

6.5. CONDUCTED BANDEGE 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.

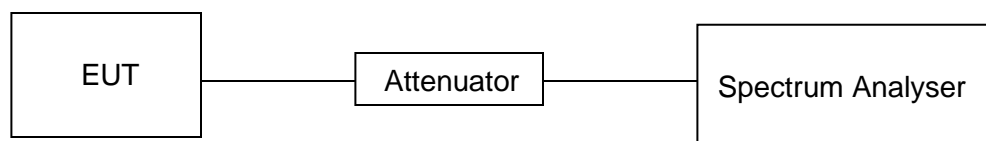
settings:

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



Part I :Conducted Bandedge

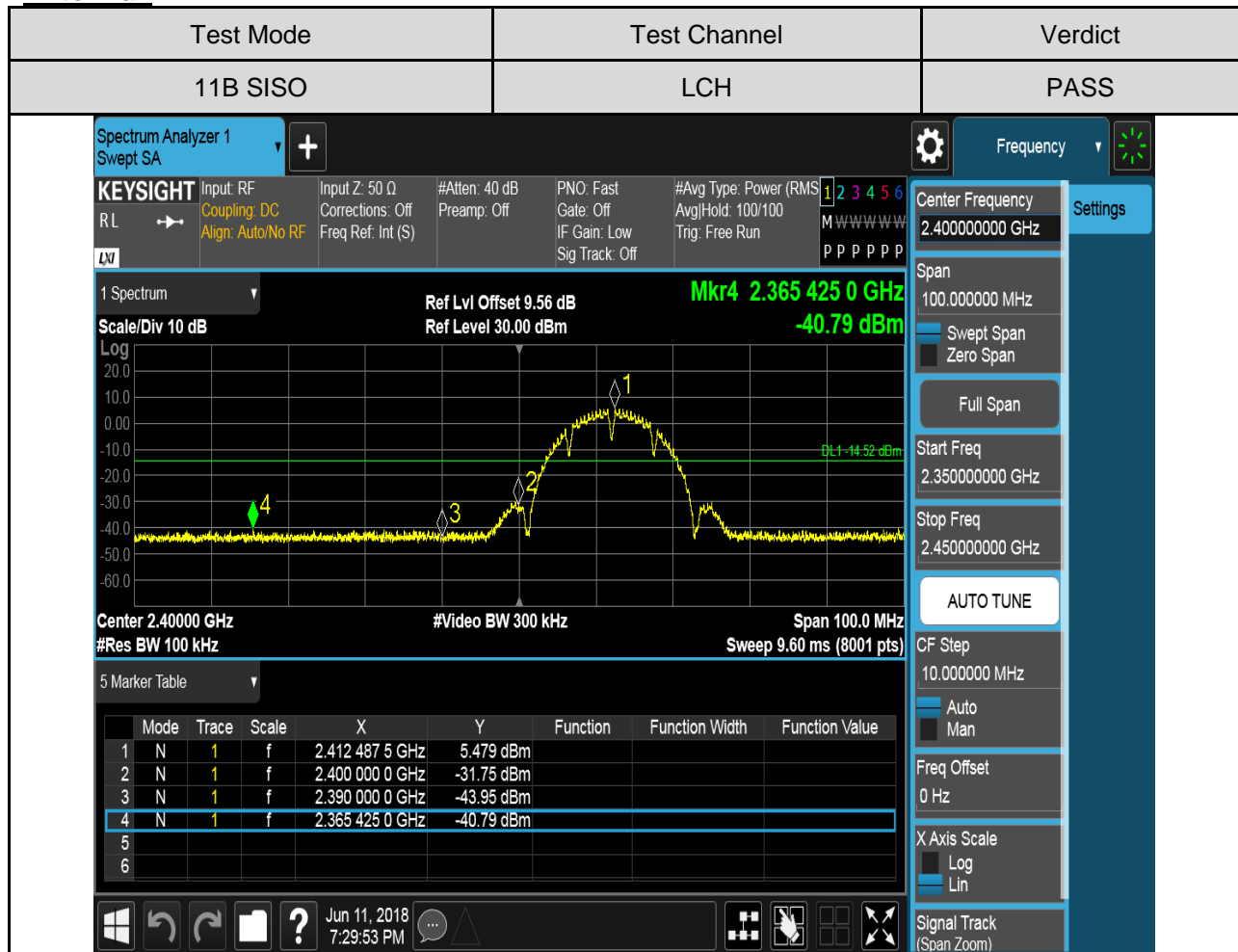
RESULTS TABLE

Test Mode	Test Antenna	Test Channel	Carrier Power[dBm]	Max. Spurious Level [dBm]	Limit [dBm]	Verdict
11B	Antenna 1	2412	5.479	-40.790	-14.52	PASS
		2462	4.626	-40.427	-15.37	PASS
	Antenna 2	2412	4.846	-39.956	-15.15	PASS
		2462	5.179	-39.793	-14.82	PASS
11G	Antenna 1	2412	-3.826	-40.363	-23.83	PASS
		2462	-4.704	-40.335	-24.7	PASS
	Antenna 2	2412	-4.280	-40.798	-24.28	PASS
		2462	-3.769	-39.837	-23.77	PASS
11N20MIMO	Antenna 1	2412	-3.509	-39.335	-23.51	PASS
		2462	-4.159	-40.099	-24.16	PASS
	Antenna 2	2412	-3.779	-40.928	-23.78	PASS
		2462	-3.826	-38.236	-23.83	PASS
11N40MIMO	Antenna 1	2422	-6.611	-40.492	-26.61	PASS
		2452	-7.170	-40.065	-27.17	PASS
	Antenna 2	2422	-6.641	-39.612	-26.64	PASS
		2452	-6.743	-40.822	-26.74	PASS

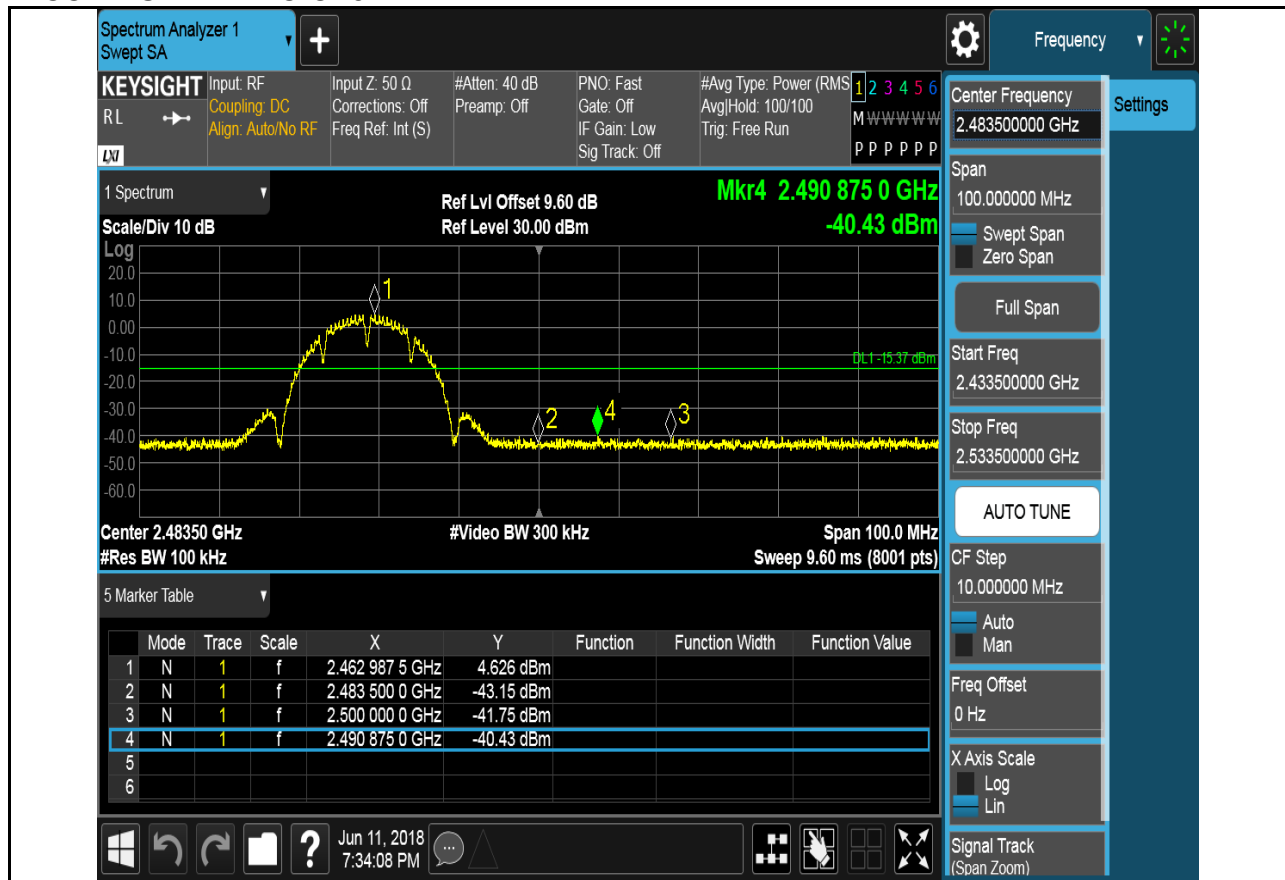
Remark: Through pre-testing all the test modes of 11N 20 and 11N40, including SISO and MIMO, but only the data if worse case is included in this test report.

TEST GRAPHS

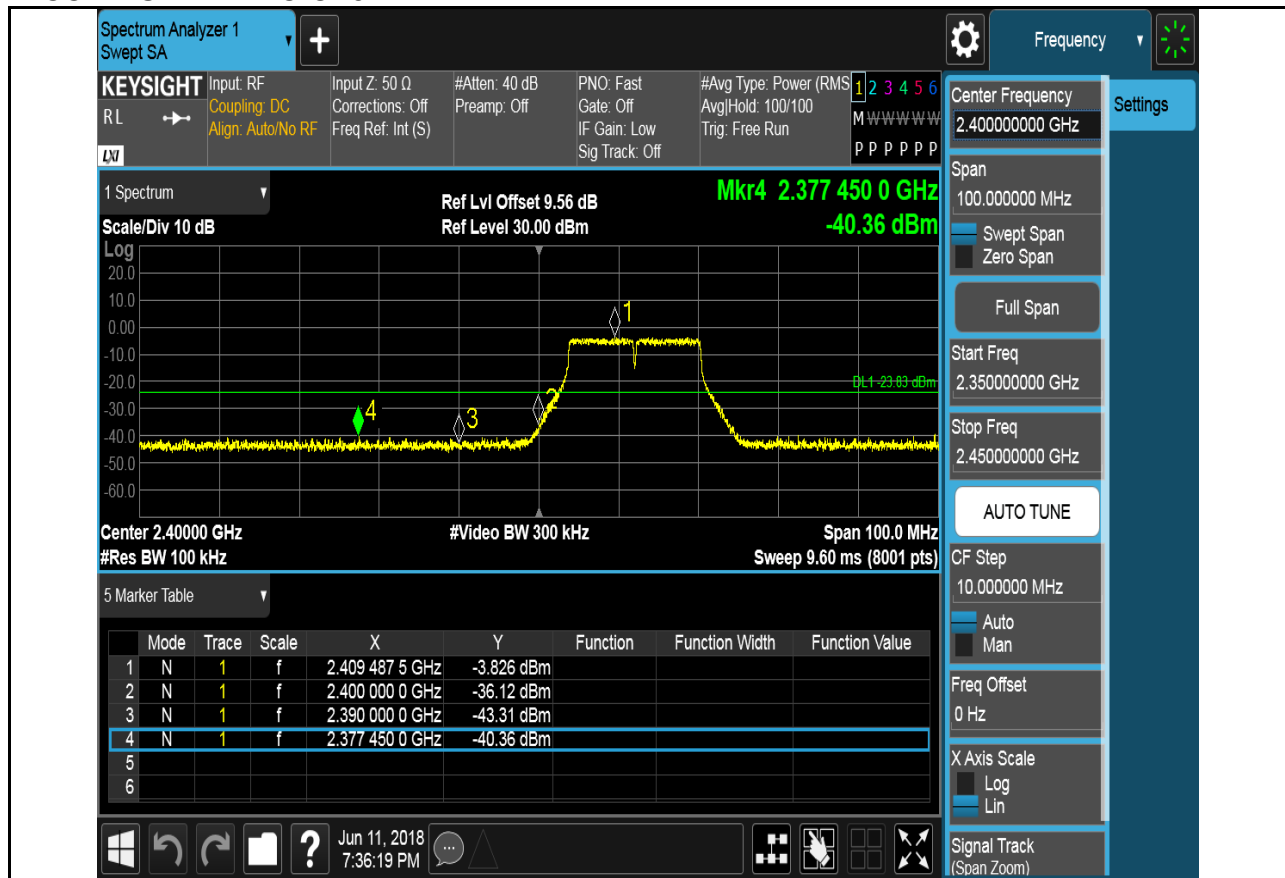
Antenna1



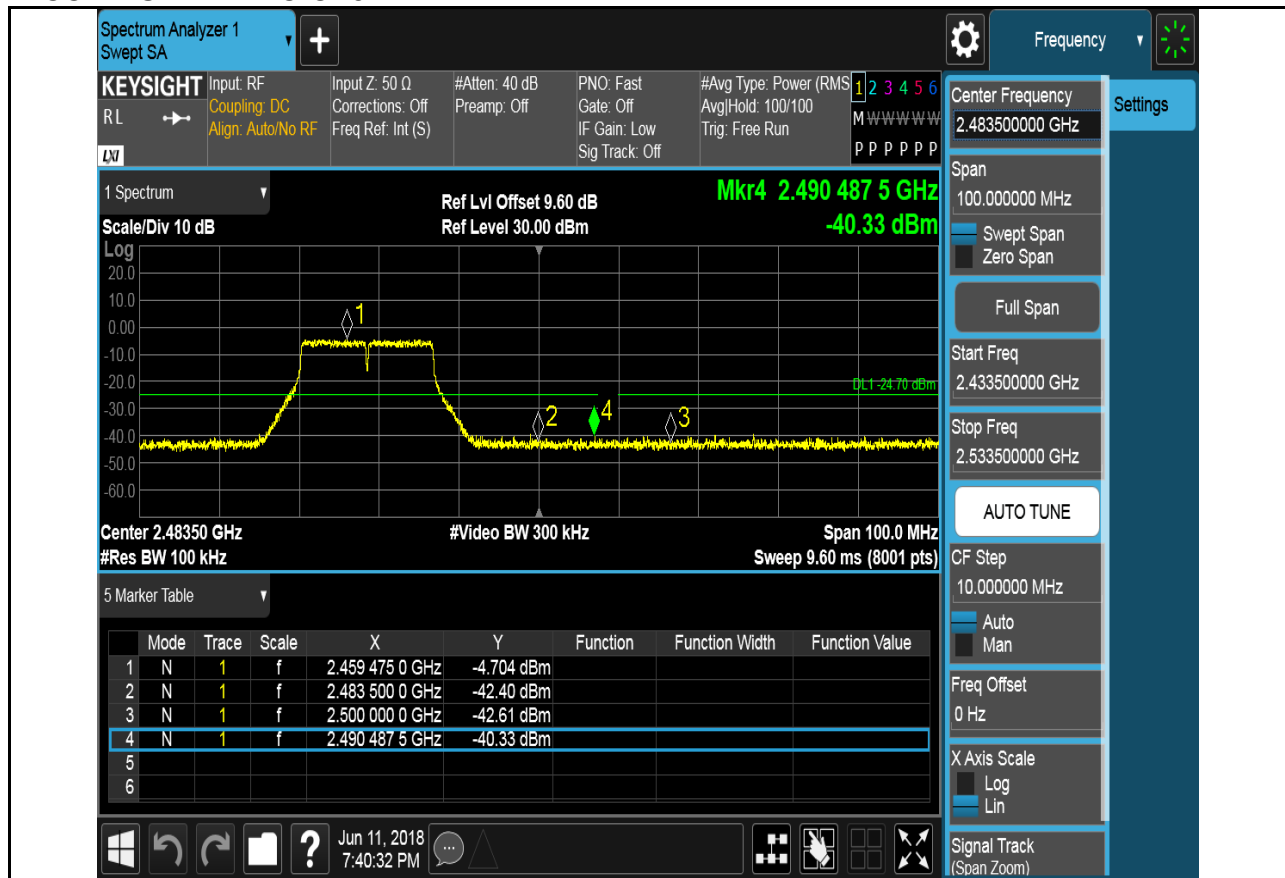
Test Mode	Test Channel	Verdict
11B SISO	HCH	PASS



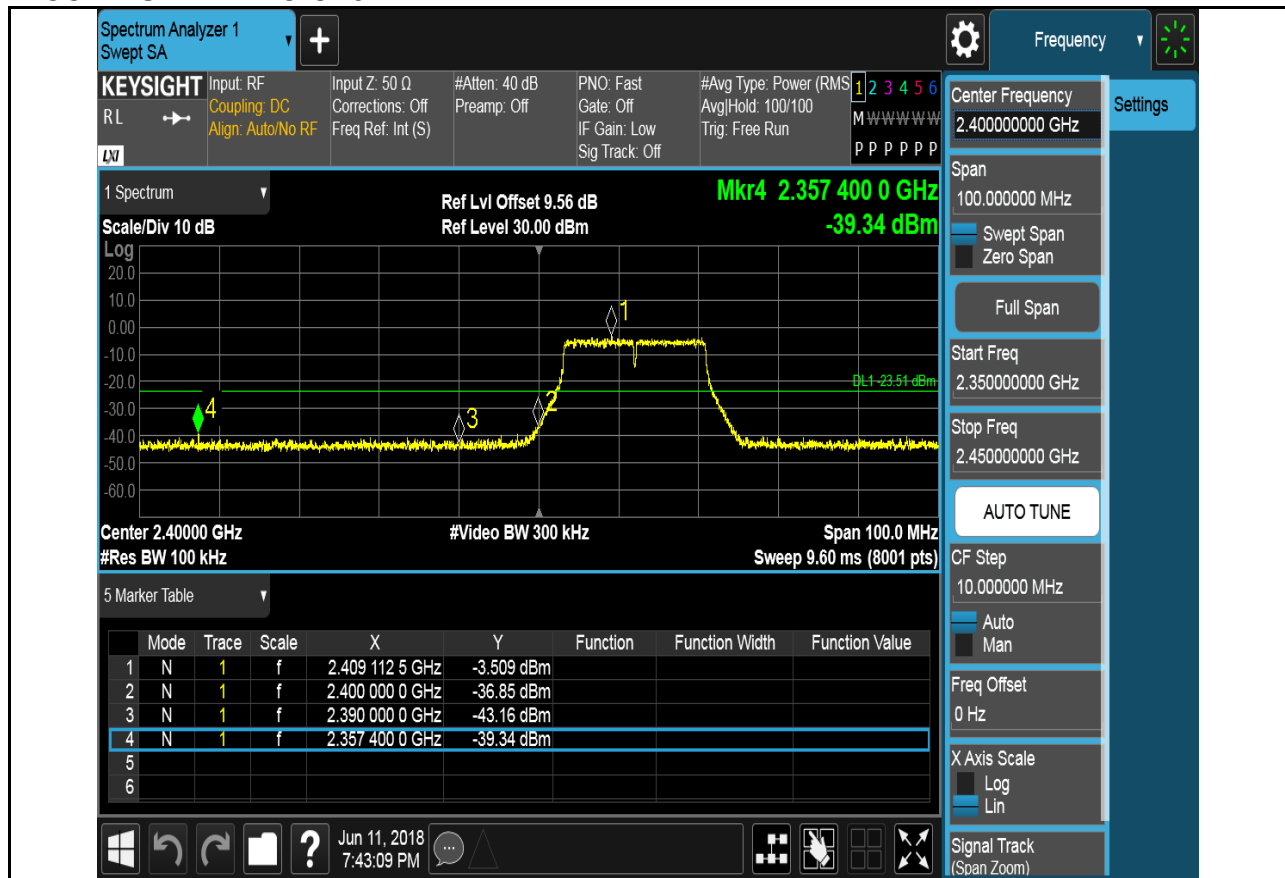
Test Mode	Test Channel	Verdict
11G SISO	LCH	PASS



