



REPORT No. : SZ21070376S01

## Annex E1 Conducted Full Power

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	128	189	251		128	189	251		
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	32.19	32.31	32.39	33.50	23.19	23.31	23.39	24.50	0.24
GPRS 1 Tx slot	32.15	32.21	32.33	33.50	23.15	23.21	23.33	24.50	
GPRS 2 Tx slots	29.64	29.71	29.86	31.00	23.64	23.71	23.86	25.00	0.22
GPRS 3 Tx slots	27.88	27.94	28.00	29.00	23.62	23.68	23.74	24.74	0.12
GPRS 4 Tx slots	26.55	26.60	26.71	28.00	23.55	23.60	23.71	25.00	0.16
EDGE 1 Tx slot	26.79	26.73	27.14	28.00	17.79	17.73	18.14	19.00	0.41
EDGE 2 Tx slots	24.05	24.14	24.13	24.50	18.05	18.14	18.13	18.50	0.09
EDGE 3 Tx slots	22.14	22.22	22.47	22.50	17.88	17.96	18.21	18.24	0.33
EDGE 4 Tx slots	20.18	20.42	20.48	21.00	17.18	17.42	17.48	18.00	0.30
Antenna	Top Ant								

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	512	661	810		512	661	810		
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	30.00	30.31	30.30	31.00	21.00	21.31	21.30	22.00	0.38
GPRS 1 Tx slot	29.93	30.27	30.27	31.00	20.93	21.27	21.27	22.00	
GPRS 2 Tx slots	26.90	27.21	27.32	28.00	20.90	21.21	21.32	22.00	0.42
GPRS 3 Tx slots	25.15	25.45	25.63	26.50	20.89	21.19	21.37	22.24	0.48
GPRS 4 Tx slots	23.92	24.15	24.32	25.00	20.92	21.15	21.32	22.00	0.40
EDGE 1 Tx slot	26.30	26.32	26.61	27.00	17.30	17.32	17.61	18.00	0.31
EDGE 2 Tx slots	23.09	23.11	23.56	24.00	17.09	17.11	17.56	18.00	0.47
EDGE 3 Tx slots	21.63	21.55	21.95	22.00	17.37	17.29	17.69	17.74	0.40
EDGE 4 Tx slots	20.10	20.15	20.30	21.00	17.10	17.15	17.30	18.00	0.20
Antenna	Top Ant								

Band	WCDMA Band II			Tune-up Limit (dBm)	WCDMA Band IV			Tune-up Limit (dBm)	WCDMA Band V			Tune-up Limit (dBm)	
	9262	9400	9538		1312	1413	1513		4132	4182	4233		
TX Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458		
Rx Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458		
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6		
3GPP Rel 99	RMC 12.2Kbps	23.72	23.67	23.70	24.50	23.54	23.44	23.52	24.50	24.74	24.70	24.72	25.50
3GPP Rel 6	HSDPA Subtest-1	22.83	23.00	22.95	23.50	22.93	22.89	22.82	23.50	23.28	23.33	23.31	23.50
3GPP Rel 6	HSDPA Subtest-2	22.92	22.93	22.96	23.50	22.96	22.90	22.79	23.50	23.28	23.25	23.32	23.50
3GPP Rel 6	HSDPA Subtest-3	22.45	22.60	22.46	23.00	22.51	22.43	22.34	23.00	22.82	22.76	22.79	23.50
3GPP Rel 6	HSDPA Subtest-4	22.38	22.46	22.46	23.00	22.47	22.36	22.33	23.00	22.81	22.77	22.79	23.50
3GPP Rel 6	HSUPA Subtest-1	22.93	23.08	22.99	23.50	22.97	22.83	22.89	23.50	22.99	23.41	22.98	24.00
3GPP Rel 6	HSUPA Subtest-2	22.92	23.05	22.95	23.50	22.99	22.88	22.86	23.50	23.32	23.40	23.44	24.00
3GPP Rel 6	HSUPA Subtest-3	22.47	22.57	22.48	23.00	22.53	22.41	22.37	23.00	22.28	22.48	22.35	23.00
3GPP Rel 6	HSUPA Subtest-4	22.90	23.02	22.95	23.50	22.90	22.90	22.84	23.50	23.34	23.42	23.36	24.00
3GPP Rel 6	HSUPA Subtest-5	22.43	22.59	22.44	23.00	22.47	22.47	22.43	23.00	22.45	22.46	22.26	23.00
3GPP Rel 7	HSUPA+ (16QAM) Subtest-	21.07	21.21	21.13	21.50	21.47	21.30	21.16	22.00	22.33	22.35	22.26	23.00
Antenna	Top Ant				Top Ant				Top Ant				

### LTE Band 2(Top Ant)

BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	24
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	22.74	22.80	22.77	24
20	QPSK	1	49	22.64	22.79	22.74	
20	QPSK	1	99	22.65	22.70	22.66	
20	QPSK	50	0	22.09	22.12	22.05	23
20	QPSK	50	24	21.96	22.00	21.94	
20	QPSK	50	50	21.94	21.98	21.88	
20	QPSK	100	0	21.74	21.83	21.77	23
20	16QAM	1	0	22.40	22.53	22.53	
20	16QAM	1	49	22.28	22.39	22.46	
20	16QAM	1	99	22.26	22.42	22.47	23
20	16QAM	50	0	21.80	22.00	21.99	
20	16QAM	50	24	21.73	21.87	21.90	
20	16QAM	50	50	21.72	21.74	21.87	23
20	16QAM	100	0	21.75	21.80	21.87	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	Tune-up limit (dBm)
15	QPSK	1	0	22.70	22.79	22.76	24
15	QPSK	1	37	22.59	22.75	22.69	
15	QPSK	1	74	22.61	22.69	22.65	
15	QPSK	36	0	22.04	22.11	21.99	23
15	QPSK	36	20	21.90	21.95	21.89	
15	QPSK	36	39	21.90	21.93	21.85	
15	QPSK	75	0	21.72	21.82	21.74	23
15	16QAM	1	0	22.34	22.51	22.49	
15	16QAM	1	37	22.23	22.37	22.45	
15	16QAM	1	74	22.25	22.37	22.42	23
15	16QAM	36	0	21.75	21.95	21.96	
15	16QAM	36	20	21.71	21.83	21.89	
15	16QAM	36	39	21.67	21.69	21.85	23
15	16QAM	75	0	21.71	21.78	21.85	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	Tune-up limit (dBm)
10	QPSK	1	0	22.64	22.74	22.70	24
10	QPSK	1	25	22.54	22.73	22.66	
10	QPSK	1	49	22.58	22.67	22.63	
10	QPSK	25	0	22.02	22.05	21.95	23
10	QPSK	25	12	21.85	21.90	21.84	
10	QPSK	25	25	21.84	21.89	21.84	
10	QPSK	50	0	21.70	21.79	21.71	23
10	16QAM	1	0	22.32	22.49	22.44	
10	16QAM	1	25	22.18	22.32	22.42	
10	16QAM	1	49	22.24	22.34	22.39	23
10	16QAM	25	0	21.70	21.90	21.91	
10	16QAM	25	12	21.69	21.80	21.84	
10	16QAM	25	25	21.64	21.66	21.83	23
10	16QAM	50	0	21.68	21.75	21.83	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	Tune-up limit (dBm)
5	QPSK	1	0	22.58	22.73	22.66	24
5	QPSK	1	12	22.52	22.69	22.63	
5	QPSK	1	24	22.56	22.65	22.59	
5	QPSK	12	0	22.00	22.01	21.90	23
5	QPSK	12	7	21.82	21.88	21.80	
5	QPSK	12	13	21.80	21.87	21.80	
5	QPSK	25	0	21.65	21.74	21.69	23
5	16QAM	1	0	22.29	22.46	22.40	
5	16QAM	1	12	22.13	22.31	22.38	
5	16QAM	1	24	22.20	22.32	22.36	23
5	16QAM	12	0	21.67	21.85	21.89	
5	16QAM	12	7	21.64	21.74	21.79	
5	16QAM	12	13	21.62	21.63	21.81	23
5	16QAM	25	0	21.64	21.69	21.81	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	Tune-up limit (dBm)
3	QPSK	1	0	22.53	22.70	22.63	24
3	QPSK	1	8	22.47	22.65	22.61	
3	QPSK	1	14	22.53	22.61	22.53	
3	QPSK	8	0	21.94	21.99	21.84	23
3	QPSK	8	4	21.80	21.85	21.75	
3	QPSK	8	7	21.77	21.82	21.78	
3	QPSK	15	0	21.60	21.69	21.66	23
3	16QAM	1	0	22.25	22.43	22.36	
3	16QAM	1	8	22.12	22.26	22.33	
3	16QAM	1	14	22.16	22.29	22.35	23
3	16QAM	8	0	21.62	21.79	21.87	
3	16QAM	8	4	21.59	21.69	21.74	
3	16QAM	8	7	21.59	21.62	21.77	23
3	16QAM	15	0	21.55	21.63	21.75	
Channel				18607	18900	19193	
Frequency (MHz)				1850.7	1880	1909.3	Tune-up limit (dBm)
1.4	QPSK	1	0	22.54	22.63	22.61	24
1.4	QPSK	1	3	22.45	22.61	22.56	
1.4	QPSK	1	5	22.51	22.57	22.54	
1.4	QPSK	3	0	21.93	21.95	21.86	23
1.4	QPSK	3	1	21.75	21.80	21.74	
1.4	QPSK	3	3	21.72	21.82	21.74	
1.4	QPSK	6	0	21.56	21.68	21.58	23
1.4	16QAM	1	0	22.25	22.38	22.32	
1.4	16QAM	1	3	22.02	22.24	22.31	
1.4	16QAM	1	5	22.14	22.28	22.28	23
1.4	16QAM	3	0	21.63	21.79	21.81	
1.4	16QAM	3	1	21.59	21.68	21.72	
1.4	16QAM	3	3	21.53	21.57	21.73	23
1.4	16QAM	6	0	21.56	21.62	21.75	

### LTE Band 4(Top Ant)

BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	24
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	22.57	22.66	22.59	24
20	QPSK	1	49	22.27	22.52	22.37	
20	QPSK	1	99	22.23	22.33	22.22	
20	QPSK	50	0	21.98	22.05	22.00	23
20	QPSK	50	24	21.91	21.94	21.95	
20	QPSK	50	50	21.75	21.77	21.75	
20	QPSK	100	0	21.62	21.71	21.69	23
20	16QAM	1	0	22.18	22.22	22.01	
20	16QAM	1	49	22.03	22.04	21.99	
20	16QAM	1	99	22.01	21.96	21.87	23
20	16QAM	50	0	21.32	21.37	21.27	
20	16QAM	50	24	21.33	21.28	21.21	
20	16QAM	50	50	21.20	21.19	21.08	23
20	16QAM	100	0	21.25	21.26	21.12	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	Tune-up limit (dBm)
15	QPSK	1	0	22.55	22.62	22.58	24
15	QPSK	1	37	22.23	22.50	22.33	
15	QPSK	1	74	22.21	22.27	22.17	
15	QPSK	36	0	21.96	22.01	21.95	23
15	QPSK	36	20	21.85	21.89	21.94	
15	QPSK	36	39	21.69	21.72	21.70	
15	QPSK	75	0	21.57	21.66	21.65	23
15	16QAM	1	0	22.14	22.19	21.96	
15	16QAM	1	37	21.99	22.00	21.98	
15	16QAM	1	74	21.95	21.94	21.82	23
15	16QAM	36	0	21.29	21.35	21.24	
15	16QAM	36	20	21.28	21.25	21.20	
15	16QAM	36	39	21.16	21.16	21.03	23
15	16QAM	75	0	21.20	21.24	21.09	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	Tune-up limit (dBm)
10	QPSK	1	0	22.47	22.62	22.54	24
10	QPSK	1	25	22.23	22.47	22.29	
10	QPSK	1	49	22.17	22.25	22.17	
10	QPSK	25	0	21.89	21.97	21.95	23
10	QPSK	25	12	21.84	21.84	21.86	
10	QPSK	25	25	21.70	21.67	21.67	
10	QPSK	50	0	21.55	21.67	21.65	23
10	16QAM	1	0	22.13	22.15	21.93	
10	16QAM	1	25	21.95	21.98	21.97	
10	16QAM	1	49	21.94	21.94	21.81	23
10	16QAM	25	0	21.23	21.29	21.17	
10	16QAM	25	12	21.30	21.20	21.18	
10	16QAM	25	25	21.17	21.11	21.00	23
10	16QAM	50	0	21.22	21.22	21.06	
Channel				19975	20175	20375	
Frequency (MHz)				1712.5	1732.5	1752.5	Tune-up limit (dBm)
5	QPSK	1	0	22.43	22.61	22.50	24
5	QPSK	1	12	22.21	22.46	22.28	
5	QPSK	1	24	22.15	22.19	22.12	
5	QPSK	12	0	21.87	21.96	21.94	23
5	QPSK	12	7	21.81	21.81	21.85	
5	QPSK	12	13	21.69	21.64	21.63	
5	QPSK	25	0	21.50	21.62	21.63	23
5	16QAM	1	0	22.11	22.10	21.90	
5	16QAM	1	12	21.89	21.96	21.94	
5	16QAM	1	24	21.89	21.90	21.79	23
5	16QAM	12	0	21.20	21.27	21.16	
5	16QAM	12	7	21.26	21.14	21.14	
5	16QAM	12	13	21.11	21.09	20.97	23
5	16QAM	25	0	21.21	21.18	21.05	
Channel				19965	20175	20385	
Frequency (MHz)				1711.5	1732.5	1753.5	Tune-up limit (dBm)
3	QPSK	1	0	22.41	22.56	22.44	24
3	QPSK	1	8	22.1			

### LTE Band 5(Top Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	24.24	24.33	24.30	25
10	QPSK	1	25	24.01	24.30	24.10	
10	QPSK	1	49	23.95	24.18	23.96	
10	QPSK	25	0	23.17	23.28	23.23	24
10	QPSK	25	12	23.13	23.21	23.16	
10	QPSK	25	25	23.10	23.15	23.06	
10	QPSK	50	0	23.08	23.14	23.12	24
10	16QAM	1	0	23.43	23.62	23.47	
10	16QAM	1	25	23.38	23.49	23.41	
10	16QAM	1	49	23.41	23.52	23.32	24
10	16QAM	25	0	22.56	22.72	22.48	
10	16QAM	25	12	22.43	22.62	22.38	
10	16QAM	25	25	22.38	22.61	22.24	24
10	16QAM	50	0	22.19	22.51	22.16	
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	24.23	24.28	24.25	25
5	QPSK	1	12	23.99	24.25	24.07	
5	QPSK	1	24	23.92	24.13	23.90	
5	QPSK	12	0	23.13	23.25	23.19	24
5	QPSK	12	7	23.08	23.16	23.11	
5	QPSK	12	13	23.04	23.09	23.05	
5	QPSK	25	0	23.05	23.09	23.07	24
5	16QAM	1	0	23.40	23.57	23.45	
5	16QAM	1	12	23.34	23.48	23.37	
5	16QAM	1	24	23.38	23.48	23.29	24
5	16QAM	12	0	22.51	22.68	22.46	
5	16QAM	12	7	22.41	22.57	22.36	
5	16QAM	12	13	22.33	22.59	22.19	24
5	16QAM	25	0	22.17	22.46	22.12	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.20	24.23	24.20	25
3	QPSK	1	8	23.96	24.23	24.04	
3	QPSK	1	14	23.86	24.08	23.84	
3	QPSK	8	0	23.08	23.21	23.16	24
3	QPSK	8	4	23.02	23.15	23.09	
3	QPSK	8	7	23.03	23.06	23.02	
3	QPSK	15	0	23.01	23.04	23.06	24
3	16QAM	1	0	23.37	23.53	23.41	
3	16QAM	1	8	23.33	23.46	23.31	
3	16QAM	1	14	23.33	23.47	23.24	24
3	16QAM	8	0	22.47	22.63	22.42	
3	16QAM	8	4	22.37	22.52	22.35	
3	16QAM	8	7	22.30	22.54	22.16	24
3	16QAM	15	0	22.16	22.40	22.08	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	24.19	24.25	24.24	25
1.4	QPSK	1	3	23.91	24.17	23.99	
1.4	QPSK	1	5	23.84	24.04	23.81	
1.4	QPSK	3	0	23.06	23.18	23.14	24
1.4	QPSK	3	1	23.00	23.10	23.04	
1.4	QPSK	3	3	22.99	23.05	22.99	
1.4	QPSK	6	0	22.98	23.01	23.04	24
1.4	16QAM	1	0	23.31	23.50	23.37	
1.4	16QAM	1	3	23.28	23.45	23.30	
1.4	16QAM	1	5	23.30	23.43	23.21	24
1.4	16QAM	3	0	22.42	22.60	22.38	
1.4	16QAM	3	1	22.35	22.50	22.33	
1.4	16QAM	3	3	22.28	22.49	22.10	24
1.4	16QAM	6	0	22.13	22.38	22.04	

### LTE Band 7(Top Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	22.63	22.64	22.60	24
20	QPSK	1	49	22.62	22.63	22.60	
20	QPSK	1	99	22.44	22.56	22.43	
20	QPSK	50	0	22.18	22.23	22.22	23
20	QPSK	50	24	22.11	22.07	22.19	
20	QPSK	50	50	22.16	22.02	22.16	
20	QPSK	100	0	22.03	22.12	22.10	22.5
20	16QAM	1	0	22.03	22.10	22.15	
20	16QAM	1	49	22.06	22.10	22.00	
20	16QAM	1	99	21.89	21.97	21.88	22.5
20	16QAM	50	0	21.29	21.36	21.35	
20	16QAM	50	24	21.32	21.34	21.35	
20	16QAM	50	50	21.20	21.24	21.25	22.5
20	16QAM	100	0	21.10	21.17	21.13	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	22.58	22.62	22.56	24
15	QPSK	1	37	22.59	22.61	22.57	
15	QPSK	1	74	22.38	22.53	22.38	
15	QPSK	36	0	22.13	22.20	22.19	23
15	QPSK	36	20	22.05	22.02	22.15	
15	QPSK	36	39	22.11	21.97	22.11	
15	QPSK	75	0	21.97	22.10	22.08	22.5
15	16QAM	1	0	21.98	22.07	22.13	
15	16QAM	1	37	22.01	22.05	21.96	
15	16QAM	1	74	21.83	21.95	21.86	22.5
15	16QAM	36	0	21.24	21.32	21.32	
15	16QAM	36	20	21.27	21.28	21.30	
15	16QAM	36	39	21.19	21.22	21.20	22.5
15	16QAM	75	0	21.07	21.15	21.10	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	22.54	22.61	22.55	24
10	QPSK	1	25	22.56	22.56	22.54	
10	QPSK	1	49	22.34	22.51	22.34	
10	QPSK	25	0	22.11	22.17	22.14	23
10	QPSK	25	12	22.03	21.97	22.12	
10	QPSK	25	25	22.07	21.96	22.09	
10	QPSK	50	0	21.95	22.07	22.05	22.5
10	16QAM	1	0	21.94	22.06	22.12	
10	16QAM	1	25	21.99	22.04	21.94	
10	16QAM	1	49	21.77	21.94	21.85	22.5
10	16QAM	25	0	21.21	21.28	21.29	
10	16QAM	25	12	21.21	21.26	21.26	
10	16QAM	25	25	21.16	21.16	21.14	22.5
10	16QAM	50	0	21.04	21.10	21.05	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	22.52	22.56	22.53	24
5	QPSK	1	12	22.55	22.51	22.50	
5	QPSK	1	24	22.30	22.48	22.33	
5	QPSK	12	0	22.10	22.15	22.10	23
5	QPSK	12	7	21.98	21.92	22.10	
5	QPSK	12	13	22.04	21.91	22.04	
5	QPSK	25	0	21.89	22.04	22.04	22.5
5	16QAM	1	0	21.91	22.05	22.09	
5	16QAM	1	12	21.95	22.02	21.92	
5	16QAM	1	24	21.72	21.88	21.82	22.5
5	16QAM	12	0	21.19	21.23	21.26	
5	16QAM	12	7	21.16	21.20	21.24	
5	16QAM	12	13	21.11	21.14	21.12	22.5
5	16QAM	25	0	21.02	21.06	21.00	

