

FCC Appendix RF Test Data

FCC ID : 2BDCP-CSSW9

Company : Shenzhen HuaxinZhi Technology Co., Ltd

EUT : Smart bracelet

Model Number : CSS W9

Report No. : CTA25072301001

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	2439.688	2440.328	0.5	PASS
		2480	0.680	2479.672	2480.352	0.5	PASS

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.402000000 GHz

Ref Offset 0.4 dB
Ref 20.00 dBm

Trig: Free Run
#Atten: 30 dB

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

Trace 1: 2.402000000 GHz

TYPE: WWWWWWWWWW
DET: P P P P P

Frequency

Auto Tune

Center Freq
2.402000000 GHz

Start Freq
2.400000000 GHz

Stop Freq
2.404000000 GHz

CF Step
400.000 kHz

Auto

Freq Offset
0 Hz

Ref Offset 0.4 dB
Ref 20.00 dBm

ΔMkr3 644 kHz
-0.040 dB

Center 2.402000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep (#Swp) 1.000 ms (1001 pts)
Span 4.000 MHz

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401 692 GHz	-9.553 dBm			
2	N	1	f	2.402 020 GHz	-3.760 dBm			
3	Δ1	1	f (Δ)	644 kHz (Δ)	-0.040 dB			

MSO

STATUS

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.440000000 GHz

Ref Offset 0.4 dB
Ref 20.00 dBm

Trig: Free Run
#Atten: 30 dB

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

Trace 1: 2.440000000 GHz

TYPE: WWWWWWWWWW
DET: P P P P P

Frequency

Auto Tune

Center Freq
2.440000000 GHz

Start Freq
2.438000000 GHz

Stop Freq
2.442000000 GHz

CF Step
400.000 kHz

Auto

Freq Offset
0 Hz

Ref Offset 0.4 dB
Ref 20.00 dBm

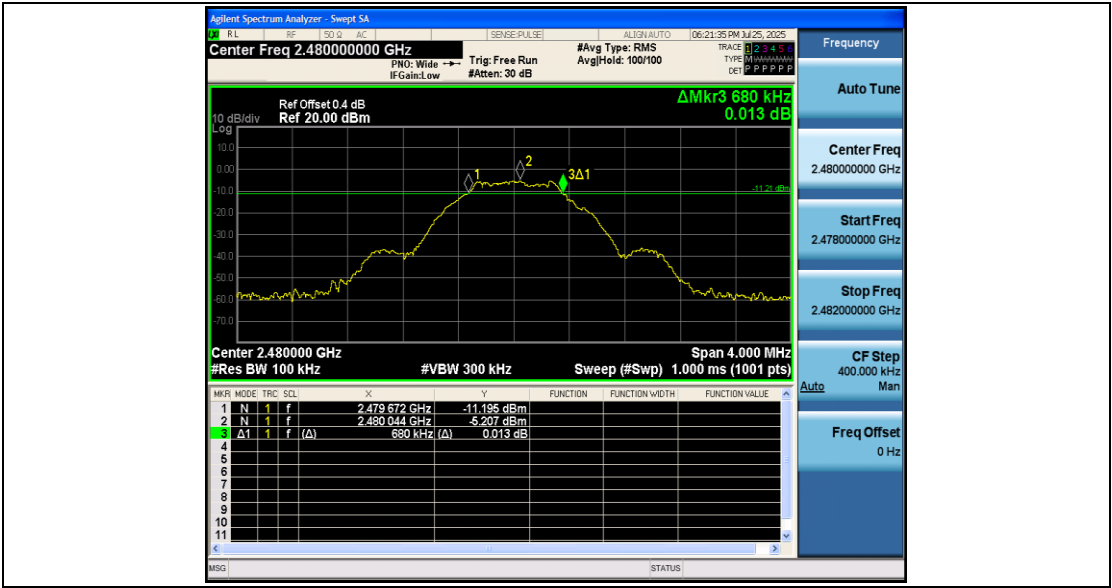
ΔMkr3 640 kHz
0.103 dB

Center 2.440000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep (#Swp) 1.000 ms (1001 pts)
Span 4.000 MHz

