

FCC Appendix RF Test Data for BLE

FCC ID : 2BB8VP2

Company : ONEKEY LIMITED

EUT : OneKey Pro 2

Model Number : OneKey Pro 2

Report No. : CTA26042002301

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	0.648	2401.692	2402.340	0.5	PASS
		2440	0.640	2439.696	2440.336	0.5	PASS
		2480	0.652	2479.688	2480.340	0.5	PASS

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.40200000 GHz

Ref Offset 0.5 dB
Ref 30.00 dBm

Trig: Free Run
#Atten: 40 dB

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

10:30:38 AM Apr 27, 2026

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

10 dB/div
Log

Ref Offset 0.5 dB
Ref 30.00 dBm

ΔMkr3 648 kHz
0.173 dB

Center 2.402000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.000 ms (1001 pts)

MNR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401 692 GHz	-5.120 dBm			
2	N	1	f	2.402 032 GHz	-0.161 dBm			
3	Δ1	1	f (Δ)	648 kHz (Δ)	0.173 dB			

MSO

STATUS

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.440000000 GHz

Ref Offset 0.5 dB
Ref 30.00 dBm

Trig: Free Run
#Atten: 40 dB

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

10:32:33 AM Apr 27, 2026

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

10 dB/div
Log

Ref Offset 0.5 dB
Ref 30.00 dBm

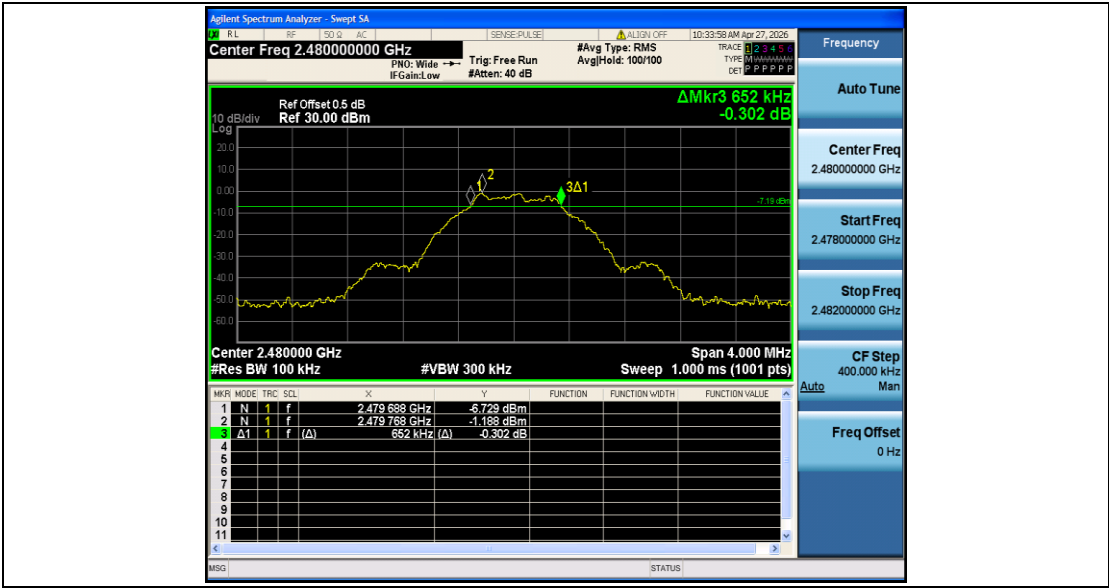
ΔMkr3 640 kHz
-0.596 dB

Center 2.440000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.000 ms (1001 pts)

MNR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.439 696 GHz	-5.888 dBm			
2	N	1	f	2.440 024 GHz	-0.660 dBm			
3	Δ1	1	f (Δ)	640 kHz (Δ)	-0.596 dB			

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	1.0098	2401.5161	2402.5259	---	---
		2440	1.0049	2439.5170	2440.5219	---	---
		2480	1.0087	2479.5169	2480.5256	---	---

