

FCC Appendix RF Test Data for BLE

FCC ID : 2A9JD-Q11

Company : Shenzhen Jingyun Wulian Technology CO.,Ltd

EUT : smart glasses

Model Number : Q11

Report No. : CTA26050901001

Reviewed By : Eric Wang

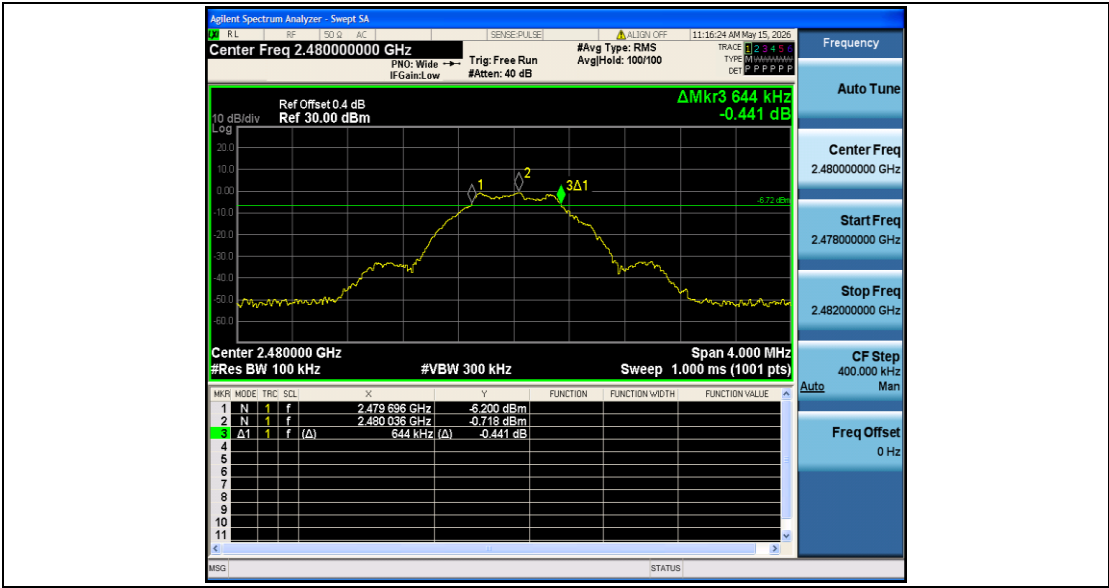
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.648	2401.684	2402.332	0.5	PASS
		2440	0.648	2439.688	2440.336	0.5	PASS
		2480	0.644	2479.696	2480.340	0.5	PASS

