

FCC Appendix RF Test Data for BT

FCC ID : 2BWV4-R1

Company : Rooyee Technology Limited

EUT : Smart Wireless Full Body Red Light Therapy Mat

Model Number : R1

Report No. : CTA26062301301

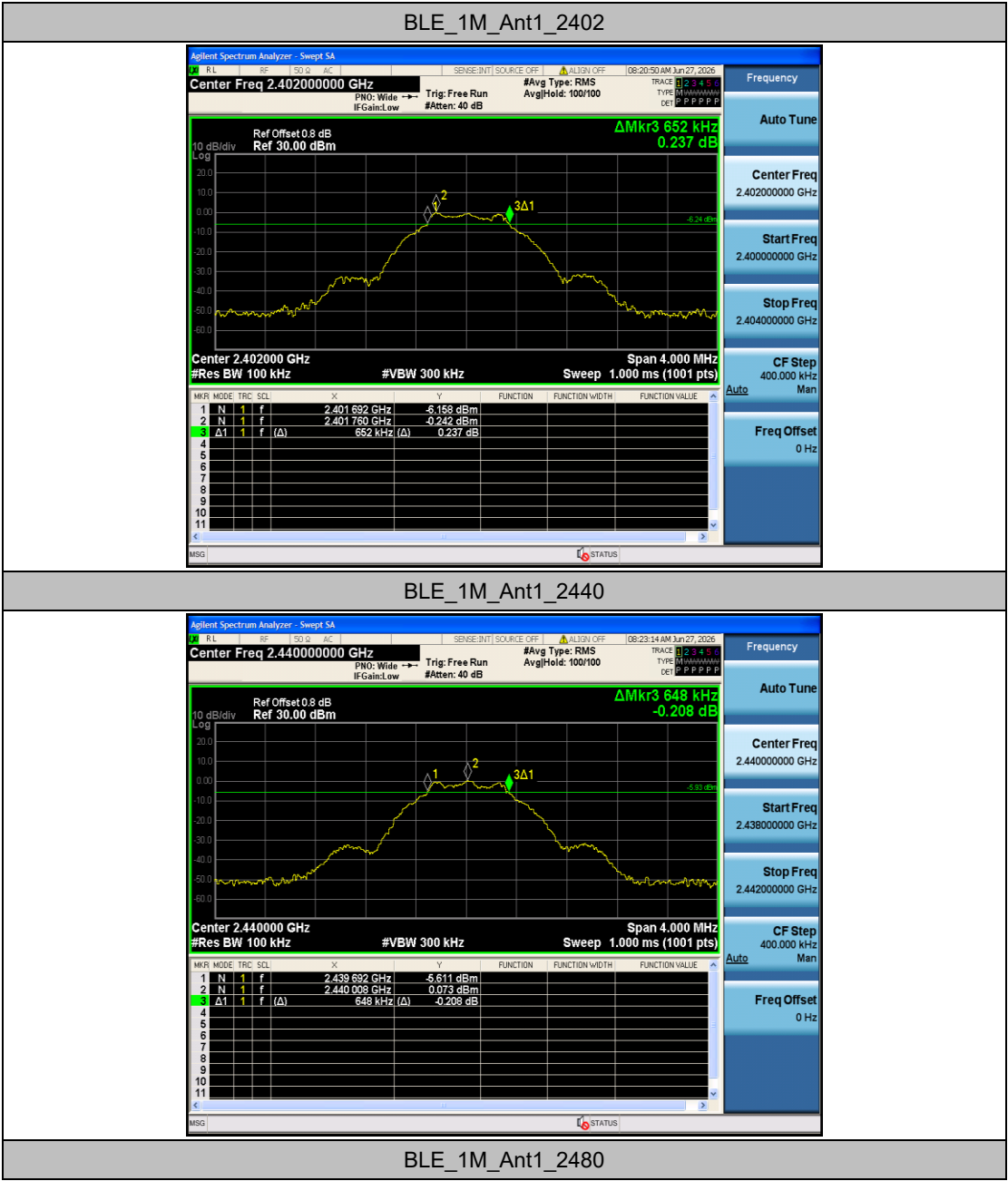
Reviewed By : Eric Wang

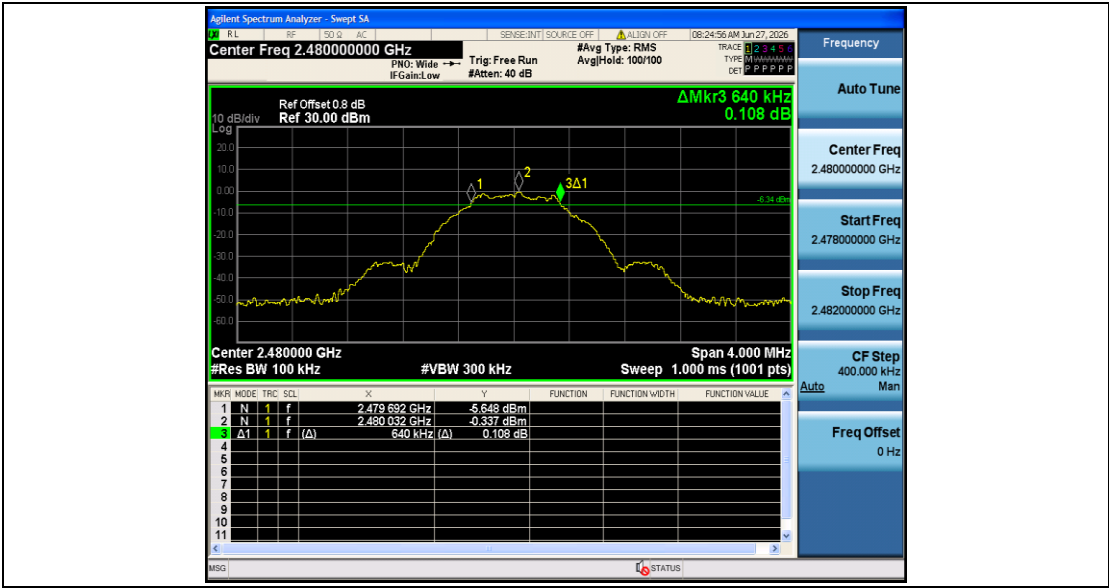
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.652	2401.692	2402.344	0.5	PASS
		2440	0.648	2439.692	2440.340	0.5	PASS
		2480	0.640	2479.692	2480.332	0.5	PASS

