

## Appendix C

### RF Test Data for 2.4G WIFI (Conducted Measurement)

**Product Name: Android TV BOX**

**Trade Mark: MECOOL**

**Test Model: KM8**

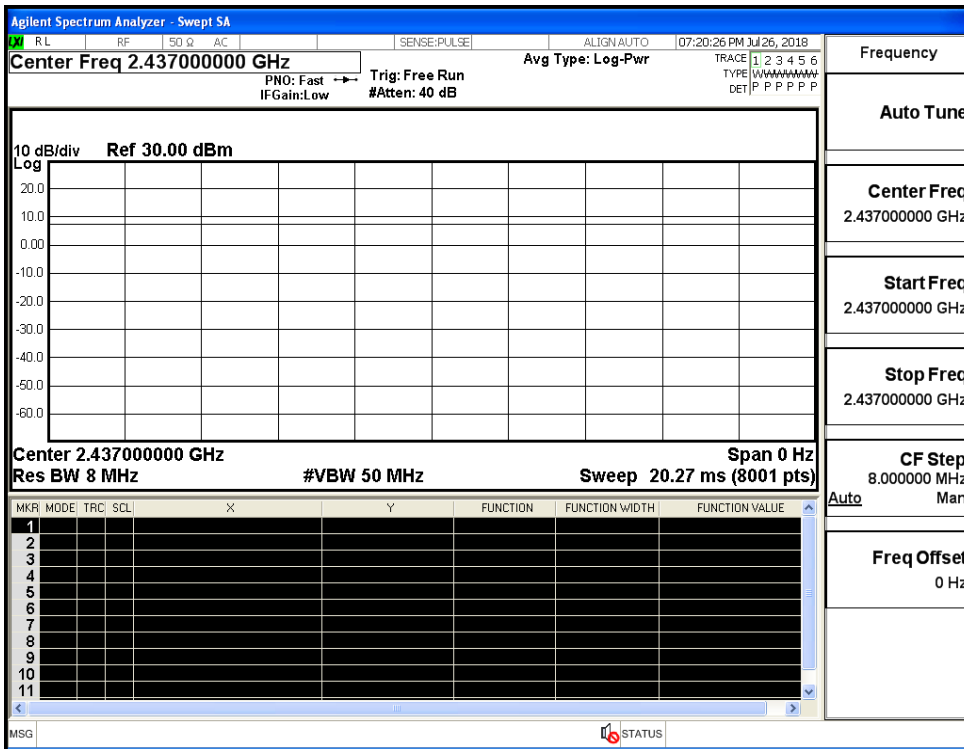
#### Environmental Conditions

Temperature:	23.7 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Wilson.Hong
Supervised by:	Jayden.Zhuo

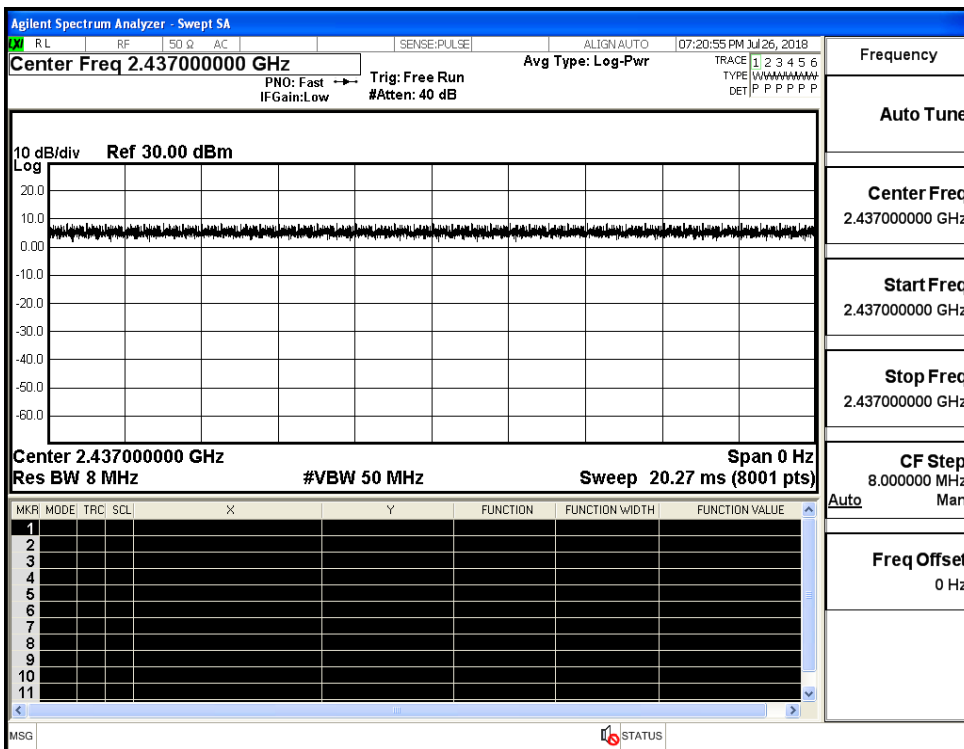
#### C.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant1	100	PASS
11G	2437	Ant1	100	PASS
11N20SISO	2437	Ant1	100	PASS
11N40SISO	2437	Ant1	100	PASS

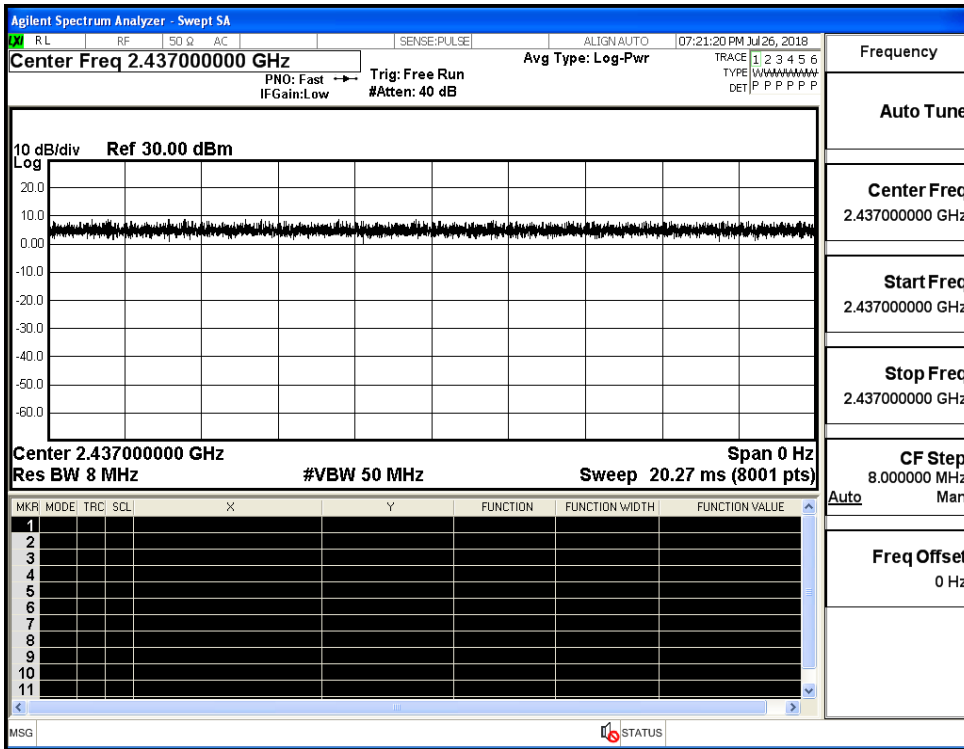
Duty Cycle\_11B\_2437\_Ant1



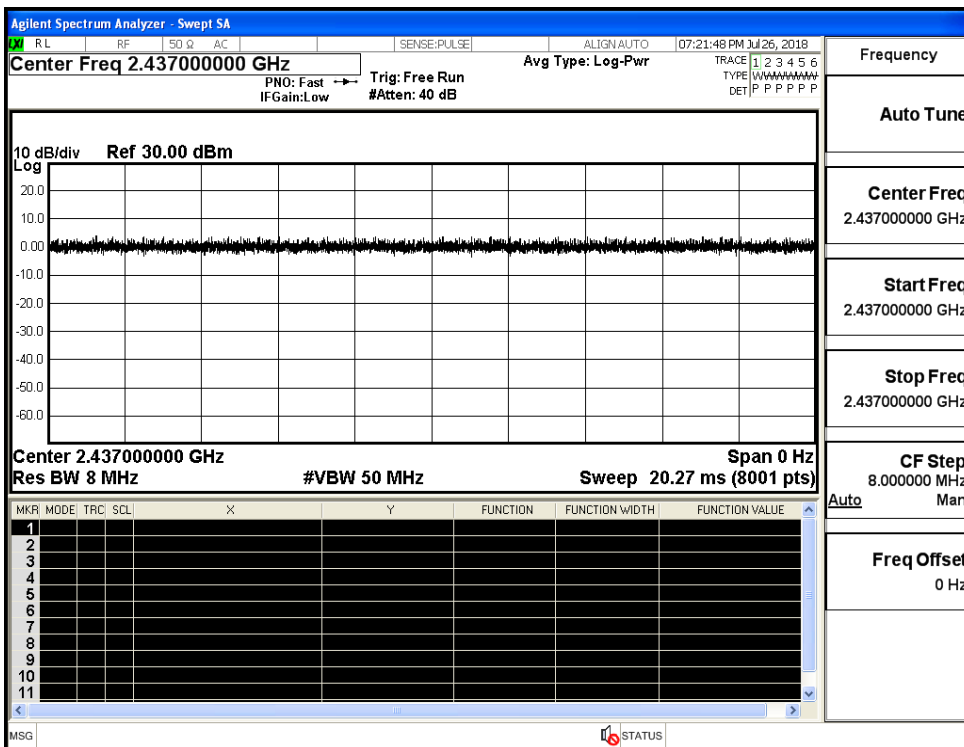
Duty Cycle\_11G\_2437\_Ant1



Duty Cycle\_11N20SISO\_2437\_Ant1



Duty Cycle\_11N40SISO\_2437\_Ant1

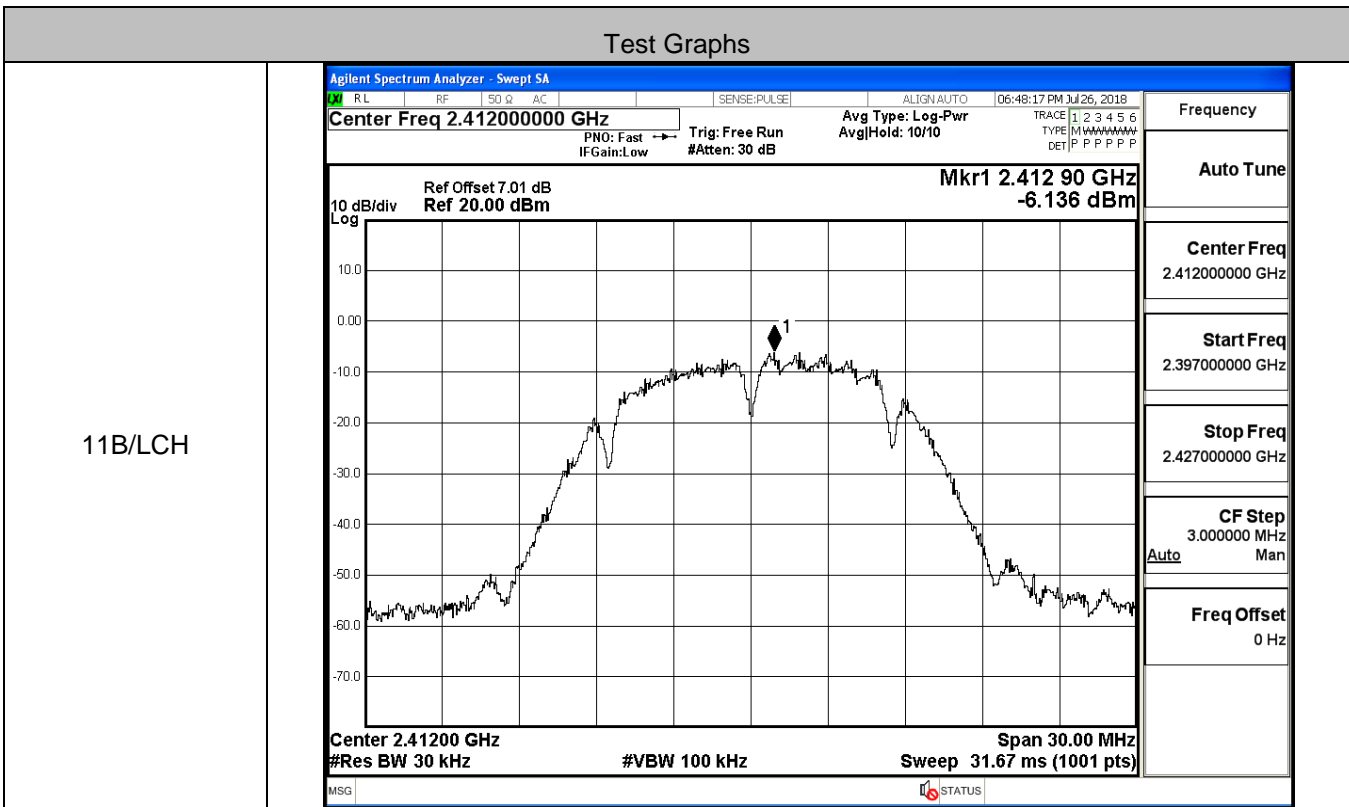


### C.2 Maximum Conducted Output Power

Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	12.57	30	PASS
	MCH	12.41	30	PASS
	HCH	12.71	30	PASS
11G	LCH	13.69	30	PASS
	MCH	13.74	30	PASS
	HCH	13.32	30	PASS
11N20SISO	LCH	15.05	30	PASS
	MCH	14.69	30	PASS
	HCH	14.61	30	PASS
11N40SISO	LCH	15.39	30	PASS
	MCH	16.18	30	PASS
	HCH	15.96	30	PASS

### C.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/30KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-6.136	8	PASS
	MCH	-7.798	8	PASS
	HCH	-7.186	8	PASS
11G	LCH	-11.030	8	PASS
	MCH	-11.810	8	PASS
	HCH	-11.865	8	PASS
11N20SISO	LCH	-12.149	8	PASS
	MCH	-11.577	8	PASS
	HCH	-11.567	8	PASS
11N40SISO	LCH	-14.780	8	PASS
	MCH	-14.632	8	PASS
	HCH	-18.654	8	PASS

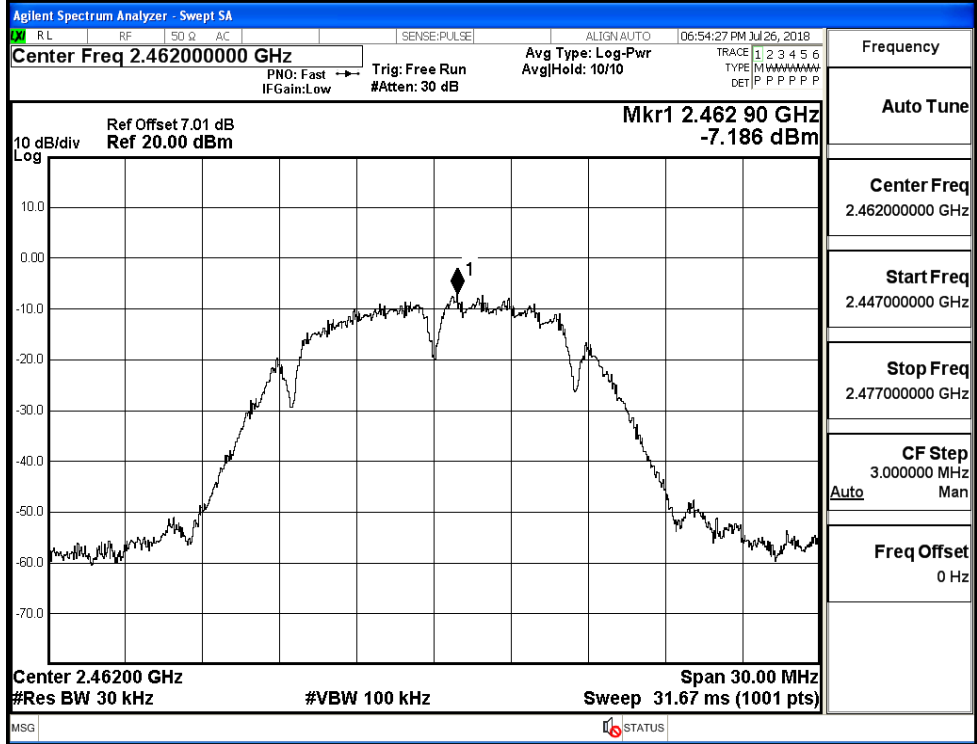


11B/MCH



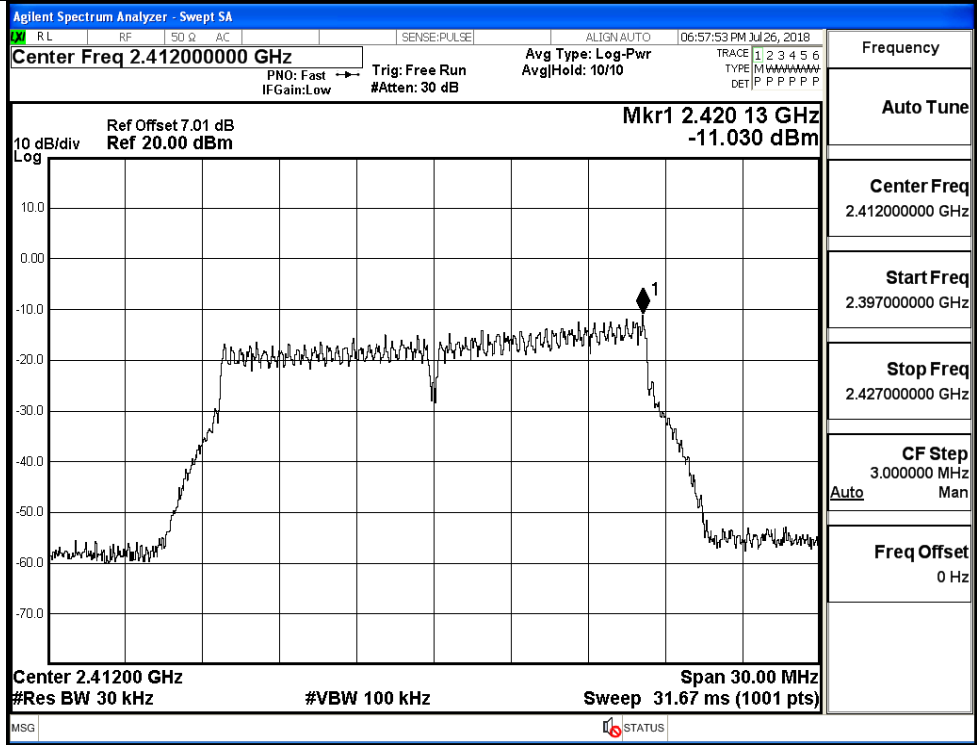
Frequency
Auto Tune
Center Freq 2.437000000 GHz
Start Freq 2.422000000 GHz
Stop Freq 2.452000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11B/HCH



