

FCC Appendix RF Test Data

FCC ID : **2AU3D-RCAPRIME**

Company: : **United Creation Technology Corp.,Ltd**

EUT : **4G smart phone**

Model Number : **Prime**

Report No. : **CTA25040200711**

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	0.652	2401.688	2402.340	0.5	PASS
		2440	0.648	2439.688	2440.336	0.5	PASS
		2480	0.652	2479.688	2480.340	0.5	PASS
BLE_2M	Ant1	2402	1.100	2401.448	2402.548	0.5	PASS
		2440	1.108	2439.448	2440.556	0.5	PASS
		2480	1.128	2479.448	2480.576	0.5	PASS

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.402000000 GHz

Ref Offset 0.7 dB
Ref 20.00 dBm

Trig: Free Run
#Atten: 30 dB

#Avg Type: RMS
AvgHld: 100/100

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

ΔMkr3 652 kHz
-0.139 dB

10 dB/div
Log

1 2 3Δ1

Center Freq 2.402000000 GHz
Start Freq 2.400000000 GHz
Stop Freq 2.404000000 GHz
CF Step 400.000 kHz
Freq Offset 0 Hz

MNR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401688 GHz	-9.233 dBm			
2	N	1	f	2.402032 GHz	-3.468 dBm			
3	Δ	1	f (Δ)	652 kHz (Δ)	-0.139 dB			

BLE_1M_Ant1_2402

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.440000000 GHz

Ref Offset 0.7 dB
Ref 20.00 dBm

Trig: Free Run
#Atten: 30 dB

#Avg Type: RMS
AvgHld: 100/100

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

ΔMkr3 648 kHz
0.192 dB

10 dB/div
Log

1 2 3Δ1

Center Freq 2.440000000 GHz
Start Freq 2.438000000 GHz
Stop Freq 2.442000000 GHz
CF Step 400.000 kHz
Freq Offset 0 Hz

MNR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.439688 GHz	-9.728 dBm			
2	N	1	f	2.440020 GHz	-3.746 dBm			
3	Δ	1	f (Δ)	648 kHz (Δ)	0.192 dB			

BLE_1M_Ant1_2440



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

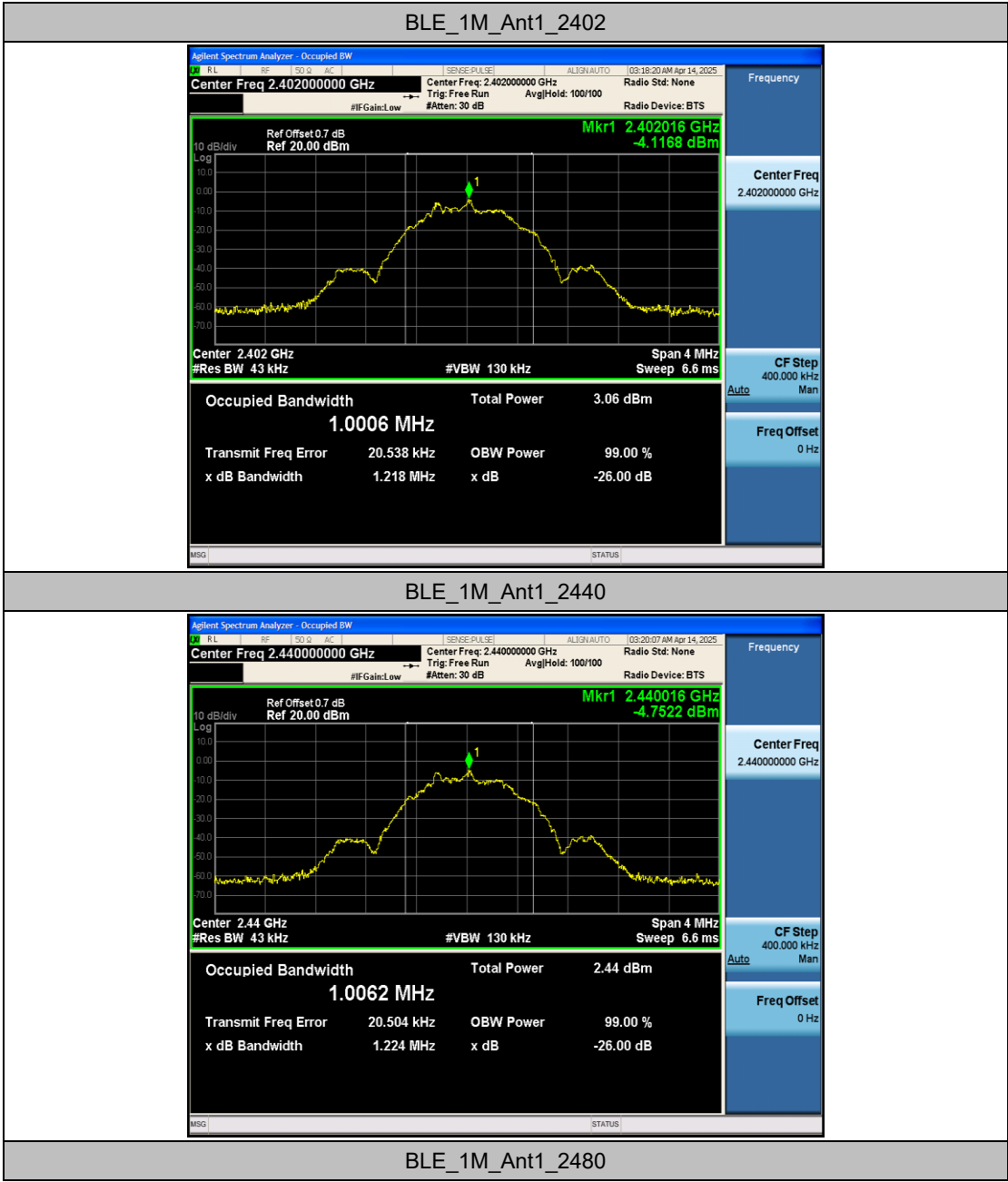


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0006	2401.5202	2402.5208	---	---
		2440	1.0062	2439.5174	2440.5236	---	---
		2480	1.0082	2479.5152	2480.5234	---	---
BLE_2M	Ant1	2402	2.0106	2401.0270	2403.0376	---	---
		2440	1.9995	2439.0326	2441.0321	---	---
		2480	1.9997	2479.0324	2481.0321	---	---

