FCC Appendix RF Test Data

FCC ID	:	**2BF3Z-E03**
Company	:	**Shenzhen Taiyang Technology Co., Ltd**
EUT	:	**Smart Glasses**
Model Number	:	**E03**
Report No.	:	**CTA25060900701**
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	2401.692	2402.332	0.5	PASS
		2440	0.648	2439.688	2440.336	0.5	PASS
		2480	0.636	2479.696	2480.332	0.5	PASS

Test Graphs

BLE_1M_Ant1_2402
BLE_1M_Ant1_2440
BLE_1M_Ant1_2480

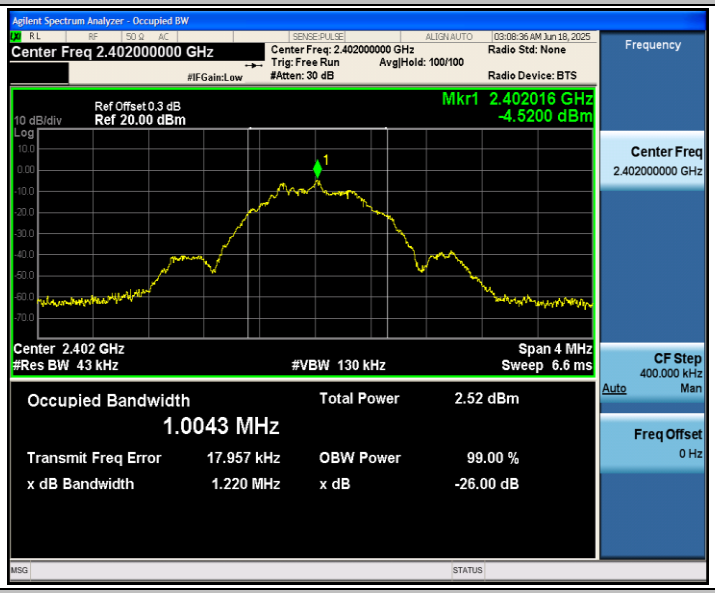
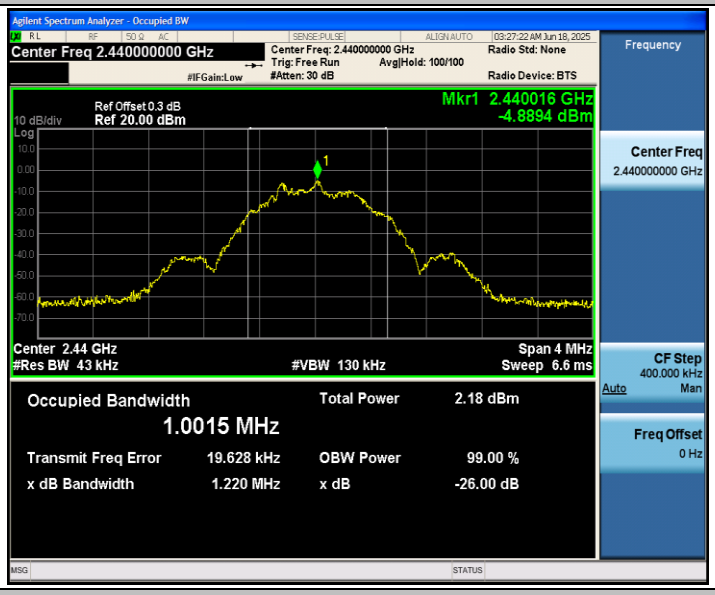
Agilent Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 100/100
03:28:54 AM Jun 18, 2025
Ref Offset 0.3 dB
10 dB/div
Ref 20.00 dBm
ΔMkr3 636 kHz
0.273 dB
Center 2.480000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 4.000 MHz
Sweep (#Swp) 1.000 ms (1001 pts)
1 N 1 f 2.479 696 GHz -9.940 dBm
2 N 1 f 2.480 024 GHz -9.970 dBm
3 Δ1 1 f (Δ) 636 kHz (Δ) 0.273 dB
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.478000000 GHz
Stop Freq
2.482000000 GHz
CF Step
400.000 kHz
Auto
Man
Freq Offset
0 Hz

