

FCC Appendix RF Test Data for BLE

FCC ID : 2ACGT-TLN002

Company : Guangzhou Shangke Information Technology Co., Ltd.

EUT : Mini PC

Model Number : TLN001

Report No. : CTA26073001601

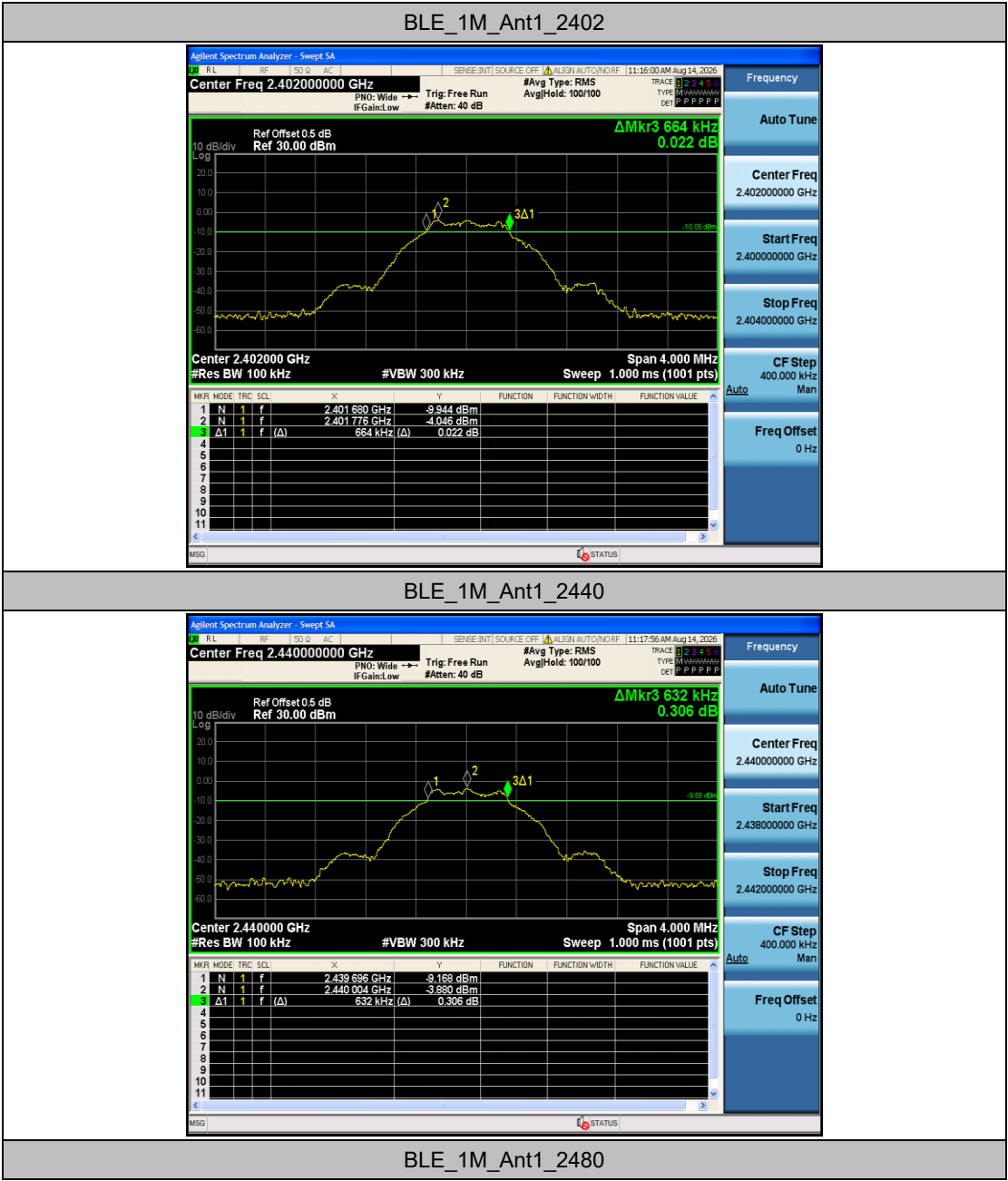
Reviewed By : Eric Wang

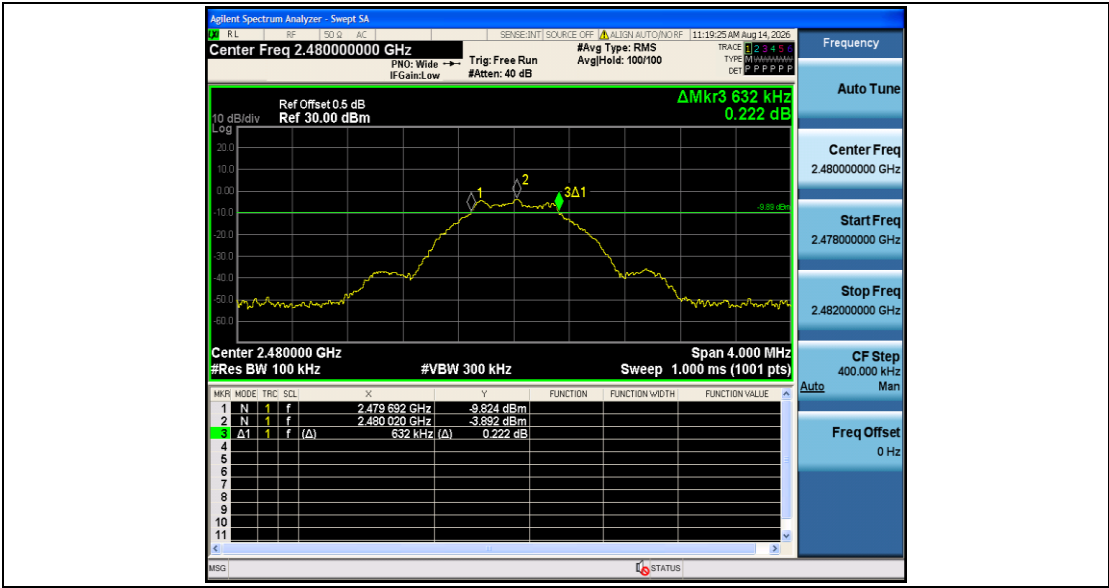
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.664	2401.680	2402.344	0.5	PASS
		2440	0.632	2439.696	2440.328	0.5	PASS
		2480	0.632	2479.692	2480.324	0.5	PASS