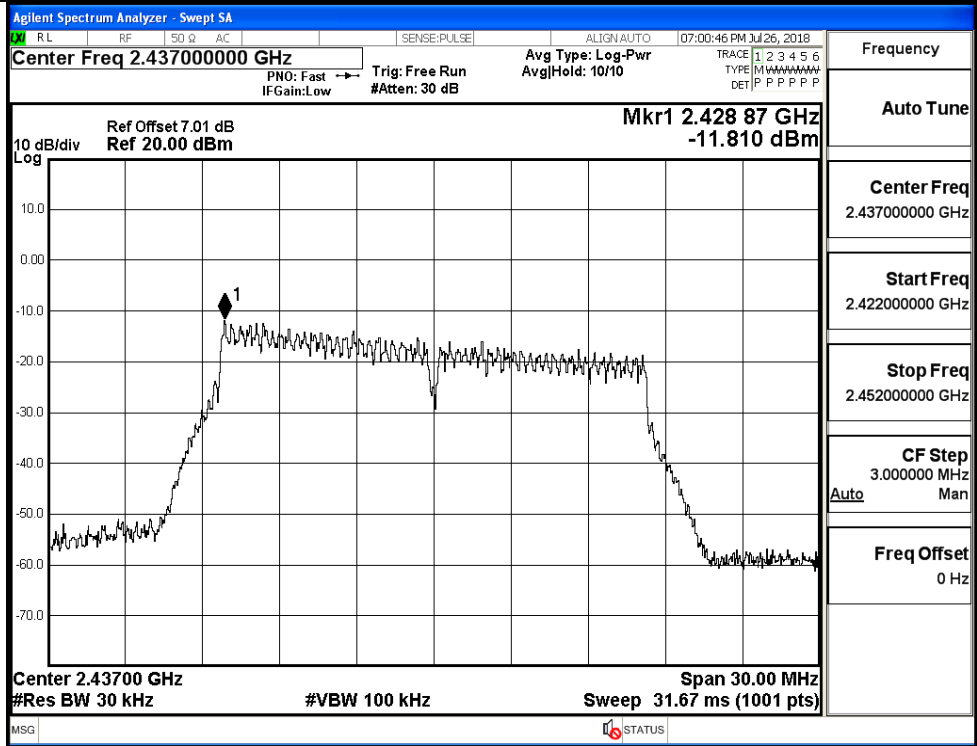
Frequency
Auto Tune
Center Freq 2.462000000 GHz
Start Freq 2.447000000 GHz
Stop Freq 2.477000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11G/LCH



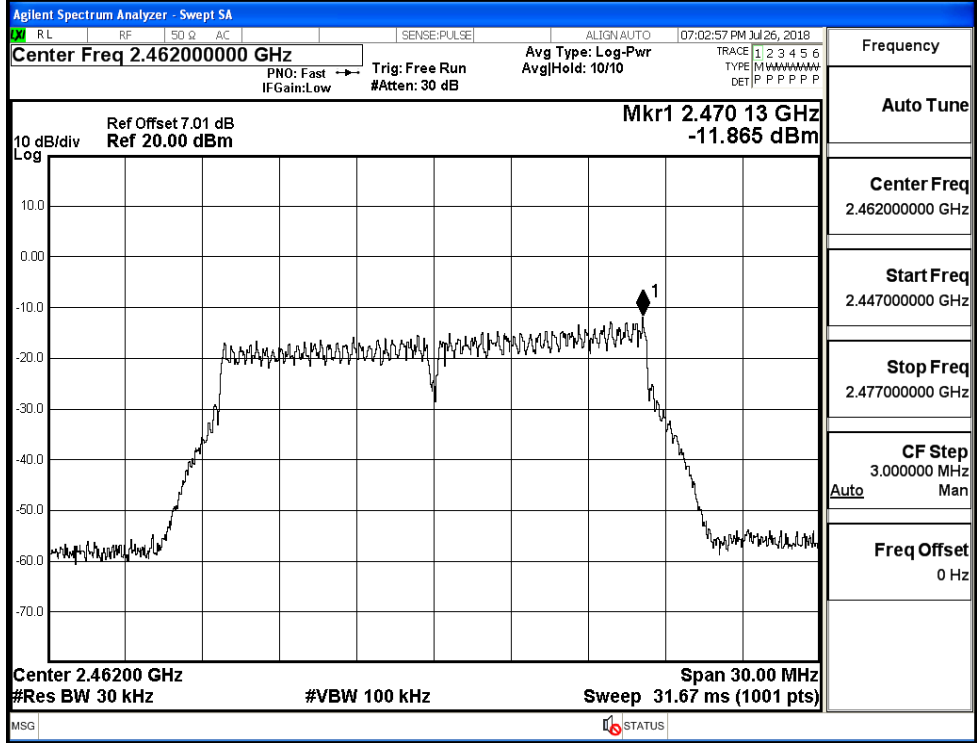
Frequency	2.41200000 GHz
Auto Tune	
Center Freq	2.41200000 GHz
Start Freq	2.397000000 GHz
Stop Freq	2.427000000 GHz
CF Step	3.000000 MHz Auto Man
Freq Offset	0 Hz

11G/MCH

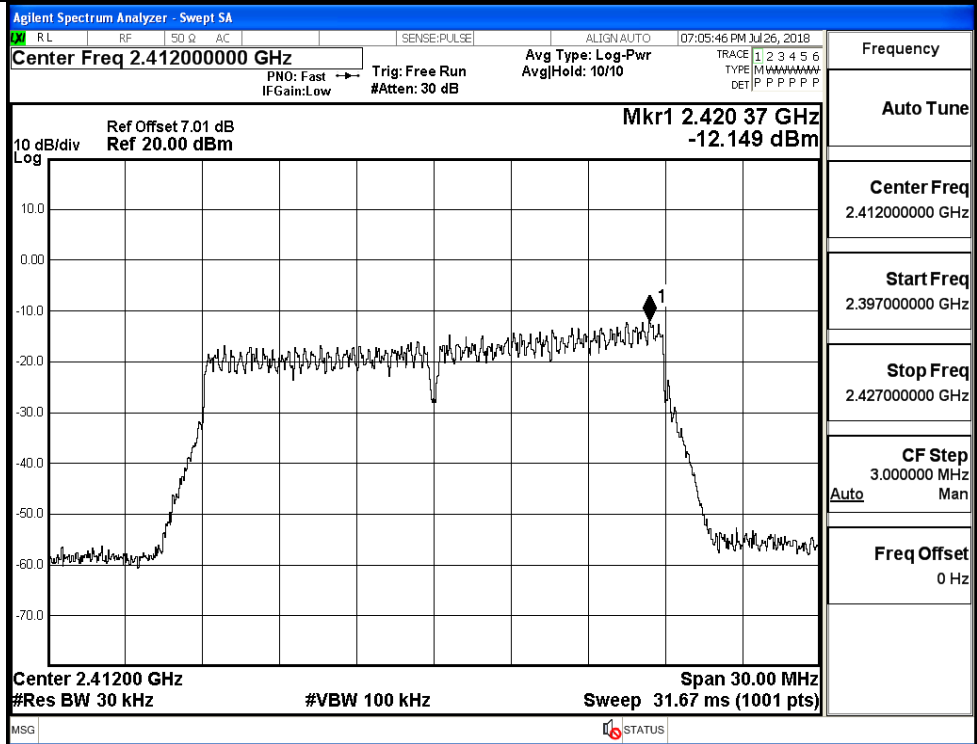


Frequency	2.43700000 GHz
Auto Tune	
Center Freq	2.43700000 GHz
Start Freq	2.422000000 GHz
Stop Freq	2.452000000 GHz
CF Step	3.000000 MHz Auto Man
Freq Offset	0 Hz