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.439 688 GHz	-10.010 dBm			
2	N	1	f	2.440 028 GHz	-4.168 dBm			
3	Δ1	1	f (Δ)	640 kHz (Δ)	0.103 dB			

MSO

STATUS



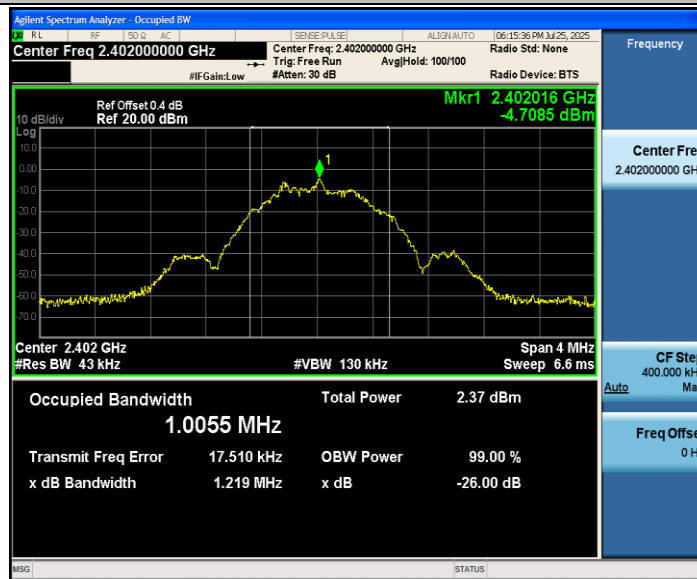
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0055	2401.5148	2402.5203	---	---
		2440	1.0065	2439.5156	2440.5221	---	---
		2480	1.0072	2479.5153	2480.5225	---	---

Test Graphs

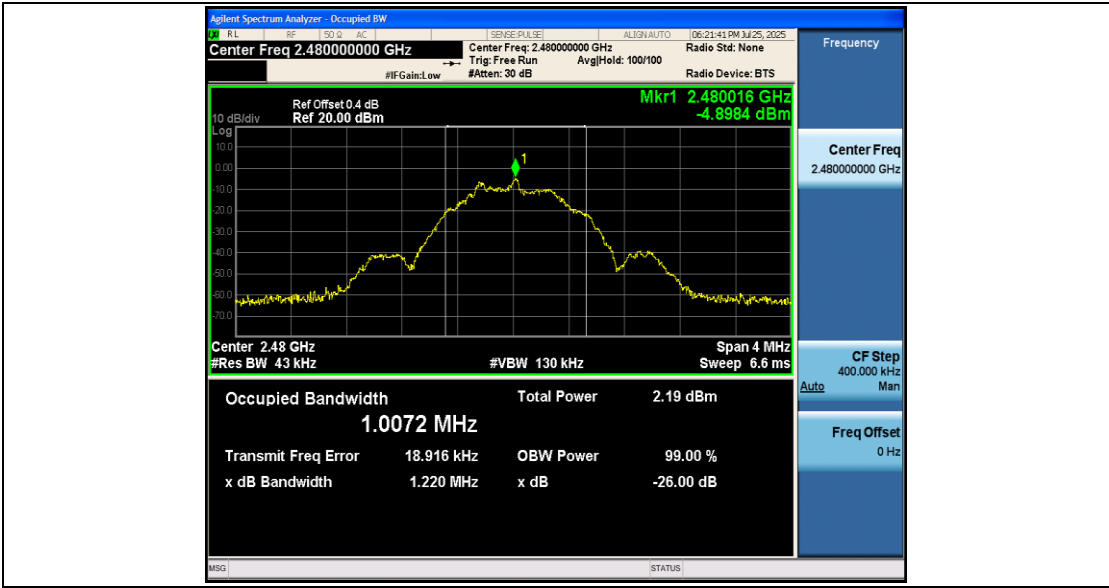
BLE_1M_Ant1_2402



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	-3.64	≤30	PASS
		2440	-3.93	≤30	PASS
		2480	-3.90	≤30	PASS

