

## Appendix A

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

Product Name: Smart Dimmer Switch

Trade Mark: N/A

Test Model: SD01

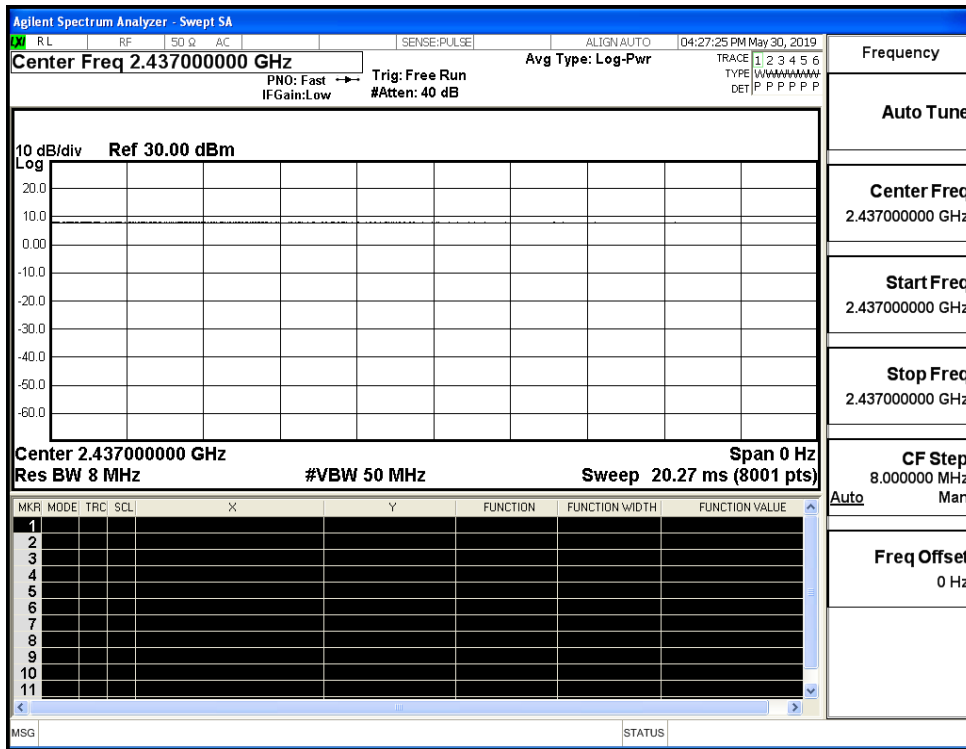
#### Environmental Conditions

Temperature:	24.3 ° C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	JERRY.ZENG
Supervised by:	Tom.Liu

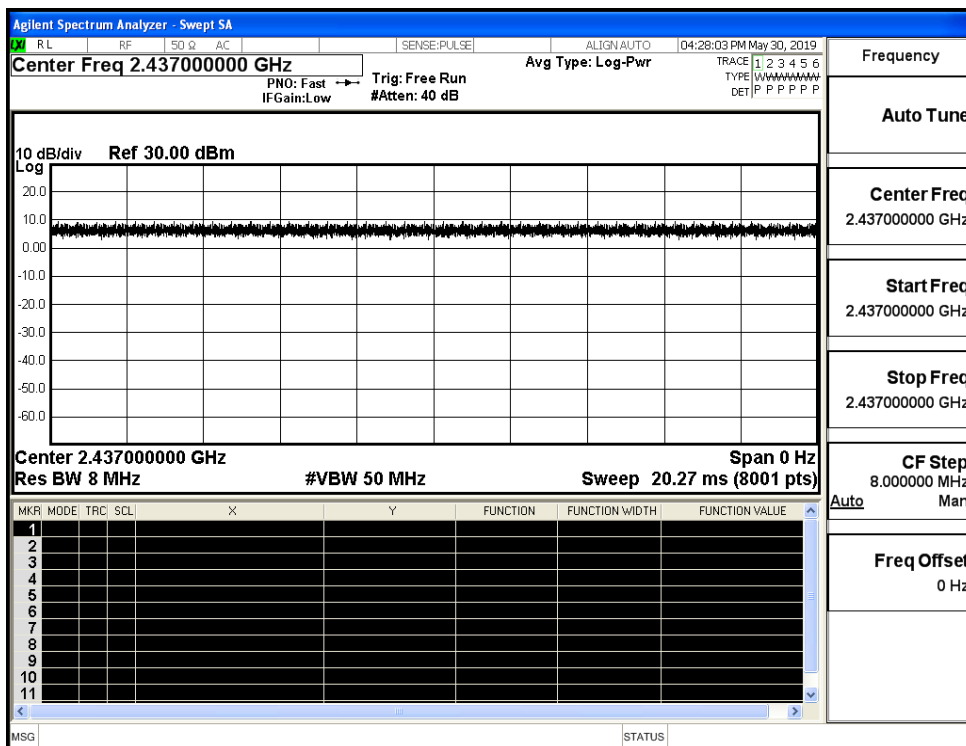
#### A.1 Duty Cycle

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

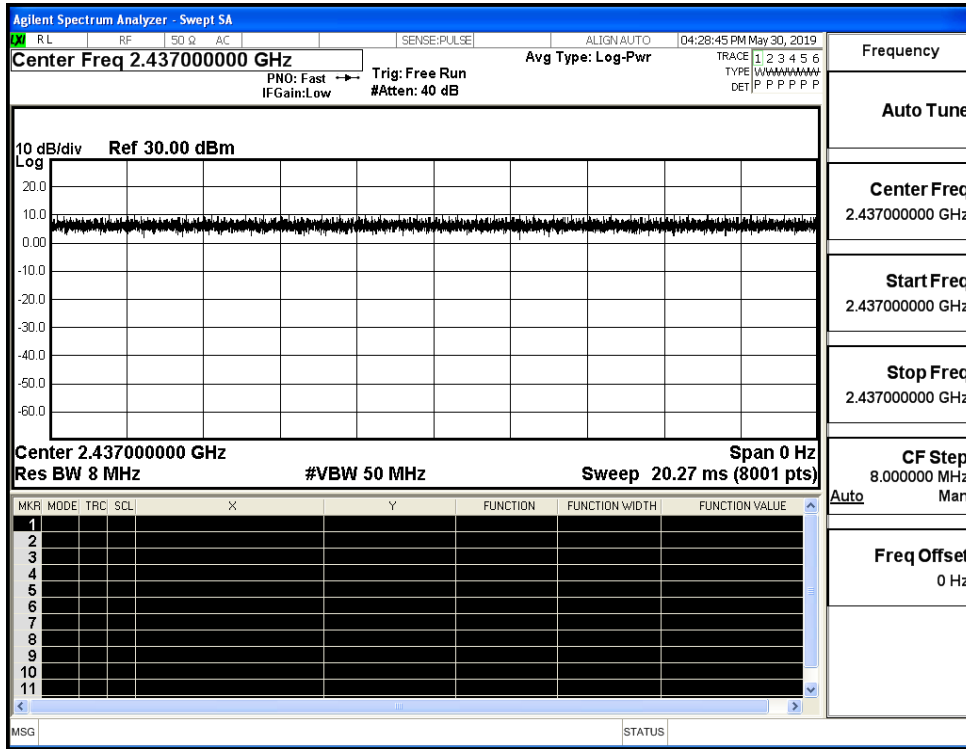
Duty Cycle\_11B\_2437\_Ant1



Duty Cycle\_11G\_2437\_Ant1



Duty Cycle\_11N20SISO\_2437\_Ant1

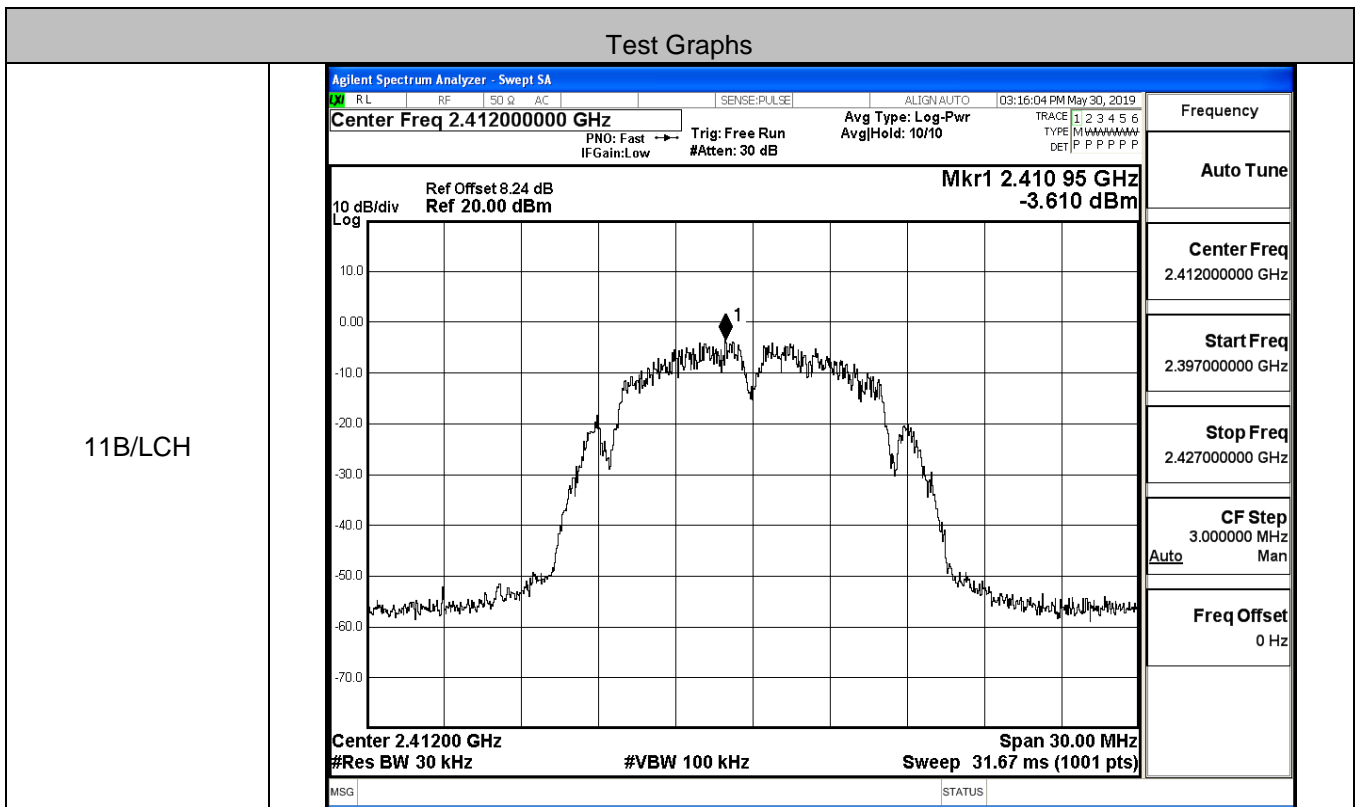


**A.2 Maximum Conducted Output Power**

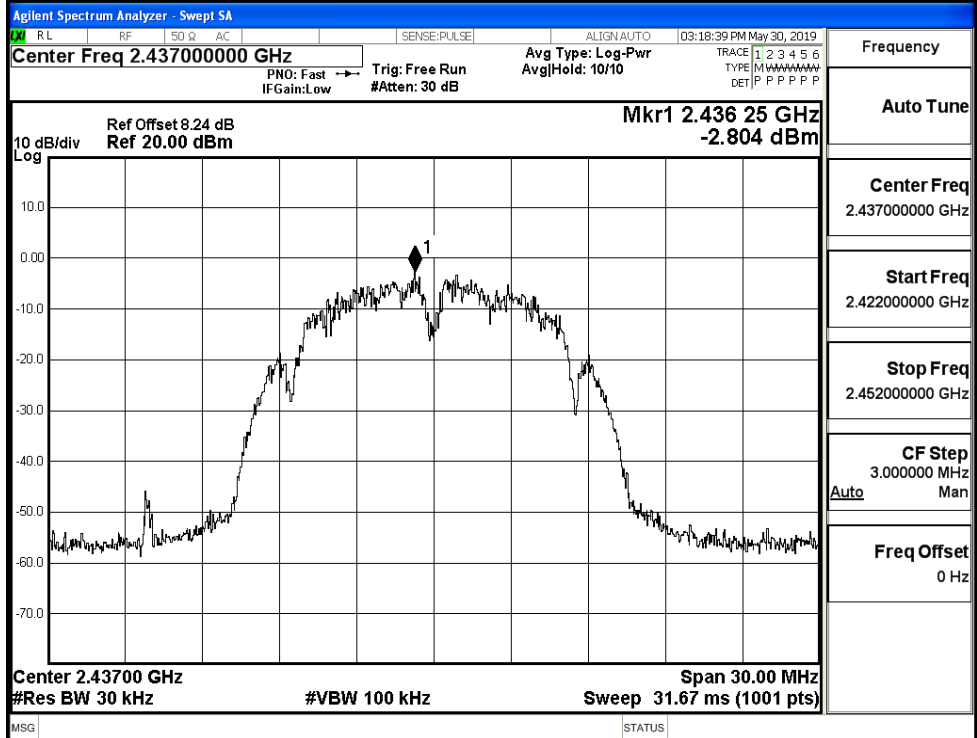
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	11.12	30	PASS
	MCH	11.71	30	PASS
	HCH	11.6	30	PASS
11G	LCH	16.04	30	PASS
	MCH	16.4	30	PASS
	HCH	16.64	30	PASS
11N20SISO	LCH	15.67	30	PASS
	MCH	15.96	30	PASS
	HCH	16.27	30	PASS

### A.3 Maximum Power Spectral Density

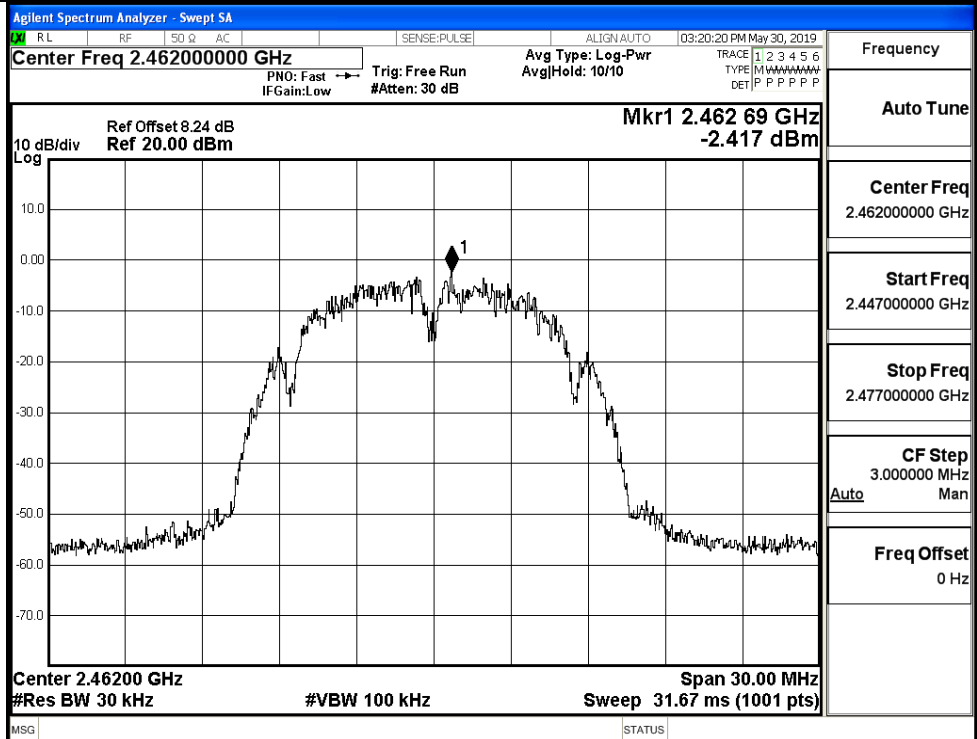
Mode	Channel	Meas.Level [dBm/30KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-3.610	8	PASS
	MCH	-2.804	8	PASS
	HCH	-2.417	8	PASS
11G	LCH	-4.713	8	PASS
	MCH	-4.235	8	PASS
	HCH	-4.063	8	PASS
11N20SISO	LCH	-6.982	8	PASS
	MCH	-6.841	8	PASS
	HCH	-5.852	8	PASS
11N40SISO	LCH	#ppsd11n40siso1mchnn	8	PASS
	MCH	#ppsd11n40siso1mchnn	8	PASS
	HCH	#ppsd11n40siso1hchnn	8	PASS



