



## 7.4. POWER SPECTRAL DENSITY

### LIMITS

FCC Part15 (15.247) Subpart C, ISED RSS-247			
Section	Test Item	Limit	Frequency Range (MHz)
FCC §15.247 (e) ISED RSS-247 5.2 (b)	Power Spectral Density	8 dBm/3 kHz	2400-2483.5

### TEST PROCEDURE

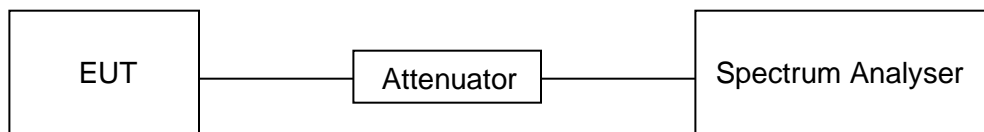
Refer to FCC KDB 558074, connect the UUT to the spectrum analyser and use the following settings:

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

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

### TEST SETUP



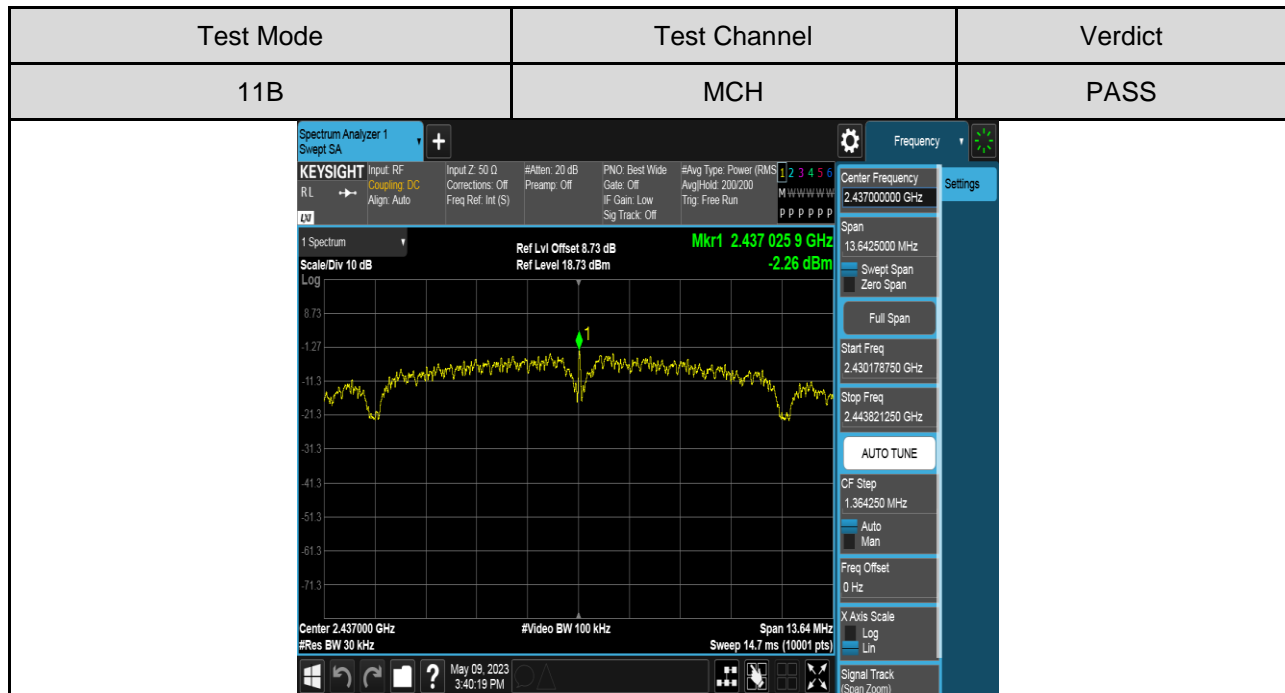
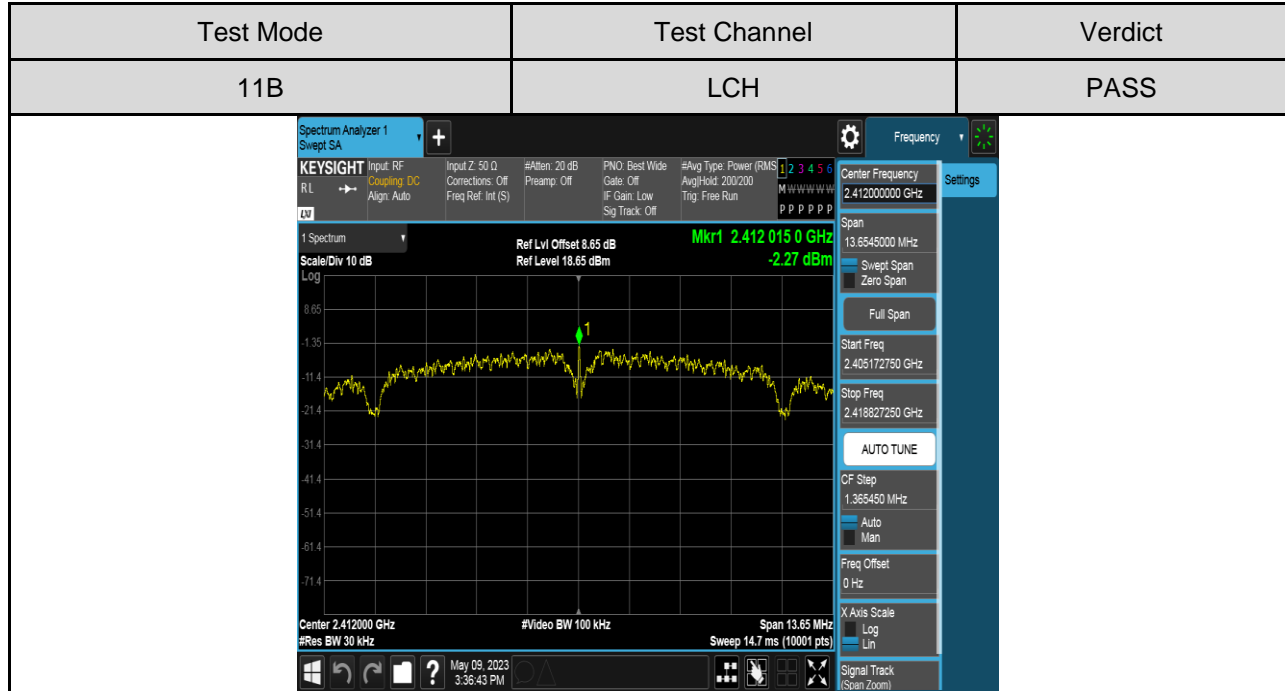
**TEST ENVIRONMENT**

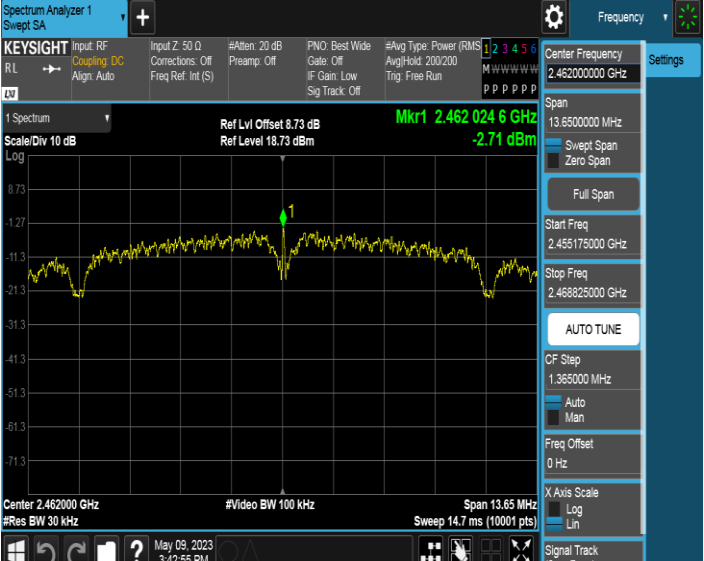
Temperature	22.3°C	Relative Humidity	47.8%
Atmosphere Pressure	102.1kpa	Test Voltage	AC120V/60Hz

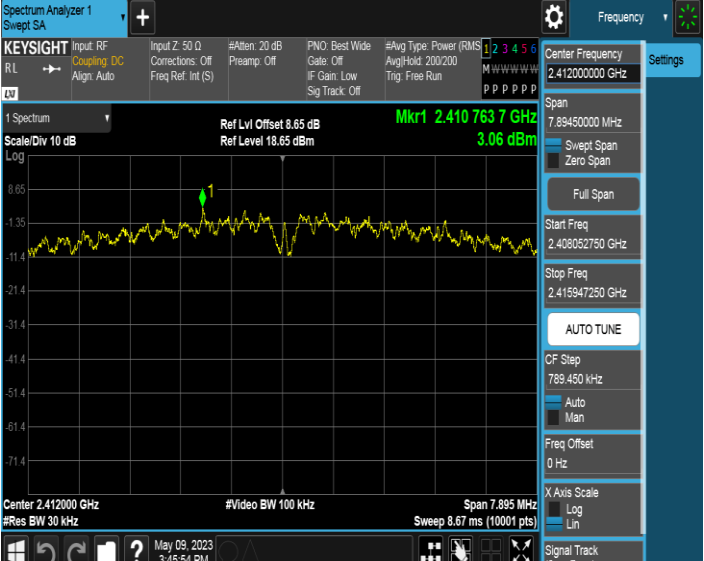
**TEST RESULTS TABLE**

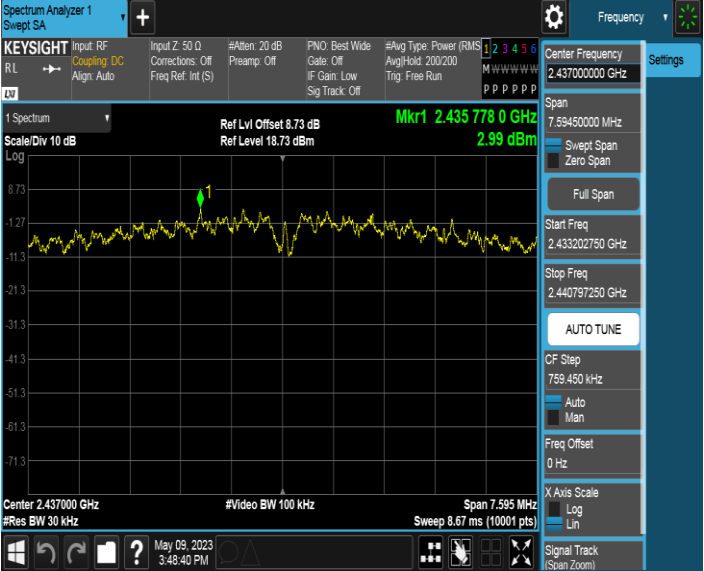
Test Mode	Test Channel	Maximum Peak power spectral density (dBm/30kHz)	Result
11B	LCH	-2.27	Pass
	MCH	-2.26	Pass
	HCH	-2.71	Pass
11G	LCH	3.06	Pass
	MCH	2.99	Pass
	HCH	2.46	Pass
11N HT20	LCH	2.86	Pass
	MCH	3.14	Pass
	HCH	2.64	Pass
11N HT40	LCH	-0.17	Pass
	MCH	0.21	Pass
	HCH	-0.05	Pass
11AX20	LCH	-3.19	Pass
	MCH	-1.74	Pass
	HCH	-3.66	Pass


**TEST GRAPHS**

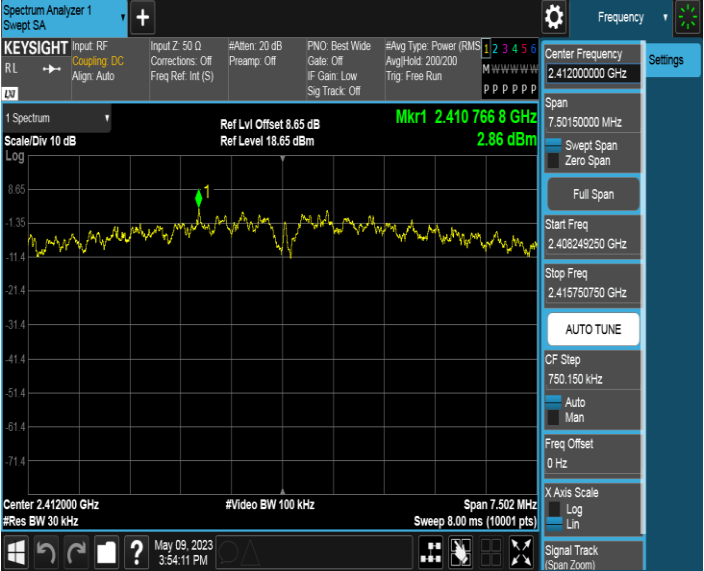


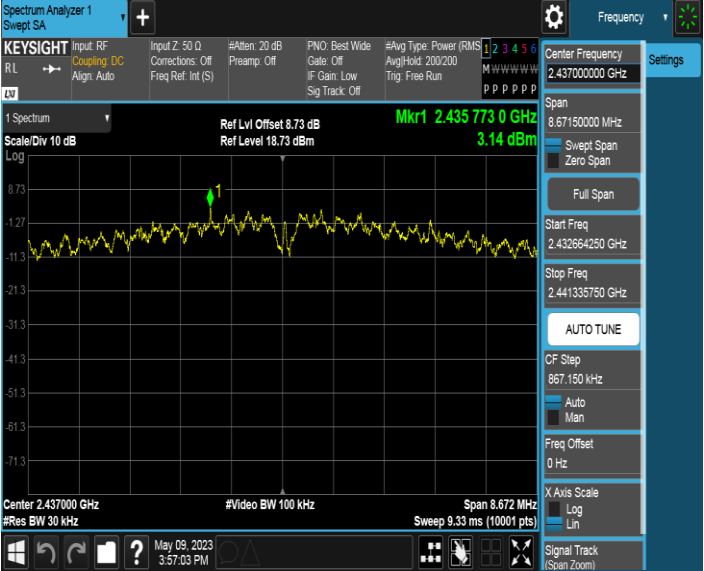
Test Mode	Test Channel	Verdict
11B	HCH	PASS
		

