

FCC Appendix RF Test Data for BLE

FCC ID : 2A98M-PM2400SE

Company : Shenzhen Doke Communication Co.,Ltd

EUT : Portable Power Station

Model Number : PowerMax 2400 SE

Report No. : CTA26042701901

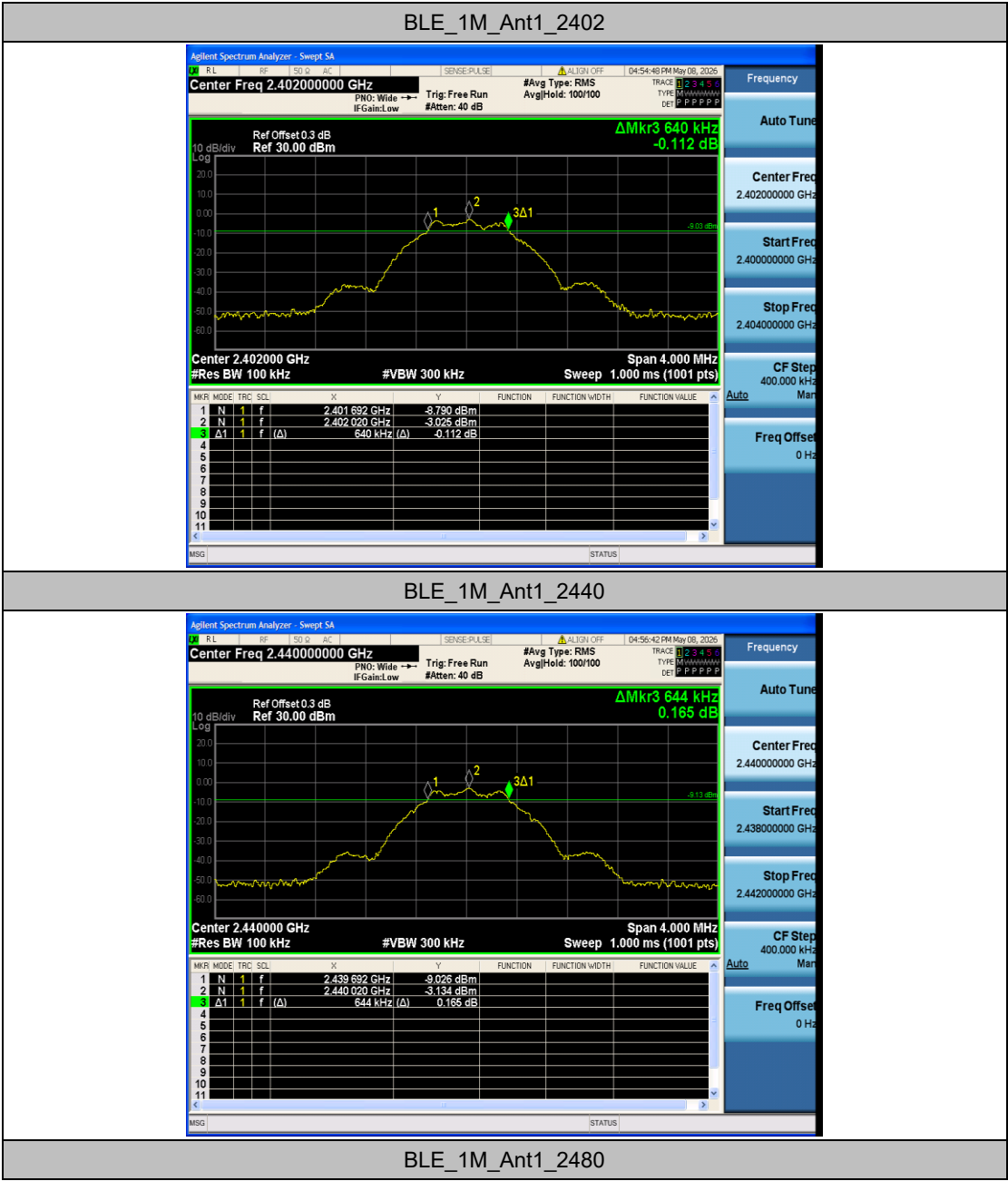
Reviewed By : Eric Wang

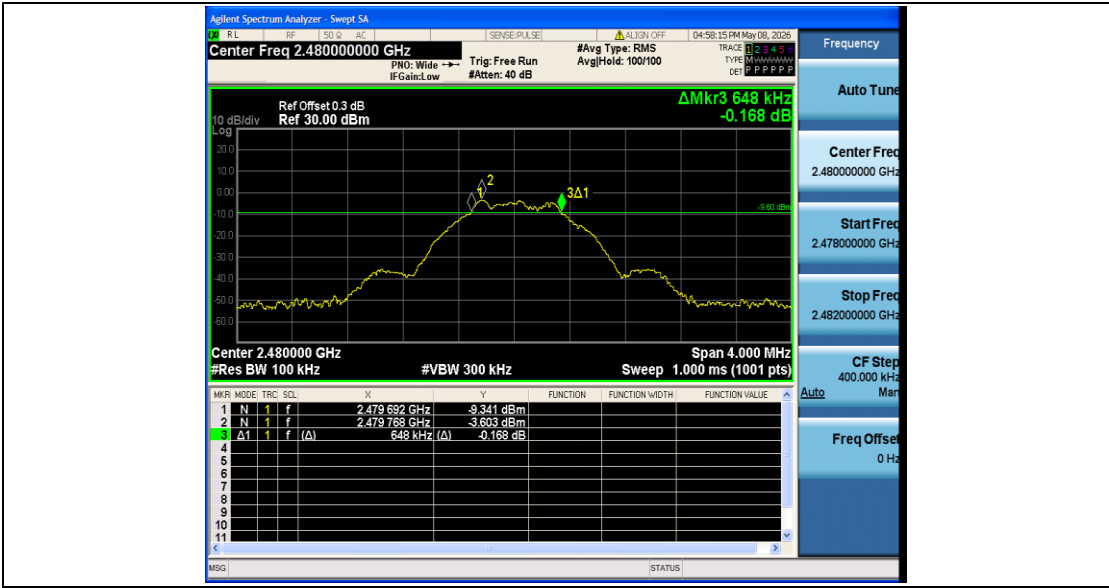
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.640	2401.692	2402.332	0.5	PASS
		2440	0.644	2439.692	2440.336	0.5	PASS
		2480	0.648	2479.692	2480.340	0.5	PASS

