

FCC Appendix RF Test Data for BLE

FCC ID : 2A2AI-C50

Company : Shenzhen Yinxiaoqian technology Co., Ltd

EUT : Temporary Tattoo Printer

Model Number : C50

Report No. : CTA26090900101

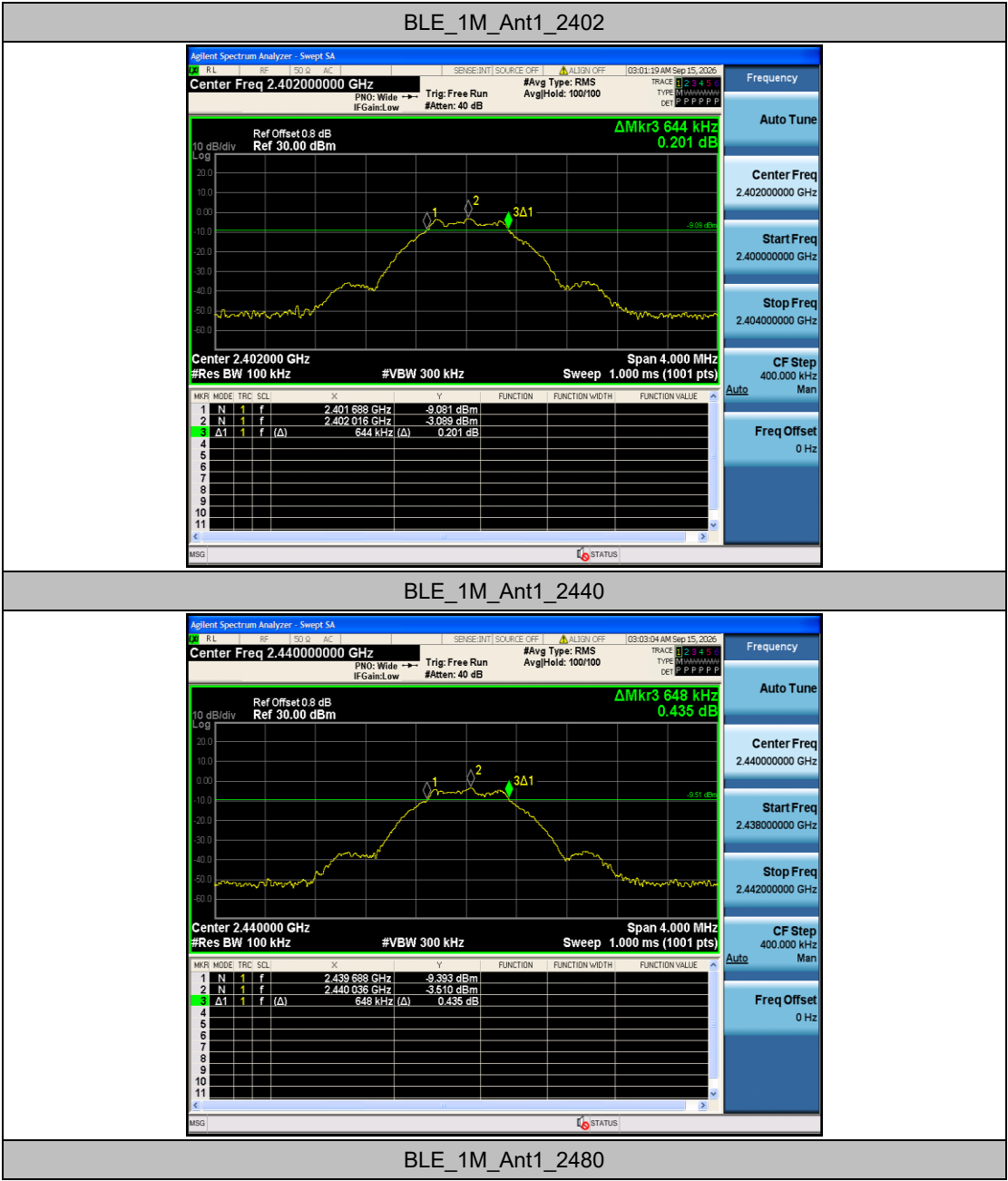
Reviewed By : Eric Wang

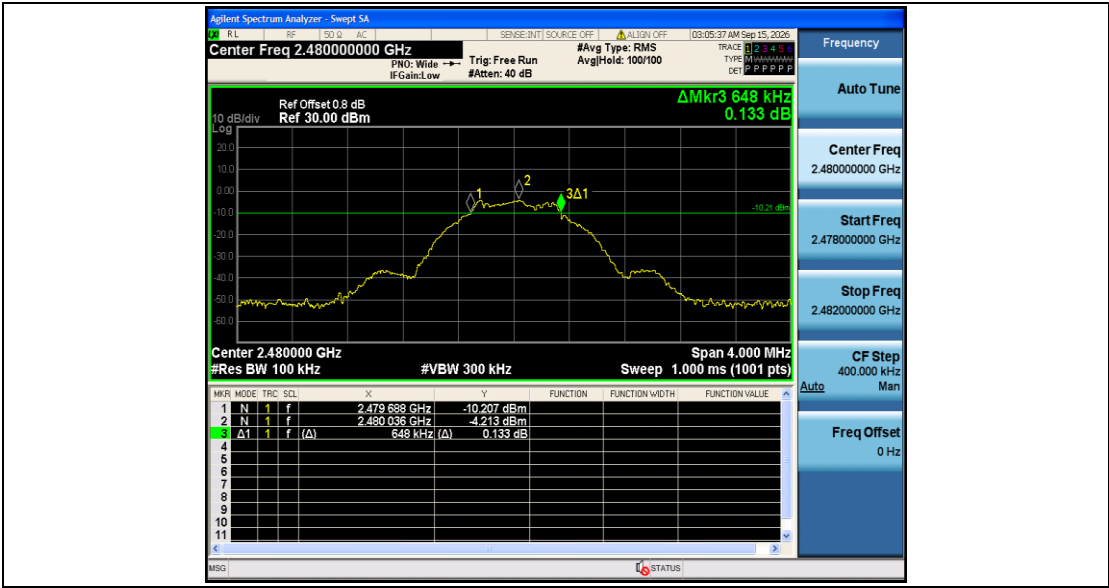
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.644	2401.688	2402.332	0.5	PASS
		2440	0.648	2439.688	2440.336	0.5	PASS
		2480	0.648	2479.688	2480.336	0.5	PASS

