

Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: All-in-One PC

Trade Mark: 

Test Model: EV-AIO-185-1

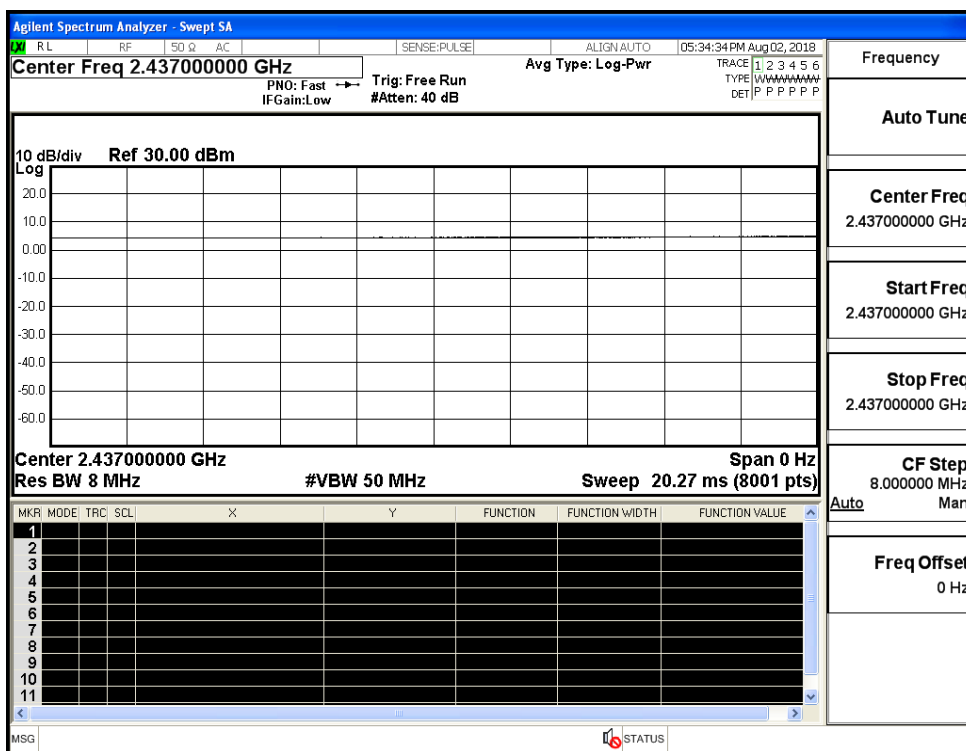
Environmental Conditions

Temperature:	24.6 ° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Wilson.Hong
Supervised by:	Jayden.Zhuo

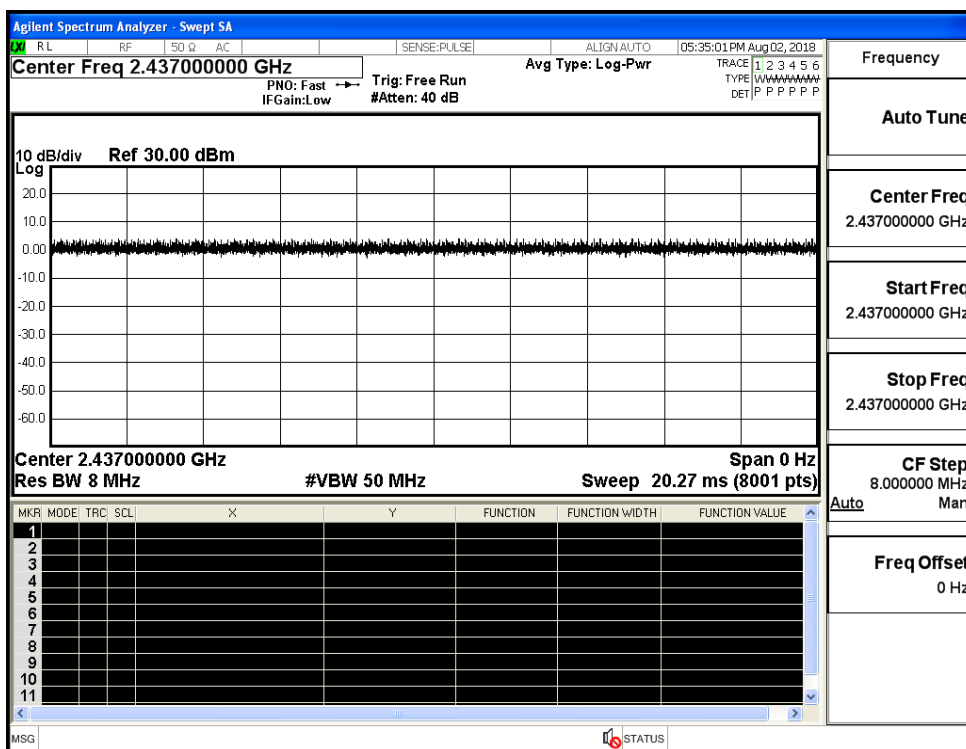
C.1 Duty Cycle

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

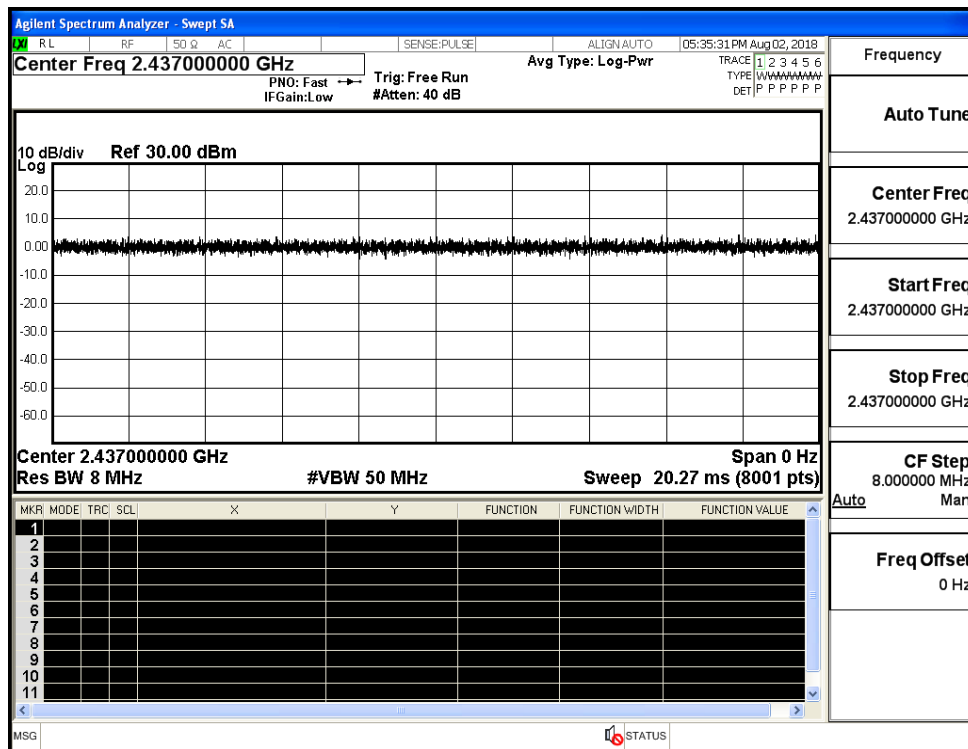
Duty Cycle_11B_2437_Ant1



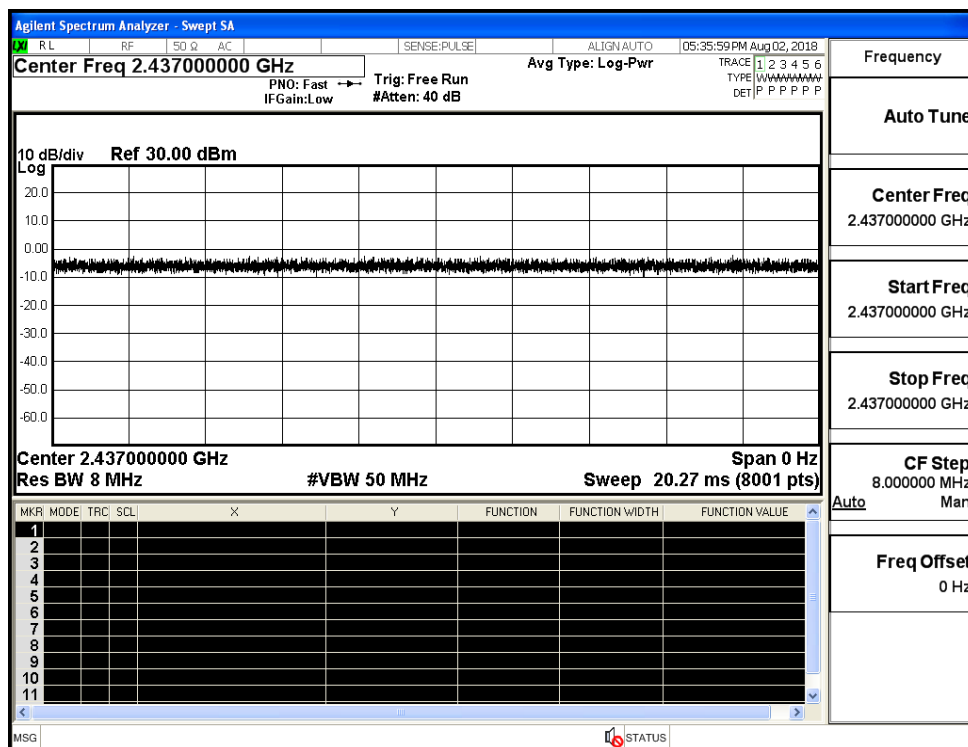
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



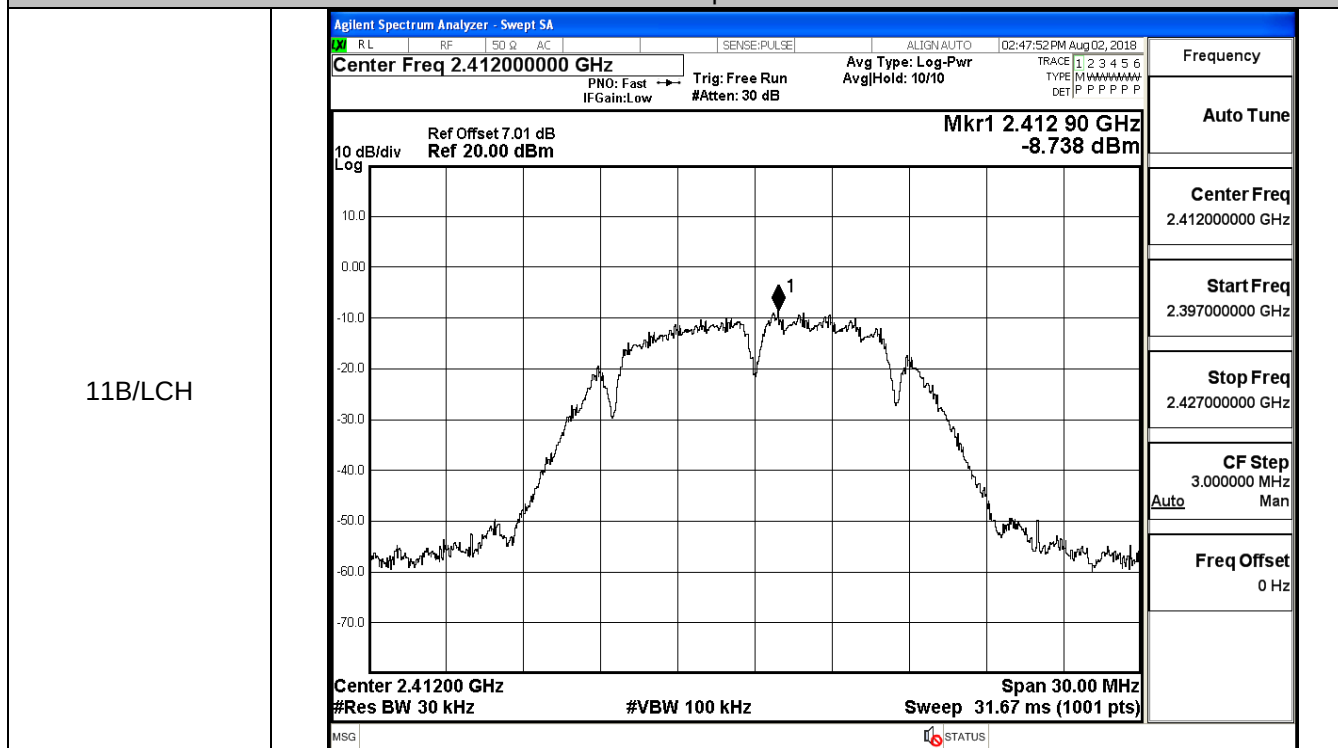
C.2 Maximum Peak Conducted Output Power

Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	12.35	30	PASS
	MCH	12.77	30	PASS
	HCH	13.55	30	PASS
11G	LCH	14.37	30	PASS
	MCH	14.70	30	PASS
	HCH	14.74	30	PASS
11N20SISO	LCH	16.68	30	PASS
	MCH	16.68	30	PASS
	HCH	17.24	30	PASS
11N40SISO	LCH	17.01	30	PASS
	MCH	18.09	30	PASS
	HCH	17.33	30	PASS

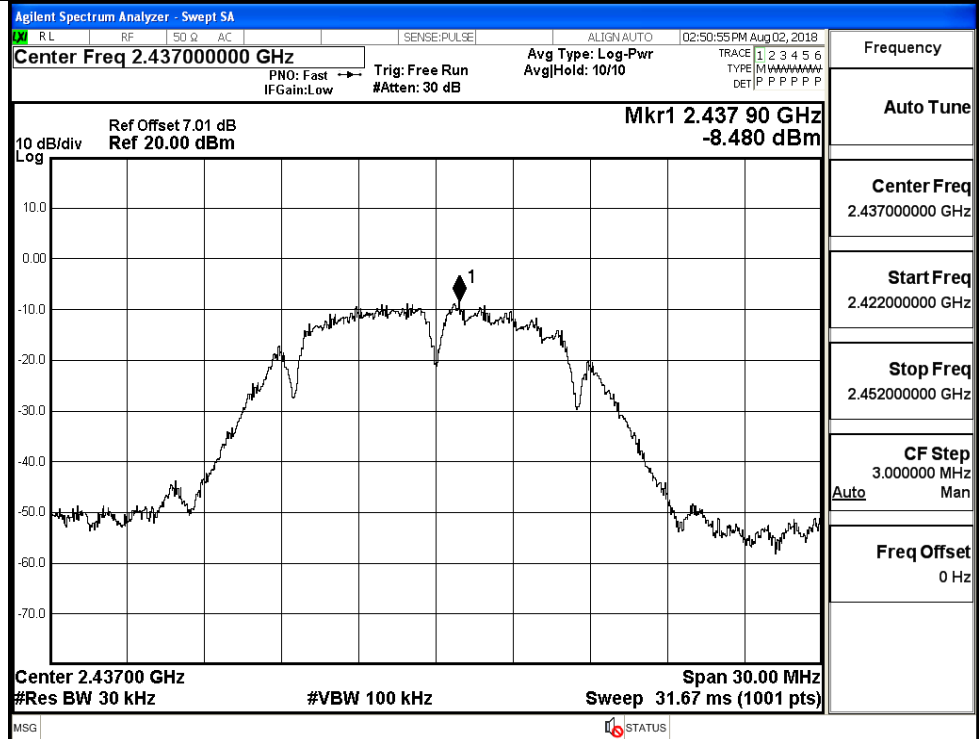
C.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/30KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-8.738	8	PASS
	MCH	-8.480	8	PASS
	HCH	-8.997	8	PASS
11G	LCH	-13.403	8	PASS
	MCH	-13.342	8	PASS
	HCH	-11.531	8	PASS
11N20SISO	LCH	-13.940	8	PASS
	MCH	-12.407	8	PASS
	HCH	-12.814	8	PASS
11N40SISO	LCH	-14.238	8	PASS
	MCH	-16.477	8	PASS
	HCH	-14.037	8	PASS

