

FCC Appendix RF Test Data for BLE

FCC ID : 2BX5H-FT136

Company : Dongguan Feite Outdoor Sports Products Co., Ltd

EUT : Bike helmet

Model Number : FT136

Report No. : CTA26082001401

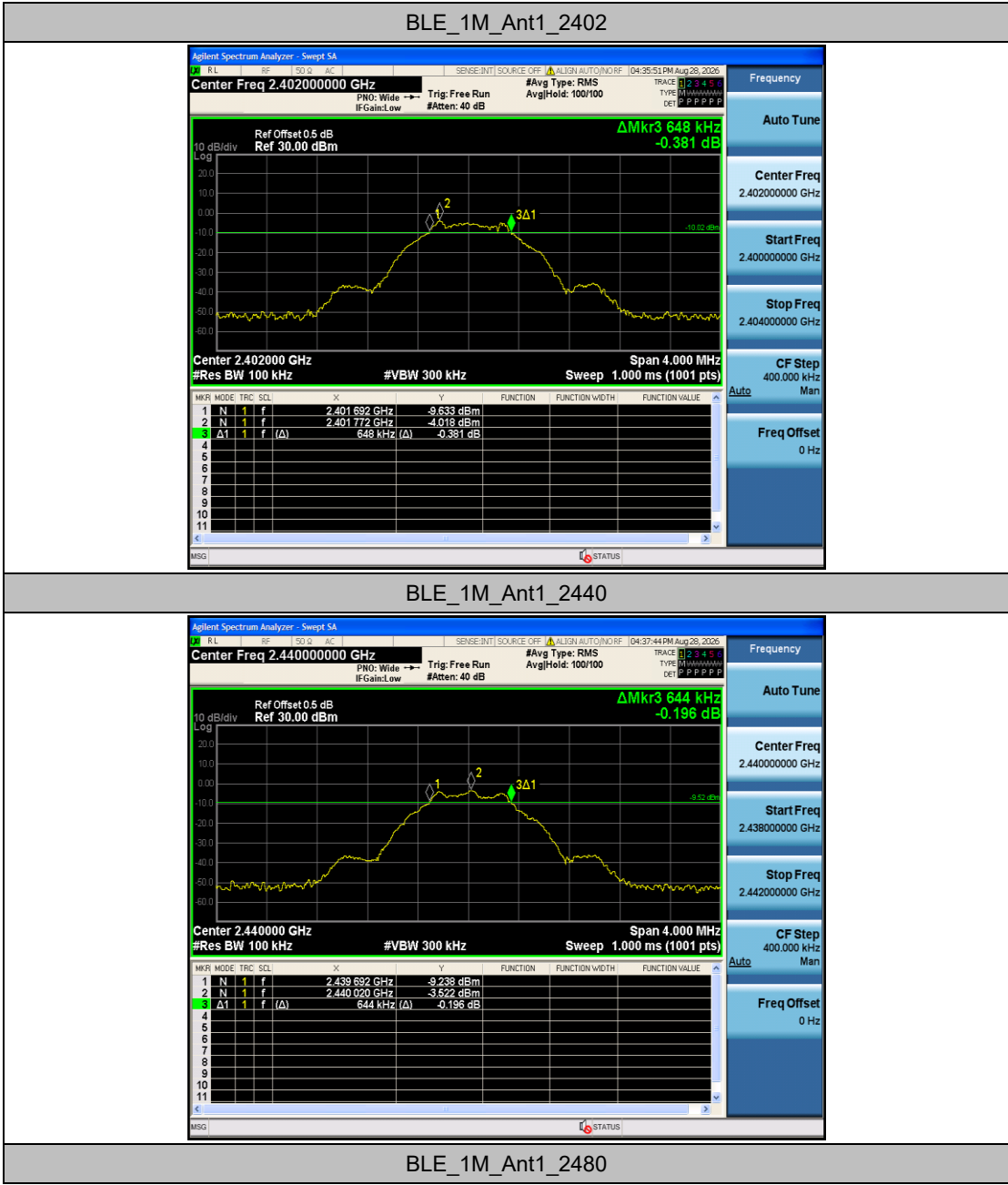
Reviewed By : Eric Wang

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	0.644	2439.692	2440.336	0.5	PASS
		2480	0.644	2479.696	2480.340	0.5	PASS

