

## 7.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

### LIMITS

FCC Part15 (15.247) , Subpart C		
Section	Test Item	Limit
FCC §15.247 (d)	Conducted Bandedge and Spurious Emissions	at least 20 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

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.

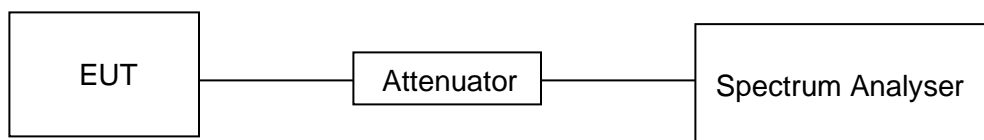
settings:

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°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 12V

**Part I: Conducted Bandedge**

**RESULTS TABLE**

**Ant 1:**

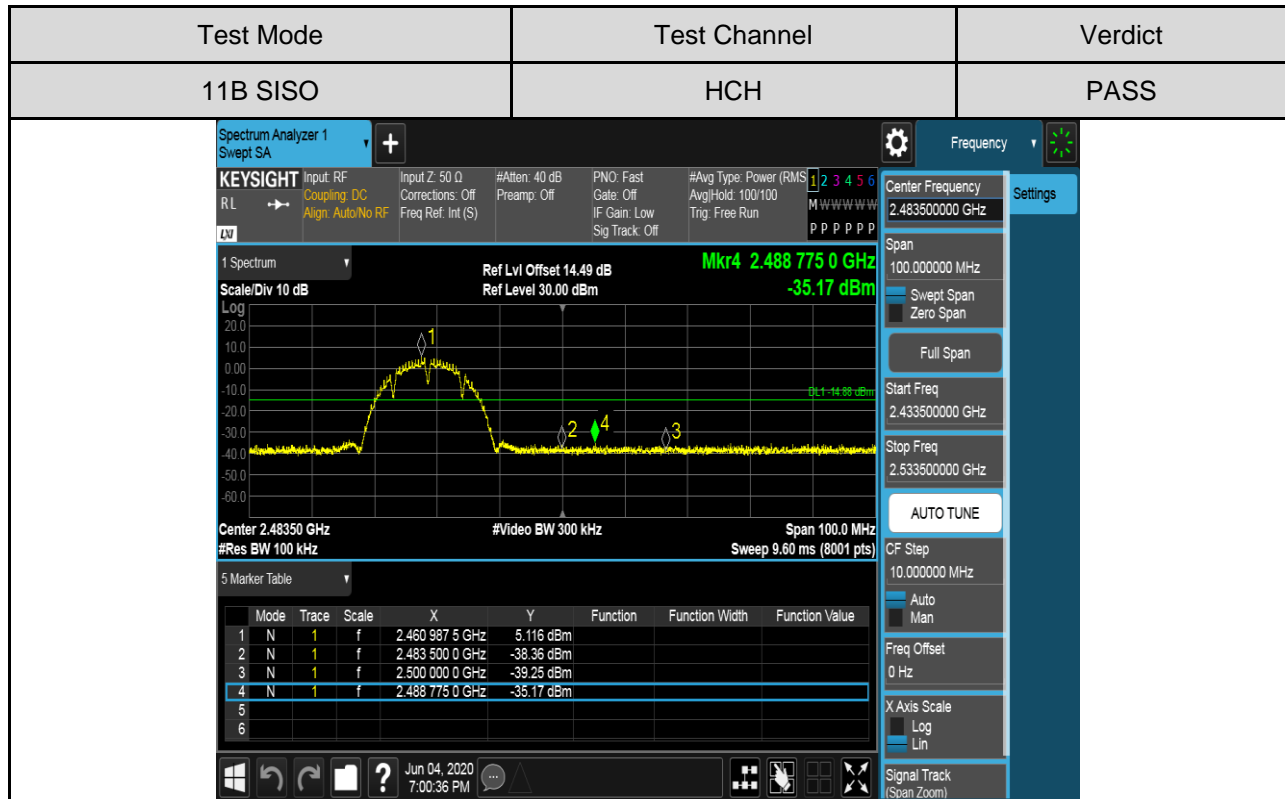
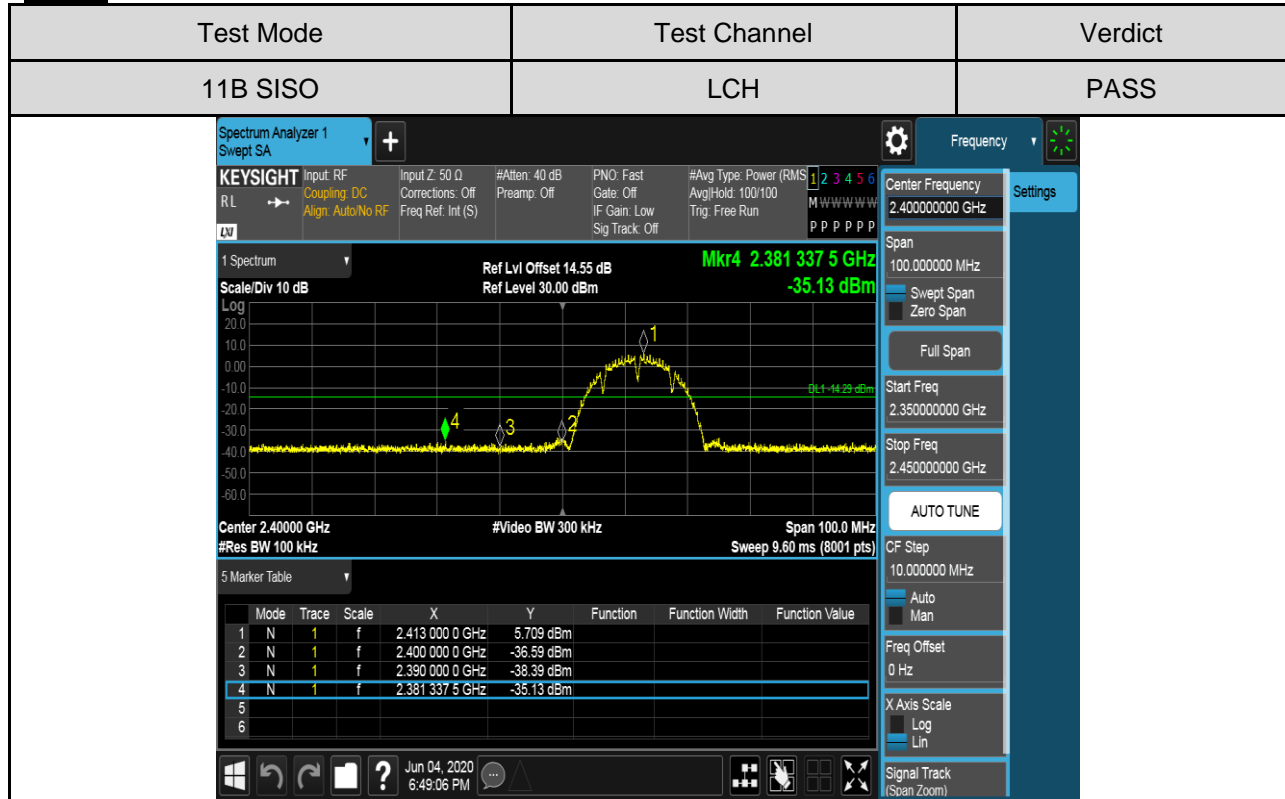
Test Mode	Test Channel	Carrier Power[dBm]	Max. Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	5.709	-35.13	-14.29	PASS
	HCH	5.116	-35.17	-14.88	PASS
11G	LCH	3.166	-35.79	-16.83	PASS
	HCH	2.798	-34.86	-17.20	PASS
11N HT20	LCH	3.491	-35.80	-16.51	PASS
	HCH	2.952	-35.22	-17.05	PASS
11N HT40	LCH	1.254	-35.77	-28.75	PASS
	HCH	1.572	-35.39	-28.43	PASS

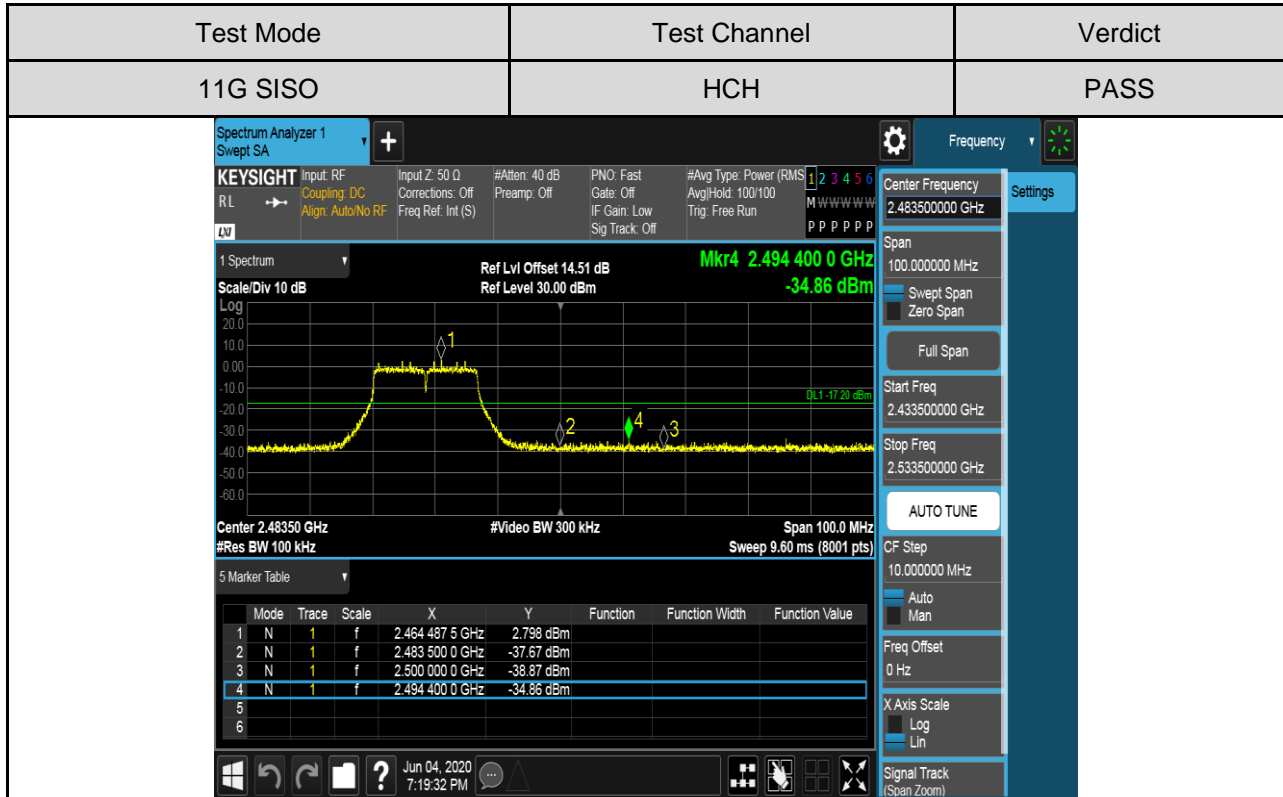
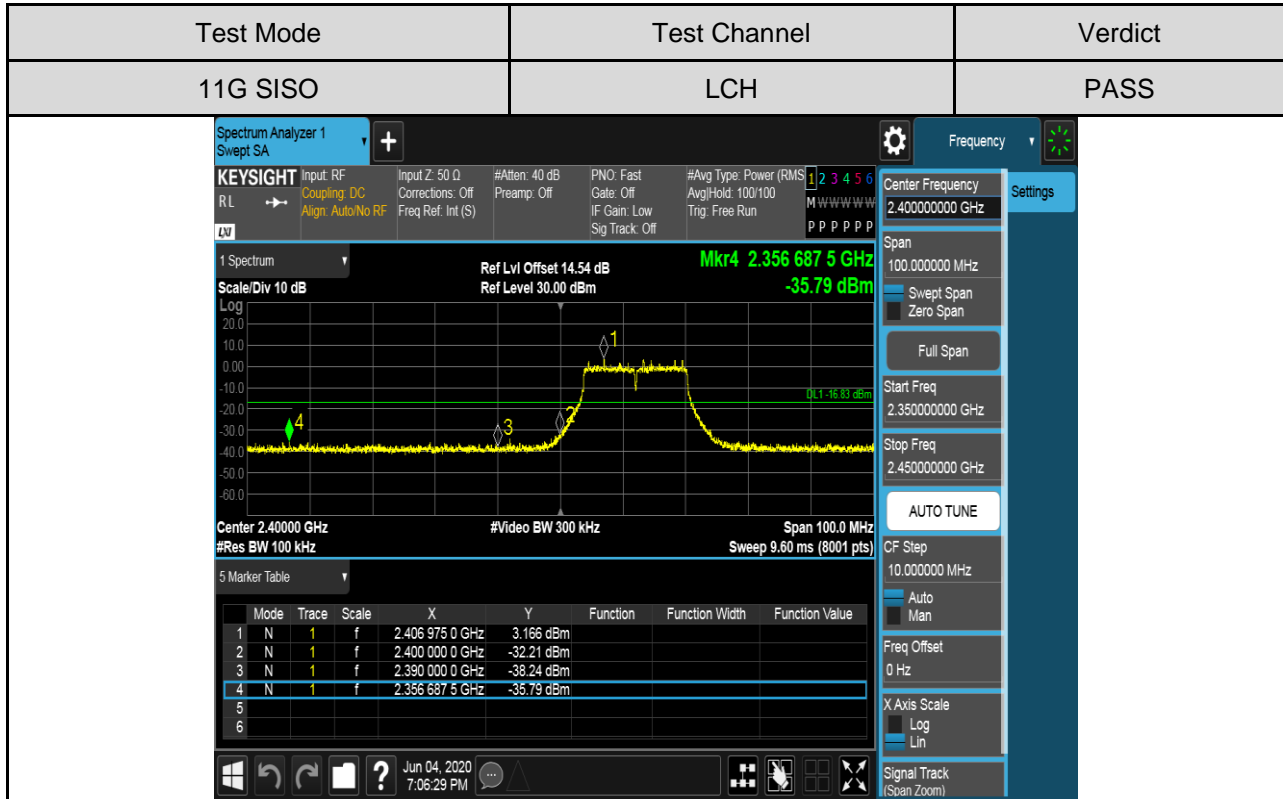
**Ant 2:**

