

FCC Appendix RF Test Data for BLE

FCC ID : 2BXBH-TYREIQS5

Company : Shenzhen VAPON Technology Co., Ltd.

EUT : Smart Android-Based TPMS Scan & Diagnostic Platform

Model Number : TyreIQ S5

Report No. : CTA26062401801

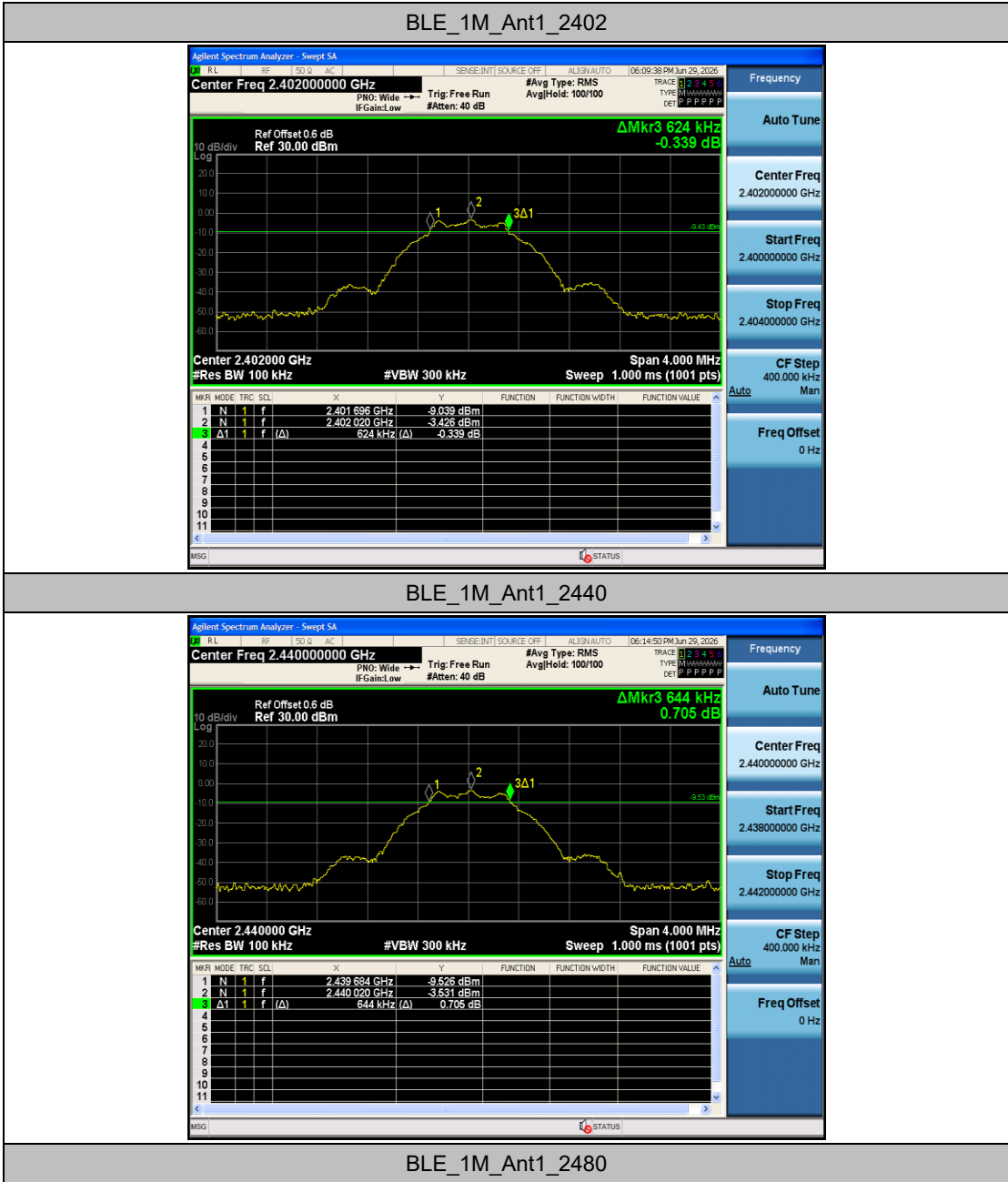
Reviewed By : Eric Wang

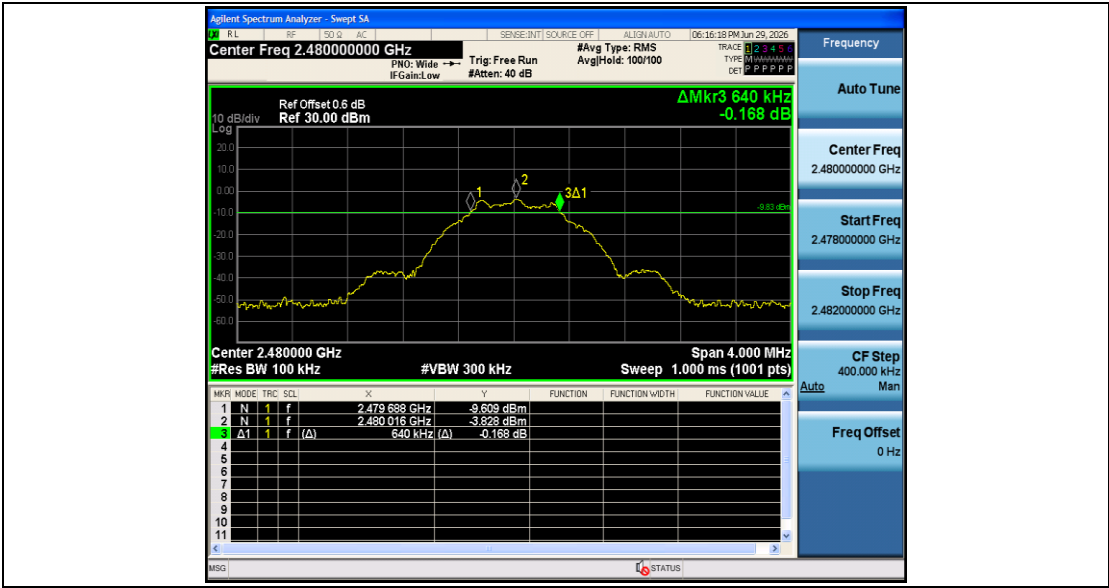
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.624	2401.696	2402.320	0.5	PASS
		2440	0.644	2439.684	2440.328	0.5	PASS
		2480	0.640	2479.688	2480.328	0.5	PASS

