM	1	14	18.60	18.61	18.54	
3	64QAM	8	0	17.66	17.69	17.63	
3	64QAM	8	4	17.59	17.61	17.57	18.3
3	64QAM	8	7	17.62	17.60	17.57	
3	64QAM	15	0	17.50	17.57	17.58	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	20.43	20.46	20.43	21.3
1.4	QPSK	1	3	20.35	20.37	20.29	
1.4	QPSK	1	5	20.30	20.34	20.31	
1.4	QPSK	3	0	20.45	20.52	20.44	
1.4	QPSK	3	1	20.42	20.45	20.46	
1.4	QPSK	3	3	20.44	20.47	20.46	
1.4	QPSK	6	0	19.45	19.51	19.42	20.3
1.4	16QAM	1	0	19.80	19.82	19.69	19.3
1.4	16QAM	1	3	19.64	19.75	19.71	
1.4	16QAM	1	5	19.56	19.65	19.66	
1.4	16QAM	3	0	19.40	19.45	19.39	
1.4	16QAM	3	1	19.43	19.43	19.35	
1.4	16QAM	3	3	19.47	19.47	19.42	
1.4	16QAM	6	0	18.47	18.55	18.52	18.3
1.4	64QAM	1	0	18.62	18.63	18.63	19.3
1.4	64QAM	1	3	18.55	18.67	18.62	
1.4	64QAM	1	5	18.57	18.62	18.57	
1.4	64QAM	3	0	18.53	18.60	18.50	
1.4	64QAM	3	1	18.47	18.52	18.49	
1.4	64QAM	3	3	18.52	18.51	18.49	
1.4	64QAM	6	0	17.50	17.56	17.57	18.3

3	QPSK	15	0	18.83	18.83	18.75	19.6
3	16QAM	1	0	18.99	19.05	18.98	
3	16QAM	1	8	19.01	19.06	19.01	
3	16QAM	1	14	18.94	19.04	18.93	18.6
3	16QAM	8	0	17.79	17.83	17.77	
3	16QAM	8	4	17.70	17.73	17.72	
3	16QAM	8	7	17.74	17.81	17.76	18.6
3	16QAM	15	0	17.75	17.79	17.75	
3	64QAM	1	0	17.99	18.05	18.01	
3	64QAM	1	8	17.96	17.99	17.94	17.6
3	64QAM	1	14	17.96	18.00	17.91	
3	64QAM	8	0	16.76	16.82	16.80	
3	64QAM	8	4	16.73	16.80	16.79	17.6
3	64QAM	8	7	16.72	16.78	16.81	
3	64QAM	15	0	16.78	16.79	16.77	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	19.75	19.82	19.75	20.6
1.4	QPSK	1	3	19.63	19.76	19.73	
1.4	QPSK	1	5	19.62	19.72	19.68	
1.4	QPSK	3	0	19.64	19.70	19.64	
1.4	QPSK	3	1	19.68	19.74	19.69	
1.4	QPSK	3	3	19.59	19.67	19.64	
1.4	QPSK	6	0	18.82	18.84	18.73	19.6
1.4	16QAM	1	0	19.02	19.04	19.04	19.6
1.4	16QAM	1	3	18.98	19.04	19.01	
1.4	16QAM	1	5	18.93	19.00	18.99	
1.4	16QAM	3	0	18.69	18.70	18.63	
1.4	16QAM	3	1	18.58	18.65	18.60	
1.4	16QAM	3	3	18.66	18.74	18.65	
1.4	16QAM	6	0	17.75	17.82	17.74	18.6
1.4	64QAM	1	0	18.04	18.07	18.04	18.6
1.4	64QAM	1	3	18.03	18.05	17.95	
1.4	64QAM	1	5	17.96	17.99	17.90	
1.4	64QAM	3	0	17.70	17.76	17.74	
1.4	64QAM	3	1	17.66	17.76	17.69	
1.4	64QAM	3	3	17.62	17.73	17.71	
1.4	64QAM	6	0	16.76	16.82	16.74	17.6





n2 (1850 ~ 1910MHz)_ANT0							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1855	1890	1900	
20	DFT-s-OFDM P1/2 BPSK	1	1	19.77	19.69	19.81	21.2
20		1	53	19.86	19.92	19.82	
20		1	104	19.61	19.74	19.76	
20		50	1	19.98	19.04	19.20	
20		50	25	19.25	19.05	19.16	
20		50	50	18.68	18.79	18.67	
20	DFT-s-OFDM QPSK	100	0	19.20	19.10	19.21	20.2
20		1	1	19.96	20.02	19.99	
20		1	53	19.91	19.97	19.93	
20		1	104	19.84	19.87	19.80	
20		50	1	19.50	19.59	19.55	
20		50	25	19.35	19.37	19.51	
20	DFT-s-OFDM 16QAM	50	50	19.12	19.39	19.40	20.2
20		100	0	19.29	19.09	19.10	
20		1	1	19.67	19.59	19.76	
20		1	1	18.19	18.25	18.30	
20		1	1	15.80	15.63	15.82	
20		1	1	18.19	18.25	18.30	
Channel				371500	376000	380500	
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	19.96	19.85	19.87	25.2
Channel				371000	376000	381000	
Frequency (MHz)				1855	1890	1905	
10	DFT-s-OFDM QPSK	1	1	20.00	19.97	19.86	25.2
Channel				370500	376000	381500	
Frequency (MHz)				1852.5	1890	1907.5	
5	DFT-s-OFDM QPSK	1	1	19.95	19.92	19.94	25.2
Channel				372000	376000	380000	
Frequency (MHz)				1860	1890	1900	
20	CP-OFDM QPSK	1	1	19.04	18.73	18.86	19.7
20	CP-OFDM 16QAM	1	1	18.68	18.57	18.65	19.7
20	CP-OFDM 64QAM	1	1	17.55	17.34	17.52	18.7
20	CP-OFDM 256QAM	1	1	13.73	13.83	13.84	14.7

n25_ANT0							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	376500	379000	
Frequency (MHz)				1870	1882.5	1895	
40	DFT-s-OFDM P1/2 BPSK	1	1	19.99	20.05	20.02	21.2
40		1	53	19.91	20.00	20.01	
40		1	105	19.95	20.04	19.97	
40		50	1	19.15	19.07	19.21	
40		50	25	19.11	19.08	19.26	
40		50	50	19.04	19.09	19.31	
40	DFT-s-OFDM QPSK	100	0	19.13	19.06	19.28	20.2
40		1	1	20.06	20.07	20.03	
40		1	53	19.69	20.01	20.00	
40		1	105	19.98	20.04	20.01	
40		50	1	19.15	19.20	19.17	
40		50	25	19.12	19.16	19.12	
40	DFT-s-OFDM 16QAM	50	50	19.07	19.12	19.10	24.2
40		100	0	19.11	19.12	19.08	
40		1	1	19.24	19.45	19.25	
40		1	1	17.88	17.93	17.89	
40		1	1	15.46	15.50	15.44	
40		1	1	17.88	17.93	17.89	
Channel				373000	376500	380000	
Frequency (MHz)				1855	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	19.95	20.01	19.73	25.2
Channel				372000	376500	381000	
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	20.01	20.02	20.00	21.2
Channel				371500	376500	381500	
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	19.83	19.97	19.79	21.2
Channel				371000	376500	382000	
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	19.92	19.96	19.95	21.2
Channel				370500	376500	382500	
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	19.82	19.85	19.77	25.2
Channel				374000	376500	379000	
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	18.99	18.70	18.74	23.7
40	CP-OFDM 16QAM	1	1	18.28	18.16	18.27	22.7
40	CP-OFDM 64QAM	1	1	16.66	16.92	16.78	21.7
40	CP-OFDM 256QAM	1	1	13.45	13.40	13.46	18.2





n66 (1710 ~ 1780 MHz)_ANT0							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				346000	349000	352000	
Frequency (MHz)				1725	1745	1765	
40	DFT-s-OFDM PVC-SPSK	1	1	20.11	20.18	20.01	21.2
40		53		20.10	20.15	20.14	
40		1	104	20.07	20.10	20.05	
40		53	1	19.16	19.41	19.35	
40		53	26	19.35	19.48	19.28	
40		53	52	19.34	19.48	19.29	
40	DFT-s-OFDM QPSK	106	0	19.33	19.41	19.35	20.2
40		1	1	20.21	20.22	20.24	
40		1	53	20.19	20.22	20.21	
40		1	104	20.21	20.26	20.17	
40		53	1	19.34	19.49	19.46	
40		53	26	19.43	19.52	19.44	
40	DFT-s-OFDM 16QAM	53	52	19.45	19.48	19.45	20.2
40		106	0	19.97	19.29	19.25	
40		1	1	19.23	19.27	19.29	
40	DFT-s-OFDM 64QAM	1	1	17.96	18.00	17.97	19.2
40	DFT-s-OFDM 256QAM	1	1	15.43	15.59	15.51	16.7
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	20.26	20.15	20.18	21.2
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	20.11	20.19	20.05	21.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	20.03	20.24	19.96	21.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	20.19	20.02	19.97	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	19.33	19.25	19.47	25.2
Channel				348000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1760	
40	CP-OFDM QPSK	1	1	18.76	18.74	18.63	18.7
40	CP-OFDM 16QAM	1	1	18.25	18.29	17.99	18.7
40	CP-OFDM 64QAM	1	1	18.95	18.88	18.78	17.7
40	CP-OFDM 256QAM	1	1	13.47	13.55	13.62	14.2

n71 (663 ~ 698 MHz)_ANT0							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				134600	136100	137600	
Frequency (MHz)				673	680.5	688	
20	DFT-s-OFDM PVC-SPSK	1	1	24.19	24.25	24.22	25.2
20		53		24.10	24.11	24.07	
20		1	104	24.11	23.93	23.89	
20		50	1	23.31	23.54	23.40	
20		50	25	23.61	23.43	23.36	
20		50	50	23.52	23.32	23.27	
20	DFT-s-OFDM QPSK	100	0	23.63	23.47	23.10	24.2
20		1	1	24.25	24.28	24.22	
20		1	53	24.13	24.24	24.16	
20		1	104	23.85	24.06	23.97	
20		50	1	23.56	23.60	23.52	
20		50	25	23.59	23.47	23.37	
20	DFT-s-OFDM 16QAM	50	50	23.51	23.58	23.27	24.2
20		100	0	23.53	23.55	23.40	
20		1	1	23.92	23.53	23.65	
20	DFT-s-OFDM 64QAM	1	1	22.34	22.27	22.18	23.2
20	DFT-s-OFDM 256QAM	1	1	19.73	19.77	19.77	20.7
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	DFT-s-OFDM QPSK	1	1	23.97	24.02	23.94	25.2
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	DFT-s-OFDM QPSK	1	1	23.89	23.99	23.88	25.2
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	DFT-s-OFDM QPSK	1	1	23.75	23.88	23.76	25.2
Channel				134600	139100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	CP-OFDM QPSK	1	1	23.34	23.05	23.13	23.7
20	CP-OFDM 16QAM	1	1	22.82	22.85	22.62	23.2
20	CP-OFDM 64QAM	1	1	21.58	21.57	21.41	22.2
20	CP-OFDM 256QAM	1	1	17.84	17.96	17.81	18.7



n41 (2496 ~ 2690MHz) (PC2) _ANT0									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				509202	513900	518598	523296	528000	
Frequency (MHz)				2546.01	2569.50	2592.99	2616.50	2640.00	
100	DFT-s-OFDM P/2 BPSK	1	1	23.02	23.09	23.03	23.03	23.00	24.3
100		1	136	22.98	23.00	23.22	23.10	23.13	
100		1	272	22.95	23.02	23.18	23.01	23.08	
100		135	1	22.59	22.66	22.72	22.60	22.59	23.3
100		135	67	22.70	22.67	22.70	22.54	22.63	
100		135	136	22.78	22.87	22.81	22.81	22.74	
100	DFT-s-OFDM QPSK	270	0	22.72	22.80	22.78	22.64	22.72	24.3
100		1	1	23.25	23.16	23.42	23.18	23.13	
100		1	136	23.06	23.01	23.26	23.12	23.10	
100		1	272	23.18	23.35	23.26	23.35	23.23	23.3
100		135	1	22.48	22.64	22.74	22.60	22.62	
100		135	67	22.47	22.71	22.69	22.54	22.56	
100	135	136	22.33	22.37	22.27	22.31	22.23		
100	270	0	22.23	22.32	22.26	22.17	22.21		
100	DFT-s-OFDM 16QAM	1	1	22.37	22.51	22.52	22.59	22.60	23.3
100	DFT-s-OFDM 64QAM	1	1	20.89	21.09	21.16	21.13	21.10	21.8
100	DFT-s-OFDM 256QAM	1	1	18.72	18.82	18.83	18.93	18.93	19.8
Channel				508200	513399	518598	523797	528996	
Frequency (MHz)				2541	2566.995	2592.99	2618.985	2644.98	
90	DFT-s-OFDM QPSK	1	1	22.75	23.04	23.1	23.1	23.17	24.3
Channel				507204	512904	518598	524298	529998	
Frequency (MHz)				2536.02	2564.51	2592.99	2621.49	2649.99	
80	DFT-s-OFDM QPSK	1	1	22.59	23.06	23.09	23.02	23.13	24.3
Channel				50620	512400	518598	524800	531000	
Frequency (MHz)				2531.01	2562.00	2592.99	2624.00	2655.00	
70	DFT-s-OFDM QPSK	1	1	22.64	22.95	23.12	22.93	22.99	26.8
Channel				505200	511902	518598	525300	531996	
Frequency (MHz)				2526.00	2559.50	2592.99	2626.49	2659.98	
60	DFT-s-OFDM QPSK	1	1	22.67	22.54	23.24	23.17	23.20	24.3
Channel				504204	511401	518598	525798	532998	
Frequency (MHz)				2521.02	2557.005	2592.99	2628.99	2664.99	
50	DFT-s-OFDM QPSK	1	1	23.23	23.18	23.26	23.18	23.39	24.3
Channel				503202	510900	518598	526296	534000	
Frequency (MHz)				2516.01	2554.50	2592.99	2631.50	2670.00	
40	DFT-s-OFDM QPSK	1	1	22.86	22.86	23.32	23.30	23.30	26.8
Channel				502200	510402	518598	526800	534996	
Frequency (MHz)				2511.00	2552.00	2592.99	2633.99	2674.98	
30	DFT-s-OFDM QPSK	1	1	23.10	22.99	23.35	23.33	23.28	26.8
Channel				501204	509901	518598	527298	535998	
Frequency (MHz)				2506.02	2549.505	2592.99	2636.49	2679.99	
20	DFT-s-OFDM QPSK	1	1	23.12	23.21	23.36	23.31	23.33	26.8
Channel				509202	513900	518598	523296	528000	
Frequency (MHz)				2546.01	2569.50	2592.99	2616.50	2640.00	
100	CP-OFDM QPSK	1	1	21.49	21.59	21.93	21.83	21.63	22.8
100	CP-OFDM 16QAM	1	1	20.91	21.23	21.26	21.18	21.15	22.8
100	CP-OFDM 64QAM	1	1	19.56	19.96	19.96	19.95	20.03	21.3
100	CP-OFDM 256QAM	1	1	16.23	16.64	16.64	16.66	16.61	17.3



CA_41C-PC3_Ant 0 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	21.83	23.00
40620	40521	40719	QPSK	1	0	0	0	1	0	22.13	23.00
41490	41292	41490	QPSK	1	0	0	0	1	0	22.05	23.00
39750	39750	39948	16QAM	1	0	0	0	1	0	21.07	21.50
40620	40521	40719	16QAM	1	0	0	0	1	0	21.39	21.50
41490	41292	41490	16QAM	1	0	0	0	1	0	21.34	21.50
39750	39750	39948	64QAM	1	0	0	0	1	0	19.63	20.50
40620	40521	40719	64QAM	1	0	0	0	1	0	19.95	20.50
41490	41292	41490	64QAM	1	0	0	0	1	0	19.83	20.50
39750	39750	39948	QPSK	50	0	0	0	1	0	20.72	21.50
40620	40521	40719	QPSK	50	0	0	0	1	0	21.03	21.50
41490	41292	41490	QPSK	50	0	0	0	1	0	20.79	21.50



**Reduced Power Level 2 for Ant 1**

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	19.16	19.24	19.21	20.00	10.16	10.24	10.21	11.00
GPRS 1 Tx slot	19.18	19.28	19.24	20.00	10.18	10.28	10.24	11.00
GPRS 2 Tx slots	17.05	17.09	16.96	18.00	11.05	11.09	10.96	12.00
GPRS 3 Tx slots	15.61	15.66	15.55	16.50	11.35	11.40	11.29	12.24
GPRS 4 Tx slots	14.56	14.73	14.66	15.50	11.56	11.73	11.66	12.50
EDGE 1 Tx slot	15.48	15.57	15.53	17.00	6.48	6.57	6.53	8.00
EDGE 2 Tx slots	13.64	13.86	13.74	14.50	7.64	7.86	7.74	8.50
EDGE 3 Tx slots	12.42	12.54	12.46	13.20	8.16	8.28	8.20	8.94
EDGE 4 Tx slots	12.09	12.32	12.22	13.20	9.09	9.32	9.22	10.20
Mode		Max.	19.28			Max.	11.73	
Attenuator	Cable Loss : 0.8							

Band	WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	
	9262	9400	9538		1312	1413	1513		
TX Channel	9662	9800	9938		1537	1638	1738		
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	19.39	19.42	19.36	20.30	20.53	20.61	20.56	21.30
3GPP Rel 6	HSDPA Subtest-1	18.44	18.79	18.69	19.50	19.47	19.93	19.88	20.50
3GPP Rel 6	HSDPA Subtest-2	18.58	18.84	18.46	19.50	19.48	19.88	19.59	20.50
3GPP Rel 6	HSDPA Subtest-3	18.00	18.04	17.83	19.00	19.03	19.30	18.82	20.00
3GPP Rel 6	HSDPA Subtest-4	18.50	18.30	18.17	19.00	19.72	19.46	19.37	20.00
3GPP Rel 8	DC-HSDPA Subtest-1	18.79	18.56	18.48	19.50	19.90	19.72	19.44	20.50
3GPP Rel 8	DC-HSDPA Subtest-2	18.27	18.11	17.97	19.00	19.50	19.17	19.19	20.00
3GPP Rel 8	DC-HSDPA Subtest-3	18.16	17.85	17.70	18.50	18.83	18.86	18.56	19.50
3GPP Rel 8	DC-HSDPA Subtest-4	18.01	17.68	17.80	19.00	19.06	18.82	18.99	20.00
3GPP Rel 6	HSUPA Subtest-1	18.31	18.16	18.28	19.50	19.48	19.02	19.15	20.50
3GPP Rel 6	HSUPA Subtest-2	18.88	16.61	16.68	17.50	17.85	17.81	17.74	18.50
3GPP Rel 6	HSUPA Subtest-3	17.88	17.64	17.55	18.50	19.02	18.68	18.73	19.50
3GPP Rel 6	HSUPA Subtest-4	16.86	16.57	16.57	17.50	17.72	17.72	17.64	18.50
3GPP Rel 6	HSUPA Subtest-5	18.22	18.06	17.76	18.50	19.20	19.05	18.73	19.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	16.75	16.76	16.81	17.50	17.62	17.72	17.75	18.50
Attenuator		Cable Loss	0.8			Cable Loss	0.8		
Mode		Max.	19.42			Max.	20.61		





3	QPSK	15	0	19.47	19.54	19.46	
3	16QAM	1	0	19.78	19.76	19.78	
3	16QAM	1	8	19.75	19.76	19.69	
3	16QAM	1	14	19.66	19.70	19.68	
3	16QAM	8	0	18.57	18.58	18.51	
3	16QAM	8	4	18.53	18.58	18.51	
3	16QAM	8	7	18.54	18.54	18.52	
3	16QAM	15	0	18.47	18.56	18.52	
3	64QAM	1	0	18.60	18.64	18.64	
3	64QAM	1	8	18.51	18.61	18.56	
3	64QAM	1	14	18.55	18.63	18.55	
3	64QAM	8	0	17.59	17.65	17.50	
3	64QAM	8	4	17.60	17.60	17.60	
3	64QAM	8	7	17.56	17.60	17.57	
3	64QAM	15	0	17.50	17.57	17.49	
Channel				18607	18900	19193	
Frequency (MHz)				1850.7	1880	1909.3	Tune-up limit (dBm)
1.4	QPSK	1	0	20.36	20.51	20.43	
1.4	QPSK	1	3	20.30	20.37	20.36	
1.4	QPSK	1	5	20.27	20.38	20.36	
1.4	QPSK	3	0	20.33	20.42	20.39	
1.4	QPSK	3	1	20.45	20.48	20.38	
1.4	QPSK	3	3	20.39	20.43	20.40	
1.4	QPSK	6	0	19.47	19.57	19.49	20.3
1.4	16QAM	1	0	19.75	19.74	19.71	
1.4	16QAM	1	3	19.75	19.72	19.68	
1.4	16QAM	1	5	19.66	19.75	19.75	
1.4	16QAM	3	0	19.55	19.60	19.52	
1.4	16QAM	3	1	19.53	19.57	19.49	
1.4	16QAM	3	3	19.54	19.58	19.47	
1.4	16QAM	6	0	18.48	18.57	18.46	19.3
1.4	64QAM	1	0	18.63	18.68	18.67	
1.4	64QAM	1	3	18.55	18.59	18.56	
1.4	64QAM	1	5	18.55	18.59	18.56	
1.4	64QAM	3	0	18.64	18.58	18.51	
1.4	64QAM	3	1	18.61	18.59	18.56	
1.4	64QAM	3	3	18.54	18.55	18.53	
1.4	64QAM	6	0	17.47	17.53	17.45	18.3

3	QPSK	15	0	19.33	19.31	19.26	
3	16QAM	1	0	19.56	19.56	19.54	
3	16QAM	1	8	19.54	19.61	19.49	
3	16QAM	1	14	19.46	19.54	19.49	
3	16QAM	8	0	18.41	18.40	18.39	
3	16QAM	8	4	18.29	18.39	18.31	
3	16QAM	8	7	18.25	18.22	18.18	
3	16QAM	15	0	18.28	18.31	18.26	
3	64QAM	1	0	18.53	18.51	18.46	
3	64QAM	1	8	18.40	18.43	18.39	
3	64QAM	1	14	18.35	18.46	18.39	
3	64QAM	8	0	17.38	17.44	17.31	
3	64QAM	8	4	17.36	17.35	17.30	
3	64QAM	8	7	17.24	17.30	17.25	
3	64QAM	15	0	17.26	17.38	17.31	
Channel				19957	20175	20393	
Frequency (MHz)				1710.7	1732.5	1754.3	Tune-up limit (dBm)
1.4	QPSK	1	0	20.30	20.36	20.28	
1.4	QPSK	1	3	20.18	20.20	20.20	
1.4	QPSK	1	5	20.11	20.21	20.18	
1.4	QPSK	3	0	20.19	20.28	20.22	
1.4	QPSK	3	1	20.22	20.23	20.15	
1.4	QPSK	3	3	20.03	20.08	20.09	
1.4	QPSK	6	0	19.27	19.31	19.25	20.1
1.4	16QAM	1	0	19.60	19.58	19.53	
1.4	16QAM	1	3	19.50	19.58	19.52	
1.4	16QAM	1	5	19.45	19.58	19.54	
1.4	16QAM	3	0	19.25	19.23	19.27	
1.4	16QAM	3	1	19.20	19.24	19.16	
1.4	16QAM	3	3	19.05	19.14	19.08	
1.4	16QAM	6	0	18.30	18.35	18.26	19.1
1.4	64QAM	1	0	18.46	18.50	18.50	
1.4	64QAM	1	3	18.41	18.46	18.39	
1.4	64QAM	1	5	18.42	18.43	18.41	
1.4	64QAM	3	0	18.20	18.23	18.17	
1.4	64QAM	3	1	18.15	18.20	18.15	
1.4	64QAM	3	3	18.12	18.17	18.09	
1.4	64QAM	6	0	17.28	17.32	17.30	18.1





3	QPSK	15	0	19.42	19.50	19.45	
3	16QAM	1	0	19.74	19.79	19.75	20.3
3	16QAM	1	8	19.70	19.75	19.71	
3	16QAM	1	14	19.61	19.69	19.66	
3	16QAM	8	0	18.51	18.56	18.51	19.3
3	16QAM	8	4	18.52	18.51	18.45	
3	16QAM	8	7	18.52	18.54	18.52	
3	16QAM	15	0	18.50	18.56	18.50	19.3
3	64QAM	1	0	18.61	18.66	18.65	
3	64QAM	1	8	18.53	18.61	18.58	
3	64QAM	1	14	18.60	18.61	18.54	18.3
3	64QAM	8	0	17.66	17.69	17.63	
3	64QAM	8	4	17.59	17.61	17.57	
3	64QAM	8	7	17.62	17.60	17.57	18.3
3	64QAM	15	0	17.50	17.57	17.58	
Channel				26047	26365	26683	
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	20.43	20.46	20.43	21.3
1.4	QPSK	1	3	20.35	20.37	20.29	
1.4	QPSK	1	5	20.30	20.34	20.31	
1.4	QPSK	3	0	20.45	20.52	20.44	
1.4	QPSK	3	1	20.42	20.45	20.46	
1.4	QPSK	3	3	20.44	20.47	20.46	
1.4	QPSK	6	0	19.45	19.51	19.42	20.3
1.4	16QAM	1	0	19.80	19.82	19.69	19.3
1.4	16QAM	1	3	19.64	19.75	19.71	
1.4	16QAM	1	5	19.56	19.65	19.66	
1.4	16QAM	3	0	19.40	19.45	19.39	
1.4	16QAM	3	1	19.43	19.43	19.35	
1.4	16QAM	3	3	19.47	19.47	19.42	
1.4	16QAM	6	0	18.47	18.55	18.52	18.3
1.4	64QAM	1	0	18.62	18.63	18.63	19.3
1.4	64QAM	1	3	18.55	18.67	18.62	
1.4	64QAM	1	5	18.57	18.62	18.57	
1.4	64QAM	3	0	18.53	18.60	18.50	
1.4	64QAM	3	1	18.47	18.52	18.49	
1.4	64QAM	3	3	18.52	18.51	18.49	
1.4	64QAM	6	0	17.50	17.56	17.57	18.3





Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	20.29	20.40	20.31	21.1
20	QPSK	1	49	20.20	20.27	20.24	
20	QPSK	1	99	20.17	20.24	20.21	
20	QPSK	50	0	19.29	19.31	19.28	20.1
20	QPSK	50	24	19.31	19.37	19.35	
20	QPSK	50	50	19.21	19.29	19.26	
20	QPSK	100	0	19.34	19.35	19.31	20.1
20	16QAM	1	0	19.54	19.62	19.56	
20	16QAM	1	49	19.56	19.60	19.55	
20	16QAM	1	99	19.50	19.57	19.51	19.1
20	16QAM	50	0	18.34	18.35	18.30	
20	16QAM	50	24	18.25	18.31	18.24	
20	16QAM	50	50	18.31	18.35	18.32	19.1
20	16QAM	100	0	18.30	18.33	18.29	
20	64QAM	1	0	18.55	18.60	18.56	
20	64QAM	1	49	18.54	18.57	18.49	19.1
20	64QAM	1	99	18.52	18.54	18.47	
20	64QAM	50	0	17.32	17.40	17.35	
20	64QAM	50	24	17.30	17.38	17.32	18.1
20	64QAM	50	50	17.28	17.36	17.32	
20	64QAM	100	0	17.29	17.36	17.30	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	20.28	20.31	20.30	21.1
15	QPSK	1	37	20.12	20.26	20.22	
15	QPSK	1	74	20.10	20.16	20.18	
15	QPSK	36	0	19.23	19.26	19.22	20.1
15	QPSK	36	20	19.27	19.32	19.33	
15	QPSK	36	39	19.16	19.24	19.20	
15	QPSK	75	0	19.31	19.33	19.25	20.1
15	16QAM	1	0	19.50	19.61	19.52	
15	16QAM	1	37	19.54	19.58	19.51	
15	16QAM	1	74	19.47	19.56	19.43	19.1
15	16QAM	36	0	18.29	18.33	18.28	
15	16QAM	36	20	18.21	18.24	18.21	
15	16QAM	36	39	18.28	18.28	18.26	19.1
15	16QAM	75	0	18.24	18.27	18.24	
15	64QAM	1	0	18.48	18.59	18.50	
15	64QAM	1	37	18.48	18.50	18.47	19.1
15	64QAM	1	74	18.48	18.53	18.45	
15	64QAM	36	0	17.29	17.32	17.32	
15	64QAM	36	20	17.27	17.36	17.27	18.1
15	64QAM	36	39	17.25	17.31	17.30	
15	64QAM	75	0	17.28	17.29	17.26	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	20.21	20.28	20.30	21.1
10	QPSK	1	25	20.15	20.25	20.18	
10	QPSK	1	49	20.12	20.21	20.18	
10	QPSK	25	0	19.20	19.30	19.19	20.1
10	QPSK	25	12	19.29	19.36	19.29	
10	QPSK	25	25	19.19	19.21	19.19	
10	QPSK	50	0	19.30	19.27	19.24	20.1
10	16QAM	1	0	19.49	19.55	19.51	
10	16QAM	1	25	19.51	19.54	19.52	
10	16QAM	1	49	19.43	19.49	19.45	19.1
10	16QAM	25	0	18.26	18.30	18.28	
10	16QAM	25	12	18.22	18.24	18.22	
10	16QAM	25	25	18.24	18.29	18.29	19.1
10	16QAM	50	0	18.22	18.29	18.21	
10	64QAM	1	0	18.47	18.56	18.52	
10	64QAM	1	25	18.52	18.50	18.43	19.1
10	64QAM	1	49	18.48	18.50	18.46	
10	64QAM	25	0	17.28	17.34	17.34	
10	64QAM	25	12	17.29	17.30	17.28	18.1
10	64QAM	25	25	17.26	17.28	17.30	
10	64QAM	50	0	17.24	17.34	17.26	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	20.24	20.32	20.29	21.1
5	QPSK	1	12	20.16	20.24	20.19	
5	QPSK	1	24	20.14	20.21	20.15	
5	QPSK	12	0	19.24	19.30	19.23	20.1
5	QPSK	12	7	19.27	19.33	19.27	
5	QPSK	12	13	19.14	19.24	19.21	
5	QPSK	25	0	19.31	19.28	19.27	20.1
5	16QAM	1	0	19.47	19.55	19.50	
5	16QAM	1	12	19.55	19.53	19.52	
5	16QAM	1	24	19.43	19.51	19.49	19.1
5	16QAM	12	0	18.33	18.28	18.25	
5	16QAM	12	7	18.17	18.26	18.18	
5	16QAM	12	13	18.24	18.29	18.24	19.1
5	16QAM	25	0	18.24	18.31	18.21	
5	64QAM	1	0	18.52	18.58	18.51	
5	64QAM	1	12	18.46	18.56	18.41	19.1
5	64QAM	1	24	18.46	18.46	18.44	
5	64QAM	12	0	17.29	17.36	17.29	
5	64QAM	12	7	17.27	17.33	17.30	18.1
5	64QAM	12	13	17.25	17.32	17.26	
5	64QAM	25	0	17.28	17.33	17.23	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	20.27	20.30	20.25	21.1
3	QPSK	1	8	20.19	20.25	20.16	
3	QPSK	1	14	20.12	20.17	20.20	
3	QPSK	8	0	19.22	19.23	19.20	20.1
3	QPSK	8	4	19.28	19.34	19.34	
3	QPSK	8	7	19.18	19.22	19.21	



3	QPSK	15	0	19.33	19.33	19.25	
3	16QAM	1	0	19.49	19.55	19.48	
3	16QAM	1	8	19.51	19.56	19.51	20.1
3	16QAM	1	14	19.44	19.54	19.43	
3	16QAM	8	0	18.29	18.33	18.27	
3	16QAM	8	4	18.20	18.23	18.22	19.1
3	16QAM	8	7	18.24	18.31	18.26	
3	16QAM	15	0	18.25	18.29	18.25	
3	64QAM	1	0	18.49	18.55	18.51	
3	64QAM	1	8	18.46	18.49	18.44	19.1
3	64QAM	1	14	18.46	18.50	18.41	
3	64QAM	8	0	17.26	17.32	17.30	
3	64QAM	8	4	17.23	17.30	17.29	18.1
3	64QAM	8	7	17.22	17.28	17.31	
3	64QAM	15	0	17.28	17.29	17.27	
Channel				131979	132322	132665	Tune-up limit
Frequency (MHz)				1710.7	1745	1779.3	(dBm)
1.4	QPSK	1	0	20.25	20.32	20.25	
1.4	QPSK	1	3	20.13	20.26	20.23	
1.4	QPSK	1	5	20.12	20.22	20.18	21.1
1.4	QPSK	3	0	20.14	20.20	20.14	
1.4	QPSK	3	1	20.18	20.24	20.19	
1.4	QPSK	3	3	20.09	20.17	20.14	
1.4	QPSK	6	0	19.32	19.34	19.23	20.1
1.4	16QAM	1	0	19.52	19.54	19.54	
1.4	16QAM	1	3	19.48	19.54	19.51	
1.4	16QAM	1	5	19.43	19.50	19.49	20.1
1.4	16QAM	3	0	19.19	19.20	19.13	
1.4	16QAM	3	1	19.08	19.15	19.10	
1.4	16QAM	3	3	19.16	19.24	19.15	
1.4	16QAM	6	0	18.25	18.32	18.24	19.1
1.4	64QAM	1	0	18.54	18.57	18.54	
1.4	64QAM	1	3	18.53	18.55	18.45	
1.4	64QAM	1	5	18.46	18.49	18.40	19.1
1.4	64QAM	3	0	18.20	18.26	18.24	
1.4	64QAM	3	1	18.16	18.26	18.19	
1.4	64QAM	3	3	18.12	18.23	18.21	
1.4	64QAM	6	0	17.26	17.32	17.24	18.1



Band 41 (2496~2690MHz) (dBm)-PC2												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)			
Channel				39750	40185	40620	41055	41490	19.9			
Frequency (MHz)				2506	2549.5	2593	2636.5	2680				
20	QPSK	1	0	18.85	18.83	19.14	19.10	19.08				

Band 41 (2496~2690MHz) (dBm)-PC3												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)			
Channel				39750	40185	40620	41055	41490	19.3			
Frequency (MHz)				2506	2549.5	2593	2636.5	2680				
20	QPSK	1	0	18.29	18.20	18.66	18.64	18.61				



n2 (1850 ~ 1910MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1855	1890	1903	
20	DFT-s-OFDM P1/2 BPSK	1	1	19.77	19.89	19.81	21.2
20		53	1	19.86	19.92	19.82	
20		104	1	19.81	19.74	19.76	
20		50	1	19.98	19.04	19.20	
20		50	25	19.25	19.05	19.16	
20		50	50	18.88	18.79	18.67	
20	DFT-s-OFDM QPSK	100	0	19.20	19.19	19.21	20.2
20		1	1	19.98	20.02	19.99	
20		53	1	19.91	19.97	19.93	
20		1	104	19.84	19.87	19.80	
20		50	1	19.50	19.59	19.55	
20		50	25	19.35	19.37	19.51	
20	DFT-s-OFDM 16QAM	50	50	19.12	19.39	19.40	20.2
20		100	0	19.29	19.09	19.10	
20		1	1	19.67	19.59	19.76	
20	DFT-s-OFDM 64QAM	1	1	18.19	18.25	18.30	19.2
20	DFT-s-OFDM 256QAM	1	1	15.80	15.83	15.82	16.7
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	19.96	19.85	19.87	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1890	1905	
10	DFT-s-OFDM QPSK	1	1	20.00	19.97	19.86	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1890	1907.5	
5	DFT-s-OFDM QPSK	1	1	19.95	19.92	19.94	25.2
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	CP-OFDM QPSK	1	1	19.04	18.73	18.86	19.7
20	CP-OFDM 16QAM	1	1	18.68	18.57	18.65	19.7
20	CP-OFDM 64QAM	1	1	17.55	17.34	17.52	18.7
20	CP-OFDM 256QAM	1	1	13.73	13.83	13.84	14.7

n25_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	378500	379000	
Frequency (MHz)				1870	1882.5	1885	
40	DFT-s-OFDM P1/2 BPSK	1	1	18.99	19.05	19.02	20.2
40		53	1	18.91	19.00	19.01	
40		105	1	18.95	19.04	18.97	
40		50	1	18.15	18.07	18.21	
40		50	25	18.11	18.08	18.26	
40		50	50	18.04	18.09	18.31	
40	DFT-s-OFDM QPSK	100	0	18.13	18.06	18.28	19.2
40		1	1	19.08	19.07	19.03	
40		53	1	18.69	19.01	19.00	
40		1	105	18.98	19.04	19.01	
40		50	1	18.15	18.20	18.17	
40		50	25	18.12	18.16	18.12	
40	DFT-s-OFDM 16QAM	50	50	18.07	18.12	18.10	19.2
40		100	0	18.11	18.12	18.08	
40		1	1	18.24	18.45	18.25	
40	DFT-s-OFDM 64QAM	1	1	16.88	16.93	16.89	18.2
40	DFT-s-OFDM 256QAM	1	1	14.46	14.50	14.44	15.7
Channel				373000	378500	380000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	18.95	19.01	18.73	19.2
Channel				372000	376500	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	19.01	19.02	19.00	20.2
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	18.83	18.97	18.79	20.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	18.92	18.96	18.95	20.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	18.82	18.85	18.77	19.2
Channel				374000	378500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1885	
40	CP-OFDM QPSK	1	1	17.58	17.70	17.74	18.7
40	CP-OFDM 16QAM	1	1	17.28	17.16	17.27	17.7
40	CP-OFDM 64QAM	1	1	15.66	15.92	15.78	16.7
40	CP-OFDM 256QAM	1	1	12.45	12.40	12.46	13.2



n66 (1710 ~ 1780 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				346000	349000	352000	
Frequency (MHz)				1725	1745	1765	
40	DFT-s-OFDM PVC BPSK	1	1	20.11	20.18	20.01	21.2
40		53		20.10	20.15	20.14	
40		1	104	20.07	20.10	20.05	
40		53	1	19.16	19.41	19.35	
40		53	26	19.35	19.48	19.28	
40		53	52	19.34	19.48	19.29	
40	DFT-s-OFDM QPSK	106	0	19.33	19.41	19.35	20.2
40		1	1	20.21	20.22	20.24	
40		1	53	20.19	20.22	20.21	
40		1	104	20.21	20.26	20.17	
40		53	1	19.34	19.49	19.46	
40		53	26	19.43	19.52	19.44	
40	DFT-s-OFDM 16QAM	53	52	19.45	19.48	19.45	20.2
40		106	0	19.97	19.29	19.25	
40		1	1	19.23	19.27	19.29	
40	DFT-s-OFDM 64QAM	1	1	17.96	18.00	17.97	19.2
40	DFT-s-OFDM 256QAM	1	1	15.43	15.59	15.51	16.7
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	20.26	20.15	20.18	21.2
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	20.11	20.19	20.05	21.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	20.03	20.24	19.96	21.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	20.19	20.02	19.97	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	19.33	19.25	19.47	25.2
Channel				348000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1760	
40	CP-OFDM QPSK	1	1	18.76	18.74	18.63	19.7
40	CP-OFDM 16QAM	1	1	18.25	18.29	17.99	14.7
40	CP-OFDM 64QAM	1	1	16.95	16.88	16.78	9.7
40	CP-OFDM 256QAM	1	1	13.47	13.55	13.62	2.2

n71 (663 ~ 698 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				134600	136100	137600	
Frequency (MHz)				673	680.5	688	
20	DFT-s-OFDM PVC BPSK	1	1	24.19	24.25	24.22	25.2
20		53		24.10	24.11	24.07	
20		1	104	24.11	23.93	23.89	
20		50	1	23.31	23.54	23.40	
20		50	25	23.61	23.43	23.36	
20		50	50	23.52	23.32	23.27	
20	DFT-s-OFDM QPSK	100	0	23.63	23.47	23.10	24.2
20		1	1	24.25	24.28	24.22	
20		1	53	24.13	24.24	24.16	
20		1	104	23.85	24.06	23.97	
20		50	1	23.56	23.60	23.52	
20		50	25	23.59	23.47	23.37	
20	DFT-s-OFDM 16QAM	50	50	23.51	23.58	23.27	24.2
20		100	0	23.53	23.55	23.40	
20		1	1	23.92	23.53	23.65	
20	DFT-s-OFDM 64QAM	1	1	22.34	22.27	22.18	23.2
20	DFT-s-OFDM 256QAM	1	1	19.73	19.77	19.77	20.7
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	DFT-s-OFDM QPSK	1	1	23.97	24.02	23.94	25.2
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	DFT-s-OFDM QPSK	1	1	23.89	23.99	23.88	25.2
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	DFT-s-OFDM QPSK	1	1	23.75	23.88	23.76	25.2
Channel				134600	139100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	CP-OFDM QPSK	1	1	23.34	23.05	23.13	23.7
20	CP-OFDM 16QAM	1	1	22.82	22.65	22.62	23.2
20	CP-OFDM 64QAM	1	1	21.58	21.57	21.41	22.2
20	CP-OFDM 256QAM	1	1	17.84	17.96	17.81	18.7





CA_41C-PC3_Ant 1 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	17.83	19.00
40620	40521	40719	QPSK	1	0	0	0	1	0	18.13	19.00
41490	41292	41490	QPSK	1	0	0	0	1	0	18.05	19.00
39750	39750	39948	16QAM	1	0	0	0	1	0	17.07	17.50
40620	40521	40719	16QAM	1	0	0	0	1	0	17.39	17.50
41490	41292	41490	16QAM	1	0	0	0	1	0	17.34	17.50
39750	39750	39948	64QAM	1	0	0	0	1	0	15.63	16.50
40620	40521	40719	64QAM	1	0	0	0	1	0	15.95	16.50
41490	41292	41490	64QAM	1	0	0	0	1	0	15.83	16.50
39750	39750	39948	QPSK	50	0	0	0	1	0	16.72	17.50
40620	40521	40719	QPSK	50	0	0	0	1	0	17.03	17.50
41490	41292	41490	QPSK	50	0	0	0	1	0	16.79	17.50







n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		17.53					
100		1	136		17.48					18.7
100		1	271		17.41					
100	DFT-s-OFDM P2/BPSK	135	1		16.75					
100		135	63		16.73					17.7
100		135	136		16.68					
100		270	0		16.62					
100		1	1		17.75					
100		1	136		17.68					18.7
100		1	271		17.56					
100	DFT-s-OFDM QPSK	135	1		16.89					
100		135	63		16.86					17.7
100		135	136		16.76					
100		270	0		16.69					
100	DFT-s-OFDM 16QAM	1	1		16.42					17.7
100	DFT-s-OFDM 64QAM	1	1		15.98					16.7
100	DFT-s-OFDM 256QAM	1	1		12.67					13.7
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P2/BPSK	1	1		17.70	17.73	17.66	17.65	17.61	18.7
Channel										
Frequency (MHz)										
85	DFT-s-OFDM P2/BPSK	1	1		17.72	17.63	17.69	17.72	17.43	18.7
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1		17.56	17.61	17.68	17.64	17.61	18.7
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		17.68	17.58	17.55	17.70	17.43	18.7
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1		17.60	17.61	17.72	17.70	17.58	17.7
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1		17.64	17.71	17.71	17.63	17.49	17.7
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1		17.66	17.71	17.66	17.67	17.58	18.7
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1		17.68	17.71	17.69	17.59	17.50	18.7
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		15.83					16.7
100	CP-OFDM 16QAM	1	1		15.39					16.7
100	CP-OFDM 64QAM	1	1		14.04					14.7
100	CP-OFDM 256QAM	1	1		10.75					11.7

n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT4											
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)			
Channel											
Frequency (MHz)											
100		1	1		17.73						
100		1	136		17.78					18.7	
100		1	271		17.78						
100	DFT-s-OFDM P2/BPSK	135	1		16.70						
100		135	63		16.68					17.7	
100		135	136		16.61						
100		270	0		16.54						
100		1	1		17.68						
100		1	136		17.80					18.7	
100		1	271		17.78						
100	DFT-s-OFDM QPSK	135	1		16.72						
100		135	63		16.66					17.7	
100		135	136		16.50						
100		270	0		16.89						
100	DFT-s-OFDM 16QAM	1	1		16.72					17.7	
100	DFT-s-OFDM 64QAM	1	1		16.73					16.7	
100	DFT-s-OFDM 256QAM	1	1		14.88					16.2	
Channel											
Frequency (MHz)											
90	DFT-s-OFDM P2/BPSK	1	1		17.75	17.82	17.78	17.78	17.84	17.76	18.7
Channel											
Frequency (MHz)											
80	DFT-s-OFDM P2/BPSK	1	1		17.80	17.84	17.85	17.70	17.65	18.7	
Channel											
Frequency (MHz)											
70	DFT-s-OFDM P2/BPSK	1	1		17.73	17.70	17.82	17.78	17.63	18.7	
Channel											
Frequency (MHz)											
60	DFT-s-OFDM P2/BPSK	1	1		17.67	17.71	17.76	17.71	17.59	18.7	
Channel											
Frequency (MHz)											
50	DFT-s-OFDM P2/BPSK	1	1		17.78	17.74	17.85	17.72	17.55	18.7	
Channel											
Frequency (MHz)											
40	DFT-s-OFDM P2/BPSK	1	1		17.79	17.78	17.83	17.83	17.76	18.7	
Channel											
Frequency (MHz)											
30	DFT-s-OFDM P2/BPSK	1	1		17.75	17.72	17.77	17.73	17.65	18.7	
Channel											
Frequency (MHz)											
20	DFT-s-OFDM P2/BPSK	1	1		17.77	17.68	17.80	17.75	17.61	18.7	
Channel											
Frequency (MHz)											
100	CP-OFDM QPSK	1	1		15.82					17.2	
100	CP-OFDM 16QAM	1	1		15.80					17.2	
100	CP-OFDM 64QAM	1	1		14.42					15.2	
100	CP-OFDM 256QAM	1	1		12.61					13.2	



n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT5										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1			2153					
100	1	136			2148					22.7
100	1	271			2141					
100	135	1			2075					
100	135	63			2073					
100	135	136			2068					21.7
100	270	0			2062					
100	1	1			2176					
100	1	136			2168					22.7
100	1	271			2156					
100	135	1			2089					
100	135	63			2085					
100	135	136			2078					21.7
100	270	0			2069					
100	1	1			2042					21.7
100	1	1			1938					20.7
100	1	1			1867					17.7
Channel										
Frequency (MHz)										
90	1	1		2170	2173	2166	2165	2161		22.7
Channel										
Frequency (MHz)										
85	1	1		3490.02	3495	3500.01	3504.99	3510		22.7
Channel										
Frequency (MHz)										
70	1	1		3480.01	3492.51	3500.01	3507.48	3514.98		22.7
Channel										
Frequency (MHz)										
80	1	1		3475.02	3487.5	3500.01	3510	3520		22.7
Channel										
Frequency (MHz)										
50	1	1		21.60	21.61	21.72	21.70	21.58		21.7
Channel										
Frequency (MHz)										
40	1	1		21.64	21.71	21.71	21.63	21.49		21.7
Channel										
Frequency (MHz)										
30	1	1		21.66	21.71	21.66	21.67	21.58		22.7
Channel										
Frequency (MHz)										
20	1	1		21.68	21.71	21.69	21.59	21.50		22.7
Channel										
Frequency (MHz)										
100	1	1				19.83				20.7
100	1	1				19.39				20.7
100	1	1				18.04				18.7
100	1	1				14.75				15.7

n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT5										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1			3500.01					
100	1	136			2172					
100	1	271			2178					22.7
100	135	1			2070					
100	135	63			2068					
100	135	136			2061					21.7
100	270	0			2054					
100	1	1			2178					
100	1	136			2180					22.7
100	1	271			2178					
100	135	1			2072					
100	135	63			2068					
100	135	136			2060					21.7
100	270	0			2059					
100	1	1			2072					21.7
100	1	1			2073					20.7
100	1	1			1888					20.2
Channel										
Frequency (MHz)										
90	1	1		2175	2182	2178	2179	2184	2176	22.7
Channel										
Frequency (MHz)										
80	1	1		3490.02	3495	3500.01	3504.99	3510		22.7
Channel										
Frequency (MHz)										
70	1	1		3483.01	3492.51	3500.01	3507.48	3514.98		22.7
Channel										
Frequency (MHz)										
60	1	1		3475.02	3487.5	3500.01	3510	3520		22.7
Channel										
Frequency (MHz)										
50	1	1		21.78	21.74	21.85	21.72	21.55		22.7
Channel										
Frequency (MHz)										
40	1	1		21.67	21.71	21.78	21.83	21.76		22.7
Channel										
Frequency (MHz)										
30	1	1		21.75	21.72	21.77	21.73	21.65		22.7
Channel										
Frequency (MHz)										
20	1	1		21.77	21.68	21.80	21.75	21.61		22.7
Channel										
Frequency (MHz)										
100	1	1				30.92				21.2
100	1	1				19.85				21.2
100	1	1				18.42				19.2
100	1	1				16.51				17.2