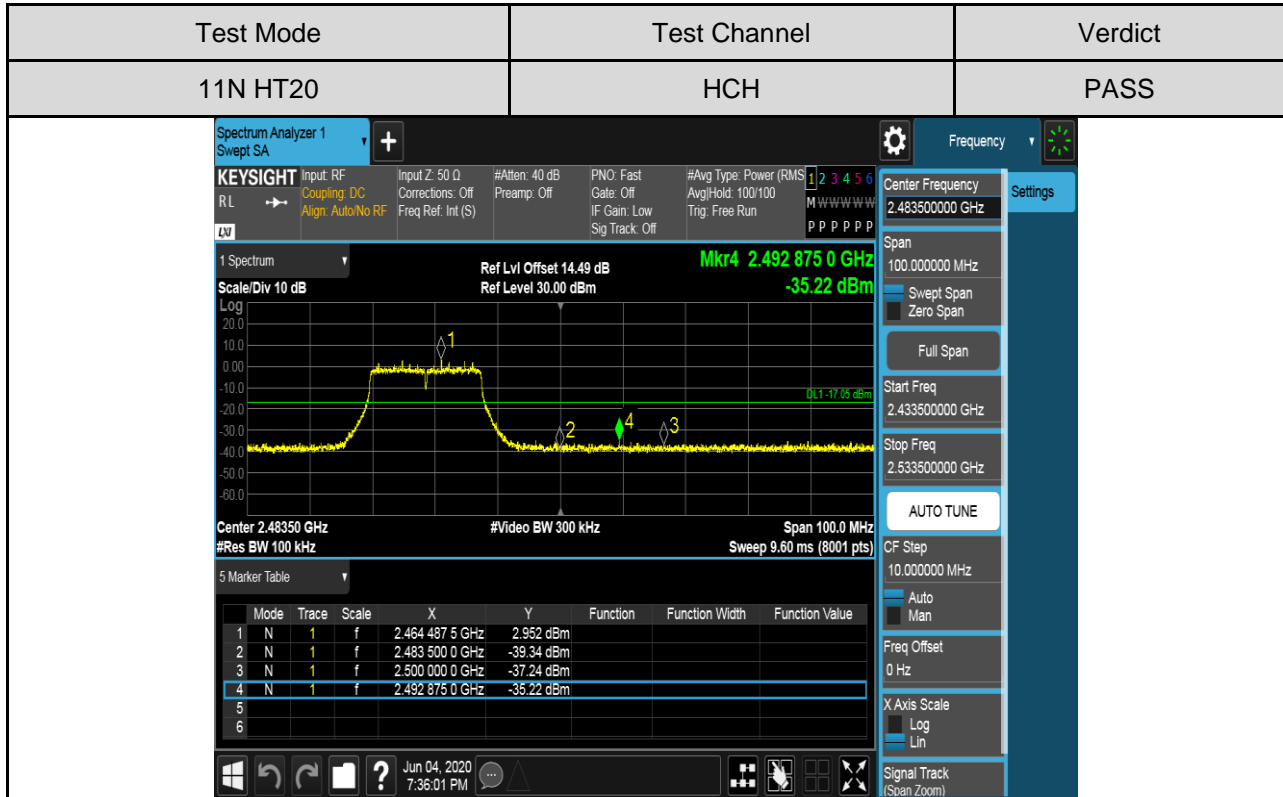
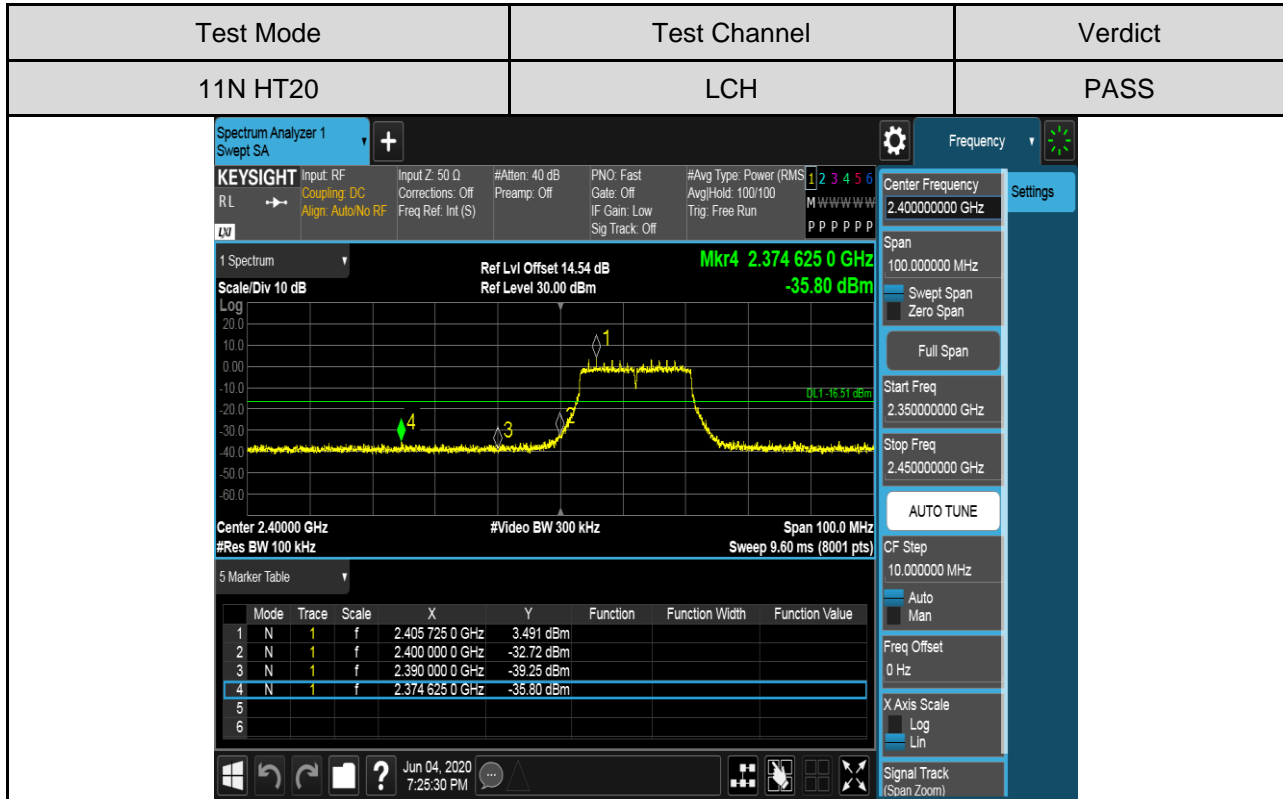
Test Mode	Test Channel	Carrier Power[dBm]	Max. Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.513	-35.69	-15.49	PASS
	HCH	2.659	-34.87	-17.34	PASS
11G	LCH	2.251	-35.36	-17.75	PASS
	HCH	0.8930	-35.90	-19.11	PASS
11N HT20	LCH	2.360	-35.43	-17.64	PASS
	HCH	1.042	-35.28	-18.96	PASS
11N HT40	LCH	-0.1004	-34.93	-30.10	PASS
	HCH	-0.4585	-34.86	-30.64	PASS



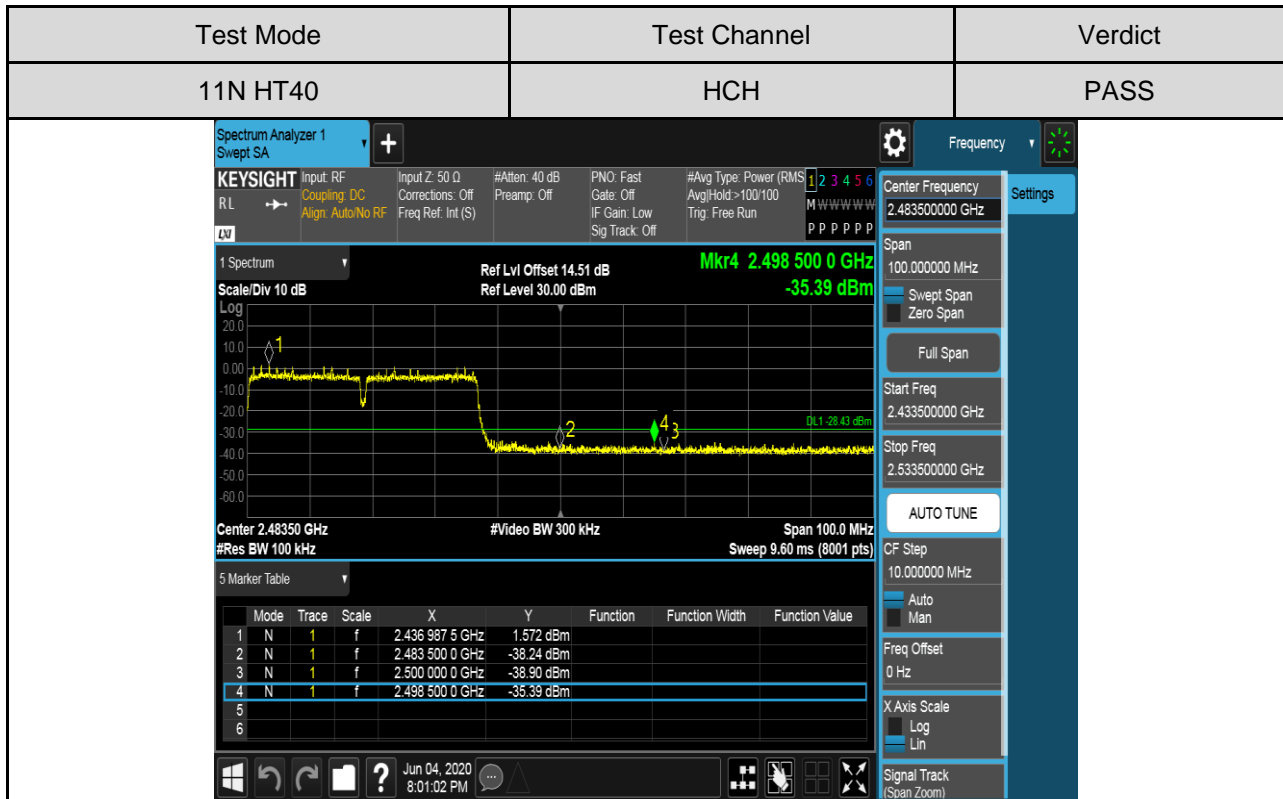
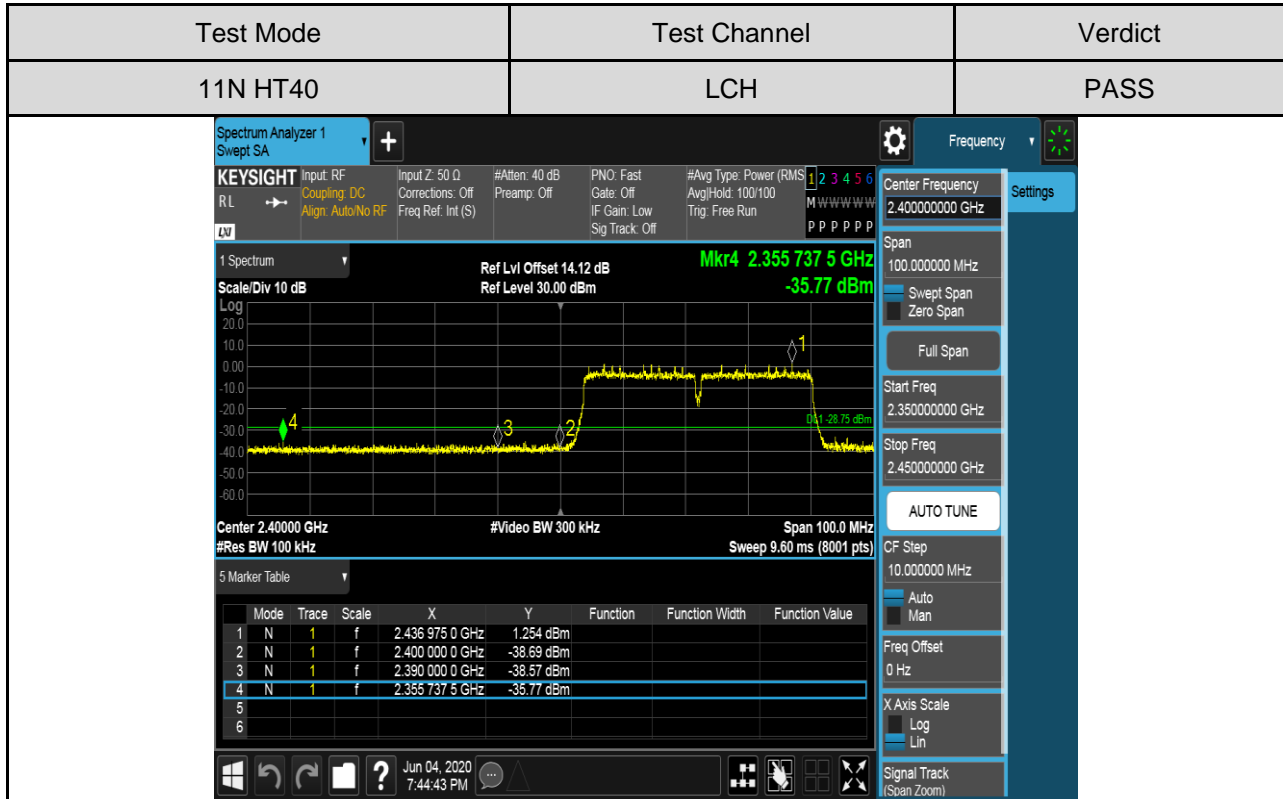
**Ant 1:**





