

FCC Appendix RF Test Data for BLE

FCC ID : 2BYH2-SG-1805A

Company : Shantou Chenghai Jichuang Toy Factory

EUT : Remote-controlled car

Model Number : SG-1805A

Report No. : CTA26091000101

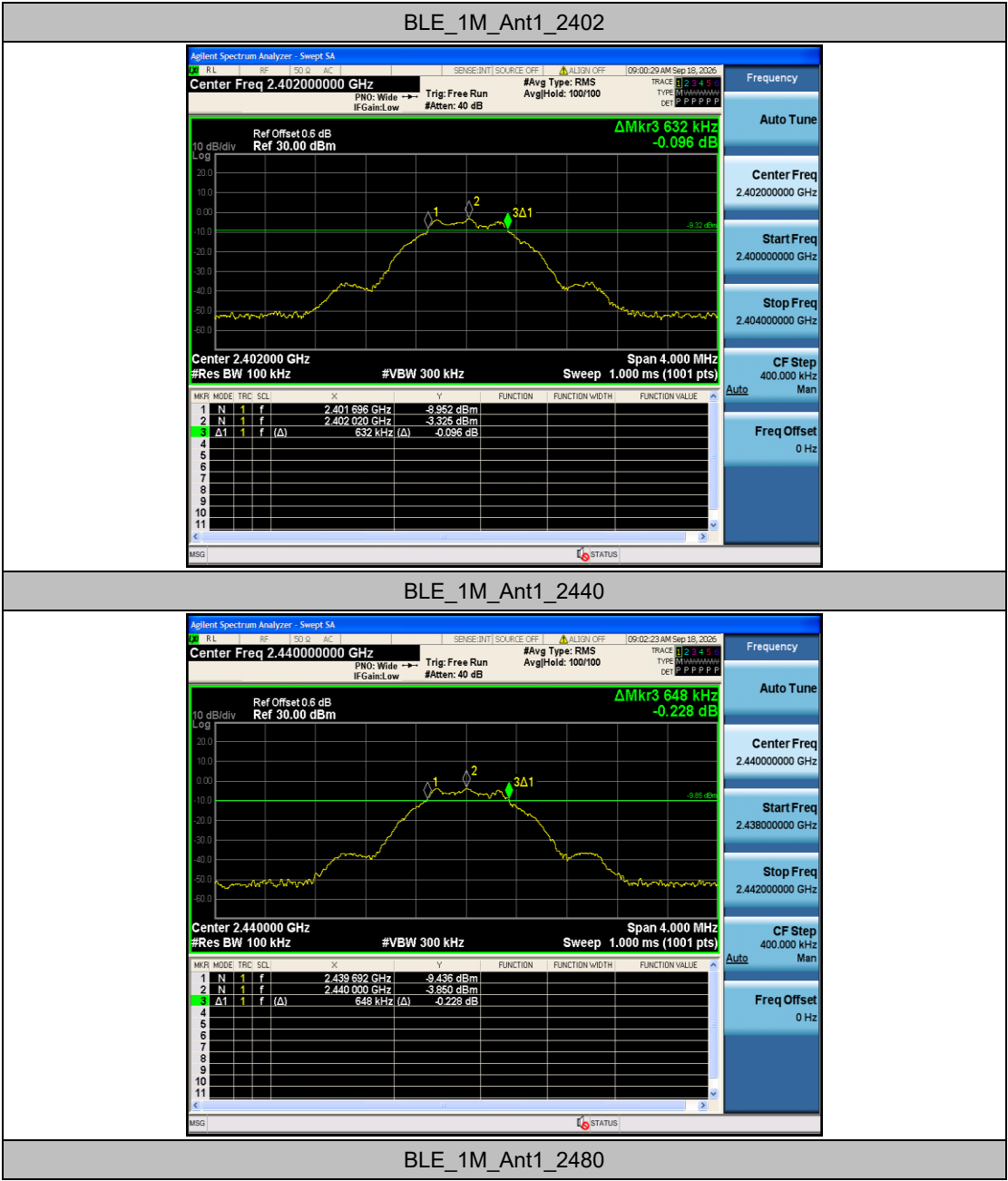
Reviewed By : Eric Wang

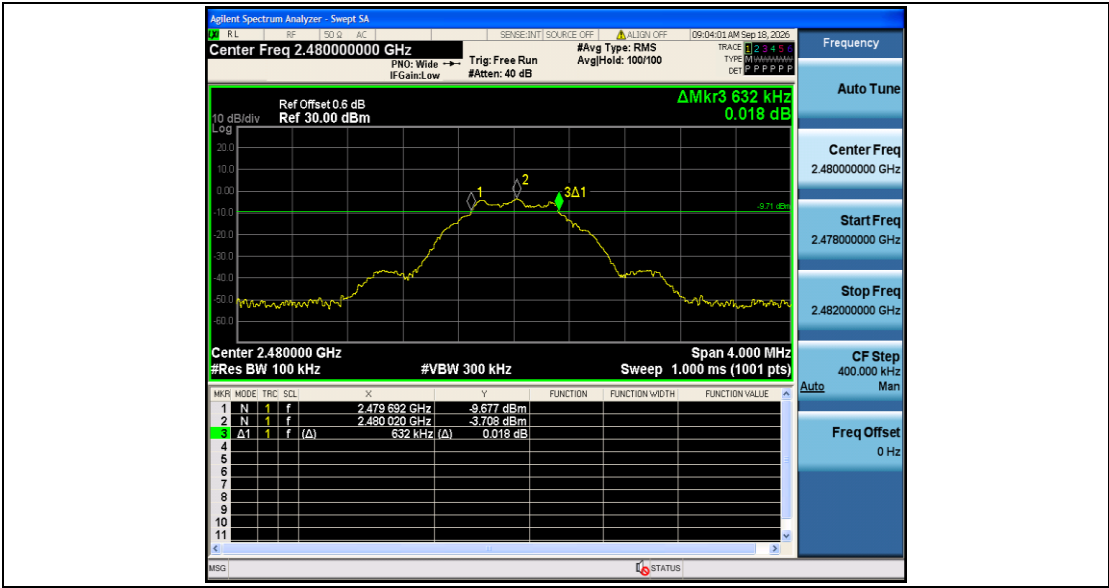
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.632	2401.696	2402.328	0.5	PASS
		2440	0.648	2439.692	2440.340	0.5	PASS
		2480	0.632	2479.692	2480.324	0.5	PASS