Test Graphs



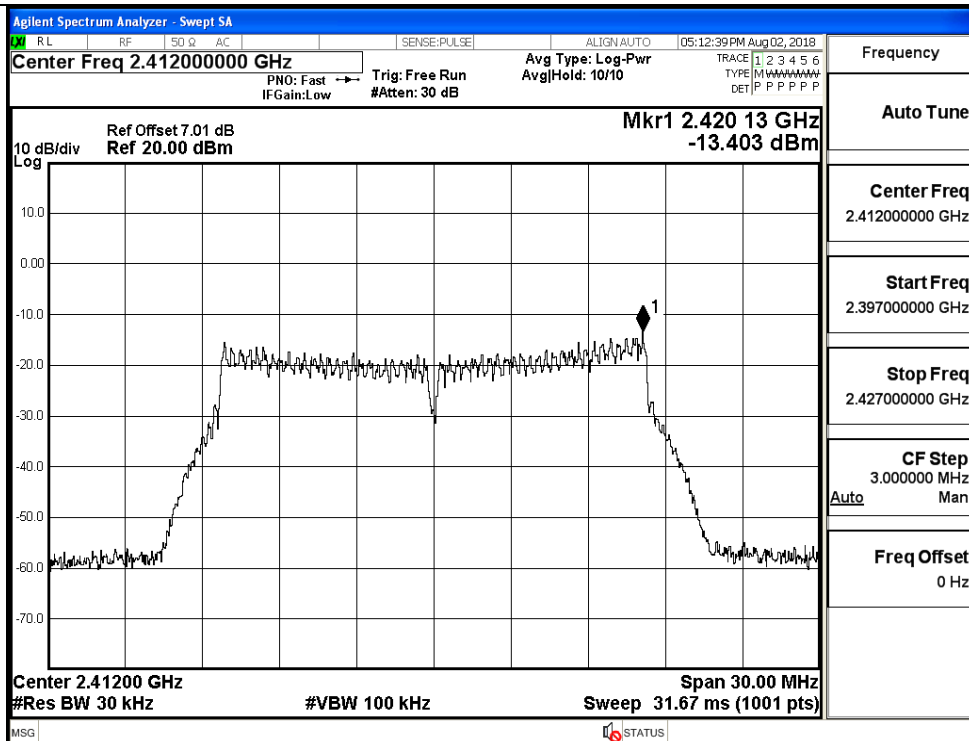
11B/MCH



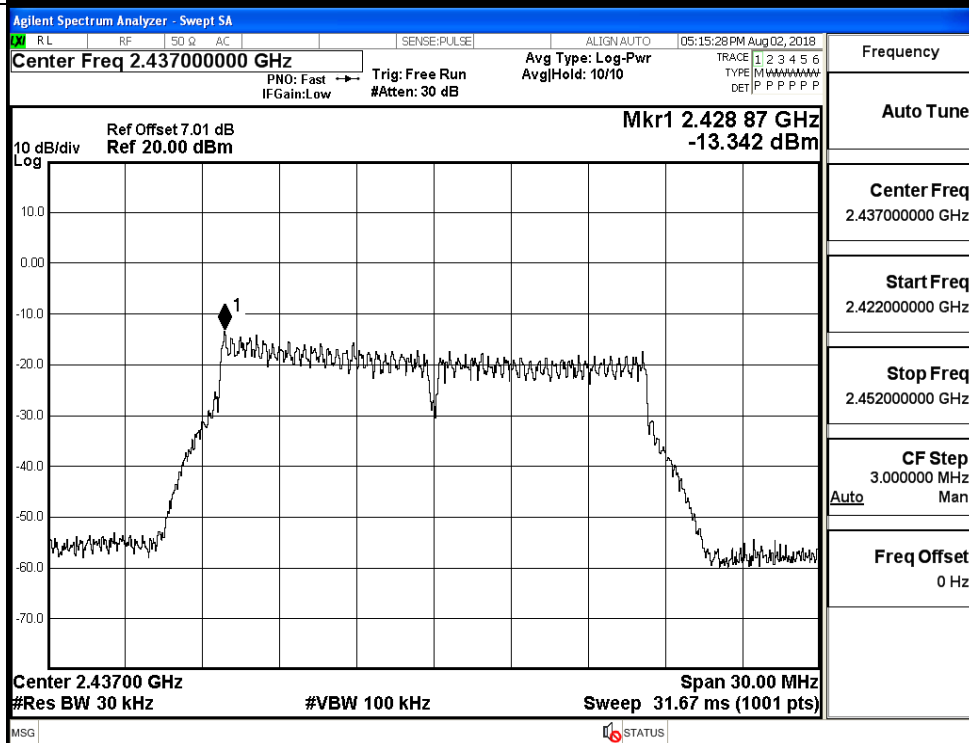
11B/HCH



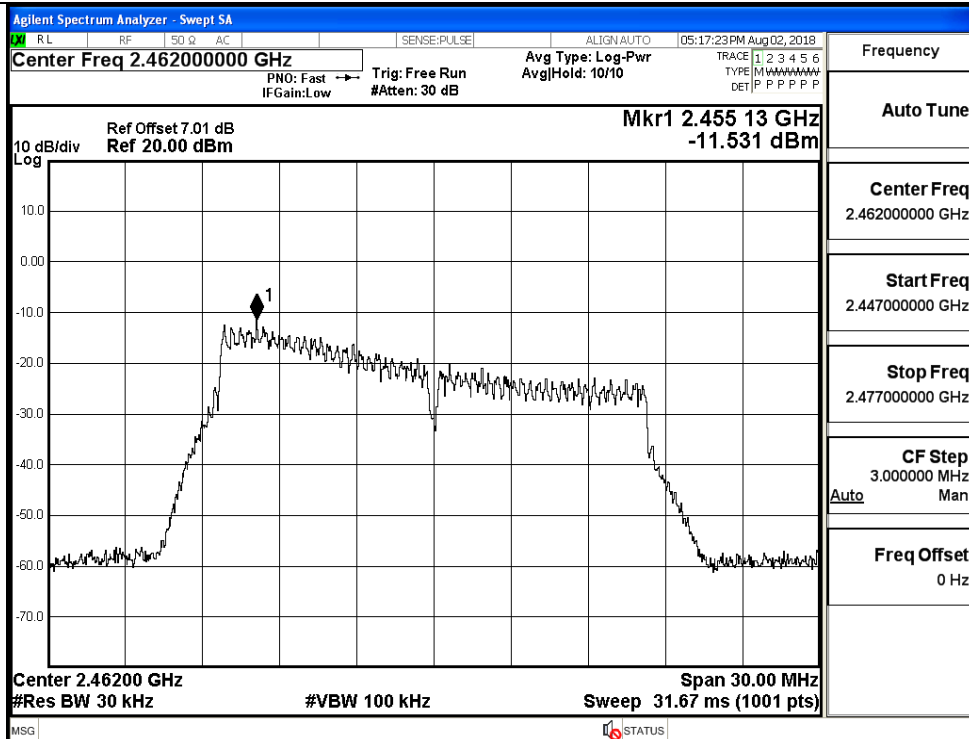
11G/LCH



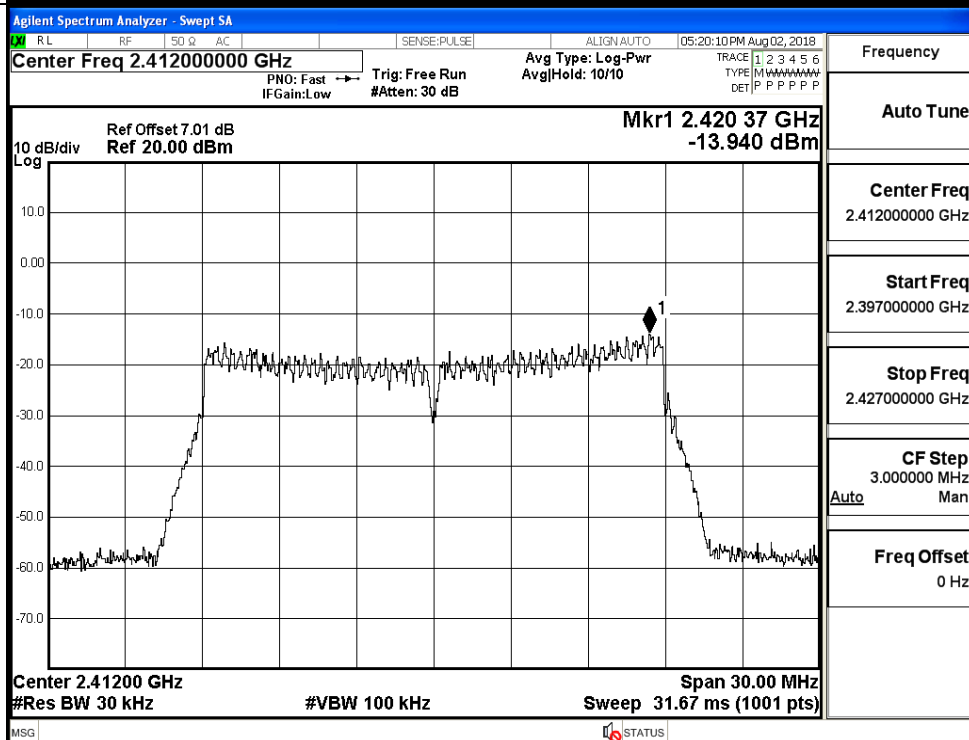
11G/MCH

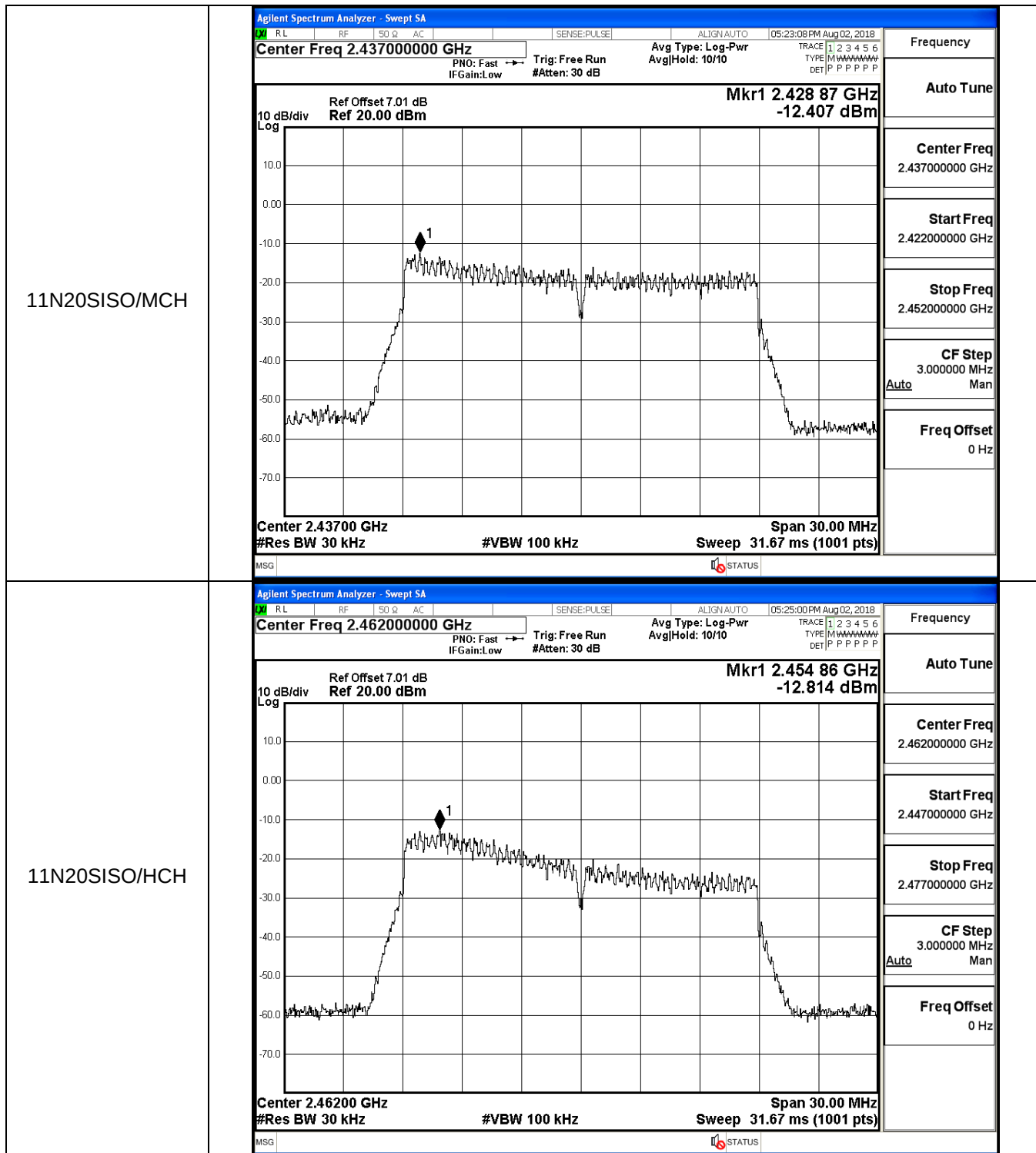


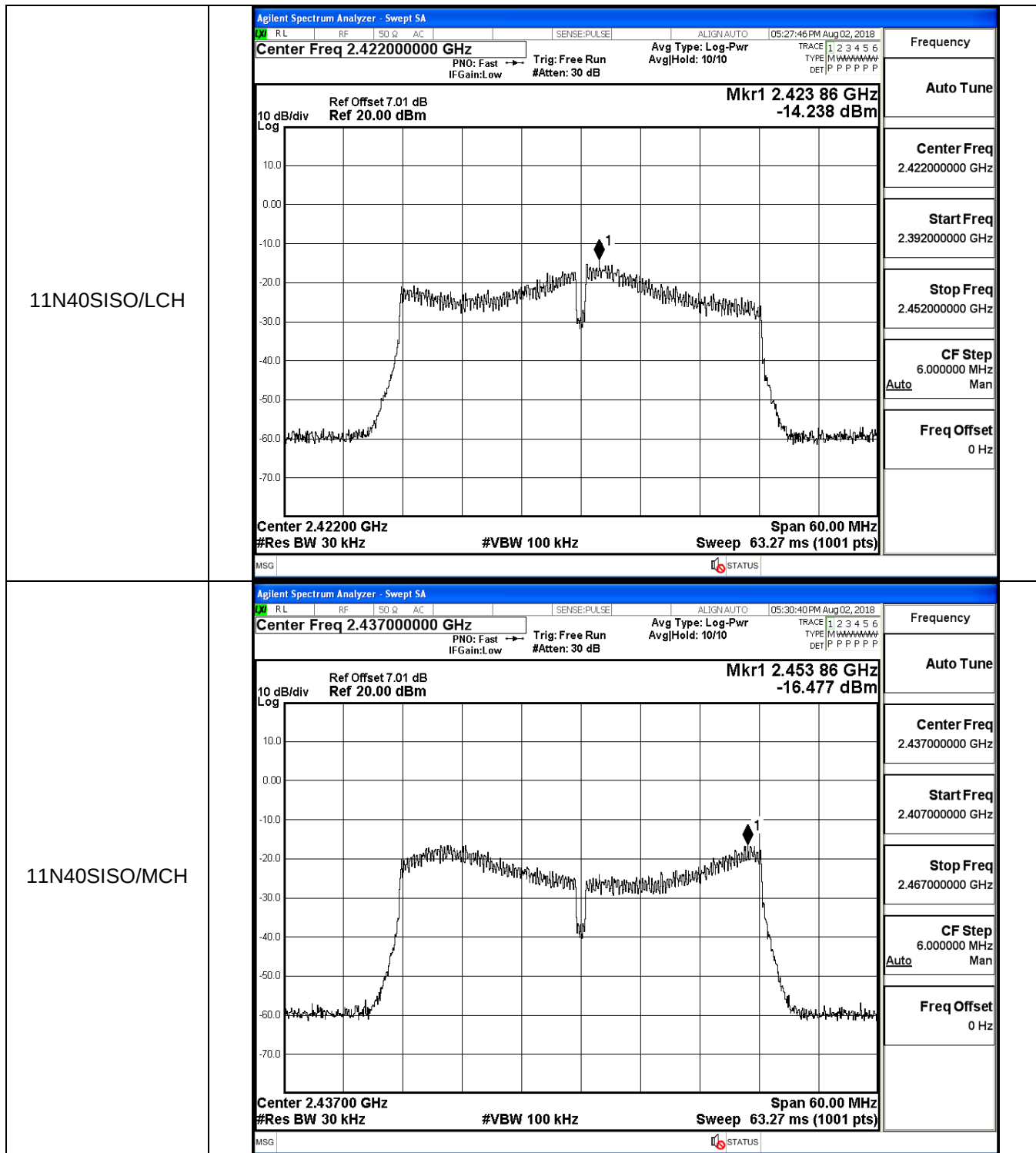
11G/HCH

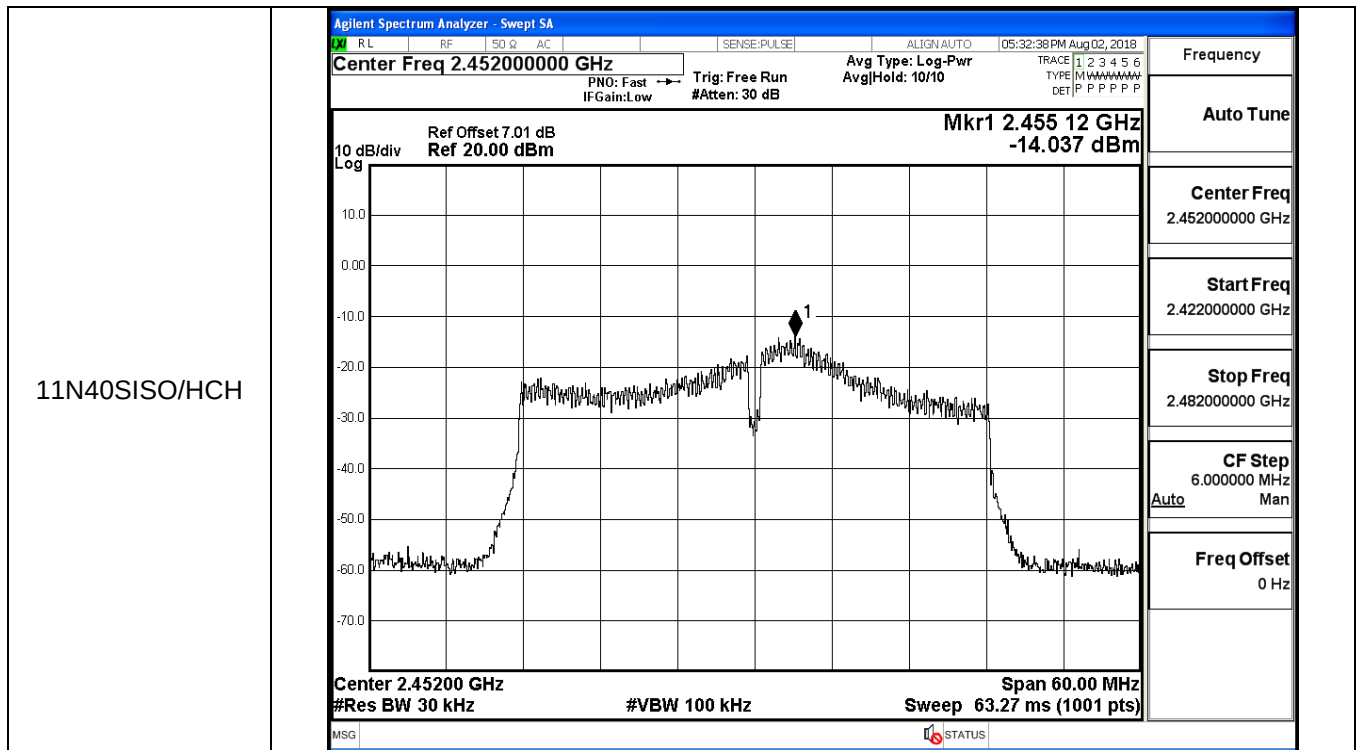


11N20SISO/LCH





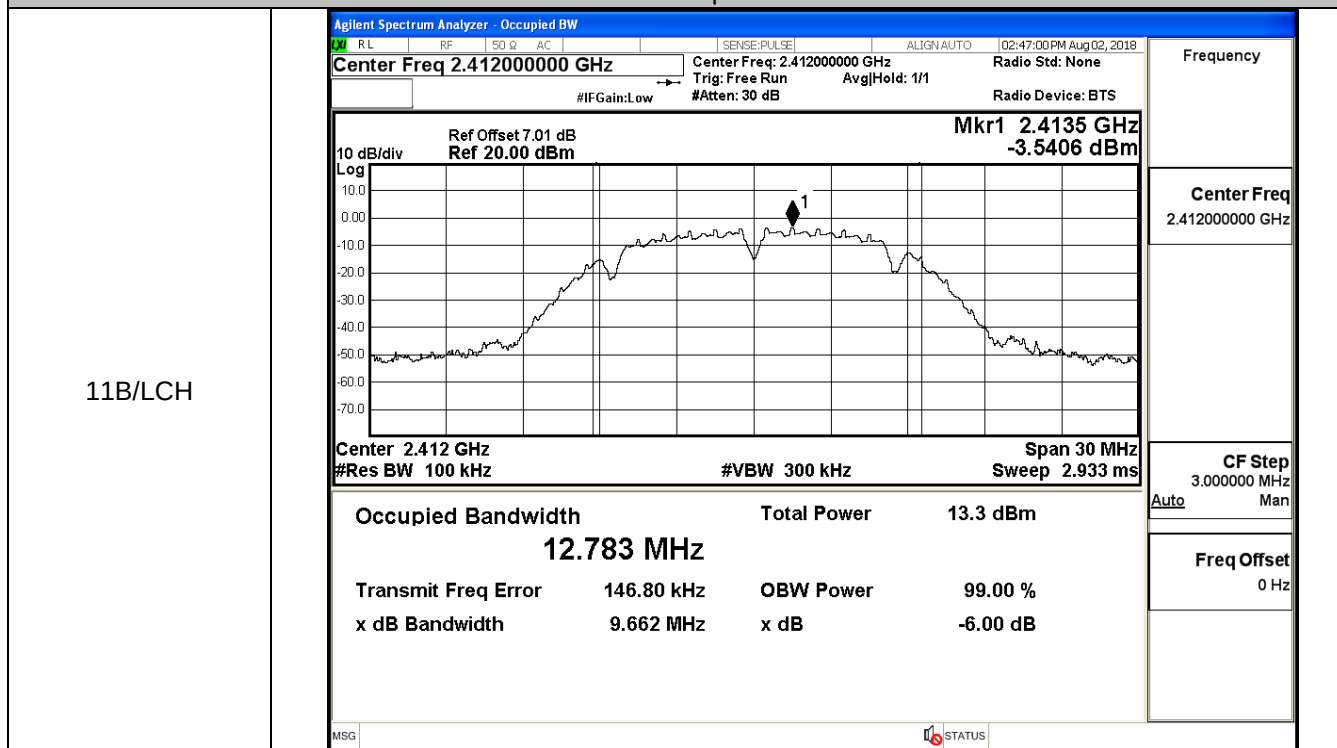




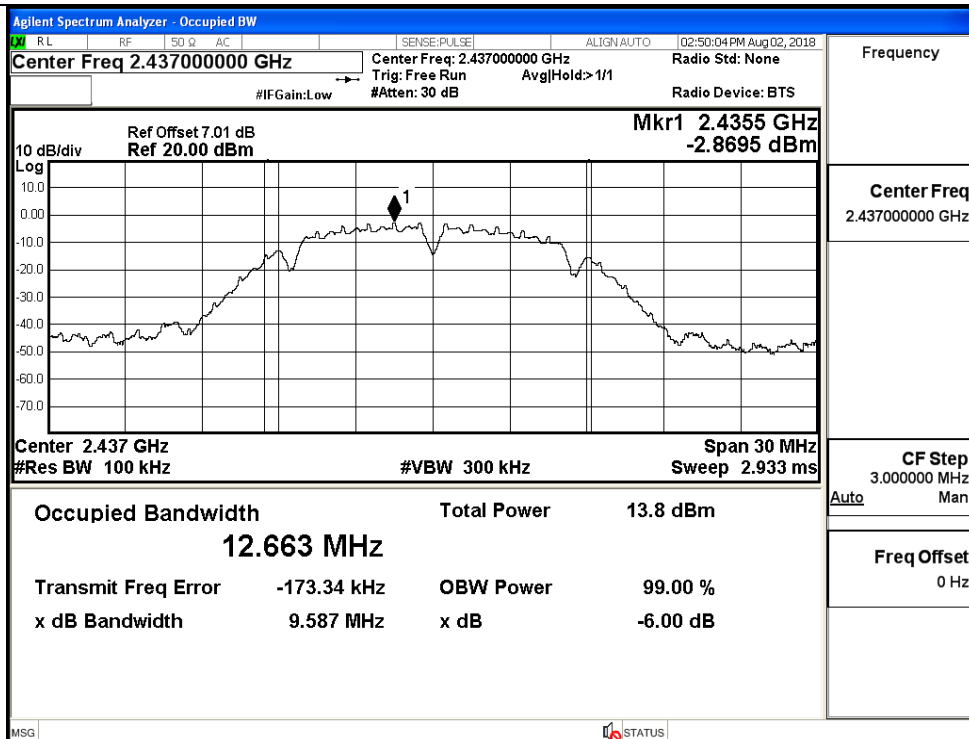
C.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.662	≥ 0.5	PASS
	MCH	9.587	≥ 0.5	PASS
	HCH	8.695	≥ 0.5	PASS
11G	LCH	16.62	≥ 0.5	PASS
	MCH	16.51	≥ 0.5	PASS
	HCH	16.45	≥ 0.5	PASS
11N20SISO	LCH	17.82	≥ 0.5	PASS
	MCH	17.75	≥ 0.5	PASS
	HCH	17.46	≥ 0.5	PASS
11N40SISO	LCH	35.71	≥ 0.5	PASS
	MCH	36.44	≥ 0.5	PASS
	HCH	35.45	≥ 0.5	PASS