Test Graphs



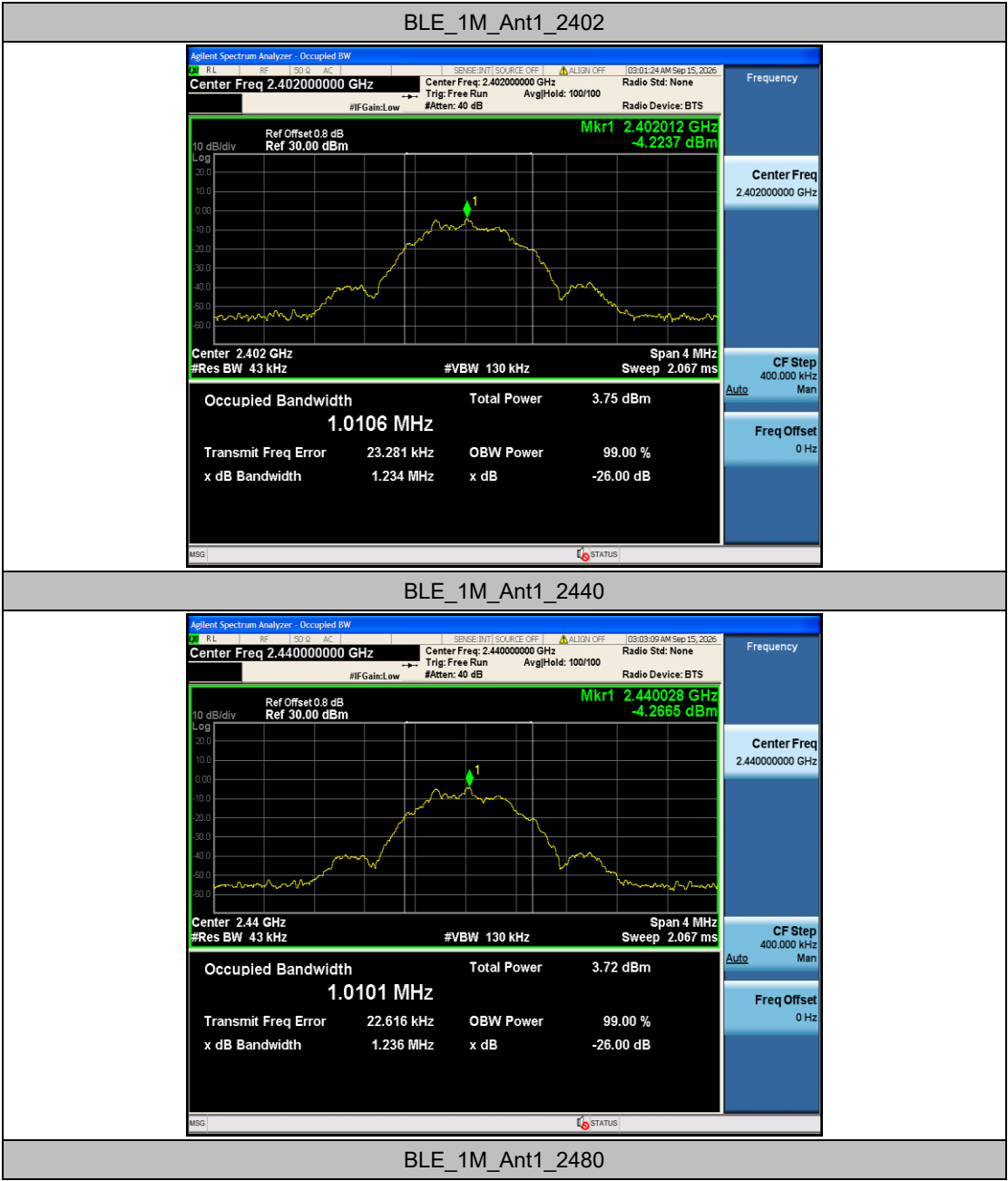


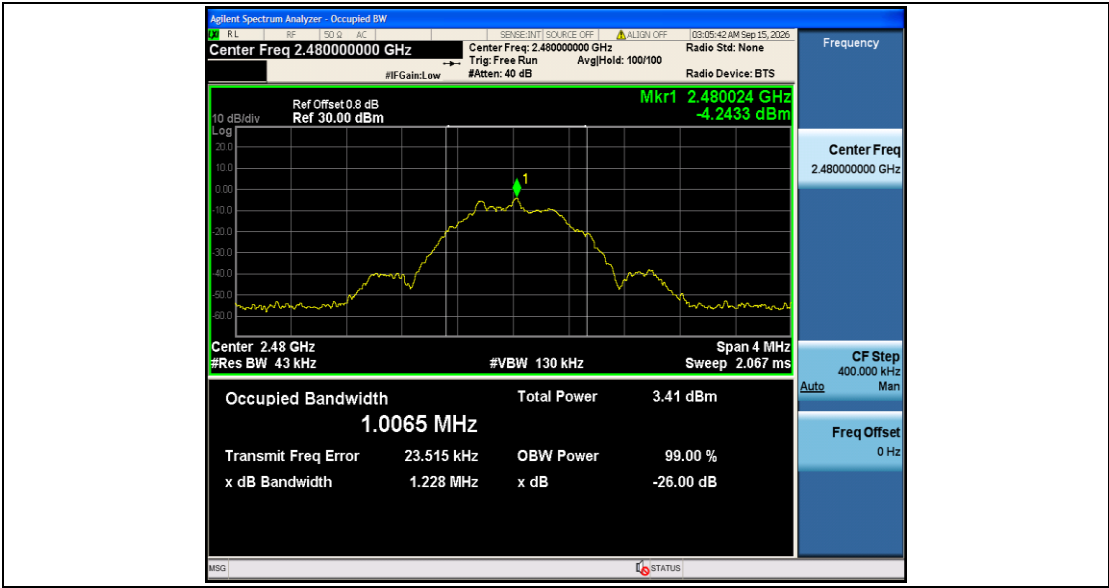
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0106	2401.5180	2402.5286	---	---
		2440	1.0101	2439.5176	2440.5277	---	---
		2480	1.0065	2479.5203	2480.5268	---	---

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	-2.82	≤30	PASS
		2440	-2.96	≤30	PASS
		2480	-3.36	≤30	PASS