Test Graphs



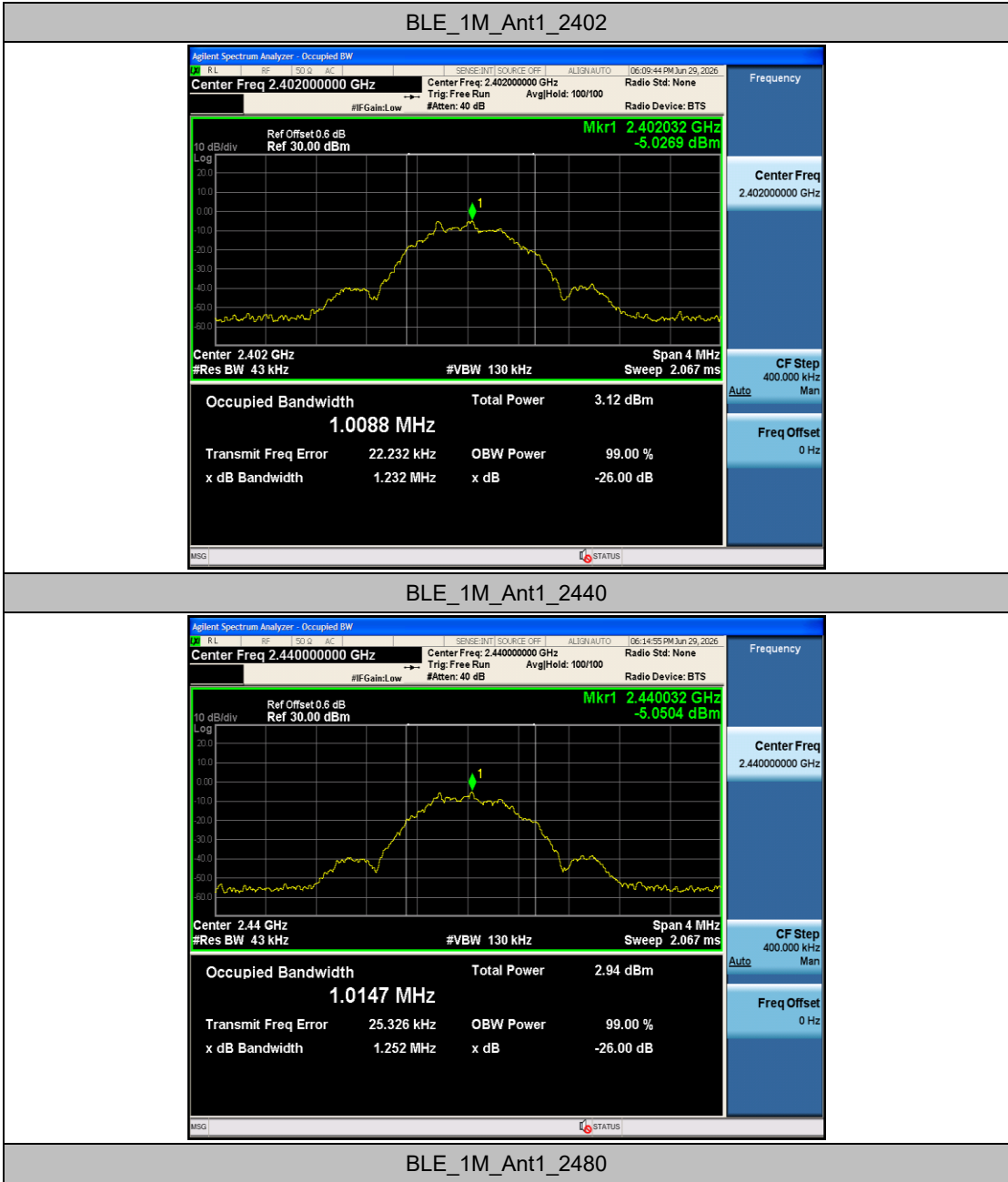


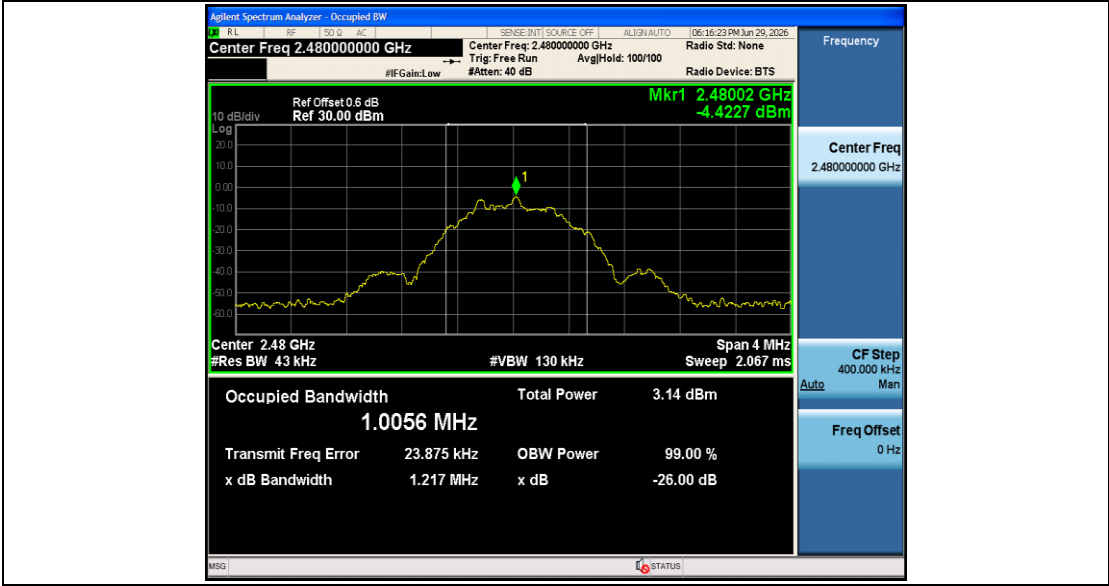
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0088	2401.5178	2402.5266	---	---
		2440	1.0147	2439.5180	2440.5327	---	---
		2480	1.0056	2479.5211	2480.5267	---	---

