

FCC Appendix RF Test Data for 2.4G DTS

FCC ID : 2ANTI-T22

Company : Changzhou Smoothies Electronics Co., Ltd.

EUT : Remote control

Model Number : T22

Report No. : CTA26060600501

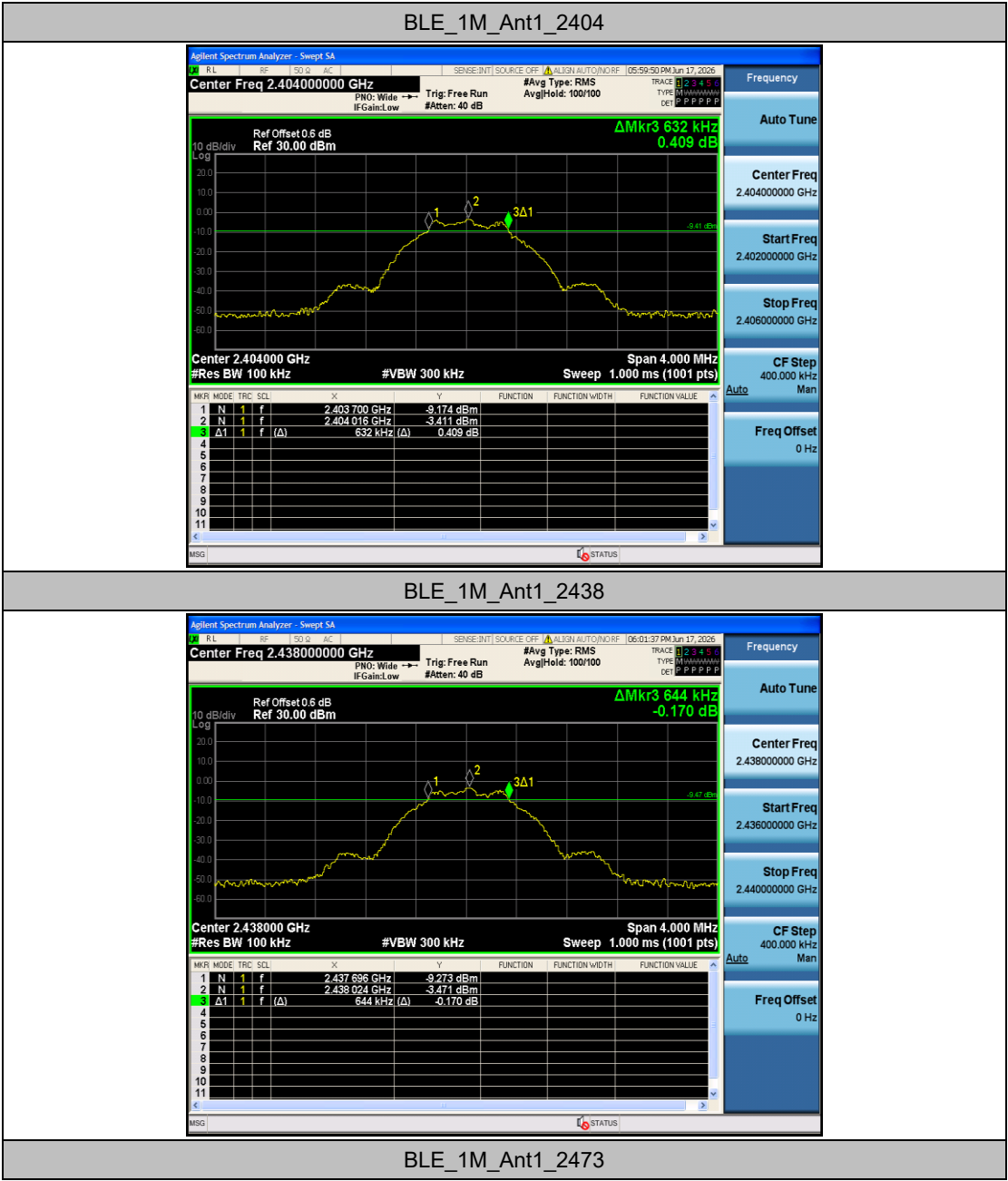
Reviewed By : Eric Wang

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2404	0.632	2403.700	2404.332	0.5	PASS
		2438	0.644	2437.696	2438.340	0.5	PASS
		2473	0.996	2472.528	2473.524	0.5	PASS