Test Graphs



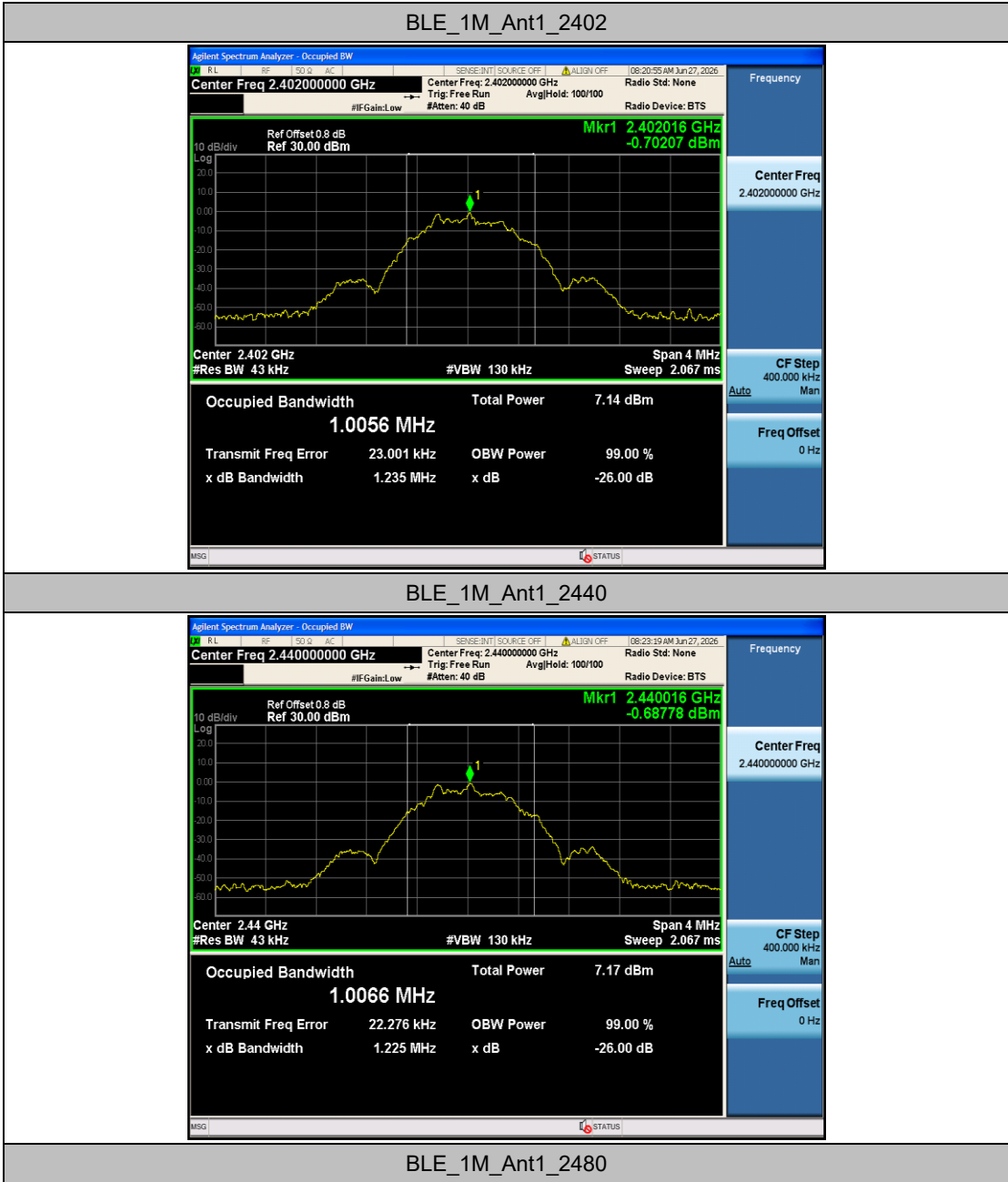


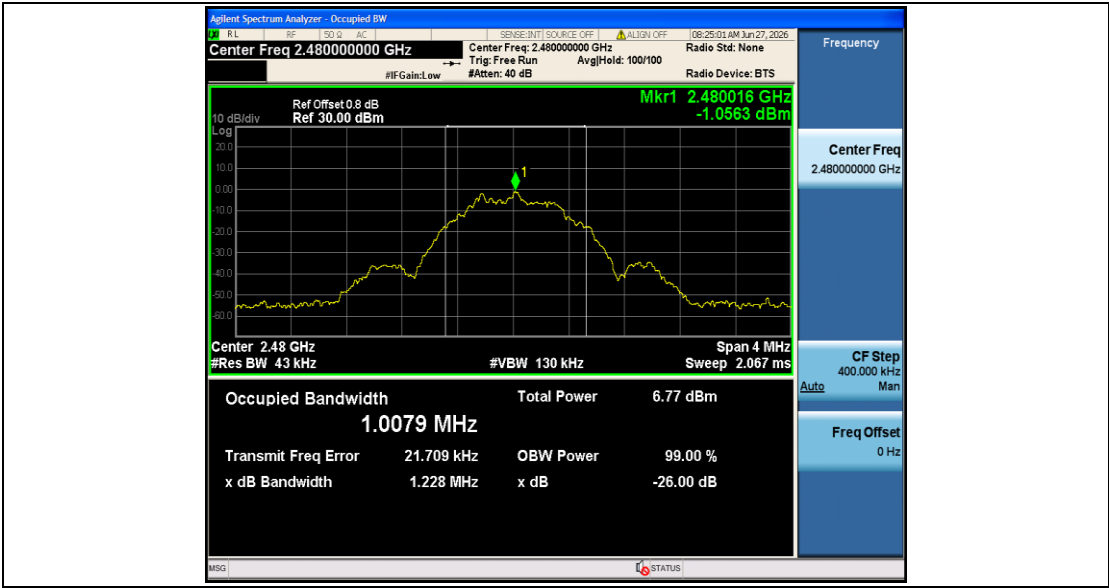
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0056	2401.5202	2402.5258	---	---
		2440	1.0066	2439.5190	2440.5256	---	---
