

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.692	2401.652	2402.344	0.5	PASS
		2440	0.700	2439.648	2440.348	0.5	PASS
		2480	0.712	2479.640	2480.352	0.5	PASS

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



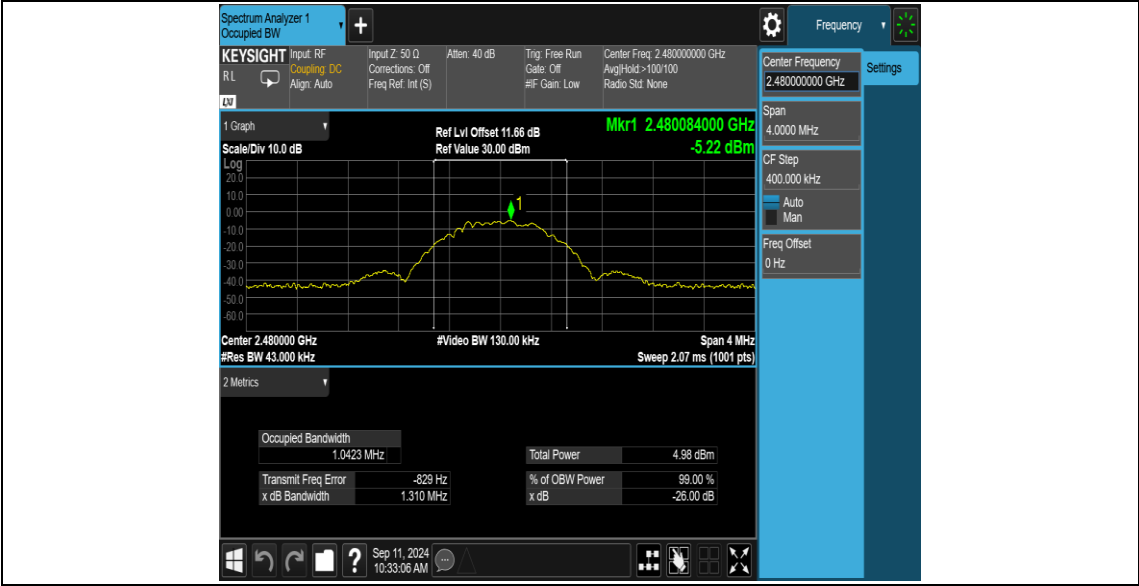
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0289	2401.4871	2402.5160	---	---
		2440	1.0359	2439.4822	2440.5181	---	---
		2480	1.0411	2479.4790	2480.5201	---	---

