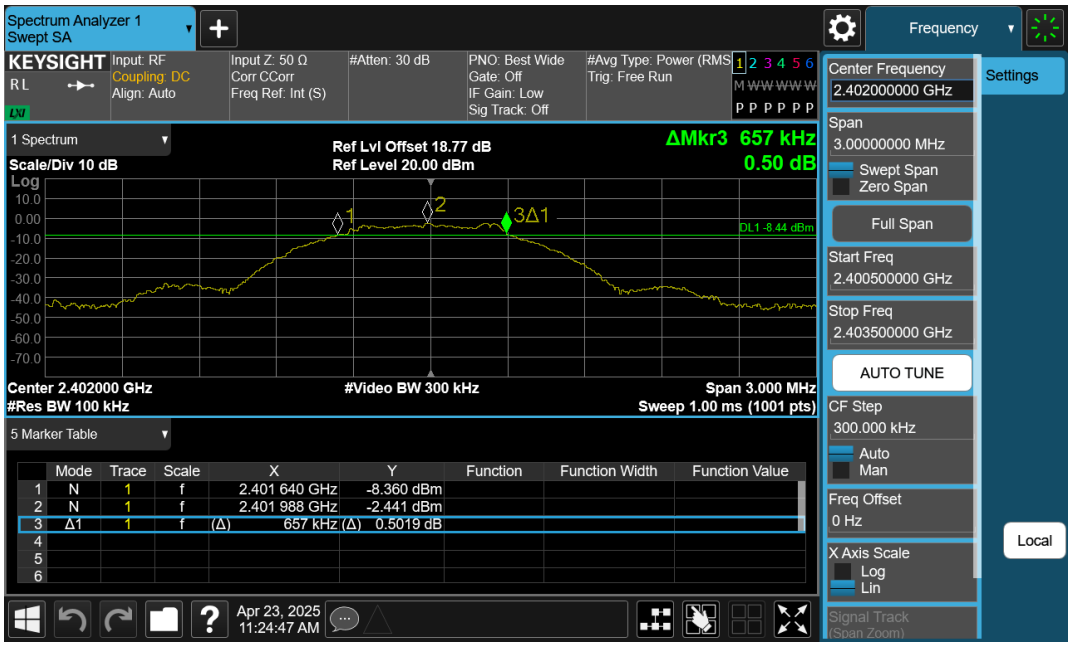
Appendix A: DTS Bandwidth

Test Result

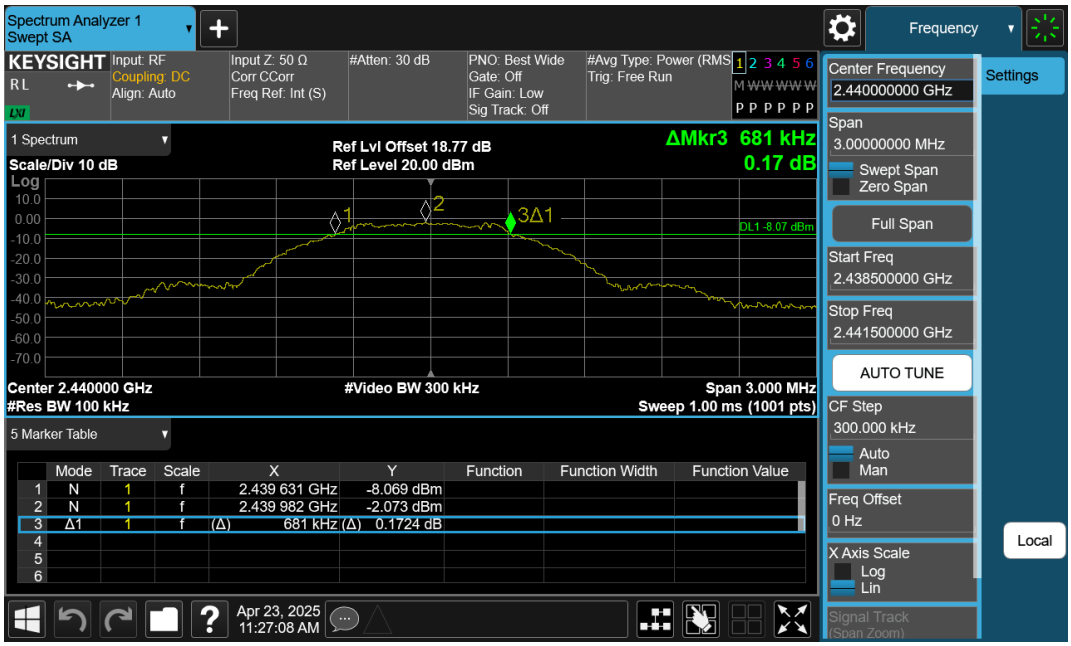
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.657	2401.640	2402.297	0.5	PASS
BLE_1M	Ant1	2440	0.681	2439.631	2440.312	0.5	PASS
BLE_1M	Ant1	2480	0.645	2479.649	2480.294	0.5	PASS
BLE_2M	Ant1	2402	1.260	2401.376	2402.636	0.5	PASS
BLE_2M	Ant1	2440	1.110	2439.430	2440.540	0.5	PASS
BLE_2M	Ant1	2480	1.134	2479.412	2480.546	0.5	PASS

Test Graphs

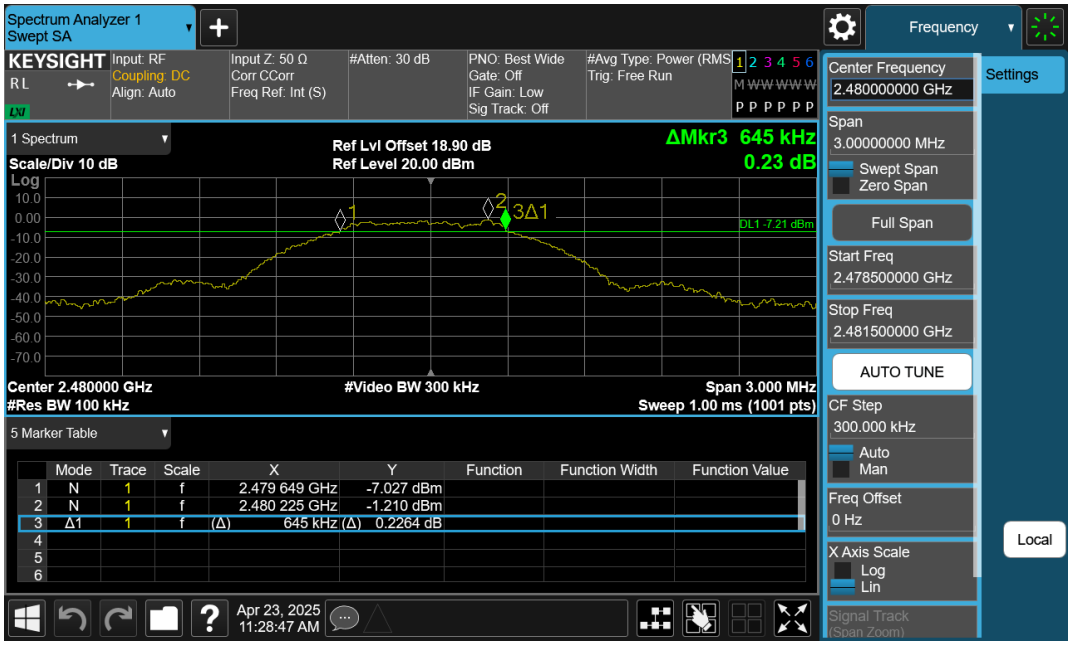
BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2440-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS