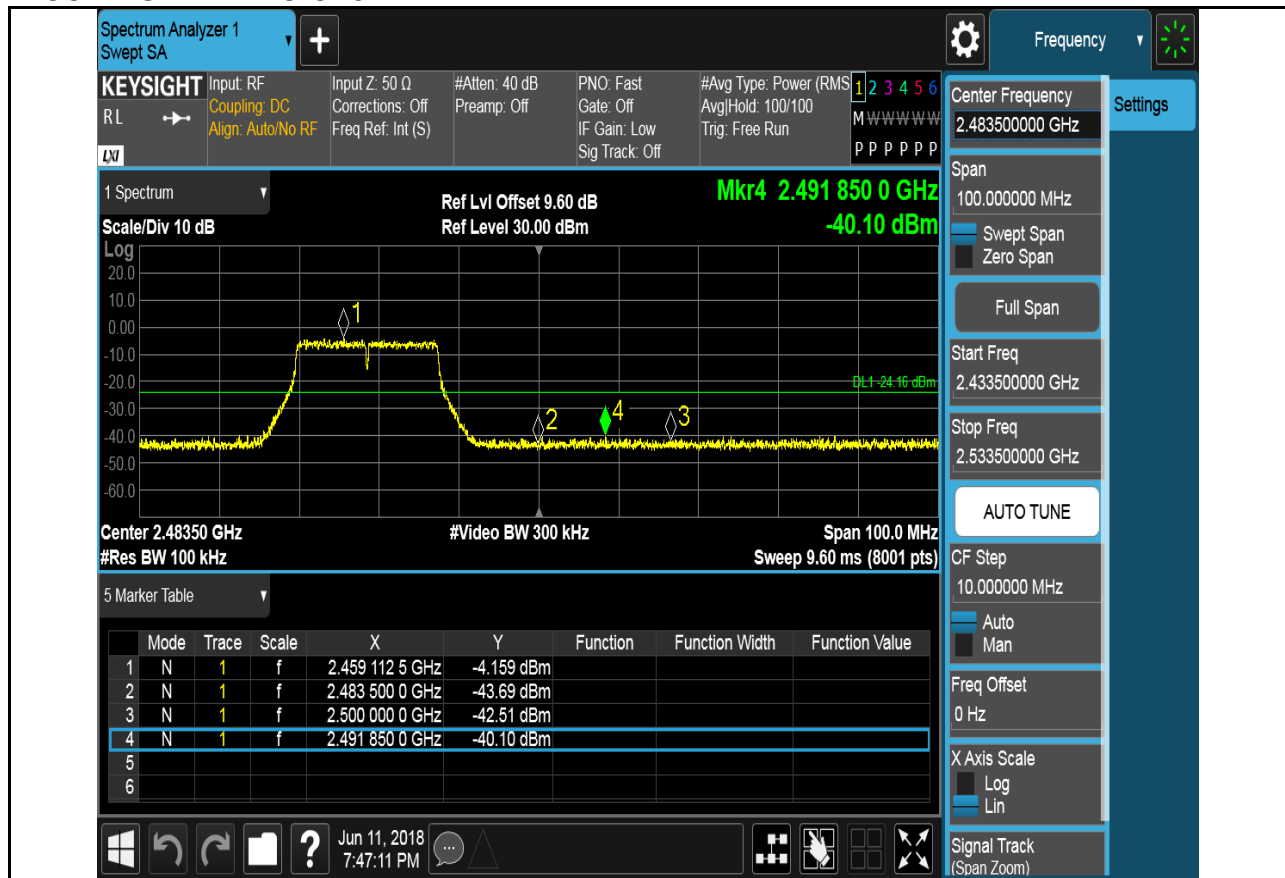
Test Mode	Test Channel	Verdict
11G SISO	HCH	PASS



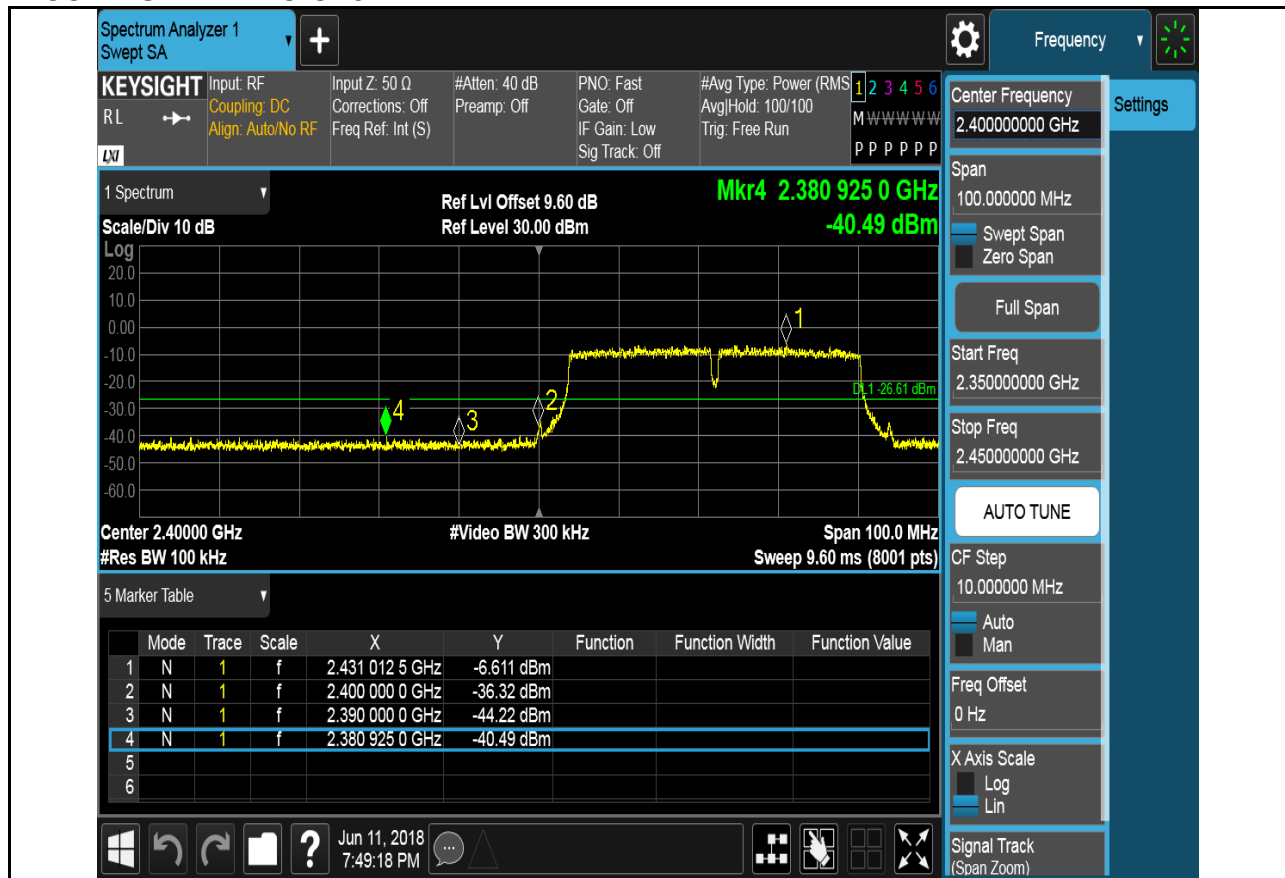
Test Mode	Test Channel	Verdict
11N20MIMO	LCH	PASS



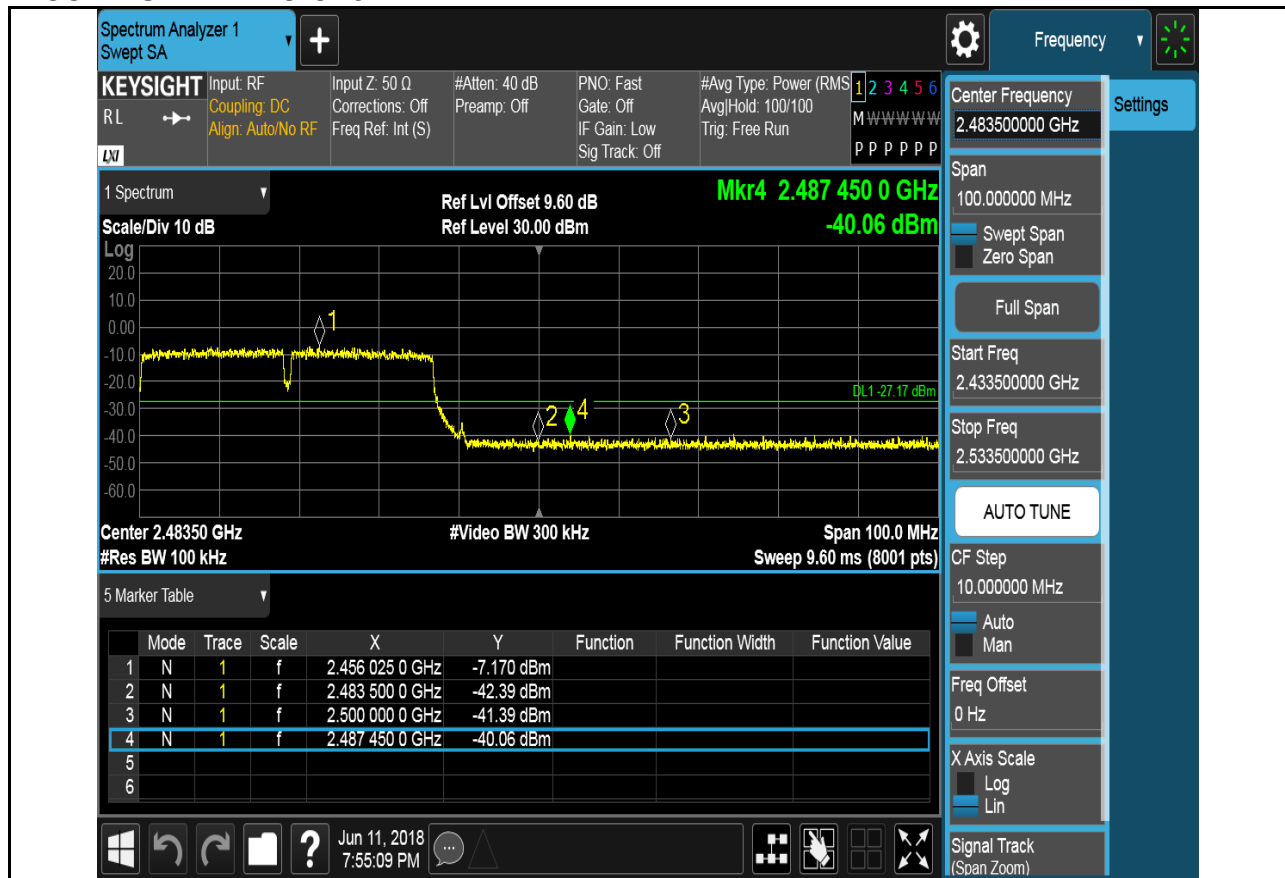
Test Mode	Test Channel	Verdict
11N20MIMO	HCH	PASS