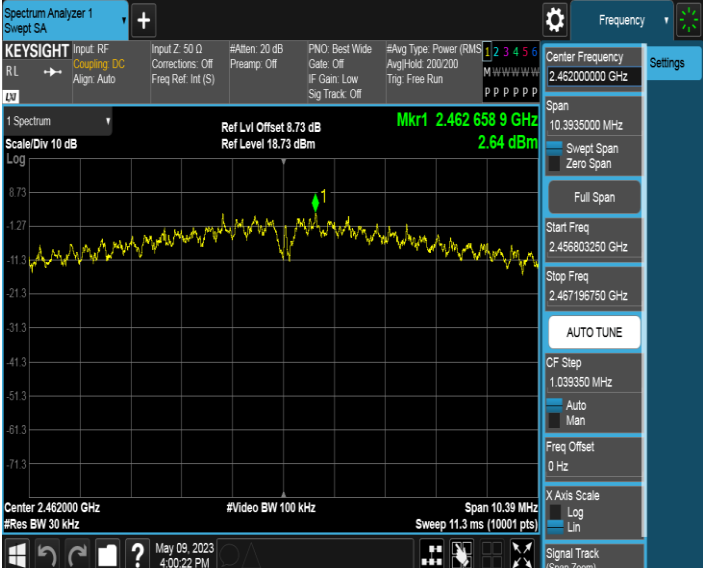
Test Mode	Test Channel	Verdict
11G	LCH	PASS
		

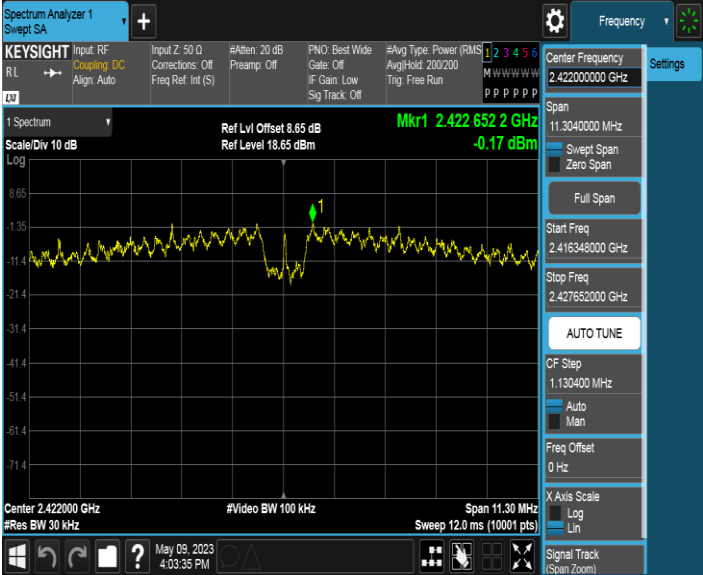
Test Mode	Test Channel	Verdict
11G	MCH	PASS
		

Test Mode	Test Channel	Verdict
11G	HCH	PASS
		

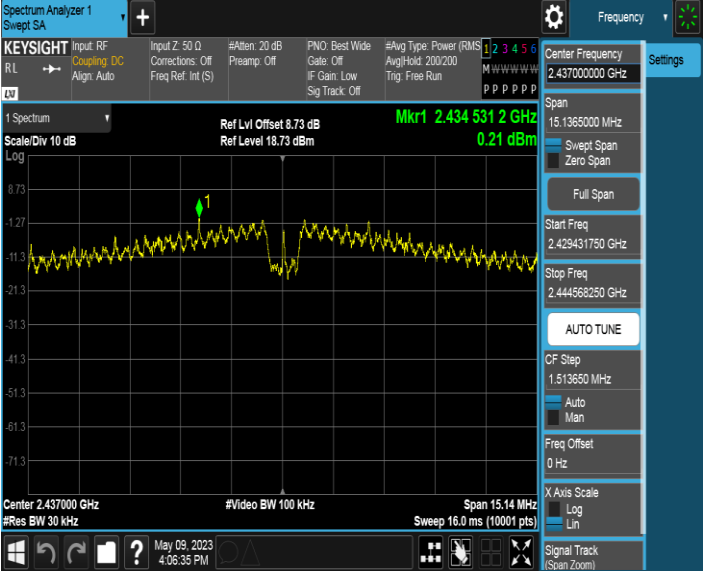
Test Mode	Test Channel	Verdict
11N HT20	LCH	PASS
		

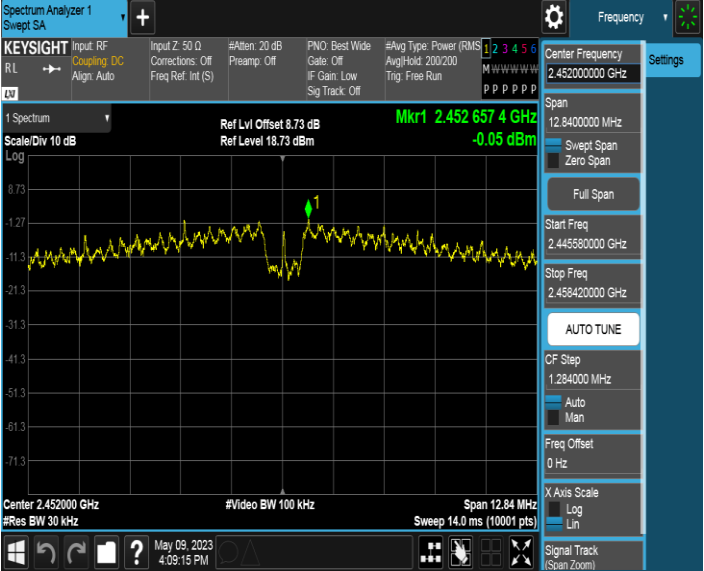
Test Mode	Test Channel	Verdict
11N HT20	MCH	PASS
		


Test Mode	Test Channel	Verdict
11N HT20	HCH	PASS
		


Test Mode	Test Channel	Verdict
11N HT40	LCH	PASS
		

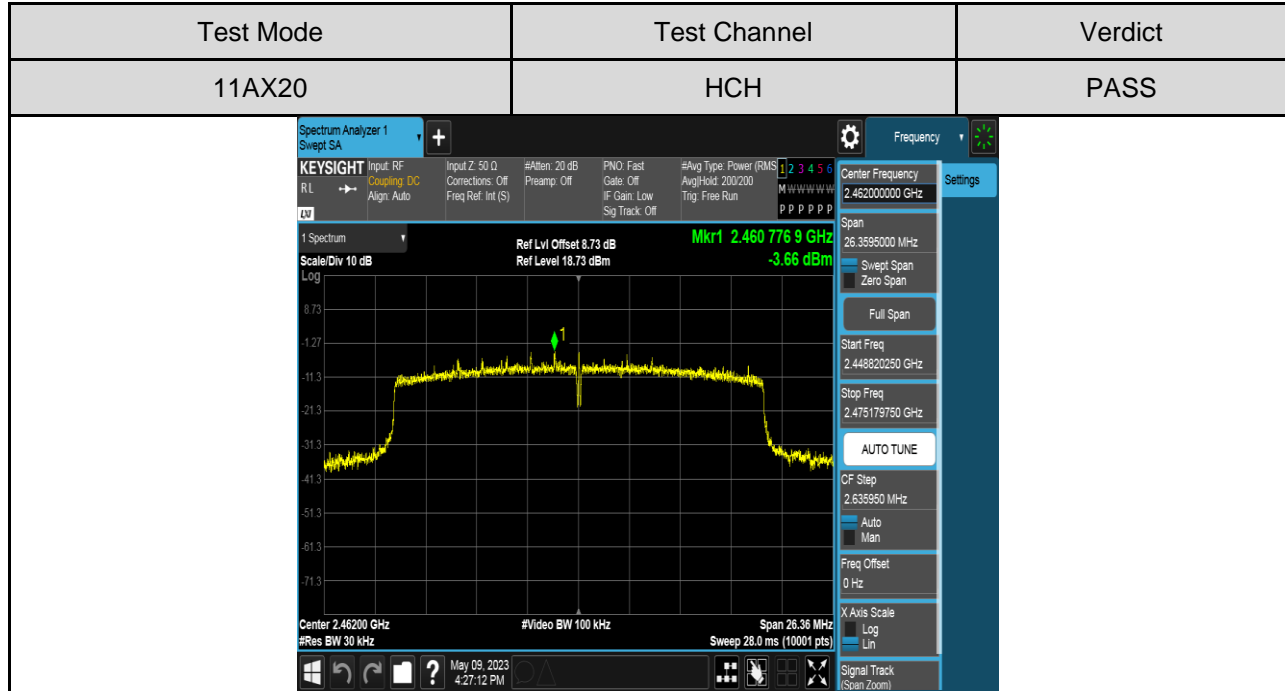


Test Mode	Test Channel	Verdict
11N HT40	MCH	PASS
		

Test Mode	Test Channel	Verdict
11N HT40	HCH	PASS
		

Test Mode	Test Channel	Verdict
11AX20	LCH	PASS
		

Test Mode	Test Channel	Verdict
11AX20	MCH	PASS
		



## 7.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

### LIMITS

FCC Part15 (15.247) Subpart C, RSS-247		
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:

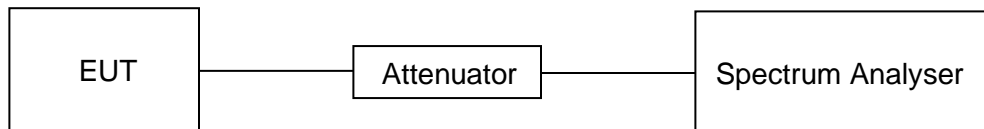
Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	100K
VBW	$\geq 3 \times \text{RBW}$
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

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	100K
VBW	$\geq 3 \times \text{RBW}$
measurement points	$\geq \text{span}/\text{RBW}$
Trace	Max hold
Sweep time	Auto couple.