Test Graphs





Appendix C: Maximum conducted output power

Test Result Peak

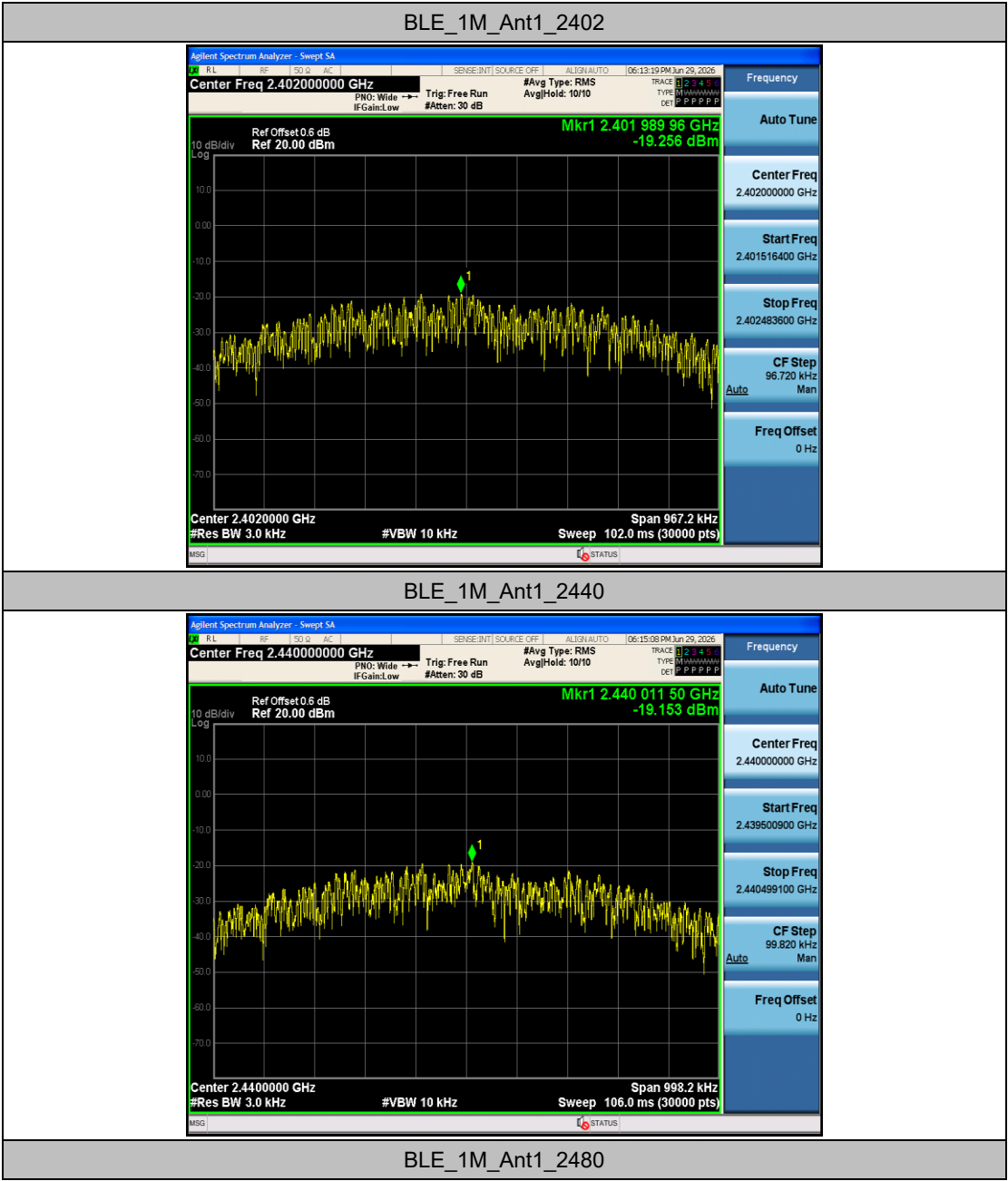
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.34	≤30	PASS
		2440	-3.33	≤30	PASS
		2480	-3.62	≤30	PASS

