

8 CONDUCTED RF OUPUT POWER

8.1	GSM Output Power
8.2	WCDMA Output Power
8.3	LTE Output Power
8.4	Intra-Band Uplink CA Normal Power

8.1 GSM Output Power

GSM 850									
GSM850 Band	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
Channel	128	190	251			128	190	251	
Frequency (MHz)	824.2	836.6	848.8			824.2	836.6	848.8	
GSM (GMSK, 1-Slot)	26.95	26.96	26.84	28.00	9.19	17.76	17.77	17.65	18.81
GPRS (GMSK, 1-Slot)	26.85	26.97	26.94	28.00	9.19	17.66	17.78	17.75	18.81
GPRS (GMSK, 2-Slots)	25.75	25.76	25.65	26.50	6.13	19.62	19.63	19.52	20.37
GPRS (GMSK, 3-Slots)	23.82	23.94	23.79	25.00	4.42	19.40	19.52	19.37	20.58
GPRS (GMSK, 4-Slots)	22.80	22.86	22.79	24.00	3.18	19.62	19.68	19.61	20.82
EGPRS (8PSK, 1-Slot)	26.87	26.99	26.86	28.00	9.19	17.68	17.80	17.67	18.81
EGPRS (8PSK, 2-Slots)	25.66	25.75	25.65	26.50	6.13	19.53	19.62	19.52	20.37
EGPRS (8PSK, 3-Slots)	23.95	23.96	23.87	25.00	4.42	19.53	19.54	19.45	20.58
EGPRS (8PSK, 4-Slots)	22.68	22.76	22.71	23.50	3.18	19.50	19.58	19.53	20.32

8.1 GSM Output Power

PCS 1900									
PSC1900 Band	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power(dBm)			Tune-up Power(dBm)
Channel	512	661	810			512	661	810	
Frequency (MHz)	1850.2	1880	1909.8			1850.2	1880	1909.8	
GSM (GMSK, 1-Slot)	21.83	21.76	21.82	23.00	9.19	12.64	12.57	12.63	13.81
GPRS (GMSK, 1-Slot)	21.86	21.80	21.82	23.00	9.19	12.67	12.61	12.63	13.81
GPRS (GMSK, 2-Slots)	20.69	20.71	20.70	22.00	6.13	14.56	14.58	14.57	15.87
GPRS (GMSK, 3-Slots)	18.61	18.51	18.52	20.00	4.42	14.19	14.09	14.10	15.58
GPRS (GMSK, 4-Slots)	17.48	17.36	17.35	19.00	3.18	14.30	14.18	14.17	15.82
EGPRS (8PSK, 1-Slot)	21.30	21.24	21.28	22.00	9.19	12.11	12.05	12.09	12.81
EGPRS (8PSK, 2-Slots)	20.90	20.73	20.76	21.50	6.13	14.77	14.60	14.63	15.37
EGPRS (8PSK, 3-Slots)	18.74	18.53	18.54	19.50	4.42	14.32	14.11	14.12	15.08
EGPRS (8PSK, 4-Slots)	17.62	17.38	17.37	18.50	3.18	14.44	14.20	14.19	15.32

8.2 WCDMA Output Power

WCDMA II				
Band	Band 2			Tune-up Limit Power(dBm)
TX Channel	9262	9400	9538	
RX Channel	9662	9800	9938	
Frequency	1852.40	1880.00	1907.60	
RMC 12.2Kbps	14.37	14.53	14.24	15.00
HSDPA Subtest-1	14.36	14.46	14.18	15.00
HSDPA Subtest-2	14.22	14.47	14.05	15.00
HSDPA Subtest-3	13.73	13.97	13.58	14.50
HSDPA Subtest-4	13.68	13.94	13.56	14.50
DC-HSDPA Subtest-	14.19	14.33	14.24	15.00
DC-HSDPA Subtest-	14.30	14.46	14.14	15.00
DC-HSDPA Subtest-	13.77	13.93	13.58	14.50
DC-HSDPA Subtest-	13.73	13.83	13.64	14.50
HSUPA Subtest-1	14.20	14.32	14.14	15.00
HSUPA Subtest-2	12.19	12.42	12.23	13.00
HSUPA Subtest-3	13.27	13.32	13.09	14.00
HSUPA Subtest-4	12.23	12.26	12.25	13.00
HSUPA Subtest-5	14.19	14.41	14.25	15.00
HSPA+	11.74	11.83	11.67	12.50

8.2 WCDMA Output Power

WCDMA IV				
Band	Band 4			Tune-up Limit Power(dBm)
TX Channel	1312	1413	1513	
RX Channel	1537	1638	1738	
Frequency	1712.40	1732.60	1752.60	
RMC 12.2Kbps	13.82	14.04	13.82	15.00
HSDPA Subtest-1	13.93	14.03	13.74	15.00
HSDPA Subtest-2	13.76	13.95	13.73	15.00
HSDPA Subtest-3	13.28	13.53	13.34	14.50
HSDPA Subtest-4	13.16	13.41	13.23	14.50
DC-HSDPA Subtest-	13.74	13.86	13.77	15.00
DC-HSDPA Subtest-	13.76	13.97	13.91	15.00
DC-HSDPA Subtest-	13.24	13.39	13.13	14.50
DC-HSDPA Subtest-	13.28	13.31	13.16	14.50
HSUPA Subtest-1	13.79	13.83	13.89	15.00
HSUPA Subtest-2	11.71	11.96	11.95	13.00
HSUPA Subtest-3	12.86	12.78	12.79	14.00
HSUPA Subtest-4	11.77	11.74	11.73	13.00
HSUPA Subtest-5	13.64	14.00	13.75	15.00
HSPA+	11.19	11.32	11.19	12.50

