



Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Intelligent Planter

Trade Mark: N/A

Test Model: Z206 WIFI

Environmental Conditions

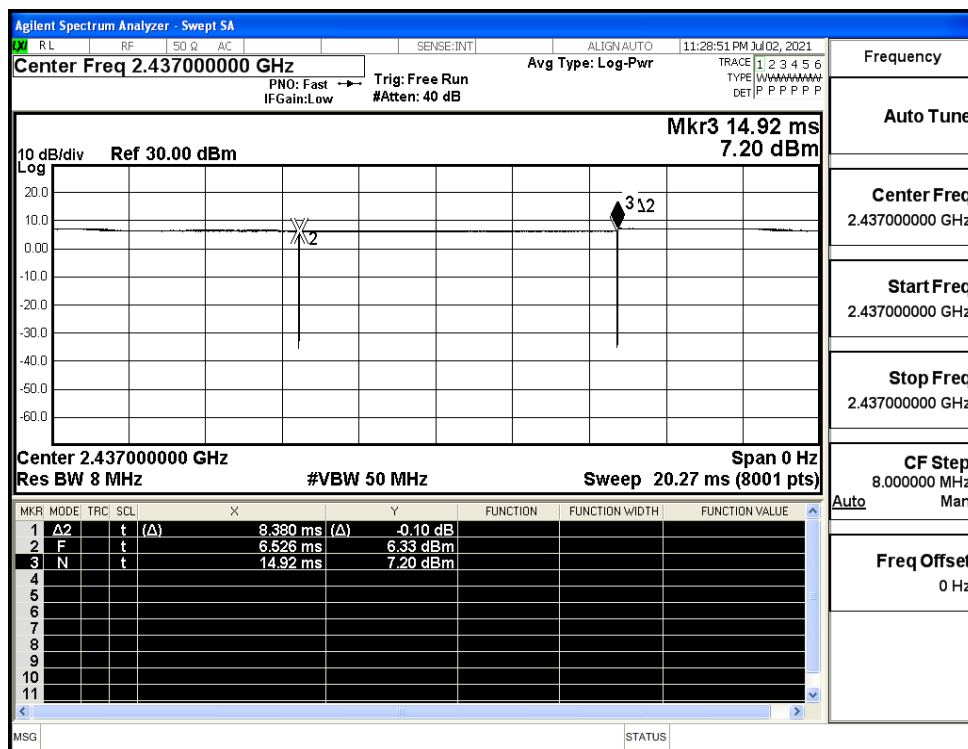
Temperature:	21.6° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

B.1 Duty Cycle

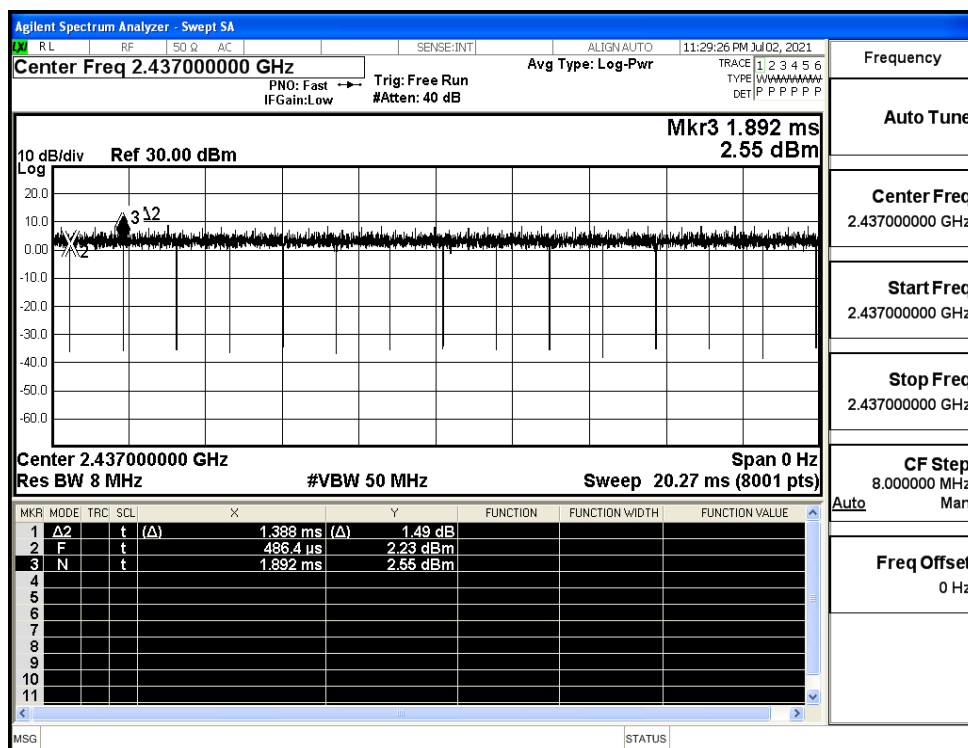
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant1	99.79	PASS
11G	2437	Ant1	98.74	PASS
11N20SISO	2437	Ant1	98.65	PASS



Duty Cycle_11B_2437_Ant1

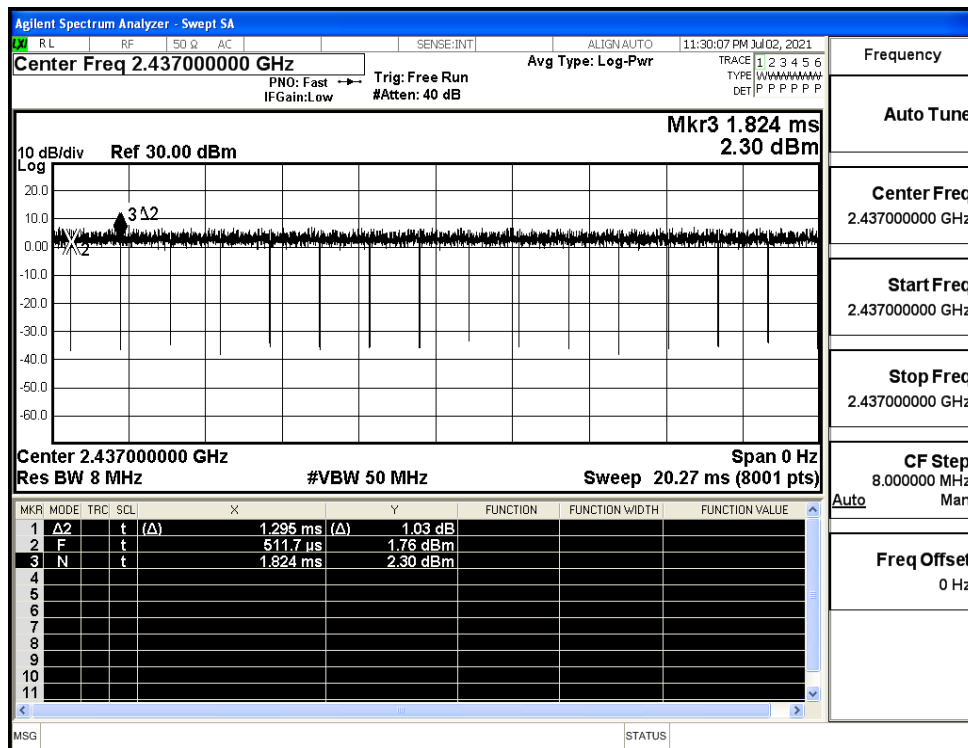


Duty Cycle_11G_2437_Ant1





Duty Cycle_11N20SISO_2437_Ant1





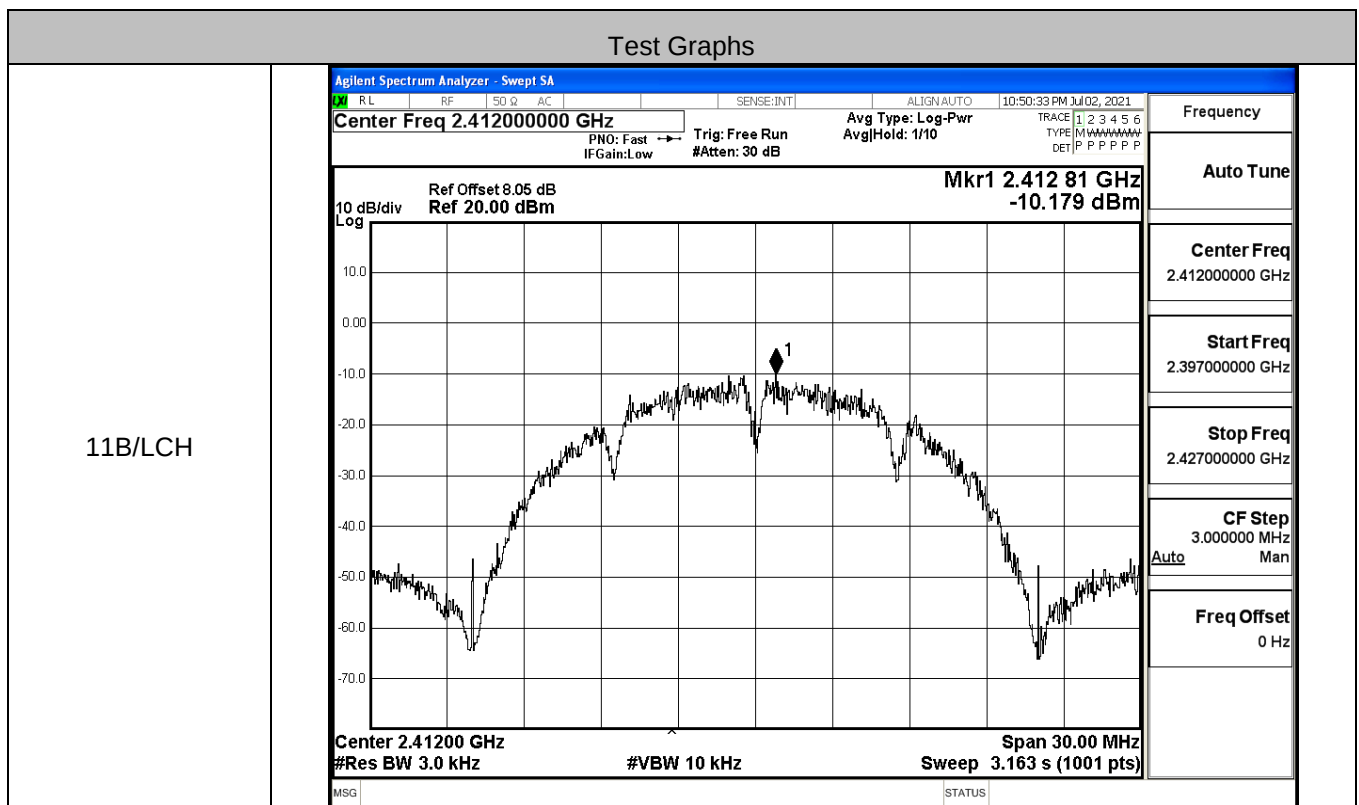
B.2 Maximum Conducted Output Power

Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	16.25	30	PASS
	MCH	14.31	30	PASS
	HCH	15.3	30	PASS
11G	LCH	13.62	30	PASS
	MCH	14.9	30	PASS
	HCH	15.74	30	PASS
11N20SISO	LCH	13.16	30	PASS
	MCH	14.1	30	PASS
	HCH	15.6	30	PASS



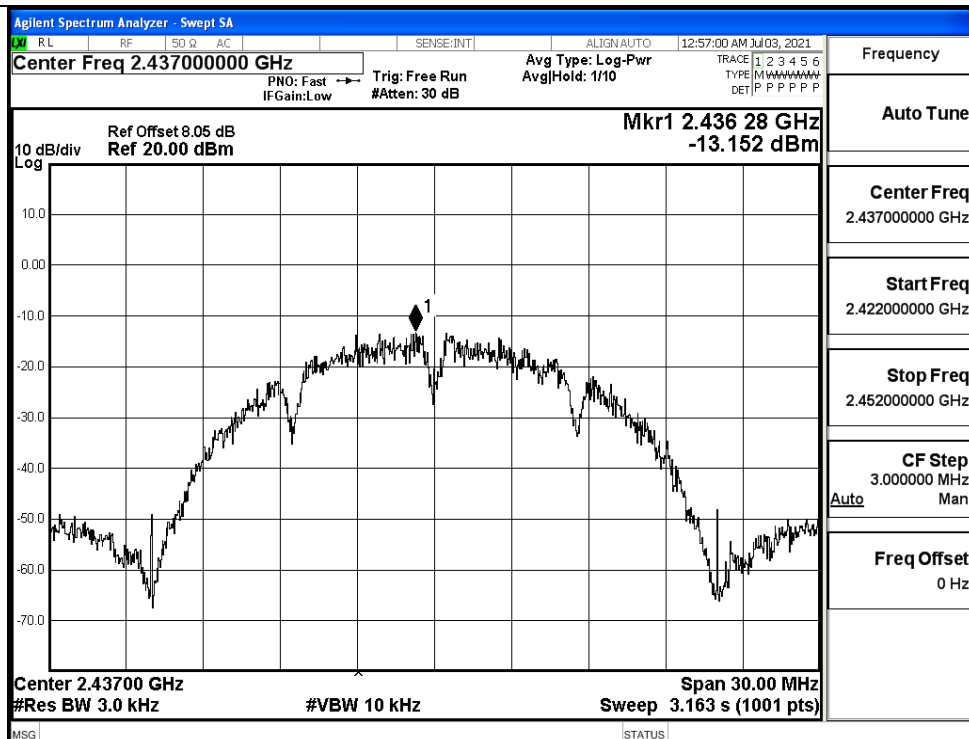
B.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-10.179	8	PASS
	MCH	-13.152	8	PASS
	HCH	-12.175	8	PASS
11G	LCH	-19.129	8	PASS
	MCH	-17.934	8	PASS
	HCH	-17.366	8	PASS
11N20SISO	LCH	-19.359	8	PASS
	MCH	-17.702	8	PASS
	HCH	-17.229	8	PASS