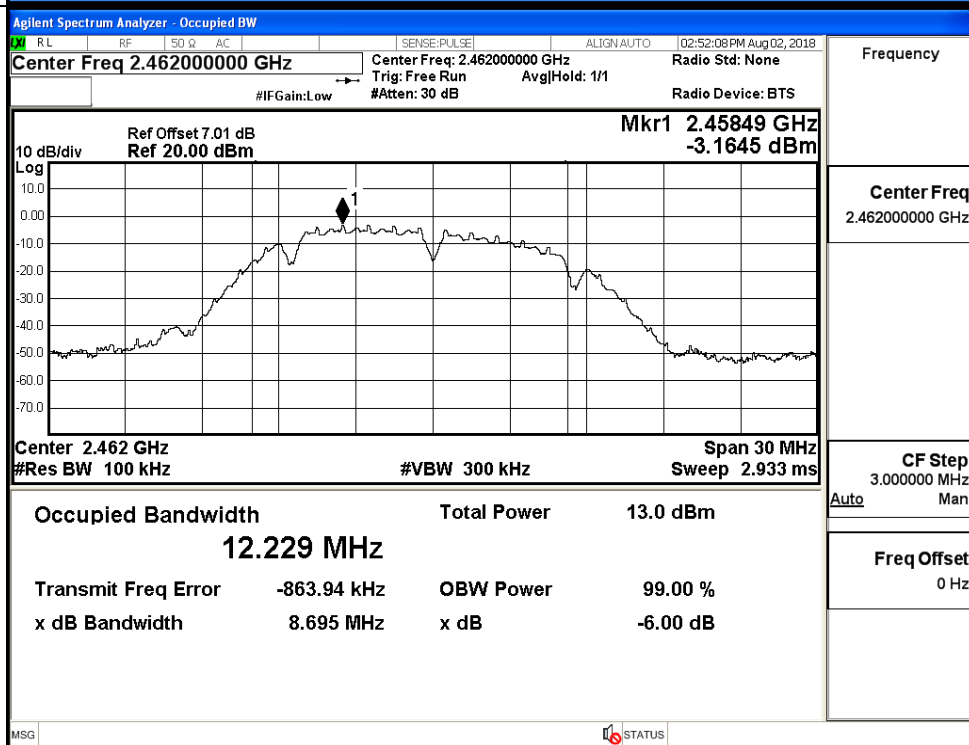
Test Graphs



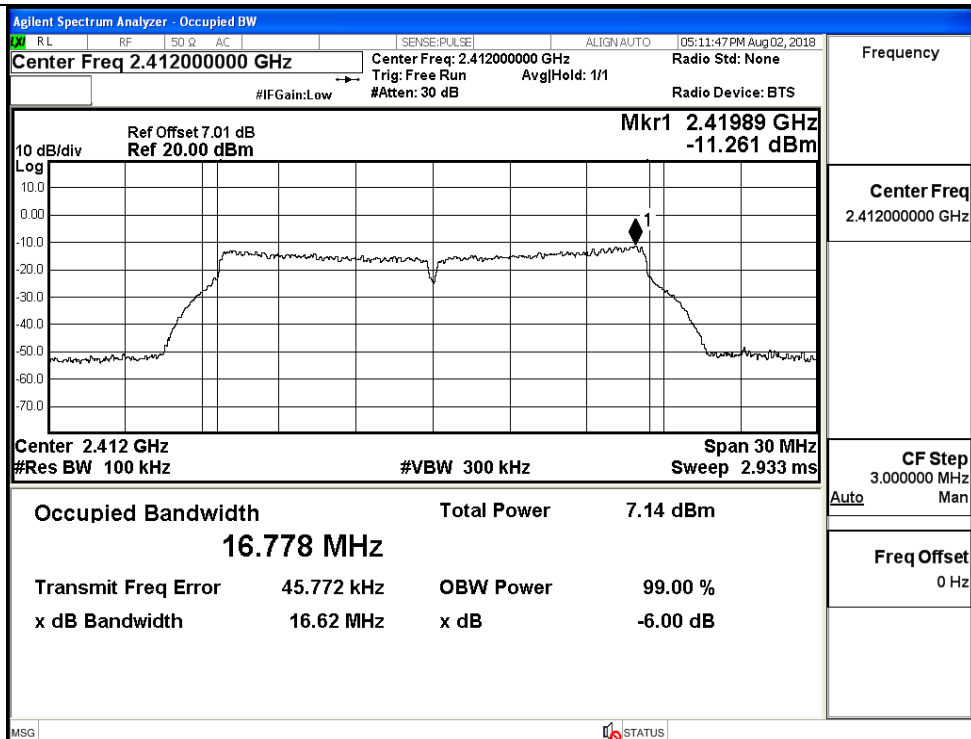
11B/MCH



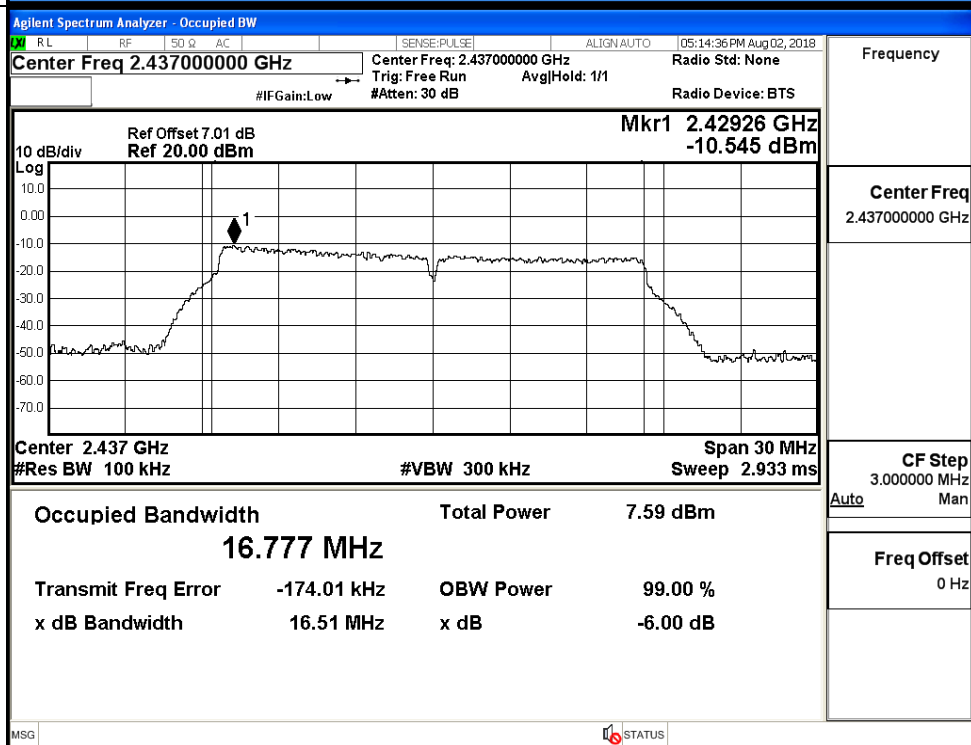
11B/HCH



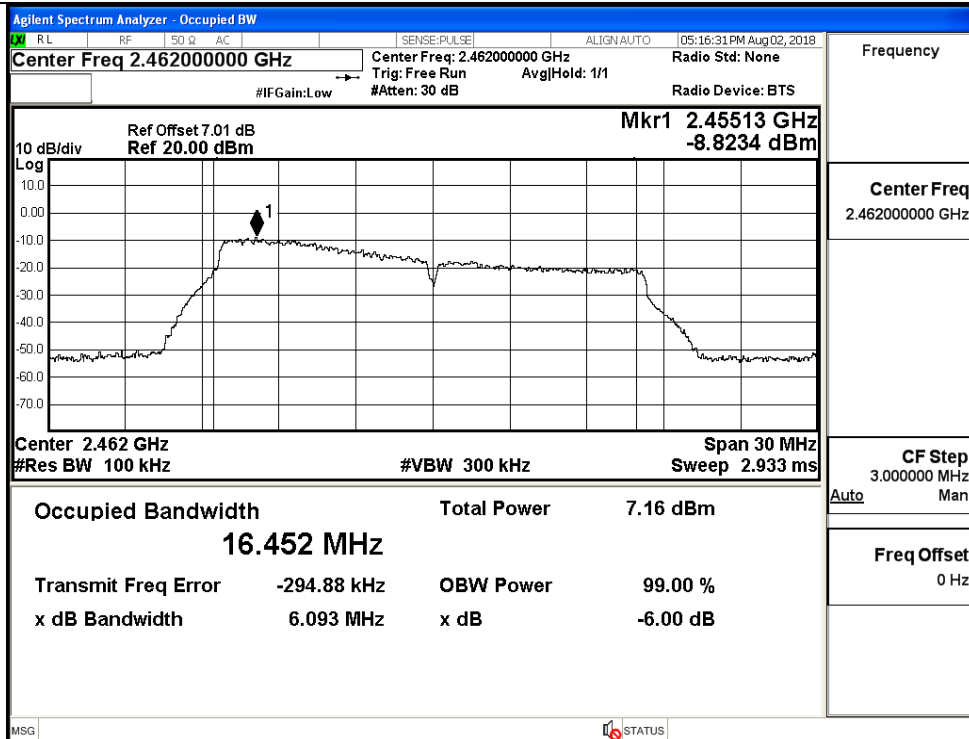
11G/LCH



11G/MCH



11G/HCH



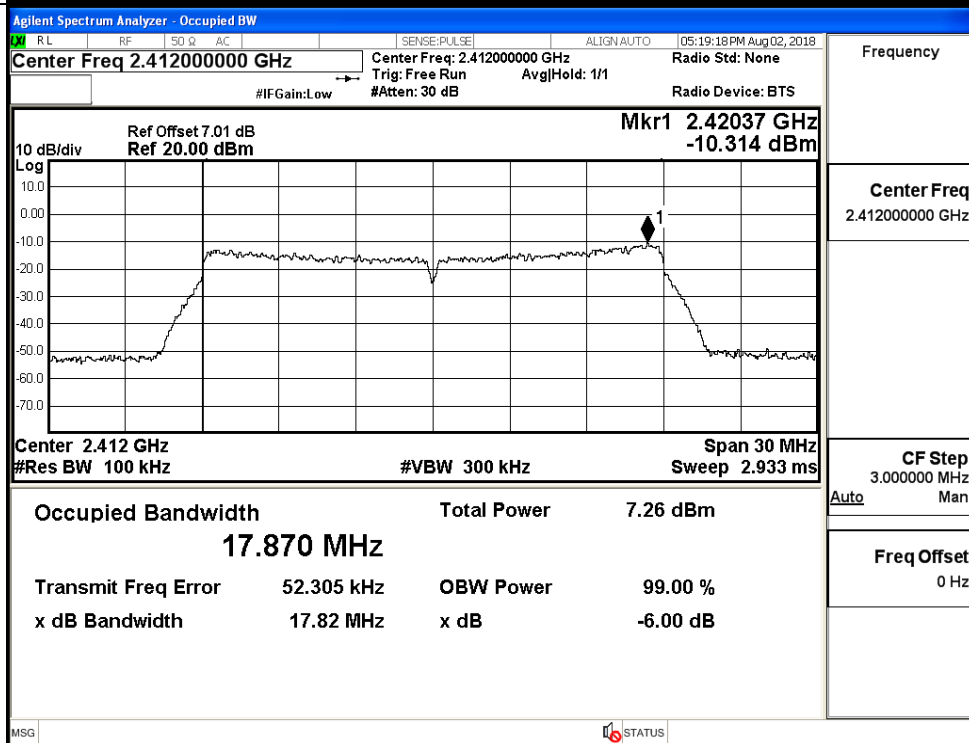
Frequency

Center Freq
2.462000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/LCH

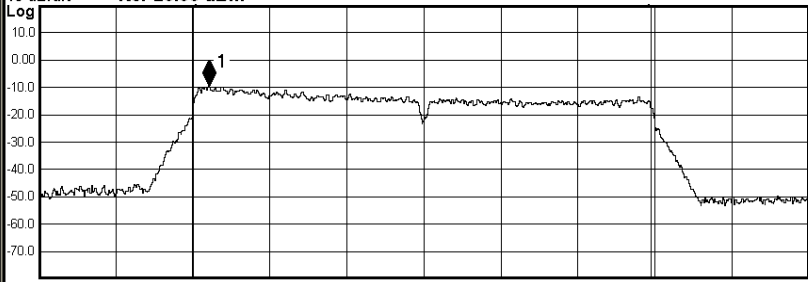
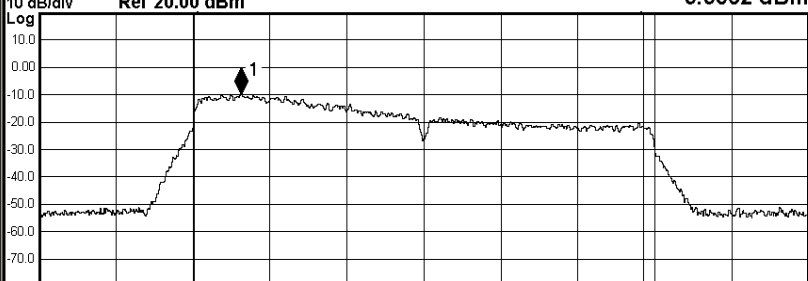


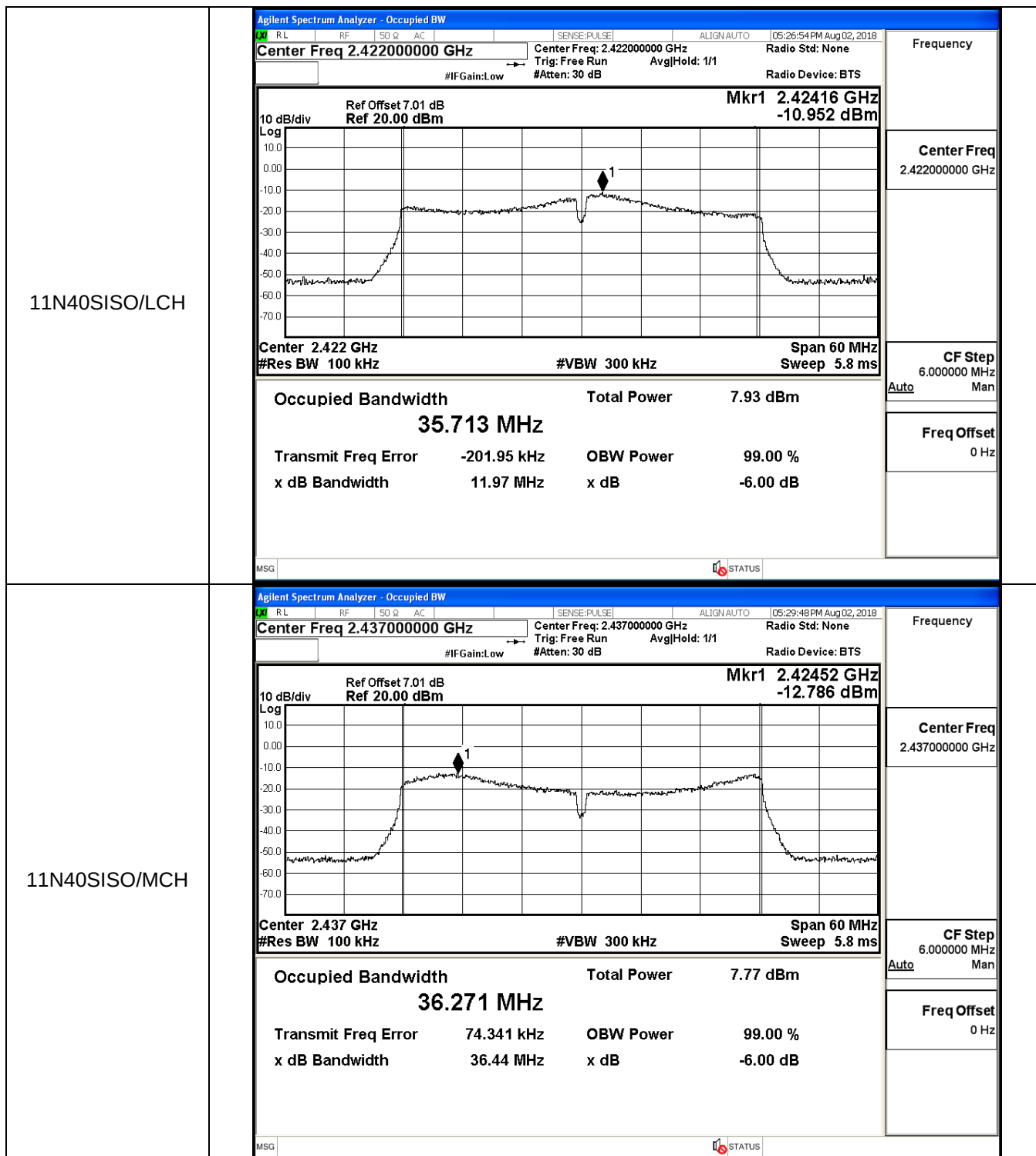
Frequency

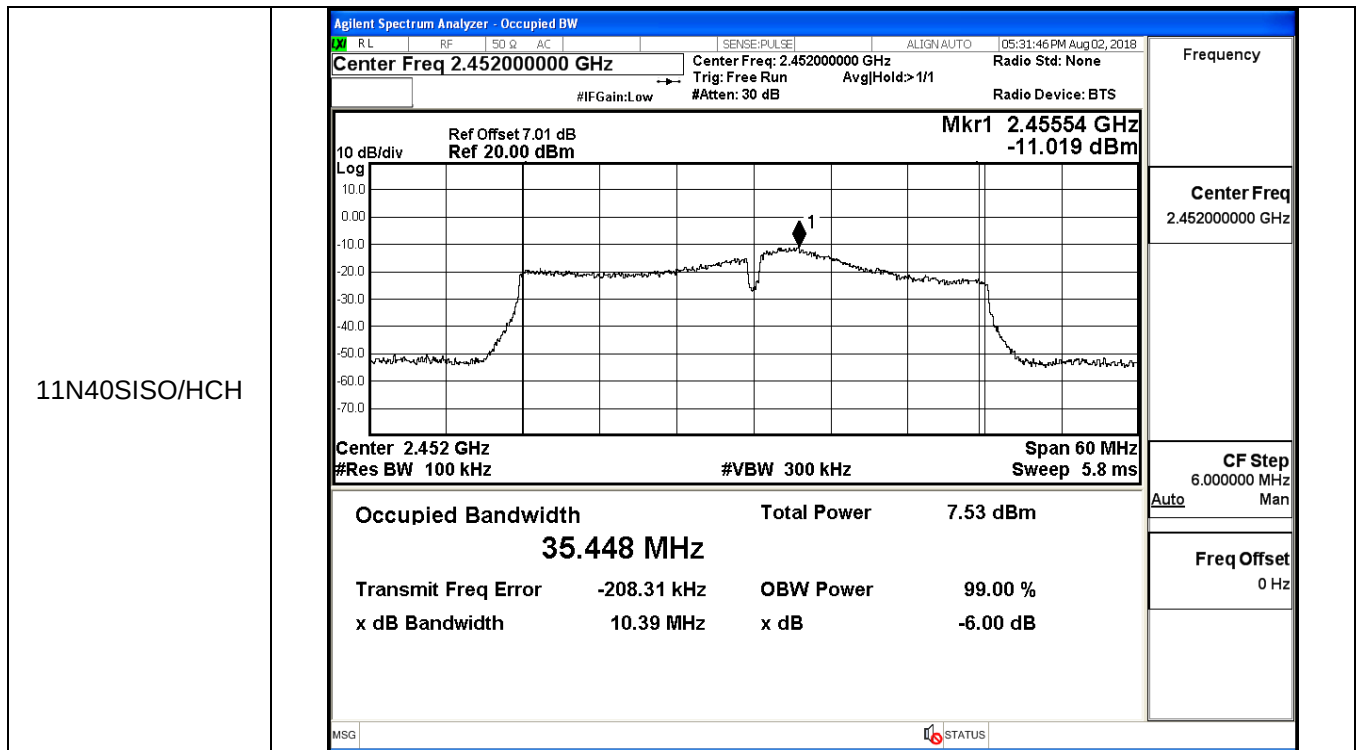
Center Freq
2.412000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/MCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:PULSE ALIGN: AUTO 05:22:16 PM Aug 02, 2018 Center Freq 2.437000000 GHz Center Freq: 2.437000000 GHz Trig: Free Run Avg Hold: 1/1 Radio Std: None #IFGain: Low #Atten: 30 dB Radio Device: BTS 10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.42863 GHz -9.7311 dBm  Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.782 MHz Total Power 8.35 dBm Transmit Freq Error -64.048 kHz OBW Power 99.00 % x dB Bandwidth 17.75 MHz x dB -6.00 dB MSG STATUS	Frequency Center Freq 2.437000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz
11N20SISO/HCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:PULSE ALIGN: AUTO 05:24:09 PM Aug 02, 2018 Center Freq 2.462000000 GHz Center Freq: 2.462000000 GHz Trig: Free Run Avg Hold: > 1/1 Radio Std: None #IFGain: Low #Atten: 30 dB Radio Device: BTS 10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.45489 GHz -9.9562 dBm  Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.465 MHz Total Power 6.69 dBm Transmit Freq Error -195.81 kHz OBW Power 99.00 % x dB Bandwidth 6.452 MHz x dB -6.00 dB MSG STATUS	Frequency Center Freq 2.462000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz



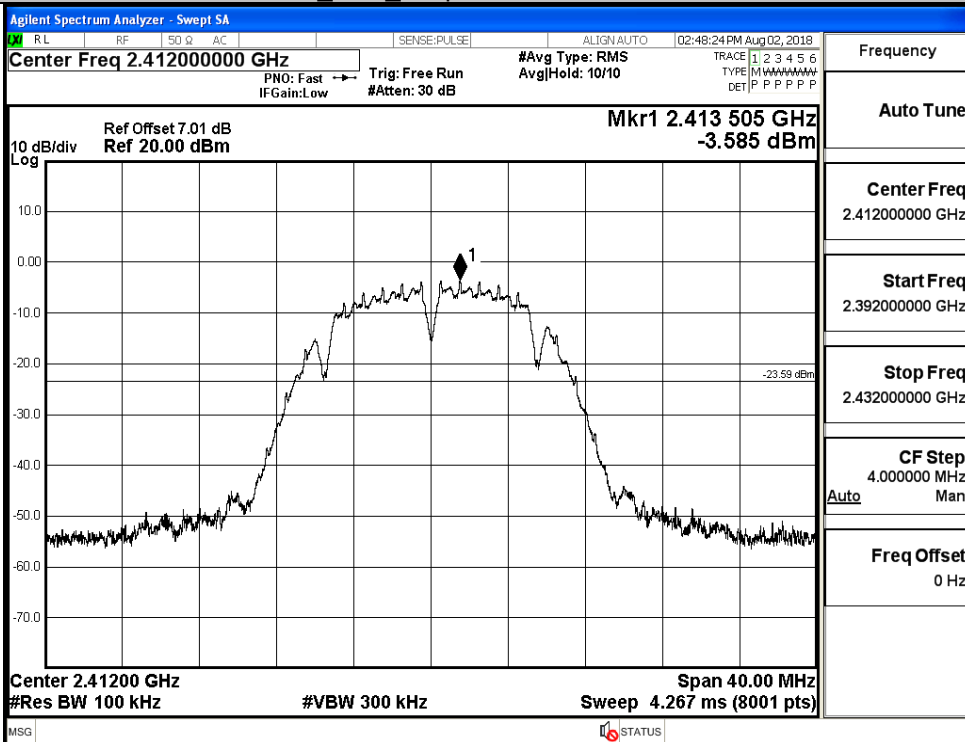


C.5 RF Conducted Spurious Emissions

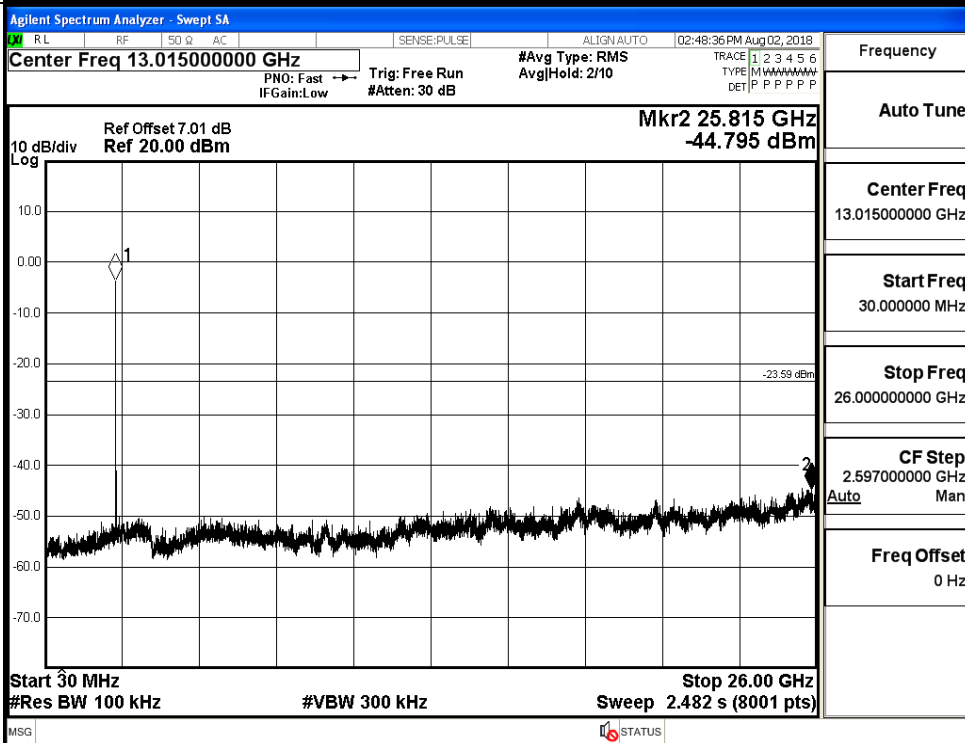
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-3.585	-44.795	-23.585	PASS
	MCH	-2.933	-43.381	-22.933	PASS
	HCH	-3.318	-44.152	-23.318	PASS
11G	LCH	-11.138	-44.645	-31.138	PASS
	MCH	-10.912	-44.661	-30.912	PASS
	HCH	-8.998	-44.967	-28.998	PASS
11N20 SISO	LCH	-10.388	-44.595	-30.388	PASS
	MCH	-9.948	-44.029	-29.948	PASS
	HCH	-10.135	-44.347	-30.135	PASS
11N40 SISO	LCH	-11.605	-45.011	-31.605	PASS
	MCH	-12.988	-44.812	-32.988	PASS
	HCH	-10.987	-43.279	-30.987	PASS

