

FCC Appendix RF Test Data for BLE

FCC ID : 2BV8Y-MR-22GA

Company : shenzhenshilanlanyounimaoyiyouxiangongsi

EUT : Remote control

Model Number : MR-22GA

Report No. : CTA26051301601

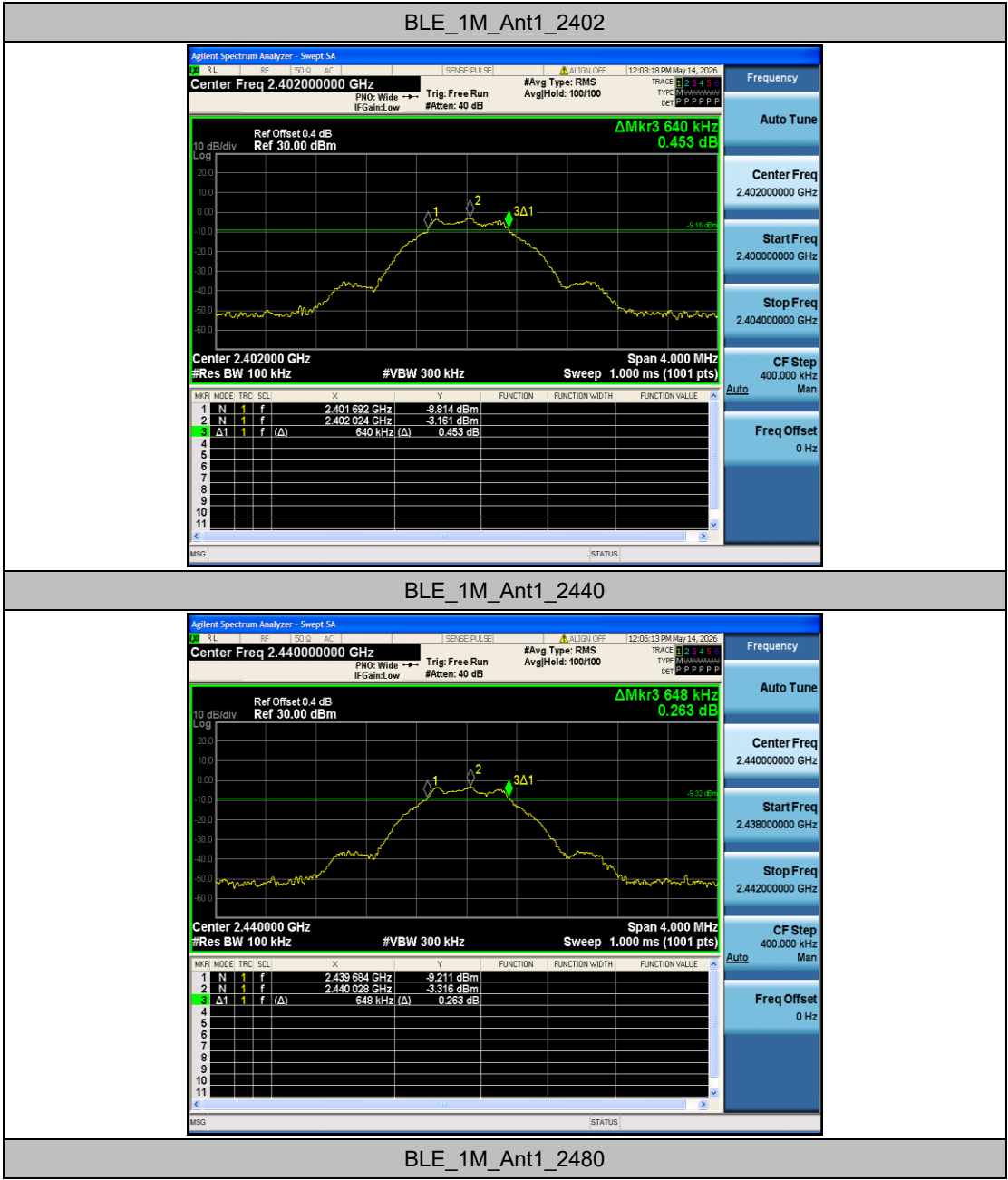
Reviewed By : Eric Wang

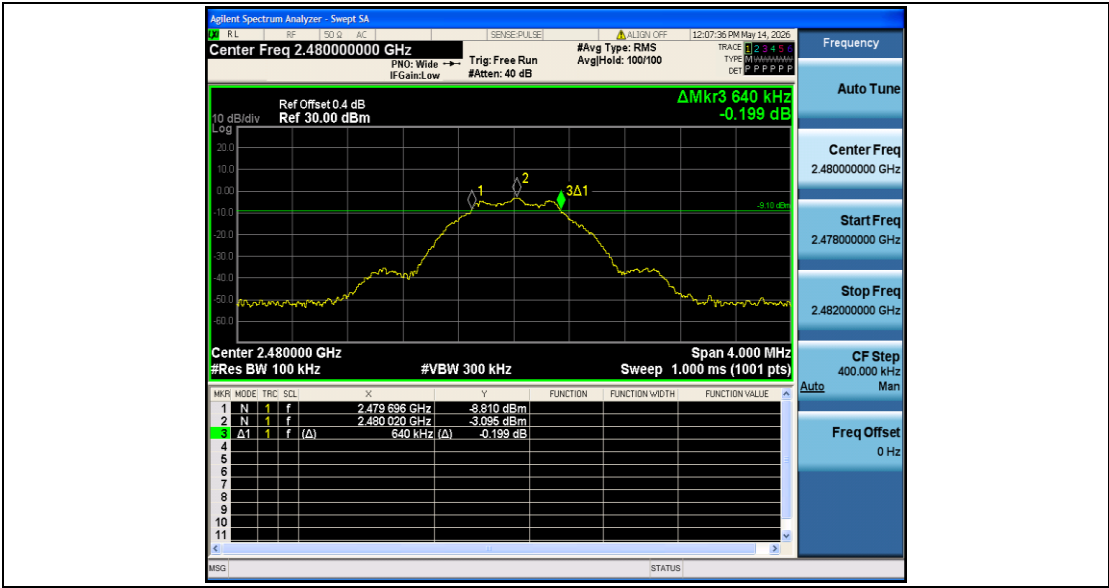
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.640	2401.692	2402.332	0.5	PASS
		2440	0.648	2439.684	2440.332	0.5	PASS
		2480	0.640	2479.696	2480.336	0.5	PASS

Test Graphs





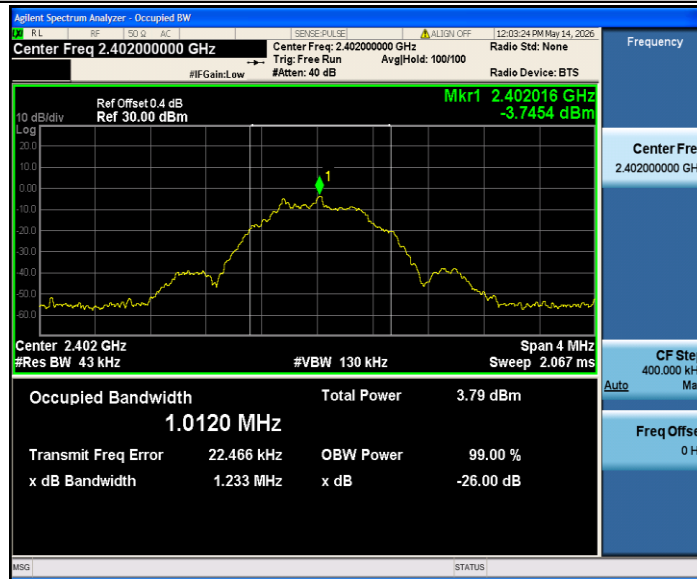