Test Graphs



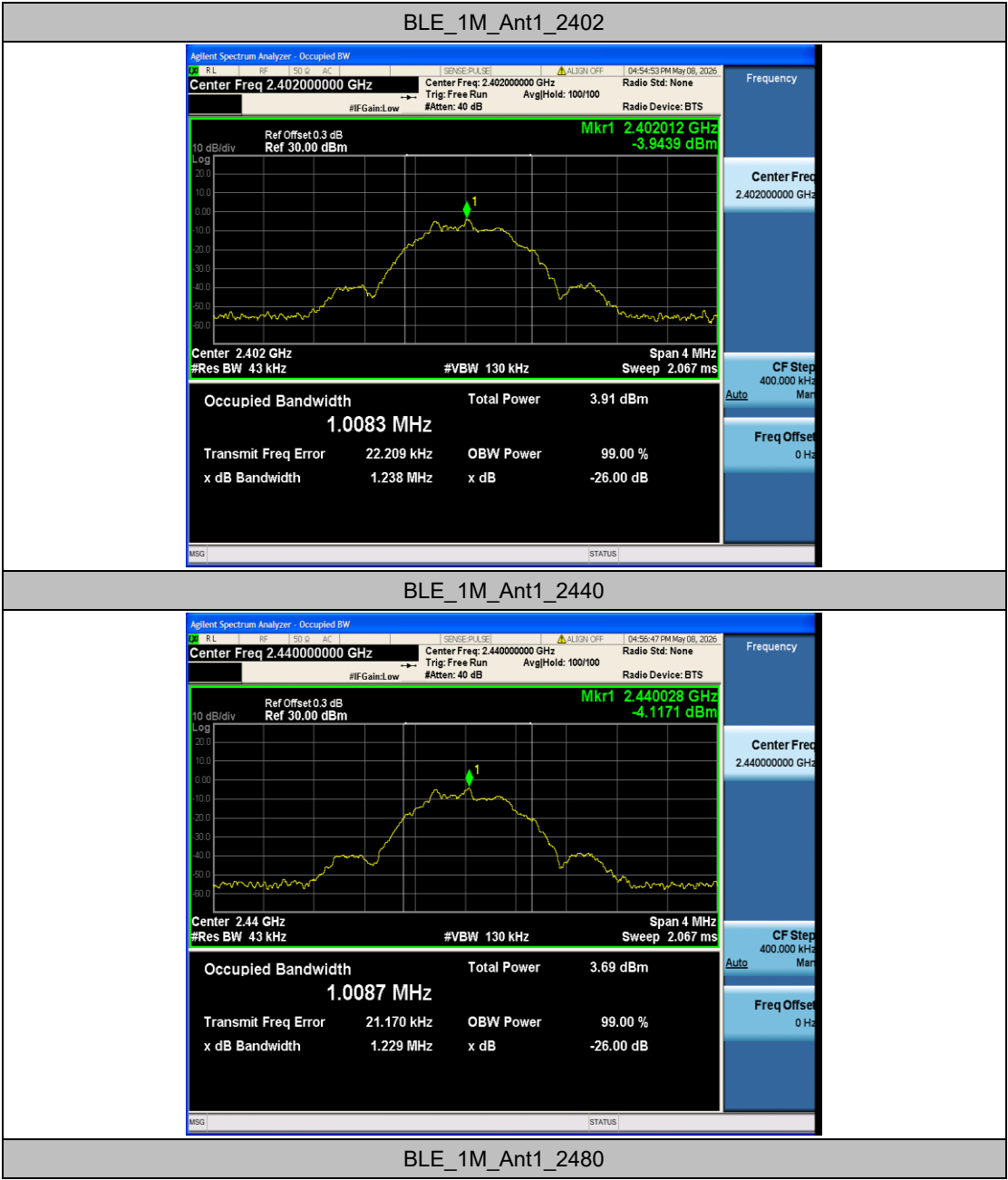


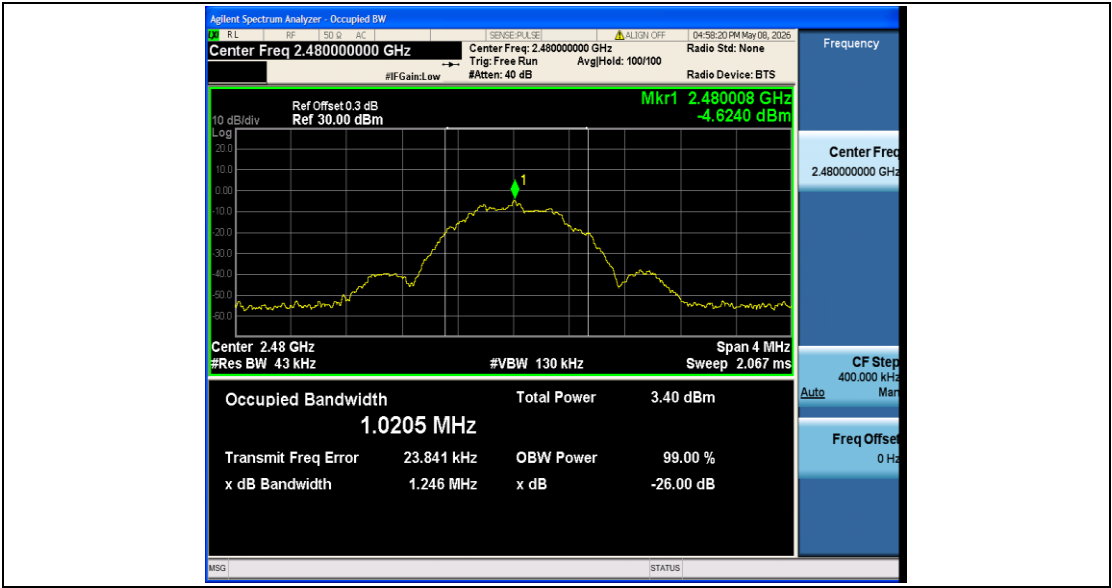
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0083	2401.5181	2402.5264	---	---
		2440	1.0087	2439.5168	2440.5255	---	---
		2480	1.0205	2479.5136	2480.5341	---	---

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	-2.80	≤30	PASS
		2440	-2.90	≤30	PASS
		2480	-2.89	≤30	PASS

