

FCC Appendix RF Test Data for BLE

Company: : **SHENZHEN YOWEXA MEASUREMENT TECHNOLOGY
CO.,LTD**

EUT : **Automotive Paint Meter**

Model Number : **EC-600S**

Report No. : **CTA25061600301**

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	2401.688	2402.328	0.5	PASS
		2440	0.656	2439.684	2440.340	0.5	PASS
		2480	0.636	2479.700	2480.336	0.5	PASS

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.402000000 GHz

Ref Offset 1 dB
Ref 20.00 dBm

Trig: Free Run
#Atten: 30 dB

#Avg Type: RMS
Avg/Hold: 100/100

Span 4.000 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep (#Swp) 1.000 ms (1001 pts)

ΔMkr3 640 kHz
0.801 dB

Frequency

Auto Tune

Center Freq
2.402000000 GHz

Start Freq
2.400000000 GHz

Stop Freq
2.404000000 GHz

CF Step
400.000 kHz
Man

Freq Offset
0 Hz

MSO

STATUS

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.440000000 GHz

Ref Offset 1 dB
Ref 20.00 dBm

Trig: Free Run
#Atten: 30 dB

#Avg Type: RMS
Avg/Hold: 100/100

Span 4.000 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep (#Swp) 1.000 ms (1001 pts)

