

FCC Appendix RF Test Data for BLE

FCC ID : 2ALSA-AG36

Company : Shinetech Industrial Co.,Ltd

EUT : Anti-lost Tracker

Model Number : AG36

Report No. : CTA26050700301

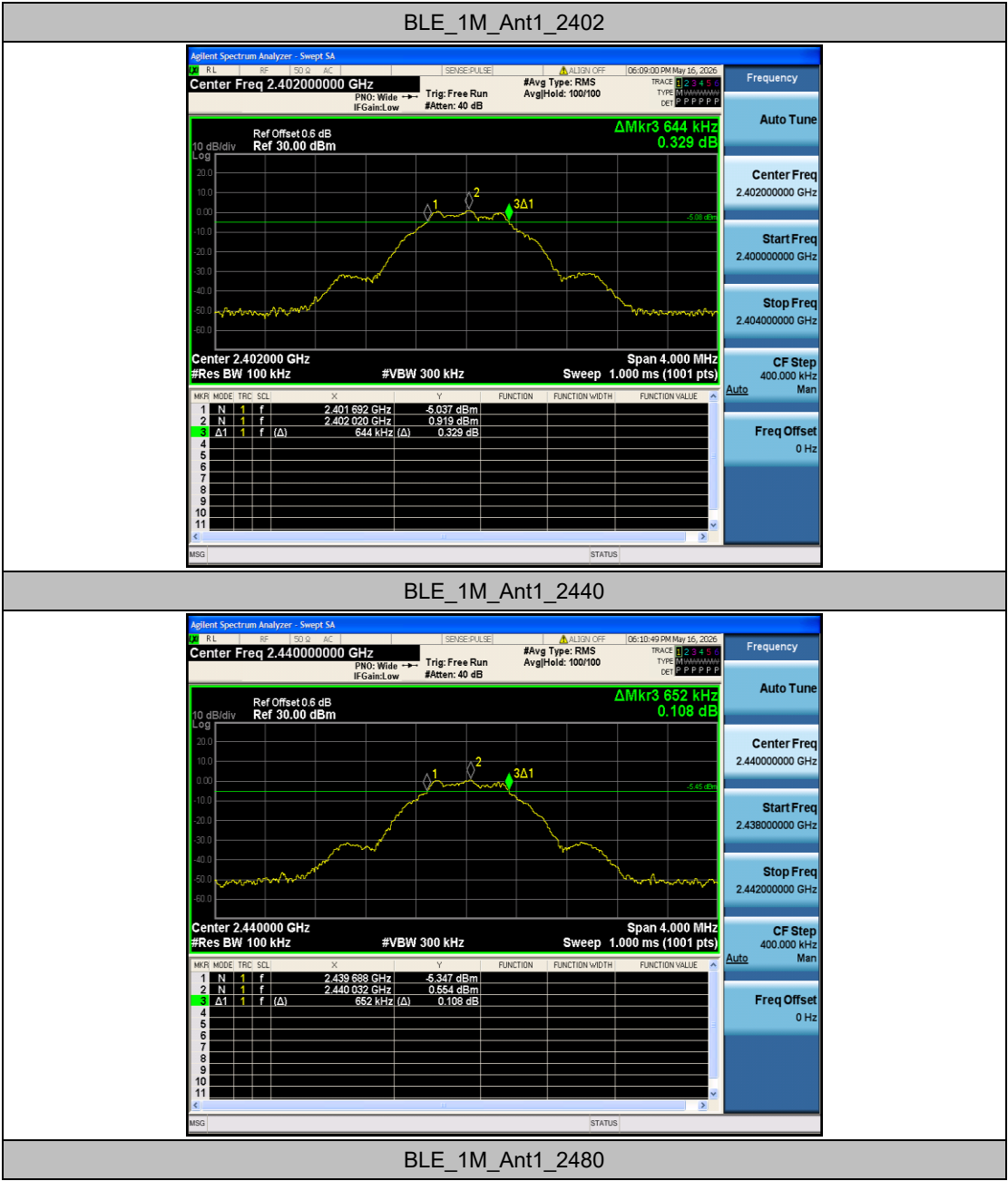
Reviewed By : Eric Wang

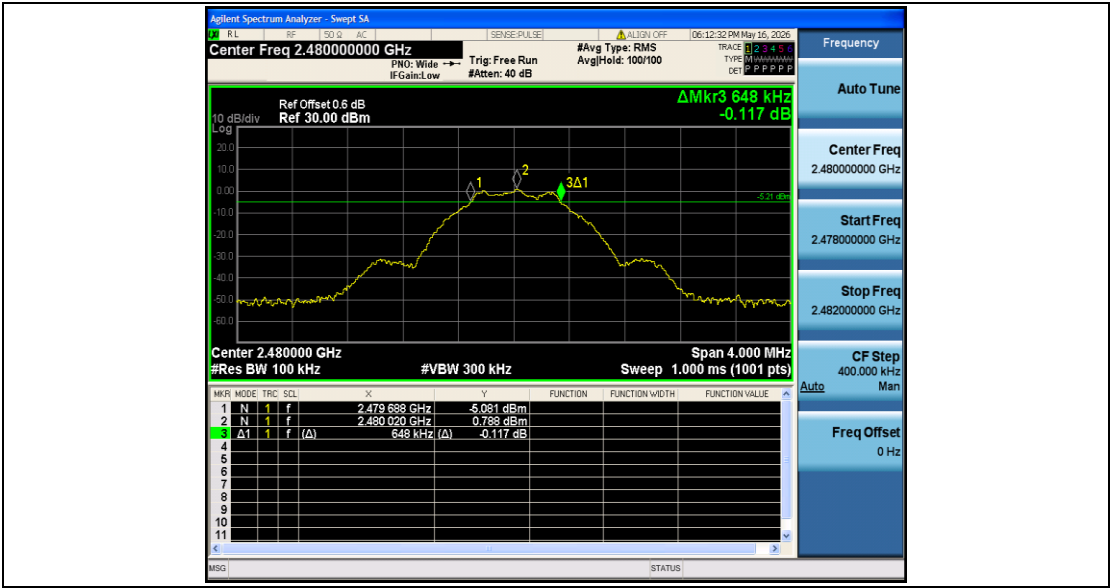
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.644	2401.692	2402.336	0.5	PASS
		2440	0.652	2439.688	2440.340	0.5	PASS
		2480	0.648	2479.688	2480.336	0.5	PASS