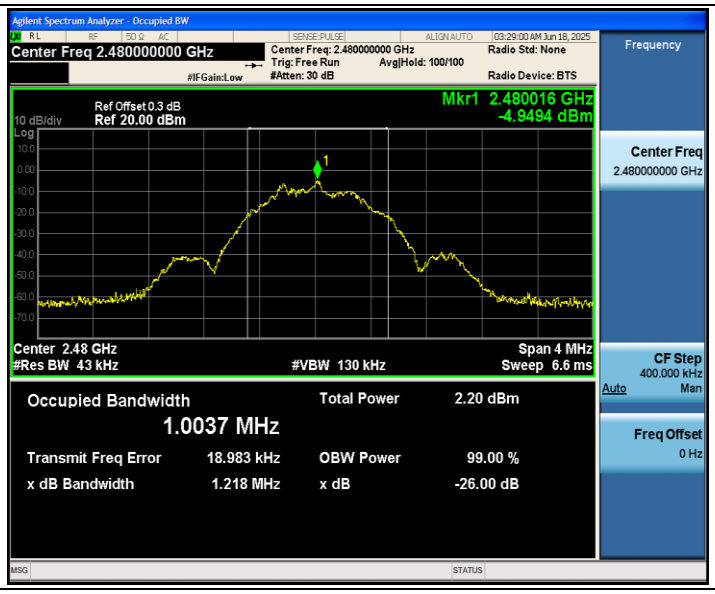
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0043	2401.5158	2402.5201	---	---
		2440	1.0015	2439.5189	2440.5204	---	---
		2480	1.0037	2479.5171	2480.5208	---	---

Test Graphs

BLE_1M_Ant1_2402

BLE_1M_Ant1_2440

BLE_1M_Ant1_2480


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 0.3 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 2.480016 GHz
-4.9494 dBm
Center 2.48 GHz
#Res BW 43 kHz
#VBW 130 kHz
Span 4 MHz
Sweep 6.6 ms
Occupied Bandwidth
1.0037 MHz
Total Power 2.20 dBm
Transmit Freq Error 18.983 kHz
OBW Power 99.00 %
x dB Bandwidth 1.218 MHz
x dB -26.00 dB
Center Freq
2.480000000 GHz
CF Step
400.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Appendix C: Maximum conducted output power