BLE_2M-Ant1-2440-PASS

BLE_2M-Ant1-2480-PASS

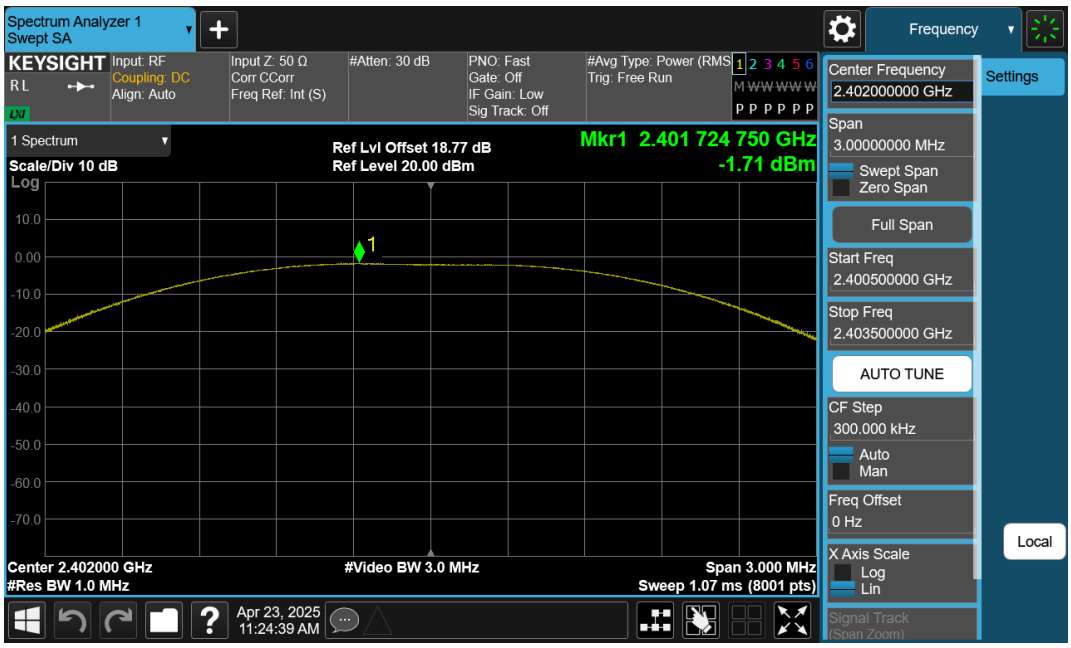
Appendix B: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-1.71	≤30	PASS
BLE_1M	Ant1	2440	-0.77	≤30	PASS
BLE_1M	Ant1	2480	-0.40	≤30	PASS
BLE_2M	Ant1	2402	-1.46	≤30	PASS
BLE_2M	Ant1	2440	-0.53	≤30	PASS
BLE_2M	Ant1	2480	-0.21	≤30	PASS

Test Graphs Peak

BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2440-PASS

BLE_1M-Ant1-2480-PASS

BLE_2M-Ant1-2402-PASS

BLE_2M-Ant1-2440-PASS

BLE_2M-Ant1-2480-PASS

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 30 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS)
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 18.90 dB
Ref Level 20.00 dBm
Mkr1 2.479 431 50 GHz
-0.21 dBm
Center 2.480000 GHz
#Res BW 2.0 MHz
#Video BW 6.0 MHz
Span 6.000 MHz
Sweep 1.07 ms (8001 pts)
Apr 23, 2025
11:34:01 AM
Frequency
Center Frequency
2.480000000 GHz
Span
6.00000000 MHz
Swept Span
Zero Span
Full Span
Start Freq
2.477000000 GHz
Stop Freq
2.483000000 GHz
AUTO TUNE
CF Step
600.000 kHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Settings
Local

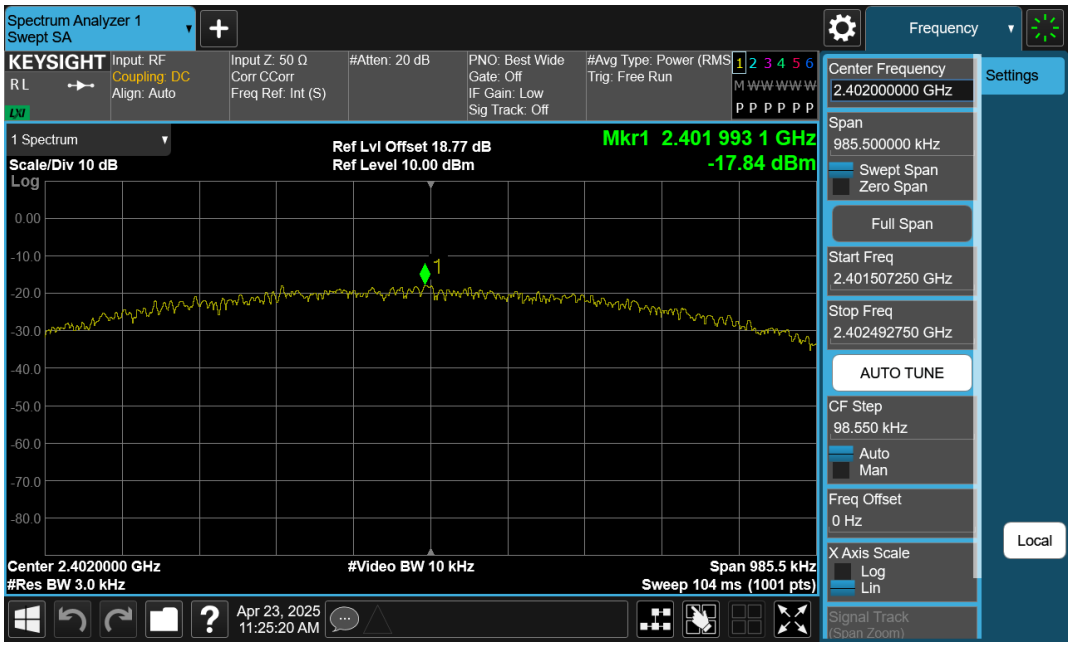
Appendix C: Maximum power spectral density

Test Result

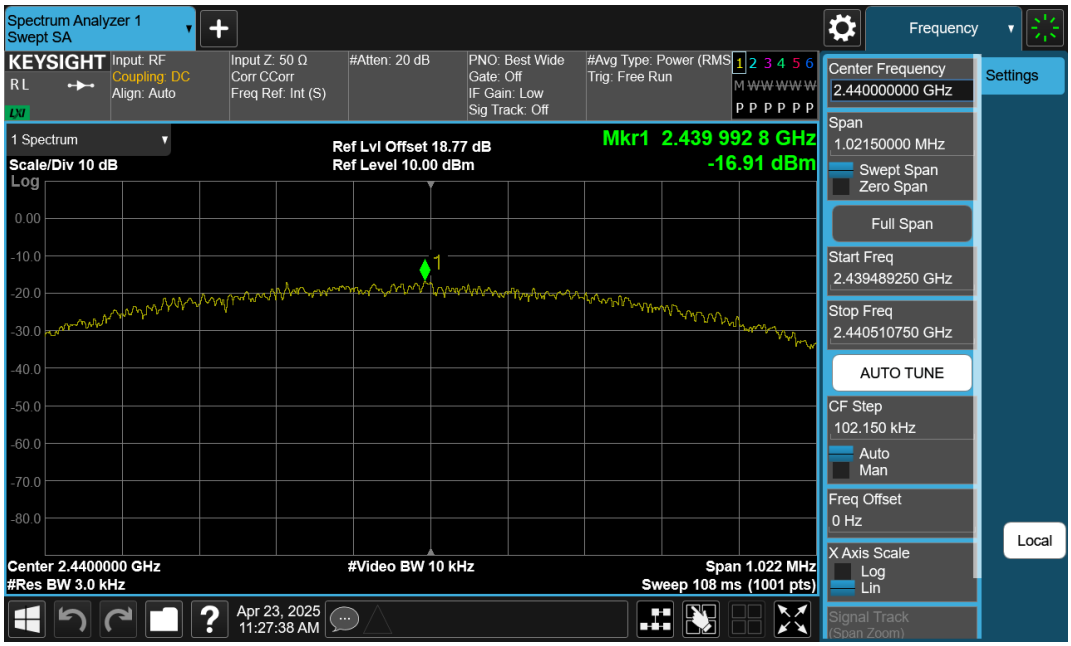
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-17.84	≤8.00	PASS
BLE_1M	Ant1	2440	-16.91	≤8.00	PASS
BLE_1M	Ant1	2480	-16.56	≤8.00	PASS
BLE_2M	Ant1	2402	-20.09	≤8.00	PASS
BLE_2M	Ant1	2440	-19.14	≤8.00	PASS
BLE_2M	Ant1	2480	-18.71	≤8.00	PASS