11B LCH Graphs

Pref/11B/LCH

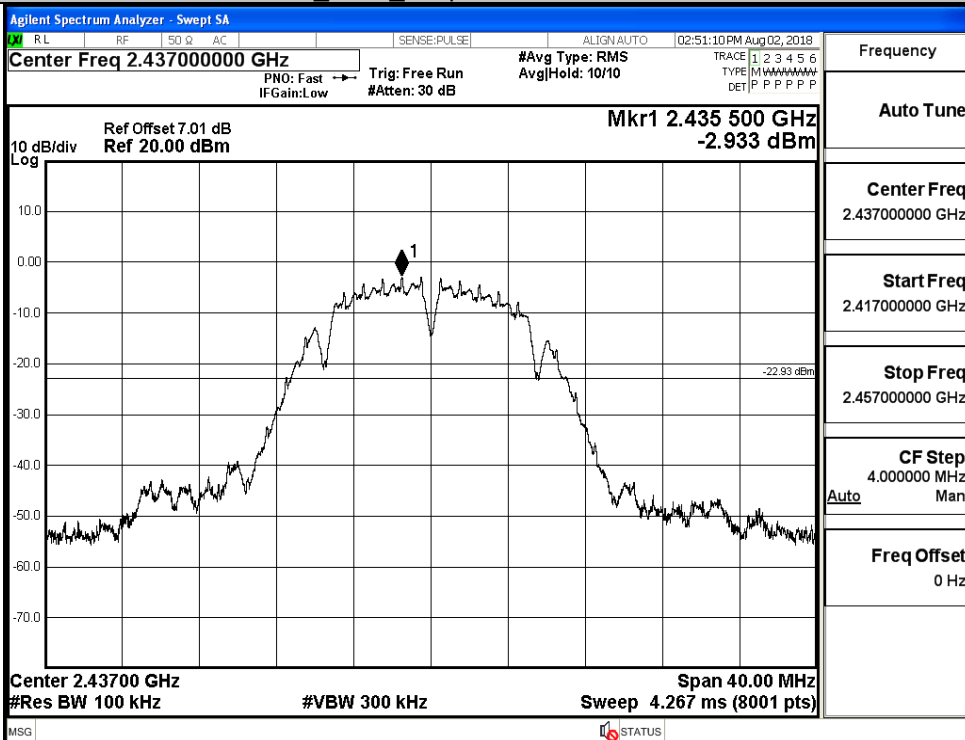


Puw/11B/LCH

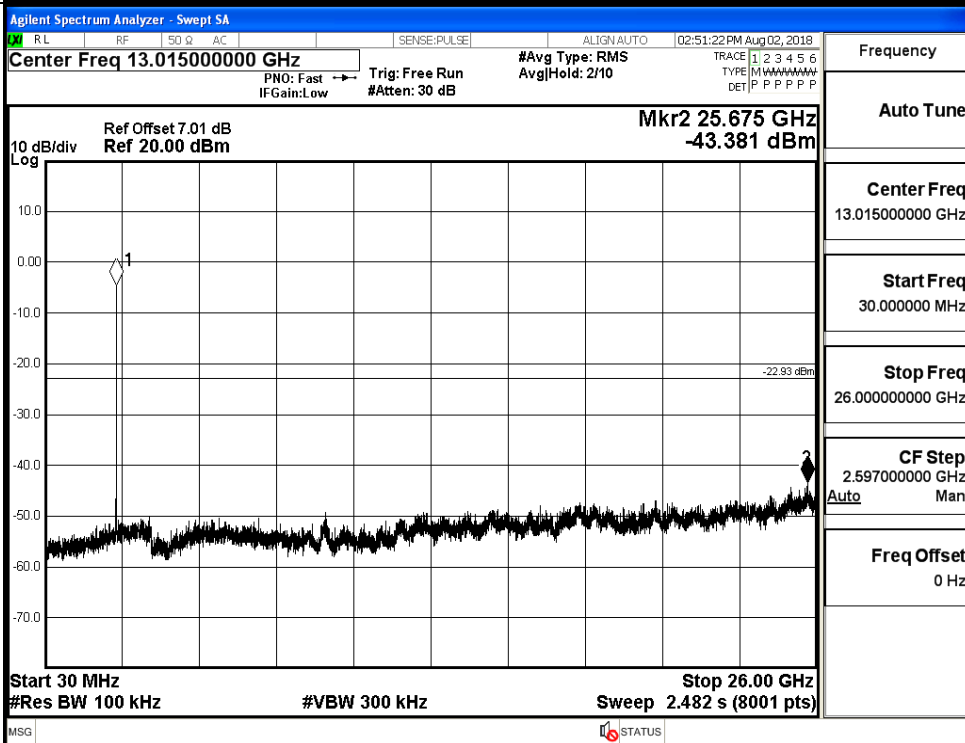


11B MCH Graphs

Pref/11B/MCH

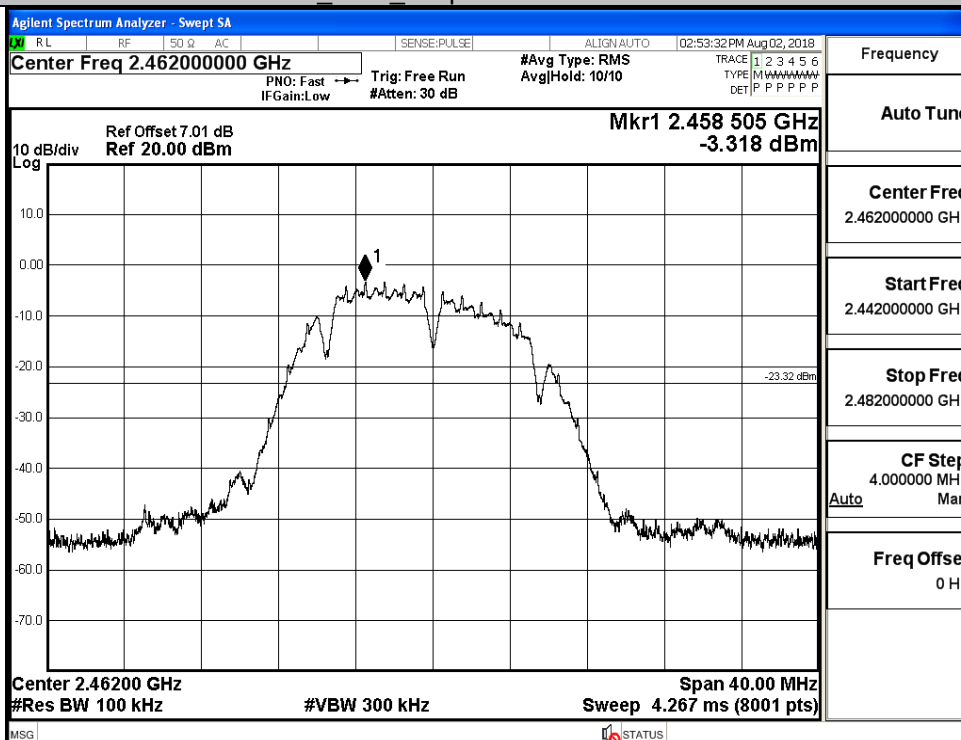


Puw/11B/MCH

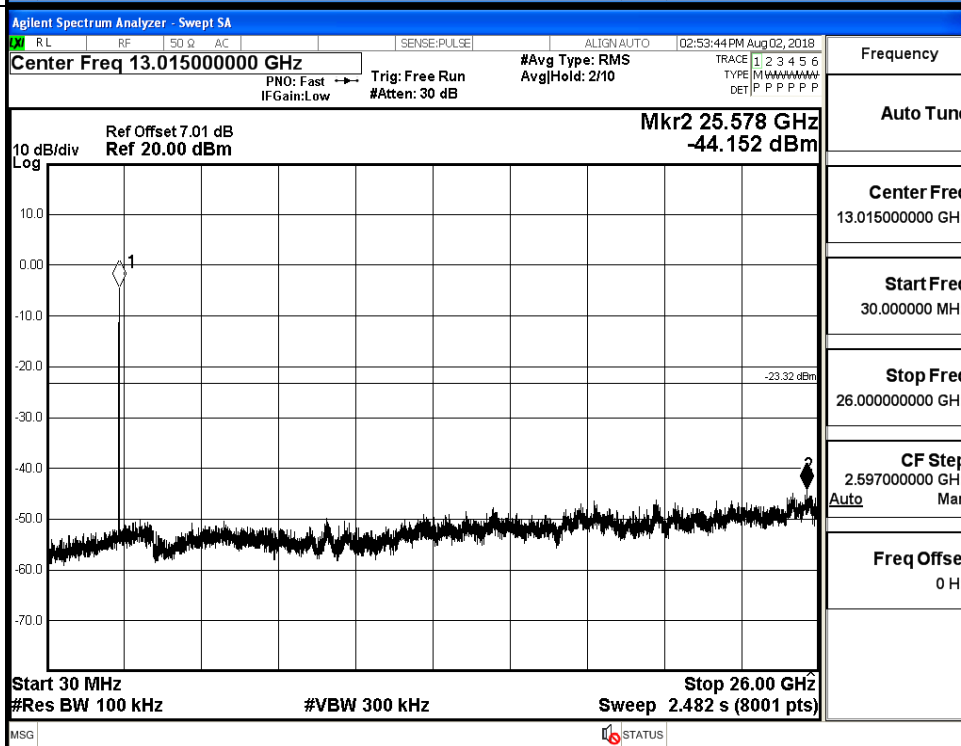


11B HCH Graphs

Pref/11B/HCH

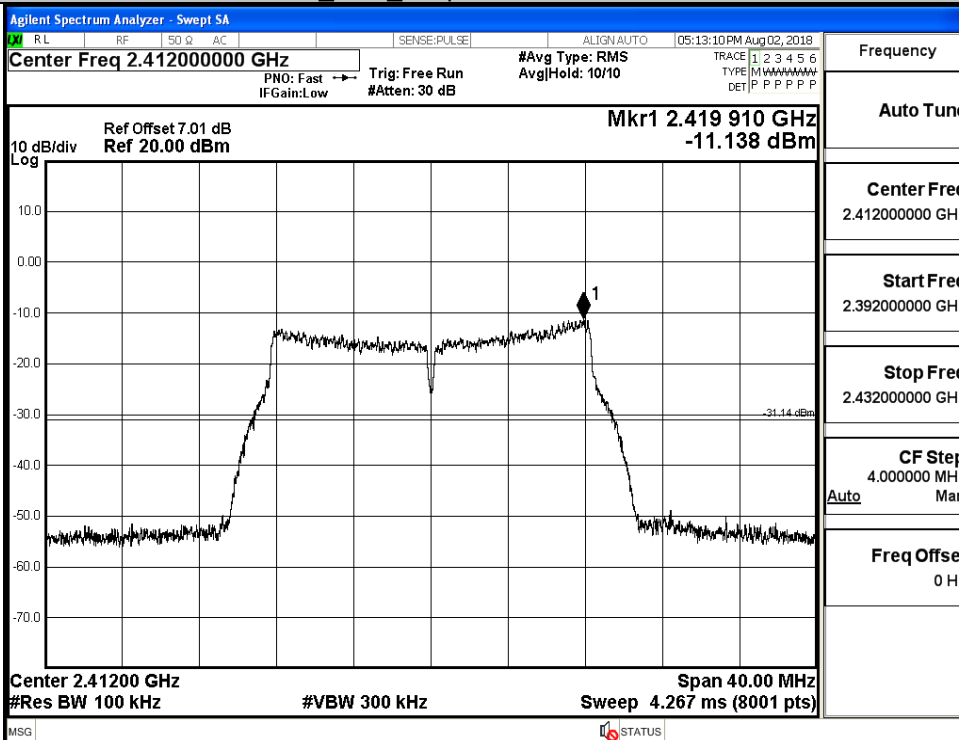


Puw/11B/HCH

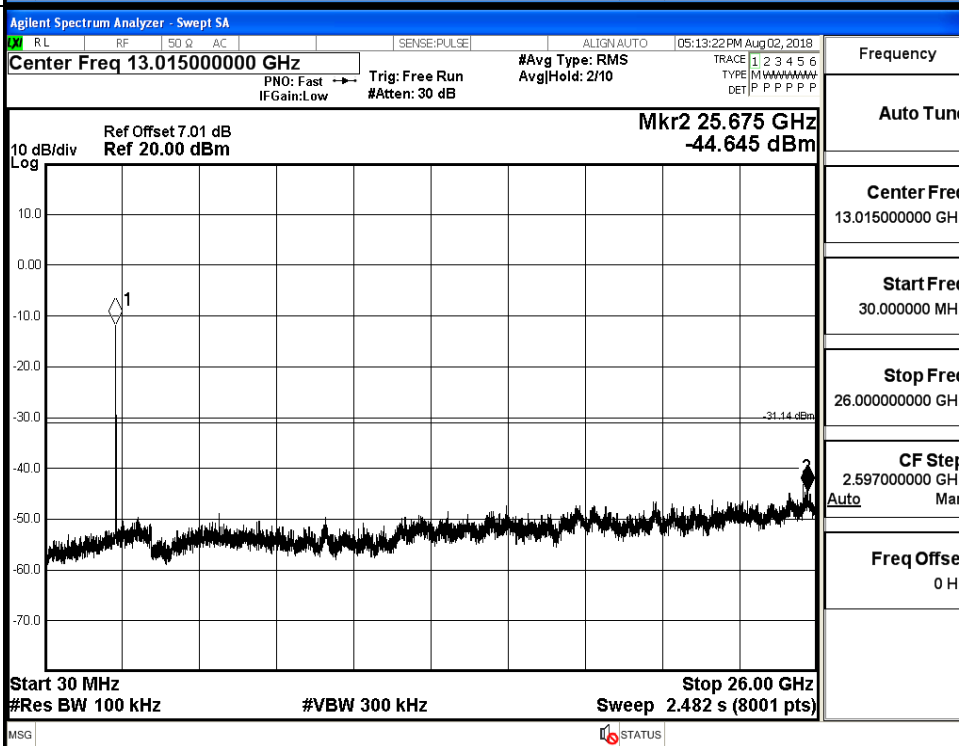


11G LCH Graphs

Pref/11G/LCH

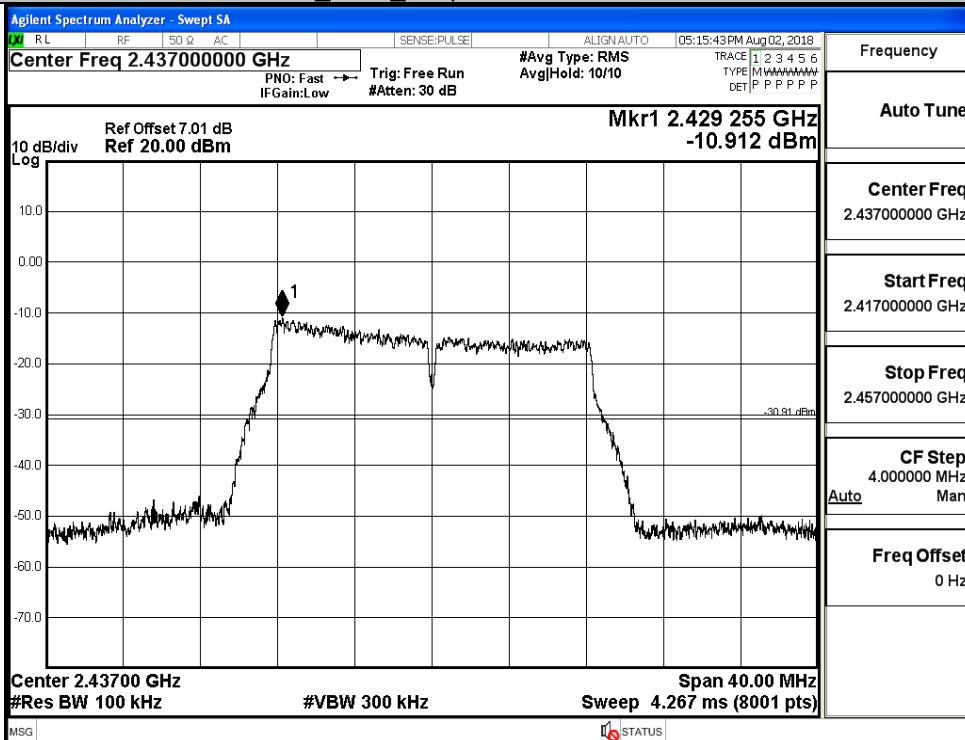


Puw/11G/LCH

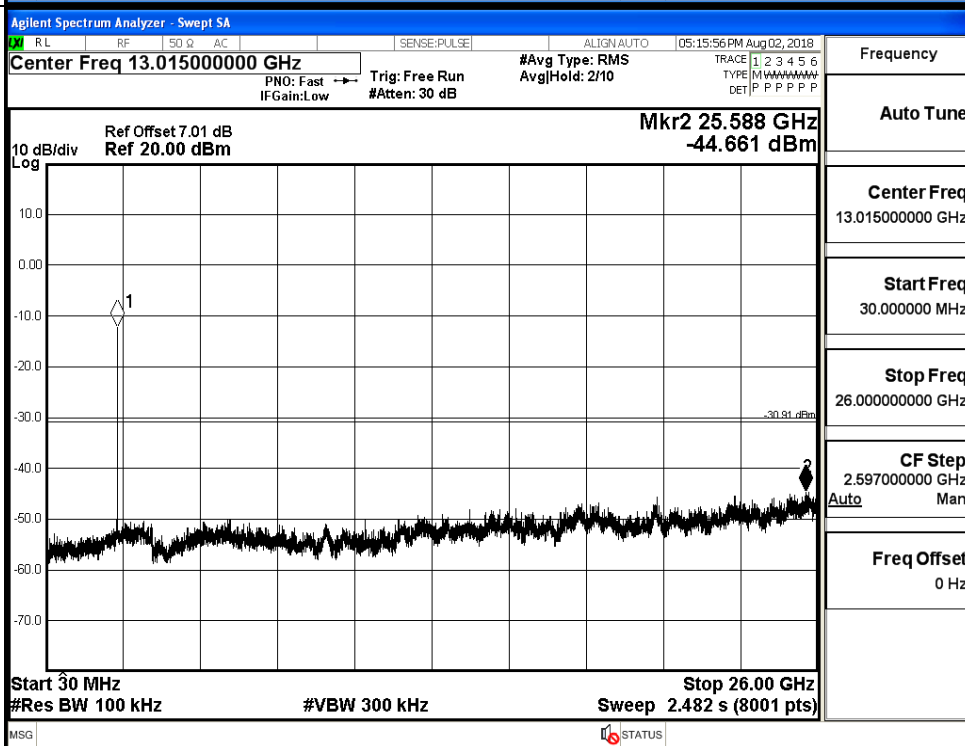


11G MCH Graphs

Pref/11G/MCH

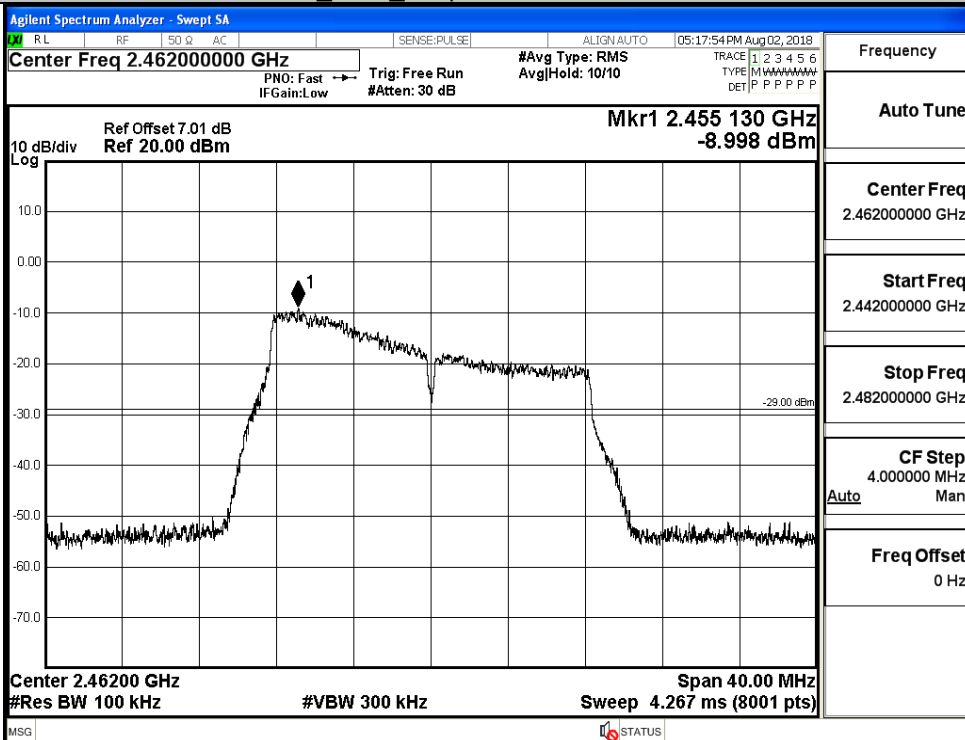


Puw/11G/MCH

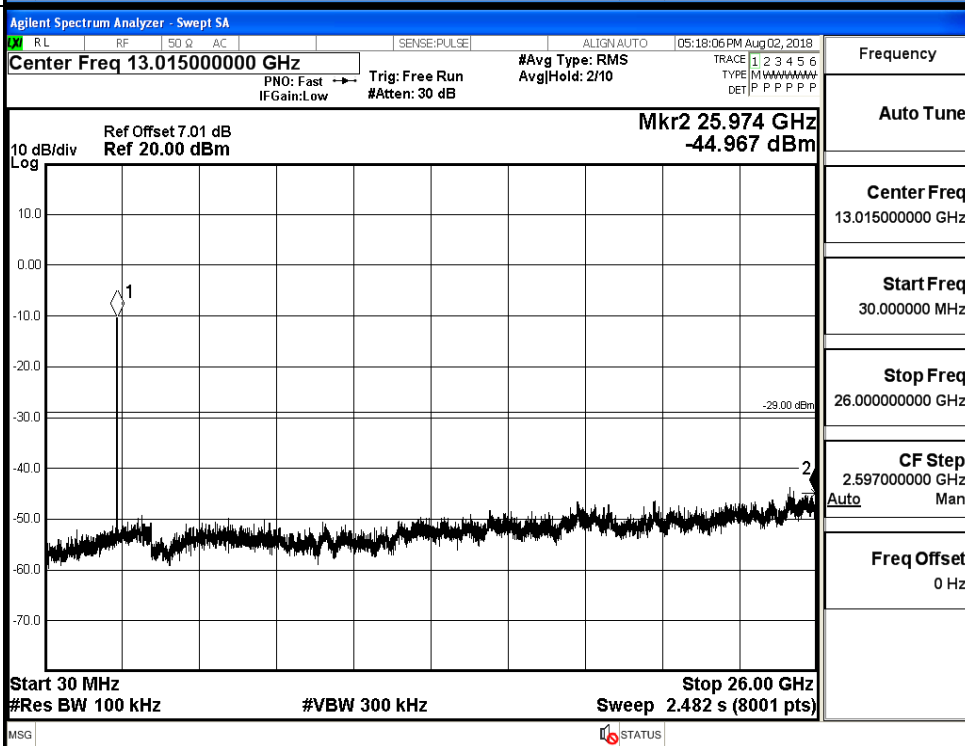


11G HCH Graphs

Pref/11G/HCH

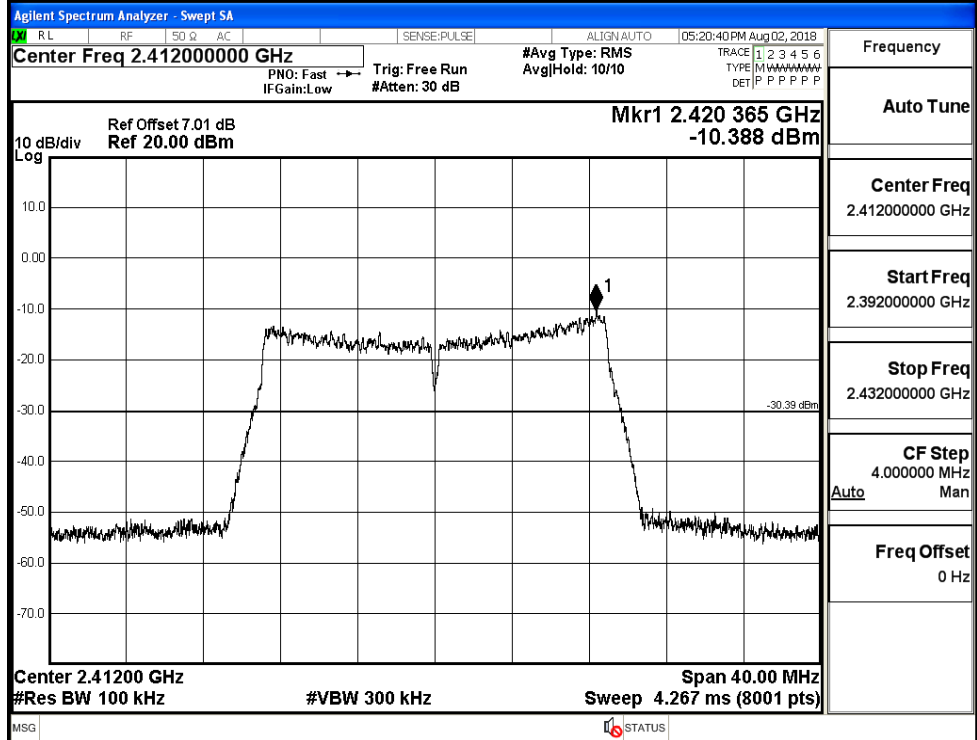


Puw/11G/HCH

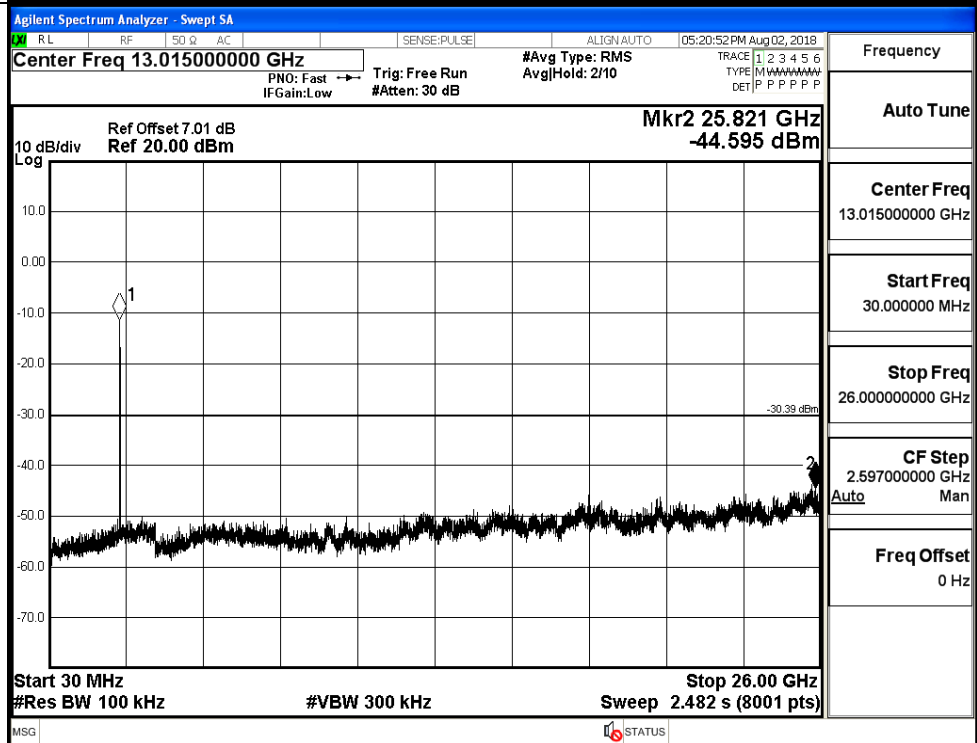


11N20SISO LCH Graphs

Pref/11N20SIS
O/LCH

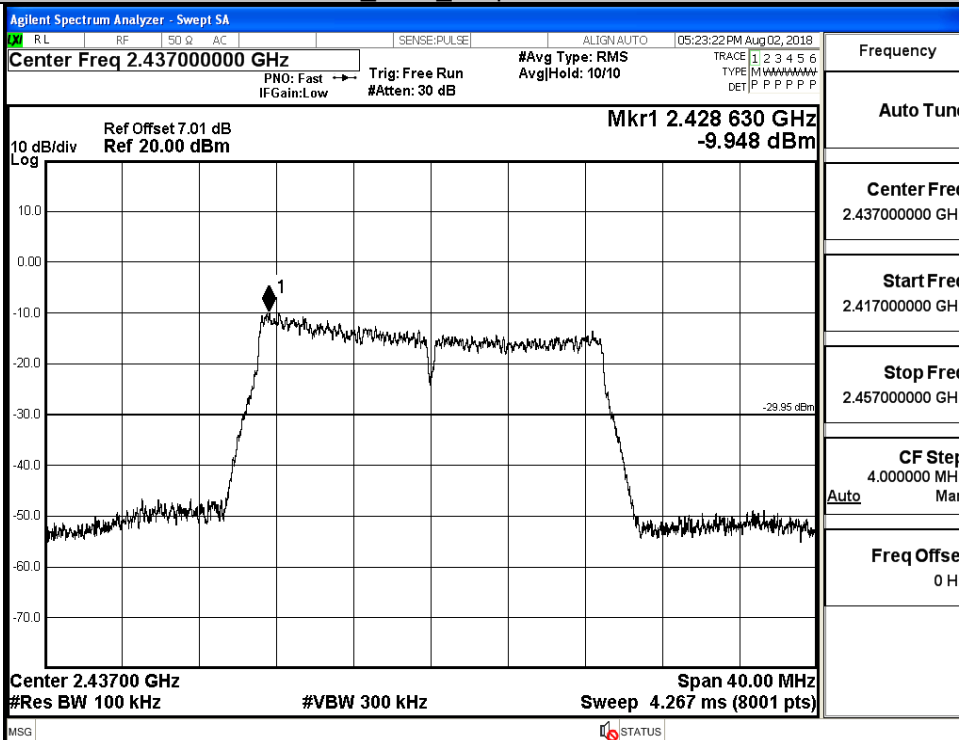


Puw/11N20
SISO/LCH

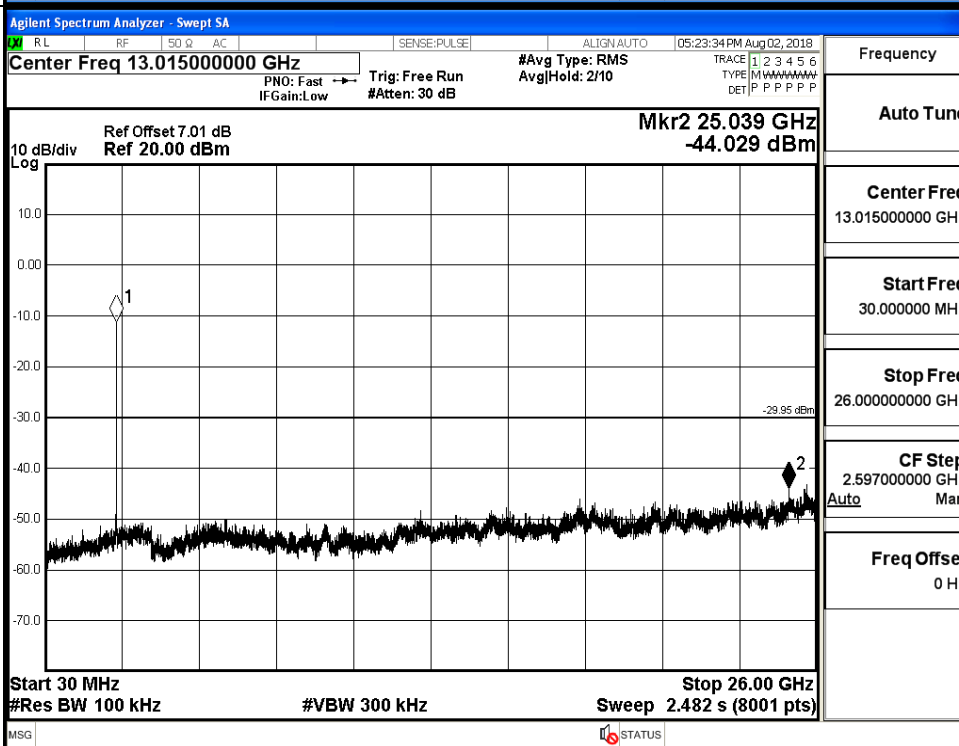


11N20SISO_MCH_Graphs

Pref/11N20
SISO/MCH

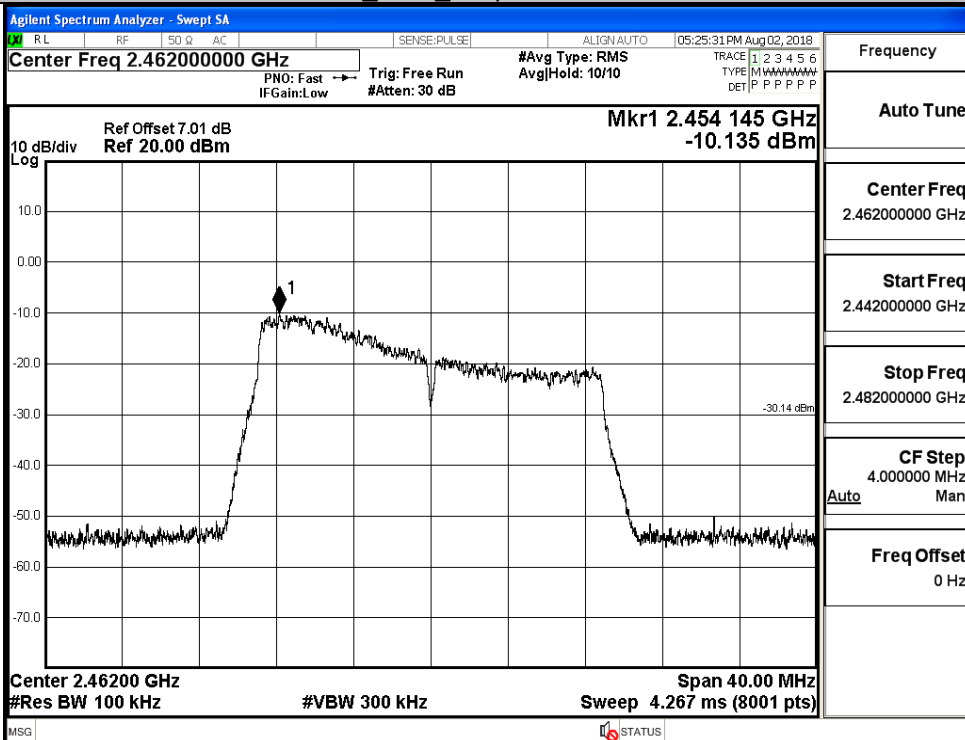


Puw/11N20
SISO/MCH

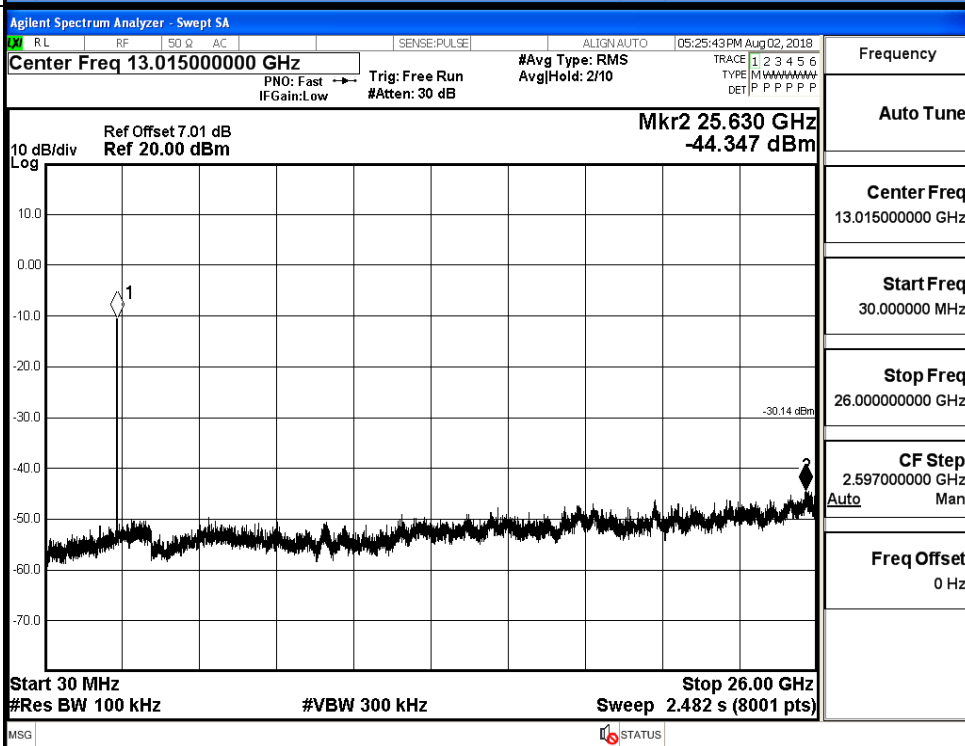


11N20SISO HCH Graphs

Pref/11N20
SISO/HCH

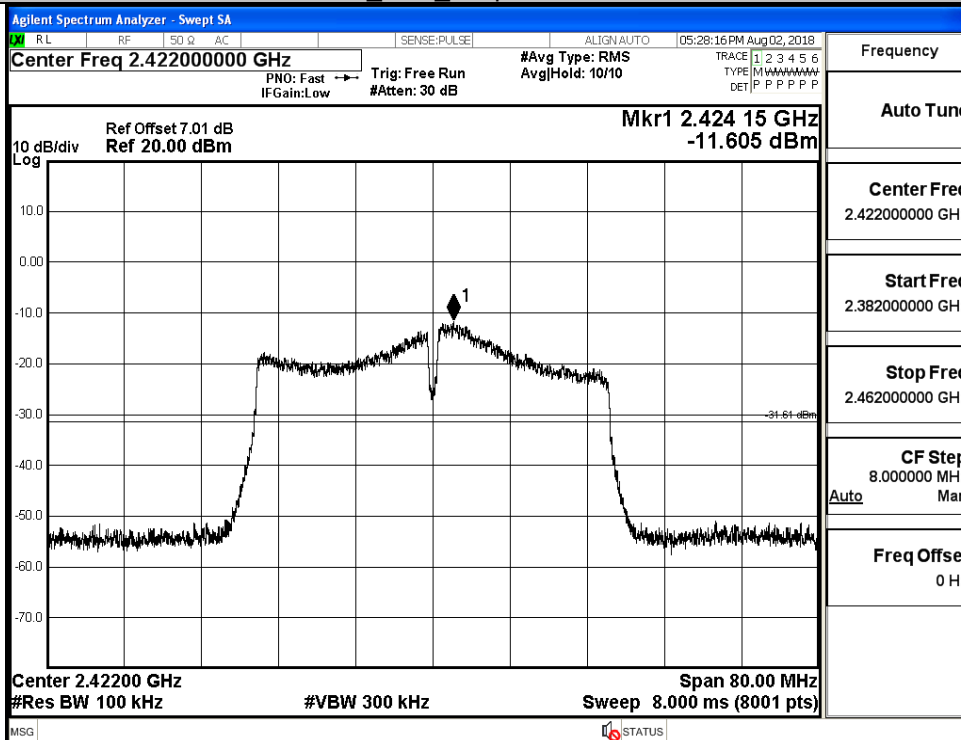


Puw/11N20
SISO/HCH