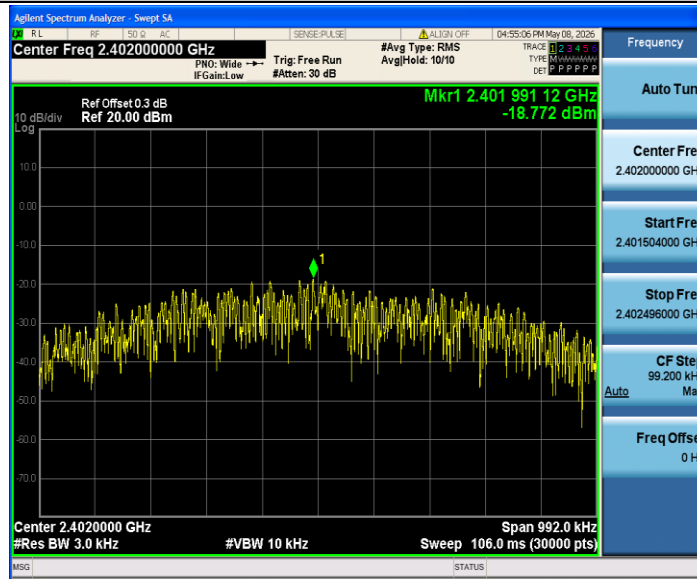
Appendix D: Maximum power spectral density

Test Result

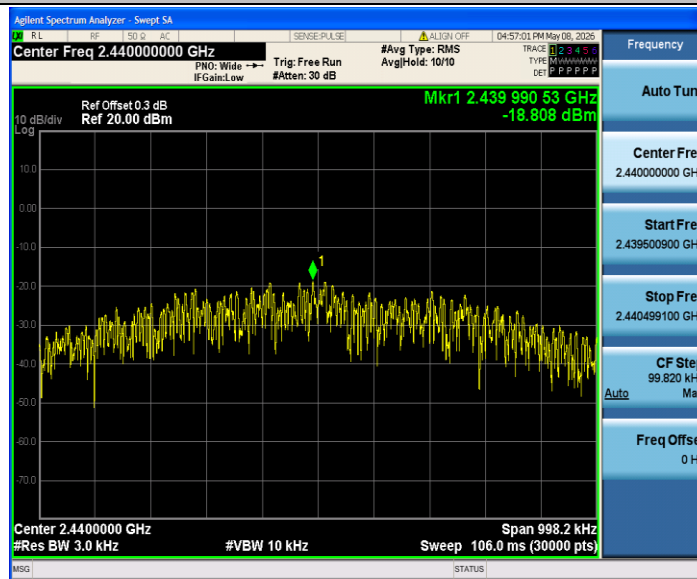
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.77	≤8.00	PASS
		2440	-18.81	≤8.00	PASS
		2480	-18.59	≤8.00	PASS

Test Graphs

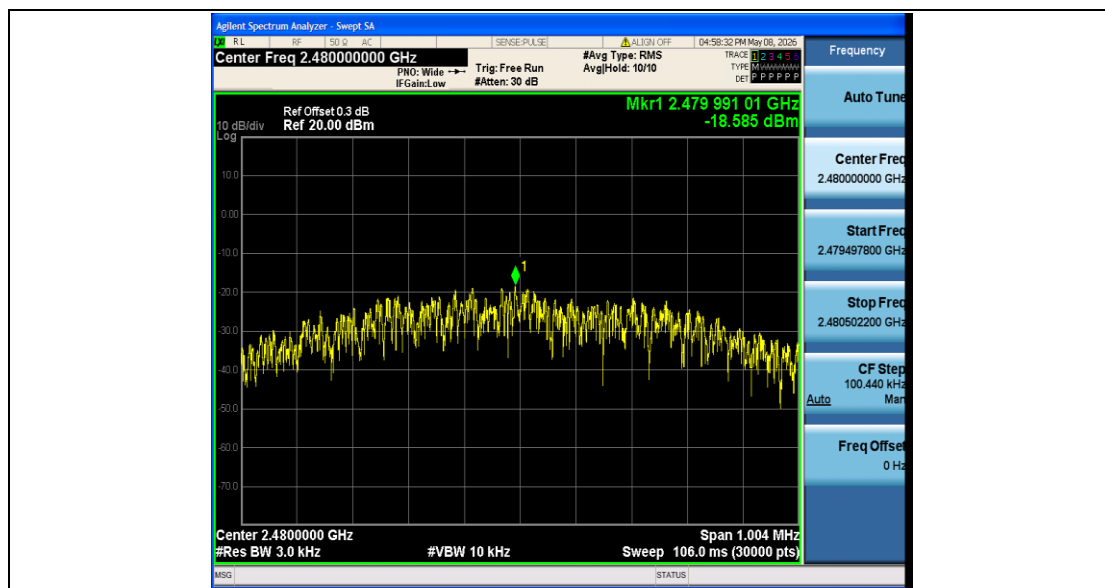
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