Test Graphs



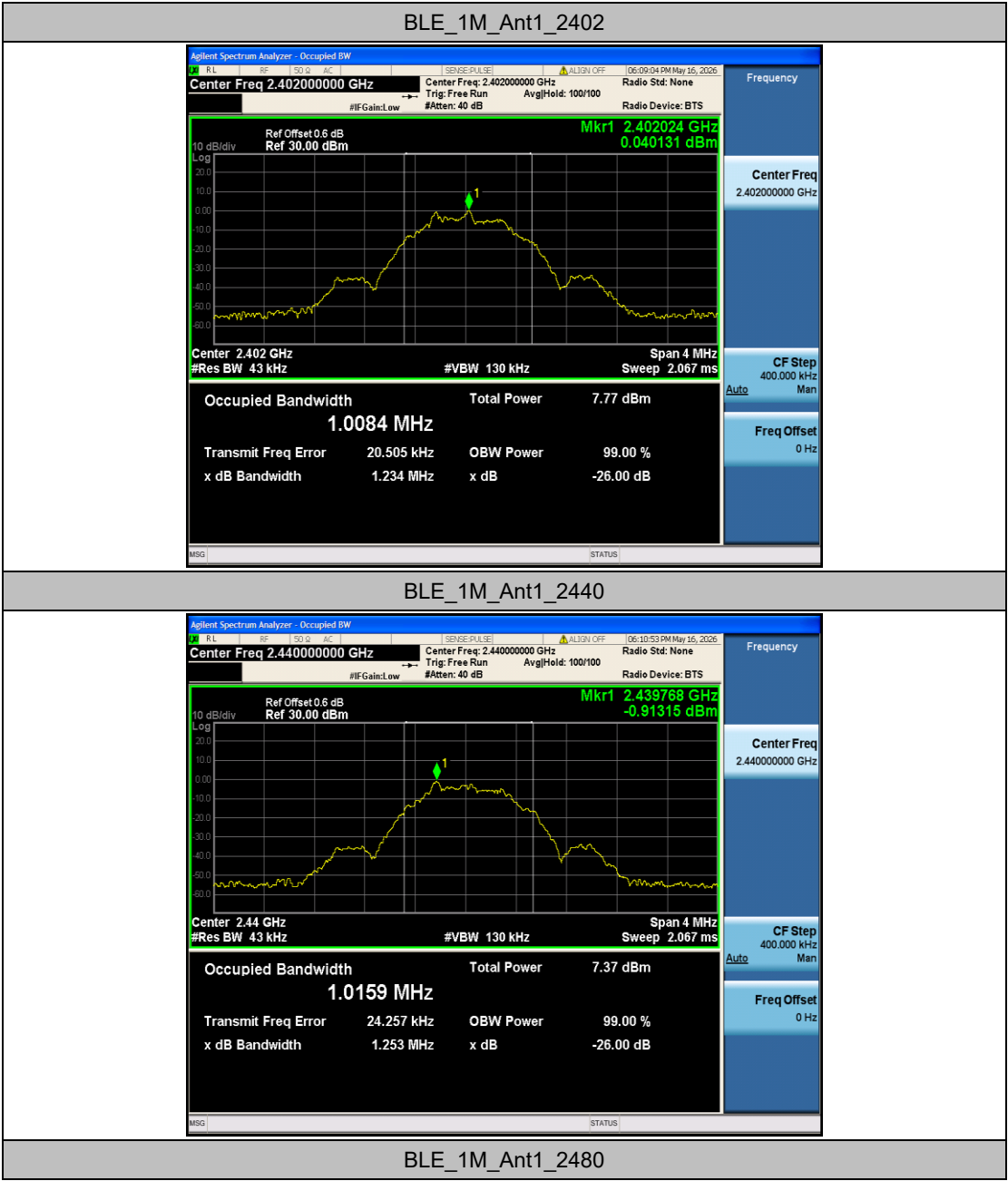


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0084	2401.5163	2402.5247	---	---
		2440	1.0159	2439.5163	2440.5322	---	---
		2480	1.0041	2479.5192	2480.5233	---	---