### LTE Band 26(Top Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26765	26865	26965	25
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	24.18	24.20	24.04	25
15	QPSK	1	37	23.98	23.95	23.85	
15	QPSK	1	74	23.77	23.76	23.79	
15	QPSK	36	0	23.30	23.41	23.35	24
15	QPSK	36	20	23.17	23.35	23.16	
15	QPSK	36	39	23.16	23.34	23.16	
15	QPSK	75	0	23.10	23.29	23.21	24
15	16QAM	1	0	23.38	23.52	23.49	
15	16QAM	1	37	23.41	23.45	23.33	
15	16QAM	1	74	23.32	23.43	23.35	24
15	16QAM	36	0	22.21	22.37	22.25	
15	16QAM	36	20	22.17	22.35	22.12	
15	16QAM	36	39	22.04	22.24	22.06	24
15	16QAM	75	0	22.00	22.23	22.02	
Channel				26740	26865	26990	25
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.13	24.18	24.01	25
10	QPSK	1	25	23.95	23.92	23.79	
10	QPSK	1	49	23.72	23.72	23.73	
10	QPSK	25	0	23.26	23.38	23.31	24
10	QPSK	25	12	23.14	23.34	23.15	
10	QPSK	25	25	23.14	23.31	23.14	
10	QPSK	50	0	23.06	23.27	23.16	24
10	16QAM	1	0	23.35	23.50	23.45	
10	16QAM	1	25	23.38	23.40	23.29	
10	16QAM	1	49	23.30	23.40	23.30	24
10	16QAM	25	0	22.17	22.34	22.24	
10	16QAM	25	12	22.11	22.34	22.10	
10	16QAM	25	25	22.00	22.21	22.02	24
10	16QAM	50	0	21.98	22.18	21.97	
Channel				26715	26865	27015	25
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.07	24.15	23.97	25
5	QPSK	1	12	23.93	23.88	23.77	
5	QPSK	1	24	23.66	23.70	23.69	
5	QPSK	12	0	23.20	23.32	23.29	24
5	QPSK	12	7	23.12	23.33	23.10	
5	QPSK	12	13	23.09	23.27	23.11	
5	QPSK	25	0	23.03	23.21	23.12	24
5	16QAM	1	0	23.32	23.46	23.43	
5	16QAM	1	12	23.33	23.36	23.27	
5	16QAM	1	24	23.28	23.34	23.25	24
5	16QAM	12	0	22.15	22.31	22.23	
5	16QAM	12	7	22.08	22.32	22.05	
5	16QAM	12	13	21.98	22.19	21.96	24
5	16QAM	25	0	21.96	22.16	21.91	
Channel				26705	26865	27025	25
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	24.05	24.11	23.92	25
3	QPSK	1	8	23.89	23.83	23.76	
3	QPSK	1	14	23.63	23.68	23.67	
3	QPSK	8	0	23.19	23.30	23.23	24
3	QPSK	8	4	23.11	23.30	23.06	
3	QPSK	8	7	23.05	23.25	23.07	
3	QPSK	15	0	23.01	23.16	23.09	24
3	16QAM	1	0	23.26	23.42	23.41	
3	16QAM	1	8	23.28	23.32	23.21	
3	16QAM	1	14	23.26	23.30	23.19	24
3	16QAM	8	0	22.11	22.27	22.19	
3	16QAM	8	4	22.04	22.27	22.02	
3	16QAM	8	7	21.93	22.18	21.93	24
3	16QAM	15	0	21.93	22.14	21.86	
Channel				26697	26865	27033	25
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.01	24.07	23.90	25
1.4	QPSK	1	3	23.87	23.78	23.74	
1.4	QPSK	1	5	23.57	23.63	23.61	
1.4	QPSK	3	0	23.14	23.26	23.20	24
1.4	QPSK	3	1	23.05	23.27	23.01	
1.4	QPSK	3	3	23.02	23.19	23.05	
1.4	QPSK	6	0	22.99	23.14	23.04	24
1.4	16QAM	1	0	23.24	23.36	23.36	
1.4	16QAM	1	3	23.25	23.28	23.19	
1.4	16QAM	1	5	23.24	23.25	23.15	24
1.4	16QAM	3	0	22.06	22.25	22.15	
1.4	16QAM	3	1	21.98	22.26	22.00	
1.4	16QAM	3	3	21.90	22.15	21.90	24
1.4	16QAM	6	0	21.90	22.10	21.80	

### LTE Band 66(Top Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	24
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	22.76	22.80	22.74	24
20	QPSK	1	49	22.71	22.64	22.66	
20	QPSK	1	99	22.59	22.60	22.57	
20	QPSK	50	0	22.38	22.43	22.27	23.5
20	QPSK	50	24	22.21	22.30	22.15	
20	QPSK	50	50	22.21	22.23	22.06	
20	QPSK	100	0	22.03	22.19	22.01	23.5
20	16QAM	1	0	22.31	22.40	22.39	
20	16QAM	1	49	22.11	22.27	22.26	
20	16QAM	1	99	22.09	22.31	22.13	22.5
20	16QAM	50	0	21.44	21.56	21.67	
20	16QAM	50	24	21.33	21.61	21.60	
20	16QAM	50	50	21.17	21.45	21.42	22.5
20	16QAM	100	0	21.06	21.49	21.32	
Channel				132047	132322	132597	24
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	22.73	22.78	22.71	24
15	QPSK	1	37	22.70	22.61	22.62	
15	QPSK	1	74	22.57	22.54	22.51	
15	QPSK	36	0	22.33	22.40	22.22	23.5
15	QPSK	36	20	22.18	22.28	22.13	
15	QPSK	36	39	22.19	22.19	22.01	
15	QPSK	75	0	21.98	22.15	21.96	23.5
15	16QAM	1	0	22.29	22.38	22.34	
15	16QAM	1	37	22.09	22.24	22.23	
15	16QAM	1	74	22.07	22.28	22.10	22.5
15	16QAM	36	0	21.38	21.51	21.61	
15	16QAM	36	20	21.28	21.56	21.55	
15	16QAM	36	39	21.14	21.39	21.38	22.5
15	16QAM	75	0	21.05	21.44	21.27	
Channel				132022	132322	132622	24
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	22.71	22.77	22.67	24
10	QPSK	1	25	22.69	22.59	22.56	
10	QPSK	1	49	22.52	22.50	22.48	
10	QPSK	25	0	22.30	22.37	22.21	23.5
10	QPSK	25	12	22.16	22.24	22.11	
10	QPSK	25	25	22.15	22.15	22.00	
10	QPSK	50	0	21.95	22.11	21.90	23.5
10	16QAM	1	0	22.26	22.34	22.29	
10	16QAM	1	25	22.04	22.19	22.18	
10	16QAM	1	49	22.02	22.25	22.09	22.5
10	16QAM	25	0	21.33	21.49	21.56	
10	16QAM	25	12	21.26	21.53	21.52	
10	16QAM	25	25	21.12	21.36	21.36	22.5
10	16QAM	50	0	21.04	21.41	21.26	
Channel				131997	132322	132647	24
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	22.69	22.75	22.64	24
5	QPSK	1	12	22.65	22.54	22.53	
5	QPSK	1	24	22.47	22.47	22.45	
5	QPSK	12	0	22.24	22.34	22.18	23.5
5	QPSK	12	7	22.12	22.23	22.06	
5	QPSK	12	13	22.10	22.10	21.95	
5	QPSK	25	0	21.93	22.07	21.84	23.5
5	16QAM	1	0	22.22	22.29	22.26	
5	16QAM	1	12	21.99	22.15	22.13	
5	16QAM	1	24	21.96	22.19	22.03	22.5
5	16QAM	12	0	21.28	21.44	21.51	
5	16QAM	12	7	21.20	21.49	21.50	
5	16QAM	12	13	21.08	21.32	21.33	22.5
5	16QAM	25	0	21.02	21.40	21.22	
Channel				131987	132322	132657	24
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	22.65	22.72	22.59	24
3	QPSK	1	8	22.63	22.49	22.50	
3	QPSK	1	14	22.41	22.45	22.40	
3	QPSK	8	0	22.20	22.29	22.13	23.5
3	QPSK	8	4	22.10	22.17	22.04	
3	QPSK	8	7	22.05	22.08	21.90	
3	QPSK	15	0	21.91	22.04	21.82	23.5
3	16QAM	1	0	22.17	22.25	22.22	
3	16QAM	1	8	21.96	22.11	22.07	
3	16QAM	1	14	21.95	22.17	21.98	22.5
3	16QAM	8	0	21.26	21.39	21.48	
3	16QAM	8	4	21.15	21.45	21.47	
3	16QAM	8	7	21.04	21.31	21.30	22.5
3	16QAM	15	0	20.99	21.38	21.18	
Channel				131979	132322	132665	24
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	22.60	22.66	22.56	24
1.4	QPSK	1</					

### LTE Band 38(Top Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37850	38000	38150	24
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	22.87	22.94	22.90	23
20	QPSK	1	49	22.83	22.89	22.86	
20	QPSK	1	99	22.88	22.92	22.83	23
20	QPSK	50	0	22.36	22.43	22.34	
20	QPSK	50	24	22.31	22.39	22.25	23
20	QPSK	50	50	22.17	22.27	22.25	
20	QPSK	100	0	22.17	22.21	22.10	23
20	16QAM	1	0	22.19	22.26	22.16	
20	16QAM	1	49	22.04	22.09	22.10	22.5
20	16QAM	1	99	21.93	22.07	22.02	
20	16QAM	50	0	21.42	21.44	21.40	22.5
20	16QAM	50	24	21.35	21.50	21.34	
20	16QAM	50	50	21.33	21.44	21.17	22.5
20	16QAM	100	0	21.15	21.32	21.08	
Channel				37825	38000	38175	24
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	22.82	22.85	22.80	23
15	QPSK	1	37	22.79	22.84	22.79	
15	QPSK	1	74	22.76	22.85	22.72	23
15	QPSK	36	0	22.35	22.42	22.26	
15	QPSK	36	20	22.24	22.35	22.16	23
15	QPSK	36	39	22.05	22.15	22.18	
15	QPSK	75	0	22.10	22.18	22.06	23
15	16QAM	1	0	22.14	22.23	22.06	
15	16QAM	1	37	22.00	22.07	22.03	22.5
15	16QAM	1	74	21.81	22.01	21.92	
15	16QAM	36	0	21.31	21.37	21.31	22.5
15	16QAM	36	20	21.25	21.39	21.29	
15	16QAM	36	39	21.22	21.35	21.13	22.5
15	16QAM	75	0	21.07	21.30	21.03	
Channel				37800	38000	38200	24
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	22.76	22.80	22.68	23
10	QPSK	1	25	22.70	22.76	22.76	
10	QPSK	1	49	22.67	22.73	22.67	23
10	QPSK	25	0	22.29	22.33	22.18	
10	QPSK	25	12	22.21	22.26	22.14	23
10	QPSK	25	25	22.02	22.11	22.16	
10	QPSK	50	0	22.09	22.10	21.97	23
10	16QAM	1	0	22.09	22.12	22.03	
10	16QAM	1	25	21.96	21.95	22.01	22.5
10	16QAM	1	49	21.71	21.99	21.89	
10	16QAM	25	0	21.26	21.34	21.24	22.5
10	16QAM	25	12	21.22	21.37	21.18	
10	16QAM	25	25	21.17	21.26	21.08	22.5
10	16QAM	50	0	20.96	21.24	20.97	
Channel				37775	38000	38225	24
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	22.65	22.69	22.67	23
5	QPSK	1	12	22.60	22.64	22.64	
5	QPSK	1	24	22.55	22.60	22.54	23
5	QPSK	12	0	22.20	22.34	22.10	
5	QPSK	12	7	22.14	22.20	22.03	23
5	QPSK	12	13	21.88	21.99	22.05	
5	QPSK	25	0	21.93	22.03	21.91	23
5	16QAM	1	0	22.05	22.03	21.89	
5	16QAM	1	12	21.87	21.93	21.89	22.5
5	16QAM	1	24	21.64	21.83	21.77	
5	16QAM	12	0	21.17	21.18	21.20	22.5
5	16QAM	12	7	21.06	21.29	21.21	
5	16QAM	12	13	21.18	21.22	21.00	22.5
5	16QAM	25	0	20.94	21.11	20.86	

### LTE Band 40A(Top Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				38750			24
Frequency (MHz)				2310			
10	QPSK	1	0	23.00	22.91	22.91	23
10	QPSK	1	25	22.91	22.83	22.83	
10	QPSK	1	49	22.83	22.43	22.43	22.5
10	QPSK	25	0	22.43	22.41	22.24	
10	QPSK	25	12	22.41	22.24	22.24	22.5
10	QPSK	25	25	22.24	22.23	22.23	
10	QPSK	50	0	22.23	22.15	22.15	22.5
10	16QAM	1	0	22.15	22.05	22.05	
10	16QAM	1	25	22.05	21.98	21.98	22.5
10	16QAM	1	49	21.98	21.43	21.43	
10	16QAM	25	0	21.43	21.24	21.24	22.5
10	16QAM	25	12	21.24	21.27	21.27	
10	16QAM	25	25	21.27	21.18	21.18	22.5
10	16QAM	50	0	21.18	21.18	20.97	
Channel				38725	38750	38775	24
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.81	22.90	22.85	23
5	QPSK	1	12	22.79	22.86	22.76	
5	QPSK	1	24	22.76	22.71	22.64	23
5	QPSK	12	0	22.31	22.43	22.30	
5	QPSK	12	7	22.25	22.33	22.23	22.5
5	QPSK	12	13	22.17	22.30	22.18	
5	QPSK	25	0	22.19	22.16	22.12	22.5
5	16QAM	1	0	22.10	22.09	22.01	
5	16QAM	1	12	21.91	21.99	21.92	22.5
5	16QAM	1	24	21.91	21.95	21.80	
5	16QAM	12	0	21.29	21.36	21.23	22.5
5	16QAM	12	7	21.14	21.29	21.09	
5	16QAM	12	13	21.09	21.15	21.03	22.5
5	16QAM	25	0	21.02	21.10	20.97	

### LTE Band 40B(Top Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				39200			
Frequency (MHz)				2355			
10	QPSK	1	0	23.01			24
10	QPSK	1	25	22.85			
10	QPSK	1	49	22.76			
10	QPSK	25	0	22.44			23
10	QPSK	25	12	22.39			
10	QPSK	25	25	22.25			
10	QPSK	50	0	22.26			22.5
10	16QAM	1	0	22.17			
10	16QAM	1	25	22.10			
10	16QAM	1	49	21.93			22.5
10	16QAM	25	0	21.42			
10	16QAM	25	12	21.24			
10	16QAM	25	25	21.23			22.5
10	16QAM	50	0	21.21			
Channel				39175	39200	39225	
Frequency (MHz)				2352.5	2355	2357.5	
5	QPSK	1	0	22.90	22.96	22.80	24
5	QPSK	1	12	22.80	22.86	22.74	
5	QPSK	1	24	22.74	22.75	22.63	
5	QPSK	12	0	22.34	22.43	22.29	23
5	QPSK	12	7	22.23	22.34	22.26	
5	QPSK	12	13	22.15	22.31	22.11	
5	QPSK	25	0	22.18	22.20	22.07	22.5
5	16QAM	1	0	22.02	22.10	22.03	
5	16QAM	1	12	22.01	21.95	21.89	
5	16QAM	1	24	21.89	22.01	21.87	22.5
5	16QAM	12	0	21.34	21.38	21.24	
5	16QAM	12	7	21.21	21.23	21.07	
5	16QAM	12	13	21.17	21.17	21.02	22.5
5	16QAM	25	0	21.09	21.07	21.04	

### LTE Band 41(Top Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				40140	40640	41340	
Frequency (MHz)				2545	2595	2665	
20	QPSK	1	0	22.89	23.06	22.98	24
20	QPSK	1	49	22.76	23.01	22.90	
20	QPSK	1	99	22.70	22.86	22.90	
20	QPSK	50	0	21.97	22.20	22.19	22.5
20	QPSK	50	24	21.83	22.15	22.06	
20	QPSK	50	50	21.82	22.10	21.93	
20	QPSK	100	0	21.66	21.90	21.84	22.5
20	16QAM	1	0	21.84	22.12	22.06	
20	16QAM	1	49	21.67	22.05	22.02	
20	16QAM	1	99	21.65	21.97	21.93	22.5
20	16QAM	50	0	21.05	21.32	21.37	
20	16QAM	50	24	20.91	21.29	21.26	
20	16QAM	50	50	20.84	21.21	21.23	22.5
20	16QAM	100	0	20.85	21.14	21.10	
Channel				40115	40640	41365	
Frequency (MHz)				2542.5	2595	2667.5	
15	QPSK	1	0	22.83	23.04	22.92	24
15	QPSK	1	37	22.65	23.00	22.86	
15	QPSK	1	74	22.64	22.79	22.87	
15	QPSK	36	0	21.95	22.19	22.16	22.5
15	QPSK	36	20	21.72	22.08	21.99	
15	QPSK	36	39	21.71	22.07	21.87	
15	QPSK	75	0	21.56	21.80	21.76	22.5
15	16QAM	1	0	21.73	22.09	21.99	
15	16QAM	1	37	21.58	22.01	22.01	
15	16QAM	1	74	21.63	21.88	21.91	22.5
15	16QAM	36	0	20.94	21.29	21.26	
15	16QAM	36	20	20.86	21.20	21.20	
15	16QAM	36	39	20.83	21.15	21.18	22.5
15	16QAM	75	0	20.80	21.02	21.08	
Channel				40090	40640	41390	
Frequency (MHz)				2540	2605	2670	
10	QPSK	1	0	22.70	23.01	22.91	24
10	QPSK	1	25	22.60	22.96	22.75	
10	QPSK	1	49	22.53	22.78	22.78	
10	QPSK	25	0	21.89	22.09	22.15	22.5
10	QPSK	25	12	21.65	22.01	21.93	
10	QPSK	25	25	21.62	22.03	21.85	
10	QPSK	50	0	21.53	21.72	21.66	22.5
10	16QAM	1	0	21.64	22.06	21.97	
10	16QAM	1	25	21.52	21.98	21.99	
10	16QAM	1	49	21.53	21.77	21.88	22.5
10	16QAM	25	0	20.88	21.20	21.25	
10	16QAM	25	12	20.78	21.12	21.12	
10	16QAM	25	25	20.80	21.07	21.12	22.5
10	16QAM	50	0	20.78	20.97	21.07	
Channel				40965	40640	41415	
Frequency (MHz)				2537.5	2605	2672.5	
5	QPSK	1	0	22.77	22.94	22.78	24
5	QPSK	1	12	22.58	22.92	22.73	
5	QPSK	1	24	22.59	22.67	22.80	
5	QPSK	12	0	21.86	22.09	22.05	22.5
5	QPSK	12	7	21.63	22.02	21.91	
5	QPSK	12	13	21.66	21.98	21.81	
5	QPSK	25	0	21.52	21.69	21.62	22.5
5	16QAM	1	0	21.62	22.00	21.86	
5	16QAM	1	12	21.53	21.92	21.93	
5	16QAM	1	24	21.58	21.77	21.86	22.5
5	16QAM	12	0	20.83	21.16	21.11	
5	16QAM	12	7	20.74	21.07	21.12	
5	16QAM	12	13	20.76	21.11	21.12	22.5
5	16QAM	25	0	20.75	20.97	20.93	

GSM850 TX Channel	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		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	32.69	32.70	32.72	33.50	23.69	23.70	23.72	24.50	0.08
GPRS 1 Tx slot	32.64	32.68	32.68	33.50	23.64	23.68	23.68	24.50	
GPRS 2 Tx slots	30.15	30.20	30.22	31.00	24.15	24.20	24.22	25.00	0.07
GPRS 3 Tx slots	28.41	28.44	28.44	29.00	24.15	24.18	24.18	24.74	0.03
GPRS 4 Tx slots	27.03	27.08	27.10	28.00	24.03	24.08	24.10	25.00	0.07
EDGE 1 Tx slot	27.13	27.15	27.20	28.00	18.13	18.15	18.20	19.00	0.07
EDGE 2 Tx slots	24.10	24.05	24.20	24.50	18.10	18.05	18.20	18.50	0.15
EDGE 3 Tx slots	22.08	22.09	22.22	22.50	17.82	17.83	17.96	18.24	0.14
EDGE 4 Tx slots	20.50	20.54	20.70	21.00	17.50	17.54	17.70	18.00	0.20
Antenna	Bottom Ant								

GSM1900 TX Channel	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		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	30.37	30.45	30.52	31.00	21.37	21.45	21.52	22.00	0.19
GPRS 1 Tx slot	30.33	30.41	30.47	31.00	21.33	21.41	21.47	22.00	
GPRS 2 Tx slots	27.26	27.40	27.53	28.00	21.26	21.40	21.53	22.00	0.27
GPRS 3 Tx slots	25.52	25.64	25.77	26.50	21.26	21.38	21.51	22.24	0.25
GPRS 4 Tx slots	24.20	24.35	24.46	25.00	21.20	21.35	21.46	22.00	0.26
EDGE 1 Tx slot	25.94	26.02	26.23	27.00	16.94	17.02	17.23	18.00	0.29
EDGE 2 Tx slots	23.24	23.44	23.45	24.00	17.24	17.44	17.45	18.00	0.21
EDGE 3 Tx slots	21.35	21.54	21.66	22.00	17.09	17.28	17.40	17.74	0.31
EDGE 4 Tx slots	20.01	20.28	20.33	21.00	17.01	17.28	17.33	18.00	0.32
Antenna	Bottom Ant								