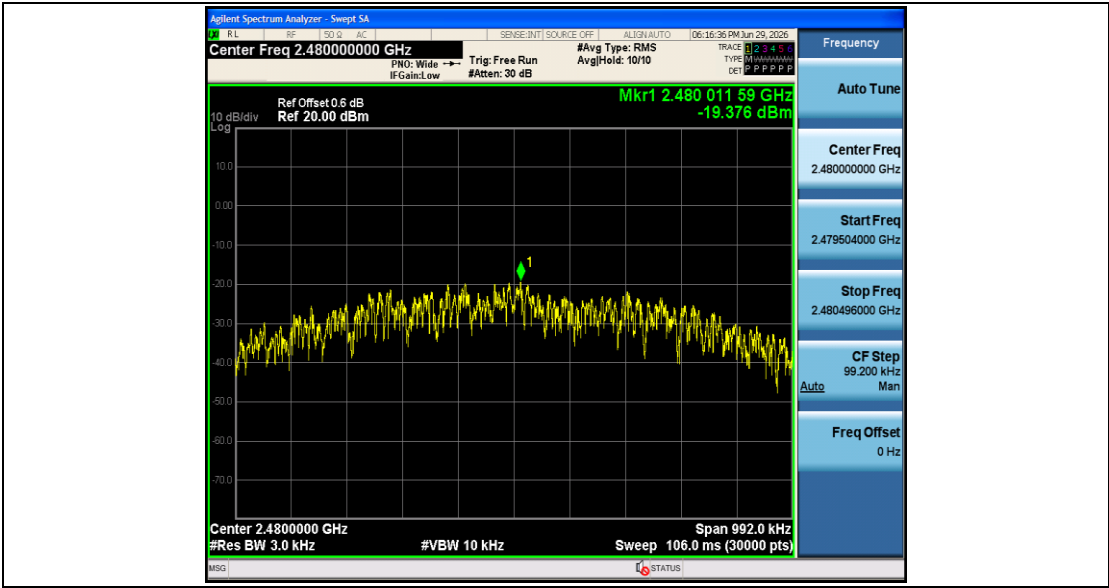
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.26	≤8.00	PASS
		2440	-19.15	≤8.00	PASS
		2480	-19.38	≤8.00	PASS

Test Graphs



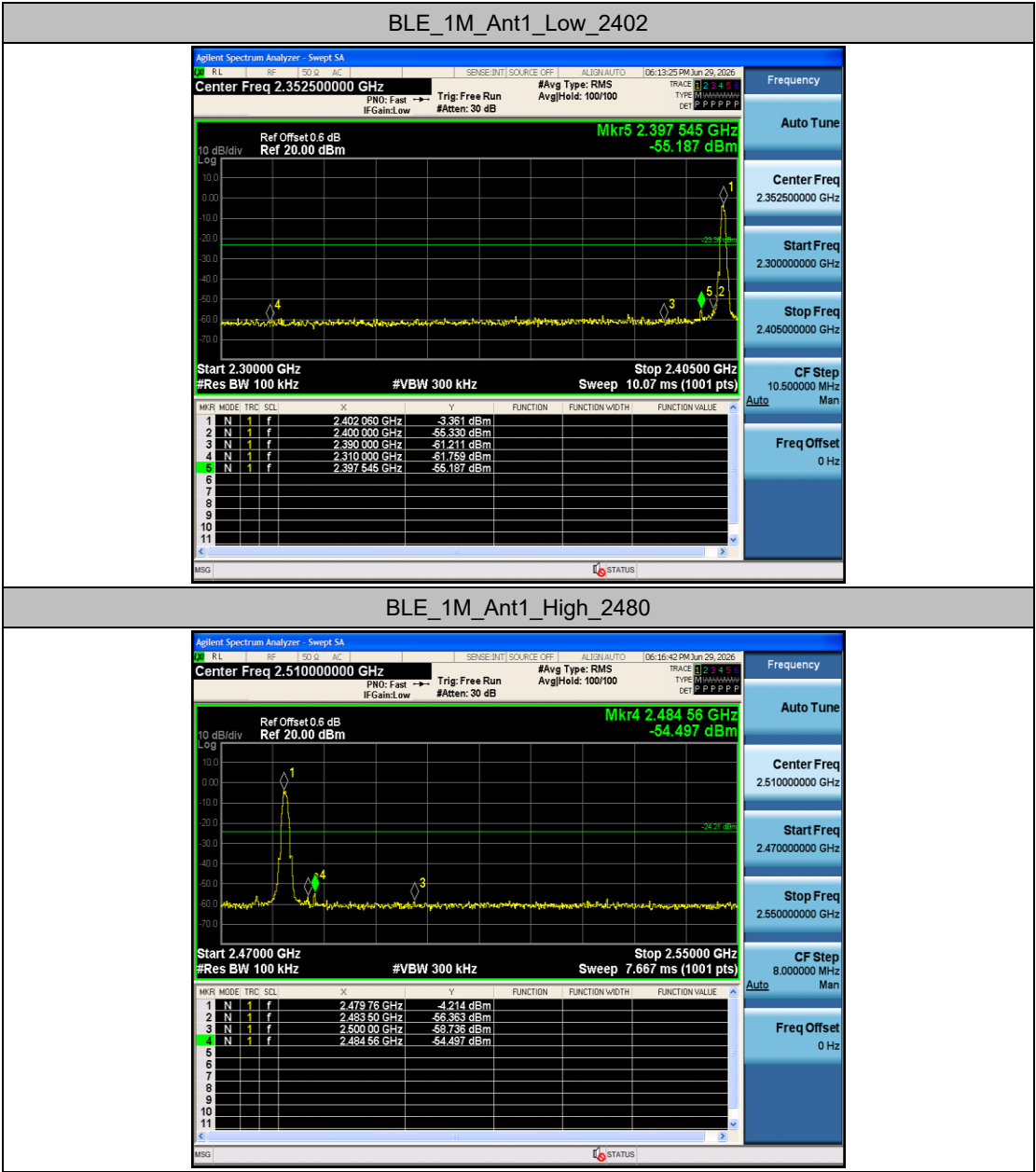


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.36	-55.19	≤-23.36	PASS
		High	2480	-4.21	-54.5	≤-24.21	PASS

