Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.080	2407.480	2416.560	0.5	PASS
11B	Ant1	2437	9.520	2432.440	2441.960	0.5	PASS
11B	Ant1	2462	9.480	2457.000	2466.480	0.5	PASS
11G	Ant1	2412	15.800	2404.080	2419.880	0.5	PASS
11G	Ant1	2437	16.480	2428.800	2445.280	0.5	PASS
11G	Ant1	2462	15.640	2453.840	2469.480	0.5	PASS
11N20SISO	Ant1	2412	12.560	2406.960	2419.520	0.5	PASS
11N20SISO	Ant1	2437	17.520	2428.600	2446.120	0.5	PASS
11N20SISO	Ant1	2462	15.240	2453.880	2469.120	0.5	PASS

Test Graphs

11B-Ant1-2412-PASS

11B-Ant1-2437-PASS

11B-Ant1-2462-PASS

11G-Ant1-2412-PASS

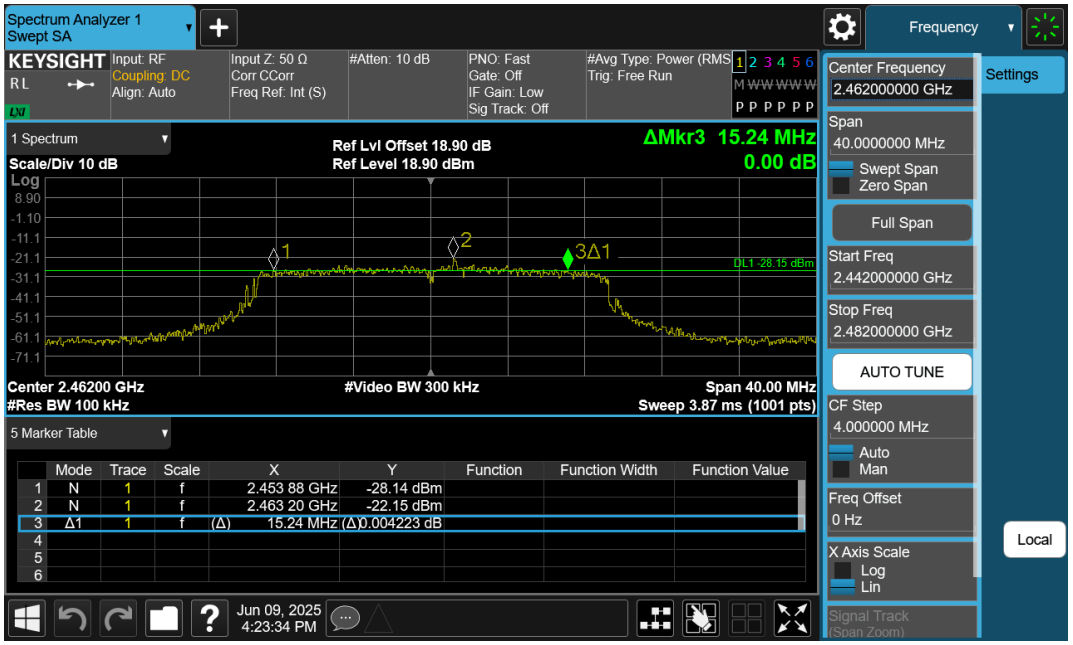
11G-Ant1-2437-PASS

11G-Ant1-2462-PASS

11N20SISO-Ant1-2412-PASS

11N20SISO-Ant1-2437-PASS

11N20SISO-Ant1-2462-PASS


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 10 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS)
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 18.90 dB
Ref Level 18.90 dBm
ΔMkr3 15.24 MHz
0.00 dB
Center 2.46200 GHz
#Res BW 100 kHz
#Video BW 300 kHz
Span 40.00 MHz
Sweep 3.87 ms (1001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 f 2.453 88 GHz -28.14 dBm
2 N 1 f 2.463 20 GHz -22.15 dBm
3 Δ1 1 f (Δ) 15.24 MHz (Δ) 0.004223 dB
Jun 09, 2025
4:23:34 PM
Frequency
Center Frequency
2.462000000 GHz
Span
40.0000000 MHz
Swept Span
Zero Span
Full Span
Start Freq
2.442000000 GHz
Stop Freq
2.482000000 GHz
AUTO TUNE
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Settings
Local

Appendix B: Maximum conducted output power

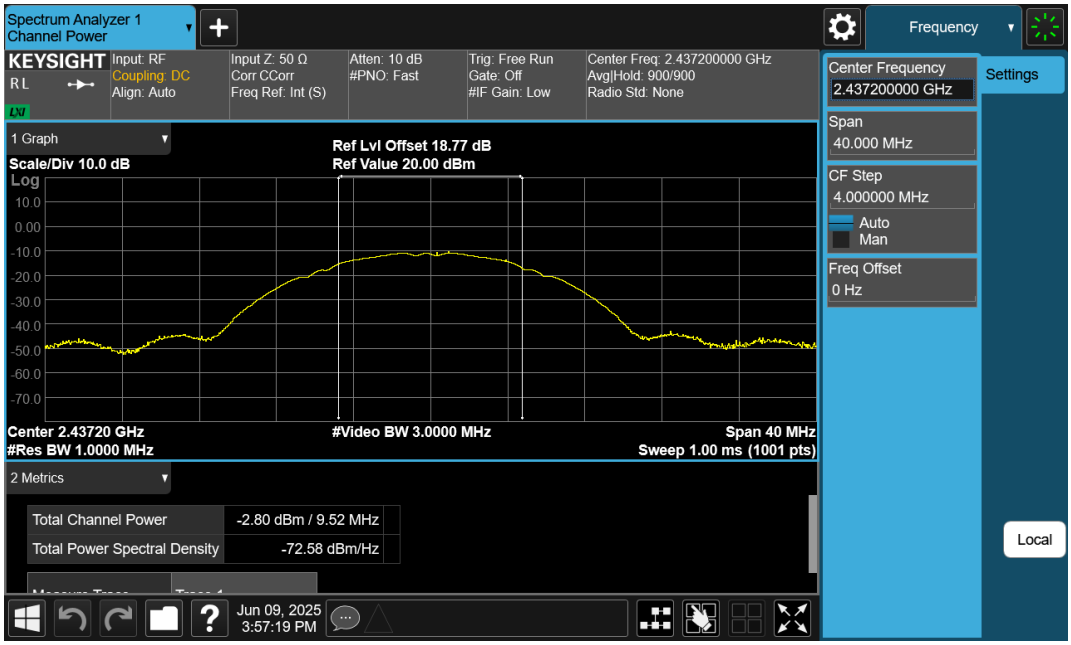
Test Result Peak

TestMode	Antenna	Frequency[MHz]	Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	-3.07	≤30.00	PASS
11B	Ant1	2437	-2.80	≤30.00	PASS
11B	Ant1	2462	-2.93	≤30.00	PASS
11G	Ant1	2412	-5.59	≤30.00	PASS
11G	Ant1	2437	-5.01	≤30.00	PASS
11G	Ant1	2462	-5.34	≤30.00	PASS
11N20SISO	Ant1	2412	-5.03	≤30.00	PASS
11N20SISO	Ant1	2437	-3.43	≤30.00	PASS
11N20SISO	Ant1	2462	-3.89	≤30.00	PASS