Test Graphs

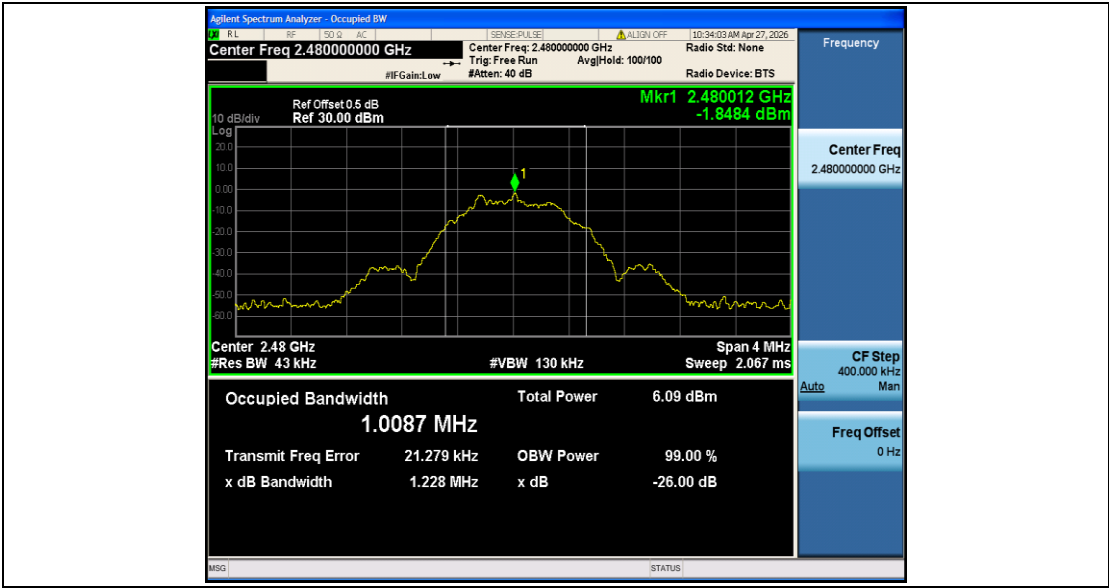
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



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	0.21	≤30	PASS
		2440	-0.45	≤30	PASS
		2480	-0.68	≤30	PASS

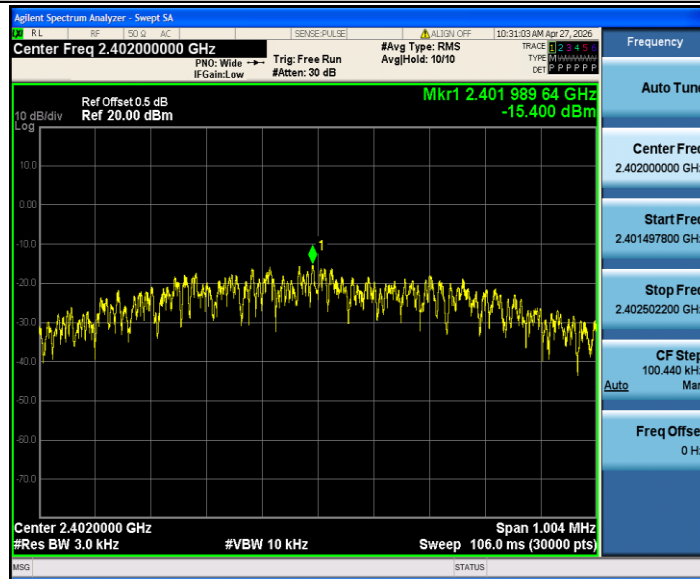
Appendix D: Maximum power spectral density

Test Result

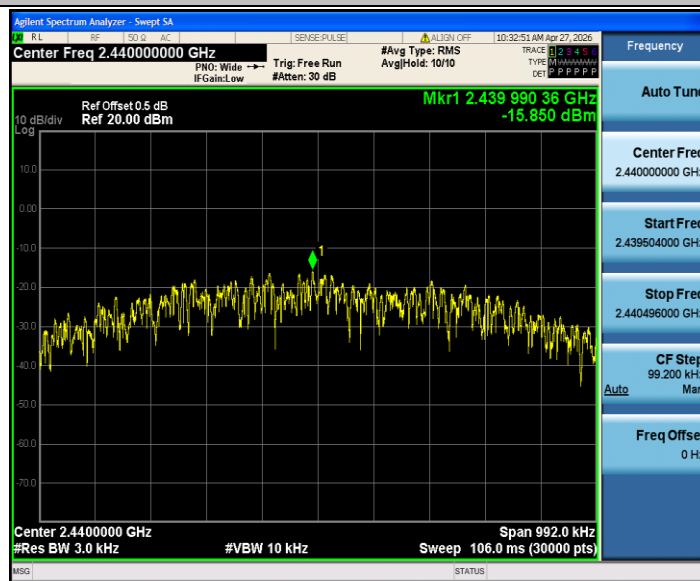
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.40	≤8.00	PASS
		2440	-15.85	≤8.00	PASS
		2480	-16.04	≤8.00	PASS