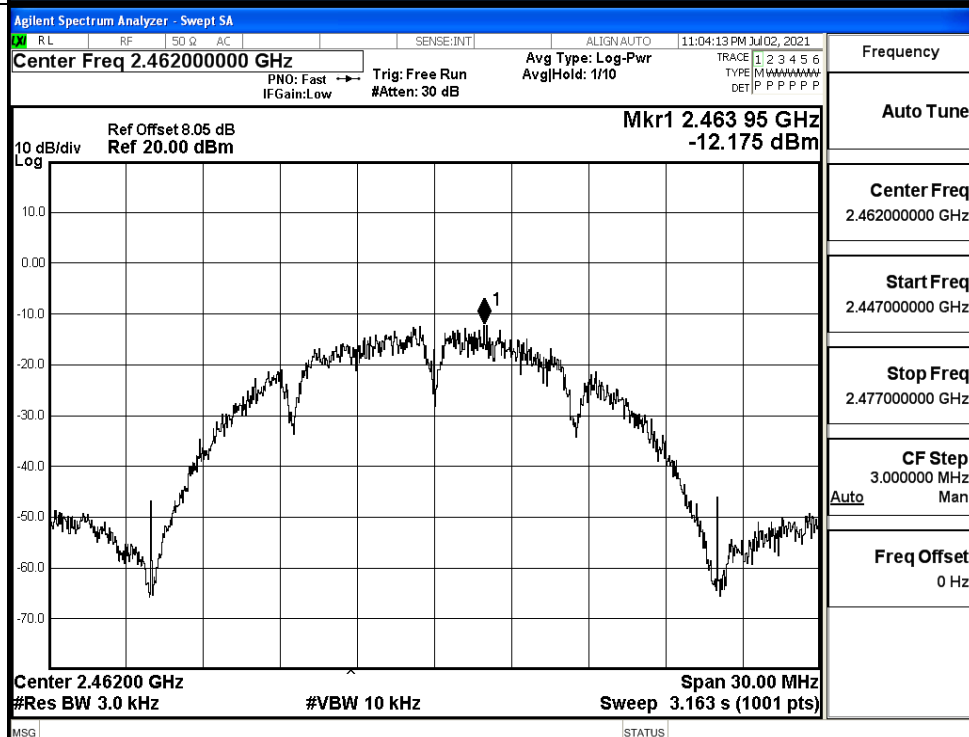




11B/MCH

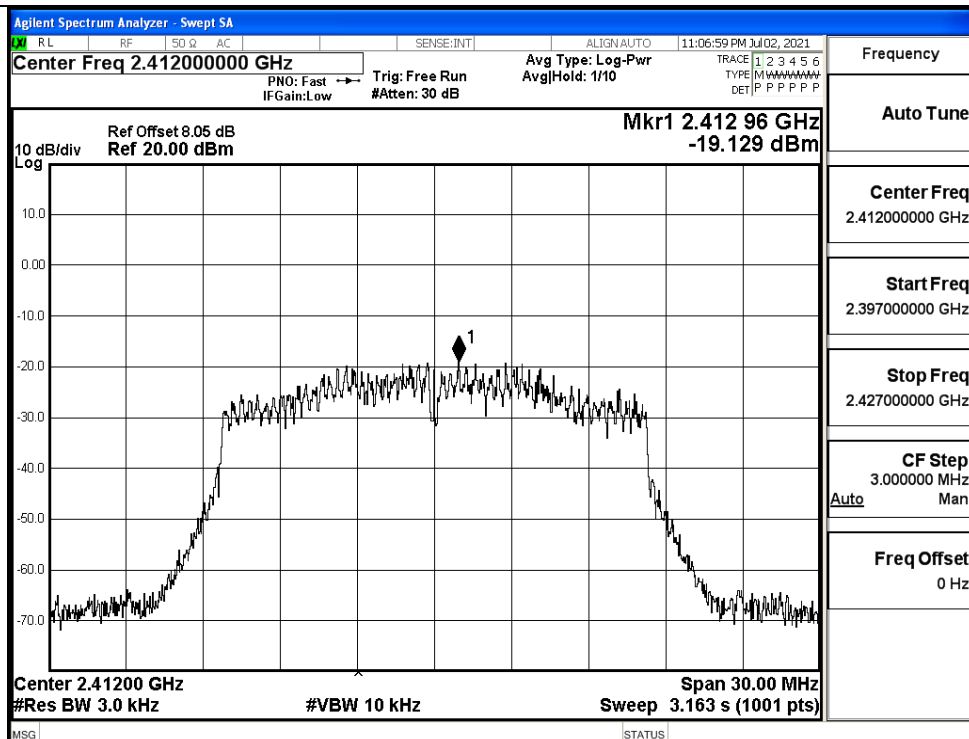


11B/HCH

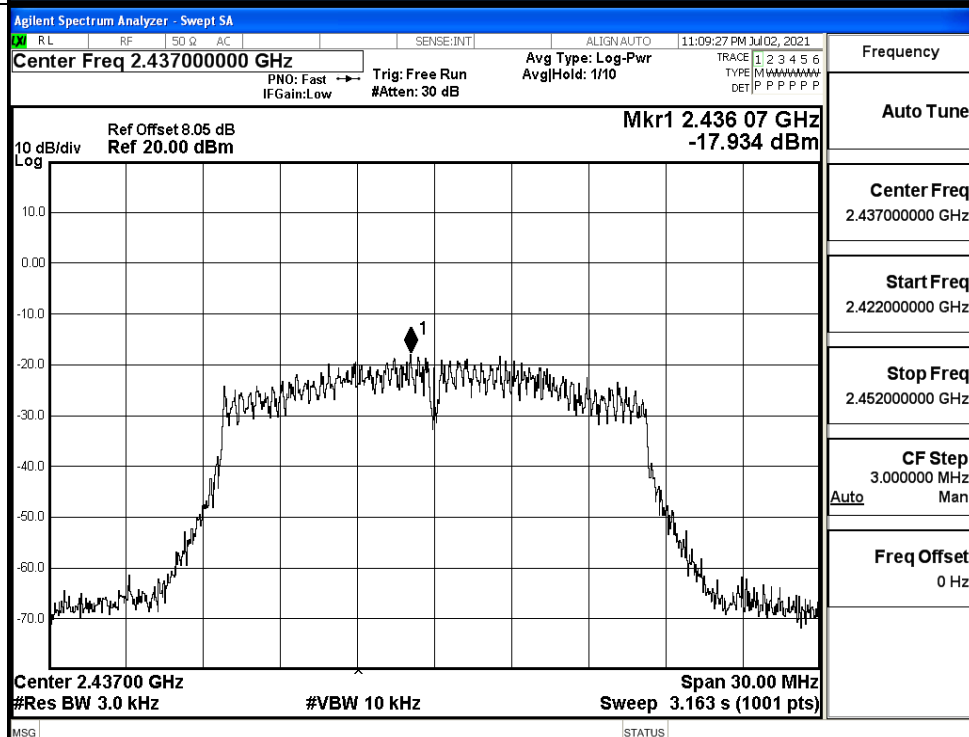




11G/LCH

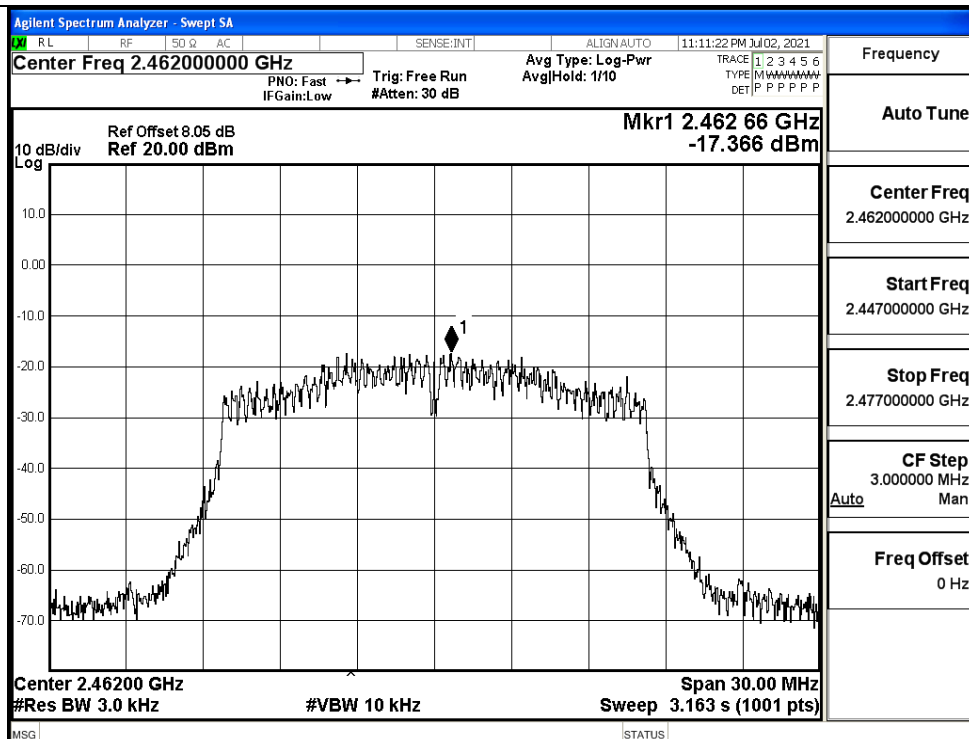


11G/MCH

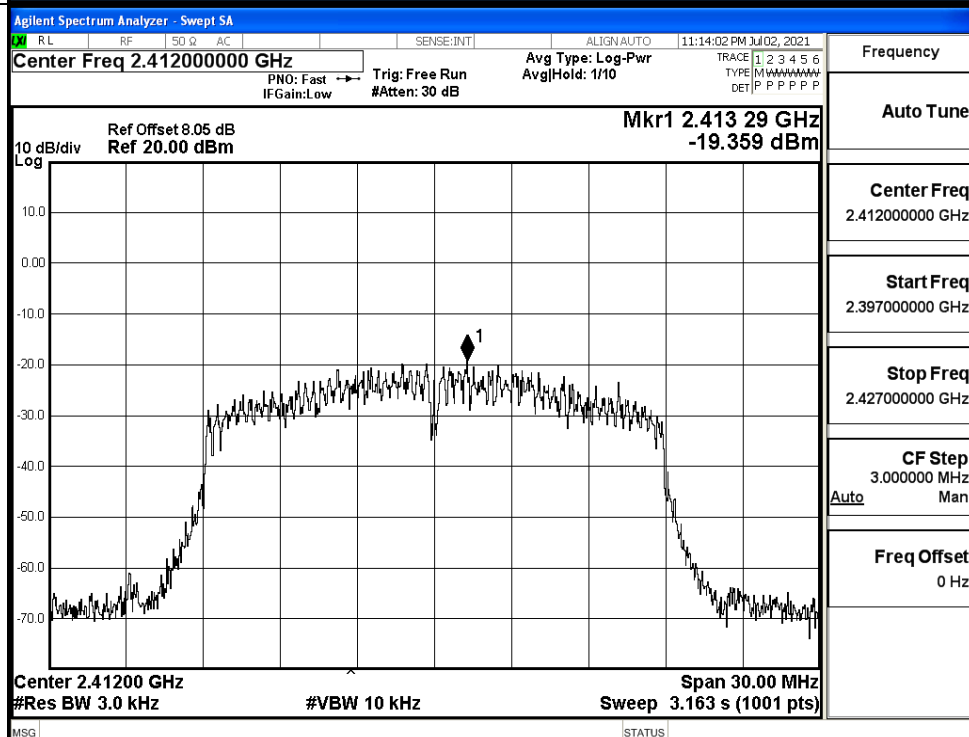




11G/HCH



11N20SISO/LCH

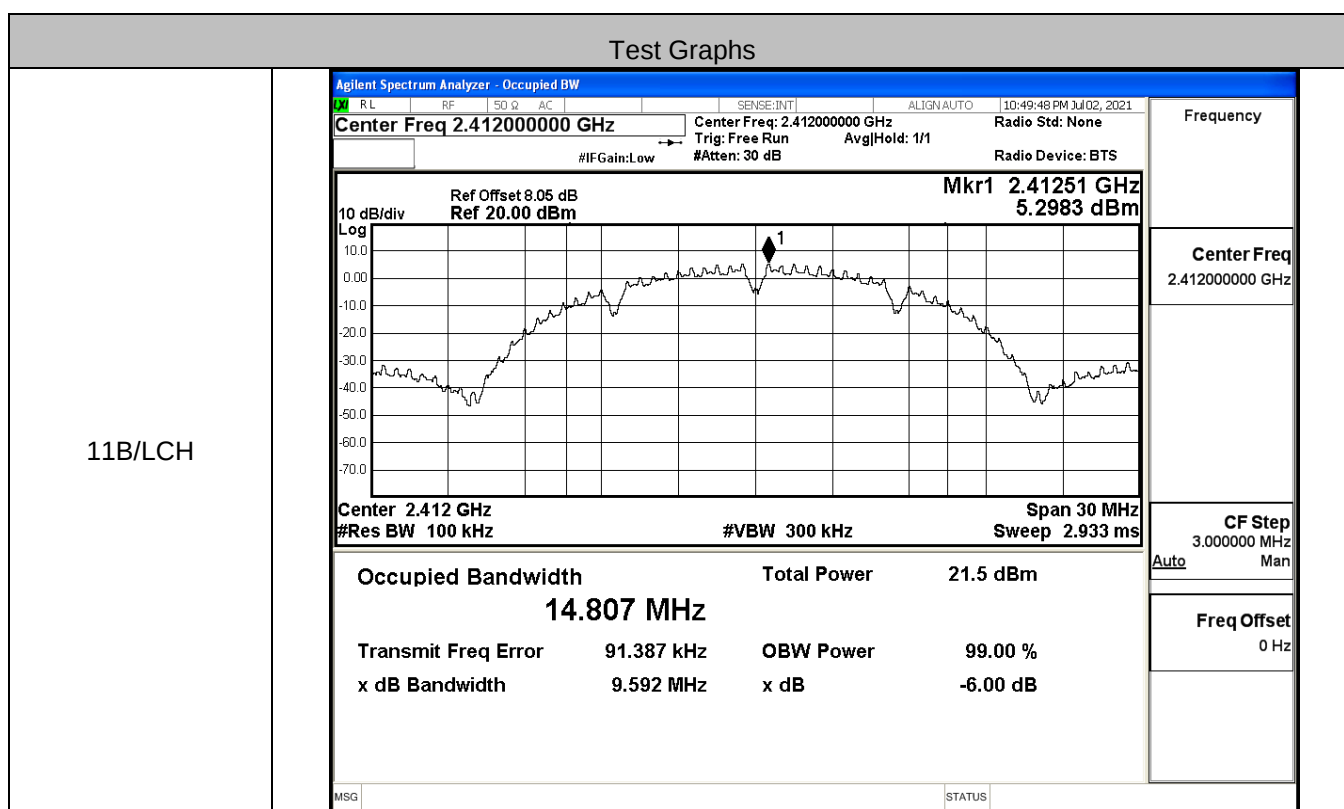


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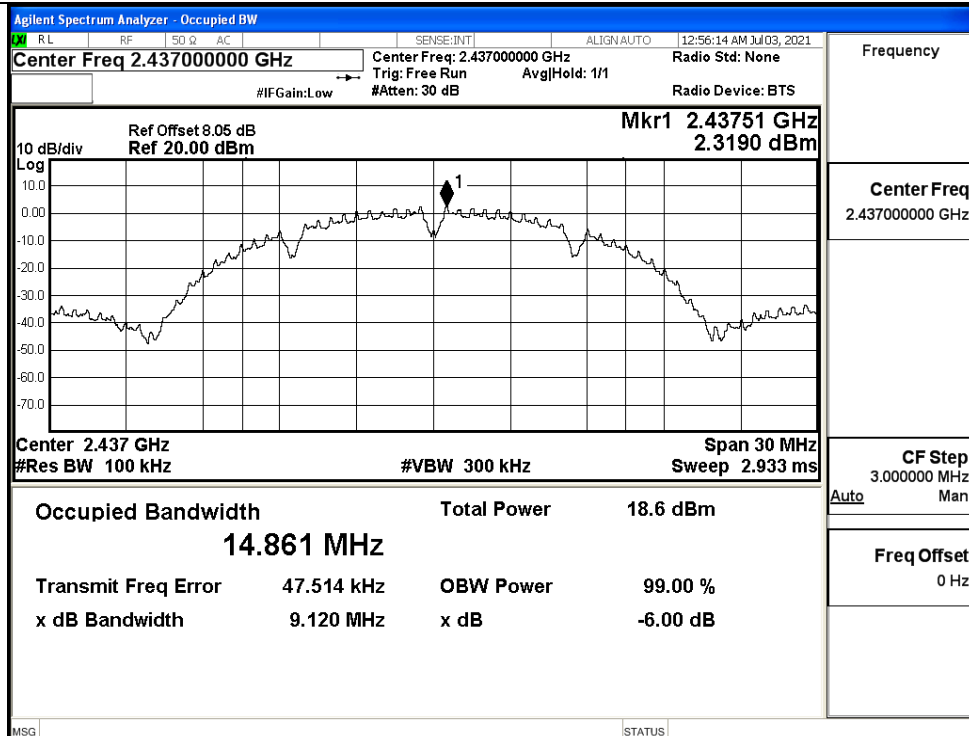
B.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.592	≥ 0.5	PASS
	MCH	9.120	≥ 0.5	PASS
	HCH	9.581	≥ 0.5	PASS
11G	LCH	13.81	≥ 0.5	PASS
	MCH	13.82	≥ 0.5	PASS
	HCH	12.59	≥ 0.5	PASS
11N20SISO	LCH	13.80	≥ 0.5	PASS
	MCH	11.34	≥ 0.5	PASS
	HCH	15.06	≥ 0.5	PASS





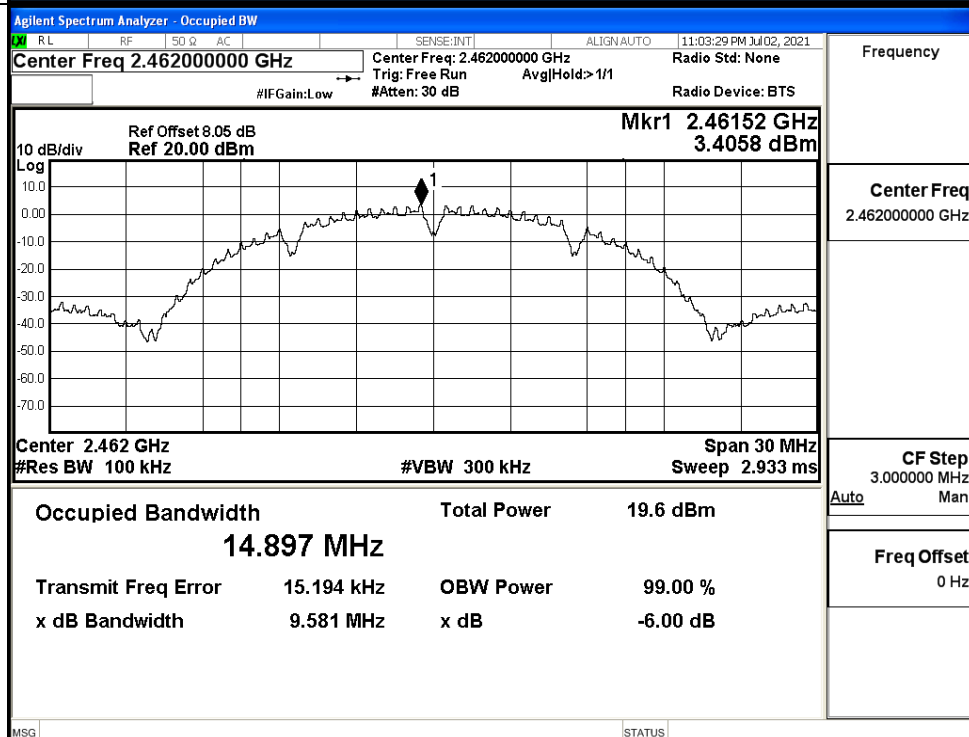
11B/MCH



Frequency

Center Freq
2.437000000 GHzCF Step
3.000000 MHz
Auto ManFreq Offset
0 Hz

11B/HCH

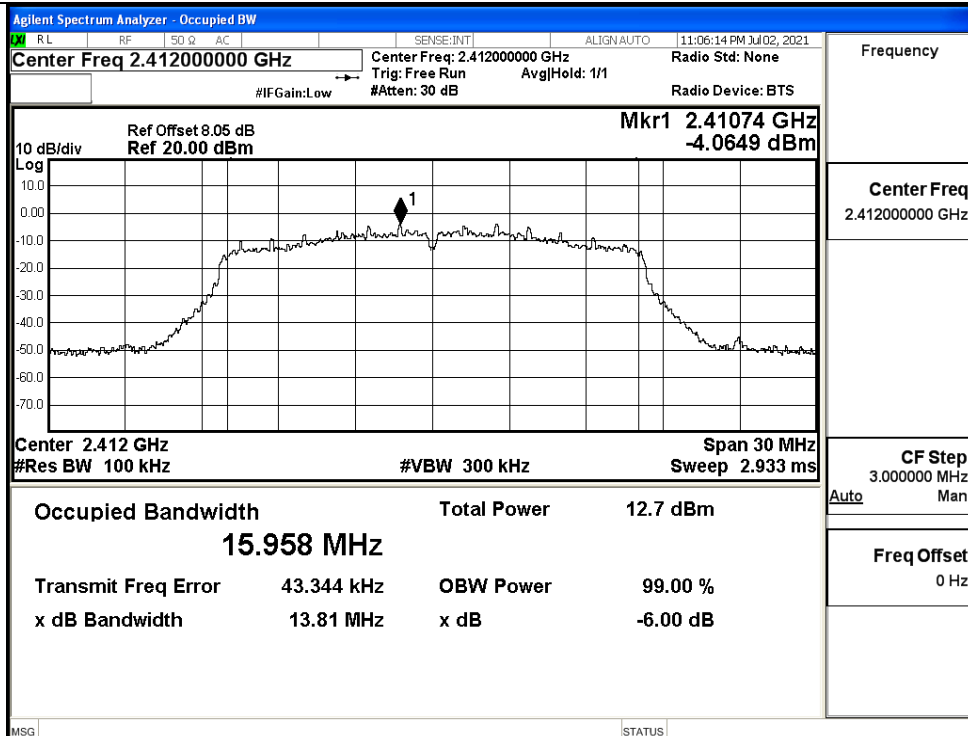


Frequency

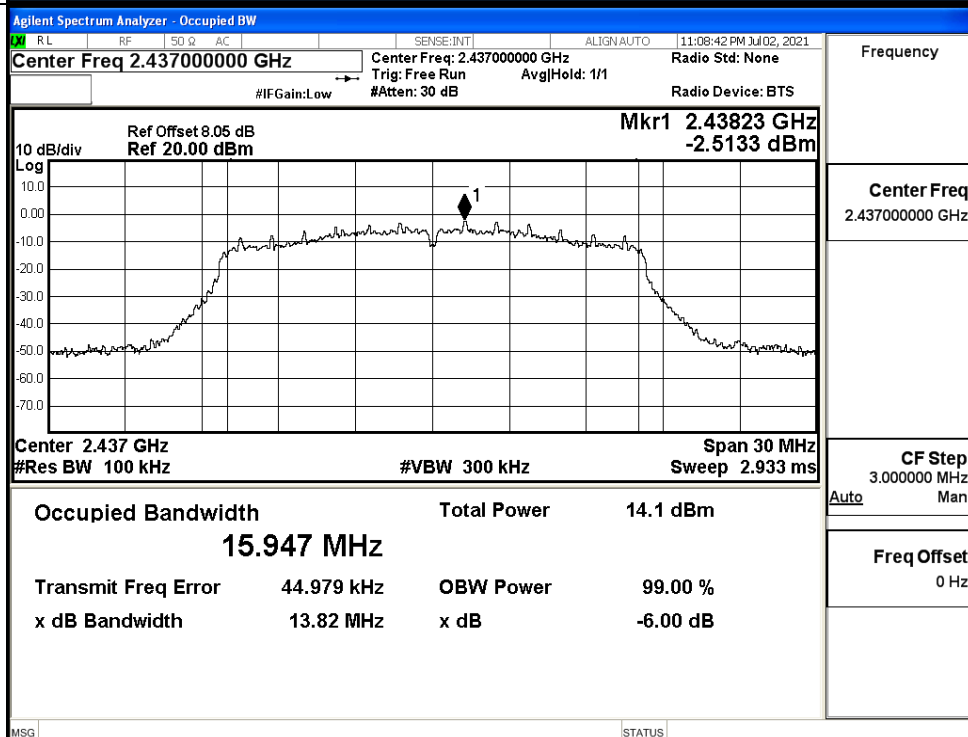
Center Freq
2.462000000 GHzCF Step
3.000000 MHz
Auto ManFreq Offset
0 Hz