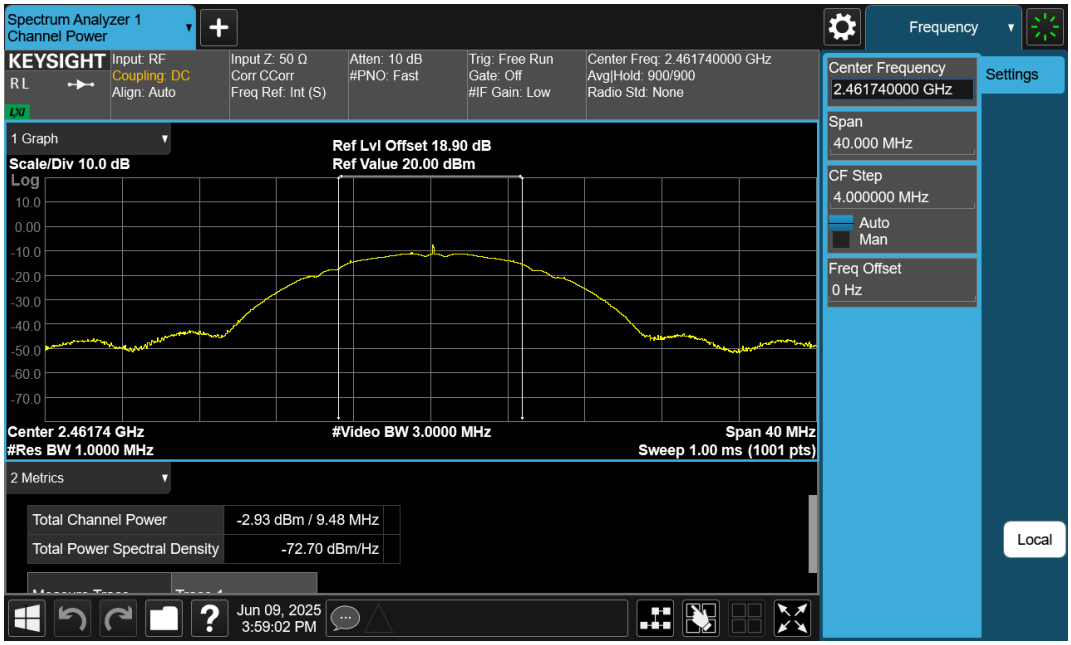
Test Graphs Peak

11B-Ant1-2412-PASS

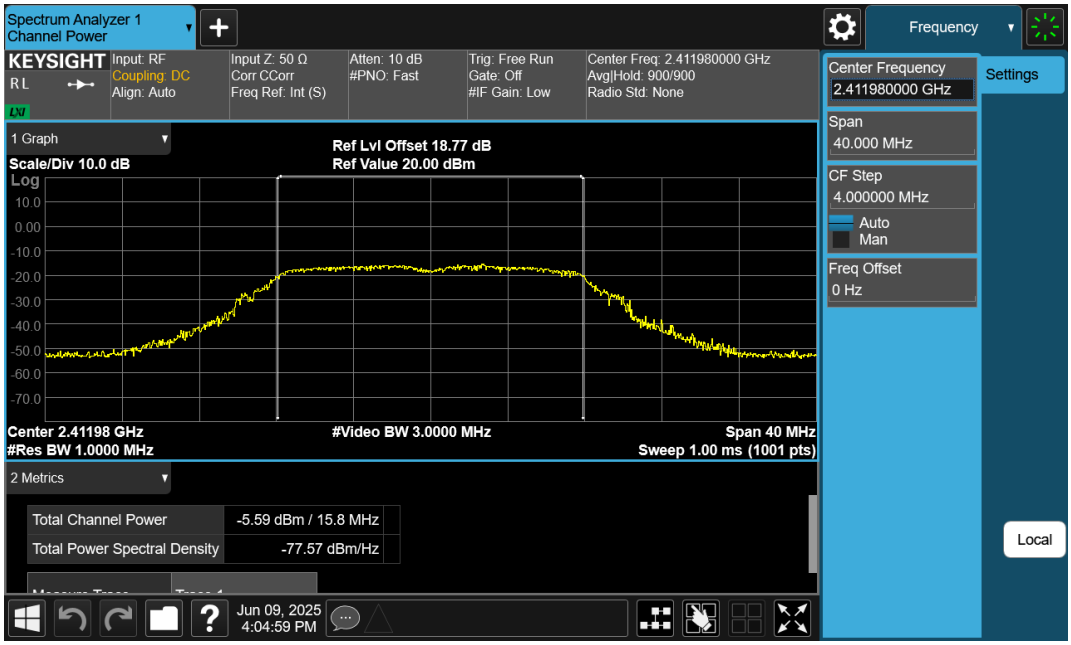
11B-Ant1-2437-PASS



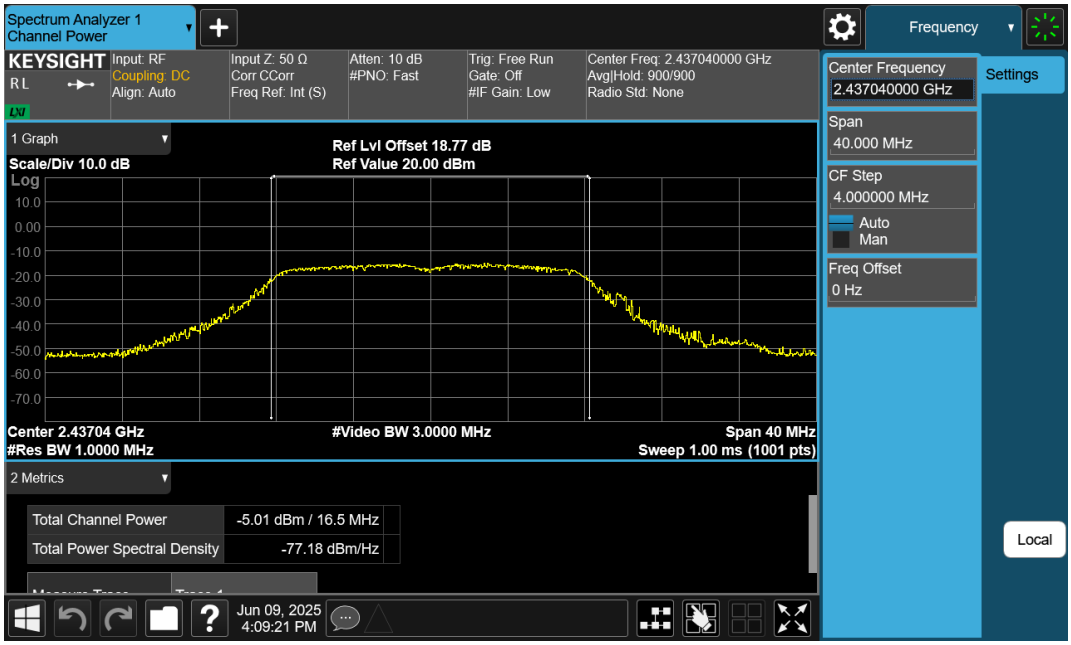
11B-Ant1-2462-PASS



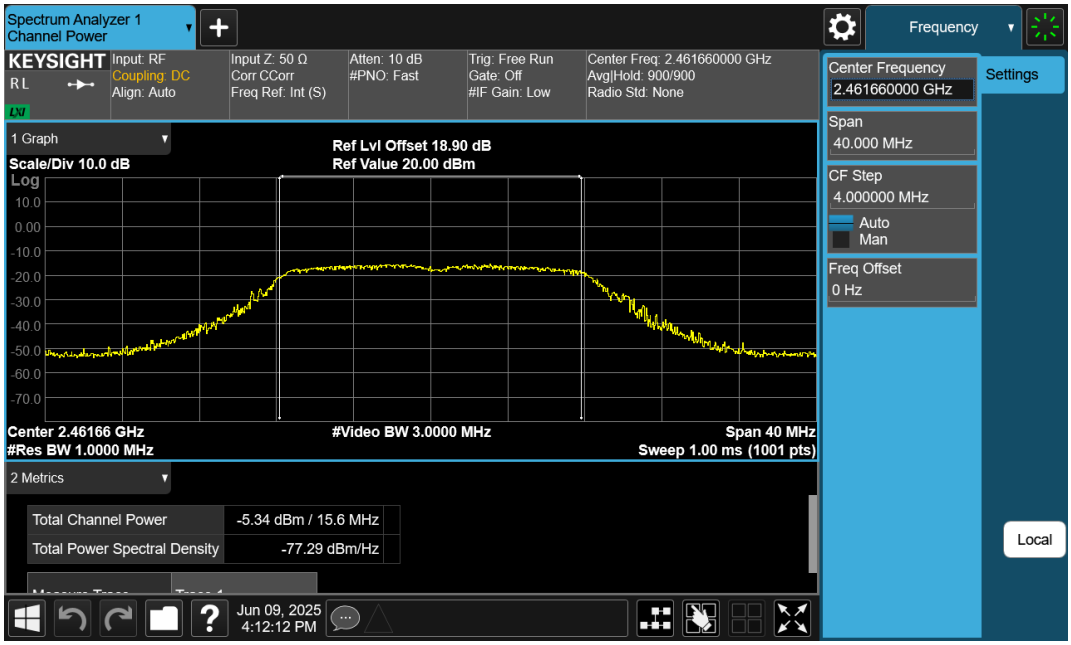
11G-Ant1-2412-PASS



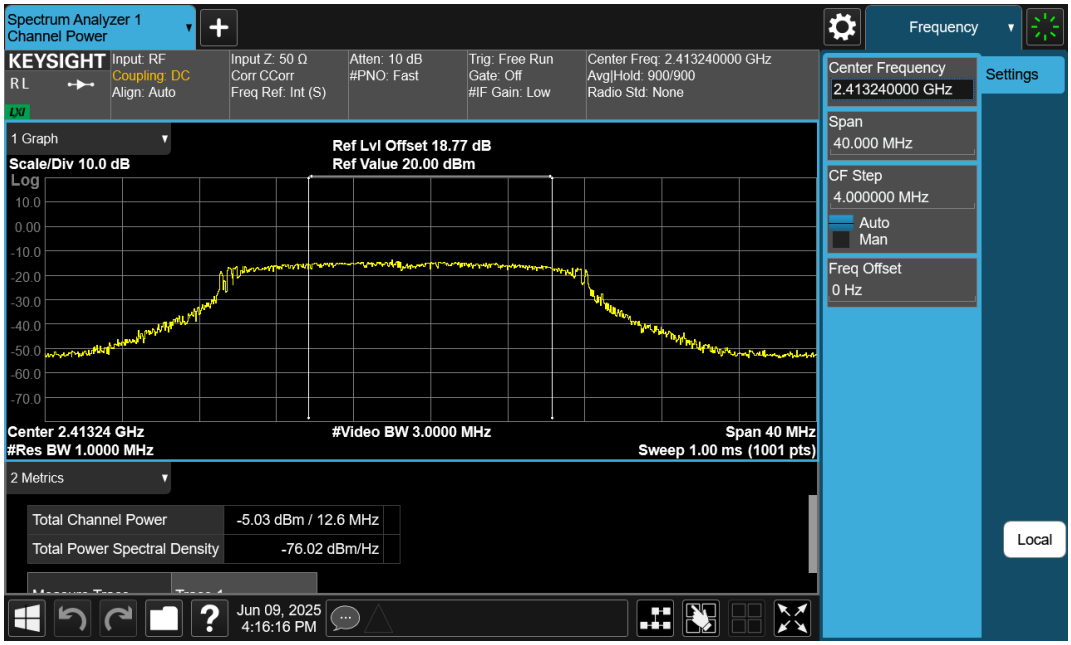
11G-Ant1-2437-PASS



11G-Ant1-2462-PASS

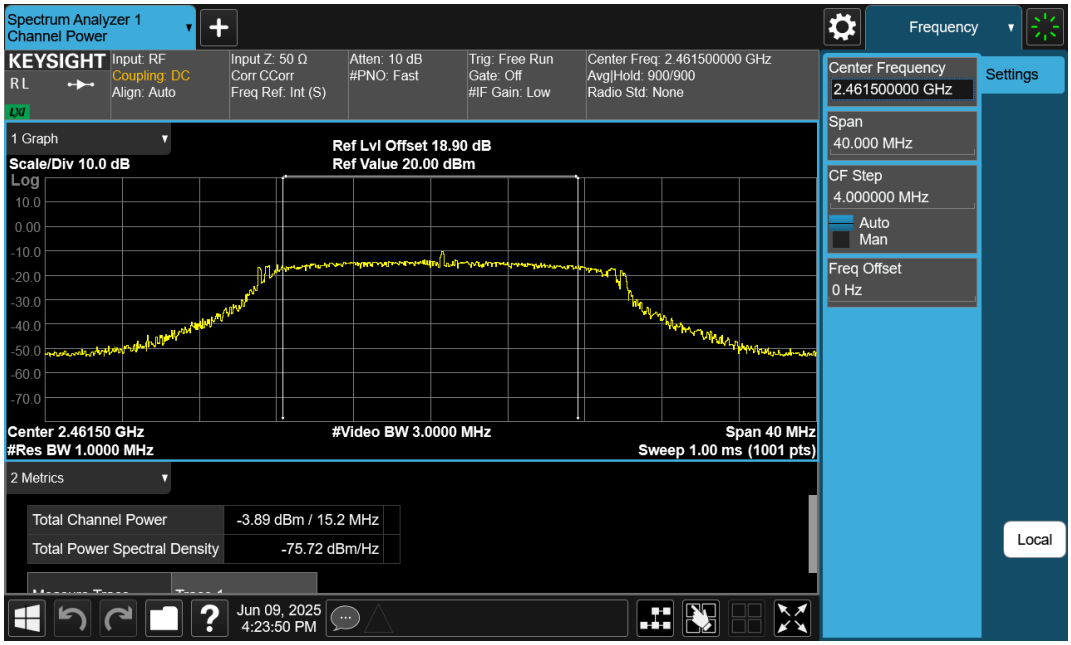


11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS

11N20SISO-Ant1-2462-PASS



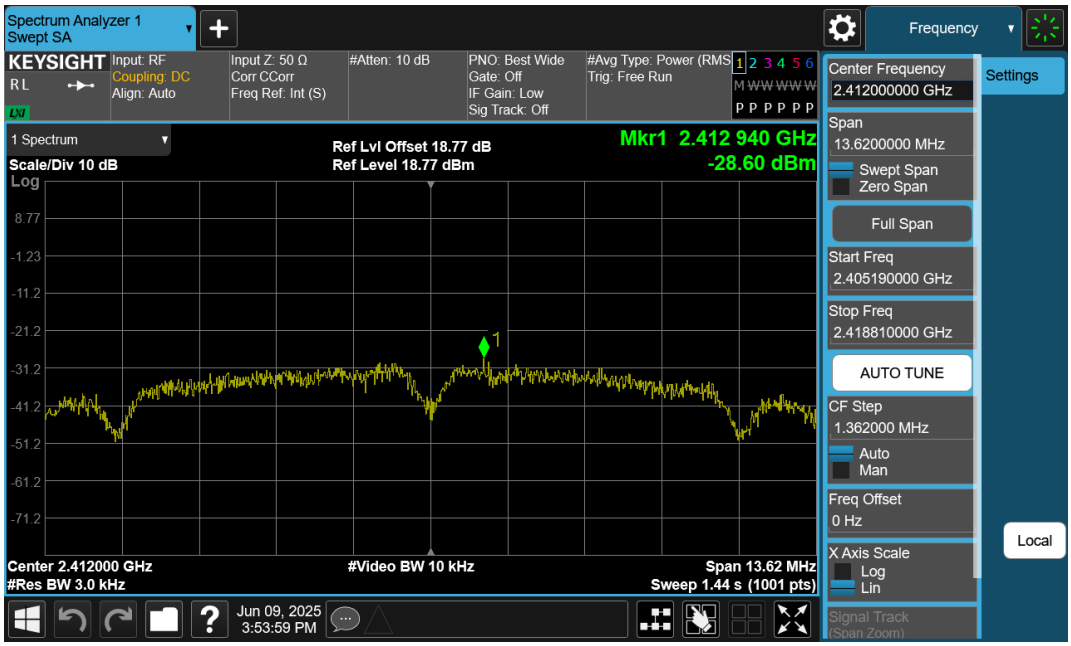
Appendix C: Maximum power spectral density

