

Appendix A
RF Test Data for 2.4G WIFI (Conducted Measurement)
Product Name: Screen Caster
Trade Mark: N/A
Test Model: 30254

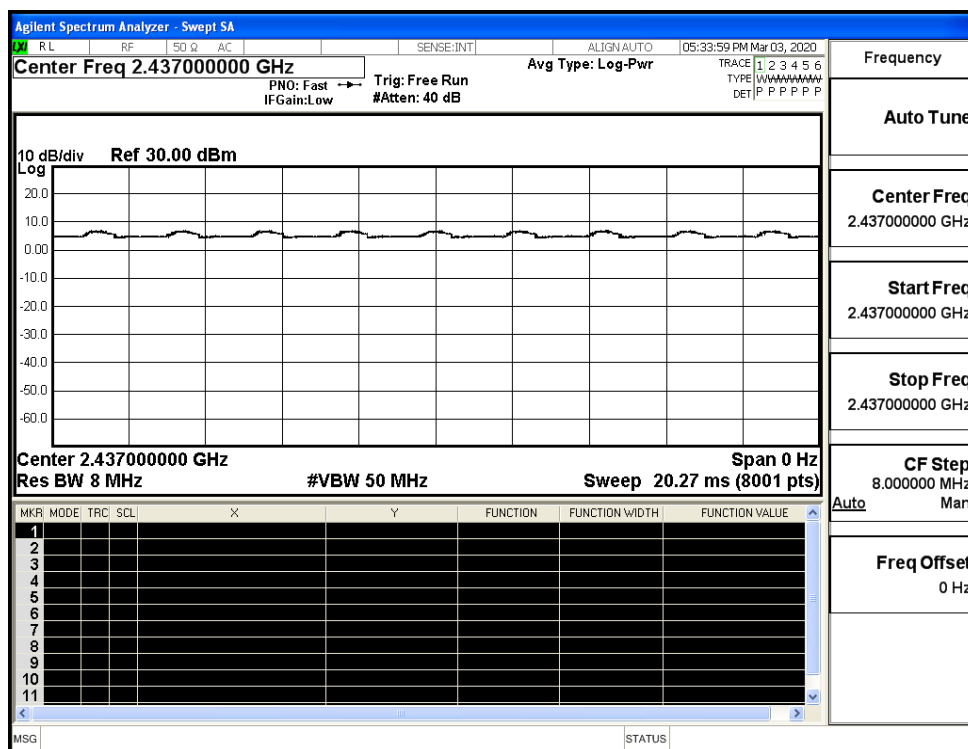
Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom Liu
Supervised by:	Tom Liu

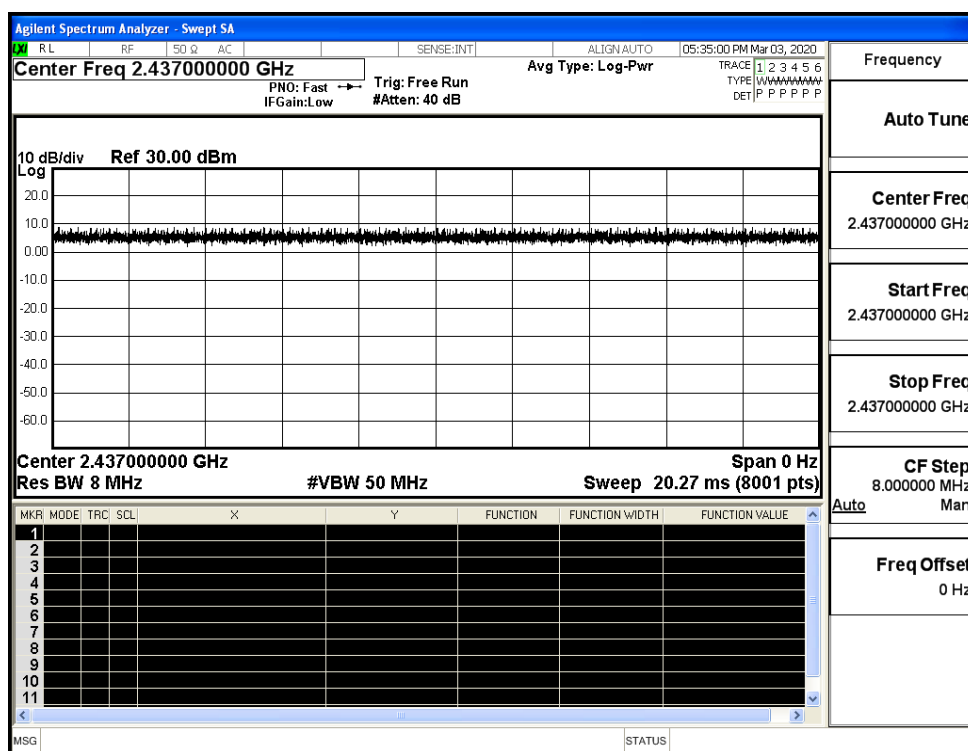
A.1 Duty Cycle

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

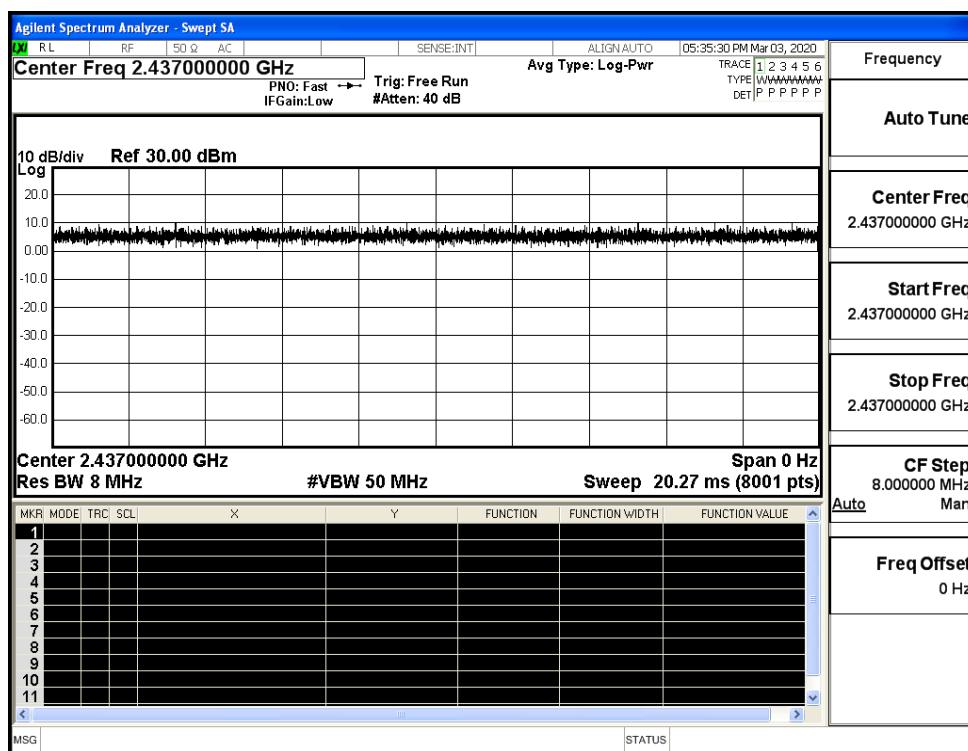
Duty Cycle_11B_2437_Ant1



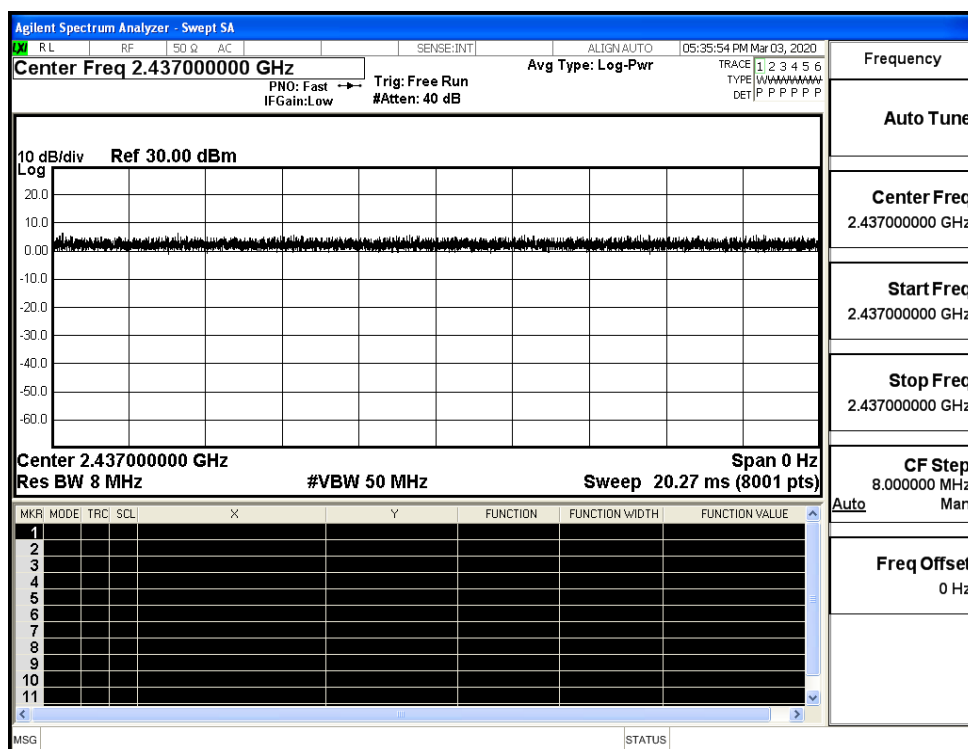
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



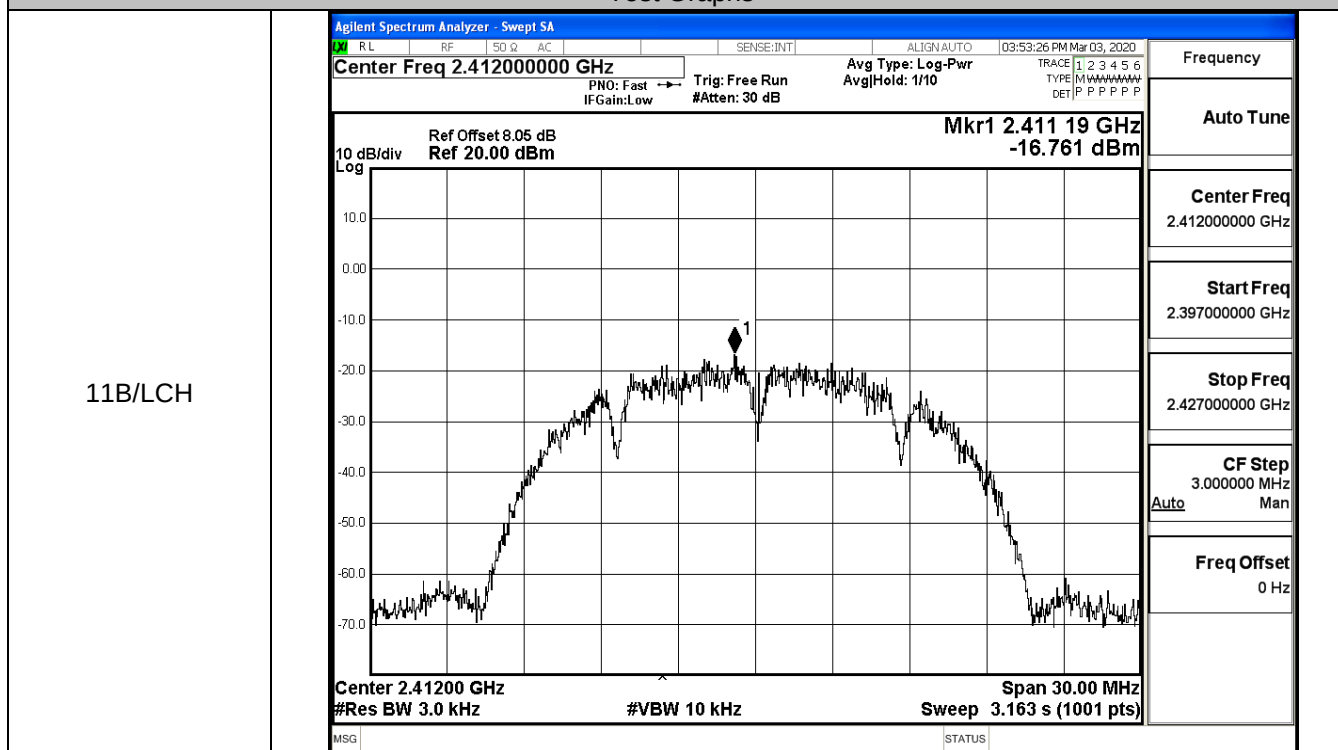
A.2 Maximum Conducted Output Power

Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	8.11	30	PASS
	MCH	8.68	30	PASS
	HCH	7.98	30	PASS
11G	LCH	8.46	30	PASS
	MCH	8.43	30	PASS
	HCH	8.56	30	PASS
11N20SISO	LCH	8.76	30	PASS
	MCH	8.55	30	PASS
	HCH	6.97	30	PASS
11N40SISO	LCH	8.47	30	PASS
	MCH	8.86	30	PASS
	HCH	8.77	30	PASS

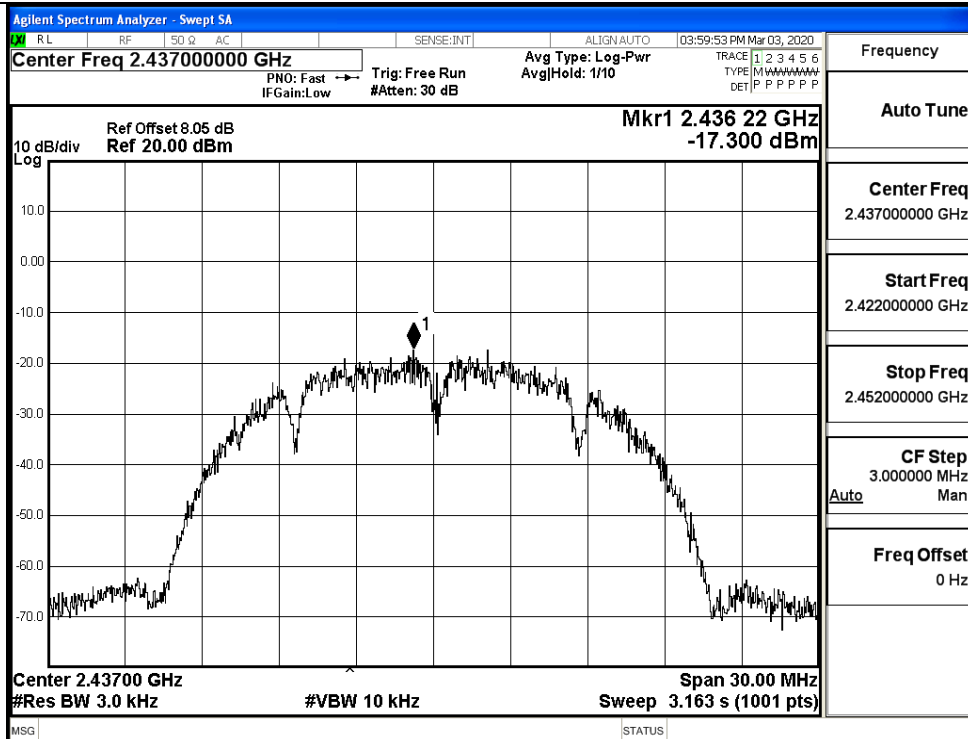
A.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-16.761	8	PASS
	MCH	-17.300	8	PASS
	HCH	-17.193	8	PASS
11G	LCH	-21.994	8	PASS
	MCH	-22.001	8	PASS
	HCH	-21.561	8	PASS
11N20SISO	LCH	-21.258	8	PASS
	MCH	-21.447	8	PASS
	HCH	-22.950	8	PASS
11N40SISO	LCH	-26.634	8	PASS
	MCH	-24.402	8	PASS
	HCH	-25.256	8	PASS