Test Graphs



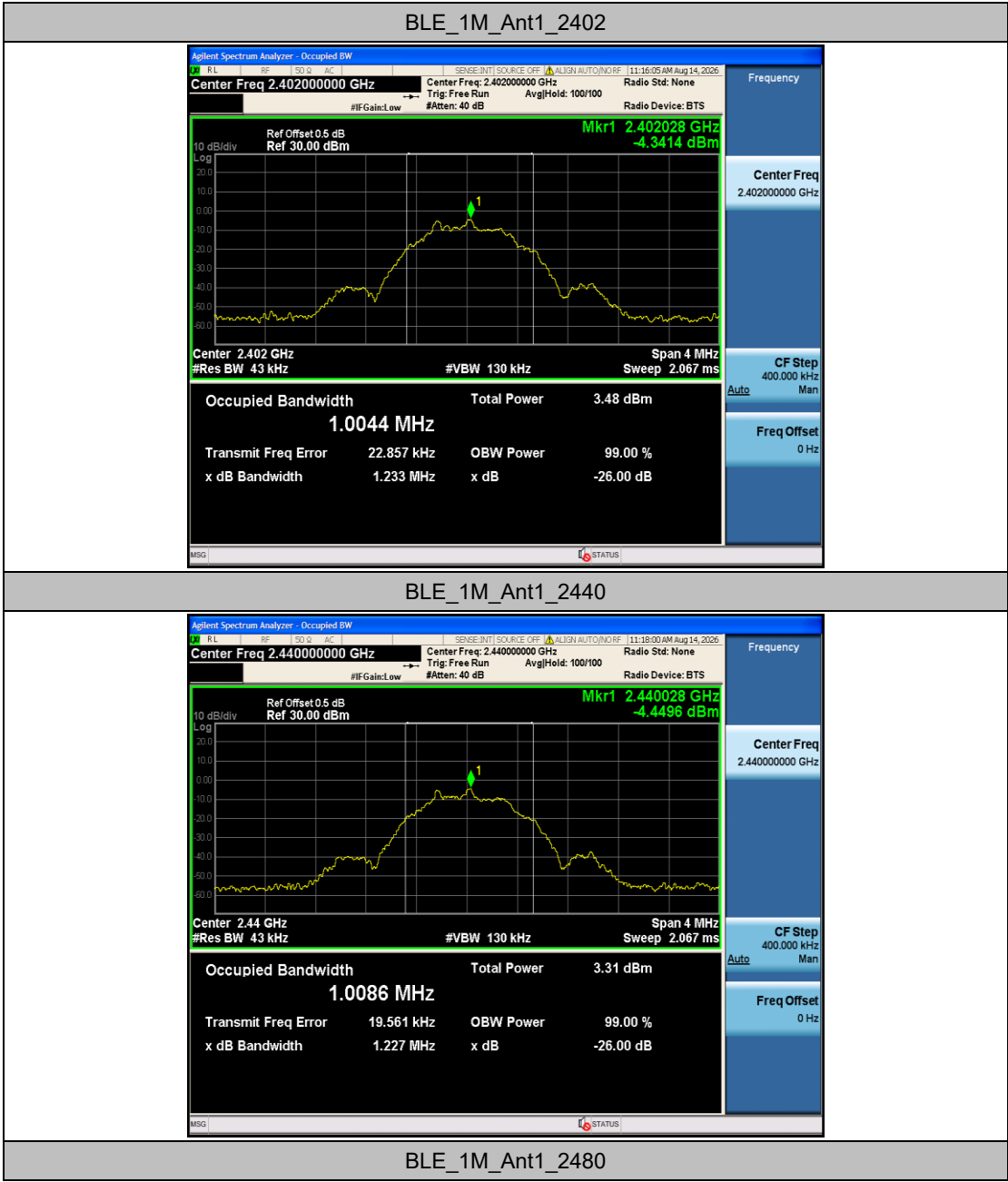


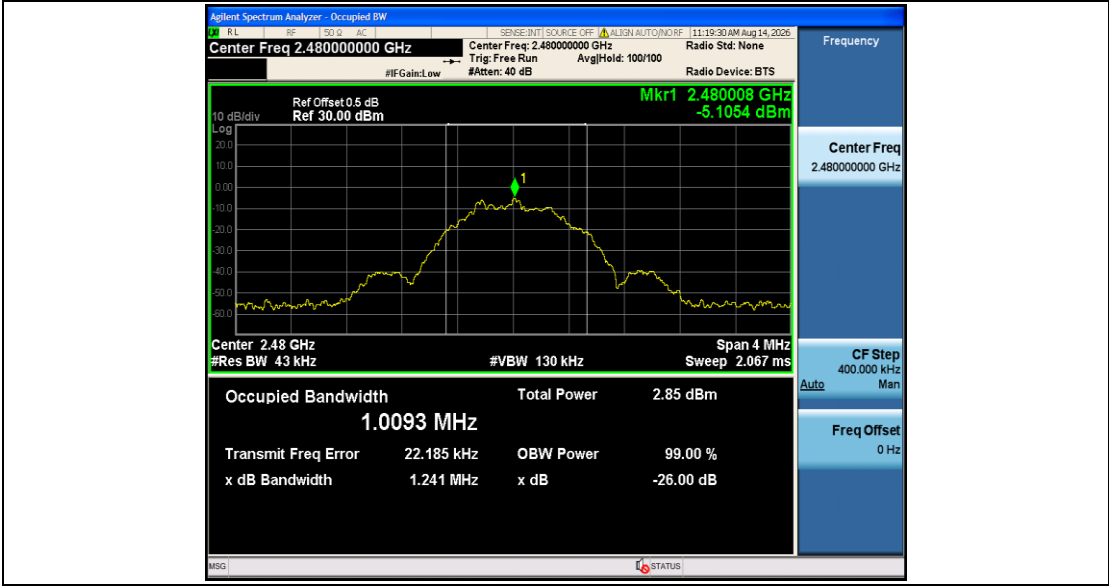
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0044	2401.5207	2402.5251	---	---
		2440	1.0086	2439.5153	2440.5239	---	---
		2480	1.0093	2479.5175	2480.5268	---	---

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	-3.26	≤30	PASS