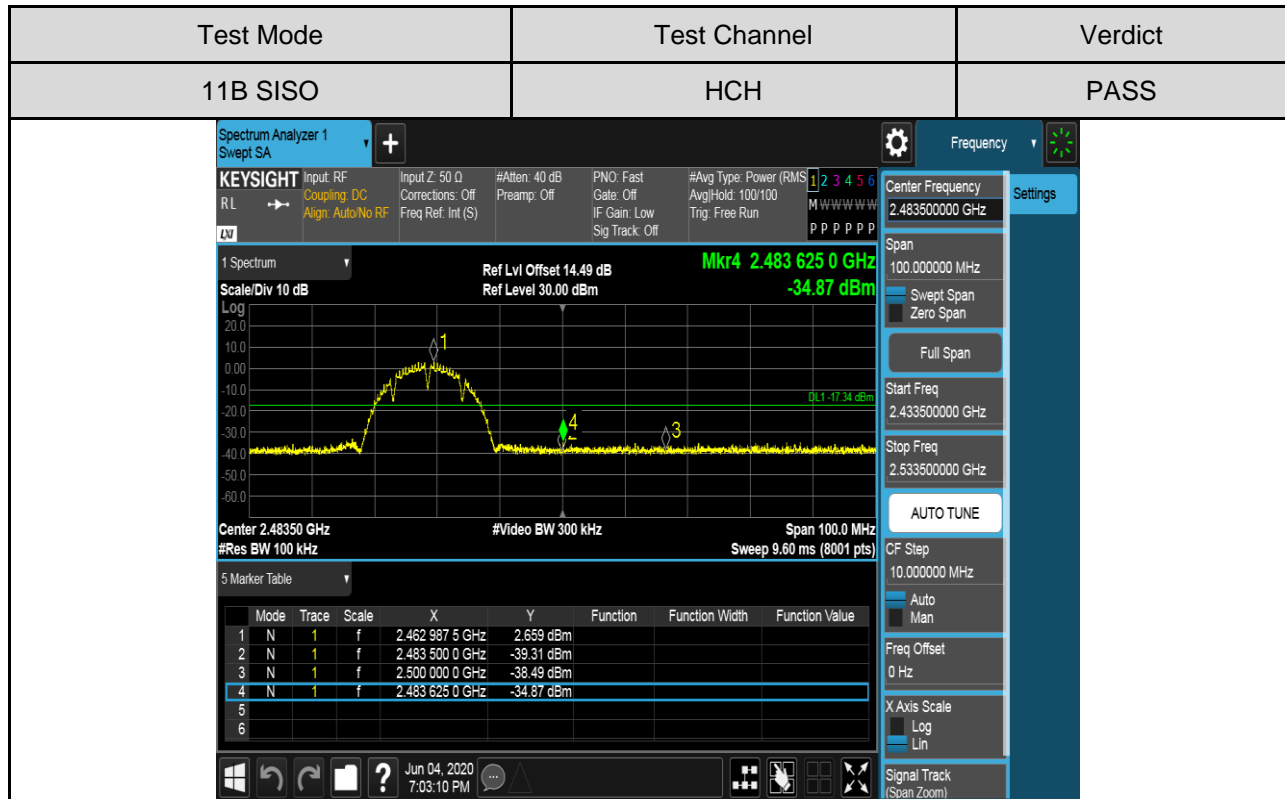
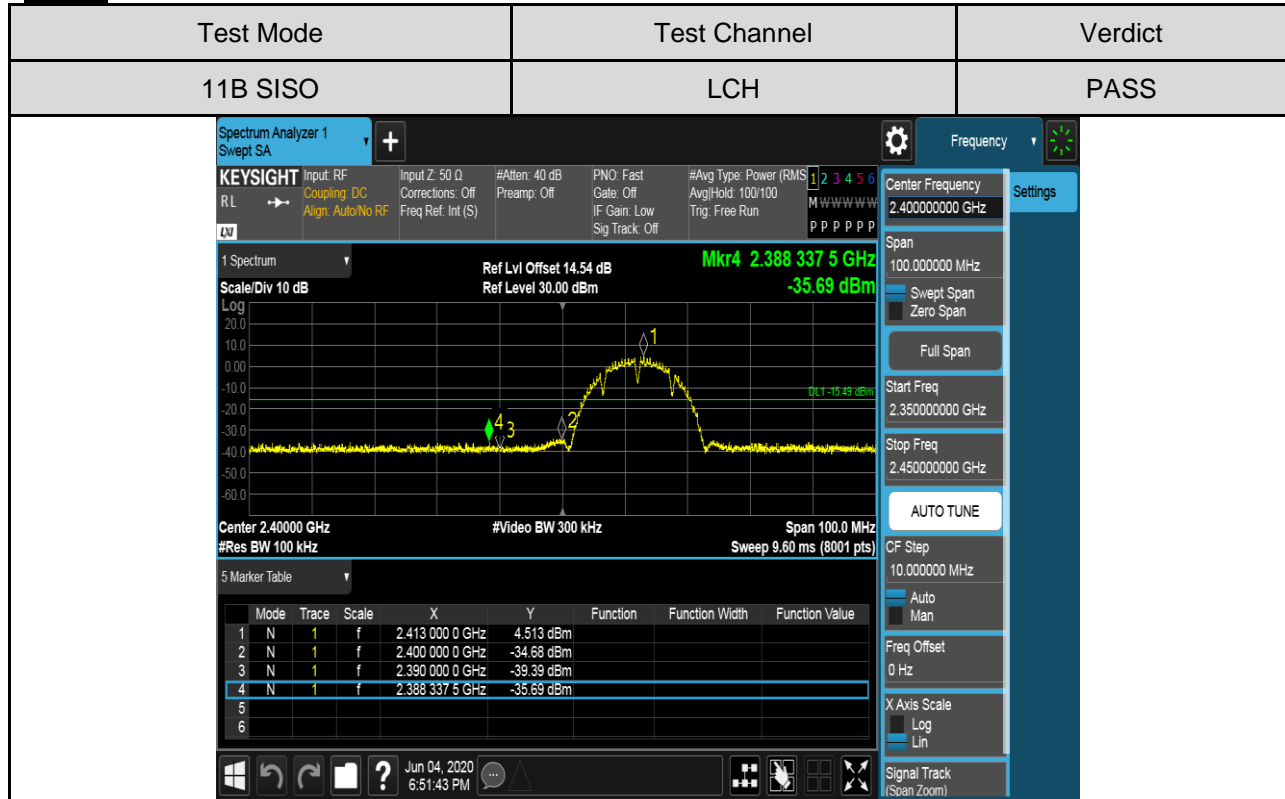


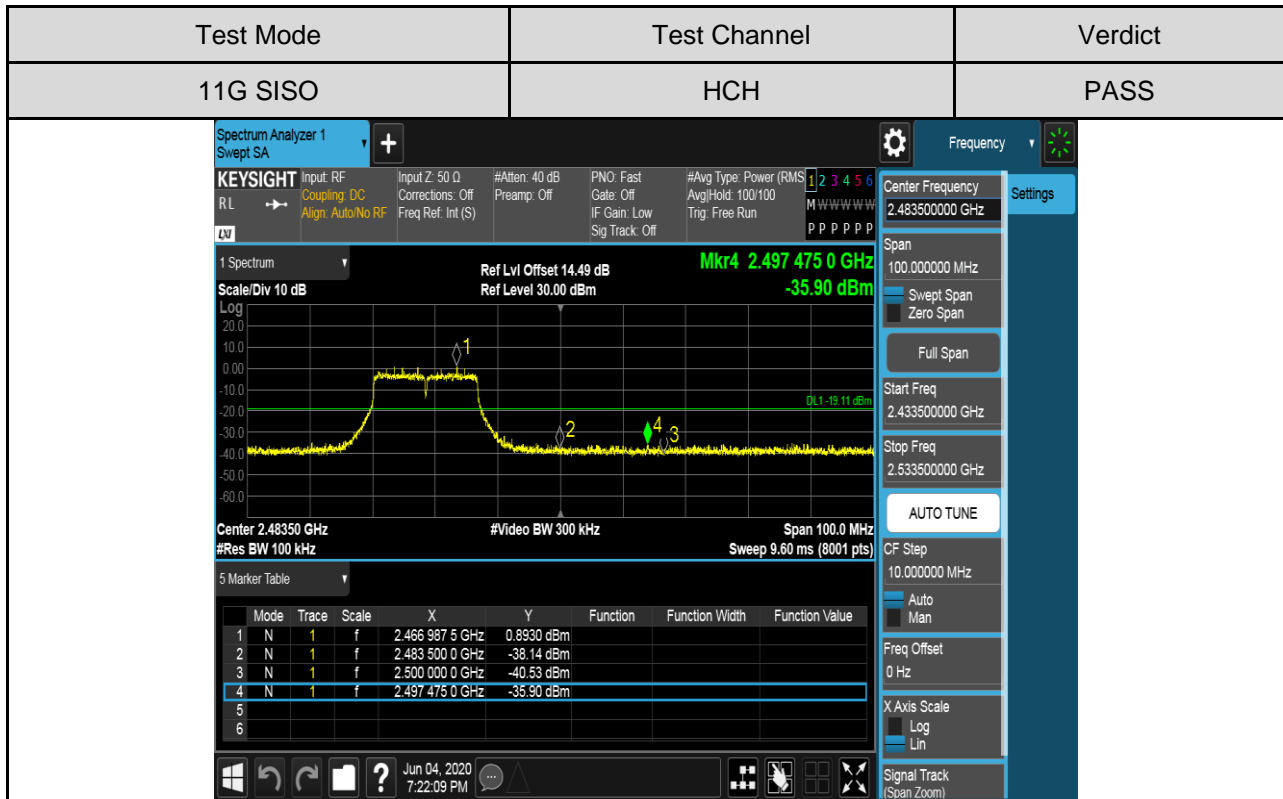
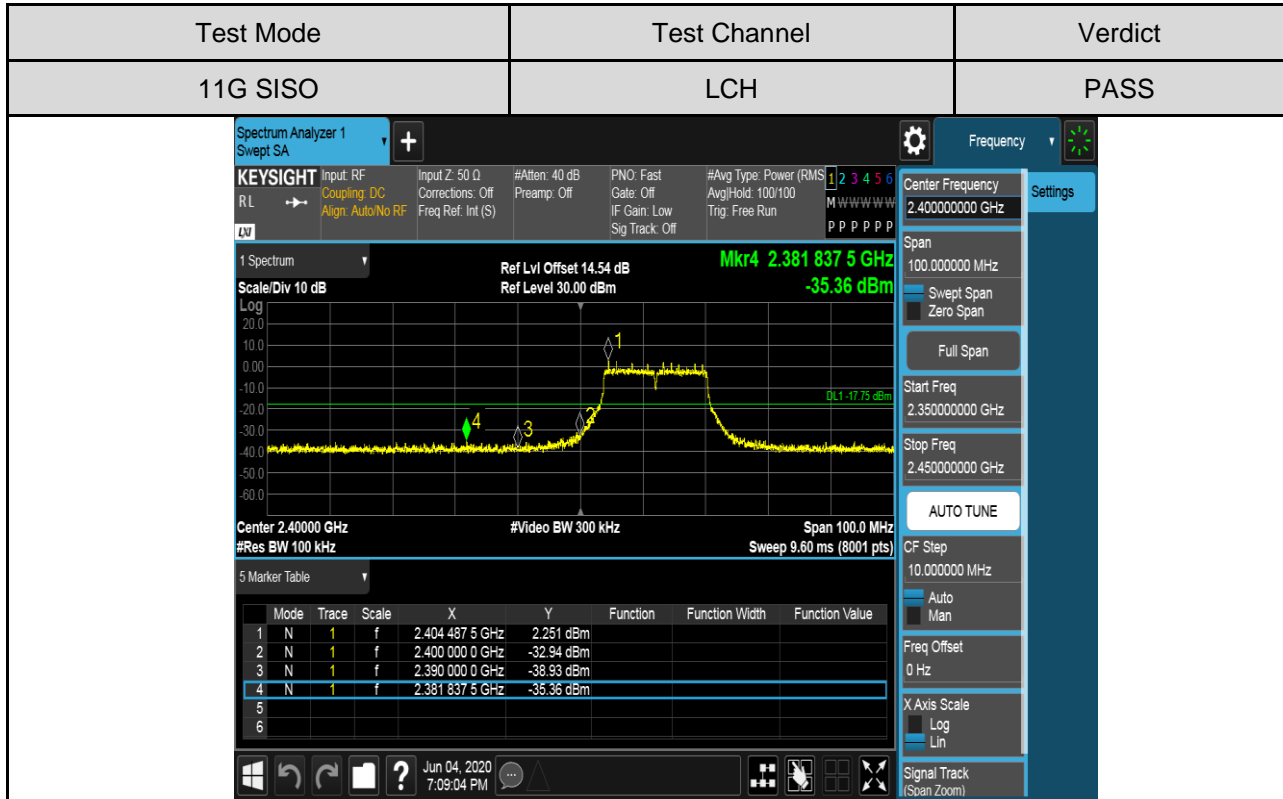


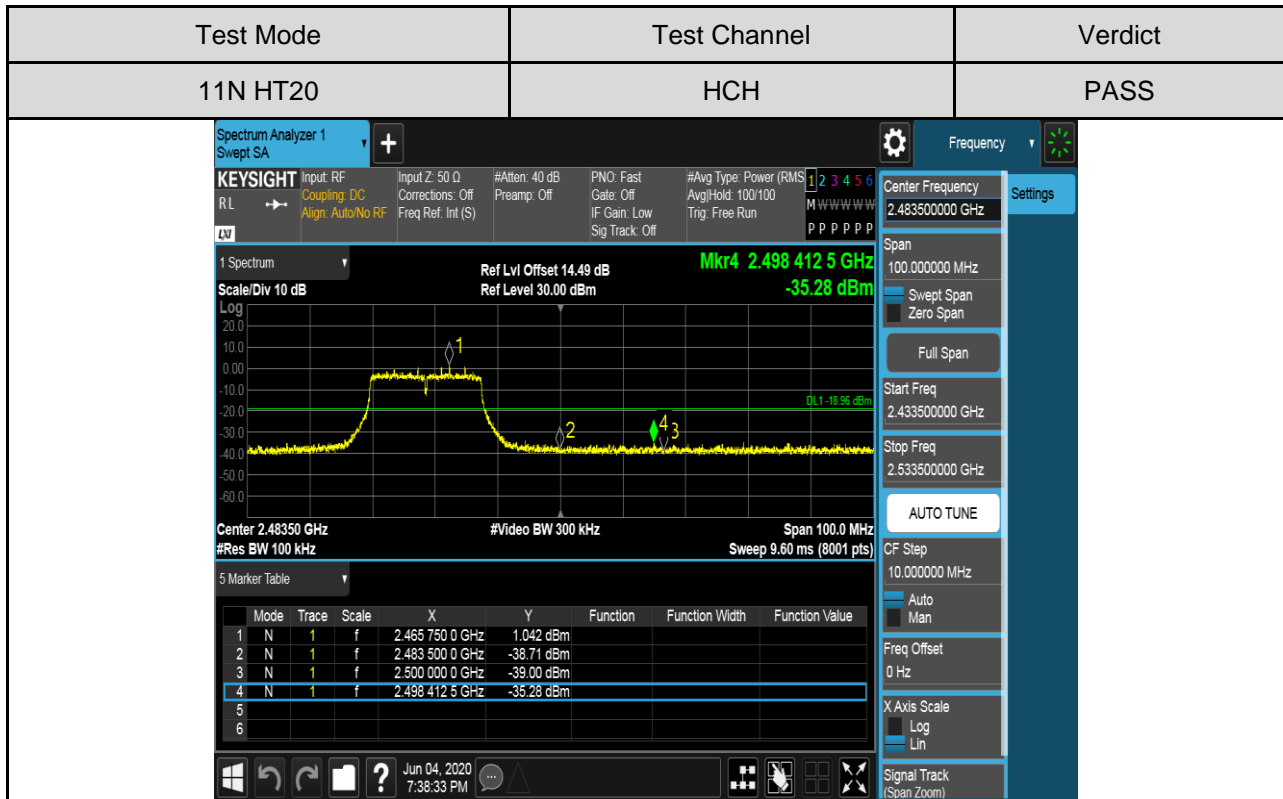
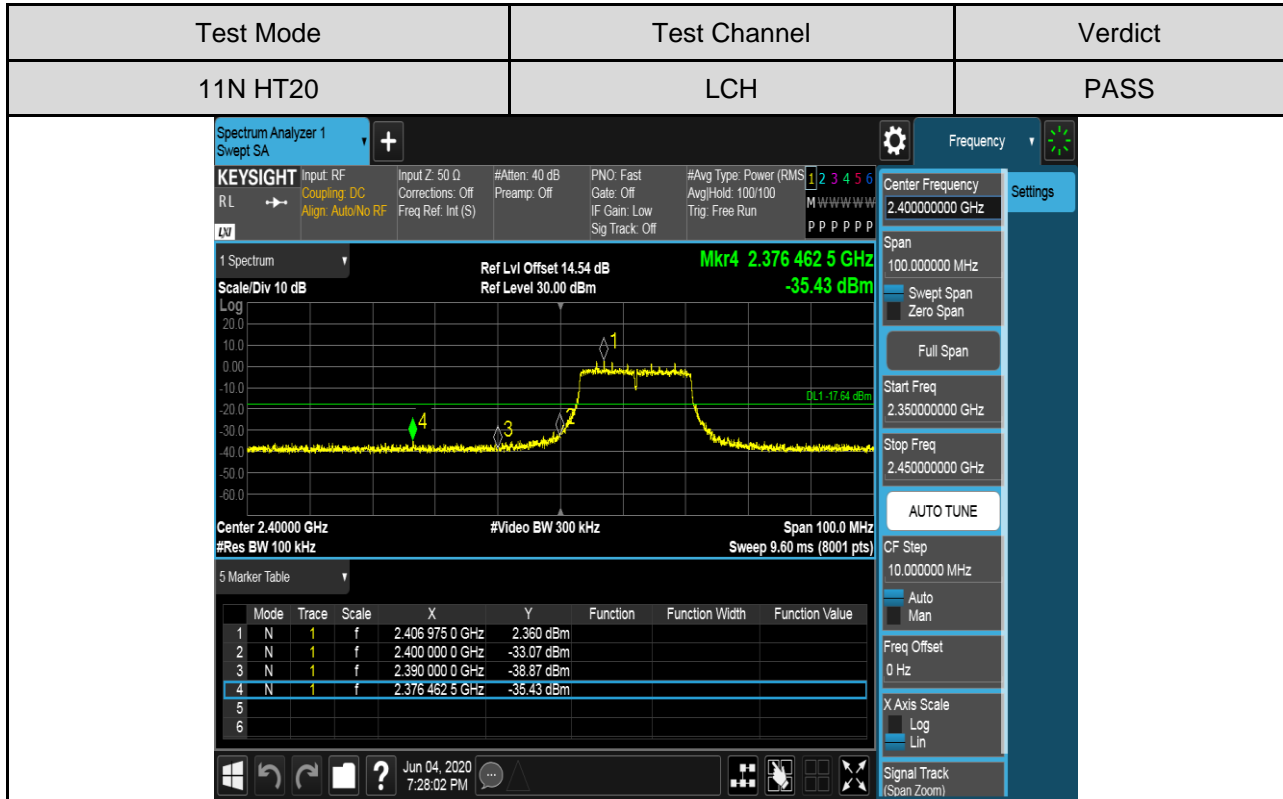