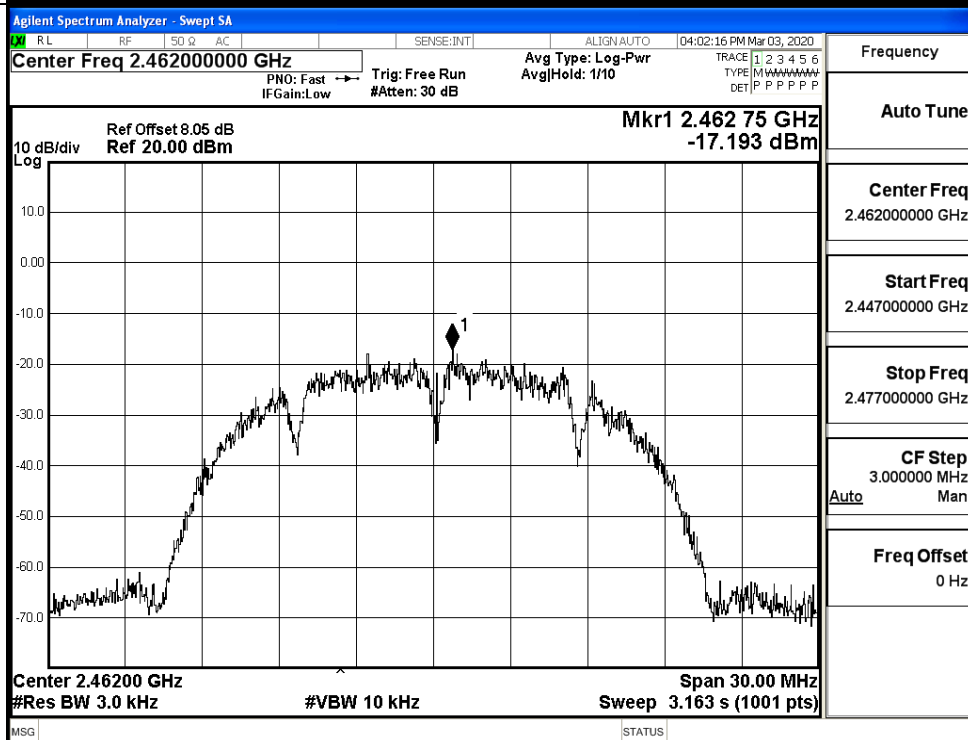
Test Graphs



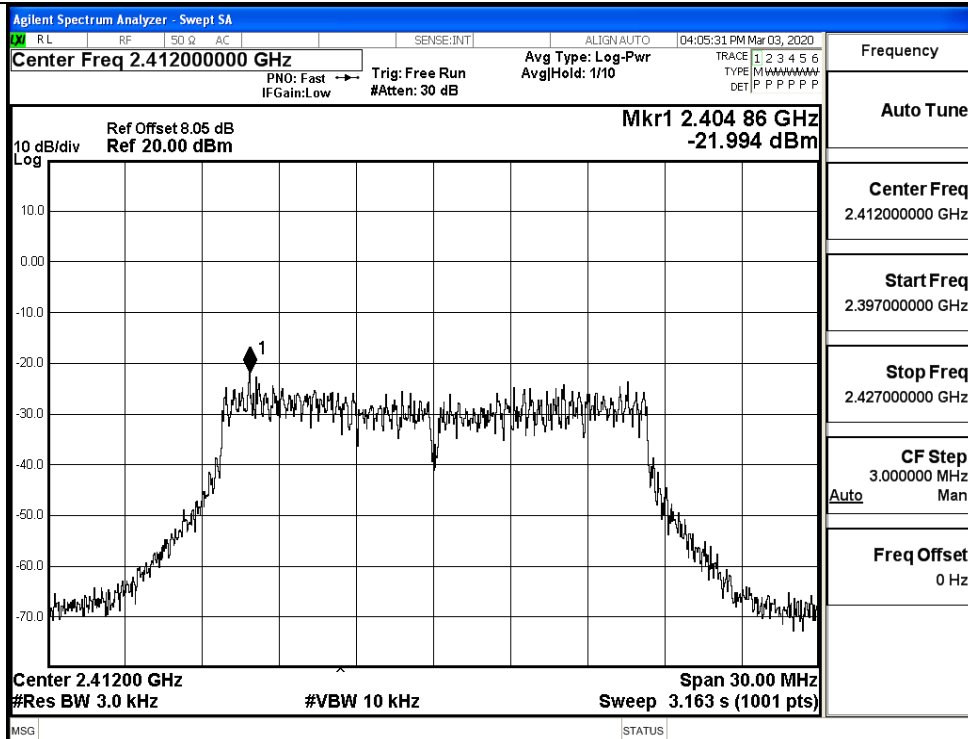
11B/MCH



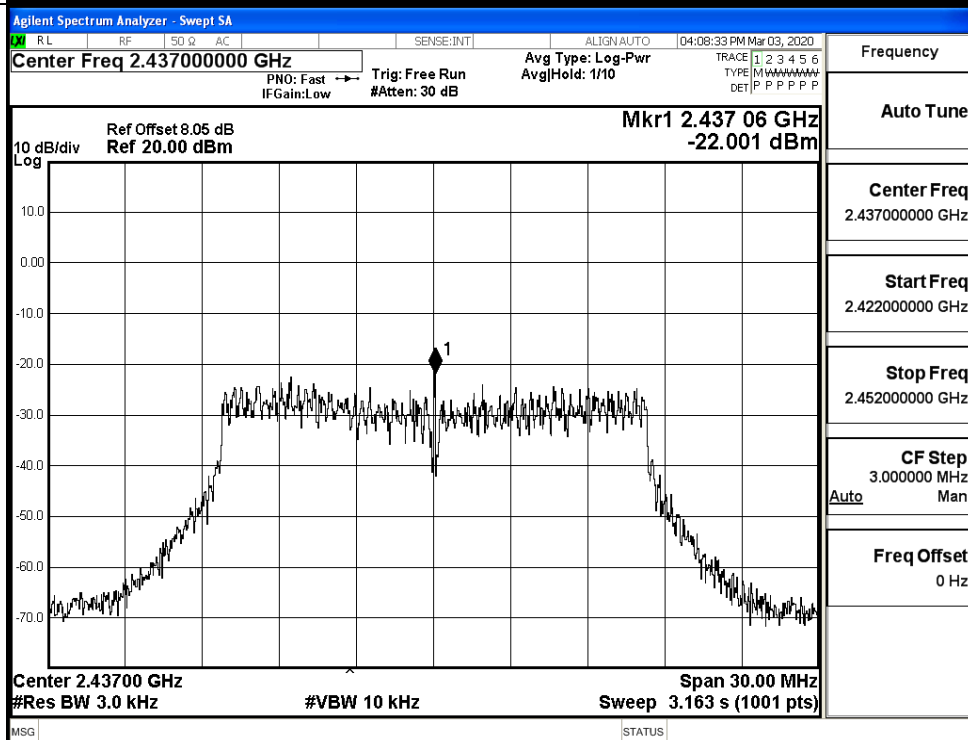
11B/HCH



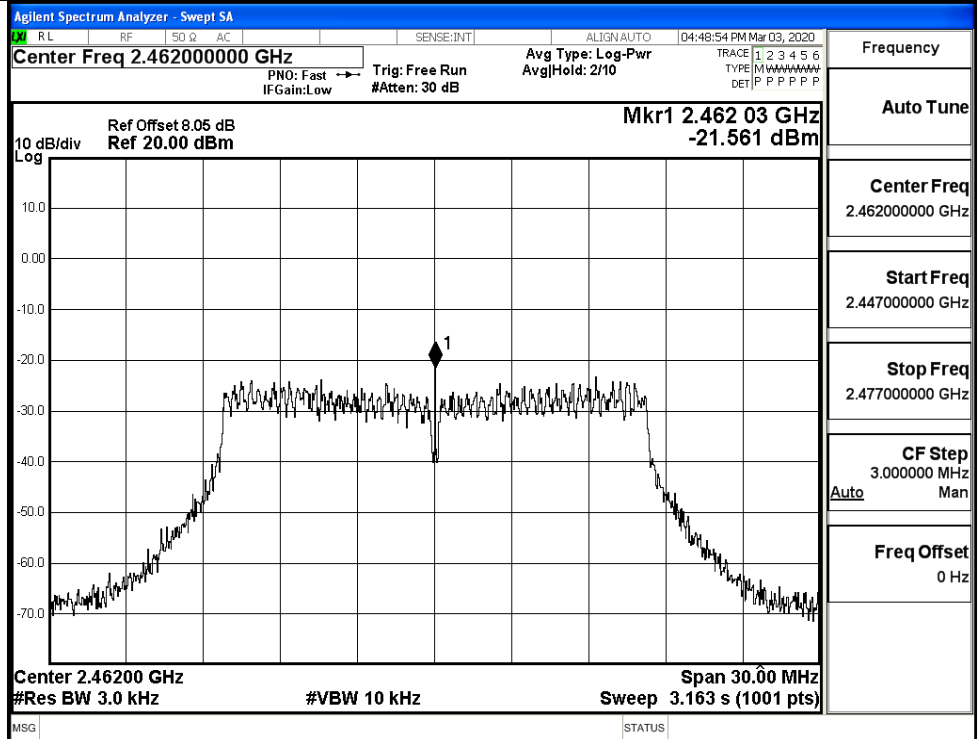
11G/LCH



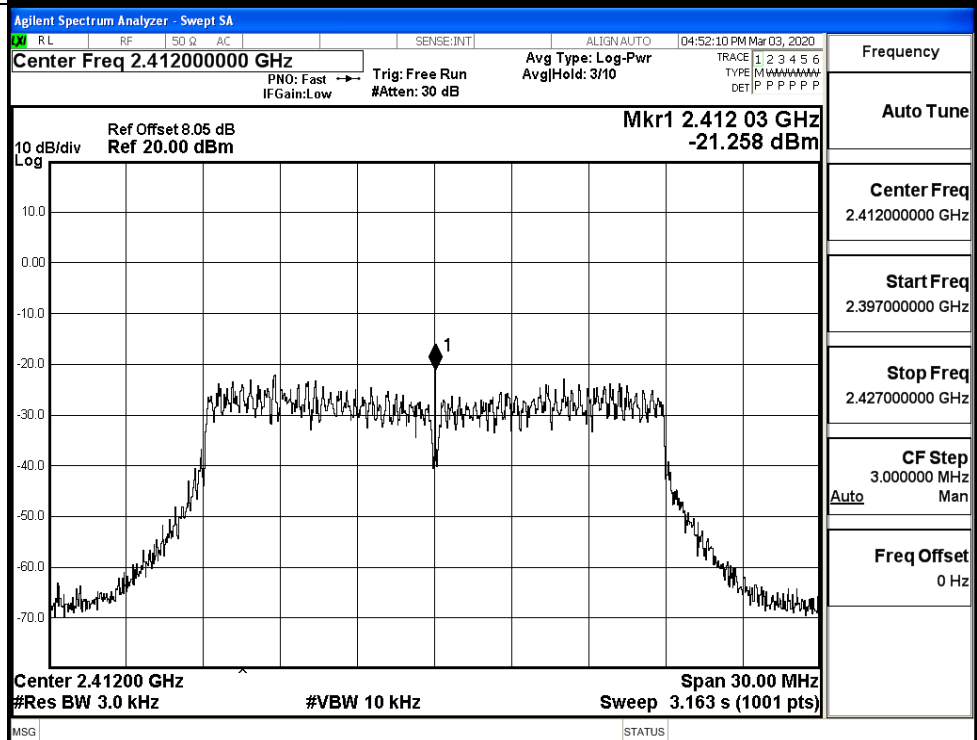
11G/MCH



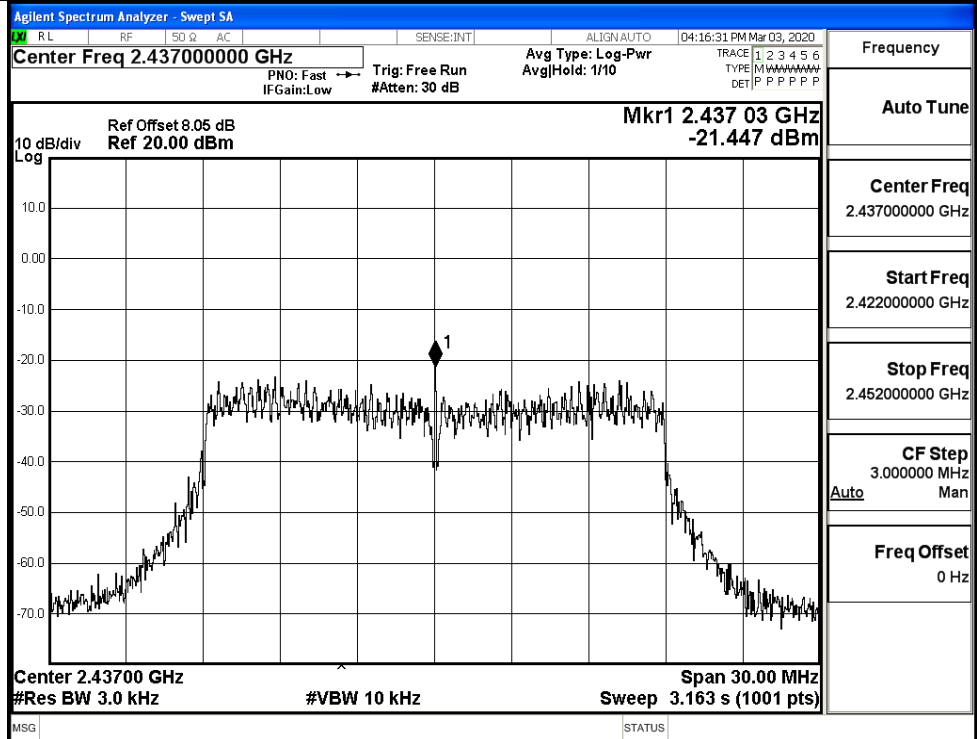
11G/HCH



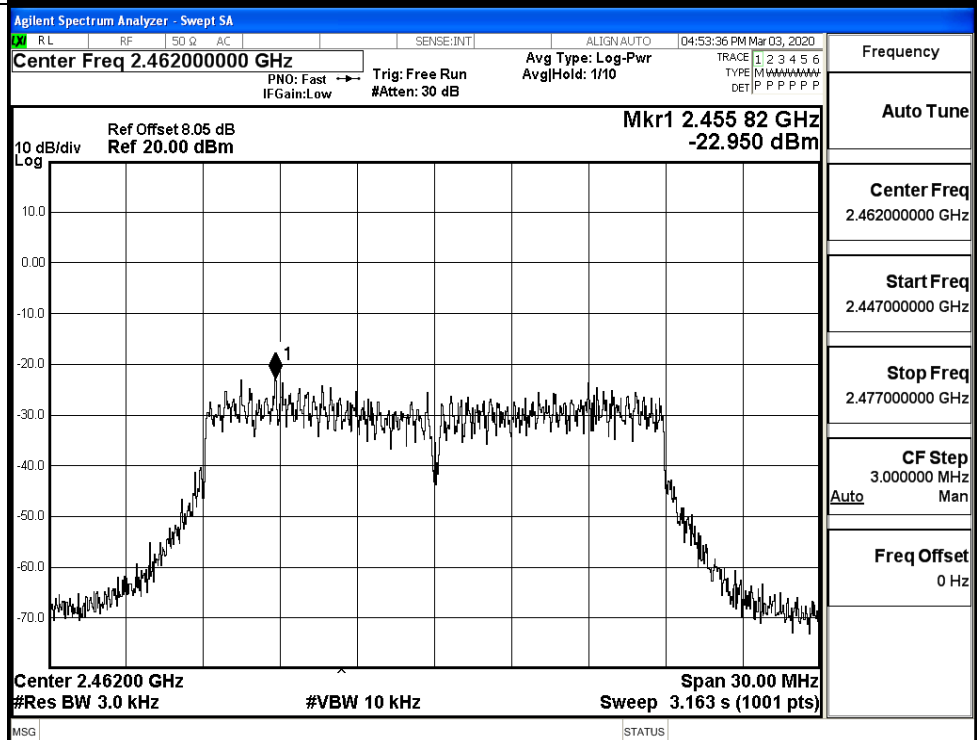
11N20SISO/LCH



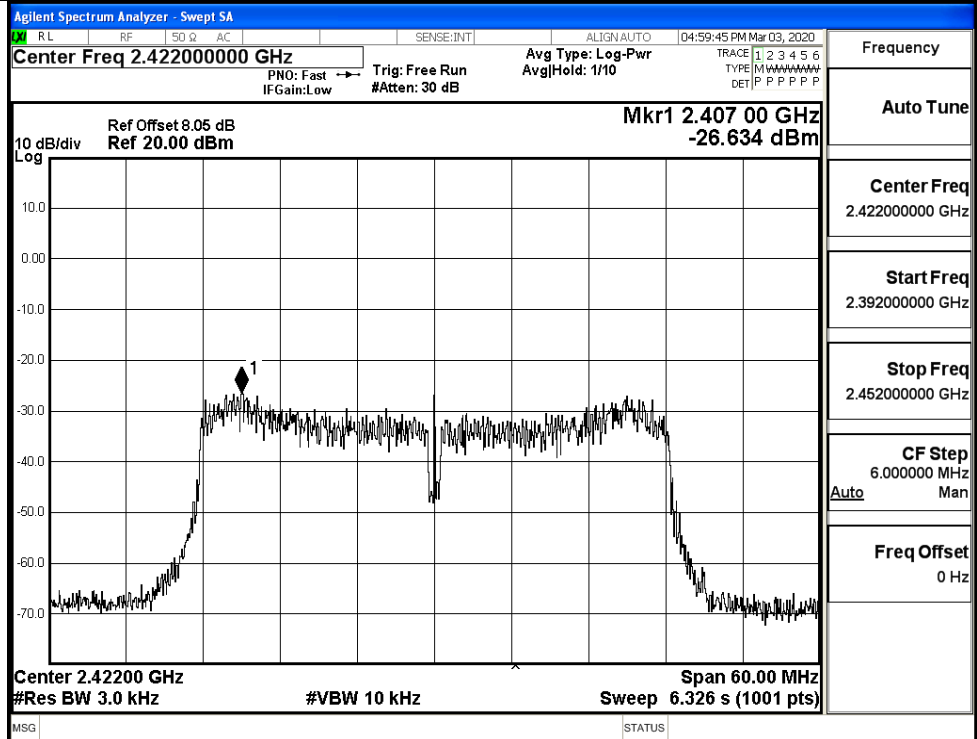
11N20SISO/MCH



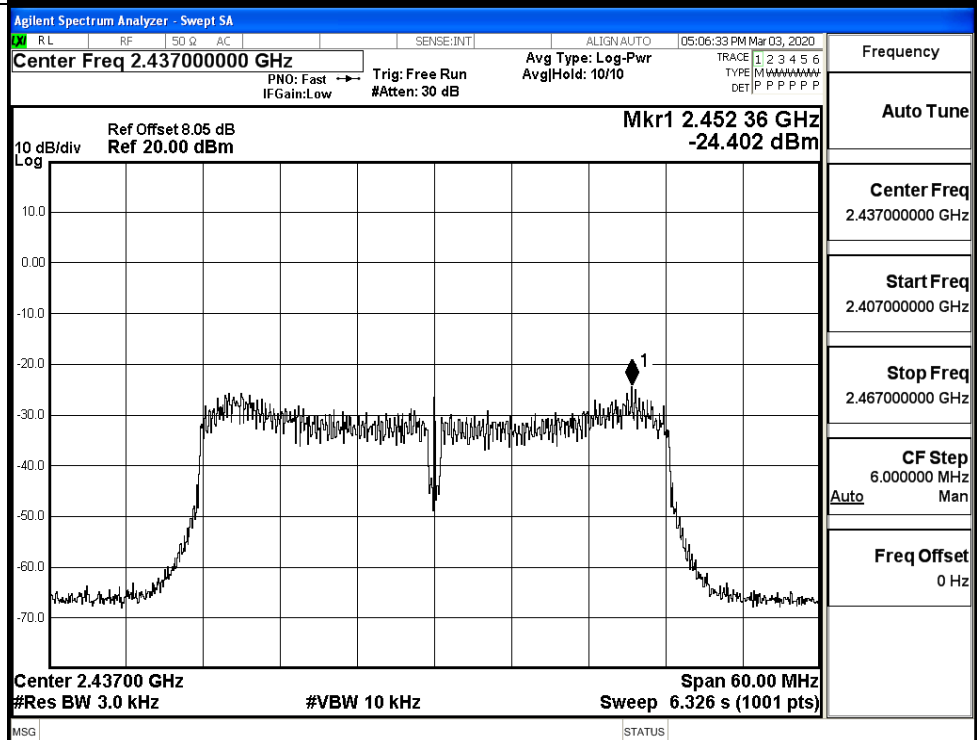
11N20SISO/HCH



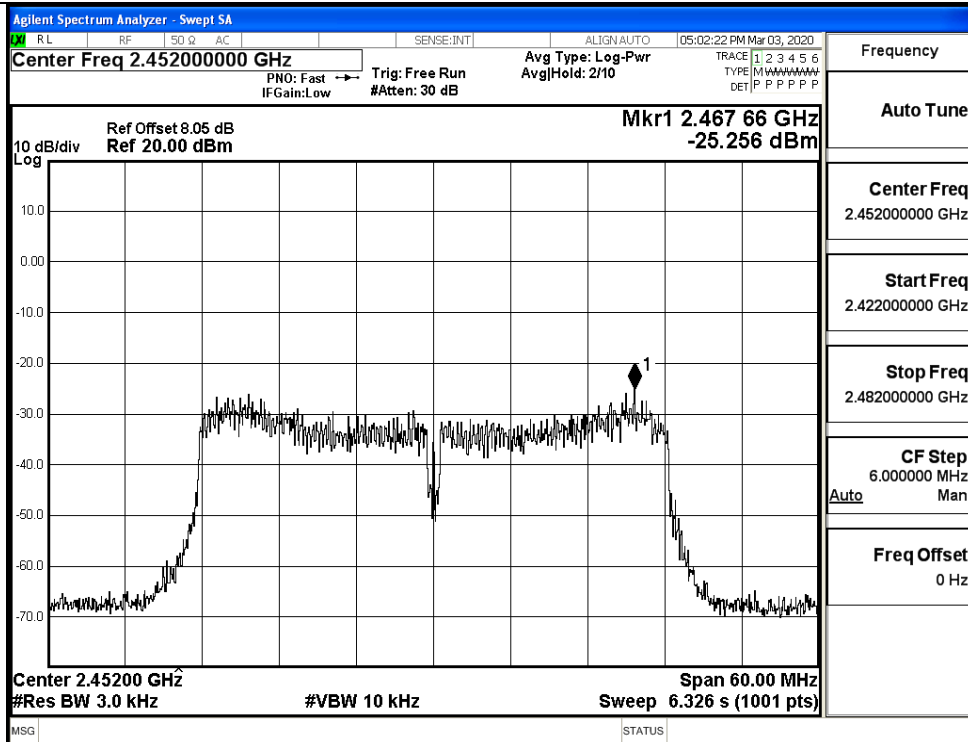
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

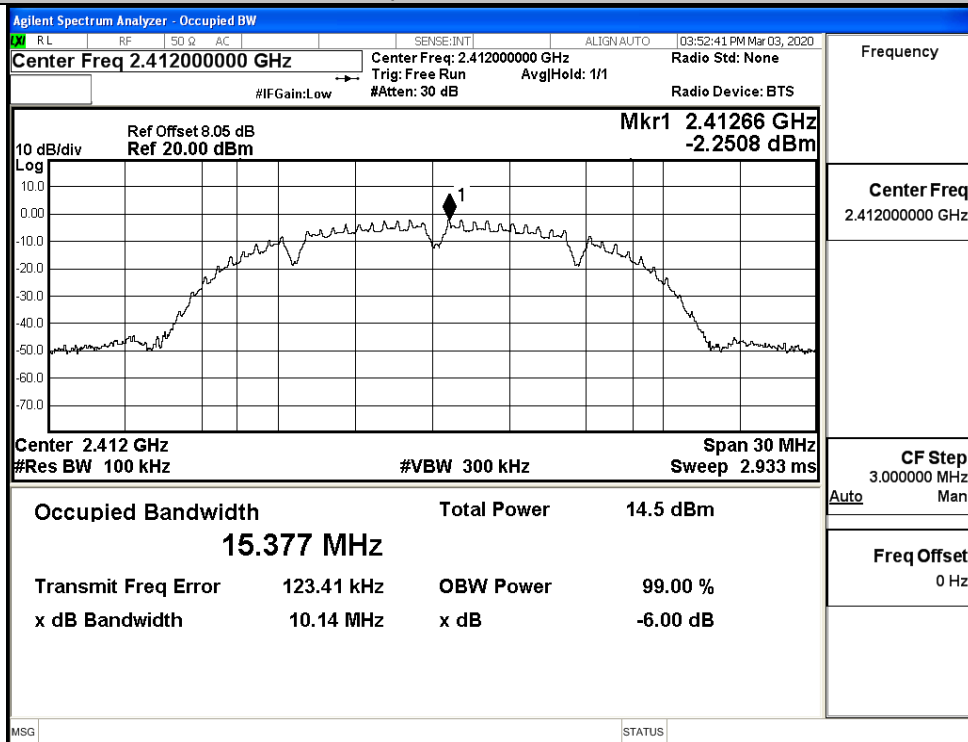


A.4 6dB Bandwidth

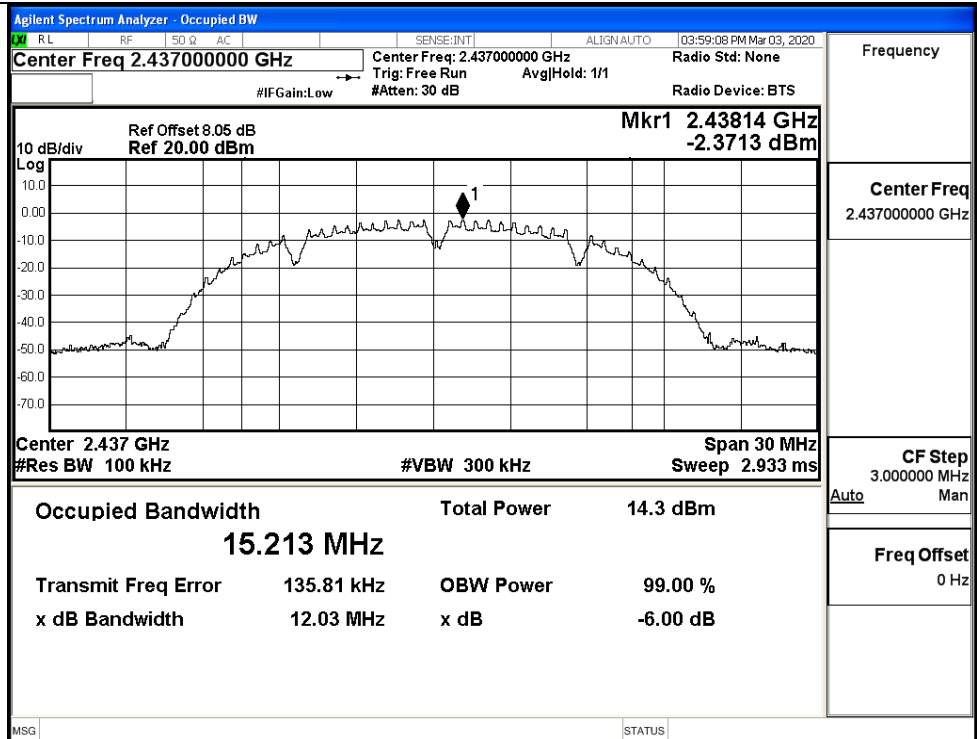
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	10.14	≥ 0.5	PASS
	MCH	12.03	≥ 0.5	PASS
	HCH	10.14	≥ 0.5	PASS
11G	LCH	16.38	≥ 0.5	PASS
	MCH	16.39	≥ 0.5	PASS
	HCH	16.37	≥ 0.5	PASS
11N20SISO	LCH	17.33	≥ 0.5	PASS
	MCH	17.33	≥ 0.5	PASS
	HCH	17.56	≥ 0.5	PASS
11N40SISO	LCH	35.18	≥ 0.5	PASS
	MCH	35.17	≥ 0.5	PASS
	HCH	35.20	≥ 0.5	PASS

