

## Appendix A

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

Product Name: Sensor

Trade Mark: Feit Electric

Test Model: H20/WIFI

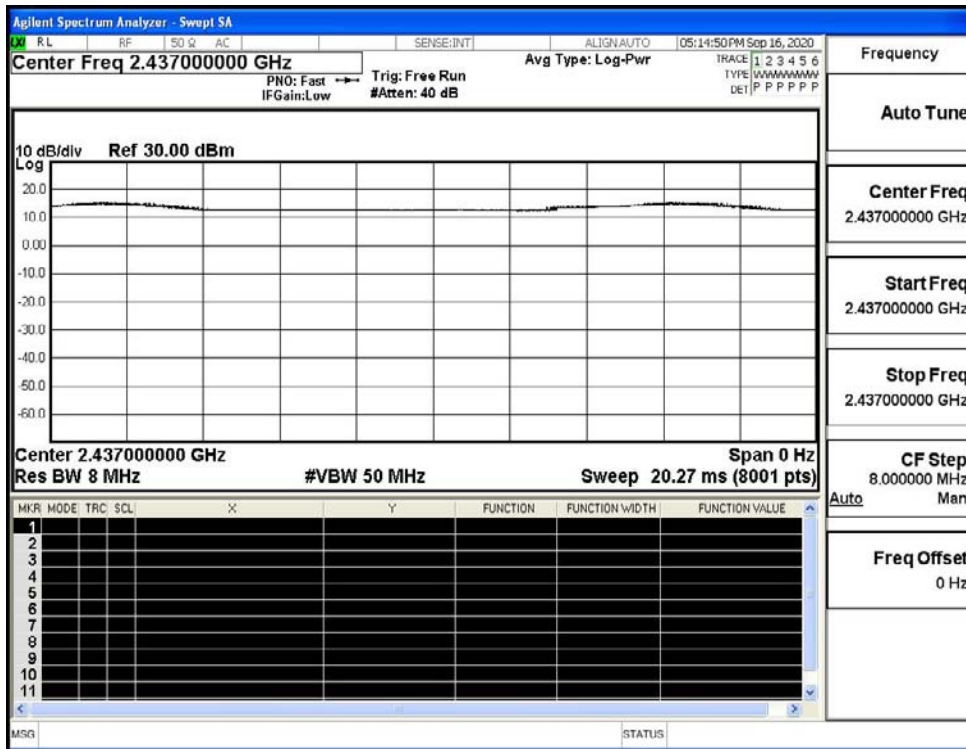
#### Environmental Conditions

Temperature:	23.2 ° C
Relative Humidity:	54.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

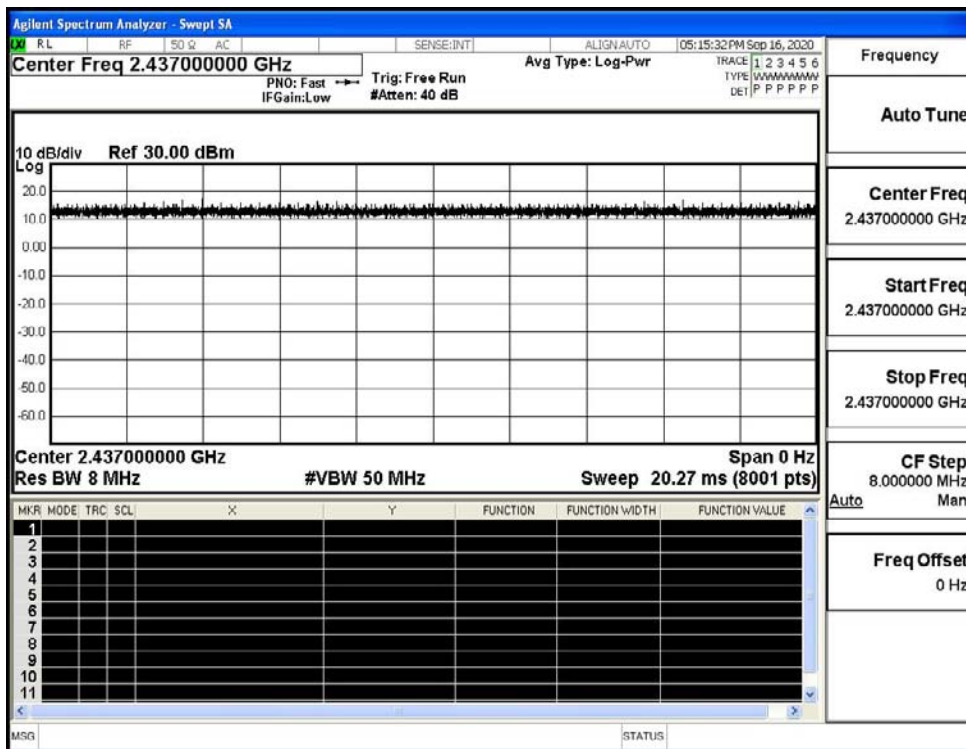
#### A.1 Duty Cycle

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

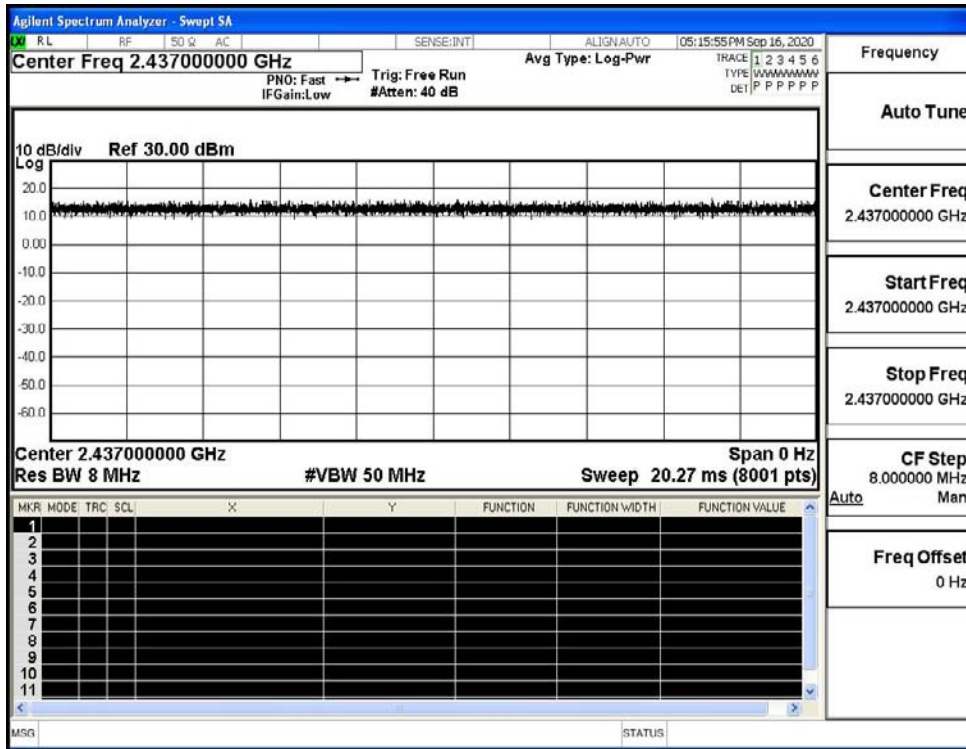
Duty Cycle\_11B\_2437\_Ant1



Duty Cycle\_11G\_2437\_Ant1



Duty Cycle\_11N20SISO\_2437\_Ant1



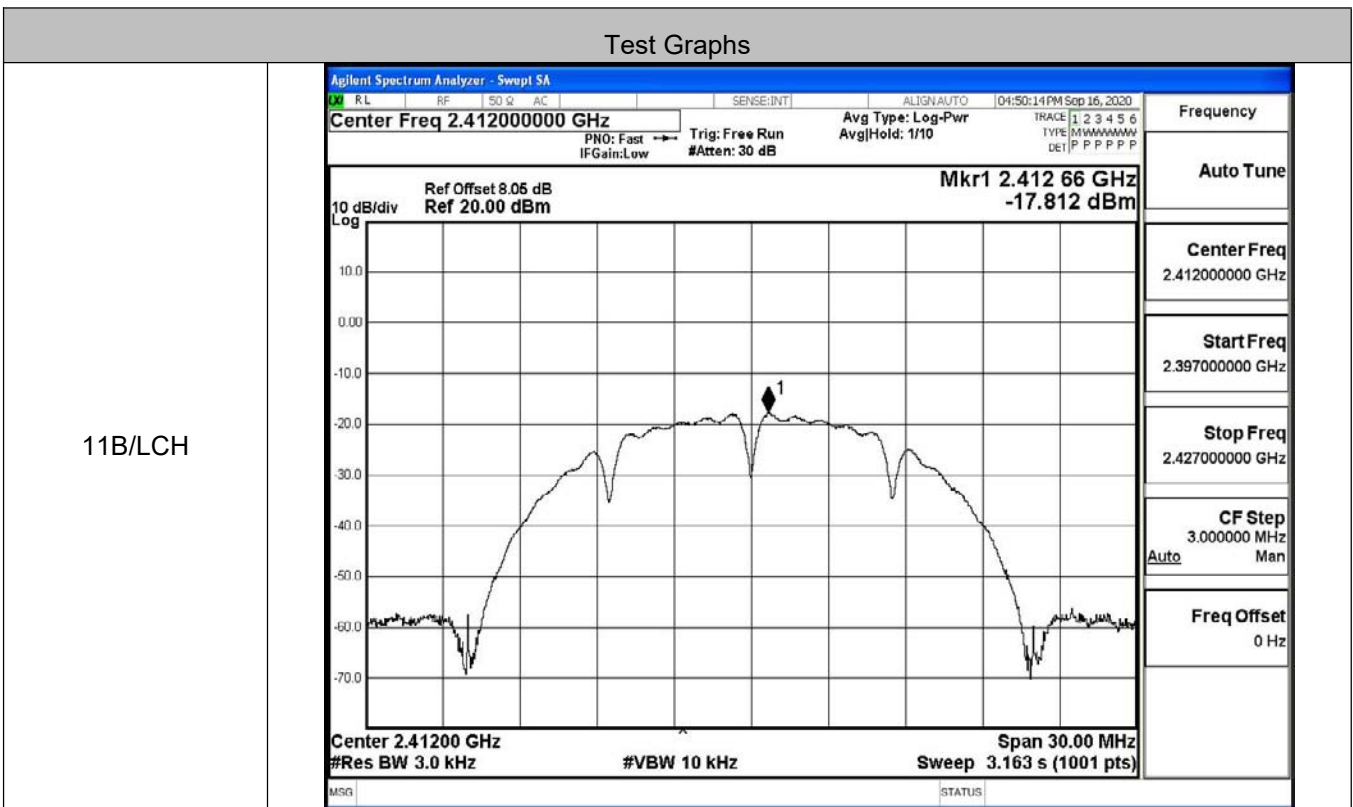
**A.2 Maximum Conducted Output Power**

Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	15	30	PASS
	MCH	15.2	30	PASS
	HCH	15.14	30	PASS
11G	LCH	14.71	30	PASS
	MCH	14.91	30	PASS
	HCH	14.93	30	PASS
11N20SISO	LCH	14.98	30	PASS
	MCH	15.23	30	PASS
	HCH	15.19	30	PASS

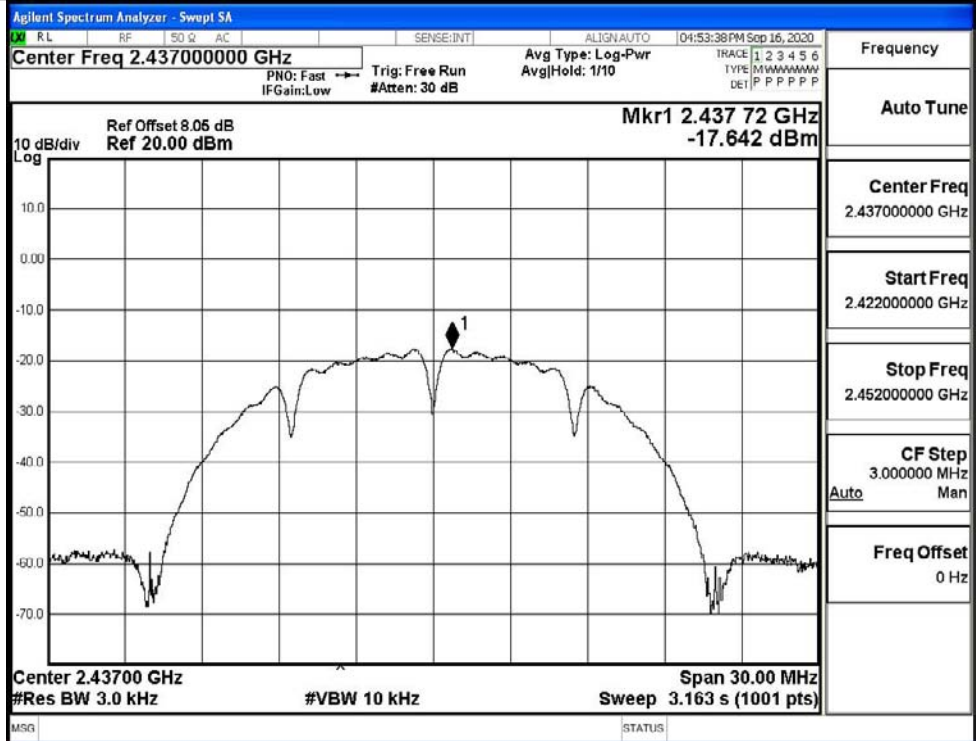
### A.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-17.812	8	PASS
	MCH	-17.642	8	PASS
	HCH	-17.754	8	PASS
11G	LCH	-21.584	8	PASS
	MCH	-21.513	8	PASS
	HCH	-21.341	8	PASS
11N20SISO	LCH	-21.024	8	PASS
	MCH	-20.831	8	PASS
	HCH	-20.520	8	PASS