Band	WCDMA Band II			Tune-up Limit (dBm)	WCDMA Band IV			Tune-up Limit (dBm)	WCDMA Band V			Tune-up Limit (dBm)	
TX Channel	9262	9400	9538		1312	1413	1513		4132	4182	4233		
Rx Channel	9662	9800	9938		1537	1638	1738	4357	4407	4458			
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6	826.4	836.4	846.6			
3GPP Rel 99	RMC 12.2Kbps	23.31	23.28	23.25	24.50	23.28	23.23	23.14	24.50	24.77	24.70	24.73	25.50
3GPP Rel 6	HSDPA Subtest-1	21.69	21.50	21.58	22.00	21.75	21.77	21.64	22.50	21.56	21.67	21.79	22.00
3GPP Rel 6	HSDPA Subtest-2	20.72	20.59	20.57	21.50	20.85	20.73	20.65	21.50	20.58	20.72	20.83	21.50
3GPP Rel 6	HSDPA Subtest-3	19.70	19.73	19.61	20.50	19.91	19.78	19.58	20.50	19.64	19.70	19.89	20.50
3GPP Rel 6	HSDPA Subtest-4	19.66	19.89	19.54	20.50	20.02	19.68	19.60	20.50	19.59	19.74	19.89	20.50
3GPP Rel 6	HSUPA Subtest-1	20.17	20.12	20.07	20.50	20.46	20.30	20.12	21.00	22.62	23.07	22.57	23.50
3GPP Rel 6	HSUPA Subtest-2	20.55	20.64	20.57	21.00	20.97	20.85	20.74	21.50	23.05	22.99	23.09	23.50
3GPP Rel 6	HSUPA Subtest-3	19.01	19.19	19.02	19.50	19.53	19.39	19.22	20.00	21.60	22.06	21.57	22.50
3GPP Rel 6	HSUPA Subtest-4	21.45	21.59	21.51	22.00	21.87	21.80	21.71	22.50	23.96	24.04	24.02	24.50
3GPP Rel 6	HSUPA Subtest-5	19.54	19.68	19.52	20.00	20.02	19.88	19.69	20.50	22.03	22.06	22.06	22.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-	19.18	19.17	19.18	19.50	19.40	19.20	19.15	20.00	21.48	21.60	21.54	22.00
Antenna	Bottom Ant				Bottom Ant				Bottom Ant				



LTE Band 2(Bottom Ant)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	22.87	22.93	22.90	24
20	QPSK	1	49	22.76	22.81	22.82	
20	QPSK	1	99	22.68	22.73	22.69	
20	QPSK	50	0	22.47	22.49	22.48	23
20	QPSK	50	24	22.37	22.40	22.39	
20	QPSK	50	50	22.35	22.34	22.28	
20	QPSK	100	0	22.26	22.27	22.24	23
20	16QAM	1	0	22.32	22.51	22.49	
20	16QAM	1	49	22.26	22.40	22.46	
20	16QAM	1	99	22.22	22.36	22.44	23
20	16QAM	50	0	21.50	21.63	21.67	
20	16QAM	50	24	21.44	21.54	21.56	
20	16QAM	50	50	21.35	21.43	21.50	23
20	16QAM	100	0	21.40	21.50	21.48	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	22.86	22.91	22.90	24
15	QPSK	1	37	22.85	22.90	22.86	
15	QPSK	1	74	22.78	22.84	22.79	
15	QPSK	36	0	22.33	22.38	22.35	23
15	QPSK	36	20	22.30	22.34	22.28	
15	QPSK	36	39	22.19	22.21	22.20	
15	QPSK	75	0	22.13	22.24	22.12	23
15	16QAM	1	0	22.16	22.22	22.15	
15	16QAM	1	37	21.95	22.10	22.11	
15	16QAM	1	74	21.93	22.05	22.02	23
15	16QAM	36	0	21.35	21.40	21.41	
15	16QAM	36	20	21.34	21.42	21.30	
15	16QAM	36	39	21.27	21.36	21.18	23
15	16QAM	75	0	21.16	21.33	21.15	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	22.73	22.87	22.83	24
10	QPSK	1	25	22.75	22.81	22.79	
10	QPSK	1	49	22.67	22.76	22.68	
10	QPSK	25	0	22.27	22.27	22.25	23
10	QPSK	25	12	22.22	22.24	22.19	
10	QPSK	25	25	22.12	22.10	22.13	
10	QPSK	50	0	22.03	22.18	22.04	23
10	16QAM	1	0	22.07	22.12	22.04	
10	16QAM	1	25	21.87	22.03	21.99	
10	16QAM	1	49	21.87	21.96	21.94	23
10	16QAM	25	0	21.28	21.35	21.32	
10	16QAM	25	12	21.24	21.33	21.21	
10	16QAM	25	25	21.17	21.27	21.15	23
10	16QAM	50	0	21.15	21.23	21.11	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	22.70	22.80	22.77	24
5	QPSK	1	12	22.73	22.76	22.76	
5	QPSK	1	24	22.65	22.73	22.64	
5	QPSK	12	0	22.23	22.23	22.18	23
5	QPSK	12	7	22.17	22.21	22.16	
5	QPSK	12	13	22.06	22.05	22.07	
5	QPSK	25	0	21.97	22.14	22.00	23
5	16QAM	1	0	22.03	22.09	22.02	
5	16QAM	1	12	21.83	21.97	21.95	
5	16QAM	1	24	21.85	21.93	21.90	23
5	16QAM	12	0	21.25	21.32	21.28	
5	16QAM	12	7	21.20	21.27	21.18	
5	16QAM	12	13	21.14	21.22	21.15	23
5	16QAM	25	0	21.11	21.19	21.11	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	22.64	22.78	22.73	24
3	QPSK	1	8	22.69	22.72	22.71	
3	QPSK	1	14	22.61	22.69	22.60	
3	QPSK	8	0	22.20	22.18	22.13	23
3	QPSK	8	4	22.12	22.15	22.09	
3	QPSK	8	7	22.03	22.00	22.01	
3	QPSK	15	0	21.92	22.09	21.97	23
3	16QAM	1	0	21.99	22.03	21.98	
3	16QAM	1	8	21.76	21.93	21.88	
3	16QAM	1	14	21.82	21.91	21.88	23
3	16QAM	8	0	21.20	21.29	21.22	
3	16QAM	8	4	21.14	21.21	21.11	
3	16QAM	8	7	21.07	21.19	21.04	23
3	16QAM	15	0	20.94	21.14	20.93	
Channel				18607	18900	19193	
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	22.63	22.76	22.73	24
1.4	QPSK	1	3	22.69	22.72	22.72	
1.4	QPSK	1	5	22.61	22.67	22.58	
1.4	QPSK	3	0	22.17	22.20	22.12	23
1.4	QPSK	3	1	22.14	22.15	22.11	
1.4	QPSK	3	3	22.01	22.01	22.04	
1.4	QPSK	6	0	21.95	22.08	21.93	23
1.4	16QAM	1	0	21.99	22.03	21.97	
1.4	16QAM	1	3	21.79	21.94	21.89	
1.4	16QAM	1	5	21.81	21.87	21.88	23
1.4	16QAM	3	0	21.21	21.29	21.24	
1.4	16QAM	3	1	21.17	21.24	21.11	
1.4	16QAM	3	3	21.08	21.16	21.01	23
1.4	16QAM	6	0	20.96	21.16	20.93	

LTE Band 4(Bottom Ant)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	22.80	22.88	22.86	24
20	QPSK	1	49	22.67	22.84	22.73	
20	QPSK	1	99	22.62	22.73	22.62	
20	QPSK	50	0	22.53	22.57	22.55	23
20	QPSK	50	24	22.43	22.46	22.43	
20	QPSK	50	50	22.34	22.39	22.31	
20	QPSK	100	0	22.21	22.29	22.18	23
20	16QAM	1	0	22.39	22.40	22.33	
20	16QAM	1	49	22.30	22.34	22.26	
20	16QAM	1	99	22.23	22.28	22.18	23
20	16QAM	50	0	21.53	21.55	21.46	
20	16QAM	50	24	21.49	21.52	21.43	
20	16QAM	50	50	21.45	21.45	21.33	23
20	16QAM	100	0	21.46	21.44	21.30	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	22.75	22.84	22.80	24
15	QPSK	1	37	22.60	22.77	22.70	
15	QPSK	1	74	22.56	22.67	22.57	
15	QPSK	36	0	22.49	22.53	22.48	23
15	QPSK	36	20	22.38	22.42	22.41	
15	QPSK	36	39	22.29	22.33	22.29	
15	QPSK	75	0	22.15	22.26	22.15	23
15	16QAM	1	0	22.33	22.36	22.29	
15	16QAM	1	37	22.24	22.31	22.21	
15	16QAM	1	74	22.20	22.26	22.14	23
15	16QAM	36	0	21.47	21.52	21.44	
15	16QAM	36	20	21.44	21.47	21.39	
15	16QAM	36	39	21.43	21.41	21.28	23
15	16QAM	75	0	21.44	21.40	21.27	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.70	22.80	22.78	24
10	QPSK	1	25	22.58	22.70	22.67	
10	QPSK	1	49	22.53	22.63	22.53	
10	QPSK	25	0	22.43	22.46	22.45	23
10	QPSK	25	12	22.33	22.35	22.39	
10	QPSK	25	25	22.27	22.28	22.24	
10	QPSK	50	0	22.12	22.19	22.11	23
10	16QAM	1	0	22.29	22.31	22.23	
10	16QAM	1	25	22.20	22.28	22.15	
10	16QAM	1	49	22.18	22.22	22.08	23
10	16QAM	25	0	21.45	21.48	21.40	
10	16QAM	25	12	21.42	21.42	21.34	
10	16QAM	25	25	21.41	21.39	21.24	23
10	16QAM	50	0	21.37	21.37	21.20	
Channel				19975	20175	20375	
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	22.65	22.78	22.73	24
5	QPSK	1	12	22.55	22.66	22.60	
5	QPSK	1	24	22.47	22.61	22.50	
5	QPSK	12	0	22.36	22.41	22.42	23
5	QPSK	12	7	22.30	22.31	22.34	
5	QPSK	12	13	22.21	22.21	22.22	
5	QPSK	25	0	22.06	22.14	22.04	23
5	16QAM	1	0	22.25	22.27	22.20	
5	16QAM	1	12	22.14	22.25	22.13	
5	16QAM	1	24	22.13	22.18	22.03	23
5	16QAM	12	0	21.40	21.45	21.37	
5	16QAM	12	7	21.37	21.35	21.30	
5	16QAM	12	13	21.35	21.33	21.22	23
5	16QAM	25	0	21.31	21.30	21.13	
Channel				19965	20175	20385	
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	22.61	22.74	22.69	24
3	QPSK	1	8	22.50			

### LTE Band 5(Bottom Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	24.30	24.44	24.33	25
10	QPSK	1	25	24.21	24.41	24.22	
10	QPSK	1	49	24.11	24.37	24.10	24
10	QPSK	25	0	23.36	23.49	23.39	
10	QPSK	25	12	23.33	23.37	23.30	24
10	QPSK	25	25	23.27	23.27	23.22	
10	QPSK	50	0	23.27	23.28	23.24	24
10	16QAM	1	0	23.63	23.80	23.66	
10	16QAM	1	25	23.58	23.70	23.58	24
10	16QAM	1	49	23.53	23.66	23.51	
10	16QAM	25	0	22.70	22.86	22.66	24
10	16QAM	25	12	22.65	22.76	22.55	
10	16QAM	25	25	22.53	22.73	22.42	24
10	16QAM	50	0	22.41	22.63	22.31	
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	24.24	24.38	24.30	25
5	QPSK	1	12	24.18	24.35	24.20	
5	QPSK	1	24	24.08	24.31	24.06	24
5	QPSK	12	0	23.30	23.46	23.35	
5	QPSK	12	7	23.27	23.35	23.25	24
5	QPSK	12	13	23.20	23.21	23.19	
5	QPSK	25	0	23.20	23.22	23.18	24
5	16QAM	1	0	23.57	23.73	23.60	
5	16QAM	1	12	23.52	23.67	23.55	24
5	16QAM	1	24	23.47	23.63	23.45	
5	16QAM	12	0	22.68	22.80	22.60	24
5	16QAM	12	7	22.61	22.73	22.50	
5	16QAM	12	13	22.50	22.71	22.37	24
5	16QAM	25	0	22.35	22.60	22.28	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.18	24.35	24.27	25
3	QPSK	1	8	24.15	24.31	24.13	
3	QPSK	1	14	24.01	24.25	24.00	24
3	QPSK	8	0	23.27	23.43	23.33	
3	QPSK	8	4	23.23	23.33	23.19	24
3	QPSK	8	7	23.17	23.15	23.16	
3	QPSK	15	0	23.16	23.18	23.16	24
3	16QAM	1	0	23.51	23.71	23.57	
3	16QAM	1	8	23.49	23.61	23.53	24
3	16QAM	1	14	23.45	23.57	23.39	
3	16QAM	8	0	22.62	22.73	22.53	24
3	16QAM	8	4	22.54	22.67	22.47	
3	16QAM	8	7	22.45	22.65	22.34	24
3	16QAM	15	0	22.30	22.57	22.22	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	24.15	24.31	24.25	25
1.4	QPSK	1	3	24.09	24.27	24.09	
1.4	QPSK	1	5	23.95	24.21	23.93	24
1.4	QPSK	3	0	23.23	23.41	23.27	
1.4	QPSK	3	1	23.18	23.26	23.12	24
1.4	QPSK	3	3	23.10	23.12	23.10	
1.4	QPSK	6	0	23.13	23.13	23.13	24
1.4	16QAM	1	0	23.47	23.68	23.51	
1.4	16QAM	1	3	23.44	23.55	23.51	24
1.4	16QAM	1	5	23.39	23.53	23.36	
1.4	16QAM	3	0	22.57	22.69	22.50	24
1.4	16QAM	3	1	22.48	22.64	22.42	
1.4	16QAM	3	3	22.42	22.58	22.28	24
1.4	16QAM	6	0	22.27	22.51	22.16	

### LTE Band 7(Bottom Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	22.69	22.72	22.68	24
20	QPSK	1	49	22.67	22.70	22.62	
20	QPSK	1	99	22.55	22.58	22.55	23
20	QPSK	50	0	22.29	22.34	22.31	
20	QPSK	50	24	22.20	22.18	22.26	23
20	QPSK	50	50	22.18	22.07	22.22	
20	QPSK	100	0	22.05	22.16	22.14	22.5
20	16QAM	1	0	22.12	22.20	22.18	
20	16QAM	1	49	22.07	22.11	22.09	22.5
20	16QAM	1	99	22.00	22.01	21.98	
20	16QAM	50	0	21.39	21.43	21.42	22.5
20	16QAM	50	24	21.34	21.37	21.37	
20	16QAM	50	50	21.23	21.28	21.35	22.5
20	16QAM	100	0	21.13	21.21	21.22	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	22.65	22.67	22.63	24
15	QPSK	1	37	22.63	22.67	22.57	
15	QPSK	1	74	22.49	22.55	22.49	22.5
15	QPSK	36	0	22.25	22.32	22.26	
15	QPSK	36	20	22.18	22.13	22.21	22.5
15	QPSK	36	39	22.12	22.04	22.18	
15	QPSK	75	0	22.02	22.11	22.10	22.5
15	16QAM	1	0	22.08	22.13	22.11	
15	16QAM	1	37	22.05	22.09	22.05	22.5
15	16QAM	1	74	21.97	21.97	21.95	
15	16QAM	36	0	21.36	21.38	21.37	22.5
15	16QAM	36	20	21.30	21.31	21.31	
15	16QAM	36	39	21.19	21.24	21.33	22.5
15	16QAM	75	0	21.08	21.19	21.18	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	22.60	22.63	22.58	24
10	QPSK	1	25	22.55	22.58	22.51	
10	QPSK	1	49	22.46	22.51	22.44	22.5
10	QPSK	25	0	22.21	22.27	22.21	
10	QPSK	25	12	22.14	22.07	22.16	22.5
10	QPSK	25	25	22.08	22.01	22.15	
10	QPSK	50	0	21.96	22.08	22.05	22.5
10	16QAM	1	0	22.02	22.09	22.08	
10	16QAM	1	25	21.99	22.07	22.02	22.5
10	16QAM	1	49	21.92	21.94	21.89	
10	16QAM	25	0	21.32	21.33	21.31	22.5
10	16QAM	25	12	21.25	21.28	21.29	
10	16QAM	25	25	21.15	21.18	21.28	22.5
10	16QAM	50	0	21.06	21.14	21.13	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	22.57	22.61	22.52	24
5	QPSK	1	12	22.54	22.55	22.48	
5	QPSK	1	24	22.42	22.45	22.41	22.5
5	QPSK	12	0	22.18	22.21	22.16	
5	QPSK	12	7	22.10	22.03	22.11	22.5
5	QPSK	12	13	22.02	21.98	22.12	
5	QPSK	25	0	21.94	22.04	22.00	22.5
5	16QAM	1	0	21.96	22.05	22.05	
5	16QAM	1	12	21.94	22.04	21.96	22.5
5	16QAM	1	24	21.86	21.92	21.87	
5	16QAM	12	0	21.29	21.28	21.27	22.5
5	16QAM	12	7	21.20	21.23	21.22	
5	16QAM	12	13	21.12	21.15	21.22	22.5
5	16QAM	25	0	21.03	21.08	21.09	

### LTE Band 26(Bottom Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26765	26865	26965	25
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	24.23	24.25	24.16	25
15	QPSK	1	37	24.07	24.02	23.92	
15	QPSK	1	74	23.88	23.83	23.82	24
15	QPSK	36	0	23.37	23.47	23.45	
15	QPSK	36	20	23.23	23.38	23.28	24
15	QPSK	36	39	23.19	23.36	23.20	
15	QPSK	75	0	23.19	23.31	23.27	24
15	16QAM	1	0	23.47	23.62	23.53	
15	16QAM	1	37	23.43	23.55	23.42	24
15	16QAM	1	74	23.33	23.53	23.37	
15	16QAM	36	0	22.07	22.28	22.12	24
15	16QAM	36	20	21.99	22.22	21.99	
15	16QAM	36	39	21.87	22.11	21.95	24
15	16QAM	75	0	21.83	22.04	21.89	
Channel				26740	26865	26990	25
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.17	24.19	24.11	25
10	QPSK	1	25	24.02	23.98	23.85	
10	QPSK	1	49	23.84	23.76	23.79	24
10	QPSK	25	0	23.34	23.41	23.42	
10	QPSK	25	12	23.16	23.35	23.24	24
10	QPSK	25	25	23.14	23.30	23.18	
10	QPSK	50	0	23.15	23.27	23.25	24
10	16QAM	1	0	23.40	23.56	23.50	
10	16QAM	1	25	23.37	23.50	23.38	24
10	16QAM	1	49	23.30	23.50	23.30	
10	16QAM	25	0	22.04	22.23	22.08	24
10	16QAM	25	12	21.94	22.19	21.97	
10	16QAM	25	25	21.84	22.04	21.92	24
10	16QAM	50	0	21.79	22.00	21.84	
Channel				26715	26865	27015	25
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.12	24.15	24.04	25
5	QPSK	1	12	23.99	23.94	23.81	
5	QPSK	1	24	23.77	23.73	23.72	24
5	QPSK	12	0	23.31	23.37	23.35	
5	QPSK	12	7	23.13	23.28	23.20	24
5	QPSK	12	13	23.12	23.27	23.11	
5	QPSK	25	0	23.10	23.24	23.22	24
5	16QAM	1	0	23.38	23.51	23.45	
5	16QAM	1	12	23.35	23.47	23.34	24
5	16QAM	1	24	23.27	23.47	23.27	
5	16QAM	12	0	21.99	22.20	22.04	24
5	16QAM	12	7	21.89	22.16	21.94	
5	16QAM	12	13	21.78	22.00	21.86	24
5	16QAM	25	0	21.75	21.94	21.79	
Channel				26705	26865	27025	25
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	24.05	24.09	24.01	25
3	QPSK	1	8	23.94	23.89	23.78	
3	QPSK	1	14	23.70	23.69	23.69	24
3	QPSK	8	0	23.28	23.34	23.32	
3	QPSK	8	4	23.09	23.24	23.16	24
3	QPSK	8	7	23.06	23.20	23.06	
3	QPSK	15	0	23.06	23.19	23.17	24
3	16QAM	1	0	23.31	23.46	23.41	
3	16QAM	1	8	23.31	23.42	23.29	24
3	16QAM	1	14	23.25	23.44	23.22	
3	16QAM	8	0	21.96	22.14	22.01	24
3	16QAM	8	4	21.85	22.12	21.90	
3	16QAM	8	7	21.74	21.97	21.83	24
3	16QAM	15	0	21.69	21.91	21.73	
Channel				26697	26865	27033	25
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.95	24.02	23.97	25
1.4	QPSK	1	3	23.90	23.85	23.75	
1.4	QPSK	1	5	23.64	23.67	23.64	24
1.4	QPSK	3	0	23.24	23.27	23.27	
1.4	QPSK	3	1	23.03	23.18	23.11	24
1.4	QPSK	3	3	23.03	23.14	22.99	
1.4	QPSK	6	0	23.01	23.17	23.10	24
1.4	16QAM	1	0	23.29	23.39	23.36	
1.4	16QAM	1	3	23.26	23.39	23.26	24
1.4	16QAM	1	5	23.19	23.40	23.15	
1.4	16QAM	3	0	21.92	22.08	21.98	24
1.4	16QAM	3	1	21.79	22.08	21.86	
1.4	16QAM	3	3	21.72	21.95	21.80	24
1.4	16QAM	6	0	21.62	21.85	21.69	