Test Graphs





BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.07	≤30	-3.07	≤36	PASS
		2440	-3.64	≤30	-3.64	≤36	PASS
		2480	-3.88	≤30	-3.88	≤36	PASS
BLE_2M	Ant1	2402	-3.02	≤30	-3.02	≤36	PASS
		2440	-3.63	≤30	-3.63	≤36	PASS
		2480	-3.87	≤30	-3.87	≤36	PASS

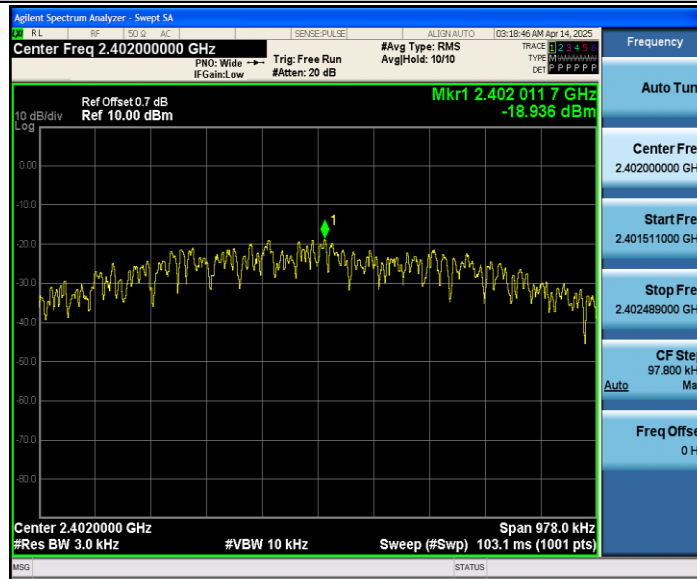
Appendix D: Maximum power spectral density

Test Result

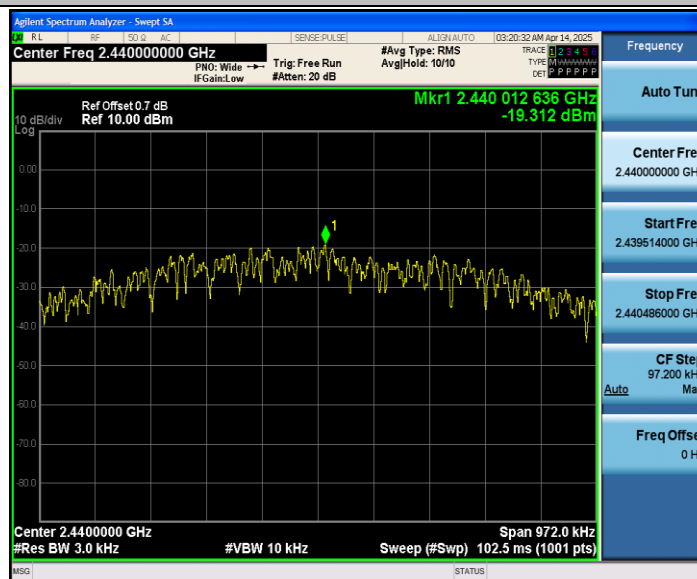
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.94	≤8.00	PASS
		2440	-19.31	≤8.00	PASS
		2480	-19.78	≤8.00	PASS
BLE_2M	Ant1	2402	-19.98	≤8.00	PASS
		2440	-20.45	≤8.00	PASS
		2480	-20.71	≤8.00	PASS