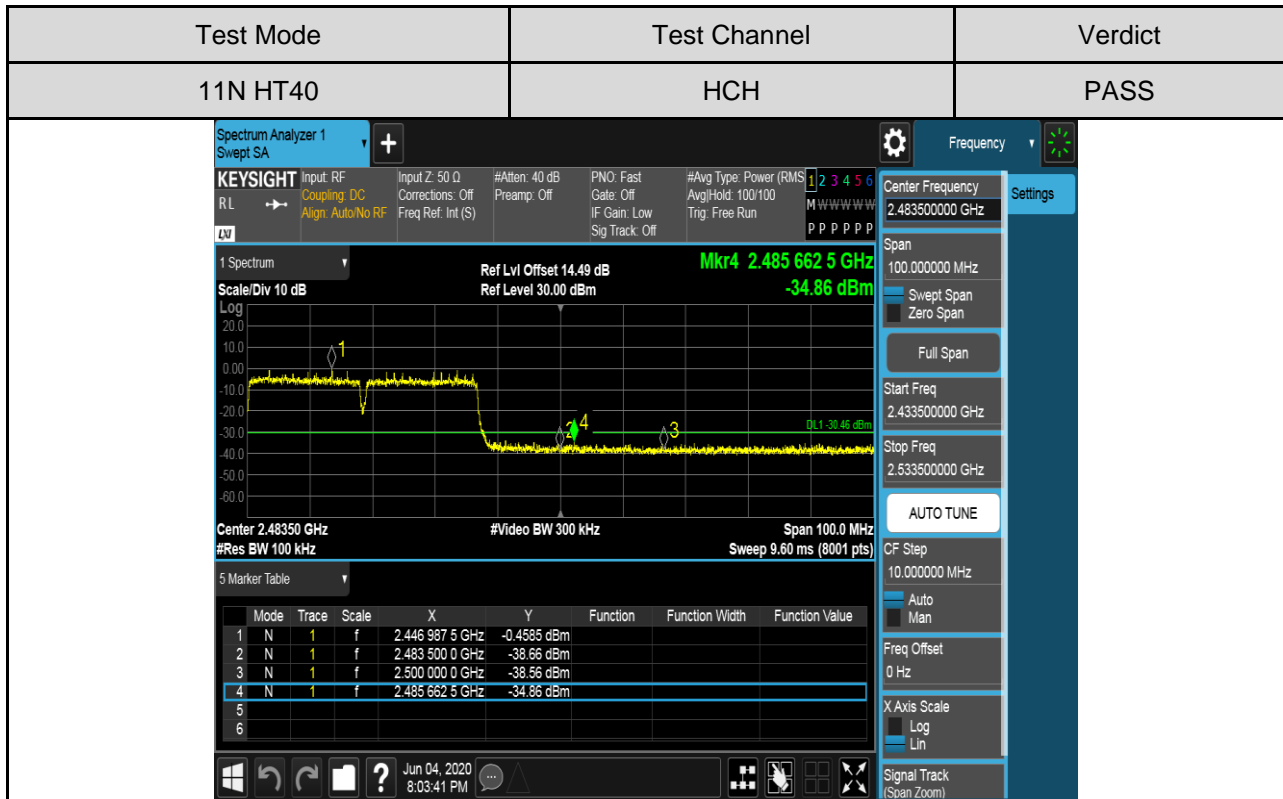
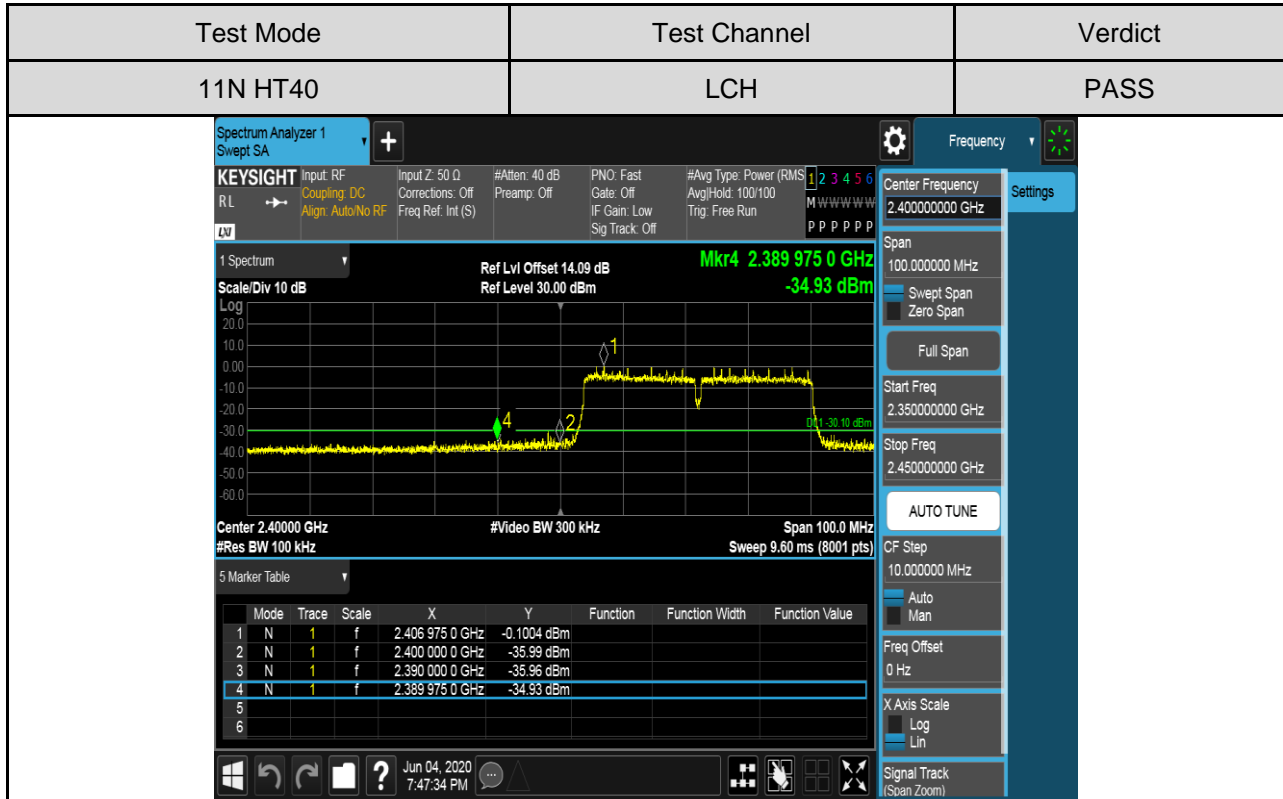


**Ant 2:**











**Part II :Conducted Emission**

Test Result Table

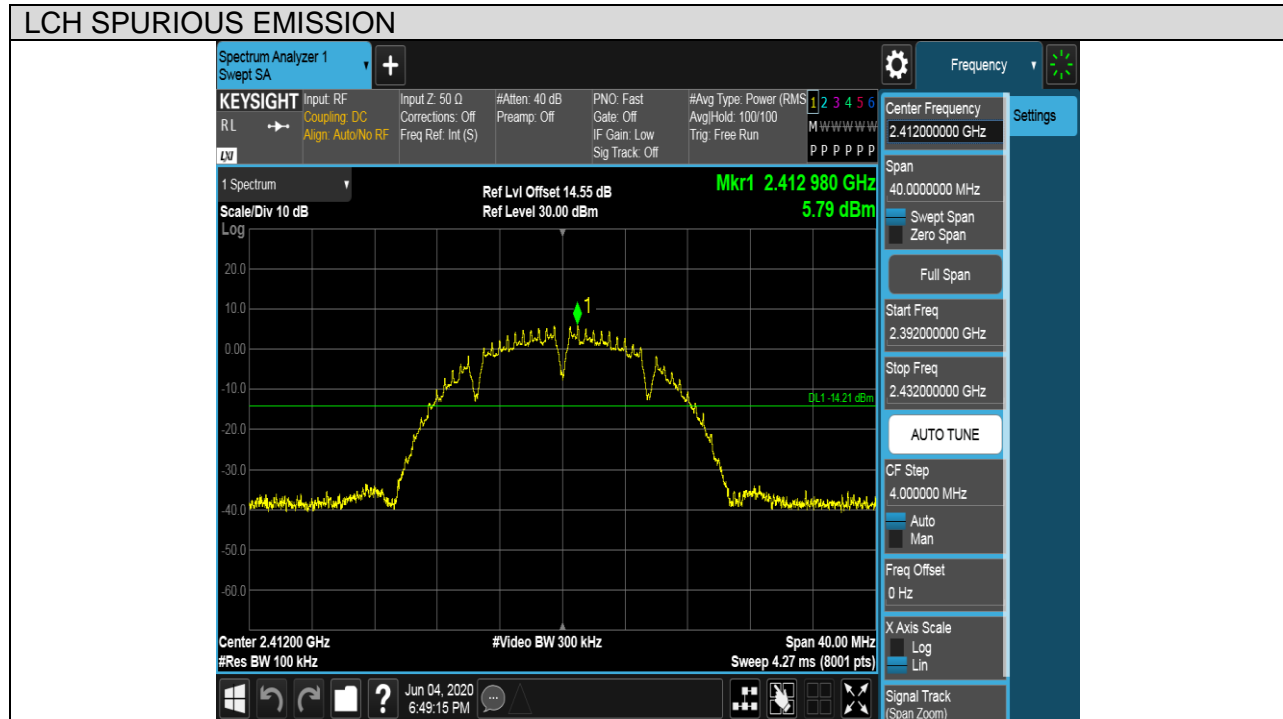
Test Mode	Channel	Pref(dBm)		Puw(dBm)	Verdict
		Ant 1	Ant 2		
11B	LCH	5.79	4.80	<Limit	PASS
	MCH	5.28	3.59	<Limit	PASS
	HCH	4.88	2.67	<Limit	PASS
11G	LCH	3.39	2.21	<Limit	PASS
	MCH	2.77	1.42	<Limit	PASS
	HCH	2.99	0.95	<Limit	PASS
11N HT20	LCH	3.40	2.28	<Limit	PASS
	MCH	3.23	1.50	<Limit	PASS
	HCH	3.10	1.23	<Limit	PASS
11N HT40	LCH	1.52	-0.50	<Limit	PASS
	MCH	1.15	-0.68	<Limit	PASS
	HCH	0.97	-0.70	<Limit	PASS

