

8 CONDUCTED RF OUPUT POWER

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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)	27.21	27.34	26.93	28.00	9.19	18.02	18.15	17.74	18.81
GPRS (GMSK, 1-Slot)	27.23	27.32	26.88	28.00	9.19	18.04	18.13	17.69	18.81
GPRS (GMSK, 2-Slots)	26.08	26.38	25.91	27.50	6.13	19.95	20.25	19.78	21.37
GPRS (GMSK, 3-Slots)	24.05	24.39	23.83	25.50	4.42	19.63	19.97	19.41	21.08
GPRS (GMSK, 4-Slots)	22.98	23.36	22.65	24.00	3.18	19.80	20.18	19.47	20.82
EGPRS (8PSK, 1-Slot)	27.10	27.32	26.90	28.00	9.19	17.91	18.13	17.71	18.81
EGPRS (8PSK, 2-Slots)	26.11	26.38	25.93	27.00	6.13	19.98	20.25	19.80	20.87
EGPRS (8PSK, 3-Slots)	24.07	24.38	23.84	25.00	4.42	19.65	19.96	19.42	20.58
EGPRS (8PSK, 4-Slots)	22.98	23.35	22.66	24.00	3.18	19.80	20.17	19.48	20.82

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)	21.96	22.04	22.02	23.00	9.19	12.77	12.85	12.83	13.81
GPRS (GMSK, 1-Slot)	21.80	21.83	21.68	23.00	9.19	12.61	12.64	12.49	13.81
GPRS (GMSK, 2-Slots)	20.67	20.79	20.64	22.00	6.13	14.54	14.66	14.51	15.87
GPRS (GMSK, 3-Slots)	18.78	18.85	18.75	20.00	4.42	14.36	14.43	14.33	15.58
GPRS (GMSK, 4-Slots)	17.50	17.53	17.51	19.00	3.18	14.32	14.35	14.33	15.82
EGPRS (8PSK, 1-Slot)	21.08	21.15	21.12	22.50	9.19	11.89	11.96	11.93	13.31
EGPRS (8PSK, 2-Slots)	20.77	20.84	20.72	21.50	6.13	14.64	14.71	14.59	15.37
EGPRS (8PSK, 3-Slots)	18.63	18.67	18.56	19.50	4.42	14.21	14.25	14.14	15.08
EGPRS (8PSK, 4-Slots)	17.48	17.54	17.43	18.50	3.18	14.30	14.36	14.25	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	13.33	13.46	13.39	14.50
HSDPA Subtest-1	13.36	13.42	13.34	14.50
HSDPA Subtest-2	13.38	13.33	13.24	14.50
HSDPA Subtest-3	13.11	12.87	12.83	14.00
HSDPA Subtest-4	13.16	12.89	12.85	14.00
DC-HSDPA Subtest-	13.36	13.28	13.34	14.50
DC-HSDPA Subtest-	13.34	13.29	13.35	14.50
DC-HSDPA Subtest-	12.77	12.89	12.78	14.00
DC-HSDPA Subtest-	12.74	12.96	12.89	14.00
HSUPA Subtest-1	13.22	13.35	13.18	14.50
HSUPA Subtest-2	11.41	11.45	11.24	12.50
HSUPA Subtest-3	12.23	12.35	12.27	13.50
HSUPA Subtest-4	11.41	11.36	11.23	12.50
HSUPA Subtest-5	13.30	13.41	13.34	14.50
HSPA+	10.78	10.95	10.68	12.00
Mode	Max:	13.46		

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	13.34	13.54	13.37	14.50
HSDPA Subtest-1	13.41	13.51	13.36	14.50
HSDPA Subtest-2	13.41	13.31	13.33	14.50
HSDPA Subtest-3	13.13	12.91	12.86	14.00
HSDPA Subtest-4	13.14	12.86	12.83	14.00
DC-HSDPA Subtest-	13.35	13.37	13.36	14.50
DC-HSDPA Subtest-	13.29	13.30	13.32	14.50
DC-HSDPA Subtest-	12.77	12.98	12.87	14.00
DC-HSDPA Subtest-	12.74	12.99	12.87	14.00
HSUPA Subtest-1	13.20	13.38	13.19	14.50
HSUPA Subtest-2	11.49	11.43	11.28	12.50
HSUPA Subtest-3	12.18	12.31	12.28	13.50
HSUPA Subtest-4	11.48	11.45	11.24	12.50
HSUPA Subtest-5	13.26	13.49	13.35	14.50
HSPA+	10.74	10.98	10.77	12.00
Mode	Max:	13.54		