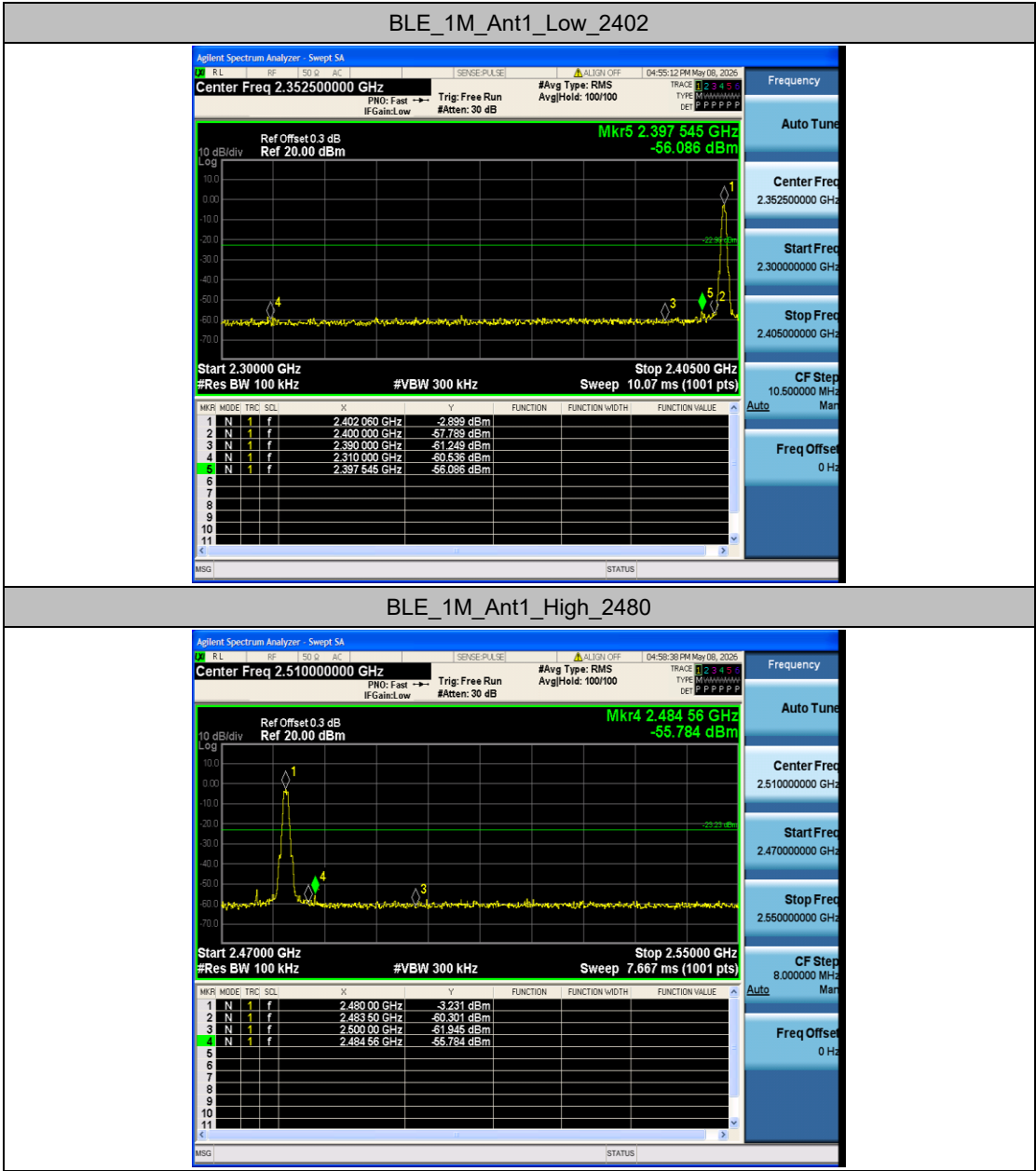


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-2.90	-56.09	≤-22.9	PASS
		High	2480	-3.23	-55.78	≤-23.23	PASS