Test Graphs

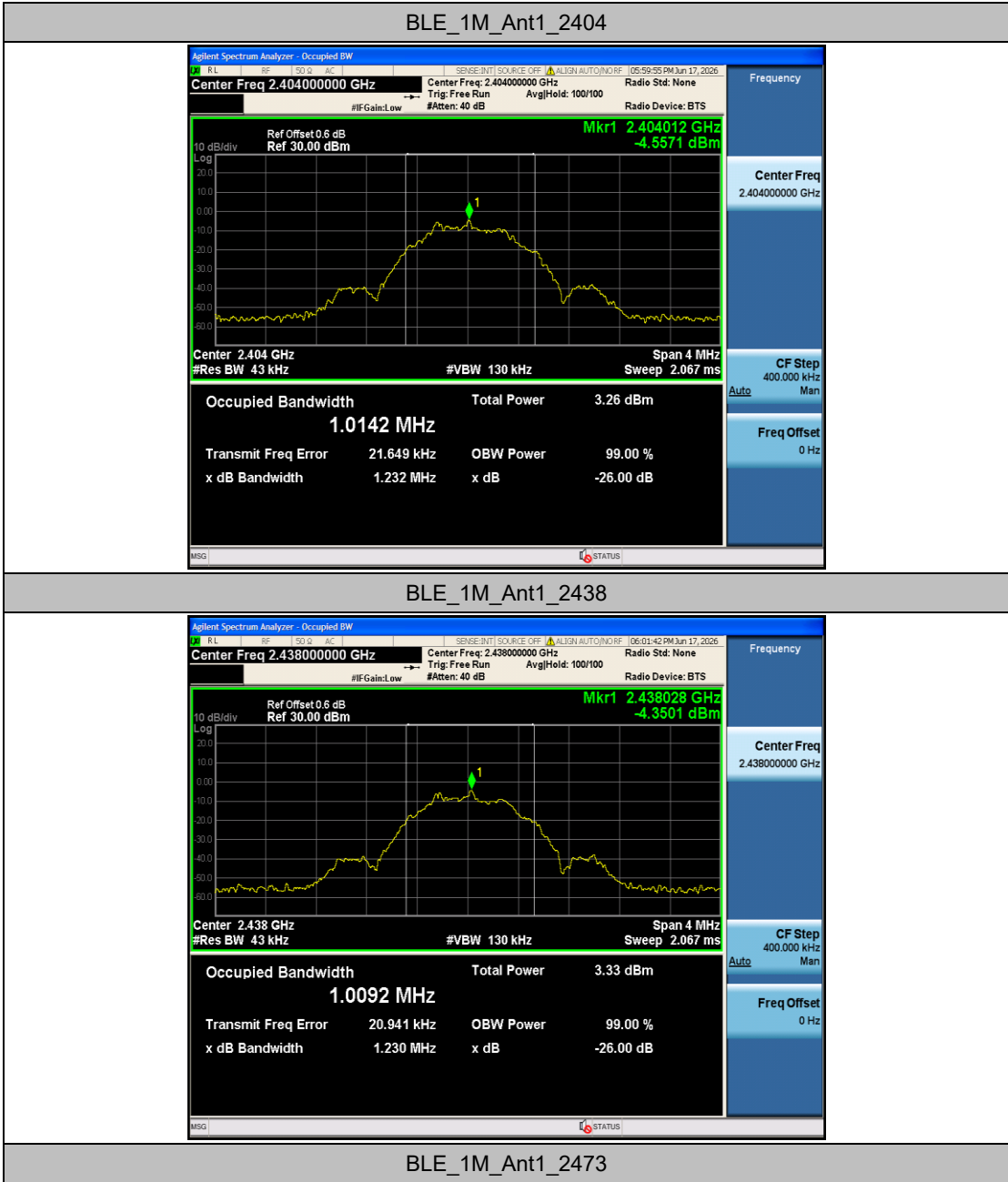


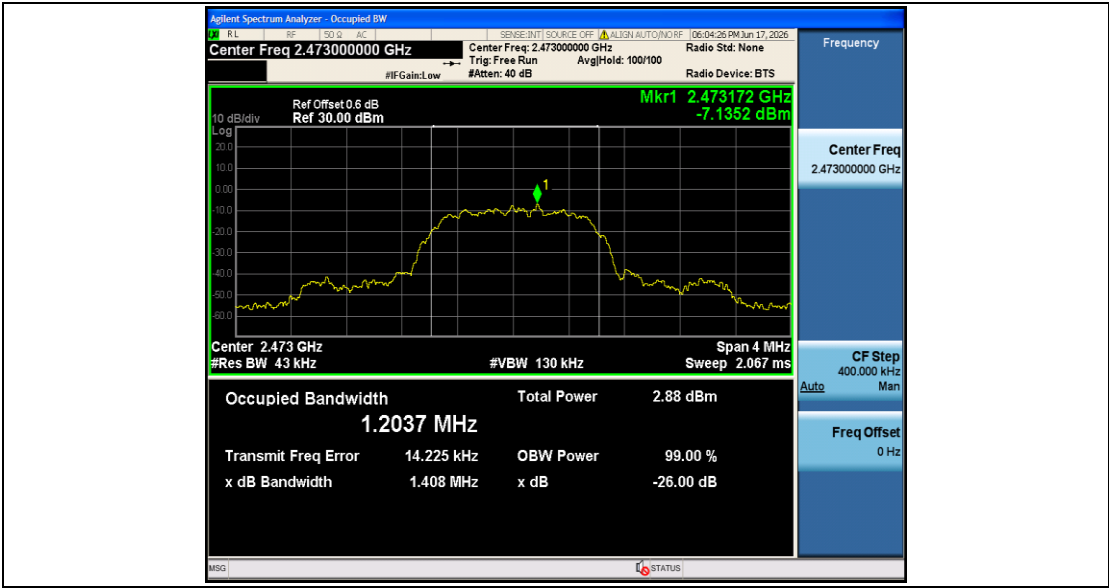
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2404	1.0142	2403.5146	2404.5288	---	---
		2438	1.0092	2437.5163	2438.5255	---	---
		2473	1.2037	2472.4124	2473.6161	---	---