Test Result

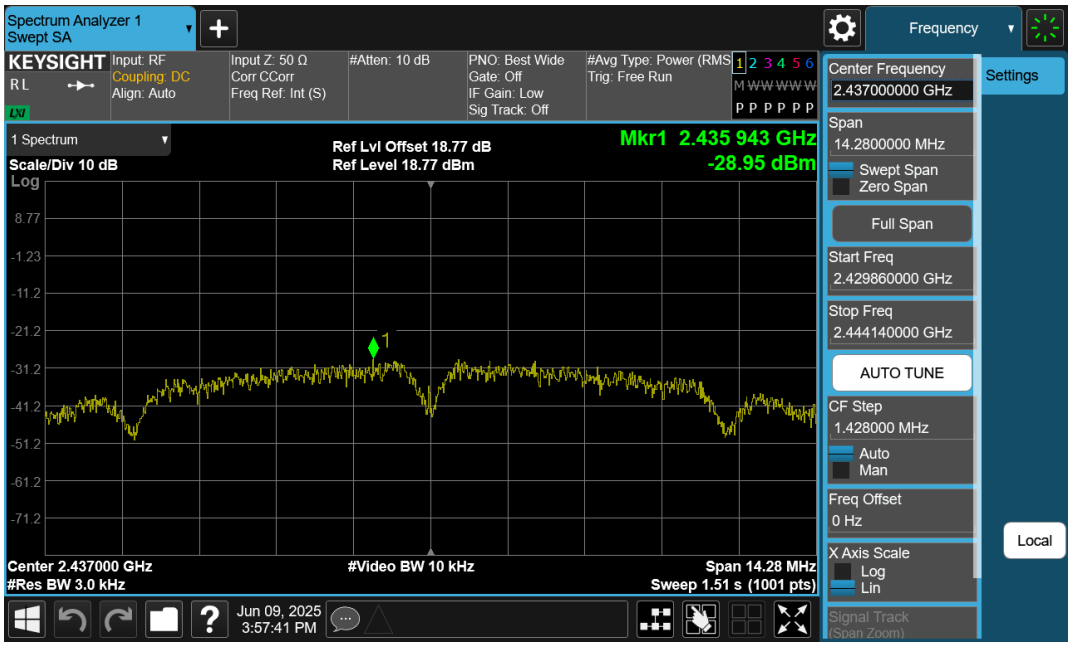
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-28.60	≤8.00	PASS
11B	Ant1	2437	-28.95	≤8.00	PASS
11B	Ant1	2462	-28.63	≤8.00	PASS
11G	Ant1	2412	-38.15	≤8.00	PASS
11G	Ant1	2437	-38.14	≤8.00	PASS
11G	Ant1	2462	-38.16	≤8.00	PASS
11N20SISO	Ant1	2412	-37.57	≤8.00	PASS
11N20SISO	Ant1	2437	-37.40	≤8.00	PASS
11N20SISO	Ant1	2462	-37.12	≤8.00	PASS