Test Graphs

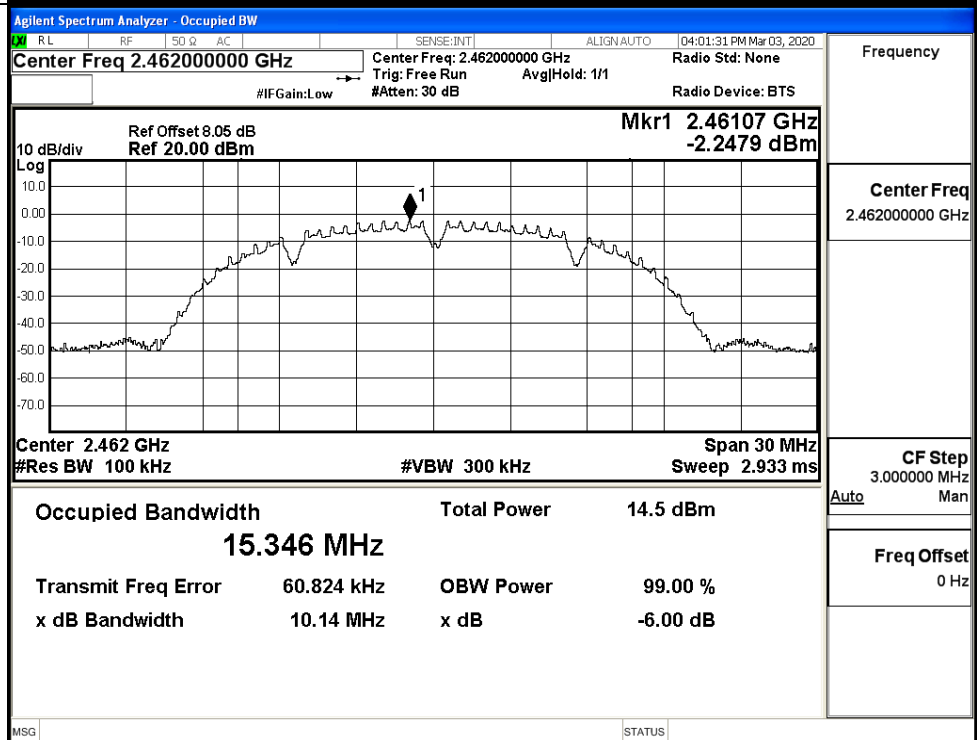
11B/LCH



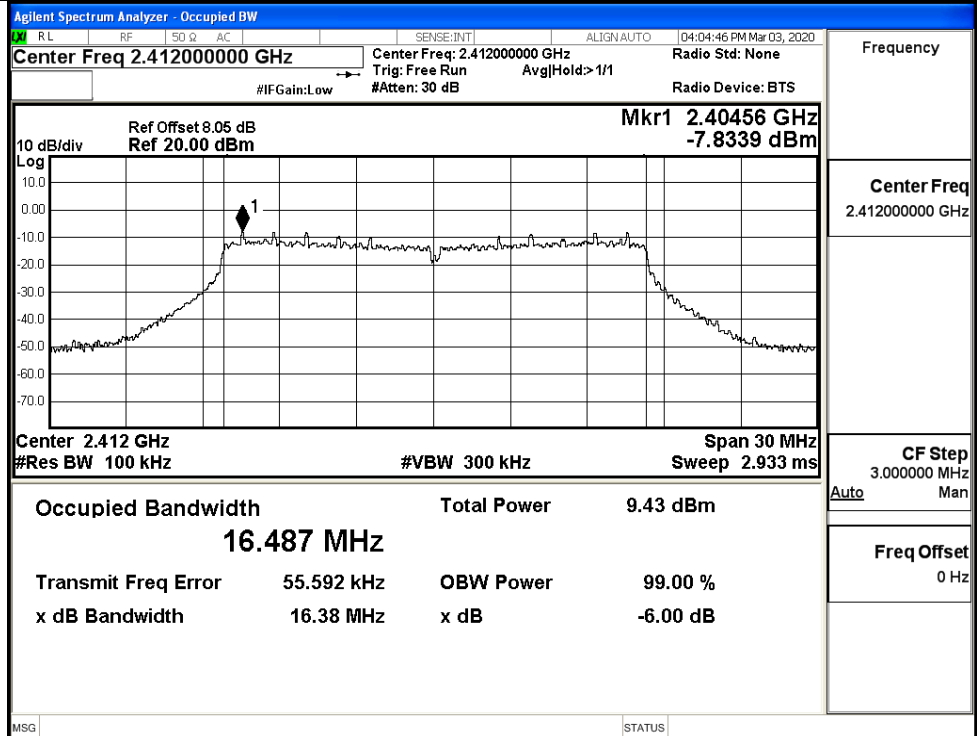
11B/MCH



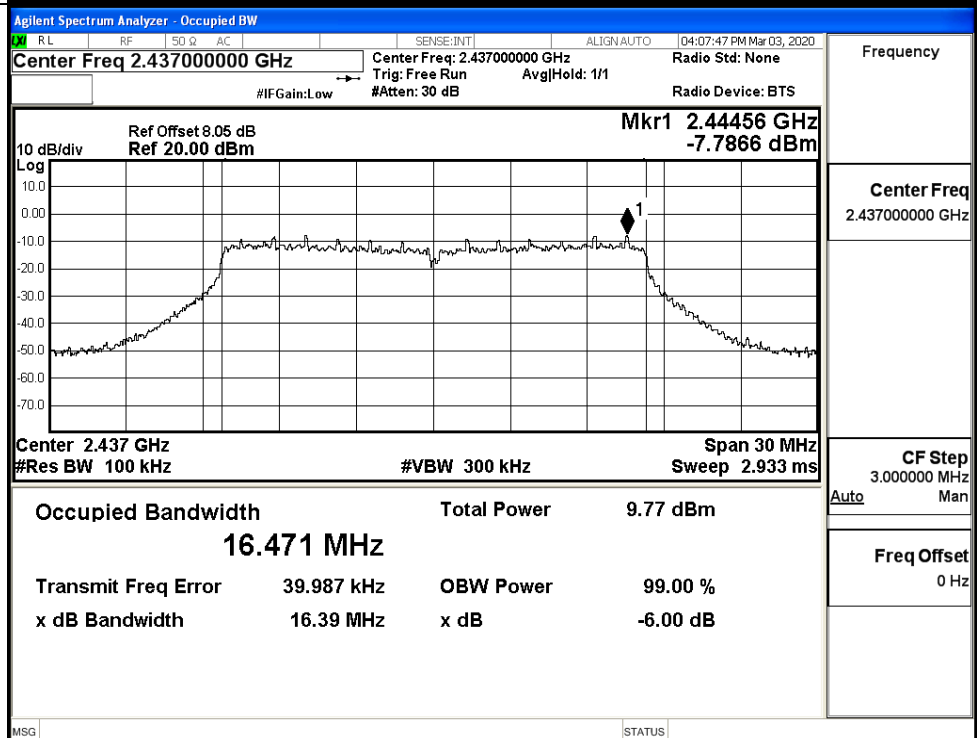
11B/HCH



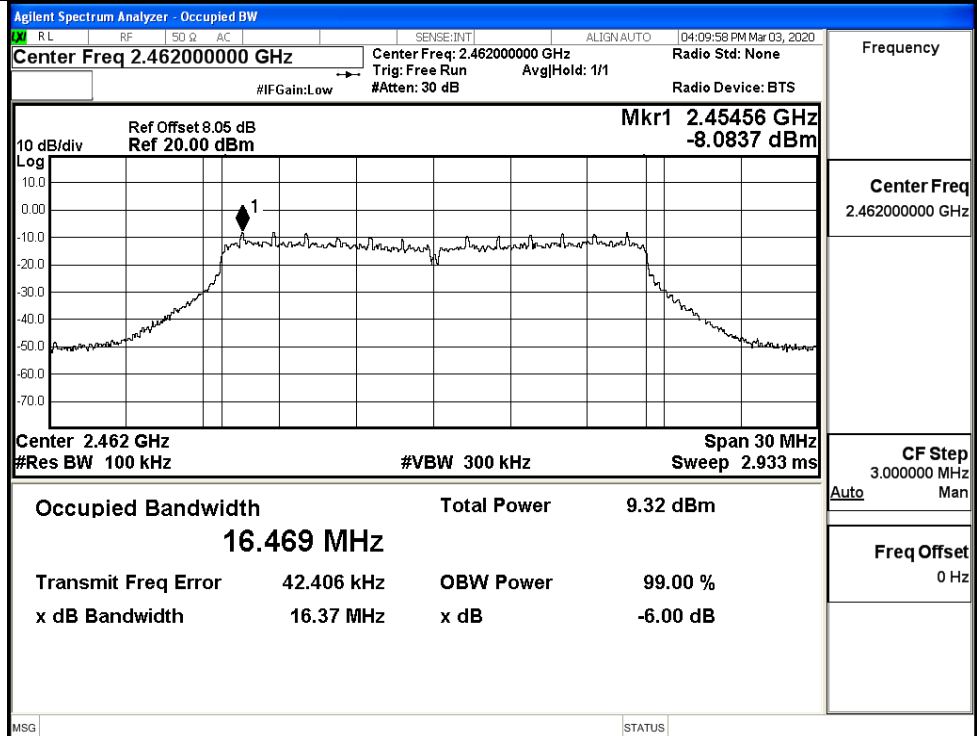
11G/LCH



11G/MCH



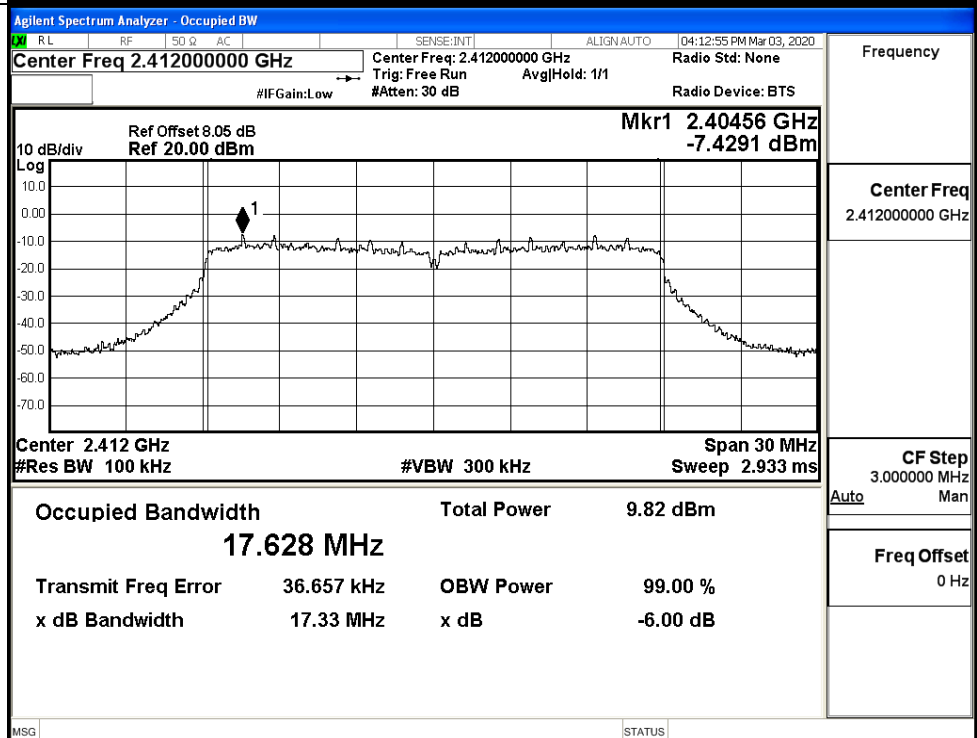
11G/HCH



Frequency

Center Freq
2.46200000 GHzCF Step
3.000000 MHz
Auto ManFreq Offset
0 Hz

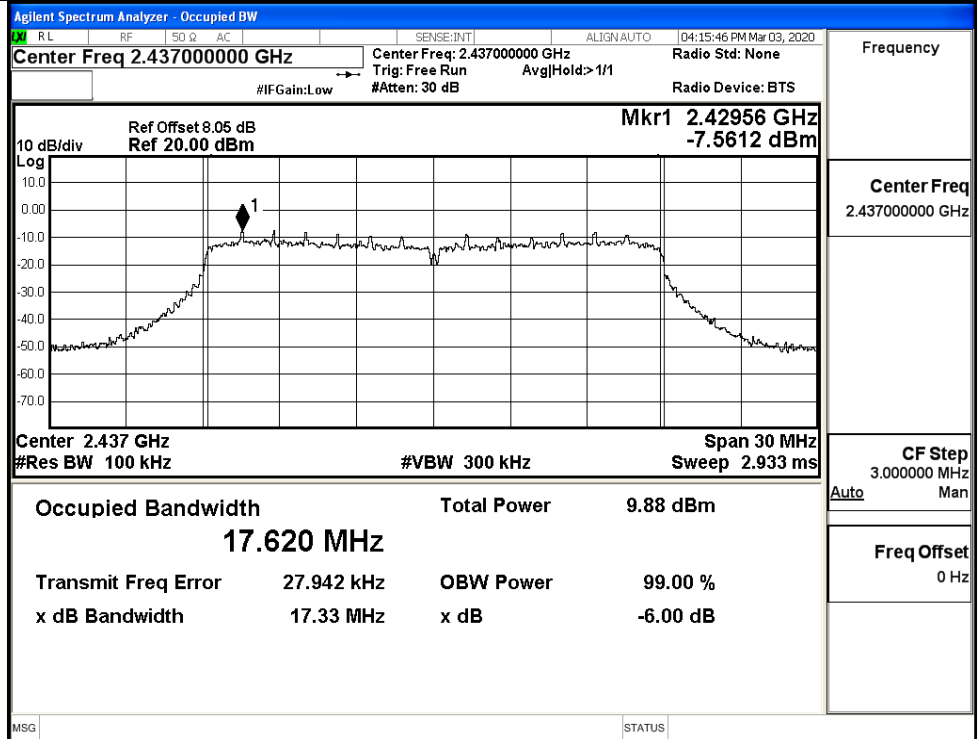
11N20SISO/LCH



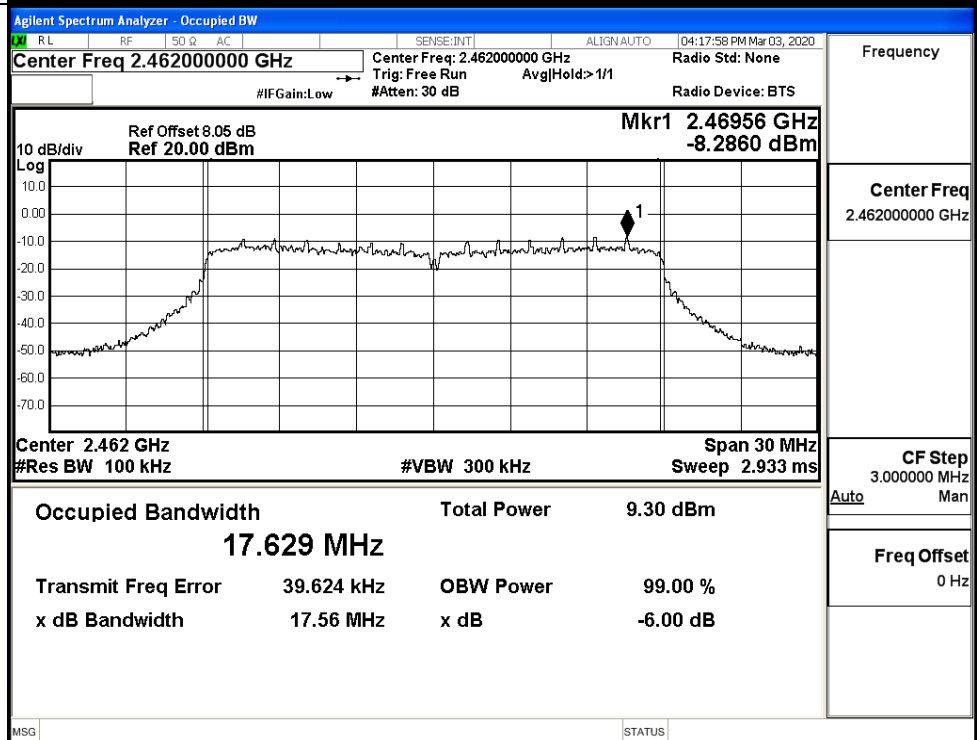
Frequency

Center Freq
2.41200000 GHzCF Step
3.000000 MHz
Auto ManFreq Offset
0 Hz

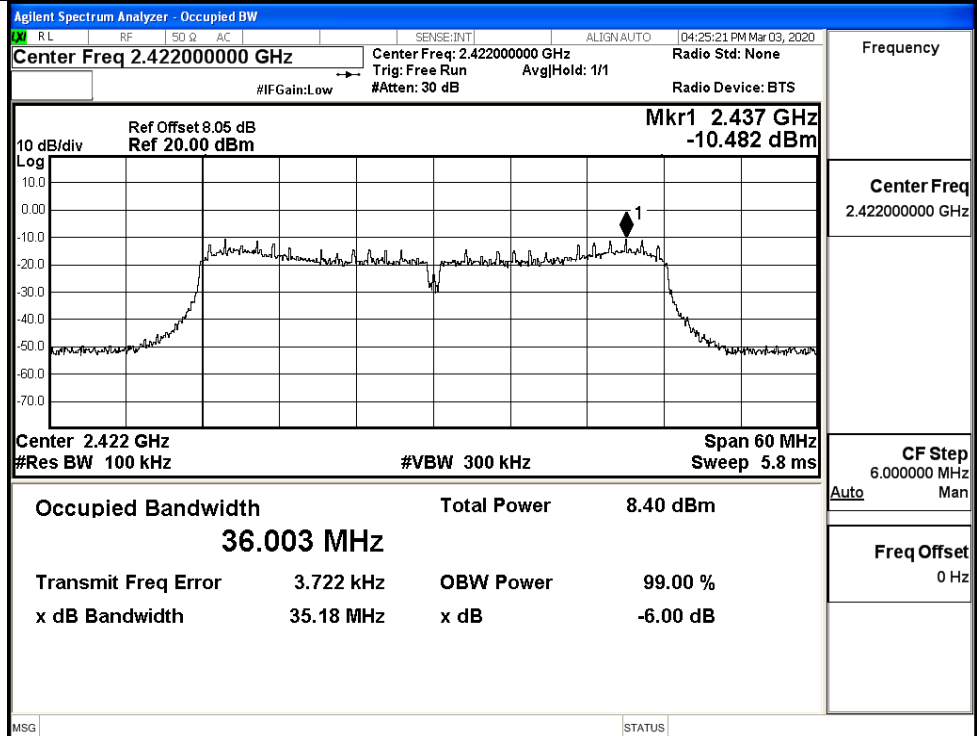
11N20SISO/MCH



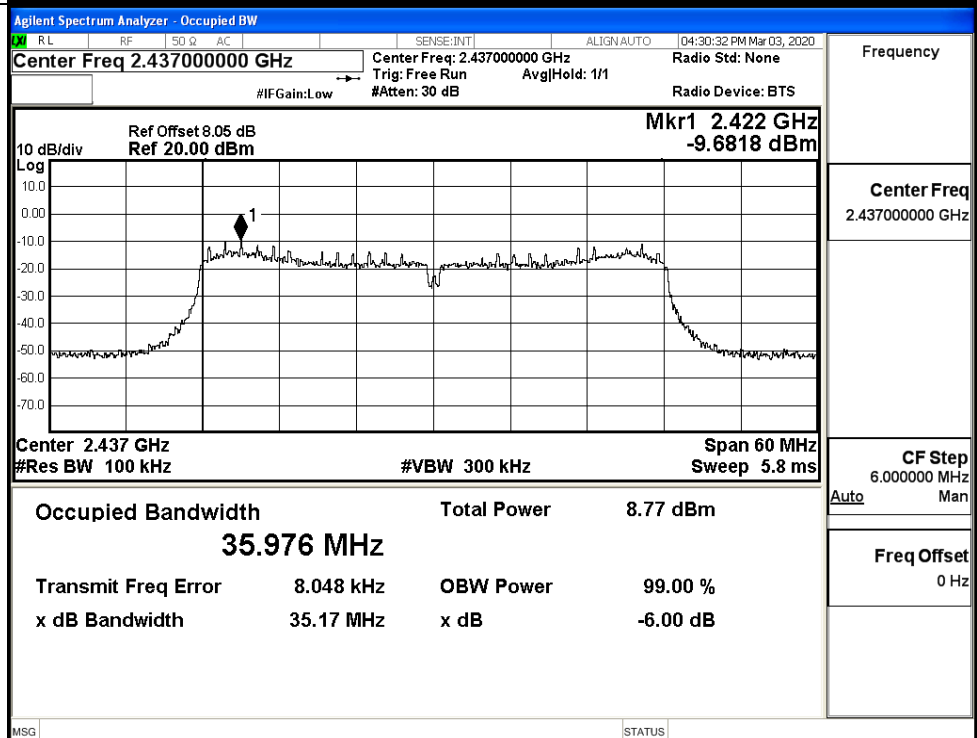
11N20SISO/HCH



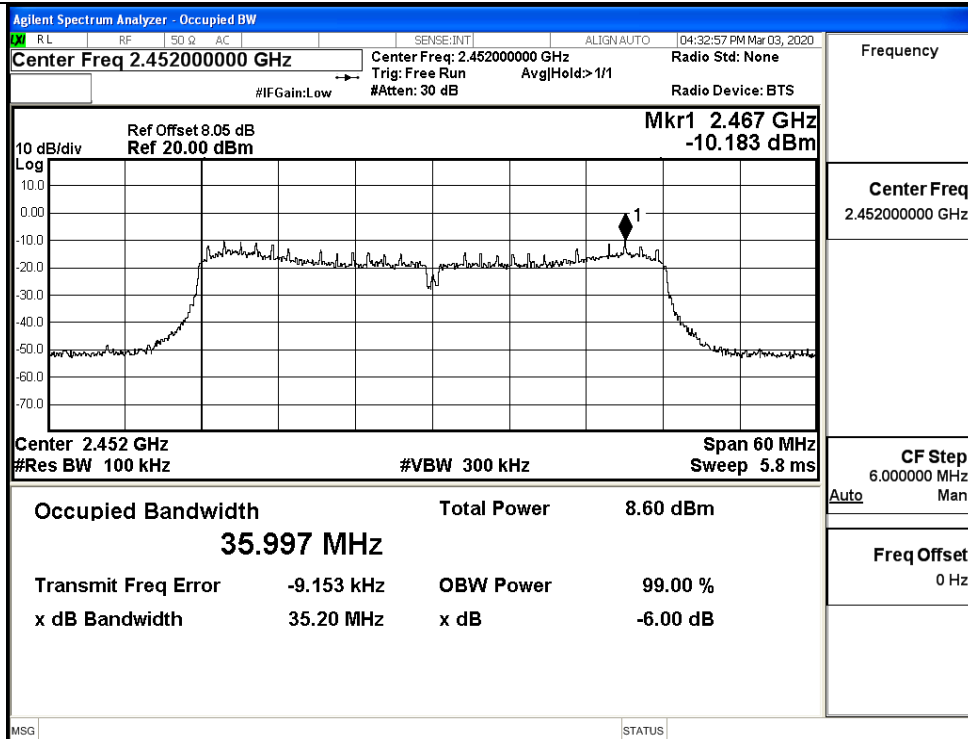
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