Test Graphs





Appendix C: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2404	-3.25	≤30	PASS
		2438	-3.26	≤30	PASS
		2473	-0.96	≤30	PASS

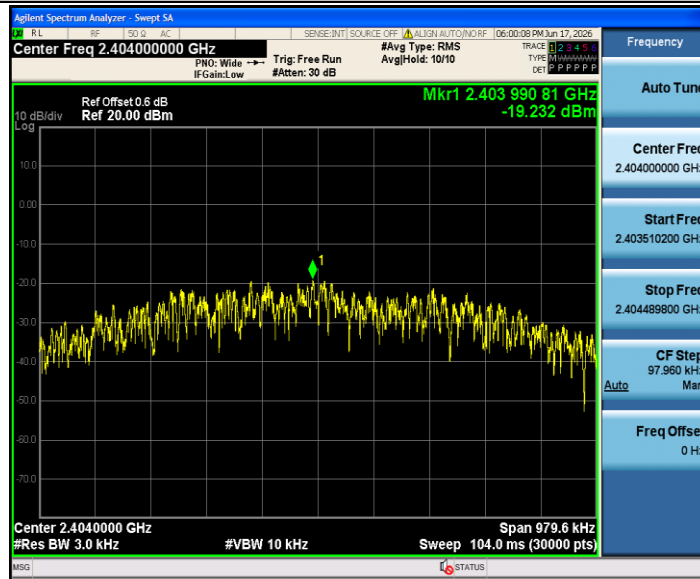
Appendix D: Maximum power spectral density

Test Result

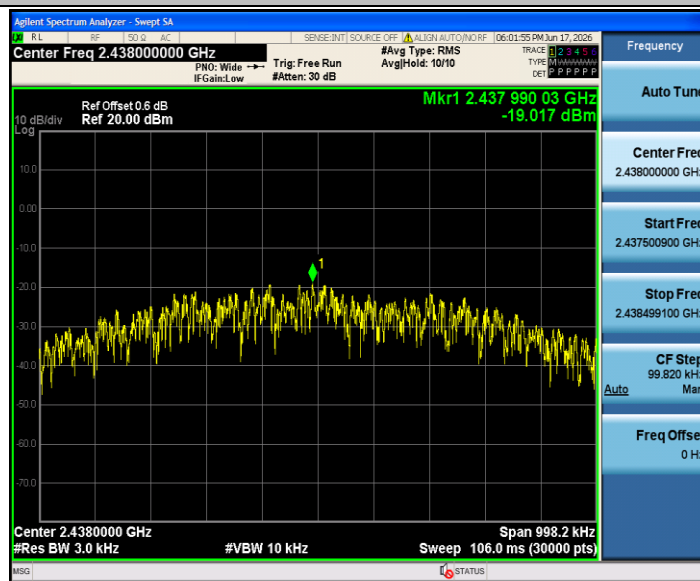
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2404	-19.23	≤8.00	PASS
		2438	-19.02	≤8.00	PASS
		2473	-17.85	≤8.00	PASS

