

## Appendix A

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

Product Name: Abode Cam 2

Trade Mark: Abode

Test Model: 104061/A

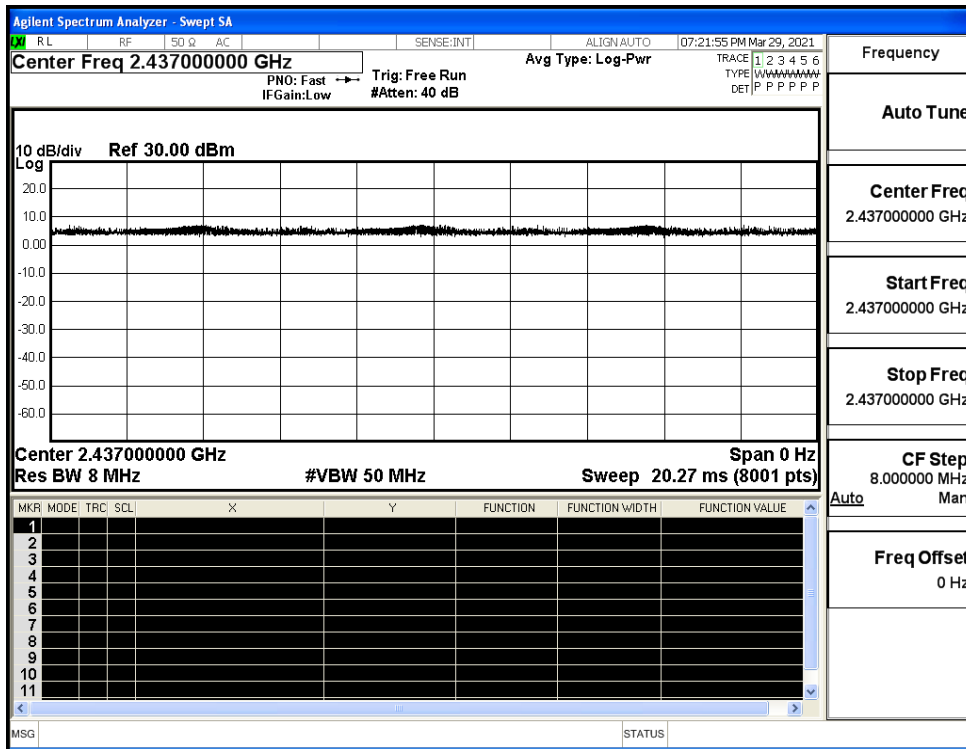
#### Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

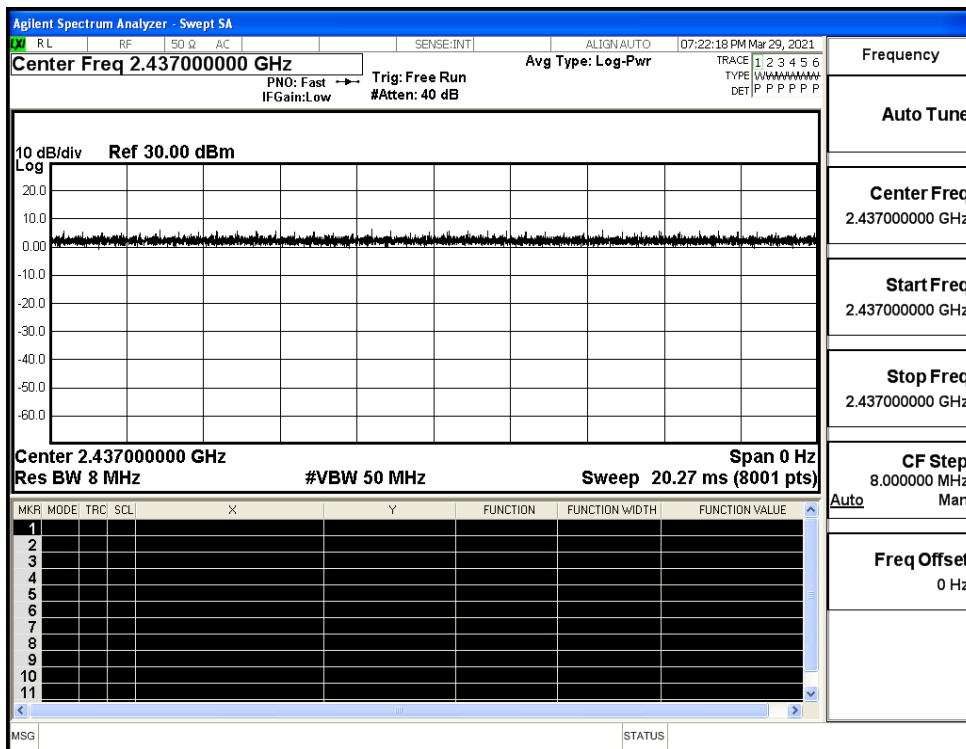
#### A.1 Duty Cycle

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

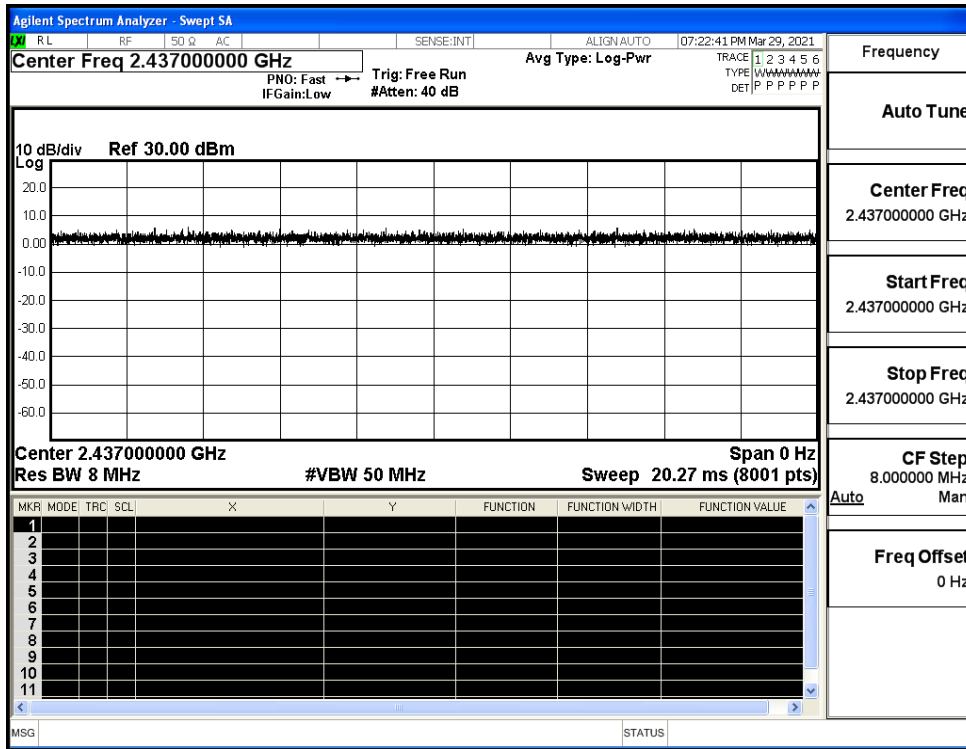
Duty Cycle\_11B\_2437\_Ant1



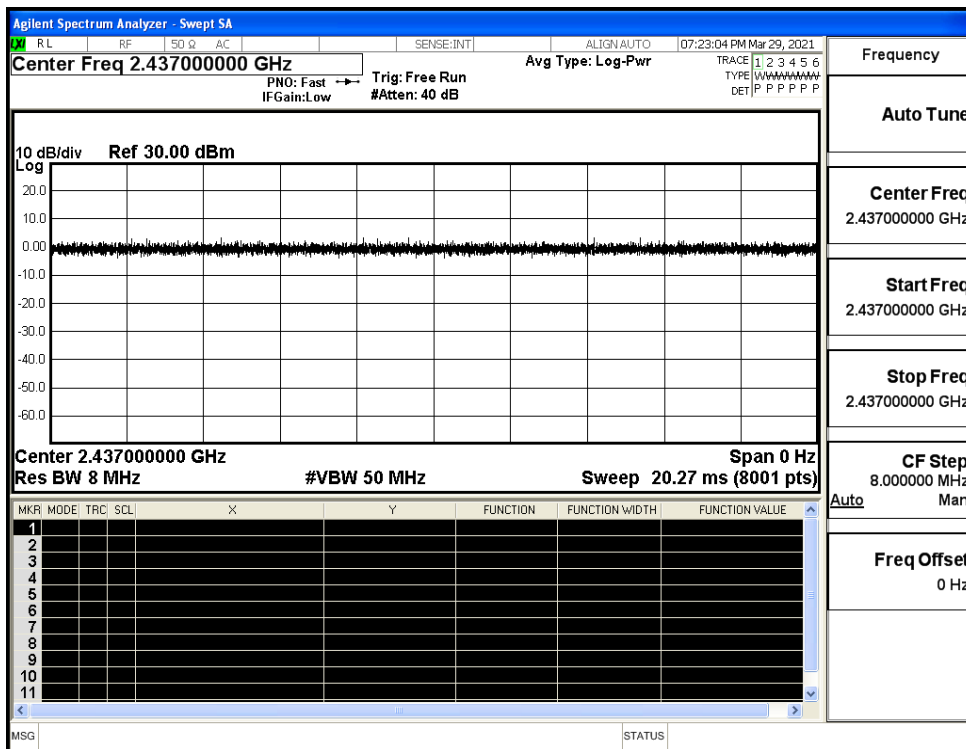
Duty Cycle\_11G\_2437\_Ant1



Duty Cycle\_11N20SISO\_2437\_Ant1



Duty Cycle\_11N40SISO\_2437\_Ant1

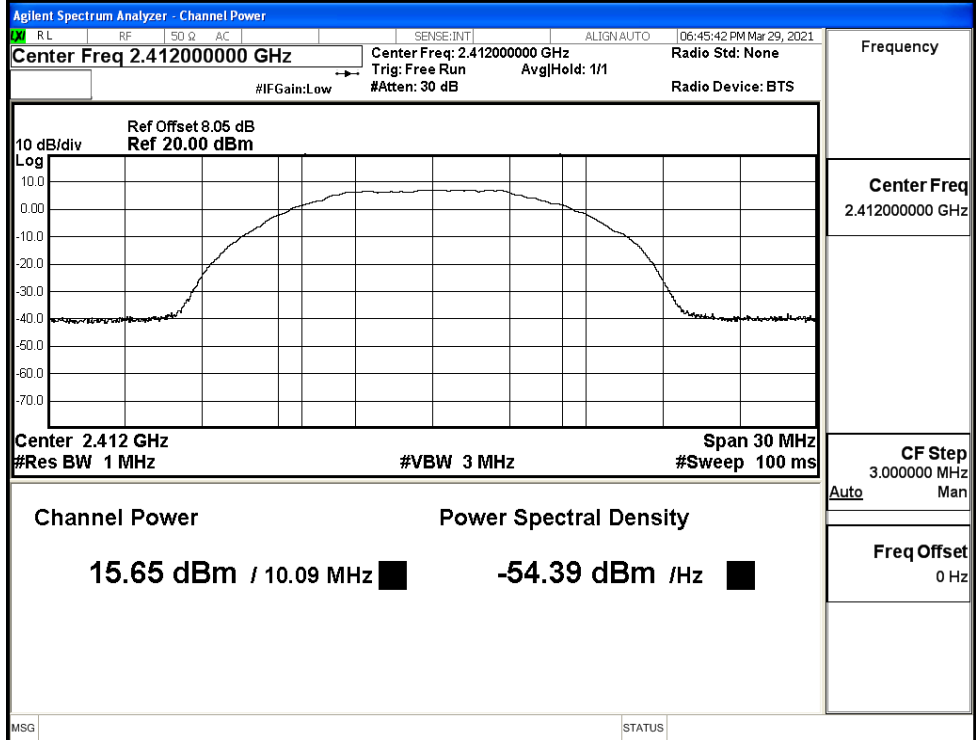


**A.2 Maximum Conducted Output Power**

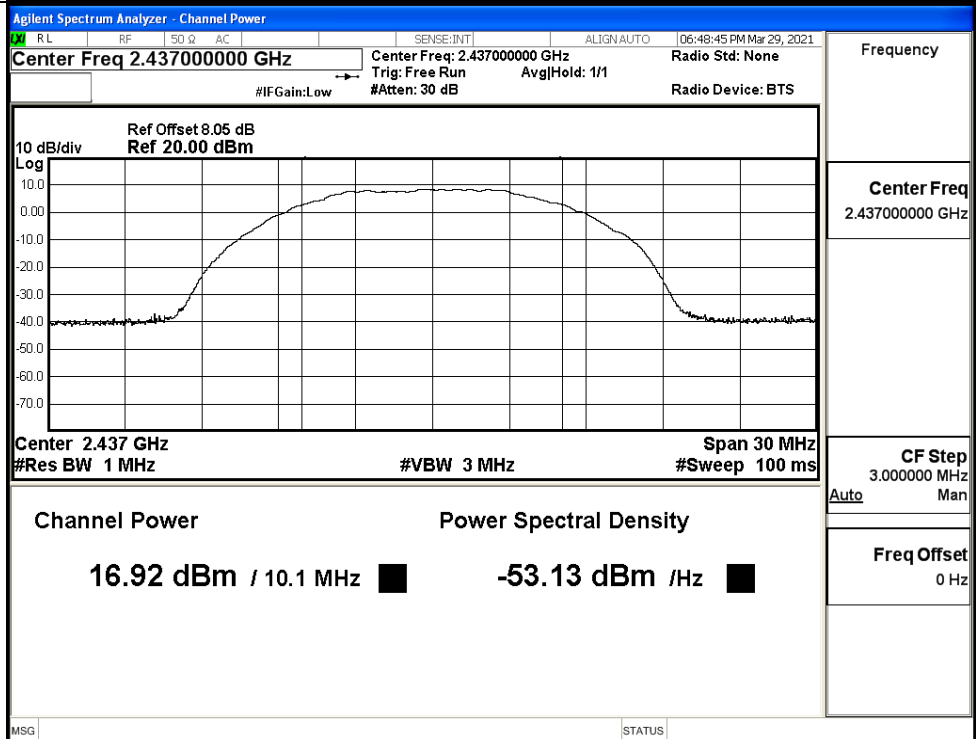
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	15.65	30	PASS
	MCH	16.92	30	PASS
	HCH	17.71	30	PASS
11G	LCH	14.77	30	PASS
	MCH	16.51	30	PASS
	HCH	17.55	30	PASS
11N20SISO	LCH	15.32	30	PASS
	MCH	16.82	30	PASS
	HCH	17.67	30	PASS
11N40SISO	LCH	16.02	30	PASS
	MCH	16.86	30	PASS
	HCH	17.30	30	PASS

Test Graphs

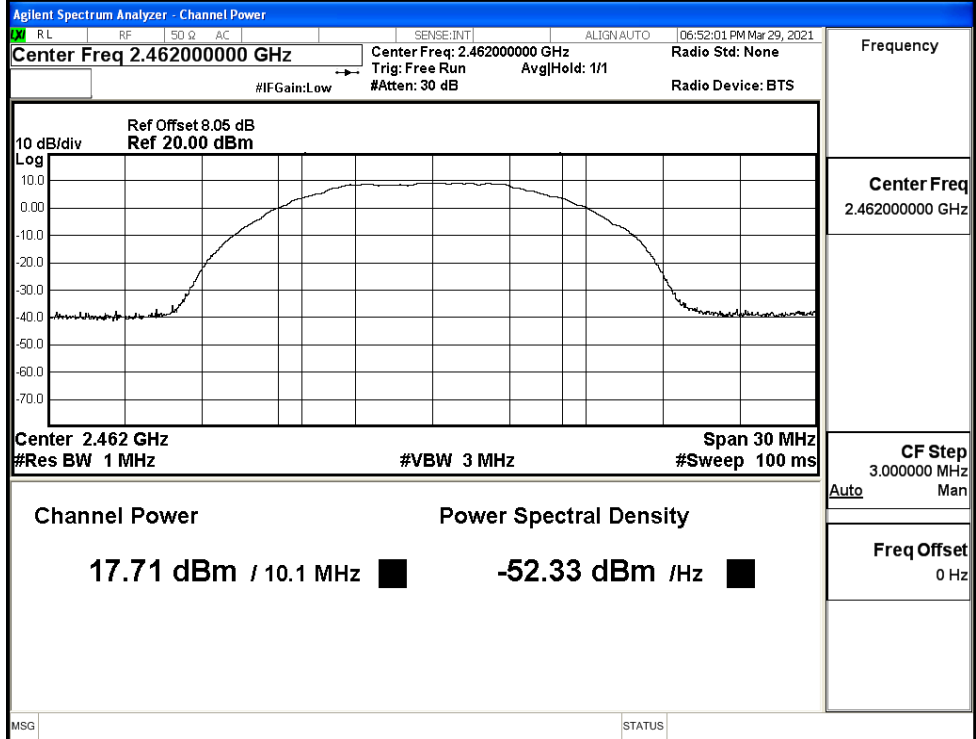
11B/LCH



11B/MCH

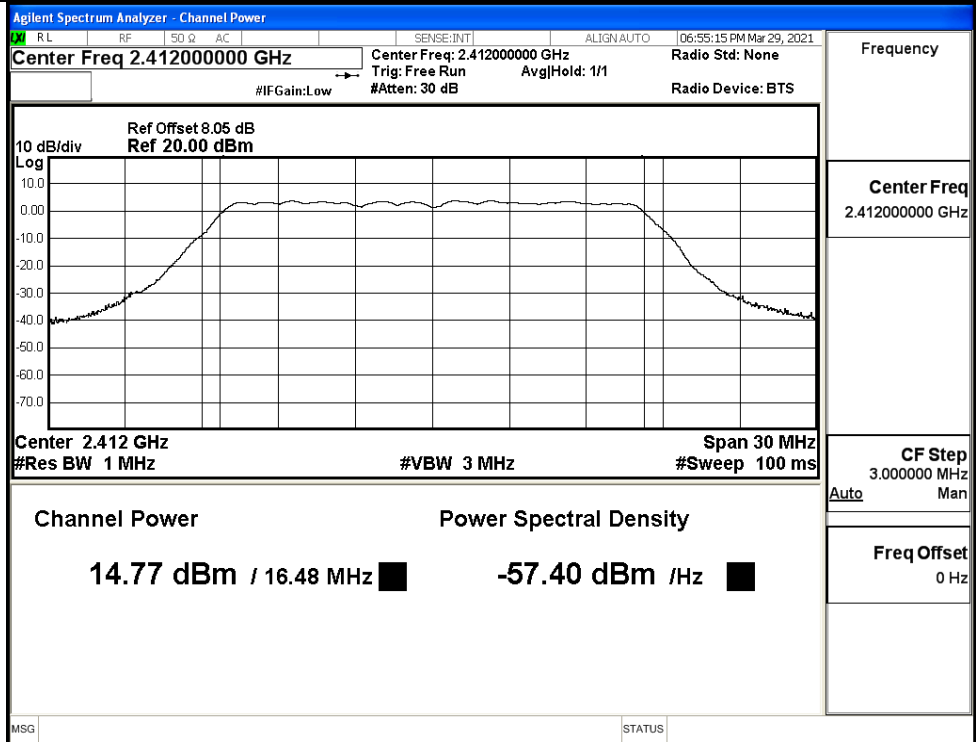


11B/HCH



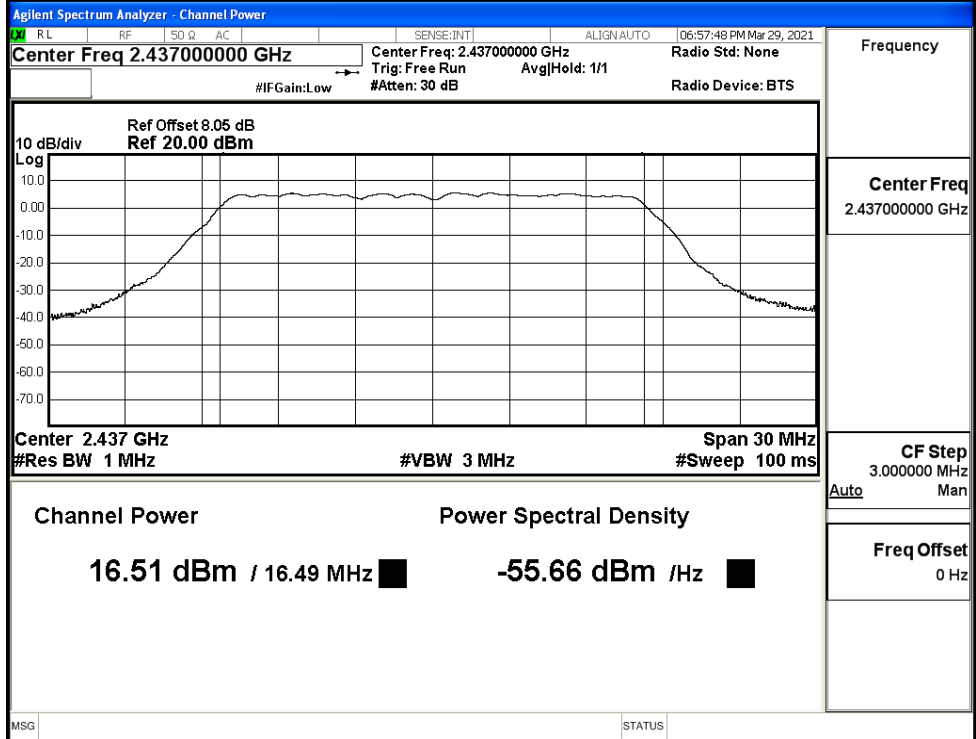
Frequency
Center Freq 2.46200000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11G/LCH



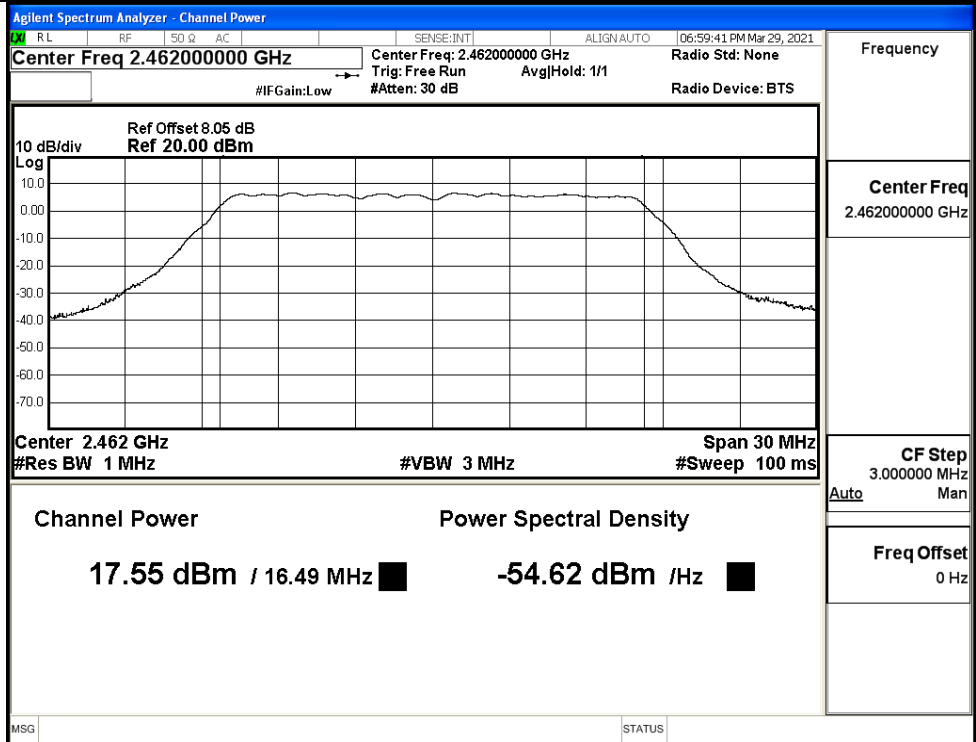
Frequency
Center Freq 2.41200000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11G/MCH



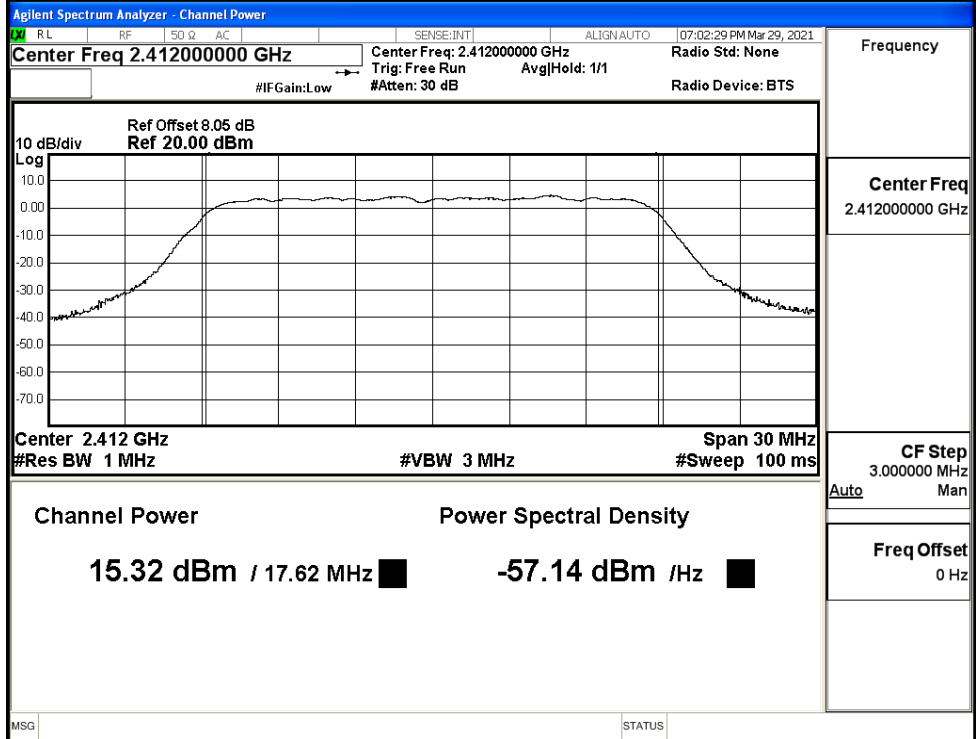
Frequency
Center Freq 2.437000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11G/HCH

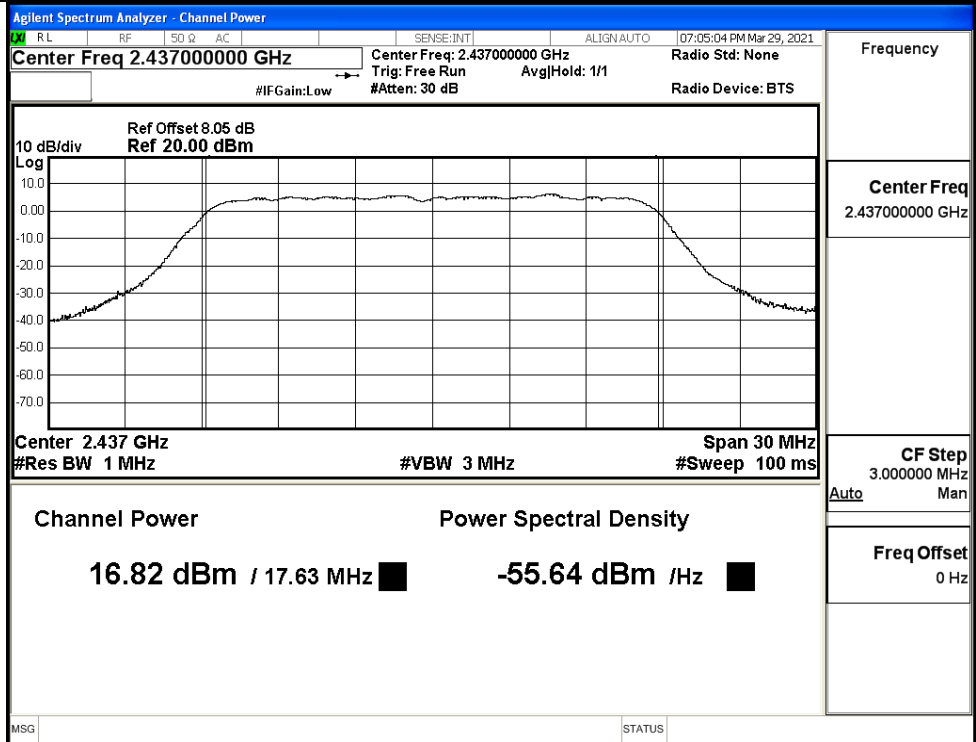


Frequency
Center Freq 2.462000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11N20SISO/LCH