11G/HCH

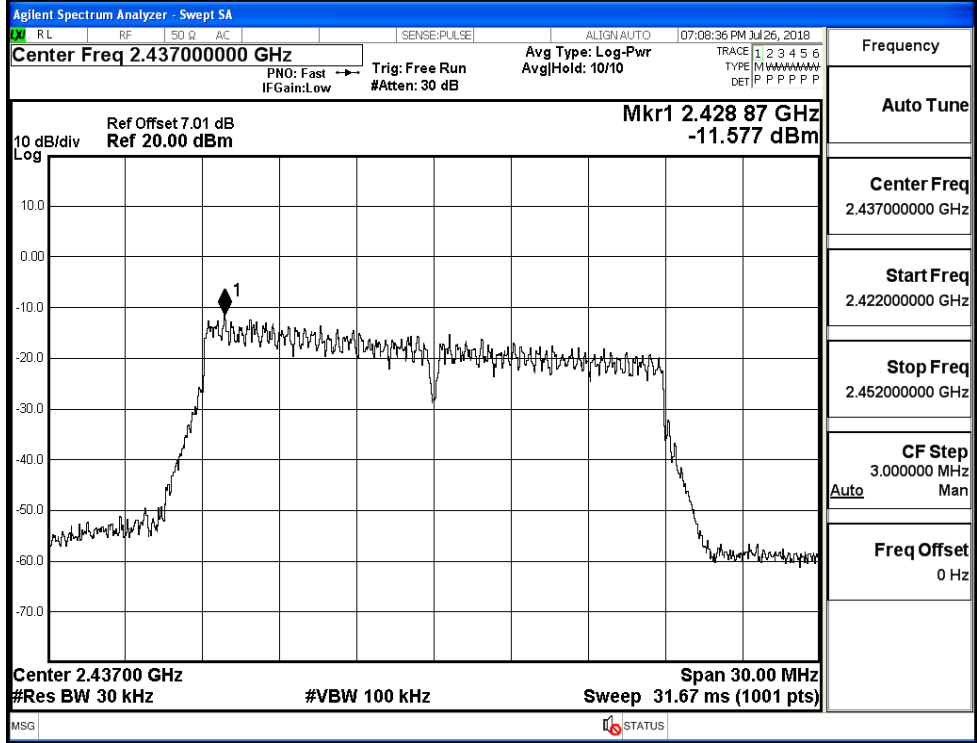


11N20SISO/LCH

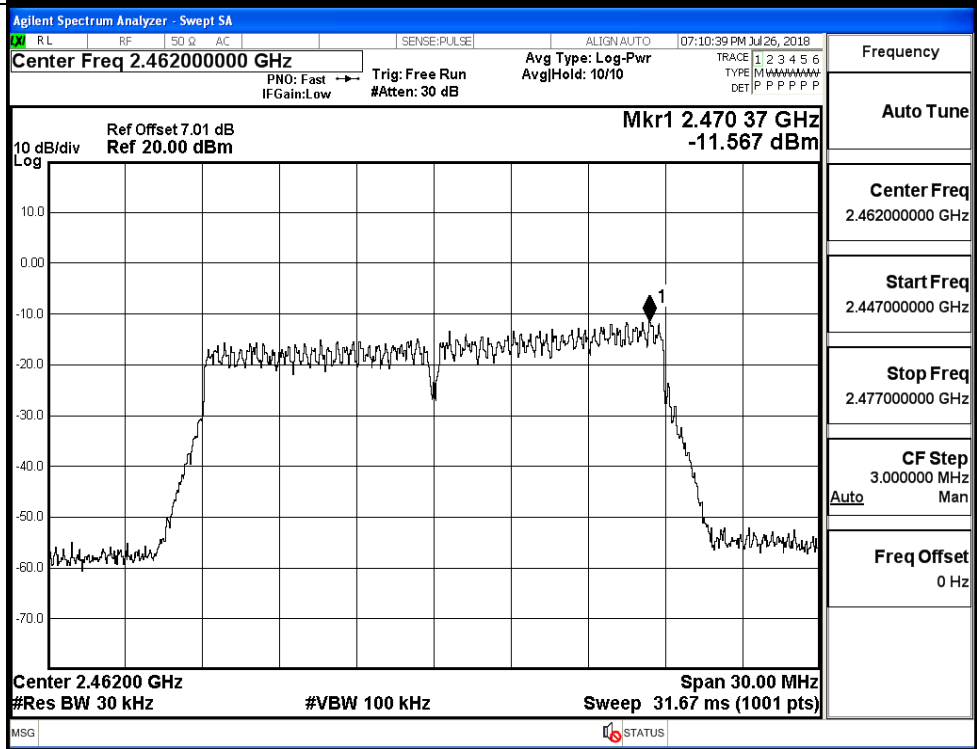




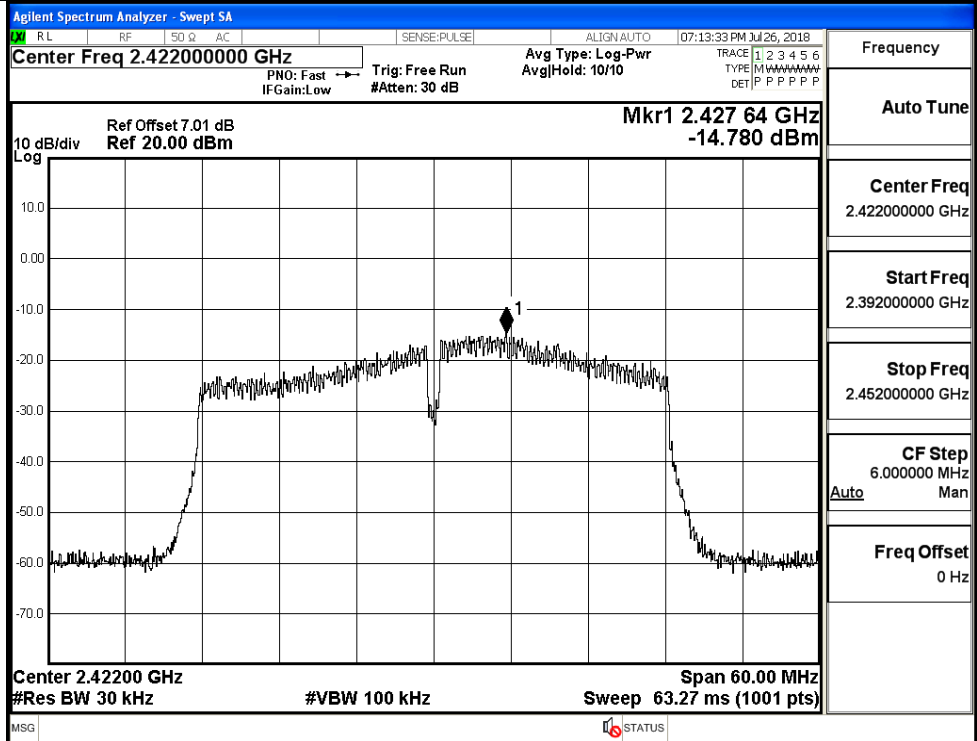
11N20SISO/MCH



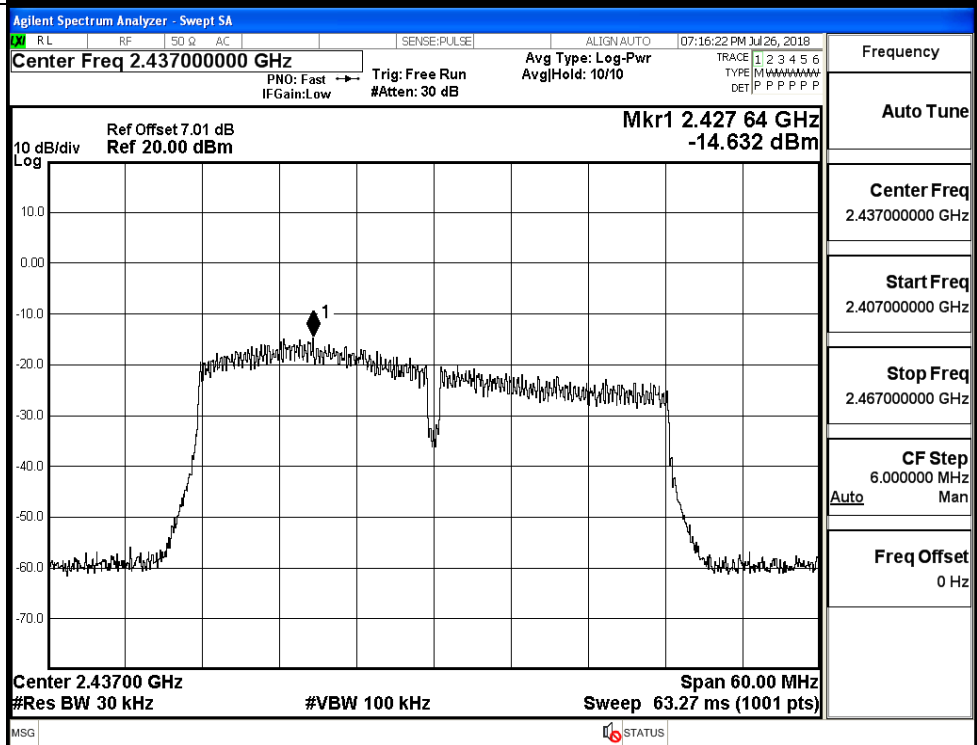
11N20SISO/HCH



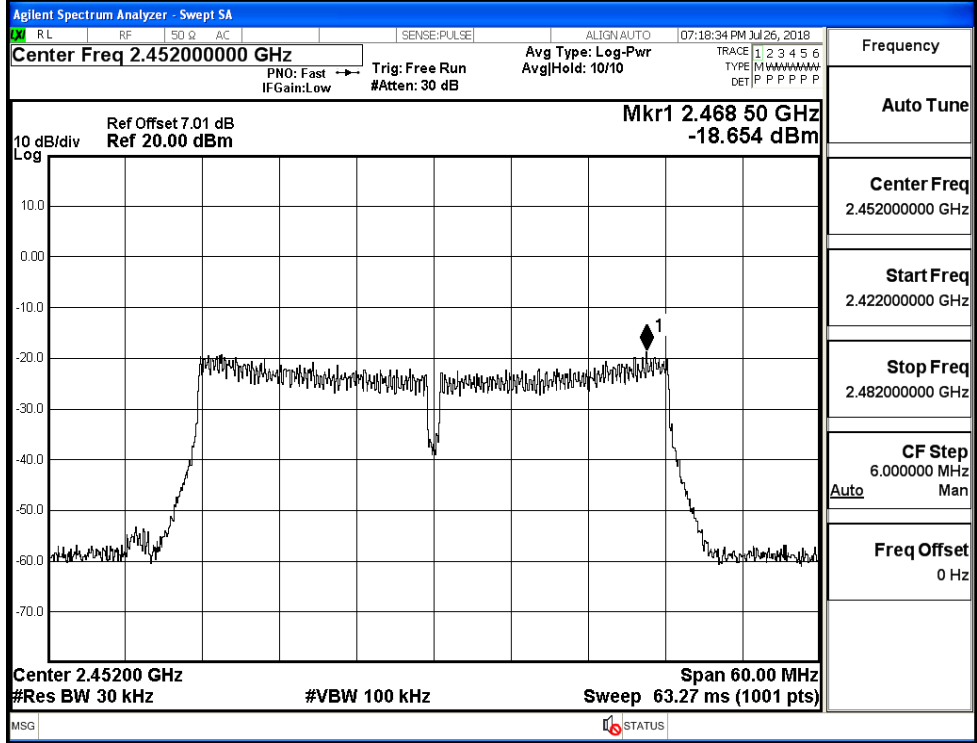
11N40SISO/LCH



11N40SISO/MCH

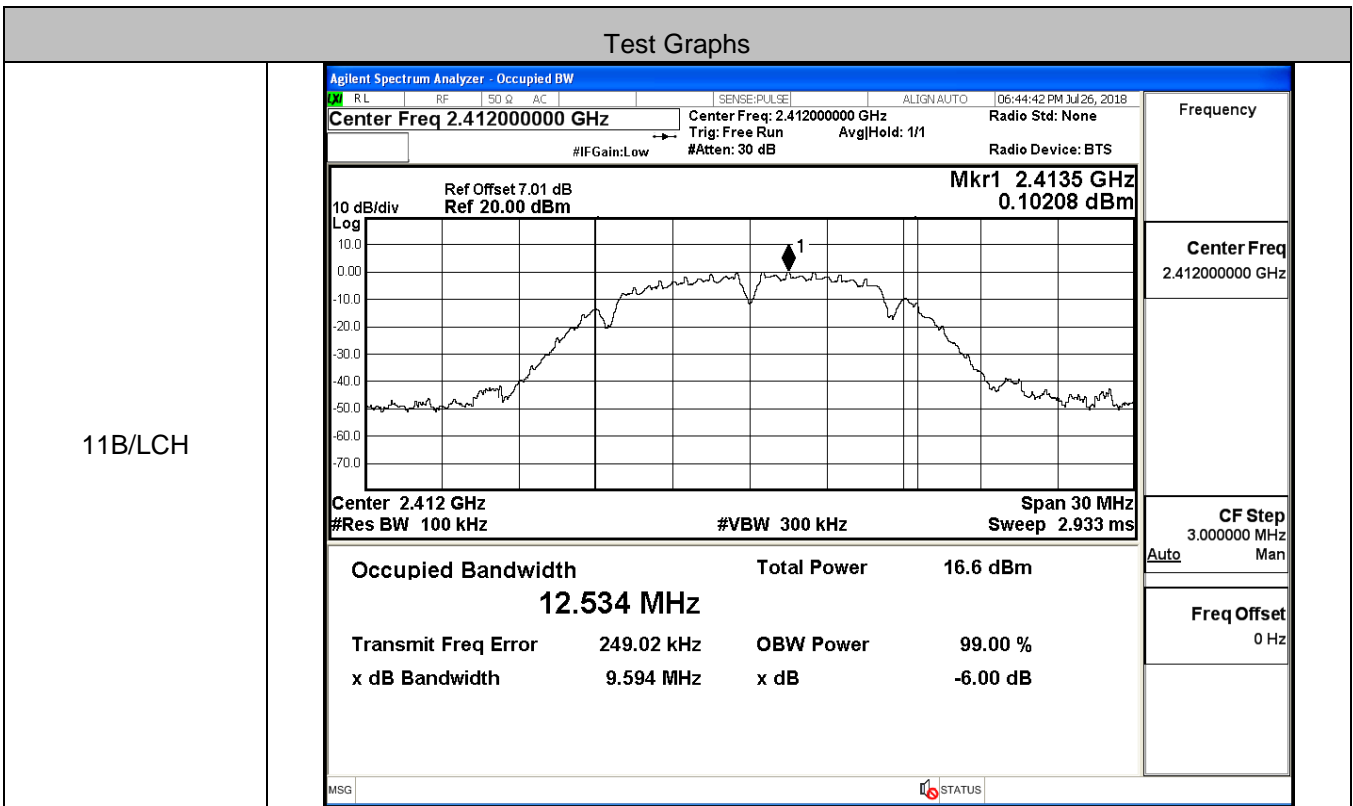


11N40SISO/HCH

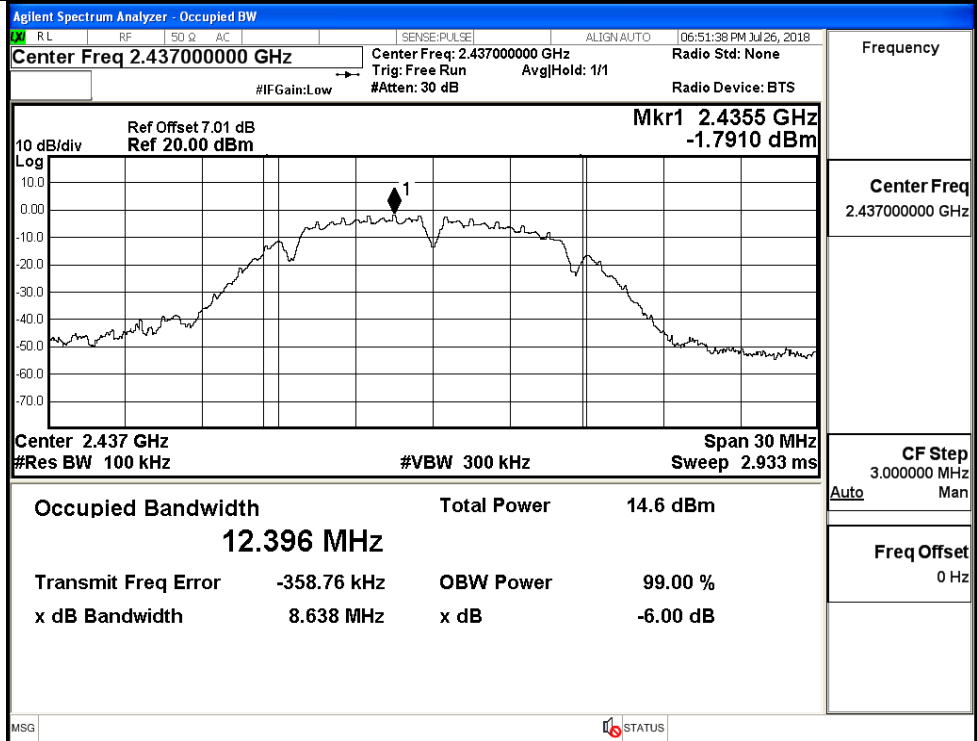


**C.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.594	≥0.5	PASS
	MCH	8.638	≥0.5	PASS
	HCH	9.577	≥0.5	PASS
11G	LCH	16.30	≥0.5	PASS
	MCH	15.21	≥0.5	PASS
	HCH	16.49	≥0.5	PASS
11N20SISO	LCH	17.59	≥0.5	PASS
	MCH	17.64	≥0.5	PASS
	HCH	17.48	≥0.5	PASS
11N40SISO	LCH	36.12	≥0.5	PASS
	MCH	36.00	≥0.5	PASS
	HCH	36.62	≥0.5	PASS



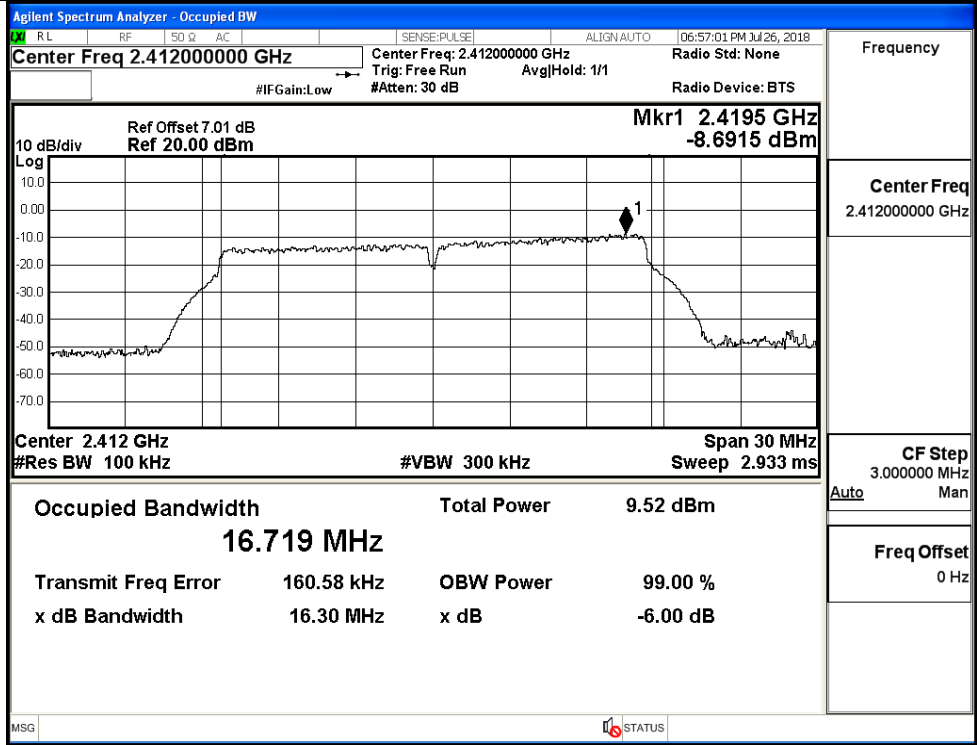
11B/MCH



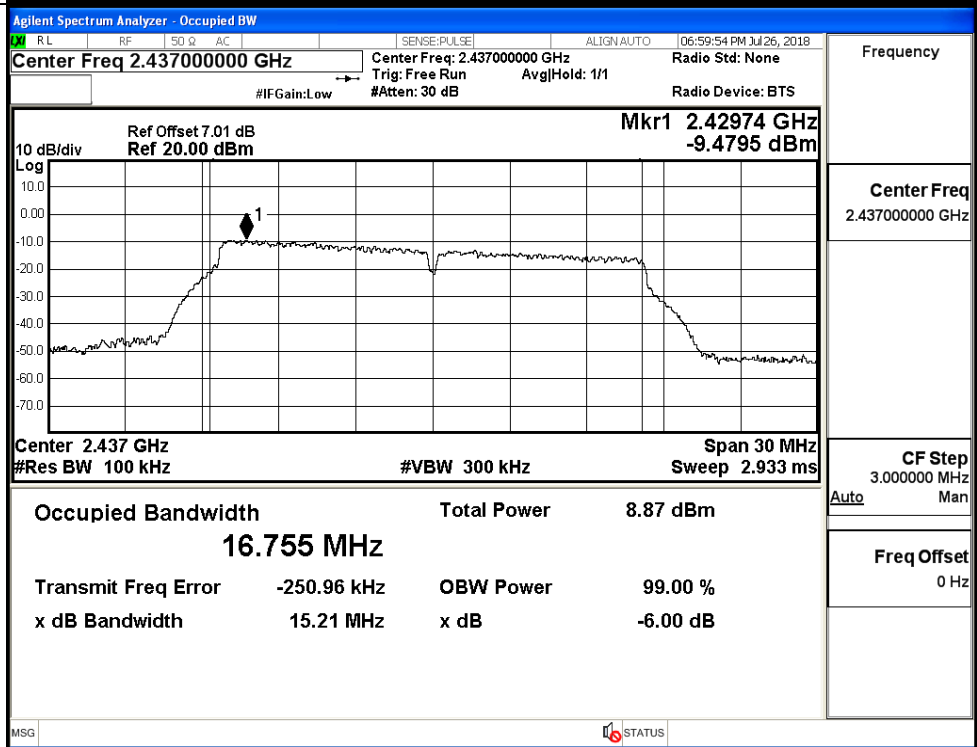
11B/HCH



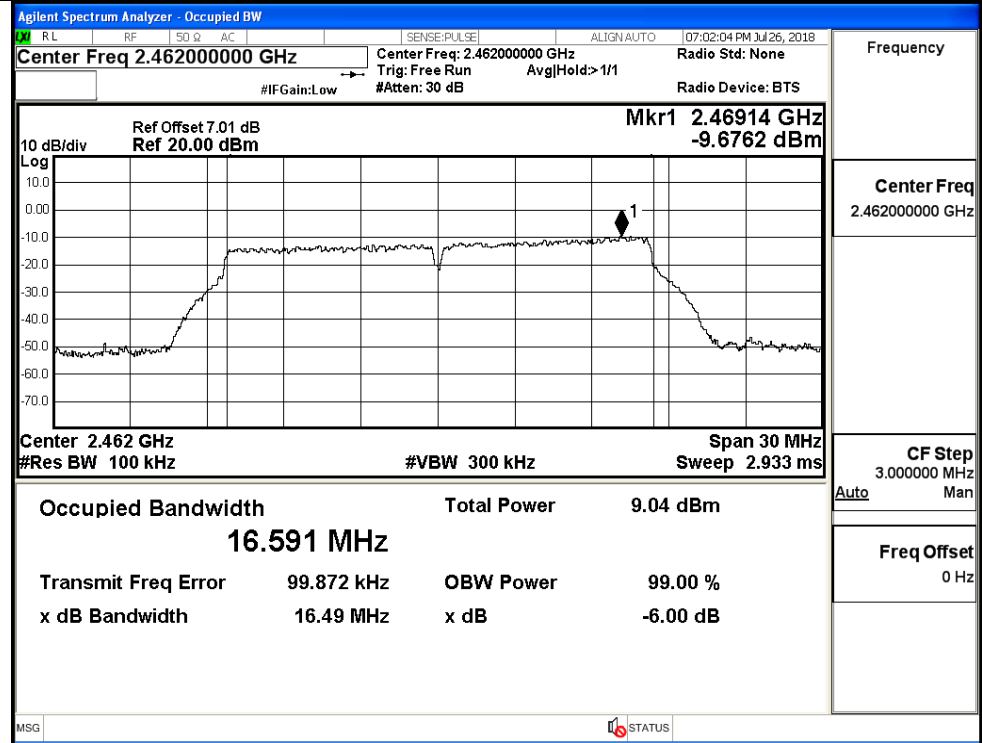
11G/LCH



11G/MCH

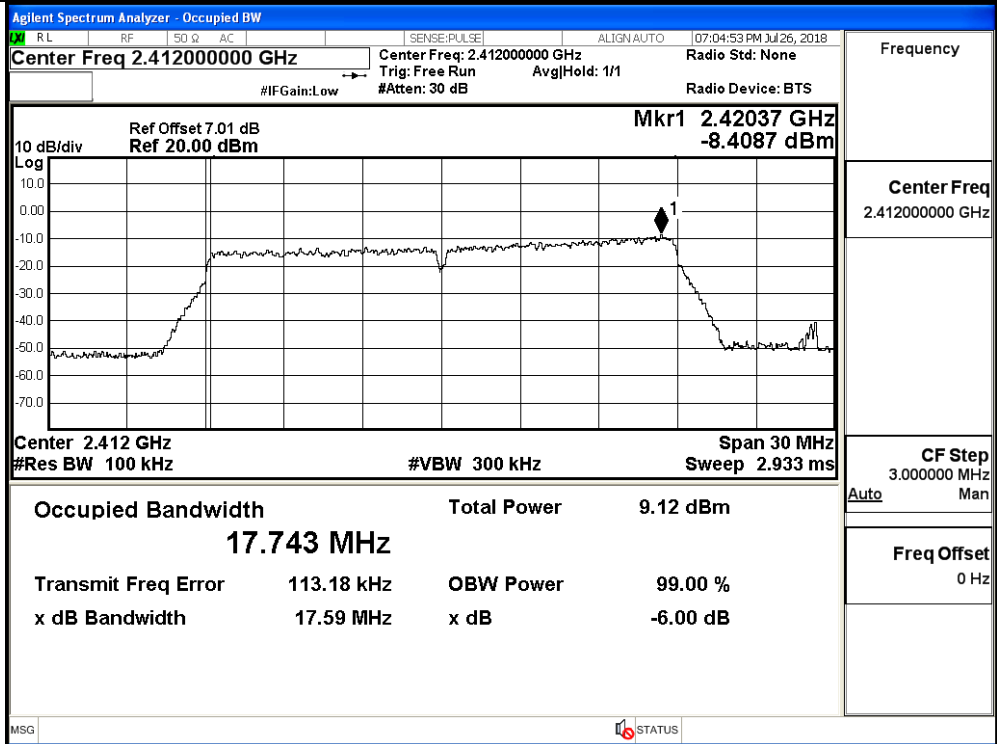


11G/HCH



Frequency	2.46200000 GHz
Center Freq	2.46200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11N20SISO/LCH

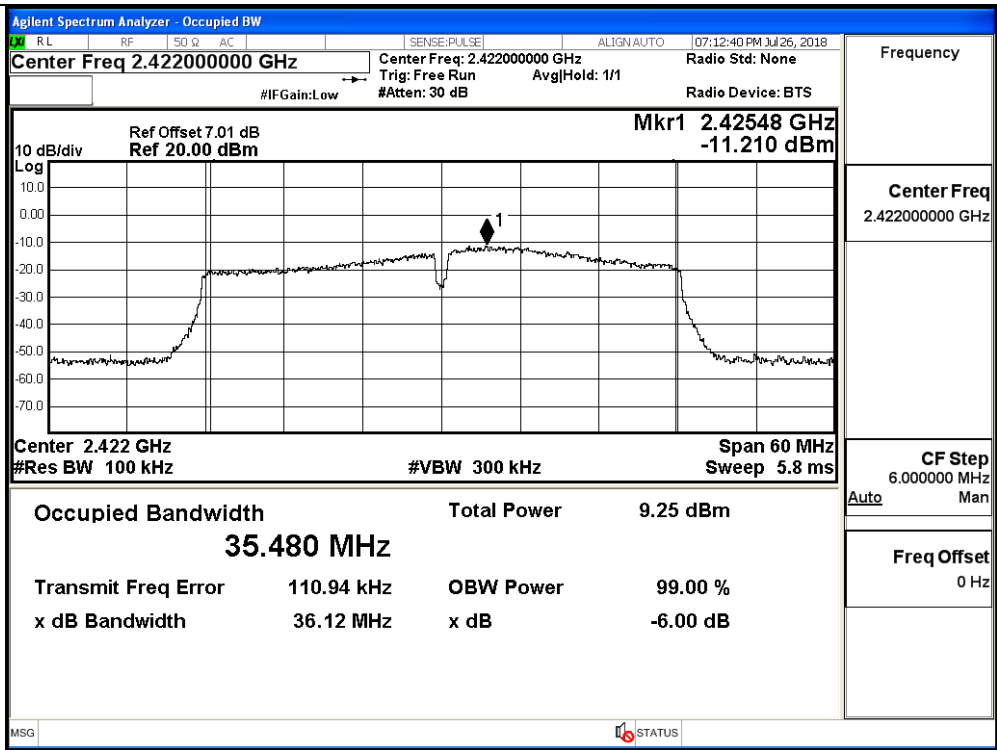


Frequency	2.41200000 GHz
Center Freq	2.41200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

