

LTE Cat NB Appendix-Output Power

LTE FDD Band 2, SCS:3.75KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: EIRP (dBm)	IC: EIRP (dBm)
		Size	Offset				
QPSK	LCH	1	0	22.49	2.65	25.14	25.14
	MCH	1	0	22.48	2.65	25.13	25.13
	HCH	1	47	22.16	2.65	24.81	24.81
BPSK	LCH	1	0	22.44	2.65	25.09	25.09
	MCH	1	0	22.42	2.65	25.07	25.07
	HCH	1	47	22.18	2.65	24.83	24.83

LTE FDD Band 2, SCS:15KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: EIRP (dBm)	IC: EIRP (dBm)
		Size	Offset				
QPSK	LCH	1	0	21.25	2.65	23.9	23.9
		12	0	20.37	2.65	23.02	23.02
	MCH	1	0	21.45	2.65	24.1	24.1
		12	0	20.55	2.65	23.2	23.2
	HCH	1	11	21.11	2.65	23.76	23.76
		12	11	20.32	2.65	22.97	22.97
BPSK	LCH	1	0	21.19	2.65	23.84	23.84
	MCH	1	0	21.4	2.65	24.05	24.05
	HCH	1	11	21.06	2.65	23.71	23.71

Remark: EIRP limit for FCC/IC band 2 is 33dBm, so test result is pass.

LTE FDD Band 4, SCS:3.75KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: EIRP (dBm)	IC: EIRP (dBm)
		Size	Offset				
QPSK	LCH	1	0	21.63	3.05	24.68	24.68
	MCH	1	0	21.92	3.05	24.97	24.97
	HCH	1	47	21.47	3.05	24.52	24.52
BPSK	LCH	1	0	21.64	3.05	24.69	24.69
	MCH	1	0	21.84	3.05	24.89	24.89
	HCH	1	47	21.49	3.05	24.54	24.54

LTE FDD Band 4, SCS:15KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: EIRP (dBm)	IC: EIRP (dBm)
		Size	Offset				
QPSK	LCH	1	0	20.32	3.05	23.37	23.37
		12	0	19.48	3.05	22.53	22.53
	MCH	1	0	20.79	3.05	23.84	23.84
		12	0	19.83	3.05	22.88	22.88
	HCH	1	11	20.24	3.05	23.29	23.29
		12	11	19.39	3.05	22.44	22.44
BPSK	LCH	1	0	20.31	3.05	23.36	23.36
	MCH	1	0	20.64	3.05	23.69	23.69
	HCH	1	11	20.17	3.05	23.22	23.22

Remark: EIRP limit for FCC/IC band 4 is 30dBm, so test result is pass.

LTE FDD Band 5, SCS:3.75KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	22.18	3.53	23.56	23.56
	MCH	1	0	22.36	3.53	23.74	23.74
	HCH	1	47	22.16	3.53	23.54	23.54
BPSK	LCH	1	0	22.22	3.53	23.6	23.6
	MCH	1	0	22.36	3.53	23.74	23.74
	HCH	1	47	22.2	3.53	23.58	23.58

LTE FDD Band 5, SCS:15KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	21.02	3.53	22.4	22.4
		12	0	20.15	3.53	21.53	21.53
	MCH	1	0	21.15	3.53	22.53	22.53
		12	0	20.09	3.53	21.47	21.47
	HCH	1	11	20.97	3.53	22.35	22.35
		12	11	20.08	3.53	21.46	21.46
BPSK	LCH	1	0	21.04	3.53	22.42	22.42
	MCH	1	0	21.06	3.53	22.44	22.44
	HCH	1	11	20.88	3.53	22.26	22.26

Remark: ERP limit for FCC/IC band 5 is 38.45dBm, so test result is pass.

LTE FDD Band 12, SCS:3.75KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	22.3	1.95	22.1	22.1
	MCH	1	0	22.36	1.95	22.16	22.16
	HCH	1	47	22.34	1.95	22.14	22.14
BPSK	LCH	1	0	22.33	1.95	22.13	22.13
	MCH	1	0	22.41	1.95	22.21	22.21
	HCH	1	47	22.37	1.95	22.17	22.17

LTE FDD Band 12, SCS:15KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	22.34	1.95	22.14	22.14
		12	0	20.16	1.95	19.96	19.96
	MCH	1	0	21.16	1.95	20.96	20.96
		12	0	20.12	1.95	19.92	19.92
	HCH	1	11	21	1.95	20.8	20.8
		12	11	20.08	1.95	19.88	19.88
BPSK	LCH	1	0	22.22	1.95	22.02	22.02
	MCH	1	0	21.06	1.95	20.86	20.86
	HCH	1	11	20.9	1.95	20.7	20.7

Remark: ERP limit for FCC/IC band 12 is 34.77dBm, so test result is pass.