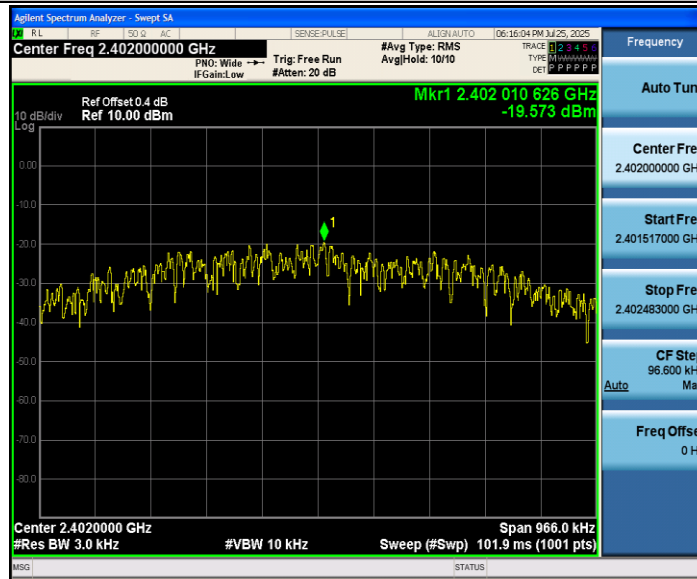
Appendix D: Maximum power spectral density

Test Result

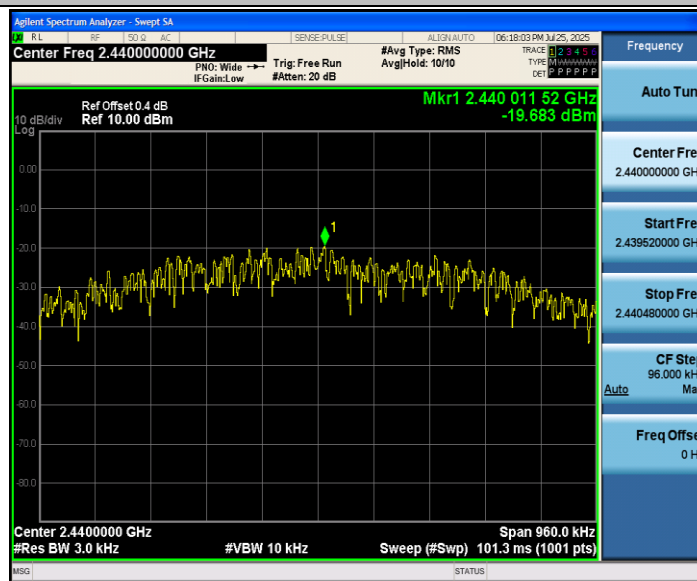
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.57	≤8.00	PASS
		2440	-19.68	≤8.00	PASS
		2480	-19.54	≤8.00	PASS

Test Graphs

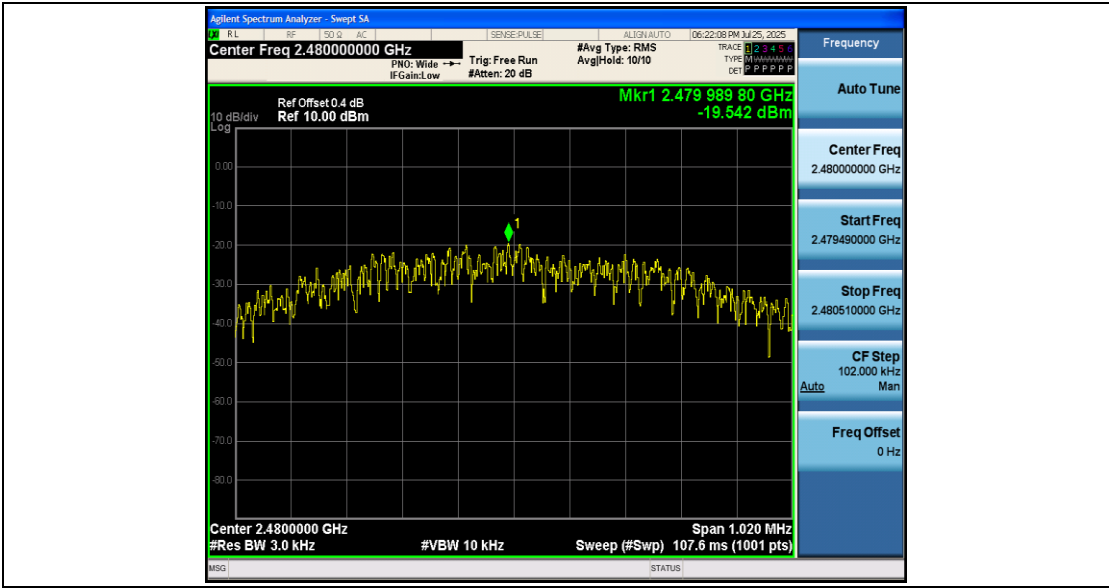
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

