

FCC Appendix RF Test Data for BLE

FCC ID : 2BNTB-BRG-TVB

Company : Shenzhen brglight technology co., Ltd

EUT : TV Backlight

Model Number : BRG-TVBacklight001

Report No. : CTA26060400501

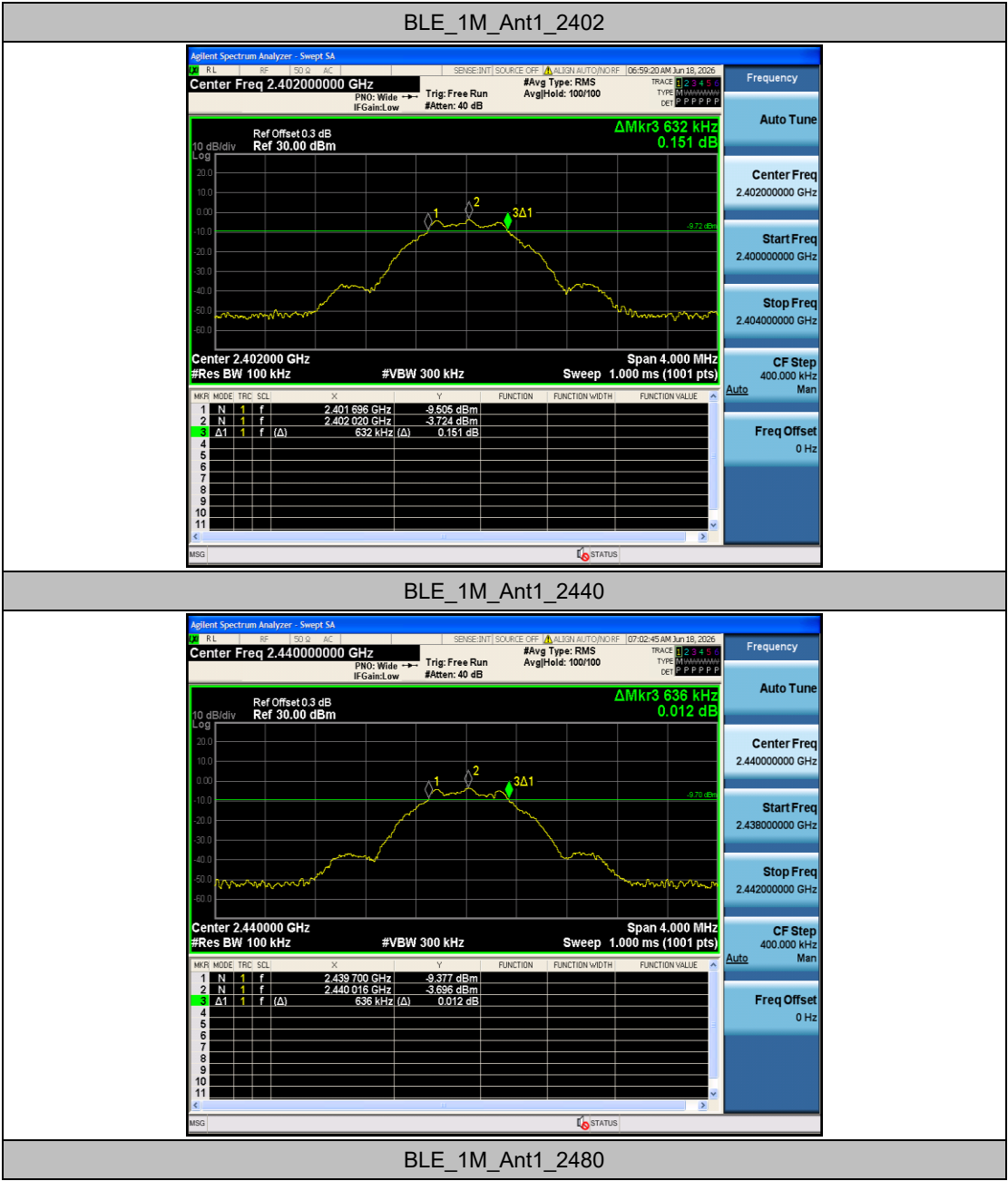
Reviewed By : Eric Wang

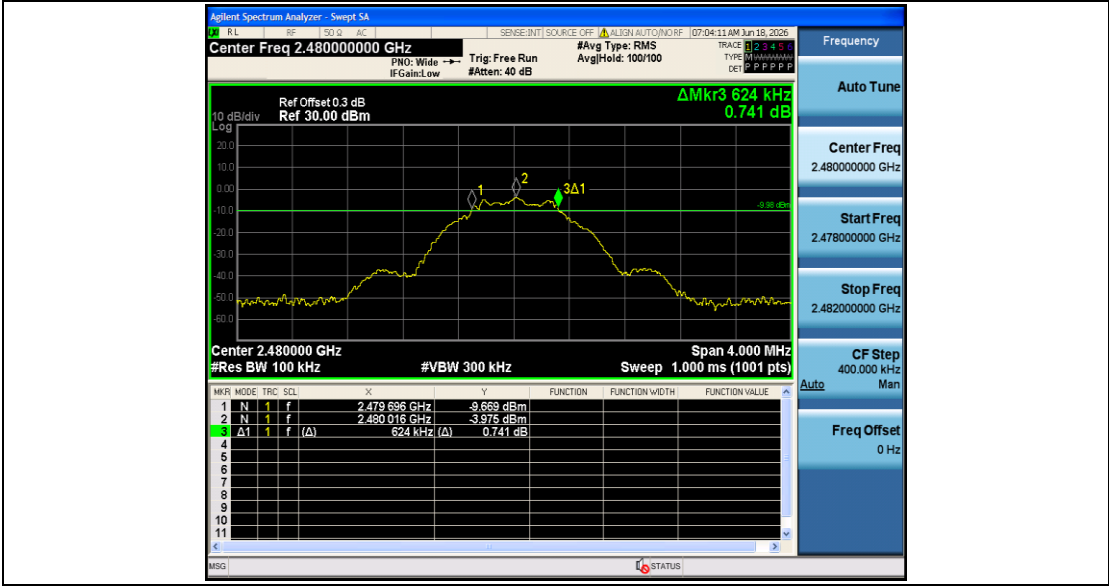
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.632	2401.696	2402.328	0.5	PASS
		2440	0.636	2439.700	2440.336	0.5	PASS
		2480	0.624	2479.696	2480.320	0.5	PASS