**Test Plots**

**Ant 1:**

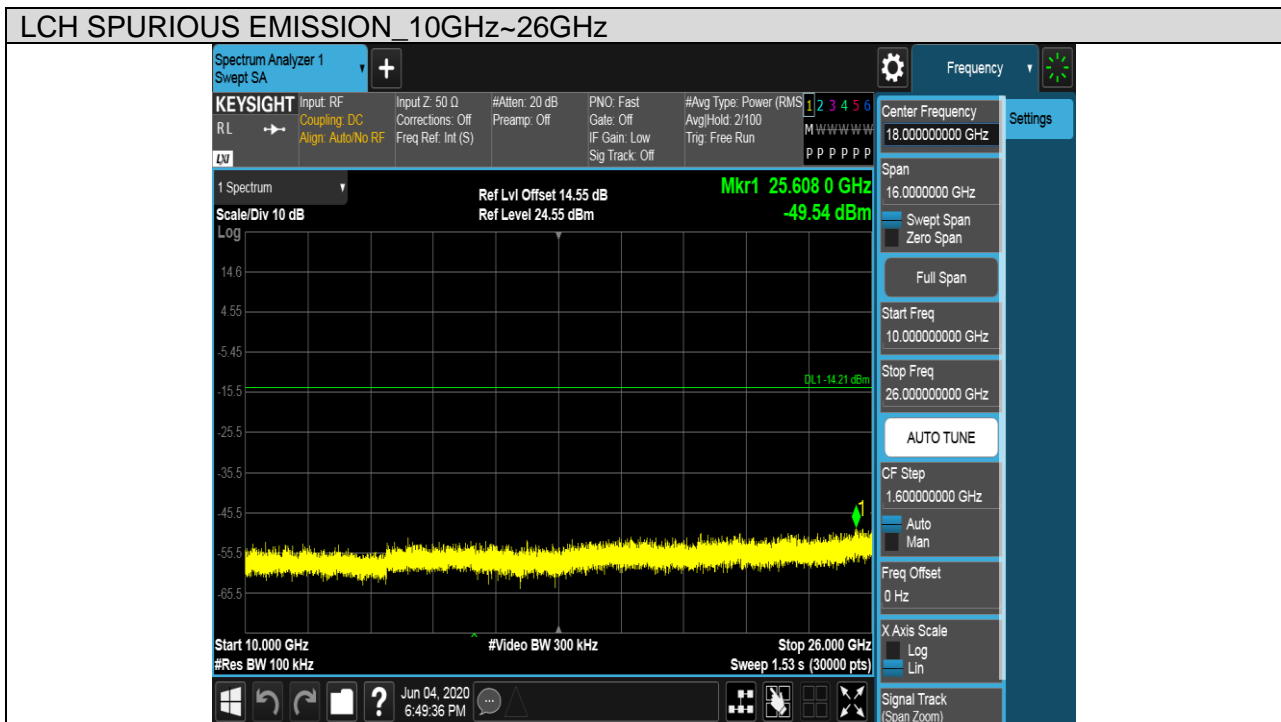
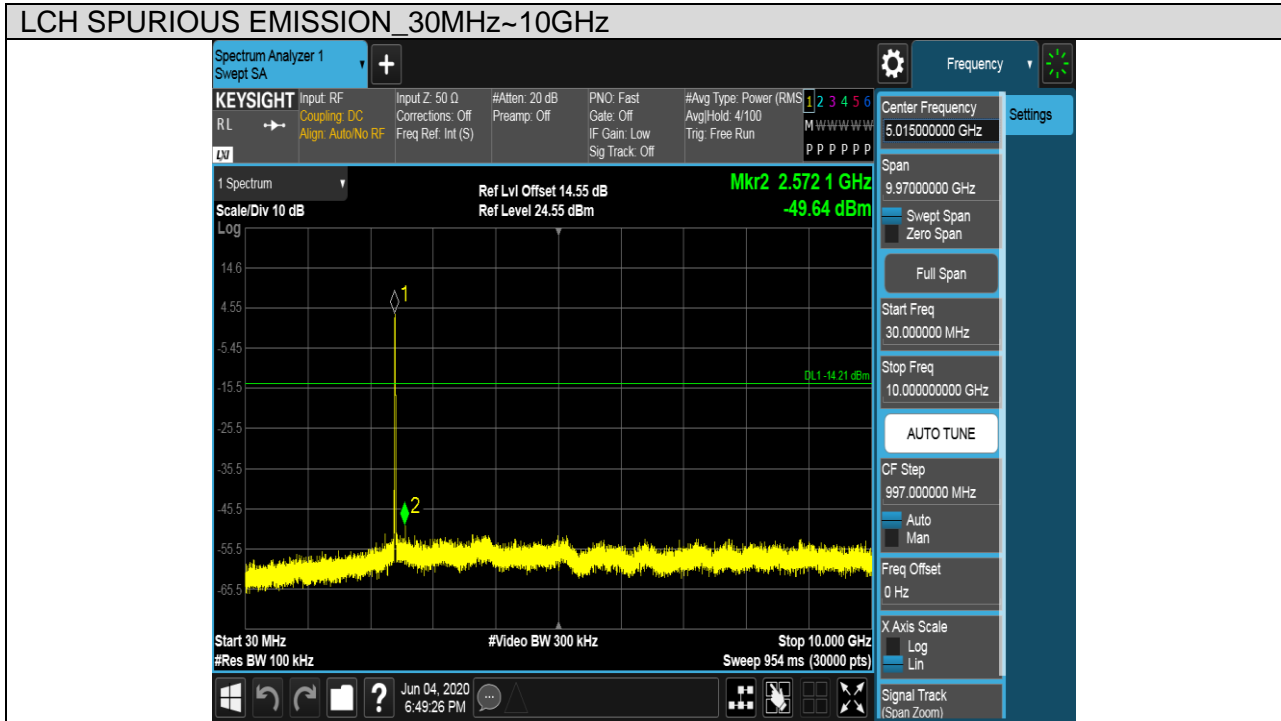
Test Mode	Channel	Verdict
11B	LCH	PASS