11G/LCH

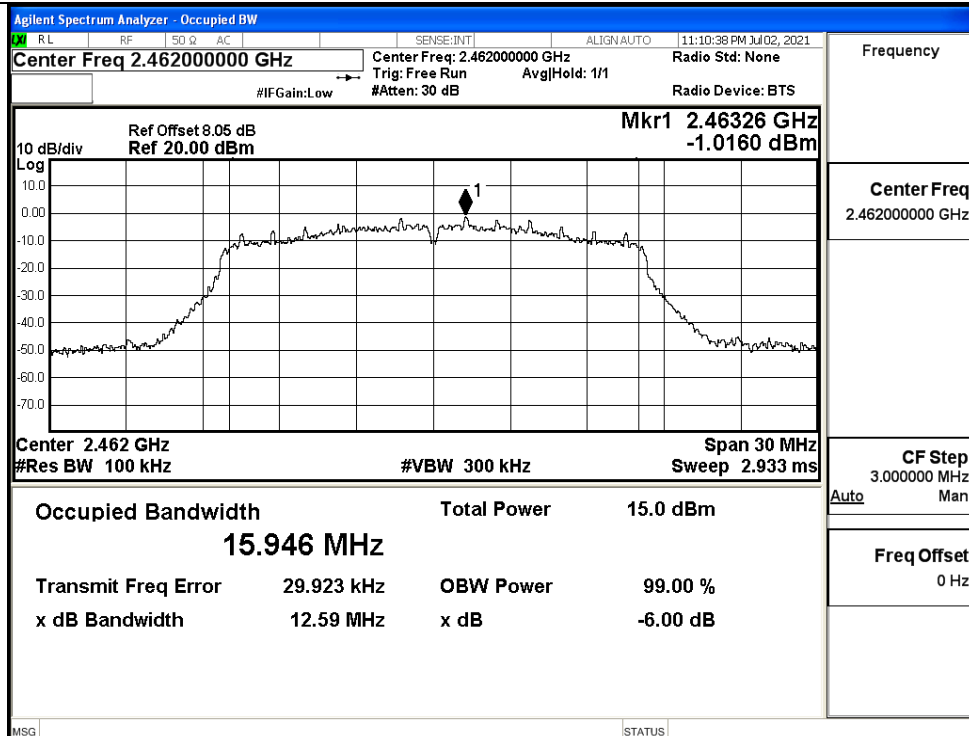


11G/MCH





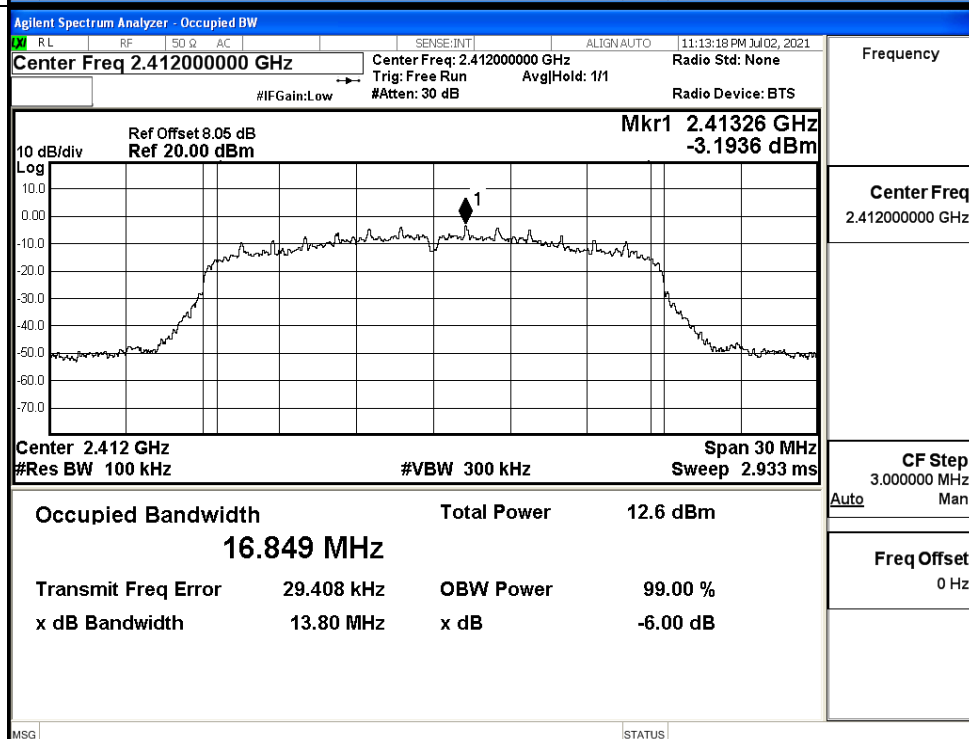
11G/HCH



Frequency

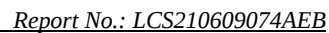
Center Freq
2.462000000 GHzCF Step
3.000000 MHz
Auto ManFreq Offset
0 Hz

11N20SISO/LCH



Frequency

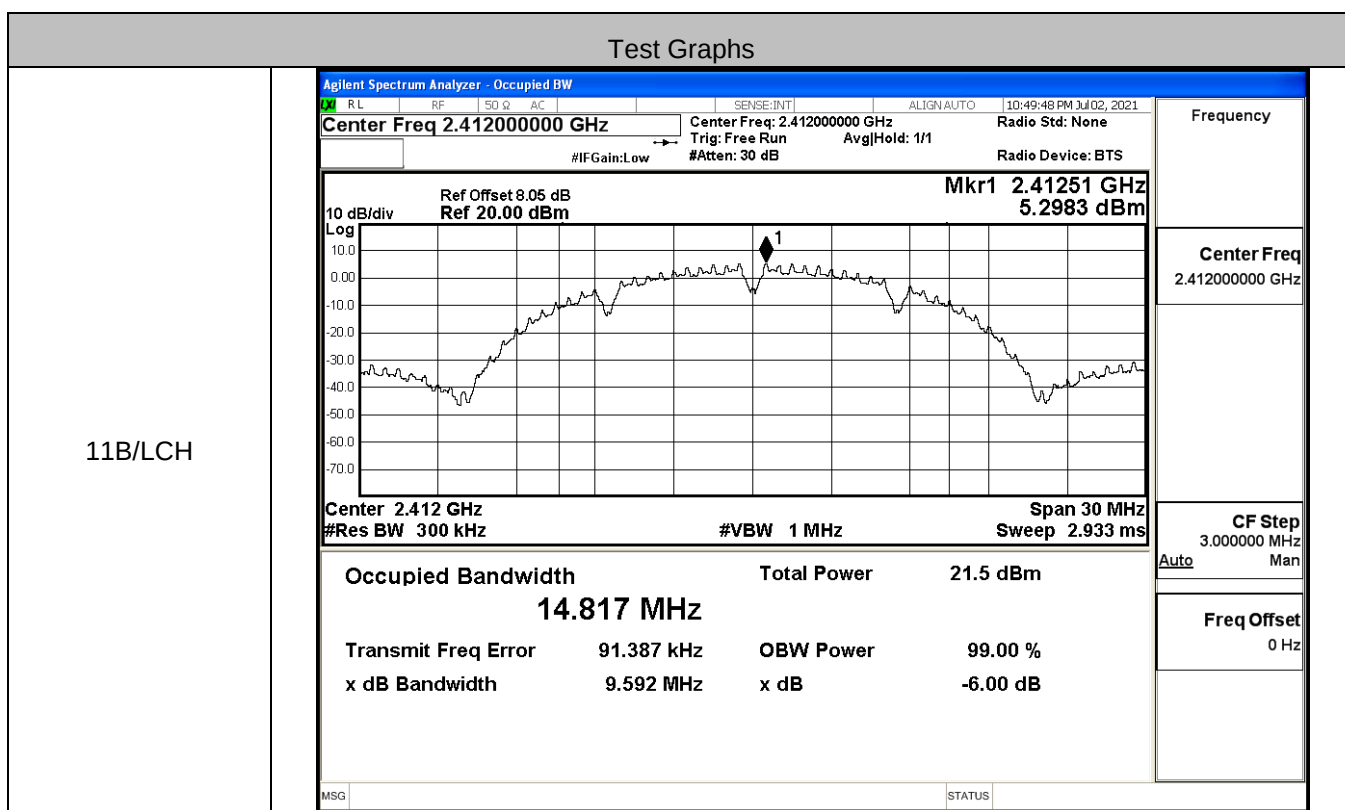
Center Freq
2.412000000 GHzCF Step
3.000000 MHz
Auto ManFreq Offset
0 Hz

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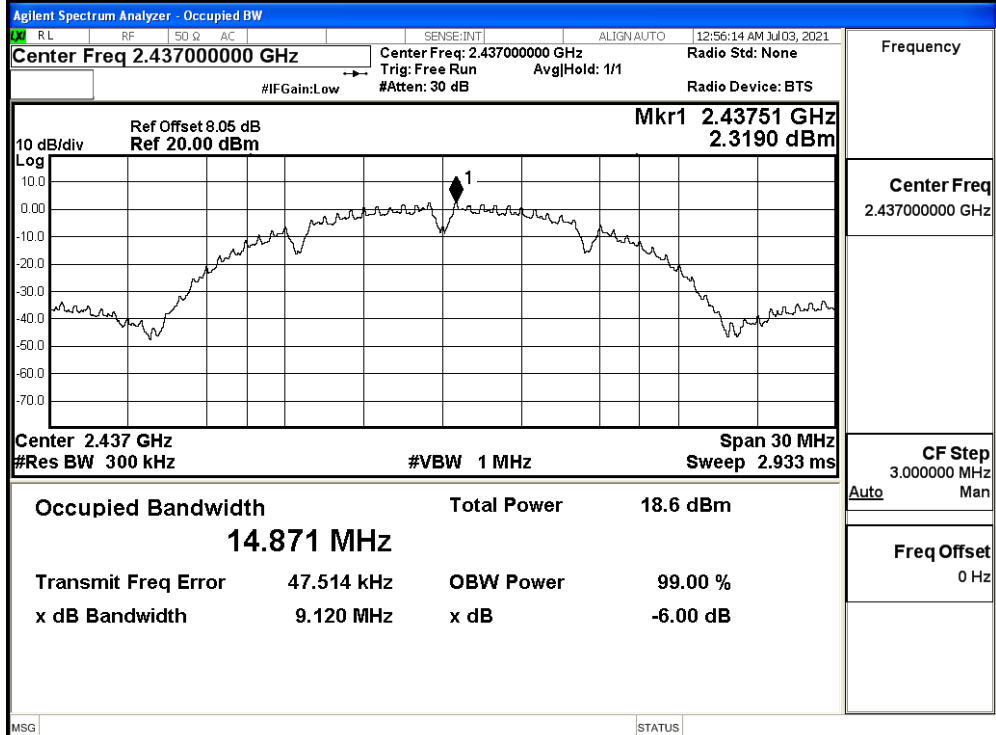
B.5 Occupied Bandwidth

Mode	Channel	99% Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	14.817	/	PASS
	MCH	14.871	/	PASS
	HCH	14.917	/	PASS
11G	LCH	16.868	/	PASS
	MCH	16.805	/	PASS
	HCH	16.938	/	PASS
11N20SISO	LCH	17.865	/	PASS
	MCH	17.816	/	PASS
	HCH	17.810	/	PASS