8.2 WCDMA Output Power

WCDMA V				
Band	Band 5			Tune-up Limit Power(dBm)
TX Channel	4132	4182	4233	
RX Channel	4357	4407	4458	
Frequency	826.40	836.40	846.60	
RMC 12.2Kbps	20.30	20.53	20.25	21.50
HSDPA Subtest-1	20.35	20.46	20.11	21.50
HSDPA Subtest-2	20.22	20.30	20.08	21.50
HSDPA Subtest-3	19.78	19.96	19.80	21.00
HSDPA Subtest-4	19.77	19.89	19.78	21.00
DC-HSDPA Subtest-	20.17	20.30	20.22	21.50
DC-HSDPA Subtest-	20.25	20.33	20.39	21.50
DC-HSDPA Subtest-	19.62	19.85	19.77	21.00
DC-HSDPA Subtest-	19.73	19.69	19.53	21.00
HSUPA Subtest-1	20.27	20.28	20.28	21.50
HSUPA Subtest-2	18.16	18.42	18.38	19.50
HSUPA Subtest-3	19.25	19.26	19.20	20.50
HSUPA Subtest-4	18.15	18.20	18.11	19.50
HSUPA Subtest-5	20.28	20.39	20.22	21.50
HSPA+	17.63	17.78	17.58	19.00

8.3.1 LTE Band2 Output Power

LTE B2									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)		
Channel				18700	18900	19100			
Frequency (MHz)				1860	1880	1900			
20	QPSK	1	0	14.55	14.61	14.58	15.50		
			49	14.42	14.51	14.43	15.50		
			99	14.21	14.36	14.32	15.50		
		50	0	13.38	13.50	13.44	14.50		
			24	13.38	13.47	13.37	14.50		
			50	13.40	13.47	13.38	14.50		
			100	0	13.34	13.42	13.31	14.50	
			16QAM	1	0	13.67	13.69	13.67	14.50
					49	13.51	13.56	13.53	14.50
	99	13.54			13.61	13.55	14.50		
	50	0		12.30	12.45	12.36	13.50		
		24		12.45	12.46	12.37	13.50		
		50		12.36	12.46	12.33	13.50		
	100	0	12.31	12.41	12.35	13.50			
	64QAM	1	0	12.66	12.81	12.75	13.50		
			49	12.68	12.76	12.72	13.50		
			99	12.66	12.74	12.71	13.50		
		50	0	11.38	11.51	11.49	12.50		
			24	11.49	11.52	11.50	12.50		
			50	11.36	11.49	11.35	12.50		
		100	0	11.30	11.44	11.39	12.50		
Channel				18675	18900	19125	Tune-up limit (dBm)		
Frequency (MHz)				1857.5	1880	1902.5			
15	QPSK	1	0	14.42	14.59	14.53	15.50		
			37	14.40	14.40	14.34	15.50		
			74	14.18	14.28	14.28	15.50		
		36	0	13.31	13.44	13.40	14.50		
			20	13.26	13.40	13.22	14.50		
			39	13.39	13.40	13.25	14.50		
			75	0	13.32	13.35	13.30	14.50	
			16QAM	1	0	13.57	13.57	13.65	14.50
					37	13.48	13.42	13.52	14.50
	74	13.39			13.60	13.47	14.50		
	36	0		12.27	12.33	12.29	13.50		
		20		12.37	12.35	12.32	13.50		
		39		12.25	12.45	12.19	13.50		
	75	0	12.21	12.30	12.23	13.50			
	64QAM	1	0	12.56	12.68	12.60	13.50		
			37	12.57	12.65	12.57	13.50		
			74	12.52	12.60	12.68	13.50		
		36	0	11.34	11.41	11.34	12.50		
			20	11.43	11.50	11.41	12.50		
			39	11.32	11.35	11.34	12.50		
		75	0	11.28	11.36	11.36	12.50		

LTE B2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				18650	18900	19150	Tune-up limit (dBm)	
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	14.44	14.54	14.44	15.50	
			25	14.37	14.41	14.42	15.50	
			49	14.12	14.32	14.17	15.50	
		25	0	13.35	13.45	13.36	14.50	
			12	13.34	13.37	13.29	14.50	
			25	13.36	13.40	13.36	14.50	
		50	0	13.20	13.39	13.26	14.50	
	16QAM	1	0	13.53	13.57	13.57	14.50	
			25	13.48	13.51	13.46	14.50	
			49	13.45	13.46	13.50	14.50	
		25	0	12.19	12.33	12.25	13.50	
			12	12.34	12.39	12.33	13.50	
			25	12.24	12.38	12.24	13.50	
		50	0	12.24	12.38	12.32	13.50	
	64QAM	1	0	12.64	12.76	12.62	13.50	
			25	12.66	12.65	12.57	13.50	
			49	12.65	12.64	12.70	13.50	
		25	0	11.24	11.44	11.48	12.50	
			12	11.48	11.37	11.45	12.50	
			25	11.26	11.34	11.31	12.50	
		50	0	11.19	11.31	11.38	12.50	
Channel				18625	18900	19175	Tune-up limit (dBm)	
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	14.49	14.52	14.50	15.50	
			12	14.39	14.46	14.42	15.50	
			24	14.06	14.29	14.22	15.50	
		12	0	13.28	13.47	13.38	14.50	
			7	13.31	13.38	13.26	14.50	
			13	13.33	13.42	13.26	14.50	
		25	0	13.26	13.41	13.19	14.50	
	16QAM	1	0	13.61	13.67	13.52	14.50	
			12	13.47	13.55	13.47	14.50	
			24	13.51	13.58	13.51	14.50	
		12	0	12.27	12.30	12.23	13.50	
			7	12.34	12.33	12.36	13.50	
			13	12.23	12.45	12.25	13.50	
		25	0	12.20	12.38	12.26	13.50	
	64QAM	1	0	12.58	12.74	12.61	13.50	
			12	12.60	12.73	12.58	13.50	
			24	12.57	12.69	12.69	13.50	
		12	0	11.25	11.45	11.45	12.50	
			7	11.44	11.46	11.45	12.50	
			13	11.24	11.43	11.32	12.50	
		25	0	11.26	11.32	11.34	12.50	