Test Graphs

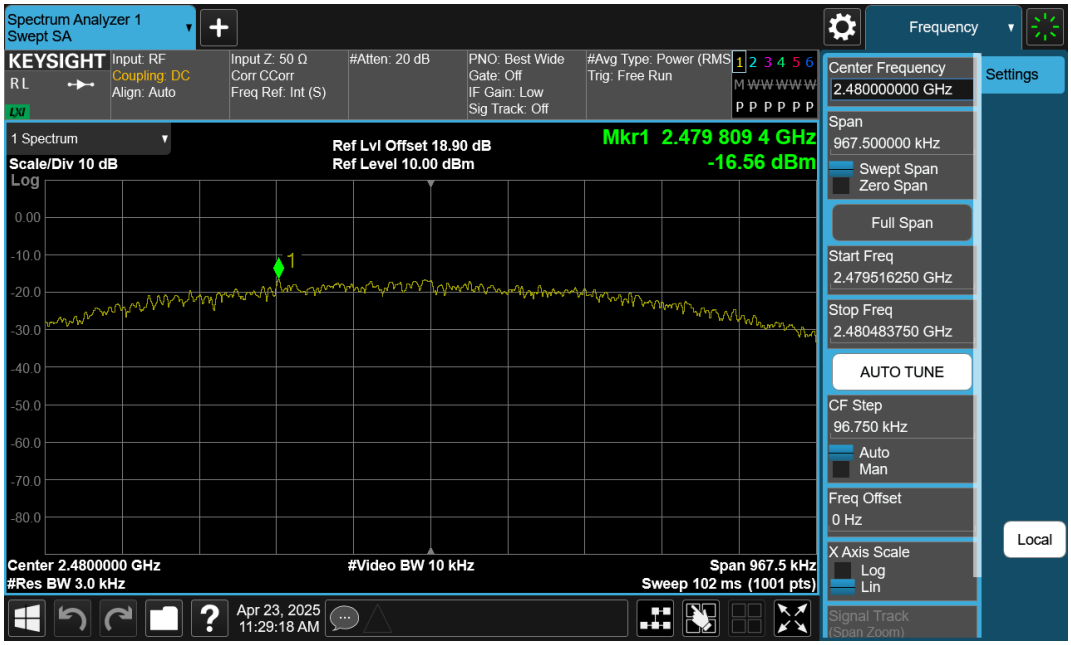
BLE_1M-Ant1-2402-PASS



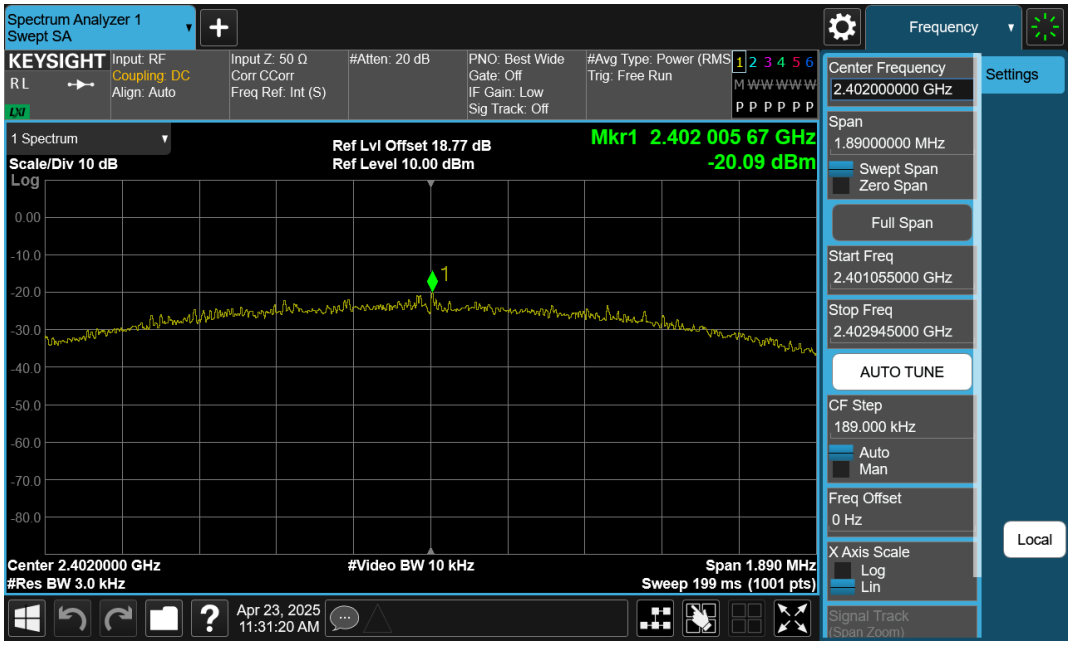
BLE_1M-Ant1-2440-PASS



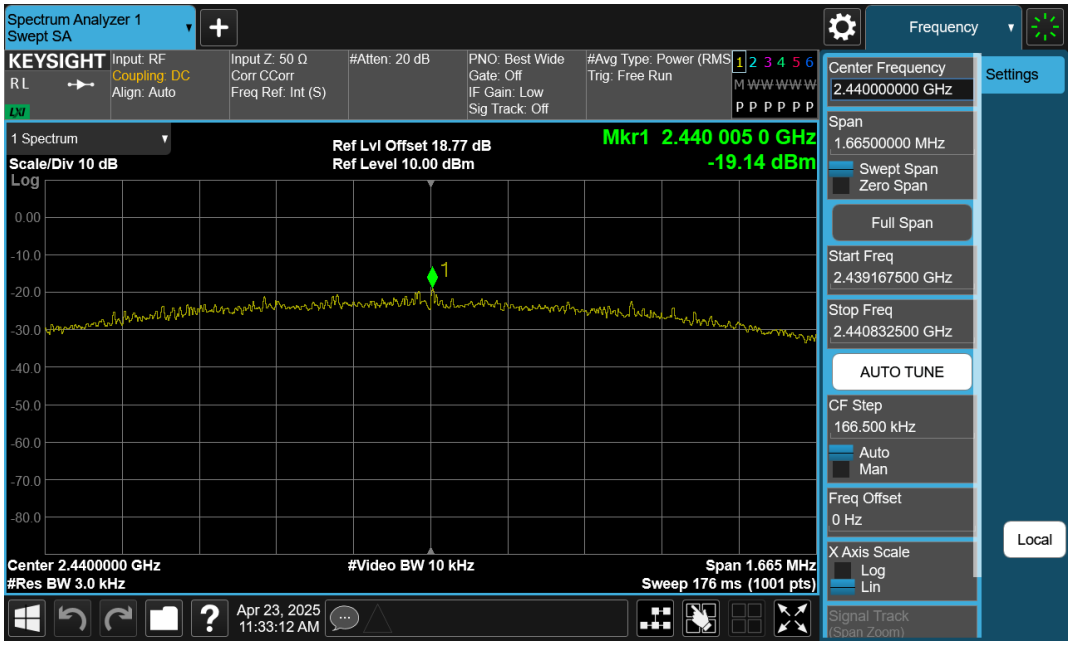
BLE_1M-Ant1-2480-PASS



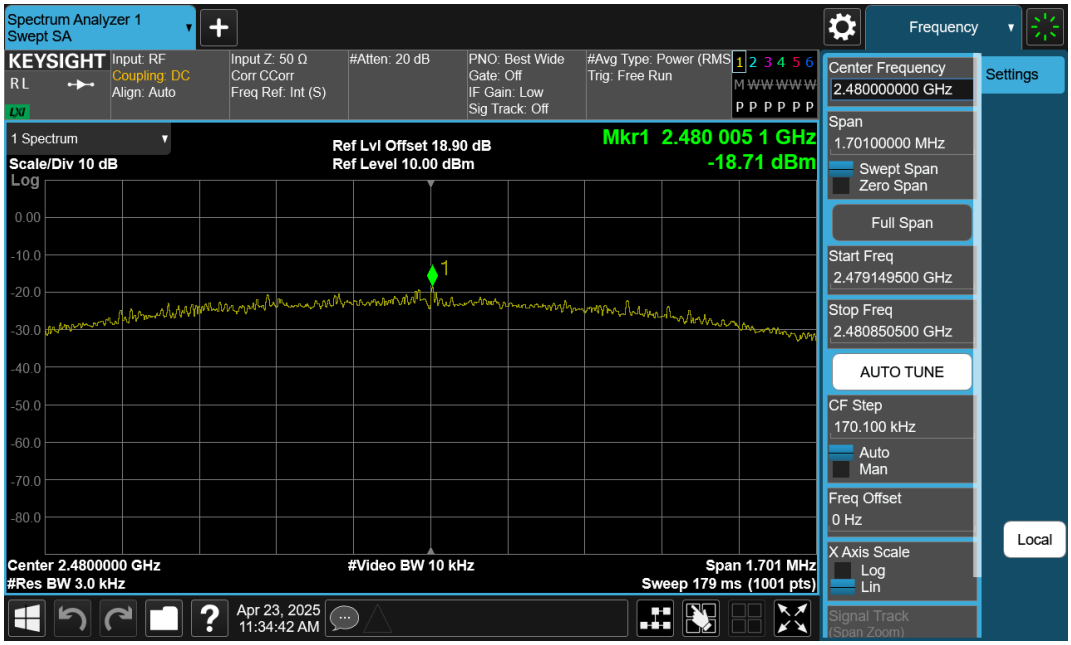
BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2480-PASS