Test Graphs





Appendix C: Maximum conducted output power

Test Result Peak

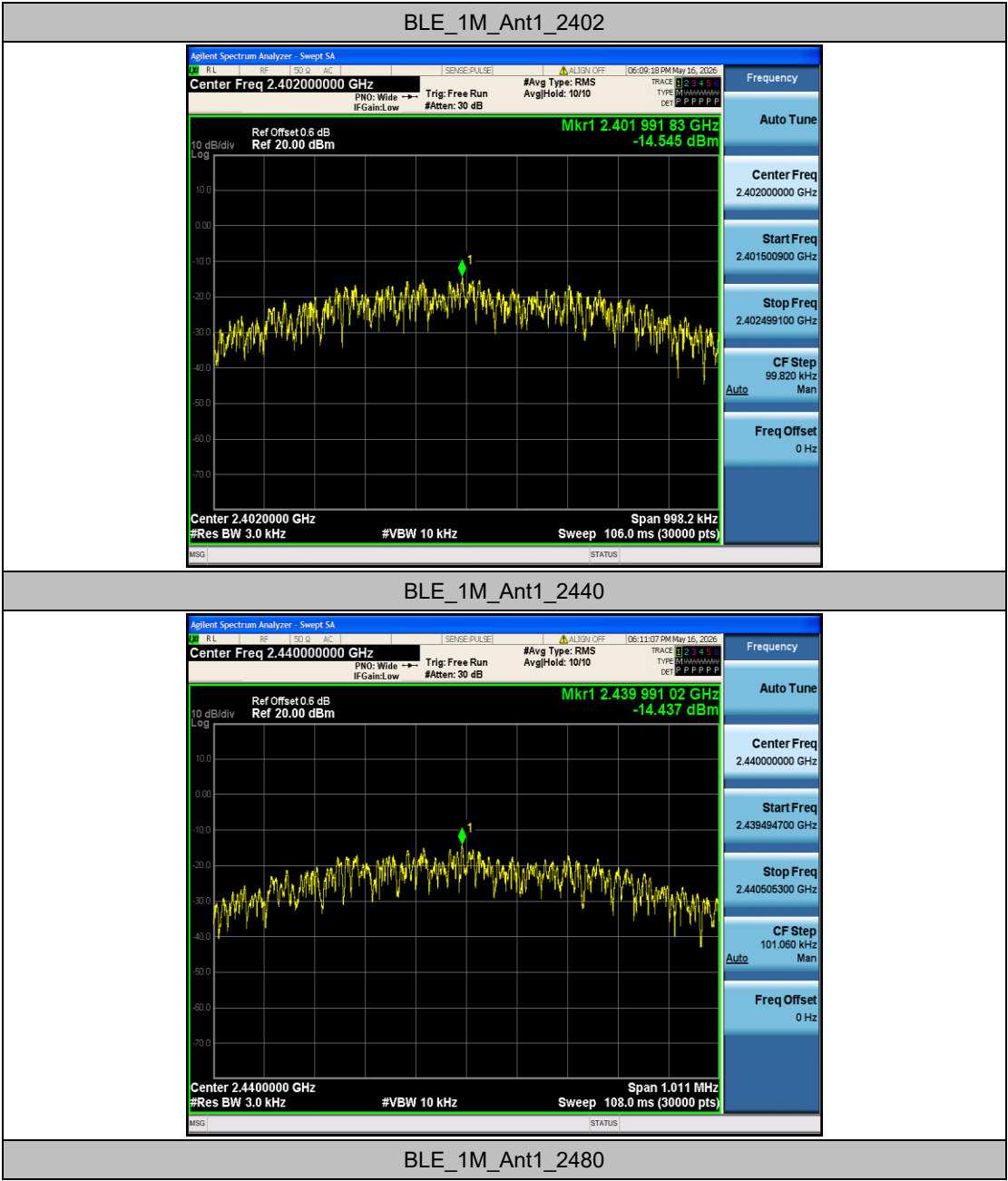
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.54	≤30	PASS
		2440	0.31	≤30	PASS
		2480	-0.57	≤30	PASS

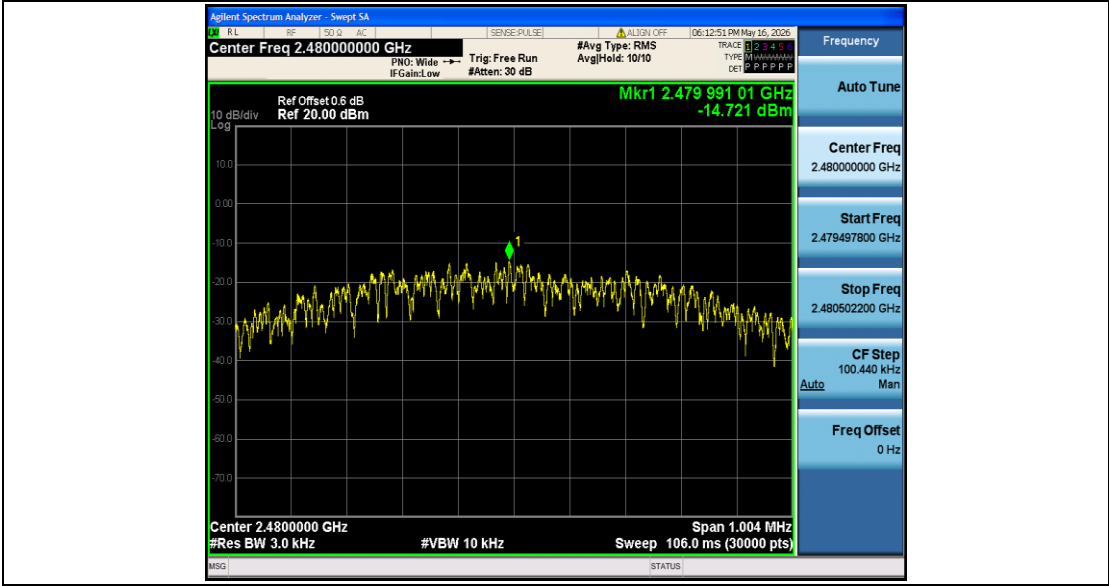
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.55	≤8.00	PASS
		2440	-14.44	≤8.00	PASS
		2480	-14.72	≤8.00	PASS