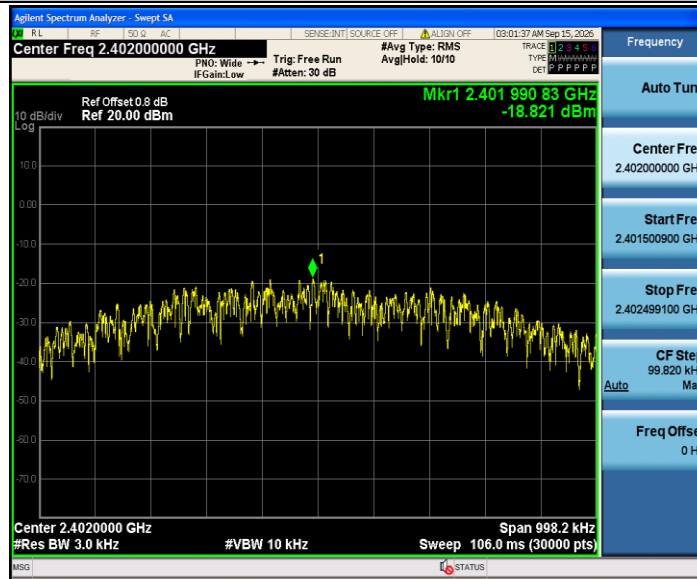
Appendix D: Maximum power spectral density

Test Result

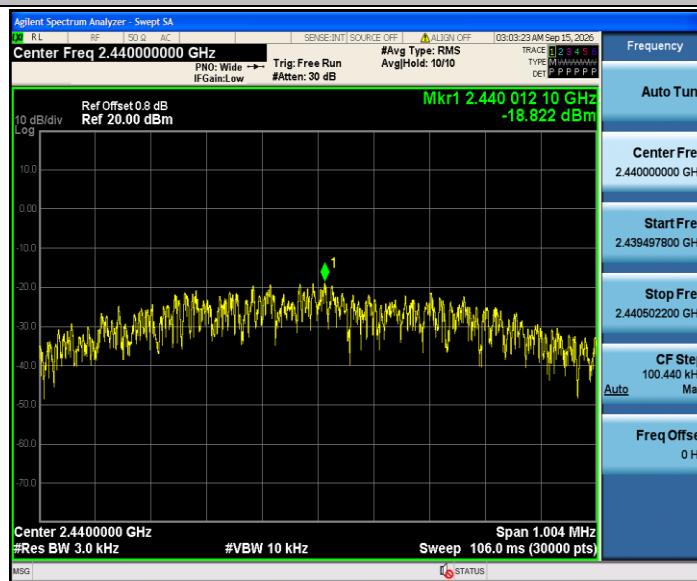
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.82	≤8.00	PASS
		2440	-18.82	≤8.00	PASS
		2480	-19.29	≤8.00	PASS

Test Graphs

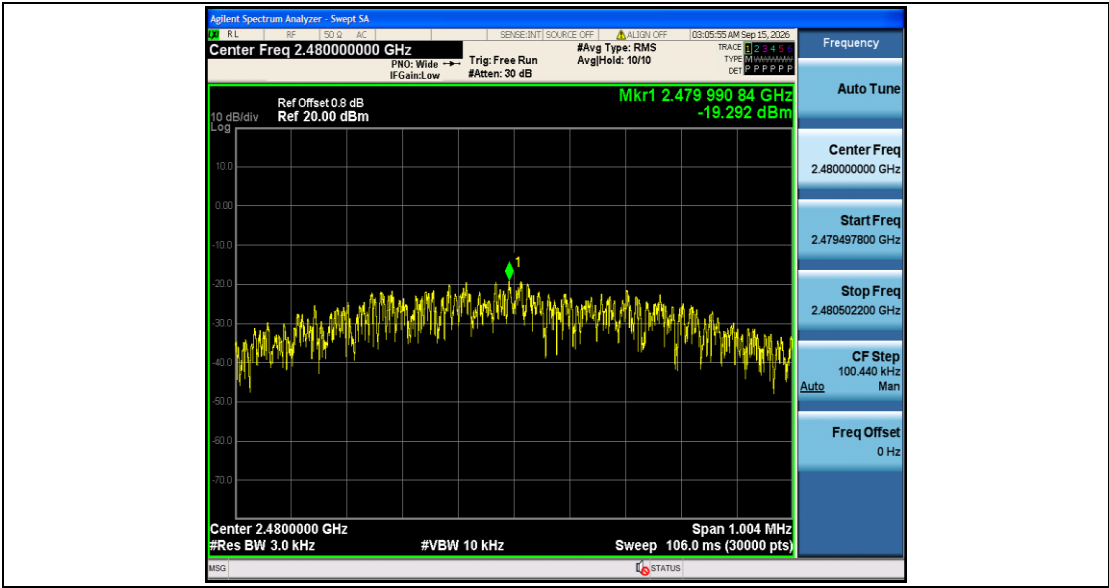
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