Test Graphs

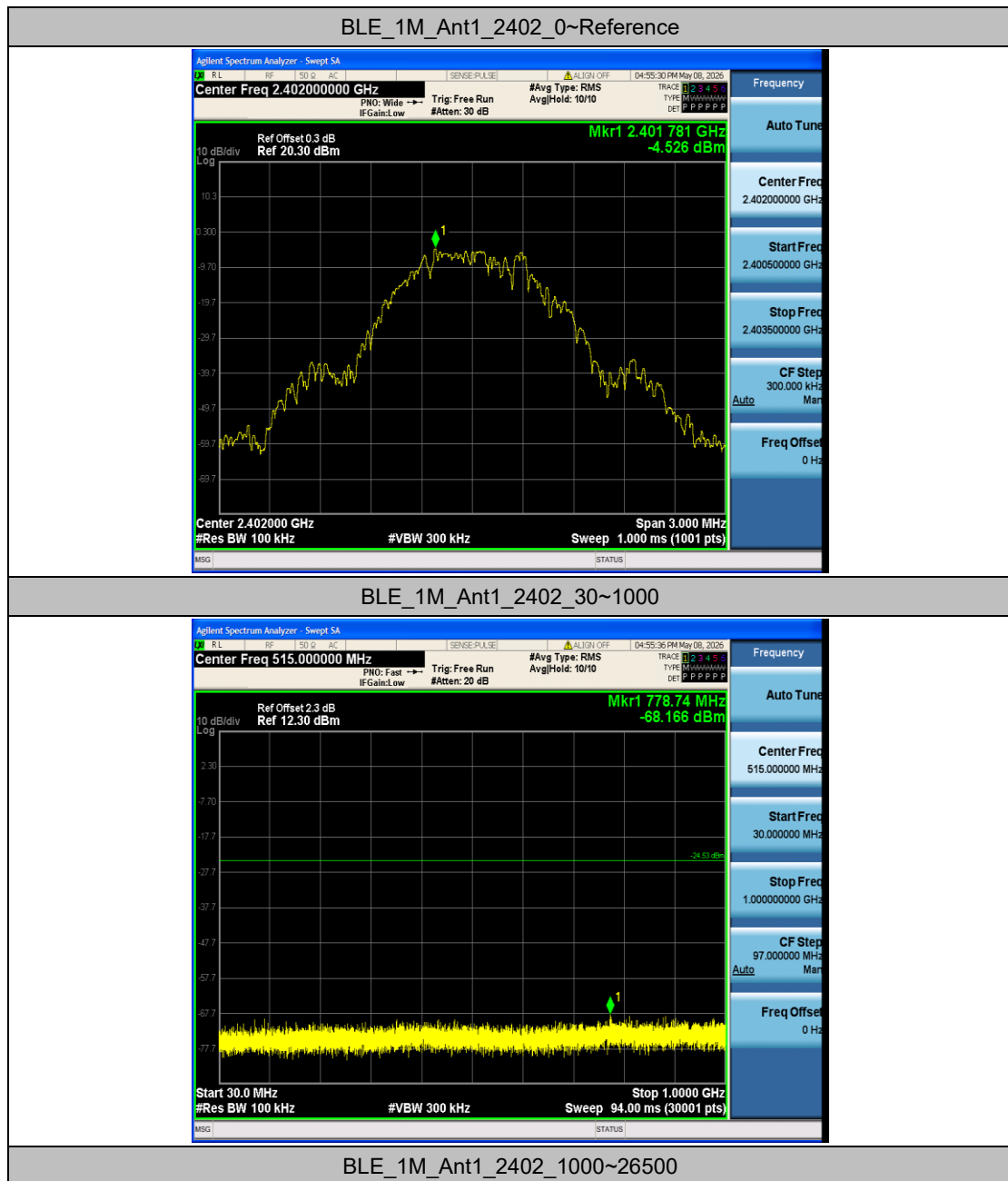


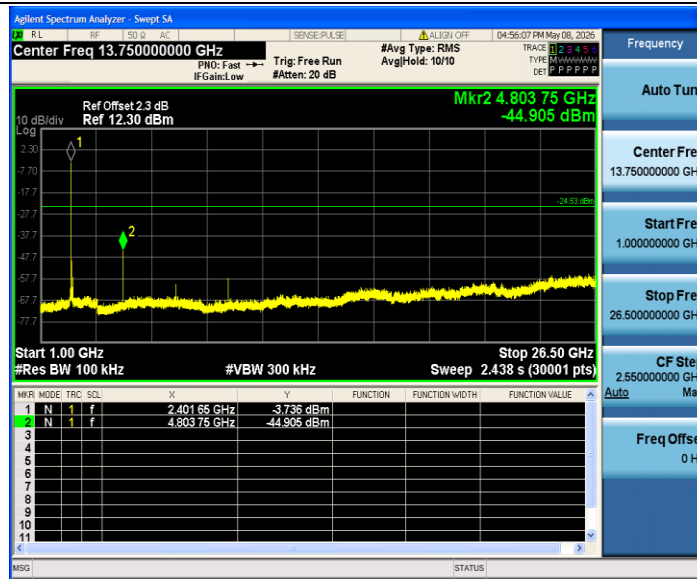
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.53	-4.53	---	PASS
			30~1000	-4.53	-68.17	≤-24.53	PASS
			1000~26500	-4.53	-44.91	≤-24.53	PASS
		2440	Reference	-3.74	-3.74	---	PASS
			30~1000	-3.74	-53.52	≤-23.74	PASS
			1000~26500	-3.74	-44.35	≤-23.74	PASS
		2480	Reference	-3.12	-3.12	---	PASS
			30~1000	-3.12	-67.26	≤-23.12	PASS
			1000~26500	-3.12	-44.79	≤-23.12	PASS

