

FCC Appendix RF Test Data for BLE

FCC ID : 2ACO2-GV-TX05

Company : Golden Vessel Electronic & Lighting Inc

EUT : Decorative Lighting Strings

Model Number : GVLVIC29V500-T-IR-G47

Report No. : CTA26072001401

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	2402	0.648	2401.692	2402.340	0.5	PASS
		2440	0.648	2439.688	2440.336	0.5	PASS
		2480	0.636	2479.700	2480.336	0.5	PASS

Test Graphs

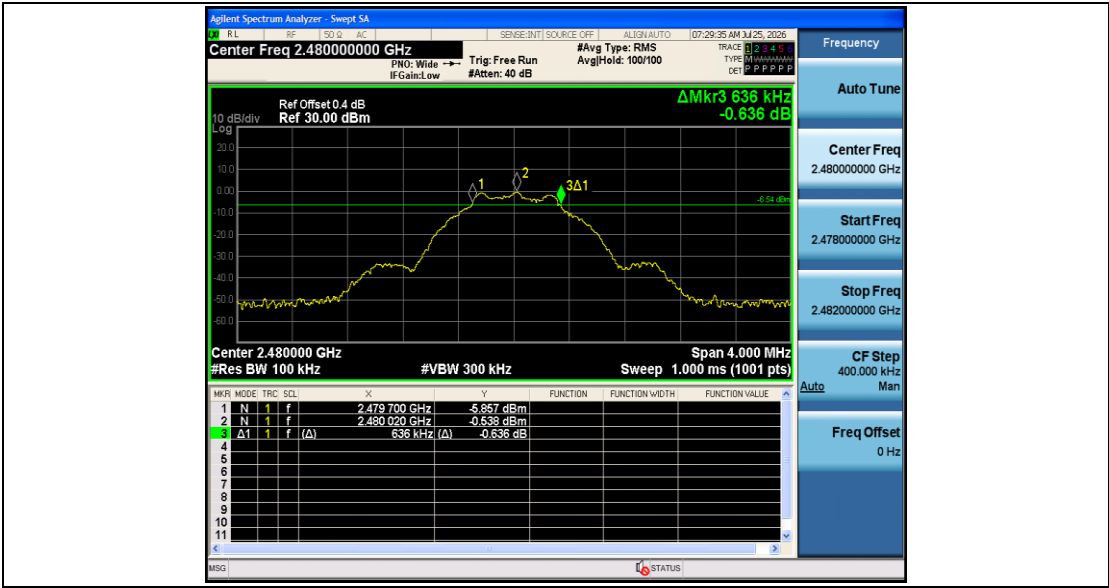
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

