

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	23.48	1.59	25.07	25.07
	MCH	1	0	23.2	1.59	24.79	24.79
	HCH	1	47	23.13	1.59	24.72	24.72
BPSK	LCH	1	0	23.47	1.59	25.06	25.06
	MCH	1	0	23.18	1.59	24.77	24.77
	HCH	1	47	23.11	1.59	24.7	24.7

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	23.5	1.59	25.09	25.09
		12	0	21.81	1.59	23.4	23.4
	MCH	1	0	23.24	1.59	24.83	24.83
		12	0	21.71	1.59	23.3	23.3
	HCH	1	11	23.2	1.59	24.79	24.79
		12	11	21.72	1.59	23.31	23.31
BPSK	LCH	1	0	23.46	1.59	25.05	25.05
	MCH	1	0	23.2	1.59	24.79	24.79
	HCH	1	11	23.14	1.59	24.73	24.73

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	23.43	2	25.43	25.43
	MCH	1	0	23.32	2	25.32	25.32
	HCH	1	47	23.43	2	25.43	25.43
BPSK	LCH	1	0	23.41	2	25.41	25.41
	MCH	1	0	23.31	2	25.31	25.31
	HCH	1	47	23.41	2	25.41	25.41

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	23.48	2	25.48	25.48
		12	0	22.06	2	24.06	24.06
	MCH	1	0	23.42	2	25.42	25.42
		12	0	21.53	2	23.53	23.53
	HCH	1	11	23.46	2	25.46	25.46
		12	11	22.09	2	24.09	24.09
BPSK	LCH	1	0	23.44	2	25.44	25.44
	MCH	1	0	23.35	2	25.35	25.35
	HCH	1	11	23.44	2	25.44	25.44

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	23.33	2.53	23.71	23.71
	MCH	1	0	23.29	2.53	23.67	23.67
	HCH	1	47	23.24	2.53	23.62	23.62
BPSK	LCH	1	0	23.3	2.53	23.68	23.68
	MCH	1	0	23.25	2.53	23.63	23.63
	HCH	1	47	23.2	2.53	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	23.5	2.53	23.88	23.88
		12	0	21.94	2.53	22.32	22.32
	MCH	1	0	23.52	2.53	23.9	23.9
		12	0	22.44	2.53	22.82	22.82
	HCH	1	11	23.58	2.53	23.96	23.96
		12	11	22.03	2.53	22.41	22.41
BPSK	LCH	1	0	23.43	2.53	23.81	23.81
	MCH	1	0	23.43	2.53	23.81	23.81
	HCH	1	11	23.46	2.53	23.84	23.84

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	23.14	3.95	24.94	24.94
	MCH	1	0	23.46	3.95	25.26	25.26
	HCH	1	47	23.57	3.95	25.37	25.37
BPSK	LCH	1	0	23.11	3.95	24.91	24.91
	MCH	1	0	23.43	3.95	25.23	25.23
	HCH	1	47	23.54	3.95	25.34	25.34

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	23.41	3.95	25.21	25.21
		12	0	21.84	3.95	23.64	23.64
	MCH	1	0	23.77	3.95	25.57	25.57
		12	0	22.19	3.95	23.99	23.99
	HCH	1	11	23.76	3.95	25.56	25.56
		12	11	21.74	3.95	23.54	23.54
BPSK	LCH	1	0	23.31	3.95	25.11	25.11
	MCH	1	0	23.66	3.95	25.46	25.46
	HCH	1	11	23.71	3.95	25.51	25.51

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	23.37	4.45	25.67	25.67
	MCH	1	0	23.32	4.45	25.62	25.62
	HCH	1	47	23.3	4.45	25.6	25.6
BPSK	LCH	1	0	23.28	4.45	25.58	25.58
	MCH	1	0	23.28	4.45	25.58	25.58
	HCH	1	47	23.23	4.45	25.53	25.53

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	23.52	4.45	25.82	25.82
		12	0	21.81	4.45	24.11	24.11
	MCH	1	0	23.45	4.45	25.75	25.75
		12	0	22.14	4.45	24.44	24.44
	HCH	1	11	23.45	4.45	25.75	25.75
		12	11	22.15	4.45	24.45	24.45
BPSK	LCH	1	0	23.38	4.45	25.68	25.68
	MCH	1	0	23.37	4.45	25.67	25.67
	HCH	1	11	23.39	4.45	25.69	25.69

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

LTE FDD Band 17, 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	23.44	3.95	25.24	25.24
	MCH	1	0	23.51	3.95	25.31	25.31
	HCH	1	47	23.56	3.95	25.36	25.36
BPSK	LCH	1	0	23.35	3.95	25.15	25.15
	MCH	1	0	23.41	3.95	25.21	25.21
	HCH	1	47	23.46	3.95	25.26	25.26