Test Graphs

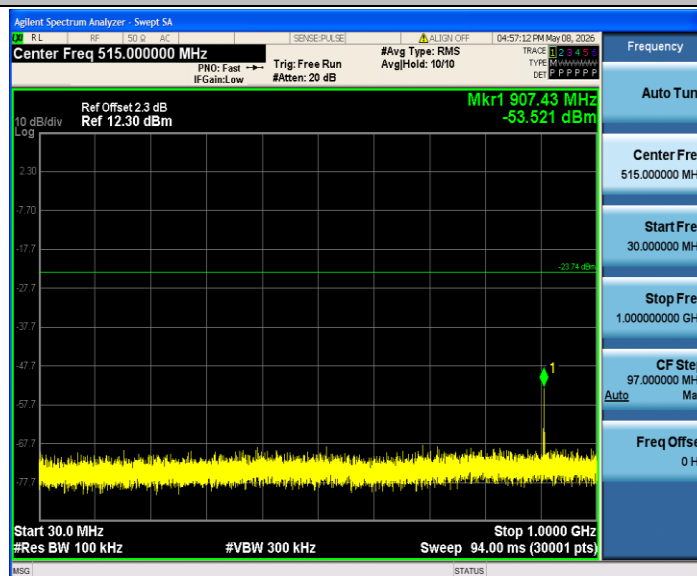




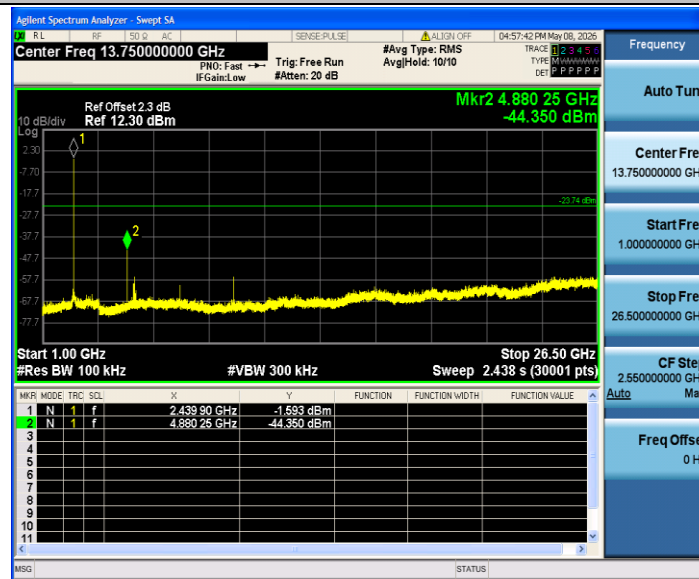
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



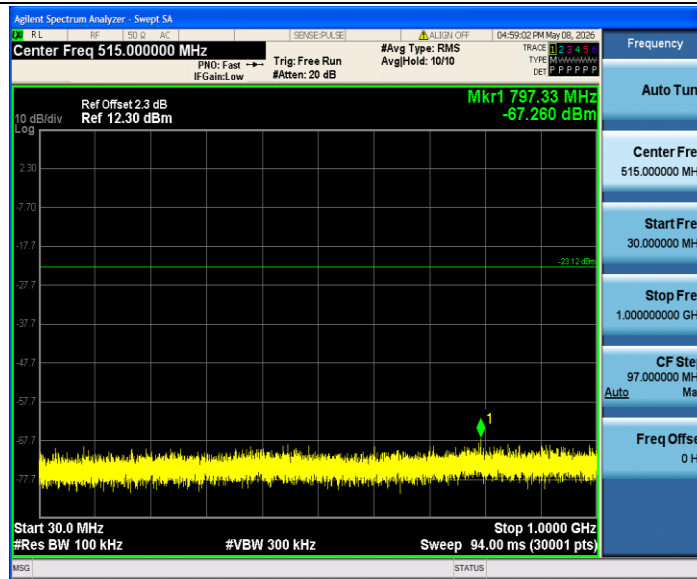
BLE_1M_Ant1_2440_1000~26500



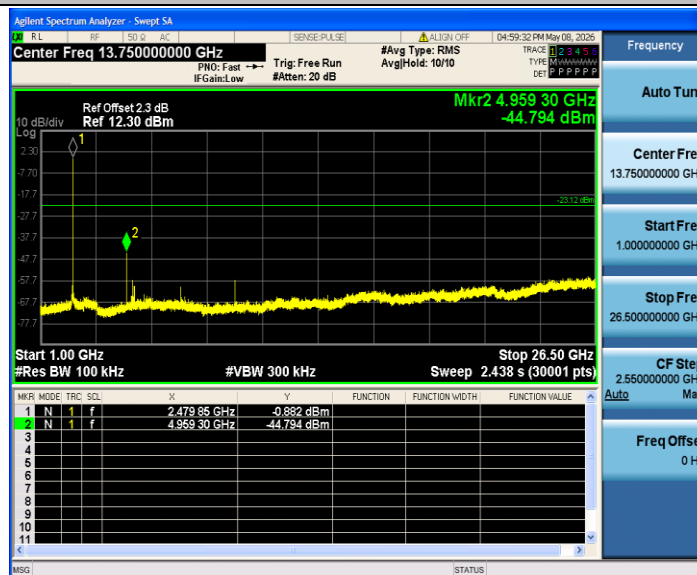
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