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	21.01	21.07	20.94	22.00
HSDPA Subtest-1	20.91	20.88	20.85	22.00
HSDPA Subtest-2	21.01	20.91	20.70	22.00
HSDPA Subtest-3	20.67	20.43	20.33	21.50
HSDPA Subtest-4	20.62	20.44	20.32	21.50
DC-HSDPA Subtest-	20.87	20.82	20.79	22.00
DC-HSDPA Subtest-	20.75	20.81	20.83	22.00
DC-HSDPA Subtest-	20.37	20.38	20.34	21.50
DC-HSDPA Subtest-	20.30	20.41	20.46	21.50
HSUPA Subtest-1	20.85	20.88	20.81	22.00
HSUPA Subtest-2	18.84	18.97	18.89	20.00
HSUPA Subtest-3	19.77	19.86	19.61	21.00
HSUPA Subtest-4	18.99	18.94	18.82	20.00
HSUPA Subtest-5	20.95	20.98	20.89	22.00
HSPA+	18.31	18.42	18.14	19.50
Mode	Max:	21.07		

8.3.1 LTE Band2 Output Power

LTE B2 Full								
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	13.36	13.60	13.37	14.50	
			49	13.28	13.52	13.38	14.50	
			99	13.37	13.43	13.40	14.50	
		50	0	12.22	12.47	12.23	13.50	
			24	12.35	12.44	12.23	13.50	
			50	12.22	12.27	12.21	13.50	
		100	0	12.32	12.29	12.17	13.50	
		16QAM	1	0	12.84	12.79	12.74	13.50
				49	12.99	13.00	13.06	13.50
	99			12.91	12.75	12.70	13.50	
	50		0	11.22	11.35	11.32	12.50	
			24	11.30	11.34	11.37	12.50	
			50	11.18	11.28	11.21	12.50	
	100		0	11.16	11.32	11.28	12.50	
	64QAM		1	0	11.77	11.89	12.01	12.50
				49	11.71	11.76	11.78	12.50
		99		11.82	12.04	11.99	12.50	
		50	0	10.28	10.37	10.38	11.50	
			24	10.22	10.56	10.50	11.50	
			50	10.41	10.50	10.29	11.50	
		100	0	10.21	10.38	10.35	11.50	
Channel				18675	18900	19125	Tune-up limit (dBm)	
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	13.40	13.52	13.44	14.50	
			37	13.34	13.48	13.37	14.50	
			74	13.47	13.31	13.40	14.50	
		36	0	12.24	12.48	12.23	13.50	
			20	12.33	12.46	12.34	13.50	
			39	12.23	12.27	12.26	13.50	
		75	0	12.23	12.37	12.24	13.50	
		16QAM	1	0	12.72	12.90	12.71	13.50
				37	12.95	13.09	12.94	13.50
	74			12.83	12.88	12.70	13.50	
	36		0	11.17	11.29	11.37	12.50	
			20	11.28	11.42	11.26	12.50	
			39	11.28	11.38	11.28	12.50	
	64QAM	1	0	11.16	11.30	11.32	12.50	
			0	11.86	11.95	11.95	12.50	
			37	11.71	11.83	11.76	12.50	
		36	74	11.87	12.01	11.96	12.50	
			0	10.32	10.35	10.36	11.50	
			20	10.29	10.43	10.38	11.50	
	39	10.41	10.37	10.26	11.50			
	75	0	10.25	10.37	10.30	11.50		

LTE B2 Full								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit	
Channel				18650	18900	19150	Tune-up limit (dBm)	
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	13.28	13.50	13.41	14.50	
			25	13.37	13.47	13.33	14.50	
			49	13.48	13.40	13.29	14.50	
		25	0	12.23	12.44	12.23	13.50	
			12	12.37	12.43	12.29	13.50	
			25	12.21	12.23	12.27	13.50	
		50	0	12.34	12.32	12.22	13.50	
	16QAM	1	0	12.82	12.89	12.76	13.50	
			25	12.96	13.00	13.00	13.50	
			49	12.79	12.89	12.67	13.50	
		25	0	11.14	11.32	11.41	12.50	
			12	11.26	11.41	11.31	12.50	
			25	11.24	11.25	11.20	12.50	
		50	0	11.16	11.28	11.26	12.50	
	64QAM	1	0	11.84	11.89	11.93	12.50	
			25	11.70	11.80	11.83	12.50	
			49	11.87	12.01	11.97	12.50	
		25	0	10.31	10.36	10.32	11.50	
			12	10.31	10.45	10.41	11.50	
			25	10.30	10.45	10.27	11.50	
		50	0	10.18	10.50	10.38	11.50	
Channel				18625	18900	19175	Tune-up limit (dBm)	
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	13.38	13.52	13.37	14.50	
			12	13.31	13.45	13.31	14.50	
			24	13.45	13.36	13.39	14.50	
		12	0	12.31	12.43	12.24	13.50	
			7	12.39	12.38	12.32	13.50	
			13	12.22	12.30	12.21	13.50	
		25	0	12.24	12.39	12.11	13.50	
	16QAM	1	0	12.84	12.83	12.82	13.50	
			12	12.93	13.10	12.96	13.50	
			24	12.82	12.87	12.74	13.50	
		12	0	11.11	11.33	11.31	12.50	
			7	11.30	11.41	11.34	12.50	
			13	11.25	11.26	11.31	12.50	
		25	0	11.17	11.29	11.24	12.50	
	64QAM	1	0	11.85	11.96	11.92	12.50	
			12	11.75	11.72	11.78	12.50	
			24	11.86	12.07	12.02	12.50	
		12	0	10.22	10.34	10.28	11.50	
			7	10.25	10.54	10.43	11.50	
			13	10.36	10.49	10.25	11.50	
		25	0	10.16	10.51	10.39	11.50	