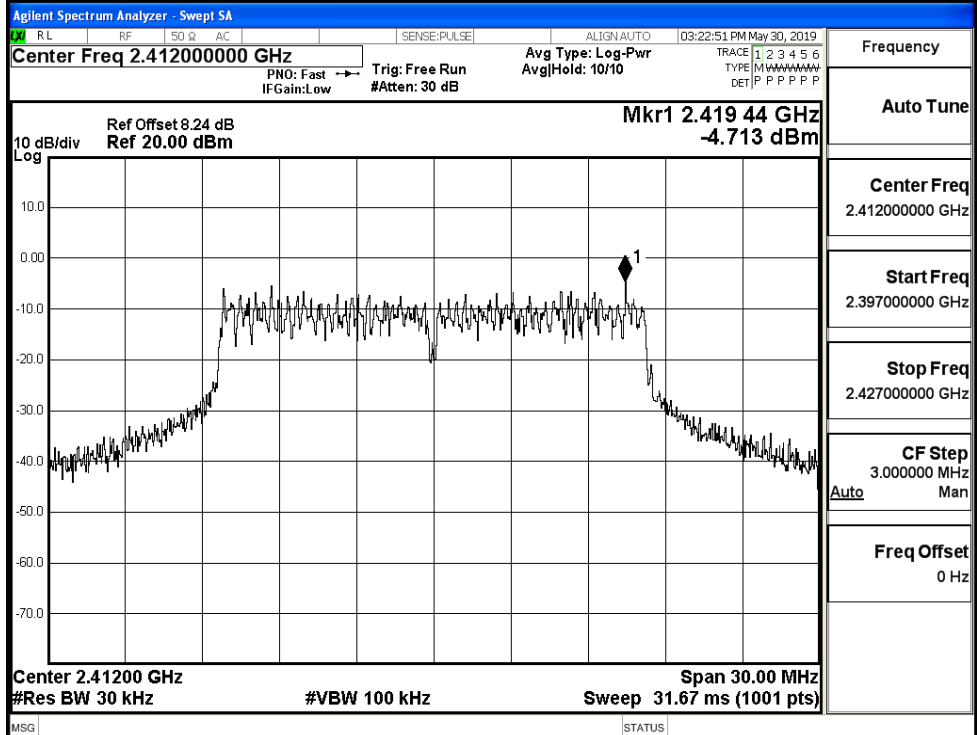
11B/MCH



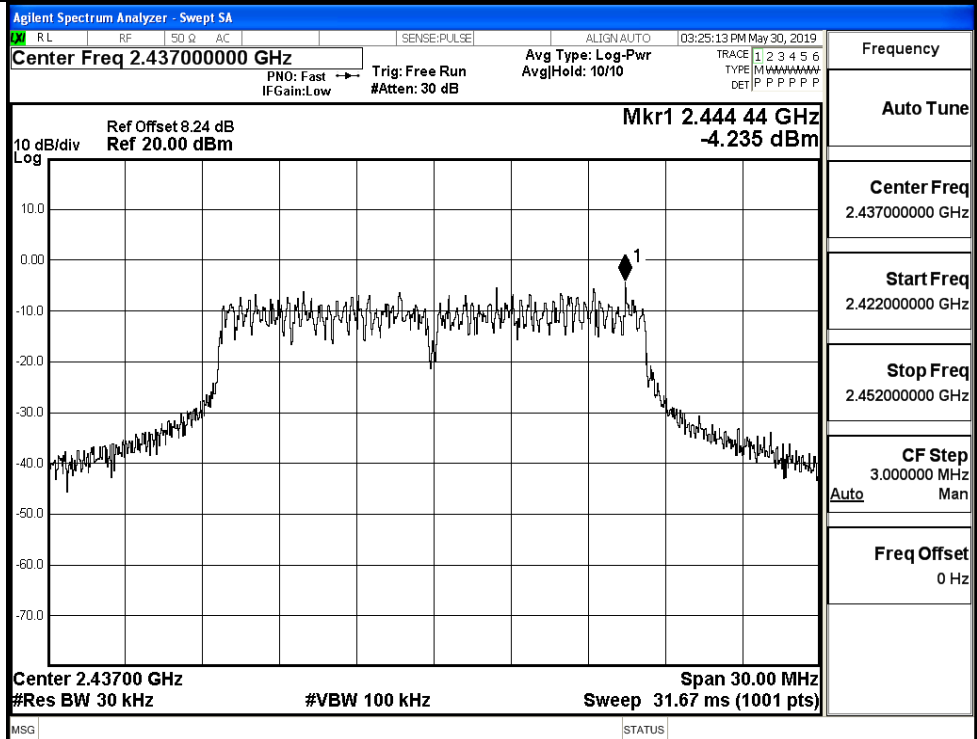
11B/HCH



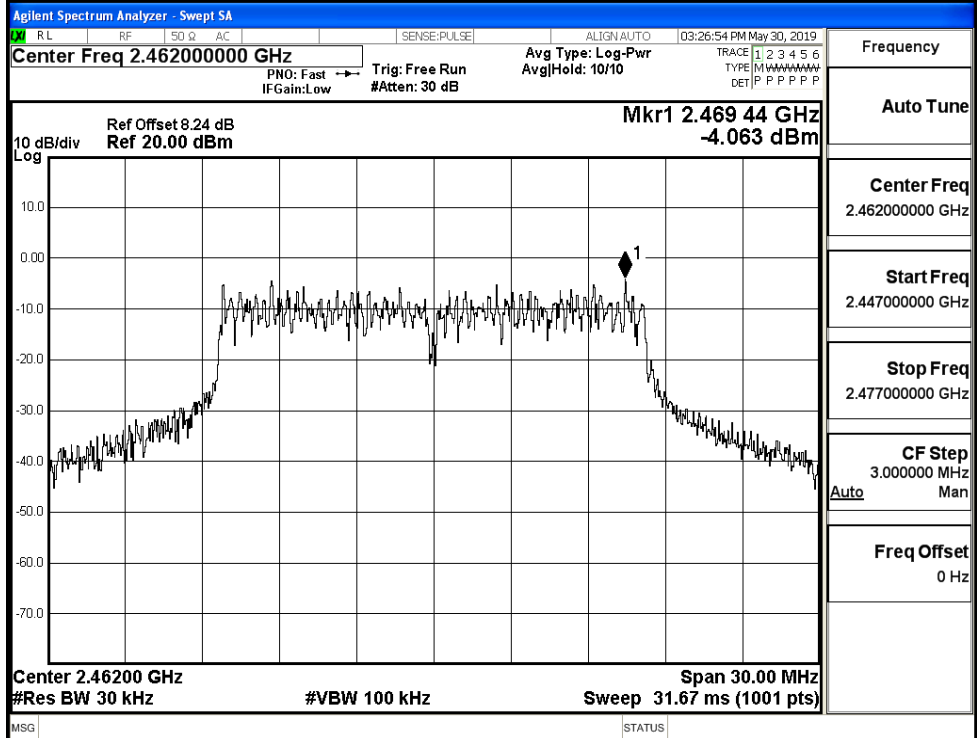
11G/LCH



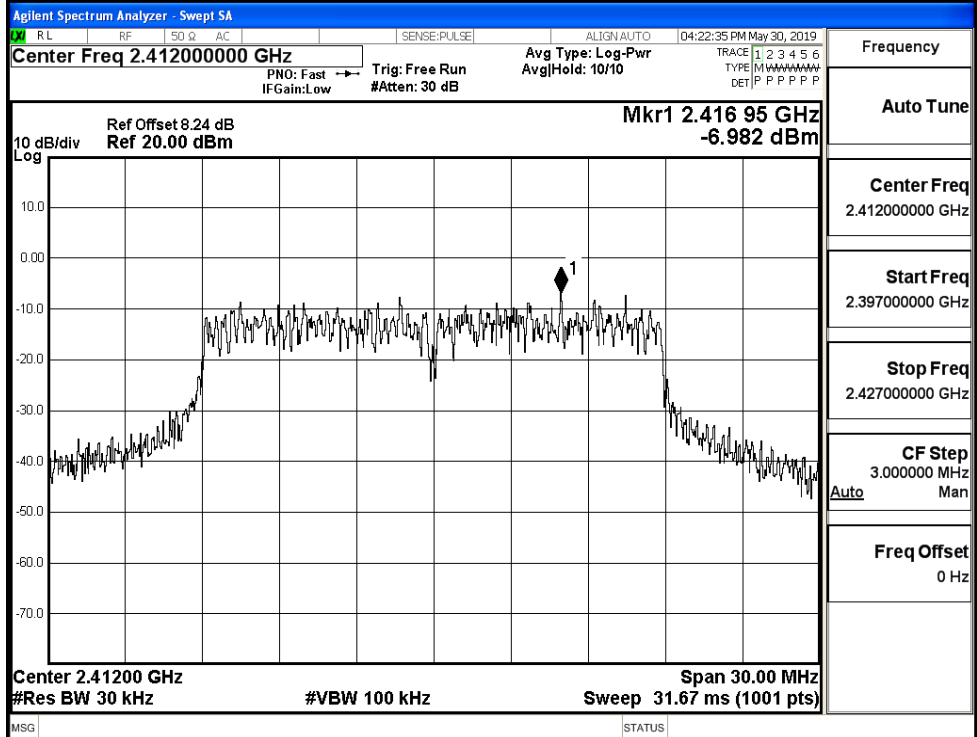
11G/MCH



11G/HCH

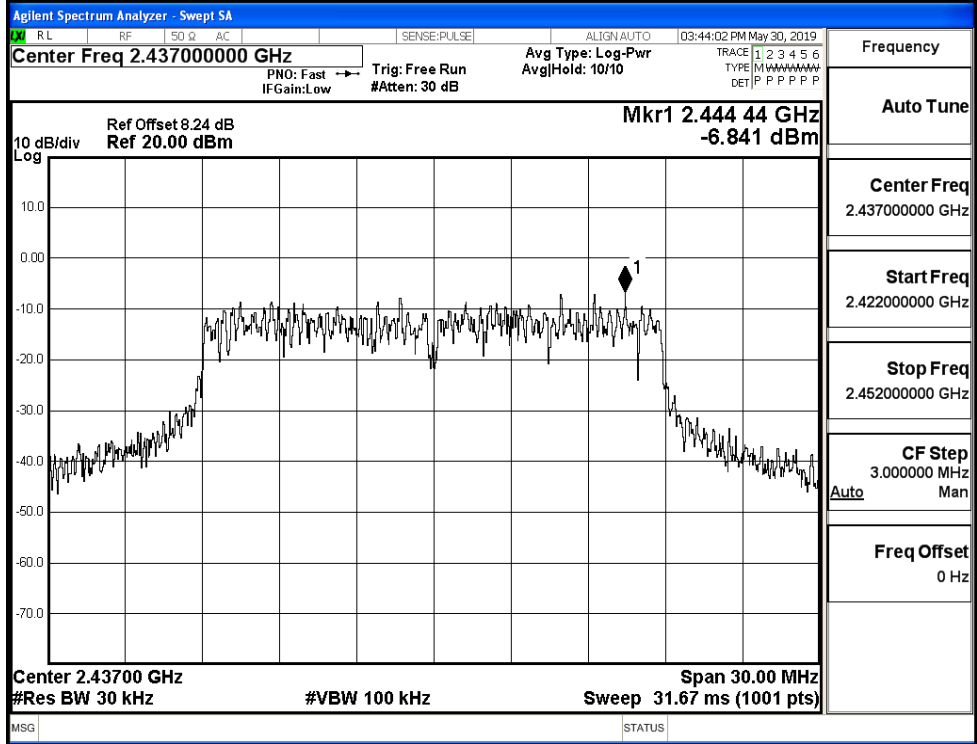


11N20SISO/LCH

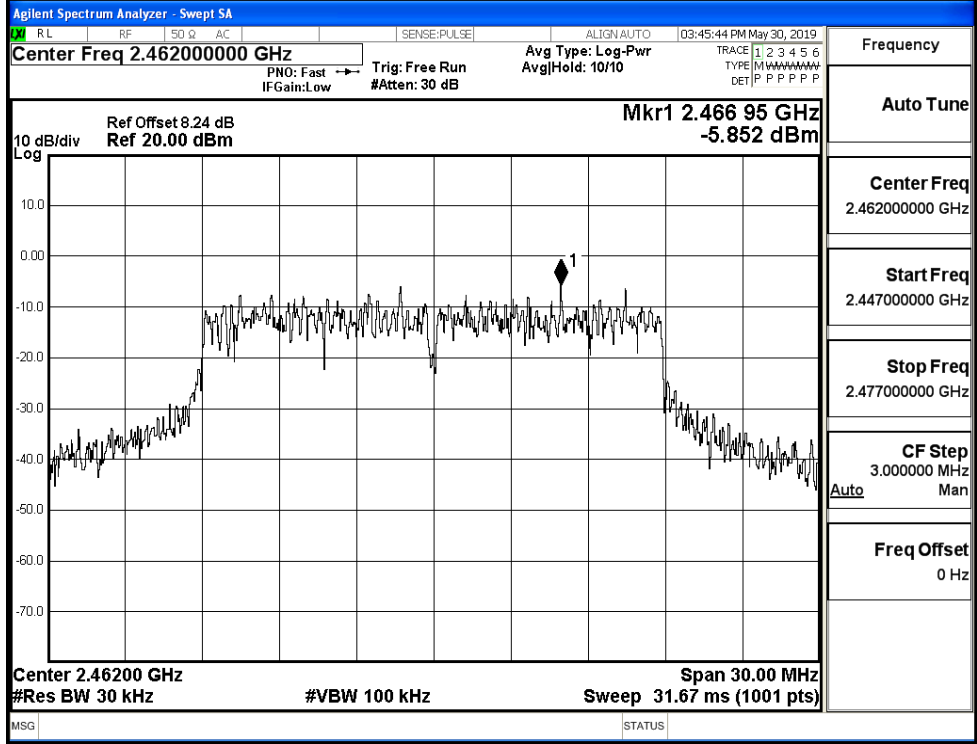




11N20SISO/MCH

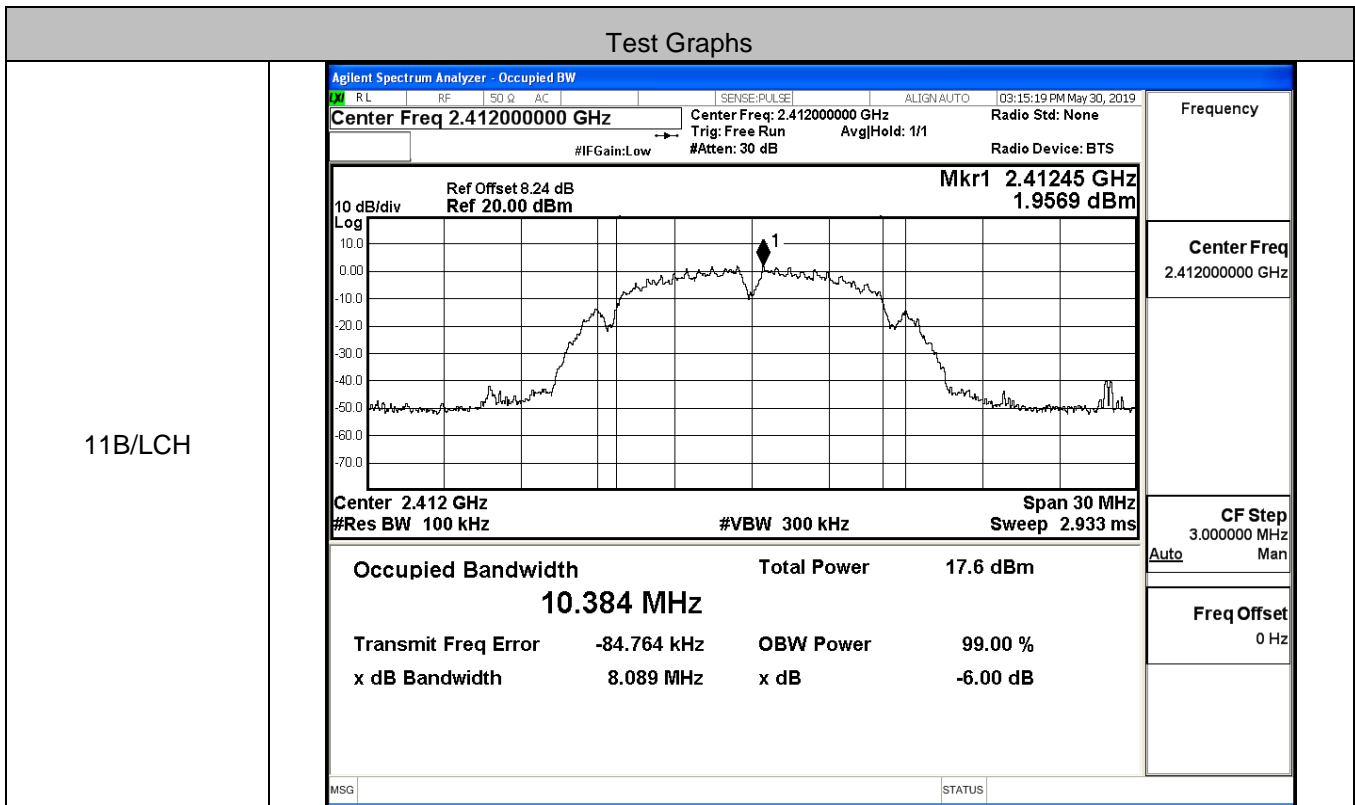


11N20SISO/HCH

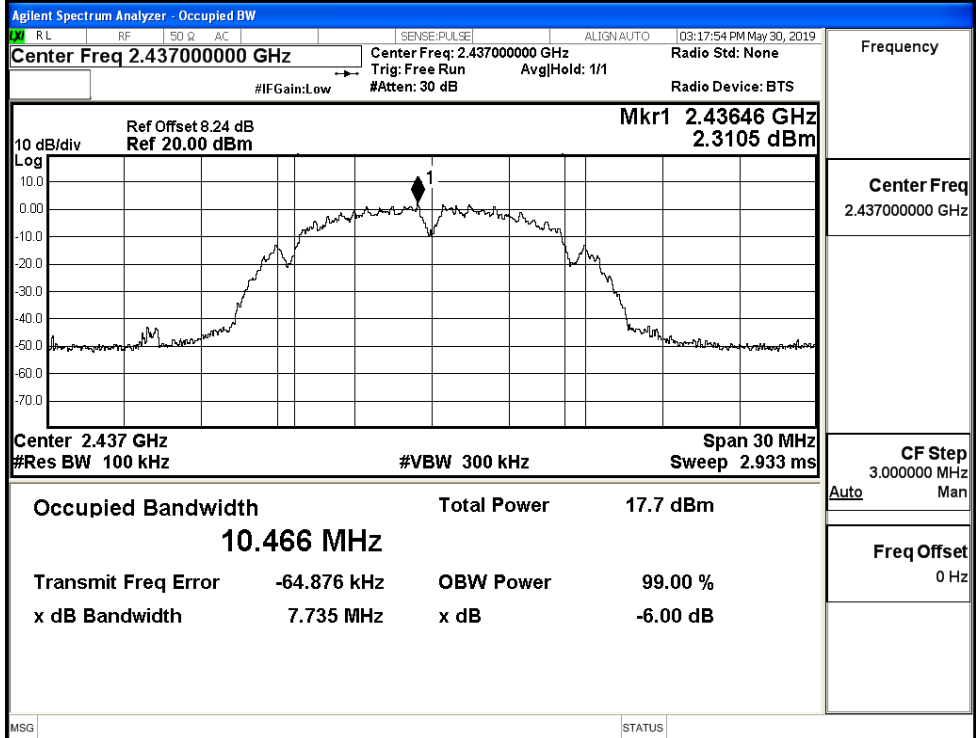


**A.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	8.089	≥0.5	PASS
	MCH	7.735	≥0.5	PASS
	HCH	8.098	≥0.5	PASS
11G	LCH	16.38	≥0.5	PASS
	MCH	16.37	≥0.5	PASS
	HCH	16.37	≥0.5	PASS
11N20SISO	LCH	17.63	≥0.5	PASS
	MCH	17.61	≥0.5	PASS
	HCH	17.57	≥0.5	PASS