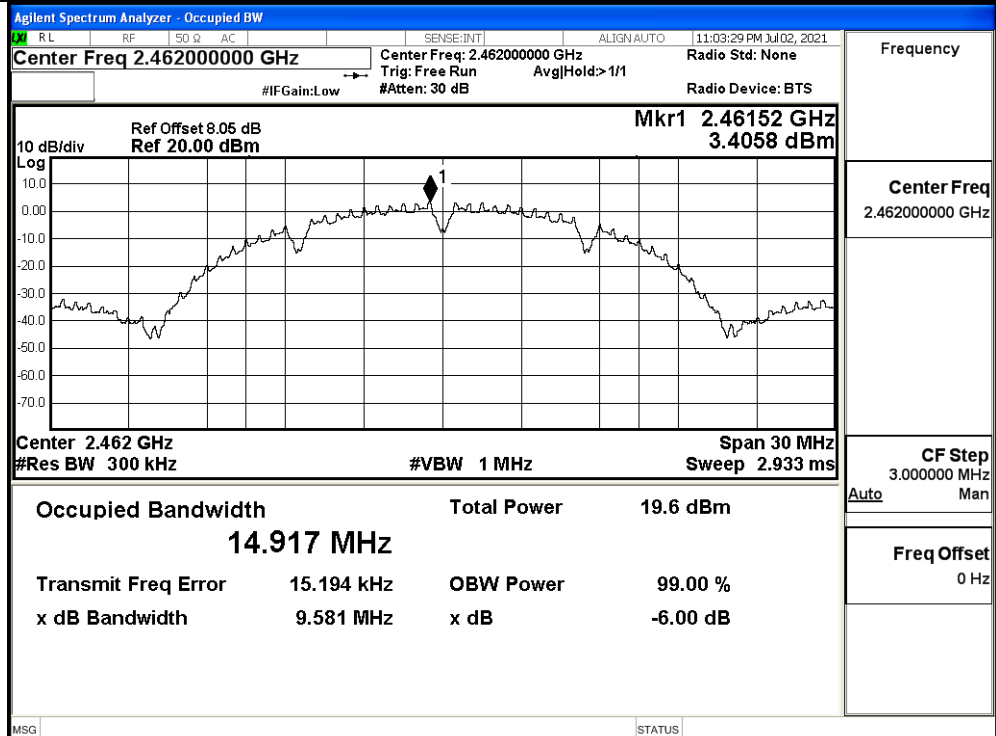
11B/MCH



Frequency

Center Freq
2.437000000 GHzCF Step
3.000000 MHz
Auto ManFreq Offset
0 Hz

11B/HCH

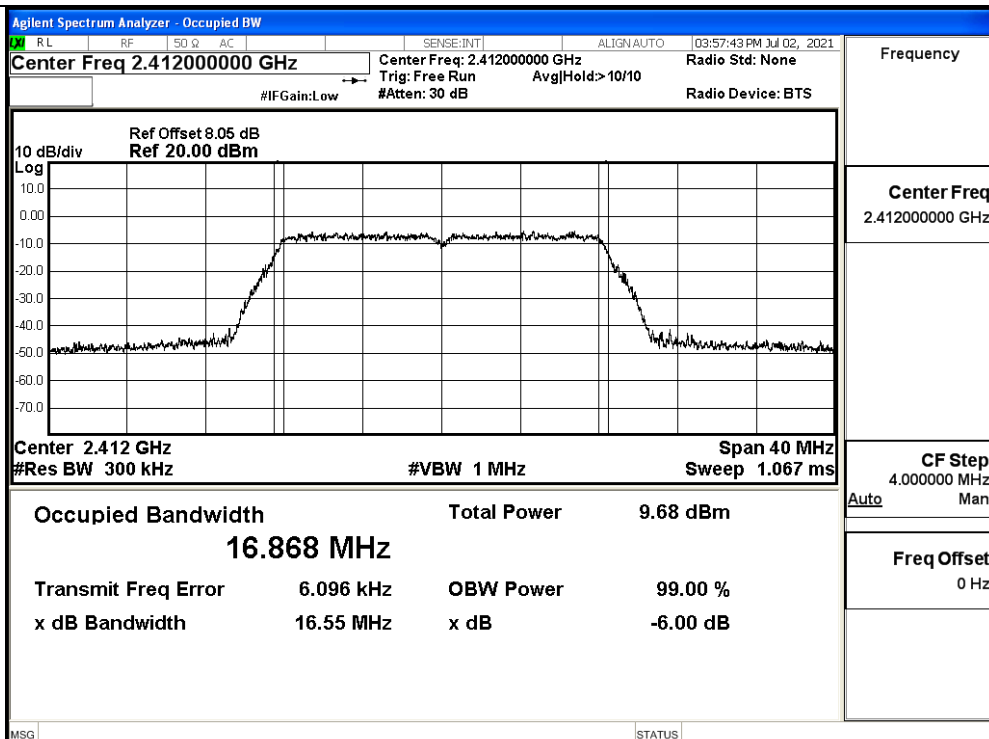


Frequency

Center Freq
2.462000000 GHzCF Step
3.000000 MHz
Auto ManFreq Offset
0 Hz



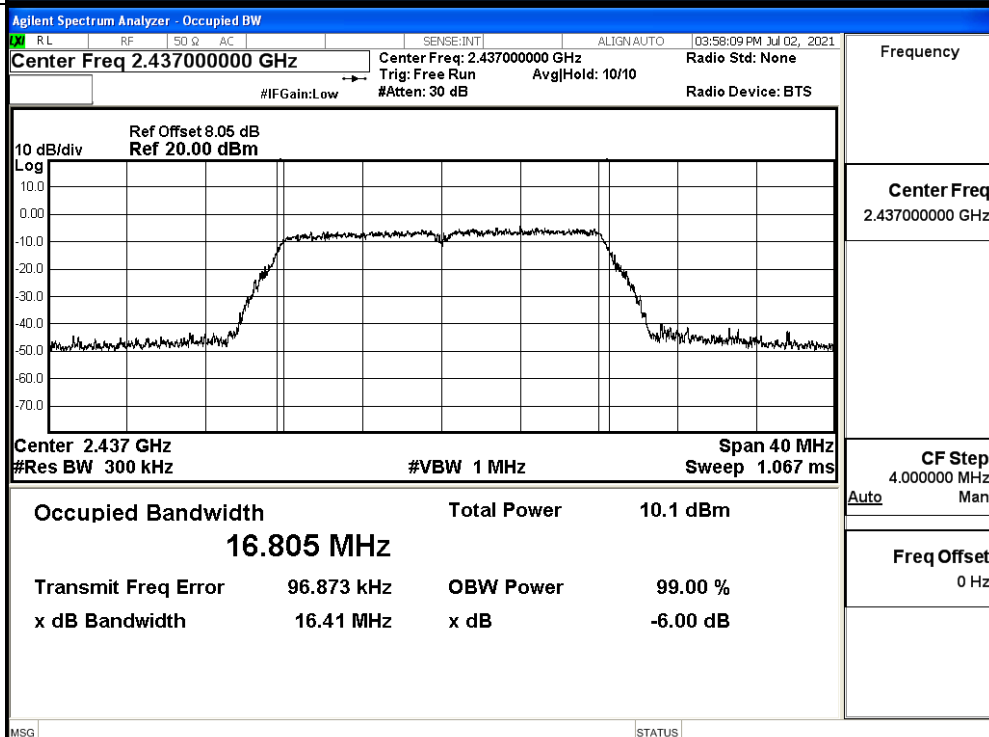
11G/LCH



Frequency

Center Freq
2.412000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

11G/MCH

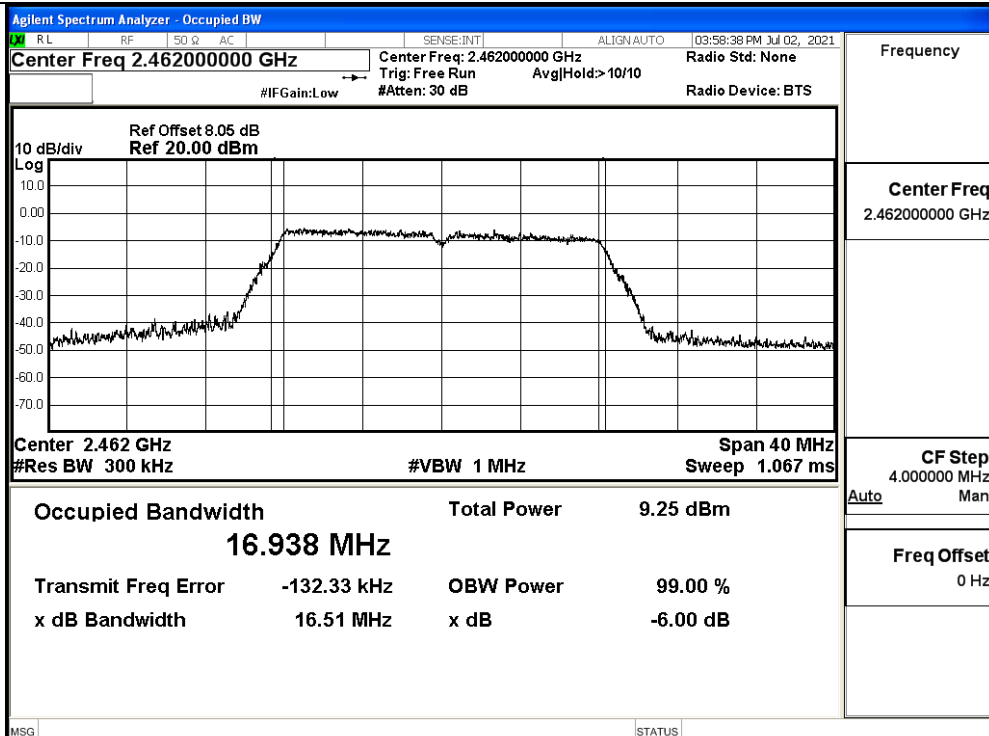


Frequency

Center Freq
2.437000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz



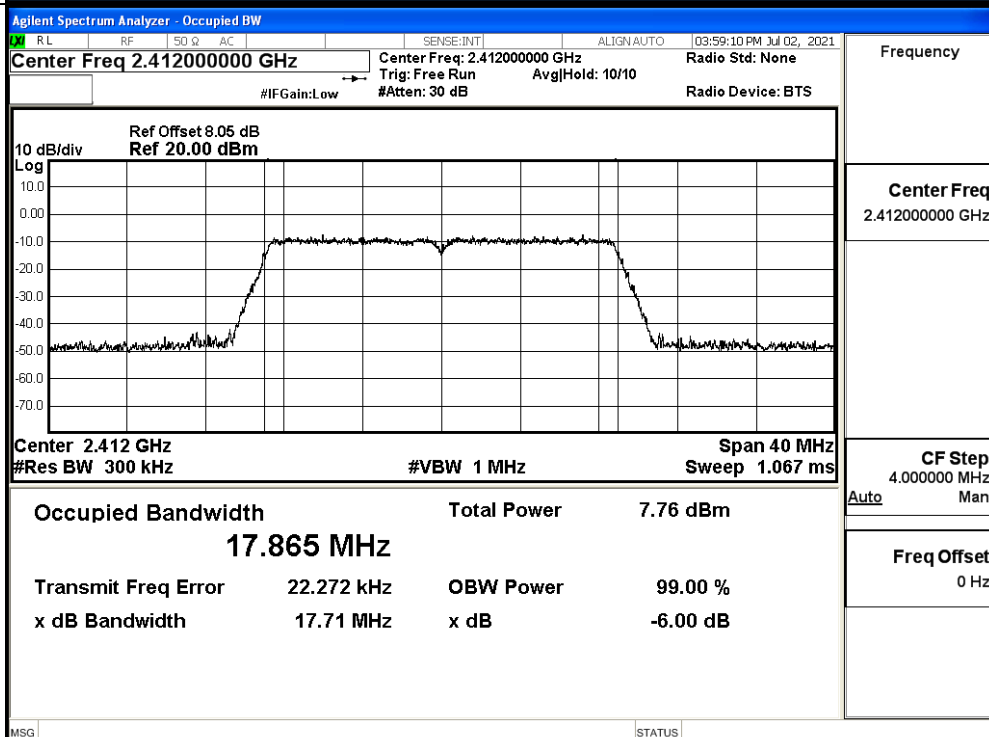
11G/HCH



Frequency

Center Freq
2.462000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

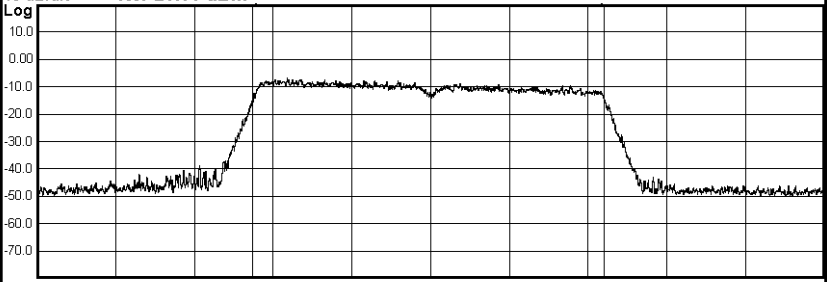
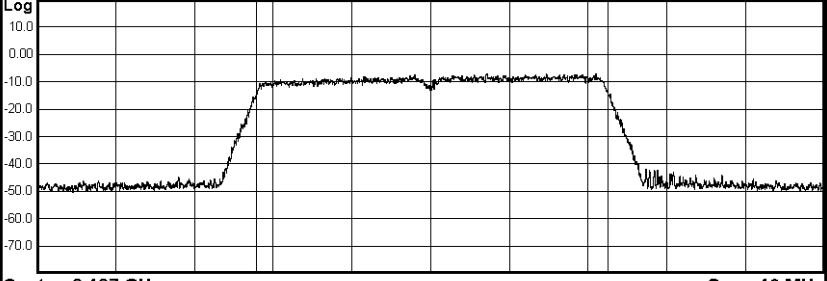
11N20SISO/LCH



Frequency

Center Freq
2.412000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz



11N20SISO/MCH	Agilent Spectrum Analyzer - Occupied BW RLRF50ΩACSENSE:INTALIGN AUTO04:00:04 PM Jul 02, 2021 Center Freq 2.462000000 GHzCenter Freq: 2.462000000 GHzRadio Std: None #IF Gain: Low#Atten: 30 dBAvg Hold: > 10/10Radio Device: BTS Ref Offset 8.05 dB 10 dB/div Log  Center 2.462 GHzSpan 40 MHz #Res BW 300 kHz#VBW 1 MHzSweep 1.067 ms Occupied Bandwidth 17.816 MHz Total Power 7.42 dBm Transmit Freq Error -92.863 kHz OBW Power 99.00 % x dB Bandwidth 17.68 MHz x dB -6.00 dB MSG STATUS	Frequency Center Freq 2.462000000 GHz CF Step 4.000000 MHz AutoMan Freq Offset 0 Hz
11N20SISO/HCH	Agilent Spectrum Analyzer - Occupied BW RLRF50ΩACSENSE:INTALIGN AUTO03:59:36 PM Jul 02, 2021 Center Freq 2.437000000 GHzCenter Freq: 2.437000000 GHzRadio Std: None #IF Gain: Low#Atten: 30 dBAvg Hold: > 10/10Radio Device: BTS Ref Offset 8.05 dB 10 dB/div Log  Center 2.437 GHzSpan 40 MHz #Res BW 300 kHz#VBW 1 MHzSweep 1.067 ms Occupied Bandwidth 17.810 MHz Total Power 8.18 dBm Transmit Freq Error 83.487 kHz OBW Power 99.00 % x dB Bandwidth 17.69 MHz x dB -6.00 dB MSG STATUS	Frequency Center Freq 2.437000000 GHz CF Step 4.000000 MHz AutoMan Freq Offset 0 Hz



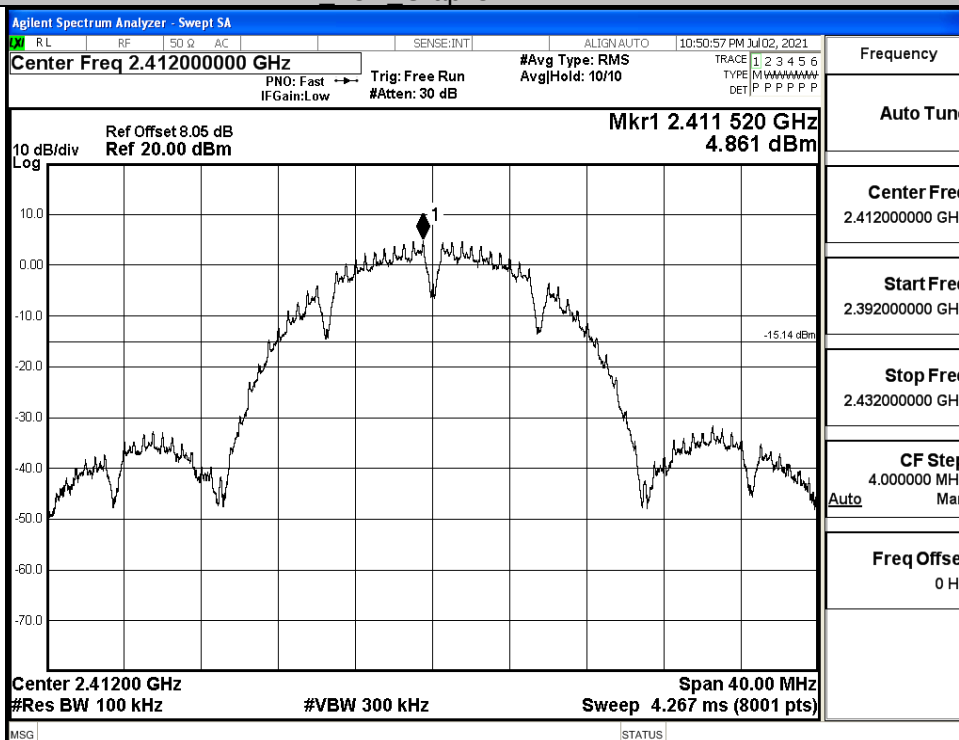
B.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.861	-37.800	-15.139	PASS
	MCH	2.07	-38.088	-17.930	PASS
	HCH	3.098	-37.883	-16.902	PASS
11G	LCH	-4.019	-38.198	-24.019	PASS
	MCH	-2.375	-37.804	-22.375	PASS
	HCH	-1.953	-37.677	-21.953	PASS
11N20 SISO	LCH	-3.35	-38.493	-23.350	PASS
	MCH	-2.29	-37.591	-22.290	PASS
	HCH	-1.786	-37.985	-21.786	PASS



11B LCH Graphs

Pref/11B/LCH

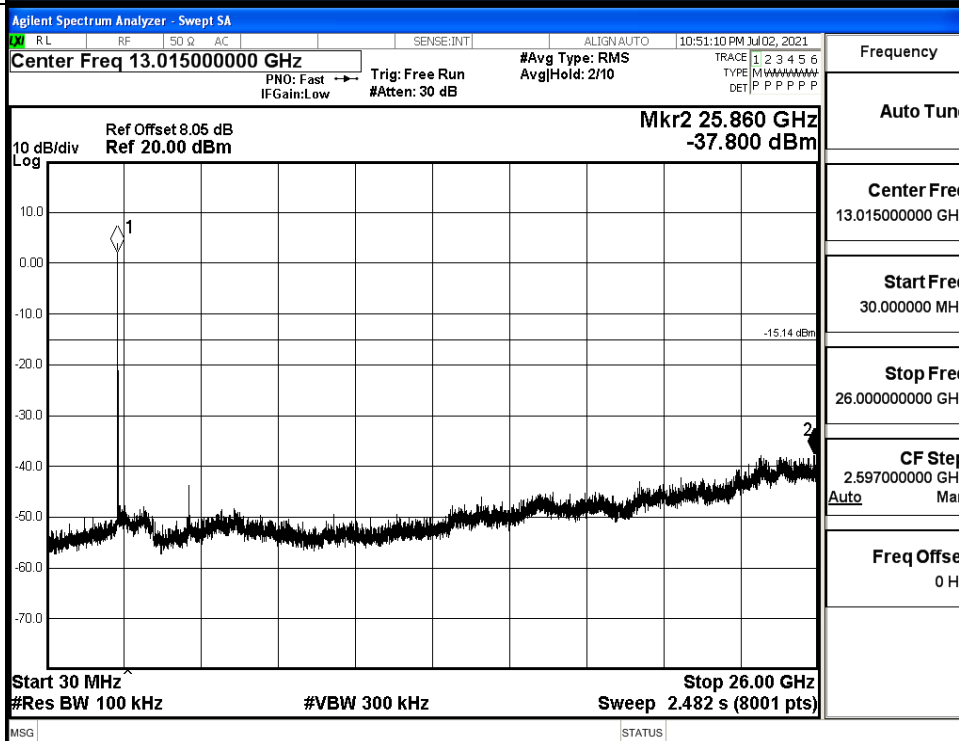


Frequency

Auto Tune

Center Freq
2.412000000 GHzStart Freq
2.392000000 GHzStop Freq
2.432000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

Puw/11B/LCH



Frequency

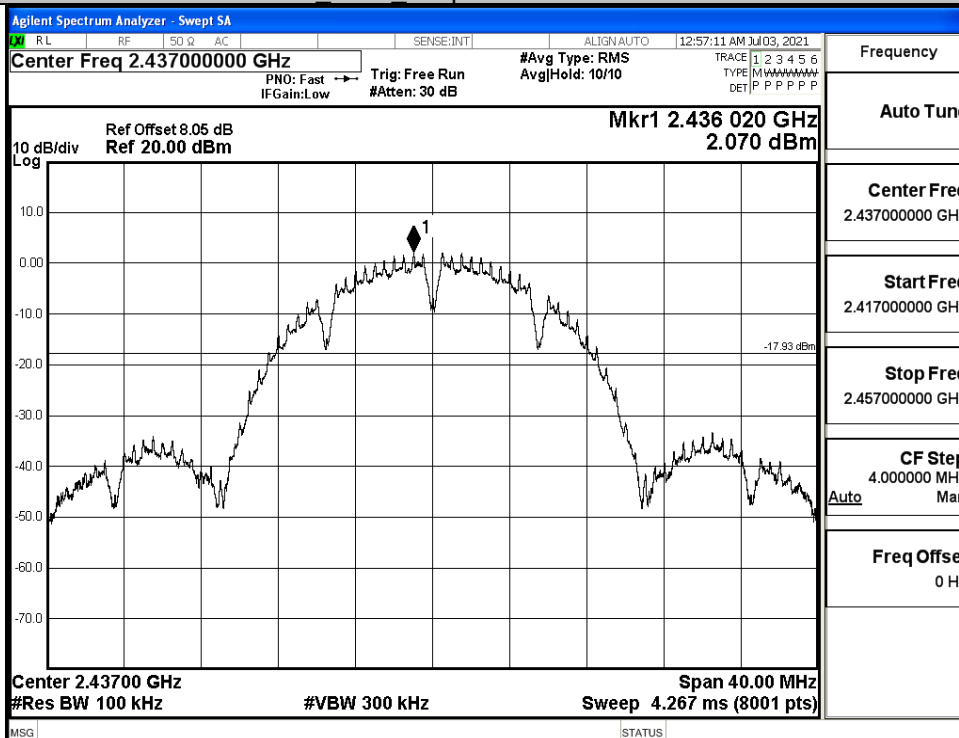
Auto Tune

Center Freq
13.015000000 GHzStart Freq
30.000000 MHzStop Freq
26.000000000 GHzCF Step
2.597000000 GHz
Auto ManFreq Offset
0 Hz