Test Graphs

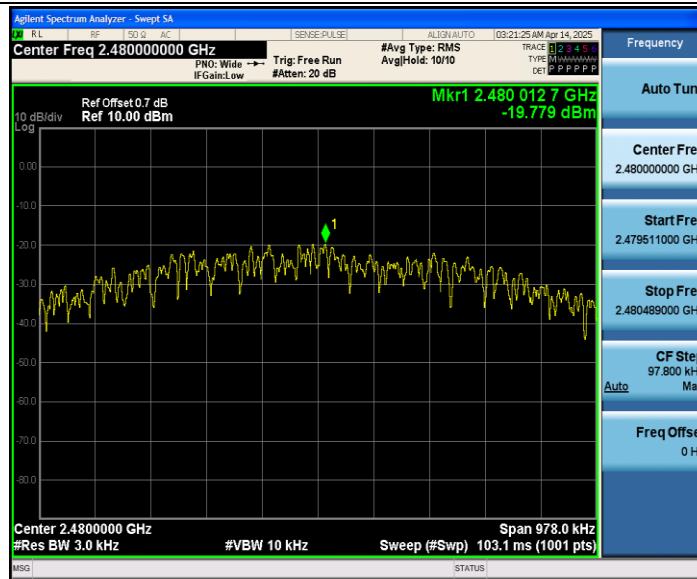
BLE_1M_Ant1_2402



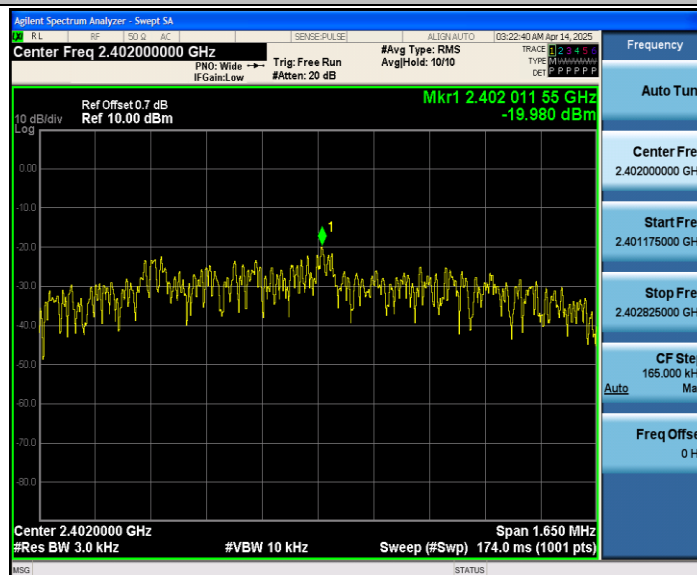
BLE_1M_Ant1_2440



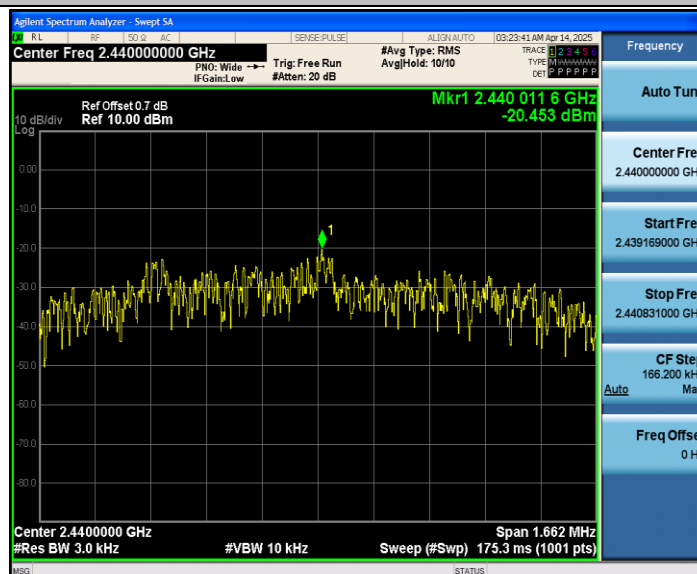
BLE_1M_Ant1_2480



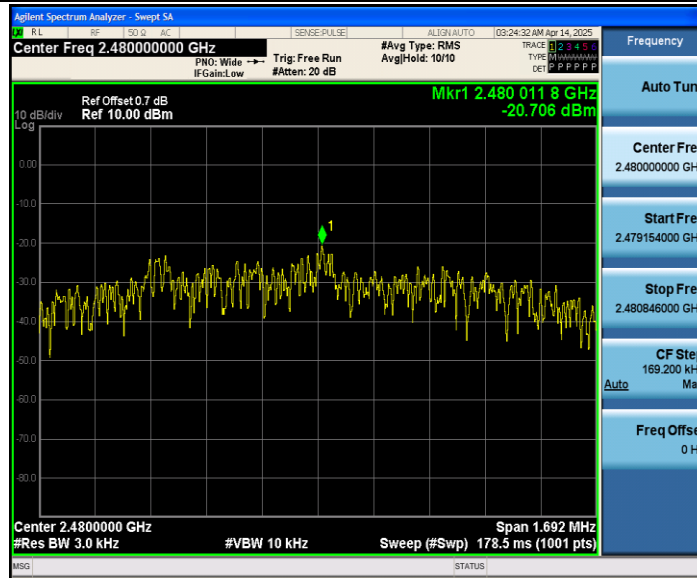
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