LTE B2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				18615	18900	19185	Tune-up limit (dBm)	
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	14.44	14.58	14.49	15.50	
			8	14.32	14.49	14.40	15.50	
			14	14.10	14.27	14.29	15.50	
		8	0	13.37	13.45	13.39	14.50	
			4	13.23	13.39	13.36	14.50	
			7	13.25	13.32	13.30	14.50	
		15	0	13.25	13.28	13.23	14.50	
	16QAM	1	0	13.58	13.68	13.52	14.50	
			8	13.46	13.45	13.52	14.50	
			14	13.41	13.51	13.47	14.50	
		8	0	12.24	12.37	12.34	13.50	
			4	12.35	12.39	12.23	13.50	
			7	12.35	12.32	12.25	13.50	
		15	0	12.29	12.34	12.22	13.50	
	64QAM	1	0	12.57	12.74	12.66	13.50	
			8	12.54	12.63	12.59	13.50	
			14	12.51	12.72	12.70	13.50	
		8	0	11.37	11.47	11.34	12.50	
			4	11.43	11.48	11.43	12.50	
			7	11.27	11.38	11.29	12.50	
		15	0	11.19	11.40	11.35	12.50	
Channel				18607	18900	19193	Tune-up limit (dBm)	
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	14.45	14.57	14.50	15.50	
			3	14.34	14.42	14.31	15.50	
			5	14.09	14.24	14.27	15.50	
		3	0	14.45	14.53	14.44	15.50	
			1	14.30	14.47	14.28	15.50	
			3	14.17	14.34	14.30	15.50	
		6	0	13.22	13.35	13.17	14.50	
	16QAM	1	0	13.58	13.68	13.59	14.50	
			3	13.39	13.53	13.46	14.50	
			5	13.46	13.60	13.54	14.50	
		3	0	13.52	13.64	13.54	14.50	
			1	13.35	13.42	13.39	14.50	
			3	13.41	13.49	13.48	14.50	
		6	0	12.24	12.40	12.33	13.50	
	64QAM	1	0	12.51	12.77	12.67	13.50	
			3	12.64	12.73	12.63	13.50	
			5	12.57	12.61	12.64	13.50	
		3	0	12.27	12.49	12.38	13.50	
			1	12.41	12.48	12.49	13.50	
			3	12.31	12.35	12.29	13.50	
		6	0	11.23	11.40	11.28	12.50	

8.3.2 LTE Band4 Output Power

LTE B4									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)		
Channel				20050	20175	20300			
Frequency (MHz)				1720	1732.5	1745			
20	QPSK	1	0	14.47	14.60	14.53	15.50		
			49	14.30	14.38	14.42	15.50		
			99	14.13	14.28	14.27	15.50		
		50	0	13.29	13.44	13.30	14.50		
			24	13.25	13.37	13.30	14.50		
			50	13.30	13.42	13.24	14.50		
			100	0	13.33	13.34	13.25	14.50	
			16QAM	1	0	13.55	13.66	13.60	14.50
					49	13.45	13.41	13.38	14.50
	99	13.43			13.60	13.54	14.50		
	50	0		12.26	12.37	12.23	13.50		
		24		12.33	12.38	12.22	13.50		
		50		12.21	12.32	12.27	13.50		
	100	0	12.30	12.37	12.31	13.50			
	64QAM	1	0	12.64	12.70	12.66	13.50		
			49	12.53	12.67	12.61	13.50		
			99	12.60	12.67	12.66	13.50		
		50	0	11.33	11.42	11.36	12.50		
			24	11.34	11.46	11.44	12.50		
			50	11.21	11.37	11.22	12.50		
		100	0	11.18	11.29	11.30	12.50		
Channel				20025	20175	20325	Tune-up limit (dBm)		
Frequency (MHz)				1717.5	1732.5	1747.5			
15	QPSK	1	0	14.47	14.51	14.43	15.50		
			37	14.36	14.40	14.36	15.50		
			74	14.11	14.26	14.30	15.50		
		36	0	13.30	13.46	13.39	14.50		
			20	13.30	13.34	13.22	14.50		
			39	13.29	13.43	13.26	14.50		
			75	0	13.22	13.34	13.21	14.50	
			16QAM	1	0	13.63	13.57	13.53	14.50
					37	13.50	13.49	13.44	14.50
	74	13.53			13.48	13.46	14.50		
	36	0		12.19	12.42	12.26	13.50		
		20		12.35	12.32	12.23	13.50		
		39		12.21	12.34	12.23	13.50		
	75	0	12.26	12.26	12.27	13.50			
	64QAM	1	0	12.59	12.66	12.63	13.50		
			37	12.65	12.74	12.57	13.50		
			74	12.59	12.72	12.66	13.50		
		36	0	11.24	11.41	11.42	12.50		
			20	11.37	11.46	11.46	12.50		
			39	11.24	11.39	11.29	12.50		
		75	0	11.15	11.43	11.24	12.50		

