

Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: TABLET PC

Trade Mark: FUSION5

Test Model: FWIN232 Plus

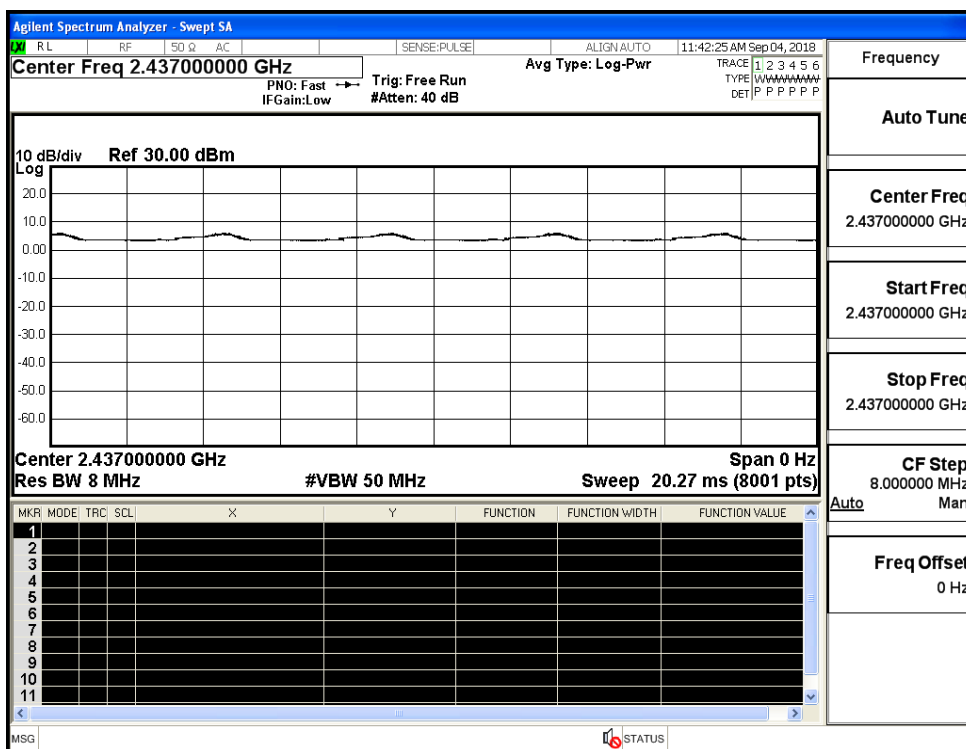
Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom Liu
Supervised by:	Jayden Zhuo