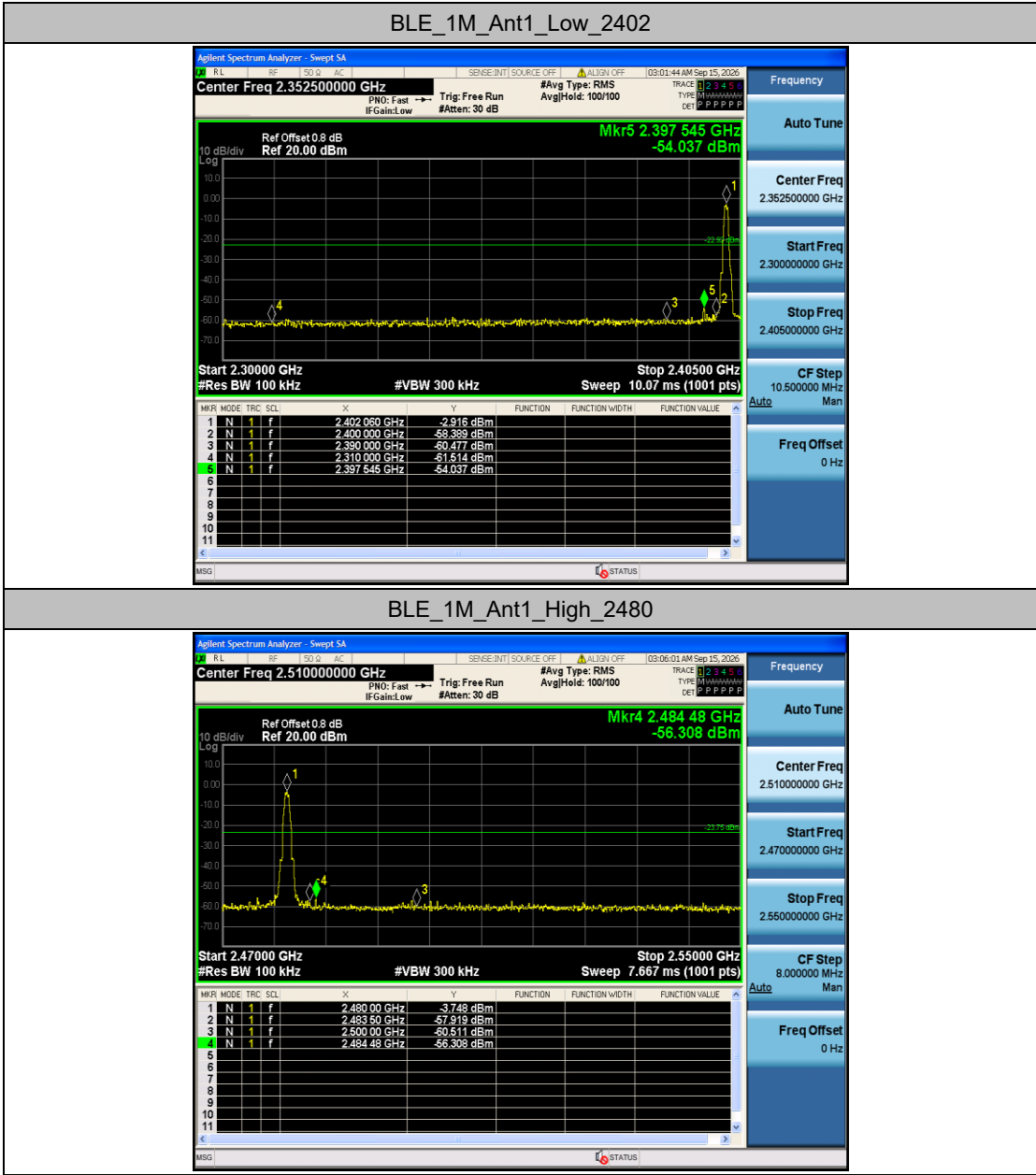


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-2.92	-54.04	≤-22.92	PASS
		High	2480	-3.75	-56.31	≤-23.75	PASS