Test Graphs

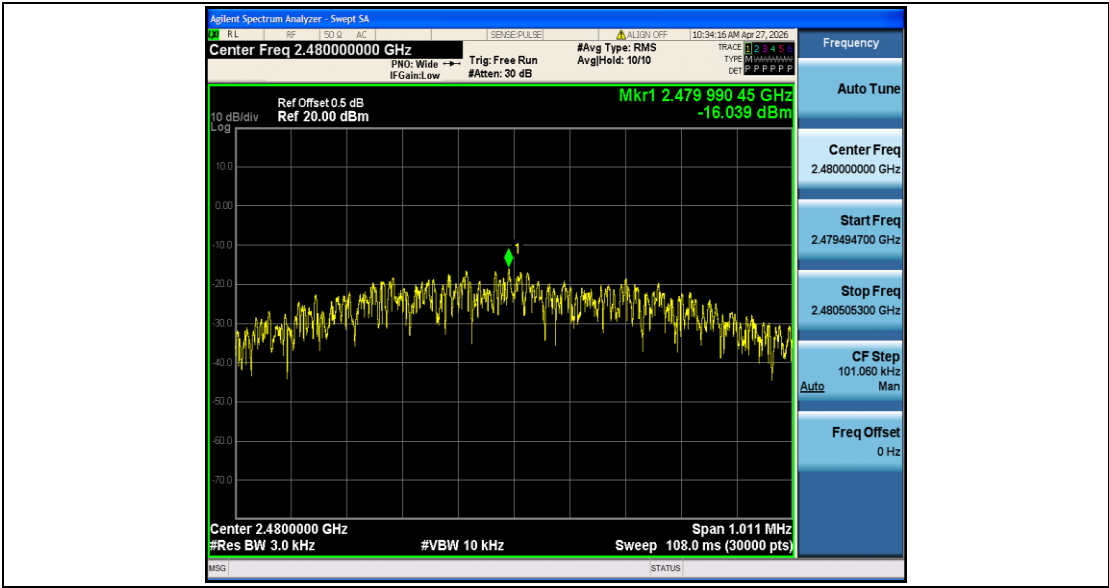
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