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

### TEST SETUP



**TEST ENVIRONMENT**

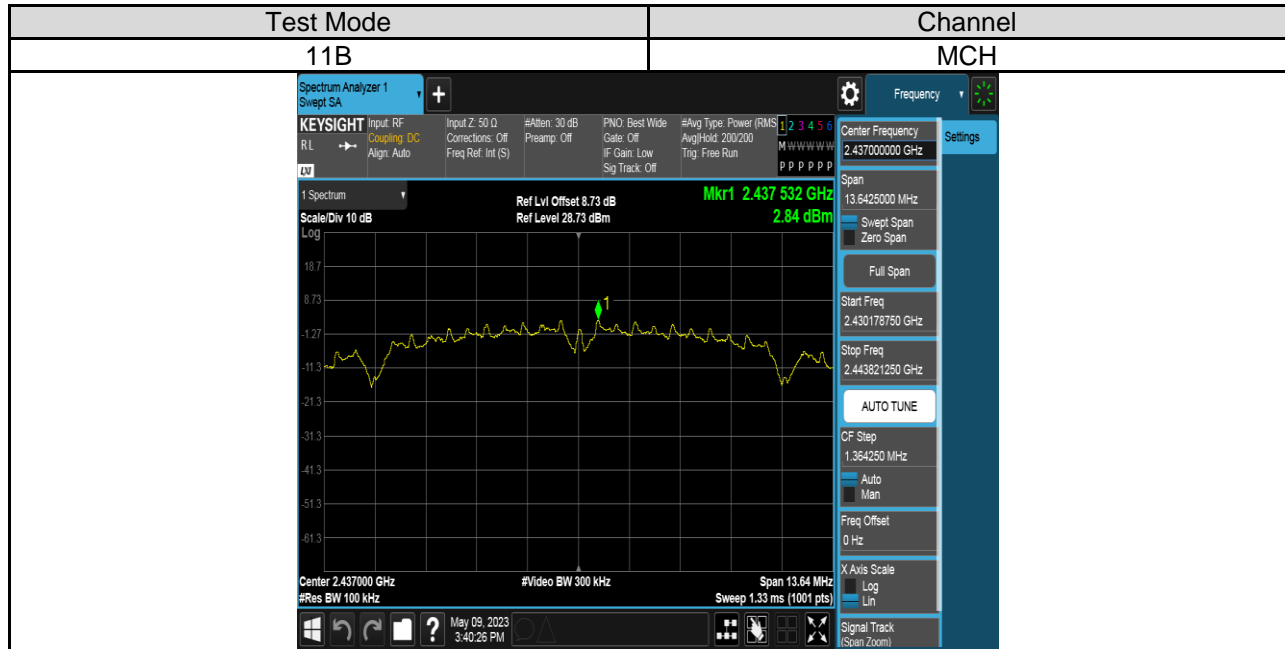
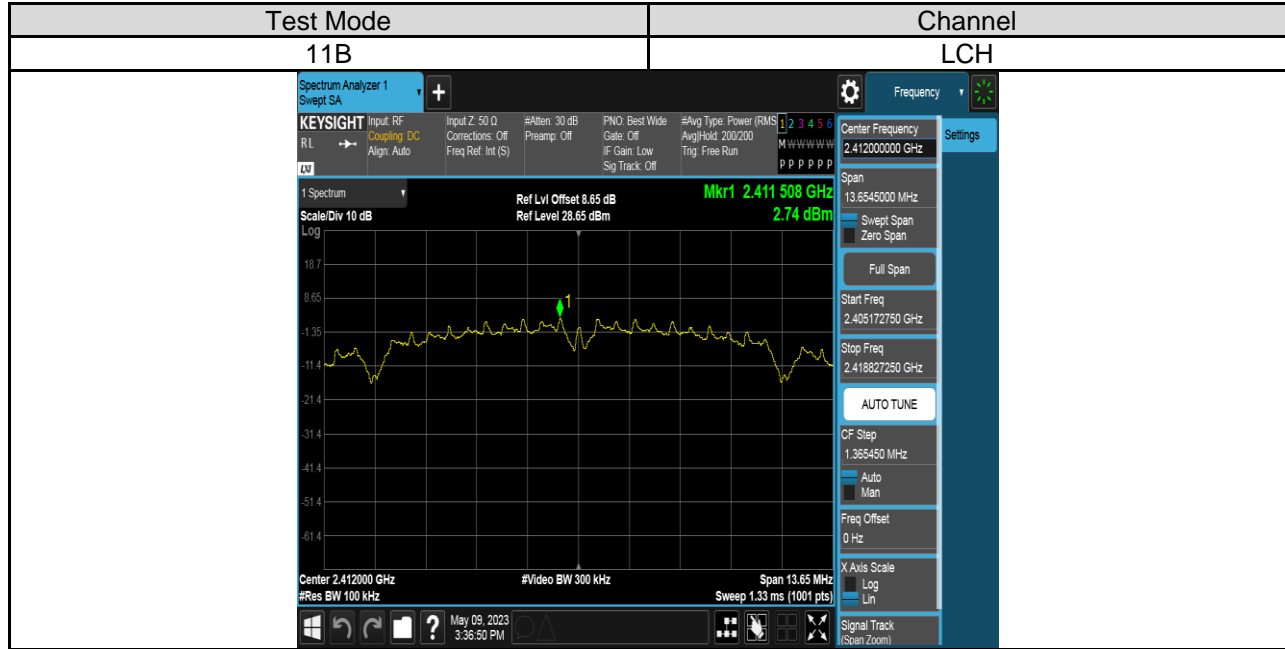
Temperature	22.3°C	Relative Humidity	47.8%
Atmosphere Pressure	102.1kpa	Test Voltage	AC120V/60Hz

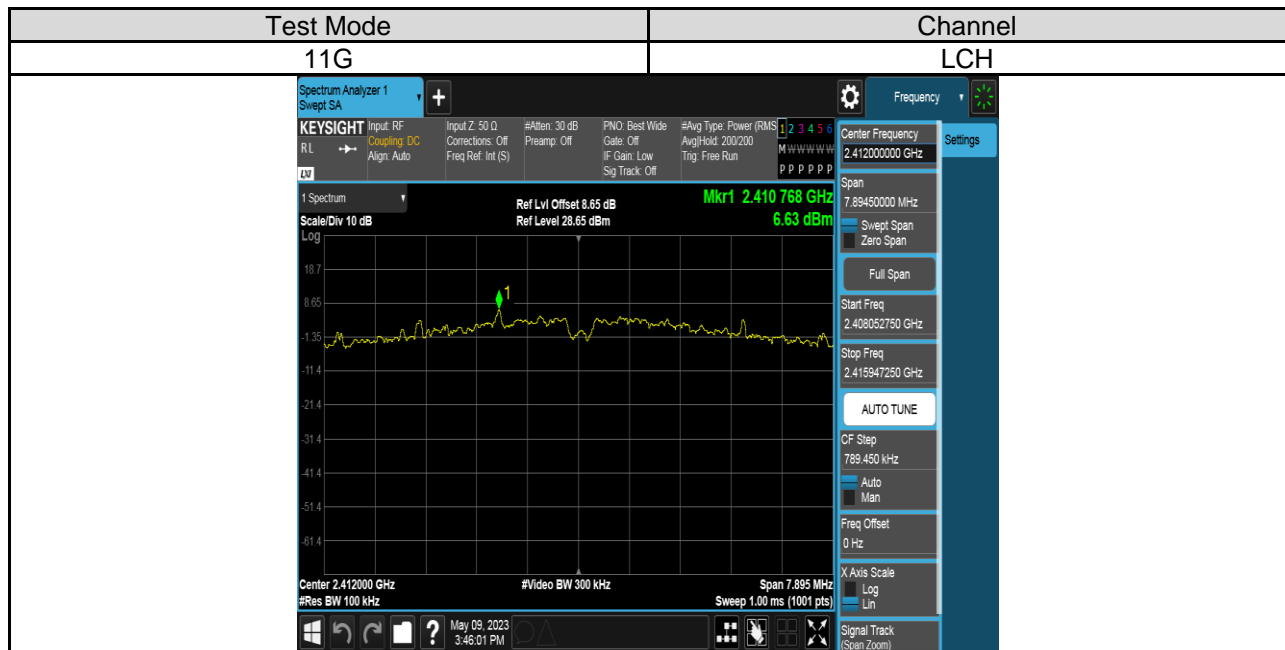
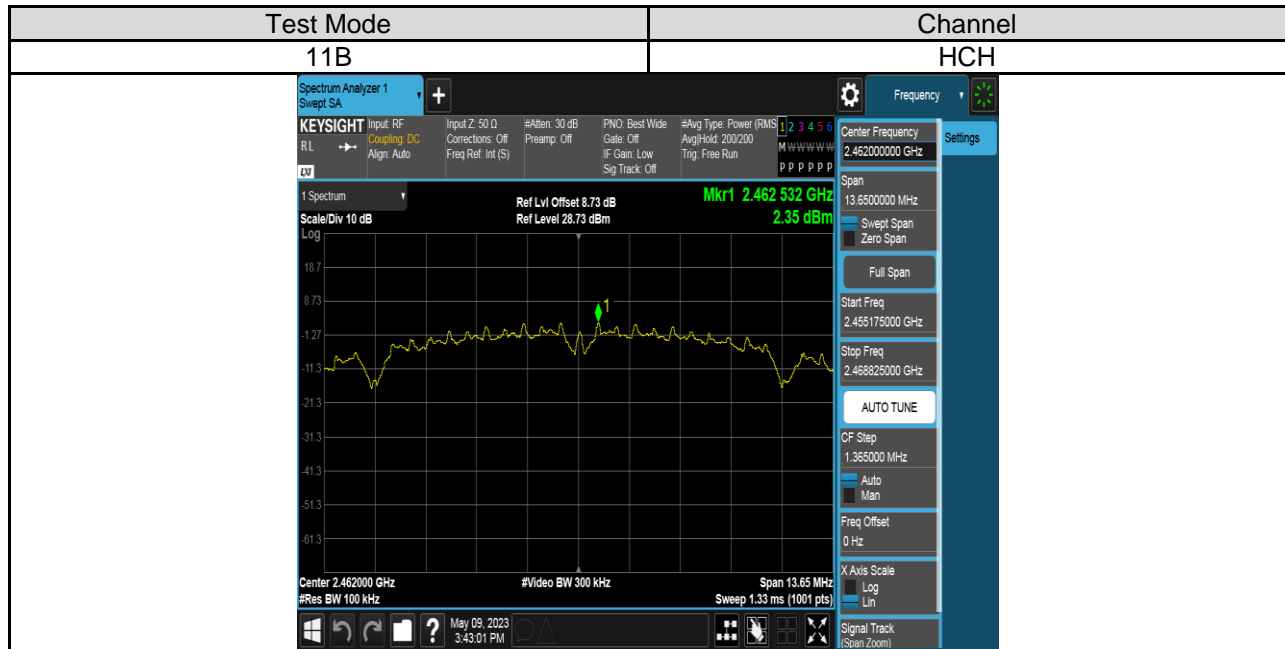
**PART 1: REFERENCE LEVEL MEASUREMENT**

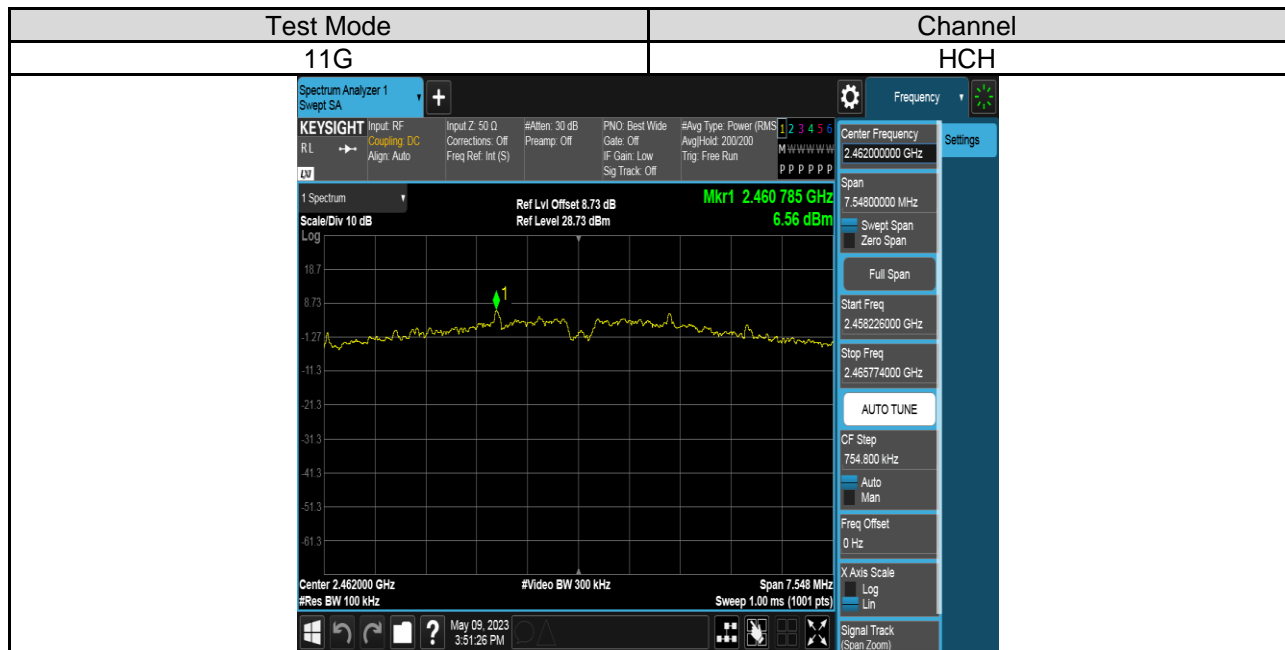
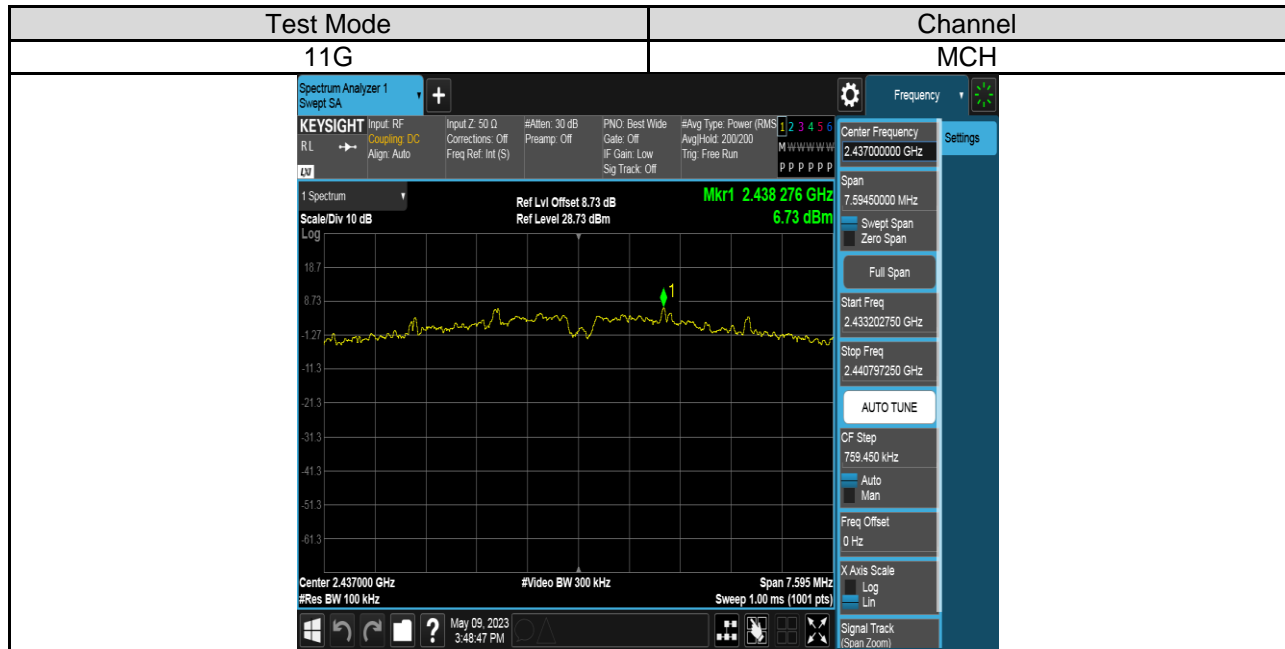
**TEST RESULTS TABLE**