ΔMkr3 656 kHz
-0.007 dB

Frequency

Auto Tune

Center Freq
2.440000000 GHz

Start Freq
2.438000000 GHz

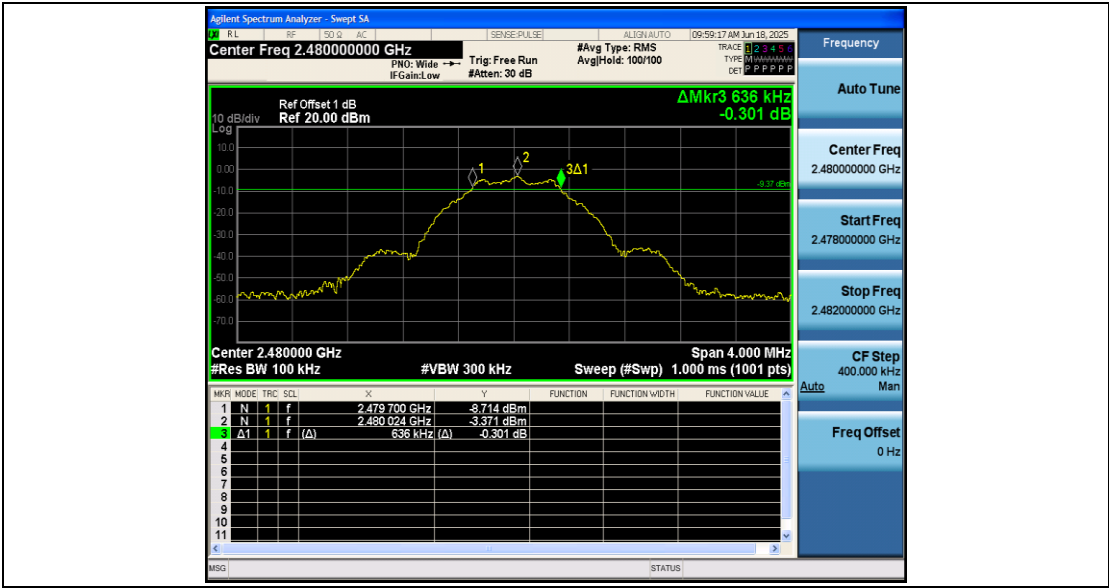
Stop Freq
2.442000000 GHz

CF Step
400.000 kHz
Man

Freq Offset
0 Hz

MSO

STATUS