Test Graphs

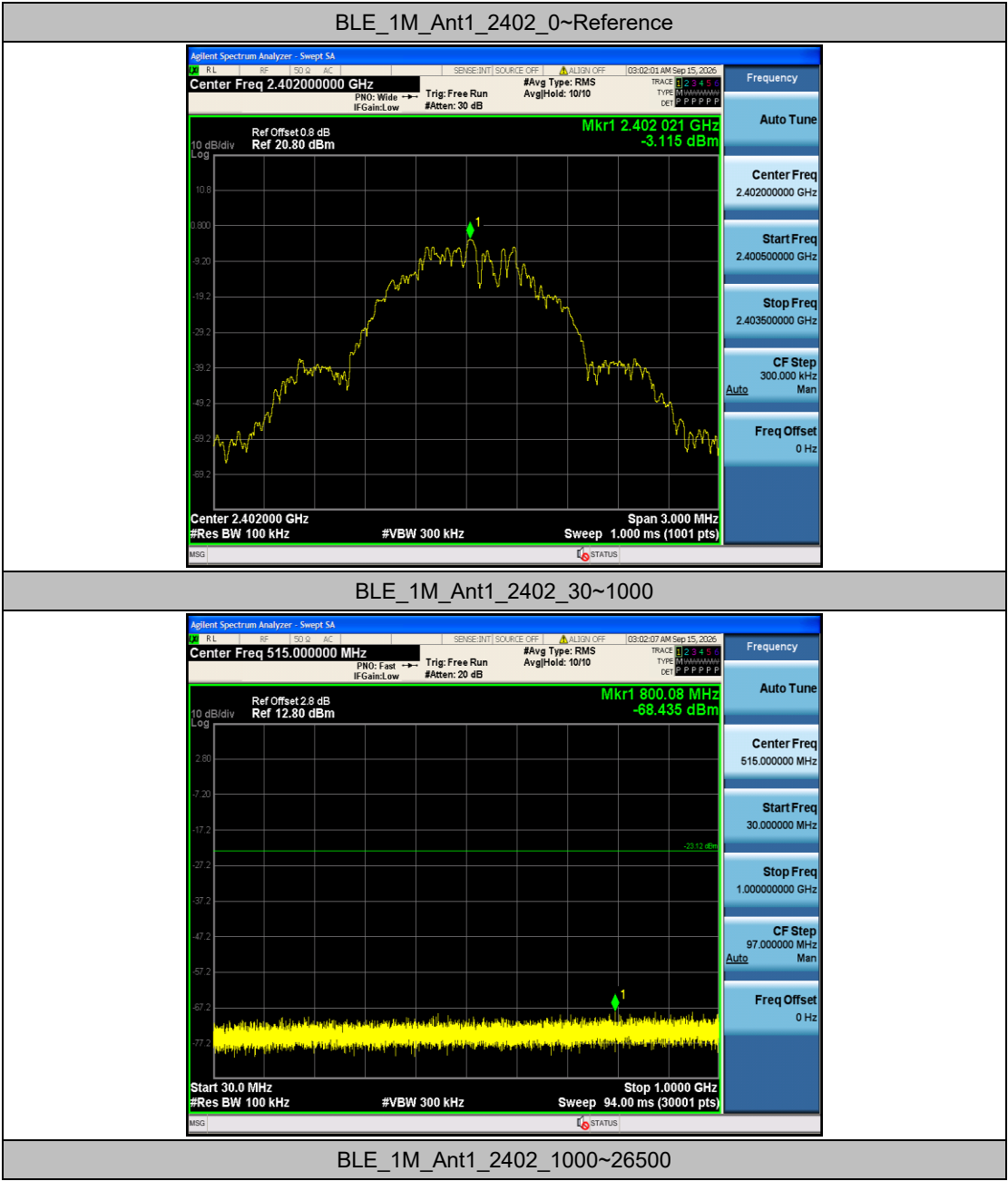


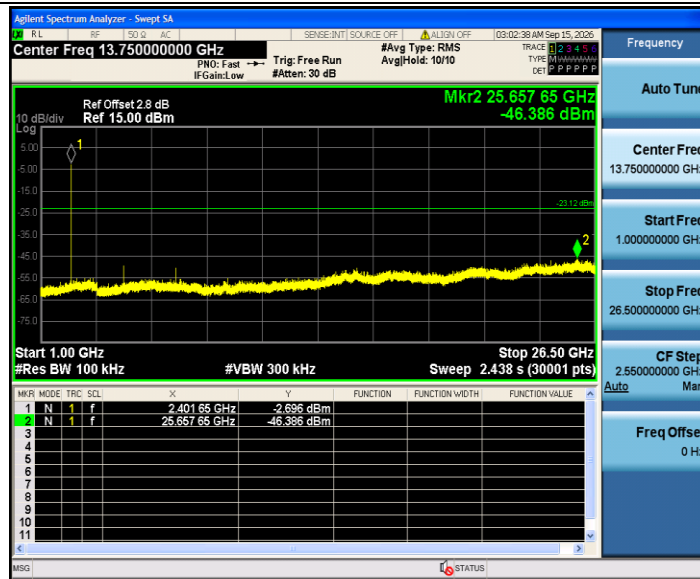
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-3.12	-3.12	---	PASS
			30~1000	-3.12	-68.44	≤-23.12	PASS
			1000~26500	-3.12	-46.39	≤-23.12	PASS
		2440	Reference	-3.20	-3.20	---	PASS
			30~1000	-3.20	-68.14	≤-23.2	PASS
			1000~26500	-3.20	-45.2	≤-23.2	PASS
		2480	Reference	-5.29	-5.29	---	PASS
			30~1000	-5.29	-67.73	≤-25.29	PASS
			1000~26500	-5.29	-44.49	≤-25.29	PASS