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)				65000	65300	65600	65900			
100	1	1	1	18.70	18.67	18.78	18.72	18.73		
100	1	136	1	18.69	18.63	18.66	18.70	18.60	19.7	
100	1	271	1	18.65	18.49	18.69	18.49	18.55		
100	135	1	1	17.63	17.67	17.69	17.61	17.62		
100	135	63	1	17.65	17.66	17.67	17.63	17.62		
100	135	136	1	17.52	17.45	17.41	17.38	17.38	18.7	
100	270	0	1	17.62	17.51	17.47	17.55	17.44		
100	1	1	1	18.78	18.71	18.68	18.75	18.80		
100	1	136	1	18.76	18.70	18.82	18.71	18.61	19.7	
100	1	271	1	18.74	18.56	18.80	18.53	18.56		
100	135	1	1	17.65	17.61	17.75	17.73	17.68		
100	135	63	1	17.64	17.65	17.72	17.70	17.61		
100	135	136	1	17.43	17.60	17.51	17.48	17.40	18.7	
100	270	0	1	17.46	17.38	17.57	17.45	17.51		
100	1	1	1	18.80	18.97	17.05	17.03	17.68	17.7	
100	1	1	1	15.48	15.51	15.63	15.55	15.58	16.7	
100	1	1	1	13.28	13.20	13.32	13.30	13.25	14.2	
Channel										
Frequency (MHz)				65996	66004	66000	65996	66002		
90	1	1	1	18.55	18.58	18.69	18.67	18.63	19.7	
Channel										
Frequency (MHz)				64934	65058	65000	65932	65056		
85	1	1	1	18.65	18.59	18.72	18.56	18.63	19.7	
Channel										
Frequency (MHz)				3740.01	3750.02	3840	3898.98	3939.99		
70	1	1	1	18.60	18.63	18.74	18.64	18.63	19.7	
Channel										
Frequency (MHz)				64898	65034	65000	64898	65032		
80	1	1	1	18.56	18.32	18.77	18.67	18.72	19.7	
Channel										
Frequency (MHz)				3725.01	3782.52	3840	3894.99	3954.99		
50	1	1	1	18.49	18.58	18.80	18.76	18.73	18.7	
Channel										
Frequency (MHz)				64800	65000	65000	65000	65400		
40	1	1	1	18.63	18.66	18.82	18.72	18.80	18.7	
Channel										
Frequency (MHz)				64768	65184	65000	65016	65432		
30	1	1	1	18.64	18.72	18.80	18.73	18.75	19.7	
Channel										
Frequency (MHz)				64734	65168	65000	65032	65466		
20	1	1	1	18.77	18.75	18.81	18.80	18.79	19.7	
Channel										
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99		
Channel										
Frequency (MHz)				65000	65300	65000	65000	65000		
100	1	1	1	16.47	16.59	16.82	16.60	16.52	17.7	
100	1	1	1	16.20	16.28	16.29	16.35	16.30	17.7	
100	1	1	1	14.42	14.55	14.42	14.81	14.60	15.7	
100	1	1	1	10.90	11.16	11.03	11.36	11.25	12.7	

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)				65000	65300	65600	65900			
100	1	1	1	18.72	18.69	18.78	18.68	18.72		
100	1	136	1	18.68	18.67	18.68	18.67	18.75	19.7	
100	1	271	1	18.66	18.66	18.67	18.63	18.52		
100	135	1	1	17.63	17.61	17.66	17.61	17.59		
100	135	63	1	17.63	17.65	18.01	17.60	17.58		
100	135	136	1	17.61	18.01	17.87	18.00	17.94	18.7	
100	270	0	1	17.66	17.51	17.86	17.88	17.99		
100	1	1	1	18.78	18.76	18.81	18.75	18.72		
100	1	136	1	18.55	18.68	18.70	18.68	18.65	19.7	
100	1	271	1	18.68	18.77	18.56	18.61	18.51		
100	135	1	1	17.62	17.75	17.62	17.79	17.88		
100	135	63	1	17.61	17.60	17.66	17.60	17.56		
100	135	136	1	17.39	18.02	17.83	17.98	17.92	18.7	
100	270	0	1	17.88	17.90	17.97	17.97	17.92		
100	1	1	1	17.90	17.64	17.87	17.92	17.91	18.7	
100	1	1	1	16.84	16.66	16.88	17.03	16.96	17.7	
100	1	1	1	15.96	15.76	15.88	15.91	15.95	16.7	
Channel										
Frequency (MHz)				64898	64904	65000	64898	65002		
90	1	1	1	18.72	18.62	18.71	18.69	18.69	19.7	
Channel										
Frequency (MHz)				64834	65058	65000	64832	65056		
80	1	1	1	18.76	18.61	18.68	18.73	18.71	19.7	
Channel										
Frequency (MHz)				3740.01	3750.02	3840	3898.98	3939.99		
70	1	1	1	18.75	18.62	18.72	18.73	18.64	19.7	
Channel										
Frequency (MHz)				64898	65034	65000	64898	65032		
80	1	1	1	18.75	18.61	18.70	18.71	18.74	19.7	
Channel										
Frequency (MHz)				64832	65036	65000	64832	65036		
50	1	1	1	18.76	18.78	18.73	18.78	18.73	18.7	
Channel										
Frequency (MHz)				64800	65000	65000	65000	65400		
40	1	1	1	18.68	18.71	18.66	18.74	18.68	18.7	
Channel										
Frequency (MHz)				64768	65184	65000	65016	65432		
30	1	1	1	18.79	18.60	18.76	18.73	18.73	19.7	
Channel										
Frequency (MHz)				64734	65168	65000	65032	65466		
20	1	1	1	18.79	18.54	18.65	18.71	18.65	19.7	
Channel										
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99		
Channel										
Frequency (MHz)				65000	65300	65000	65000	65000		
100	1	1	1	17.21	17.08	17.27	17.19	17.17	18.2	
100	1	1	1	17.24	17.08	17.21	17.20	17.18	18.2	
100	1	1	1	16.34	16.32	16.25	16.35	16.49	17.2	
100	1	1	1	13.85	13.92	14.02	14.00	13.92	15.2	



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	LowMid96	Mid96	MidHigh	High		Tune-up limit (dBm)
Channel										
Frequency (MHz)										
100	1	1	1	3700	3700	3940	3940	3970		
100	1	136	1	17.70	17.67	17.78	17.72	17.73		18.7
100	1	271	1	17.69	17.63	17.66	17.70	17.60		
100	1	271	1	17.66	17.49	17.69	17.49	17.56		
100	135	1	1	16.83	16.97	16.99	16.61	16.62		
100	135	63	1	16.80	16.66	16.67	16.53	16.62		
100	135	136	1	16.52	16.45	16.41	16.36	16.36		17.7
100	270	0	0	16.62	16.51	16.47	16.55	16.44		
100	1	1	1	17.78	17.71	17.86	17.75	17.80		18.7
100	1	136	1	17.76	17.70	17.82	17.71	17.61		
100	1	271	1	17.74	17.56	17.80	17.63	17.56		
100	135	1	1	16.65	16.61	16.79	16.73	16.68		
100	135	63	1	16.64	16.56	16.72	16.70	16.61		
100	135	136	1	16.43	16.60	16.51	16.48	16.40		17.7
100	270	0	0	16.46	16.38	16.57	16.45	16.51		
100	1	1	1	16.80	16.97	16.06	16.03	16.06		16.7
100	1	1	1	14.46	14.51	14.63	14.55	14.56		15.7
100	1	1	1	12.28	12.20	12.32	12.30	12.25		13.2
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P2/BPSK	1	1	17.55	17.58	17.69	17.67	17.63		18.7
Channel										
Frequency (MHz)										
85	DFT-s-OFDM P2/BPSK	1	1	17.65	17.59	17.72	17.56	17.63		18.7
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1	17.63	17.43	17.78	17.74	17.63		18.7
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1	17.56	17.32	17.77	17.67	17.72		18.7
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1	17.49	17.58	17.80	17.76	17.73		17.7
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1	17.63	17.66	17.82	17.72	17.80		17.7
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1	17.64	17.12	17.80	17.73	17.75		18.7
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1	17.77	17.75	17.81	17.80	17.79		18.7
Channel										
Frequency (MHz)										
100	CP-OFDM BPSK	1	1	15.47	15.39	15.82	15.50	15.52		16.7
100	CP-OFDM BPSK	1	1	15.20	15.28	15.29	15.35	15.30		16.7
100	CP-OFDM BPSK	1	1	13.42	13.55	13.42	13.81	13.60		14.7
100	CP-OFDM BPSK	1	1	9.96	10.16	10.03	10.36	10.25		11.7

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	LowMid96	Mid96	MidHigh	High		Tune-up limit (dBm)
Channel										
Frequency (MHz)										
100	1	1	1	3700	3700	3940	3940	3970		
100	1	136	1	17.72	17.69	17.76	17.76	17.58		17.7
100	1	271	1	17.68	17.67	17.68	17.67	17.75		18.7
100	1	271	1	17.66	17.66	17.67	17.67	17.52		
100	135	1	1	16.83	16.81	16.96	16.83	16.93		
100	135	63	1	16.83	16.67	16.63	16.63	16.58		
100	135	136	1	16.51	16.81	17.01	16.87	17.00		17.7
100	270	0	0	16.96	16.91	16.86	16.88	16.99		
100	1	1	1	17.79	17.76	17.81	17.75	17.72		18.7
100	1	136	1	17.76	17.68	17.70	17.68	17.65		
100	1	271	1	17.68	17.77	17.56	17.61	17.51		
100	135	1	1	16.82	16.79	16.92	16.79	16.88		
100	135	63	1	16.81	16.80	16.96	16.90	16.96		
100	135	136	1	16.53	16.93	17.02	16.83	16.98		17.7
100	270	0	0	16.88	16.90	16.97	16.97	16.92		
100	1	1	1	16.90	16.64	16.87	16.92	16.91		17.7
100	1	1	1	15.84	15.66	15.88	16.03	15.96		16.7
100	1	1	1	14.96	14.76	14.88	14.91	14.95		15.7
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P2/BPSK	1	1	17.72	17.62	17.71	17.69	17.69		18.7
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1	17.76	17.61	17.68	17.73	17.71		18.7
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1	17.75	17.62	17.62	17.73	17.64		18.7
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2/BPSK	1	1	17.75	17.64	17.64	17.74	17.74		18.7
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1	17.76	17.78	17.73	17.78	17.73		17.7
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1	17.68	17.61	17.66	17.74	17.68		17.7
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1	17.79	17.60	17.76	17.73	17.73		18.7
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1	17.79	17.54	17.65	17.71	17.65		18.7
Channel										
Frequency (MHz)										
100	CP-OFDM BPSK	1	1	16.21	16.08	16.27	16.19	16.17		17.2
100	CP-OFDM BPSK	1	1	16.24	16.08	16.21	16.20	16.18		17.2
100	CP-OFDM BPSK	1	1	15.34	15.32	15.25	15.35	15.49		16.2
100	CP-OFDM BPSK	1	1	12.85	12.92	13.02	13.00	12.92		14.2



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT5										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1	1	3700	3795	3940	3975			
100	1	136	1	21.69	21.63	21.66	21.70	21.60	22.7	
100	1	271	1	21.66	21.49	21.69	21.49	21.56		
100	136	1	1	20.63	20.67	20.69	20.61	20.62		
100	136	63	1	20.65	20.66	20.67	20.63	20.62		
100	136	136	1	20.62	20.45	20.41	20.36	20.36	21.7	
100	270	0	1	20.62	20.51	20.47	20.55	20.44		
100	1	1	1	21.78	21.71	21.68	21.75	21.60		
100	1	136	1	21.76	21.70	21.62	21.71	21.61	22.7	
100	1	271	1	21.74	21.56	21.80	21.53	21.56		
100	136	1	1	20.65	20.61	20.79	20.73	20.68		
100	136	63	1	20.64	20.55	20.72	20.70	20.61		
100	136	136	1	20.43	20.60	20.51	20.48	20.40	21.7	
100	270	0	1	20.46	20.38	20.57	20.45	20.51		
100	DFT-s-OFDM IQAM	1	1	19.80	19.97	20.05	20.03	20.68	20.7	
100	DFT-s-OFDM IQAM	1	1	18.46	18.51	18.63	18.55	18.58	19.7	
100	DFT-s-OFDM IQAM	1	1	18.28	18.20	18.32	18.30	18.25	17.2	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P2-BPSK	1	1	21.55	21.58	21.69	21.67	21.63	22.7	
Channel										
Frequency (MHz)										
85	DFT-s-OFDM P2-BPSK	1	1	21.65	21.59	21.72	21.58	21.63	22.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2-BPSK	1	1	21.63	21.43	21.78	21.74	21.63	22.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2-BPSK	1	1	21.55	21.51	21.60	21.54	21.52	22.7	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2-BPSK	1	1	21.49	21.58	21.80	21.76	21.73	21.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2-BPSK	1	1	21.63	21.66	21.82	21.72	21.80	21.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2-BPSK	1	1	21.64	21.72	21.80	21.73	21.75	22.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2-BPSK	1	1	21.77	21.75	21.81	21.80	21.79	22.7	
Channel										
Frequency (MHz)										
Channel										
Frequency (MHz)										
100	CP-OFDM BPSK	1	1	19.47	19.59	19.82	19.80	19.52	20.7	
100	CP-OFDM BPSK	1	1	19.20	19.28	19.29	19.35	19.30	20.7	
100	CP-OFDM BPSK	1	1	17.42	17.55	17.42	17.81	17.60	18.7	
100	CP-OFDM BPSK	1	1	13.90	14.16	14.03	14.36	14.25	15.7	

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT5										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1	1	3700	3795	3940	3975			
100	1	136	1	21.72	21.69	21.76	21.68	21.52	22.7	
100	1	271	1	21.68	21.67	21.68	21.67	21.75		
100	1	271	1	21.66	21.66	21.66	21.67	21.63		
100	136	1	1	20.63	20.61	20.66	20.63	20.59		
100	136	63	1	20.63	20.65	21.01	20.60	20.58		
100	136	136	1	20.61	20.61	20.67	21.00	20.94	21.7	
100	270	0	1	20.95	20.91	20.86	20.88	20.99		
100	1	1	1	21.79	21.76	21.81	21.75	21.72		
100	1	136	1	21.55	21.68	21.70	21.68	21.65	22.7	
100	1	271	1	21.68	21.77	21.56	21.61	21.51		
100	136	1	1	20.62	20.79	20.92	20.79	20.88		
100	136	63	1	20.91	20.90	20.96	20.90	20.95	21.7	
100	136	136	1	20.93	21.02	20.83	20.98	20.92		
100	270	0	1	20.88	20.90	20.97	20.93	20.92		
100	DFT-s-OFDM IQAM	1	1	20.90	20.64	20.87	20.92	20.91	21.7	
100	DFT-s-OFDM IQAM	1	1	19.84	19.66	19.88	20.03	19.96	20.7	
100	DFT-s-OFDM IQAM	1	1	18.96	18.76	18.88	18.91	18.95	19.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P2-BPSK	1	1	21.72	21.62	21.71	21.69	21.69	22.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2-BPSK	1	1	21.76	21.62	21.68	21.73	21.71	22.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2-BPSK	1	1	21.75	21.62	21.72	21.73	21.64	22.7	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2-BPSK	1	1	21.75	21.64	21.76	21.71	21.74	22.7	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2-BPSK	1	1	21.76	21.78	21.73	21.78	21.73	21.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2-BPSK	1	1	21.68	21.71	21.66	21.74	21.68	21.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2-BPSK	1	1	21.79	21.80	21.75	21.73	21.73	22.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2-BPSK	1	1	21.79	21.54	21.65	21.71	21.65	22.7	
Channel										
Frequency (MHz)										
Channel										
Frequency (MHz)										
100	CP-OFDM BPSK	1	1	20.21	20.08	20.27	20.19	20.17	21.2	
100	CP-OFDM BPSK	1	1	20.24	20.08	20.21	20.20	20.18	21.2	
100	CP-OFDM BPSK	1	1	19.34	19.32	19.25	19.35	19.49	20.2	
100	CP-OFDM BPSK	1	1	16.85	16.92	17.02	17.00	16.92	18.2	



n78 (3450 MHz ~ 3550 MHz) (PC2) _ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		3500.01					
100		1	136		17.56			26.7		
100		1	271		17.44					
100	DFT-s-OFDM P2/BPSK	135	1		16.74					
100		135	67		16.63					
100		135	136		16.58			25.7		
100		270	0		16.50					
100		1	1		17.07					
100		1	136		17.74			26.7		
100		1	271		17.73					
100	DFT-s-OFDM QPSK	135	1		16.86					
100		135	67		16.76					
100		135	136		16.72			25.7		
100		270	0		16.68					
100	DFT-s-OFDM 16QAM	1	1		16.75			25.7		
100	DFT-s-OFDM 64QAM	1	1		15.92			24.7		
100	DFT-s-OFDM 256QAM	1	1		12.90			21.7		
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		17.70			17.60		
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		3490.02	3495	3500.01	3504.99	3510	
80		1	1		17.63	17.56	17.75	17.71	17.75	26.7
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1		3480.01	3482.01	3483.01	3484.01	3484.99	
70		1	1		17.62	17.54	17.68	17.67	17.68	26.7
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2/BPSK	1	1		3480.02	3480.01	3510	3519.99		
60		1	1		17.67	17.61	17.59	17.68	17.65	26.7
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1		3475.02	3475.01	3510	3520		
50		1	1		17.69	17.76	17.68	17.70	17.71	26.7
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1		3470.01	3465.01	3510	3519.99		
40		1	1		17.71	17.74	17.75	17.71	17.64	26.7
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1		3465.02	3462.02	3510.01	3517.5	3514.99	
30		1	1		17.61	17.69	17.66	17.65	17.66	26.7
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1		3460.02	3460.01	3510.01	3517.5	3514.99	
20		1	1		17.65	17.45	17.60	17.49	17.45	26.7
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1				15.90			16.7
100	CP-OFDM 16QAM	1	1				15.74			16.7
100	CP-OFDM 64QAM	1	1				14.82			14.7
100	CP-OFDM 256QAM	1	1				10.99			11.7

n78 (3450 MHz ~ 3550 MHz) (PC3) _ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		3500.01					
100		1	136		17.66					
100		1	271		17.62			18.7		
100	DFT-s-OFDM P2/BPSK	135	1		17.59					
100		135	67		16.72					
100		135	136		16.66			17.7		
100		270	0		16.58					
100		1	1		17.04					
100		1	136		17.75			18.7		
100		1	271		17.63					
100	DFT-s-OFDM QPSK	135	1		16.73					
100		135	67		16.64			17.7		
100		135	136		16.58			17.7		
100		270	0		16.73					
100	DFT-s-OFDM 16QAM	1	1		16.82			17.7		
100	DFT-s-OFDM 64QAM	1	1		17.40			16.7		
100	DFT-s-OFDM 256QAM	1	1		15.02			15.7		
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		17.61			17.62		
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		3490.02	3495	3500.01	3504.99	3510	
80		1	1		17.67	17.59	17.62	17.67	17.62	18.7
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1		3480.01	3480.01	3510.01	3517.49	3514.99	
70		1	1		17.60	17.59	17.60	17.58	17.48	18.7
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2/BPSK	1	1		3480.02	3480.01	3510	3519.99		
60		1	1		17.67	17.66	17.65	17.65	17.58	18.7
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1		3475.02	3475.01	3510.01	3519.99	3520	
50		1	1		17.64	17.63	17.59	17.49	17.42	24.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1		3470.01	3465.01	3510.01	3519.99	3519.99	
40		1	1		17.74	17.74	17.73	17.76	17.67	24.2
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1		3465.02	3462.02	3510.01	3517.5	3514.99	
30		1	1		17.67	17.77	17.72	17.59	17.52	24.2
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1		3460.02	3460.01	3510.01	3517.5	3514.99	
20		1	1		17.80	17.63	17.70	17.48	17.45	24.2
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1				16.24			17.2
100	CP-OFDM 16QAM	1	1				16.18			17.2
100	CP-OFDM 64QAM	1	1				15.41			16.2
100	CP-OFDM 256QAM	1	1				12.40			13.2



n78 (3450 MHz ~ 3550 MHz) (PC2) _ANT5										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		2156					
100		1	136		2144			22.7		
100		1	271		2147					
100	DFT-s-OFDM P2/BPSK	135	1		2074					
100		135	67		2053					
100		135	136		2058			21.7		
100		270	0		2050					
100		1	1		2177					
100		1	136		2174			22.7		
100		1	271		2173					
100	DFT-s-OFDM QPSK	135	1		2086					
100		135	67		2076					
100		135	136		2072			21.7		
100		270	0		2068					
100	DFT-s-OFDM 16QAM	1	1		2075			21.7		
100	DFT-s-OFDM 64QAM	1	1		1992			20.7		
100	DFT-s-OFDM 256QAM	1	1		1690			17.7		
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		3462					
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		3490.02					
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		21.63					
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1		3480.01					
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2/BPSK	1	1		3480					
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2/BPSK	1	1		21.67					
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1		3476.02					
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1		21.69					
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1		21.81					
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1		3480.08					
Channel										
Frequency (MHz)										
BW (MHz) <th>Modulation</th> <th>RB Size</th> <th>RB Offset</th> <th>Low Channel</th> <th>Low/Mid/High Channel</th> <th>Mid/High Channel</th> <th>High Channel</th> <th>Tune-up limit (dBm)</th> <th colspan="2"></th>	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		3500.01			20.7		
100	CP-OFDM 16QAM	1	1		1974			20.7		
100	CP-OFDM 64QAM	1	1		1802			18.7		
100	CP-OFDM 256QAM	1	1		1459			15.7		

n78 (3450 MHz ~ 3550 MHz) (PC3) _ANT5										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		3500.01					
100		1	136		2156					
100		1	271		2159			22.7		
100	DFT-s-OFDM P2/BPSK	135	1		2072					
100		135	67		2068					
100		135	136		2058			21.7		
100		270	0		2050					
100		1	1		2177					
100		1	136		2175			22.7		
100		1	271		2163					
100	DFT-s-OFDM QPSK	135	1		2076					
100		135	67		2072					
100		135	136		2068			21.7		
100		270	0		2073					
100	DFT-s-OFDM 16QAM	1	1		2082			21.7		
100	DFT-s-OFDM 64QAM	1	1		2140			20.7		
100	DFT-s-OFDM 256QAM	1	1		1902			19.7		
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		3462					
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		3490.02					
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1		21.67					
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1		3480.01					
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2/BPSK	1	1		3480					
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2/BPSK	1	1		21.67					
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1		3476.02					
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1		21.64					
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1		21.74					
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1		21.87					
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1		3480.08					
Channel										
Frequency (MHz)										
BW (MHz) <th>Modulation</th> <th>RB Size</th> <th>RB Offset</th> <th>Low Channel</th> <th>Low/Mid/High Channel</th> <th>Mid/High Channel</th> <th>High Channel</th> <th>Tune-up limit (dBm)</th> <th colspan="2"></th>	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		3500.01			21.2		
100	CP-OFDM 16QAM	1	1		2024			21.2		
100	CP-OFDM 64QAM	1	1		1941			20.2		
100	CP-OFDM 256QAM	1	1		1640			17.2		



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		14.50					
100		1	136		16.56			17.7		
100		1	271		16.54					
100	DFT-s-OFDM P/L2 BPSK	135	1		16.56					
100		135	67		16.52					
100		135	136		15.55			16.7		
100		270	0		15.51					
100		1	136		16.56			17.7		
100		1	271		16.55					
100	DFT-s-OFDM QPSK	135	1		16.56					
100		135	67		15.76					
100		135	136		15.59			16.7		
100		270	0		15.55					
100	DFT-s-OFDM 16QAM	1	1		16.94			16.7		
100	DFT-s-OFDM 64QAM	1	1		13.66			14.7		
100	DFT-s-OFDM 256QAM	1	1		11.41			12.7		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	16.43	16.65	16.52	16.51	16.50	17.7	
Channel										
Frequency (MHz)										
85	DFT-s-OFDM QPSK	1	1	16.47	16.52	16.57	16.62	16.59	17.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	16.47	16.41	16.64	16.65	16.61	17.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	16.61	16.58	16.51	16.59	16.60	17.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	16.50	16.80	16.64	16.48	16.51	17.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	16.50	16.50	16.53	16.59	16.42	17.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	16.50	16.53	16.47	16.50	16.55	17.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		14.57			15.7		
100	CP-OFDM 16QAM	1	1		14.32			15.7		
100	CP-OFDM 64QAM	1	1		12.52			13.7		
100	CP-OFDM 256QAM	1	1		9.20			10.7		

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		14.50					
100		1	136		16.52			17.2		
100		1	271		16.06					
100	DFT-s-OFDM P/L2 BPSK	135	1		16.23					
100		135	67		15.19					
100		135	136		15.22			16.2		
100		270	0		15.12					
100		1	136		16.26			17.2		
100		1	271		16.11					
100	DFT-s-OFDM QPSK	135	1		15.24					
100		135	67		15.22					
100		135	136		15.23			16.2		
100		270	0		15.07					
100	DFT-s-OFDM 16QAM	1	1		15.16			16.2		
100	DFT-s-OFDM 64QAM	1	1		15.10			16.2		
100	DFT-s-OFDM 256QAM	1	1		13.12			14.2		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	16.16	16.15	16.13	16.06	16.12	17.2	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	15.85	16.02	16.05	16.07	16.14	17.2	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	16.08	16.14	16.10	16.14	16.11	17.2	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	16.14	9.21	9.15	9.12	9.20	17.2	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	16.20	16.07	16.17	16.09	16.13	24.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	16.01	16.06	16.20	16.22	16.12	24.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM QPSK	1	1	16.13	16.09	16.18	16.11	16.16	24.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		15.07			15.7		
100	CP-OFDM 16QAM	1	1		15.04			15.7		
100	CP-OFDM 64QAM	1	1		14.27			14.7		
100	CP-OFDM 256QAM	1	1		11.15			11.7		





n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		17.40					
100		1	136		17.56			18.7		
100		1	271		17.54					
100	DFT-s-OFDM P1/2 BPSK	135	1		16.58					
100		135	63		16.52					
100		135	136		16.55			17.7		
100		270	0		16.51					
100		1	1		17.58					
100		1	136		17.61			18.7		
100		1	271		17.55					
100	DFT-s-OFDM QPSK	135	1		16.81					
100		135	63		16.75					
100		135	136		16.89			17.7		
100		270	0		16.85					
100	DFT-s-OFDM 16QAM	1	1		16.84			17.7		
100	DFT-s-OFDM 64QAM	1	1		14.86			15.7		
100	DFT-s-OFDM 256QAM	1	1		12.41			13.7		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	17.43	17.65	17.52	17.51	17.50	18.7	
Channel										
Frequency (MHz)										
85	DFT-s-OFDM QPSK	1	1	17.47	17.52	17.57	17.62	17.59	18.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	17.47	17.41	17.64	17.65	17.61	18.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	17.61	17.58	17.51	17.59	17.60	18.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	17.50	17.60	17.64	17.48	17.51	18.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	17.58	17.50	17.53	17.59	17.42	18.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	17.50	17.53	17.47	17.60	17.55	18.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		15.57			16.7		
100	CP-OFDM QPSK	1	1		15.32			16.7		
100	CP-OFDM 16QAM	1	1		13.52			14.7		
100	CP-OFDM 256QAM	1	1		10.20			11.7		

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		21.19					
100		1	136		21.12			22.2		
100		1	271		21.08					
100	DFT-s-OFDM P1/2 BPSK	135	1		20.23					
100		135	63		20.19					
100		135	136		20.22			21.2		
100		270	0		20.12					
100		1	1		21.26					
100		1	136		21.18			22.2		
100		1	271		21.11					
100	DFT-s-OFDM QPSK	135	1		20.24					
100		135	63		20.22					
100		135	136		20.23			21.2		
100		270	0		20.07					
100	DFT-s-OFDM 16QAM	1	1		20.16			21.2		
100	DFT-s-OFDM 64QAM	1	1		20.10			21.2		
100	DFT-s-OFDM 256QAM	1	1		18.12			19.2		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	21.16	21.15	21.13	21.06	21.12	22.2	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	20.86	21.02	21.05	21.07	21.14	22.2	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	21.08	21.14	21.10	21.14	21.11	22.2	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	21.14	21.21	21.18	21.12	21.20	22.2	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	21.20	21.07	21.17	21.00	21.13	24.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	21.01	21.06	21.20	21.22	21.12	24.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	21.13	21.09	21.18	21.11	21.16	24.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		20.07			20.7		
100	CP-OFDM 16QAM	1	1		20.04			20.7		
100	CP-OFDM 64QAM	1	1		19.27			19.7		
100	CP-OFDM 256QAM	1	1		16.15			16.7		



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT5										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		21.60					
100		1	136		21.56				22.7	
100		1	271		21.54					
100	DFT-s-OFDM P1/2 BPSK	135	1		20.58					
100		135	67		20.52					
100		135	136		20.55				21.7	
100		270	0		20.51					
100		1	1		21.68					
100		1	136		21.61				22.7	
100		1	271		21.55					
100	DFT-s-OFDM QPSK	135	1		20.81					
100		135	67		20.75					
100		135	136		20.59				21.7	
100		270	0		20.55					
100	DFT-s-OFDM 16QAM	1	1		20.84				21.7	
100	DFT-s-OFDM 64QAM	1	1		18.66				19.7	
100	DFT-s-OFDM 256QAM	1	1		18.41				17.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	21.43	21.65	21.52	21.51	21.50	22.7	
Channel										
Frequency (MHz)										
85	DFT-s-OFDM QPSK	1	1	21.47	21.52	21.57	21.62	21.59	22.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	21.47	21.41	21.64	21.65	21.61	22.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	21.67	21.58	21.51	21.59	21.60	22.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	21.50	21.80	21.64	21.48	21.51	22.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	21.52	21.50	21.53	21.59	21.42	22.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	21.50	21.53	21.47	21.60	21.55	22.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		19.57				20.7	
100	CP-OFDM 16QAM	1	1		19.32				20.7	
100	CP-OFDM 64QAM	1	1		17.52				18.7	
100	CP-OFDM 256QAM	1	1		14.20				15.7	

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT5										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		21.19					
100		1	136		21.12				22.2	
100		1	271		21.08					
100	DFT-s-OFDM P1/2 BPSK	135	1		20.23					
100		135	67		20.19					
100		135	136		20.22				21.2	
100		270	0		20.12					
100		1	1		21.26					
100		1	136		21.18				22.2	
100		1	271		21.11					
100	DFT-s-OFDM QPSK	135	1		20.24					
100		135	67		20.22					
100		135	136		20.23				21.2	
100		270	0		20.07					
100	DFT-s-OFDM 16QAM	1	1		20.16				21.2	
100	DFT-s-OFDM 64QAM	1	1		20.10				21.2	
100	DFT-s-OFDM 256QAM	1	1		18.12				19.2	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	21.16	21.15	21.13	21.06	21.12	22.2	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	20.86	21.02	21.05	21.07	21.14	22.2	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	21.08	21.14	21.10	21.14	21.11	22.2	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	21.14	21.21	21.18	21.12	21.20	22.2	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	21.20	21.07	21.17	21.00	21.13	24.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	21.01	21.06	21.20	21.22	21.12	24.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM QPSK	1	1	21.13	21.09	21.14	21.11	21.16	24.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		20.07				20.7	
100	CP-OFDM 16QAM	1	1		20.04				20.7	
100	CP-OFDM 64QAM	1	1		19.27				19.7	
100	CP-OFDM 256QAM	1	1		16.15				16.7	



CA_48C_Ant 4 Combination:20MHz+20MHz(100RB+100RB)												
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)	
				RB Size	RB Offset	RB Size	RB Offset					
55340	55340	55538	QPSK	1	0	0	0	1	0	18.56	19.50	
55990	55891	56089	QPSK	1	0	0	0	1	0	18.72	19.50	
56640	56442	56640	QPSK	1	0	0	0	1	0	18.48	19.50	
55340	55340	55538	16QAM	1	0	0	0	1	0	17.99	19.00	
55990	55891	56089	16QAM	1	0	0	0	1	0	18.12	19.00	
56640	56442	56640	16QAM	1	0	0	0	1	0	17.94	19.00	
55340	55340	55538	64QAM	1	0	0	0	1	0	16.81	17.50	
55990	55891	56089	64QAM	1	0	0	0	1	0	16.88	17.50	
56640	56442	56640	64QAM	1	0	0	0	1	0	16.79	17.50	
55340	55340	55538	QPSK	50	0	0	0	1	0	17.75	18.50	
55990	55891	56089	QPSK	50	0	0	0	1	0	17.82	18.50	
56640	56442	56640	QPSK	50	0	0	0	1	0	17.72	18.50	

Reduced Power Level 2 for Ant7

5GHz WLAN ANT 7

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 36	5180	17.69	19.50	17.50	98.10
	CH 44	5220	18.00	20.00	17.50	
	CH 48	5240	18.06	20.00	17.50	
802.11n-HT20 MCS0	CH 36	5180	18.25	20.00	17.50	98.57
	CH 44	5220	18.53	20.50	17.50	
	CH 48	5240	18.64	20.50	17.50	
802.11n-HT40 MCS0	CH 38	5190	18.69	20.50	17.50	96.94
	CH 46	5230	17.98	19.50	17.50	
802.11ac-VHT20 MCS0	CH 36	5180	16.60	18.50	16.00	98.48
	CH 44	5220	16.92	18.50	16.00	
	CH 48	5240	16.29	18.00	16.00	
802.11ac-VHT40 MCS0	CH 38	5190	16.48	18.00	16.00	95.96
	CH 46	5230	16.72	18.50	16.00	
802.11ac-VHT80 MCS0	CH 42	5210	16.82	18.50	16.00	92.00

5GHz WLAN ANT 7

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 52	5260	16.24	18.00	15.50	98.57
	CH 60	5300	16.27	18.00	15.50	
	CH 64	5320	16.53	18.50	15.50	
802.11n-HT20 MCS0	CH 52	5260	16.77	18.50	15.50	98.57
	CH 60	5300	16.00	18.00	15.50	
	CH 64	5320	16.31	18.00	15.50	
802.11n-HT40 MCS0	CH 54	5270	16.38	18.00	15.50	96.94
	CH 62	5310	16.89	18.50	15.50	
802.11ac-VHT20 MCS0	CH 52	5260	14.39	16.00	14.00	98.48
	CH 60	5300	14.55	16.50	14.00	
	CH 64	5320	14.92	16.50	14.00	
802.11ac-VHT40 MCS0	CH 54	5270	14.43	16.00	14.00	96.97
	CH 62	5310	15.12	17.00	14.00	
802.11ac-VHT80 MCS0	CH 58	5290	15.16	17.00	14.00	94.00

5GHz WLAN ANT 7

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 100	5500	16.77	18.50	15.00	98.57
	CH 120	5600	16.86	18.50	15.00	
	CH 144	5720	15.52	17.50	15.00	
802.11n-HT20 MCS0	CH 100	5500	16.58	18.50	15.00	98.47
	CH 120	5600	15.78	17.50	15.00	
	CH 144	5720	15.86	17.50	15.00	
802.11n-HT40 MCS0	CH 102	5510	16.86	18.50	15.00	96.94
	CH 126	5630	16.15	18.00	15.00	
802.11ac-VHT20 MCS0	CH 142	5710	16.17	18.00	15.00	98.48
	CH 100	5500	15.65	17.50	15.00	
	CH 144	5720	15.49	17.00	15.00	
802.11ac-VHT40 MCS0	CH 102	5510	15.95	17.50	15.00	96.97
	CH 126	5630	15.91	17.50	15.00	
	CH 142	5710	15.87	17.50	15.00	
802.11ac-VHT80 MCS0	CH 106	5530	15.96	17.50	15.00	94.00
	CH 122	5610	15.66	17.50	15.00	
	CH 138	5690	15.62	17.50	15.00	

5GHz WLAN ANT 7

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 149	5745	16.64	18.50	16.50	98.57
	CH 157	5785	17.01	19.00	16.50	
	CH 165	5825	16.42	18.00	16.50	
802.11n-HT20 MCS0	CH 149	5745	16.99	18.50	16.50	98.47
	CH 157	5785	17.36	19.00	16.50	
	CH 165	5825	17.30	19.00	16.50	
802.11n-HT40 MCS0	CH 151	5755	17.35	19.00	16.50	96.94
	CH 159	5795	17.83	19.50	16.50	
802.11ac-VHT20 MCS0	CH 149	5745	15.56	17.50	15.00	97.97
	CH 157	5785	15.60	17.50	15.00	
	CH 165	5825	15.85	17.50	15.00	
802.11ac-VHT40 MCS0	CH 151	5755	15.42	17.00	15.00	96.97
	CH 159	5795	16.33	18.00	15.00	
802.11ac-VHT80 MCS0	CH 155	5775	15.63	17.50	15.00	94.00



**Reduced Power Level 3 for Ant1**

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	128	189	251		128	189	251		
TX Channel	128	189	251		128	189	251		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	18.56	18.70	18.81	19.50	9.56	9.70	9.81	10.50	
GPRS 1 Tx slot	18.58	18.73	18.86	19.50	9.58	9.73	9.86	10.50	0.17
GPRS 2 Tx slots	16.18	16.28	16.23	17.00	10.18	10.28	10.23	11.00	0.10
GPRS 3 Tx slots	14.68	14.49	14.45	15.50	10.42	10.23	10.19	11.24	0.23
GPRS 4 Tx slots	13.65	13.75	13.59	14.50	10.65	10.75	10.59	11.50	0.16
EDGE 1 Tx slot	12.88	12.96	12.90	14.00	3.88	3.96	3.90	5.00	0.08
EDGE 2 Tx slots	11.12	11.22	11.08	12.00	5.12	5.22	5.08	6.00	0.14
EDGE 3 Tx slots	9.77	9.86	9.80	10.50	5.51	5.60	5.54	6.24	0.09
EDGE 4 Tx slots	8.62	8.68	8.56	9.50	5.62	5.68	5.56	6.50	0.12
Mode		Max.	18.73			Max.	10.75		
Attenuator	Cable Loss : 0.6								

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	512	661	810		512	661	810		
TX Channel	512	661	810		512	661	810		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	12.66	12.74	12.71	13.50	3.66	3.74	3.71	4.50	
GPRS 1 Tx slot	12.68	12.78	12.74	13.50	3.68	3.78	3.74	4.50	0.12
GPRS 2 Tx slots	10.55	10.59	10.46	11.50	4.55	4.59	4.46	5.50	0.13
GPRS 3 Tx slots	9.11	9.16	9.05	10.00	4.85	4.90	4.79	5.74	0.11
GPRS 4 Tx slots	8.06	8.23	8.16	9.00	5.06	5.23	5.16	6.00	0.17
EDGE 1 Tx slot	8.98	9.07	9.03	10.50	-0.02	0.07	0.03	1.50	0.09
EDGE 2 Tx slots	7.14	7.36	7.24	8.00	1.14	1.36	1.24	2.00	0.22
EDGE 3 Tx slots	5.92	6.04	5.96	6.70	1.66	1.78	1.70	2.44	0.12
EDGE 4 Tx slots	5.59	5.82	5.72	6.70	2.59	2.82	2.72	3.70	0.23
Mode		Max.	12.78			Max.	5.23		
Attenuator	Cable Loss : 0.8								

Band	WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513		4132	4182	4233	
TX Channel	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	10.89	10.92	10.86	11.80	11.53	11.61	11.56	12.30	16.61	16.67	16.56	17.30
3GPP Rel 6 HSDPA Subtest-1	9.94	10.29	10.19	11.00	10.47	10.93	10.88	11.50	15.35	15.69	15.84	16.50
3GPP Rel 6 HSDPA Subtest-2	10.08	10.34	9.96	11.00	10.48	10.88	10.59	11.50	15.32	15.63	15.28	16.50
3GPP Rel 6 HSDPA Subtest-3	9.50	9.54	9.33	10.50	10.03	10.30	9.82	11.00	14.93	15.12	15.02	16.00
3GPP Rel 6 HSDPA Subtest-4	10.00	9.80	9.67	10.50	10.72	10.46	10.37	-1.50	15.27	15.47	15.02	16.00
3GPP Rel 8 DC-HSDPA Subtest-1	10.29	10.06	9.98	11.00	10.90	10.72	10.44	11.50	15.93	15.57	15.46	16.50
3GPP Rel 8 DC-HSDPA Subtest-2	9.77	9.61	9.47	10.50	10.50	10.17	10.19	11.00	15.57	15.27	15.29	16.00
3GPP Rel 8 DC-HSDPA Subtest-3	9.66	9.35	9.20	10.00	9.83	9.86	9.56	10.50	14.87	14.83	14.42	15.50
3GPP Rel 8 DC-HSDPA Subtest-4	9.51	9.18	9.30	10.50	10.06	9.82	9.99	11.00	14.77	14.52	14.98	16.00
3GPP Rel 6 HSUPA Subtest-1	9.81	9.66	9.78	11.00	10.48	10.02	10.15	11.50	15.40	15.07	15.30	16.50
3GPP Rel 6 HSUPA Subtest-2	8.38	8.11	8.18	9.00	8.85	8.81	8.74	9.50	14.06	13.78	13.72	14.50
3GPP Rel 6 HSUPA Subtest-3	9.38	9.14	9.05	10.00	10.02	9.68	9.73	10.50	14.68	14.51	14.38	15.50
3GPP Rel 6 HSUPA Subtest-4	8.36	8.07	8.07	9.00	8.72	8.72	8.64	9.50	13.73	13.29	13.32	14.50
3GPP Rel 6 HSUPA Subtest-5	9.72	9.56	9.26	10.00	10.20	10.05	9.73	10.50	15.18	15.00	14.95	15.50
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	8.25	8.26	8.31	9.00	8.62	8.72	8.75	9.50	13.99	13.62	13.92	14.50
Attenuator	Cable Loss			0.8	Cable Loss			0.8	Cable Loss			0.6
Mode		Max.	10.92			Max.	11.61			Max.	16.67	





3	QPSK	8	4	11.51	11.62	11.53	12.3
3	QPSK	8	7	11.52	11.56	11.55	
3	QPSK	15	0	11.47	11.54	11.46	
3	16QAM	1	0	11.78	11.76	11.78	12.3
3	16QAM	1	8	11.75	11.76	11.69	
3	16QAM	1	14	11.66	11.70	11.68	
3	16QAM	8	0	10.57	10.58	10.51	11.3
3	16QAM	8	4	10.53	10.58	10.51	
3	16QAM	8	7	10.54	10.54	10.52	
3	16QAM	15	0	10.47	10.56	10.52	11.3
3	64QAM	1	0	10.60	10.64	10.64	
3	64QAM	1	8	10.51	10.61	10.56	
3	64QAM	1	14	10.55	10.63	10.55	10.3
3	64QAM	8	0	9.59	9.65	9.50	
3	64QAM	8	4	9.60	9.60	9.60	
3	64QAM	8	7	9.56	9.60	9.57	10.3
3	64QAM	15	0	9.50	9.57	9.49	
Channel				18607	18900	19193	
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	12.36	12.51	12.43	13.3
1.4	QPSK	1	3	12.30	12.37	12.36	
1.4	QPSK	1	5	12.27	12.38	12.36	
1.4	QPSK	3	0	12.33	12.42	12.39	
1.4	QPSK	3	1	12.45	12.48	12.38	
1.4	QPSK	3	3	12.39	12.43	12.40	
1.4	QPSK	6	0	11.47	11.57	11.49	12.3
1.4	16QAM	1	0	11.75	11.74	11.71	
1.4	16QAM	1	3	11.75	11.72	11.68	12.3
1.4	16QAM	1	5	11.66	11.75	11.75	
1.4	16QAM	3	0	11.55	11.60	11.52	
1.4	16QAM	3	1	11.53	11.57	11.49	
1.4	16QAM	3	3	11.54	11.58	11.47	
1.4	16QAM	6	0	10.48	10.57	10.46	
1.4	64QAM	1	0	10.63	10.68	10.67	11.3
1.4	64QAM	1	3	10.55	10.59	10.56	
1.4	64QAM	1	5	10.55	10.59	10.56	
1.4	64QAM	3	0	10.64	10.58	10.51	11.3
1.4	64QAM	3	1	10.61	10.59	10.56	
1.4	64QAM	3	3	10.54	10.55	10.53	
1.4	64QAM	6	0	9.47	9.53	9.45	
1.4	64QAM	6	0	9.47	9.53	9.45	10.3

3	QPSK	8	4	11.30	11.34	11.25	12.1
3	QPSK	8	7	11.18	11.29	11.21	
3	QPSK	15	0	11.33	11.31	11.26	
3	16QAM	1	0	11.56	11.56	11.54	12.1
3	16QAM	1	8	11.54	11.61	11.49	
3	16QAM	1	14	11.46	11.54	11.49	
3	16QAM	8	0	10.41	10.40	10.39	11.1
3	16QAM	8	4	10.29	10.39	10.31	
3	16QAM	8	7	10.25	10.22	10.18	
3	16QAM	15	0	10.28	10.31	10.26	11.1
3	64QAM	1	0	10.53	10.51	10.46	
3	64QAM	1	8	10.40	10.43	10.39	
3	64QAM	1	14	10.35	10.46	10.39	10.1
3	64QAM	8	0	9.38	9.44	9.31	
3	64QAM	8	4	9.36	9.35	9.30	
3	64QAM	8	7	9.24	9.30	9.25	10.1
3	64QAM	15	0	9.26	9.38	9.31	
Channel				19957	20175	20393	
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	12.30	12.36	12.28	13.1
1.4	QPSK	1	3	12.18	12.20	12.20	
1.4	QPSK	1	5	12.11	12.21	12.18	
1.4	QPSK	3	0	12.19	12.28	12.22	
1.4	QPSK	3	1	12.22	12.23	12.15	
1.4	QPSK	3	3	12.03	12.08	12.09	
1.4	QPSK	6	0	11.27	11.31	11.25	12.1
1.4	16QAM	1	0	11.60	11.58	11.53	
1.4	16QAM	1	3	11.50	11.58	11.52	12.1
1.4	16QAM	1	5	11.45	11.58	11.54	
1.4	16QAM	3	0	11.25	11.23	11.27	
1.4	16QAM	3	1	11.20	11.24	11.16	
1.4	16QAM	3	3	11.05	11.14	11.08	
1.4	16QAM	6	0	10.30	10.35	10.26	
1.4	64QAM	1	0	10.48	10.50	10.50	11.1
1.4	64QAM	1	3	10.41	10.46	10.39	
1.4	64QAM	1	5	10.42	10.43	10.41	
1.4	64QAM	3	0	10.20	10.23	10.17	11.1
1.4	64QAM	3	1	10.15	10.20	10.15	
1.4	64QAM	3	3	10.12	10.17	10.09	
1.4	64QAM	6	0	9.28	9.32	9.30	
1.4	64QAM	6	0	9.28	9.32	9.30	10.1