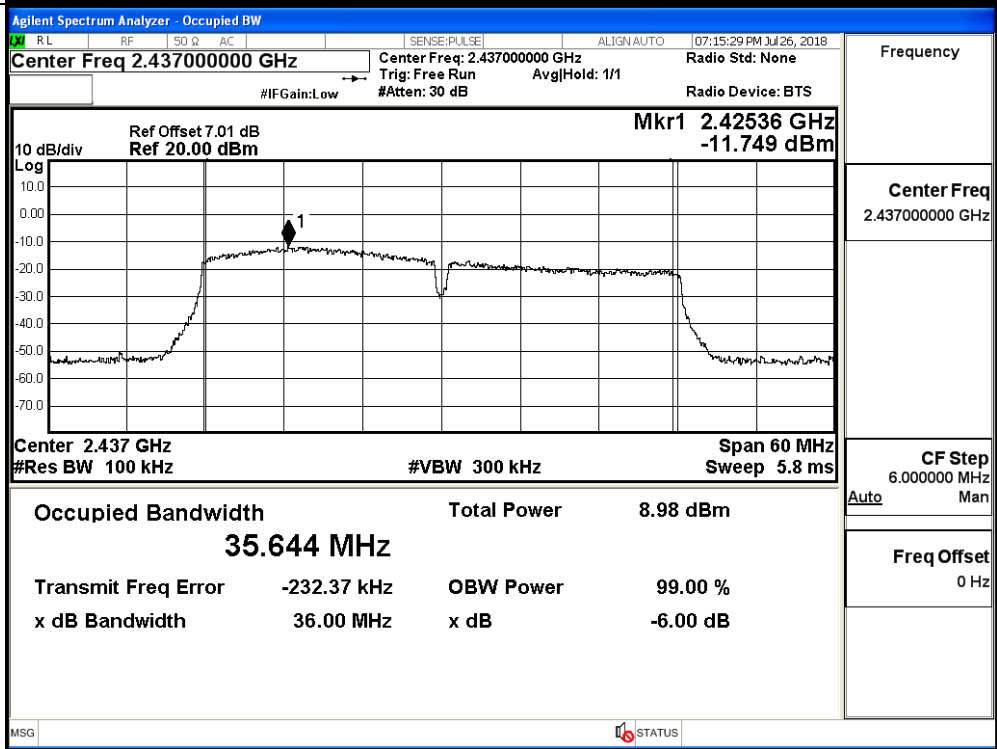




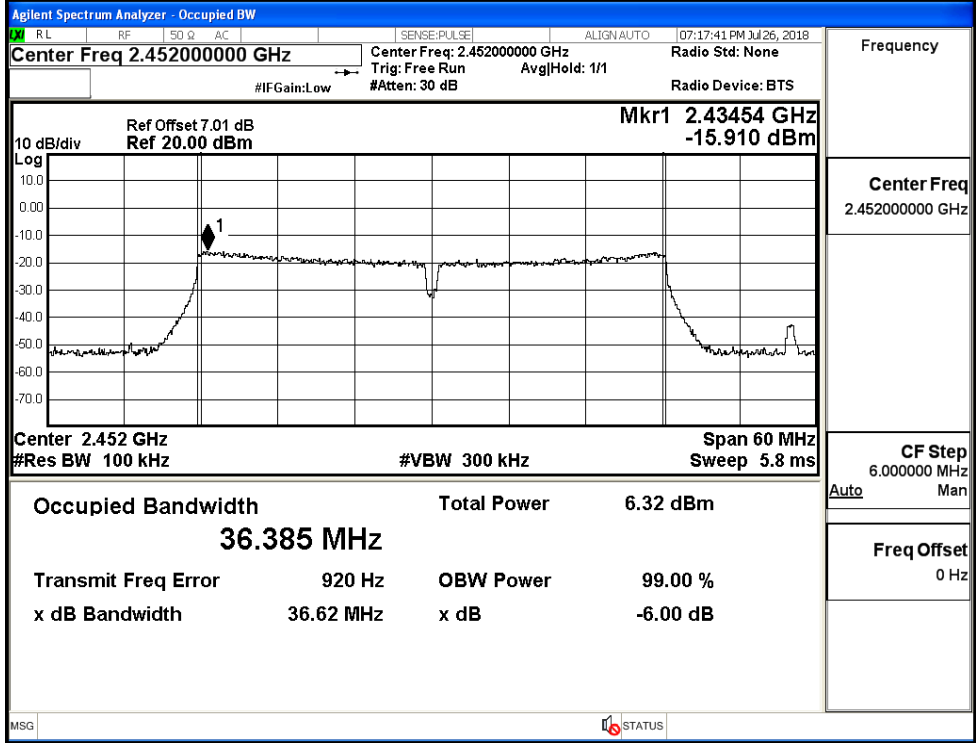
11N40SISO/LCH



11N40SISO/MCH



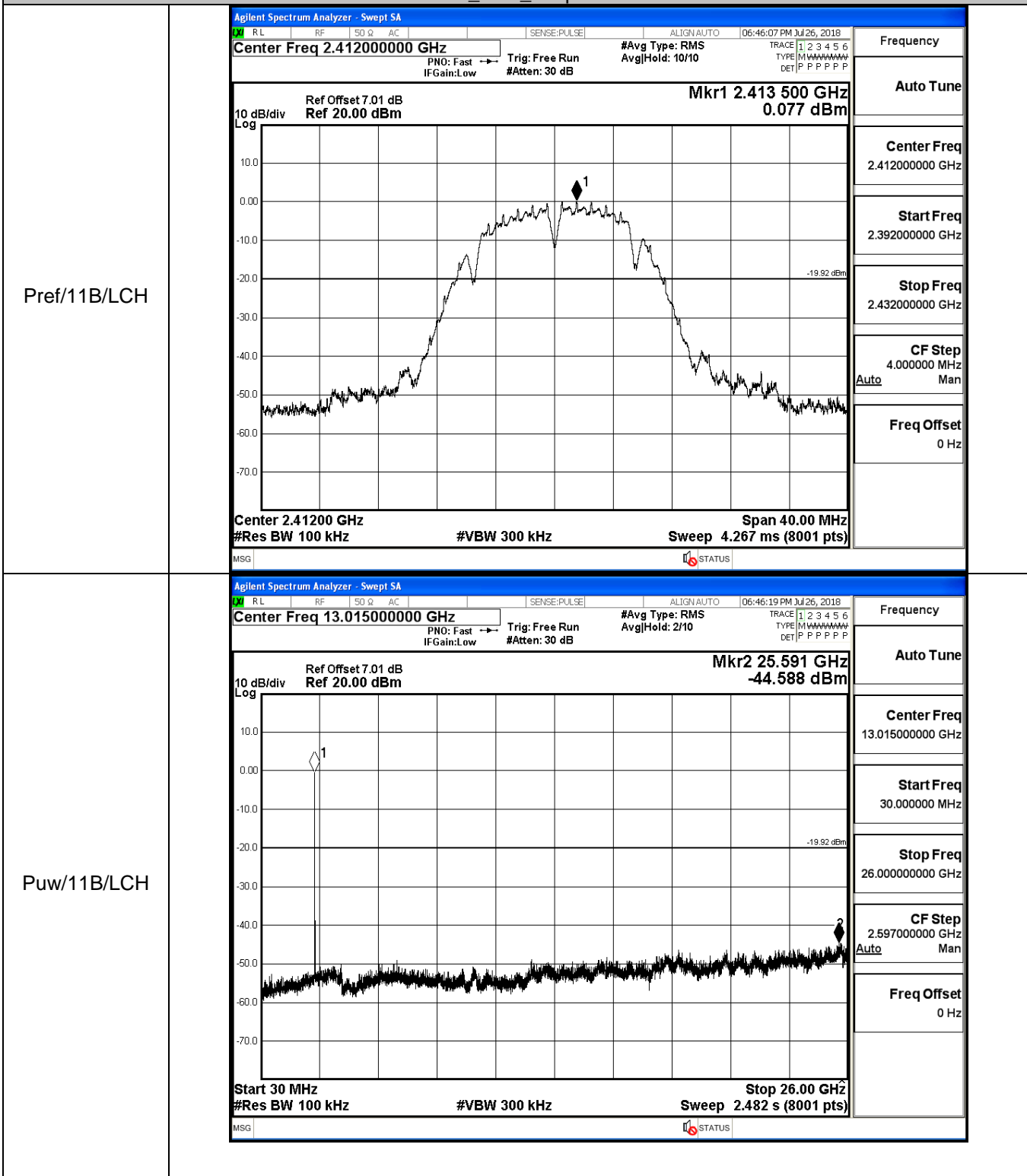
11N40SISO/HCH



### C.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	0.077	-44.588	-19.923	PASS
	MCH	-1.898	-44.422	-21.898	PASS
	HCH	-2.00	-44.627	-22.000	PASS
11G	LCH	-8.74	-44.396	-28.740	PASS
	MCH	-9.599	-44.104	-29.599	PASS
	HCH	-9.681	-43.786	-29.681	PASS
11N20 SISO	LCH	-8.524	-43.980	-28.524	PASS
	MCH	-9.218	-45.352	-29.218	PASS
	HCH	-7.746	-45.600	-27.746	PASS
11N40 SISO	LCH	-11.288	-45.507	-31.288	PASS
	MCH	-12.056	-44.295	-32.056	PASS
	HCH	-15.997	-45.402	-35.997	PASS

11B\_LCH\_Graphs

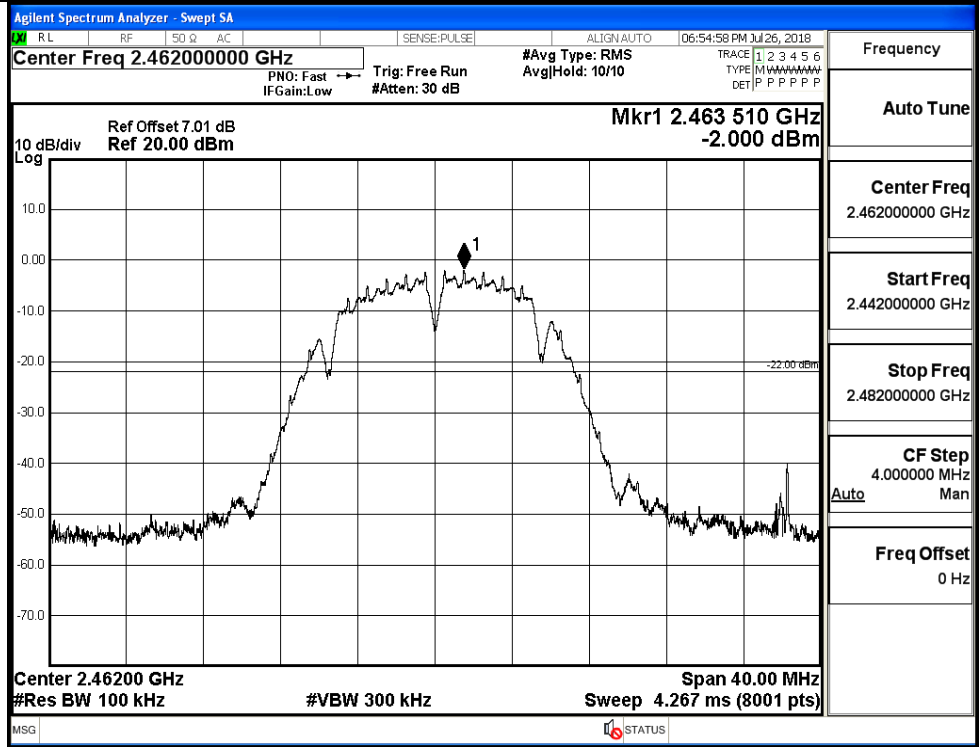


11B\_MCH\_Graphs

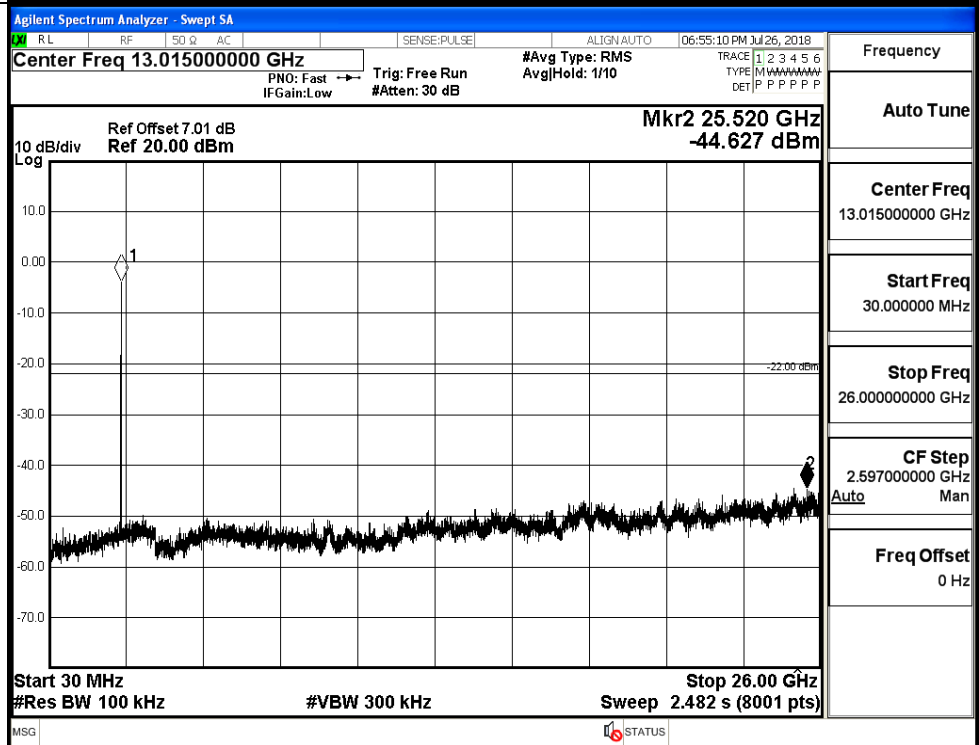
Pref/11B/MCH		<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.43700000 GHz</p> <p>Ref Offset 7.01 dB Ref 20.00 dBm</p> <p>Mkr1 2.435 505 GHz -1.898 dBm</p> <p>10 dB/div Log</p> <p>Center 2.4370 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 4.267 ms (8001 pts)</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.437000000 GHz</p> <p>Start Freq 2.417000000 GHz</p> <p>Stop Freq 2.457000000 GHz</p> <p>CF Step 4.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
	Puw/11B/MCH		<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 13.01500000 GHz</p> <p>Ref Offset 7.01 dB Ref 20.00 dBm</p> <p>Mkr2 24.997 GHz -44.422 dBm</p> <p>10 dB/div Log</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.482 s (8001 pts)</p>