Test Mode	Test Antenna	Channel	Pref(dBm)	Puw(dBm)	Verdict
11B SISO	Antenna 1	LCH	See the test graphs	<Limit	PASS
		MCH	See the test graphs	<Limit	PASS
		HCH	See the test graphs	<Limit	PASS
11G SISO	Antenna 1	LCH	See the test graphs	<Limit	PASS
		MCH	See the test graphs	<Limit	PASS
		HCH	See the test graphs	<Limit	PASS
11N HT20	Antenna 1	LCH	See the test graphs	<Limit	PASS
		MCH	See the test graphs	<Limit	PASS
		HCH	See the test graphs	<Limit	PASS
11N HT40	Antenna 1	LCH	See the test graphs	<Limit	PASS
		MCH	See the test graphs	<Limit	PASS
		HCH	See the test graphs	<Limit	PASS
11AX20	Antenna 1	LCH	See the test graphs	<Limit	PASS
		MCH	See the test graphs	<Limit	PASS
		HCH	See the test graphs	<Limit	PASS

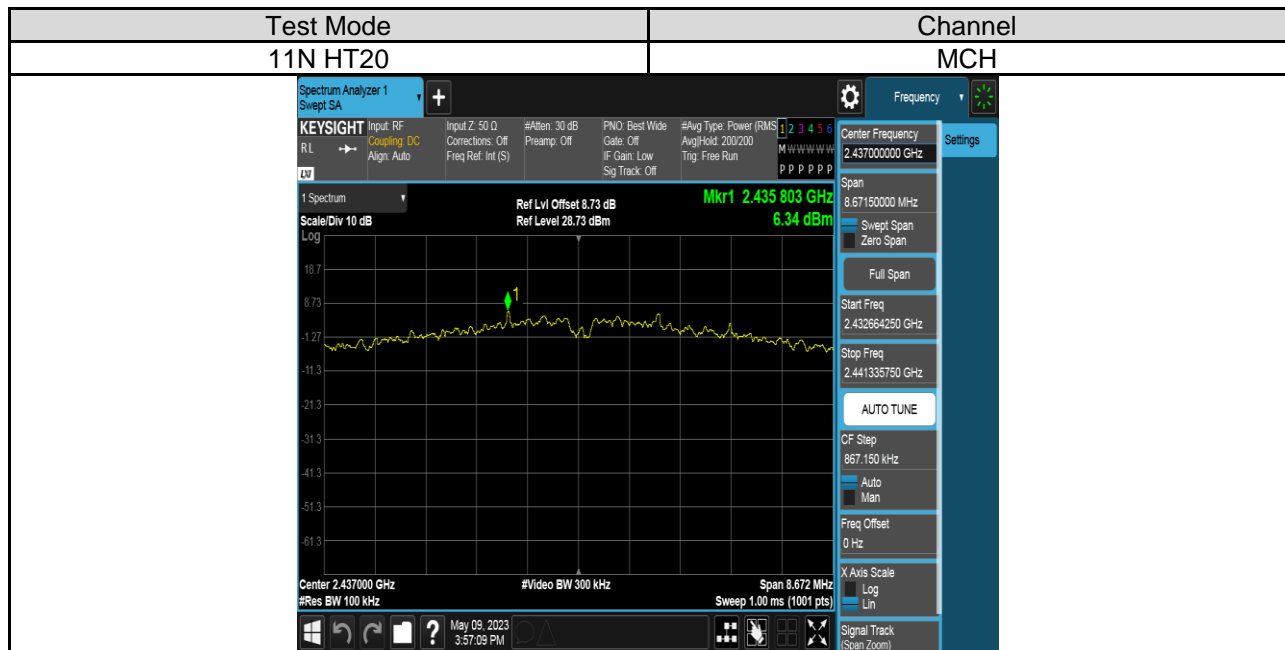
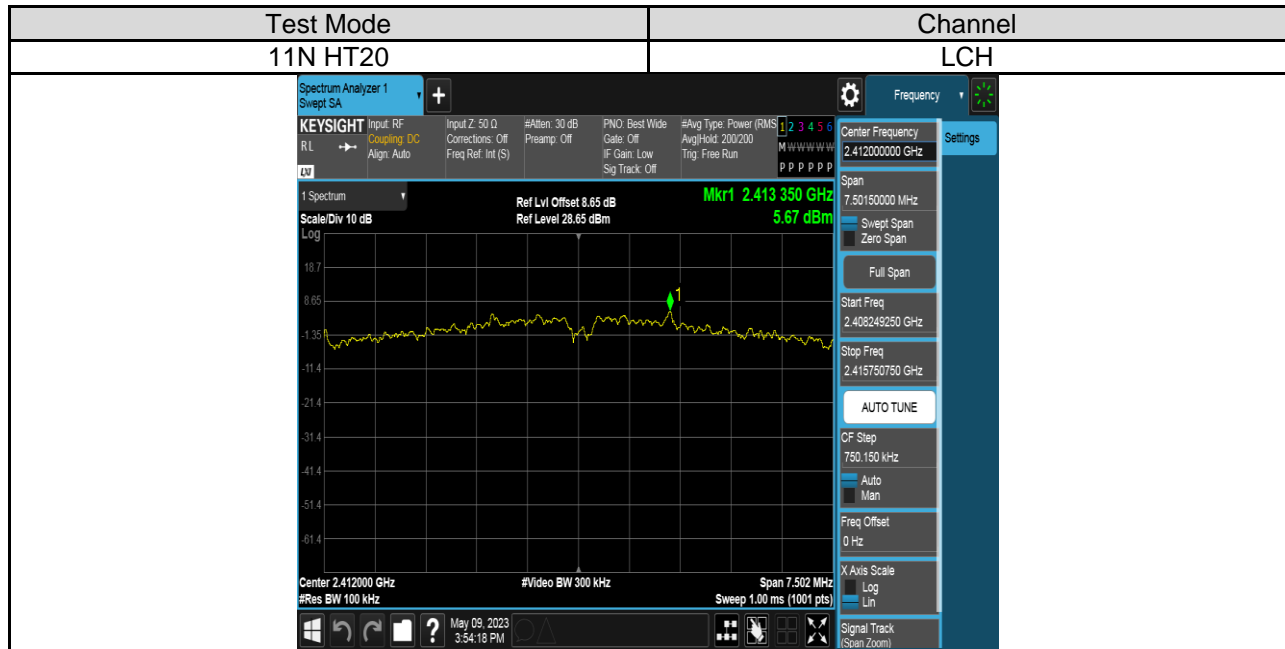
**TEST GRAPHS**

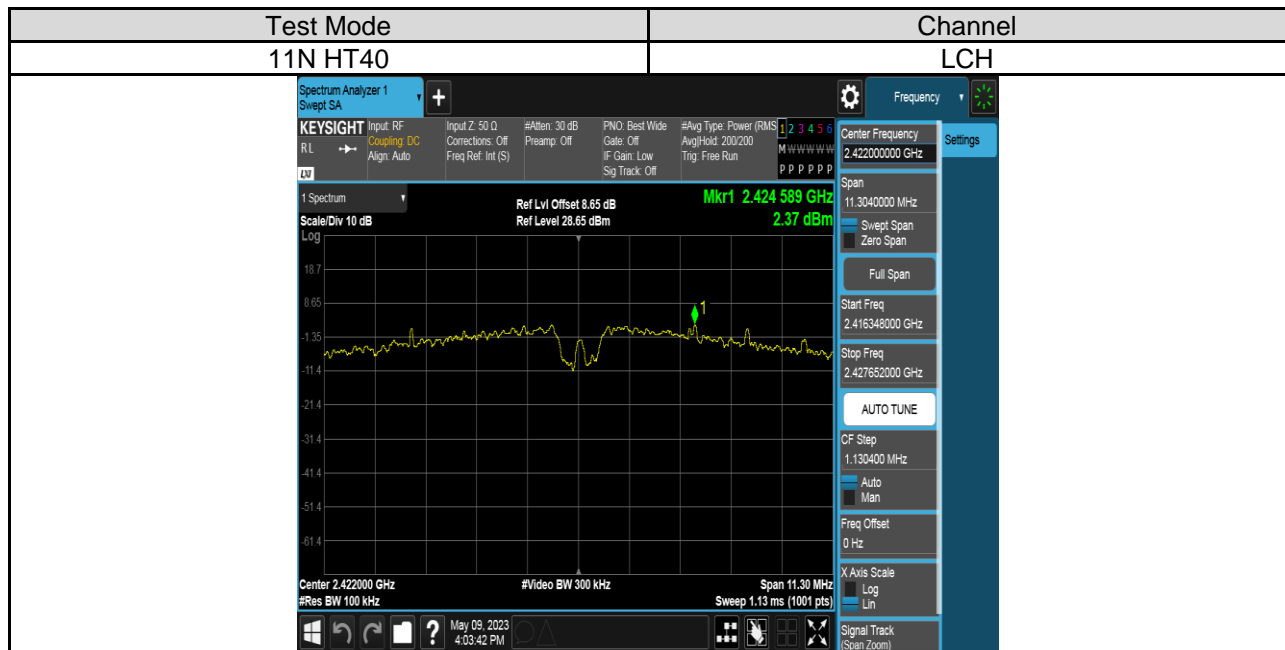
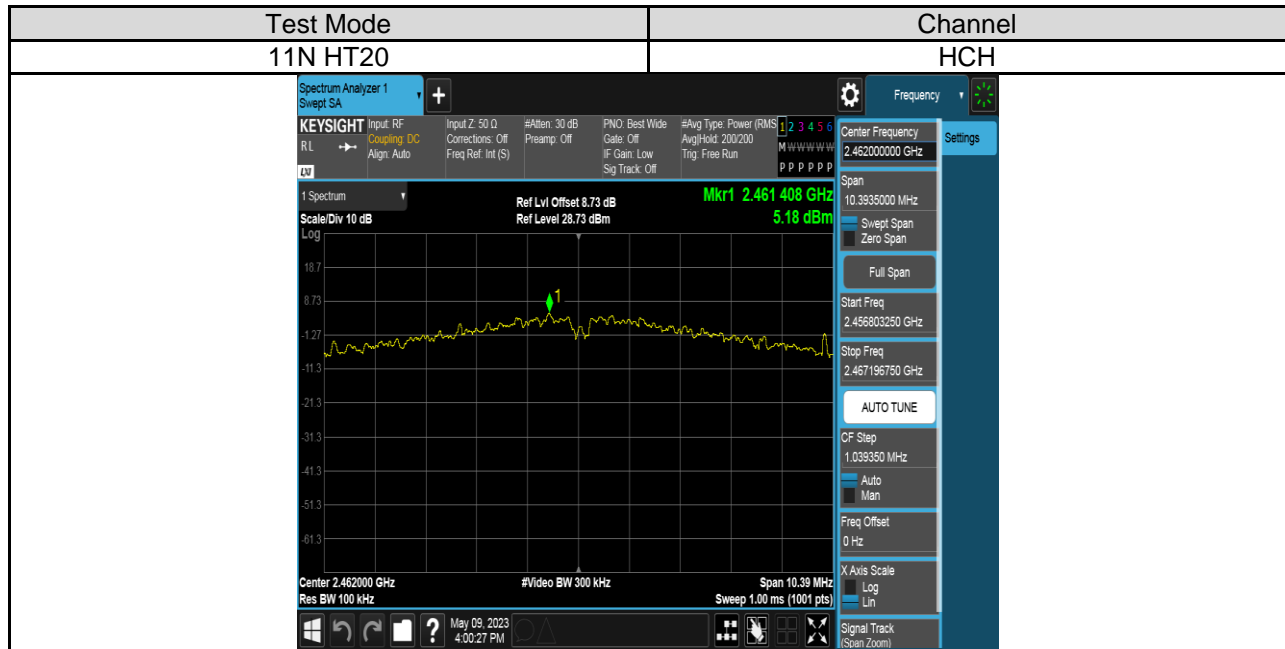