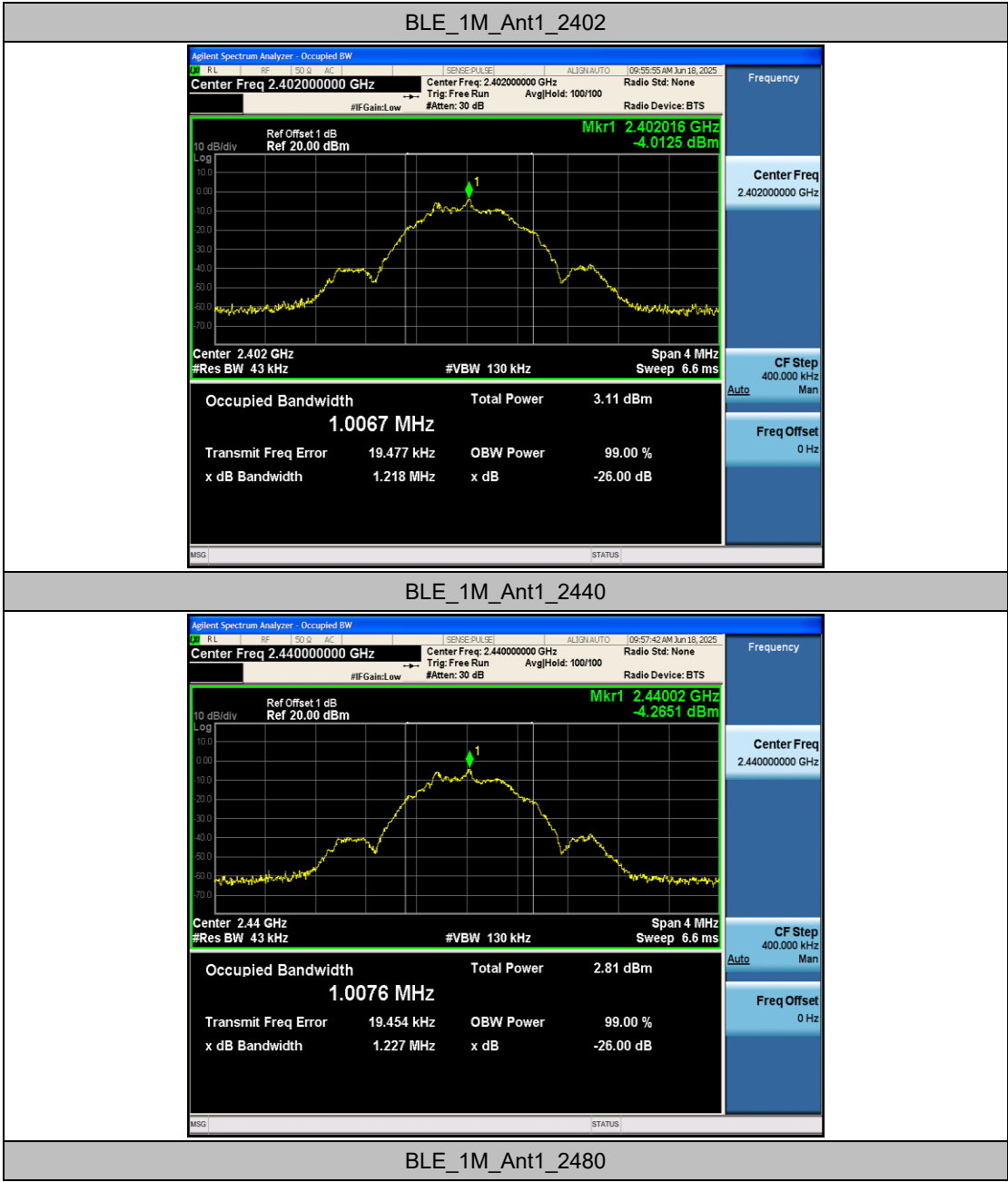


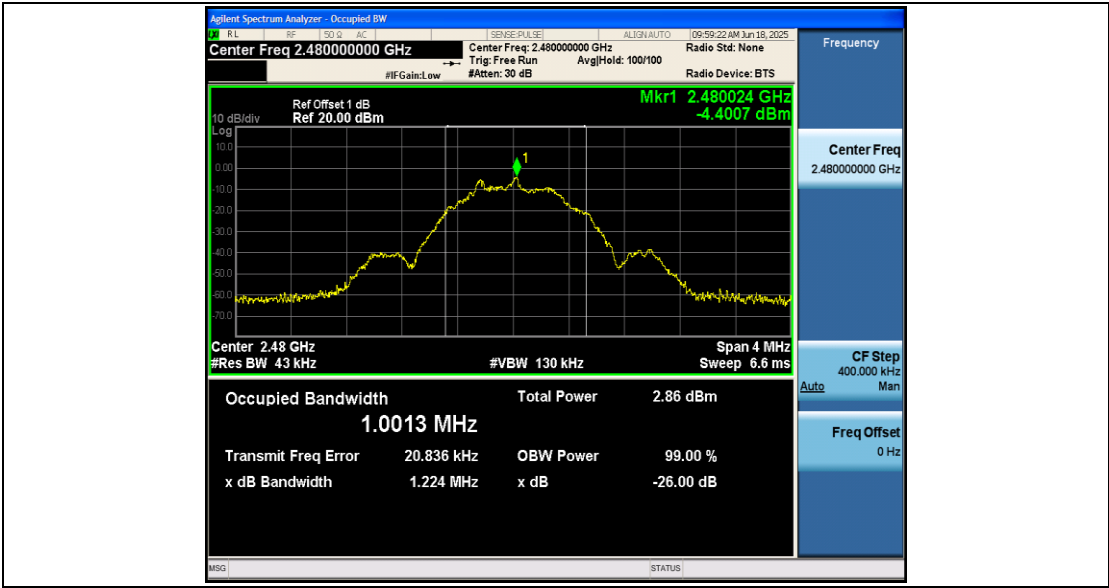
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0067	2401.5161	2402.5228	---	---
		2440	1.0076	2439.5157	2440.5233	---	---
		2480	1.0013	2479.5202	2480.5215	---	---