Test Graphs



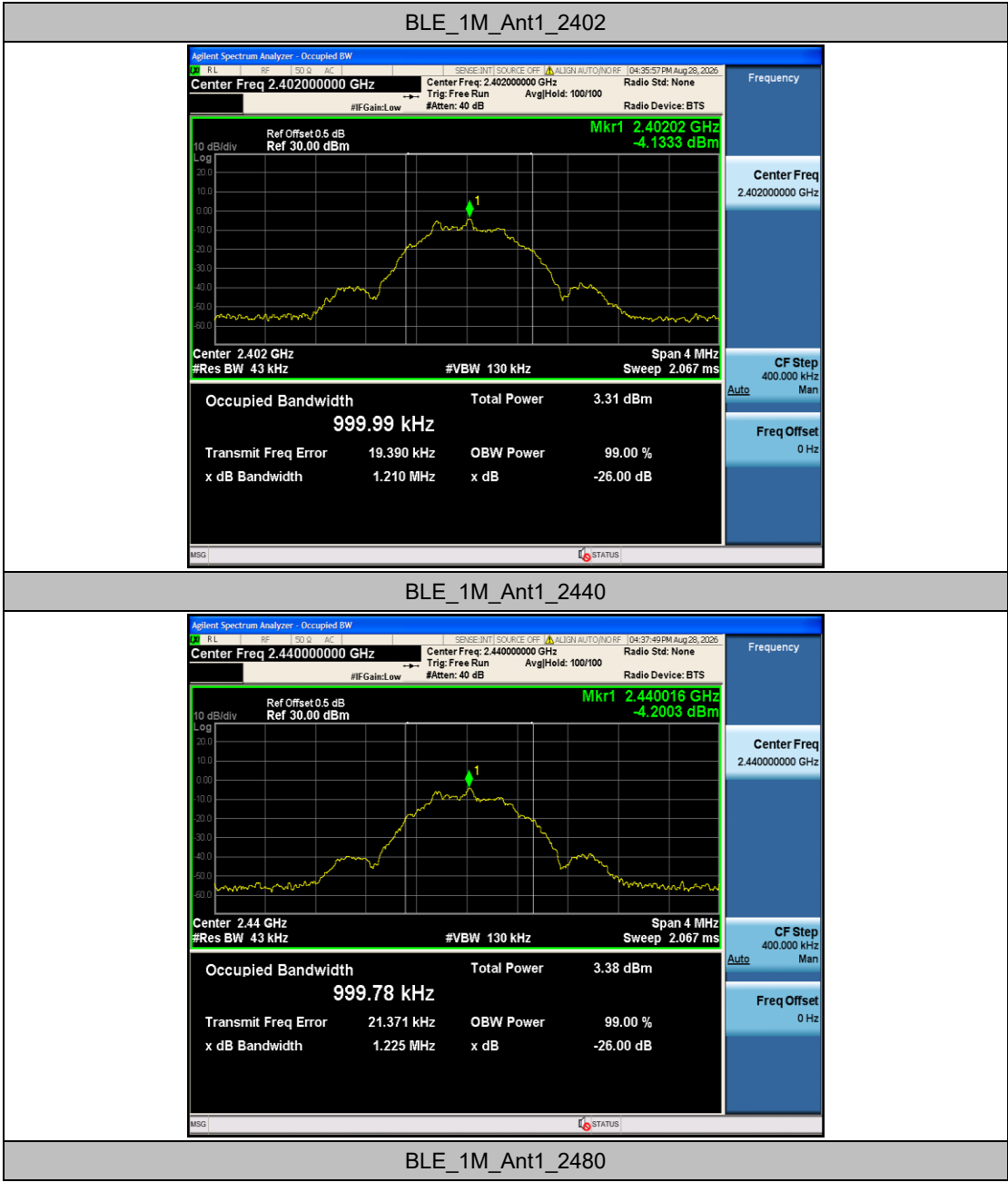


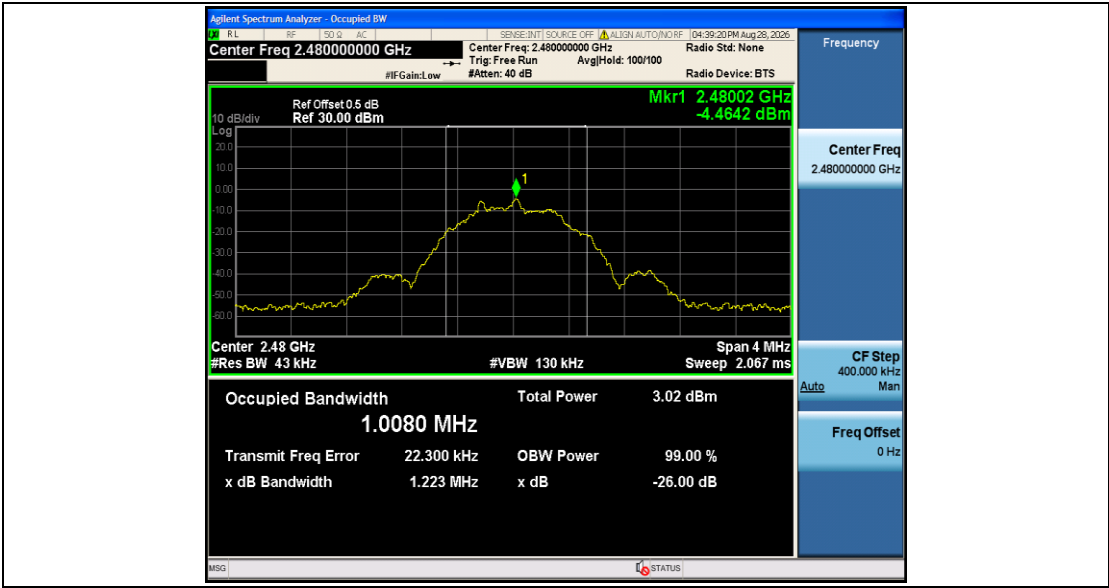
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.99999	2401.5194	2402.5194	---	---
		2440	0.99978	2439.5215	2440.5213	---	---
		2480	1.0080	2479.5183	2480.5263	---	---