Test Graphs

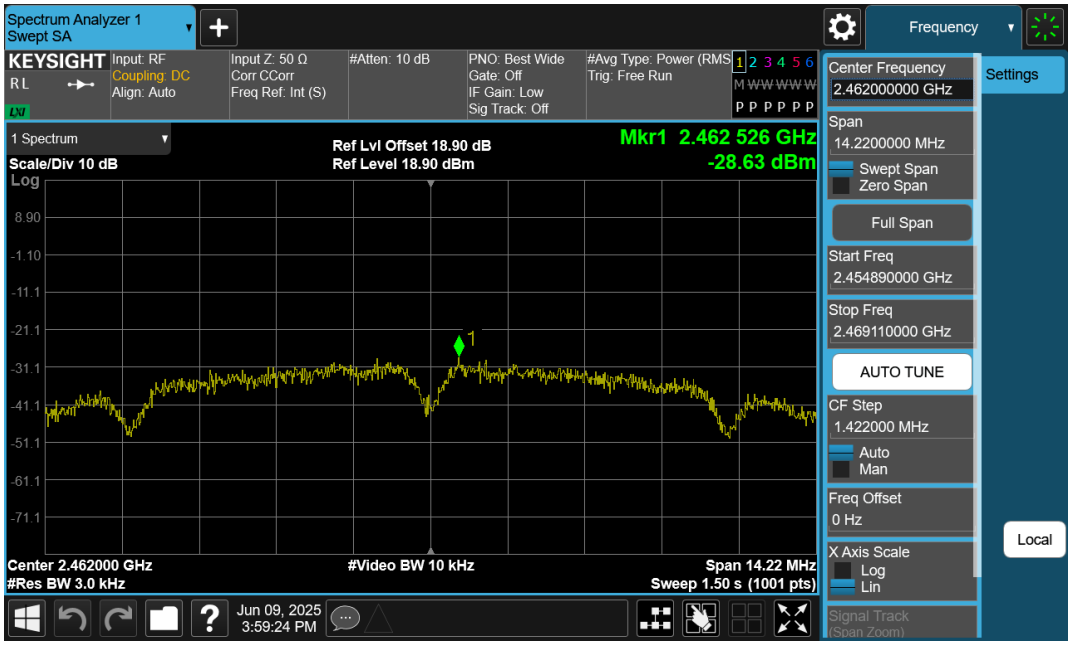
11B-Ant1-2412-PASS



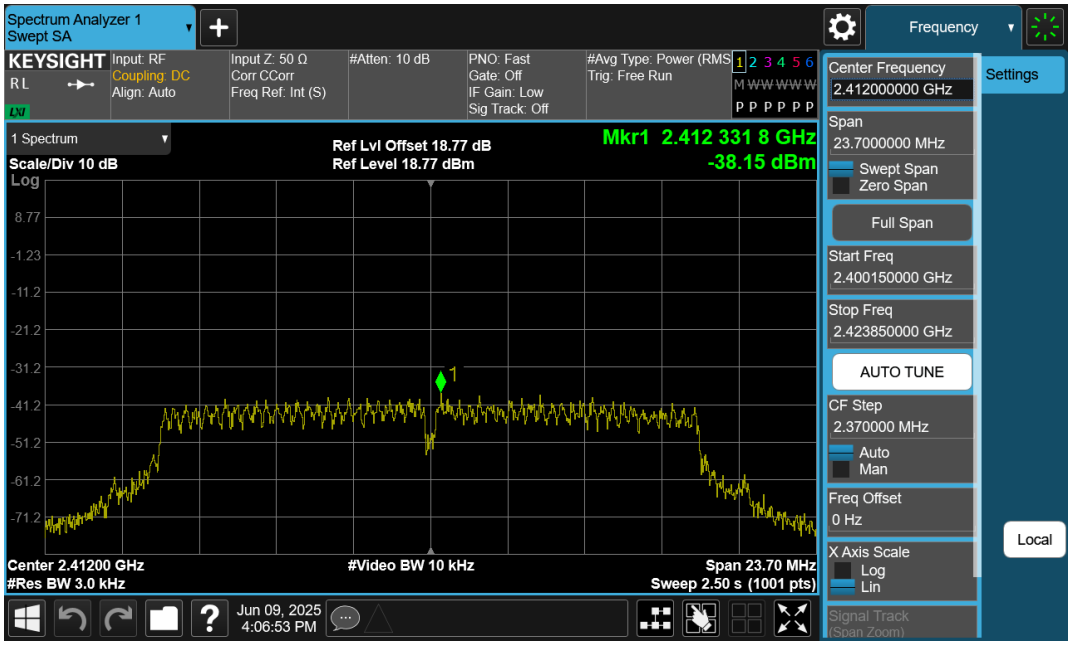
11B-Ant1-2437-PASS



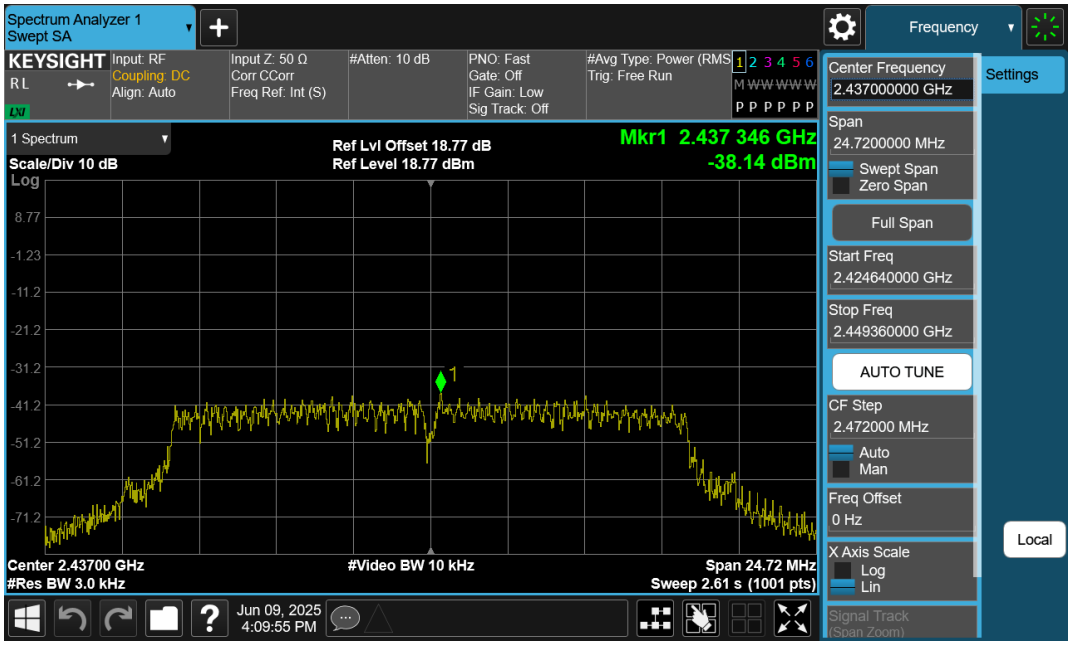
11B-Ant1-2462-PASS



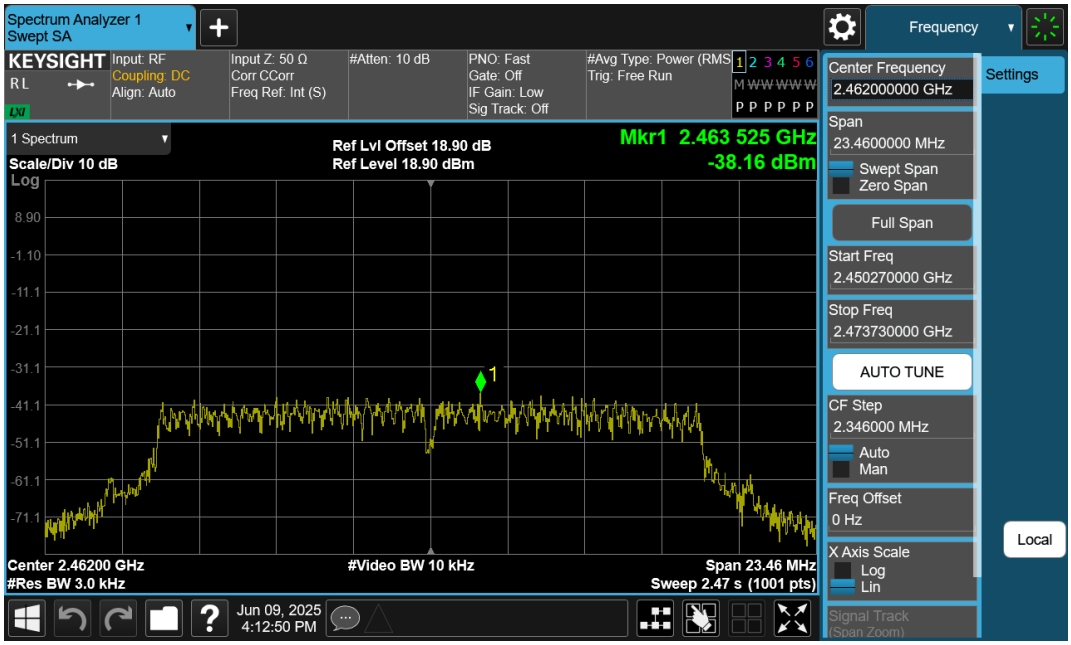
11G-Ant1-2412-PASS



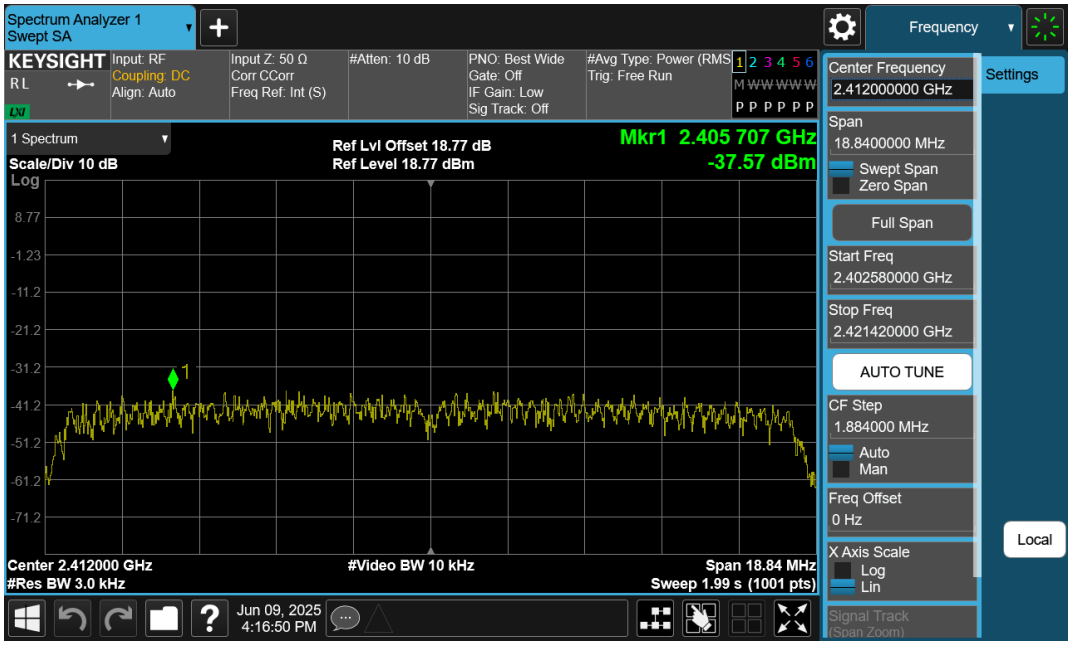
11G-Ant1-2437-PASS



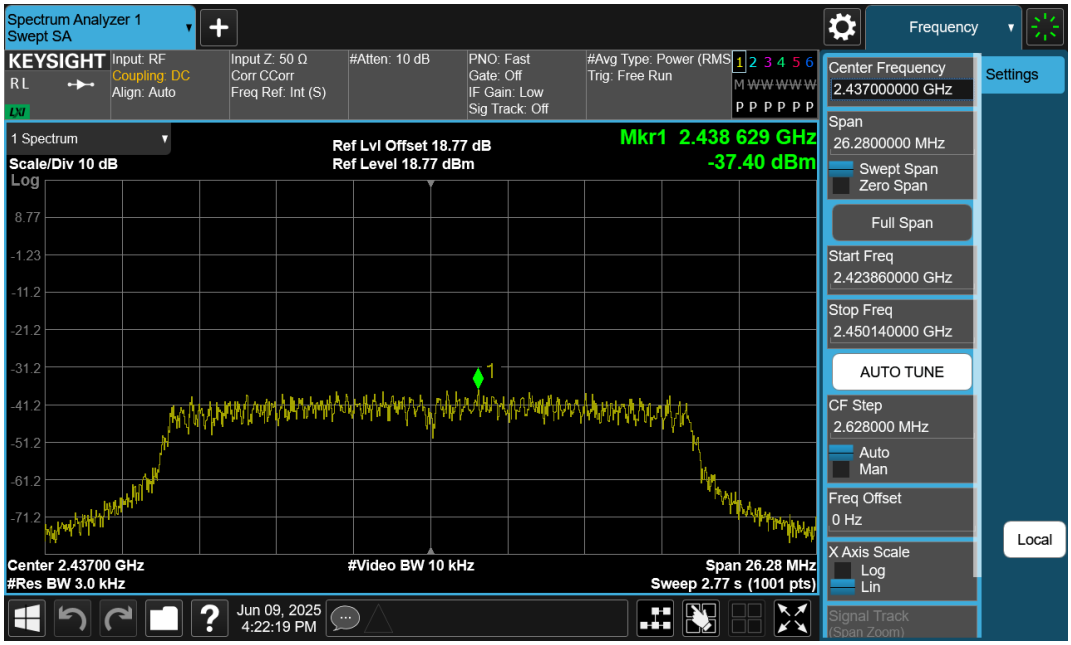
11G-Ant1-2462-PASS



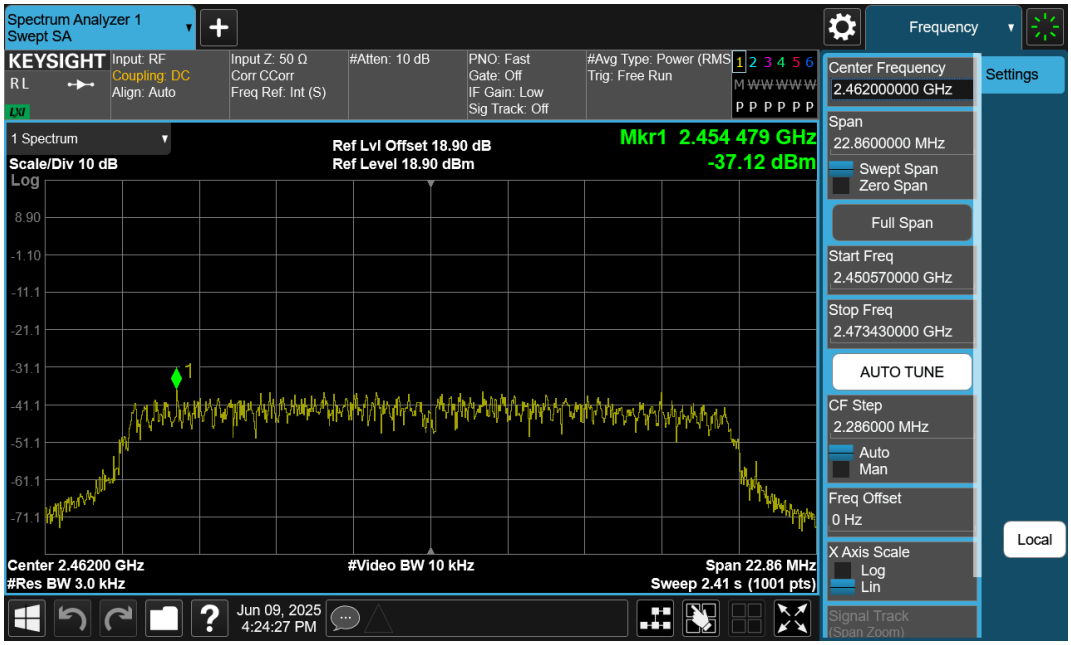
11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS



11N20SISO-Ant1-2462-PASS


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 10 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 18.90 dB
Ref Level 18.90 dBm
Mkr1 2.454 479 GHz
-37.12 dBm
Center 2.46200 GHz
#Res BW 3.0 kHz
#Video BW 10 kHz
Span 22.86 MHz