Test Graphs

BLE_1M_Ant1_2404



BLE_1M_Ant1_2438



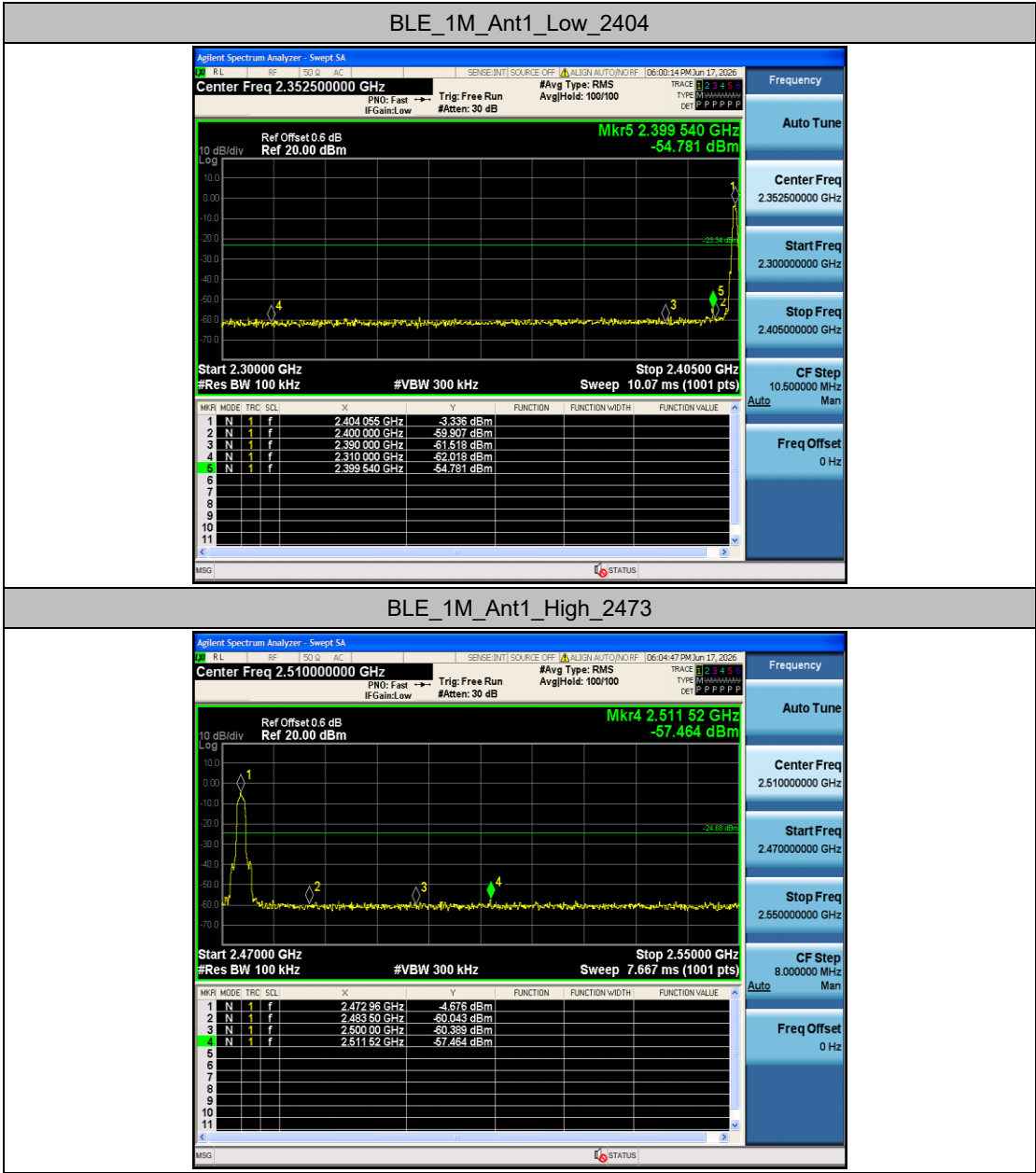
BLE_1M_Ant1_2473

Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2404	-3.34	-54.78	≤ -23.34	PASS
		High	2473	-4.68	-57.46	≤ -24.68	PASS