Test Graphs



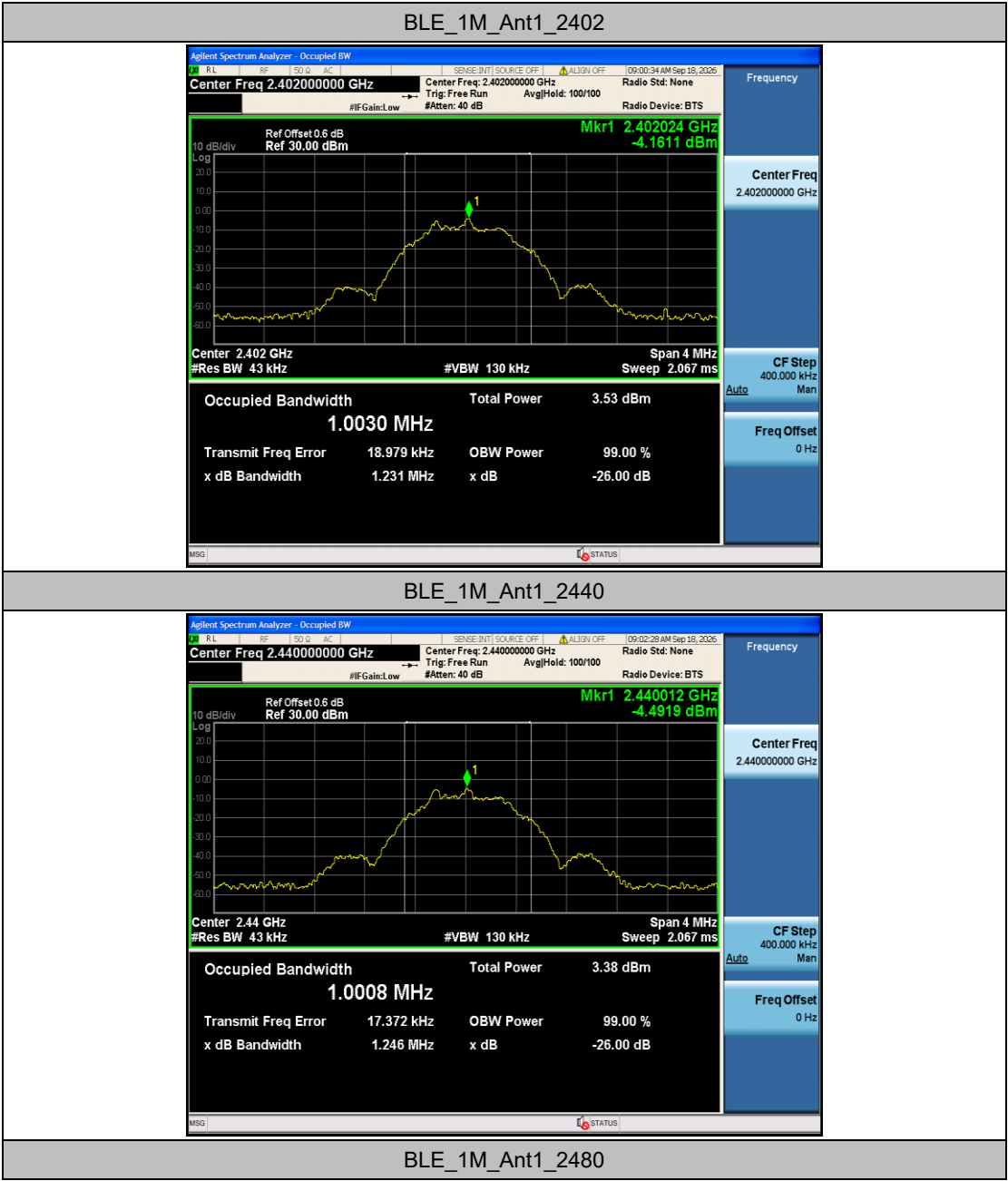


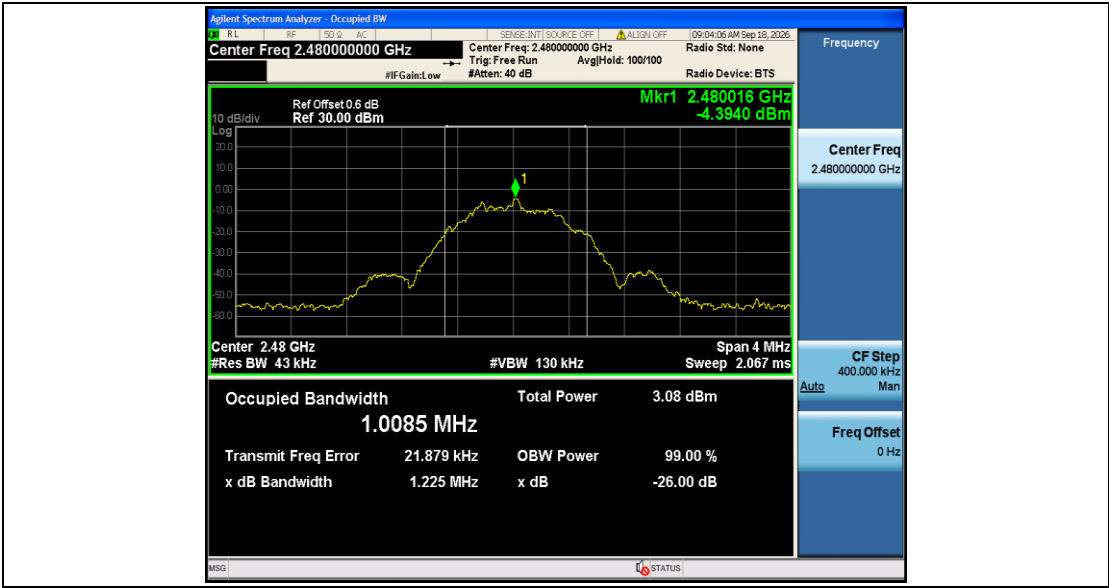
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0030	2401.5175	2402.5205	---	---
		2440	1.0008	2439.5170	2440.5178	---	---
		2480	1.0085	2479.5176	2480.5261	---	---

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	-3.18	≤30	PASS
		2440	-3.25	≤30	PASS
		2480	-3.53	≤30	PASS