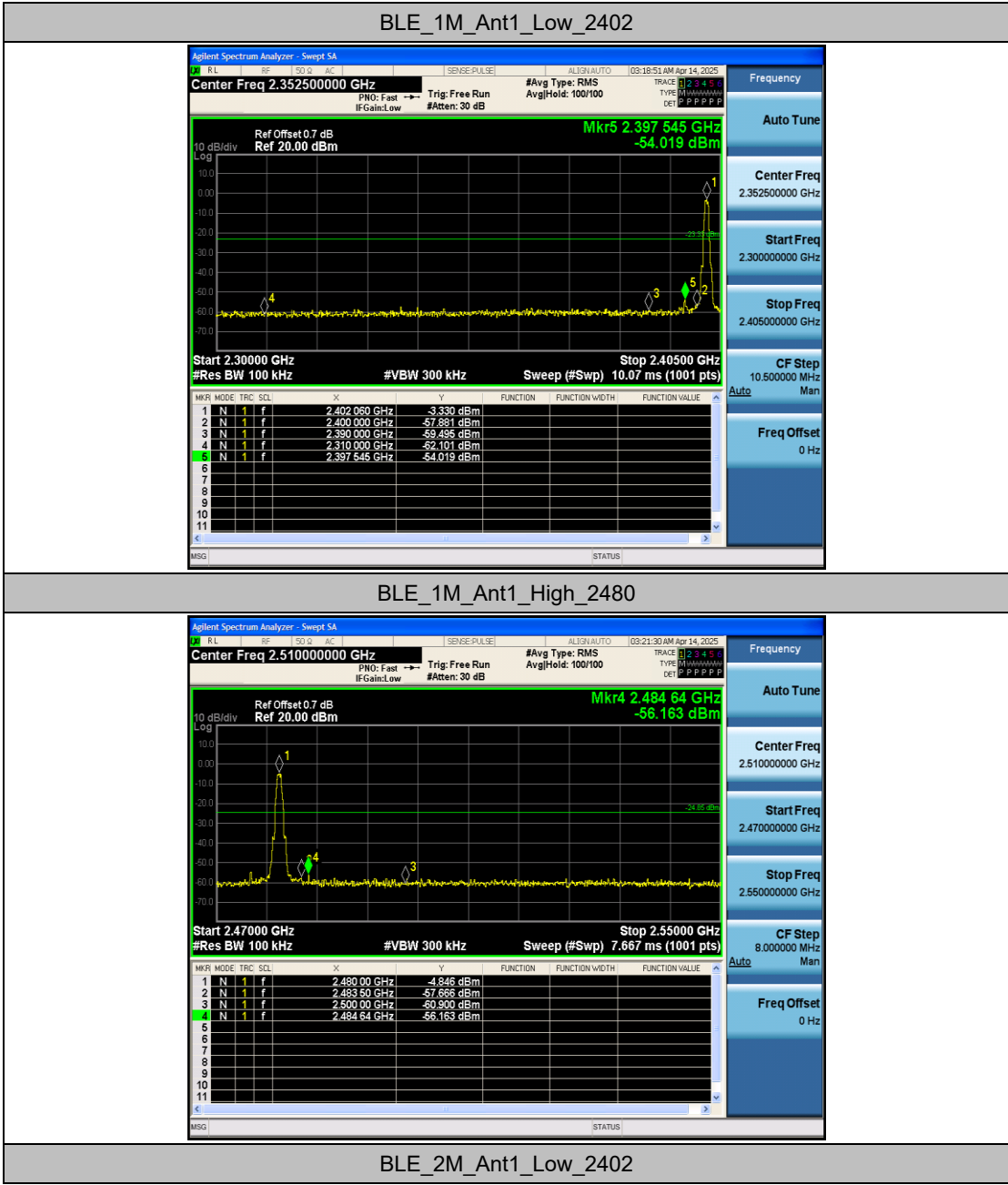


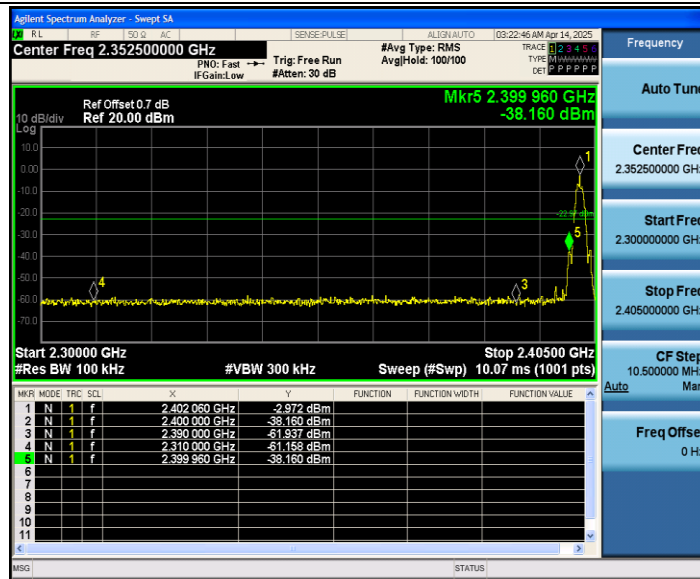
Appendix E: Band edge measurements

Test Result

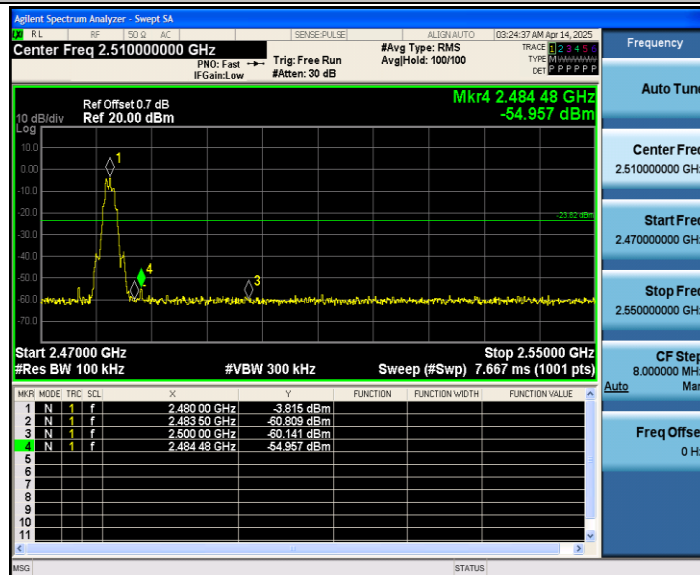
TestMod e	Antenn a	ChNam e	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdic t
BLE_1M	Ant1	Low	2402	-3.33	-54.02	≤-23.33	PASS
		High	2480	-4.85	-56.16	≤-24.85	PASS
BLE_2M	Ant1	Low	2402	-2.97	-38.16	≤-22.97	PASS
		High	2480	-3.82	-54.96	≤-23.82	PASS