LTE B2 Full								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit	
Channel				18615	18900	19185	Tune-up limit (dBm)	
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	13.41	13.59	13.43	14.50	
			8	13.26	13.47	13.35	14.50	
			14	13.41	13.30	13.41	14.50	
		8	0	12.23	12.46	12.37	13.50	
			4	12.33	12.43	12.27	13.50	
			7	12.25	12.36	12.27	13.50	
		15	0	12.30	12.31	12.25	13.50	
	16QAM	1	0	12.74	12.83	12.72	13.50	
			8	13.02	13.13	13.01	13.50	
			14	12.85	12.85	12.76	13.50	
		8	0	11.17	11.28	11.41	12.50	
			4	11.27	11.43	11.32	12.50	
			7	11.27	11.30	11.29	12.50	
	15	0	11.07	11.31	11.25	12.50		
	64QAM	1	0	11.76	11.94	11.91	12.50	
			8	11.67	11.80	11.81	12.50	
			14	11.82	12.01	12.09	12.50	
		8	0	10.34	10.34	10.29	11.50	
			4	10.30	10.54	10.47	11.50	
			7	10.39	10.45	10.26	11.50	
		15	0	10.16	10.46	10.31	11.50	
Channel				18607	18900	19193	Tune-up limit (dBm)	
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	13.47	13.49	13.34	14.50	
			3	13.33	13.41	13.29	14.50	
			5	13.28	13.37	13.27	14.50	
		3	0	13.34	13.42	13.41	14.50	
			1	13.33	13.36	13.29	14.50	
			3	13.34	13.35	13.33	14.50	
		6	0	12.36	12.47	12.39	13.50	
	16QAM	1	0	12.43	12.50	12.38	13.50	
			3	12.51	12.59	12.50	13.50	
			5	12.47	12.53	12.45	13.50	
		3	0	12.26	12.33	12.26	13.50	
			1	12.33	12.34	12.22	13.50	
			3	12.31	12.35	12.25	13.50	
	6	0	11.66	11.67	11.53	12.50		
	64QAM	1	0	11.85	11.89	11.88	12.50	
			3	11.97	12.01	12.00	12.50	
			5	11.72	11.87	11.82	12.50	
		3	0	11.79	11.81	11.74	12.50	
			1	11.82	11.91	11.83	12.50	
			3	11.72	11.87	11.78	12.50	
		6	0	10.49	10.51	10.42	11.50	

8.3.2 LTE Band4 Output Power

LTE B4 Full								
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	13.99	14.09	13.98	15.00	
			49	13.90	14.01	14.00	15.00	
			99	13.85	13.87	13.76	15.00	
		50	0	12.79	13.02	12.83	14.00	
			24	12.85	12.92	12.86	14.00	
			50	12.84	12.89	12.87	14.00	
		100	0	12.90	12.98	12.86	14.00	
	16QAM	1	0	13.42	13.56	13.55	14.00	
			49	13.47	13.58	13.45	14.00	
			99	13.30	13.44	13.31	14.00	
		50	0	11.76	11.88	11.87	13.00	
			24	11.91	11.94	11.89	13.00	
			50	11.96	12.00	11.85	13.00	
		100	0	11.89	11.90	11.87	13.00	
	64QAM	1	0	12.61	12.64	12.50	13.00	
			49	12.64	12.69	12.66	13.00	
			99	12.55	12.56	12.53	13.00	
		50	0	10.79	10.87	10.79	12.00	
			24	10.93	10.95	10.90	12.00	
			50	10.91	11.01	10.97	12.00	
		100	0	10.85	10.89	10.76	12.00	
Channel				20025	20175	20325	Tune-up limit (dBm)	
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	13.95	14.03	13.83	15.00	
			37	13.86	13.99	13.90	15.00	
			74	13.80	13.78	13.75	15.00	
		36	0	12.77	12.90	12.72	14.00	
			20	12.83	12.84	12.77	14.00	
			39	12.80	12.75	12.83	14.00	
		75	0	12.78	12.87	12.79	14.00	
	16QAM	1	0	13.29	13.54	13.46	14.00	
			37	13.34	13.57	13.39	14.00	
			74	13.18	13.40	13.21	14.00	
		36	0	11.71	11.82	11.86	13.00	
			20	11.81	11.89	11.74	13.00	
			39	11.91	11.85	11.70	13.00	
		75	0	11.83	11.87	11.85	13.00	
	64QAM	1	0	12.52	12.53	12.44	13.00	
			37	12.55	12.66	12.62	13.00	
			74	12.48	12.48	12.50	13.00	
		36	0	10.73	10.80	10.69	12.00	
			20	10.80	10.83	10.83	12.00	
			39	10.80	10.88	10.96	12.00	
		75	0	10.73	10.84	10.75	12.00	