Test Graphs



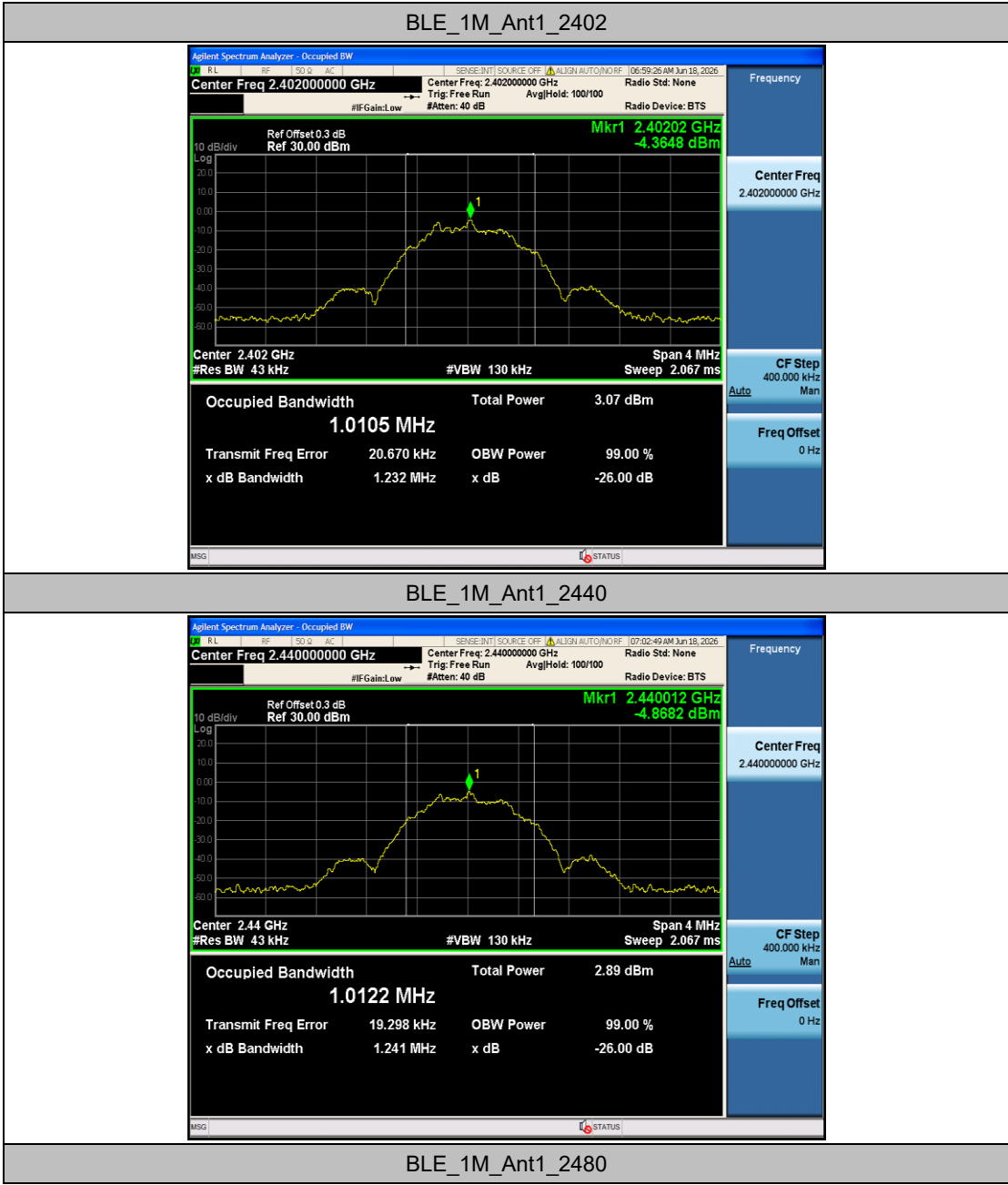


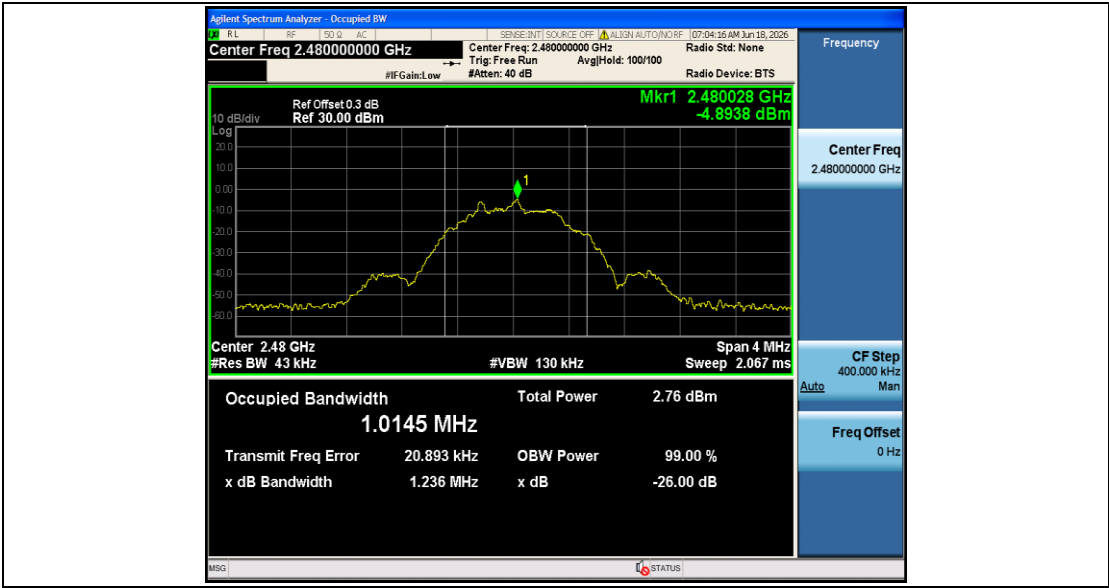
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0105	2401.5154	2402.5259	---	---
		2440	1.0122	2439.5132	2440.5254	---	---
		2480	1.0145	2479.5136	2480.5281	---	---