Test Graphs



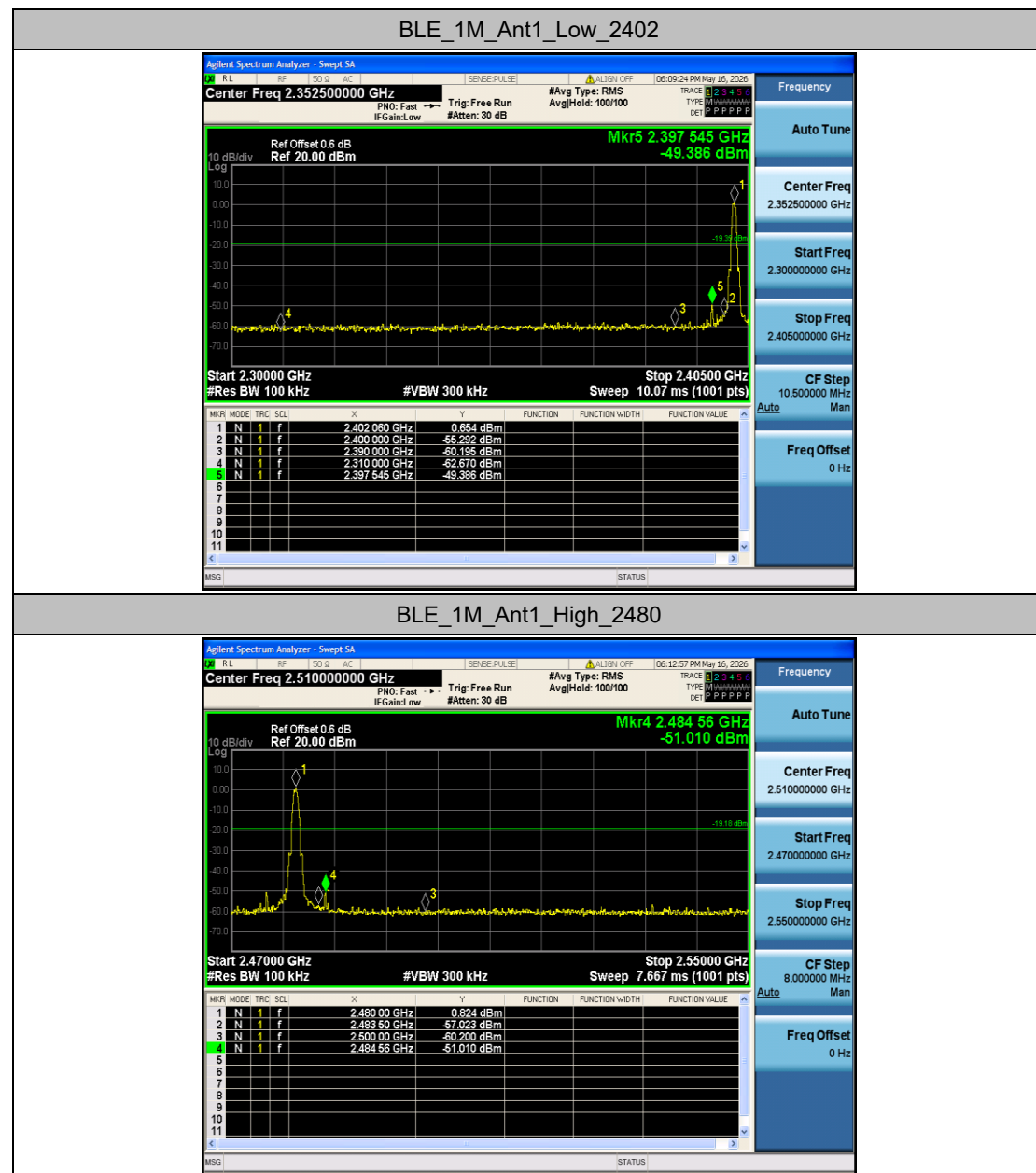


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.65	-49.39	≤-19.35	PASS
		High	2480	0.82	-51.01	≤-19.18	PASS