Test Graphs



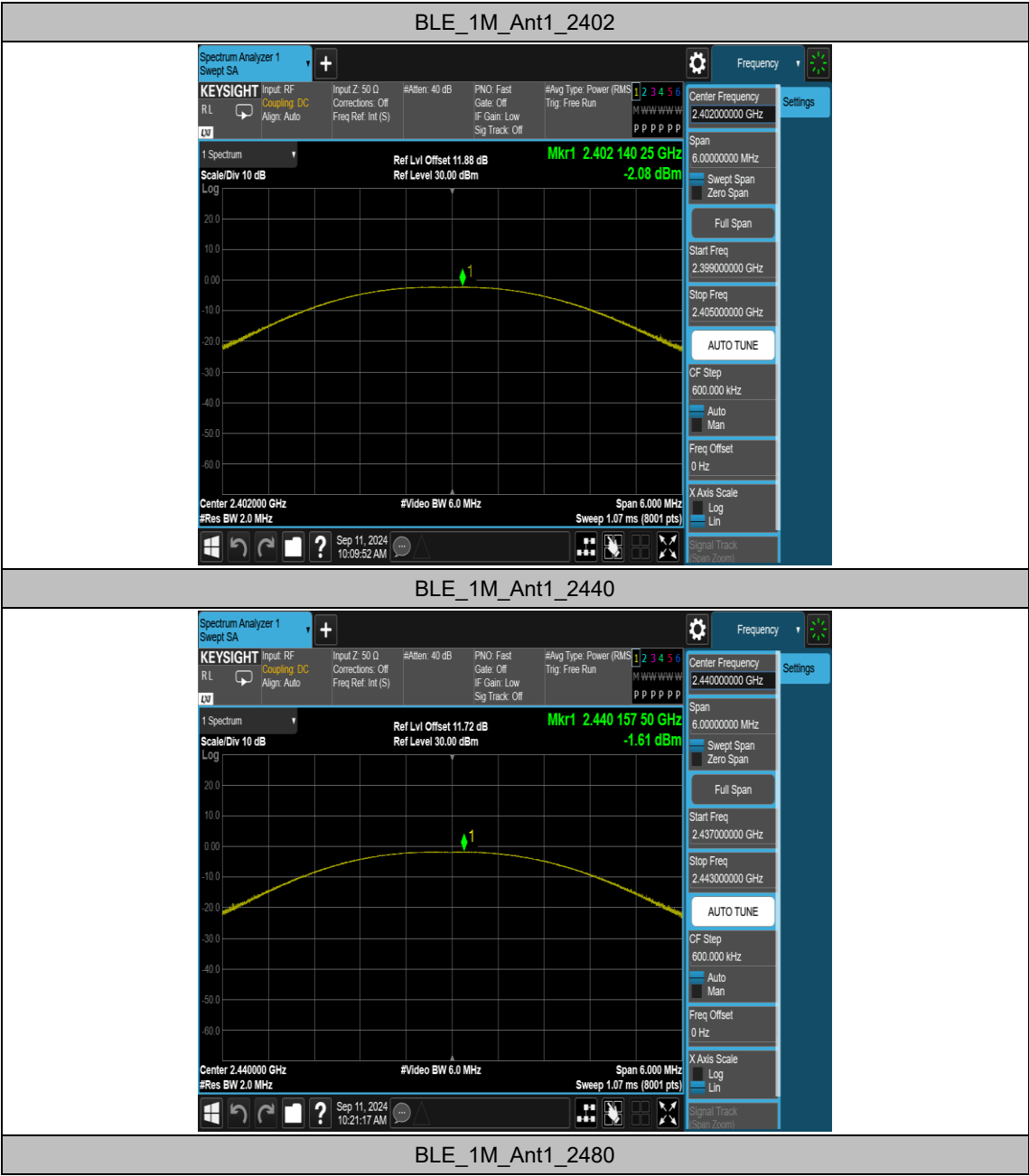


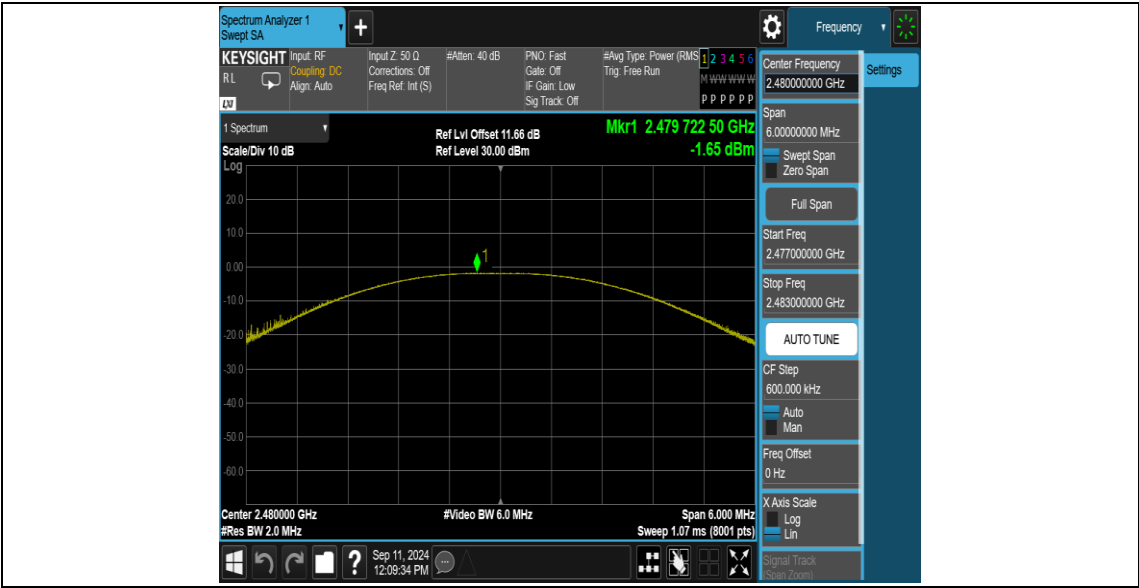
Appendix C: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-2.08	≤30	-0.78	≤36	PASS
		2440	-1.61	≤30	-0.31	≤36	PASS
		2480	-1.65	≤30	-0.35	≤36	PASS