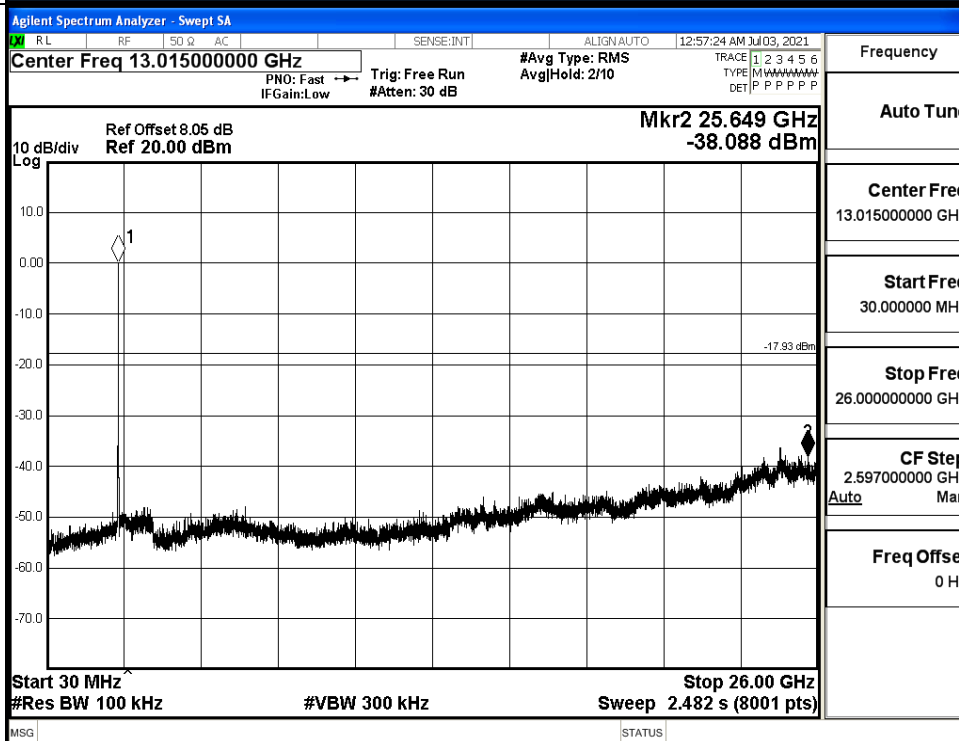


11B MCH Graphs

Pref/11B/MCH



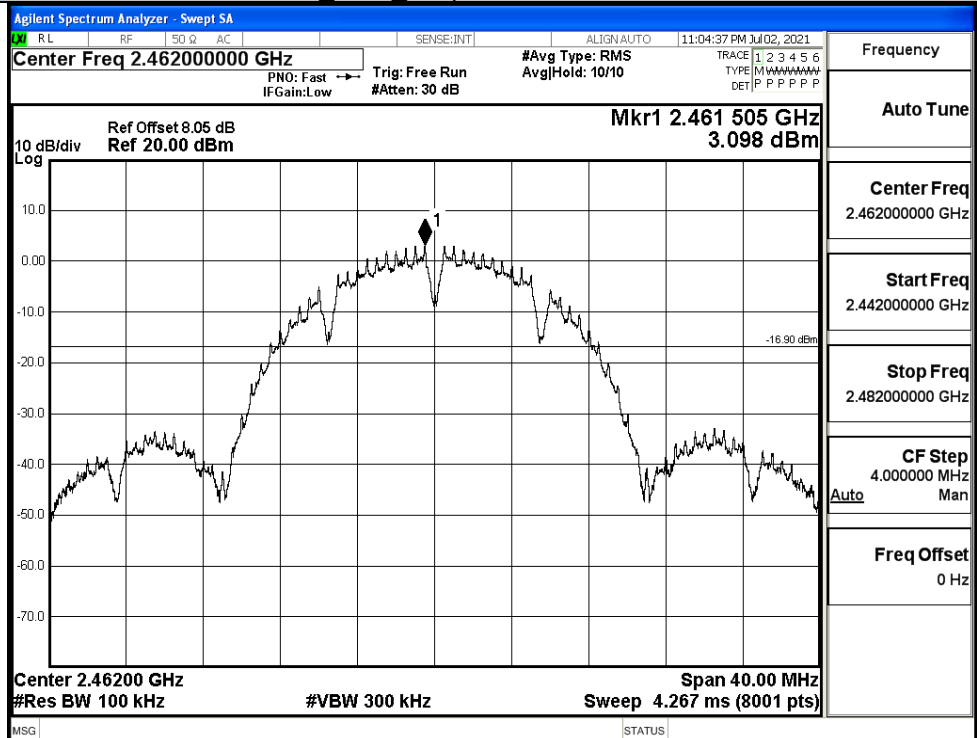
Puw/11B/MCH





11B HCH Graphs

Pref/11B/HCH



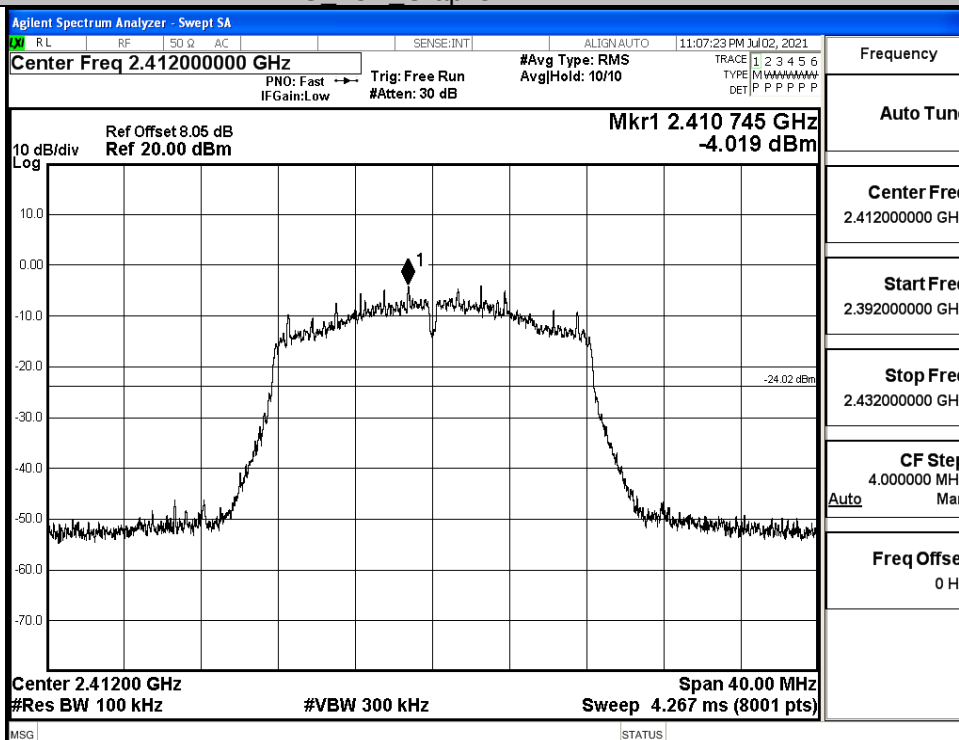
Puw/11B/HCH



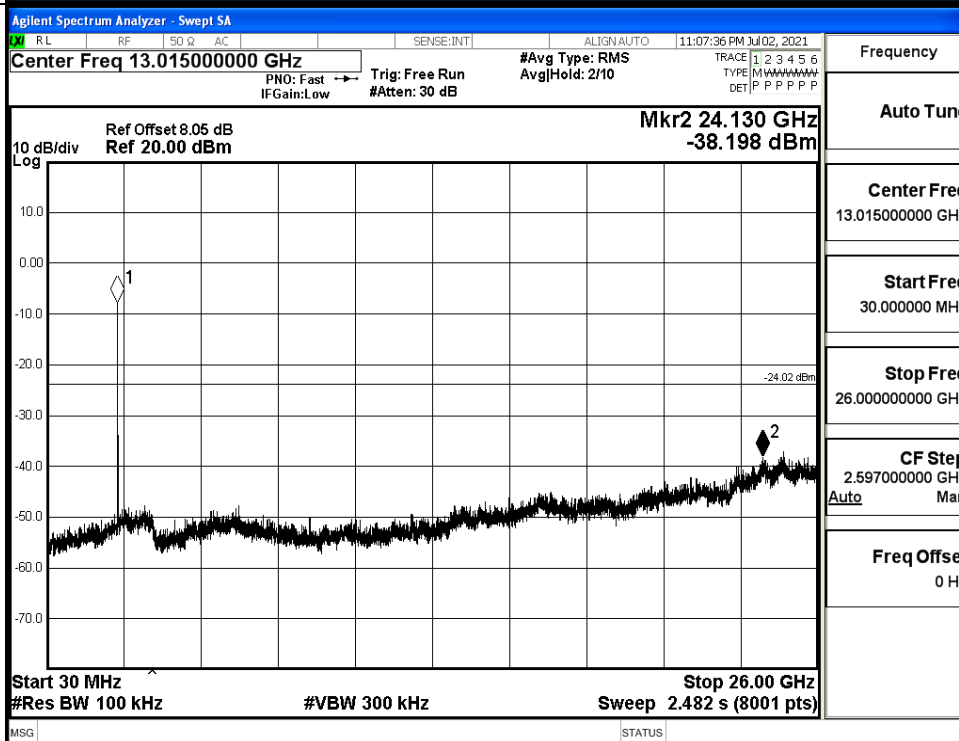


11G LCH Graphs

Pref/11G/LCH



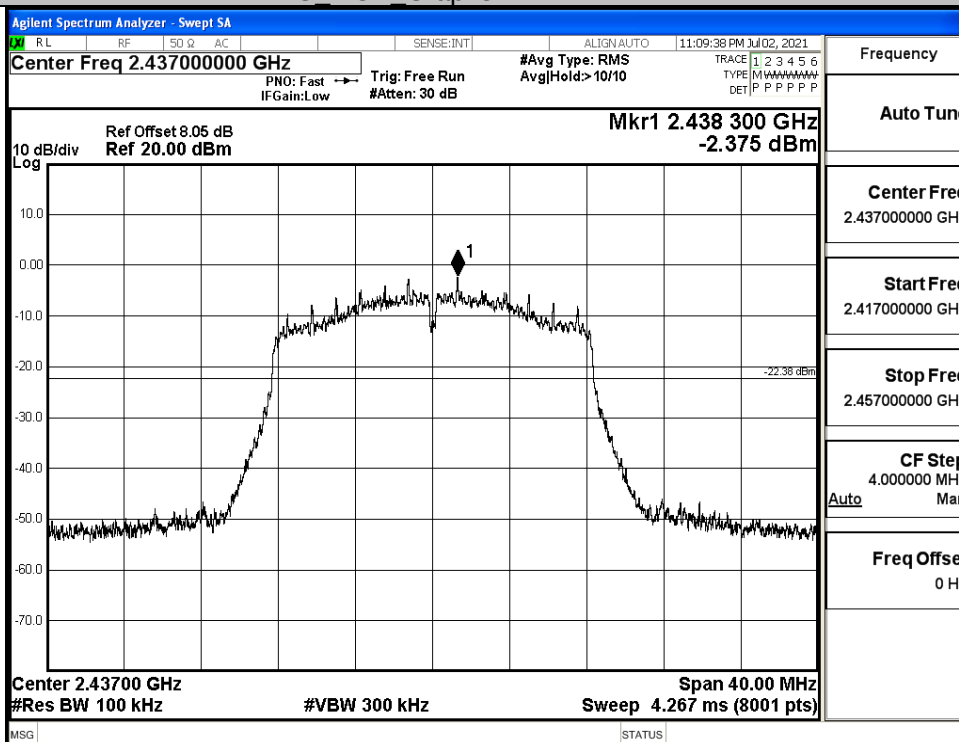
Puw/11G/LCH



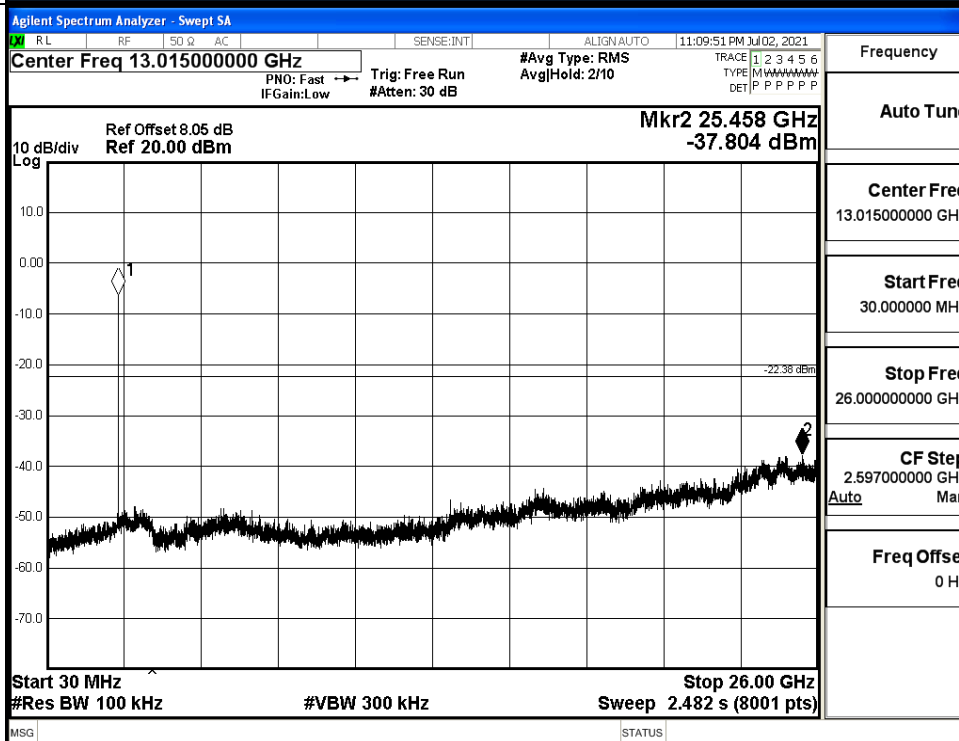


11G MCH Graphs

Pref/11G/MCH



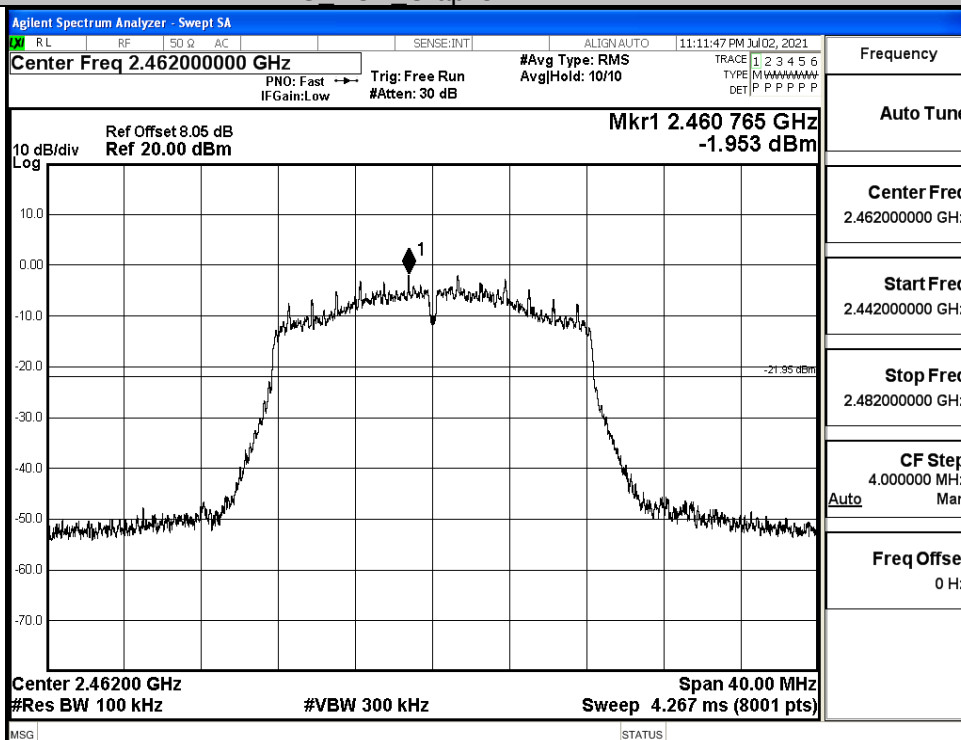
Puw/11G/MCH



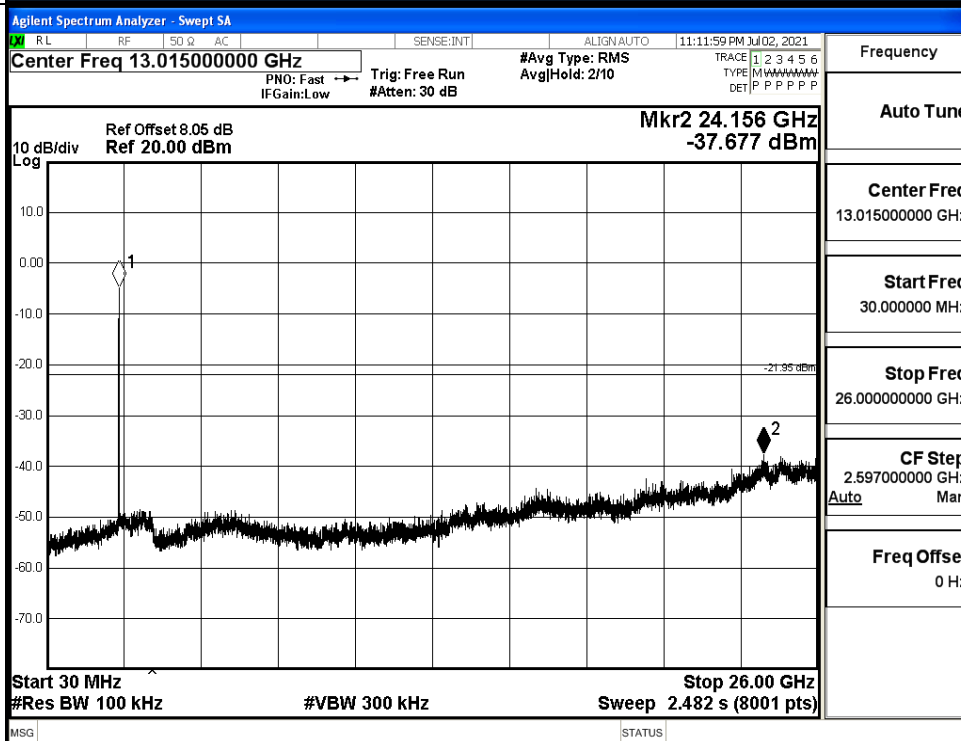


11G HCH Graphs

Pref/11G/HCH

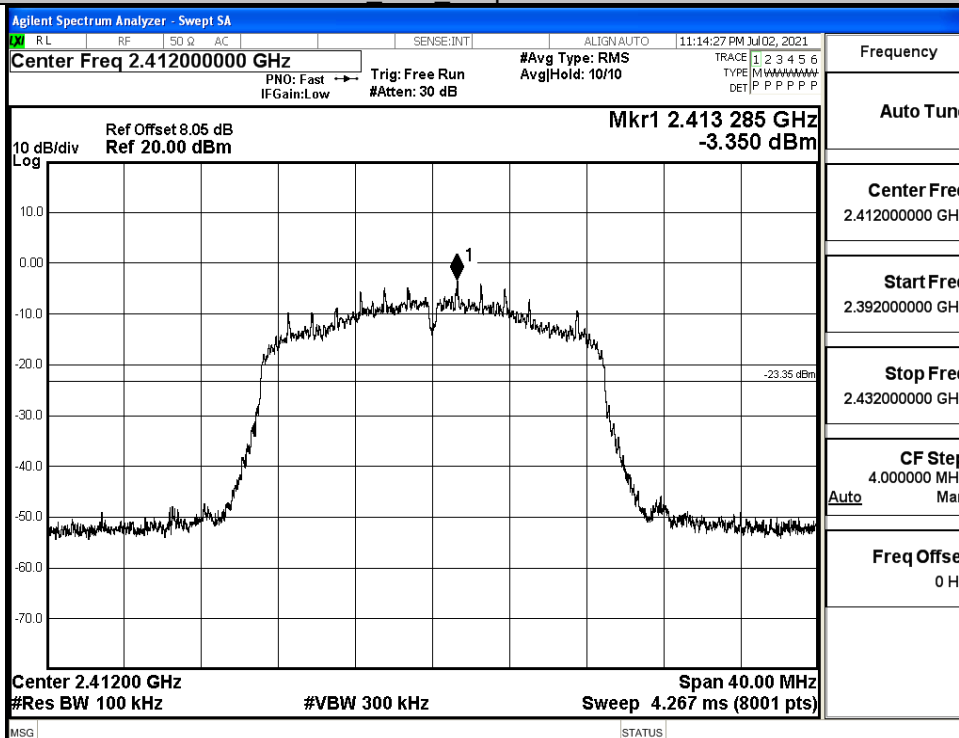
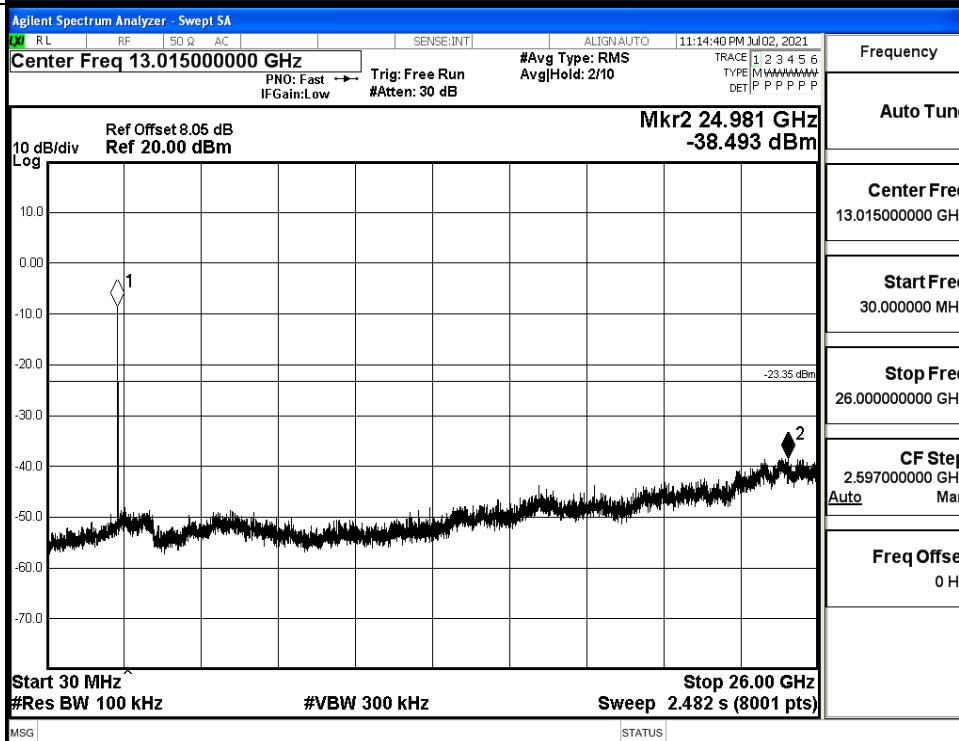