Band 12 (700MHz Low Band) (dBm) Part 27F(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23060	23095	23130	17.8
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	17.13	17.17	17.15	
10	QPSK	1	25	17.07	17.11	17.05	
10	QPSK	1	49	17.04	17.08	17.06	
10	QPSK	25	0	16.24	16.28	16.25	
10	QPSK	25	12	16.18	16.22	16.18	
10	QPSK	25	25	16.19	16.25	16.21	
10	QPSK	50	0	16.10	16.18	16.15	
10	16QAM	1	0	16.46	16.52	16.47	
10	16QAM	1	25	16.46	16.50	16.47	
10	16QAM	1	49	16.41	16.48	16.45	
10	16QAM	25	0	15.15	15.20	15.14	
10	16QAM	25	12	15.09	15.16	15.13	
10	16QAM	25	25	15.17	15.23	15.21	
Channel				23035	23095	23155	17.8
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	17.11	17.15	17.11	
5	QPSK	1	12	17.05	17.09	16.98	
5	QPSK	1	24	16.98	17.03	17.01	
5	QPSK	12	0	16.17	16.27	16.16	
5	QPSK	12	7	16.14	16.19	16.17	
5	QPSK	12	13	16.13	16.18	16.13	
5	QPSK	25	0	16.07	16.15	16.07	
5	16QAM	1	0	16.41	16.44	16.39	
5	16QAM	1	12	16.42	16.49	16.43	
5	16QAM	1	24	16.37	16.45	16.39	
5	16QAM	12	0	15.14	15.19	15.09	
5	16QAM	12	7	15.04	15.11	15.08	
5	16QAM	12	13	15.09	15.20	15.20	
Channel				23025	23095	23165	17.8
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	17.10	17.15	17.11	
3	QPSK	1	8	17.03	17.06	16.98	
3	QPSK	1	14	16.97	17.06	17.03	
3	QPSK	8	0	16.16	16.22	16.17	
3	QPSK	8	4	16.15	16.21	16.15	
3	QPSK	8	7	16.14	16.20	16.19	
3	QPSK	15	0	16.06	16.10	16.08	
3	16QAM	1	0	16.35	16.46	16.41	
3	16QAM	1	8	16.40	16.44	16.44	
3	16QAM	1	14	16.40	16.47	16.37	
3	16QAM	8	0	15.12	15.14	15.13	
3	16QAM	8	4	15.07	15.15	15.06	
3	16QAM	8	7	15.16	15.20	15.16	
Channel				23017	23095	23173	17.8
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	17.02	17.11	17.09	
1.4	QPSK	1	3	16.96	17.01	16.98	
1.4	QPSK	1	5	16.97	17.00	16.99	
1.4	QPSK	3	0	17.00	17.10	16.99	
1.4	QPSK	3	1	16.96	17.03	17.01	
1.4	QPSK	3	3	17.03	17.07	17.01	
1.4	QPSK	6	0	16.03	16.05	16.07	
1.4	16QAM	1	0	16.35	16.43	16.39	
1.4	16QAM	1	3	16.34	16.44	16.38	
1.4	16QAM	1	5	16.29	16.35	16.33	
1.4	16QAM	3	0	15.93	15.97	15.97	
1.4	16QAM	3	1	15.86	16.00	15.94	
1.4	16QAM	3	3	15.94	16.04	15.99	

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			16.8
Frequency (MHz)				782			
10	QPSK	1	0		16.14		
10	QPSK	1	25		16.12		
10	QPSK	1	49		16.08		
10	QPSK	25	0		15.20		
10	QPSK	25	12		15.21		
10	QPSK	25	25		15.22		
10	QPSK	50	0		15.20		
10	16QAM	1	0		15.57		
10	16QAM	1	25		15.50		
10	16QAM	1	49		15.44		
10	16QAM	25	0		14.23		
10	16QAM	25	12		14.22		
10	16QAM	25	25		14.20		
Channel				23205	23230	23255	16.8
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	16.11	16.06	16.07	
5	QPSK	1	12	16.07	16.11	16.08	
5	QPSK	1	24	16.07	16.07	16.07	
5	QPSK	12	0	15.18	15.13	15.13	
5	QPSK	12	7	15.18	15.20	15.13	
5	QPSK	12	13	15.20	15.18	15.14	
5	QPSK	25	0	15.18	15.12	15.18	
5	16QAM	1	0	15.50	15.50	15.49	
5	16QAM	1	12	15.47	15.45	15.45	
5	16QAM	1	24	15.39	15.36	15.42	
5	16QAM	12	0	14.17	14.18	14.18	
5	16QAM	12	7	14.14	14.20	14.14	
5	16QAM	12	13	14.15	14.12	14.18	

Band 17 (700MHz Band) (dBm) Part 27H(only on channel required)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	17.15	17.17	17.13	17.8
10	QPSK	1	25	17.13	17.14	17.12	
10	QPSK	1	49	17.04	17.12	17.11	16.8
10	QPSK	25	0	16.24	16.27	16.22	
10	QPSK	25	12	16.18	16.25	16.21	16.8
10	QPSK	25	25	16.15	16.23	16.15	
10	QPSK	50	0	16.23	16.24	16.17	16.8
10	16QAM	1	0	16.44	16.47	16.41	
10	16QAM	1	25	16.41	16.46	16.41	15.8
10	16QAM	1	49	16.35	16.42	16.41	
10	16QAM	25	0	15.25	15.33	15.26	15.8
10	16QAM	25	12	15.29	15.30	15.22	
10	16QAM	25	25	15.21	15.27	15.22	15.8
10	16QAM	50	0	15.23	15.25	15.18	
10	64QAM	1	0	15.35	15.38	15.33	15.8
10	64QAM	1	25	15.32	15.35	15.32	
10	64QAM	1	49	15.27	15.33	15.29	14.8
10	64QAM	25	0	14.22	14.30	14.28	
10	64QAM	25	12	14.23	14.31	14.27	14.8
10	64QAM	25	25	14.25	14.27	14.25	
10	64QAM	50	0	14.19	14.22	14.21	
Channel				23755	23790	23825	
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	17.12	17.11	17.12	17.8
5	QPSK	1	12	17.08	17.09	17.06	
5	QPSK	1	24	17.02	17.11	17.05	16.8
5	QPSK	12	0	16.19	16.21	16.17	
5	QPSK	12	7	16.16	16.19	16.13	16.8
5	QPSK	12	13	16.09	16.17	16.12	
5	QPSK	25	0	16.20	16.17	16.10	16.8
5	16QAM	1	0	16.42	16.44	16.37	
5	16QAM	1	12	16.33	16.42	16.37	15.8
5	16QAM	1	24	16.33	16.35	16.40	
5	16QAM	12	0	15.20	15.31	15.20	15.8
5	16QAM	12	7	15.23	15.25	15.18	
5	16QAM	12	13	15.13	15.24	15.20	15.8
5	16QAM	25	0	15.20	15.22	15.14	
5	64QAM	1	0	15.31	15.34	15.27	15.8
5	64QAM	1	12	15.28	15.29	15.24	
5	64QAM	1	24	15.23	15.28	15.28	14.8
5	64QAM	12	0	14.21	14.29	14.23	
5	64QAM	12	7	14.16	14.23	14.24	14.8
5	64QAM	12	13	14.22	14.22	14.18	
5	64QAM	25	0	14.12	14.14	14.13	

Band 18 (835MHz Band) (dBm)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel					23925		
Frequency (MHz)					822.5		
15	QPSK	1	0		17.13		17.8
15	QPSK	1	37		17.08		
15	QPSK	1	74		17.06		16.8
15	QPSK	36	0		16.18		
15	QPSK	36	20		16.15		16.8
15	QPSK	36	39		16.20		
15	QPSK	75	0		16.17		16.8
15	16QAM	1	0		16.42		
15	16QAM	1	37		16.47		15.8
15	16QAM	1	74		16.49		
15	16QAM	36	0		15.20		15.8
15	16QAM	36	20		15.16		
15	16QAM	36	39		15.15		15.8
15	16QAM	75	0		15.16		
15	64QAM	1	0		15.21		15.8
15	64QAM	1	25		15.16		
15	64QAM	1	49		15.13		14.8
15	64QAM	25	0		14.18		
15	64QAM	25	12		14.22		14.8
15	64QAM	25	25		14.17		
15	64QAM	50	0		14.21		
Channel				23900	23925	23950	
Frequency (MHz)				820	822.5	825	
10	QPSK	1	0	17.05	17.10	17.05	17.8
10	QPSK	1	25	17.01	17.02	17.03	
10	QPSK	1	49	17.01	17.03	17.00	16.8
10	QPSK	25	0	16.11	16.12	16.10	
10	QPSK	25	12	16.14	16.07	16.12	16.8
10	QPSK	25	25	16.16	16.17	16.17	
10	QPSK	50	0	16.13	16.13	16.10	16.8
10	16QAM	1	0	16.36	16.35	16.39	
10	16QAM	1	25	16.43	16.39	16.39	15.8
10	16QAM	1	49	16.45	16.43	16.46	
10	16QAM	25	0	15.14	15.17	15.16	15.8
10	16QAM	25	12	15.10	15.09	15.14	
10	16QAM	25	25	15.13	15.07	15.08	15.8
10	16QAM	50	0	15.13	15.15	15.13	
10	64QAM	1	0	15.18	15.18	15.14	15.8
10	64QAM	1	25	15.12	15.13	15.10	
10	64QAM	1	49	15.06	15.05	15.09	14.8
10	64QAM	25	0	14.13	14.16	14.15	
10	64QAM	25	12	14.21	14.18	14.19	14.8
10	64QAM	25	25	14.13	14.13	14.14	
10	64QAM	50	0	14.18	14.13	14.18	
Channel				23875	23925	23975	
Frequency (MHz)				817.5	822.5	827.5	
5	QPSK	1	0	17.11	17.12	17.08	17.8
5	QPSK	1	12	17.01	17.02	17.00	
5	QPSK	1	24	16.99	17.02	17.01	16.8
5	QPSK	12	0	16.13	16.13	16.15	
5	QPSK	12	7	16.13	16.14	16.07	16.8
5	QPSK	12	13	16.12	16.14	16.18	
5	QPSK	25	0	16.13	16.14	16.10	16.8
5	16QAM	1	0	16.35	16.41	16.34	
5	16QAM	1	12	16.45	16.40	16.41	15.8
5	16QAM	1	24	16.48	16.41	16.41	
5	16QAM	12	0	15.12	15.18	15.12	15.8
5	16QAM	12	7	15.13	15.09	15.15	
5	16QAM	12	13	15.08	15.08	15.10	15.8
5	16QAM	25	0	15.12	15.11	15.09	
5	64QAM	1	0	15.13	15.16	15.14	15.8
5	64QAM	1	12	15.13	15.09	15.10	
5	64QAM	1	24	15.05	15.10	15.08	14.8
5	64QAM	12	0	14.14	14.12	14.17	
5	64QAM	12	7	14.19	14.20	14.14	14.8
5	64QAM	12	13	14.12	14.12	14.12	
5	64QAM	25	0	14.18	14.20	14.15	



Band 25 (1900MHz Band) (dBm)							
Part 24E							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26140	26365	26590	
Frequency (MHz)				1860	1882.5	1905	
20	QPSK	1	0	12.48	12.53	12.45	
20	QPSK	1	49	12.38	12.42	12.35	
20	QPSK	1	99	12.34	12.41	12.39	

Band 26 for FCC (dBm)							
(only on channel required)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26765	26885	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	17.61	17.63	17.59	
15	QPSK	1	37	17.58	17.61	17.60	
15	QPSK	1	74	17.55	17.58	17.53	



3	QPSK	8	4	11.52	11.56	11.57	12.3
3	QPSK	8	7	11.57	11.55	11.52	
3	QPSK	15	0	11.42	11.50	11.45	
3	16QAM	1	0	11.74	11.79	11.75	12.3
3	16QAM	1	8	11.70	11.75	11.71	
3	16QAM	1	14	11.61	11.69	11.66	
3	16QAM	8	0	10.51	10.56	10.51	11.3
3	16QAM	8	4	10.52	10.51	10.45	
3	16QAM	8	7	10.52	10.54	10.52	
3	16QAM	15	0	10.50	10.56	10.50	11.3
3	64QAM	1	0	10.61	10.66	10.65	
3	64QAM	1	8	10.53	10.61	10.58	
3	64QAM	1	14	10.60	10.61	10.54	10.3
3	64QAM	8	0	9.66	9.69	9.63	
3	64QAM	8	4	9.59	9.61	9.57	
3	64QAM	8	7	9.62	9.60	9.57	10.3
3	64QAM	15	0	9.50	9.57	9.58	
Channel				26047	26365	26683	
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	12.43	12.46	12.43	13.3
1.4	QPSK	1	3	12.35	12.37	12.29	
1.4	QPSK	1	5	12.30	12.34	12.31	
1.4	QPSK	3	0	12.45	12.52	12.44	
1.4	QPSK	3	1	12.42	12.45	12.46	
1.4	QPSK	3	3	12.44	12.47	12.46	
1.4	QPSK	6	0	11.45	11.51	11.42	12.3
1.4	16QAM	1	0	11.80	11.82	11.69	11.3
1.4	16QAM	1	3	11.64	11.75	11.71	
1.4	16QAM	1	5	11.56	11.65	11.66	
1.4	16QAM	3	0	11.40	11.45	11.39	
1.4	16QAM	3	1	11.43	11.43	11.35	
1.4	16QAM	3	3	11.47	11.47	11.42	
1.4	16QAM	6	0	10.47	10.55	10.52	10.3
1.4	64QAM	1	0	10.62	10.63	10.63	11.3
1.4	64QAM	1	3	10.55	10.67	10.62	
1.4	64QAM	1	5	10.57	10.62	10.57	
1.4	64QAM	3	0	10.53	10.60	10.50	
1.4	64QAM	3	1	10.47	10.52	10.49	
1.4	64QAM	3	3	10.52	10.51	10.49	
1.4	64QAM	6	0	9.50	9.56	9.57	10.3

1.4	QPSK	3	1	17.48	17.43	17.46	17.3
1.4	QPSK	3	3	17.51	17.58	17.50	
1.4	QPSK	6	0	16.56	16.66	16.62	
1.4	16QAM	1	0	16.82	16.82	16.86	17.3
1.4	16QAM	1	3	16.88	16.89	16.85	
1.4	16QAM	1	5	16.84	16.84	16.74	
1.4	16QAM	3	0	16.47	16.58	16.45	
1.4	16QAM	3	1	16.44	16.51	16.37	
1.4	16QAM	3	3	16.49	16.55	16.44	
1.4	16QAM	6	0	15.59	15.63	15.61	16.3
1.4	64QAM	1	0	15.72	15.74	15.67	16.3
1.4	64QAM	1	3	15.75	15.79	15.68	
1.4	64QAM	1	5	15.66	15.69	15.67	
1.4	64QAM	3	0	15.51	15.51	15.55	
1.4	64QAM	3	1	15.44	15.52	15.46	
1.4	64QAM	3	3	15.40	15.51	15.44	
1.4	64QAM	6	0	14.57	14.65	14.57	15.3



Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	12.29	12.40	12.31	13.1
20	QPSK	1	49	12.20	12.27	12.24	
20	QPSK	1	99	12.17	12.24	12.21	
20	QPSK	50	0	11.29	11.31	11.28	12.1
20	QPSK	50	24	11.31	11.37	11.35	
20	QPSK	50	50	11.21	11.29	11.26	
20	QPSK	100	0	11.34	11.35	11.31	12.1
20	16QAM	1	0	11.54	11.62	11.56	
20	16QAM	1	49	11.56	11.60	11.55	
20	16QAM	1	99	11.50	11.57	11.51	11.1
20	16QAM	50	0	10.34	10.35	10.30	
20	16QAM	50	24	10.25	10.31	10.24	
20	16QAM	50	50	10.31	10.35	10.32	11.1
20	16QAM	100	0	10.30	10.33	10.29	
20	64QAM	1	0	10.55	10.60	10.56	
20	64QAM	1	49	10.54	10.57	10.49	11.1
20	64QAM	1	99	10.52	10.54	10.47	
20	64QAM	50	0	9.32	9.40	9.35	
20	64QAM	50	24	9.30	9.38	9.32	10.1
20	64QAM	50	50	9.28	9.36	9.32	
20	64QAM	100	0	9.29	9.36	9.30	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	12.28	12.31	12.30	13.1
15	QPSK	1	37	12.12	12.26	12.22	
15	QPSK	1	74	12.10	12.16	12.18	
15	QPSK	36	0	11.23	11.26	11.22	12.1
15	QPSK	36	20	11.27	11.32	11.33	
15	QPSK	36	39	11.16	11.24	11.20	
15	QPSK	75	0	11.31	11.33	11.25	12.1
15	16QAM	1	0	11.50	11.61	11.52	
15	16QAM	1	37	11.54	11.58	11.51	
15	16QAM	1	74	11.47	11.56	11.43	11.1
15	16QAM	36	0	10.29	10.33	10.28	
15	16QAM	36	20	10.21	10.24	10.21	
15	16QAM	36	39	10.28	10.28	10.26	11.1
15	16QAM	75	0	10.24	10.27	10.24	
15	64QAM	1	0	10.48	10.59	10.50	
15	64QAM	1	37	10.48	10.50	10.47	11.1
15	64QAM	1	74	10.48	10.53	10.45	
15	64QAM	36	0	9.29	9.32	9.32	
15	64QAM	36	20	9.27	9.36	9.27	10.1
15	64QAM	36	39	9.25	9.31	9.30	
15	64QAM	75	0	9.28	9.29	9.26	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	12.21	12.28	12.30	13.1
10	QPSK	1	25	12.15	12.25	12.18	
10	QPSK	1	49	12.12	12.21	12.18	
10	QPSK	25	0	11.20	11.30	11.19	12.1
10	QPSK	25	12	11.29	11.36	11.29	
10	QPSK	25	25	11.19	11.21	11.19	
10	QPSK	50	0	11.30	11.27	11.24	12.1
10	16QAM	1	0	11.49	11.55	11.51	
10	16QAM	1	25	11.51	11.54	11.52	
10	16QAM	1	49	11.43	11.49	11.45	11.1
10	16QAM	25	0	10.26	10.30	10.28	
10	16QAM	25	12	10.22	10.24	10.22	
10	16QAM	25	25	10.24	10.29	10.29	11.1
10	16QAM	50	0	10.22	10.29	10.21	
10	64QAM	1	0	10.47	10.56	10.52	
10	64QAM	1	25	10.52	10.50	10.43	11.1
10	64QAM	1	49	10.48	10.50	10.46	
10	64QAM	25	0	9.28	9.34	9.34	
10	64QAM	25	12	9.29	9.30	9.28	10.1
10	64QAM	25	25	9.26	9.28	9.30	
10	64QAM	50	0	9.24	9.34	9.26	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	12.24	12.32	12.29	13.1
5	QPSK	1	12	12.16	12.24	12.19	
5	QPSK	1	24	12.14	12.21	12.15	
5	QPSK	12	0	11.24	11.30	11.23	12.1
5	QPSK	12	7	11.27	11.33	11.27	
5	QPSK	12	13	11.14	11.24	11.21	
5	QPSK	25	0	11.31	11.28	11.27	12.1
5	16QAM	1	0	11.47	11.55	11.50	
5	16QAM	1	12	11.55	11.53	11.52	
5	16QAM	1	24	11.43	11.51	11.49	11.1
5	16QAM	12	0	10.33	10.28	10.25	
5	16QAM	12	7	10.17	10.26	10.18	
5	16QAM	12	13	10.24	10.29	10.24	11.1
5	16QAM	25	0	10.24	10.31	10.21	
5	64QAM	1	0	10.52	10.58	10.51	
5	64QAM	1	12	10.46	10.56	10.41	11.1
5	64QAM	1	24	10.46	10.46	10.44	
5	64QAM	12	0	9.29	9.36	9.29	
5	64QAM	12	7	9.27	9.33	9.30	10.1
5	64QAM	12	13	9.25	9.32	9.26	
5	64QAM	25	0	9.28	9.33	9.23	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	12.27	12.30	12.25	13.1
3	QPSK	1	8	12.19	12.25	12.16	
3	QPSK	1	14	12.12	12.17	12.20	
3	QPSK	8	0	11.22	11.23	11.20	

Band 71 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	19.63	19.69	19.64	20.3
20	QPSK	1	49	19.54	19.62	19.60	
20	QPSK	1	99	19.59	19.63	19.62	
20	QPSK	50	0	18.70	18.73	18.68	19.3
20	QPSK	50	24	18.66	18.71	18.63	
20	QPSK	50	50	18.65	18.68	18.63	
20	QPSK	100	0	18.64	18.72	18.66	19.3
20	16QAM	1	0	18.92	18.97	18.91	
20	16QAM	1	49	18.83	18.91	18.88	
20	16QAM	1	99	18.89	18.94	18.90	18.3
20	16QAM	50	0	17.72	17.76	17.73	
20	16QAM	50	24	17.67	17.74	17.71	
20	16QAM	50	50	17.66	17.73	17.68	18.3
20	16QAM	100	0	17.72	17.75	17.69	
20	64QAM	1	0	17.77	17.80	17.74	
20	64QAM	1	49	17.84	17.85	17.79	18.3
20	64QAM	1	99	17.82	17.83	17.78	
20	64QAM	50	0	16.68	16.76	16.70	
20	64QAM	50	24	16.71	16.79	16.76	17.3
20	64QAM	50	50	16.67	16.74	16.70	
20	64QAM	100	0	16.69	16.73	16.71	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	19.62	19.64	19.60	20.3
15	QPSK	1	37	19.51	19.58	19.55	
15	QPSK	1	74	19.57	19.56	19.58	
15	QPSK	36	0	18.70	18.70	18.67	19.3
15	QPSK	36	20	18.58	18.68	18.58	
15	QPSK	36	39	18.63	18.65	18.62	
15	QPSK	75	0	18.59	18.65	18.61	19.3
15	16QAM	1	0	18.89	18.94	18.89	
15	16QAM	1	37	18.80	18.87	18.85	
15	16QAM	1	74	18.87	18.86	18.88	18.3
15	16QAM	36	0	17.64	17.75	17.72	
15	16QAM	36	20	17.63	17.68	17.68	
15	16QAM	36	39	17.63	17.67	17.61	18.3
15	16QAM	75	0	17.65	17.68	17.64	
15	64QAM	1	0	17.69	17.79	17.67	
15	64QAM	1	37	17.79	17.84	17.72	18.3
15	64QAM	1	74	17.75	17.79	17.70	
15	64QAM	36	0	16.64	16.73	16.65	
15	64QAM	36	20	16.63	16.75	16.70	17.3
15	64QAM	36	39	16.60	16.70	16.65	
15	64QAM	75	0	16.67	16.68	16.65	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	19.61	19.62	19.56	20.3
10	QPSK	1	25	19.49	19.54	19.53	
10	QPSK	1	49	19.51	19.55	19.61	
10	QPSK	25	0	18.67	18.71	18.67	19.3
10	QPSK	25	12	18.61	18.69	18.57	
10	QPSK	25	25	18.62	18.61	18.58	
10	QPSK	50	0	18.60	18.70	18.63	19.3
10	16QAM	1	0	18.91	18.90	18.84	
10	16QAM	1	25	18.77	18.85	18.87	
10	16QAM	1	49	18.88	18.93	18.86	18.3
10	16QAM	25	0	17.69	17.75	17.71	
10	16QAM	25	12	17.63	17.68	17.68	
10	16QAM	25	25	17.65	17.67	17.65	18.3
10	16QAM	50	0	17.70	17.72	17.64	
10	64QAM	1	0	17.72	17.76	17.72	



3	QPSK	8	4	11.28	11.34	11.34	12.1
3	QPSK	8	7	11.18	11.22	11.21	
3	QPSK	15	0	11.33	11.33	11.25	
3	16QAM	1	0	11.49	11.55	11.48	12.1
3	16QAM	1	8	11.51	11.56	11.51	
3	16QAM	1	14	11.44	11.54	11.43	
3	16QAM	8	0	10.29	10.33	10.27	11.1
3	16QAM	8	4	10.20	10.23	10.22	
3	16QAM	8	7	10.24	10.31	10.26	
3	16QAM	15	0	10.25	10.29	10.25	11.1
3	64QAM	1	0	10.49	10.55	10.51	
3	64QAM	1	8	10.46	10.49	10.44	
3	64QAM	1	14	10.46	10.50	10.41	10.1
3	64QAM	8	0	9.26	9.32	9.30	
3	64QAM	8	4	9.23	9.30	9.29	
3	64QAM	8	7	9.22	9.28	9.31	
3	64QAM	15	0	9.28	9.29	9.27	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	12.25	12.32	12.25	13.1
1.4	QPSK	1	3	12.13	12.26	12.23	
1.4	QPSK	1	5	12.12	12.22	12.18	
1.4	QPSK	3	0	12.14	12.20	12.14	
1.4	QPSK	3	1	12.18	12.24	12.19	
1.4	QPSK	3	3	12.09	12.17	12.14	
1.4	QPSK	6	0	11.32	11.34	11.23	12.1
1.4	16QAM	1	0	11.52	11.54	11.54	12.1
1.4	16QAM	1	3	11.48	11.54	11.51	
1.4	16QAM	1	5	11.43	11.50	11.49	
1.4	16QAM	3	0	11.19	11.20	11.13	
1.4	16QAM	3	1	11.08	11.15	11.10	
1.4	16QAM	3	3	11.16	11.24	11.15	
1.4	16QAM	6	0	10.25	10.32	10.24	11.1
1.4	64QAM	1	0	10.54	10.57	10.54	11.1
1.4	64QAM	1	3	10.53	10.55	10.45	
1.4	64QAM	1	5	10.46	10.49	10.40	
1.4	64QAM	3	0	10.20	10.26	10.24	
1.4	64QAM	3	1	10.16	10.26	10.19	
1.4	64QAM	3	3	10.12	10.23	10.21	
1.4	64QAM	6	0	9.26	9.32	9.24	10.1



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	2585	2610	
20	QPSK	1	0	13.12	13.15	13.08	
20	QPSK	1	49	13.04	13.11	13.09	13.8
20	QPSK	1	99	13.07	13.10	13.08	
20	QPSK	50	0	12.10	12.13	12.05	
20	QPSK	50	24	12.23	12.25	12.22	
20	QPSK	50	50	12.16	12.21	12.19	12.8
20	QPSK	100	0	12.15	12.20	12.13	
20	16QAM	1	0	12.31	12.36	12.32	
20	16QAM	1	49	12.32	12.35	12.27	12.8
20	16QAM	1	99	12.35	12.36	12.30	
20	16QAM	50	0	11.22	11.28	11.20	
20	16QAM	50	24	11.21	11.26	11.23	
20	16QAM	50	50	11.21	11.22	11.14	11.8
20	16QAM	100	0	11.21	11.24	11.23	
20	64QAM	1	0	11.21	11.23	11.16	
20	64QAM	1	49	11.14	11.18	11.13	11.8
20	64QAM	1	99	11.12	11.17	11.13	
20	64QAM	50	0	10.18	10.22	10.14	
20	64QAM	50	24	10.20	10.25	10.18	
20	64QAM	50	50	10.25	10.28	10.23	10.8
20	64QAM	100	0	10.20	10.21	10.14	
Channel				37825	38000	38175	
Frequency (MHz)				2577.5	2585	2612.5	
15	QPSK	1	0	13.06	13.12	13.01	
15	QPSK	1	37	13.00	13.07	13.08	13.8
15	QPSK	1	74	13.06	13.04	13.03	
15	QPSK	38	0	12.01	12.12	12.09	
15	QPSK	38	20	12.20	12.17	12.18	
15	QPSK	38	39	12.09	12.16	12.15	12.8
15	QPSK	75	0	12.11	12.12	12.11	
15	16QAM	1	0	12.29	12.34	12.27	
15	16QAM	1	37	12.31	12.33	12.24	12.8
15	16QAM	1	74	12.28	12.33	12.27	
15	16QAM	38	0	11.17	11.27	11.17	
15	16QAM	38	20	11.19	11.21	11.20	
15	16QAM	38	39	11.20	11.14	11.13	11.8
15	16QAM	75	0	11.18	11.22	11.18	
15	64QAM	1	0	11.18	11.17	11.13	
15	64QAM	1	37	11.13	11.13	11.07	11.8
15	64QAM	1	74	11.08	11.13	11.09	
15	64QAM	38	0	10.14	10.14	10.11	
15	64QAM	38	20	10.19	10.18	10.15	
15	64QAM	38	39	10.17	10.26	10.16	10.8
15	64QAM	75	0	10.16	10.13	10.06	
Channel				37800	38000	38200	
Frequency (MHz)				2575	2585	2615	
10	QPSK	1	0	13.07	13.10	13.00	
10	QPSK	1	25	12.97	13.03	13.08	13.8
10	QPSK	1	49	13.04	13.08	13.05	
10	QPSK	25	0	12.08	12.09	12.05	
10	QPSK	25	12	12.17	12.17	12.18	
10	QPSK	25	25	12.12	12.16	12.18	12.8
10	QPSK	50	0	12.14	12.14	12.09	
10	16QAM	1	0	12.24	12.30	12.27	
10	16QAM	1	25	12.31	12.31	12.24	12.8
10	16QAM	1	49	12.28	12.29	12.22	
10	16QAM	25	0	11.16	11.22	11.18	
10	16QAM	25	12	11.16	11.22	11.19	11.8
10	16QAM	25	25	11.18	11.18	11.12	
10	16QAM	50	0	11.13	11.20	11.20	
10	64QAM	1	0	11.16	11.18	11.10	
10	64QAM	1	25	11.13	11.10	11.09	11.8
10	64QAM	1	49	11.07	11.16	11.05	
10	64QAM	25	0	10.12	10.20	10.07	
10	64QAM	25	12	10.19	10.23	10.15	
10	64QAM	25	25	10.21	10.21	10.22	10.8
10	64QAM	50	0	10.19	10.15	10.11	
Channel				37775	38000	38225	
Frequency (MHz)				2572.5	2585	2617.5	
5	QPSK	1	0	13.08	13.13	13.05	
5	QPSK	1	12	12.98	13.05	13.02	13.8
5	QPSK	1	24	13.02	13.02	13.07	
5	QPSK	12	0	12.02	12.05	12.07	
5	QPSK	12	7	12.22	12.22	12.18	
5	QPSK	12	13	12.08	12.15	12.18	12.8
5	QPSK	25	0	12.09	12.19	12.11	
5	16QAM	1	0	12.24	12.31	12.26	
5	16QAM	1	12	12.31	12.31	12.25	12.8
5	16QAM	1	24	12.32	12.31	12.27	
5	16QAM	12	0	11.18	11.26	11.14	
5	16QAM	12	7	11.19	11.18	11.17	11.8
5	16QAM	12	13	11.13	11.17	11.06	
5	16QAM	25	0	11.20	11.21	11.15	
5	64QAM	1	0	11.19	11.18	11.08	
5	64QAM	1	12	11.08	11.12	11.09	11.8
5	64QAM	1	24	11.06	11.10	11.07	
5	64QAM	12	0	10.16	10.20	10.10	
5	64QAM	12	7	10.16	10.19	10.14	
5	64QAM	12	13	10.24	10.22	10.21	10.8
5	64QAM	25	0	10.16	10.20	10.11	

Band 41 (2496~2690MHz) (dBm)-PC2											
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)		
Channel				39750	40185	40620	41055	41490			
Frequency (MHz)				2506	2549.5	2593	2636.5	2680			
20	QPSK	1	0	11.85	11.83	12.14	12.10	12.08			
20	QPSK	1	49	11.71	11.78	12.09	12.07	12.03	12.9		
20	QPSK	1	99	11.78	11.76	12.12	12.08	12.05			
20	QPSK	50	0	10.93	10.89	11.15	11.08	11.01			
20	QPSK	50	24	10.90	10.82	11.12	11.00	10.97			
20	QPSK	50	50	10.80	10.87	11.08	10.97	11.00	11.9		
20	QPSK	100	0	10.87	10.86	11.05	11.06	10.99			
20	16QAM	1	0	11.06	11.12	11.43	11.40	11.41			
20	16QAM	1	49	11.03	11.03	11.40	11.32	11.39	11.9		
20	16QAM	1	99	11.02	11.04	11.38	11.35	11.31			
20	16QAM	50	0	9.98	9.99	10.33	10.31	10.25			
20	16QAM	50	24	9.91	9.93	10.29	10.24	10.25	10.9		
20	16QAM	50	50	9.95	9.95	10.31	10.24	10.28			
20	16QAM	100	0	9.90	9.94	10.27	10.22	10.21			
20	64QAM	1	0	9.88	9.90	10.22	10.14	10.14			
20	64QAM	1	49	9.85	9.84	10.21	10.14	10.17	10.9		
20	64QAM	1	99	9.90	9.90	10.26	10.21	10.21			
20	64QAM	50	0	8.94	8.96	9.28	9.26	9.23			
20	64QAM	50	24	8.94	8.95	9.26	9.18	9.20	9.9		
20	64QAM	50	50	8.99	8.93	9.30	9.24	9.29			
20	64QAM	100	0	8.90	8.91	9.28	9.27	9.24			
Channel				39725	40173	40620	41088	41515			
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5			
15	QPSK	1	0	11.83	11.76	12.08	12.07	12.07			
15	QPSK	1	37	11.64	11.72	12.03	12.02	12.02	12.9		
15	QPSK	1	74	11.76	11.74	12.08	12.06	11.98			
15	QPSK	38	0	10.89	10.86	11.22	11.12	11.20			
15	QPSK	38	20	10.84	10.85	11.18	11.12	11.09			
15	QPSK	38	39	10.78	10.86	11.13	11.14	11.10	11.9		
15	QPSK	75	0	10.79	10.83	11.22	11.12	11.15			
15	16QAM	1	0	11.04	11.09	11.35	11.33	11.38			
15	16QAM	1	37	11.01	11.05	11.33	11.26	11.31	11.9		
15	16QAM	1	74	11.00	10.98	11.32	11.32	11.25			
15	16QAM	38	0	9.90	9.96	10.31	10.27	10.18			
15	16QAM	38	20	9.86	9.87	10.21	10.20	10.22			
15	16QAM	38	39	9.94	9.88	10.29	10.17	10.20	10.9		
15	16QAM	75	0	9.84	9.87	10.26	10.14	10.17			
15	64QAM	1	0	9.85	9.88	10.18	10.06	10.13			
15	64QAM	1	37	9.79	9.79	10.16	10.10	10.12	10.9		
15	64QAM	1	74	9.89	9.88	10.22	10.15	10.15			
15	64QAM	38	0	8.92	8.95	9.24	9.22	9.22			
15	64QAM	38	20	8.90	8.93	9.24	9.12	9.17	9.9		
15	64QAM	38	39	8.93	8.89	9.22	9.17	9.22			
15	64QAM	75	0	8.85	8.88	9.24	9.26	9.19			
Channel				39700	40160	40620	41080	41540			
Frequency (MHz)				2501	2547	2593	2639	2685			
10	QPSK	1	0	11.78	11.82	12.07	12.05	1			



Band 41 (2496-2690MHz) (dBm)-PC3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490	13.8	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	12.79	12.70	13.15	13.14	13.11		
20	QPSK	1	49	12.69	12.67	13.14	13.09	13.09	12.8	
20	QPSK	1	99	12.69	12.65	13.12	13.06	13.07		
20	QPSK	50	0	11.70	11.76	12.18	12.16	12.13		
20	QPSK	50	24	11.72	11.72	12.17	12.13	12.11	12.8	
20	QPSK	50	50	11.73	11.74	12.15	12.07	12.13		
20	QPSK	100	0	11.71	11.73	12.18	12.17	12.12		
20	16QAM	1	0	11.64	11.58	12.05	12.04	12.01	11.8	
20	16QAM	1	49	11.57	11.60	12.04	11.97	11.96		
20	16QAM	1	99	11.70	11.70	12.14	12.12	12.13		
20	16QAM	50	0	10.65	10.65	11.12	11.09	11.09	11.8	
20	16QAM	50	24	10.75	10.72	11.20	11.12	11.17		
20	16QAM	50	50	10.76	10.76	11.18	11.17	11.17		
20	16QAM	100	0	10.70	10.68	11.14	11.06	11.08	11.8	
20	84QAM	1	0	10.44	10.47	10.92	10.89	10.91		
20	84QAM	1	49	10.41	10.45	10.88	10.81	10.81		
20	84QAM	1	99	10.49	10.55	10.96	10.89	10.94	10.8	
20	84QAM	50	0	9.79	9.79	10.20	10.12	10.15		
20	84QAM	50	24	9.86	9.83	10.27	10.19	10.21		
20	84QAM	50	50	9.78	9.80	10.24	10.17	10.23	10.8	
20	84QAM	100	0	9.76	9.76	10.22	10.21	10.17		
Channel				39725	40173	40620	41088	41516		
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	13.8	
15	QPSK	1	0	12.75	12.64	13.09	13.13	13.05		
15	QPSK	1	37	12.64	12.61	13.11	13.08	13.07		
15	QPSK	1	74	12.65	12.63	13.10	13.04	13.06	12.8	
15	QPSK	38	0	11.64	11.72	12.15	12.09	12.11		
15	QPSK	38	20	11.70	11.70	12.13	12.10	12.05		
15	QPSK	38	39	11.69	11.66	12.13	12.05	12.07	12.8	
15	QPSK	75	0	11.64	11.66	12.11	12.10	12.05		
15	16QAM	1	0	11.63	11.52	12.02	12.01	12.00		
15	16QAM	1	37	11.51	11.53	12.01	11.90	11.89	11.8	
15	16QAM	1	74	11.68	11.63	12.08	12.07	12.06		
15	16QAM	38	0	10.59	10.63	11.07	11.08	11.09		
15	16QAM	38	20	10.67	10.68	11.19	11.06	11.12	11.8	
15	16QAM	38	39	10.69	10.72	11.14	11.14	11.10		
15	16QAM	75	0	10.65	10.66	11.09	11.05	11.03		
15	84QAM	1	0	10.41	10.44	10.87	10.83	10.89	11.8	
15	84QAM	1	37	10.34	10.40	10.86	10.77	10.77		
15	84QAM	1	74	10.43	10.48	10.94	10.86	10.87		
15	84QAM	38	0	9.74	9.75	10.13	10.11	10.14	10.8	
15	84QAM	38	20	9.79	9.77	10.24	10.18	10.16		
15	84QAM	38	39	9.75	9.79	10.17	10.14	10.15		
15	84QAM	75	0	9.75	9.74	10.19	10.14	10.14		
Channel				39700	40160	40620	41080	41540	13.8	
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	12.76	12.63	13.14	13.09	13.03		
10	QPSK	1	25	12.66	12.63	13.06	13.04	13.04	12.8	
10	QPSK	1	49	12.61	12.61	13.11	13.05	13.06		
10	QPSK	25	0	11.66	11.71	12.17	12.15	12.11		
10	QPSK	25	12	11.64	11.67	12.15	12.12	12.07	12.8	
10	QPSK	25	25	11.68	11.68	12.08	12.00	12.09		
10	QPSK	50	0	11.67	11.70	12.10	12.15	12.08		
10	16QAM	1	0	11.56	11.53	11.97	11.99	11.99	12.8	
10	16QAM	1	25	11.49	11.56	11.97	11.94	11.93		
10	16QAM	1	49	11.67	11.65	12.12	12.05	12.10		
10	16QAM	25	0	10.59	10.62	11.09	11.03	11.05	11.8	
10	16QAM	25	12	10.72	10.64	11.16	11.05	11.13		
10	16QAM	25	25	10.68	10.75	11.13	11.09	11.10		
10	16QAM	50	0	10.64	10.64	11.10	11.00	11.00	11.8	
10	84QAM	1	0	10.41	10.42	10.85	10.83	10.84		
10	84QAM	1	25	10.33	10.39	10.84	10.73	10.77		
10	84QAM	1	49	10.44	10.47	10.94	10.82	10.86	10.8	
10	84QAM	25	0	9.78	9.73	10.19	10.10	10.10		
10	84QAM	25	12	9.78	9.78	10.22	10.11	10.20		
10	84QAM	25	25	9.76	9.73	10.16	10.12	10.22	10.8	
10	84QAM	50	0	9.74	9.68	10.18	10.14	10.10		
Channel				39675	40148	40620	41053	41555		13.8
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	12.71	12.62	13.15	13.07	13.04		
5	QPSK	1	12	12.67	12.62	13.08	13.01	13.01	12.8	
5	QPSK	1	24	12.64	12.61	13.05	12.98	13.02		
5	QPSK	12	0	11.67	11.75	12.17	12.14	12.10		
5	QPSK	12	7	11.67	11.66	12.13	12.10	12.03	12.8	
5	QPSK	12	13	11.66	11.69	12.10	12.01	12.06		
5	QPSK	25	0	11.67	11.70	12.11	12.13	12.07		
5	16QAM	1	0	11.58	11.50	12.02	12.02	11.97	12.8	
5	16QAM	1	12	11.56	11.58	12.00	11.91	11.89		
5	16QAM	1	24	11.69	11.68	12.13	12.10	12.05		
5	16QAM	12	0	10.60	10.57	11.09	11.01	11.03	11.8	
5	16QAM	12	7	10.69	10.64	11.18	11.05	11.12		
5	16QAM	12	13	10.71	10.71	11.17	11.13	11.14		
5	16QAM	25	0	10.65	10.63	11.09	11.00	11.07	11.8	
5	84QAM	1	0	10.43	10.39	10.87	10.84	10.85		
5	84QAM	1	12	10.34	10.38	10.85	10.76	10.75		
5	84QAM	1	24	10.42	10.49	10.94	10.84	10.90	10.8	
5	84QAM	12	0	9.78	9.76	10.15	10.07	10.10		
5	84QAM	12	7	9.81	9.78	10.26	10.13	10.15		
5	84QAM	12	13	9.73	9.73	10.23	10.14	10.16	10.8	
5	84QAM	25	0	9.69	9.71	10.17	10.13	10.09		







CA_41C-PC3_Ant 1 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	12.33	13.50
40620	40621	40719	QPSK	1	0	0	0	1	0	12.63	13.50
41490	41292	41490	QPSK	1	0	0	0	1	0	12.55	13.50
39750	39750	39948	16QAM	1	0	0	0	1	0	11.57	12.00
40620	40621	40719	16QAM	1	0	0	0	1	0	11.89	12.00
41490	41292	41490	16QAM	1	0	0	0	1	0	11.84	12.00
39750	39750	39948	64QAM	1	0	0	0	1	0	10.13	11.00
40620	40621	40719	64QAM	1	0	0	0	1	0	10.45	11.00
41490	41292	41490	64QAM	1	0	0	0	1	0	10.33	11.00
39750	39750	39948	QPSK	50	0	0	0	1	0	11.22	12.00
40620	40621	40719	QPSK	50	0	0	0	1	0	11.53	12.00
41490	41292	41490	QPSK	50	0	0	0	1	0	11.29	12.00



Reduced Power Level 3 for Ant 3 & Ant 6

Band 48 (3.5G Band) (dBm)_Ant3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch. / Freq	Middle-Low Channel	Middle-Low Channel	Middle-High Channel	High Channel	Tune-up limit (dBm)
Channel									
Frequency (MHz)									
20	QPSK	1	0	17.25	17.17	17.21	17.24	17.28	17.8
20	QPSK	1	49	17.24	17.16	17.29	17.22	17.25	
20	QPSK	1	99	17.21	17.12	17.25	17.21	17.23	
20	QPSK	50	0	16.24	16.17	16.28	16.23	16.27	16.8
20	QPSK	50	24	16.17	16.13	16.25	16.17	16.23	
20	QPSK	50	50	16.17	16.14	16.24	16.20	16.21	
20	QPSK	100	0	16.14	16.05	16.19	16.14	16.15	16.8
20	16QAM	1	0	16.10	16.01	16.18	16.10	16.12	
20	16QAM	1	49	16.12	16.02	16.17	16.11	16.16	
20	16QAM	1	99	16.06	16.02	16.14	16.07	16.10	15.8
20	16QAM	50	0	15.17	15.10	15.20	15.15	15.14	
20	16QAM	50	24	15.11	15.05	15.16	15.14	15.15	
20	16QAM	50	50	15.09	15.02	15.17	15.15	15.13	15.8
20	16QAM	100	0	15.15	15.00	15.17	15.10	15.12	
20	16QAM	100	1	15.00	14.96	15.04	14.96	14.96	
20	64QAM	1	49	14.95	14.87	15.02	14.99	14.96	15.8
20	64QAM	1	99	14.97	14.88	15.03	15.01	14.98	
20	64QAM	50	0	14.14	14.06	14.21	14.16	14.13	
20	64QAM	50	24	14.16	14.10	14.20	14.13	14.13	14.8
20	64QAM	50	50	14.15	14.08	14.18	14.12	14.14	
20	64QAM	100	0	14.12	14.06	14.15	14.13	14.07	
Channel									
Frequency (MHz)									
15	QPSK	1	0	17.21	17.13	17.27	17.19	17.22	17.8
15	QPSK	1	37	17.23	17.11	17.26	17.17	17.20	
15	QPSK	1	74	17.16	17.11	17.20	17.20	17.16	
15	QPSK	36	0	16.20	16.14	16.22	16.22	16.19	16.8
15	QPSK	36	20	16.11	16.05	16.20	16.13	16.21	
15	QPSK	36	39	16.09	16.07	16.18	16.18	16.15	
15	QPSK	75	0	16.12	16.02	16.15	16.09	16.14	16.8
15	16QAM	1	0	16.04	15.93	16.15	16.04	16.06	
15	16QAM	1	37	16.05	15.95	16.11	16.09	16.13	
15	16QAM	1	74	16.01	16.00	16.07	16.06	16.03	15.8
15	16QAM	36	0	15.15	15.07	15.16	15.15	15.08	
15	16QAM	36	20	15.04	15.02	15.10	15.13	15.11	
15	16QAM	36	39	15.08	14.96	15.14	15.11	15.10	15.8
15	16QAM	75	0	15.11	14.97	15.12	15.09	15.11	
15	64QAM	1	0	14.96	14.82	15.03	14.92	14.98	
15	64QAM	1	37	14.91	14.79	14.98	14.97	14.94	15.8
15	64QAM	1	74	14.80	14.81	15.00	14.96	14.96	
15	64QAM	36	0	14.09	14.06	14.15	14.16	14.06	
15	64QAM	36	20	14.15	14.06	14.13	14.05	14.06	14.8
15	64QAM	36	39	14.14	14.04	14.11	14.07	14.07	
15	64QAM	75	0	14.10	13.97	14.11	14.12	13.99	
Channel									
Frequency (MHz)									
10	QPSK	1	0	17.19	17.09	17.24	17.20	17.26	17.8
10	QPSK	1	25	17.17	17.14	17.24	17.15	17.19	
10	QPSK	1	49	17.17	17.07	17.24	17.18	17.16	
10	QPSK	25	0	16.19	16.14	16.23	16.15	16.22	16.8
10	QPSK	25	12	16.16	16.07	16.21	16.15	16.16	
10	QPSK	25	25	16.12	16.10	16.20	16.17	16.18	
10	QPSK	50	0	16.13	16.03	16.15	16.08	16.07	16.8
10	16QAM	1	0	16.07	15.94	16.17	16.04	16.06	
10	16QAM	1	25	16.04	15.97	16.11	16.06	16.11	
10	16QAM	1	49	16.01	15.95	16.12	16.03	16.07	15.8
10	16QAM	25	0	15.16	15.03	15.13	15.13	15.11	
10	16QAM	25	12	15.06	15.01	15.15	15.12	15.14	
10	16QAM	25	25	15.08	14.94	15.10	15.13	15.12	15.8
10	16QAM	50	0	15.09	14.97	15.16	15.03	15.04	
10	64QAM	1	0	14.85	14.87	14.96	14.85	14.88	
10	64QAM	1	25	14.87	14.86	14.95	14.94	14.88	15.8
10	64QAM	1	49	14.80	14.84	14.96	15.00	14.94	
10	64QAM	25	0	14.11	14.04	14.20	14.16	14.10	
10	64QAM	25	12	14.08	14.02	14.13	14.06	14.07	14.8
10	64QAM	25	25	14.14	14.02	14.14	14.08	14.07	
10	64QAM	50	0	14.11	13.97	14.12	14.11	14.05	
Channel									
Frequency (MHz)									
5	QPSK	1	0	17.19	17.12	17.25	17.23	17.21	17.8
5	QPSK	1	12	17.16	17.12	17.23	17.19	17.17	
5	QPSK	1	24	17.20	17.04	17.18	17.14	17.19	
5	QPSK	12	0	16.23	16.14	16.24	16.21	16.26	16.8
5	QPSK	12	7	16.13	16.08	16.19	16.09	16.16	
5	QPSK	12	13	16.10	16.06	16.22	16.12	16.16	
5	QPSK	25	0	16.06	16.01	16.11	16.11	16.07	16.8
5	16QAM	1	0	16.08	15.93	16.17	16.09	16.04	
5	16QAM	1	12	16.09	15.94	16.15	16.05	16.11	
5	16QAM	1	24	15.98	15.94	16.12	16.06	16.07	15.8
5	16QAM	12	0	15.16	15.03	15.14	15.13	15.12	
5	16QAM	12	7	15.09	15.01	15.15	15.06	15.09	
5	16QAM	12	13	15.01	14.95	15.15	15.08	15.11	15.8
5	16QAM	25	0	15.09	14.99	15.15	15.09	15.04	
5	64QAM	1	0	14.99	14.83	14.97	14.90	14.98	
5	64QAM	1	12	14.90	14.85	14.98	14.96	14.94	15.8
5	64QAM	1	24	14.90	14.81	15.00	14.99	14.94	
5	64QAM	12	0	14.13	14.03	14.18	14.17	14.12	
5	64QAM	12	7	14.11	14.07	14.13	14.11	14.07	14.8
5	64QAM	12	13	14.11	14.04	14.10	14.05	14.07	
5	64QAM	25	0	14.05	13.98	14.07	14.08	13.99	

