

FCC Appendix RF Test Data for BLE

FCC ID : 2BUJP-PMT-0001

Company : Jiangmen Pumite Technology Co., Ltd.

EUT : PMT-0001 Bluetooth Pressure Gauge

Model Number : PMT-0001

Report No. : CTA26010601001

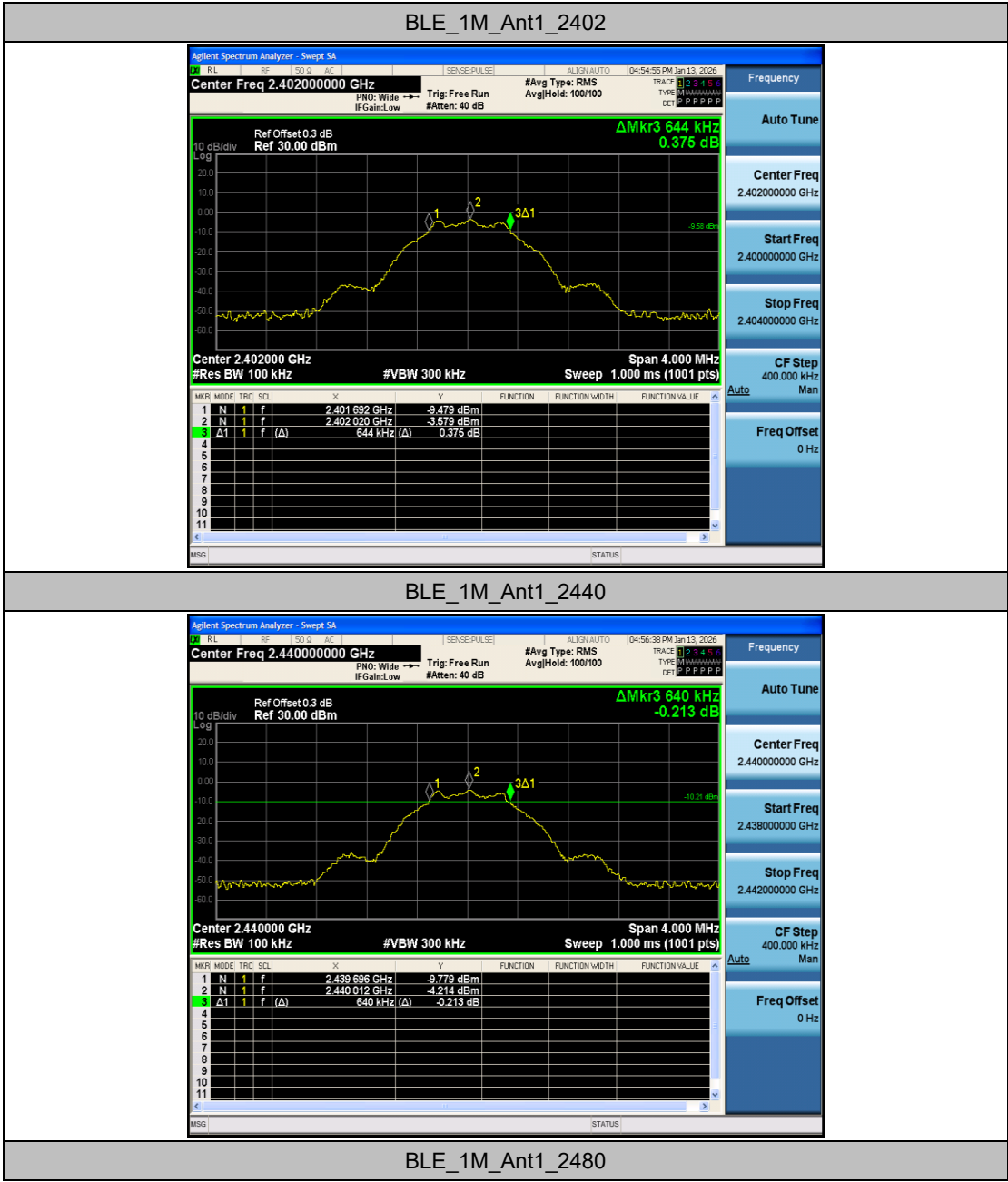
Reviewed By : Eric Wang

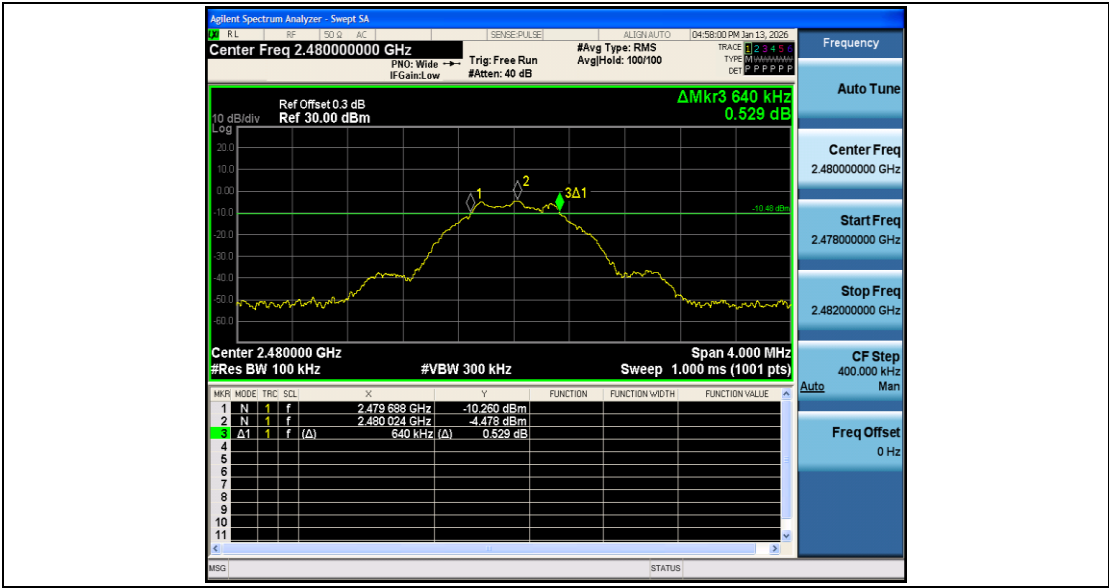
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.644	2401.692	2402.336	0.5	PASS
		2440	0.640	2439.696	2440.336	0.5	PASS
		2480	0.640	2479.688	2480.328	0.5	PASS