Sweep 2.41 s (1001 pts)
Jun 09, 2025
4:24:27 PM
Frequency
Center Frequency
2.462000000 GHz
Span
22.8600000 MHz
Swept Span
Zero Span
Full Span
Start Freq
2.450570000 GHz
Stop Freq
2.473430000 GHz
AUTO TUNE
CF Step
2.286000 MHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Settings
Local

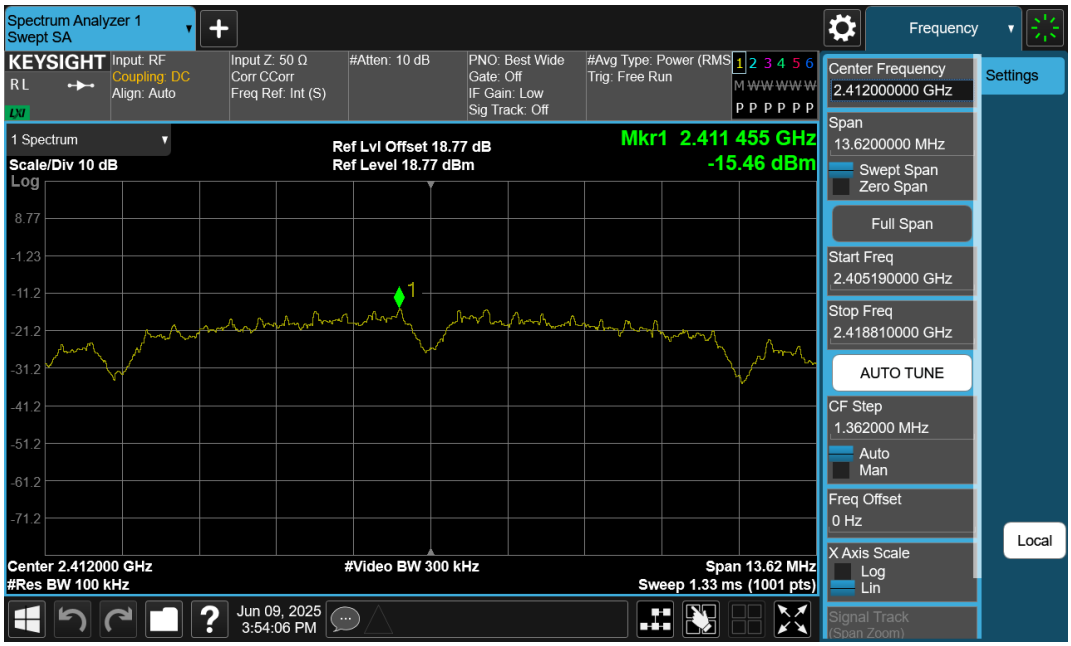
Appendix D: Reference level measurement

Test Result

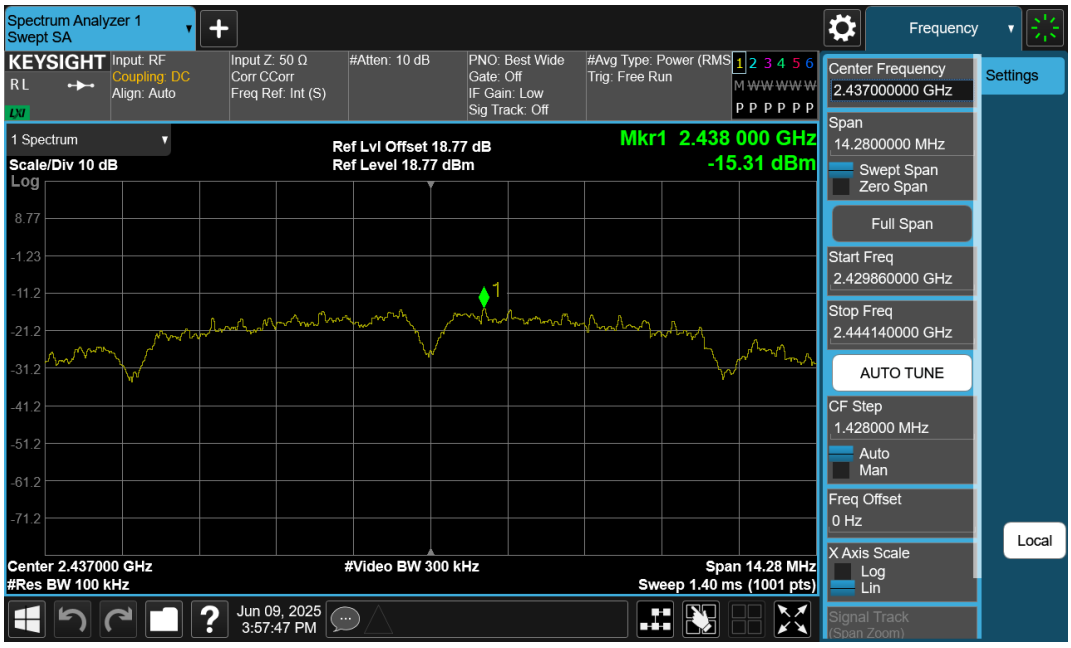
TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
11B	Ant1	2412	2411.46	-15.46
11B	Ant1	2437	2438.00	-15.31
11B	Ant1	2462	2461.47	-14.62
11G	Ant1	2412	2416.95	-24.53
11G	Ant1	2437	2434.50	-24.12
11G	Ant1	2462	2459.51	-24.12
11N20SISO	Ant1	2412	2412.17	-22.71
11N20SISO	Ant1	2437	2438.21	-22.01
11N20SISO	Ant1	2462	2452.97	-23.03