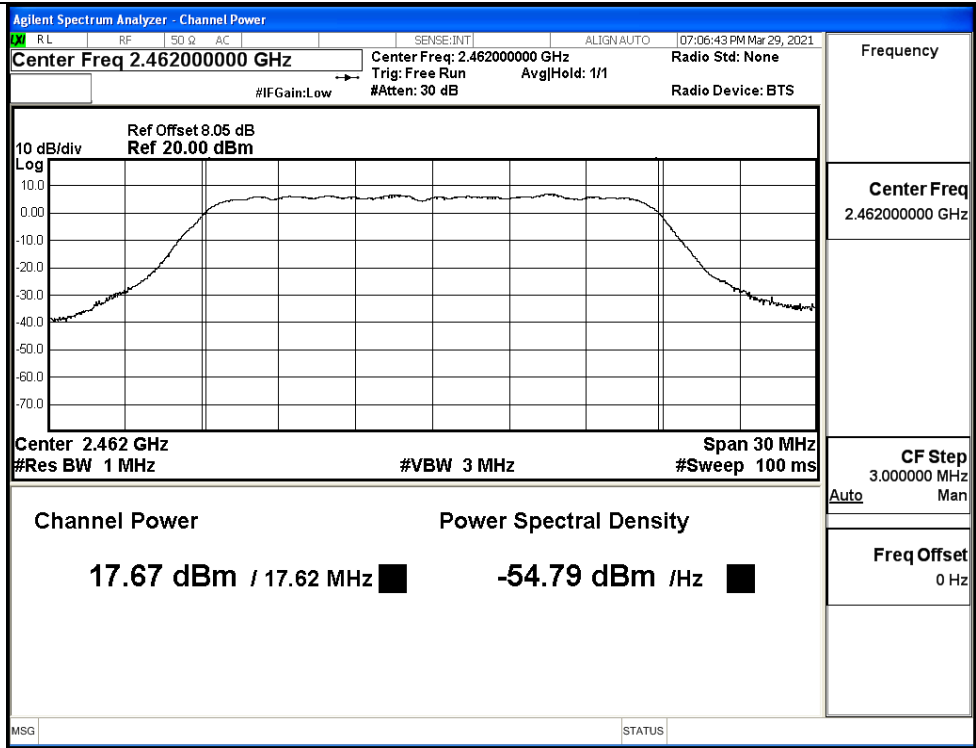


11N20SISO/MCH





11N20SISO/HCH

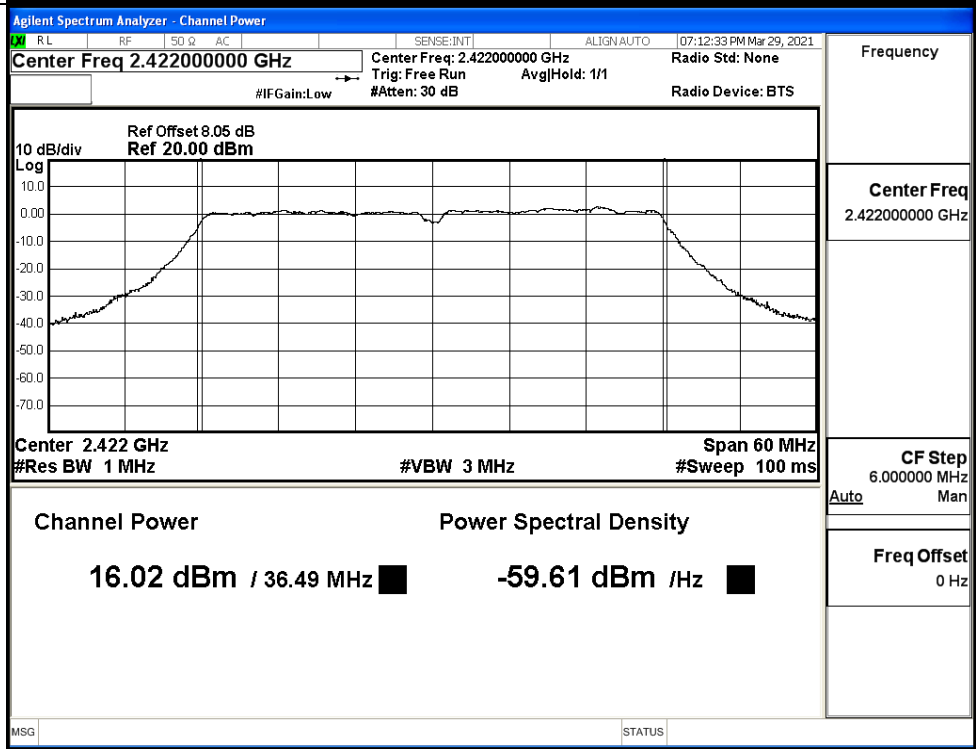


Frequency  
Center Freq  
2.46200000 GHz

CF Step  
3.000000 MHz  
Auto Man

Freq Offset  
0 Hz

11N40SISO/LCH

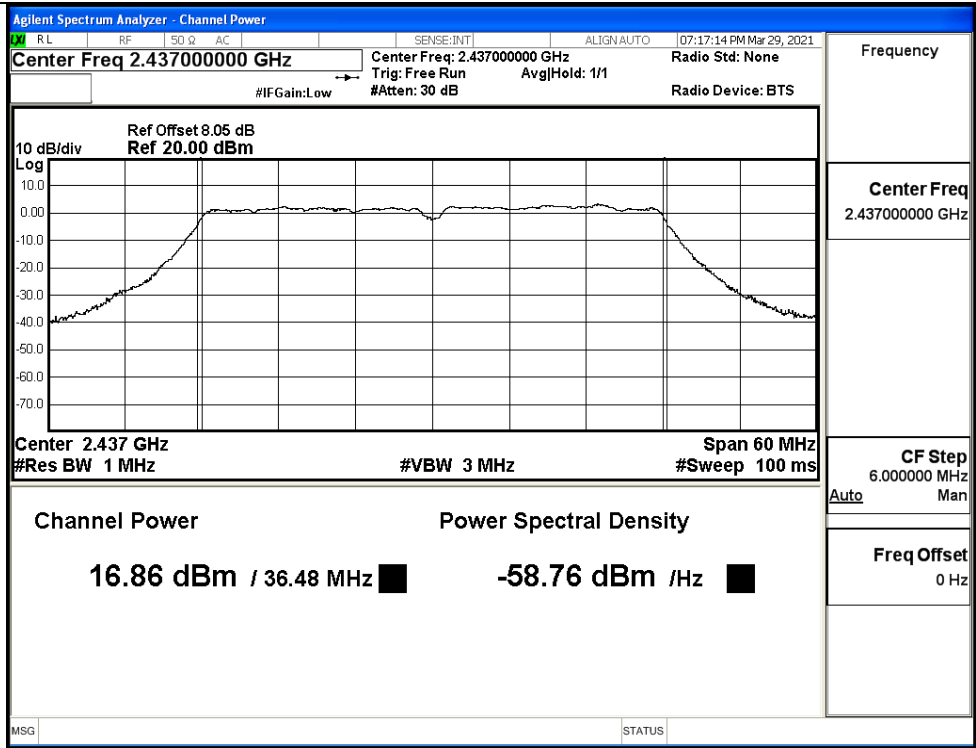


Frequency  
Center Freq  
2.42200000 GHz

CF Step  
6.000000 MHz  
Auto Man

Freq Offset  
0 Hz

11N40SISO/MCH

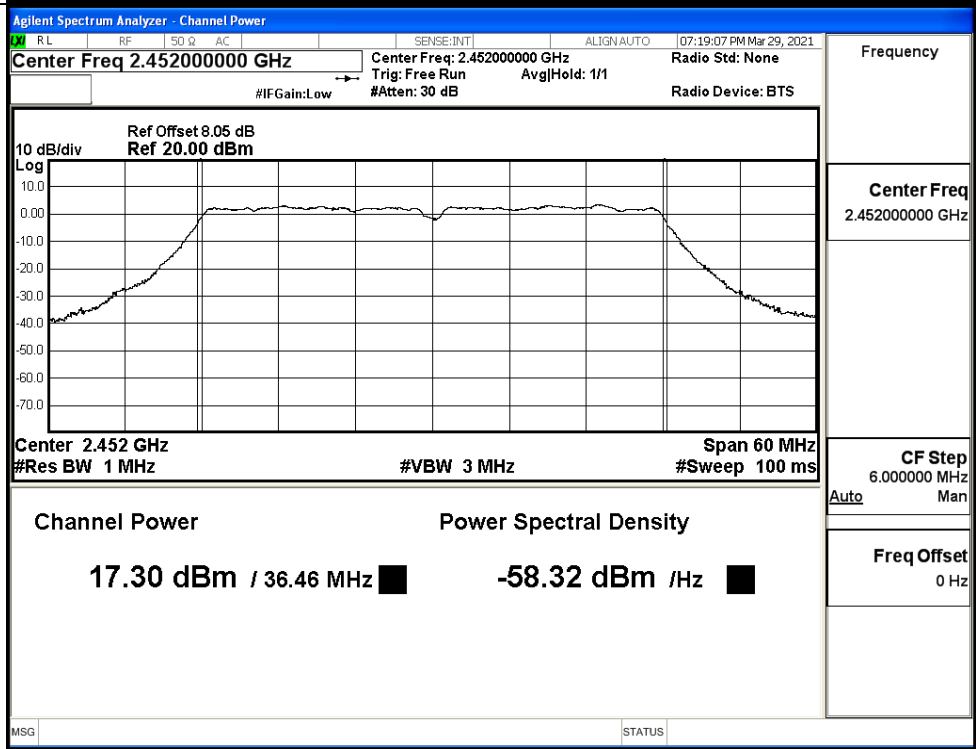


Frequency  
Center Freq  
2.437000000 GHz

CF Step  
6.000000 MHz  
Auto Man

Freq Offset  
0 Hz

11N40SISO/HCH



Frequency  
Center Freq  
2.452000000 GHz

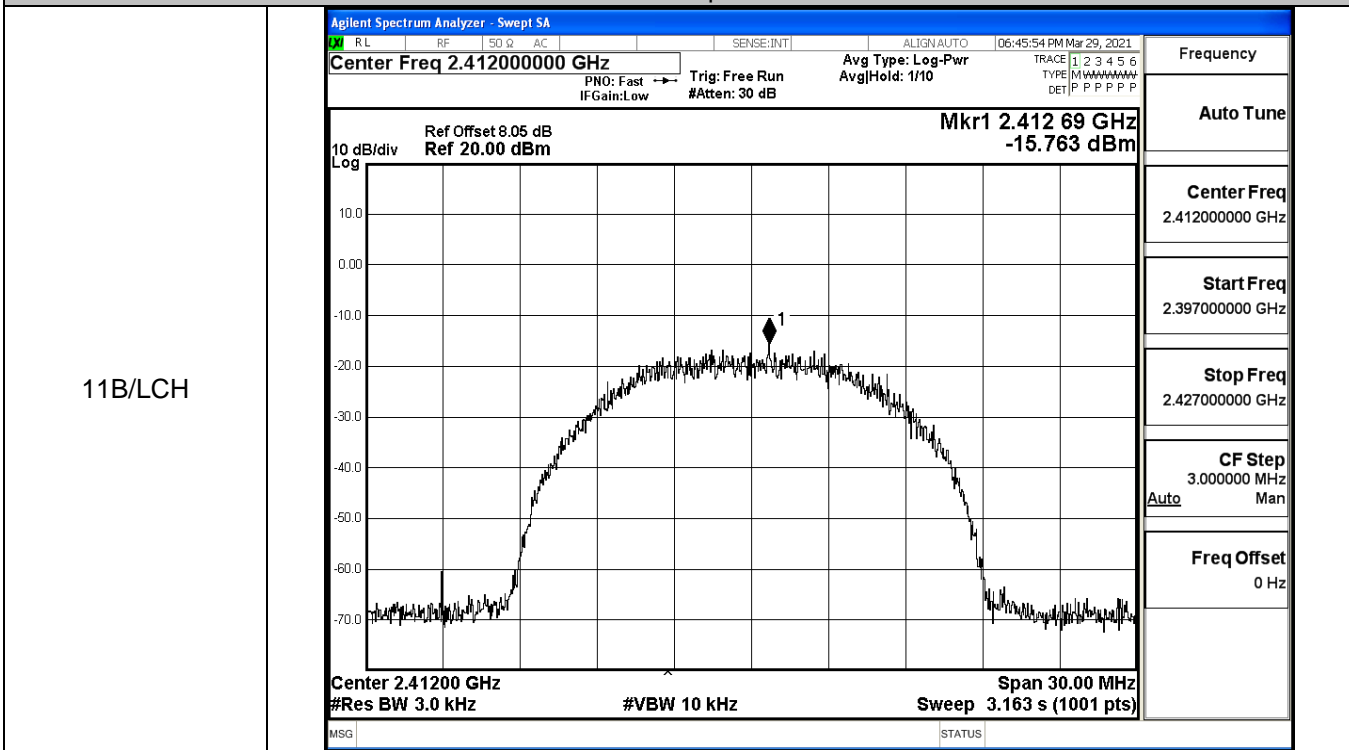
CF Step  
6.000000 MHz  
Auto Man

Freq Offset  
0 Hz

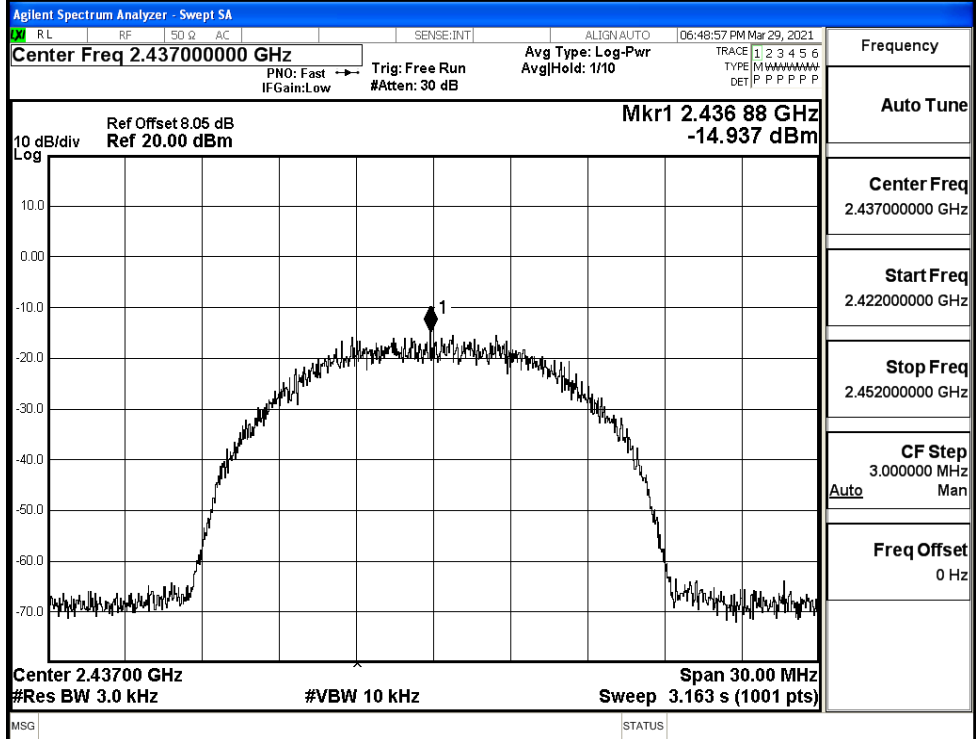
**A.3 Maximum Power Spectral Density**

Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-15.763	8	PASS
	MCH	-14.937	8	PASS
	HCH	-14.465	8	PASS
11G	LCH	-21.552	8	PASS
	MCH	-19.885	8	PASS
	HCH	-18.759	8	PASS
11N20SISO	LCH	-20.798	8	PASS
	MCH	-19.271	8	PASS
	HCH	-18.534	8	PASS
11N40SISO	LCH	-23.321	8	PASS
	MCH	-22.127	8	PASS
	HCH	-21.063	8	PASS

**Test Graphs**

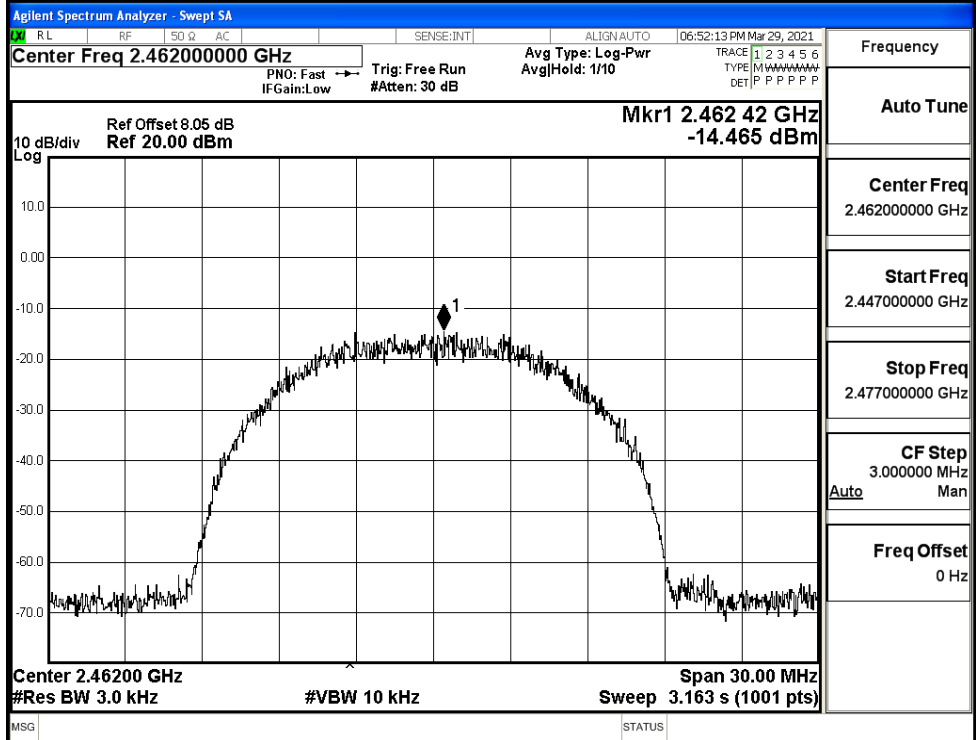


11B/MCH



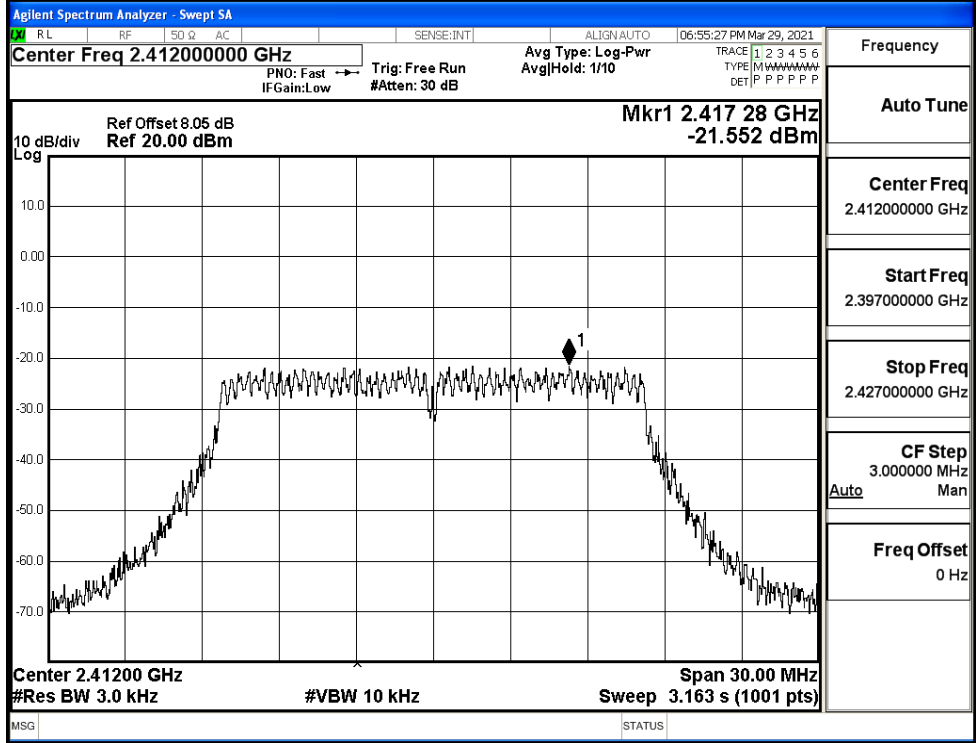
Frequency
Auto Tune
Center Freq 2.437000000 GHz
Start Freq 2.422000000 GHz
Stop Freq 2.452000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11B/HCH

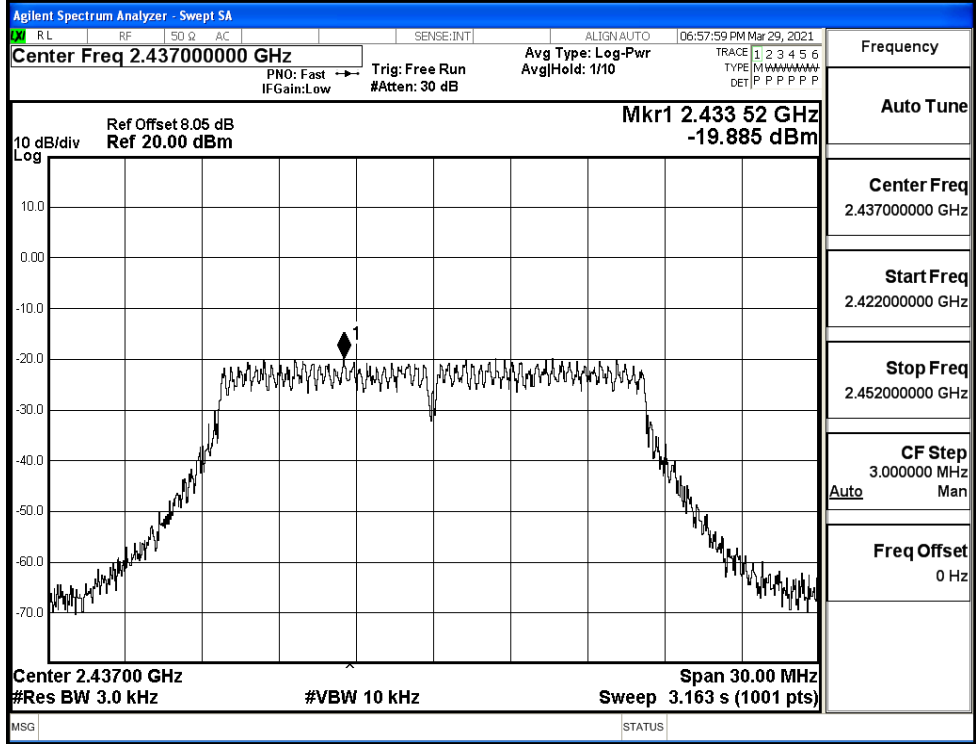


Frequency
Auto Tune
Center Freq 2.462000000 GHz
Start Freq 2.447000000 GHz
Stop Freq 2.477000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

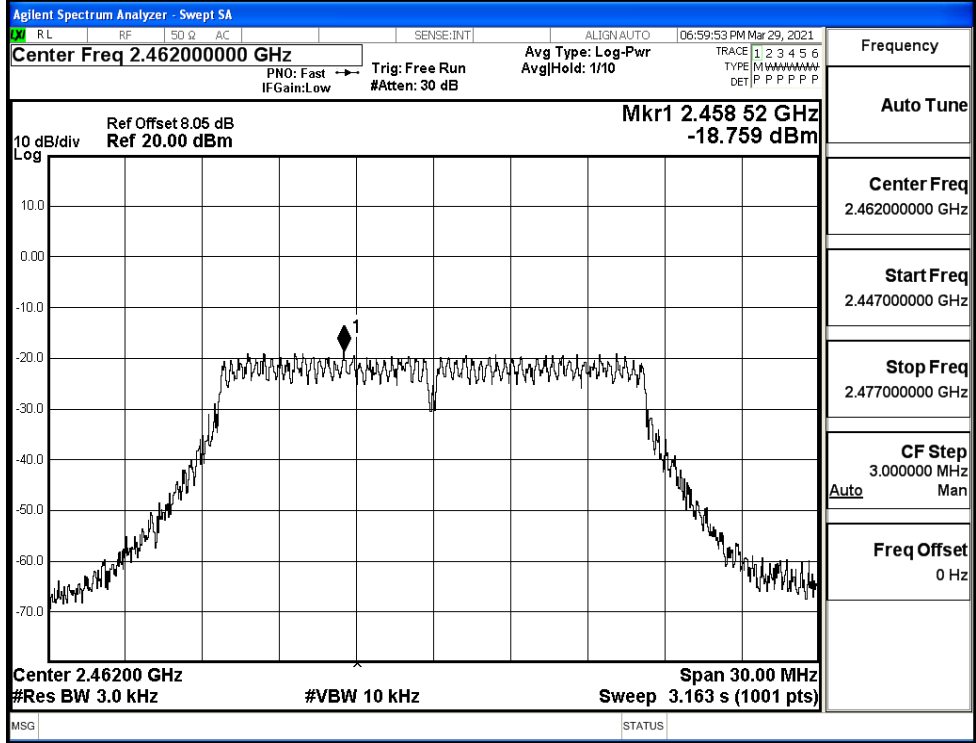
11G/LCH



11G/MCH

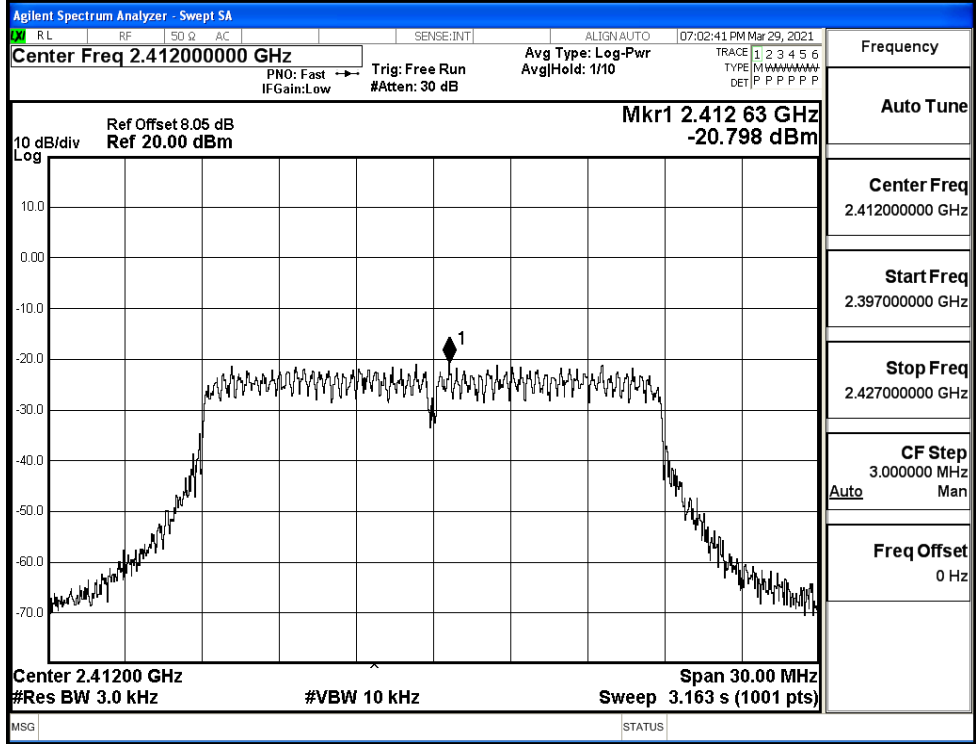


11G/HCH



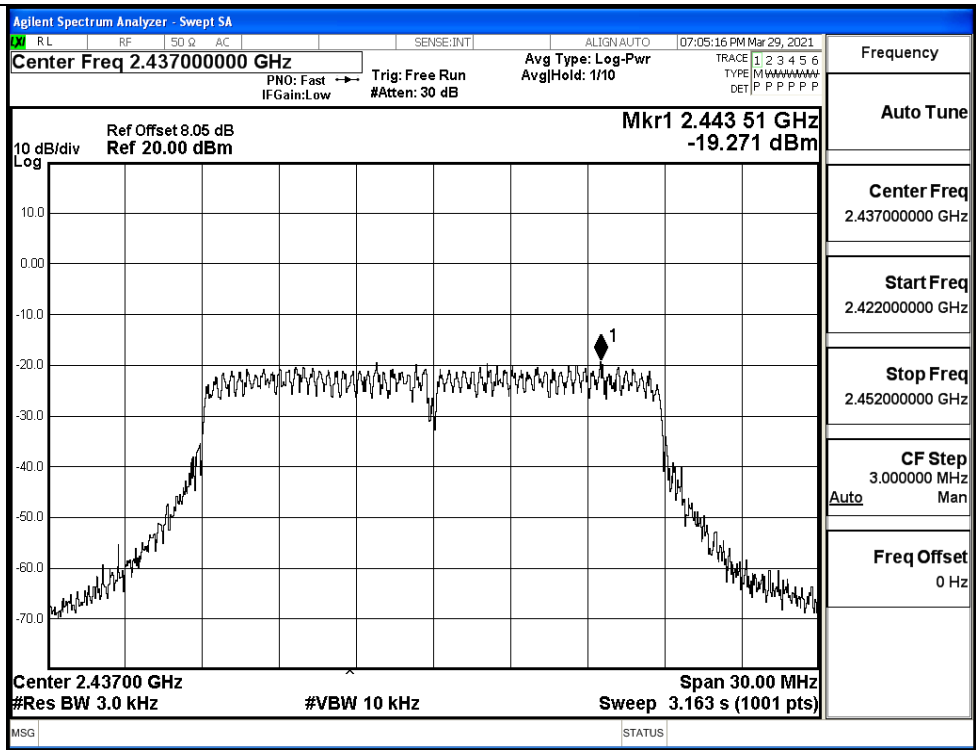
Frequency
Auto Tune
Center Freq 2.46200000 GHz
Start Freq 2.447000000 GHz
Stop Freq 2.477000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11N20SISO/LCH