Test Graphs

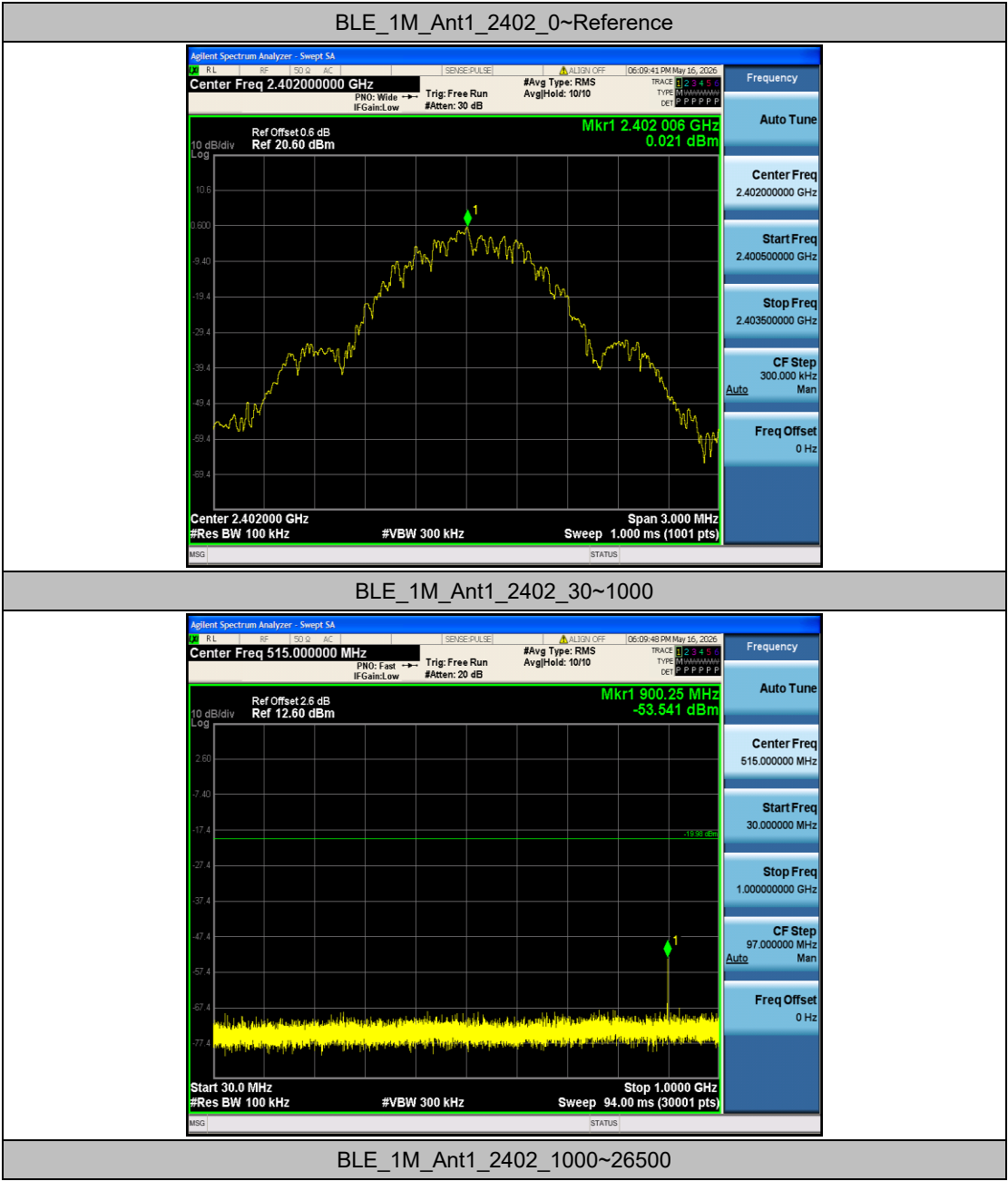


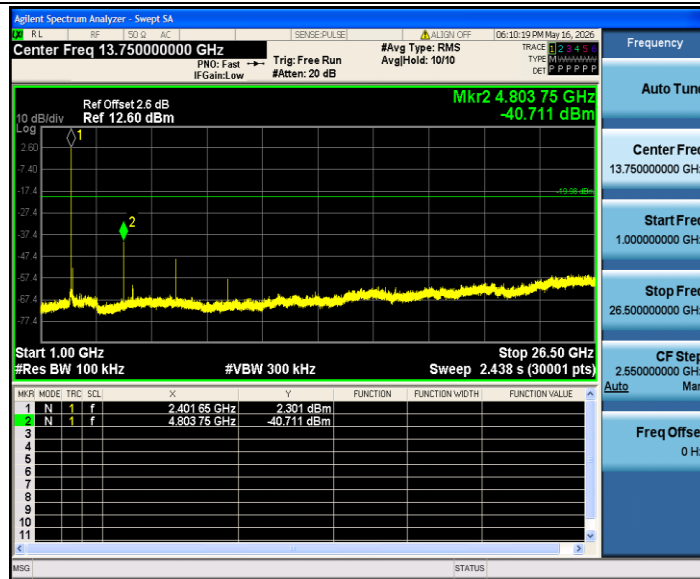
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.02	0.02	---	PASS
			30~1000	0.02	-53.54	≤-19.98	PASS
			1000~26500	0.02	-40.71	≤-19.98	PASS
		2440	Reference	-0.15	-0.15	---	PASS
			30~1000	-0.15	-58.85	≤-20.15	PASS
			1000~26500	-0.15	-43.39	≤-20.15	PASS
		2480	Reference	0.16	0.16	---	PASS
			30~1000	0.16	-61.96	≤-19.84	PASS
			1000~26500	0.16	-45.43	≤-19.84	PASS