Test Graphs



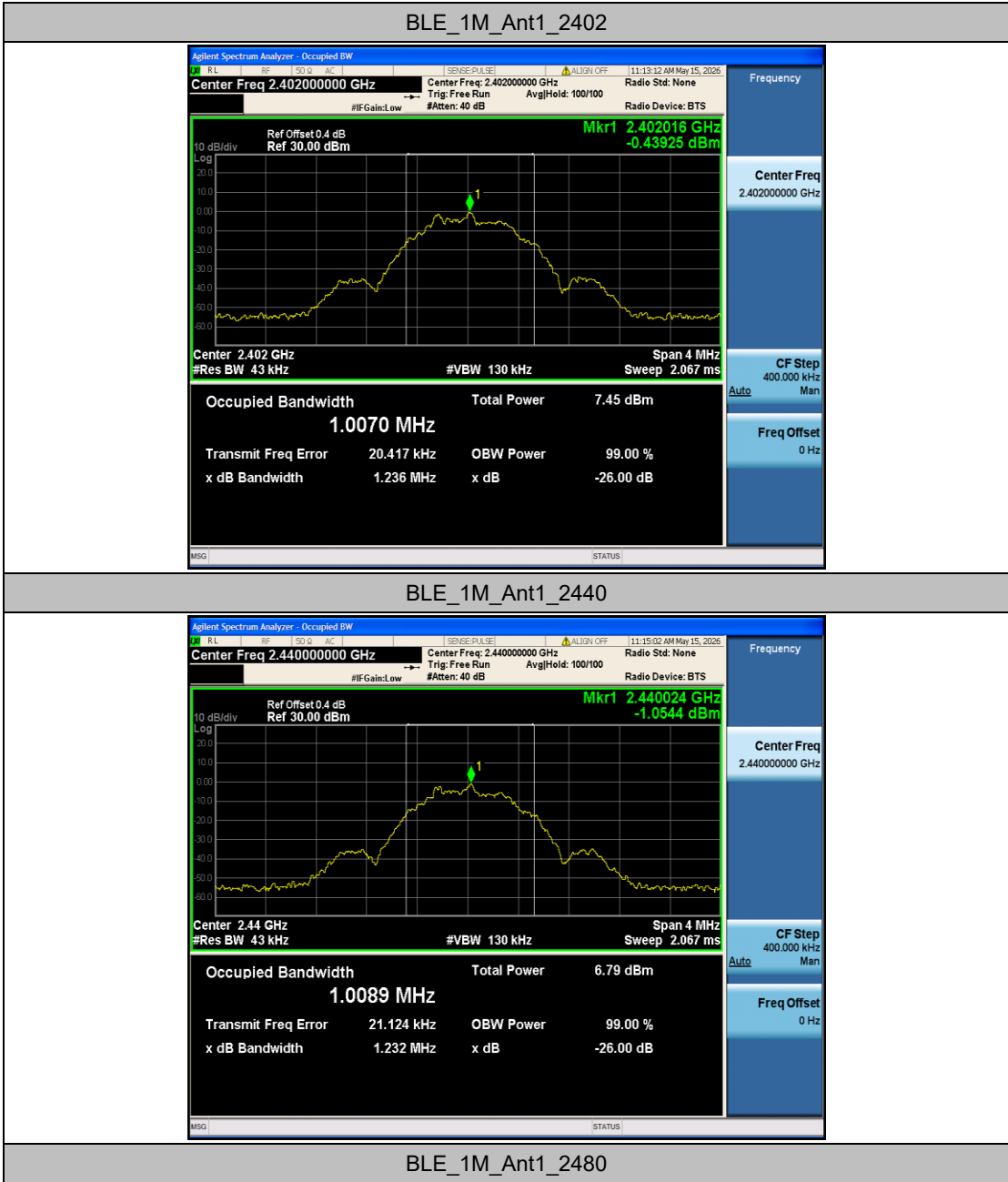


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0070	2401.5169	2402.5239	---	---
		2440	1.0089	2439.5167	2440.5256	---	---
		2480	1.0116	2479.5160	2480.5276	---	---

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	0.65	≤30	PASS
		2440	0.12	≤30	PASS
		2480	-0.20	≤30	PASS

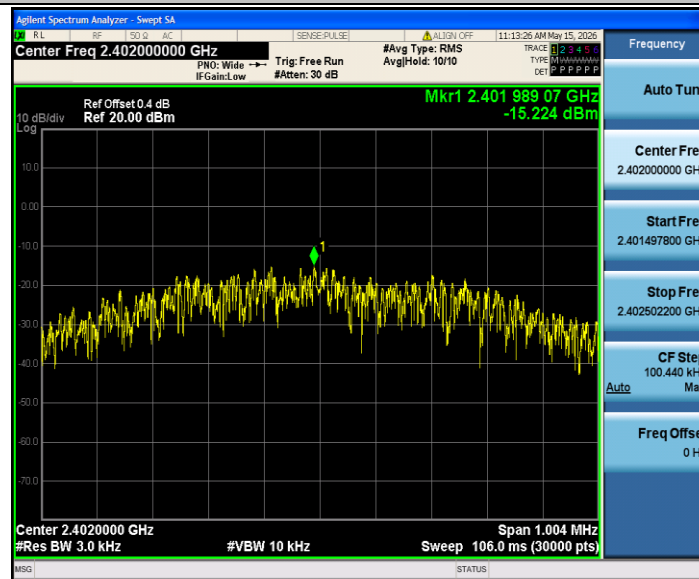
Appendix D: Maximum power spectral density

Test Result

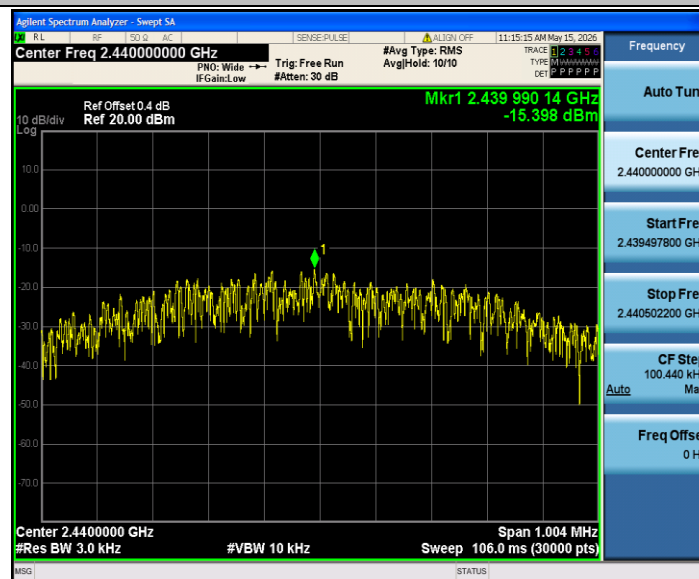
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.22	≤8.00	PASS
		2440	-15.40	≤8.00	PASS
		2480	-15.62	≤8.00	PASS