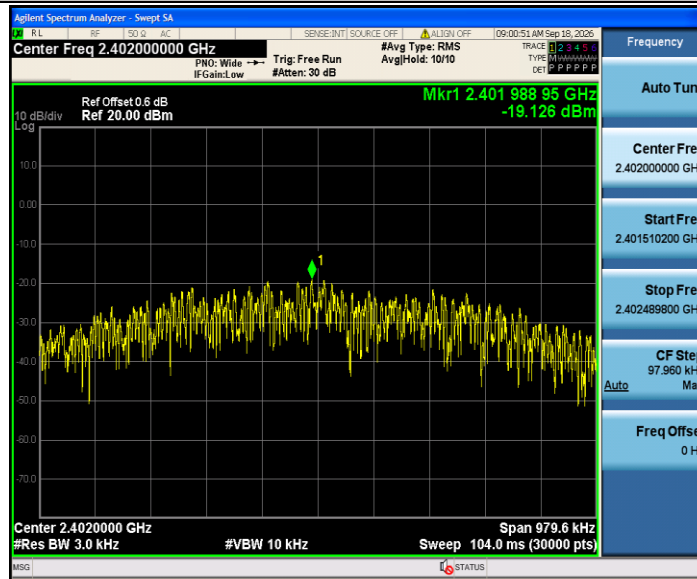
Appendix D: Maximum power spectral density

Test Result

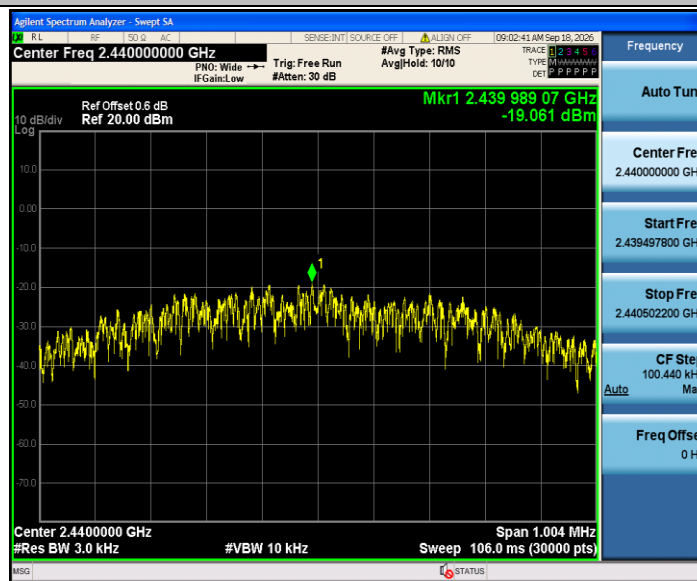
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.13	≤8.00	PASS
		2440	-19.06	≤8.00	PASS
		2480	-19.62	≤8.00	PASS

Test Graphs

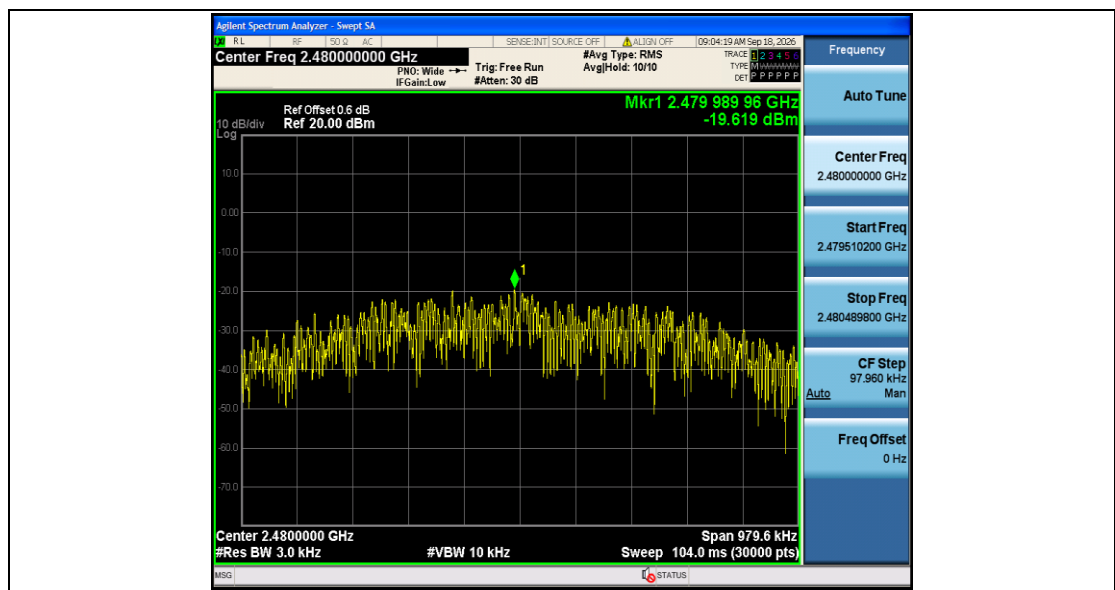
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

