

Appendix B: Test Results of Radiated Spurious Emissions

<EDGE850 Ch189 + 802.11g_2437MHz + NFC>

30MHz ~ 1GHz												
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)
Mid	94.99	-63.18	-13	-50.18	200	155	45.89	14.4	0.73	26.79	-106.92	H
	192.96	-71.07	-13	-58.07	100	95	34.42	17.2	1.03	26.31	-103.34	H
	288.99	-62.17	-13	-49.17	100	75	40.29	19.7	1.25	26	-100.31	H
	542.16	-69.23	-13	-56.23	100	70	29.11	24.77	1.76	27.46	-96.19	H
	747.8	-56.01	-13	-43.01	200	266	38.39	28.31	2.13	27.43	-92.25	H
	904.94	-55.6	-13	-42.6	300	0	37.1	29.5	2.35	27.14	-90.55	H
	40.67	-63.83	-13	-50.83	100	270	40.25	19.8	0.49	26.96	-101.93	V
	94.99	-69.26	-13	-56.26	200	112	39.81	14.4	0.73	26.79	-106.92	V
	162.89	-74.62	-13	-61.62	100	117	28.42	19.89	0.94	26.46	-100.89	V
	289.96	-70.14	-13	-57.14	100	164	32.31	19.7	1.26	26	-100.3	V
	705.12	-62.32	-13	-49.32	100	271	32.81	27.7	2.07	27.49	-92.98	V
	971.87	-63.08	-13	-50.08	100	221	28.63	30.26	2.43	26.99	-89.56	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												
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)
Mid	1672	-23.33	-13	-10.33	321	360	92.53	29.11	4.21	51.77	-113.71	H
	2509	-38.67	-13	-25.67	361	360	72.63	32.88	5.17	51.94	-109.15	H
	3345	-41.33	-13	-28.33	300	345	68.96	33.11	5.98	51.97	-108.14	H
	4182	-37.6	-13	-24.6	300	205	71.41	33.8	6.7	52.1	-106.86	H
	5018	-49.15	-13	-36.15	208	0	58.4	34.64	7.35	52.13	-105.4	H
	5854	-54.73	-13	-41.73	100	272	51.76	35.6	7.92	52.6	-104.34	H
	8364	-48.27	-13	-35.27	103	360	56.84	36.27	9.5	53.47	-102.96	H
	1672	-29.03	-13	-16.03	300	267	86.83	29.11	4.21	51.77	-113.71	V
	2509	-46.2	-13	-33.2	300	272	65.1	32.88	5.17	51.94	-109.15	V
	3345	-40.62	-13	-27.62	200	276	69.67	33.11	5.98	51.97	-108.14	V
	4182	-37.28	-13	-24.28	200	273	71.73	33.8	6.7	52.1	-106.86	V
	5018	-55.28	-13	-42.28	400	143	52.27	34.64	7.35	52.13	-105.4	V
	5854	-48.09	-13	-35.09	264	0	58.4	35.6	7.92	52.6	-104.34	V
	8364	-51.03	-13	-38.03	100	315	54.08	36.27	9.5	53.47	-102.96	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.

<LTE Band 5 Ch20525 + Bluetooth_2441MHz + NFC>

30MHz ~ 1GHz												
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)
Mid	94.99	-66.97	-13	-53.97	200	143	42.1	14.4	0.73	26.79	-106.92	H
	278.32	-66.96	-13	-53.96	100	85	35.86	19.4	1.23	26.04	-100.67	H
	316.15	-71.14	-13	-58.14	100	139	30.7	20.35	1.31	26.09	-99.69	H
	625.58	-67.85	-13	-54.85	300	358	28.66	26.51	1.94	27.55	-94.36	H
	713.85	-64.72	-13	-51.72	100	342	30.57	27.52	2.08	27.48	-93.14	H
	966.05	-63.64	-13	-50.64	100	212	28.04	30.3	2.43	27	-89.53	H
	40.67	-63.84	-13	-50.84	100	172	40.24	19.8	0.49	26.96	-101.93	V
	124.09	-73.1	-13	-60.1	100	222	33.03	17.11	0.82	26.65	-103.98	V
	288.02	-70.59	-13	-57.59	200	214	31.88	19.7	1.25	26.01	-100.32	V
	522.76	-70.11	-13	-57.11	300	217	28.3	24.71	1.71	27.42	-96.26	V
	733.25	-66.88	-13	-53.88	300	360	28.24	27.63	2.11	27.45	-92.97	V
	992.24	-63.67	-13	-50.67	204	0	27.53	30.7	2.46	26.95	-89.05	V
1GHz ~ 9GHz												
Mid	1681	-40.02	-13	-27.02	263	0	75.71	29.23	4.22	51.77	-113.58	H
	2522	-60.96	-13	-47.96	300	65	50.34	32.86	5.19	51.94	-109.15	H
	3363	-58.85	-13	-45.85	100	67	51.46	33.07	6	51.97	-108.16	H
	1681	-44.34	-13	-31.34	200	279	71.39	29.23	4.22	51.77	-113.58	V
	2522	-60.45	-13	-47.45	100	103	50.85	32.86	5.19	51.94	-109.15	V
	3363	-60.26	-13	-47.26	227	0	50.05	33.07	6	51.97	-108.16	V