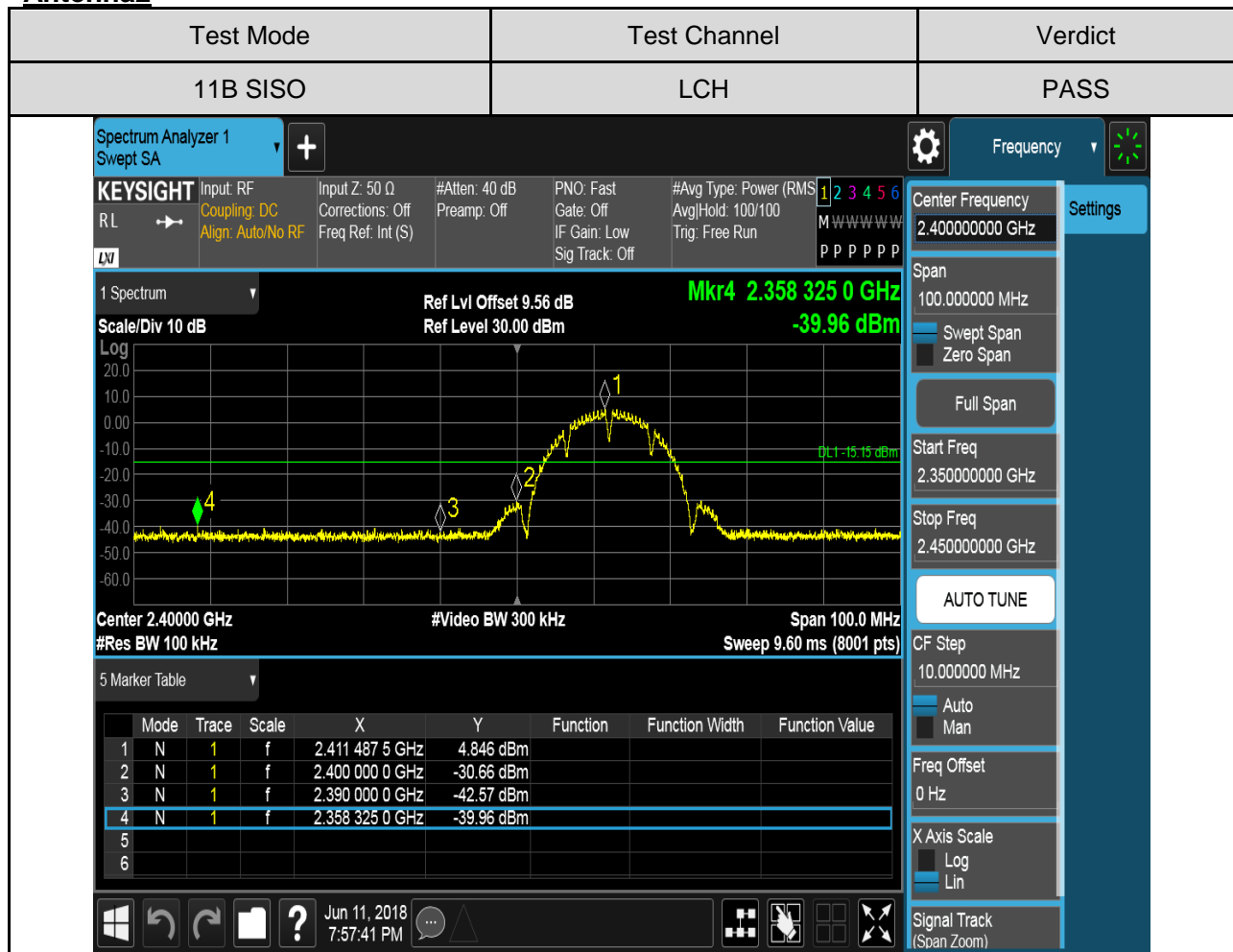


Test Mode	Test Channel	Verdict
11N40MIMO	LCH	PASS

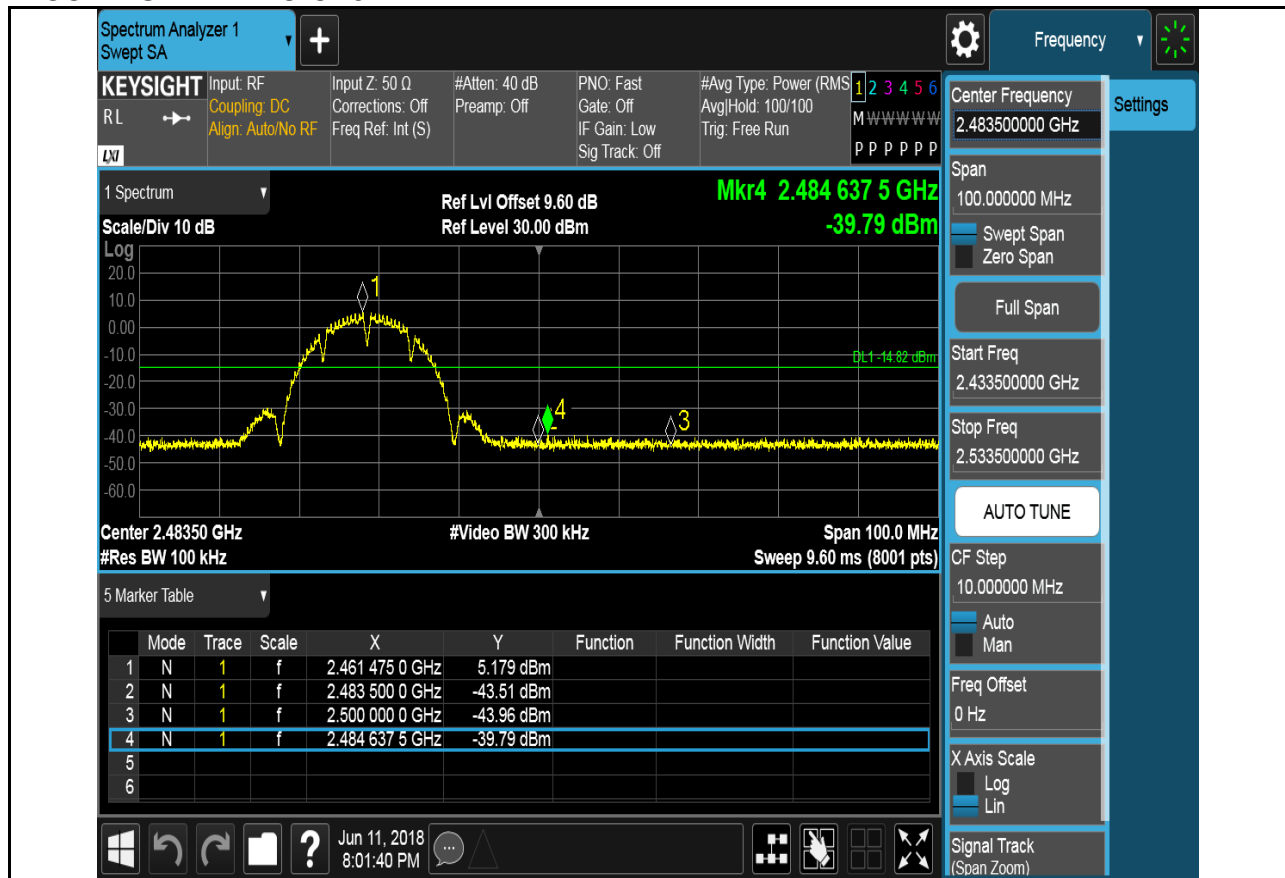


Test Mode	Test Channel	Verdict
11N40MIMO	HCH	PASS

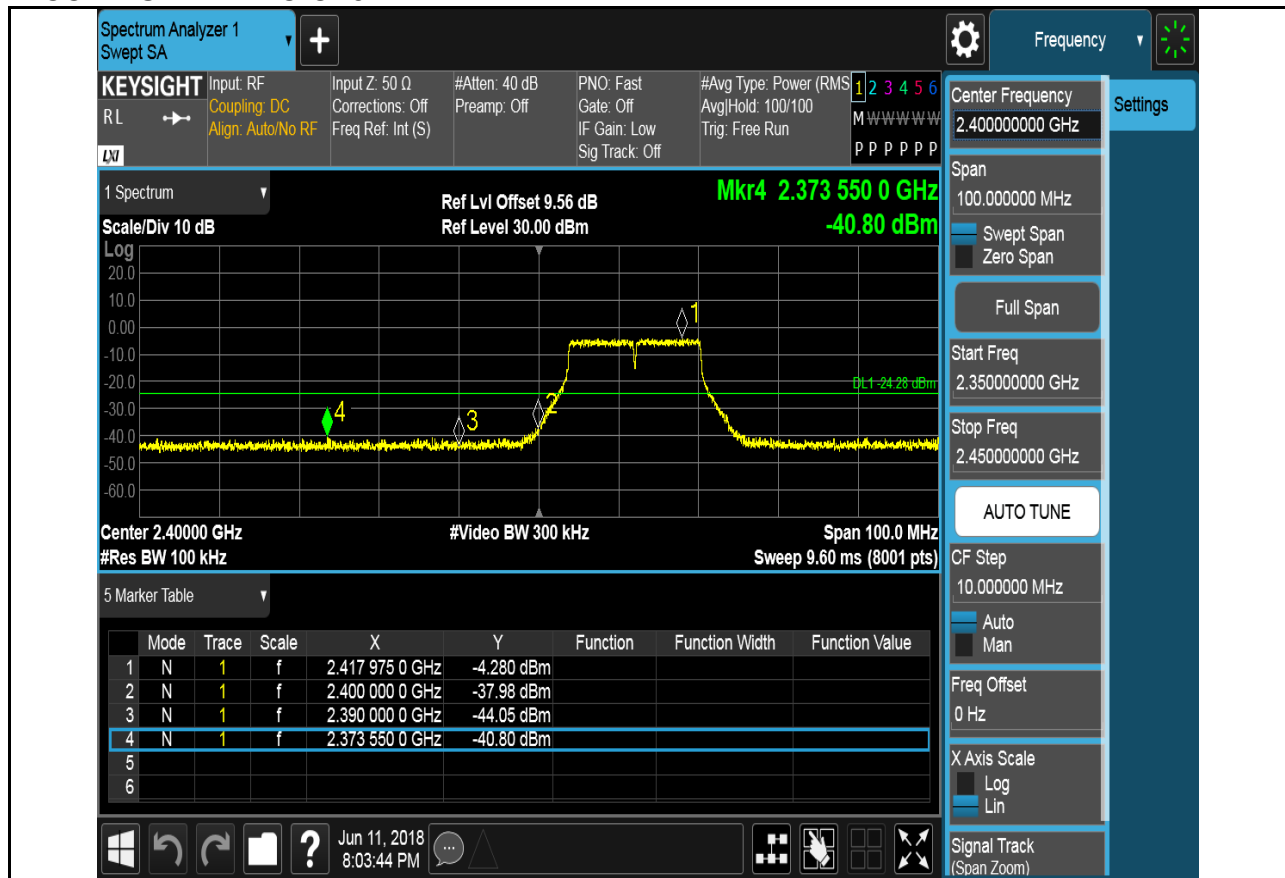




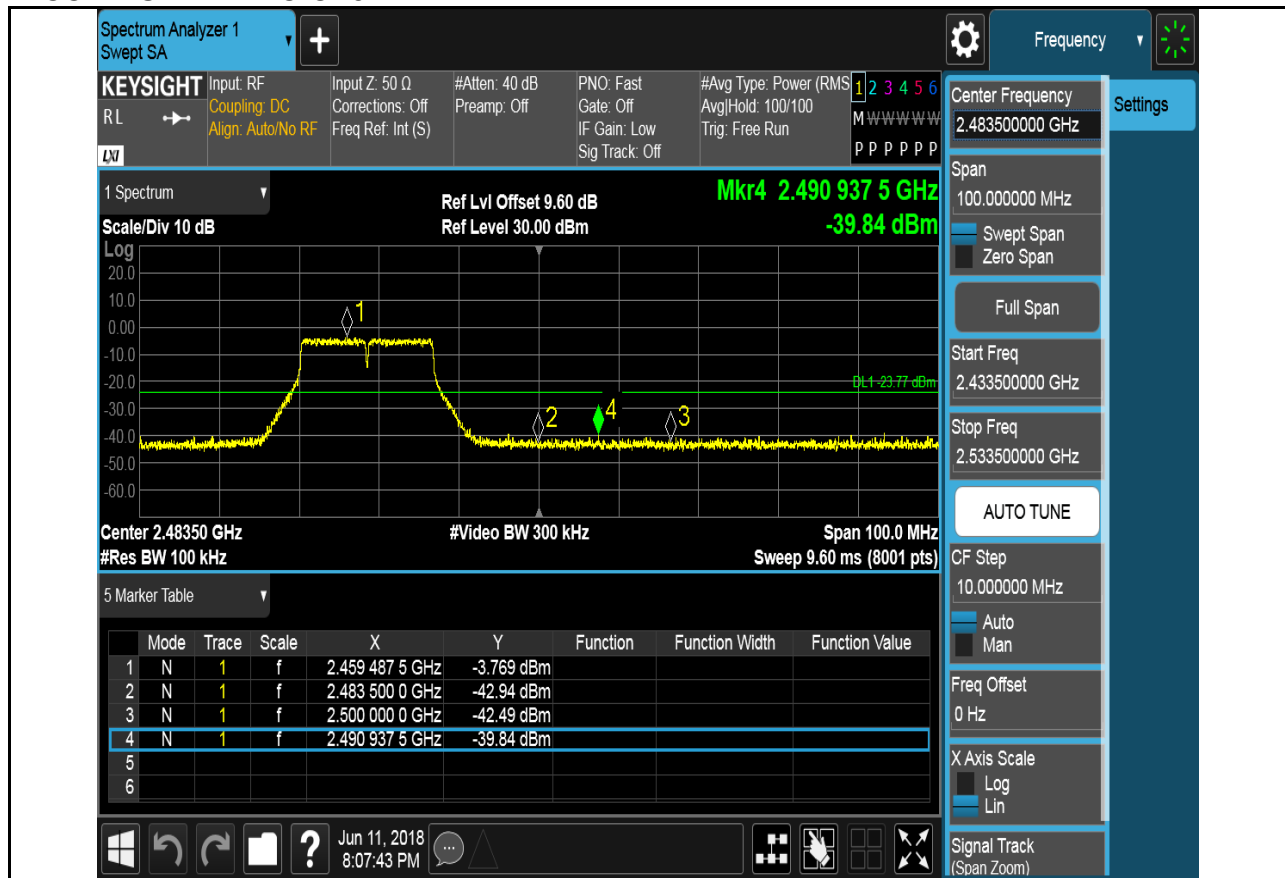
Test Mode	Test Channel	Verdict
11B SISO	HCH	PASS



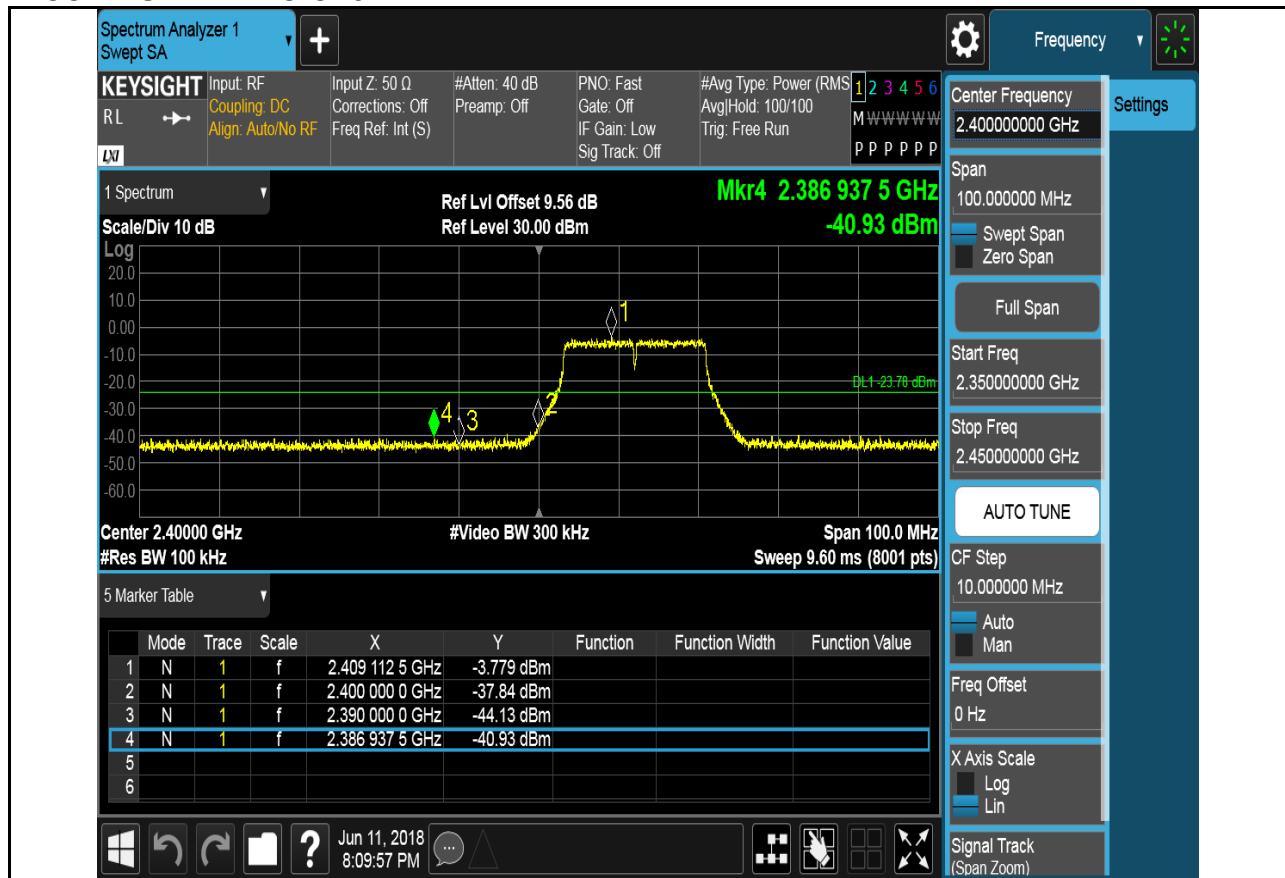
Test Mode	Test Channel	Verdict
11G SISO	LCH	PASS



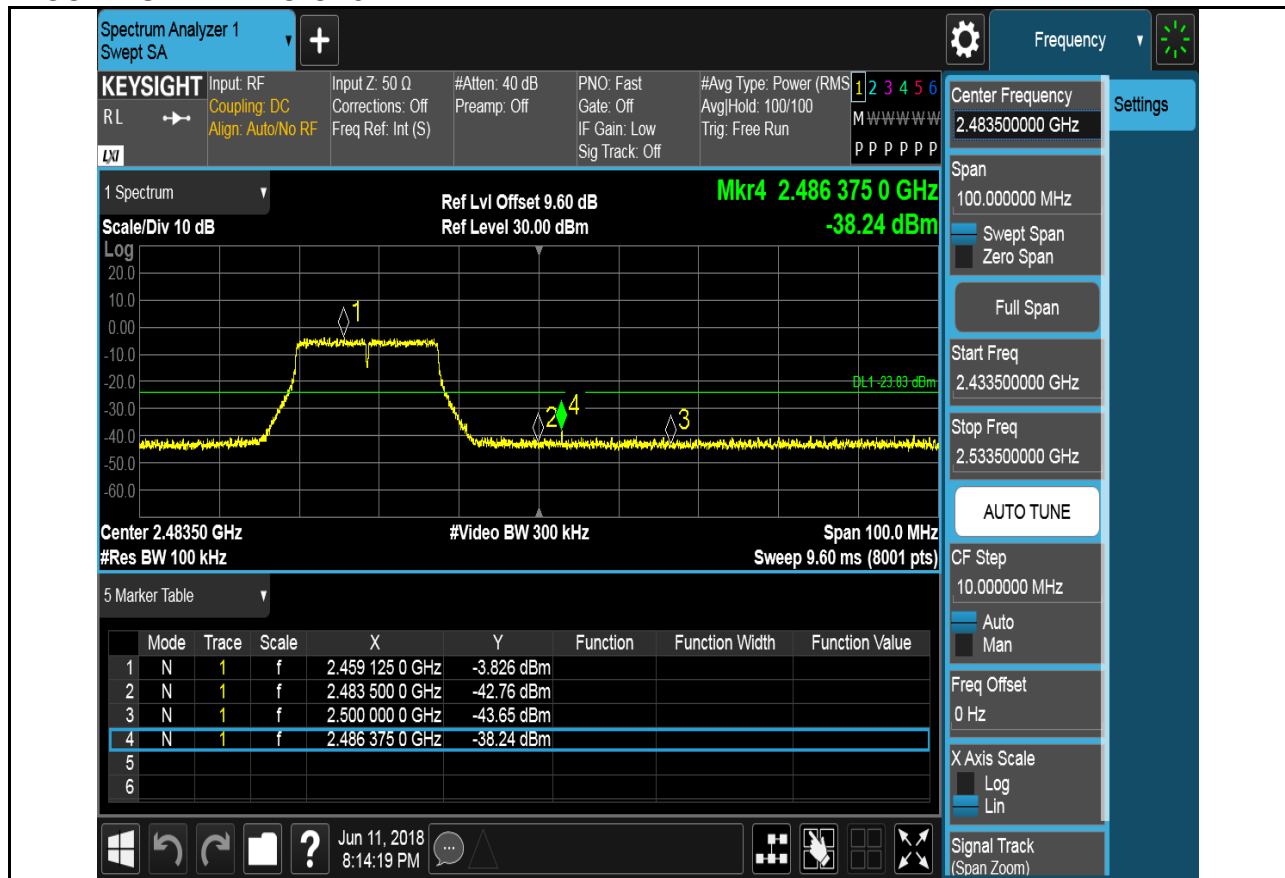
Test Mode	Test Channel	Verdict
11G SISO	HCH	PASS



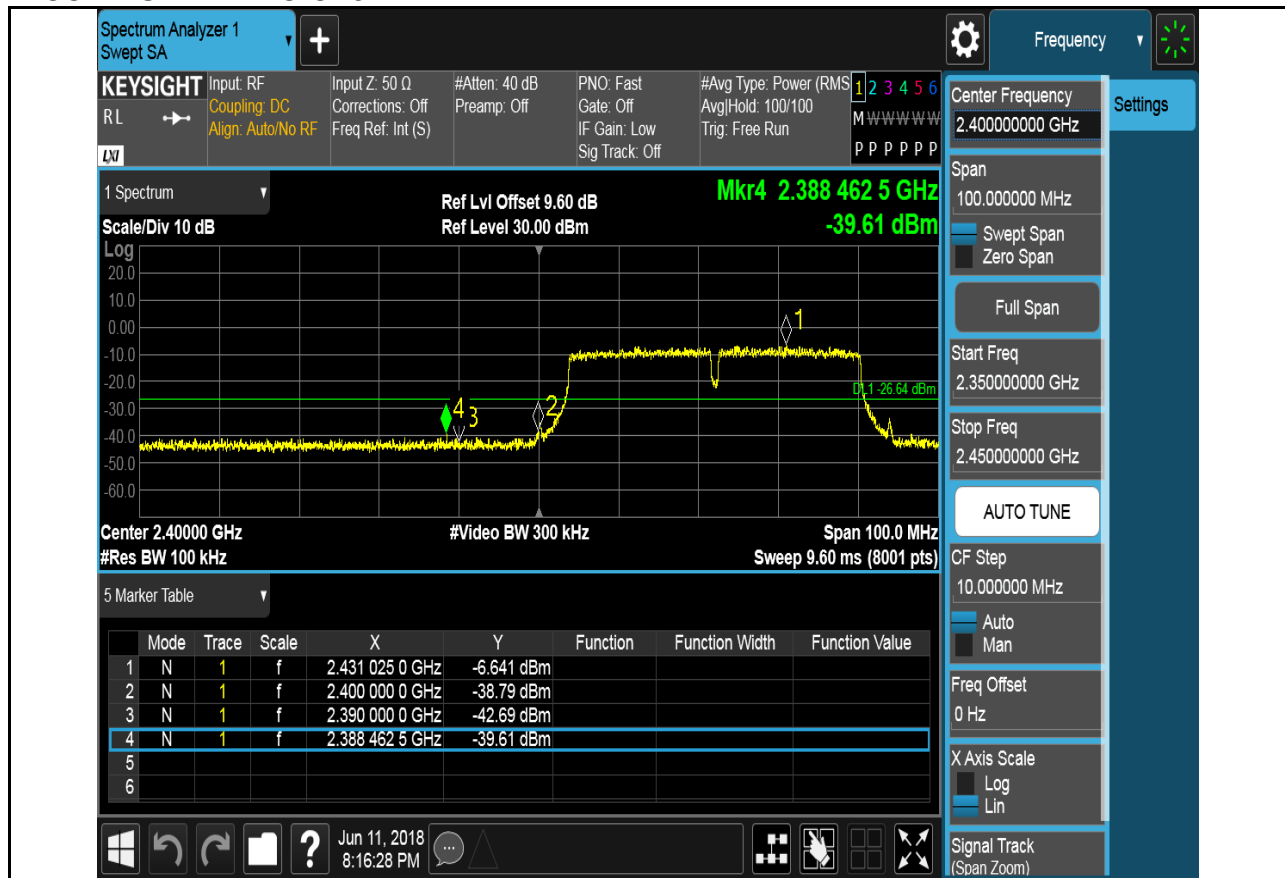
Test Mode	Test Channel	Verdict
11N20MIMO	LCH	PASS