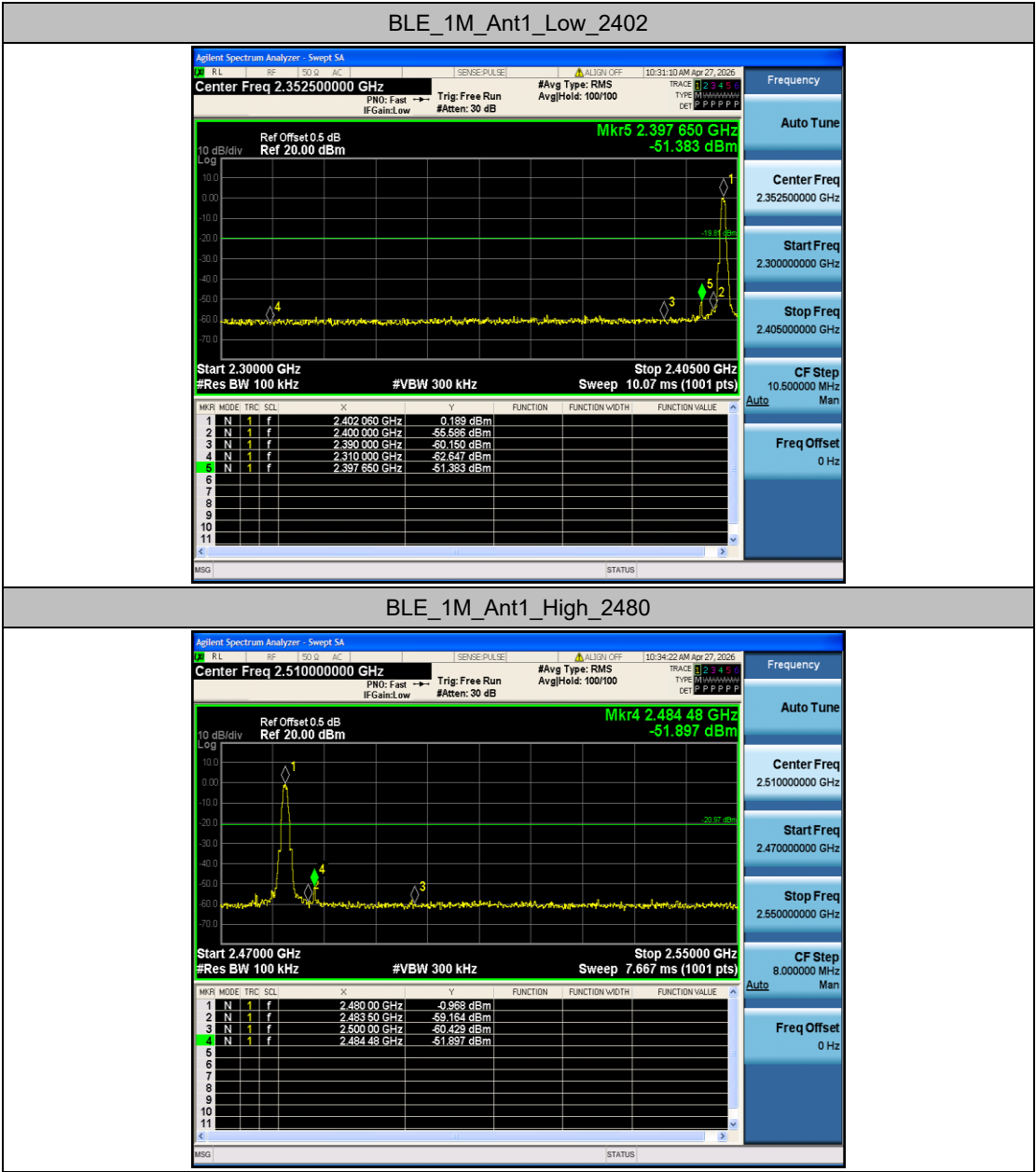


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.19	-51.38	≤-19.81	PASS
		High	2480	-0.97	-51.9	≤-20.97	PASS