11B\_HCH\_Graphs

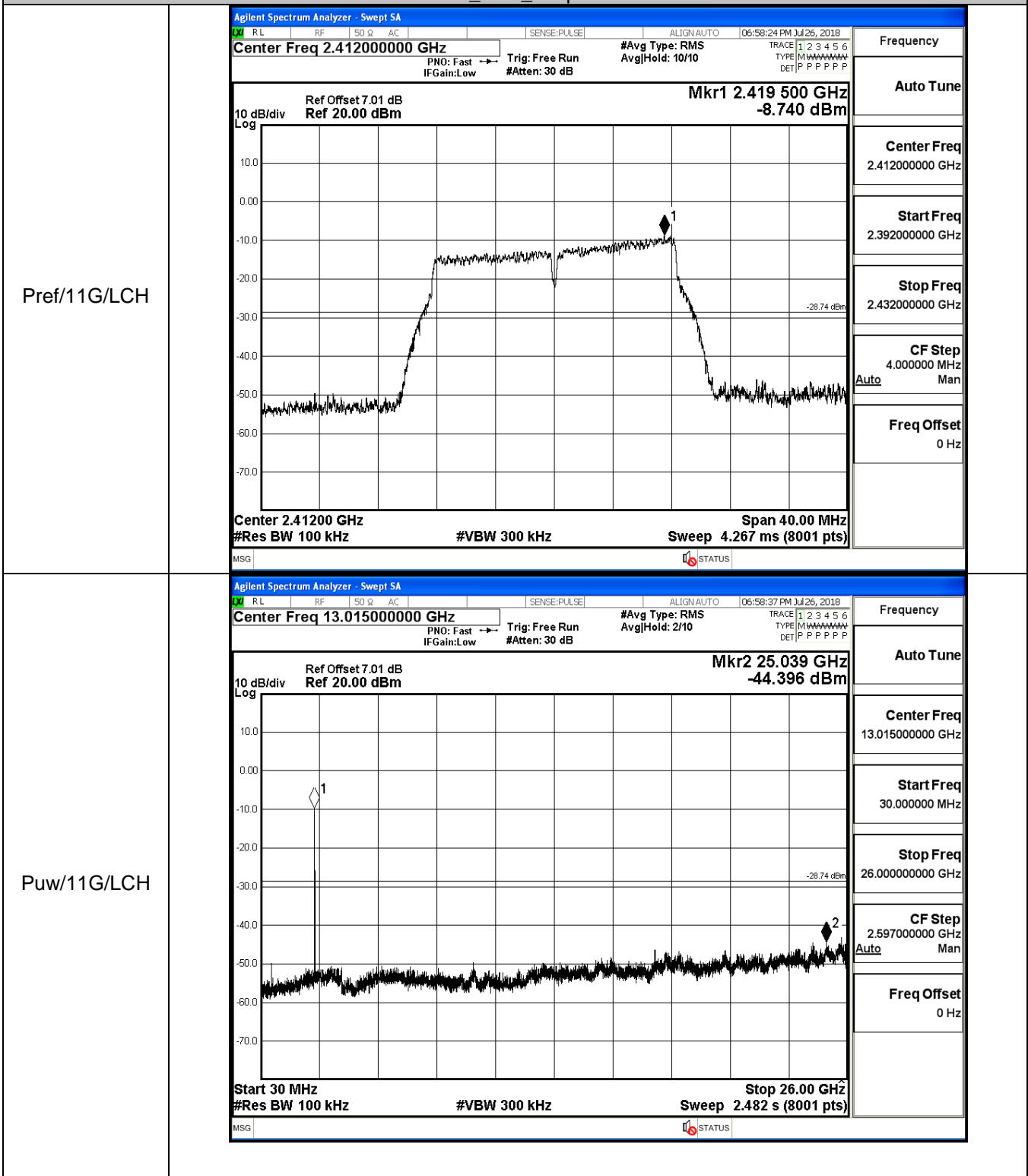
Pref/11B/HCH



Puw/11B/HCH



11G\_LCH\_Graphs

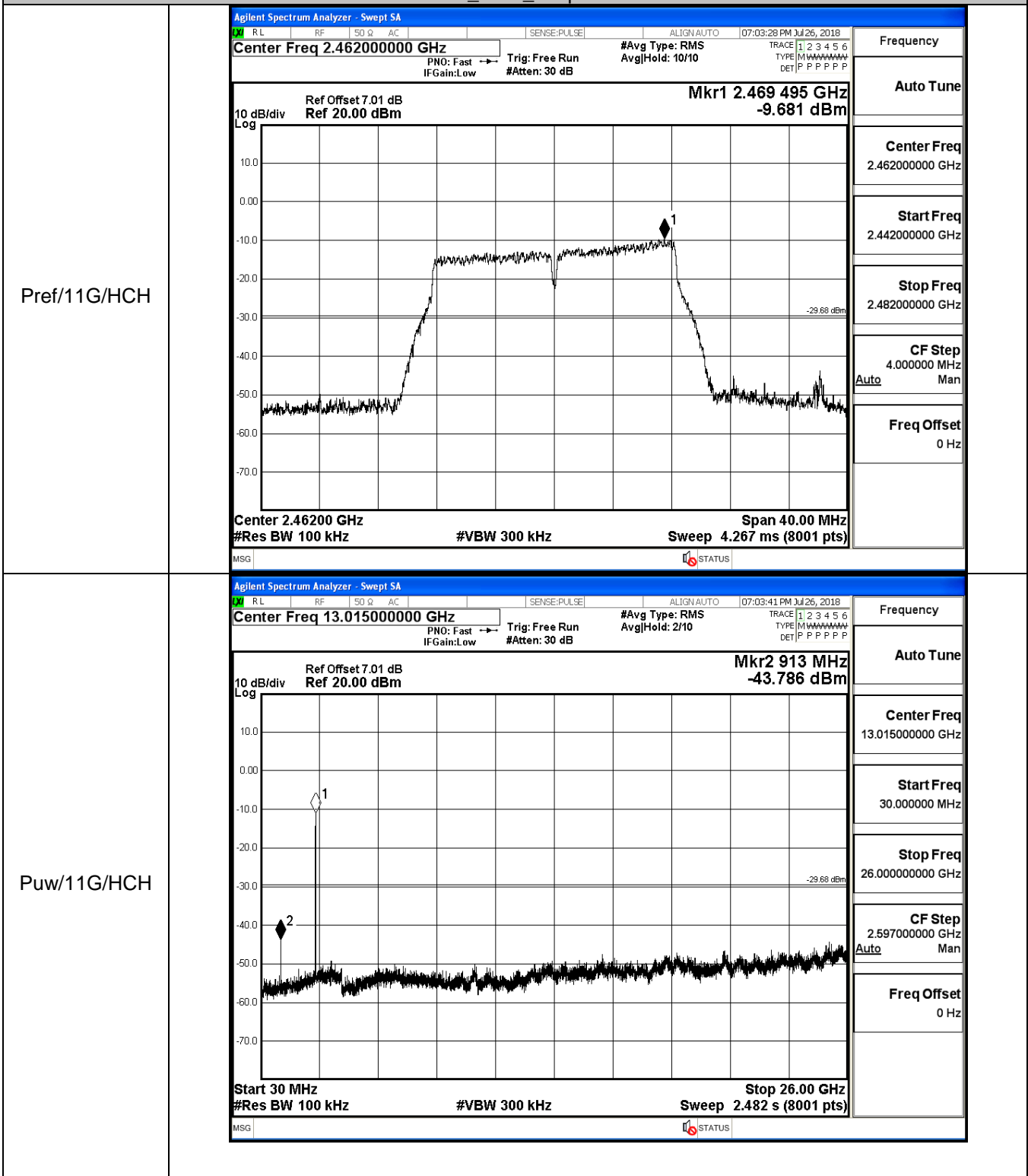


11G\_MCH\_Graphs

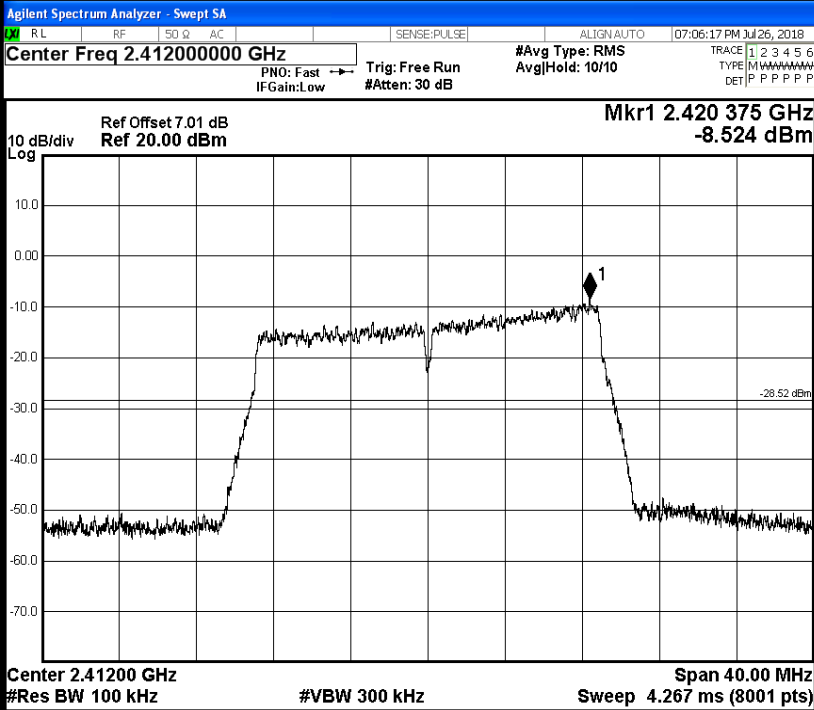
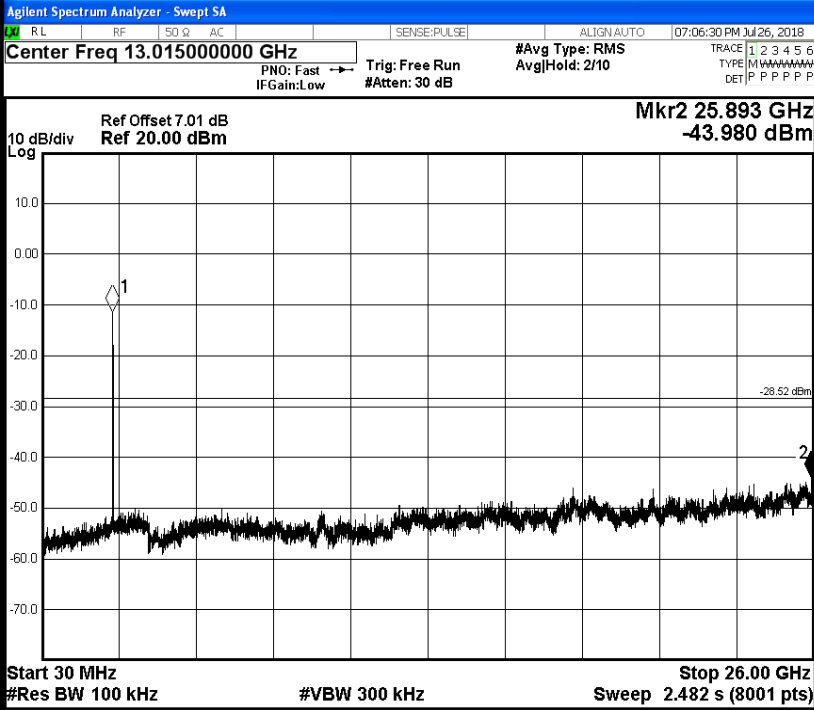
<p>Pref/11G/MCH</p>	<p>Agilent Spectrum Analyzer - Swept SA          RL RF SO Q AC SENSE:PULSE ALIGN:AUTO 07:01:01 PM Jul 26, 2018  <b>Center Freq 2.43700000 GHz</b> #Avg Type: RMS AvgHold: 10/10          PNO: Fast Trig: Free Run #Atten: 30 dB          IFGain:Low          Mkr1 2.429130 GHz          Ref Offset 7.01 dB Ref 20.00 dBm -9.599 dBm          10 dB/div Log          Center 2.43700 GHz #Res BW 100 kHz #VBW 300 kHz Span 40.00 MHz Sweep 4.267 ms (8001 pts)          MSG STATUS</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.437000000 GHz</p> <p>Start Freq 2.417000000 GHz</p> <p>Stop Freq 2.457000000 GHz</p> <p>CF Step 4.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
	<p>Puw/11G/MCH</p>	<p>Agilent Spectrum Analyzer - Swept SA          RL RF SO Q AC SENSE:PULSE ALIGN:AUTO 07:01:13 PM Jul 26, 2018  <b>Center Freq 13.01500000 GHz</b> #Avg Type: RMS AvgHold: 2/10          PNO: Fast Trig: Free Run #Atten: 30 dB          IFGain:Low          Mkr2 25.094 GHz          Ref Offset 7.01 dB Ref 20.00 dBm -44.104 dBm          10 dB/div Log          Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 26.00 GHz Sweep 2.482 s (8001 pts)          MSG STATUS</p>



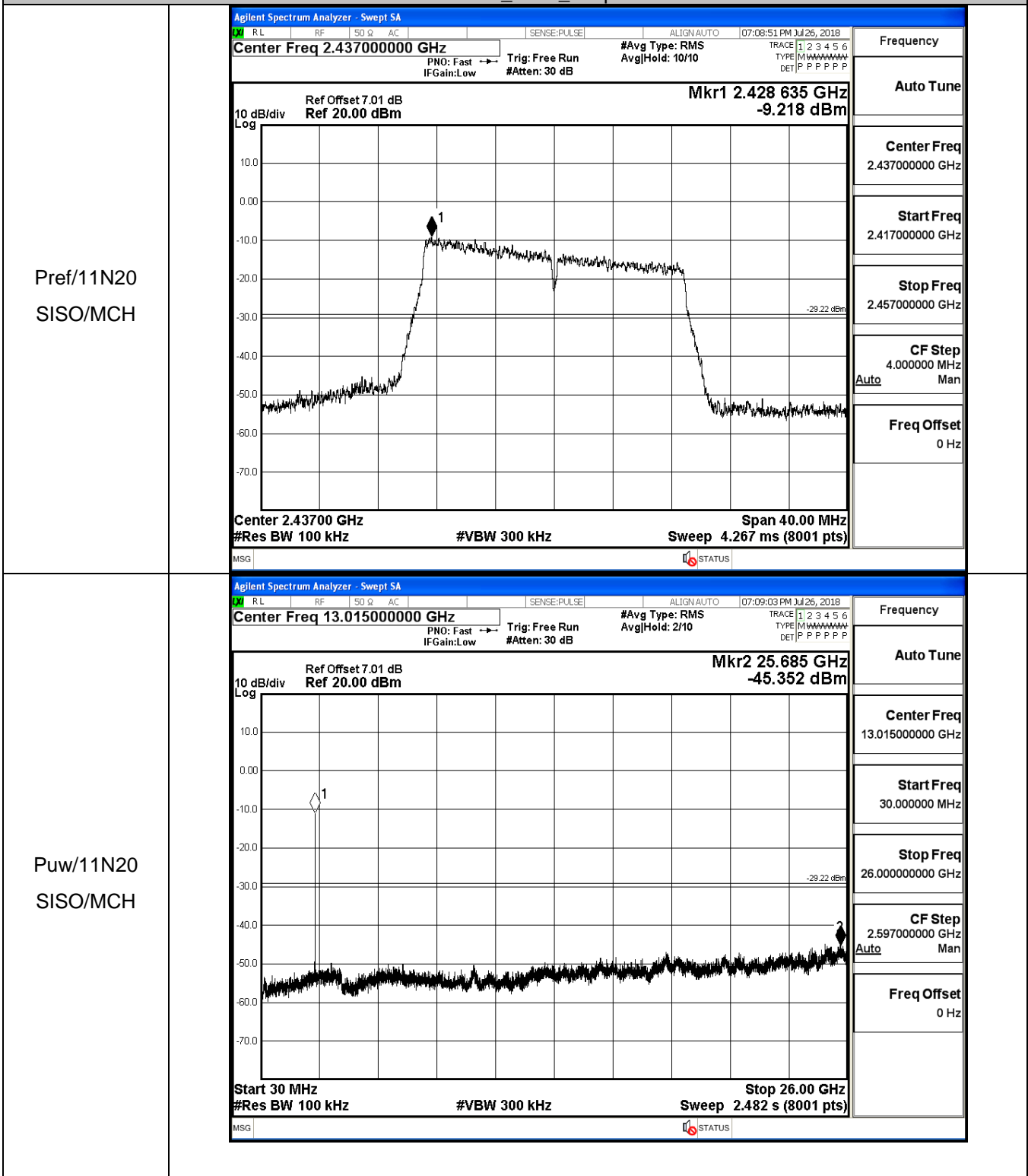
11G\_HCH\_Graphs



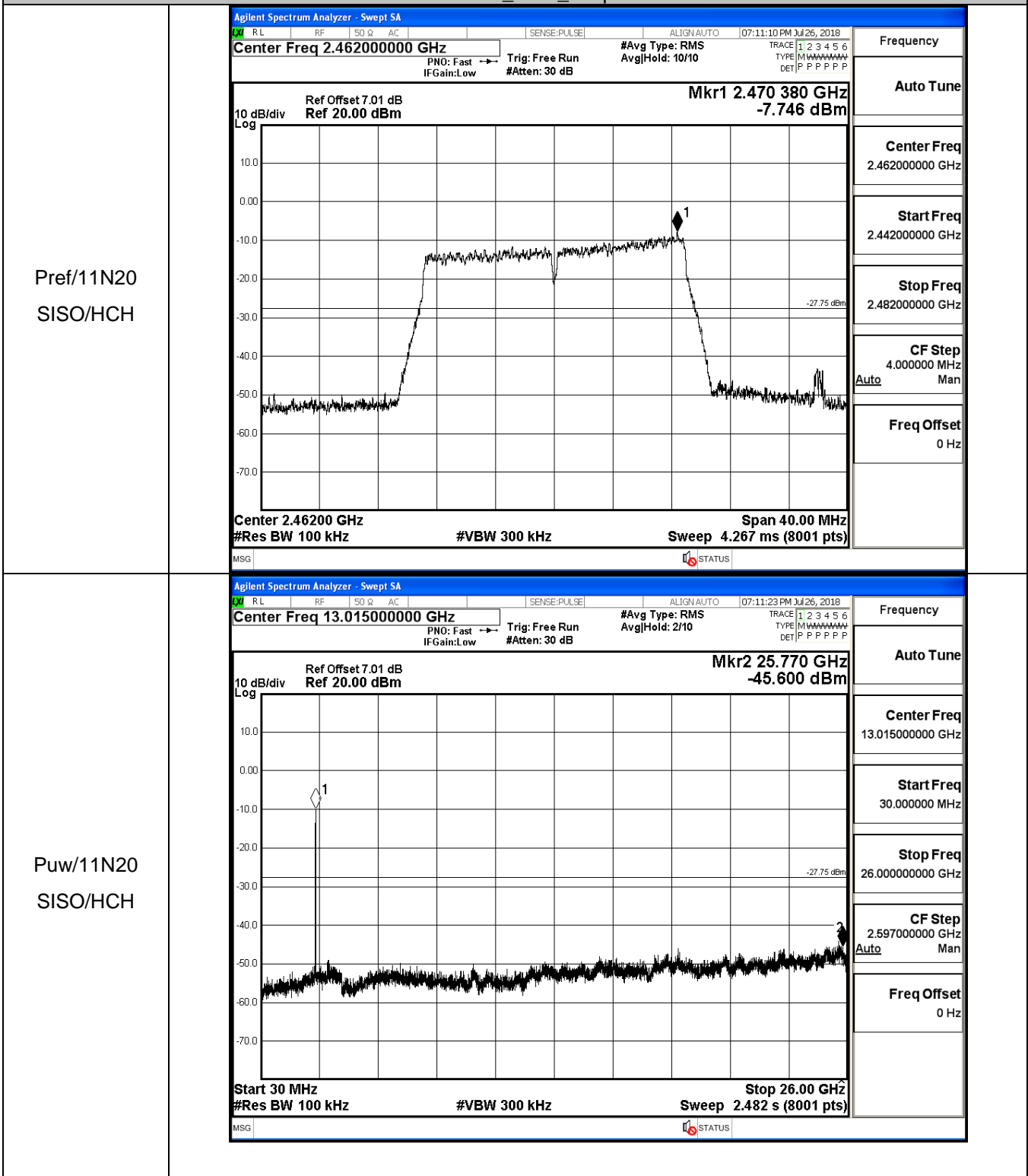
11N20SISO\_LCH\_Graphs

<p>Pref/11N20SIS O/LCH</p>		<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.41200000 GHz</p> <p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.412000000 GHz</p> <p>Start Freq 2.392000000 GHz</p> <p>Stop Freq 2.432000000 GHz</p> <p>CF Step 4.000000 MHz</p> <p>Freq Offset 0 Hz</p>
	<p>Puw/11N20 SISO/LCH</p>	

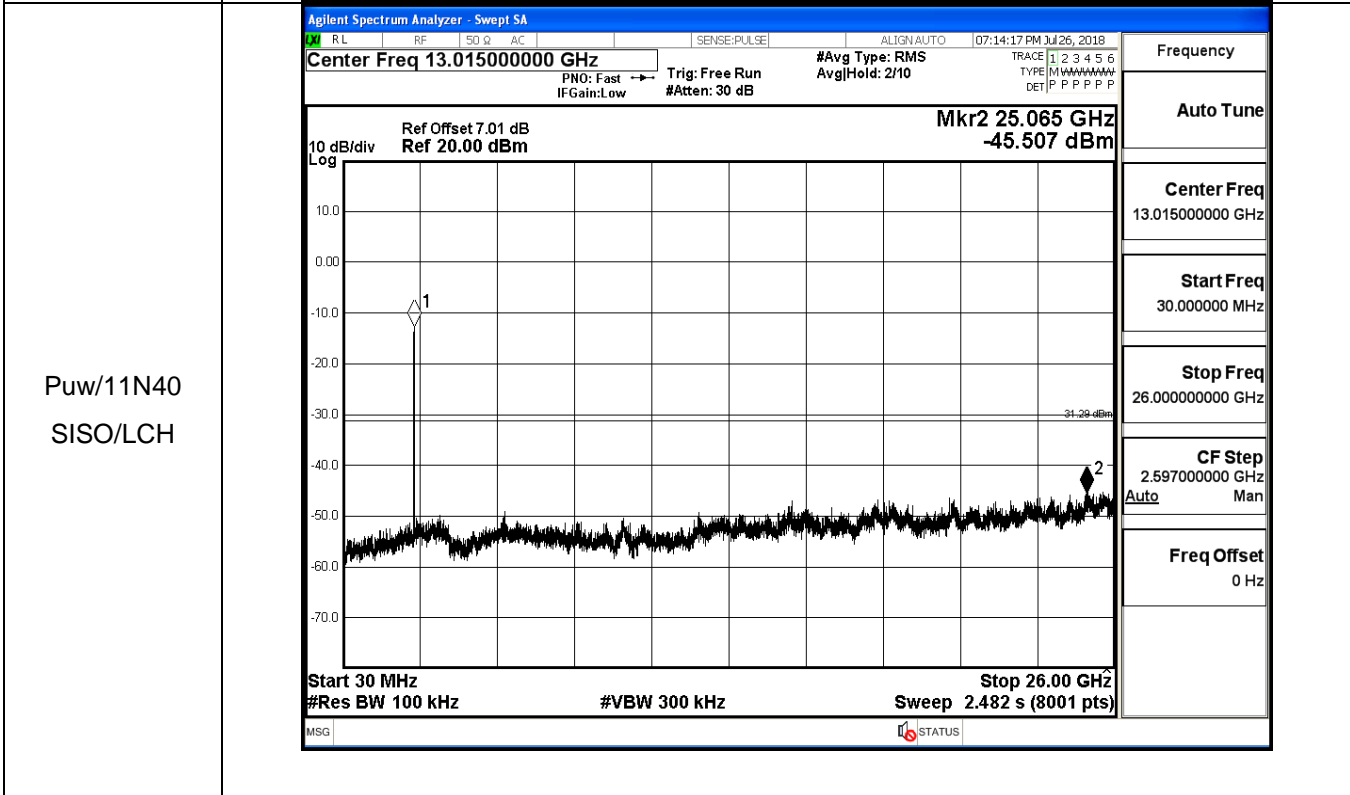
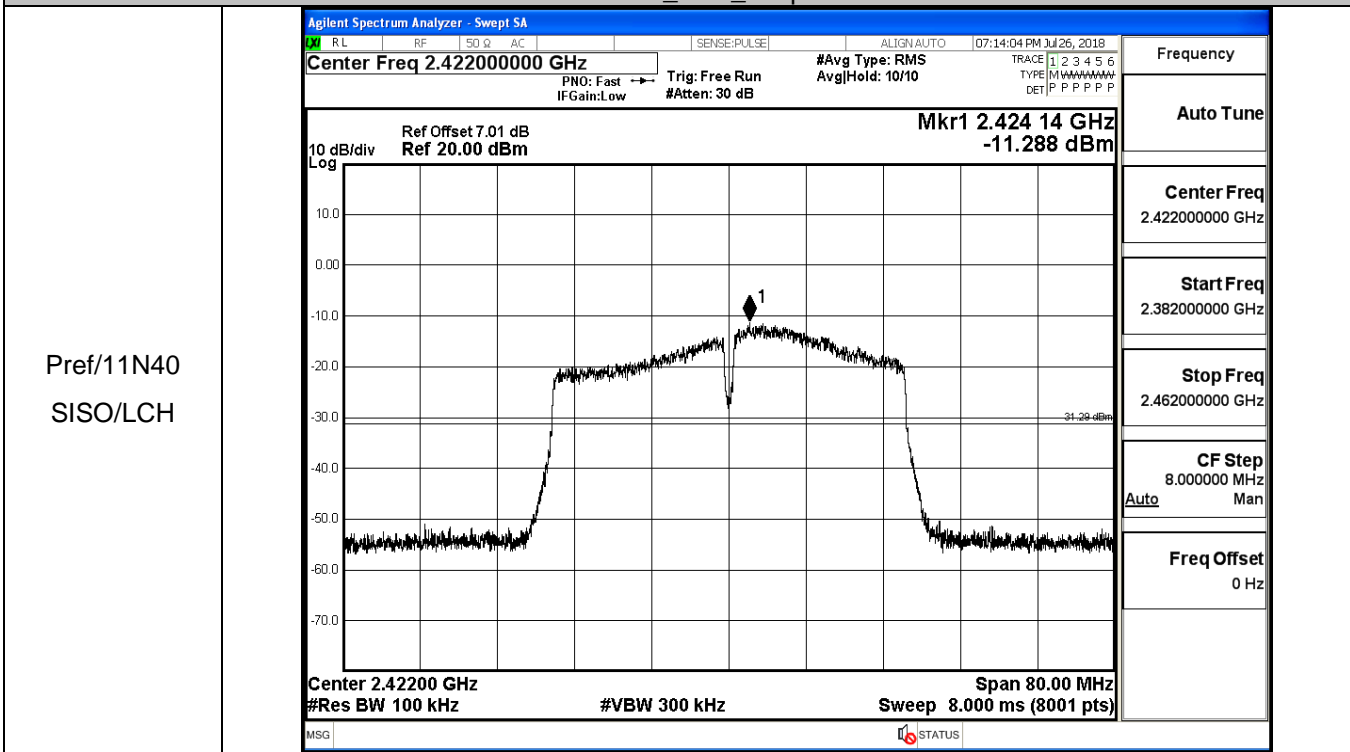
11N20SISO\_MCH\_Graphs