Test Graphs

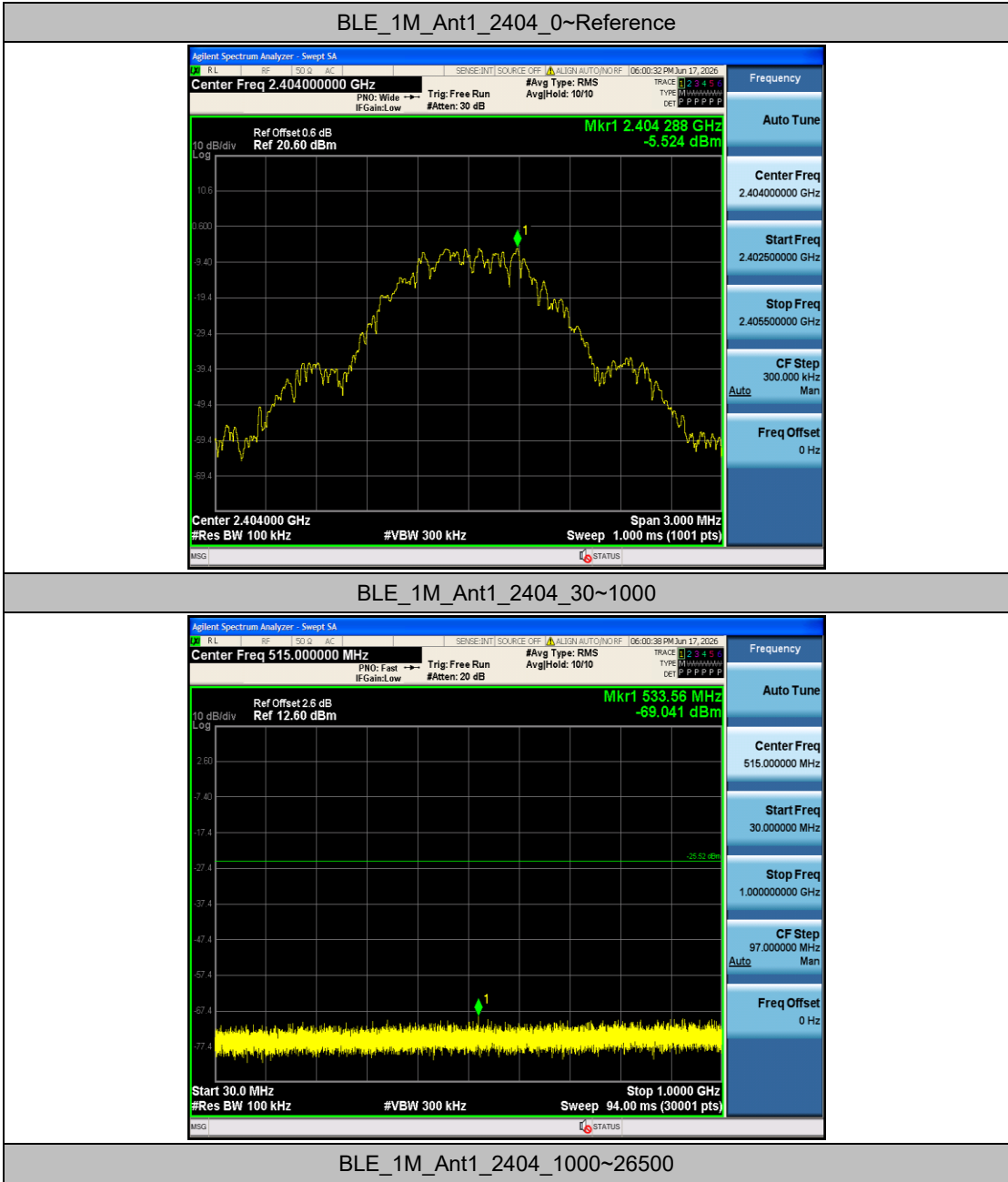


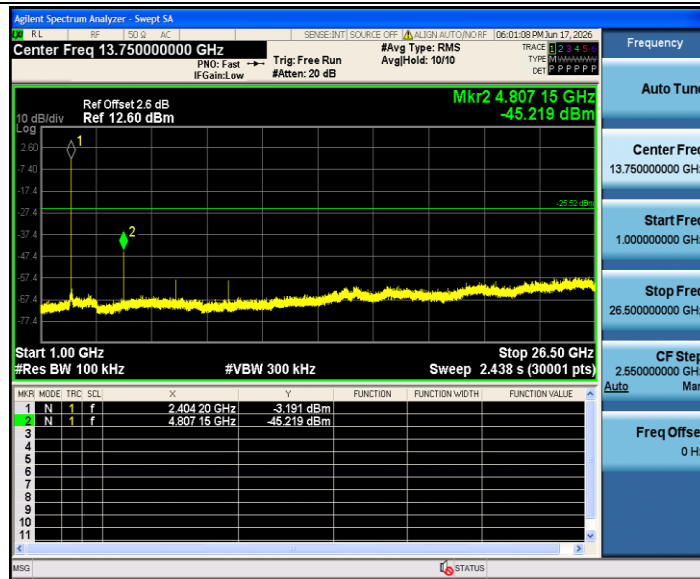
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2404	Reference	-5.52	-5.52	---	PASS
			30~1000	-5.52	-69.04	≤-25.52	PASS
			1000~26500	-5.52	-45.22	≤-25.52	PASS
		2438	Reference	-3.43	-3.43	---	PASS
			30~1000	-3.43	-69.37	≤-23.43	PASS
			1000~26500	-3.43	-47.82	≤-23.43	PASS
		2473	Reference	-4.29	-4.29	---	PASS
			30~1000	-4.29	-68.65	≤-24.29	PASS
			1000~26500	-4.29	-48.33	≤-24.29	PASS