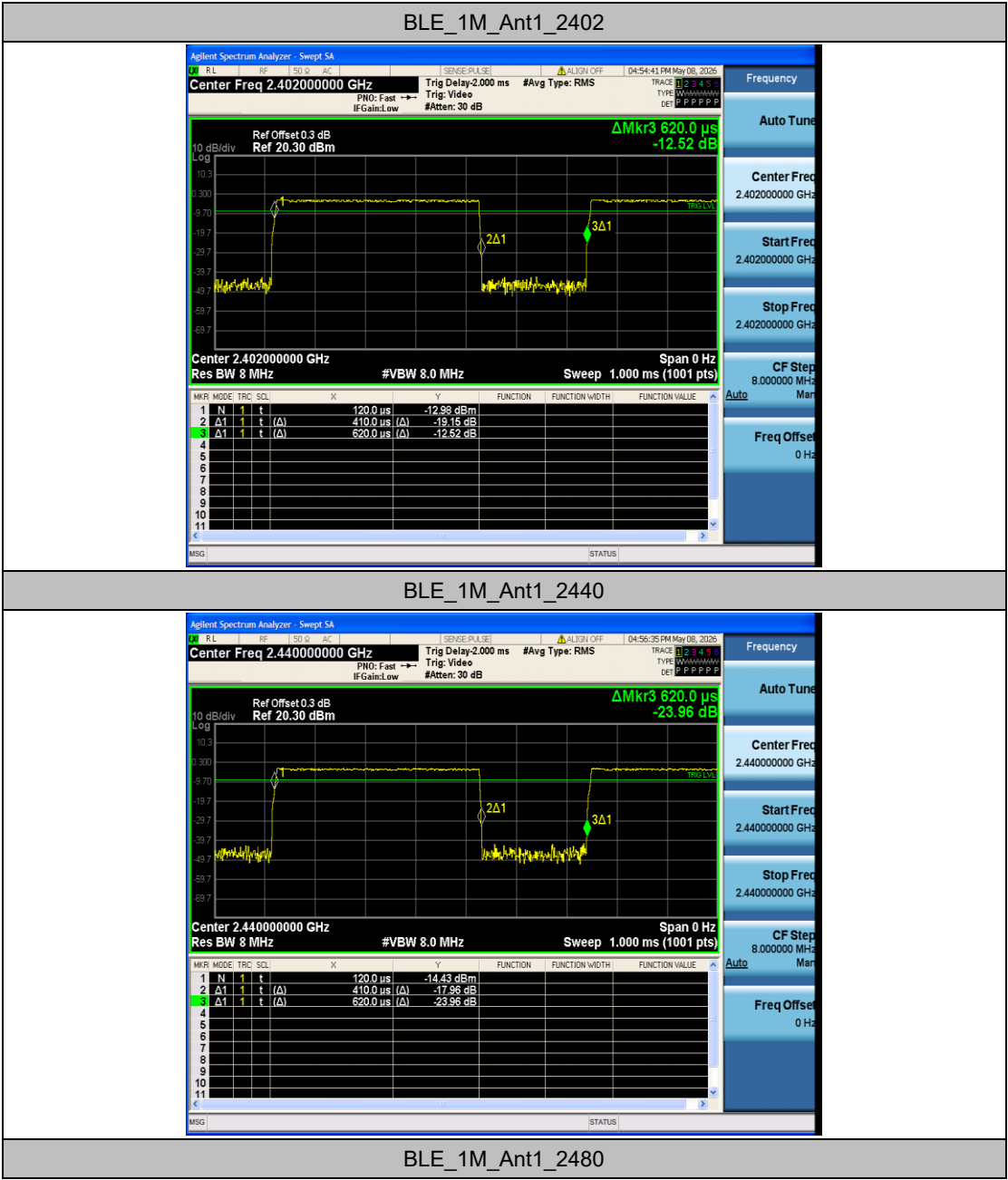


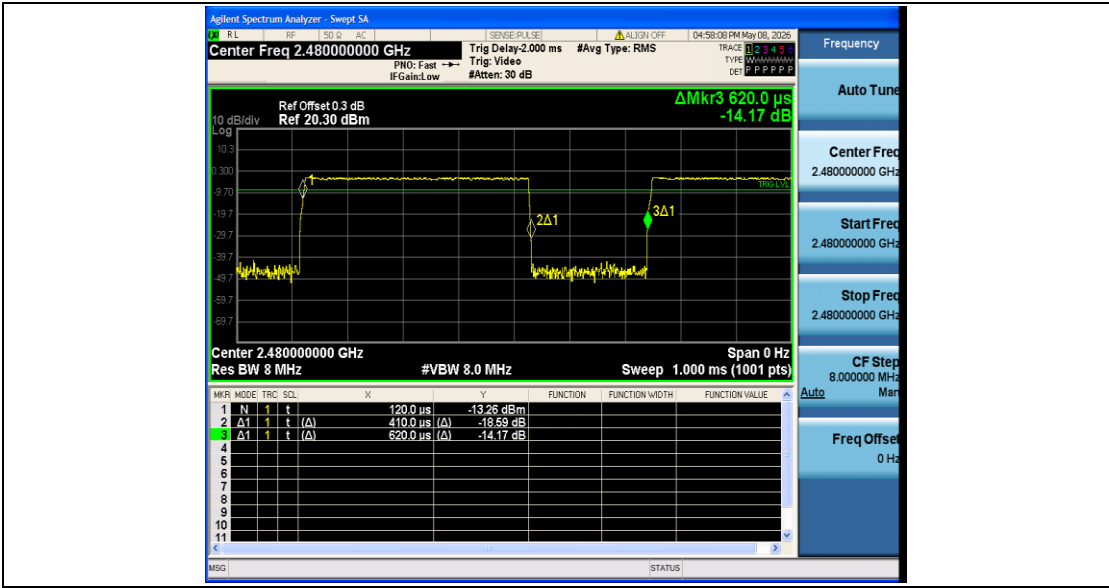
Appendix G: Duty Cycle

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	0.41	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