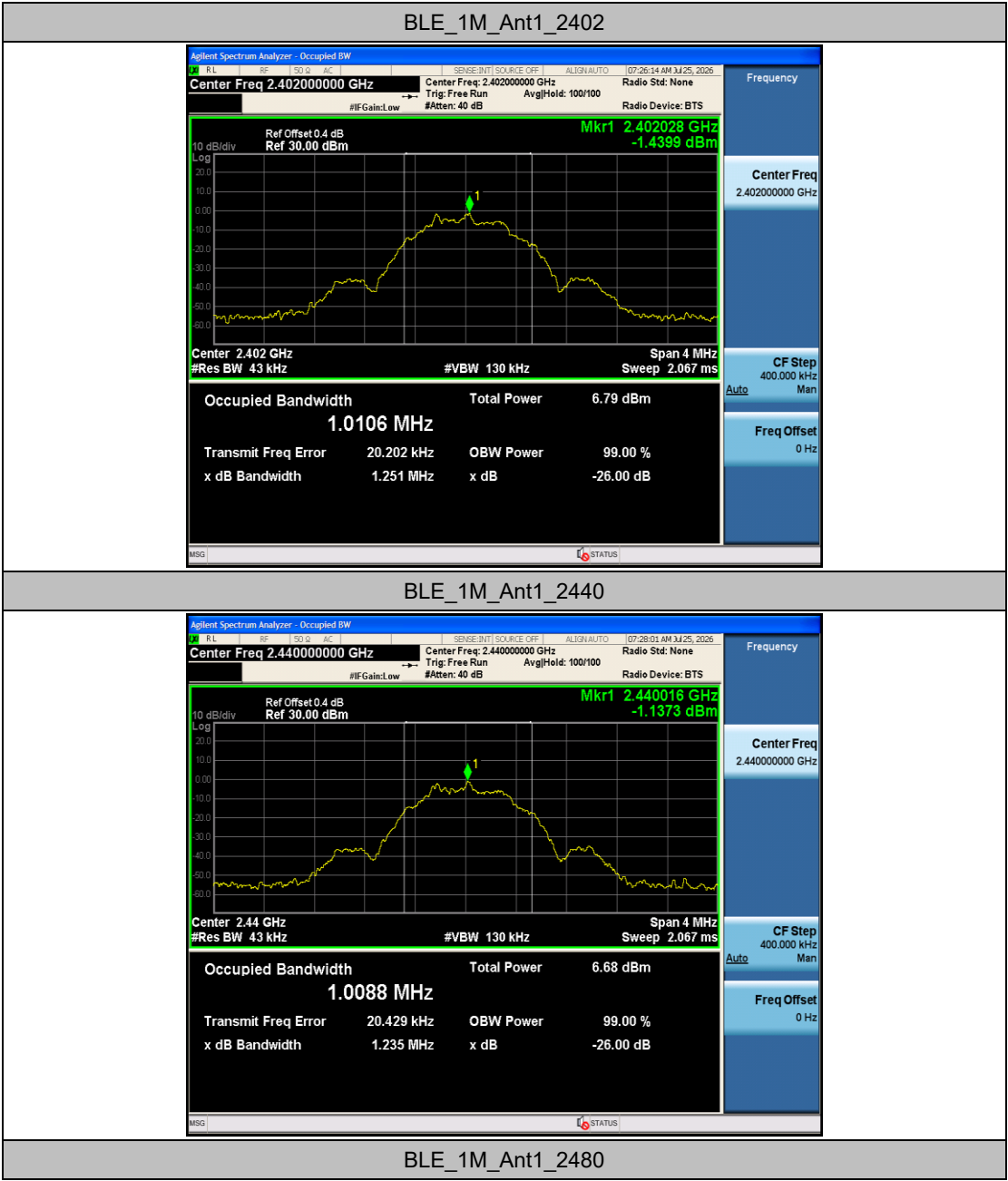


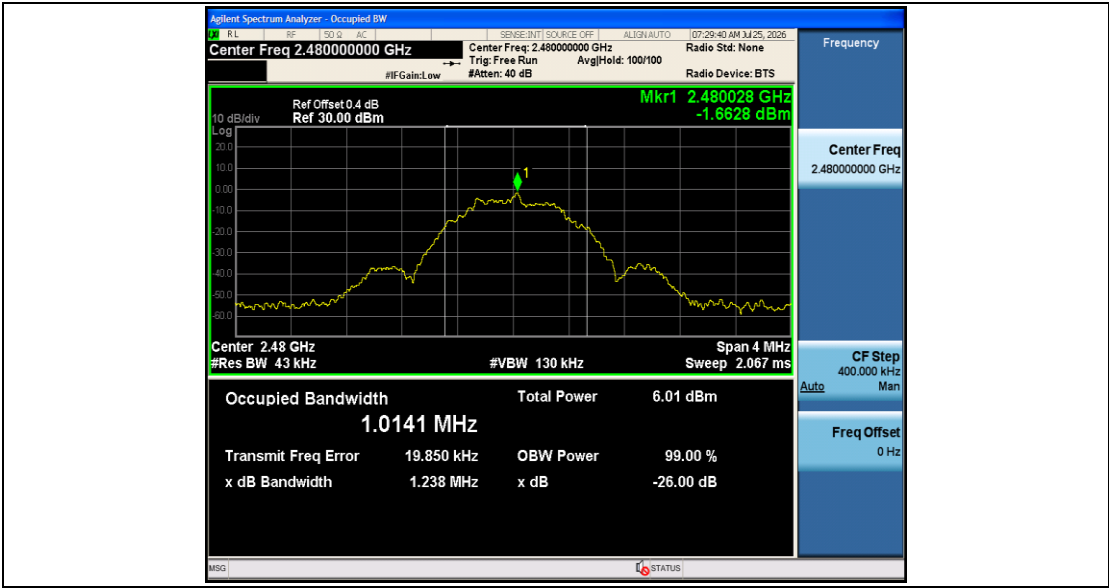
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0106	2401.5149	2402.5255	---	---
		2440	1.0088	2439.5160	2440.5248	---	---
		2480	1.0141	2479.5128	2480.5269	---	---