Test Graphs





Appendix C: Maximum conducted output power

Test Result Peak

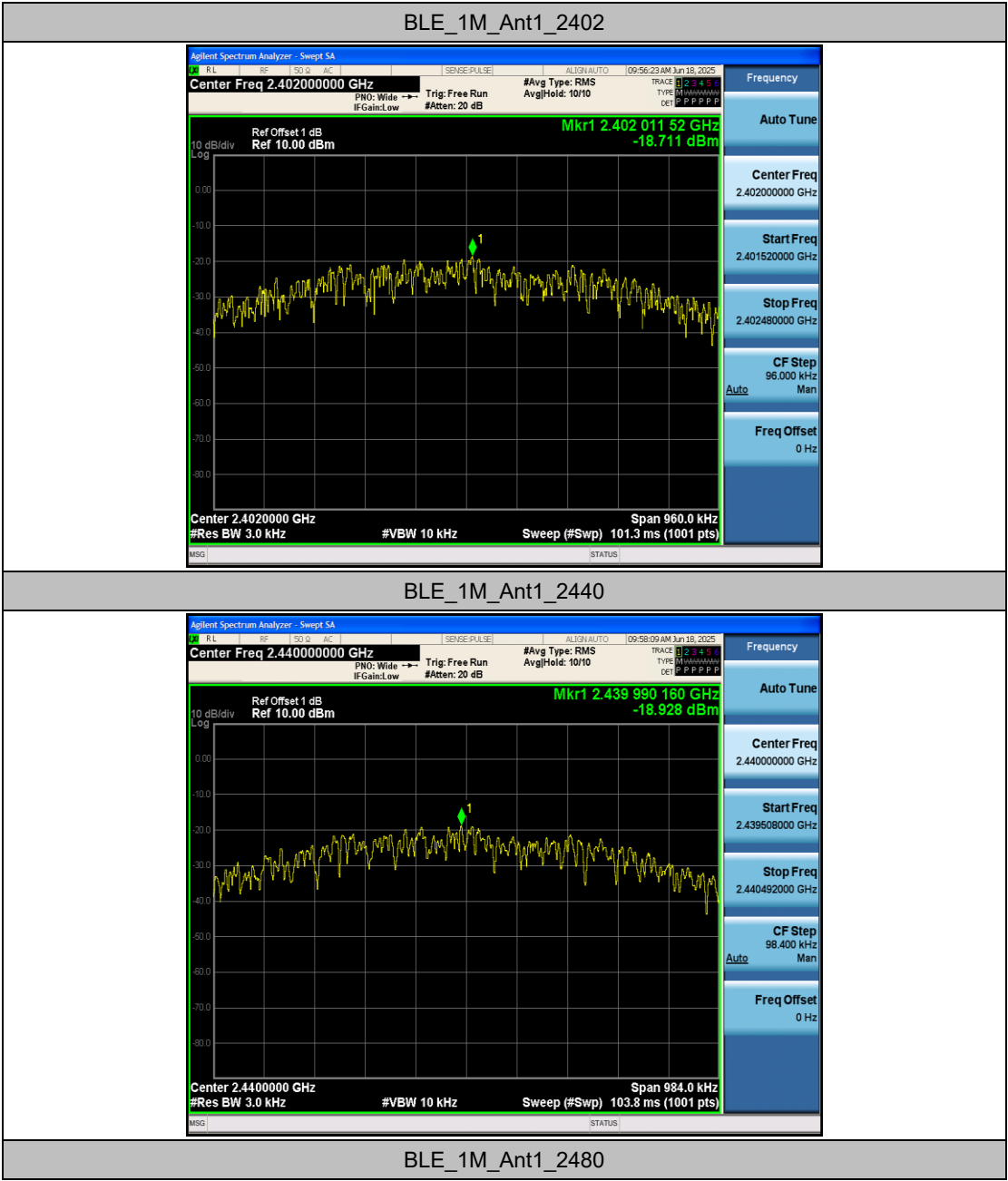
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-2.87	≤30	PASS