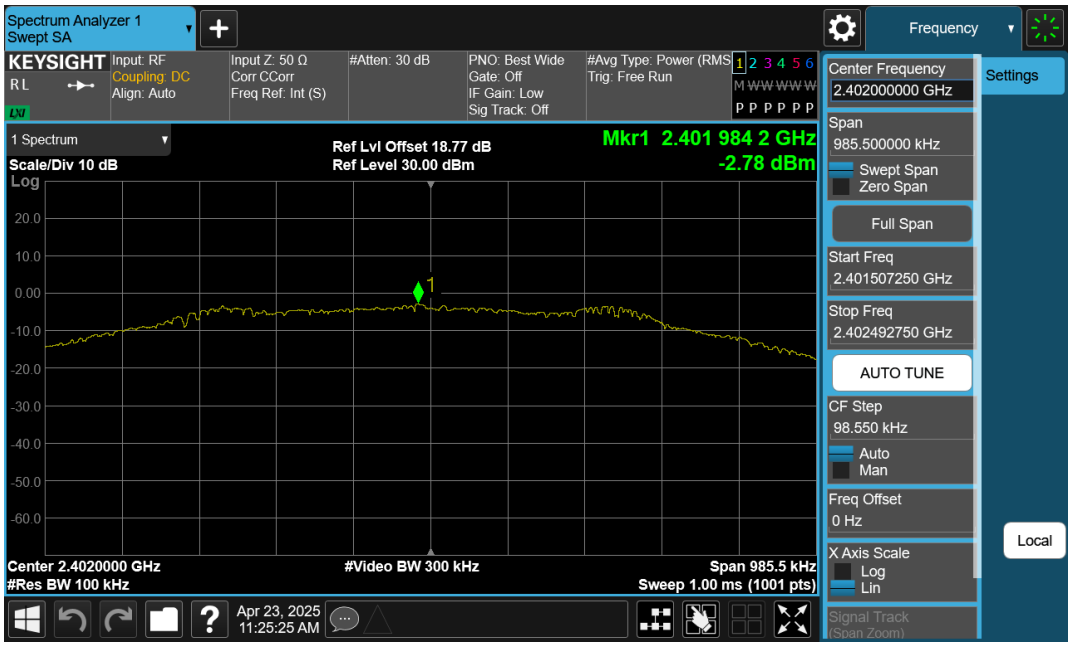
Appendix D: Reference level measurement

Test Result

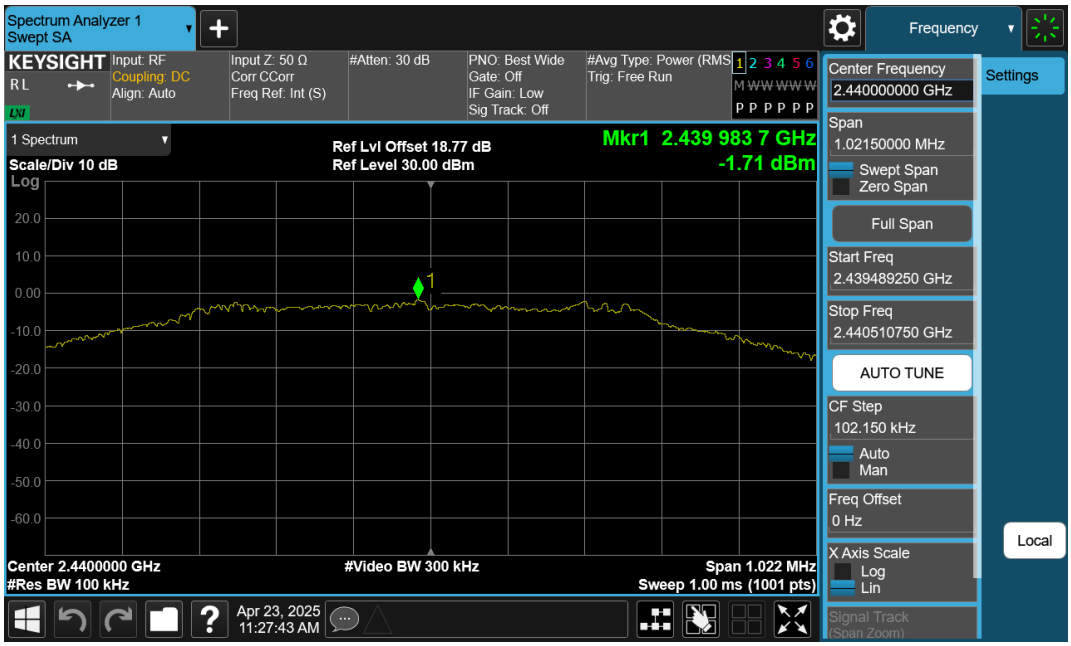
TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
BLE_1M	Ant1	2402	2401.98	-2.78
BLE_1M	Ant1	2440	2439.98	-1.71
BLE_1M	Ant1	2480	2480.21	-1.45
BLE_2M	Ant1	2402	2401.48	-3.06
BLE_2M	Ant1	2440	2440.00	-1.56
BLE_2M	Ant1	2480	2479.98	-1.31