Test Graphs

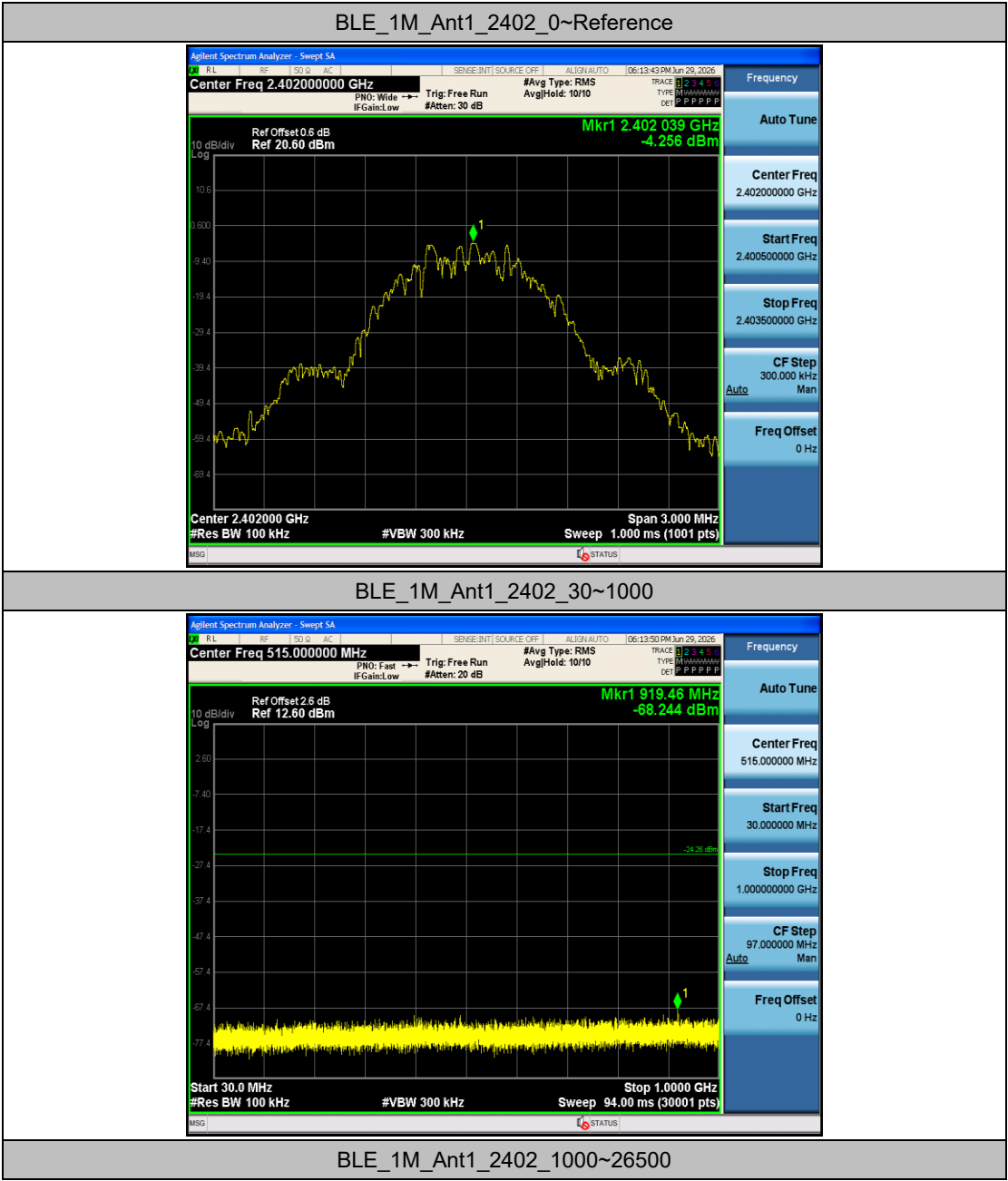


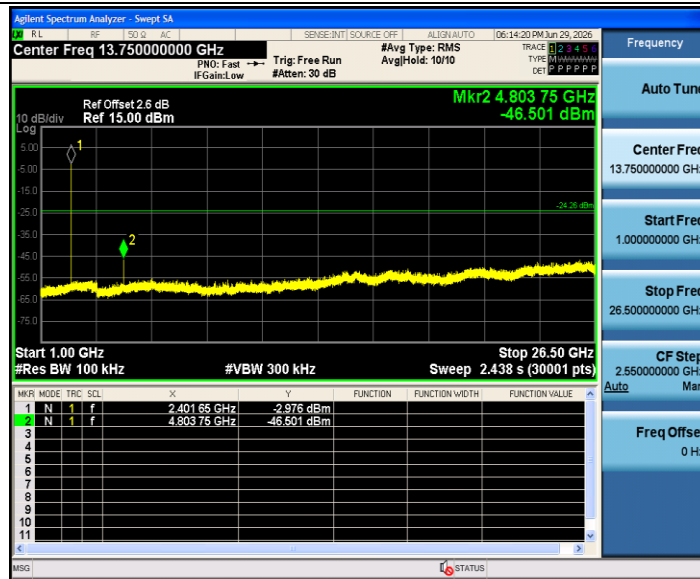
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.26	-4.26	---	PASS
			30~1000	-4.26	-68.24	≤-24.26	PASS
			1000~26500	-4.26	-46.5	≤-24.26	PASS
		2440	Reference	-3.64	-3.64	---	PASS
			30~1000	-3.64	-68.92	≤-23.64	PASS
			1000~26500	-3.64	-46.01	≤-23.64	PASS
		2480	Reference	-5.20	-5.20	---	PASS
			30~1000	-5.20	-57.19	≤-25.2	PASS
			1000~26500	-5.20	-46.97	≤-25.2	PASS

