

Test Mode	Test Channel	Verdict
11N HT20	2462 MHz	PASS

7.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

LIMITS

FCC Part15 (15.247), Subpart C		
Section	Test Item	Limit
FCC §15.247 (d) RSS-247 Clause 5.5 RSS-GEN Clause 6.13	Conducted Bandedge and Spurious Emissions	30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

TEST PROCEDURE

Refer to FCC KDB 558074, connect the UUT to the spectrum analyser and use the following settings:

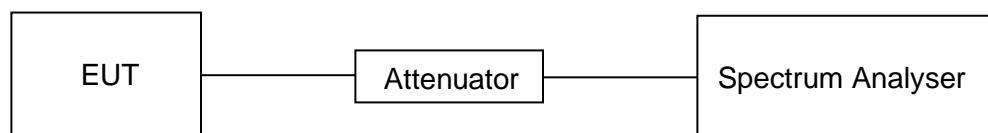
Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times$ RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Use the peak marker function to determine the maximum PSD level.

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times$ RBW
measurement points	\geq span/RBW
Trace	Max hold
Sweep time	Auto couple.

Use the peak marker function to determine the maximum amplitude level.

TEST SETUP

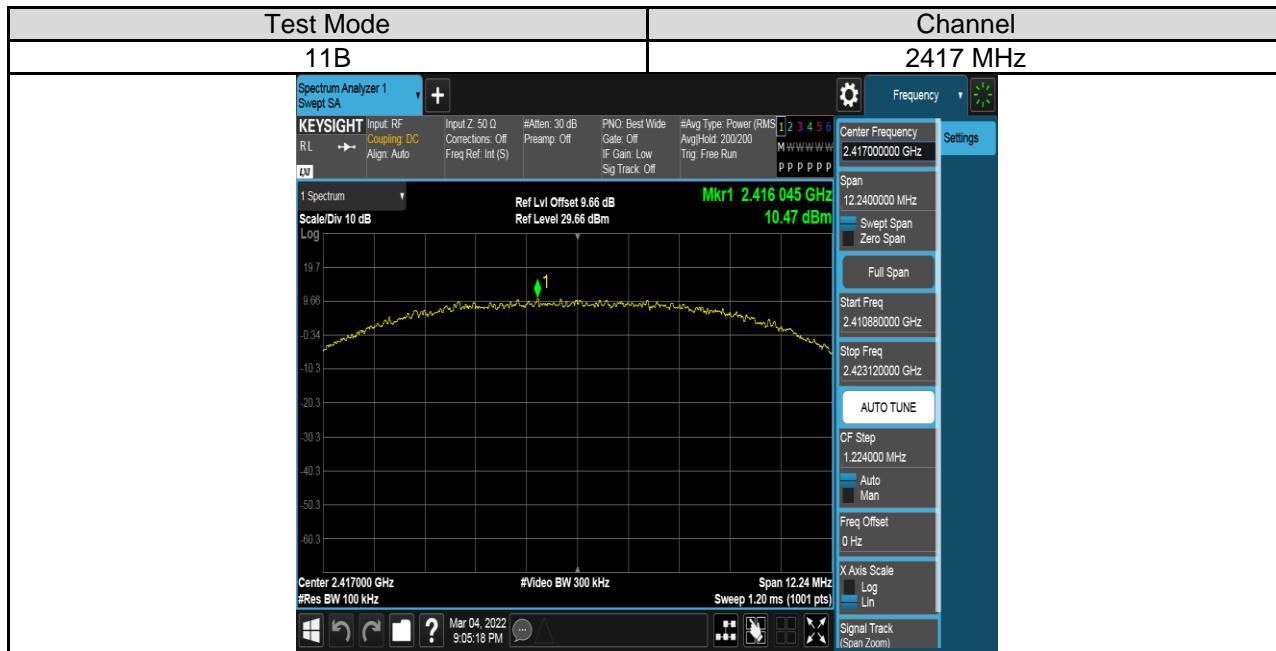
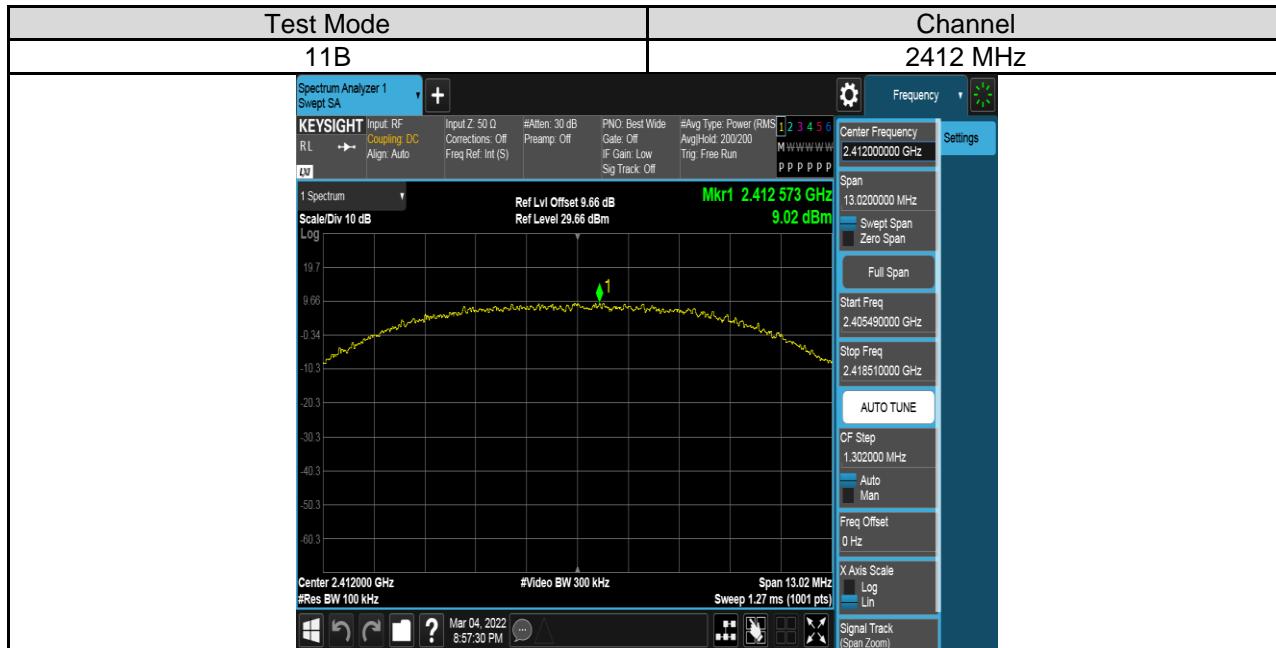


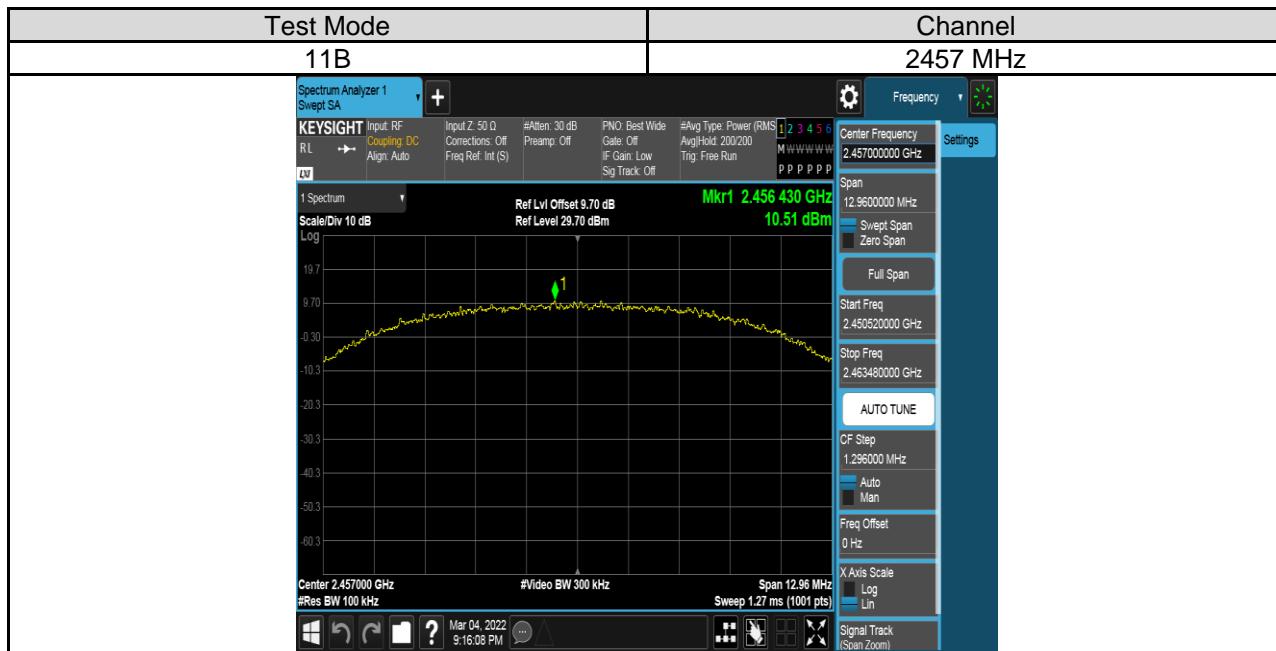
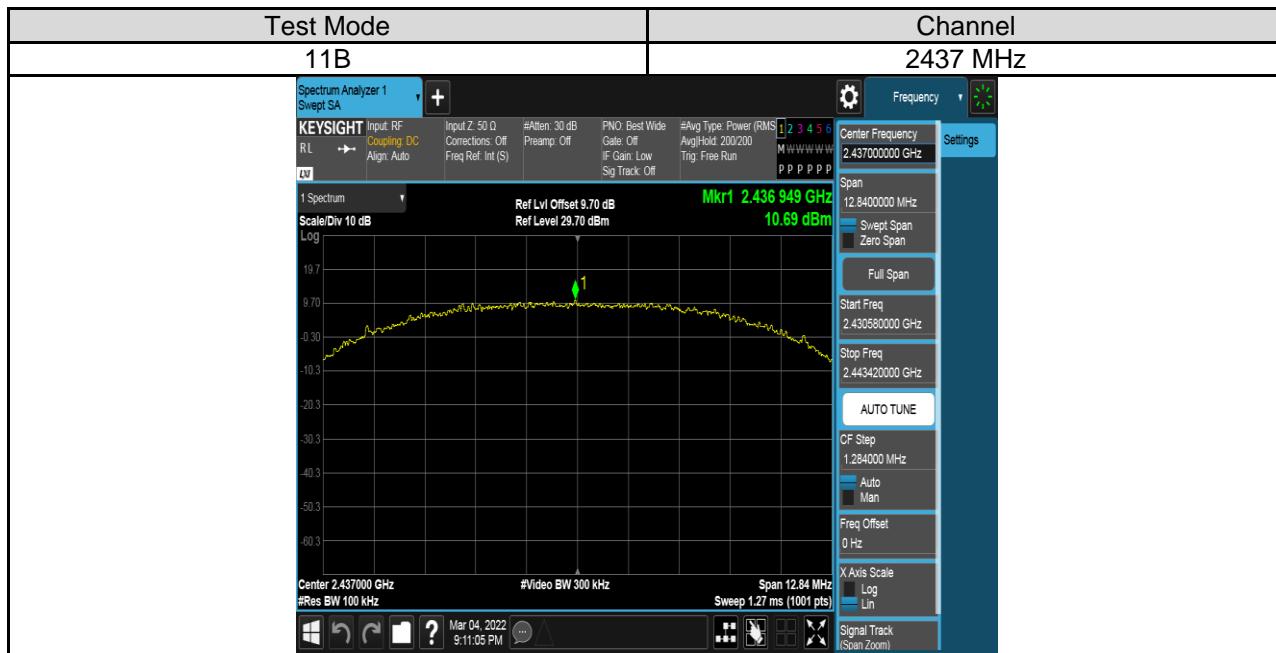
TEST ENVIRONMENT