Test Graphs



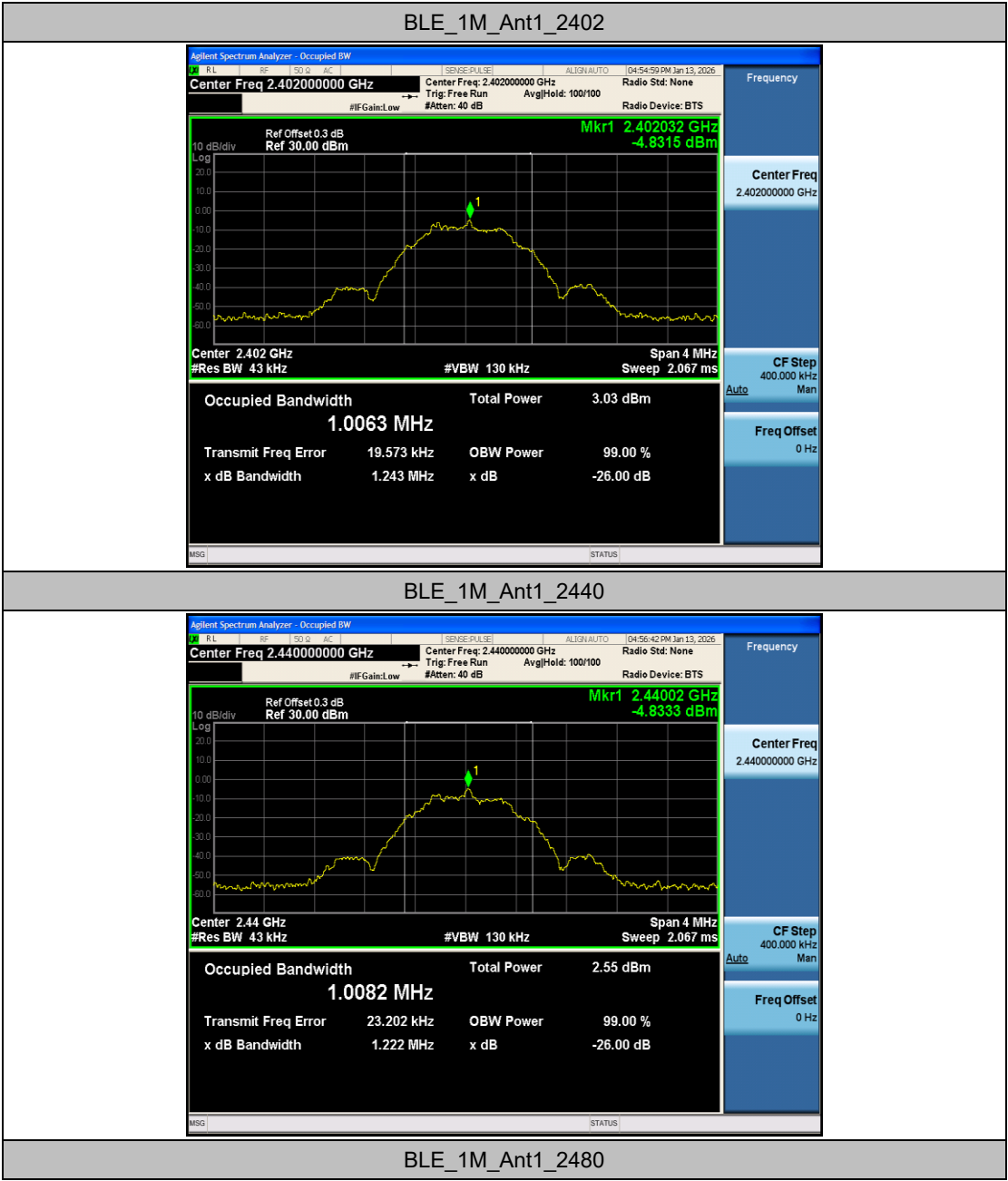


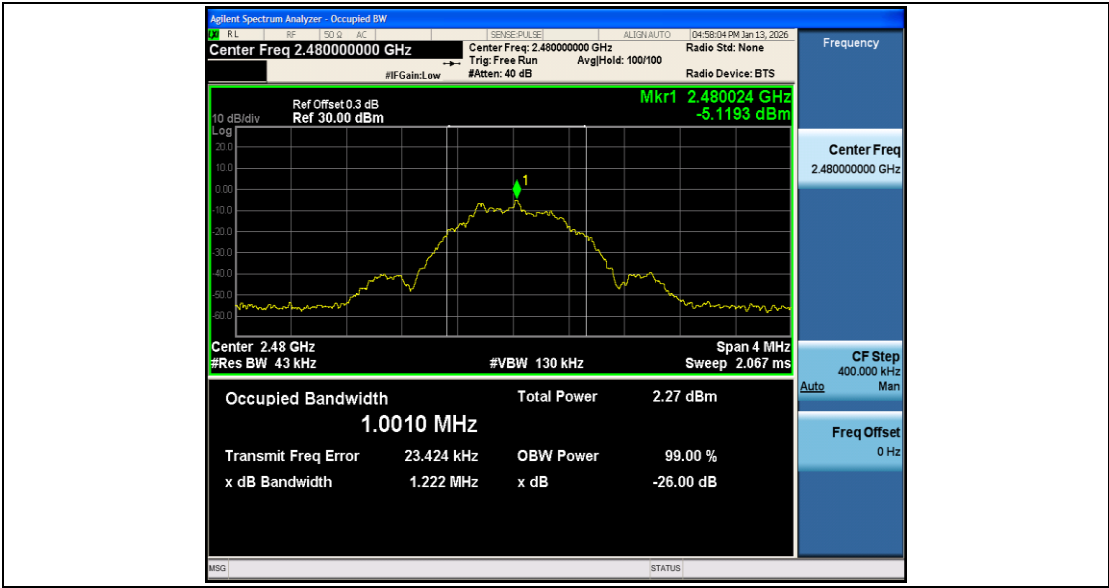
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0063	2401.5164	2402.5227	---	---
		2440	1.0082	2439.5191	2440.5273	---	---
		2480	1.0010	2479.5229	2480.5239	---	---

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	-3.45	≤30	PASS
		2440	-4.01	≤30	PASS
		2480	-4.30	≤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	-19.25	≤8.00	PASS
		2440	-19.89	≤8.00	PASS
		2480	-20.14	≤8.00	PASS

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.40200000 GHz

Ref Offset 0.3 dB
Ref 20.00 dBm

Mkr1 2.401 991 96 GHz
-19.250 dBm

10 dB/div
Log

Center 2.4020000 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Sweep 106.0 ms (30000 pts)

Frequency

Auto Tune

Center Freq
2.402000000 GHz

Start Freq
2.401500900 GHz

Stop Freq
2.402499100 GHz

CF Step
99.820 kHz
Man

Freq Offset
0 Hz

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.440000000 GHz

Ref Offset 0.3 dB
Ref 20.00 dBm

Mkr1 2.439 990 92 GHz
-19.891 dBm

10 dB/div
Log

Center 2.4400000 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Sweep 106.0 ms (30000 pts)