Remarks:

1. $ERP(dBm) = Reading(dBuV) + Correction\ Factor(dB/m) - 2.15$
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 ERP levels were very low against the limit.

<LTE Band 5 Ch20525 + 802.11ac VHT40_5795MHz + NFC>

30MHz ~ 1GHz												
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)
Mid	94.99	-67.7	-13	-54.7	200	151	41.37	14.4	0.73	26.79	-106.92	H
	311.3	-71.84	-13	-58.84	100	16	30.09	20.23	1.3	26.05	-99.78	H
	419.94	-71.37	-13	-58.37	200	55	28.77	22.6	1.51	26.84	-97.99	H
	553.8	-68.22	-13	-55.22	194	360	29.35	25.53	1.79	27.48	-95.42	H
	774.96	-66.05	-13	-53.05	300	125	28.58	28	2.17	27.39	-92.48	H
	965.08	-62.97	-13	-49.97	300	263	28.73	30.3	2.42	27.01	-89.55	H
	40.67	-63.09	-13	-50.09	100	167	40.99	19.8	0.49	26.96	-101.93	V
	157.07	-75.14	-13	-62.14	200	274	28.12	19.71	0.92	26.48	-101.11	V
	437.4	-70.82	-13	-57.82	300	91	28.76	23.24	1.54	26.95	-97.43	V
	692.51	-66.69	-13	-53.69	185	360	28.88	27.3	2.05	27.51	-93.42	V
	755.56	-65.54	-13	-52.54	200	236	28.56	28.59	2.14	27.42	-91.95	V
	960.23	-63.82	-13	-50.82	100	287	28.08	30.11	2.42	27.02	-89.75	V
1GHz ~ 9GHz												
Mid	1681	-42.1	-13	-29.1	300	360	73.63	29.23	4.22	51.77	-113.58	H
	2522	-60.99	-13	-47.99	400	68	50.31	32.86	5.19	51.94	-109.15	H
	3363	-58.23	-13	-45.23	200	3	52.08	33.07	6	51.97	-108.16	H
	1681	-47.17	-13	-34.17	100	84	68.56	29.23	4.22	51.77	-113.58	V
	2522	-61.14	-13	-48.14	300	76	50.16	32.86	5.19	51.94	-109.15	V
	3363	-60.47	-13	-47.47	188	360	49.84	33.07	6	51.97	-108.16	V

Remarks:

1. $ERP(dBm) = Reading(dBuV) + Correction\ Factor(dB/m) - 2.15$
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 ERP levels were very low against the limit.