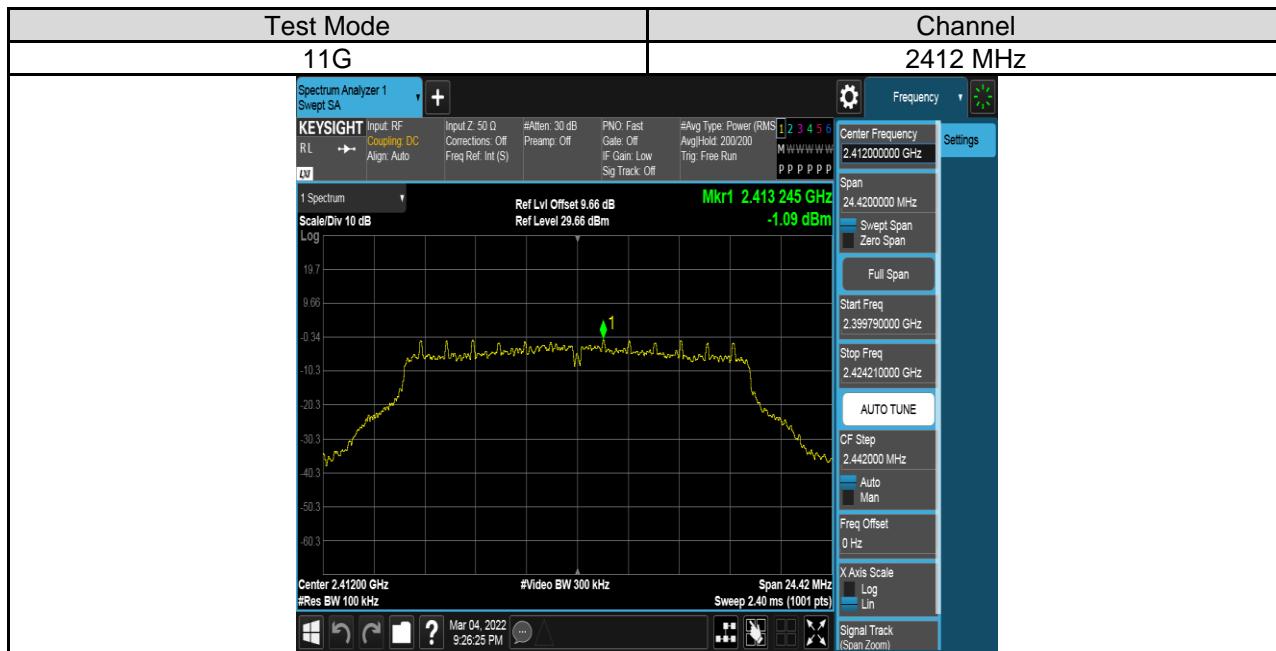
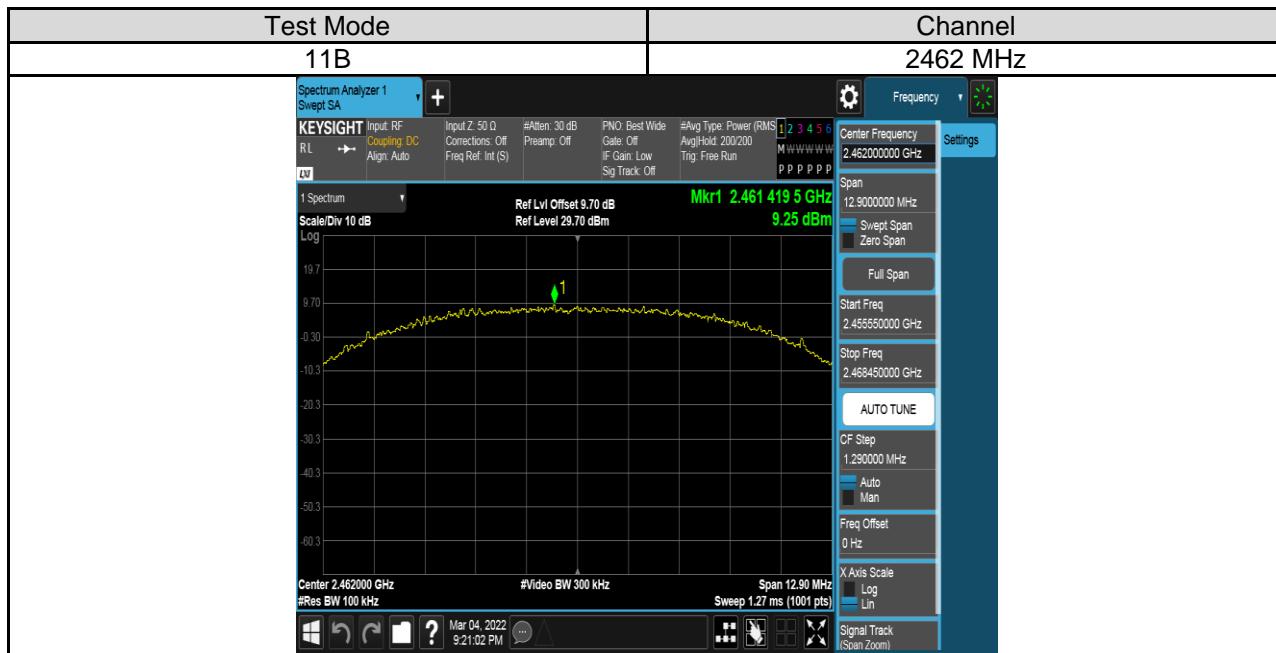
Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 3.3V

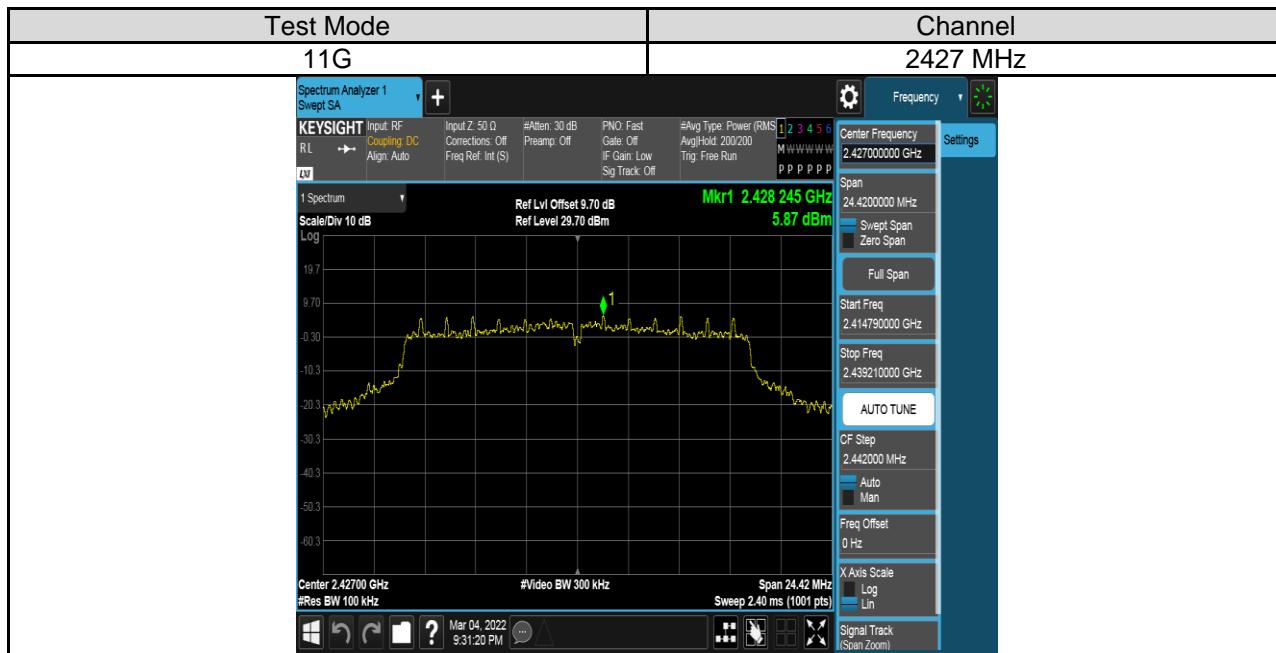
PART 1: REFERENCE LEVEL MEASUREMENTTEST RESULTS TABLE

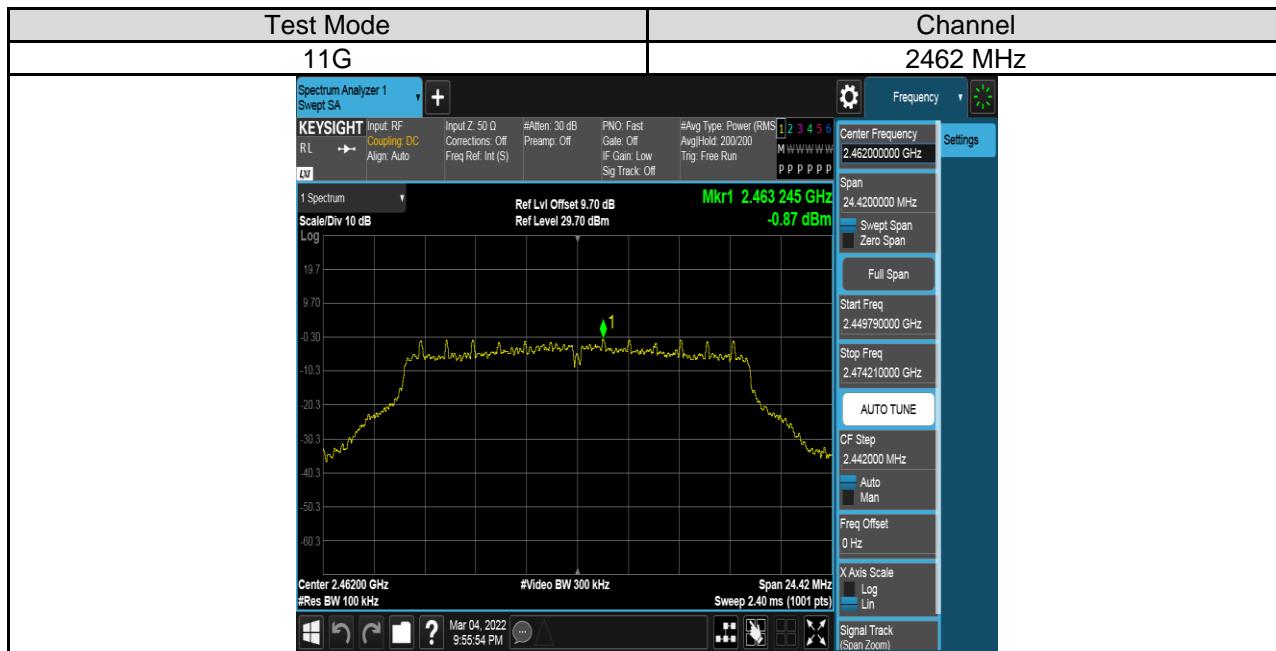
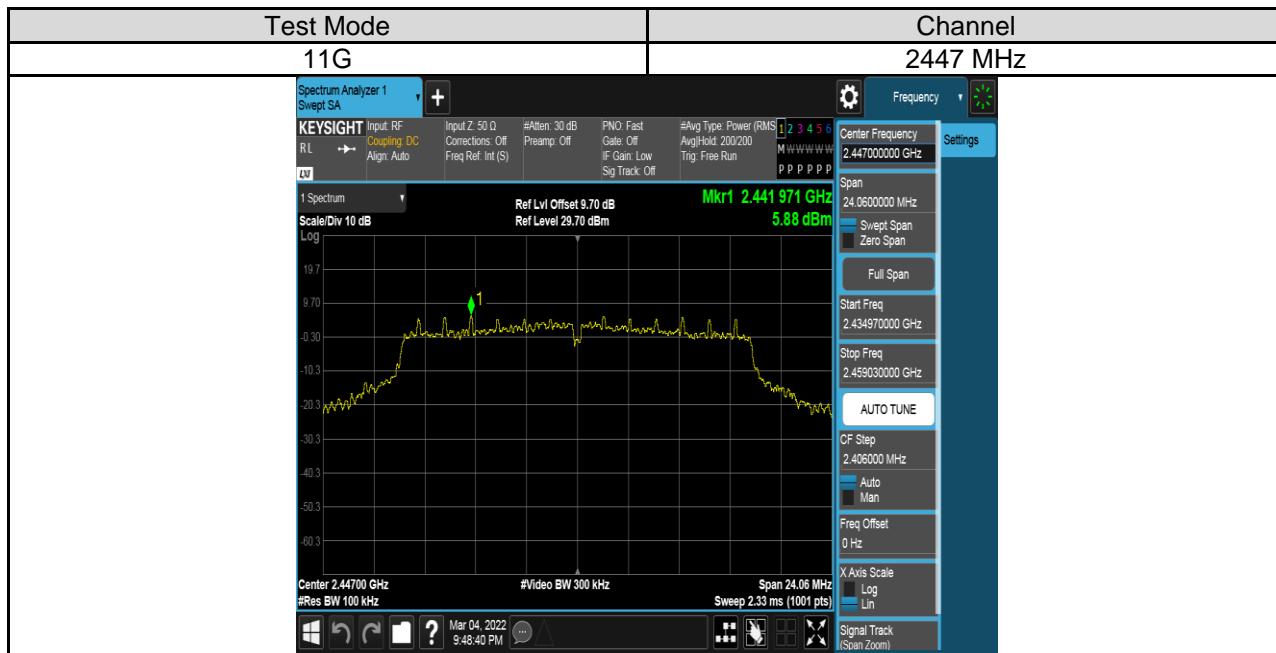
Test Mode	Test Channel	Result[dBm]
11B	2412	9.02
	2417	10.47
	2437	10.69
	2457	10.51
	2462	9.25
11G	2412	-1.09
	2427	5.87
	2437	6.08
	2447	5.88
	2462	-0.87
11N HT20	2412	-2.16
	2427	5.95
	2437	5.98
	2447	5.82
	2462	-2.21