Frequency

Auto Tune

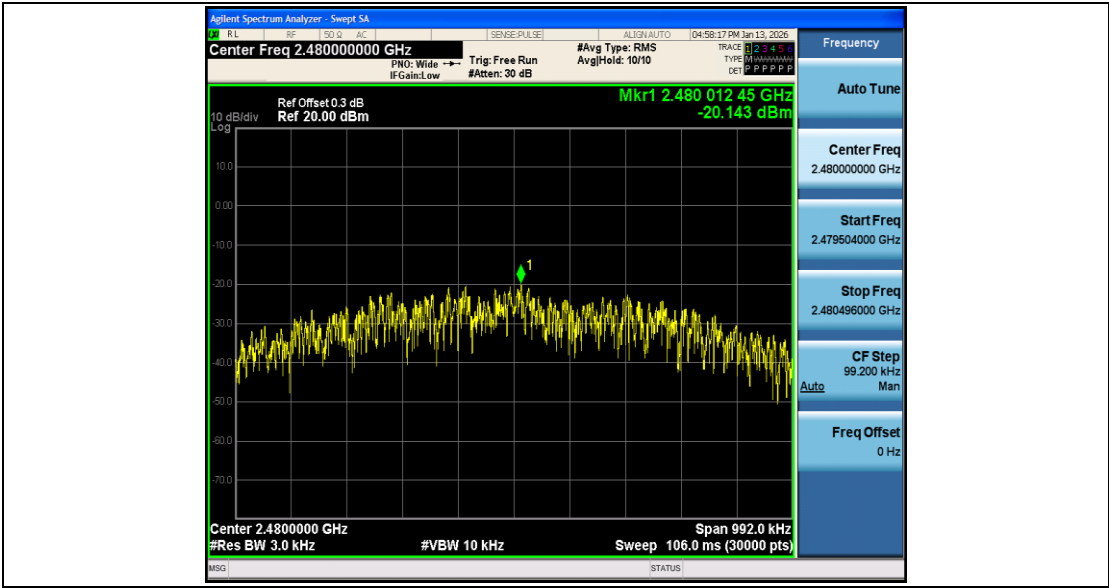
Center Freq
2.440000000 GHz

Start Freq
2.439504000 GHz

Stop Freq
2.440496000 GHz

CF Step
99.200 kHz
Man

Freq Offset
0 Hz

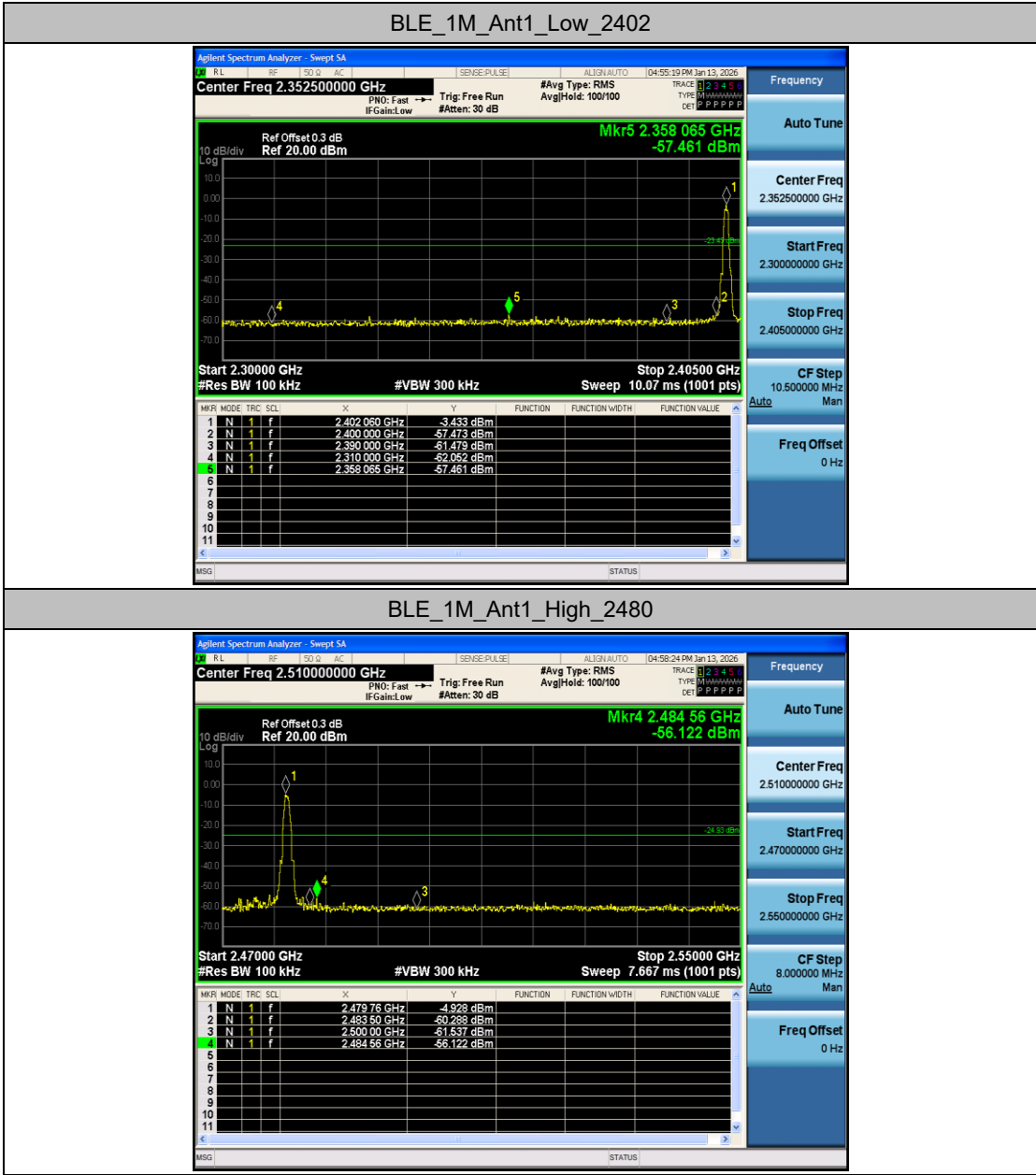


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.43	-57.46	≤-23.43	PASS
		High	2480	-4.93	-56.12	≤-24.93	PASS