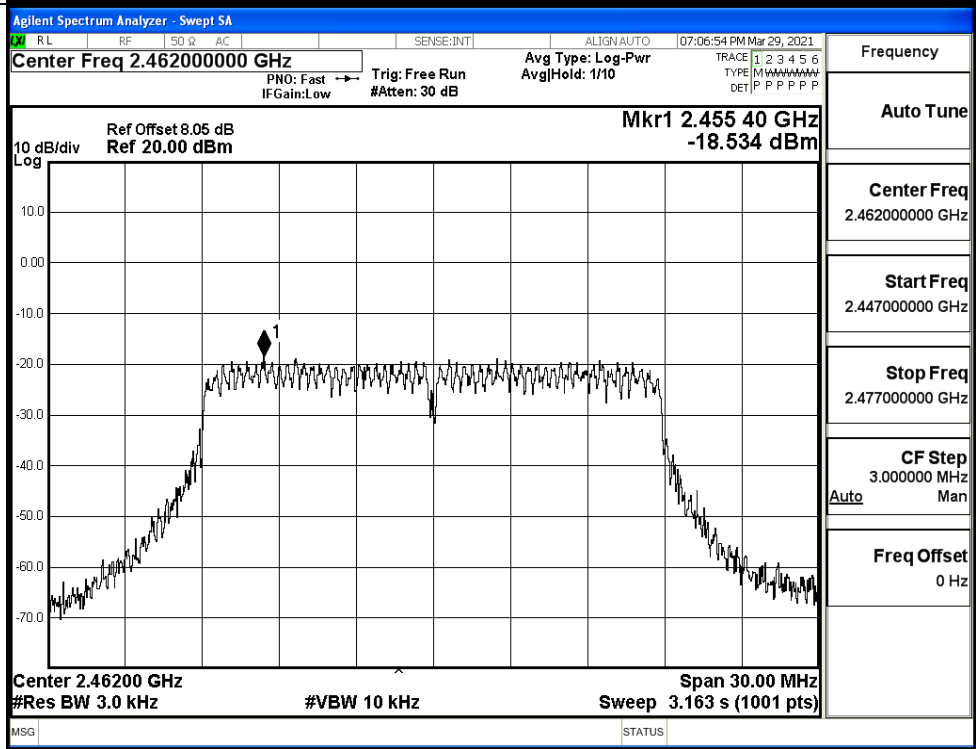


Frequency
Auto Tune
Center Freq 2.412000000 GHz
Start Freq 2.397000000 GHz
Stop Freq 2.427000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

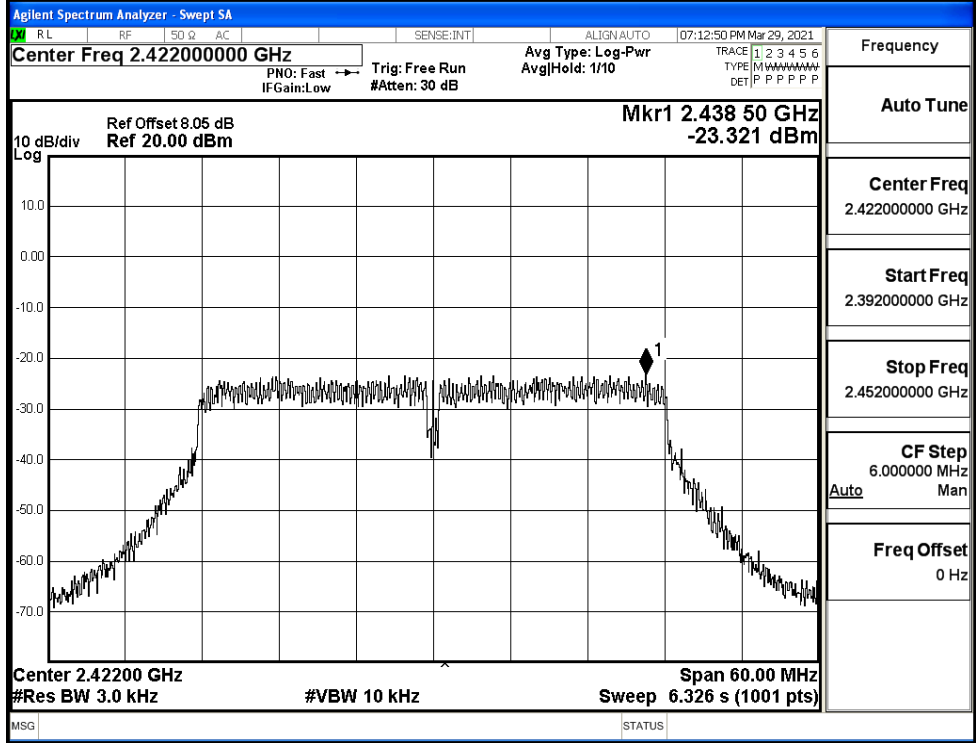
11N20SISO/MCH



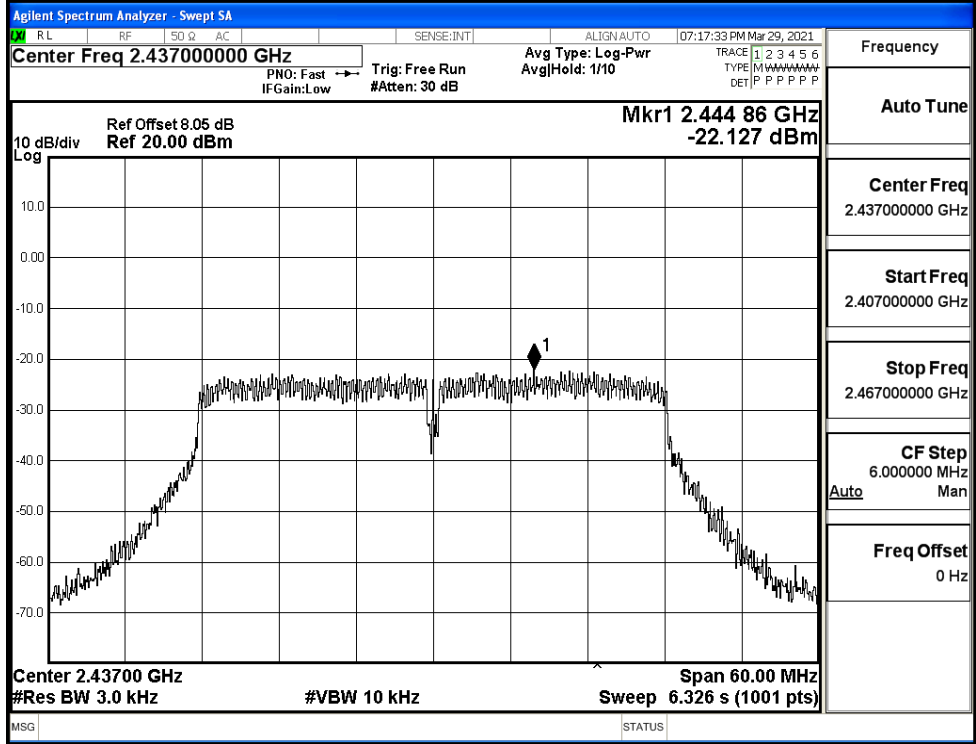
11N20SISO/HCH



11N40SISO/LCH



11N40SISO/MCH

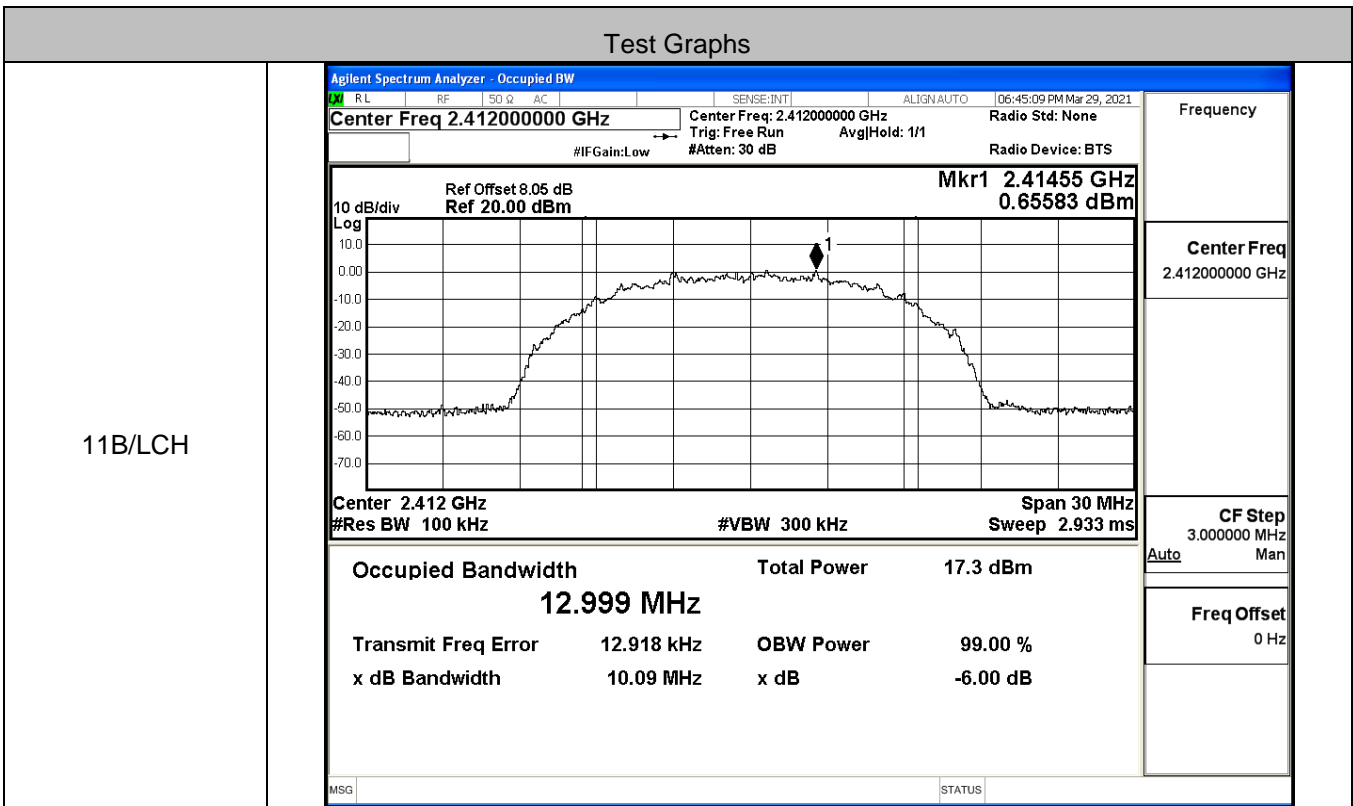




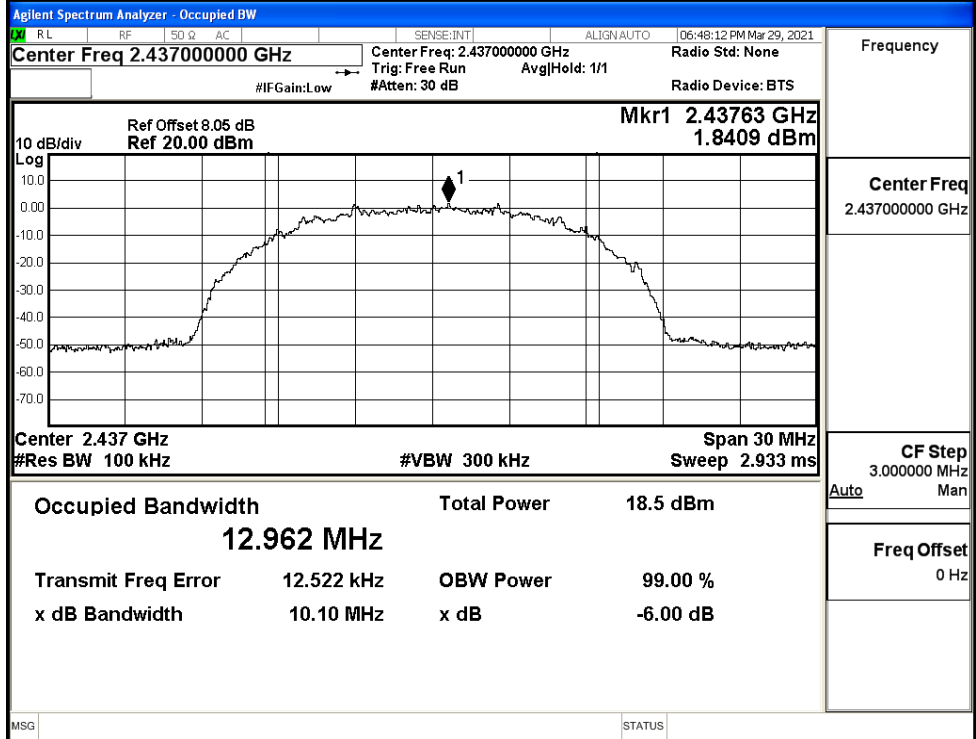


**A.4 6dB Bandwidth**

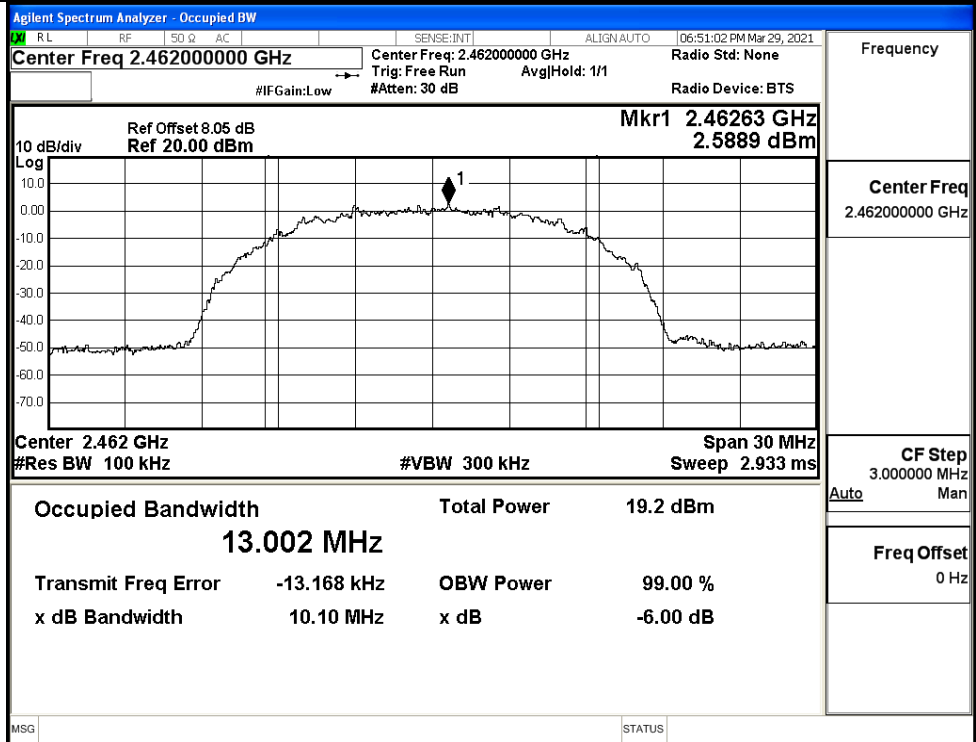
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	10.09	≥0.5	PASS
	MCH	10.10	≥0.5	PASS
	HCH	10.10	≥0.5	PASS
11G	LCH	16.48	≥0.5	PASS
	MCH	16.49	≥0.5	PASS
	HCH	16.49	≥0.5	PASS
11N20SISO	LCH	17.62	≥0.5	PASS
	MCH	17.63	≥0.5	PASS
	HCH	17.62	≥0.5	PASS
11N40SISO	LCH	36.49	≥0.5	PASS
	MCH	36.48	≥0.5	PASS
	HCH	36.46	≥0.5	PASS



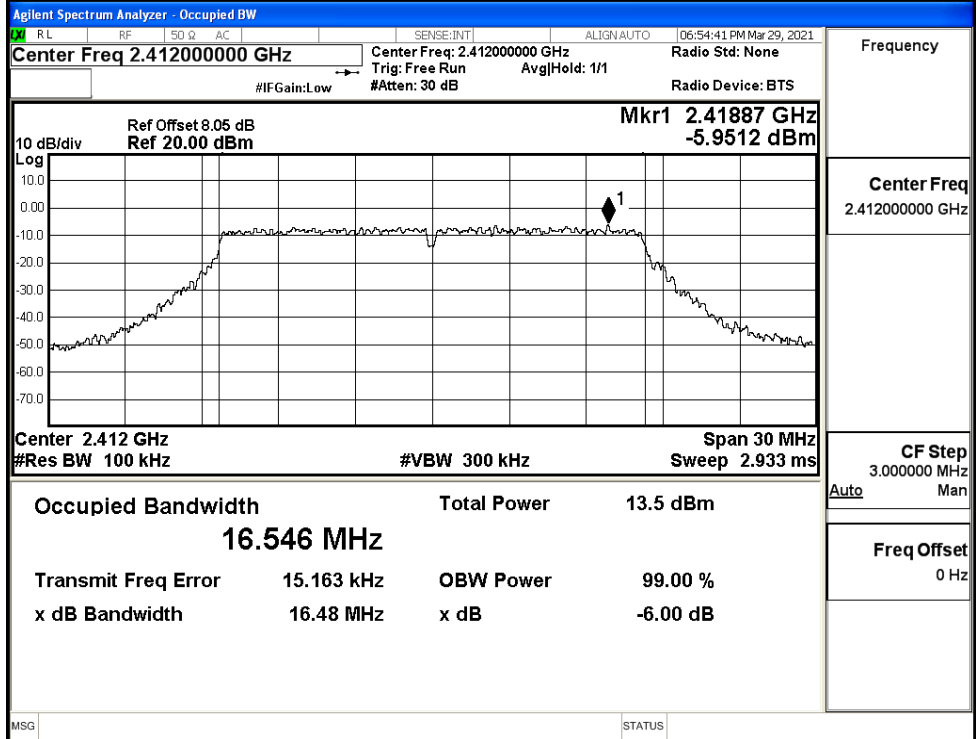
11B/MCH



11B/HCH

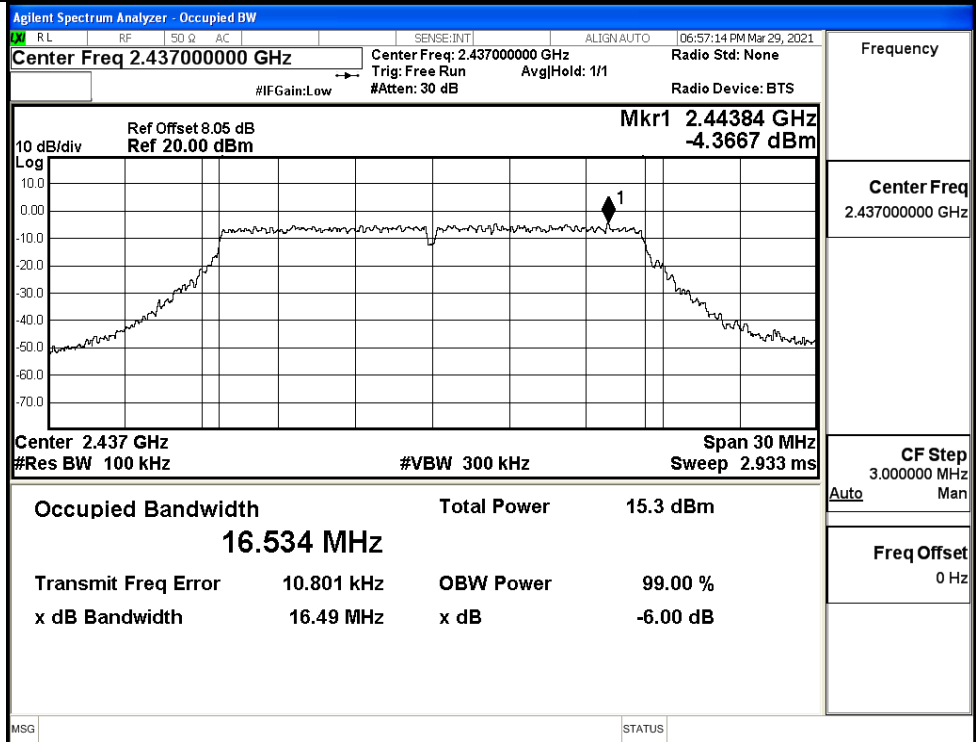


11G/LCH



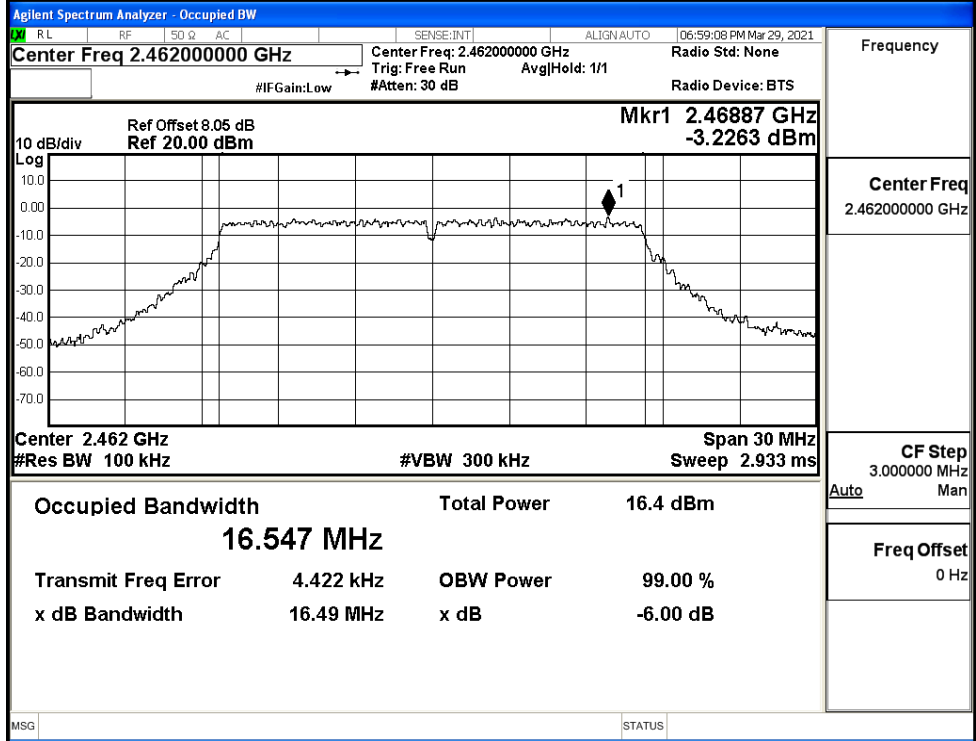
Frequency	2.41200000 GHz
Center Freq	2.41200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11G/MCH

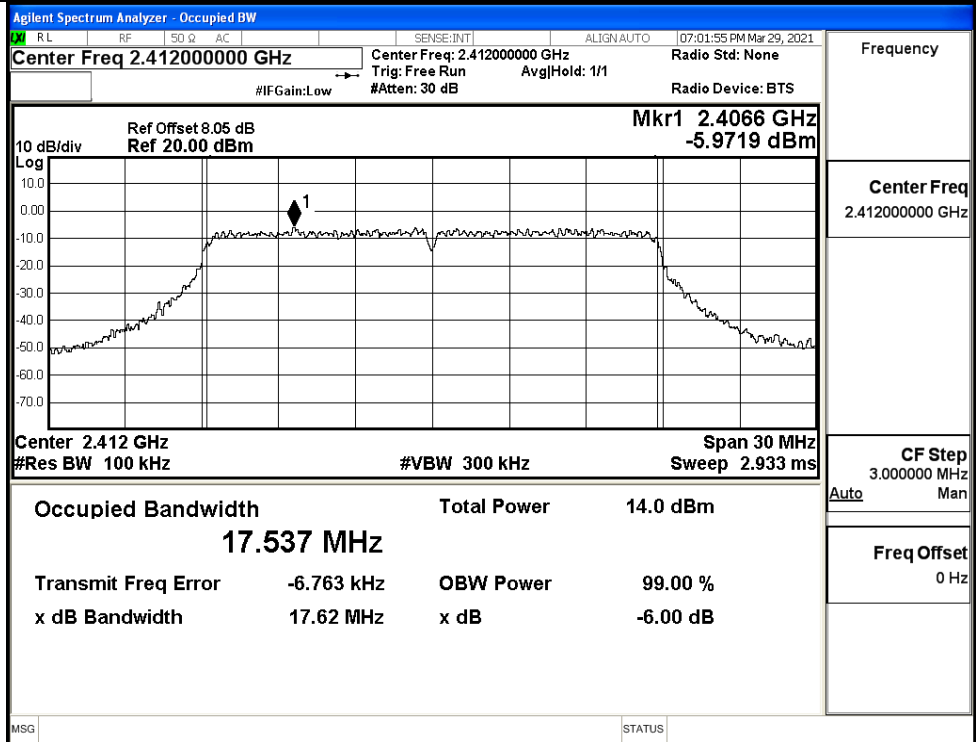


Frequency	2.43700000 GHz
Center Freq	2.43700000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11G/HCH

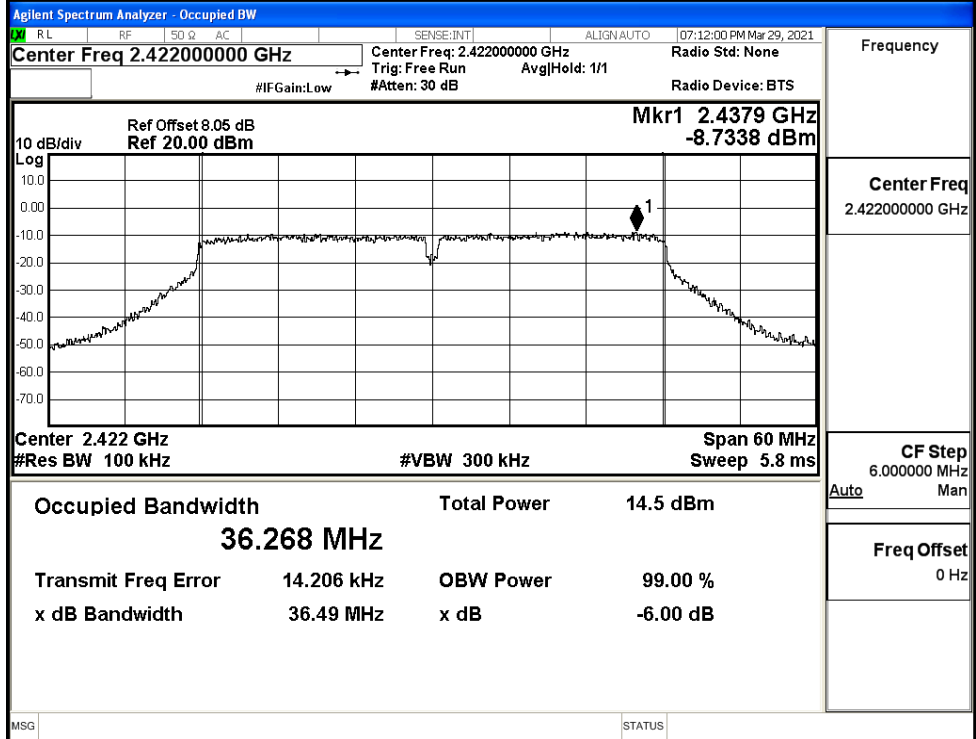


11N20SISO/LCH

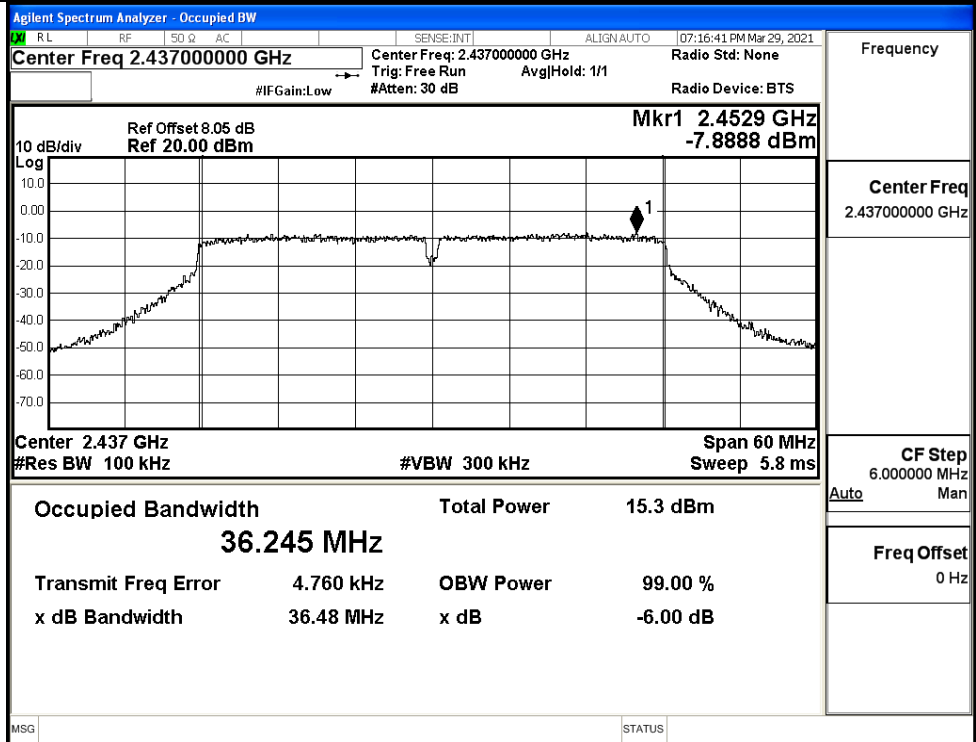


<p>11N20SISO/MCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>RL RF SQ Ω AC SENSE:INT ALIGN AUTO 07:04:31 PM Mar 29, 2021</p> <p>Center Freq 2.43700000 GHz Center Freq: 2.43700000 GHz Radio Std: None          Trig: Free Run AvgHold: 1/1 Radio Device: BTS          #IFGain:Low #Atten: 30 dB</p> <p>10 dB/div Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.4316 GHz -4.5499 dBm</p> <p>Center 2.437 GHz Span 30 MHz          #Res BW 100 kHz #VBW 300 kHz Sweep 2.933 ms</p> <p>Occupied Bandwidth 17.535 MHz Total Power 15.6 dBm</p> <p>Transmit Freq Error -10.513 kHz OBW Power 99.00 %          x dB Bandwidth 17.63 MHz x dB -6.00 dB</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Center Freq 2.43700000 GHz</p> <p>CF Step 3.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>11N20SISO/HCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>RL RF SQ Ω AC SENSE:INT ALIGN AUTO 07:06:10 PM Mar 29, 2021</p> <p>Center Freq 2.46200000 GHz Center Freq: 2.46200000 GHz Radio Std: None          Trig: Free Run AvgHold: 1/1 Radio Device: BTS          #IFGain:Low #Atten: 30 dB</p> <p>10 dB/div Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.46134 GHz -3.4208 dBm</p> <p>Center 2.462 GHz Span 30 MHz          #Res BW 100 kHz #VBW 300 kHz Sweep 2.933 ms</p> <p>Occupied Bandwidth 17.547 MHz Total Power 16.5 dBm</p> <p>Transmit Freq Error -17.887 kHz OBW Power 99.00 %          x dB Bandwidth 17.62 MHz x dB -6.00 dB</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Center Freq 2.46200000 GHz</p> <p>CF Step 3.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>