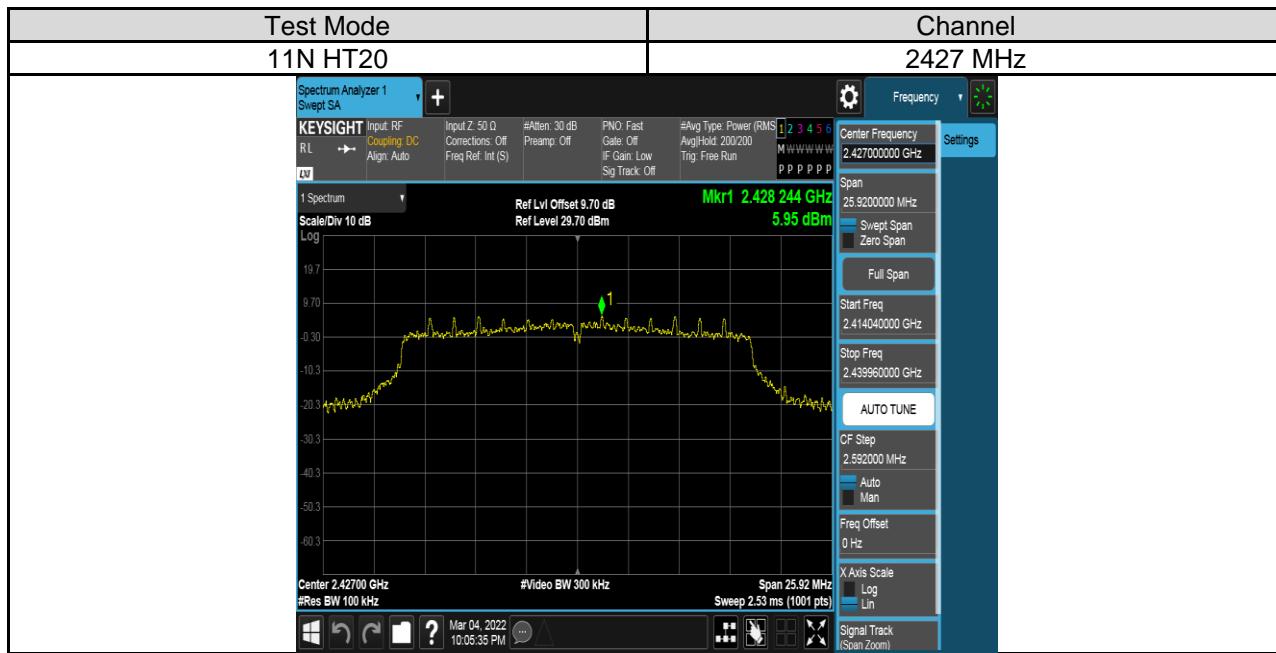
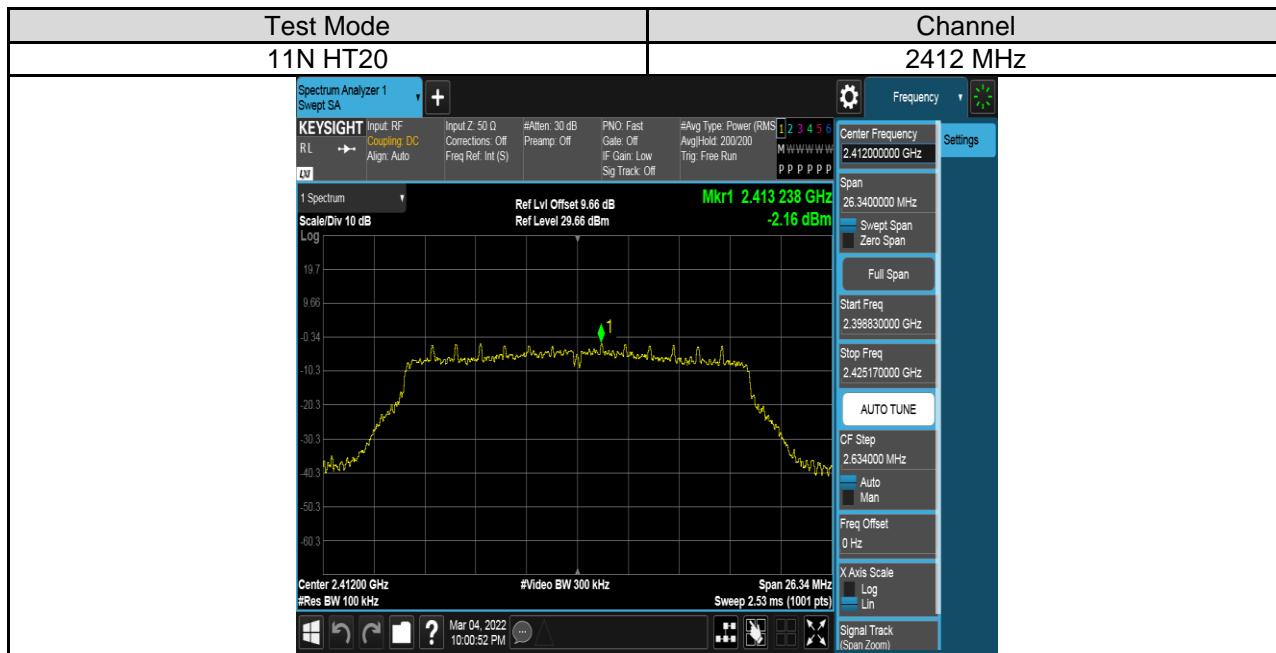
TEST GRAPHS


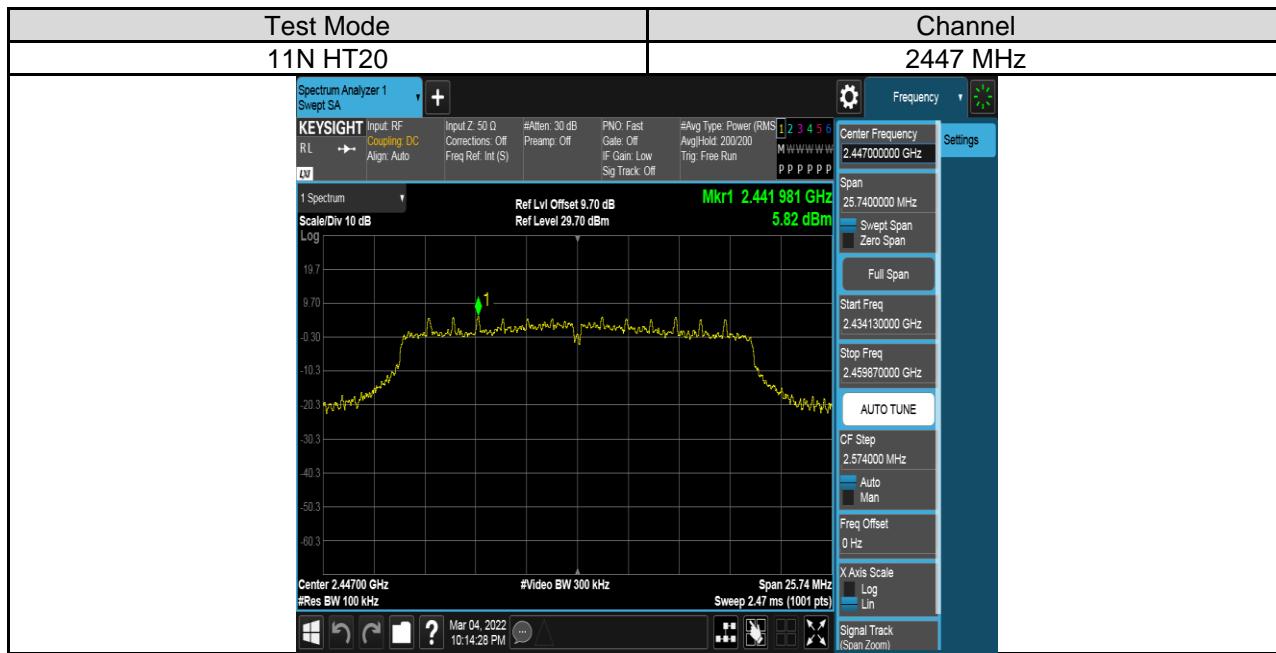
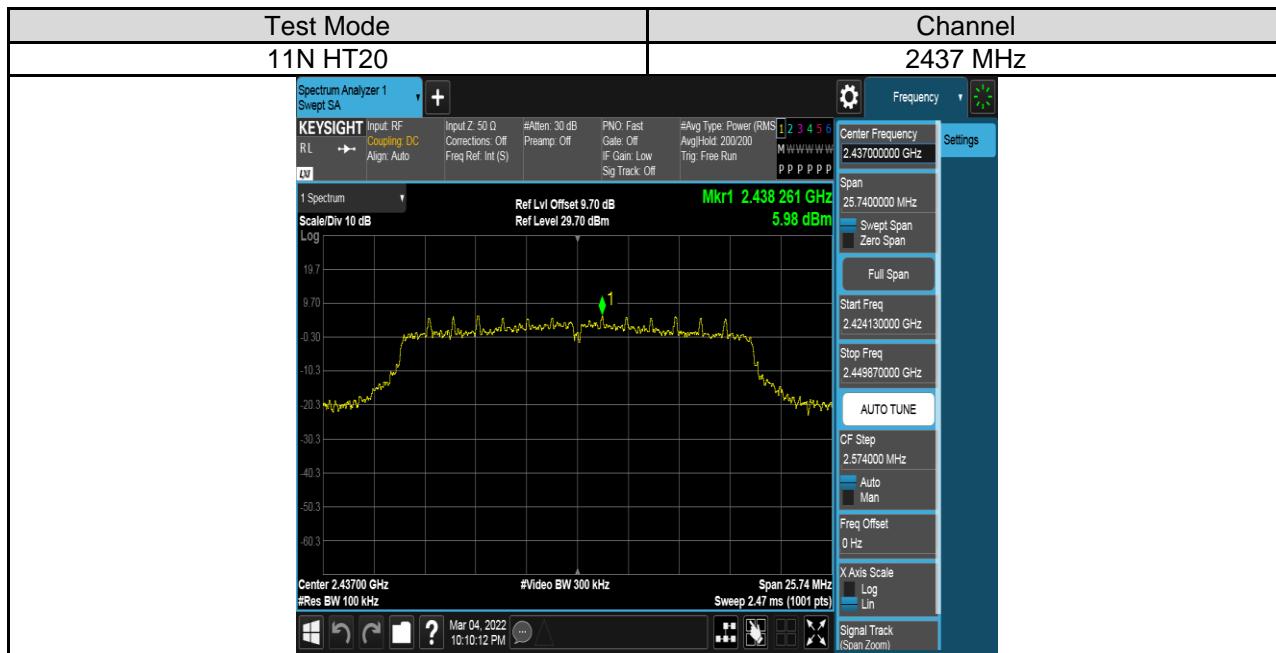