Appendix B: Occupied Channel Bandwidth

Test Result

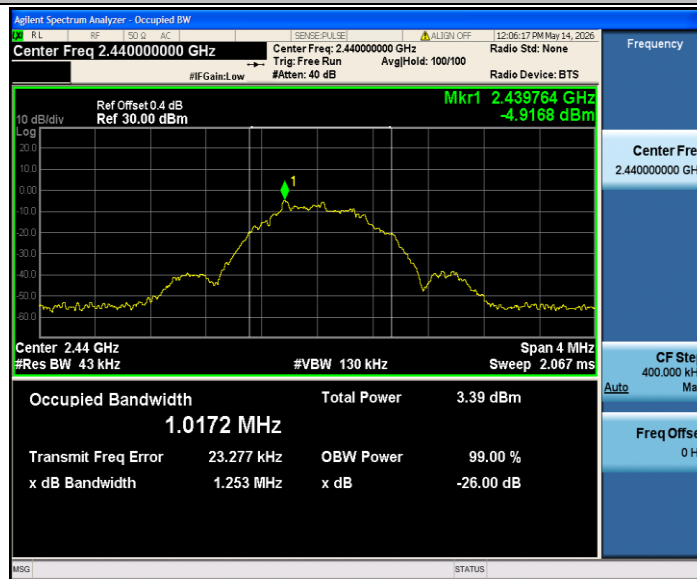
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0120	2401.5165	2402.5285	---	---
		2440	1.0172	2439.5147	2440.5319	---	---
		2480	1.0105	2479.5164	2480.5269	---	---

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix C: Maximum conducted output power

Test Result

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-2.87	≤30	PASS
		2440	-2.93	≤30	PASS
		2480	-2.91	≤30	PASS