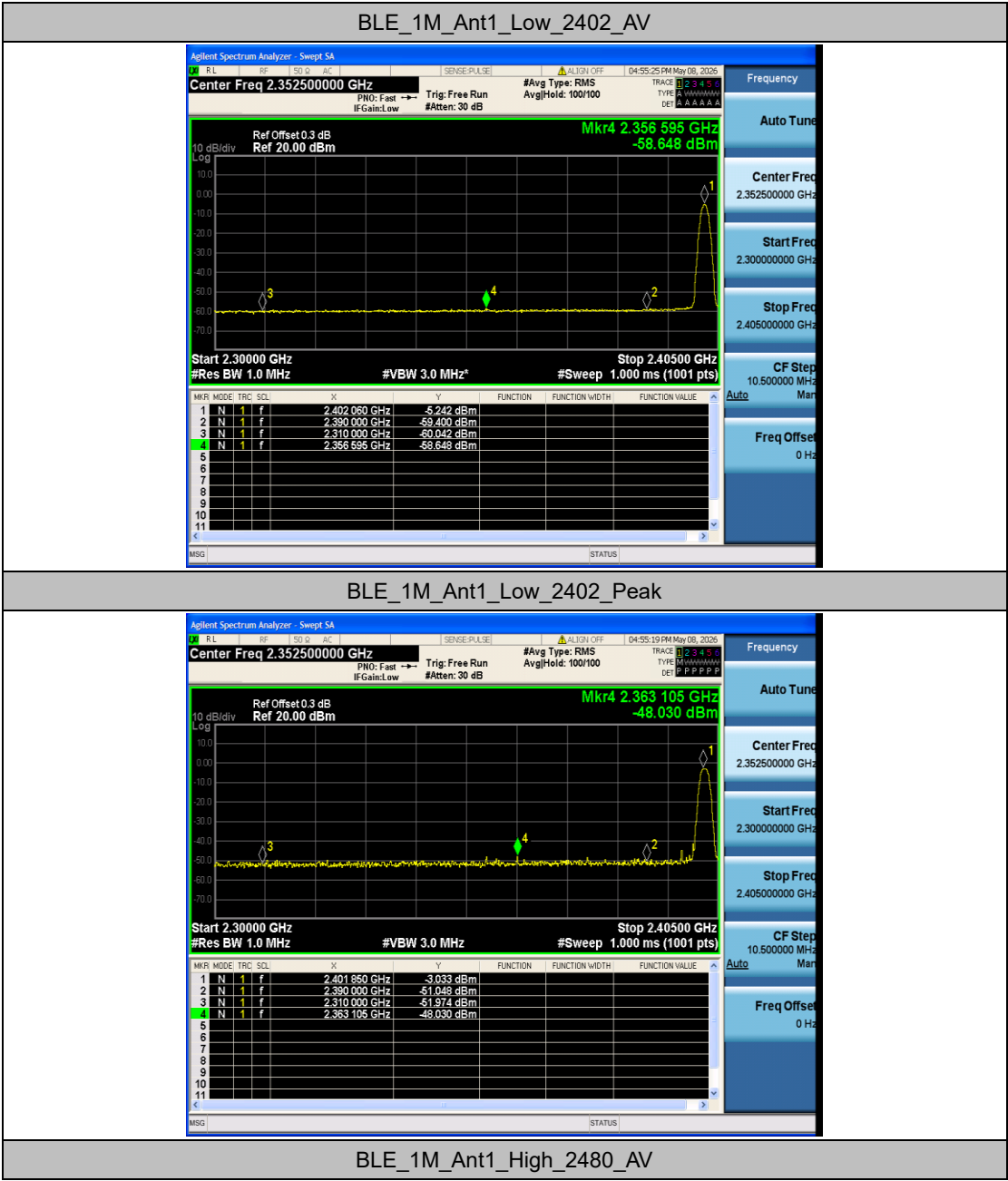
Test Result

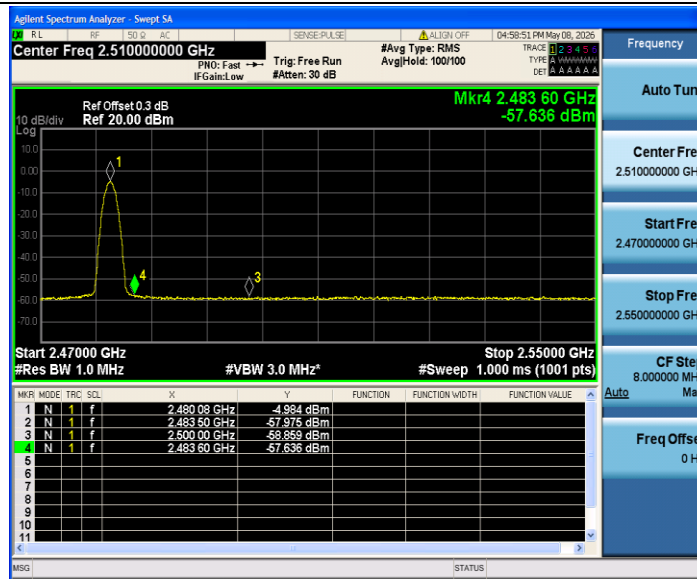
TestMode	Antenna	Channel	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.04	2.49	1.80	39.45	≤54	PASS
				AV	2356.595	-58.65	2.49	1.80	40.84	≤54	PASS
				AV	2390.000	-59.4	2.49	1.80	40.09	≤54	PASS
				Peak	2310.000	-51.97	2.49	0.00	45.72	≤74	PASS
				Peak	2363.105	-48.03	2.49	0.00	49.66	≤74	PASS
				Peak	2390.000	-51.05	2.49	0.00	46.64	≤74	PASS
		High	2480	AV	2483.500	-57.98	2.49	1.80	41.51	≤54	PASS
				AV	2483.600	-57.64	2.49	1.80	41.85	≤54	PASS
				AV	2500.000	-58.86	2.49	1.80	40.63	≤54	PASS
				Peak	2483.500	-49.4	2.49	0.00	48.29	≤74	PASS
				Peak	2484.720	-46.4	2.49	0.00	51.29	≤74	PASS
				Peak	2500.000	-50.98	2.49	0.00	46.71	≤74	PASS

Note:

- 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_2480_Peak