Test Graphs

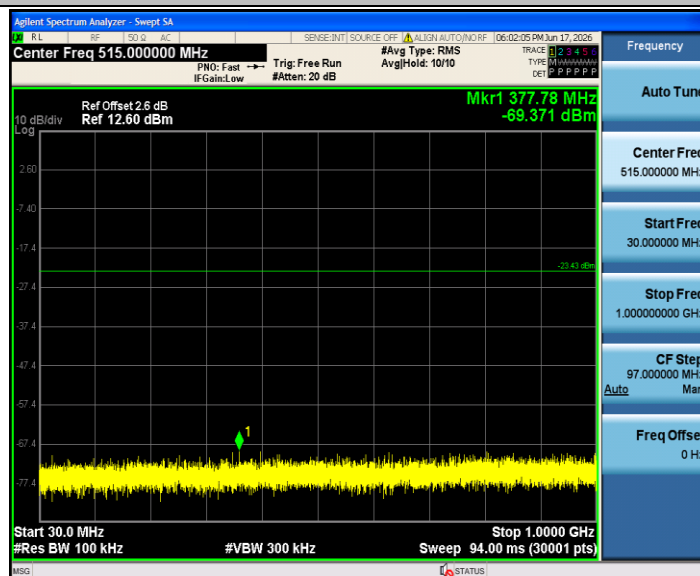




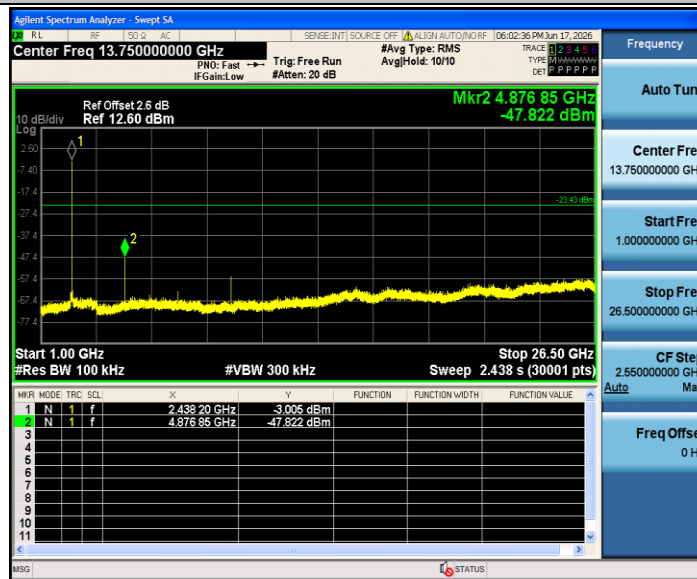
BLE_1M_Ant1_2438_0~Reference



BLE_1M_Ant1_2438_30~1000



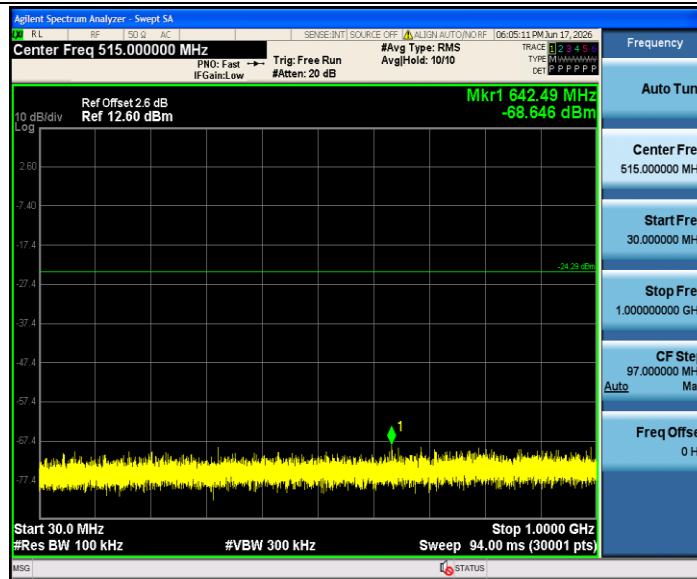
BLE_1M_Ant1_2438_1000~26500



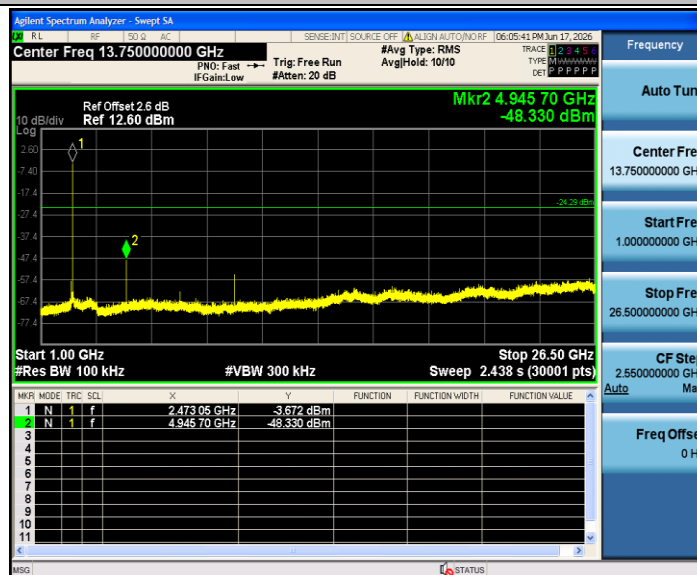
BLE_1M_Ant1_2473_0~Reference