Test Graphs

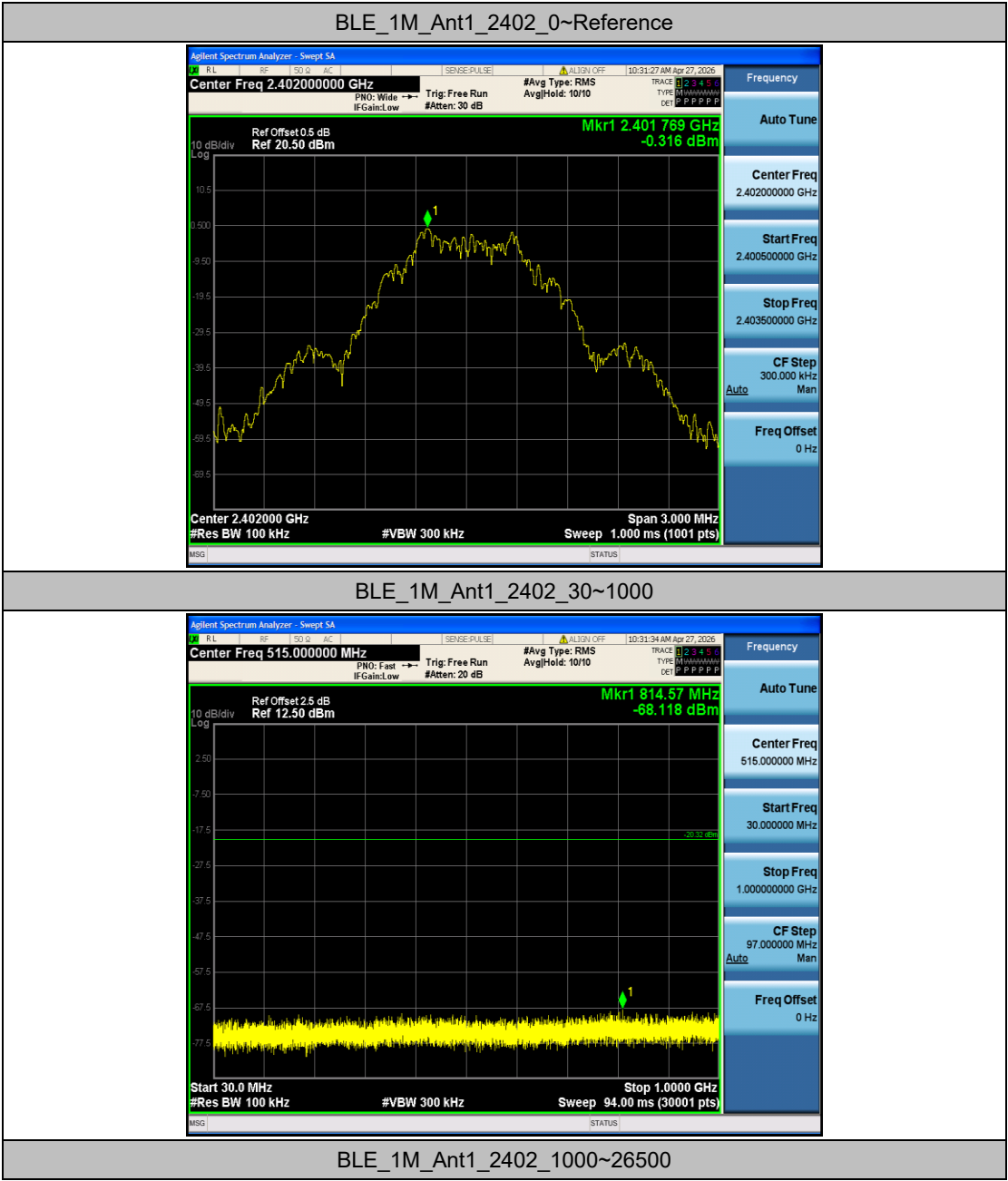


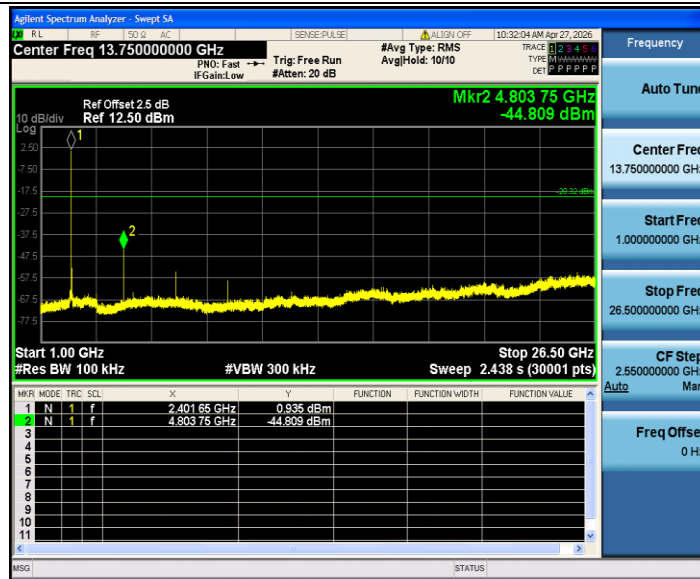
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.32	-0.32	---	PASS
			30~1000	-0.32	-68.12	≤-20.32	PASS
			1000~26500	-0.32	-44.81	≤-20.32	PASS
		2440	Reference	-1.07	-1.07	---	PASS
			30~1000	-1.07	-68.3	≤-21.07	PASS
			1000~26500	-1.07	-42.36	≤-21.07	PASS
		2480	Reference	-3.24	-3.24	---	PASS
			30~1000	-3.24	-67.33	≤-23.24	PASS
			1000~26500	-3.24	-42.36	≤-23.24	PASS

Test Graphs

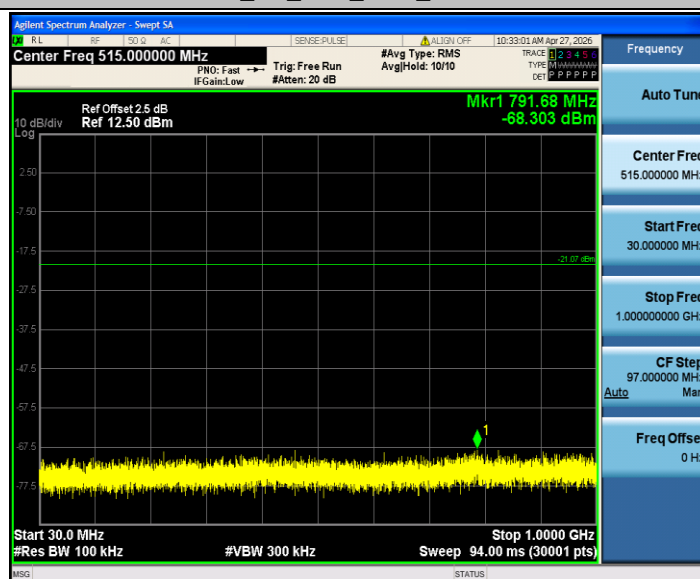




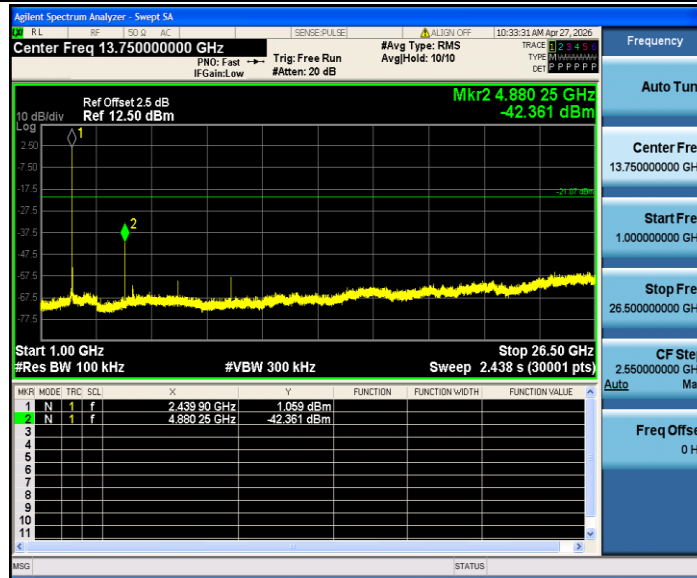
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