		2440	-3.21	≤30	PASS
		2480	-3.26	≤30	PASS

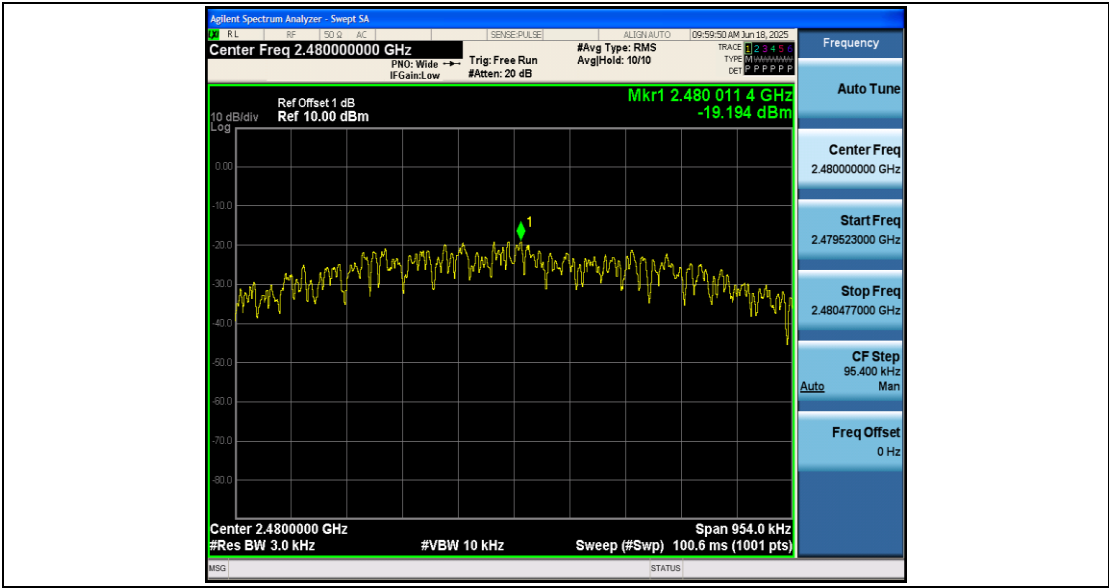
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.71	≤8.00	PASS
		2440	-18.93	≤8.00	PASS
		2480	-19.19	≤8.00	PASS

