

Appendix D: Test Results of Radiated Spurious Emissions

Worst Mode 30MHz ~ 1000MHz

LTE Band 4												
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor	Cable Factor	Pre- Amplifier	Correction Factor (dB/m)	Polarization (H/V)
Mid	159.98	-76.77	-13	-63.77	200	360	24.23	19.8	0.93	26.47	-101	H
	299.66	-75.47	-13	-62.47	100	3	24.59	19.89	1.28	25.97	-100.06	H
	555.74	-71.66	-13	-58.66	163	360	23.71	25.59	1.79	27.49	-95.37	H
	728.4	-67.4	-13	-54.4	300	0	25.75	27.47	2.1	27.46	-93.15	H
	845.77	-62.98	-13	-49.98	200	318	28.19	29.08	2.27	27.26	-91.17	H
	922.4	-64.25	-13	-51.25	267	0	25.79	29.95	2.37	27.1	-90.04	H
	163.86	-78.16	-13	-65.16	100	20	22.8	19.81	0.94	26.45	-100.96	V
	304.51	-75	-13	-62	200	105	24.89	20.08	1.29	26	-99.89	V
	454.86	-72.28	-13	-59.28	300	255	25.18	23.3	1.57	27.07	-97.46	V
	687.66	-69.68	-13	-56.68	200	260	23.94	27.11	2.04	27.51	-93.62	V
	845.77	-63.09	-13	-50.09	100	254	28.08	29.08	2.27	27.26	-91.17	V
	919.49	-65.44	-13	-52.44	100	46	24.67	29.89	2.37	27.11	-90.11	V

Remarks:

- EIRP(dBm) = Reading(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre Amp(dB) + 20log(D) – 104.8
- Margin value = EIRP – Limit
- The other EIRP levels were very low against the limit.

1GHz ~ 18GHz

LTE Band 4												
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor	Cable Factor	Pre- Amplifier	Correction Factor (dB/m)	Polarization (H/V)
Low	3440	-50.72	-13	-37.72	300	93	57.78	33	6.07	52.31	-108.5	H
	5160	-33.45	-13	-20.45	300	120	72.38	34.84	7.45	52.86	-105.83	H
	6880	-54.5	-13	-41.5	400	210	49.82	36.04	8.58	53.68	-104.32	H
	3440	-48.8	-13	-35.8	376	360	59.7	33	6.07	52.31	-108.5	V
	5160	-33.81	-13	-20.81	100	93	72.02	34.84	7.45	52.86	-105.83	V
	6880	-54.29	-13	-41.29	100	279	50.03	36.04	8.58	53.68	-104.32	V
Mid	3465	-46.6	-13	-33.6	400	133	61.85	33.03	6.09	52.31	-108.45	H
	5197	-31.3	-13	-18.3	300	104	74.45	34.99	7.4	52.88	-105.75	H
	6930	-51.5	-13	-38.5	362	360	52.77	36.06	8.62	53.69	-104.27	H
	3465	-48.44	-13	-35.44	101	360	60.01	33.03	6.09	52.31	-108.45	V
	5197	-28.77	-13	-15.77	400	352	76.98	34.99	7.4	52.88	-105.75	V
	6930	-53.83	-13	-40.83	100	314	50.44	36.06	8.62	53.69	-104.27	V
High	3490	-52.69	-13	-39.69	400	96	55.68	33.08	6.11	52.3	-108.37	H
	5234	-25.55	-13	-12.55	100	276	80.17	34.93	7.5	52.89	-105.72	H
	6980	-54.88	-13	-41.88	400	360	49.39	36.04	8.65	53.7	-104.27	H
	3490	-51.36	-13	-38.36	100	159	57.01	33.08	6.11	52.3	-108.37	V
	5234	-25.12	-13	-12.12	300	0	80.6	34.93	7.5	52.89	-105.72	V
	6980	-54	-13	-41	100	99	50.27	36.04	8.65	53.7	-104.27	V

Remarks:

- EIRP(dBm) = Reading(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre Amp(dB) + 20log(D) – 104.8
- Margin value = EIRP – Limit
- The other EIRP levels were very low against the limit.