Band 48 (3.5G Band) (dBm)_Ant 6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch. / Freq	Middle-Low Channel	Middle-Low Channel	Middle-High Channel	High Channel	Tune-up limit (dBm)
Channel									
Frequency (MHz)									
20	QPSK	1	0	20.25	20.17	20.31	20.24	20.28	20.8
20	QPSK	1	49	20.24	20.18	20.29	20.22	20.22	
20	QPSK	1	99	20.21	20.12	20.25	20.21	20.20	
20	QPSK	50	0	19.24	19.17	19.28	19.23	19.27	19.8
20	QPSK	50	24	18.17	18.13	18.25	18.17	18.23	
20	QPSK	50	50	18.17	18.14	18.24	18.20	18.21	
20	QPSK	100	0	18.14	18.05	18.19	18.14	18.15	19.8
20	16QAM	1	0	18.10	18.01	18.18	18.10	18.12	
20	16QAM	1	49	18.09	18.02	18.14	18.11	18.16	
20	16QAM	1	99	18.06	18.02	18.14	18.07	18.10	18.8
20	16QAM	50	0	18.17	18.10	18.20	18.15	18.14	
20	16QAM	50	24	18.11	18.05	18.16	18.14	18.15	
20	16QAM	50	50	18.09	18.02	18.17	18.15	18.13	18.8
20	16QAM	100	0	18.15	18.00	18.17	18.10	18.12	
20	64QAM	1	49	18.06	17.80	18.04	17.96	17.96	
20	64QAM	1	99	17.95	17.87	18.02	17.99	17.98	18.8
20	64QAM	1	99	17.97	17.88	18.03	18.01	17.98	
20	64QAM	50	0	17.14	17.06	17.21	17.18	17.13	
20	64QAM	50	24	17.16	17.10	17.20	17.13	17.13	17.8
20	64QAM	50	50	17.15	17.08	17.18	17.12	17.14	
20	64QAM	100	0	17.12	17.05	17.15	17.13	17.07	
Channel									
Frequency (MHz)									
15	QPSK	1	0	20.21	20.13	20.27	20.19	20.22	20.8
15	QPSK	1	37	20.23	20.11	20.26	20.17	20.20	
15	QPSK	1	74	20.16	20.11	20.20	20.20	20.16	
15	QPSK	36	0	19.20	19.14	19.22	19.22	19.19	19.8
15	QPSK	36	20	19.11	19.05	19.20	19.13	19.21	
15	QPSK	36	39	19.09	19.07	19.18	19.15	19.15	
15	QPSK	75	0	18.12	18.02	18.15	18.09	18.14	19.8
15	16QAM	1	0	19.04	18.93	19.15	19.04	19.06	
15	16QAM	1	37	19.05	18.95	19.11	19.09	19.13	
15	16QAM	1	74	19.01	19.00	19.07	19.06	19.03	18.8
15	16QAM	36	0	18.13	18.02	18.16	18.11	18.08	
15	16QAM	36	20	18.04	18.02	18.10	18.13	18.11	
15	16QAM	36	39	18.06	17.96	18.14			



Reduced Power Level 3 for Ant 1 & Ant 3 & Ant 4 & Ant 6

n2 (1850 ~ 1910MHz)_ANT 1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1860	1900	
20	DFT-s-OFDM P12 BPSK	1	1	13.27	13.19	13.31	14.7
20		1	53	13.36	13.42	13.32	
20		1	104	13.11	13.24	13.28	
20		50	1	12.48	12.54	12.70	
20		50	26	12.75	12.55	12.66	
20		50	50	12.18	12.29	12.17	
20		100	0	12.70	12.60	12.71	
20		1	1	13.46	13.50	13.49	
20		1	53	13.41	13.47	13.43	
20		1	104	13.34	13.37	13.30	
20	DFT-s-OFDM QPSK	50	1	13.00	13.09	13.05	13.7
20		50	26	12.85	12.87	13.01	
20		50	50	12.62	12.89	12.90	
20		100	0	12.78	12.59	12.60	
20	DFT-s-OFDM 16QAM	1	1	13.17	13.09	13.26	13.7
20	DFT-s-OFDM 64QAM	1	1	11.69	11.75	11.80	12.7
20	DFT-s-OFDM 256QAM	1	1	9.30	9.13	9.32	10.2
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1860	1902.5	
15	DFT-s-OFDM QPSK	1	1	13.46	13.35	13.37	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1860	1905	
10	DFT-s-OFDM QPSK	1	1	13.50	13.47	13.36	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1860	1907.5	
5	DFT-s-OFDM QPSK	1	1	13.45	13.42	13.44	25.2
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1860	1900	
20	CP-OFDM QPSK	1	1	12.54	12.23	12.36	23.7
20	CP-OFDM 16QAM	1	1	12.18	12.07	12.15	23.7
20	CP-OFDM 64QAM	1	1	11.05	10.84	11.02	22.7
20	CP-OFDM 256QAM	1	1	7.23	7.33	7.34	18.7

n5 (824 ~ 849 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				166800	167300	167800	
Frequency (MHz)				834	836.5	839	
20	DFT-s-OFDM P12 BPSK	1	1	18.88	18.96	18.91	20.2
20		1	53	18.90	19.02	19.01	
20		1	104	19.00	19.02	18.92	
20		50	1	18.43	18.49	18.49	
20		50	26	18.48	18.52	18.48	
20		50	50	18.47	18.51	18.43	
20		100	0	18.45	18.48	18.48	
20		1	1	19.02	19.05	18.92	
20		1	53	19.01	19.03	18.97	
20		1	104	18.95	18.98	18.91	
20	DFT-s-OFDM QPSK	50	1	18.41	18.52	18.44	19.2
20		50	26	18.45	18.49	18.45	
20		50	50	18.47	18.49	18.52	
20		100	0	18.44	18.54	18.50	
20	DFT-s-OFDM 16QAM	1	1	18.48	18.44	18.54	19.2
20	DFT-s-OFDM 64QAM	1	1	17.25	17.25	16.97	18.2
20	DFT-s-OFDM 256QAM	1	1	14.56	14.52	14.63	15.7
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	DFT-s-OFDM QPSK	1	1	18.94	19.01	18.87	20.2
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	DFT-s-OFDM QPSK	1	1	18.85	18.90	18.82	20.2
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	DFT-s-OFDM QPSK	1	1	18.86	18.96	18.94	20.2
Channel				166800	167300	167800	Tune-up limit (dBm)
Frequency (MHz)				834	836.5	839	
20	CP-OFDM QPSK	1	1	17.85	18.05	18.03	23.7
20	CP-OFDM 16QAM	1	1	17.45	17.56	17.52	23.2
20	CP-OFDM 64QAM	1	1	16.38	16.44	16.40	22.2
20	CP-OFDM 256QAM	1	1	12.55	12.56	12.65	18.2



n12 (699 ~ 716 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				141300	141500	141700	
Frequency (MHz)				700.5	707.5	708.5	
15	DFT-s-OFDM P12 BPSK	1	1	20.96	20.98	20.83	22.2
15		36	1	20.98	20.90	20.96	
15		1	77	20.83	20.87	20.85	
15		36	1	20.43	20.44	20.40	
15		36	18	20.41	20.42	20.35	
15		36	36	20.35	20.38	20.29	
15		75	0	20.34	20.40	20.35	
15		1	1	21.00	21.04	21.01	
15		1	39	20.97	20.99	20.91	
15		1	77	20.95	21.01	20.98	
15	DFT-s-OFDM QPSK	36	1	20.39	20.45	20.40	21.2
15		36	18	20.38	20.40	20.36	
15		36	36	20.24	20.36	20.25	
15		75	0	20.38	20.41	20.40	
15	DFT-s-OFDM 16QAM	1	1	20.55	20.56	20.52	21.2
15	DFT-s-OFDM 64QAM	1	1	19.06	19.05	19.04	20.2
15	DFT-s-OFDM 256QAM	1	1	16.71	16.71	16.63	17.7
Channel				140800	141000	142200	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	DFT-s-OFDM QPSK	1	1	20.85	20.91	20.82	22.2
Channel				140300	141000	142700	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	DFT-s-OFDM QPSK	1	1	20.90	20.85	20.89	22.2
Channel				141300	141500	141700	Tune-up limit (dBm)
Frequency (MHz)				706.5	707.5	708.5	
15	CP-OFDM QPSK	1	1	19.94	20.02	19.83	23.7
15	CP-OFDM 16QAM	1	1	19.41	19.55	19.52	23.2
15	CP-OFDM 64QAM	1	1	17.96	18.34	18.28	21.7
15	CP-OFDM 256QAM	1	1	14.73	14.71	14.78	18.7

n25_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	376500	379000	
Frequency (MHz)				1870	1882.5	1895	
40	DFT-s-OFDM P12 BPSK	1	1	12.98	13.05	13.02	14.2
40		1	53	12.91	13.00	13.01	
40		1	105	12.95	13.04	12.97	
40		50	1	12.15	12.07	12.21	
40		50	25	12.11	12.08	12.28	
40		50	50	12.04	12.09	12.31	
40		100	0	12.13	12.08	12.28	
40		1	1	13.06	13.07	13.03	
40		1	53	12.89	13.01	13.00	
40		1	105	12.98	13.04	13.01	
40	DFT-s-OFDM QPSK	50	1	12.15	12.20	12.17	24.2
40		50	25	12.12	12.16	12.12	
40		50	50	12.07	12.12	12.10	
40		100	0	12.11	12.12	12.08	
40	DFT-s-OFDM 16QAM	1	1	12.24	12.45	12.25	13.2
40	DFT-s-OFDM 64QAM	1	1	10.88	10.93	10.89	12.2
40	DFT-s-OFDM 256QAM	1	1	8.46	8.50	8.44	9.7
Channel				373000	376500	380000	Tune-up limit (dBm)
Frequency (MHz)				1865	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	12.95	13.01	12.73	25.2
Channel				372000	376500	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	13.01	13.02	13.00	14.2
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	12.83	12.97	12.79	14.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	12.92	12.96	12.95	14.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	12.82	12.85	12.77	25.2
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	11.58	11.70	11.74	23.7
40	CP-OFDM 16QAM	1	1	11.26	11.16	11.27	22.7
40	CP-OFDM 64QAM	1	1	9.66	9.92	9.76	21.7
40	CP-OFDM 256QAM	1	1	8.45	8.40	8.46	18.2



n66 (1710 ~ 1780 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				348000	349000	352000	
Frequency (MHz)				1720	1745	1760	
40	DFT-s-OFDM P1/2 BPSK	1	1	12.81	12.88	12.51	13.7
40		53	53	12.80	12.95	12.84	
40		1	104	12.57	12.60	12.55	
40		53	1	11.86	11.91	11.85	
40		53	26	11.85	11.96	11.78	
40		53	52	11.84	11.98	11.79	
40		106	0	11.83	11.91	11.85	
40		1	1	12.71	12.77	12.74	
40		1	53	12.89	12.72	12.71	
40		1	104	12.71	12.78	12.67	
40	DFT-s-OFDM QPSK	53	1	11.84	11.99	11.96	12.7
40		53	26	11.93	12.02	11.94	
40		53	52	11.95	11.98	11.95	
40		106	0	11.47	11.79	11.75	
40	DFT-s-OFDM 16QAM	1	1	11.73	11.77	11.79	12.7
40	DFT-s-OFDM 64QAM	1	1	10.46	10.50	10.47	11.7
40	DFT-s-OFDM 256QAM	1	1	7.93	8.09	8.01	9.2
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	12.76	12.65	12.68	13.7
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	12.61	12.69	12.55	13.7
Channel				345000	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	12.53	12.74	12.46	13.7
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	12.69	12.62	12.47	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	11.83	11.75	11.97	25.2
Channel				348000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1740	1745	1760	
40	CP-OFDM QPSK	1	1	11.26	11.24	11.13	23.7
40	CP-OFDM 16QAM	1	1	10.75	10.79	10.49	22.7
40	CP-OFDM 64QAM	1	1	9.45	9.38	9.26	21.7
40	CP-OFDM 256QAM	1	1	5.97	6.05	6.12	18.2

n71 (663 ~ 698 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				134600	136100	137600	
Frequency (MHz)				673	680.5	688	
20	DFT-s-OFDM P1/2 BPSK	1	1	21.19	21.25	21.22	22.2
20		1	53	21.10	21.11	21.07	
20		1	104	21.11	20.93	20.89	
20		50	1	20.31	20.54	20.40	
20		50	25	20.61	20.43	20.36	
20		50	50	20.52	20.32	20.27	
20		100	0	20.63	20.47	20.10	
20		1	1	21.25	21.28	21.22	
20		1	53	21.13	21.24	21.16	
20		1	104	20.85	21.06	20.97	
20	DFT-s-OFDM QPSK	50	1	20.56	20.60	20.52	21.2
20		50	25	20.59	20.47	20.37	
20		50	50	20.51	20.58	20.27	
20		100	0	20.53	20.55	20.40	
20	DFT-s-OFDM 16QAM	1	1	19.92	20.53	20.65	21.2
20	DFT-s-OFDM 64QAM	1	1	19.34	19.27	19.18	20.2
20	DFT-s-OFDM 256QAM	1	1	16.73	16.77	16.77	17.7
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	DFT-s-OFDM QPSK	1	1	20.97	21.02	20.94	22.2
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	DFT-s-OFDM QPSK	1	1	20.89	20.99	20.88	22.2
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	DFT-s-OFDM QPSK	1	1	20.75	20.88	20.76	22.2
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	CP-OFDM QPSK	1	1	20.34	20.05	20.13	23.7
20	CP-OFDM 16QAM	1	1	19.82	19.65	19.62	23.2
20	CP-OFDM 64QAM	1	1	18.58	18.57	18.41	22.2
20	CP-OFDM 256QAM	1	1	14.84	14.96	14.81	18.7

n41 (2496 ~ 2690MHz) (PC2) _ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)				2496.01	2501.50	2507.00	2512.50	2518.00		
100		1		15.20	15.20	15.23	15.23	15.20		
100		1	136	15.48	15.50	15.72	15.60	15.63	16.8	
100		1	272	15.45	15.52	15.68	15.51	15.58		
100		135	1	15.50	15.16	15.22	15.10	15.16		
100		135	87	15.29	15.17	15.20	15.04	15.13		
100		135	136	15.28	15.37	15.31	15.31	15.24	15.8	
100		270	0	15.22	15.30	15.28	15.14	15.22		
100		1	1	15.76	15.66	15.90	15.88	15.63		
100		1	136	15.58	15.91	15.76	15.62	15.60	16.8	
100		1	272	15.68	15.82	15.76	15.82	15.73		
100		135	1	14.86	15.14	15.24	15.10	15.12		
100		135	87	14.97	15.21	15.19	15.04	15.05		
100		135	136	14.83	14.87	14.77	14.81	14.73	15.8	
100		270	0	14.73	14.82	14.76	14.67	14.71		
100		1	1	14.87	15.61	15.02	15.09	15.10	15.8	
100		1	1	13.39	13.59	13.66	13.63	13.60	14.5	
100		1	1	11.22	11.32	11.33	11.43	11.43	12.3	
Channel										
Frequency (MHz)				2511.01	2516.50	2522.00	2527.50	2533.00		
90		1	1	15.25	15.54	15.6	15.6	15.67	16.8	
Channel										
Frequency (MHz)				2537.04	2542.50	2548.00	2553.50	2559.00		
80		1	1	15.09	15.38	15.59	15.52	15.63	16.8	
Channel										
Frequency (MHz)				2571.01	2576.50	2582.00	2587.50	2593.00		
70		1	1	15.14	15.45	15.62	15.43	15.49	16.8	
Channel										
Frequency (MHz)				2620.00	2625.50	2631.00	2636.50	2642.00		
60		1	1	15.17	15.04	15.24	15.07	15.10	16.8	
Channel										
Frequency (MHz)				2652.04	2657.50	2663.00	2668.50	2674.00		
50		1	1	15.73	15.88	15.76	15.88	15.89	16.8	
Channel										
Frequency (MHz)				2692.02	2697.50	2703.00	2708.50	2714.00		
40		1	1	15.36	15.20	15.19	15.10	15.10	16.8	
Channel										
Frequency (MHz)				2731.01	2736.50	2742.00	2747.50	2753.00		
30		1	1	15.60	15.49	15.85	15.83	15.78	16.8	
Channel										
Frequency (MHz)				2771.01	2776.50	2782.00	2787.50	2793.00		
20		1	1	15.62	15.71	15.86	15.81	15.83	16.8	
Channel										
Frequency (MHz)				2811.00	2816.50	2822.00	2827.50	2833.00		
100		1	1	13.39	14.09	14.43	14.33	14.13	15.3	
100		1	1	13.41	13.73	13.76	13.68	13.65	15.3	
100		1	1	12.06	12.46	12.46	12.45	12.53	13.8	
100		1	1	8.73	9.14	9.14	9.16	9.11	9.8	

n41 (2496 ~ 2690MHz) (PC3) _ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)				2496.01	2499.50	2503.00	2506.50	2510.00		
100		1	1	13.12	13.11	13.27	13.19	13.15		
100		1	136	13.08	13.08	13.18	13.06	13.02	14.2	
100		1	272	13.17	13.18	13.23	13.15	13.19		
100		135	1	12.16	12.16	12.17	12.14	12.04		
100		135	87	12.29	12.29	12.28	12.22	12.11	13.2	
100		135	136	12.12	12.37	12.34	12.32	12.37		
100		270	0	12.34	12.30	12.37	12.19	12.18		
100		1	1	13.17	13.20	13.30	13.26	13.24		
100		1	136	13.20	13.15	13.17	13.13	13.02	14.2	
100		1	272	13.13	13.17	13.25	13.21	13.21		
100		135	1	12.16	12.14	12.15	12.08	12.09		
100		135	87	12.04	12.08	12.16	12.05	12.07	13.2	
100		135	136	11.96	12.07	12.15	12.06	12.01		
100		270	0	12.06	12.07	12.11	12.04	12.03		
100		1	1	12.19	12.04	12.27	12.24	12.18	13.2	
100		1	1	12.07	12.06	12.09	11.94	12.00	13.2	
100		1	1	10.08	10.23	10.26	10.13	9.97	11.2	
Channel										
Frequency (MHz)				2527.01	2532.50	2538.00	2543.50	2549.00		
90		1	1	13.16	13.15	13.24	13.08	12.97	14.2	
Channel										
Frequency (MHz)				2572.04	2577.50	2583.00	2588.50	2594.00		
80		1	1	13.28	13.10	13.21	13.03	13.00	14.2	
Channel										
Frequency (MHz)				2617.01	2622.50	2628.00	2633.50	2639.00		
70		1	1	13.18	13.13	13.22	13.05	13.01	24.8	
Channel										
Frequency (MHz)				2652.00	2657.50	2663.00	2668.50	2674.00		
60		1	1	13.19	13.25	13.17	13.13	13.03	14.2	
Channel										
Frequency (MHz)				2692.04	2697.50	2703.00	2708.50	2714.00		
50		1	1	13.25	13.3	13.31	13.28	13.14	14.2	
Channel										
Frequency (MHz)				2737.02	2742.50	2748.00	2753.50	2759.00		
40		1	1	13.21	13.23	13.29	13.16	13.11	24.8	
Channel										
Frequency (MHz)				2777.01	2782.50	2788.00	2793.50	2799.00		
30		1	1	13.20	13.23	13.29	13.23	13.26	24.8	
Channel										
Frequency (MHz)				2817.01	2822.50	2828.00	2833.50	2839.00		
20		1	1	13.29	13.25	13.25	13.13	13.02	24.8	
Channel										
Frequency (MHz)				2857.01	2862.50	2868.00	2873.50	2879.00		
100		1	1	12.23	12.14	11.93	12.00	11.92	22.7	
100		1	1	12.34	12.16	12.03	11.89	11.64	22.7	
100		1	1	11.55	11.77	11.70	11.62	11.30	22	
100		1	1	8.15	8.52	8.26	8.18	7.87	18.7	



n41 (2496 ~ 2690MHz) (PC2) _ANT4									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dbm)
Channel				509202	513900	518598	523296	528000	
Frequency (MHz)				2546.01	2569.50	2592.99	2616.50	2640.00	
100	DFT-s-OFDM Pi/2 BPSK	1	1	23.52	23.59	23.53	23.53	23.50	24.8
100		1	136	23.48	23.50	23.72	23.60	23.63	
100		1	272	23.45	23.52	23.88	23.51	23.58	23.8
100		135	1	23.09	23.16	23.22	23.10	23.09	
100		135	67	23.20	23.17	23.20	23.04	23.13	
100		135	136	23.28	23.37	23.31	23.31	23.24	
100		270	0	23.22	23.30	23.28	23.14	23.22	
100		1	1	23.75	23.66	23.92	23.68	23.63	
100		1	136	23.56	23.51	23.76	23.62	23.60	24.8
100		1	272	23.68	23.85	23.76	23.85	23.73	
100	DFT-s-OFDM QPSK	135	1	22.98	23.14	23.24	23.10	23.12	23.8
100		135	67	22.97	23.21	23.19	23.04	23.06	
100		135	136	22.83	22.87	22.77	22.81	22.73	
100		270	0	22.73	22.82	22.76	22.67	22.71	
100		1	1	22.87	23.01	23.02	23.09	23.10	
100	DFT-s-OFDM 16QAM	1	1	21.39	21.59	21.66	21.63	21.60	22.3
100	DFT-s-OFDM 64QAM	1	1	19.22	19.32	19.33	19.43	19.43	20.3
Channel				508200	513399	518598	523797	528996	
Frequency (MHz)				2541	2566.995	2592.99	2618.985	2644.99	
90	DFT-s-OFDM QPSK	1	1	23.25	23.54	23.6	23.6	23.67	24.8
Channel				507204	512904	518598	524298	529998	
Frequency (MHz)				2538.02	2564.51	2592.99	2621.49	2649.99	
80	DFT-s-OFDM QPSK	1	1	23.09	23.56	23.59	23.52	23.63	24.8
Channel				50620	512400	518598	524800	531000	
Frequency (MHz)				2531.01	2562.00	2592.99	2624.00	2655.00	
70	DFT-s-OFDM QPSK	1	1	23.14	23.45	23.62	23.43	23.49	24.8
Channel				505200	511902	518598	525300	531996	
Frequency (MHz)				2526.00	2559.50	2592.99	2626.49	2659.98	
60	DFT-s-OFDM QPSK	1	1	23.17	23.04	23.74	23.67	23.70	24.8
Channel				504204	511401	518598	525798	532998	
Frequency (MHz)				2521.02	2557.005	2592.99	2628.99	2664.99	
50	DFT-s-OFDM QPSK	1	1	23.73	23.68	23.76	23.68	23.89	24.8
Channel				503202	510900	518598	526296	534000	
Frequency (MHz)				2516.01	2554.50	2592.99	2631.50	2670.00	
40	DFT-s-OFDM QPSK	1	1	23.36	23.36	23.82	23.80	23.80	24.8
Channel				502200	510402	518598	526800	534996	
Frequency (MHz)				2511.00	2552.00	2592.99	2633.99	2674.98	
30	DFT-s-OFDM QPSK	1	1	23.60	23.49	23.85	23.83	23.78	24.8
Channel				501204	509901	518598	527298	535998	
Frequency (MHz)				2506.02	2549.505	2592.99	2636.49	2679.98	
20	DFT-s-OFDM QPSK	1	1	23.62	23.71	23.86	23.81	23.83	24.8
Channel				509202	513900	518598	523296	528000	
Frequency (MHz)				2546.01	2569.50	2592.99	2616.50	2640.00	
100	CP-OFDM QPSK	1	1	21.99	22.09	22.43	22.33	22.13	23.3
100	CP-OFDM 16QAM	1	1	21.41	21.73	21.76	21.68	21.65	23.3
100	CP-OFDM 64QAM	1	1	20.06	20.46	20.46	20.45	20.53	21.8
100	CP-OFDM 256QAM	1	1	16.73	17.14	17.14	17.16	17.11	17.8



n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		14.53					
100		1	136		18.48			19.7		
100		1	271		18.41					
100	DFT-s-OFDM P1/2 BPSK	135	1		17.75					
100		135	63		17.73					
100		135	136		17.68			18.7		
100		270	0		17.62					
100		1	1		18.75					
100		1	136		18.68			19.7		
100		1	271		18.56					
100	DFT-s-OFDM QPSK	135	1		17.89					
100		135	63		17.86					
100		135	136		17.76			18.7		
100		270	0		17.69					
100	DFT-s-OFDM 16QAM	1	1		17.42			18.7		
100	DFT-s-OFDM 64QAM	1	1		18.38			17.7		
100	DFT-s-OFDM 256QAM	1	1		13.67			14.7		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P1/2 BPSK	1	1	18.70	18.73	18.66	18.65	18.61	19.7	
Channel										
Frequency (MHz)										
85	DFT-s-OFDM P1/2 BPSK	1	1	3490.02	3495	3500.01	3504.99	3510	19.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P1/2 BPSK	1	1	18.56	18.61	18.68	18.64	18.61	19.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1	18.89	18.99	18.72	18.43	18.43	19.7	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1/2 BPSK	1	1	18.60	18.61	18.72	18.70	18.58	18.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P1/2 BPSK	1	1	18.64	18.71	18.71	18.63	18.49	18.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1/2 BPSK	1	1	18.66	18.71	18.66	18.67	18.58	19.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P1/2 BPSK	1	1	18.68	18.71	18.69	18.59	18.50	19.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1				16.83		17.7	
100	CP-OFDM 16QAM	1	1				16.39		17.7	
100	CP-OFDM 64QAM	1	1				15.04		15.7	
100	CP-OFDM 256QAM	1	1				11.75		12.7	

n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		17.73					
100		1	136		17.78			18.7		
100		1	271		17.78					
100	DFT-s-OFDM P1/2 BPSK	135	1		16.70					
100		135	63		16.68					
100		135	136		16.61			17.7		
100		270	0		16.54					
100		1	1		17.88					
100		1	136		17.80			18.7		
100		1	271		17.78					
100	DFT-s-OFDM QPSK	135	1		16.72					
100		135	63		16.68					
100		135	136		16.60			17.7		
100		270	0		16.59					
100	DFT-s-OFDM 16QAM	1	1		16.72			17.7		
100	DFT-s-OFDM 64QAM	1	1		16.73			18.7		
100	DFT-s-OFDM 256QAM	1	1		14.88			16.2		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P1/2 BPSK	1	1	17.75	17.82	17.78	17.84	17.76	18.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1	17.80	17.84	17.85	17.70	17.65	18.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P1/2 BPSK	1	1	17.73	17.70	17.82	17.78	17.63	18.7	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P1/2 BPSK	1	1	17.67	17.71	17.76	17.71	17.59	18.7	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1/2 BPSK	1	1	17.78	17.74	17.85	17.72	17.55	18.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P1/2 BPSK	1	1	17.79	17.78	17.83	17.83	17.76	18.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1/2 BPSK	1	1	17.75	17.72	17.77	17.73	17.65	18.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P1/2 BPSK	1	1	17.77	17.68	17.80	17.75	17.61	18.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1				16.92		17.2	
100	CP-OFDM 16QAM	1	1				15.85		17.2	
100	CP-OFDM 64QAM	1	1				14.42		15.2	
100	CP-OFDM 256QAM	1	1				12.61		13.2	





n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	DFT-s-OFDM P2/BPSK	1	1	21.13	21.13	21.13	21.13	22.7		
100		1	136		21.48					
100		1	271		21.41					
100		135	1		20.75					
100		135	63		20.73					
100		135	136		20.68			21.7		
100		270	0		20.62					
100		1	1		21.75					
100		1	136		21.68			22.7		
100		1	271		21.56					
100		135	1		20.89					
100		135	63		20.85					
100		135	136		20.76			21.7		
100		270	0		20.69					
100		1	1		20.42			21.7		
100		1	1		19.38			20.7		
100		1	1		18.67			17.7		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P2/BPSK	1	1	21.70	21.73	21.66	21.65	21.61	22.7	
Channel										
Frequency (MHz)										
85	DFT-s-OFDM P2/BPSK	1	1	3490.02	3495	3500.01	3504.99	3510	22.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1	3480.01	3492.51	3500.01	3507.48	3514.98	22.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1	3475.02	3487.5	3500.01	3510	3520	22.7	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1	21.60	21.61	21.72	21.70	21.58	21.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1	21.72	21.63	21.69	21.72	21.43	22.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1	21.64	21.71	21.71	21.63	21.49	21.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1	21.66	21.71	21.66	21.67	21.58	22.7	
Channel										
Frequency (MHz)										
100	CP-OFDM BPSK	1	1	19.83				20.7		
100	CP-OFDM BPSK	1	1	19.39				20.7		
100	CP-OFDM BPSK	1	1	18.04				18.7		
100	CP-OFDM BPSK	1	1	14.75				15.7		

n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	DFT-s-OFDM P2/BPSK	1	1	3500.01	3500.01	3500.01	3500.01	23.7		
100		1	136		22.78					
100		1	271		22.78			23.7		
100		135	1		21.79					
100		135	63		21.68					
100		135	136		21.61			22.7		
100		270	0		21.54					
100		1	1		22.88					
100		1	136		22.80			23.7		
100		1	271		22.78					
100		135	1		21.72					
100		135	63		21.66					
100		135	136		21.60			22.7		
100		270	0		21.59					
100		1	1		21.72			22.7		
100		1	1		21.75			21.7		
100		1	1		19.88			21.2		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P2/BPSK	1	1	22.75	22.82	22.78	22.84	22.76	23.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1	22.80	22.84	22.85	22.70	22.65	23.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1	22.73	22.70	22.82	22.78	22.63	23.7	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2/BPSK	1	1	22.87	22.71	22.78	22.71	22.59	23.7	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1	22.78	22.74	22.85	22.72	22.55	23.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1	22.79	22.78	22.83	22.83	22.76	23.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1	22.75	22.72	22.77	22.73	22.65	23.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1	22.77	22.68	22.70	22.75	22.61	23.7	
Channel										
Frequency (MHz)										
100	CP-OFDM BPSK	1	1	17.61				18.2		



n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		14.53					
100		1	136		18.48					19.7
100		1	271		18.41					
100	DFT-s-OFDM P2/BPSK	135	1		17.75					
100		135	63		17.73					
100		135	136		17.68					18.7
100		270	0		17.62					
100		1	1		18.75					
100		1	136		18.68					19.7
100		1	271		18.56					
100	DFT-s-OFDM QPSK	135	1		17.89					
100		135	63		17.86					
100		135	136		17.76					18.7
100		270	0		17.69					
100	DFT-s-OFDM 16QAM	1	1		17.42					18.7
100	DFT-s-OFDM 64QAM	1	1		18.38					17.7
100	DFT-s-OFDM 256QAM	1	1		13.67					14.7
Channel										
Frequency (MHz)										
90		1	1		63690	63696	63696	63696		
90	DFT-s-OFDM P2/BPSK	1	1		18.70	18.73	18.66	18.65	18.61	19.7
Channel										
Frequency (MHz)										
85		1	1		63068	63074	63074	63074		
85	DFT-s-OFDM P2/BPSK	1	1		18.72	18.63	18.69	18.72	18.43	19.7
Channel										
Frequency (MHz)										
70		1	1		3460.01	3462.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM P2/BPSK	1	1		18.56	18.61	18.68	18.64	18.61	19.7
Channel										
Frequency (MHz)										
80		1	1		63000	63068	63334	63600	63666	
80	DFT-s-OFDM P2/BPSK	1	1		18.69	18.58	18.55	18.70	18.83	19.7
Channel										
Frequency (MHz)										
50		1	1		3475.02	3487.5	3500.01	3510	3520	
50	DFT-s-OFDM P2/BPSK	1	1		18.60	18.61	18.72	18.70	18.58	18.7
Channel										
Frequency (MHz)										
40		1	1		63134	63234	63334	63432	63532	
40	DFT-s-OFDM P2/BPSK	1	1		18.64	18.71	18.71	18.63	18.49	18.7
Channel										
Frequency (MHz)										
30		1	1		63100	63218	63334	63450	63566	
30	DFT-s-OFDM P2/BPSK	1	1		18.66	18.71	18.66	18.67	18.58	19.7
Channel										
Frequency (MHz)										
20		1	1		63068	63200	63334	63466	63600	
20	DFT-s-OFDM P2/BPSK	1	1		18.68	18.71	18.69	18.59	18.50	19.7
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1				16.83			17.7
100	CP-OFDM 16QAM	1	1				16.39			17.7
100	CP-OFDM 64QAM	1	1				15.04			15.7
100	CP-OFDM 256QAM	1	1				11.75			12.7

n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		18.23					
100		1	136		18.28					19.2
100		1	271		18.28					
100	DFT-s-OFDM P2/BPSK	135	1		17.29					
100		135	63		17.18					
100		135	136		17.11					18.2
100		270	0		17.04					
100		1	1		18.38					
100		1	136		18.30					19.2
100		1	271		18.28					
100	DFT-s-OFDM QPSK	135	1		17.22					
100		135	63		17.15					
100		135	136		17.10					18.2
100		270	0		17.19					
100	DFT-s-OFDM 16QAM	1	1		17.22					18.2
100	DFT-s-OFDM 64QAM	1	1		17.25					17.2
100	DFT-s-OFDM 256QAM	1	1		15.38					16.7
Channel										
Frequency (MHz)										
90		1	1		63600	63696	63696	63696	63696	
90	DFT-s-OFDM P2/BPSK	1	1		18.25	18.32	18.29	18.34	18.26	19.2
Channel										
Frequency (MHz)										
80		1	1		63068	63000	63334	63666	63600	
80	DFT-s-OFDM P2/BPSK	1	1		18.30	18.34	18.35	18.20	18.15	19.2
Channel										
Frequency (MHz)										
70		1	1		3483.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM P2/BPSK	1	1		18.23	18.20	18.32	18.28	18.13	19.2
Channel										
Frequency (MHz)										
80		1	1		63000	63068	63334	63600	63666	
80	DFT-s-OFDM P2/BPSK	1	1		18.17	18.21	18.26	18.21	18.10	19.2
Channel										
Frequency (MHz)										
50		1	1		3475.02	3487.5	3500.01	3510	3520	
50	DFT-s-OFDM P2/BPSK	1	1		18.28	18.24	18.35	18.22	18.05	19.2
Channel										
Frequency (MHz)										
40		1	1		63134	63234	63334	63432	63532	
40	DFT-s-OFDM P2/BPSK	1	1		18.29	18.28	18.33	18.13	18.26	19.2
Channel										
Frequency (MHz)										
30		1	1		63100	63218	63334	63450	63566	
30	DFT-s-OFDM P2/BPSK	1	1		18.25	18.22	18.27	18.23	18.15	19.2
Channel										
Frequency (MHz)										
20		1	1		63068	63200	63334	63466	63600	
20	DFT-s-OFDM P2/BPSK	1	1		18.27	18.18	18.30	18.25	18.11	19.2
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1				17.00			17.7
100	CP-OFDM 16QAM	1	1				16.30			17.7
100	CP-OFDM 64QAM	1	1				14.90			15.7
100	CP-OFDM 256QAM	1	1				13.01			13.7



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1	1	3700	3795	3840	3905			
100	1	136	1	13.70	13.67	13.70	13.72	13.73		
100	1	271	1	13.69	13.63	13.66	13.70	13.60	14.7	
100	1	271	1	13.66	13.49	13.69	13.49	13.56		
100	135	1	1	12.63	12.87	12.89	12.61	12.62		
100	135	63	1	12.65	12.66	12.67	12.63	12.62		
100	135	136	1	12.62	12.45	12.41	12.38	12.38	13.7	
100	270	0	0	12.62	12.51	12.47	12.55	12.44		
100	1	1	1	13.70	13.71	13.68	13.75	13.80		
100	1	136	1	13.70	13.70	13.62	13.71	13.61	14.7	
100	1	271	1	13.74	13.65	13.80	13.63	13.66		
100	135	1	1	12.65	12.81	12.79	12.73	12.68		
100	135	63	1	12.64	12.65	12.72	12.70	12.61		
100	135	136	1	12.43	12.60	12.51	12.48	12.40	13.7	
100	270	0	0	12.46	12.38	12.57	12.45	12.51		
100	1	1	1	11.80	11.97	12.05	12.03	12.08	10.7	
100	1	1	1	10.46	10.51	10.63	10.55	10.58	11.7	
100	1	1	1	8.28	8.20	8.32	8.30	8.25	9.2	
Channel										
Frequency (MHz)										
90	1	1	1	13.55	13.58	13.69	13.67	13.63	14.7	
Channel										
Frequency (MHz)										
85	1	1	1	13.65	13.59	13.72	13.56	13.63	14.7	
Channel										
Frequency (MHz)										
70	1	1	1	13.63	13.43	13.78	13.74	13.63	14.7	
Channel										
Frequency (MHz)										
80	1	1	1	13.56	13.32	13.77	13.67	13.72	14.7	
Channel										
Frequency (MHz)										
50	1	1	1	13.49	13.58	13.80	13.76	13.73	13.7	
Channel										
Frequency (MHz)										
40	1	1	1	13.63	13.66	13.82	13.72	13.80	13.7	
Channel										
Frequency (MHz)										
30	1	1	1	13.64	13.72	13.80	13.73	13.75	14.7	
Channel										
Frequency (MHz)										
20	1	1	1	13.77	13.75	13.81	13.80	13.79	14.7	
Channel										
Frequency (MHz)										
BW (MHz)										
Modulation										
RB Size										
RB Offset										
Low Channel										
Low/Middle Channel										
Mid/High Channel										
High Channel										
Tune-up limit (dBm)										
100	1	1	1	11.47	11.59	11.82	11.60	11.52	12.7	
100	1	1	1	11.20	11.28	11.28	11.35	11.30	12.7	
100	1	1	1	9.42	9.55	9.42	9.81	9.60	10.7	
100	1	1	1	9.96	8.16	6.03	6.38	6.25	7.7	

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1	1	3700	3795	3840	3905			
100	1	136	1	13.72	13.69	13.70	13.68	13.72		
100	1	271	1	13.68	13.67	13.68	13.67	13.75	14.7	
100	1	271	1	13.66	13.66	13.67	13.67	13.62		
100	135	1	1	12.83	12.81	12.86	12.83	12.84		
100	135	63	1	12.83	12.85	13.01	12.80	12.88		
100	135	136	1	12.81	13.01	12.87	13.00	12.94	13.7	
100	270	0	0	12.96	12.91	12.86	12.88	12.99		
100	1	1	1	13.70	13.70	13.61	13.75	13.72		
100	1	136	1	13.55	13.68	13.70	13.68	13.65	14.7	
100	1	271	1	13.68	13.77	13.66	13.61	13.51		
100	135	1	1	12.82	12.79	12.92	12.79	12.88		
100	135	63	1	12.81	12.80	12.96	12.80	12.86		
100	135	136	1	12.39	13.02	12.83	12.98	12.92	13.7	
100	270	0	0	12.88	12.90	12.87	12.89	12.92		
100	1	1	1	12.90	12.64	12.87	12.92	12.91	13.7	
100	1	1	1	11.84	11.66	11.88	12.03	11.96	12.7	
100	1	1	1	10.96	10.76	10.88	10.91	10.95	11.7	
Channel										
Frequency (MHz)										
90	1	1	1	13.72	13.62	13.71	13.69	13.69	14.7	
Channel										
Frequency (MHz)										
80	1	1	1	13.76	13.61	13.68	13.73	13.71	14.7	
Channel										
Frequency (MHz)										
70	1	1	1	13.75	13.62	13.72	13.73	13.64	14.7	
Channel										
Frequency (MHz)										
60	1	1	1	13.75	13.64	13.70	13.71	13.74	14.7	
Channel										
Frequency (MHz)										
50	1	1	1	13.76	13.78	13.73	13.78	13.73	13.7	
Channel										
Frequency (MHz)										
40	1	1	1	13.68	13.71	13.66	13.74	13.68	13.7	
Channel										
Frequency (MHz)										
30	1	1	1	13.79	13.80	13.76	13.73	13.73	14.7	
Channel										
Frequency (MHz)										
20	1	1	1	13.79	13.54	13.65	13.71	13.66	14.7	
Channel										
Frequency (MHz)										
BW (MHz)										
Modulation										
RB Size										
RB Offset										
Low Channel										
Low/Middle Channel										
Mid/High Channel										
High Channel										
Tune-up limit (dBm)										
100	1	1	1	12.21	12.08	12.27	12.19	12.17	13.2	
100	1	1	1	12.24	12.08	12.21	12.20	12.18	13.2	
100	1	1	1	11.34	11.32	11.23	11.35	11.48	12.2	
100	1	1	1	8.95	8.82	9.02	9.00	8.82	10.2	



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1	1	3700	3795	3840	3905			
100	1	136	1	20.18	20.13	20.16	20.20	20.10	21.2	
100	1	271	1	20.16	19.99	20.19	19.99	20.05		
100	136	1	1	19.13	19.17	19.19	19.11	19.12		
100	136	63	1	19.62	19.16	19.17	19.63	19.12		
100	136	136	1	19.62	18.95	18.91	18.86	18.86	20.2	
100	270	0	1	18.12	18.01	18.97	19.05	18.84		
100	1	1	1	20.28	20.21	20.36	20.25	20.30		
100	1	136	1	20.26	20.20	20.32	20.21	20.11	21.2	
100	1	271	1	20.24	20.05	20.30	20.03	20.06		
100	136	1	1	18.15	18.11	19.23	19.23	19.18		
100	136	63	1	18.44	19.05	19.22	19.20	19.11		
100	136	136	1	18.93	18.10	19.01	18.98	18.90	20.2	
100	270	0	1	18.96	18.88	19.07	18.95	19.01		
100	1	1	1	18.30	18.47	18.55	18.63	18.66	19.2	
100	1	1	1	18.96	17.91	17.13	17.05	17.08	18.2	
100	1	1	1	14.78	14.70	14.82	14.80	14.75	15.7	
Channel										
Frequency (MHz)										
90	1	1	1	30.05	30.08	30.19	30.17	30.13	21.2	
Channel										
Frequency (MHz)										
85	1	1	1	30.15	30.09	30.22	30.06	30.13	21.2	
Channel										
Frequency (MHz)										
70	1	1	1	37.00	37.93	3840	3892.5	3945		
70	1	1	1	20.13	19.93	20.28	20.24	20.13	21.2	
Channel										
Frequency (MHz)										
80	1	1	1	37.00	37.93	3840	3892.5	3945		
Channel										
Frequency (MHz)										
50	1	1	1	19.99	20.08	20.30	20.26	20.23	20.2	
Channel										
Frequency (MHz)										
40	1	1	1	20.13	20.16	20.32	20.22	20.30	20.2	
Channel										
Frequency (MHz)										
30	1	1	1	37.15.02	37.77.51	3840	3902.49	3964.98		
Channel										
Frequency (MHz)										
20	1	1	1	37.10.01	37.75.02	3840	3904.98	3969.99		
Channel										
Frequency (MHz)										
20	1	1	1	20.27	20.25	20.31	20.30	20.29	21.2	
Channel										
Frequency (MHz)										
100	1	1	1	17.97	18.09	18.32	18.19	18.02	19.2	
100	1	1	1	17.70	17.78	17.79	17.85	17.80	19.2	
100	1	1	1	15.92	16.05	15.92	16.31	16.10	17.2	
100	1	1	1	12.40	12.66	12.53	12.86	12.75	14.2	

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT4										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100	1	1	1	3700	3795	3840	3905			
100	1	136	1	21.22	21.19	21.26	21.18	21.22		
100	1	271	1	21.18	21.17	21.18	21.17	21.25	22.2	
100	1	271	1	21.16	21.16	21.17	21.13	21.02		
100	136	1	1	20.33	20.31	20.46	20.33	20.43		
100	136	63	1	20.43	20.45	20.61	20.40	20.48		
100	136	136	1	20.31	20.01	20.37	20.05	20.44	21.2	
100	270	0	1	20.45	20.41	20.36	20.38	20.49		
100	1	1	1	21.29	21.28	21.31	21.26	21.22		
100	1	136	1	21.05	21.18	21.20	21.18	21.15	22.2	
100	1	271	1	21.18	21.27	21.06	21.11	21.01		
100	136	1	1	20.32	20.29	20.42	20.29	20.38		
100	136	63	1	20.41	20.40	20.49	20.40	20.45		
100	136	136	1	20.43	20.52	20.33	20.48	20.42	21.2	
100	270	0	1	20.38	20.40	20.47	20.43	20.42		
100	1	1	1	20.40	20.14	20.37	20.42	20.41	21.2	
100	1	1	1	19.34	19.16	19.38	19.53	19.46	20.2	
100	1	1	1	18.46	18.26	18.38	18.41	18.45	19.2	
Channel										
Frequency (MHz)										
90	1	1	1	21.22	21.12	21.21	21.19	21.19	22.2	
Channel										
Frequency (MHz)										
80	1	1	1	21.26	21.11	21.18	21.23	21.21	22.2	
Channel										
Frequency (MHz)										
70	1	1	1	21.25	21.12	21.22	21.23	21.14	22.2	
Channel										
Frequency (MHz)										
60	1	1	1	21.25	21.14	21.24	21.21	21.24	22.2	
Channel										
Frequency (MHz)										
50	1	1	1	21.28	21.28	21.23	21.28	21.23	21.2	
Channel										
Frequency (MHz)										
40	1	1	1	21.18	21.21	21.16	21.24	21.18	21.2	
Channel										
Frequency (MHz)										
30	1	1	1	21.29	21.10	21.25	21.23	21.23	22.2	
Channel										
Frequency (MHz)										
20	1	1	1	21.29	21.04	21.15	21.21	21.15	22.2	
Channel										
Frequency (MHz)										
100	1	1	1	19.71	19.58	19.77	19.69	19.67	20.7	
100	1	1	1	19.74	19.58	19.71	19.70	19.68	20.7	
100	1	1	1	18.84	18.82	18.75	18.85	18.99	19.7	
100	1	1	1	16.45	16.42	16.50	16.50	16.42	17.7	