		2440	-3.39	≤30	PASS
		2480	-3.75	≤30	PASS

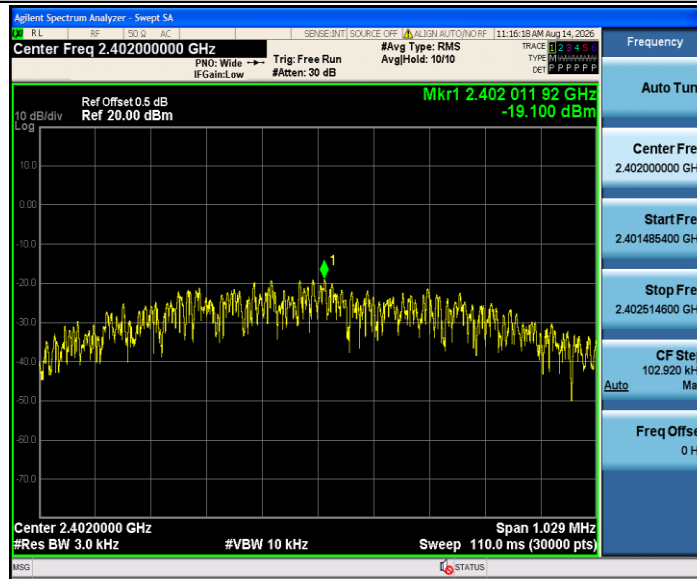
Appendix D: Maximum power spectral density

Test Result

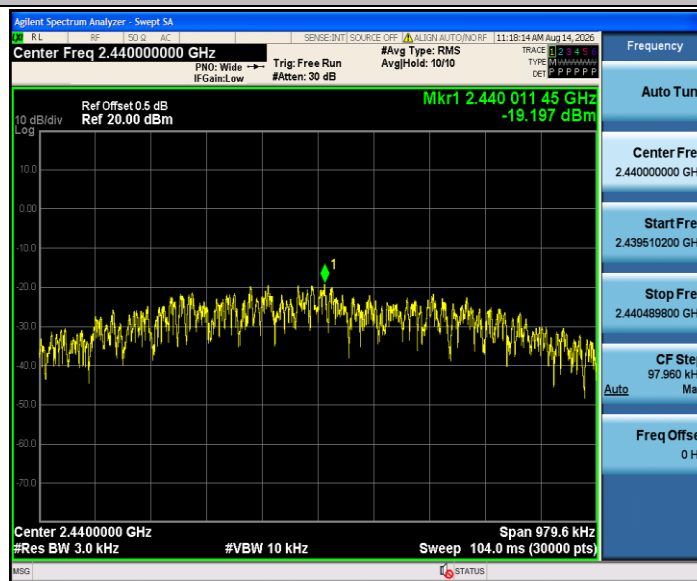
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.10	≤8.00	PASS
		2440	-19.20	≤8.00	PASS
		2480	-19.49	≤8.00	PASS