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	-3.33	≤30	PASS
		2440	-3.38	≤30	PASS
		2480	-3.66	≤30	PASS

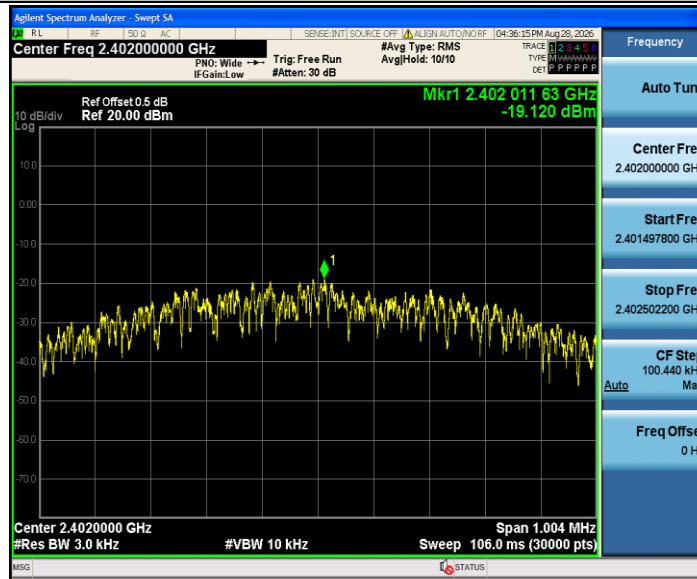
Appendix D: Maximum power spectral density

Test Result

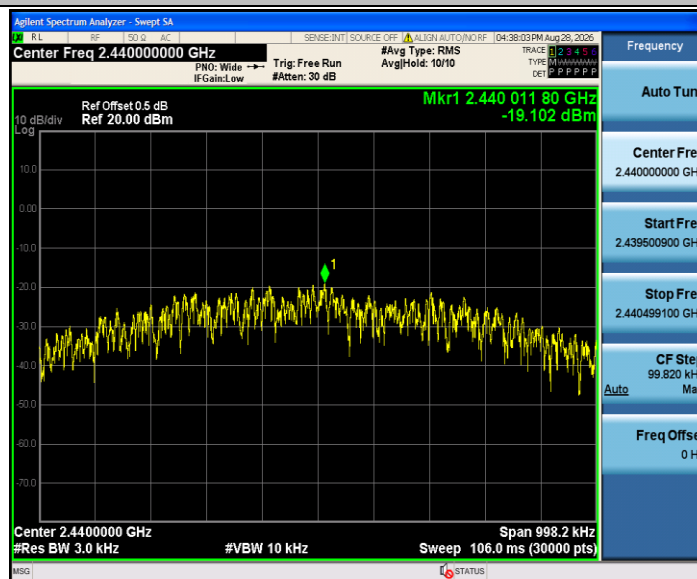
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.12	≤8.00	PASS
		2440	-19.10	≤8.00	PASS
		2480	-19.41	≤8.00	PASS