Test Graphs

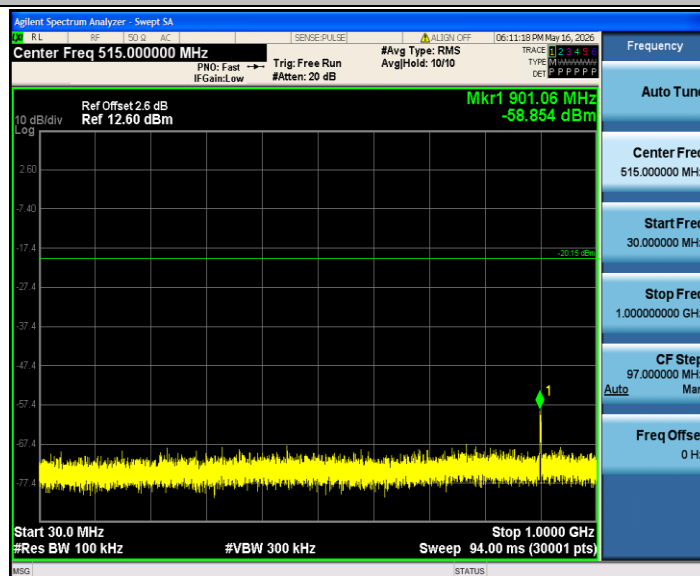




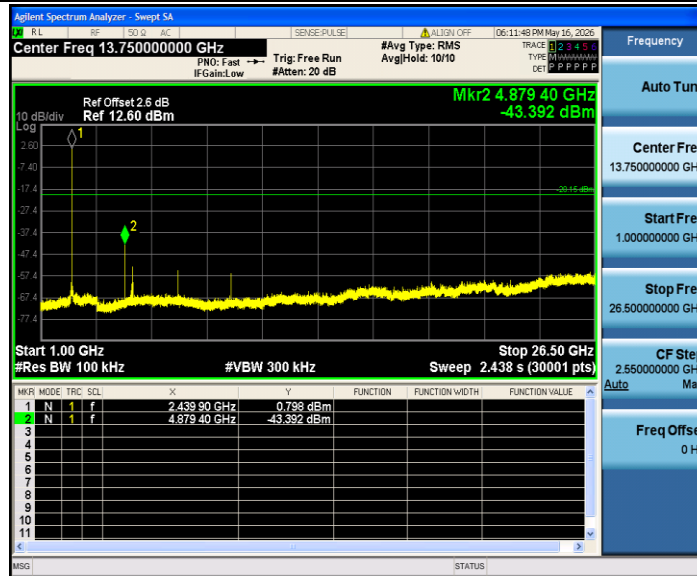
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



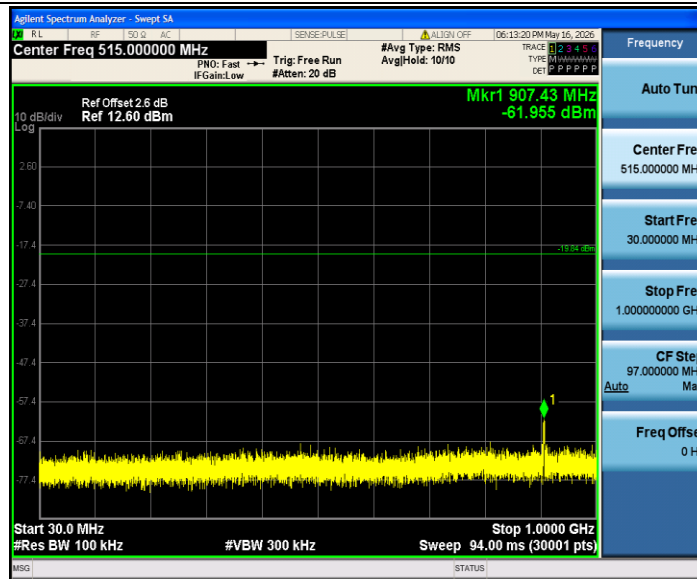
BLE_1M_Ant1_2440_1000~26500



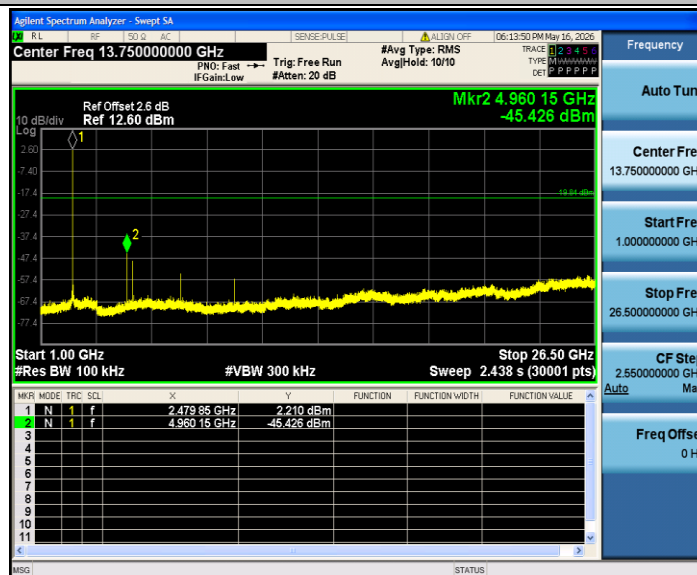
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