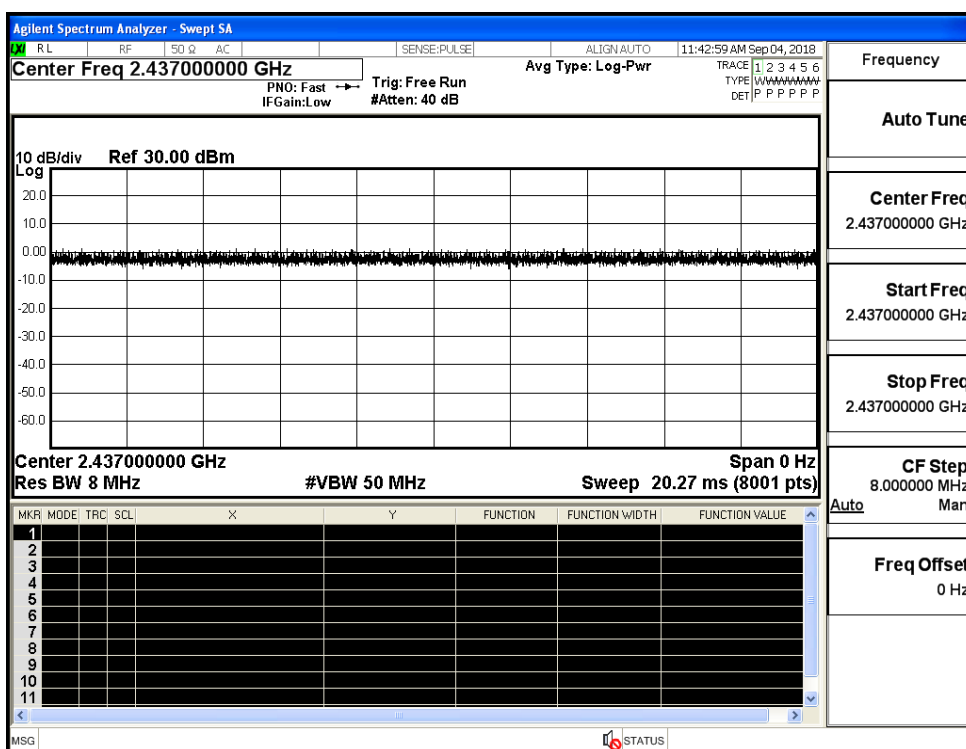
C.1 Duty Cycle

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

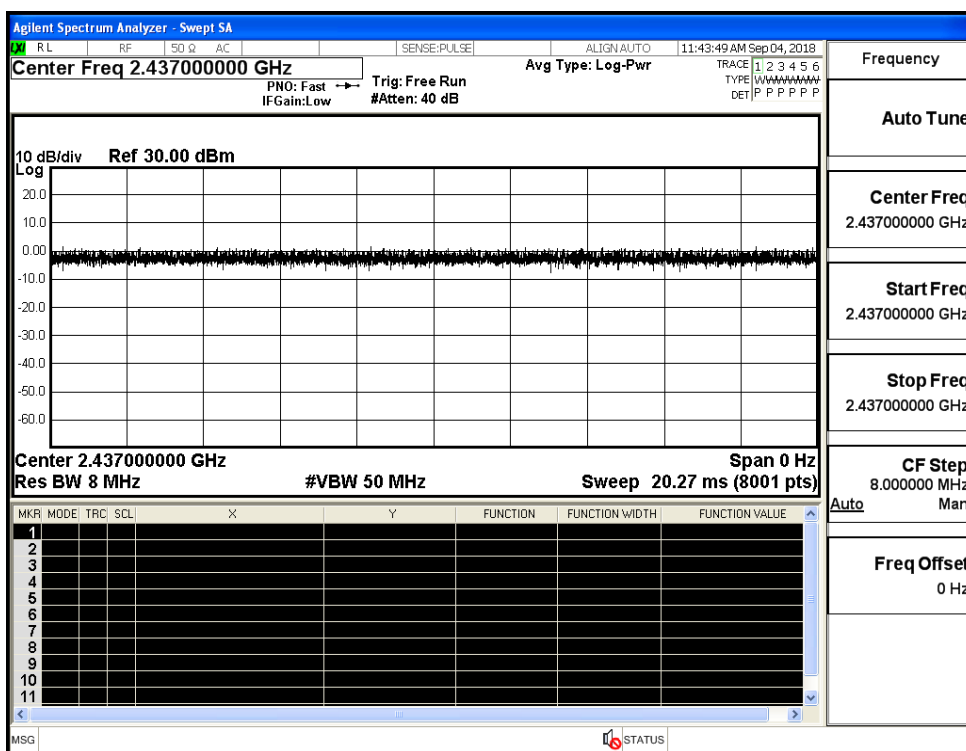
Duty Cycle_11B_2437_Ant1



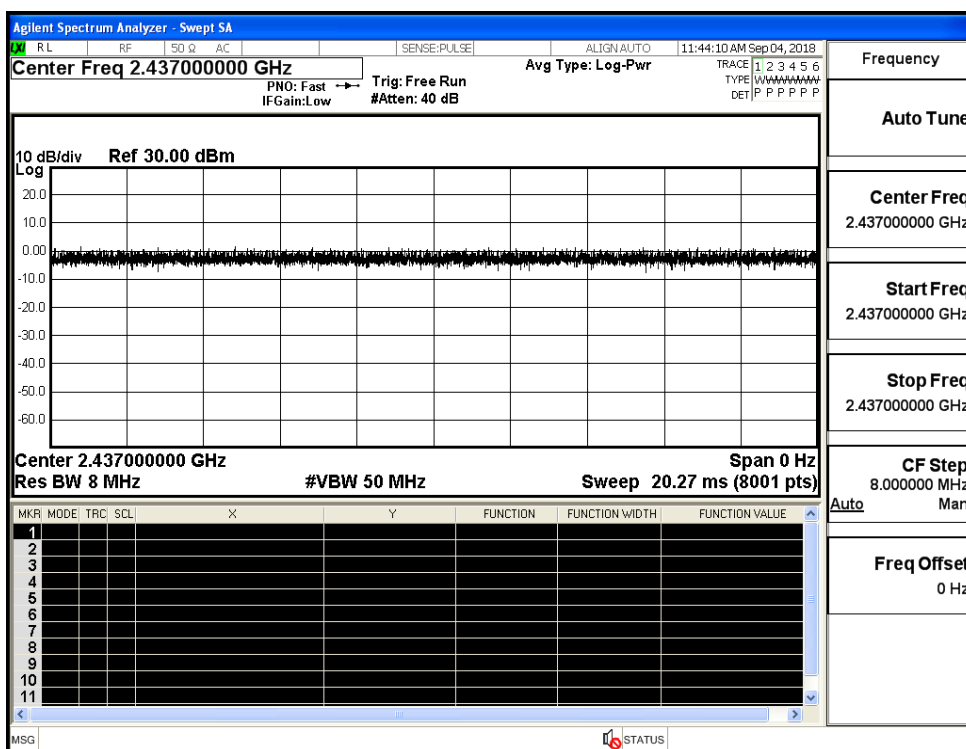
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



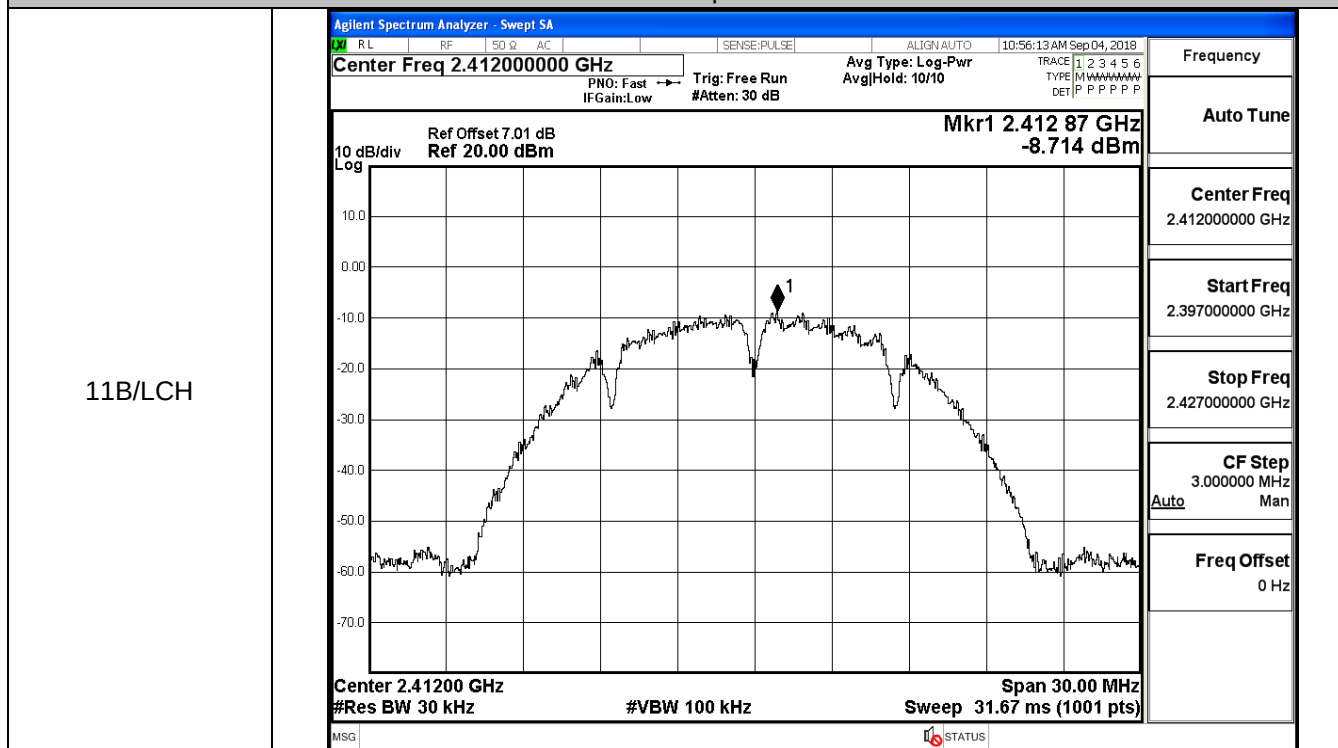
C.2 Maximum Conducted Output Power

Mode	Channel	Meas. Peak Level [dBm]	Limit [dBm]	Verdict
11B	LCH	11.53	30	PASS
	MCH	11.11	30	PASS
	HCH	10.93	30	PASS
11G	LCH	12.39	30	PASS
	MCH	12.41	30	PASS
	HCH	12.71	30	PASS
11N20SISO	LCH	12.63	30	PASS
	MCH	12.84	30	PASS
	HCH	12.87	30	PASS
11N40SISO	LCH	14.62	30	PASS
	MCH	14.47	30	PASS
	HCH	14.65	30	PASS