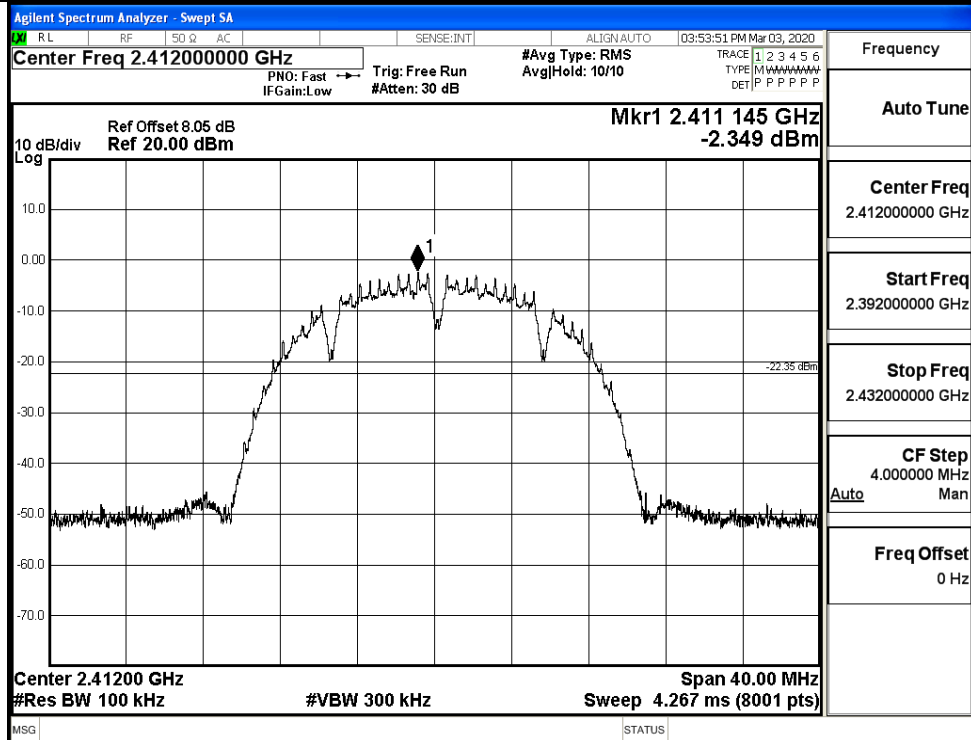


A.5 RF Conducted Spurious Emissions

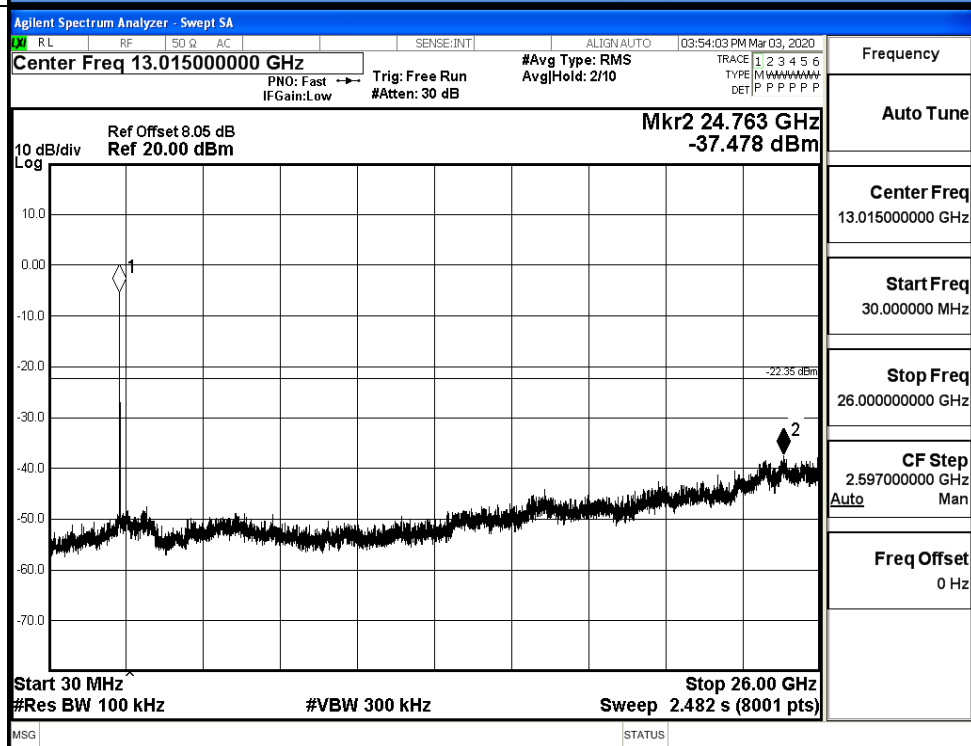
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-2.349	-37.478	-22.349	PASS
	MCH	-2.425	-37.393	-22.425	PASS
	HCH	-2.927	-37.807	-22.927	PASS
11G	LCH	-8.128	-37.614	-28.128	PASS
	MCH	-7.813	-38.328	-27.813	PASS
	HCH	-8.284	-37.991	-28.284	PASS
11N20 SISO	LCH	-8.106	-37.361	-28.106	PASS
	MCH	-7.747	-36.792	-27.747	PASS
	HCH	-8.302	-38.411	-28.302	PASS
11N40 SISO	LCH	-9.988	-37.781	-29.988	PASS
	MCH	-9.586	-36.779	-29.586	PASS
	HCH	-10.322	-38.568	-30.322	PASS