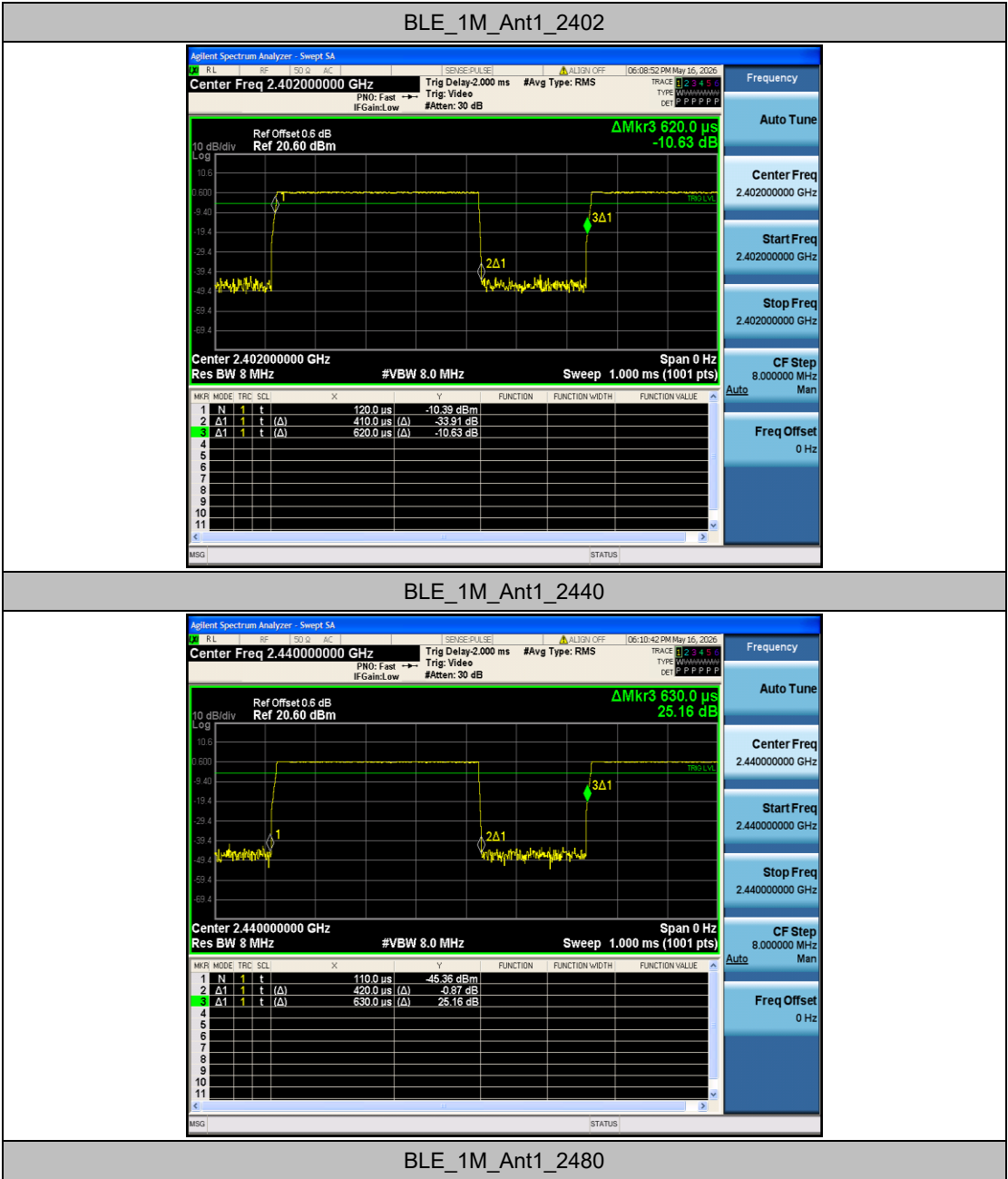


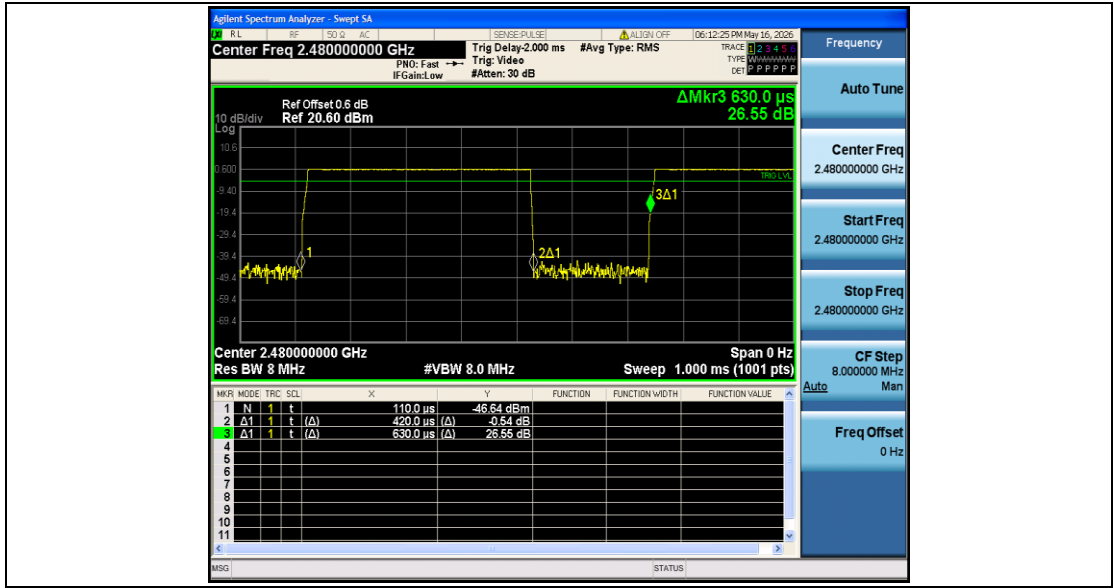
Appendix G: Duty Cycle

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	0.42	0.63	0.6667	66.67	1.76	---	---
		2480	0.42	0.63	0.6667	66.67	1.76	---	---