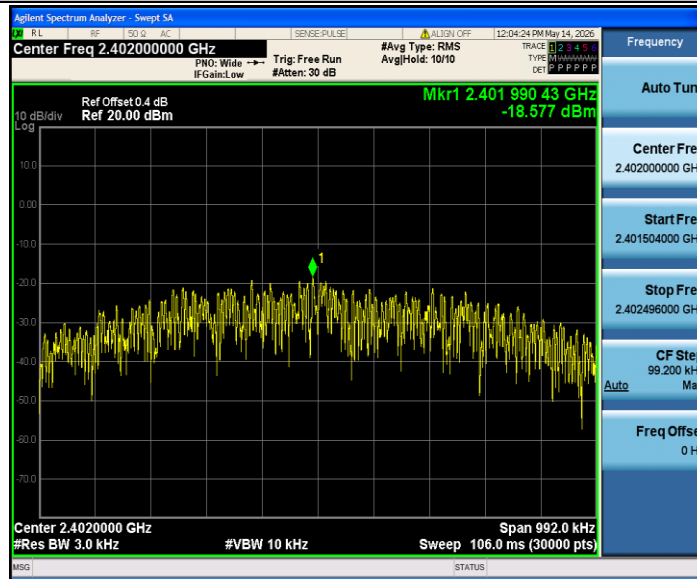
Appendix D: Maximum power spectral density

Test Result

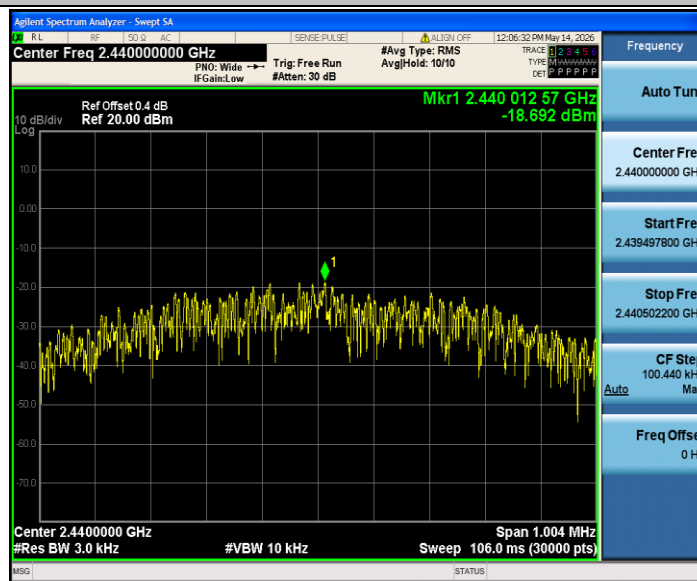
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.58	≤8.00	PASS
		2440	-18.69	≤8.00	PASS
		2480	-18.72	≤8.00	PASS

Test Graphs

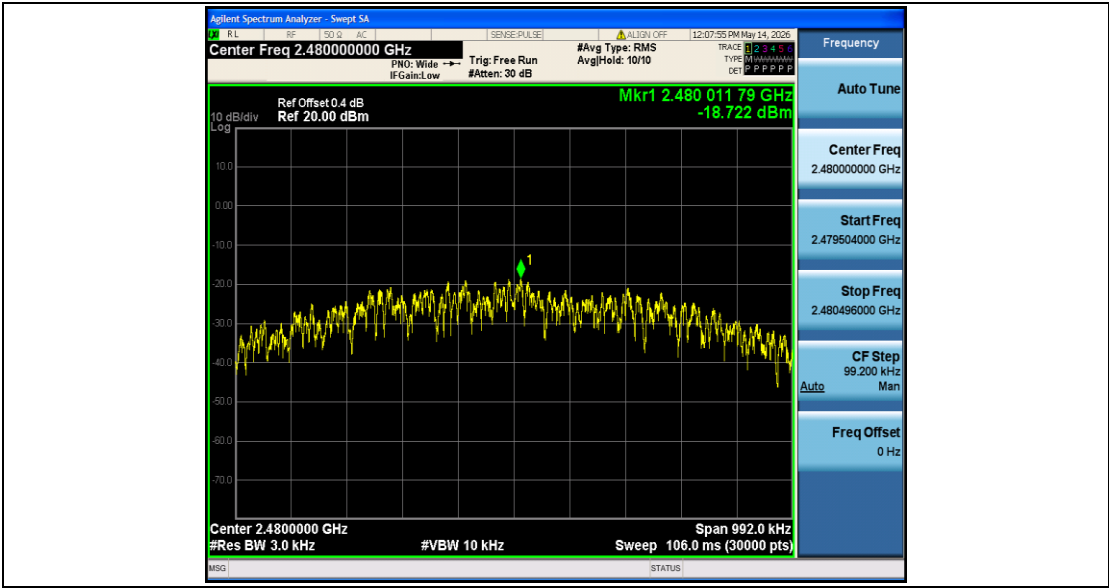
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