Test Graphs





BLE_2M_Ant1_High_2480

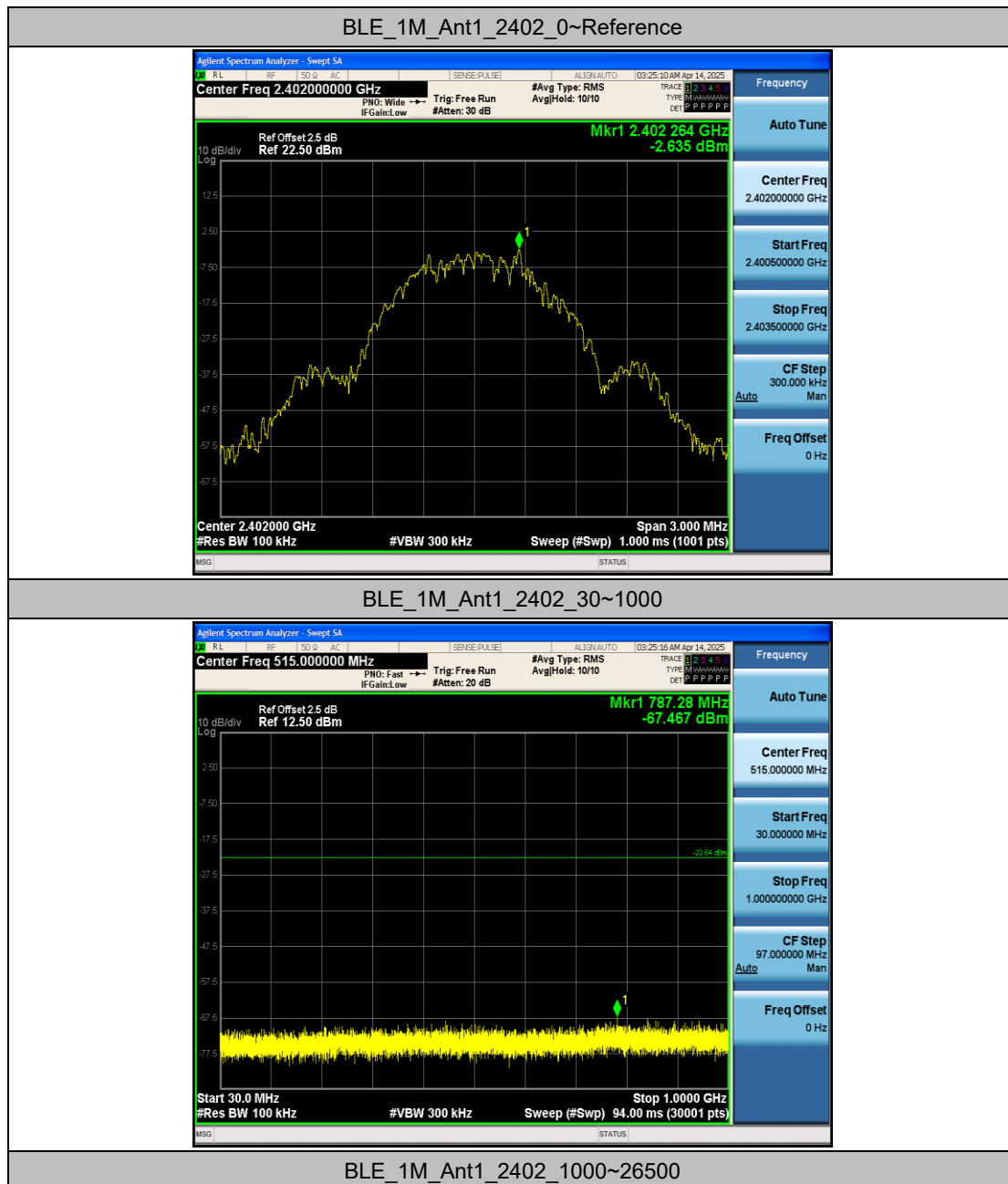


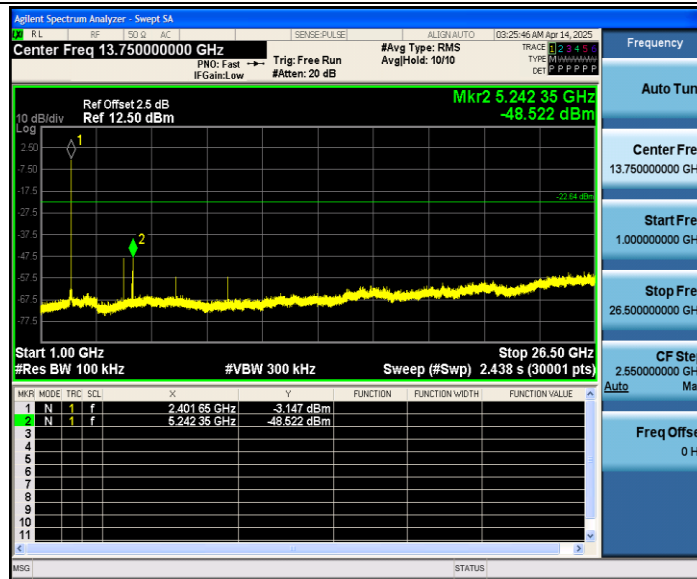
Appendix F: Conducted Spurious Emission

Test Result

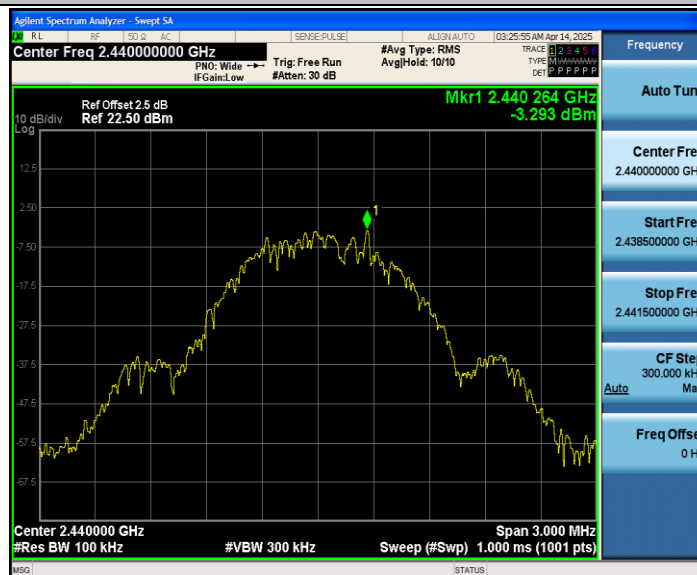
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-2.64	-2.64	---	PASS
			30~1000	-2.64	-67.47	≤-22.64	PASS
			1000~26500	-2.64	-48.52	≤-22.64	PASS
		2440	Reference	-3.29	-3.29	---	PASS
			30~1000	-3.29	-67.27	≤-23.29	PASS
			1000~26500	-3.29	-45.86	≤-23.29	PASS
		2480	Reference	-2.32	-2.32	---	PASS
			30~1000	-2.32	-68.54	≤-22.32	PASS
			1000~26500	-2.32	-48.45	≤-22.32	PASS
BLE_2M	Ant1	2402	Reference	-4.92	-4.92	---	PASS
			30~1000	-4.92	-67.59	≤-24.92	PASS
			1000~26500	-4.92	-51.29	≤-24.92	PASS
		2440	Reference	-2.64	-2.64	---	PASS
			30~1000	-2.64	-67.65	≤-22.64	PASS
			1000~26500	-2.64	-51.86	≤-22.64	PASS
		2480	Reference	-2.76	-2.76	---	PASS
			30~1000	-2.76	-67.53	≤-22.76	PASS
			1000~26500	-2.76	-50.12	≤-22.76	PASS