Test Graphs





Appendix H: Emissions in Restricted Bands

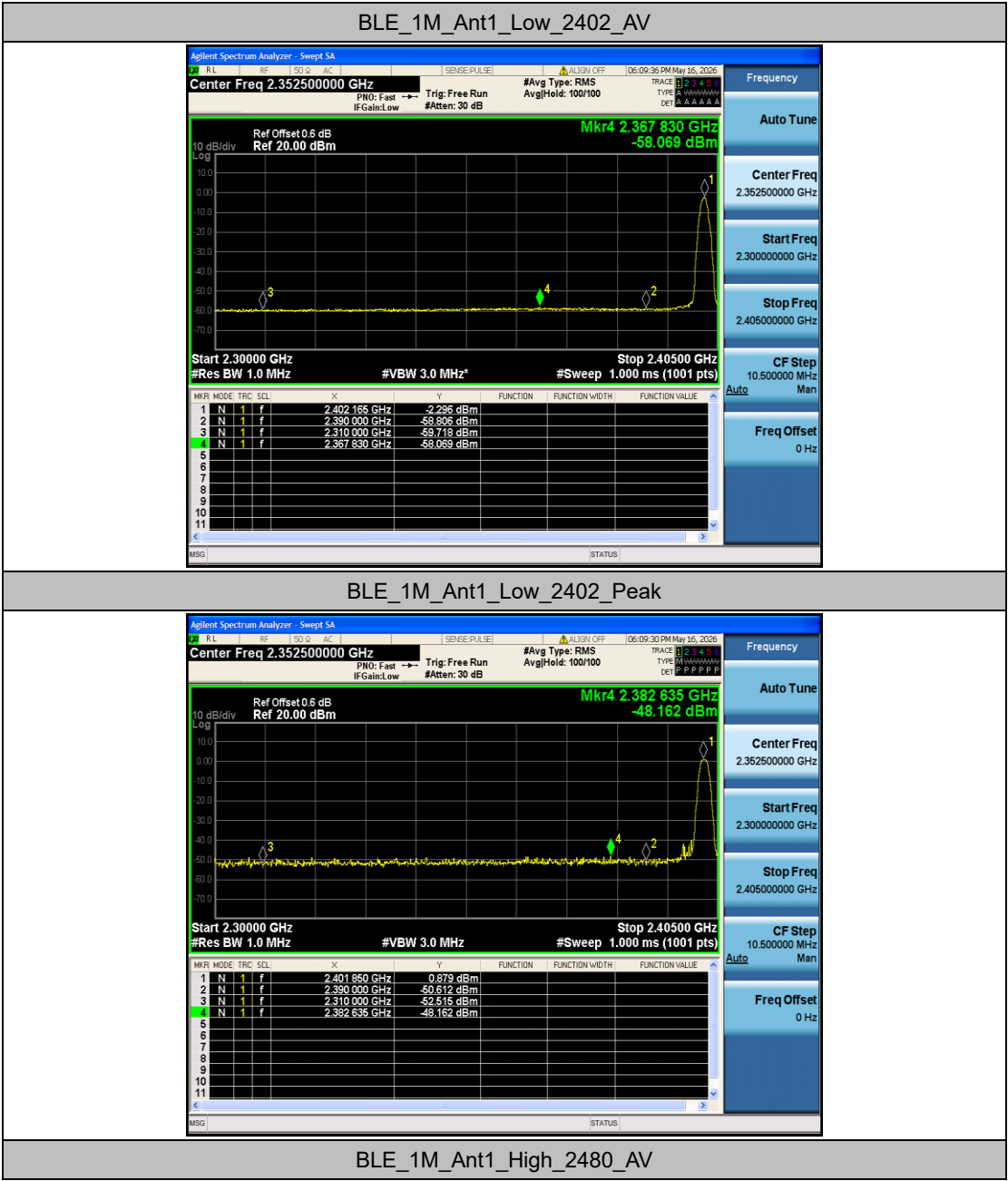
Test Result

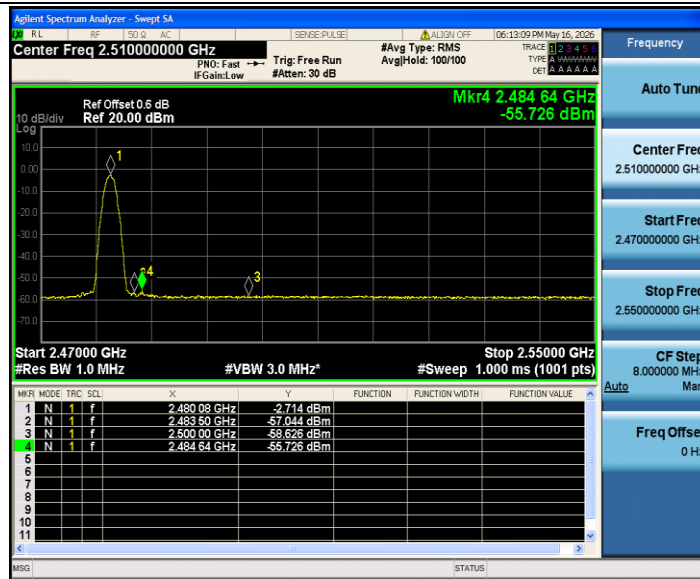
TestMode	Antenna	Channel	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-59.72	2.00	1.80	39.28	≤54	PASS
				AV	2367.830	-58.07	2.00	1.80	40.93	≤54	PASS
				AV	2390.000	-58.81	2.00	1.80	40.19	≤54	PASS
				Peak	2310.000	-52.52	2.00	0.00	44.68	≤74	PASS
				Peak	2382.635	-48.16	2.00	0.00	49.04	≤74	PASS
				Peak	2390.000	-50.61	2.00	0.00	46.59	≤74	PASS
		High	2480	AV	2483.500	-57.04	2.00	1.76	41.92	≤54	PASS
				AV	2484.640	-55.73	2.00	1.76	43.23	≤54	PASS
				AV	2500.000	-58.63	2.00	1.76	40.33	≤54	PASS
				Peak	2483.500	-48.83	2.00	0.00	48.37	≤74	PASS
				Peak	2484.560	-43.22	2.00	0.00	53.98	≤74	PASS
				Peak	2500.000	-50.26	2.00	0.00	46.94	≤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