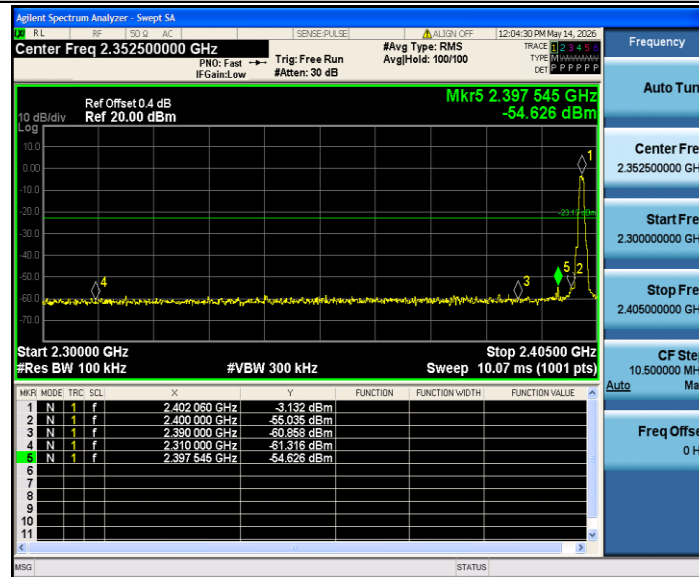
Appendix E: Band edge measurements

Test Result

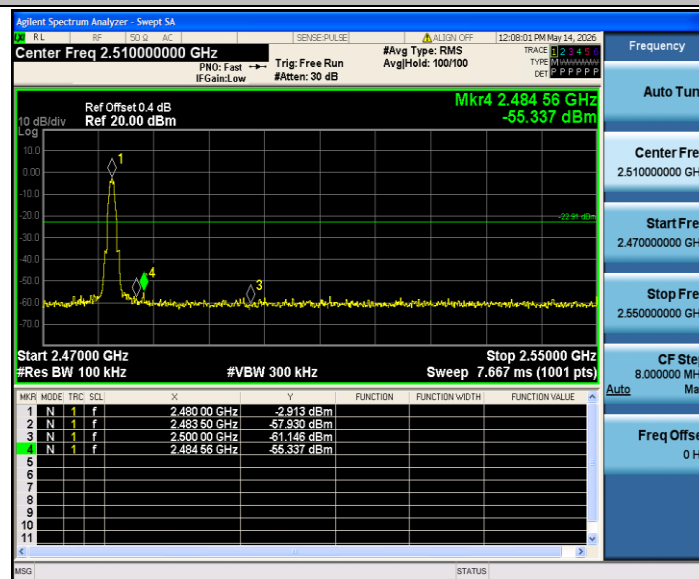
TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.13	-54.63	≤-23.13	PASS
		High	2480	-2.91	-55.34	≤-22.91	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480