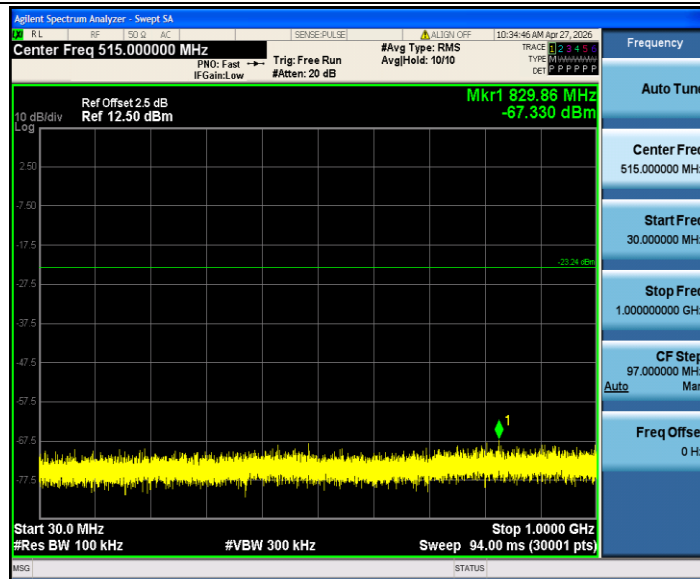
BLE_1M_Ant1_2440_1000~26500



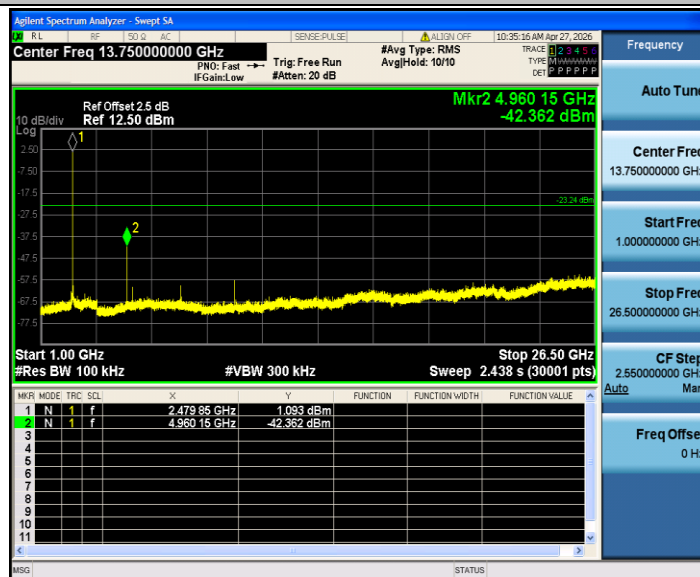
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