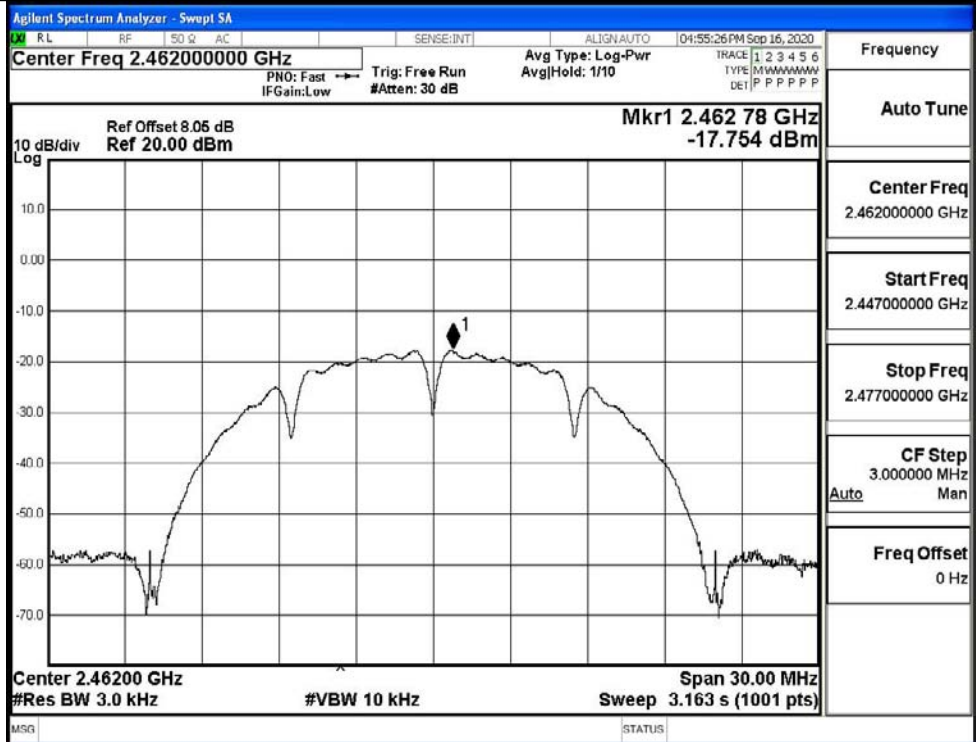
#### Test Graphs



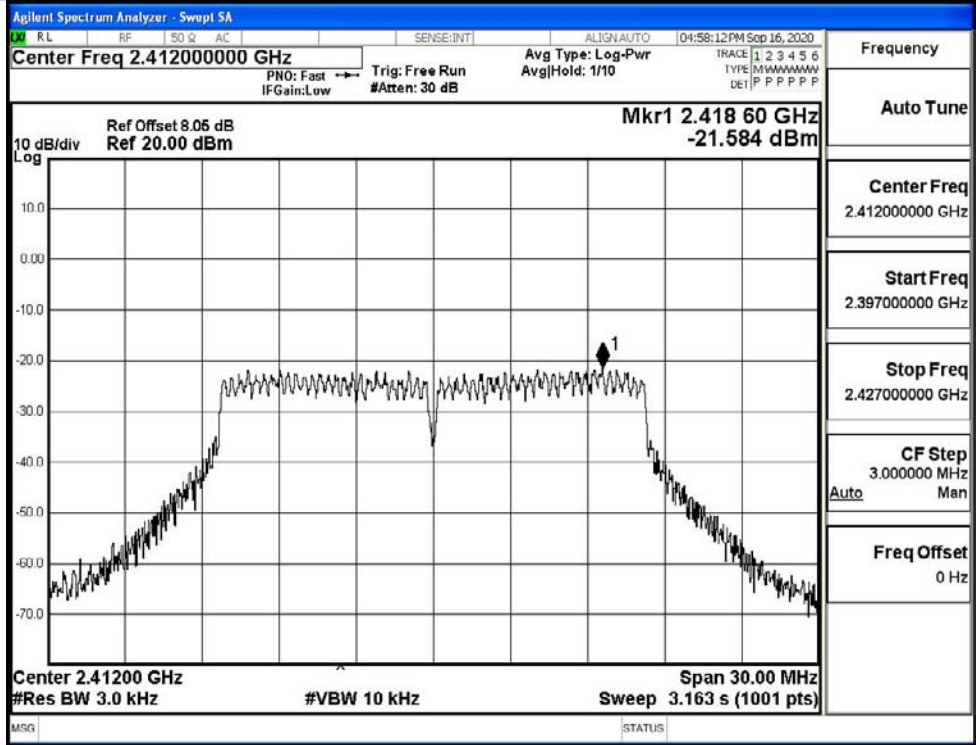
11B/MCH



11B/HCH

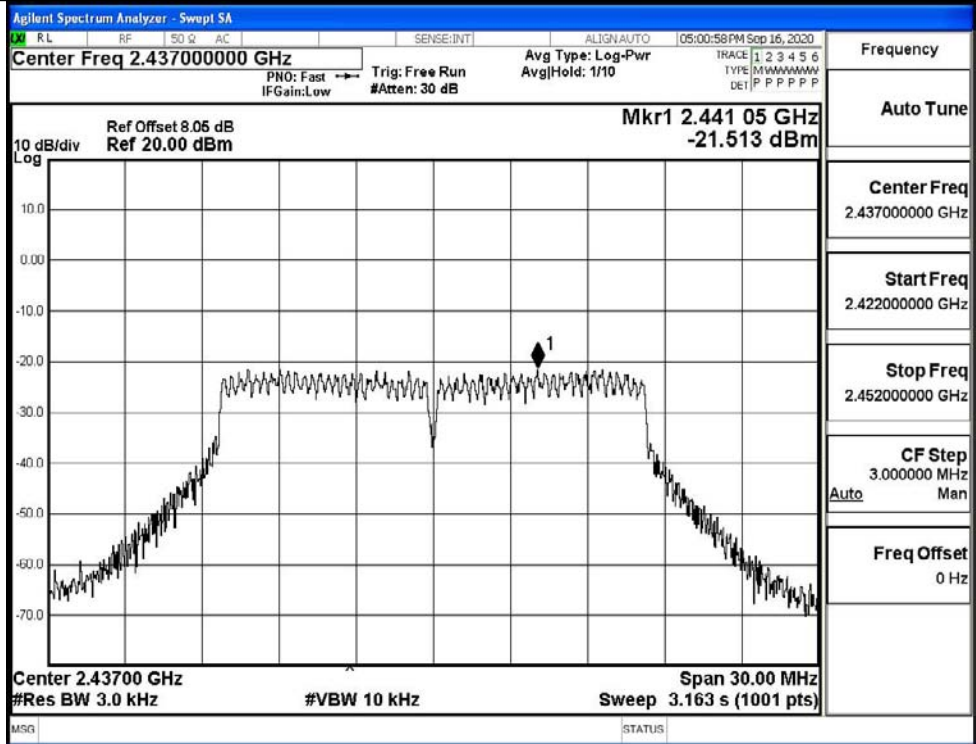


11G/LCH



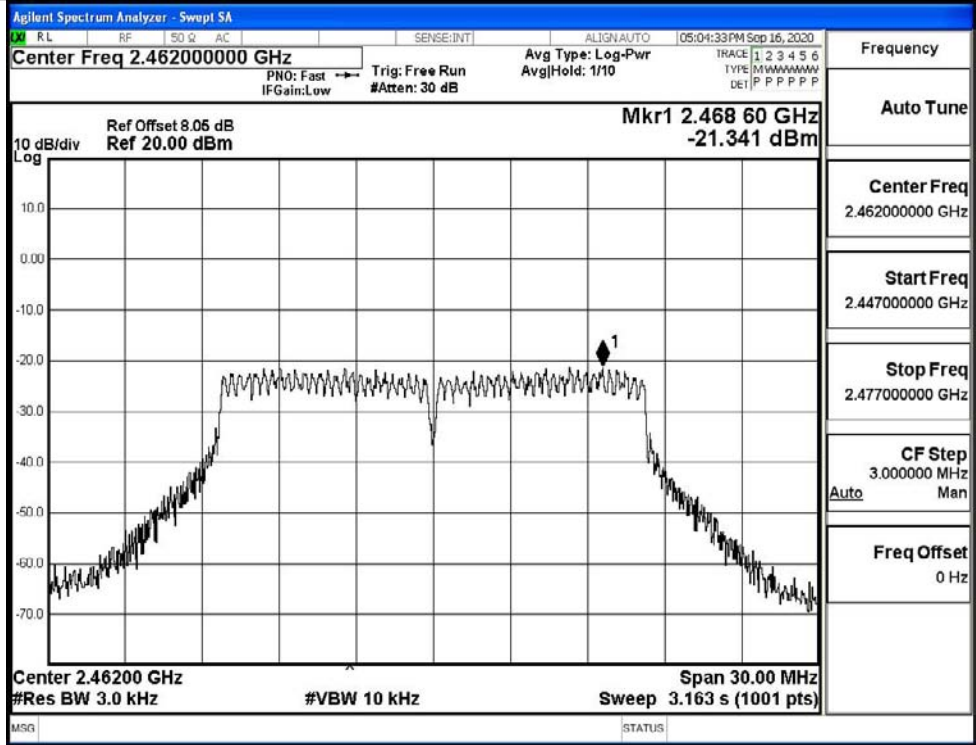
Frequency
Auto Tune
Center Freq 2.41200000 GHz
Start Freq 2.397000000 GHz
Stop Freq 2.427000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11G/MCH

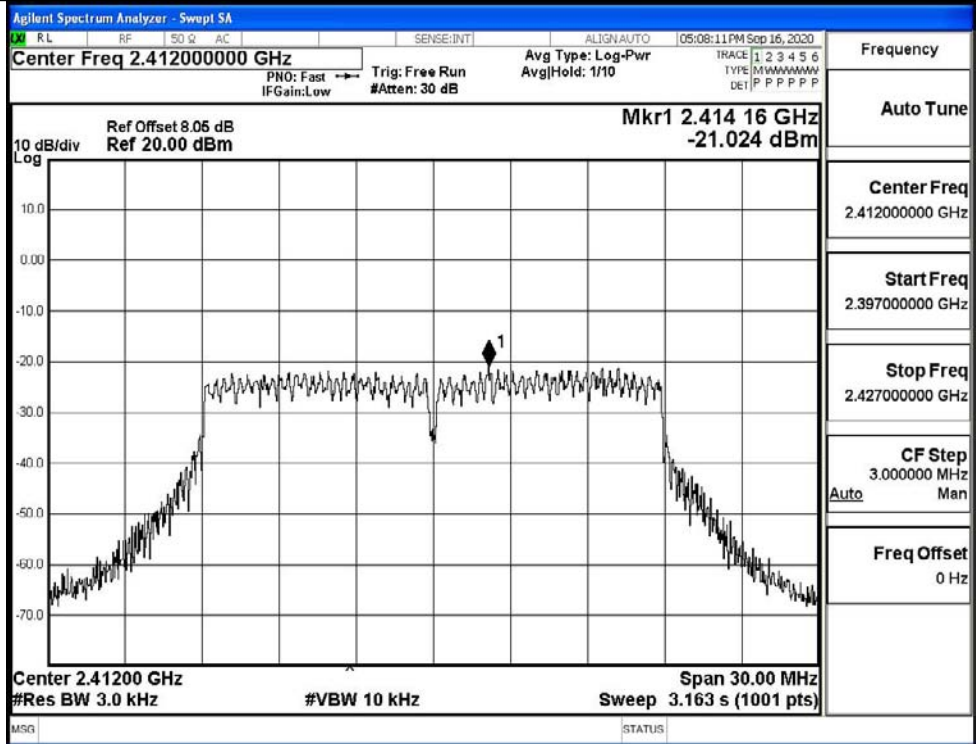


Frequency
Auto Tune
Center Freq 2.43700000 GHz
Start Freq 2.422000000 GHz
Stop Freq 2.452000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11G/HCH