Test Graphs

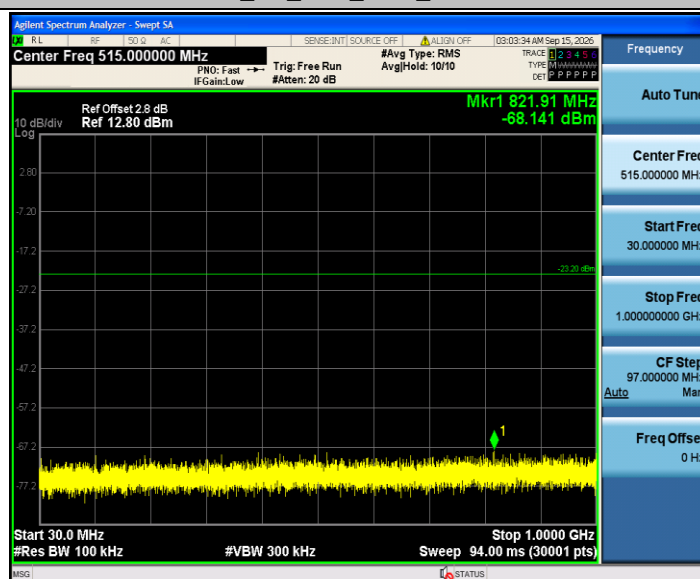




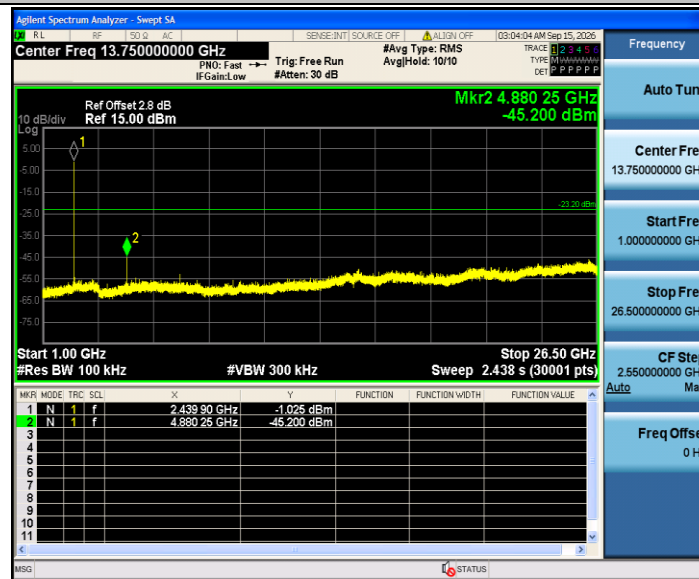
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



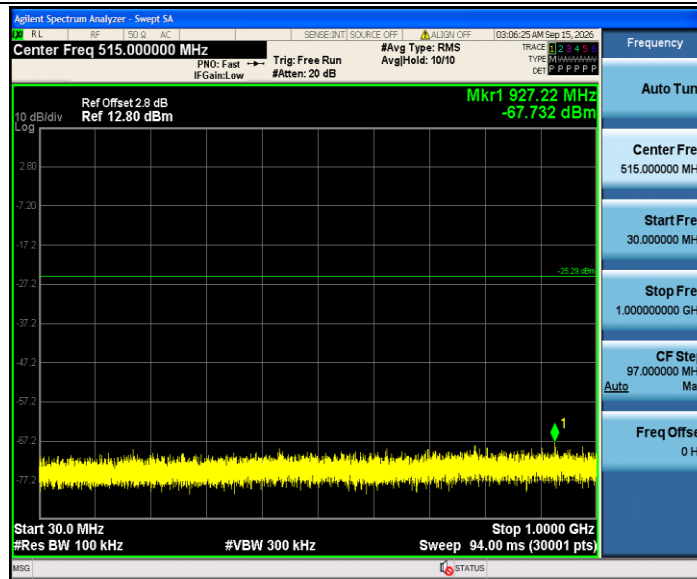
BLE_1M_Ant1_2440_1000~26500



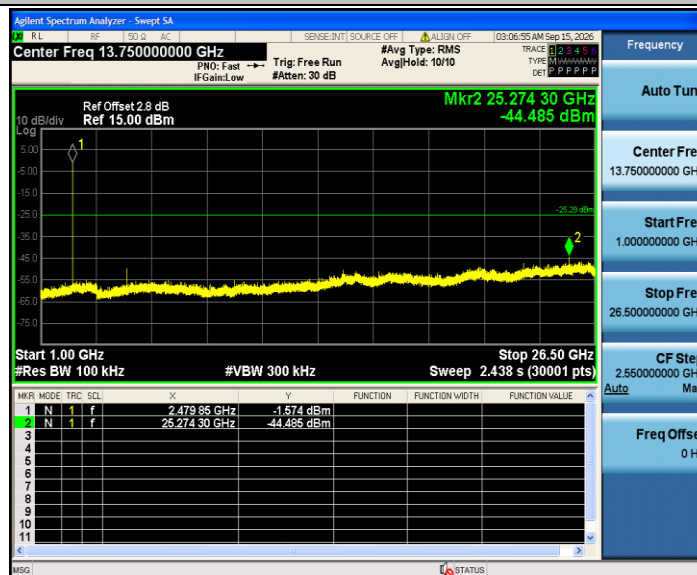
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