11B LCH Graphs

Pref/11B/LCH

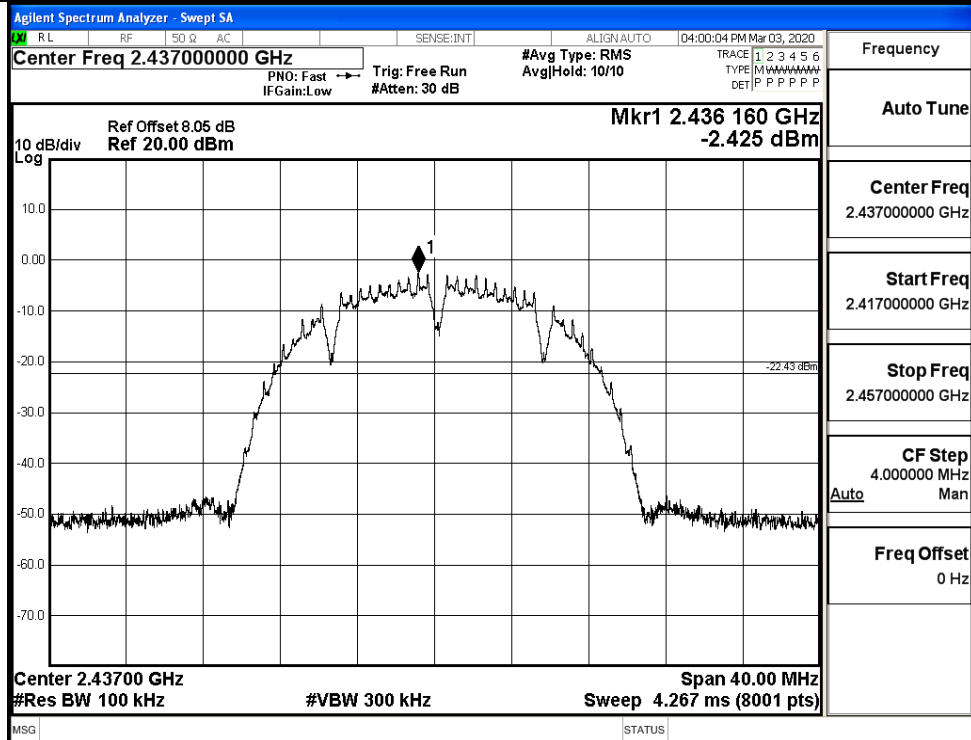


Puw/11B/LCH

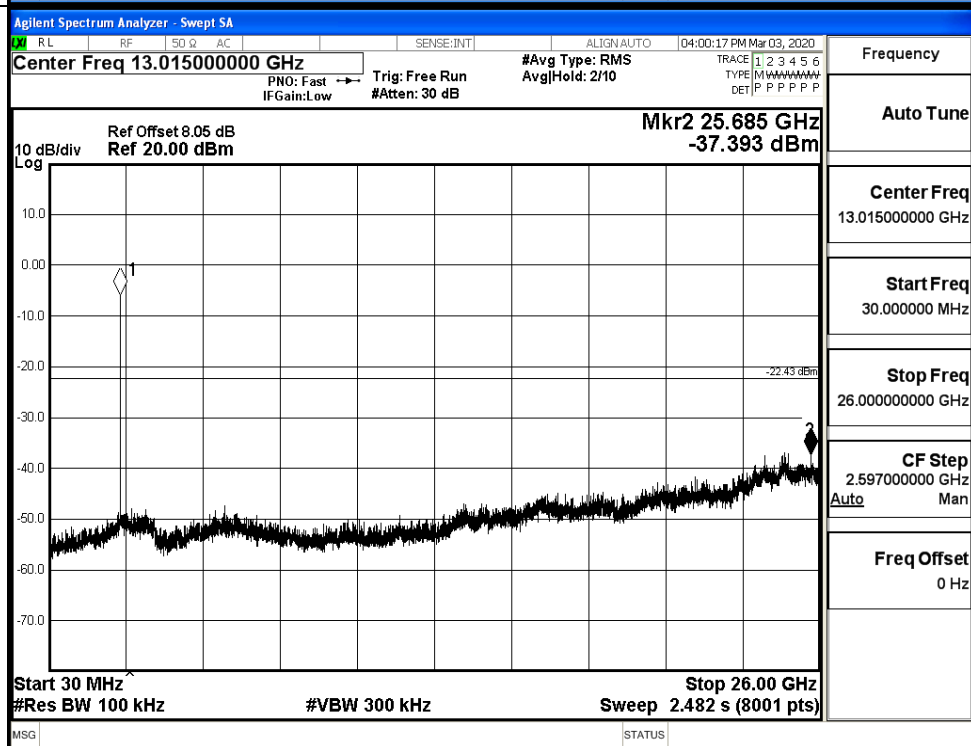


11B MCH Graphs

Pref/11B/MCH

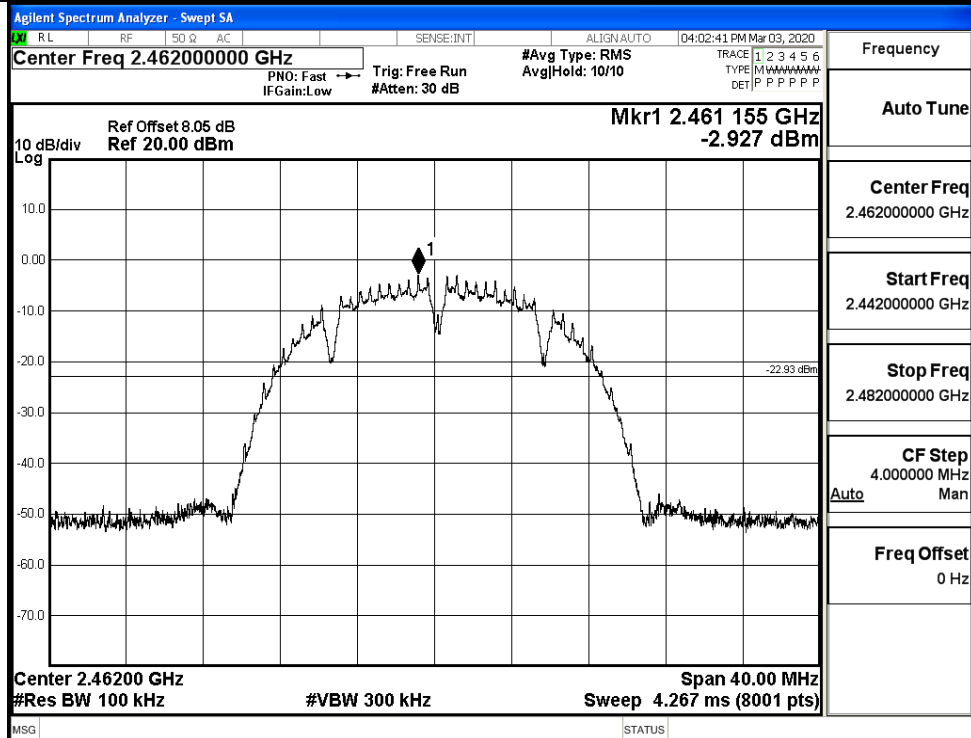


Puw/11B/MCH

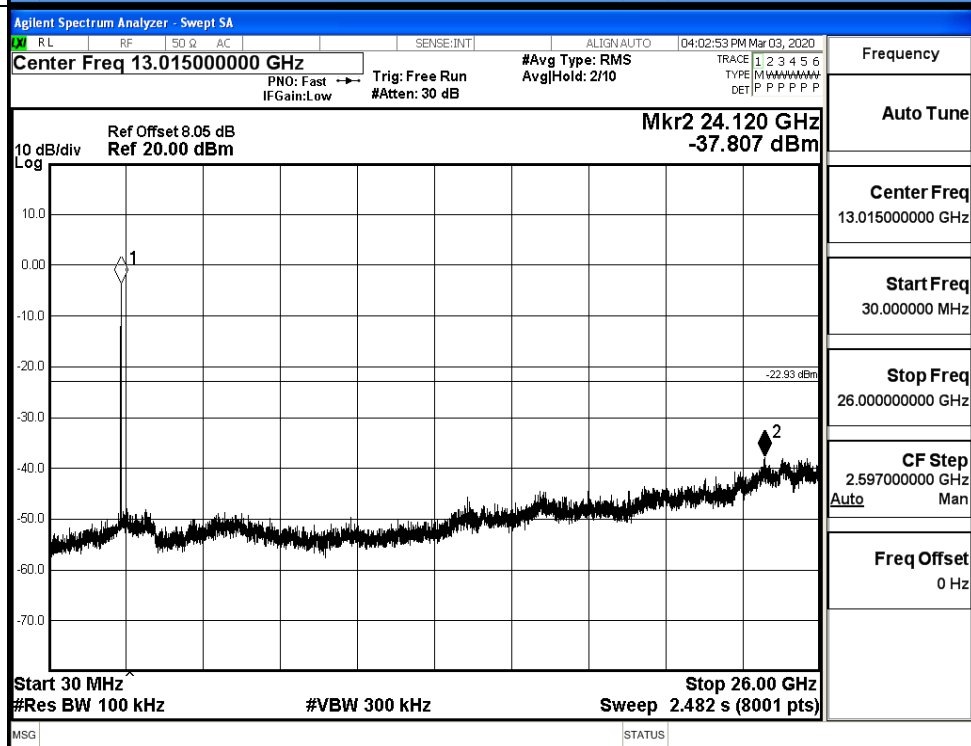


11B HCH Graphs

Pref/11B/HCH

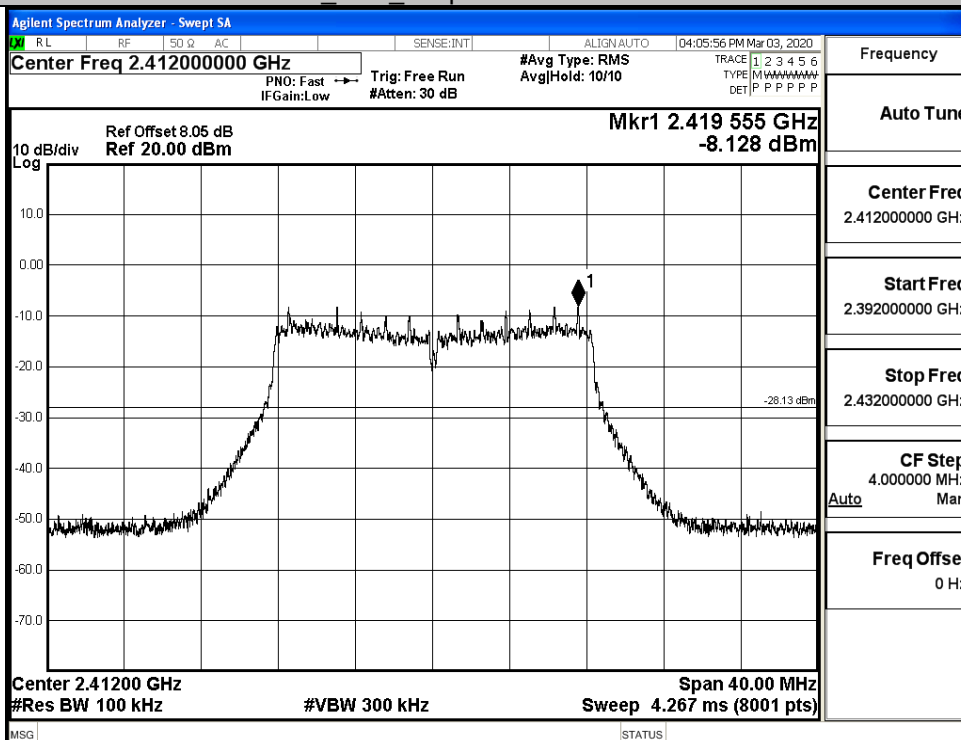


Puw/11B/HCH

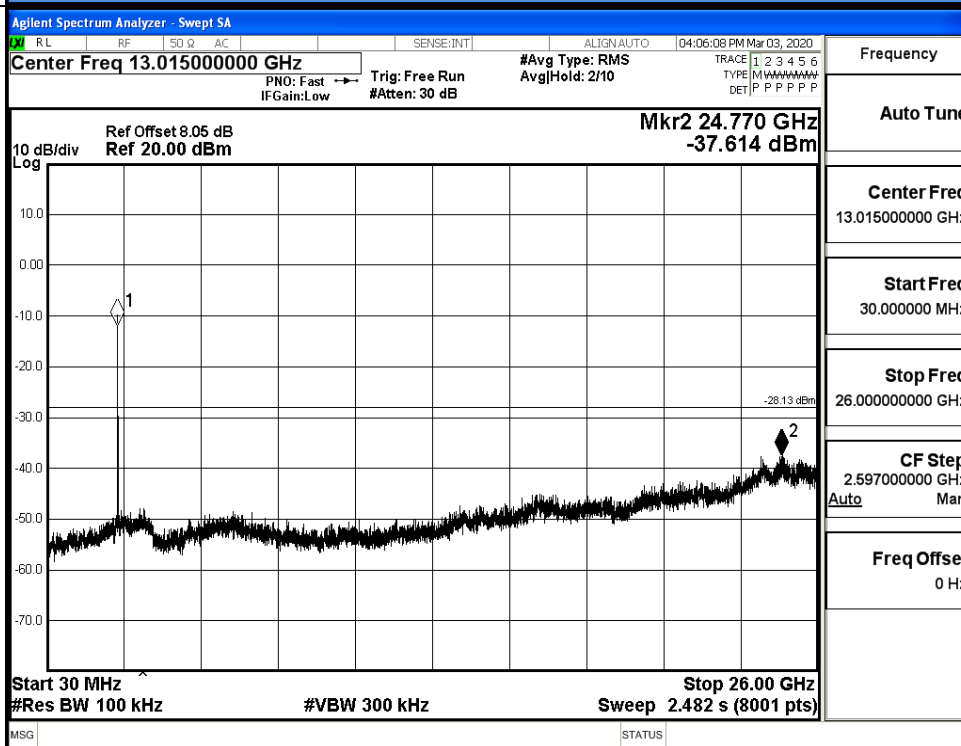


11G_LCH_Graphs

Pref/11G/LCH

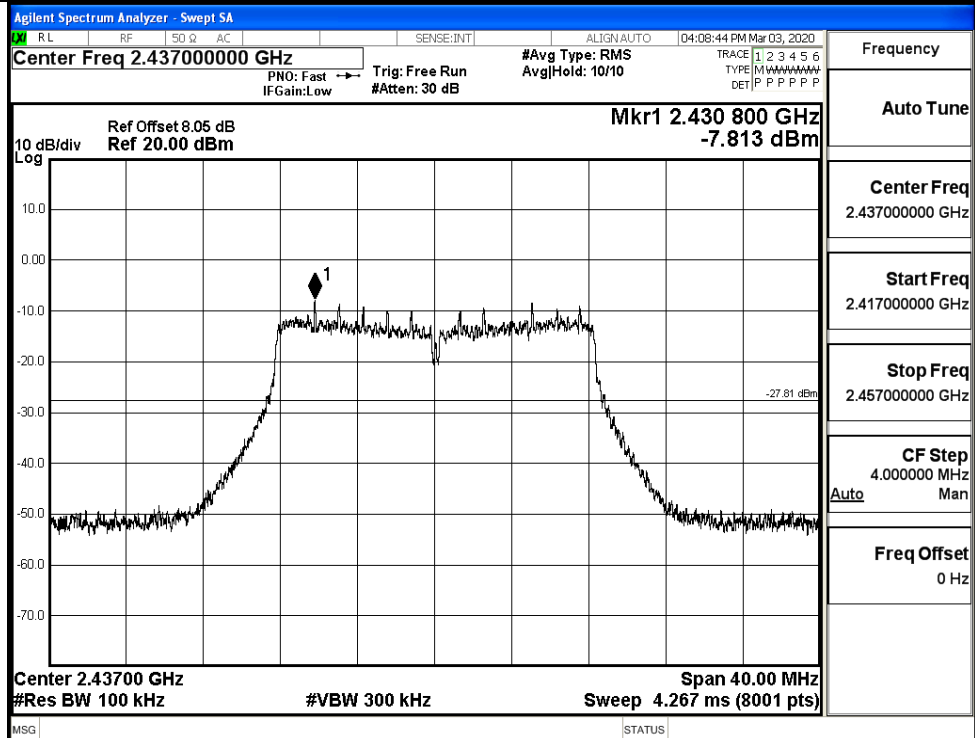


Puw/11G/LCH

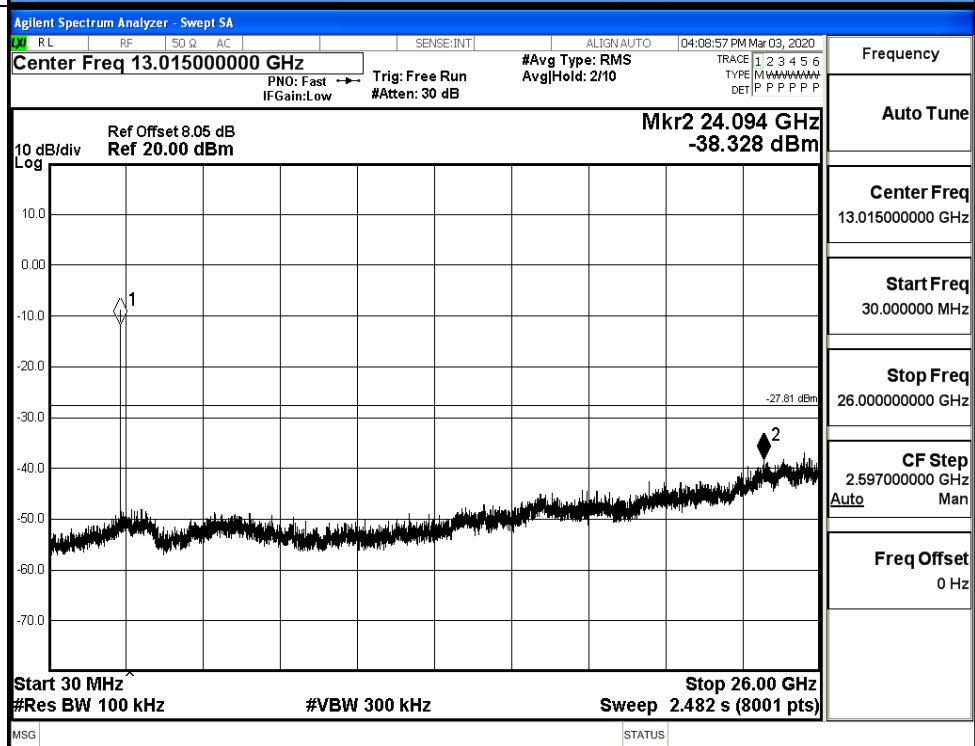


11G MCH Graphs

Pref/11G/MCH

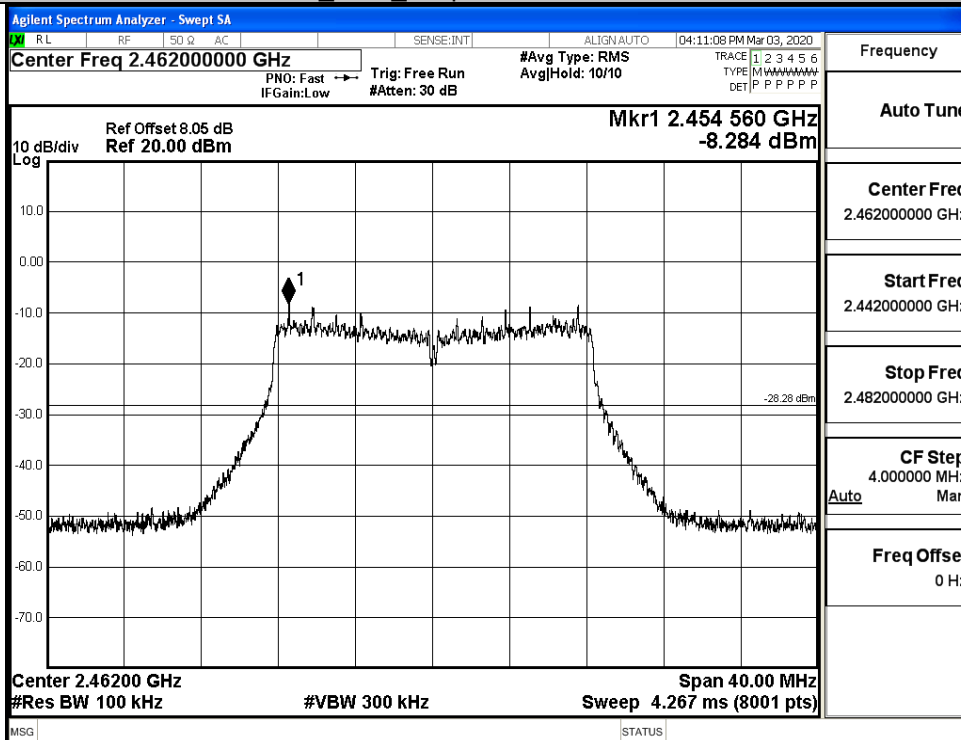


Puw/11G/MCH

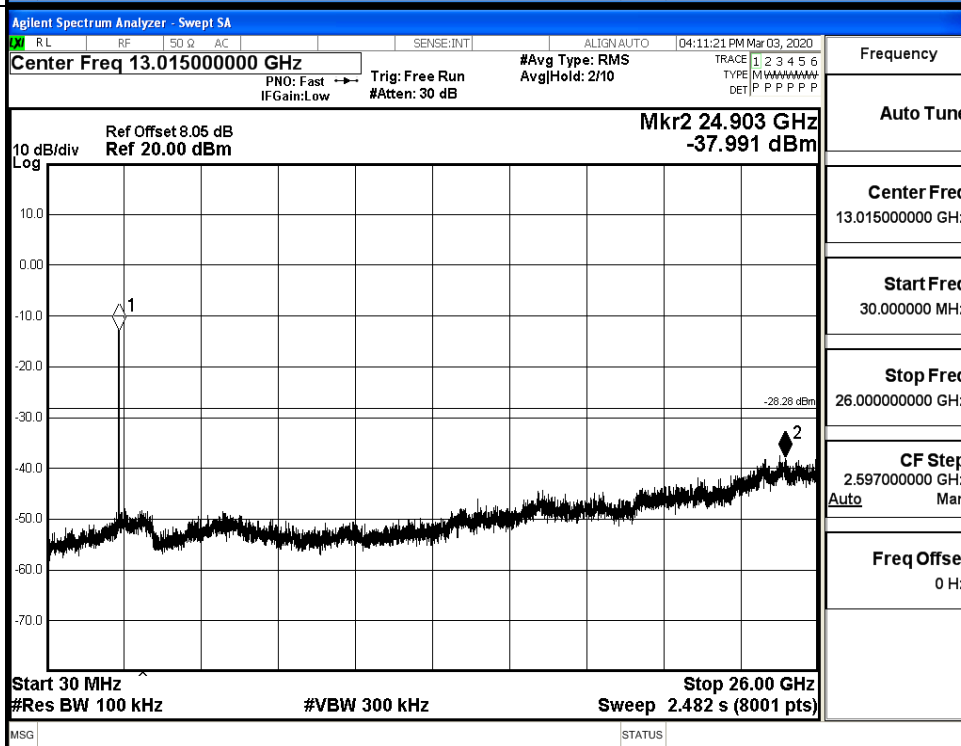


11G HCH Graphs

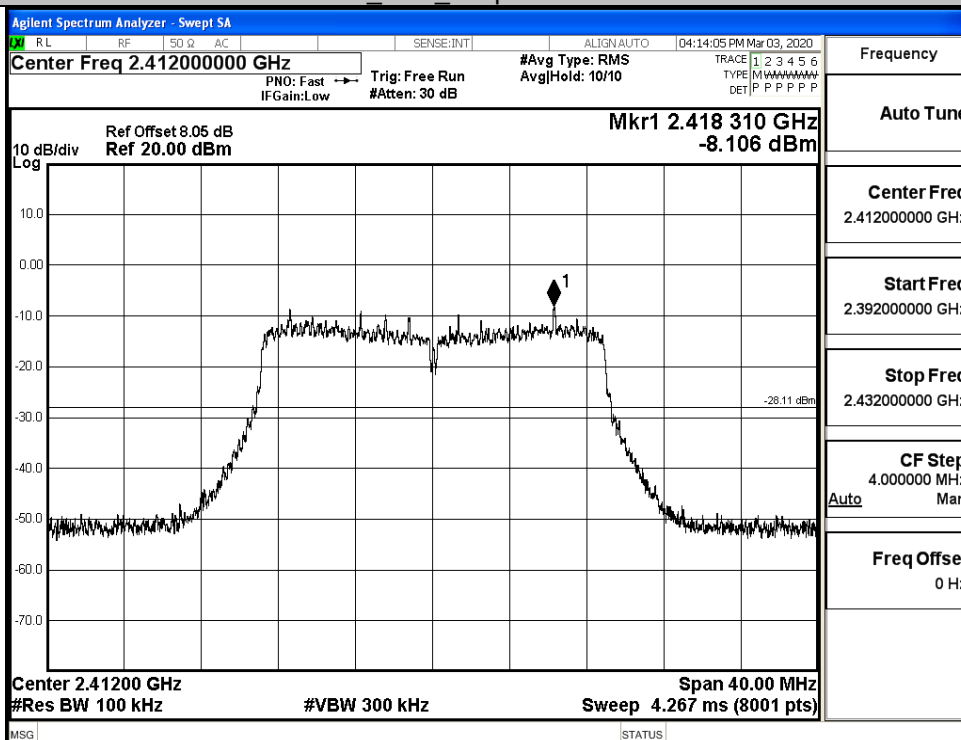
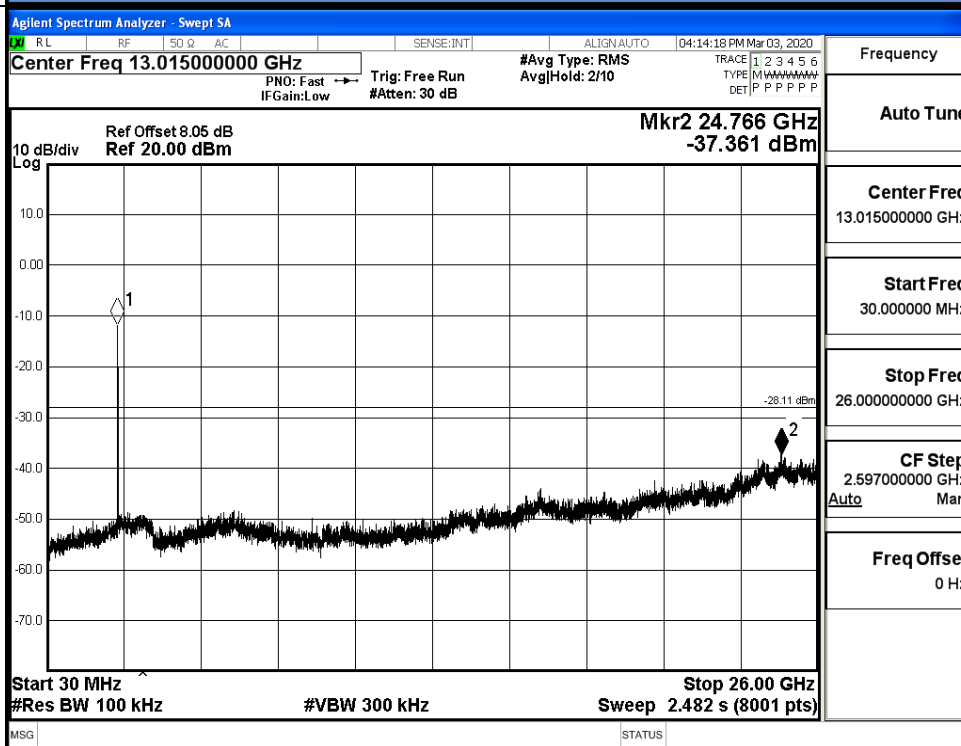
Pref/11G/HCH



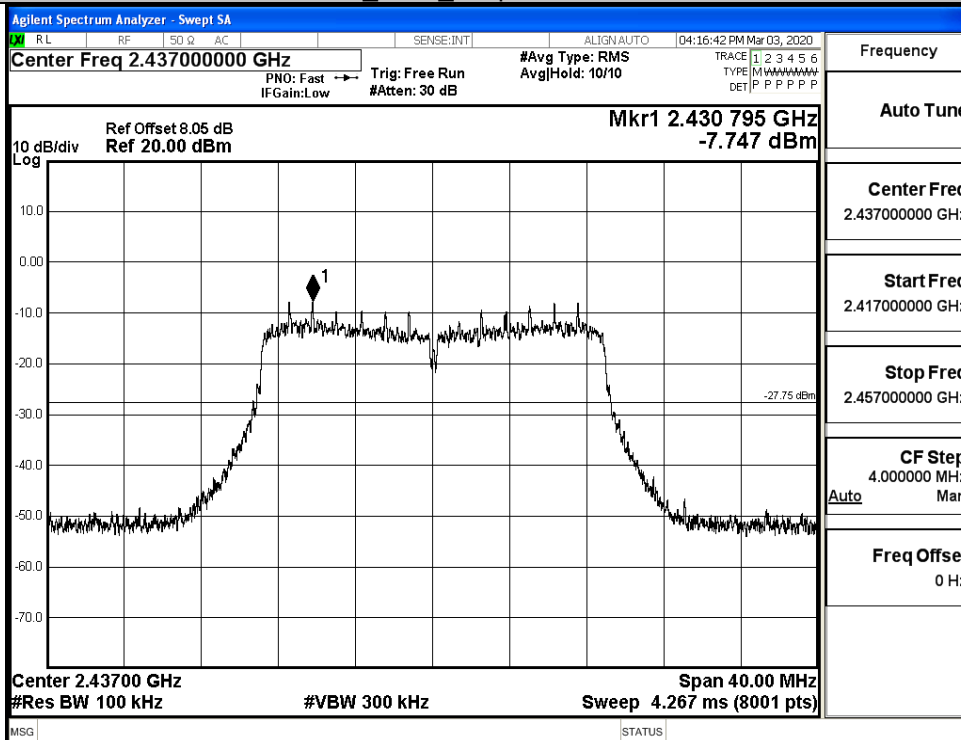
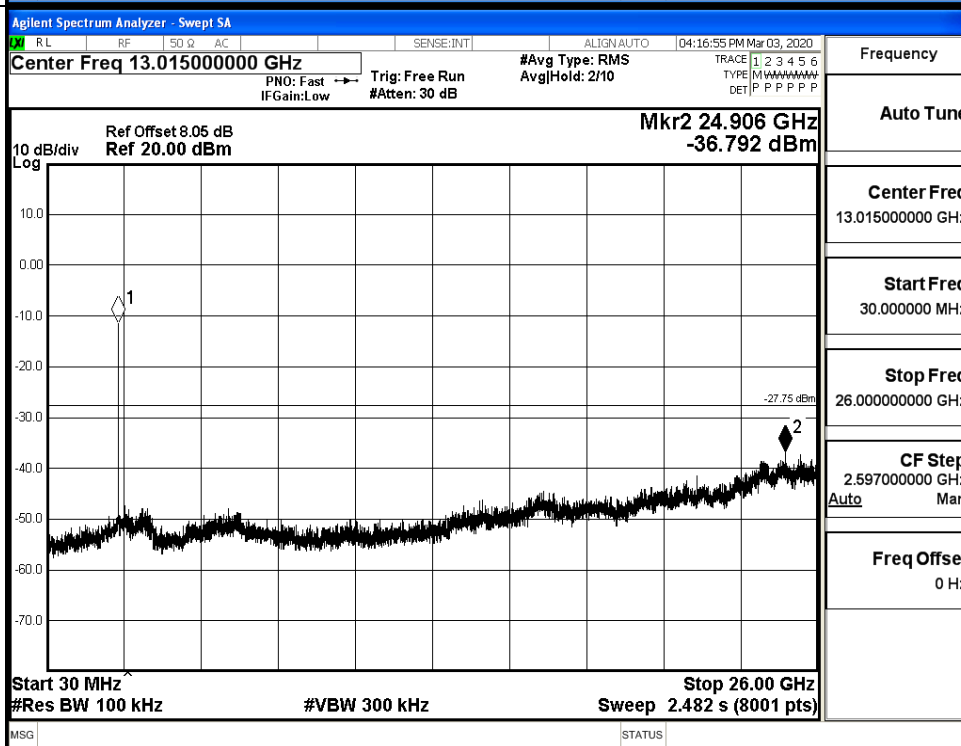
Puw/11G/HCH



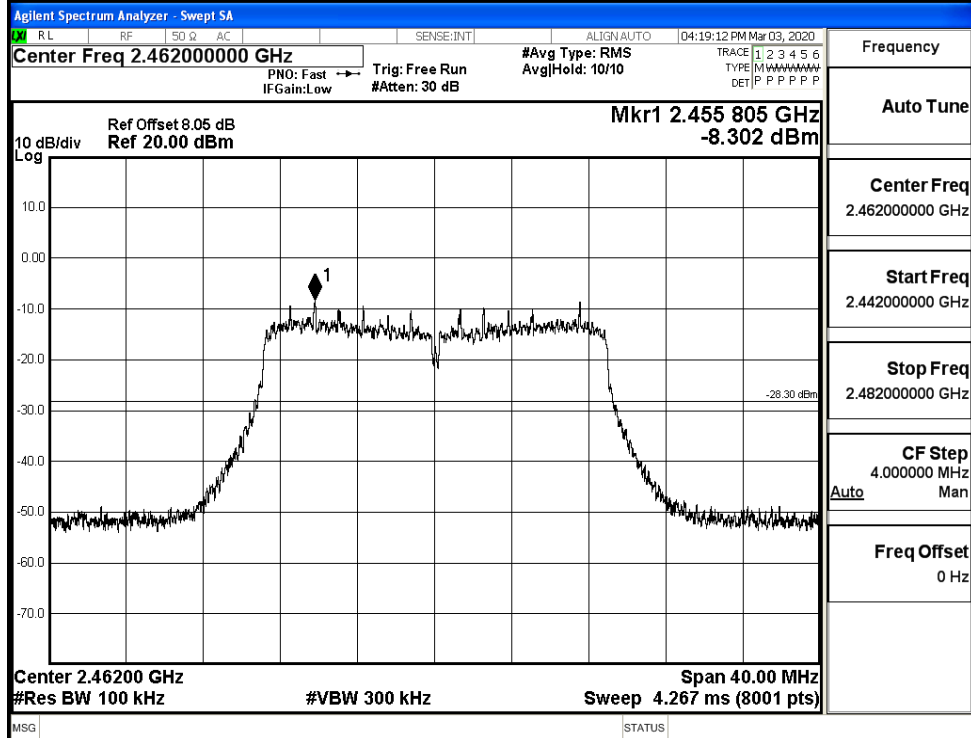
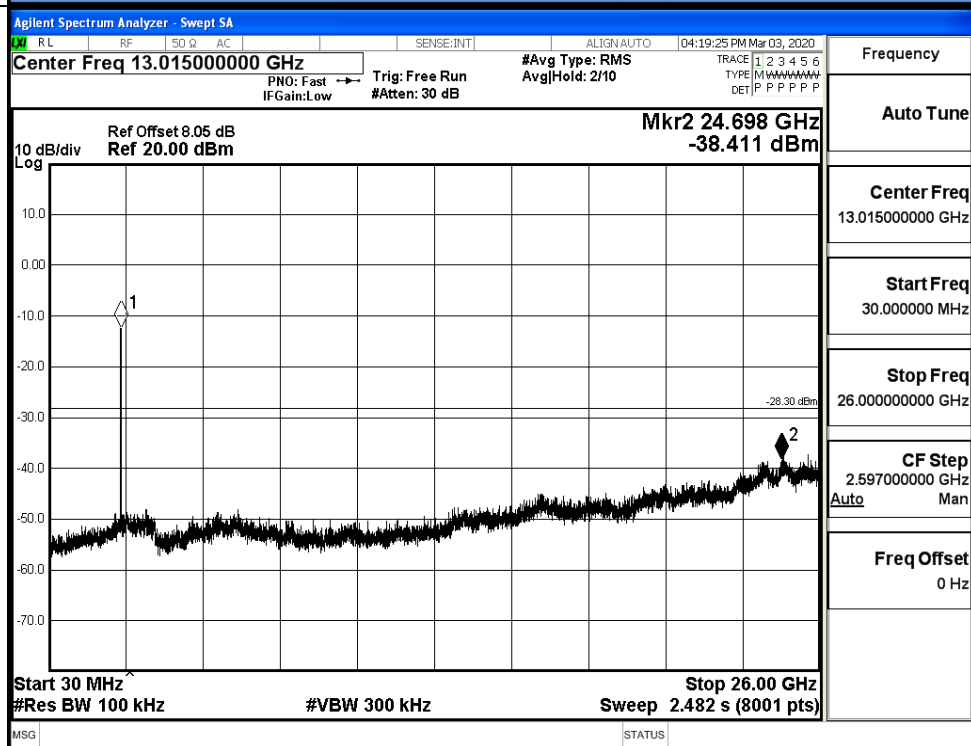
11N20SISO LCH Graphs