LTE FDD Band 13, SCS:3.75KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	22.42	1.22	21.49	21.49
	MCH	1	0	22.41	1.22	21.48	21.48
	HCH	1	47	22.33	1.22	21.4	21.4
BPSK	LCH	1	0	22.46	1.22	21.53	21.53
	MCH	1	0	22.47	1.22	21.54	21.54
	HCH	1	47	22.27	1.22	21.34	21.34

LTE FDD Band 13, SCS:15KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	21.21	1.22	20.28	20.28
		12	0	20.22	1.22	19.29	19.29
	MCH	1	0	21.32	1.22	20.39	20.39
		12	0	20.19	1.22	19.26	19.26
	HCH	1	11	21.02	1.22	20.09	20.09
		12	11	20.14	1.22	19.21	19.21
BPSK	LCH	1	0	21.13	1.22	20.2	20.2
	MCH	1	0	21.23	1.22	20.3	20.3
	HCH	1	11	21.89	1.22	20.96	20.96

Remark: ERP limit for FCC/IC band 13 is 34.77dBm, so test result is pass.

LTE FDD Band 19, SCS:3.75KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	22.43	3.48	23.76	23.76
	MCH	1	0	22.46	3.48	23.79	23.79
	HCH	1	47	22.44	3.48	23.77	23.77
BPSK	LCH	1	0	22.44	3.48	23.77	23.77
	MCH	1	0	22.41	3.48	23.74	23.74
	HCH	1	47	22.45	3.48	23.78	23.78

LTE FDD Band 19, SCS:15KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	20.55	3.48	21.88	21.88
		12	0	19.69	3.48	21.02	21.02
	MCH	1	0	20.66	3.48	21.99	21.99
		12	0	19.72	3.48	21.05	21.05
	HCH	1	11	20.37	3.48	21.7	21.7
		12	11	19.52	3.48	20.85	20.85
BPSK	LCH	1	0	20.47	3.48	21.8	21.8
	MCH	1	0	20.65	3.48	21.98	21.98
	HCH	1	11	20.28	3.48	21.61	21.61

Remark: ERP limit for FCC band 19 is 38.45dBm, so test result is pass.

LTE FDD Band 25, SCS:3.75KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: EIRP (dBm)	IC: EIRP (dBm)
		Size	Offset				
QPSK	LCH	1	0	22.4	2.65	22.9	22.9
	MCH	1	0	22.41	2.65	22.91	22.91
	HCH	1	47	22.28	2.65	22.78	22.78
BPSK	LCH	1	0	22.37	2.65	22.87	22.87
	MCH	1	0	22.47	2.65	22.97	22.97
	HCH	1	47	22.21	2.65	22.71	22.71

LTE FDD Band 25, SCS:15KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: EIRP (dBm)	IC: EIRP (dBm)
		Size	Offset				
QPSK	LCH	1	0	21.34	2.65	21.84	21.84
		12	0	20.41	2.65	20.91	20.91
	MCH	1	0	21.53	2.65	22.03	22.03
		12	0	20.61	2.65	21.11	21.11
	HCH	1	11	20.94	2.65	21.44	21.44
		12	11	19.97	2.65	20.47	20.47
BPSK	LCH	1	0	21.28	2.65	21.78	21.78
	MCH	1	0	21.61	2.65	22.11	22.11
	HCH	1	11	20.93	2.65	21.43	21.43

Remark: EIRP limit for FCC/IC band 25 is 33dBm, so test result is pass.