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	LowMid96	Mid96	MidHigh	High		Tune-up limit (dBm)
Channel										
Frequency (MHz)										
100		1	1	18.70	18.67	18.78	18.73	18.73		
100		1	136	18.68	18.63	18.66	18.70	18.60		17.7
100		1	271	18.65	18.49	18.69	18.49	18.55		
100	DFT-s-OFDM P2/BPSK	135	1	18.63	18.67	18.69	18.61	18.62		
100		135	67	18.62	18.66	18.67	18.63	18.62		
100		135	136	18.52	18.45	18.41	18.38	18.38		16.7
100		270	0	18.62	18.51	18.47	18.55	18.44		
100		1	1	18.78	18.71	18.68	18.75	18.80		
100		1	136	18.76	18.70	18.62	18.71	18.61		17.7
100		1	271	18.74	18.56	18.80	18.63	18.56		
100	DFT-s-OFDM QPSK	135	1	18.65	18.61	18.79	18.73	18.68		
100		135	67	18.64	18.66	18.72	18.70	18.61		
100		135	136	18.43	18.60	18.51	18.48	18.40		16.7
100		270	0	18.46	18.38	18.57	18.45	18.51		
100	DFT-s-OFDM 16QAM	1	1	18.80	18.97	18.06	18.63	18.68		15.7
100	DFT-s-OFDM 64QAM	1	1	18.48	18.51	18.63	18.55	18.58		14.7
100	DFT-s-OFDM 256QAM	1	1	11.28	11.20	11.32	11.30	11.25		12.2
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P2/BPSK	1	1	16.55	16.58	16.69	16.67	16.63		17.7
Channel										
Frequency (MHz)										
85	DFT-s-OFDM P2/BPSK	1	1	16.65	16.59	16.72	16.58	16.63		17.7
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1	16.63	16.43	16.78	16.74	16.63		17.7
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1	16.56	16.32	16.77	16.67	16.72		17.7
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1	16.49	16.58	16.80	16.76	16.73		16.7
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1	16.63	16.66	16.82	16.72	16.60		16.7
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1	16.64	16.72	16.80	16.73	16.75		17.7
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1	16.77	16.75	16.81	16.80	16.79		17.7
Channel										
Frequency (MHz)										
100	CP-OFDM BPSK	1	1	14.47	14.59	14.82	14.60	14.52		15.7
100	CP-OFDM 16QAM	1	1	14.20	14.28	14.29	14.35	14.30		15.7
100	CP-OFDM 64QAM	1	1	12.42	12.55	12.42	12.81	12.60		13.7
100	CP-OFDM 256QAM	1	1	9.96	9.16	9.03	9.38	9.25		10.7

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	LowMid96	Mid96	MidHigh	High		Tune-up limit (dBm)
Channel										
Frequency (MHz)										
100		1	1	18.72	18.69	18.78	18.68	18.72		
100		1	136	18.68	18.67	18.68	18.67	18.75		17.7
100		1	271	18.66	18.66	18.67	18.63	18.62		
100	DFT-s-OFDM P2/BPSK	135	1	18.63	18.61	18.66	18.61	18.60		
100		135	67	18.63	18.65	18.65	18.61	18.60		
100		135	136	18.58	18.51	18.01	18.57	18.00		16.7
100		270	0	18.66	18.51	18.66	18.68	18.68		
100		1	1	18.78	18.78	18.81	18.75	18.72		
100		1	136	18.55	18.68	18.70	18.68	18.65		17.7
100		1	271	18.68	18.77	18.56	18.61	18.51		
100	DFT-s-OFDM QPSK	135	1	18.62	18.79	18.62	18.79	18.68		
100		135	67	18.61	18.61	18.60	18.60	18.60		
100		135	136	18.59	18.62	18.63	18.59	18.52		16.7
100		270	0	18.68	18.90	18.97	18.92	18.92		
100	DFT-s-OFDM 16QAM	1	1	18.90	18.64	18.97	18.92	18.91		16.7
100	DFT-s-OFDM 64QAM	1	1	14.84	14.66	14.88	15.03	14.96		15.7
100	DFT-s-OFDM 256QAM	1	1	13.96	13.76	13.88	13.91	13.99		14.7
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P2/BPSK	1	1	16.72	16.62	16.71	16.69	16.69		17.7
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P2/BPSK	1	1	16.78	16.61	16.68	16.73	16.71		17.7
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P2/BPSK	1	1	16.75	16.62	16.72	16.73	16.64		17.7
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P2/BPSK	1	1	16.75	16.64	16.70	16.71	16.74		17.7
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P2/BPSK	1	1	16.78	16.78	16.73	16.78	16.73		16.7
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P2/BPSK	1	1	16.68	16.71	16.66	16.74	16.68		16.7
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P2/BPSK	1	1	16.79	16.80	16.76	16.73	16.73		17.7
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P2/BPSK	1	1	16.79	16.54	16.65	16.71	16.65		17.7
Channel										
Frequency (MHz)										
100	CP-OFDM BPSK	1	1	15.21	15.08	15.27	15.19	15.17		16.2
100	CP-OFDM 16QAM	1	1	15.24	15.08	15.21	15.20	15.18		16.2
100	CP-OFDM 64QAM	1	1	14.34	14.32	14.25	14.35	14.49		15.2
100	CP-OFDM 256QAM	1	1	11.85	11.92	12.02	12.00	11.92		13.2



n78 (3450 MHz ~ 3550 MHz) (PC2) _ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100		1	1		3500.01					
100		1	136		18.04				20.2	
100		1	271		18.97					
100		135	1		18.24					
100		135	67		18.13					
100		135	136		18.08				19.2	
100		270	0		18.00					
100		1	1		18.97					
100		1	136		18.24				20.2	
100		1	271		18.92					
100		135	1		18.24					
100		135	67		18.26					
100		135	136		18.22				19.2	
100		270	0		18.18					
100		1	1		18.25				19.2	
100		1	1		17.42				18.2	
100		1	1		14.00				15.2	
Channel										
Frequency (MHz)										
30		1	1		63300	633168	633334	633500	633666	Tune-up limit (dBm)
30		1	1		3485	3492.52	3500.01	3507.5	3514.99	
30		1	1		19.20	19.16	19.09	19.15	19.14	20.2
Channel										
Frequency (MHz)										
80		1	1		3485.02	3495	3500.01	3504.99	3510	Tune-up limit (dBm)
80		1	1		19.13	19.06	19.25	19.21	19.25	20.2
Channel										
Frequency (MHz)										
70		1	1		632334	632834	633334	633832	634332	Tune-up limit (dBm)
70		1	1		3480.01	3492.51	3500.01	3507.5	3514.99	
70		1	1		19.12	19.14	19.16	19.17	19.19	20.2
Channel										
Frequency (MHz)										
60		1	1		3480	3490.02	3500.01	3510	3519.99	Tune-up limit (dBm)
60		1	1		19.17	19.11	19.09	19.18	19.15	20.2
Channel										
Frequency (MHz)										
50		1	1		631668	632500	633334	634166	635000	Tune-up limit (dBm)
50		1	1		3475.02	3487.5	3500.01	3510	3520	
50		1	1		19.19	19.26	19.13	19.29	19.21	20.2
Channel										
Frequency (MHz)										
40		1	1		631164	632034	632914	633802	634692	Tune-up limit (dBm)
40		1	1		3470.01	3482.51	3500.01	3510	3520.99	
40		1	1		19.21	19.24	19.25	19.21	19.14	20.2
Channel										
Frequency (MHz)										
30		1	1		631000	631968	632934	633900	634866	Tune-up limit (dBm)
30		1	1		3465	3492.52	3500.01	3517.5	3534.99	
30		1	1		19.01	19.19	19.16	19.15	19.08	20.2
Channel										
Frequency (MHz)										
20		1	1		630888	632000	633134	634266	635400	Tune-up limit (dBm)
20		1	1		3460.02	3465	3500.01	3510	3520	
20		1	1		19.16	19.05	19.10	19.09	18.95	20.2
BW (MHz)										
Modulation										
RB Size										
RB Offset										
Low Channel										
Low/Middle Channel										
Middle Channel										
Middle/High Channel										
High Channel										
Tune-up limit (dBm)										
Frequency (MHz)										
100		1	1					17.40	18.2	
100		1	1					17.24	18.2	
100		1	1					15.82	16.2	
100		1	1					12.09	13.2	

n78 (3450 MHz ~ 3550 MHz) (PC3) _ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100		1	1		3500.01					
100		1	136		18.16				19.2	
100		1	271		18.09					
100		135	1		17.22					
100		135	67		17.16					
100		135	136		17.08				18.2	
100		270	0		17.05					
100		1	1		18.34					
100		1	136		18.25				19.2	
100		1	271		18.13					
100		135	1		17.23					
100		135	67		17.14					
100		135	136		17.18				18.2	
100		270	0		17.23					
100		1	1		17.35				18.2	
100		1	1		17.90				17.2	
100		1	1		15.52				16.2	
Channel										
Frequency (MHz)										
30		1	1		633000	633168	633334	633500	633666	Tune-up limit (dBm)
30		1	1		3485	3492.52	3500.01	3507.5	3514.99	
30		1	1		18.11	18.09	18.08	18.07	18.12	19.2
Channel										
Frequency (MHz)										
80		1	1		3480.02	3495	3500.01	3504.99	3510	Tune-up limit (dBm)
80		1	1		18.17	18.09	18.12	18.07	18.02	19.2
Channel										
Frequency (MHz)										
70		1	1		632334	632834	633334	633832	634332	Tune-up limit (dBm)
70		1	1		3480.01	3492.51	3500.01	3507.5	3514.99	
70		1	1		18.10	18.09	18.10	17.88	17.99	19.2
Channel										
Frequency (MHz)										
60		1	1		3480	3490.02	3500.01	3510	3519.99	Tune-up limit (dBm)
60		1	1		18.17	18.16	18.15	18.08	18.00	19.2
Channel										
Frequency (MHz)										
50		1	1		631668	632500	633334	634166	635000	Tune-up limit (dBm)
50		1	1		3475.02	3487.5	3500.01	3510	3520	
50		1	1		18.14	18.03	18.09	17.99	17.92	24.2
Channel										
Frequency (MHz)										
40		1	1		631164	632034	632914	633802	634692	Tune-up limit (dBm)
40		1	1		3470.01	3482.51	3500.01	3510	3514.99	
40		1	1		18.24	18.31	18.23	18.28	18.17	24.2
Channel										
Frequency (MHz)										
30		1	1		631000	631968	632934	633900	634866	Tune-up limit (dBm)
30		1	1		3465	3492.52	3500.01	3517.5	3534.99	
30		1	1		18.17	18.27	18.22	18.09	18.02	24.2
Channel										
Frequency (MHz)										
20		1	1		630888	632000	633134	634266	635400	Tune-up limit (dBm)
20		1	1		3460.02	3465	3500.01	3510	3520	
20		1	1		18.30	18.13	18.25	17.98	17.95	24.2
BW (MHz)										
Modulation										
RB Size										
RB Offset										
Low Channel										
Low/Middle Channel										
Middle Channel										
Middle/High Channel										
High Channel										
Tune-up limit (dBm)										
Frequency (MHz)										
100		1	1					16.74	17.7	
100		1	1					16.68	17.7	
100		1	1					15.91	16.7	
100		1	1					12.90	13.7	



n78 (3450 MHz ~ 3550 MHz) (PC2)_ANT4												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/Hi Channel	Mid/Hi Channel	High Channel	Tune-up limit (dBm)				
Channel												
Frequency (MHz)					5300.01			Tune-up limit (dBm)				
100			1		22.56							
100			1	136	22.44			23.7				
100			1	271	22.47							
100	DFT-s-OFDM P2/BPSK	135	1		21.74							
100		135	42		21.83							
100		135	136		21.58			22.7				
100		270	0		21.50							
100		1	1		20.77							
100		1	136		22.74			23.7				
100		1	271		22.73							
100	DFT-s-OFDM QPSK	135	1		21.86							
100		135	42		21.76							
100		135	136		21.72			22.7				
100		270	0		21.68							
100	DFT-s-OFDM 16QAM	1	1		21.75			22.7				
100	DFT-s-OFDM 64QAM	1	1		20.92			21.7				
100	DFT-s-OFDM 256QAM	1	1		17.90			18.7				
Channel												
Frequency (MHz)					633000	633168	633334	633500	633666	Tune-up limit (dBm)		
3465					3492.02	3493.01	3494.00	3495.00	3496.00			
90	DFT-s-OFDM P2/BPSK	1	1		22.70	22.86	22.99	22.65	22.64	23.7		
Channel												
Frequency (MHz)					633000	633168	633334	633500	633666	Tune-up limit (dBm)		
3465.02					3495	3500.01	3504.99	3510				
80	DFT-s-OFDM P2/BPSK	1	1		22.63	22.56	22.75	22.71	22.75	23.7		
Channel												
Frequency (MHz)					633234	633834	633934	633932	634332	Tune-up limit (dBm)		
3465.01					3492.01	3493.01	3494.00	3495.00	3496.00			
70	DFT-s-OFDM P2/BPSK	1	1		22.62	22.54	22.68	22.67	22.63	23.7		
Channel												
Frequency (MHz)					3460	3460.02	3500.01	3510	3519.99	Tune-up limit (dBm)		
60	DFT-s-OFDM P2/BPSK	1	1		22.67	22.81	22.89	22.88	22.65	23.7		
Channel												
Frequency (MHz)					631668	632500	633334	634166	635000	Tune-up limit (dBm)		
3475.02					3487.5	3500.01	3510	3520				
50	DFT-s-OFDM P2/BPSK	1	1		22.89	22.76	22.68	22.79	22.71	23.7		
Channel												
Frequency (MHz)					631304	632034	633034	634032	635032	Tune-up limit (dBm)		
3480.01					3492.01	3493.01	3494.00	3495.00	3496.00			
40	DFT-s-OFDM P2/BPSK	1	1		22.71	22.74	22.75	22.71	22.64	23.7		
Channel												
Frequency (MHz)					631000	632168	633334	634500	635666	Tune-up limit (dBm)		
3485					3492.52	3500.01	3517.5	3534.99				
30	DFT-s-OFDM P2/BPSK	1	1		22.81	22.89	22.96	22.85	22.98	23.7		
Channel												
Frequency (MHz)					630666	632000	633334	634666	636000	Tune-up limit (dBm)		
3490.02					3490	3500.01	3510	3520				
20	DFT-s-OFDM P2/BPSK	1	1		22.89	22.45	22.60	22.49	22.45	23.7		
Channel												
Frequency (MHz)					3500.01					Tune-up limit (dBm)		
Channel												
Frequency (MHz)					3500.01					Tune-up limit (dBm)		
100	CP-OFDM QPSK	1	1			20.90			21.7			
100	CP-OFDM 16QAM	1	1			20.74			21.7			
100	CP-OFDM 64QAM	1	1			19.82			19.7			
100	CP-OFDM 256QAM	1	1			15.99			16.7			

n78 (3450 MHz ~ 3550 MHz) (PC3)_ANT4												
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/Hi Channel	Mid/Hi Channel	High Channel	Tune-up limit (dBm)				
Channel												
Frequency (MHz)							3500.01	Tune-up limit (dBm)				
100			1				23.76					
100			1	136			23.12	24.2				
100			1	271			23.09					
100	DFT-s-OFDM P2/BPSK	135	1				22.22					
100		135	42				22.16					
100		135	136				22.88	23.2				
100		270	0				22.66					
100		1	1				22.34					
100		1	136				23.25	24.2				
100		1	271				23.13					
100	DFT-s-OFDM QPSK	135	1				22.23					
100		135	42				22.18					
100		135	136				22.18	23.2				
100		270	0				22.23					
100	DFT-s-OFDM 16QAM	1	1				22.35	23.2				
100	DFT-s-OFDM 64QAM	1	1				22.90	22.2				
100	DFT-s-OFDM 256QAM	1	1				20.92	21.2				
Channel												
Frequency (MHz)					633000	633168	633334	633500	633666	Tune-up limit (dBm)		
3465					3492.02	3493.01	3494.00	3495.00	3496.00			
90	DFT-s-OFDM P2/BPSK	1	1		23.11	23.09	23.08	23.07	23.12	24.2		
Channel												
Frequency (MHz)					632999	633500	633534	633666	634000	Tune-up limit (dBm)		
3465.02					3495	3500.01	3504.99	3510				
80	DFT-s-OFDM P2/BPSK	1	1		23.17	23.09	23.12	23.07	23.02	24.2		
Channel												
Frequency (MHz)					632834	632834	633334	633832	634332	Tune-up limit (dBm)		
3465.01					3492.01	3493.01	3494.00	3495.00	3496.00			
70	DFT-s-OFDM P2/BPSK	1	1		23.10	23.08	23.10	22.88	22.99	24.2		
Channel												
Frequency (MHz)					632800	632834	633334	634000	634666	Tune-up limit (dBm)		
3480					3490.02	3500.01	3510	3519.99				
60	DFT-s-OFDM P2/BPSK	1	1		23.17	23.16	23.15	23.08	23.00	24.2		
Channel												
Frequency (MHz)					631668	632500	633334	634166	635000	Tune-up limit (dBm)		
3475.02					3487.5	3500.01	3510	3520				
50	DFT-s-OFDM P2/BPSK	1	1		23.14	23.03	23.09	22.99	22.92	24.2		
Channel												
Frequency (MHz)					631504	632034	633034	634032	635032	Tune-up limit (dBm)		
3480.01					3492.01	3493.01	3494.00	3495.00	3496.00			
40	DFT-s-OFDM P2/BPSK	1	1		23.24	23.31	23.23	23.28	23.17	24.2		
Channel												
Frequency (MHz)					631300	632166	633334	634500	635666	Tune-up limit (dBm)		
3485					3492.52	3500.01	3517.5	3534.99				
30	DFT-s-OFDM P2/BPSK	1	1		23.17	23.27	23.22	23.09	23.02	24.2		
Channel												
Frequency (MHz)					630666	632000	633334	634666	636000	Tune-up limit (dBm)		
3490.02					3490	3500.01	3510	3520				
20	DFT-s-OFDM P2/BPSK	1	1		23.30	23.13	23.25	23.06	23.95	24.2		
Channel												
Frequency (MHz)										Tune-up limit (dBm)		
Channel												
Frequency (MHz)							3500.01					
100	CP-OFDM QPSK	1	1			21.74			22.7			
100	CP-OFDM 16QAM	1	1			21.68			22.7			
100	CP-OFDM 64QAM	1	1			20.91			21.7			
100	CP-OFDM 256QAM	1	1			17.90			18.7			



n78 (3450 MHz ~ 3550 MHz) (PC2) _ANT6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		14.56					
100		1	136		18.44			19.7		
100		1	271		18.47					
100	DFT-s-OFDM P1/2 BPSK	135	1		17.74					
100		135	67		17.63					
100		135	136		17.58			18.7		
100		270	0		17.50					
100		1	1		18.77					
100		1	136		18.74			19.7		
100		1	271		18.73					
100	DFT-s-OFDM QPSK	135	1		17.86					
100		135	67		17.76					
100		135	136		17.72			18.7		
100		270	0		17.68					
100	DFT-s-OFDM 16QAM	1	1		17.75			18.7		
100	DFT-s-OFDM 64QAM	1	1		16.92			17.7		
100	DFT-s-OFDM 256QAM	1	1		13.90			14.7		
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1/2 BPSK	1	1	18.70	18.66	18.59	18.45	18.44	19.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1	18.63	18.56	18.75	18.71	18.75	19.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P1/2 BPSK	1	1	18.62	18.64	18.68	18.67	18.68	19.7	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P1/2 BPSK	1	1	18.67	18.61	18.59	18.68	18.65	19.7	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1/2 BPSK	1	1	18.69	18.76	18.63	18.70	18.71	19.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P1/2 BPSK	1	1	18.71	18.74	18.75	18.71	18.64	19.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1/2 BPSK	1	1	18.81	18.69	18.66	18.65	18.28	19.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P1/2 BPSK	1	1	18.85	18.45	18.50	18.49	18.45	19.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		16.90			17.7		
100	CP-OFDM 16QAM	1	1		16.74			17.7		
100	CP-OFDM 64QAM	1	1		15.82			16.7		
100	CP-OFDM 256QAM	1	1		11.89			12.7		

n78 (3450 MHz ~ 3550 MHz) (PC3) _ANT6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		18.76					
100		1	136		18.12			19.2		
100		1	271		18.09					
100	DFT-s-OFDM P1/2 BPSK	135	1		17.22					
100		135	67		17.16					
100		135	136		17.08			18.2		
100		270	0		17.05					
100		1	1		18.34					
100		1	136		18.25			19.2		
100		1	271		18.13					
100	DFT-s-OFDM QPSK	135	1		17.23					
100		135	67		17.14					
100		135	136		17.18			18.2		
100		270	0		17.23					
100	DFT-s-OFDM 16QAM	1	1		17.35			18.2		
100	DFT-s-OFDM 64QAM	1	1		17.90			17.2		
100	DFT-s-OFDM 256QAM	1	1		15.52			16.2		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P1/2 BPSK	1	1	18.11	18.09	18.08	18.07	18.12	19.2	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1	18.17	18.09	18.12	18.07	18.02	19.2	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P1/2 BPSK	1	1	18.10	18.08	18.10	17.98	17.98	19.2	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P1/2 BPSK	1	1	18.17	18.16	18.15	18.08	18.00	19.2	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1/2 BPSK	1	1	18.14	18.03	18.09	17.99	17.92	24.2	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P1/2 BPSK	1	1	18.24	18.24	18.24	18.28	18.17	24.2	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1/2 BPSK	1	1	18.17	18.27	18.22	18.09	18.02	24.2	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P1/2 BPSK	1	1	18.30	18.13	18.25	17.98	17.95	24.2	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		16.74			17.7		
100	CP-OFDM 16QAM	1	1		16.68			17.7		
100	CP-OFDM 64QAM	1	1		15.91			16.7		
100	CP-OFDM 256QAM	1	1		12.90			13.7		





n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		13.40					
100		1	136		13.56			14.7		
100		1	271		13.54					
100	DFT-s-OFDM P1/2 BPSK	135	1		12.58					
100		135	67		12.52					
100		135	136		12.55			13.7		
100		270	0		12.51					
100		1	1		12.86					
100		1	136		13.61			14.7		
100		1	271		13.55					
100	DFT-s-OFDM QPSK	135	1		12.81					
100		135	67		12.75					
100		135	136		12.89			13.7		
100		270	0		12.55					
100	DFT-s-OFDM 16QAM	1	1		12.84			13.7		
100	DFT-s-OFDM 64QAM	1	1		10.86			11.7		
100	DFT-s-OFDM 256QAM	1	1		8.41			9.7		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	13.43	13.65	13.52	13.51	13.50	14.7	
Channel										
Frequency (MHz)										
85	DFT-s-OFDM QPSK	1	1	13.47	13.52	13.57	13.62	13.59	14.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	13.47	13.41	13.64	13.65	13.61	14.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	13.61	13.58	13.51	13.59	13.40	14.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	13.59	13.80	13.64	13.48	13.51	14.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	13.58	13.50	13.53	13.59	13.42	14.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	13.56	13.53	13.47	13.50	13.55	14.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		11.57			12.7		
100	CP-OFDM QPSK	1	1		11.32			12.7		
100	CP-OFDM 16QAM	1	1		9.52			10.7		
100	CP-OFDM 256QAM	1	1		6.20			7.7		

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		12.89					
100		1	136		12.82			13.9		
100		1	271		12.78					
100	DFT-s-OFDM P1/2 BPSK	135	1		11.93					
100		135	67		11.89					
100		135	136		11.92			12.9		
100		270	0		11.82					
100		1	1		12.86					
100		1	136		12.88			13.9		
100		1	271		12.81					
100	DFT-s-OFDM QPSK	135	1		11.94					
100		135	67		11.92					
100		135	136		11.93			12.9		
100		270	0		11.77					
100	DFT-s-OFDM 16QAM	1	1		11.86			12.9		
100	DFT-s-OFDM 64QAM	1	1		11.80			12.9		
100	DFT-s-OFDM 256QAM	1	1		9.82			10.9		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	12.86	12.85	12.83	12.76	12.82	13.9	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	12.86	12.72	12.75	12.77	12.74	13.9	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	12.78	12.84	12.80	12.84	12.81	13.9	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	12.84	12.51	12.48	12.82	12.90	13.9	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	12.90	12.77	12.87	12.79	12.83	24.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	12.71	12.76	12.90	12.92	12.62	24.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM QPSK	1	1	12.83	12.79	12.94	12.81	12.86	24.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		11.77			12.4		
100	CP-OFDM 16QAM	1	1		11.74			12.4		
100	CP-OFDM 64QAM	1	1		10.97			11.4		
100	CP-OFDM 256QAM	1	1		7.85			8.4		



n78 (3700 MHz ~ 3800 MHz) (PC2_ANT4)									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel									
Frequency (MHz)									
100		1	1		3750				
100		1	136		22.60				23.7
100		1	271		22.54				
100	DFT-s-OFDM P2 BPSK	135	1		21.58				
100		135	63		21.52				22.7
100		135	136		21.55				
100		270	0		21.51				
100		1	136		22.58				23.7
100		1	271		22.55				
100	DFT-s-OFDM QPSK	135	1		21.81				
100		135	63		21.75				22.7
100		135	136		21.59				
100		270	0		21.55				
100	DFT-s-OFDM 16QAM	1	1		21.84				22.7
100	DFT-s-OFDM 64QAM	1	1		19.88				20.7
100	DFT-s-OFDM 256QAM	1	1		17.41				18.7
Channel									
Frequency (MHz)									
90	DFT-s-OFDM QPSK	1	1	22.43	22.65	22.52	22.51	22.50	23.7
Channel									
Frequency (MHz)									
85	DFT-s-OFDM QPSK	1	1	22.47	22.52	22.57	22.62	22.59	23.7
Channel									
Frequency (MHz)									
70	DFT-s-OFDM QPSK	1	1	22.47	22.41	22.64	22.65	22.61	23.7
Channel									
Frequency (MHz)									
80	DFT-s-OFDM QPSK	1	1	22.61	22.58	22.51	22.58	22.60	23.7
Channel									
Frequency (MHz)									
50	DFT-s-OFDM QPSK	1	1	22.59	22.60	22.64	22.48	22.51	23.7
Channel									
Frequency (MHz)									
40	DFT-s-OFDM QPSK	1	1	22.58	22.50	22.53	22.59	22.42	23.7
Channel									
Frequency (MHz)									
20	DFT-s-OFDM QPSK	1	1	22.56	22.53	22.47	22.60	22.55	23.7
Channel									
Frequency (MHz)									
100	CP-OFDM QPSK	1	1			20.57			21.7
100	CP-OFDM 16QAM	1	1			20.32			21.7
100	CP-OFDM 64QAM	1	1			18.52			18.7
100	CP-OFDM 256QAM	1	1			15.20			16.7



n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		17.10					
100		1	136		17.06			16.2		
100		1	271		17.04					
100	DFT-s-OFDM P/L2 BPSK	135	1		16.06					
100		135	67		16.02					
100		135	136		16.05			17.2		
100		270	0		16.01					
100		1	136		17.16					
100		1	271		17.11			16.2		
100	DFT-s-OFDM QPSK	135	1		16.31					
100		135	67		16.26					
100		135	136		16.19			17.2		
100		270	0		16.05					
100	DFT-s-OFDM 16QAM	1	1		16.34			17.2		
100	DFT-s-OFDM 64QAM	1	1		14.16			16.2		
100	DFT-s-OFDM 256QAM	1	1		11.91			15.2		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1		16.93	17.15	17.02	17.01	17.00	16.2
Channel										
Frequency (MHz)										
85	DFT-s-OFDM QPSK	1	1		16.97	17.02	17.07	17.12	17.09	16.2
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1		16.97	16.91	17.14	17.15	17.11	16.2
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1		17.51	17.58	17.51	17.59	17.51	16.2
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1		17.00	17.10	17.14	16.96	17.01	16.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1		17.02	17.00	17.03	17.05	16.92	16.2
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1		17.00	17.03	16.97	17.10	17.05	16.2
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1			15.07			16.2	
100	CP-OFDM 16QAM	1	1			14.82			16.2	
100	CP-OFDM 64QAM	1	1			13.02			14.2	
100	CP-OFDM 256QAM	1	1			9.70			11.2	

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT6										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		16.39					
100		1	136		16.32			17.4		
100		1	271		16.28					
100	DFT-s-OFDM P/L2 BPSK	135	1		15.43					
100		135	67		15.20					
100		135	136		15.42			16.4		
100		270	0		15.32					
100		1	136		16.45					
100		1	271		16.31			17.4		
100	DFT-s-OFDM QPSK	135	1		15.44					
100		135	67		15.42					
100		135	136		15.43			16.4		
100		270	0		15.27					
100	DFT-s-OFDM 16QAM	1	1		15.36			16.4		
100	DFT-s-OFDM 64QAM	1	1		15.30			16.4		
100	DFT-s-OFDM 256QAM	1	1		13.32			14.4		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1		16.36	16.35	16.33	16.26	16.32	17.4
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1		16.05	16.22	16.25	16.27	16.34	17.4
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1		16.28	16.34	16.30	16.34	16.31	17.4
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1		16.34	16.41	16.38	16.32	16.40	17.4
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1		16.40	16.27	16.37	16.29	16.33	24.7
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1		16.21	16.26	16.40	16.42	16.32	24.7
Channel										
Frequency (MHz)										
30	DFT-s-OFDM QPSK	1	1		16.33	16.29	16.34	16.31	16.36	24.7
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1			15.27			15.9	
100	CP-OFDM 16QAM	1	1			15.24			15.9	
100	CP-OFDM 64QAM	1	1			14.47			14.9	
100	CP-OFDM 256QAM	1	1			11.35			11.9	



CA_48C_Ant 3 Combination:20MHz+20MHz(100RB+100RB)												
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)	
				RB Size	RB Offset	RB Size	RB Offset					
55340	55340	55538	QPSK	1	0	0	0	1	0	16.56	17.50	
55990	55891	56089	QPSK	1	0	0	0	1	0	16.72	17.50	
56640	56442	56640	QPSK	1	0	0	0	1	0	16.48	17.50	
55340	55340	55538	16QAM	1	0	0	0	1	0	15.99	17.00	
55990	55891	56089	16QAM	1	0	0	0	1	0	16.12	17.00	
56640	56442	56640	16QAM	1	0	0	0	1	0	15.94	17.00	
55340	55340	55538	64QAM	1	0	0	0	1	0	14.81	15.50	
55990	55891	56089	64QAM	1	0	0	0	1	0	14.88	15.50	
56640	56442	56640	64QAM	1	0	0	0	1	0	14.79	15.50	
55340	55340	55538	QPSK	50	0	0	0	1	0	15.75	16.50	
55990	55891	56089	QPSK	50	0	0	0	1	0	15.82	16.50	
56640	56442	56640	QPSK	50	0	0	0	1	0	15.72	16.50	



CA_48C_Ant 6 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
55340	55340	55538	QPSK	1	0	0	0	1	0	19.56	20.50
55990	55891	56089	QPSK	1	0	0	0	1	0	19.72	20.50
56640	56442	56640	QPSK	1	0	0	0	1	0	19.48	20.50
55340	55340	55538	16QAM	1	0	0	0	1	0	18.99	20.00
55990	55891	56089	16QAM	1	0	0	0	1	0	19.12	20.00
56640	56442	56640	16QAM	1	0	0	0	1	0	18.94	20.00
55340	55340	55538	64QAM	1	0	0	0	1	0	17.81	18.50
55990	55891	56089	64QAM	1	0	0	0	1	0	17.88	18.50
56640	56442	56640	64QAM	1	0	0	0	1	0	17.79	18.50
55340	55340	55538	QPSK	50	0	0	0	1	0	18.75	19.50
55990	55891	56089	QPSK	50	0	0	0	1	0	18.82	19.50
56640	56442	56640	QPSK	50	0	0	0	1	0	18.72	19.50



Reduced Power Level 3 for Ant 7

2.4GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11b 1Mbps	CH 1	2412	13.48	15.00	13.00	100.00
	CH 6	2437	13.67	15.50	13.00	
	CH 11	2462	13.63	15.50	13.00	
802.11g 6Mbps	CH 1	2412	11.41	13.00	11.50	98.57
	CH 6	2437	11.42	13.00	11.50	
	CH 11	2462	9.07	11.00	9.00	
802.11n-HT20 MCS0	CH 1	2412	11.22	13.00	11.50	98.57
	CH 6	2437	11.19	13.00	11.50	
	CH 11	2462	8.43	10.00	11.50	
802.11n-HT40 MCS0	CH 3	2422	11.28	13.00	11.00	95.00
	CH 6	2437	8.75	10.50	7.50	
	CH 9	2452	6.92	8.50	6.00	
802.11ac-VHT20 MCS0	CH 1	2412	11.23	13.00	11.50	98.47
	CH 6	2437	11.17	13.00	11.50	
	CH 11	2462	8.49	10.00	8.50	
802.11ac-VHT40 MCS0	CH 3	2422	11.23	13.00	11.00	95.05
	CH 6	2437	8.71	10.50	7.50	
	CH 9	2452	6.96	8.50	6.00	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 36	5180	9.19	11.00	10.00	98.10
	CH 44	5220	9.50	11.50	10.00	
	CH 48	5240	9.56	11.50	10.00	
802.11n-HT20 MCS0	CH 36	5180	9.75	11.50	10.00	98.57
	CH 44	5220	10.03	12.00	10.00	
	CH 48	5240	10.14	12.00	10.00	
802.11n-HT40 MCS0	CH 38	5190	10.19	12.00	10.00	96.94
	CH 46	5230	9.48	11.00	10.00	
	CH 36	5180	8.10	10.00	8.50	
802.11ac-VHT20 MCS0	CH 44	5220	8.42	10.00	8.50	98.48
	CH 48	5240	7.79	9.50	8.50	
	CH 38	5190	7.98	9.50	8.50	
802.11ac-VHT40 MCS0	CH 46	5230	8.22	10.00	8.50	96.96
	CH 42	5210	8.32	10.00	8.50	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 52	5260	8.74	10.50	8.00	98.57
	CH 60	5300	8.77	10.50	8.00	
	CH 64	5320	9.03	11.00	8.00	
802.11n-HT20 MCS0	CH 52	5260	9.27	11.00	8.00	98.57
	CH 60	5300	8.50	10.50	8.00	
	CH 64	5320	8.81	10.50	8.00	
802.11n-HT40 MCS0	CH 54	5270	8.88	10.50	8.00	96.94
	CH 62	5310	9.38	11.00	8.00	
	CH 52	5260	6.89	8.50	6.50	
802.11ac-VHT20 MCS0	CH 60	5300	7.05	9.00	6.50	98.48
	CH 64	5320	7.42	9.00	6.50	
	CH 54	5270	6.93	8.50	6.50	
802.11ac-VHT40 MCS0	CH 62	5310	7.62	9.50	6.50	96.97
	CH 58	5290	7.66	9.50	6.50	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 100	5550	10.77	12.50	9.00	98.57
	CH 120	5600	10.86	12.50	9.00	
	CH 144	5720	9.52	11.50	9.00	
802.11n-HT20 MCS0	CH 100	5550	10.58	12.50	9.00	98.47
	CH 120	5600	9.78	11.50	9.00	
	CH 144	5720	9.89	11.50	9.00	
802.11n-HT40 MCS0	CH 102	5510	10.86	12.50	9.00	98.94
	CH 126	5630	10.15	12.00	9.00	
	CH 142	5710	10.17	12.00	9.00	
802.11ac-VHT20 MCS0	CH 100	5550	9.65	11.00	9.00	98.48
	CH 120	5600	9.30	11.00	9.00	
	CH 144	5720	9.49	11.00	9.00	
802.11ac-VHT40 MCS0	CH 102	5510	9.95	11.50	9.00	96.97
	CH 126	5630	9.91	11.50	9.00	
	CH 142	5710	9.87	11.50	9.00	
802.11ac-VHT80 MCS0	CH 106	5530	9.96	11.50	9.00	94.00
	CH 122	5610	9.66	11.50	9.00	
	CH 138	5690	9.62	11.50	9.00	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 149	5745	12.14	14.00	12.00	98.57
	CH 157	5785	12.51	14.50	12.00	
	CH 165	5825	11.92	13.50	12.00	
802.11n-HT20 MCS0	CH 149	5745	12.49	14.00	12.00	98.47
	CH 157	5785	12.86	14.50	12.00	
	CH 165	5825	12.80	14.50	12.00	
802.11n-HT40 MCS0	CH 151	5755	12.85	14.50	12.00	96.94
	CH 159	5795	13.33	15.00	12.00	
	CH 149	5745	11.08	13.00	10.50	
802.11ac-VHT20 MCS0	CH 157	5785	11.10	13.00	10.50	97.97
	CH 165	5825	11.35	13.00	10.50	
	CH 151	5755	10.92	12.50	10.50	
802.11ac-VHT40 MCS0	CH 159	5795	11.83	13.50	10.50	96.97
	CH 155	5775	11.13	13.00	10.50	



Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	7.91	5.96	6.71
	CH 39	2441	7.96	5.20	5.78
	CH 78	2480	7.33	4.81	5.85
Tune-up Limit			11.00	9.00	9.50
Duty Cycle %			76.8	63.47	77.33

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
LE	CH 00	2402	5.72	2.80	
	CH 19	2440	5.35	2.44	
	CH 39	2480	6.76	4.13	
Tune-up Limit			9.5	7	
Duty Cycle %			63.2	33.6	



**Reduced Power Level 4 for Ant0**

Band	WCDMA Band II (dBm)_Ant0			Tune-up Limit (dBm)	WCDMA Band IV (dBm)_Ant0			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	16.89	16.92	16.86	17.80	17.03	17.11	17.06	17.80
3GPP Rel 6	HSDPA Subtest-1	15.94	16.29	16.19	17.00	15.97	16.43	16.38	17.00
3GPP Rel 6	HSDPA Subtest-2	16.08	16.34	15.96	10.00	15.98	16.38	16.09	10.00
3GPP Rel 6	HSDPA Subtest-3	15.50	15.54	15.33	9.50	15.53	15.80	15.32	9.50
3GPP Rel 6	HSDPA Subtest-4	16.00	15.80	15.67	9.50	16.22	15.96	15.87	9.50
3GPP Rel 8	DC-HSDPA Subtest-1	16.29	16.06	15.98	17.00	16.40	16.22	15.94	17.00
3GPP Rel 8	DC-HSDPA Subtest-2	15.77	15.61	15.47	16.50	16.00	15.67	15.69	16.50
3GPP Rel 8	DC-HSDPA Subtest-3	15.66	15.35	15.20	16.00	15.33	15.36	15.06	16.00
3GPP Rel 8	DC-HSDPA Subtest-4	15.51	15.18	15.30	9.50	15.56	15.32	15.49	9.50
3GPP Rel 6	HSUPA Subtest-1	15.81	15.66	15.78	17.00	15.98	15.52	15.65	17.00
3GPP Rel 6	HSUPA Subtest-2	14.38	14.11	14.18	15.00	14.35	14.31	14.24	15.00
3GPP Rel 6	HSUPA Subtest-3	15.38	15.14	15.05	16.00	15.52	15.18	15.23	16.00
3GPP Rel 6	HSUPA Subtest-4	14.36	14.07	14.07	15.00	14.22	14.22	14.14	15.00
3GPP Rel 6	HSUPA Subtest-5	15.72	15.56	15.26	16.00	15.70	15.55	15.23	16.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	14.25	14.26	14.31	15.00	14.12	14.22	14.25	15.00
Attenuator			Cable Loss	0.8			Cable Loss	0.8	
Mode			Max.	16.92			Max.	17.11	



Band 2 (1900MHz Band) (dBm)_Ant0 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)				18800	18900	19000		
20	QPSK	1	0	16.94	17.02	16.96	17.8	
20	QPSK	1	49	16.87	16.93	16.89		
20	QPSK	1	99	16.85	16.91	16.90		
20	QPSK	50	0	16.11	16.18	16.08	16.8	
20	QPSK	50	24	16.08	16.14	16.10		
20	QPSK	50	50	16.03	16.10	16.08		
20	QPSK	100	0	16.05	16.08	16.03	16.8	
20	16QAM	1	0	16.29	16.31	16.29		
20	16QAM	1	49	16.26	16.28	16.20		
20	16QAM	1	99	16.23	16.27	16.26	16.8	
20	16QAM	50	0	15.08	15.12	15.05		
20	16QAM	50	24	15.10	15.11	15.04		
20	16QAM	50	50	15.09	15.10	15.03	15.8	
20	16QAM	100	0	15.02	15.08	15.04		
20	64QAM	1	0	15.15	15.22	15.19		
20	64QAM	1	49	15.08	15.16	15.11	15.8	
20	64QAM	1	99	15.12	15.15	15.10		
20	64QAM	50	0	14.15	14.16	14.08		
20	64QAM	50	24	14.13	14.14	14.12	14.8	
20	64QAM	50	50	14.07	14.11	14.08		
20	64QAM	100	0	14.02	14.08	14.02		
Channel				18675	18900	19125		
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	16.91	16.97	16.90	17.8	
15	QPSK	1	37	16.79	16.88	16.84		
15	QPSK	1	74	16.84	16.89	16.85		
15	QPSK	36	0	16.09	16.14	16.11	16.8	
15	QPSK	36	20	16.00	16.07	16.09		
15	QPSK	36	39	16.01	16.08	16.07		
15	QPSK	75	0	16.03	16.00	15.96	16.8	
15	16QAM	1	0	16.28	16.26	16.22		
15	16QAM	1	37	16.19	16.21	16.16		
15	16QAM	1	74	16.15	16.19	16.21	16.8	
15	16QAM	36	0	15.02	15.05	15.04		
15	16QAM	36	20	15.05	15.10	14.98		
15	16QAM	36	39	15.07	15.04	14.95	15.8	
15	16QAM	75	0	14.97	15.07	14.99		
15	64QAM	1	0	15.11	15.15	15.15		
15	64QAM	1	37	15.07	15.15	15.03	15.8	
15	64QAM	1	74	15.10	15.13	15.09		
15	64QAM	36	0	14.13	14.11	14.03		
15	64QAM	36	20	14.11	14.10	14.06	14.8	
15	64QAM	36	39	14.05	14.10	14.01		
15	64QAM	75	0	13.98	14.01	13.96		
Channel				18650	18900	19150		
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	16.90	17.01	16.93	17.8	
10	QPSK	1	25	16.80	16.88	16.83		
10	QPSK	1	49	16.78	16.87	16.82		
10	QPSK	25	0	16.14	16.11	16.11	16.8	
10	QPSK	25	12	16.07	16.09	16.06		
10	QPSK	25	25	16.01	16.02	16.04		
10	QPSK	50	0	15.98	16.07	15.99	16.8	
10	16QAM	1	0	16.22	16.23	16.25		
10	16QAM	1	25	16.23	16.21	16.12		
10	16QAM	1	49	16.17	16.21	16.18	16.8	
10	16QAM	25	0	15.05	15.09	14.99		
10	16QAM	25	12	15.06	15.05	14.99		
10	16QAM	25	25	15.06	15.09	14.99	15.8	
10	16QAM	50	0	14.95	15.06	15.00		
10	64QAM	1	0	15.13	15.18	15.16		
10	64QAM	1	25	15.05	15.12	15.04	15.8	
10	64QAM	1	49	15.09	15.14	15.06		
10	64QAM	25	0	14.14	14.15	14.01		
10	64QAM	25	12	14.09	14.06	14.09	14.8	
10	64QAM	25	25	14.05	14.10	14.07		
10	64QAM	50	0	13.98	14.06	13.95		
Channel				18625	18900	19175		
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	16.88	16.95	16.92	17.8	
5	QPSK	1	12	16.82	16.92	16.83		
5	QPSK	1	24	16.78	16.83	16.87		
5	QPSK	12	0	16.10	16.11	16.09	16.8	
5	QPSK	12	7	16.01	16.06	16.02		
5	QPSK	12	13	15.99	16.08	16.04		
5	QPSK	25	0	16.03	16.01	15.98	16.8	
5	16QAM	1	0	16.27	16.23	16.25		
5	16QAM	1	12	16.20	16.27	16.17		
5	16QAM	1	24	16.15	16.20	16.19	16.8	
5	16QAM	12	0	15.01	15.08	14.98		
5	16QAM	12	7	15.08	15.10	14.99		
5	16QAM	12	13	15.05	15.04	15.02	15.8	
5	16QAM	25	0	14.97	15.07	15.01		
5	64QAM	1	0	15.10	15.20	15.17		
5	64QAM	1	12	15.07	15.11	15.07	15.8	
5	64QAM	1	24	15.10	15.14	15.05		
5	64QAM	12	0	14.13	14.14	14.07		
5	64QAM	12	7	14.10	14.06	14.07	14.8	
5	64QAM	12	13	14.01	14.04	14.00		
5	64QAM	25	0	13.99	14.01	13.97		
Channel				18615	18900	19185		
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	16.90	16.96	16.91	17.8	
3	QPSK	1	8	16.83	16.85	16.87		
3	QPSK	1	14	16.83	16.88	16.85		
3	QPSK	8	0	16.11	16.14	16.12	16.8	
3	QPSK	8	4	16.01	16.12	16.03		
3	QPSK	8	7	16.02	16.06	16.05		

Band 4 (AWS Band) (dBm)_Ant0 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	16.33	16.38	16.32	17.1	
20	QPSK	1	49	16.24	16.27	16.26		
20	QPSK	1	99	16.16	16.23	16.21		
20	QPSK	50	0	15.40	15.44	15.37	16.1	
20	QPSK	50	24	15.38	15.40	15.33		
20	QPSK	50	50	15.23	15.31	15.27		
20	QPSK	100	0	15.34	15.36	15.33	16.1	
20	16QAM	1	0	15.61	15.64	15.60		
20	16QAM	1	49	15.58	15.62	15.57		
20	16QAM	1	99	15.51	15.59	15.55	16.1	
20	16QAM	50	0	14.44	14.45	14.44		
20	16QAM	50	24	14.36	14.40	14.39		
20	16QAM	50	50	14.26	14.30	14.26	15.1	
20	16QAM	100	0	14.31	14.39	14.34		
20	64QAM	1	0	14.54	14.55	14.53		
20	64QAM	1	49	14.43	14.50	14.47	15.1	
20	64QAM	1	99	14.43	14.47	14.45		
20	64QAM	50	0	13.42	13.46	13.39		
20	64QAM	50	24	13.37	13.42	13.38	14.1	
20	64QAM	50	50	13.29	13.37	13.31		
20	64QAM	100	0	13.32	13.40	13.37		
Channel				20025	20175	20325		
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	16.30	16.34	16.28	17.1	
15	QPSK	1	37	16.22	16.26	16.20		
15	QPSK	1	74	16.12	16.22	16.17		
15	QPSK	36	0	15.33	15.38	15.35	16.1	
15	QPSK	36	20	15.34	15.38	15.30		
15	QPSK	36	39	15.22	15.30	15.23		
15	QPSK	75	0	15.26	15.35	15.26	16.1	
15	16QAM	1	0	15.67	15.67	15.53		
15	16QAM	1	37	15.50	15.55	15.53		
15	16QAM	1	74	15.50	15.57	15.48	16.1	
15	16QAM	36	0	14.43	14.37	14.38		
15	16QAM	36	20	14.34	14.39	14.32		
15	16QAM	36	39	14.22	14.26	14.22	15.1	
15	16QAM	75	0	14.28	14.37	14.30		
15	64QAM	1	0	14.52	14.54	14.49		
15	64QAM	1	37	14.40	14.47	14.42	15.1	
15	64QAM	1	74	14.38	14.42	14.42		
15	64QAM	36	0	13.40	13.44	13.37		
15	64QAM	36	20	13.33	13.34	13.37	14.1	
15	64QAM	36	39	13.23	13.35	13.23		
15	64QAM	75	0	13.31	13.32	13.30		
Channel				20000	20175	20350		
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	16.28	16.30	16.26	17.1	
10	QPSK	1	25	16.19	16.26	16.19		