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

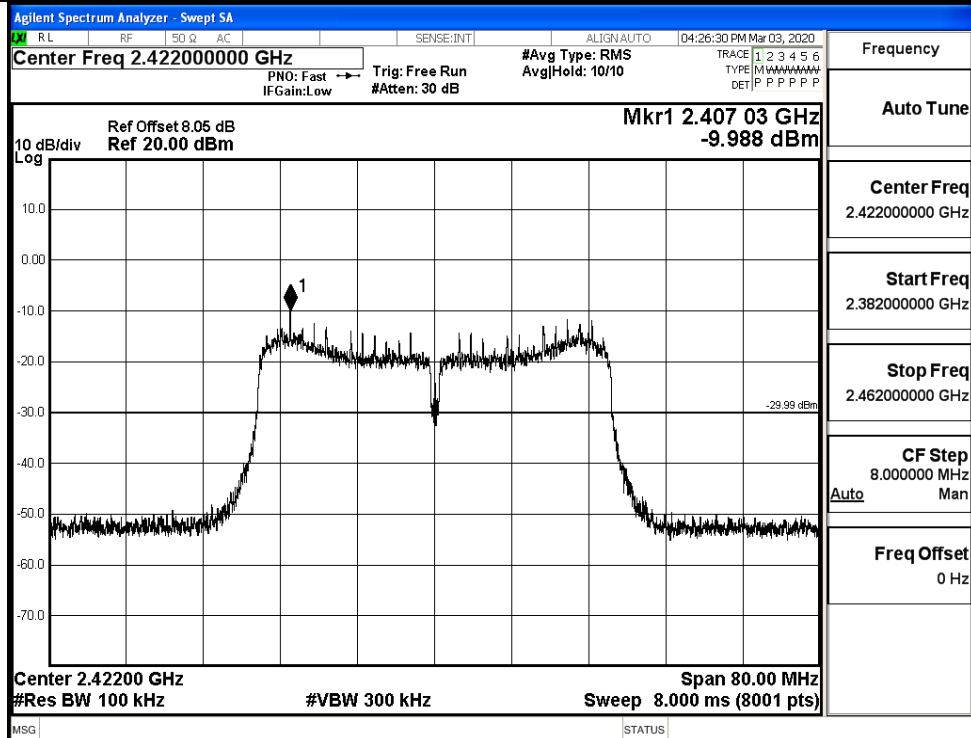
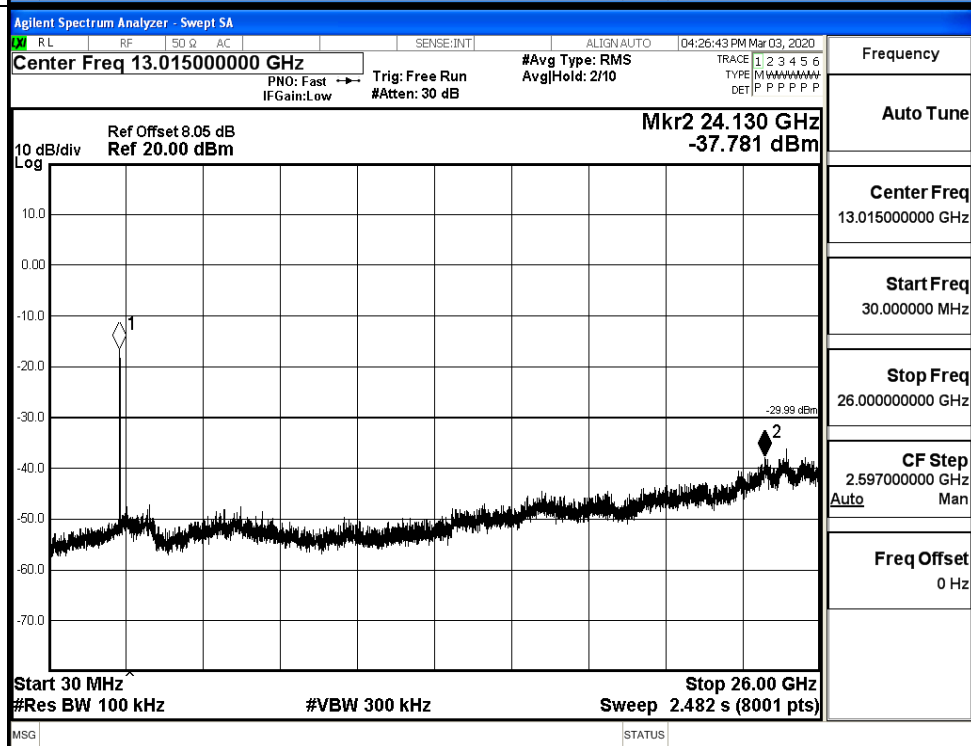
11N20SISO_MCH_Graphs

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

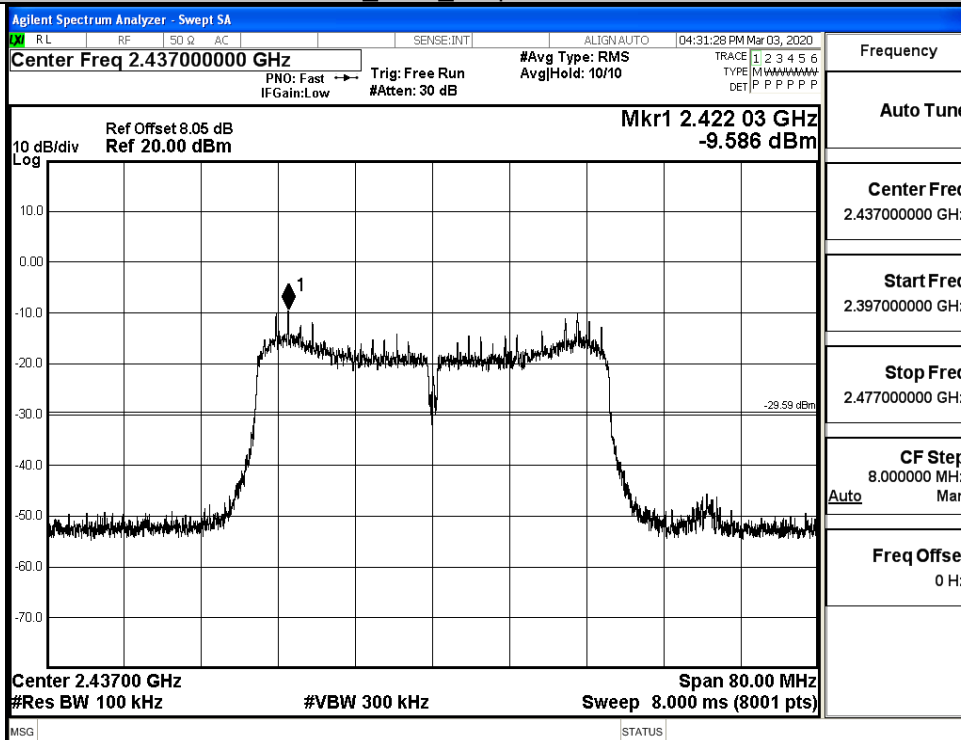
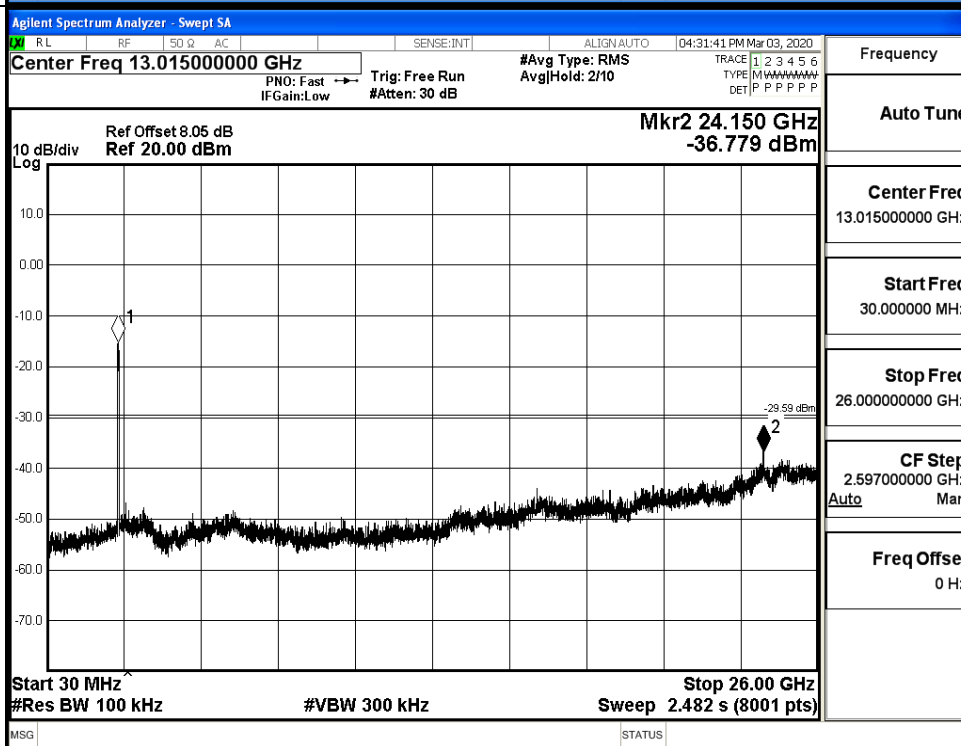
11N20SISO HCH Graphs

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

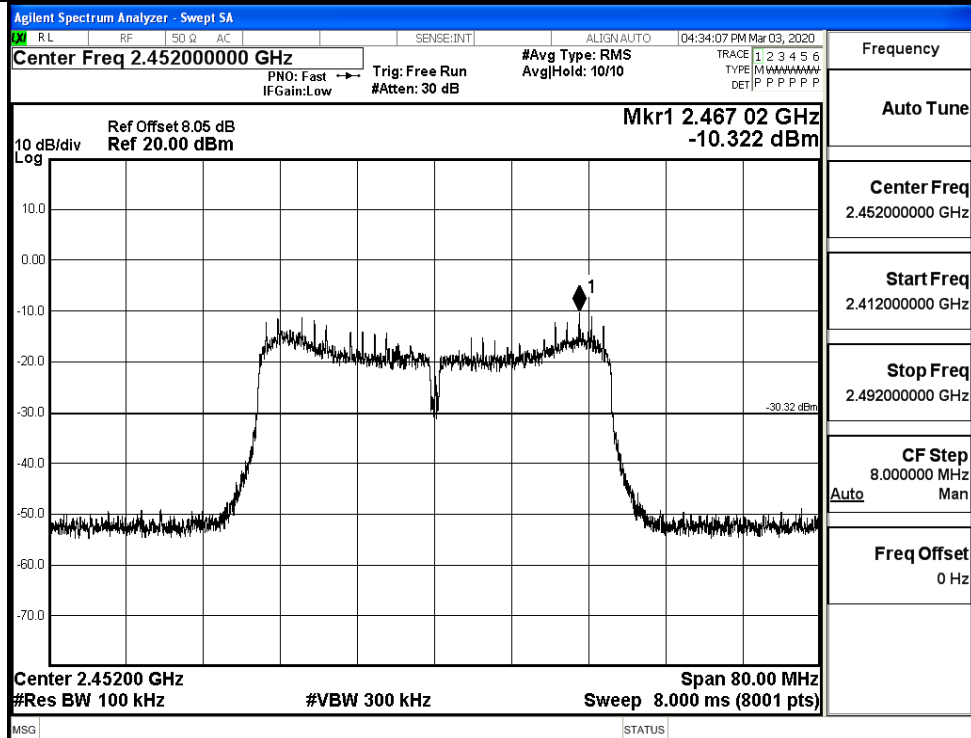
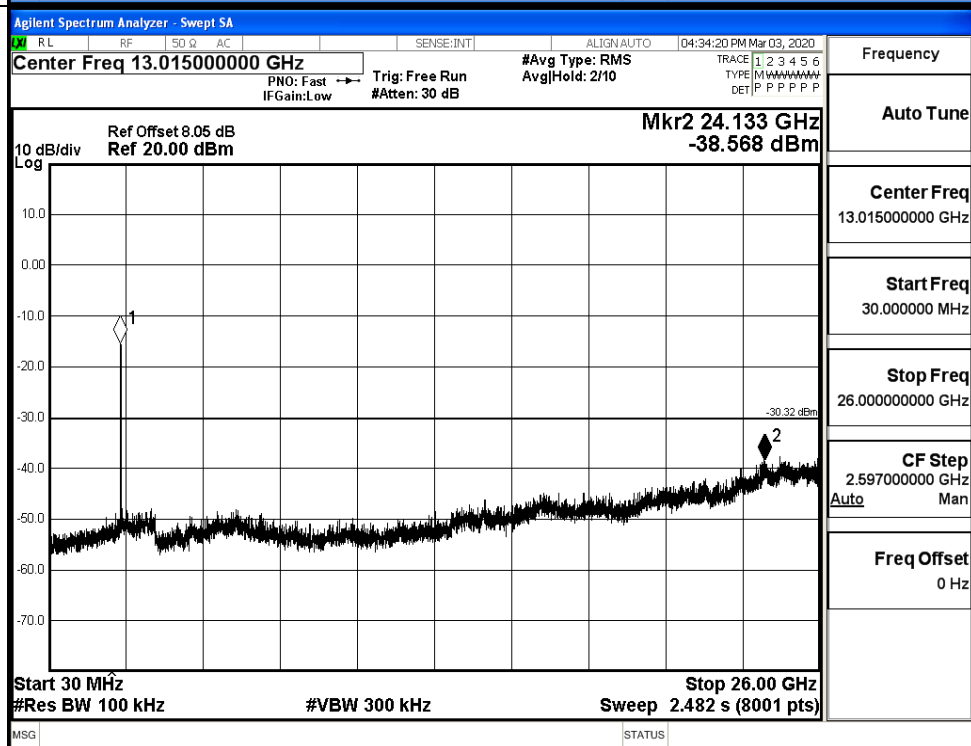
11N40SISO LCH Graphs

Pref/11N40
SISO/LCHPuw/11N40
SISO/LCH

11N40SISO_MCH_Graphs

Pref/11N40
SISO/MCHPuw/11N40
SISO/MCH

11N40SISO HCH Graphs

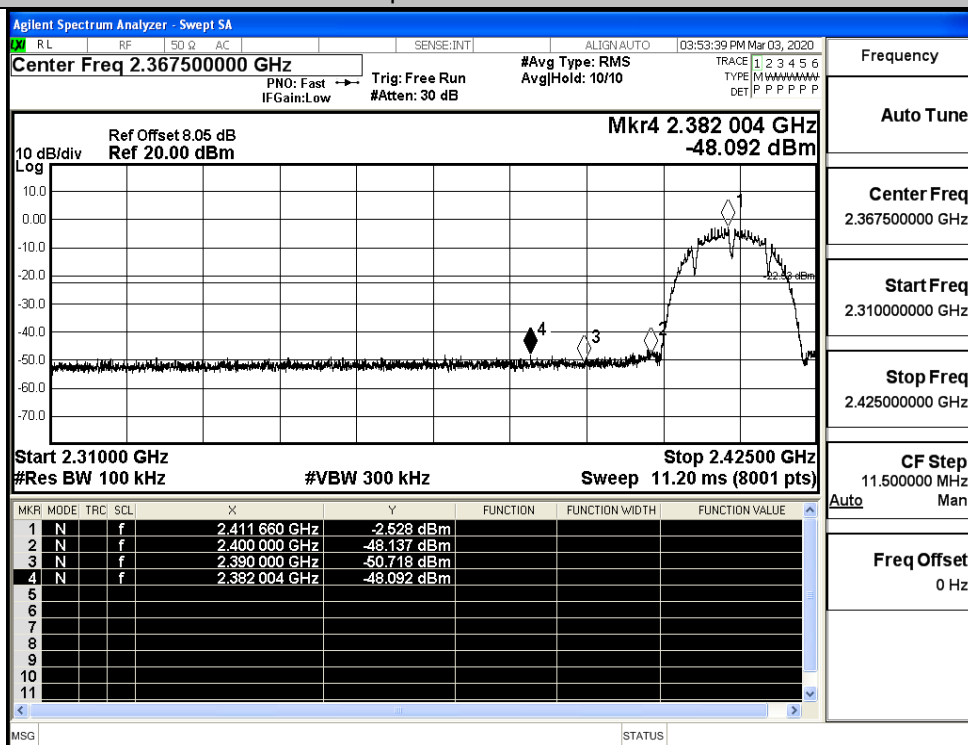
Pref/11N40
SISO/HCHPuw/11N40
SISO/HCH

A.6 Band-edge for RF Conducted Emissions

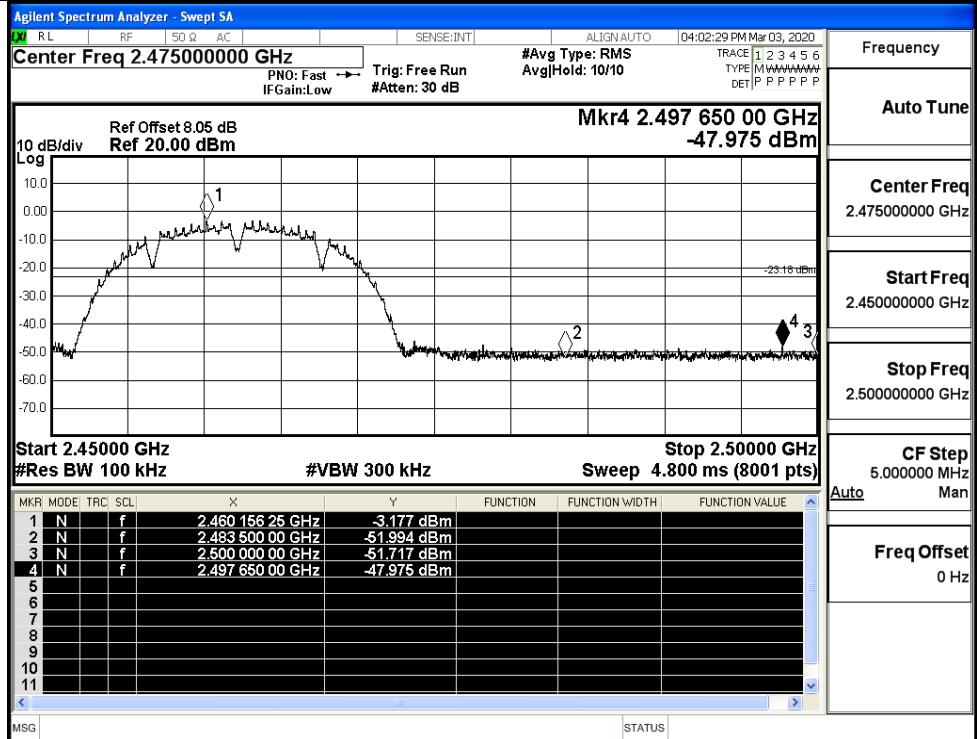
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-2.528	-48.092	-22.53	PASS
	HCH	-3.177	-47.975	-23.18	PASS
11G	LCH	-8.004	-48.623	-28	PASS
	HCH	-8.450	-48.787	-28.45	PASS
11N20SISO	LCH	-7.636	-48.535	-27.64	PASS
	HCH	-11.268	-48.063	-31.27	PASS
11N40SISO	LCH	-10.395	-49.480	-30.4	PASS
	HCH	-10.375	-48.853	-30.38	PASS

Test Graphs

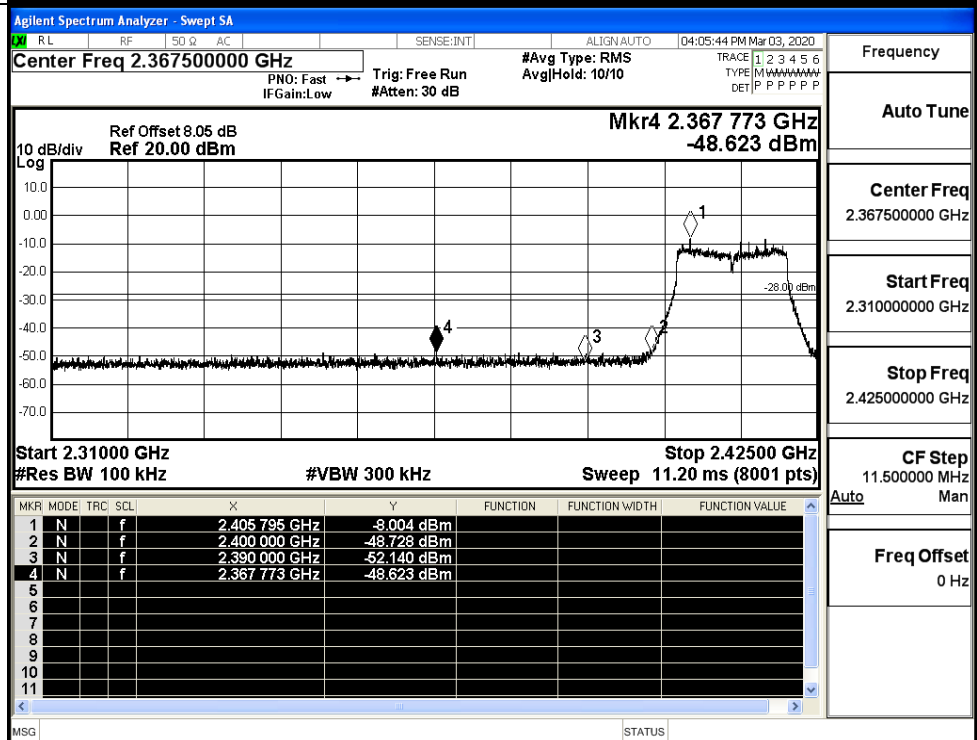
11B/LCH



11B/HCH



11G/LCH



Agilent Spectrum Analyzer - Swept SA

RL RF SO Q AC SENSE:INT ALIGN AUTO 04:10:56 PM Mar 03, 2020

Center Freq 2.475000000 GHz

PNO: Fast → Trigg: Free Run
IF Gain: Low #Atten: 30 dB

#Avg Type: RMS Avg/Hold: 10/10

TRACE 1 2 3 4 5 6
TYPE M W I A V N
DET P P P P P P

Mkr4 2.492 600 00 GHz
-48.787 dBm

Ref Offset 8.05 dB
Ref 20.00 dBm

10 dB/div Log

Start 2.45000 GHz
#Res BW 100 kHz

Stop 2.50000 GHz
Sweep 4.800 ms (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.469 543 75 GHz	-8.450 dBm			
2	N		f	2.483 500 00 GHz	-52.136 dBm			
3	N		f	2.500 000 00 GHz	-51.434 dBm			
4	N		f	2.492 600 00 GHz	-48.787 dBm			
5								
6								
7								
8								
9								
10								
11								

Auto Man

Freq Offset 0 Hz

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.367500000 GHz

Ref Offset 8.05 dB
Ref 20.00 dBm

Mkr4 2.377 606 GHz
-48.535 dBm

Start 2.31000 GHz
#Res BW 100 kHz

Stop 2.42500 GHz
Sweep 11.20 ms (8001 pts)