### LTE Band 66

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	24
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	22.96	22.98	22.95	24
20	QPSK	1	49	22.93	22.88	22.86	
20	QPSK	1	99	22.89	22.77	22.77	23.5
20	QPSK	50	0	22.56	22.57	22.46	
20	QPSK	50	24	22.47	22.48	22.36	23.5
20	QPSK	50	50	22.37	22.39	22.25	
20	QPSK	100	0	22.29	22.33	22.17	23.5
20	16QAM	1	0	22.51	22.64	22.61	
20	16QAM	1	49	22.28	22.49	22.42	23.5
20	16QAM	1	99	22.26	22.43	22.38	
20	16QAM	50	0	21.54	21.80	21.76	22.5
20	16QAM	50	24	21.48	21.76	21.70	
20	16QAM	50	50	21.42	21.66	21.63	22.5
20	16QAM	100	0	21.31	21.58	21.52	
Channel				132047	132322	132597	24
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	22.90	22.95	22.92	24
15	QPSK	1	37	22.87	22.86	22.83	
15	QPSK	1	74	22.82	22.71	22.70	23.5
15	QPSK	36	0	22.54	22.51	22.42	
15	QPSK	36	20	22.44	22.43	22.32	23.5
15	QPSK	36	39	22.32	22.35	22.21	
15	QPSK	75	0	22.23	22.27	22.15	23.5
15	16QAM	1	0	22.48	22.61	22.56	
15	16QAM	1	37	22.26	22.44	22.38	23.5
15	16QAM	1	74	22.23	22.36	22.33	
15	16QAM	36	0	21.49	21.73	21.74	22.5
15	16QAM	36	20	21.44	21.69	21.68	
15	16QAM	36	39	21.40	21.62	21.57	22.5
15	16QAM	75	0	21.28	21.56	21.47	
Channel				132022	132322	132622	24
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	22.87	22.91	22.86	24
10	QPSK	1	25	22.82	22.83	22.77	
10	QPSK	1	49	22.76	22.65	22.63	23.5
10	QPSK	25	0	22.49	22.47	22.38	
10	QPSK	25	12	22.39	22.40	22.27	23.5
10	QPSK	25	25	22.30	22.30	22.16	
10	QPSK	50	0	22.17	22.24	22.13	23.5
10	16QAM	1	0	22.46	22.54	22.50	
10	16QAM	1	25	22.22	22.41	22.32	23.5
10	16QAM	1	49	22.20	22.31	22.28	
10	16QAM	25	0	21.45	21.69	21.68	22.5
10	16QAM	25	12	21.38	21.67	21.62	
10	16QAM	25	25	21.36	21.56	21.51	22.5
10	16QAM	50	0	21.26	21.54	21.41	
Channel				131997	132322	132647	24
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	22.80	22.85	22.82	24
5	QPSK	1	12	22.76	22.79	22.73	
5	QPSK	1	24	22.72	22.62	22.61	23.5
5	QPSK	12	0	22.46	22.43	22.31	
5	QPSK	12	7	22.36	22.34	22.20	23.5
5	QPSK	12	13	22.27	22.26	22.12	
5	QPSK	25	0	22.14	22.19	22.07	23.5
5	16QAM	1	0	22.40	22.51	22.44	
5	16QAM	1	12	22.18	22.36	22.29	23.5
5	16QAM	1	24	22.17	22.25	22.22	
5	16QAM	12	0	21.41	21.64	21.63	22.5
5	16QAM	12	7	21.34	21.64	21.59	
5	16QAM	12	13	21.31	21.50	21.45	22.5
5	16QAM	25	0	21.20	21.51	21.36	
Channel				131987	132322	132657	24
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	22.78	22.82	22.75	24
3	QPSK	1	8	22.72	22.75	22.68	
3	QPSK	1	14	22.68	22.59	22.56	23.5
3	QPSK	8	0	22.39	22.36	22.29	
3	QPSK	8	4	22.29	22.31	22.15	23.5
3	QPSK	8	7	22.21	22.23	22.06	
3	QPSK	15	0	22.11	22.17	22.04	23.5
3	16QAM	1	0	22.33	22.44	22.40	
3	16QAM	1	8	22.13	22.29	22.25	23.5
3	16QAM	1	14	22.13	22.19	22.17	
3	16QAM	8	0	21.38	21.61	21.57	22.5
3	16QAM	8	4	21.28	21.58	21.54	
3	16QAM	8	7	21.29	21.47	21.41	22.5
3	16QAM	15	0	21.18	21.49	2	

### LTE Band 38(Bottom Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37850	38000	38150	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	22.97	23.02	23.01	24
20	QPSK	1	49	22.93	22.99	22.93	
20	QPSK	1	99	22.90	22.95	22.87	
20	QPSK	50	0	22.43	22.49	22.46	23
20	QPSK	50	24	22.37	22.42	22.35	
20	QPSK	50	50	22.27	22.33	22.32	
20	QPSK	100	0	22.23	22.33	22.20	23
20	16QAM	1	0	22.25	22.31	22.22	
20	16QAM	1	49	22.07	22.19	22.20	
20	16QAM	1	99	22.00	22.14	22.09	22.5
20	16QAM	50	0	21.43	21.51	21.50	
20	16QAM	50	24	21.45	21.53	21.38	
20	16QAM	50	50	21.34	21.47	21.27	22.5
20	16QAM	100	0	21.26	21.43	21.16	
Channel				37825	38000	38175	
Frequency (MHz)				2577.5	2595	2612.5	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	22.93	22.97	22.95	24
15	QPSK	1	37	22.88	22.92	22.88	
15	QPSK	1	74	22.86	22.92	22.83	
15	QPSK	36	0	22.38	22.43	22.42	23
15	QPSK	36	20	22.35	22.39	22.32	
15	QPSK	36	39	22.20	22.31	22.27	
15	QPSK	75	0	22.17	22.29	22.17	23
15	16QAM	1	0	22.20	22.26	22.17	
15	16QAM	1	37	22.00	22.15	22.18	
15	16QAM	1	74	21.96	22.09	22.02	22.5
15	16QAM	36	0	21.37	21.49	21.43	
15	16QAM	36	20	21.41	21.48	21.33	
15	16QAM	36	39	21.28	21.41	21.21	22
15	16QAM	75	0	21.21	21.41	21.13	
15	64QAM	75	0	21.28	21.24	21.30	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	22.90	22.92	22.92	24
10	QPSK	1	25	22.83	22.90	22.83	
10	QPSK	1	49	22.82	22.90	22.79	
10	QPSK	25	0	22.35	22.38	22.35	23
10	QPSK	25	12	22.31	22.34	22.29	
10	QPSK	25	25	22.17	22.25	22.21	
10	QPSK	50	0	22.13	22.27	22.12	23
10	16QAM	1	0	22.17	22.21	22.13	
10	16QAM	1	25	21.97	22.11	22.16	
10	16QAM	1	49	21.89	22.03	22.00	22.5
10	16QAM	25	0	21.35	21.45	21.39	
10	16QAM	25	12	21.36	21.42	21.30	
10	16QAM	25	25	21.22	21.38	21.15	22.5
10	16QAM	50	0	21.15	21.39	21.10	
Channel				37775	38000	38225	
Frequency (MHz)				2572.5	2595	2617.5	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	22.84	22.92	22.90	24
5	QPSK	1	12	22.79	22.87	22.77	
5	QPSK	1	24	22.76	22.86	22.73	
5	QPSK	12	0	22.30	22.32	22.31	23
5	QPSK	12	7	22.27	22.25	22.26	
5	QPSK	12	13	22.12	22.19	22.20	
5	QPSK	25	0	22.04	22.20	22.10	23
5	16QAM	1	0	22.10	22.17	22.09	
5	16QAM	1	12	21.90	22.05	22.07	
5	16QAM	1	24	21.84	21.96	21.89	22.5
5	16QAM	12	0	21.30	21.40	21.36	
5	16QAM	12	7	21.33	21.37	21.20	
5	16QAM	12	13	21.22	21.31	21.13	22.5
5	16QAM	25	0	21.14	21.30	21.05	

### LTE Band 40A(Bottom Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				38750	38750	38750	Tune-up limit (dBm)
Frequency (MHz)				2310	2310	2310	
10	QPSK	1	0	22.93	22.99	22.87	24
10	QPSK	1	25	22.88	22.90	22.84	
10	QPSK	1	49	22.85	22.85	22.85	
10	QPSK	25	0	22.52	22.52	22.52	23
10	QPSK	25	12	22.44	22.44	22.44	
10	QPSK	25	25	22.35	22.35	22.35	
10	QPSK	50	0	22.29	22.29	22.29	22.5
10	16QAM	1	0	22.21	22.21	22.21	
10	16QAM	1	25	22.13	22.13	22.13	
10	16QAM	1	49	22.04	22.04	22.04	22.5
10	16QAM	25	0	21.47	21.47	21.47	
10	16QAM	25	12	21.35	21.35	21.35	
10	16QAM	25	25	21.29	21.29	21.29	22.5
10	16QAM	50	0	21.23	21.23	21.23	
Channel				38725	38750	38775	
Frequency (MHz)				2307.5	2310	2312.5	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.93	22.99	22.87	24
5	QPSK	1	12	22.88	22.90	22.84	
5	QPSK	1	24	22.80	22.79	22.74	
5	QPSK	12	0	22.43	22.50	22.37	23
5	QPSK	12	7	22.33	22.41	22.29	
5	QPSK	12	13	22.23	22.33	22.21	
5	QPSK	25	0	22.21	22.23	22.15	22.5
5	16QAM	1	0	22.12	22.17	22.08	
5	16QAM	1	12	22.02	22.06	21.94	
5	16QAM	1	24	21.93	22.02	21.90	22.5
5	16QAM	12	0	21.39	21.44	21.29	
5	16QAM	12	7	21.25	21.31	21.13	
5	16QAM	12	13	21.20	21.25	21.12	22.5
5	16QAM	25	0	21.12	21.18	21.07	
5	64QAM	25	0	21.00	21.08	20.89	

### LTE Band 40B(Bottom Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				39200			24
Frequency (MHz)				2355			
10	QPSK	1	0	23.02			24
10	QPSK	1	25	22.93			
10	QPSK	1	49	22.84			
10	QPSK	25	0	22.42			23
10	QPSK	25	12	22.39			
10	QPSK	25	25	22.36			
10	QPSK	50	0	22.23			22.5
10	16QAM	1	0	22.23			
10	16QAM	1	25	22.20			
10	16QAM	1	49	22.10			22.5
10	16QAM	25	0	21.55			
10	16QAM	25	12	21.48			
10	16QAM	25	25	21.36			22.5
10	16QAM	50	0	21.31			
Channel				39175	39200	39225	
Frequency (MHz)				2352.5	2355	2357.5	
5	QPSK	1	0	22.94	22.99	22.91	24
5	QPSK	1	12	22.84	22.90	22.80	
5	QPSK	1	24	22.76	22.78	22.77	
5	QPSK	12	0	22.31	22.35	22.28	23
5	QPSK	12	7	22.32	22.33	22.28	
5	QPSK	12	13	22.26	22.33	22.25	
5	QPSK	25	0	22.13	22.21	22.12	22.5
5	16QAM	1	0	22.14	22.19	22.11	
5	16QAM	1	12	22.13	22.15	22.05	
5	16QAM	1	24	22.03	22.06	21.99	22.5
5	16QAM	12	0	21.47	21.52	21.41	
5	16QAM	12	7	21.39	21.44	21.34	
5	16QAM	12	13	21.25	21.30	21.27	22.5
5	16QAM	25	0	21.22	21.25	21.20	
5	64QAM	25	0	21.12	21.14	21.08	

### LTE Band 41(Bottom Ant)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				40140	40640	41340	24
Frequency (MHz)				2545	2595	2665	
20	QPSK	1	0	22.98	23.16	23.12	24
20	QPSK	1	49	22.89	23.13	23.07	
20	QPSK	1	99	22.86	23.06	23.03	
20	QPSK	50	0	22.10	22.38	22.30	23
20	QPSK	50	24	21.99	22.27	22.25	
20	QPSK	50	50	21.95	22.24	22.12	
20	QPSK	100	0	21.79	22.06	21.96	22.5
20	16QAM	1	0	21.96	22.24	22.20	
20	16QAM	1	49	21.84	22.16	22.13	
20	16QAM	1	99	21.77	22.09	22.09	22.5
20	16QAM	50	0	21.18	21.52	21.53	
20	16QAM	50	24	21.10	21.47	21.44	
20	16QAM	50	50	21.02	21.38	21.38	22.5
20	16QAM	100	0	20.98	21.30	21.30	
Channel				40115	40640	41365	
Frequency (MHz)				2542.5	2595	2667.5	
15	QPSK	1	0	22.94	23.10	23.08	24
15	QPSK	1	37	22.85	23.10	23.04	
15	QPSK	1	74	22.80	23.01	22.97	
15	QPSK	36	0	22.08	22.31	22.24	23
15	QPSK	36	20	21.96	22.20	22.19	
15	QPSK	36	39	21.89	22.22	22.09	
15	QPSK	75	0	21.77	22.00	21.90	22.5
15	16QAM	1	0	21.92	22.20	22.16	
15	16QAM	1	37	21.81	22.10	22.08	
15	16QAM	1	74	21.70	22.05	22.05	22.5
15	16QAM	36	0	21.13	21.45	21.47	
15	16QAM	36	20	21.08	21.45	21.39	
15	16QAM	36	39	20.99	21.36	21.33	22.5
15	16QAM	75	0	20.94	21.24	21.24	
15	64QAM	75	0	20.92	21.16	21.20	
Channel				40090	40640	41390	24
Frequency (MHz)				2540	2605	2670	
10	QPSK	1	0	22.90	23.06	23.04	24
10	QPSK	1	25	22.78	23.04	22.97	
10	QPSK	1	49	22.77	22.95	22.92	
10	QPSK	25	0	22.02	22.26	22.18	23
10	QPSK	25	12	21.89	22.17	22.17	
10	QPSK	25	25	21.86	22.20	22.05	
10	QPSK	50	0	21.72	21.96	21.84	22.5
10	16QAM	1	0	21.86	22.14	22.11	
10	16QAM	1	25	21.75	22.08	22.05	
10	16QAM	1	49	21.67	22.01	21.98	22.5
10	16QAM	25	0	21.10	21.38	21.43	
10	16QAM	25	12	21.06	21.40	21.33	
10	16QAM	25	25	20.93	21.31	21.30	22.5
10	16QAM	50	0	20.92	21.18	21.20	
Channel				40065	40640	41415	
Frequency (MHz)				2537.5	2605	2672.5	
5	QPSK	1	0	22.87	23.01	22.98	24
5	QPSK	1	12	22.75	23.01	22.94	
5	QPSK	1	24	22.73	22.91	22.87	
5	QPSK	12	0	21.97	22.22	22.17	23
5	QPSK	12	7	21.86	22.15	22.10	
5	QPSK	12	13	21.79	22.13	21.98	
5	QPSK	25	0	21.68	21.92	21.77	22.5
5	16QAM	1	0	21.81	22.11	22.10	
5	16QAM	1	12	21.71	22.02	21.99	
5	16QAM	1	24	21.65	21.99	22.00	22.5
5	16QAM	12	0	21.03	21.33	21.40	
5	16QAM	12	7	20.98	21.37	21.35	
5	16QAM	12	13	20.88	21.26	21.27	22.5
5	16QAM	25	0	20.86	21.16	21.17	

## 2.4GHz WLAN

2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11b 1Mbps	CH 1	2412	17.44	18.00	18.00	100.00
		CH 6	2437	17.59	18.00	18.00	
		CH 11	2462	17.19	18.00	18.00	
	802.11g 6Mbps	CH 1	2412	9.05	9.50	10.00	96.86
		CH 6	2437	17.05	17.50	17.50	
		CH 11	2462	8.99	9.50	10.00	
	802.11n-HT20 MCS0	CH 1	2412	8.94	9.50	10.00	96.65
		CH 6	2437	17.11	17.50	17.50	
CH 11		2462	8.84	9.50	10.00		

## Bluetooth

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	9.62	6.02	5.98
	CH 39	2441	9.36	6.25	5.76
	CH 78	2480	10.10	7.09	6.83
Tune-up Limit			10.5	7.5	7.5
Duty Cycle %			76.8	76.6	76.8

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			1Mbps	2Mbps
LE	CH 00	2402	-4.27	-6.78
	CH 19	2440	-3.40	-5.89
	CH 39	2480	-4.18	-6.62
Tune-up Limit			-3.5	-5
Duty Cycle %			60.8	31.2



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## Annex E2 Conducted Reduction Power

GSM850		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251	128		189	251		
Frequency (MHz)	824.2	836.4	848.8	824.2	836.4	848.8			
GSM 1 Tx slot	32.19	32.31	32.39	33.50	23.19	23.31	23.39	24.50	
GPRS 1 Tx slot	32.15	32.21	32.33	33.50	23.15	23.21	23.33	24.50	
GPRS 2 Tx slots	29.64	29.71	29.86	31.00	23.64	23.71	23.86	25.00	
GPRS 3 Tx slots	27.88	27.94	28.00	29.00	23.62	23.68	23.74	24.74	
GPRS 4 Tx slots	26.55	26.60	26.71	28.00	23.55	23.60	23.71	25.00	
EDGE 1 Tx slot	26.79	26.73	27.14	28.00	17.79	17.73	18.14	19.00	
EDGE 2 Tx slots	24.05	24.14	24.13	24.50	18.05	18.14	18.13	18.50	
EDGE 3 Tx slots	22.14	22.22	22.47	22.50	17.88	17.96	18.21	18.24	
EDGE 4 Tx slots	20.18	20.42	20.48	21.00	17.18	17.42	17.48	18.00	
Antenna	Top Ant for Head								

GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810	512		661	810		
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8			
GSM 1 Tx slot	25.84	25.99	26.17	26.50	16.84	16.99	17.17	17.50	
GPRS 1 Tx slot	25.80	26.07	26.12	26.50	16.80	17.07	17.12	17.50	
GPRS 2 Tx slots	22.81	23.06	23.15	23.50	16.81	17.06	17.15	17.50	
GPRS 3 Tx slots	21.41	21.59	21.68	22.00	17.15	17.33	17.42	17.74	
GPRS 4 Tx slots	19.75	20.05	20.07	20.50	16.75	17.05	17.07	17.50	
EDGE 1 Tx slot	22.01	22.07	22.46	23.00	13.01	13.07	13.46	14.00	
EDGE 2 Tx slots	18.91	19.02	19.27	20.00	12.91	13.02	13.27	14.00	
EDGE 3 Tx slots	16.87	17.03	17.20	17.50	12.61	12.77	12.94	13.24	
EDGE 4 Tx slots	15.97	15.85	16.28	16.50	12.97	12.85	13.28	13.50	
Antenna	Top Ant for Head								

Band		WCDMA Band II			Tune-up Limit (dBm)	WCDMA Band IV			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	18.21	18.16	18.19	19.00	18.19	18.09	18.17	19.50	
3GPP Rel 6 HSDPA Subtest-1	17.32	17.49	17.44	18.00	17.68	17.64	17.57	18.50	
3GPP Rel 6 HSDPA Subtest-2	17.41	17.42	17.45	18.00	17.71	17.65	17.54	18.50	
3GPP Rel 6 HSDPA Subtest-3	16.94	17.09	16.95	17.50	17.26	17.18	17.09	18.00	
3GPP Rel 6 HSDPA Subtest-4	16.87	16.95	16.95	17.50	17.22	17.11	17.08	18.00	
3GPP Rel 6 HSUPA Subtest-1	17.42	17.57	17.48	18.00	17.72	17.58	17.64	18.50	
3GPP Rel 6 HSUPA Subtest-2	17.41	17.54	17.44	18.00	17.74	17.63	17.61	18.50	
3GPP Rel 6 HSUPA Subtest-3	16.96	17.06	16.97	17.50	17.28	17.16	17.12	18.00	
3GPP Rel 6 HSUPA Subtest-4	17.39	17.51	17.44	18.00	17.65	17.65	17.59	18.50	
3GPP Rel 6 HSUPA Subtest-5	16.92	17.08	16.93	17.50	17.22	17.22	17.18	18.00	
3GPP Rel 7 HSPA+ (16QAM) Subtest-	15.56	15.70	15.62	16.00	16.22	16.05	15.91	17.00	
Antenna	Top Ant for Head				Top Ant for Head				