LTE B4 Full								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit	
Channel				20000	20175	20350	Tune-up limit (dBm)	
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	13.85	14.01	13.95	15.00	
			25	13.78	13.99	13.85	15.00	
			49	13.82	13.85	13.66	15.00	
		25	0	12.73	12.93	12.70	14.00	
			12	12.76	12.78	12.78	14.00	
			25	12.76	12.80	12.83	14.00	
		50	0	12.76	12.85	12.78	14.00	
	16QAM	1	0	13.32	13.55	13.45	14.00	
			25	13.43	13.50	13.35	14.00	
			49	13.20	13.31	13.18	14.00	
		25	0	11.67	11.73	11.77	13.00	
			12	11.87	11.90	11.80	13.00	
			25	11.94	11.89	11.77	13.00	
	50	0	11.78	11.85	11.83	13.00		
	64QAM	1	0	12.52	12.57	12.37	13.00	
			25	12.60	12.54	12.63	13.00	
			49	12.50	12.43	12.48	13.00	
		25	0	10.71	10.73	10.72	12.00	
			12	10.90	10.93	10.79	12.00	
			25	10.90	10.88	10.83	12.00	
		50	0	10.77	10.82	10.73	12.00	
Channel				19975	20175	20375	Tune-up limit (dBm)	
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	13.93	14.00	13.97	15.00	
			12	13.77	13.93	13.86	15.00	
			24	13.81	13.85	13.69	15.00	
		12	0	12.66	12.91	12.79	14.00	
			7	12.76	12.85	12.82	14.00	
			13	12.77	12.87	12.74	14.00	
		25	0	12.78	12.89	12.85	14.00	
	16QAM	1	0	13.34	13.41	13.54	14.00	
			12	13.33	13.49	13.37	14.00	
			24	13.23	13.34	13.22	14.00	
		12	0	11.69	11.87	11.75	13.00	
			7	11.86	11.85	11.81	13.00	
			13	11.93	11.96	11.78	13.00	
	25	0	11.82	11.77	11.78	13.00		
	64QAM	1	0	12.52	12.62	12.42	13.00	
			12	12.55	12.58	12.51	13.00	
			24	12.52	12.49	12.51	13.00	
		12	0	10.66	10.81	10.78	12.00	
			7	10.81	10.90	10.83	12.00	
			13	10.83	10.99	10.85	12.00	
		25	0	10.80	10.75	10.72	12.00	

LTE B4 Full								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit	
Channel				19965	20175	20385	Tune-up limit (dBm)	
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	13.91	14.03	13.95	15.00	
			8	13.80	13.93	13.96	15.00	
			14	13.74	13.73	13.73	15.00	
		8	0	12.74	12.94	12.79	14.00	
			4	12.79	12.82	12.73	14.00	
			7	12.69	12.86	12.85	14.00	
		15	0	12.88	12.96	12.77	14.00	
	16QAM	1	0	13.40	13.50	13.52	14.00	
			8	13.46	13.54	13.31	14.00	
			14	13.16	13.34	13.27	14.00	
		8	0	11.72	11.76	11.82	13.00	
			4	11.82	11.81	11.87	13.00	
			7	11.88	11.85	11.81	13.00	
	15	0	11.79	11.83	11.84	13.00		
	64QAM	1	0	12.48	12.59	12.46	13.00	
			8	12.50	12.64	12.56	13.00	
			14	12.43	12.47	12.40	13.00	
		8	0	10.72	10.82	10.71	12.00	
			4	10.83	10.81	10.80	12.00	
			7	10.78	11.00	10.92	12.00	
		15	0	10.72	10.86	10.63	12.00	
Channel				19957	20175	20393	Tune-up limit (dBm)	
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	13.80	13.81	13.78	15.00	
			3	13.72	13.76	13.67	15.00	
			5	13.73	13.77	13.66	15.00	
		3	0	13.71	13.78	13.73	15.00	
			1	13.72	13.76	13.72	15.00	
			3	13.54	13.59	13.44	15.00	
		6	0	12.69	12.79	12.70	14.00	
	16QAM	1	0	12.74	12.77	12.71	14.00	
			3	12.67	12.82	12.71	14.00	
			5	12.68	12.77	12.65	14.00	
		3	0	12.44	12.55	12.53	14.00	
			1	12.42	12.57	12.51	14.00	
			3	12.45	12.59	12.51	14.00	
	6	0	11.88	11.93	11.83	13.00		
	64QAM	1	0	11.98	12.13	12.12	13.00	
			3	12.16	12.25	12.20	13.00	
			5	12.08	12.09	12.01	13.00	
		3	0	12.05	12.07	12.02	13.00	
			1	11.96	12.10	12.09	13.00	
			3	12.11	12.12	12.02	13.00	
		6	0	11.07	11.10	10.97	12.00	