Test Graphs

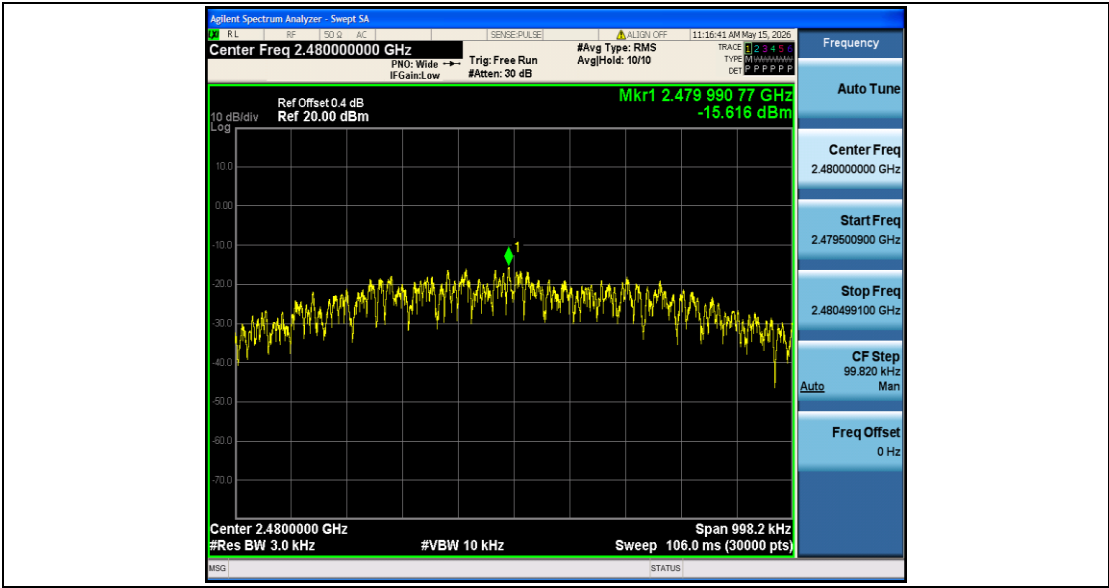
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