11N20SISO\_HCH\_Graphs



11N40SISO\_LCH\_Graphs



11N40SISO\_MCH\_Graphs

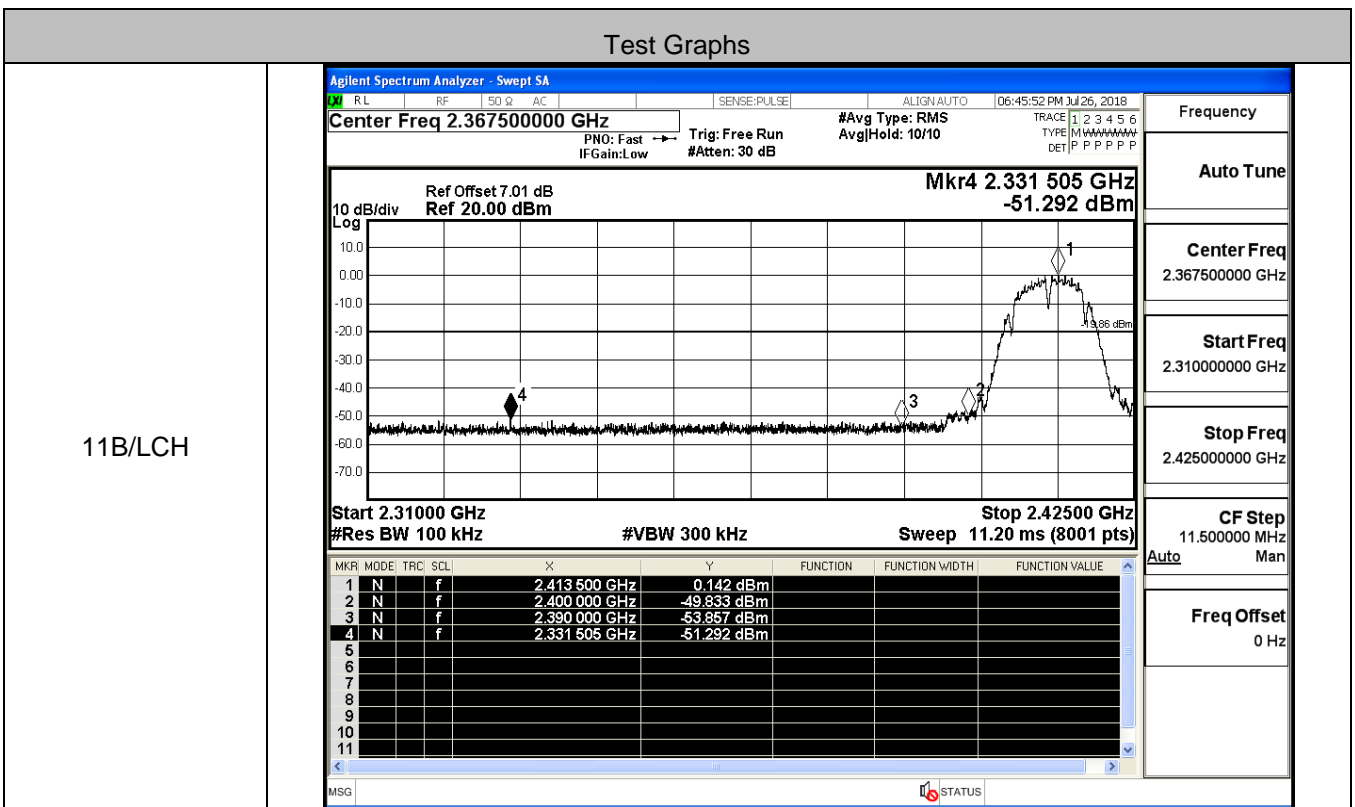
<p>Pref/11N40 SISO/MCH</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.43700000 GHz</p> <p>Ref Offset 7.01 dB Ref 20.00 dBm</p> <p>Mkr1 2.42614 GHz -12.056 dBm</p> <p>10 dB/div Log</p> <p>Center 2.43700 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 8.000 ms (8001 pts)</p> <p>Span 80.00 MHz</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.437000000 GHz</p> <p>Start Freq 2.397000000 GHz</p> <p>Stop Freq 2.477000000 GHz</p> <p>CF Step 8.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>Puw/11N40 SISO/MCH</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 13.01500000 GHz</p> <p>Ref Offset 7.01 dB Ref 20.00 dBm</p> <p>Mkr2 25.088 GHz -44.295 dBm</p> <p>10 dB/div Log</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.482 s (8001 pts)</p> <p>Stop 26.00 GHz</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 13.015000000 GHz</p> <p>Start Freq 30.000000 MHz</p> <p>Stop Freq 26.000000000 GHz</p> <p>CF Step 2.597000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>

11N40SISO\_HCH\_Graphs

<p>Pref/11N40 SISO/HCH</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.45200000 GHz</p> <p>Mkr1 2.469 26 GHz -15.997 dBm</p> <p>10 dB/div Log</p> <p>Ref Offset 7.01 dB Ref 20.00 dBm</p> <p>Center 2.45200 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 8.000 ms (8001 pts)</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.45200000 GHz</p> <p>Start Freq 2.412000000 GHz</p> <p>Stop Freq 2.492000000 GHz</p> <p>CF Step 8.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
	<p>Puw/11N40 SISO/HCH</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 13.01500000 GHz</p> <p>Mkr2 25.643 GHz -45.402 dBm</p> <p>10 dB/div Log</p> <p>Ref Offset 7.01 dB Ref 20.00 dBm</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.482 s (8001 pts)</p>

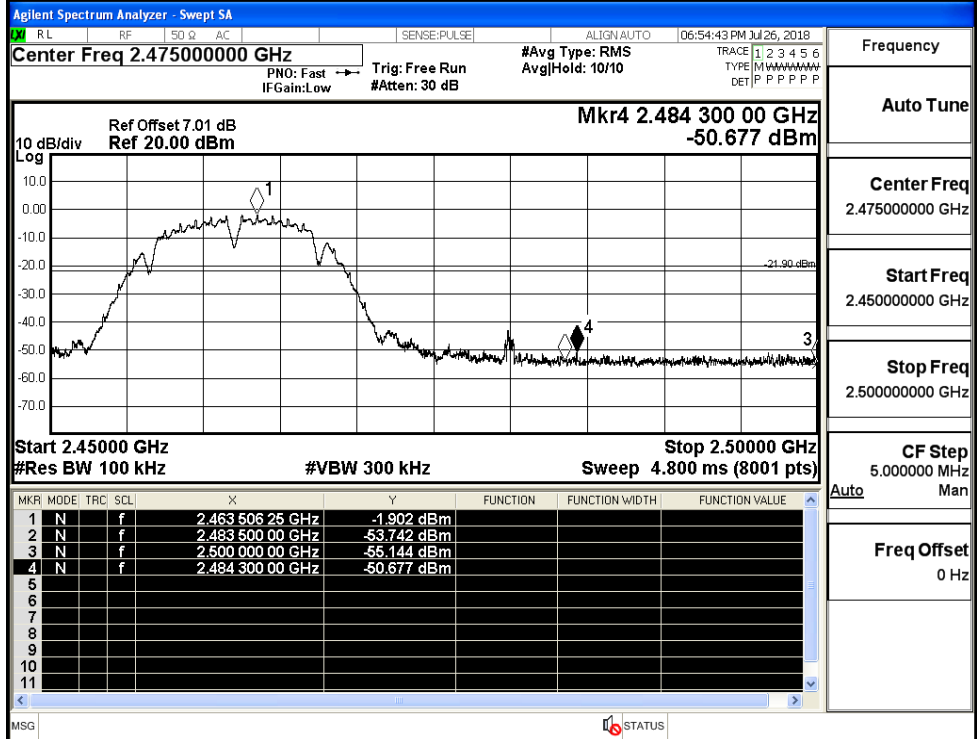
### C.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	0.142	-51.292	-19.86	PASS
	HCH	-1.902	-50.677	-21.9	PASS
11G	LCH	-8.938	-51.021	-28.94	PASS
	HCH	-9.699	-50.549	-29.7	PASS
11N20SISO	LCH	-8.466	-51.349	-28.47	PASS
	HCH	-7.900	-50.891	-27.9	PASS
11N40SISO	LCH	-11.835	-50.849	-31.84	PASS
	HCH	-15.901	-51.580	-35.9	PASS





11B/HCH



Frequency

Auto Tune

Center Freq  
2.47500000 GHz

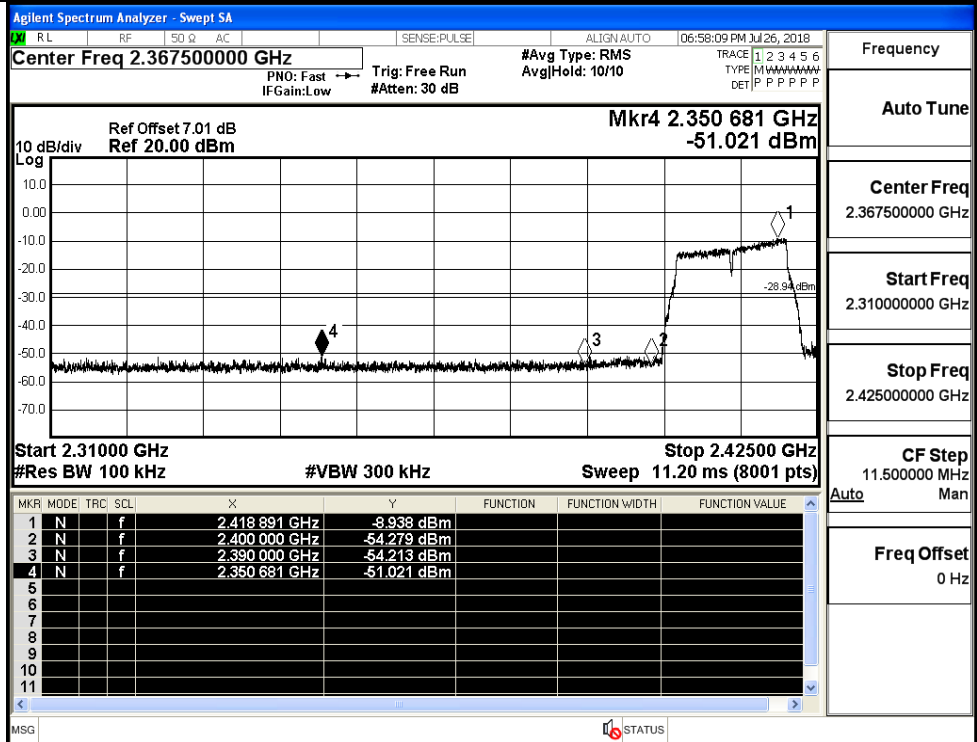
Start Freq  
2.45000000 GHz

Stop Freq  
2.50000000 GHz

CF Step  
5.000000 MHz

Freq Offset  
0 Hz

11G/LCH



Frequency

Auto Tune

Center Freq  
2.36750000 GHz

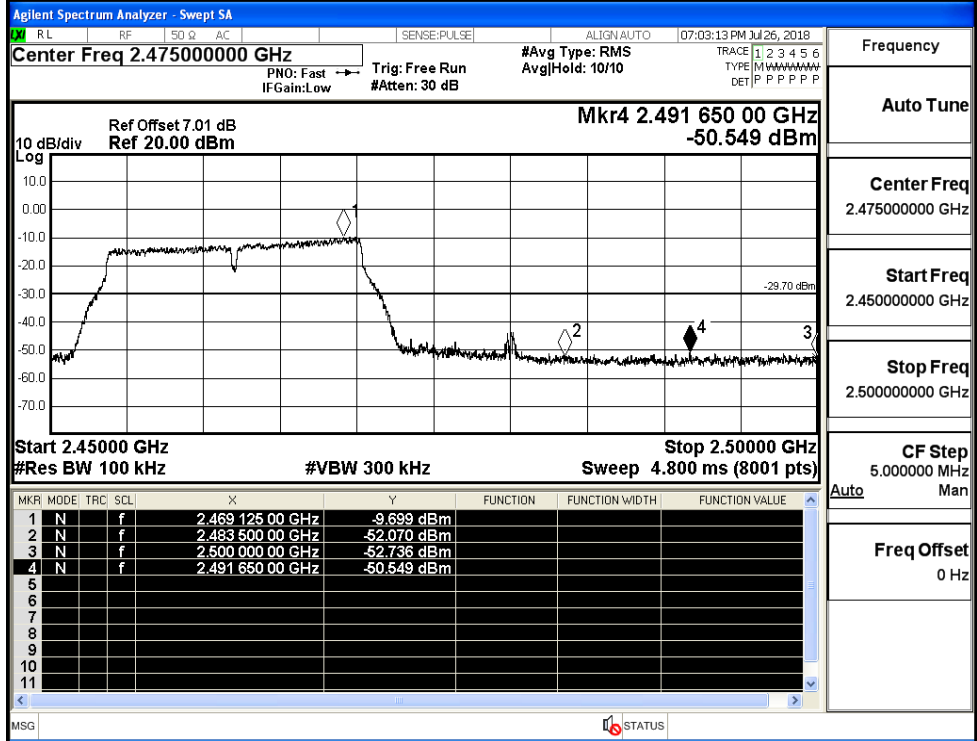
Start Freq  
2.31000000 GHz

Stop Freq  
2.42500000 GHz

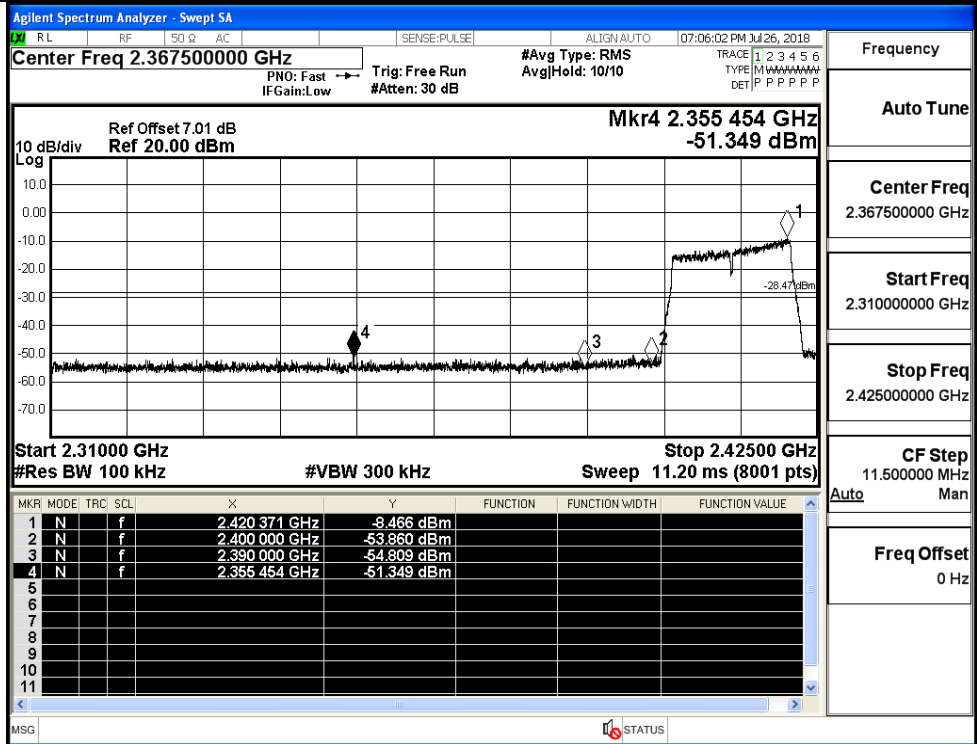
CF Step  
11.500000 MHz

Freq Offset  
0 Hz

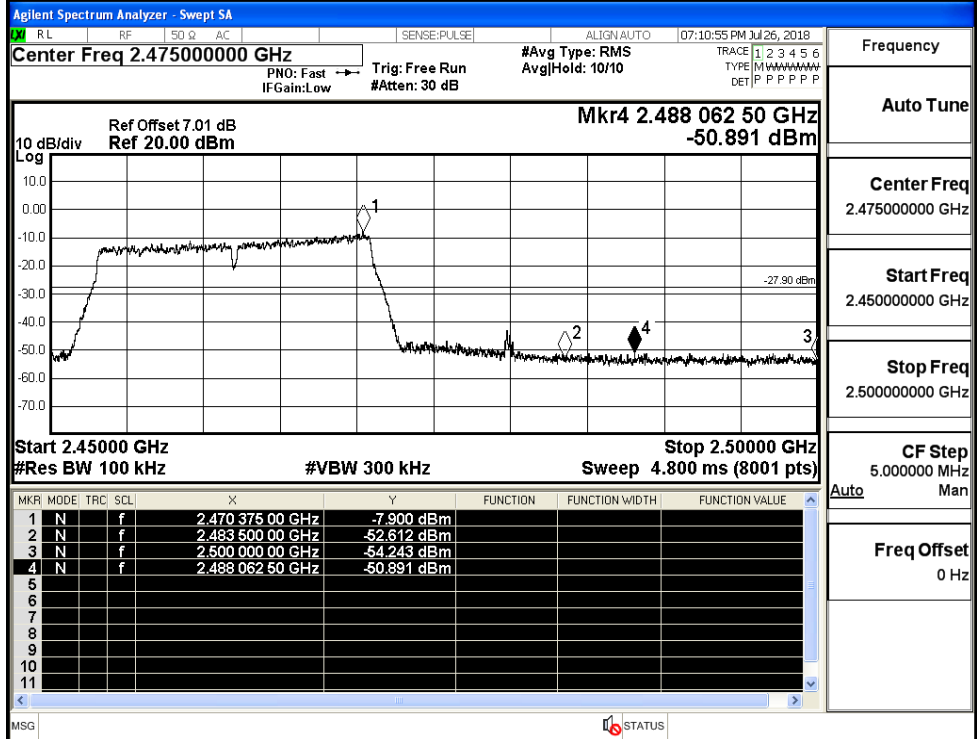
11G/HCH



11N20SISO/LCH

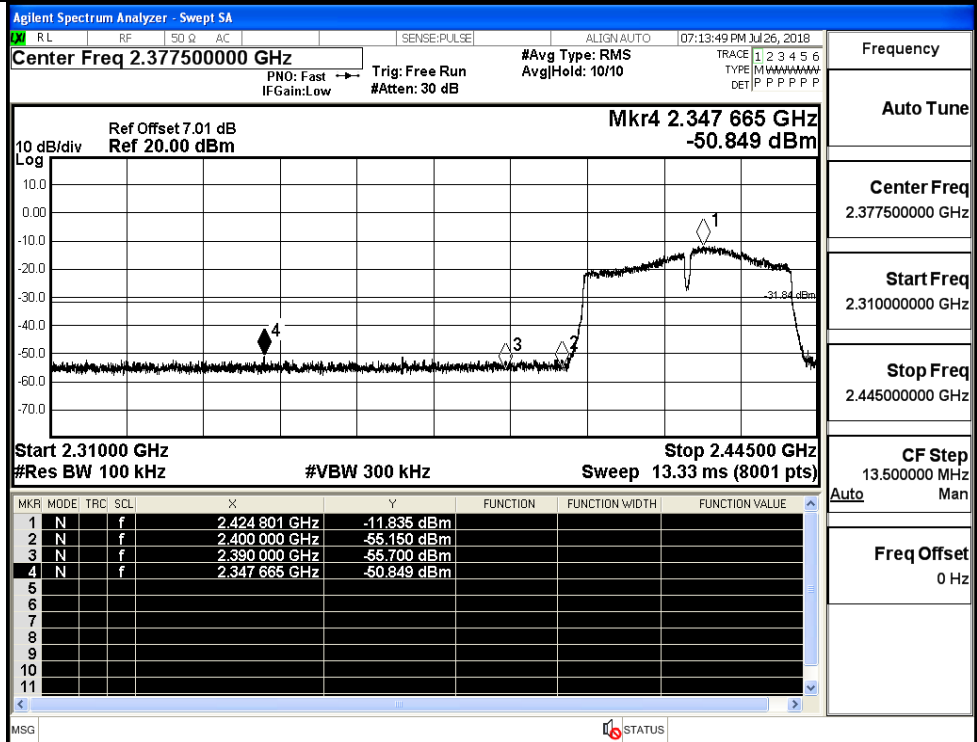


11N20SISO/HCH



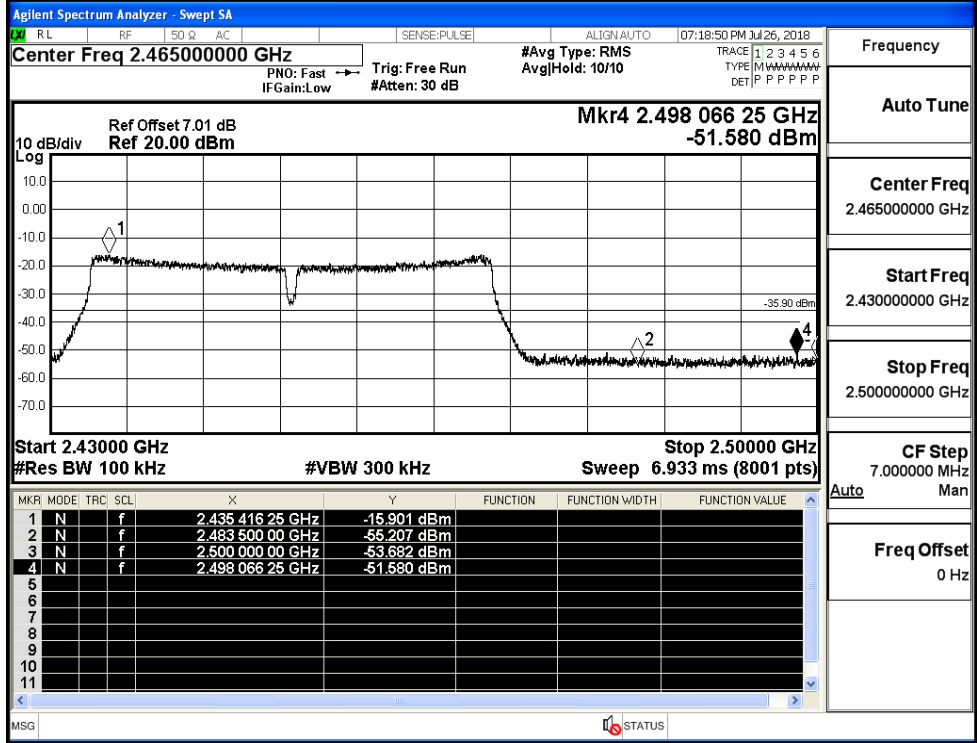
Frequency	
Auto Tune	
Center Freq	2.475000000 GHz
Start Freq	2.450000000 GHz
Stop Freq	2.500000000 GHz
CF Step	5.000000 MHz
Freq Offset	0 Hz