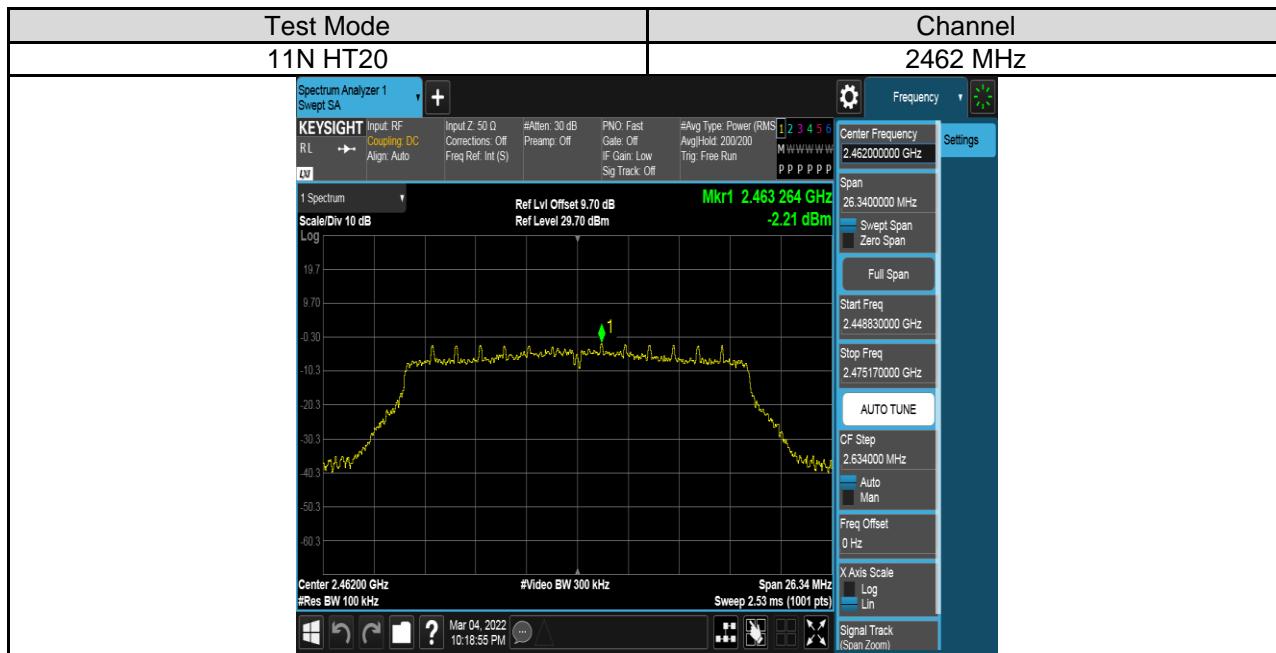






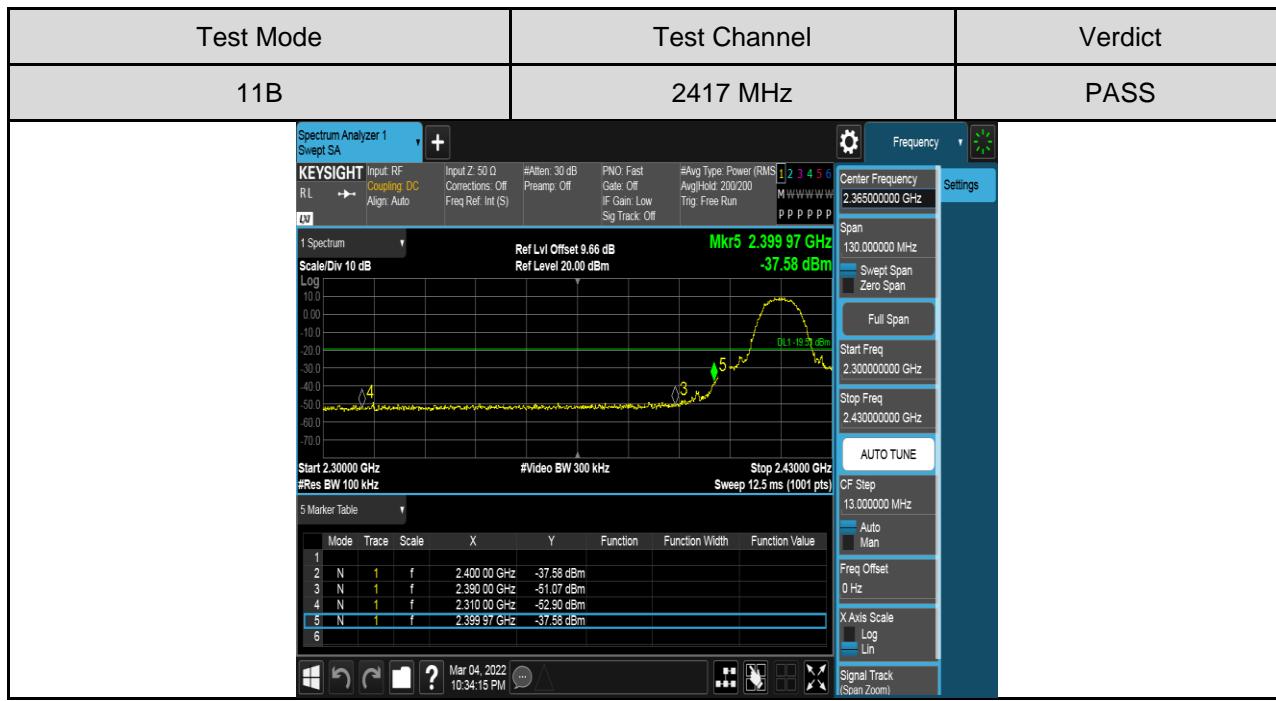
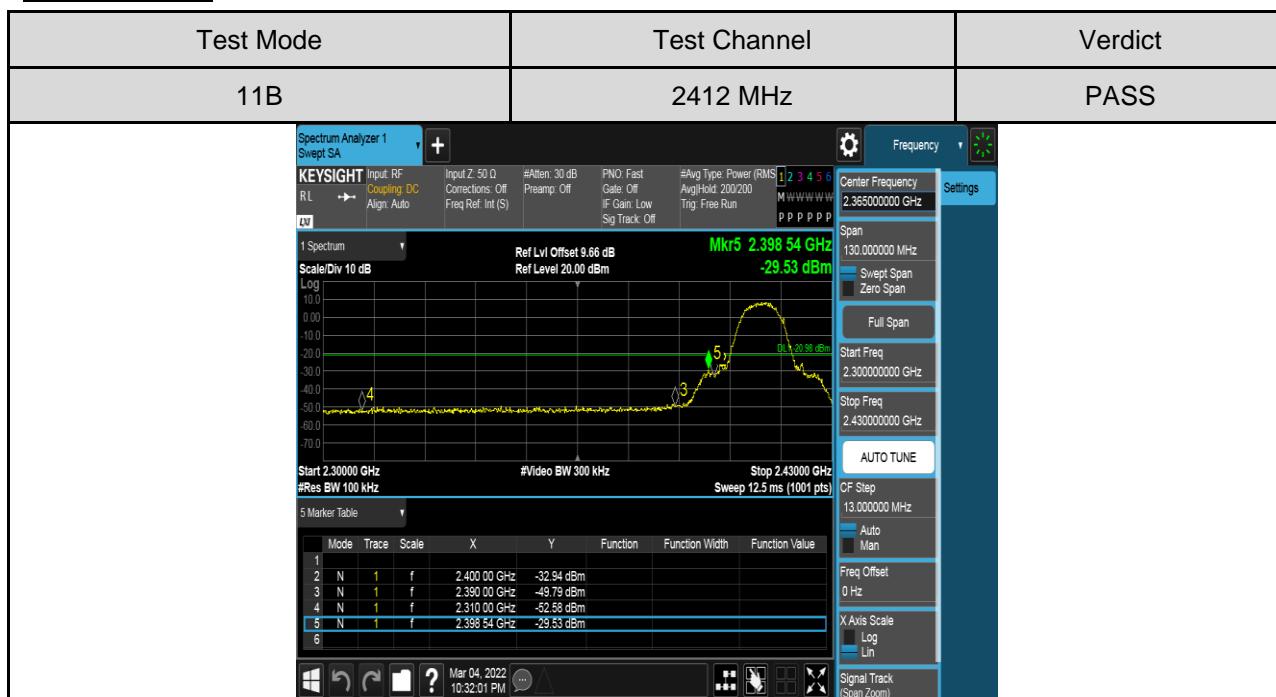


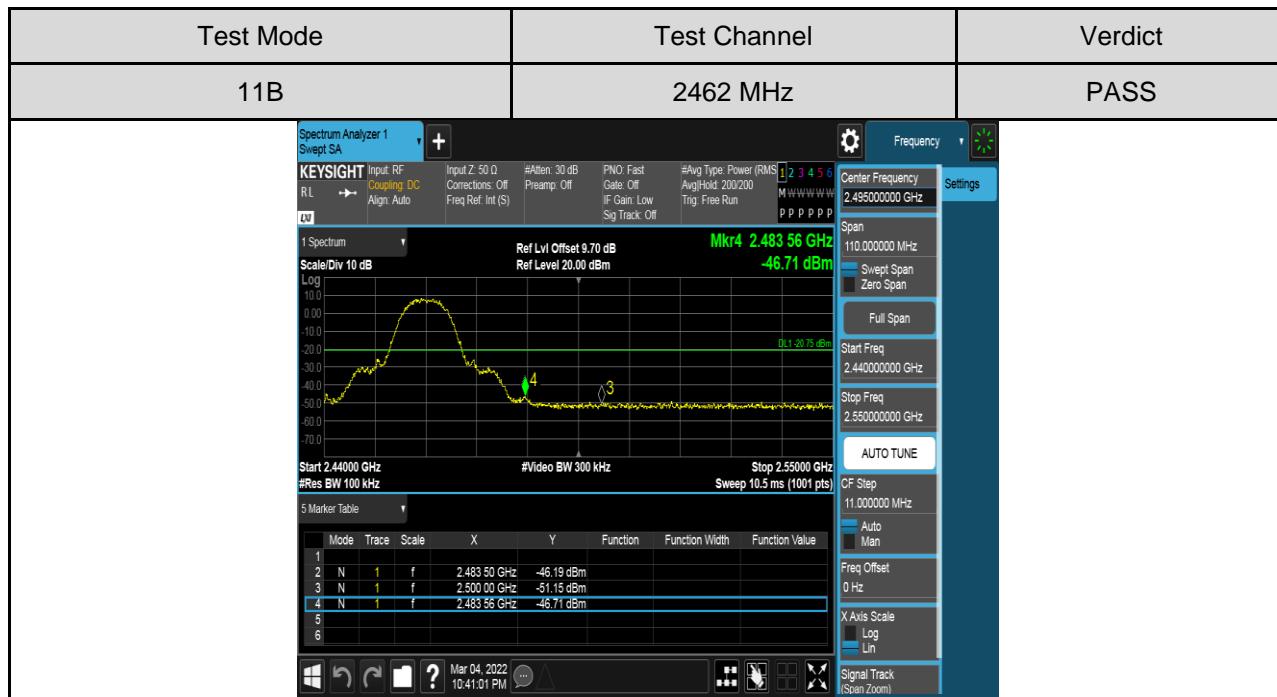
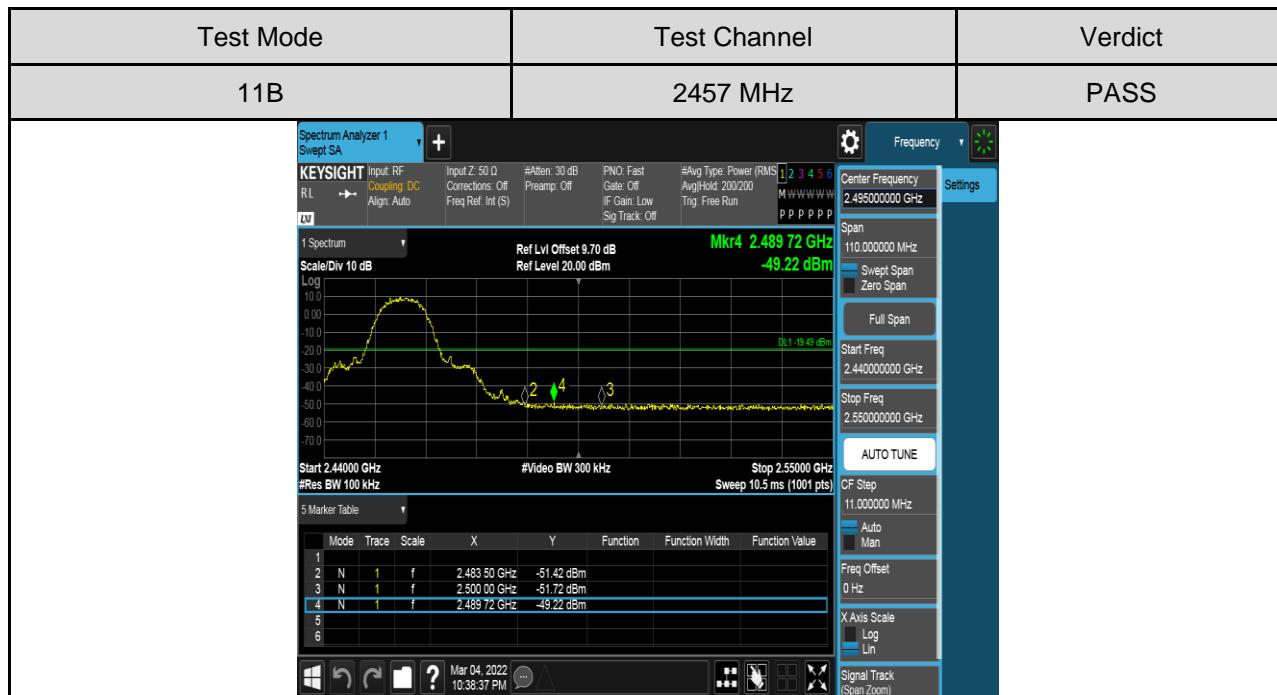