Test Graphs

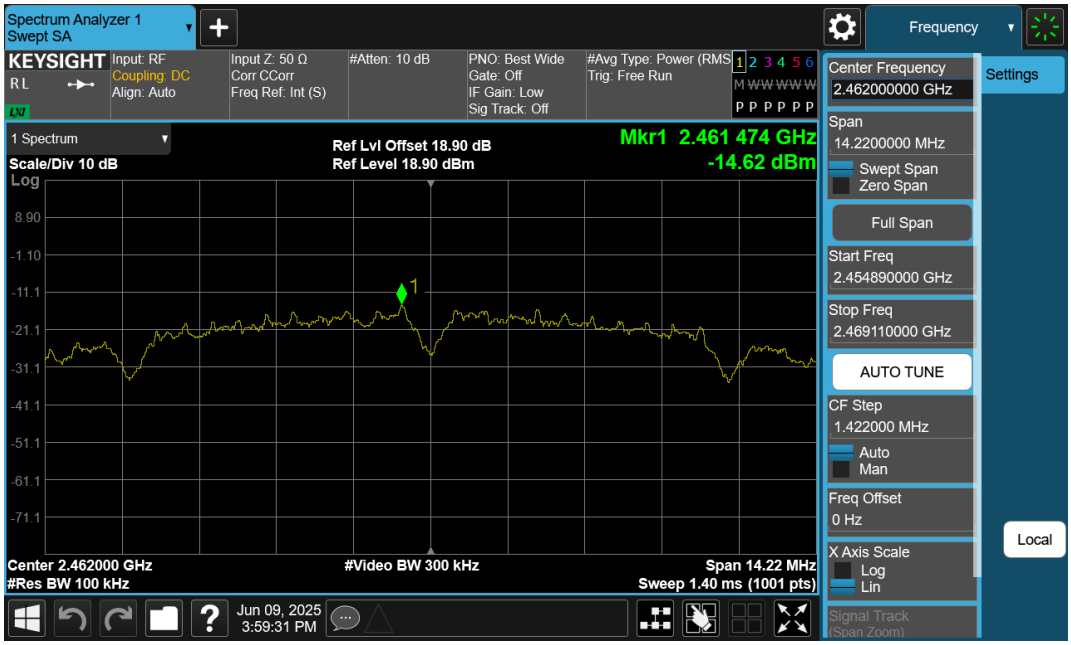
11B-Ant1-2412-PASS



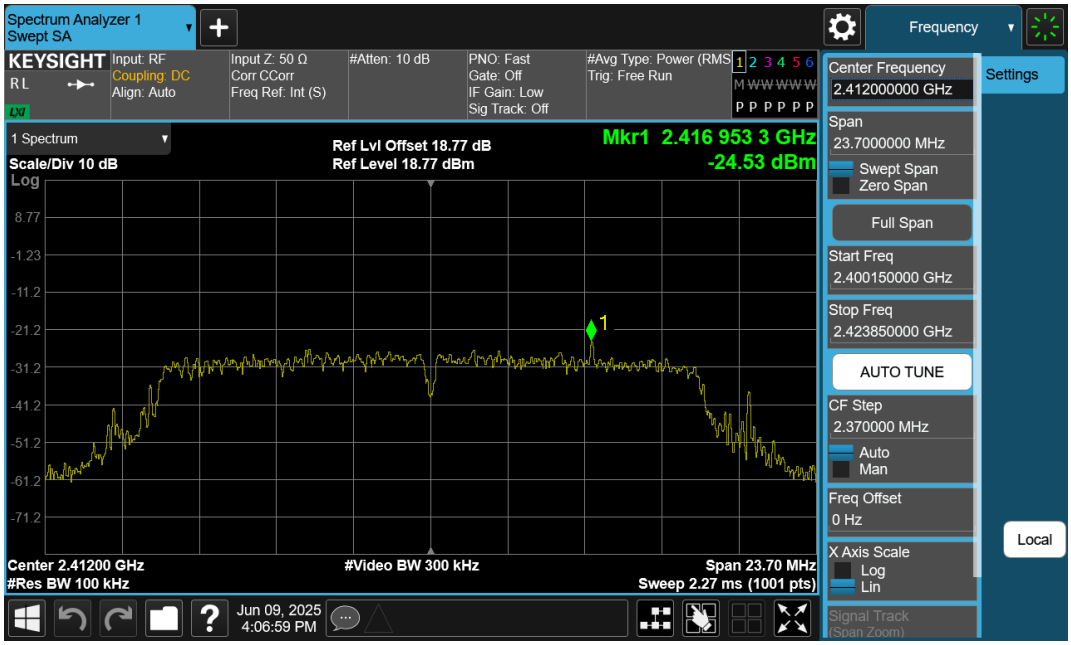
11B-Ant1-2437-PASS



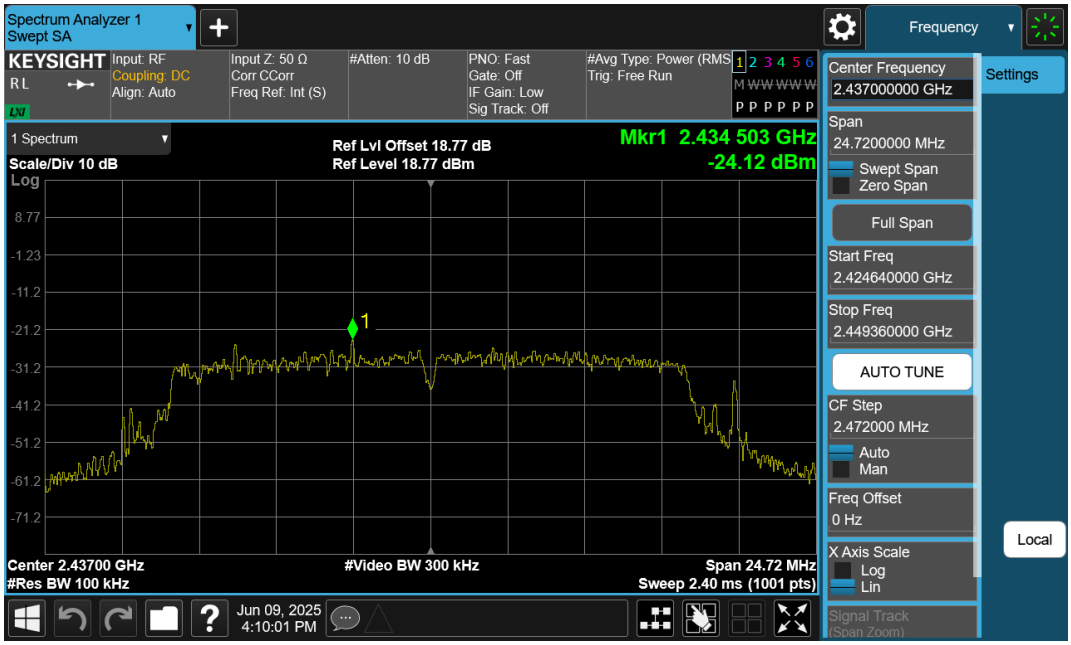
11B-Ant1-2462-PASS



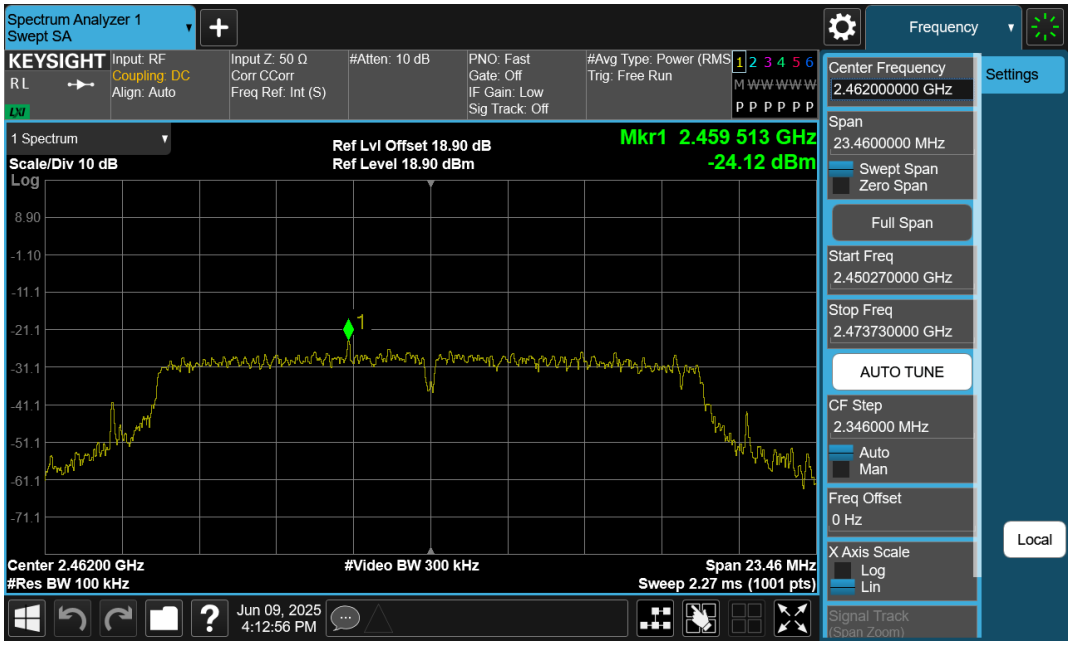
11G-Ant1-2412-PASS



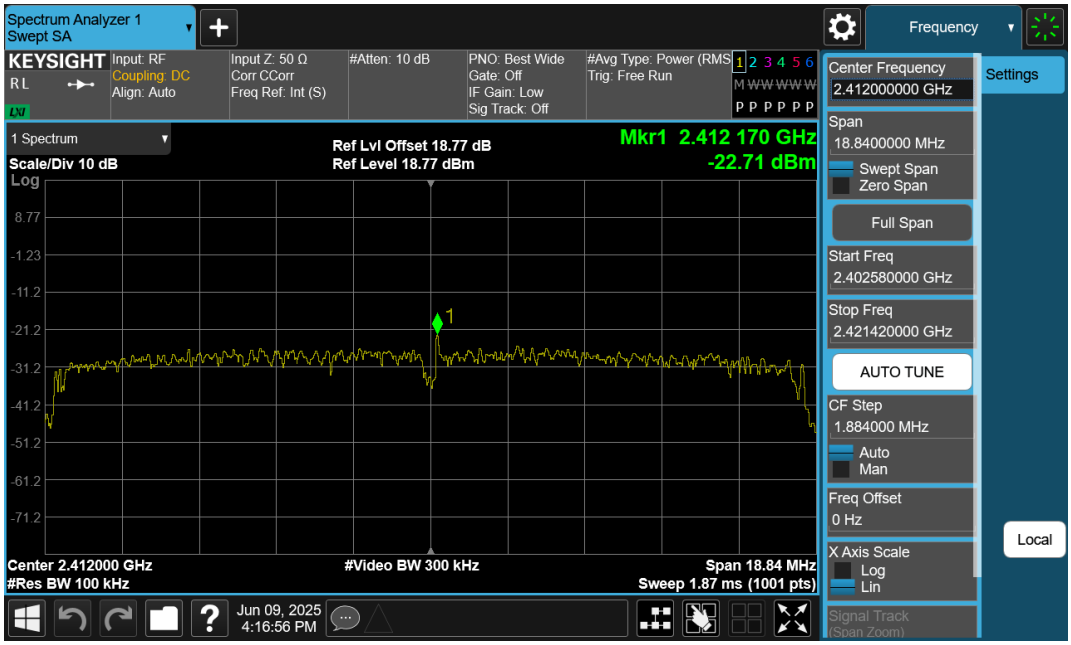
11G-Ant1-2437-PASS



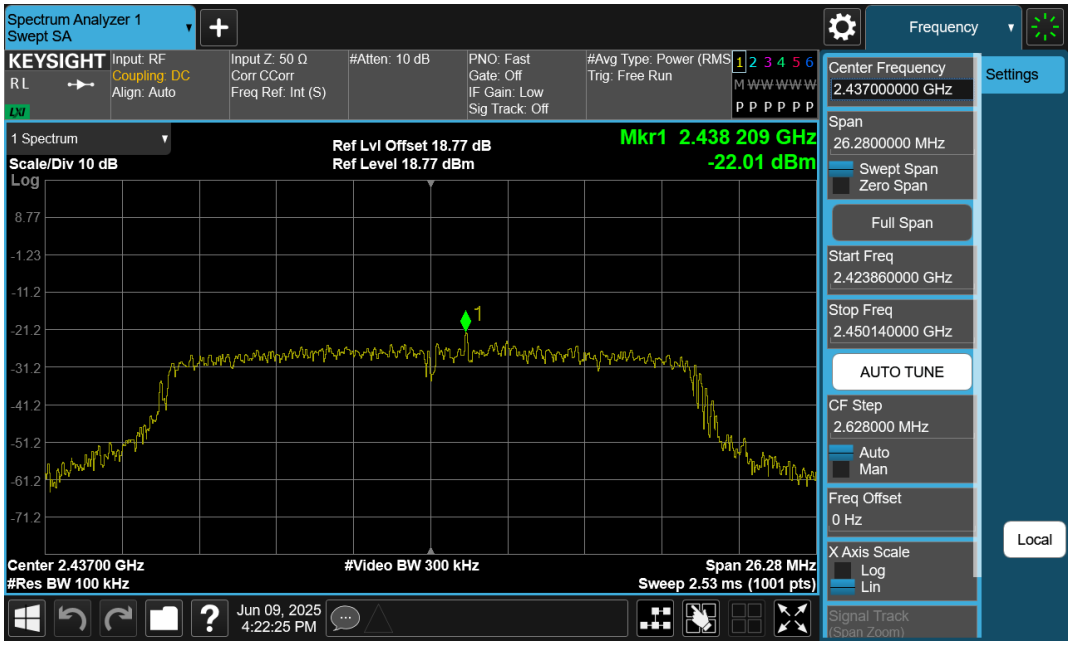
11G-Ant1-2462-PASS



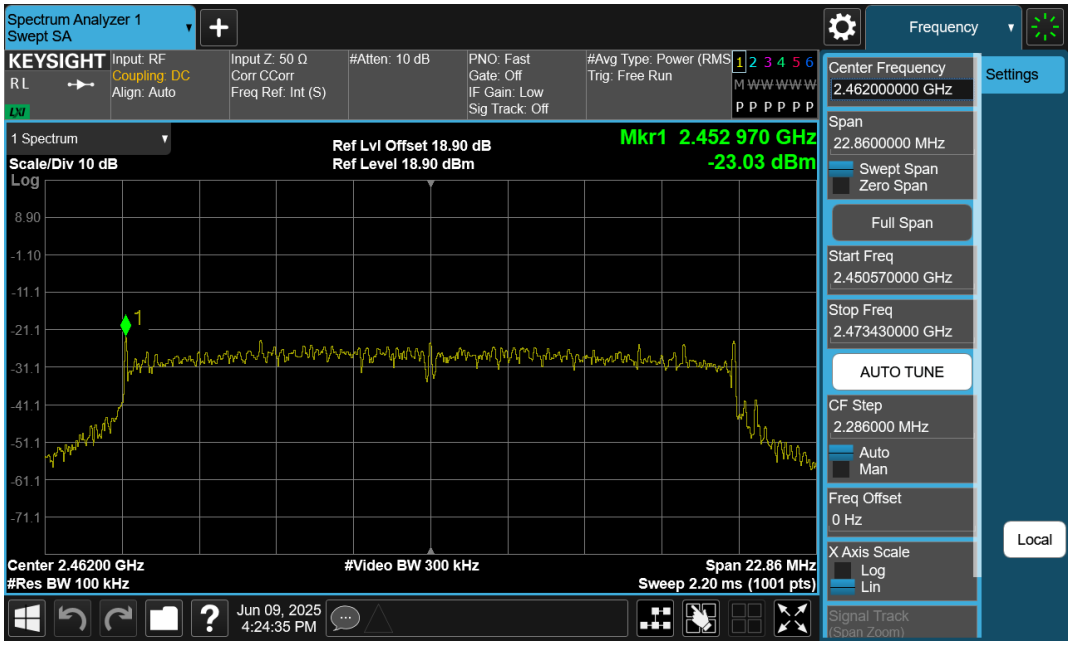
11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS



11N20SISO-Ant1-2462-PASS


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 10 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 18.90 dBm
Mkr1 2.452 970 GHz
-23.03 dBm
8.90
-1.10
-11.1
-21.1
-31.1
-41.1
-51.1
-61.1
-71.1
Center 2.46200 GHz
#Res BW 100 kHz
#Video BW 300 kHz
Span 22.86 MHz
Sweep 2.20 ms (1001 pts)
Jun 09, 2025
4:24:35 PM
Frequency
Center Frequency
2.462000000 GHz
Span
22.8600000 MHz
Swept Span
Zero Span
Full Span
Start Freq
2.450570000 GHz
Stop Freq
2.473430000 GHz
AUTO TUNE
CF Step
2.286000 MHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Settings
Local

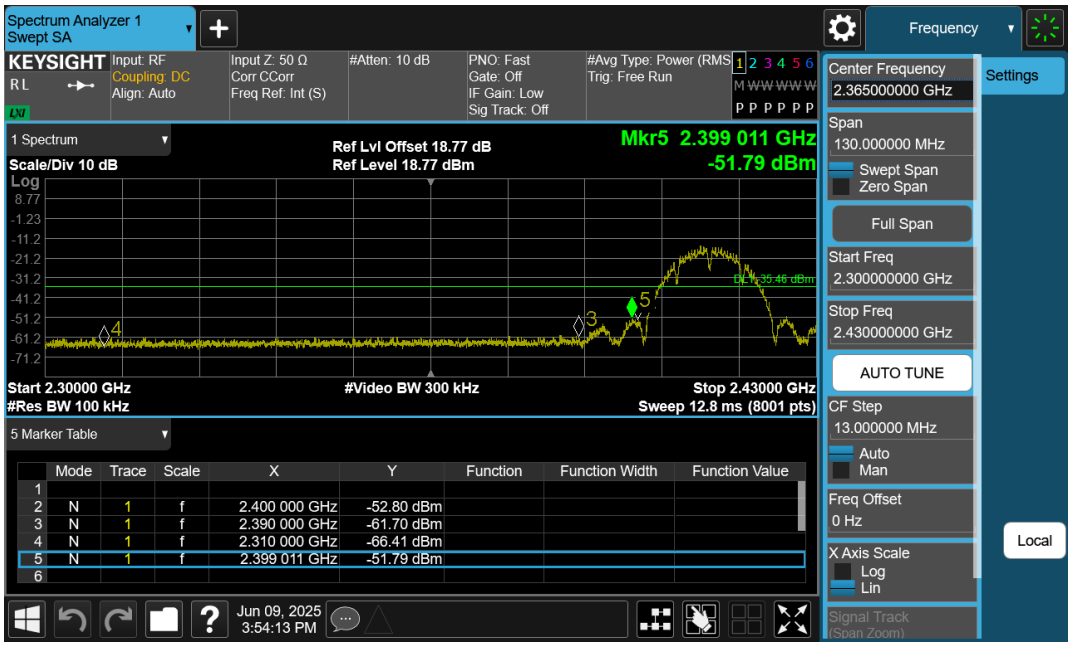
Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-15.46	-51.79	≤-35.46	PASS
11B	Ant1	High	2462	-14.62	-60.01	≤-34.62	PASS
11G	Ant1	Low	2412	-24.53	-58.84	≤-44.53	PASS
11G	Ant1	High	2462	-24.12	-59.7	≤-44.12	PASS
11N20SISO	Ant1	Low	2412	-22.71	-56.18	≤-42.71	PASS
11N20SISO	Ant1	High	2462	-23.03	-60.22	≤-43.03	PASS