Puw/11G/HCH



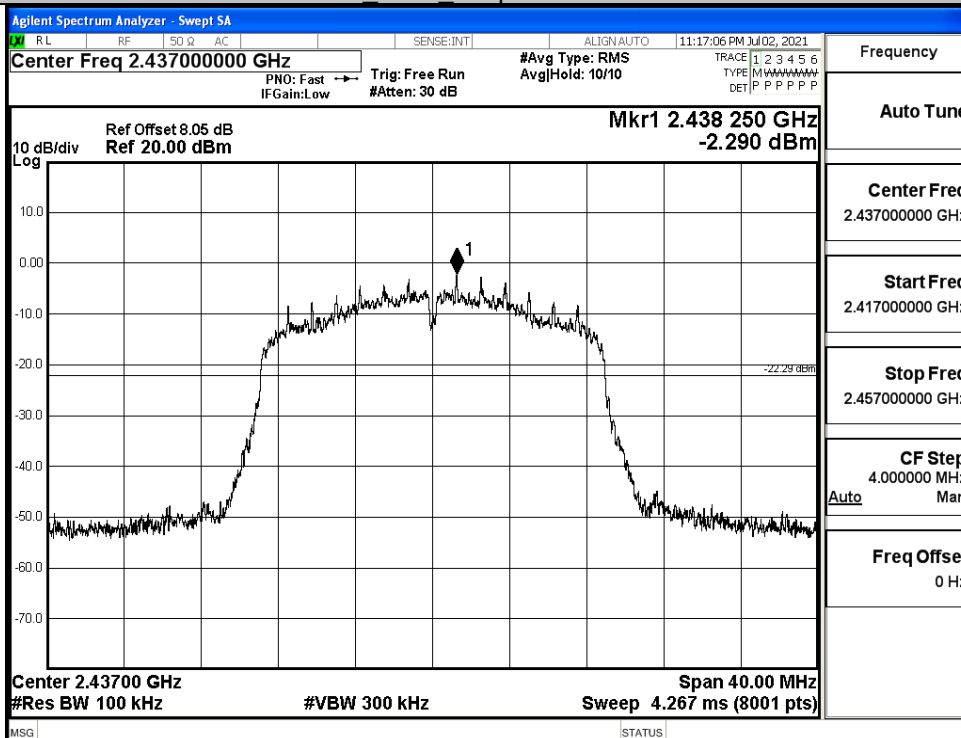
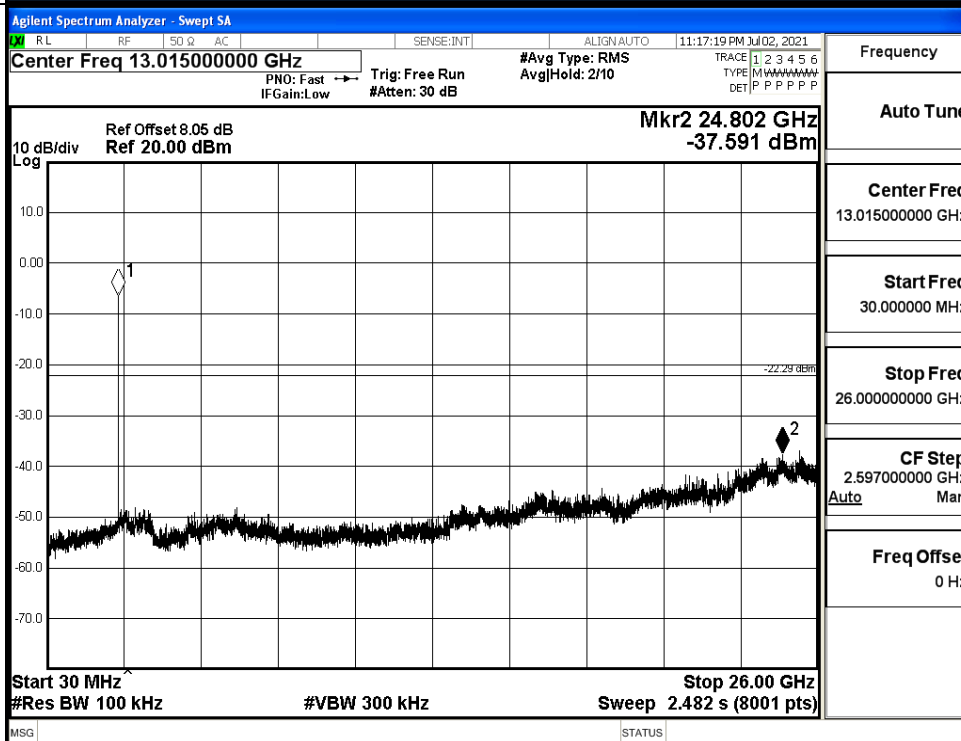


11N20SISO LCH Graphs

Pref/11N20SIS
O/LCHPuw/11N20
SISO/LCH

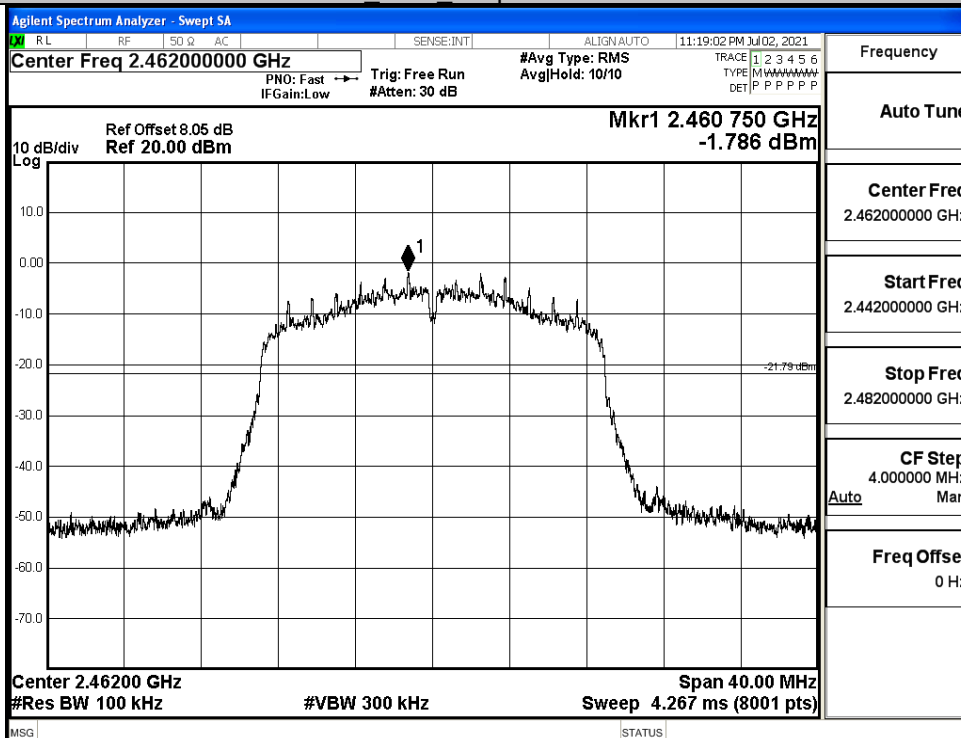
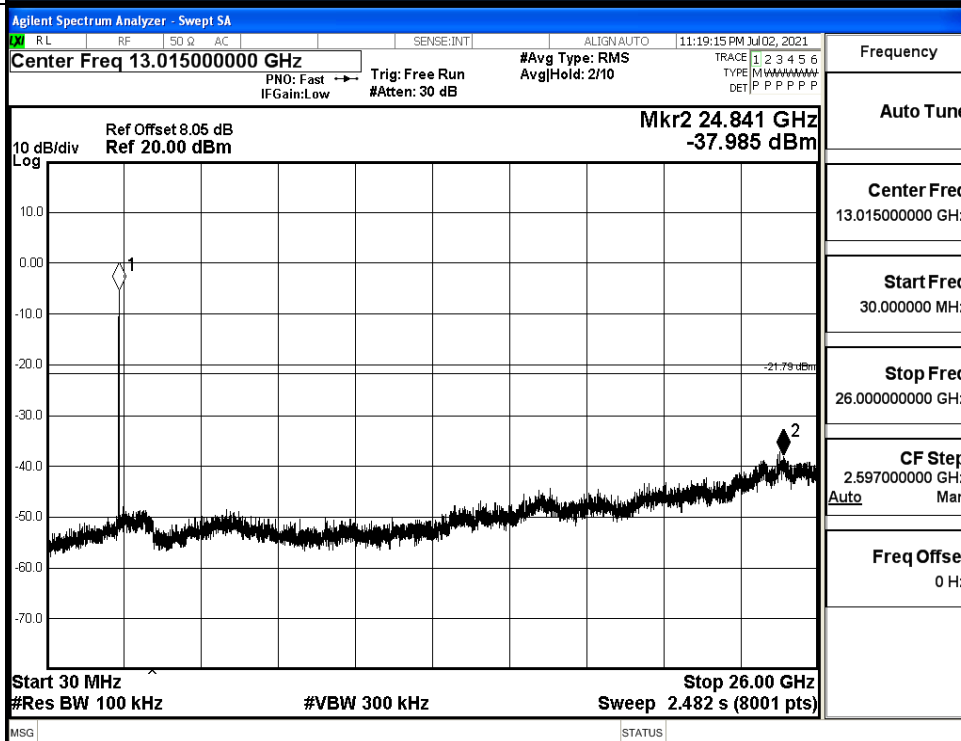


11N20SISO MCH Graphs

Pref/11N20
SISO/MCHPuw/11N20
SISO/MCH



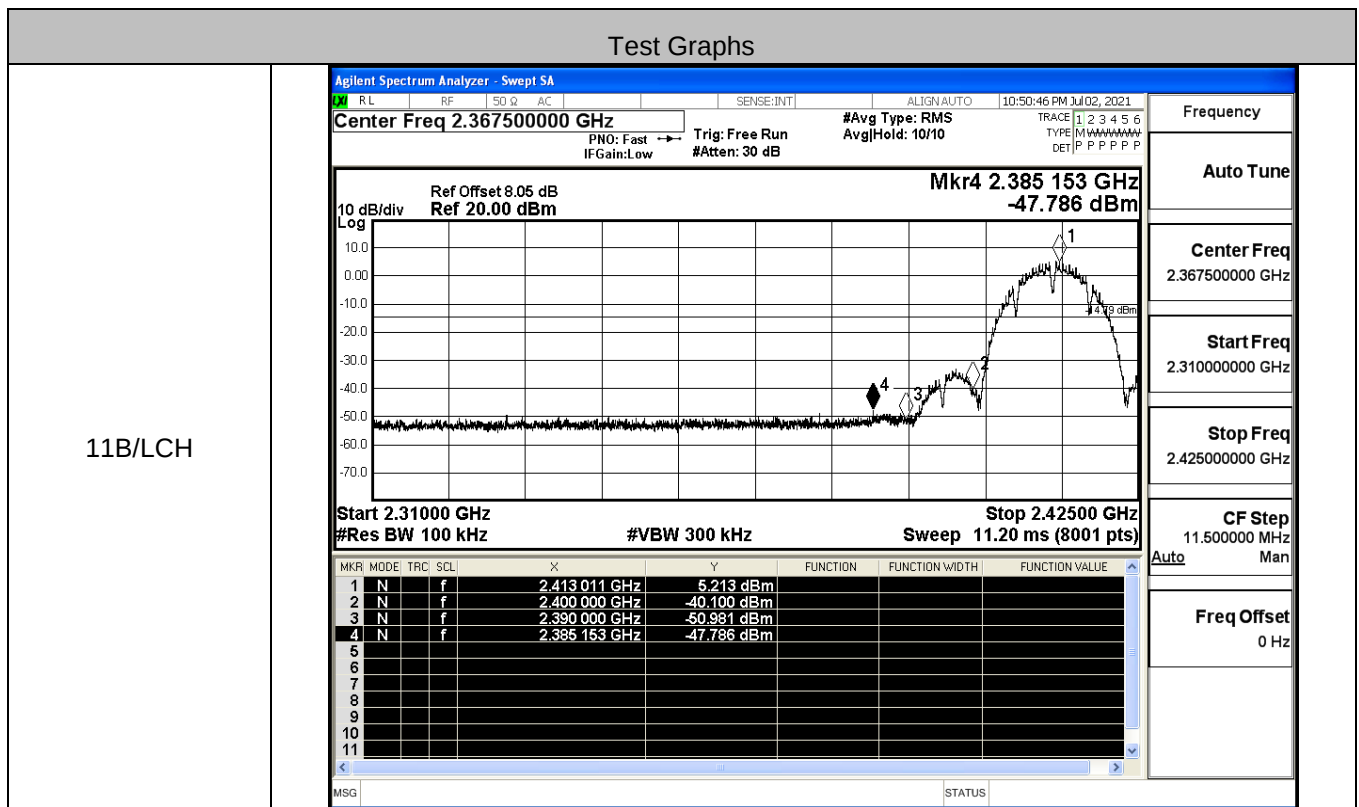
11N20SISO HCH Graphs

Pref/11N20
SISO/HCHPuw/11N20
SISO/HCH



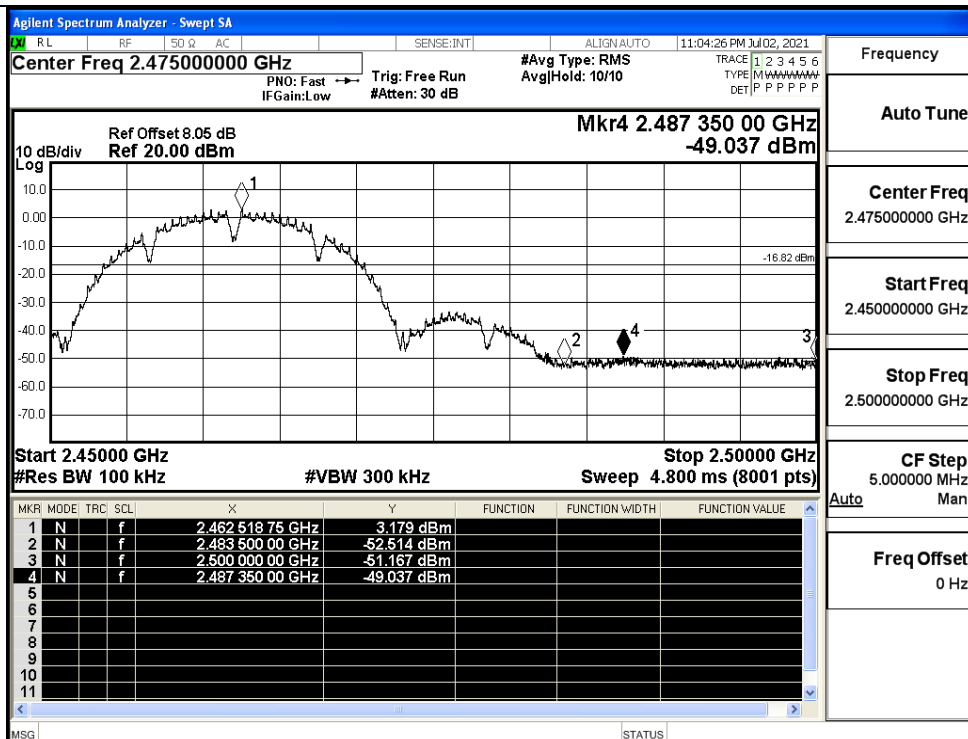
B.7 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	5.213	-47.786	-14.79	PASS
	HCH	3.179	-49.037	-16.82	PASS
11G	LCH	-4.274	-49.658	-24.27	PASS
	HCH	-1.419	-48.521	-21.42	PASS
11N20SISO	LCH	-4.219	-49.121	-24.22	PASS
	HCH	-1.892	-48.559	-21.89	PASS