### LTE Band 2(Top Ant for Head)

BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				18700	18900	19100	19	
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	17.94	17.99	17.95	18.5	
20	QPSK	1	49	17.82	17.93	17.92		
20	QPSK	1	99	17.86	17.89	17.86		
20	QPSK	50	0	17.78	17.81	17.72		
20	QPSK	50	24	17.63	17.67	17.64	18.5	
20	QPSK	50	50	17.62	17.67	17.55		
20	QPSK	100	0	17.42	17.51	17.47		
20	16QAM	1	0	17.69	17.76	17.72		
20	16QAM	1	49	17.57	17.68	17.62	18.5	
20	16QAM	1	99	17.53	17.60	17.66		
20	16QAM	50	0	17.49	17.69	17.67		
20	16QAM	50	24	17.40	17.56	17.56		
20	16QAM	50	50	17.39	17.42	17.56	18.5	
20	16QAM	100	0	17.42	17.50	17.54		
Channel				18675	18900	19125		18.5
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	17.84	17.89	17.85	18.5	
15	QPSK	1	37	17.72	17.83	17.82		
15	QPSK	1	74	17.76	17.79	17.76		
15	QPSK	36	0	17.68	17.71	17.62		
15	QPSK	36	20	17.53	17.57	17.54	18	
15	QPSK	36	39	17.52	17.57	17.45		
15	QPSK	75	0	17.32	17.41	17.37		
15	16QAM	1	0	17.59	17.66	17.62		
15	16QAM	1	37	17.47	17.58	17.52	18	
15	16QAM	1	74	17.43	17.50	17.56		
15	16QAM	36	0	17.39	17.59	17.57		
15	16QAM	36	20	17.30	17.46	17.46		
15	16QAM	36	39	17.29	17.32	17.46	18	
15	16QAM	75	0	17.32	17.40	17.44		
Channel				18650	18900	19150		18.5
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	17.72	17.77	17.73	18.5	
10	QPSK	1	25	17.60	17.71	17.70		
10	QPSK	1	49	17.64	17.67	17.64		
10	QPSK	25	0	17.56	17.59	17.50		
10	QPSK	25	12	17.41	17.45	17.42	18	
10	QPSK	25	25	17.40	17.45	17.33		
10	QPSK	50	0	17.20	17.29	17.25		
10	16QAM	1	0	17.47	17.54	17.50		
10	16QAM	1	25	17.35	17.46	17.40	18	
10	16QAM	1	49	17.31	17.38	17.44		
10	16QAM	25	0	17.27	17.47	17.45		
10	16QAM	25	12	17.18	17.34	17.34		
10	16QAM	25	25	17.17	17.20	17.34	18	
10	16QAM	50	0	17.20	17.28	17.32		
Channel				18625	18900	19175		18.5
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	17.61	17.66	17.62	18.5	
5	QPSK	1	12	17.49	17.60	17.59		
5	QPSK	1	24	17.53	17.56	17.53		
5	QPSK	12	0	17.45	17.48	17.39		
5	QPSK	12	7	17.30	17.34	17.31	18	
5	QPSK	12	13	17.29	17.34	17.22		
5	QPSK	25	0	17.09	17.18	17.14		
5	16QAM	1	0	17.36	17.43	17.39		
5	16QAM	1	12	17.24	17.35	17.29	18	
5	16QAM	1	24	17.20	17.27	17.33		
5	16QAM	12	0	17.16	17.36	17.34		
5	16QAM	12	7	17.07	17.23	17.23		
5	16QAM	12	13	17.06	17.09	17.23	18	
5	16QAM	25	0	17.09	17.17	17.21		
Channel				18615	18900	19185		18.5
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	17.50	17.55	17.51	18.5	
3	QPSK	1	8	17.38	17.49	17.48		
3	QPSK	1	14	17.42	17.45	17.42		
3	QPSK	8	0	17.34	17.37	17.28		
3	QPSK	8	4	17.19	17.23	17.20	18	
3	QPSK	8	7	17.18	17.23	17.11		
3	QPSK	15	0	16.98	17.07	17.03		
3	16QAM	1	0	17.25	17.32	17.28		
3	16QAM	1	8	17.13	17.24	17.18	18	
3	16QAM	1	14	17.09	17.16	17.22		
3	16QAM	8	0	17.05	17.25	17.23		
3	16QAM	8	4	16.96	17.12	17.12		
3	16QAM	8	7	16.95	16.98	17.12	18	
3	16QAM	15	0	16.98	17.06	17.10		
Channel				18607	18900	19193		18.5
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	17.40	17.45	17.41	18.5	
1.4	QPSK	1	3	17.28	17.39	17.38		
1.4	QPSK	1	5	17.32	17.35	17.32		
1.4	QPSK	3	0	17.24	17.27	17.18		
1.4	QPSK	3	1	17.09	17.13	17.10	18	
1.4	QPSK	3	3	17.08	17.13	17.01		
1.4	QPSK	6	0	16.88	16.97	16.93		
1.4	16QAM	1	0	17.15	17.22	17.18		
1.4	16QAM	1	3	17.03	17.14	17.08	18	
1.4	16QAM	1	5	16.99	17.06	17.12		
1.4	16QAM	3	0	16.95	17.15	17.13		
1.4	16QAM	3	1	16.86	17.02	17.02		
1.4	16QAM	3	3	16.85	16.88	17.02	18	
1.4	16QAM	6	0	16.88	16.96	17.00		

### LTE Band 4(Top Ant for Head)

BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				20050	20175	20300	18.5	
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	17.29	17.43	17.35	18.5	
20	QPSK	1	49	17.20	17.38	17.22		
20	QPSK	1	99	17.19	17.15	17.16		
20	QPSK	50	0	17.12	17.20	17.14		
20	QPSK	50	24	17.04	17.08	17.03	18	
20	QPSK	50	50	16.90	16.93	16.88		
20	QPSK	100	0	16.78	16.83	16.84		
20	16QAM	1	0	17.01	17.06	16.86		
20	16QAM	1	49	16.87	16.87	16.83	18	
20	16QAM	1	99	16.83	16.79	16.70		
20	16QAM	50	0	16.99	17.05	16.94		
20	16QAM	50	24	17.02	16.97	16.90		
20	16QAM	50	50	16.88	16.89	16.75	18	
20	16QAM	100	0	16.95	16.96	16.79		
Channel				20025	20175	20325		18.5
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	17.18	17.32	17.24	18.5	
15	QPSK	1	37	17.09	17.27	17.11		
15	QPSK	1	74	17.08	17.04	17.05		
15	QPSK	36	0	17.01	17.09	17.03		
15	QPSK	36	20	16.93	16.97	16.92	18	
15	QPSK	36	39	16.79	16.82	16.77		
15	QPSK	75	0	16.67	16.72	16.73		
15	16QAM	1	0	16.90	16.95	16.75		
15	16QAM	1	37	16.76	16.76	16.72	18	
15	16QAM	1	74	16.72	16.68	16.59		
15	16QAM	36	0	16.88	16.94	16.83		
15	16QAM	36	20	16.91	16.86	16.79		
15	16QAM	36	39	16.77	16.78	16.64	18	
15	16QAM	75	0	16.84	16.85	16.68		
Channel				20000	20175	20350		18.5
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	17.08	17.22	17.14	18.5	
10	QPSK	1	25	16.99	17.17	17.01		
10	QPSK	1	49	16.98	16.94	16.95		
10	QPSK	25	0	16.91	16.99	16.93		
10	QPSK	25	12	16.83	16.87	16.82	18	
10	QPSK	25	25	16.69	16.72	16.67		
10	QPSK	50	0	16.57	16.62	16.63		
10	16QAM	1	0	16.80	16.85	16.65		
10	16QAM	1	25	16.66	16.66	16.62	18	
10	16QAM	1	49	16.62	16.58	16.49		
10	16QAM	25	0	16.78	16.84	16.73		
10	16QAM	25	12	16.81	16.76	16.69		
10	16QAM	25	25	16.67	16.68	16.54	18	
10	16QAM	50	0	16.74	16.75	16.58		
Channel				19975	20175	20375		18.5
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	17.08	17.22	17.14	18	
5	QPSK	1	12	16.99	17.17	17.01		
5	QPSK	1	24	16.98	16.94	16.95		
5	QPSK	12	0	16.91	16.99	16.93		
5	QPSK	12	7	16.83	16.87	16.82	17.5	
5	QPSK	12	13	16.69	16.72	16.67		
5	QPSK	25	0	16.57	16.62	16.63		
5	16QAM	1	0	16.80	16.85	16.65		
5	16QAM	1	12	16.66	16.66	16.62	17.5	
5	16QAM	1	24	16.62	16.58	16.49		
5	16QAM	12	0	16.78	16.84	16.73		
5	16QAM	12	7	16.81	16.76	16.69		
5	16QAM	12	13	16.67	16.68	16.54	17.5	
5	16QAM	25	0	16.74	16.75	16.58		
Channel				19965	20175	20385		18.5
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	16.97	17.11	17.03	18	
3	QPSK	1	8	16.88	17.06	16.90		
3	QPSK	1	14					

### LTE Band 7(Top Ant for Head)

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	18.53	18.56	18.51	19.5
20	QPSK	1	49	18.53	18.54	18.53	
20	QPSK	1	99	18.34	18.46	18.33	
20	QPSK	50	0	18.23	18.28	18.29	19
20	QPSK	50	24	18.19	18.11	18.24	
20	QPSK	50	50	18.22	18.06	18.23	
20	QPSK	100	0	18.08	18.20	18.16	19
20	16QAM	1	0	18.24	18.29	18.38	
20	16QAM	1	49	18.27	18.30	18.21	
20	16QAM	1	99	18.09	18.17	18.09	19
20	16QAM	50	0	17.84	17.90	17.91	
20	16QAM	50	24	17.87	17.90	17.92	
20	16QAM	50	50	17.75	17.78	17.82	19
20	16QAM	100	0	17.66	17.74	17.69	
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	18.50	18.53	18.50	19.5
15	QPSK	1	37	18.51	18.53	18.49	
15	QPSK	1	74	18.29	18.41	18.30	
15	QPSK	36	0	18.21	18.24	18.25	19
15	QPSK	36	20	18.14	18.06	18.20	
15	QPSK	36	39	18.18	18.04	18.21	
15	QPSK	75	0	18.04	18.17	18.11	19
15	16QAM	1	0	18.20	18.27	18.34	
15	16QAM	1	37	18.24	18.26	18.17	
15	16QAM	1	74	18.08	18.13	18.05	19
15	16QAM	36	0	17.83	17.87	17.87	
15	16QAM	36	20	17.84	17.87	17.88	
15	16QAM	36	39	17.72	17.75	17.77	19
15	16QAM	75	0	17.63	17.71	17.65	
Channel				20800	21100	21400	
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	18.49	18.52	18.47	19.5
10	QPSK	1	25	18.50	18.53	18.50	
10	QPSK	1	49	18.33	18.41	18.29	
10	QPSK	25	0	18.18	18.27	18.28	19
10	QPSK	25	12	18.15	18.06	18.19	
10	QPSK	25	25	18.20	18.02	18.21	
10	QPSK	50	0	18.03	18.16	18.14	19
10	16QAM	1	0	18.20	18.24	18.35	
10	16QAM	1	25	18.24	18.26	18.20	
10	16QAM	1	49	18.04	18.16	18.08	19
10	16QAM	25	0	17.82	17.86	17.89	
10	16QAM	25	12	17.85	17.87	17.88	
10	16QAM	25	25	17.72	17.76	17.80	19
10	16QAM	50	0	17.62	17.73	17.64	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	18.47	18.50	18.42	19.5
5	QPSK	1	12	18.46	18.51	18.47	
5	QPSK	1	24	18.31	18.39	18.26	
5	QPSK	12	0	18.15	18.22	18.25	19
5	QPSK	12	7	18.13	18.05	18.16	
5	QPSK	12	13	18.18	17.98	18.17	
5	QPSK	25	0	17.99	18.13	18.12	19
5	16QAM	1	0	18.17	18.21	18.30	
5	16QAM	1	12	18.20	18.23	18.19	
5	16QAM	1	24	18.00	18.12	18.05	19
5	16QAM	12	0	17.79	17.82	17.85	
5	16QAM	12	7	17.83	17.83	17.86	
5	16QAM	12	13	17.68	17.72	17.78	19
5	16QAM	25	0	17.59	17.70	17.62	

### LTE Band 66(Top Ant for Head)

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	17.56	17.60	17.54	18.5
20	QPSK	1	49	17.51	17.44	17.46	
20	QPSK	1	99	17.39	17.40	17.37	
20	QPSK	50	0	17.28	17.36	17.17	18
20	QPSK	50	24	17.11	17.20	17.05	
20	QPSK	50	50	17.11	17.13	16.96	
20	QPSK	100	0	16.93	17.09	16.91	18
20	16QAM	1	0	17.26	17.32	17.34	
20	16QAM	1	49	17.06	17.22	17.21	
20	16QAM	1	99	17.04	17.26	17.08	18
20	16QAM	50	0	16.94	17.06	17.17	
20	16QAM	50	24	16.83	17.11	17.10	
20	16QAM	50	50	16.67	16.95	16.92	18
20	16QAM	100	0	16.56	16.99	16.82	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	17.45	17.49	17.43	18.5
15	QPSK	1	37	17.40	17.33	17.35	
15	QPSK	1	74	17.28	17.29	17.26	
15	QPSK	36	0	17.17	17.25	17.06	18
15	QPSK	36	20	17.00	17.09	16.94	
15	QPSK	36	39	17.00	17.02	16.85	
15	QPSK	75	0	16.82	16.98	16.80	18
15	16QAM	1	0	17.15	17.21	17.23	
15	16QAM	1	37	16.95	17.11	17.10	
15	16QAM	1	74	16.93	17.15	16.97	18
15	16QAM	36	0	16.83	16.95	17.06	
15	16QAM	36	20	16.72	17.00	16.99	
15	16QAM	36	39	16.56	16.84	16.81	18
15	16QAM	75	0	16.45	16.88	16.71	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	17.34	17.38	17.32	18
10	QPSK	1	25	17.29	17.22	17.24	
10	QPSK	1	49	17.17	17.18	17.15	
10	QPSK	25	0	17.06	17.14	16.95	17.5
10	QPSK	25	12	16.89	16.98	16.83	
10	QPSK	25	25	16.89	16.91	16.74	
10	QPSK	50	0	16.71	16.87	16.69	17.5
10	16QAM	1	0	17.04	17.10	17.12	
10	16QAM	1	25	16.84	17.00	16.99	
10	16QAM	1	49	16.82	17.04	16.86	17.5
10	16QAM	25	0	16.72	16.84	16.95	
10	16QAM	25	12	16.61	16.89	16.88	
10	16QAM	25	25	16.45	16.73	16.70	17.5
10	16QAM	50	0	16.34	16.77	16.60	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	17.34	17.38	17.32	18
5	QPSK	1	12	17.29	17.22	17.24	
5	QPSK	1	24	17.17	17.18	17.15	
5	QPSK	12	0	17.06	17.14	16.95	17.5
5	QPSK	12	7	16.89	16.98	16.83	
5	QPSK	12	13	16.89	16.91	16.74	
5	QPSK	25	0	16.71	16.87	16.69	17.5
5	16QAM	1	0	17.04	17.10	17.12	
5	16QAM	1	12	16.84	17.00	16.99	
5	16QAM	1	24	16.82	17.04	16.86	17.5
5	16QAM	12	0	16.72	16.84	16.95	
5	16QAM	12	7	16.61	16.89	16.88	
5	16QAM	12	13	16.45	16.73	16.70	17.5
5	16QAM	25	0	16.34	16.77	16.60	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	17.24	17.28	17.22	18
3	QPSK	1	8	17.19	17.12	17.14	
3	QPSK	1	14	17.07	17.08	17.05	
3	QPSK	8	0	16.96	17.04	16.85	17.5
3	QPSK	8	4	16.79	16.88	16.73	
3	QPSK	8	7	16.79	16.81	16.64	
3	QPSK	15	0	16.61	16.77	16.59	17.5
3	16QAM	1	0	16.94	17.00	17.02	
3	16QAM	1	8	16.74	16.90	16.89	
3	16QAM	1	14	16.72	16.94	16.76	17.5
3	16QAM	8	0	16.62	16.74	16.85	
3	16QAM	8	4	16.51	16.79	16.78	
3	16QAM	8	7	16.35	16.63	16.60	17.5
3	16QAM	15	0	16.24	16.67	16.50	
Channel				131979	132322	132685	
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	17.14	17.18	17.12	18
1.4	QPSK	1	3	17.09	17.02	17.04	
1.4	QPSK	1	5	16.97	16.98	16.95	
1.4	QPSK	3	0	16.86	16.94	16.75	17.5
1.4	QPSK	3	1	16.69	16.78	16.63	
1.4	QPSK	3	3	16.69	16.71	16.54	
1.4	QPSK	6	0	16.51	16.67	16.49	17.5
1.4	16QAM	1	0	16.84	16.90	16.92	
1.4	16QAM	1	3	16.64	16.80	16.79	
1.4	16QAM	1	5	16.62	16.84	16.66	17.5
1.4	16QAM	3	0	16.52	16.64	16.75	
1.4	16QAM	3	1	16.41	16.69	16.68	
1.4	16QAM	3	3	16.25	16.53	16.50	17
1.4	16QAM	6	0	16.14	16.57	16.40	

### LTE Band 38(Top Ant for Head)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37850	38000	38150	21.5
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	20.66	20.72	20.68	21
20	QPSK	1	49	20.63	20.67	20.64	
20	QPSK	1	99	20.66	20.66	20.62	
20	QPSK	50	0	20.32	20.40	20.31	21
20	QPSK	50	24	20.27	20.34	20.22	
20	QPSK	50	50	20.11	20.23	20.20	
20	QPSK	100	0	20.12	20.17	20.05	21
20	16QAM	1	0	20.34	20.42	20.31	
20	16QAM	1	49	20.21	20.26	20.26	
20	16QAM	1	99	20.09	20.24	20.18	21
20	16QAM	50	0	19.59	19.61	19.57	
20	16QAM	50	24	19.51	19.67	19.52	
20	16QAM	50	50	19.51	19.61	19.35	21
20	16QAM	100	0	19.29	19.49	19.33	
Channel				37825	38000	38175	
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	20.62	20.69	20.64	21
15	QPSK	1	37	20.59	20.63	20.63	
15	QPSK	1	74	20.62	20.65	20.59	
15	QPSK	36	0	20.31	20.38	20.30	21
15	QPSK	36	20	20.25	20.31	20.19	
15	QPSK	36	39	20.09	20.20	20.17	
15	QPSK	75	0	20.09	20.13	20.02	21
15	16QAM	1	0	20.32	20.39	20.29	
15	16QAM	1	37	20.19	20.22	20.22	
15	16QAM	1	74	20.06	20.23	20.13	21
15	16QAM	36	0	19.56	19.60	19.53	
15	16QAM	36	20	19.46	19.62	19.50	
15	16QAM	36	39	19.49	19.59	19.32	21
15	16QAM	75	0	19.26	19.47	19.31	
Channel				37800	38000	38200	
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	20.62	20.66	20.62	21
10	QPSK	1	25	20.58	20.61	20.55	
10	QPSK	1	49	20.58	20.62	20.54	
10	QPSK	25	0	20.27	20.33	20.27	21
10	QPSK	25	12	20.17	20.26	20.15	
10	QPSK	25	25	20.08	20.17	20.15	
10	QPSK	50	0	20.07	20.10	20.00	21
10	16QAM	1	0	20.29	20.40	20.25	
10	16QAM	1	25	20.18	20.19	20.18	
10	16QAM	1	49	20.00	20.21	20.10	21
10	16QAM	25	0	19.54	19.55	19.52	
10	16QAM	25	12	19.46	19.62	19.47	
10	16QAM	25	25	19.48	19.57	19.27	21
10	16QAM	50	0	19.22	19.43	19.29	
Channel				37775	38000	38225	
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	20.59	20.65	20.59	21
5	QPSK	1	12	20.57	20.60	20.54	
5	QPSK	1	24	20.55	20.59	20.54	
5	QPSK	12	0	20.24	20.32	20.25	21
5	QPSK	12	7	20.16	20.25	20.10	
5	QPSK	12	13	20.07	20.13	20.12	
5	QPSK	25	0	20.03	20.05	19.96	21
5	16QAM	1	0	20.24	20.35	20.25	
5	16QAM	1	12	20.15	20.16	20.16	
5	16QAM	1	24	19.96	20.17	20.05	21
5	16QAM	12	0	19.52	19.50	19.50	
5	16QAM	12	7	19.41	19.58	19.46	
5	16QAM	12	13	19.41	19.54	19.26	21
5	16QAM	25	0	19.20	19.40	19.24	