Pref test Plot





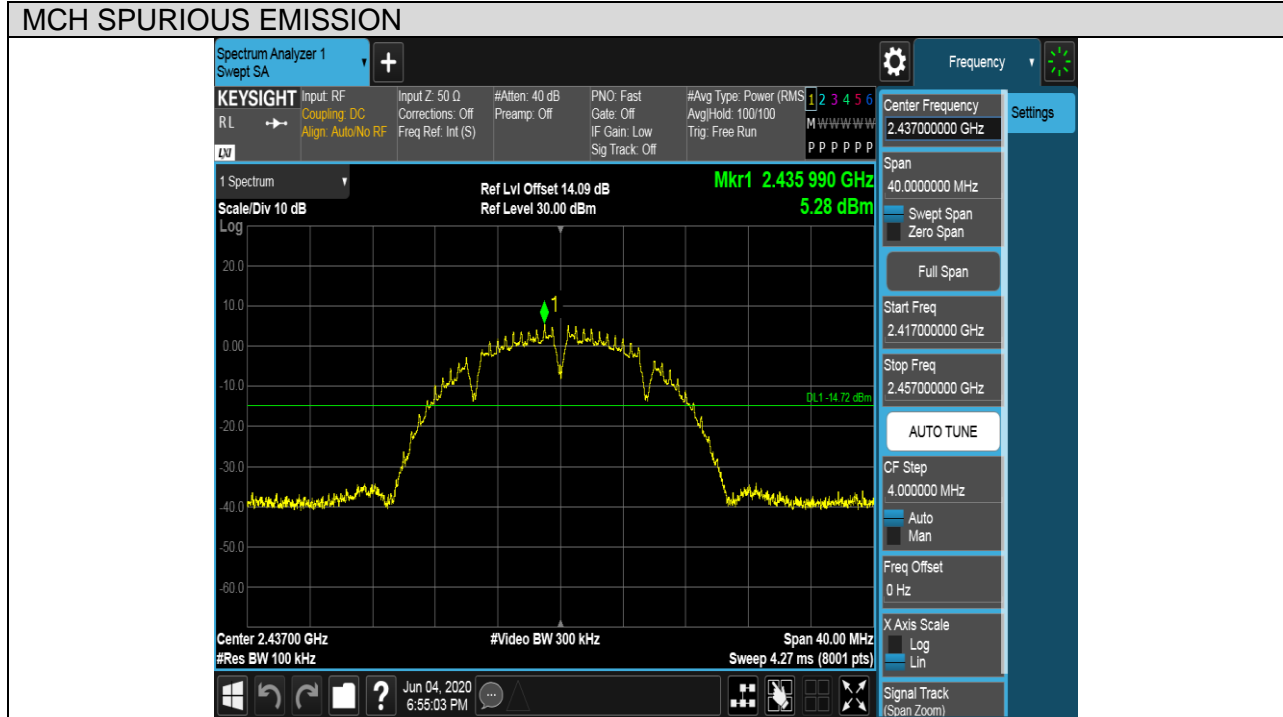
Puw test Plot





Test Mode	Channel	Verdict
11B	MCH	PASS

Pref test Plot

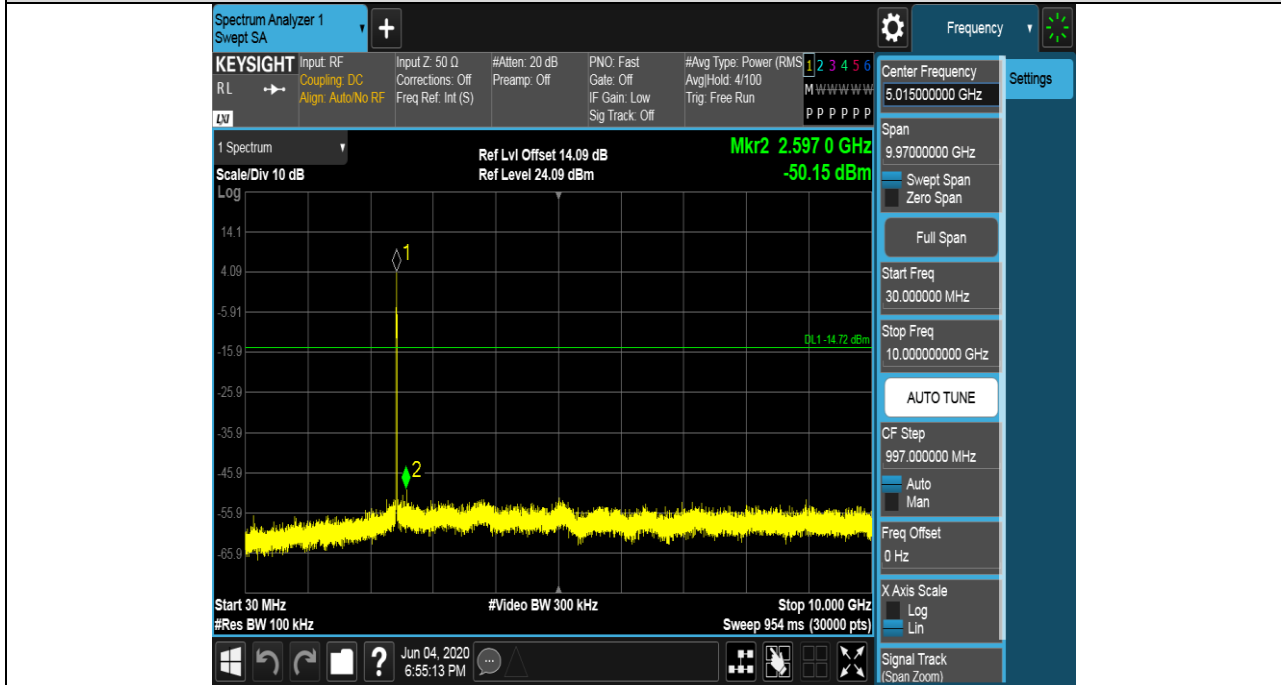




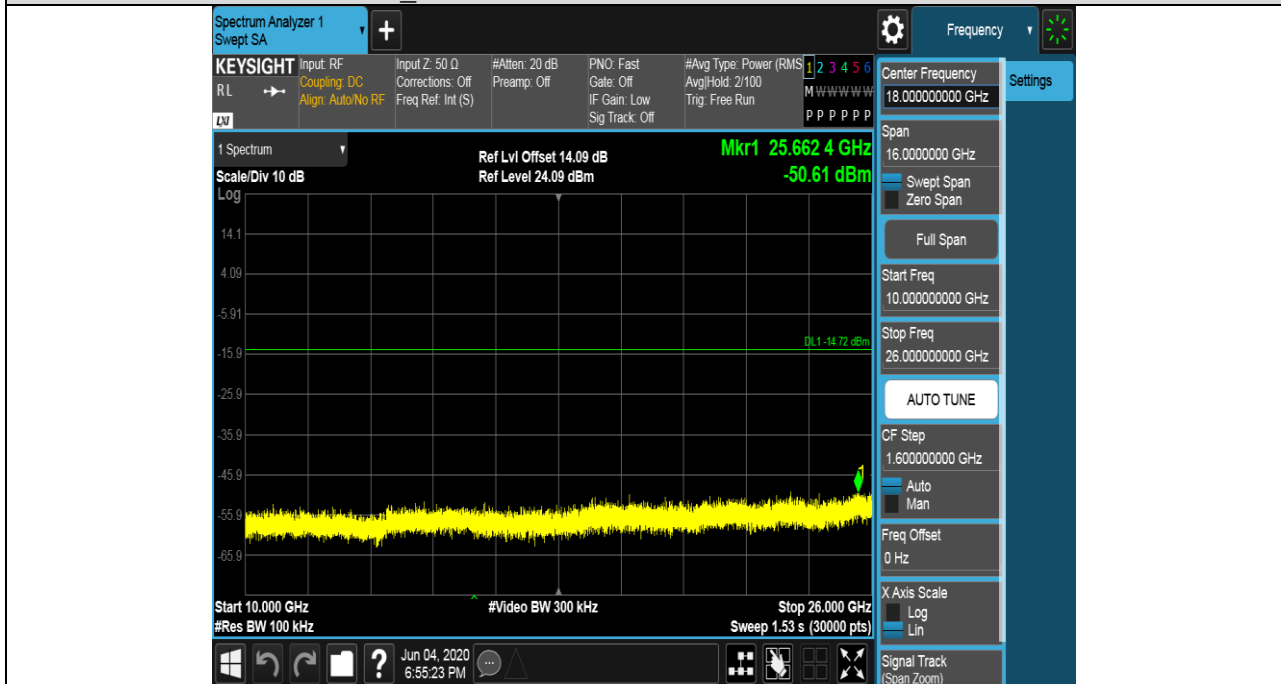


Puw test Plot

MCH SPURIOUS EMISSION\_30MHz~10GHz



MCH SPURIOUS EMISSION\_10GHz~26GHz





Test Mode	Channel	Verdict
11B	HCH	PASS

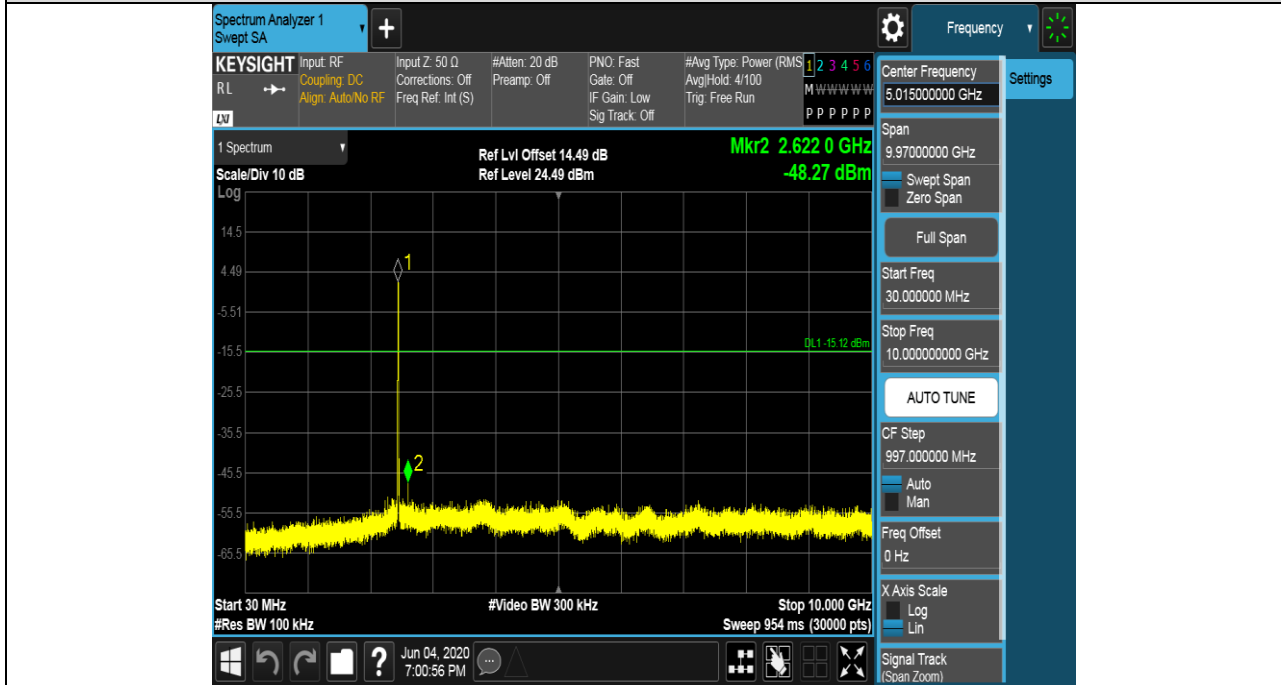
Pref test Plot



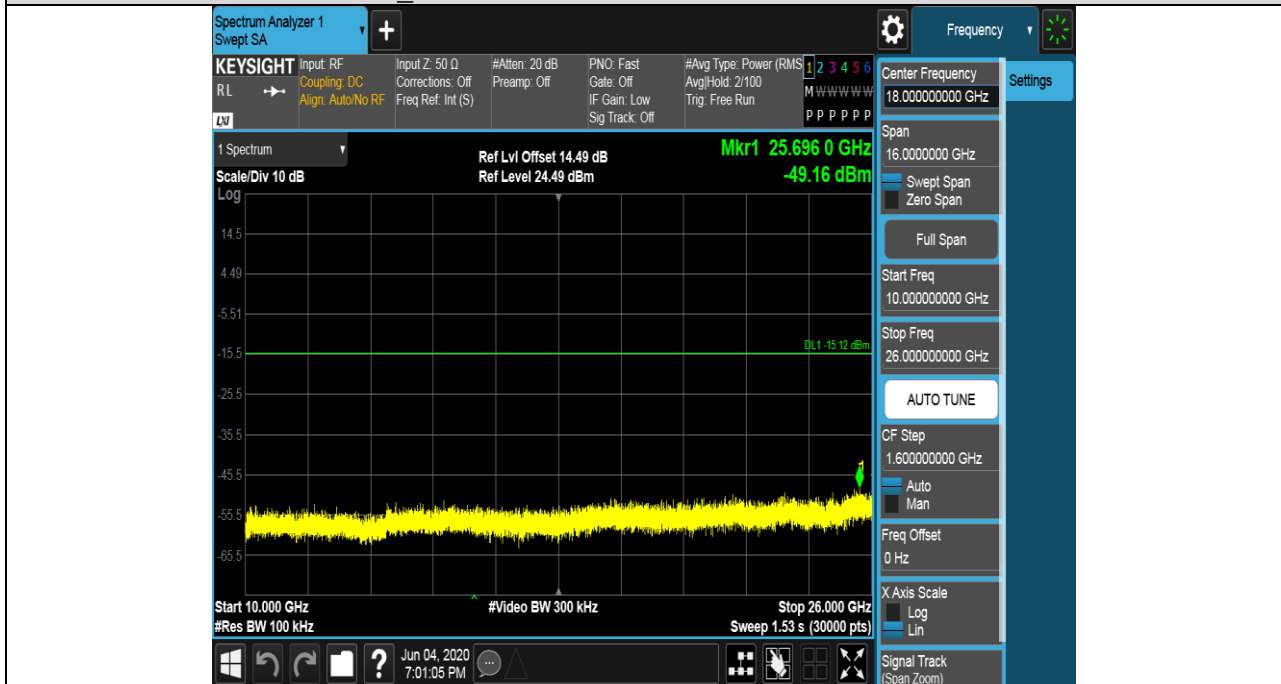


Puw test Plot

HCH SPURIOUS EMISSION\_30MHz~10GHz



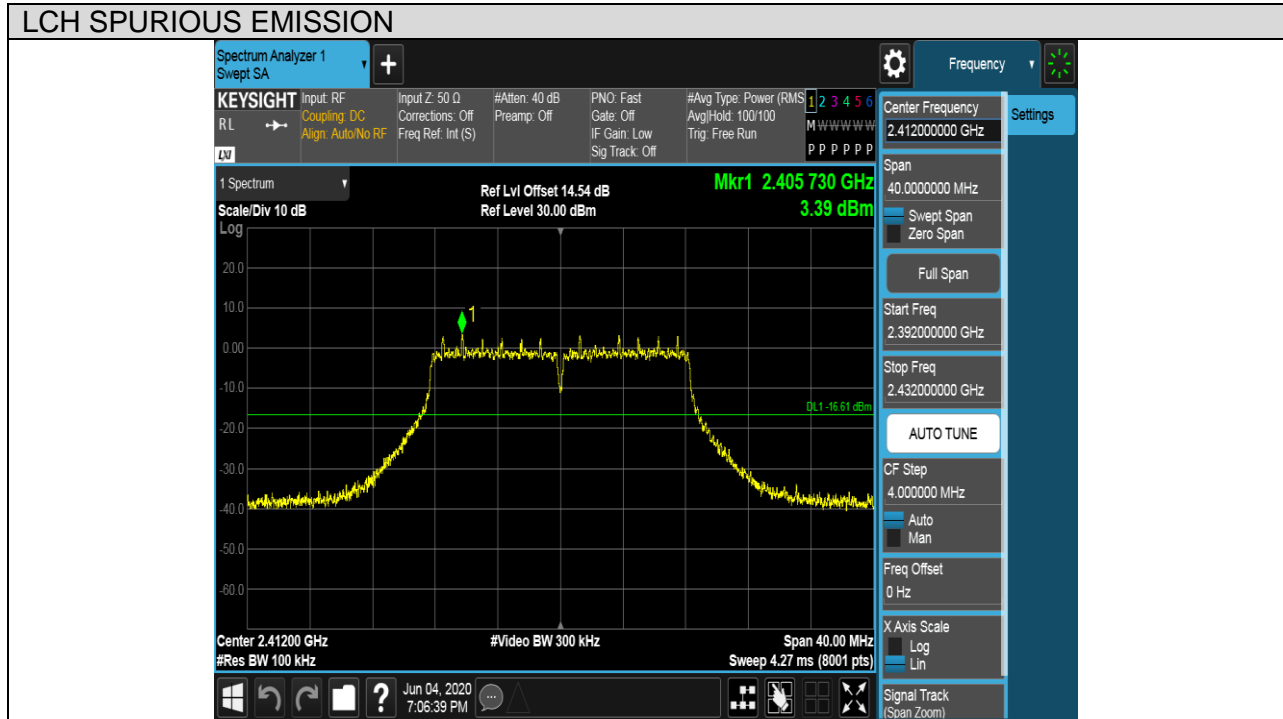
HCH SPURIOUS EMISSION\_10GHz~26GHz





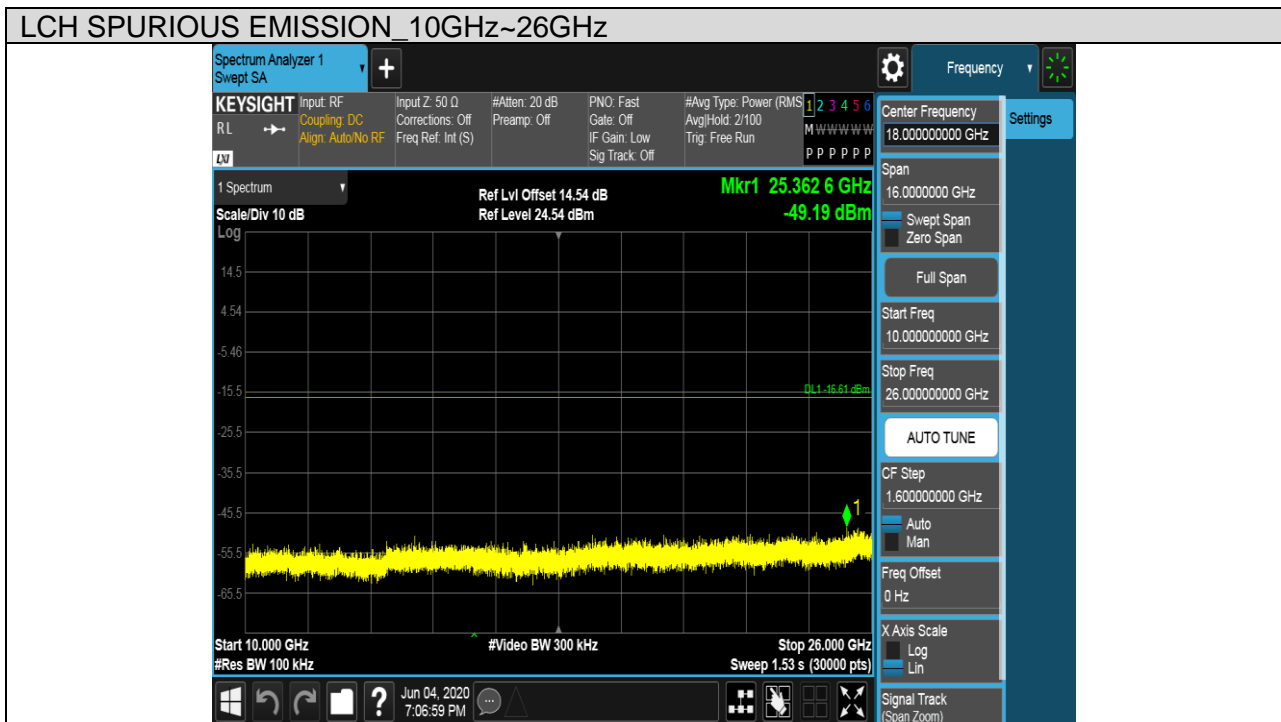
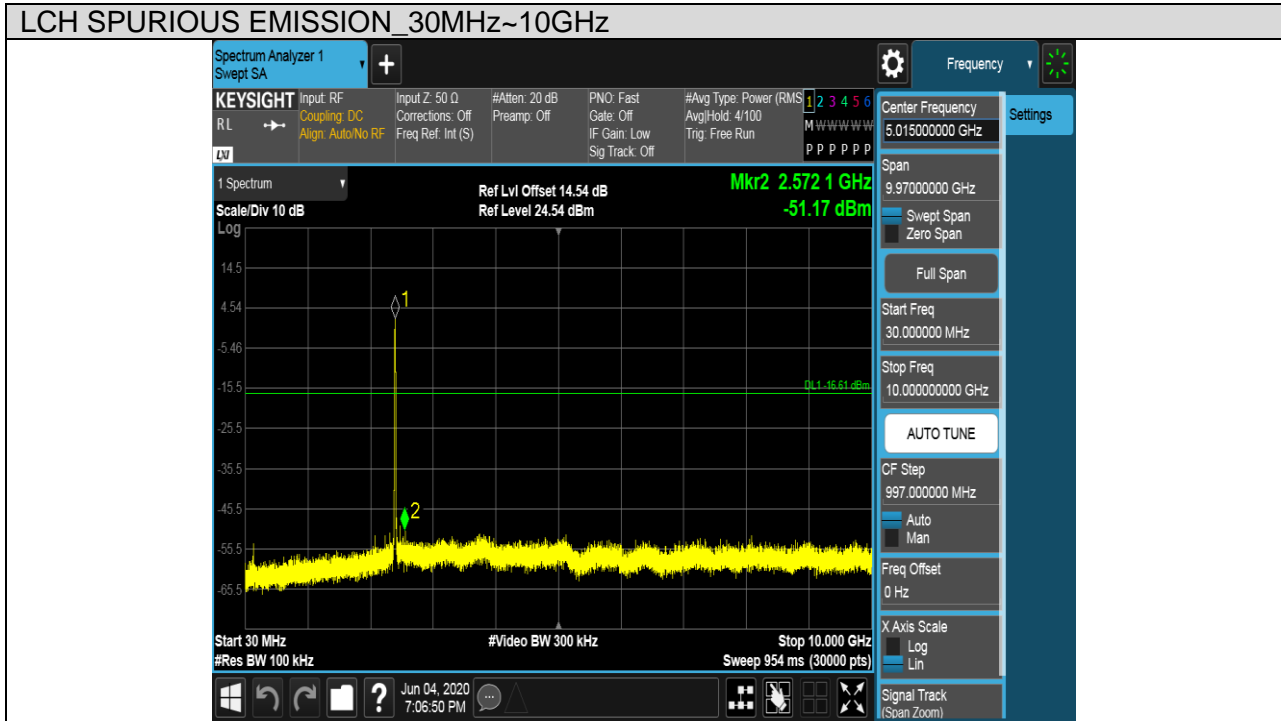
Test Mode	Channel	Verdict
11G	LCH	PASS