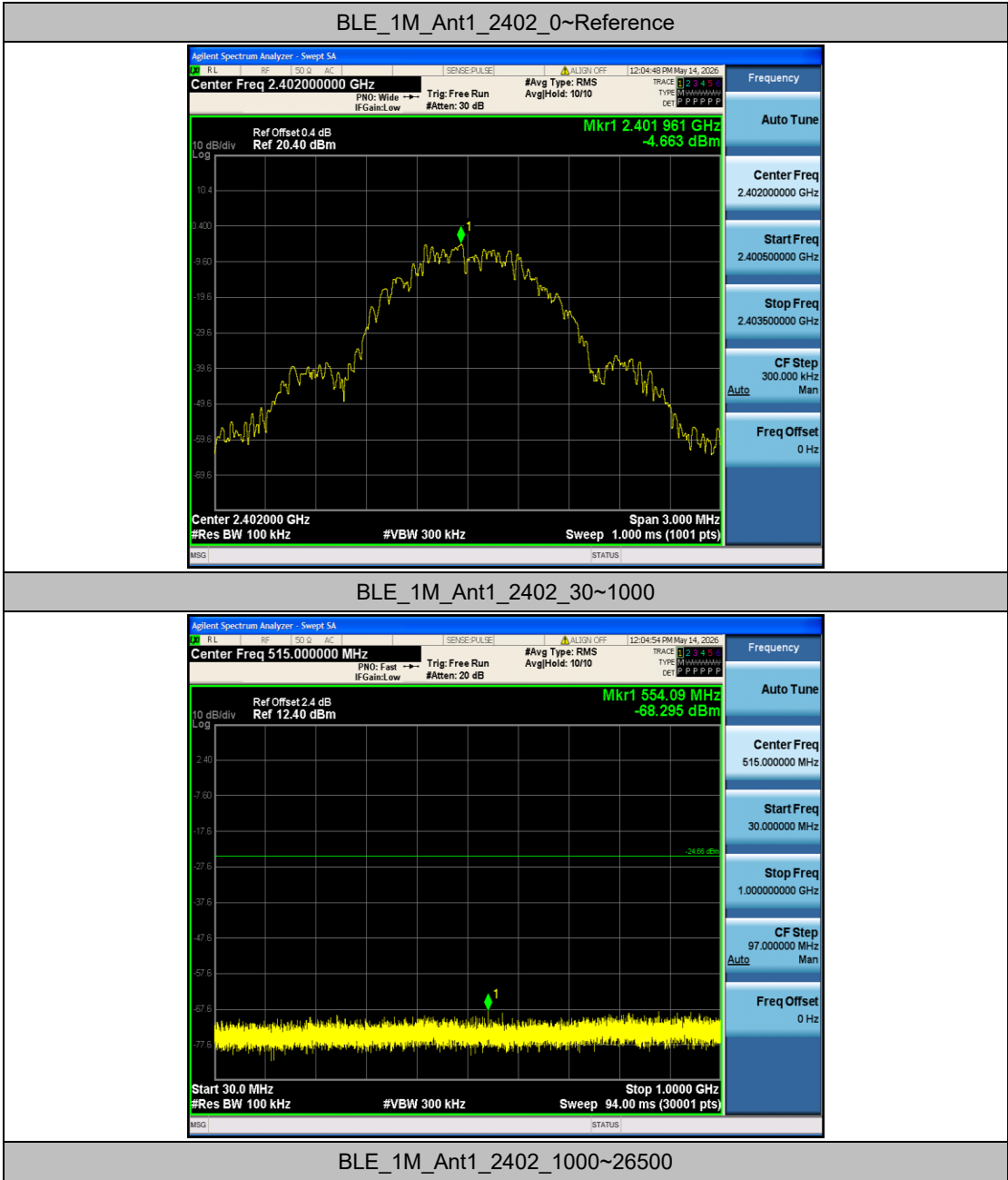


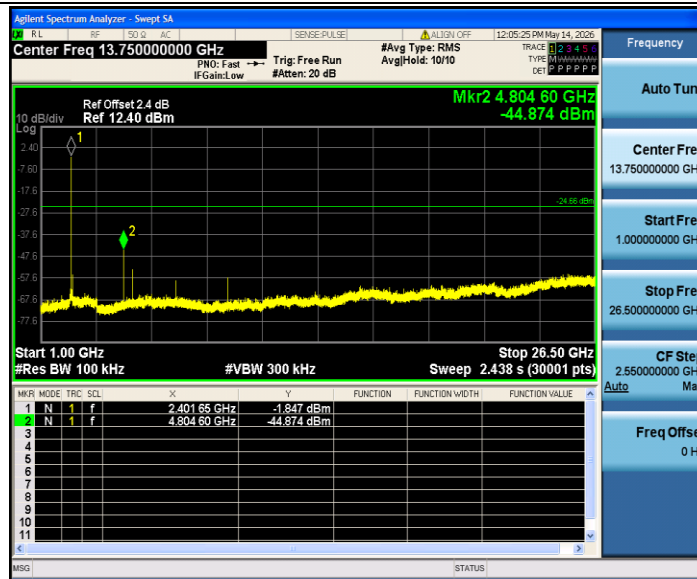
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.66	-4.66	---	PASS
			30~1000	-4.66	-68.3	≤-24.66	PASS
			1000~26500	-4.66	-44.87	≤-24.66	PASS
		2440	Reference	-3.25	-3.25	---	PASS
			30~1000	-3.25	-67.27	≤-23.25	PASS
			1000~26500	-3.25	-43.75	≤-23.25	PASS
		2480	Reference	-3.09	-3.09	---	PASS
			30~1000	-3.09	-68.34	≤-23.09	PASS
			1000~26500	-3.09	-46.91	≤-23.09	PASS