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



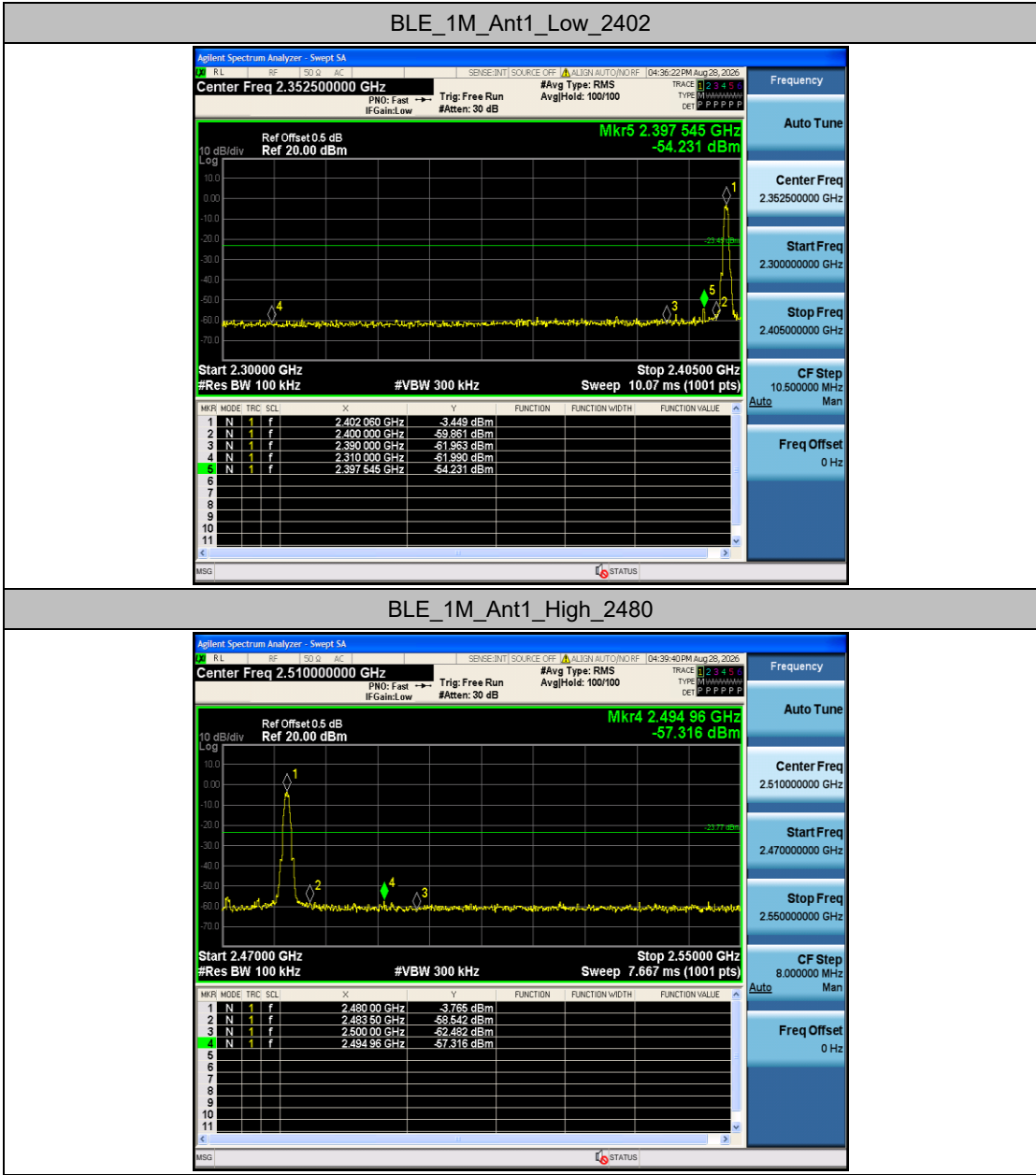
BLE_1M_Ant1_2480

Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.45	-54.23	≤-23.45	PASS
		High	2480	-3.77	-57.32	≤-23.77	PASS