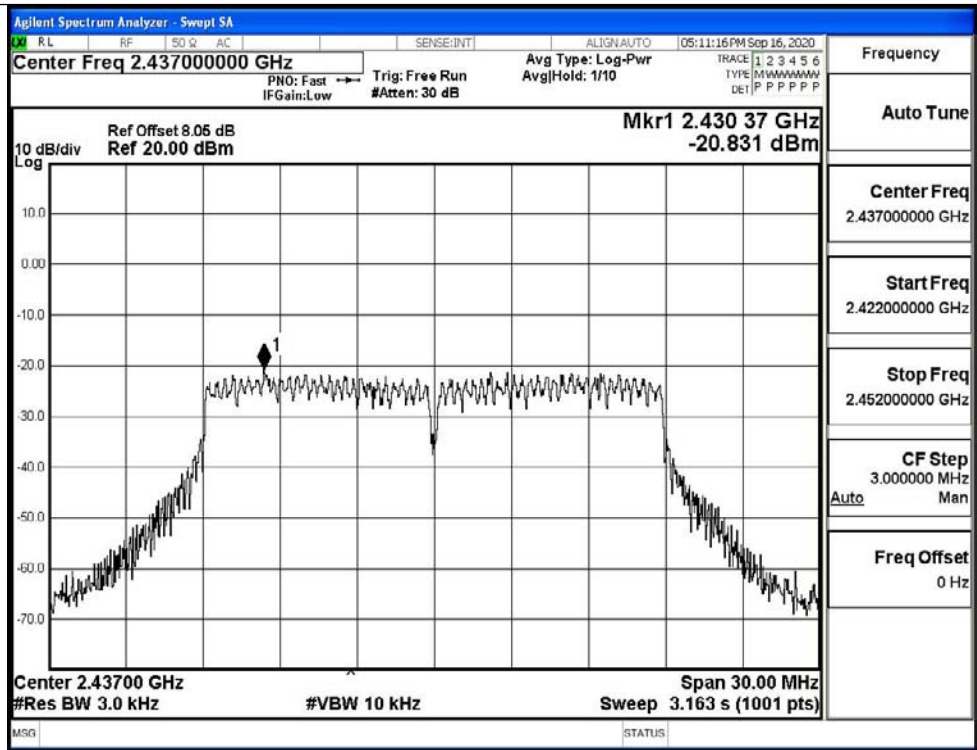


11N20SISO/LCH

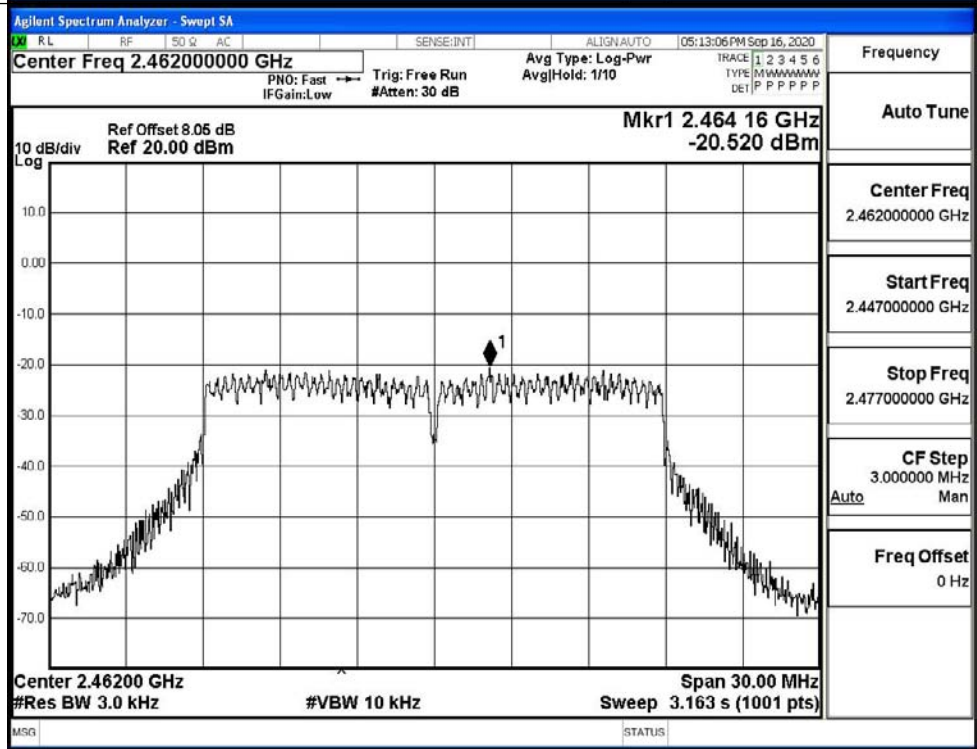




11N20SISO/MCH



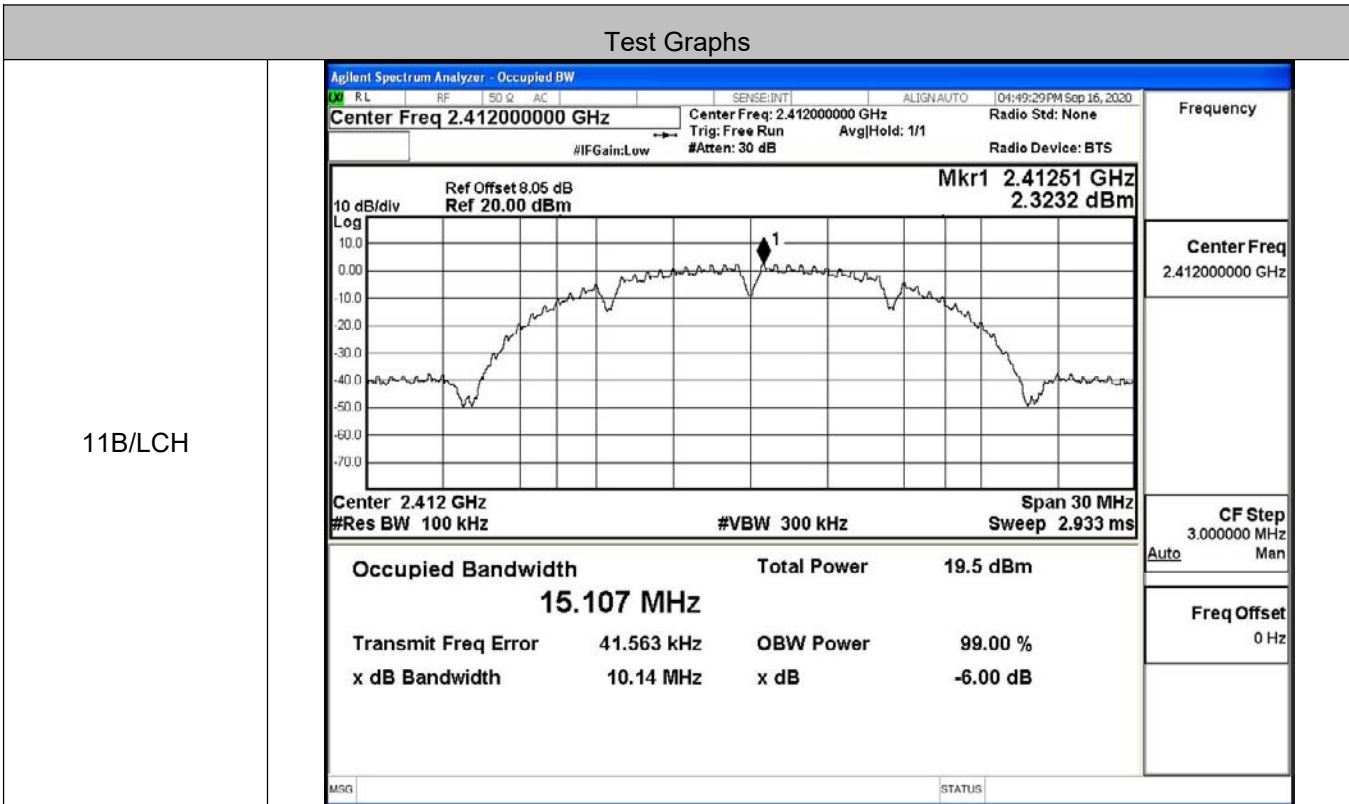
11N20SISO/HCH



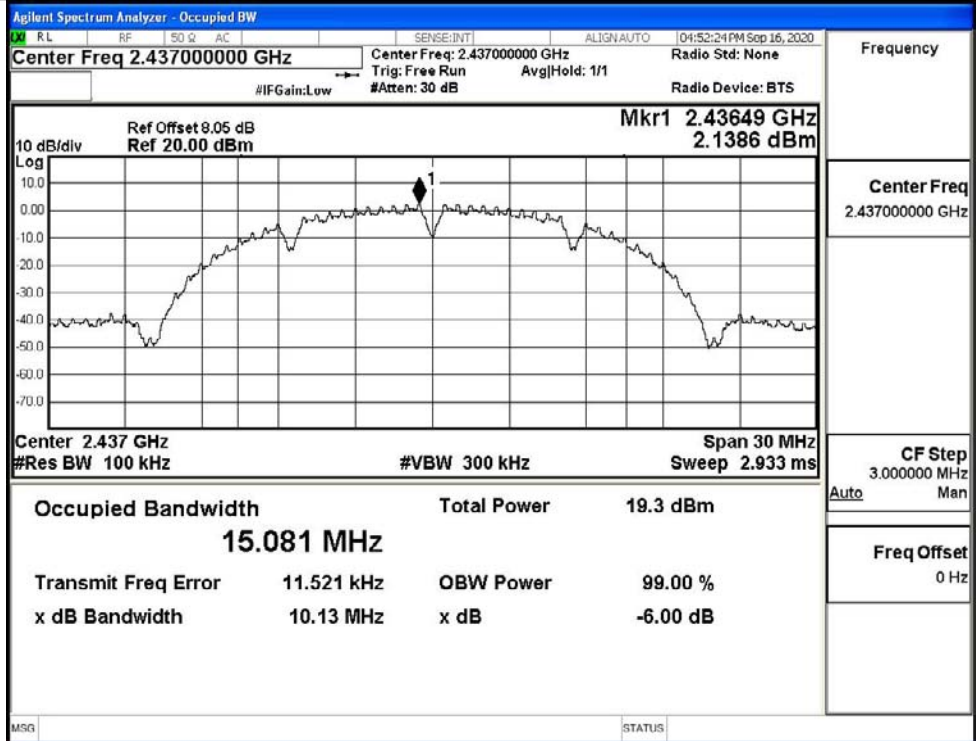
**A.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	10.14	≥0.5	PASS
	MCH	10.13	≥0.5	PASS
	HCH	10.14	≥0.5	PASS
11G	LCH	16.54	≥0.5	PASS
	MCH	16.57	≥0.5	PASS
	HCH	16.57	≥0.5	PASS
11N20SISO	LCH	17.76	≥0.5	PASS
	MCH	17.75	≥0.5	PASS
	HCH	17.72	≥0.5	PASS

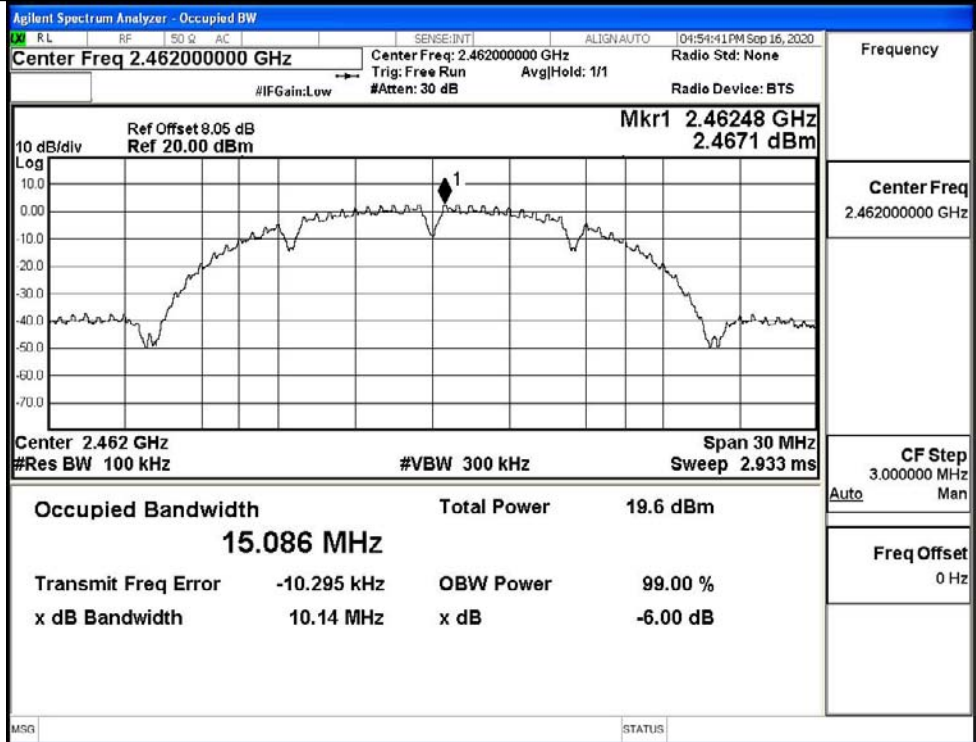
**Test Graphs**



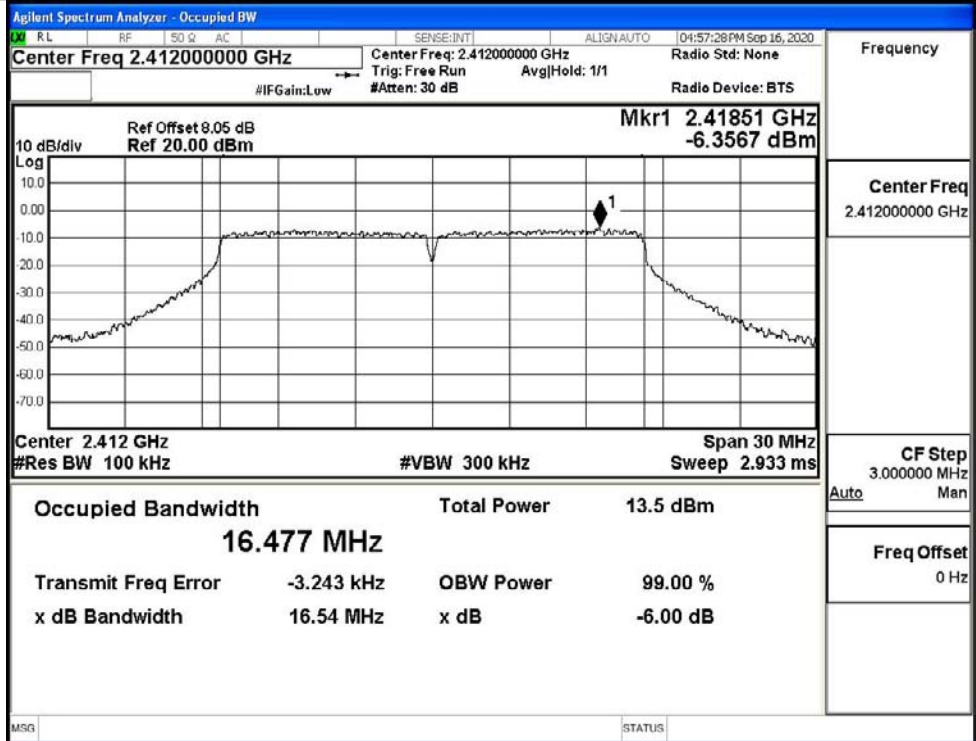
11B/MCH



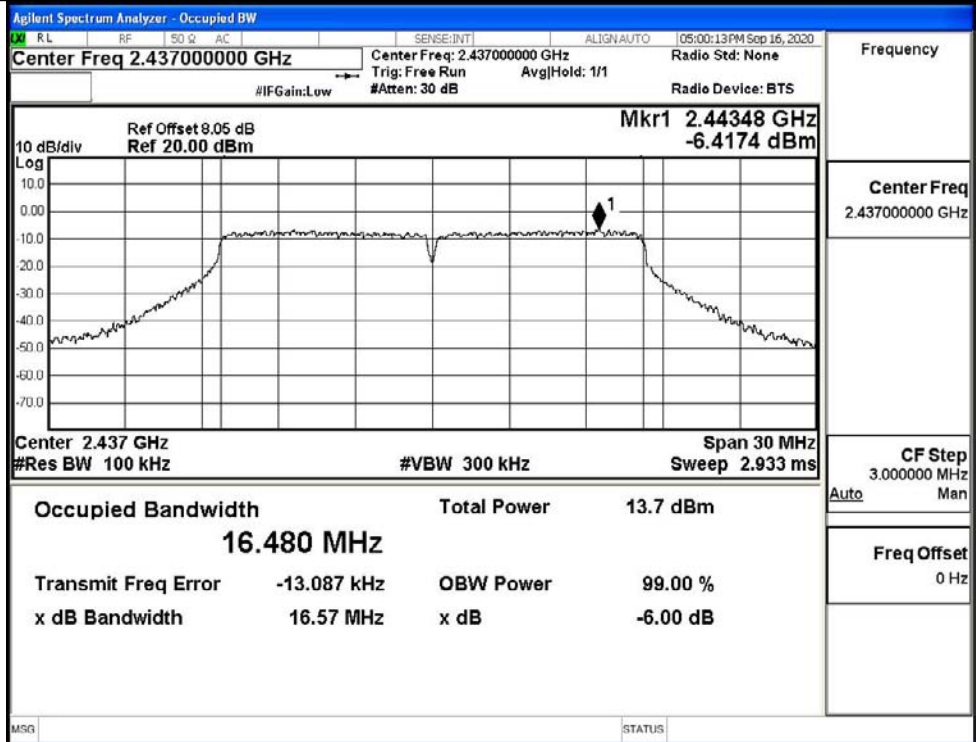
11B/HCH



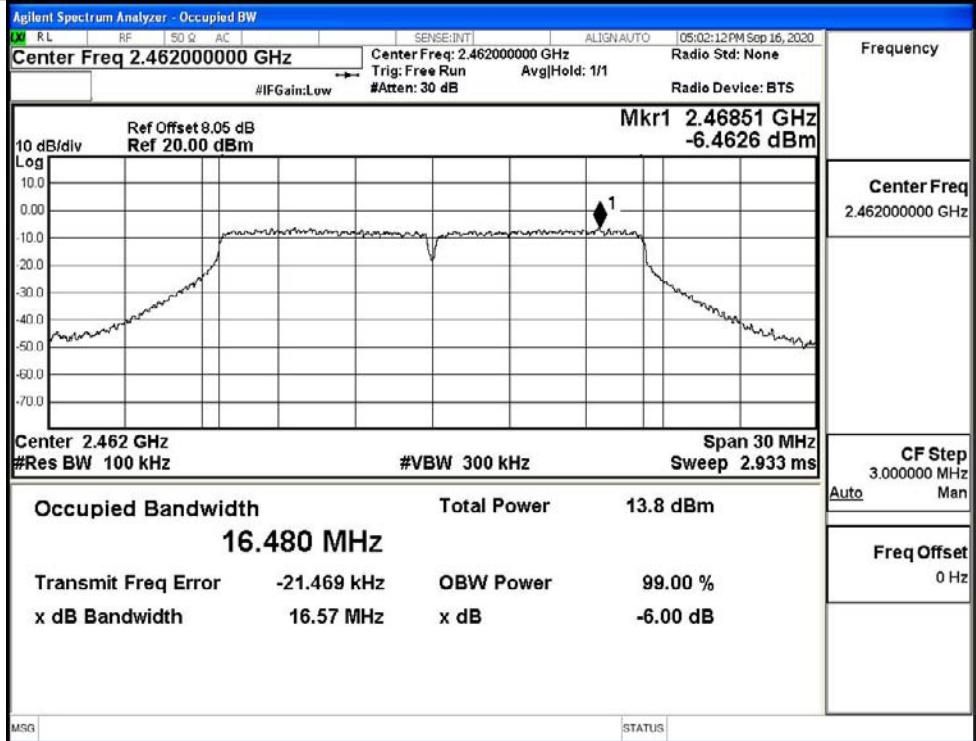
11G/LCH



11G/MCH

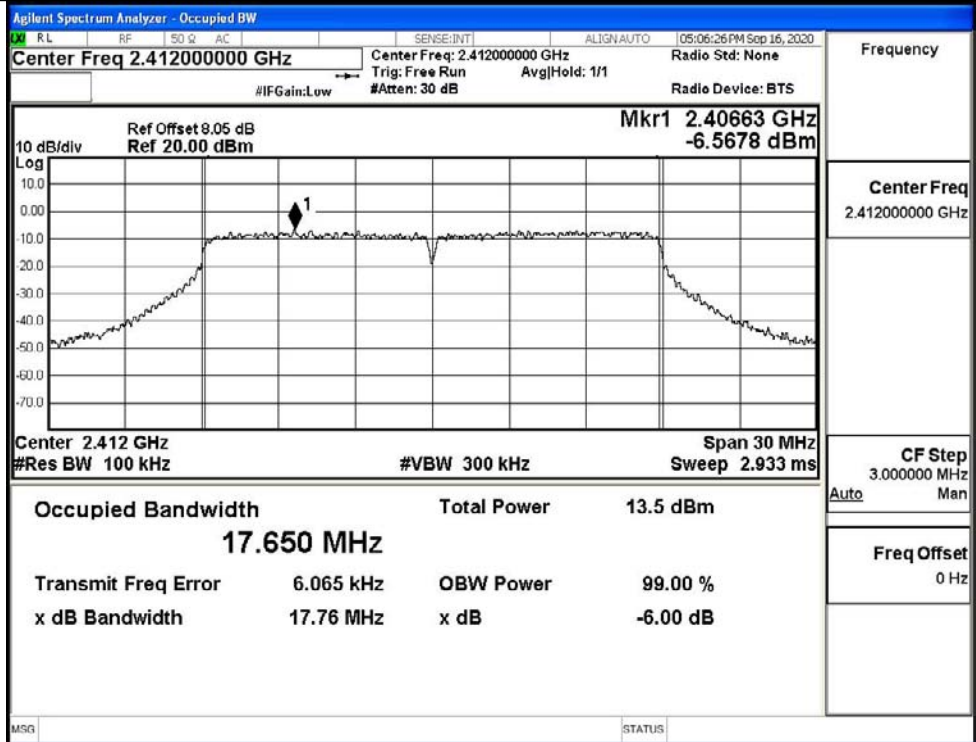


11G/HCH



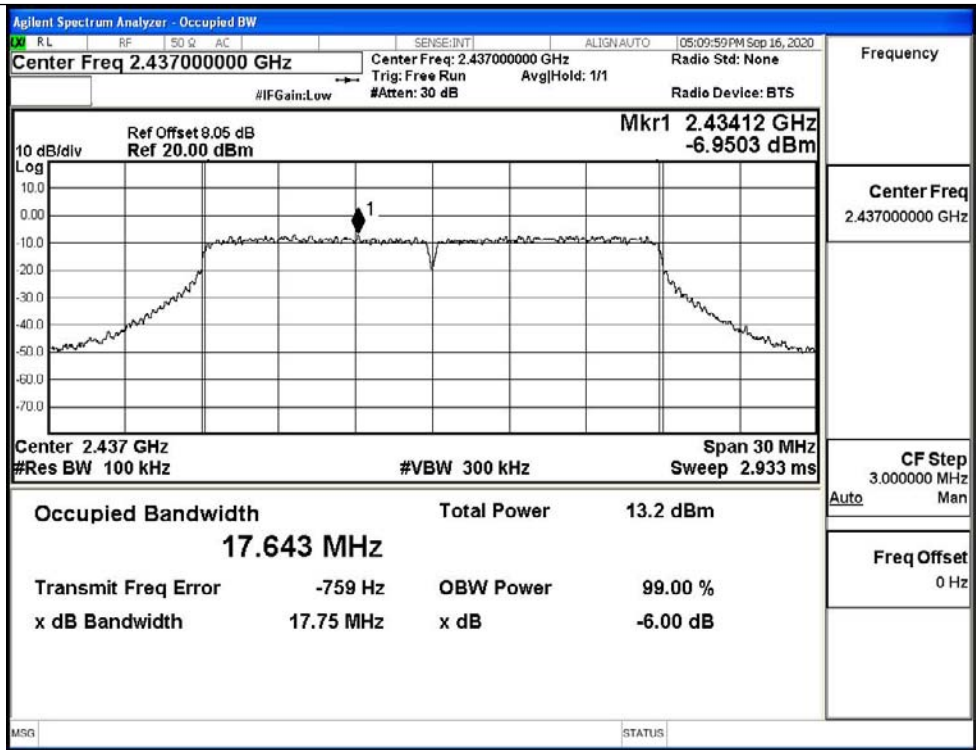
Frequency	2.46200000 GHz
Center Freq	2.46200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11N20SISO/LCH