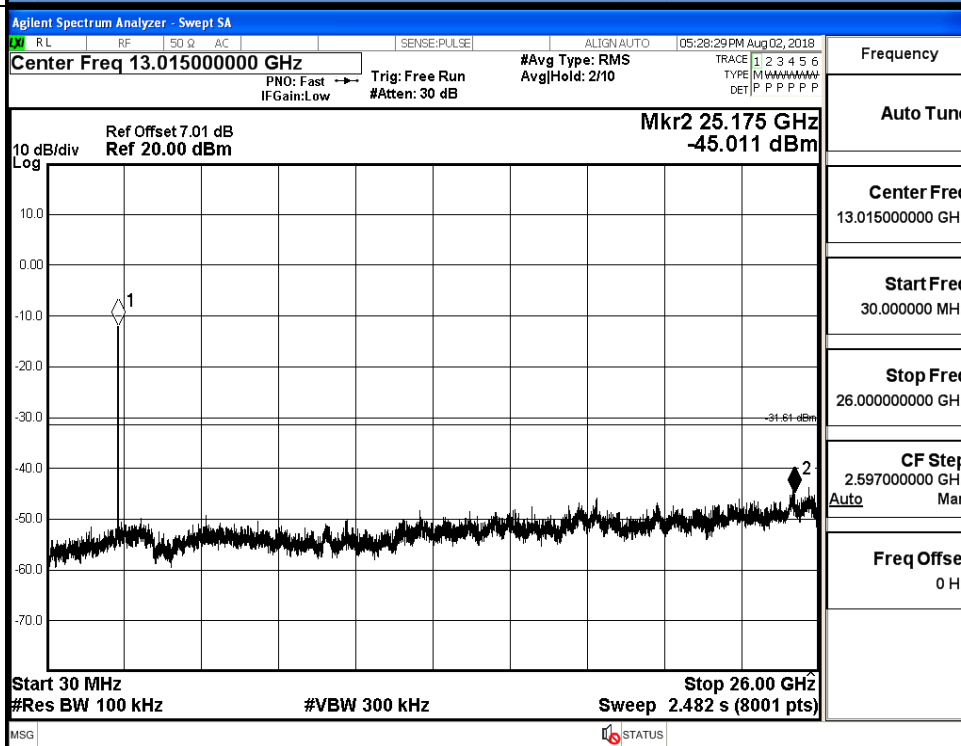


11N40SISO LCH Graphs

Pref/11N40
SISO/LCH

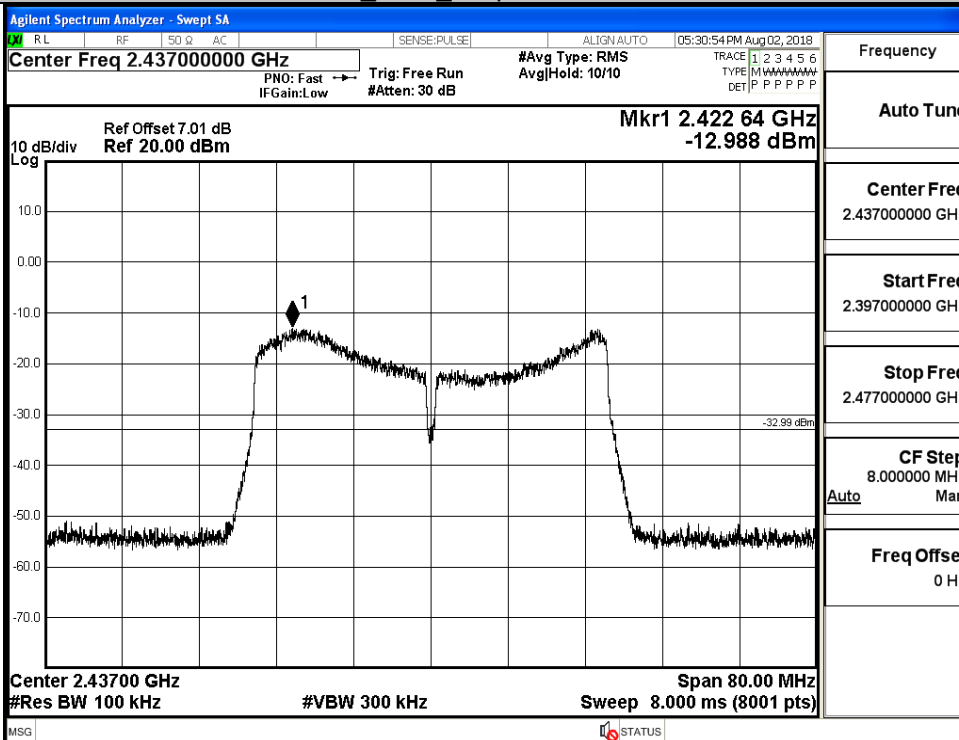


Puw/11N40
SISO/LCH

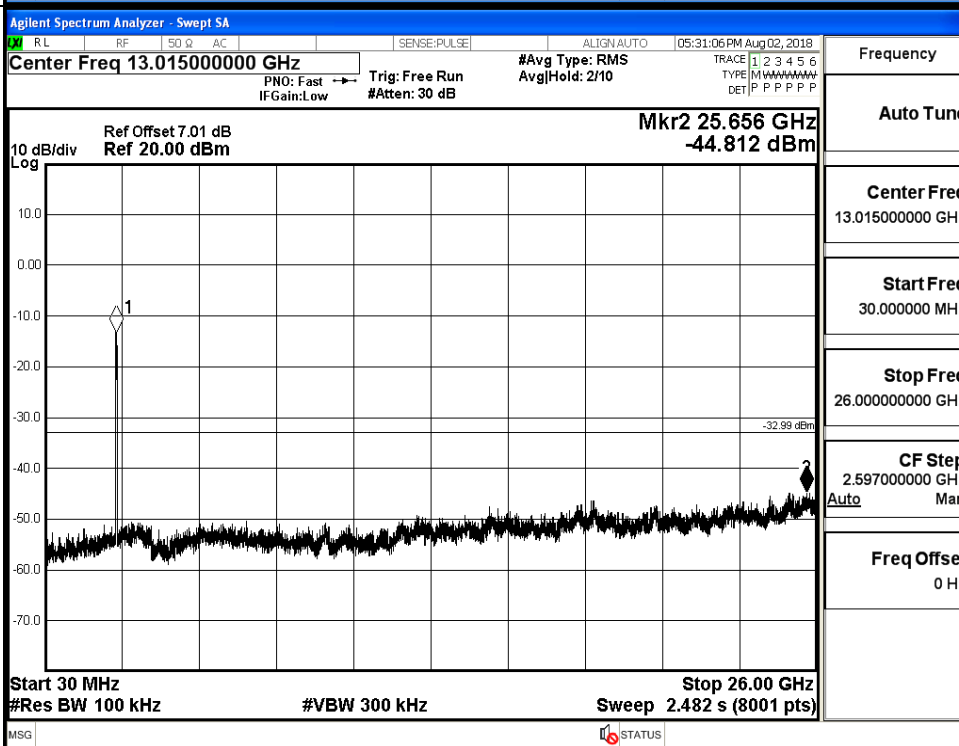


11N40SISO_MCH_Graphs

Pref/11N40
SISO/MCH

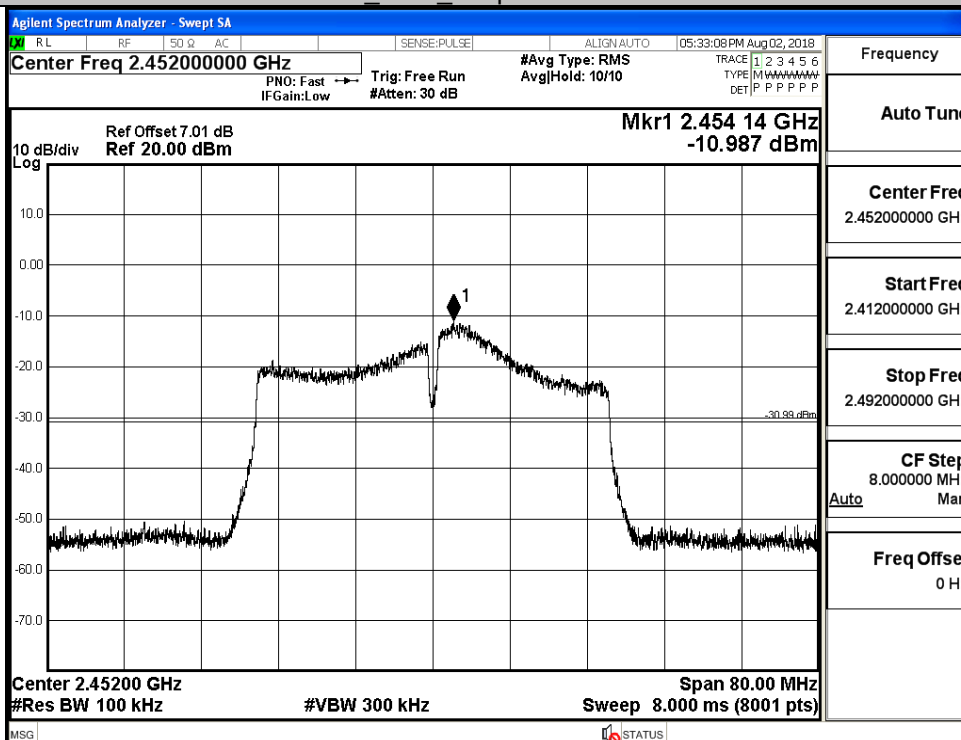


Puw/11N40
SISO/MCH

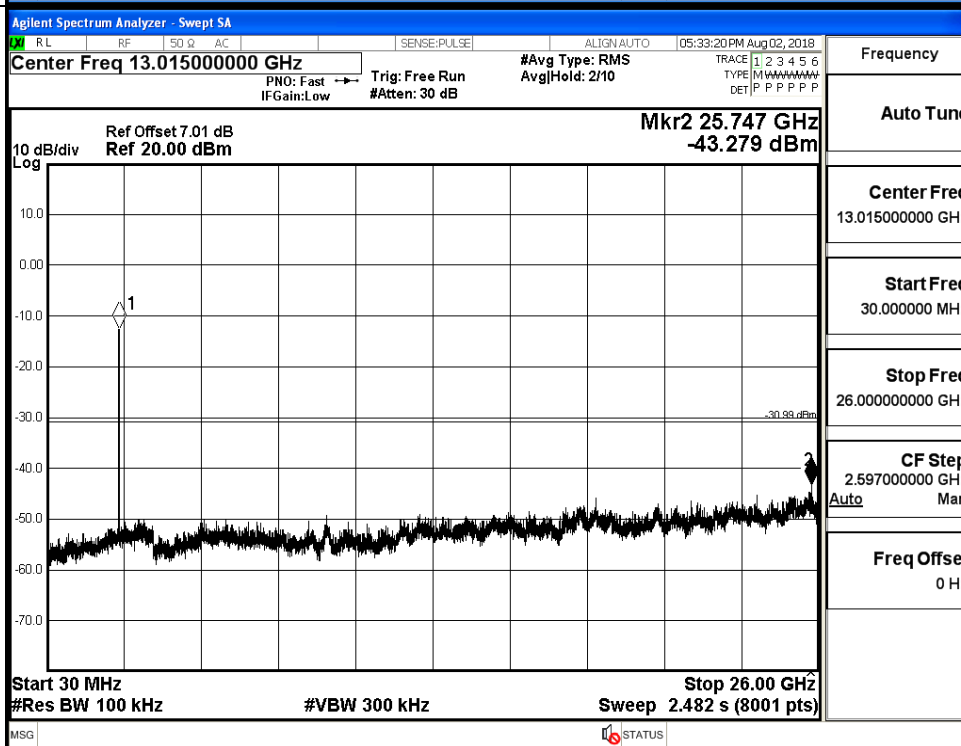


11N40SISO HCH Graphs

Pref/11N40
SISO/HCH



Puw/11N40
SISO/HCH

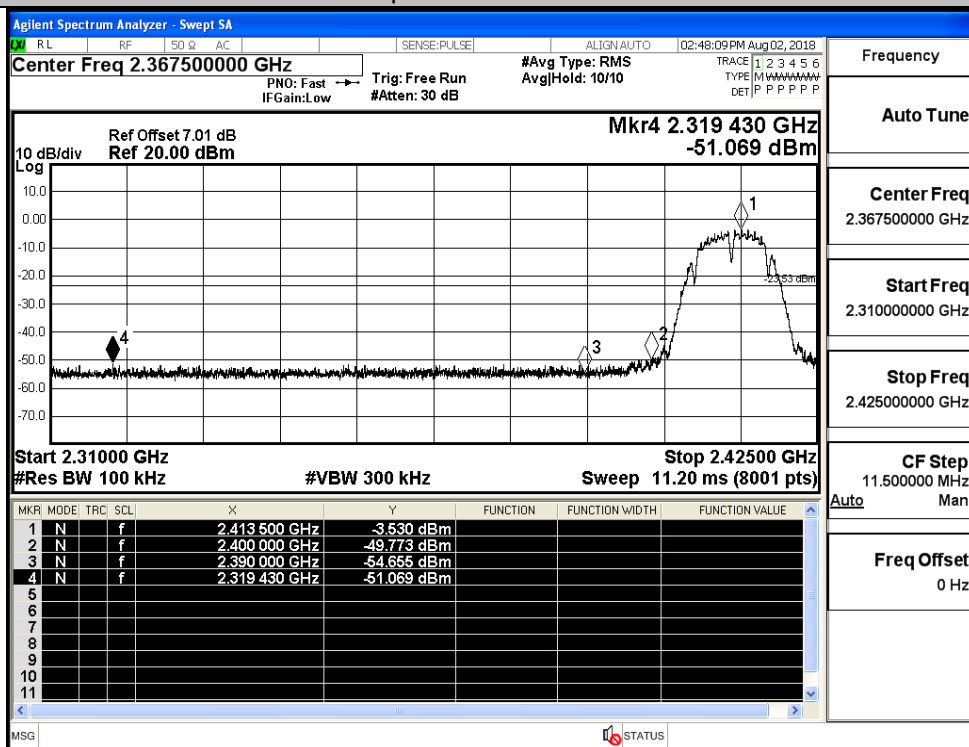


C.6 Band-edge for RF Conducted Emissions

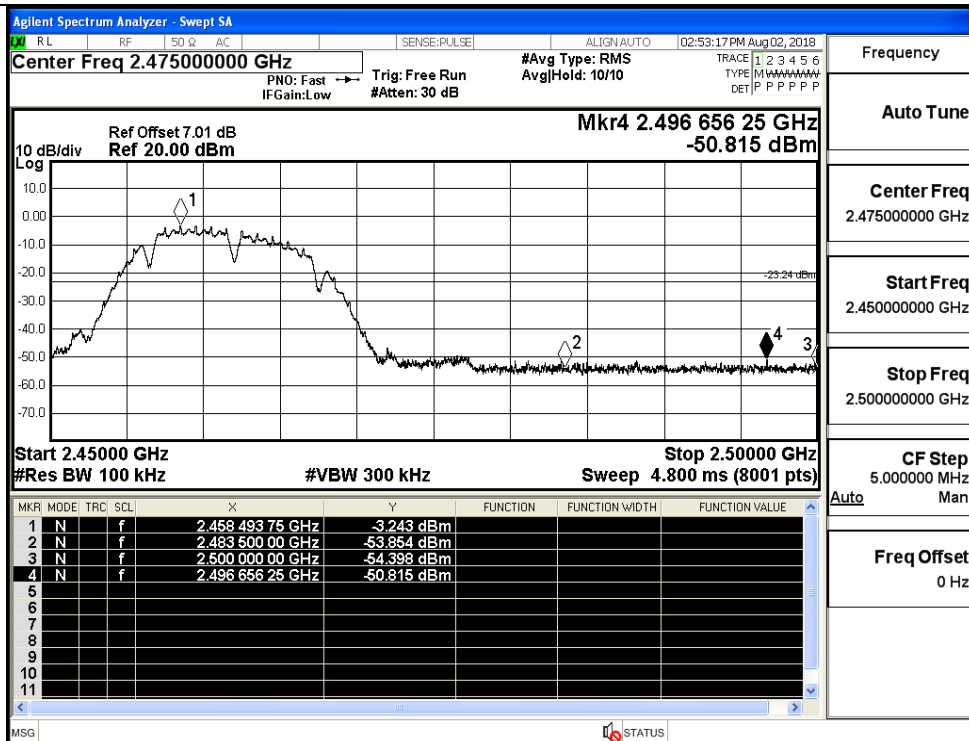
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-3.530	-51.069	-23.53	PASS
	HCH	-3.243	-50.815	-23.24	PASS
11G	LCH	-11.058	-51.444	-31.06	PASS
	HCH	-8.943	-50.597	-28.94	PASS
11N20SISO	LCH	-10.251	-51.237	-30.25	PASS
	HCH	-10.015	-51.336	-30.02	PASS
11N40SISO	LCH	-11.576	-51.426	-31.58	PASS
	HCH	-11.259	-51.754	-31.26	PASS

Test Graphs

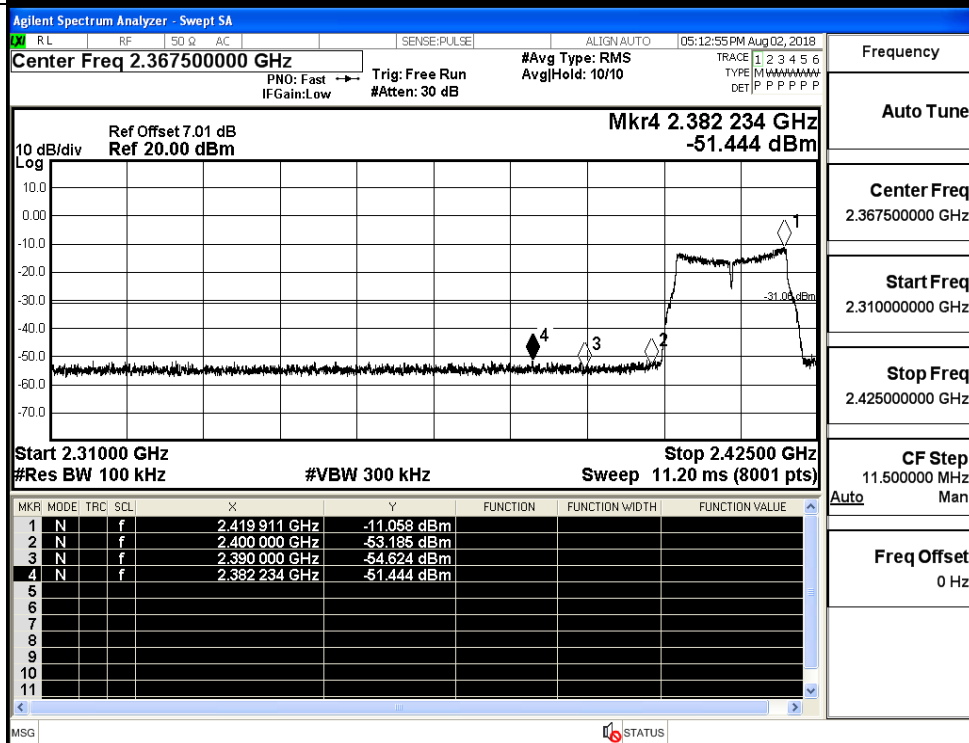
11B/LCH



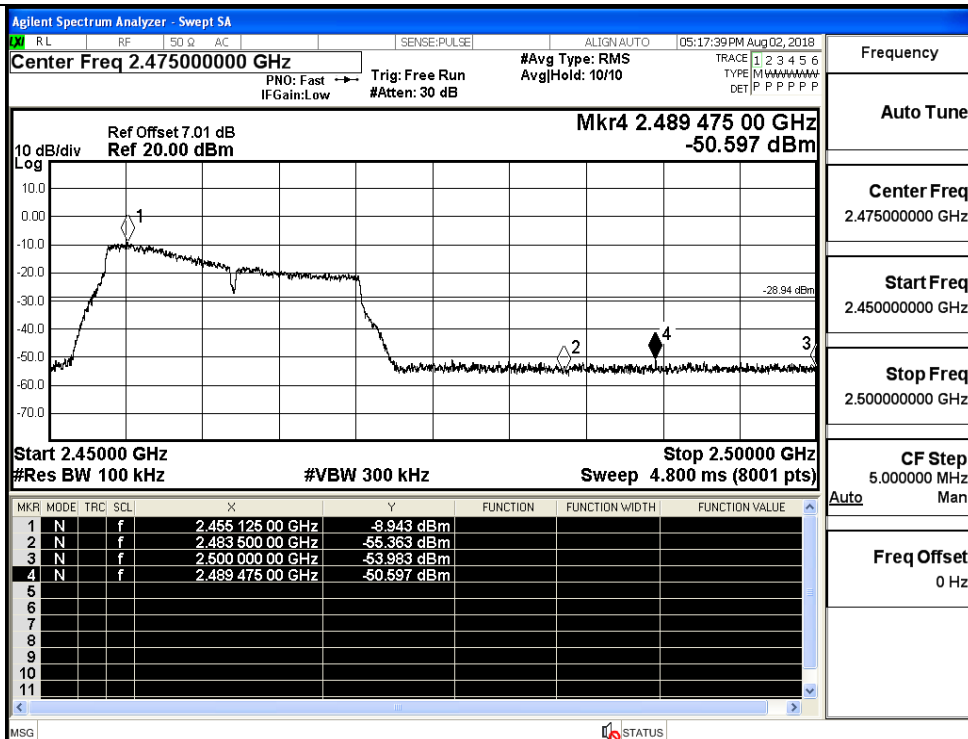
11B/HCH



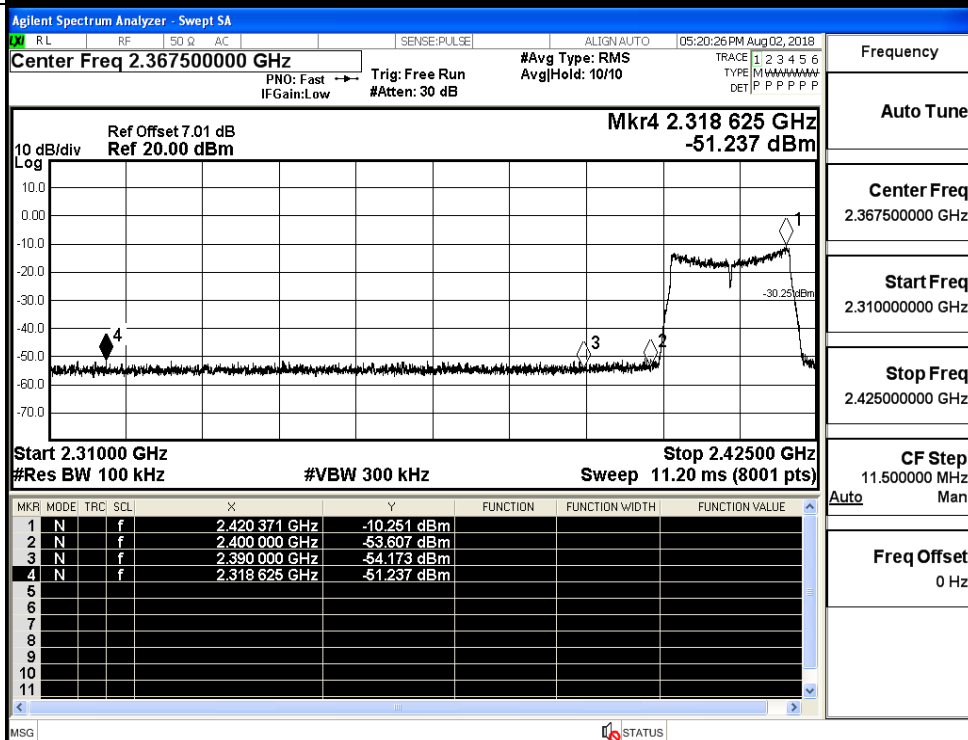
11G/LCH



11G/HCH



11N20SISO/LCH



11N20SISO/HCH

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Q AC SENSE:PULSE ALIGN AUTO 05:25:17 PM Aug 02, 2018