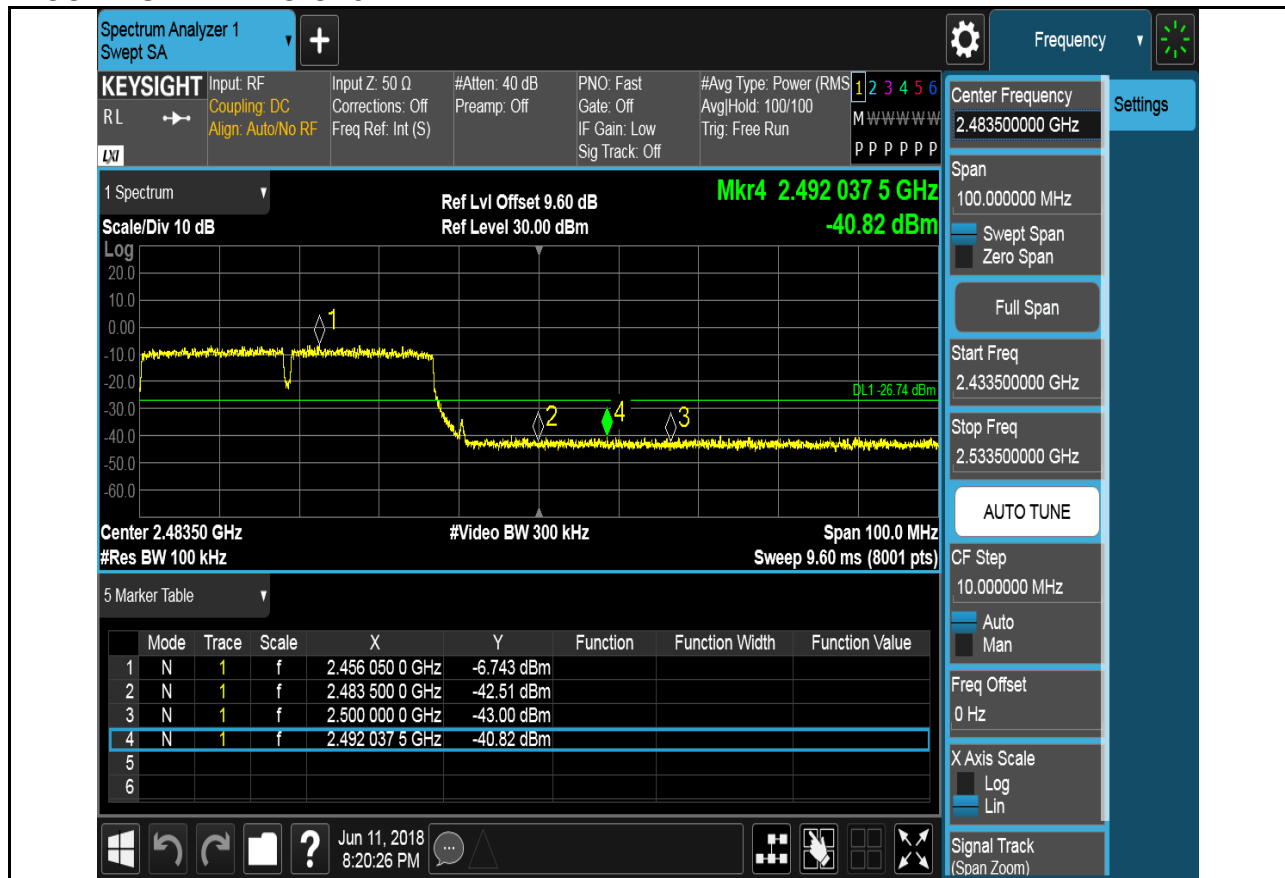
Test Mode	Test Channel	Verdict
11N20MIMO	HCH	PASS



Test Mode	Test Channel	Verdict
11N40MIMO	LCH	PASS



Test Mode	Test Channel	Verdict
11N40MIMO	HCH	PASS



Part II :Conducted Spurious Emissions

Test Result Table

Test Mode	Test Antenna	Channel	Pref(dBm)	Puw(dBm)	Verdict
11B SISO	Antenna 1	LCH	5.405	<Limit	PASS
		MCH	5.176	<Limit	PASS
		HCH	4.631	<Limit	PASS
	Antenna 2	LCH	4.770	<Limit	PASS
		MCH	5.302	<Limit	PASS
		HCH	5.091	<Limit	PASS
11G SISO	Antenna 1	LCH	-3.746	<Limit	PASS
		MCH	-3.854	<Limit	PASS
		HCH	-4.412	<Limit	PASS
	Antenna 2	LCH	-4.236	<Limit	PASS
		MCH	-3.690	<Limit	PASS
		HCH	-4.025	<Limit	PASS
11N20MIMO	Antenna 1	LCH	-3.633	<Limit	PASS
		MCH	-3.520	<Limit	PASS
		HCH	-4.201	<Limit	PASS
	Antenna 2	LCH	-3.903	<Limit	PASS
		MCH	-3.368	<Limit	PASS
		HCH	-3.750	<Limit	PASS
11N40MIMO	Antenna 1	LCH	-6.344	<Limit	PASS
		MCH	-6.532	<Limit	PASS
		HCH	-7.175	<Limit	PASS
	Antenna 2	LCH	-6.650	<Limit	PASS
		MCH	-6.412	<Limit	PASS
		HCH	-6.717	<Limit	PASS