8.3.3 LTE Band5 Output Power

LTE B5 Full								
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		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	20.96	21.07	21.00	22.00	
			25	20.90	20.92	20.83	22.00	
			49	20.77	20.87	20.81	22.00	
		25	0	19.86	19.97	19.89	21.00	
			12	19.93	19.87	19.95	21.00	
			25	19.85	19.96	19.91	21.00	
		50	0	19.96	19.97	19.85	21.00	
	16QAM	1	0	20.48	20.52	20.44	21.00	
			25	20.60	20.65	20.59	21.00	
			49	20.55	20.59	20.54	21.00	
		25	0	19.04	19.08	19.05	20.00	
			12	19.01	19.14	19.05	20.00	
			25	19.03	19.07	19.06	20.00	
		50	0	19.02	19.03	18.99	20.00	
	64QAM	1	0	19.12	19.26	19.19	20.00	
			25	19.37	19.43	19.42	20.00	
			49	19.24	19.35	19.29	20.00	
		25	0	18.03	18.14	18.11	19.00	
			12	18.22	18.23	18.08	19.00	
			25	18.04	18.18	18.09	19.00	
		50	0	18.04	18.11	18.09	19.00	
Channel				20425	20525	20625	Tune-up limit (dBm)	
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	20.87	20.92	20.89	22.00	
			12	20.80	20.91	20.72	22.00	
			24	20.63	20.74	20.67	22.00	
		12	0	19.73	19.85	19.75	21.00	
			7	19.88	19.84	20.01	21.00	
			13	19.83	19.92	19.89	21.00	
		25	0	19.86	19.86	19.79	21.00	
	16QAM	1	0	20.47	20.51	20.37	21.00	
			12	20.45	20.63	20.49	21.00	
			24	20.52	20.46	20.51	21.00	
		12	0	19.01	19.03	18.96	20.00	
			7	18.98	19.02	18.93	20.00	
			13	18.99	19.06	19.00	20.00	
		25	0	18.88	18.91	18.89	20.00	
	64QAM	1	0	19.09	19.14	19.15	20.00	
			12	19.35	19.42	19.32	20.00	
			24	19.12	19.20	19.18	20.00	
		12	0	17.96	18.01	18.09	19.00	
			7	18.18	18.21	17.97	19.00	
			13	17.93	18.04	17.95	19.00	
		25	0	17.99	18.06	18.01	19.00	

LTE B5 Full								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit	
Channel				20415	20525	20635	Tune-up limit (dBm)	
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	20.74	20.85	20.75	22.00	
			8	20.69	20.67	20.56	22.00	
			14	20.55	20.59	20.61	22.00	
		8	0	19.69	19.67	19.67	21.00	
			4	19.72	19.70	19.79	21.00	
			7	19.57	19.71	19.66	21.00	
		15	0	19.75	19.81	19.61	21.00	
	16QAM	1	0	20.32	20.33	20.22	21.00	
			8	20.37	20.39	20.38	21.00	
			14	20.38	20.35	20.28	21.00	
		8	0	18.78	18.80	18.78	20.00	
			4	18.71	18.98	18.80	20.00	
			7	18.77	18.78	18.88	20.00	
	15	0	18.82	18.78	18.75	20.00		
	64QAM	1	0	18.84	18.97	18.90	20.00	
			8	19.13	19.13	19.26	20.00	
			14	19.03	19.10	19.04	20.00	
		8	0	17.87	17.92	17.88	19.00	
			4	17.97	17.97	17.88	19.00	
			7	17.81	17.89	17.87	19.00	
		15	0	17.83	17.87	17.89	19.00	
Channel				20407	20525	20643	Tune-up limit (dBm)	
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	20.56	20.76	20.54	22.00	
			3	20.45	20.70	20.44	22.00	
			5	20.41	20.57	20.39	22.00	
		3	0	20.43	20.72	20.46	22.00	
			1	20.52	20.70	20.48	22.00	
			3	20.42	20.68	20.48	22.00	
		6	0	19.63	19.86	19.59	21.00	
	16QAM	1	0	20.14	20.34	20.08	21.00	
			3	20.11	20.37	20.11	21.00	
			5	20.23	20.41	20.13	21.00	
		3	0	19.76	19.96	19.71	21.00	
			1	19.70	19.97	19.68	21.00	
			3	19.71	19.96	19.67	21.00	
	6	0	18.65	18.88	18.71	20.00		
	64QAM	1	0	18.86	19.11	18.94	20.00	
			3	19.11	19.27	19.00	20.00	
			5	18.89	19.15	18.87	20.00	
		3	0	18.84	19.12	18.90	20.00	
			1	18.91	19.12	18.85	20.00	
			3	18.90	19.15	18.87	20.00	
		6	0	18.23	18.45	18.28	19.00	