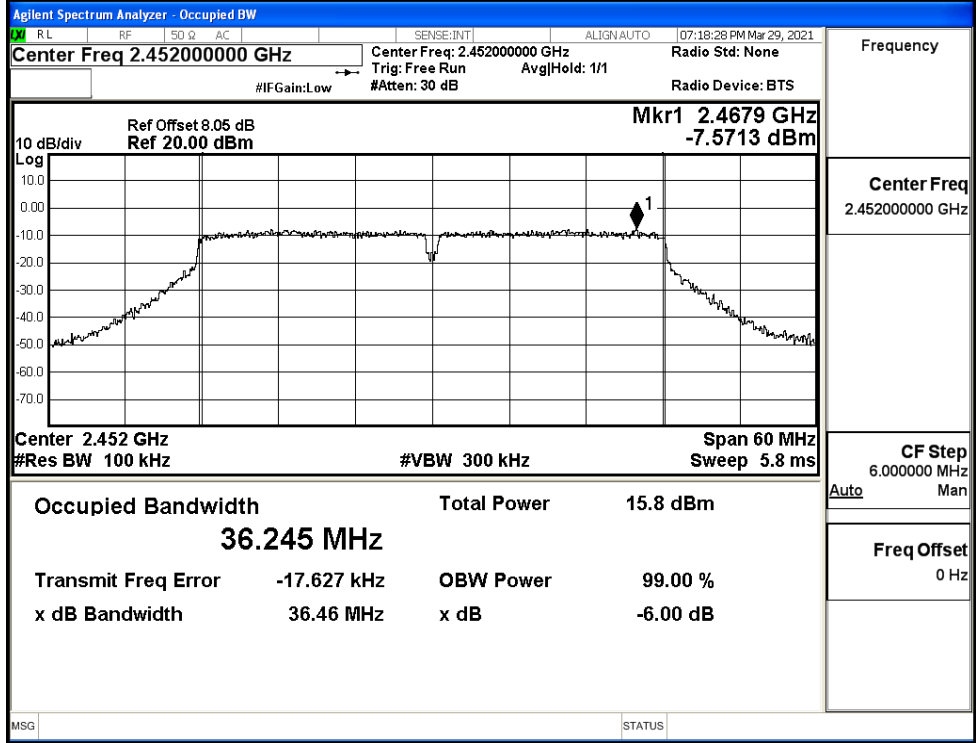
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH





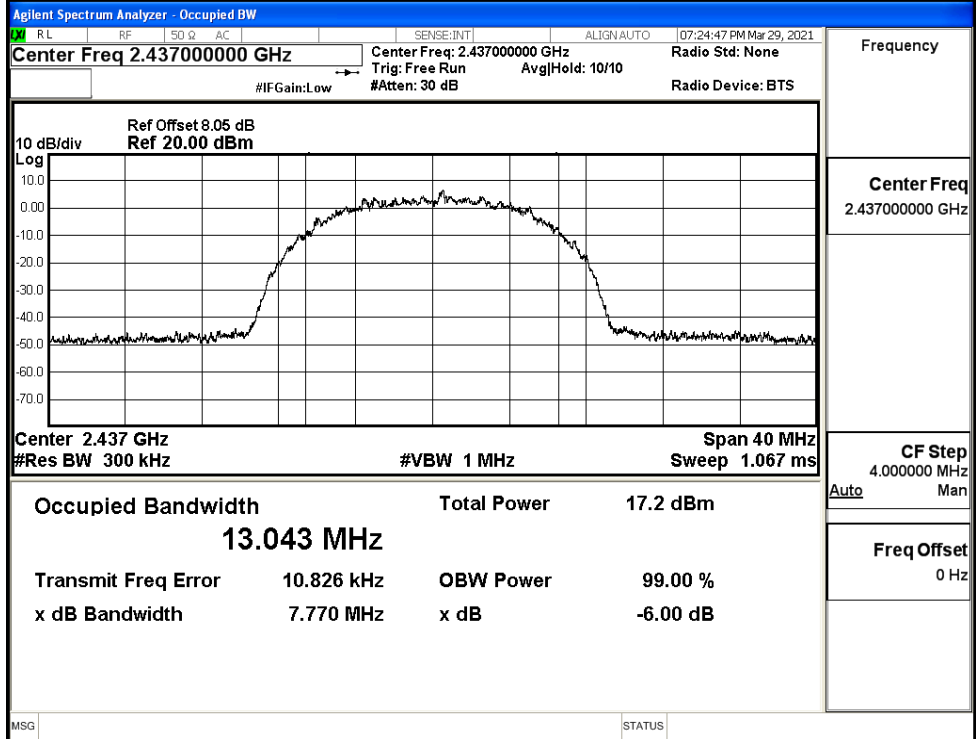
**A.5 Occupied Bandwidth**

Mode	Channel	Occupied Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	13.054	No Limited	PASS
	MCH	13.043	No Limited	PASS
	HCH	13.052	No Limited	PASS
11G	LCH	16.697	No Limited	PASS
	MCH	16.663	No Limited	PASS
	HCH	16.703	No Limited	PASS
11N20SISO	LCH	17.537	No Limited	PASS
	MCH	17.534	No Limited	PASS
	HCH	17.536	No Limited	PASS
11N40SISO	LCH	36.446	No Limited	PASS
	MCH	36.378	No Limited	PASS
	HCH	36.423	No Limited	PASS

**Test Graphs**

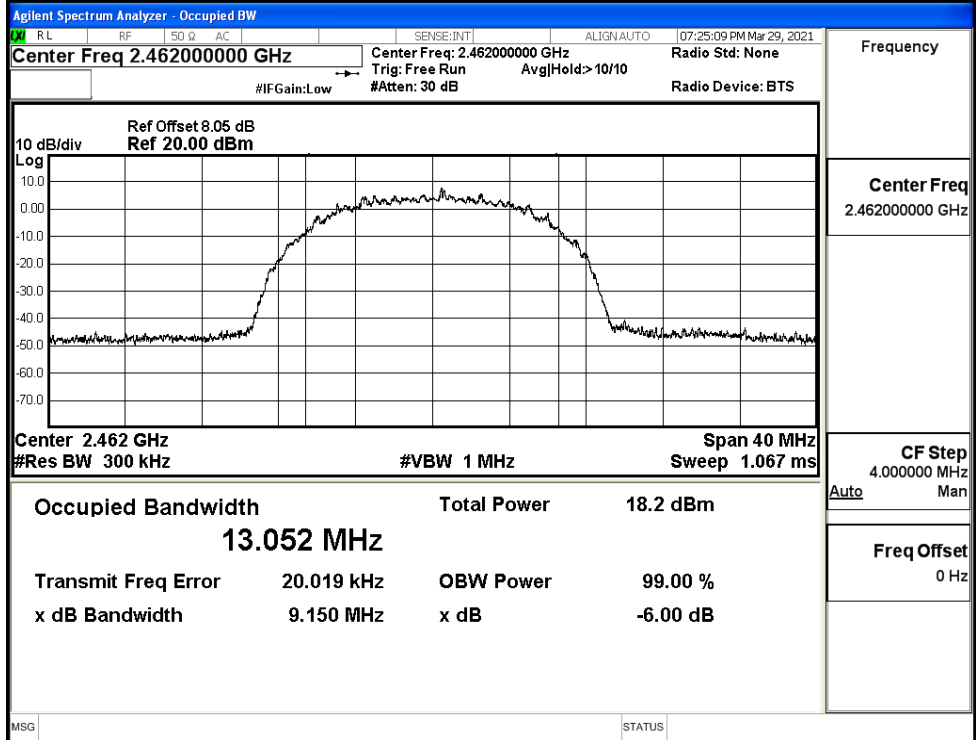
11B/LCH	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.41200000 GHz</p> <p>Center Freq: 2.412000000 GHz Trig: Free Run #IFGain: Low #Atten: 30 dB</p>		<p>Frequency</p> <p>Center Freq 2.412000000 GHz</p>
	<p>10 dB/div Ref Offset 8.05 dB Ref 20.00 dBm</p> <p>Center 2.412 GHz #Res BW 300 kHz</p> <p>Span 40 MHz Sweep 1.067 ms</p> <p>#VBW 1 MHz</p>		<p>CF Step 4.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
		<p>Occupied Bandwidth <b>13.054 MHz</b></p> <p>Total Power 15.7 dBm</p> <p>Transmit Freq Error 40.961 kHz OBW Power 99.00 %</p> <p>x dB Bandwidth 9.233 MHz x dB -6.00 dB</p>	

11B/MCH



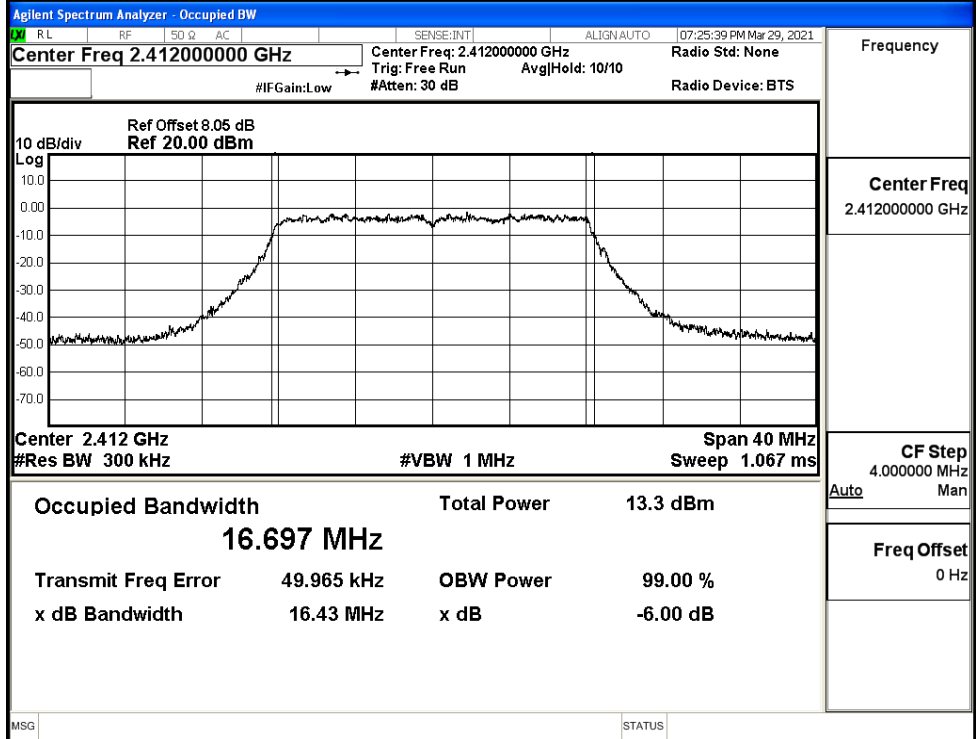
Frequency	2.437000000 GHz
Center Freq	2.437000000 GHz
CF Step	4.000000 MHz
Auto	Man
Freq Offset	0 Hz

11B/HCH

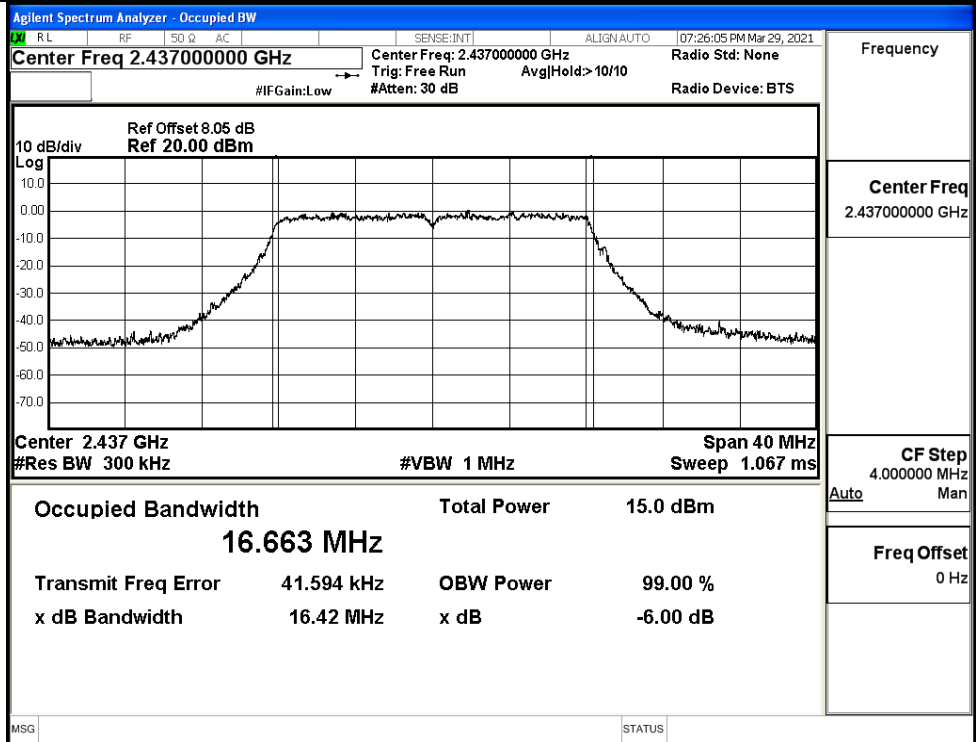


Frequency	2.462000000 GHz
Center Freq	2.462000000 GHz
CF Step	4.000000 MHz
Auto	Man
Freq Offset	0 Hz

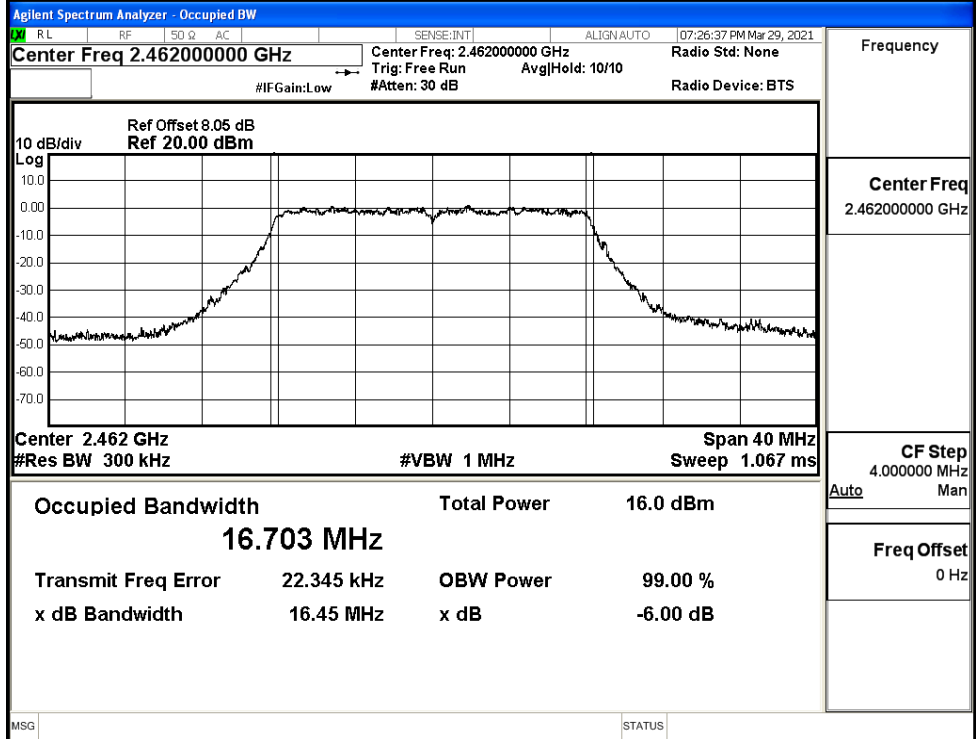
11G/LCH



11G/MCH

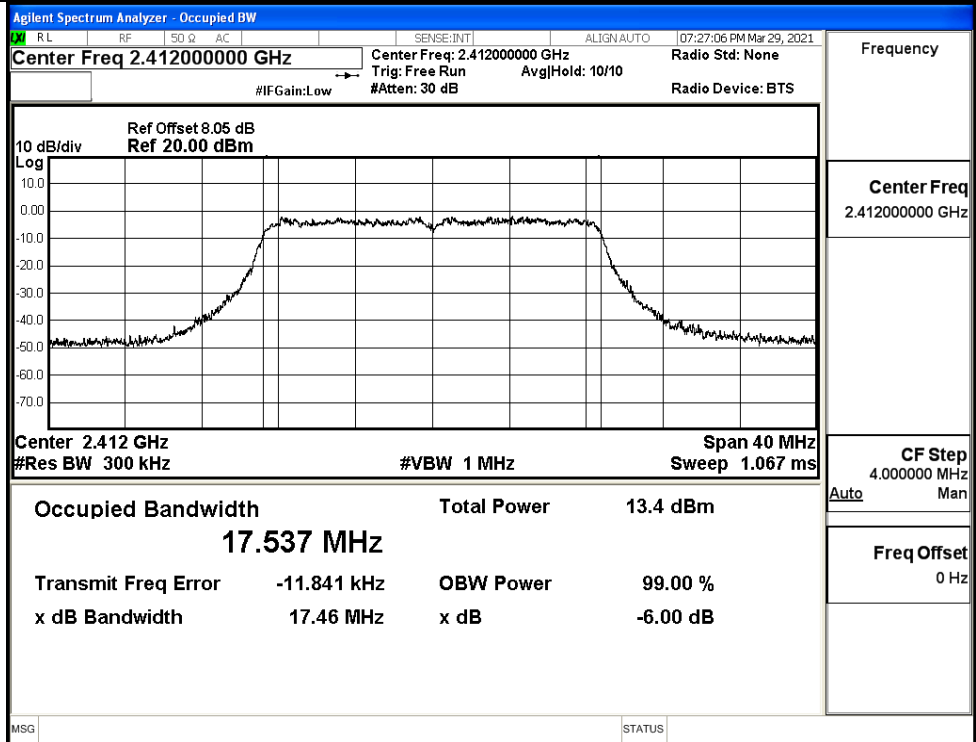


11G/HCH



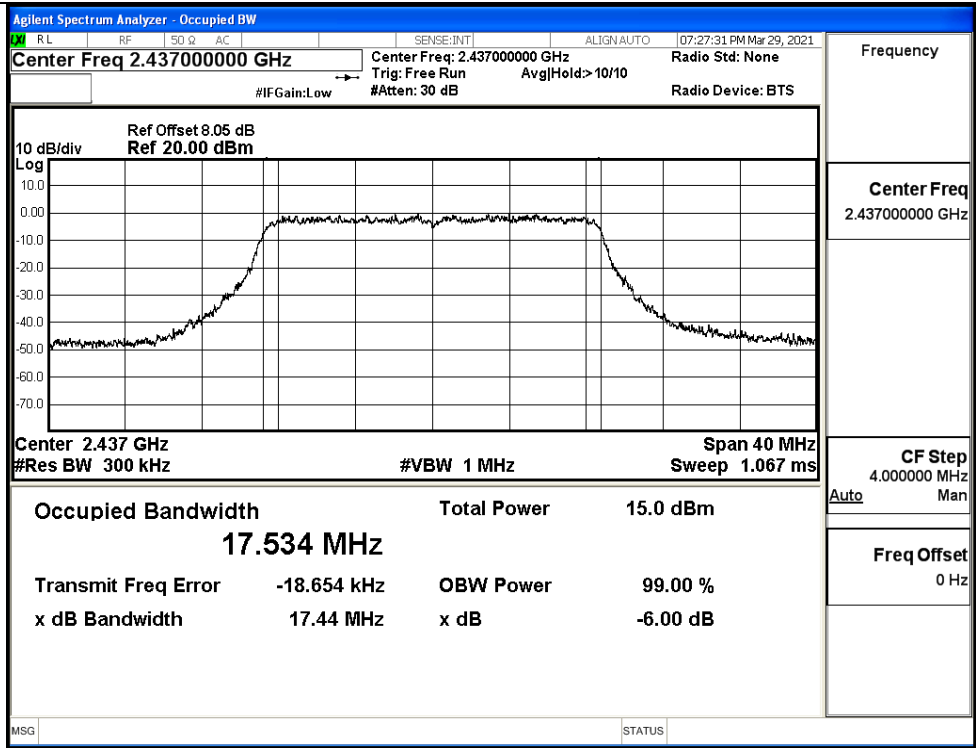
Frequency	2.46200000 GHz
Center Freq	2.46200000 GHz
CF Step	4.000000 MHz
Auto	Man
Freq Offset	0 Hz

11N20SISO/LCH



Frequency	2.41200000 GHz
Center Freq	2.41200000 GHz
CF Step	4.000000 MHz
Auto	Man
Freq Offset	0 Hz

11N20SISO/MCH



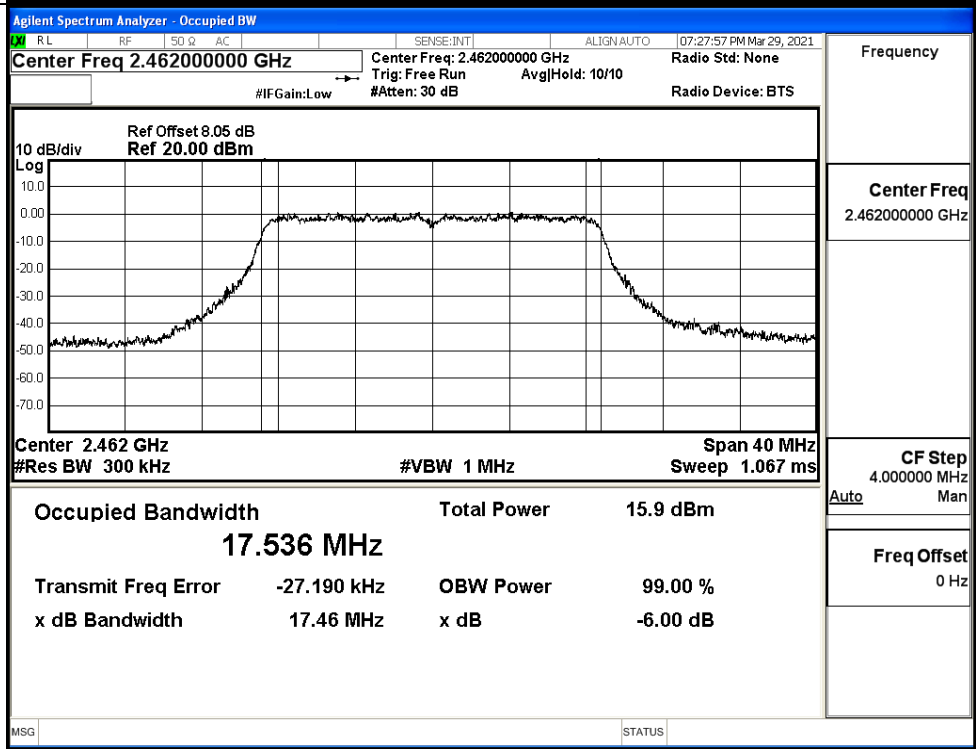
Frequency

Center Freq  
2.43700000 GHz

CF Step  
4.000000 MHz

Freq Offset  
0 Hz

11N20SISO/HCH



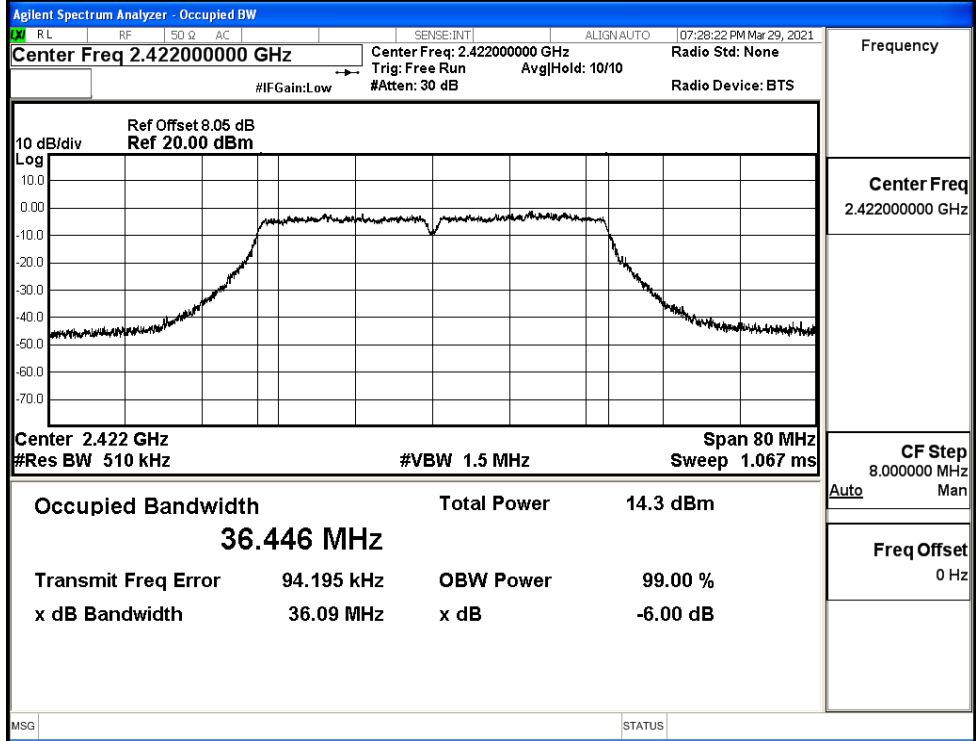
Frequency

Center Freq  
2.46200000 GHz

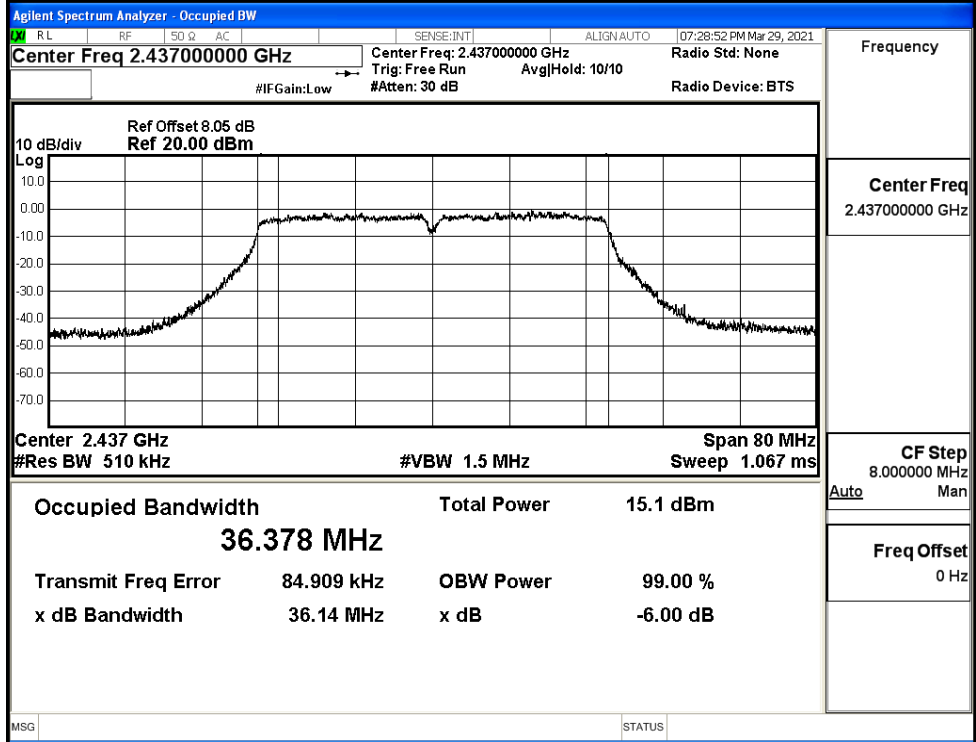
CF Step  
4.000000 MHz

Freq Offset  
0 Hz

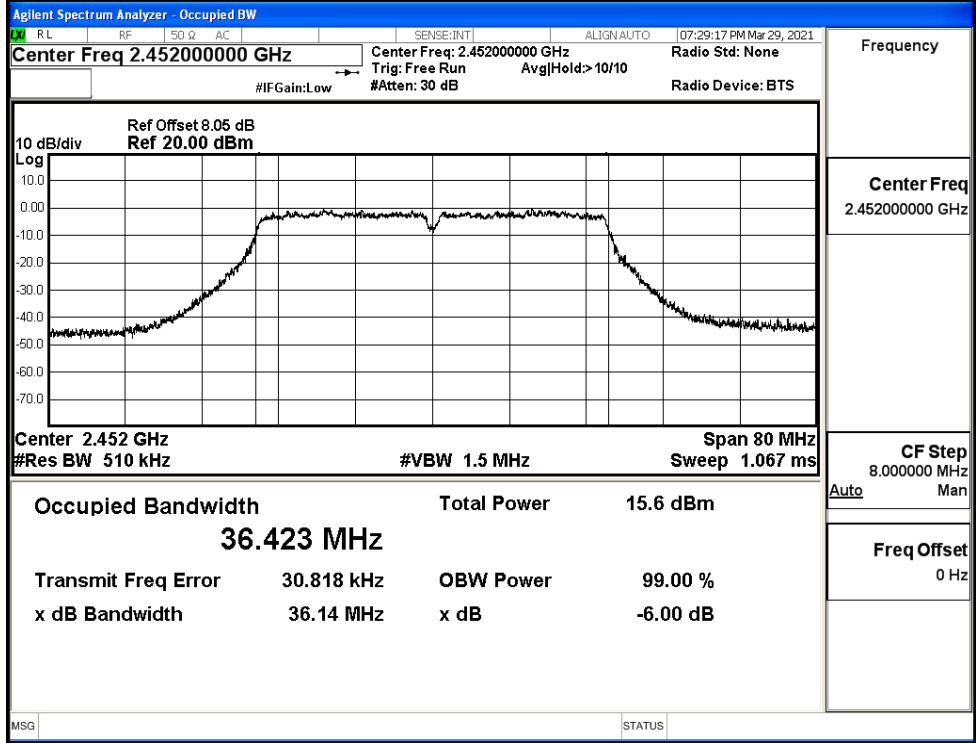
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH



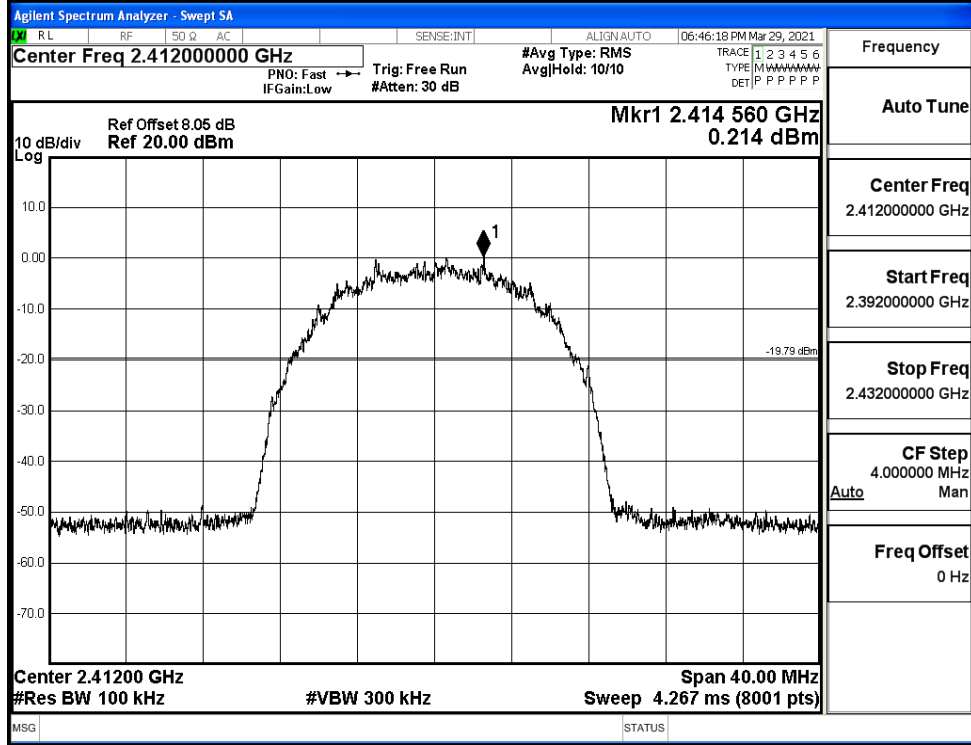
**A.6 RF Conducted Spurious Emissions**

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	0.214	-37.387	-19.786	PASS
	MCH	1.589	-37.933	-18.411	PASS
	HCH	2.442	-37.563	-17.558	PASS
11G	LCH	-5.896	-37.831	-25.896	PASS
	MCH	-4.315	-37.803	-24.315	PASS
	HCH	-3.412	-36.534	-23.412	PASS
11N20 SISO	LCH	-5.81	-37.852	-25.810	PASS
	MCH	-4.538	-36.269	-24.538	PASS
	HCH	-3.902	-37.500	-23.902	PASS
11N40 SISO	LCH	-8.872	-37.197	-28.872	PASS
	MCH	-7.987	-37.468	-27.987	PASS
	HCH	-7.958	-37.684	-27.958	PASS