Test Graphs





Appendix C: Maximum conducted output power

Test Result Peak

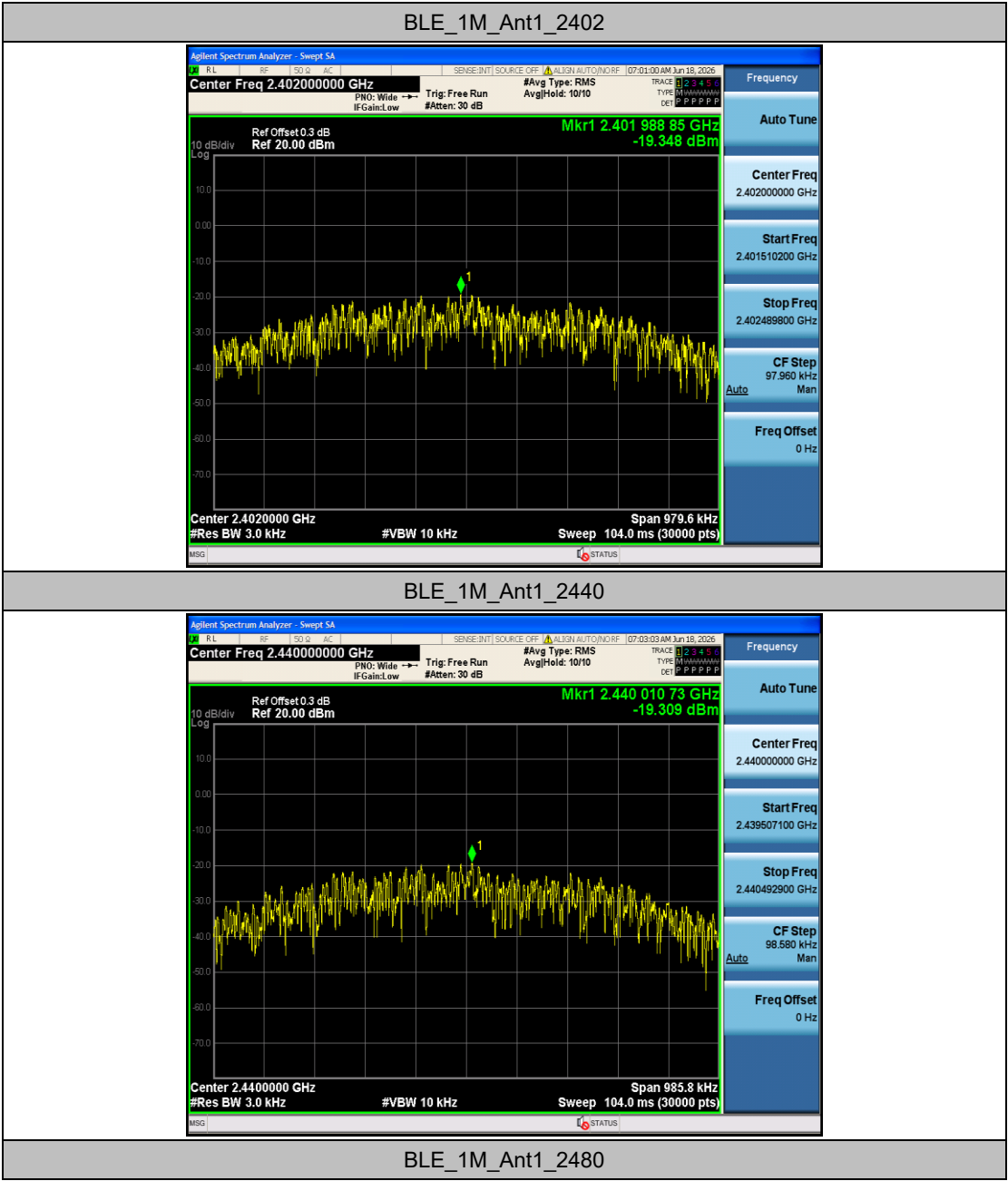
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.56	≤30	PASS
		2440	-3.54	≤30	PASS
		2480	-3.80	≤30	PASS