Test Graphs





Appendix C: Maximum conducted output power

Test Result Peak

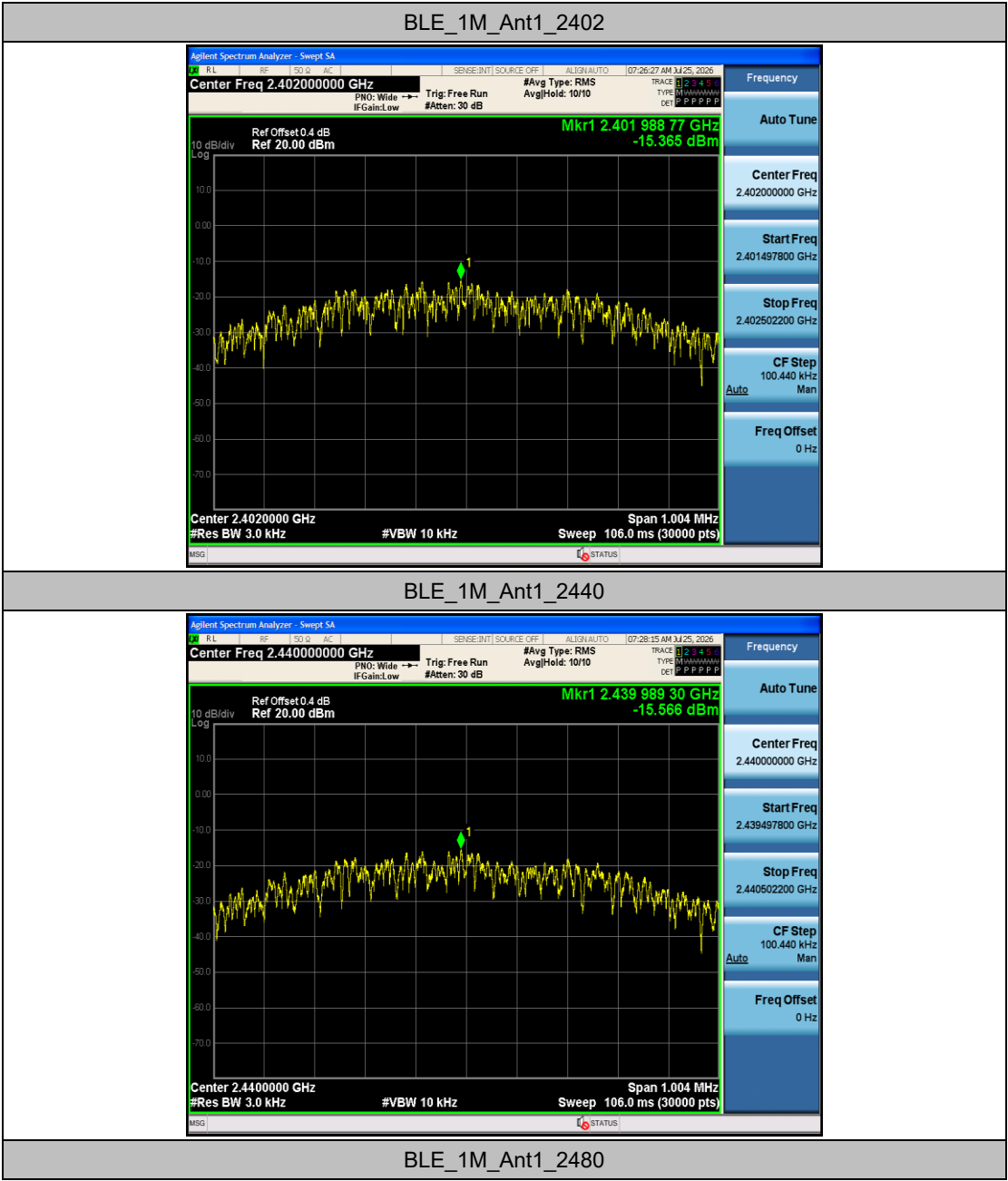
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.10	≤30	PASS
		2440	-0.08	≤30	PASS
		2480	-0.42	≤30	PASS

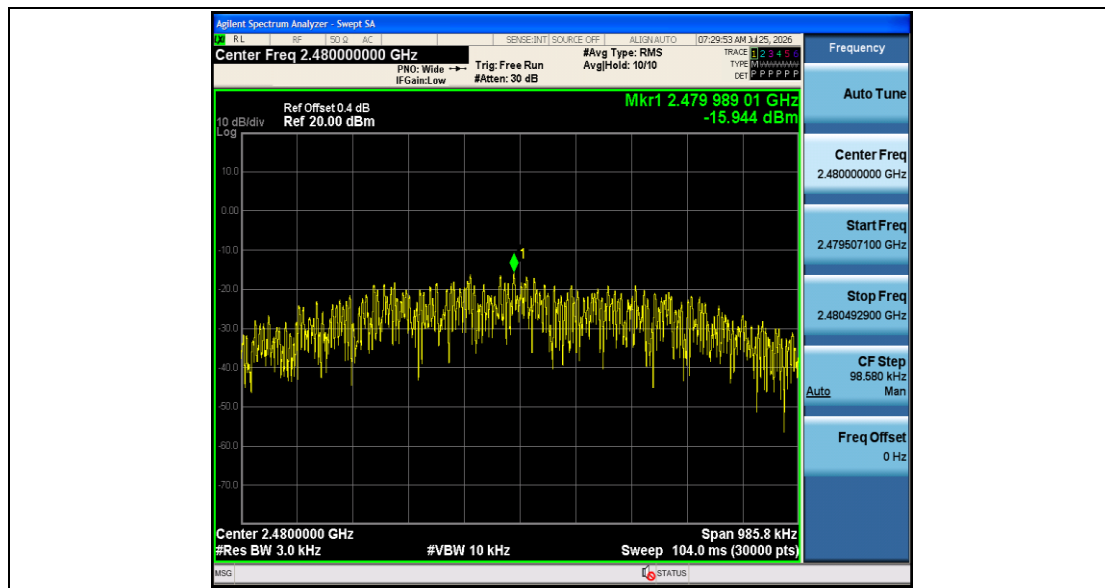
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.37	≤8.00	PASS
		2440	-15.57	≤8.00	PASS
		2480	-15.94	≤8.00	PASS