Pref test Plot





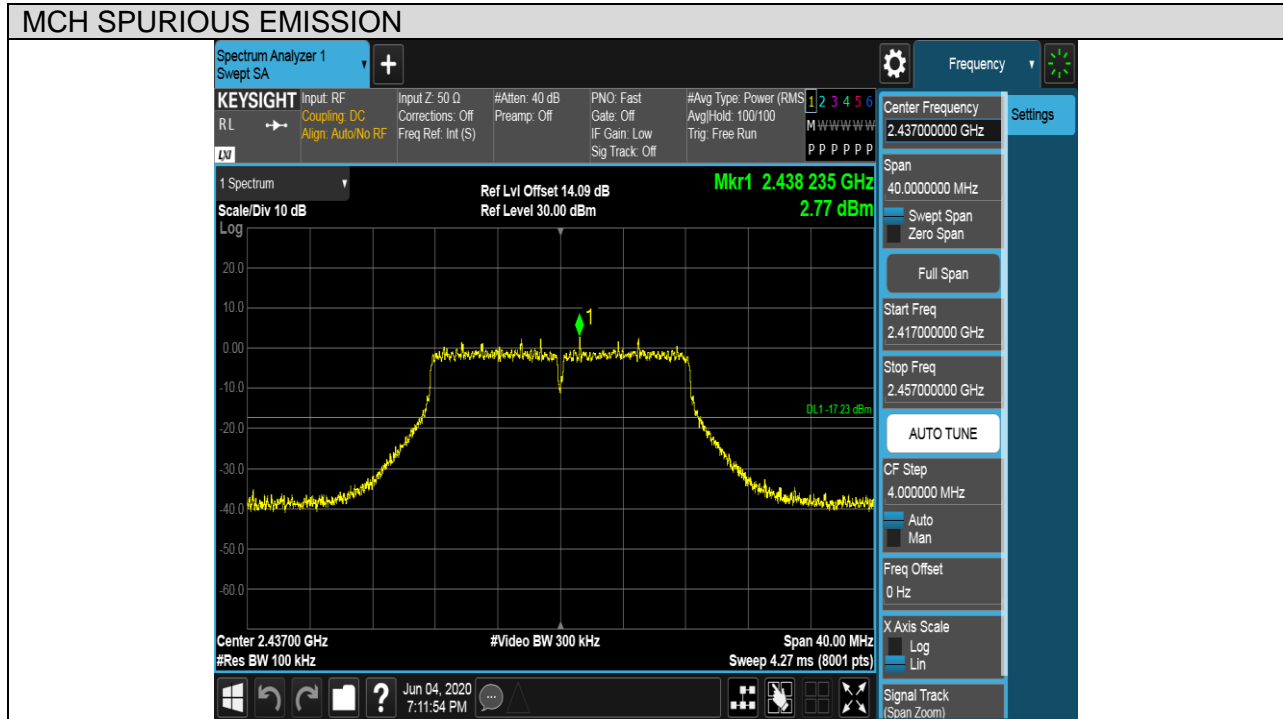
Puw test Plot





Test Mode	Channel	Verdict
11G	MCH	PASS

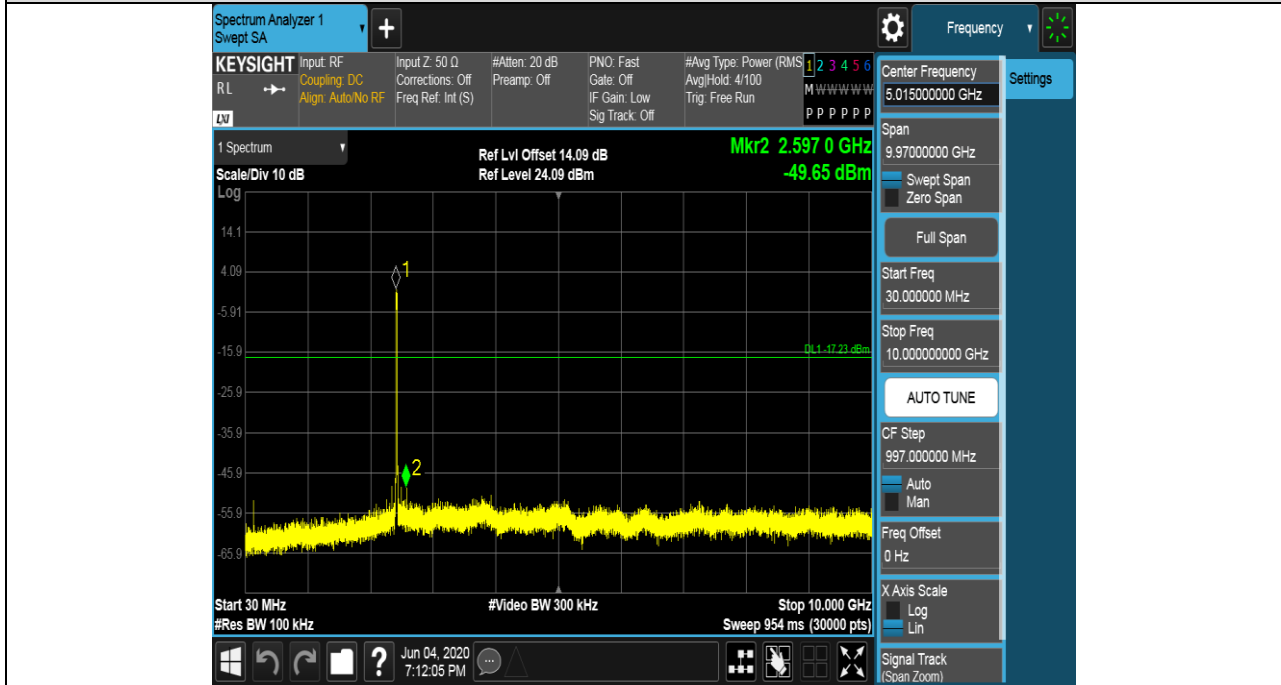
Pref test Plot



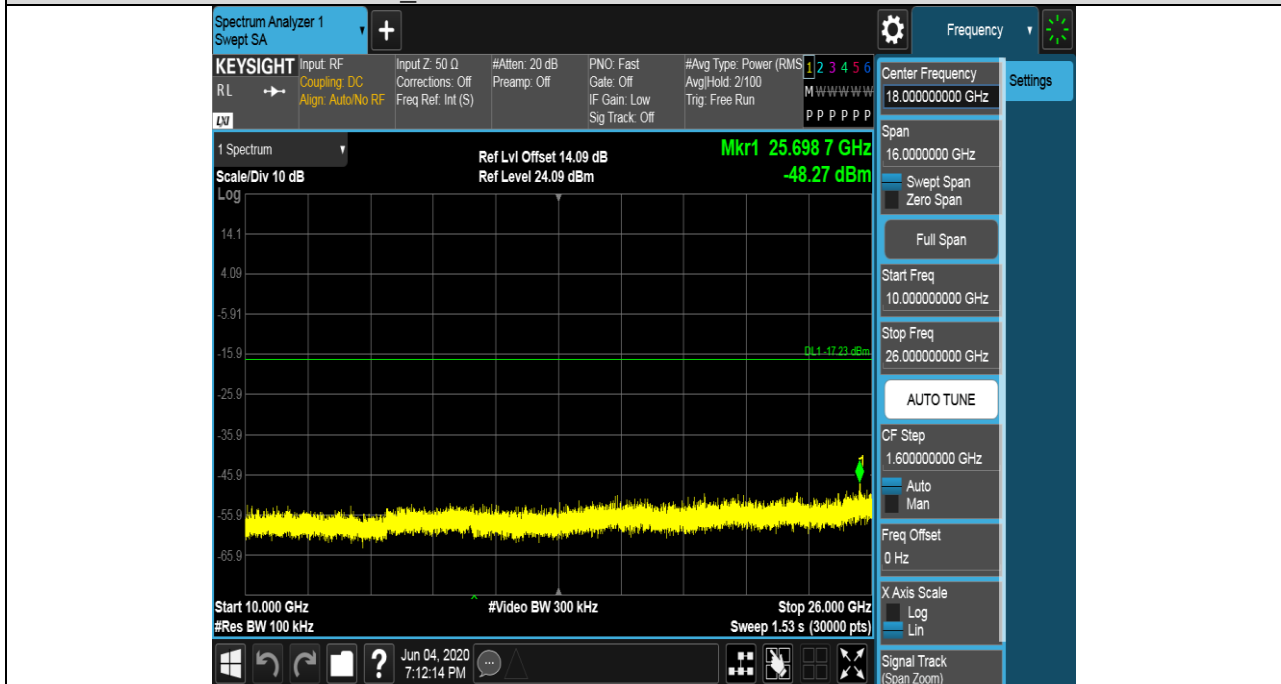


Puw test Plot

MCH SPURIOUS EMISSION\_30MHz~10GHz



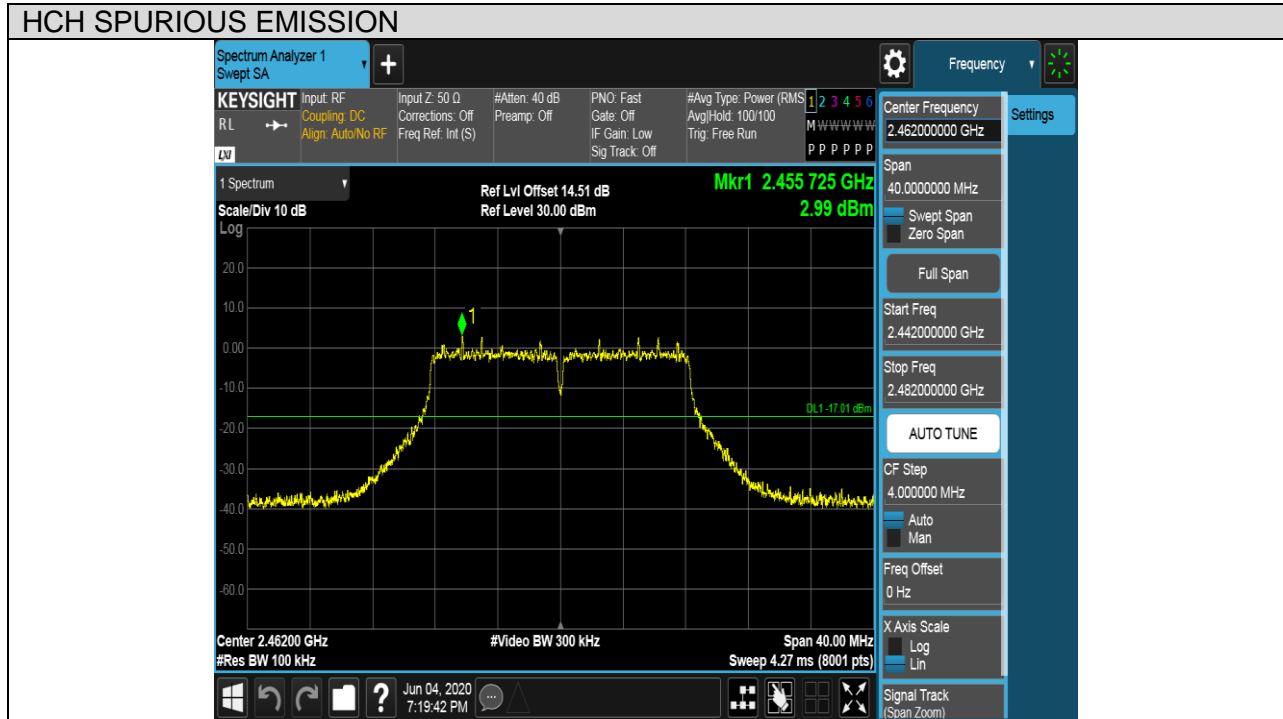
MCH SPURIOUS EMISSION\_10GHz~26GHz





Test Mode	Channel	Verdict
11G	HCH	PASS

Pref test Plot

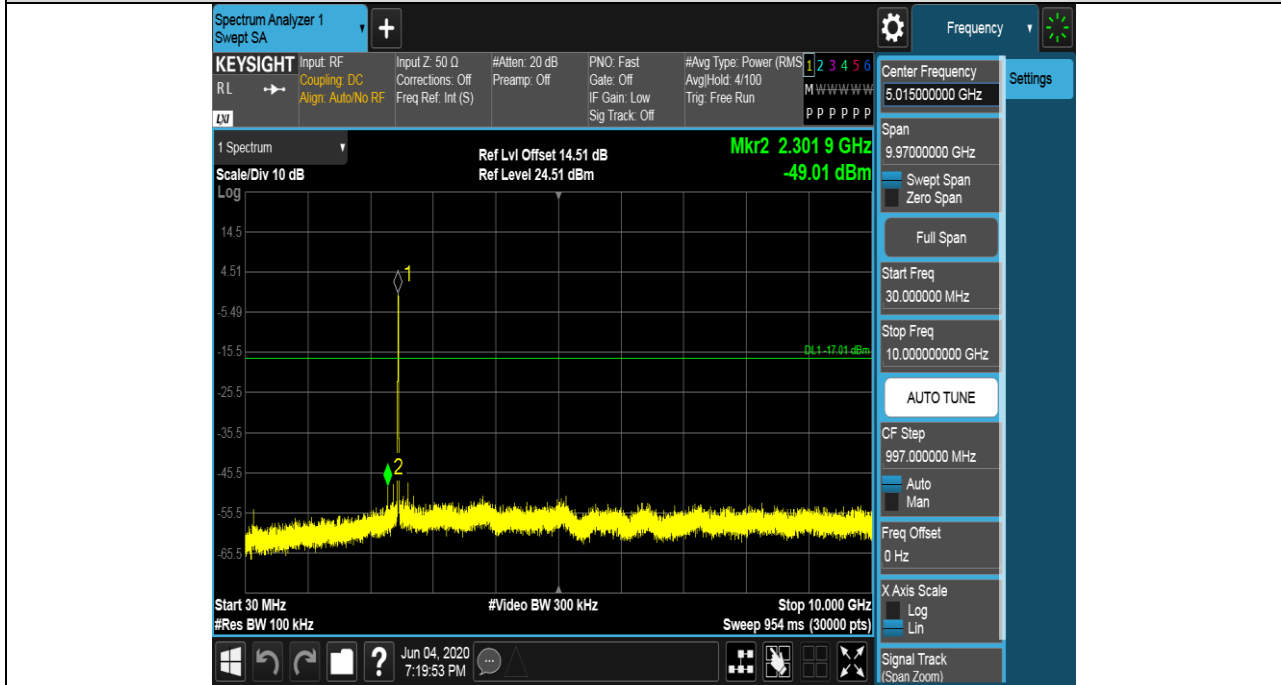




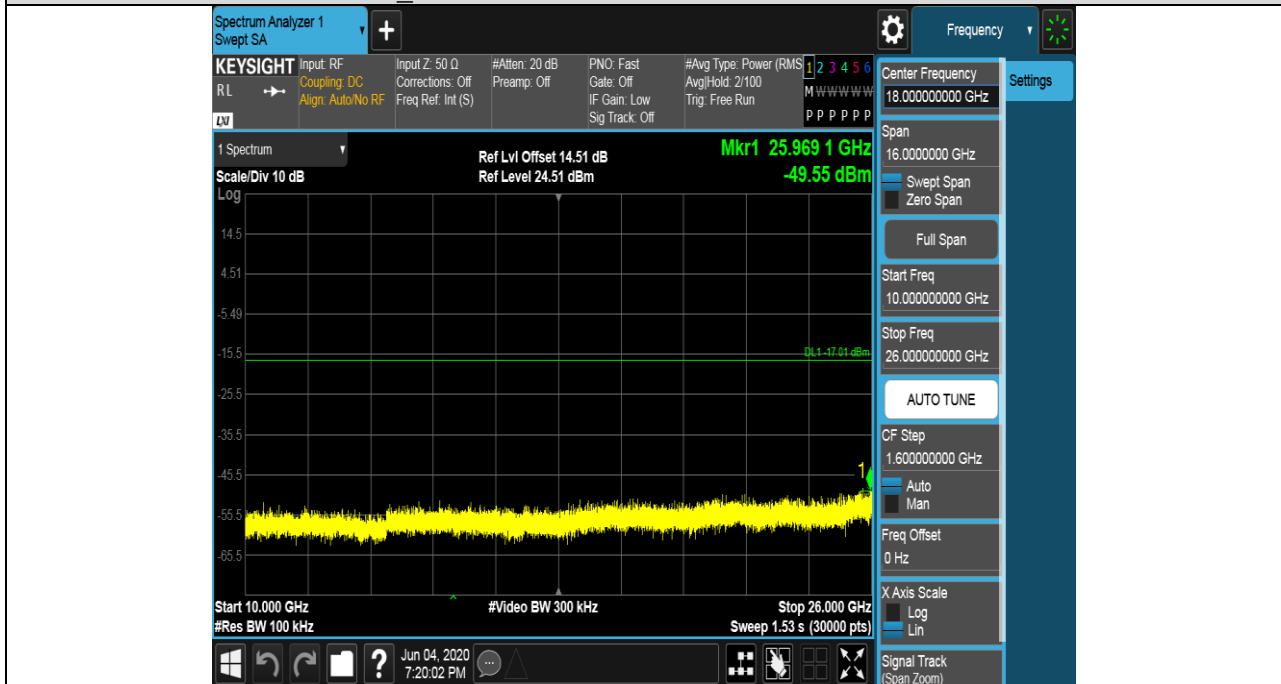


Puw test Plot