LTE B4								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				20000	20175	20350	Tune-up limit (dBm)	
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	14.40	14.52	14.47	15.50	
			25	14.36	14.37	14.37	15.50	
			49	14.17	14.29	14.22	15.50	
		25	0	13.27	13.44	13.38	14.50	
			12	13.26	13.34	13.25	14.50	
			25	13.32	13.43	13.37	14.50	
		50	0	13.29	13.37	13.30	14.50	
	16QAM	1	0	13.63	13.57	13.62	14.50	
			25	13.41	13.43	13.46	14.50	
			49	13.48	13.46	13.41	14.50	
		25	0	12.29	12.33	12.35	13.50	
			12	12.37	12.32	12.36	13.50	
			25	12.35	12.44	12.32	13.50	
		50	0	12.21	12.31	12.22	13.50	
	64QAM	1	0	12.56	12.79	12.65	13.50	
			25	12.63	12.61	12.57	13.50	
			49	12.51	12.63	12.66	13.50	
		25	0	11.34	11.46	11.36	12.50	
			12	11.42	11.50	11.48	12.50	
			25	11.23	11.42	11.25	12.50	
		50	0	11.18	11.33	11.30	12.50	
Channel				19975	20175	20375	Tune-up limit (dBm)	
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	14.50	14.57	14.44	15.50	
			12	14.36	14.49	14.30	15.50	
			24	14.16	14.28	14.26	15.50	
		12	0	13.32	13.49	13.42	14.50	
			7	13.30	13.38	13.27	14.50	
			13	13.37	13.46	13.26	14.50	
		25	0	13.31	13.31	13.27	14.50	
	16QAM	1	0	13.64	13.65	13.61	14.50	
			12	13.40	13.55	13.45	14.50	
			24	13.51	13.46	13.44	14.50	
		12	0	12.23	12.31	12.31	13.50	
			7	12.35	12.44	12.33	13.50	
			13	12.21	12.31	12.19	13.50	
		25	0	12.28	12.30	12.22	13.50	
	64QAM	1	0	12.59	12.79	12.60	13.50	
			12	12.62	12.71	12.64	13.50	
			24	12.51	12.62	12.66	13.50	
		12	0	11.30	11.45	11.42	12.50	
			7	11.44	11.46	11.45	12.50	
			13	11.26	11.40	11.28	12.50	
		25	0	11.28	11.29	11.34	12.50	

LTE B4								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				19965	20175	20385	Tune-up limit (dBm)	
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	14.46	14.52	14.40	15.50	
			8	14.38	14.36	14.41	15.50	
			14	14.20	14.26	14.25	15.50	
		8	0	13.30	13.46	13.30	14.50	
			4	13.35	13.37	13.27	14.50	
			7	13.28	13.38	13.33	14.50	
		15	0	13.27	13.39	13.19	14.50	
	16QAM	1	0	13.66	13.65	13.66	14.50	
			8	13.44	13.55	13.40	14.50	
			14	13.48	13.58	13.40	14.50	
		8	0	12.23	12.32	12.32	13.50	
			4	12.42	12.31	12.24	13.50	
			7	12.30	12.43	12.18	13.50	
		15	0	12.18	12.26	12.25	13.50	
	64QAM	1	0	12.60	12.71	12.67	13.50	
			8	12.61	12.61	12.59	13.50	
			14	12.54	12.65	12.56	13.50	
		8	0	11.35	11.37	11.35	12.50	
			4	11.48	11.47	11.36	12.50	
			7	11.29	11.34	11.29	12.50	
		15	0	11.17	11.40	11.29	12.50	
Channel				19957	20175	20393	Tune-up limit (dBm)	
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	14.29	14.39	13.92	15.50	
			3	14.35	14.18	14.07	15.50	
			5	14.30	14.30	14.00	15.50	
		3	0	14.24	14.29	14.13	15.50	
			1	14.26	14.23	14.05	15.50	
			3	14.27	14.15	14.12	15.50	
		6	0	13.56	13.36	13.32	14.50	
	16QAM	1	0	13.33	13.83	13.00	14.50	
			3	13.27	13.70	13.19	14.50	
			5	13.31	13.79	13.17	14.50	
		3	0	13.38	13.47	13.23	14.50	
			1	13.46	13.36	13.33	14.50	
			3	13.44	13.33	13.24	14.50	
		6	0	12.70	12.26	12.56	13.50	
	64QAM	1	0	12.77	12.47	12.63	13.50	
			3	13.00	12.57	12.65	13.50	
			5	12.74	12.53	12.66	13.50	
		3	0	12.78	12.52	12.35	13.50	
			1	12.97	12.43	12.37	13.50	
			3	12.99	12.61	12.39	13.50	
		6	0	11.66	11.87	11.61	12.50	