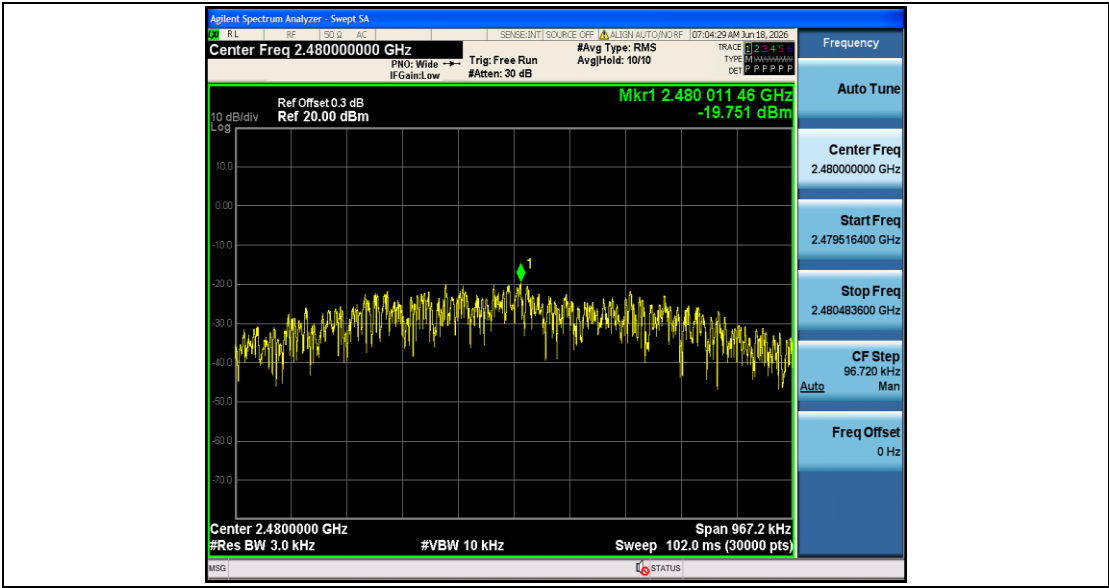
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.35	≤8.00	PASS
		2440	-19.31	≤8.00	PASS
		2480	-19.75	≤8.00	PASS

Test Graphs





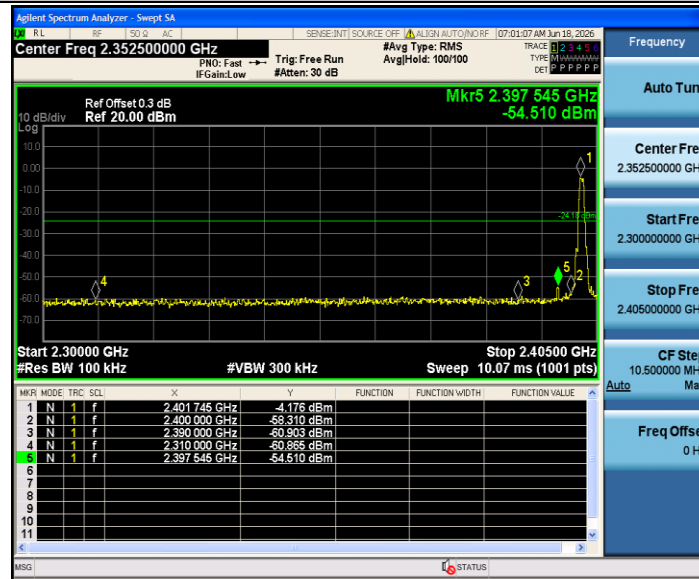
Appendix E: Band edge measurements

Test Result

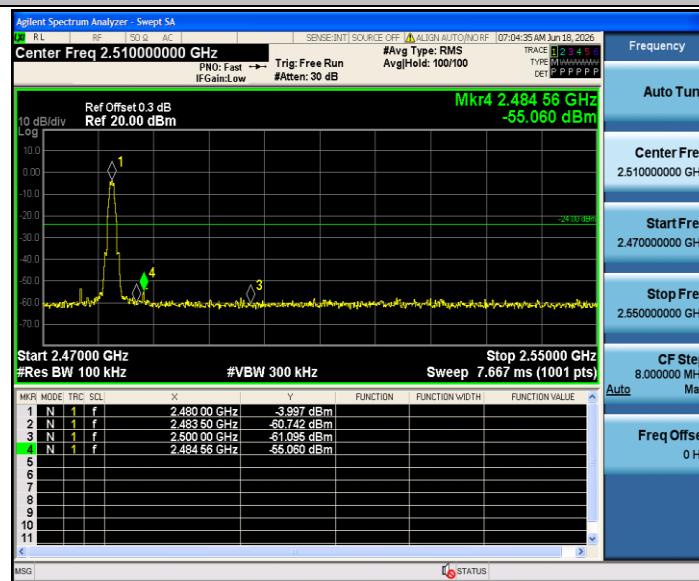
TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-4.18	-54.51	≤-24.18	PASS
		High	2480	-4.00	-55.06	≤-24	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480