Test Graphs



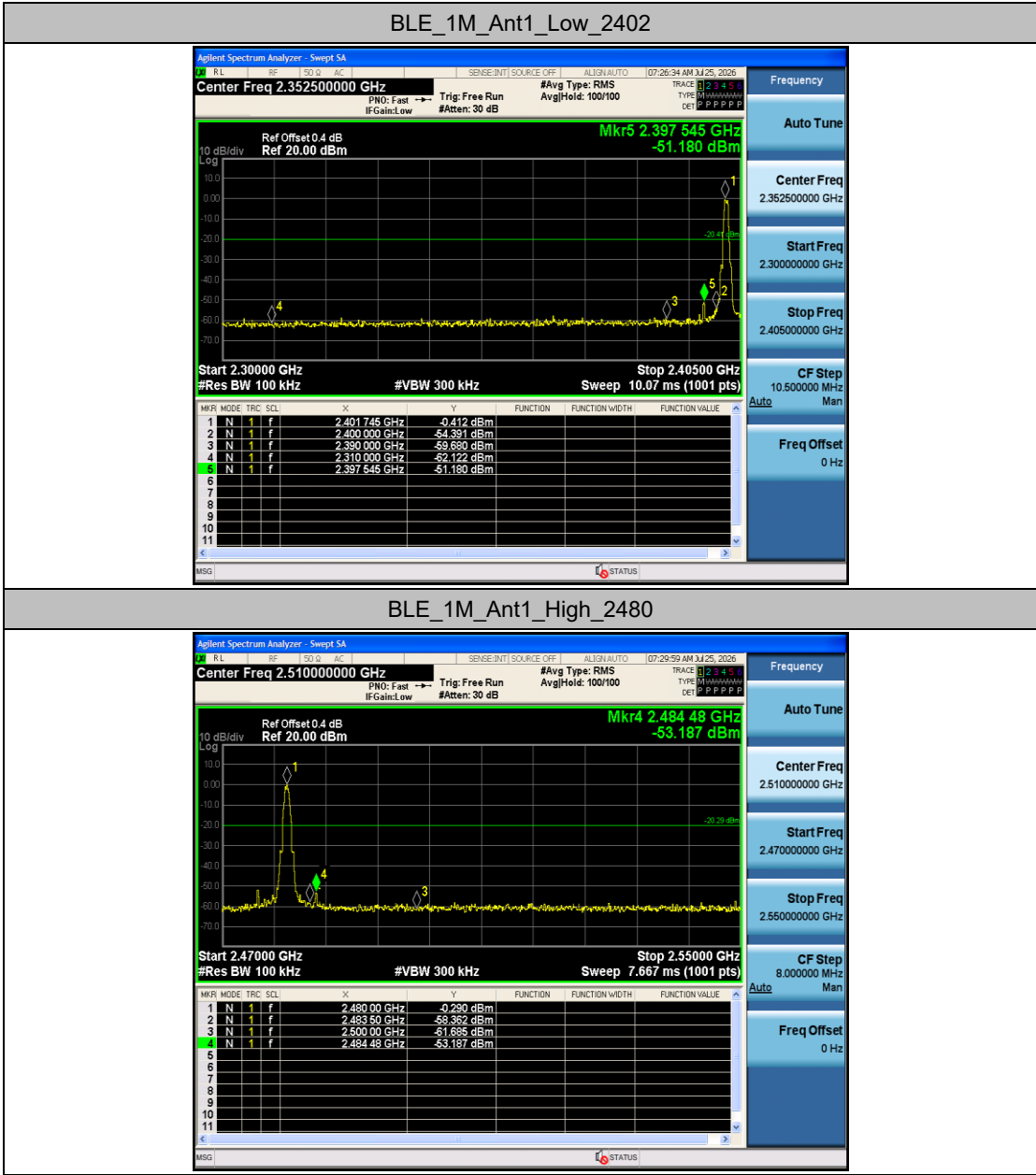


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.41	-51.18	≤-20.41	PASS
		High	2480	-0.29	-53.19	≤-20.29	PASS