8.3.3 LTE Band5 Output Power

LTE B5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20450	20525	20600	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	20.52	20.69	20.51	21.50
			25	20.49	20.61	20.64	21.50
			49	20.35	20.49	20.50	21.50
		25	0	19.47	19.63	19.50	20.50
			12	19.42	19.54	19.43	20.50
			25	19.52	19.62	19.35	20.50
		50	0	19.55	19.56	19.34	20.50
	16QAM	1	0	19.71	19.78	19.76	20.50
			25	19.65	19.57	19.58	20.50
			49	19.53	19.75	19.69	20.50
		25	0	18.45	18.57	18.42	19.50
			12	18.52	18.61	18.43	19.50
			25	18.31	18.48	18.45	19.50
		50	0	18.45	18.49	18.42	19.50
	64QAM	1	0	18.87	18.91	18.81	19.50
			25	18.72	18.89	18.84	19.50
			49	18.72	18.79	18.82	19.50
		25	0	17.54	17.53	17.49	18.50
			12	17.44	17.67	17.59	18.50
			25	17.31	17.59	17.37	18.50
		50	0	17.33	17.42	17.41	18.50
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	20.43	20.62	20.61	21.50
			12	20.52	20.61	20.55	21.50
			24	20.25	20.47	20.37	21.50
		12	0	19.48	19.55	19.41	20.50
			7	19.47	19.54	19.52	20.50
			13	19.46	19.53	19.43	20.50
		25	0	19.53	19.43	19.40	20.50
	16QAM	1	0	19.64	19.87	19.81	20.50
			12	19.60	19.62	19.47	20.50
			24	19.55	19.69	19.65	20.50
		12	0	18.47	18.51	18.32	19.50
			7	18.47	18.58	18.40	19.50
			13	18.40	18.52	18.44	19.50
		25	0	18.44	18.55	18.45	19.50
	64QAM	1	0	18.78	18.88	18.89	19.50
			12	18.68	18.79	18.73	19.50
			24	18.72	18.76	18.81	19.50
		12	0	17.54	17.64	17.50	18.50
			7	17.45	17.61	17.66	18.50
			13	17.38	17.50	17.40	18.50
		25	0	17.37	17.39	17.41	18.50

LTE B5								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				20415	20525	20635	Tune-up limit (dBm)	
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	20.56	20.65	20.57	21.50	
			8	20.48	20.48	20.55	21.50	
			14	20.27	20.37	20.36	21.50	
		8	0	19.40	19.64	19.42	20.50	
			4	19.43	19.47	19.44	20.50	
			7	19.50	19.61	19.41	20.50	
		15	0	19.50	19.52	19.41	20.50	
	16QAM	1	0	19.77	19.88	19.74	20.50	
			8	19.54	19.57	19.57	20.50	
			14	19.57	19.76	19.63	20.50	
		8	0	18.43	18.55	18.38	19.50	
			4	18.47	18.58	18.41	19.50	
			7	18.41	18.51	18.36	19.50	
	15	0	18.40	18.56	18.44	19.50		
	64QAM	1	0	18.86	18.92	18.76	19.50	
			8	18.66	18.78	18.75	19.50	
			14	18.81	18.78	18.78	19.50	
		8	0	17.48	17.59	17.50	18.50	
			4	17.54	17.57	17.67	18.50	
			7	17.35	17.48	17.40	18.50	
		15	0	17.27	17.51	17.42	18.50	
Channel				20407	20525	20643	Tune-up limit (dBm)	
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	20.20	20.34	20.25	21.50	
			3	20.16	20.24	20.19	21.50	
			5	20.13	20.27	20.26	21.50	
		3	0	20.12	20.28	20.12	21.50	
			1	20.10	20.23	20.21	21.50	
			3	20.18	20.25	20.14	21.50	
		6	0	19.47	19.54	19.45	20.50	
	16QAM	1	0	19.56	19.71	19.64	20.50	
			3	19.58	19.61	19.57	20.50	
			5	19.62	19.66	19.62	20.50	
		3	0	19.41	19.44	19.40	20.50	
			1	19.24	19.35	19.23	20.50	
			3	19.33	19.35	19.27	20.50	
	6	0	18.15	18.22	18.14	19.50		
	64QAM	1	0	18.39	18.45	18.41	19.50	
			3	18.52	18.64	18.55	19.50	
			5	18.44	18.51	18.36	19.50	
		3	0	18.41	18.45	18.43	19.50	
			1	18.44	18.48	18.38	19.50	
			3	18.46	18.54	18.40	19.50	
		6	0	17.76	17.77	17.65	18.50	