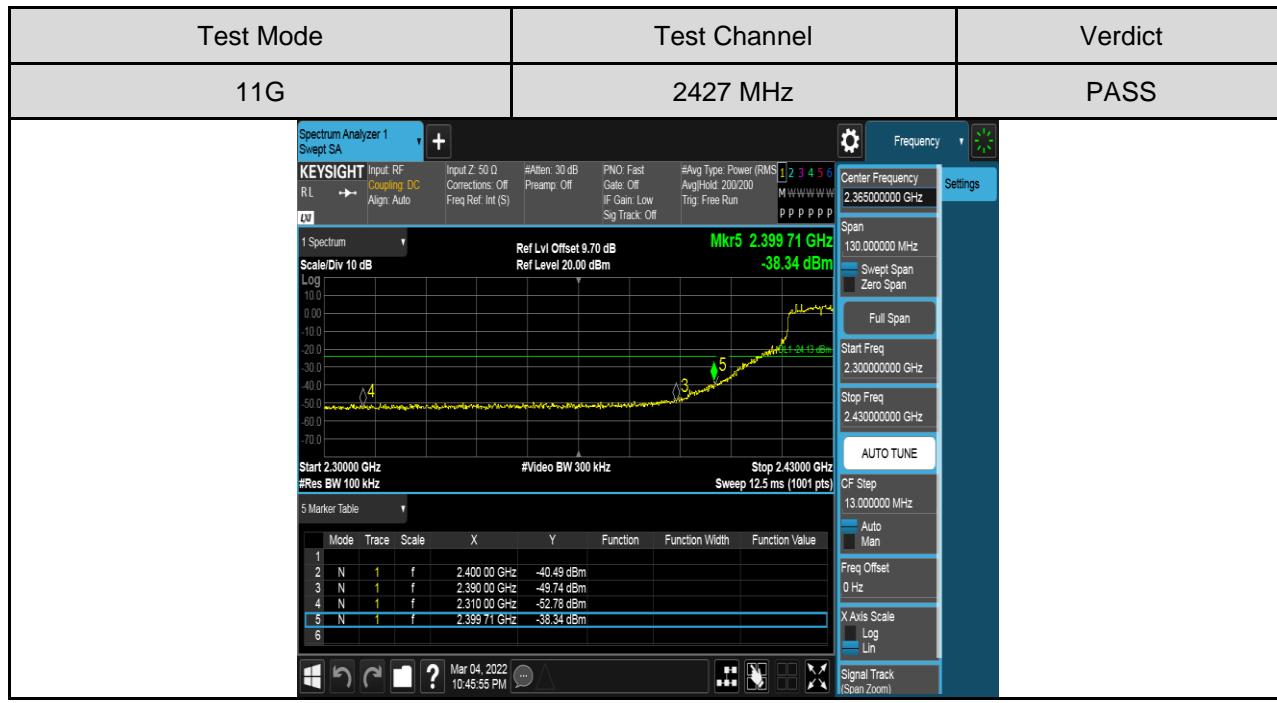
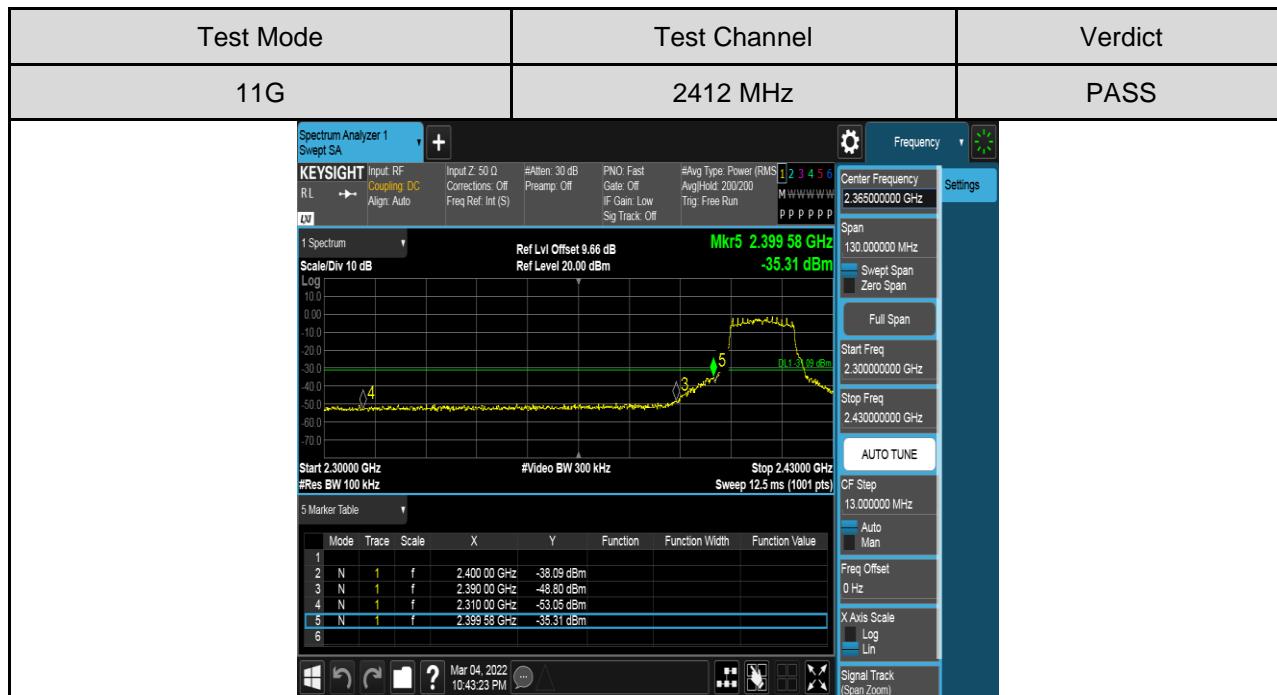


PART 2: CONDUCTED BANDEDGE**TEST RESULTS TABLE**

Test Mode	Test Channel	Result	Verdict
11B	2412	Refer to the Test Graph	PASS
	2417	Refer to the Test Graph	PASS
	2457	Refer to the Test Graph	PASS
	2462	Refer to the Test Graph	PASS
11G	2412	Refer to the Test Graph	PASS
	2427	Refer to the Test Graph	PASS
	2447	Refer to the Test Graph	PASS
	2462	Refer to the Test Graph	PASS
11N HT20	2412	Refer to the Test Graph	PASS
	2427	Refer to the Test Graph	PASS
	2447	Refer to the Test Graph	PASS
	2462	Refer to the Test Graph	PASS

TEST GRAPHS






Test Mode	Test Channel	Verdict
11G	2447 MHz	PASS

Spectrum Analyzer 1
Swept SA

KEYSIGHT Input: RF Coupling: DC
RL: Align: Auto
Input Z: 50 Ω Corrections: Off
Preamp: Off
Freq Ref: Int (S)

#Affen: 30 dB PNO: Fast
Gate: Off IF Gain: Low
Avg Type: Power (RMS) 1 2 3 4 5 6
Avg Hold: 200/200 Trig: Free Run
Sig Track: Off M W W W W W
P P P P P P

1 Spectrum Ref Lvl Offset 8.70 dB
Ref Level 20.00 dBm
Scale/Div 10 dB

Mkr4 2.484 11 GHz -46.60 dBm

Start 2.44000 GHz #Video BW 300 kHz Stop 2.55000 GHz
#Res BW 100 kHz Sweep 10.5 ms (1001 pts)