<EDGE1900 Ch661 + 802.11g_2437MHz + NFC>

30MHz ~ 1GHz												
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	165.8	-72.87	-13	-59.87	300	360	28.08	19.8	0.95	26.44	-100.95	H
	299.66	-72.64	-13	-59.64	100	219	27.42	19.89	1.28	25.97	-100.06	H
	400.54	-70.72	-13	-57.72	300	16	27.56	22.21	1.47	26.7	-98.28	H
	670.2	-66.16	-13	-53.16	300	56	27.71	26.9	2.01	27.52	-93.87	H
	729.37	-63.34	-13	-50.34	159	360	29.79	27.49	2.1	27.46	-93.13	H
	861.29	-62.1	-13	-49.1	300	131	29.07	29.03	2.29	27.23	-91.17	H
	38.73	-65.04	-13	-52.04	100	275	37.24	19.47	0.48	26.97	-102.28	V
	109.54	-73.49	-13	-60.49	300	256	31.56	16.15	0.78	26.72	-105.05	V
	285.11	-73.47	-13	-60.47	100	28	26.85	19.7	1.25	26.01	-100.32	V
	496.57	-68.92	-13	-55.92	200	258	28.09	23.96	1.65	27.36	-97.01	V
	612	-66.67	-13	-53.67	199	360	28.09	26.14	1.92	27.56	-94.76	V
	844.8	-62.23	-13	-49.23	200	298	28.92	29.1	2.27	27.26	-91.15	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 ~ 18GHz												
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	3760	-42.25	-13	-29.25	400	185	64.92	33.7	6.35	51.96	-107.17	H
	5640	-19.11	-13	-6.11	200	310	85.48	35.46	7.78	52.57	-104.59	H
	7520	-48.3	-13	-35.3	100	349	55.29	36.04	8.98	53.35	-103.59	H
	9400	-34.29	-13	-21.29	300	350	67.01	37.4	10.1	53.54	-101.3	H
	11280	-50.52	-13	-37.52	100	253	47.79	38.68	11.15	52.88	-98.31	H
	13160	-47.92	-13	-34.92	100	360	48.6	39.16	12.13	52.55	-96.52	H
	15040	-38.16	-13	-25.16	100	66	56.33	39.84	12.97	52.04	-94.49	H
	3760	-45.33	-13	-32.33	200	43	61.84	33.7	6.35	51.96	-107.17	V
	5640	-15.88	-13	-2.88	300	218	88.71	35.46	7.78	52.57	-104.59	V
	7520	-46.63	-13	-33.63	100	100	56.96	36.04	8.98	53.35	-103.59	V
	9400	-31.02	-13	-18.02	200	340	70.28	37.4	10.1	53.54	-101.3	V
	11280	-50.41	-13	-37.41	100	0	47.9	38.68	11.15	52.88	-98.31	V
	13160	-47.33	-13	-34.33	100	18	49.19	39.16	12.13	52.55	-96.52	V
	15040	-41.14	-13	-28.14	100	62	53.35	39.84	12.97	52.04	-94.49	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.

<LTE Band 2 Ch18900 + Bluetooth_2441MHz + NFC>

30MHz ~ 1GHz												
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	109.54	-65.86	-13	-52.86	300	148	39.19	16.15	0.78	26.72	-105.05	H
	284.14	-73.06	-13	-60.06	300	139	27.31	19.67	1.24	26.02	-100.37	H
	450.01	-69.07	-13	-56.07	200	239	28.26	23.4	1.57	27.04	-97.33	H
	592.6	-66.84	-13	-53.84	207	360	28.15	25.95	1.88	27.56	-94.99	H
	709.97	-64.13	-13	-51.13	200	254	28.95	27.6	2.07	27.49	-93.08	H
	851.59	-61.76	-13	-48.76	200	40	29.47	29	2.28	27.25	-91.23	H
	37.76	-66.44	-13	-53.44	100	85	35.93	19.38	0.48	26.97	-102.37	V
	159.98	-73.59	-13	-60.59	300	243	27.41	19.8	0.93	26.47	-101	V
	344.28	-71.18	-13	-58.18	200	44	28.1	20.91	1.36	26.29	-99.28	V
	482.99	-68.67	-13	-55.67	300	288	28.44	23.78	1.63	27.26	-97.11	V
	671.17	-65.77	-13	-52.77	200	205	28.1	26.9	2.01	27.52	-93.87	V
	856.44	-62.04	-13	-49.04	200	252	29.18	29	2.28	27.24	-91.22	V
1GHz ~ 18GHz												
Mid	3760	-33.54	-13	-20.54	100	85	73.63	33.7	6.35	51.96	-107.17	H
	5640	-27.77	-13	-14.77	200	120	76.82	35.46	7.78	52.57	-104.59	H
	7520	-39.99	-13	-26.99	100	132	63.6	36.04	8.98	53.35	-103.59	H
	9400	-47.28	-13	-34.28	100	92	54.02	37.4	10.1	53.54	-101.3	H
	3760	-36.22	-13	-23.22	400	279	70.95	33.7	6.35	51.96	-107.17	V
	5640	-26.62	-13	-13.62	400	186	77.97	35.46	7.78	52.57	-104.59	V
	7520	-46.81	-13	-33.81	100	93	56.78	36.04	8.98	53.35	-103.59	V
	9400	-42.8	-13	-29.8	100	81	58.5	37.4	10.1	53.54	-101.3	V

Remarks:

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

1. $\text{EIRP(dBm)} = \text{Reading(dBuV)} + \text{Correction Factor(dB/m)}$
2. $\text{Correction Factor(dB/m)} = \text{Antenna Factor(dB/m)} + \text{Cable Factor(dB)} - \text{Pre Amp(dB)} + 20\log(D) - 104.8$
3. $\text{Margin value} = \text{EIRP} - \text{Limit}$
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