Test Plots

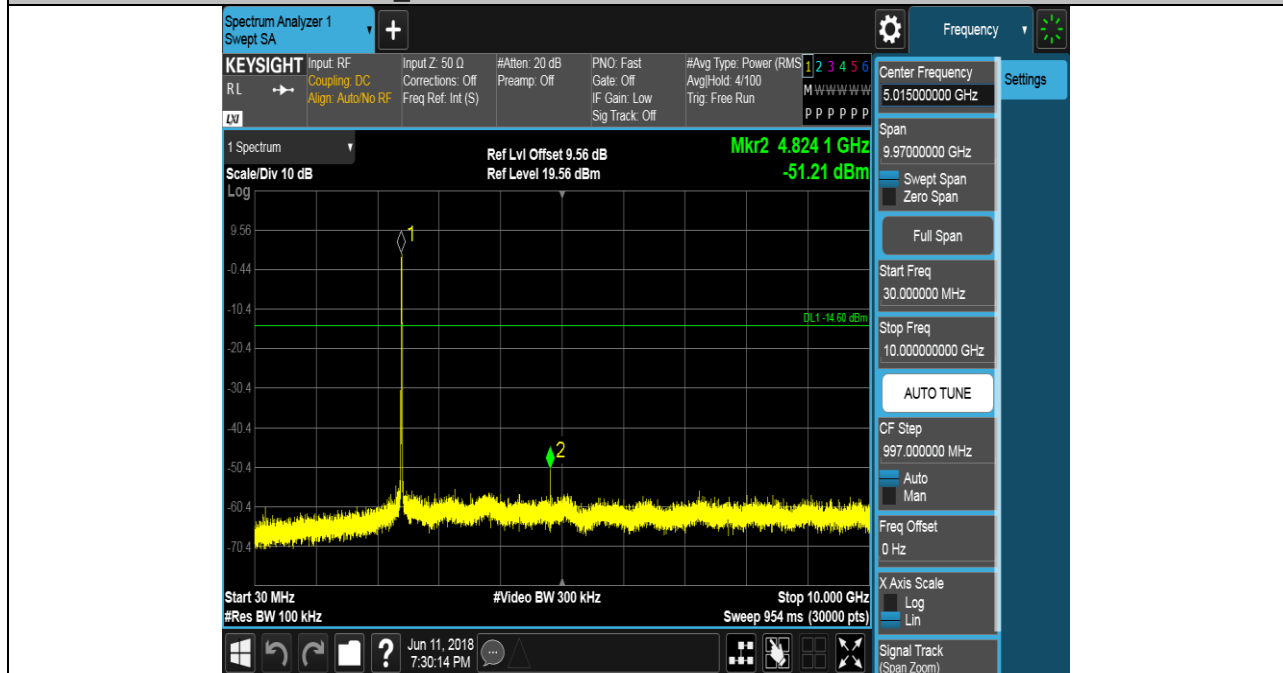
Antenna1

Test Mode	Channel	Verdict
11B SISO	LCH	PASS

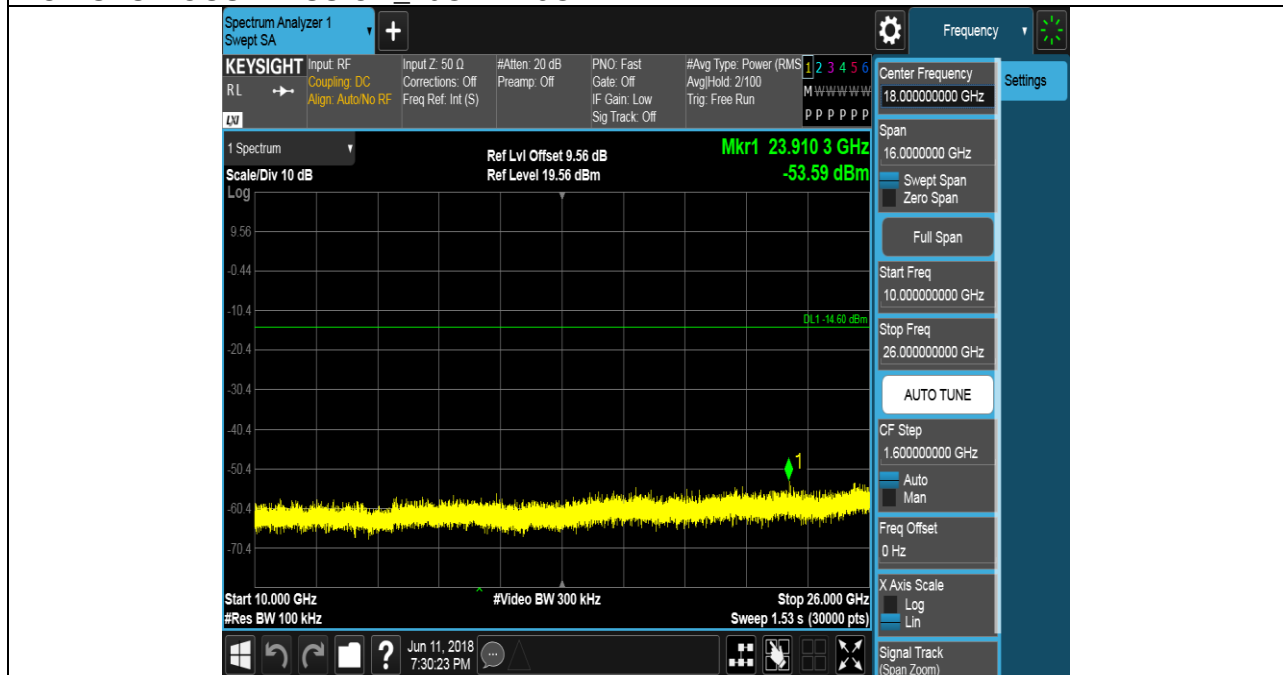
Pref test Plot



LCH SPURIOUS EMISSION_30MHz~10GHz



LCH SPURIOUS EMISSION_10GHz~26GHz

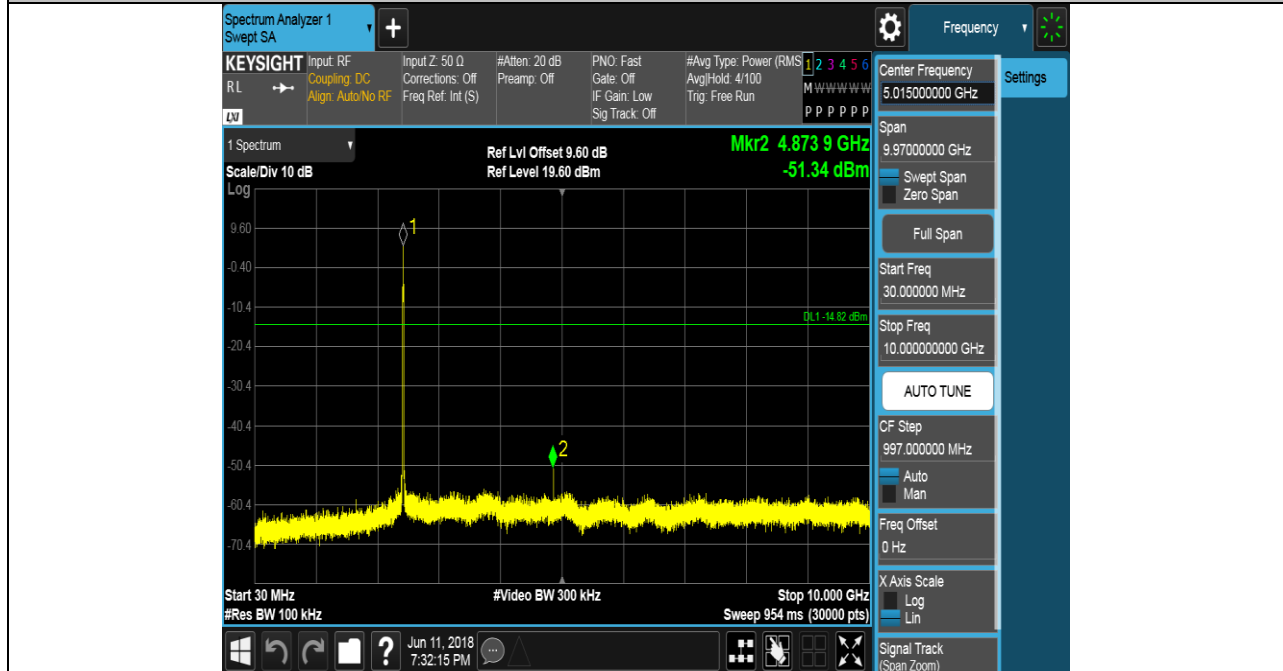


Test Mode	Channel	Verdict
11B SISO	MCH	PASS

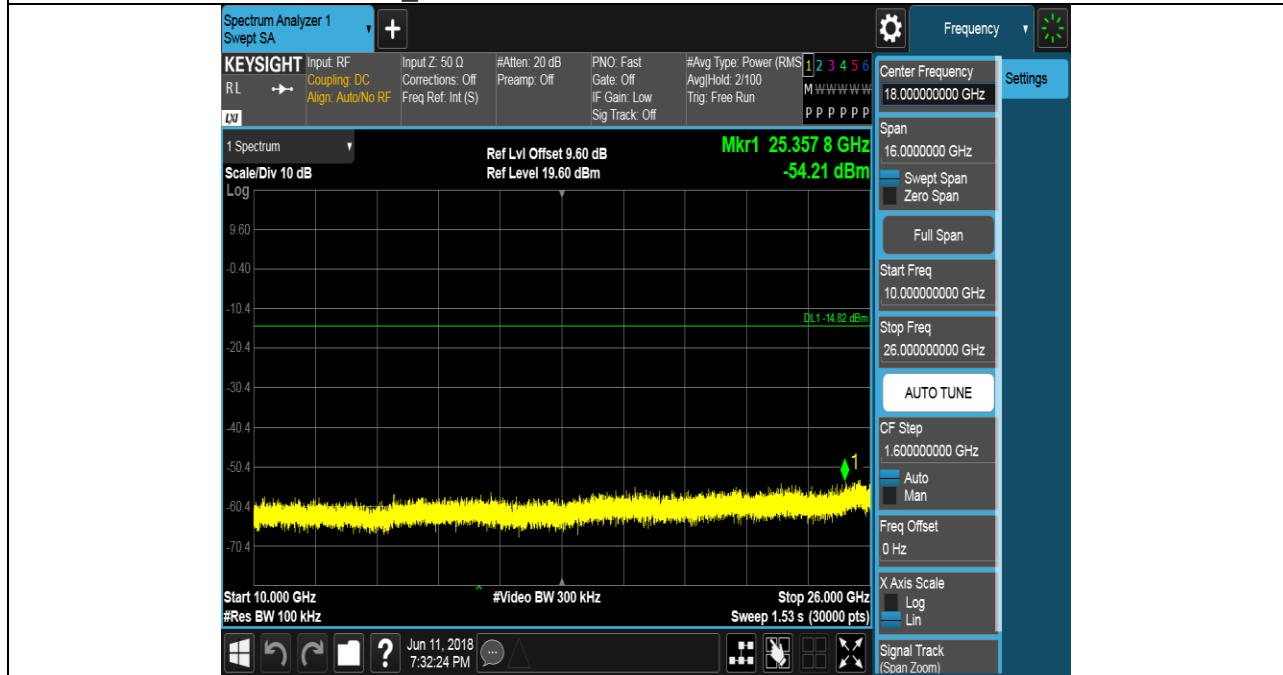
Pref test Plot



MCH SPURIOUS EMISSION_30MHz~10GHz



MCH SPURIOUS EMISSION_10GHz~26GHz

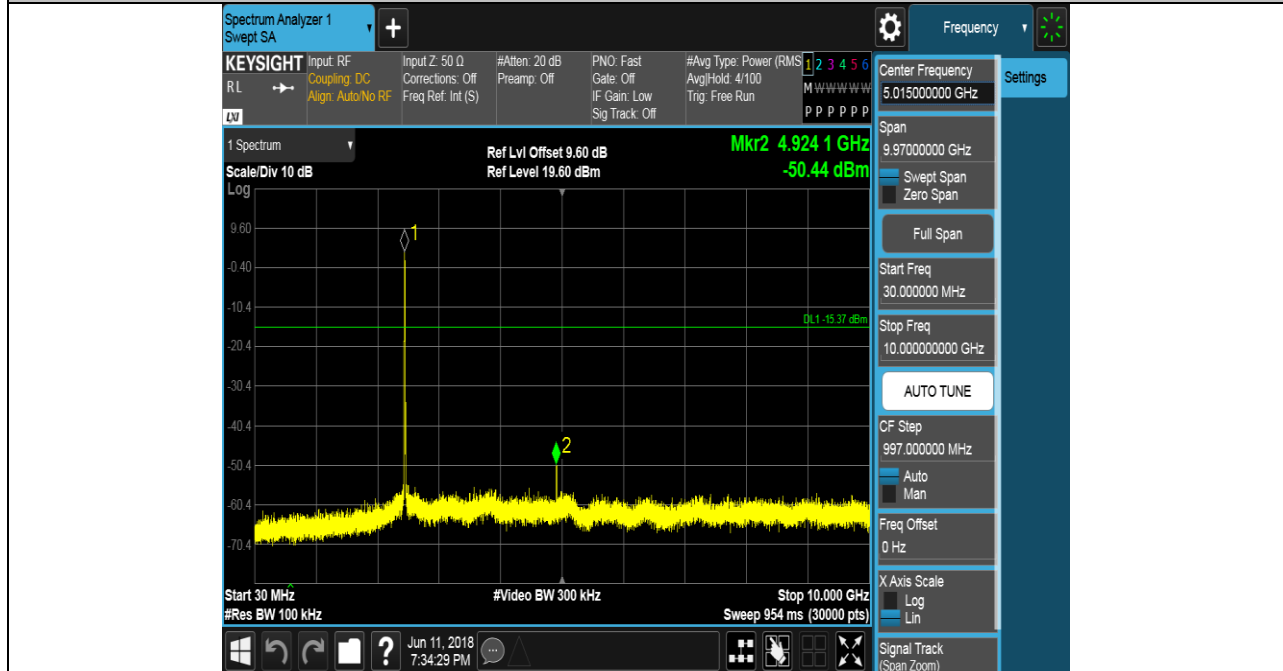


Test Mode	Channel	Verdict
11B SISO	HCH	PASS

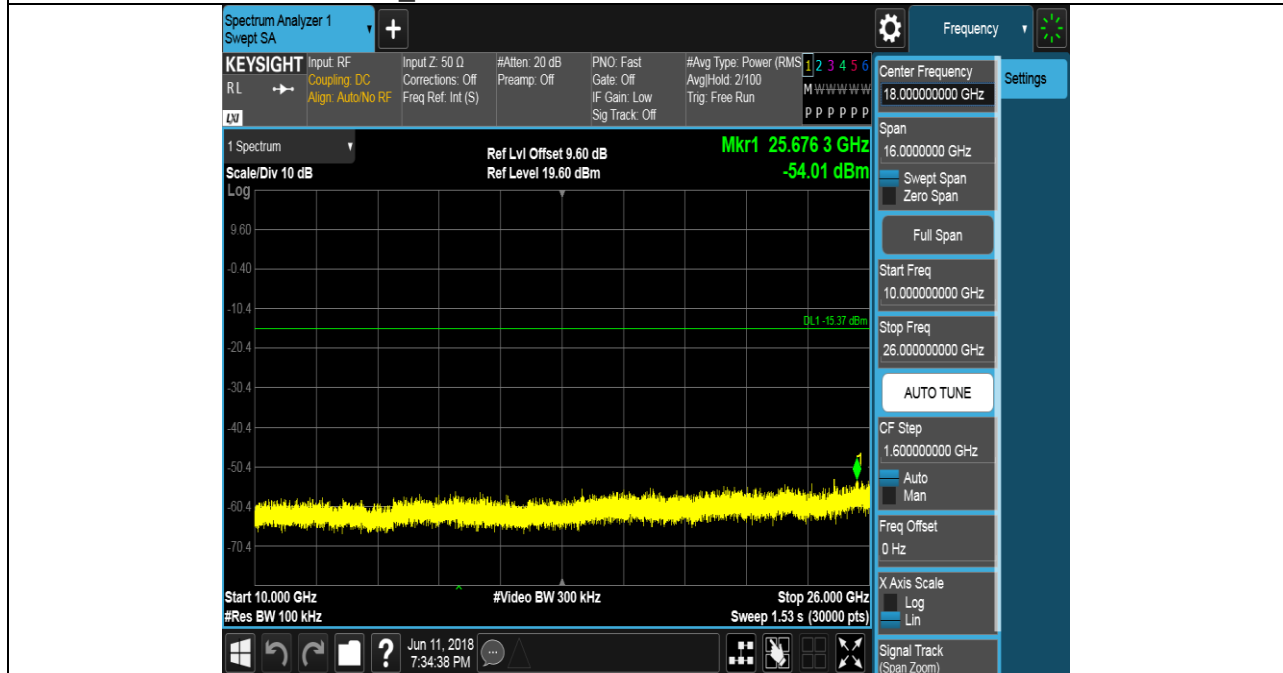
Pref test Plot



HCH SPURIOUS EMISSION_30MHz~10GHz

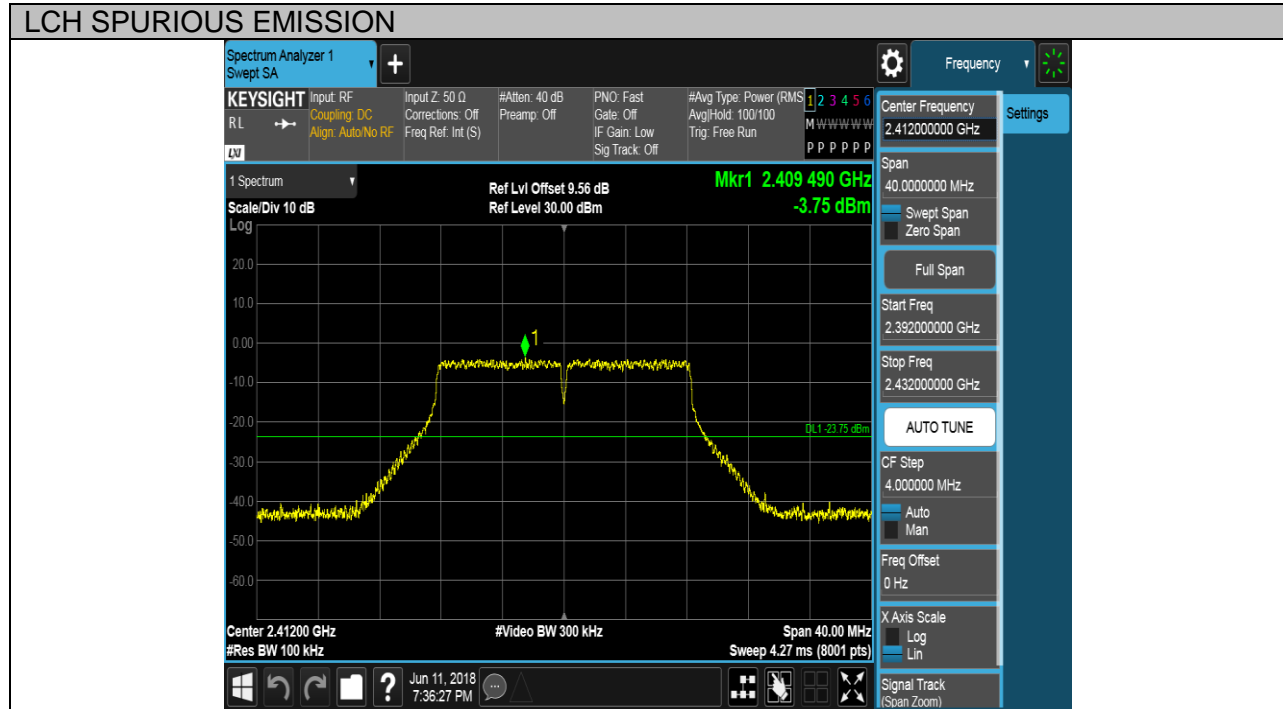