8.3.4 LTE Band7 Output Power

LTE B7									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)		
Channel				20850	21100	21350			
Frequency (MHz)				2510	2535	2560			
20	QPSK	1	0	13.56	13.74	13.61	14.50		
			49	13.54	13.68	13.57	14.50		
			99	13.65	13.57	13.56	14.50		
		50	0	12.47	12.63	12.51	13.50		
			24	12.57	12.60	12.50	13.50		
			50	12.40	12.50	12.46	13.50		
			100	0	12.49	12.56	12.39	13.50	
			16QAM	1	0	12.98	13.06	12.96	13.50
					49	13.20	13.28	13.20	13.50
	99	13.07			13.03	12.93	13.50		
	50	0		11.38	11.53	11.59	12.50		
		24		11.50	11.57	11.51	12.50		
		50		11.44	11.53	11.46	12.50		
	100	0	11.35	11.50	11.51	12.50			
	64QAM	1	0	12.02	12.15	12.16	12.50		
			49	11.95	12.00	12.00	12.50		
			99	12.06	12.21	12.23	12.50		
		50	0	10.48	10.54	10.55	11.50		
			24	10.47	10.70	10.66	11.50		
			50	10.55	10.64	10.51	11.50		
		100	0	10.44	10.65	10.56	11.50		
Channel				20825	21100	21375	Tune-up power(dBm)		
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	0	13.64	13.69	13.59	14.50		
			37	13.52	13.68	13.63	14.50		
			74	13.61	13.65	13.63	14.50		
		36	0	12.45	12.57	12.46	13.50		
			20	12.55	12.54	12.56	13.50		
			39	12.48	12.48	12.44	13.50		
			75	0	12.44	12.56	12.53	13.50	
			16QAM	1	0	12.87	13.02	12.87	13.50
					37	13.08	13.17	13.24	13.50
	74	13.04			13.12	12.95	13.50		
	36	0		11.41	11.48	11.52	12.50		
		20		11.60	11.63	11.42	12.50		
		39		11.53	11.59	11.51	12.50		
	75	0	11.44	11.59	11.53	12.50			
	64QAM	1	0	12.09	12.18	12.12	12.50		
			37	11.89	12.07	11.96	12.50		
			74	12.19	12.20	12.20	12.50		
		36	0	10.59	10.64	10.54	11.50		
			20	10.52	10.68	10.56	11.50		
			39	10.54	10.59	10.43	11.50		
		75	0	10.43	10.54	10.56	11.50		

LTE B7								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				20800	21100	21400	Tune-up power(dBm)	
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	13.58	13.67	13.62	14.50	
			25	13.52	13.64	13.51	14.50	
			49	13.63	13.60	13.66	14.50	
		25	0	12.46	12.59	12.44	13.50	
			12	12.44	12.57	12.51	13.50	
			25	12.48	12.61	12.33	13.50	
		50	0	12.43	12.50	12.43	13.50	
	16QAM	1	0	12.96	13.01	12.91	13.50	
			25	13.08	13.24	13.28	13.50	
			49	13.16	13.09	13.03	13.50	
		25	0	11.44	11.54	11.50	12.50	
			12	11.50	11.65	11.56	12.50	
			25	11.46	11.51	11.49	12.50	
		50	0	11.36	11.63	11.53	12.50	
	64QAM	1	0	12.05	12.22	12.15	12.50	
			25	11.92	11.96	11.91	12.50	
			49	12.05	12.33	12.22	12.50	
		25	0	10.55	10.64	10.66	11.50	
			12	10.56	10.67	10.66	11.50	
			25	10.49	10.60	10.53	11.50	
		50	0	10.48	10.54	10.49	11.50	
Channel				20775	21100	21425	Tune-up power(dBm)	
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	13.60	13.70	13.62	14.50	
			12	13.53	13.68	13.61	14.50	
			24	13.58	13.68	13.62	14.50	
		12	0	12.47	12.70	12.49	13.50	
			7	12.45	12.64	12.51	13.50	
			13	12.53	12.52	12.47	13.50	
		25	0	12.51	12.50	12.40	13.50	
	16QAM	1	0	12.90	13.13	12.97	13.50	
			12	13.06	13.29	13.18	13.50	
			24	13.10	13.15	12.96	13.50	
		12	0	11.35	11.50	11.59	12.50	
			7	11.62	11.62	11.43	12.50	
			13	11.48	11.61	11.56	12.50	
		25	0	11.42	11.55	11.53	12.50	
	64QAM	1	0	12.03	12.22	12.21	12.50	
			12	11.88	12.06	11.96	12.50	
			24	12.16	12.33	12.26	12.50	
		12	0	10.57	10.65	10.53	11.50	
			7	10.53	10.68	10.64	11.50	
			13	10.58	10.62	10.48	11.50	
		25	0	10.37	10.64	10.55	11.50	

8.3.5 LTE Band38 Output Power

LTE B38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	16.78	16.85	16.83	17.50
			49	16.79	16.81	16.67	17.50
			99	16.69	16.83	16.69	17.50
		50	0	15.77	15.79	15.68	16.50
			24	15.74	15.77	15.69	16.50
			50	15.61	15.71	15.70	16.50
		100	0	15.65	15.75	15.74	16.50
	16QAM	1	0	15.79	15.90	15.89	16.50
			49	15.90	16.03	15.91	16.50
			99	15.90	15.93	15.79	16.50
		50	0	14.76	14.77	14.73	15.50
			24	14.70	14.79	14.66	15.50
			50	14.71	14.78	14.73	15.50
		100	0	14.69	14.73	14.72	15.50
	64QAM	1	0	14.83	14.92	14.80	15.50
			49	14.95	15.09	15.04	15.50
			99	14.85	14.98	14.93	15.50
		50	0	13.77	13.86	13.78	14.50
			24	13.80	13.90	13.89	14.50
			50	13.76	13.88	13.76	14.50
		100	0	13.76	13.81	13.80	14.50
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	16.72	16.81	16.77	17.50
			37	16.65	16.76	16.54	17.50
			74	16.62	16.76	16.60	17.50
		36	0	15.70	15.71	15.53	16.50
			20	15.67	15.64	15.60	16.50
			39	15.48	15.62	15.60	16.50
		75	0	15.53	15.68	15.72	16.50
	16QAM	1	0	15.74	15.81	15.75	16.50
			37	15.85	15.88	15.78	16.50
			74	15.81	15.78	15.76	16.50
		36	0	14.66	14.65	14.64	15.50
			20	14.55	14.73	14.52	15.50
			39	14.59	14.77	14.71	15.50
		75	0	14.66	14.66	14.63	15.50
	64QAM	1	0	14.77	14.88	14.71	15.50
			37	14.92	15.03	15.01	15.50
			74	14.79	14.92	14.87	15.50
		36	0	13.74	13.77	13.68	14.50
			20	13.65	13.79	13.81	14.50
			39	13.65	13.73	13.72	14.50
		75	0	13.66	13.66	13.73	14.50