Center Freq 2.475000000 GHz

PNO: Fast IFGain:Low Trig: Free Run #Atten: 30 dB

#Avg Type: RMS AvgHold: 10/10

TRACE 1 2 3 4 5 6

TYPE M W W W W W W W

DET P P P P P P P

Ref Offset 7.01 dB Ref 20.00 dBm

Mkr4 2.486 062 50 GHz -51.336 dBm

10 dB/div Log

Start 2.45000 GHz #Res BW 100 kHz #VBW 300 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	2.454 512 50 GHz	-10.015 dBm			
2	N		f	2.483 500 00 GHz	-55.403 dBm			
3	N		f	2.500 000 00 GHz	-54.046 dBm			
4	N		f	2.486 062 50 GHz	-51.336 dBm			
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

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

11N40SISO/LCH

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Q AC SENSE:PULSE ALIGN AUTO 05:28:02 PM Aug 02, 2018

Center Freq 2.377500000 GHz

PNO: Fast IFGain:Low Trig: Free Run #Atten: 30 dB

#Avg Type: RMS AvgHold: 10/10

TRACE 1 2 3 4 5 6

TYPE M W W W W W W W

DET P P P P P P P

Ref Offset 7.01 dB Ref 20.00 dBm

Mkr4 2.343 261 GHz -51.426 dBm

10 dB/div Log

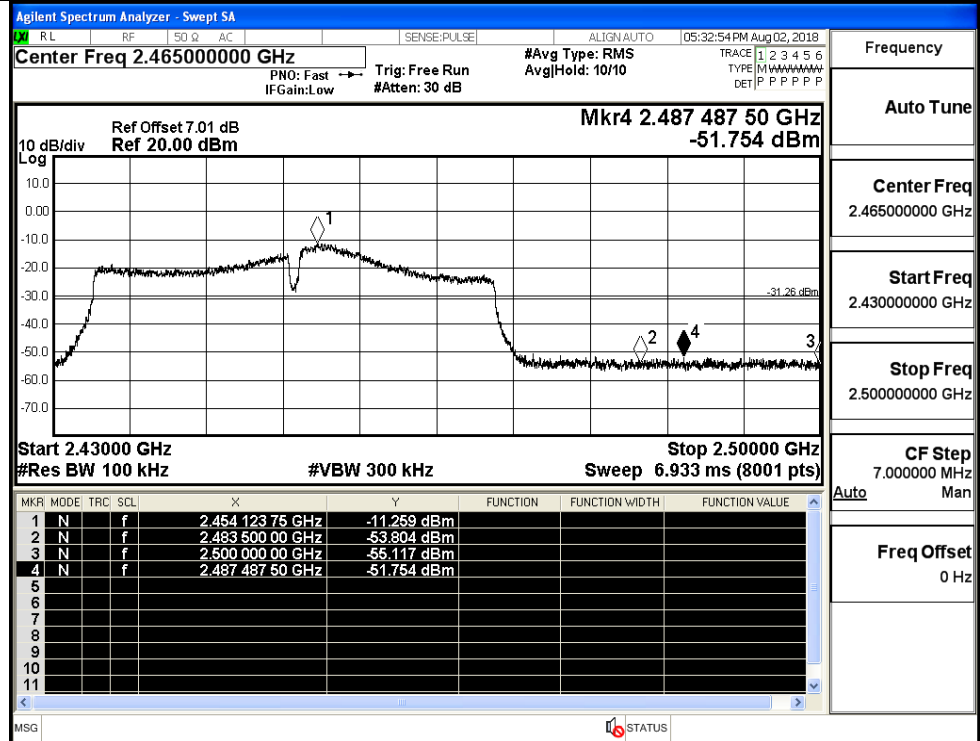
Start 2.31000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.44500 GHz Sweep 13.33 ms (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.424 126 GHz	-11.576 dBm			
2	N		f	2.400 000 GHz	-54.735 dBm			
3	N		f	2.390 000 GHz	-55.081 dBm			
4	N		f	2.343 261 GHz	-51.426 dBm			
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency
Auto Tune
Center Freq 2.377500000 GHz
Start Freq 2.310000000 GHz
Stop Freq 2.445000000 GHz
CF Step 13.500000 MHz Auto Man
Freq Offset 0 Hz

11N40SISO/HCH

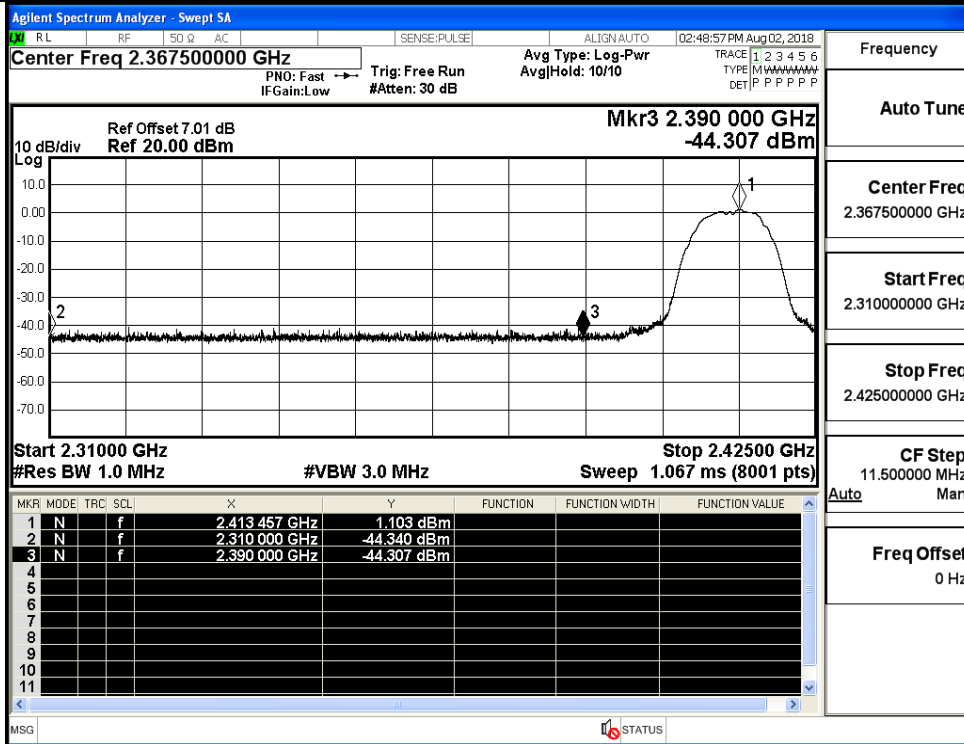


C.7 Restrict-band band-edge measurements

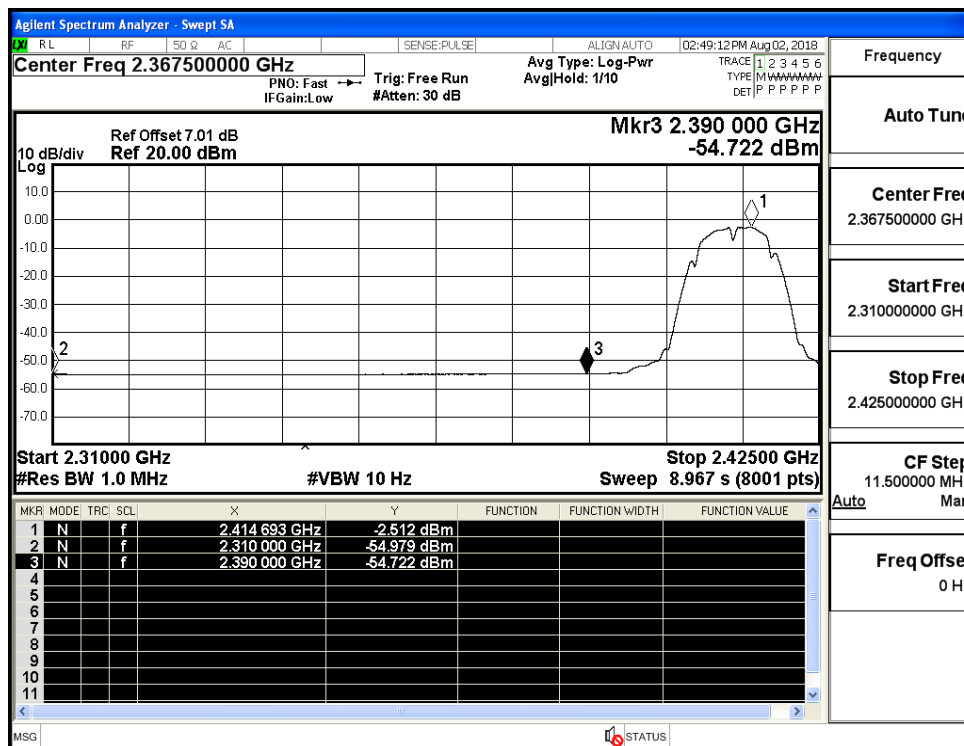
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-44.34	2.0	0	52.92	PEAK	74	PASS
	2412	Ant1	2310.0	-54.98	2.0	0	42.28	AV	54	PASS
	2412	Ant1	2390.0	-44.31	2.0	0	52.95	PEAK	74	PASS
	2412	Ant1	2390.0	-54.72	2.0	0	42.54	AV	54	PASS
	2462	Ant1	2483.5	-44.48	2.0	0	52.78	PEAK	74	PASS
	2462	Ant1	2483.5	-54.47	2.0	0	42.79	AV	54	PASS
	2462	Ant1	2500.0	-44.26	2.0	0	53.00	PEAK	74	PASS
	2462	Ant1	2500.0	-54.33	2.0	0	42.93	AV	54	PASS
11G	2412	Ant1	2310.0	-44.84	2.0	0	52.42	PEAK	74	PASS
	2412	Ant1	2310.0	-54.93	2.0	0	42.32	AV	54	PASS
	2412	Ant1	2390.0	-44.38	2.0	0	52.87	PEAK	74	PASS
	2412	Ant1	2390.0	-54.70	2.0	0	42.56	AV	54	PASS
	2462	Ant1	2483.5	-44.06	2.0	0	53.20	PEAK	74	PASS
	2462	Ant1	2483.5	-54.51	2.0	0	42.75	AV	54	PASS
	2462	Ant1	2500.0	-43.72	2.0	0	53.54	PEAK	74	PASS
	2462	Ant1	2500.0	-54.35	2.0	0	42.91	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-44.92	2.0	0	52.34	PEAK	74	PASS
	2412	Ant1	2310.0	-54.98	2.0	0	42.28	AV	54	PASS
	2412	Ant1	2390.0	-43.54	2.0	0	53.72	PEAK	74	PASS
	2412	Ant1	2390.0	-54.68	2.0	0	42.57	AV	54	PASS
	2462	Ant1	2483.5	-43.94	2.0	0	53.32	PEAK	74	PASS
	2462	Ant1	2483.5	-54.49	2.0	0	42.77	AV	54	PASS
	2462	Ant1	2500.0	-42.55	2.0	0	54.71	PEAK	74	PASS
	2462	Ant1	2500.0	-54.33	2.0	0	42.93	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-43.40	2.0	0	53.86	PEAK	74	PASS
	2422	Ant1	2310.0	-54.92	2.0	0	42.34	AV	54	PASS

	2422	Ant1	2390.0	-43.27	2.0	0	53.98	PEAK	74	PASS
	2422	Ant1	2390.0	-54.67	2.0	0	42.58	AV	54	PASS
	2452	Ant1	2483.5	-44.11	2.0	0	53.15	PEAK	74	PASS
	2452	Ant1	2483.5	-54.47	2.0	0	42.79	AV	54	PASS
	2452	Ant1	2500.0	-44.89	2.0	0	52.37	PEAK	74	PASS
	2452	Ant1	2500.0	-54.35	2.0	0	42.91	AV	54	PASS

