

FCC Appendix RF Test Data for BLE

FCC ID : 2BXIY-Q-014-0022

Company : Shenzhen Beiyaochen Technology Co.,Ltd.

EUT : APP-based Couple wearable black vibrator set

Model Number : Q-014-0022

Report No. : CTA26072203701

Reviewed By : Eric Wang

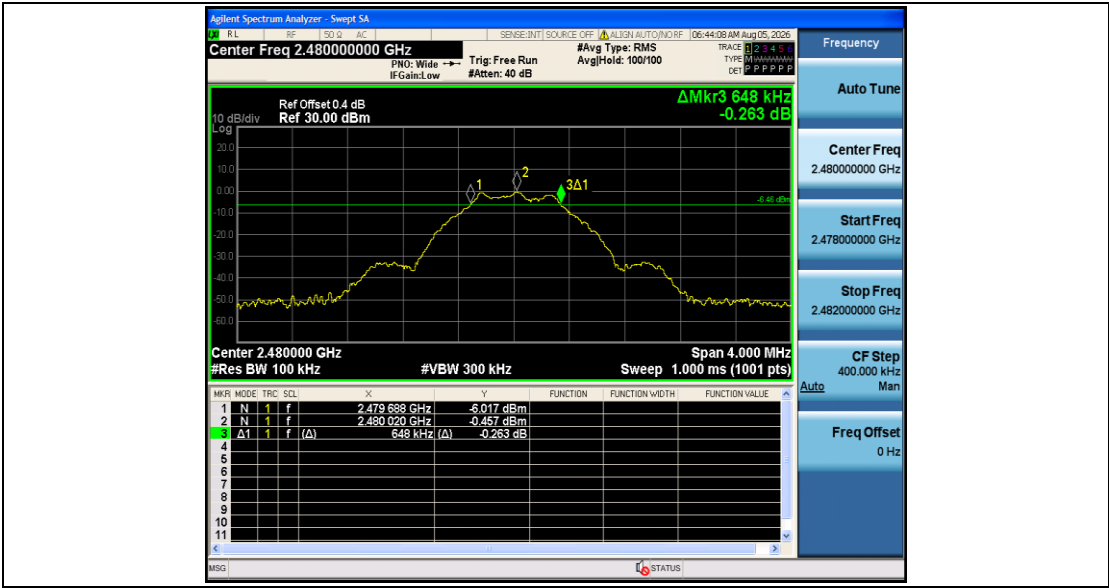
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.636	2401.688	2402.324	0.5	PASS
		2440	0.644	2439.692	2440.336	0.5	PASS
		2480	0.648	2479.688	2480.336	0.5	PASS