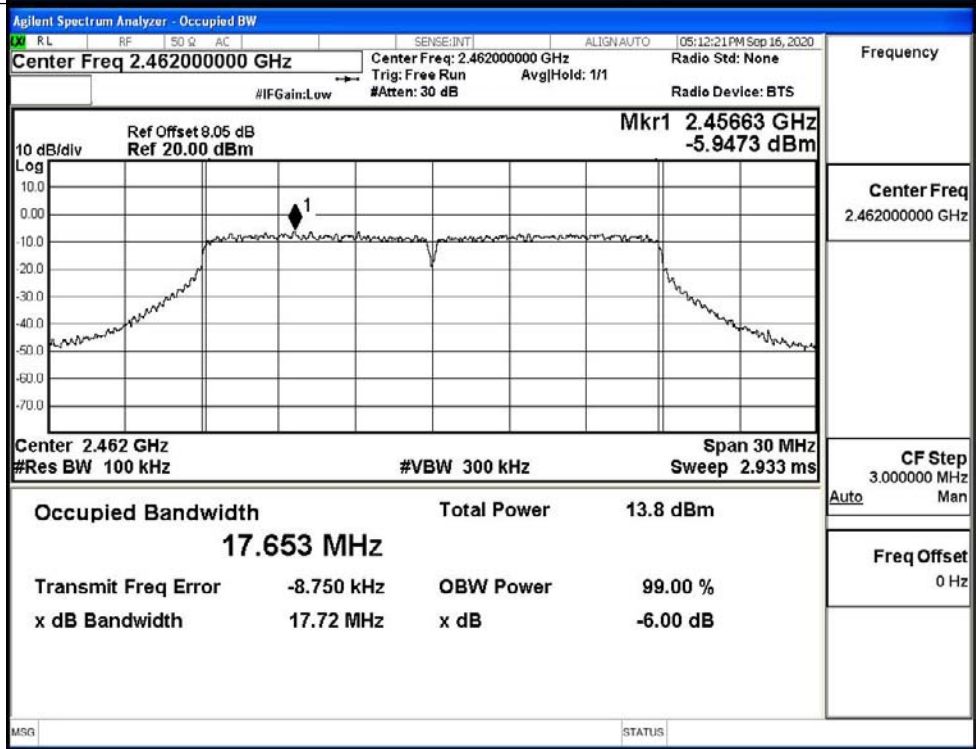


Frequency	2.41200000 GHz
Center Freq	2.41200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11N20SISO/MCH



11N20SISO/HCH



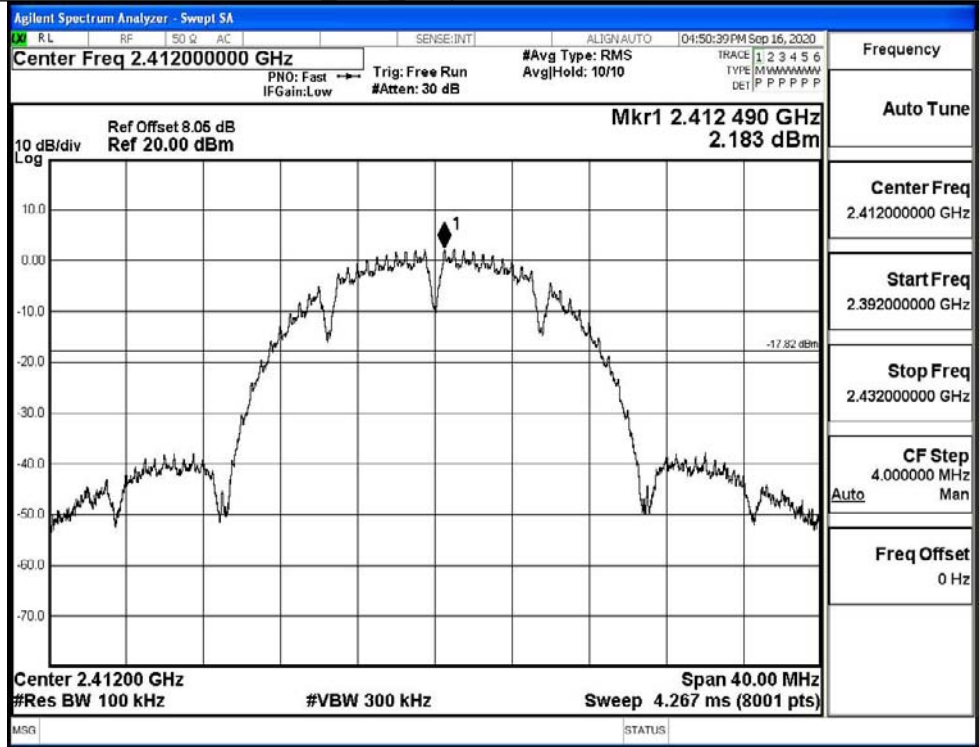


**A.5 RF Conducted Spurious Emissions**

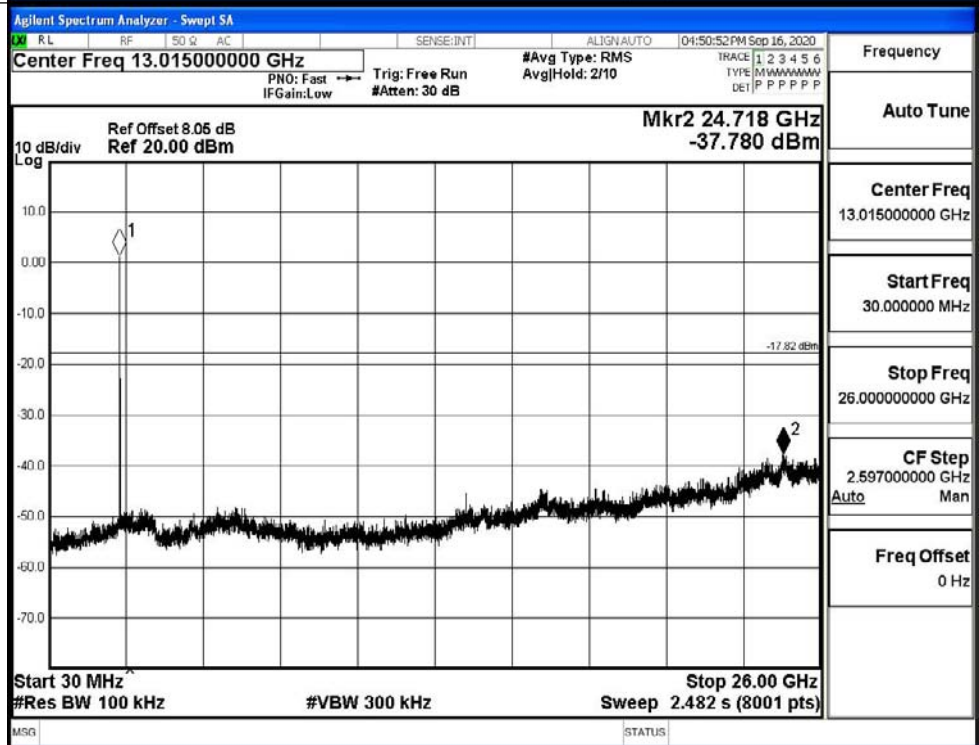
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	2.183	-37.780	-17.817	PASS
	MCH	2.305	-36.861	-17.695	PASS
	HCH	2.309	-38.575	-17.691	PASS
11G	LCH	-6.697	-38.137	-26.697	PASS
	MCH	-6.519	-38.225	-26.519	PASS
	HCH	-6.625	-37.566	-26.625	PASS
11N20 SISO	LCH	-7.116	-37.539	-27.116	PASS
	MCH	-6.657	-38.044	-26.657	PASS
	HCH	-6.553	-37.743	-26.553	PASS