Test Result Peak

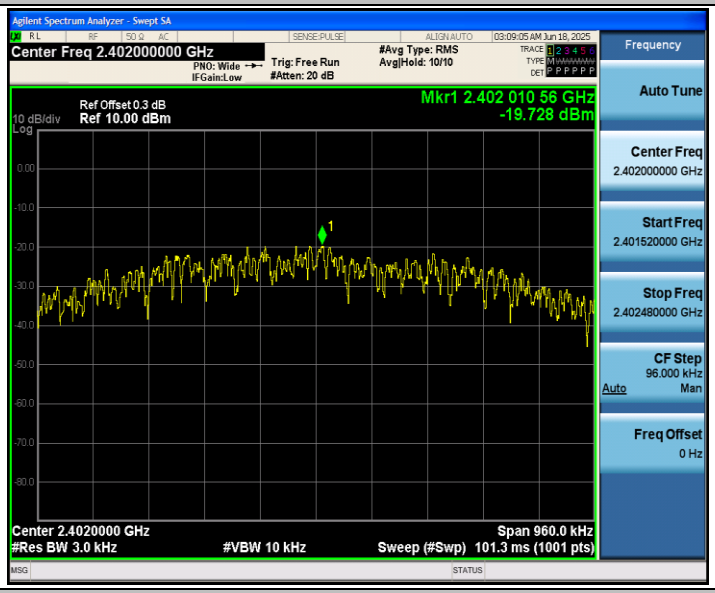
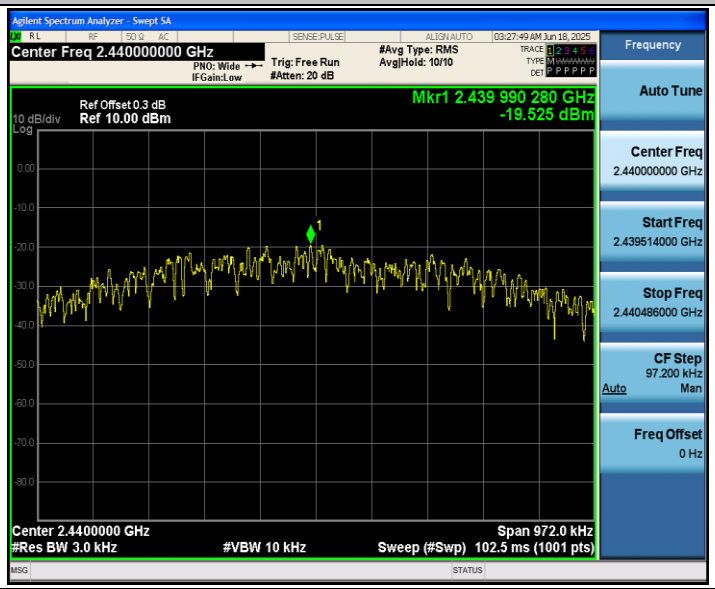
TestMode	Antenna	Freq(MHz)	Conducted Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.50	≤30	PASS
		2440	-3.87	≤30	PASS
		2480	-3.89	≤30	PASS

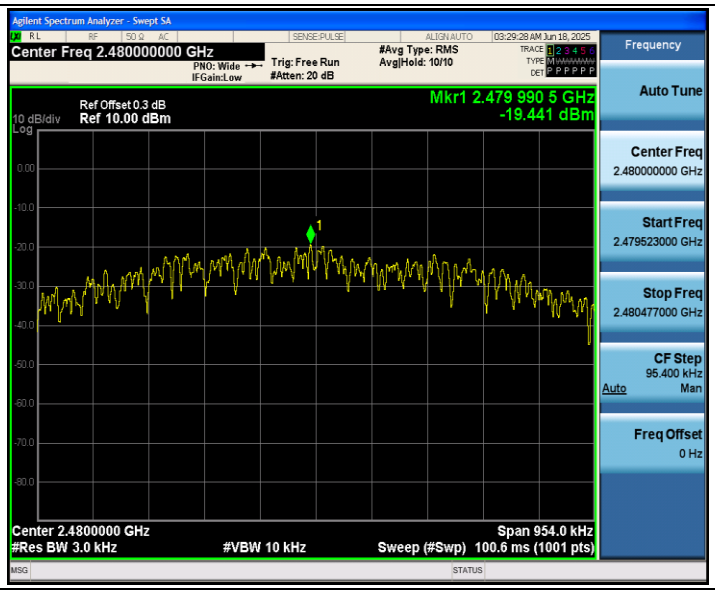
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.73	≤8.00	PASS
		2440	-19.53	≤8.00	PASS
		2480	-19.44	≤8.00	PASS