Test Graphs

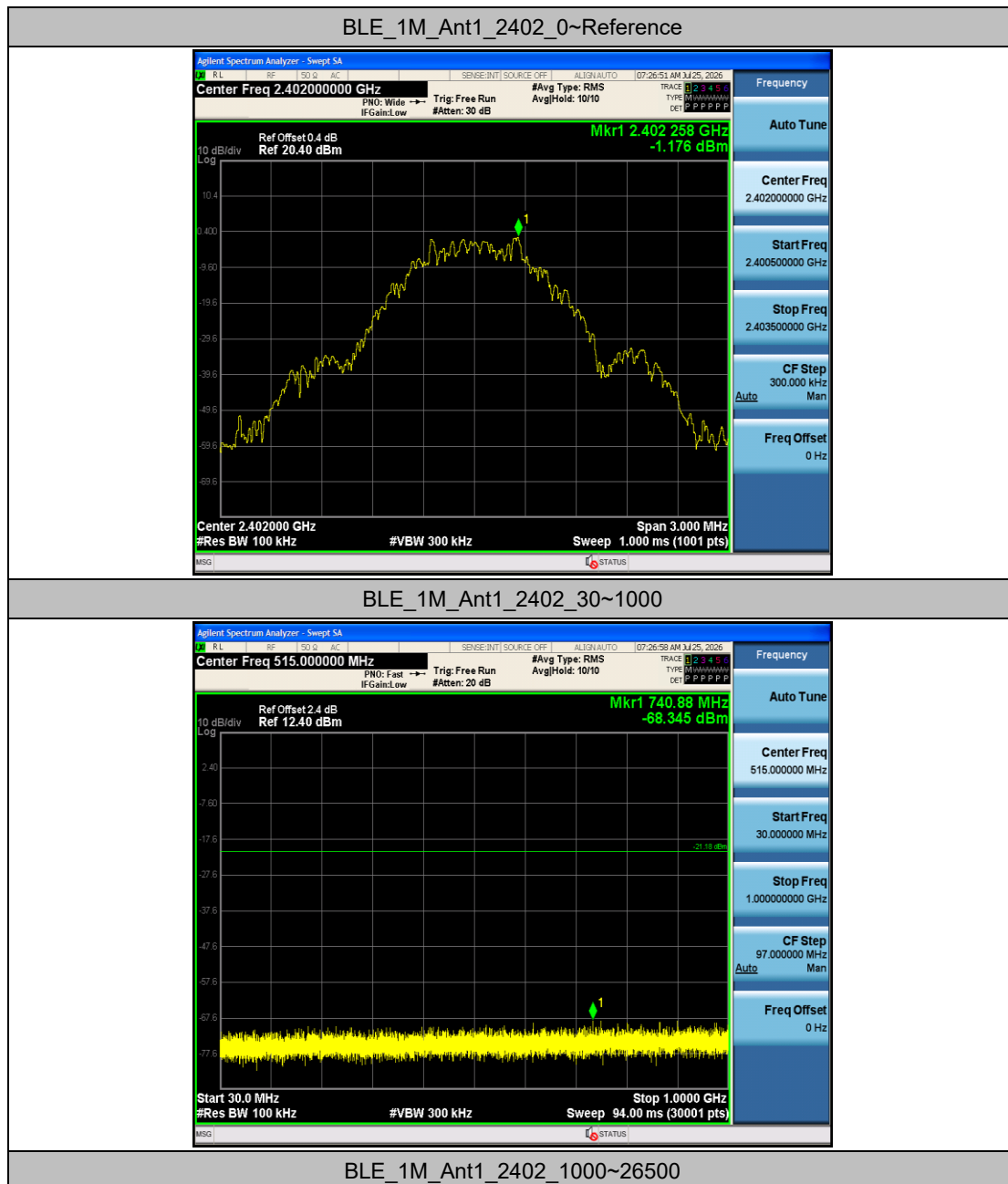


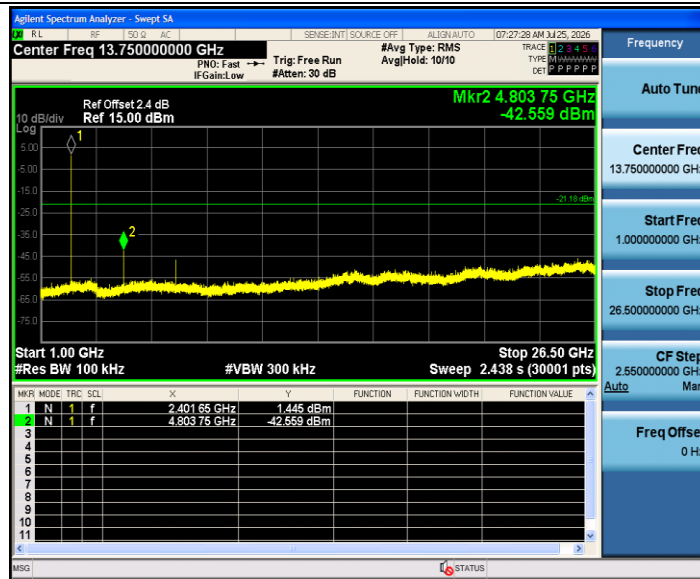
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.18	-1.18	---	PASS
			30~1000	-1.18	-68.35	≤-21.18	PASS
			1000~26500	-1.18	-42.56	≤-21.18	PASS
		2440	Reference	-0.87	-0.87	---	PASS
			30~1000	-0.87	-68.37	≤-20.87	PASS
			1000~26500	-0.87	-43.89	≤-20.87	PASS
		2480	Reference	-0.85	-0.85	---	PASS
			30~1000	-0.85	-68.12	≤-20.85	PASS
			1000~26500	-0.85	-43.78	≤-20.85	PASS