11B LCH Graphs

Pref/11B/LCH



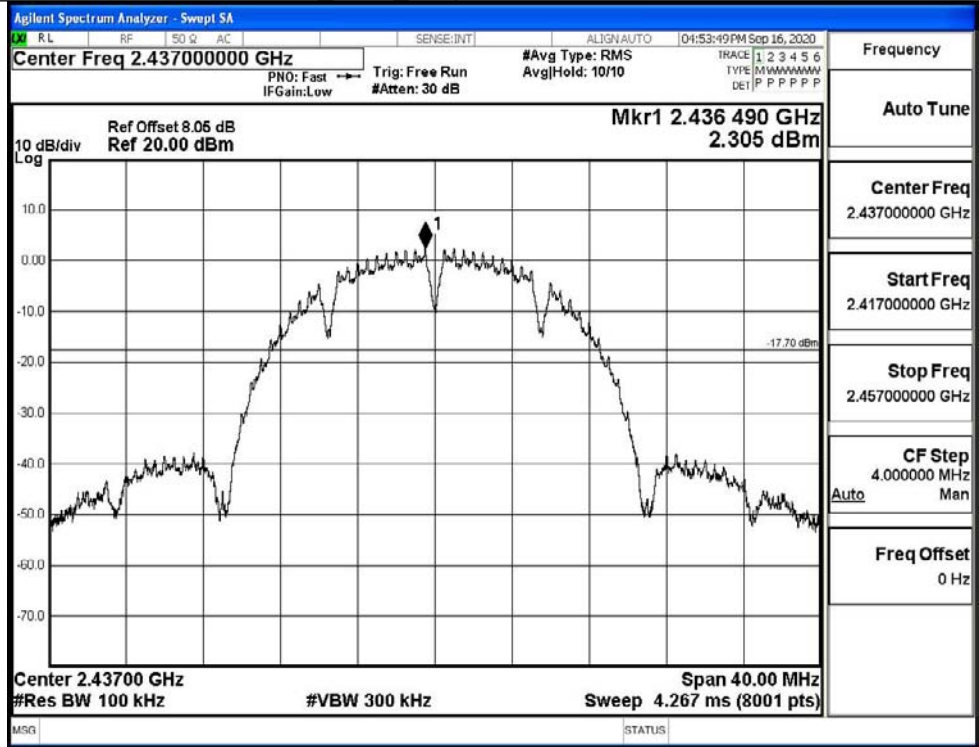
Puw/11B/LCH





11B MCH Graphs

Pref/11B/MCH

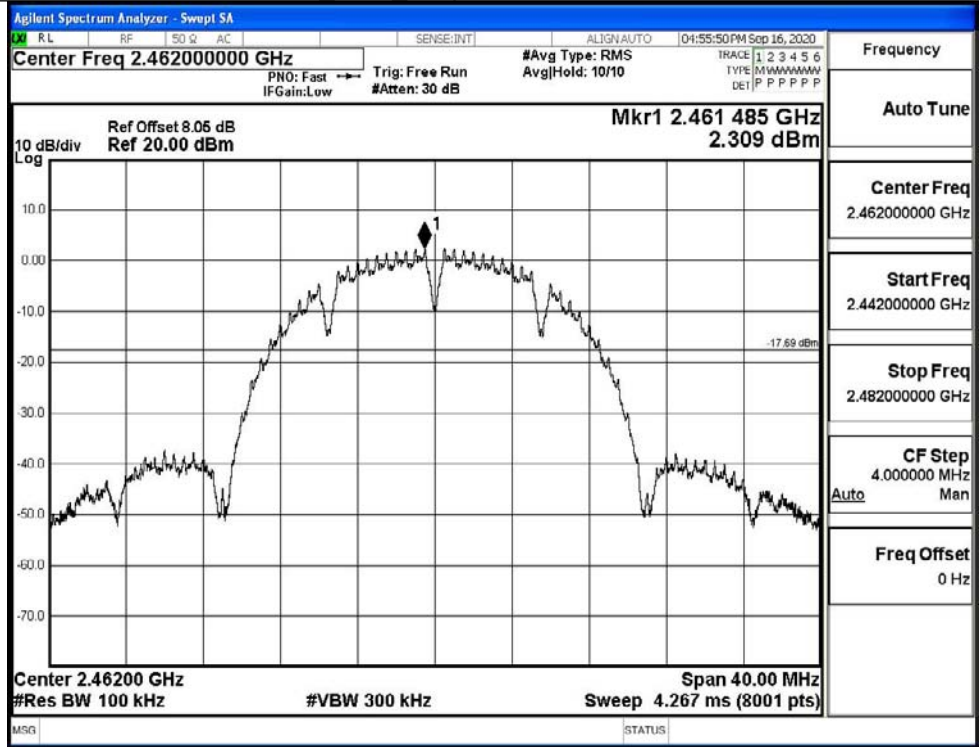


Puw/11B/MCH

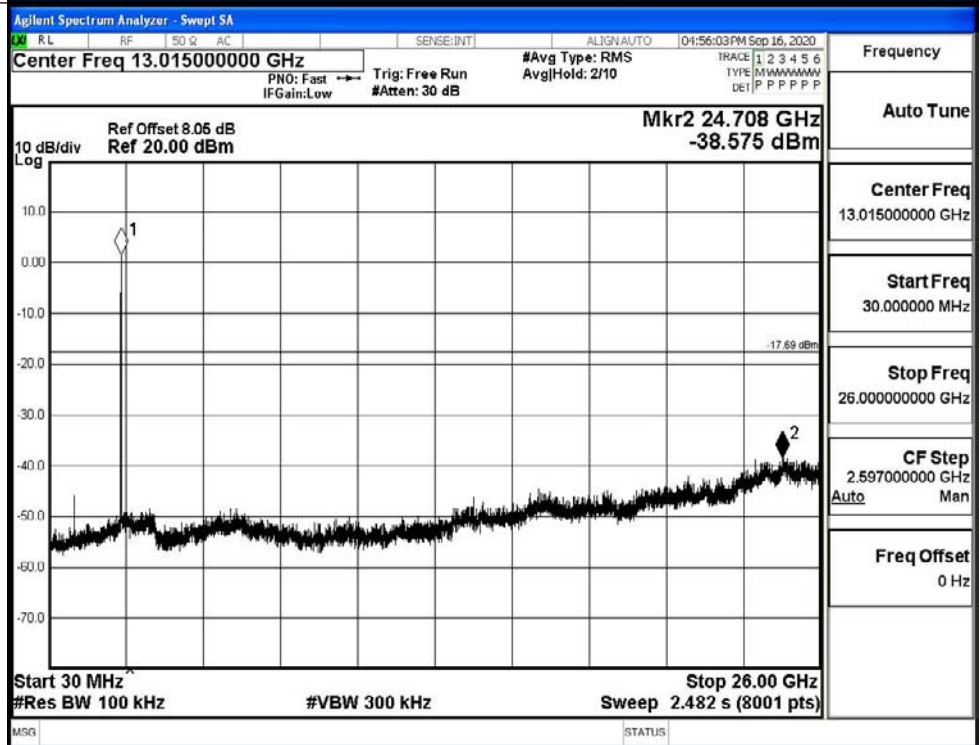


11B HCH Graphs

Pref/11B/HCH

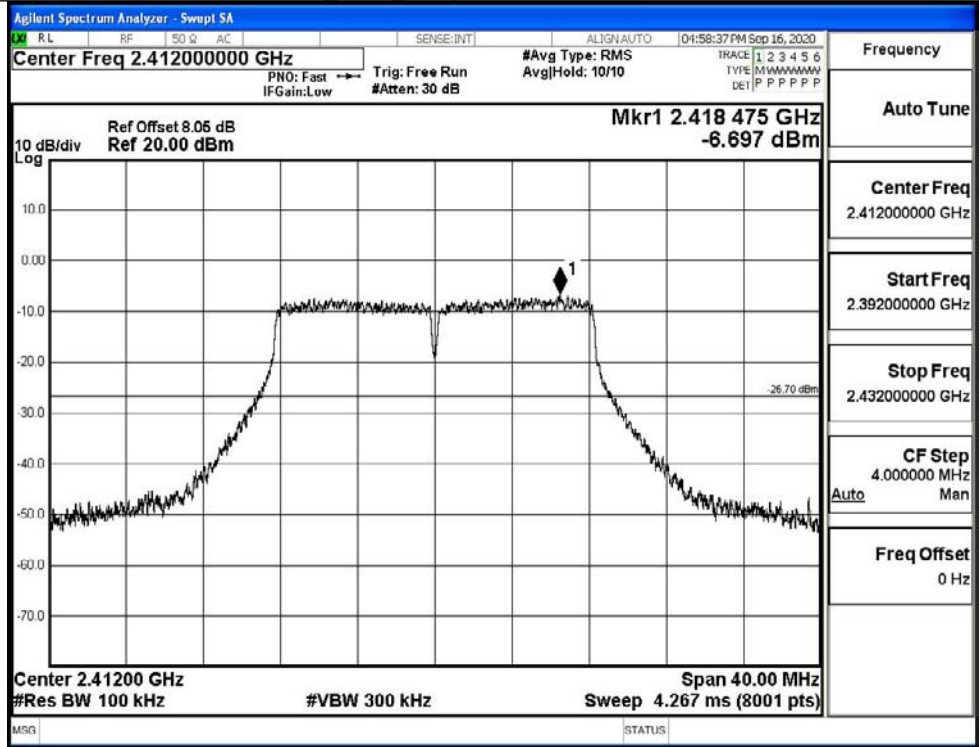


Puw/11B/HCH

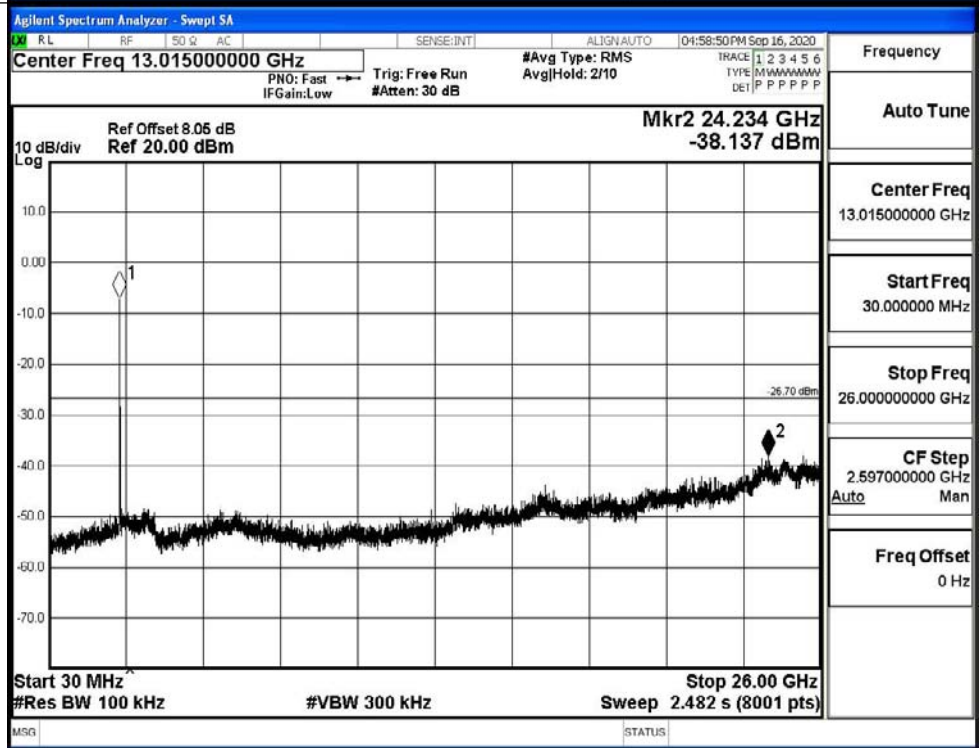


11G LCH Graphs

Pref/11G/LCH

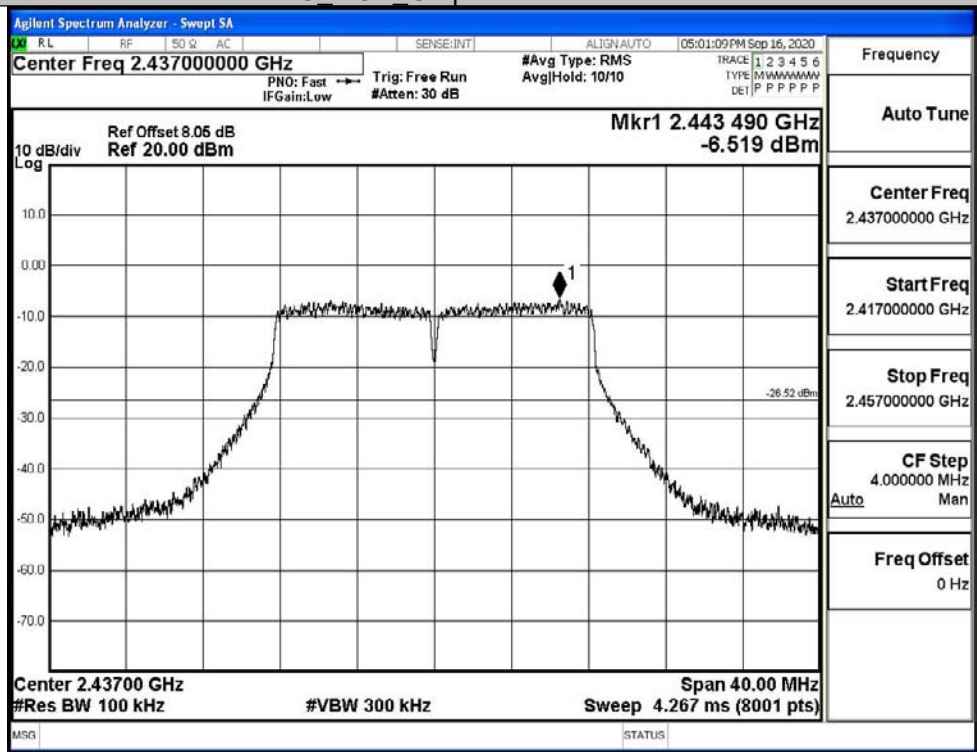


Puw/11G/LCH

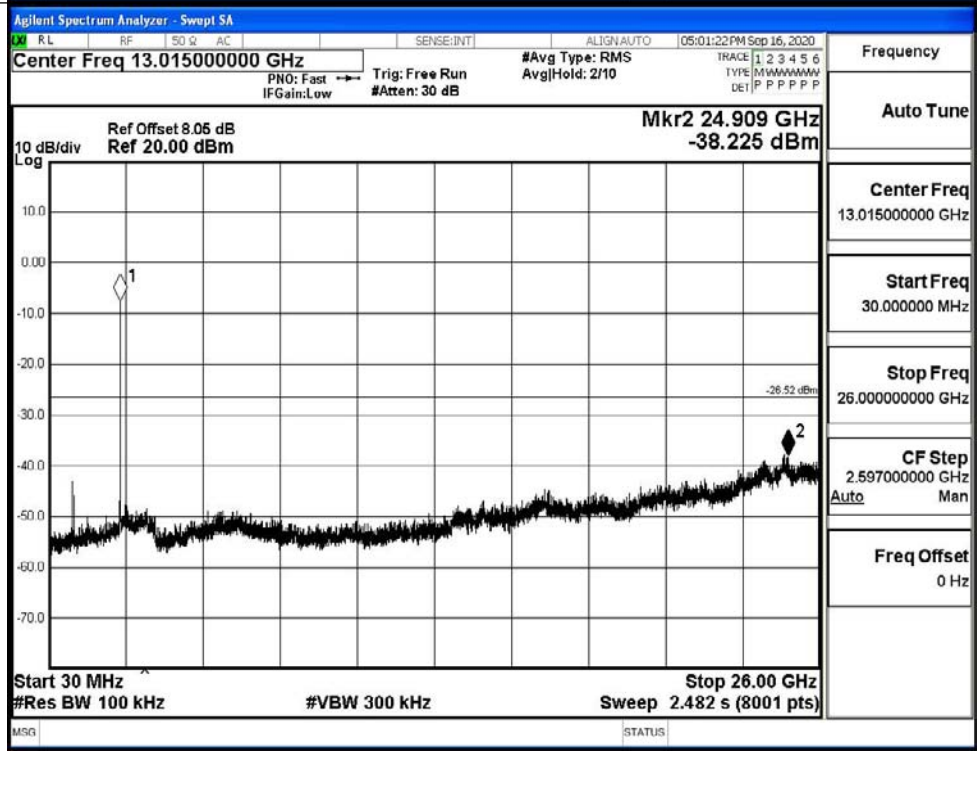


11G MCH Graphs

Pref/11G/MCH

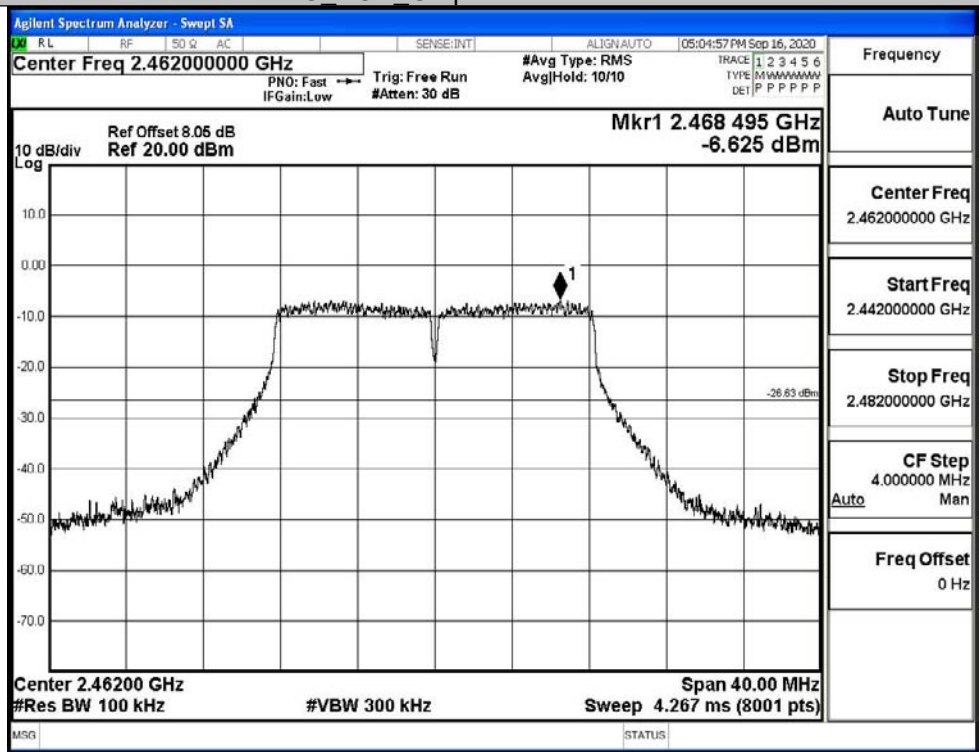


Puw/11G/MCH

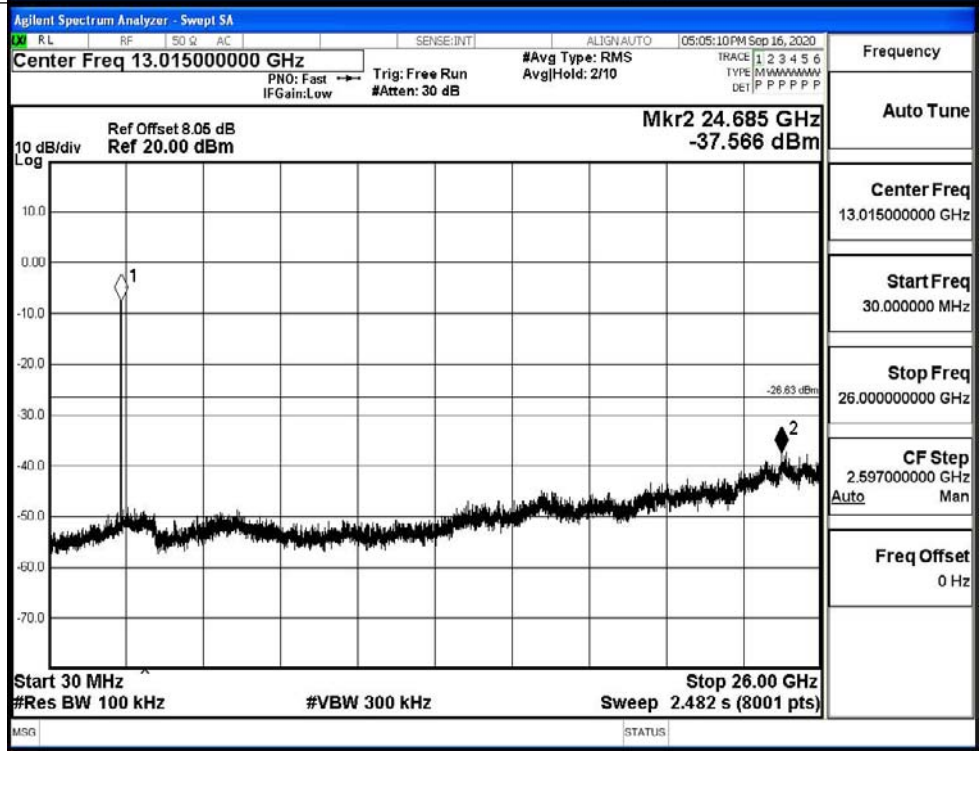


11G HCH Graphs

Pref/11G/HCH



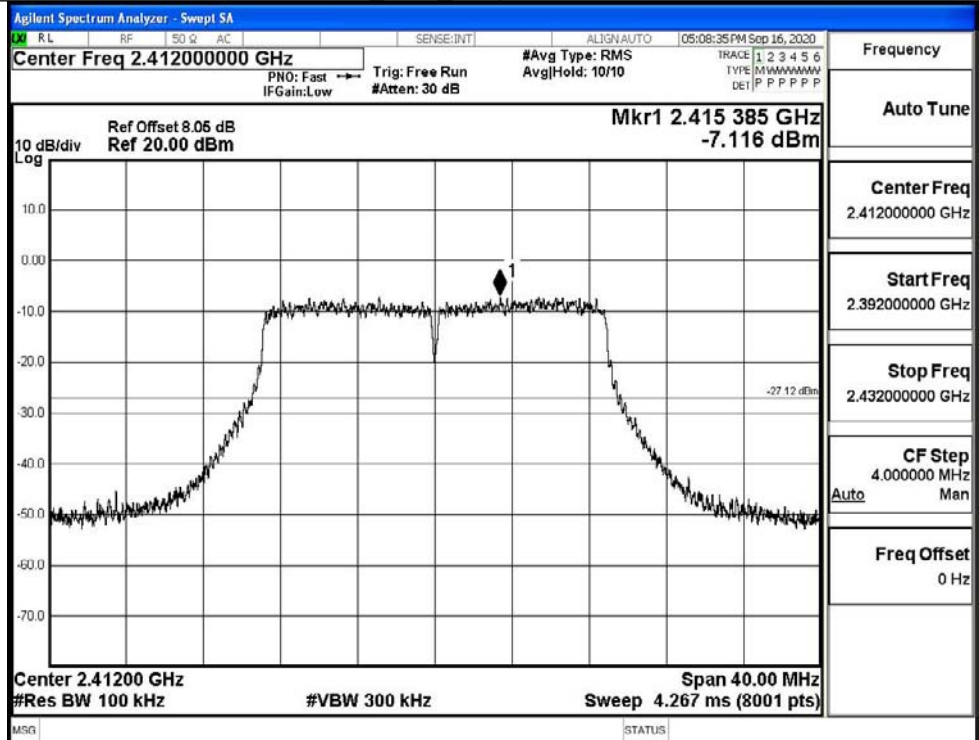
Puw/11G/HCH



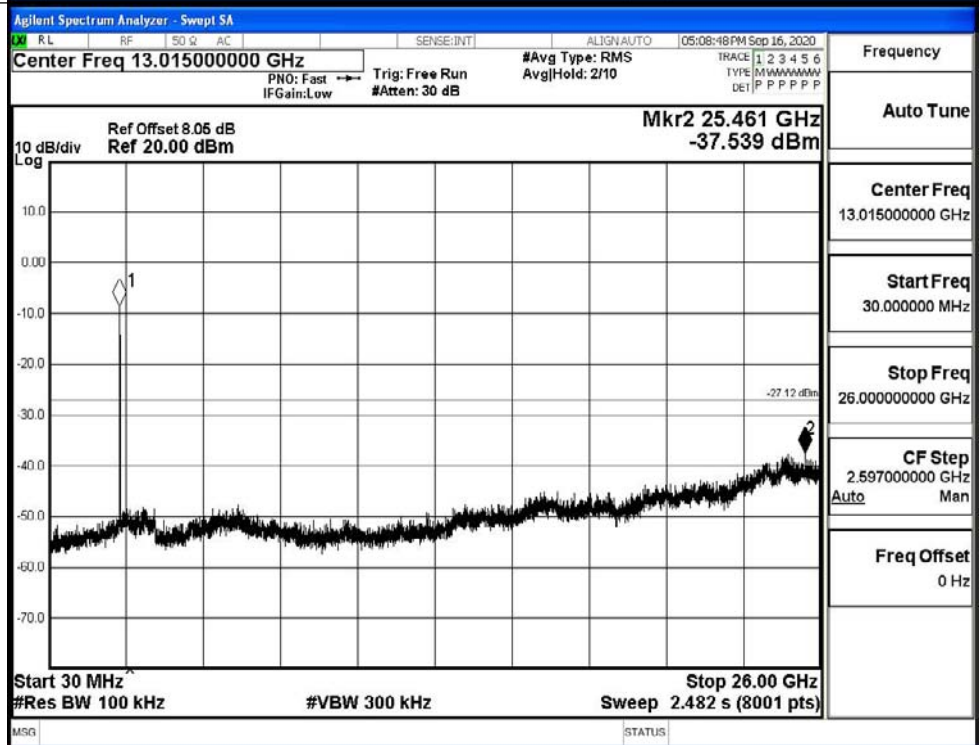


11N20SISO LCH Graphs