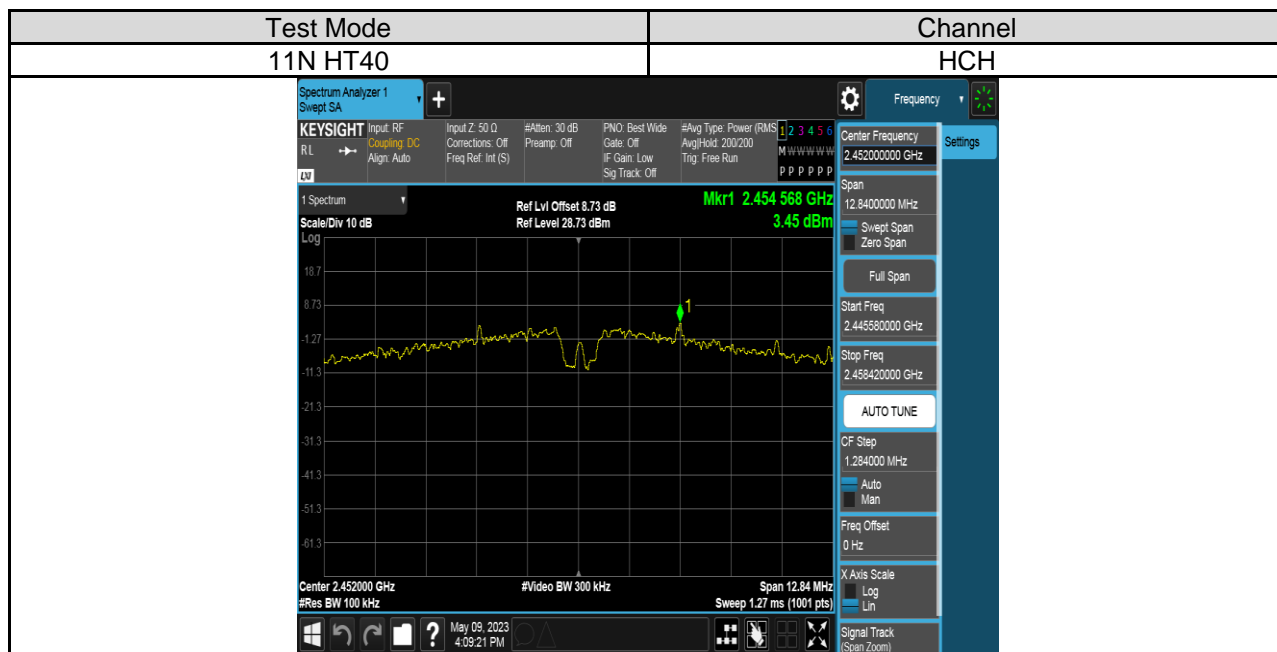
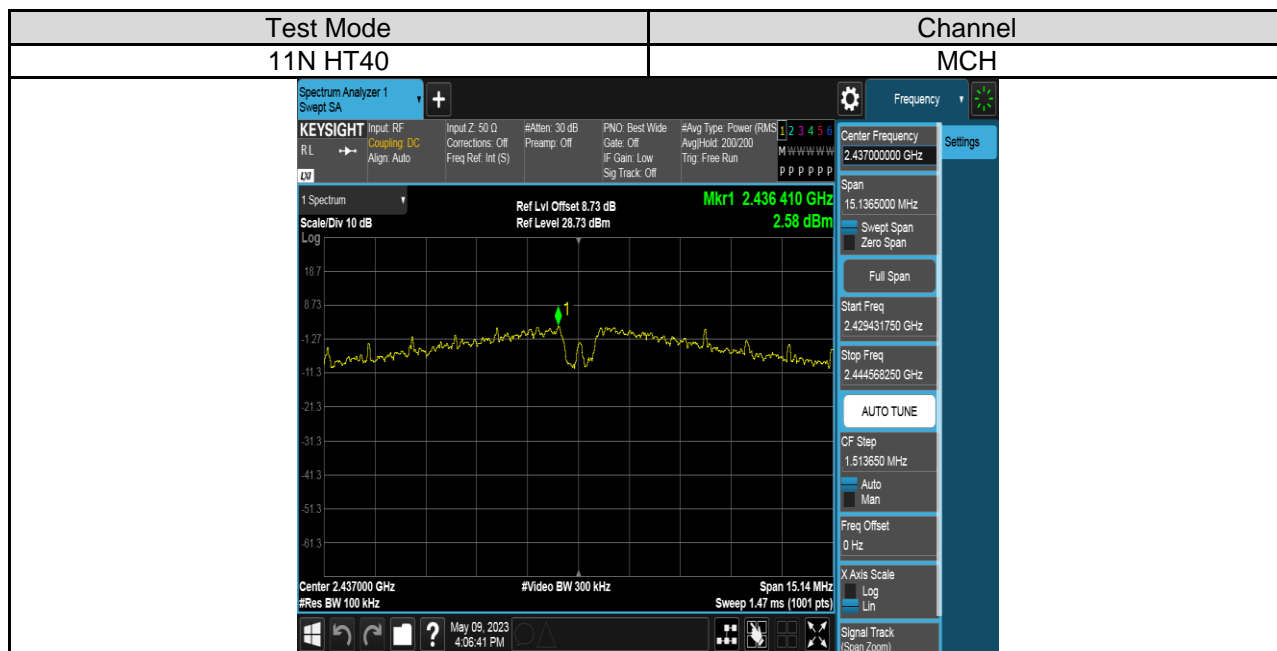


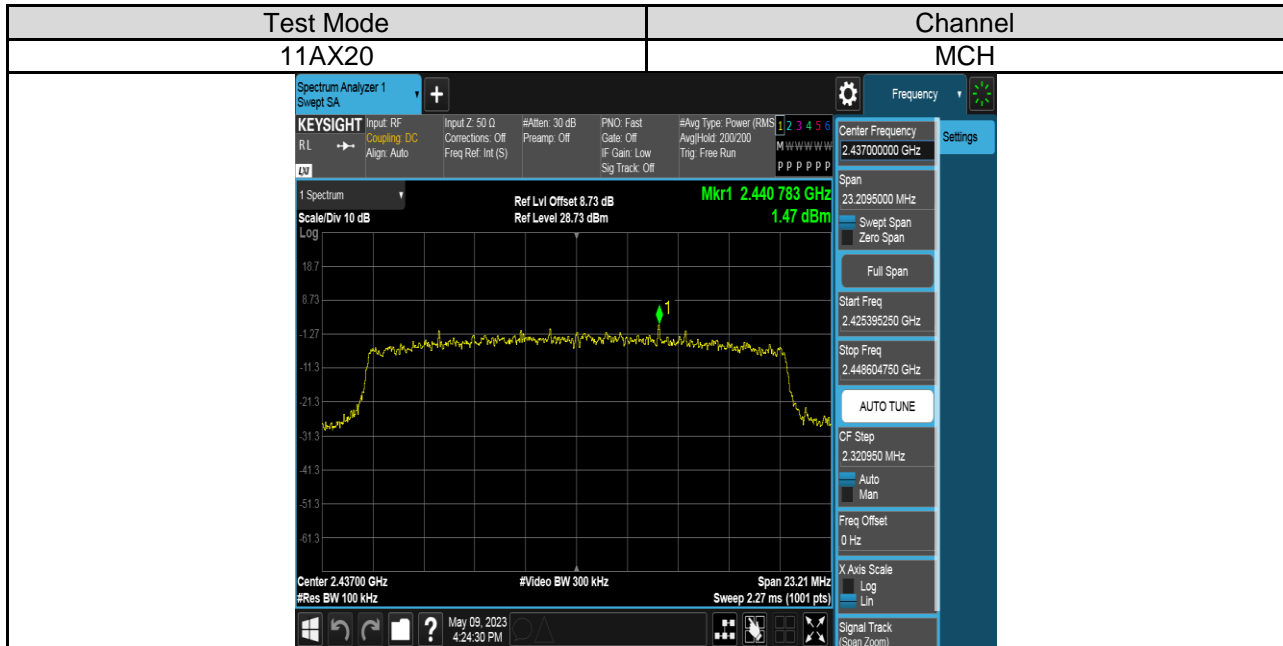
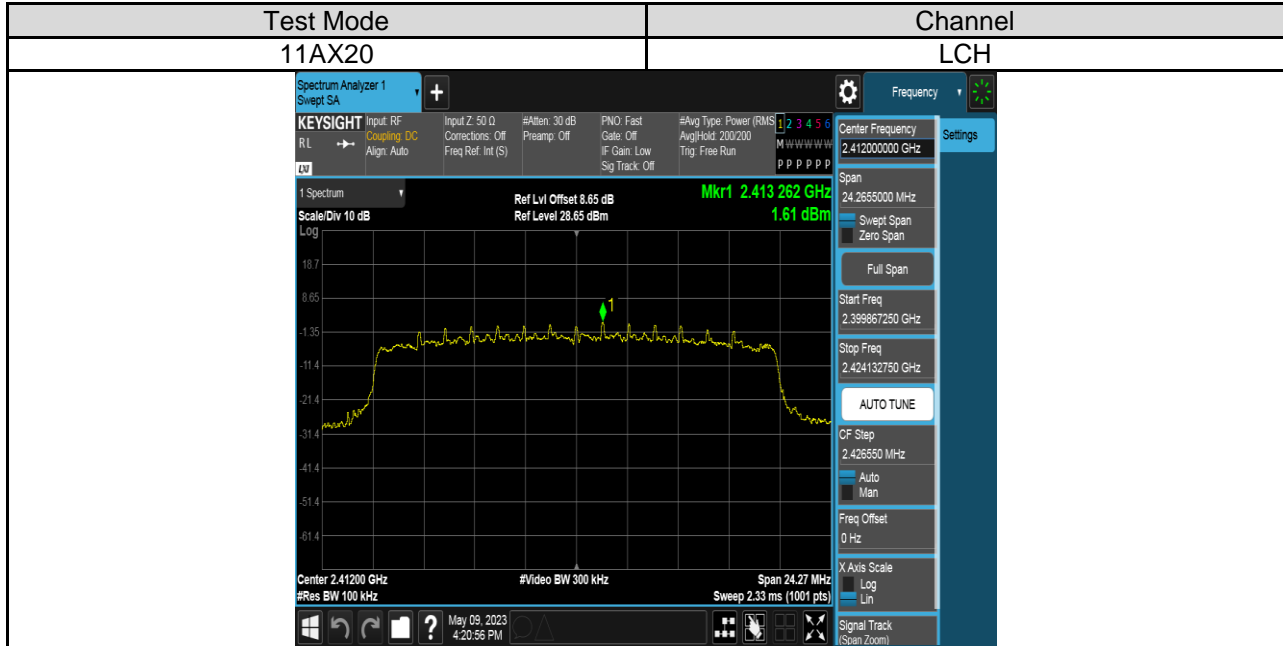