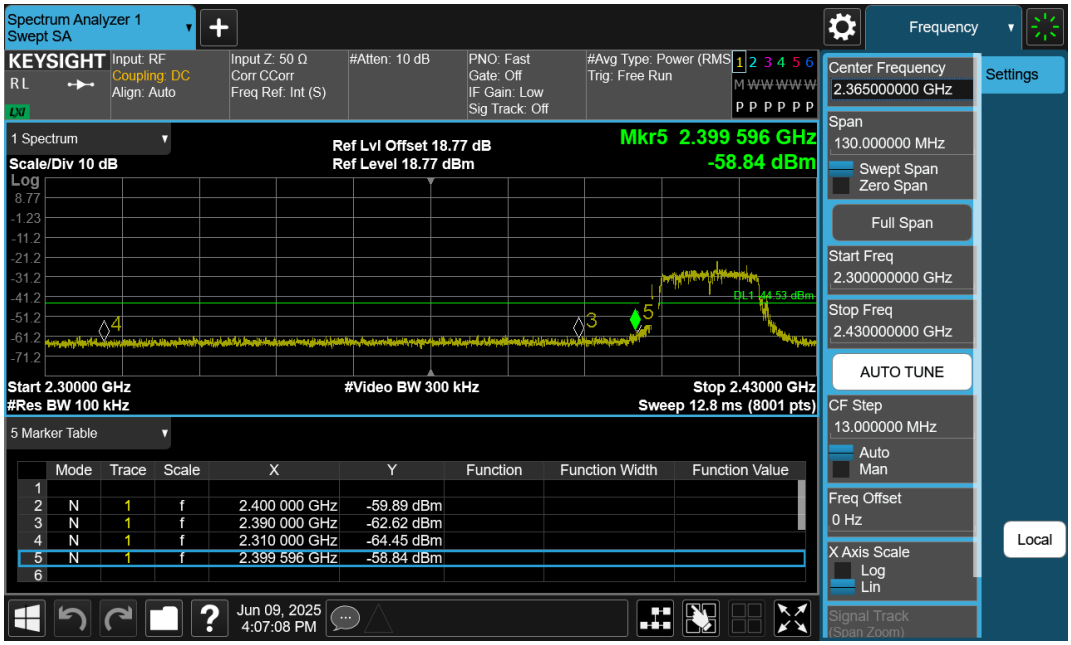
Test Graphs

11B-Ant1-2412-PASS



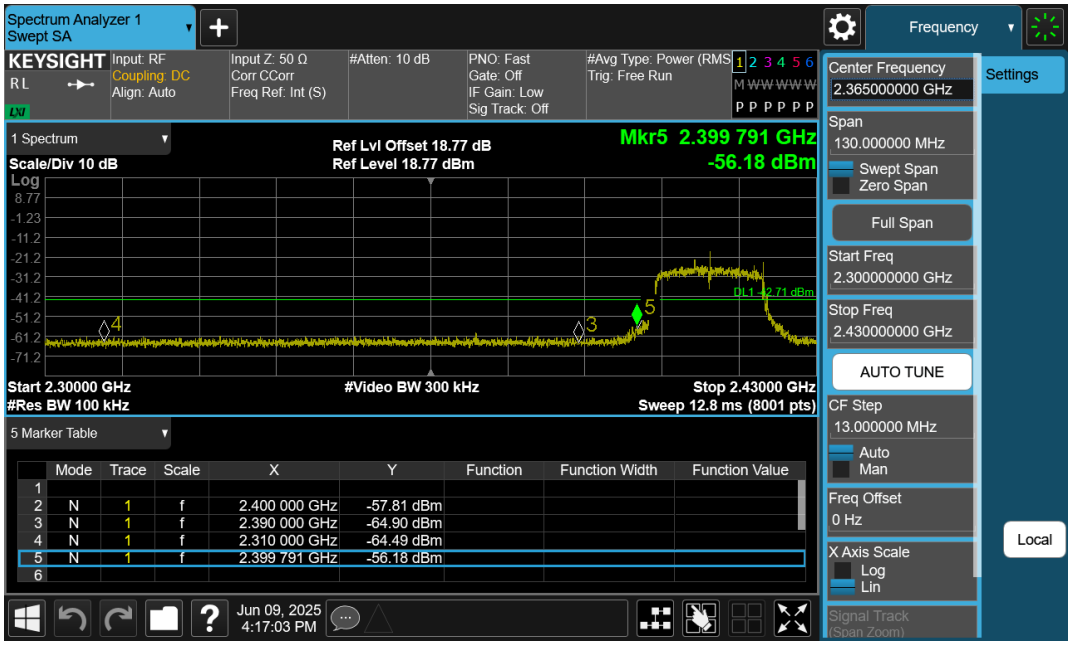
11B-Ant1-2462-PASS

11G-Ant1-2412-PASS

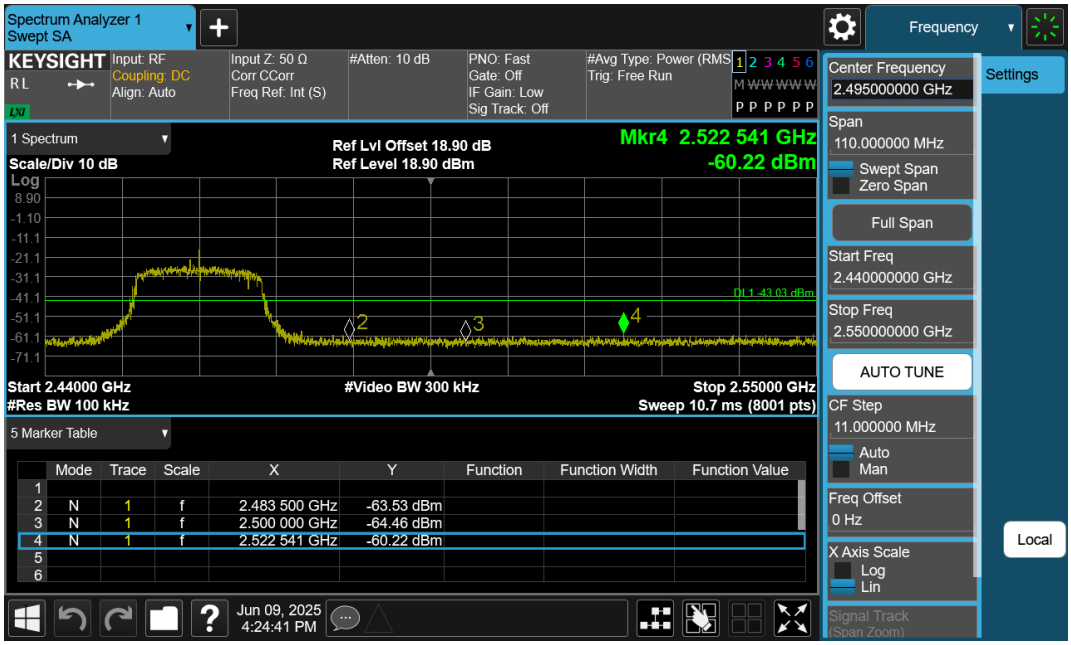


11G-Ant1-2462-PASS

11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2462-PASS



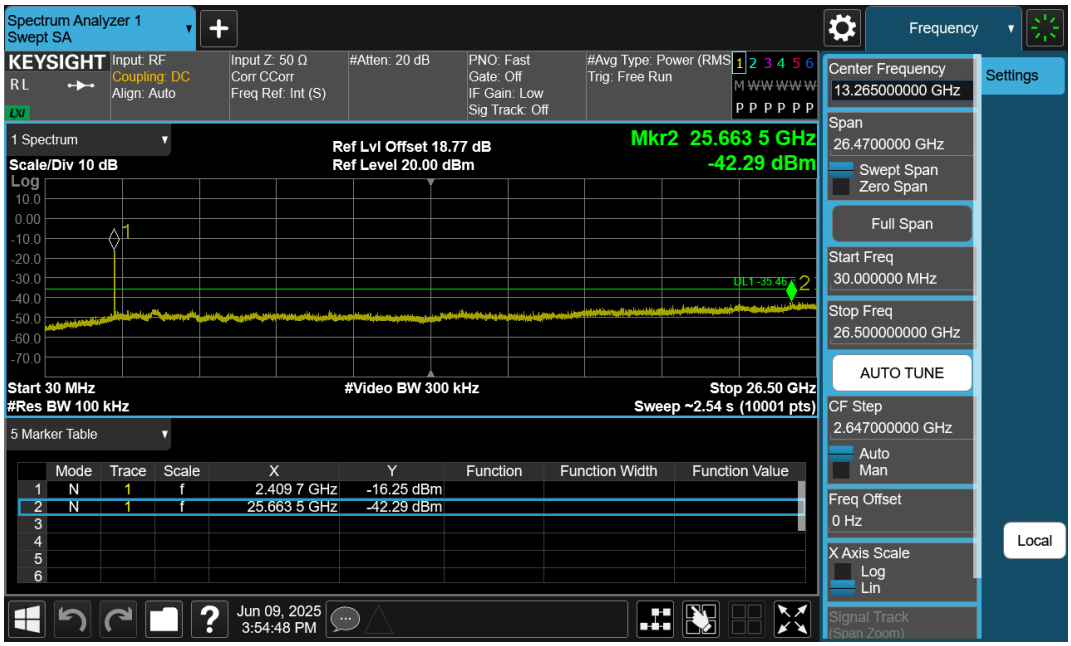
Appendix F: Conducted Spurious Emission

Test Result

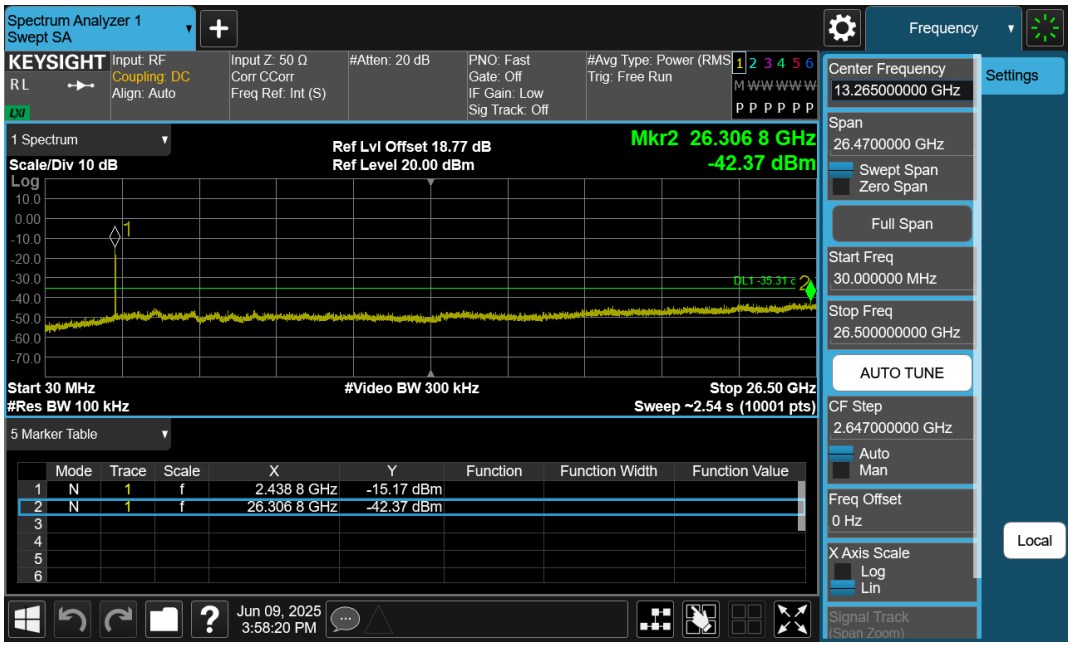
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	30~26500	-15.46	-42.29	≤-35.46	PASS
11B	Ant1	2437	30~26500	-15.31	-42.37	≤-35.31	PASS
11B	Ant1	2462	30~26500	-14.62	-42.18	≤-34.62	PASS
11G	Ant1	2412	30~26500	-24.53	-51.93	≤-44.53	PASS
11G	Ant1	2437	30~26500	-24.12	-52.76	≤-44.12	PASS
11G	Ant1	2462	30~26500	-24.12	-52.58	≤-44.12	PASS
11N20SISO	Ant1	2412	30~26500	-22.71	-51.82	≤-42.71	PASS
11N20SISO	Ant1	2437	30~26500	-22.01	-52.41	≤-42.01	PASS
11N20SISO	Ant1	2462	30~26500	-23.03	-52.82	≤-43.03	PASS