Test Graphs

BLE_1M_Ant1_2402

BLE_1M_Ant1_2440

BLE_1M_Ant1_2480

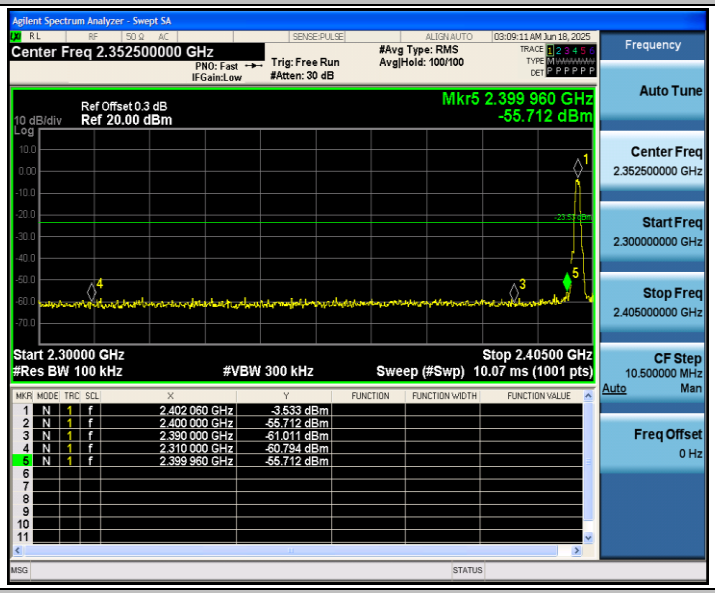
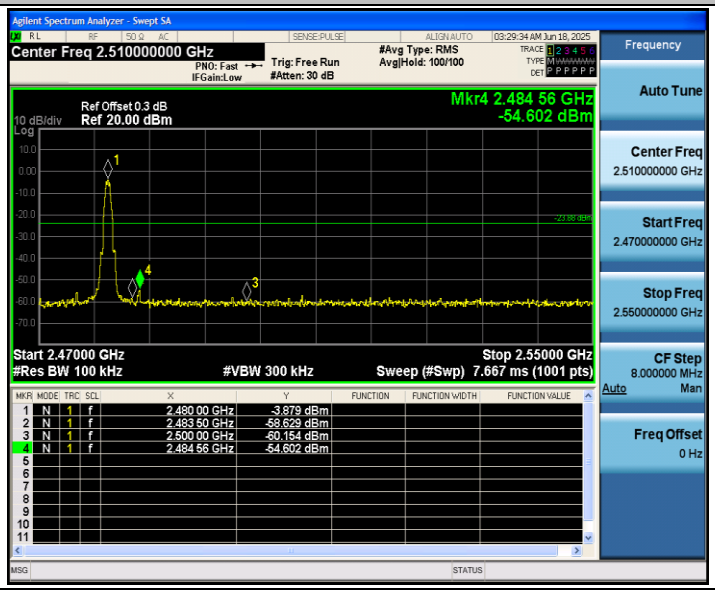

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 10/10
03:29:28 AM Jun 18, 2025
Ref Offset 0.3 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr1 2.479 990 5 GHz
-19.441 dBm
Center 2.4800000 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 954.0 kHz
Sweep (#Swp) 100.6 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.479523000 GHz
Stop Freq
2.480477000 GHz
CF Step
95.400 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.53	-55.71	≤-23.53	PASS
		High	2480	-3.88	-54.6	≤-23.88	PASS