Test Graphs Peak





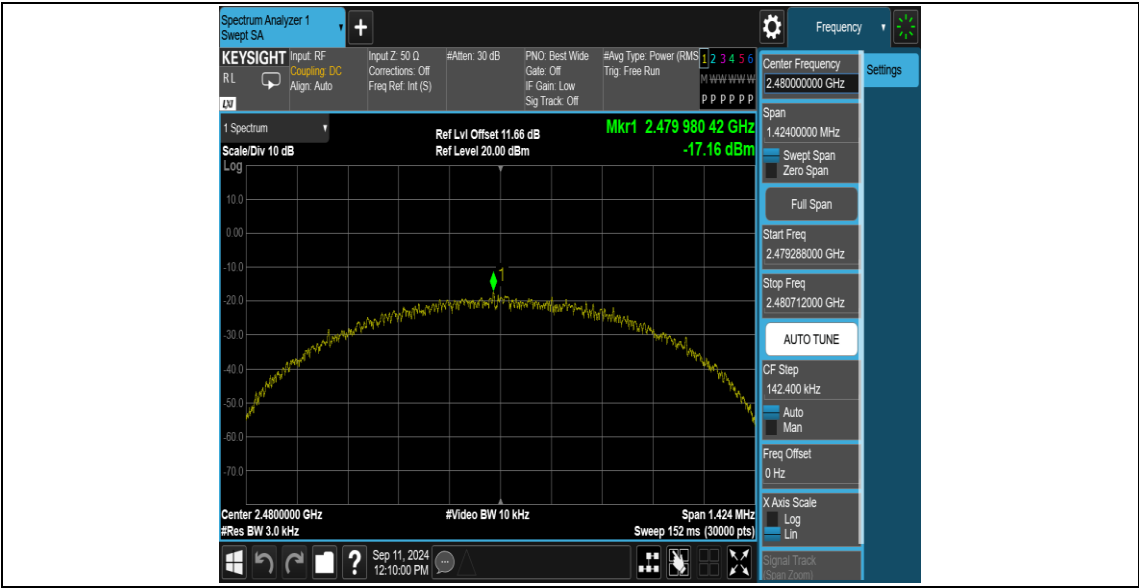
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-17.41	≤8.00	PASS
		2440	-17.05	≤8.00	PASS
		2480	-17.16	≤8.00	PASS

Test Graphs





Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.09	-46.54	≤-23.09	PASS
		High	2480	-2.80	-46.59	≤-22.8	PASS

Test Graphs



Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-3.33	-3.33	---	PASS
			30~1000	-3.33	-58.59	≤-23.33	PASS
			1000~26500	-3.33	-45.58	≤-23.33	PASS
		2440	Reference	-2.97	-2.97	---	PASS
			30~1000	-2.97	-58.29	≤-22.97	PASS
			1000~26500	-2.97	-47.36	≤-22.97	PASS
		2480	Reference	-3.06	-3.06	---	PASS
			30~1000	-3.06	-58.12	≤-23.06	PASS
			1000~26500	-3.06	-50.76	≤-23.06	PASS