8.3.4 LTE Band7 Output Power

LTE B7 Full							
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	13.70	13.76	13.65	14.50
			49	13.66	13.67	13.66	14.50
			99	13.50	13.58	13.54	14.50
		50	0	12.53	12.65	12.46	13.50
			24	12.53	12.57	12.58	13.50
			50	12.33	12.46	12.33	13.50
		100	0	12.30	12.45	12.42	13.50
	16QAM	1	0	12.87	12.96	12.90	13.50
			49	13.08	13.23	13.22	13.50
			99	12.90	13.03	12.97	13.50
		50	0	11.40	11.44	11.37	12.50
			24	11.38	11.47	11.38	12.50
			50	11.34	11.49	11.46	12.50
		100	0	11.44	11.53	11.44	12.50
	64QAM	1	0	11.98	12.04	12.00	12.50
			49	11.82	11.92	11.83	12.50
			99	12.12	12.15	12.13	12.50
		50	0	10.37	10.51	10.47	11.50
			24	10.63	10.67	10.61	11.50
			50	10.57	10.65	10.60	11.50
		100	0	10.60	10.67	10.54	11.50
Channel				20825	21100	21375	Tune-up power(dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	13.63	13.72	13.56	14.50
			37	13.63	13.66	13.61	14.50
			74	13.45	13.56	13.39	14.50
		36	0	12.44	12.62	12.43	13.50
			20	12.49	12.51	12.43	13.50
			39	12.21	12.37	12.24	13.50
		75	0	12.23	12.37	12.39	13.50
	16QAM	1	0	12.85	12.81	12.88	13.50
			37	13.03	13.22	13.15	13.50
			74	12.75	12.93	12.90	13.50
		36	0	11.28	11.39	11.26	12.50
			20	11.37	11.36	11.37	12.50
			39	11.26	11.44	11.38	12.50
		75	0	11.43	11.42	11.31	12.50
	64QAM	1	0	11.97	12.01	11.98	12.50
			37	11.80	11.79	11.74	12.50
			74	12.06	12.05	12.06	12.50
		36	0	10.33	10.39	10.45	11.50
			20	10.52	10.66	10.47	11.50
			39	10.51	10.58	10.52	11.50
		75	0	10.49	10.61	10.47	11.50

LTE B7 Full								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit	
Channel				20800	21100	21400	Tune-up power(dBm)	
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	13.64	13.73	13.56	14.50	
			25	13.56	13.65	13.63	14.50	
			49	13.48	13.53	13.50	14.50	
		25	0	12.41	12.55	12.43	13.50	
			12	12.46	12.51	12.47	13.50	
			25	12.18	12.40	12.28	13.50	
		50	0	12.19	12.36	12.28	13.50	
		16QAM	1	0	12.83	12.82	12.79	13.50
				25	13.03	13.18	13.19	13.50
	49			12.88	12.97	12.92	13.50	
	25		0	11.39	11.33	11.31	12.50	
			12	11.29	11.43	11.29	12.50	
			25	11.21	11.37	11.42	12.50	
	50	0	11.42	11.41	11.31	12.50		
	64QAM	1	0	11.90	11.95	11.96	12.50	
			25	11.69	11.82	11.69	12.50	
			49	12.04	12.03	12.08	12.50	
		25	0	10.29	10.43	10.43	11.50	
			12	10.60	10.59	10.57	11.50	
			25	10.49	10.58	10.53	11.50	
		50	0	10.45	10.63	10.39	11.50	
Channel				20775	21100	21425	Tune-up power(dBm)	
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	13.66	13.70	13.59	14.50	
			12	13.58	13.59	13.63	14.50	
			24	13.41	13.57	13.49	14.50	
		12	0	12.44	12.53	12.39	13.50	
			7	12.49	12.48	12.57	13.50	
			13	12.28	12.45	12.28	13.50	
		25	0	12.18	12.39	12.29	13.50	
		16QAM	1	0	12.79	12.94	12.82	13.50
				12	13.05	13.13	13.19	13.50
	24			12.84	12.93	12.83	13.50	
	12		0	11.28	11.31	11.29	12.50	
			7	11.30	11.43	11.36	12.50	
			13	11.33	11.39	11.44	12.50	
	25	0	11.31	11.42	11.41	12.50		
	64QAM	1	0	11.95	12.01	11.87	12.50	
			12	11.74	11.90	11.69	12.50	
			24	11.98	12.10	12.02	12.50	
		12	0	10.22	10.49	10.44	11.50	
			7	10.58	10.63	10.47	11.50	
			13	10.43	10.62	10.56	11.50	
		25	0	10.52	10.61	10.50	11.50	