BLE_1M_Ant1_2473_30~1000



BLE_1M_Ant1_2473_1000~26500

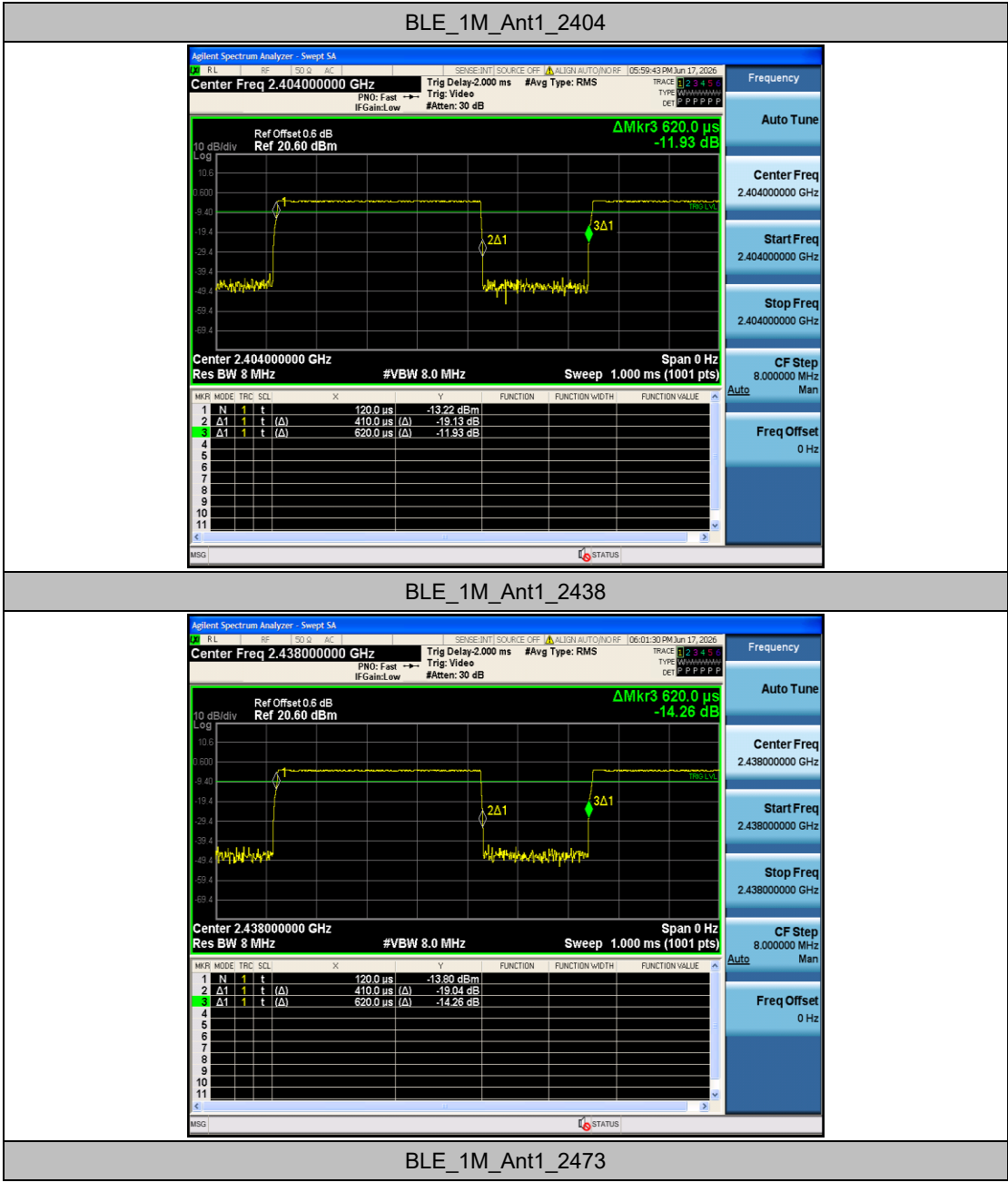


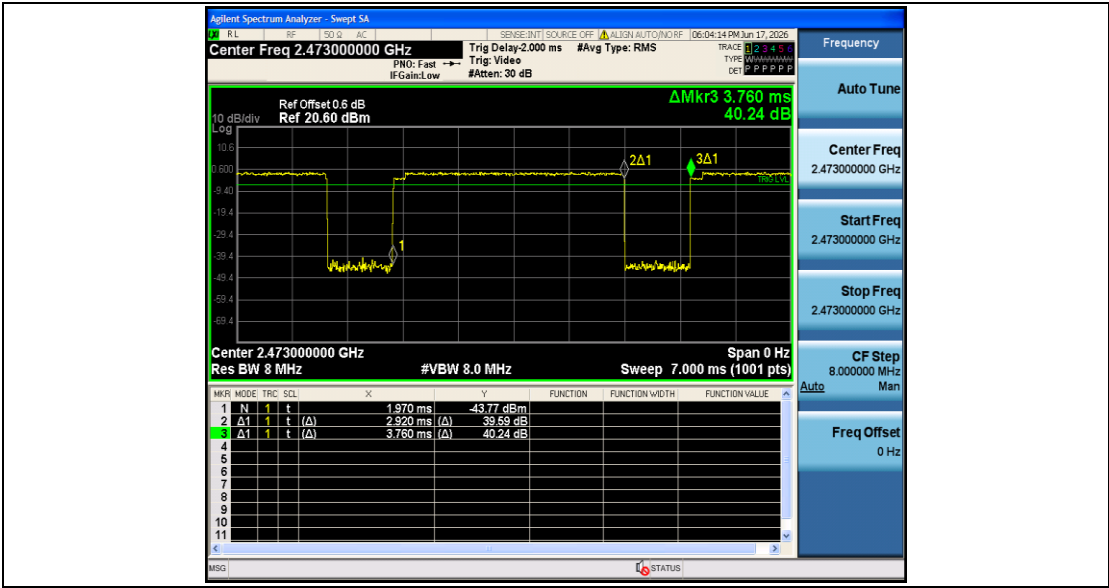
Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2404	0.41	0.62	0.6613	66.13	1.80	---	---
		2438	0.41	0.62	0.6613	66.13	1.80	---	---
		2473	2.92	3.76	0.7766	77.66	1.10	---	---