Test Graphs

BLE_1M_Ant1_Low_2402

BLE_1M_Ant1_High_2480


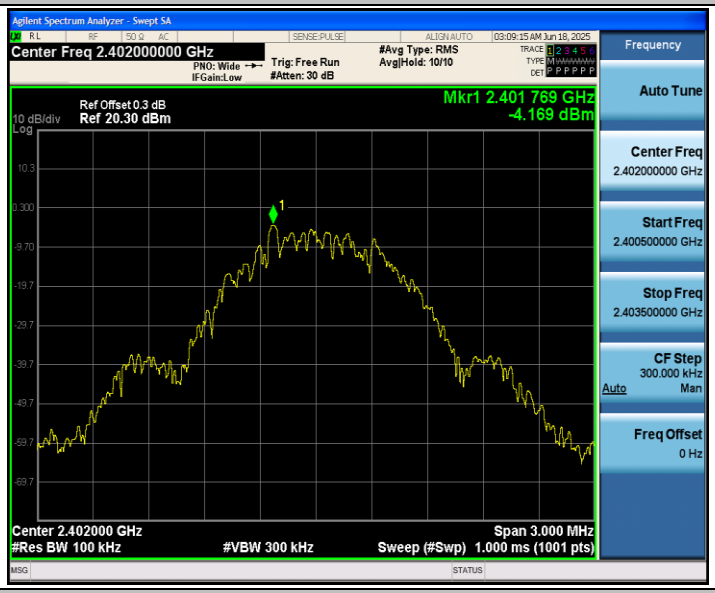
Appendix F: Conducted Spurious Emission

Test Result

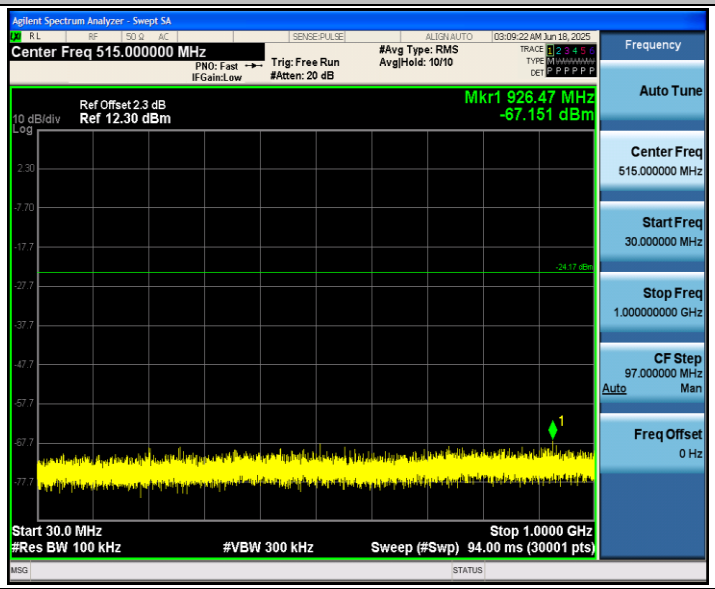
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.17	-4.17	---	PASS
			30~1000	-4.17	-67.15	≤-24.17	PASS
			1000~26500	-4.17	-47.58	≤-24.17	PASS
		2440	Reference	-6.70	-6.70	---	PASS
			30~1000	-6.70	-68.32	≤-26.7	PASS
			1000~26500	-6.70	-48.02	≤-26.7	PASS
		2480	Reference	-4.16	-4.16	---	PASS
			30~1000	-4.16	-67.77	≤-24.16	PASS
			1000~26500	-4.16	-48.53	≤-24.16	PASS