Test Graphs

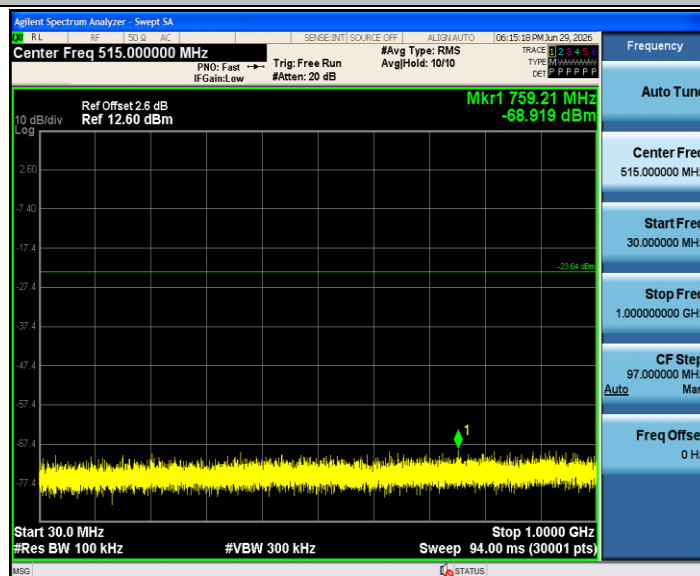




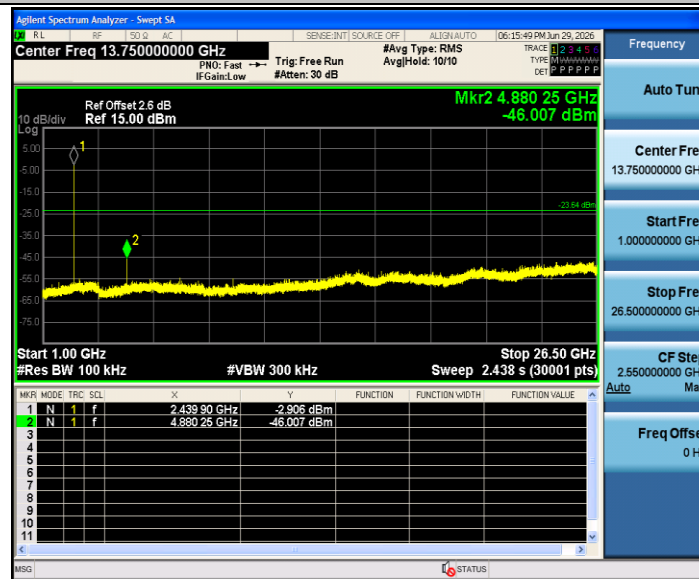
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



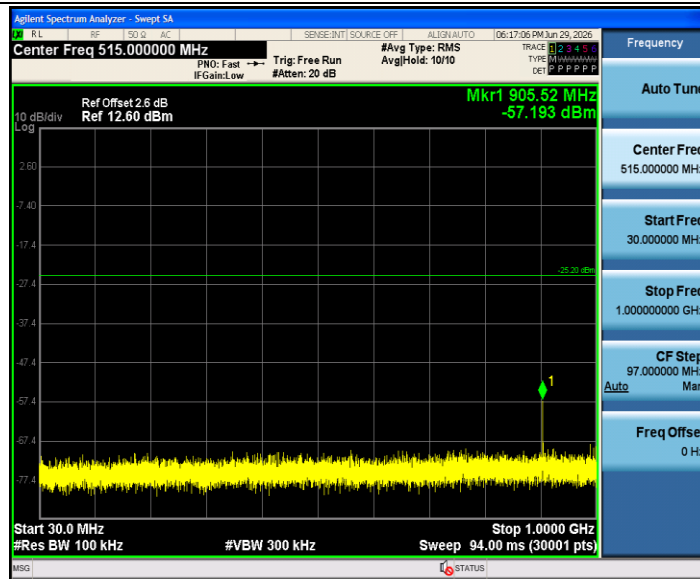
BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