Test Graphs

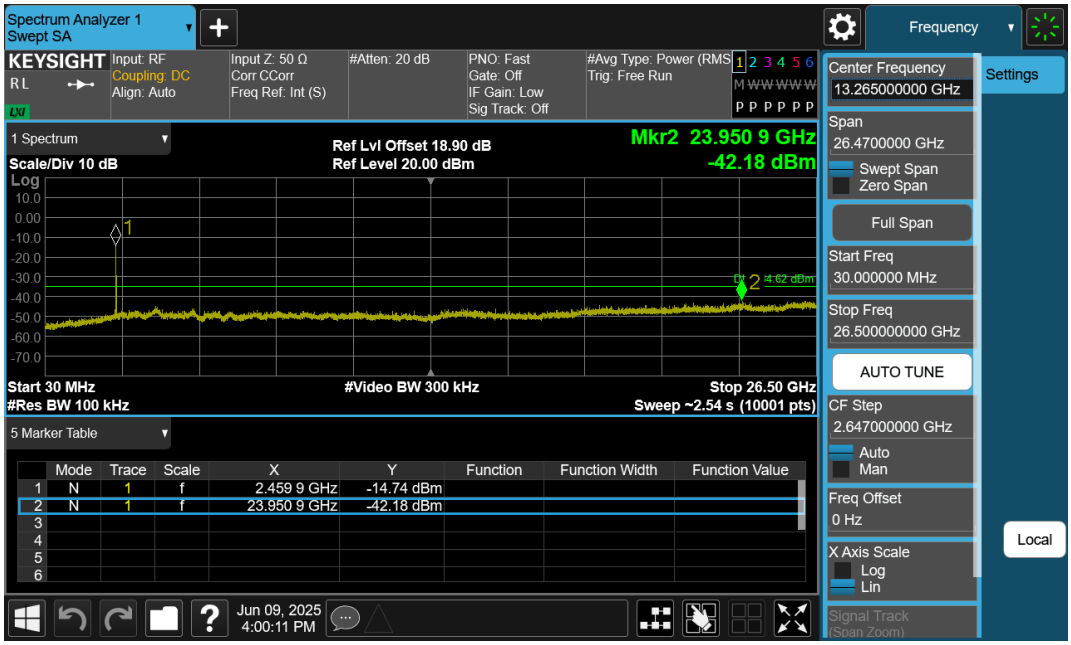
11B-Ant1-2412-30~26500-PASS



11B-Ant1-2437-30~26500-PASS



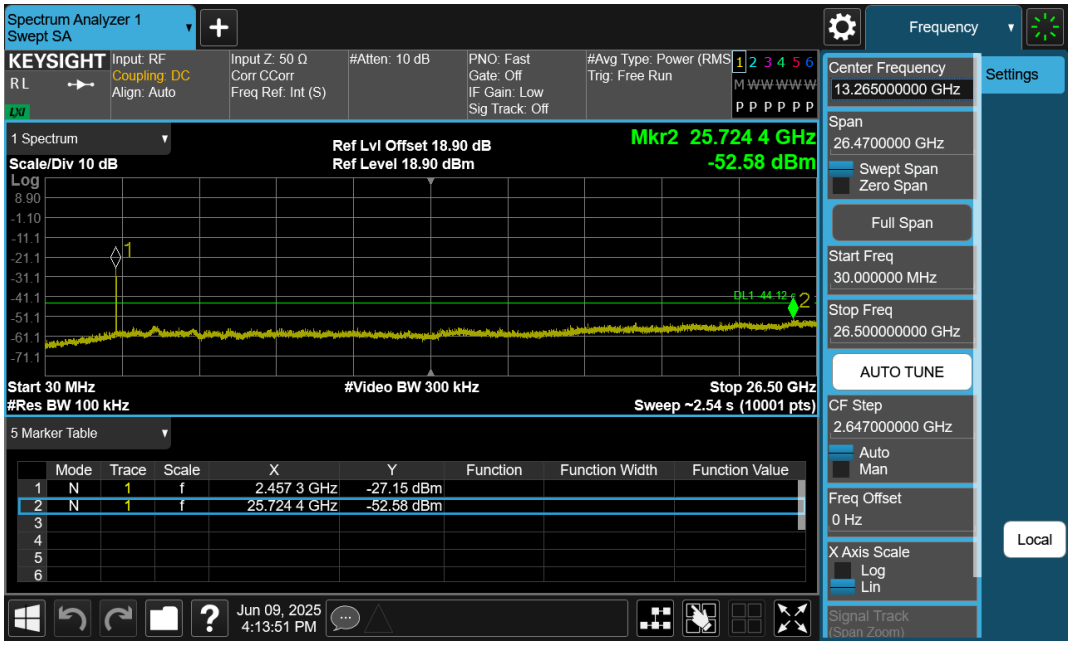
11B-Ant1-2462-30~26500-PASS



11G-Ant1-2412-30~26500-PASS

11G-Ant1-2437-30~26500-PASS

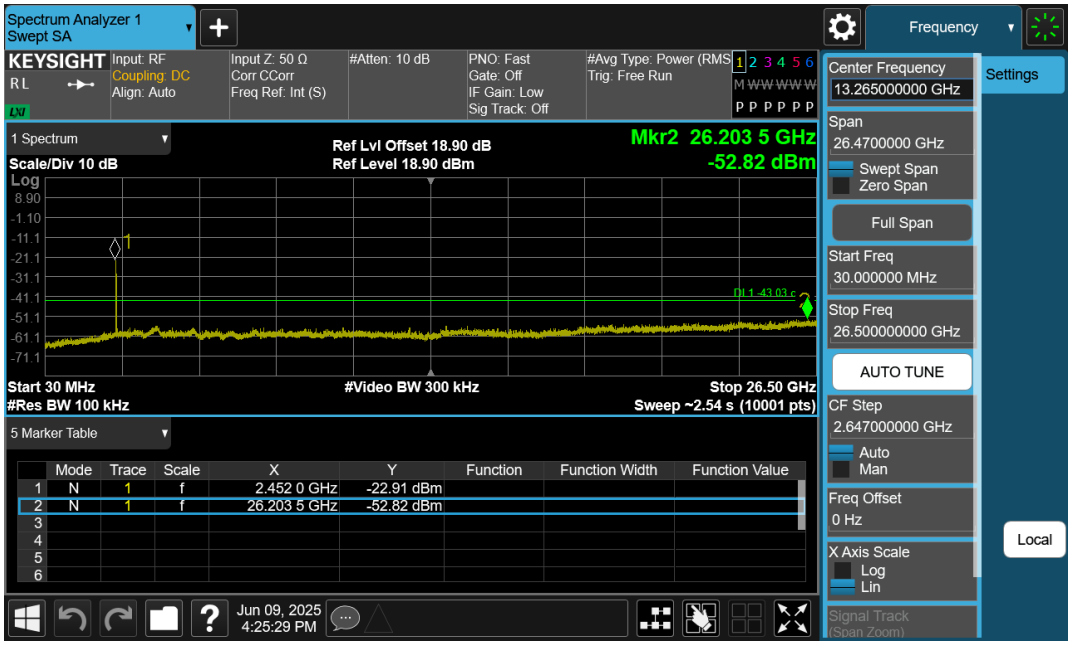
11G-Ant1-2462-30~26500-PASS



11N20SISO-Ant1-2412-30~26500-PASS

11N20SISO-Ant1-2437-30~26500-PASS

11N20SISO-Ant1-2462-30~26500-PASS


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 10 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 18.90 dB
Ref Level 18.90 dBm
Mkr2 26.203 5 GHz
-52.82 dBm
Start 30 MHz
#Res BW 100 kHz
#Video BW 300 kHz
Stop 26.50 GHz
Sweep ~2.54 s (10001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 f 2.452 0 GHz -22.91 dBm
2 N 1 f 26.203 5 GHz -52.82 dBm
Jun 09, 2025
4:25:29 PM
Frequency
Center Frequency
13.265000000 GHz
Span
26.4700000 GHz
Swept Span
Zero Span
Full Span
Start Freq
30.000000 MHz
Stop Freq
26.500000000 GHz
AUTO TUNE
CF Step
2.647000000 GHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Settings
Local

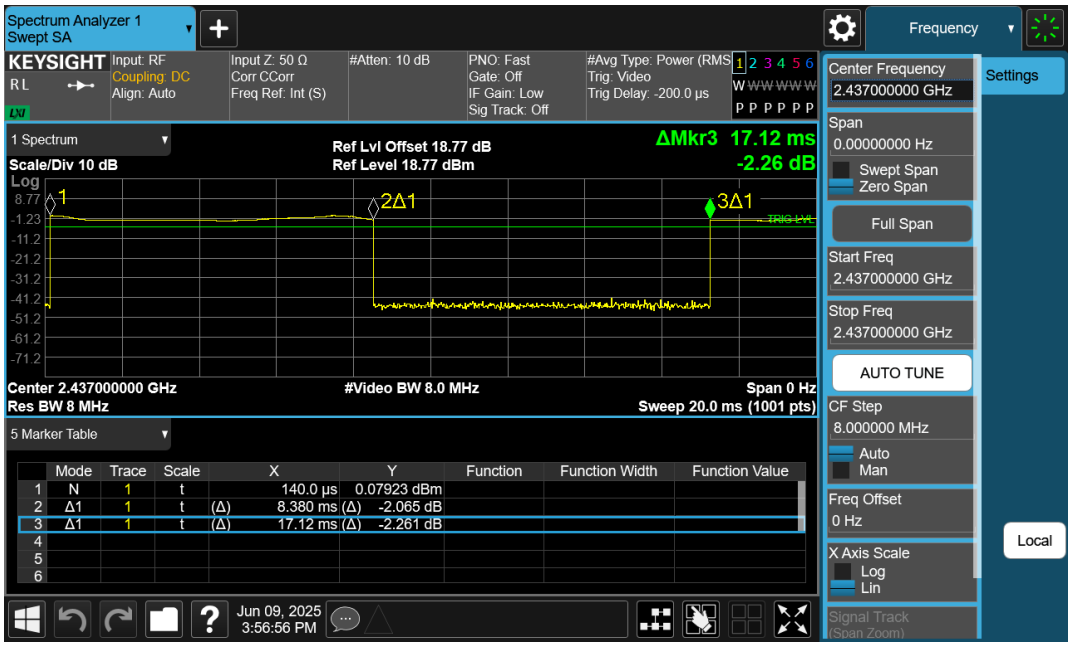
Appendix G: Duty Cycle

Test Result

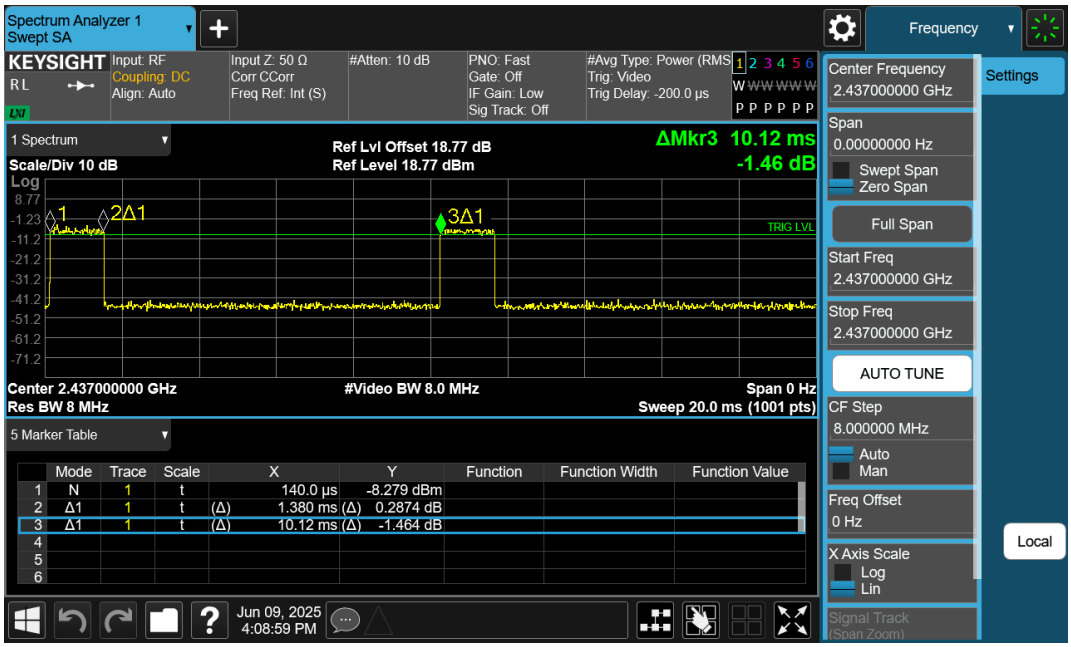
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2437	8.38	17.12	48.95
11G	Ant1	2437	1.38	10.12	13.64
11N20SISO	Ant1	2437	1.30	10.04	12.95

Test Graphs

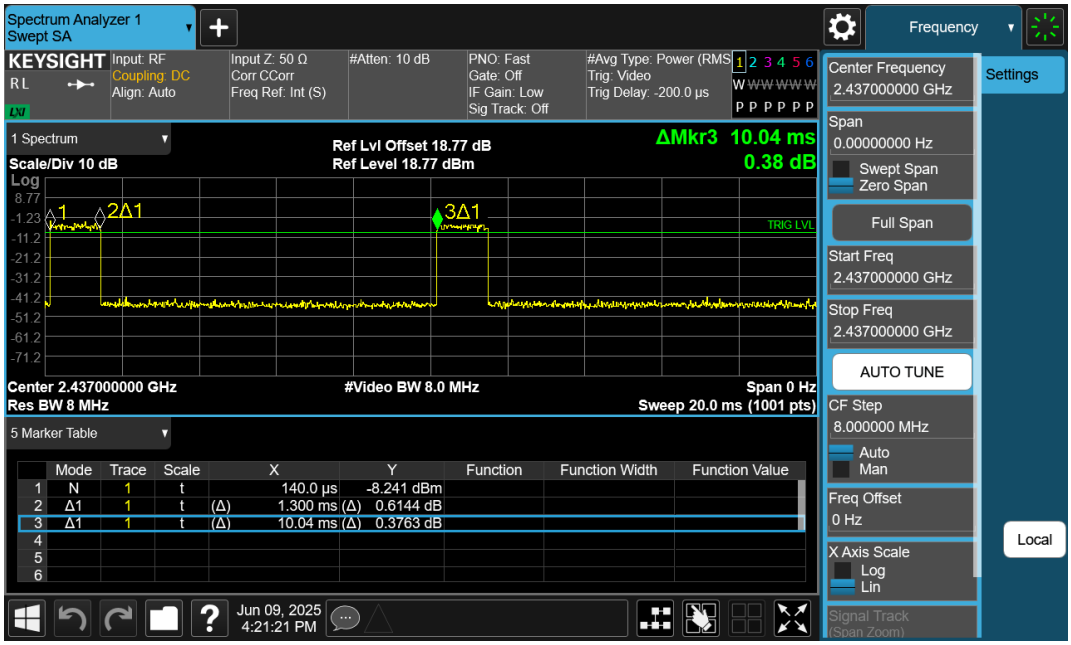
NTNV-11B-Ant1-2437



NTNV-11G-Ant1-2437



NTNV-11N20SISO-Ant1-2437


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 10 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS)
Trig: Video
Trig Delay: -200.0 µs
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 18.77 dB
Ref Level 18.77 dBm
ΔMkr3 10.04 ms
0.38 dB
Log
8.77
-1.23
-11.2
-21.2
-31.2
-41.2
-51.2
-61.2
-71.2
TRIG LVL
Center 2.437000000 GHz
Res BW 8 MHz
#Video BW 8.0 MHz
Span 0 Hz
Sweep 20.0 ms (1001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 t 140.0 µs -8.241 dBm
2 Δ1 1 t (Δ) 1.300 ms (Δ) 0.6144 dB
3 Δ1 1 t (Δ) 10.04 ms (Δ) 0.3763 dB
Jun 09, 2025
4:21:21 PM
Frequency
Settings
Center Frequency
2.437000000 GHz
Span
0.00000000 Hz
Swept Span
Zero Span
Full Span
Start Freq
2.437000000 GHz
Stop Freq
2.437000000 GHz
AUTO TUNE
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Local