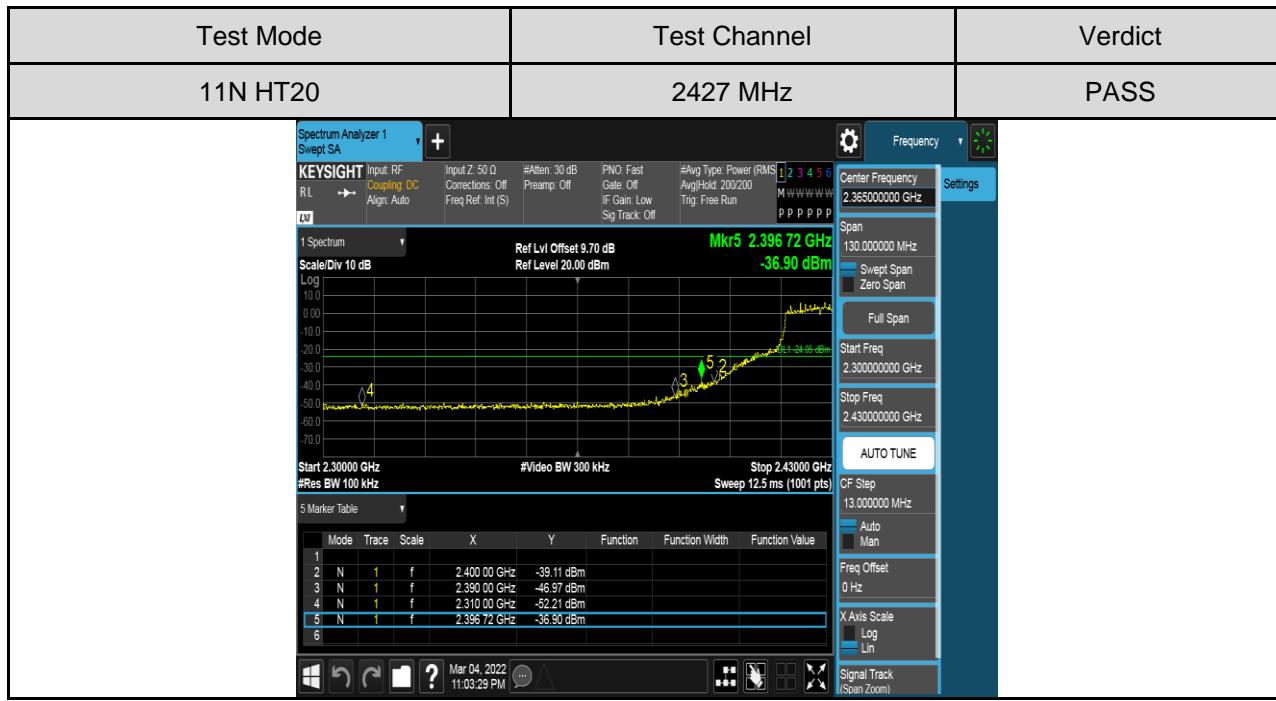
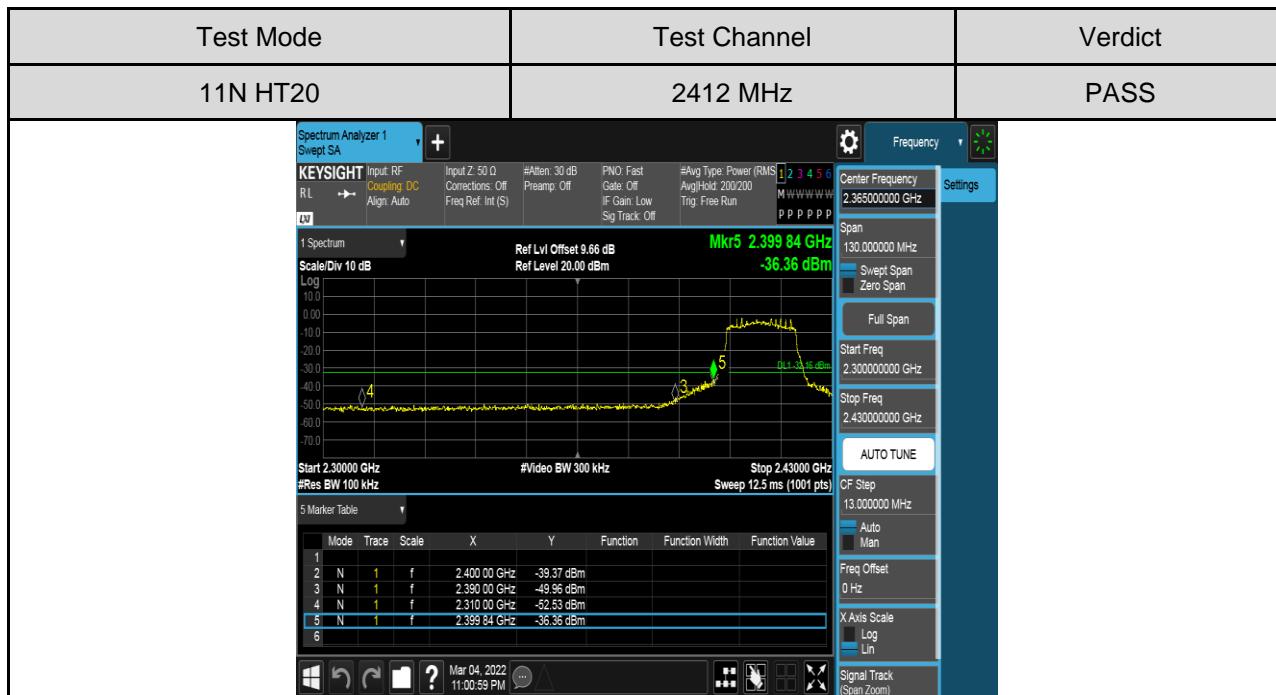
5 Marker Table

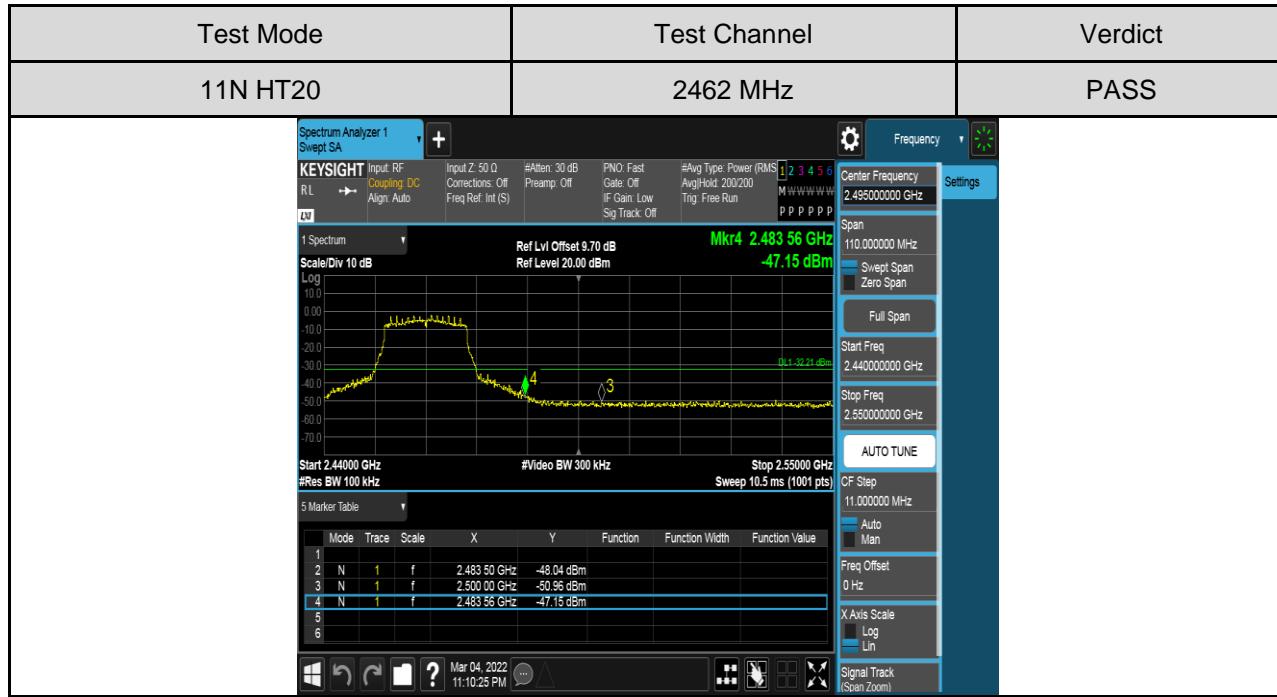
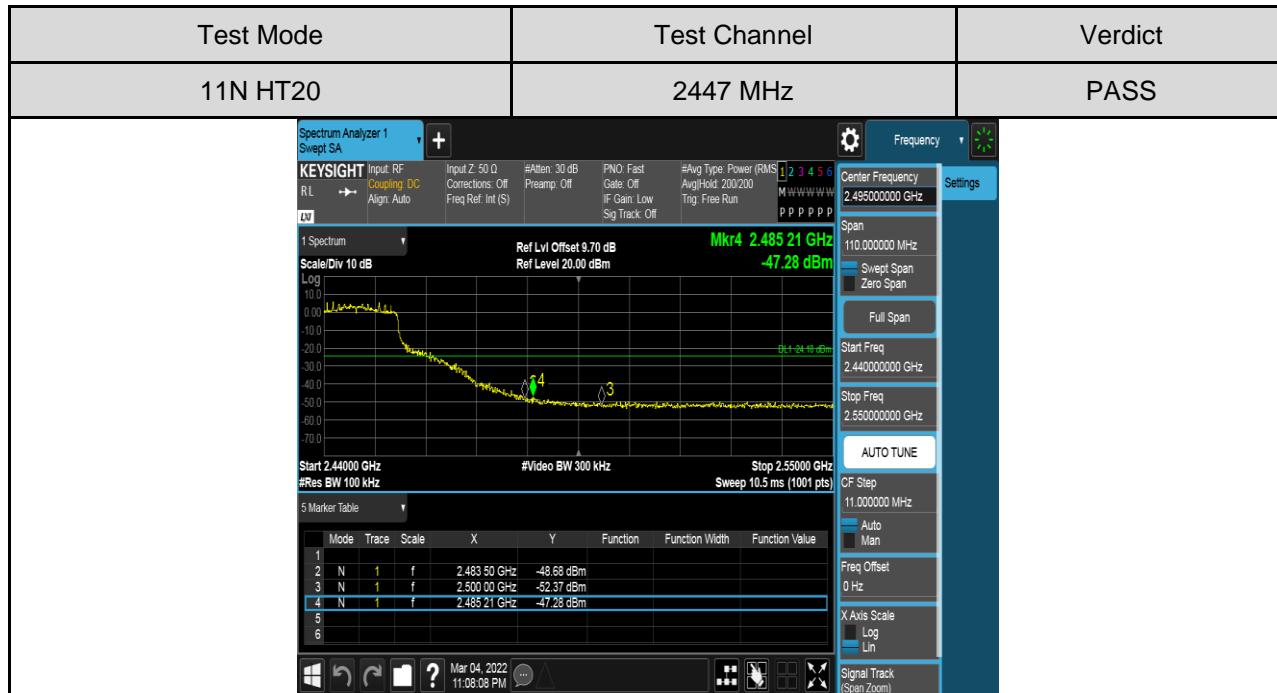
Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.483 50 GHz	-48.67 dBm		
2	N	1	f	2.500 00 GHz	-52.49 dBm		
3	N	1	f	2.484 11 GHz	-46.60 dBm		
4	N	1	f	2.484 11 GHz	-46.60 dBm		
5							
6							

Frequency 2.495000000 GHz
Span 110.000000 MHz
Sweep Span
Zero Span
Full Span
Start Freq 2.440000000 GHz
Stop Freq 2.550000000 GHz
AUTO TUNE
CF Step 11.000000 MHz
Auto
Man
Freq Offset 0 Hz
X Axis Scale Log
Lin
Signal Track (Span Zoom)

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Test Mode	Test Channel	Verdict																																																							
11G	2462 MHz	PASS																																																							
<p>Spectrum Analyzer 1 Swept SA</p> <p>KEYSIGHT Input: RF Coupling: DC RL → Align: Auto</p> <p>Input Z: 50 Ω Corrections: Off #Attenu: 30 dB Preamp: Off PNO: Fast Freq Ref: Int (S) Gate: Off #Avg Type: Power (RMS) Sig Track: Off IF Gain: Low Avg Hold: 200/200 Trig: Free Run</p> <p>1 Spectrum Ref Lvl Offset 8.70 dB Scale/Div 10 dB Ref Level 20.00 dBm</p> <p>Mkr4 2.483.78 GHz -46.47 dBm</p> <p>Start 2.44000 GHz #Video BW 300 kHz Stop 2.50000 GHz #Res BW 100 kHz Sweep 10.5 ms (1001 pts)</p> <p>5 Marker Table</p> <table border="1"> <thead> <tr> <th>Mode</th> <th>Trace</th> <th>Scale</th> <th>X</th> <th>Y</th> <th>Function</th> <th>Function Width</th> <th>Function Value</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>N</td> <td>1</td> <td>f</td> <td>2.483.50 GHz</td> <td>-47.96 dBm</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>N</td> <td>1</td> <td>f</td> <td>2.500.00 GHz</td> <td>-52.06 dBm</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>N</td> <td>1</td> <td>f</td> <td>2.483.78 GHz</td> <td>-46.47 dBm</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value	1								2	N	1	f	2.483.50 GHz	-47.96 dBm			3	N	1	f	2.500.00 GHz	-52.06 dBm			4	N	1	f	2.483.78 GHz	-46.47 dBm			5								6								<p>Frequency</p> <p>Center Frequency 2.495000000 GHz</p> <p>Span 110.000000 MHz</p> <p>Full Span</p> <p>Start Freq 2.440000000 GHz</p> <p>Stop Freq 2.550000000 GHz</p> <p>AUTO TUNE</p> <p>CF Step 11.000000 MHz</p> <p>Auto</p> <p>Man</p> <p>Freq Offset 0 Hz</p> <p>X Axis Scale Log</p> <p>Signal Track (Span Zoom)</p>
Mode	Trace	Scale	X	Y	Function	Function Width	Function Value																																																		
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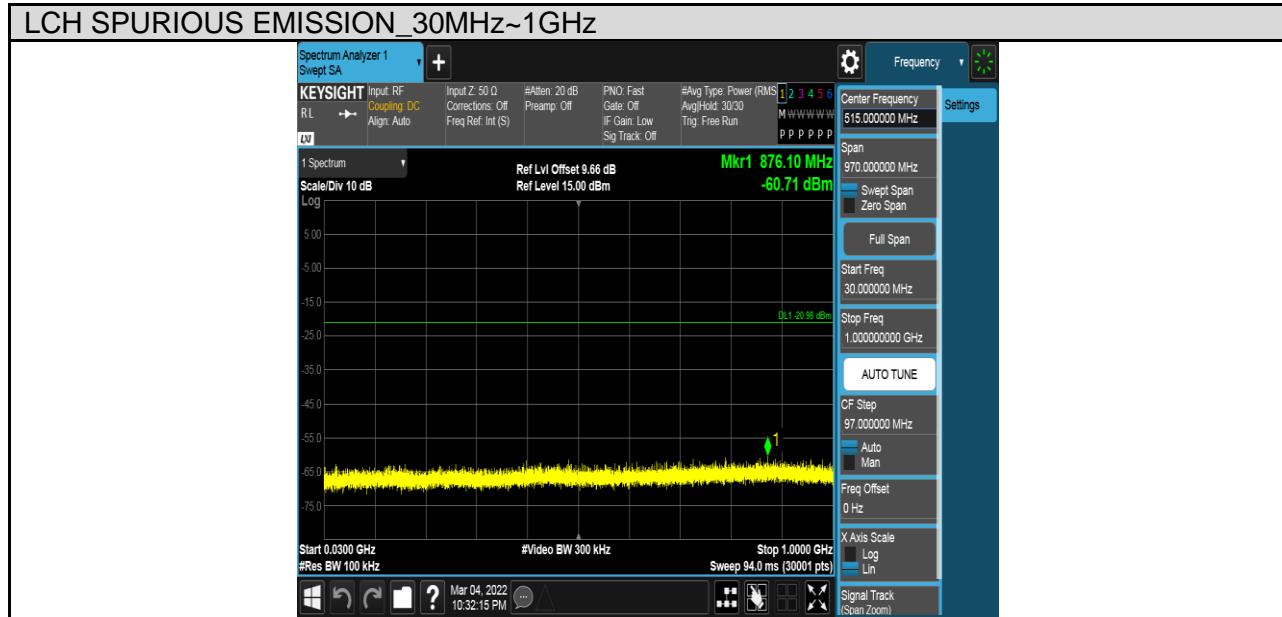


