

Appendix A: Effective (Isotropic) Radiated Power Output Data for NB1

Test Result

Band	OpMode	SCS	BW	Modu	Channel	Tones	Result (dBm)	Limit (dBm)	Verdict
Band12	Stand-Alone	15kHz	NaN	QPSK	23012	12@0	28	-999 To 34.8	PASS
Band12	Stand-Alone	15kHz	NaN	QPSK	23095	12@0	28.14	-999 To 34.8	PASS
Band12	Stand-Alone	15kHz	NaN	QPSK	23178	12@0	28.12	-999 To 34.8	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23182	12@0	27.38	-999 To 34.8	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	12@0	27.44	-999 To 34.8	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23278	12@0	27.52	-999 To 34.8	PASS
Band2	Stand-Alone	15kHz	NaN	QPSK	18602	12@0	24.78	-999 To 33	PASS
Band2	Stand-Alone	15kHz	NaN	QPSK	18900	12@0	24.9	-999 To 33	PASS
Band2	Stand-Alone	15kHz	NaN	QPSK	19198	12@0	24.81	-999 To 33	PASS
Band4	Stand-Alone	15kHz	NaN	QPSK	19952	12@0	27.95	-999 To 30	PASS
Band4	Stand-Alone	15kHz	NaN	QPSK	20175	12@0	28.12	-999 To 30	PASS
Band4	Stand-Alone	15kHz	NaN	QPSK	20398	12@0	27.81	-999 To 30	PASS
Band5	Stand-Alone	15kHz	NaN	BPSK	20402	1@11	23.49	-999 To 38.45	PASS
Band5	Stand-Alone	15kHz	NaN	BPSK	20525	1@11	23.37	-999 To 38.45	PASS
Band5	Stand-Alone	15kHz	NaN	BPSK	20648	1@11	23.4	-999 To 38.45	PASS

Mode	Modulation	Sub-carrier spacing (kHz)	Ntones	Conducted Power (dBm) for low/mid/high channel			EIRP(dBm)		
				18602/1850.2 MHz	18900/1880.0 MHz	19198/1909.8 MHz	18602/1850.2 MHz	18900/1880.0 MHz	19198/1909.8 MHz
NB-IOT Band 2 Standalone	BPSK	3.75	1@0	22.76	22.77	22.72	24.32	24.33	24.28
			1@47	22.87	22.69	22.65	24.43	24.25	24.21
		15	1@0	22.87	22.85	22.74	24.43	24.41	24.3
			1@11	22.81	22.86	22.76	24.37	24.42	24.32
	QPSK	3.75	1@0	22.83	22.65	22.68	24.39	24.21	24.24
			1@47	22.84	22.68	22.61	24.4	24.24	24.17
		15	1@0	22.85	22.78	22.71	24.41	24.34	24.27
			1@11	22.76	22.81	22.70	24.32	24.37	24.26
		15	12@0	22.97	22.98	22.95	24.53	24.54	24.51

Mode	Modulation	Sub-carrier spacing(kHz)	Ntones	Conducted Power (dBm) for low/mid/high channel			EIRP(dBm)		
				19952/1710.2 MHz	20175/1732.5 MHz	20398/1754.8 MHz	19952/1710.2 MHz	20175/1732.5 MHz	20398/1754.8 MHz
NB-IOT Band 4 Standalone	BPSK	3.75	1@0	23.04	23.28	23.04	27.64	27.88	27.64
			1@47	23.00	23.24	23.07	27.6	27.84	27.67
		15	1@0	23.11	23.33	23.24	27.71	27.93	27.84
			1@11	23.07	23.35	23.19	27.67	27.95	27.79
	QPSK	3.75	1@0	22.99	23.21	23.09	27.59	27.81	27.69
			1@47	23.03	23.19	23.11	27.63	27.79	27.71
		15	1@0	23.07	23.35	23.18	27.67	27.95	27.78
			1@11	23.21	23.32	23.26	27.81	27.92	27.86
		15	12@0	23.36	23.45	23.46	27.96	28.05	28.06

Mode	Modulation	Sub-carrier spacing (kHz)	Ntones	Conducted Power (dBm) for low/mid/high channel			ERP (dBm)		
				20402/ 824.2M Hz	20525/ 836.5M Hz	20648/ 848.8M Hz	20402/ 824.2M Hz	20525/ 836.5M Hz	20648/ 848.8M Hz
NB-IOT Band 5 Standalone	BPSK	3.75	1@	22.5	22.4	22.4	21.92	21.81	21.82
			1@4	22.5	22.3	22.3	21.95	21.75	21.77
		15	1@	22.7	22.6	22.7	22.1	22.06	22.11
			1@1	22.7	22.7	22.7	22.11	22.1	22.1
	QPSK	3.75	1@	22.4	22.3	22.5	21.85	21.75	21.88
			1@4	22.3	22.3	22.4	21.75	21.69	21.87
		15	1@	22.7	22.6	22.7	22.1	22.07	22.08
			1@1	22.7	22.6	22.7	22.11	22.06	22.11
		15	12@	22.7	22.7	22.6	22.08	22.09	22.07

Mode	Modulation	Sub-carrier spacing (kHz)	Ntones	Conducted Power (dBm) for low/mid/high channel			ERP(dBm)		
				23012/ 699. 2	23095/ 707. 5	23178/ 715. 8	23012/ 699. 2	23095/ 707. 5	23178/ 715. 8
NB-IOT Band 12 Standalone	BPSK	3.75	1@0	23.1	23.1	23.0	25.42	25.4	25.34
			1@47	23.1	23.0	23.0	25.38	25.34	25.33
		15	1@0	23.3	23.2	23.1	25.63	25.49	25.45
			1@11	23.3	23.2	23.2	25.6	25.46	25.54
	QPSK	3.75	1@0	23.2	23.0	23.0	25.47	25.31	25.32
			1@47	23.1	23.0	23.0	25.45	25.27	25.31
		15	1@0	23.3	23.2	23.2	25.62	25.51	25.47
			1@11	23.3	23.2	23.2	25.6	25.53	25.53
		15	12@0	23.5	23.4	23.4	25.82	25.71	25.7

Mode	Modulation	Sub-carrier spacing (kHz)	Ntone s	Conducted Power (dBm) for low/mid/high channel			ERP(dBm)		
				23182/ 777.2 MHz	23230/ 782 MHz	23278/ 786.8 MHz	23182/ 777.2 MHz	23230/ 782 MHz	23278/ 786.8 MHz
NB-IOT Band 13 Standalone	BPSK	3.75	1@0	22.81	22.83	22.88	24.62	24.64	24.69
			1@47	22.67	22.79	22.83	24.48	24.6	24.64
		15	1@0	23.07	23.12	23.11	24.88	24.93	24.92
			1@11	23.04	23.11	23.09	24.85	24.92	24.9
	QPSK	3.75	1@0	22.78	22.80	22.84	24.59	24.61	24.65
			1@47	22.79	22.78	22.80	24.6	24.59	24.61
		15	1@0	23.06	23.08	23.08	24.87	24.89	24.89
			1@11	23.09	23.07	23.11	24.9	24.88	24.92
		15	12@0	23.13	23.12	23.13	24.94	24.93	24.94

Remark: EIRP (dBm) = Conducted power (dBm) + Antenna Gain (dBi). (For Band 2 & 4)

ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For Band 5 & 12 & 13)