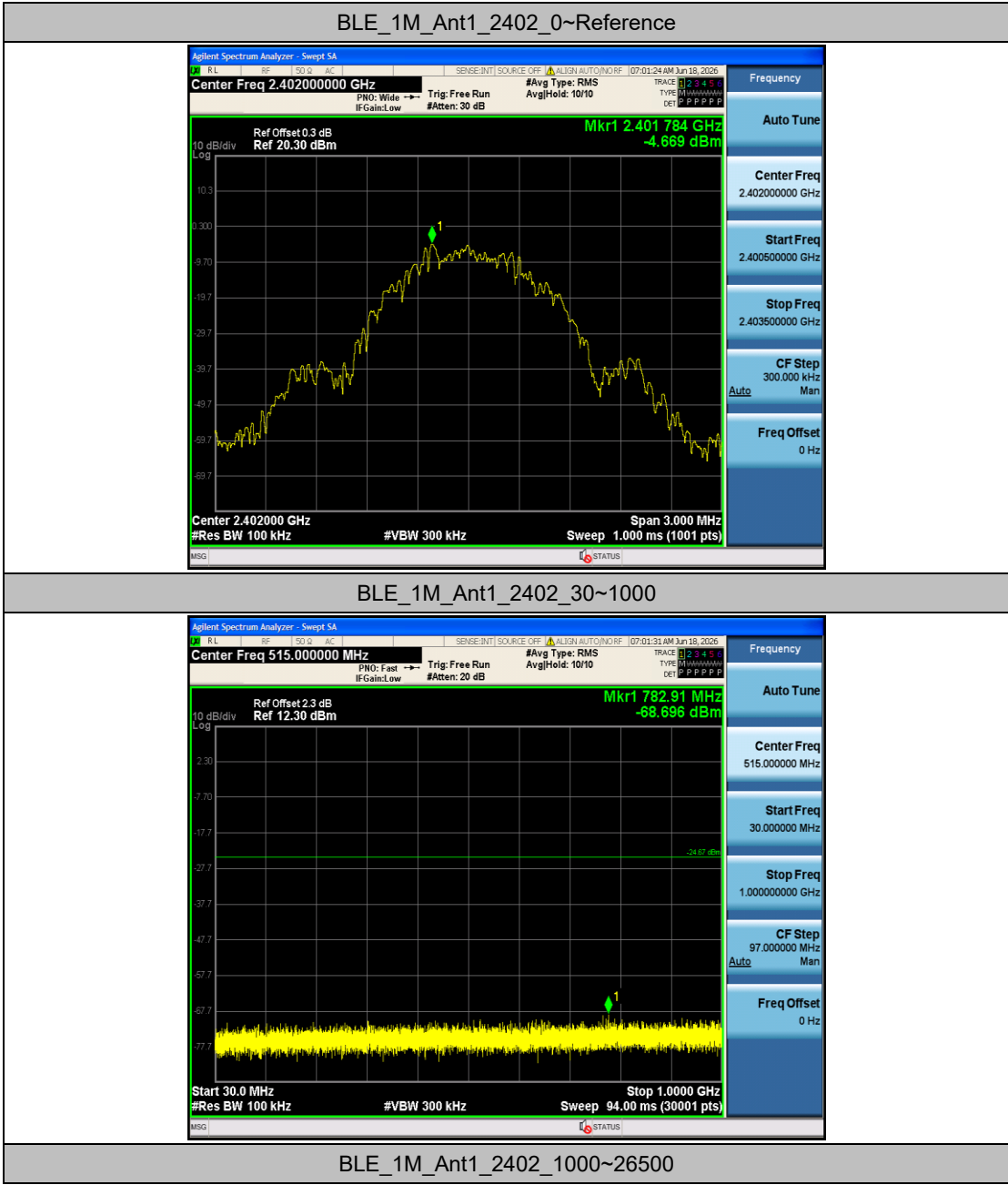


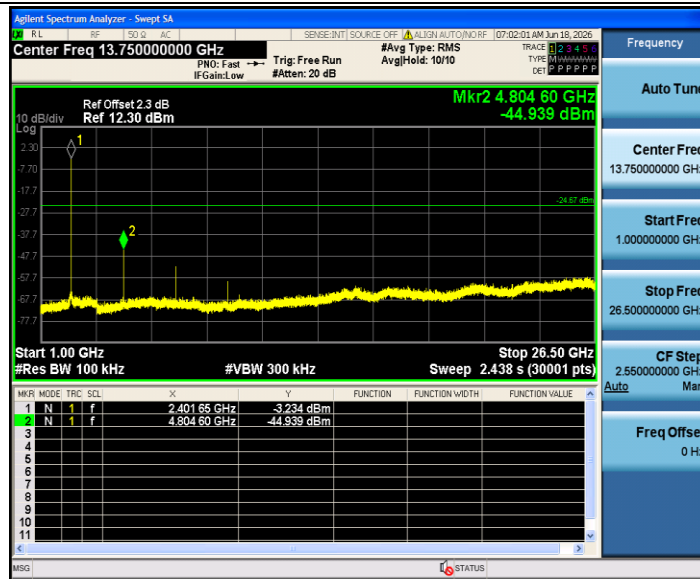
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.67	-4.67	---	PASS
			30~1000	-4.67	-68.7	≤-24.67	PASS
			1000~26500	-4.67	-44.94	≤-24.67	PASS
		2440	Reference	-3.75	-3.75	---	PASS
			30~1000	-3.75	-68.23	≤-23.75	PASS
			1000~26500	-3.75	-45.23	≤-23.75	PASS
		2480	Reference	-4.26	-4.26	---	PASS
			30~1000	-4.26	-69.22	≤-24.26	PASS
			1000~26500	-4.26	-45.18	≤-24.26	PASS