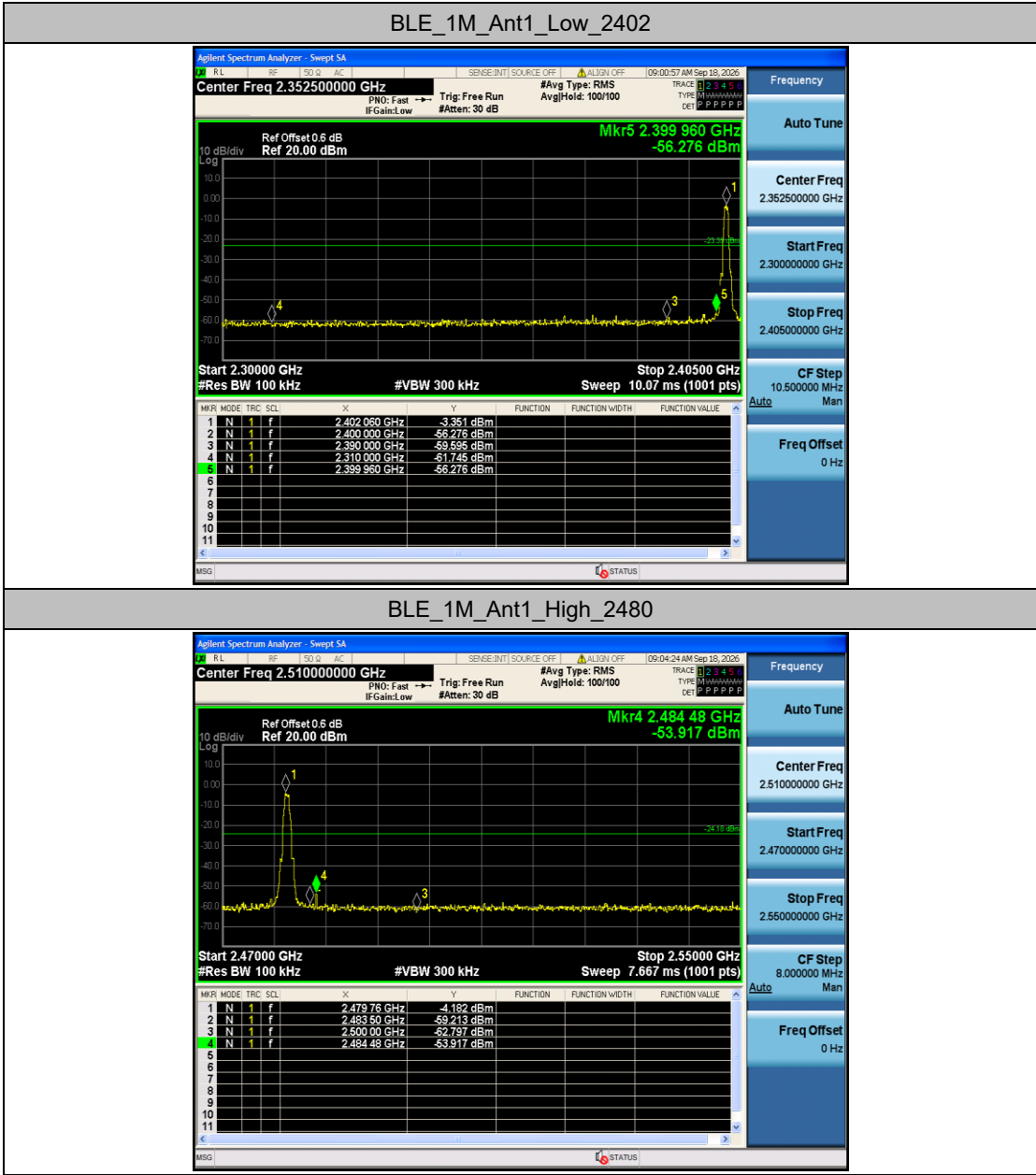


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.35	-56.28	≤-23.35	PASS
		High	2480	-4.18	-53.92	≤-24.18	PASS