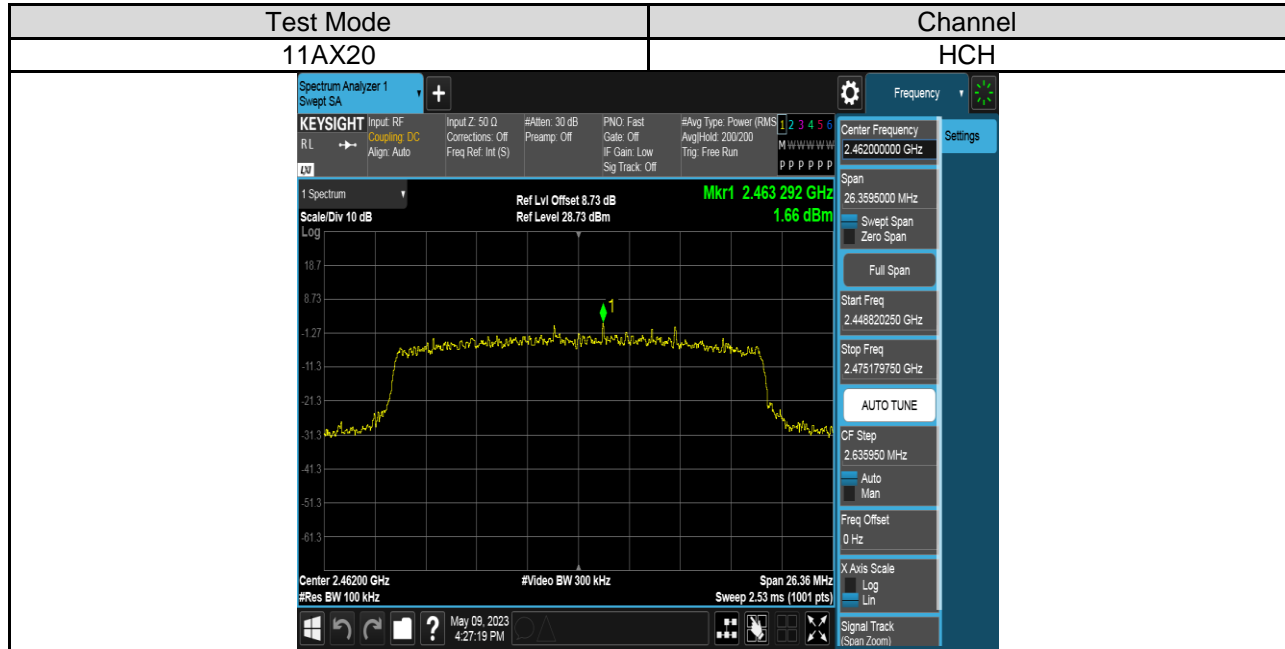








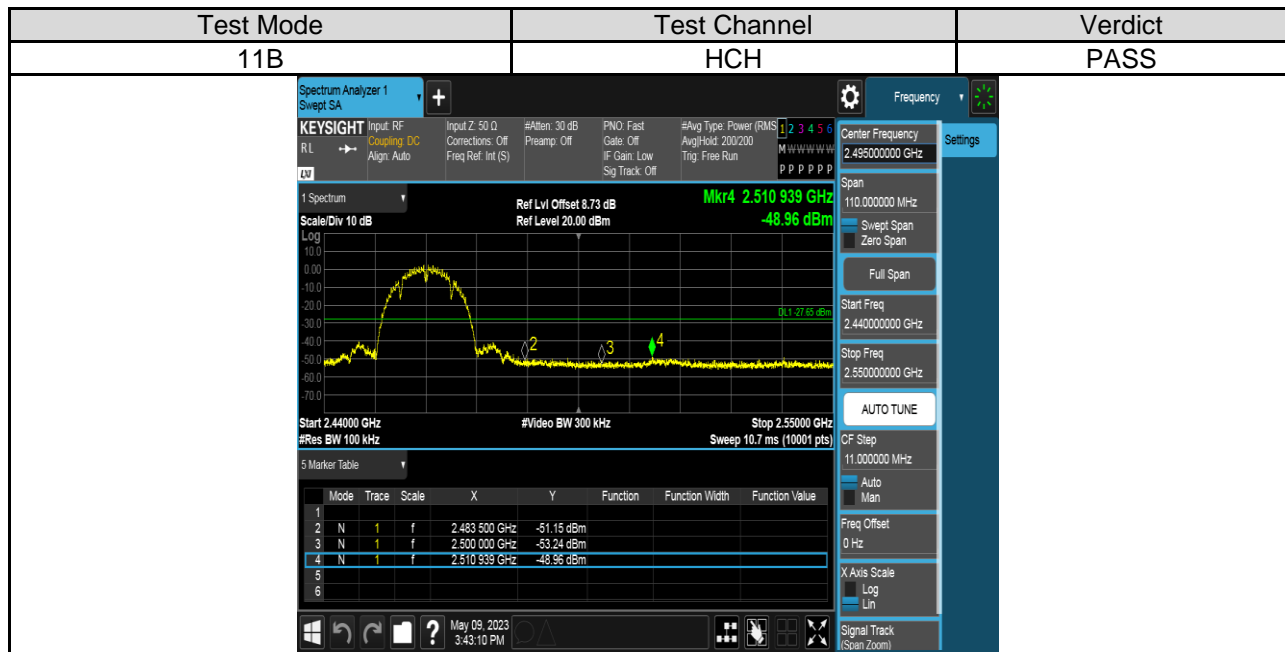
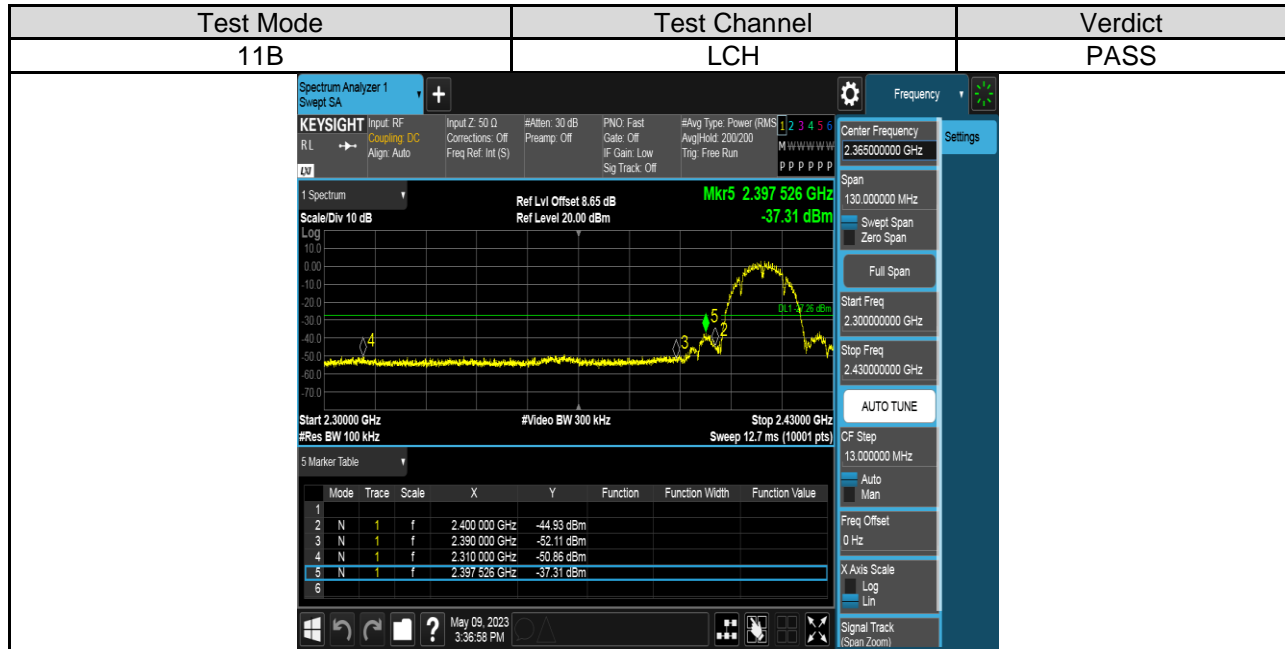


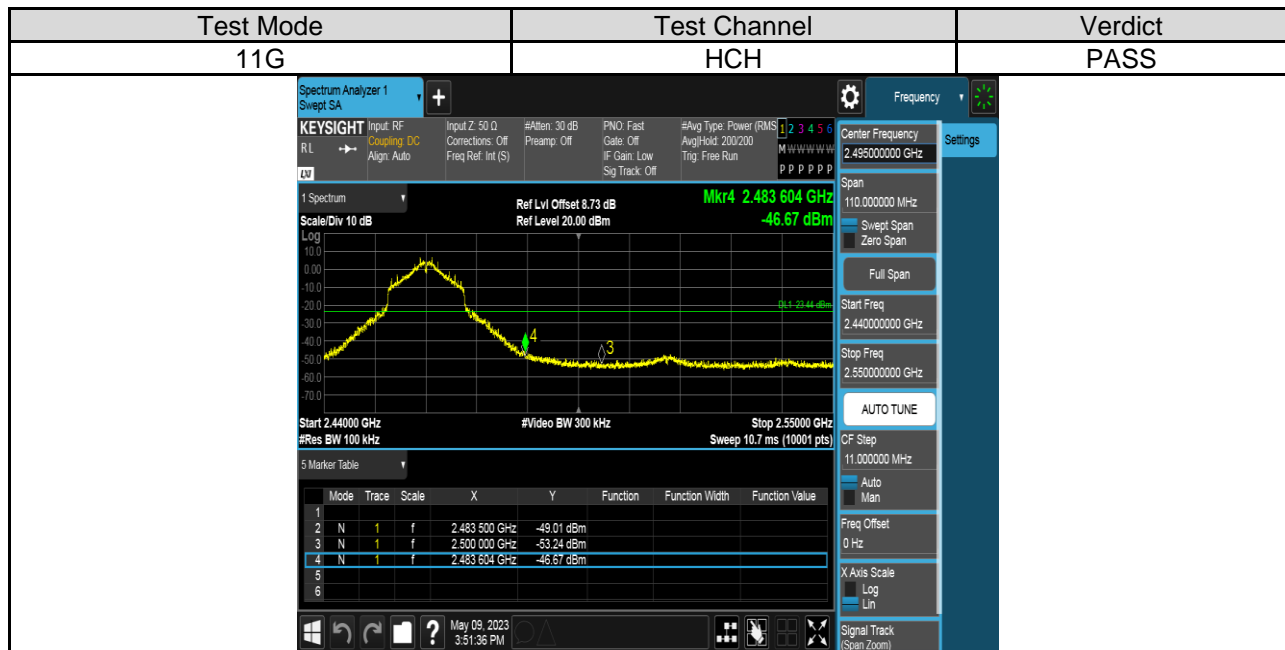
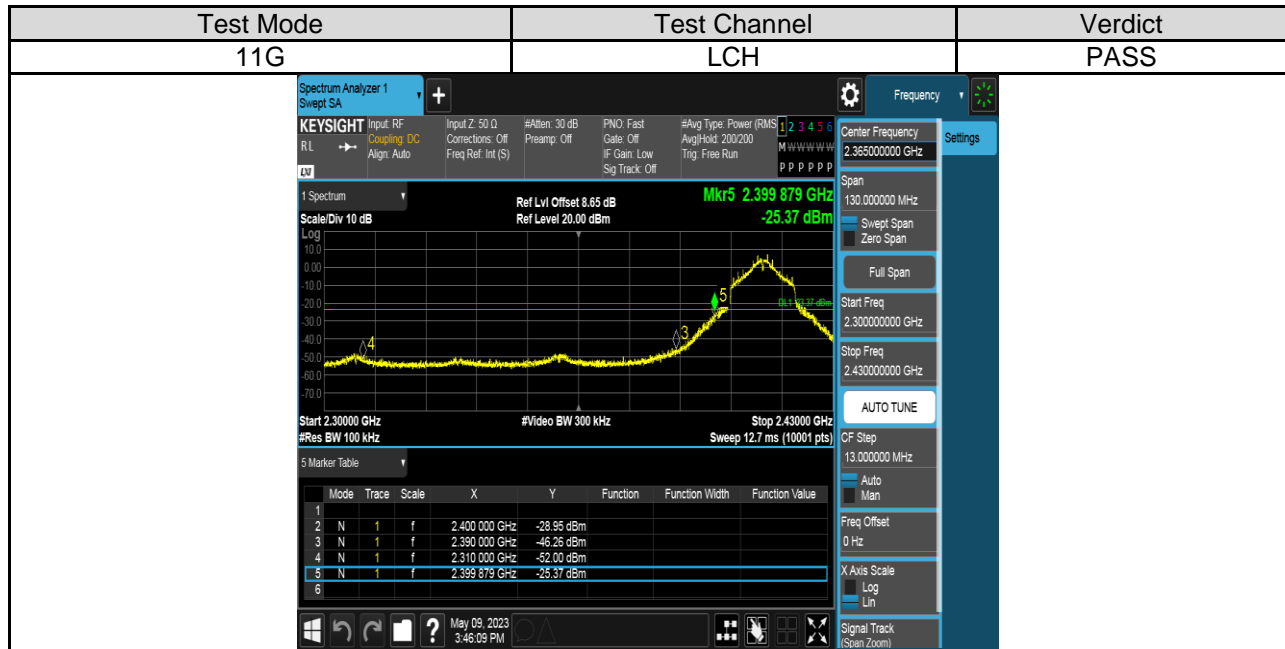