Test Graphs

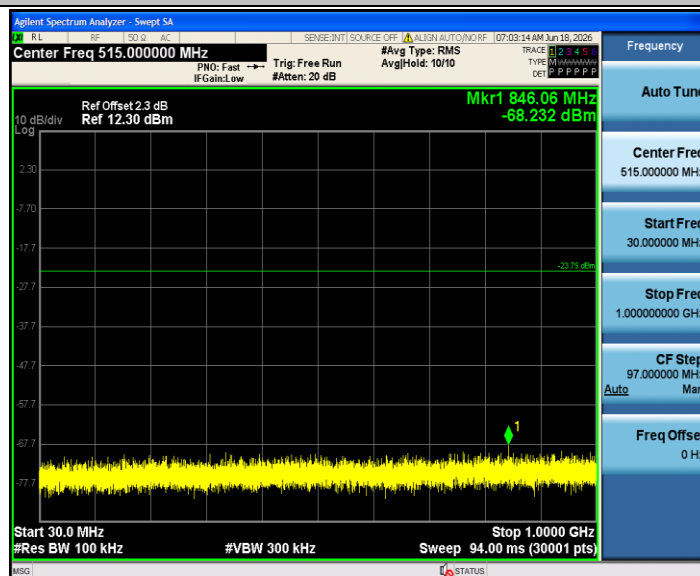




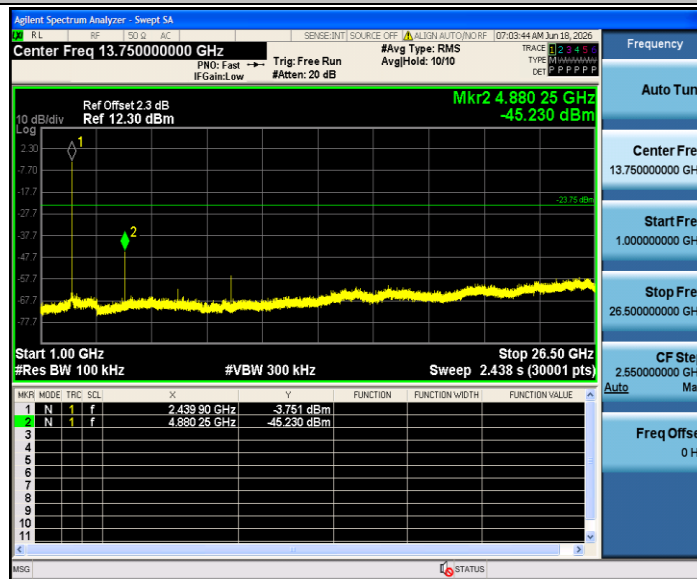
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



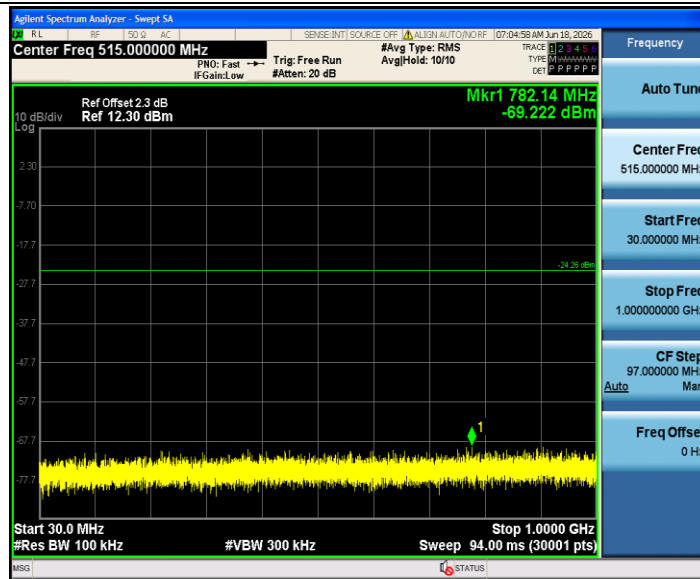
BLE_1M_Ant1_2440_1000~26500



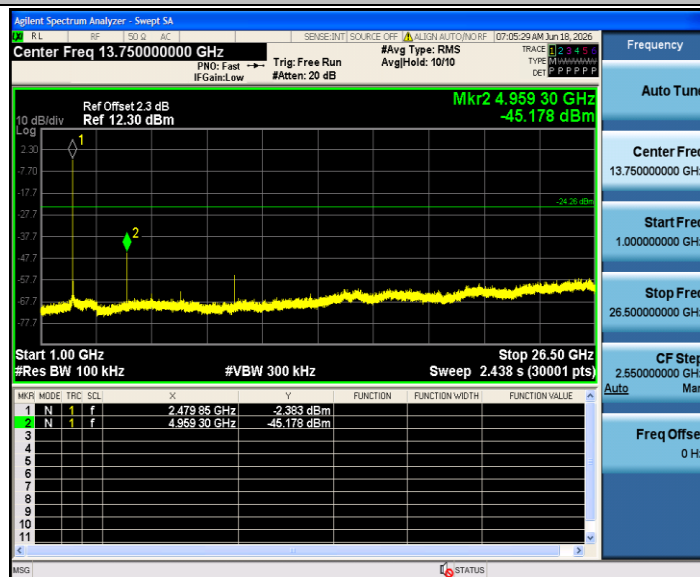
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