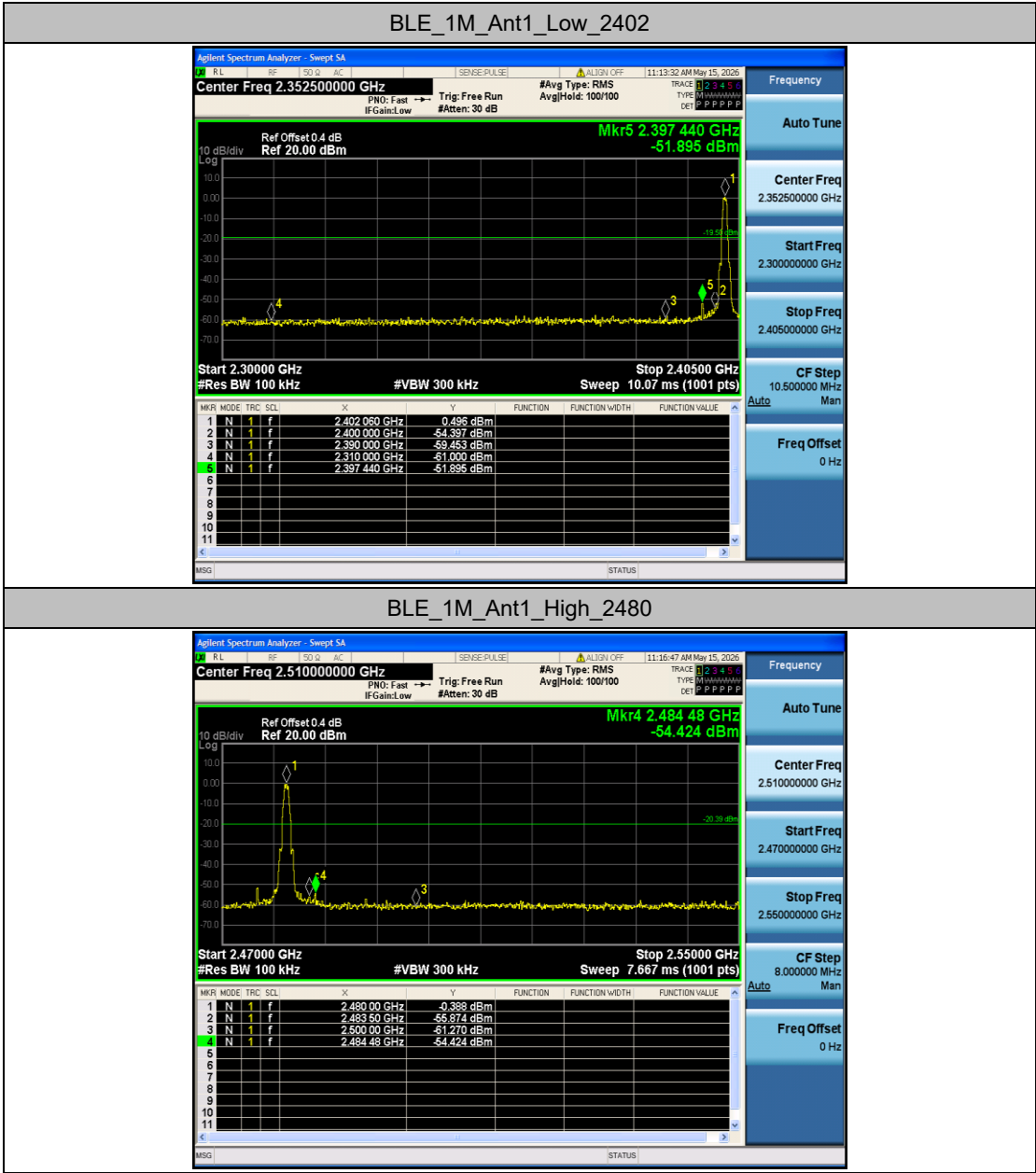


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.50	-51.9	≤-19.5	PASS
		High	2480	-0.39	-54.42	≤-20.39	PASS