Test Graphs



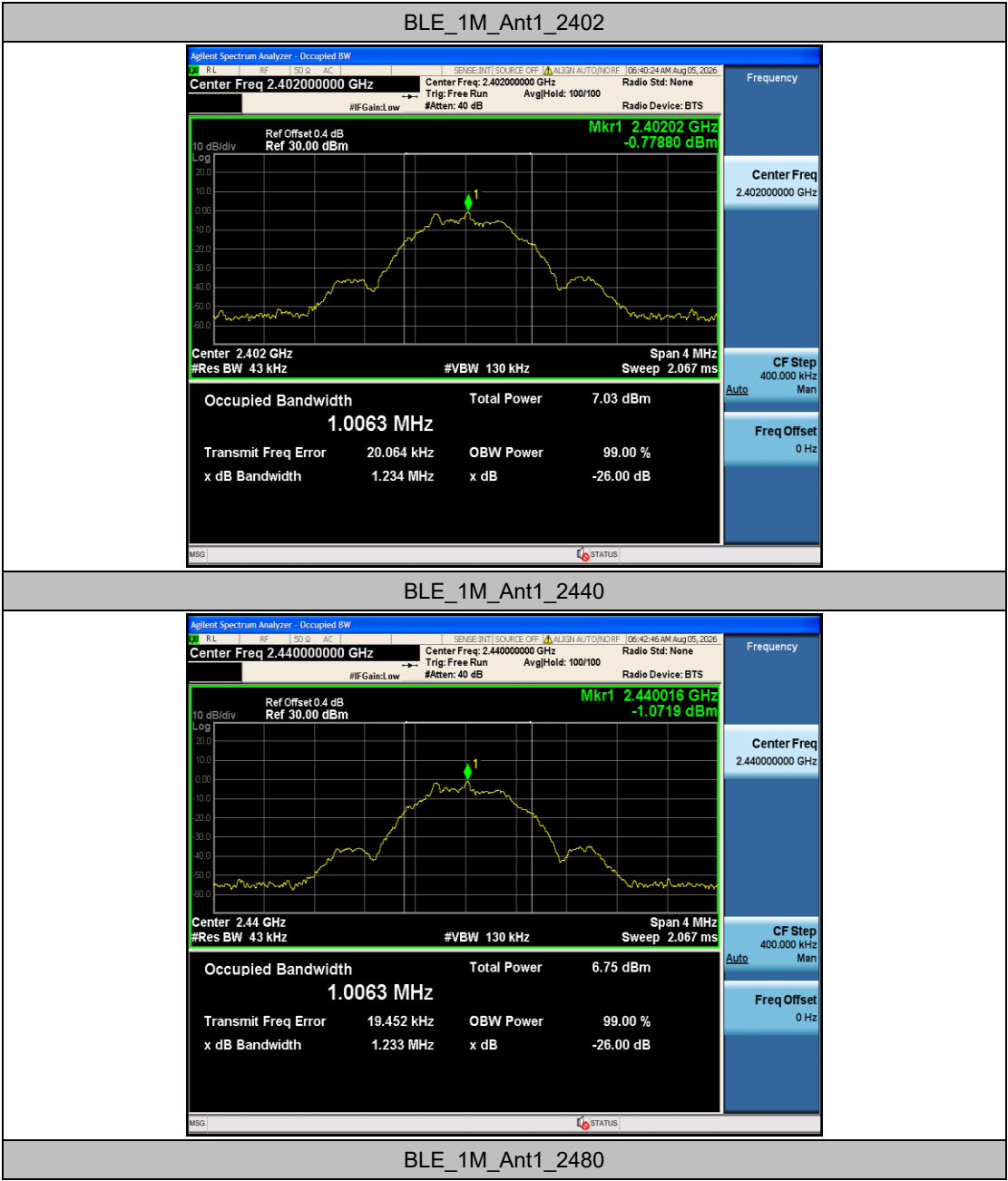


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0063	2401.5169	2402.5232	---	---
		2440	1.0063	2439.5163	2440.5226	---	---
		2480	1.0095	2479.5171	2480.5266	---	---

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	0.19	≤30	PASS
		2440	-0.02	≤30	PASS
		2480	-0.34	≤30	PASS

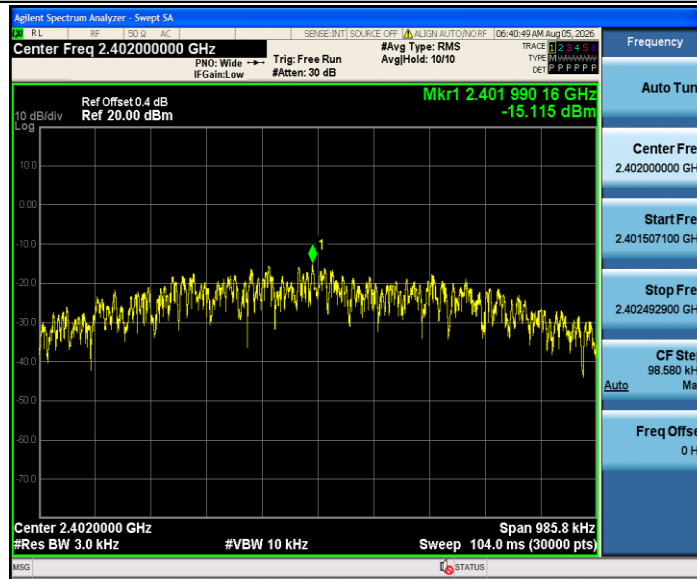
Appendix D: Maximum power spectral density

Test Result

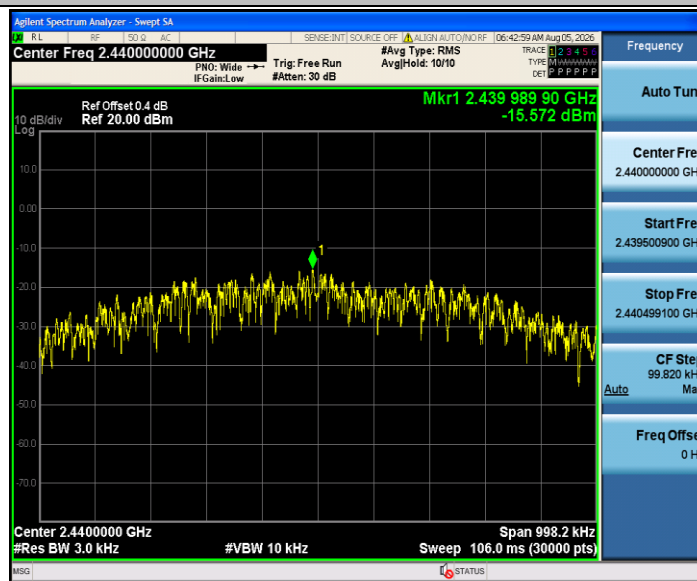
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.12	≤8.00	PASS
		2440	-15.57	≤8.00	PASS
		2480	-16.53	≤8.00	PASS