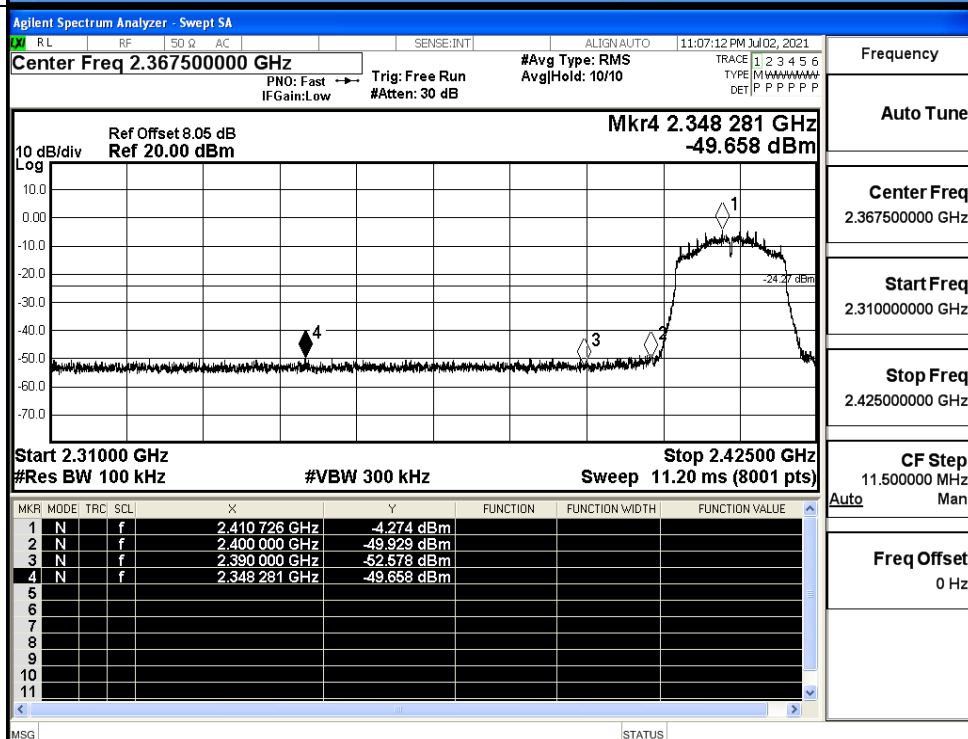




11B/HCH

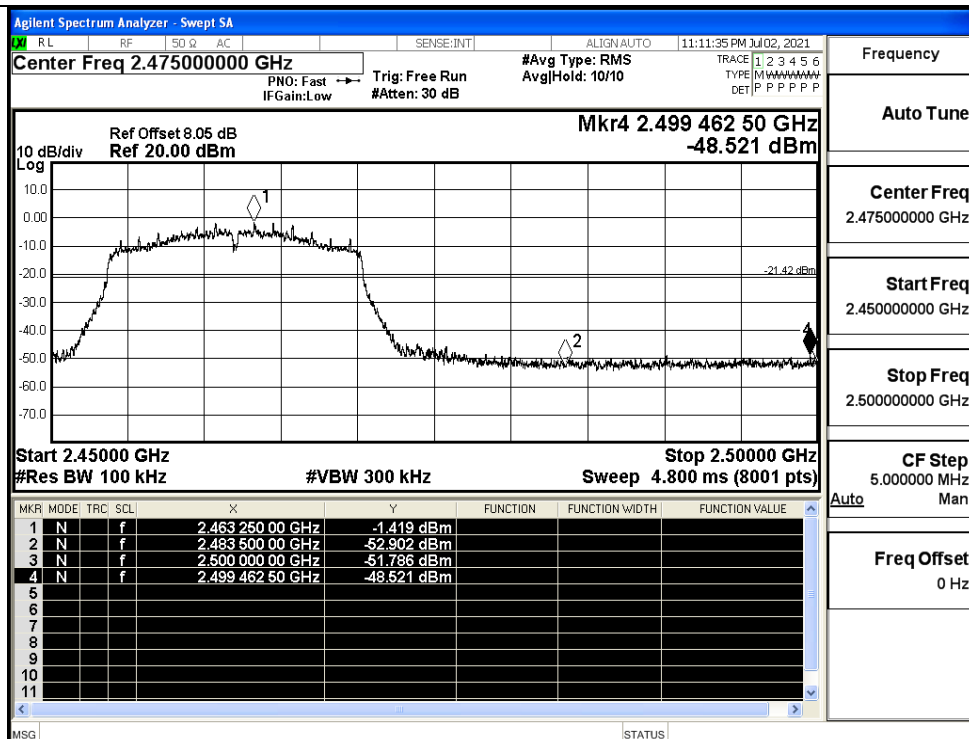


11G/LCH





11G/HCH



Frequency

Auto Tune

Center Freq
2.475000000 GHz

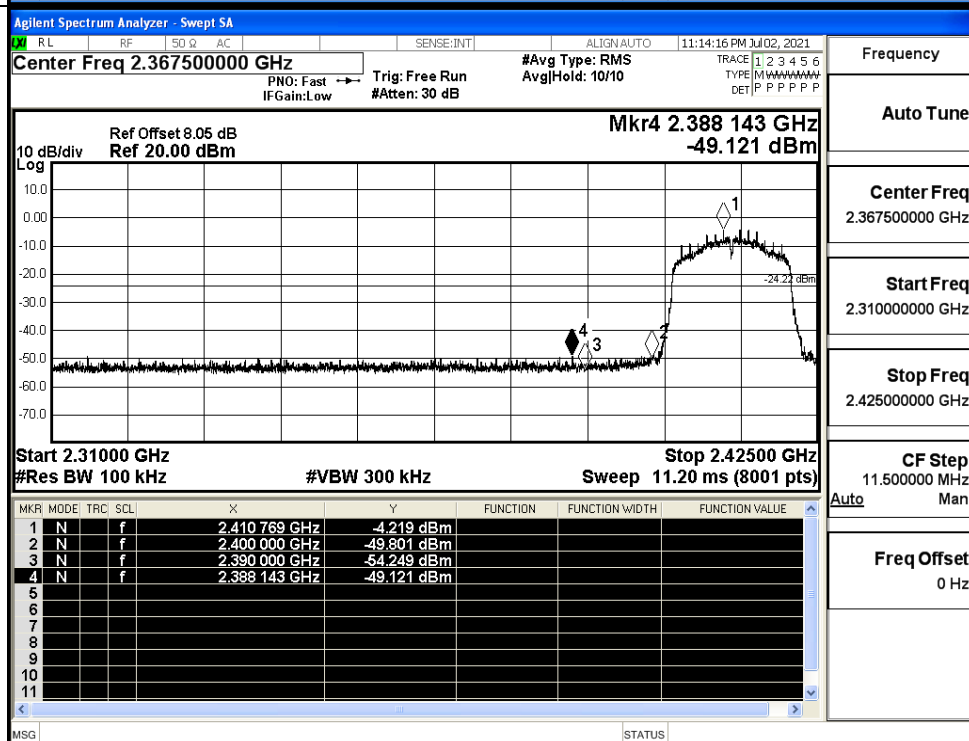
Start Freq
2.450000000 GHz

Stop Freq
2.500000000 GHz

CF Step
5.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/LCH



Frequency

Auto Tune

Center Freq
2.367500000 GHz

Start Freq
2.310000000 GHz

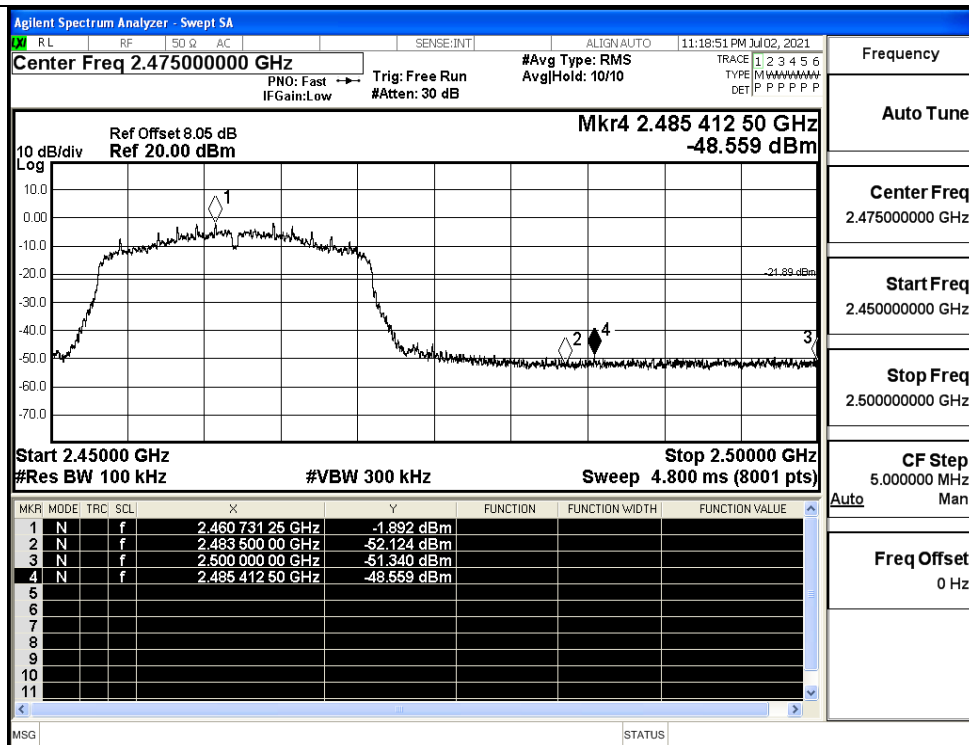
Stop Freq
2.425000000 GHz

CF Step
11.500000 MHz
Auto Man

Freq Offset
0 Hz



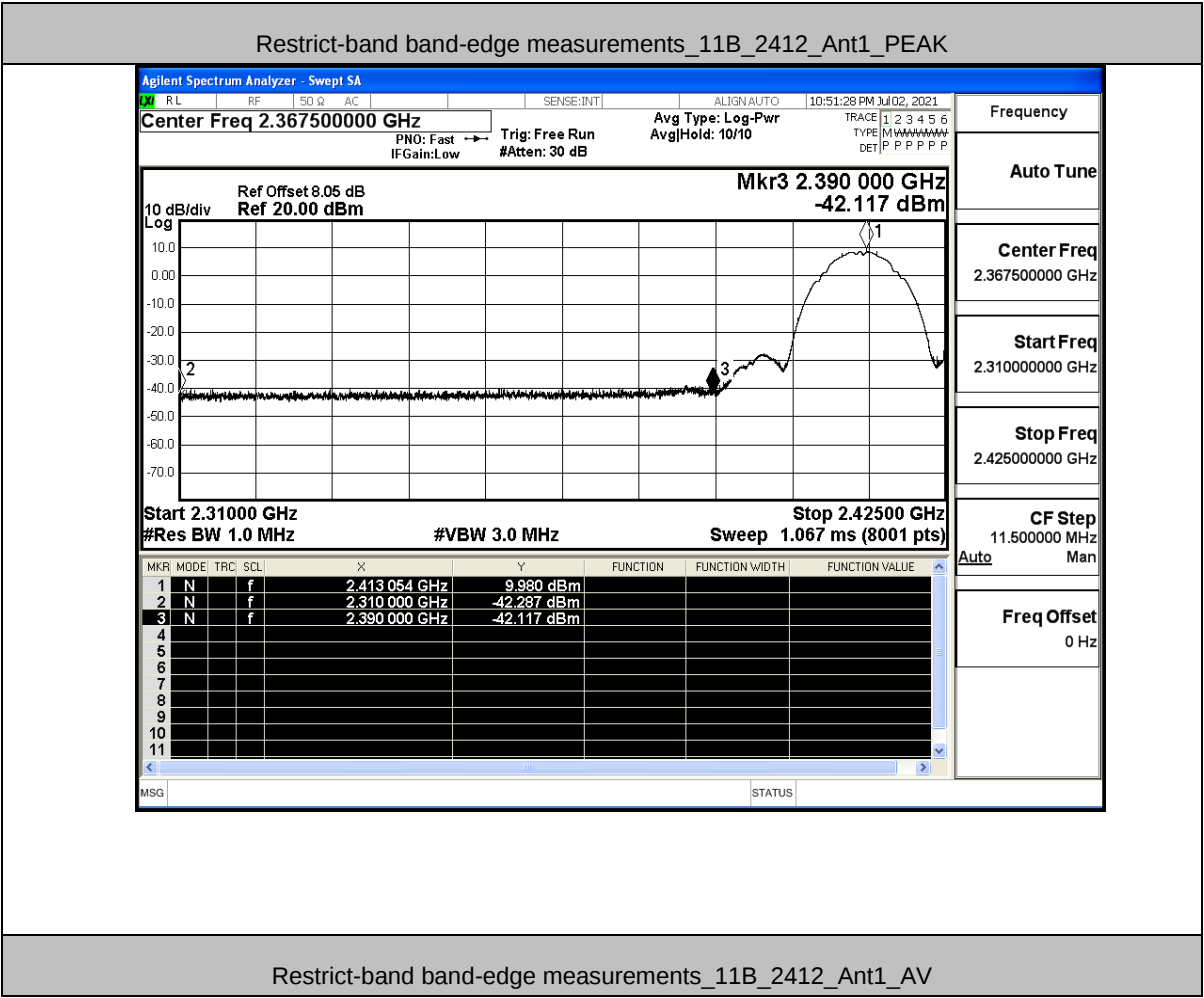
11N20SISO/HCH

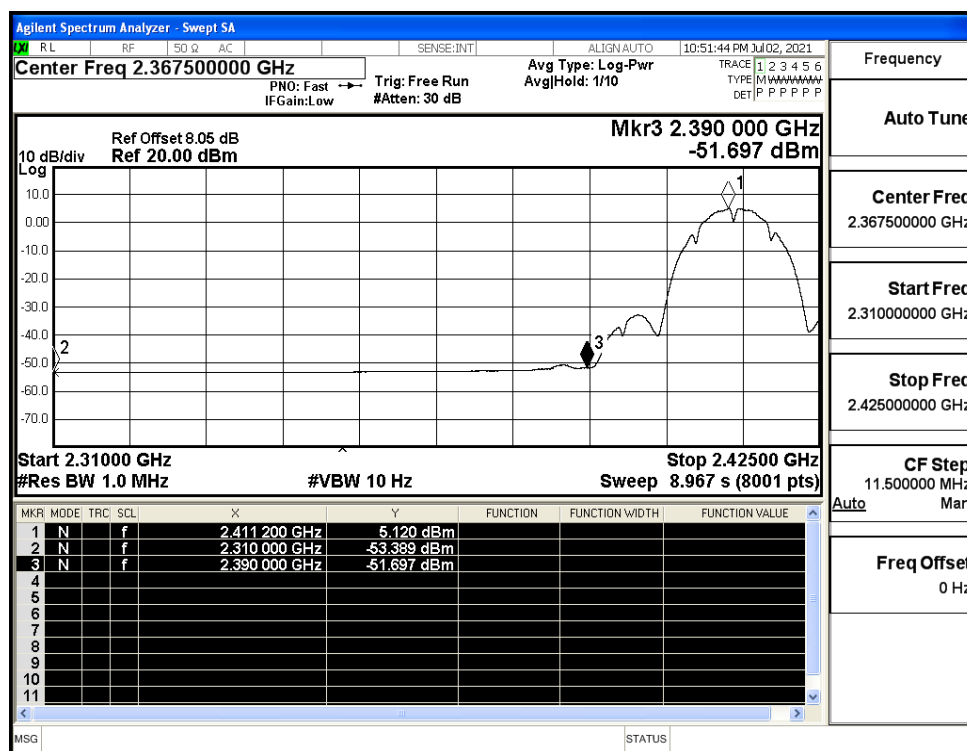




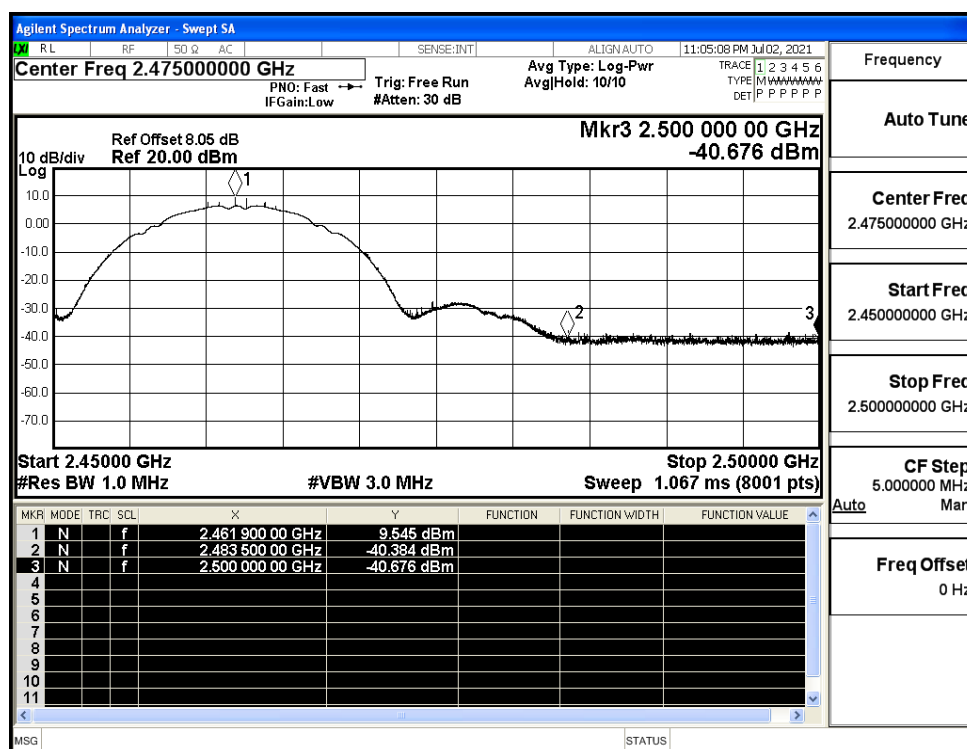
B.8 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-42.29	2.5	0	55.44	PEAK	74	PASS
	2412	Ant1	2310.0	-53.39	2.5	0	44.34	AV	54	PASS
	2412	Ant1	2390.0	-42.12	2.5	0	55.61	PEAK	74	PASS
	2412	Ant1	2390.0	-51.70	2.5	0	46.03	AV	54	PASS
	2462	Ant1	2483.5	-40.38	2.5	0	57.35	PEAK	74	PASS
	2462	Ant1	2483.5	-52.01	2.5	0	45.72	AV	54	PASS
	2462	Ant1	2500.0	-40.68	2.5	0	57.05	PEAK	74	PASS
	2462	Ant1	2500.0	-52.11	2.5	0	45.62	AV	54	PASS
11G	2412	Ant1	2310.0	-43.32	2.5	0	54.41	PEAK	74	PASS
	2412	Ant1	2310.0	-53.48	2.5	0	44.25	AV	54	PASS
	2412	Ant1	2390.0	-40.93	2.5	0	56.80	PEAK	74	PASS
	2412	Ant1	2390.0	-53.02	2.5	0	44.71	AV	54	PASS
	2462	Ant1	2483.5	-41.52	2.5	0	56.21	PEAK	74	PASS
	2462	Ant1	2483.5	-52.32	2.5	0	45.41	AV	54	PASS
	2462	Ant1	2500.0	-41.37	2.5	0	56.36	PEAK	74	PASS
	2462	Ant1	2500.0	-52.00	2.5	0	45.73	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-42.68	2.5	0	55.05	PEAK	74	PASS
	2412	Ant1	2310.0	-53.52	2.5	0	44.21	AV	54	PASS
	2412	Ant1	2390.0	-42.16	2.5	0	55.57	PEAK	74	PASS
	2412	Ant1	2390.0	-53.01	2.5	0	44.72	AV	54	PASS
	2462	Ant1	2483.5	-42.42	2.5	0	55.31	PEAK	74	PASS
	2462	Ant1	2483.5	-52.29	2.5	0	45.44	AV	54	PASS
	2462	Ant1	2500.0	-41.72	2.5	0	56.01	PEAK	74	PASS
	2462	Ant1	2500.0	-52.02	2.5	0	45.71	AV	54	PASS