Test Graphs

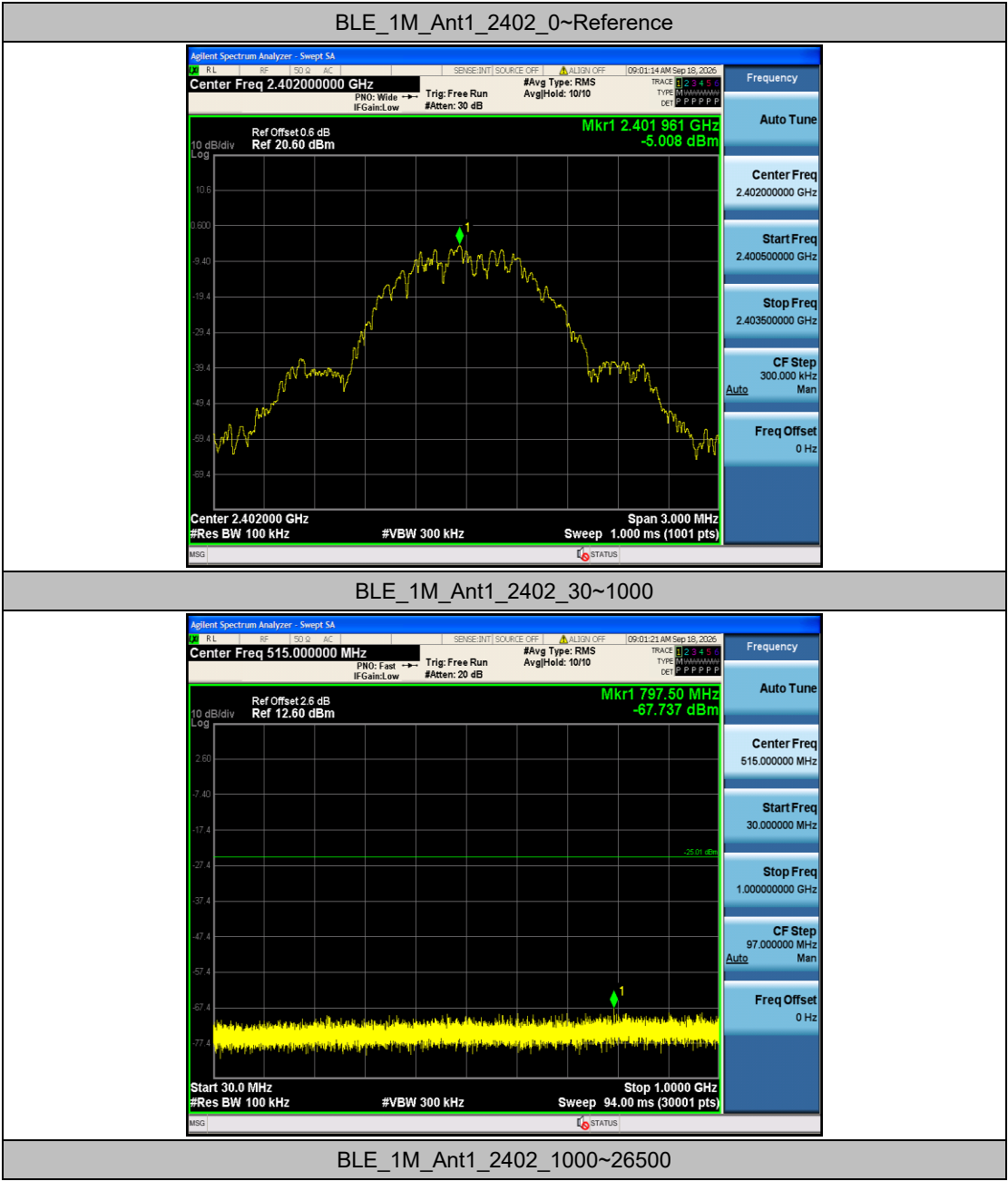


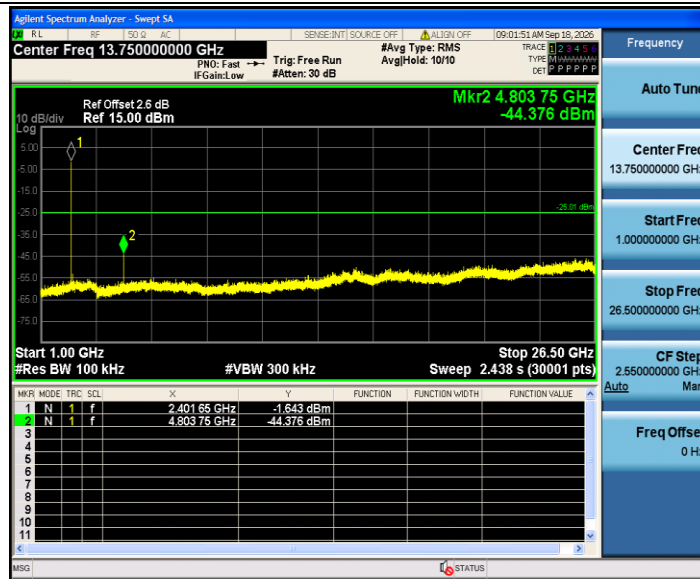
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-5.01	-5.01	---	PASS
			30~1000	-5.01	-67.74	≤-25.01	PASS
			1000~26500	-5.01	-44.38	≤-25.01	PASS
		2440	Reference	-5.11	-5.11	---	PASS
			30~1000	-5.11	-68.39	≤-25.11	PASS
			1000~26500	-5.11	-46.98	≤-25.11	PASS
		2480	Reference	-3.72	-3.72	---	PASS
			30~1000	-3.72	-68.29	≤-23.72	PASS
			1000~26500	-3.72	-46.14	≤-23.72	PASS