11B/MCH



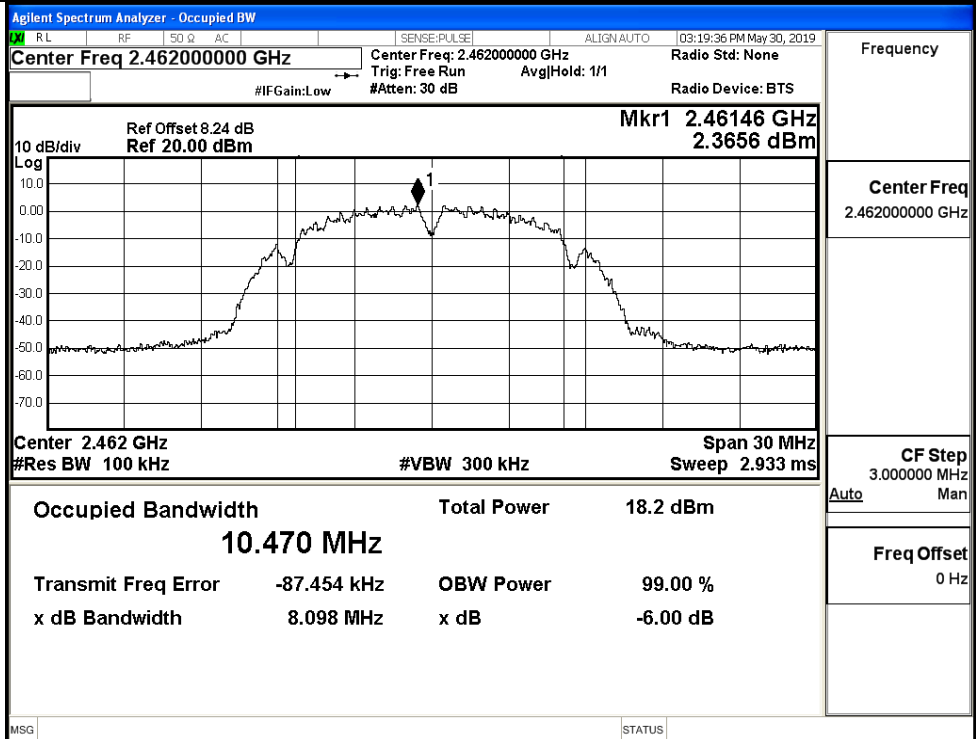
Frequency

Center Freq  
2.43700000 GHz

CF Step  
3.000000 MHz

Freq Offset  
0 Hz

11B/HCH



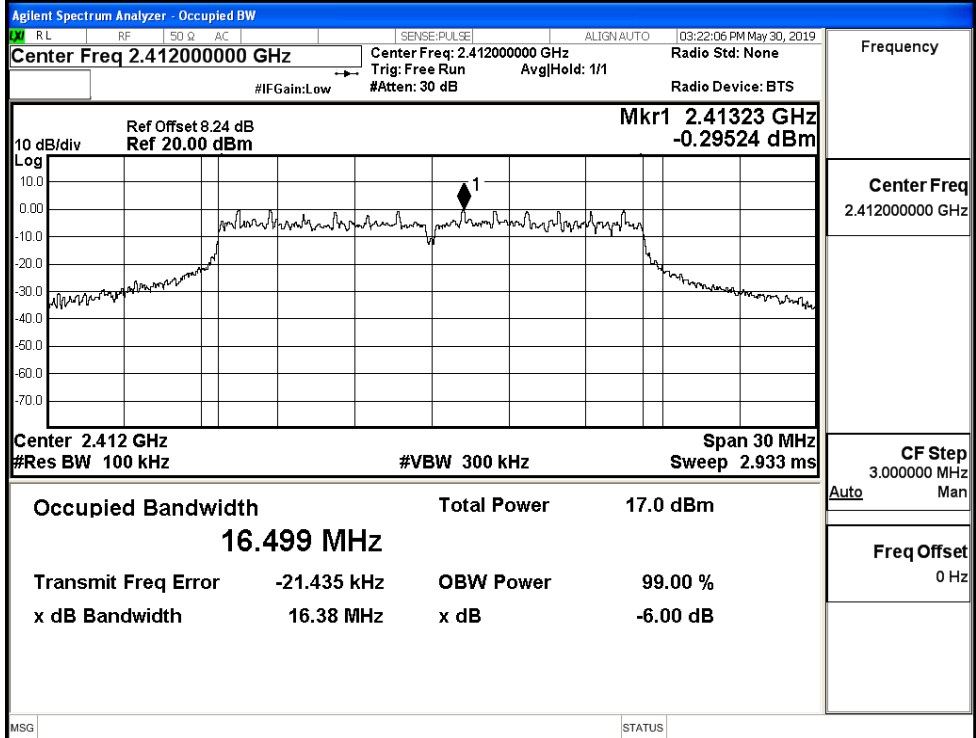
Frequency

Center Freq  
2.46200000 GHz

CF Step  
3.000000 MHz

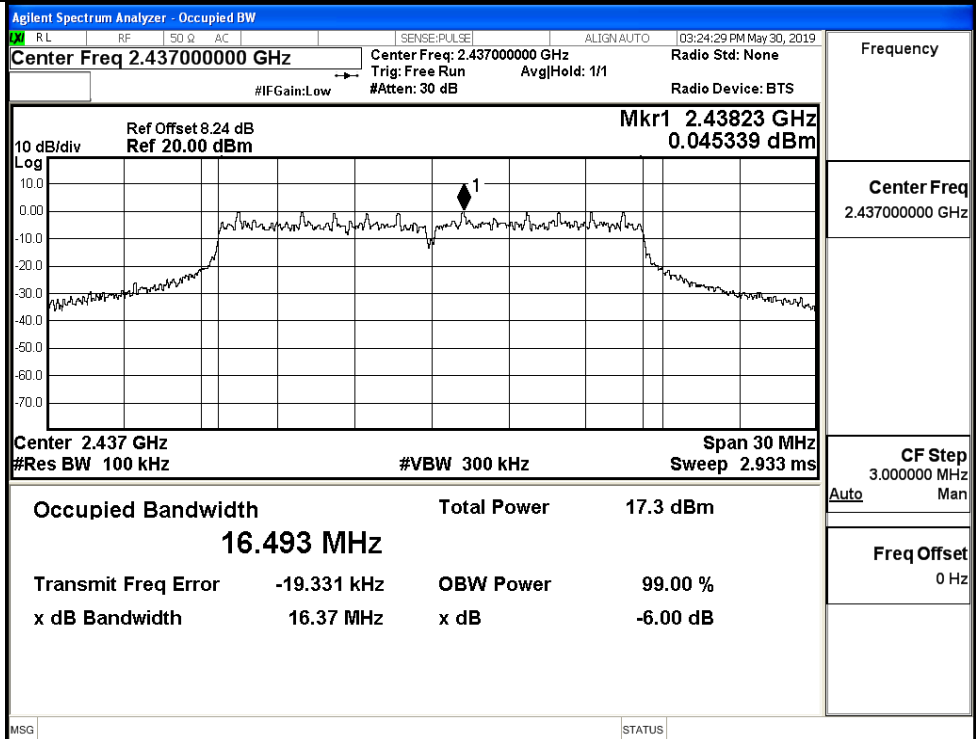
Freq Offset  
0 Hz

11G/LCH



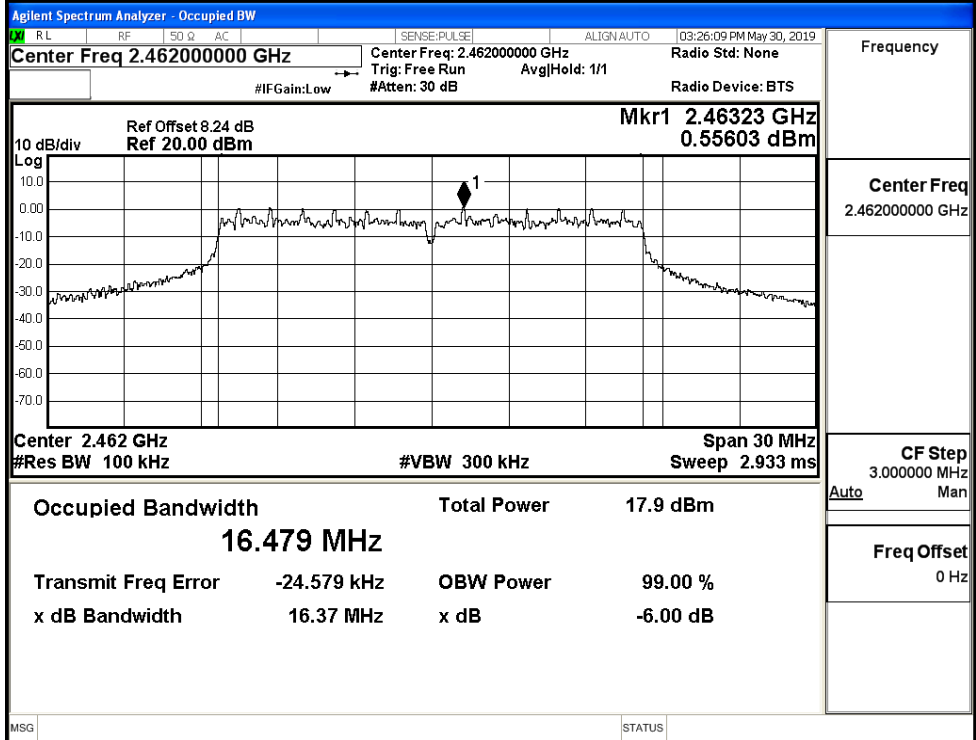
Frequency	2.41200000 GHz
Center Freq	2.41200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11G/MCH

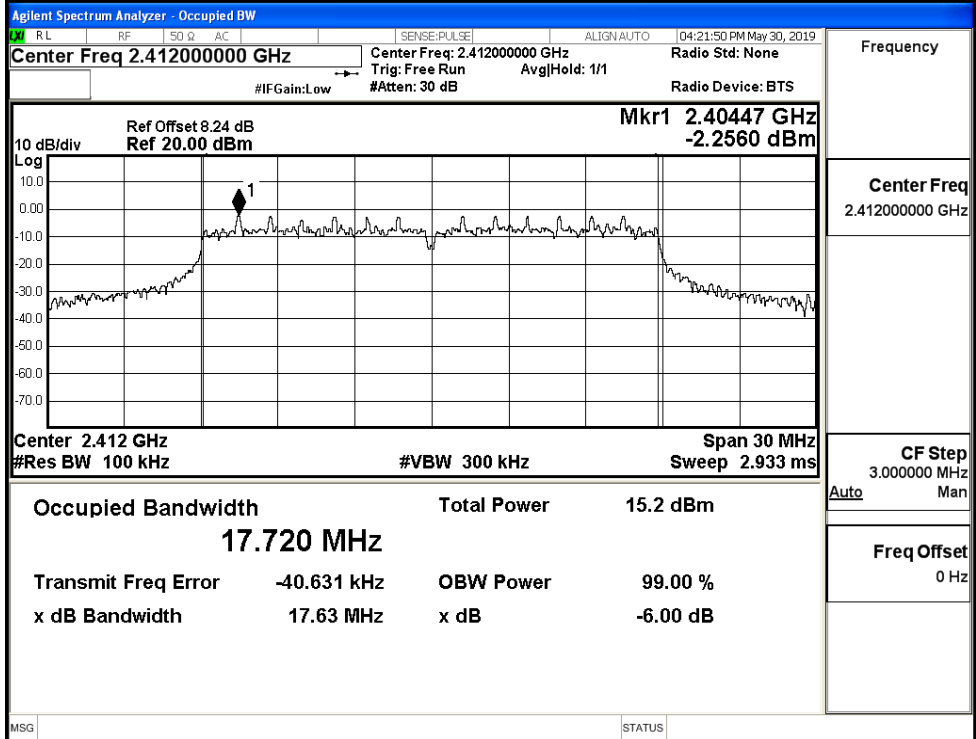


Frequency	2.43700000 GHz
Center Freq	2.43700000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