3	QPSK	15	0	15.97	16.04	15.96	16.8
3	16QAM	1	0	16.28	16.26	16.28	
3	16QAM	1	8	16.25	16.28	16.19	
3	16QAM	1	14	16.16	16.20	16.18	
3	16QAM	8	0	15.07	15.08	15.01	
3	16QAM	8	4	15.03	15.08	15.01	
3	16QAM	8	7	15.04	15.04	15.02	
3	16QAM	15	0	14.97	15.06	15.02	
3	64QAM	1	0	15.10	15.14	15.14	
3	64QAM	1	8	15.01	15.11	15.06	
3	64QAM	1	14	15.05	15.13	15.05	
3	64QAM	8	0	14.09	14.15	14.00	
3	64QAM	8	4	14.10	14.10	14.10	
3	64QAM	8	7	14.06	14.10	14.07	
3	64QAM	15	0	14.00	14.07	13.99	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	16.86	17.01	16.93	17.8
1.4	QPSK	1	3	16.80	16.87	16.86	
1.4	QPSK	1	5	16.77	16.88	16.86	
1.4	QPSK	3	0	16.83	16.92	16.89	
1.4	QPSK	3	1	16.95	16.98	16.88	
1.4	QPSK	3	3	16.89	16.93	16.90	
1.4	QPSK	6	0	15.97	16.07	15.99	16.8
1.4	16QAM	1	0	16.25	16.24	16.21	16.8
1.4	16QAM	1	3	16.25	16.22	16.18	
1.4	16QAM	1	5	16.16	16.25	16.25	
1.4	16QAM	3	0	16.05	16.10	16.02	
1.4	16QAM	3	1	16.03	16.07	15.99	
1.4	16QAM	3	3	16.04	16.08	15.97	
1.4	16QAM	6	0	14.98	15.07	14.96	15.8
1.4	64QAM	1	0	15.13	15.18	15.17	15.8
1.4	64QAM	1	3	15.05	15.09	15.06	
1.4	64QAM	1	5	15.05	15.09	15.06	
1.4	64QAM	3	0	15.14	15.08	15.01	
1.4	64QAM	3	1	15.11	15.09	15.06	
1.4	64QAM	3	3	15.04	15.05	15.03	
1.4	64QAM	6	0	13.97	14.03	13.95	14.8

3	QPSK	15	0	15.33	15.31	15.26	16.1
3	16QAM	1	0	15.56	15.56	15.54	
3	16QAM	1	8	15.54	15.61	15.49	
3	16QAM	1	14	15.46	15.54	15.49	
3	16QAM	8	0	14.41	14.40	14.39	
3	16QAM	8	4	14.29	14.39	14.31	
3	16QAM	8	7	14.25	14.22	14.18	
3	16QAM	15	0	14.28	14.31	14.26	
3	64QAM	1	0	14.53	14.51	14.46	
3	64QAM	1	8	14.40	14.43	14.39	
3	64QAM	1	14	14.35	14.46	14.39	
3	64QAM	8	0	13.38	13.44	13.31	
3	64QAM	8	4	13.36	13.35	13.30	
3	64QAM	8	7	13.24	13.30	13.25	
3	64QAM	15	0	13.26	13.38	13.31	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	16.30	16.36	16.28	17.1
1.4	QPSK	1	3	16.18	16.20	16.20	
1.4	QPSK	1	5	16.11	16.21	16.18	
1.4	QPSK	3	0	16.19	16.28	16.22	
1.4	QPSK	3	1	16.22	16.23	16.15	
1.4	QPSK	3	3	16.03	16.08	16.09	
1.4	QPSK	6	0	15.27	15.31	15.25	16.1
1.4	16QAM	1	0	15.60	15.58	15.53	16.1
1.4	16QAM	1	3	15.50	15.58	15.52	
1.4	16QAM	1	5	15.45	15.58	15.54	
1.4	16QAM	3	0	15.25	15.23	15.27	
1.4	16QAM	3	1	15.20	15.24	15.16	
1.4	16QAM	3	3	15.05	15.14	15.08	
1.4	16QAM	6	0	14.30	14.35	14.26	15.1
1.4	64QAM	1	0	14.46	14.50	14.50	15.1
1.4	64QAM	1	3	14.41	14.46	14.39	
1.4	64QAM	1	5	14.42	14.43	14.41	
1.4	64QAM	3	0	14.20	14.23	14.17	
1.4	64QAM	3	1	14.15	14.20	14.15	
1.4	64QAM	3	3	14.12	14.17	14.09	
1.4	64QAM	6	0	13.28	13.32	13.30	14.1



Band 7 (2600MHz Band) (dBm)_Ant0 Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	19.8
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	18.98	19.05	18.95	
20	QPSK	1	49	18.87	18.95	18.92	
20	QPSK	1	99	18.84	18.91	18.87	18.8
20	QPSK	50	0	18.08	18.13	18.06	
20	QPSK	50	24	18.06	18.10	18.04	
20	QPSK	50	50	18.11	18.13	18.07	
20	QPSK	100	0	18.06	18.08	18.02	18.8
20	16QAM	1	0	18.11	18.16	18.10	
20	16QAM	1	49	18.21	18.22	18.20	
20	16QAM	1	99	18.31	18.35	18.28	
20	16QAM	50	0	17.03	17.04	17.02	17.8
20	16QAM	50	24	17.02	17.10	17.04	
20	16QAM	50	50	17.07	17.13	17.11	
20	16QAM	100	0	17.03	17.09	17.04	
20	64QAM	1	0	17.01	17.08	17.07	17.8
20	64QAM	1	49	17.04	17.06	16.98	
20	64QAM	1	99	17.21	17.25	17.18	
20	64QAM	50	0	16.06	16.08	16.02	
20	64QAM	50	24	16.11	16.12	16.06	16.8
20	64QAM	50	50	16.09	16.17	16.12	
20	64QAM	100	0	16.08	16.10	16.04	
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	18.95	19.01	18.94	
15	QPSK	1	37	18.82	18.90	18.90	
15	QPSK	1	74	18.79	18.85	18.79	18.8
15	QPSK	36	0	18.02	18.12	18.09	
15	QPSK	36	20	17.96	18.07	17.98	
15	QPSK	36	39	18.08	18.10	18.06	
15	QPSK	75	0	17.99	18.03	18.01	18.8
15	16QAM	1	0	18.05	18.08	18.02	
15	16QAM	1	37	18.19	18.16	18.17	
15	16QAM	1	74	18.24	18.31	18.24	
15	16QAM	36	0	16.97	16.99	16.95	17.8
15	16QAM	36	20	16.97	17.06	16.99	
15	16QAM	36	39	17.02	17.05	17.06	
15	16QAM	75	0	16.99	17.07	16.98	
15	64QAM	1	0	16.97	17.06	17.05	17.8
15	64QAM	1	37	16.96	17.04	16.97	
15	64QAM	1	74	17.15	17.19	17.15	
15	64QAM	36	0	16.03	16.03	15.98	
15	64QAM	36	20	16.07	16.10	15.98	16.8
15	64QAM	36	39	16.04	16.13	16.10	
15	64QAM	75	0	16.01	16.09	15.99	
Channel				20800	21100	21400	
Frequency (MHz)				2605	2635	2665	
10	QPSK	1	0	18.96	19.00	18.88	
10	QPSK	1	25	18.84	18.94	18.85	
10	QPSK	1	49	18.76	18.89	18.84	18.8
10	QPSK	25	0	17.98	18.05	18.11	
10	QPSK	25	12	18.05	18.07	18.03	
10	QPSK	25	25	18.09	18.07	18.02	
10	QPSK	50	0	18.03	18.03	17.98	18.8
10	16QAM	1	0	18.06	18.10	18.08	
10	16QAM	1	25	18.13	18.16	18.14	
10	16QAM	1	49	18.25	18.34	18.23	
10	16QAM	25	0	16.99	16.98	16.98	17.8
10	16QAM	25	12	16.94	17.08	17.01	
10	16QAM	25	25	17.00	17.10	17.03	
10	16QAM	50	0	16.96	17.01	17.01	
10	64QAM	1	0	16.99	17.01	17.00	17.8
10	64QAM	1	25	17.01	17.05	16.91	
10	64QAM	1	49	17.16	17.20	17.14	
10	64QAM	25	0	16.00	16.05	15.99	
10	64QAM	25	12	16.08	16.05	16.05	16.8
10	64QAM	25	25	16.04	16.10	16.06	
10	64QAM	50	0	16.05	16.09	16.03	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	18.93	19.00	18.88	
5	QPSK	1	12	18.79	18.88	18.88	
5	QPSK	1	24	18.83	18.86	18.86	18.8
5	QPSK	12	0	18.04	18.11	18.09	
5	QPSK	12	7	18.05	18.06	18.02	
5	QPSK	12	13	18.05	18.08	18.06	
5	QPSK	25	0	17.98	18.05	17.98	18.8
5	16QAM	1	0	18.04	18.13	18.02	
5	16QAM	1	12	18.19	18.16	18.16	
5	16QAM	1	24	18.27	18.27	18.23	
5	16QAM	12	0	17.01	17.01	16.98	17.8
5	16QAM	12	7	17.00	17.07	16.98	
5	16QAM	12	13	17.06	17.06	17.08	
5	16QAM	25	0	17.01	17.01	16.97	
5	64QAM	1	0	16.94	17.04	17.05	17.8
5	64QAM	1	12	16.97	17.04	16.93	
5	64QAM	1	24	17.16	17.23	17.13	
5	64QAM	12	0	16.04	16.01	15.98	
5	64QAM	12	7	16.10	16.09	16.04	16.8
5	64QAM	12	13	16.08	16.10	16.10	
5	64QAM	25	0	16.01	16.03	16.03	

Band 25 (1900MHz Band) (dBm)_Ant0 Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26140	26365	26590	17.8
Frequency (MHz)				1860	1882.5	1905	
20	QPSK	1	0	16.98	17.03	16.95	
20	QPSK	1	49	16.88	16.92	16.85	
20	QPSK	1	99	16.84	16.91	16.89	16.8
20	QPSK	50	0	16.12	16.15	16.10	
20	QPSK	50	24	16.07	16.12	16.08	
20	QPSK	50	50	16.09	16.10	16.07	
20	QPSK	100	0	16.00	16.07	15.99	16.8
20	16QAM	1	0	16.31	16.34	16.26	
20	16QAM	1	49	16.21	16.29	16.26	
20	16QAM	1	99	16.14	16.21	16.18	
20	16QAM	50	0	15.07	15.10	15.06	15.8
20	16QAM	50	24	15.04	15.07	14.99	
20	16QAM	50	50	15.10	15.12	15.10	
20	16QAM	100	0	15.03	15.10	15.03	
20	64QAM	1	0	15.18	15.20	15.18	15.8
20	64QAM	1	49	15.11	15.18	15.15	
20	64QAM	1	99	15.13	15.15	15.09	
20	64QAM	50	0	14.20	14.23	14.16	
20	64QAM	50	24	14.13	14.19	14.11	14.8
20	64QAM	50	50	14.14	14.15	14.11	
20	64QAM	100	0	14.06	14.12	14.10	
Channel				26115	26365	26615	
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	16.94	17.00	16.94	
15	QPSK	1	37	16.87	16.87	16.84	
15	QPSK	1	74	16.81	16.84	16.83	16.8
15	QPSK	36	0	16.08	16.08	16.09	
15	QPSK	36	20	16.02	16.11	16.00	
15	QPSK	36	39	16.06	16.06	16.00	
15	QPSK	75	0	15.98	16.01	15.96	16.8
15	16QAM	1	0	16.27	16.33	16.24	
15	16QAM	1	37	16.14	16.21	16.25	
15	16QAM	1	74	16.07	16.20	16.15	
15	16QAM	36	0	15.04	15.08	15.01	15.8
15	16QAM	36	20	14.99	15.05	14.98	
15	16QAM	36	39	15.07	15.11	15.09	
15	16QAM	75	0	14.98	15.07	14.99	
15	64QAM	1	0	15.15	15.13	15.13	15.8
15	64QAM	1	37	15.04	15.10	15.14	
15	64QAM	1	74	15.05	15.11	15.06	
15	64QAM	36	0	14.12	14.15	14.14	
15	64QAM	36	20	14.09	14.16	14.07	14.8
15	64QAM	36	39	14.06	14.07	14.10	
15	64QAM	75	0	13.99	14.07	14.02	
Channel				26090	26365	26640	
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	16.90	16.97	16.91	
10	QPSK	1	25	16.81	16.84	16.84	
10	QPSK	1	49	16.78	16.86	16.81	16.8
10	QPSK	25	0	16.06	16.08	16.05	
10	QPSK	25	12	16.06	16.04	16.01	
10	QPSK	25	25	16.08	16.09	16.04	
10	QPSK	50	0	15.97	16.06	15.94	16.8
10	16QAM	1	0	16.26	16.28	16.22	
10	16QAM	1	25	16.14	16.24	16.20	
10	16QAM	1	49	16.08	16.15	16.10	
10	16QAM	25	0	15.05	15.05	15.05	15.8
10	16QAM	25	12	14.98	15.00	14.92	
10	16QAM	25	25	15.06	15.08	15.04	
10	16QAM	50	0	14.99	15.09	14.97	
10	64QAM	1	0	15.16	15.13	15.12	15.8
10	64QAM	1	25	15.10	15.17	15.11	
10	64QAM	1	49	15.08	15.12	15.01	
10	64QAM	25	0	14.16	14.16	14.11	
10	64QAM	25	12	14.05	14.14	14.05	14.8
10	64QAM	25	25	14.06	14.11	14.06	
10	64QAM	50	0	14.01	14.06	14.03	
Channel				26065	26365</		



3	QPSK	15	0	15.92	16.00	15.95	
3	16QAM	1	0	16.24	16.29	16.25	16.8
3	16QAM	1	8	16.20	16.25	16.21	
3	16QAM	1	14	16.11	16.19	16.16	15.8
3	16QAM	8	0	15.01	15.06	15.01	
3	16QAM	8	4	15.02	15.01	14.95	
3	16QAM	8	7	15.02	15.04	15.02	
3	16QAM	15	0	15.00	15.06	15.00	15.8
3	64QAM	1	0	15.11	15.16	15.15	
3	64QAM	1	8	15.03	15.11	15.08	14.8
3	64QAM	1	14	15.10	15.11	15.04	
3	64QAM	8	0	14.16	14.19	14.13	
3	64QAM	8	4	14.09	14.11	14.07	
3	64QAM	8	7	14.12	14.10	14.07	14.8
3	64QAM	15	0	14.00	14.07	14.08	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	16.93	16.96	16.93	17.8
1.4	QPSK	1	3	16.85	16.87	16.79	
1.4	QPSK	1	5	16.80	16.84	16.81	
1.4	QPSK	3	0	16.95	17.02	16.94	
1.4	QPSK	3	1	16.92	16.95	16.96	
1.4	QPSK	3	3	16.94	16.97	16.96	
1.4	QPSK	6	0	15.95	16.01	15.92	16.8
1.4	16QAM	1	0	16.30	16.32	16.19	15.8
1.4	16QAM	1	3	16.14	16.25	16.21	
1.4	16QAM	1	5	16.06	16.15	16.16	
1.4	16QAM	3	0	15.90	15.95	15.89	
1.4	16QAM	3	1	15.93	15.93	15.85	
1.4	16QAM	3	3	15.97	15.97	15.92	
1.4	16QAM	6	0	14.97	15.05	15.02	14.8
1.4	64QAM	1	0	15.12	15.13	15.13	15.8
1.4	64QAM	1	3	15.05	15.17	15.12	
1.4	64QAM	1	5	15.07	15.12	15.07	
1.4	64QAM	3	0	15.03	15.10	15.00	
1.4	64QAM	3	1	14.97	15.02	14.99	
1.4	64QAM	3	3	15.02	15.01	14.99	
1.4	64QAM	6	0	14.00	14.06	14.07	14.8



Band 66 (dBm)_Ant0									
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	17.29	17.40	17.31	18.1		
20	QPSK	1	49	17.20	17.27	17.24			
20	QPSK	1	99	17.17	17.24	17.21			
20	QPSK	50	0	16.29	16.31	16.28	17.1		
20	QPSK	50	24	16.31	16.37	16.35			
20	QPSK	50	50	16.21	16.29	16.26			
20	QPSK	100	0	16.34	16.35	16.31	17.1		
20	16QAM	1	0	16.54	16.62	16.56			
20	16QAM	1	49	16.56	16.60	16.55			
20	16QAM	1	99	16.50	16.57	16.51	16.1		
20	16QAM	50	0	15.34	15.35	15.30			
20	16QAM	50	24	15.25	15.31	15.24			
20	16QAM	50	50	15.31	15.35	15.32	16.1		
20	16QAM	100	0	15.30	15.33	15.29			
20	64QAM	1	0	15.55	15.60	15.56			
20	64QAM	1	49	15.54	15.57	15.49	16.1		
20	64QAM	1	99	15.52	15.54	15.47			
20	64QAM	50	0	14.32	14.40	14.35			
20	64QAM	50	24	14.30	14.38	14.32	15.1		
20	64QAM	50	50	14.28	14.36	14.32			
20	64QAM	100	0	14.29	14.36	14.30			
Channel				132047	132322	132597			
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	0	17.28	17.31	17.30	18.1		
15	QPSK	1	37	17.12	17.26	17.22			
15	QPSK	1	74	17.10	17.16	17.18			
15	QPSK	36	0	16.23	16.26	16.22	17.1		
15	QPSK	36	20	16.27	16.32	16.33			
15	QPSK	36	39	16.16	16.24	16.20			
15	QPSK	75	0	16.31	16.33	16.25	17.1		
15	16QAM	1	0	16.50	16.61	16.52			
15	16QAM	1	37	16.54	16.58	16.51			
15	16QAM	1	74	16.47	16.56	16.43	16.1		
15	16QAM	36	0	15.29	15.33	15.28			
15	16QAM	36	20	15.21	15.24	15.21			
15	16QAM	36	39	15.28	15.28	15.26	16.1		
15	16QAM	75	0	15.24	15.27	15.24			
15	64QAM	1	0	15.48	15.59	15.50			
15	64QAM	1	37	15.48	15.50	15.47	16.1		
15	64QAM	1	74	15.48	15.53	15.45			
15	64QAM	36	0	14.29	14.32	14.32			
15	64QAM	36	20	14.27	14.36	14.27	15.1		
15	64QAM	36	39	14.25	14.31	14.30			
15	64QAM	75	0	14.28	14.29	14.26			
Channel				132022	132322	132622			
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	0	17.21	17.28	17.30	18.1		
10	QPSK	1	25	17.15	17.25	17.18			
10	QPSK	1	49	17.12	17.21	17.18			
10	QPSK	25	0	16.20	16.30	16.19	17.1		
10	QPSK	25	12	16.29	16.36	16.29			
10	QPSK	25	25	16.19	16.21	16.19			
10	QPSK	50	0	16.30	16.27	16.24	17.1		
10	16QAM	1	0	16.49	16.55	16.51			
10	16QAM	1	25	16.51	16.54	16.52			
10	16QAM	1	49	16.43	16.49	16.45	16.1		
10	16QAM	25	0	15.26	15.30	15.28			
10	16QAM	25	12	15.22	15.24	15.22			
10	16QAM	25	25	15.24	15.29	15.29	16.1		
10	16QAM	50	0	15.22	15.29	15.21			
10	64QAM	1	0	15.47	15.56	15.52			
10	64QAM	1	25	15.52	15.50	15.43	16.1		
10	64QAM	1	49	15.48	15.50	15.46			
10	64QAM	25	0	14.28	14.34	14.34			
10	64QAM	25	12	14.29	14.30	14.28	15.1		
10	64QAM	25	25	14.26	14.28	14.30			
10	64QAM	50	0	14.24	14.34	14.26			
Channel				131997	132322	132647			
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	0	17.24	17.32	17.29	18.1		
5	QPSK	1	12	17.16	17.24	17.19			
5	QPSK	1	24	17.14	17.21	17.15			
5	QPSK	12	0	16.24	16.30	16.23	17.1		
5	QPSK	12	7	16.27	16.33	16.27			
5	QPSK	12	13	16.14	16.24	16.21			
5	QPSK	25	0	16.31	16.28	16.27	17.1		
5	16QAM	1	0	16.47	16.55	16.50			
5	16QAM	1	12	16.55	16.53	16.52			
5	16QAM	1	24	16.43	16.51	16.49	16.1		
5	16QAM	12	0	15.33	15.28	15.25			
5	16QAM	12	7	15.17	15.26	15.18			
5	16QAM	12	13	15.24	15.29	15.24	16.1		
5	16QAM	25	0	15.24	15.31	15.21			
5	64QAM	1	0	15.52	15.58	15.51			
5	64QAM	1	12	15.46	15.56	15.41	16.1		
5	64QAM	1	24	15.46	15.46	15.44			
5	64QAM	12	0	14.29	14.36	14.29			
5	64QAM	12	7	14.27	14.33	14.30	15.1		
5	64QAM	12	13	14.25	14.32	14.26			
5	64QAM	25	0	14.28	14.33	14.23			
Channel				131987	132322	132657			
Frequency (MHz)				1711.5	1745	1778.5			
3	QPSK	1	0	17.27	17.30	17.25	18.1		
3	QPSK	1	8	17.19	17.25	17.16			
3	QPSK	1	14	17.12	17.17	17.20			
3	QPSK	8	0	16.22	16.23	16.20	17.1		
3	QPSK	8	4	16.28	16.34	16.34			
3	QPSK	8	7	16.18	16.22	16.21			





3	QPSK	15	0	16.33	16.33	16.25	
3	16QAM	1	0	16.49	16.55	16.48	
3	16QAM	1	8	16.51	16.56	16.51	17.1
3	16QAM	1	14	16.44	16.54	16.43	
3	16QAM	8	0	15.29	15.33	15.27	
3	16QAM	8	4	15.20	15.23	15.22	16.1
3	16QAM	8	7	15.24	15.31	15.26	
3	16QAM	15	0	15.25	15.29	15.25	
3	64QAM	1	0	15.49	15.55	15.51	
3	64QAM	1	8	15.46	15.49	15.44	16.1
3	64QAM	1	14	15.46	15.50	15.41	
3	64QAM	8	0	14.26	14.32	14.30	
3	64QAM	8	4	14.23	14.30	14.29	15.1
3	64QAM	8	7	14.22	14.28	14.31	
3	64QAM	15	0	14.28	14.29	14.27	
Channel				131979	132322	132665	Tune-up limit
Frequency (MHz)				1710.7	1745	1779.3	(dBm)
1.4	QPSK	1	0	17.25	17.32	17.25	
1.4	QPSK	1	3	17.13	17.26	17.23	
1.4	QPSK	1	5	17.12	17.22	17.18	18.1
1.4	QPSK	3	0	17.14	17.20	17.14	
1.4	QPSK	3	1	17.18	17.24	17.19	
1.4	QPSK	3	3	17.09	17.17	17.14	
1.4	QPSK	6	0	16.32	16.34	16.23	17.1
1.4	16QAM	1	0	16.52	16.54	16.54	
1.4	16QAM	1	3	16.48	16.54	16.51	
1.4	16QAM	1	5	16.43	16.50	16.49	17.1
1.4	16QAM	3	0	16.19	16.20	16.13	
1.4	16QAM	3	1	16.08	16.15	16.10	
1.4	16QAM	3	3	16.16	16.24	16.15	
1.4	16QAM	6	0	15.25	15.32	15.24	16.1
1.4	64QAM	1	0	15.54	15.57	15.54	
1.4	64QAM	1	3	15.53	15.55	15.45	
1.4	64QAM	1	5	15.46	15.49	15.40	16.1
1.4	64QAM	3	0	15.20	15.26	15.24	
1.4	64QAM	3	1	15.16	15.26	15.19	
1.4	64QAM	3	3	15.12	15.23	15.21	
1.4	64QAM	6	0	14.26	14.32	14.24	15.1



Band 41 (2496~2690MHz) (dBm)-PC2_Ant0									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)
Channel									
Frequency (MHz)				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	18.85	18.83	19.14	19.10	19.08	19.9
20	QPSK	1	49	18.71	18.78	19.09	19.07	19.03	
20	QPSK	1	99	18.78	18.78	18.78	18.78	18.78	
20	QPSK	50	0	17.93	17.85	18.15	18.08	18.01	
20	QPSK	50	24	17.90	17.82	18.12	18.00	17.97	
20	QPSK	50	50	17.80	17.87	18.08	17.97	18.00	
20	QPSK	100	0	17.87	17.89	18.05	18.06	17.99	
20	16QAM	1	0	18.06	18.12	18.43	18.40	18.41	
20	16QAM	1	49	18.03	18.03	18.40	18.32	18.38	
20	16QAM	1	99	18.02	18.04	18.38	18.35	18.31	
20	16QAM	50	0	16.98	16.99	17.33	17.31	17.25	
20	16QAM	50	24	16.91	16.93	17.29	17.24	17.25	
20	16QAM	50	50	16.95	16.95	17.31	17.24	17.28	
20	16QAM	100	0	16.90	16.94	17.27	17.22	17.21	
20	16QAM	1	0	16.88	16.90	17.22	17.14	17.14	
20	16QAM	1	49	16.85	16.84	17.21	17.14	17.17	
20	16QAM	1	99	16.90	16.90	17.26	17.21	17.21	
20	16QAM	50	0	15.94	15.96	16.28	16.26	16.23	
20	16QAM	50	24	15.94	15.95	16.26	16.18	16.20	
20	16QAM	50	50	15.99	15.93	16.30	16.24	16.29	
20	16QAM	100	0	15.90	15.91	16.28	16.27	16.24	
Channel									
Frequency (MHz)				2503.5	2548.3	2593	2637.7	2682.5	
15	QPSK	1	0	18.83	18.76	19.08	19.07	19.07	19.9
15	QPSK	1	37	18.84	18.72	19.03	19.02	19.02	
15	QPSK	1	74	18.76	18.74	19.08	19.06	18.98	
15	QPSK	36	0	17.89	17.85	18.22	18.12	18.20	
15	QPSK	36	20	17.84	17.85	18.18	18.12	18.09	
15	QPSK	36	39	17.78	17.82	18.13	18.14	18.20	
15	QPSK	75	0	17.79	17.83	18.22	18.12	18.15	
15	16QAM	1	0	18.04	18.09	18.35	18.33	18.38	
15	16QAM	1	37	18.01	17.95	18.33	18.26	18.31	
15	16QAM	1	74	18.00	17.98	18.32	18.32	18.25	
15	16QAM	36	0	16.90	16.96	17.21	17.27	17.18	
15	16QAM	36	20	16.88	16.87	17.21	17.20	17.22	
15	16QAM	36	39	16.94	16.88	17.29	17.17	17.20	
15	16QAM	75	0	16.84	16.87	17.26	17.14	17.17	
15	16QAM	1	0	16.85	16.88	17.18	17.06	17.13	
15	16QAM	1	37	16.79	16.79	17.16	17.10	17.12	
15	16QAM	1	74	16.89	16.88	17.22	17.15	17.15	
15	16QAM	36	0	15.92	15.95	16.24	16.22	16.22	
15	16QAM	36	20	15.90	15.93	16.24	16.12	16.17	
15	16QAM	36	39	15.93	15.89	16.22	16.17	16.22	
15	16QAM	75	0	15.85	15.88	16.24	16.26	16.19	
Channel									
Frequency (MHz)				39700	40160	40620	41080	41540	
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	18.78	18.82	19.07	19.05	19.06	19.9
10	QPSK	1	25	18.67	18.76	19.07	19.00	18.96	
10	QPSK	1	49	18.77	18.72	19.04	19.07	19.02	
10	QPSK	1	99	17.85	17.92	18.21	18.13	18.20	
10	QPSK	25	12	17.87	17.87	18.16	18.13	18.14	
10	QPSK	25	25	17.76	17.81	18.17	18.13	18.14	
10	QPSK	50	0	17.85	17.85	18.16	18.10	18.18	
10	16QAM	1	0	17.99	18.09	18.37	18.39	18.34	
10	16QAM	1	25	17.97	17.97	18.39	18.29	18.38	
10	16QAM	1	49	17.88	18.02	18.37	18.26	18.30	
10	16QAM	25	0	16.93	16.92	17.31	17.24	17.22	
10	16QAM	25	12	16.90	16.90	17.21	17.21	17.22	
10	16QAM	25	25	16.90	16.89	17.24	17.18	17.21	
10	16QAM	50	0	16.82	16.91	17.21	17.20	17.15	
10	16QAM	1	0	16.81	16.87	17.18	17.06	17.11	
10	16QAM	1	25	16.82	16.78	17.19	17.13	17.12	
10	16QAM	1	49	16.88	16.83	17.25	17.17	17.17	
10	16QAM	25	0	15.89	15.89	16.22	16.18	16.16	
10	16QAM	25	12	15.93	15.90	16.19	16.14	16.15	
10	16QAM	25	25	15.95	15.85	16.27	16.20	16.27	
10	16QAM	50	0	15.85	15.88	16.26	16.21	16.21	
Channel									
Frequency (MHz)				39675	40148	40620	41093	41565	
Frequency (MHz)				2493.5	2543.3	2593	2643.5	2693.5	
5	QPSK	1	0	18.93	18.78	19.03	19.06	19.01	19.9
5	QPSK	1	12	18.66	18.77	19.04	19.04	18.97	
5	QPSK	1	24	18.72	18.71	19.07	19.02	19.04	
5	QPSK	12	0	17.91	17.84	18.24	18.15	18.15	
5	QPSK	12	7	17.89	17.81	18.21	18.19	18.15	
5	QPSK	12	13	17.79	17.80	18.14	18.12	18.10	
5	QPSK	25	0	17.79	17.84	18.22	18.11	18.19	
5	16QAM	1	0	18.04	18.10	18.35	18.36	18.37	
5	16QAM	1	12	18.00	17.97	18.39	18.24	18.34	
5	16QAM	1	24	17.94	17.99	18.32	18.32	18.30	
5	16QAM	12	0	16.97	16.91	17.31	17.23	17.20	
5	16QAM	12	7	16.86	16.90	17.25	17.23	17.22	
5	16QAM	12	13	16.94	16.92	17.26	17.17	17.25	
5	16QAM	25	0	16.98	16.90	17.19	17.17	17.14	
5	16QAM	1	0	16.84	16.87	17.19	17.11	17.10	
5	16QAM	1	12	16.81	16.81	17.14	17.11	17.10	
5	16QAM	1	24	16.84	16.85	17.23	17.14	17.20	
5	16QAM	12	0	15.87	15.88	16.23	16.18	16.18	
5	16QAM	12	7	15.88	16.97	16.23	16.13	16.13	
5	16QAM	12	13	15.98	15.91	16.28	16.20	16.22	
5	16QAM	25	0	15.89	15.88	16.20	16.20	16.20	

Band 41 (2496~2690MHz) (dBm)-PC3_Ant0									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)
Channel									
Frequency (MHz)				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	18.29	18.20	18.66	18.64	18.61	19.3
20	QPSK	1	49	18.19	18.17	18.64	18.59	18.59	
20	QPSK	1	99	18.19	18.20	18.62	18.62	18.62	
20	QPSK	50	0	17.20	17.28	17.68	17.66	17.63	
20	QPSK	50	24	17.22	17.22	17.67	17.63	17.61	
20	QPSK	50	50	17.23	17.24	17.65	17.67	17.63	
20	QPSK	100	0	17.21	17.23	17.68	17.67	17.62	
20	16QAM	1	0	17.14	17.08	17.55	17.54	17.51	
20	16QAM	1	49	17.07	17.10	17.54	17.47	17.46	
20	16QAM	1	99	17.20	17.20	17.44	17.62	17.63	
20	16QAM	50	0	16.15	16.15	16.62	16.59	16.59	
20	16QAM	50	24	16.25	16.22	16.70	16.62	16.67	
20	16QAM	50	50	16.26	16.28	16.68	16.67	16.67	
20	16QAM	100	0	16.20	16.18	16.64	16.58	16.58	
20	16QAM	1	0	15.94	15.97	16.42	16.39	16.41	
20	16QAM	1	49	15.91	15.95	16.38	16.31	16.31	
20	16QAM	1	99	15.99	16.05	16.46	16.39	16.44	
20	16QAM	50	0	15.29	15.29	15.70	15.62	15.65	
20	16QAM	50	24	15.36	15.33	15.77	15.69	15.71	
20	16QAM	50	50	15.28	15.30	15.74	15.67	15.73	
20	16QAM	100	0	15.26	15.23	15.72	15.71	15.67	
Channel									
Frequency (MHz)				2503.5	2548.3	2593	2637.7	2682.5	
Frequency (MHz)				2503.5	2548.3	2593	2637.7	2682.5	
15	QPSK	1	0	18.25	18.14	18.59	18.63	18.55	19.3
15	QPSK	1	37	18.14	18.11	18.61	18.58	18.57	
15	QPSK	1	74	18.15	18.13	18.60	18.54	18.56	
15	QPSK	36	0	17.14	17.22	17.65	17.59	17.61	
15	QPSK	36	20	17.20	17.20	17.63	17.60	17.55	
15	QPSK	36	39	17.19	17.18	17.53	17.55	17.57	
15	QPSK	75	0	17.14	17.16	17.61	17.60	17.55	
15	16QAM	1	0	17.13	17.02	17.52	17.51	17.50	
15	16QAM	1	37	17.01	17.03	17.51	17.40	17.39	
15	16QAM	1	74	17.18	17.13	17.58	17.57	17.56	
15	16QAM	36	0	16.09	16.13	16.57	16.58	16.58	
15	16QAM	36	20	16.17	16.16	16.59	16.62	16.62	
15	16QAM	36	39	16.19	16.22	16.64	16.64	16.60	
15	16QAM	75	0	16.15	16.16	16.59	16.55	16.53	
15	16QAM	1	0	15.91	15.94	16.37	16.33	16.39	
15	16QAM	1	37	15.84	15.90	16.36	16.27	16.27	
15	16QAM	1	74	15.83	15.88	16.44	16.38	16.37	
15	16QAM	36	0	15.24	15.25	15.63	15.61	15.64	
15	16QAM	36	20	15.29	15.27	15.74	15.68	15.66	
15	16QAM	36	39	15.25	15.29	15.67	15.64	15.65	
15	16QAM	75	0	15.25	15.24	15.69	15.64	15.64	
Channel									
Frequency (MHz)				39700	40160	40620	41080	41540	
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	18.26	18.13	18.64	18.59	18.53	19.3
10	QPSK	1	25	18.16	18.13	18.56	18.54	18.54	
10	QPSK	1	49	18.11	18.11	18.61	18.55	18.56	
10	QPSK	25	0	17.16					



n2 (1850 ~ 1910MHz)_ANT0								
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				37200	37600	38000		
Frequency (MHz)				1850	1890	1900		
20	DFT-s-OFDM P/2 BPSK	1	1	12.77	18.19	18.31	19.7	
20		1	53	12.86	18.42	18.32		
20		1	104	18.11	18.24	18.28		
20		50	1	17.48	17.54	17.70		
20		50	25	17.75	17.85	17.86		
20		50	50	17.18	17.29	17.17		
20	DFT-s-OFDM QPSK	100	0	17.70	17.60	17.71	18.7	
20		1	1	18.46	18.52	18.49		
20		1	53	18.41	18.47	18.43		
20		1	104	18.34	18.37	18.30		
20		50	1	18.00	18.05	18.05		
20		50	25	17.85	17.87	18.01		
20	DFT-s-OFDM 16QAM	50	50	17.62	17.89	17.90	18.7	
20		100	0	17.79	17.59	17.60		
20		1	1	18.17	18.09	18.28		
20		DFT-s-OFDM 16QAM	1	1	16.69	16.75		16.80
20		DFT-s-OFDM 256QAM	1	1	14.30	14.13		14.32
Channel				37150	37600	38050		Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5		
15	DFT-s-OFDM QPSK	1	1	18.46	18.35	18.37	25.2	
Channel				37100	37600	38100	Tune-up limit (dBm)	
Frequency (MHz)				1850	1860	1865		
10	DFT-s-OFDM QPSK	1	1	18.50	18.47	18.36	25.2	
Channel				37050	37600	38150	Tune-up limit (dBm)	
Frequency (MHz)				1852.5	1860	1907.5		
5	DFT-s-OFDM QPSK	1	1	18.45	18.42	18.44	25.2	
Channel				37200	37600	38000	Tune-up limit (dBm)	
Frequency (MHz)				1850	1890	1900		
20	CP-OFDM QPSK	1	1	17.54	17.23	17.36	18.2	
20	CP-OFDM 16QAM	1	1	17.18	17.07	17.15	18.2	
20	CP-OFDM 64QAM	1	1	16.05	15.64	16.02	17.2	
20	CP-OFDM 256QAM	1	1	12.23	12.33	12.34	13.2	

n25_ANT0								
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				37400	37600	37600		
Frequency (MHz)				1870	1892.5	1895		
40	DFT-s-OFDM P/2 BPSK	1	1	18.49	18.55	18.52	19.7	
40		1	53	18.41	18.50	18.51		
40		1	105	18.45	18.54	18.47		
40		50	1	17.65	17.57	17.71		
40		50	25	17.61	17.59	17.76		
40		50	50	17.54	17.59	17.81		
40	DFT-s-OFDM QPSK	100	0	17.63	17.58	17.78	18.7	
40		1	1	18.56	18.57	18.53		
40		1	53	18.19	18.51	18.50		
40		1	105	18.48	18.54	18.51		
40		50	1	17.85	17.70	17.67		
40		50	25	17.82	17.68	17.62		
40	DFT-s-OFDM 16QAM	50	50	17.57	17.62	17.60	24.2	
40		100	0	17.61	17.62	17.58		
40		1	1	17.74	17.95	17.75		
40		DFT-s-OFDM 16QAM	1	1	16.38	16.43		16.39
40		DFT-s-OFDM 256QAM	1	1	13.96	14.00		13.94
Channel				37500	37600	38000		Tune-up limit (dBm)
Frequency (MHz)				1865	1882.5	1900		
30	DFT-s-OFDM QPSK	1	1	18.45	18.51	18.23	25.2	
Channel				37200	37600	38100	Tune-up limit (dBm)	
Frequency (MHz)				1860	1882.5	1905		
20	DFT-s-OFDM QPSK	1	1	18.51	18.52	18.50	19.7	
Channel				37150	37600	38150	Tune-up limit (dBm)	
Frequency (MHz)				1857.5	1882.5	1907.5		
15	DFT-s-OFDM QPSK	1	1	18.33	18.47	18.29	19.7	
Channel				37100	37600	38200	Tune-up limit (dBm)	
Frequency (MHz)				1855	1882.5	1910		
10	DFT-s-OFDM QPSK	1	1	18.42	18.46	18.45	19.7	
Channel				37050	37600	38250	Tune-up limit (dBm)	
Frequency (MHz)				1852.5	1882.5	1912.5		
5	DFT-s-OFDM QPSK	1	1	18.32	18.35	18.27	25.2	
Channel				37400	37600	37900	Tune-up limit (dBm)	
Frequency (MHz)				1870	1882.5	1895		
40	CP-OFDM QPSK	1	1	17.08	17.20	17.24	18.2	
40	CP-OFDM 16QAM	1	1	16.76	16.86	16.77	17.2	
40	CP-OFDM 64QAM	1	1	15.16	15.42	15.28	16.2	
40	CP-OFDM 256QAM	1	1	11.95	11.90	11.96	12.7	





CA_41C-PC3_Ant 0 Combination:20MHz+20MHz(100RB+100RB)												
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)	
				RB Size	RB Offset	RB Size	RB Offset					
39750	39750	39948	QPSK	1	0	0	0	1	0	17.83	19.00	
40620	40521	40719	QPSK	1	0	0	0	1	0	18.13	19.00	
41490	41292	41490	QPSK	1	0	0	0	1	0	18.05	19.00	
39750	39750	39948	16QAM	1	0	0	0	1	0	17.07	17.50	
40620	40521	40719	16QAM	1	0	0	0	1	0	17.39	17.50	
41490	41292	41490	16QAM	1	0	0	0	1	0	17.34	17.50	
39750	39750	39948	64QAM	1	0	0	0	1	0	15.63	16.50	
40620	40521	40719	64QAM	1	0	0	0	1	0	15.95	16.50	
41490	41292	41490	64QAM	1	0	0	0	1	0	15.83	16.50	
39750	39750	39948	QPSK	50	0	0	0	1	0	16.72	17.50	
40620	40521	40719	QPSK	50	0	0	0	1	0	17.03	17.50	
41490	41292	41490	QPSK	50	0	0	0	1	0	16.79	17.50	



**Reduced Power Level 4 for Ant 1 & Ant 3 & Ant 4**

GSM1900_Ant1	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	15.66	15.74	15.71	16.50	6.66	6.74	6.71	7.50
GPRS 1 Tx slot	15.68	15.78	15.74	16.50	6.68	6.78	6.74	7.50
GPRS 2 Tx slots	13.55	13.59	13.46	14.50	7.55	7.59	7.46	8.50
GPRS 3 Tx slots	12.11	12.16	12.05	13.00	7.85	7.90	7.79	8.74
GPRS 4 Tx slots	11.06	11.23	11.16	12.00	8.06	8.23	8.16	9.00
EDGE 1 Tx slot	11.98	12.07	12.03	13.50	2.98	3.07	3.03	4.50
EDGE 2 Tx slots	10.14	10.36	10.24	11.00	4.14	4.36	4.24	5.00
EDGE 3 Tx slots	8.92	9.04	8.96	9.70	4.66	4.78	4.70	5.44
EDGE 4 Tx slots	8.59	8.82	8.72	9.70	5.59	5.82	5.72	6.70
Mode		Max.	15.78			Max.	8.23	
Attenuator	Cable Loss : 0.8							

Band	WCDMA Band II (dBm) Ant1			Tune-up Limit (dBm)	WCDMA Band IV (dBm) Ant1			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513	
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	16.39	16.42	16.36	17.30	16.03	16.11	16.06	16.80
3GPP Rel 6 HSDPA Subtest-1	15.44	15.79	15.69	16.50	14.97	15.43	15.38	16.00
3GPP Rel 6 HSDPA Subtest-2	15.58	15.84	15.46	9.00	14.98	15.38	15.09	8.00
3GPP Rel 6 HSDPA Subtest-3	15.00	15.04	14.83	8.50	14.53	14.80	14.32	7.50
3GPP Rel 6 HSDPA Subtest-4	15.50	15.30	15.17	8.50	15.22	14.96	14.87	7.50
3GPP Rel 8 DC-HSDPA Subtest-1	15.79	15.56	15.48	16.50	15.40	15.22	14.94	16.00
3GPP Rel 8 DC-HSDPA Subtest-2	15.27	15.11	14.97	16.00	15.00	14.67	14.69	15.50
3GPP Rel 8 DC-HSDPA Subtest-3	15.16	14.85	14.70	15.50	14.33	14.36	14.06	15.00
3GPP Rel 8 DC-HSDPA Subtest-4	15.01	14.68	14.80	8.50	14.56	14.32	14.49	7.50
3GPP Rel 6 HSUPA Subtest-1	15.31	15.16	15.28	16.50	14.98	14.52	14.65	16.00
3GPP Rel 6 HSUPA Subtest-2	13.88	13.61	13.68	14.50	13.35	13.31	13.24	14.00
3GPP Rel 6 HSUPA Subtest-3	14.88	14.64	14.55	15.50	14.52	14.18	14.23	15.00
3GPP Rel 6 HSUPA Subtest-4	13.86	13.57	13.57	14.50	13.22	13.22	13.14	14.00
3GPP Rel 6 HSUPA Subtest-5	15.22	15.06	14.76	15.50	14.70	14.55	14.23	15.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	13.75	13.76	13.81	14.50	13.12	13.22	13.25	14.00
Attenuator	Cable Loss			0.8	Cable Loss			0.8
Mode		Max.	16.42			Max.	16.11	



Band 2 (1900MHz Band) (dBm)_Ant1 Part 24E							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1880	1880	1900	
20	QPSK	1	0	16.94	17.02	16.96	17.8
20	QPSK	1	49	16.87	16.93	16.89	
20	QPSK	1	99	16.85	16.91	16.90	
20	QPSK	50	0	16.11	16.15	16.08	16.8
20	QPSK	50	24	16.08	16.14	16.10	
20	QPSK	50	50	16.03	16.10	16.08	
20	QPSK	100	0	16.05	16.08	16.03	16.8
20	16QAM	1	0	16.29	16.31	16.29	
20	16QAM	1	49	16.26	16.28	16.20	
20	16QAM	1	99	16.23	16.27	16.26	15.8
20	16QAM	50	0	15.08	15.12	15.05	
20	16QAM	50	24	15.10	15.11	15.04	
20	16QAM	50	50	15.09	15.10	15.03	15.8
20	16QAM	100	0	15.02	15.08	15.04	
20	64QAM	1	0	15.15	15.22	15.19	
20	64QAM	1	49	15.08	15.16	15.11	15.8
20	64QAM	1	99	15.12	15.15	15.10	
20	64QAM	50	0	14.15	14.16	14.08	
20	64QAM	50	24	14.13	14.14	14.12	14.8
20	64QAM	50	50	14.07	14.11	14.08	
20	64QAM	100	0	14.02	14.08	14.02	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	16.91	16.97	16.90	17.8
15	QPSK	1	37	16.79	16.88	16.84	
15	QPSK	1	74	16.84	16.89	16.85	
15	QPSK	36	0	16.09	16.14	16.11	16.8
15	QPSK	36	20	16.00	16.07	16.09	
15	QPSK	36	39	16.01	16.08	16.07	
15	QPSK	75	0	16.03	16.00	15.96	16.8
15	16QAM	1	0	16.28	16.26	16.22	
15	16QAM	1	37	16.19	16.21	16.16	
15	16QAM	1	74	16.15	16.19	16.21	15.8
15	16QAM	36	0	15.02	15.05	15.04	
15	16QAM	36	20	15.05	15.10	14.98	
15	16QAM	36	39	15.07	15.04	14.95	15.8
15	16QAM	75	0	14.97	15.07	14.99	
15	64QAM	1	0	15.11	15.15	15.15	
15	64QAM	1	37	15.07	15.15	15.03	15.8
15	64QAM	1	74	15.10	15.13	15.09	
15	64QAM	36	0	14.13	14.11	14.03	
15	64QAM	36	20	14.11	14.10	14.06	14.8
15	64QAM	36	39	14.05	14.10	14.01	
15	64QAM	75	0	13.98	14.01	13.96	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	16.90	17.01	16.93	17.8
10	QPSK	1	25	16.80	16.88	16.83	
10	QPSK	1	49	16.78	16.87	16.82	
10	QPSK	25	0	16.14	16.11	16.11	16.8
10	QPSK	25	12	16.07	16.09	16.06	
10	QPSK	25	25	16.01	16.02	16.04	
10	QPSK	50	0	15.98	16.07	15.99	16.8
10	16QAM	1	0	16.22	16.23	16.25	
10	16QAM	1	25	16.23	16.21	16.12	
10	16QAM	1	49	16.17	16.21	16.18	15.8
10	16QAM	25	0	15.05	15.09	14.99	
10	16QAM	25	12	15.06	15.05	14.99	
10	16QAM	25	25	15.06	15.09	14.99	15.8
10	16QAM	50	0	14.95	15.06	15.00	
10	64QAM	1	0	15.13	15.18	15.16	
10	64QAM	1	25	15.05	15.12	15.04	15.8
10	64QAM	1	49	15.09	15.14	15.06	
10	64QAM	25	0	14.14	14.15	14.01	
10	64QAM	25	12	14.09	14.06	14.09	14.8
10	64QAM	25	25	14.05	14.10	14.07	
10	64QAM	50	0	13.98	14.06	13.95	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	16.88	16.95	16.92	17.8
5	QPSK	1	12	16.82	16.92	16.83	
5	QPSK	1	24	16.78	16.83	16.87	
5	QPSK	12	0	16.10	16.11	16.09	16.8
5	QPSK	12	7	16.01	16.06	16.02	
5	QPSK	12	13	15.99	16.08	16.04	
5	QPSK	25	0	16.03	16.01	15.98	16.8
5	16QAM	1	0	16.27	16.23	16.25	
5	16QAM	1	12	16.20	16.27	16.17	
5	16QAM	1	24	16.15	16.20	16.19	15.8
5	16QAM	12	0	15.01	15.08	14.98	
5	16QAM	12	7	15.08	15.10	14.99	
5	16QAM	12	13	15.05	15.04	15.02	14.8
5	16QAM	25	0	14.97	15.07	15.01	
5	64QAM	1	0	15.10	15.20	15.17	
5	64QAM	1	12	15.07	15.11	15.07	15.8
5	64QAM	1	24	15.10	15.14	15.05	
5	64QAM	12	0	14.13	14.14	14.07	
5	64QAM	12	7	14.10	14.06	14.07	14.8
5	64QAM	12	13	14.01	14.04	14.00	
5	64QAM	25	0	13.99	14.01	13.97	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	16.90	16.96	16.91	17.8
3	QPSK	1	8	16.83	16.85	16.87	
3	QPSK	1	14	16.83	16.88	16.85	
3	QPSK	8	0	16.11	16.14	16.12	16.8
3	QPSK	8	4	16.01	16.12	16.03	
3	QPSK	8	7	16.02	16.06	16.05	