Test Graphs

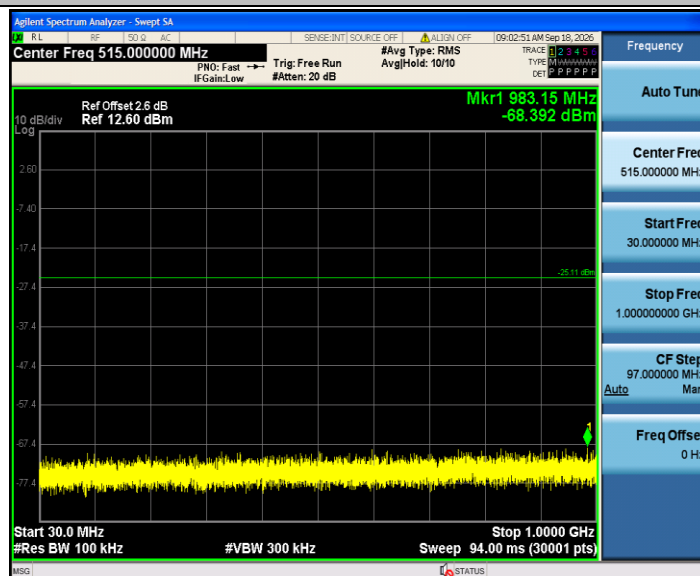




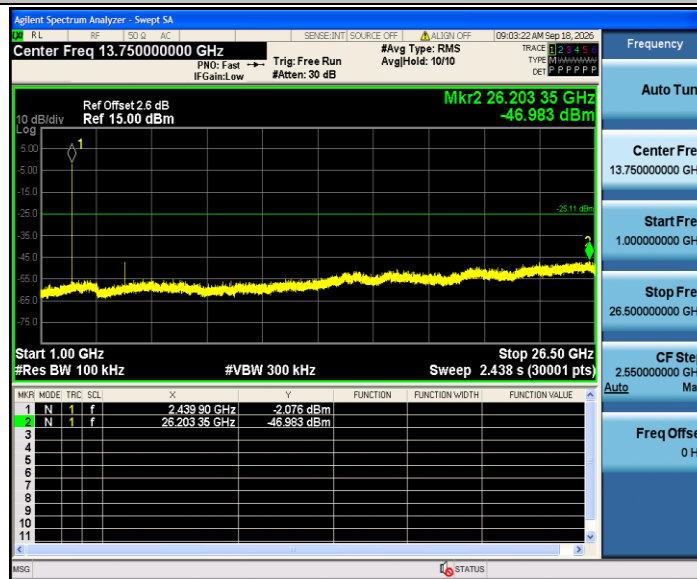
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



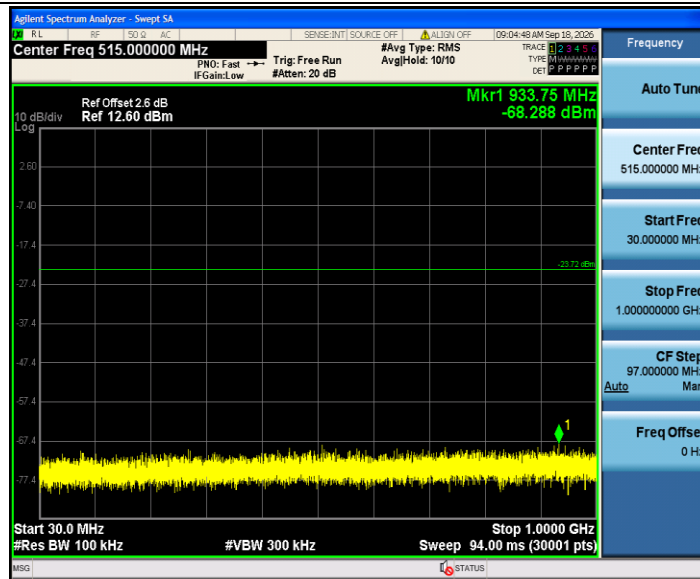
BLE_1M_Ant1_2440_1000~26500



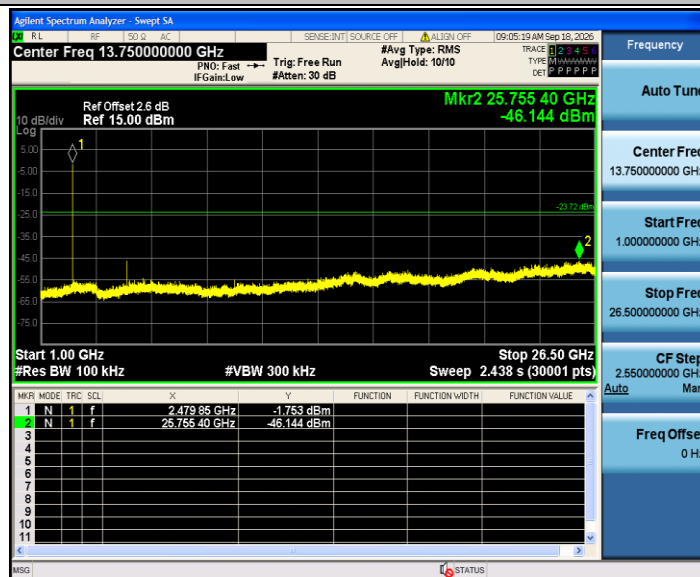
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