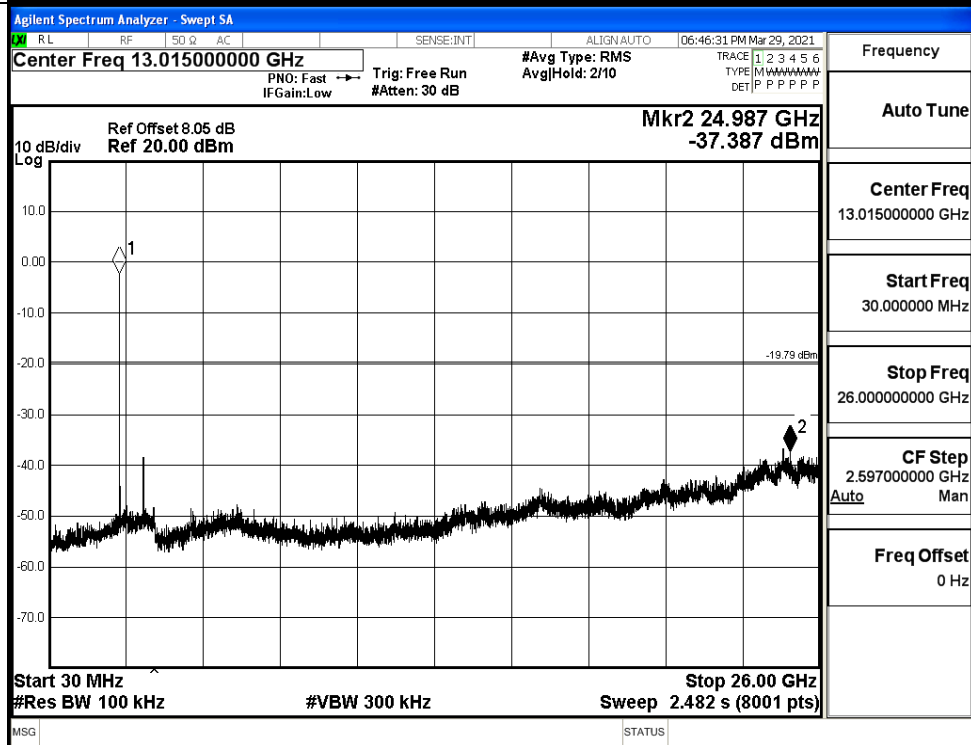


11B\_LCH\_Graphs

Pref/11B/LCH

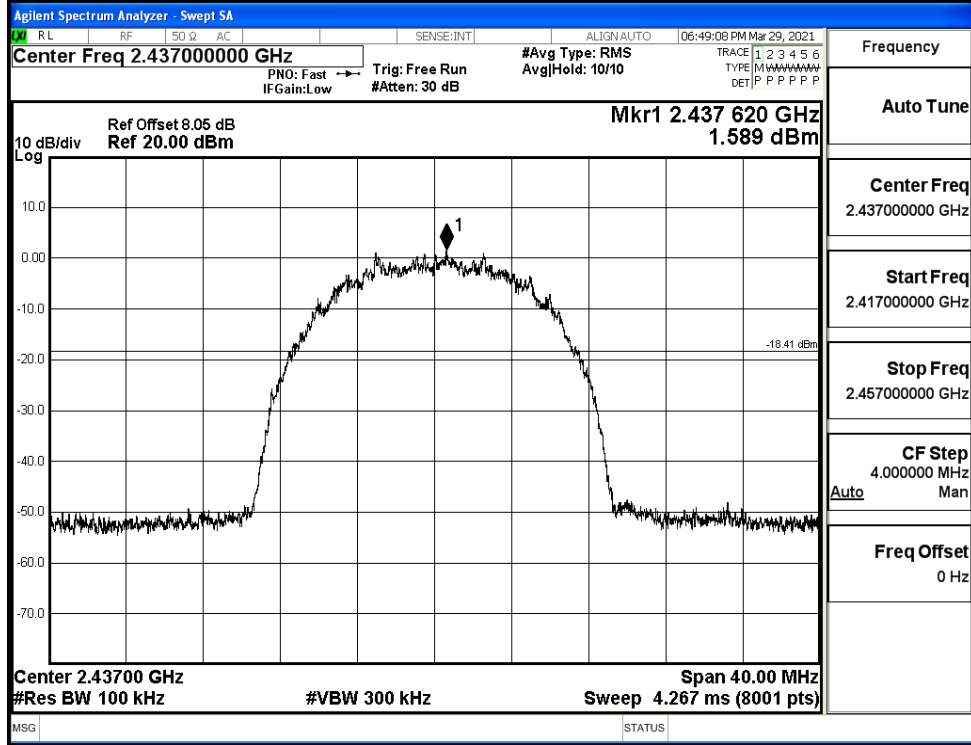


Puw/11B/LCH

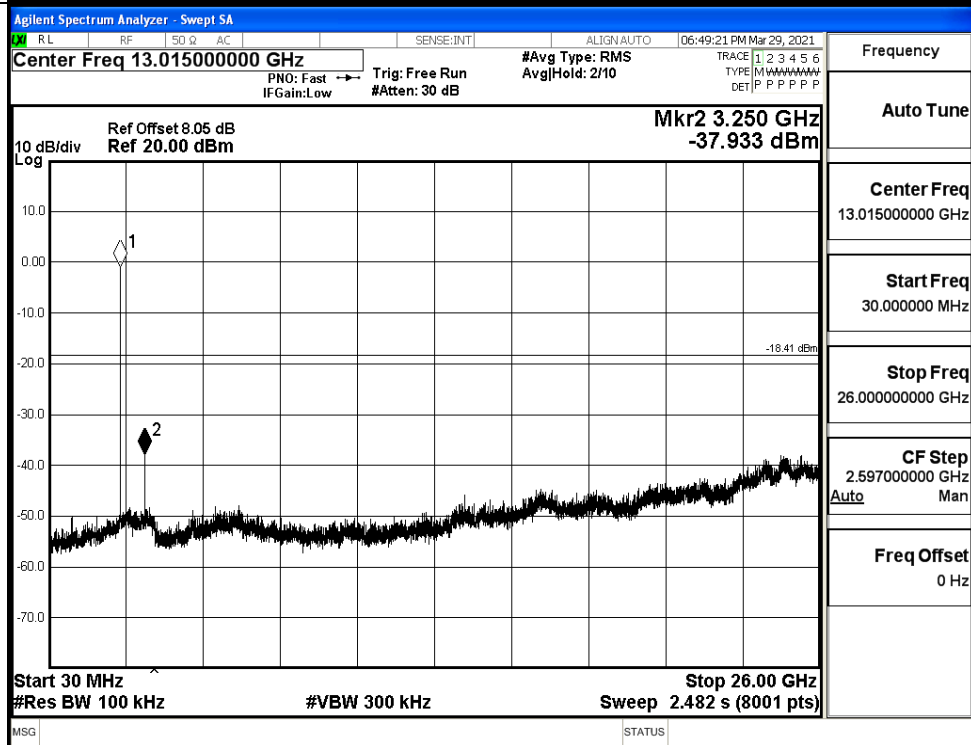


11B\_MCH\_Graphs

Pref/11B/MCH

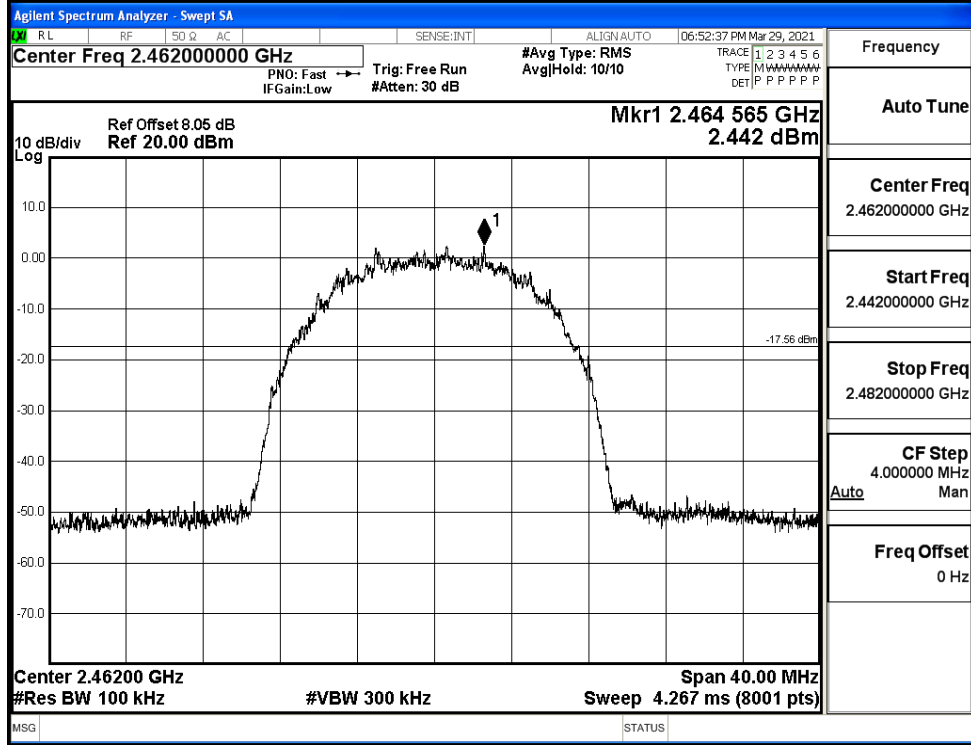


Puw/11B/MCH

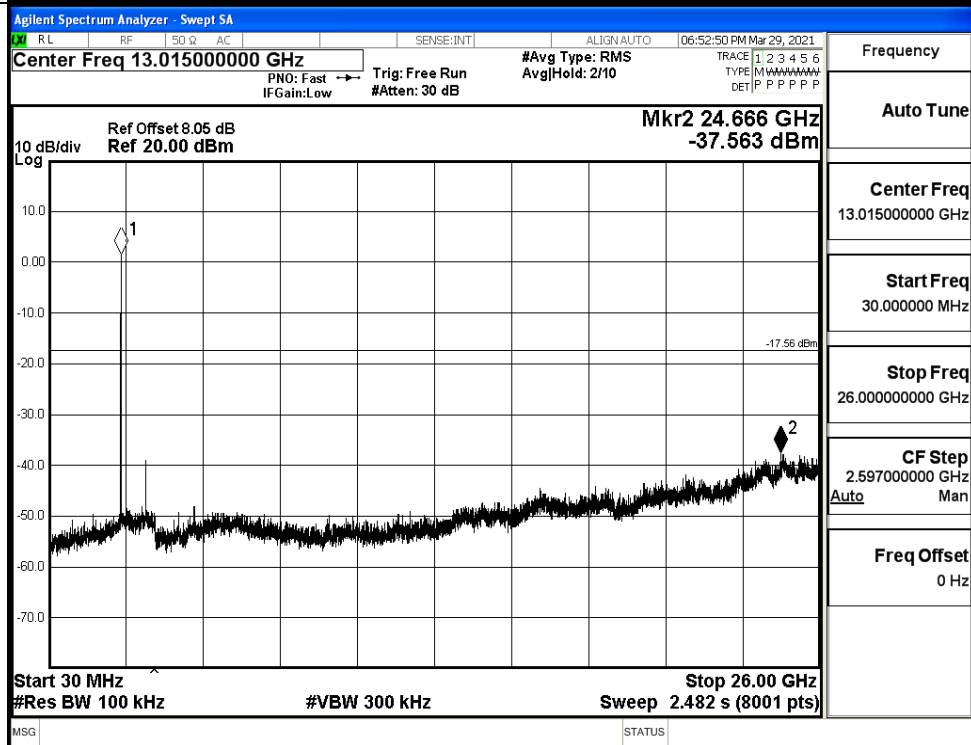


11B\_HCH\_Graphs

Pref/11B/HCH

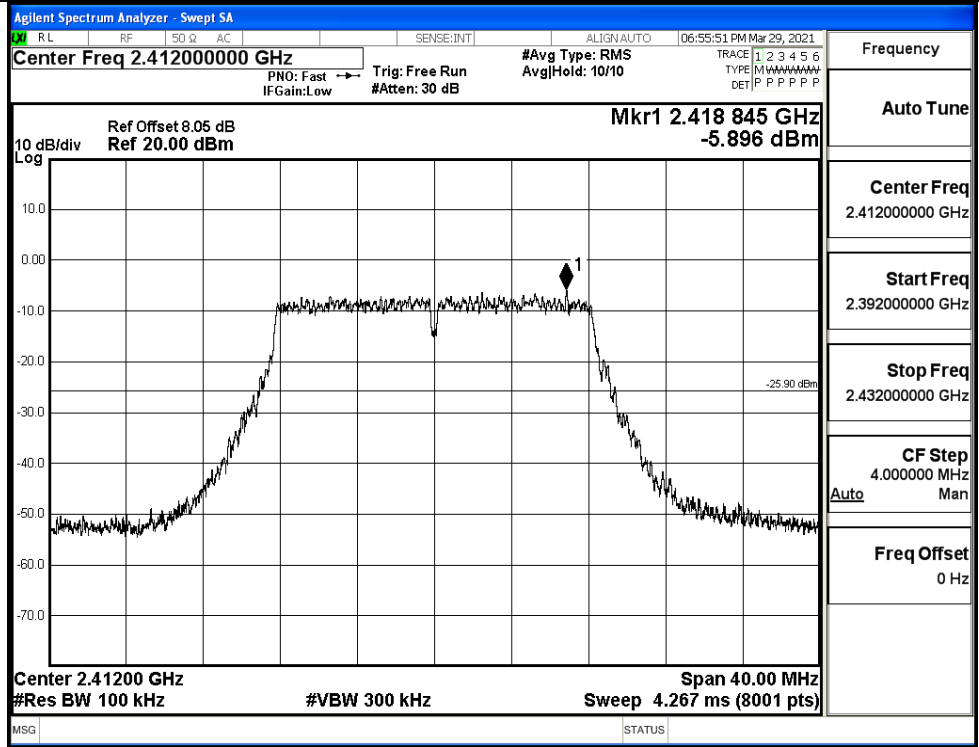


Puw/11B/HCH

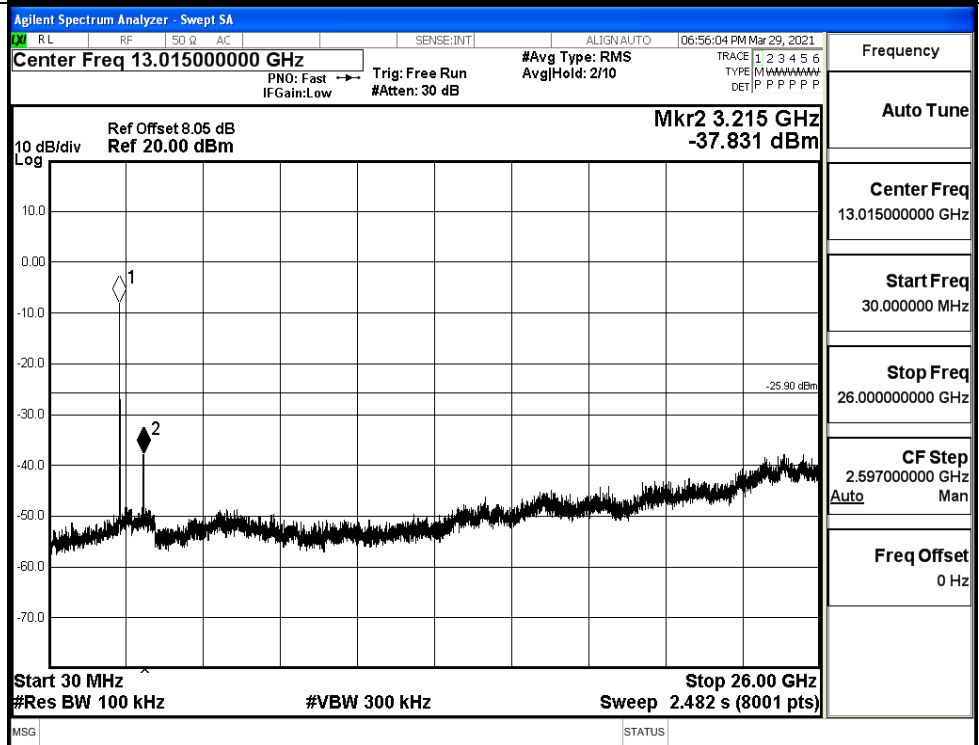


11G\_LCH\_Graphs

Pref/11G/LCH

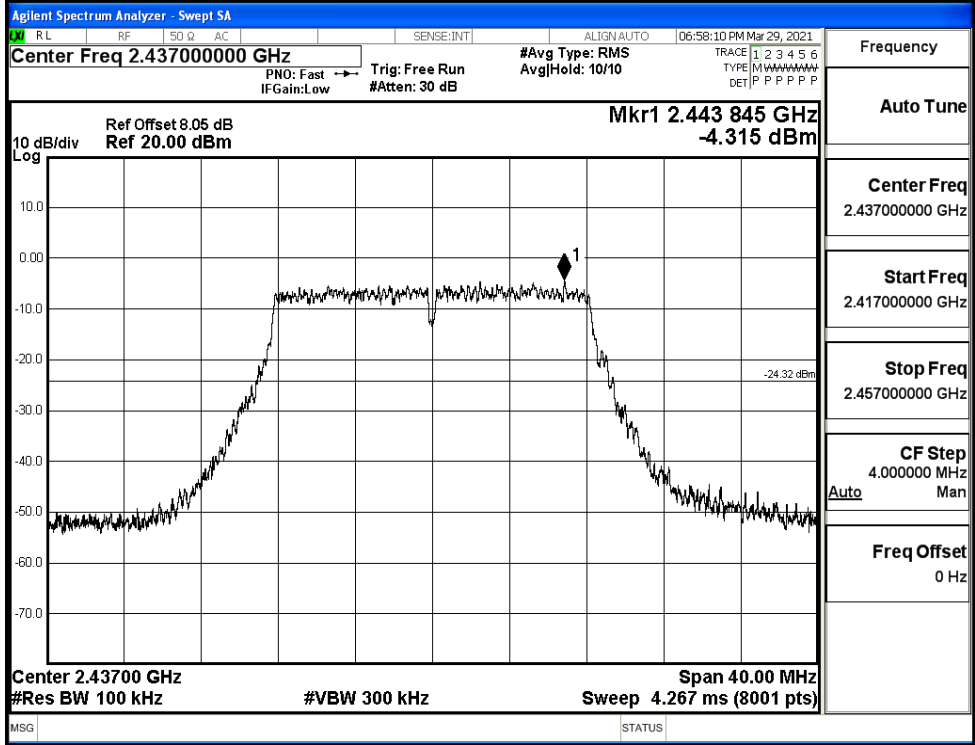


Puw/11G/LCH

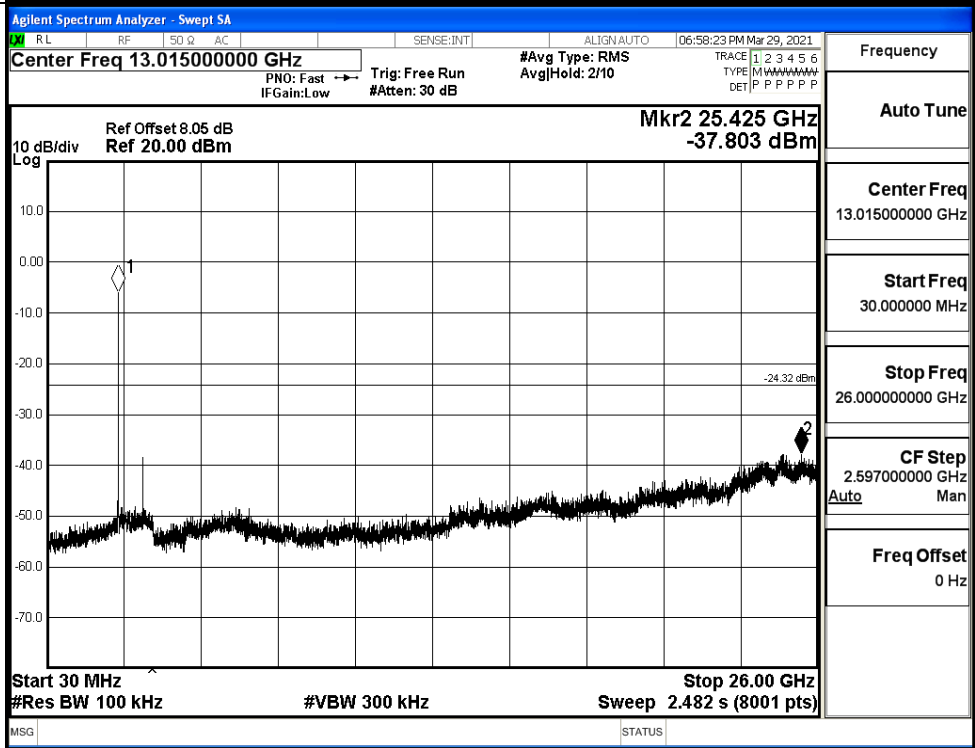


11G\_MCH\_Graphs

Pref/11G/MCH

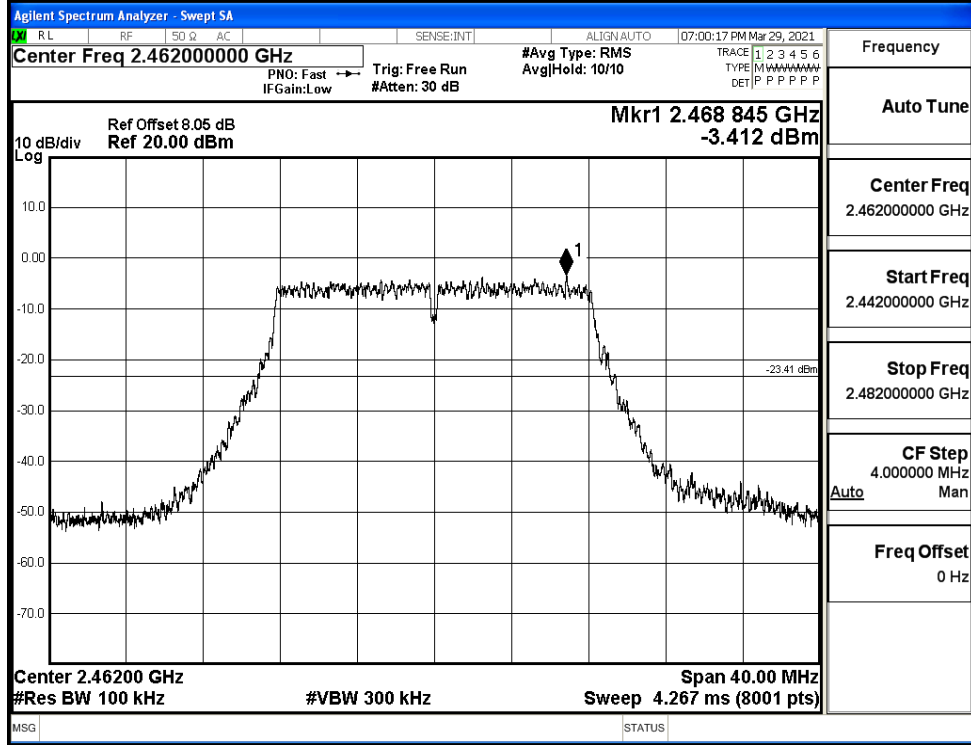


Puw/11G/MCH

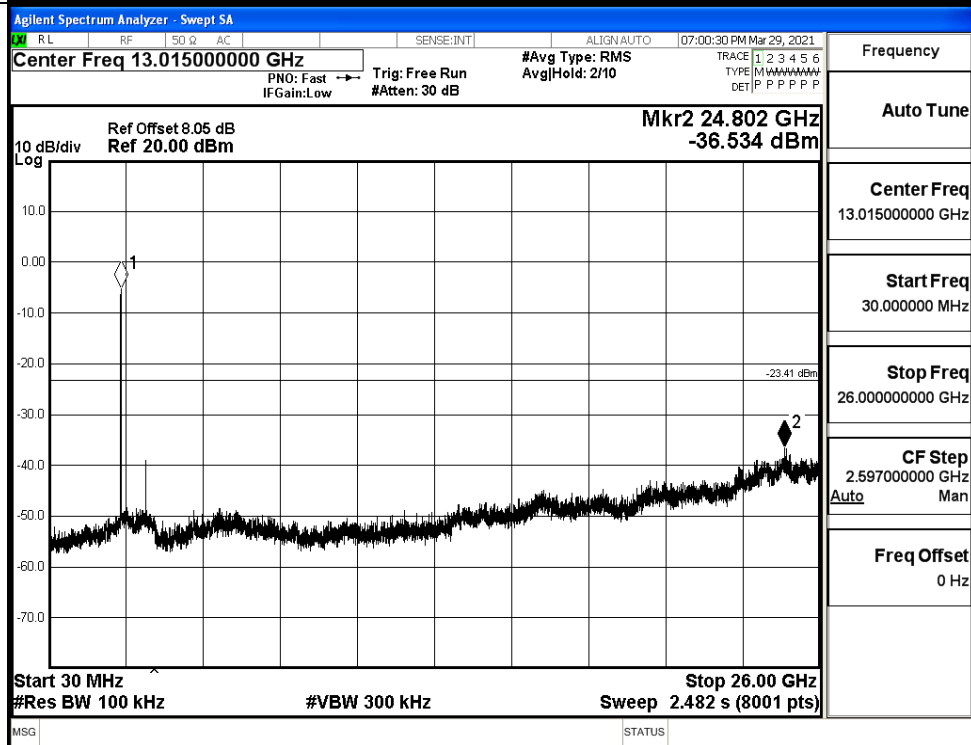


11G\_HCH\_Graphs

Pref/11G/HCH

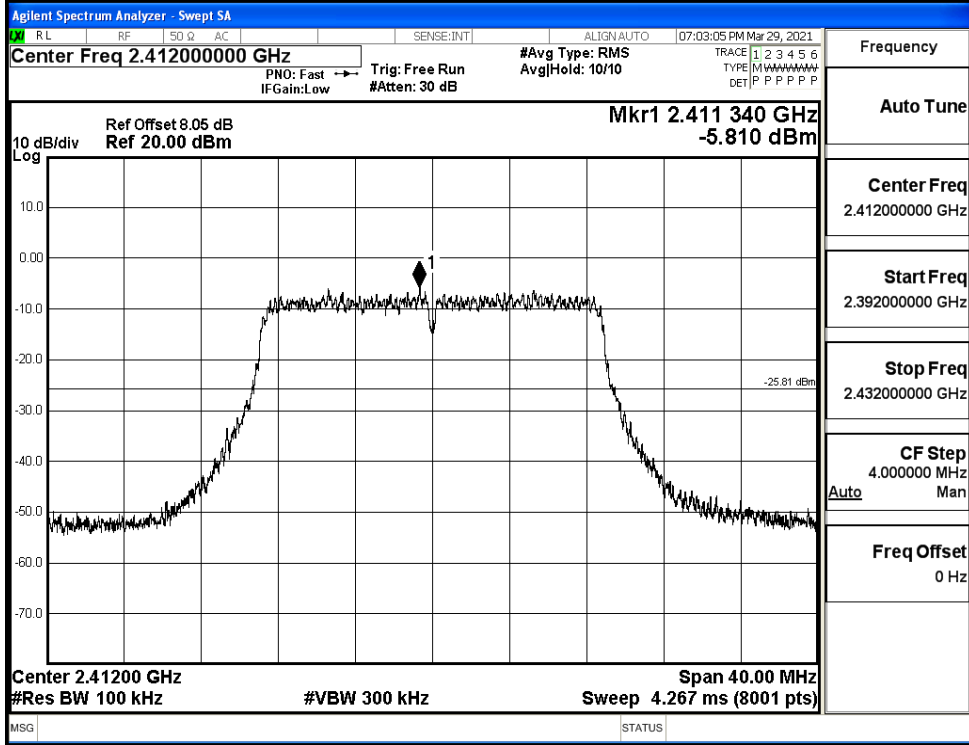


Puw/11G/HCH

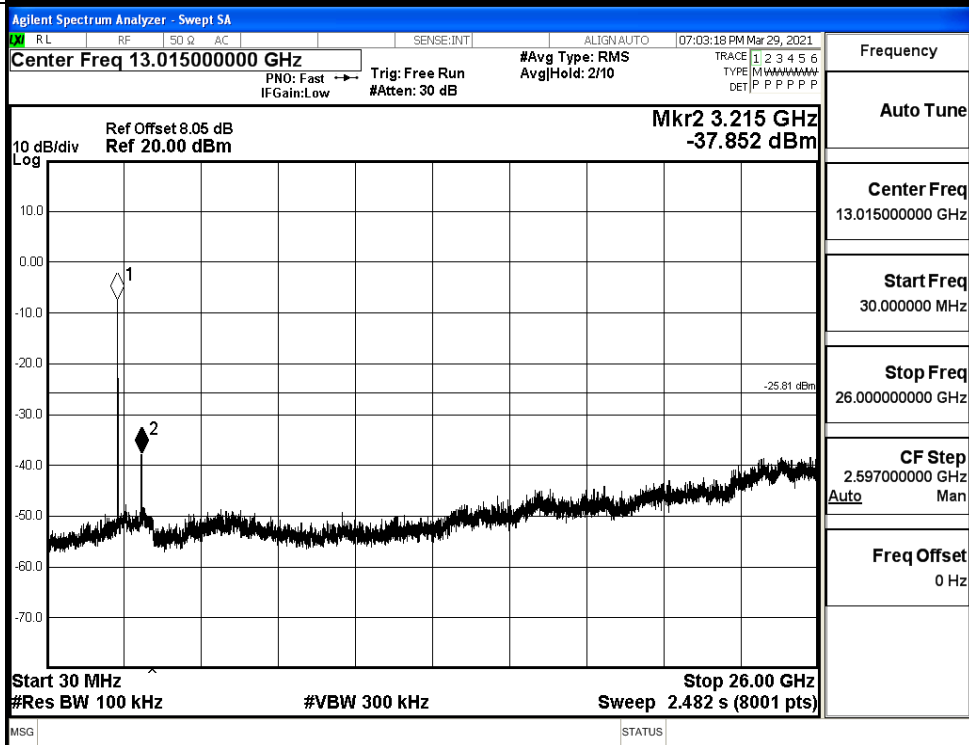


11N20SISO\_LCH\_Graphs

Pref/11N20SIS  
O/LCH

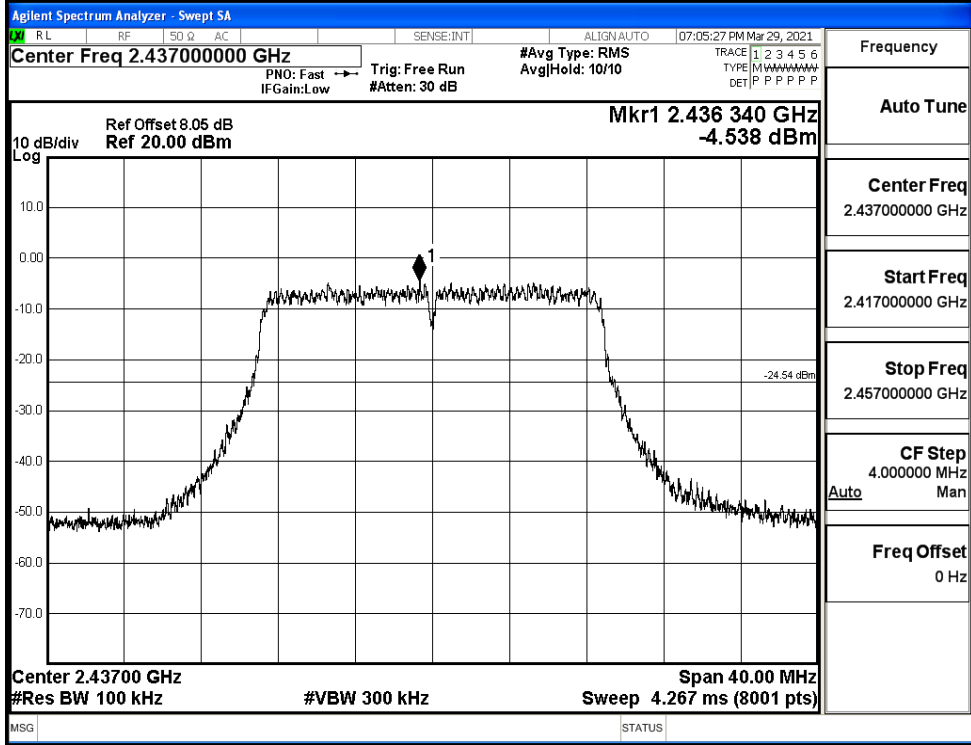


Puw/11N20  
SISO/LCH

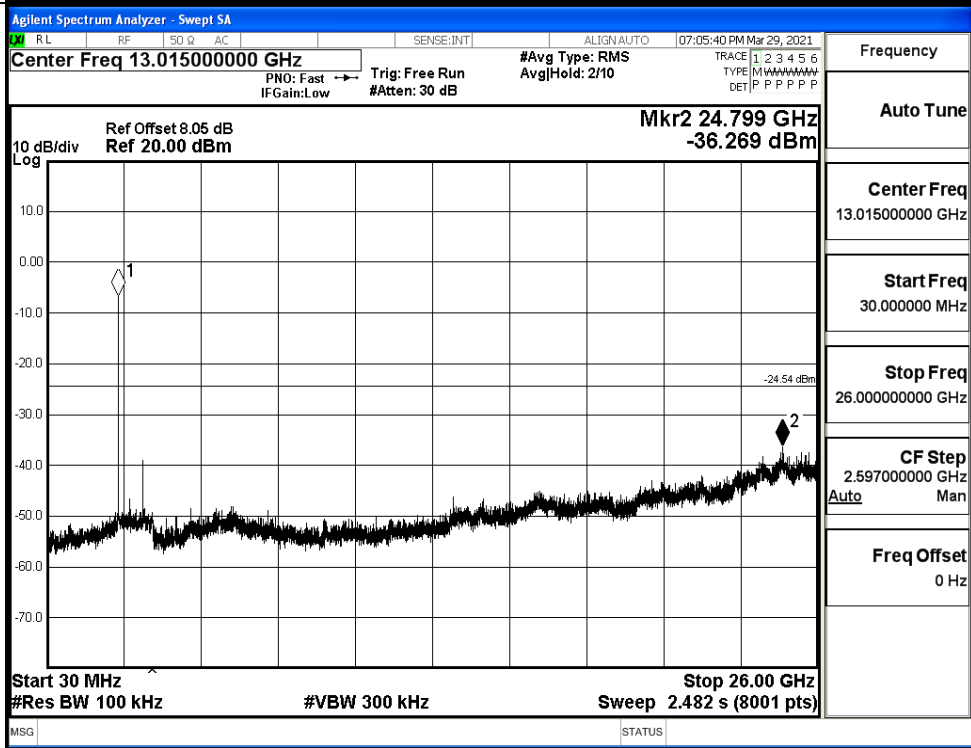


11N20SISO\_MCH\_Graphs

Pref/11N20  
SISO/MCH



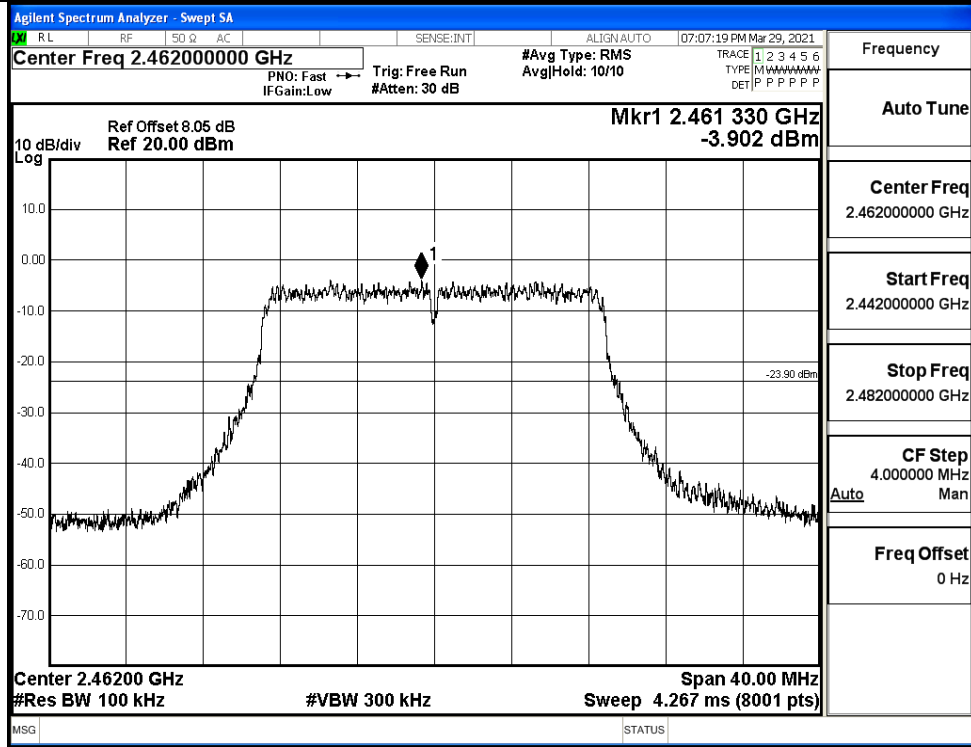
Puw/11N20  
SISO/MCH



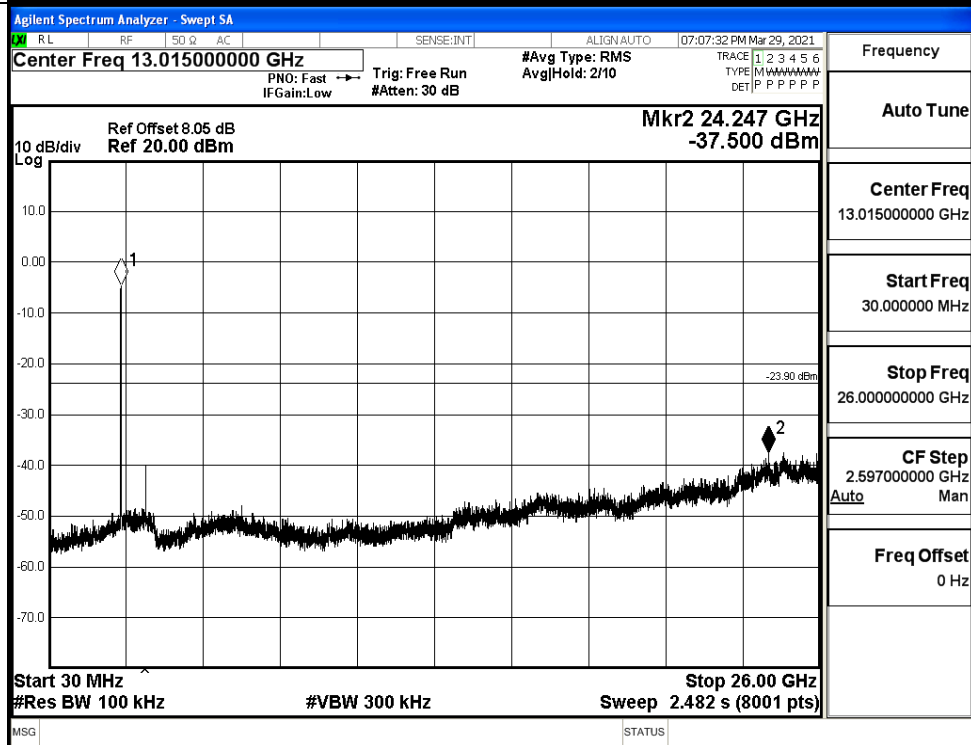


11N20SISO\_HCH\_Graphs

Pref/11N20  
SISO/HCH

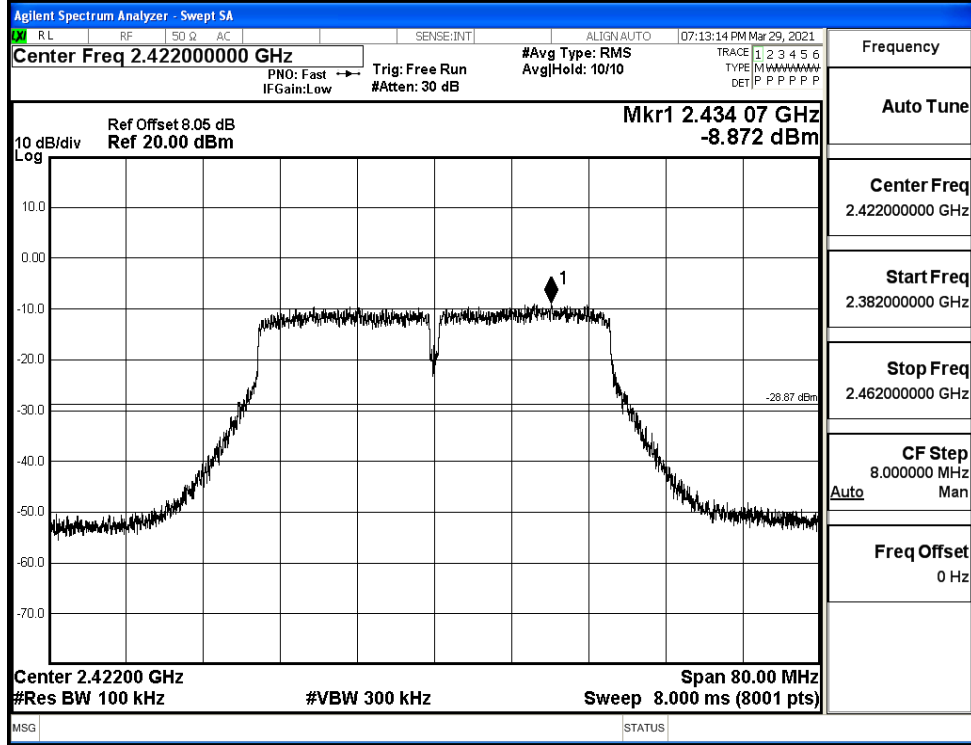


Puw/11N20  
SISO/HCH

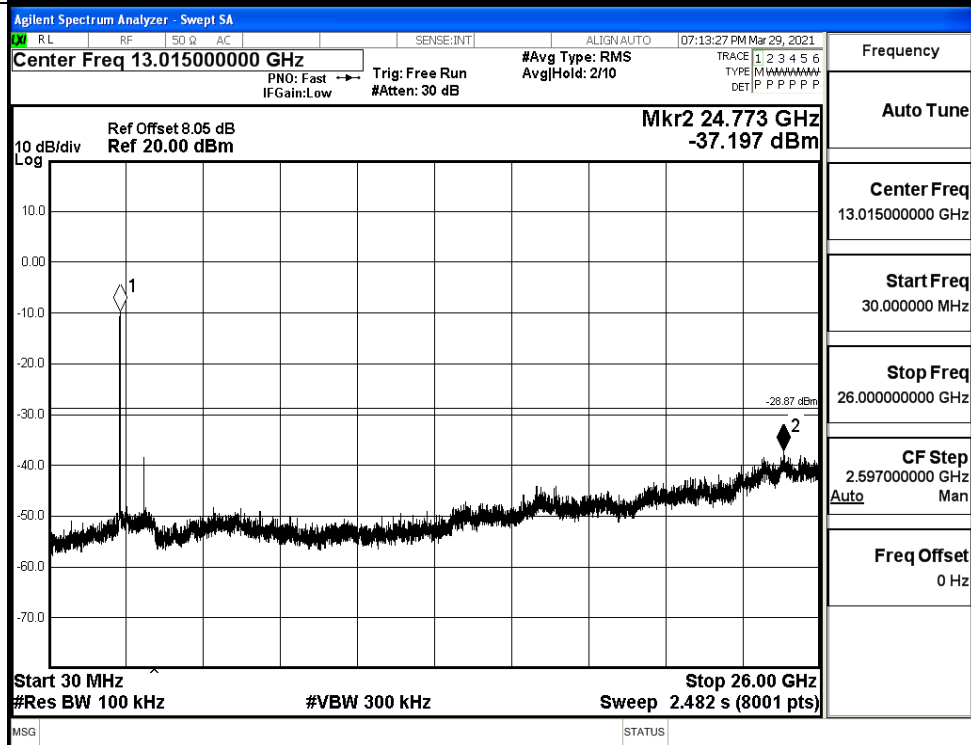


11N40SISO\_LCH\_Graphs

Pref/11N40  
SISO/LCH

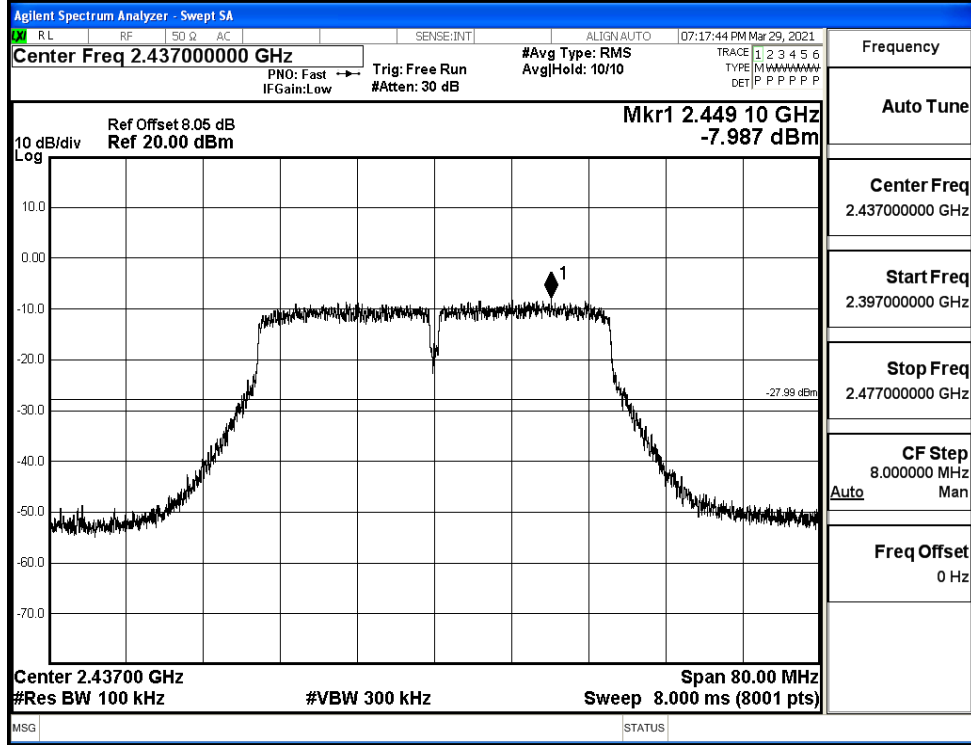


Puw/11N40  
SISO/LCH

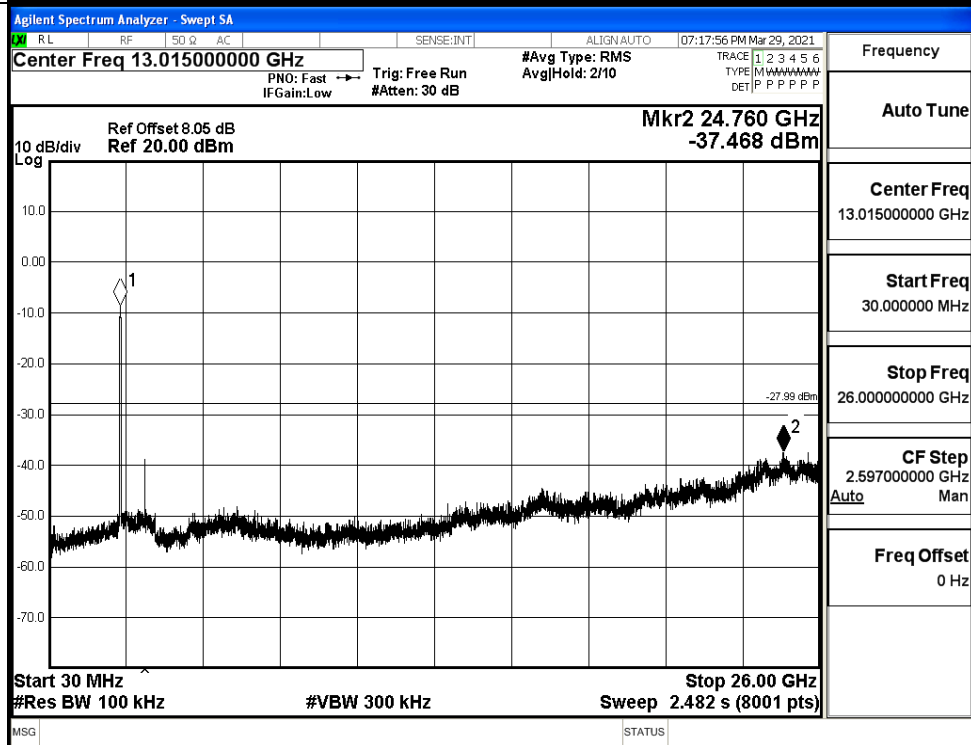


11N40SISO\_MCH\_Graphs

Pref/11N40  
SISO/MCH

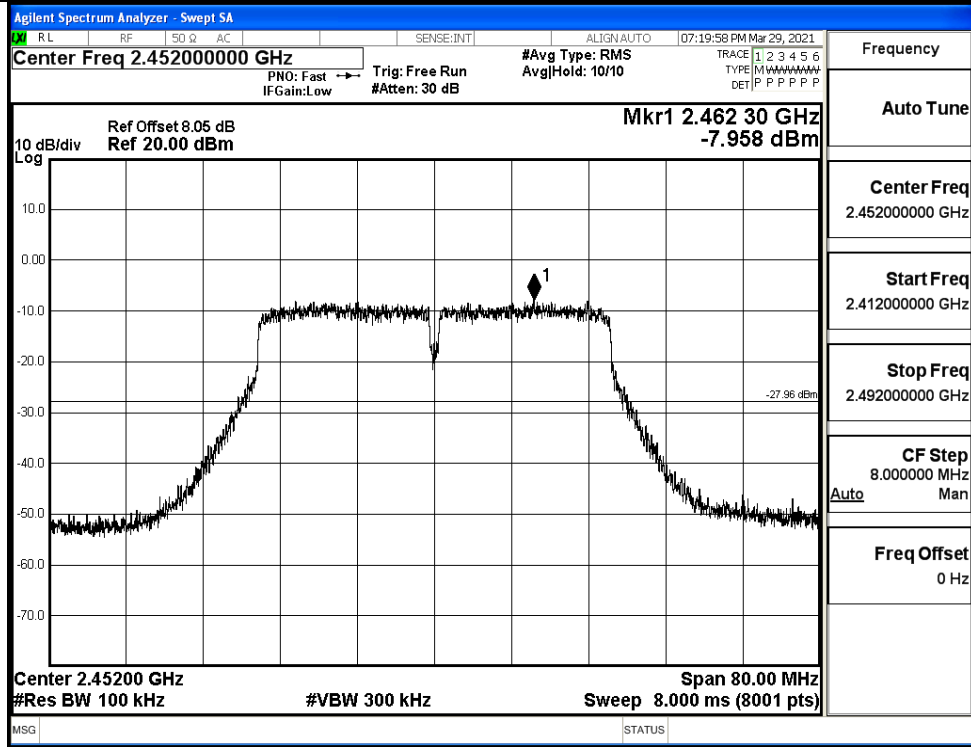


Puw/11N40  
SISO/MCH

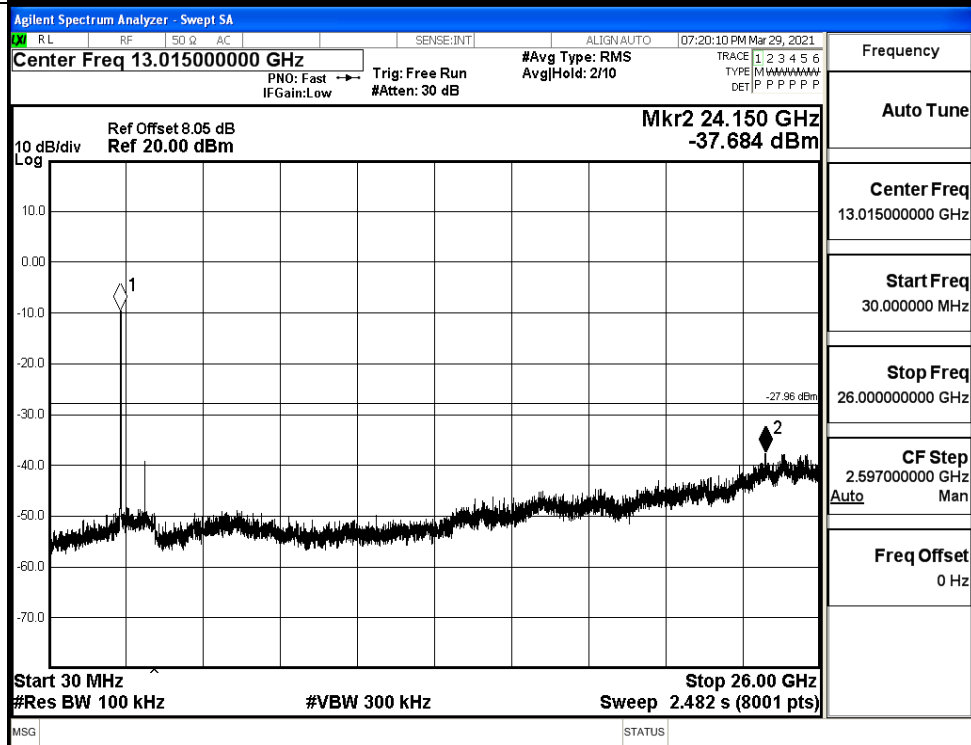


11N40SISO\_HCH\_Graphs

Pref/11N40  
SISO/HCH

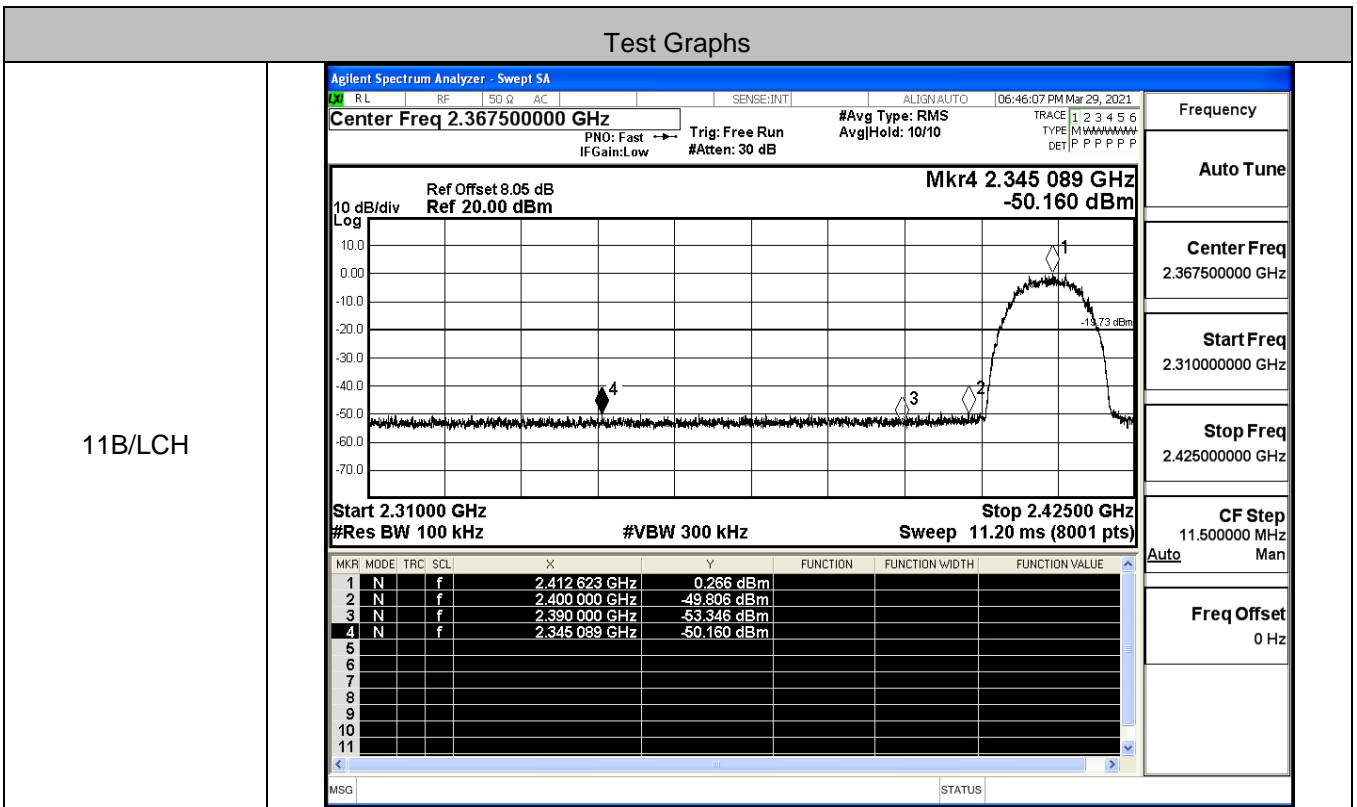


Puw/11N40  
SISO/HCH

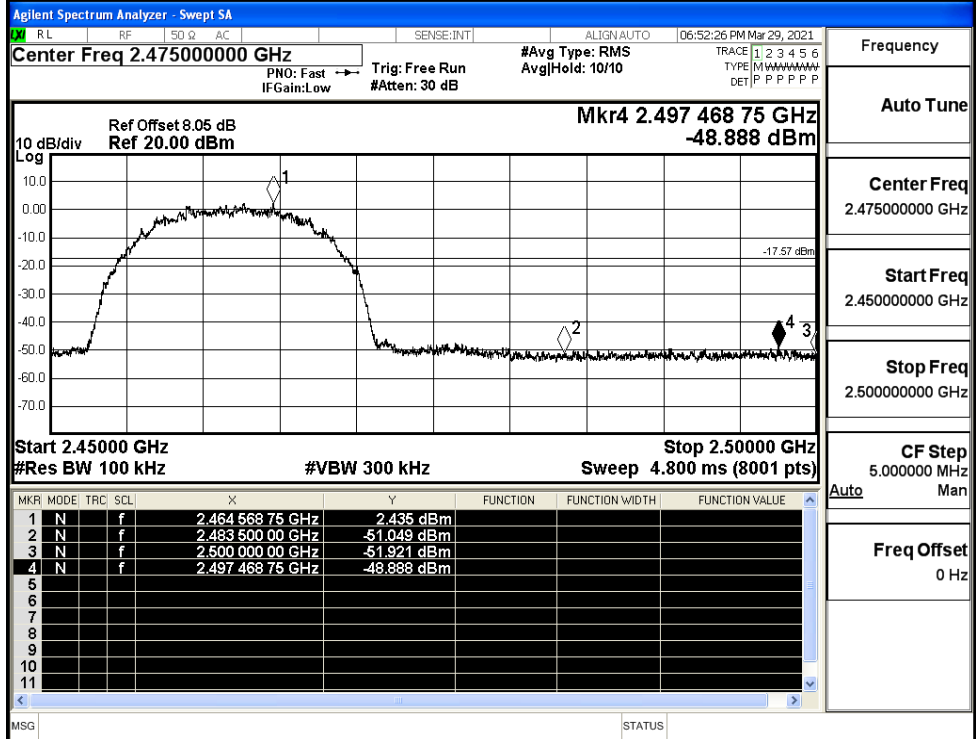


### A.7 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	0.266	-50.160	-19.73	PASS
	HCH	2.435	-48.888	-17.57	PASS
11G	LCH	-5.852	-49.600	-25.85	PASS
	HCH	-3.453	-49.197	-23.45	PASS
11N20SISO	LCH	-5.883	-49.327	-25.88	PASS
	HCH	-3.452	-48.584	-23.45	PASS
11N40SISO	LCH	-8.941	-49.602	-28.94	PASS
	HCH	-7.840	-46.776	-27.84	PASS



11B/HCH



Frequency

Auto Tune

Center Freq  
2.47500000 GHz

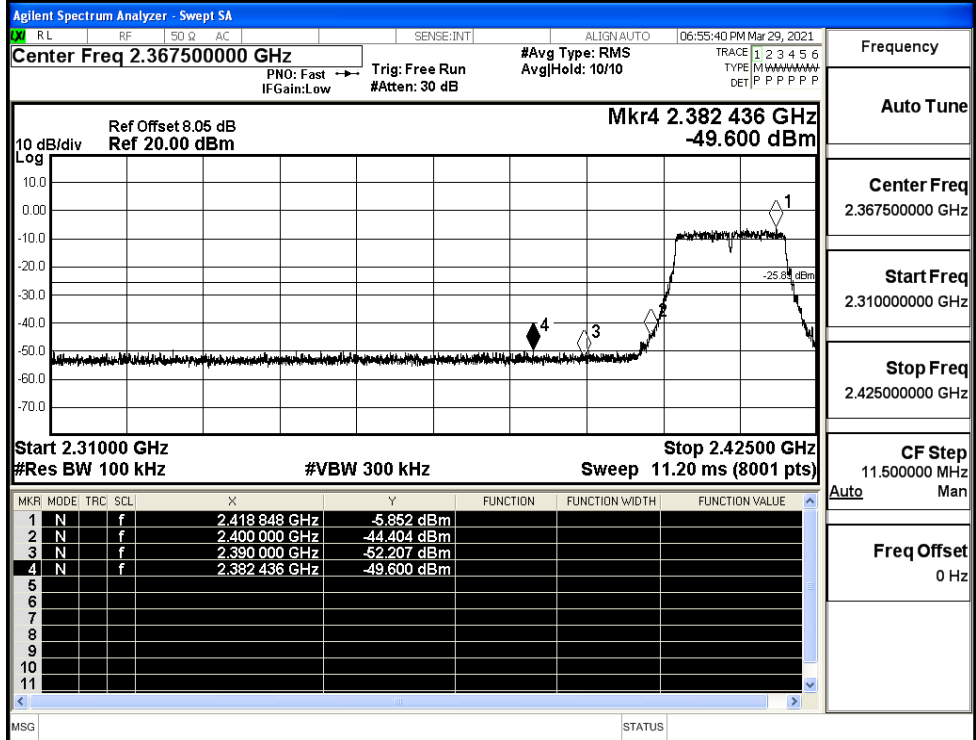
Start Freq  
2.45000000 GHz

Stop Freq  
2.50000000 GHz

CF Step  
5.000000 MHz

Freq Offset  
0 Hz

11G/LCH



Frequency

Auto Tune

Center Freq  
2.36750000 GHz

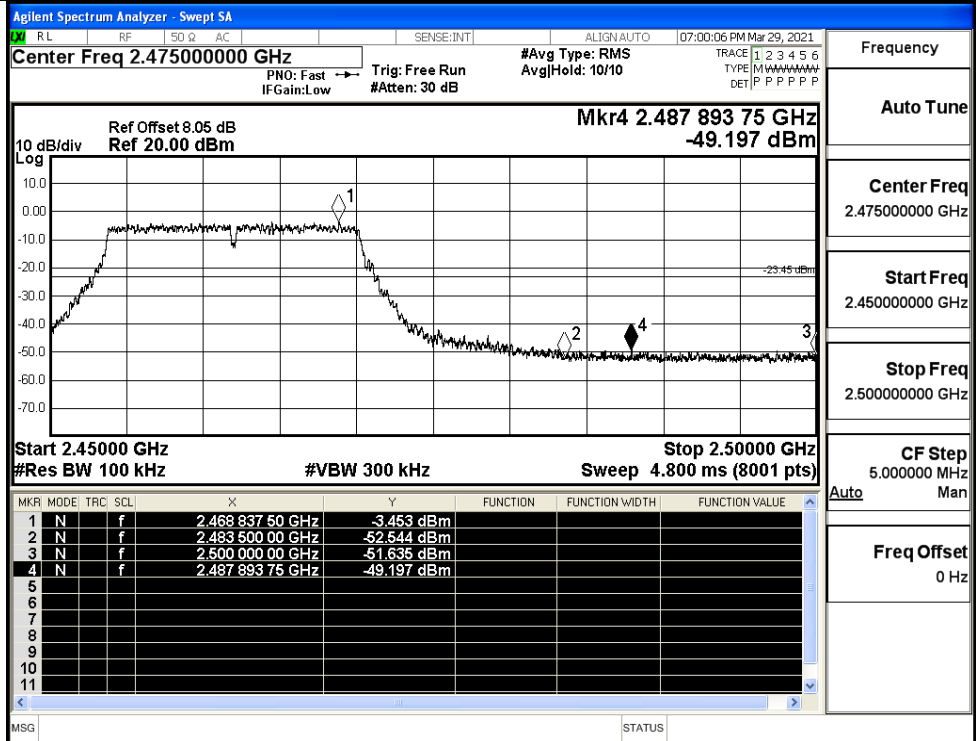
Start Freq  
2.31000000 GHz

Stop Freq  
2.42500000 GHz

CF Step  
11.500000 MHz

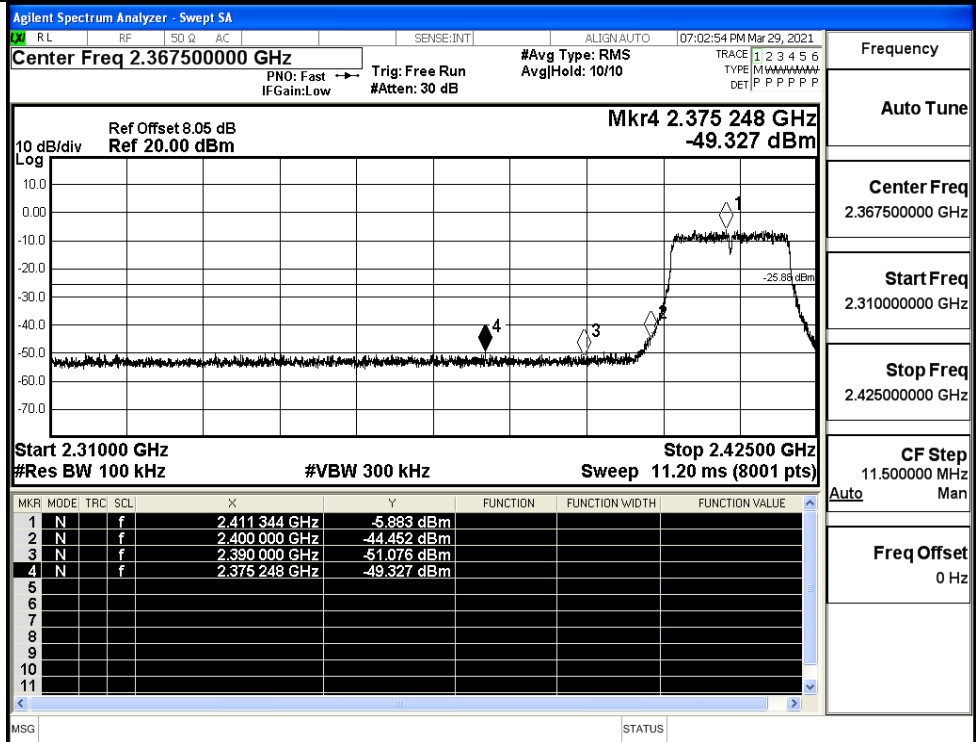
Freq Offset  