Test Graphs

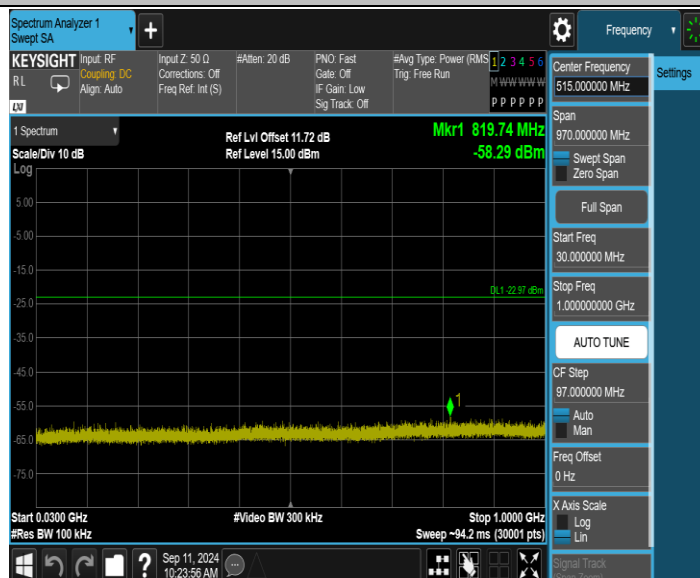




BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



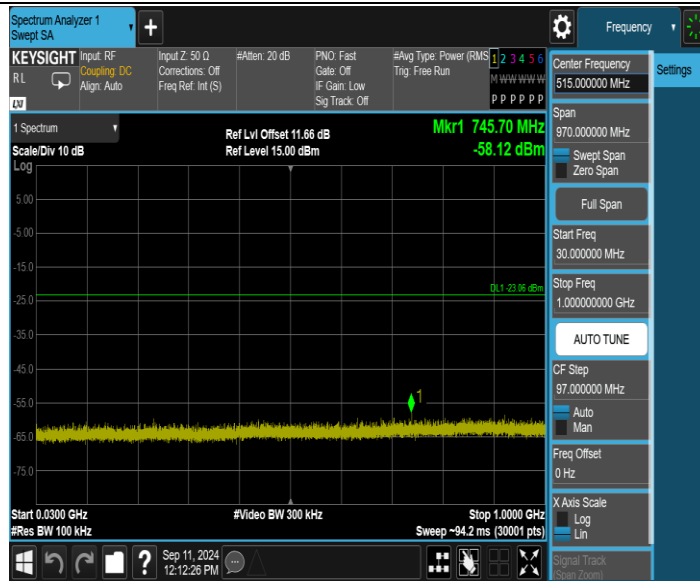
BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]
BLE_1M	Ant1	2402	17.00	17.00	100.00
		2440	17.00	17.00	100.00
		2480	17.00	17.00	100.00

Test Graphs





Appendix H: Emissions in Restricted Bands

Test Result

Mode:	BLE 2402
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NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2310	45.47	6.68	74.00	28.53	150	37	Horizontal	PASS
2	2328.16	47.61	6.78	74.00	26.39	150	213	Horizontal	PASS
3	2352.48	48.46	6.89	74.00	25.54	150	62	Horizontal	PASS
4	2355.76	48.73	6.93	74.00	25.27	150	86	Horizontal	PASS
5	2371.92	48.34	7.28	74.00	25.66	150	184	Horizontal	PASS
6	2390	47.66	8.15	74.00	26.34	150	42	Horizontal	PASS

NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2310	46.26	6.68	74.00	27.74	150	108	Vertical	PASS
2	2326.4	47.50	6.79	74.00	26.50	150	202	Vertical	PASS
3	2343.28	47.85	6.92	74.00	26.15	150	25	Vertical	PASS
4	2358.8	48.40	7.02	74.00	25.60	150	149	Vertical	PASS
5	2365.2	48.00	7.20	74.00	26.00	150	229	Vertical	PASS
6	2390	48.06	8.15	74.00	25.94	150	96	Vertical	PASS

Mode:	BLE 2480
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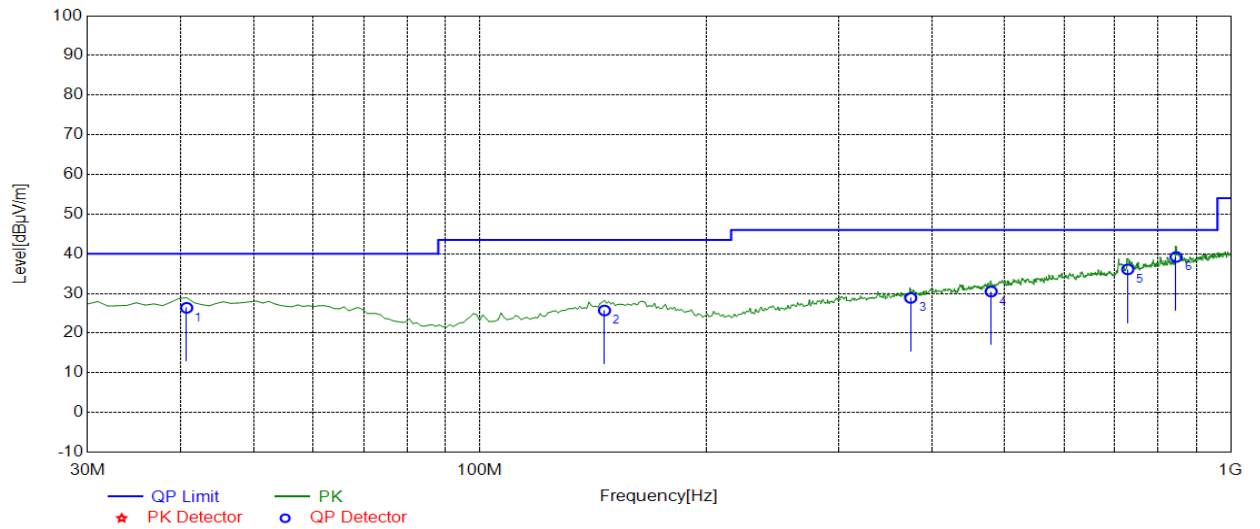
NO.	Freq. [MHz]	Level [dB μ V/m]	Factor [dB/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2483.5	50.06	8.67	74.00	23.94	150	46	Horizontal	PASS
2	2487.95	50.72	8.28	74.00	23.28	150	217	Horizontal	PASS
3	2491.09	49.68	8.42	74.00	24.32	150	144	Horizontal	PASS
4	2494.34	49.51	8.57	74.00	24.49	150	7	Horizontal	PASS
5	2498.53	50.01	8.31	74.00	23.99	150	2	Horizontal	PASS
6	2500	48.22	8.20	74.00	25.78	150	96	Horizontal	PASS