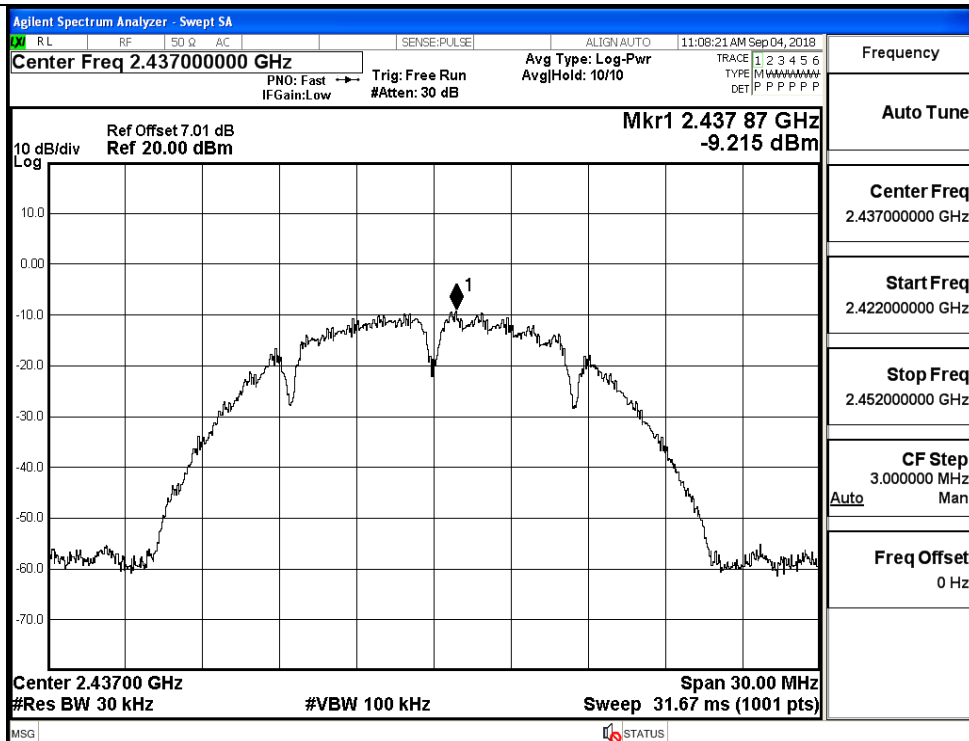
C.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/30KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-8.714	8	PASS
	MCH	-9.215	8	PASS
	HCH	-9.447	8	PASS
11G	LCH	-15.327	8	PASS
	MCH	-15.475	8	PASS
	HCH	-14.816	8	PASS
11N20SISO	LCH	-14.971	8	PASS
	MCH	-14.556	8	PASS
	HCH	-14.576	8	PASS
11N40SISO	LCH	-17.267	8	PASS
	MCH	-17.753	8	PASS
	HCH	-18.369	8	PASS