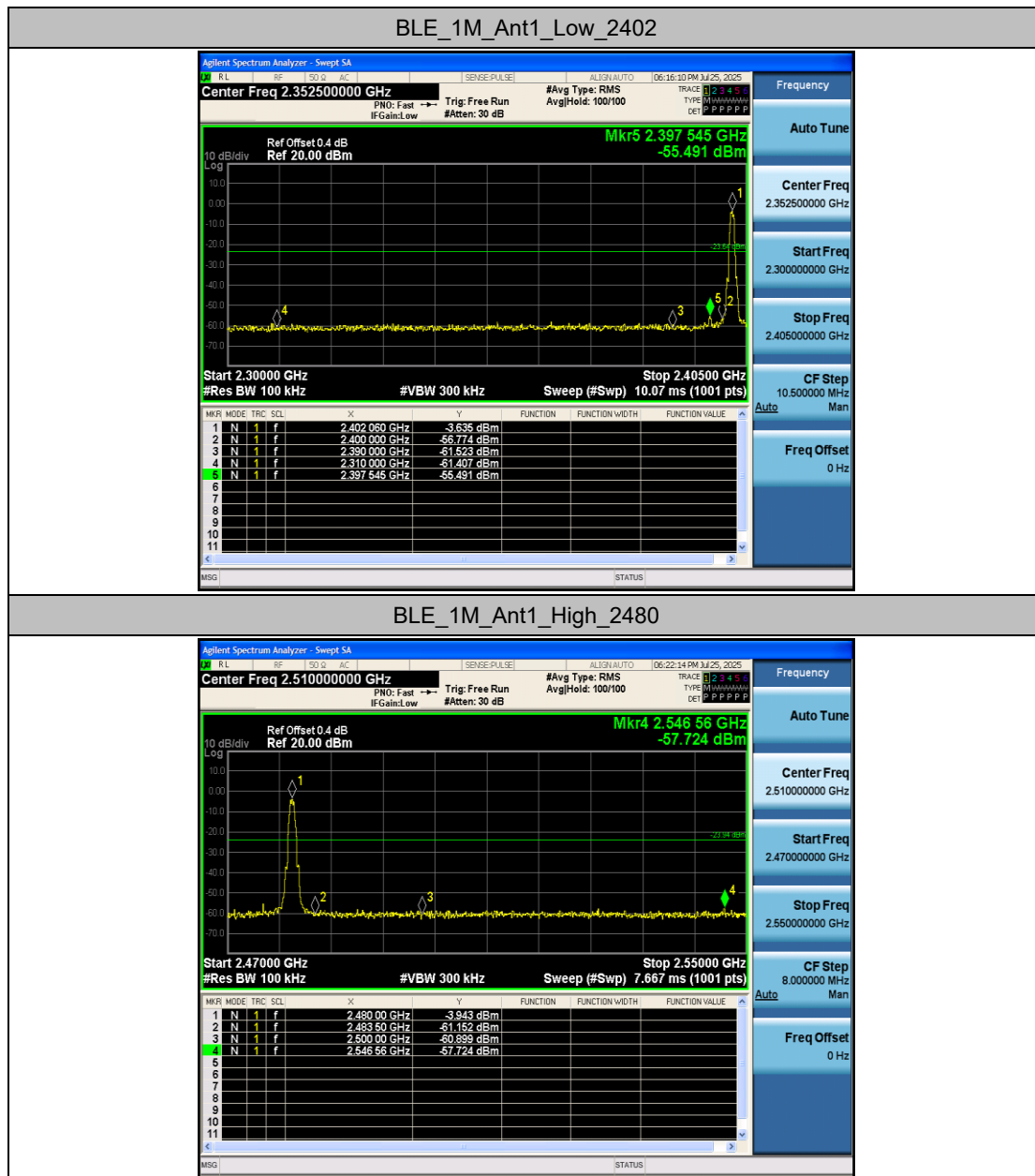


Appendix E: Band edge measurements

Test Result

TestMod e	Antenn a	ChNam e	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdic t
BLE_1M	Ant1	Low	2402	-3.64	-55.49	≤-23.64	PASS
		High	2480	-3.94	-57.72	≤-23.94	PASS