Test Graphs

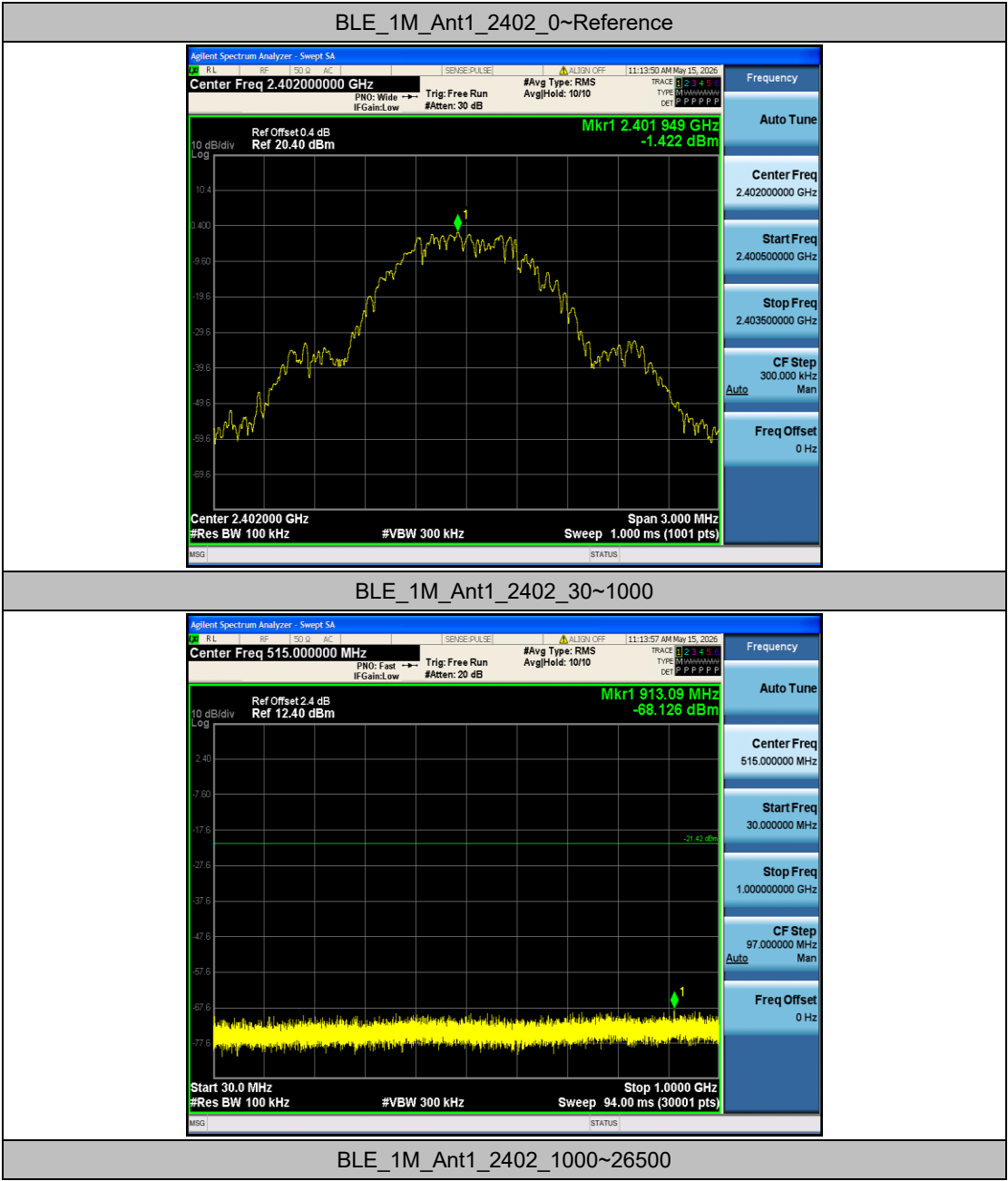


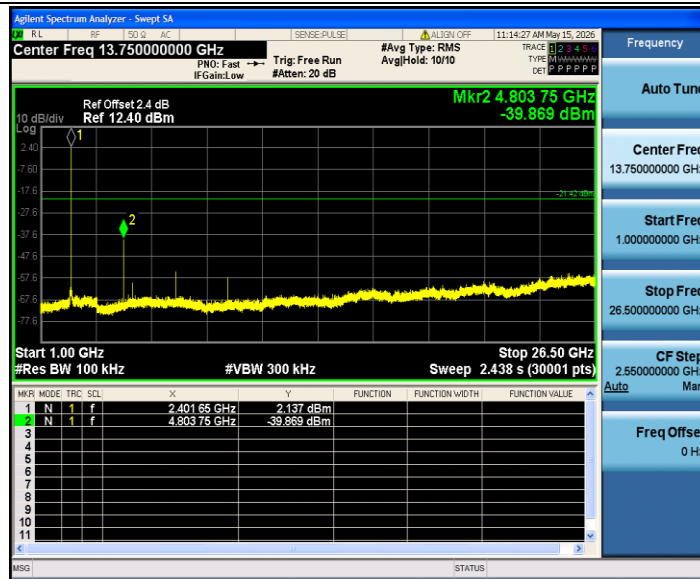
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.42	-1.42	---	PASS
			30~1000	-1.42	-68.13	≤-21.42	PASS
			1000~26500	-1.42	-39.87	≤-21.42	PASS
		2440	Reference	-1.24	-1.24	---	PASS
			30~1000	-1.24	-68.06	≤-21.24	PASS
			1000~26500	-1.24	-42.63	≤-21.24	PASS
		2480	Reference	-0.69	-0.69	---	PASS
			30~1000	-0.69	-68.23	≤-20.69	PASS
			1000~26500	-0.69	-41.91	≤-20.69	PASS

Test Graphs

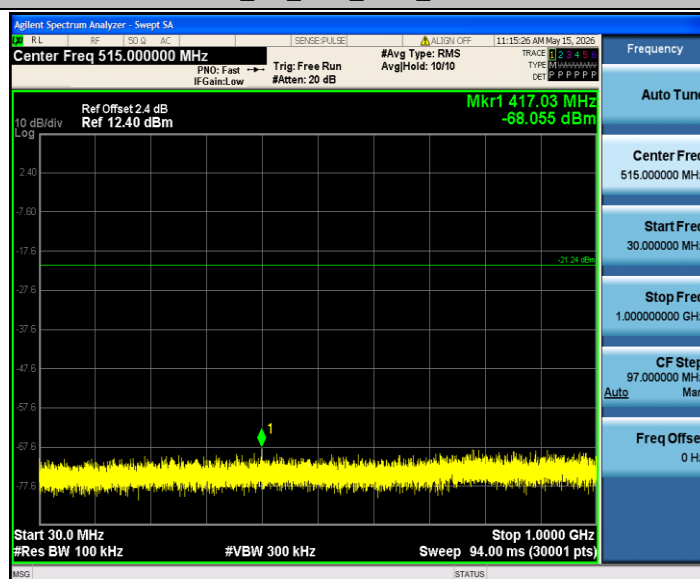




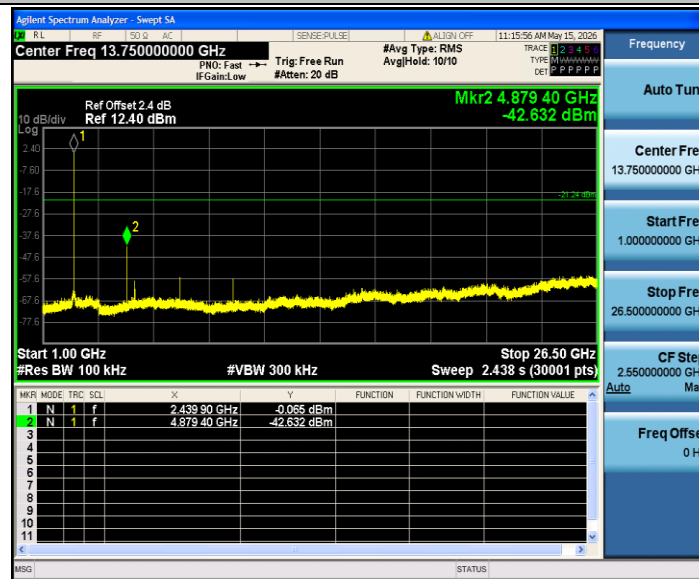
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