		2480	1.0079	2479.5178	2480.5257	---	---

Test Graphs





Appendix C: Maximum conducted output power

Test Result

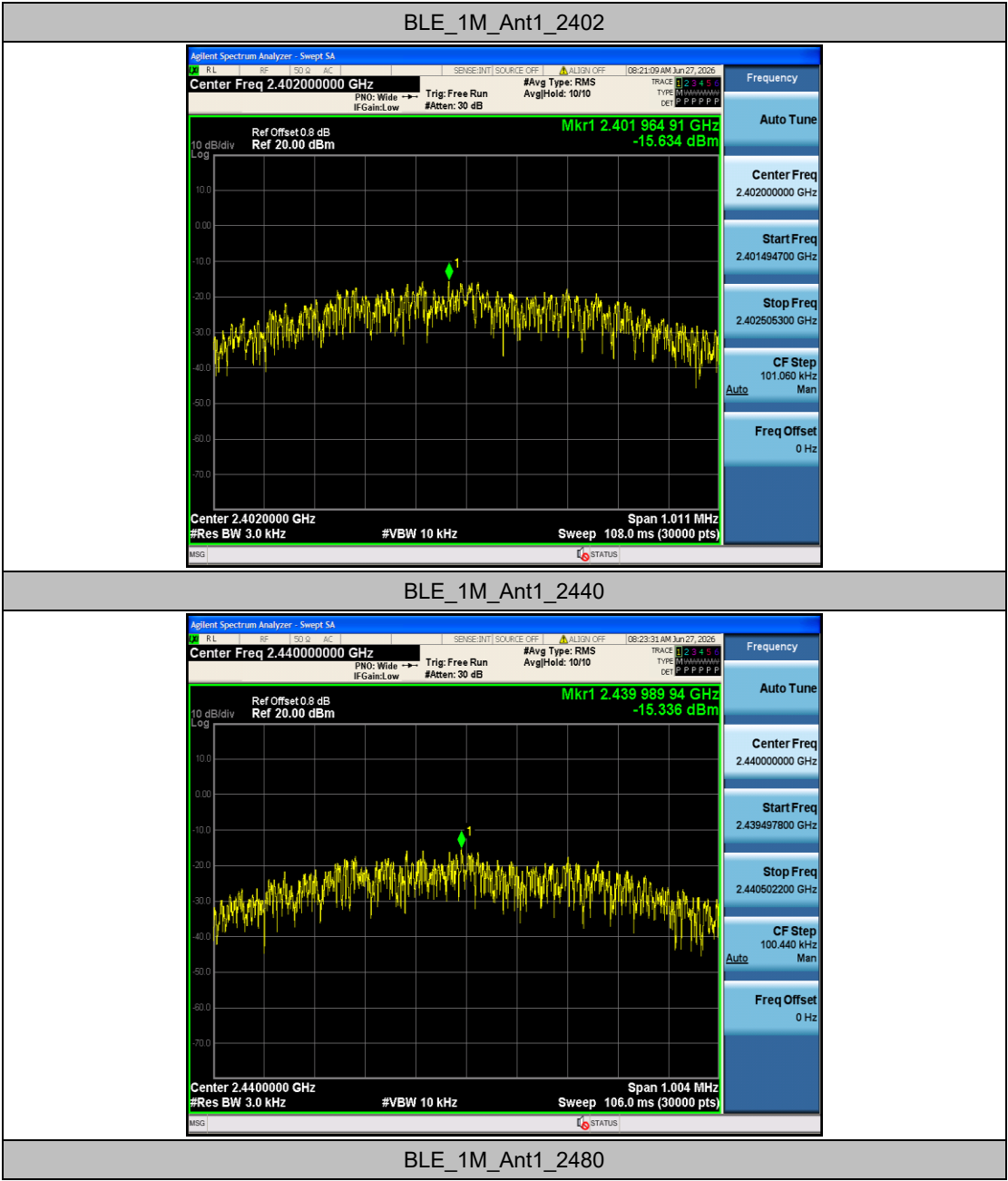
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.38	≤30	PASS
		2440	0.30	≤30	PASS
		2480	0.01	≤30	PASS