Test Graphs

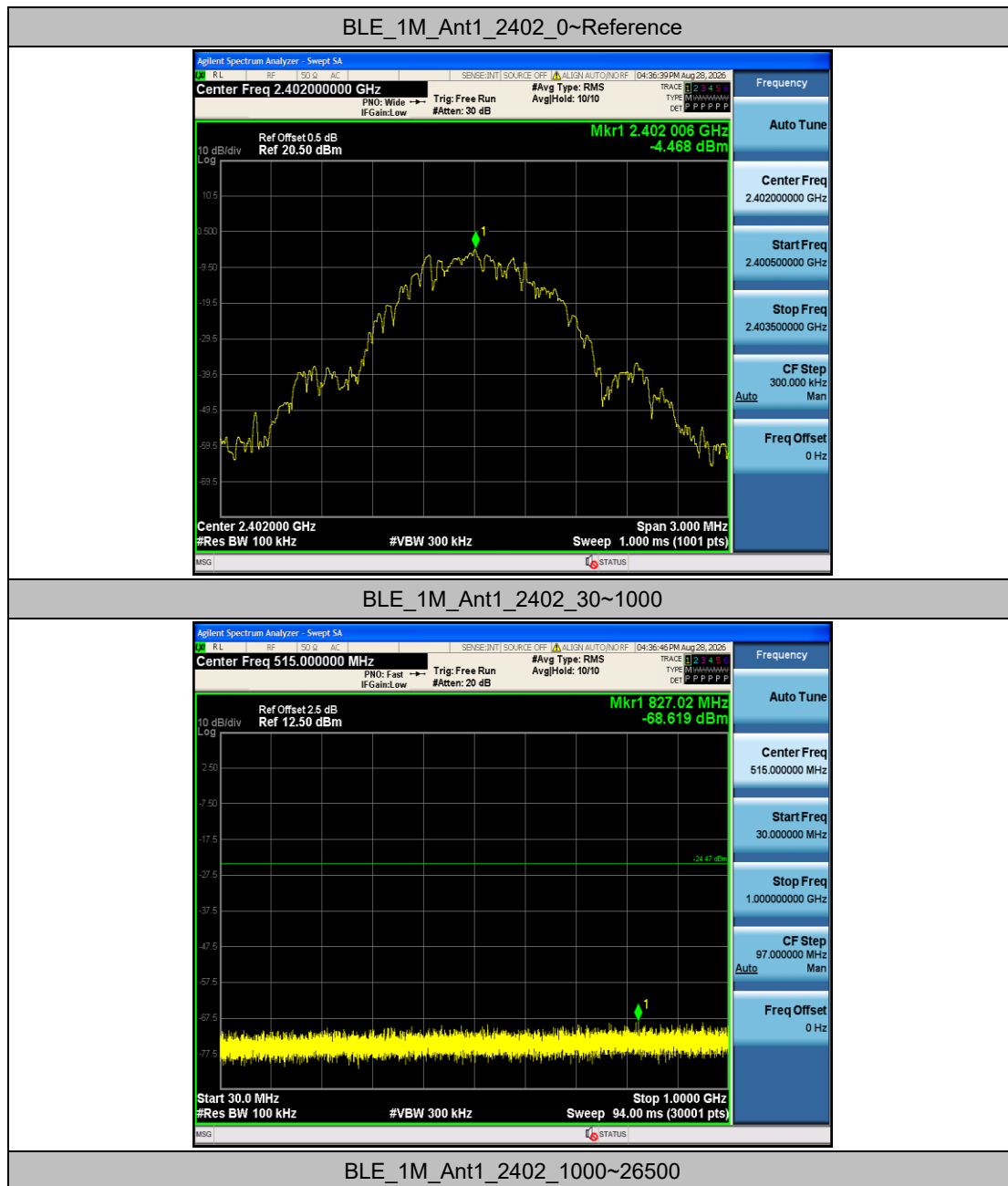


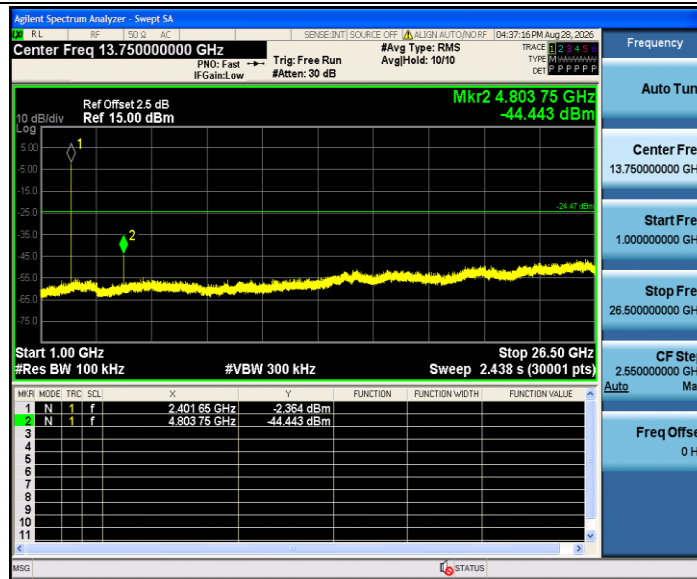
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.47	-4.47	---	PASS
			30~1000	-4.47	-68.62	≤-24.47	PASS
			1000~26500	-4.47	-44.44	≤-24.47	PASS
		2440	Reference	-4.41	-4.41	---	PASS
			30~1000	-4.41	-68.37	≤-24.41	PASS
			1000~26500	-4.41	-45.05	≤-24.41	PASS
		2480	Reference	-4.50	-4.50	---	PASS
			30~1000	-4.50	-68.72	≤-24.5	PASS
			1000~26500	-4.50	-45.65	≤-24.5	PASS

Test Graphs

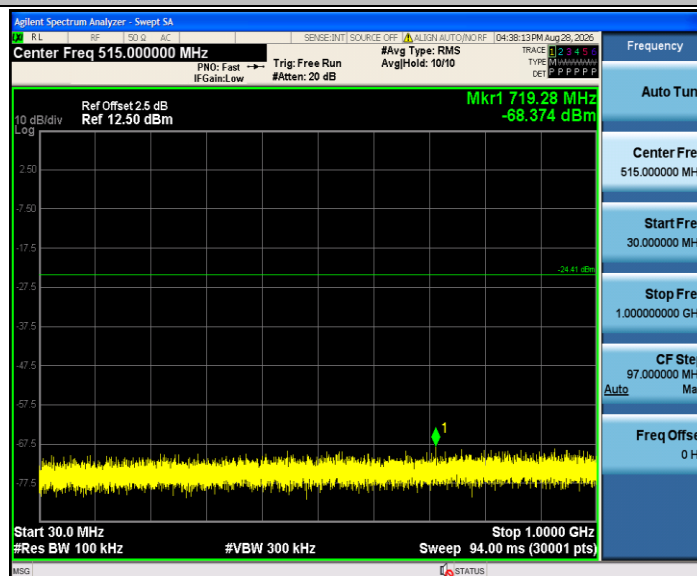




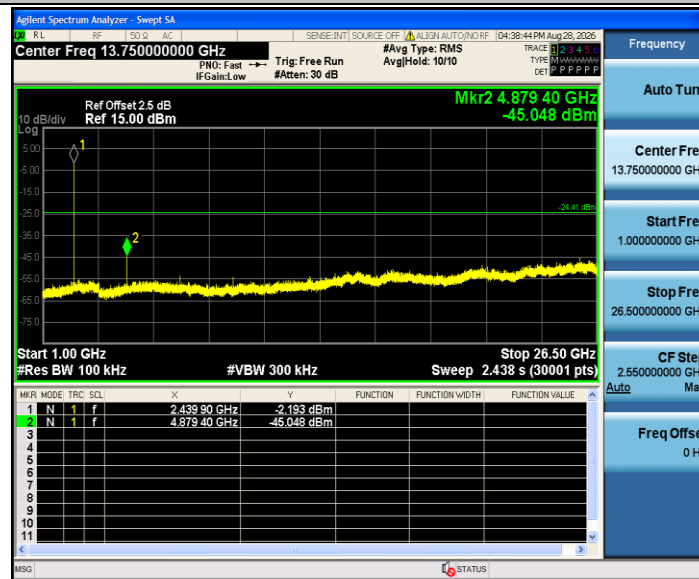
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