LTE B38								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				37800	38000	38200	Tune-up limit (dBm)	
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	16.68	16.80	16.72	17.50	
			25	16.75	16.70	16.64	17.50	
			49	16.68	16.78	16.59	17.50	
		25	0	15.67	15.75	15.66	16.50	
			12	15.68	15.71	15.63	16.50	
			25	15.53	15.63	15.55	16.50	
		50	0	15.53	15.62	15.65	16.50	
	16QAM	1	0	15.74	15.81	15.79	16.50	
			25	15.85	15.90	15.76	16.50	
			49	15.85	15.90	15.64	16.50	
		25	0	14.64	14.66	14.64	15.50	
			12	14.62	14.69	14.61	15.50	
			25	14.64	14.66	14.58	15.50	
		50	0	14.58	14.60	14.66	15.50	
	64QAM	1	0	14.78	14.84	14.69	15.50	
			25	14.92	15.06	14.97	15.50	
			49	14.70	14.94	14.84	15.50	
		25	0	13.69	13.84	13.63	14.50	
			12	13.77	13.87	13.78	14.50	
			25	13.63	13.82	13.64	14.50	
		50	0	13.72	13.73	13.70	14.50	
Channel				37775	38000	38225	Tune-up limit (dBm)	
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	16.73	16.82	16.78	17.50	
			12	16.64	16.71	16.57	17.50	
			24	16.61	16.75	16.63	17.50	
		12	0	15.66	15.72	15.59	16.50	
			7	15.72	15.64	15.58	16.50	
			13	15.59	15.64	15.66	16.50	
		25	0	15.63	15.64	15.65	16.50	
	16QAM	1	0	15.74	15.84	15.86	16.50	
			12	15.82	15.98	15.79	16.50	
			24	15.87	15.87	15.76	16.50	
		12	0	14.64	14.62	14.68	15.50	
			7	14.56	14.76	14.58	15.50	
			13	14.69	14.69	14.65	15.50	
		25	0	14.64	14.67	14.70	15.50	
	64QAM	1	0	14.73	14.78	14.70	15.50	
			12	14.92	14.95	14.98	15.50	
			24	14.84	14.97	14.82	15.50	
		12	0	13.69	13.83	13.72	14.50	
			7	13.75	13.80	13.75	14.50	
			13	13.62	13.80	13.65	14.50	
		25	0	13.66	13.67	13.67	14.50	

8.3.6 LTE Band41 Output Power

LTE B41									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)		
Channel				40140	40640	41140			
Frequency (MHz)				2545	2595	2645			
20	QPSK	1	0	16.59	16.67	16.54	17.50		
			49	16.49	16.63	16.49	17.50		
			99	16.45	16.53	16.51	17.50		
		50	0	15.52	15.57	15.55	16.50		
			24	15.52	15.55	15.43	16.50		
			50	15.50	15.53	15.51	16.50		
			100	0	15.35	15.47	15.39	16.50	
			16QAM	1	0	15.61	15.76	15.74	16.50
					49	15.79	15.84	15.79	16.50
	99	15.73			15.79	15.77	16.50		
	50	0		14.36	14.49	14.42	15.50		
		24		14.42	14.57	14.54	15.50		
		50		14.48	14.54	14.39	15.50		
	100	0	14.48	14.49	14.36	15.50			
	64QAM	1	0	14.62	14.66	14.58	15.50		
			49	14.79	14.80	14.68	15.50		
			99	14.59	14.70	14.69	15.50		
		50	0	13.57	13.60	13.49	14.50		
			24	13.59	13.67	13.56	14.50		
			50	13.55	13.62	13.49	14.50		
		100	0	13.48	13.60	13.53	14.50		
Channel				40115	40640	41165	Tune-up limit (dBm)		
Frequency (MHz)				2542.5	2595	2647.5			
15	QPSK	1	0	16.49	16.63	16.46	17.50		
			37	16.34	16.48	16.42	17.50		
			74	16.40	16.47	16.42	17.50		
		36	0	15.39	15.58	15.51	16.50		
			20	15.37	15.53	15.39	16.50		
			39	15.45	15.43	15.50	16.50		
			75	0	15.28	15.32	15.30	16.50	
			16QAM	1	0	15.48	15.64	15.59	16.50
					37	15.78	15.77	15.76	16.50
	74	15.68			15.70	15.64	16.50		
	36	0		14.29	14.41	14.30	15.50		
		20		14.33	14.55	14.47	15.50		
		39		14.34	14.44	14.38	15.50		
	75	0	14.35	14.44	14.23	15.50			
	64QAM	1	0	14.54	14.56	14.52	15.50		
			37	14.72	14.68	14.55	15.50		
			74	14.48	14.56	14.58	15.50		
		36	0	13.48	13.46	13.36	14.50		
			20	13.47	13.61	13.41	14.50		
			39	13.42	13.47	13.40	14.50		
		75	0	13.39	13.58	13.44	14.50		