#VBW 300 kHz

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

Trace 1

TYPE M

DET P

P P P P P

PN0: Fast
IF Gain: Low

Trig: Free Run
#Atten: 30 dB

ALIGN AUTO

04:13:53 PM Mar 03, 2020

10 dB/div

Log

1

2

3

4

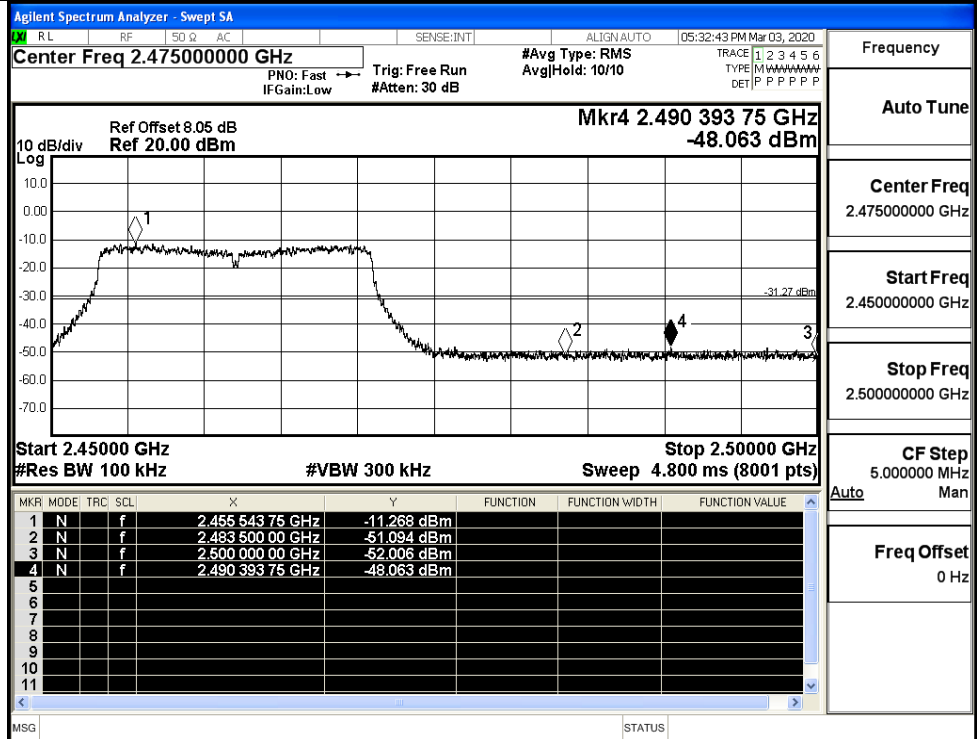
27.64 dBm

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.405 795 GHz	-7.636 dBm			
2	N		f	2.400 000 GHz	-47.113 dBm			
3	N		f	2.390 000 GHz	-51.587 dBm			
4	N		f	2.377 606 GHz	-48.535 dBm			
5								
6								
7								
8								
9								
10								
11								

MSG

STATUS

11N20SISO/HCH



Frequency

Auto Tune

Center Freq

2.475000000 GHz

Start Freq

2.450000000 GHz

Stop Freq

2.500000000 GHz

CF Step

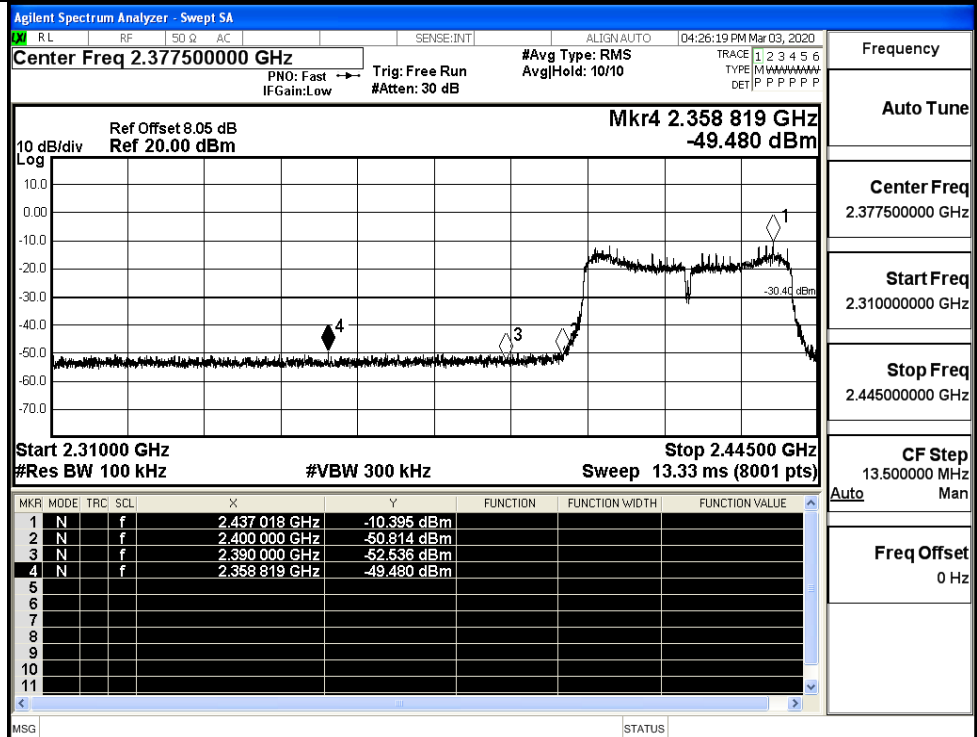
5.000000 MHz

Auto

Freq Offset

0 Hz

11N40SISO/LCH



Frequency

Auto Tune

Center Freq

2.377500000 GHz

Start Freq

2.310000000 GHz

Stop Freq

2.445000000 GHz

CF Step

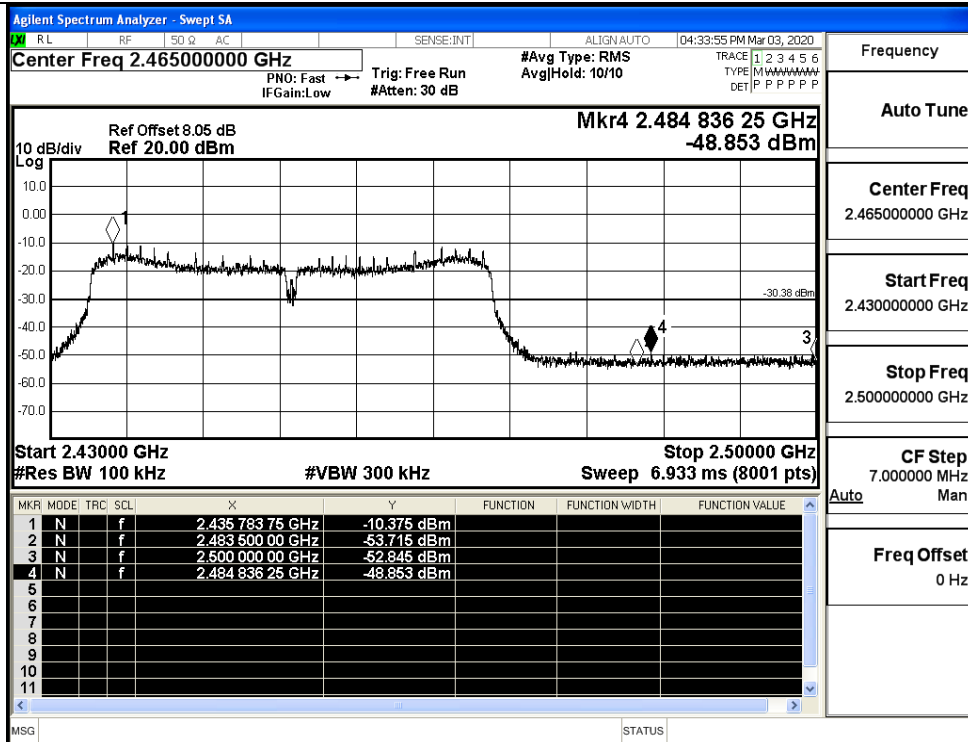
13.500000 MHz

Auto

Freq Offset

0 Hz

11N40SISO/HCH

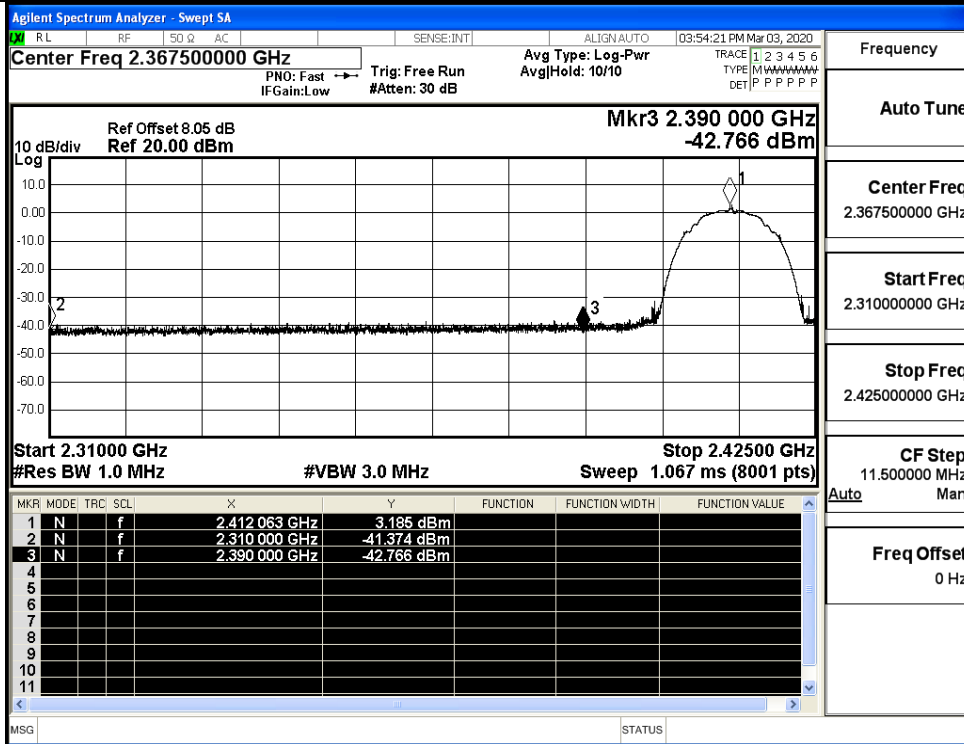


A.7 Restrict-band band-edge measurements

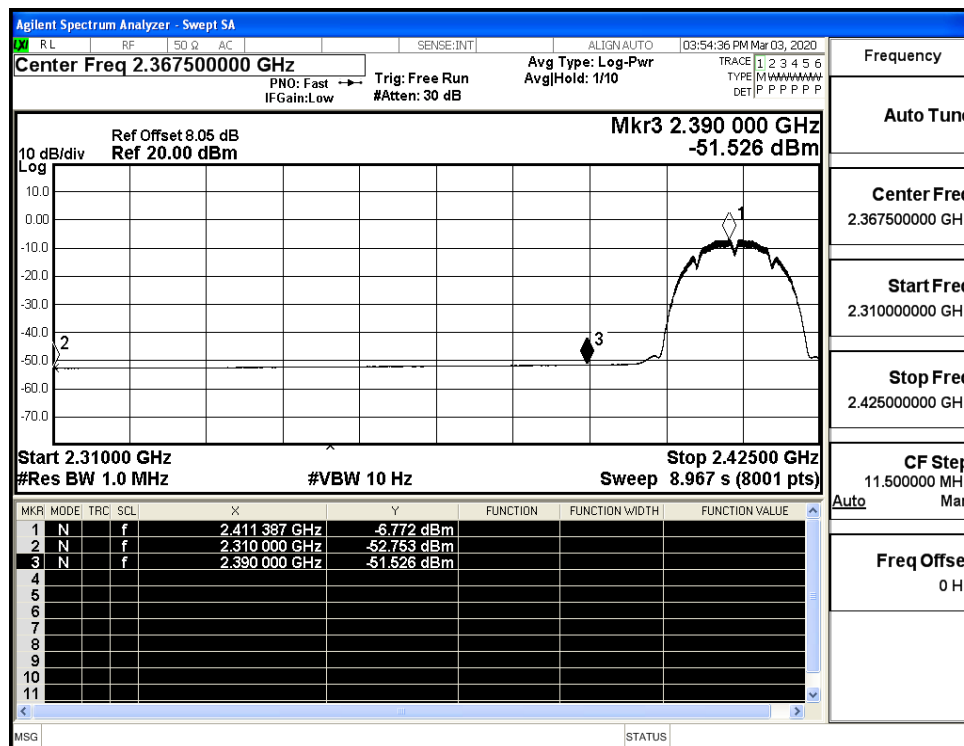
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-41.37	2.0	0	54.38	PEAK	74	PASS
	2412	Ant1	2310.0	-52.75	2.0	0	43.00	AV	54	PASS
	2412	Ant1	2390.0	-42.77	2.0	0	52.99	PEAK	74	PASS
	2412	Ant1	2390.0	-51.53	2.0	0	44.23	AV	54	PASS
	2462	Ant1	2483.5	-41.10	2.0	0	54.65	PEAK	74	PASS
	2462	Ant1	2483.5	-51.59	2.0	0	44.17	AV	54	PASS
	2462	Ant1	2500.0	-40.18	2.0	0	55.58	PEAK	74	PASS
	2462	Ant1	2500.0	-51.64	2.0	0	44.12	AV	54	PASS
11G	2412	Ant1	2310.0	-42.83	2.0	0	52.93	PEAK	74	PASS
	2412	Ant1	2310.0	-53.14	2.0	0	42.61	AV	54	PASS
	2412	Ant1	2390.0	-41.63	2.0	0	54.13	PEAK	74	PASS
	2412	Ant1	2390.0	-52.32	2.0	0	43.44	AV	54	PASS
	2462	Ant1	2483.5	-40.23	2.0	0	55.53	PEAK	74	PASS
	2462	Ant1	2483.5	-52.03	2.0	0	43.73	AV	54	PASS
	2462	Ant1	2500.0	-41.73	2.0	0	54.03	PEAK	74	PASS
	2462	Ant1	2500.0	-51.98	2.0	0	43.78	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-40.60	2.0	0	55.16	PEAK	74	PASS
	2412	Ant1	2310.0	-53.11	2.0	0	42.65	AV	54	PASS
	2412	Ant1	2390.0	-40.54	2.0	0	55.22	PEAK	74	PASS
	2412	Ant1	2390.0	-52.28	2.0	0	43.48	AV	54	PASS
	2462	Ant1	2483.5	-39.72	2.0	0	56.04	PEAK	74	PASS
	2462	Ant1	2483.5	-52.07	2.0	0	43.68	AV	54	PASS
	2462	Ant1	2500.0	-41.21	2.0	0	54.55	PEAK	74	PASS
	2462	Ant1	2500.0	-52.02	2.0	0	43.73	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-42.12	2.0	0	53.64	PEAK	74	PASS
	2422	Ant1	2310.0	-53.44	2.0	0	42.32	AV	54	PASS

	2422	Ant1	2390.0	-43.06	2.0	0	52.70	PEAK	74	PASS
	2422	Ant1	2390.0	-52.81	2.0	0	42.94	AV	54	PASS
	2452	Ant1	2483.5	-41.90	2.0	0	53.86	PEAK	74	PASS
	2452	Ant1	2483.5	-52.57	2.0	0	43.19	AV	54	PASS
	2452	Ant1	2500.0	-42.10	2.0	0	53.66	PEAK	74	PASS
	2452	Ant1	2500.0	-52.44	2.0	0	43.31	AV	54	PASS

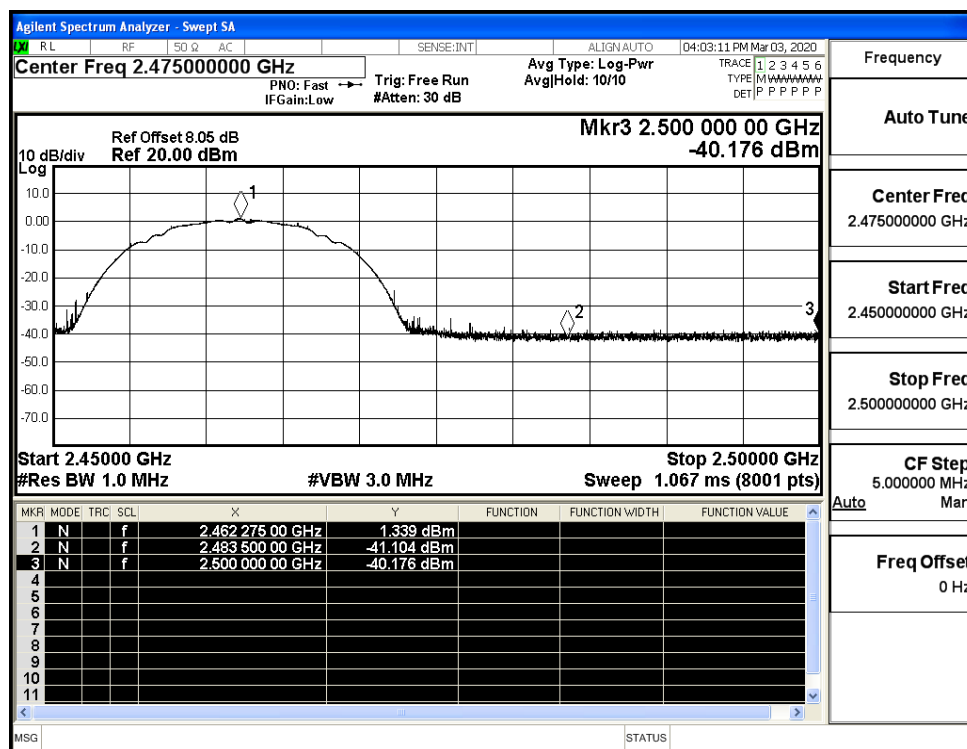
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



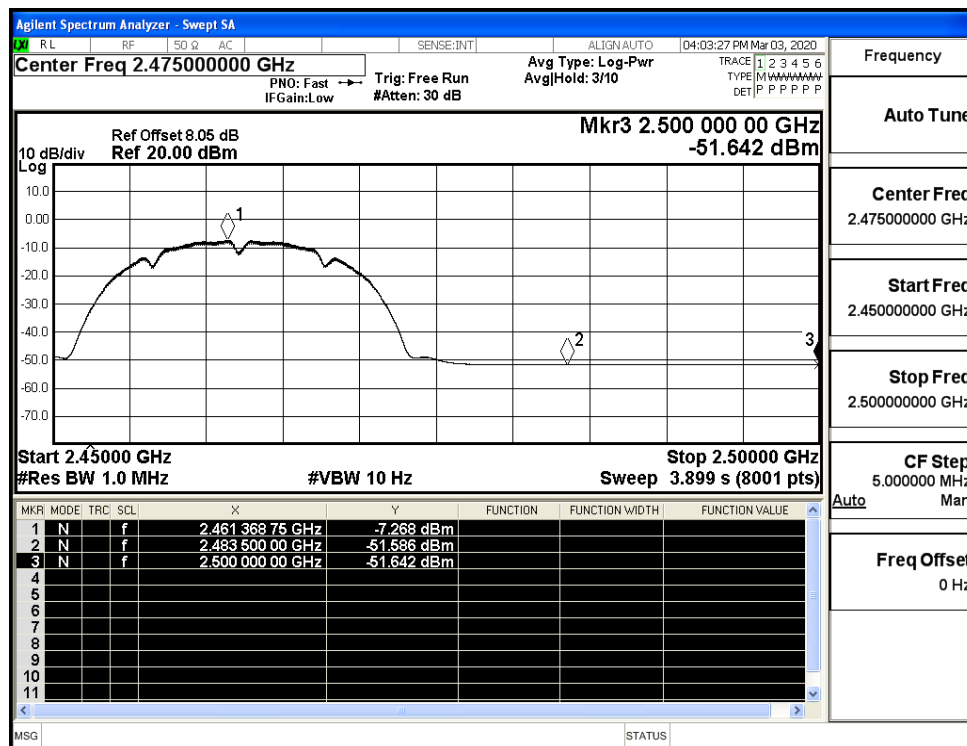
Restrict-band band-edge measurements_11B_2412_Ant1_AV



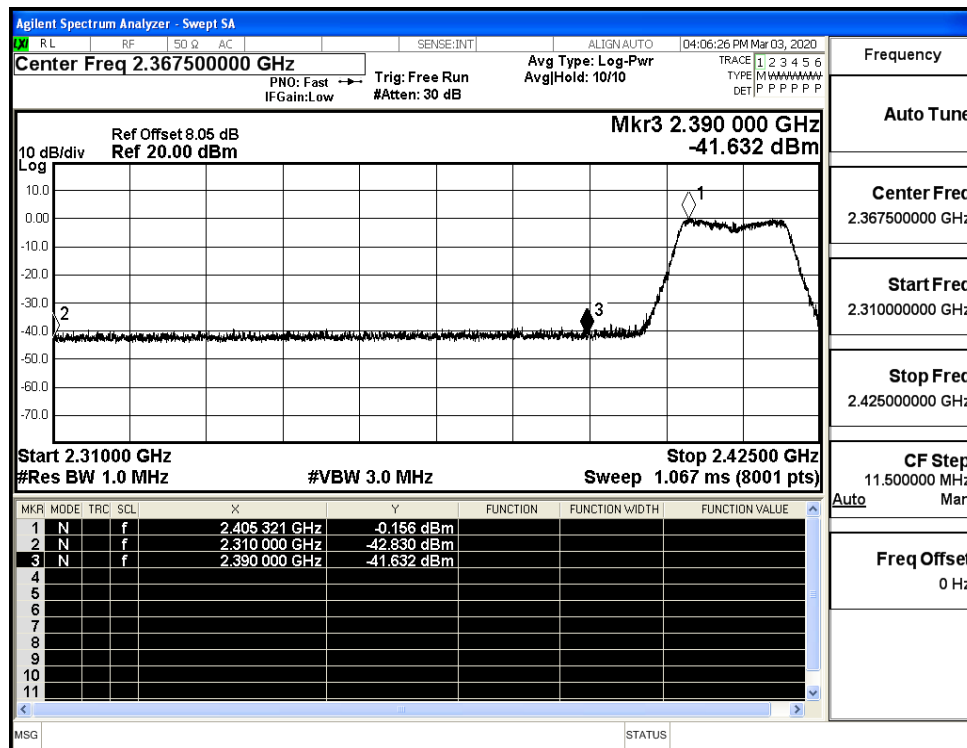
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