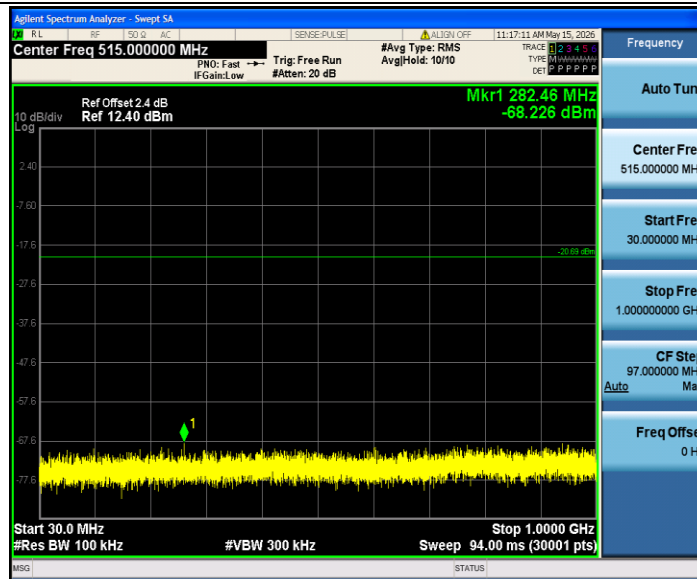
BLE_1M_Ant1_2440_1000~26500



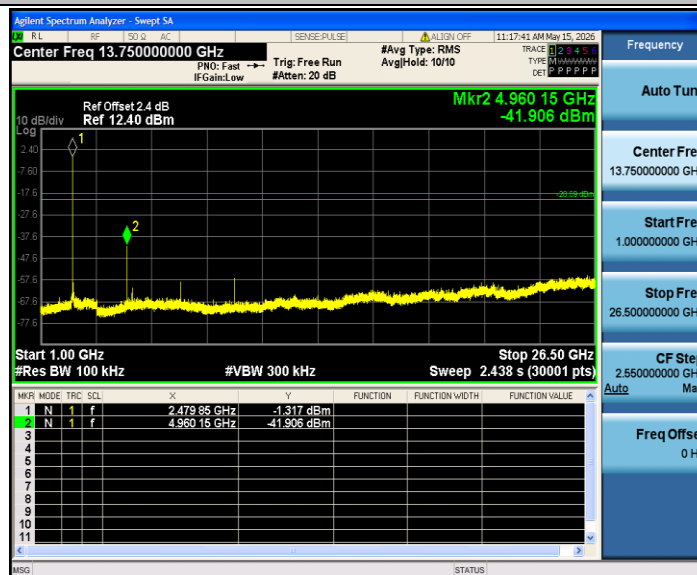
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