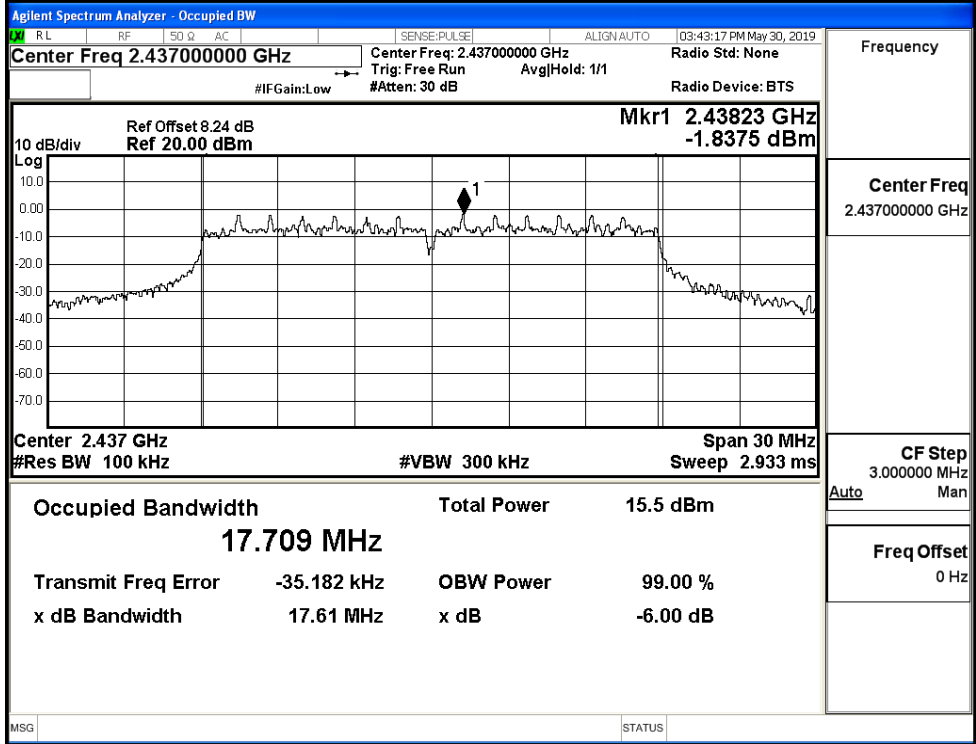
11G/HCH



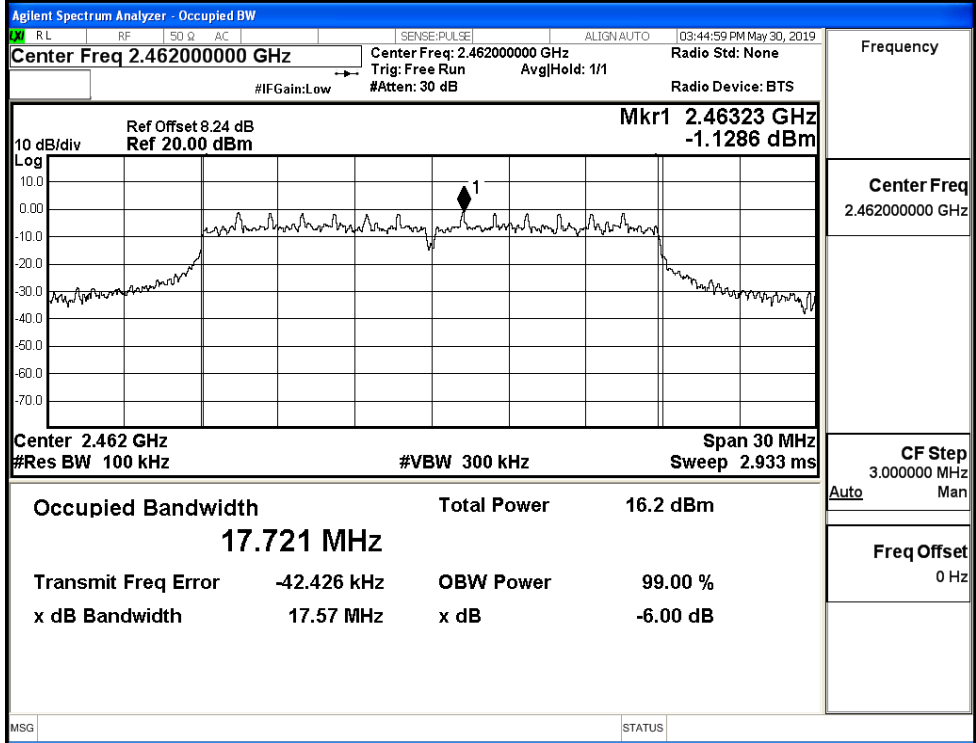
11N20SISO/LCH



11N20SISO/MCH



11N20SISO/HCH

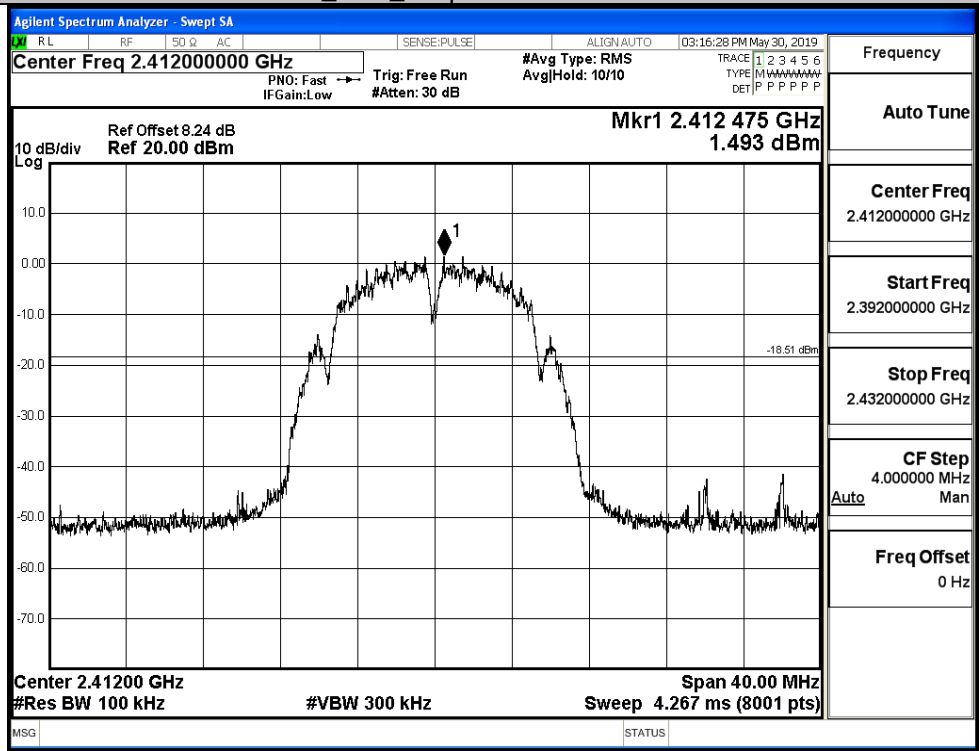


**A.5 RF Conducted Spurious Emissions**

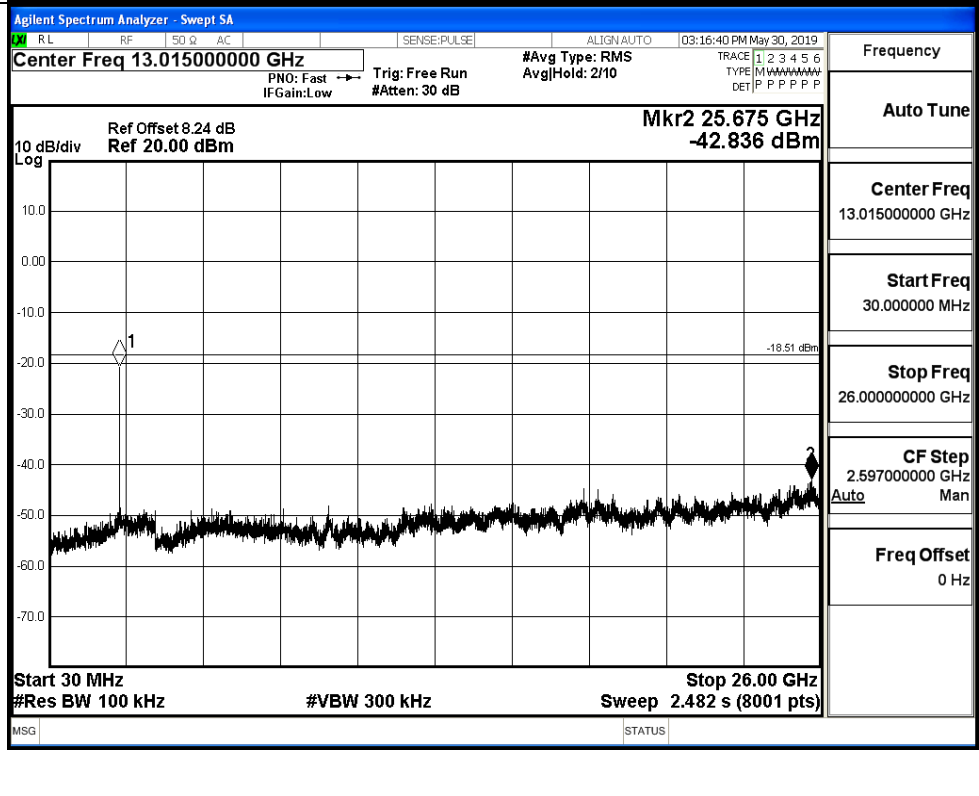
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	1.493	-42.836	-18.507	PASS
	MCH	2.253	-42.771	-17.747	PASS
	HCH	2.199	-43.106	-17.801	PASS
11G	LCH	-0.4	-44.252	-20.400	PASS
	MCH	-0.005	-44.268	-20.005	PASS
	HCH	0.331	-44.101	-19.669	PASS
11N20 SISO	LCH	-1.764	-43.961	-21.764	PASS
	MCH	-1.833	-44.009	-21.833	PASS
	HCH	-1.45	-43.407	-21.450	PASS

11B LCH Graphs

Pref/11B/LCH



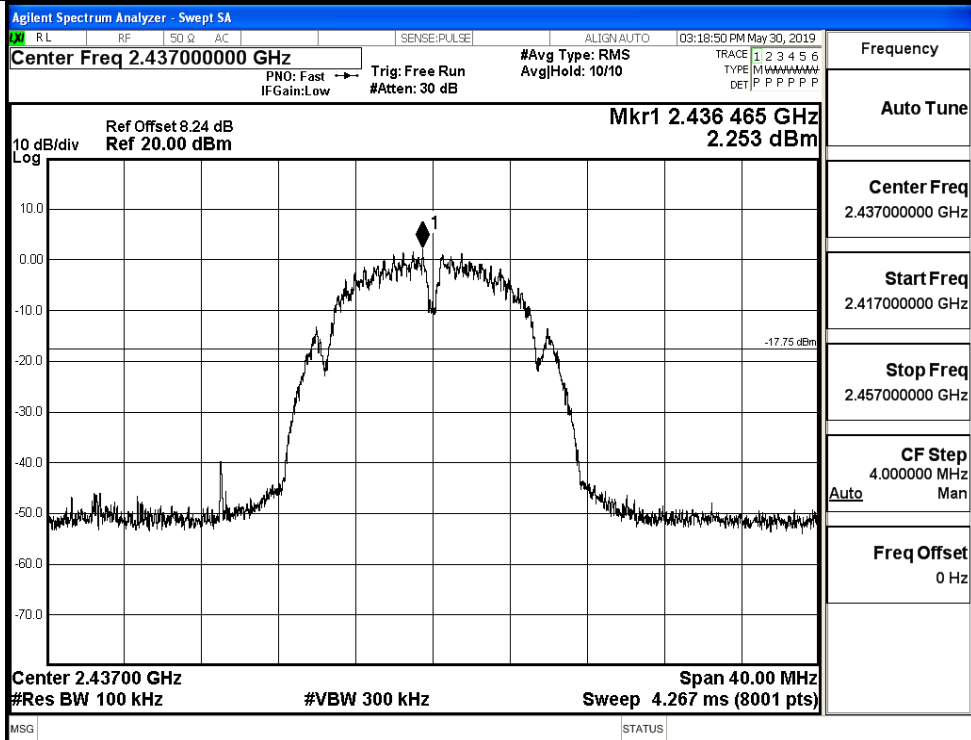
Puw/11B/LCH





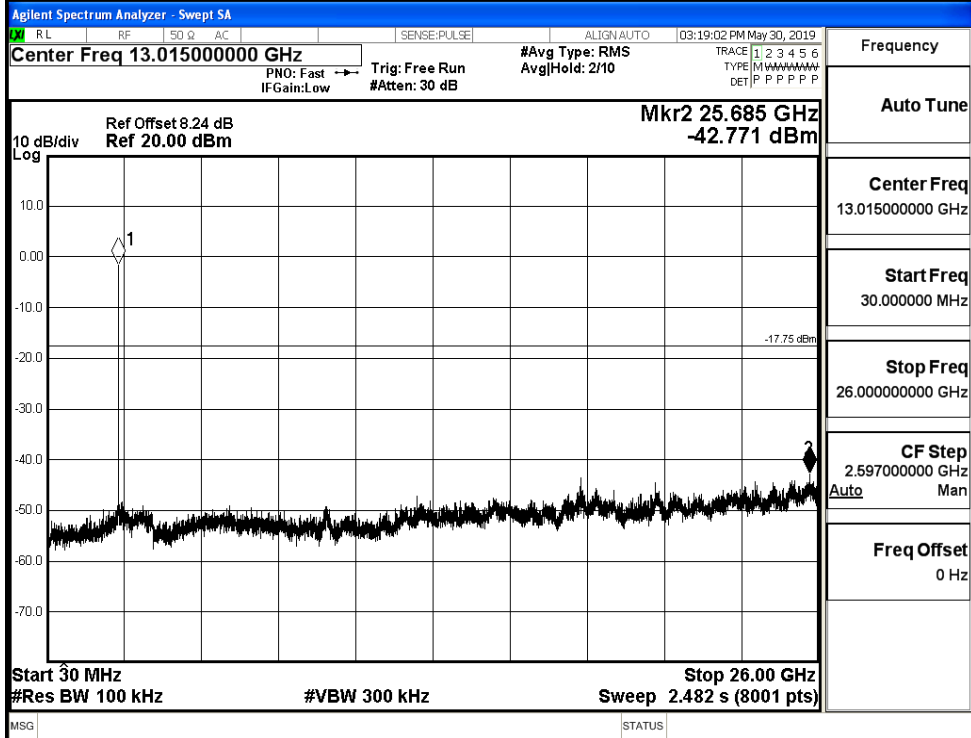
11B\_MCH\_Graphs

Pref/11B/MCH



Frequency
Auto Tune
Center Freq 2.437000000 GHz
Start Freq 2.417000000 GHz
Stop Freq 2.457000000 GHz
CF Step 4.000000 MHz Auto Man
Freq Offset 0 Hz

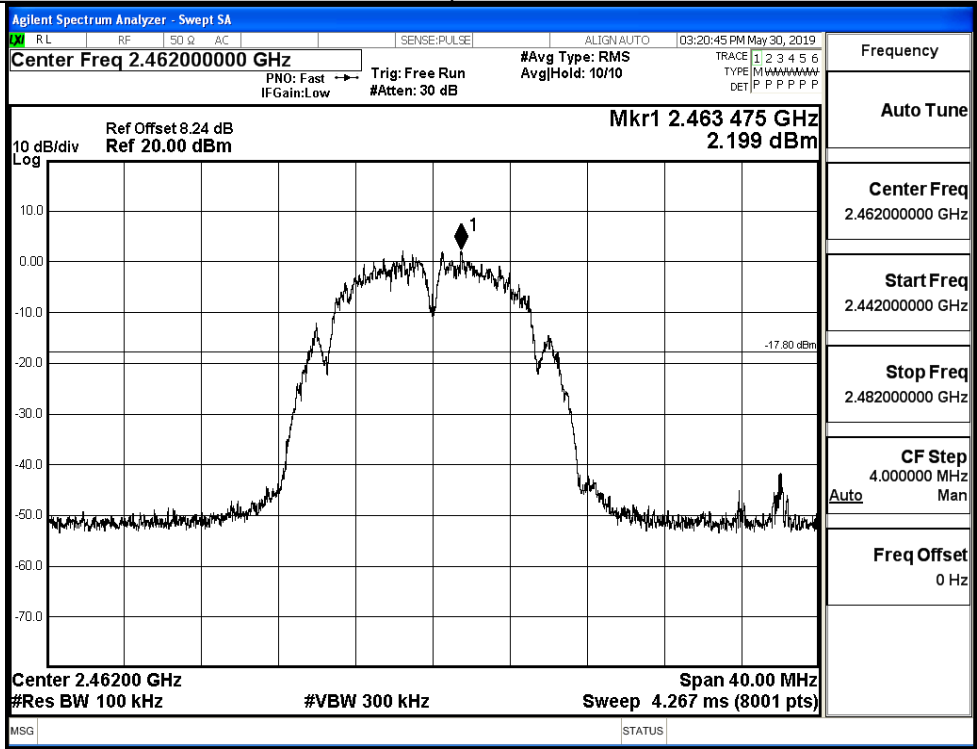
Puw/11B/MCH



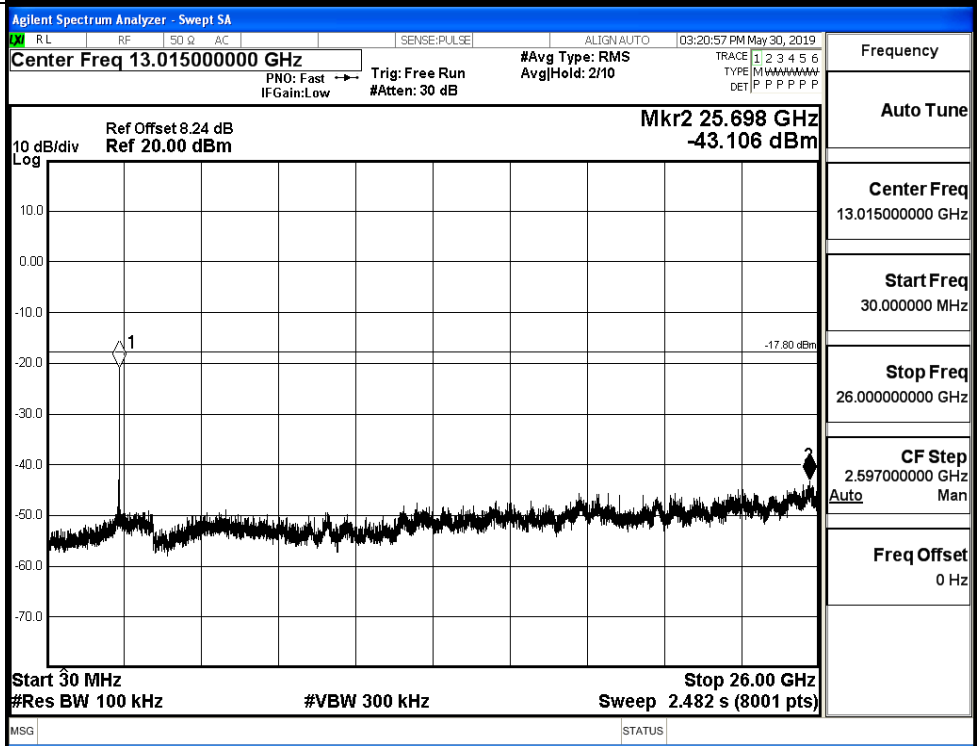
Frequency
Auto Tune
Center Freq 13.015000000 GHz
Start Freq 30.000000 MHz
Stop Freq 26.000000000 GHz
CF Step 2.597000000 GHz Auto Man
Freq Offset 0 Hz