**PART 2: CONDUCTED BANDEDGE****TEST RESULTS TABLE**

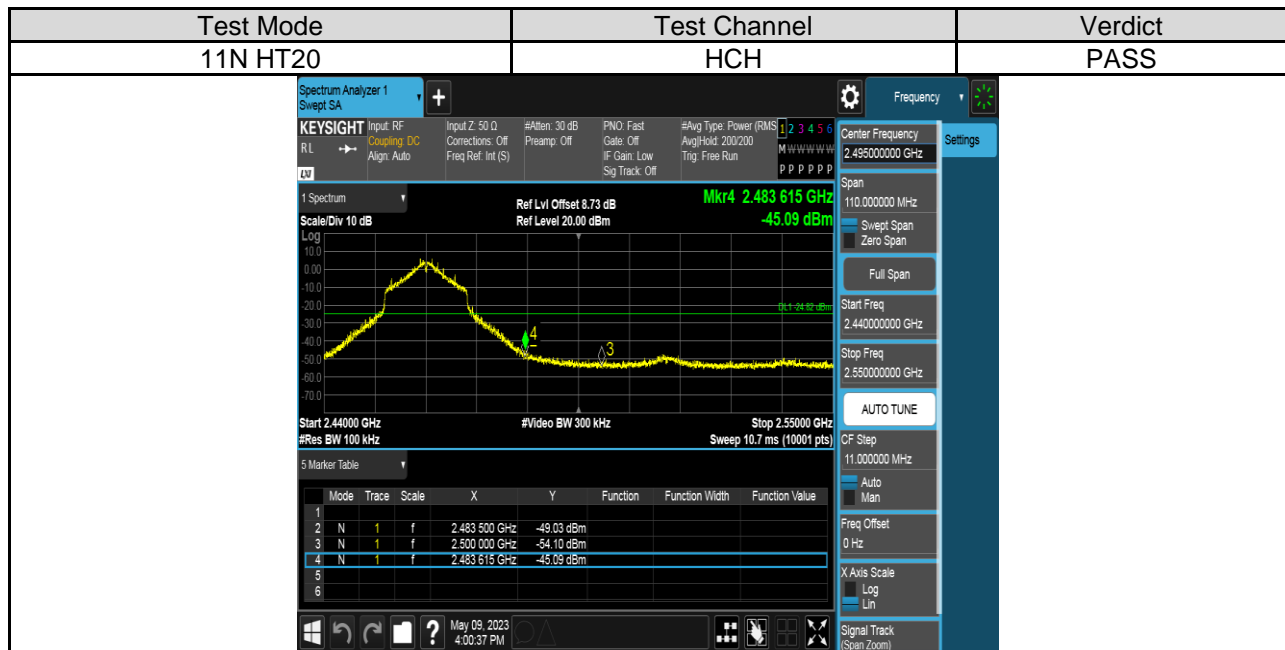
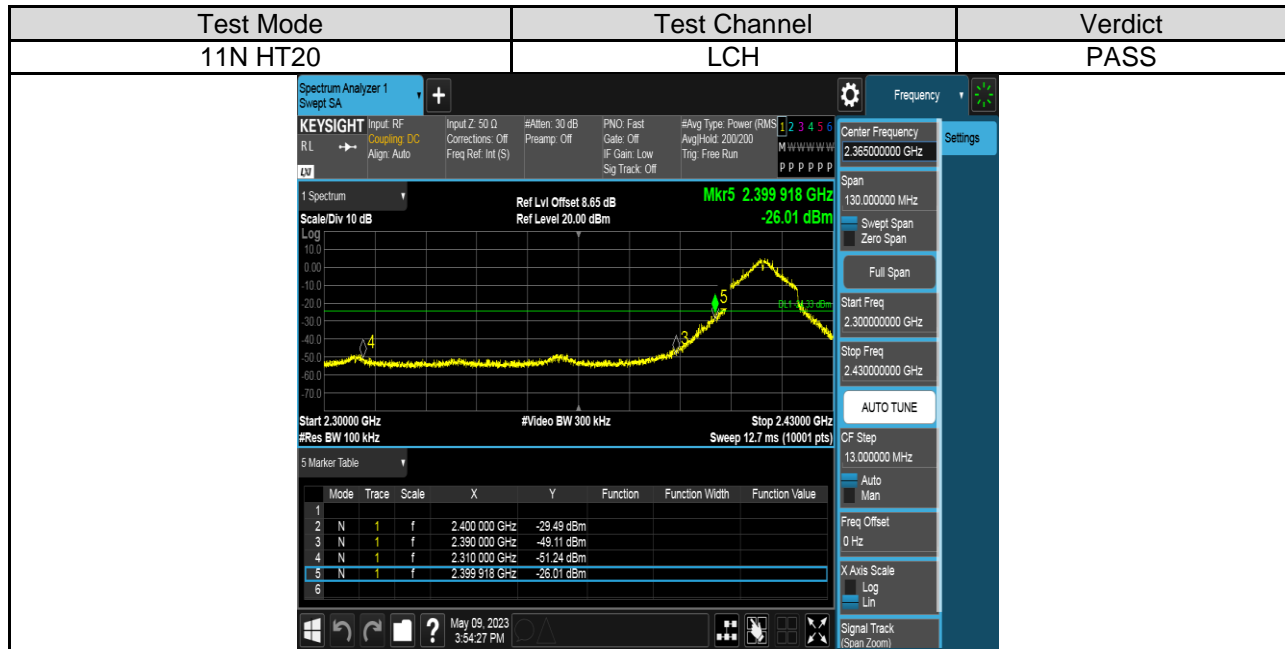
<b>Test Mode</b>	<b>Test Channel</b>	<b>Result</b>	<b>Verdict</b>
11B	LCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS
11G	LCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS
11N HT20	LCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS
11N HT40	LCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS
11AX20	LCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS

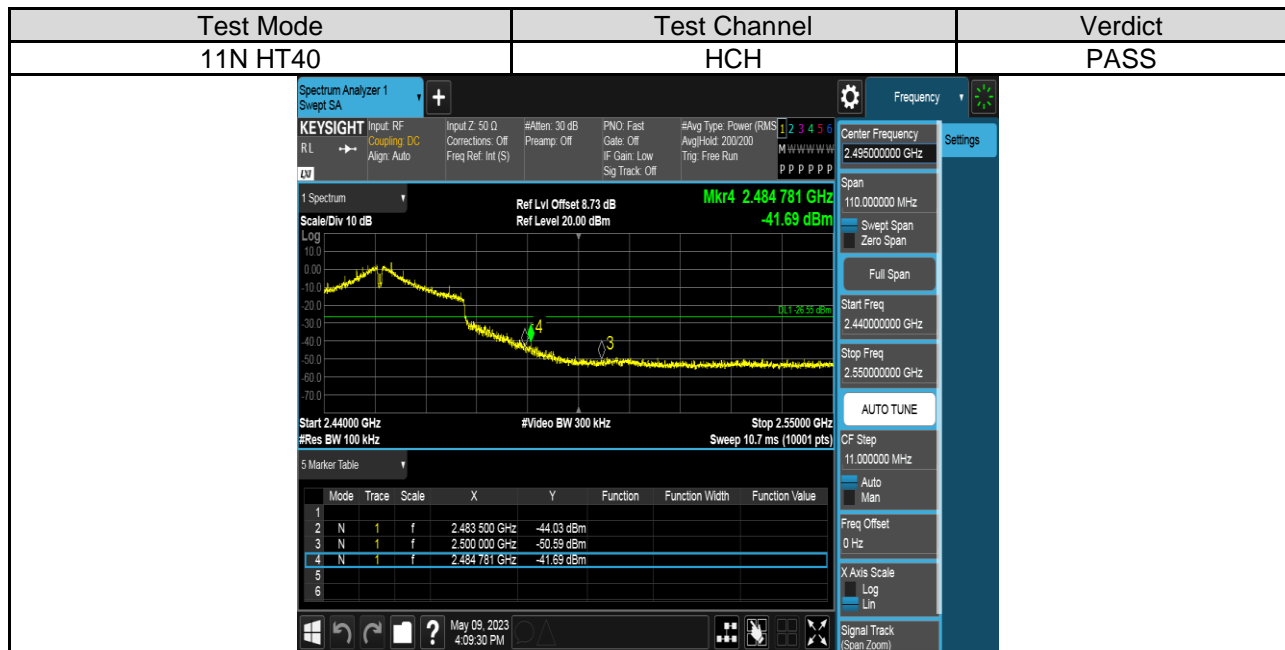
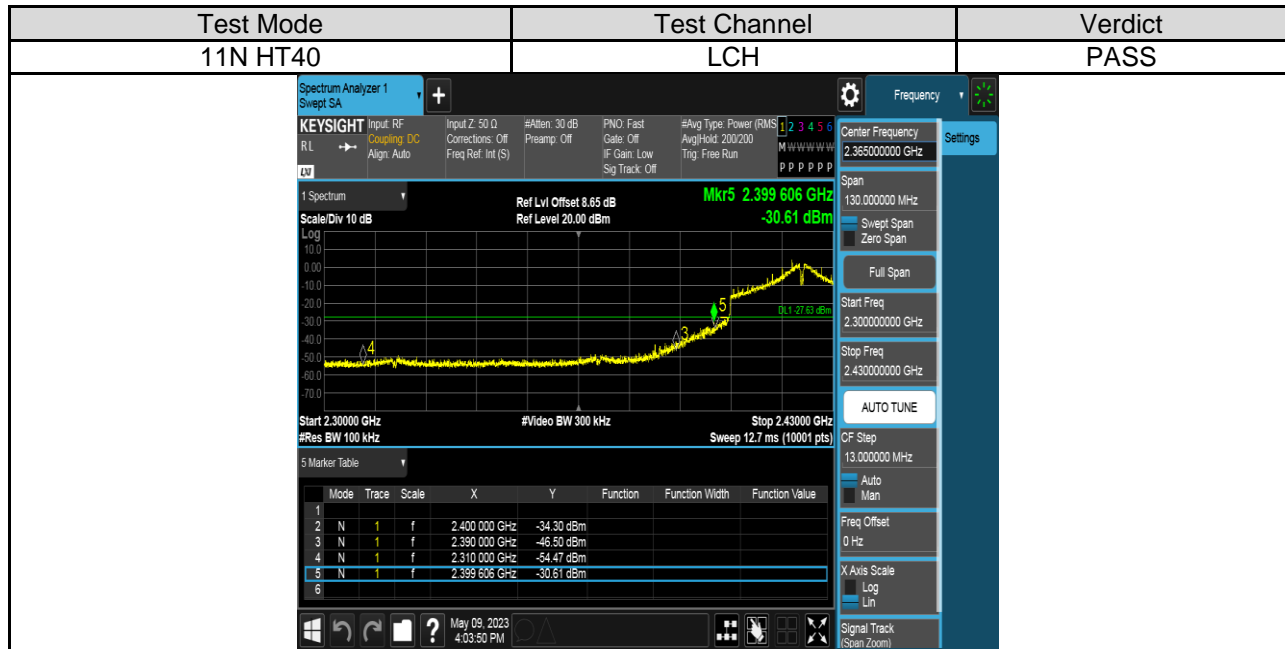
**TEST GRAPHS**

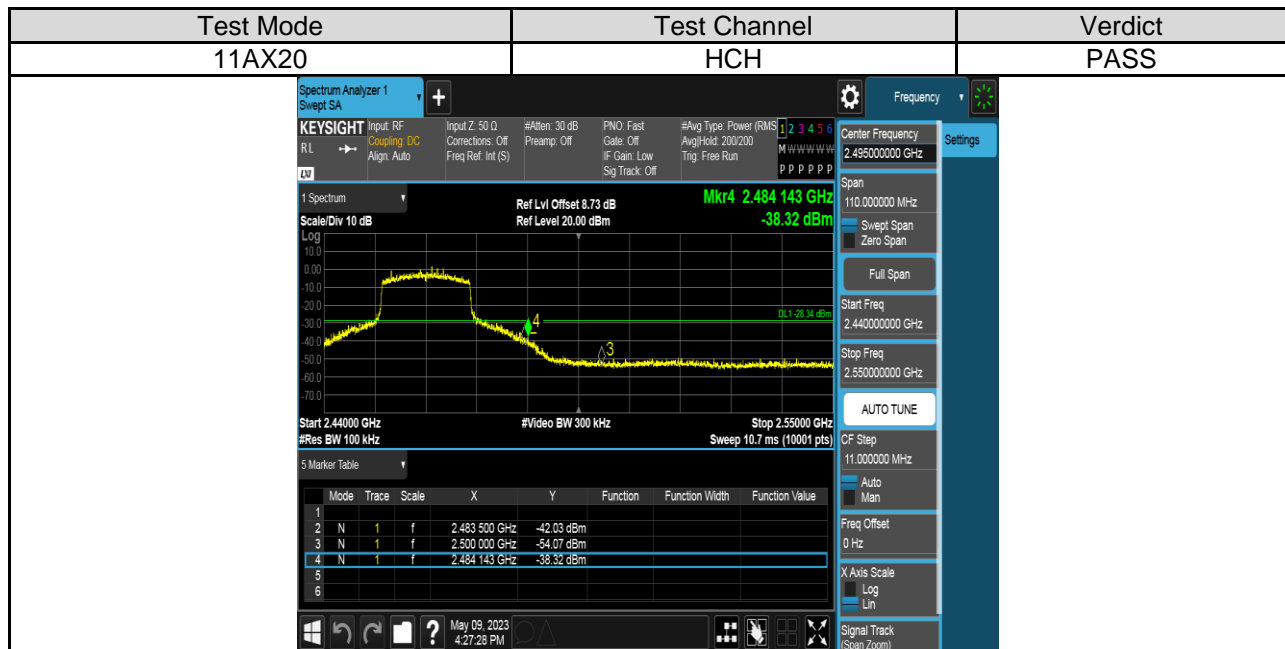
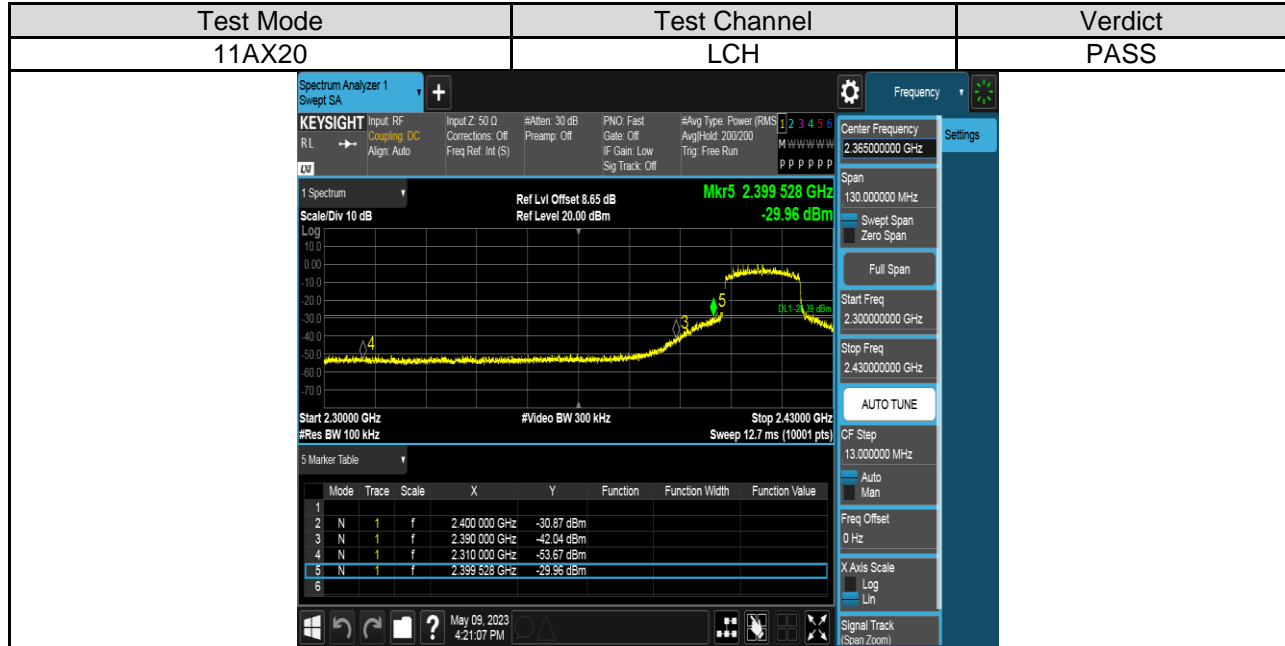