### LTE Band 40A(Top Ant for Head)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				38750			22
Frequency (MHz)				2310			
10	QPSK	1	0	21.38			21.5
10	QPSK	1	25	21.30			
10	QPSK	1	49	21.27			
10	QPSK	25	0	21.00			21.5
10	QPSK	25	12	20.94			
10	QPSK	25	25	20.90			
10	QPSK	50	0	20.85			21.5
10	16QAM	1	0	20.93			
10	16QAM	1	25	20.86			
10	16QAM	1	49	20.80			21.5
10	16QAM	25	0	20.21			
10	16QAM	25	12	20.14			
10	16QAM	25	25	20.01			21.5
10	16QAM	50	0	19.96			
Channel				38725	38750	38775	
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	21.31	21.35	21.34	21.5
5	QPSK	1	12	21.30	21.32	21.26	
5	QPSK	1	24	21.27	21.22	21.13	
5	QPSK	12	0	20.80	20.95	20.80	21.5
5	QPSK	12	7	20.81	20.89	20.77	
5	QPSK	12	13	20.82	20.85	20.76	
5	QPSK	25	0	20.87	20.82	20.71	21.5
5	16QAM	1	0	20.91	20.91	20.81	
5	16QAM	1	12	20.74	20.82	20.72	
5	16QAM	1	24	20.74	20.75	20.62	21.5
5	16QAM	12	0	20.12	20.18	20.03	
5	16QAM	12	7	19.96	20.09	19.91	
5	16QAM	12	13	19.88	19.97	19.83	21.5
5	16QAM	25	0	19.83	19.91	19.76	

## LTE Band 40B(Top Ant for Head)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				39200			
Frequency (MHz)				2355			
10	QPSK	1	0	21.41			22
10	QPSK	1	25	21.34			
10	QPSK	1	49	21.30			
10	QPSK	25	0	21.03			21.5
10	QPSK	25	12	21.00			
10	QPSK	25	25	20.94			
10	QPSK	50	0	20.91			21.5
10	16QAM	1	0	20.96			
10	16QAM	1	25	20.89			
10	16QAM	1	49	20.85			21.5
10	16QAM	25	0	20.23			
10	16QAM	25	12	20.18			
10	16QAM	25	25	20.05			21.5
10	16QAM	50	0	20.00			
Channel				39175	39200	39225	Tune-up limit (dBm)
Frequency (MHz)				2352.5	2355	2357.5	
5	QPSK	1	0	21.29	21.32	21.31	22
5	QPSK	1	12	21.26	21.29	21.25	
5	QPSK	1	24	21.23	21.19	21.11	
5	QPSK	12	0	20.76	20.93	20.79	21.5
5	QPSK	12	7	20.80	20.86	20.76	
5	QPSK	12	13	20.78	20.83	20.71	
5	QPSK	25	0	20.84	20.78	20.69	21.5
5	16QAM	1	0	20.90	20.87	20.77	
5	16QAM	1	12	20.70	20.79	20.67	
5	16QAM	1	24	20.71	20.72	20.59	21.5
5	16QAM	12	0	20.08	20.13	20.00	
5	16QAM	12	7	19.92	20.05	19.89	
5	16QAM	12	13	19.85	19.96	19.80	
5	16QAM	25	0	19.82	19.87	19.72	

GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810	512		661	810		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	26.26	26.32	26.42	26.50	17.26	17.32	17.42	17.50	
GPRS 1 Tx slot	26.15	26.36	26.42	26.50	17.15	17.36	17.42	17.50	
GPRS 2 Tx slots	23.26	23.46	23.56	24.00	17.26	17.46	17.56	18.00	
GPRS 3 Tx slots	21.79	21.73	21.81	23.00	17.53	17.47	17.55	18.74	
GPRS 4 Tx slots	20.26	20.39	20.45	20.50	17.26	17.39	17.45	17.50	
EDGE 1 Tx slot	22.30	22.58	22.77	23.00	13.30	13.58	13.77	14.00	
EDGE 2 Tx slots	19.14	19.39	19.58	20.00	13.14	13.39	13.58	14.00	
EDGE 3 Tx slots	17.57	17.57	18.03	18.50	13.31	13.31	13.77	14.24	
EDGE 4 Tx slots	16.00	16.36	16.44	16.50	13.00	13.36	13.44	13.50	
Antenna	Bottom Ant for Head								

Band		WCDMA Band II			Tune-up Limit (dBm)	WCDMA Band IV			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	18.88	18.83	18.85	20.00	18.31	18.25	18.21	19.00
3GPP Rel 6	HSDPA Subtest-1	18.34	18.15	18.23	19.50	17.90	17.92	17.79	15.50
3GPP Rel 6	HSDPA Subtest-2	17.37	17.24	17.22	19.00	17.00	16.88	16.80	17.50
3GPP Rel 6	HSDPA Subtest-3	16.35	16.38	16.26	17.50	16.06	15.93	15.73	16.50
3GPP Rel 6	HSDPA Subtest-4	16.31	16.54	16.19	17.50	16.17	15.83	15.75	16.50
3GPP Rel 6	HSUPA Subtest-1	16.82	16.77	16.72	17.50	16.61	16.45	16.27	17.00
3GPP Rel 6	HSUPA Subtest-2	17.20	17.29	17.22	18.00	17.12	17.00	16.89	18.00
3GPP Rel 6	HSUPA Subtest-3	15.66	15.84	15.67	16.50	15.68	15.54	15.64	16.00
3GPP Rel 6	HSUPA Subtest-4	18.10	18.24	18.16	19.00	18.02	17.95	17.86	18.50
3GPP Rel 6	HSUPA Subtest-5	16.19	16.33	16.17	17.00	16.17	16.03	15.84	16.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-	15.83	15.82	15.83	16.50	15.55	15.55	15.62	16.00
Antenna	Bottom Ant for Head				Bottom Ant for Head				

LTE Band 2(Bottom Ant for Head)								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	19.25	19.32	19.22	20	
20	QPSK	1	49	18.87	18.94	18.90		
20	QPSK	1	99	18.93	18.87	18.96		
20	QPSK	50	0	18.88	18.98	18.95		
20	QPSK	50	24	18.64	18.90	18.77		
20	QPSK	50	50	18.68	18.78	18.76	19.5	
20	QPSK	100	0	18.80	18.86	18.82		
20	16QAM	1	0	18.84	18.90	18.68		
20	16QAM	1	49	18.94	18.92	18.84		
20	16QAM	1	99	18.80	18.87	18.69		
20	16QAM	50	0	18.88	18.94	18.84	19.5	
20	16QAM	50	24	18.63	18.76	18.80		
20	16QAM	50	50	18.82	18.84	18.78		
20	16QAM	100	0	18.81	18.96	18.91		
Channel				18675	18900	19125		Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	19.13	19.21	19.11	19.5	
15	QPSK	1	37	18.75	18.82	18.78		
15	QPSK	1	74	18.81	18.75	18.84		
15	QPSK	36	0	18.76	18.86	18.83	19.5	
15	QPSK	36	20	18.52	18.78	18.65		
15	QPSK	36	39	18.56	18.66	18.64		
15	QPSK	75	0	18.68	18.74	18.70		
15	16QAM	1	0	18.72	18.78	18.56		
15	16QAM	1	37	18.82	18.80	18.72	19.5	
15	16QAM	1	74	18.68	18.75	18.57		
15	16QAM	36	0	18.76	18.82	18.72		
15	16QAM	36	20	18.51	18.64	18.68		
15	16QAM	36	39	18.70	18.72	18.66		
15	16QAM	75	0	18.69	18.84	18.79	19.5	
Channel				18650	18900	19150		Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	18.93	19.00	18.90		19.5
10	QPSK	1	25	18.65	18.72	18.68		
10	QPSK	1	49	18.71	18.65	18.74		
10	QPSK	25	0	18.66	18.76	18.73	19.5	
10	QPSK	25	12	18.42	18.68	18.55		
10	QPSK	25	25	18.46	18.56	18.54		
10	QPSK	50	0	18.58	18.64	18.60		
10	16QAM	1	0	18.62	18.68	18.46		
10	16QAM	1	25	18.72	18.70	18.62	19.5	
10	16QAM	1	49	18.58	18.65	18.47		
10	16QAM	25	0	18.66	18.72	18.62		
10	16QAM	25	12	18.41	18.54	18.58		
10	16QAM	25	25	18.60	18.62	18.56		
10	16QAM	50	0	18.59	18.74	18.69	19.5	
Channel				18625	18900	19175		Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	18.81	18.88	18.78		19.5
5	QPSK	1	12	18.53	18.60	18.56		
5	QPSK	1	24	18.59	18.53	18.62		
5	QPSK	12	0	18.54	18.64	18.61	19	
5	QPSK	12	7	18.30	18.56	18.43		
5	QPSK	12	13	18.34	18.44	18.42		
5	QPSK	25	0	18.46	18.52	18.48		
5	16QAM	1	0	18.50	18.56	18.34		
5	16QAM	1	12	18.60	18.58	18.50	19	
5	16QAM	1	24	18.46	18.53	18.35		
5	16QAM	12	0	18.54	18.60	18.50		
5	16QAM	12	7	18.29	18.42	18.46		
5	16QAM	12	13	18.48	18.50	18.44		
5	16QAM	25	0	18.47	18.62	18.57	19	
Channel				18615	18900	19185		Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	18.69	18.91	18.64		19.5
3	QPSK	1	8	18.56	18.63	18.59		
3	QPSK	1	14	18.64	18.56	18.44		
3	QPSK	8	0	18.57	18.67	18.64	19.5	
3	QPSK	8	4	18.33	18.59	18.46		
3	QPSK	8	7	18.37	18.47	18.45		
3	QPSK	15	0	18.49	18.55	18.51		
3	16QAM	1	0	18.53	18.59	18.37		
3	16QAM	1	8	18.63	18.61	18.53	19.5	
3	16QAM	1	14	18.49	18.56	18.41		
3	16QAM	8	0	18.57	18.63	18.53		
3	16QAM	8	4	18.32	18.45	18.49		
3	16QAM	8	7	18.51	18.53	18.47		
3	16QAM	15	0	18.50	18.65	18.60	19	
Channel				18607	18900	19193		Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	18.53	18.85	18.58		19.5
1.4	QPSK	1	3	18.50	18.57	18.53		
1.4	QPSK	1	5	18.68	18.50	18.38		
1.4	QPSK	3	0	18.51	18.61	18.58		
1.4	QPSK	3	1	18.27	18.53	18.40		
1.4	QPSK	3	3	18.31	18.41	18.39	19	
1.4	QPSK	6	0	18.43	18.66	18.74		
1.4	16QAM	1	0	18.47	18.73	18.69		
1.4	16QAM	1	3	18.57	18.55	18.47		
1.4	16QAM	1	5	18.43	18.50	18.35		
1.4	16QAM	3	0	18.51	18.57	18.47	19	
1.4	16QAM	3	1	18.26	18.39	18.43		
1.4	16QAM	3	3	18.45	18.47	18.41		
1.4	16QAM	6	0	18.44	18.59	18.54		

LTE Band 4(Bottom Ant for Head)								
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	19.87	19.93	19.91	21	
20	QPSK	1	49	19.77	19.84	19.80		
20	QPSK	1	99	19.64	19.87	19.75		
20	QPSK	50	0	19.45	19.47	19.41		
20	QPSK	50	24	19.39	19.19	19.30		
20	QPSK	50	50	19.41	19.29	19.58	20	
20	QPSK	100	0	19.40	19.37	19.63		
20	16QAM	1	0	19.51	19.58	19.34		
20	16QAM	1	49	19.54	19.49	19.41		
20	16QAM	1	99	19.44	19.44	19.43		
20	16QAM	50	0	19.33	19.26	19.34	20	
20	16QAM	50	24	19.28	19.25	19.24		
20	16QAM	50	50	19.25	19.41	19.39		
20	16QAM	100	0	19.31	19.32	19.29		
Channel				20025	20175	20325		Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	19.77	19.83	19.81	22	
15	QPSK	1	37	19.67	19.74	19.70		
15	QPSK	1	74	19.54	19.77	19.65		
15	QPSK	36	0	19.35	19.37	19.31	20	
15	QPSK	36	20	19.29	19.09	19.20		
15	QPSK	36	39	19.31	19.19	19.48		
15	QPSK	75	0	19.30	19.27	19.53		
15	16QAM	1	0	19.41	19.48	19.24		
15	16QAM	1	37	19.44	19.39	19.41	20	
15	16QAM	1	74	19.34	19.34	19.33		
15	16QAM	36	0	19.23	19.16	19.24		
15	16QAM	36	20	19.18	19.15	19.14		
15	16QAM	36	39	19.15	19.31	19.29		
15	16QAM	75	0	19.21	19.22	19.19	20	
Channel				20000	20175	20350		Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	19.65	19.71	19.69		21
10	QPSK	1	25	19.55	19.62	19.58		
10	QPSK	1	49	19.42	19.65	19.53		
10	QPSK	25	0	19.23	19.25	19.19	20	
10	QPSK	25	12	19.17	18.97	19.08		
10	QPSK	25	25	19.19	19.07	19.36		
10	QPSK	50	0	19.18	19.15	19.41		
10	16QAM	1	0	19.29	19.36	19.12		
10	16QAM	1	25	19.32	19.27	19.29	20	
10	16QAM	1	49	19.22	19.22	19.21		
10	16QAM	25	0	19.11	19.04	19.12		
10	16QAM	25	12	19.06	19.03	19.02		
10	16QAM	25	25	19.03	19.19	19.17		
10	16QAM	50	0	19.09	19.10	19.07	20	
Channel				19975	20175	20375		Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	19.54	19.60	19.58		21
5	QPSK	1	12	19.44	19.51	19.47		
5	QPSK	1	24	19.31	19.54	19.42		
5	QPSK	12	0	19.12	19.14	19.08	20	
5	QPSK	12	7	19.06	18.86	18.97		
5	QPSK	12	13	19.08	18.96	19.25		
5	QPSK	25	0	19.07	19.04	19.30		
5	16QAM	1	0	19.18	19.25	19.01		
5	16QAM	1	12	19.21	19.16	19.18	20	
5	16QAM	1	24	19.11	19.11	19.10		
5	16QAM	12	0	19.00	18.93	19.01		
5	16QAM	12	7	18.95	18.92	18.91		
5	16QAM	12	13	18.92	19.08	19.06		
5	16QAM	25	0	18.98	18.99	18.96	20	
Channel				19965	20175	20385		Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	19.40	19.46	19.44		20
3	QPSK	1	8	19.30	19.37	19.33		
3	QPSK	1	14	19.17	19.40	19.28		
3	QPSK	8</						

LTE Band 7(Bottom Ant for Head)							
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	21.78	21.85	21.80	23
20	QPSK	1	49	21.59	21.72	21.58	
20	QPSK	1	99	21.65	21.63	21.56	22
20	QPSK	50	0	21.58	21.60	21.55	
20	QPSK	50	24	21.63	21.67	21.53	22
20	QPSK	50	50	21.56	21.69	21.61	
20	QPSK	100	0	21.65	21.66	21.63	22
20	16QAM	1	0	21.28	21.42	21.37	
20	16QAM	1	49	21.16	21.23	21.14	22
20	16QAM	1	99	21.04	20.99	21.28	
20	16QAM	50	0	20.58	20.81	20.62	22
20	16QAM	50	24	20.63	20.72	20.69	
20	16QAM	50	50	20.66	20.68	20.66	22
20	16QAM	100	0	20.66	20.69	20.64	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	21.66	21.73	21.68	22
15	QPSK	1	37	21.47	21.60	21.46	
15	QPSK	1	74	21.53	21.51	21.44	22
15	QPSK	36	0	21.57	21.48	21.43	
15	QPSK	36	20	21.51	21.55	21.41	22
15	QPSK	36	39	21.44	21.57	21.49	
15	QPSK	75	0	21.53	21.54	21.51	22
15	16QAM	1	0	21.16	21.30	21.25	
15	16QAM	1	37	21.04	21.11	21.02	22
15	16QAM	1	74	20.92	20.87	21.16	
15	16QAM	36	0	20.46	20.69	20.50	22
15	16QAM	36	20	20.51	20.60	20.57	
15	16QAM	36	39	20.54	20.56	20.54	22
15	16QAM	75	0	20.54	20.57	20.52	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	21.55	21.62	21.57	22
10	QPSK	1	25	21.36	21.49	21.35	
10	QPSK	1	49	21.42	21.40	21.33	22
10	QPSK	25	0	21.46	21.37	21.32	
10	QPSK	25	12	21.40	21.44	21.30	22
10	QPSK	25	25	21.33	21.46	21.38	
10	QPSK	50	0	21.42	21.43	21.40	22
10	16QAM	1	0	21.05	21.19	21.14	
10	16QAM	1	25	20.93	21.00	20.91	22
10	16QAM	1	49	20.81	20.76	21.05	
10	16QAM	25	0	20.35	20.58	20.39	22
10	16QAM	25	12	20.40	20.49	20.46	
10	16QAM	25	25	20.43	20.45	20.43	22
10	16QAM	50	0	20.43	20.46	20.41	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	21.45	21.52	21.47	22
5	QPSK	1	12	21.26	21.39	21.25	
5	QPSK	1	24	21.32	21.30	21.23	22
5	QPSK	12	0	21.36	21.27	21.22	
5	QPSK	12	7	21.30	21.34	21.20	22
5	QPSK	12	13	21.23	21.36	21.28	
5	QPSK	25	0	21.32	21.33	21.30	22
5	16QAM	1	0	20.95	21.09	21.04	
5	16QAM	1	12	20.83	20.90	20.81	22
5	16QAM	1	24	20.71	20.66	20.95	
5	16QAM	12	0	20.25	20.48	20.29	22
5	16QAM	12	7	20.30	20.39	20.36	
5	16QAM	12	13	20.33	20.35	20.33	22
5	16QAM	25	0	20.33	20.36	20.31	

LTE Band 66							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	19.92	19.98	19.86	21
20	QPSK	1	49	19.73	19.84	19.82	
20	QPSK	1	99	19.81	19.77	19.66	20
20	QPSK	50	0	19.41	19.51	19.43	
20	QPSK	50	24	19.33	19.44	19.32	20
20	QPSK	50	50	19.23	19.27	19.31	
20	QPSK	100	0	19.34	19.33	19.24	20
20	16QAM	1	0	19.21	19.34	19.30	
20	16QAM	1	49	19.18	19.29	19.28	20
20	16QAM	1	99	19.11	19.21	19.13	
20	16QAM	50	0	19.03	19.16	19.29	20
20	16QAM	50	24	19.13	19.10	19.26	
20	16QAM	50	50	19.23	19.06	19.07	20
20	16QAM	100	0	18.94	19.03	19.15	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	19.82	19.88	19.76	20
15	QPSK	1	37	19.63	19.74	19.72	
15	QPSK	1	74	19.71	19.67	19.56	20
15	QPSK	36	0	19.31	19.41	19.33	
15	QPSK	36	20	19.23	19.34	19.22	20
15	QPSK	36	39	19.13	19.17	19.21	
15	QPSK	75	0	19.24	19.23	19.14	20
15	16QAM	1	0	19.11	19.24	19.20	
15	16QAM	1	37	19.08	19.19	19.18	20
15	16QAM	1	74	19.01	19.11	19.03	
15	16QAM	36	0	18.93	19.06	19.19	20
15	16QAM	36	20	19.03	19.00	19.16	
15	16QAM	36	39	19.13	18.96	18.97	20
15	16QAM	75	0	18.84	18.93	19.05	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	19.72	19.78	19.66	20
10	QPSK	1	25	19.53	19.64	19.62	
10	QPSK	1	49	19.61	19.57	19.46	20
10	QPSK	25	0	19.21	19.31	19.23	
10	QPSK	25	12	19.13	19.24	19.12	20
10	QPSK	25	25	19.03	19.07	19.11	
10	QPSK	50	0	19.14	19.13	19.04	20
10	16QAM	1	0	19.01	19.14	19.10	
10	16QAM	1	25	18.96	19.09	19.08	20
10	16QAM	1	49	18.91	19.01	18.93	
10	16QAM	25	0	18.83	18.96	19.09	20
10	16QAM	25	12	18.93	18.90	19.06	
10	16QAM	25	25	19.03	18.86	18.87	20
10	16QAM	50	0	18.74	18.83	18.95	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	19.62	19.68	19.56	20
5	QPSK	1	12	19.43	19.54	19.52	
5	QPSK	1	24	19.51	19.47	19.36	20
5	QPSK	12	0	19.11	19.21	19.13	
5	QPSK	12	7	19.03	19.14	19.02	20
5	QPSK	12	13	18.93	18.97	19.01	
5	QPSK	25	0	19.04	19.03	18.94	20
5	16QAM	1	0	18.91	19.04	19.00	
5	16QAM	1	12	18.88	18.99	18.98	20
5	16QAM	1	24	18.81	18.91	18.83	
5	16QAM	12	0	18.73	18.86	18.99	20
5	16QAM	12	7	18.83	18.80	18.96	
5	16QAM	12	13	18.93	18.76	18.77	20
5	16QAM	25	0	18.64	18.73	18.85	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	19.51	19.57	19.45	20
3	QPSK	1	8	19.32	19.43	19.41	
3	QPSK	1	14	19.40	19.36	19.25	20
3	QPSK	8	0	19.00	19.10	19.02	
3	QPSK	8	4	18.92	19.03	18.91	20
3	QPSK	8	7	18.82	18.86	18.90	
3	QPSK	15	0	18.93	18.92	18.83	20
3	16QAM	1	0	18.80	18.93	18.89	
3	16QAM	1	8	18.77	18.88	18.87	20
3	16QAM	1	14	18.70	18.80	18.72	
3	16QAM	8	0	18.62	18.75	18.88	20
3	16QAM	8	4	18.72	18.69	18.85	
3	16QAM	8	7	18.82	18.65	18.66	20
3	16QAM	15	0	18.53	18.62	18.74	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	19.39	19.38	19.36	20
1.4	QPSK	1	3	19.23	19.34	19.32	
1.4	QPSK	1	5	19.31	19.27	19.16	20
1.4	QPSK	3	0	18.91	19.01	18.93	
1.4	QPSK	3	1	18.83	18.94	18.82	20
1.4	QPSK	3	3	18.73	18.77	18.81	
1.4	QPSK	6	0	18.84	18.83	18.74	20
1.4	16QAM	1	0	18.71	18.84	18.80	
1.4	16QAM	1	3	18.68	18.79	18.78	20
1.4	16QAM	1	5	18.61	18.71	18.63	
1.4	16QAM	3	0	18.53	18.66	18.79	20
1.4	16QAM	3	1	18.63	18.60	18.76	
1.4	16QAM	3	3	18.73	18.56	18.57	20
1.4	16QAM	6	0	18.44	18.53	18.65	

GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel		512	661	810		512	661	810	
Frequency (MHz)		1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot		29.02	29.33	29.32	30.00	20.02	20.33	20.32	21.00
GPRS 1 Tx slot		28.95	29.29	29.29	30.00	19.95	20.29	20.29	21.00
GPRS 2 Tx slots		25.92	26.23	26.34	27.00	19.92	20.23	20.34	21.00
GPRS 3 Tx slots		24.17	24.47	24.65	25.50	19.91	20.21	20.39	21.24
GPRS 4 Tx slots		22.94	23.17	23.34	24.00	19.94	20.17	20.34	21.00
EDGE 1 Tx slot		25.32	25.34	25.63	26.00	16.32	16.34	16.63	17.00
EDGE 2 Tx slots		22.11	22.13	22.58	23.00	16.11	16.13	16.58	17.00
EDGE 3 Tx slots		20.65	20.57	20.97	22.00	16.39	16.31	16.71	17.74
EDGE 4 Tx slots		19.12	19.17	19.32	20.00	16.12	16.17	16.32	17.00
Antenna		Top Ant for Body							

Band		WCDMA Band II			Tune-up Limit (dBm)	WCDMA Band IV			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	20.14	20.10	20.09	22.00	21.44	21.32	21.34	22.50
3GPP Rel 6	HSDPA Subtest-1	19.75	19.92	19.87	21.50	20.43	20.39	20.32	21.00
3GPP Rel 6	HSDPA Subtest-2	19.84	19.85	19.88	21.50	20.46	20.40	20.29	21.00
3GPP Rel 6	HSDPA Subtest-3	19.37	19.52	19.38	21.00	20.01	19.93	19.84	20.50
3GPP Rel 6	HSDPA Subtest-4	19.30	19.38	19.38	21.00	19.97	19.86	19.83	20.50
3GPP Rel 6	HSUPA Subtest-1	19.85	20.00	19.91	21.50	20.47	20.33	20.39	21.00
3GPP Rel 6	HSUPA Subtest-2	19.84	19.97	19.87	21.50	20.49	20.38	20.36	21.00
3GPP Rel 6	HSUPA Subtest-3	19.39	19.49	19.40	21.00	20.03	19.91	19.87	20.50
3GPP Rel 6	HSUPA Subtest-4	19.82	19.94	19.87	21.50	20.40	20.40	20.34	21.00
3GPP Rel 6	HSUPA Subtest-5	19.35	19.51	19.36	21.00	19.97	19.97	19.93	20.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-	17.99	18.13	18.05	19.50	18.97	18.80	18.66	19.50
Antenna		Top Ant for Body			Top Ant for Body				



### LTE Band 2(Top Ant for Body)

BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				18700	18900	19100	22	
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	21.03	21.14	21.09		
20	QPSK	1	49	20.97	21.10	21.07		
20	QPSK	1	99	21.00	21.06	21.01	21	
20	QPSK	50	0	20.43	20.46	20.41		
20	QPSK	50	24	20.29	20.34	20.29		
20	QPSK	50	50	20.27	20.31	20.22		
20	QPSK	100	0	20.07	20.18	20.12		
20	16QAM	1	0	20.74	20.87	20.88	21.5	
20	16QAM	1	49	20.63	20.74	20.80		
20	16QAM	1	99	20.61	20.77	20.81		
20	16QAM	50	0	20.15	20.35	20.34	21	
20	16QAM	50	24	20.09	20.22	20.25		
20	16QAM	50	50	20.06	20.07	20.21		
20	16QAM	100	0	20.10	20.16	20.21		
Channel				18675	18900	19125		21.5
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	20.99	21.12	21.04	22	
15	QPSK	1	37	20.92	21.04	21.04		
15	QPSK	1	74	20.98	21.04	20.95		
15	QPSK	36	0	20.39	20.41	20.38	21	
15	QPSK	36	20	20.25	20.29	20.24		
15	QPSK	36	39	20.22	20.28	20.17		
15	QPSK	75	0	20.01	20.13	20.10		
15	16QAM	1	0	20.69	20.83	20.82		
15	16QAM	1	37	20.60	20.70	20.77	21	
15	16QAM	1	74	20.58	20.71	20.77		
15	16QAM	36	0	20.12	20.31	20.31		
15	16QAM	36	20	20.03	20.20	20.20	21	
15	16QAM	36	39	20.03	20.03	20.19		
15	16QAM	75	0	20.08	20.10	20.18		
Channel				18650	18900	19150		21.5
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	20.86	20.96	20.90	21.5	
10	QPSK	1	25	20.77	20.88	20.87		
10	QPSK	1	49	20.81	20.87	20.79		
10	QPSK	25	0	20.22	20.25	20.22	21	
10	QPSK	25	12	20.12	20.13	20.09		
10	QPSK	25	25	20.06	20.12	20.00		
10	QPSK	50	0	19.86	19.99	19.93		
10	16QAM	1	0	20.52	20.66	20.69		
10	16QAM	1	25	20.45	20.56	20.63	21	
10	16QAM	1	49	20.42	20.54	20.61		
10	16QAM	25	0	19.96	20.18	20.16		
10	16QAM	25	12	19.90	20.03	20.07		
10	16QAM	25	25	19.86	19.88	20.04		
10	16QAM	50	0	19.93	19.93	20.04	21.5	
Channel				18625	18900	19175		
Frequency (MHz)				1852.5	1880	1907.5	21.5	
5	QPSK	1	0	20.76	20.86	20.80		
5	QPSK	1	12	20.67	20.78	20.77		
5	QPSK	1	24	20.71	20.77	20.69		
5	QPSK	12	0	20.12	20.15	20.12		
5	QPSK	12	7	20.02	20.03	19.99		
5	QPSK	12	13	19.96	20.02	19.90		
5	QPSK	25	0	19.76	19.89	19.83		
5	16QAM	1	0	20.42	20.56	20.59		
5	16QAM	1	12	20.35	20.46	20.53		
5	16QAM	1	24	20.32	20.44	20.51		
5	16QAM	12	0	19.86	20.08	20.06		
5	16QAM	12	7	19.80	19.93	19.97		
5	16QAM	12	13	19.76	19.78	19.94		
5	16QAM	25	0	19.83	19.83	19.94		
Channel				18615	18900	19185	21.5	
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	20.65	20.75	20.69		
3	QPSK	1	8	20.56	20.67	20.66		
3	QPSK	1	14	20.60	20.66	20.58		
3	QPSK	8	0	20.01	20.04	20.01		
3	QPSK	8	4	19.91	19.92	19.88		
3	QPSK	8	7	19.85	19.91	19.79		
3	QPSK	15	0	19.65	19.78	19.72		
3	16QAM	1	0	20.31	20.45	20.48		
3	16QAM	1	8	20.24	20.35	20.42		
3	16QAM	1	14	20.21	20.33	20.40		
3	16QAM	8	0	19.75	19.97	19.95		
3	16QAM	8	4	19.69	19.82	19.86		
3	16QAM	8	7	19.65	19.67	19.83		
3	16QAM	15	0	19.72	19.72	19.83		
Channel				18607	18900	19193		21.5
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	20.65	20.75	20.69		
1.4	QPSK	1	3	20.56	20.67	20.66		
1.4	QPSK	1	5	20.60	20.66	20.58		
1.4	QPSK	3	0	20.01	20.04	20.01		
1.4	QPSK	3	1	19.91	19.92	19.88		
1.4	QPSK	3	3	19.85	19.91	19.79		
1.4	QPSK	6	0	19.65	19.78	19.72		
1.4	16QAM	1	0	20.31	20.45	20.48		
1.4	16QAM	1	3	20.24	20.35	20.42		
1.4	16QAM	1	5	20.21	20.33	20.40		
1.4	16QAM	3	0	19.75	19.97	19.95		
1.4	16QAM	3	1	19.69	19.82	19.86		
1.4	16QAM	3	3	19.65	19.67	19.83		
1.4	16QAM	6	0	19.72	19.72	19.83		

### LTE Band 4(Top Ant for Body)

BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				20050	20175	20300	23	
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	21.72	21.81	21.74	22	
20	QPSK	1	49	21.44	21.67	21.51		
20	QPSK	1	99	21.38	21.49	21.38		
20	QPSK	50	0	20.98	21.05	20.99	22	
20	QPSK	50	24	20.91	20.95	20.96		
20	QPSK	50	50	20.76	20.78	20.76		
20	QPSK	100	0	20.63	20.72	20.71		
20	16QAM	1	0	21.43	21.48	21.26		
20	16QAM	1	49	21.29	21.31	21.24	22	
20	16QAM	1	99	21.26	21.21	21.14		
20	16QAM	50	0	20.59	20.62	20.51		
20	16QAM	50	24	20.60	20.54	20.48	22	
20	16QAM	50	50	20.46	20.44	20.32		
20	16QAM	100	0	20.42	20.45	20.39		
Channel				20025	20175	20325		23
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	21.71	21.75	21.72	23	
15	QPSK	1	37	21.39	21.65	21.48		
15	QPSK	1	74	21.34	21.45	21.36		
15	QPSK	36	0	20.93	21.02	20.96	22	
15	QPSK	36	20	20.88	20.92	20.91		
15	QPSK	36	39	20.71	20.74	20.70		
15	QPSK	75	0	20.58	20.69	20.67		
15	16QAM	1	0	21.37	21.47	21.20		
15	16QAM	1	37	21.26	21.29	21.19	22	
15	16QAM	1	74	21.23	21.16	21.12		
15	16QAM	36	0	20.56	20.58	20.49		
15	16QAM	36	20	20.57	20.49	20.44	22	
15	16QAM	36	39	20.43	20.39	20.30		
15	16QAM	75	0	20.38	20.40	20.37		
Channel				20000	20175	20350		23
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	21.65	21.72	21.67	23	
10	QPSK	1	25	21.34	21.60	21.44		
10	QPSK	1	49	21.31	21.42	21.34		
10	QPSK	25	0	20.91	20.99	20.94	22	
10	QPSK	25	12	20.86	20.90	20.86		
10	QPSK	25	25	20.65	20.71	20.68		
10	QPSK	50	0	20.56	20.66	20.63		
10	16QAM	1	0	21.32	21.42	21.14		
10	16QAM	1	25	21.25	21.26	21.17	22	
10	16QAM	1	49	21.19	21.13	21.10		
10	16QAM	25	0	20.51	20.53	20.44		
10	16QAM	25	12	20.52	20.45	20.39		
10	16QAM	25	25	20.42	20.35	20.26		
10	16QAM	50	0	20.35	20.38	20.34	21.5	
Channel				19975	20175	20375		
Frequency (MHz)				1712.5	1732.5	1752.5	23	
5	QPSK	1	0	21.61	21.69	21.64		
5	QPSK	1	12	21.31	21.56	21.42		
5	QPSK	1	24	21.26	21.40	21.30		
5	QPSK	12	0	20.88	20.97	20.91		
5	QPSK	12	7	20.82	20.88	20.80		
5	QPSK	12	13	20.60	20.68	20.67		
5	QPSK	25	0	20.51	20.64	20.61		
5	16QAM	1	0	21.30	21.39	21.08		
5	16QAM	1	12	21.21	21.21	21.12		
5	16QAM	1	24	21.14	21.11	21.05		
5	16QAM	12	0	20.46	20.50	20.40		
5	16QAM	12	7	20.51	20.43	20.35		
5	16QAM	12	13	20.39	20.30	20.23		
5	16QAM	25	0	20.32	20.35	20.29		
Channel				19965	20175	20385	23	
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	21.58	21.64	21.61		
3	QPSK	1	8	21.26	21.54	21.39		
3	QPSK	1	14	21.22	21.37	21.27		
3	QPSK	8	0	20.85	20.96	20.86		
3	QPSK	8	4	20.77	20.82	20.77		
3	QPSK	8	7	20.57	20			

### LTE Band 7(Top Ant for Body)

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	21.74	21.79	21.72	23
20	QPSK	1	49	21.68	21.73	21.67	
20	QPSK	1	99	21.64	21.66	21.58	
20	QPSK	50	0	21.00	21.09	21.05	22
20	QPSK	50	24	20.97	20.93	21.03	
20	QPSK	50	50	21.01	20.87	21.00	
20	QPSK	100	0	20.90	20.98	20.95	22
20	16QAM	1	0	21.28	21.35	21.40	
20	16QAM	1	49	21.32	21.30	21.25	
20	16QAM	1	99	21.14	21.22	21.15	22
20	16QAM	50	0	20.31	20.36	20.37	
20	16QAM	50	24	20.31	20.33	20.35	
20	16QAM	50	50	20.21	20.24	20.25	22
20	16QAM	100	0	20.11	20.18	20.14	
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	21.70	21.77	21.66	23
15	QPSK	1	37	21.65	21.71	21.65	
15	QPSK	1	74	21.60	21.61	21.54	
15	QPSK	36	0	20.99	21.03	21.03	22
15	QPSK	36	20	20.95	20.88	21.00	
15	QPSK	36	39	20.96	20.84	20.98	
15	QPSK	75	0	20.88	20.96	20.93	22
15	16QAM	1	0	21.23	21.33	21.38	
15	16QAM	1	37	21.27	21.29	21.22	
15	16QAM	1	74	21.11	21.20	21.14	22
15	16QAM	36	0	20.28	20.32	20.35	
15	16QAM	36	20	20.25	20.30	20.33	
15	16QAM	36	39	20.17	20.18	20.19	22
15	16QAM	75	0	20.06	20.15	20.10	
Channel				20800	21100	21400	
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	21.66	21.75	21.63	23
10	QPSK	1	25	21.59	21.68	21.61	
10	QPSK	1	49	21.57	21.56	21.51	
10	QPSK	25	0	20.94	21.01	21.00	22
10	QPSK	25	12	20.90	20.82	20.96	
10	QPSK	25	25	20.90	20.82	20.96	
10	QPSK	50	0	20.84	20.94	20.87	22
10	16QAM	1	0	21.22	21.30	21.37	
10	16QAM	1	25	21.21	21.25	21.18	
10	16QAM	1	49	21.06	21.16	21.11	22
10	16QAM	25	0	20.23	20.31	20.32	
10	16QAM	25	12	20.23	20.26	20.30	
10	16QAM	25	25	20.12	20.16	20.16	22
10	16QAM	50	0	20.03	20.12	20.05	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	21.62	21.70	21.62	23
5	QPSK	1	12	21.55	21.65	21.56	
5	QPSK	1	24	21.52	21.52	21.46	
5	QPSK	12	0	20.90	20.99	20.96	22
5	QPSK	12	7	20.84	20.80	20.94	
5	QPSK	12	13	20.88	20.79	20.94	
5	QPSK	25	0	20.81	20.88	20.84	22
5	16QAM	1	0	21.19	21.27	21.34	
5	16QAM	1	12	21.17	21.21	21.16	
5	16QAM	1	24	21.04	21.11	21.09	22
5	16QAM	12	0	20.19	20.27	20.29	
5	16QAM	12	7	20.18	20.23	20.26	
5	16QAM	12	13	20.10	20.15	20.12	22
5	16QAM	25	0	20.00	20.11	20.04	

### LTE Band 66(Top Ant for Body)

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	21.77	21.84	21.70	23
20	QPSK	1	49	21.71	21.66	21.67	
20	QPSK	1	99	21.60	21.60	21.56	
20	QPSK	50	0	21.38	21.44	21.29	22
20	QPSK	50	24	21.21	21.30	21.15	
20	QPSK	50	50	21.21	21.25	21.07	
20	QPSK	100	0	21.04	21.18	21.02	22
20	16QAM	1	0	21.47	21.55	21.50	
20	16QAM	1	49	21.26	21.41	21.41	
20	16QAM	1	99	21.23	21.48	21.28	22
20	16QAM	50	0	20.81	20.90	21.02	
20	16QAM	50	24	20.67	20.95	20.97	
20	16QAM	50	50	20.52	20.82	20.79	22
20	16QAM	100	0	20.43	20.83	20.67	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	21.69	21.76	21.68	23
15	QPSK	1	37	21.67	21.61	21.64	
15	QPSK	1	74	21.55	21.56	21.53	
15	QPSK	36	0	21.33	21.41	21.27	22
15	QPSK	36	20	21.16	21.25	21.09	
15	QPSK	36	39	21.16	21.24	21.02	
15	QPSK	75	0	21.01	21.17	20.99	22
15	16QAM	1	0	21.45	21.53	21.44	
15	16QAM	1	37	21.23	21.37	21.36	
15	16QAM	1	74	21.18	21.44	21.22	22
15	16QAM	36	0	20.75	20.85	20.98	
15	16QAM	36	20	20.65	20.93	20.93	
15	16QAM	36	39	20.48	20.77	20.77	22
15	16QAM	75	0	20.42	20.78	20.65	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	21.64	21.74	21.64	23
10	QPSK	1	25	21.64	21.58	21.62	
10	QPSK	1	49	21.49	21.51	21.50	
10	QPSK	25	0	21.28	21.36	21.22	22
10	QPSK	25	12	21.10	21.23	21.07	
10	QPSK	25	25	21.14	21.19	20.96	
10	QPSK	50	0	20.98	21.16	20.95	22
10	16QAM	1	0	21.42	21.47	21.38	
10	16QAM	1	25	21.22	21.31	21.35	
10	16QAM	1	49	21.14	21.42	21.21	22
10	16QAM	25	0	20.72	20.80	20.94	
10	16QAM	25	12	20.60	20.92	20.91	
10	16QAM	25	25	20.44	20.76	20.75	22
10	16QAM	50	0	20.39	20.72	20.62	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	21.63	21.69	21.62	23
5	QPSK	1	12	21.62	21.57	21.60	
5	QPSK	1	24	21.45	21.49	21.46	
5	QPSK	12	0	21.24	21.32	21.21	22
5	QPSK	12	7	21.08	21.17	21.03	
5	QPSK	12	13	21.11	21.16	20.91	
5	QPSK	25	0	20.94	21.13	20.89	22
5	16QAM	1	0	21.38	21.44	21.32	
5	16QAM	1	12	21.19	21.25	21.30	
5	16QAM	1	24	21.12	21.37	21.19	22
5	16QAM	12	0	20.68	20.77	20.91	
5	16QAM	12	7	20.57	20.90	20.88	
5	16QAM	12	13	20.41	20.72	20.71	22
5	16QAM	25	0	20.37	20.71	20.61	
Channel				131987	132322	132657	
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	21.54	21.64	21.53	23
1.4	QPSK	1	3	21.59	21.48	21.53	
1.4	QPSK	1	5	21.39	21.41	21.36	
1.4	QPSK	3	0	21.16	21.23	21.18	22
1.4	QPSK	3	1	21.01	21.10	20.97	
1.4	QPSK	3	3	21.04	21.11	20.88	
1.4	QPSK	6	0	20.88	21.08	20.81	22
1.4	16QAM	1	0	21.32	21.38	21.27	
1.4	16QAM	1	3	21.16	21.17	21.23	
1.4	16QAM	1	5	21.08	21.30	21.15	22
1.4	16QAM	3	0	20.61	20.67	20.86	
1.4	16QAM	3	1	20.51	20.82	20.84	
1.4	16QAM	3	3	20.37	20.66	20.67	22
1.4	16QAM	6	0	20.31	20.60	20.52	

GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810	512		661	810		
Frequency (MHz)	1850.2	1880	1909.8	1850.2		1880	1909.8		
GSM 1 Tx slot	28.34	28.42	28.49	29.00	19.34	19.42	19.49	20.00	
GPRS 1 Tx slot	28.30	28.38	28.44	29.00	19.30	19.38	19.44	20.00	
GPRS 2 Tx slots	25.23	25.37	25.50	26.00	19.23	19.37	19.50	20.00	
GPRS 3 Tx slots	23.49	23.61	23.80	24.50	19.23	19.35	19.54	20.24	
GPRS 4 Tx slots	22.17	22.32	22.43	23.00	19.17	19.32	19.43	20.00	
EDGE 1 Tx slot	23.91	23.99	24.20	25.00	14.91	14.99	15.20	16.00	
EDGE 2 Tx slots	21.21	21.41	21.42	22.00	15.21	15.41	15.42	16.00	
EDGE 3 Tx slots	19.32	19.51	19.63	20.00	15.06	15.25	15.37	15.74	
EDGE 4 Tx slots	17.98	18.25	18.30	19.00	14.98	15.25	15.30	16.00	
Antenna	Bottom Ant for Body								

Band		WCDMA Bnad II			Tune-up Limit (dBm)	WCDMA Bnad IV			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	18.65	18.61	18.57	19.50	21.57	21.44	21.40	22.00
3GPP Rel 6	HSDPA Subtest-1	17.15	16.96	17.04	17.50	19.25	19.27	19.14	20.00
3GPP Rel 6	HSDPA Subtest-2	16.18	16.05	16.03	17.00	18.35	18.23	18.15	19.00
3GPP Rel 6	HSDPA Subtest-3	15.16	15.19	15.07	16.00	17.41	17.28	17.08	18.00
3GPP Rel 6	HSDPA Subtest-4	15.12	15.35	15.00	16.00	17.52	17.18	17.10	18.00
3GPP Rel 6	HSUPA Subtest-1	15.63	15.58	15.53	16.00	17.96	17.80	17.62	18.50
3GPP Rel 6	HSUPA Subtest-2	16.01	16.10	16.03	16.50	18.47	18.35	18.24	19.00
3GPP Rel 6	HSUPA Subtest-3	14.47	14.65	14.48	15.00	17.03	16.89	16.72	17.50
3GPP Rel 6	HSUPA Subtest-4	16.91	17.05	16.97	17.50	19.37	19.30	19.21	20.00
3GPP Rel 6	HSUPA Subtest-5	15.00	15.14	14.98	15.50	17.52	17.38	17.19	18.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-	14.64	14.63	14.64	15.00	16.90	16.70	16.65	17.50
Antenna	Bottom Ant for Body			Bottom Ant for Body					

### LTE Band 2(Bottom Ant for Body)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	18.70	18.75	18.68	20	
20	QPSK	1	49	18.60	18.64	18.66		
20	QPSK	1	99	18.52	18.55	18.54		
20	QPSK	50	0	18.31	18.33	18.32		
20	QPSK	50	24	18.20	18.24	18.22	19	
20	QPSK	50	50	18.18	18.17	18.12		
20	QPSK	100	0	18.09	18.10	18.08		
20	16QAM	1	0	18.50	18.59	18.63		
20	16QAM	1	49	18.44	18.57	18.58	19	
20	16QAM	1	99	18.40	18.54	18.53		
20	16QAM	50	0	17.69	17.83	17.86		
20	16QAM	50	24	17.63	17.73	17.75		
20	16QAM	50	50	17.55	17.62	17.67	19	
20	16QAM	100	0	17.58	17.67	17.67		
Channel				18675	18900	19125		Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	18.60	18.65	18.58	20	
15	QPSK	1	37	18.50	18.54	18.56		
15	QPSK	1	74	18.42	18.45	18.44		
15	QPSK	36	0	18.21	18.23	18.22		
15	QPSK	36	20	18.10	18.14	18.12	19	
15	QPSK	36	39	18.08	18.07	18.02		
15	QPSK	75	0	17.99	18.00	17.98		
15	16QAM	1	0	18.40	18.49	18.53		
15	16QAM	1	37	18.34	18.47	18.48	19	
15	16QAM	1	74	18.30	18.44	18.43		
15	16QAM	36	0	17.59	17.73	17.76		
15	16QAM	36	20	17.53	17.63	17.65		
15	16QAM	36	39	17.45	17.52	17.57	19	
15	16QAM	75	0	17.48	17.57	17.57		
Channel				18650	18900	19150		Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	18.49	18.54	18.47	20	
10	QPSK	1	25	18.39	18.43	18.45		
10	QPSK	1	49	18.31	18.34	18.33		
10	QPSK	25	0	18.10	18.12	18.11		
10	QPSK	25	12	17.99	18.03	18.01	19	
10	QPSK	25	25	17.97	17.96	17.91		
10	QPSK	50	0	17.88	17.89	17.87		
10	16QAM	1	0	18.29	18.38	18.42		
10	16QAM	1	25	18.23	18.36	18.37	19	
10	16QAM	1	49	18.19	18.33	18.32		
10	16QAM	25	0	17.48	17.62	17.65		
10	16QAM	25	12	17.42	17.52	17.54		
10	16QAM	25	25	17.34	17.41	17.46	19	
10	16QAM	50	0	17.37	17.46	17.46		
Channel								Tune-up limit (dBm)
Frequency (MHz)								
5	QPSK	1	0	18.39	18.44	18.37	20	
5	QPSK	1	12	18.29	18.33	18.35		
5	QPSK	1	24	18.21	18.24	18.23		
5	QPSK	12	0	18.00	18.02	18.01		
5	QPSK	12	7	17.89	17.93	17.91	19	
5	QPSK	12	13	17.87	17.86	17.81		
5	QPSK	25	0	17.78	17.79	17.77		
5	16QAM	1	0	18.19	18.28	18.32		
5	16QAM	1	12	18.13	18.26	18.27	19	
5	16QAM	1	24	18.09	18.23	18.22		
5	16QAM	12	0	17.38	17.52	17.55		
5	16QAM	12	7	17.32	17.42	17.44		
5	16QAM	12	13	17.24	17.31	17.36	19	
5	16QAM	25	0	17.27	17.36	17.36		
Channel				18615	18900	19185		Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	18.29	18.34	18.27	20	
3	QPSK	1	8	18.19	18.23	18.25		
3	QPSK	1	14	18.11	18.14	18.13		
3	QPSK	8	0	17.90	17.92	17.91		
3	QPSK	8	4	17.79	17.83	17.81	19	
3	QPSK	8	7	17.77	17.76	17.71		
3	QPSK	15	0	17.68	17.69	17.67		
3	16QAM	1	0	18.09	18.18	18.22		
3	16QAM	1	8	18.03	18.16	18.17	19	
3	16QAM	1	14	17.99	18.13	18.12		
3	16QAM	8	0	17.28	17.42	17.45		
3	16QAM	8	4	17.22	17.32	17.34		
3	16QAM	8	7	17.14	17.21	17.26	18	
3	16QAM	15	0	17.17	17.26	17.26		
Channel				18607	18900	19193		Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	18.18	18.23	18.16	19	
1.4	QPSK	1	3	18.08	18.12	18.14		
1.4	QPSK	1	5	18.00	18.03	18.02		
1.4	QPSK	3	0	17.79	17.81	17.80		
1.4	QPSK	3	1	17.68	17.72	17.70	18	
1.4	QPSK	3	3	17.66	17.65	17.60		
1.4	QPSK	6	0	17.57	17.58	17.56		
1.4	16QAM	1	0	17.98	18.07	18.11		
1.4	16QAM	1	3	17.92	18.05	18.06	18.5	
1.4	16QAM	1	5	17.88	18.02	18.01		
1.4	16QAM	3	0	17.17	17.31	17.34		
1.4	16QAM	3	1	17.11	17.21	17.23		
1.4	16QAM	3	3	17.03	17.10	17.15	18	
1.4	16QAM	6	0	17.06	17.15	17.15		

### LTE Band 4(Bottom Ant for Body)

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	19.96	20.04	20.01	21.5	
20	QPSK	1	49	19.82	20.01	19.89		
20	QPSK	1	99	19.77	19.90	19.79		
20	QPSK	50	0	19.38	19.41	19.39		
20	QPSK	50	24	19.29	19.32	19.30	20	
20	QPSK	50	50	19.19	19.23	19.17		
20	QPSK	100	0	19.07	19.13	19.03		
20	16QAM	1	0	19.51	19.54	19.49		
20	16QAM	1	49	19.45	19.50	19.43	20	
20	16QAM	1	99	19.37	19.42	19.32		
20	16QAM	50	0	18.81	18.82	18.74		
20	16QAM	50	24	18.76	18.80	18.70		
20	16QAM	50	50	18.73	18.74	18.61	20	
20	16QAM	100	0	18.75	18.70	18.58		
Channel				20025	20175	20325		Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	19.91	20.02	19.98	21.5	
15	QPSK	1	37	19.80	19.99	19.83		
15	QPSK	1	74	19.74	19.88	19.77		
15	QPSK	36	0	19.34	19.37	19.35		
15	QPSK	36	20	19.26	19.26	19.25	20	
15	QPSK	36	39	19.14	19.19	19.13		
15	QPSK	75	0	19.02	19.08	18.98		
15	16QAM	1	0	19.46	19.51	19.45		
15	16QAM	1	37	19.41	19.49	19.38	20	
15	16QAM	1	74	19.31	19.40	19.29		
15	16QAM	36	0	18.79	18.81	18.72		
15	16QAM	36	20	18.72	18.75	18.67		
15	16QAM	36	39	18.69	18.68	18.58	20	
15	16QAM	75	0	18.74	18.66	18.57		
Channel				20000	20175	20350		Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	19.93	20.00	19.97	21.5	
10	QPSK	1	25	19.78	19.97	19.84		
10	QPSK	1	49	19.74	19.88	19.75		
10	QPSK	25	0	19.36	19.35	19.34		
10	QPSK	25	12	19.27	19.31	19.28	20	
10	QPSK	25	25	19.15	19.17	19.12		
10	QPSK	50	0	19.05	19.08	19.00		
10	16QAM	1	0	19.46	19.50	19.44		
10	16QAM	1	25	19.43	19.47	19.39	20	
10	16QAM	1	49	19.33	19.37	19.28		
10	16QAM	25	0	18.80	18.77	18.73		
10	16QAM	25	12	18.71	18.74	18.66		
10	16QAM	25	25	18.70	18.69	18.58	20	
10	16QAM	50	0	18.70	18.65	18.53		
Channel				19975	20175	20375		Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	19.89	19.94	19.93	21.5	
5	QPSK	1	12	19.76	19.92	19.78		
5	QPSK	1	24	19.70	19.84	19.72		
5	QPSK	12	0	19.31	19.32	19.29		
5	QPSK	12	7	19.23	19.26	19.23	20	
5	QPSK	12	13	19.11	19.11	19.08		
5	QPSK	25	0	19.04	19.06	18.99		
5	16QAM	1	0	19.42	19.45	19.38		
5	16QAM	1	12	19.41	19.45	19.38	20	
5	16QAM	1	24	19.29	19.35	19.26		
5	16QAM	12	0	18.75	18.74	18.71		
5	16QAM	12	7	18.65	18.70	18.63		
5	16QAM	12	13	18.67	18.68	18.56	20	
5	16QAM	25	0	18.65	18.61	18.51		
Channel				19965	20175	20385		Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	19.84	19.88	19.91	21.5	
3	QPSK	1	8	19.75	19.90	19.74		
3	QPSK	1	14	19.66	19.80			

LTE Band 7(Bottom Ant for Body)								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				20850	21100	21350	Tune-up limit (dBm)	
Frequency (MHz)				2510	2535	2560	Tune-up limit (dBm)	
20	QPSK	1	0	21.52	21.57	21.52	23	
20	QPSK	1	49	21.53	21.54	21.47		
20	QPSK	1	99	21.39	21.42	21.41	22	
20	QPSK	50	0	20.73	20.79	20.75		
20	QPSK	50	24	20.64	20.62	20.71	22	
20	QPSK	50	50	20.63	20.51	20.66		
20	QPSK	100	0	20.51	20.61	20.59	22	
20	16QAM	1	0	21.11	21.20	21.18		
20	16QAM	1	49	21.07	21.09	21.09	22	
20	16QAM	1	99	20.99	21.01	20.98		
20	16QAM	50	0	20.29	20.33	20.32	22	
20	16QAM	50	24	20.24	20.26	20.26		
20	16QAM	50	50	20.13	20.19	20.25	22	
20	16QAM	100	0	20.01	20.10	20.12		
Channel				20825	21100	21375	Tune-up limit (dBm)	
Frequency (MHz)				2507.5	2535	2562.5	Tune-up limit (dBm)	
15	QPSK	1	0	21.51	21.51	21.46	23	
15	QPSK	1	37	21.49	21.50	21.41		
15	QPSK	1	74	21.37	21.38	21.38	22	
15	QPSK	36	0	20.70	20.74	20.72		
15	QPSK	36	20	20.59	20.58	20.69	22	
15	QPSK	36	39	20.58	20.49	20.64		
15	QPSK	75	0	20.49	20.59	20.58	22	
15	16QAM	1	0	21.06	21.14	21.14		
15	16QAM	1	37	21.05	21.05	21.03	22	
15	16QAM	1	74	20.96	20.95	20.93		
15	16QAM	36	0	20.24	20.31	20.28	22	
15	16QAM	36	20	20.19	20.22	20.21		
15	16QAM	36	39	20.10	20.17	20.20	22	
15	16QAM	75	0	19.97	20.07	20.08		
Channel				20800	21100	21400	Tune-up limit (dBm)	
Frequency (MHz)				2505	2535	2565	Tune-up limit (dBm)	
10	QPSK	1	0	21.49	21.47	21.41	23	
10	QPSK	1	25	21.44	21.44	21.38		
10	QPSK	1	49	21.36	21.37	21.35	22	
10	QPSK	25	0	20.68	20.68	20.66		
10	QPSK	25	12	20.53	20.54	20.67	22	
10	QPSK	25	25	20.55	20.44	20.59		
10	QPSK	50	0	20.44	20.56	20.55	22	
10	16QAM	1	0	21.03	21.08	21.09		
10	16QAM	1	25	21.02	21.00	20.97	22	
10	16QAM	1	49	20.93	20.89	20.92		
10	16QAM	25	0	20.20	20.29	20.23	22	
10	16QAM	25	12	20.13	20.18	20.16		
10	16QAM	25	25	20.08	20.14	20.15	22	
10	16QAM	50	0	19.91	20.03	20.05		
Channel				20775	21100	21425	Tune-up limit (dBm)	
Frequency (MHz)				2502.5	2535	2567.5	Tune-up limit (dBm)	
5	QPSK	1	0	21.45	21.42	21.37	23	
5	QPSK	1	12	21.40	21.39	21.36		
5	QPSK	1	24	21.31	21.36	21.31	22	
5	QPSK	12	0	20.63	20.66	20.61		
5	QPSK	12	7	20.51	20.52	20.61	22	
5	QPSK	12	13	20.52	20.40	20.57		
5	QPSK	25	0	20.41	20.50	20.51	22	
5	16QAM	1	0	20.97	21.06	21.08		
5	16QAM	1	12	20.99	20.98	20.94	22	
5	16QAM	1	24	20.88	20.88	20.87		
5	16QAM	12	0	20.16	20.28	20.21	22	
5	16QAM	12	7	20.10	20.12	20.14		
5	16QAM	12	13	20.02	20.11	20.11	22	
5	16QAM	25	0	19.86	20.01	20.04		

LTE Band 66								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				132072	132322	132572	Tune-up limit (dBm)	
Frequency (MHz)				1720	1745	1770	Tune-up limit (dBm)	
20	QPSK	1	0	20.04	20.12	20.00	21	
20	QPSK	1	49	19.92	20.09	19.98		
20	QPSK	1	99	19.85	19.97	19.86	20	
20	QPSK	50	0	19.45	19.49	19.48		
20	QPSK	50	24	19.37	19.39	19.36	20	
20	QPSK	50	50	19.29	19.30	19.24		
20	QPSK	100	0	19.16	19.21	19.13	20	
20	16QAM	1	0	19.60	19.68	19.65		
20	16QAM	1	49	19.64	19.63	19.61	20	
20	16QAM	1	99	19.54	19.63	19.51		
20	16QAM	50	0	18.90	18.88	18.80	20	
20	16QAM	50	24	18.87	18.88	18.80		
20	16QAM	50	50	18.81	18.82	18.68	20	
20	16QAM	100	0	18.83	18.79	18.66		
Channel				132047	132322	132597	Tune-up limit (dBm)	
Frequency (MHz)				1717.5	1745	1772.5	Tune-up limit (dBm)	
15	QPSK	1	0	20.00	20.08	19.96	21	
15	QPSK	1	37	19.89	20.07	19.97		
15	QPSK	1	74	19.84	19.92	19.83	20	
15	QPSK	36	0	19.42	19.44	19.43		
15	QPSK	36	20	19.35	19.37	19.31	20	
15	QPSK	36	39	19.28	19.28	19.19		
15	QPSK	75	0	19.13	19.20	19.08	20	
15	16QAM	1	0	19.60	19.62	19.61		
15	16QAM	1	37	19.59	19.54	19.59	20	
15	16QAM	1	74	19.51	19.58	19.47		
15	16QAM	36	0	18.86	18.83	18.77	20	
15	16QAM	36	20	18.85	18.85	18.76		
15	16QAM	36	39	18.77	18.78	18.63	20	
15	16QAM	75	0	18.81	18.74	18.63		
Channel				132022	132322	132622	Tune-up limit (dBm)	
Frequency (MHz)				1715	1745	1775	Tune-up limit (dBm)	
10	QPSK	1	0	19.95	20.03	19.90	21	
10	QPSK	1	25	19.84	20.04	19.94		
10	QPSK	1	49	19.81	19.89	19.78	20	
10	QPSK	25	0	19.40	19.43	19.38		
10	QPSK	25	12	19.31	19.32	19.29	20	
10	QPSK	25	25	19.25	19.23	19.15		
10	QPSK	50	0	19.11	19.15	19.03	20	
10	16QAM	1	0	19.63	19.60	19.62		
10	16QAM	1	25	19.58	19.59	19.54	20	
10	16QAM	1	49	19.47	19.56	19.45		
10	16QAM	25	0	18.83	18.77	18.72	20	
10	16QAM	25	12	18.80	18.82	18.73		
10	16QAM	25	25	18.74	18.75	18.59	20	
10	16QAM	50	0	18.79	18.69	18.57		
Channel				131997	132322	132647	Tune-up limit (dBm)	
Frequency (MHz)				1712.5	1745	1777.5	Tune-up limit (dBm)	
5	QPSK	1	0	19.91	20.00	19.87	21	
5	QPSK	1	12	19.82	20.02	19.89		
5	QPSK	1	24	19.76	19.83	19.76	20	
5	QPSK	12	0	19.35	19.42	19.33		
5	QPSK	12	7	19.26	19.27	19.28	20	
5	QPSK	12	13	19.24	19.22	19.13		
5	QPSK	25	0	19.09	19.11	18.97	20	
5	16QAM	1	0	19.61	19.54	19.58		
5	16QAM	1	12	19.53	19.55	19.52	20	
5	16QAM	1	24	19.42	19.53	19.40		
5	16QAM	12	0	18.78	18.72	18.68	20	
5	16QAM	12	7	18.76	18.76	18.68		
5	16QAM	12	13	18.70	18.70	18.54	20	
5	16QAM	25	0	18.77	18.68	18.52		
Channel				131987	132322	132657	Tune-up limit (dBm)	
Frequency (MHz)				1711.5	1745	1778.5	Tune-up limit (dBm)	
3	QPSK	1	0	19.87	19.97	19.86	21	
3	QPSK	1	8	19.76	20.01	19.83		
3	QPSK	1	14	19.74	19.80	19.74	20	
3	QPSK	8	0	19.30	19.40	19.32		
3	QPSK	8	4	19.24	19.24	19.22	20	
3	QPSK	8	7	19.21	19.16	19.12		
3	QPSK	15	0	19.03	19.07	18.96	20	
3	16QAM	1	0	19.59	19.49	19.53		
3	16QAM	1	8	19.49	19.50	19.50	20	
3	16QAM	1	14	19.40	19.48	19.37		
3	16QAM	8	0	18.77	18.66	18.66	20	
3	16QAM	8	4	18.72	18.74	18.63		
3	16QAM	8	7	18.67	18.67	18.48	20	
3	16QAM	15	0	18.74	18.65	18.50		
Channel				131979	132322	132665	Tune-up limit (dBm)	
Frequency (MHz)				1710.7	1745	1779.3	Tune-up limit (dBm)	
1.4	QPSK	1	0	19.84	19.90	19.83	21	
1.4	QPSK	1	3	19.74	19.92	19.81		
1.4	QPSK	1	5	19.68	19.75	19.69	20	
1.4	QPSK	3	0	19.28	19.35	19.25		
1.4	QPSK	3	1	19.22	19.18	19.22	20	
1.4								