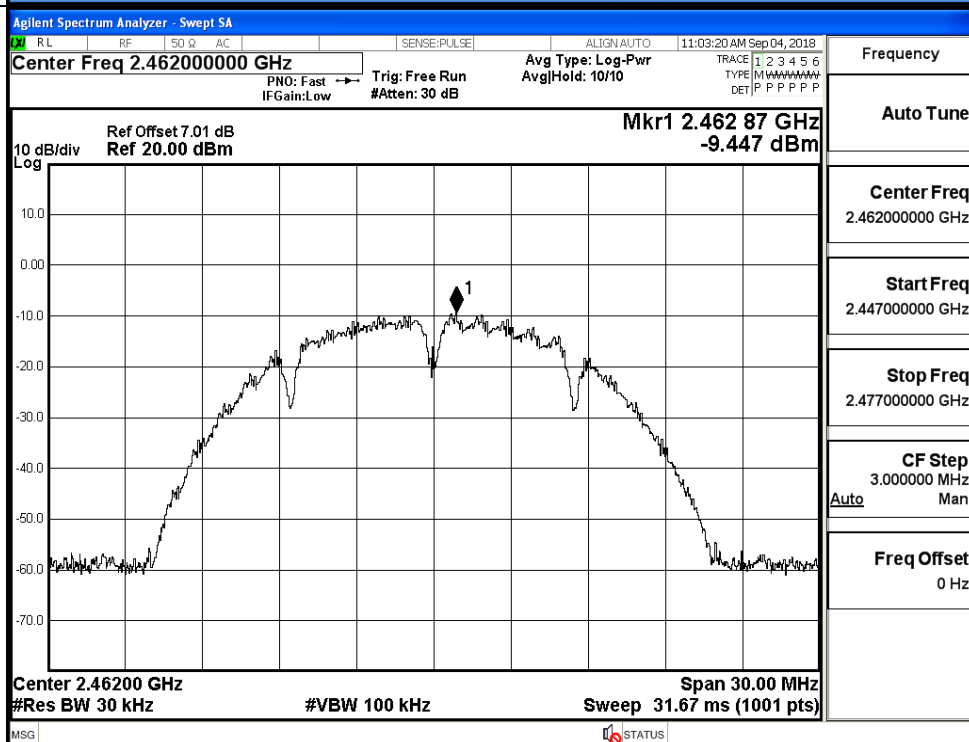
Test Graphs



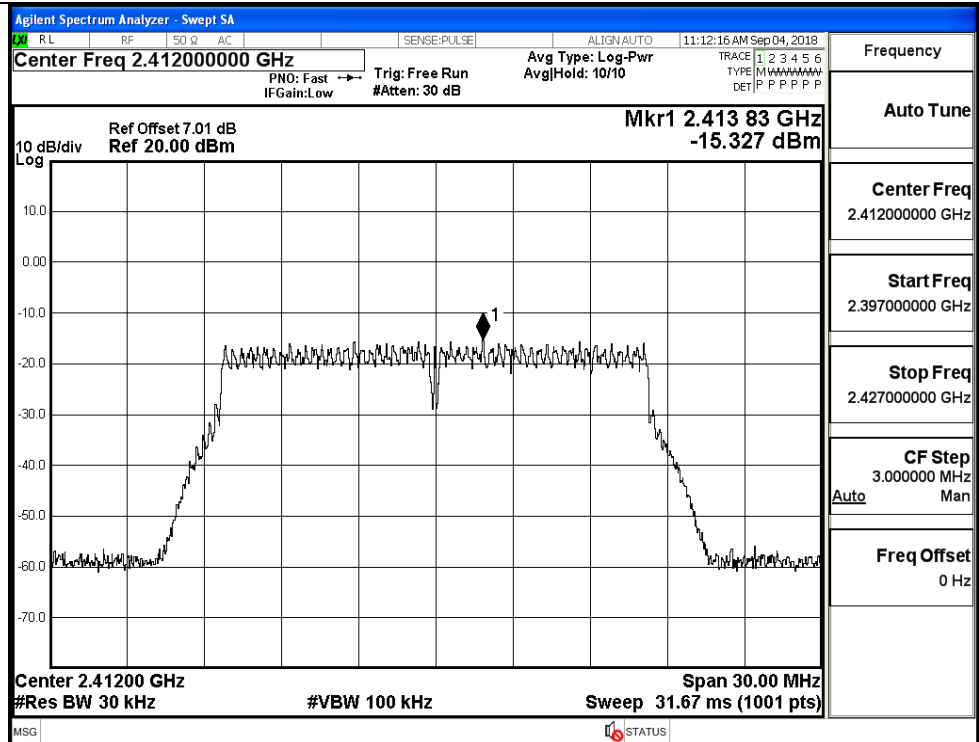
11B/MCH



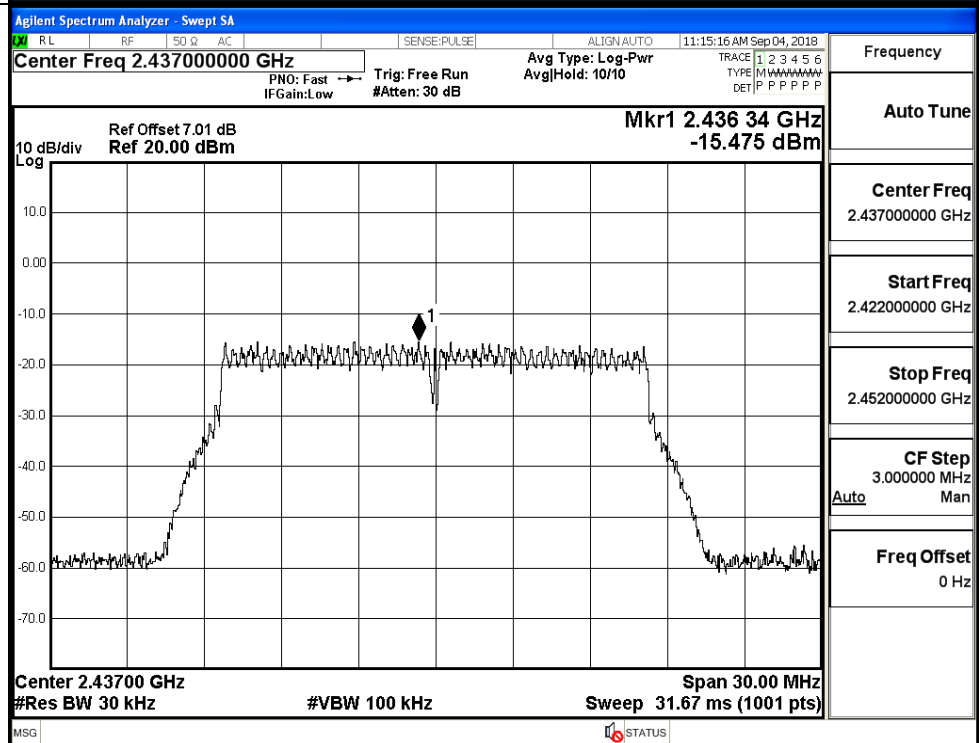
11B/HCH