LTE FDD Band 26a, SCS:3.75KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	22.33	3.53	23.71	23.71
	MCH	1	0	22.46	3.53	23.84	23.84
	HCH	1	47	22.44	3.53	23.82	23.82
BPSK	LCH	1	0	22.37	3.53	23.75	23.75
	MCH	1	0	22.47	3.53	23.85	23.85
	HCH	1	47	22.36	3.53	23.74	23.74

LTE FDD Band 26a, SCS:15KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	21.2	3.53	22.58	22.58
		12	0	20.25	3.53	21.63	21.63
	MCH	1	0	22.3	3.53	23.68	23.68
		12	0	20.28	3.53	21.66	21.66
	HCH	1	11	21.21	3.53	22.59	22.59
		12	11	20.4	3.53	21.78	21.78
BPSK	LCH	1	0	21.11	3.53	22.49	22.49
	MCH	1	0	22.19	3.53	23.57	23.57
	HCH	1	11	21.14	3.53	22.52	22.52

Remark: ERP limit for FCC/IC band 26a is 50dBm, so test result is pass.

LTE FDD Band 26b, SCS:3.75KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	22.37	3.53	23.75	23.75
	MCH	1	0	22.4	3.53	23.78	23.78
	HCH	1	47	22.41	3.53	23.79	23.79
BPSK	LCH	1	0	22.31	3.53	23.69	23.69
	MCH	1	0	22.32	3.53	23.7	23.7
	HCH	1	47	22.37	3.53	23.75	23.75

LTE FDD Band 26b, SCS:15KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	21.25	3.53	22.63	22.63
		12	0	20.28	3.53	21.66	21.66
	MCH	1	0	21.44	3.53	22.82	22.82
		12	0	20.39	3.53	21.77	21.77
	HCH	1	11	21.31	3.53	22.69	22.69
		12	11	20.51	3.53	21.89	21.89
BPSK	LCH	1	0	21.23	3.53	22.61	22.61
	MCH	1	0	21.34	3.53	22.72	22.72
	HCH	1	11	21.21	3.53	22.59	22.59

Remark: ERP limit for FCC band 26b is 38.45dBm, so test result is pass.

LTE FDD Band 66, SCS:3.75KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: EIRP (dBm)	IC: EIRP (dBm)
		Size	Offset				
QPSK	LCH	1	0	21.8	3.05	24.85	24.85
	MCH	1	0	21.66	3.05	24.71	24.71
	HCH	1	47	21.74	3.05	24.79	24.79
BPSK	LCH	1	0	21.78	3.05	24.83	24.83
	MCH	1	0	21.68	3.05	24.73	24.73
	HCH	1	47	21.75	3.05	24.8	24.8

LTE FDD Band 66, SCS:15KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: EIRP (dBm)	IC: EIRP (dBm)
		Size	Offset				
QPSK	LCH	1	0	20.51	3.05	23.56	23.56
		12	0	19.76	3.05	22.81	22.81
	MCH	1	0	20.5	3.05	23.55	23.55
		12	0	19.73	3.05	22.78	22.78
	HCH	1	11	22.18	3.05	25.23	25.23
		12	11	19.94	3.05	22.99	22.99
BPSK	LCH	1	0	21.51	3.05	24.56	24.56
	MCH	1	0	20.46	3.05	23.51	23.51
	HCH	1	11	22.03	3.05	25.08	25.08

Remark: EIRP limit for FCC/IC band 66 is 30dBm, so test result is pass.

LTE FDD Band 85, SCS:3.75KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	22.42	1.95	22.22	22.22
	MCH	1	0	22.41	1.95	22.21	22.21
	HCH	1	47	22.33	1.95	22.13	22.13
BPSK	LCH	1	0	22.42	1.95	22.22	22.22
	MCH	1	0	22.38	1.95	22.18	22.18
	HCH	1	47	22.39	1.95	22.19	22.19

LTE FDD Band 85, SCS:15KHz							
Modulation	Channel	N _{tone}		Conducted output power (dBm)	Antenna gain (dBi)	FCC: ERP (dBm)	IC: ERP (dBm)
		Size	Offset				
QPSK	LCH	1	0	22.24	1.95	22.04	22.04
		12	0	20.22	1.95	20.02	20.02
	MCH	1	0	22.45	1.95	22.25	22.25
		12	0	20.52	1.95	20.32	20.32
	HCH	1	11	22.39	1.95	22.19	22.19
		12	11	20.47	1.95	20.27	20.27
BPSK	LCH	1	0	22.14	1.95	21.94	21.94
	MCH	1	0	21.41	1.95	21.21	21.21
	HCH	1	11	22.43	1.95	22.23	22.23

Remark: ERP limit for FCC/IC band 85 is 34.77dBm, so test result is pass.

Note:

1) EIRP= Conducted output power + Antenna gain (dBi)

2) ERP= Conducted output power + Antenna gain (dBi)-2.15dBi