Test Graphs

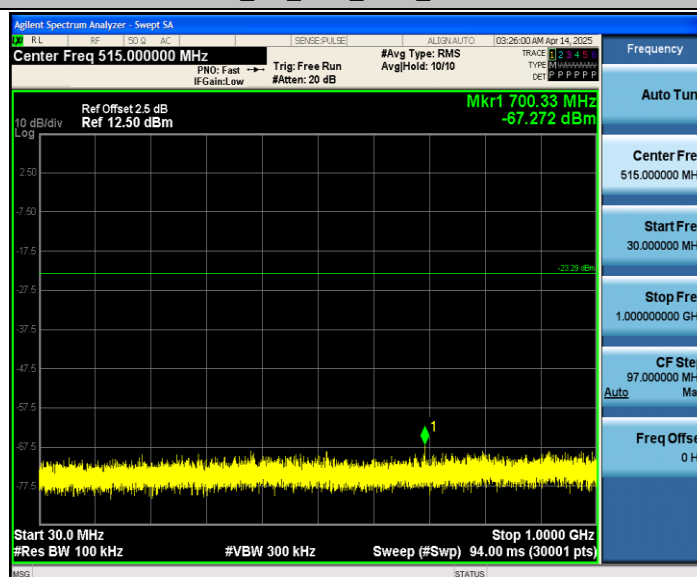




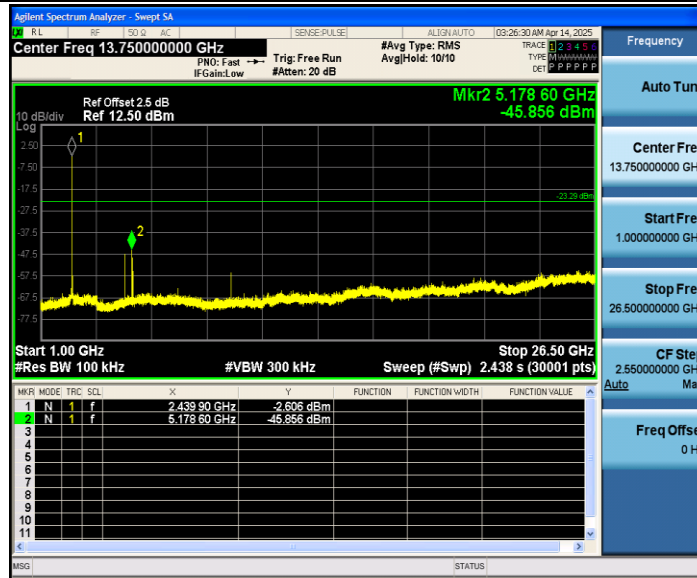
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



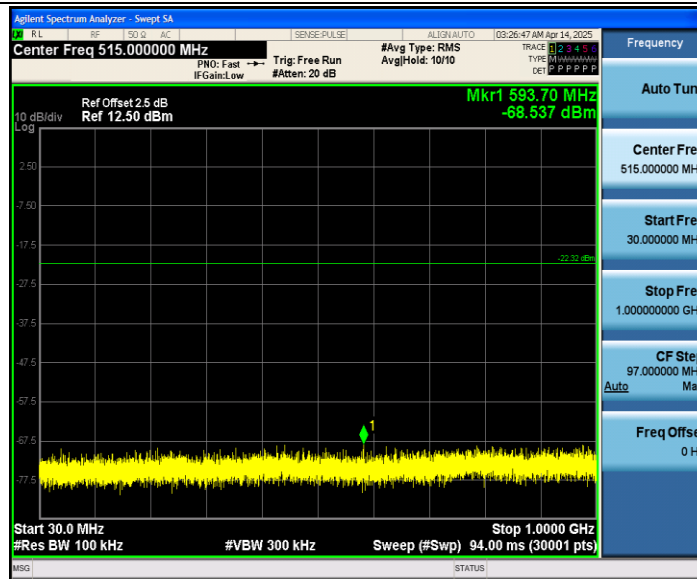
BLE_1M_Ant1_2440_1000~26500



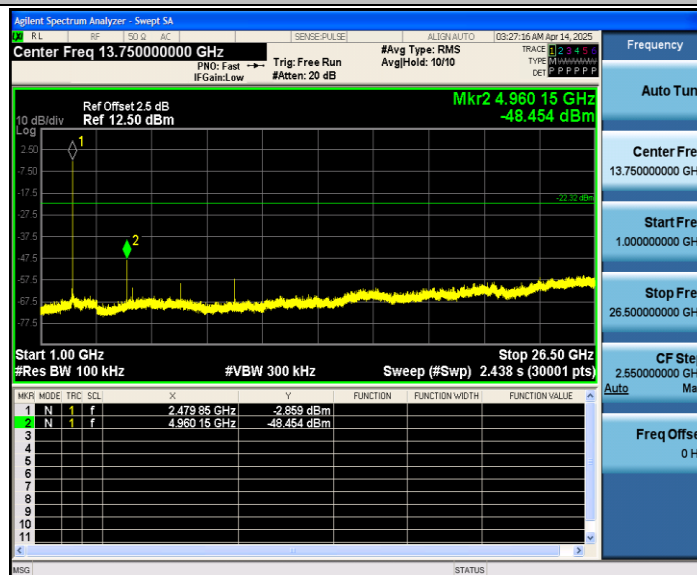
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