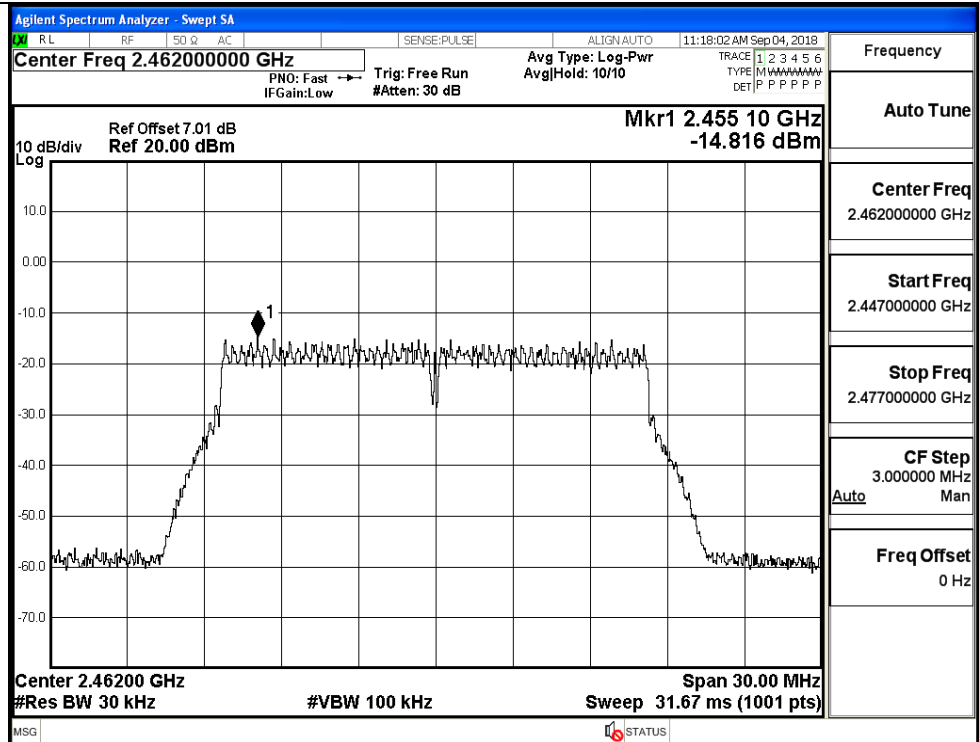
11G/LCH



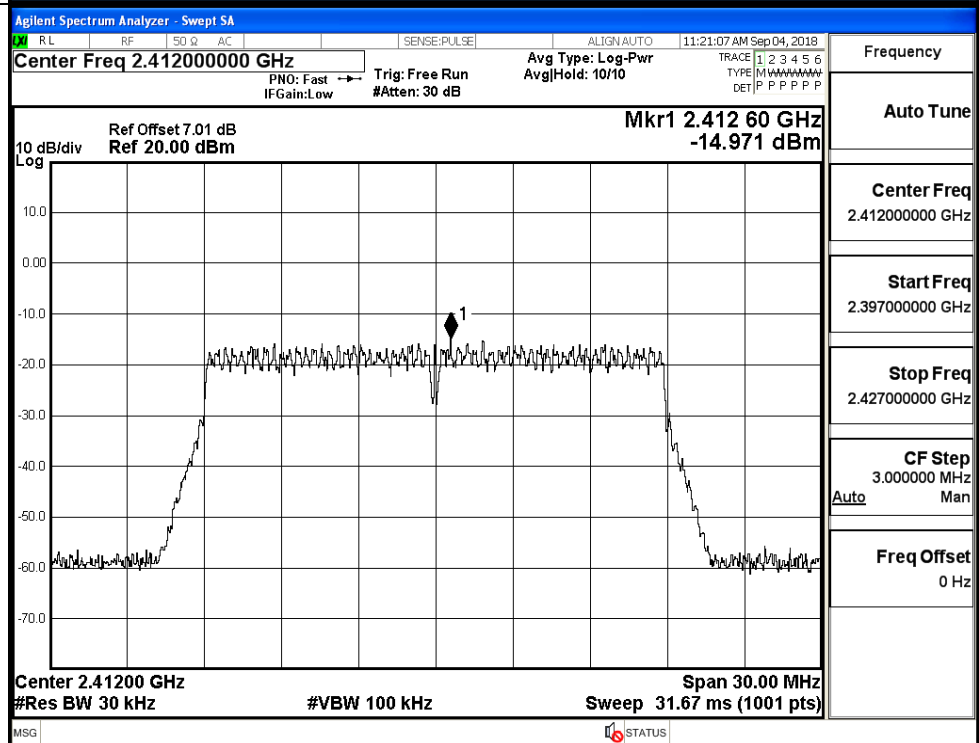
11G/MCH

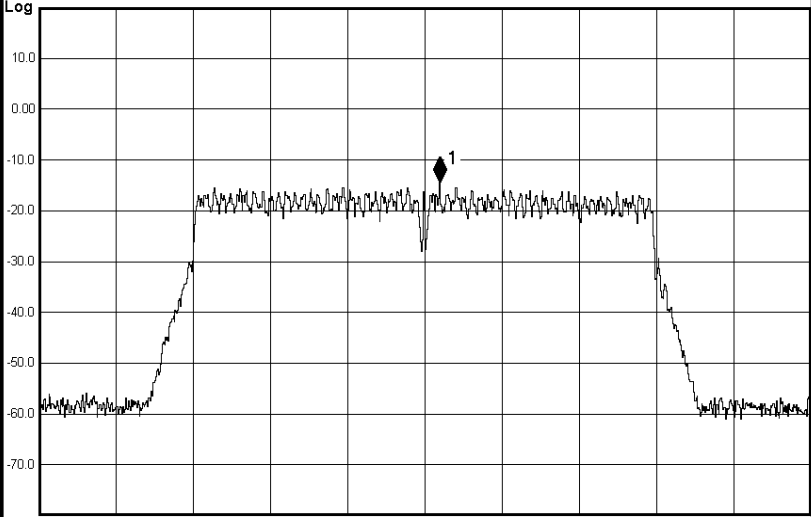
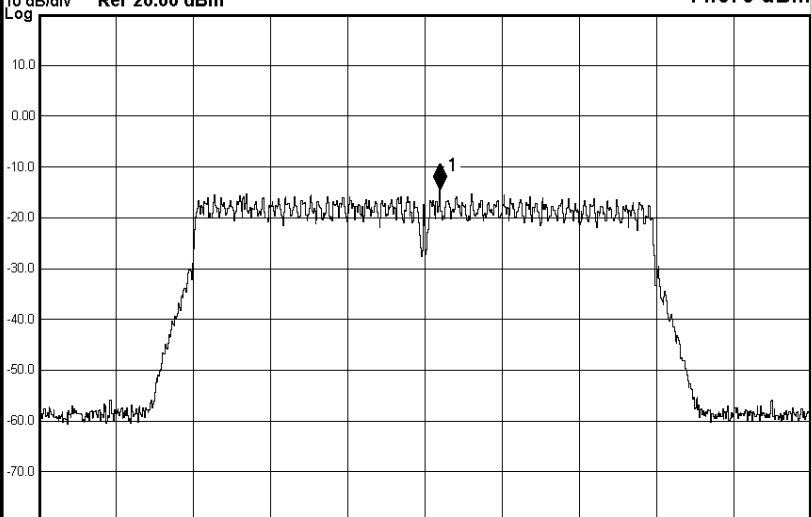