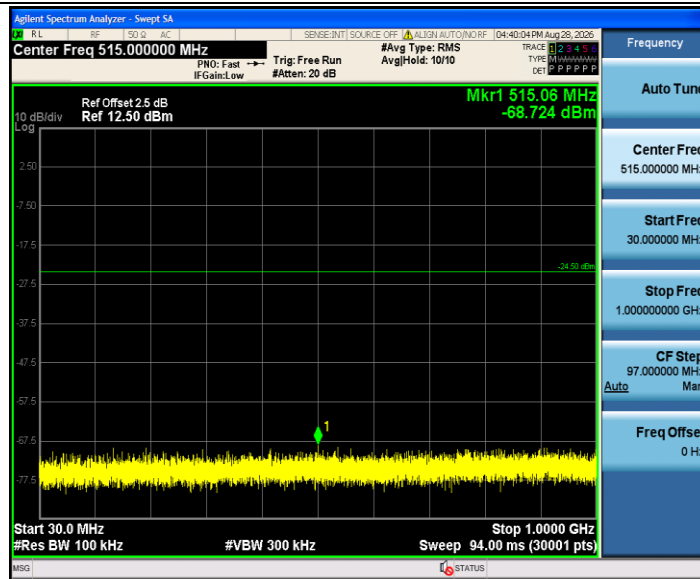
BLE_1M_Ant1_2440_1000~26500



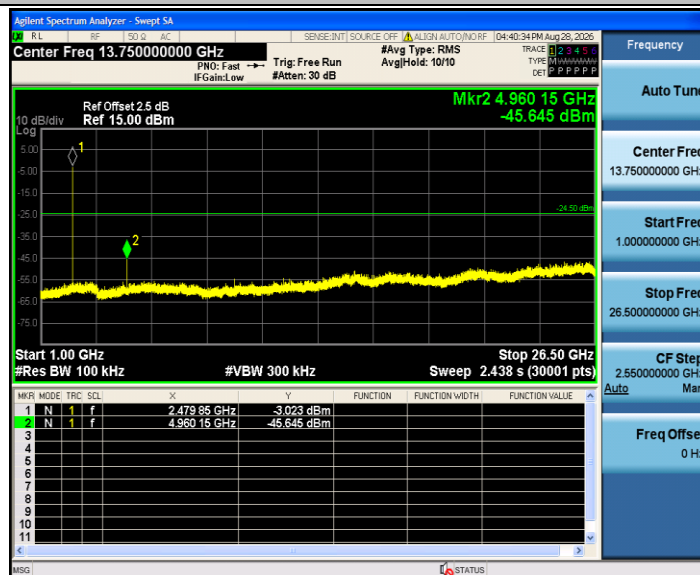
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