Test Graphs

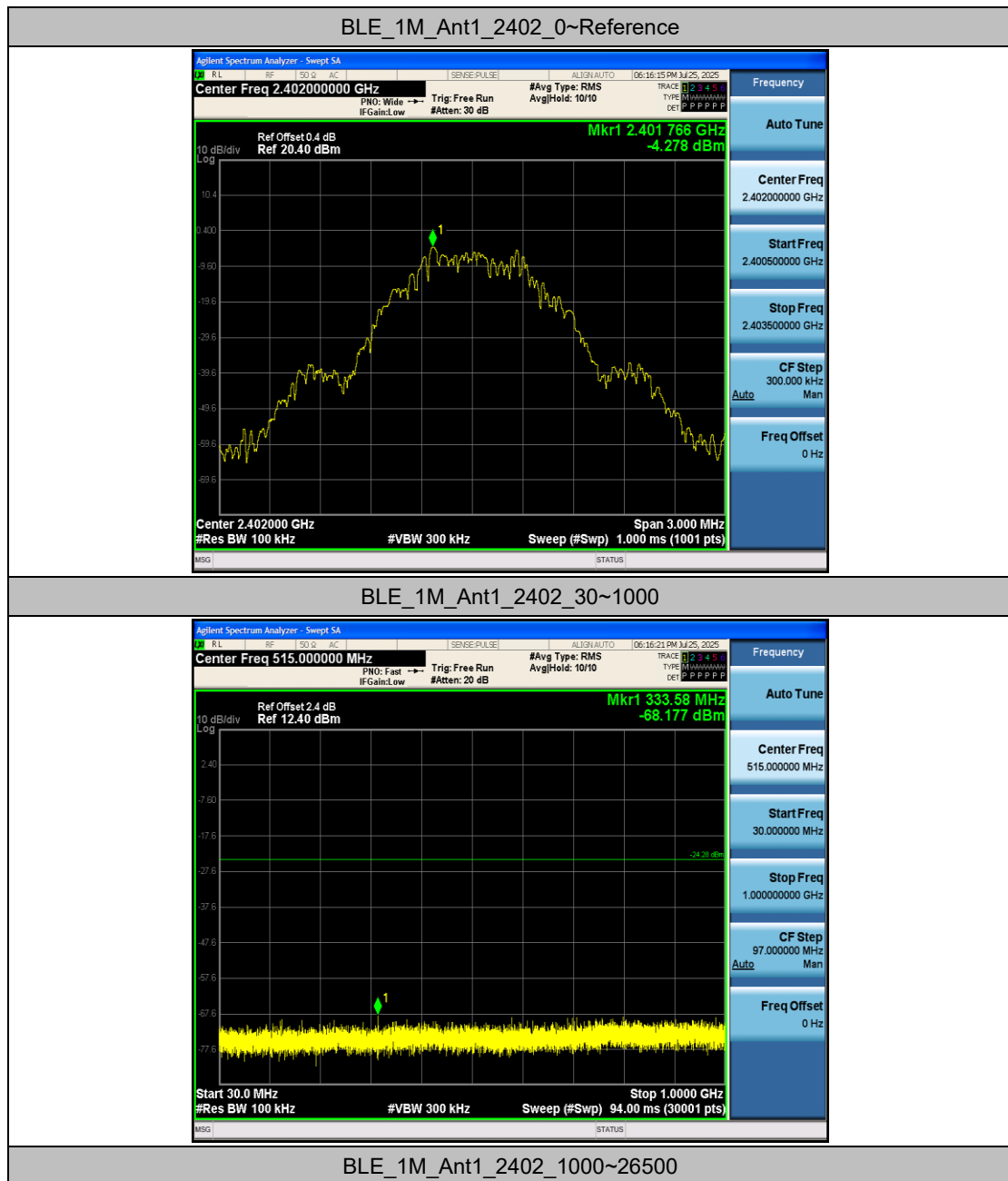


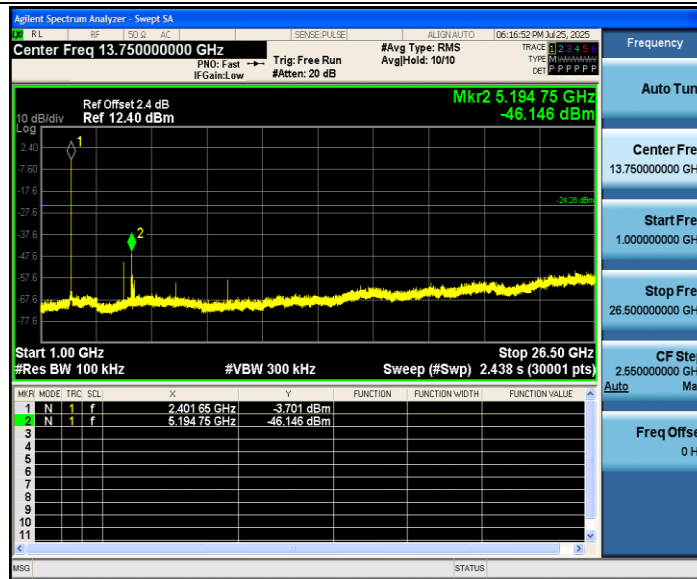
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.28	-4.28	---	PASS
			30~1000	-4.28	-68.18	≤-24.28	PASS
			1000~26500	-4.28	-46.15	≤-24.28	PASS
		2440	Reference	-6.00	-6.00	---	PASS
			30~1000	-6.00	-67.94	≤-26	PASS
			1000~26500	-6.00	-47.19	≤-26	PASS
		2480	Reference	-5.72	-5.72	---	PASS
			30~1000	-5.72	-67.78	≤-25.72	PASS
			1000~26500	-5.72	-48.57	≤-25.72	PASS