Test Graphs



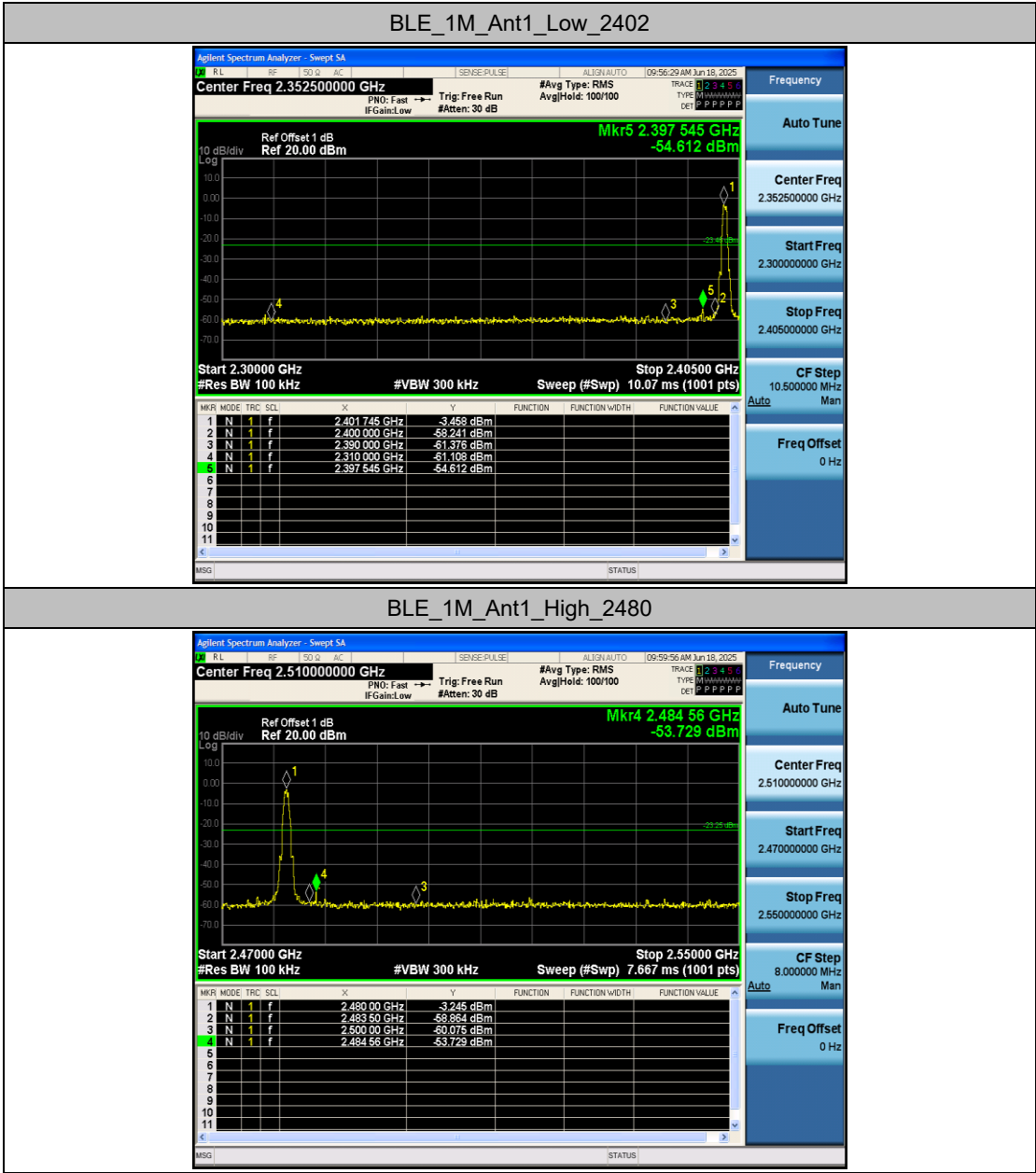


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.46	-54.61	≤-23.46	PASS
		High	2480	-3.25	-53.73	≤-23.25	PASS