Pref/11N20SISO  
O/LCH

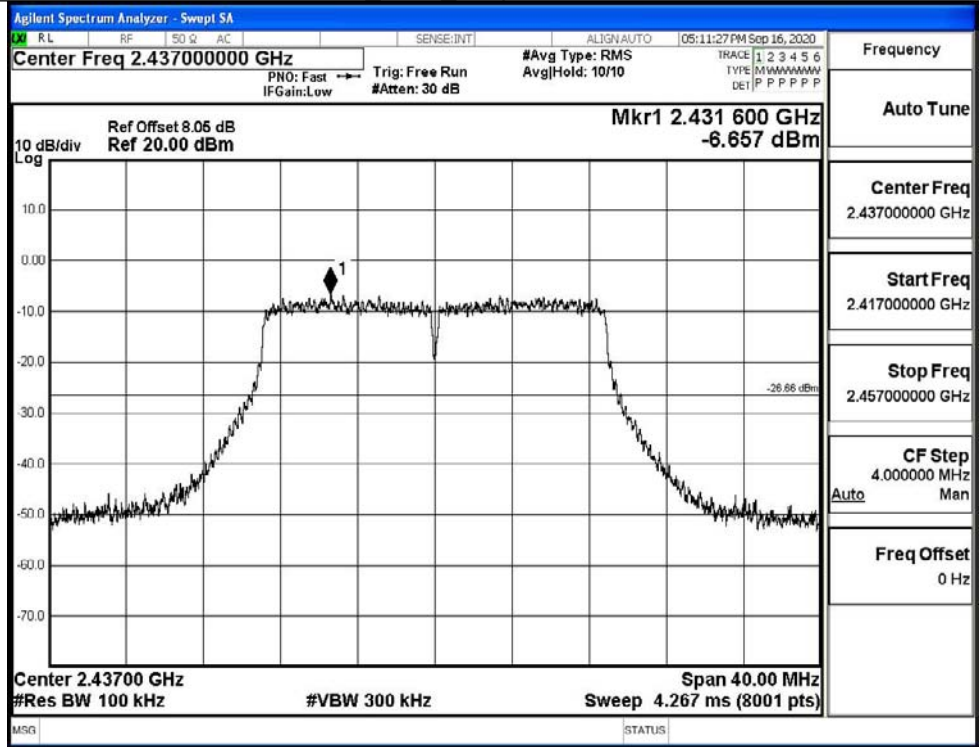


Puw/11N20  
SISO/LCH

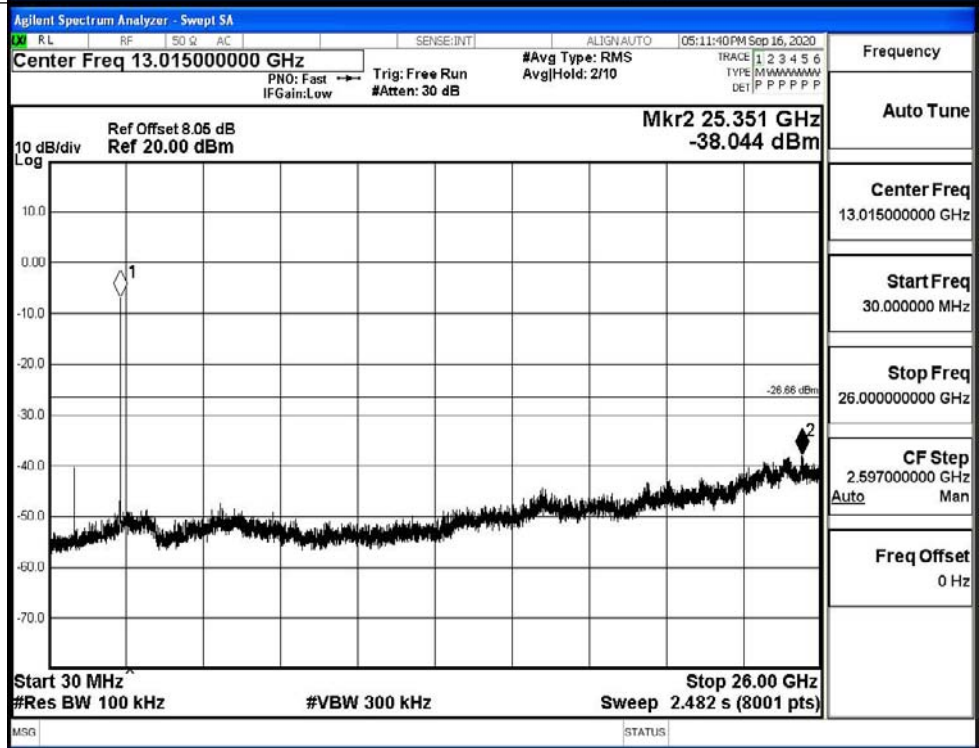


11N20SISO MCH Graphs

Pref/11N20  
SISO/MCH

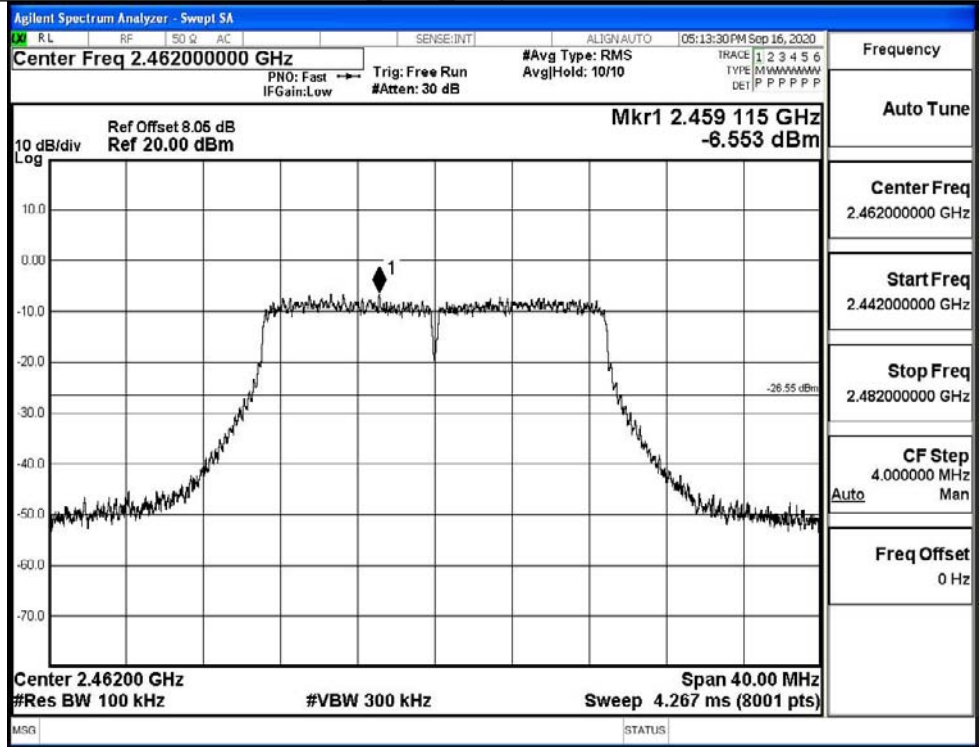


Puw/11N20  
SISO/MCH



11N20SISO HCH Graphs

Pref/11N20  
SISO/HCH



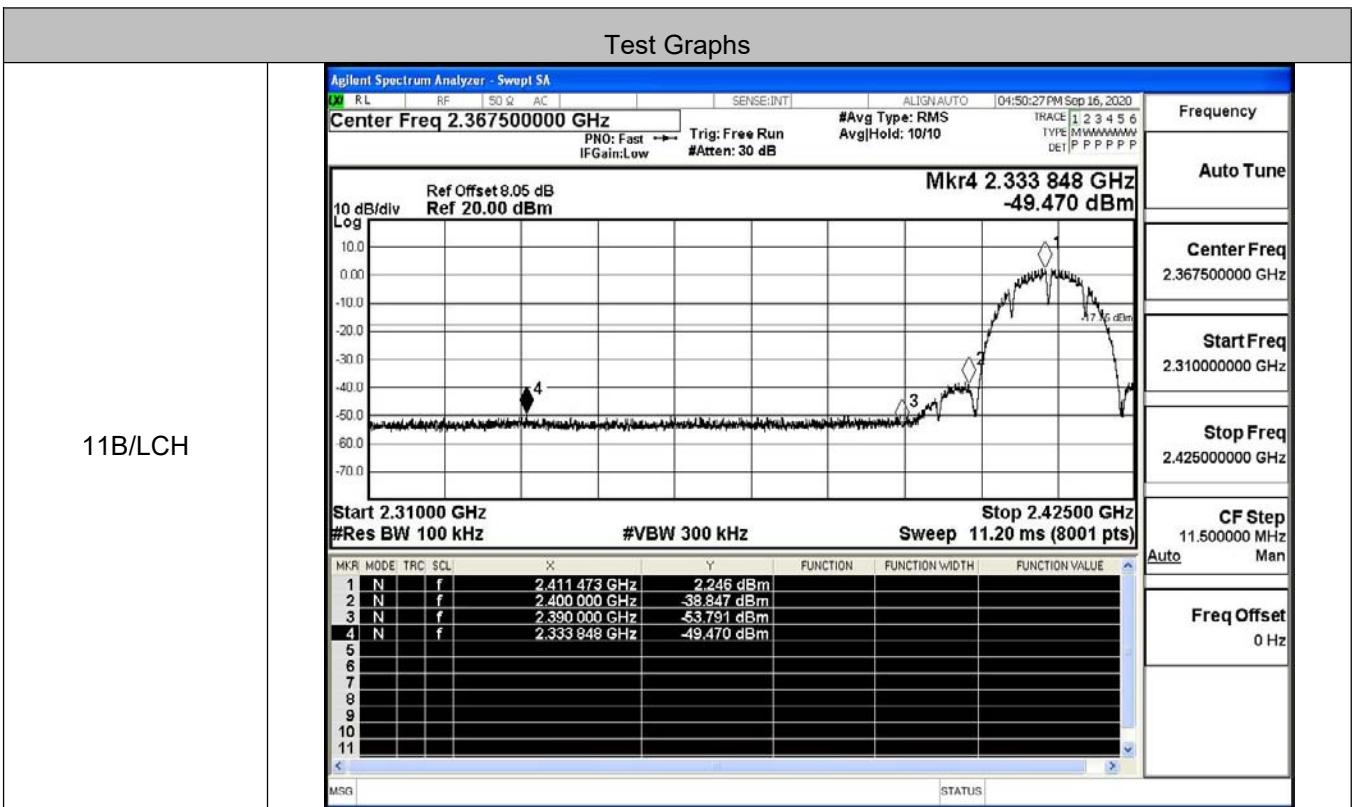
Puw/11N20  
SISO/HCH



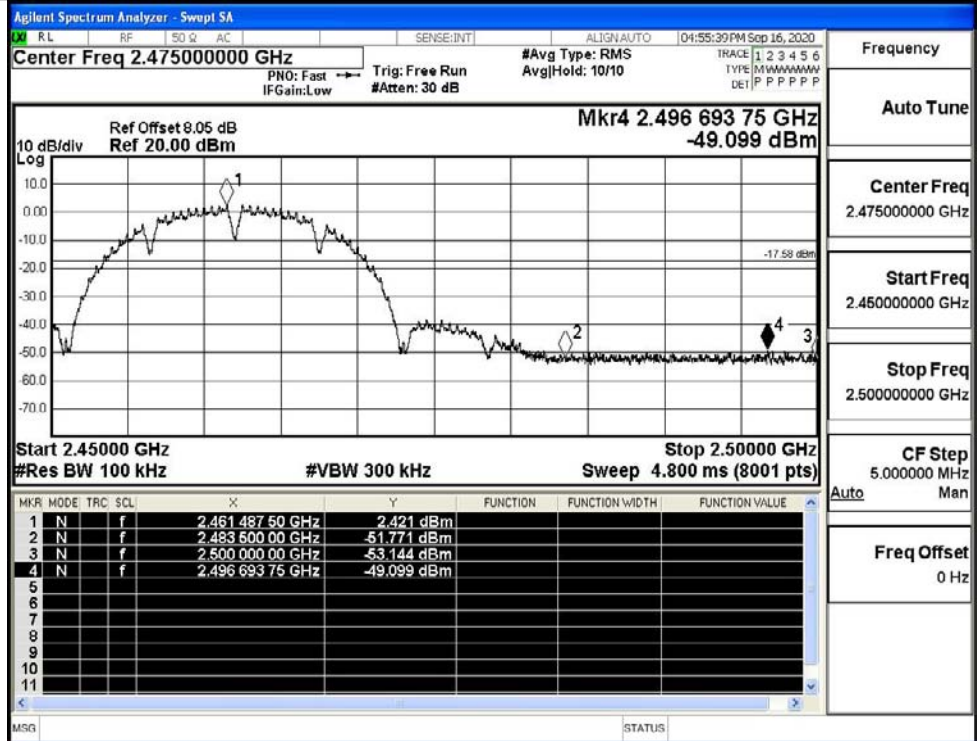


### A.6 Band-edge for RF Conducted Emissions

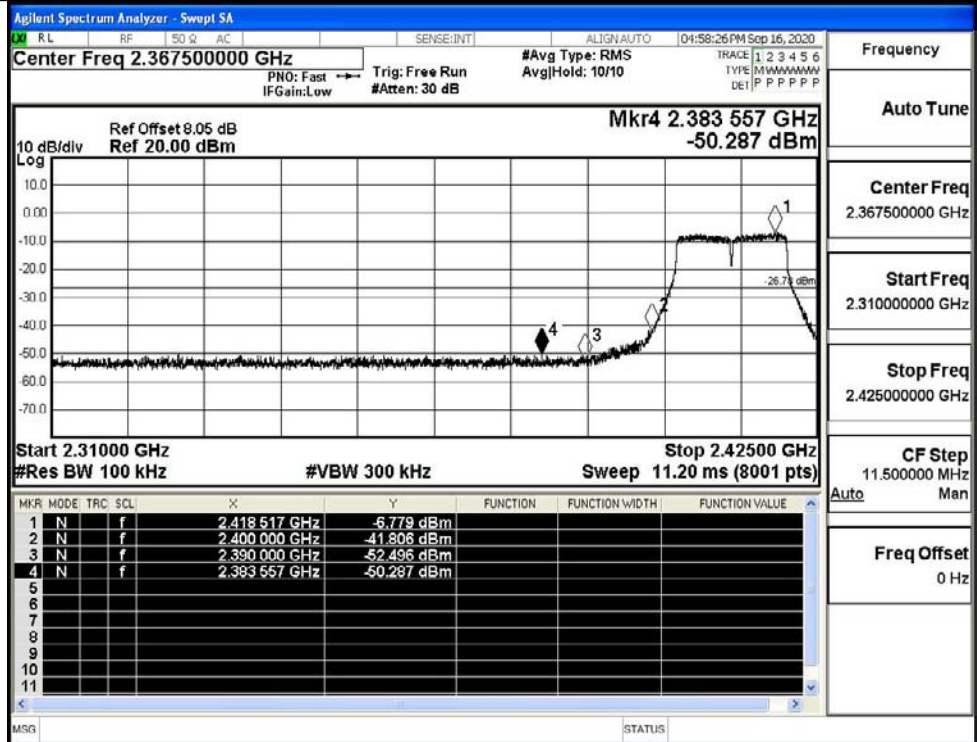
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	2.246	-49.470	-17.75	PASS
	HCH	2.421	-49.099	-17.58	PASS
11G	LCH	-6.779	-50.287	-26.78	PASS
	HCH	-6.575	-49.176	-26.58	PASS
11N20SISO	LCH	-7.088	-49.912	-27.09	PASS
	HCH	-6.280	-48.929	-26.28	PASS