Test Graphs

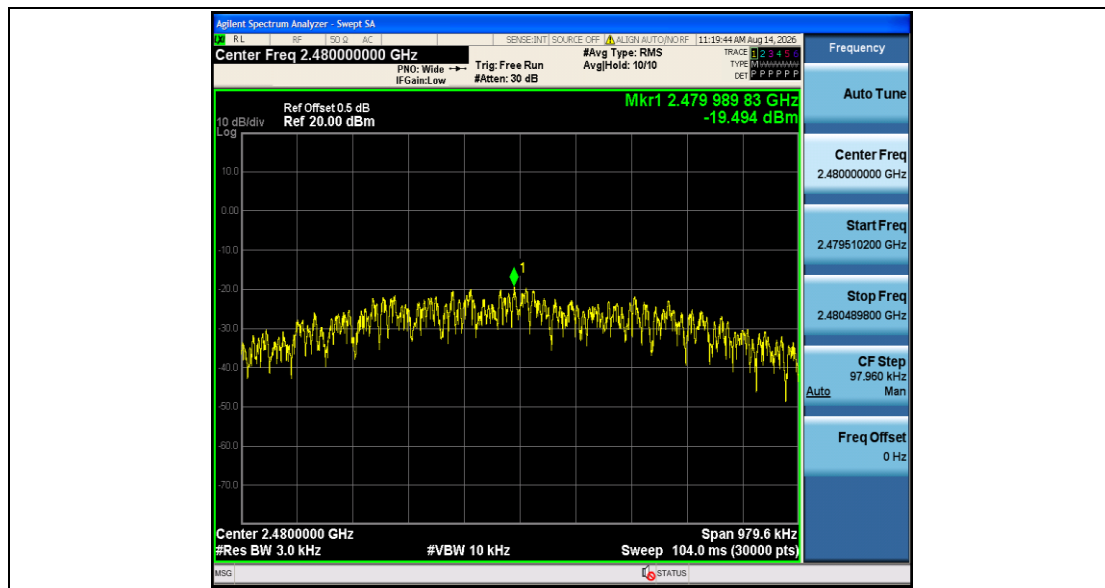
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



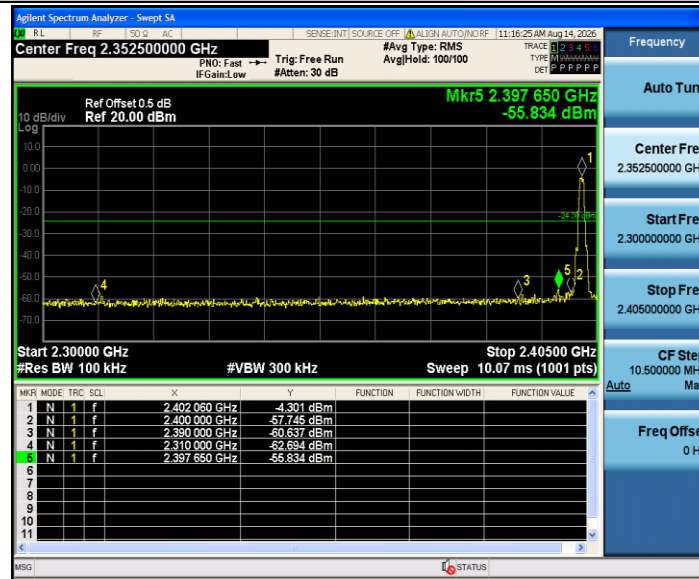
Appendix E: Band edge measurements

Test Result

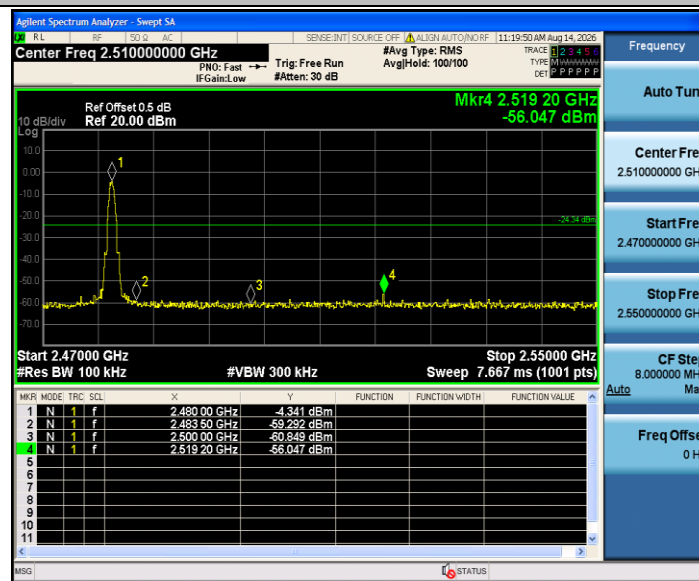
TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-4.30	-55.83	≤-24.3	PASS
		High	2480	-4.34	-56.05	≤-24.34	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480