NO.	Freq. [MHz]	Level [dB μ V/m]	Factor [dB/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2483.5	49.28	8.67	74.00	24.72	150	260	Vertical	PASS
2	2485.89	50.17	8.44	74.00	23.83	150	55	Vertical	PASS
3	2488.59	50.62	8.29	74.00	23.38	150	55	Vertical	PASS
4	2492.93	49.15	8.51	74.00	24.85	150	281	Vertical	PASS
5	2496.98	48.99	8.39	74.00	25.01	150	71	Vertical	PASS
6	2500	47.59	8.20	74.00	26.41	150	267	Vertical	PASS

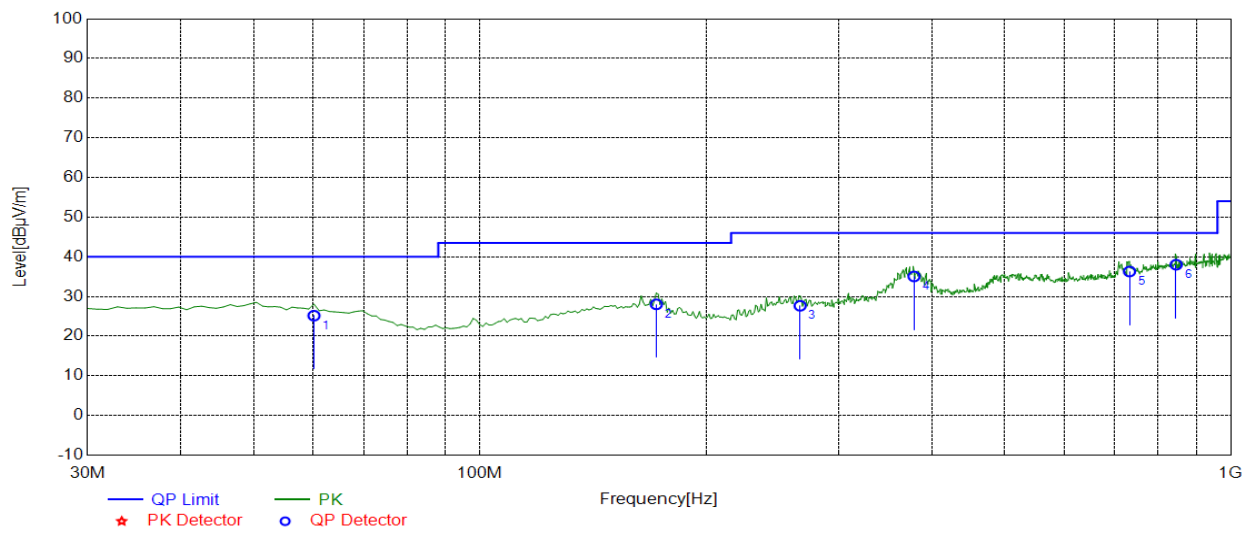
Note:

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Appendix I: Spurious Emissions