Test Graphs

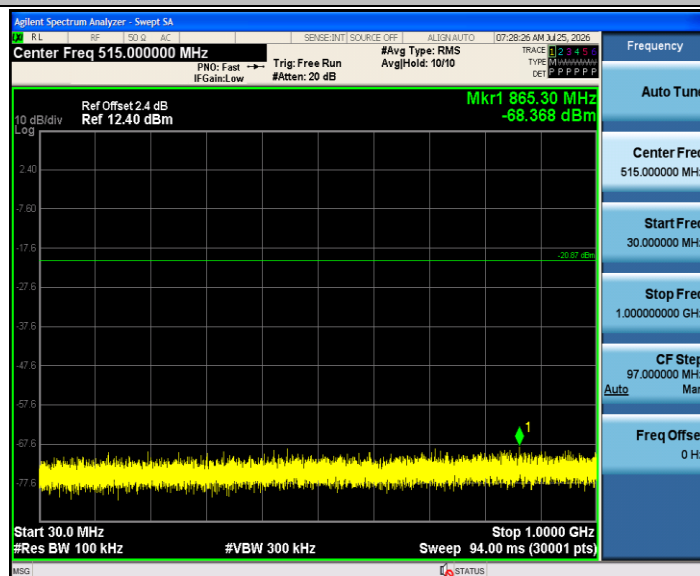




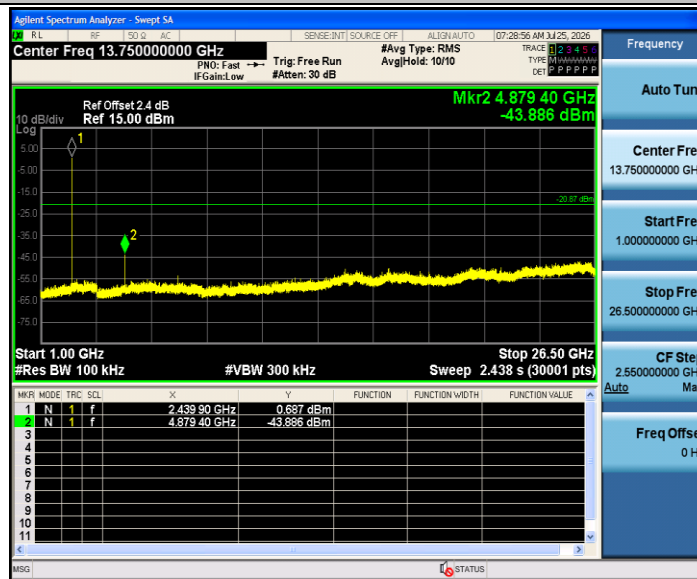
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