Test Graphs

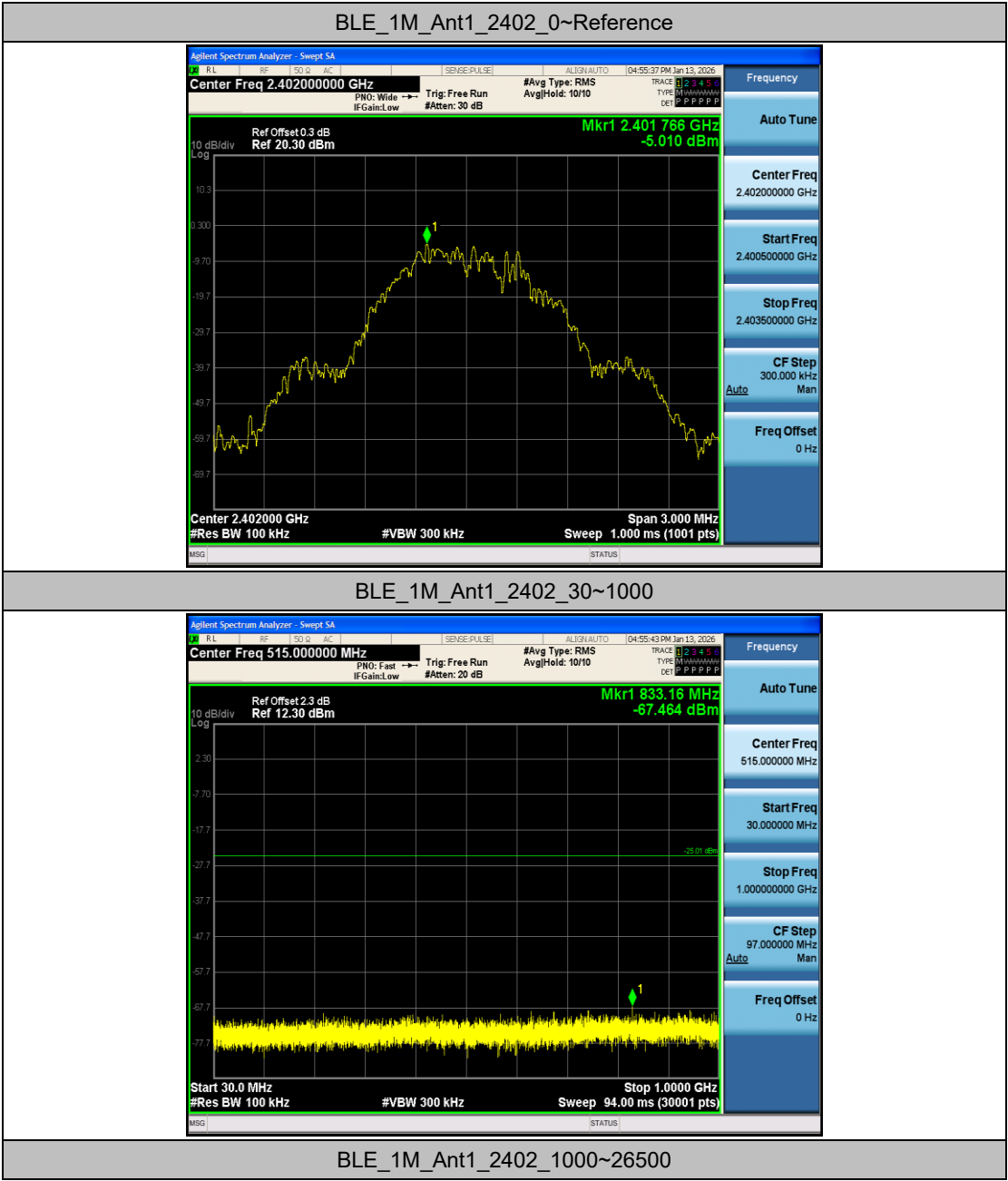


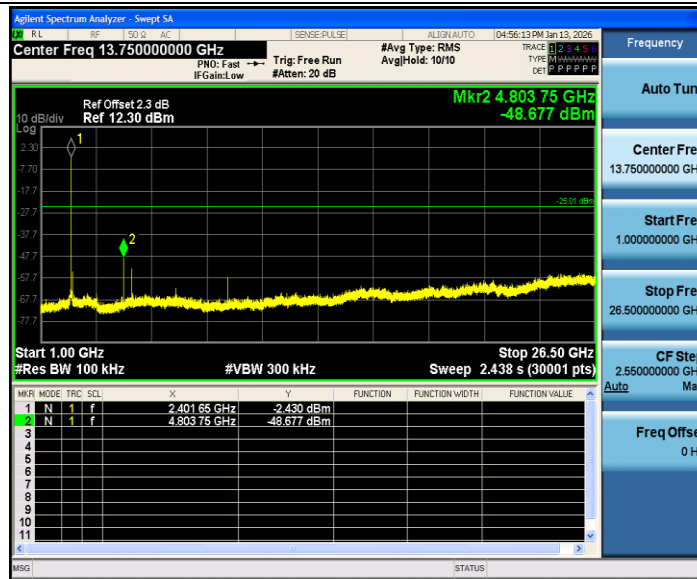
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-5.01	-5.01	---	PASS
			30~1000	-5.01	-67.46	≤-25.01	PASS
			1000~26500	-5.01	-48.68	≤-25.01	PASS
		2440	Reference	-5.64	-5.64	---	PASS
			30~1000	-5.64	-68.21	≤-25.64	PASS
			1000~26500	-5.64	-45.88	≤-25.64	PASS
		2480	Reference	-5.10	-5.10	---	PASS
			30~1000	-5.10	-68.41	≤-25.1	PASS
			1000~26500	-5.10	-47.09	≤-25.1	PASS

Test Graphs

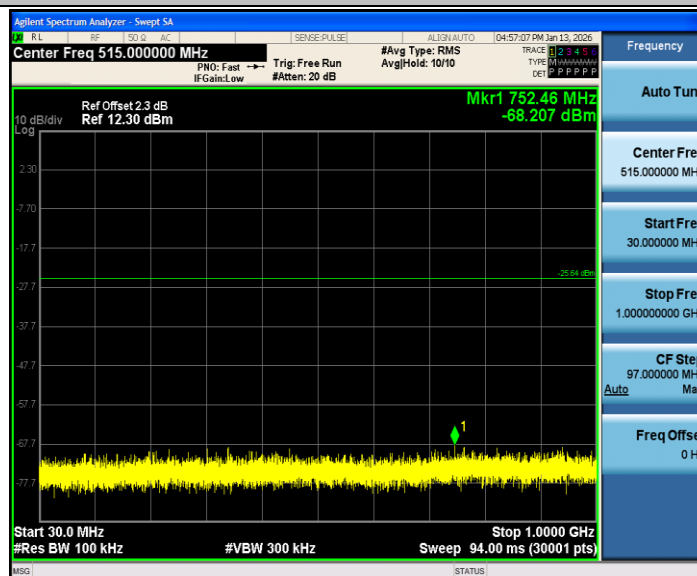




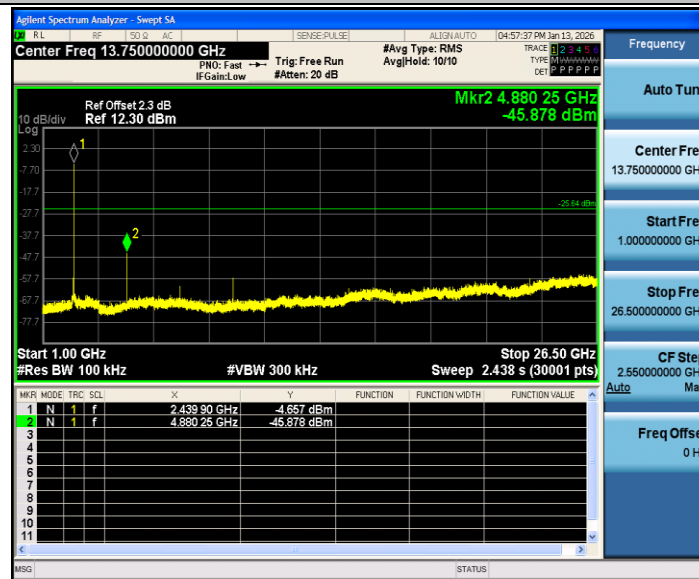
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



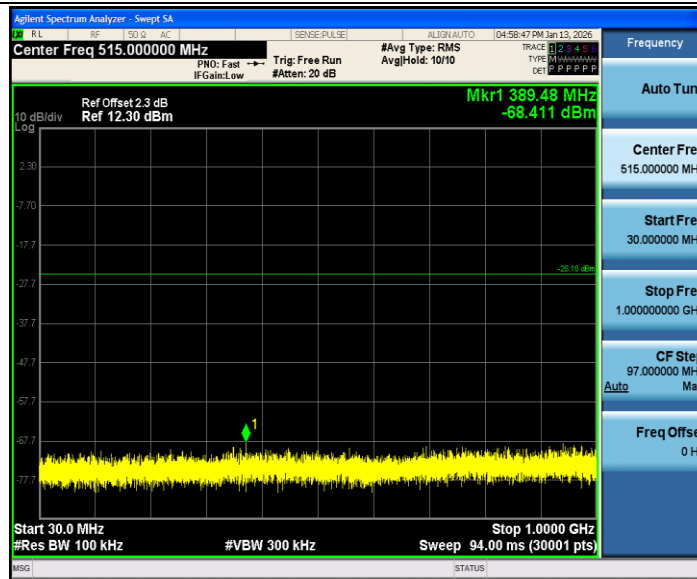
BLE_1M_Ant1_2440_1000~26500



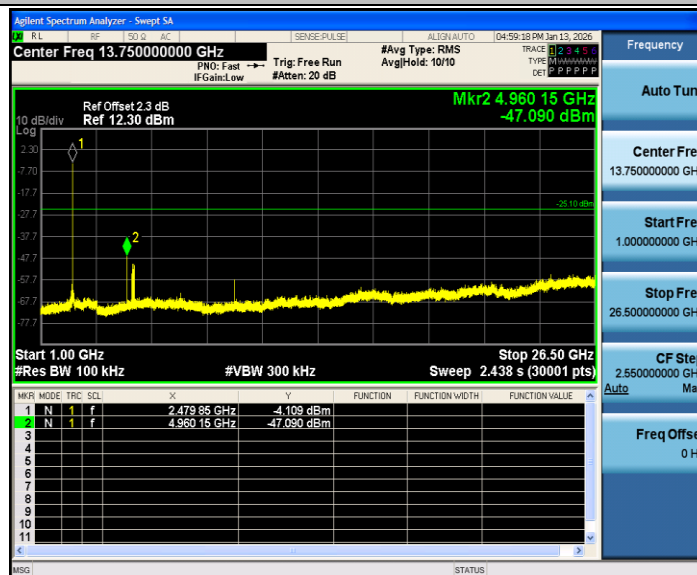
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