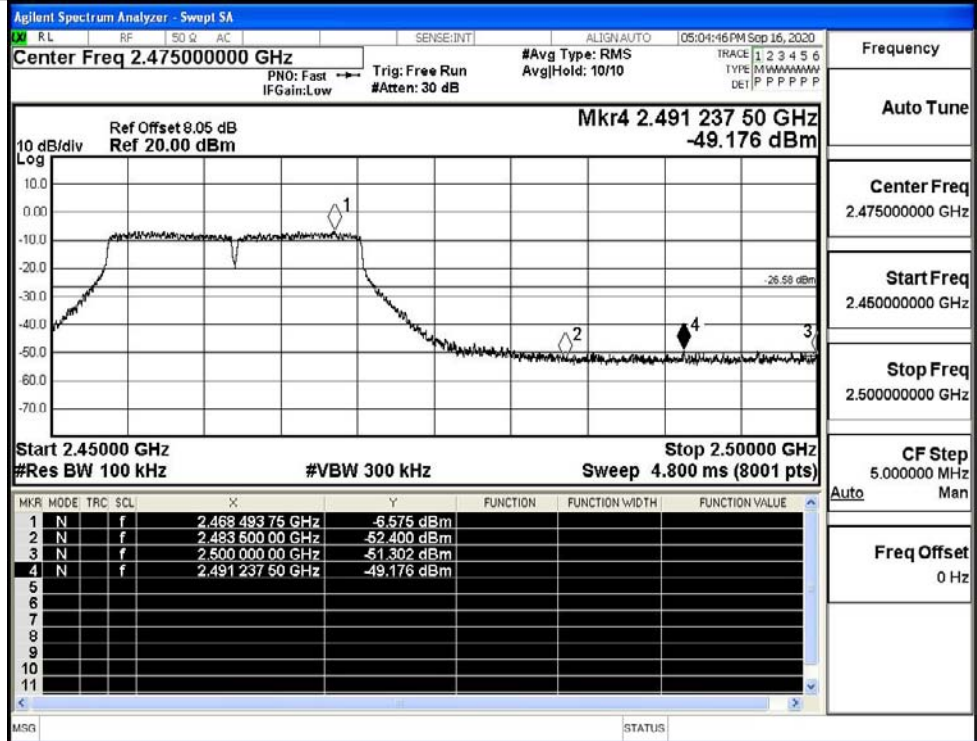
11B/HCH



11G/LCH

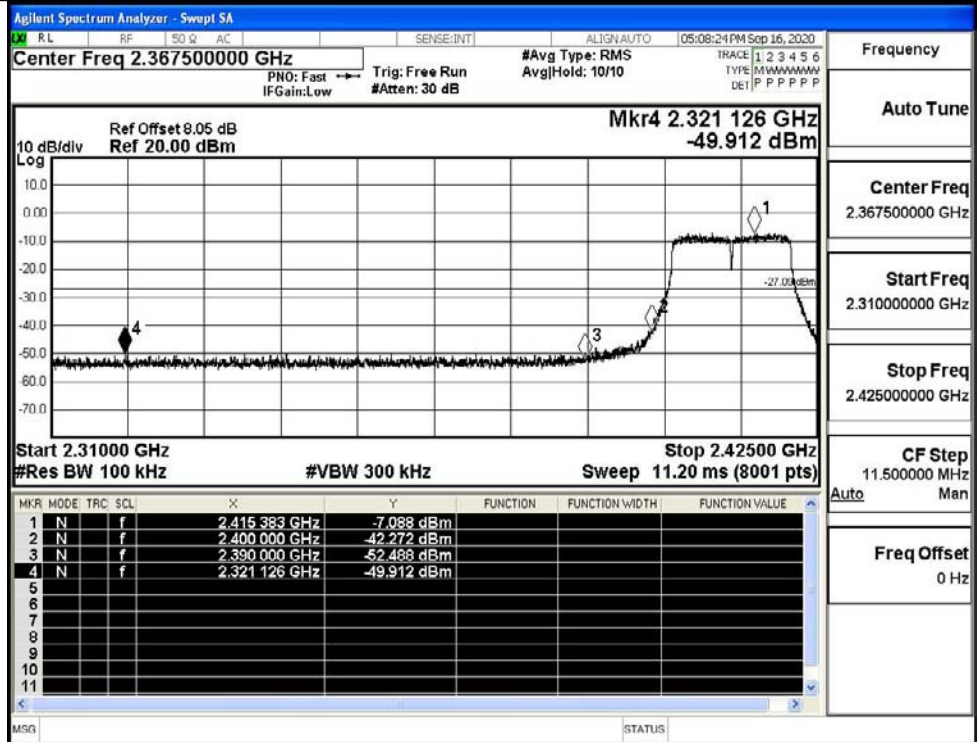


11G/HCH



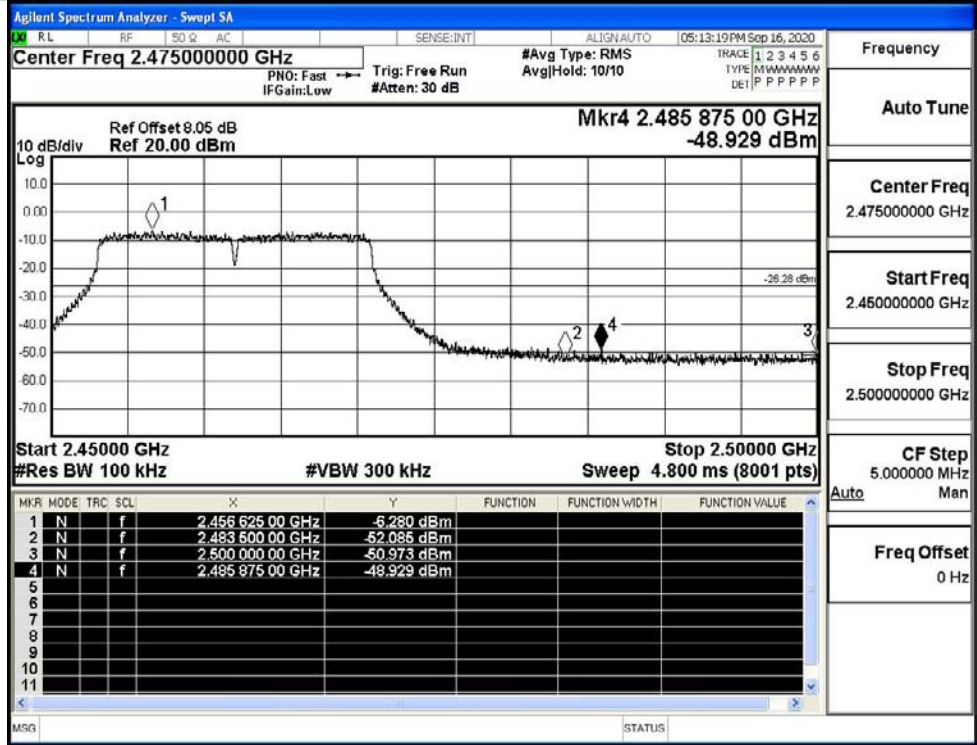
Frequency	2.475000000 GHz
Auto Tune	
Center Freq	2.475000000 GHz
Start Freq	2.450000000 GHz
Stop Freq	2.500000000 GHz
CF Step	5.000000 MHz
Freq Offset	0 Hz

11N20SISO/LCH



Frequency	2.367500000 GHz
Auto Tune	
Center Freq	2.367500000 GHz
Start Freq	2.310000000 GHz
Stop Freq	2.425000000 GHz
CF Step	11.500000 MHz
Freq Offset	0 Hz

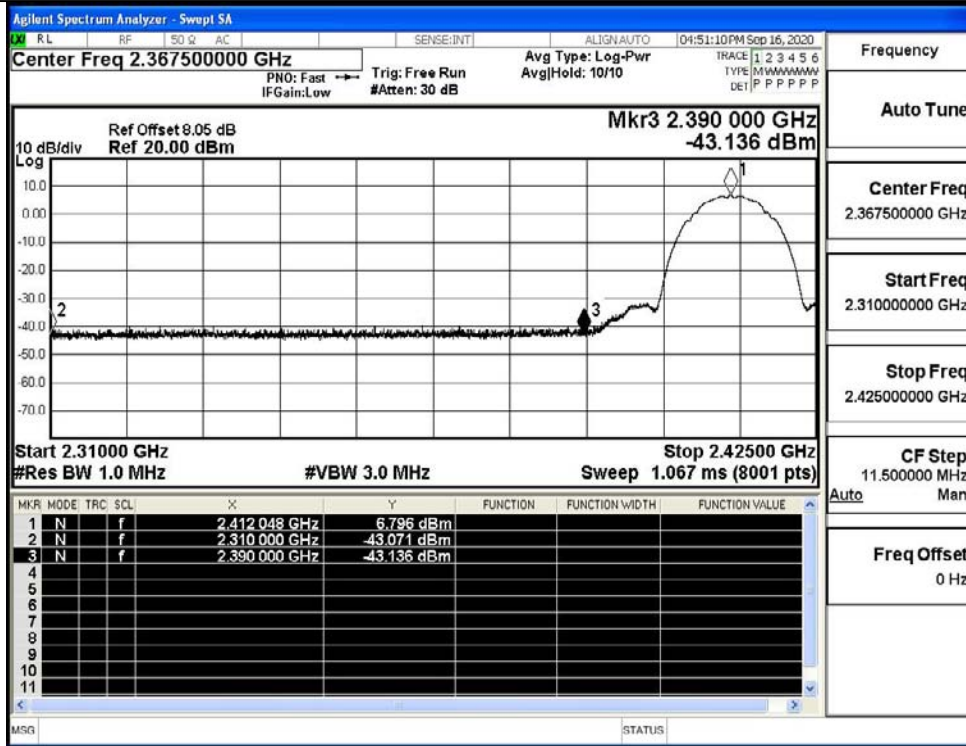
11N20SISO/HCH



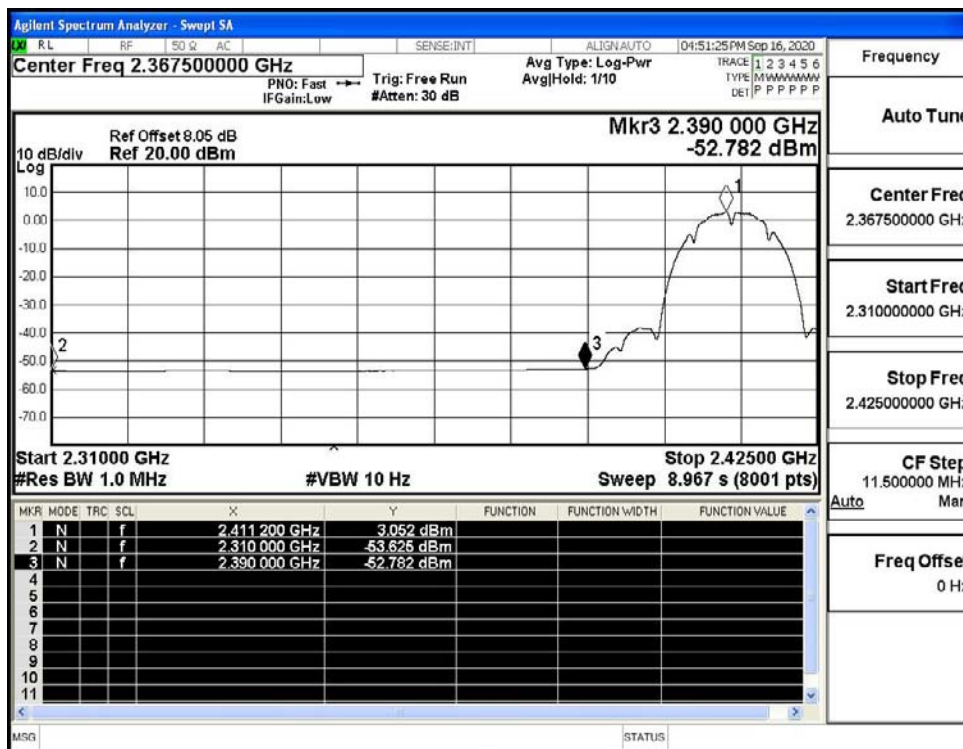
## A.7 Restrict-band band-edge measurements

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	-43.07	2.0	0	56.16	PEAK	74	PASS
	2412	Ant1	2310.0	-53.63	2.0	0	46.6	AV	54	PASS
	2412	Ant1	2390.0	-43.14	2.0	0	57.09	PEAK	74	PASS
	2412	Ant1	2390.0	-52.78	2.0	0	47.45	AV	54	PASS
	2462	Ant1	2483.5	-41.24	2.0	0	58.99	PEAK	74	PASS
	2462	Ant1	2483.5	-52.34	2.0	0	47.89	AV	54	PASS
	2462	Ant1	2500.0	-41.38	2.0	0	58.85	PEAK	74	PASS
	2462	Ant1	2500.0	-52.58	2.0	0	47.65	AV	54	PASS
11G	2412	Ant1	2310.0	-43.94	2.0	0	56.29	PEAK	74	PASS
	2412	Ant1	2310.0	-53.66	2.0	0	46.57	AV	54	PASS
	2412	Ant1	2390.0	-41.32	2.0	0	58.91	PEAK	74	PASS
	2412	Ant1	2390.0	-52.67	2.0	0	47.56	AV	54	PASS
	2462	Ant1	2483.5	-41.62	2.0	0	58.61	PEAK	74	PASS
	2462	Ant1	2483.5	-52.30	2.0	0	47.93	AV	54	PASS
	2462	Ant1	2500.0	-41.32	2.0	0	58.91	PEAK	74	PASS
	2462	Ant1	2500.0	-52.62	2.0	0	47.61	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-43.93	2.0	0	56.3	PEAK	74	PASS
	2412	Ant1	2310.0	-53.63	2.0	0	46.6	AV	54	PASS
	2412	Ant1	2390.0	-41.12	2.0	0	59.11	PEAK	74	PASS
	2412	Ant1	2390.0	-52.33	2.0	0	47.9	AV	54	PASS
	2462	Ant1	2483.5	-39.12	2.0	0	61.11	PEAK	74	PASS
	2462	Ant1	2483.5	-52.09	2.0	0	48.14	AV	54	PASS
	2462	Ant1	2500.0	-42.27	2.0	0	57.96	PEAK	74	PASS
	2462	Ant1	2500.0	-52.59	2.0	0	47.64	AV	54	PASS