Test Graphs

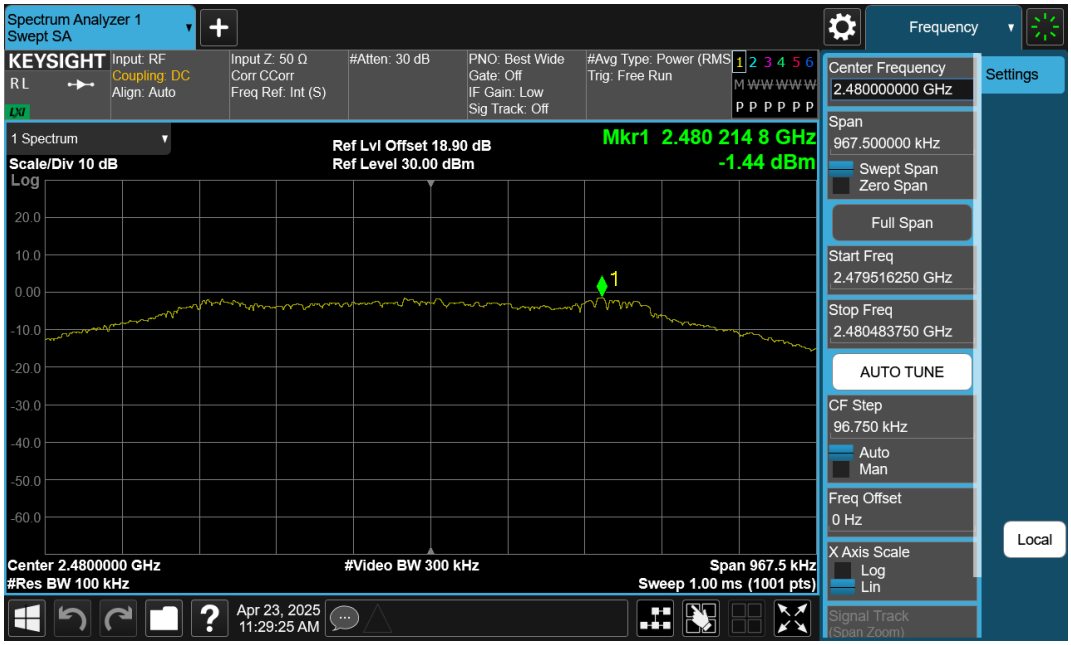
BLE_1M-Ant1-2402-PASS



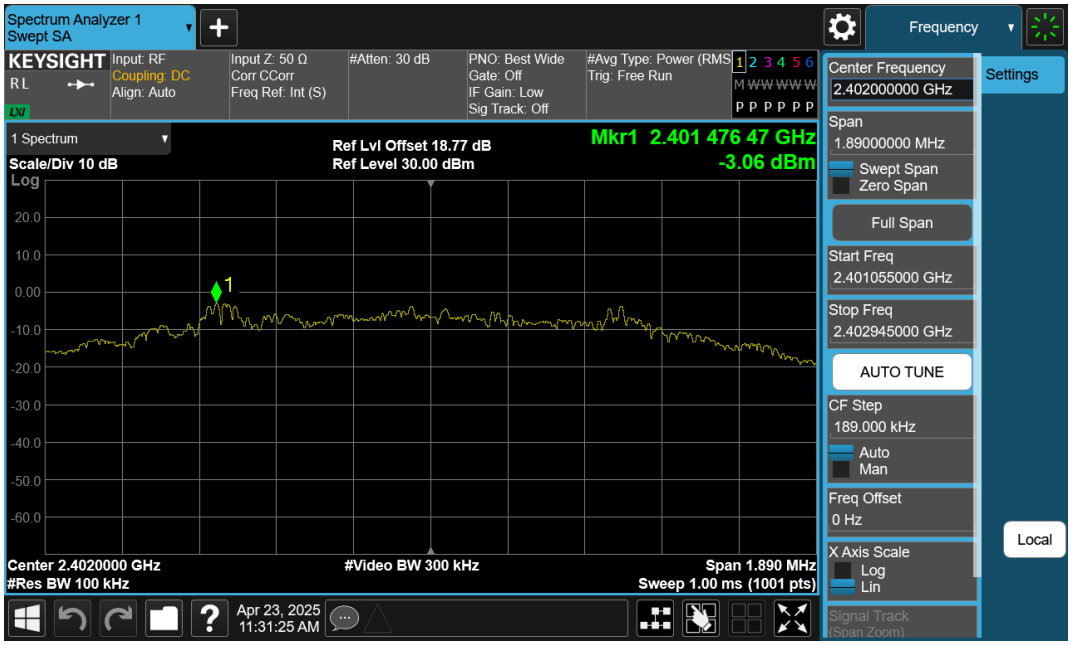
BLE_1M-Ant1-2440-PASS



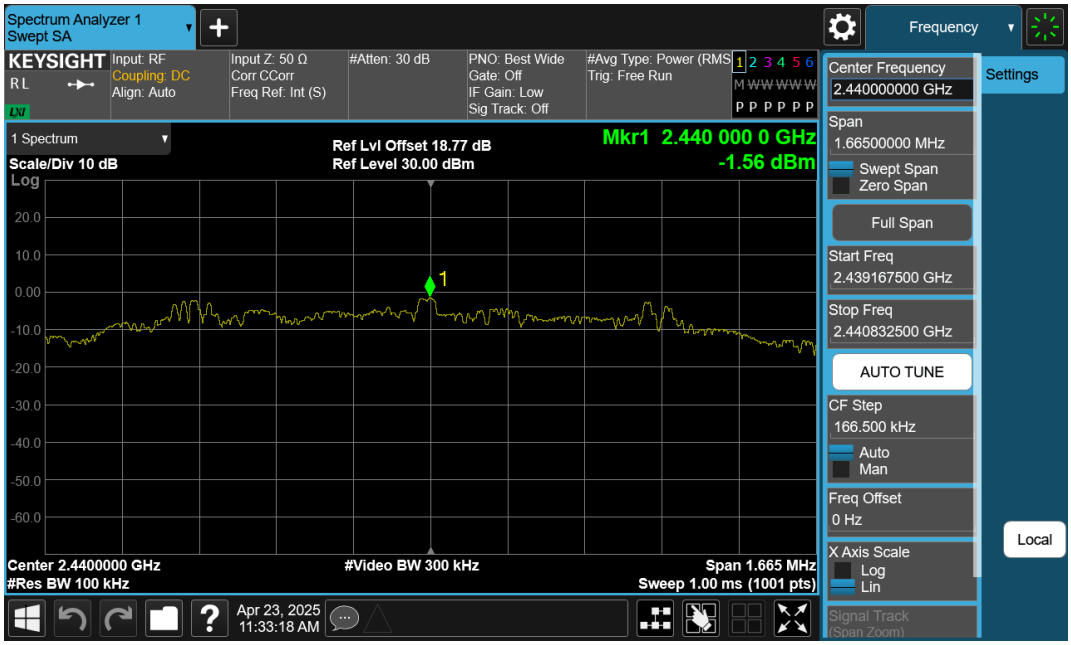
BLE_1M-Ant1-2480-PASS



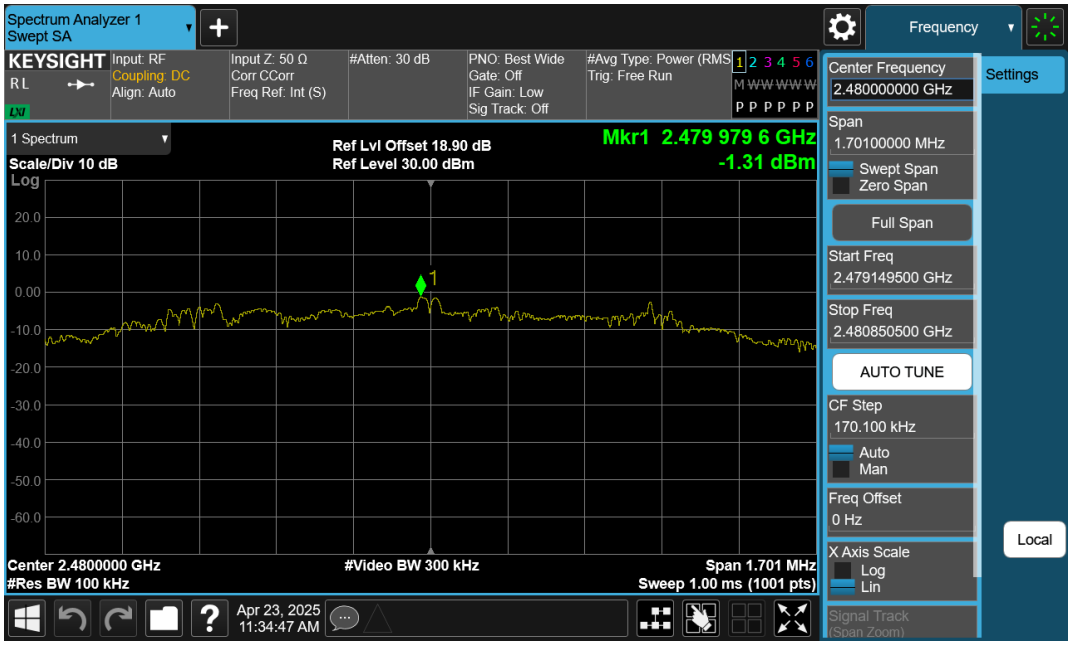
BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2480-PASS