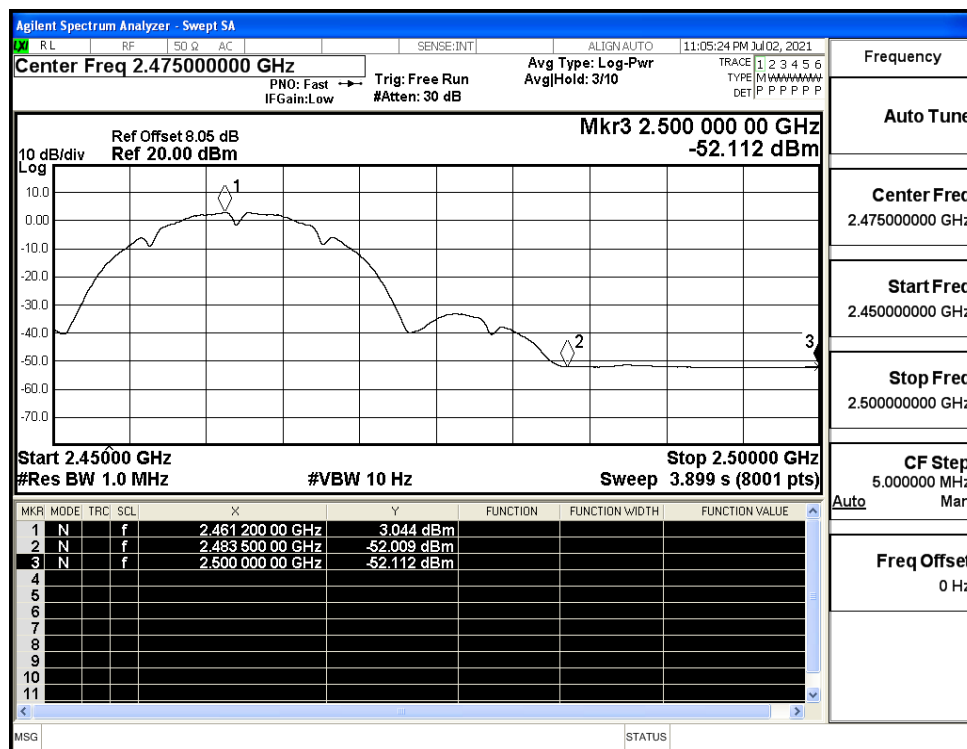




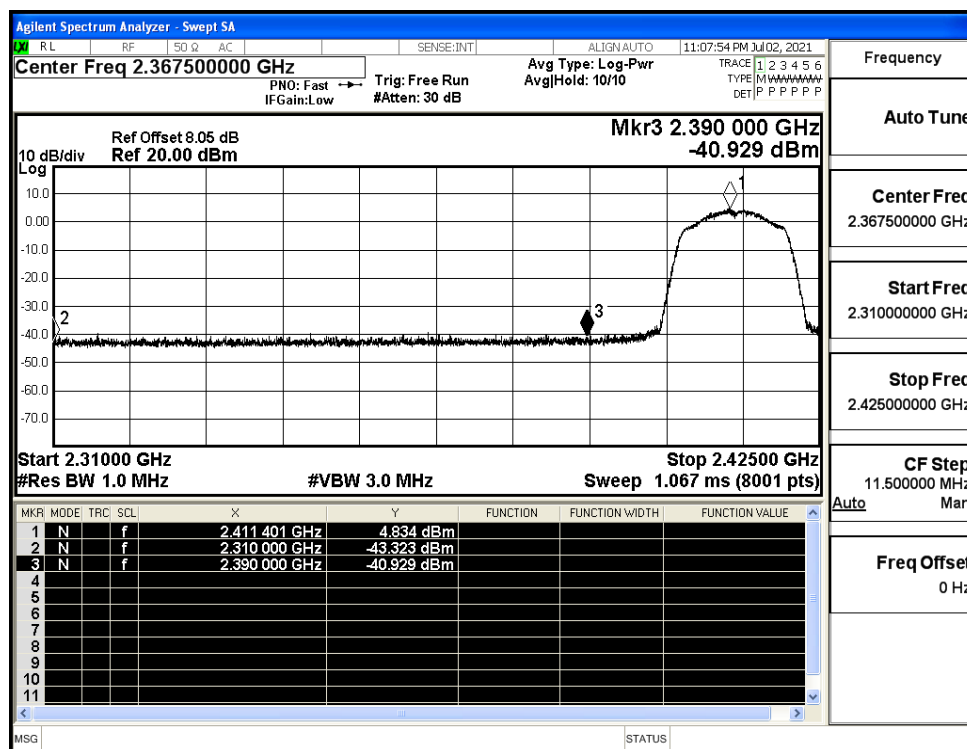
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



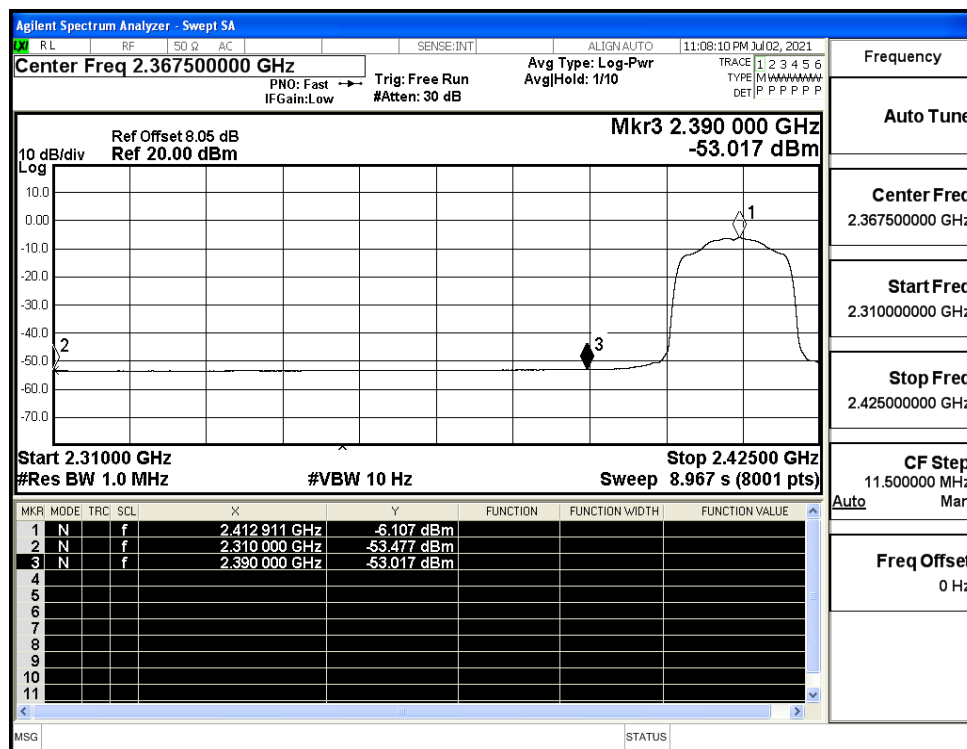
Restrict-band band-edge measurements_11B_2462_Ant1_AV



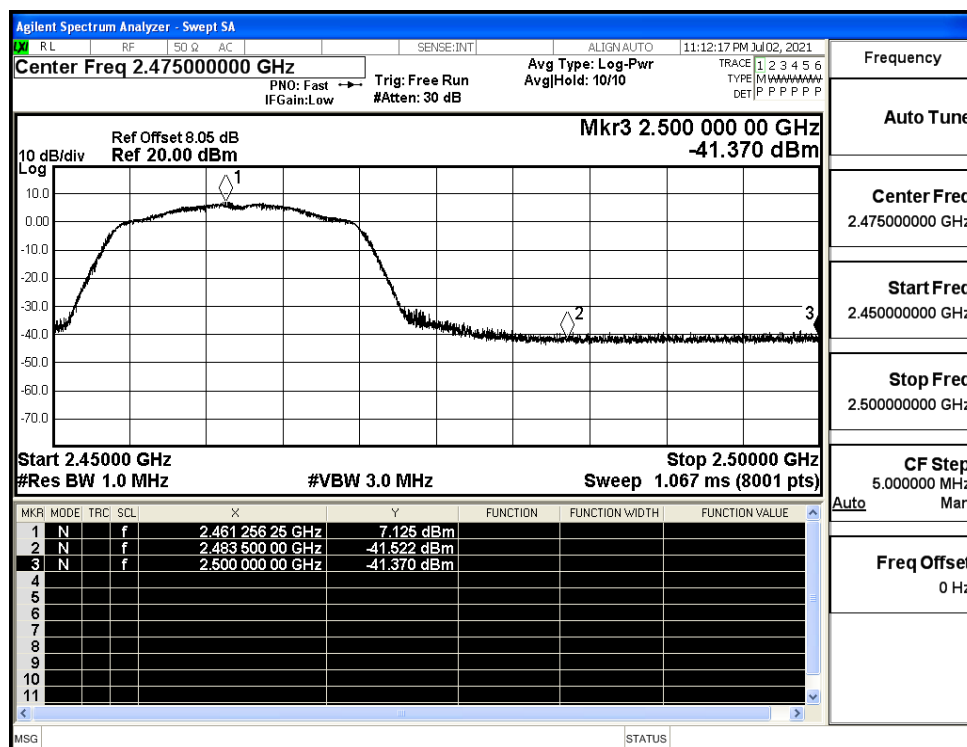
Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



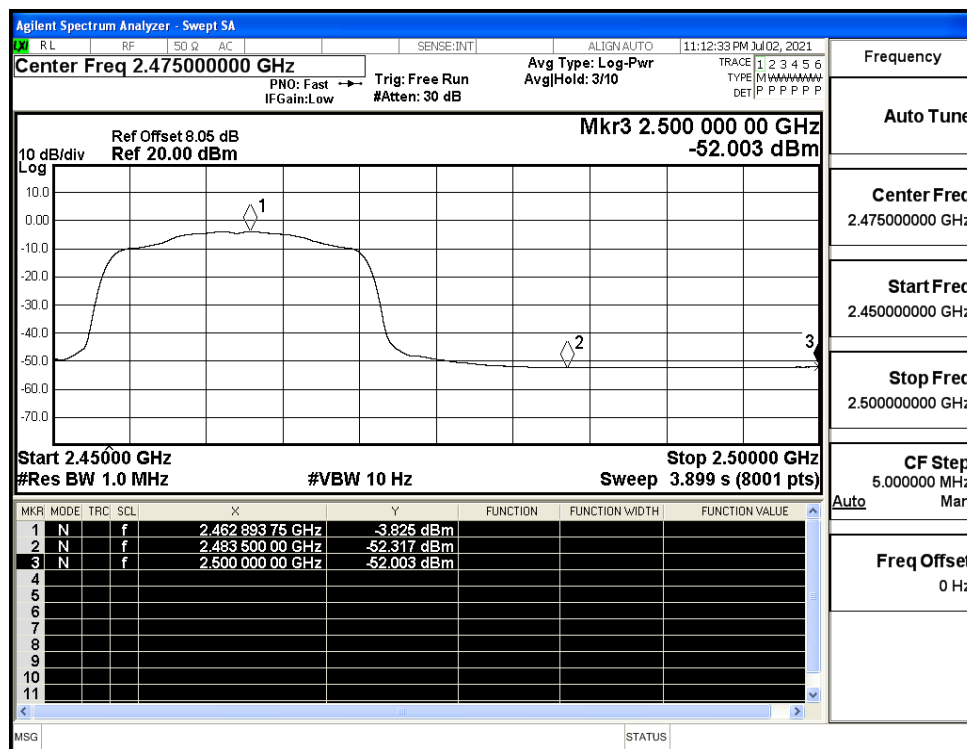
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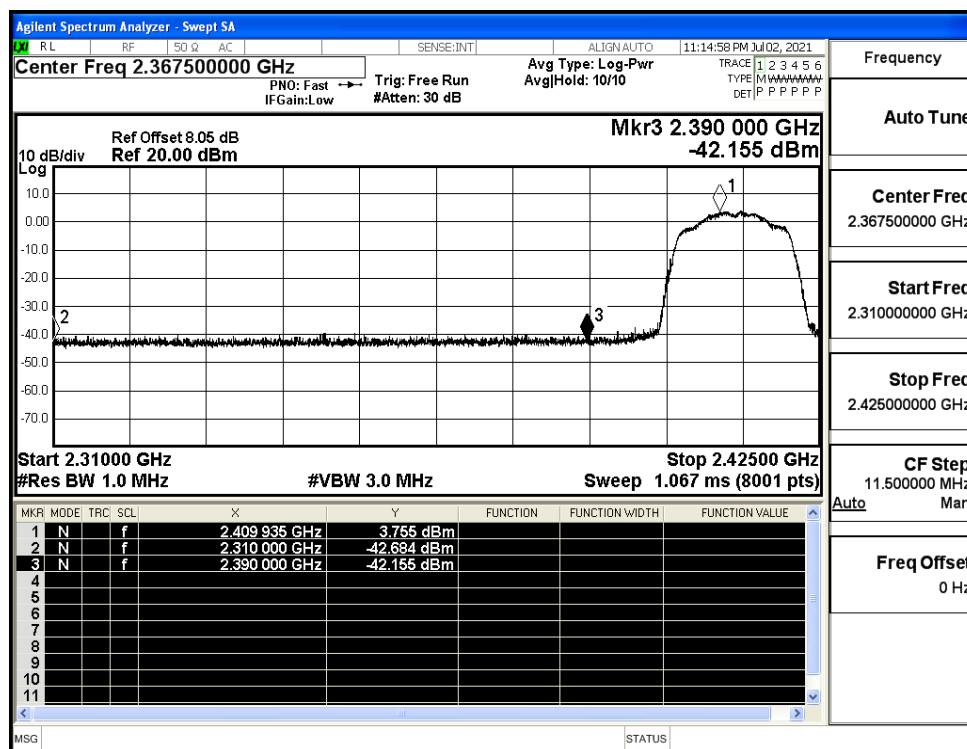
Restrict-band band-edge measurements_11G_2462_Ant1_PEAK



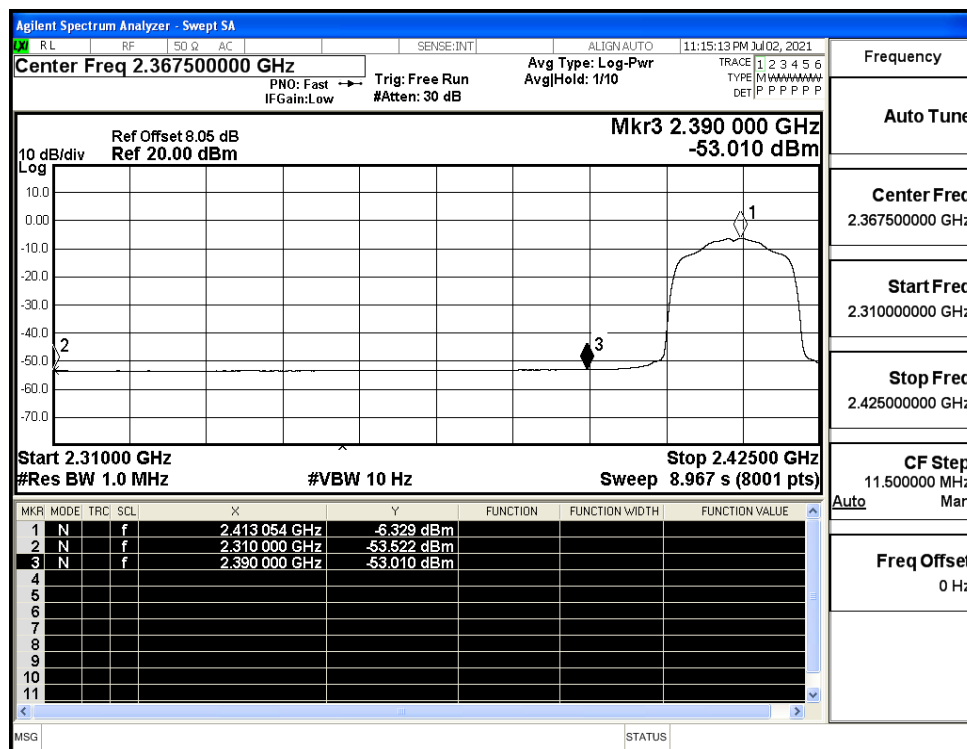
Restrict-band band-edge measurements_11G_2462_Ant1_AV



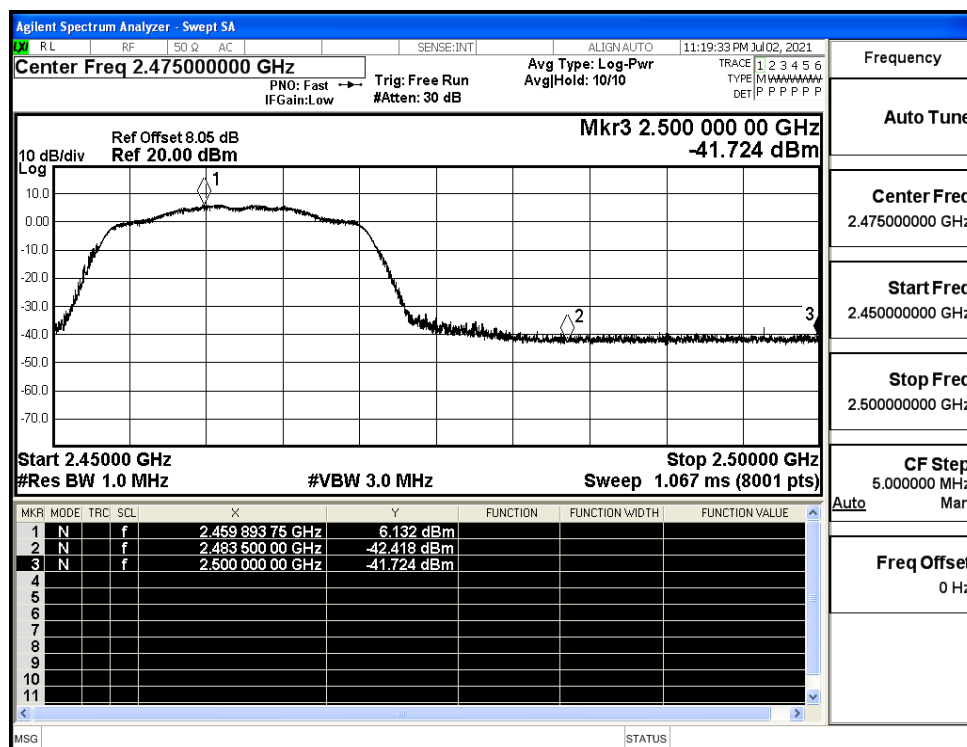
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



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