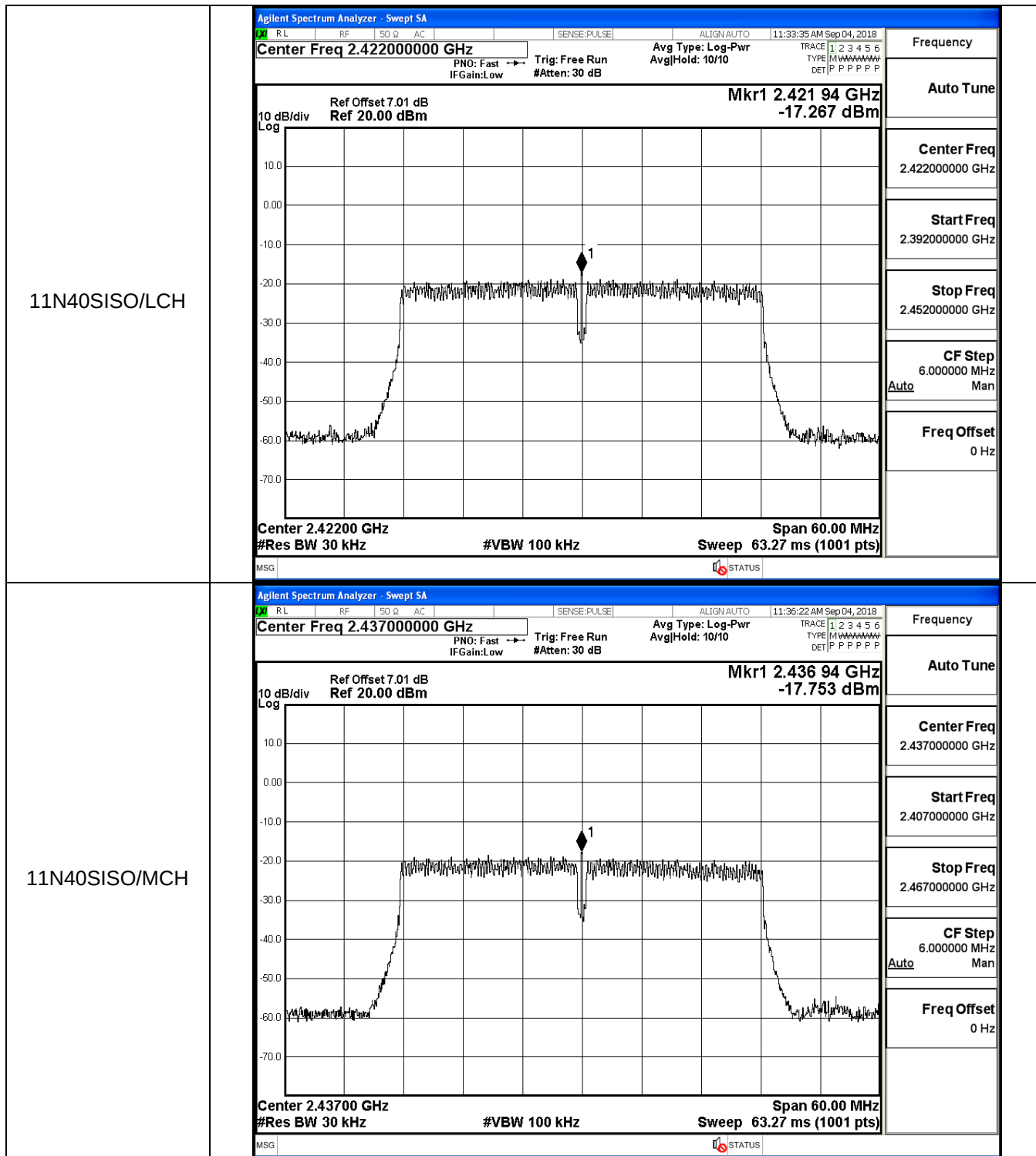
11G/HCH



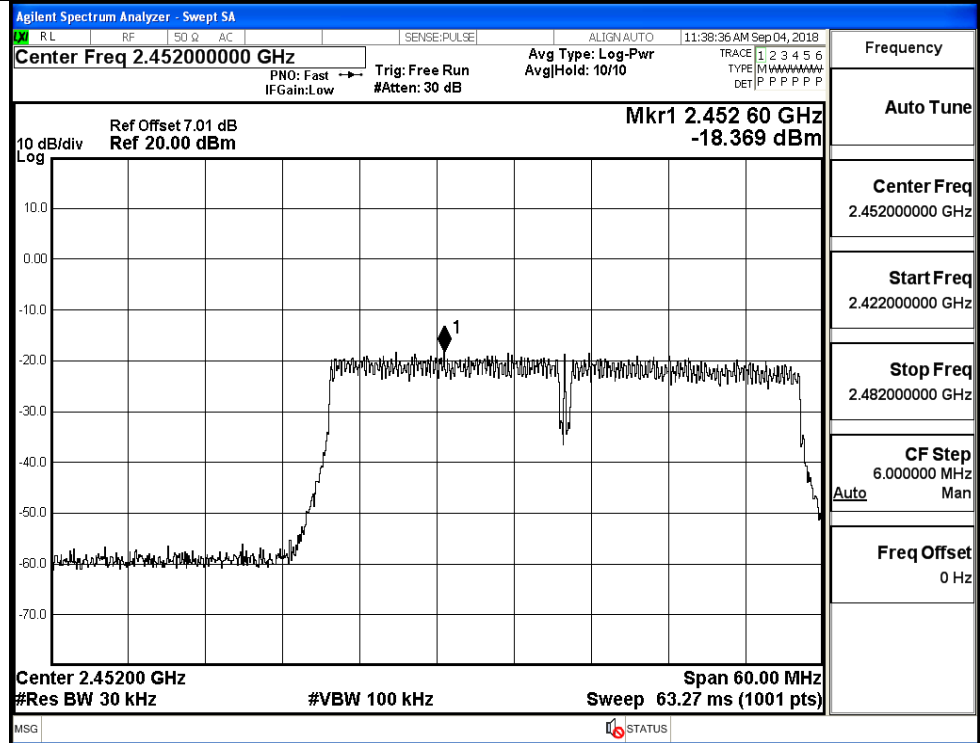
11N20SISO/LCH



11N20SISO/MCH	Agilent Spectrum Analyzer - Swept SA RL RF SO Q AC SENSE:PULSE ALIGN:AUTO 11:28:40 AM Sep 04, 2018 Center Freq 2.437000000 GHz PNO: Fast IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr 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 Mkr1 2.437 57 GHz -14.556 dBm 10 dB/div Log  Center 2.43700 GHz Span 30.00 MHz #Res BW 30 kHz #VBW 100 kHz Sweep 31.67 ms (1001 pts) MSG STATUS Frequency Auto Tune Center Freq 2.437000000 GHz Start Freq 2.422000000 GHz Stop Freq 2.452000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz
11N20SISO/HCH	Agilent Spectrum Analyzer - Swept SA RL RF SO Q AC SENSE:PULSE ALIGN:AUTO 11:30:47 AM Sep 04, 2018 Center Freq 2.462000000 GHz PNO: Fast IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr 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 Mkr1 2.462 60 GHz -14.576 dBm 10 dB/div Log  Center 2.46200 GHz Span 30.00 MHz #Res BW 30 kHz #VBW 100 kHz Sweep 31.67 ms (1001 pts) MSG STATUS Frequency Auto Tune Center Freq 2.462000000 GHz Start Freq 2.447000000 GHz Stop Freq 2.477000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz



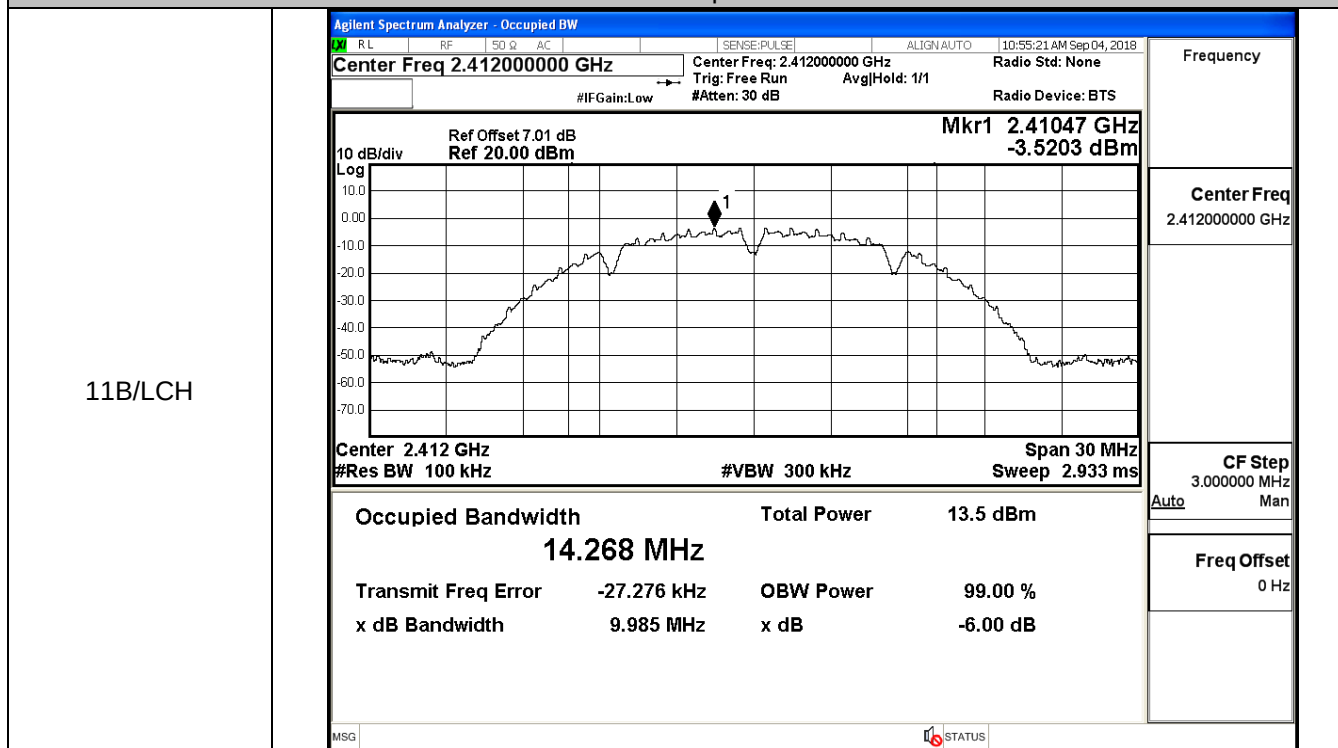
11N40SISO/HCH



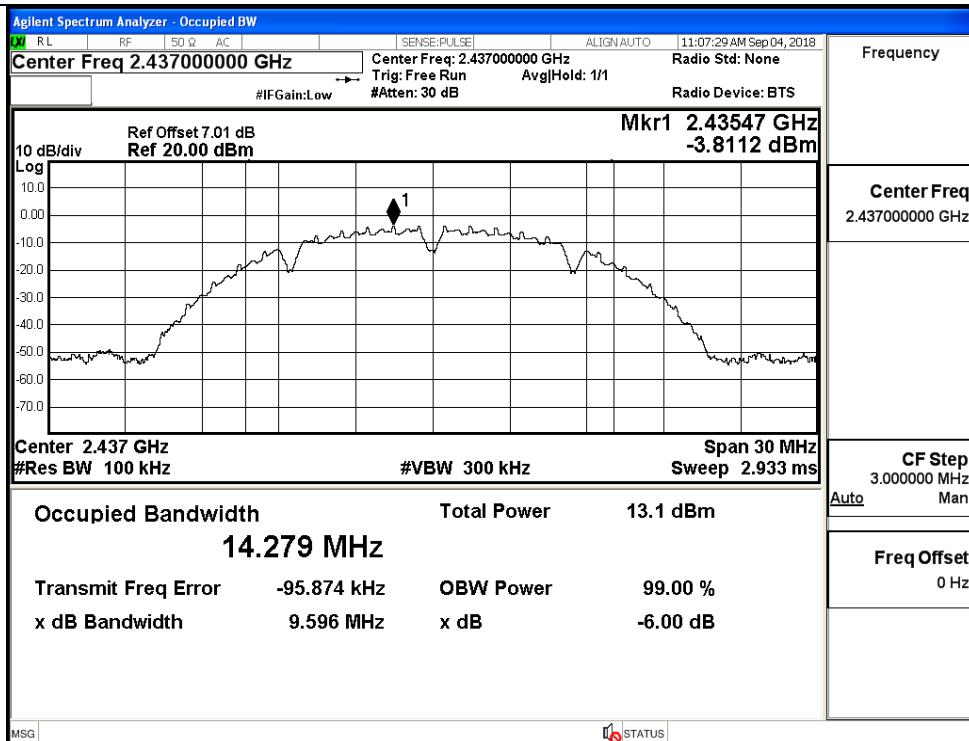
C.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.985	≥ 0.5	PASS
	MCH	9.596	≥ 0.5	PASS
	HCH	9.596	≥ 0.5	PASS
11G	LCH	16.61	≥ 0.5	PASS
	MCH	16.61	≥ 0.5	PASS
	HCH	16.61	≥ 0.5	PASS
11N20SISO	LCH	17.82	≥ 0.5	PASS
	MCH	17.76	≥ 0.5	PASS
	HCH	17.80	≥ 0.5	PASS
11N40SISO	LCH	36.48	≥ 0.5	PASS
	MCH	36.50	≥ 0.5	PASS
	HCH	36.50	≥ 0.5	PASS