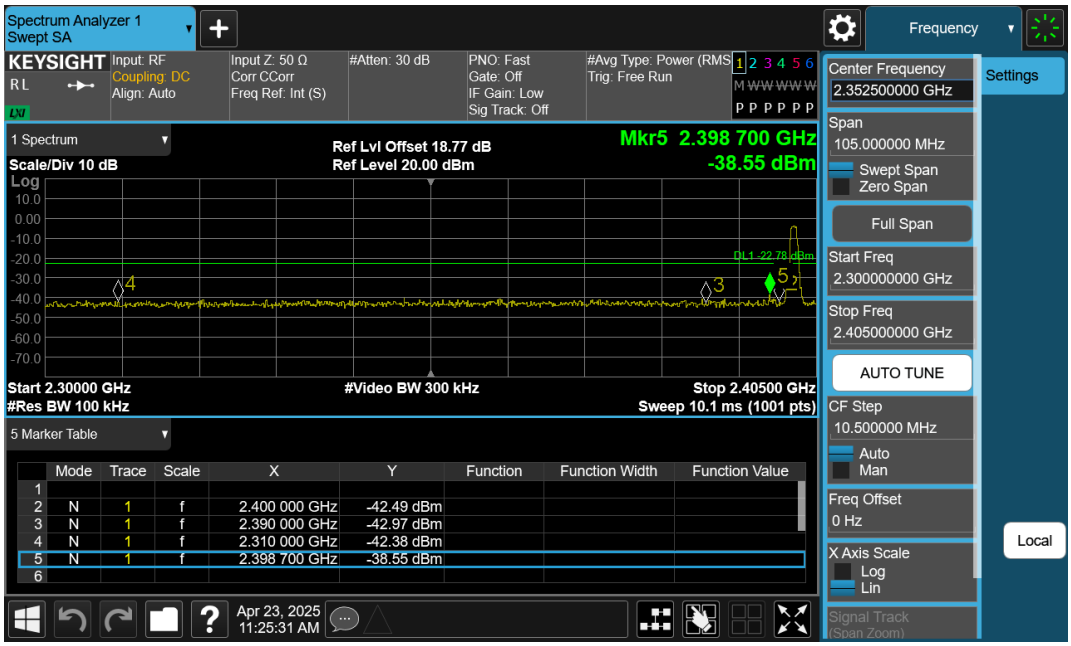
Appendix E: Band edge measurements

Test Result

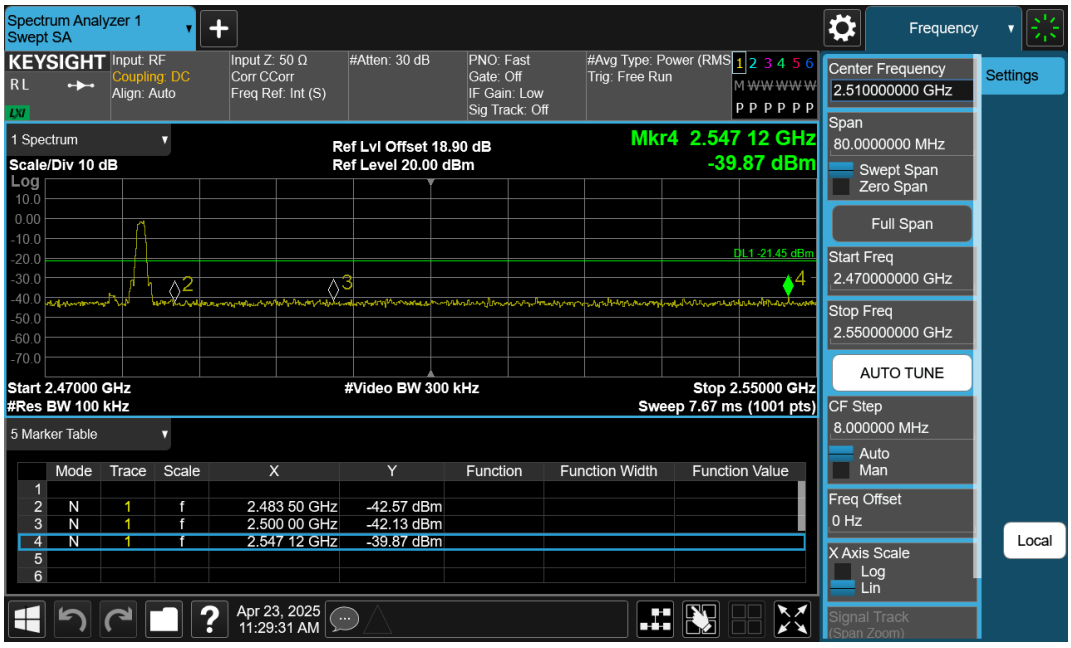
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-2.78	-38.55	≤-22.78	PASS
BLE_1M	Ant1	High	2480	-1.45	-39.87	≤-21.45	PASS
BLE_2M	Ant1	Low	2402	-3.06	-36.08	≤-23.06	PASS
BLE_2M	Ant1	High	2480	-1.31	-39.01	≤-21.31	PASS

Test Graphs

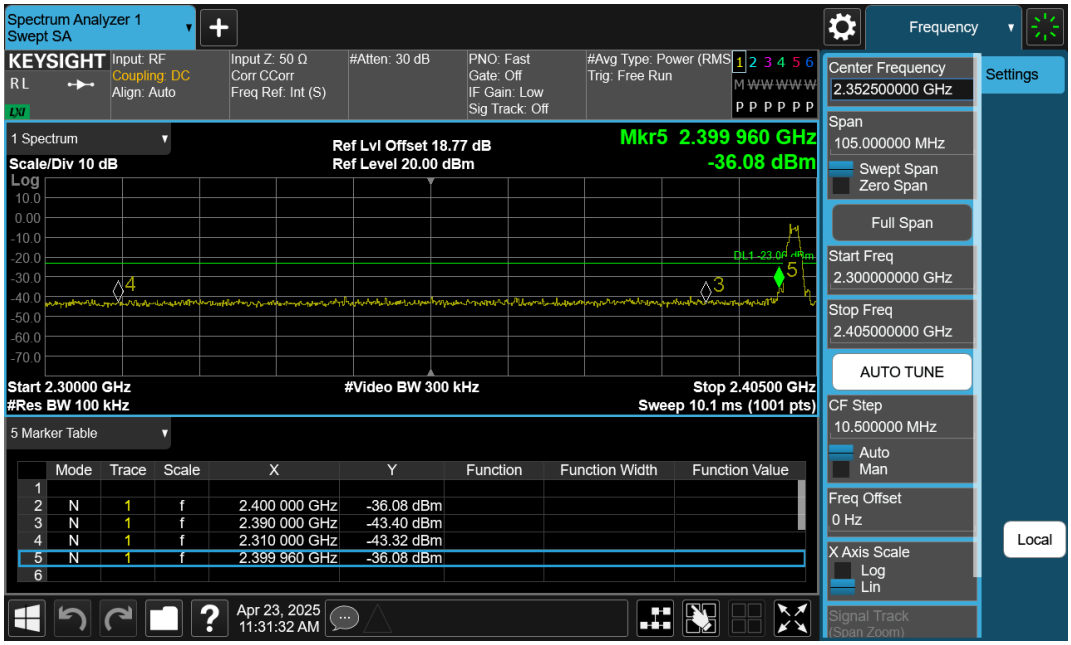
BLE_1M-Ant1-2402-PASS



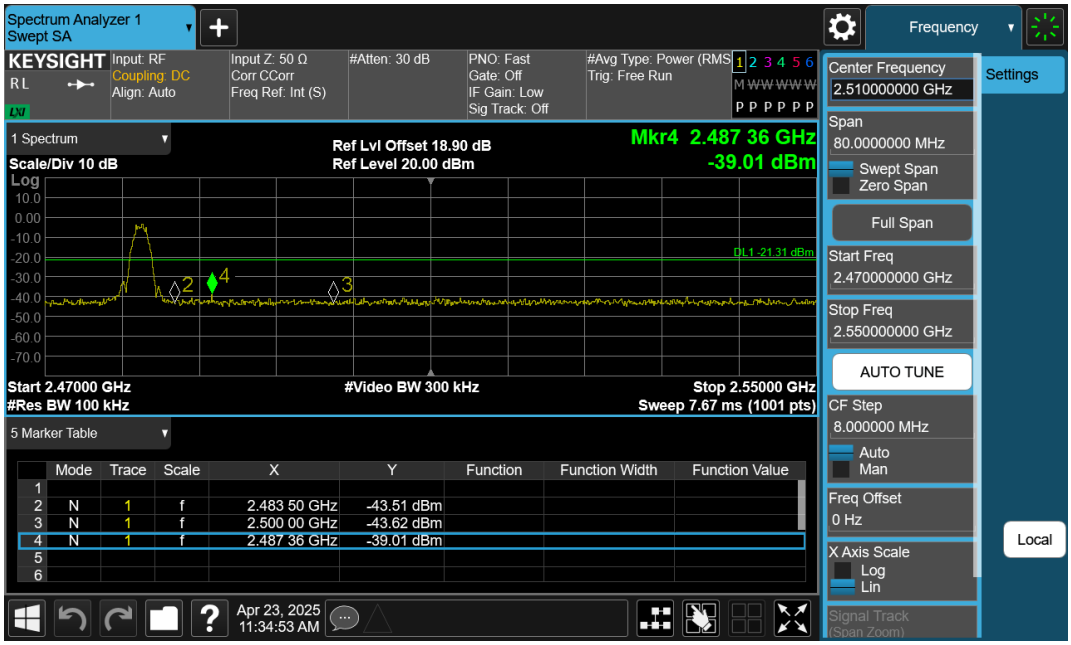
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2480-PASS