1GHz ~ 27GHz

LTE Band 7												
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor	Cable Factor	Pre- Amplifier	Correction Factor (dB/m)	Polarization (H/V)
Low	5019	-53.92	-25	-28.92	200	294	52.16	34.64	7.35	52.81	-106.08	H
	7529	-54.72	-25	-29.72	300	285	49.6	36.06	8.99	54.11	-104.32	H
	10039	-52.08	-25	-27.08	305	0	49.09	37.82	10.45	54.18	-101.17	H
	5019	-47.85	-25	-22.85	100	95	58.23	34.64	7.35	52.81	-106.08	V
	7529	-54.2	-25	-29.2	228	0	50.12	36.06	8.99	54.11	-104.32	V
	10039	-54.19	-25	-29.19	300	327	46.98	37.82	10.45	54.18	-101.17	V
Mid	5070	-55.94	-25	-30.94	200	53	50.06	34.7	7.39	52.83	-106	H
	7604	-54.05	-25	-29.05	100	165	50.1	36.2	9.03	54.12	-104.15	H
	10139	-52.69	-25	-27.69	100	253	48.14	38.04	10.51	54.12	-100.83	H
	5070	-53.83	-25	-28.83	100	263	52.17	34.7	7.39	52.83	-106	V
	7604	-55.18	-25	-30.18	100	157	48.97	36.2	9.03	54.12	-104.15	V
	10139	-53.24	-25	-28.24	400	254	47.59	38.04	10.51	54.12	-100.83	V
High	5119	-56.12	-25	-31.12	100	18	49.83	34.74	7.42	52.85	-105.95	H
	7679	-54.77	-25	-29.77	100	85	49.35	36.2	9.08	54.14	-104.12	H
	10239	-50.92	-25	-25.92	200	33	49.74	38.1	10.56	54.06	-100.66	H
	5119	-54.14	-25	-29.14	200	250	51.81	34.74	7.42	52.85	-105.95	V
	7679	-52.87	-25	-27.87	200	353	51.25	36.2	9.08	54.14	-104.12	V
	10239	-53.02	-25	-28.02	100	359	47.64	38.1	10.56	54.06	-100.66	V

Remarks:

1. $EIRP(dBm) = Reading(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre\ Amp(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit$
4. The other EIRP levels were very low against the limit.

1GHz ~ 9GHz

LTE Band 12												
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor	Cable Factor	Pre- Amplifier	Correction Factor (dB/m)	Polarization (H/V)
Low	1407	-54.95	-13	-41.95	400	175	62.34	28.37	3.85	52.1	-115.14	H
	2111	-42.03	-13	-29.03	200	0	71.37	31.47	4.76	52.22	-111.25	H
	2815	-60.66	-13	-47.66	200	51	51.1	32.52	5.49	52.36	-109.61	H
	1407	-60.85	-13	-47.85	200	24	56.44	28.37	3.85	52.1	-115.14	V
	2111	-57.19	-13	-44.19	350	360	56.21	31.47	4.76	52.22	-111.25	V
	2815	-60.36	-13	-47.36	301	360	51.4	32.52	5.49	52.36	-109.61	V
Mid	1414	-52.73	-13	-39.73	200	131	64.58	28.34	3.86	52.1	-115.16	H
	2122	-45.72	-13	-32.72	100	352	67.6	31.53	4.78	52.22	-111.17	H
	2829	-60.43	-13	-47.43	300	19	51.22	32.63	5.5	52.37	-109.5	H
	1414	-57.38	-13	-44.38	400	360	59.93	28.34	3.86	52.1	-115.16	V
	2122	-53.88	-13	-40.88	300	218	59.44	31.53	4.78	52.22	-111.17	V
	2829	-60.55	-13	-47.55	200	208	51.1	32.63	5.5	52.37	-109.5	V
High	1421	-51.71	-13	-38.71	400	93	65.61	28.32	3.87	52.1	-115.17	H
	2132	-51.89	-13	-38.89	300	156	61.37	31.59	4.79	52.23	-111.11	H
	2843	-60.32	-13	-47.32	204	360	51.2	32.74	5.52	52.37	-109.37	H
	1421	-61.28	-13	-48.28	400	198	56.04	28.32	3.87	52.1	-115.17	V
	2132	-56.38	-13	-43.38	364	359	56.88	31.59	4.79	52.23	-111.11	V
	2843	-60.69	-13	-47.69	300	178	50.83	32.74	5.52	52.37	-109.37	V

Remarks:

- ERP(dBm) = Reading(dBuV) + Correction Factor(dB/m) – 2.15
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre Amp(dB) + 20log(D) – 104.8
- Margin value = EIRP – Limit
- The other ERP levels were very low against the limit.