QP Final Data List							
NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity	Verdict
1	40.6807	-15.80	26.40	40.00	13.60	Vertical	PASS
2	146.516	-15.97	25.72	43.50	17.78	Vertical	PASS
3	374.694	-14.09	28.89	46.00	17.11	Vertical	PASS
4	479.559	-11.88	30.50	46.00	15.50	Vertical	PASS
5	729.099	-7.83	36.09	46.00	9.91	Vertical	PASS
6	845.615	-6.10	39.21	46.00	6.79	Vertical	PASS



QP Final Data List							
NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity	Verdict
1	60.1001	-16.27	25.17	40.00	14.83	Horizontal	PASS
2	171.761	-16.62	28.03	43.50	15.47	Horizontal	PASS
3	266.916	-16.79	27.66	46.00	18.34	Horizontal	PASS
4	378.578	-14.01	35.07	46.00	10.93	Horizontal	PASS
5	732.983	-7.75	36.31	46.00	9.69	Horizontal	PASS
6	845.615	-6.10	38.02	46.00	7.98	Horizontal	PASS

Mode:	BLE 2402
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NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	1260	42.31	2.22	74.00	31.69	150	222	Horizontal	PASS
2	1820	45.08	5.06	74.00	28.92	150	133	Horizontal	PASS
3	4142.08	42.39	-16.24	74.00	31.61	150	26	Horizontal	PASS
4	5098.32	43.19	-14.76	74.00	30.81	150	161	Horizontal	PASS
5	6555.15	44.11	-12.11	74.00	29.89	150	196	Horizontal	PASS
6	8290.76	44.59	-10.68	74.00	29.41	150	104	Horizontal	PASS

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	1260	42.22	2.22	74.00	31.78	150	238	Vertical	PASS
2	2112	45.47	6.13	74.00	28.53	150	112	Vertical	PASS
3	3317.74	41.61	-18.23	74.00	32.39	150	204	Vertical	PASS
4	4918.46	43.42	-14.63	74.00	30.58	150	0	Vertical	PASS
5	6414.26	43.37	-12.15	74.00	30.63	150	171	Vertical	PASS
6	8185.85	45.06	-10.49	74.00	28.94	150	153	Vertical	PASS

Mode:	BLE 2440
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NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	1338	42.47	2.15	74.00	31.53	150	143	Horizontal	PASS
2	1680	42.54	3.05	74.00	31.46	150	234	Horizontal	PASS
3	3974.22	41.65	-16.89	74.00	32.35	150	257	Horizontal	PASS
4	6180.45	43.39	-12.79	74.00	30.61	150	146	Horizontal	PASS
5	7901.07	44.58	-11.14	74.00	29.42	150	135	Horizontal	PASS
6	15982.6	50.25	-0.30	74.00	23.75	150	332	Horizontal	PASS

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	1192	41.96	2.09	74.00	32.04	150	1	Vertical	PASS
2	1660	42.28	2.87	74.00	31.72	150	311	Vertical	PASS
3	3854.31	42.46	-17.29	74.00	31.54	150	273	Vertical	PASS
4	5215.22	42.56	-14.04	74.00	31.44	150	357	Vertical	PASS
5	8449.64	44.44	-10.93	74.00	29.56	150	18	Vertical	PASS
6	12052.7	47.53	-4.61	74.00	26.47	150	29	Vertical	PASS

Mode:	BLE 2480
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NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	1238	42.84	2.17	74.00	31.16	150	184	Horizontal	PASS
2	1992	45.58	5.87	74.00	28.42	150	26	Horizontal	PASS
3	4227	42.38	-16.56	74.00	31.62	150	216	Horizontal	PASS
4	5082	43.65	-14.57	74.00	30.35	150	104	Horizontal	PASS
5	6417	44.41	-12.18	74.00	29.59	150	167	Horizontal	PASS
6	8976	44.67	-9.67	74.00	29.33	150	347	Horizontal	PASS

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	1238	42.58	2.17	74.00	31.42	150	327	Vertical	PASS
2	1908	45.50	5.68	74.00	28.50	150	141	Vertical	PASS
3	3798	41.74	-16.83	74.00	32.26	150	112	Vertical	PASS
4	4956	43.30	-15.25	74.00	30.70	150	14	Vertical	PASS
5	5952	44.07	-12.03	74.00	29.93	150	17	Vertical	PASS
6	8214	44.68	-10.17	74.00	29.32	150	68	Vertical	PASS