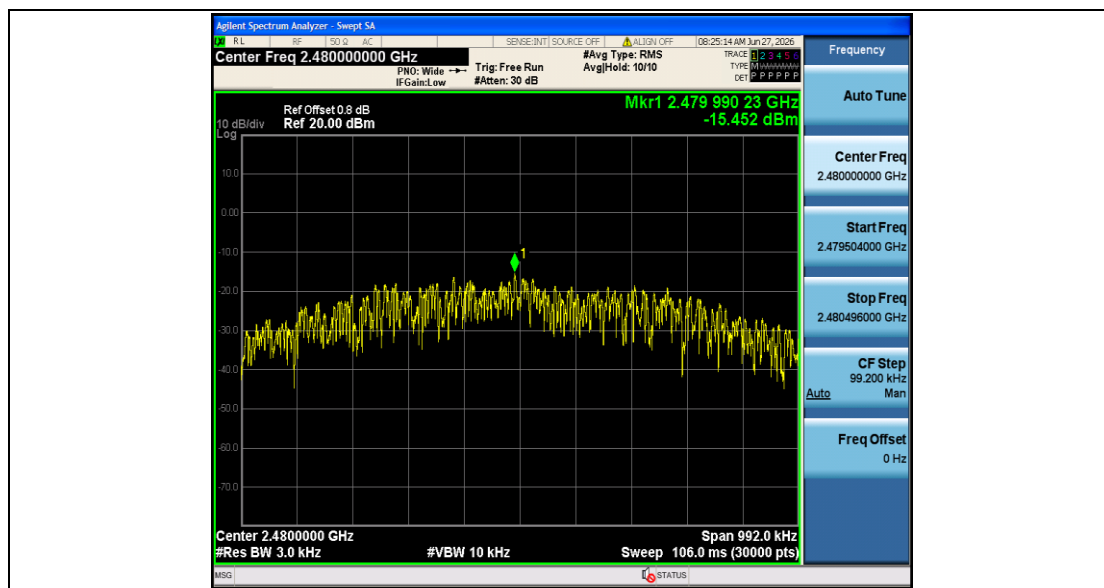
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.63	≤8.00	PASS
		2440	-15.34	≤8.00	PASS
		2480	-15.45	≤8.00	PASS

Test Graphs



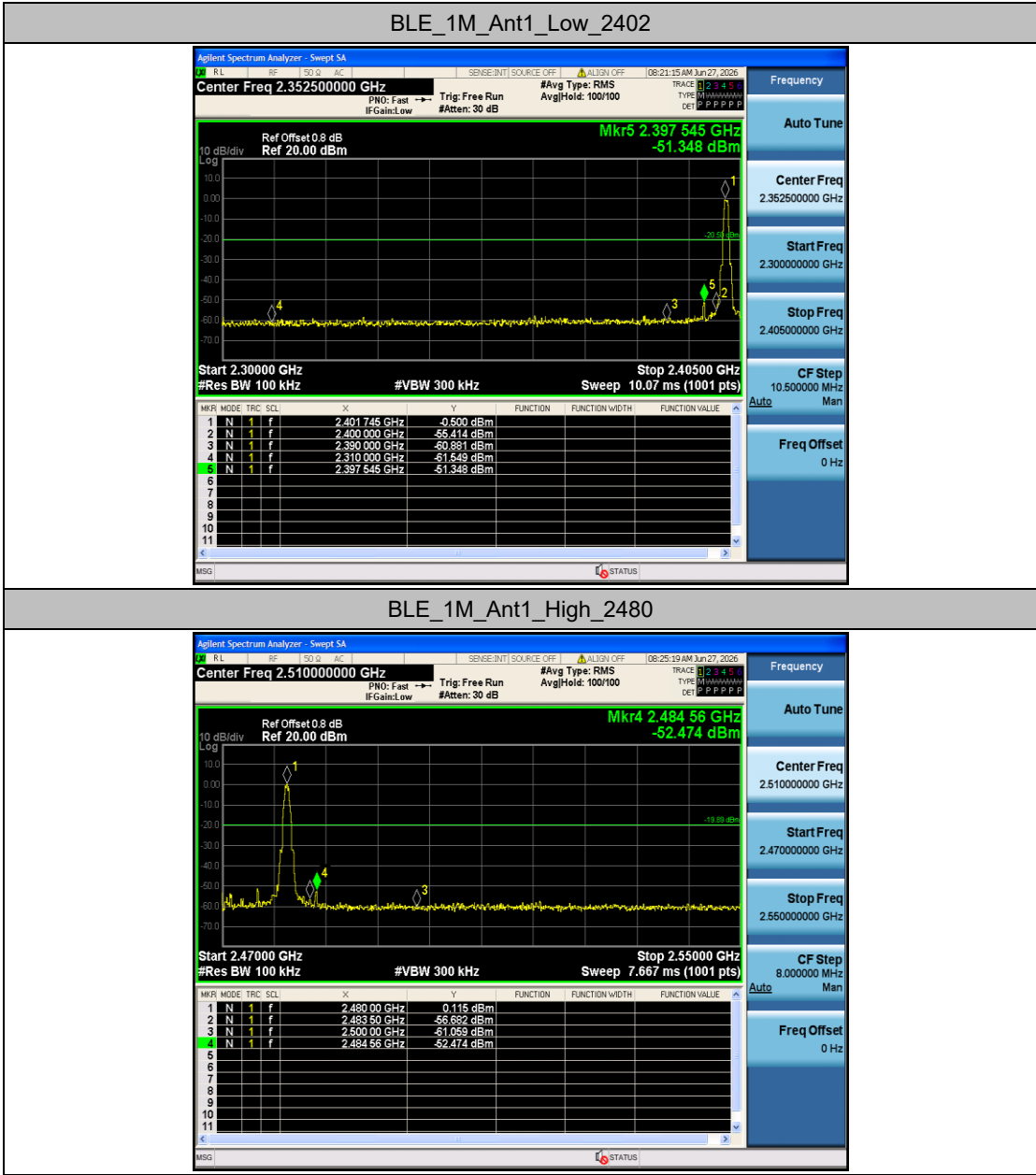


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.50	-51.35	≤-20.5	PASS
		High	2480	0.12	-52.47	≤-19.89	PASS