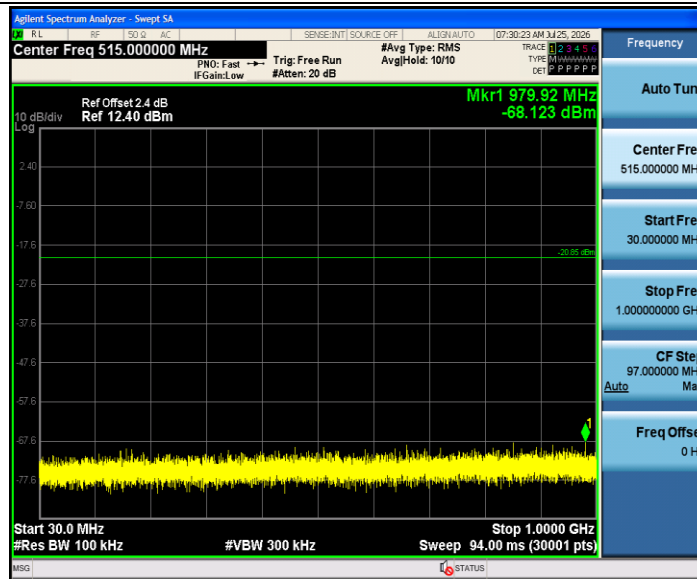
BLE_1M_Ant1_2440_1000~26500



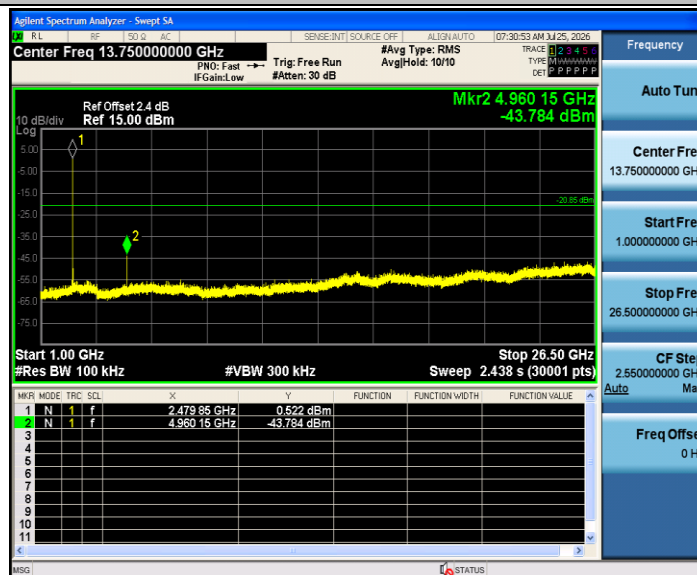
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



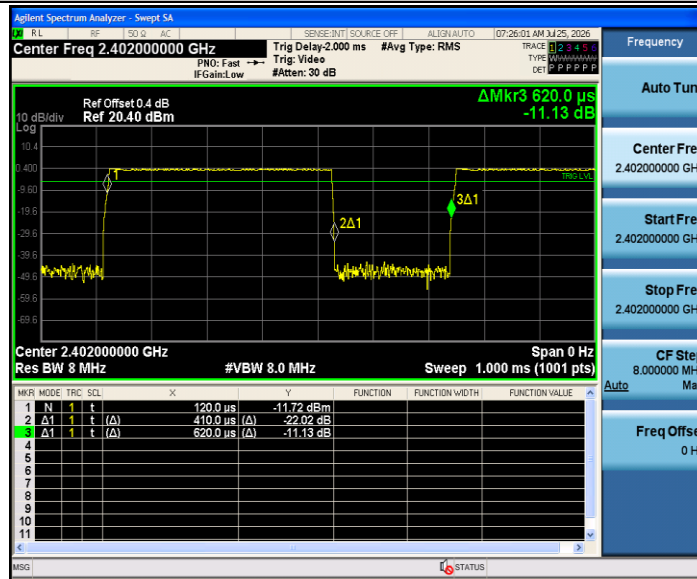
Appendix G: Duty Cycle

Test Result

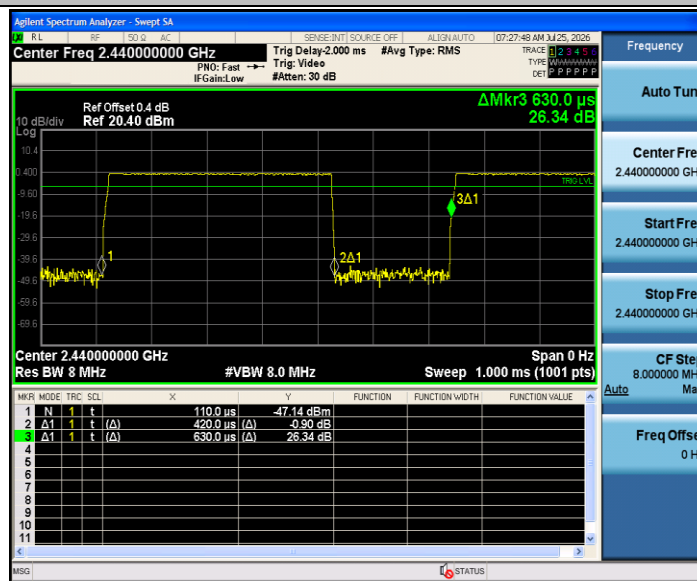
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.41	0.62	0.6613	66.13	1.80	---	---
		2440	0.42	0.63	0.6667	66.67	1.76	---	---
		2480	0.41	0.62	0.6613	66.13	1.80	---	---