Test Graphs





Appendix H: Emissions in Restricted Bands

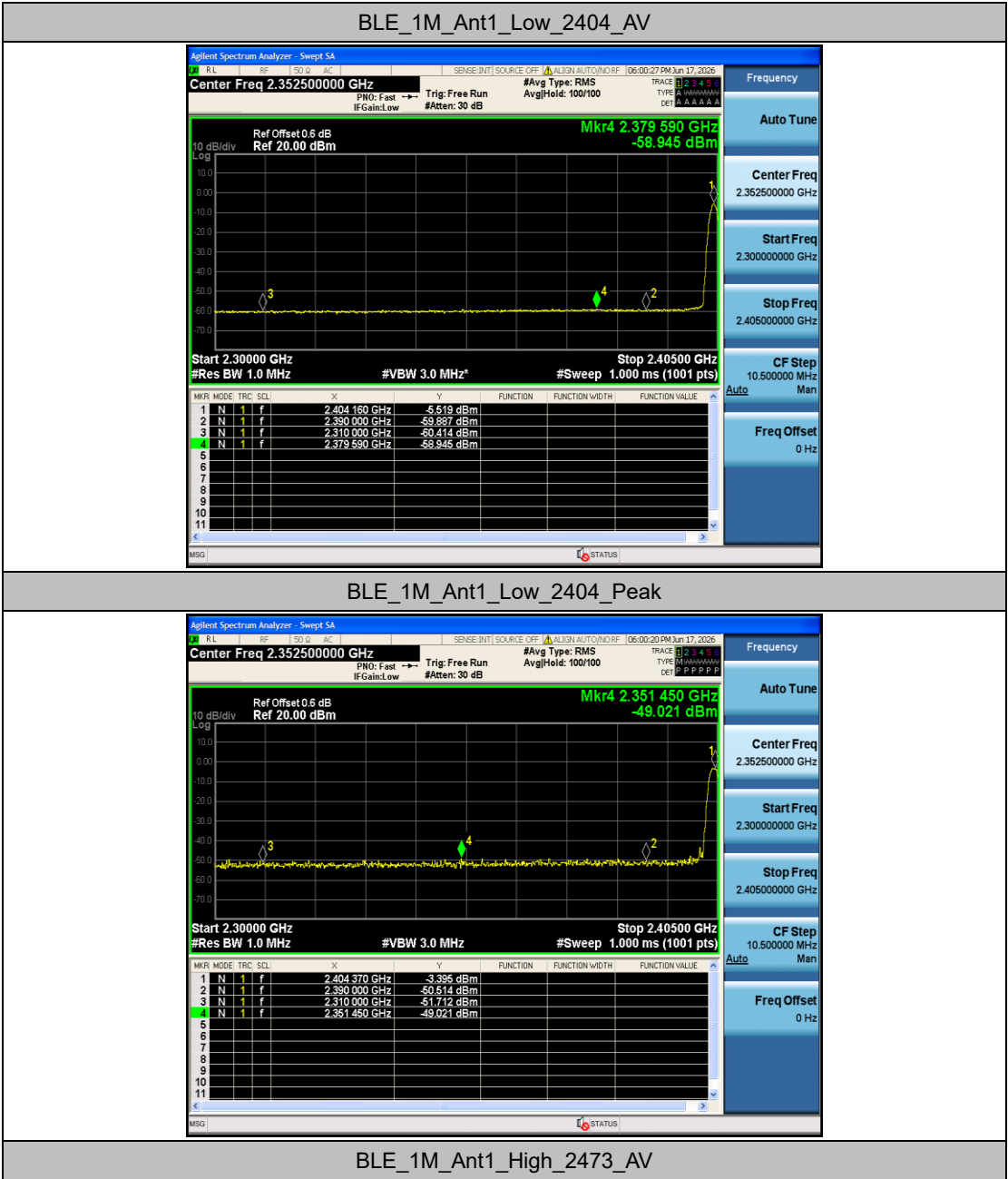
Test Result

TestMode	Antenna	Channel Name	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2404	AV	2310.000	-60.41	2.00	1.80	38.59	≤54	PASS
				AV	2379.590	-58.95	2.00	1.80	40.05	≤54	PASS
				AV	2390.000	-59.89	2.00	1.80	39.11	≤54	PASS
				Peak	2310.000	-51.71	2.00	0.00	45.49	≤74	PASS
				Peak	2351.450	-49.02	2.00	0.00	48.18	≤74	PASS
				Peak	2390.000	-50.51	2.00	0.00	46.69	≤74	PASS
		High	2473	AV	2483.500	-58.73	2.00	1.10	39.57	≤54	PASS
				AV	2488.160	-58.35	2.00	1.10	39.95	≤54	PASS
				AV	2500.000	-59.33	2.00	1.10	38.97	≤54	PASS
				Peak	2483.500	-50.97	2.00	0.00	46.23	≤74	PASS
				Peak	2490.640	-48.31	2.00	0.00	48.89	≤74	PASS
				Peak	2500.000	-51.22	2.00	0.00	45.98	≤74	PASS

Note:

1. 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.

Test Graphs





BLE_1M_Ant1_High_2473_Peak