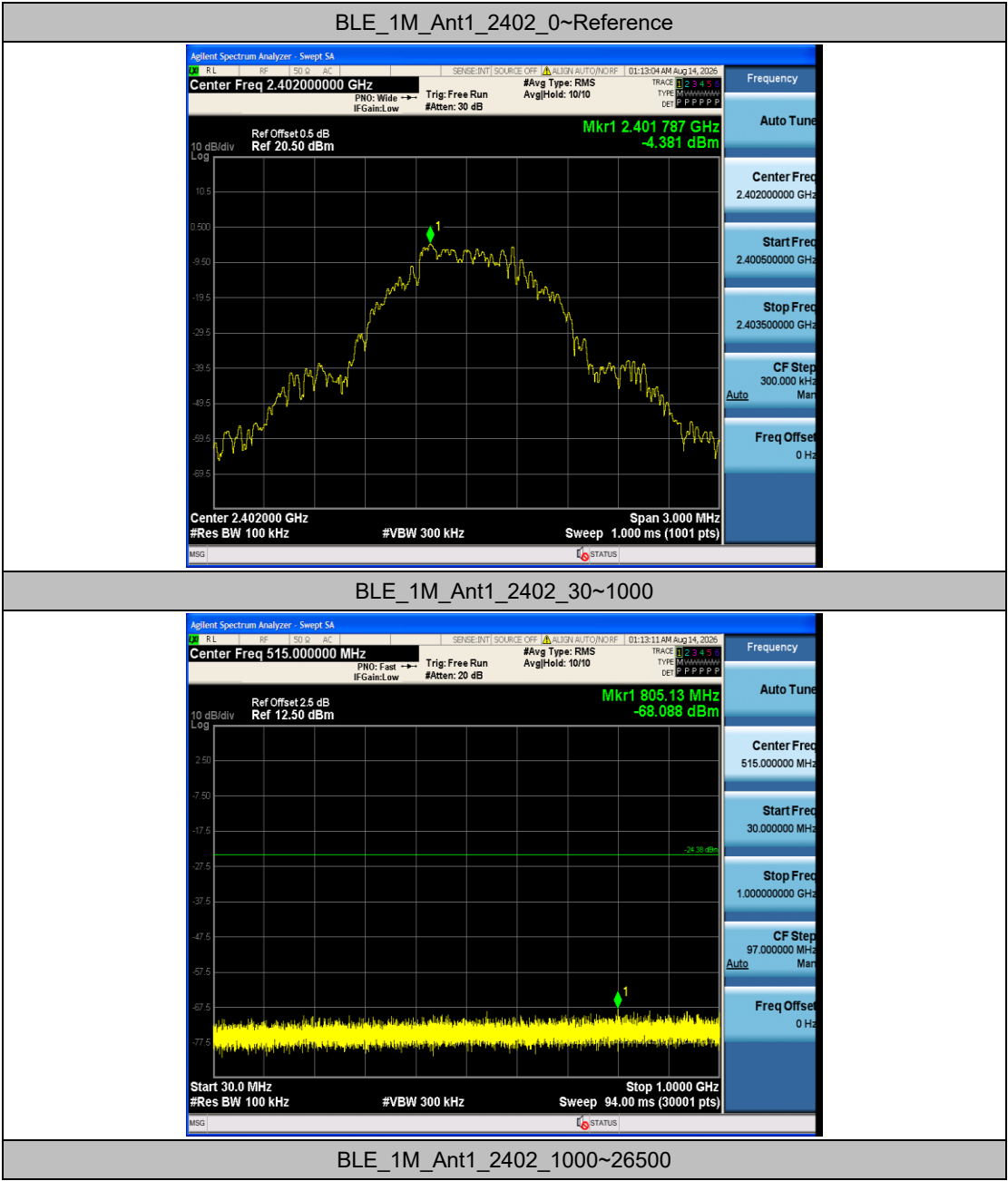


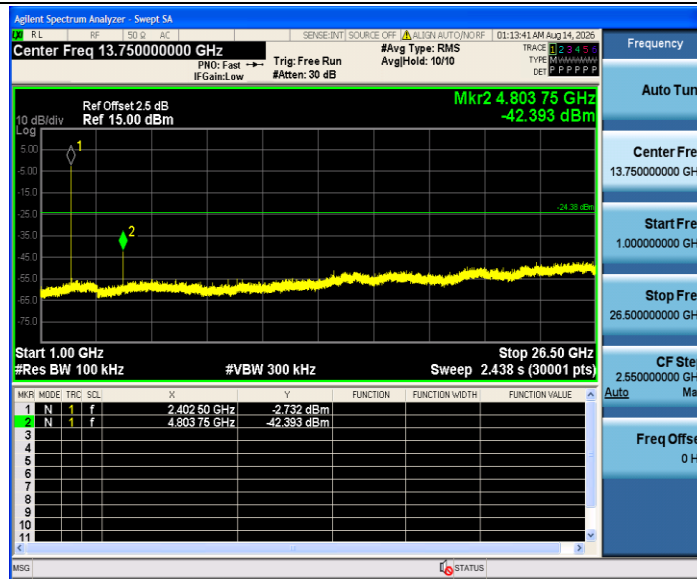
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.38	-4.38	---	PASS
			30~1000	-4.38	-68.09	≤-24.38	PASS
			1000~26500	-4.38	-42.39	≤-24.38	PASS
		2440	Reference	-4.31	-4.31	---	PASS
			30~1000	-4.31	-61.44	≤-24.31	PASS
			1000~26500	-4.31	-45.06	≤-24.31	PASS
		2480	Reference	-4.23	-4.23	---	PASS
			30~1000	-4.23	-53.44	≤-24.23	PASS
			1000~26500	-4.23	-44.24	≤-24.23	PASS