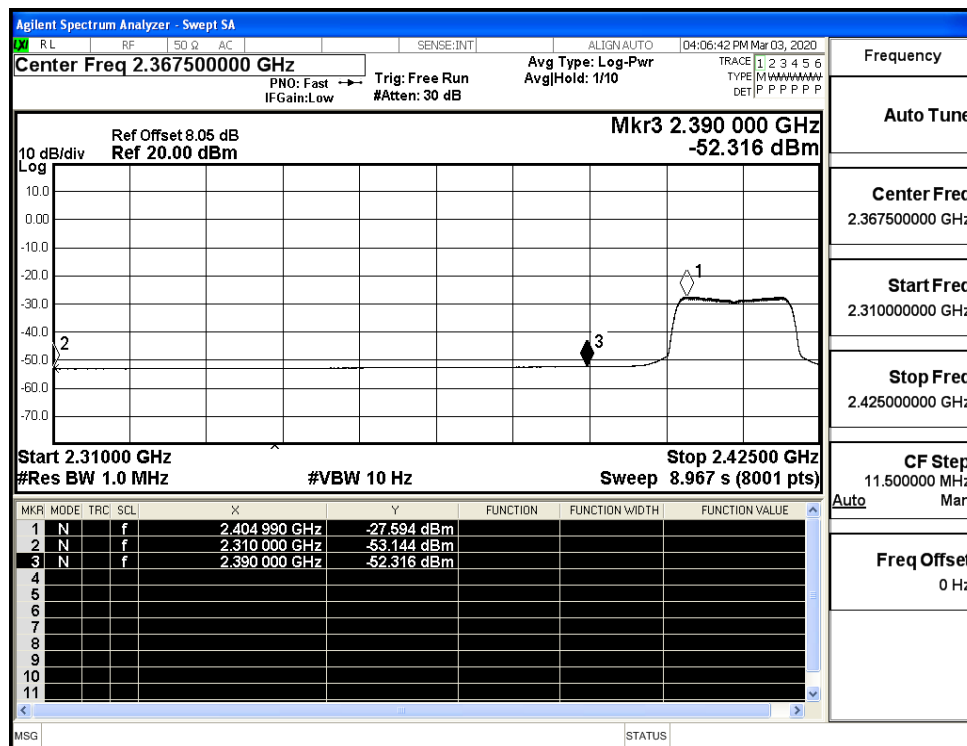
Restrict-band band-edge measurements_11B_2462_Ant1_AV



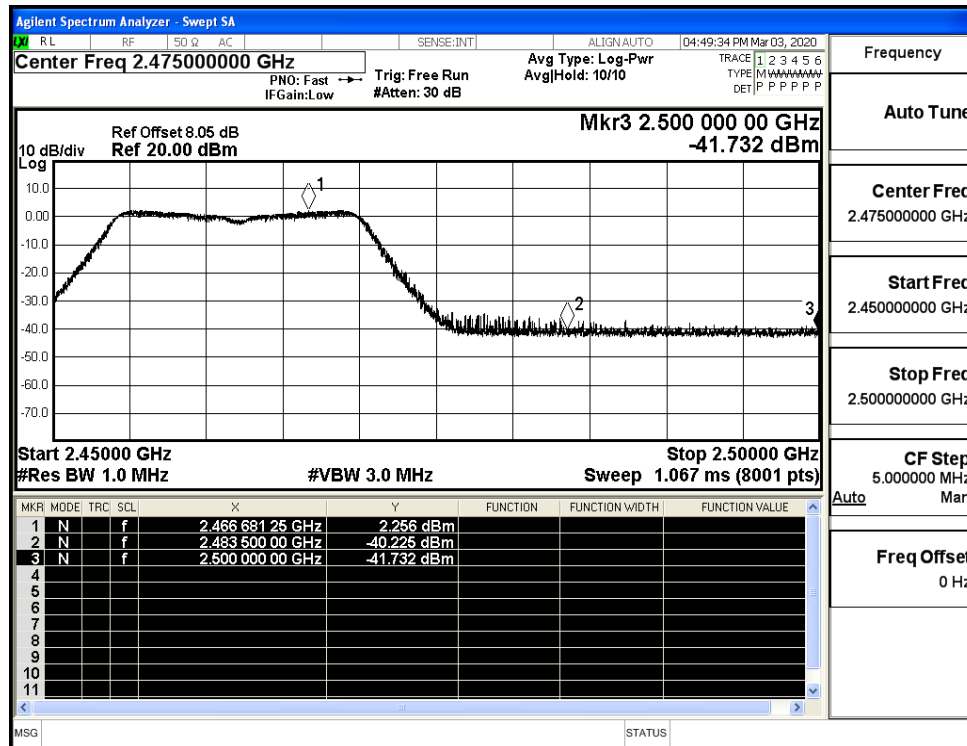
Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



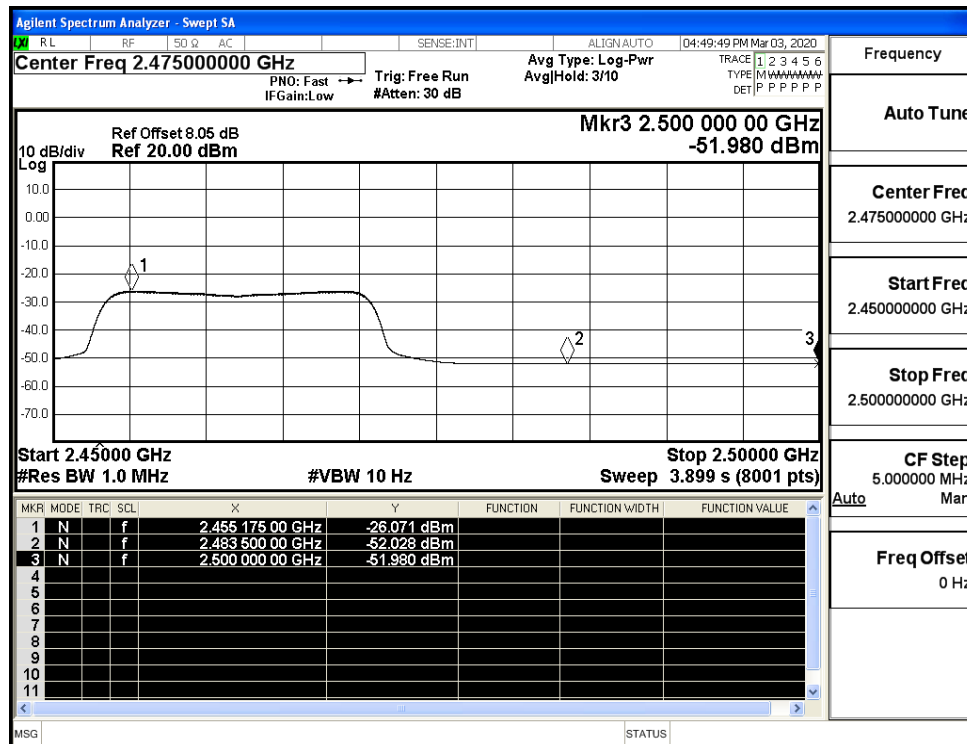
Restrict-band band-edge measurements_11G_2412_Ant1_AV



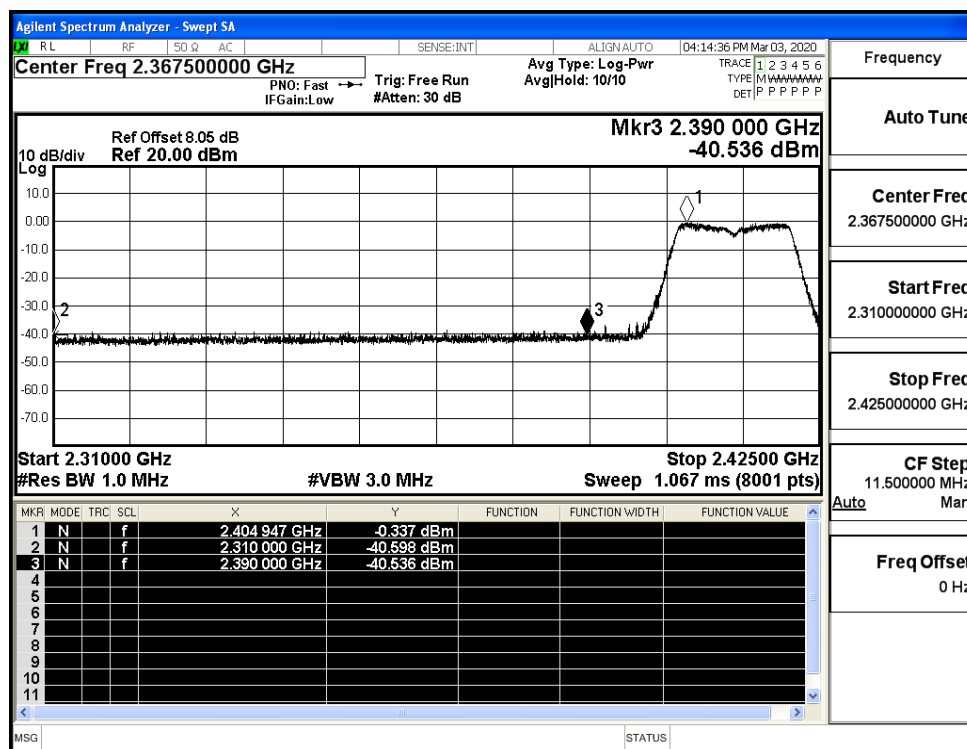
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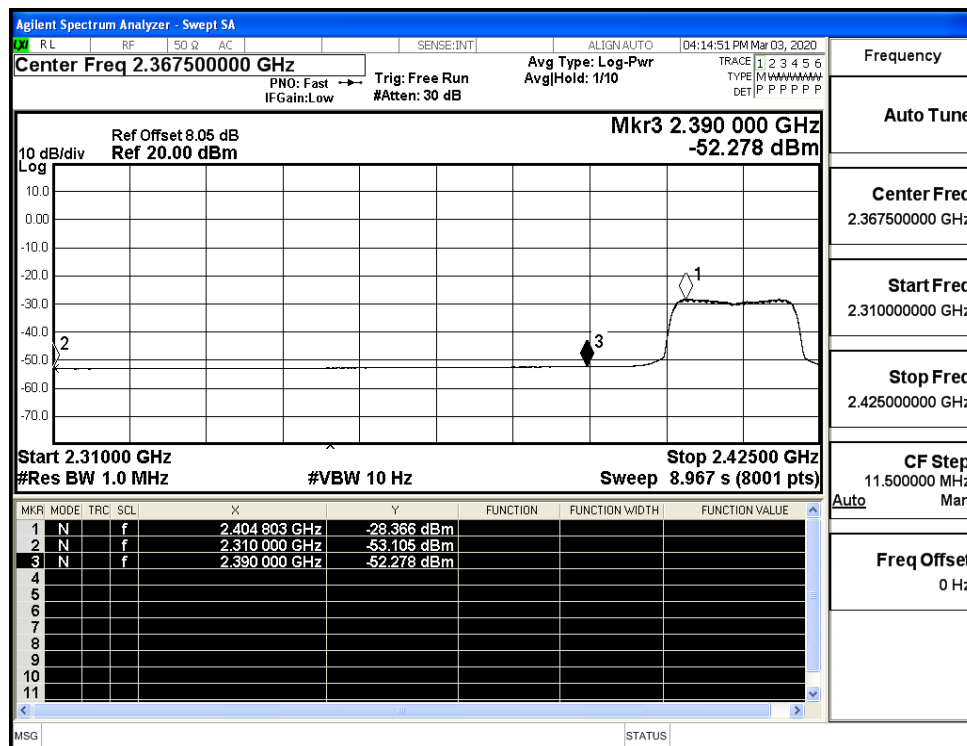
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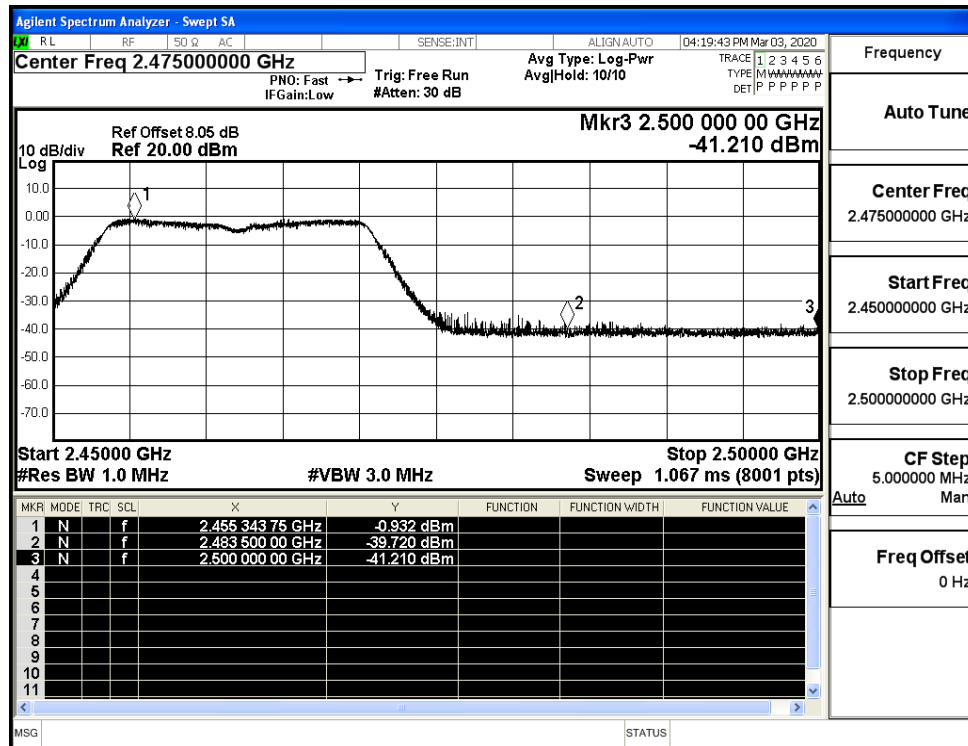
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



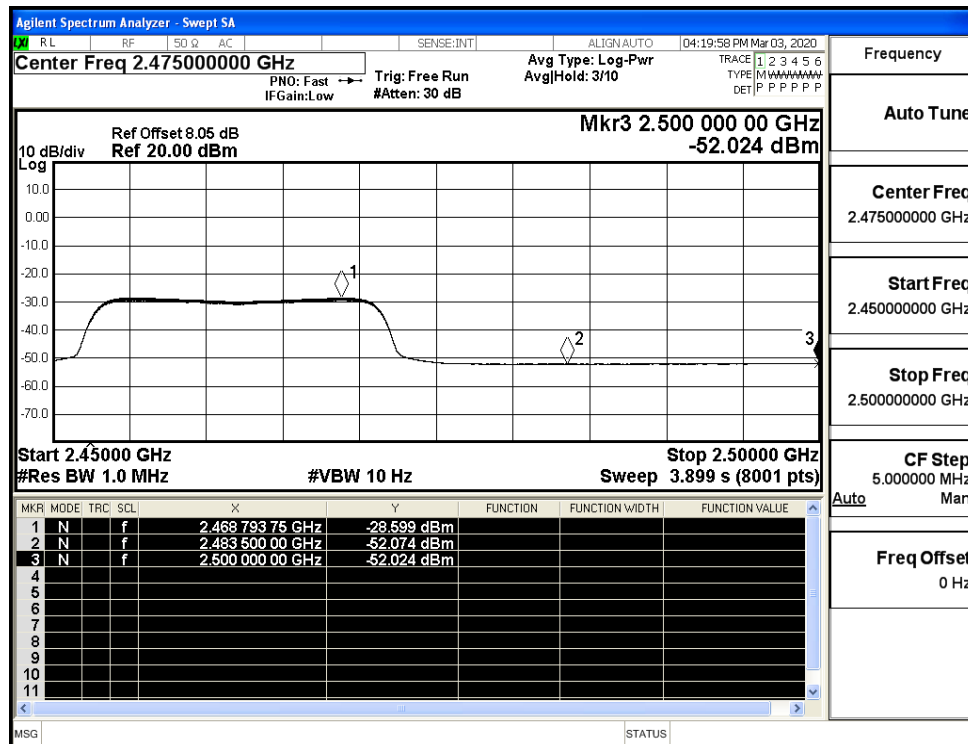
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_AV



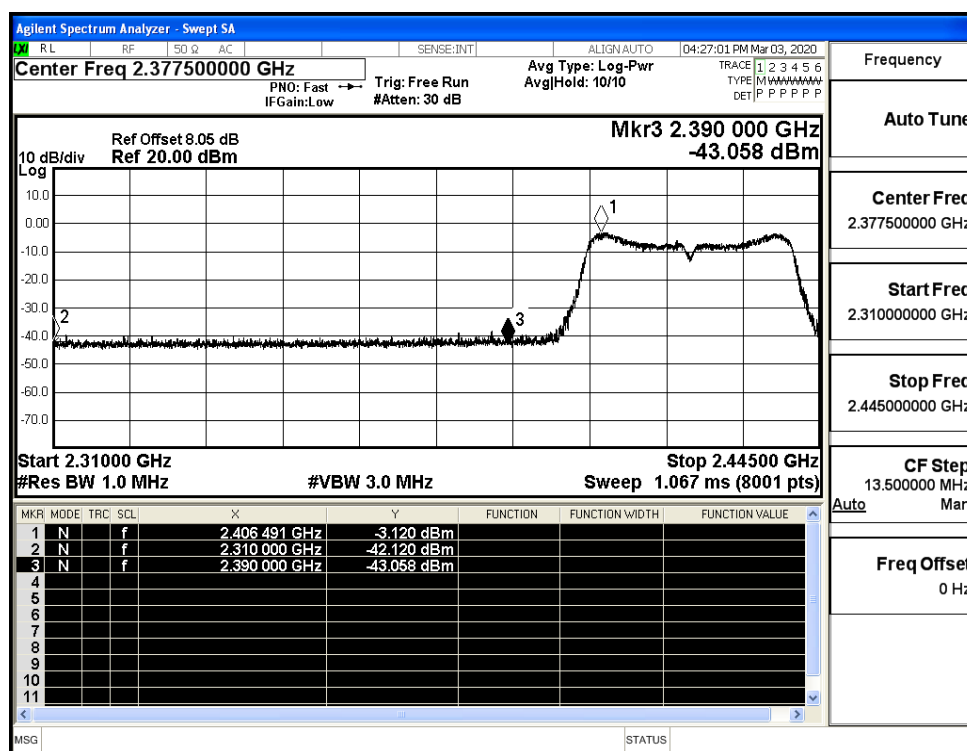
Restrict-band band-edge measurements_11N20SISO_2462_Ant1_PEAK



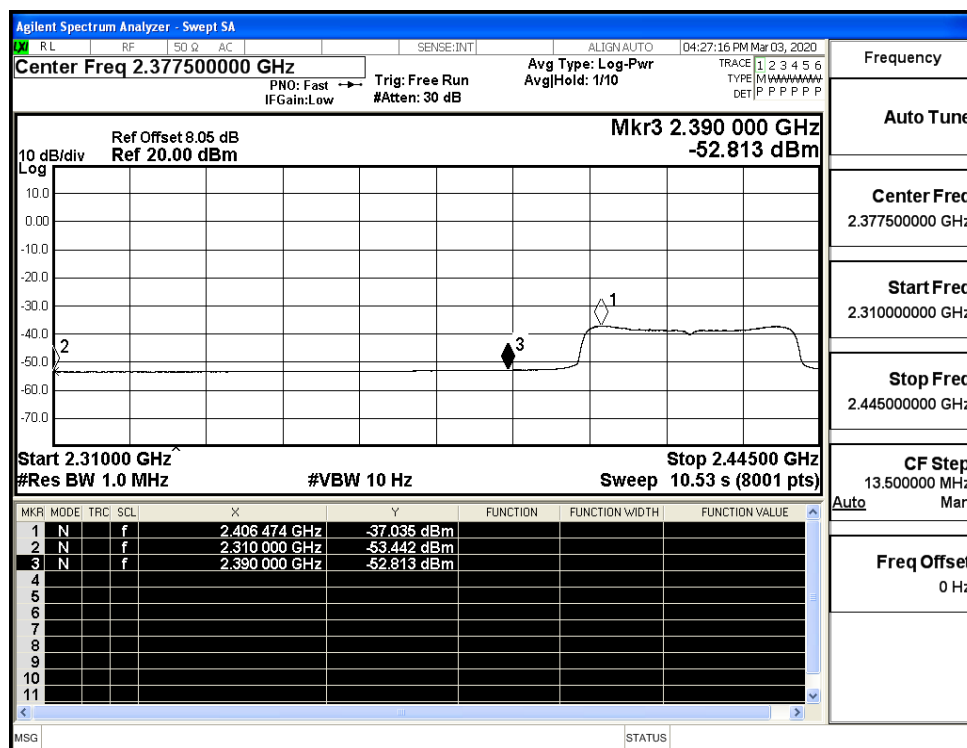
Restrict-band band-edge measurements_11N20SISO_2462_Ant1_AV



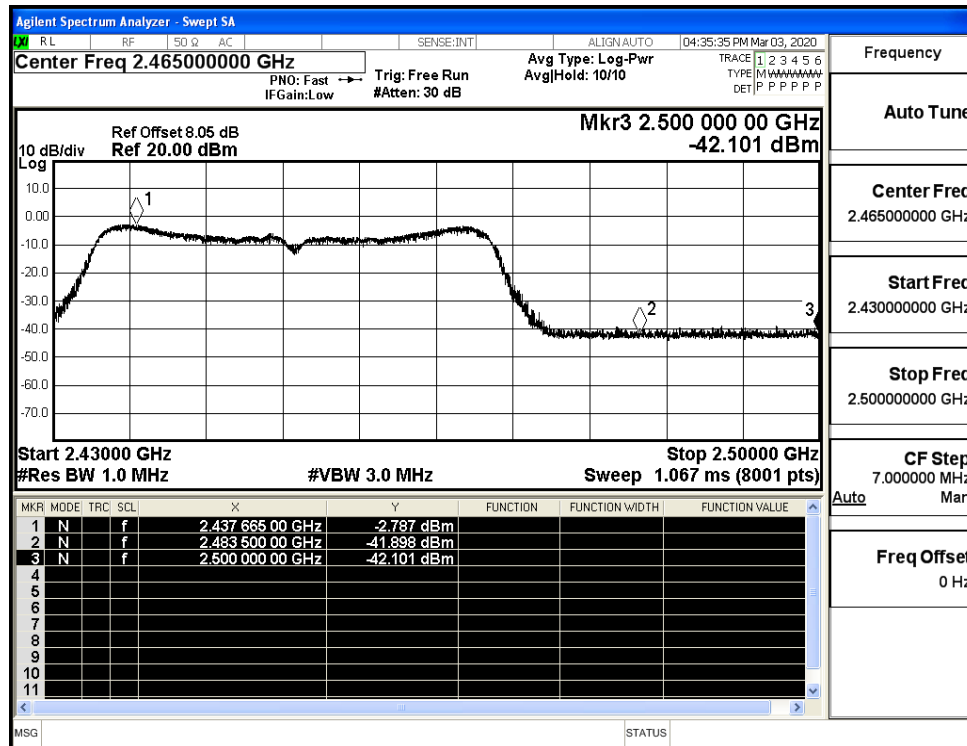
Restrict-band band-edge measurements_11N40SISO_2422_Ant1_PEAK



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