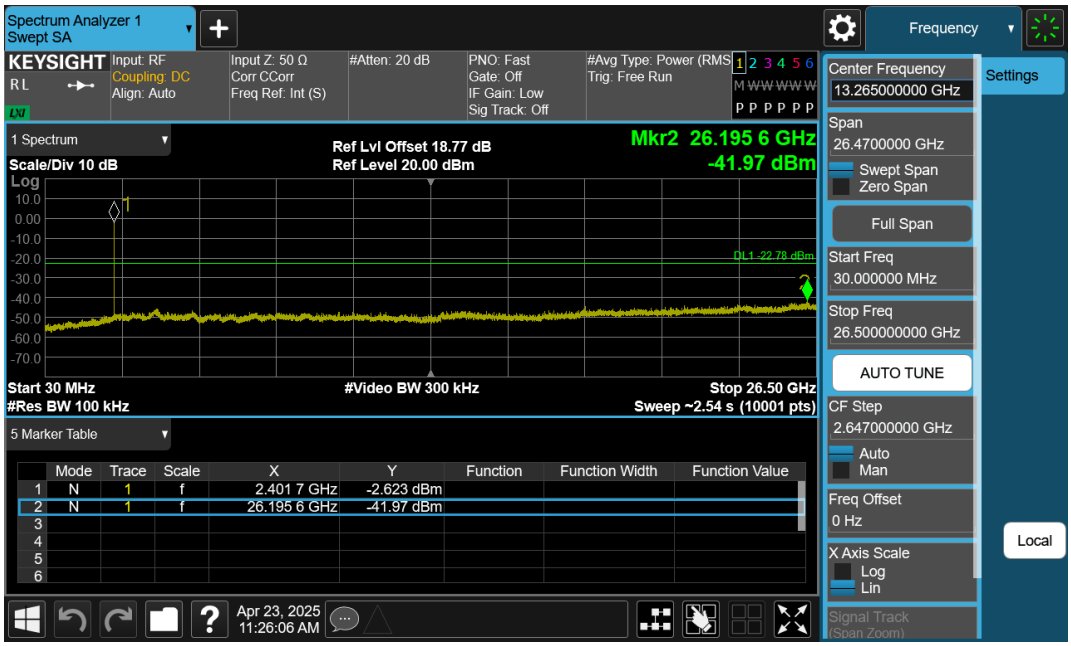
Appendix F: Conducted Spurious Emission

Test Result

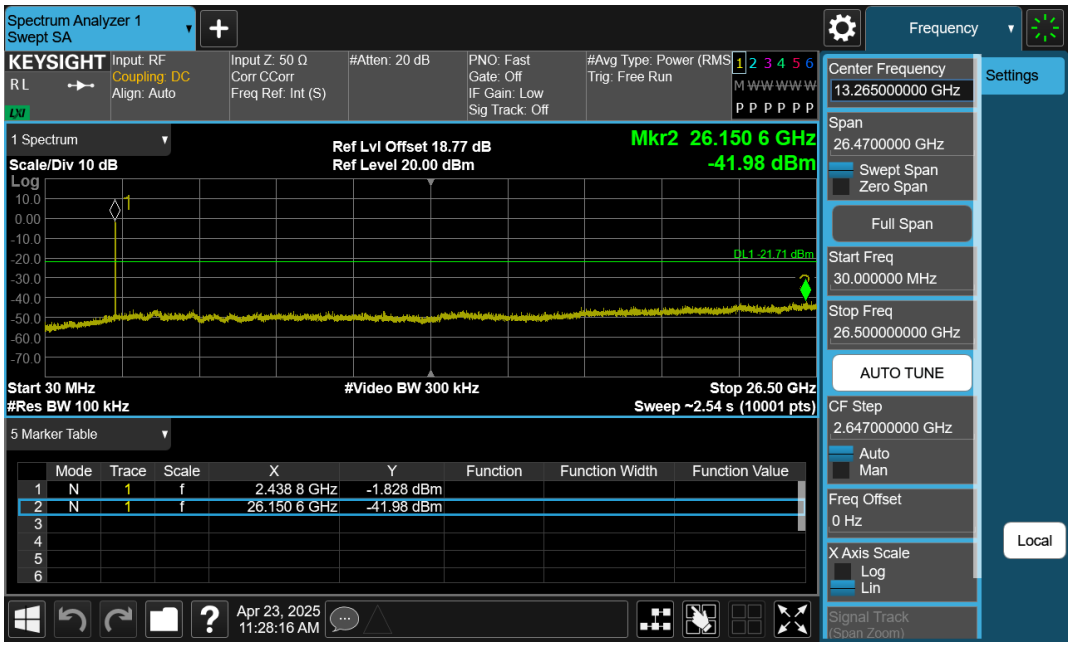
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	30~26500	-2.78	-41.97	≤-22.78	PASS
BLE_1M	Ant1	2440	30~26500	-1.71	-41.98	≤-21.71	PASS
BLE_1M	Ant1	2480	30~26500	-1.45	-41.72	≤-21.45	PASS
BLE_2M	Ant1	2402	30~26500	-3.06	-42	≤-23.06	PASS
BLE_2M	Ant1	2440	30~26500	-1.56	-42.59	≤-21.56	PASS
BLE_2M	Ant1	2480	30~26500	-1.31	-42.34	≤-21.31	PASS