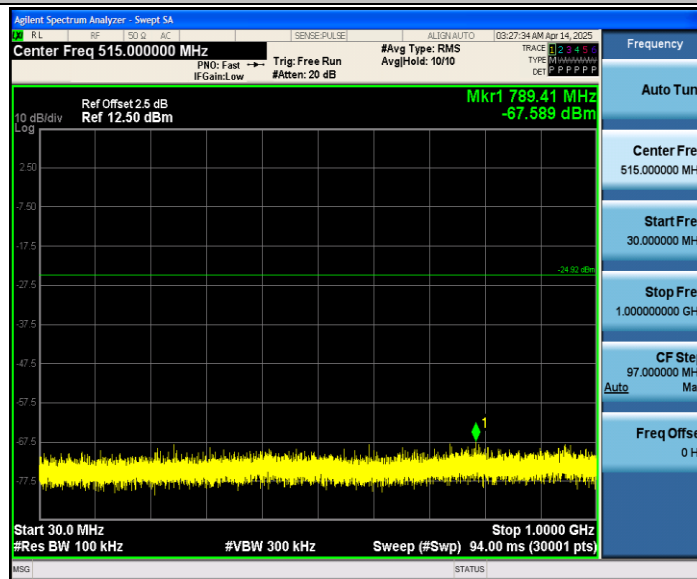
BLE_1M_Ant1_2480_1000~26500



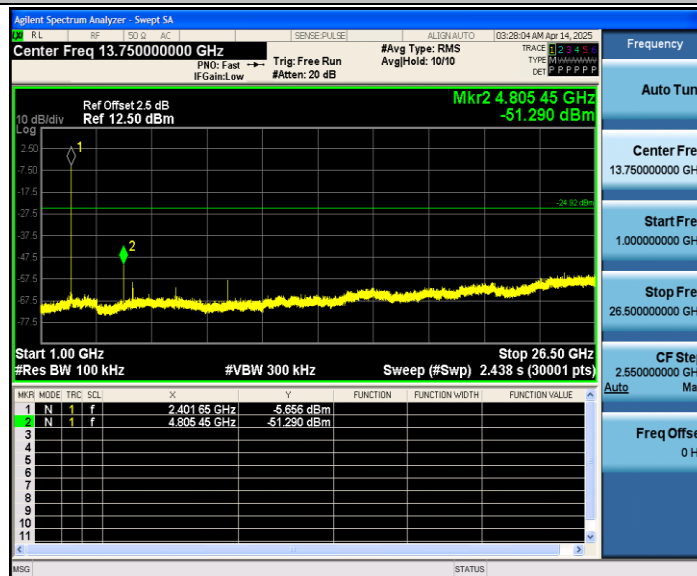
BLE_2M_Ant1_2402_0~Reference



BLE_2M_Ant1_2402_30~1000



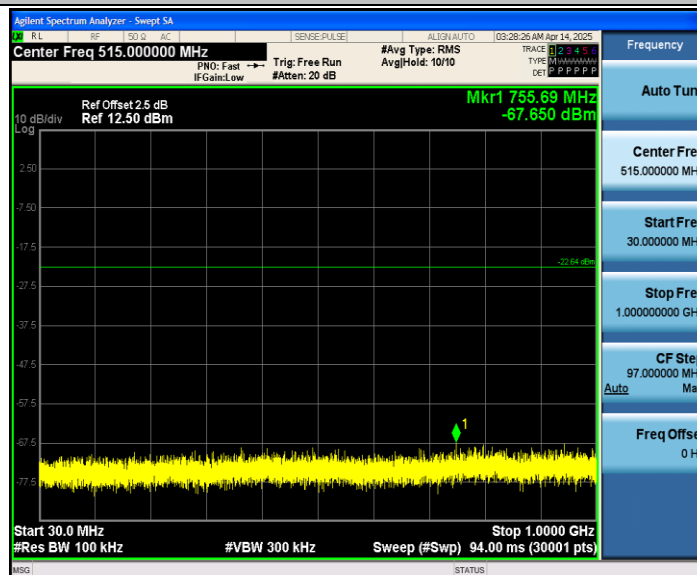
BLE_2M_Ant1_2402_1000~26500



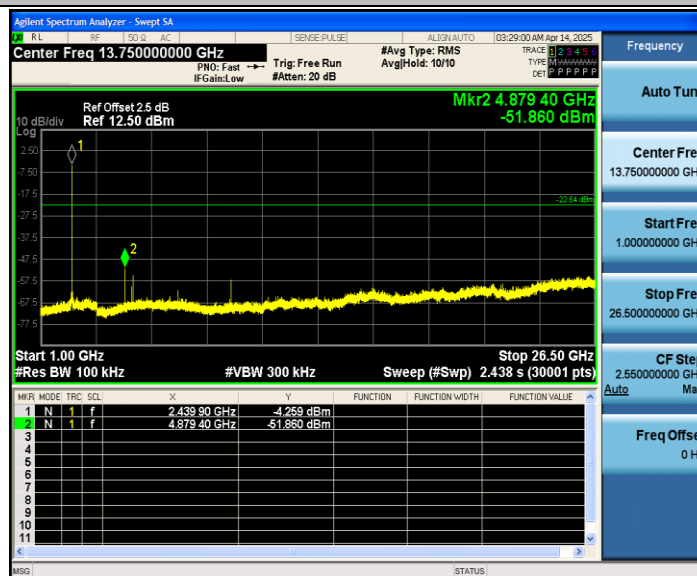
BLE_2M_Ant1_2440_0~Reference



BLE_2M_Ant1_2440_30~1000



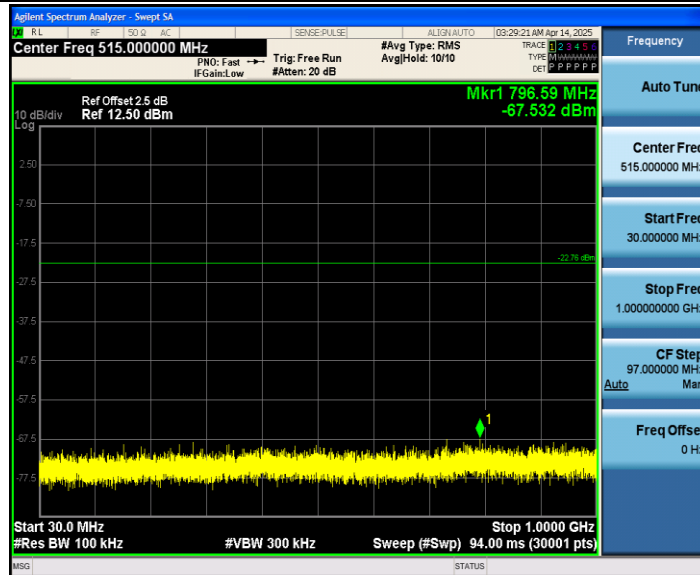
BLE_2M_Ant1_2440_1000~26500



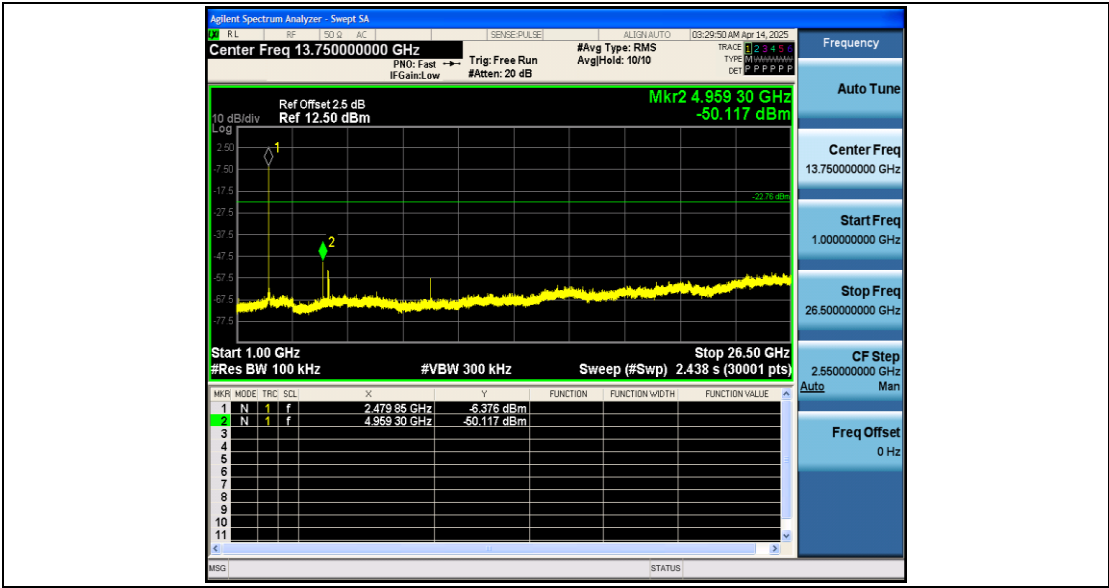
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