HCH SPURIOUS EMISSION\_30MHz~10GHz



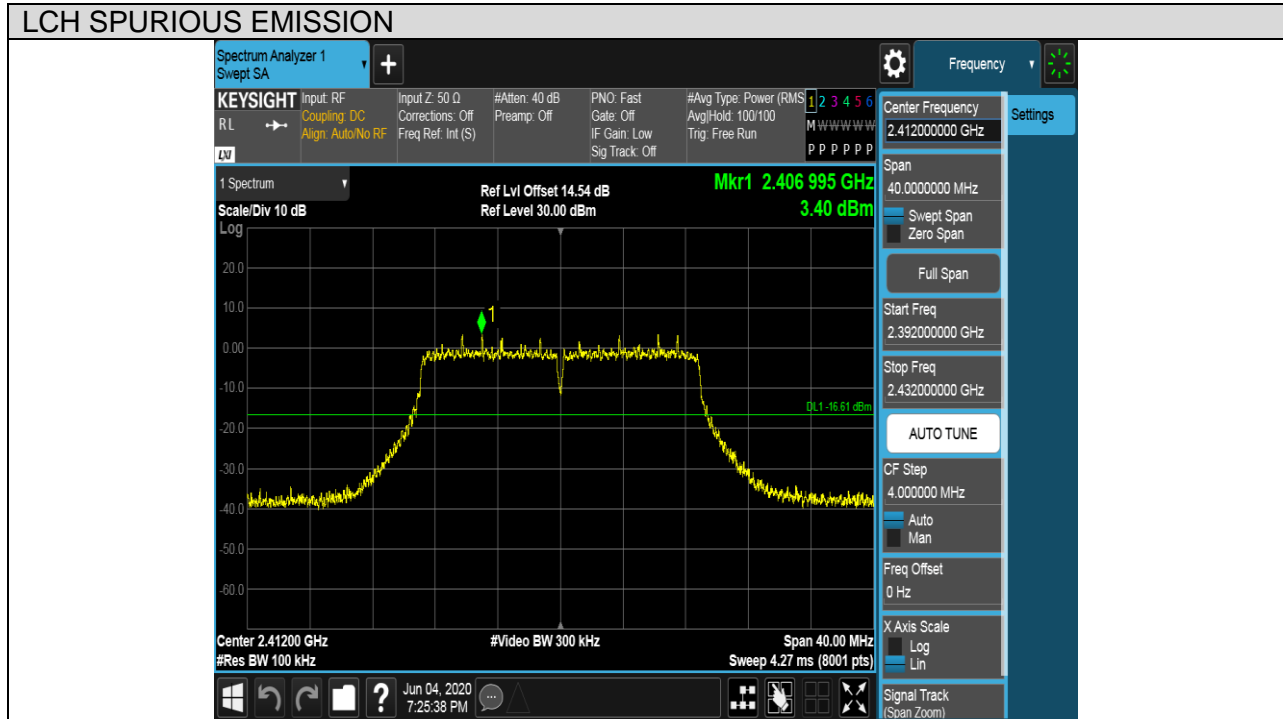
HCH SPURIOUS EMISSION\_10GHz~26GHz





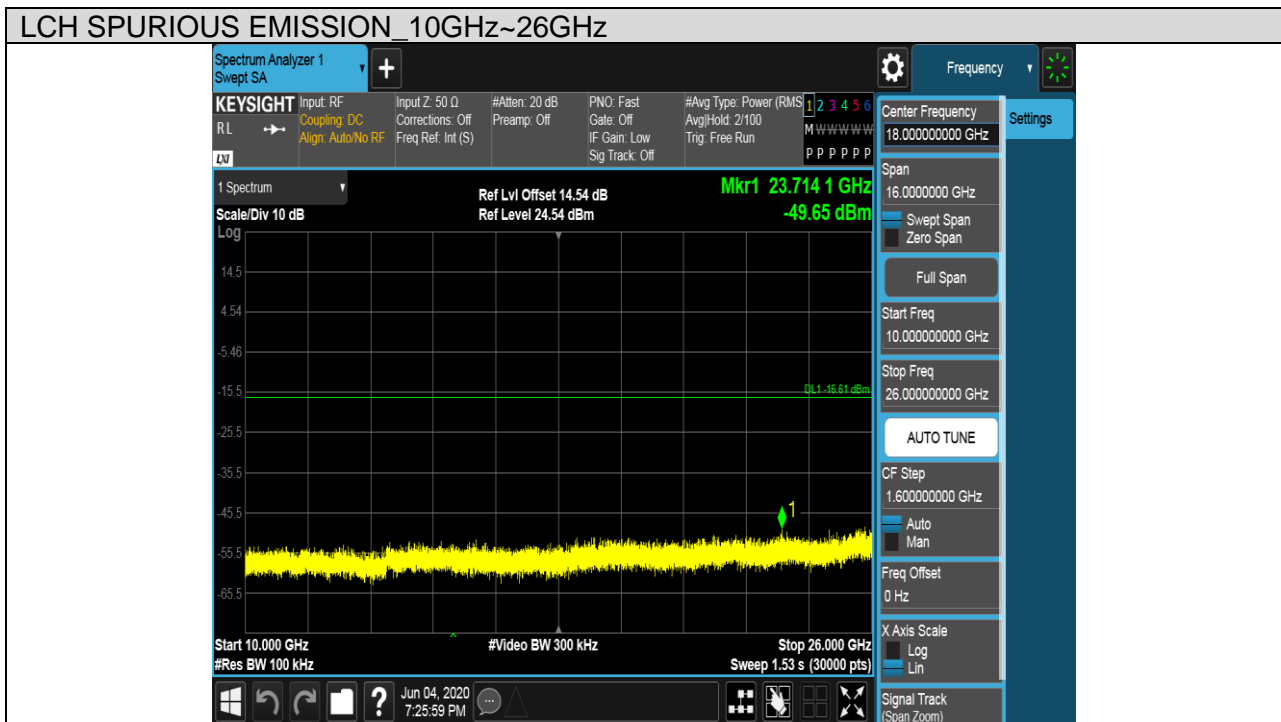
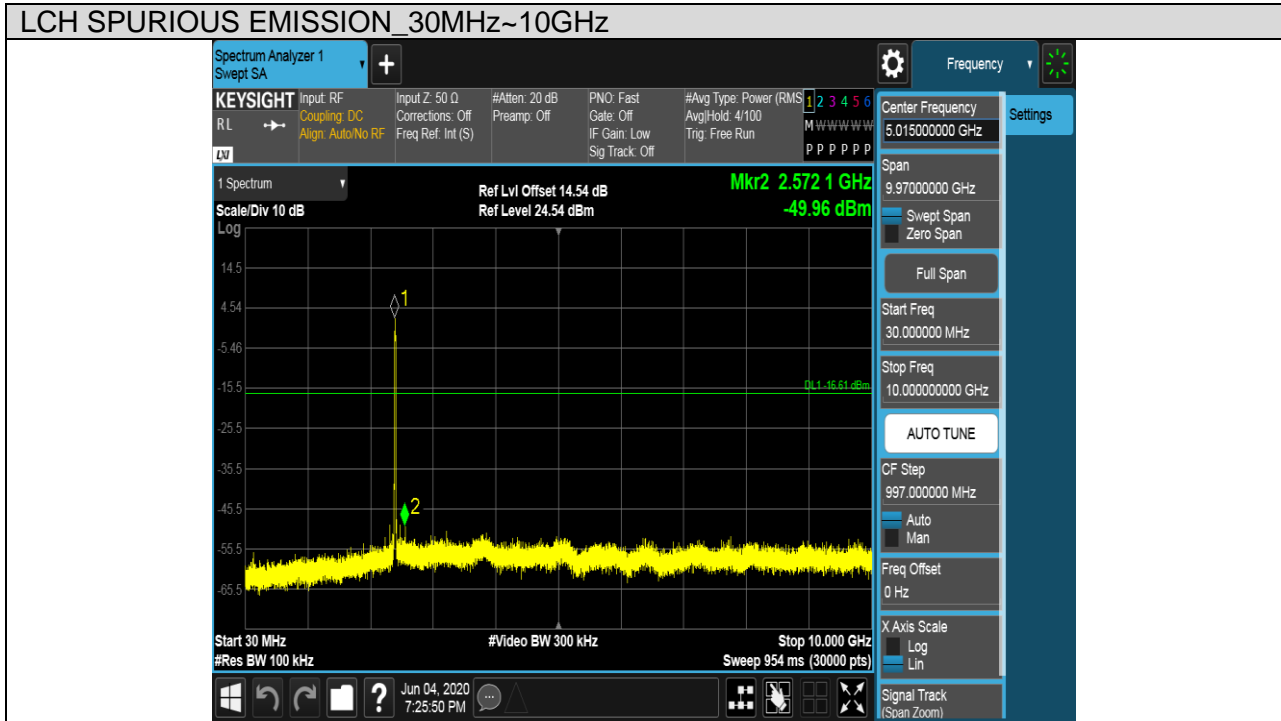
Test Mode	Channel	Verdict
11N HT20	LCH	PASS

Pref test Plot





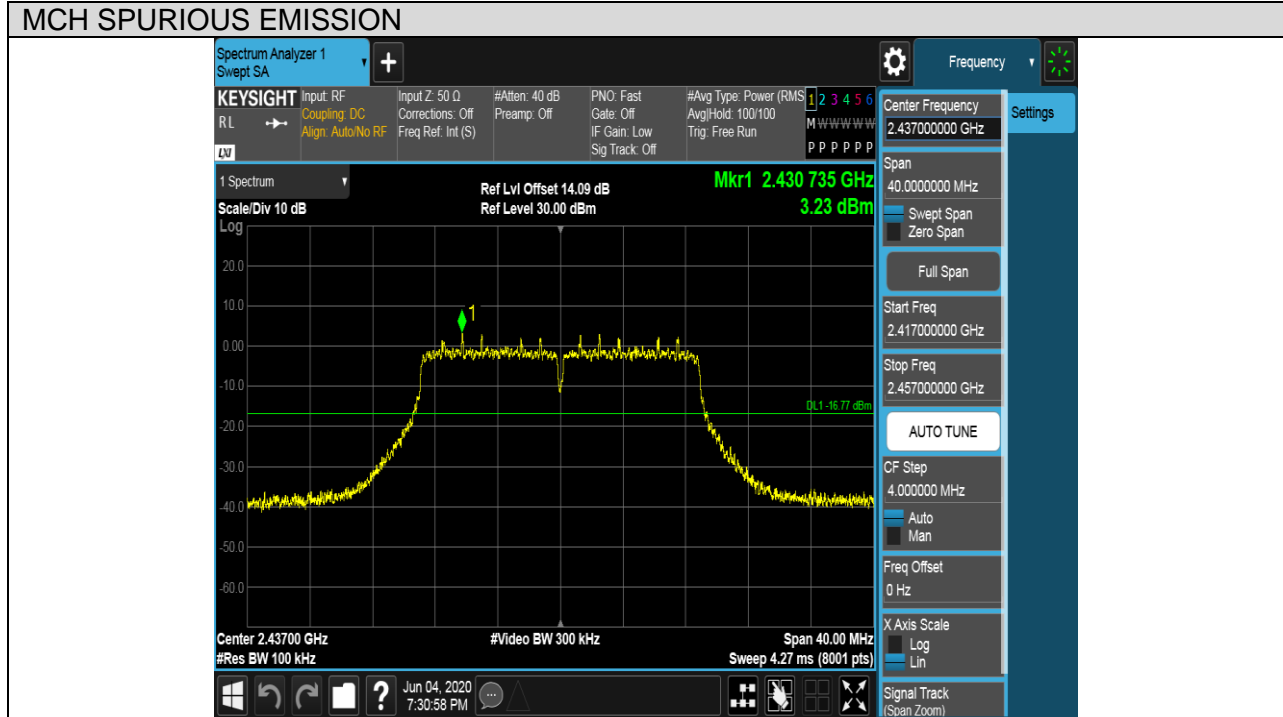
Puw test Plot





Test Mode	Channel	Verdict
11N HT20	MCH	PASS

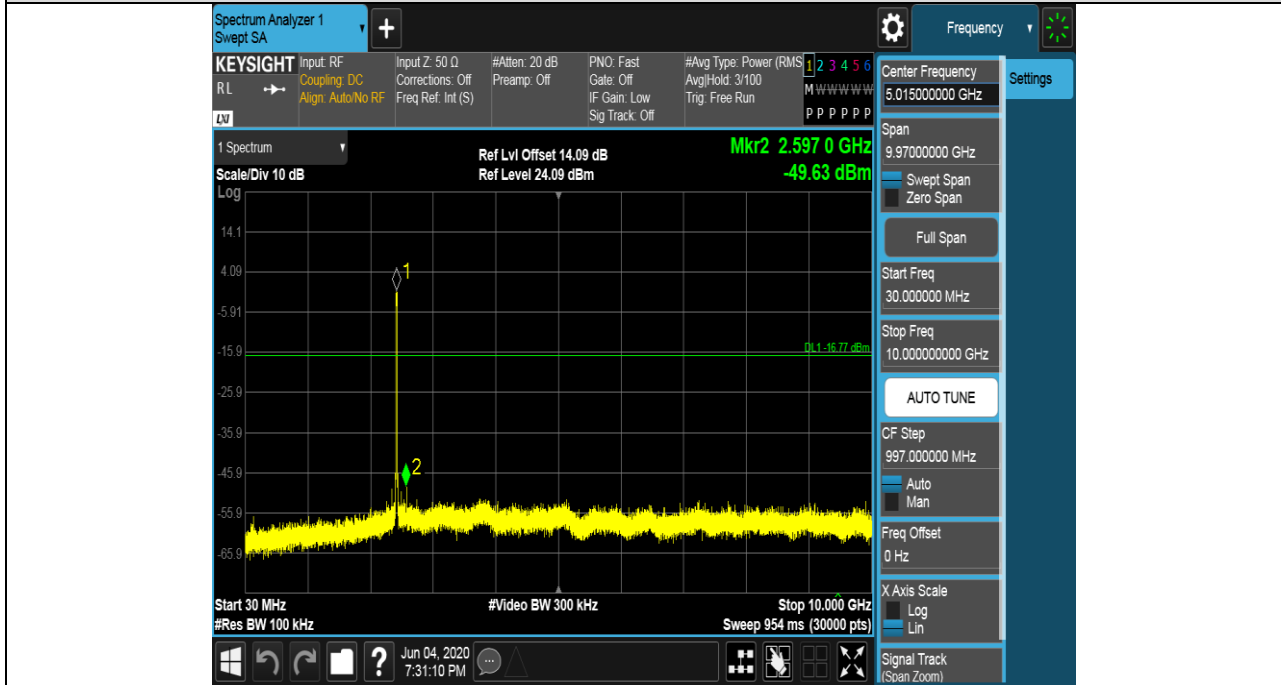
Pref test Plot





Puw test Plot

MCH SPURIOUS EMISSION\_30MHz~10GHz



MCH SPURIOUS EMISSION\_10GHz~26GHz