1GHz ~ 9GHz

LTE Band 17												
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor	Cable Factor	Pre- Amplifier	Correction Factor (dB/m)	Polarization (H/V)
Low	1417	-52.88	-13	-39.88	300	0	64.44	28.33	3.86	52.1	-115.17	H
	2126	-60.87	-13	-47.87	100	252	52.43	31.56	4.78	52.23	-111.15	H
	2835	-59.73	-13	-46.73	125	360	51.86	32.68	5.51	52.37	-109.44	H
	1417	-52.6	-13	-39.6	400	59	64.72	28.33	3.86	52.1	-115.17	V
	2126	-60.2	-13	-47.2	382	360	53.1	31.56	4.78	52.23	-111.15	V
	2835	-59.89	-13	-46.89	100	231	51.7	32.68	5.51	52.37	-109.44	V
Mid	1419	-50.88	-13	-37.88	300	0	66.44	28.32	3.87	52.1	-115.17	H
	2129	-56.71	-13	-43.71	249	0	56.58	31.57	4.78	52.23	-111.14	H
	2839	-60.25	-13	-47.25	300	0	51.31	32.71	5.51	52.37	-109.41	H
	1419	-53.7	-13	-40.7	400	93	63.62	28.32	3.87	52.1	-115.17	V
	2129	-53.3	-13	-40.3	100	252	59.99	31.57	4.78	52.23	-111.14	V
	2839	-60.54	-13	-47.54	400	267	51.02	32.71	5.51	52.37	-109.41	V
High	1421	-54.02	-13	-41.02	100	0	63.3	28.32	3.87	52.1	-115.17	H
	2132	-62.34	-13	-49.34	200	108	50.92	31.59	4.79	52.23	-111.11	H
	2843	-59.32	-13	-46.32	200	63	52.2	32.74	5.52	52.37	-109.37	H
	1421	-54.59	-13	-41.59	100	40	62.73	28.32	3.87	52.1	-115.17	V
	2132	-61.75	-13	-48.75	200	74	51.51	31.59	4.79	52.23	-111.11	V
	2843	-61.09	-13	-48.09	100	206	50.43	32.74	5.52	52.37	-109.37	V

Remarks:

- ERP(dBm) = Reading(dBuV) + Correction Factor(dB/m) – 2.15
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre Amp(dB) + 20log(D) – 104.8
- Margin value = EIRP – Limit
- The other ERP levels were very low against the limit.

1GHz ~ 27GHz

LTE Band 41												
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor	Cable Factor	Pre- Amplifier	Correction Factor (dB/m)	Polarization (H/V)
Low	5089	-57.06	-25	-32.06	400	315	48.94	34.7	7.4	52.84	-106	H
	7634	-54.19	-25	-29.19	100	115	49.95	36.2	9.05	54.13	-104.14	H
	10179	-52.95	-25	-27.95	400	192	47.79	38.08	10.53	54.09	-100.74	H
	5089	-55.34	-25	-30.34	360	360	50.66	34.7	7.4	52.84	-106	V
	7634	-54.16	-25	-29.16	136	360	49.98	36.2	9.05	54.13	-104.14	V
	10179	-53.22	-25	-28.22	275	0	47.52	38.08	10.53	54.09	-100.74	V
Mid	5217	-55.99	-25	-30.99	300	329	49.7	34.97	7.49	52.89	-105.69	H
	7826	-55.03	-25	-30.03	200	287	49.03	36.2	9.17	54.17	-104.06	H
	10435	-51.8	-25	-26.8	300	267	48.46	38.27	10.67	53.94	-100.26	H
	5217	-54.94	-25	-29.94	330	360	50.75	34.97	7.49	52.89	-105.69	V
	7826	-54.39	-25	-29.39	100	95	49.67	36.2	9.17	54.17	-104.06	V
	10435	-51.58	-25	-26.58	400	175	48.68	38.27	10.67	53.94	-100.26	V
High	5289	-54.02	-25	-29.02	100	187	51.41	35.21	7.54	52.92	-105.43	H
	7934	-54.58	-25	-29.58	300	173	49.43	36.2	9.24	54.19	-104.01	H
	10579	-52.07	-25	-27.07	100	0	47.97	38.32	10.75	53.85	-100.04	H
	5289	-54.68	-25	-29.68	252	0	50.75	35.21	7.54	52.92	-105.43	V
	7934	-54.44	-25	-29.44	300	61	49.57	36.2	9.24	54.19	-104.01	V
	10579	-50.9	-25	-25.9	100	112	49.14	38.32	10.75	53.85	-100.04	V

Remarks:

- EIRP(dBm) = Reading(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre Amp(dB) + 20log(D) – 104.8
- Margin value = EIRP – Limit
- The other EIRP levels were very low against the limit.