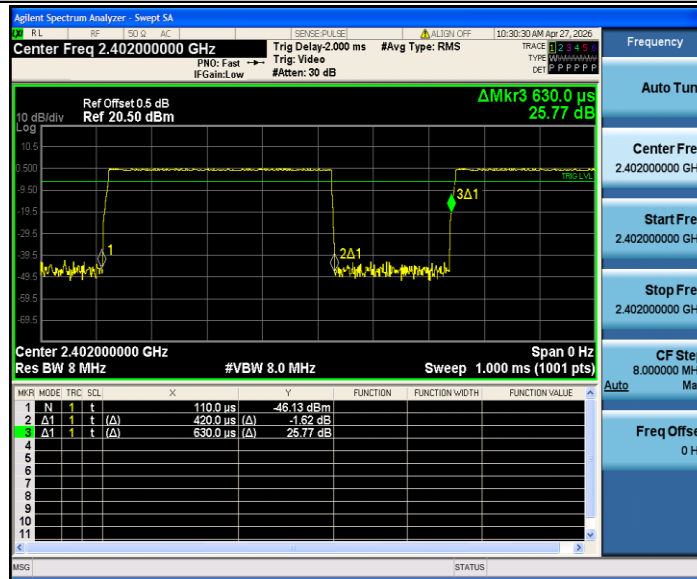
Appendix G: Duty Cycle

Test Result

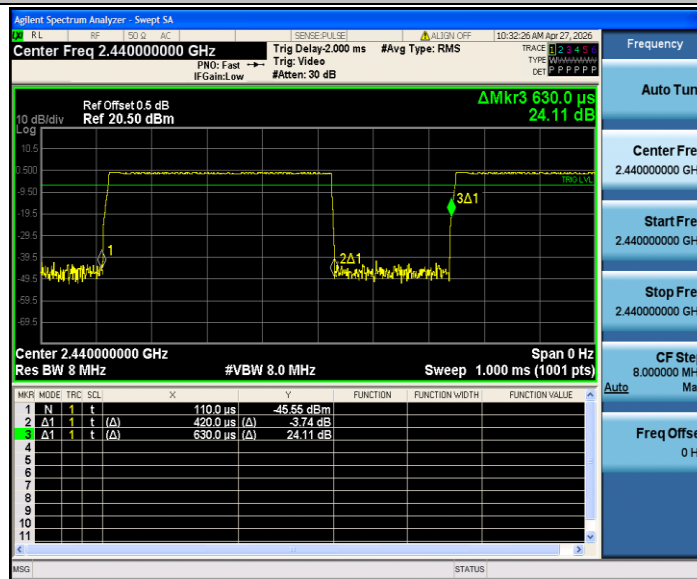
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.42	0.63	0.6667	66.67	1.76	---	---
		2440	0.42	0.63	0.6667	66.67	1.76	---	---
		2480	0.41	0.62	0.6613	66.13	1.80	---	---

Test Graphs

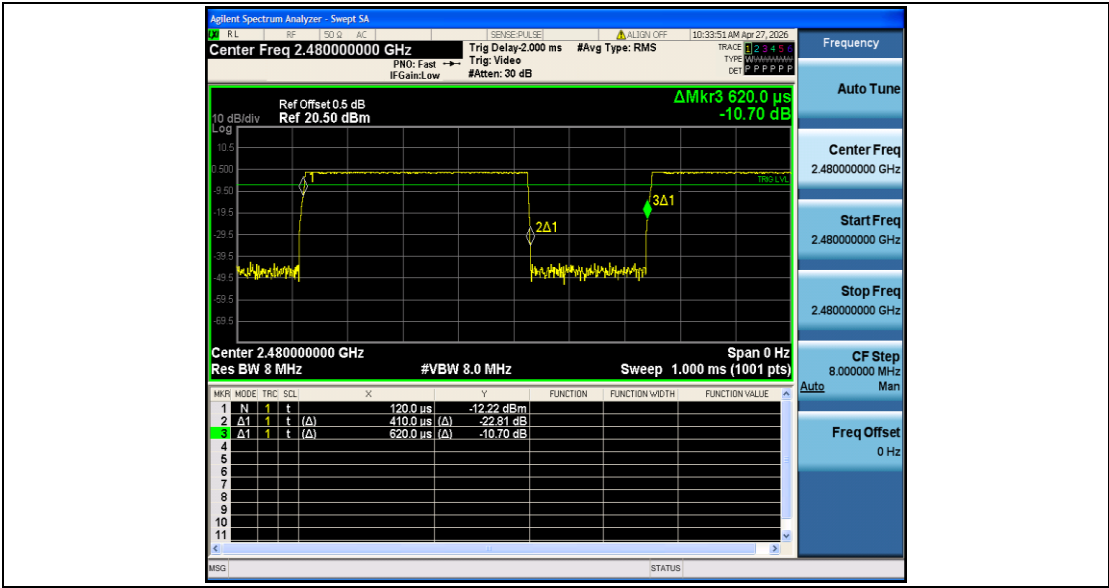
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix H: Emissions in Restricted Bands