Test Graphs

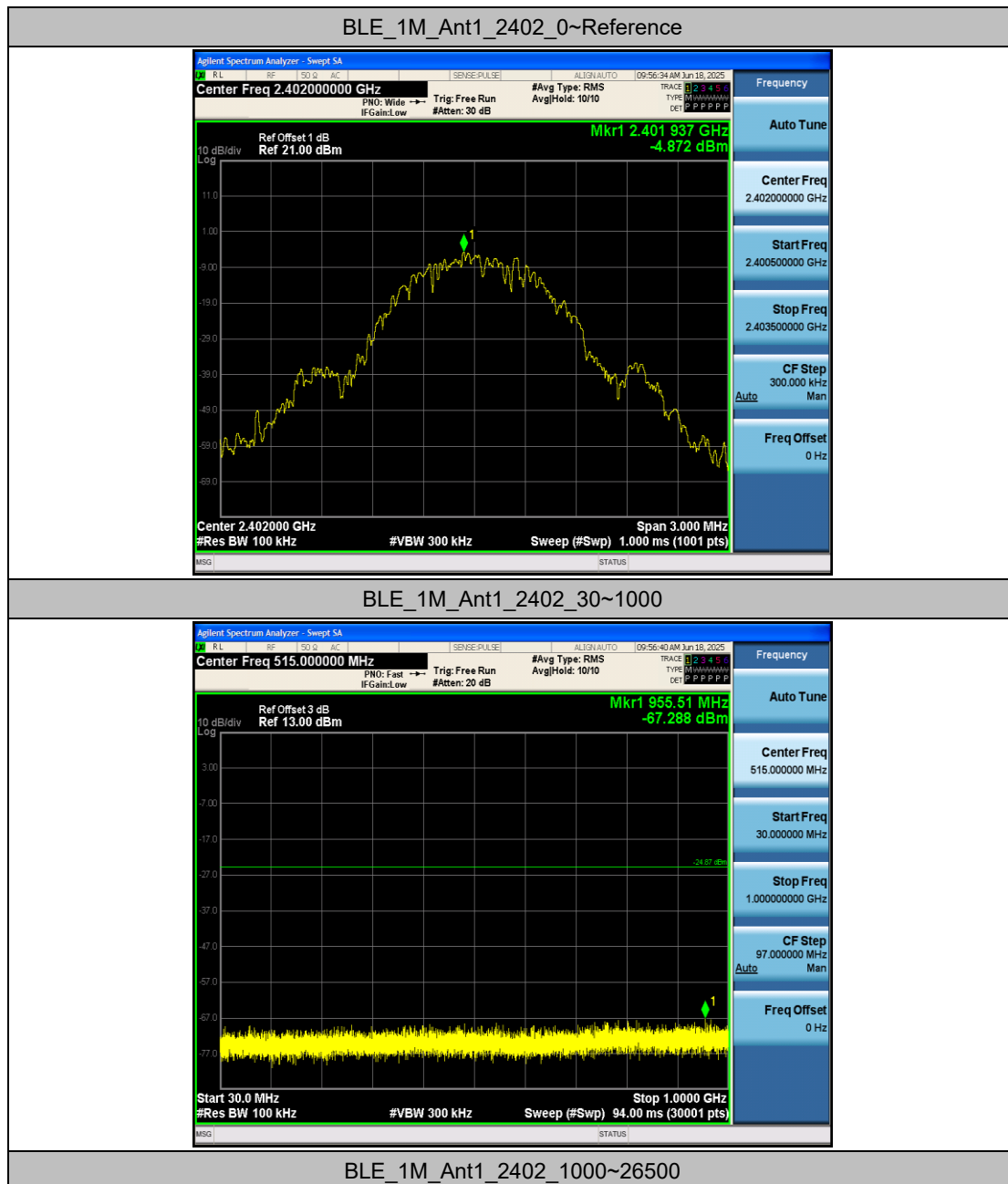


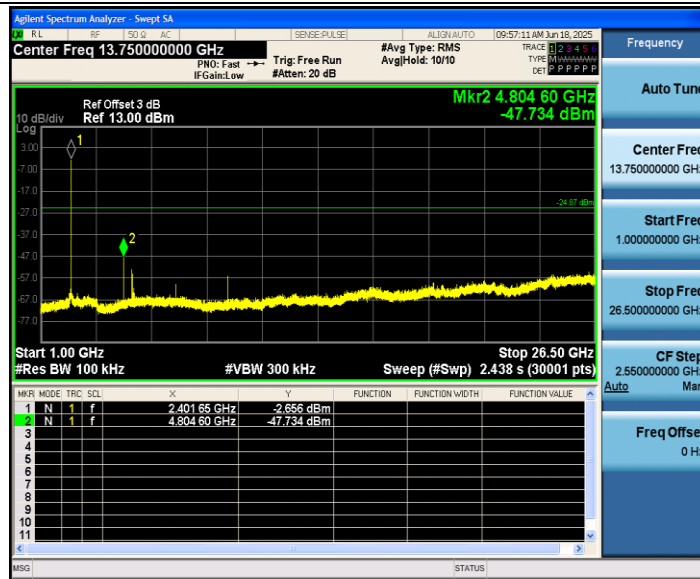
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.87	-4.87	---	PASS
			30~1000	-4.87	-67.29	≤-24.87	PASS
			1000~26500	-4.87	-47.73	≤-24.87	PASS
		2440	Reference	-5.22	-5.22	---	PASS
			30~1000	-5.22	-67.82	≤-25.22	PASS
			1000~26500	-5.22	-48.17	≤-25.22	PASS
		2480	Reference	-3.88	-3.88	---	PASS
			30~1000	-3.88	-67.06	≤-23.88	PASS
			1000~26500	-3.88	-46.34	≤-23.88	PASS