Test Graphs

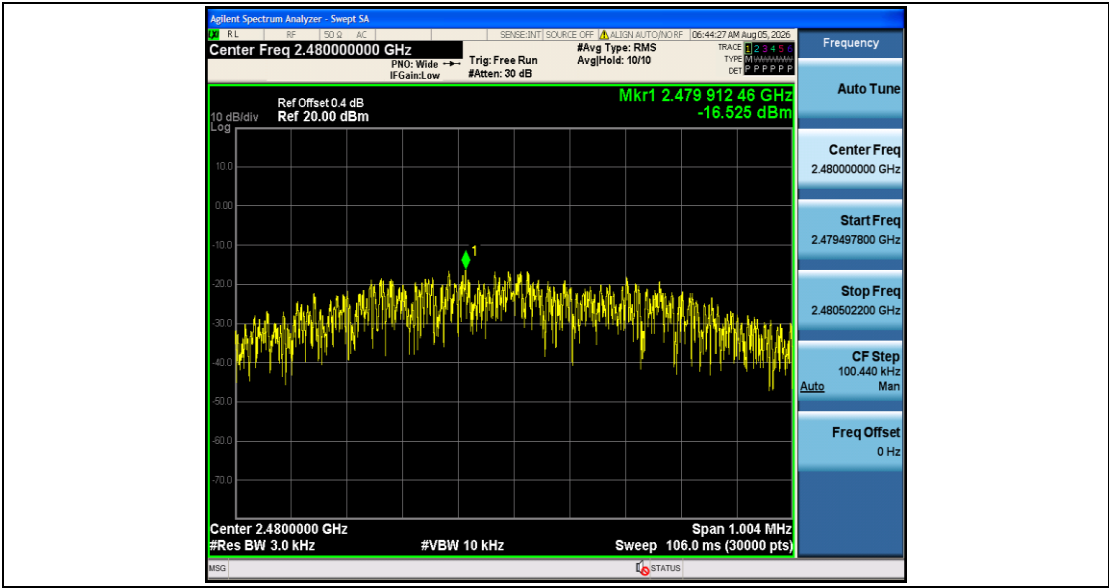
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