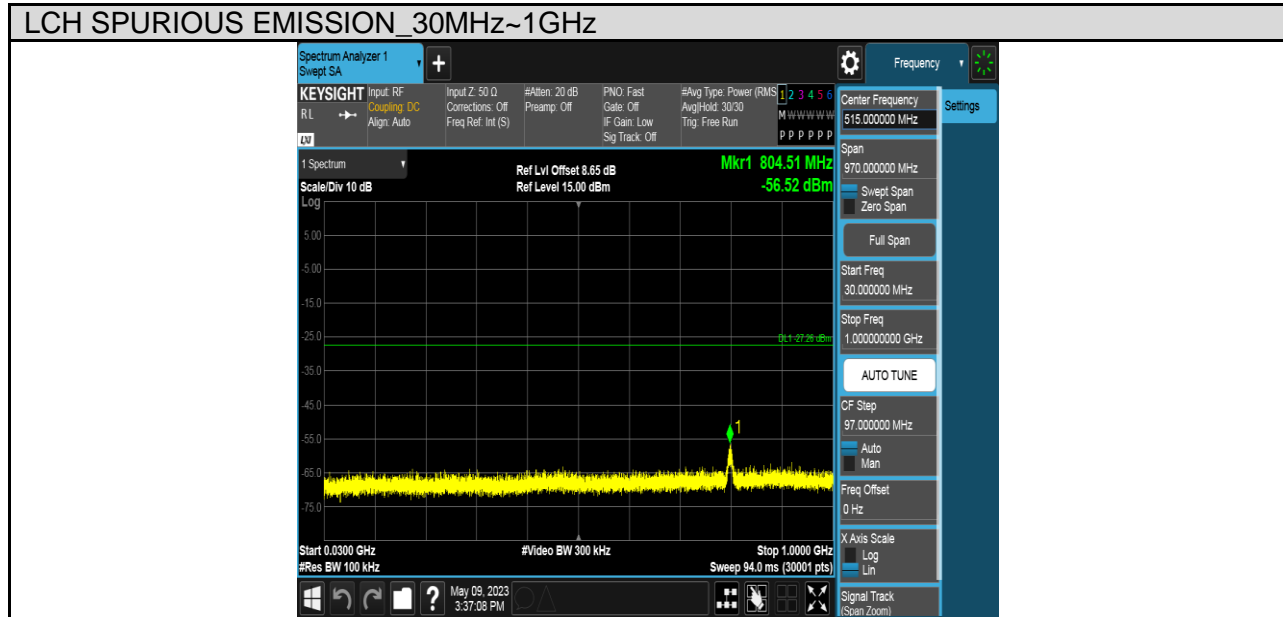
**PART 3: CONDUCTED SPURIOUS EMISSION**

**TEST RESULTS TABLE**

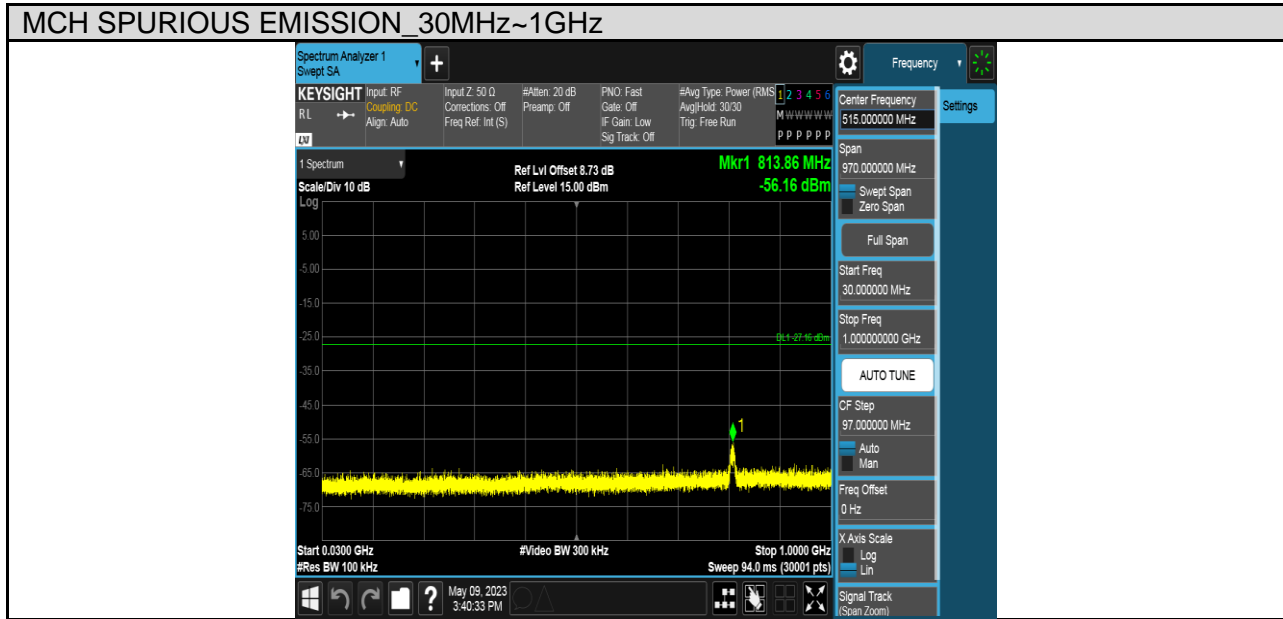
Test Mode	Test Channel	Result	Verdict
11B	LCH	Refer to the Test Graph	PASS
	MCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS
11G	LCH	Refer to the Test Graph	PASS
	MCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS
11N HT20	LCH	Refer to the Test Graph	PASS
	MCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS
11N HT40	LCH	Refer to the Test Graph	PASS
	MCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS
11AX20	LCH	Refer to the Test Graph	PASS
	MCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS

**TEST GRAPHS**

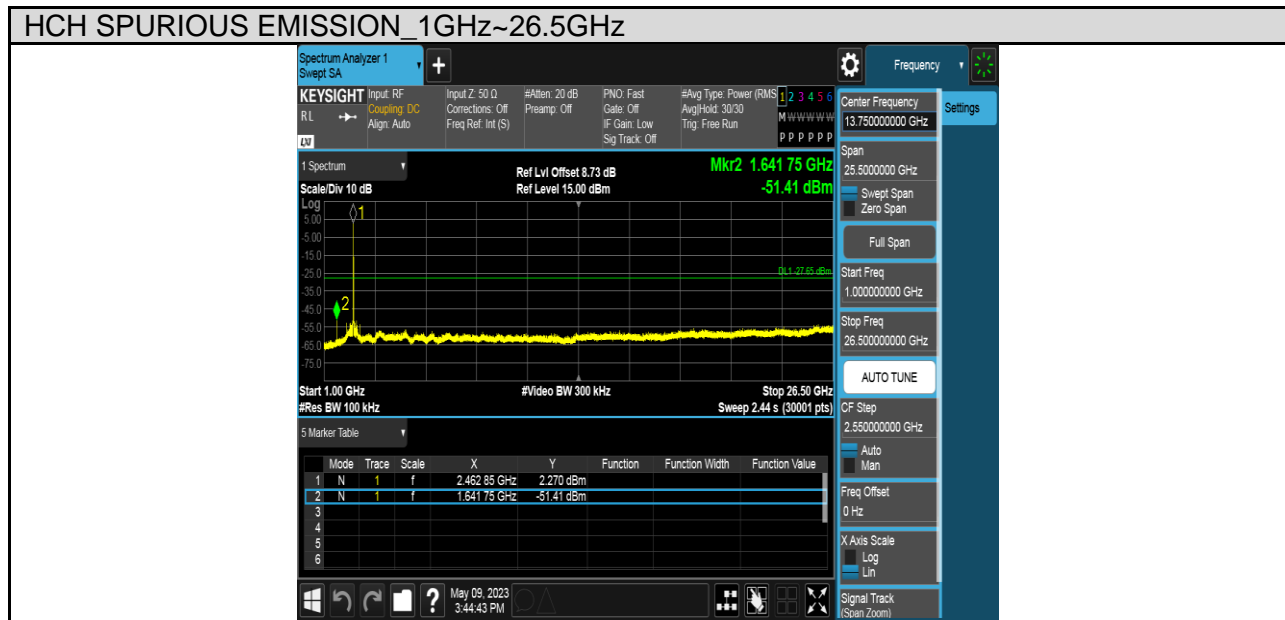
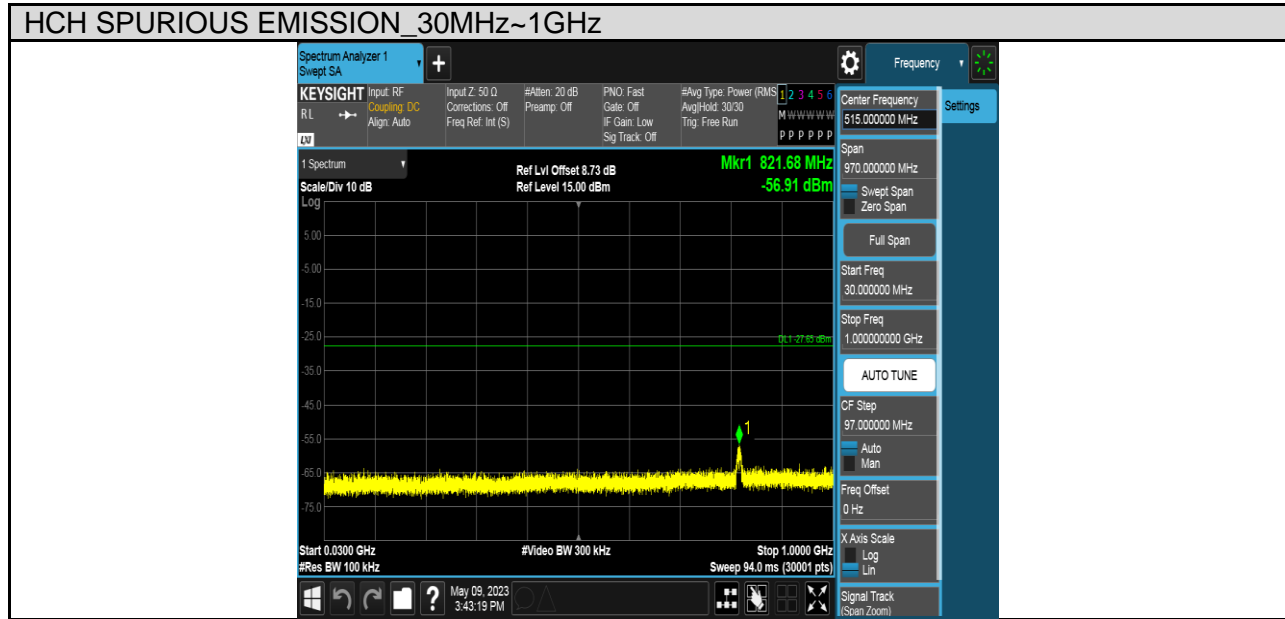
Test Mode	Channel	Verdict
11B	LCH	PASS



Test Mode	Channel	Verdict
11B	MCH	PASS



Test Mode	Channel	Verdict
11B	HCH	PASS



Test Mode	Channel	Verdict
11G	LCH	PASS