11B\_HCH\_Graphs

Pref/11B/HCH

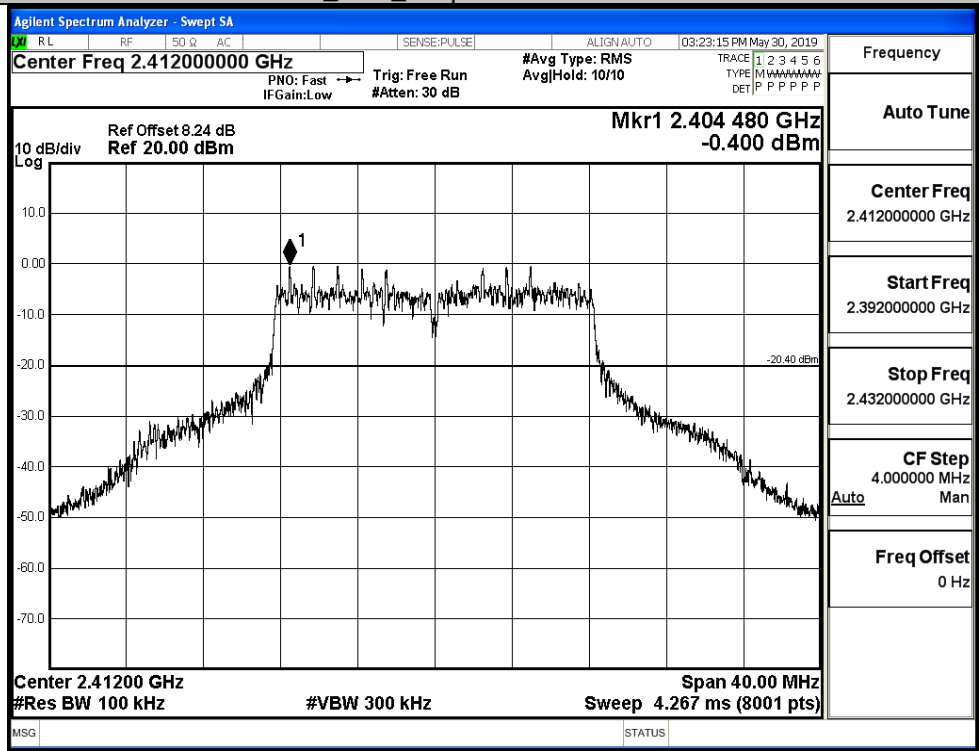


Puw/11B/HCH

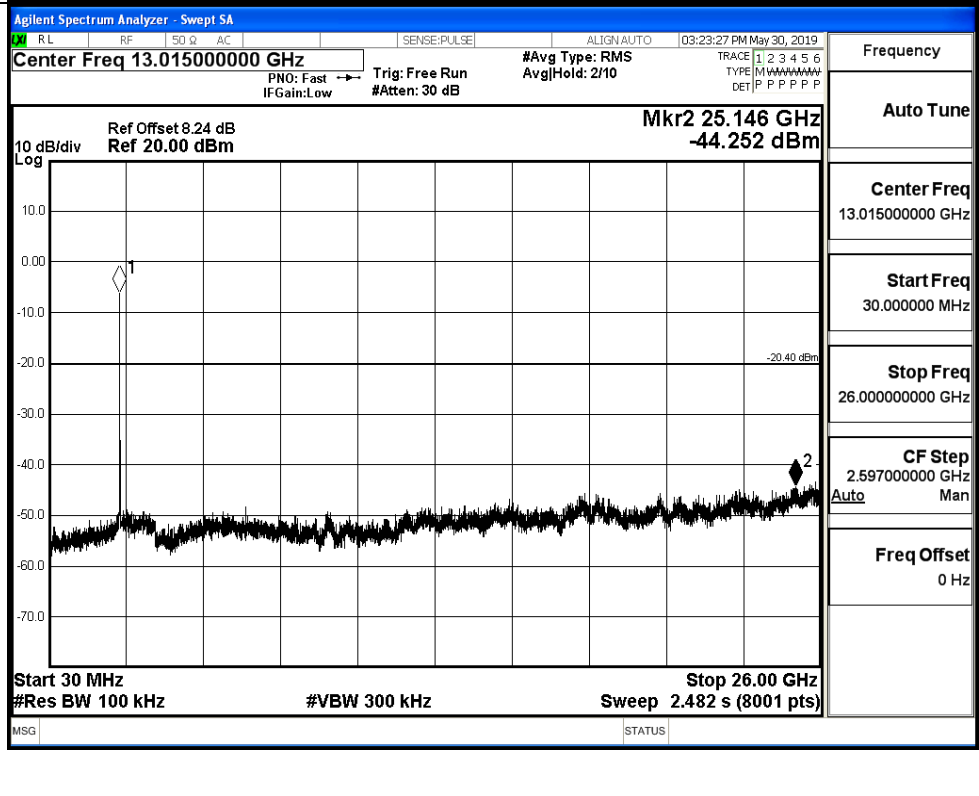


11G\_LCH\_Graphs

Pref/11G/LCH

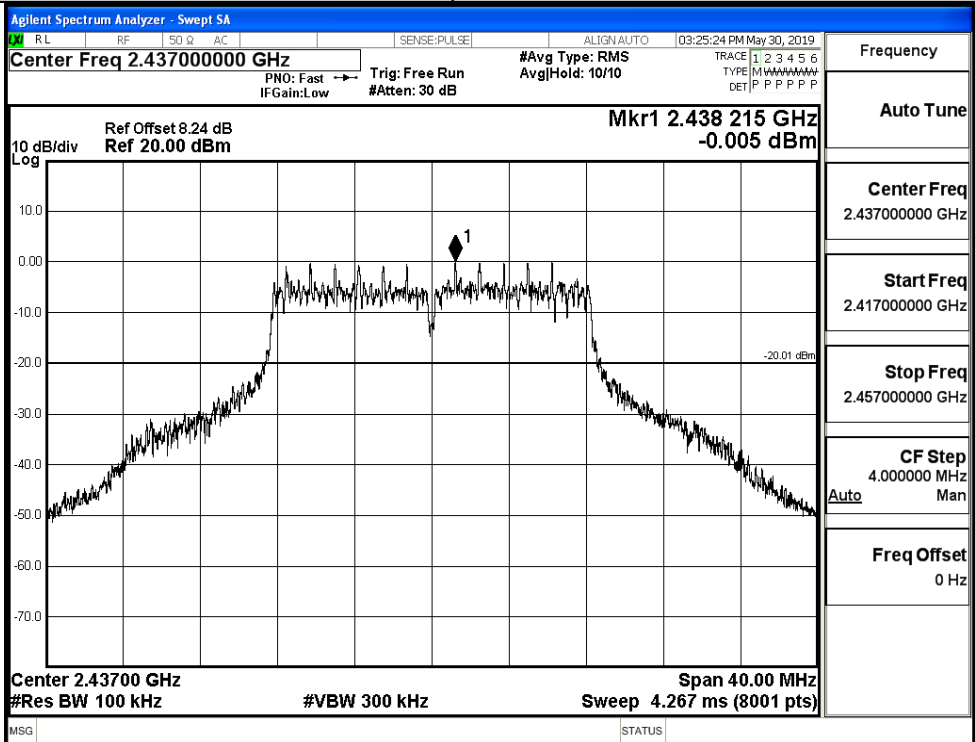


Puw/11G/LCH

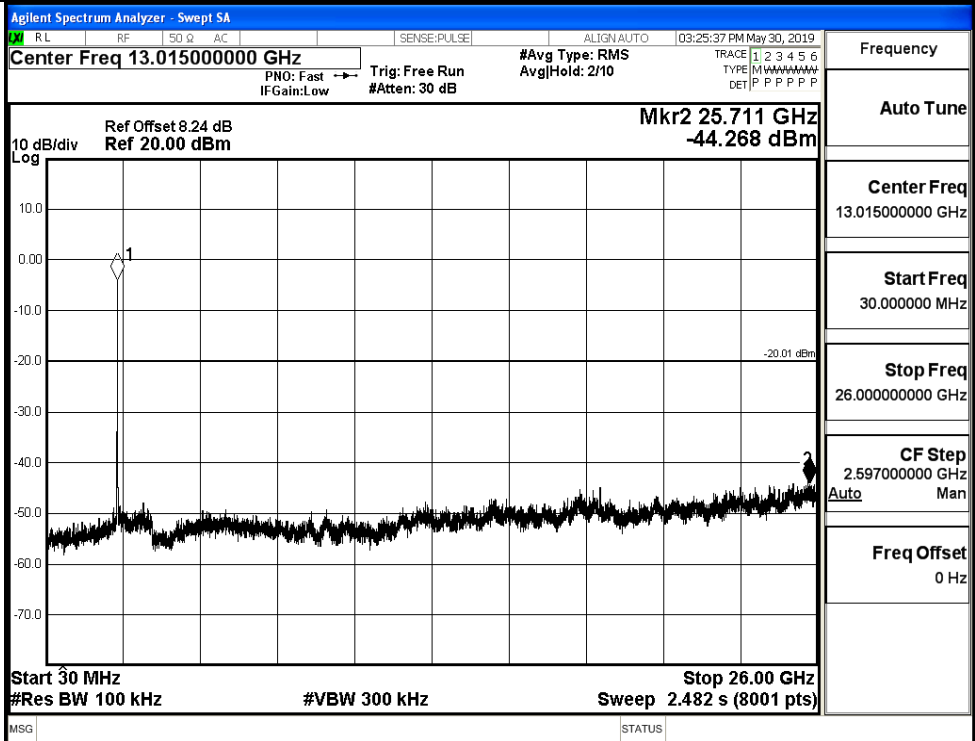


11G\_MCH Graphs

Pref/11G/MCH

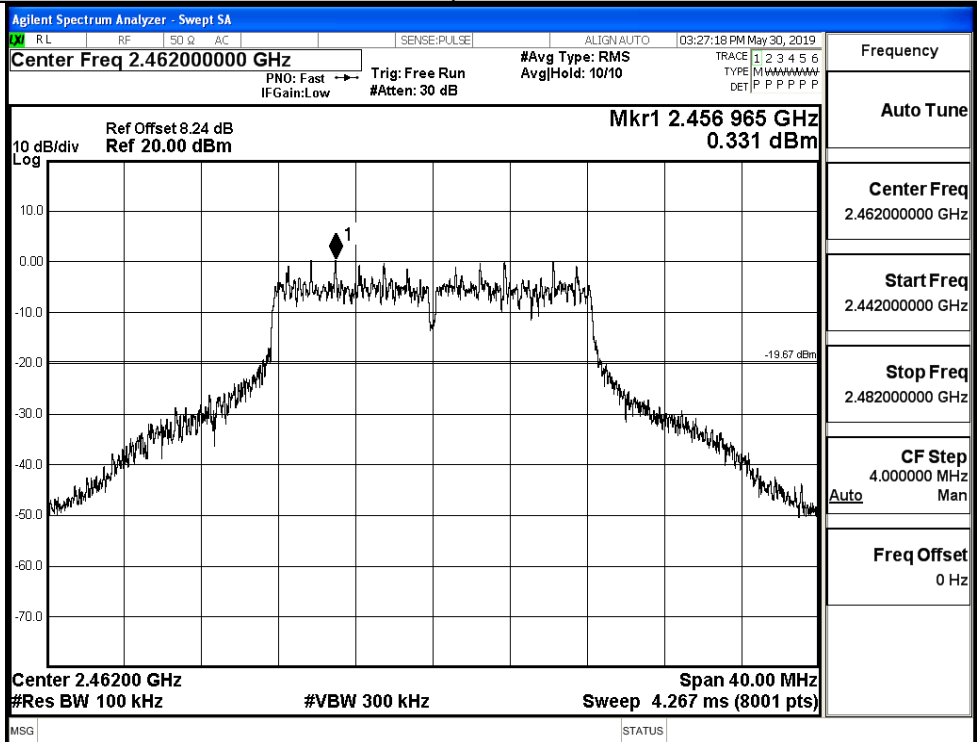


Puw/11G/MCH

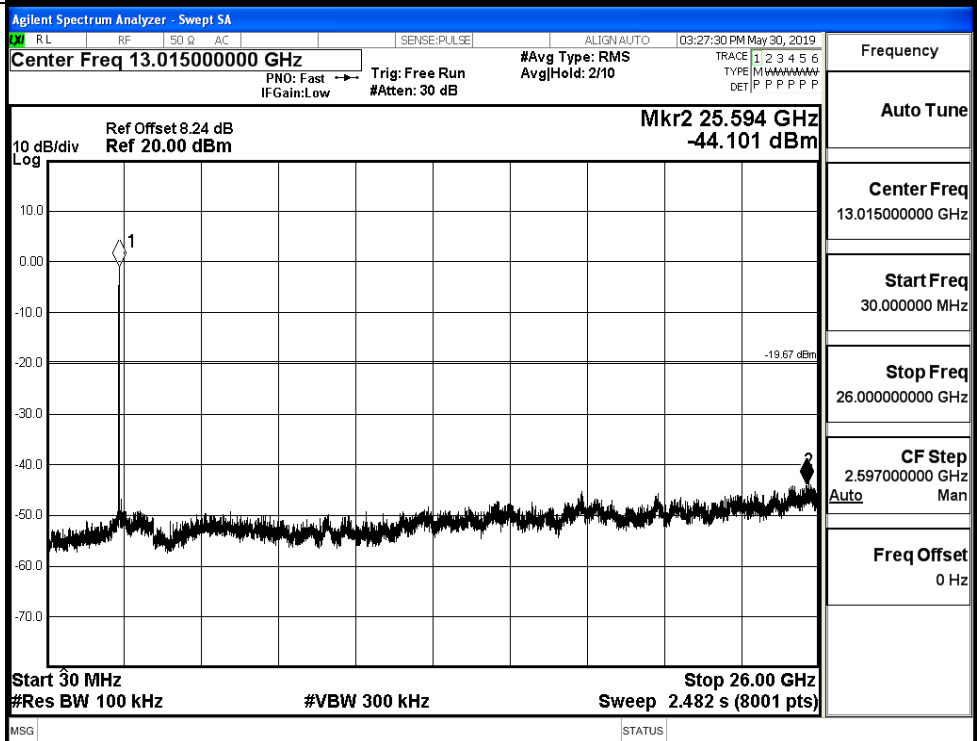


11G\_HCH Graphs

Pref/11G/HCH

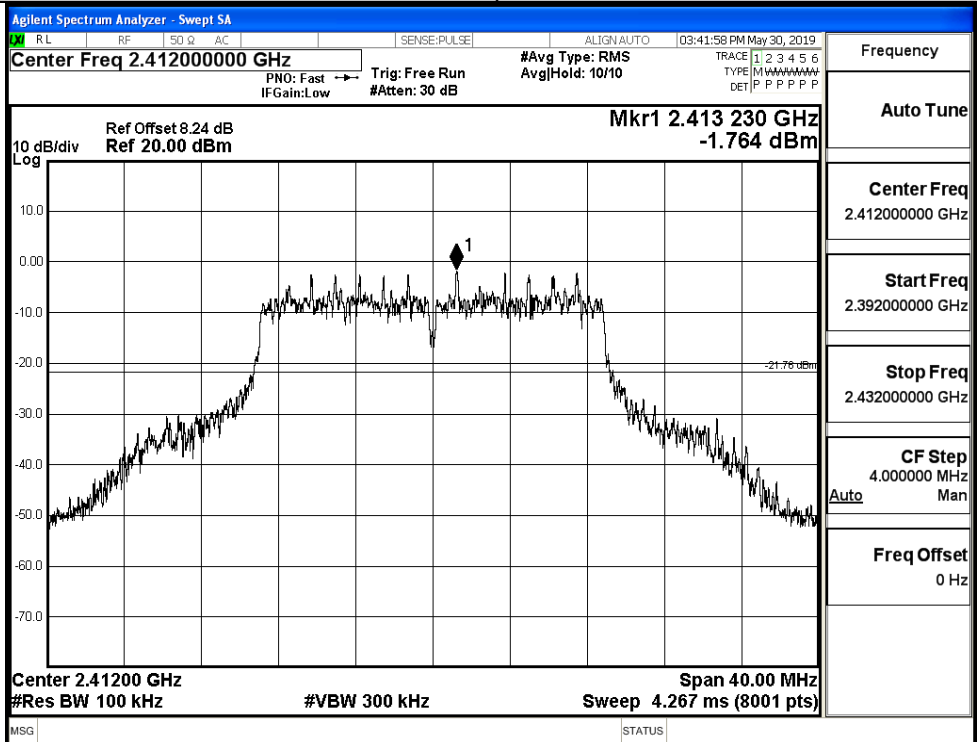


Puw/11G/HCH

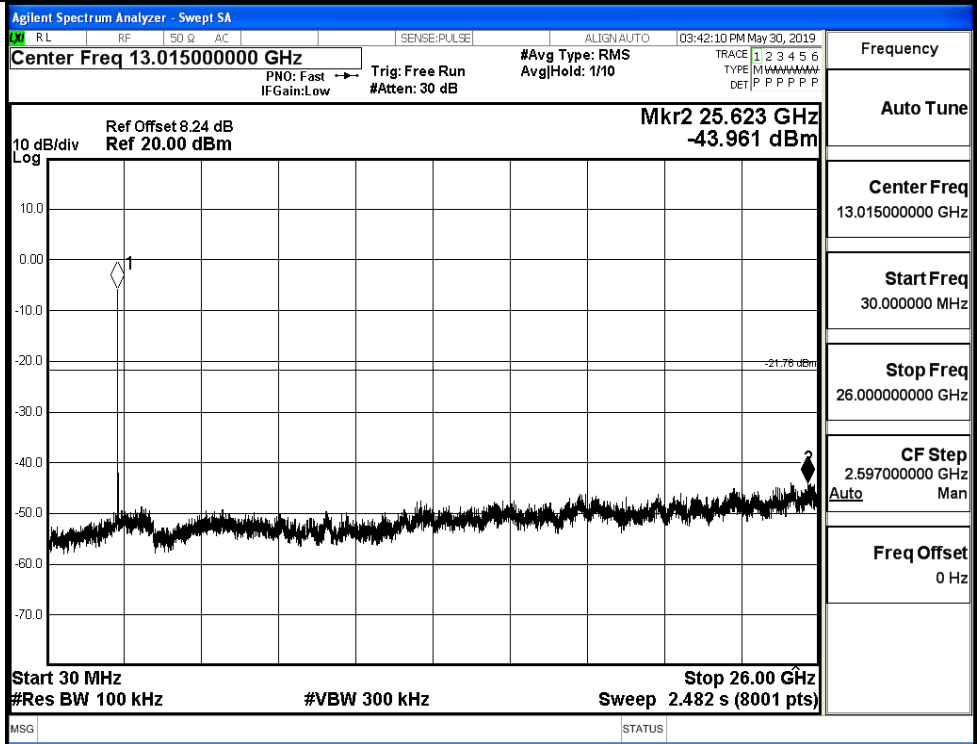


11N20SISO LCH\_Graphs

Pref/11N20SIS  
O/LCH

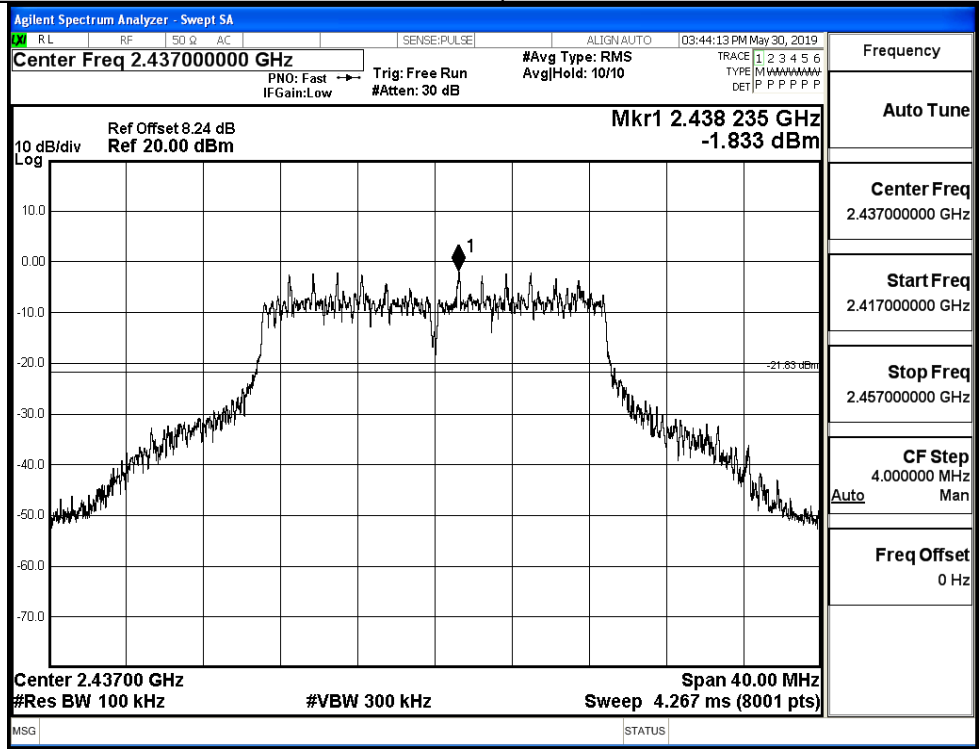


Puw/11N20  
SISO/LCH

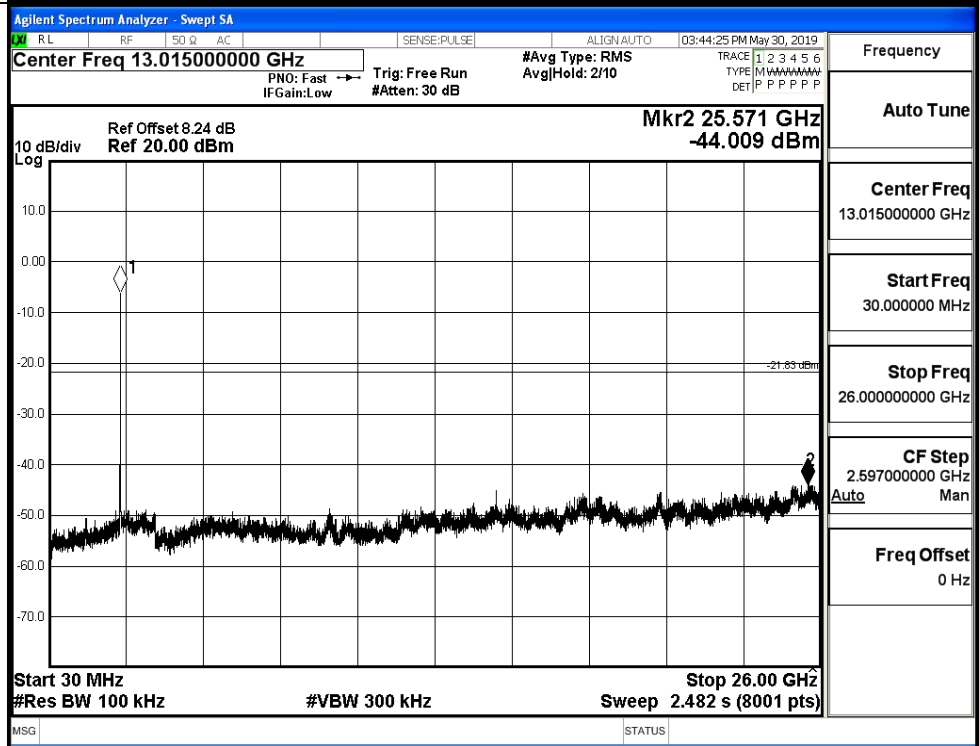