HCH SPURIOUS EMISSION_10GHz~26GHz

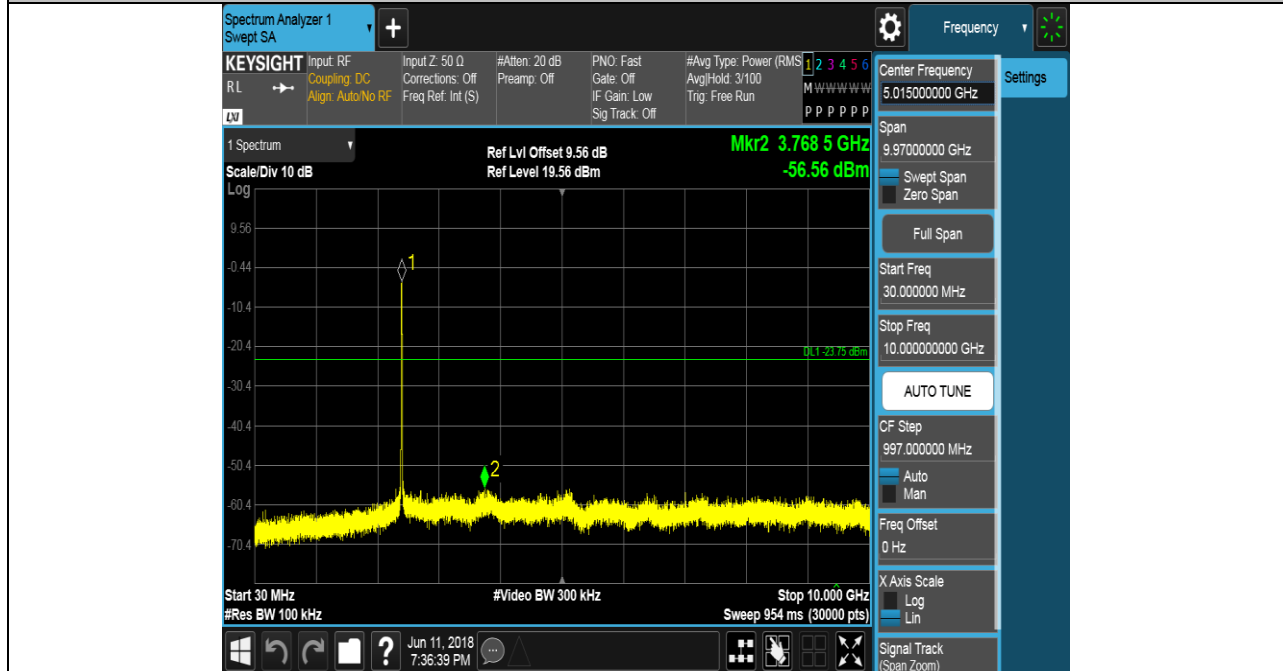


Test Mode	Channel	Verdict
11G SISO	LCH	PASS

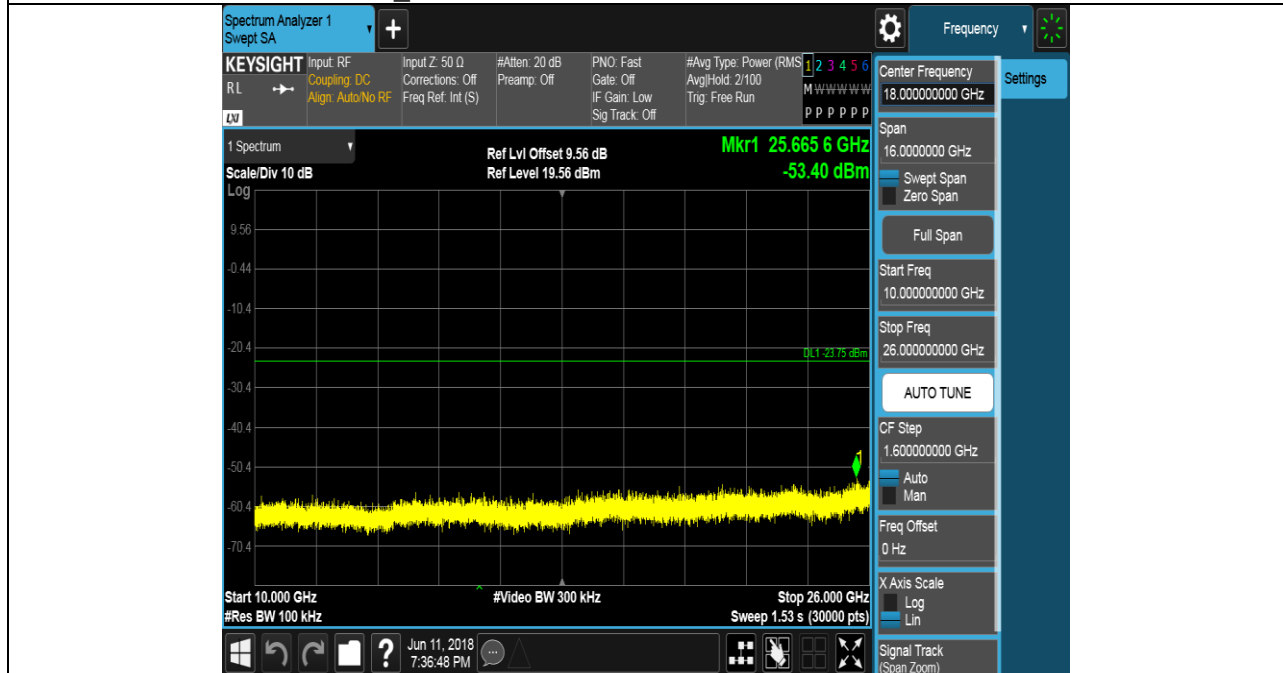
Pref test Plot



LCH SPURIOUS EMISSION_30MHz~10GHz

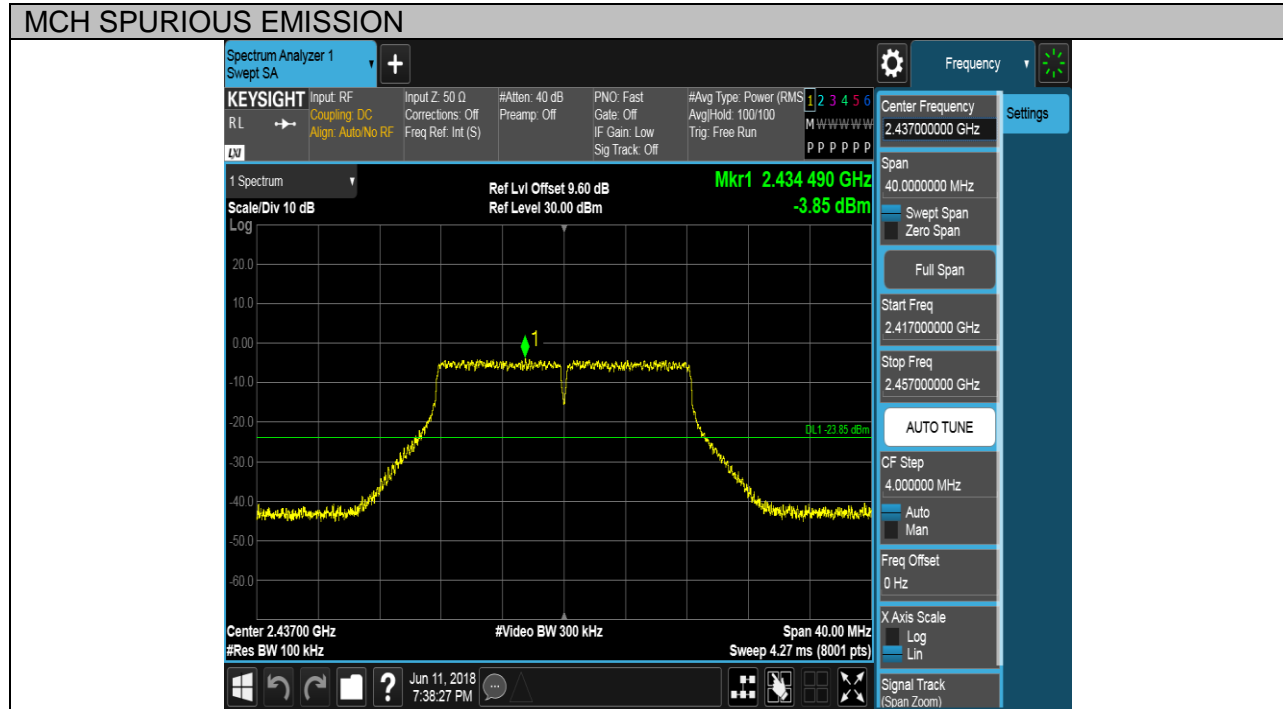


LCH SPURIOUS EMISSION_10GHz~26GHz

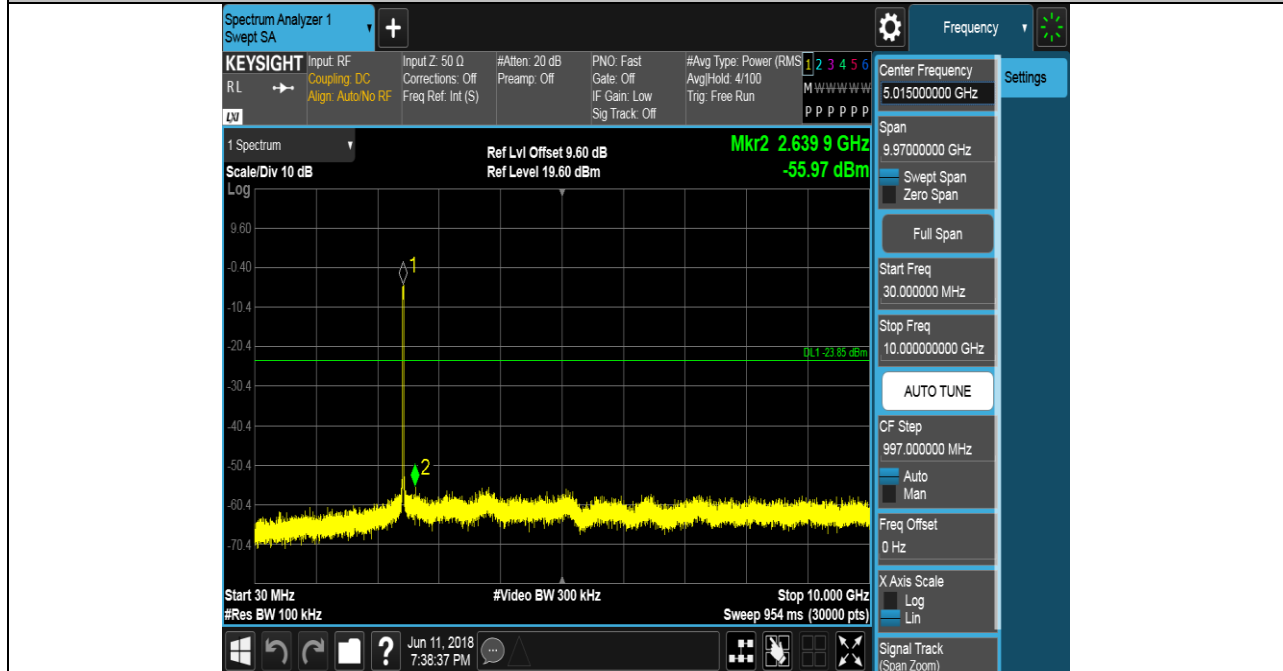


Test Mode	Channel	Verdict
11G SISO	MCH	PASS

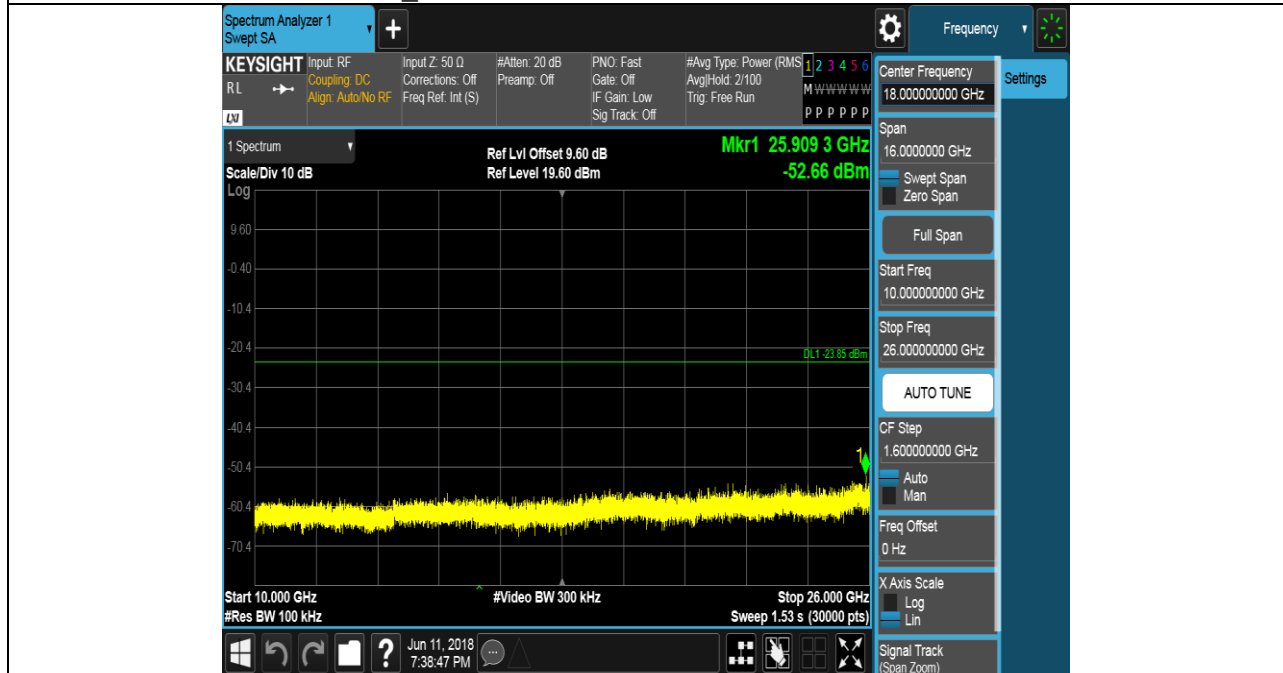
Pref test Plot



MCH SPURIOUS EMISSION_30MHz~10GHz



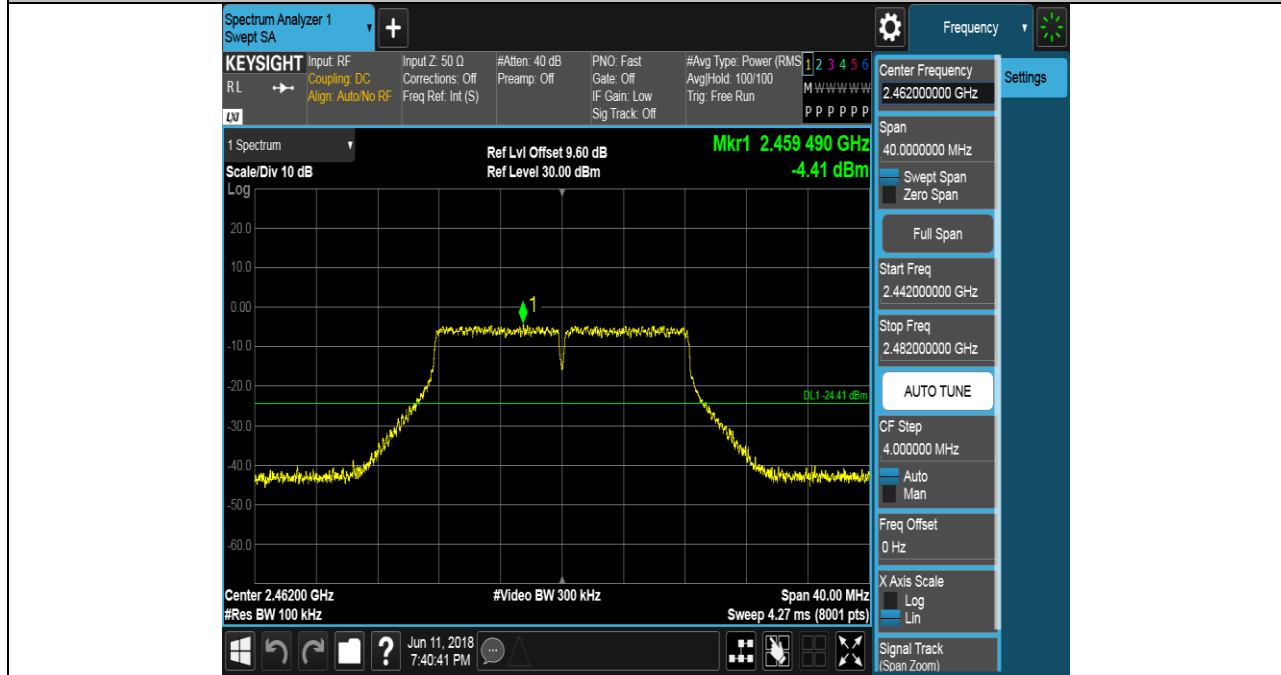
MCH SPURIOUS EMISSION_10GHz~26GHz



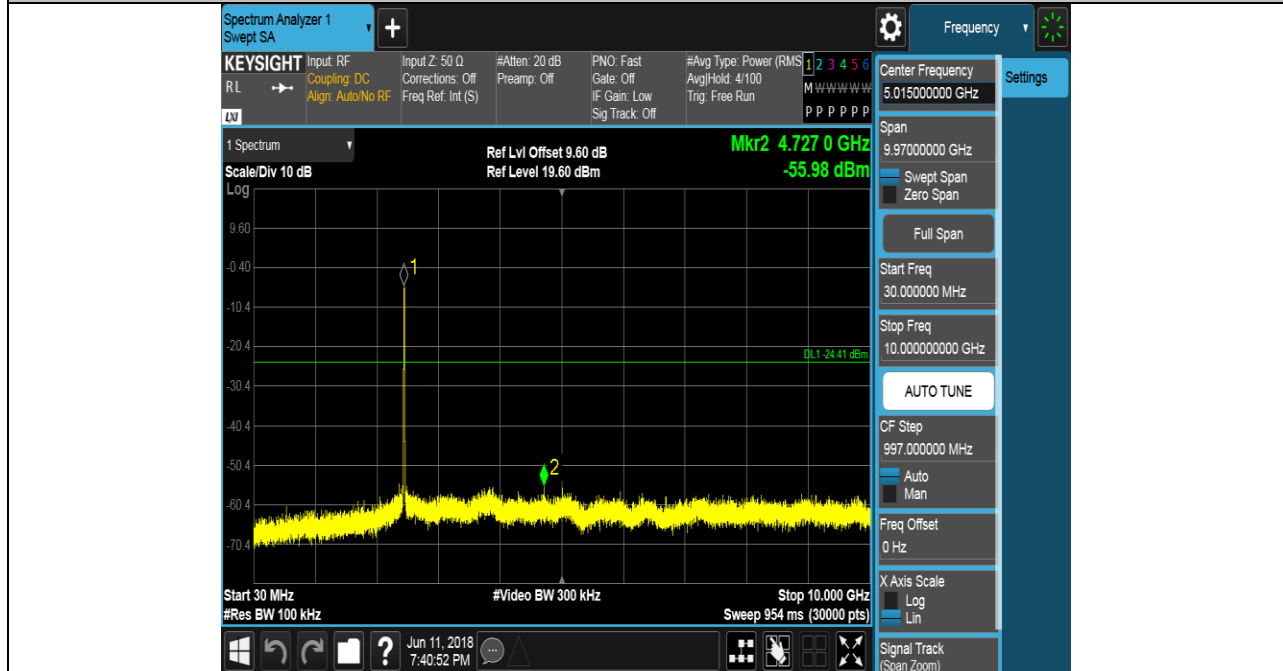
Test Mode	Channel	Verdict
11G SISO	HCH	PASS