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

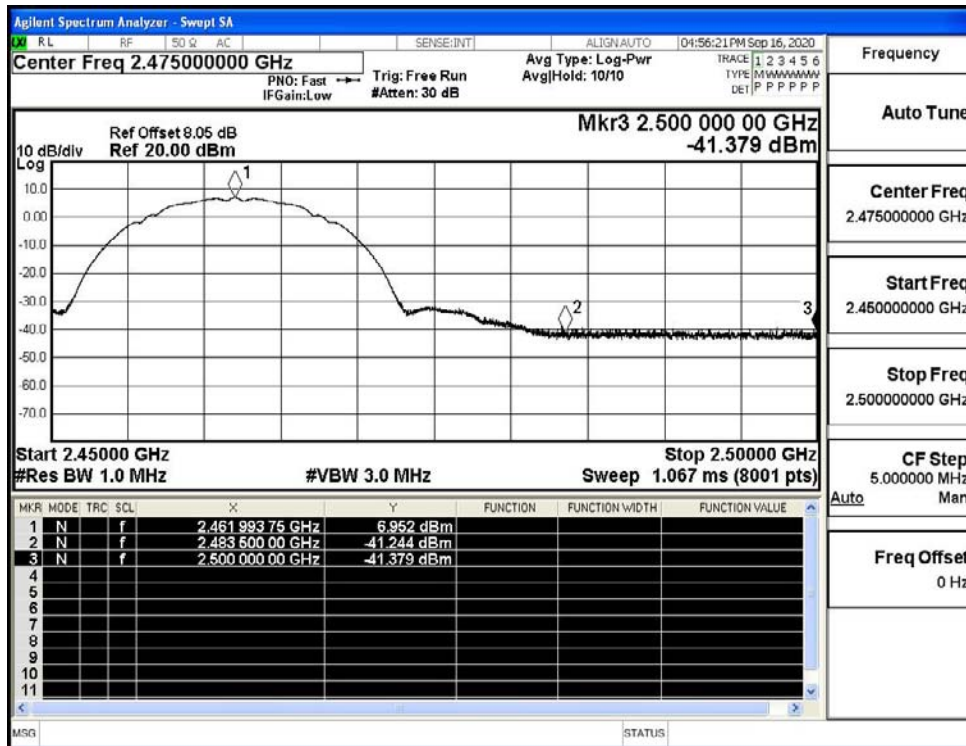


Restrict-band band-edge measurements\_11B\_2412\_Ant1\_AV

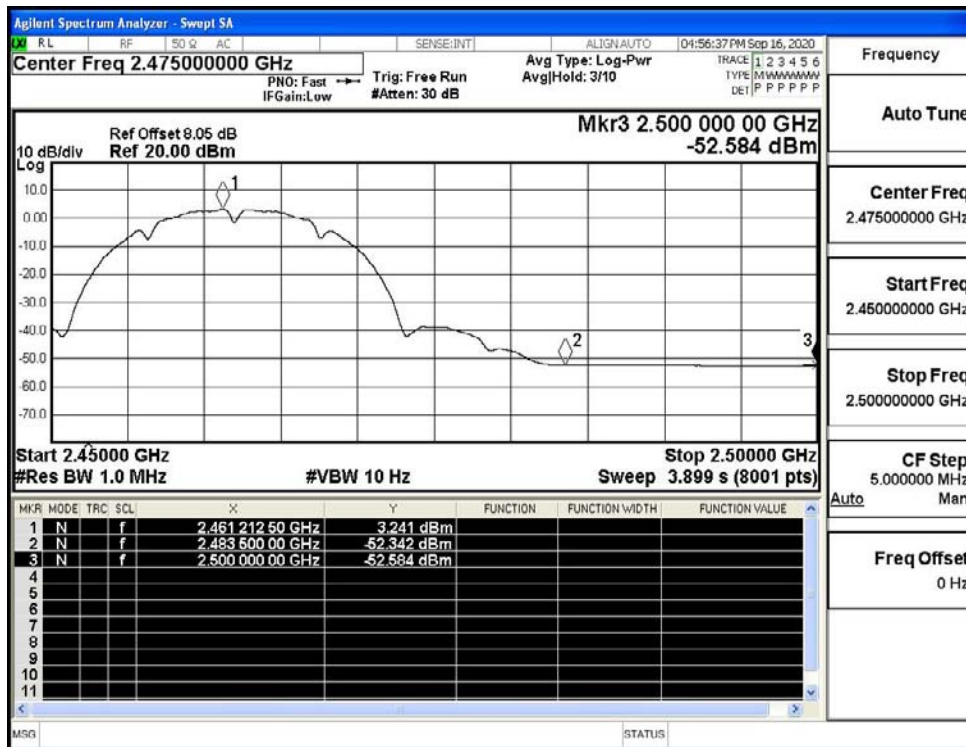




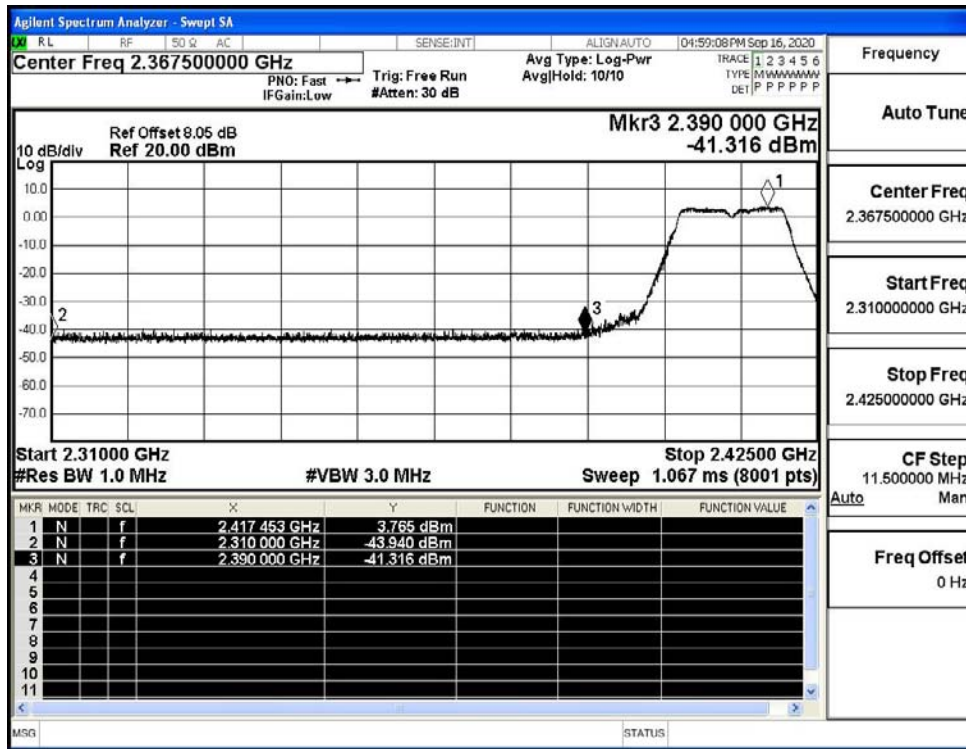
Restrict-band band-edge measurements\_11B\_2462\_Ant1\_PEAK



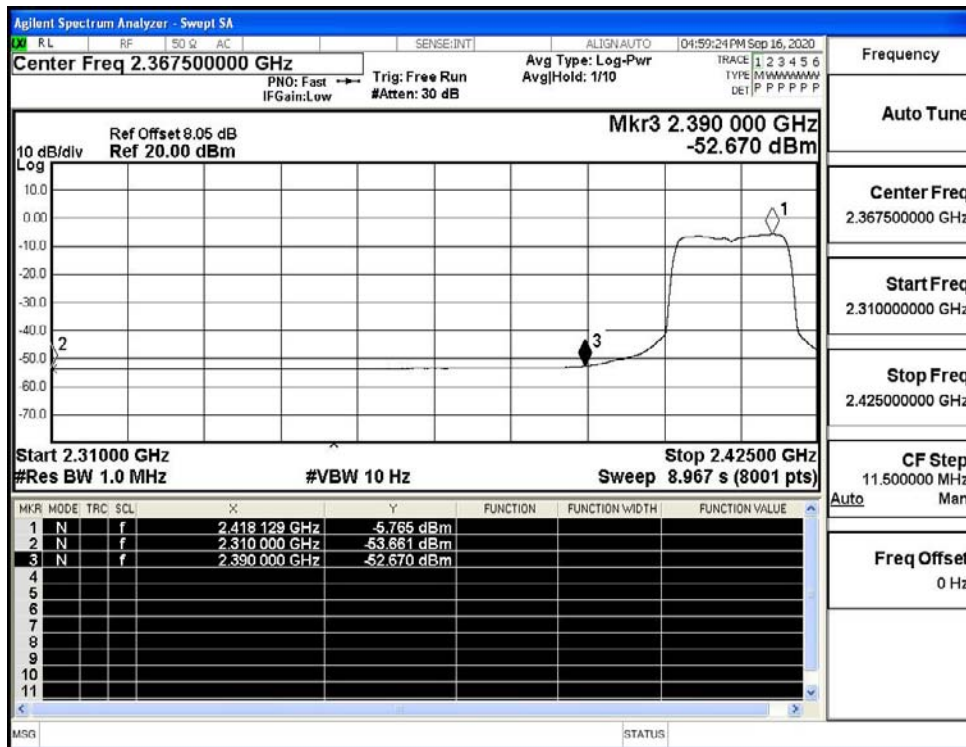
Restrict-band band-edge measurements\_11B\_2462\_Ant1\_AV



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

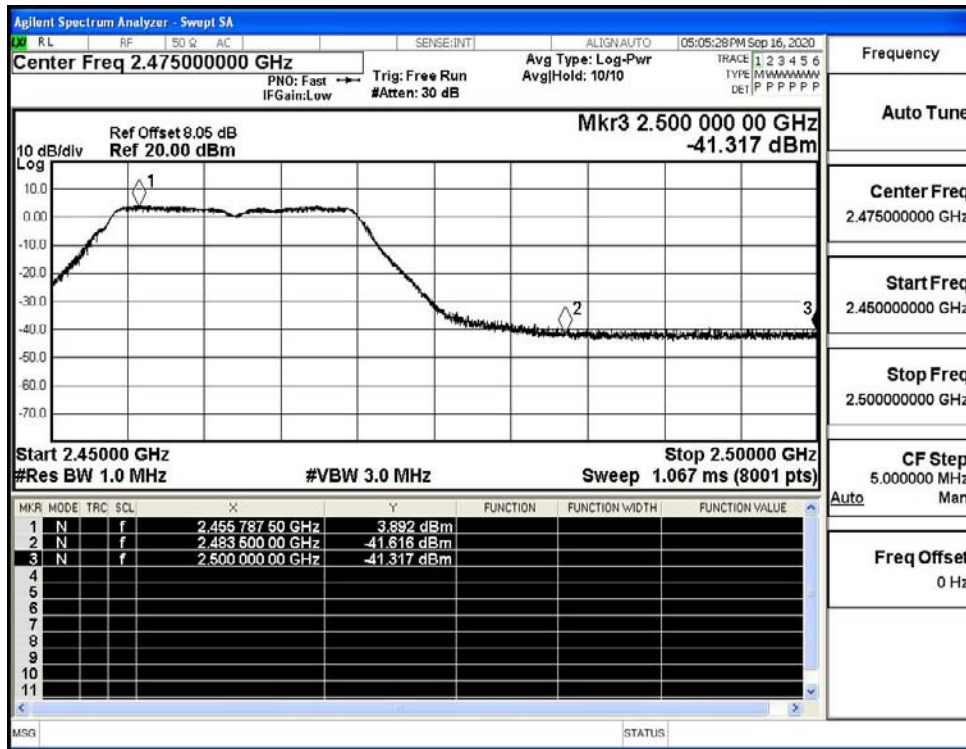


Restrict-band band-edge measurements\_11G\_2412\_Ant1\_AV

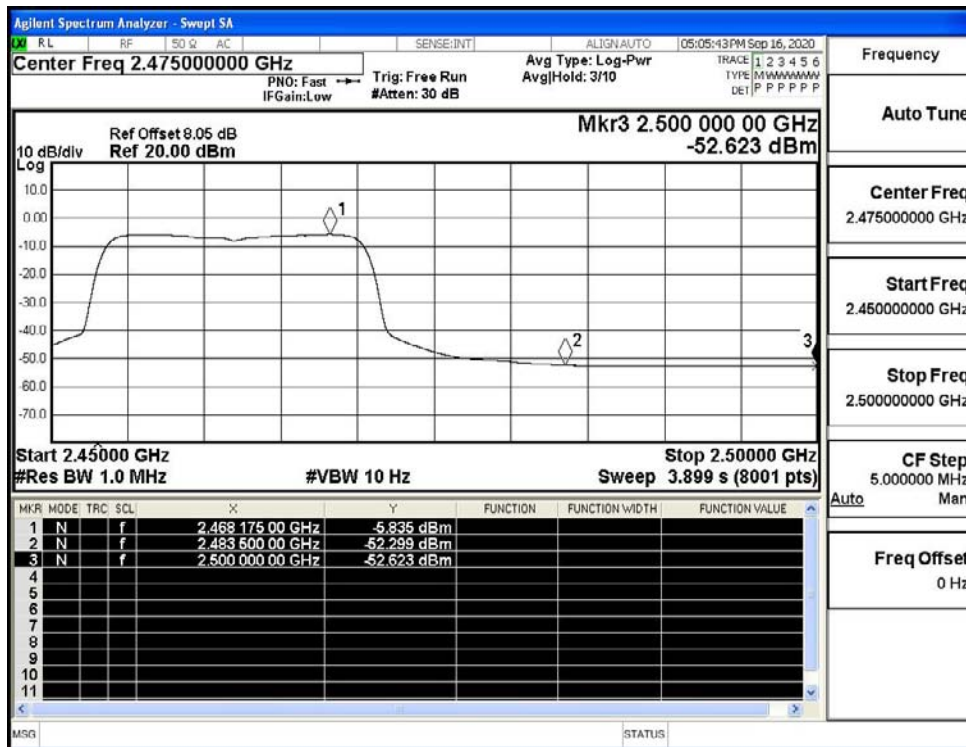




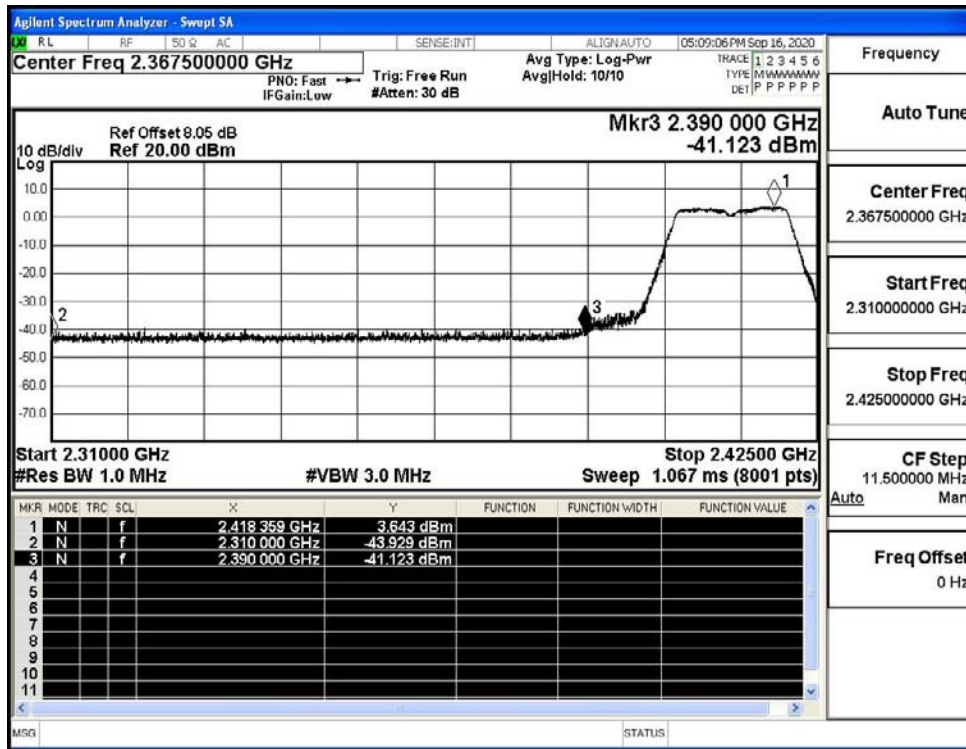
Restrict-band band-edge measurements\_11G\_2462\_Ant1\_PEAK



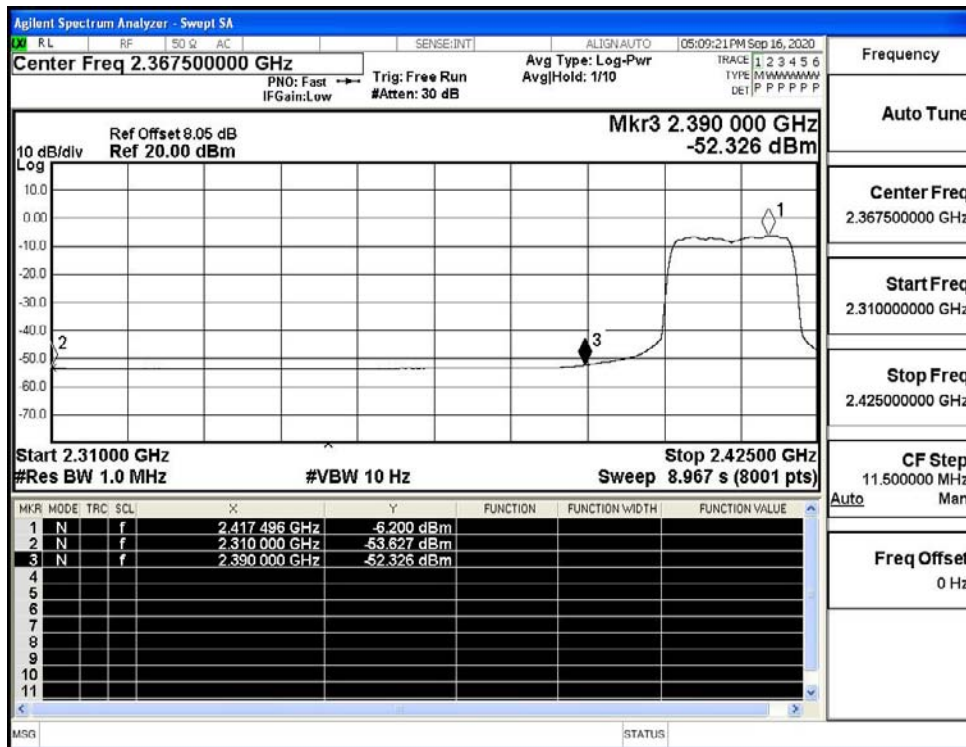
Restrict-band band-edge measurements\_11G\_2462\_Ant1\_AV



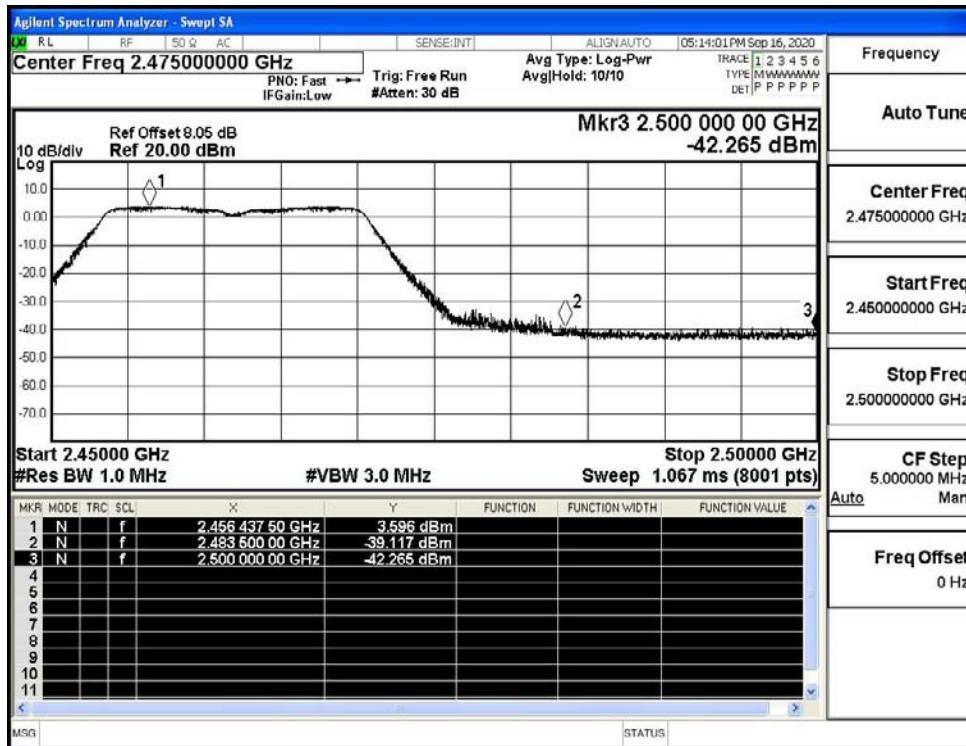
Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_PEAK



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