Test Graphs

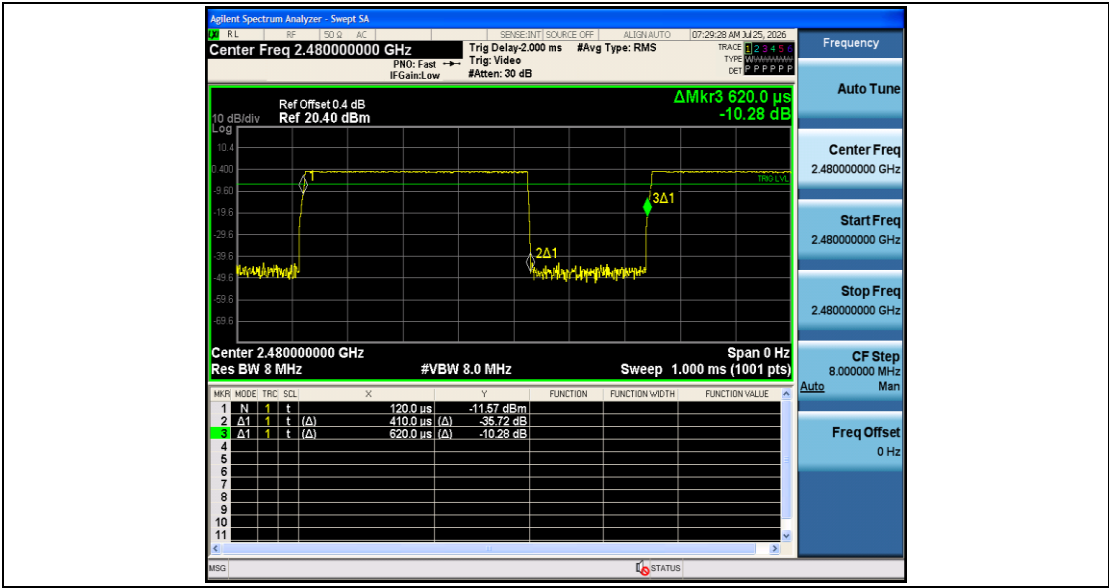
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



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	2402	AV	2310.000	-60.72	2.00	1.80	38.28	≤54	PASS
				AV	2376.335	-59.11	2.00	1.80	39.89	≤54	PASS
				AV	2390.000	-60.08	2.00	1.80	38.92	≤54	PASS
				Peak	2310.000	-52.7	2.00	0.00	44.50	≤74	PASS
				Peak	2380.535	-47.72	2.00	0.00	49.48	≤74	PASS
				Peak	2390.000	-53.12	2.00	0.00	44.08	≤74	PASS
		High	2480	AV	2483.500	-57.9	2.00	1.80	41.10	≤54	PASS
				AV	2484.640	-57.69	2.00	1.80	41.31	≤54	PASS
				AV	2500.000	-59.22	2.00	1.80	39.78	≤54	PASS
				Peak	2483.500	-50.23	2.00	0.00	46.97	≤74	PASS
				Peak	2484.480	-43.19	2.00	0.00	54.01	≤74	PASS
				Peak	2500.000	-52.37	2.00	0.00	44.83	≤74	PASS

Note:

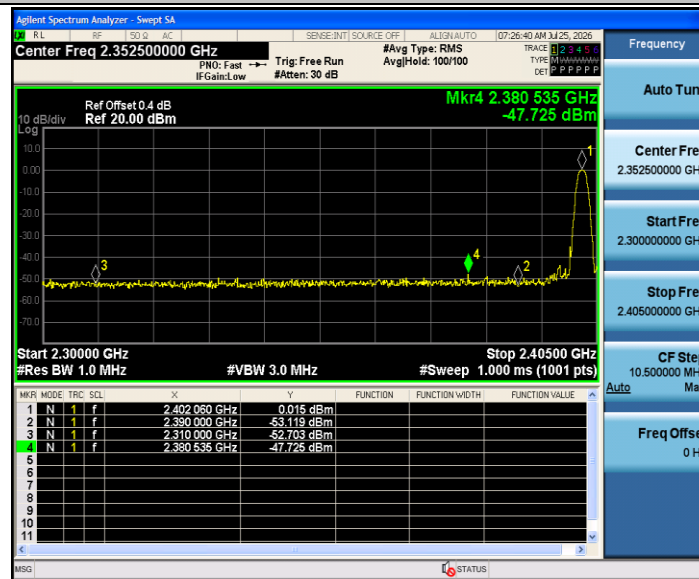
1. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

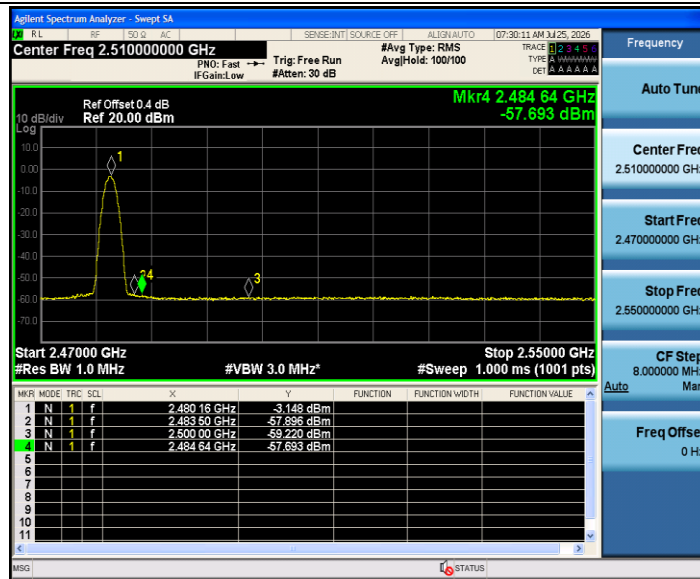
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