Band 4 (AWS Band) (dBm)_Ant1 Part 27L (only on channel required)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	15.83	15.88	15.82	16.6
20	QPSK	1	49	15.74	15.77	15.76	
20	QPSK	1	99	15.86	15.73	15.71	
20	QPSK	50	0	14.90	14.94	14.87	15.6
20	QPSK	50	24	14.88	14.90	14.83	
20	QPSK	50	50	14.73	14.81	14.77	
20	QPSK	100	0	14.84	14.86	14.83	15.6
20	16QAM	1	0	15.11	15.14	15.10	
20	16QAM	1	49	15.08	15.12	15.07	
20	16QAM	1	99	15.01	15.09	15.05	14.6
20	16QAM	50	0	13.94	13.95	13.94	
20	16QAM	50	24	13.86	13.90	13.89	
20	16QAM	50	50	13.76	13.80	13.76	14.6
20	16QAM	100	0	13.81	13.89	13.84	
20	64QAM	1	0	14.04	14.05	14.03	
20	64QAM	1	49	13.93	14.00	13.97	14.6
20	64QAM	1	99	13.93	13.97	13.95	
20	64QAM	50	0	12.92	12.96	12.89	
20	64QAM	50	24	12.87	12.92	12.88	13.6
20	64QAM	50	50	12.79	12.87	12.81	
20	64QAM	100	0	12.82	12.90	12.87	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	15.80	15.84	15.78	16.6
15	QPSK	1	37	15.72	15.76	15.70	
15	QPSK	1	74	15.62	15.72	15.67	
15	QPSK	36	0	14.83	14.88	14.85	15.6
15	QPSK	36	20	14.84	14.88	14.80	
15	QPSK	36	39	14.72	14.80	14.73	
15	QPSK	75	0	14.76	14.85	14.76	15.6
15	16QAM	1	0	15.07	15.07	15.03	
15	16QAM	1	37	15.00	15.05	15.03	
15	16QAM	1	74	15.00	15.07	14.98	14.6
15	16QAM	36	0	13.93	13.87	13.88	
15	16QAM	36	20	13.84	13.89	13.82	
15	16QAM	36	39	13.72	13.76	13.72	14.6
15	16QAM	75	0	13.78	13.87	13.80	
15	64QAM	1	0	14.02	14.04	13.99	
15	64QAM	1	37	13.90	13.97	13.92	14.6
15	64QAM	1	74	13.88	13.92	13.92	
15	64QAM	36	0	12.90	12.94	12.87	
15	64QAM	36	20	12.83	12.84	12.87	13.6
15	64QAM	36	39	12.73	12.85	12.73	
15	64QAM	75	0	12.81	12.82	12.80	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	15.78	15.80	15.76	16.6
10	QPSK	1	25	15.69	15.76	15.69	
10	QPSK	1	49	15.63	15.71	15.68	
10	QPSK	25	0	14.83	14.87	14.82	15.6
10	QPSK	25	12	14.84	14.87	14.81	
10	QPSK	25	25	14.65	14.80	14.69	
10	QPSK	50	0	14.79	14.82	14.82	15.6
10	16QAM	1	0	15.10	15.09	15.09	
10	16QAM	1	25	15.03	15.10	15.03	
10	16QAM	1	49	14.94	15.06	15.02	14.6
10	16QAM	25	0	13.92	13.93	13.91	
10	16QAM	25	12	13.85	13.86	13.85	
10	1						



3	QPSK	15	0	15.97	16.04	15.96	16.8
3	16QAM	1	0	16.28	16.26	16.28	
3	16QAM	1	8	16.25	16.28	16.19	
3	16QAM	1	14	16.16	16.20	16.18	15.8
3	16QAM	8	0	15.07	15.08	15.01	
3	16QAM	8	4	15.03	15.08	15.01	
3	16QAM	8	7	15.04	15.04	15.02	15.8
3	16QAM	15	0	14.97	15.06	15.02	
3	64QAM	1	0	15.10	15.14	15.14	
3	64QAM	1	8	15.01	15.11	15.06	14.8
3	64QAM	1	14	15.05	15.13	15.05	
3	64QAM	8	0	14.09	14.15	14.00	
3	64QAM	8	4	14.10	14.10	14.10	14.8
3	64QAM	8	7	14.06	14.10	14.07	
3	64QAM	15	0	14.00	14.07	13.99	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	16.86	17.01	16.93	17.8
1.4	QPSK	1	3	16.80	16.87	16.86	
1.4	QPSK	1	5	16.77	16.88	16.86	
1.4	QPSK	3	0	16.83	16.92	16.89	
1.4	QPSK	3	1	16.95	16.98	16.88	
1.4	QPSK	3	3	16.89	16.93	16.90	
1.4	QPSK	6	0	15.97	16.07	15.99	16.8
1.4	16QAM	1	0	16.25	16.24	16.21	16.8
1.4	16QAM	1	3	16.25	16.22	16.18	
1.4	16QAM	1	5	16.16	16.25	16.25	
1.4	16QAM	3	0	16.05	16.10	16.02	
1.4	16QAM	3	1	16.03	16.07	15.99	
1.4	16QAM	3	3	16.04	16.08	15.97	
1.4	16QAM	6	0	14.98	15.07	14.96	15.8
1.4	64QAM	1	0	15.13	15.18	15.17	15.8
1.4	64QAM	1	3	15.05	15.09	15.06	
1.4	64QAM	1	5	15.05	15.09	15.06	
1.4	64QAM	3	0	15.14	15.08	15.01	
1.4	64QAM	3	1	15.11	15.09	15.06	
1.4	64QAM	3	3	15.04	15.05	15.03	
1.4	64QAM	6	0	13.97	14.03	13.95	14.8

3	QPSK	15	0	14.83	14.81	14.76	15.6
3	16QAM	1	0	15.06	15.06	15.04	
3	16QAM	1	8	15.04	15.11	14.99	
3	16QAM	1	14	14.96	15.04	14.99	14.6
3	16QAM	8	0	13.91	13.90	13.89	
3	16QAM	8	4	13.79	13.89	13.81	
3	16QAM	8	7	13.75	13.72	13.68	14.6
3	16QAM	15	0	13.78	13.81	13.76	
3	64QAM	1	0	14.03	14.01	13.96	
3	64QAM	1	8	13.90	13.93	13.89	13.6
3	64QAM	1	14	13.85	13.96	13.89	
3	64QAM	8	0	12.86	12.94	12.81	
3	64QAM	8	4	12.86	12.85	12.80	13.6
3	64QAM	8	7	12.74	12.80	12.75	
3	64QAM	15	0	12.76	12.88	12.81	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	15.80	15.86	15.78	16.6
1.4	QPSK	1	3	15.68	15.70	15.70	
1.4	QPSK	1	5	15.61	15.71	15.68	
1.4	QPSK	3	0	15.69	15.78	15.72	
1.4	QPSK	3	1	15.72	15.73	15.65	
1.4	QPSK	3	3	15.53	15.58	15.59	
1.4	QPSK	6	0	14.77	14.81	14.75	15.6
1.4	16QAM	1	0	15.10	15.08	15.03	15.6
1.4	16QAM	1	3	15.00	15.08	15.02	
1.4	16QAM	1	5	14.95	15.08	15.04	
1.4	16QAM	3	0	14.75	14.73	14.77	
1.4	16QAM	3	1	14.70	14.74	14.66	
1.4	16QAM	3	3	14.55	14.64	14.58	
1.4	16QAM	6	0	13.80	13.85	13.76	14.6
1.4	64QAM	1	0	13.98	14.00	14.00	14.6
1.4	64QAM	1	3	13.91	13.96	13.89	
1.4	64QAM	1	5	13.92	13.93	13.91	
1.4	64QAM	3	0	13.70	13.73	13.67	
1.4	64QAM	3	1	13.65	13.70	13.65	
1.4	64QAM	3	3	13.62	13.67	13.59	
1.4	64QAM	6	0	12.78	12.82	12.80	13.6



Band 7 (2600MHz Band) (dBm)_Ant1									
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	15.48	15.55	15.45	16.3		
20	QPSK	1	49	15.37	15.45	15.42			
20	QPSK	1	99	15.34	15.41	15.37			
20	QPSK	50	0	14.58	14.63	14.56	15.3		
20	QPSK	50	24	14.56	14.60	14.54			
20	QPSK	50	50	14.61	14.63	14.57			
20	QPSK	100	0	14.56	14.58	14.52	15.3		
20	16QAM	1	0	14.61	14.66	14.60			
20	16QAM	1	49	14.71	14.72	14.70			
20	16QAM	1	99	14.81	14.85	14.78	14.3		
20	16QAM	50	0	13.53	13.54	13.52			
20	16QAM	50	24	13.52	13.60	13.54			
20	16QAM	50	50	13.57	13.63	13.61	14.3		
20	16QAM	100	0	13.53	13.59	13.54			
20	64QAM	1	0	13.51	13.58	13.57			
20	64QAM	1	49	13.54	13.56	13.48	14.3		
20	64QAM	1	99	13.71	13.75	13.68			
20	64QAM	50	0	12.56	12.58	12.52			
20	64QAM	50	24	12.61	12.62	12.56	13.3		
20	64QAM	50	50	12.59	12.67	12.62			
20	64QAM	100	0	12.58	12.60	12.54			
Channel				20825	21100	21375	Tune-up limit (dBm)		
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	0	15.45	15.51	15.44	16.3		
15	QPSK	1	37	15.32	15.40	15.40			
15	QPSK	1	74	15.29	15.35	15.29			
15	QPSK	36	0	14.52	14.62	14.59	15.3		
15	QPSK	36	20	14.48	14.57	14.48			
15	QPSK	36	39	14.58	14.60	14.56			
15	QPSK	75	0	14.49	14.53	14.51	15.3		
15	16QAM	1	0	14.55	14.58	14.52			
15	16QAM	1	37	14.69	14.66	14.67			
15	16QAM	1	74	14.74	14.81	14.74	14.3		
15	16QAM	36	0	13.47	13.49	13.45			
15	16QAM	36	20	13.47	13.56	13.49			
15	16QAM	36	39	13.52	13.55	13.56	14.3		
15	16QAM	75	0	13.49	13.57	13.48			
15	64QAM	1	0	13.47	13.56	13.55			
15	64QAM	1	37	13.46	13.54	13.47	14.3		
15	64QAM	1	74	13.65	13.69	13.65			
15	64QAM	36	0	12.53	12.53	12.48			
15	64QAM	36	20	12.57	12.60	12.48	13.3		
15	64QAM	36	39	12.54	12.63	12.60			
15	64QAM	75	0	12.51	12.59	12.49			
Channel				20800	21100	21400	Tune-up limit (dBm)		
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	0	15.46	15.50	15.38	16.3		
10	QPSK	1	25	15.34	15.44	15.35			
10	QPSK	1	49	15.26	15.39	15.34			
10	QPSK	25	0	14.48	14.55	14.61	15.3		
10	QPSK	25	12	14.55	14.57	14.53			
10	QPSK	25	25	14.59	14.57	14.52			
10	QPSK	50	0	14.53	14.53	14.48	15.3		
10	16QAM	1	0	14.56	14.60	14.58			
10	16QAM	1	25	14.63	14.66	14.64			
10	16QAM	1	49	14.75	14.84	14.73	14.3		
10	16QAM	25	0	13.49	13.48	13.48			
10	16QAM	25	12	13.44	13.58	13.51			
10	16QAM	25	25	13.50	13.60	13.53	14.3		
10	16QAM	50	0	13.46	13.51	13.51			
10	64QAM	1	0	13.49	13.51	13.50			
10	64QAM	1	25	13.51	13.55	13.41	14.3		
10	64QAM	1	49	13.66	13.70	13.64			
10	64QAM	25	0	12.50	12.55	12.49			
10	64QAM	25	12	12.58	12.55	12.55	13.3		
10	64QAM	25	25	12.54	12.60	12.56			
10	64QAM	50	0	12.55	12.59	12.53			
Channel				20775	21100	21425	Tune-up limit (dBm)		
Frequency (MHz)				2502.5	2535	2567.5			
5	QPSK	1	0	15.43	15.50	15.38	16.3		
5	QPSK	1	12	15.29	15.38	15.38			
5	QPSK	1	24	15.33	15.36	15.36			
5	QPSK	12	0	14.54	14.61	14.59	15.3		
5	QPSK	12	7	14.55	14.56	14.52			
5	QPSK	12	13	14.55	14.58	14.56			
5	QPSK	25	0	14.48	14.55	14.48	15.3		
5	16QAM	1	0	14.54	14.63	14.52			
5	16QAM	1	12	14.69	14.66	14.66			
5	16QAM	1	24	14.77	14.77	14.73	14.3		
5	16QAM	12	0	13.51	13.51	13.48			
5	16QAM	12	7	13.50	13.57	13.48			
5	16QAM	12	13	13.56	13.56	13.58	14.3		
5	16QAM	25	0	13.51	13.51	13.47			
5	64QAM	1	0	13.44	13.54	13.55			
5	64QAM	1	12	13.47	13.54	13.43	14.3		
5	64QAM	1	24	13.66	13.73	13.63			
5	64QAM	12	0	12.54	12.51	12.48			
5	64QAM	12	7	12.60	12.59	12.54	13.3		
5	64QAM	12	13	12.58	12.60	12.60			
5	64QAM	25	0	12.51	12.53	12.53			

Band 25 (1900MHz Band) (dBm)_Ant1									
Part 24E									
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)		
Channel				26140	26365	26590			
Frequency (MHz)				1860	1882.5	1905			
20	QPSK	1	0	16.98	17.03	16.95	17.8		
20	QPSK	1	49	16.88	16.92	16.85			
20	QPSK	1	99	16.84	16.91	16.89			
20	QPSK	50	0	16.12	16.15	16.10	16.8		
20	QPSK	50	24	16.07	16.12	16.08			
20	QPSK	50	50	16.09	16.10	16.07			
20	QPSK	100	0	16.00	16.07	15.99	16.8		
20	16QAM	1	0	16.31	16.34	16.26			
20	16QAM	1	49	16.21	16.29	16.26			
20	16QAM	1	99	16.14	16.21	16.18	15.8		
20	16QAM	50	0	15.07	15.10	15.06			
20	16QAM	50	24	15.04	15.07	14.99			
20	16QAM	50	50	15.10	15.12	15.10	15.8		
20	16QAM	100	0	15.03	15.10	15.03			
20	64QAM	1	0	15.18	15.20	15.18			
20	64QAM	1	49	15.11	15.18	15.15	15.8		
20	64QAM	1	99	15.13	15.15	15.09			
20	64QAM	50	0	14.20	14.23	14.16			
20	64QAM	50	24	14.13	14.19	14.11	14.8		
20	64QAM	50	50	14.14	14.15	14.11			
20	64QAM	100	0	14.06	14.12	14.10			
Channel				26115	26365	26615	Tune-up limit (dBm)		
Frequency (MHz)				1857.5	1882.5	1907.5			
15	QPSK	1	0	16.94	17.00	16.94	17.8		
15	QPSK	1	37	16.87	16.87	16.84			
15	QPSK	1	74	16.81	16.84	16.83			
15	QPSK	36	0	16.08	16.08	16.09	16.8		
15	QPSK	36	20	16.02	16.11	16.00			
15	QPSK	36	39	16.06	16.06	16.00			
15	QPSK	75	0	15.98	16.01	15.96	16.8		
15	16QAM	1	0	16.27	16.33	16.24			
15	16QAM	1	37	16.14	16.21	16.25			
15	16QAM	1	74	16.07	16.20	16.15	15.8		
15	16QAM	36	0	15.04	15.08	15.01			
15	16QAM	36	20	14.99	15.05	14.98			
15	16QAM	36	39	15.07	15.11	15.09	15.8		
15	16QAM	75	0	14.98	15.07	14.99			
15	64QAM	1	0	15.15	15.13	15.13			
15	64QAM	1	37	15.04	15.10	15.14	14.8		
15	64QAM	1	74	15.05	15.11	15.06			
15	64QAM	36	0	14.12	14.15	14.14			
15	64QAM	36	20	14.09	14.16	14.07	14.8		
15	64QAM	36	39	14.06	14.07	14.10			
15	64QAM	75	0	13.99	14.07	14.02			
Channel				26090	26365	26640	Tune-up limit (dBm)		
Frequency (MHz)				1855	1882.5	1910			
10	QPSK	1	0	16.90	16.97	16.91	17.8		
10	QPSK	1	25	16.81	16.84	16.84			
10	QPSK	1	49	16.78	16.86	16.81			
10	QPSK	25	0	16.06	16.08	16.05	16.8		
1									



3	QPSK	15	0	15.92	16.00	15.95	
3	16QAM	1	0	16.24	16.29	16.25	16.8
3	16QAM	1	8	16.20	16.25	16.21	
3	16QAM	1	14	16.11	16.19	16.16	
3	16QAM	8	0	15.01	15.06	15.01	15.8
3	16QAM	8	4	15.02	15.01	14.95	
3	16QAM	8	7	15.02	15.04	15.02	
3	16QAM	15	0	15.00	15.06	15.00	15.8
3	64QAM	1	0	15.11	15.16	15.15	
3	64QAM	1	8	15.03	15.11	15.08	
3	64QAM	1	14	15.10	15.11	15.04	14.8
3	64QAM	8	0	14.16	14.19	14.13	
3	64QAM	8	4	14.09	14.11	14.07	
3	64QAM	8	7	14.12	14.10	14.07	14.8
3	64QAM	15	0	14.00	14.07	14.08	
Channel				26047	26365	26683	
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	16.93	16.96	16.93	17.8
1.4	QPSK	1	3	16.85	16.87	16.79	
1.4	QPSK	1	5	16.80	16.84	16.81	
1.4	QPSK	3	0	16.95	17.02	16.94	16.8
1.4	QPSK	3	1	16.92	16.95	16.96	
1.4	QPSK	3	3	16.94	16.97	16.96	
1.4	QPSK	6	0	15.95	16.01	15.92	15.8
1.4	16QAM	1	0	16.30	16.32	16.19	
1.4	16QAM	1	3	16.14	16.25	16.21	
1.4	16QAM	1	5	16.06	16.15	16.16	14.8
1.4	16QAM	3	0	15.90	15.95	15.89	
1.4	16QAM	3	1	15.93	15.93	15.85	
1.4	16QAM	3	3	15.97	15.97	15.92	15.8
1.4	16QAM	6	0	14.97	15.05	15.02	
1.4	64QAM	1	0	15.12	15.13	15.13	
1.4	64QAM	1	3	15.05	15.17	15.12	14.8
1.4	64QAM	1	5	15.07	15.12	15.07	
1.4	64QAM	3	0	15.03	15.10	15.00	
1.4	64QAM	3	1	14.97	15.02	14.99	14.8
1.4	64QAM	3	3	15.02	15.01	14.99	
1.4	64QAM	6	0	14.00	14.06	14.07	



Band 66 (dBm)_Ant1									
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	15.79	15.90	15.81			
20	QPSK	1	49	15.70	15.77	15.74		16.6	
20	QPSK	1	99	15.67	15.74	15.71			
20	QPSK	50	0	14.79	14.81	14.76			
20	QPSK	50	24	14.81	14.87	14.85		15.6	
20	QPSK	50	50	14.71	14.79	14.76			
20	QPSK	100	0	14.84	14.86	14.81			
20	16QAM	1	0	15.04	15.12	15.06			
20	16QAM	1	49	15.06	15.10	15.05		15.6	
20	16QAM	1	99	15.00	15.07	15.01			
20	16QAM	50	0	13.84	13.85	13.80			
20	16QAM	50	24	13.75	13.81	13.74		14.6	
20	16QAM	50	50	13.81	13.85	13.82			
20	16QAM	100	0	13.86	13.89	13.79			
20	64QAM	1	0	14.05	14.10	14.06			
20	64QAM	1	49	14.04	14.07	13.99		14.6	
20	64QAM	1	99	14.02	14.04	13.97			
20	64QAM	50	0	12.82	12.90	12.85			
20	64QAM	50	24	12.80	12.88	12.82		13.6	
20	64QAM	50	50	12.76	12.86	12.82			
20	64QAM	100	0	12.79	12.86	12.80			
Channel				130347	130322	130367			
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	0	15.78	15.81	15.80			
15	QPSK	1	37	15.62	15.70	15.72		16.6	
15	QPSK	1	74	15.60	15.66	15.68			
15	QPSK	36	0	14.73	14.78	14.72			
15	QPSK	36	20	14.77	14.82	14.83		15.6	
15	QPSK	36	39	14.66	14.74	14.70			
15	QPSK	75	0	14.81	14.83	14.75			
15	16QAM	1	0	15.00	15.11	15.02			
15	16QAM	1	37	15.04	15.08	15.01		15.6	
15	16QAM	1	74	14.97	15.06	14.93			
15	16QAM	36	0	13.79	13.83	13.78			
15	16QAM	36	20	13.71	13.74	13.71		14.6	
15	16QAM	36	39	13.76	13.78	13.76			
15	16QAM	75	0	13.74	13.77	13.74			
15	64QAM	1	0	13.98	14.09	14.00			
15	64QAM	1	37	13.98	14.09	13.97		14.6	
15	64QAM	1	74	13.96	14.03	13.95			
15	64QAM	36	0	12.79	12.82	12.82			
15	64QAM	36	20	12.77	12.80	12.77		13.6	
15	64QAM	36	39	12.75	12.81	12.80			
15	64QAM	75	0	12.78	12.79	12.76			
Channel				130112	130322	130532			
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	0	15.71	15.78	15.80			
10	QPSK	1	26	15.65	15.75	15.68		16.6	
10	QPSK	1	49	15.62	15.71	15.68			
10	QPSK	25	0	14.70	14.80	14.69			
10	QPSK	25	12	14.79	14.86	14.79		15.6	
10	QPSK	25	25	14.69	14.71	14.69			
10	QPSK	50	0	14.80	14.77	14.74			
10	16QAM	1	0	14.99	15.05	15.01			
10	16QAM	1	26	15.01	15.04	15.02		15.6	
10	16QAM	1	49	14.93	14.99	14.95			
10	16QAM	25	0	13.76	13.80	13.78			
10	16QAM	25	12	13.72	13.74	13.72		14.6	
10	16QAM	25	25	13.74	13.79	13.79			
10	16QAM	50	0	13.72	13.79	13.71			
10	64QAM	1	0	13.97	14.06	14.02			
10	64QAM	1	26	14.02	14.00	13.93		14.6	
10	64QAM	1	49	13.98	14.00	13.96			
10	64QAM	25	0	12.78	12.84	12.84			
10	64QAM	25	12	12.79	12.80	12.78		13.6	
10	64QAM	25	25	12.76	12.78	12.80			
10	64QAM	50	0	12.74	12.84	12.76			
Channel				130967	130322	130647			
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	0	15.74	15.82	15.79			
5	QPSK	1	12	15.66	15.74	15.69		16.6	
5	QPSK	1	24	15.64	15.71	15.65			
5	QPSK	12	0	14.74	14.80	14.73			
5	QPSK	12	7	14.77	14.83	14.77		15.6	
5	QPSK	12	13	14.64	14.74	14.71			
5	QPSK	25	0	14.81	14.78	14.77			
5	16QAM	1	0	14.97	15.05	15.00			
5	16QAM	1	12	15.05	15.03	15.02		15.6	
5	16QAM	1	24	14.93	15.01	14.99			
5	16QAM	12	0	13.83	13.78	13.75			
5	16QAM	12	7	13.87	13.79	13.86		14.6	
5	16QAM	12	13	13.74	13.79	13.74			
5	16QAM	25	0	13.74	13.81	13.71			
5	64QAM	1	0	14.02	14.08	14.01			
5	64QAM	1	12	13.96	14.06	13.91		14.6	
5	64QAM	1	24	13.96	13.96	13.94			
5	64QAM	12	0	12.79	12.86	12.79			
5	64QAM	12	7	12.77	12.83	12.80		13.6	
5	64QAM	12	13	12.75	12.82	12.76			
5	64QAM	25	0	12.78	12.83	12.73			
Channel				131112	130322	130532			
Frequency (MHz)				1711.5	1745	1778.5			
3	QPSK	1	0	15.77	15.80	15.75			
3	QPSK	1	8	15.69	15.75	15.66		16.6	
3	QPSK	1	14	15.62	15.67	15.70			
3	QPSK	8	0	14.72	14.73	14.70			
3	QPSK	8	4	14.76	14.84	14.84		15.6	
3	QPSK	8	7	14.68	14.72	14.71			
3	QPSK	15	0	14.83	14.83	14.75			
3	16QAM	1	0	14.99	15.05	14.98			
3	16QAM	1	8	15.01	15.06	15.01		15.6	
3	16QAM	1	14	14.94	15.04	14.93			
3	16QAM	8	0	13.79	13.83	13.77			
3	16QAM	8	4	13.70	13.73	13.72		14.6	
3	16QAM	8	7	13.74	13.81	13.76			
3	16QAM	15	0	13.75	13.79	13.75			
3	64QAM	1	0	13.99	14.05	14.01			
3	64QAM	1	8	13.96	13.99	13.94		14.6	
3	64QAM	1	14	13.96	14.00	13.91			
3	64QAM	8	0	12.76	12.82	12.80			
3	64QAM	8	4	12.73	12.80	12.79		13.6	
3	64QAM	8	7	12.72	12.79	12.81			
3	64QAM	15	0	12.78	12.79	12.77			
Channel				131979	130322	130665			
Frequency (MHz)				1710.7	1745	1779.3			
1.4	QPSK	1	0	15.75	15.82	15.75			
1.4	QPSK	1	3	15.63	15.76	15.73		16.6	
1.4	QPSK	1	6	15.62	15.72	15.68			
1.4	QPSK	3	0	15.64	15.70	15.64			
1.4	QPSK	3	1	15.68	15.74	15.69		15.6	
1.4	QPSK	3	3	15.59	15.67	15.64			
1.4	QPSK	6	0	14.82	14.84	14.75			
1.4	16QAM	1	0	15.02	15.04	15.04			
1.4	16QAM	1	3	14.98	15.04	15.01		15.6	
1.4	16QAM	1	6	14.93	15.00	14.99			
1.4	16QAM	3	0	14.69	14.75	14.63			
1.4	16QAM	3	1	14.56	14.61	14.60		14.6	
1.4	16QAM	3	3	14.65	14.74	14.65			
1.4	16QAM	6	0	13.75	13.82	13.74		14.6	
1.4	64QAM	1	0	14.04	14.07	14.04			
1.4	64QAM	1	3	14.03	14.05	13.95		14.6	
1.4	64QAM	1	6	13.96	13.99	13.90			
1.4	64QAM	3	0	13.70	13.76	13.74			
1.4	64QAM	3	1	13.66	13.76	13.69		14.6	
1.4	64QAM	3	3	13.62	13.73	13.71			
1.4	64QAM	6	0	12.76	12.82	12.74		13.6	



Band 25 (1900MHz Band) (dBm)_Ant4 Part 24E								
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				26140	26395	26650	Tune-up limit (dBm)	
Frequency (MHz)				1992	1992.5	1995		
20	QPSK	1	0	19.98	20.03	19.95	20.8	
20	QPSK	1	49	19.88	19.92	19.85		
20	QPSK	1	99	19.84	19.91	19.89		
20	QPSK	50	0	19.12	19.15	19.10	19.8	
20	QPSK	50	24	19.07	19.12	19.08		
20	QPSK	50	50	19.09	19.10	19.07		
20	QPSK	100	0	19.00	19.07	19.99	19.8	
20	16QAM	1	0	19.91	19.94	19.26		
20	16QAM	1	49	19.21	19.29	19.26		
20	16QAM	1	99	19.14	19.21	19.18	19.8	
20	16QAM	50	0	18.07	18.10	18.06		
20	16QAM	50	24	18.04	18.07	17.99		
20	16QAM	50	50	18.10	18.12	18.10	18.8	
20	16QAM	100	0	18.03	18.10	18.03		
20	64QAM	1	0	18.18	18.20	18.18		
20	64QAM	1	49	18.11	18.18	18.15	18.8	
20	64QAM	1	99	18.13	18.16	18.09		
20	64QAM	50	0	17.20	17.23	17.16		
20	64QAM	50	24	17.13	17.19	17.11	17.8	
20	64QAM	50	50	17.14	17.15	17.11		
20	64QAM	100	0	17.06	17.12	17.10		
Channel				26115	26395	26615	Tune-up limit (dBm)	
Frequency (MHz)				1992.5	1992.5	1992.5		
15	QPSK	1	0	19.94	20.00	19.94	20.8	
15	QPSK	1	37	19.87	19.87	19.84		
15	QPSK	1	74	19.81	19.84	19.83		
15	QPSK	36	0	19.08	19.08	19.09	19.8	
15	QPSK	36	20	19.02	19.11	19.00		
15	QPSK	36	39	19.06	19.06	19.00		
15	QPSK	15	0	18.96	19.01	18.96	19.8	
15	16QAM	1	0	19.27	19.33	19.24		
15	16QAM	1	37	19.14	19.21	19.25		
15	16QAM	1	74	19.07	19.20	19.15	18.8	
15	16QAM	36	0	18.04	18.08	18.01		
15	16QAM	36	20	17.99	18.05	17.98		
15	16QAM	36	39	18.07	18.11	18.09	18.8	
15	16QAM	75	0	17.98	18.07	17.99		
15	64QAM	1	0	18.15	18.13	18.13		
15	64QAM	1	37	18.04	18.10	18.14	18.8	
15	64QAM	1	74	18.05	18.11	18.06		
15	64QAM	36	0	17.12	17.15	17.14		
15	64QAM	36	20	17.09	17.18	17.07	17.8	
15	64QAM	36	39	17.06	17.07	17.10		
15	64QAM	75	0	18.99	17.07	17.02		
Channel				26055	26395	26655	Tune-up limit (dBm)	
Frequency (MHz)				1995	1992.5	1910		
10	QPSK	1	0	19.90	19.97	19.91	20.8	
10	QPSK	1	26	19.81	19.84	19.84		
10	QPSK	1	49	19.78	19.86	19.81		
10	QPSK	25	0	19.06	19.08	19.05	19.8	
10	QPSK	25	12	19.06	19.04	19.01		
10	QPSK	25	25	19.08	19.09	19.04		
10	QPSK	50	0	18.97	18.06	18.04	19.8	
10	16QAM	1	0	19.26	19.28	19.22		
10	16QAM	1	26	19.14	19.24	19.20		
10	16QAM	1	49	19.08	19.15	19.10	18.8	
10	16QAM	25	0	18.05	18.05	18.05		
10	16QAM	25	12	17.98	18.00	17.92		
10	16QAM	25	25	18.06	18.08	18.04	18.8	
10	16QAM	50	0	17.99	18.09	17.97		
10	64QAM	1	0	18.16	18.13	18.12		
10	64QAM	1	26	18.10	18.17	18.11	18.8	
10	64QAM	1	49	18.08	18.12	18.01		
10	64QAM	25	0	17.16	17.16	17.11		
10	64QAM	25	12	17.05	17.14	17.05	17.8	
10	64QAM	25	25	17.06	17.11	17.08		
10	64QAM	50	0	17.01	17.08	17.03		
Channel				26065	26395	26665	Tune-up limit (dBm)	
Frequency (MHz)				1992.5	1992.5	1912.5		
5	QPSK	1	0	19.95	19.98	19.89	20.8	
5	QPSK	1	12	19.83	19.91	19.82		
5	QPSK	1	24	19.79	19.80	19.82		
5	QPSK	12	0	19.07	19.07	19.05	19.8	
5	QPSK	12	7	19.00	19.11	19.04		
5	QPSK	12	13	19.05	19.02	19.06		
5	QPSK	25	0	18.99	19.03	18.96	19.8	
5	16QAM	1	0	19.25	19.26	19.19		
5	16QAM	1	12	19.16	19.25	19.24		
5	16QAM	1	24	19.09	19.17	19.15	18.8	
5	16QAM	12	0	18.03	18.05	18.01		
5	16QAM	12	7	18.00	18.09	17.97		
5	16QAM	12	13	18.09	18.10	18.09	18.8	
5	16QAM	25	0	18.00	18.05	18.02		
5	64QAM	1	0	18.16	18.16	18.17		
5	64QAM	1	12	18.04	18.16	18.11	18.8	
5	64QAM	1	24	18.11	18.14	18.04		
5	64QAM	12	0	17.13	17.17	17.09		
5	64QAM	12	7	17.05	17.18	17.04	17.8	
5	64QAM	12	13	17.13	17.13	17.10		
5	64QAM	25	0	17.01	17.08	17.02		
Channel				26075	26395	26675	Tune-up limit (dBm)	
Frequency (MHz)				1992.5	1992.5	1913.5		
3	QPSK	1	0	19.92	19.96	19.89	20.8	
3	QPSK	1	8	19.84	19.89	19.84		
3	QPSK	1	14	19.83	19.85	19.87		
3	QPSK	8	0	19.04	19.12	19.05	19.8	
3	QPSK	8	4	19.02	19.08	19.07		
3	QPSK	8	7	19.07	19.05	19.02		
3	QPSK	15	0	18.92	18.00	18.95	19.8	
3	16QAM	1	0	19.24	19.29	19.25		
3	16QAM	1	8	19.20	19.25	19.21		
3	16QAM	1	14	19.11	19.19	19.16	18.8	
3	16QAM	8	0	18.01	18.06	18.01		
3	16QAM	8	4	18.02	18.01	17.95		
3	16QAM	8	7	18.02	18.04	18.02	18.8	
3	16QAM	15	0	18.00	18.06	18.00		
3	64QAM	1	0	18.11	18.16	18.16		
3	64QAM	1	8	18.03	18.11	18.08	18.8	
3	64QAM	1	14	18.10	18.11	18.04		
3	64QAM	8	0	17.16	17.19	17.13		
3	64QAM	8	4	17.09	17.11	17.07	17.8	
3	64QAM	8	7	17.12	17.10	17.07		
3	64QAM	15	0	17.00	17.07	17.08		
Channel				26047	26395	26643	Tune-up limit (dBm)	
Frequency (MHz)				1892.7	1892.5	1914.3		
1.4	QPSK	1	0	19.93	19.96	19.93	20.8	
1.4	QPSK	1	3	19.85	19.87	19.79		
1.4	QPSK	1	6	19.80	19.84	19.81		
1.4	QPSK	3	0	19.95	20.02	19.94	19.8	
1.4	QPSK	3	1	19.92	19.95	19.96		
1.4	QPSK	3	3	19.94	19.97	19.96		
1.4	QPSK	6	0	19.95	19.01	19.92	19.8	
1.4	16QAM	1	0	19.30	19.32	19.19		
1.4	16QAM	1	3	19.14	19.25	19.21		
1.4	16QAM	1	6	19.06	19.15	19.16	18.8	
1.4	16QAM	3	0	18.90	18.95	18.89		
1.4	16QAM	3	1	18.93	18.93	18.85		
1.4	16QAM	3	3	18.97	18.97	18.92	18.8	
1.4	16QAM	6	0	17.97	18.05	18.02		
1.4	64QAM	1	0	18.12	18.13	18.13		
1.4	64QAM	1	3	18.05	18.17	18.12	18.8	
1.4	64QAM	1	6	18.07	18.12	18.07		
1.4	64QAM	3	0	18.03	18.10	18.00		
1.4	64QAM	3	1	17.97	18.02	17.99	17.8	
1.4	64QAM	3	3	18.02	18.01	17.99		
1.4	64QAM	6	0	17.00	17.06	17.07		





Band 66 (dBm)_Ant4								
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				13072	13232	13252		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	20.29	20.40	20.31	21.1	
20	QPSK	1	49	20.20	20.27	20.24		
20	QPSK	1	99	20.17	20.24	20.21		
20	QPSK	50	0	19.29	19.31	19.28		
20	QPSK	50	24	19.31	19.37	19.35	20.1	
20	QPSK	50	50	19.21	19.29	19.26		
20	QPSK	100	0	18.34	18.35	18.31		
20	16QAM	1	0	19.54	19.62	19.56		
20	16QAM	1	49	19.56	19.60	19.55	20.1	
20	16QAM	1	99	19.50	19.57	19.51		
20	16QAM	50	0	18.34	18.35	18.30		
20	16QAM	50	24	18.25	18.31	18.24		
20	16QAM	50	50	18.31	18.35	18.32	19.1	
20	16QAM	100	0	18.30	18.33	18.29		
20	64QAM	1	0	18.55	18.60	18.56		
20	64QAM	1	49	18.54	18.57	18.49		
20	64QAM	1	99	18.52	18.54	18.47	19.1	
20	64QAM	50	0	17.32	17.40	17.35		
20	64QAM	50	24	17.30	17.38	17.32		
20	64QAM	50	50	17.28	17.36	17.32		
20	64QAM	100	0	17.29	17.36	17.30	18.1	
Channel				13097	13232	13259		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	20.28	20.31	20.30		21.1
15	QPSK	1	37	20.12	20.26	20.22		
15	QPSK	1	74	20.10	20.16	20.18		
15	QPSK	36	0	19.23	19.26	19.22		
15	QPSK	36	20	19.27	19.32	19.33	20.1	
15	QPSK	36	39	19.16	19.24	19.20		
15	QPSK	75	0	19.31	19.33	19.25		
15	16QAM	1	0	19.50	19.61	19.52		
15	16QAM	1	37	19.54	19.58	19.51	20.1	
15	16QAM	1	74	19.47	19.56	19.43		
15	16QAM	36	0	18.29	18.33	18.28		
15	16QAM	36	20	18.21	18.24	18.21		
15	16QAM	36	39	18.28	18.28	18.26	19.1	
15	16QAM	75	0	18.24	18.27	18.24		
15	64QAM	1	0	18.48	18.59	18.50		
15	64QAM	1	37	18.48	18.50	18.47		
15	64QAM	1	74	18.48	18.53	18.45	19.1	
15	64QAM	36	0	17.29	17.32	17.32		
15	64QAM	36	20	17.27	17.36	17.27		
15	64QAM	36	39	17.25	17.31	17.30		
15	64QAM	75	0	17.28	17.29	17.26	18.1	
Channel				13222	13232	13262		
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	20.21	20.26	20.30		21.1
10	QPSK	1	20	20.15	20.25	20.18		
10	QPSK	1	49	20.12	20.21	20.18		
10	QPSK	25	0	19.20	19.30	19.19		
10	QPSK	25	12	19.29	19.36	19.29	20.1	
10	QPSK	25	25	19.19	19.21	19.19		
10	QPSK	50	0	19.30	19.27	19.24		
10	16QAM	1	0	19.49	19.55	19.51		
10	16QAM	1	20	19.51	19.54	19.52	20.1	
10	16QAM	1	49	19.43	19.49	19.45		
10	16QAM	25	0	18.26	18.30	18.28		
10	16QAM	25	12	18.22	18.24	18.22		
10	16QAM	25	25	18.24	18.29	18.29	19.1	
10	16QAM	50	0	18.22	18.23	18.21		
10	64QAM	1	0	18.47	18.56	18.52		
10	64QAM	1	20	18.52	18.50	18.43		
10	64QAM	1	49	18.48	18.50	18.46	19.1	
10	64QAM	25	0	17.28	17.34	17.34		
10	64QAM	25	12	17.29	17.36	17.28		
10	64QAM	25	25	17.26	17.28	17.30		
10	64QAM	25	20	17.26	17.28	17.30	18.1	
10	64QAM	50	0	17.24	17.34	17.26		
Channel				13197	13232	13267		
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	20.24	20.32	20.29	21.1	
5	QPSK	1	12	20.16	20.24	20.19		
5	QPSK	1	24	20.14	20.21	20.15		
5	QPSK	12	0	19.24	19.30	19.23		
5	QPSK	12	7	19.27	19.33	19.27	20.1	
5	QPSK	12	13	19.14	19.24	19.21		
5	QPSK	25	0	19.31	19.28	19.27		
5	16QAM	1	0	19.47	19.55	19.50		
5	16QAM	1	12	19.55	19.53	19.52	20.1	
5	16QAM	1	24	19.43	19.51	19.49		
5	16QAM	12	0	18.33	18.28	18.25		
5	16QAM	12	7	18.17	18.26	18.18		
5	16QAM	12	13	18.24	18.29	18.24	19.1	
5	16QAM	25	0	18.24	18.31	18.21		
5	64QAM	1	0	18.52	18.58	18.51		
5	64QAM	1	12	18.46	18.56	18.41		
5	64QAM	1	24	18.46	18.46	18.44	19.1	
5	64QAM	12	0	17.29	17.36	17.29		
5	64QAM	12	7	17.27	17.33	17.30		
5	64QAM	12	13	17.25	17.32	17.26		
5	64QAM	25	0	17.28	17.33	17.23	18.1	
Channel				13197	13232	13265		
Frequency (MHz)				1711.5	1745	1773.5		
3	QPSK	1	0	20.27	20.30	20.25		21.1
3	QPSK	1	8	20.19	20.25	20.16		
3	QPSK	1	14	20.12	20.17	20.20		
3	QPSK	8	0	19.22	19.23	19.20		
3	QPSK	8	4	19.28	19.34	19.34	20.1	
3	QPSK	8	7	19.18	19.22	19.21		
3	QPSK	15	0	19.33	19.33	19.25		
3	16QAM	1	0	19.49	19.55	19.48		
3	16QAM	1	8	19.51	19.56	19.51	20.1	
3	16QAM	1	14	19.44	19.54	19.43		
3	16QAM	8	0	18.29	18.33	18.27		
3	16QAM	8	4	18.20	18.23	18.22		
3	16QAM	8	7	18.24	18.31	18.26	19.1	
3	16QAM	15	0	18.25	18.29	18.25		
3	64QAM	1	0	18.49	18.55	18.51		
3	64QAM	1	8	18.46	18.49	18.44		
3	64QAM	1	14	18.46	18.50	18.41	19.1	
3	64QAM	8	0	17.26	17.32	17.30		
3	64QAM	8	4	17.23	17.30	17.29		
3	64QAM	8	7	17.22	17.28	17.31		
3	64QAM	15	0	17.28	17.29	17.27	18.1	
Channel				13197	13232	13265		
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	20.25	20.32	20.25		21.1
1.4	QPSK	1	3	20.13	20.26	20.23		
1.4	QPSK	1	5	20.12	20.22	20.18		
1.4	QPSK	3	0	20.14	20.20	20.14		
1.4	QPSK	3	1	20.18	20.24	20.19	20.1	
1.4	QPSK	3	3	20.09	20.17	20.14		
1.4	QPSK	6	0	19.32	19.34	19.23		
1.4	16QAM	1	0	19.52	19.54	19.54		
1.4	16QAM	1	3	19.48	19.54	19.51	20.1	
1.4	16QAM	1	5	19.43	19.50	19.49		
1.4	16QAM	3	0	19.19	19.20	19.13		
1.4	16QAM	3	1	19.08	19.15	19.10		
1.4	16QAM	3	3	19.16	19.24	19.15	19.1	
1.4	16QAM	6	0	18.25	18.32	18.24		
1.4	64QAM	1	0	18.54	18.57	18.54		
1.4	64QAM	1	3	18.53	18.55	18.45		
1.4	64QAM	1	5	18.46	18.49	18.40	19.1	
1.4	64QAM	3	0	18.20	18.28	18.24		
1.4	64QAM	3	1	18.16	18.26	18.19		
1.4	64QAM	3	3	18.12	18.23	18.21		
1.4	64QAM	6	0	17.28	17.32	17.24	18.1	