LTE B41								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				40090	40640	41190	Tune-up limit (dBm)	
Frequency (MHz)				2540	2595	2650		
10	QPSK	1	0	16.51	16.61	16.44	17.50	
			25	16.39	16.57	16.44	17.50	
			49	16.32	16.44	16.43	17.50	
		25	0	15.40	15.62	15.52	16.50	
			12	15.39	15.54	15.29	16.50	
			25	15.46	15.42	15.42	16.50	
		50	0	15.32	15.34	15.34	16.50	
	16QAM	1	0	15.56	15.72	15.64	16.50	
			25	15.67	15.81	15.75	16.50	
			49	15.59	15.65	15.73	16.50	
		25	0	14.21	14.39	14.32	15.50	
			12	14.35	14.52	14.50	15.50	
			25	14.38	14.52	14.32	15.50	
		50	0	14.38	14.36	14.30	15.50	
	64QAM	1	0	14.55	14.59	14.56	15.50	
			25	14.67	14.73	14.67	15.50	
			49	14.57	14.59	14.61	15.50	
		25	0	13.55	13.55	13.39	14.50	
			12	13.52	13.64	13.51	14.50	
			25	13.51	13.55	13.35	14.50	
		50	0	13.35	13.52	13.48	14.50	
Channel				40065	40640	41215	Tune-up limit (dBm)	
Frequency (MHz)				2537.5	2595	2652.5		
5	QPSK	1	0	16.53	16.57	16.43	17.50	
			12	16.39	16.49	16.45	17.50	
			24	16.30	16.39	16.40	17.50	
		12	0	15.47	15.59	15.47	16.50	
			7	15.50	15.51	15.30	16.50	
			13	15.49	15.40	15.46	16.50	
		25	0	15.22	15.44	15.36	16.50	
	16QAM	1	0	15.46	15.70	15.63	16.50	
			12	15.67	15.69	15.75	16.50	
			24	15.71	15.74	15.67	16.50	
		12	0	14.25	14.34	14.30	15.50	
			7	14.36	14.50	14.50	15.50	
			13	14.39	14.53	14.32	15.50	
		25	0	14.36	14.41	14.23	15.50	
	64QAM	1	0	14.47	14.54	14.46	15.50	
			12	14.68	14.70	14.55	15.50	
			24	14.53	14.63	14.57	15.50	
		12	0	13.44	13.52	13.39	14.50	
			7	13.52	13.58	13.46	14.50	
			13	13.43	13.53	13.42	14.50	
		25	0	13.36	13.57	13.41	14.50	

8.4.1 LTE Band2 Output Power

LTE Uplink CA_ Band 2									
Combination 20MHz+20MHz(100RB+100RB)									
PCC	SCC	Bandwidth	Modulation	PCC		SCC		Measured Power(dBm)	Max. tune-up power(dBm)
				RB Size	RB Pos.	RB Size	RB Pos.		
18700	18898	20	QPSK	1	99	1	0	14.44	15.50
18801	18999	20	QPSK	1	99	1	0	14.58	15.50
18902	19100	20	QPSK	1	99	1	0	14.51	15.50

8.4.2 LTE Band5 Output Power

LTE Uplink CA_ Band 5									
Combination 10MHz+10MHz(50RB+50RB)									
PCC	SCC	Bandwidth	Modulation	PCC		SCC		Measured Power(dBm)	Max. tune-up power(dBm)
				RB Size	RB Pos.	RB Size	RB Pos.		
20450	20549	10	QPSK	1	49	1	0	20.50	21.50
20476	20575	10	QPSK	1	49	1	0	20.54	21.50
20501	20600	10	QPSK	1	49	1	0	20.47	21.50

8.4.3 LTE Band7 Output Power

LTE Uplink CA_ Band 7									
Combination 20MHz+20MHz(100RB+100RB)									
PCC	SCC	Bandwidth	Modulation	PCC		SCC		Measured Power(dBm)	Max. tune-up power(dBm)
				RB Size	RB Pos.	RB Size	RB Pos.		
20850	21048	20	QPSK	1	99	1	0	13.57	14.50
21101	21199	20	QPSK	1	99	1	0	13.64	14.50
21152	21350	20	QPSK	1	99	1	0	13.60	14.50

8.4.4 LTE Band38 Output Power

LTE Uplink CA_ Band 38									
Combination 20MHz+20MHz(100RB+100RB)									
PCC	SCC	Bandwidth	Modulation	PCC		SCC		Measured Power(dBm)	Max. tune-up power(dBm)
				RB Size	RB Pos.	RB Size	RB Pos.		
37850	38048	20	QPSK	1	99	1	0	16.72	17.50
37901	38099	20	QPSK	1	99	1	0	16.76	17.50
37952	38150	20	QPSK	1	99	1	0	16.71	17.50

8.4.5 LTE Band41 Output Power

LTE Uplink CA_ Band 41									
Combination 20MHz+20MHz(100RB+100RB)									
PCC	SCC	Bandwidth	Modulation	PCC		SCC		Measured Power(dBm)	Max. tune-up power(dBm)
				RB Size	RB Pos.	RB Size	RB Pos.		
39750	39948	20	QPSK	1	99	1	0	16.51	17.50
40521	40719	20	QPSK	1	99	1	0	16.59	17.50
41292	41490	20	QPSK	1	99	1	0	16.53	17.50