Test Graphs

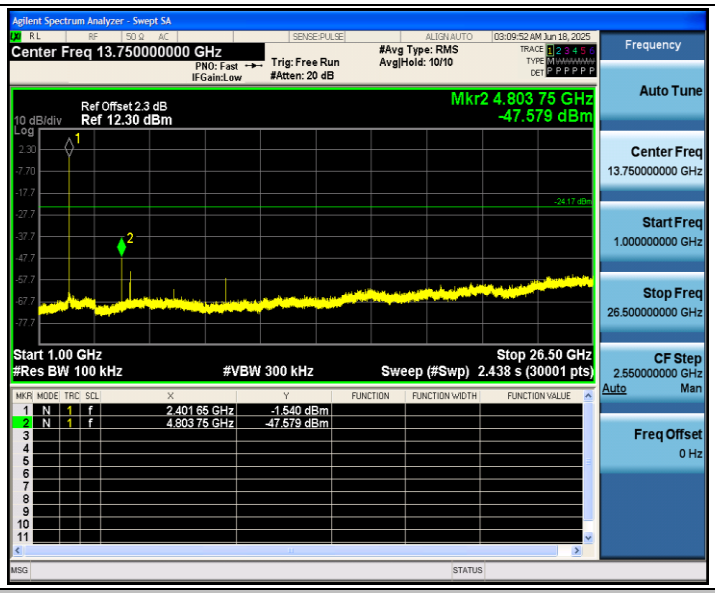
BLE_1M_Ant1_2402_0~Reference



BLE_1M_Ant1_2402_30~1000

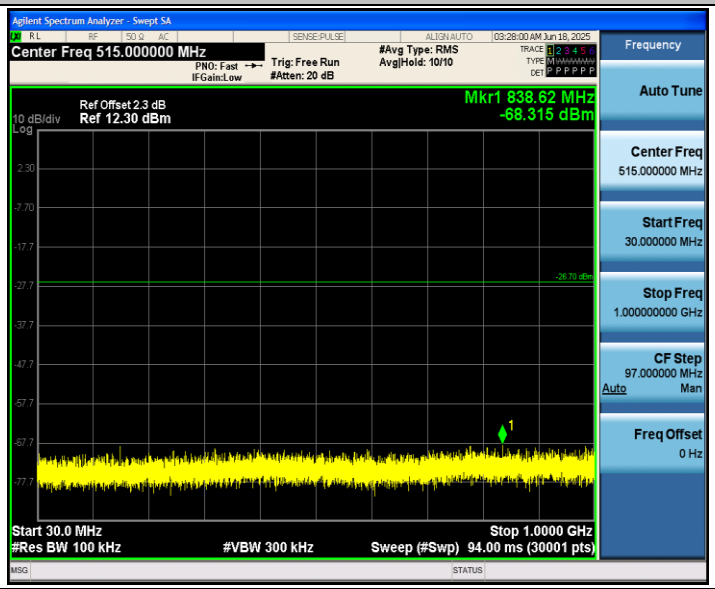


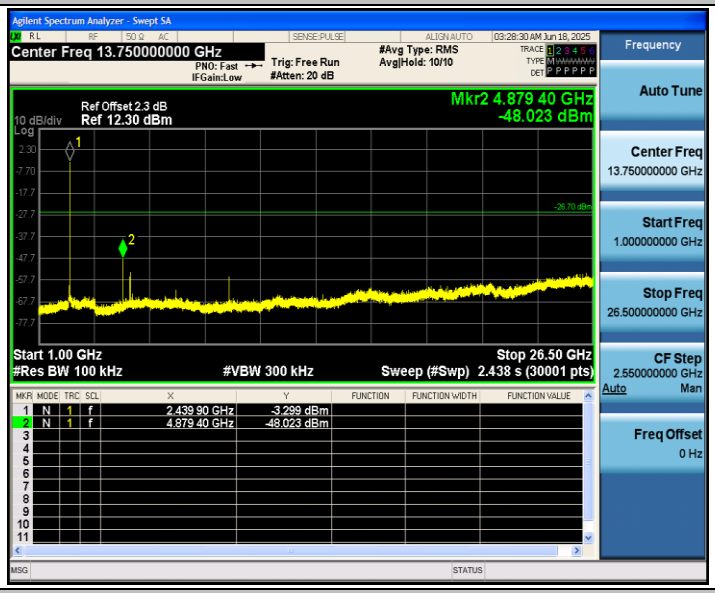
BLE_1M_Ant1_2402_1000~26500