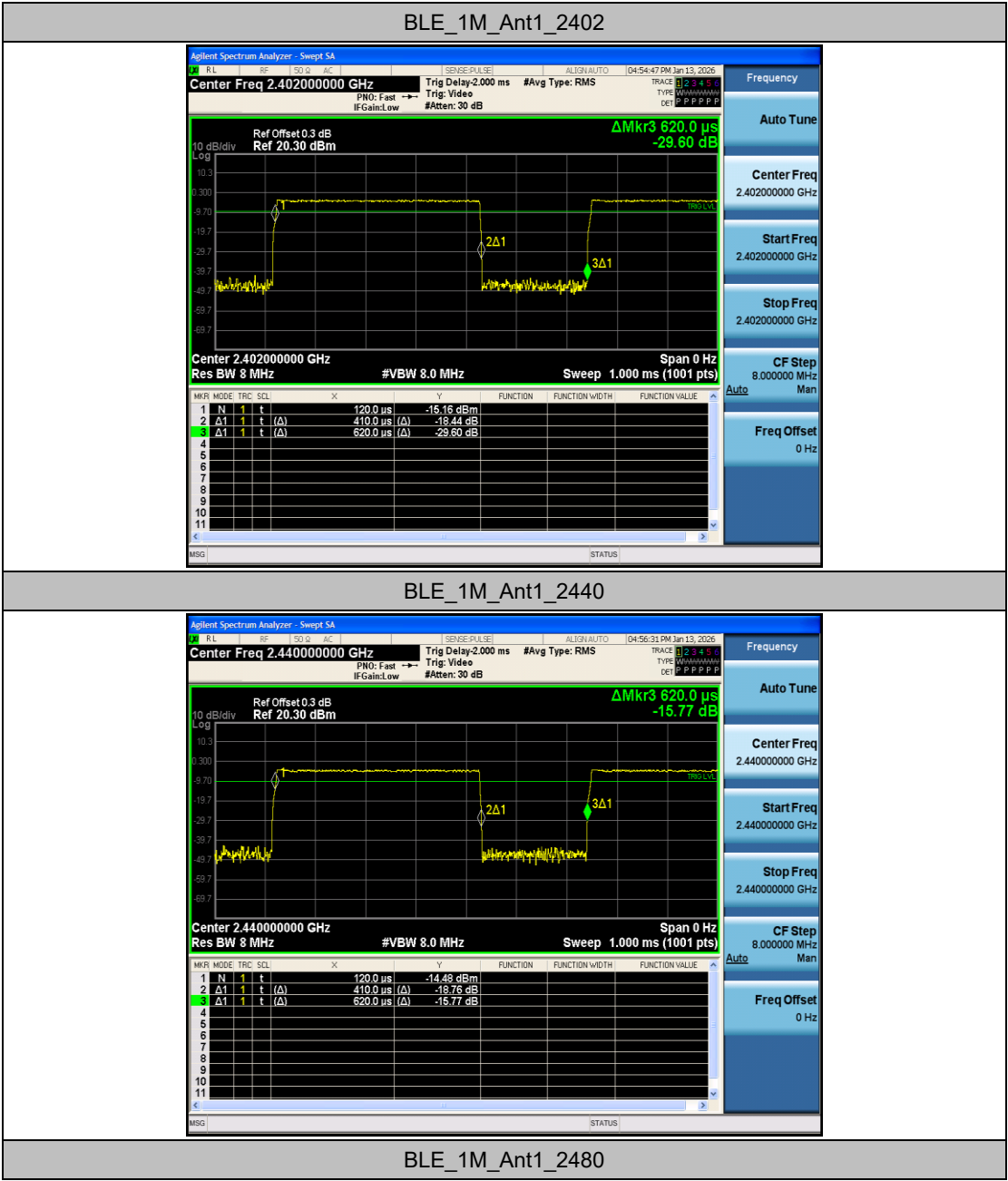


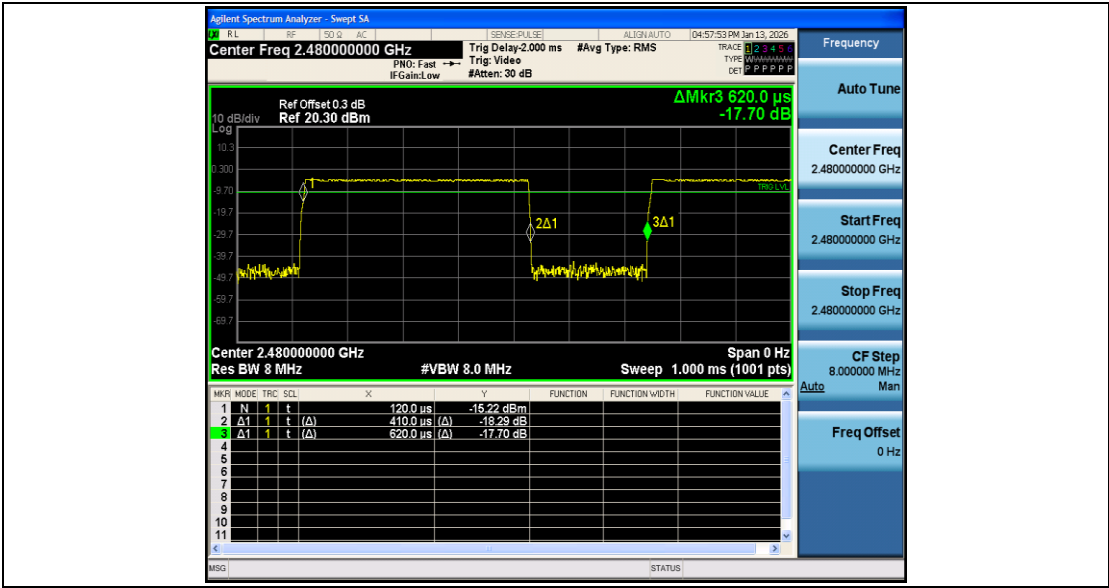
Appendix G: Duty Cycle

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

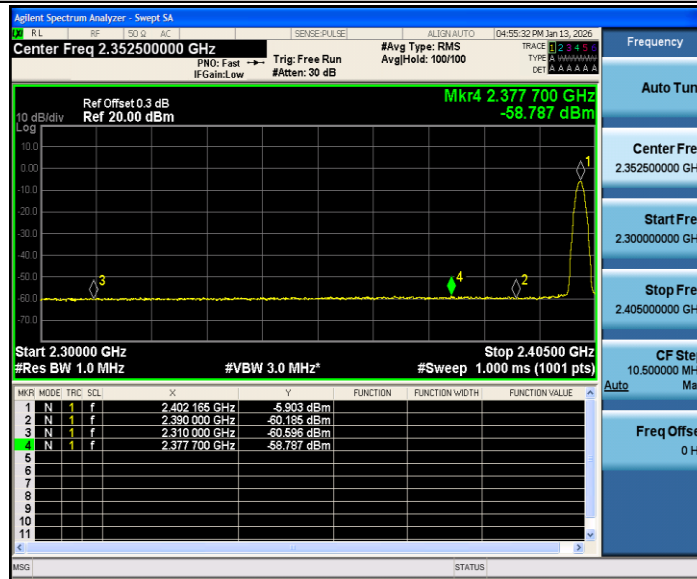
Test Result

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	-60.6	2.90	1.80	39.3	≤54	PASS
				AV	2377.700	-58.79	2.90	1.80	41.11	≤54	PASS
				AV	2390.000	-60.19	2.90	1.80	39.71	≤54	PASS
				Peak	2310.000	-52.88	2.90	0.00	45.22	≤74	PASS
				Peak	2385.890	-48.57	2.90	0.00	49.53	≤74	PASS
				Peak	2390.000	-49.93	2.90	0.00	48.17	≤74	PASS