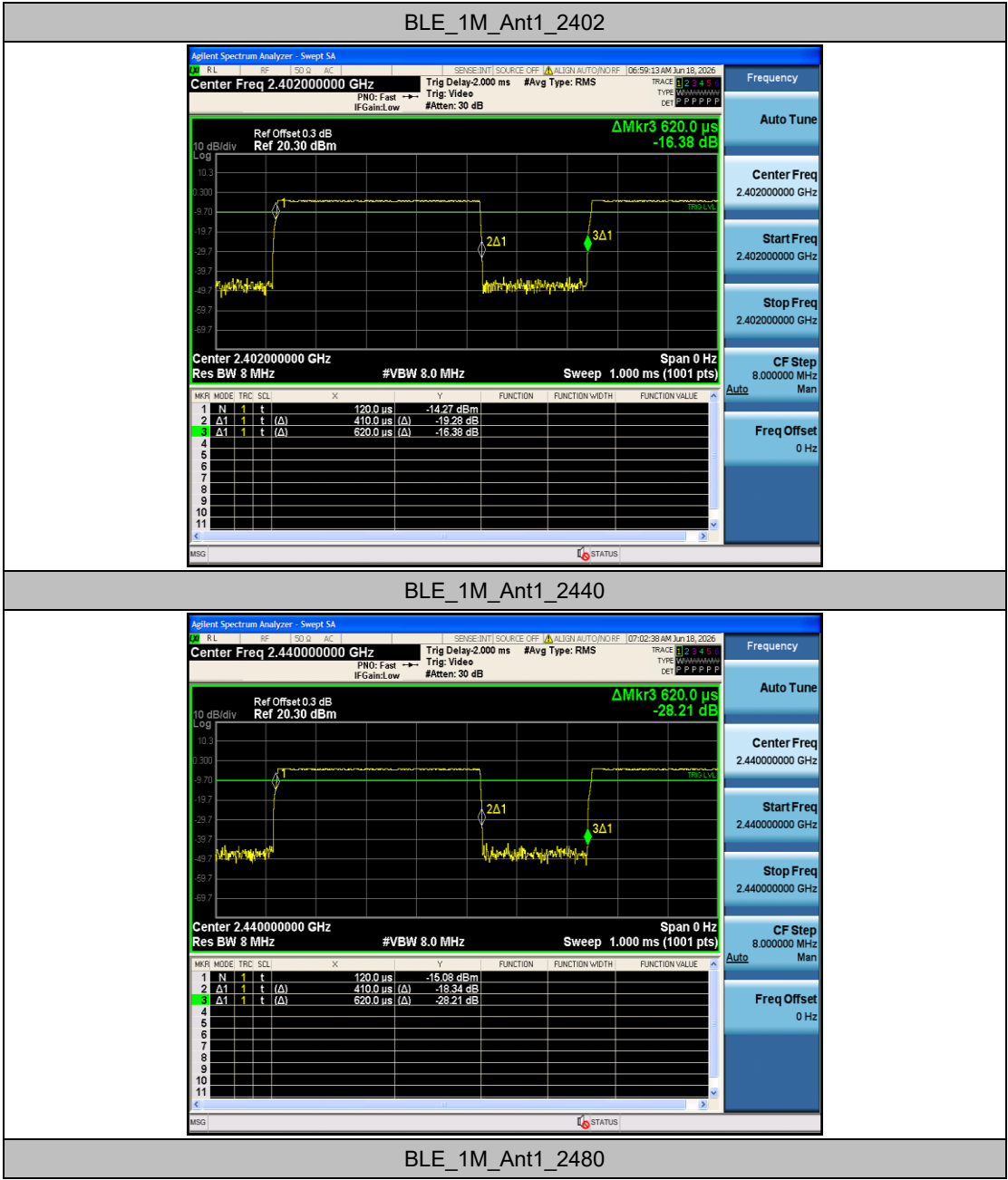


Appendix G: Duty Cycle

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

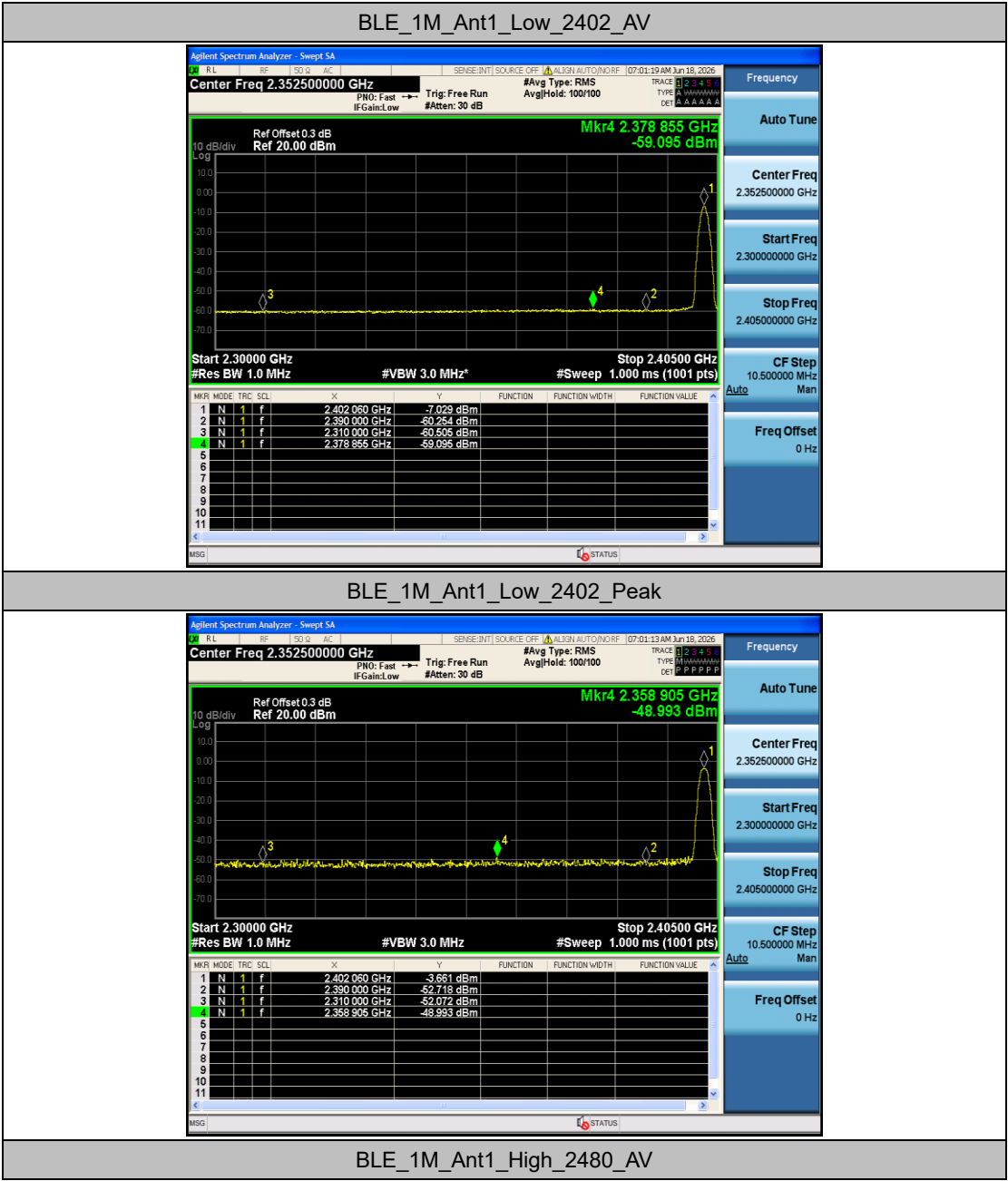
Test Result

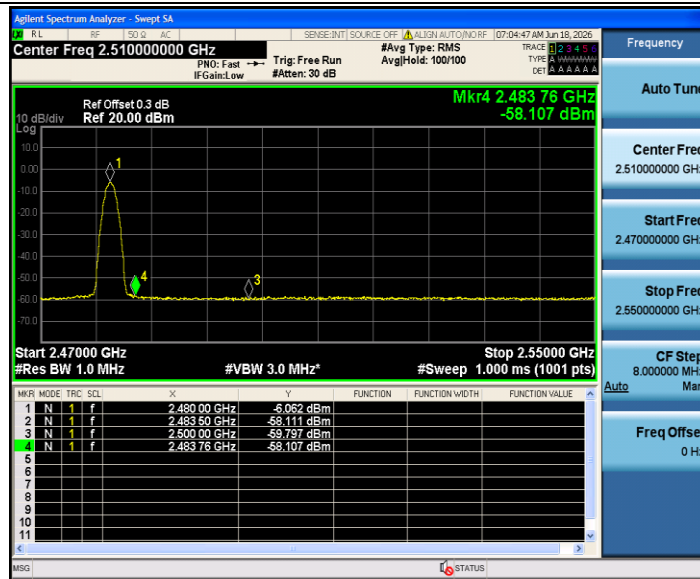
TestMode	Antenna	Channel Name	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.51	2.00	1.80	38.49	≤54	PASS
				AV	2378.855	-59.09	2.00	1.80	39.91	≤54	PASS
				AV	2390.000	-60.25	2.00	1.80	38.75	≤54	PASS
				Peak	2310.000	-52.07	2.00	0.00	45.13	≤74	PASS
				Peak	2358.905	-48.99	2.00	0.00	48.21	≤74	PASS
				Peak	2390.000	-52.72	2.00	0.00	44.48	≤74	PASS
		High	2480	AV	2483.500	-58.11	2.00	1.80	40.89	≤54	PASS
				AV	2483.760	-58.11	2.00	1.80	40.89	≤54	PASS
				AV	2500.000	-59.8	2.00	1.80	39.20	≤54	PASS
				Peak	2483.500	-51.08	2.00	0.00	46.12	≤74	PASS
				Peak	2484.160	-48.85	2.00	0.00	48.35	≤74	PASS
				Peak	2500.000	-49.01	2.00	0.00	48.19	≤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