Pref test Plot

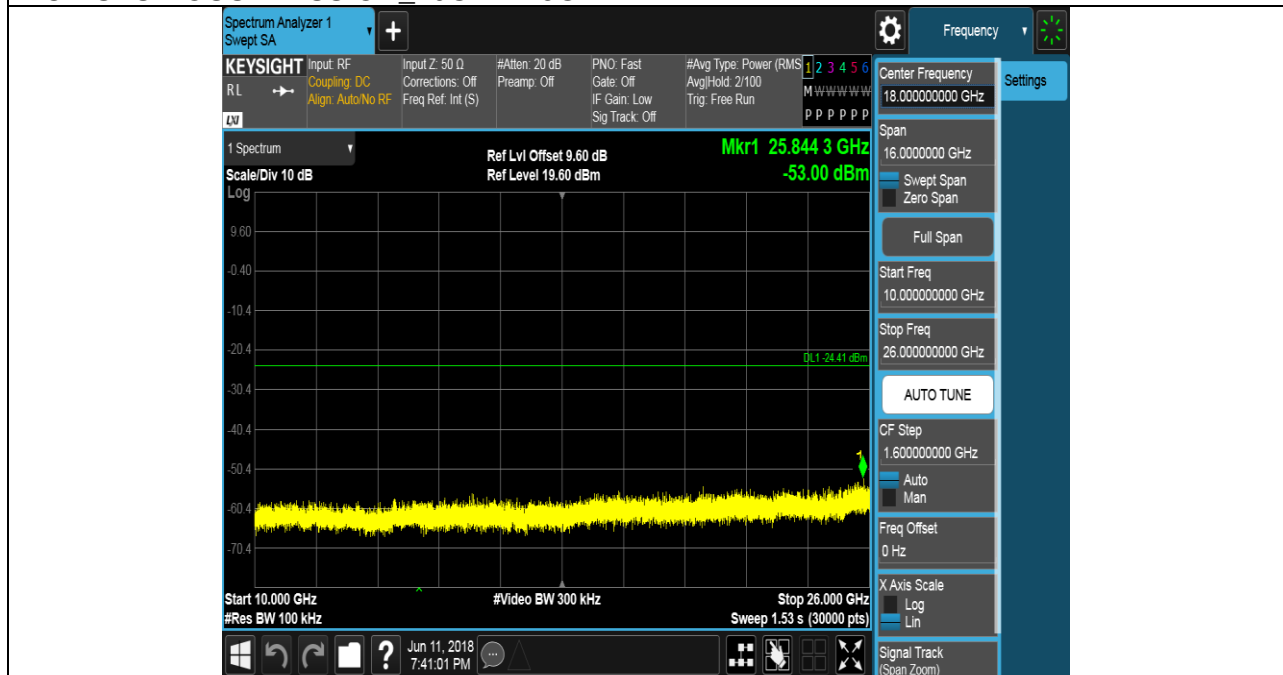
HCH SPURIOUS EMISSION



HCH SPURIOUS EMISSION_30MHz~10GHz

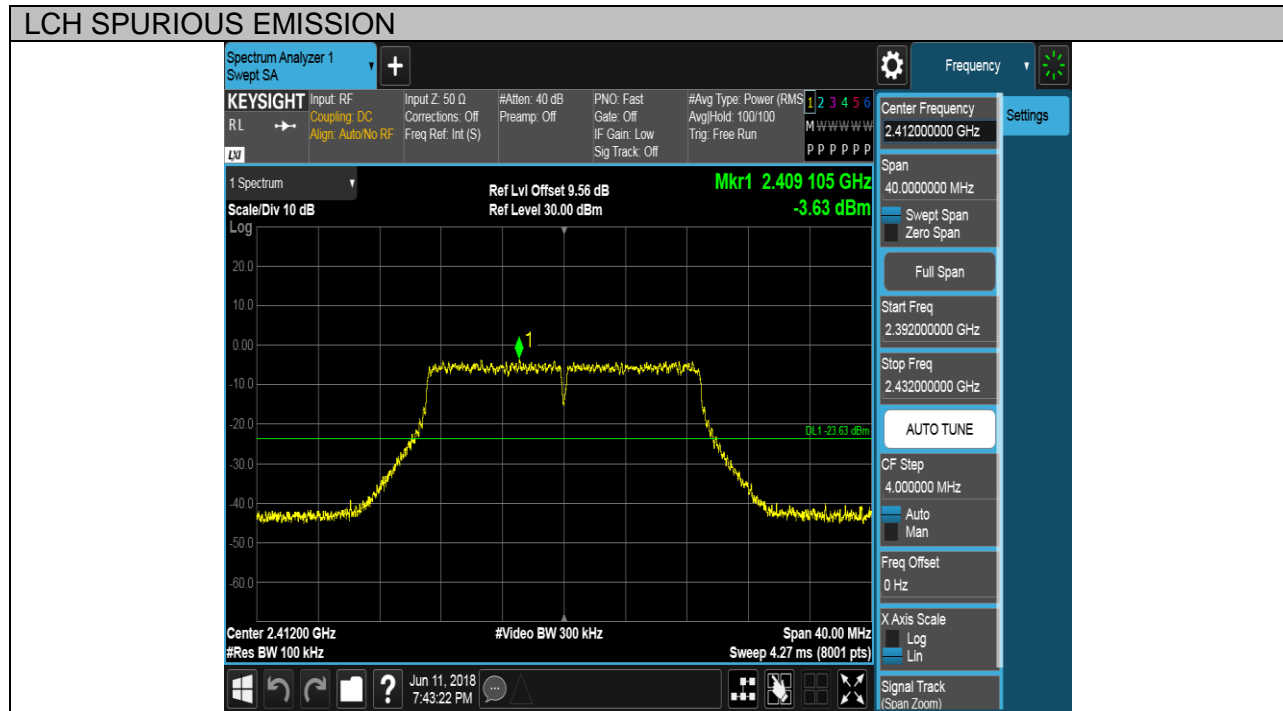


HCH SPURIOUS EMISSION_10GHz~26GHz

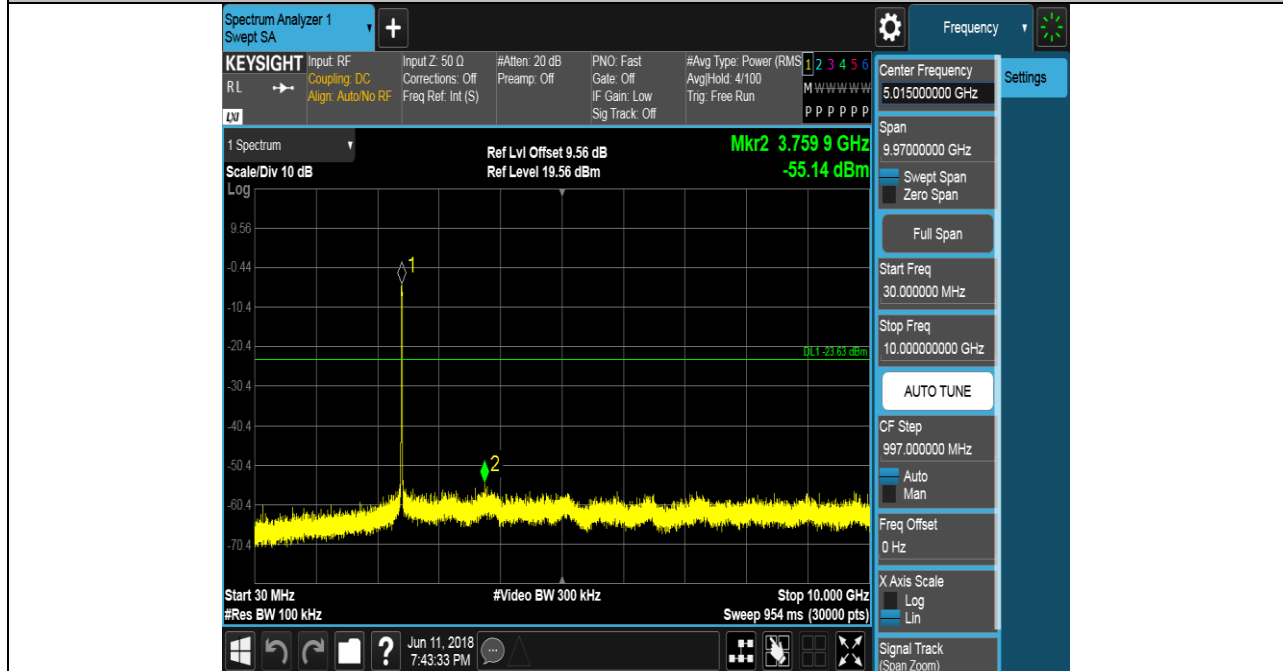


Test Mode	Channel	Verdict
11N20MIMO	LCH	PASS

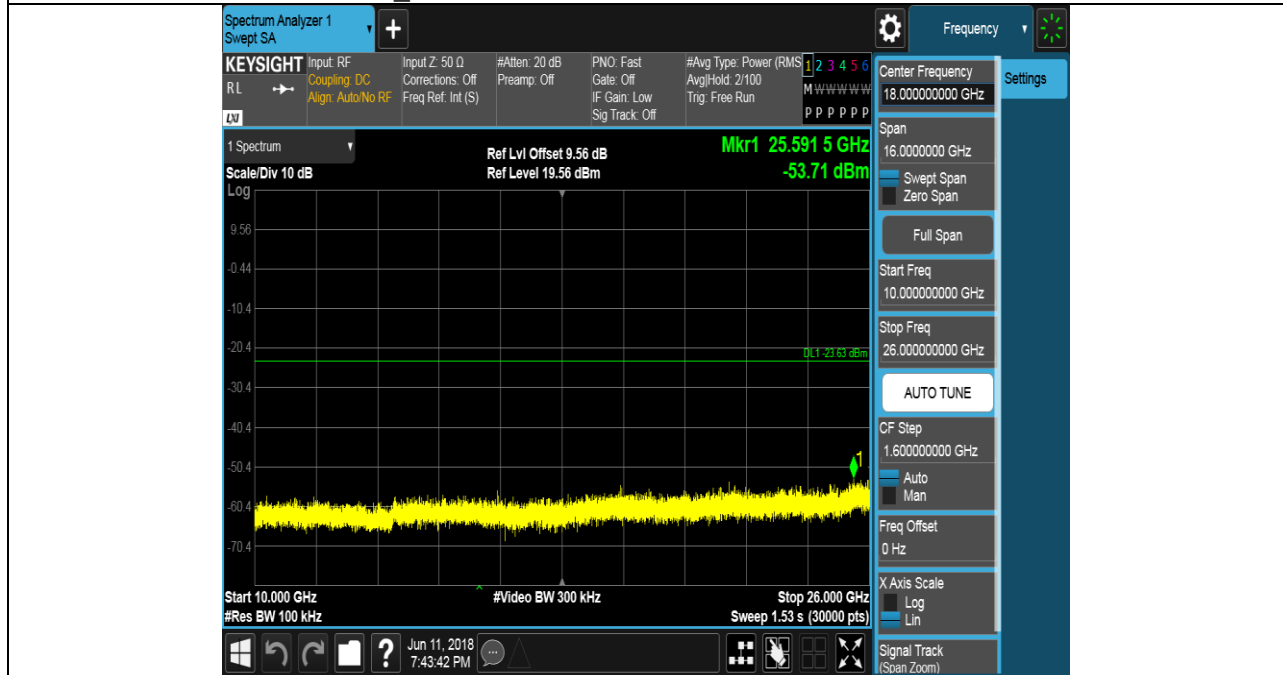
Pref test Plot



LCH SPURIOUS EMISSION_30MHz~10GHz

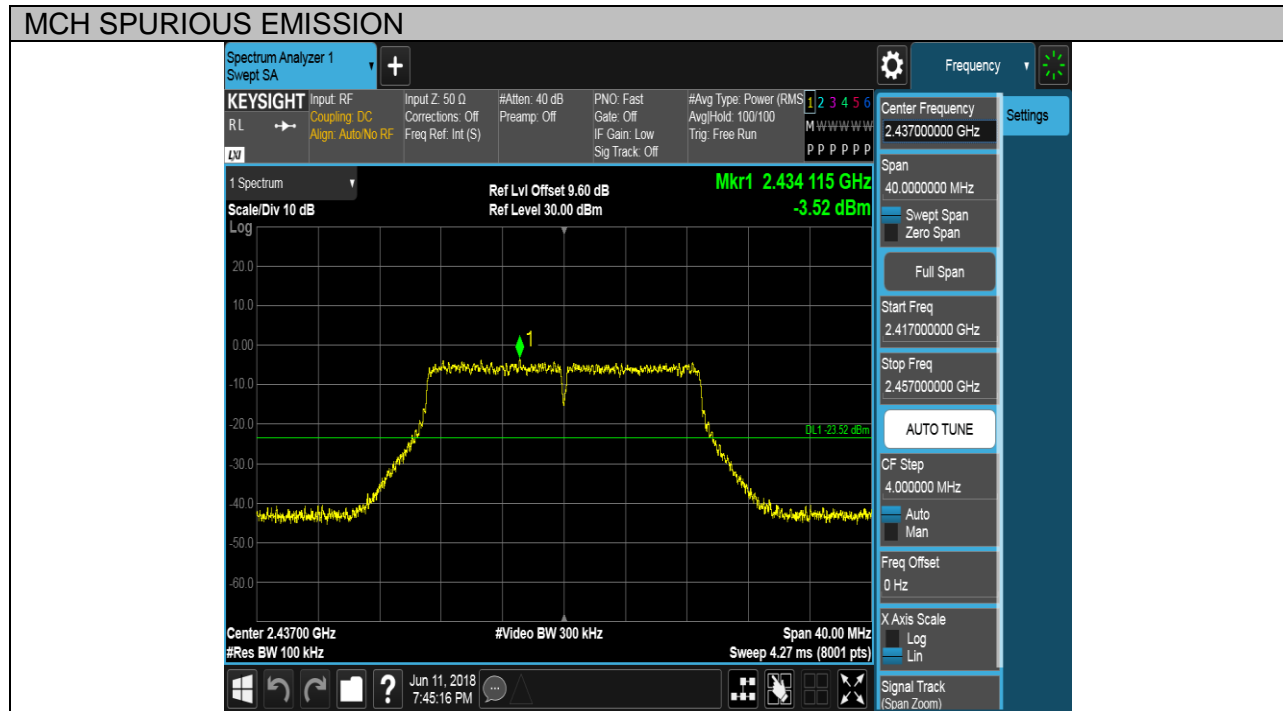


LCH SPURIOUS EMISSION_10GHz~26GHz

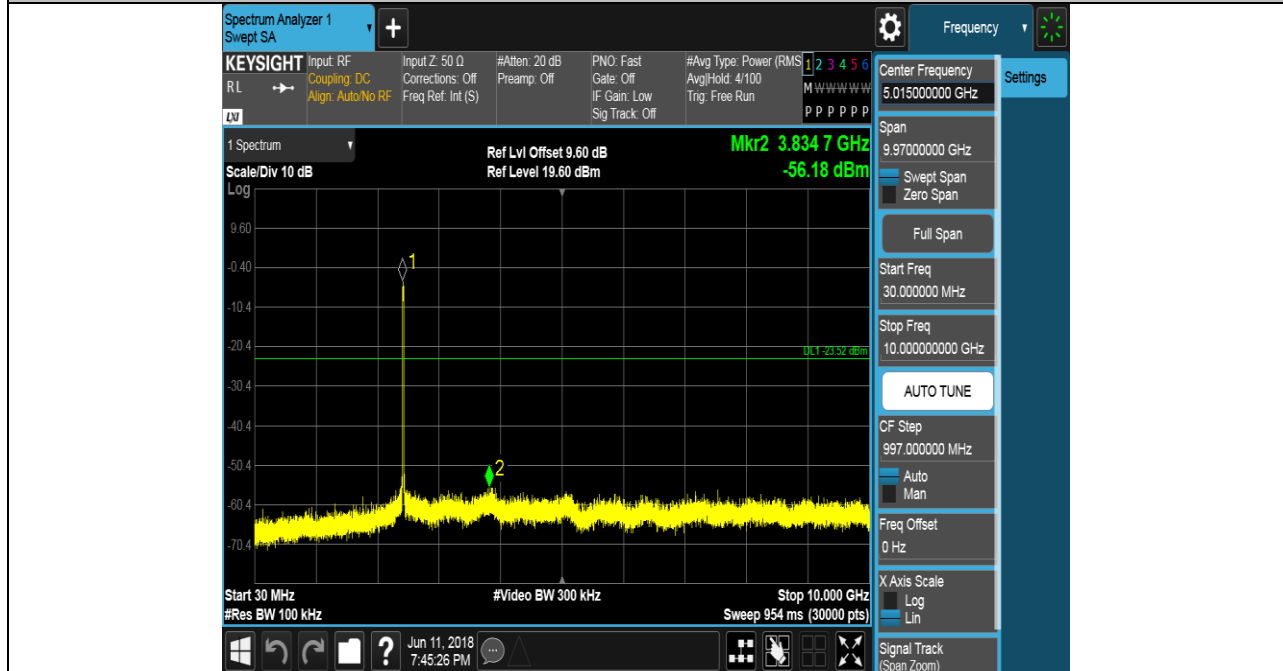


Test Mode	Channel	Verdict
11N20MIMO	MCH	PASS

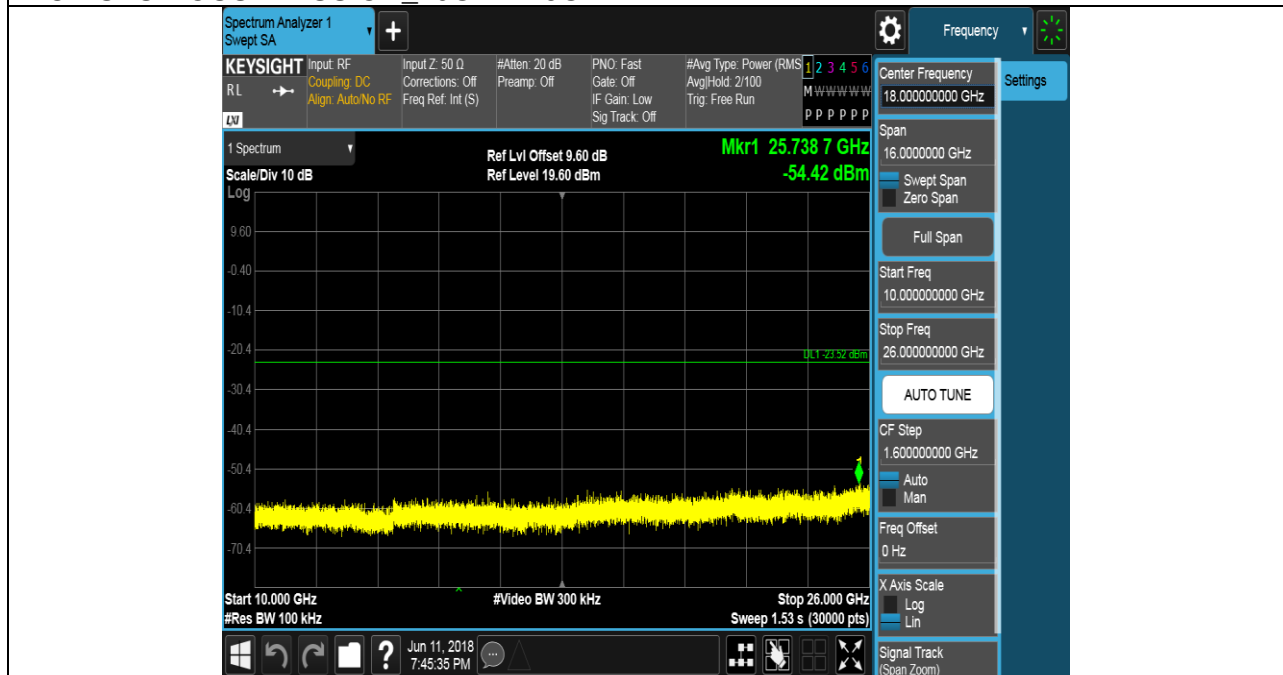
Pref test Plot



MCH SPURIOUS EMISSION_30MHz~10GHz

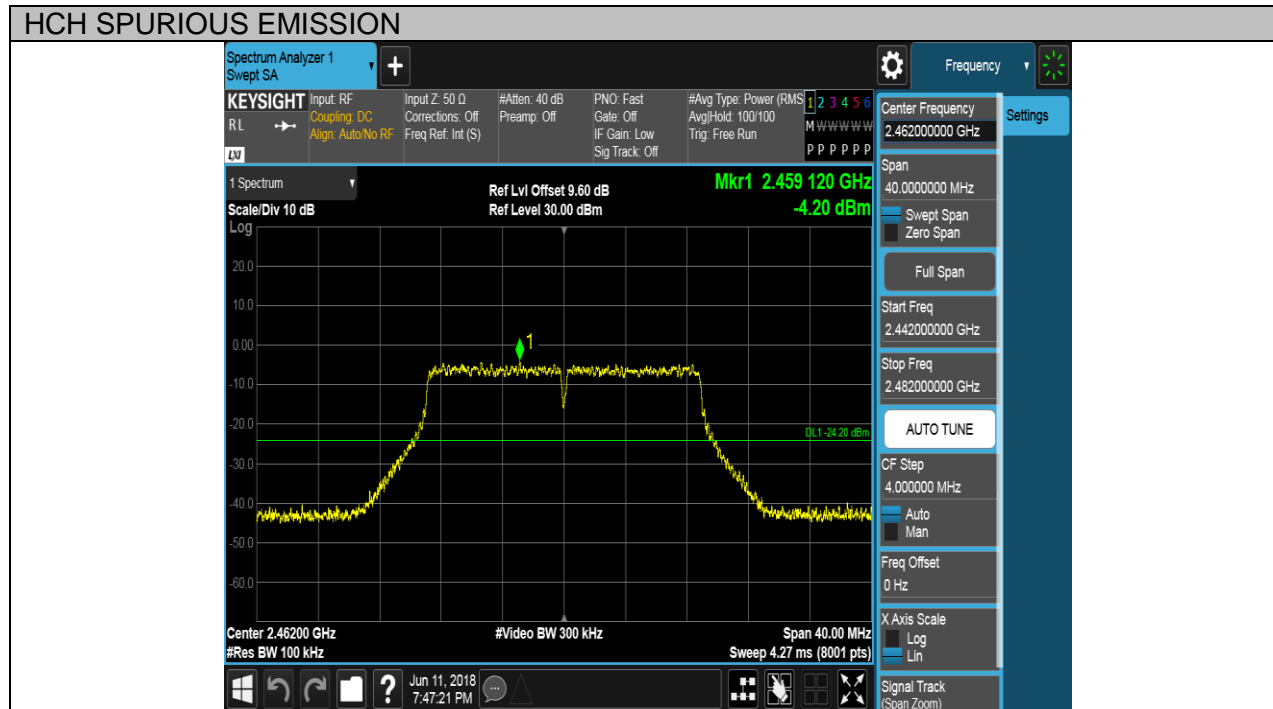


MCH SPURIOUS EMISSION_10GHz~26GHz

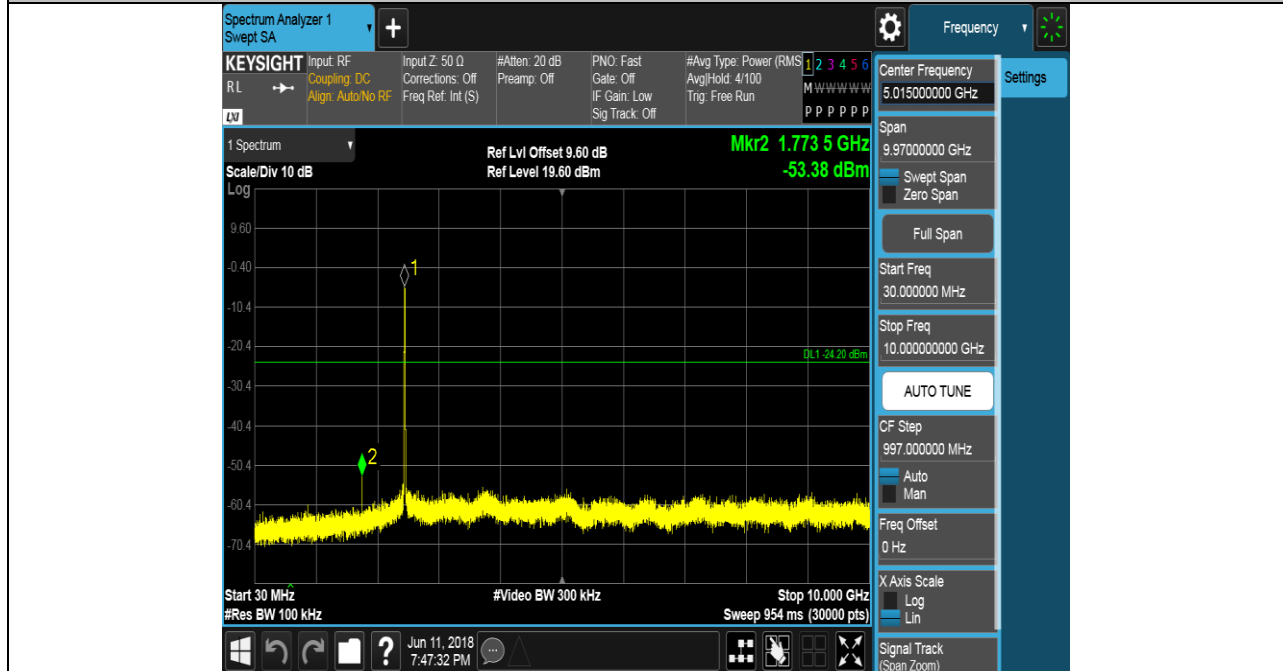


Test Mode	Channel	Verdict
11N20MIMO	HCH	PASS

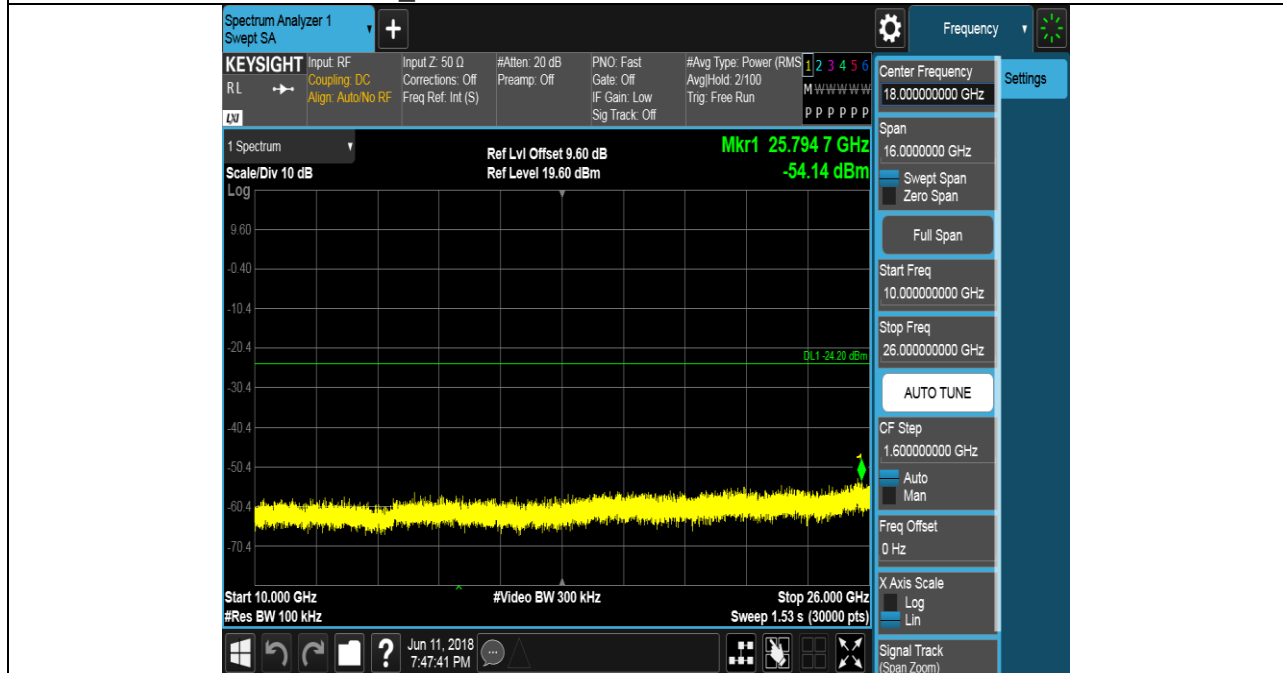