0 Hz

11G/HCH



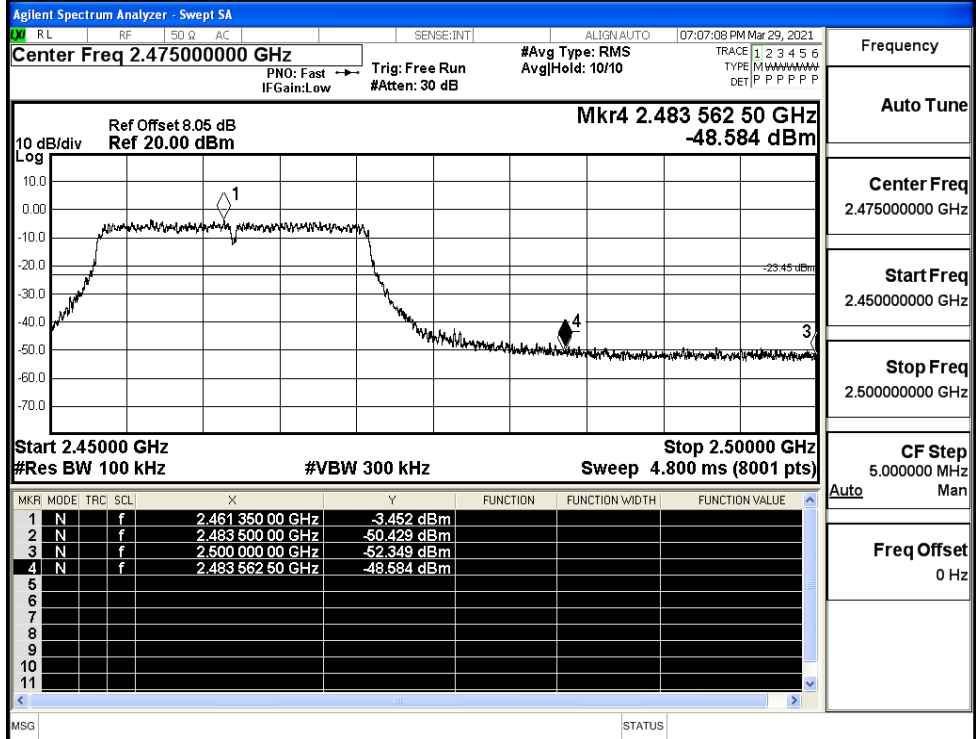
Frequency	
Auto Tune	
Center Freq	2.47500000 GHz
Start Freq	2.45000000 GHz
Stop Freq	2.50000000 GHz
CF Step	5.000000 MHz
Freq Offset	0 Hz

11N20SISO/LCH



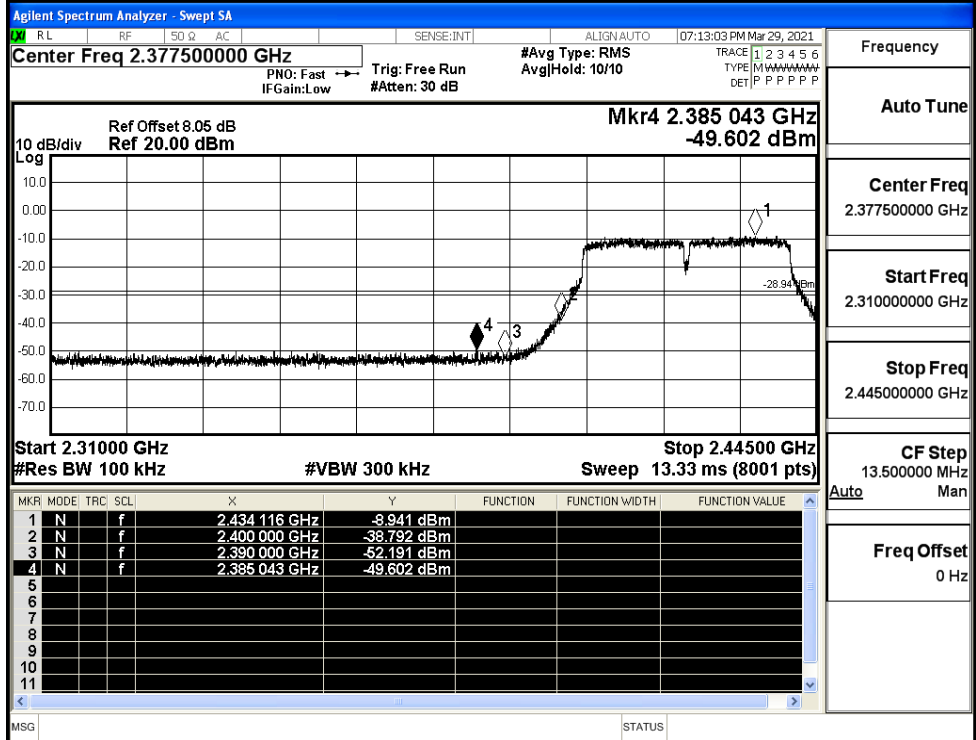
Frequency	
Auto Tune	
Center Freq	2.36750000 GHz
Start Freq	2.31000000 GHz
Stop Freq	2.42500000 GHz
CF Step	11.500000 MHz
Freq Offset	0 Hz

11N20SISO/HCH



Frequency	2.47500000 GHz
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

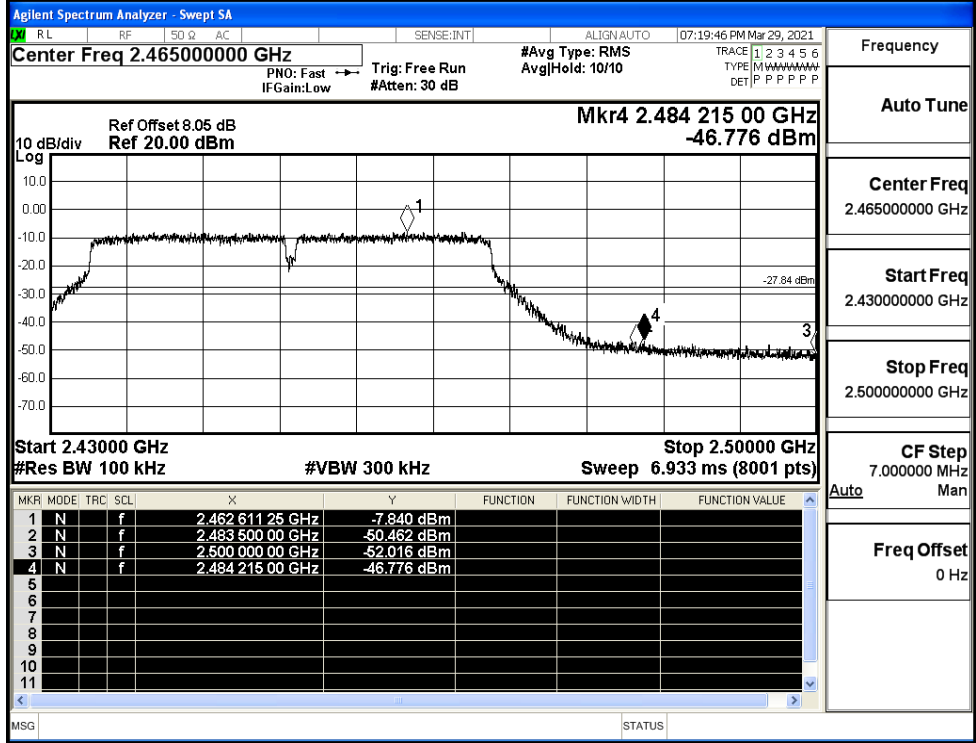
11N40SISO/LCH



Frequency	2.37750000 GHz
Auto Tune	
Center Freq	2.37750000 GHz
Start Freq	2.31000000 GHz
Stop Freq	2.44500000 GHz
CF Step	13.500000 MHz
Freq Offset	0 Hz



11N40SISO/HCH

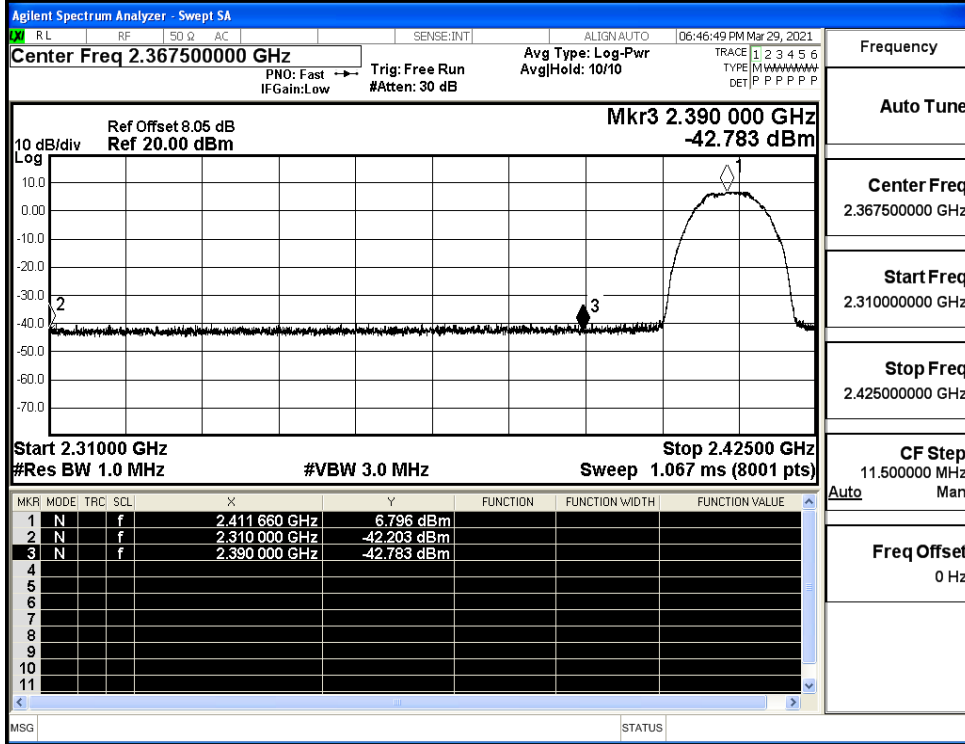


## A.8 Restrict-band band-edge measurements

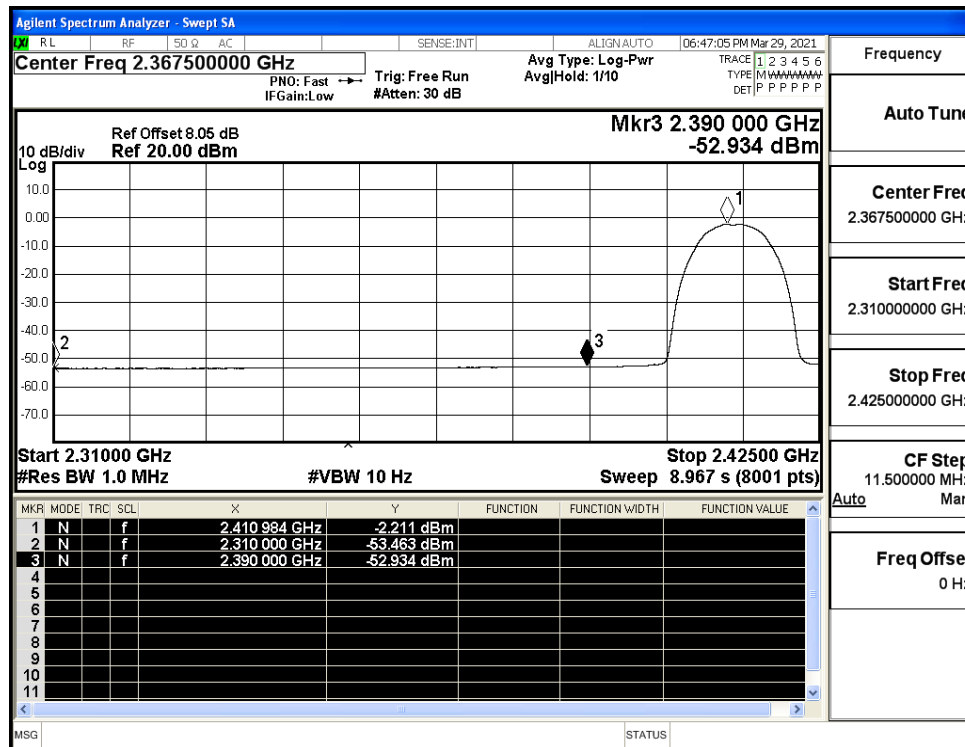
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBu V/m]	Verdict
11B	2412	Ant1	2310.0	-42.20	2.0	0	55.03	PEAK	74	PASS
	2412	Ant1	2310.0	-53.46	2.0	0	43.77	AV	54	PASS
	2412	Ant1	2390.0	-42.78	2.0	0	54.45	PEAK	74	PASS
	2412	Ant1	2390.0	-52.93	2.0	0	44.30	AV	54	PASS
	2462	Ant1	2483.5	-41.75	2.0	0	55.48	PEAK	74	PASS
	2462	Ant1	2483.5	-52.37	2.0	0	44.86	AV	54	PASS
	2462	Ant1	2500.0	-41.63	2.0	0	55.60	PEAK	74	PASS
	2462	Ant1	2500.0	-52.21	2.0	0	45.02	AV	54	PASS
11G	2412	Ant1	2310.0	-43.25	2.0	0	53.98	PEAK	74	PASS
	2412	Ant1	2310.0	-53.47	2.0	0	43.76	AV	54	PASS
	2412	Ant1	2390.0	-43.15	2.0	0	54.08	PEAK	74	PASS
	2412	Ant1	2390.0	-52.86	2.0	0	44.37	AV	54	PASS
	2462	Ant1	2483.5	-39.24	2.0	0	57.99	PEAK	74	PASS
	2462	Ant1	2483.5	-51.40	2.0	0	45.83	AV	54	PASS
	2462	Ant1	2500.0	-41.60	2.0	0	55.63	PEAK	74	PASS
	2462	Ant1	2500.0	-52.22	2.0	0	45.01	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-41.85	2.0	0	55.38	PEAK	74	PASS
	2412	Ant1	2310.0	-53.52	2.0	0	43.71	AV	54	PASS
	2412	Ant1	2390.0	-41.55	2.0	0	55.68	PEAK	74	PASS
	2412	Ant1	2390.0	-52.83	2.0	0	44.40	AV	54	PASS
	2462	Ant1	2483.5	-40.70	2.0	0	56.53	PEAK	74	PASS
	2462	Ant1	2483.5	-51.07	2.0	0	46.16	AV	54	PASS
	2462	Ant1	2500.0	-40.62	2.0	0	56.61	PEAK	74	PASS
	2462	Ant1	2500.0	-52.23	2.0	0	45.00	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-43.00	2.0	0	54.23	PEAK	74	PASS
	2422	Ant1	2310.0	-53.46	2.0	0	43.77	AV	54	PASS

	2422	Ant1	2390.0	-42.23	2.0	0	55.00	PEAK	74	PASS
	2422	Ant1	2390.0	-52.56	2.0	0	44.67	AV	54	PASS
	2452	Ant1	2483.5	-39.37	2.0	0	57.86	PEAK	74	PASS
	2452	Ant1	2483.5	-49.68	2.0	0	47.55	AV	54	PASS
	2452	Ant1	2500.0	-41.52	2.0	0	55.71	PEAK	74	PASS
	2452	Ant1	2500.0	-51.85	2.0	0	45.38	AV	54	PASS