PART 3: CONDUCTED SPURIOUS EMISSION**TEST RESULTS TABLE**

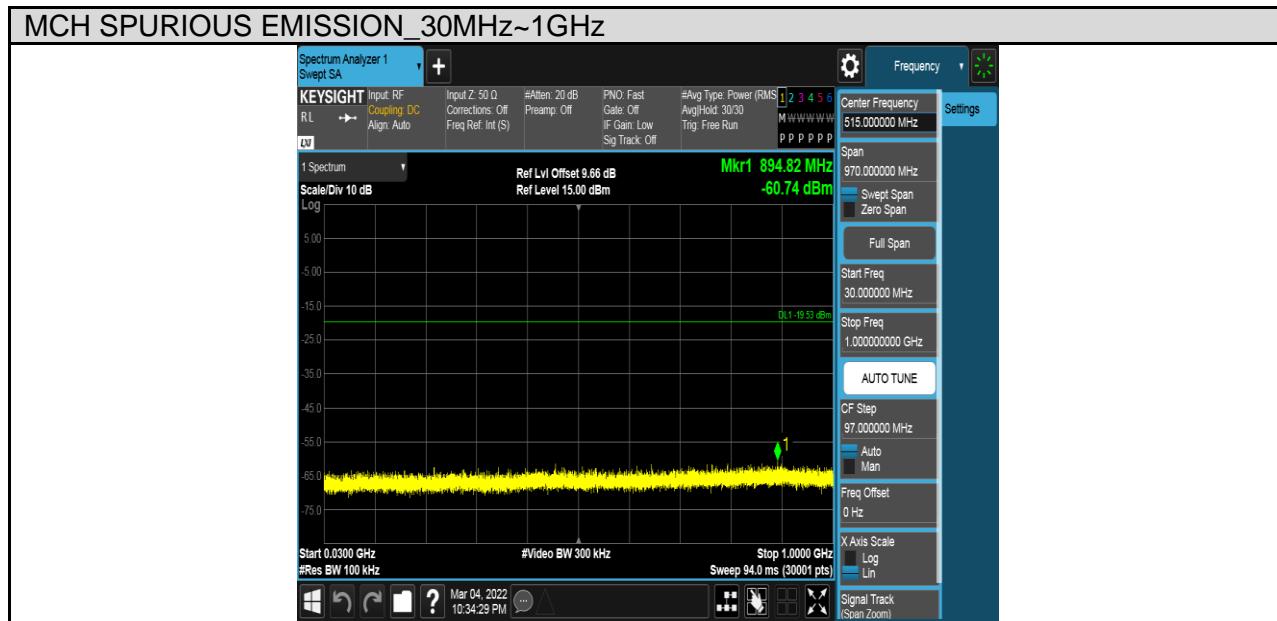
Test Mode	Test Channel	Result	Verdict
11B	2412	Refer to the Test Graph	PASS
	2417	Refer to the Test Graph	PASS
	2437	Refer to the Test Graph	PASS
	2457	Refer to the Test Graph	PASS
	2462	Refer to the Test Graph	PASS
11G	2412	Refer to the Test Graph	PASS
	2427	Refer to the Test Graph	PASS
	2437	Refer to the Test Graph	PASS
	2447	Refer to the Test Graph	PASS
	2462	Refer to the Test Graph	PASS
11N HT20	2412	Refer to the Test Graph	PASS
	2427	Refer to the Test Graph	PASS
	2437	Refer to the Test Graph	PASS
	2447	Refer to the Test Graph	PASS
	2462	Refer to the Test Graph	PASS

TEST GRAPHS

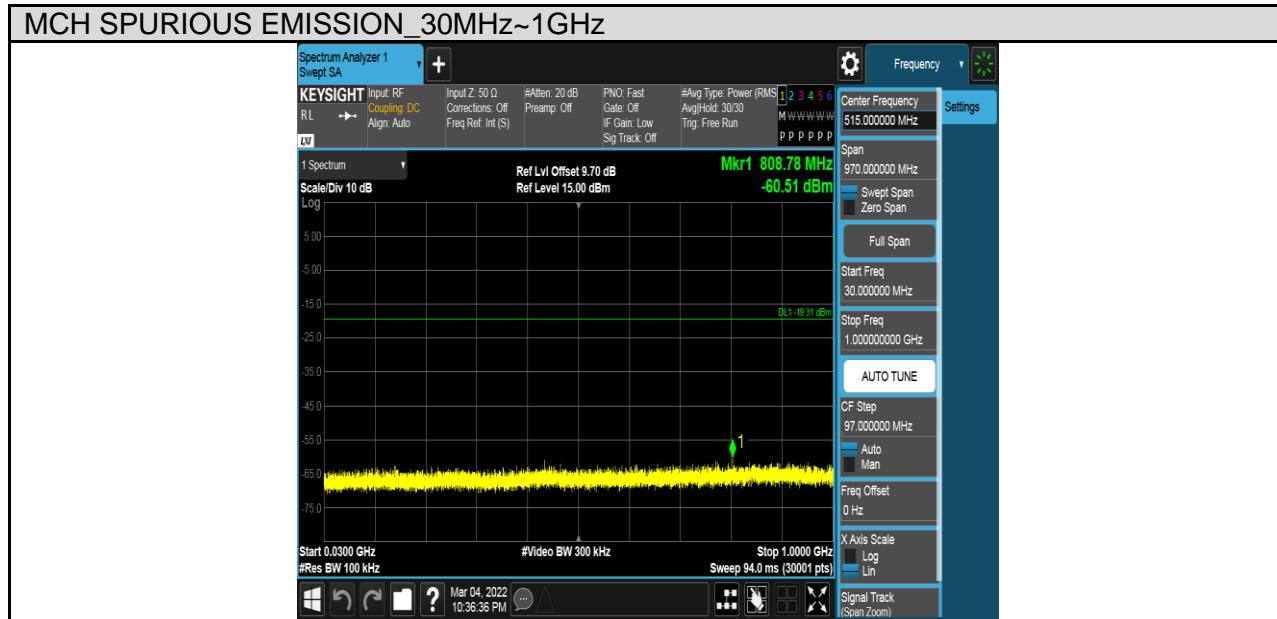
Test Mode	Channel	Verdict
11B	2412 MHz	PASS



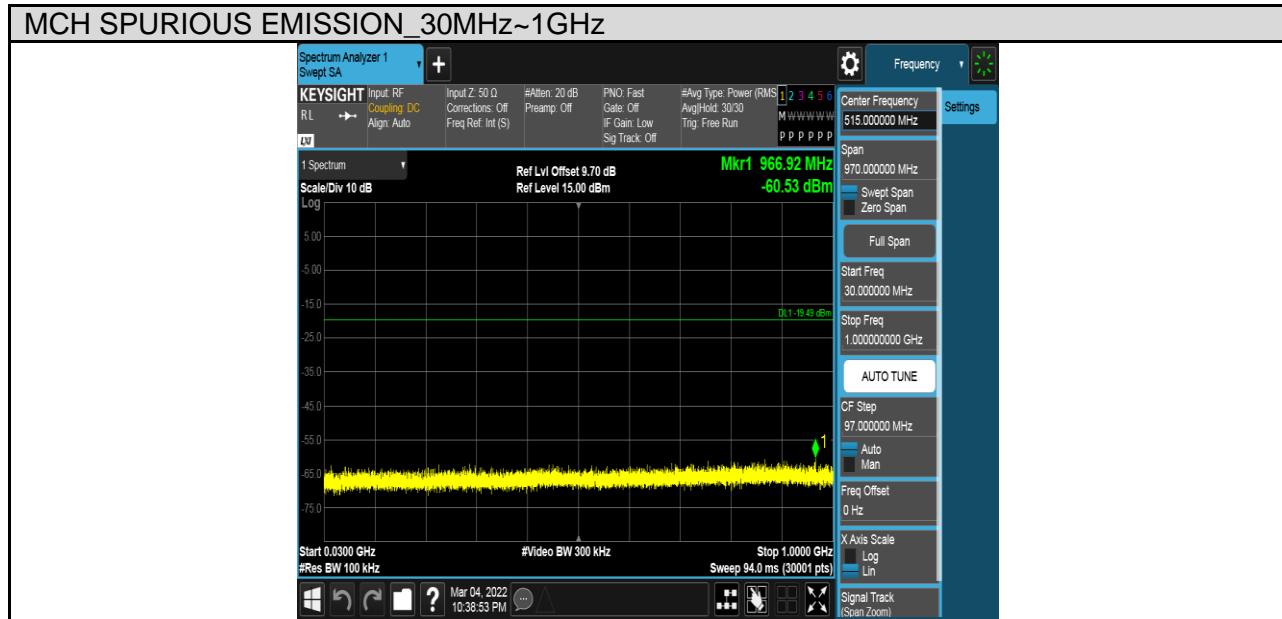
Test Mode	Channel	Verdict
11B	2417 MHz	PASS



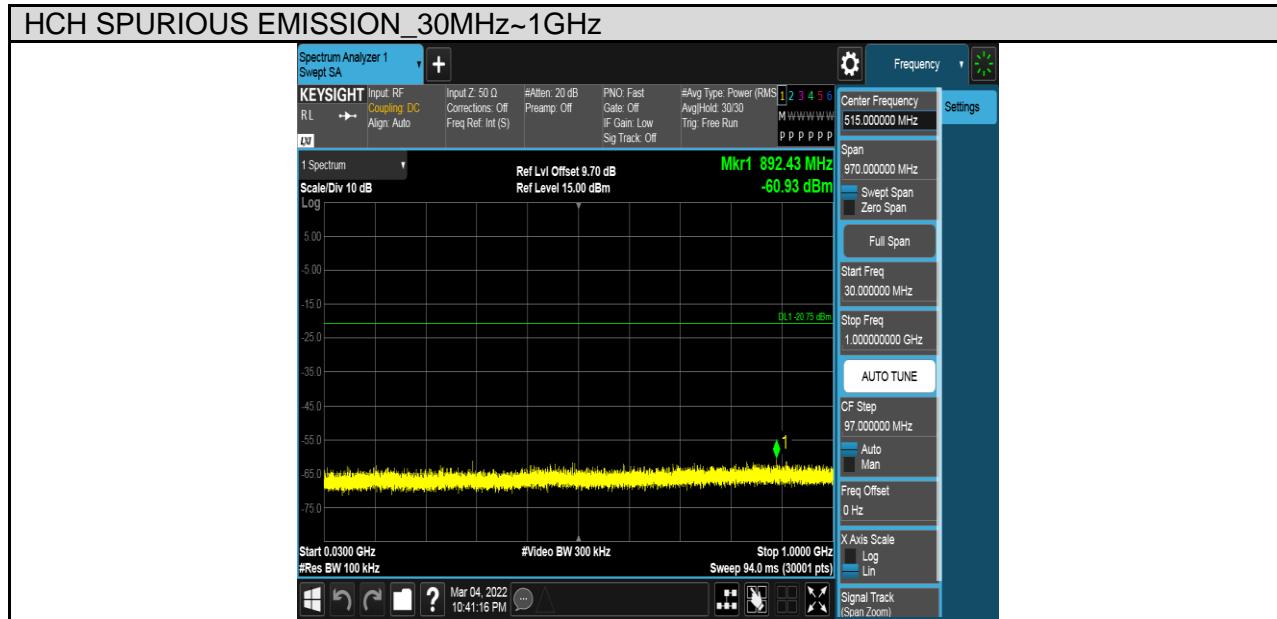
Test Mode	Channel	Verdict
11B	2437 MHz	PASS