Band 41 (2496~2690MHz) (dBm)-PC2_Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	15.35	15.33	15.64	15.60	15.58	16.4	
20	QPSK	1	49	15.21	15.28	15.59	15.57	15.53		16.4
20	QPSK	1	99	15.08	15.26	15.56	15.56	15.56		16.4
20	QPSK	50	0	14.43	14.39	14.65	14.58	14.51		
20	QPSK	50	24	14.40	14.32	14.62	14.50	14.47		15.4
20	QPSK	50	50	14.30	14.37	14.58	14.47	14.50		15.4
20	QPSK	100	0	14.37	14.36	14.55	14.56	14.49		
20	16QAM	1	0	14.56	14.62	14.93	14.90	14.91		15.4
20	16QAM	1	49	14.53	14.53	14.90	14.92	14.89		15.4
20	16QAM	1	99	14.52	14.54	14.89	14.85	14.81		15.4
20	16QAM	50	0	13.48	13.49	13.83	13.81	13.75		
20	16QAM	50	24	13.41	13.43	13.79	13.74	13.75		14.4
20	16QAM	50	50	13.45	13.45	13.81	13.74	13.78		14.4
20	16QAM	100	0	13.40	13.44	13.77	13.72	13.71		
20	64QAM	1	0	13.38	13.40	13.72	13.64	13.64		
20	64QAM	1	49	13.35	13.34	13.71	13.64	13.67		14.4
20	64QAM	1	99	13.40	13.40	13.76	13.71	13.71		14.4
20	64QAM	50	0	12.44	12.46	12.78	12.76	12.73		
20	64QAM	50	24	12.44	12.45	12.76	12.68	12.70		13.4
20	64QAM	50	50	12.49	12.43	12.80	12.74	12.79		13.4
20	64QAM	100	0	12.40	12.41	12.78	12.77	12.74		
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2503.5	2548.5	2593	2637.5	2682.5		
15	QPSK	1	0	15.33	15.26	15.58	15.57	15.57		16.4
15	QPSK	1	37	15.14	15.22	15.53	15.52	15.52		16.4
15	QPSK	1	74	15.26	15.24	15.58	15.56	15.48		16.4
15	QPSK	36	0	14.39	14.36	14.72	14.62	14.70		
15	QPSK	36	20	14.34	14.36	14.68	14.62	14.59		15.4
15	QPSK	36	39	14.28	14.36	14.63	14.54	14.50		15.4
15	QPSK	75	0	14.29	14.33	14.72	14.62	14.65		
15	16QAM	1	0	14.54	14.59	14.85	14.83	14.88		15.4
15	16QAM	1	37	14.51	14.45	14.83	14.76	14.81		15.4
15	16QAM	1	74	14.50	14.48	14.82	14.82	14.75		15.4
15	16QAM	36	0	13.40	13.46	13.81	13.77	13.68		
15	16QAM	36	20	13.38	13.37	13.70	13.70	13.66		14.4
15	16QAM	36	39	13.44	13.38	13.79	13.67	13.70		14.4
15	16QAM	75	0	13.34	13.37	13.76	13.64	13.67		
15	64QAM	1	0	13.35	13.38	13.68	13.56	13.63		
15	64QAM	1	37	13.29	13.29	13.66	13.60	13.62		14.4
15	64QAM	1	74	13.39	13.38	13.72	13.65	13.65		14.4
15	64QAM	36	0	12.42	12.46	12.72	12.72	12.72		
15	64QAM	36	20	12.40	12.43	12.74	12.62	12.67		13.4
15	64QAM	36	39	12.43	12.39	12.72	12.67	12.72		13.4
15	64QAM	75	0	12.35	12.38	12.74	12.76	12.69		
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	15.28	15.32	15.57	15.55	15.56		16.4
10	QPSK	1	25	15.17	15.26	15.57	15.50	15.48		16.4
10	QPSK	1	49	15.27	15.22	15.54	15.57	15.52		16.4
10	QPSK	1	74	14.35	14.32	14.71	14.63	14.70		
10	QPSK	25	12	14.37	14.37	14.66	14.63	14.64		15.4
10	QPSK	25	25	14.26	14.31	14.67	14.63	14.64		15.4
10	QPSK	50	0	14.35	14.35	14.66	14.60	14.68		
10	16QAM	1	0	14.49	14.59	14.87	14.89	14.84		15.4
10	16QAM	1	25	14.47	14.47	14.89	14.79	14.88		15.4
10	16QAM	1	49	14.48	14.52	14.87	14.76	14.80		15.4
10	16QAM	25	0	13.43	13.42	13.81	13.74	13.72		
10	16QAM	25	12	13.40	13.40	13.71	13.71	13.72		14.4
10	16QAM	25	25	13.40	13.39	13.74	13.66	13.71		14.4
10	16QAM	50	0	13.32	13.41	13.71	13.70	13.65		
10	64QAM	1	0	13.31	13.37	13.68	13.56	13.61		
10	64QAM	1	25	13.32	13.28	13.69	13.63	13.62		14.4
10	64QAM	1	49	13.38	13.33	13.75	13.67	13.67		14.4
10	64QAM	25	0	12.39	12.39	12.72	12.68	12.68		
10	64QAM	25	12	12.43	12.40	12.69	12.64	12.65		13.4
10	64QAM	25	25	12.45	12.35	12.77	12.70	12.77		13.4
10	64QAM	50	0	12.35	12.38	12.76	12.71	12.71		
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2503.5	2548.2	2593	2638.2	2683.2		
5	QPSK	1	0	15.33	15.28	15.53	15.56	15.51		16.4
5	QPSK	1	12	15.16	15.27	15.54	15.54	15.47		16.4
5	QPSK	1	24	15.22	15.21	15.57	15.52	15.54		16.4
5	QPSK	12	0	14.41	14.34	14.74	14.65	14.65		
5	QPSK	12	7	14.39	14.31	14.71	14.69	14.65		15.4
5	QPSK	12	13	14.29	14.30	14.64	14.62	14.60		15.4
5	QPSK	25	0	14.29	14.34	14.72	14.61	14.69		
5	16QAM	1	0	14.54	14.60	14.85	14.86	14.87		15.4
5	16QAM	1	12	14.50	14.47	14.89	14.74	14.84		15.4
5	16QAM	1	24	14.44	14.49	14.82	14.82	14.80		15.4
5	16QAM	12	0	13.47	13.41	13.81	13.73	13.70		
5	16QAM	12	7	13.38	13.40	13.75	13.73	13.72		14.4
5	16QAM	12	13	13.44	13.42	13.76	13.67	13.75		14.4
5	16QAM	25	0	13.38	13.40	13.69	13.67	13.64		
5	64QAM	1	0	13.34	13.37	13.69	13.61	13.60		
5	64QAM	1	12	13.31	13.31	13.64	13.61	13.60		14.4
5	64QAM	1	24	13.34	13.35	13.73	13.64	13.70		14.4
5	64QAM	12	0	12.37	12.38	12.73	12.68	12.68		
5	64QAM	12	7	12.38	12.37	12.73	12.63	12.63		13.4
5	64QAM	12	13	12.48	12.41	12.78	12.70	12.72		13.4
5	64QAM	25	0	12.39	12.38	12.70	12.70	12.70		

Band 41 (2496~2690MHz) (dBm)-PC3_Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	14.79	14.70	15.16	15.14	15.11		15.8
20	QPSK	1	49	14.69	14.67	15.14	15.09	15.09		15.8
20	QPSK	1	99	14.69	14.66	15.12	15.06	15.07		15.8
20	QPSK	50	0	13.70	13.76	14.18	14.16	14.13		
20	QPSK	50	24	13.72	13.72	14.17	14.13	14.11		14.8
20	QPSK	50	50	13.73	13.74	14.15	14.07	14.13		14.8
20	QPSK	100	0	13.71	13.73	14.18	14.17	14.12		
20	16QAM	1	0	13.64	13.68	14.05	14.04	14.01		14.8
20	16QAM	1	49	13.57	13.60	14.04	13.97	13.96		14.8
20	16QAM	1	99	13.70	13.70	14.14	14.12	14.13		14.8
20	16QAM	50	0	12.65	12.65	13.12	13.09	13.09		
20	16QAM	50	24	12.75	12.72	13.20	13.12	13.17		13.8
20	16QAM	50	50	12.76	12.76	13.18	13.17	13.17		13.8
20	16QAM	100	0	12.70	12.68	13.14	13.08	13.08		
20	64QAM	1	0	12.44	12.47	12.92	12.89	12.91		
20	64QAM	1	49	12.41	12.45	12.88	12.81	12.81		13.8
20	64QAM	1	99	12.49	12.55	12.96	12.89	12.94		13.8
20	64QAM	50	0	11.79	11.79	12.20	12.12	12.15		
20	64QAM	50	24	11.86	11.83	12.27	12.19			



Band 48 (3.5G Band) (dBm)_Ant4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Middle-Low Channel	Middle-Low Channel	Middle-High Channel	High Channel	Tune-up limit (dBm)
Channel				55340	55930	55990	56150	56640	
Frequency (MHz)				3660	3609	3625	3641	3690	
20	QPSK	1	0	14.75	14.67	14.81	14.74	14.78	15.3
20	QPSK	1	49	14.74	14.66	14.79	14.72	14.72	
20	QPSK	1	99	14.71	14.62	14.75	14.71	14.70	
20	QPSK	50	0	13.74	13.67	13.78	13.73	13.77	
20	QPSK	50	24	13.67	13.63	13.75	13.67	13.73	
20	QPSK	50	50	13.67	13.64	13.74	13.70	13.71	14.3
20	QPSK	100	0	13.64	13.55	13.69	13.64	13.65	
20	16QAM	1	0	13.60	13.51	13.68	13.60	13.62	
20	16QAM	1	49	13.62	13.52	13.67	13.61	13.68	14.3
20	16QAM	1	99	13.56	13.52	13.64	13.57	13.60	
20	16QAM	50	0	12.67	12.60	12.70	12.65	12.64	
20	16QAM	50	24	12.61	12.55	12.66	12.64	12.65	
20	16QAM	50	50	12.59	12.52	12.67	12.65	12.63	13.3
20	16QAM	100	0	12.65	12.50	12.67	12.60	12.62	
20	64QAM	1	0	12.59	12.46	12.54	12.46	12.48	
20	64QAM	1	49	12.45	12.37	12.52	12.48	12.48	13.3
20	64QAM	1	99	12.47	12.38	12.53	12.51	12.48	
20	64QAM	50	0	11.84	11.56	11.71	11.68	11.63	
20	64QAM	50	24	11.86	11.60	11.70	11.63	11.63	12.3
20	64QAM	50	50	11.85	11.58	11.68	11.62	11.64	
20	64QAM	100	0	11.82	11.56	11.65	11.63	11.57	
Channel				56315	56905	56965	57125	57615	
Frequency (MHz)				3557.5	3608	3625	3642	3692.5	
15	QPSK	1	0	14.71	14.63	14.77	14.69	14.72	15.3
15	QPSK	1	37	14.73	14.61	14.76	14.67	14.70	
15	QPSK	1	74	14.66	14.61	14.70	14.70	14.66	
15	QPSK	36	0	13.70	13.64	13.72	13.72	13.69	
15	QPSK	36	20	13.61	13.55	13.70	13.63	13.71	14.3
15	QPSK	36	39	13.59	13.57	13.68	13.68	13.65	
15	QPSK	75	0	13.62	13.52	13.65	13.59	13.64	
15	16QAM	1	0	13.54	13.43	13.65	13.54	13.56	
15	16QAM	1	37	13.55	13.45	13.61	13.59	13.63	14.3
15	16QAM	1	74	13.51	13.50	13.57	13.56	13.53	
15	16QAM	36	0	12.63	12.52	12.66	12.61	12.58	
15	16QAM	36	20	12.64	12.52	12.60	12.63	12.61	13.3
15	16QAM	36	39	12.56	12.46	12.64	12.61	12.60	
15	16QAM	75	0	12.61	12.47	12.62	12.59	12.61	
15	64QAM	1	0	12.46	12.32	12.53	12.42	12.48	
15	64QAM	1	37	12.41	12.29	12.48	12.47	12.44	13.3
15	64QAM	1	74	12.40	12.31	12.50	12.46	12.46	
15	64QAM	36	0	11.59	11.56	11.65	11.56	11.56	
15	64QAM	36	20	11.65	11.56	11.63	11.55	11.56	12.3
15	64QAM	36	39	11.64	11.54	11.61	11.57	11.57	
15	64QAM	75	0	11.60	11.47	11.61	11.62	11.49	
Channel				55590	56180	56990	56165	56990	
Frequency (MHz)				3555	3607.5	3625	3642.5	3695	
10	QPSK	1	0	14.69	14.59	14.74	14.70	14.78	15.3
10	QPSK	1	25	14.67	14.64	14.74	14.65	14.69	
10	QPSK	1	49	14.67	14.57	14.74	14.68	14.66	
10	QPSK	25	0	13.69	13.64	13.73	13.65	13.72	14.3
10	QPSK	25	12	13.66	13.57	13.71	13.65	13.66	
10	QPSK	25	25	13.62	13.60	13.70	13.67	13.68	
10	QPSK	50	0	13.63	13.53	13.65	13.58	13.57	
10	16QAM	1	0	13.67	13.44	13.67	13.54	13.56	
10	16QAM	1	25	13.54	13.47	13.61	13.56	13.61	14.3
10	16QAM	1	49	13.51	13.45	13.62	13.53	13.57	
10	16QAM	25	0	12.66	12.53	12.63	12.63	12.61	
10	16QAM	25	12	12.56	12.51	12.65	12.62	12.64	13.3
10	16QAM	25	25	12.58	12.44	12.60	12.63	12.62	
10	16QAM	50	0	12.59	12.47	12.66	12.53	12.54	
10	64QAM	1	0	12.45	12.37	12.46	12.45	12.48	
10	64QAM	1	25	12.37	12.36	12.45	12.44	12.38	13.3
10	64QAM	1	49	12.40	12.34	12.48	12.50	12.44	
10	64QAM	25	0	11.61	11.54	11.70	11.66	11.60	
10	64QAM	25	12	11.58	11.52	11.63	11.56	11.57	12.3
10	64QAM	25	25	11.64	11.52	11.64	11.58	11.57	
10	64QAM	50	0	11.61	11.47	11.62	11.61	11.55	
Channel				55265	55810	55990	56170	56175	
Frequency (MHz)				3523.5	3603	3625	3643	3693.5	
5	QPSK	1	0	14.69	14.62	14.75	14.73	14.71	15.3
5	QPSK	1	12	14.66	14.62	14.73	14.69	14.67	
5	QPSK	1	24	14.70	14.54	14.68	14.64	14.69	
5	QPSK	12	0	13.73	13.64	13.74	13.71	13.76	14.3
5	QPSK	12	7	13.63	13.58	13.69	13.59	13.66	
5	QPSK	12	13	13.60	13.56	13.72	13.62	13.66	
5	QPSK	25	0	13.56	13.51	13.61	13.61	13.57	
5	16QAM	1	0	13.58	13.43	13.67	13.59	13.54	
5	16QAM	1	12	13.59	13.44	13.65	13.55	13.61	14.3
5	16QAM	1	24	13.48	13.44	13.62	13.56	13.57	
5	16QAM	12	0	12.66	12.53	12.64	12.63	12.62	
5	16QAM	12	7	12.59	12.51	12.65	12.58	12.59	13.3
5	16QAM	12	13	12.51	12.45	12.65	12.58	12.61	
5	16QAM	25	0	12.59	12.49	12.65	12.59	12.54	
5	64QAM	1	0	12.49	12.33	12.47	12.40	12.48	13.3
5	64QAM	1	12	12.40	12.35	12.48	12.46	12.44	
5	64QAM	1	24	12.40	12.31	12.50	12.49	12.44	
5	64QAM	12	0	11.63	11.53	11.68	11.67	11.62	12.3
5	64QAM	12	7	11.61	11.57	11.63	11.61	11.57	
5	64QAM	12	13	11.61	11.54	11.60	11.55	11.57	
5	64QAM	25	0	11.55	11.48	11.57	11.58	11.49	



n2 (1850 ~ 1910MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	DFT-s-OFDM PI/2 BPSK	1	1	17.27	17.19	17.31	18.7
20		1	53	17.38	17.42	17.32	
20		1	104	17.11	17.24	17.28	
20		50	1	16.48	16.54	16.70	
20		50	25	16.75	16.55	16.66	
20		50	50	16.18	16.29	16.17	
20	DFT-s-OFDM QPSK	100	0	16.70	16.60	16.71	17.7
20		1	1	17.46	17.52	17.49	
20		1	53	17.41	17.47	17.43	
20		1	104	17.34	17.37	17.30	
20		50	1	17.00	17.08	17.05	
20		50	25	16.85	16.87	17.01	
20	DFT-s-OFDM 16QAM	50	50	16.62	16.86	16.90	17.7
20		100	0	16.79	16.59	16.80	
20	DFT-s-OFDM 60QAM	1	1	17.17	17.08	17.26	17.7
20	DFT-s-OFDM 90QAM	1	1	15.69	15.75	15.80	16.7
20	DFT-s-OFDM 256QAM	1	1	13.30	13.13	13.32	14.2
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	17.46	17.35	17.37	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	DFT-s-OFDM QPSK	1	1	17.50	17.47	17.36	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	DFT-s-OFDM QPSK	1	1	17.45	17.42	17.44	25.2
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	CP-OFDM QPSK	1	1	16.54	16.23	16.36	17.2
20	CP-OFDM 16QAM	1	1	16.18	16.07	16.15	17.2
20	CP-OFDM 60QAM	1	1	15.05	14.84	15.02	16.2
20	CP-OFDM 256QAM	1	1	11.23	11.33	11.34	12.2

n25_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				374000	376500	379000	
Frequency (MHz)				1870	1882.5	1895	
40	DFT-s-OFDM PI/2 BPSK	1	1	16.99	17.05	17.02	18.2
40		1	53	16.91	17.00	17.01	
40		1	105	16.95	17.04	16.97	
40		50	1	16.15	16.07	16.21	
40		50	25	16.11	16.08	16.26	
40		50	50	16.04	16.09	16.31	
40	DFT-s-OFDM QPSK	100	0	16.13	16.06	16.28	17.2
40		1	1	17.06	17.07	17.03	
40		1	53	16.69	17.01	17.00	
40		1	105	16.96	17.04	17.01	
40		50	1	16.15	16.20	16.17	
40		50	25	16.12	16.16	16.12	
40	DFT-s-OFDM 16QAM	50	50	16.07	16.12	16.10	24.2
40		100	0	16.11	16.12	16.08	
40	DFT-s-OFDM 60QAM	1	1	16.24	16.45	16.25	17.2
40	DFT-s-OFDM 90QAM	1	1	14.88	14.93	14.89	16.2
40	DFT-s-OFDM 256QAM	1	1	12.46	12.50	12.44	13.7
Channel				373000	376500	380000	Tune-up limit (dBm)
Frequency (MHz)				1865	1882.5	1900	
30	DFT-s-OFDM QPSK	1	1	16.95	17.01	16.73	25.2
Channel				372000	376500	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM QPSK	1	1	17.01	17.02	17.00	18.2
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	16.83	16.97	16.79	18.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	16.92	16.96	16.95	18.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	16.82	16.85	16.77	25.2
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	CP-OFDM QPSK	1	1	15.58	15.70	15.74	16.7
40	CP-OFDM 16QAM	1	1	15.26	15.16	15.27	15.7
40	CP-OFDM 60QAM	1	1	13.66	13.92	13.76	14.7
40	CP-OFDM 256QAM	1	1	10.45	10.40	10.46	11.2



n66 (1710 ~ 1780 MHz)_ANT1							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				345000	349000	352000	
Frequency (MHz)				1730	1745	1760	
40	DFT-s-OFDM PI/2 BPSK	1	1	18.11	18.18	18.01	19.2
40		1	53	18.10	18.15	18.14	
40		1	104	18.07	18.10	18.05	
40		53	1	17.16	17.41	17.35	
40		53	26	17.35	17.46	17.29	
40		53	52	17.34	17.48	17.29	
40	DFT-s-OFDM QPSK	106	0	17.33	17.41	17.35	18.2
40		1	1	18.21	18.27	18.24	
40		1	53	18.19	18.22	18.21	
40		1	104	18.21	18.26	18.17	
40		53	1	17.34	17.49	17.46	
40		53	26	17.43	17.52	17.44	
40	DFT-s-OFDM 16QAM	53	52	17.45	17.48	17.45	18.2
40		106	0	16.97	17.29	17.25	
40		1	1	17.23	17.27	17.29	
40	DFT-s-OFDM 64QAM	1	1	15.96	16.00	15.97	17.2
40	DFT-s-OFDM 256QAM	1	1	13.43	13.59	13.51	14.7
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	18.26	18.15	18.18	19.2
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	18.11	18.19	18.05	19.2
Channel				343000	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	18.03	18.24	17.96	19.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	18.19	18.02	17.97	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	17.33	17.25	17.47	25.2
Channel				342000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1760	
40	CP-OFDM QPSK	1	1	16.76	16.74	16.63	17.7
40	CP-OFDM 16QAM	1	1	16.25	16.29	15.99	16.7
40	CP-OFDM 64QAM	1	1	14.95	14.88	14.76	15.7
40	CP-OFDM 256QAM	1	1	11.47	11.55	11.62	12.2



n77 (3450 MHz ~ 3550 MHz) (PC2)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100		1	1		3500.01	3500.01				23.7
100		1	136		22.53	22.48				
100		1	271		22.41	22.41				
100		135	1		21.75	21.75				
100		135	63		21.73	21.73				
100		135	136		21.68	21.68				22.7
100		270	0		21.62	21.62				
100		1	1		20.76	20.76				
100		1	136		22.58	22.58				23.7
100		1	271		22.56	22.56				
100		135	1		21.89	21.89				
100		135	63		21.86	21.86				
100		135	136		21.76	21.76				22.7
100		270	0		21.69	21.69				
100		1	1		21.42	21.42				22.7
100		1	1		20.38	20.38				21.7
100		1	1		17.67	17.67				18.7
Channel										
Frequency (MHz)										
90		1	1		63000	63000	63000	63000		Tune-up limit (dBm)
90		1	1		3497.52	3497.52	3500.01	3504.99		23.7
Channel										
Frequency (MHz)										
85		1	1		3490.02	3495	3500.01	3504.99	3510	23.7
Channel										
Frequency (MHz)										
70		1	1		3480.01	3492.51	3500.01	3507.48	3514.98	23.7
Channel										
Frequency (MHz)										
80		1	1		3475.02	3487.5	3500.01	3510	3520	23.7
Channel										
Frequency (MHz)										
50		1	1		3470.01	3485.01	3500.01	3514.98	3520.98	22.7
Channel										
Frequency (MHz)										
40		1	1		3465	3482.52	3500.01	3517.5	3534.99	22.7
Channel										
Frequency (MHz)										
30		1	1		3460.02	3480	3500.01	3519.99	3540	23.7
Channel										
Frequency (MHz)										
20		1	1		3450.01	3475	3500.01	3515	3530	23.7
Channel										
Frequency (MHz)										
100		1	1		3200.01	3200.01				21.7
100		1	1		20.39	20.39				21.7
100		1	1		19.04	19.04				19.7
100		1	1		15.75	15.75				16.7

n77 (3450 MHz ~ 3550 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100		1	1		3500.01	3500.01				23.7
100		1	136		21.23	21.28				
100		1	271		21.28	21.28				22.2
100		135	1		20.29	20.29				
100		135	63		20.18	20.18				21.2
100		135	136		20.11	20.11				
100		270	0		20.04	20.04				
100		1	1		21.38	21.38				22.2
100		1	136		21.30	21.30				
100		1	271		21.28	21.28				
100		135	1		20.22	20.22				21.2
100		135	63		20.18	20.18				
100		135	136		20.10	20.10				21.2
100		270	0		20.19	20.19				
100		1	1		20.22	20.22				21.2
100		1	1		20.23	20.23				20.2
100		1	1		18.38	18.38				19.7
Channel										
Frequency (MHz)										
90		1	1		63000	63000	63000	63000	63000	Tune-up limit (dBm)
90		1	1		3495	3497.52	3500.01	3504.99	3509.9	22.2
Channel										
Frequency (MHz)										
80		1	1		3490.02	3495	3500.01	3504.99	3510	22.2
Channel										
Frequency (MHz)										
70		1	1		3485.01	3492.51	3500.01	3507.48	3514.98	22.2
Channel										
Frequency (MHz)										
60		1	1		3480.01	3487.5	3500.01	3510	3520	22.2
Channel										
Frequency (MHz)										
50		1	1		3475.02	3487.5	3500.01	3510	3520	22.2
Channel										
Frequency (MHz)										
40		1	1		3470.01	3485.01	3500.01	3514.98	3520.98	22.2
Channel										
Frequency (MHz)										
30		1	1		3465	3482.52	3500.01	3517.5	3534.99	22.2
Channel										
Frequency (MHz)										
20		1	1		3460.02	3480	3500.01	3519.99	3540	22.2
Channel										
Frequency (MHz)										
100		1	1		3000.01	3000.01				20.7
100		1	1		19.35	19.35				20.7
100		1	1		17.60	17.60				18.7
100		1	1		16.01	16.01				16.7



n77 (3700 MHz ~ 3980 MHz) (PC2)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel			Tune-up limit (dBm)
Channel										
Frequency (MHz)				650000	653000	656000	659000			
100	DFT-s-OFDM P2/BPSK	1	1	18.20	18.57	18.94	19.32			17.2
100		1	136	18.18	18.13	18.16	18.20	18.10		
100		1	271	18.16	18.99	18.19	18.99	18.00		
100		135	1	18.13	18.17	18.19	18.11	18.12		
100		135	69	18.05	18.16	18.17	18.03	18.12		
100		135	136	18.02	14.95	14.91	14.88	14.88		16.2
100		270	0	18.12	18.01	14.97	18.05	14.84		
100		1	1	18.28	18.21	18.30	18.25	18.30		17.2
100		1	136	18.26	18.20	18.32	18.21	18.11		
100		1	271	18.24	18.05	18.30	18.03	18.06		
100		135	1	18.15	18.11	18.20	18.23	18.18		
100		135	69	18.14	18.06	18.22	18.20	18.11		
100		135	136	14.93	15.10	15.01	14.08	14.80		16.2
100		270	0	14.96	14.88	15.07	14.95	18.01		
100	DFT-s-OFDM IQ/QAM	1	1	14.30	14.47	14.55	14.43	14.58		15.2
100	DFT-s-OFDM IQ/QAM	1	1	12.98	13.01	13.13	13.05	13.08		14.2
100	DFT-s-OFDM IQ/QAM	1	1	10.78	10.70	10.82	10.80	10.75		11.7
Channel										
Frequency (MHz)				659866	662866	665866	668866			
90	DFT-s-OFDM P2/BPSK	1	1	16.05	16.08	16.19	16.17	16.13		17.2
Channel										
Frequency (MHz)				649334	652334	655334	658334			
85	DFT-s-OFDM P2/BPSK	1	1	16.15	16.09	16.22	16.08	16.13		17.2
Channel										
Frequency (MHz)				3730	3737.5	3840	3852.5	3945		
70	DFT-s-OFDM P2/BPSK	1	1	16.13	16.03	16.28	16.24	16.13		17.2
Channel										
Frequency (MHz)				648866	651866	654866	657866			
80	DFT-s-OFDM P2/BPSK	1	1	17.00	17.01	17.00	17.00	17.00		17.2
Channel										
Frequency (MHz)				649334	652334	655334	658334			
80	DFT-s-OFDM P2/BPSK	1	1	16.06	16.22	16.27	16.17	16.22		17.2
Channel										
Frequency (MHz)				3725.01	3782.52	3840	3854.99	3945.99		
50	DFT-s-OFDM P2/BPSK	1	1	16.99	16.08	16.30	16.26	16.23		16.2
Channel										
Frequency (MHz)				648000	650000	652000	654000			
40	DFT-s-OFDM P2/BPSK	1	1	16.13	16.16	16.32	16.22	16.30		16.2
Channel										
Frequency (MHz)				647688	651834	656000	660166	664332		
30	DFT-s-OFDM P2/BPSK	1	1	3715.02	3777.51	3840	3902.49	3964.98		17.2
Channel										
Frequency (MHz)				647334	651668	656000	660332	664666		
20	DFT-s-OFDM P2/BPSK	1	1	18.27	18.25	18.31	18.30	18.29		17.2
Channel										
Frequency (MHz)				3725	3725	3840	3845	3920		
100	CP-OFDM BPSK	1	1	13.97	14.09	14.32	14.10	14.02		15.2
100	CP-OFDM IQ/QAM	1	1	13.70	13.78	13.79	13.85	13.80		15.2
100	CP-OFDM IQ/QAM	1	1	11.92	12.05	11.92	12.31	12.10		13.2
100	CP-OFDM IQ/QAM	1	1	8.40	8.66	8.63	8.88	8.75		10.2

n77 (3700 MHz ~ 3980 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Mid/High Channel	High Channel			Tune-up limit (dBm)
Channel										
Frequency (MHz)				650000	653000	656000	659000			
100	DFT-s-OFDM P2/BPSK	1	1	18.22	18.19	18.20	18.18	18.22		17.2
100		1	136	18.18	18.17	18.18	18.17	18.25		
100		1	271	18.16	18.99	18.17	18.13	18.02		
100		135	1	18.33	18.31	18.46	18.30	18.43		
100		135	69	18.43	18.45	18.51	18.40	18.48		
100		135	136	18.36	18.31	18.51	18.37	18.00		16.2
100		270	0	18.45	18.41	18.36	18.38	18.49		
100		1	1	18.26	18.26	18.31	18.25	18.22		17.2
100		1	136	18.05	18.20	18.20	18.18	18.15		
100		1	271	18.18	18.27	18.06	18.11	18.01		
100		135	1	18.32	18.29	18.42	18.29	18.38		
100		135	69	18.41	18.40	18.40	18.40	18.40		
100		135	136	18.43	18.42	18.33	18.48	18.42		16.2
100		270	0	18.38	18.40	18.47	18.40	18.42		
100	DFT-s-OFDM IQ/QAM	1	1	18.40	18.14	18.37	18.42	18.41		16.2
100	DFT-s-OFDM IQ/QAM	1	1	14.34	14.16	14.38	14.53	14.46		15.2
100	DFT-s-OFDM IQ/QAM	1	1	13.46	13.26	13.38	13.41	13.45		14.2
Channel										
Frequency (MHz)				648866	652866	656866	660866			
90	DFT-s-OFDM P2/BPSK	1	1	16.22	16.12	16.21	16.19	16.19		17.2
Channel										
Frequency (MHz)				648334	652334	656334	660334			
80	DFT-s-OFDM P2/BPSK	1	1	16.28	16.11	16.18	16.23	16.21		17.2
Channel										
Frequency (MHz)				3730	3787.5	3840	3892.5	3945		
70	DFT-s-OFDM P2/BPSK	1	1	16.25	16.12	16.22	16.23	16.14		17.2
Channel										
Frequency (MHz)				648866	652866	656866	660866			
80	DFT-s-OFDM P2/BPSK	1	1	17.02	17.01	17.00	17.01	17.00		17.2
Channel										
Frequency (MHz)				649334	653334	657334	661334			
50	DFT-s-OFDM P2/BPSK	1	1	16.28	16.28	16.23	16.28	16.23		16.2
Channel										
Frequency (MHz)				648000	652000	656000	660000			
40	DFT-s-OFDM P2/BPSK	1	1	16.18	16.21	16.16	16.24	16.18		16.2
Channel										
Frequency (MHz)				647688	651834	656000	660166	664332		
30	DFT-s-OFDM P2/BPSK	1	1	3715.02	3777.51	3840	3902.49	3964.98		17.2
Channel										
Frequency (MHz)				647334	651668	656000	660332	664666		
20	DFT-s-OFDM P2/BPSK	1	1	18.29	18.04	18.15	18.21	18.15		17.2
Channel										
Frequency (MHz)				3720	3725	3840	3855	3920		
100	CP-OFDM BPSK	1	1	14.71	14.58	14.77	14.69	14.67		15.7
100	CP-OFDM IQ/QAM	1	1	14.74	14.58	14.71	14.70	14.68		15.7
100	CP-OFDM IQ/QAM	1	1	13.84	13.82	13.75	13.85	13.99		14.7
100	CP-OFDM IQ/QAM	1	1	11.45	11.42	11.62	11.50	11.42		12.7



n78 (3450 MHz ~ 3550 MHz) (PC2)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		3500.01					
100		1	136		22.94			24.2		
100		1	271		22.97					
100	DFT-s-OFDM P1/2 BPSK	135	1		22.24					
100		135	67		22.13			23.2		
100		135	136		22.08					
100		270	0		22.00					
100		1	1		28.97					
100		1	136		23.24			24.2		
100		1	271		23.23					
100	DFT-s-OFDM QPSK	135	1		22.26					
100		135	67		22.26			23.2		
100		135	136		22.22					
100		270	0		22.18					
100	DFT-s-OFDM 16QAM	1	1		22.25			23.2		
100	DFT-s-OFDM 64QAM	1	1		21.42			22.2		
100	DFT-s-OFDM 256QAM	1	1		18.00			19.2		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P1/2 BPSK	1	1		3300	633168	633334	633500	633666	Tune-up limit (dBm)
					3465	3497.52	3500.01	3502.5	3504.99	
					23.20	23.16	23.08	23.15	23.14	24.2
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1		3300.02	3495	3500.01	3504.99	3510	Tune-up limit (dBm)
					23.13	23.06	23.25	23.21	23.25	24.2
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P1/2 BPSK	1	1		3300.01	3492.51	3500.01	3507.51	3514.99	Tune-up limit (dBm)
					23.12	23.14	23.18	23.17	23.18	24.2
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P1/2 BPSK	1	1		3480	3490.02	3500.01	3510	3519.99	Tune-up limit (dBm)
					23.17	23.11	23.09	23.18	23.15	24.2
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1/2 BPSK	1	1		631668	632500	633334	634166	635000	Tune-up limit (dBm)
					3475.02	3487.5	3500.01	3510	3520	
					23.19	23.26	23.13	23.29	23.21	24.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P1/2 BPSK	1	1		631184	632016	632851	633682	634512	Tune-up limit (dBm)
					3470.01	3482.5	3500.01	3510.5	3520.99	
					23.21	23.24	23.25	23.21	23.14	24.2
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1/2 BPSK	1	1		631000	631168	632334	634500	636666	Tune-up limit (dBm)
					3465	3492.52	3500.01	3517.5	3534.99	
					23.01	23.19	23.16	23.15	23.08	24.2
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P1/2 BPSK	1	1		630888	632000	633334	634666	636000	Tune-up limit (dBm)
					3460.02	3469	3500.01	3519	3540	
					23.10	22.95	23.10	23.09	22.95	24.2
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		3500.01				22.2	Tune-up limit (dBm)
100	CP-OFDM 16QAM	1	1						22.2	
100	CP-OFDM 64QAM	1	1						20.2	
100	CP-OFDM 256QAM	1	1						17.2	

n78 (3450 MHz ~ 3550 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Mid/High Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)		
Channel										
Frequency (MHz)										
100		1	1		3500.01					
100		1	136		21.16			22.2		
100		1	271		21.09					
100	DFT-s-OFDM P1/2 BPSK	135	1		20.22					
100		135	67		20.18			21.2		
100		135	136		20.08					
100		270	0		20.05					
100		1	1		27.34					
100		1	136		21.25			22.2		
100		1	271		21.13					
100	DFT-s-OFDM QPSK	135	1		20.23					
100		135	67		20.23			21.2		
100		135	136		20.18					
100		270	0		20.23					
100	DFT-s-OFDM 16QAM	1	1		20.35			21.2		
100	DFT-s-OFDM 64QAM	1	1		20.30			20.2		
100	DFT-s-OFDM 256QAM	1	1		18.52			19.2		
Channel										
Frequency (MHz)										
90	DFT-s-OFDM P1/2 BPSK	1	1		633000	633168	633334	633500	633666	Tune-up limit (dBm)
					3495	3497.52	3500.01	3502.5	3504.99	
					21.11	21.09	21.08	21.07	21.12	22.2
Channel										
Frequency (MHz)										
80	DFT-s-OFDM P1/2 BPSK	1	1		633000.02	3495	3500.01	3504.99	3510	Tune-up limit (dBm)
					21.17	21.09	21.12	21.07	21.02	22.2
Channel										
Frequency (MHz)										
70	DFT-s-OFDM P1/2 BPSK	1	1		632834	632934	633034	633132	633232	Tune-up limit (dBm)
					3492.51	3492.51	3500.01	3507.49	3514.99	
					21.10	21.08	21.10	20.88	20.99	22.2
Channel										
Frequency (MHz)										
60	DFT-s-OFDM P1/2 BPSK	1	1		632500	35068	633334	634000	634666	Tune-up limit (dBm)
					3480	3490.02	3500.01	3510	3519.99	
					21.17	21.16	21.15	21.08	21.00	22.2
Channel										
Frequency (MHz)										
50	DFT-s-OFDM P1/2 BPSK	1	1		631668	632500	633334	634166	635000	Tune-up limit (dBm)
					3475.02	3487.5	3500.01	3510	3520	
					21.14	21.03	21.09	20.99	20.92	24.2
Channel										
Frequency (MHz)										
40	DFT-s-OFDM P1/2 BPSK	1	1		631334	632016	632851	633682	634512	Tune-up limit (dBm)
					3482.51	3482.51	3500.01	3510.5	3520.99	
					21.24	21.31	21.23	21.28	21.17	24.2
Channel										
Frequency (MHz)										
30	DFT-s-OFDM P1/2 BPSK	1	1		631000	631168	632334	634500	636666	Tune-up limit (dBm)
					3465	3492.52	3500.01	3517.5	3534.99	
					21.17	21.27	21.22	21.09	21.02	24.2
Channel										
Frequency (MHz)										
20	DFT-s-OFDM P1/2 BPSK	1	1		630888	632000	633334	634666	636000	Tune-up limit (dBm)
					3460.02	3469	3500.01	3519	3540	
					21.30	21.13	21.25	21.08	20.95	24.2
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1		3500.01				20.7	Tune-up limit (dBm)
100	CP-OFDM 16QAM	1	1						20.7	
100	CP-OFDM 64QAM	1	1						18.7	
100	CP-OFDM 256QAM	1	1						16.7	





n78 (3700 MHz ~ 3800 MHz) (PC2)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100		1	1		14.40					
100		1	136		14.56				15.7	
100		1	271		14.74					
100	DFT-s-OFDM P/L2 BPSK	135	1		13.58					
100		135	67		13.52					
100		135	136		13.55				14.7	
100		270	0		13.51					
100		1	136		14.56				15.7	
100		1	271		14.74					
100	DFT-s-OFDM QPSK	135	1		13.58					
100		135	67		13.52					
100		135	136		13.55				14.7	
100		270	0		13.55					
100	DFT-s-OFDM 16QAM	1	1		13.94				14.7	
100	DFT-s-OFDM 64QAM	1	1		11.66				12.7	
100	DFT-s-OFDM 256QAM	1	1		9.41				10.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	14.43	14.65	14.52	14.51	14.50	15.7	
Channel										
Frequency (MHz)										
85	DFT-s-OFDM QPSK	1	1	14.47	14.52	14.57	14.62	14.69	15.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	14.47	14.41	14.64	14.65	14.61	15.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	14.61	14.58	14.51	14.49	14.40	15.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	14.50	14.80	14.94	14.48	14.51	15.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	14.54	14.50	14.53	14.49	14.42	15.7	
Channel										
Frequency (MHz)										
20	DFT-s-OFDM QPSK	1	1	14.50	14.53	14.47	14.40	14.45	15.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1			12.57			13.7	
100	CP-OFDM QPSK	1	1			12.32			13.7	
100	CP-OFDM 16QAM	1	1			10.52			11.7	
100	CP-OFDM 256QAM	1	1			7.20			8.7	

n78 (3700 MHz ~ 3800 MHz) (PC3)_ANT3										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Low/Middle Channel	Middle Channel	Mid/High Channel	High Channel	Tune-up limit (dBm)	
Channel										
Frequency (MHz)										
100		1	1			17.69			18.7	
100		1	136			17.62				
100		1	271			17.58				
100	DFT-s-OFDM P/L2 BPSK	135	1			16.73			17.7	
100		135	67			16.69				
100		135	136			16.72				
100		270	0			16.62				
100		1	136			17.75			18.7	
100		1	271			17.61				
100	DFT-s-OFDM QPSK	135	1			16.74			17.7	
100		135	67			16.72				
100		135	136			16.73				
100		270	0			16.57				
100	DFT-s-OFDM 16QAM	1	1			16.66			17.7	
100	DFT-s-OFDM 64QAM	1	1			16.60			17.7	
100	DFT-s-OFDM 256QAM	1	1			14.62			15.7	
Channel										
Frequency (MHz)										
90	DFT-s-OFDM QPSK	1	1	17.66	17.65	17.63	17.56	17.62	18.7	
Channel										
Frequency (MHz)										
80	DFT-s-OFDM QPSK	1	1	17.36	17.52	17.55	17.67	17.67	18.7	
Channel										
Frequency (MHz)										
70	DFT-s-OFDM QPSK	1	1	17.58	17.64	17.60	17.64	17.61	18.7	
Channel										
Frequency (MHz)										
60	DFT-s-OFDM QPSK	1	1	17.64	17.71	17.68	17.62	17.62	18.7	
Channel										
Frequency (MHz)										
50	DFT-s-OFDM QPSK	1	1	17.70	17.57	17.67	17.59	17.63	18.7	
Channel										
Frequency (MHz)										
40	DFT-s-OFDM QPSK	1	1	17.51	17.56	17.70	17.65	17.62	18.7	
Channel										
Frequency (MHz)										
30	DFT-s-OFDM QPSK	1	1	17.63	17.69	17.64	17.61	17.66	18.7	
Channel										
Frequency (MHz)										
100	CP-OFDM QPSK	1	1			16.57			17.2	
100	CP-OFDM 16QAM	1	1			16.54			17.2	
100	CP-OFDM 64QAM	1	1			15.77			16.2	
100	CP-OFDM 256QAM	1	1			12.65			13.2	



CA_41C-PC3_Ant 1 Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	14.33	15.50
40620	40521	40719	QPSK	1	0	0	0	1	0	14.63	15.50
41490	41292	41490	QPSK	1	0	0	0	1	0	14.55	15.50
39750	39750	39948	16QAM	1	0	0	0	1	0	13.57	14.00
40620	40521	40719	16QAM	1	0	0	0	1	0	13.89	14.00
41490	41292	41490	16QAM	1	0	0	0	1	0	13.84	14.00
39750	39750	39948	64QAM	1	0	0	0	1	0	12.13	13.00
40620	40521	40719	64QAM	1	0	0	0	1	0	12.45	13.00
41490	41292	41490	64QAM	1	0	0	0	1	0	12.33	13.00
39750	39750	39948	QPSK	50	0	0	0	1	0	13.22	14.00
40620	40521	40719	QPSK	50	0	0	0	1	0	13.53	14.00
41490	41292	41490	QPSK	50	0	0	0	1	0	13.29	14.00



CA_48C_Ant 4 Combination:20MHz+20MHz(100RB+100RB)												
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)	
				RB Size	RB Offset	RB Size	RB Offset					
55340	55340	55538	QPSK	1	0	0	0	1	0	14.06	15.00	
55990	55891	56089	QPSK	1	0	0	0	1	0	14.22	15.00	
56640	56442	56640	QPSK	1	0	0	0	1	0	13.98	15.00	
55340	55340	55538	16QAM	1	0	0	0	1	0	13.49	14.50	
55990	55891	56089	16QAM	1	0	0	0	1	0	13.62	14.50	
56640	56442	56640	16QAM	1	0	0	0	1	0	13.44	14.50	
55340	55340	55538	64QAM	1	0	0	0	1	0	12.31	13.00	
55990	55891	56089	64QAM	1	0	0	0	1	0	12.38	13.00	
56640	56442	56640	64QAM	1	0	0	0	1	0	12.29	13.00	
55340	55340	55538	QPSK	50	0	0	0	1	0	13.25	14.00	
55990	55891	56089	QPSK	50	0	0	0	1	0	13.32	14.00	
56640	56442	56640	QPSK	50	0	0	0	1	0	13.22	14.00	



Reduced Power Level 4 for Ant 7

2.4GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Take-Up Limit	Power Setting	Duty Cycle %
802.11b 18Mbps	CH 1	2412	17.96	19.50	17.50	100.00
	CH 6	2437	18.37	20.00	17.50	
	CH 11	2462	18.13	20.00	17.50	
	CH 1	2412	15.91	17.50	16.00	
	CH 6	2437	15.92	17.50	16.00	
	CH 11	2462	13.57	15.50	13.50	
	CH 1	2412	15.73	17.50	16.00	
	CH 6	2437	15.99	17.50	16.00	
	CH 11	2462	15.79	14.50	16.00	
802.11n-HT20 MCS9	CH 3	2422	12.99	14.50	16.00	98.57
	CH 3	2422	15.76	17.50	15.50	
	CH 6	2437	13.35	15.00	12.00	
802.11n-HT40 MCS9	CH 9	2452	11.42	13.00	10.50	95.00
	CH 1	2412	15.73	17.50	16.00	
	CH 6	2437	15.67	17.50	16.00	
802.11ac-VHT20 MCS9	CH 11	2462	12.99	14.50	13.00	98.47
	CH 11	2462	15.75	17.50	15.50	
	CH 6	2437	13.21	15.00	12.00	
802.11ac-VHT40 MCS9	CH 9	2452	11.46	13.00	10.50	95.05

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Take-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 36	5180	14.19	16.00	14.00	98.10
	CH 44	5220	14.50	16.00	14.00	
	CH 48	5260	14.56	16.50	14.00	
802.11n-HT20 MCS9	CH 36	5180	14.79	16.00	14.00	98.57
	CH 44	5220	15.03	17.00	14.00	
	CH 48	5240	15.14	17.00	14.00	
802.11n-HT40 MCS9	CH 38	5190	15.19	17.00	14.00	96.94
	CH 46	5230	14.48	16.00	14.00	
	CH 36	5180	13.10	15.00	12.50	
802.11ac-VHT20 MCS9	CH 44	5220	13.42	15.00	12.50	98.48
	CH 48	5260	12.76	14.50	12.50	
	CH 38	5190	12.98	14.50	12.50	
802.11ac-VHT40 MCS9	CH 46	5230	13.22	15.00	12.50	95.96
	CH 42	5210	13.32	15.00	12.50	
	CH 42	5210	13.32	15.00	12.50	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Take-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 52	5260	13.74	15.50	13.00	98.57
	CH 60	5300	13.77	15.50	13.00	
	CH 64	5320	14.03	16.00	13.00	
802.11n-HT20 MCS9	CH 52	5260	14.27	16.00	13.00	98.57
	CH 60	5300	13.50	15.50	13.00	
	CH 64	5320	13.81	15.50	13.00	
802.11n-HT40 MCS9	CH 54	5270	13.88	15.50	13.00	96.94
	CH 62	5310	14.39	16.00	13.00	
	CH 52	5260	11.89	13.00	11.50	
802.11ac-VHT20 MCS9	CH 60	5300	12.05	14.00	11.50	98.48
	CH 64	5320	12.42	14.00	11.50	
	CH 54	5270	11.93	13.50	11.50	
802.11ac-VHT40 MCS9	CH 62	5310	12.62	14.50	11.50	98.97
	CH 58	5290	12.66	14.50	11.50	
	CH 58	5290	12.66	14.50	11.50	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Take-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 100	5690	12.27	14.00	10.50	98.57
	CH 120	5660	12.36	14.00	10.50	
	CH 144	5720	11.02	13.00	10.50	
802.11n-HT20 MCS9	CH 100	5690	12.08	14.00	10.50	98.47
	CH 120	5660	11.28	13.00	10.50	
	CH 144	5720	11.36	13.00	10.50	
802.11n-HT40 MCS9	CH 102	5610	12.36	14.00	10.50	96.94
	CH 126	5630	11.65	13.50	10.50	
	CH 142	5710	11.67	13.50	10.50	
802.11ac-VHT20 MCS9	CH 100	5690	11.15	13.00	10.50	98.48
	CH 120	5660	10.80	12.50	10.50	
	CH 144	5720	10.99	12.50	10.50	
802.11ac-VHT40 MCS9	CH 102	5610	11.46	13.00	10.50	98.97
	CH 126	5630	11.41	13.00	10.50	
	CH 142	5710	11.37	13.00	10.50	
802.11ac-VHT80 MCS9	CH 106	5530	11.46	13.00	10.50	94.00
	CH 122	5610	11.16	13.00	10.50	
	CH 138	5660	11.12	13.00	10.50	

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Take-Up Limit	Power Setting	Duty Cycle %
802.11a 6Mbps	CH 140	5745	13.64	15.50	13.50	98.57
	CH 157	5785	14.01	16.00	13.50	
	CH 165	5825	13.42	15.00	13.50	
802.11n-HT20 MCS9	CH 140	5745	13.99	15.50	13.50	98.47
	CH 157	5785	14.36	16.00	13.50	
	CH 165	5825	14.30	16.00	13.50	
802.11n-HT40 MCS9	CH 151	5755	14.35	16.00	13.50	96.94
	CH 159	5795	14.93	16.50	13.50	
	CH 140	5745	12.56	14.50	12.00	
802.11ac-VHT20 MCS9	CH 157	5785	12.80	14.50	12.00	97.97
	CH 165	5825	12.85	14.50	12.00	
	CH 151	5755	12.42	14.00	12.00	
802.11ac-VHT40 MCS9	CH 159	5795	13.33	15.00	12.00	98.97
	CH 155	5795	13.33	15.00	12.00	
	CH 155	5775	12.83	14.50	12.00	