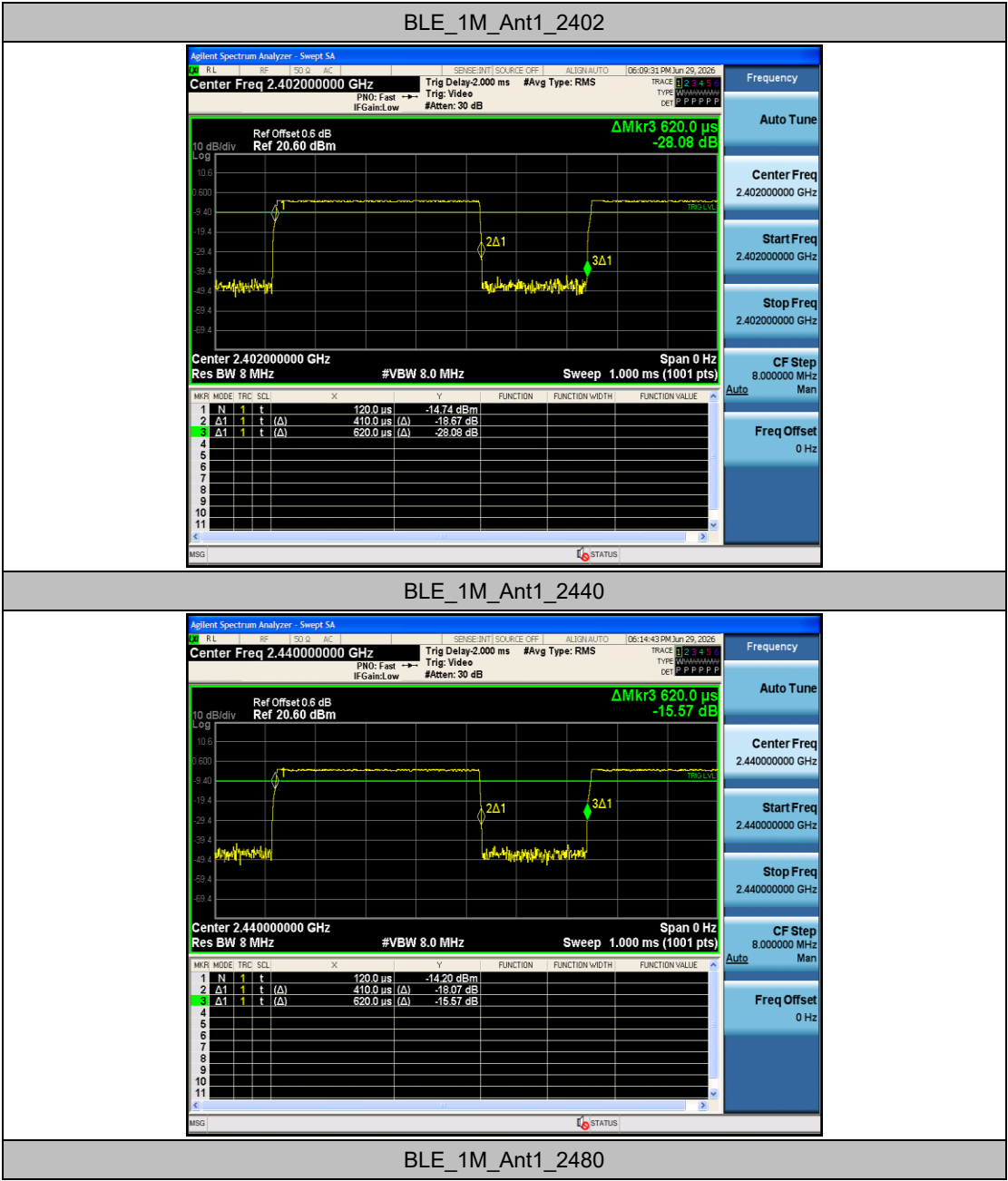


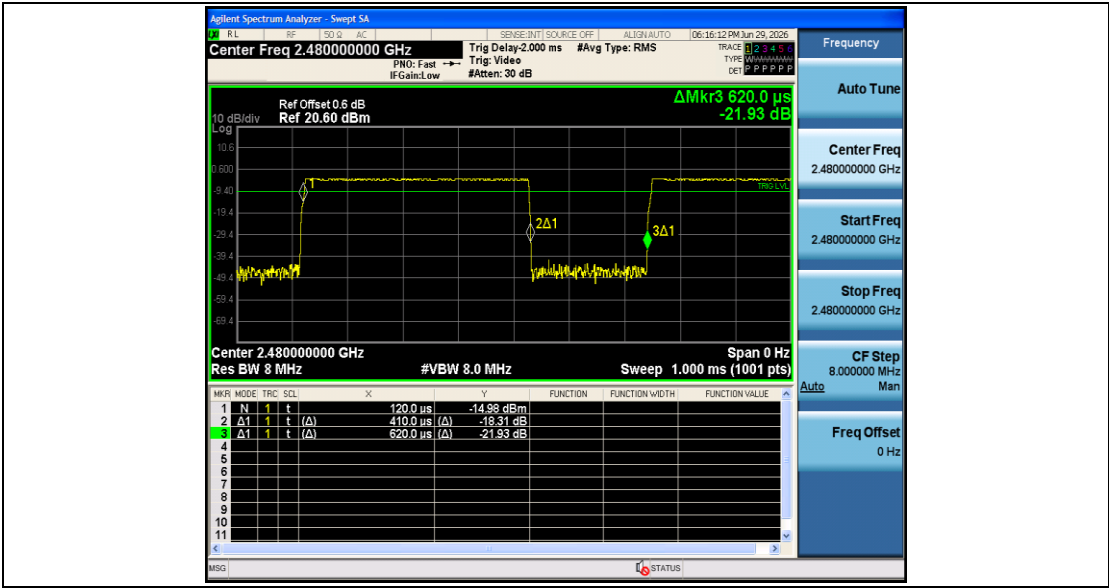
Appendix G: Duty Cycle

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

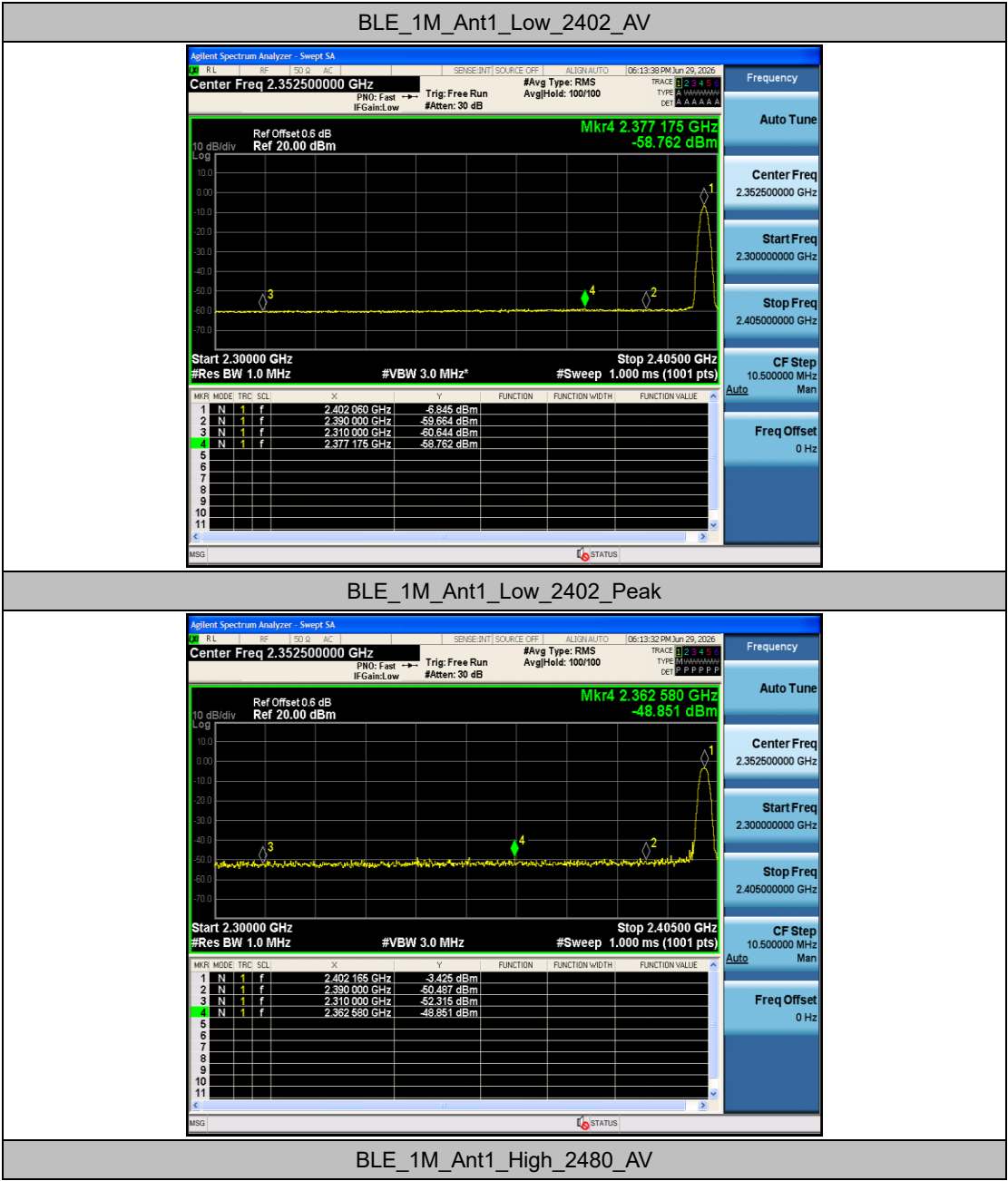
Test Result

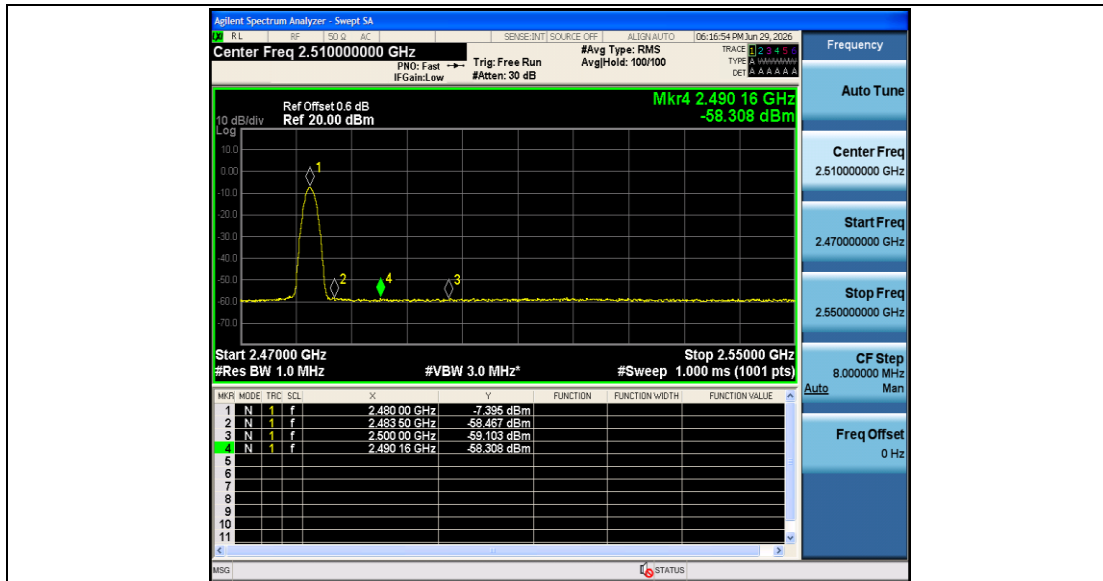
TestMode	Antenna	Channel Name	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.64	2.00	1.80	38.36	≤54	PASS
				AV	2377.175	-58.76	2.00	1.80	40.24	≤54	PASS
				AV	2390.000	-59.66	2.00	1.80	39.34	≤54	PASS
				Peak	2310.000	-52.32	2.00	0.00	44.88	≤74	PASS
				Peak	2362.580	-48.85	2.00	0.00	48.35	≤74	PASS
				Peak	2390.000	-50.49	2.00	0.00	46.71	≤74	PASS
		High	2480	AV	2483.500	-58.47	2.00	1.80	40.53	≤54	PASS
				AV	2490.160	-58.31	2.00	1.80	40.69	≤54	PASS
				AV	2500.000	-59.1	2.00	1.80	39.90	≤54	PASS
				Peak	2483.500	-50.51	2.00	0.00	46.69	≤74	PASS
				Peak	2484.320	-46.67	2.00	0.00	50.53	≤74	PASS
				Peak	2500.000	-51.11	2.00	0.00	46.09	≤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