11N20SISO\_MCH\_Graphs

Pref/11N20  
SISO/MCH

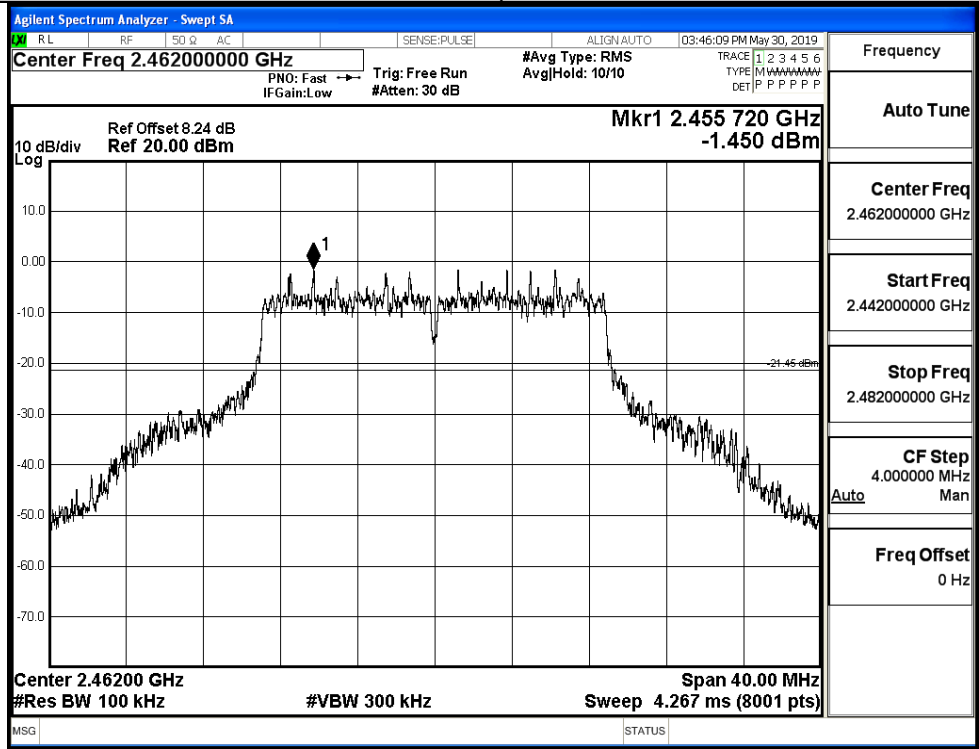


Puw/11N20  
SISO/MCH

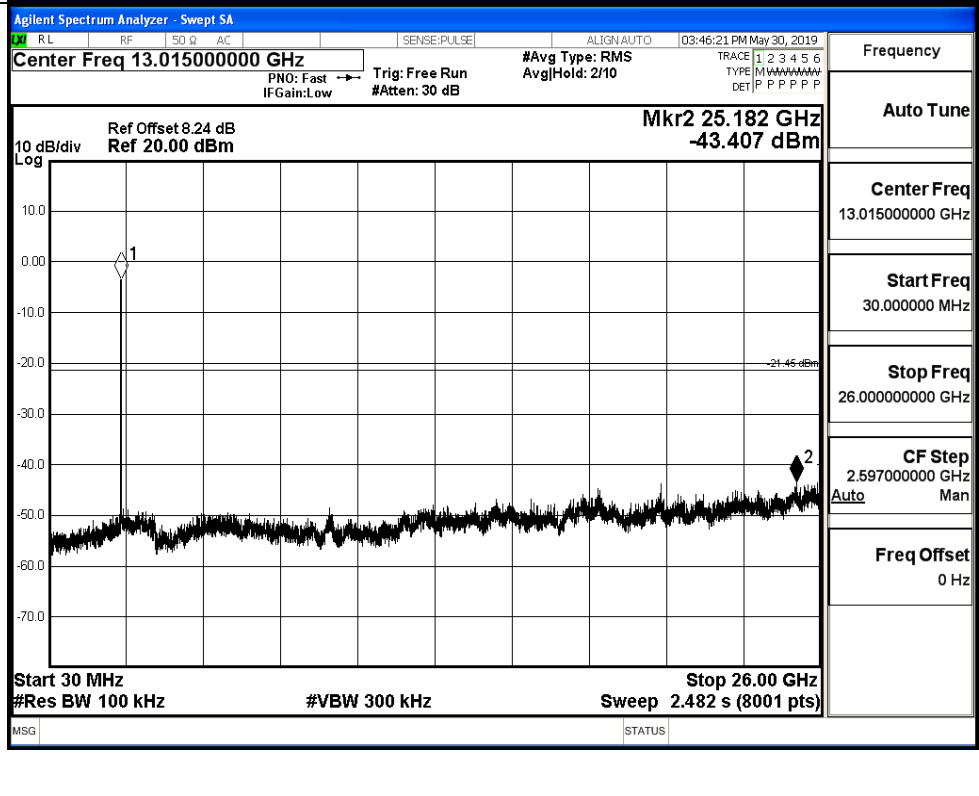


11N20SISO\_HCH\_Graphs

Pref/11N20  
SISO/HCH



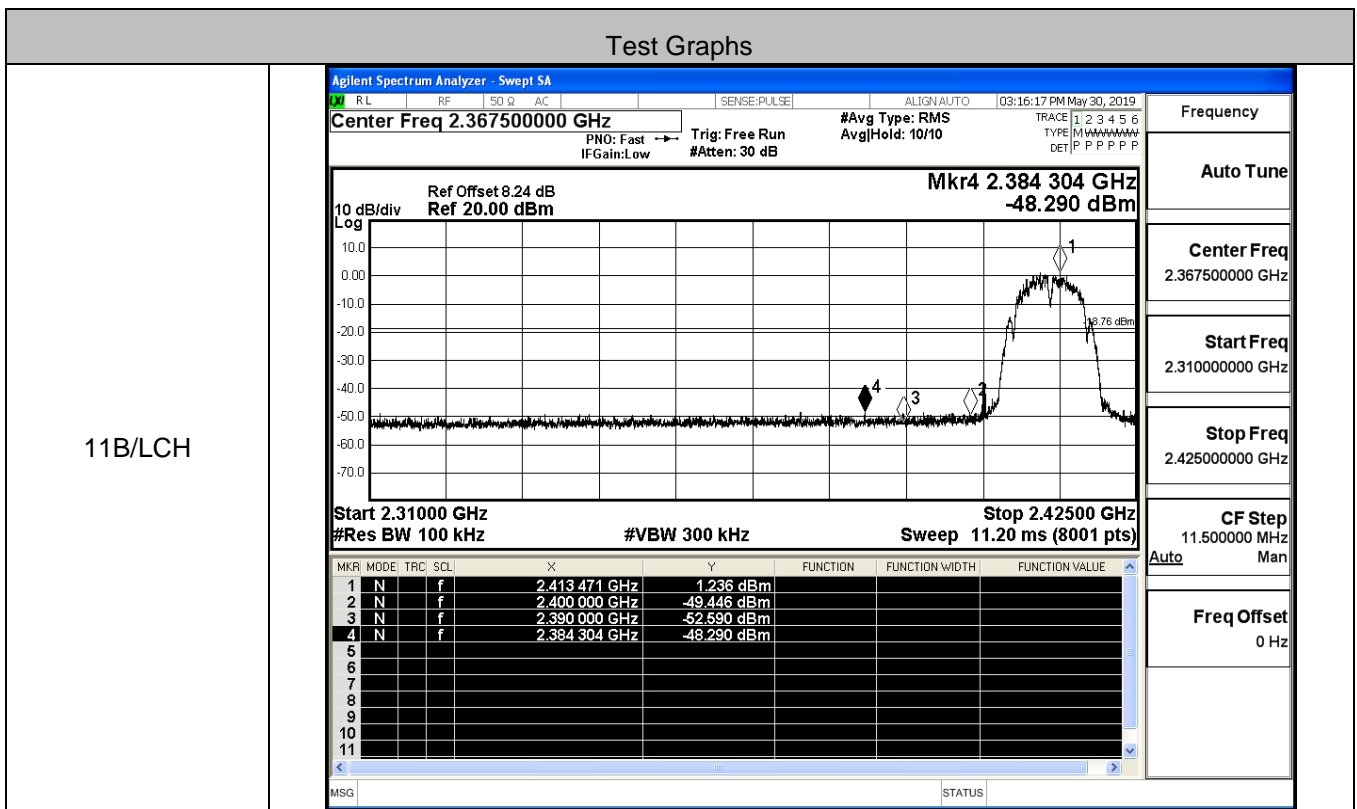
Puw/11N20  
SISO/HCH



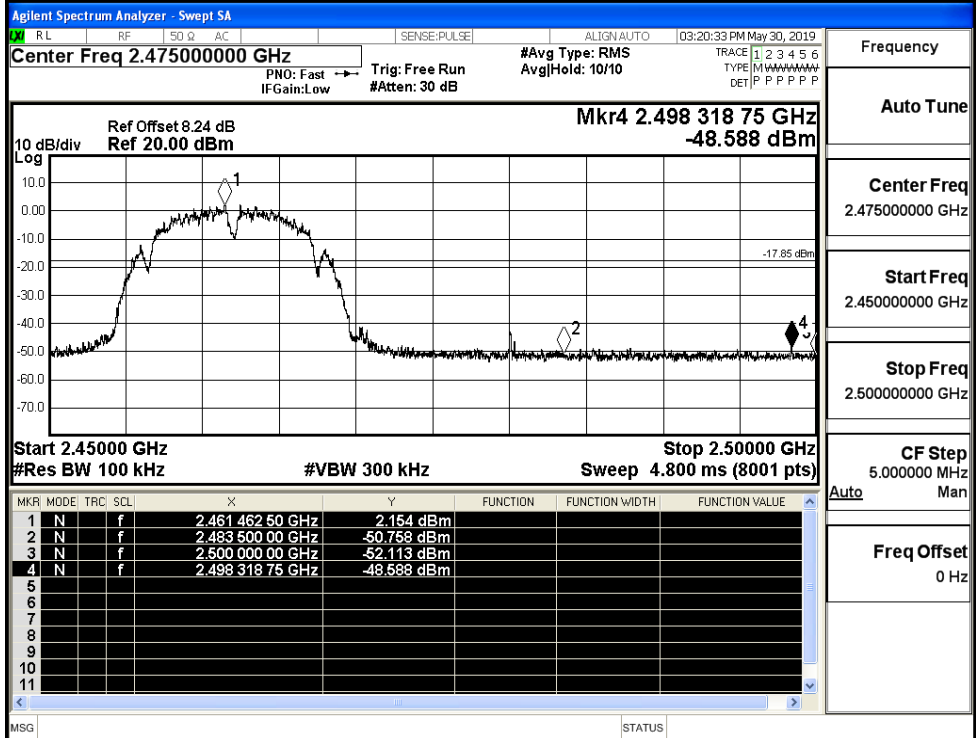


### A.6 Band-edge for RF Conducted Emissions

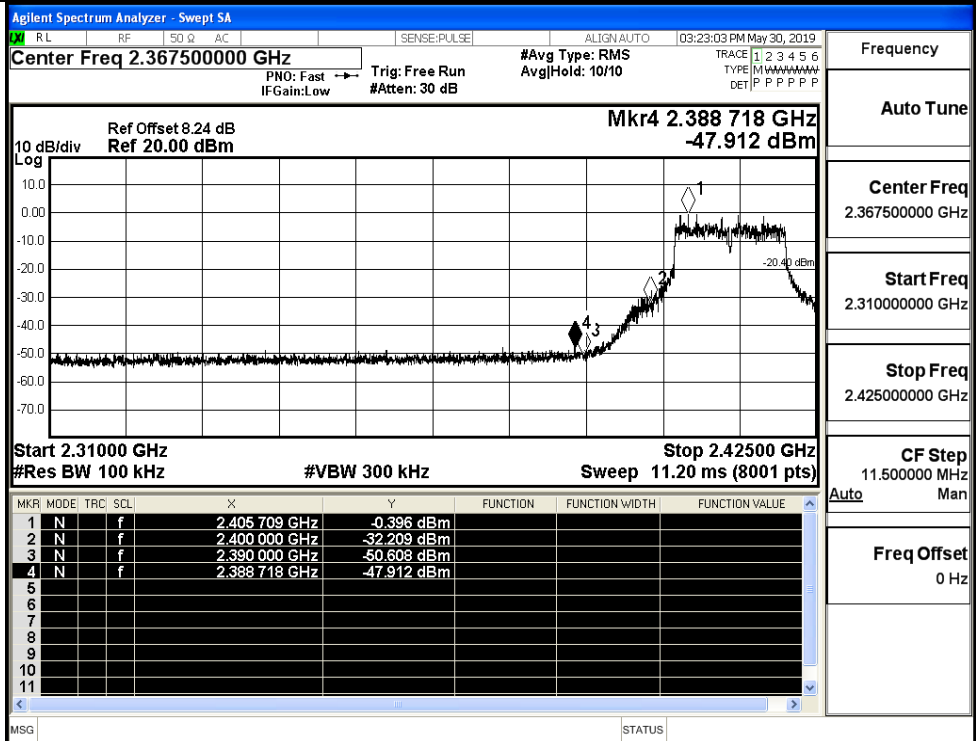
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	1.236	-48.290	-18.76	PASS
	HCH	2.154	-48.588	-17.85	PASS
11G	LCH	-0.396	-47.912	-20.4	PASS
	HCH	0.639	-47.945	-19.36	PASS
11N20SISO	LCH	-1.988	-49.285	-21.99	PASS
	HCH	-1.264	-48.773	-21.26	PASS