Test Graphs

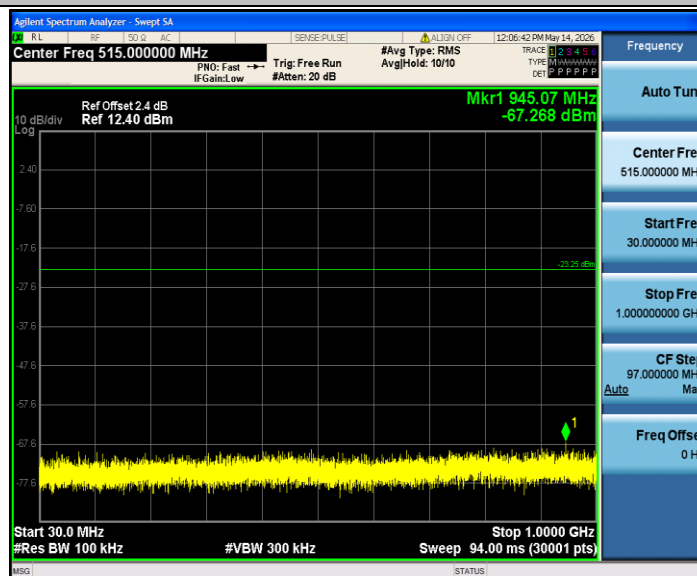




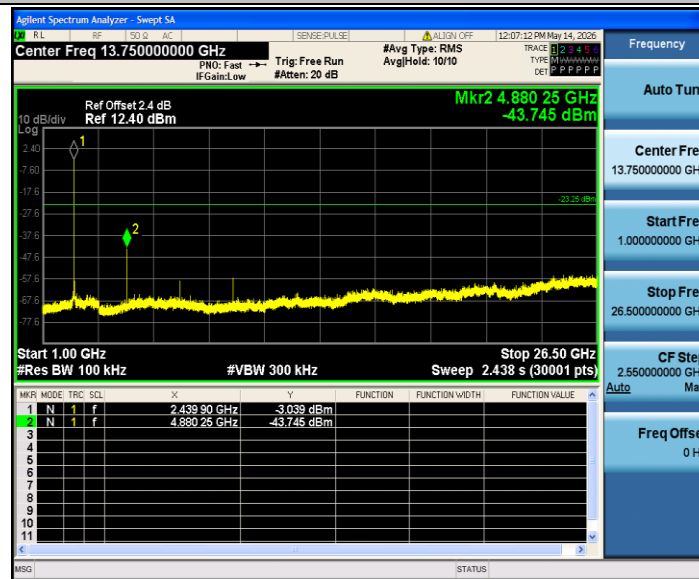
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



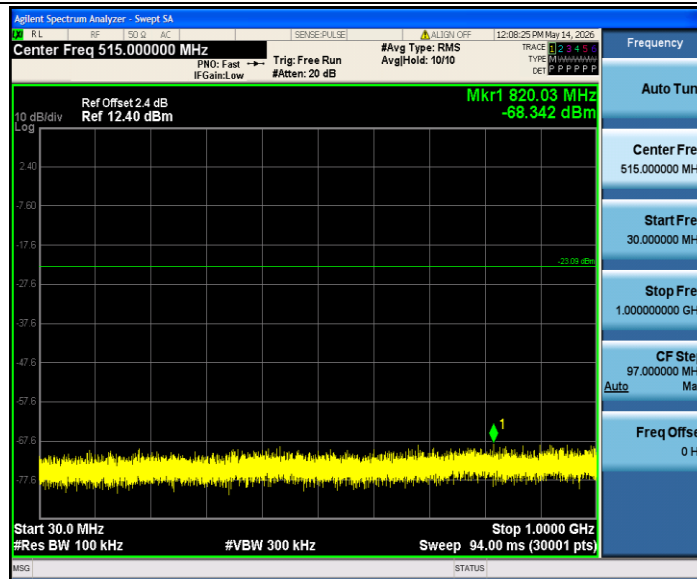
BLE_1M_Ant1_2440_1000~26500



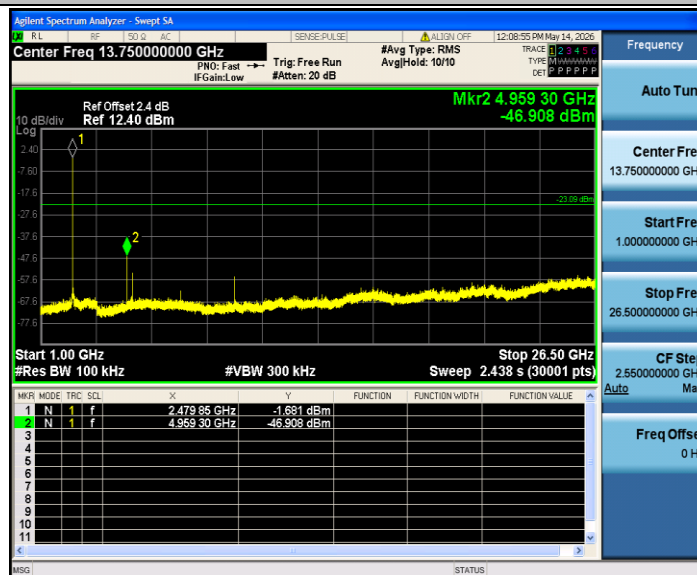
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