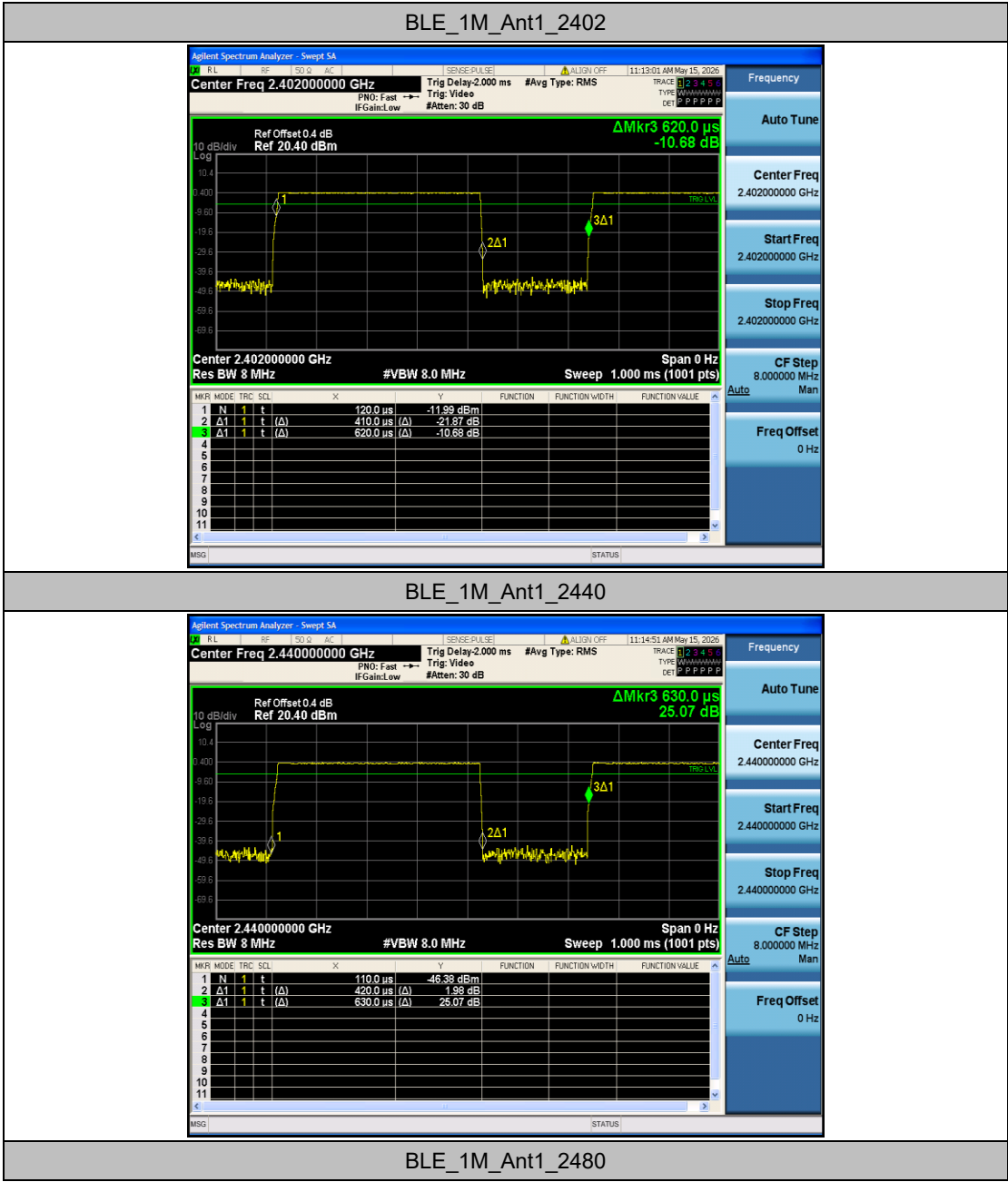


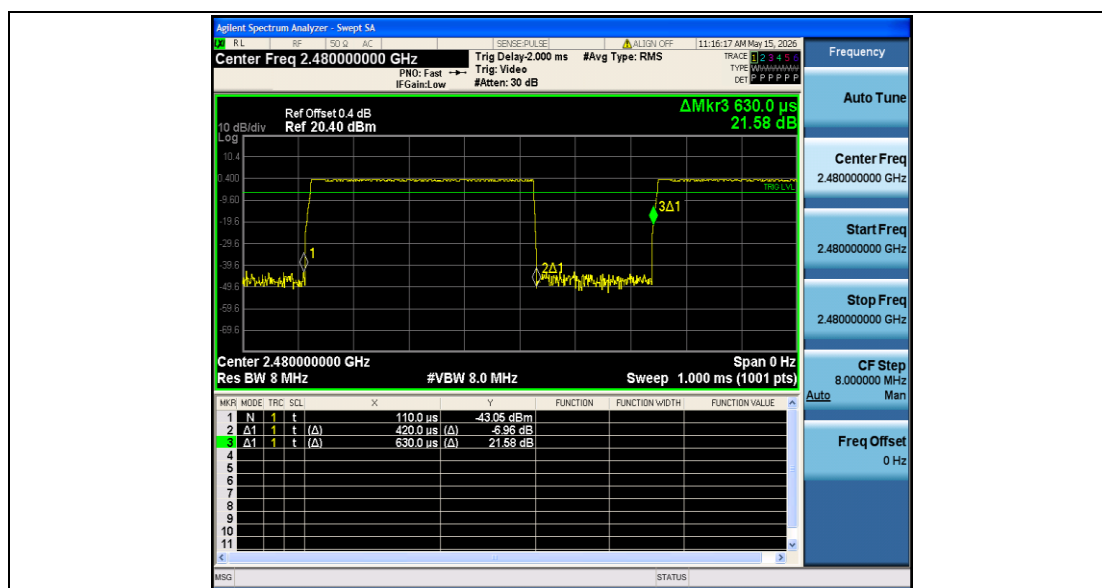
Appendix G: Duty Cycle

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

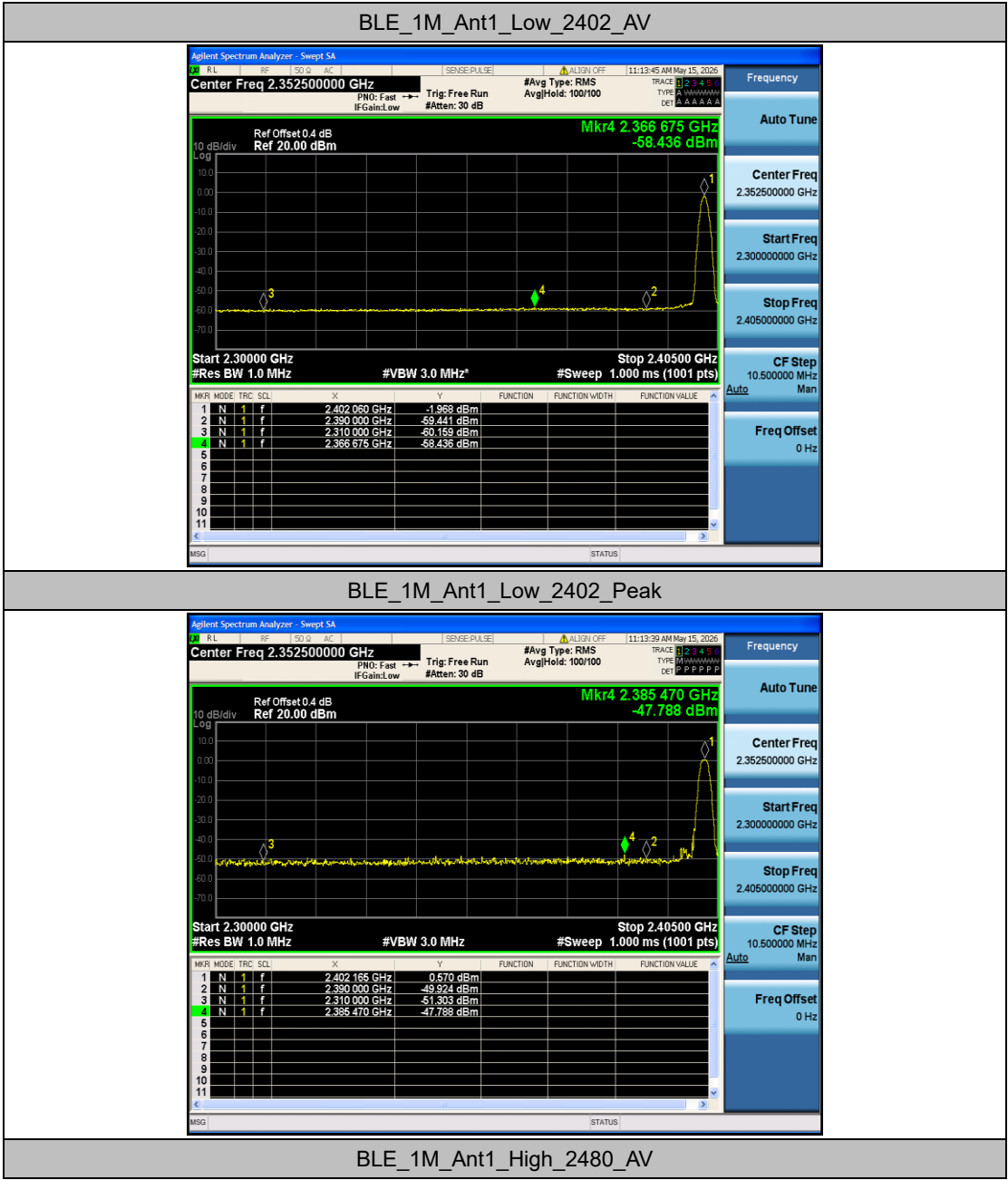
Test Result

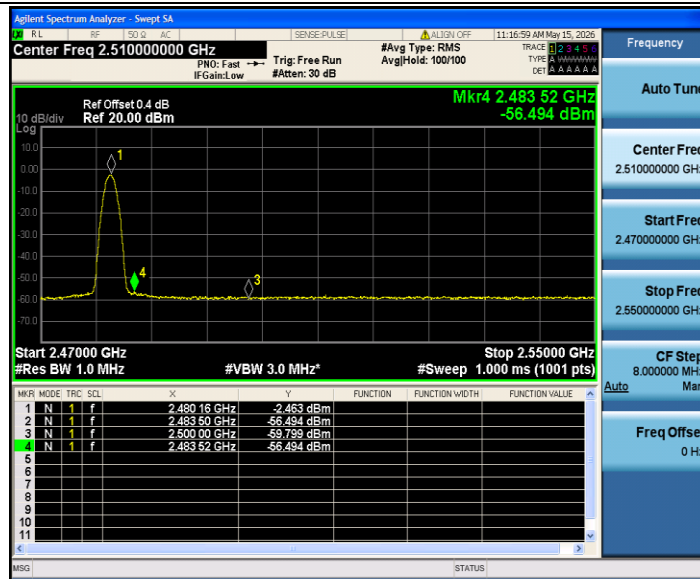
TestMode	Antenna	Channel Name	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.16	2.00	1.80	38.84	≤54	PASS
				AV	2366.675	-58.44	2.00	1.80	40.56	≤54	PASS
				AV	2390.000	-59.44	2.00	1.80	39.56	≤54	PASS
				Peak	2310.000	-51.3	2.00	0.00	45.90	≤74	PASS
				Peak	2385.470	-47.79	2.00	0.00	49.41	≤74	PASS
				Peak	2390.000	-49.92	2.00	0.00	47.28	≤74	PASS
		High	2480	AV	2483.500	-56.49	2.00	1.76	42.47	≤54	PASS
				AV	2483.520	-56.49	2.00	1.76	42.47	≤54	PASS
				AV	2500.000	-59.8	2.00	1.76	39.16	≤54	PASS
				Peak	2483.500	-49.22	2.00	0.00	47.98	≤74	PASS
				Peak	2483.840	-48.18	2.00	0.00	49.02	≤74	PASS
				Peak	2500.000	-51.08	2.00	0.00	46.12	≤74	PASS

Note:

1. 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