Test Graphs

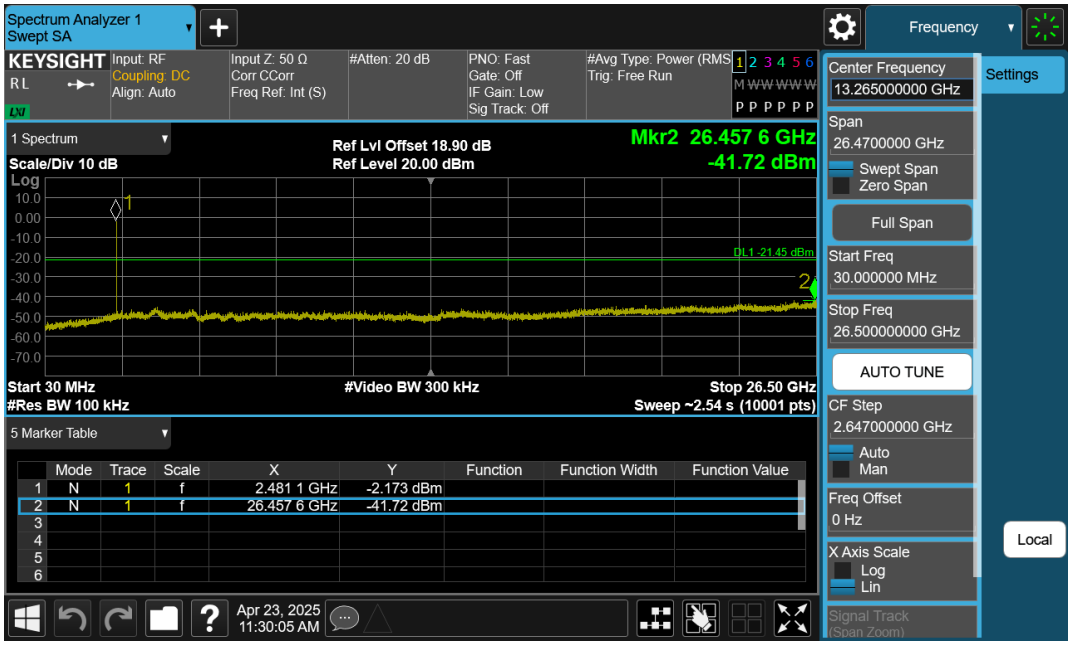
BLE_1M-Ant1-2402-30~26500-PASS



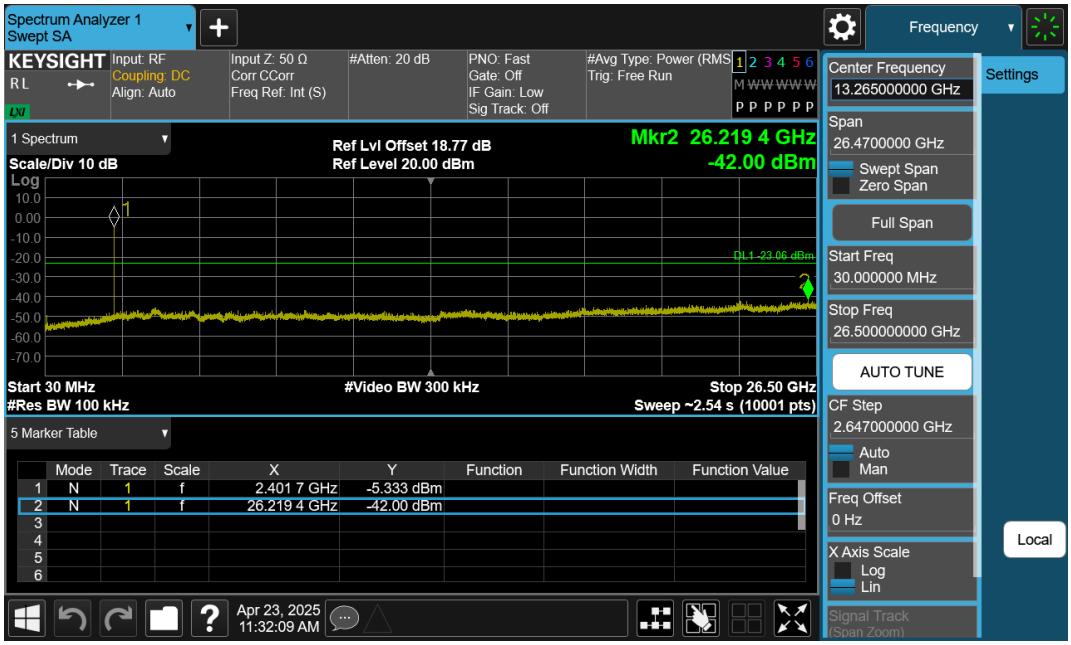
BLE_1M-Ant1-2440-30~26500-PASS



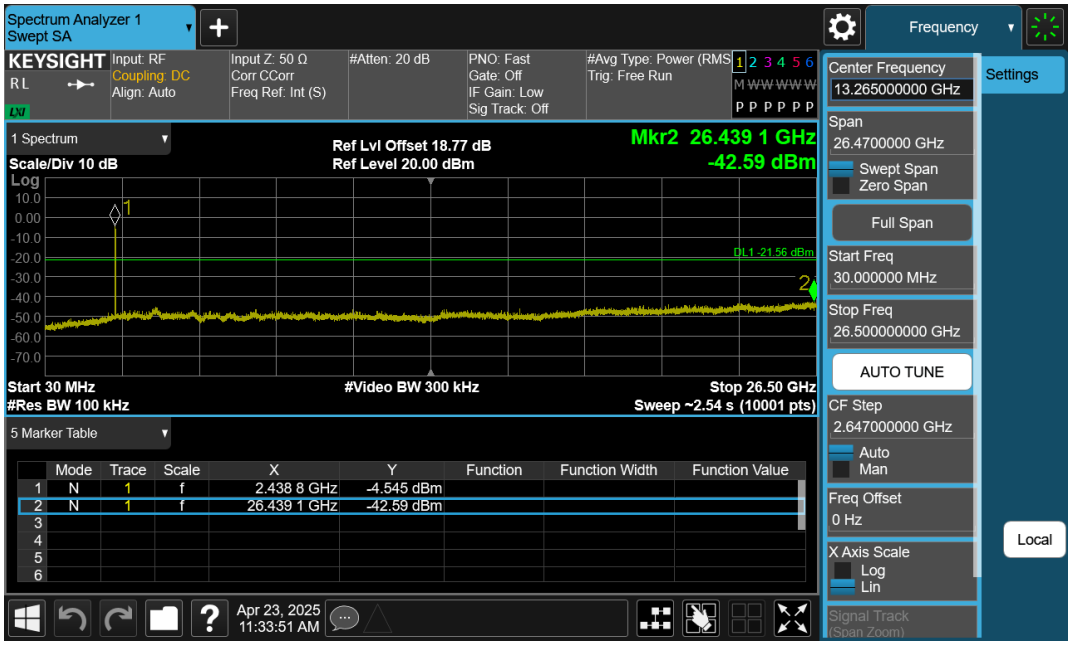
BLE_1M-Ant1-2480-30~26500-PASS



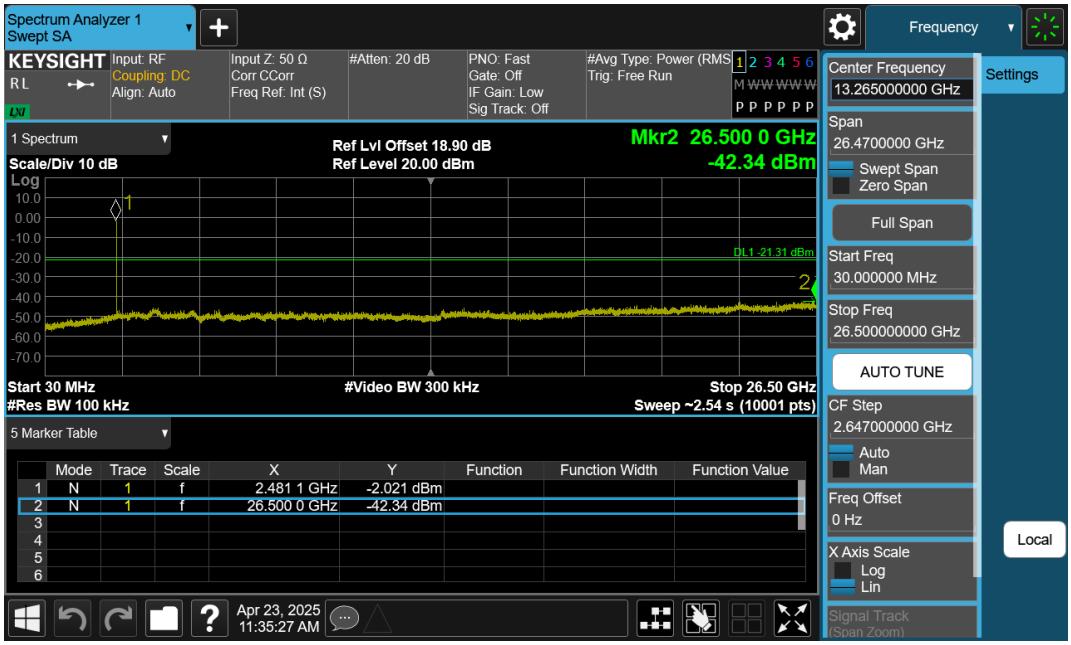
BLE_2M-Ant1-2402-30~26500-PASS



BLE_2M-Ant1-2440-30~26500-PASS



BLE_2M-Ant1-2480-30~26500-PASS



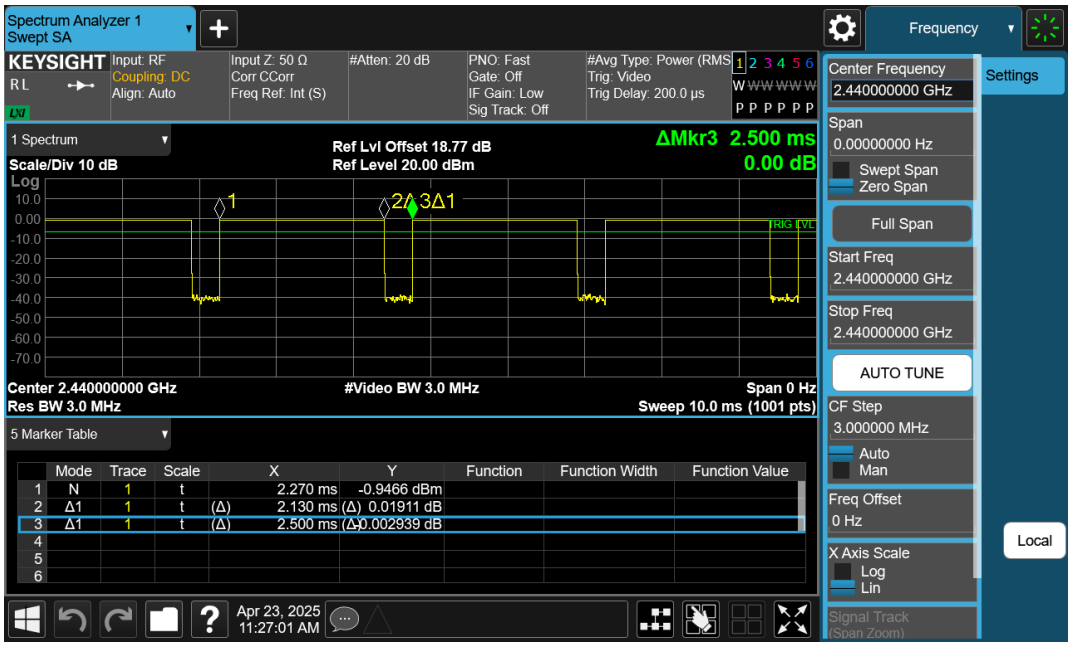
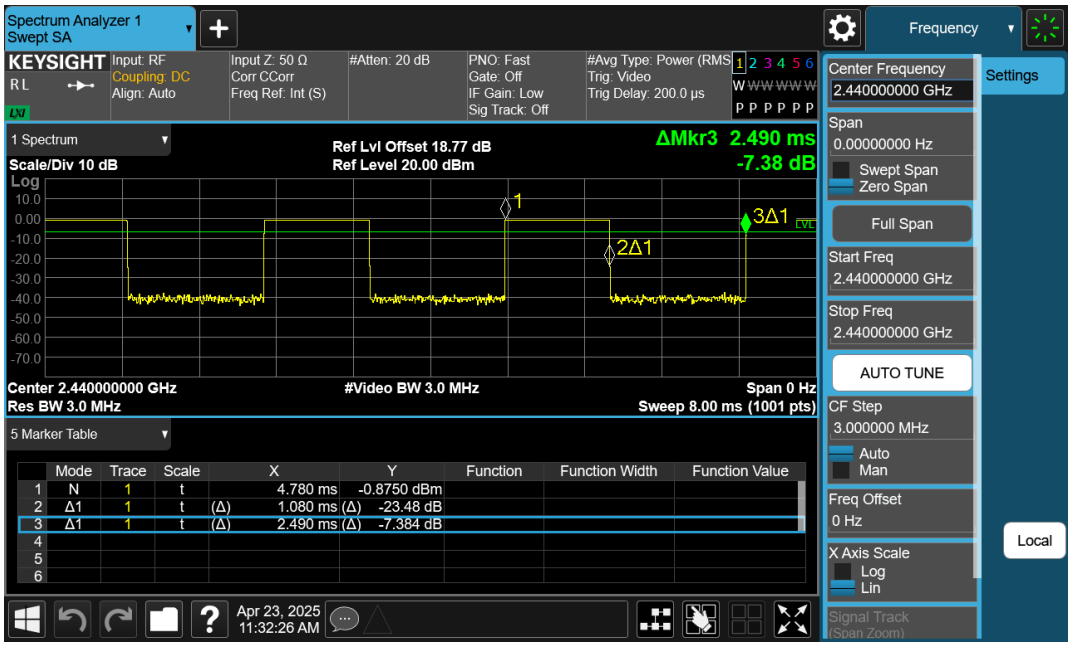
Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2440	2.13	2.50	85.20	0.70
BLE_2M	Ant1	2440	1.08	2.49	43.37	3.63

Test Graphs

NTNV-BLE_1M-Ant1-2440



NTNV-BLE_2M-Ant1-2440