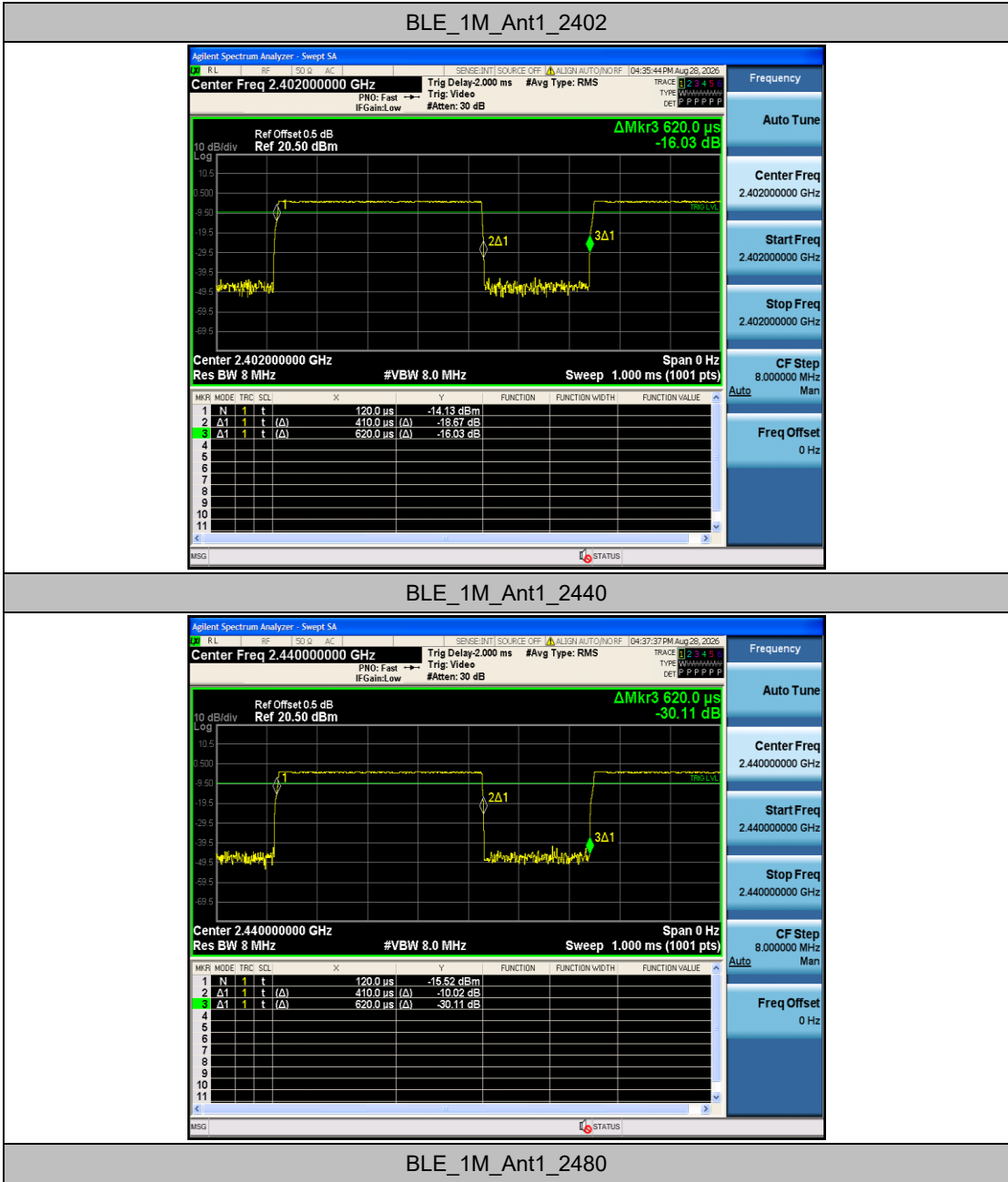


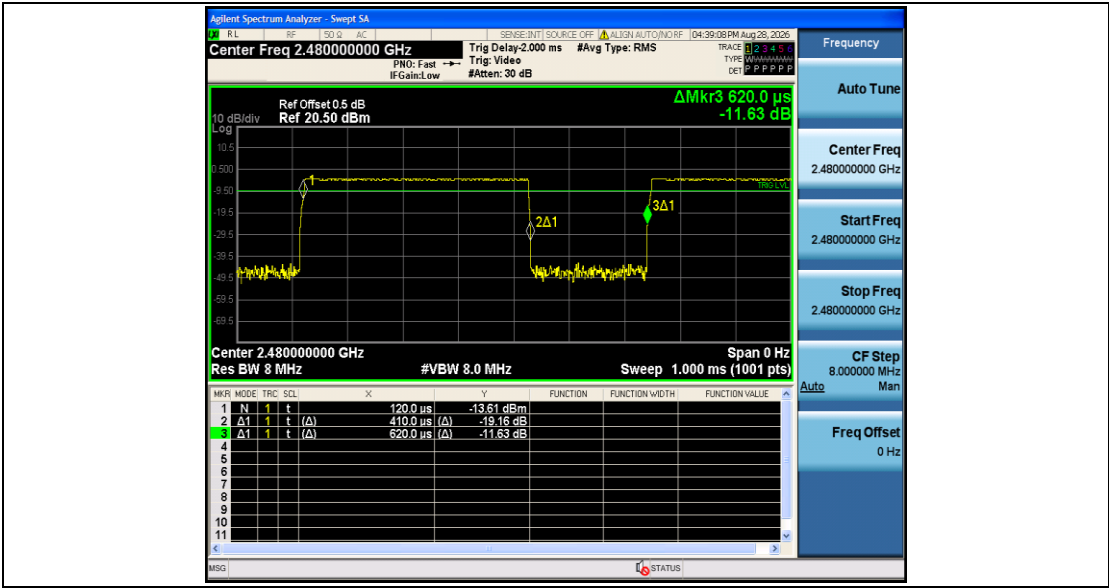
Appendix G: Duty Cycle

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

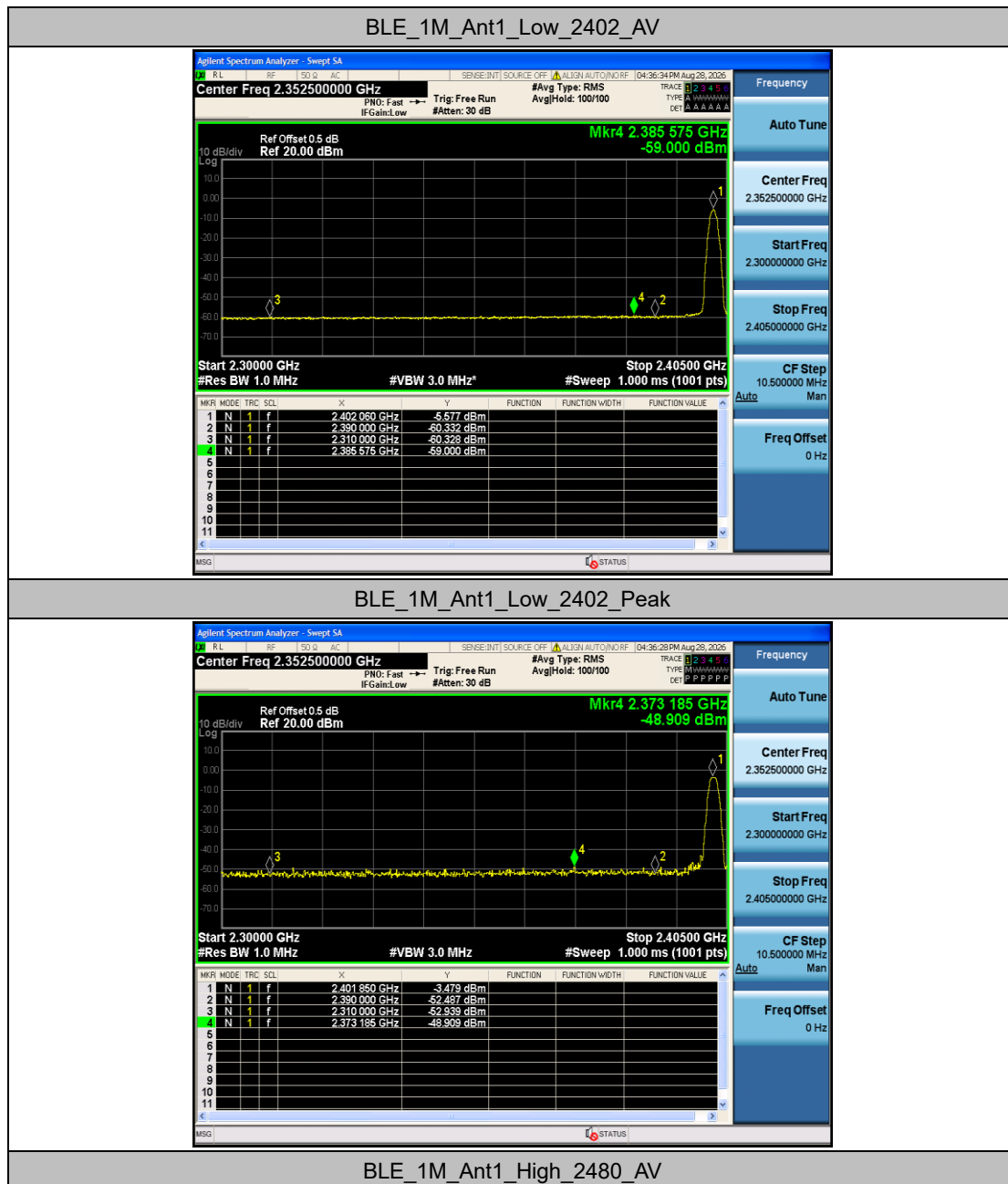
Test Result

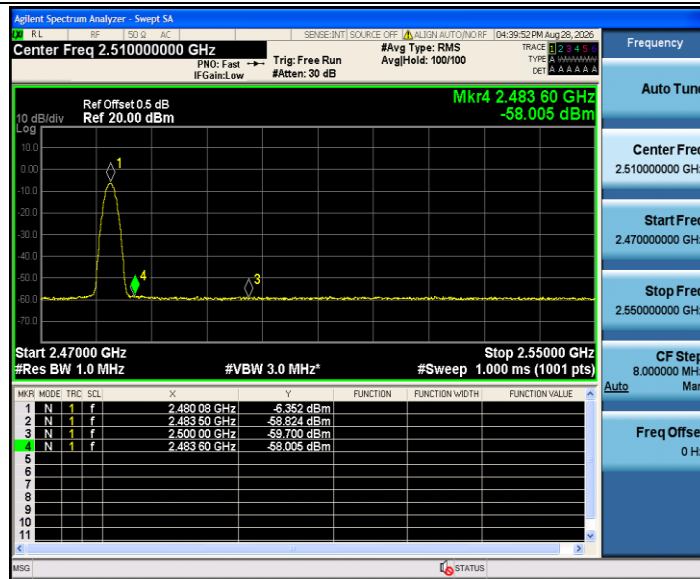
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.33	2.00	1.80	38.67	≤54	PASS
				AV	2385.575	-59	2.00	1.80	40.00	≤54	PASS
				AV	2390.000	-60.33	2.00	1.80	38.67	≤54	PASS
				Peak	2310.000	-52.94	2.00	0.00	44.26	≤74	PASS
				Peak	2373.185	-48.91	2.00	0.00	48.29	≤74	PASS
				Peak	2390.000	-52.49	2.00	0.00	44.71	≤74	PASS
		High	2480	AV	2483.500	-58.82	2.00	1.80	40.18	≤54	PASS
				AV	2483.600	-58.01	2.00	1.80	40.99	≤54	PASS
				AV	2500.000	-59.7	2.00	1.80	39.30	≤54	PASS
				Peak	2483.500	-51.76	2.00	0.00	45.44	≤74	PASS
				Peak	2484.560	-47.05	2.00	0.00	50.15	≤74	PASS
				Peak	2500.000	-51.75	2.00	0.00	45.45	≤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