Test Graphs

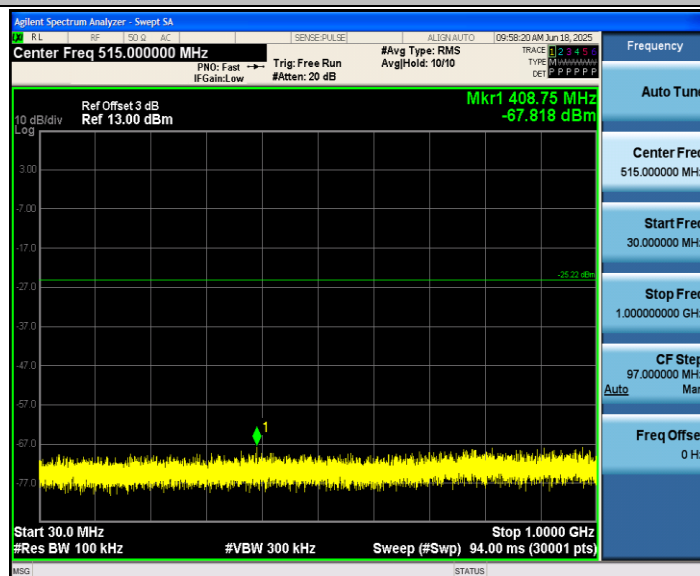




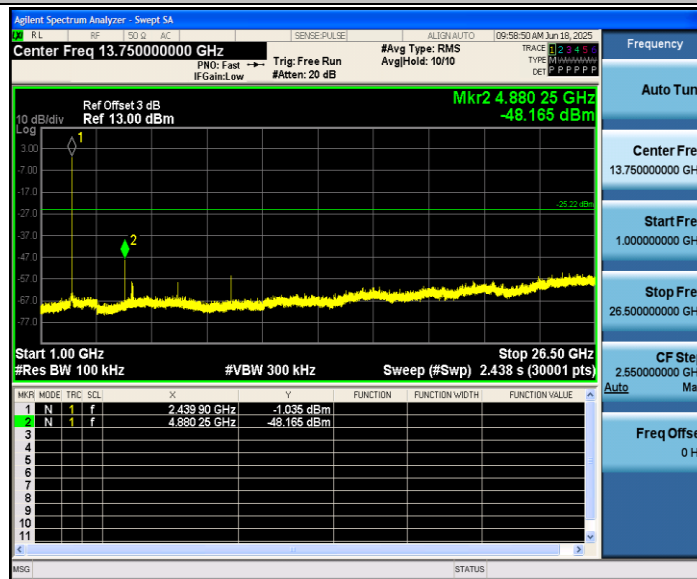
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



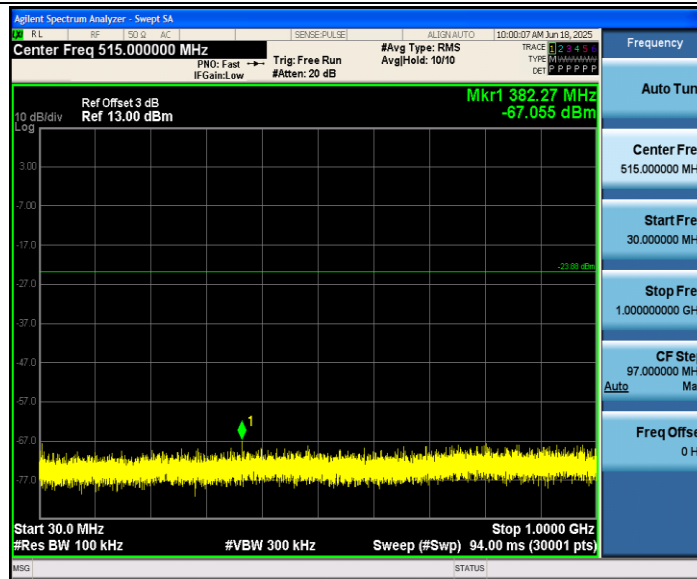
BLE_1M_Ant1_2440_1000~26500



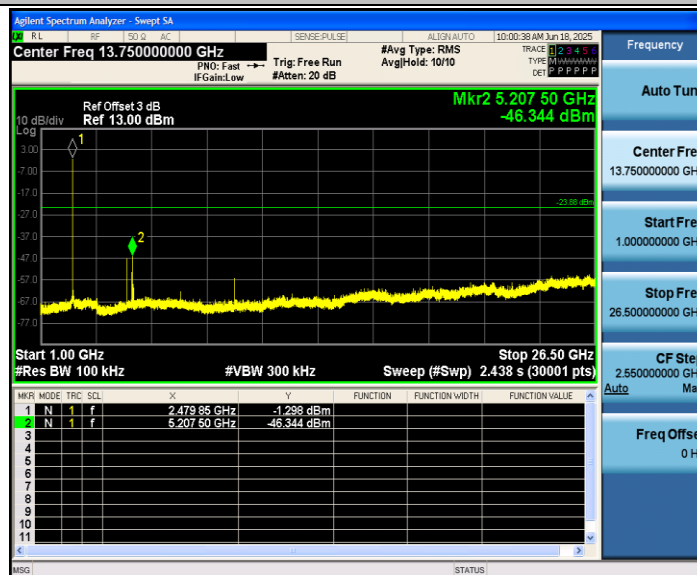
BLE_1M_Ant1_2480_0~Reference



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	0.42	0.63	0.6667	66.67	1.76	---	---
		2440	0.41	0.63	0.6508	65.08	1.87	---	---
		2480	0.41	0.63	0.6508	65.08	1.87	---	---

Test Graphs