Test Graphs

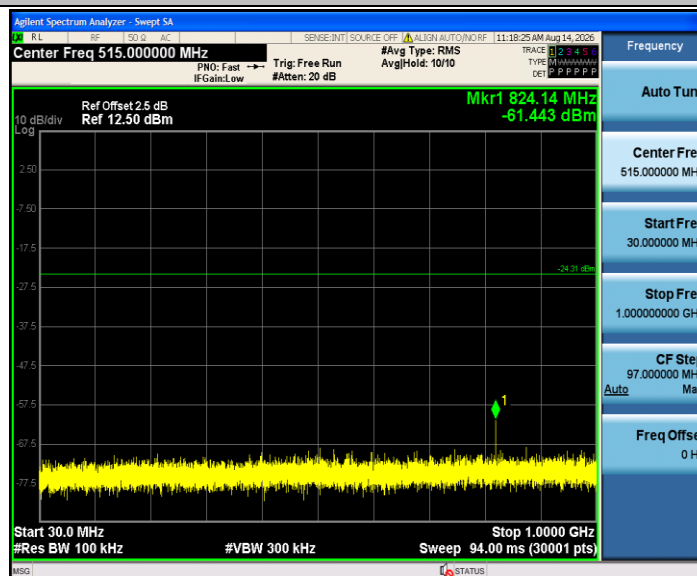




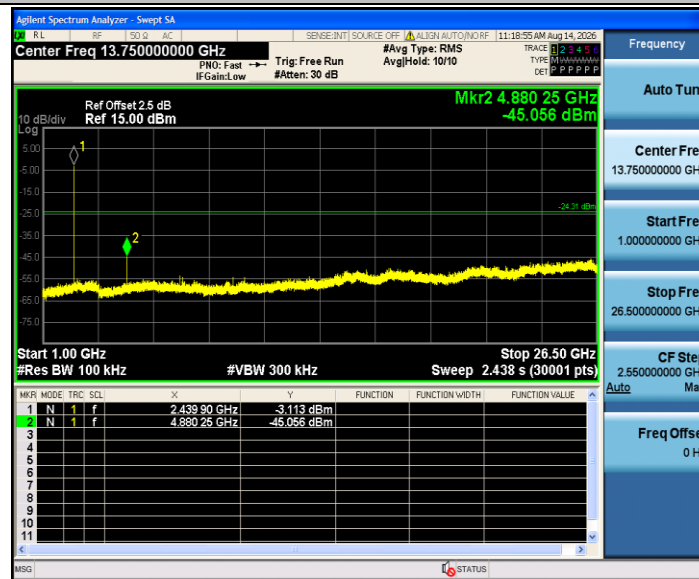
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



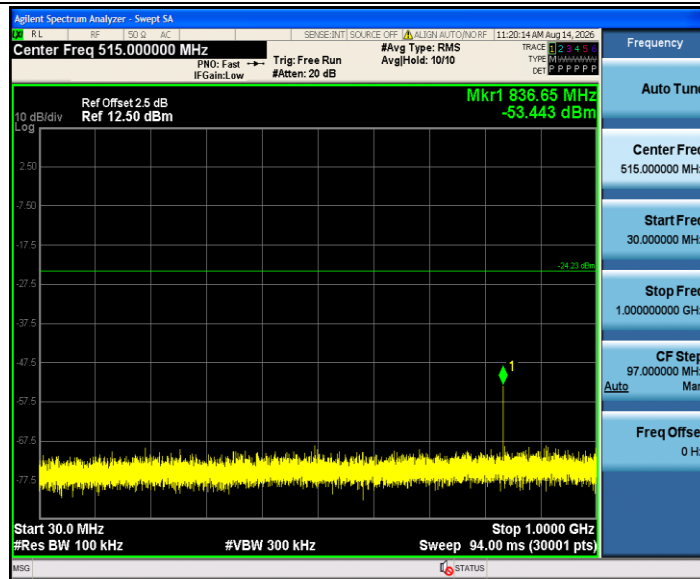
BLE_1M_Ant1_2440_1000~26500



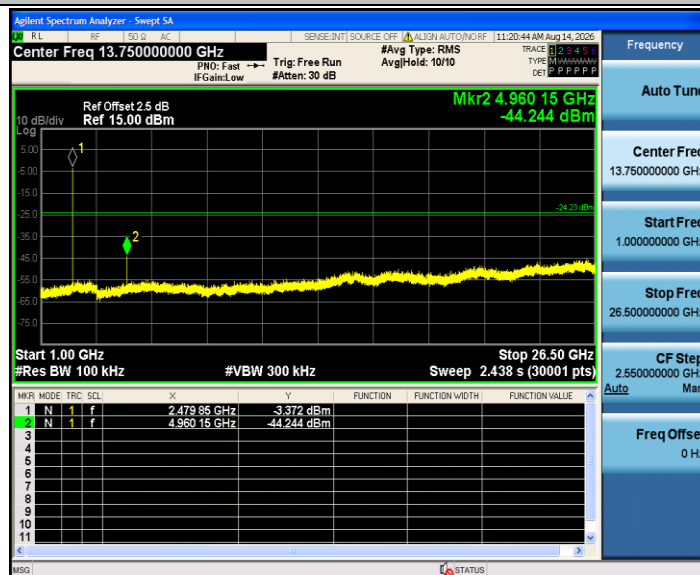
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