Test Mode	Channel	Verdict
11B	2457 MHz	PASS



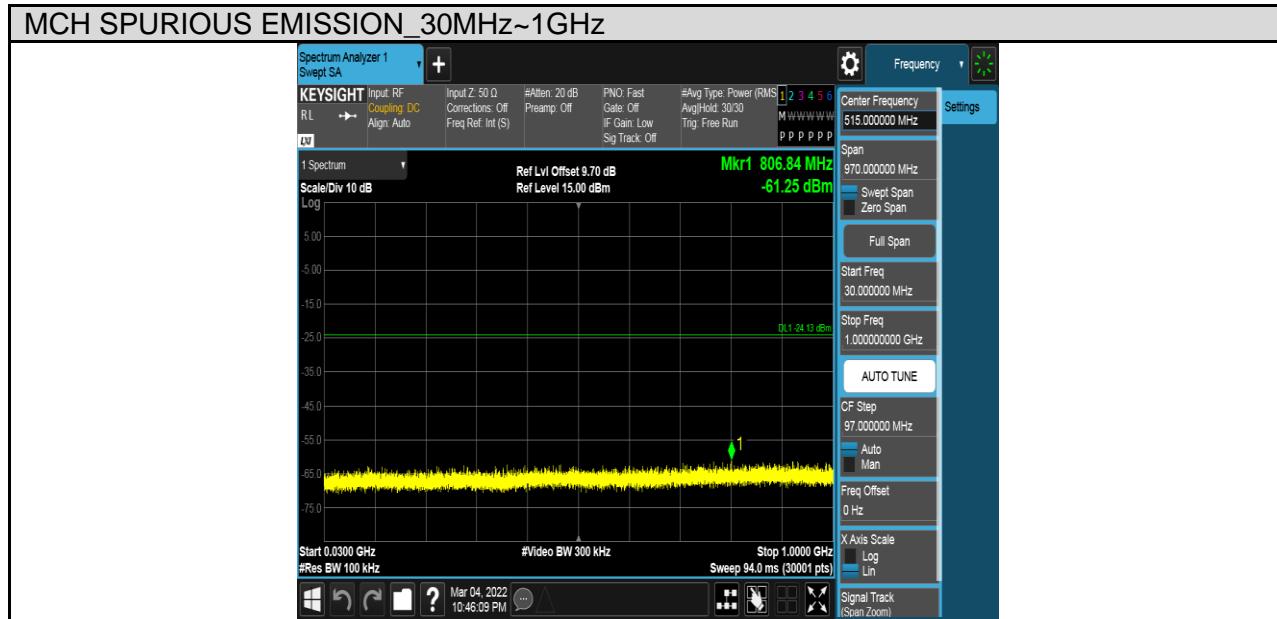
Test Mode	Channel	Verdict
11B	2462 MHz	PASS



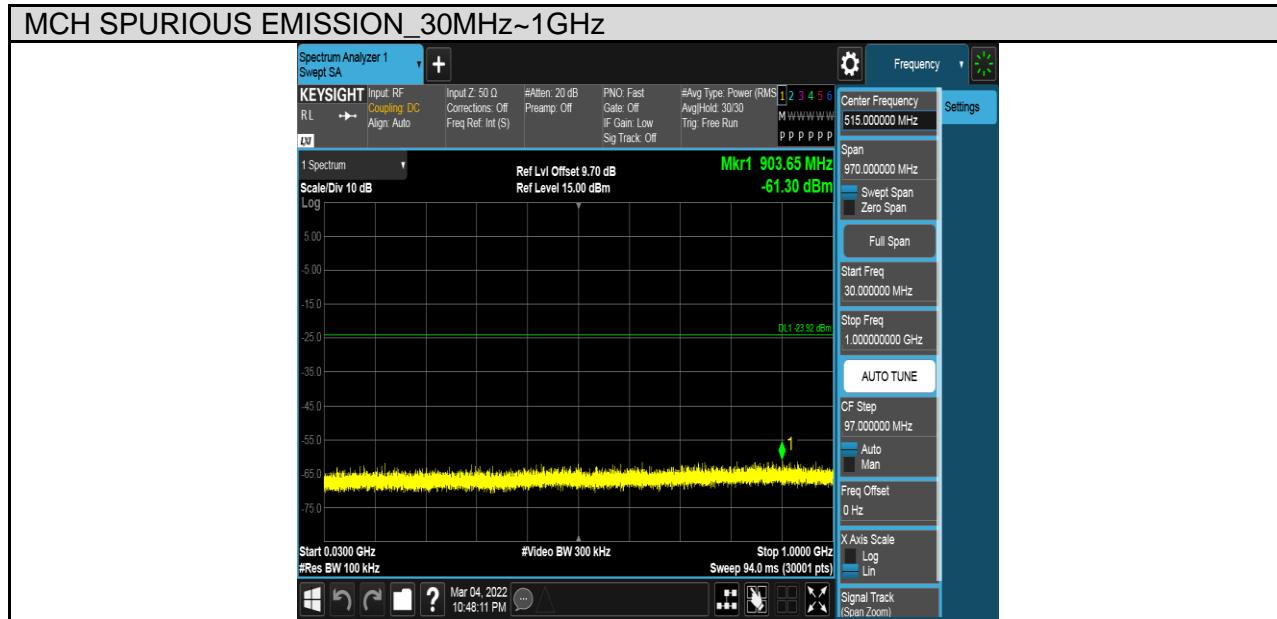
Test Mode	Channel	Verdict
11G	2412 MHz	PASS



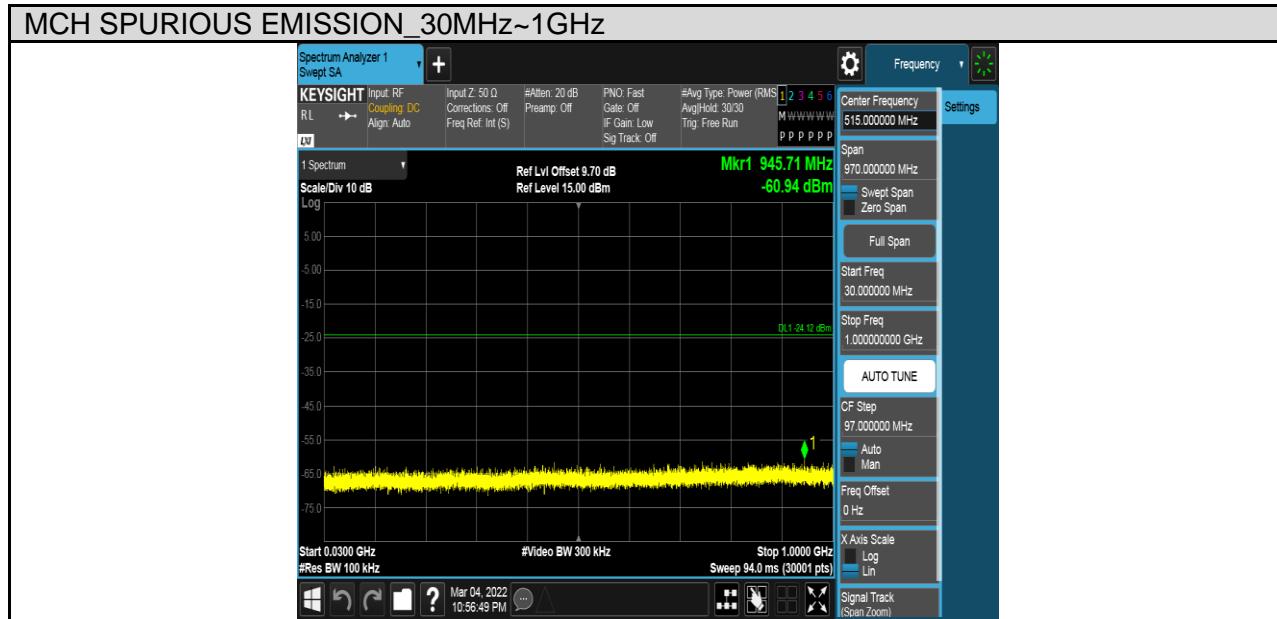
Test Mode	Channel	Verdict
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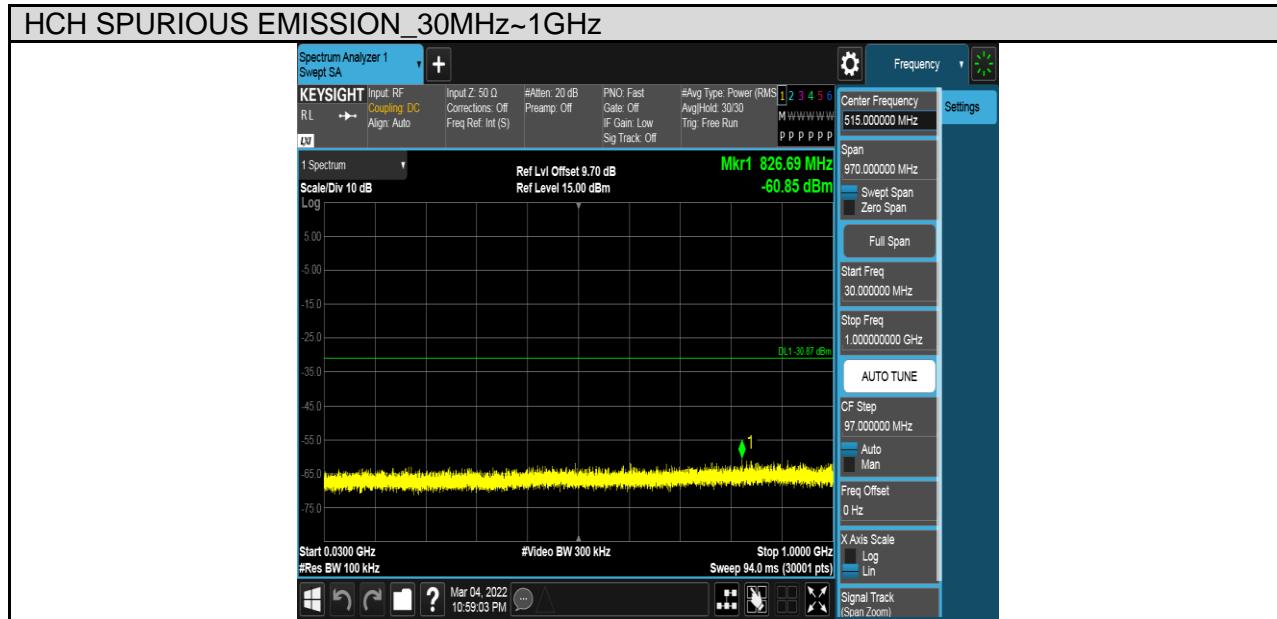
Test Mode	Channel	Verdict
11G	2437 MHz	PASS



Test Mode	Channel	Verdict
11G	2447 MHz	PASS



Test Mode	Channel	Verdict
11G	2462 MHz	PASS



Test Mode	Channel	Verdict
11N HT20	2412 MHz	PASS