Pref test Plot



HCH SPURIOUS EMISSION_30MHz~10GHz

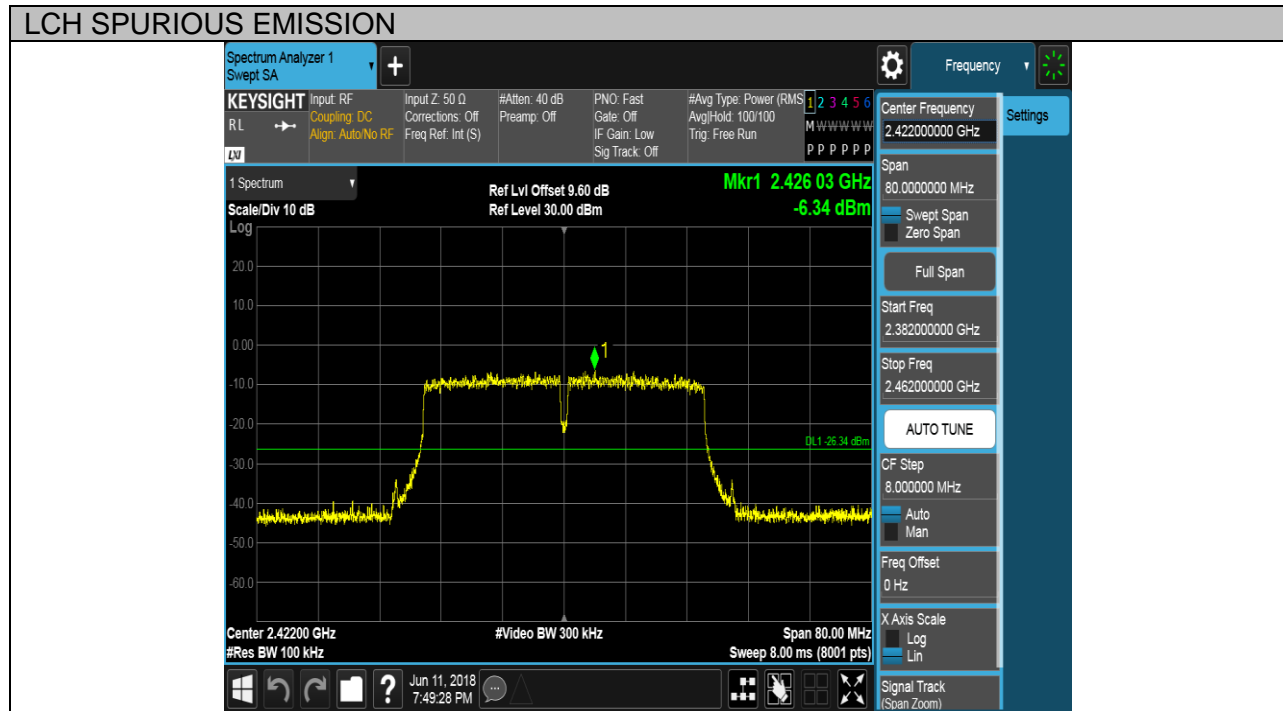


HCH SPURIOUS EMISSION_10GHz~26GHz

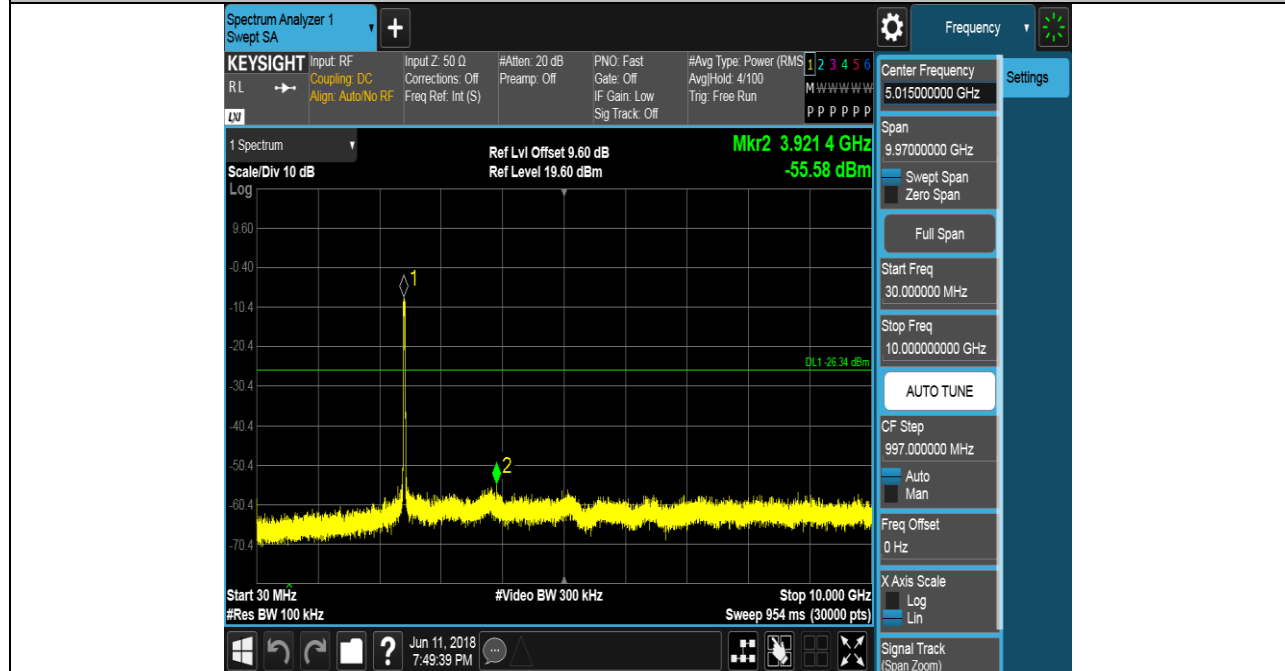


Test Mode	Channel	Verdict
11N40MIMO	LCH	PASS

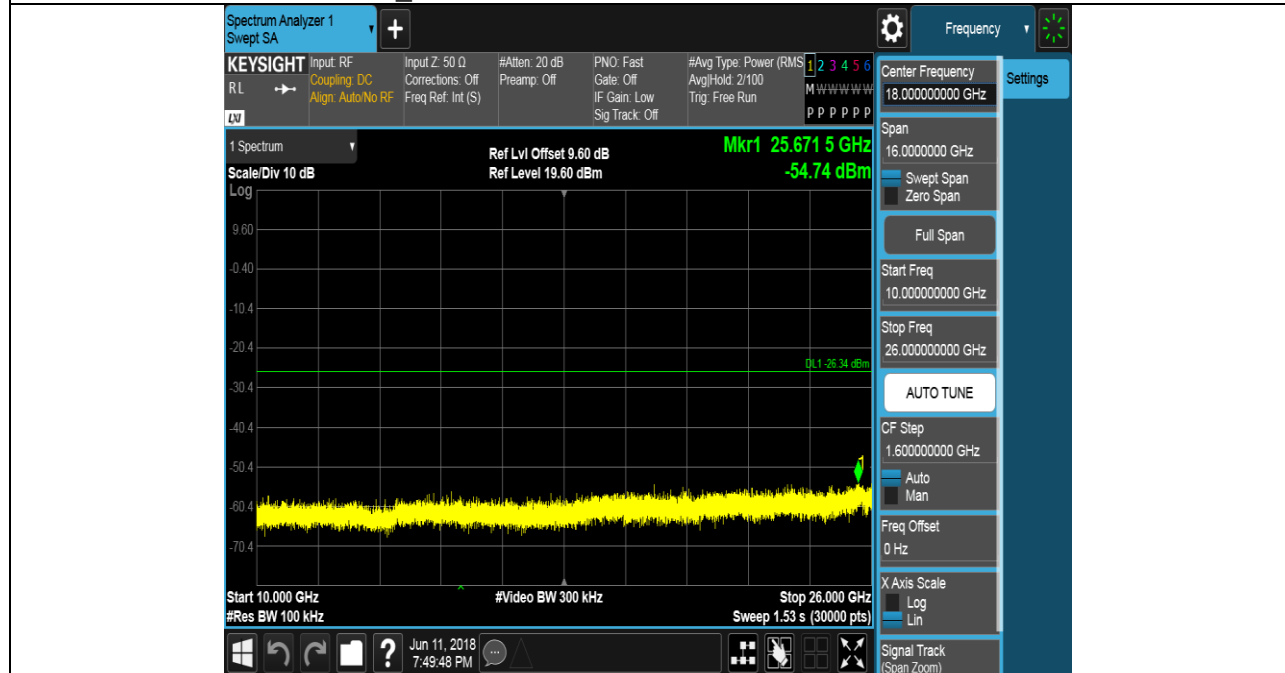
Pref test Plot



LCH SPURIOUS EMISSION_30MHz~10GHz

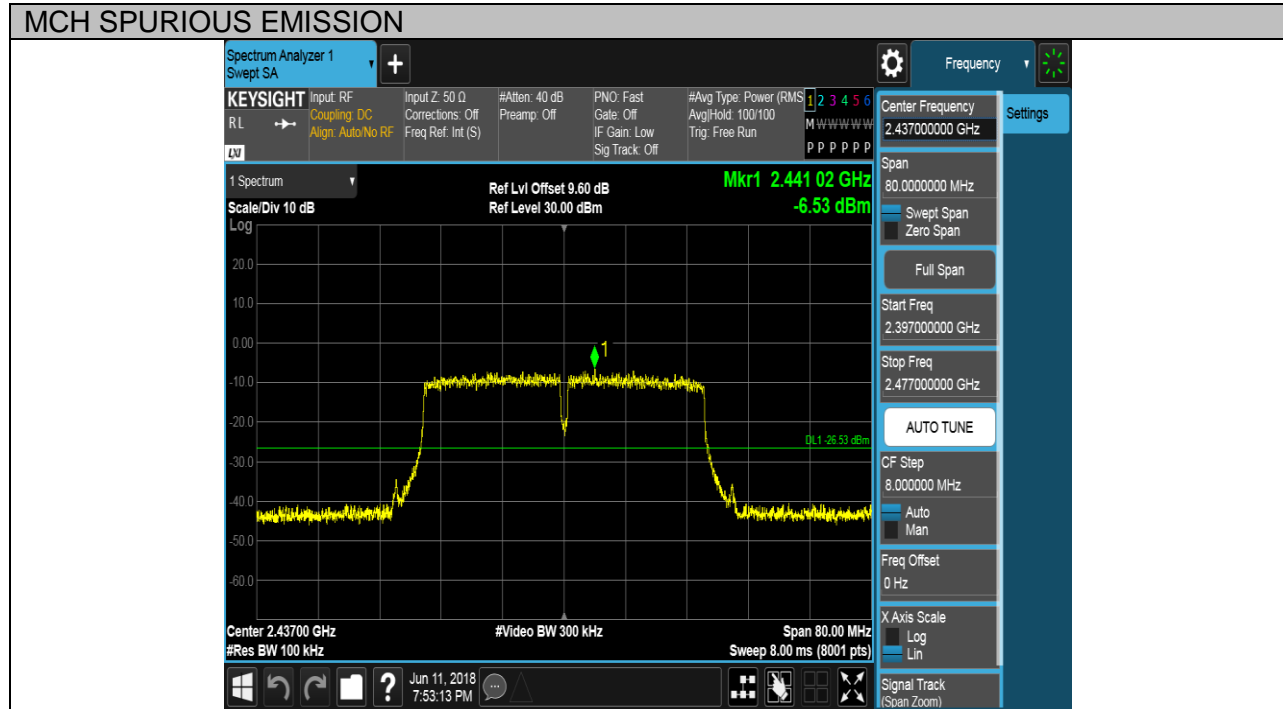


LCH SPURIOUS EMISSION_10GHz~26GHz

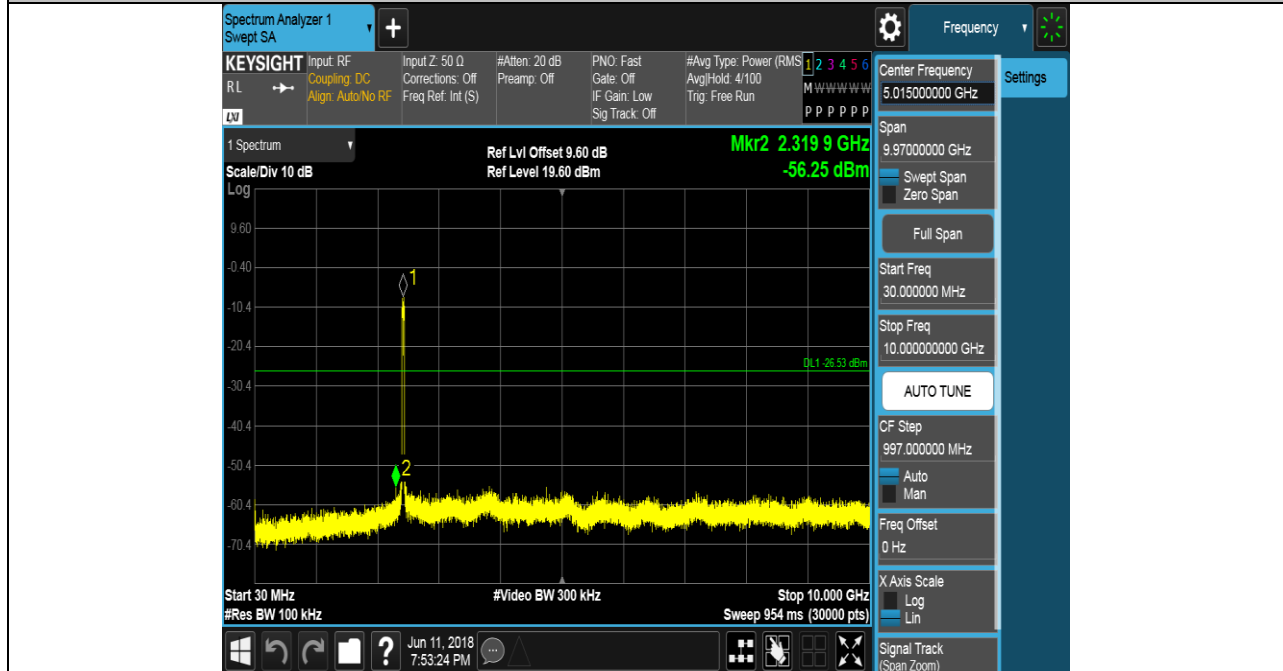


Test Mode	Channel	Verdict
11N40MIMO	MCH	PASS

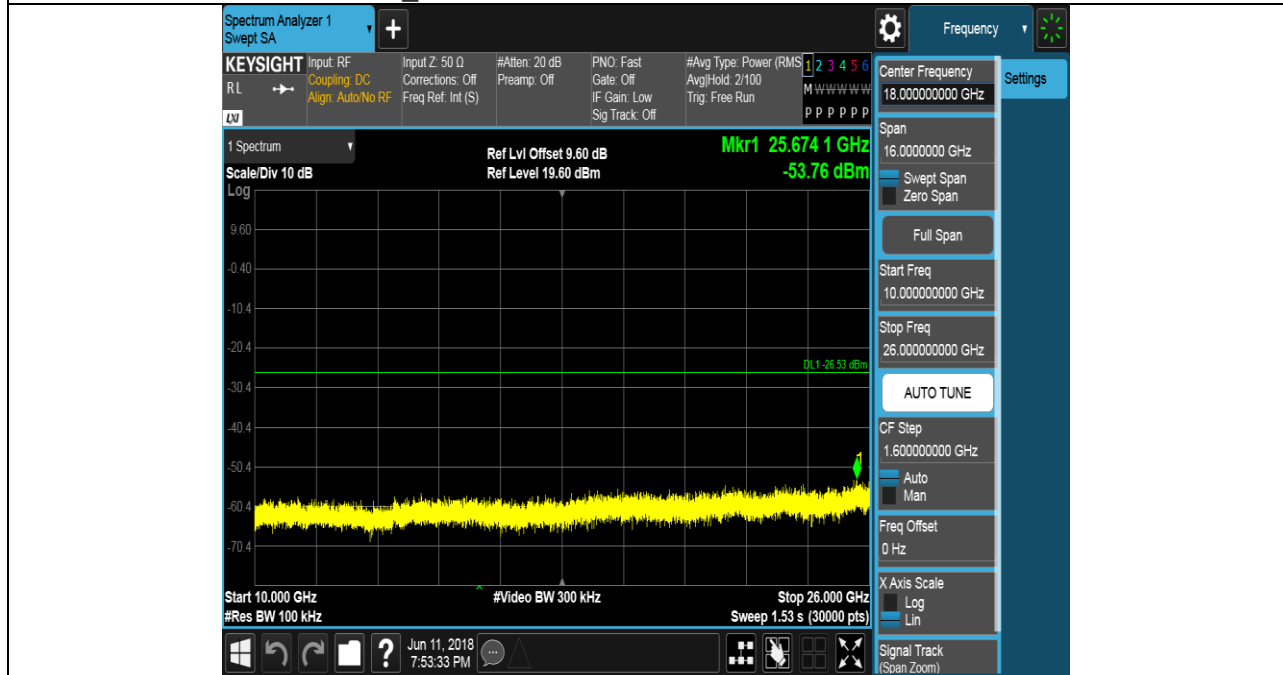
Pref test Plot



MCH SPURIOUS EMISSION_30MHz~10GHz

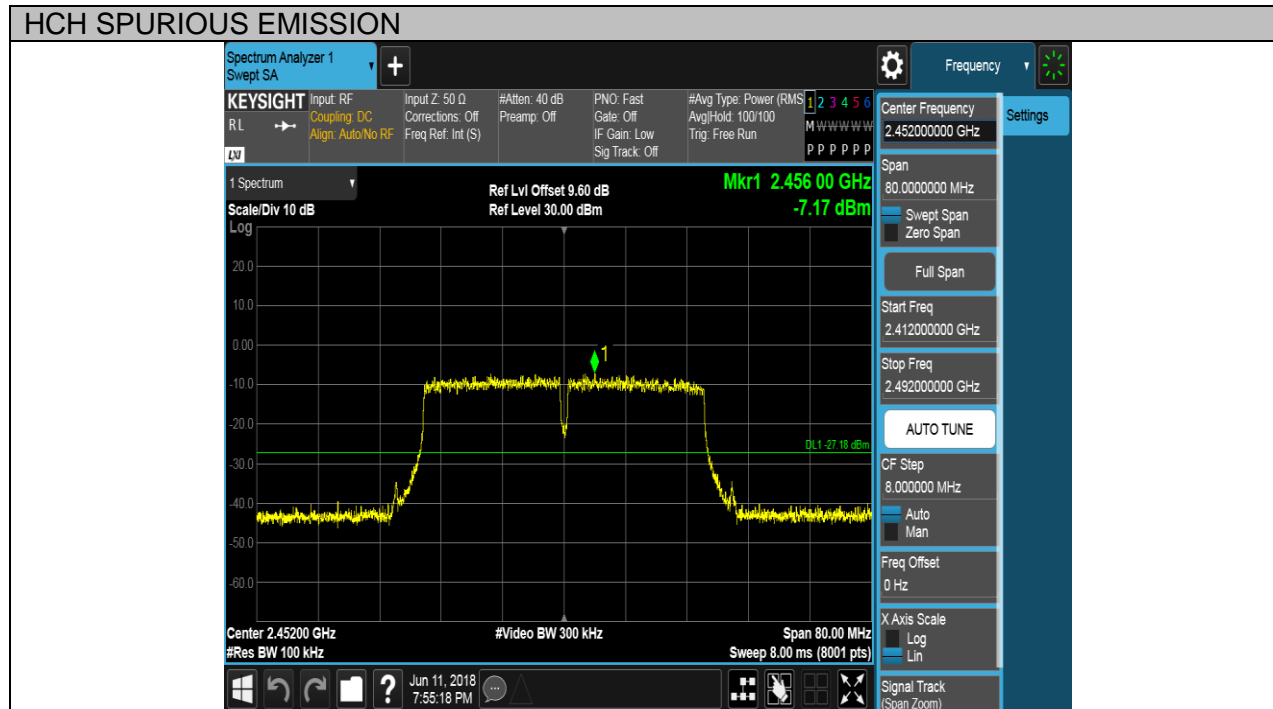


MCH SPURIOUS EMISSION_10GHz~26GHz

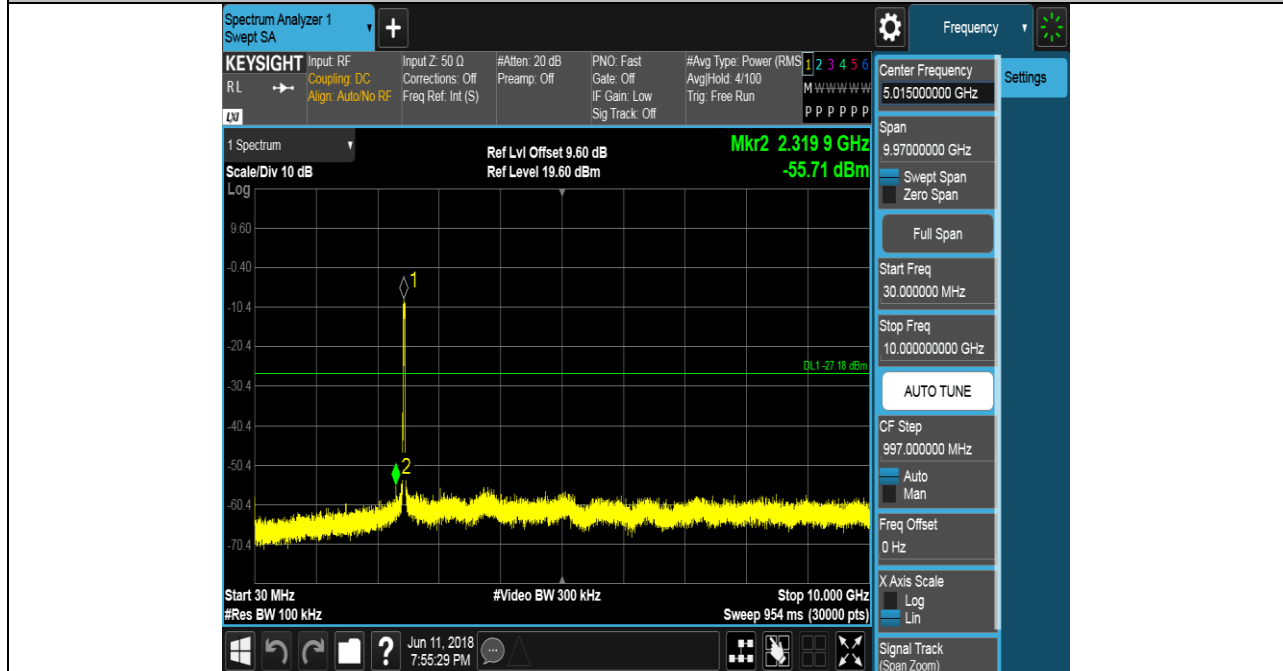


Test Mode	Channel	Verdict
11N40MIMO	HCH	PASS

Pref test Plot



HCH SPURIOUS EMISSION_30MHz~10GHz



HCH SPURIOUS EMISSION_10GHz~26GHz