11N40SISO/LCH



Frequency	
Auto Tune	
Center Freq	2.377500000 GHz
Start Freq	2.310000000 GHz
Stop Freq	2.445000000 GHz
CF Step	13.500000 MHz
Freq Offset	0 Hz

11N40SISO/HCH

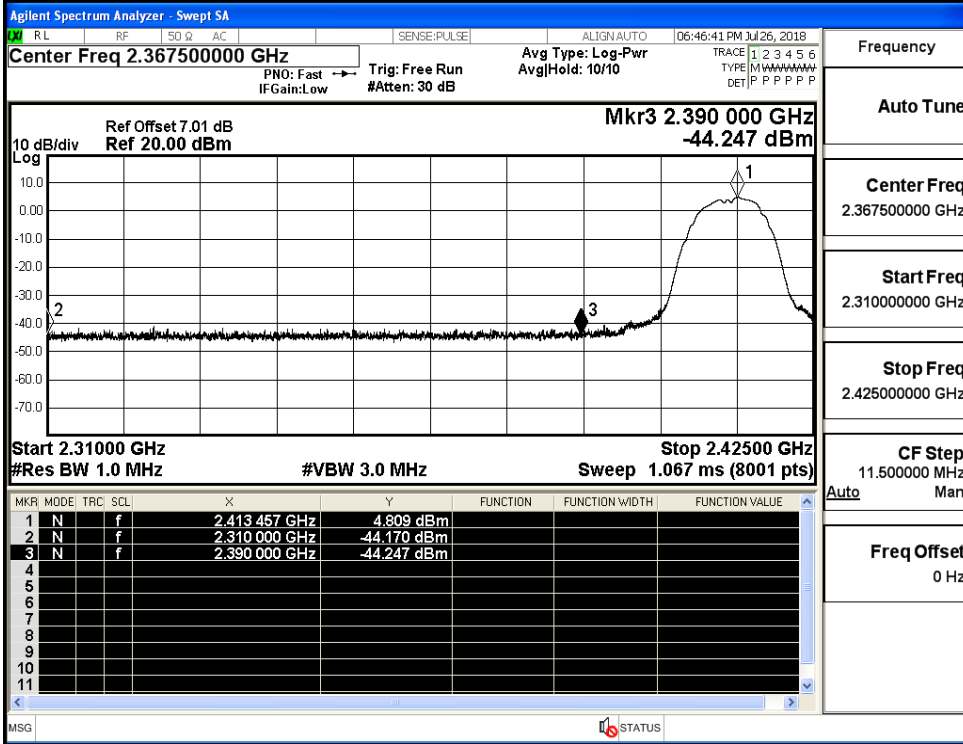


### C.7 Restrict-band band-edge measurements

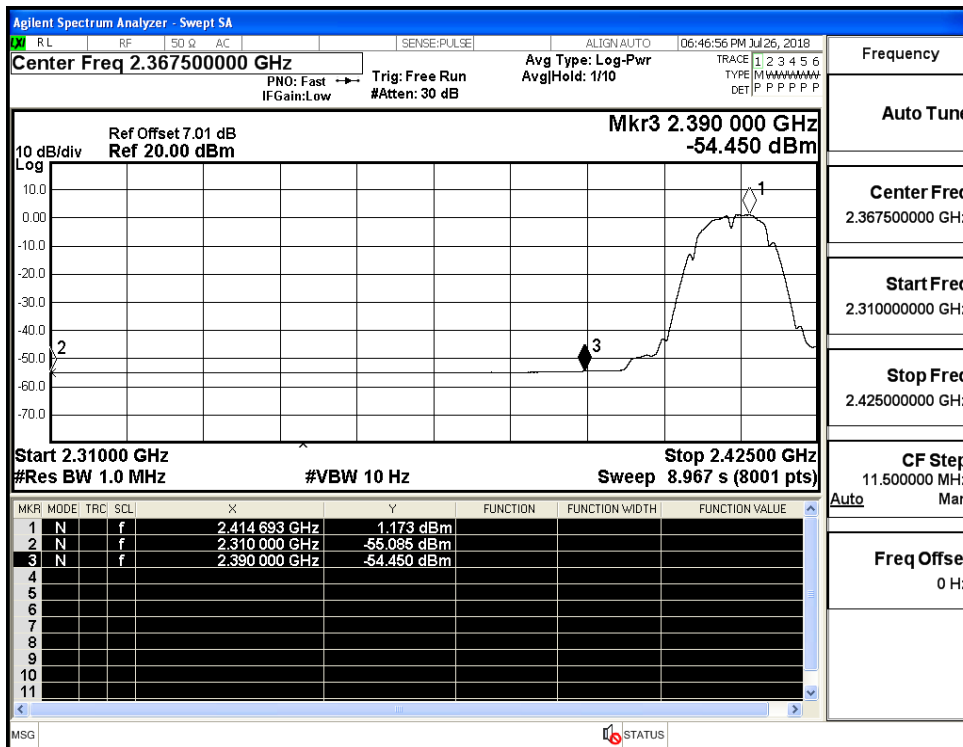
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBu V/m]	Verdict
11B	2412	Ant1	2310.0	-44.17	2.0	0	53.09	PEAK	74	PASS
	2412	Ant1	2310.0	-55.09	2.0	0	42.17	AV	54	PASS
	2412	Ant1	2390.0	-44.25	2.0	0	53.01	PEAK	74	PASS
	2412	Ant1	2390.0	-54.45	2.0	0	42.81	AV	54	PASS
	2462	Ant1	2483.5	-44.88	2.0	0	52.38	PEAK	74	PASS
	2462	Ant1	2483.5	-54.08	2.0	0	43.18	AV	54	PASS
	2462	Ant1	2500.0	-44.88	2.0	0	52.38	PEAK	74	PASS
	2462	Ant1	2500.0	-54.30	2.0	0	42.96	AV	54	PASS
11G	2412	Ant1	2310.0	-44.46	2.0	0	52.80	PEAK	74	PASS
	2412	Ant1	2310.0	-55.03	2.0	0	42.22	AV	54	PASS
	2412	Ant1	2390.0	-43.96	2.0	0	53.30	PEAK	74	PASS
	2412	Ant1	2390.0	-54.44	2.0	0	42.82	AV	54	PASS
	2462	Ant1	2483.5	-43.68	2.0	0	53.58	PEAK	74	PASS
	2462	Ant1	2483.5	-53.78	2.0	0	43.48	AV	54	PASS
	2462	Ant1	2500.0	-44.83	2.0	0	52.43	PEAK	74	PASS
	2462	Ant1	2500.0	-54.10	2.0	0	43.15	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-43.93	2.0	0	53.32	PEAK	74	PASS
	2412	Ant1	2310.0	-55.03	2.0	0	42.23	AV	54	PASS
	2412	Ant1	2390.0	-43.42	2.0	0	53.84	PEAK	74	PASS
	2412	Ant1	2390.0	-54.46	2.0	0	42.80	AV	54	PASS
	2462	Ant1	2483.5	-42.64	2.0	0	54.62	PEAK	74	PASS
	2462	Ant1	2483.5	-53.32	2.0	0	43.94	AV	54	PASS
	2462	Ant1	2500.0	-43.54	2.0	0	53.72	PEAK	74	PASS
	2462	Ant1	2500.0	-53.92	2.0	0	43.34	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-45.03	2.0	0	52.22	PEAK	74	PASS
	2422	Ant1	2310.0	-55.06	2.0	0	42.20	AV	54	PASS

	2422	Ant1	2390.0	-44.33	2.0	0	52.93	PEAK	74	PASS
	2422	Ant1	2390.0	-54.68	2.0	0	42.58	AV	54	PASS
	2452	Ant1	2483.5	-42.32	2.0	0	54.94	PEAK	74	PASS
	2452	Ant1	2483.5	-54.29	2.0	0	42.97	AV	54	PASS
	2452	Ant1	2500.0	-44.60	2.0	0	52.66	PEAK	74	PASS
	2452	Ant1	2500.0	-54.32	2.0	0	42.94	AV	54	PASS

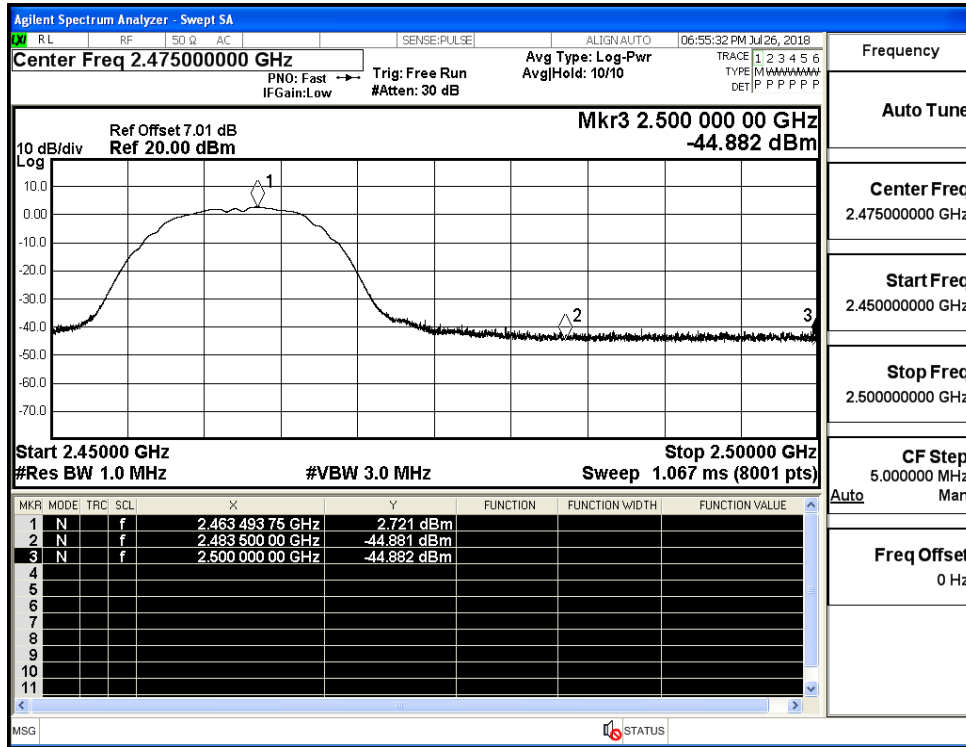
Restrict-band band-edge measurements\_11B\_2412\_Ant1\_PEAK



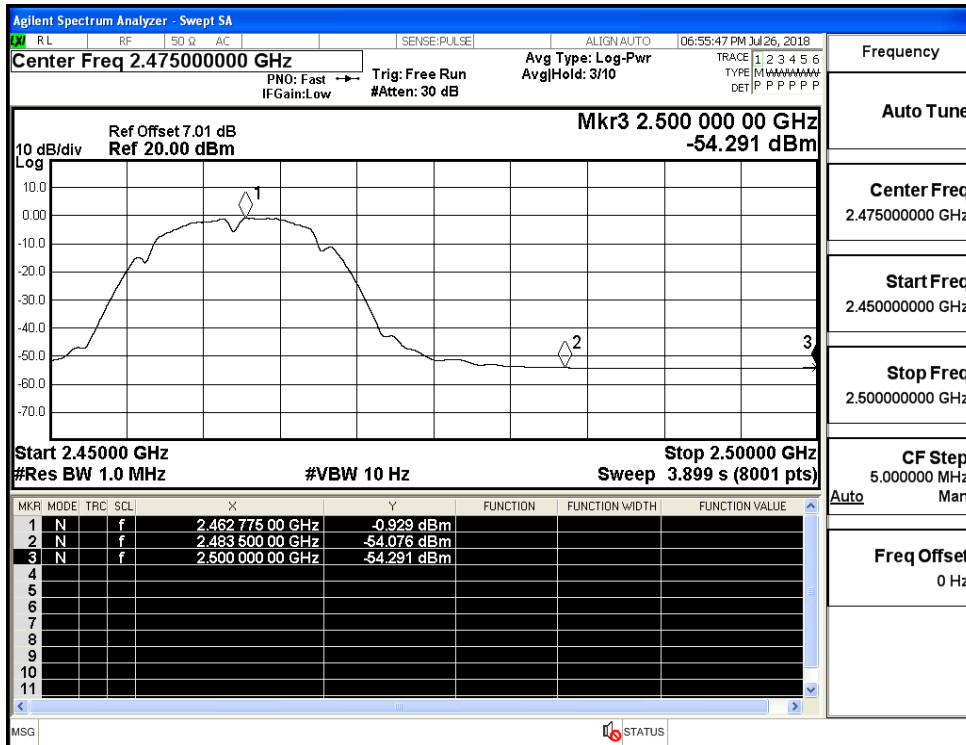
Restrict-band band-edge measurements\_11B\_2412\_Ant1\_AV



Restrict-band band-edge measurements\_11B\_2462\_Ant1\_PEAK

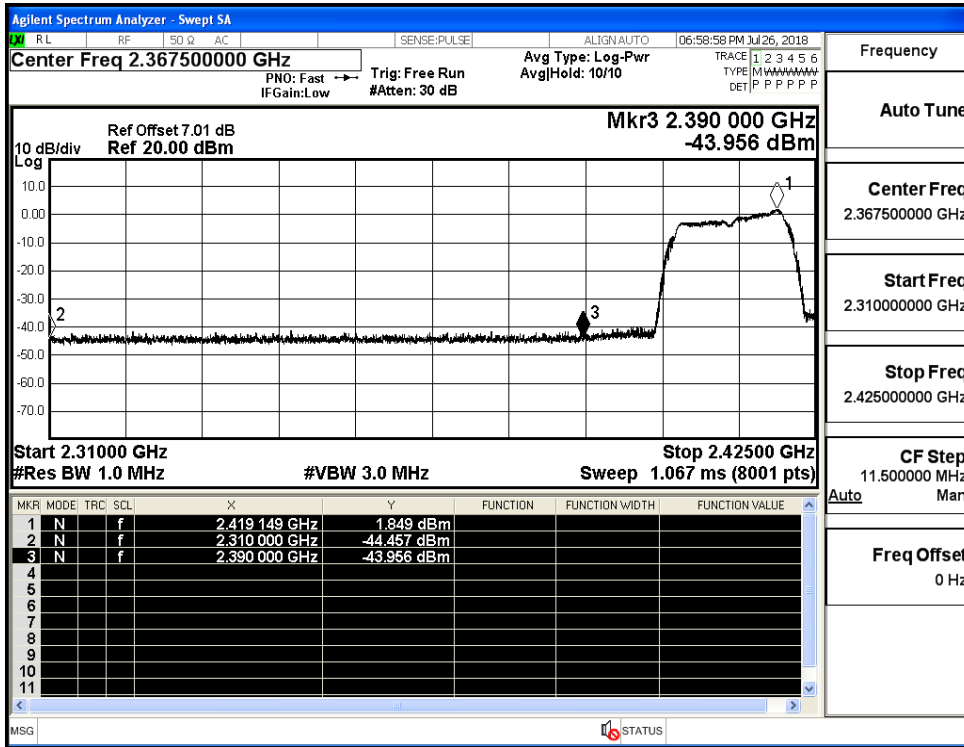


Restrict-band band-edge measurements\_11B\_2462\_Ant1\_AV

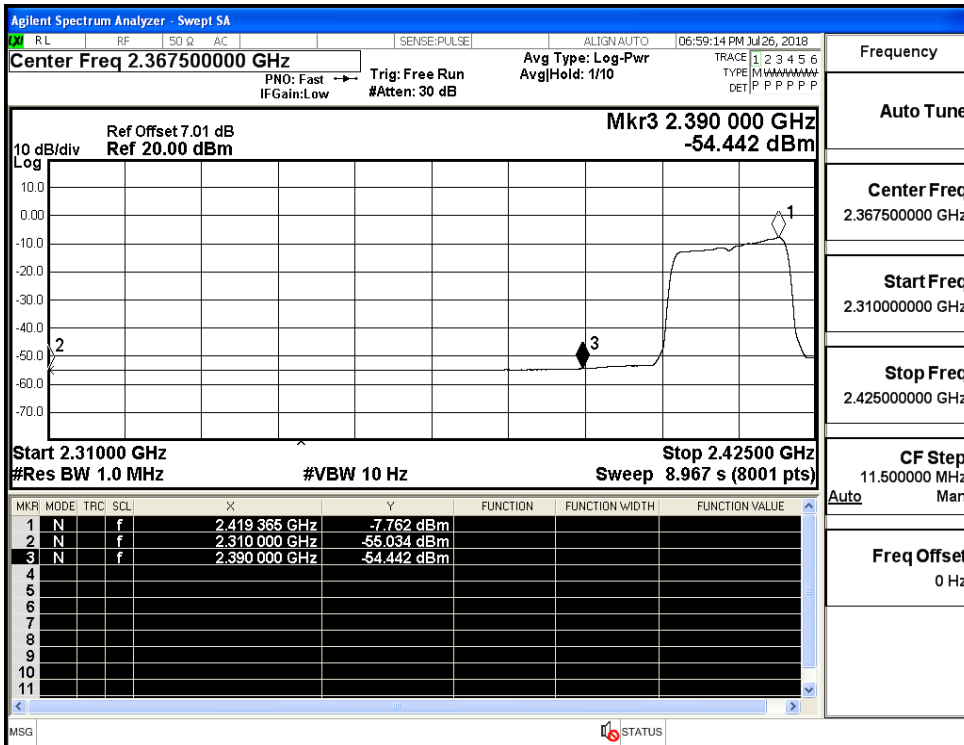




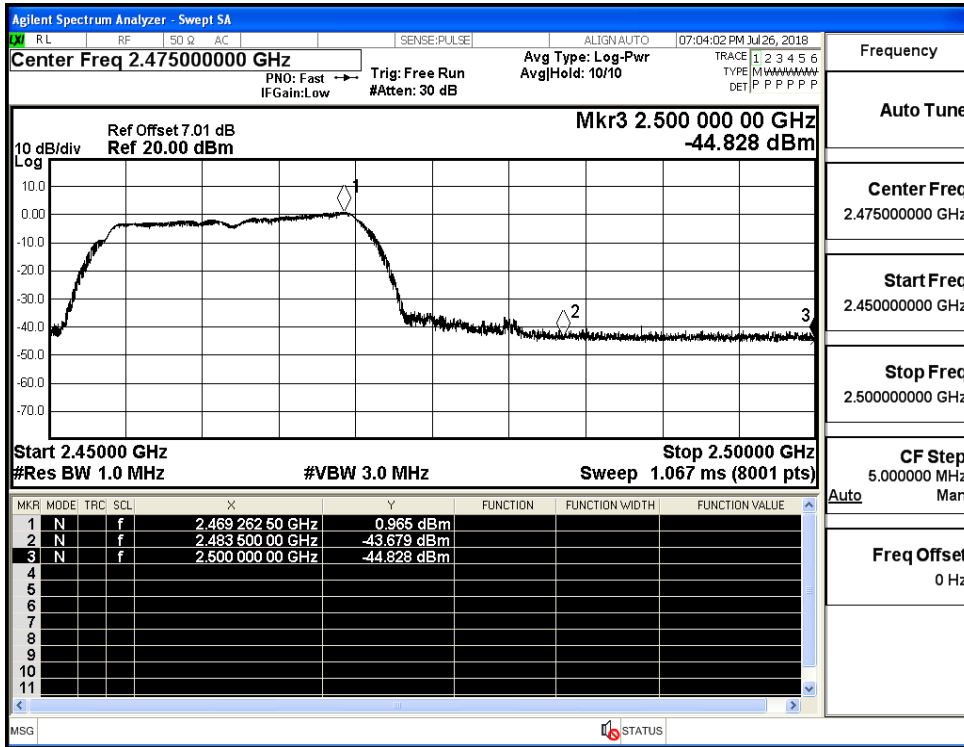
Restrict-band band-edge measurements\_11G\_2412\_Ant1\_PEAK