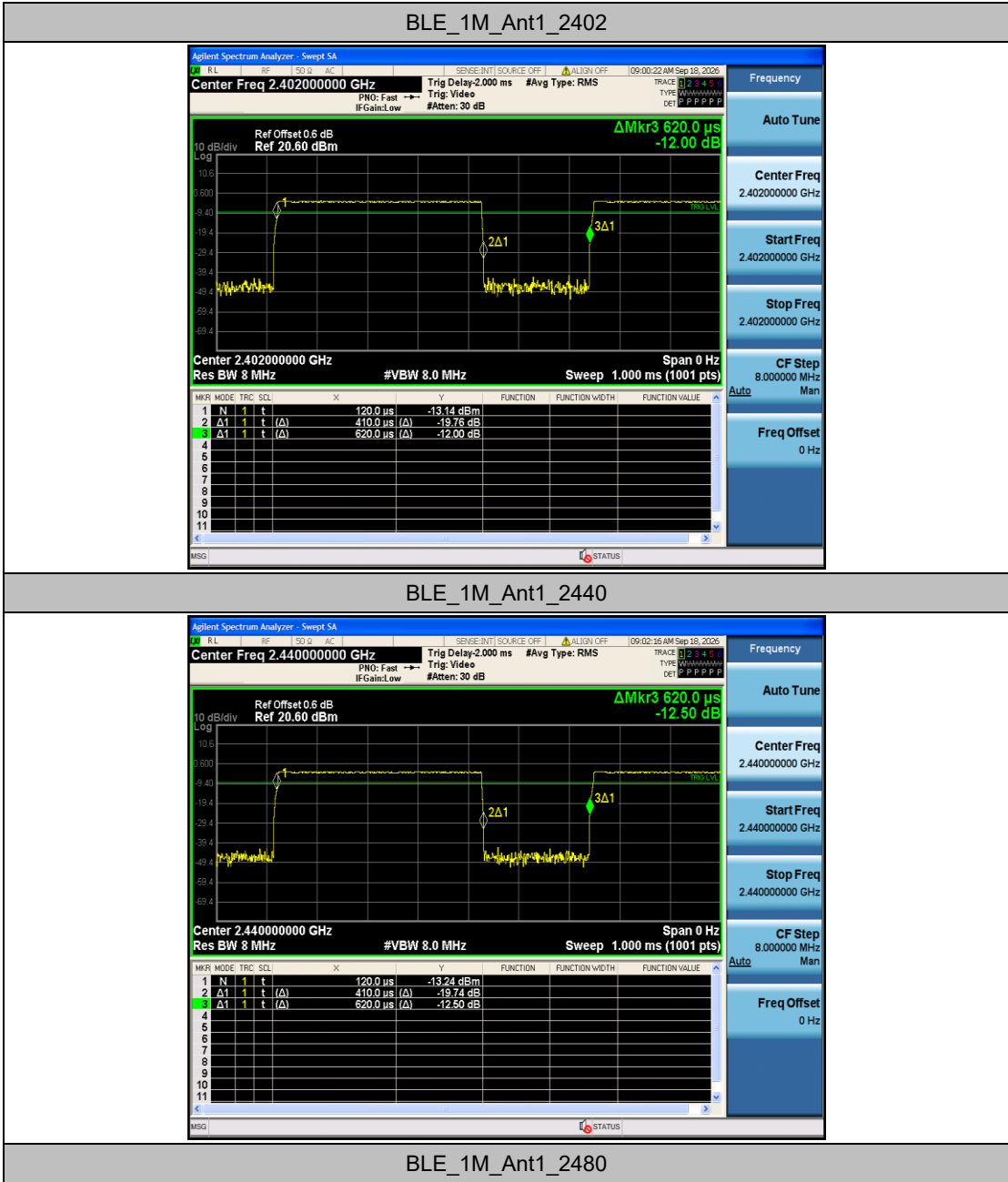


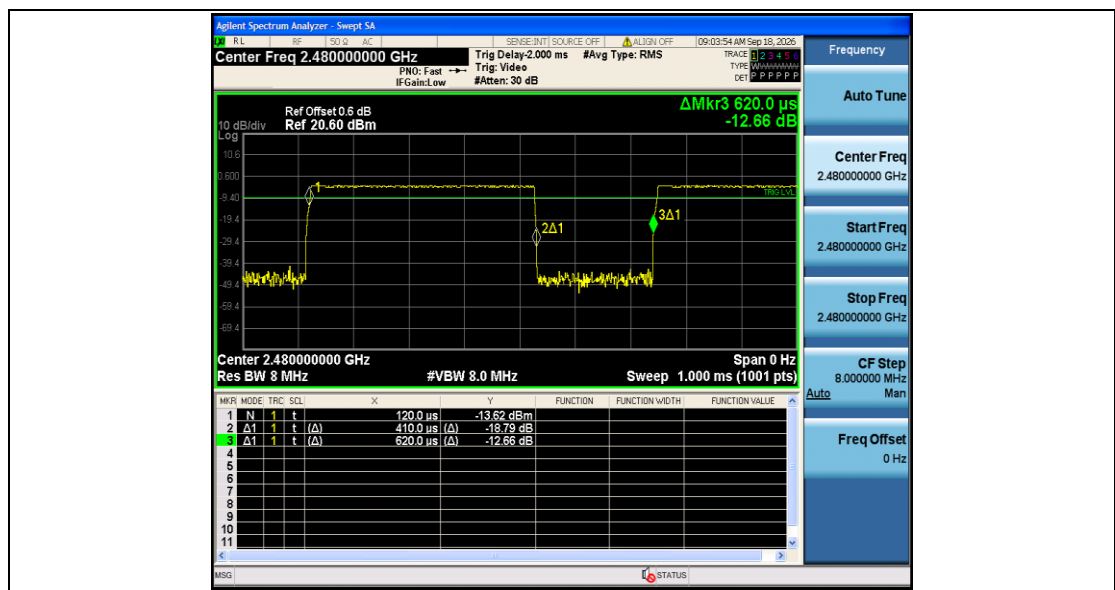
Appendix G: Duty Cycle

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

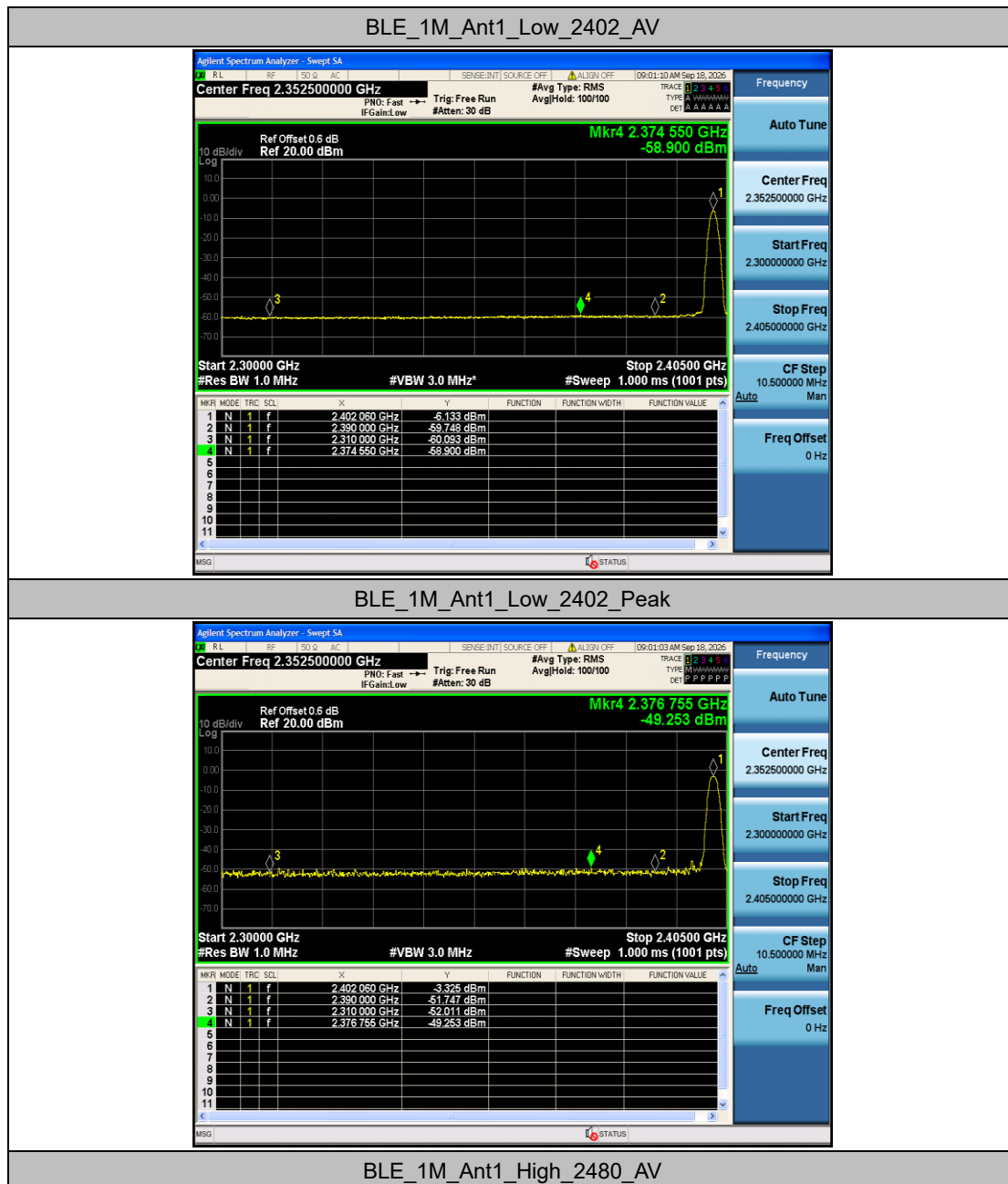
Test Result

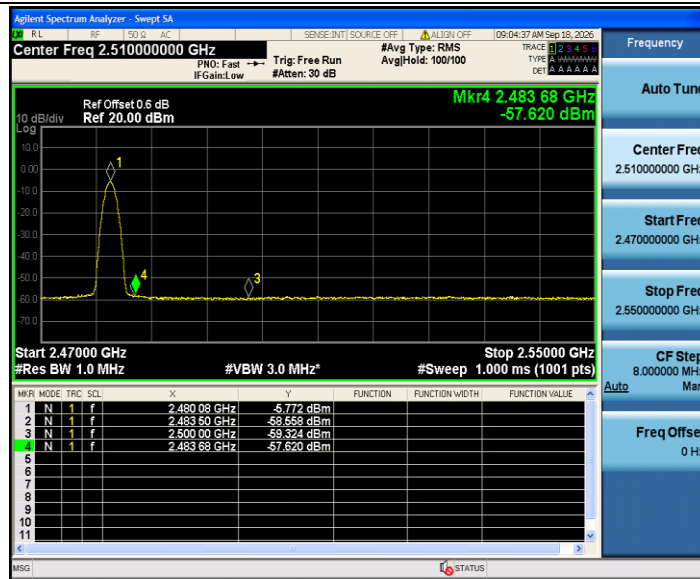
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.09	2.00	1.80	38.91	≤54	PASS
				AV	2374.550	-58.9	2.00	1.80	40.10	≤54	PASS
				AV	2390.000	-59.75	2.00	1.80	39.25	≤54	PASS
				Peak	2310.000	-52.01	2.00	0.00	45.19	≤74	PASS
				Peak	2376.755	-49.25	2.00	0.00	47.95	≤74	PASS
				Peak	2390.000	-51.75	2.00	0.00	45.45	≤74	PASS
		High	2480	AV	2483.500	-58.56	2.00	1.80	40.44	≤54	PASS
				AV	2483.680	-57.62	2.00	1.80	41.38	≤54	PASS
				AV	2500.000	-59.32	2.00	1.80	39.68	≤54	PASS
				Peak	2483.500	-48.07	2.00	0.00	49.13	≤74	PASS
				Peak	2483.840	-47.48	2.00	0.00	49.72	≤74	PASS
				Peak	2500.000	-52.01	2.00	0.00	45.19	≤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