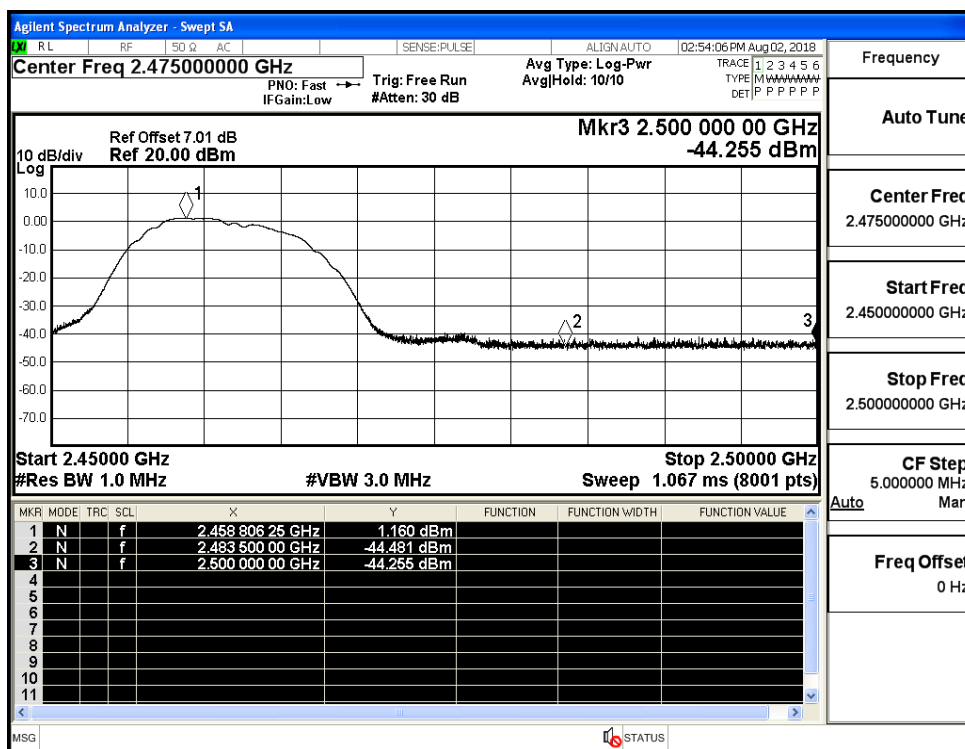
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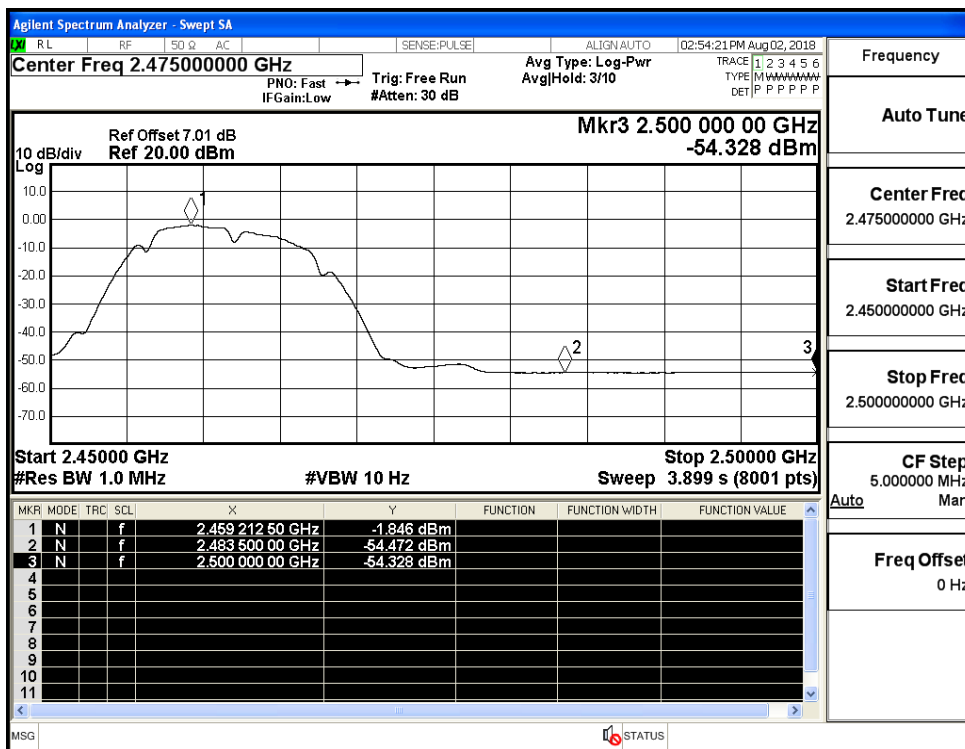
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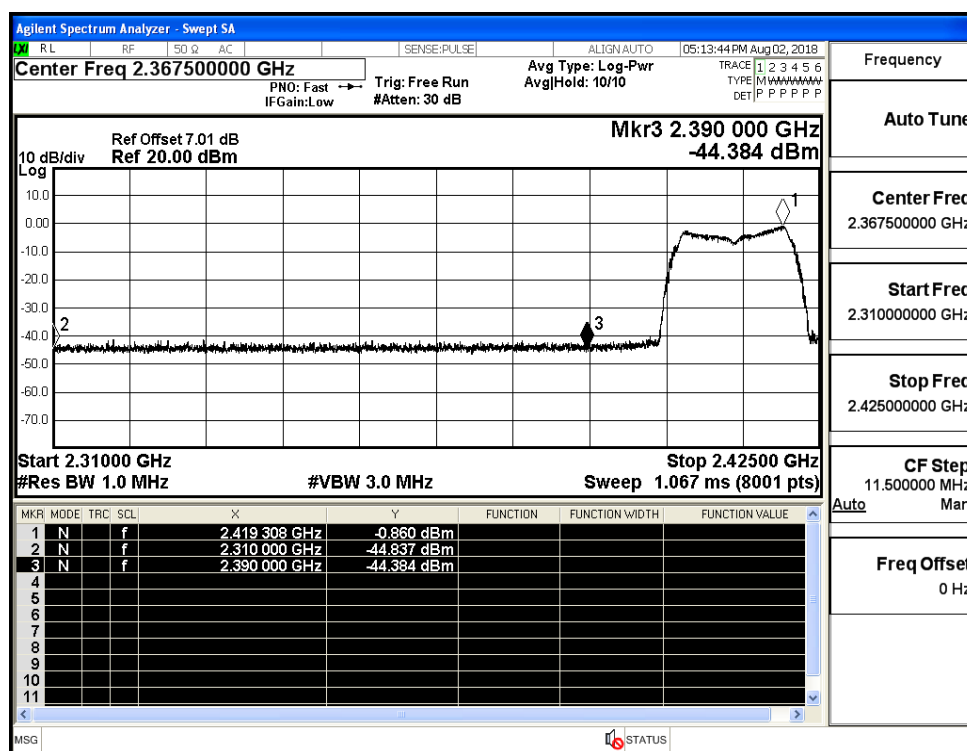
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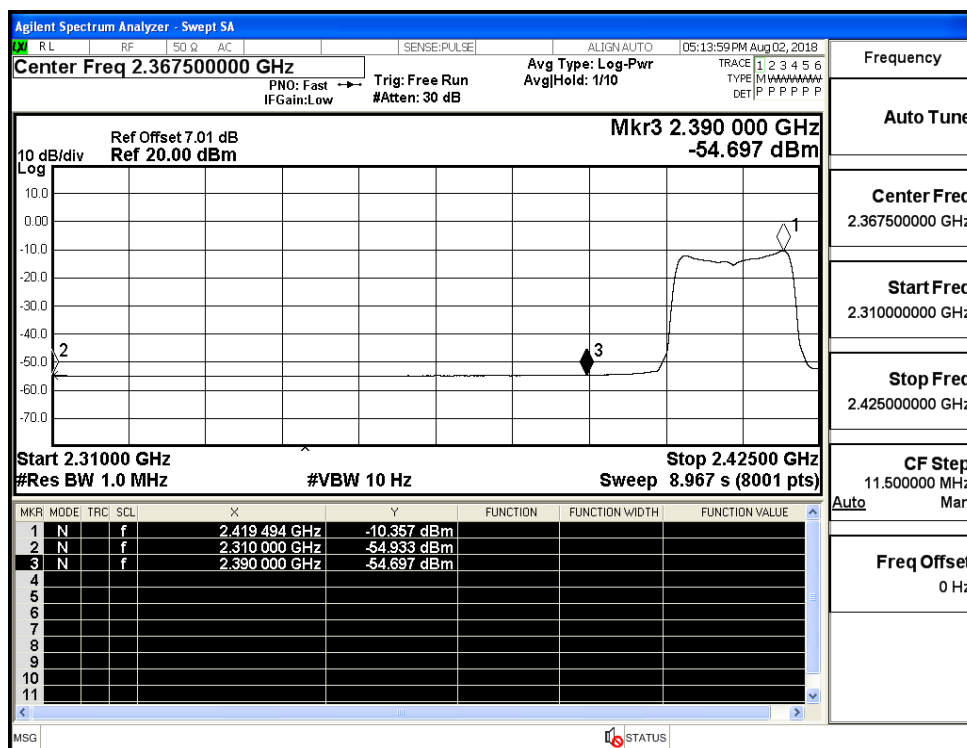
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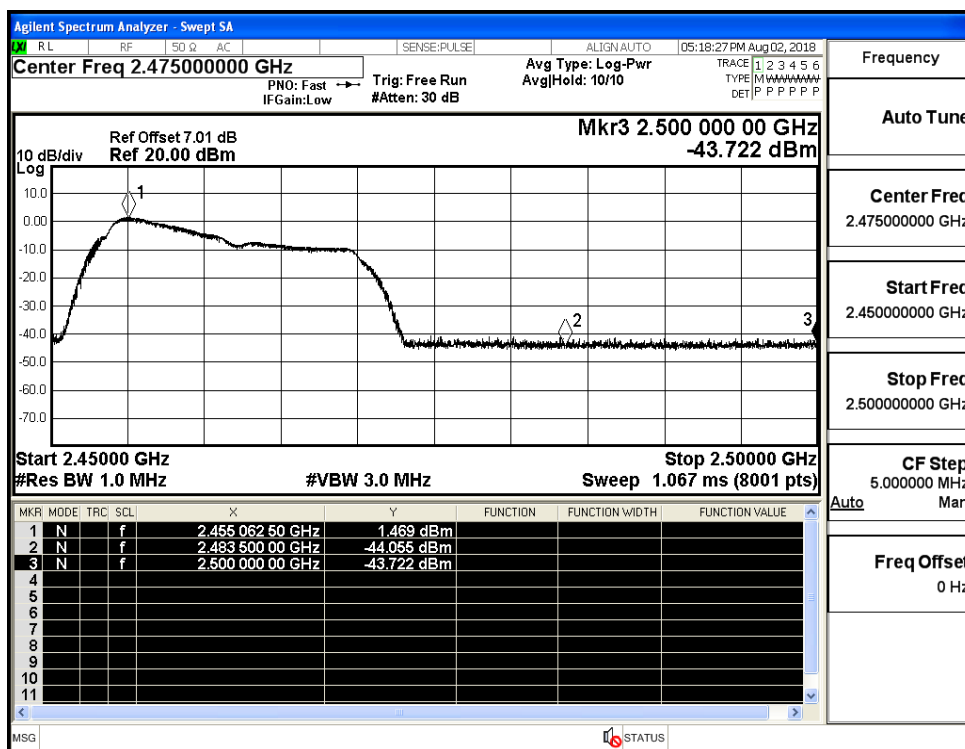
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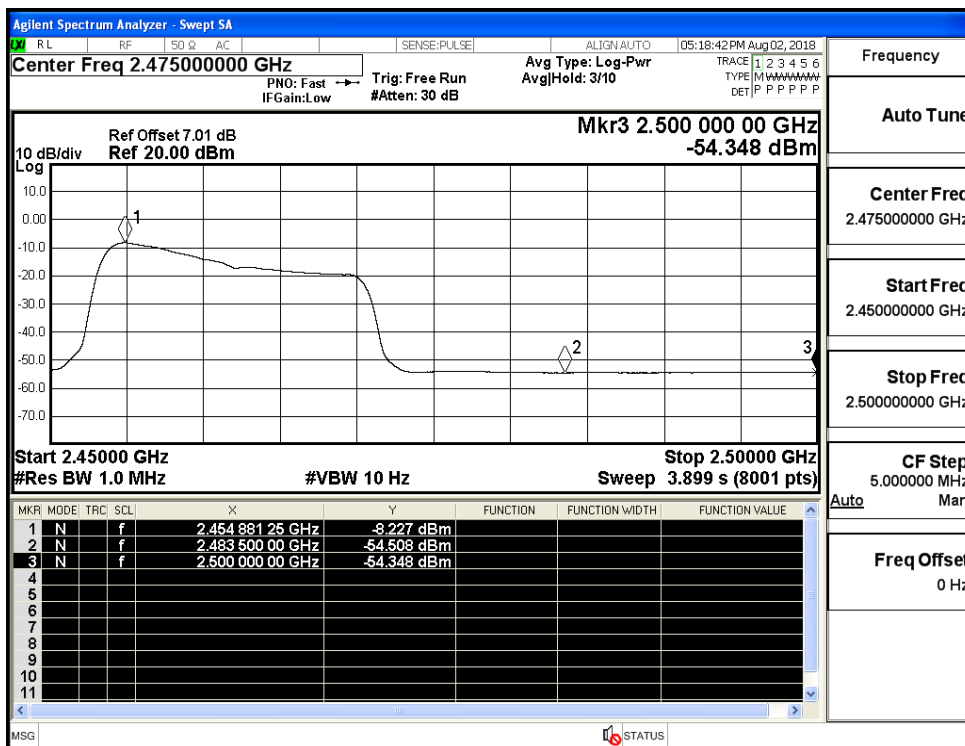
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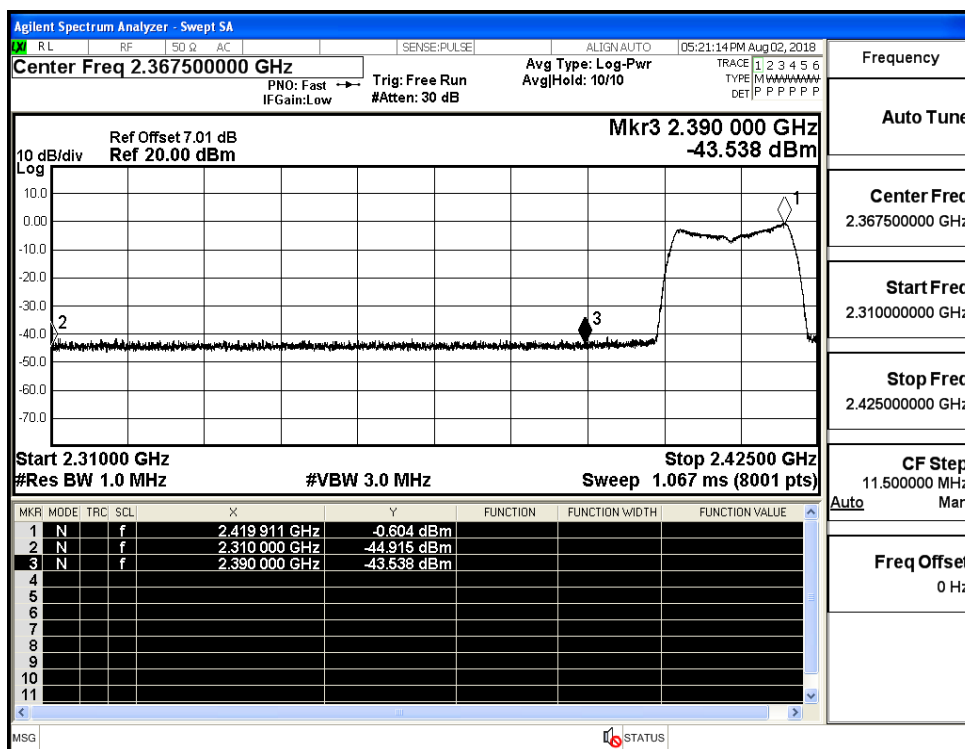
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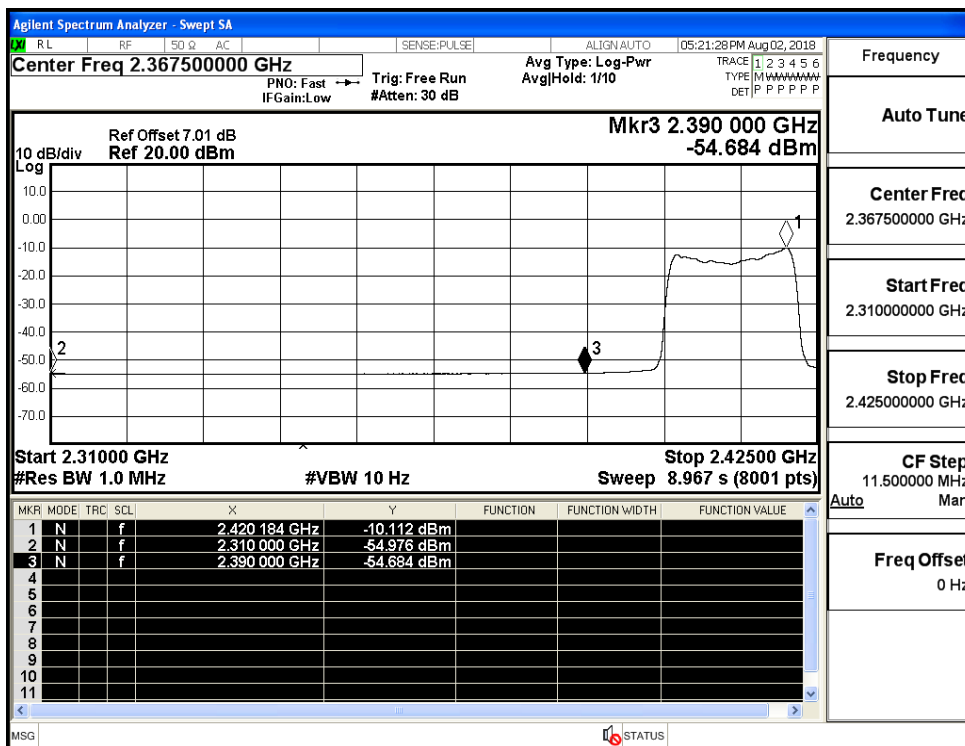
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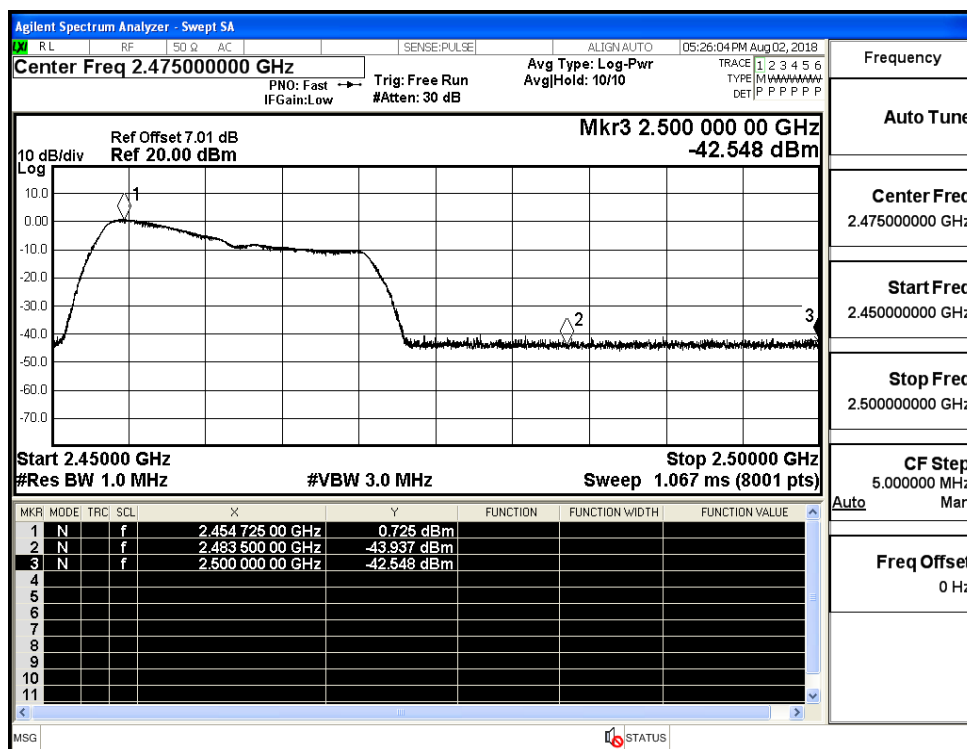
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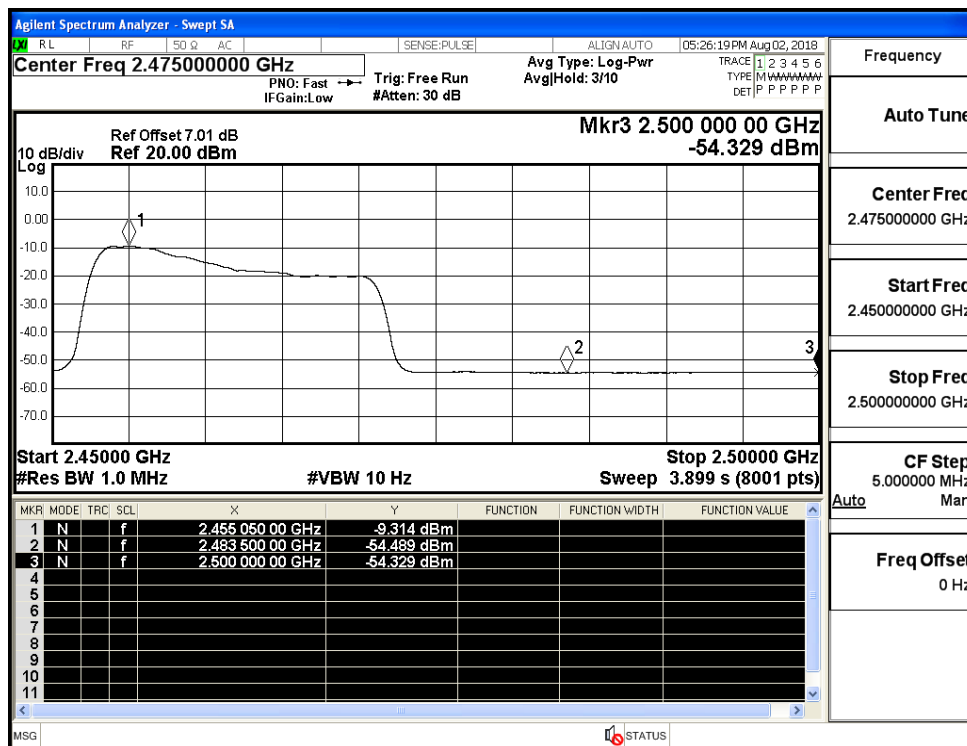
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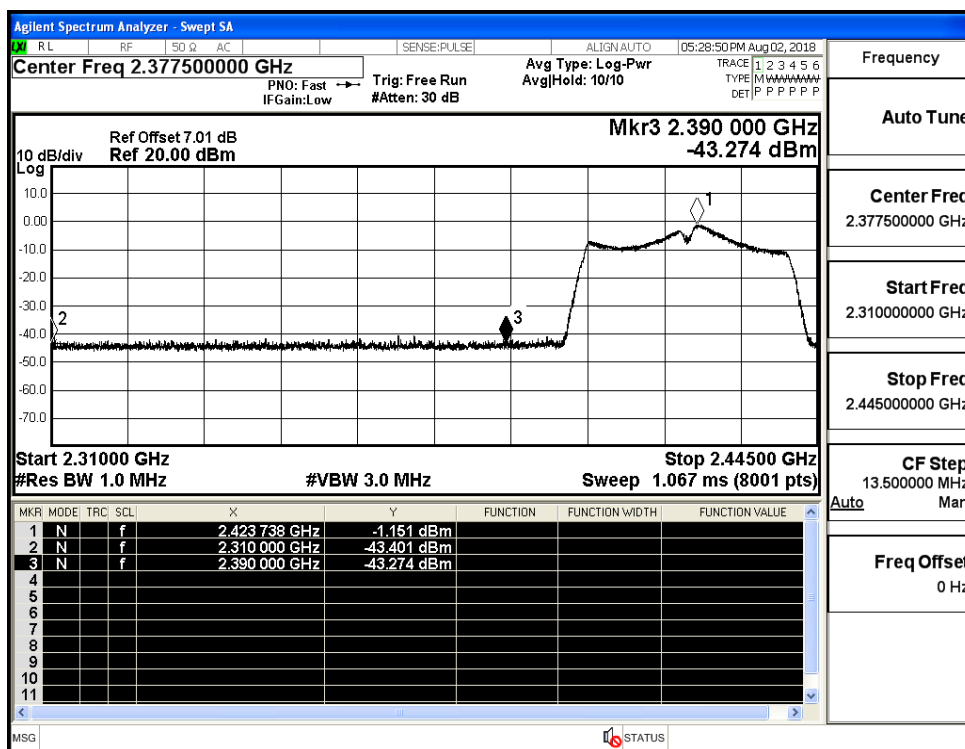
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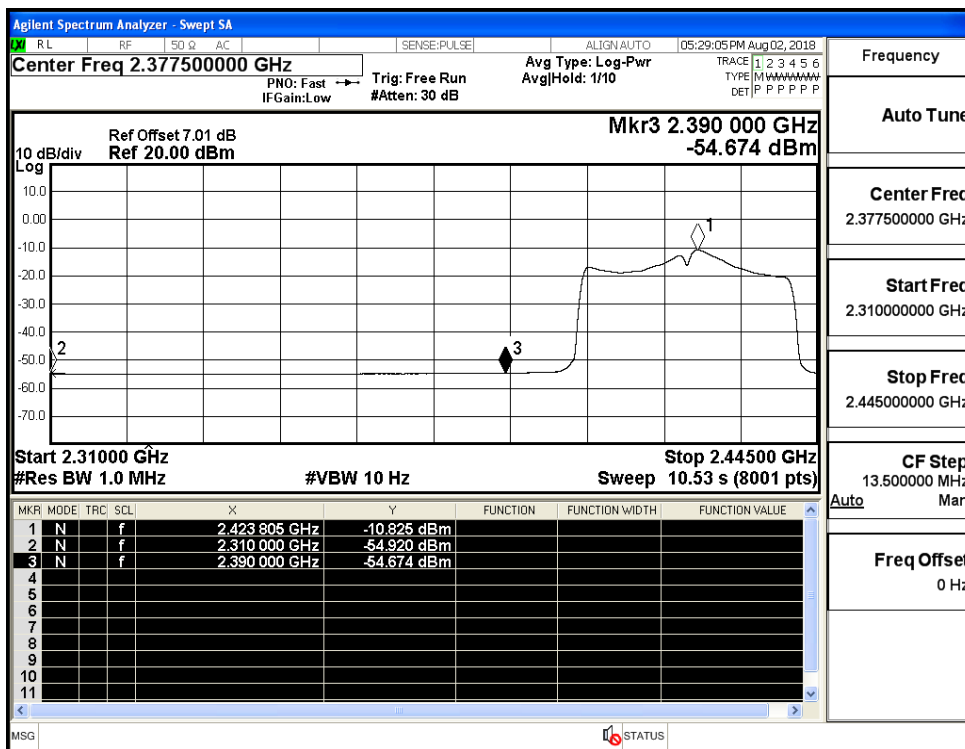
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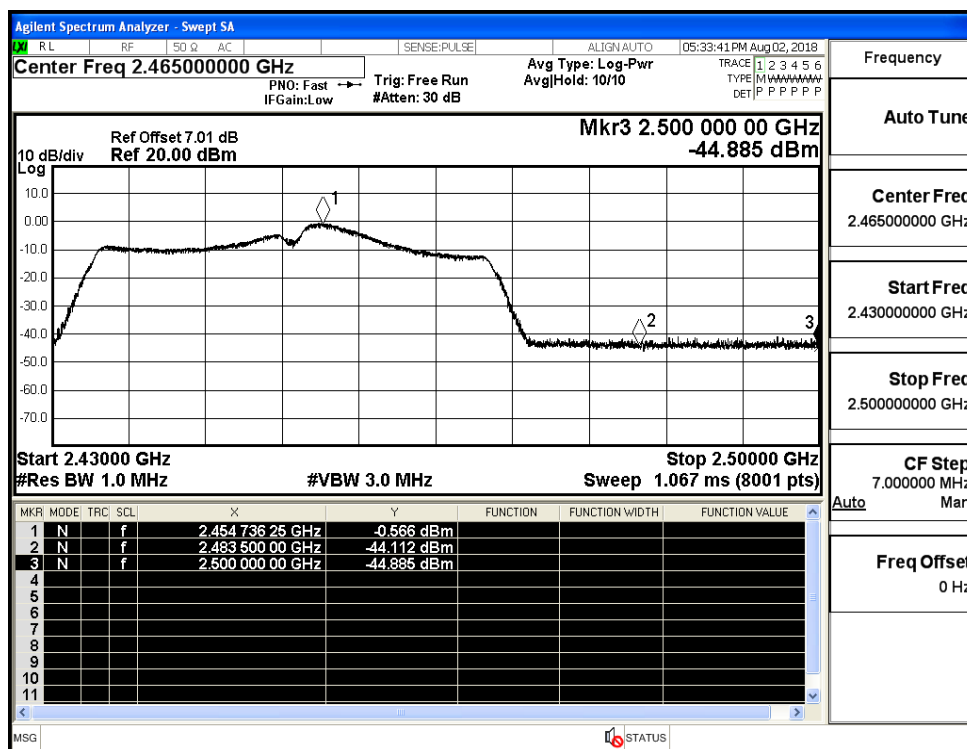
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Restrict-band band-edge measurements_11N40SISO_2422_Ant1_AV



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_PEAK



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_AV