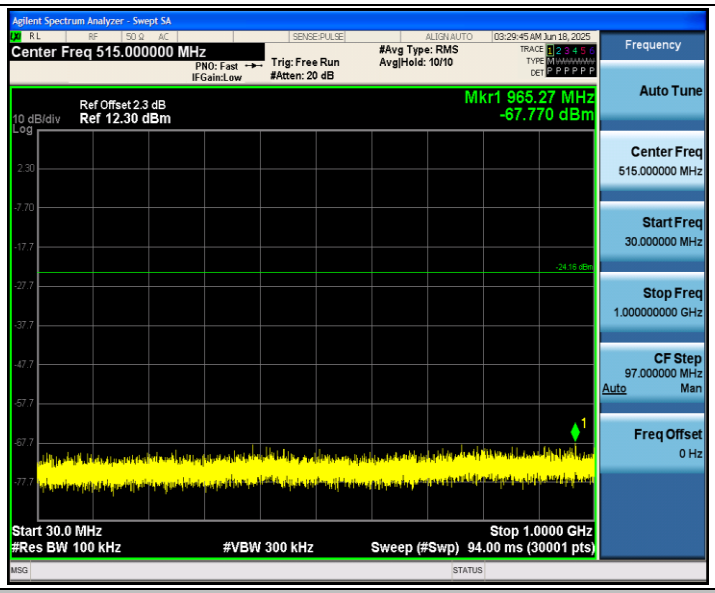


BLE_1M_Ant1_2440_0~Reference

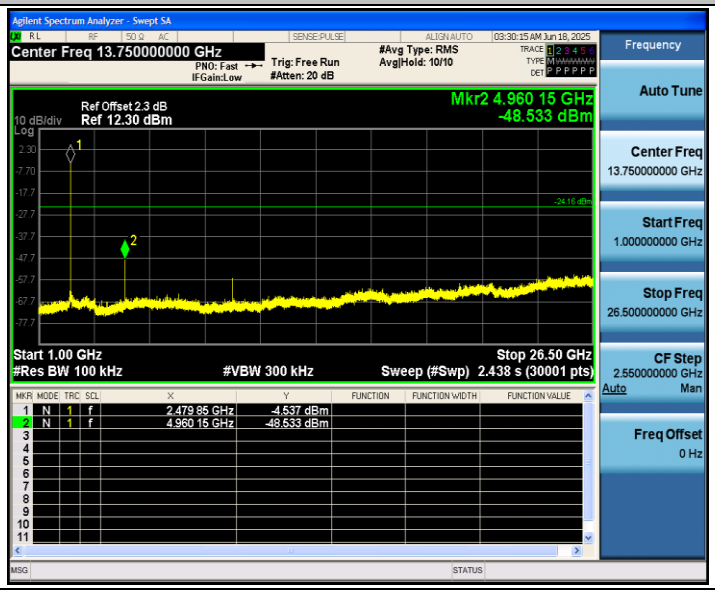
BLE_1M_Ant1_2440_30~1000



BLE_1M_Ant1_2440_1000~26500

BLE_1M_Ant1_2480_0~Reference
BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