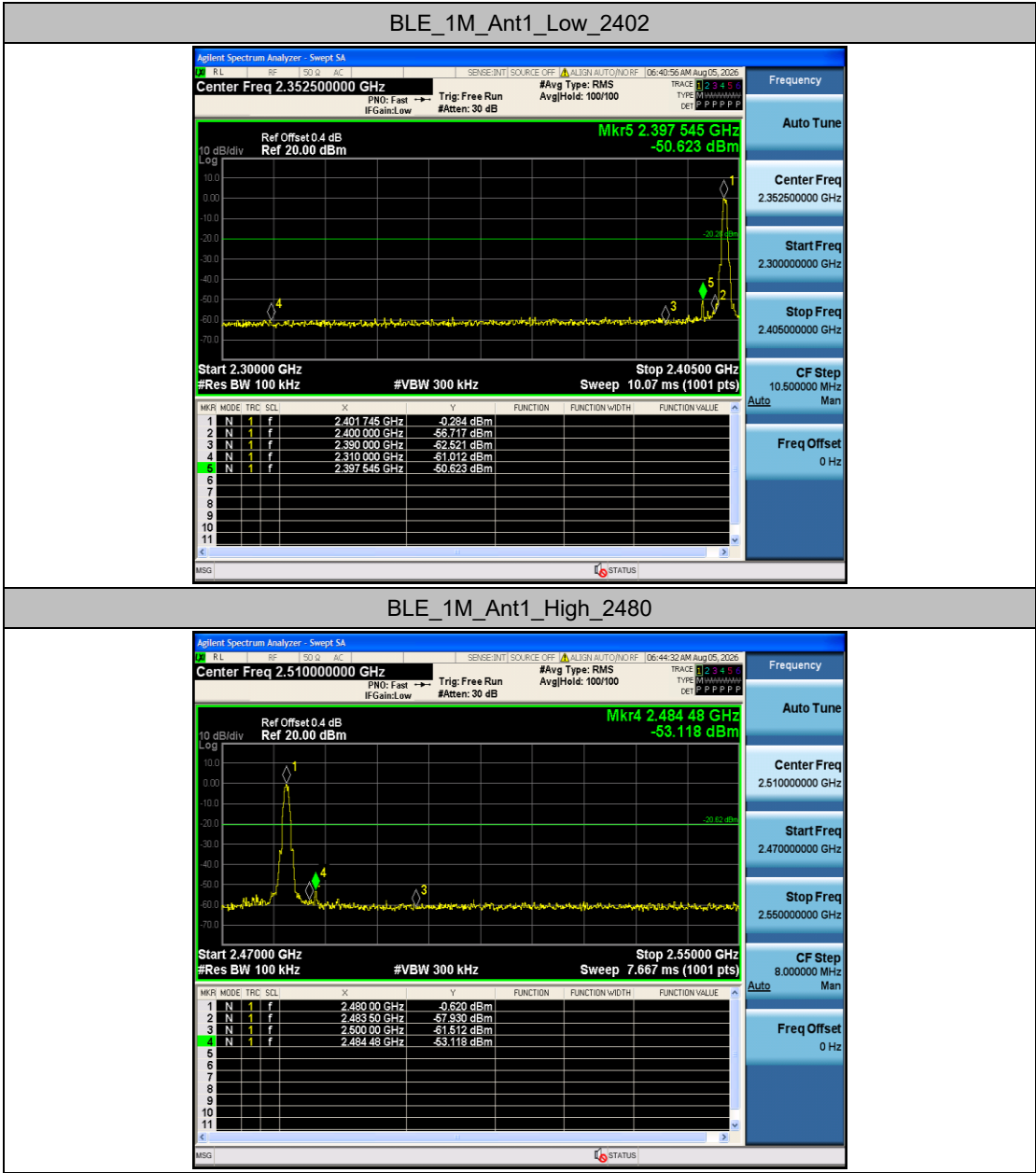


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.28	-50.62	≤-20.28	PASS
		High	2480	-0.62	-53.12	≤-20.62	PASS

Test Graphs

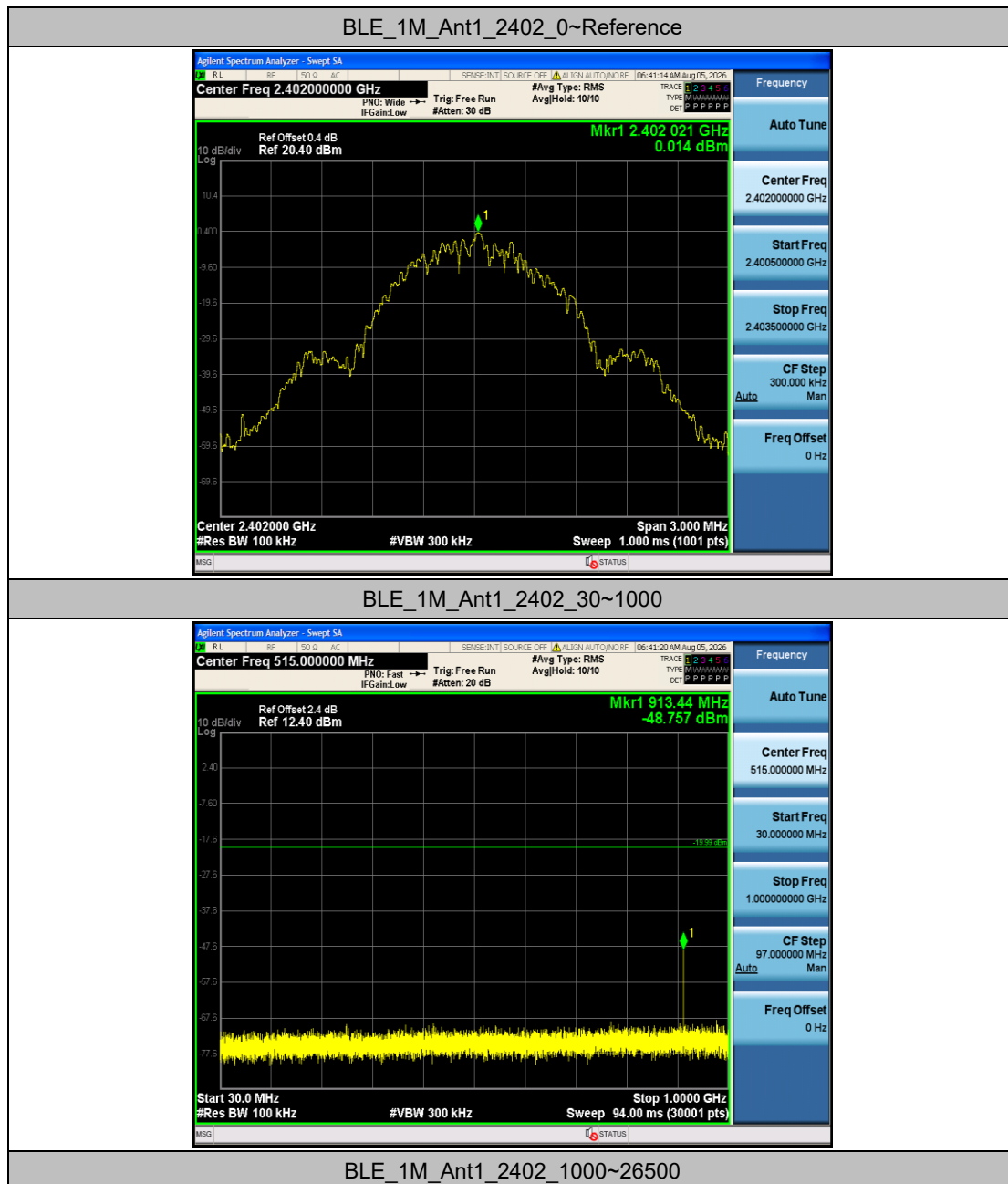


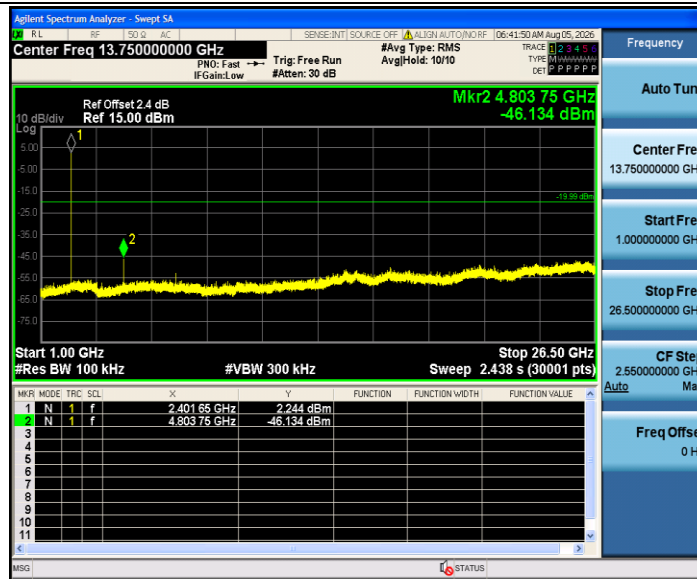
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.01	0.01	---	PASS
			30~1000	0.01	-48.76	≤-19.99	PASS
			1000~26500	0.01	-46.13	≤-19.99	PASS
		2440	Reference	-1.02	-1.02	---	PASS
			30~1000	-1.02	-67.97	≤-21.02	PASS
			1000~26500	-1.02	-44.6	≤-21.02	PASS
		2480	Reference	-1.68	-1.68	---	PASS
			30~1000	-1.68	-67.34	≤-21.68	PASS
			1000~26500	-1.68	-46.74	≤-21.68	PASS

Test Graphs

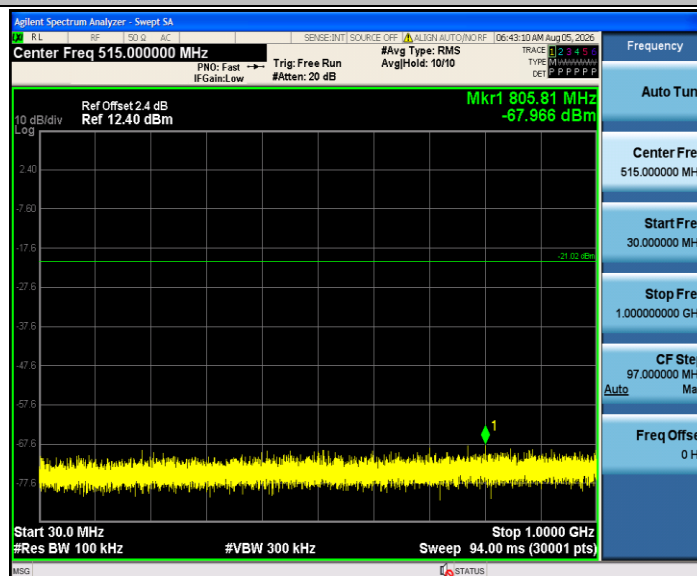




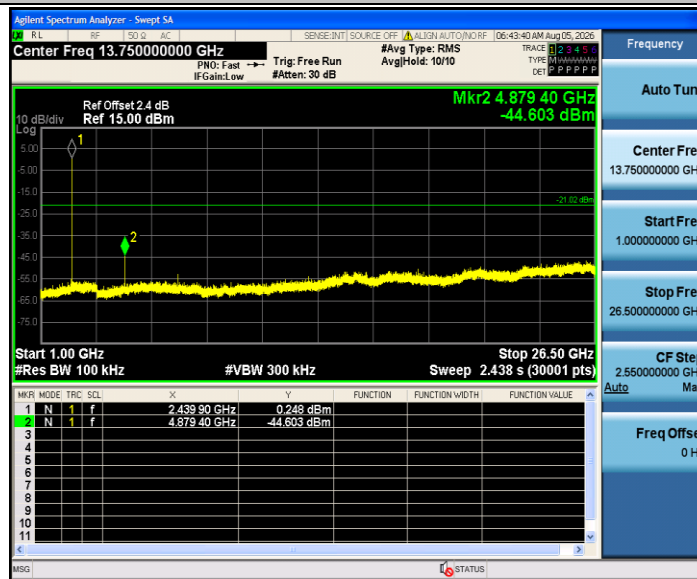
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



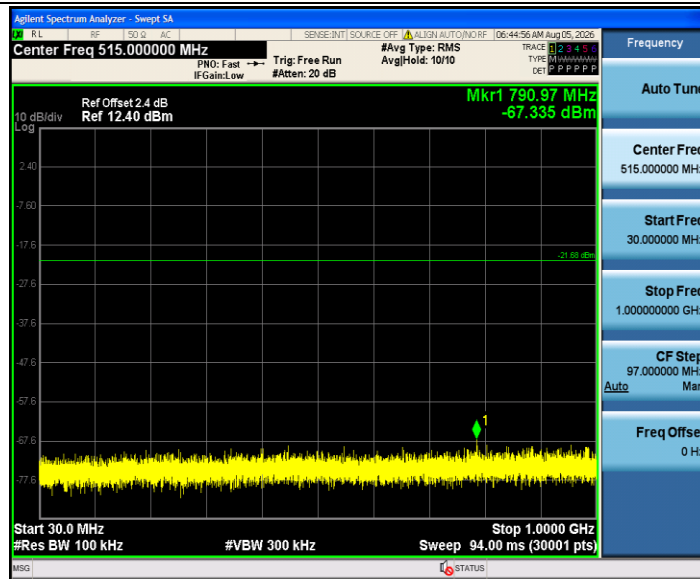
BLE_1M_Ant1_2440_1000~26500



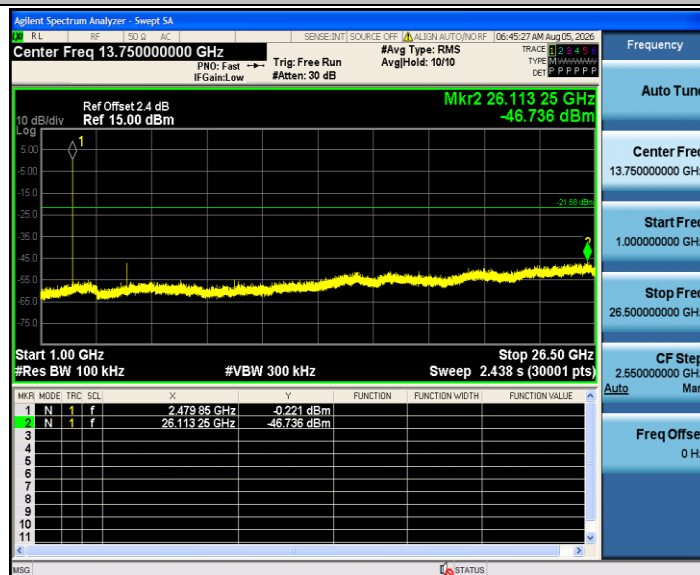
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