Test Graphs

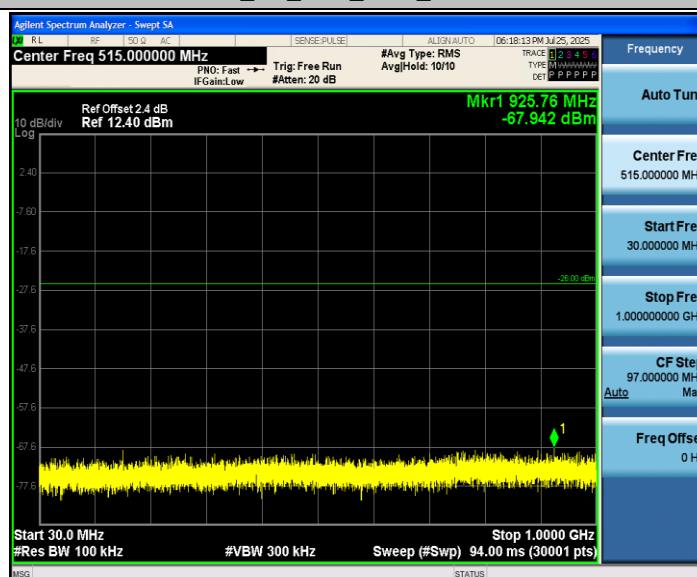




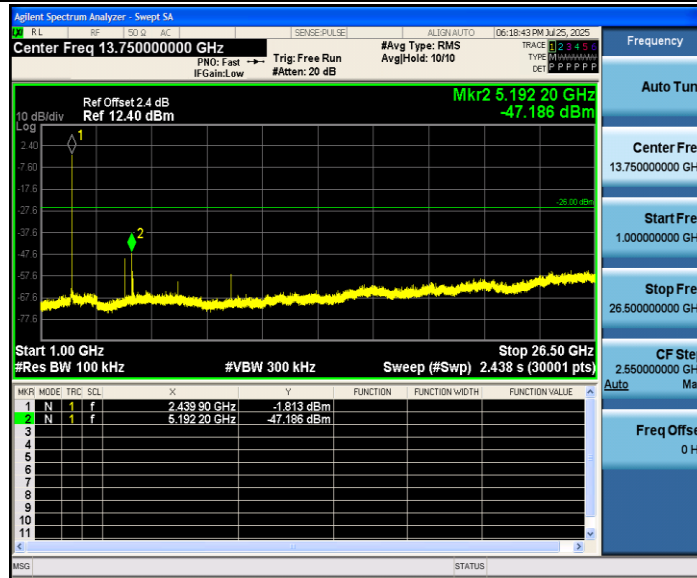
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



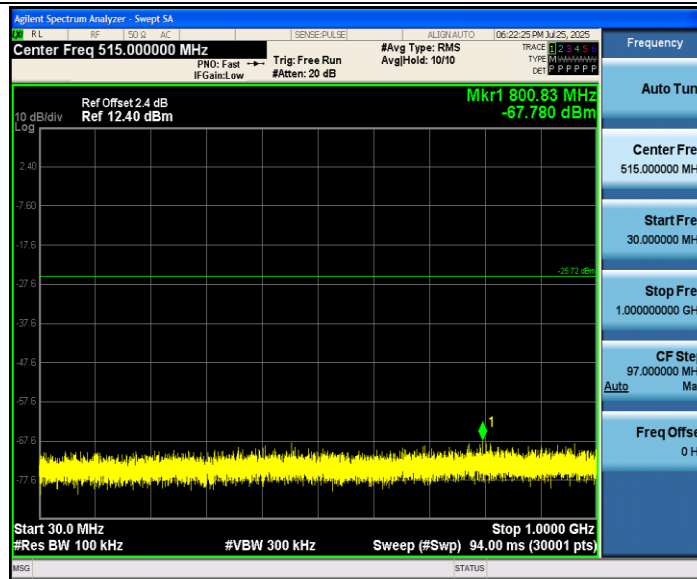
BLE_1M_Ant1_2440_1000~26500



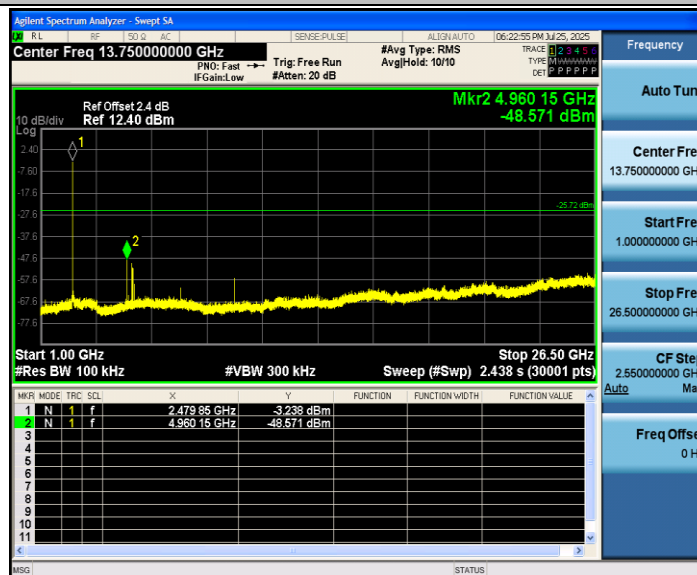
BLE_1M_Ant1_2480_0~Reference



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	0.63	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