Test Graphs

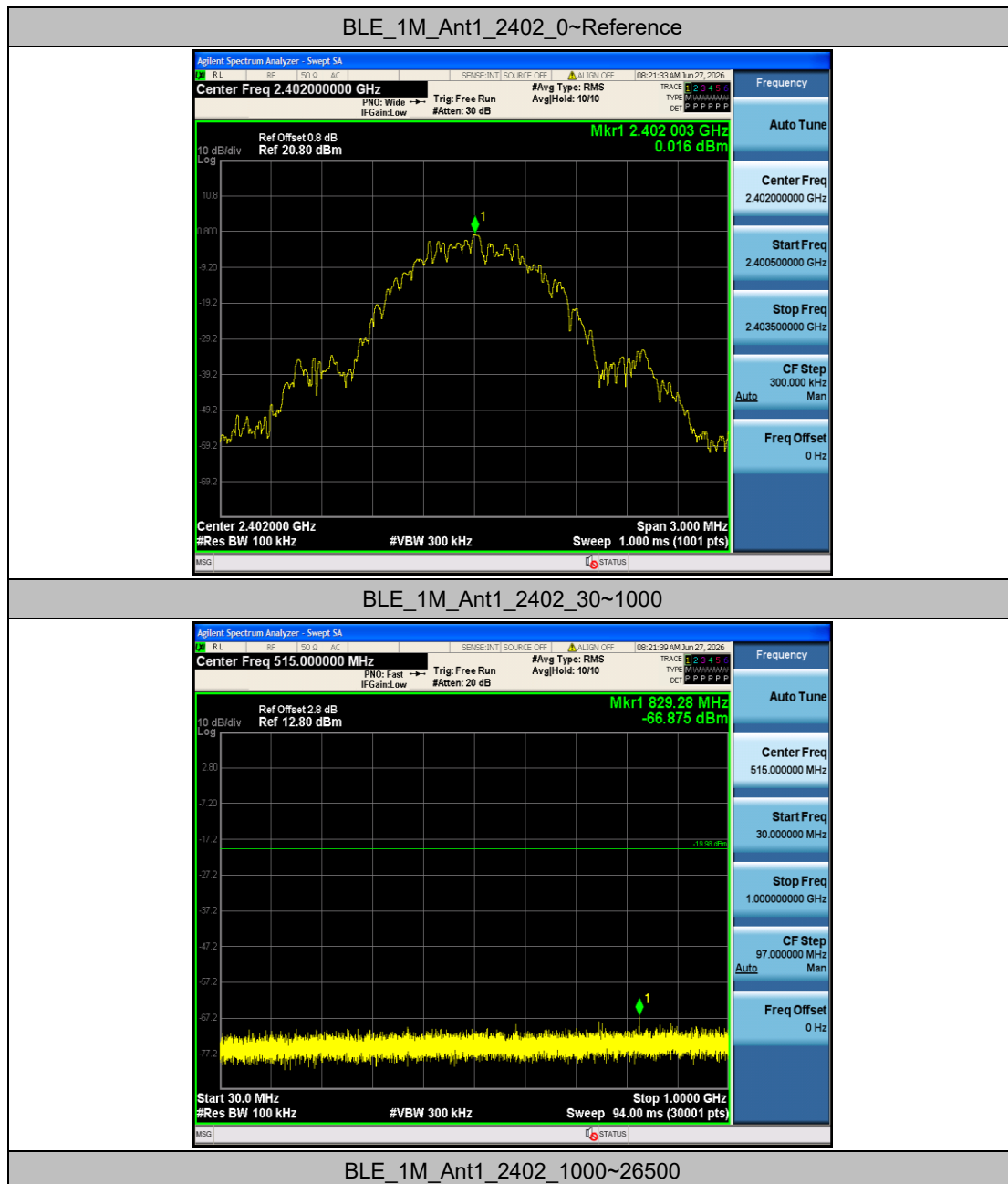


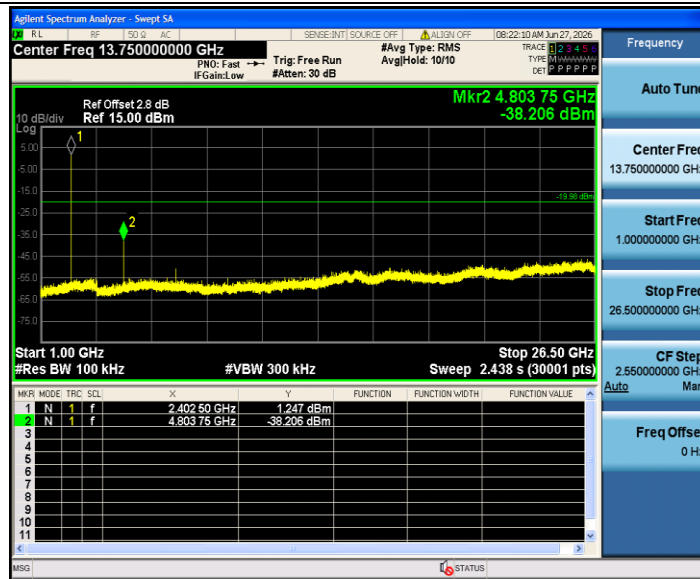
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.02	0.02	---	PASS
			30~1000	0.02	-66.88	≤-19.98	PASS
			1000~26500	0.02	-38.21	≤-19.98	PASS
		2440	Reference	0.07	0.07	---	PASS
			30~1000	0.07	-68.8	≤-19.93	PASS
			1000~26500	0.07	-41.31	≤-19.93	PASS
		2480	Reference	-1.27	-1.27	---	PASS
			30~1000	-1.27	-68.84	≤-21.27	PASS
			1000~26500	-1.27	-42.16	≤-21.27	PASS

Test Graphs

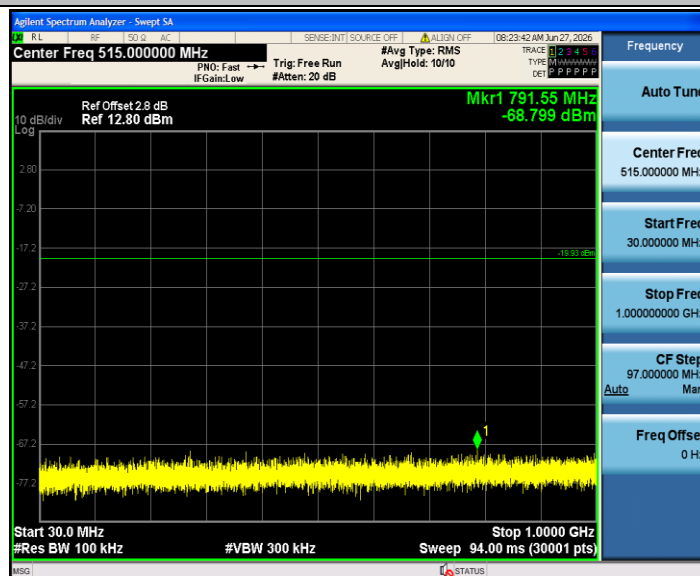




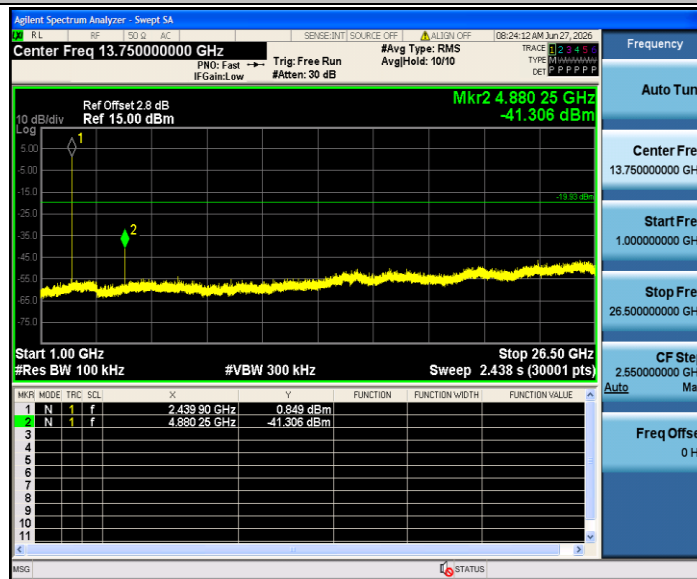
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



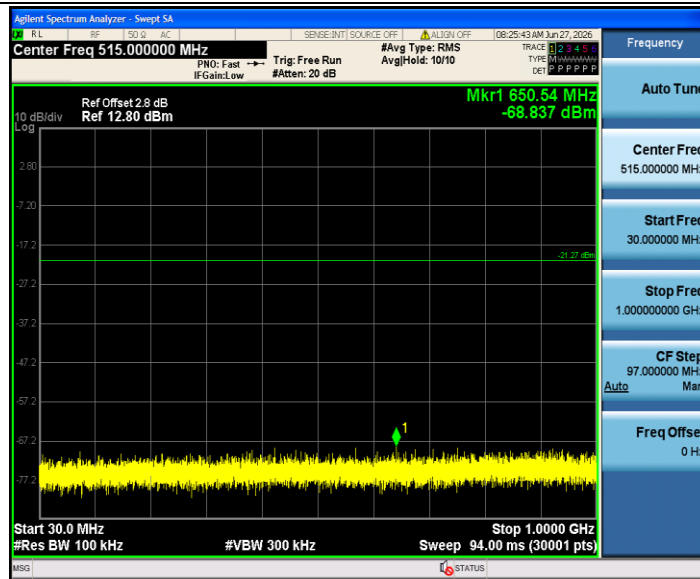
BLE_1M_Ant1_2440_1000~26500



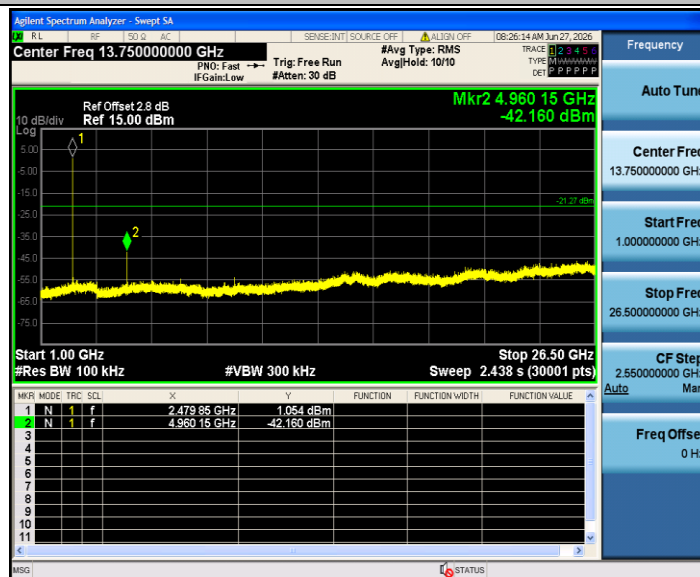
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

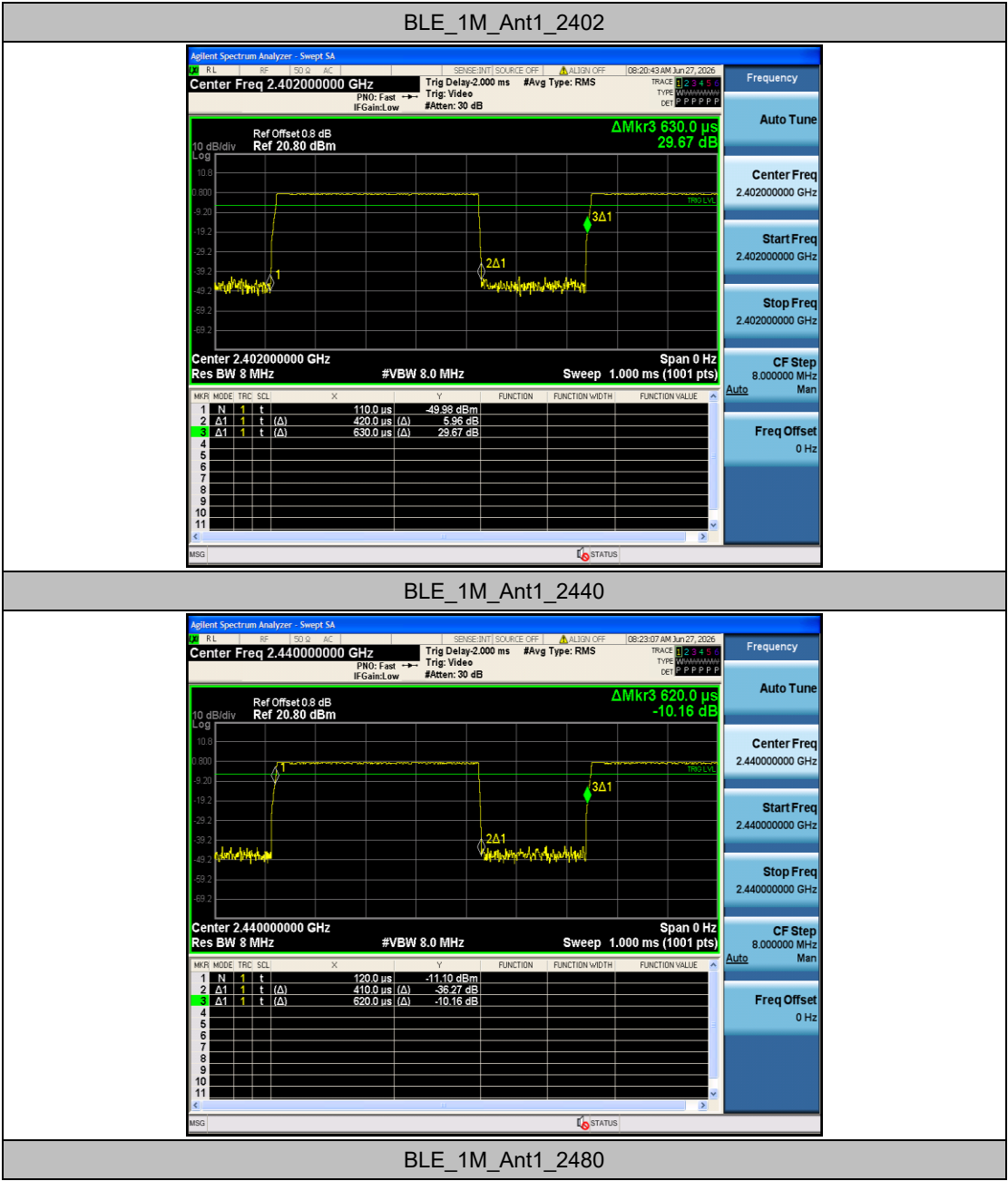


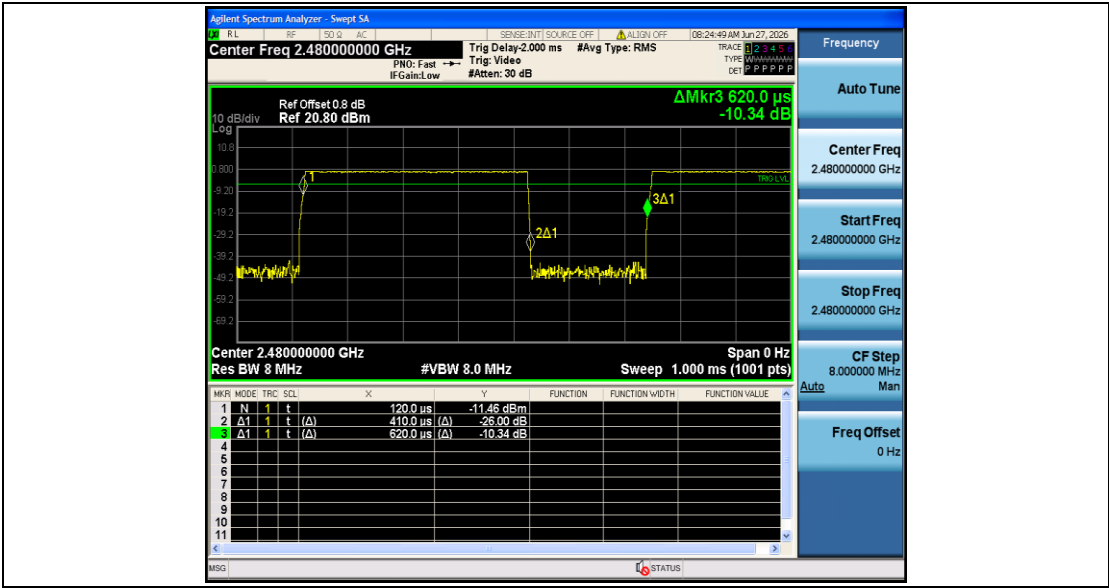
Appendix G: Duty Cycle

Test Result

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

Test Graphs





Appendix H: Emissions in Restricted Bands

Test Result

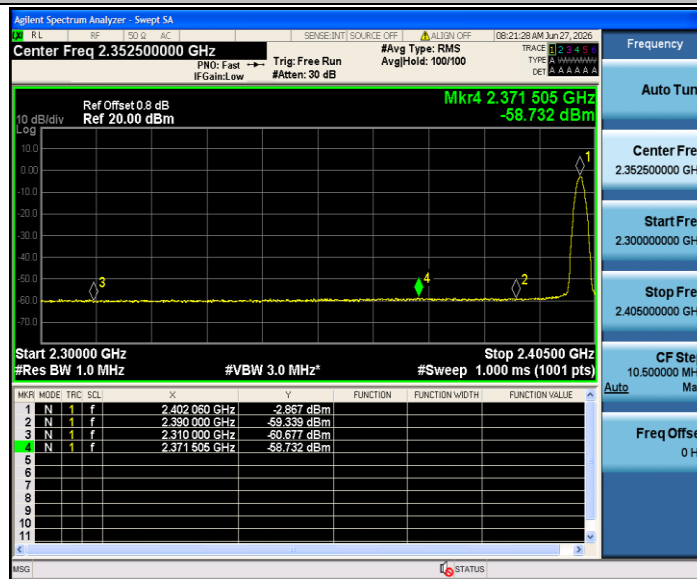
TestMode	Antenna	Channel Name	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.68	2.00	1.76	38.28	≤54	PASS
				AV	2371.505	-58.73	2.00	1.76	40.23	≤54	PASS
				AV	2390.000	-59.34	2.00	1.76	39.62	≤54	PASS
				Peak	2310.000	-51.78	2.00	0.00	45.42	≤74	PASS
				Peak	2389.460	-48.39	2.00	0.00	48.81	≤74	PASS
				Peak	2390.000	-50.96	2.00	0.00	46.24	≤74	PASS
		High	2480	AV	2483.500	-57.7	2.00	1.80	41.30	≤54	PASS
				AV	2484.000	-57.02	2.00	1.80	41.98	≤54	PASS
				AV	2500.000	-59.41	2.00	1.80	39.59	≤54	PASS
				Peak	2483.500	-49.28	2.00	0.00	47.92	≤74	PASS
				Peak	2486.080	-45.33	2.00	0.00	51.87	≤74	PASS
				Peak	2500.000	-51.18	2.00	0.00	46.02	≤74	PASS

Note:

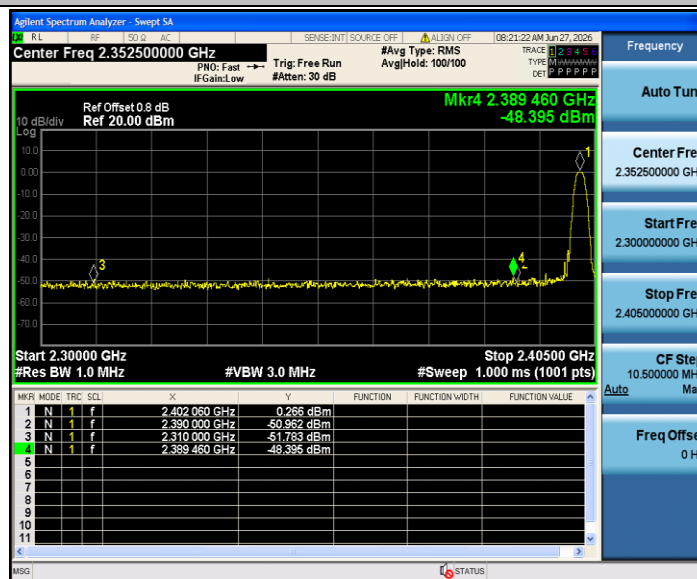
1. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

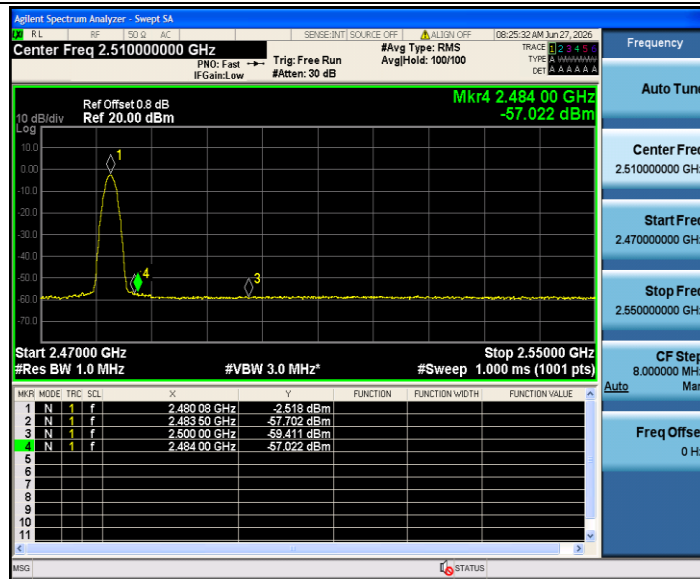
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