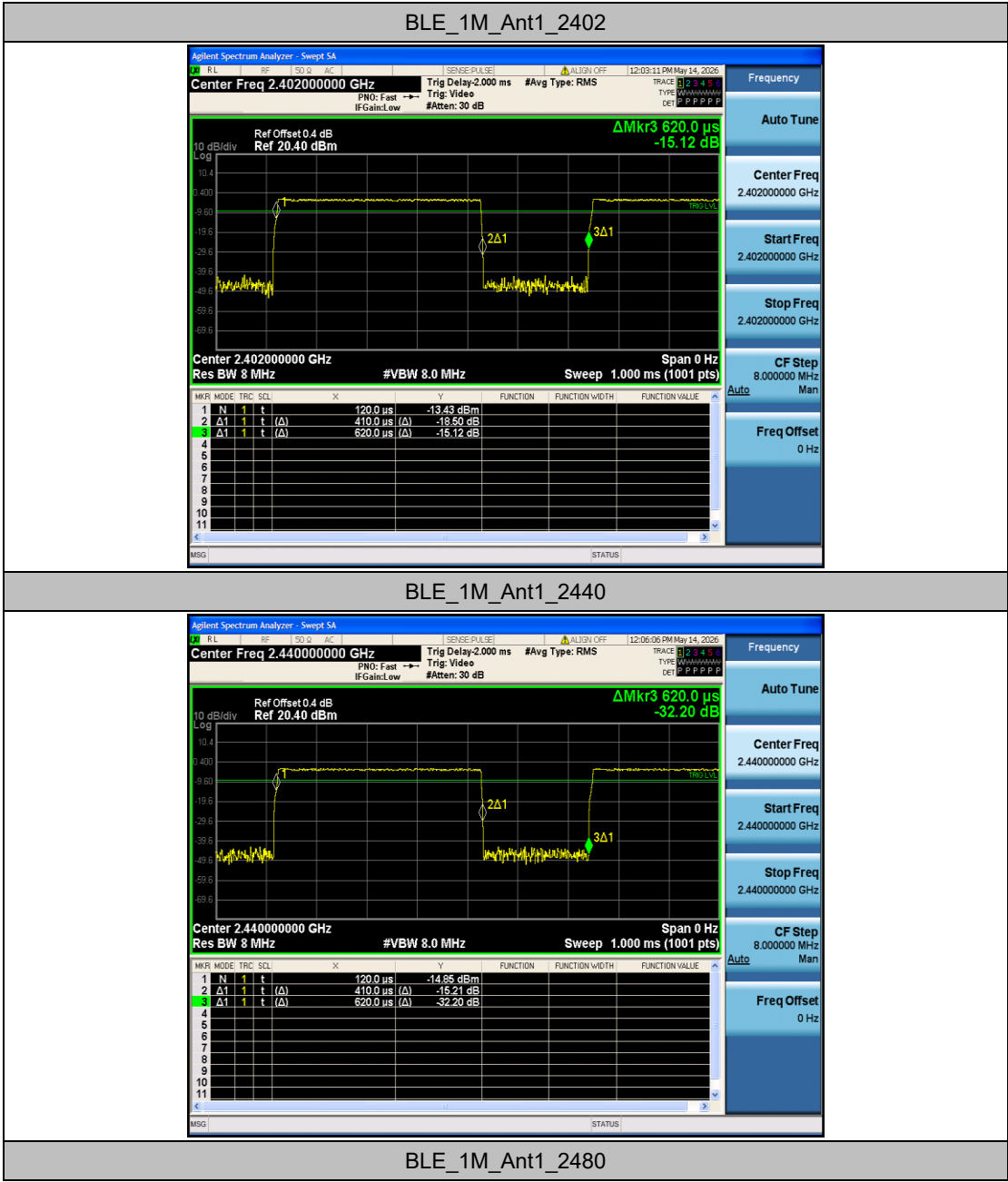


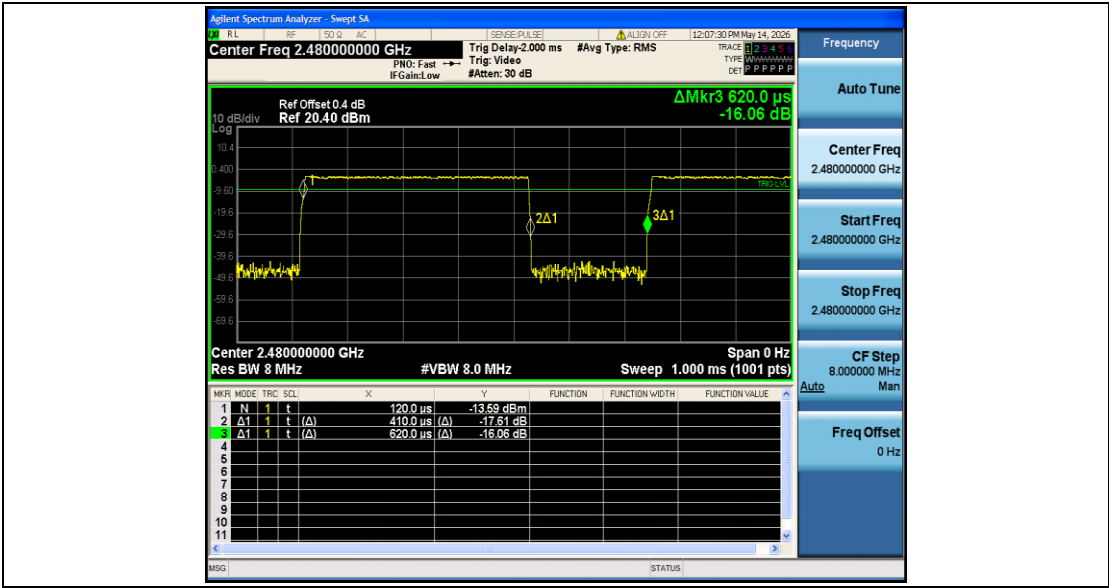
Appendix G: Duty Cycle

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

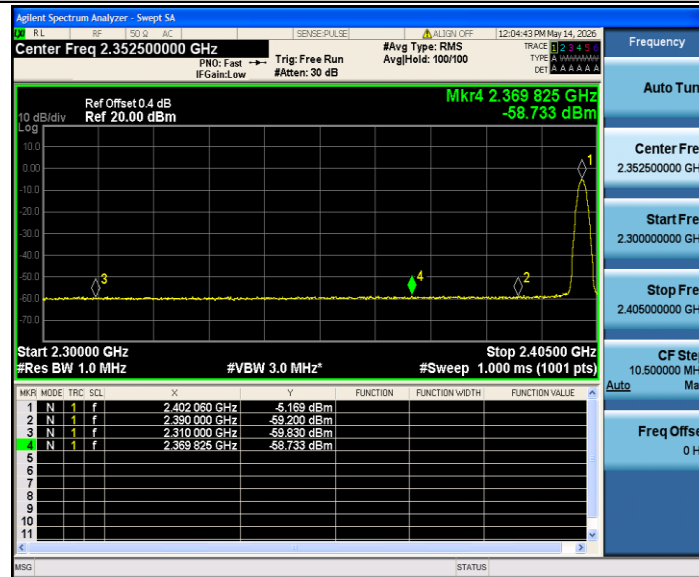
TestMode	Antenna	Channel	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-59.83	2.00	1.80	39.17	≤54	PASS
				AV	2369.825	-58.73	2.00	1.80	40.27	≤54	PASS
				AV	2390.000	-59.2	2.00	1.80	39.80	≤54	PASS
				Peak	2310.000	-51.9	2.00	0.00	45.30	≤74	PASS
				Peak	2379.065	-47.98	2.00	0.00	49.22	≤74	PASS