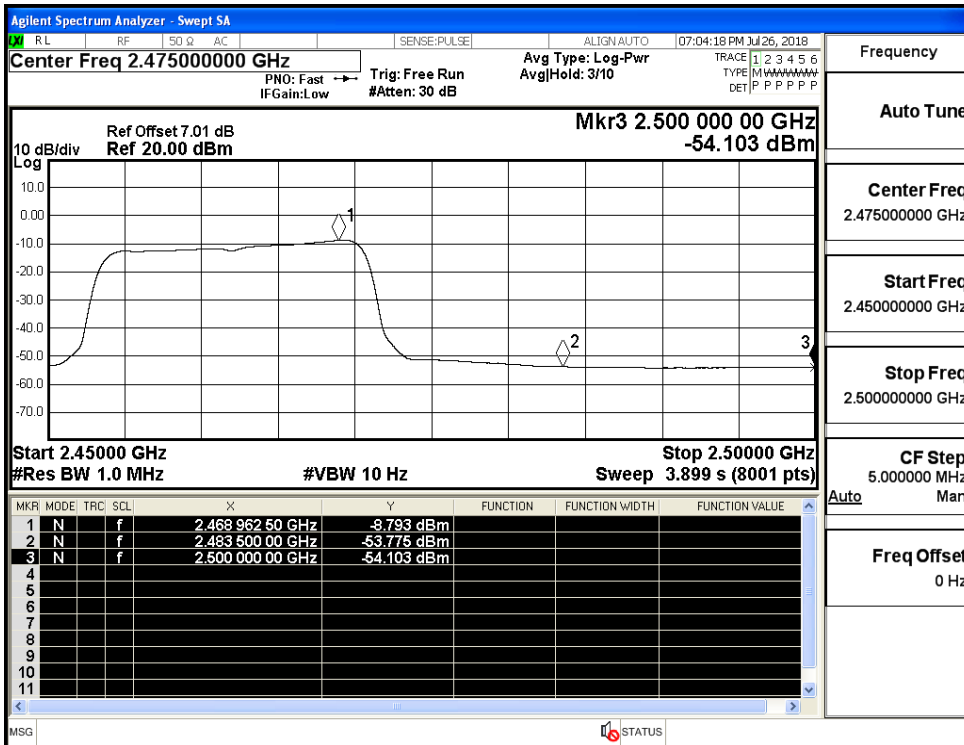
Restrict-band band-edge measurements\_11G\_2412\_Ant1\_AV



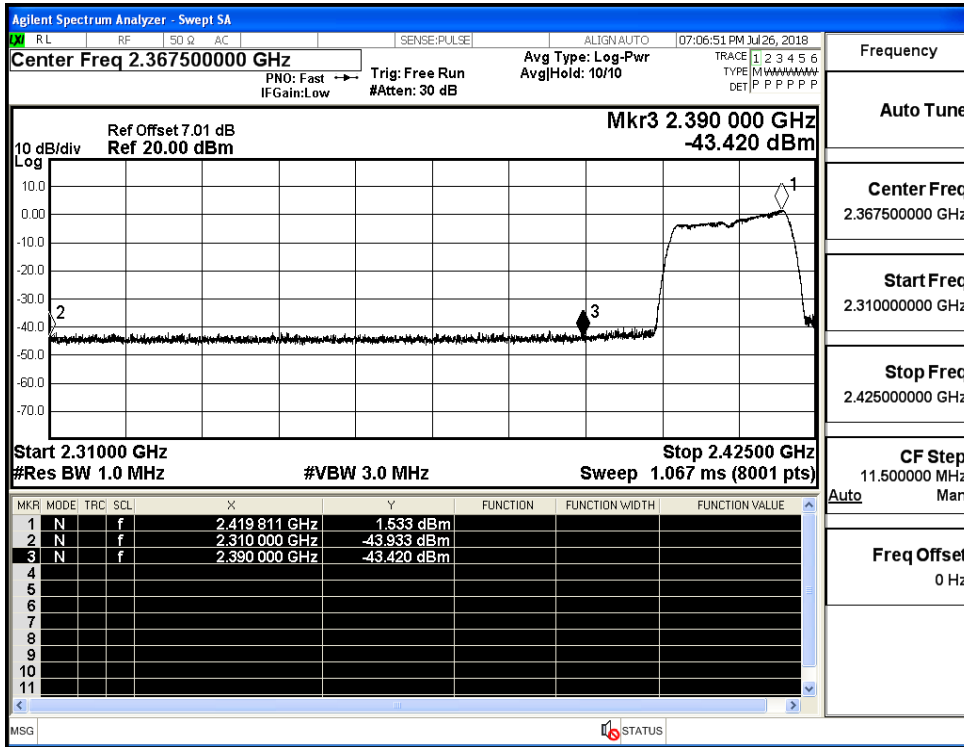
Restrict-band band-edge measurements\_11G\_2462\_Ant1\_PEAK



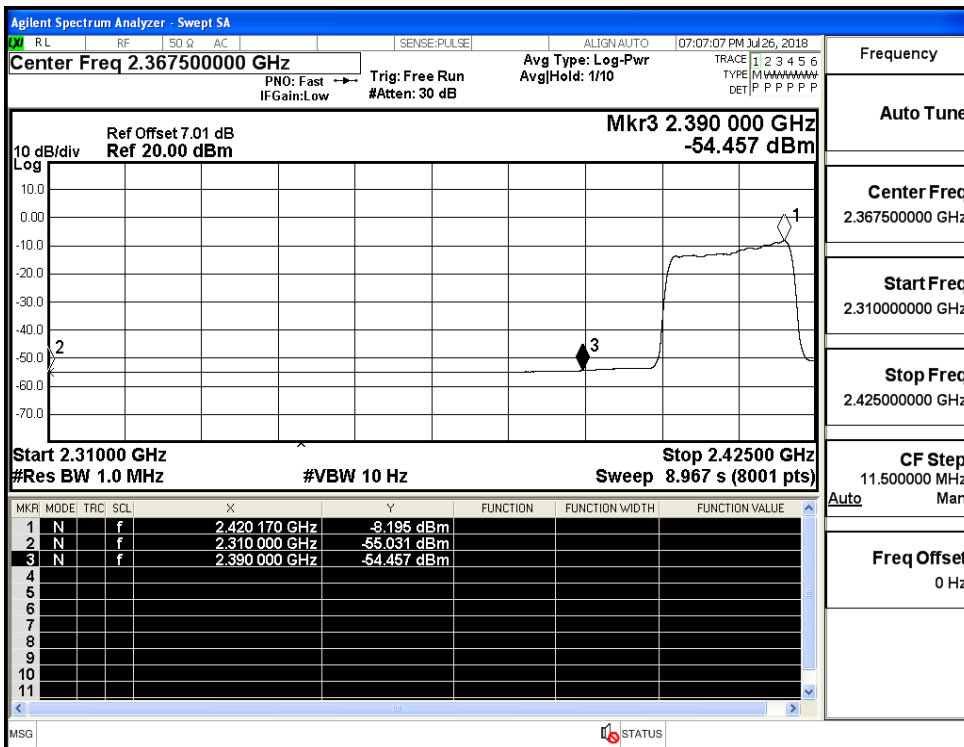
Restrict-band band-edge measurements\_11G\_2462\_Ant1\_AV



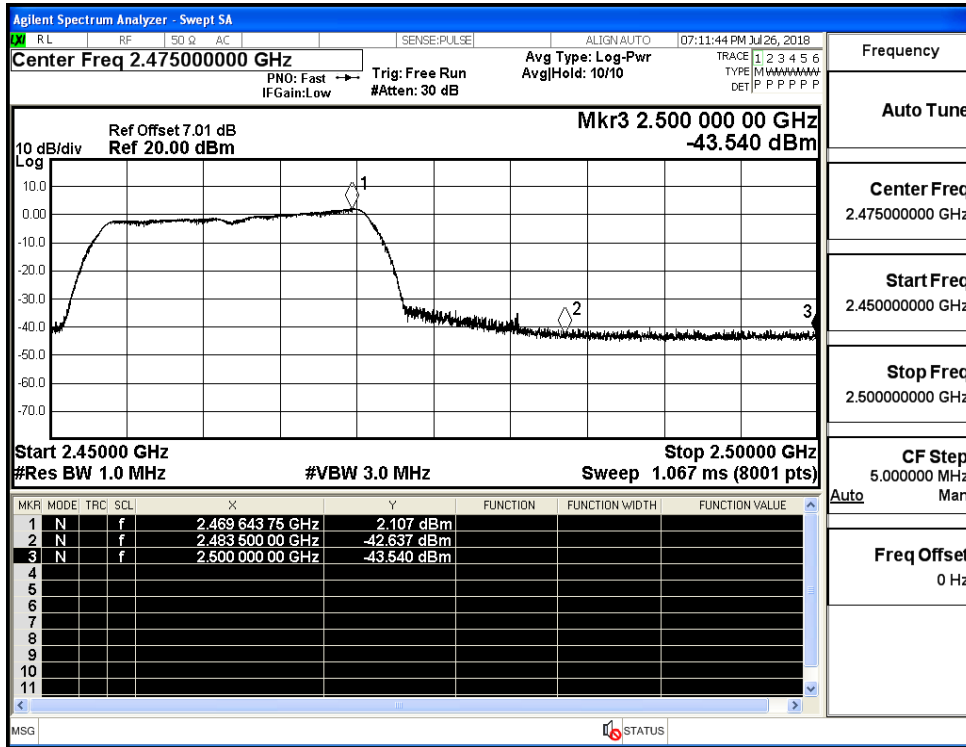
Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_PEAK



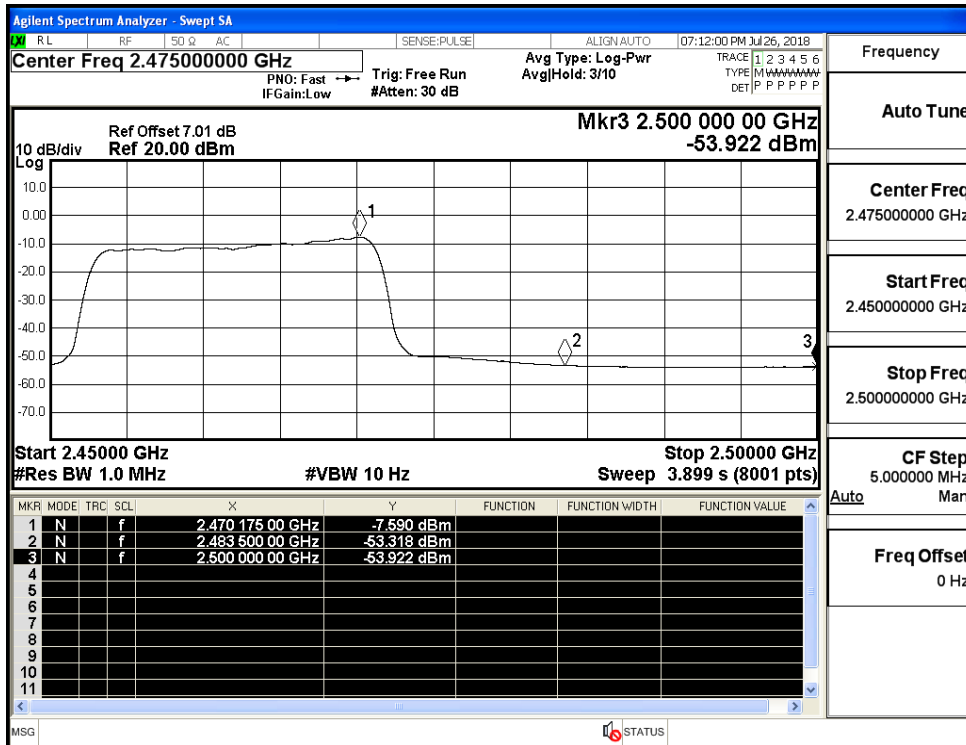
Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_AV



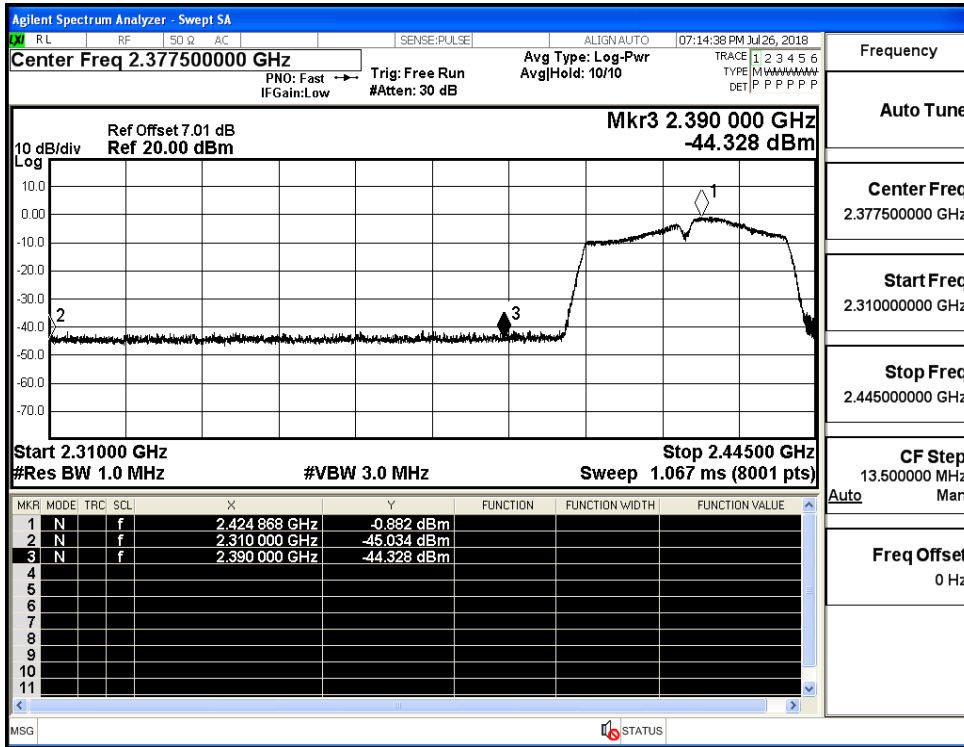
Restrict-band band-edge measurements\_11N20SISO\_2462\_Ant1\_PEAK



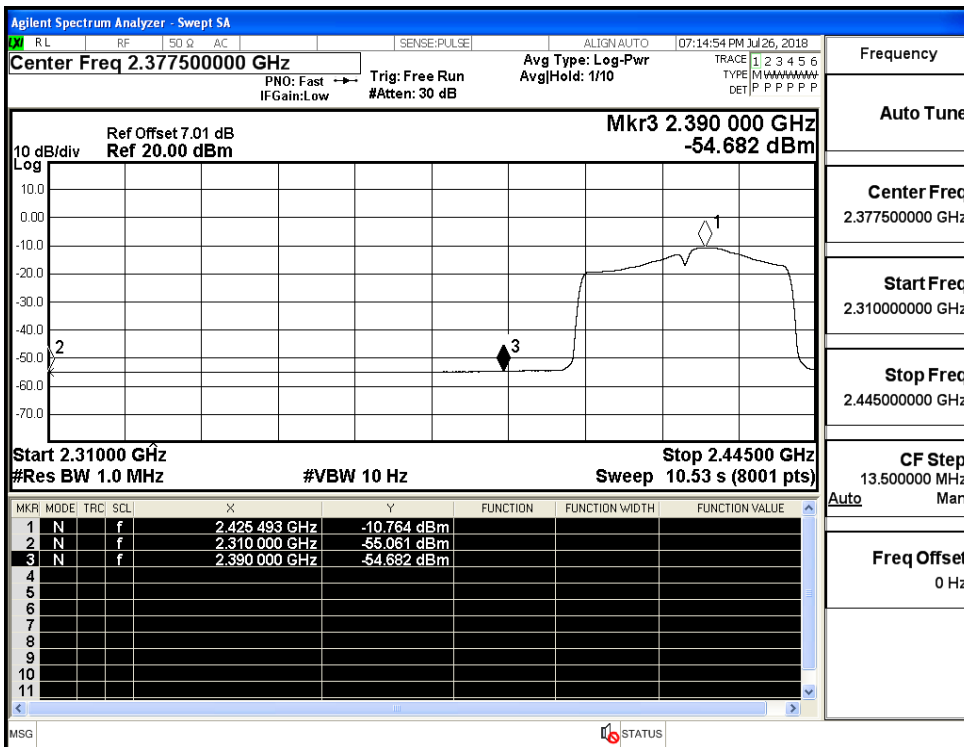
Restrict-band band-edge measurements\_11N20SISO\_2462\_Ant1\_AV



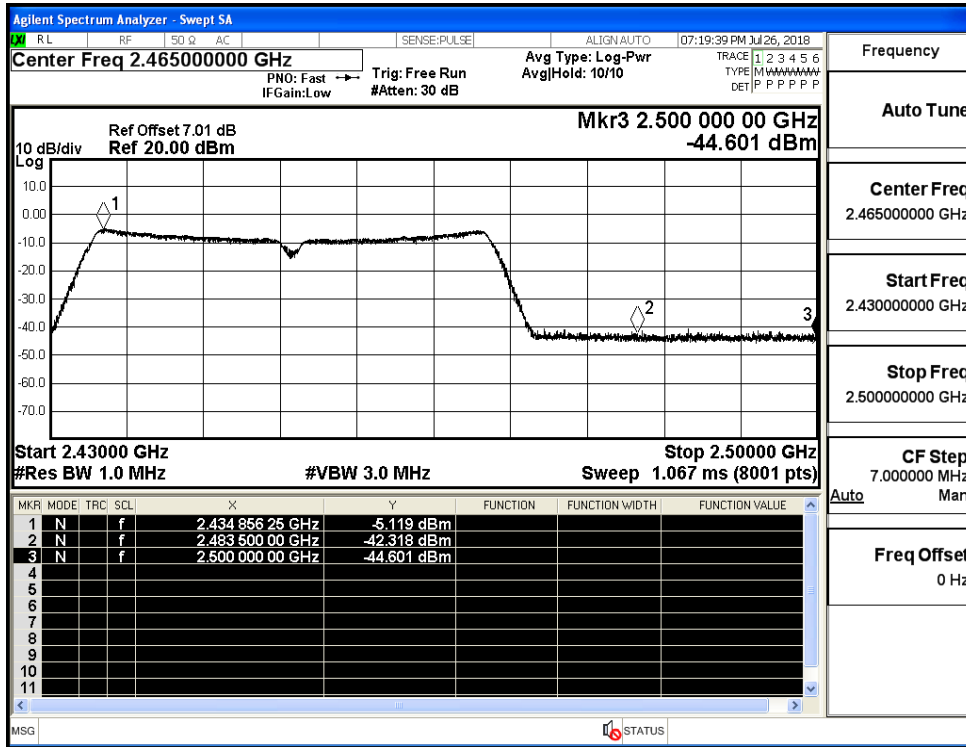
Restrict-band band-edge measurements\_11N40SISO\_2422\_Ant1\_PEAK



Restrict-band band-edge measurements\_11N40SISO\_2422\_Ant1\_AV



Restrict-band band-edge measurements\_11N40SISO\_2452\_Ant1\_PEAK



Restrict-band band-edge measurements\_11N40SISO\_2452\_Ant1\_AV