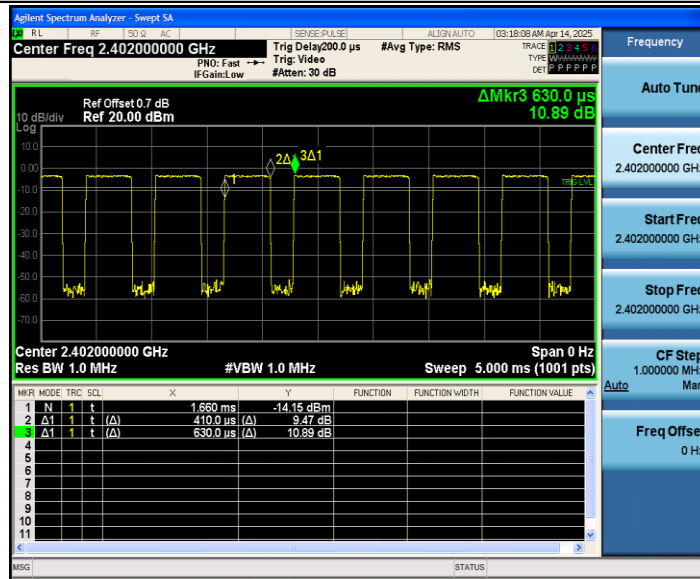
Appendix G: Duty Cycle

Test Result

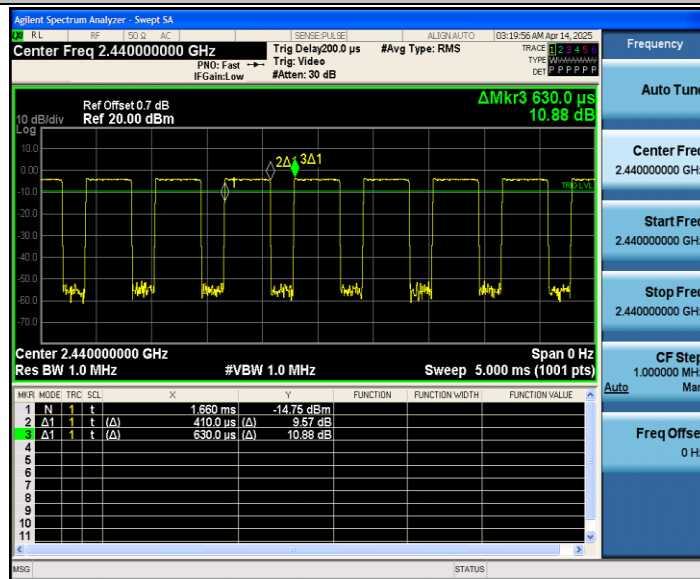
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.41	0.63	0.6508	65.08	1.87	---	---
		2440	0.41	0.63	0.6508	65.08	1.87	---	---
		2480	0.41	0.63	0.6508	65.08	1.87	---	---
BLE_2M	Ant1	2402	0.23	0.63	0.3651	36.51	4.38	---	---
		2440	0.23	0.63	0.3651	36.51	4.38	---	---
		2480	0.23	0.63	0.3651	36.51	4.38	---	---

Test Graphs

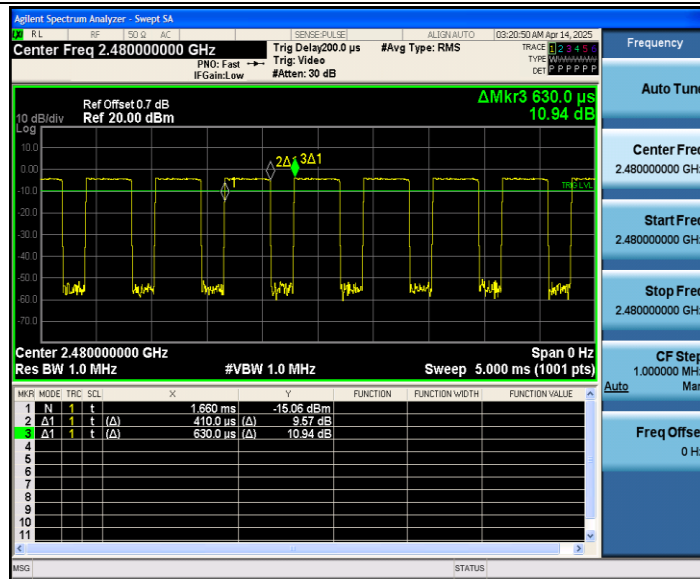
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



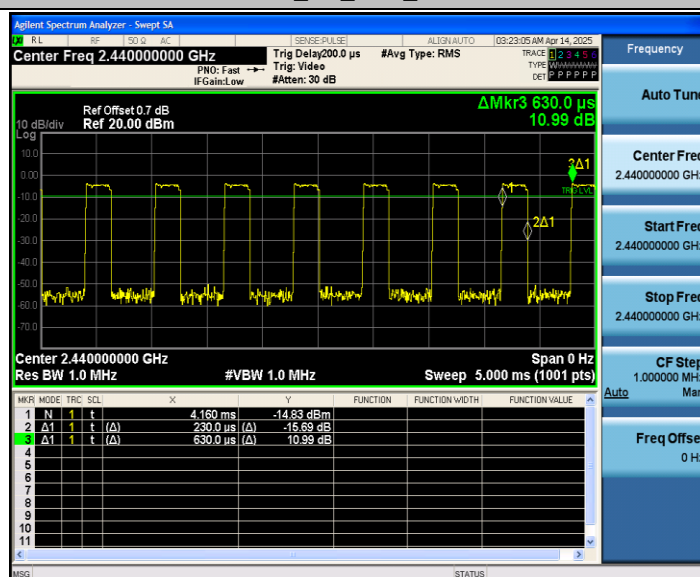
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