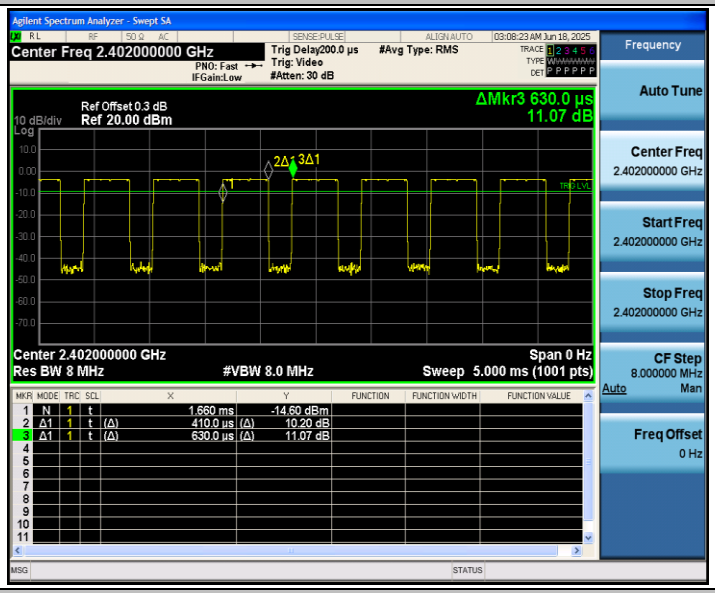
Appendix G: Duty Cycle

Test Result

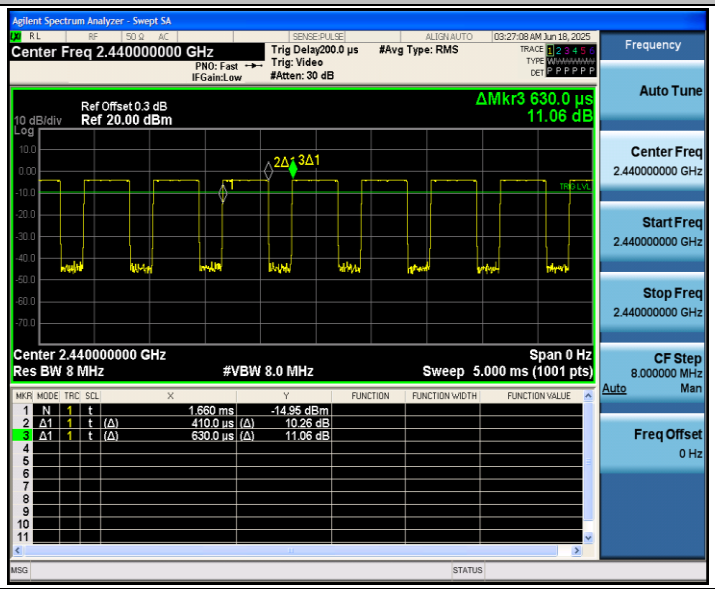
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.41	0.63	0.6508	65.08	1.87	---	---
		2440	0.41	0.63	0.6508	65.08	1.87	---	---
		2480	0.41	0.63	0.6508	65.08	1.87	---	---

Test Graphs

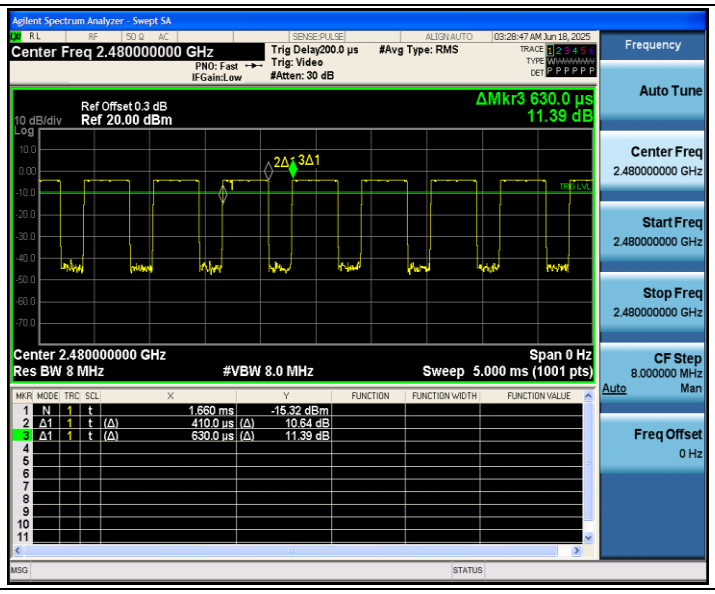
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Fast
IFGain:Low
Trig Delay 200.0 µs
Trig: Video
#Atten: 30 dB
#Avg Type: RMS
03:28:47 AM Jun 18, 2025
Ref Offset 0.3 dB
10 dB/div
Ref 20.00 dBm
ΔMkr3 630.0 µs
11.39 dB
Center 2.480000000 GHz
Res BW 8 MHz
#VBW 8.0 MHz
Span 0 Hz
Sweep 5.000 ms (1001 pts)
1 N 1 t 1.660 ms -15.32 dBm
2 Δ1 1 t (Δ) 410.0 µs (Δ) 10.64 dB
3 Δ1 1 t (Δ) 630.0 µs (Δ) 11.39 dB
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.480000000 GHz
Stop Freq
2.480000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz