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Appendix B.3

LTE-NB1 Band 5



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Effective (Isotropic) Radiated Power Output Data

Test Result

Test Band	Test Mode	Sub-carrier Spacing (kHz)	Test channel	Number of T	Conducted Power (dBm)	ERP (dBm)	limit (dBm)	Verdict
NB1 Band 5	BPSK	3.75	20401	1T0	23.41	23.76	38.45	PASS
NB1 Band 5	BPSK	3.75	20401	1T47	23.53	23.88	38.45	PASS
NB1 Band 5	BPSK	3.75	20525	1T0	23.43	23.78	38.45	PASS
NB1 Band 5	BPSK	3.75	20525	1T47	23.33	23.68	38.45	PASS
NB1 Band 5	BPSK	3.75	20649	1T0	23.46	23.81	38.45	PASS
NB1 Band 5	BPSK	3.75	20649	1T47	23.51	23.86	38.45	PASS
NB1 Band 5	QPSK	3.75	20401	1T0	23.35	23.7	38.45	PASS
NB1 Band 5	QPSK	3.75	20401	1T47	23.37	23.72	38.45	PASS
NB1 Band 5	QPSK	3.75	20525	1T0	23.27	23.62	38.45	PASS
NB1 Band 5	QPSK	3.75	20525	1T47	23.59	23.94	38.45	PASS
NB1 Band 5	QPSK	3.75	20649	1T0	23.42	23.77	38.45	PASS
NB1 Band 5	QPSK	3.75	20649	1T47	23.41	23.76	38.45	PASS



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Test Band	Test Mode	Sub-carrier Spacing (kHz)	Test channel	Number of T	Conducted Power (dBm)	ERP (dBm)	limit (dBm)	Verdict
NB1 Band 5	BPSK	15	20401	1T0	23.45	23.8	38.45	PASS
NB1 Band 5	BPSK	15	20401	1T11	23.34	23.69	38.45	PASS
NB1 Band 5	BPSK	15	20525	1T0	23.51	23.86	38.45	PASS
NB1 Band 5	BPSK	15	20525	1T11	23.38	23.73	38.45	PASS
NB1 Band 5	BPSK	15	20649	1T0	23.47	23.82	38.45	PASS
NB1 Band 5	BPSK	15	20649	1T11	23.42	23.77	38.45	PASS
NB1 Band 5	QPSK	15	20401	1T0	23.33	23.68	38.45	PASS
NB1 Band 5	QPSK	15	20401	1T11	23.38	23.73	38.45	PASS
NB1 Band 5	QPSK	15	20401	12T0	21.68	22.03	38.45	PASS
NB1 Band 5	QPSK	15	20525	1T0	23.42	23.77	38.45	PASS
NB1 Band 5	QPSK	15	20525	1T11	23.39	23.74	38.45	PASS
NB1 Band 5	QPSK	15	20525	12T0	21.77	22.12	38.45	PASS
NB1 Band 5	QPSK	15	20649	1T0	23.33	23.68	38.45	PASS
NB1 Band 5	QPSK	15	20649	1T11	23.38	23.73	38.45	PASS
NB1 Band 5	QPSK	15	20649	12T0	21.69	22.04	38.45	PASS



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Field Strength of Spurious Radiation

Test Band = NB-IOT Band 5_ TM1

Test Channel = Low Channel

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1653	72.29	-48.37	24.60	-46.74	-13.00	33.74	265	186	Horizontal
2	2479	56.87	-46.92	27.35	-57.95	-13.00	44.95	284	243	Horizontal
3	3298.36	43.01	-46.11	29.56	-68.80	-13.00	55.80	142	301	Horizontal
4	4122.95	41.73	-45.34	31.50	-67.37	-13.00	54.37	263	215	Horizontal
5	4947.54	42.28	-45.08	33.09	-64.98	-13.00	51.98	228	14	Horizontal
6	5772.13	40.19	-43.52	34.03	-64.57	-13.00	51.57	225	301	Horizontal

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1653	62.59	-48.37	24.60	-56.44	-13.00	43.44	142	75	Vertical
2	2479	54.55	-46.92	27.35	-60.27	-13.00	47.27	265	175	Vertical
3	3298.36	42.57	-46.11	29.56	-69.24	-13.00	56.24	221	0	Vertical
4	4122.95	42.19	-45.34	31.50	-66.91	-13.00	53.91	222	357	Vertical
5	4947.54	41.68	-45.08	33.09	-65.58	-13.00	52.58	263	0	Vertical
6	5772.13	40.66	-43.52	34.03	-64.10	-13.00	51.10	228	190	Vertical



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Test Band = NB-IOT Band 5_ TM1
Test Channel = Mid Channel

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1673	73.35	-48.32	24.60	-45.63	-13.00	32.63	263	186	Horizontal
2	2509.5	58.95	-46.79	27.44	-55.66	-13.00	42.66	254	213	Horizontal
3	3328.36	42.55	-46.16	29.57	-69.30	-13.00	56.30	185	213	Horizontal
4	4160.45	41.24	-45.23	31.56	-67.69	-13.00	54.69	263	28	Horizontal
5	4992.54	41.47	-45.02	33.18	-65.63	-13.00	52.63	224	100	Horizontal
6	5824.63	40.25	-43.43	34.21	-64.24	-13.00	51.24	118	359	Horizontal

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1673	65.89	-48.32	24.60	-53.09	-13.00	40.09	241	261	Vertical
2	2509.5	54.55	-46.79	27.44	-60.06	-13.00	47.06	142	191	Vertical
3	3328.36	42.46	-46.16	29.57	-69.39	-13.00	56.39	263	1	Vertical
4	4160.45	42.52	-45.23	31.56	-66.41	-13.00	53.41	228	290	Vertical
5	4992.54	41.29	-45.02	33.18	-65.81	-13.00	52.81	226	234	Vertical
6	5824.63	41.05	-43.43	34.21	-63.44	-13.00	50.44	229	347	Vertical



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Test Band = NB-IOT Band 5_ TM1
Test Channel = High Channel

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1693	74.26	-48.26	24.60	-44.66	-13.00	31.66	265	187	Horizontal
2	2539.5	58.05	-46.94	27.57	-56.58	-13.00	43.58	284	230	Horizontal
3	3358.36	43.27	-46.21	29.57	-68.63	-13.00	55.63	142	302	Horizontal
4	4197.95	41.50	-45.12	31.62	-67.26	-13.00	54.26	263	157	Horizontal
5	5037.54	41.21	-44.85	33.19	-65.71	-13.00	52.71	225	14	Horizontal
6	5887.13	40.02	-43.24	34.42	-64.06	-13.00	51.06	118	216	Horizontal

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1693	64.15	-48.26	24.60	-54.77	-13.00	41.77	102	263	Vertical
2	2539.5	55.21	-46.94	27.57	-59.42	-13.00	46.42	265	164	Vertical
3	3358.36	42.49	-46.21	29.57	-69.41	-13.00	56.41	284	277	Vertical
4	4197.95	41.60	-45.12	31.62	-67.16	-13.00	54.16	142	5	Vertical
5	5037.54	41.68	-44.85	33.19	-65.24	-13.00	52.24	263	20	Vertical
6	5887.13	39.70	-43.24	34.42	-64.38	-13.00	51.38	228	0	Vertical

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & AMP. The basic equation with a sample calculation is as follows:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier (dB)

Level = Reading Level + AF + Factor -95.26

Margin = Limit – Level

---End of Attachment---



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