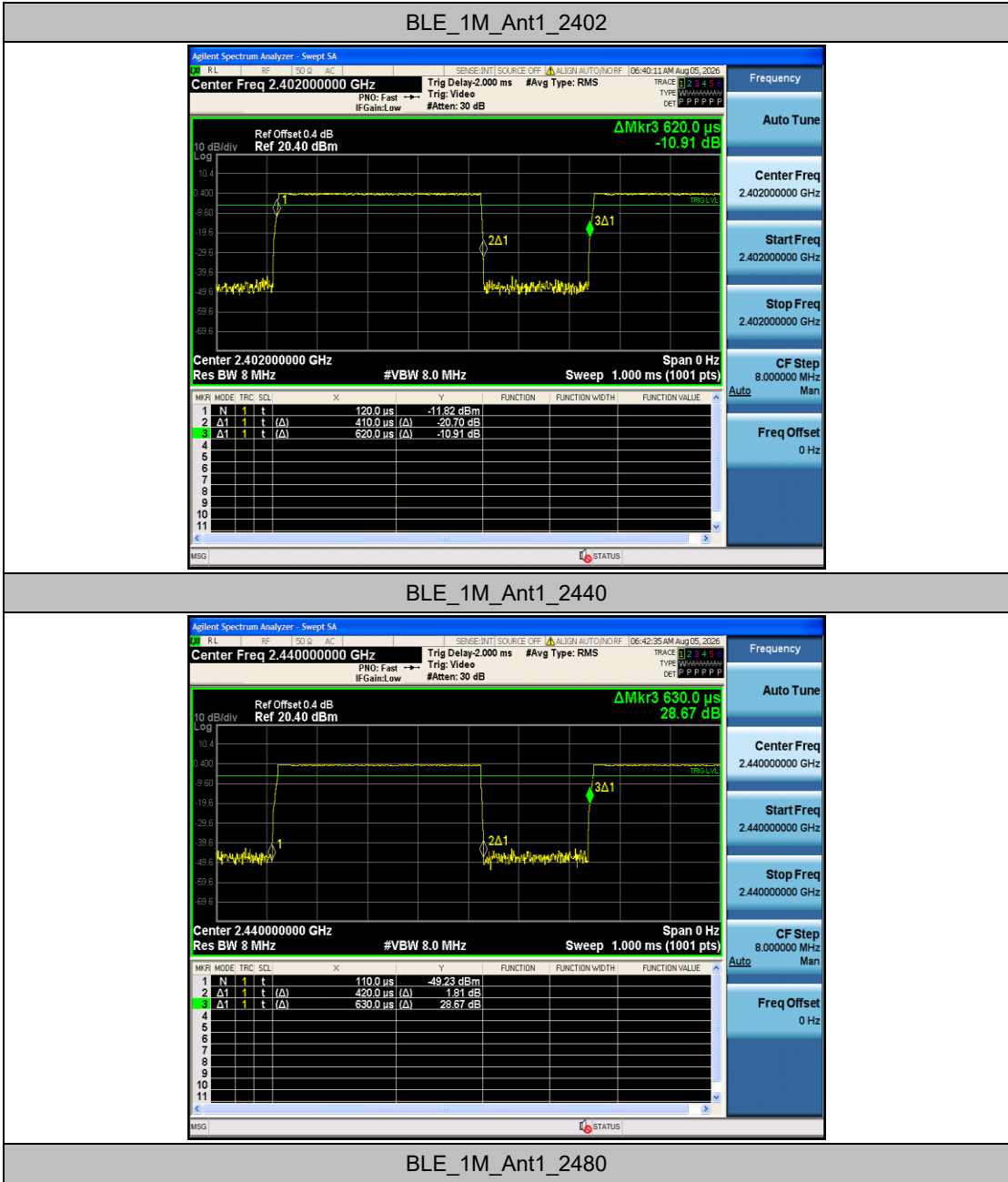


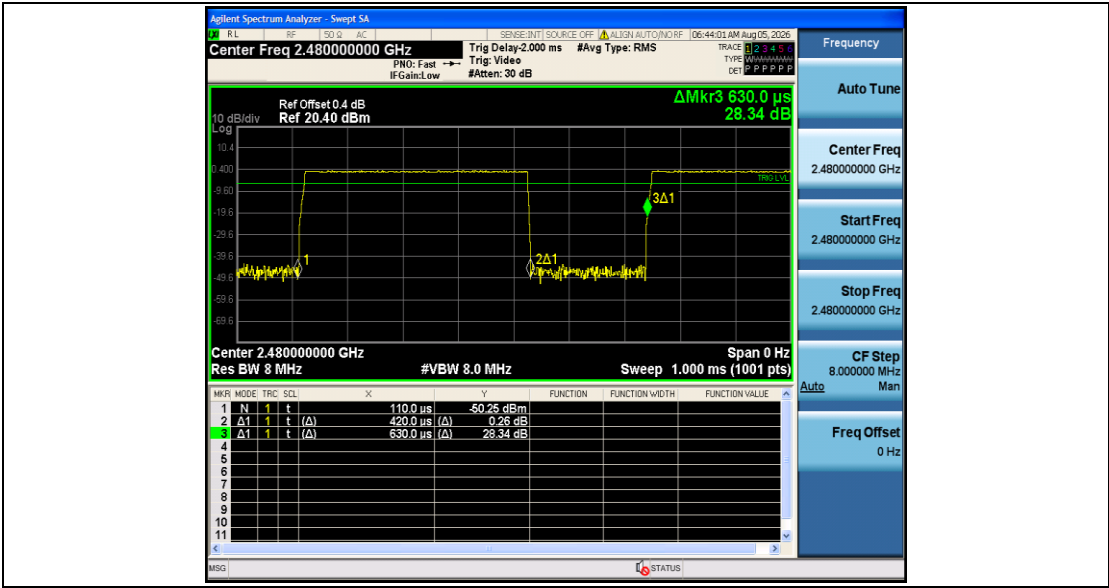
Appendix G: Duty Cycle

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

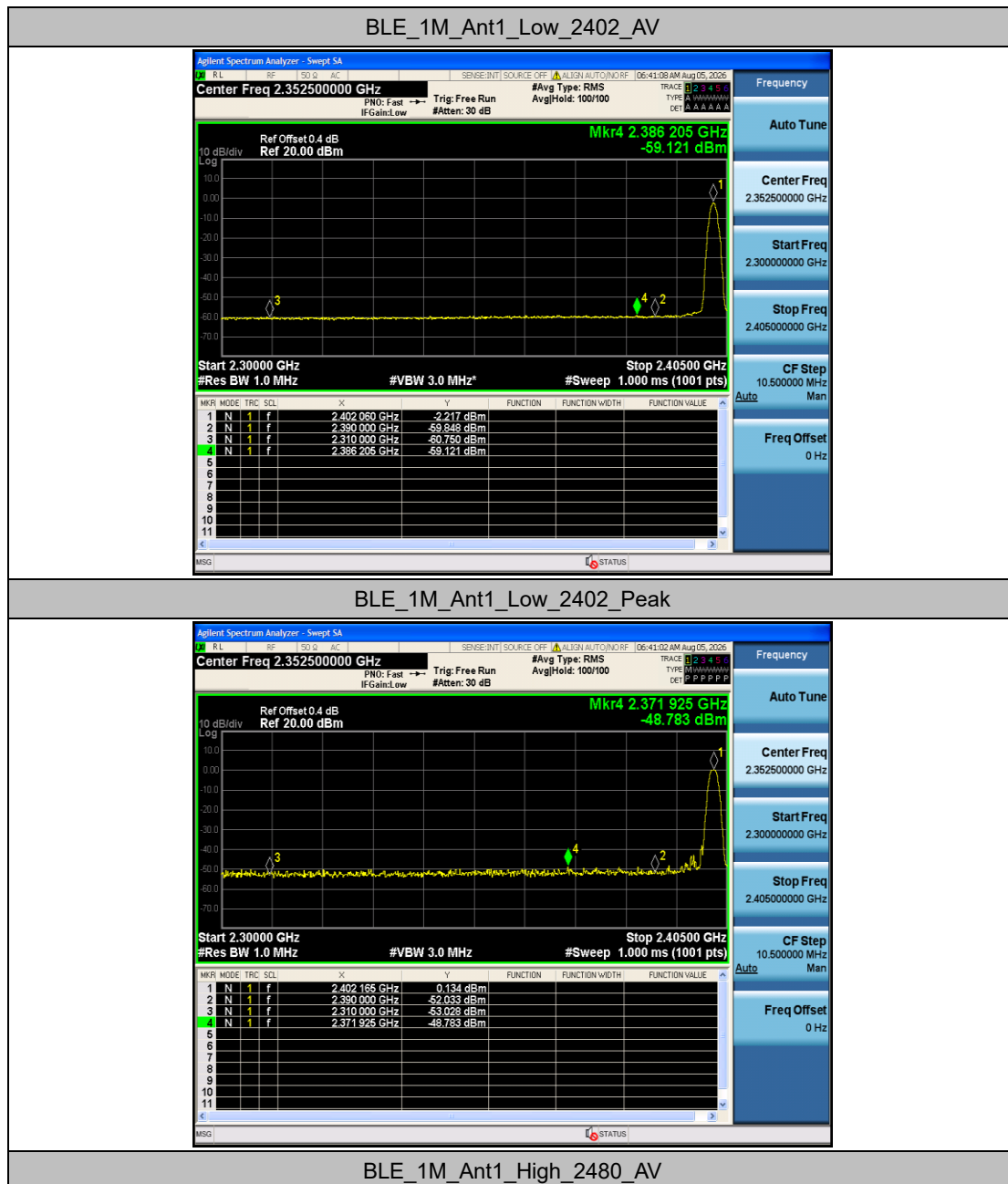
Test Result

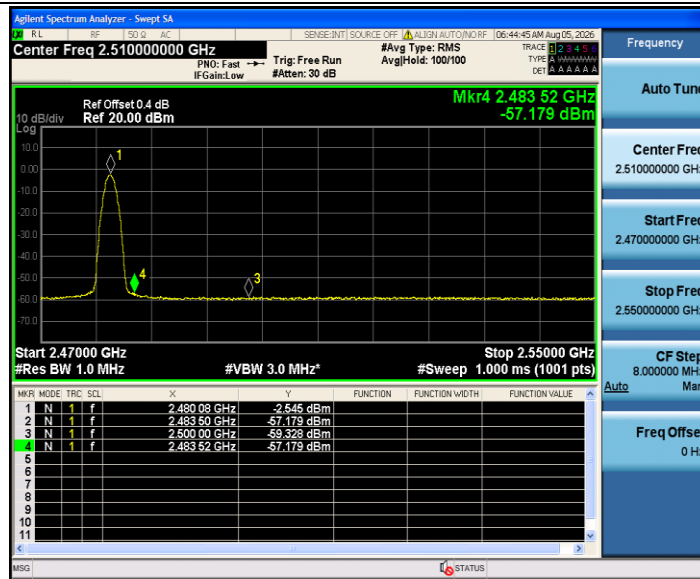
TestMode	Antenna	Channel Name	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.75	2.00	1.80	38.25	≤54	PASS
				AV	2386.205	-59.12	2.00	1.80	39.88	≤54	PASS
				AV	2390.000	-59.85	2.00	1.80	39.15	≤54	PASS
				Peak	2310.000	-53.03	2.00	0.00	44.17	≤74	PASS
				Peak	2371.925	-48.78	2.00	0.00	48.42	≤74	PASS
				Peak	2390.000	-52.03	2.00	0.00	45.17	≤74	PASS
		High	2480	AV	2483.500	-57.18	2.00	1.76	41.78	≤54	PASS
				AV	2483.520	-57.18	2.00	1.76	41.78	≤54	PASS
				AV	2500.000	-59.33	2.00	1.76	39.63	≤54	PASS
				Peak	2483.500	-49.93	2.00	0.00	47.27	≤74	PASS
				Peak	2484.880	-44.68	2.00	0.00	52.52	≤74	PASS
				Peak	2500.000	-51.4	2.00	0.00	45.80	≤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