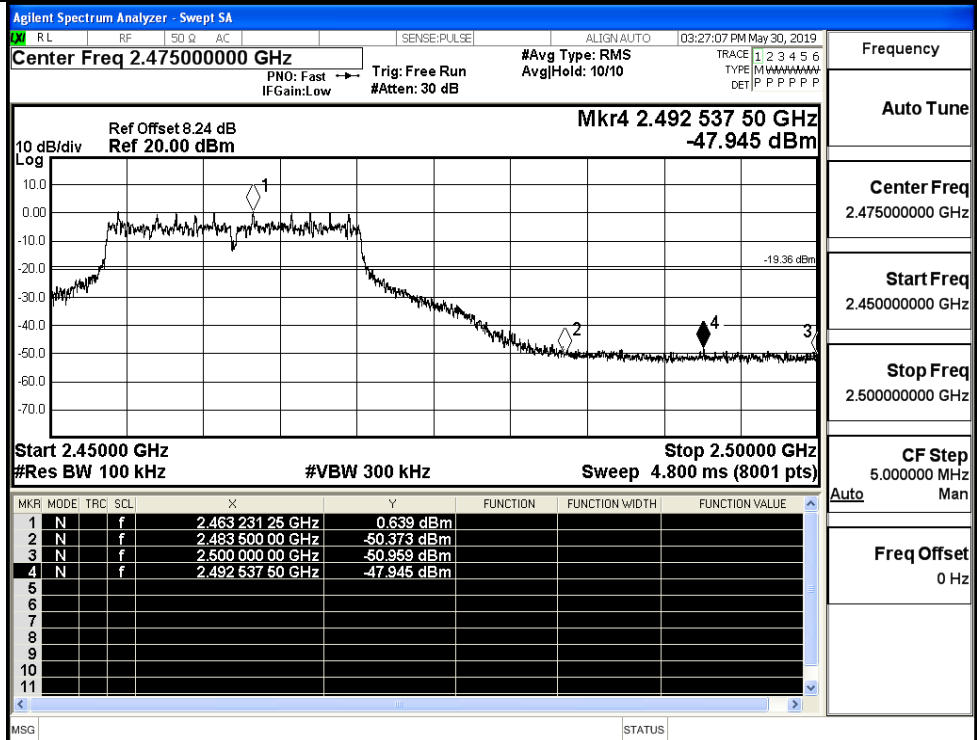
11B/HCH



11G/LCH

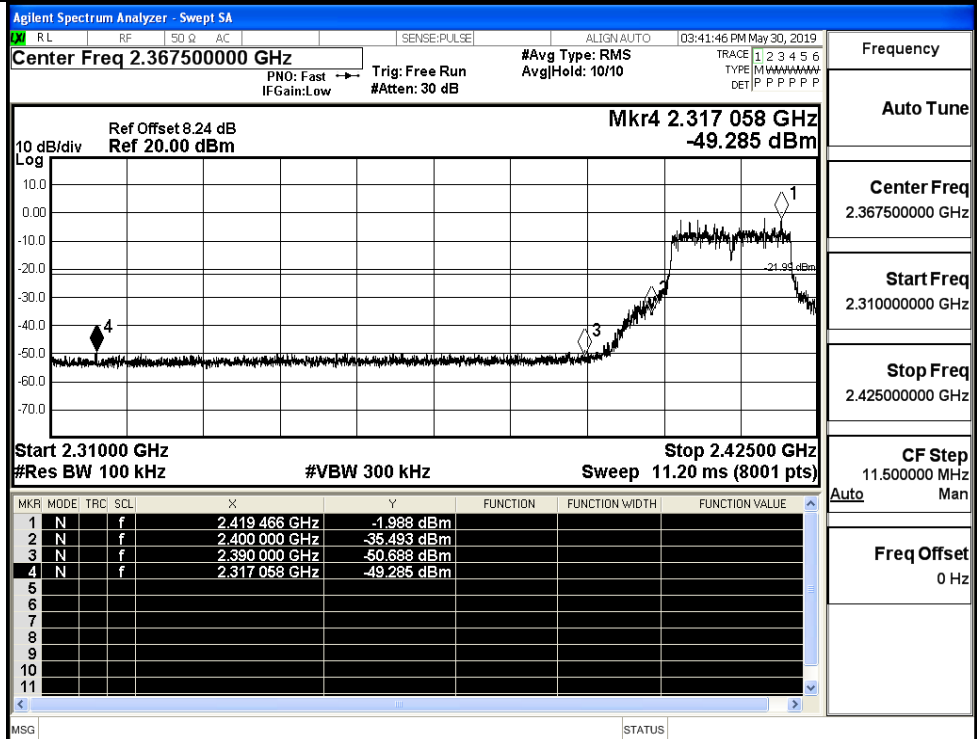


11G/HCH



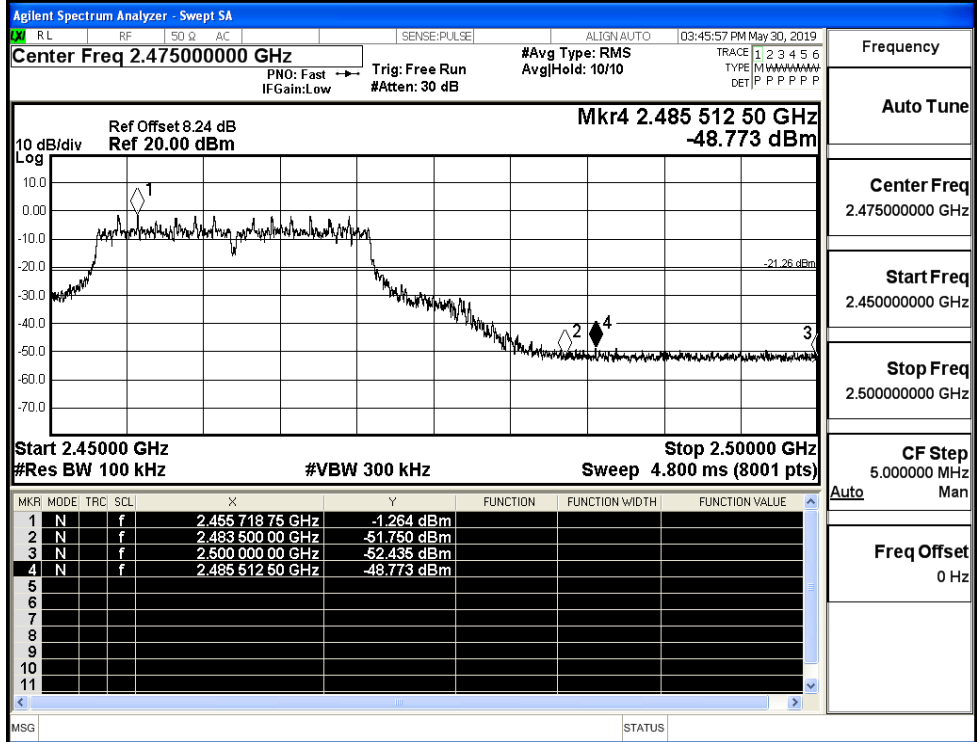
Frequency	
Auto Tune	
Center Freq	2.47500000 GHz
Start Freq	2.45000000 GHz
Stop Freq	2.50000000 GHz
CF Step	5.000000 MHz
Freq Offset	0 Hz

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

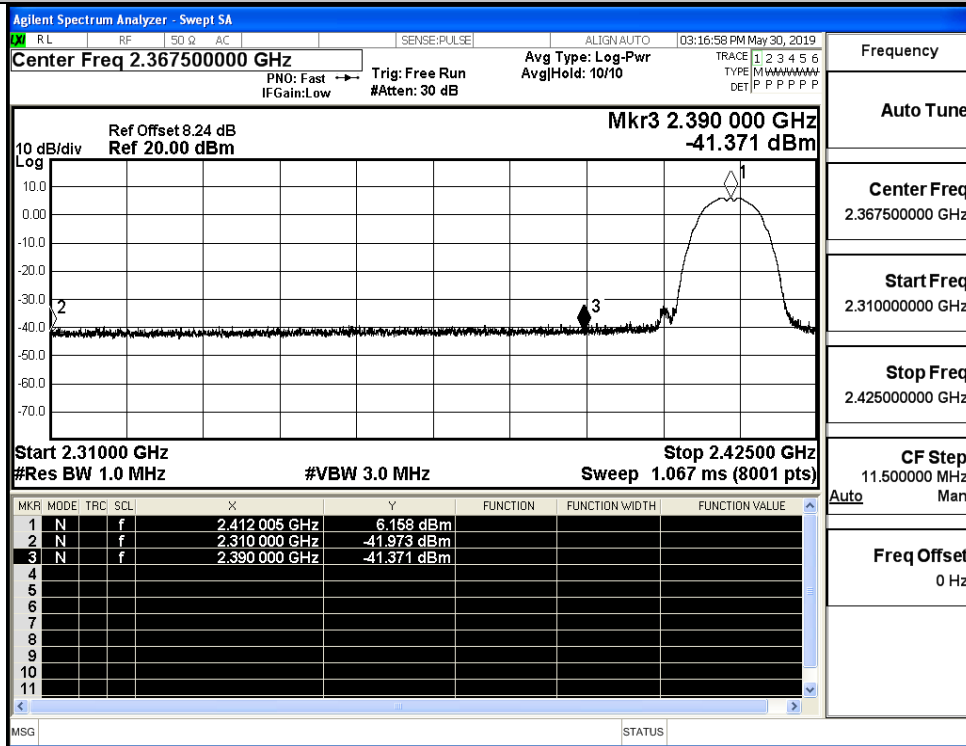
11N20SISO/HCH



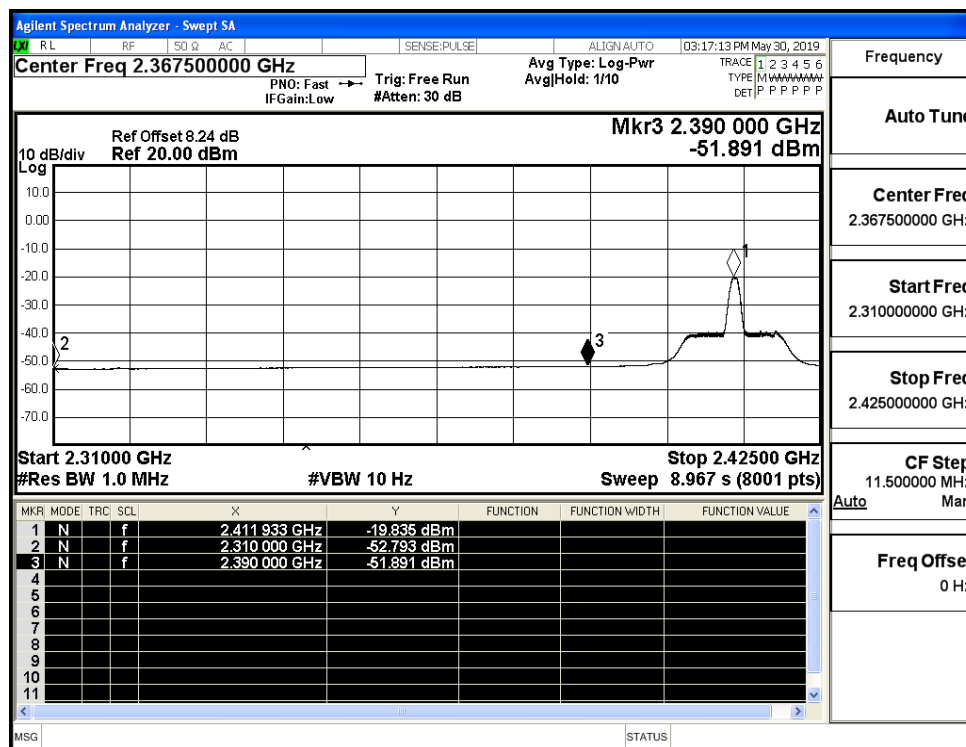
## A.7 Restrict-band band-edge measurements

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	-41.97	2.0	0	53.28	PEAK	74	PASS
	2412	Ant1	2310.0	-52.79	2.0	0	42.46	AV	54	PASS
	2412	Ant1	2390.0	-41.37	2.0	0	53.89	PEAK	74	PASS
	2412	Ant1	2390.0	-51.89	2.0	0	43.37	AV	54	PASS
	2462	Ant1	2483.5	-41.13	2.0	0	54.13	PEAK	74	PASS
	2462	Ant1	2483.5	-51.80	2.0	0	43.46	AV	54	PASS
	2462	Ant1	2500.0	-41.72	2.0	0	53.54	PEAK	74	PASS
	2462	Ant1	2500.0	-51.85	2.0	0	43.41	AV	54	PASS
11G	2412	Ant1	2310.0	-42.42	2.0	0	52.84	PEAK	74	PASS
	2412	Ant1	2310.0	-52.83	2.0	0	42.42	AV	54	PASS
	2412	Ant1	2390.0	-39.17	2.0	0	56.09	PEAK	74	PASS
	2412	Ant1	2390.0	-50.46	2.0	0	44.80	AV	54	PASS
	2462	Ant1	2483.5	-39.39	2.0	0	55.86	PEAK	74	PASS
	2462	Ant1	2483.5	-50.23	2.0	0	45.03	AV	54	PASS
	2462	Ant1	2500.0	-40.69	2.0	0	54.57	PEAK	74	PASS
	2462	Ant1	2500.0	-51.75	2.0	0	43.51	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-41.72	2.0	0	53.53	PEAK	74	PASS
	2412	Ant1	2310.0	-53.20	2.0	0	42.06	AV	54	PASS
	2412	Ant1	2390.0	-41.00	2.0	0	54.25	PEAK	74	PASS
	2412	Ant1	2390.0	-51.87	2.0	0	43.39	AV	54	PASS
	2462	Ant1	2483.5	-41.35	2.0	0	53.90	PEAK	74	PASS
	2462	Ant1	2483.5	-51.69	2.0	0	43.57	AV	54	PASS
	2462	Ant1	2500.0	-40.62	2.0	0	54.64	PEAK	74	PASS
	2462	Ant1	2500.0	-52.34	2.0	0	42.92	AV	54	PASS
	2422	Ant1	2390.0	-41.84	2.0	0	53.42	PEAK	74	PASS

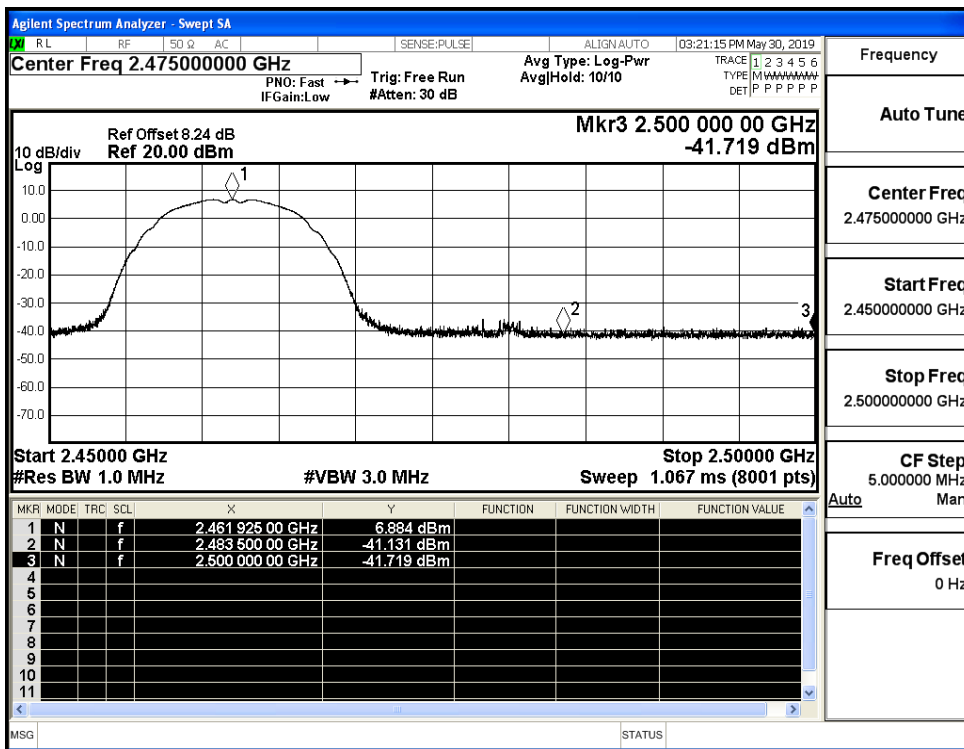
Restrict-band band-edge measurements\_11B\_2412\_Ant1\_PEAK



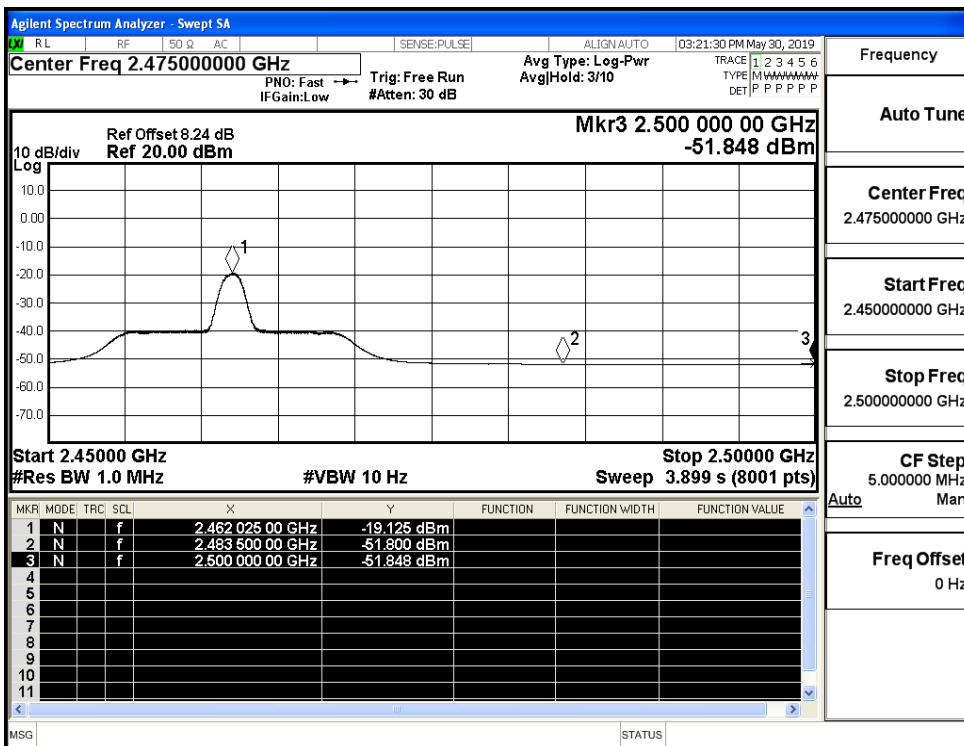
Restrict-band band-edge measurements\_11B\_2412\_Ant1\_AV