LTE FDD Band 17, 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	23.66	3.95	25.46	25.46
		12	0	21.81	3.95	23.61	23.61
	MCH	1	0	23.72	3.95	25.52	25.52
		12	0	21.83	3.95	23.63	23.63
	HCH	1	11	23.68	3.95	25.48	25.48
		12	11	22.17	3.95	23.97	23.97
BPSK	LCH	1	0	23.59	3.95	25.39	25.39
	MCH	1	0	23.62	3.95	25.42	25.42
	HCH	1	11	23.75	3.95	25.55	25.55

Remark: ERP limit for FCC band 17 is 34.77dBm, 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	23.48	1.59	25.07	25.07
	MCH	1	0	23.18	1.59	24.77	24.77
	HCH	1	47	23.1	1.59	24.69	24.69
BPSK	LCH	1	0	23.46	1.59	25.05	25.05
	MCH	1	0	23.18	1.59	24.77	24.77
	HCH	1	47	23.09	1.59	24.68	24.68

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	23.55	1.59	25.14	25.14
		12	0	21.57	1.59	23.16	23.16
	MCH	1	0	23.23	1.59	24.82	24.82
		12	0	21.52	1.59	23.11	23.11
	HCH	1	11	23.18	1.59	24.77	24.77
		12	11	22.04	1.59	23.63	23.63
BPSK	LCH	1	0	23.5	1.59	25.09	25.09
	MCH	1	0	23.21	1.59	24.8	24.8
	HCH	1	11	23.11	1.59	24.7	24.7

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	23.58	3.19	24.62	24.62
	MCH	1	0	23.49	3.19	24.53	24.53
	HCH	1	47	23.38	3.19	24.42	24.42
BPSK	LCH	1	0	23.5	3.19	24.54	24.54
	MCH	1	0	23.53	3.19	24.57	24.57
	HCH	1	47	23.38	3.19	24.42	24.42

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	23.76	3.19	24.8	24.8
		12	0	21.94	3.19	22.98	22.98
	MCH	1	0	23.72	3.19	24.76	24.76
		12	0	22.19	3.19	23.23	23.23
	HCH	1	11	23.64	3.19	24.68	24.68
		12	11	21.75	3.19	22.79	22.79
BPSK	LCH	1	0	23.67	3.19	24.71	24.71
	MCH	1	0	23.65	3.19	24.69	24.69
	HCH	1	11	23.55	3.19	24.59	24.59

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	23.43	3.19	24.47	24.47
	MCH	1	0	23.11	3.19	24.15	24.15
	HCH	1	47	22.88	3.19	23.92	23.92
BPSK	LCH	1	0	23.32	3.19	24.36	24.36
	MCH	1	0	23.05	3.19	24.09	24.09
	HCH	1	47	22.87	3.19	23.91	23.91

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	23.6	3.19	24.64	24.64
		12	0	22.06	3.19	23.1	23.1
	MCH	1	0	23.08	3.19	24.12	24.12
		12	0	21.7	3.19	22.74	22.74
	HCH	1	11	23.17	3.19	24.21	24.21
		12	11	21.72	3.19	22.76	22.76
BPSK	LCH	1	0	23.5	3.19	24.54	24.54
	MCH	1	0	22.96	3.19	24	24
	HCH	1	11	23.07	3.19	24.11	24.11

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	23.44	2	25.44	25.44
	MCH	1	0	23.42	2	25.42	25.42
	HCH	1	47	23.4	2	25.4	25.4
BPSK	LCH	1	0	23.37	2	25.37	25.37
	MCH	1	0	23.41	2	25.41	25.41
	HCH	1	47	23.39	2	25.39	25.39

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	23.45	2	25.45	25.45
		12	0	21.4	2	23.4	23.4
	MCH	1	0	23.46	2	25.46	25.46
		12	0	22.1	2	24.1	24.1
	HCH	1	11	23.42	2	25.42	25.42
		12	11	21.72	2	23.72	23.72
BPSK	LCH	1	0	23.41	2	25.41	25.41
	MCH	1	0	23.4	2	25.4	25.4
	HCH	1	11	23.43	2	25.43	25.43

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	23.17	3.95	24.97	24.97
	MCH	1	0	22.96	3.95	24.76	24.76
	HCH	1	47	23.19	3.95	24.99	24.99
BPSK	LCH	1	0	23.16	3.95	24.96	24.96
	MCH	1	0	22.98	3.95	24.78	24.78
	HCH	1	47	23.17	3.95	24.97	24.97

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	23.46	3.95	25.26	25.26
		12	0	21.61	3.95	23.41	23.41
	MCH	1	0	23.29	3.95	25.09	25.09
		12	0	21.97	3.95	23.77	23.77
	HCH	1	11	23.42	3.95	25.22	25.22
		12	11	21.64	3.95	23.44	23.44
BPSK	LCH	1	0	23.31	3.95	25.11	25.11
	MCH	1	0	23.22	3.95	25.02	25.02
	HCH	1	11	23.51	3.95	25.31	25.31

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