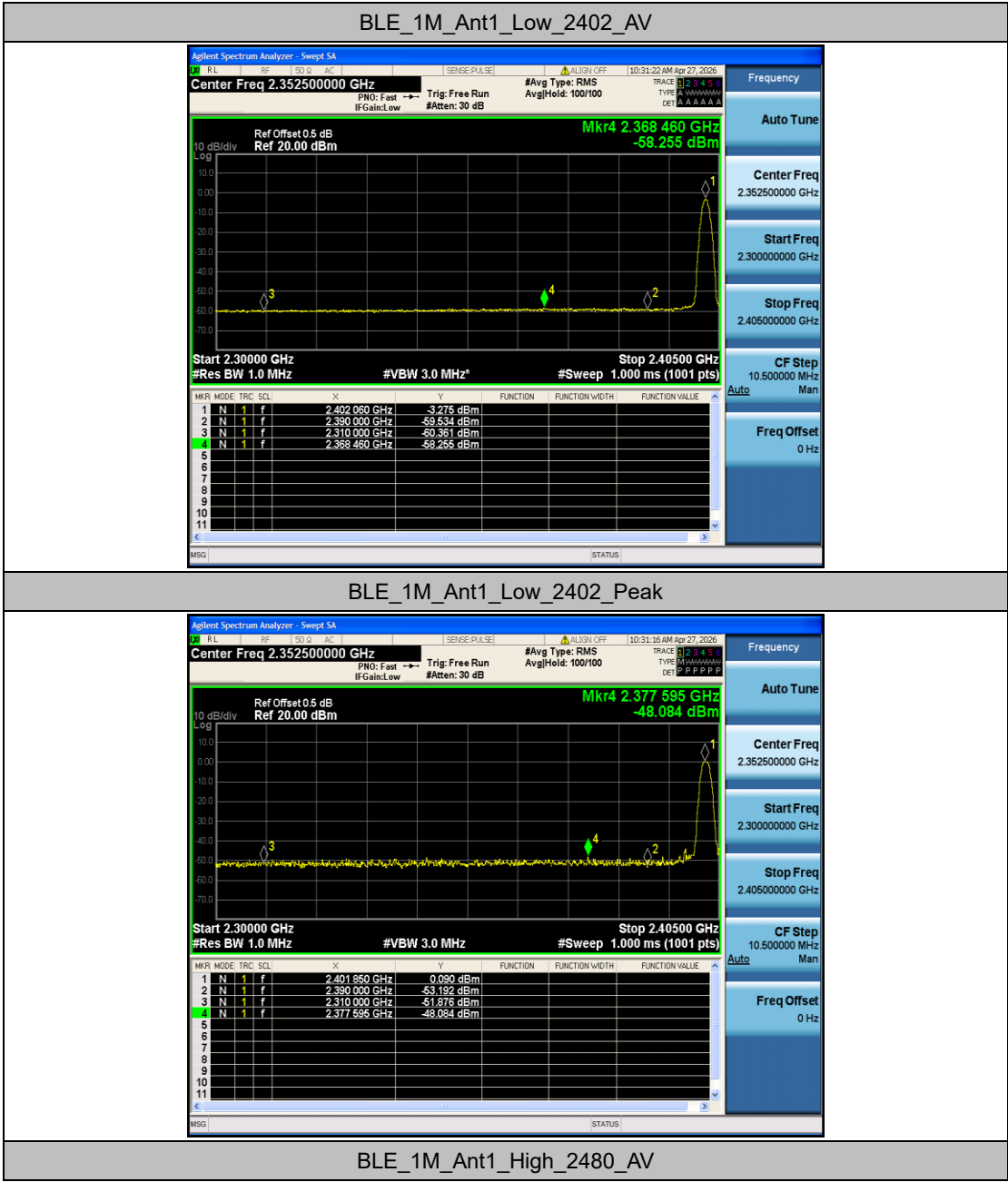
Test Result

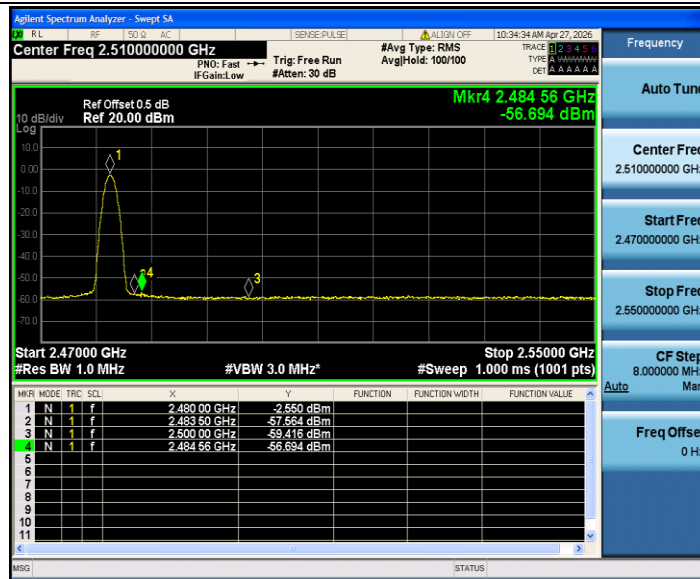
TestMode	Antenna	ChName	Freq(MHz)	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	2310.000	-60.36	2.66	1.76	39.26	≤54	PASS
				2368.460	-58.26	2.66	1.76	41.36	≤54	PASS
				2390.000	-59.53	2.66	1.76	40.09	≤54	PASS
				2310.000	-51.88	2.66	0.00	45.98	≤74	PASS
				2377.595	-48.08	2.66	0.00	49.78	≤74	PASS
				2390.000	-53.19	2.66	0.00	44.67	≤74	PASS
		High	2480	2483.500	-57.56	2.66	1.80	42.1	≤54	PASS
				2484.560	-56.69	2.66	1.80	42.97	≤54	PASS
				2500.000	-59.42	2.66	1.80	40.24	≤54	PASS
				2483.500	-49.99	2.66	0.00	47.87	≤74	PASS
				2484.480	-42.6	2.66	0.00	55.26	≤74	PASS
				2500.000	-50.92	2.66	0.00	46.94	≤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