		High	2480	AV	2483.500	-58.35	2.90	1.80	41.55	≤54	PASS
				AV	2484.240	-58.12	2.90	1.80	41.78	≤54	PASS
				AV	2500.000	-58.88	2.90	1.80	41.02	≤54	PASS
				Peak	2483.500	-49.64	2.90	0.00	48.46	≤74	PASS
				Peak	2484.720	-47.45	2.90	0.00	50.65	≤74	PASS
				Peak	2500.000	-50.36	2.90	0.00	47.74	≤74	PASS

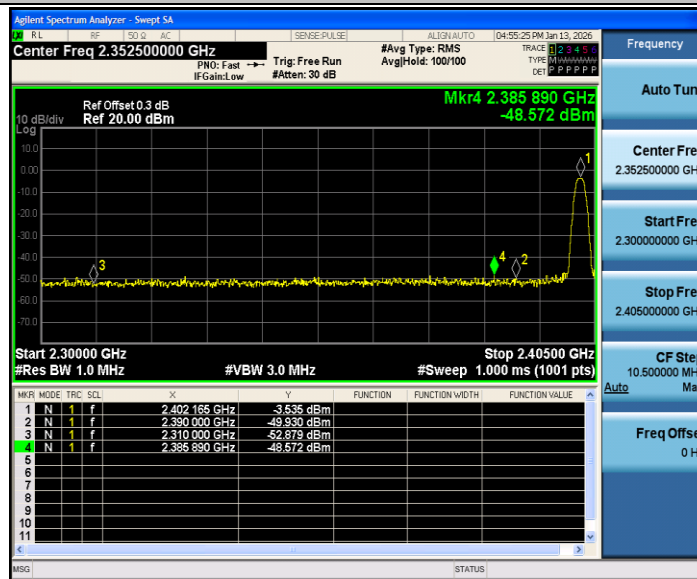
Note: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

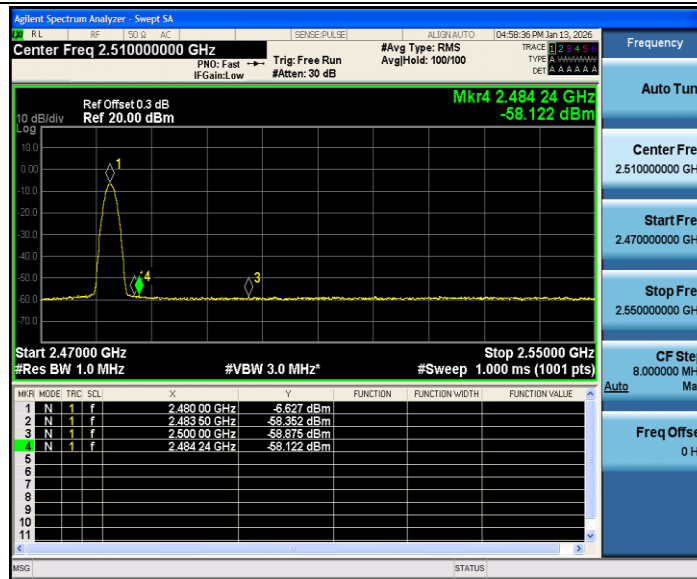
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