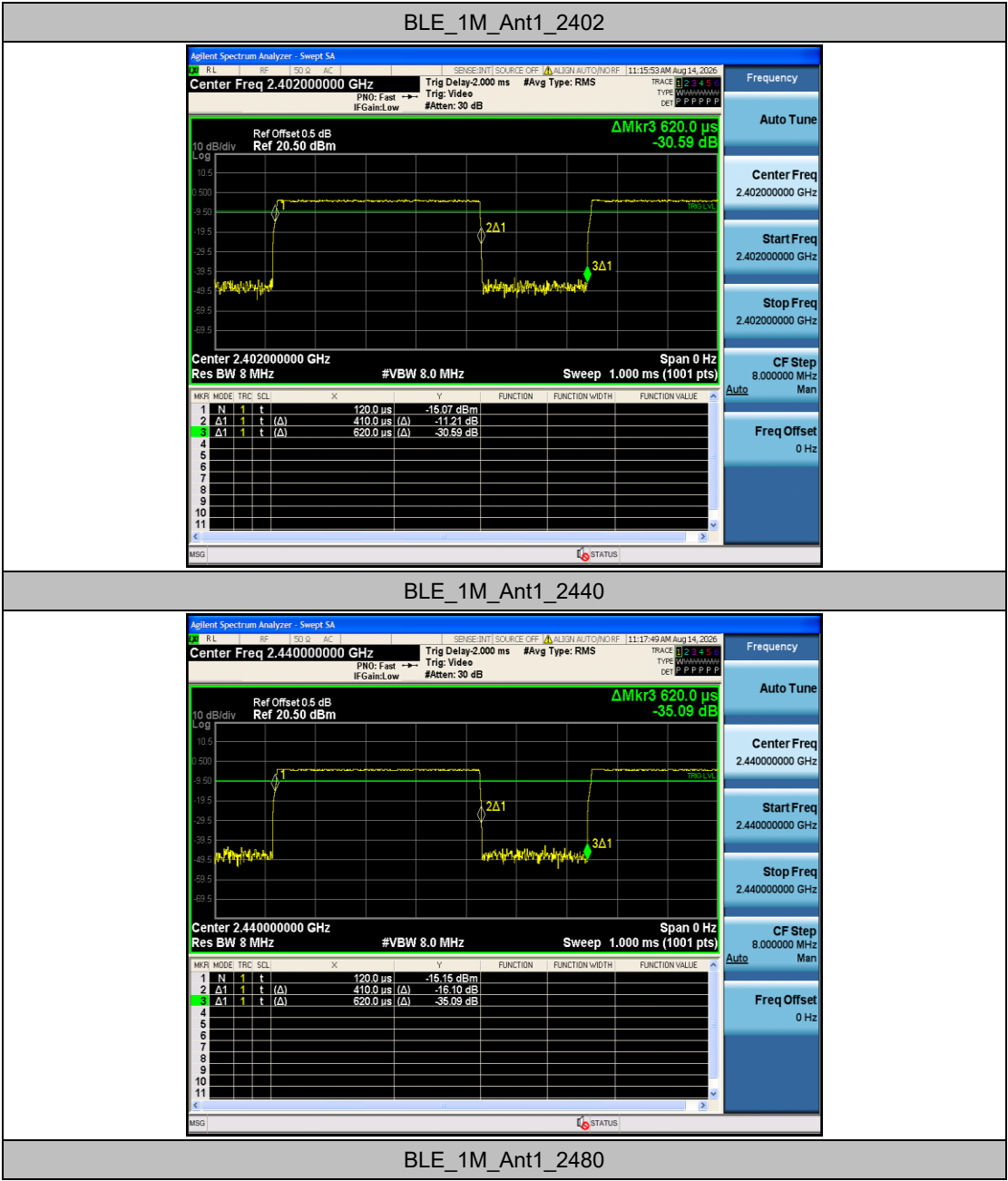


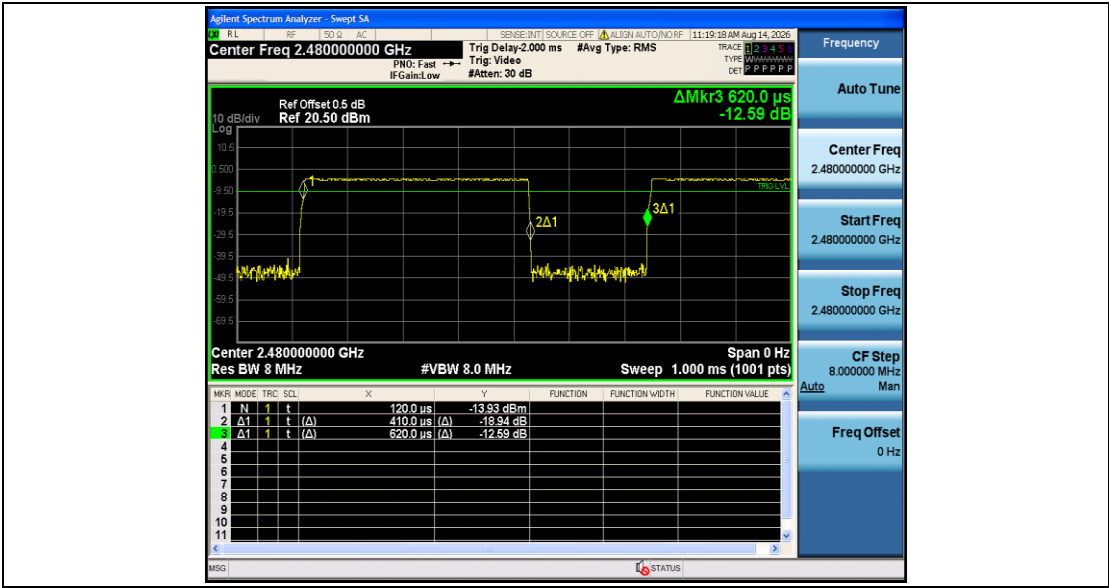
Appendix G: Duty Cycle

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

TestMod e	Antenn a	ChNam e	Freq(MH z)	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	-61	2.00	1.80	38.00	≤54	PASS
				AV	2378.960	-59.12	2.00	1.80	39.88	≤54	PASS
				AV	2390.000	-59.69	2.00	1.80	39.31	≤54	PASS
				Peak	2310.000	-51.72	2.00	0.00	45.48	≤74	PASS
				Peak	2369.615	-48.7	2.00	0.00	48.50	≤74	PASS
				Peak	2390.000	-53.04	2.00	0.00	44.16	≤74	PASS