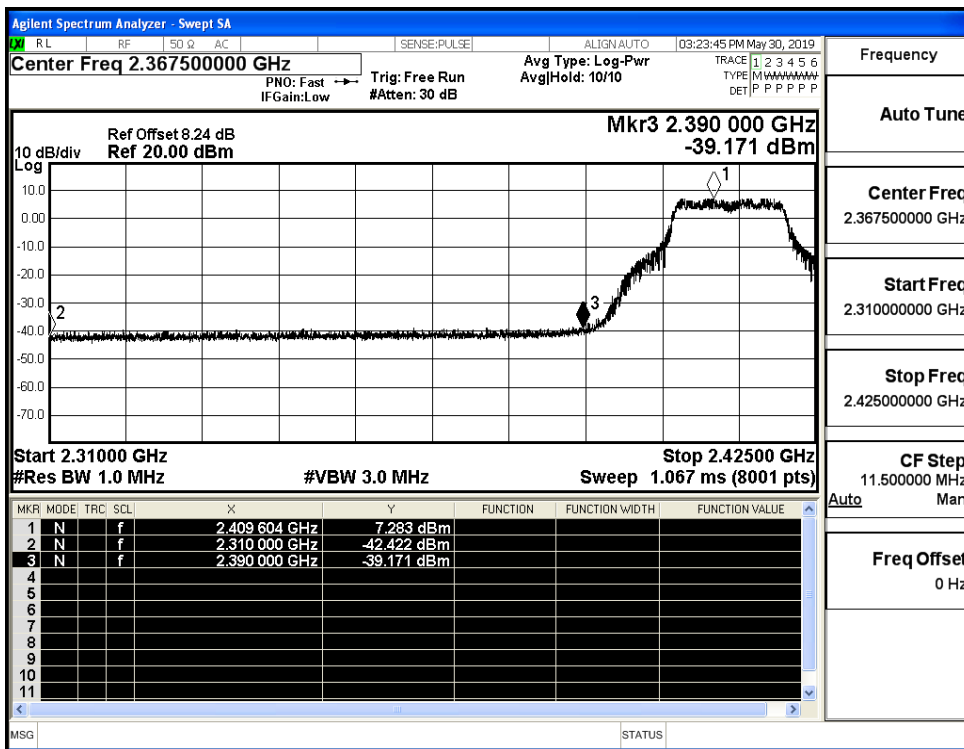
Restrict-band band-edge measurements\_11B\_2462\_Ant1\_PEAK



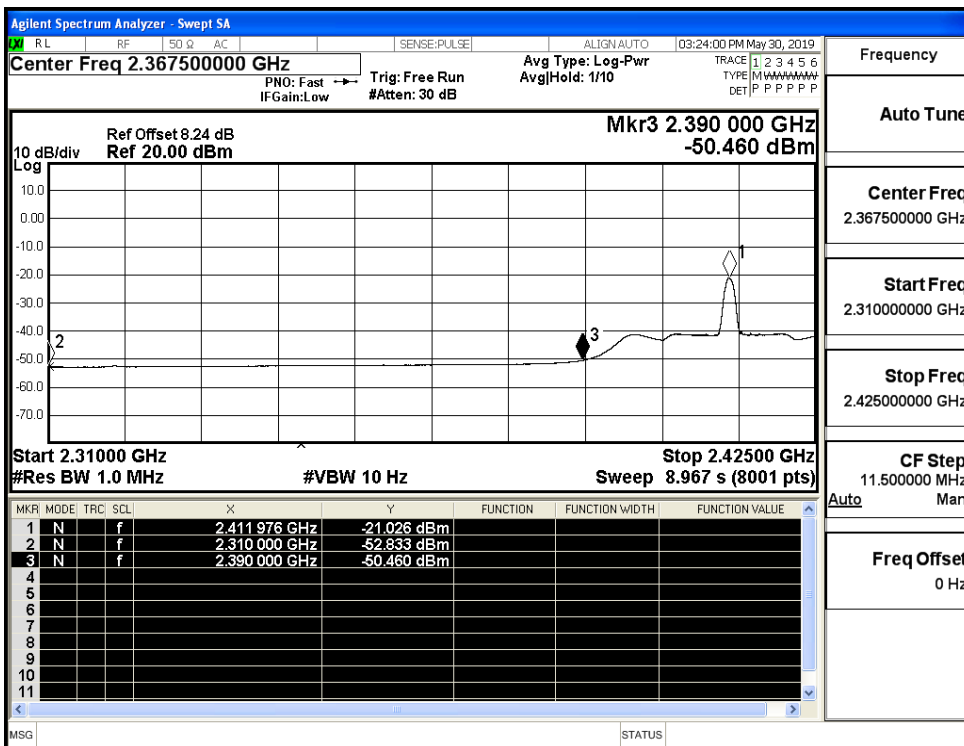
Restrict-band band-edge measurements\_11B\_2462\_Ant1\_AV



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

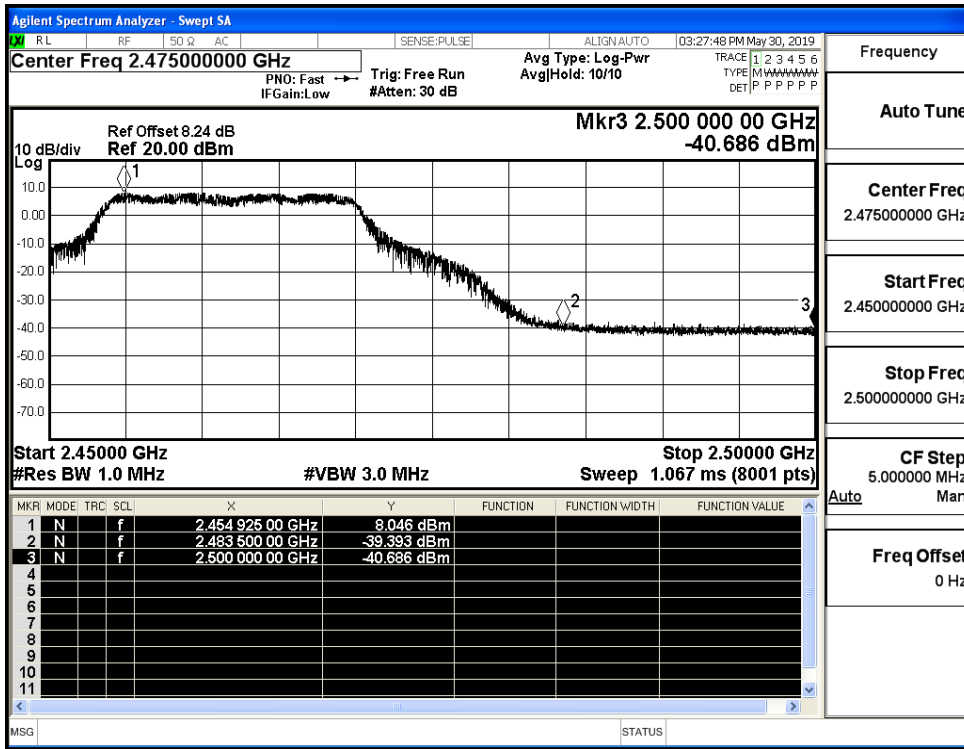


Restrict-band band-edge measurements\_11G\_2412\_Ant1\_AV

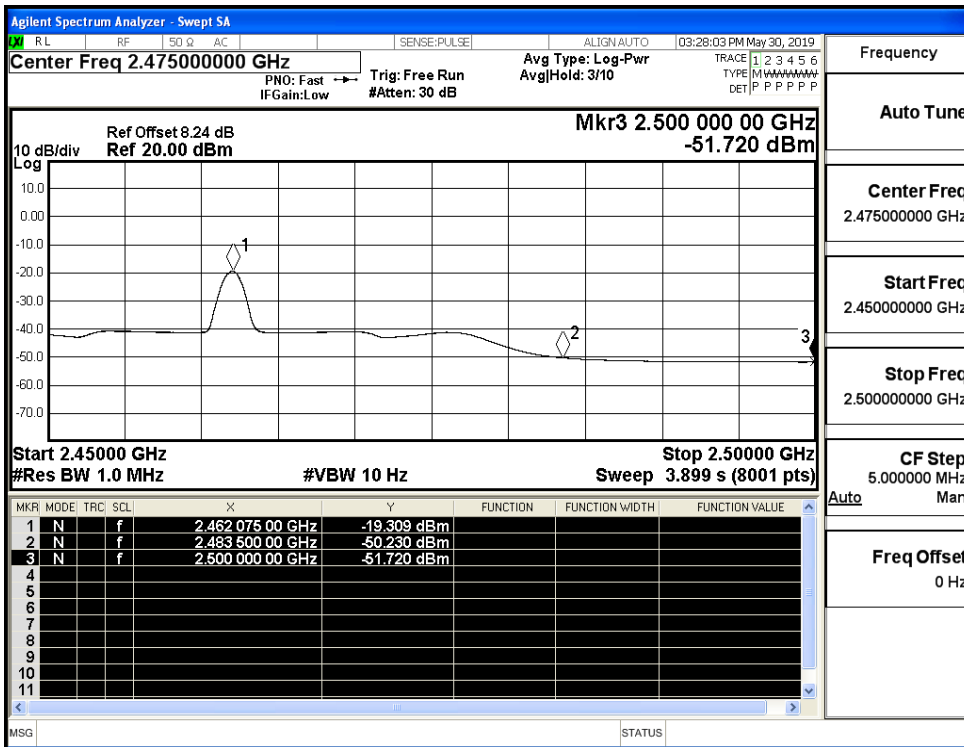


Restrict-band band-edge measurements\_11G\_2462\_Ant1\_PEAK

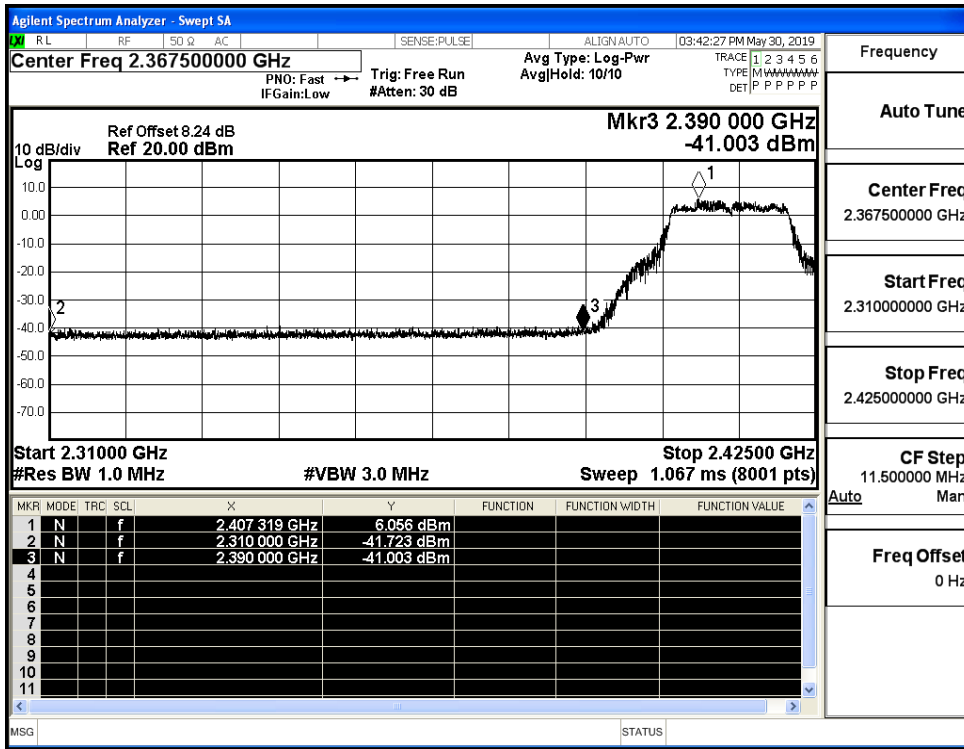




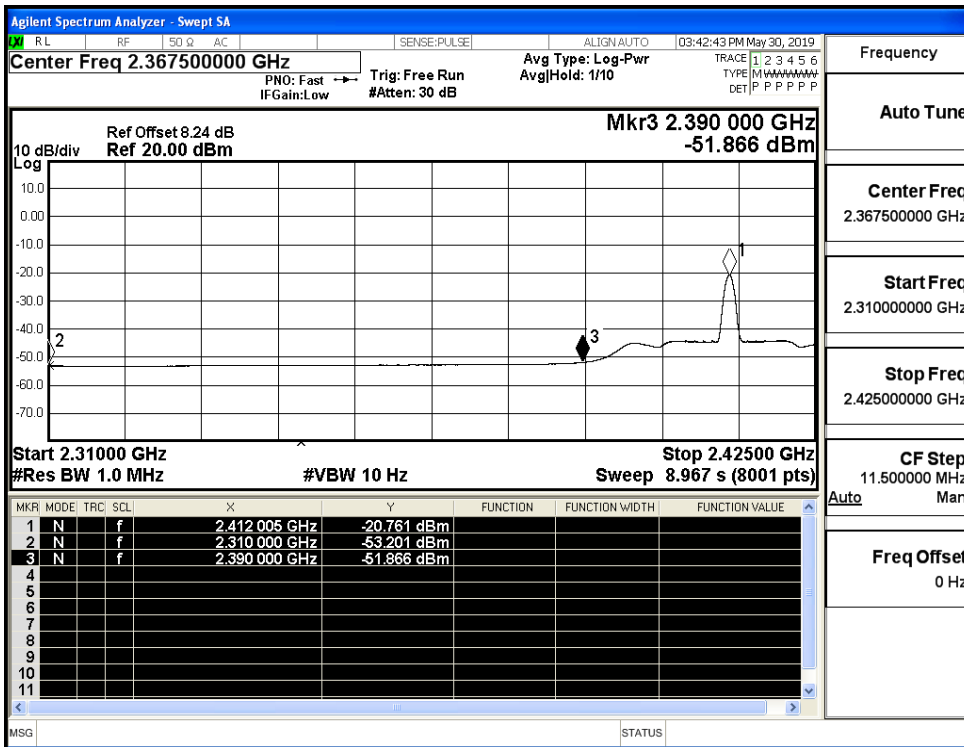
Restrict-band band-edge measurements\_11G\_2462\_Ant1\_AV



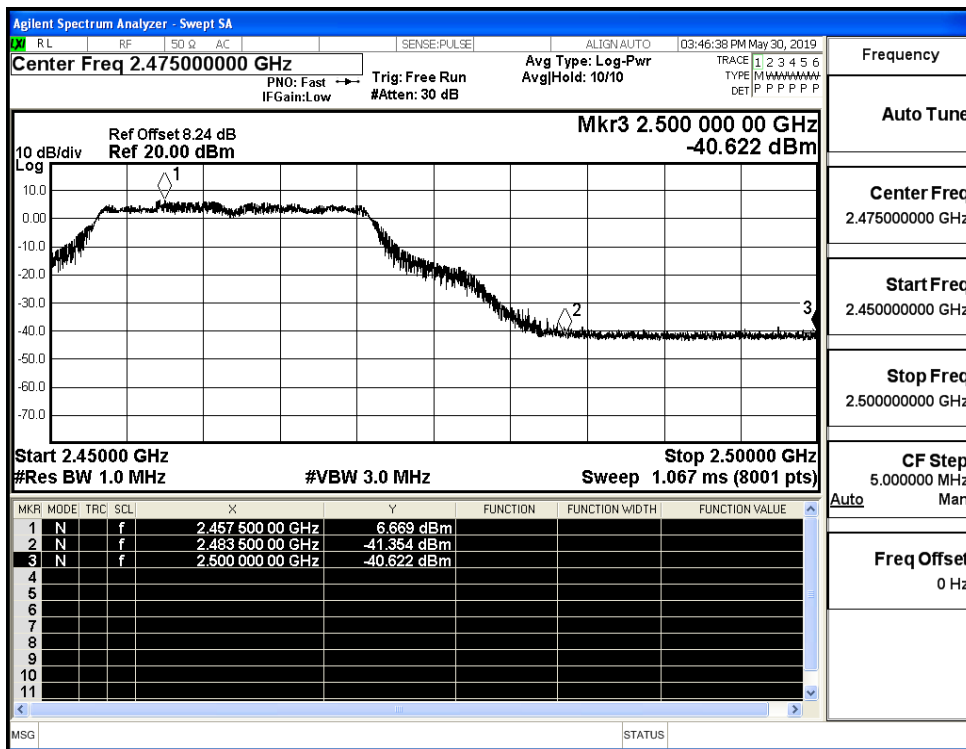
Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_PEAK



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