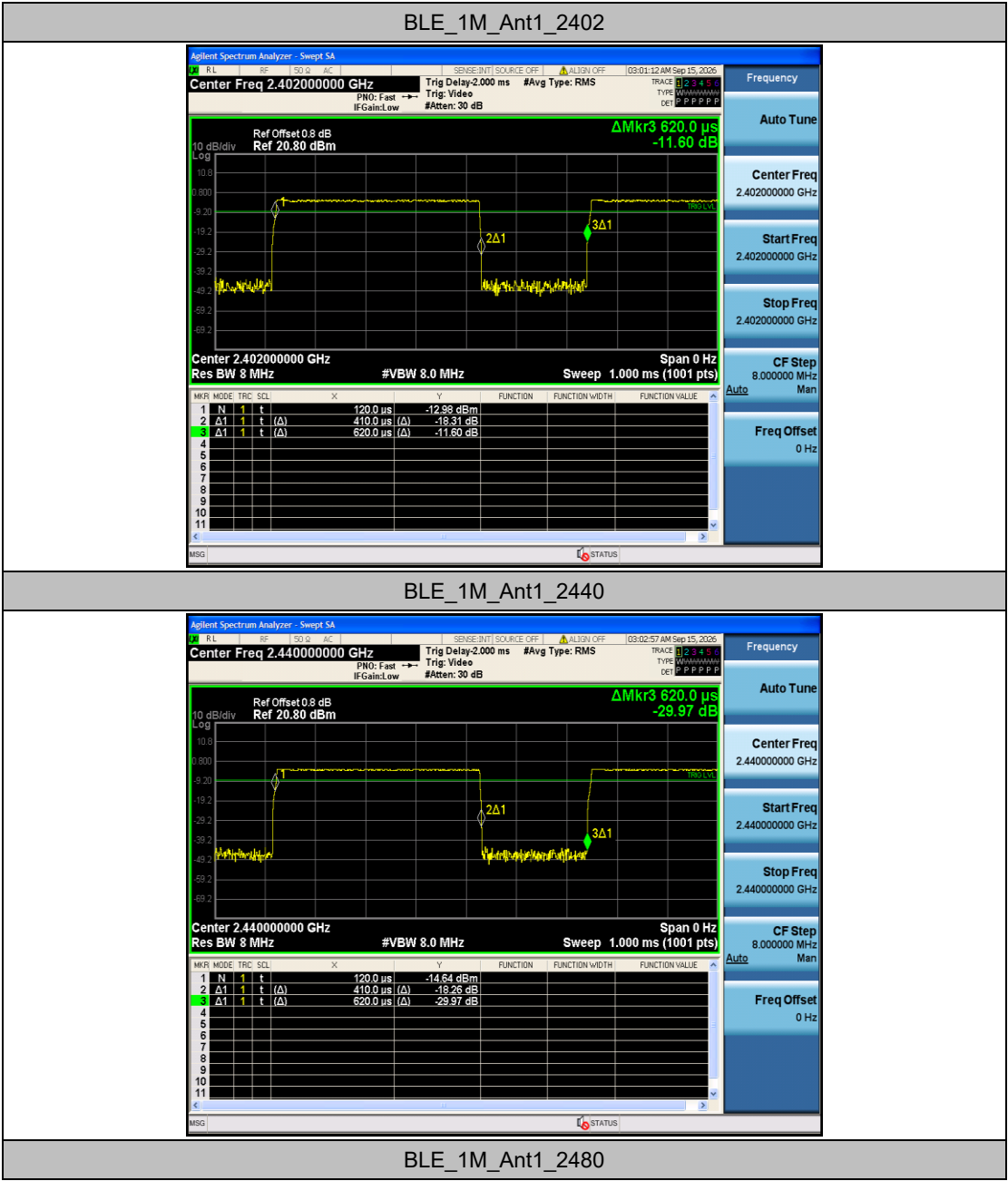


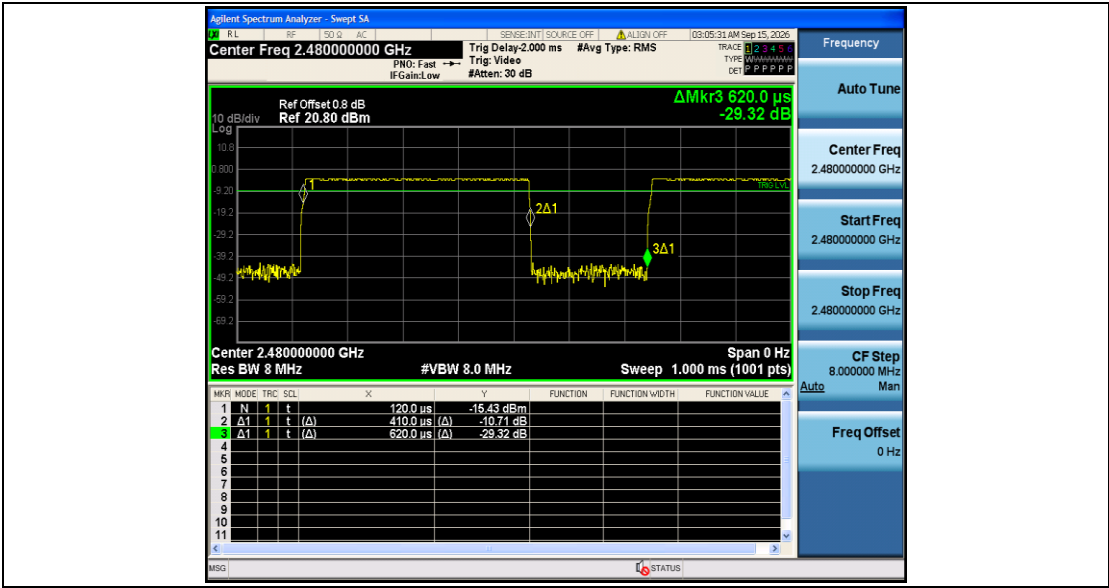
Appendix G: Duty Cycle

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

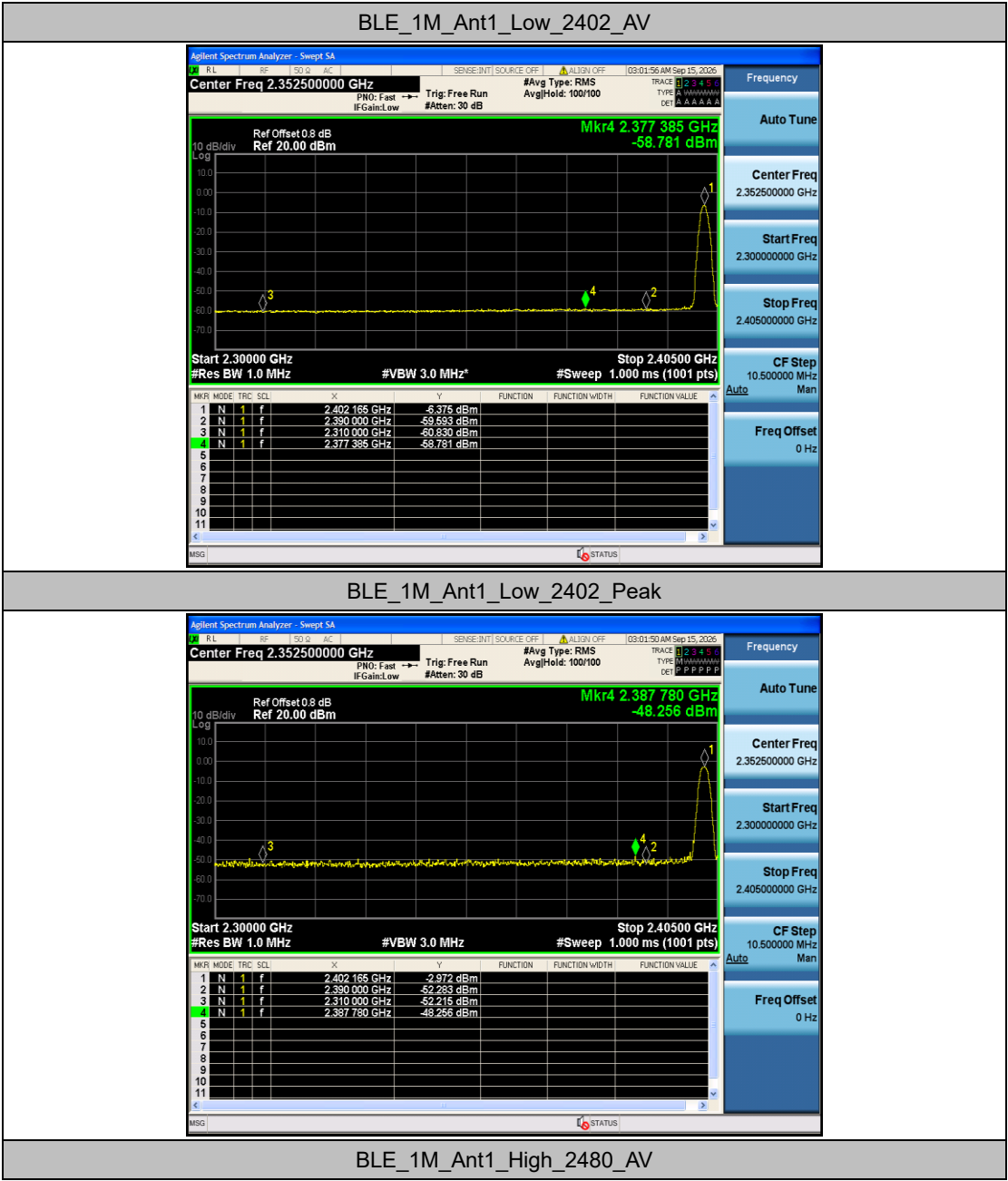
Test Result

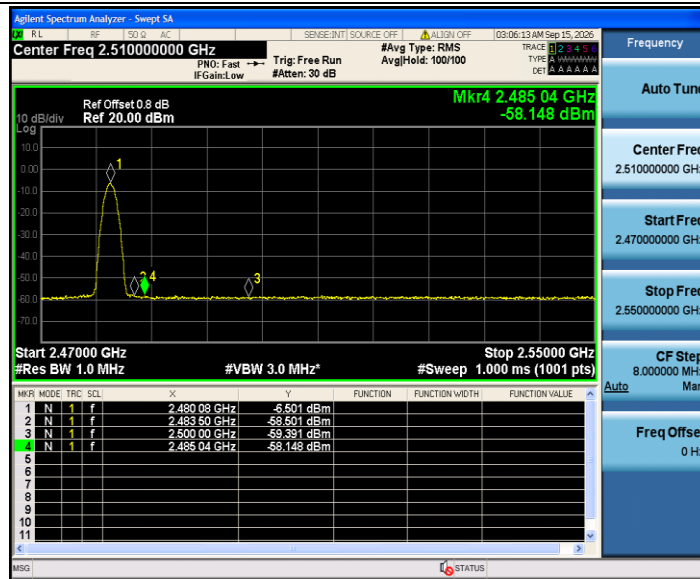
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.83	2.58	1.80	38.75	≤54	PASS
				AV	2377.385	-58.78	2.58	1.80	40.8	≤54	PASS
				AV	2390.000	-59.59	2.58	1.80	39.99	≤54	PASS
				Peak	2310.000	-52.22	2.58	0.00	45.56	≤74	PASS
				Peak	2387.780	-48.26	2.58	0.00	49.52	≤74	PASS
				Peak	2390.000	-52.28	2.58	0.00	45.5	≤74	PASS
		High	2480	AV	2483.500	-58.5	2.58	1.80	41.08	≤54	PASS
				AV	2485.040	-58.15	2.58	1.80	41.43	≤54	PASS
				AV	2500.000	-59.39	2.58	1.80	40.19	≤54	PASS
				Peak	2483.500	-48.42	2.58	0.00	49.36	≤74	PASS
				Peak	2484.080	-45.21	2.58	0.00	52.57	≤74	PASS
				Peak	2500.000	-50.14	2.58	0.00	47.64	≤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