		High	2480	AV	2483.500	-58.79	2.00	1.80	40.21	≤54	PASS
				AV	2484.000	-58.66	2.00	1.80	40.34	≤54	PASS
				AV	2500.000	-60.33	2.00	1.80	38.67	≤54	PASS
				Peak	2483.500	-50.27	2.00	0.00	46.93	≤74	PASS
				Peak	2484.160	-48.59	2.00	0.00	48.61	≤74	PASS
				Peak	2500.000	-51.78	2.00	0.00	45.42	≤74	PASS

Note:

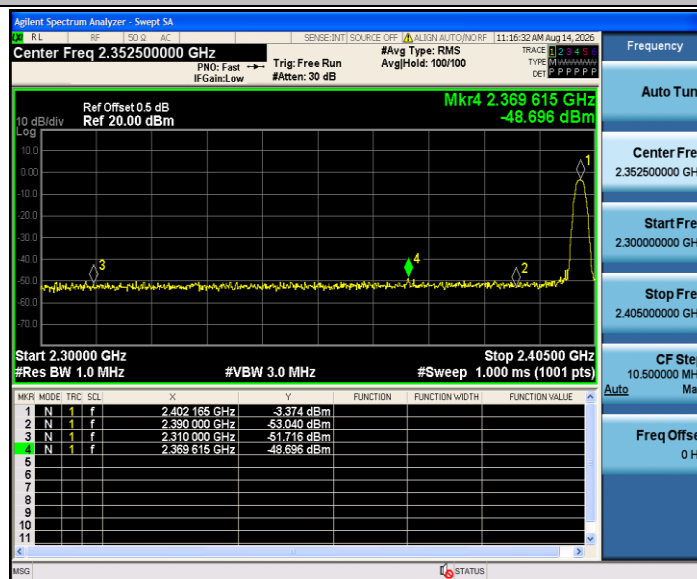
The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

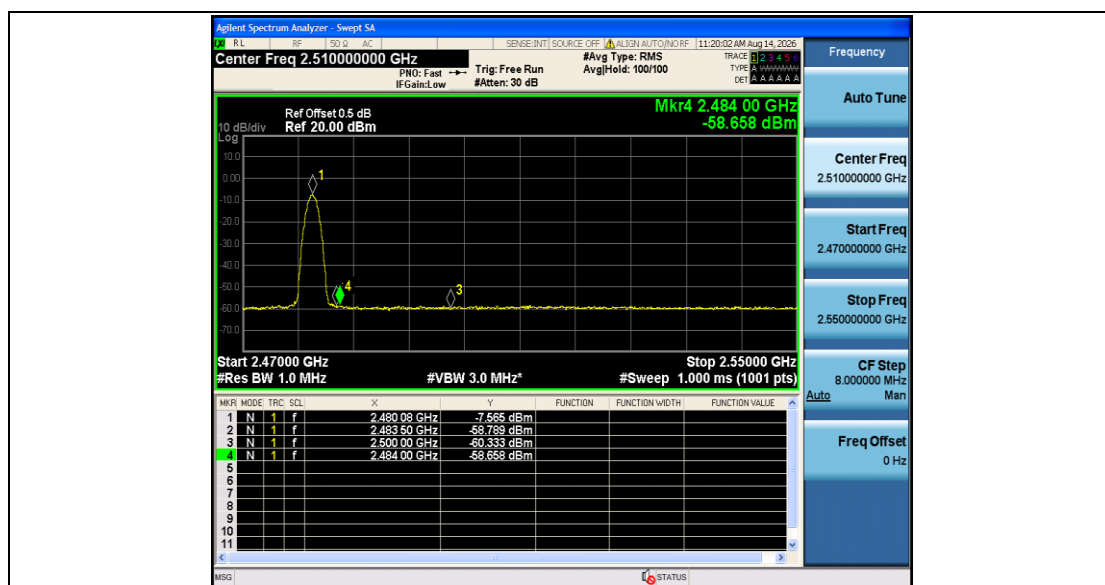
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