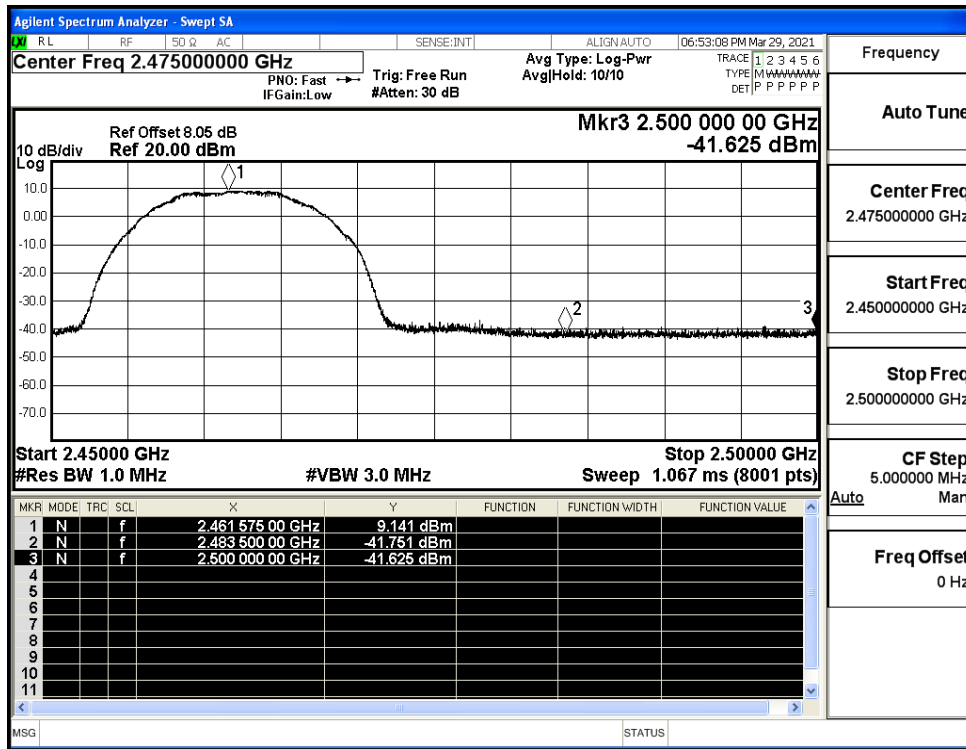
Restrict-band band-edge measurements\_11B\_2412\_Ant1\_PEAK



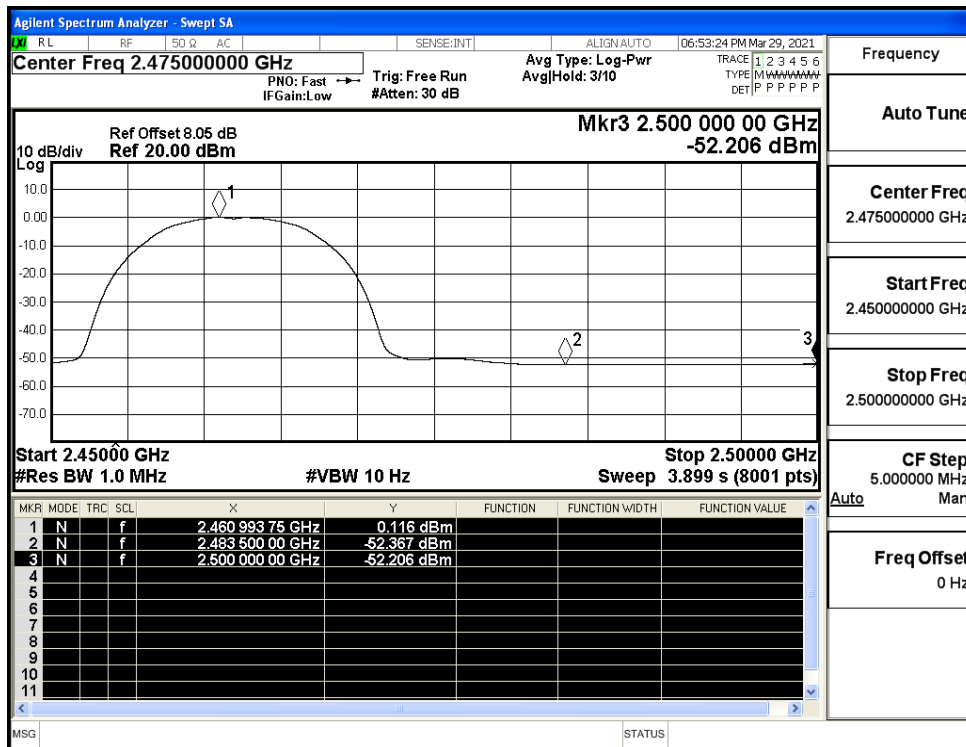
Restrict-band band-edge measurements\_11B\_2412\_Ant1\_AV



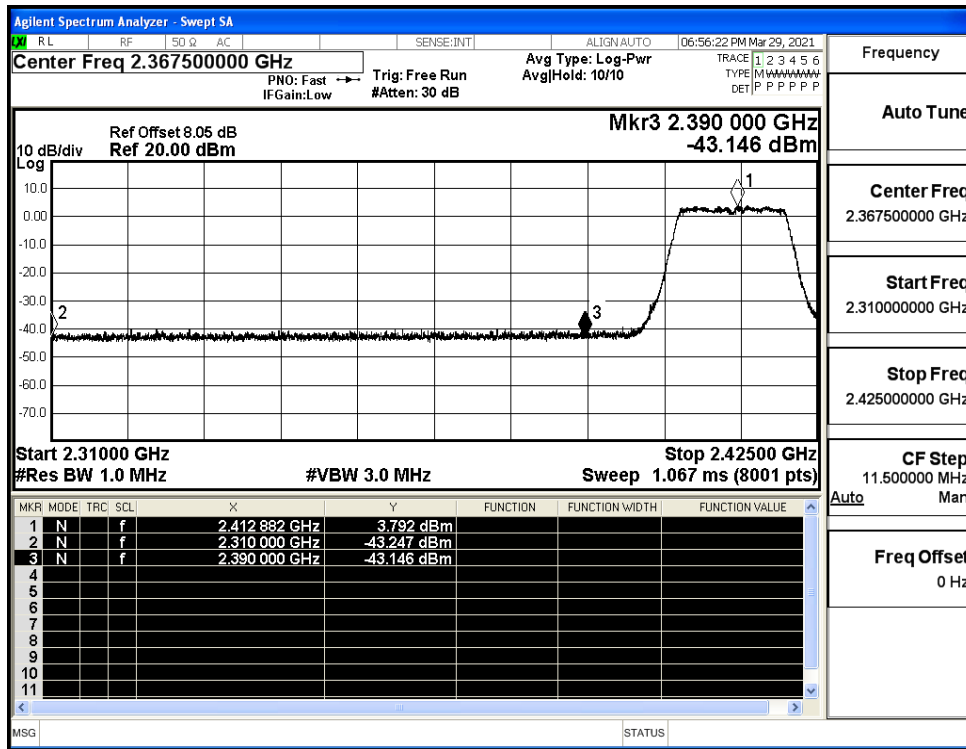
Restrict-band band-edge measurements\_11B\_2462\_Ant1\_PEAK



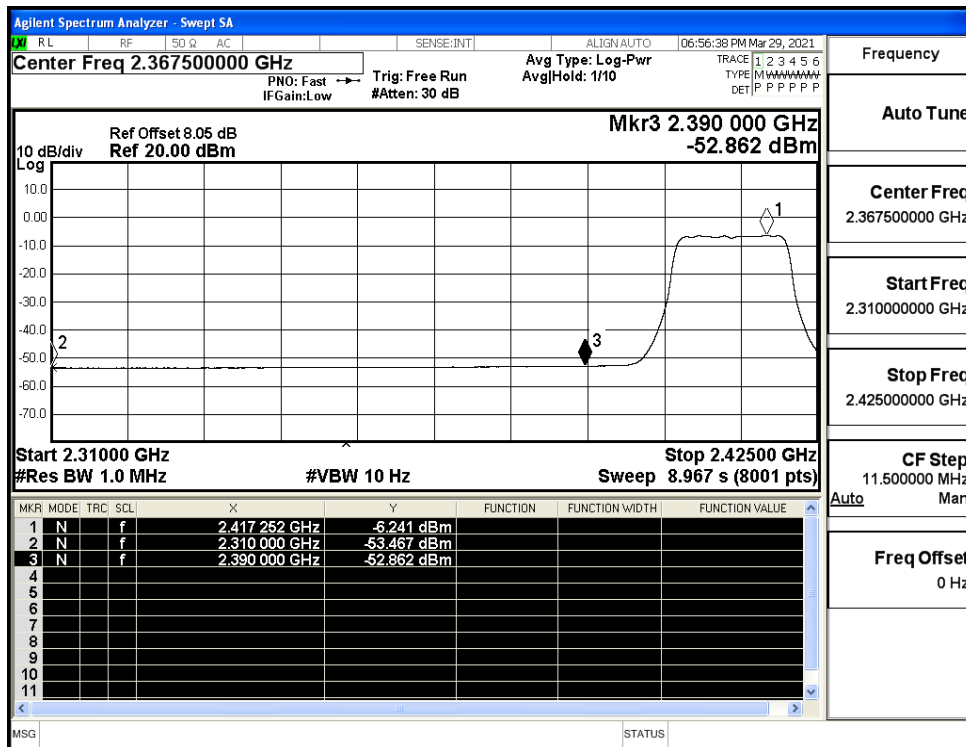
Restrict-band band-edge measurements\_11B\_2462\_Ant1\_AV



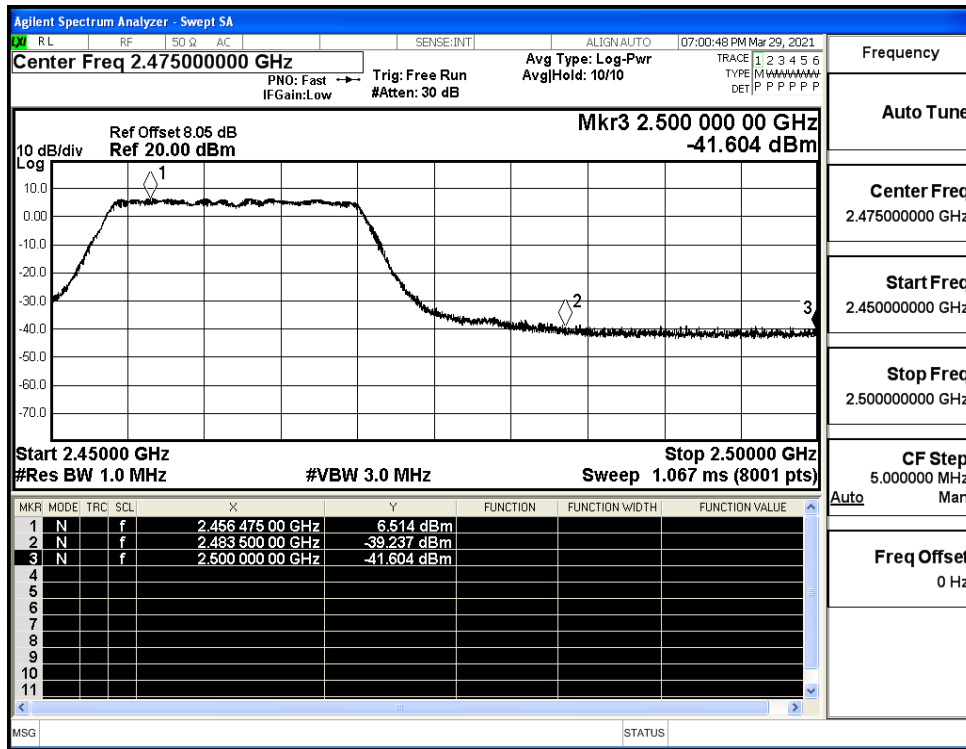
Restrict-band band-edge measurements\_11G\_2412\_Ant1\_PEAK



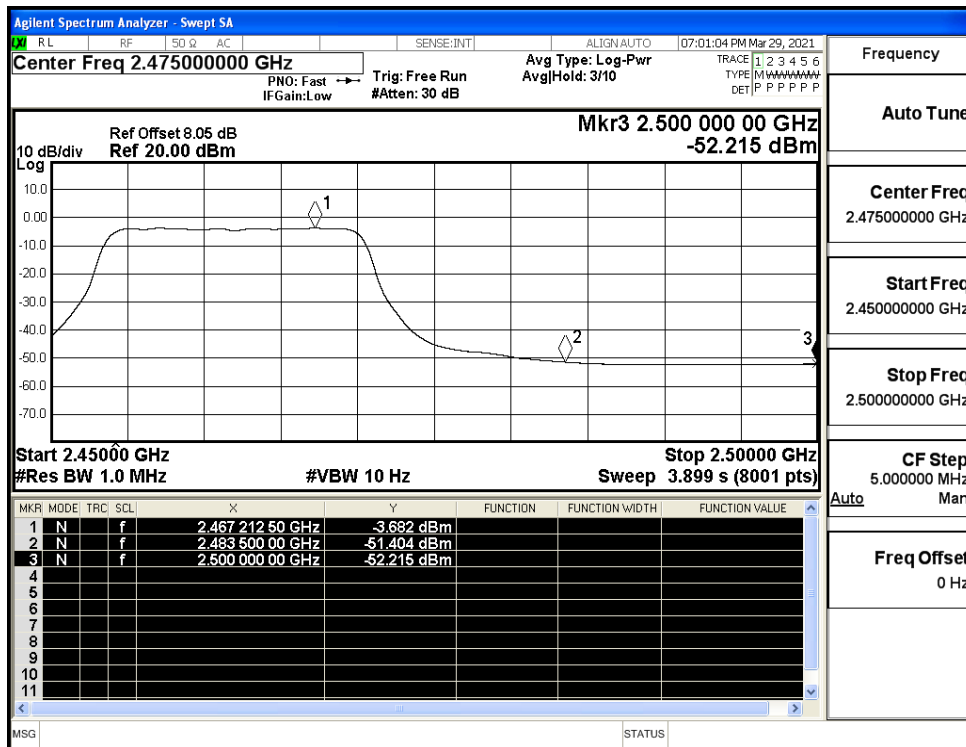
Restrict-band band-edge measurements\_11G\_2412\_Ant1\_AV



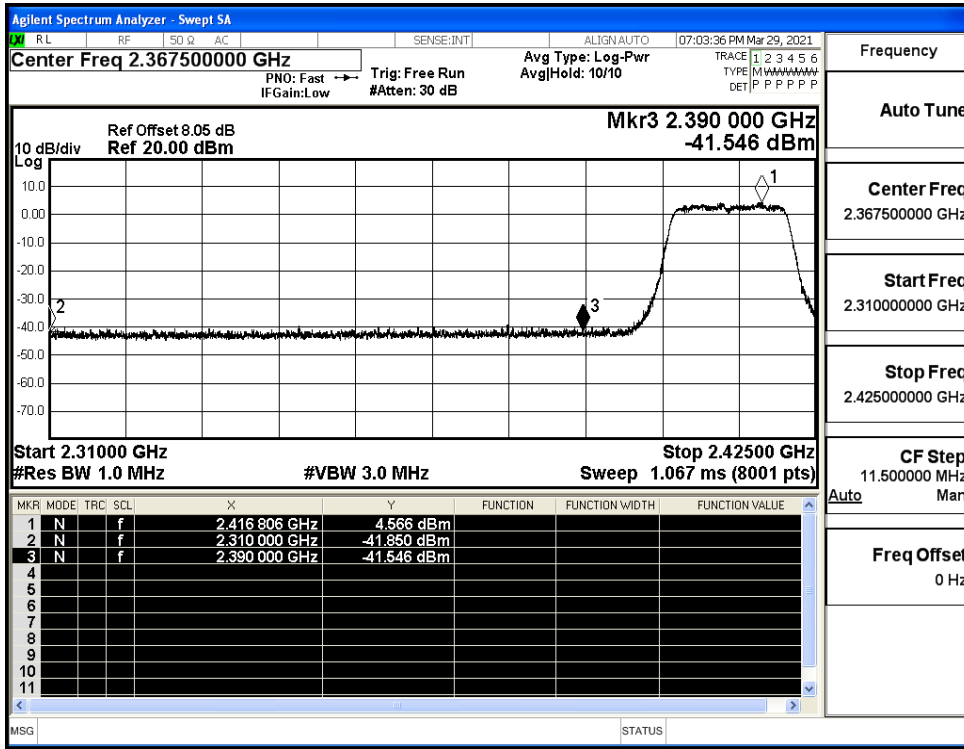
Restrict-band band-edge measurements\_11G\_2462\_Ant1\_PEAK



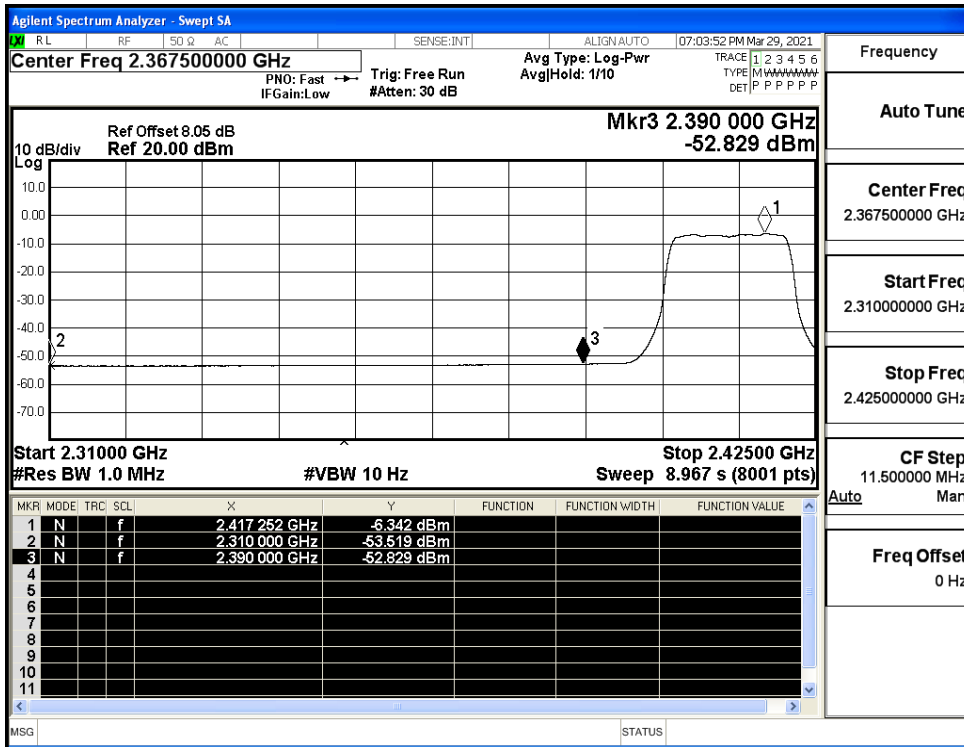
Restrict-band band-edge measurements\_11G\_2462\_Ant1\_AV



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

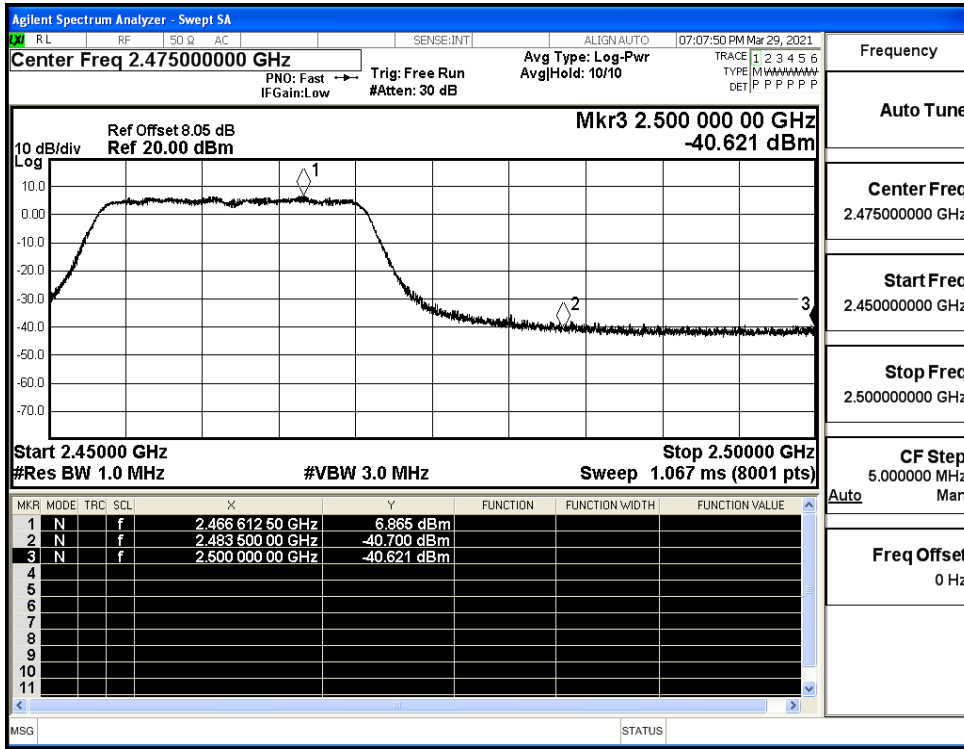


Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_AV

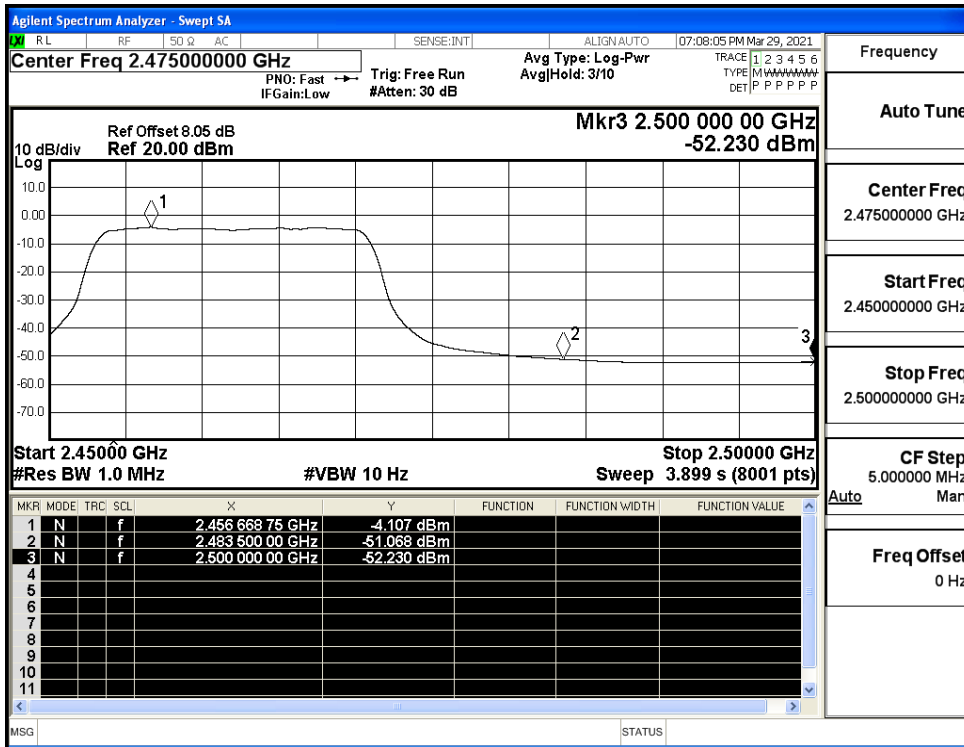




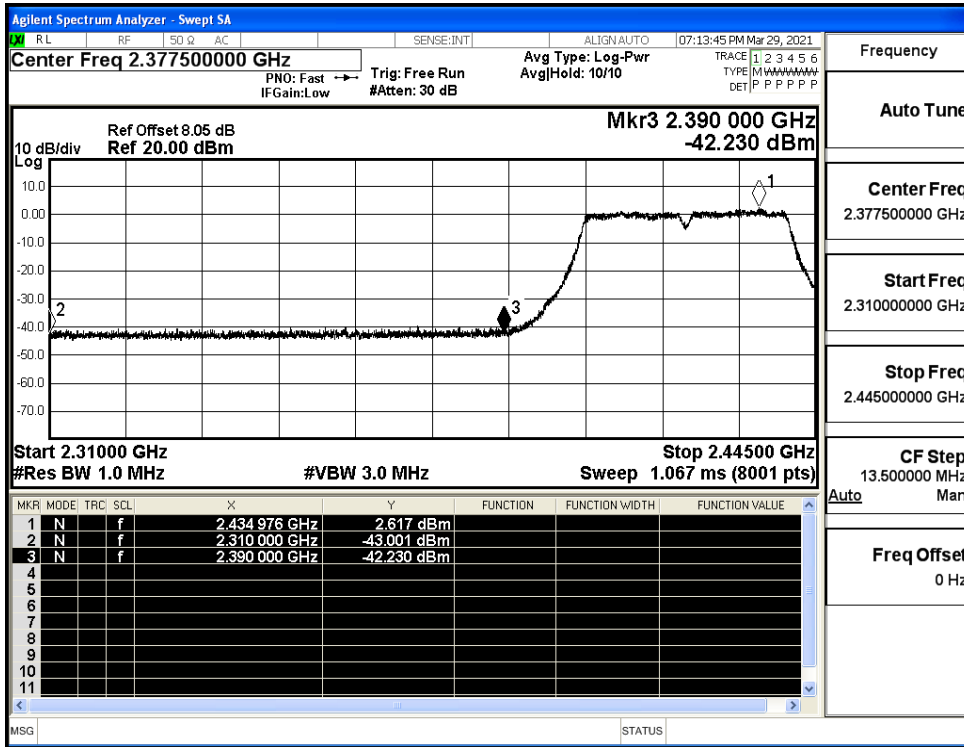
Restrict-band band-edge measurements\_11N20SISO\_2462\_Ant1\_PEAK



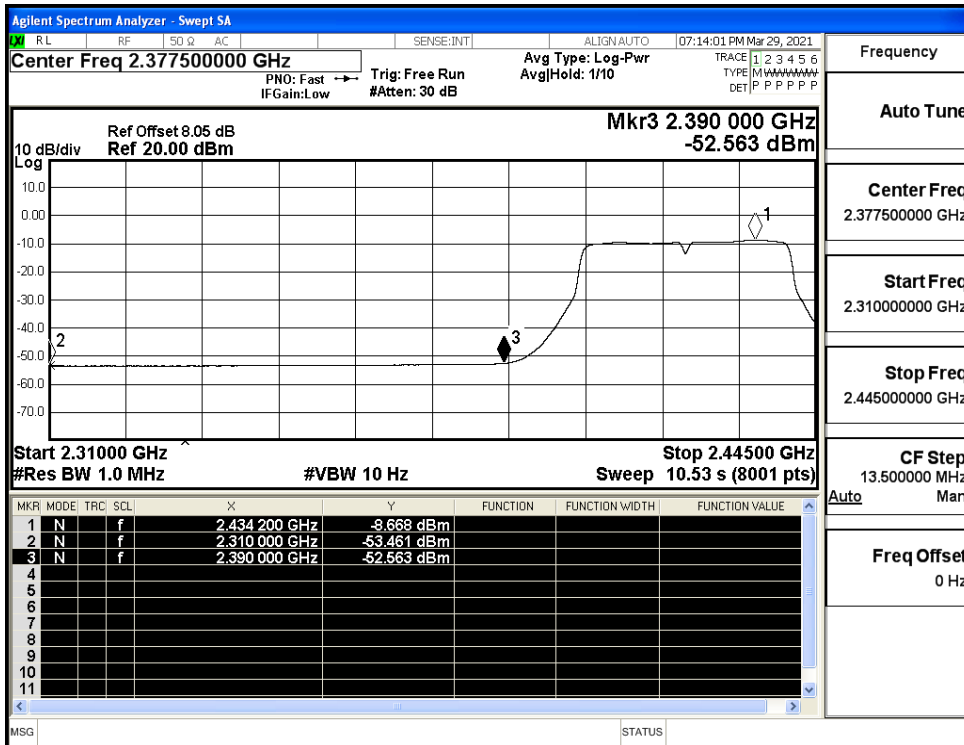
Restrict-band band-edge measurements\_11N20SISO\_2462\_Ant1\_AV



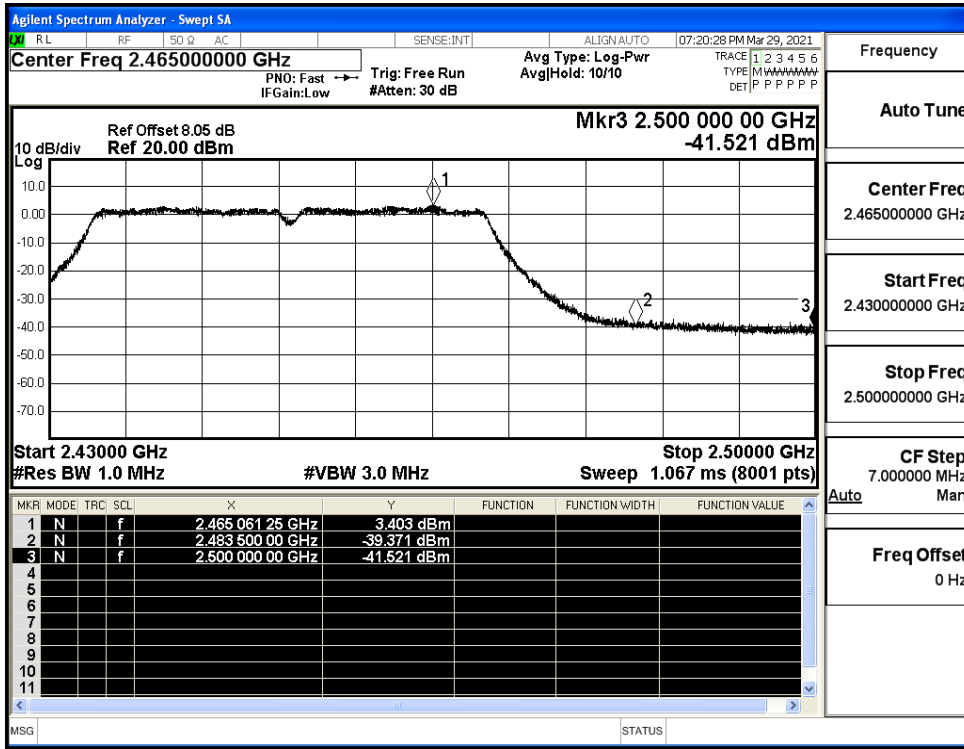
Restrict-band band-edge measurements\_11N40SISO\_2422\_Ant1\_PEAK



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