8.3.5 LTE Band38 Output Power

LTE B38 Full									
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	15.14	15.34	15.12	16.50		
			49	15.25	15.27	15.18	16.50		
			99	15.19	15.18	15.05	16.50		
		50	0	14.12	14.13	14.02	15.50		
			24	14.25	14.19	14.07	15.50		
			50	14.14	14.13	14.02	15.50		
			100	0	14.09	14.13	14.00	15.50	
			16QAM	1	0	14.48	14.35	14.51	15.50
					49	14.59	14.47	14.61	15.50
	99	14.52			14.39	14.45	15.50		
	50	0		13.11	13.18	13.13	14.50		
		24		13.22	13.27	13.18	14.50		
		50		13.20	13.21	13.14	14.50		
	100	0	13.20	13.19	13.10	14.50			
	64QAM	1	0	13.75	13.38	13.65	14.50		
			49	13.95	13.51	13.71	14.50		
			99	13.90	13.42	13.57	14.50		
		50	0	12.23	12.23	12.13	13.50		
			24	12.33	12.29	12.21	13.50		
			50	12.24	12.21	12.14	13.50		
		100	0	12.21	12.21	12.14	13.50		
Channel				37825	38000	38175	Tune-up limit (dBm)		
Frequency (MHz)				2577.5	2595	2612.5			
15	QPSK	1	0	15.03	15.19	15.11	16.50		
			37	15.15	15.17	15.17	16.50		
			74	15.08	15.16	14.97	16.50		
		36	0	14.08	14.12	13.94	15.50		
			20	14.14	14.15	13.97	15.50		
			39	14.04	14.11	13.96	15.50		
			75	0	14.00	14.04	13.90	15.50	
			16QAM	1	0	14.36	14.26	14.45	15.50
					37	14.47	14.34	14.58	15.50
	74	14.44			14.25	14.41	15.50		
	36	0		13.00	13.13	13.02	14.50		
		20		13.16	13.12	13.17	14.50		
		39		13.16	13.19	12.99	14.50		
	75	0	13.17	13.11	13.09	14.50			
	64QAM	1	0	13.72	13.37	13.51	14.50		
			37	13.80	13.39	13.68	14.50		
			74	13.78	13.36	13.43	14.50		
		36	0	12.13	12.13	12.12	13.50		
			20	12.29	12.14	12.14	13.50		
			39	12.14	12.12	12.07	13.50		
		75	0	12.16	12.08	12.08	13.50		

LTE B38 Full								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit	
Channel				37800	38000	38200	Tune-up limit (dBm)	
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	15.05	15.31	14.98	16.50	
			25	15.14	15.13	15.11	16.50	
			49	15.11	15.09	14.95	16.50	
		25	0	14.02	14.10	13.96	15.50	
			12	14.20	14.15	14.05	15.50	
			25	14.03	13.98	13.91	15.50	
		50	0	14.05	14.06	13.92	15.50	
	16QAM	1	0	14.41	14.23	14.43	15.50	
			25	14.58	14.40	14.46	15.50	
			49	14.44	14.27	14.35	15.50	
		25	0	13.04	13.03	13.11	14.50	
			12	13.14	13.23	13.03	14.50	
			25	13.19	13.13	13.02	14.50	
		50	0	13.13	13.12	13.02	14.50	
	64QAM	1	0	13.67	13.31	13.63	14.50	
			25	13.84	13.47	13.63	14.50	
			49	13.88	13.32	13.47	14.50	
		25	0	12.14	12.09	12.09	13.50	
			12	12.26	12.22	12.20	13.50	
			25	12.23	12.18	12.03	13.50	
		50	0	12.17	12.14	11.99	13.50	
Channel				37775	38000	38225	Tune-up limit (dBm)	
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	15.09	15.25	14.98	16.50	
			12	15.21	15.13	15.16	16.50	
			24	15.18	15.15	14.94	16.50	
		12	0	13.98	14.00	13.92	15.50	
			7	14.21	14.06	13.93	15.50	
			13	14.01	14.05	13.99	15.50	
		25	0	14.06	14.05	13.96	15.50	
	16QAM	1	0	14.39	14.32	14.48	15.50	
			12	14.44	14.32	14.56	15.50	
			24	14.39	14.24	14.42	15.50	
		12	0	13.01	13.08	13.12	14.50	
			7	13.12	13.14	13.12	14.50	
			13	13.06	13.09	13.03	14.50	
		25	0	13.14	13.07	13.05	14.50	
	64QAM	1	0	13.70	13.36	13.57	14.50	
			12	13.86	13.44	13.63	14.50	
			24	13.80	13.30	13.54	14.50	
		12	0	12.21	12.17	12.10	13.50	
			7	12.29	12.26	12.12	13.50	
			13	12.22	12.06	12.01	13.50	
		25	0	12.12	12.18	12.08	13.50	