				Peak	2390.000	-50.76	2.00	0.00	46.44	≤74	PASS
		High	2480	AV	2483.500	-58.27	2.00	1.80	40.73	≤54	PASS
				AV	2484.880	-58.07	2.00	1.80	40.93	≤54	PASS
				AV	2500.000	-58.57	2.00	1.80	40.43	≤54	PASS
				Peak	2483.500	-49.52	2.00	0.00	47.68	≤74	PASS
				Peak	2484.080	-46.03	2.00	0.00	51.17	≤74	PASS
				Peak	2500.000	-51.13	2.00	0.00	46.07	≤74	PASS

Note:

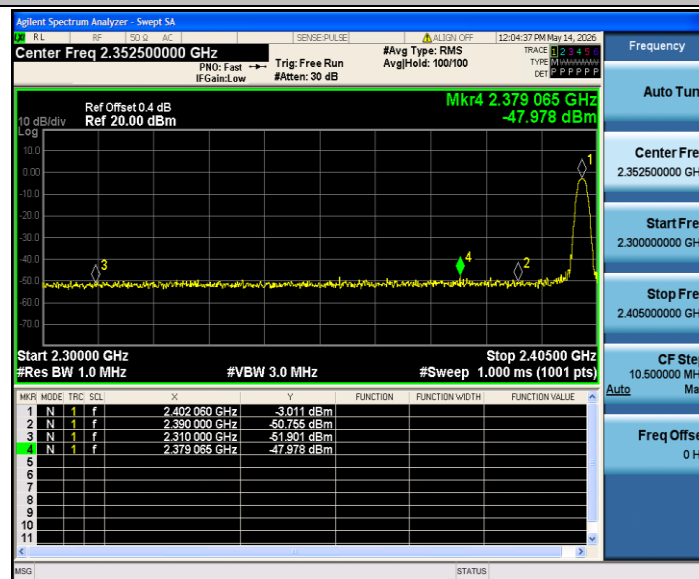
- The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

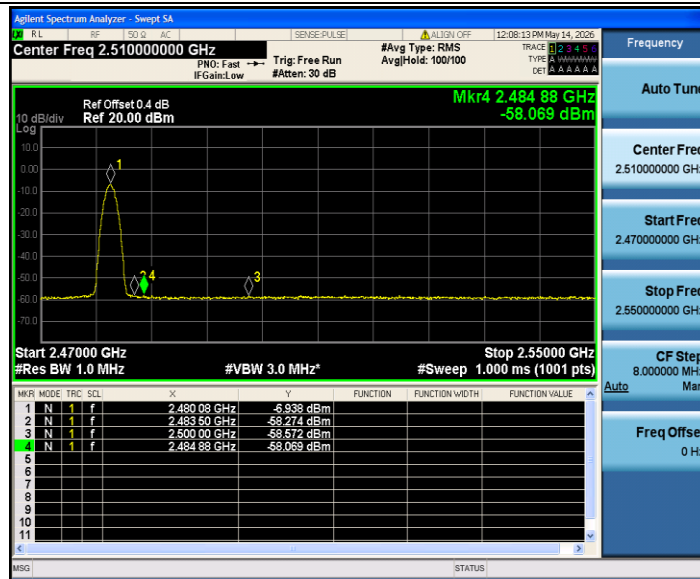
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