8.3.6 LTE Band41 Output Power

LTE B41 Full Power									
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	15.42	15.46	15.41	16.50		
			49	15.34	15.40	15.37	16.50		
			99	15.38	15.44	15.32	16.50		
		50	0	14.25	14.42	14.27	15.50		
			24	14.40	14.41	14.35	15.50		
			50	14.36	14.41	14.31	15.50		
			100	0	14.32	14.36	14.29	15.50	
			16QAM	1	0	14.55	14.65	14.60	15.50
					49	14.68	14.77	14.68	15.50
	99	14.60			14.67	14.62	15.50		
	50	0		13.42	13.46	13.34	14.50		
		24		13.42	13.53	13.48	14.50		
		50		13.40	13.48	13.35	14.50		
	100	0	13.31	13.46	13.41	14.50			
	64QAM	1	0	13.54	13.66	13.54	14.50		
			49	13.78	13.80	13.70	14.50		
			99	13.55	13.68	13.53	14.50		
		50	0	12.33	12.48	12.40	13.50		
			24	12.53	12.58	12.54	13.50		
			50	12.43	12.55	12.48	13.50		
		100	0	12.36	12.47	12.45	13.50		
Channel				40115	40640	41165	Tune-up limit (dBm)		
Frequency (MHz)				2542.5	2595	2647.5			
15	QPSK	1	0	15.30	15.42	15.40	16.50		
			37	15.19	15.28	15.36	16.50		
			74	15.29	15.38	15.21	16.50		
		36	0	14.14	14.28	14.17	15.50		
			20	14.29	14.36	14.35	15.50		
			39	14.28	14.33	14.29	15.50		
			75	0	14.31	14.26	14.15	15.50	
			16QAM	1	0	14.48	14.53	14.46	15.50
					37	14.63	14.64	14.61	15.50
	74	14.55			14.60	14.51	15.50		
	36	0		13.32	13.40	13.30	14.50		
		20		13.32	13.38	13.36	14.50		
		39		13.25	13.38	13.28	14.50		
	75	0	13.27	13.41	13.33	14.50			
	64QAM	1	0	13.42	13.59	13.53	14.50		
			37	13.68	13.75	13.58	14.50		
			74	13.44	13.54	13.51	14.50		
		36	0	12.21	12.34	12.38	13.50		
			20	12.51	12.56	12.53	13.50		
			39	12.33	12.54	12.42	13.50		
		75	0	12.31	12.35	12.35	13.50		

LTE B41 Full Power								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit	
Channel				40090	40640	41190	Tune-up limit	
Frequency (MHz)				2540	2595	2650	(dBm)	
10	QPSK	1	0	15.36	15.45	15.34	16.50	
			25	15.32	15.34	15.23	16.50	
			49	15.33	15.43	15.29	16.50	
		25	0	14.13	14.21	14.12	15.50	
			12	14.32	14.37	14.33	15.50	
			25	14.33	14.26	14.17	15.50	
		50	0	14.31	14.23	14.15	15.50	
	16QAM	1	0	14.51	14.56	14.58	15.50	
			25	14.54	14.75	14.65	15.50	
			49	14.53	14.53	14.59	15.50	
		25	0	13.32	13.43	13.21	14.50	
			12	13.30	13.49	13.42	14.50	
			25	13.39	13.44	13.34	14.50	
		50	0	13.22	13.45	13.39	14.50	
	64QAM	1	0	13.42	13.51	13.48	14.50	
			25	13.72	13.77	13.64	14.50	
			49	13.45	13.53	13.44	14.50	
		25	0	12.21	12.45	12.35	13.50	
			12	12.43	12.54	12.52	13.50	
			25	12.30	12.41	12.39	13.50	
		50	0	12.35	12.38	12.37	13.50	
Channel				40065	40640	41215	Tune-up limit	
Frequency (MHz)				2537.5	2595	2652.5	(dBm)	
5	QPSK	1	0	15.37	15.44	15.26	16.50	
			12	15.32	15.33	15.33	16.50	
			24	15.29	15.39	15.28	16.50	
		12	0	14.12	14.28	14.16	15.50	
			7	14.25	14.31	14.37	15.50	
			13	14.30	14.39	14.24	15.50	
		25	0	14.18	14.35	14.18	15.50	
	16QAM	1	0	14.46	14.58	14.48	15.50	
			12	14.62	14.71	14.59	15.50	
			24	14.55	14.63	14.49	15.50	
		12	0	13.33	13.41	13.33	14.50	
			7	13.41	13.46	13.36	14.50	
			13	13.32	13.44	13.28	14.50	
		25	0	13.30	13.45	13.38	14.50	
	64QAM	1	0	13.39	13.63	13.47	14.50	
			12	13.77	13.71	13.55	14.50	
			24	13.47	13.64	13.45	14.50	
		12	0	12.19	12.33	12.39	13.50	
			7	12.49	12.49	12.43	13.50	
			13	12.32	12.44	12.41	13.50	
		25	0	12.32	12.32	12.42	13.50	

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	13.44	14.50
18801	18999	20	QPSK	1	99	1	0	13.52	14.50
18902	19100	20	QPSK	1	99	1	0	13.45	14.50

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	20.87	22.00
20476	20575	10	QPSK	1	49	1	0	20.94	22.00
20501	20600	10	QPSK	1	49	1	0	20.84	22.00

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	13.51	14.50
21101	21199	20	QPSK	1	99	1	0	13.67	14.50
21152	21350	20	QPSK	1	99	1	0	13.64	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	15.24	16.50
37901	38099	20	QPSK	1	99	1	0	15.33	16.50
37952	38150	20	QPSK	1	99	1	0	15.25	16.50

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	15.31	16.00
40521	40719	20	QPSK	1	99	1	0	15.38	16.00
41292	41490	20	QPSK	1	99	1	0	15.29	16.00