Test Graphs



11B/MCH



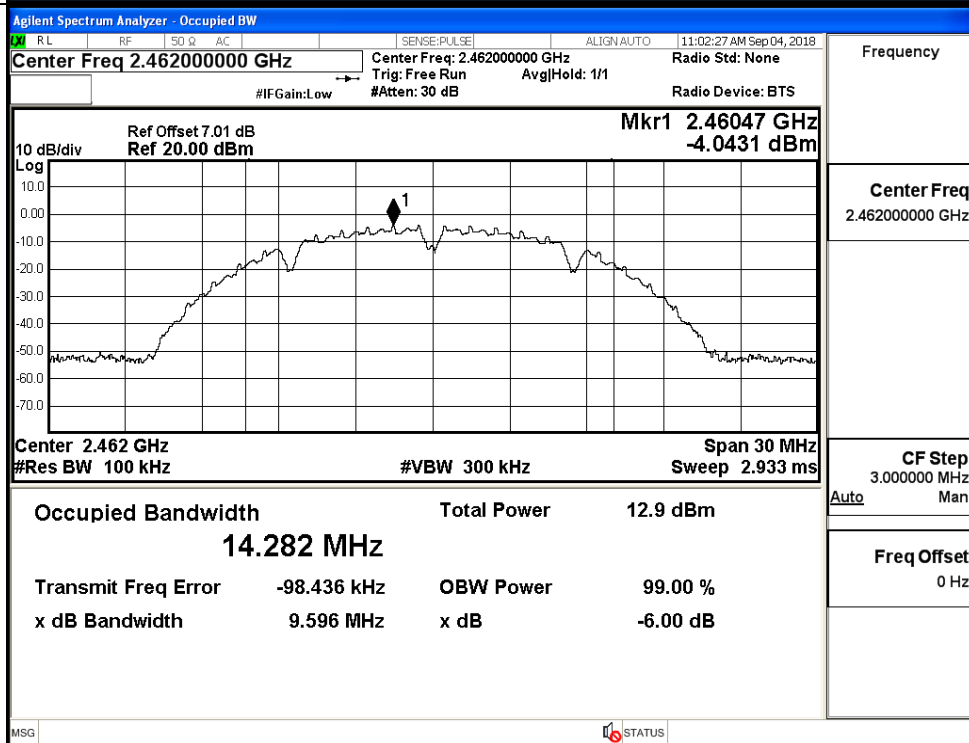
Frequency

Center Freq
2.437000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11B/HCH



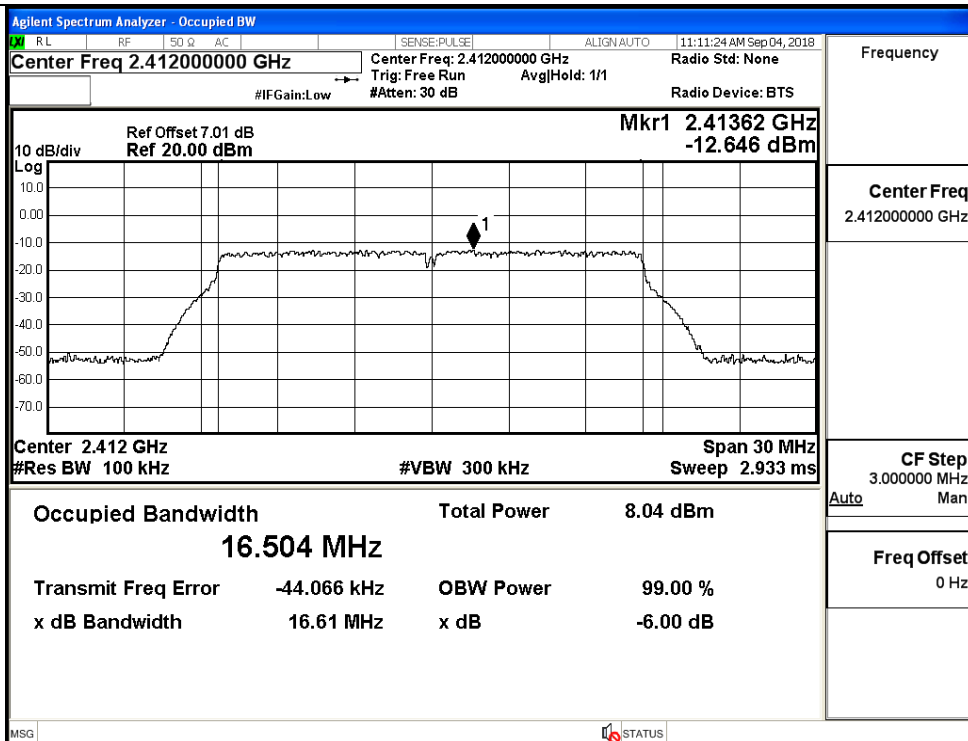
Frequency

Center Freq
2.462000000 GHz

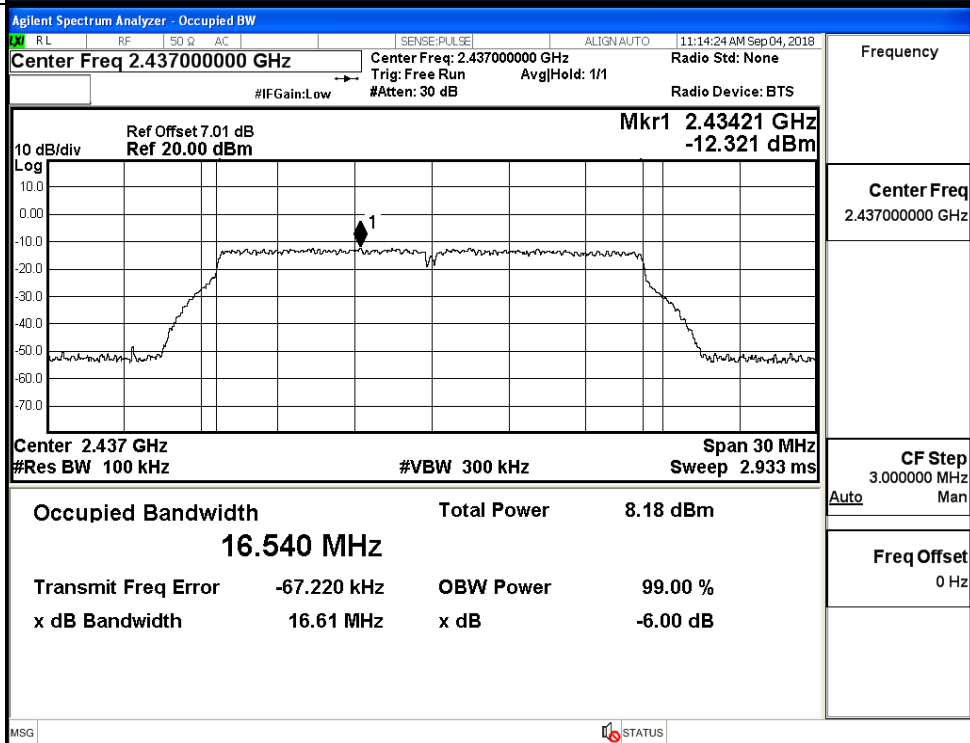
CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

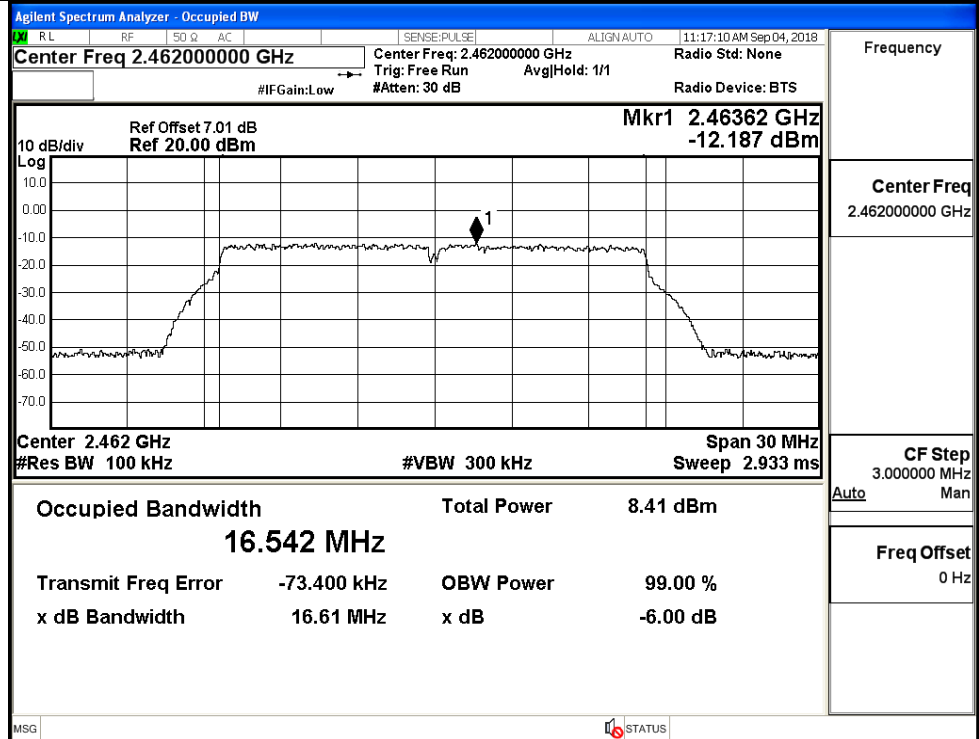
11G/LCH



11G/MCH



11G/HCH



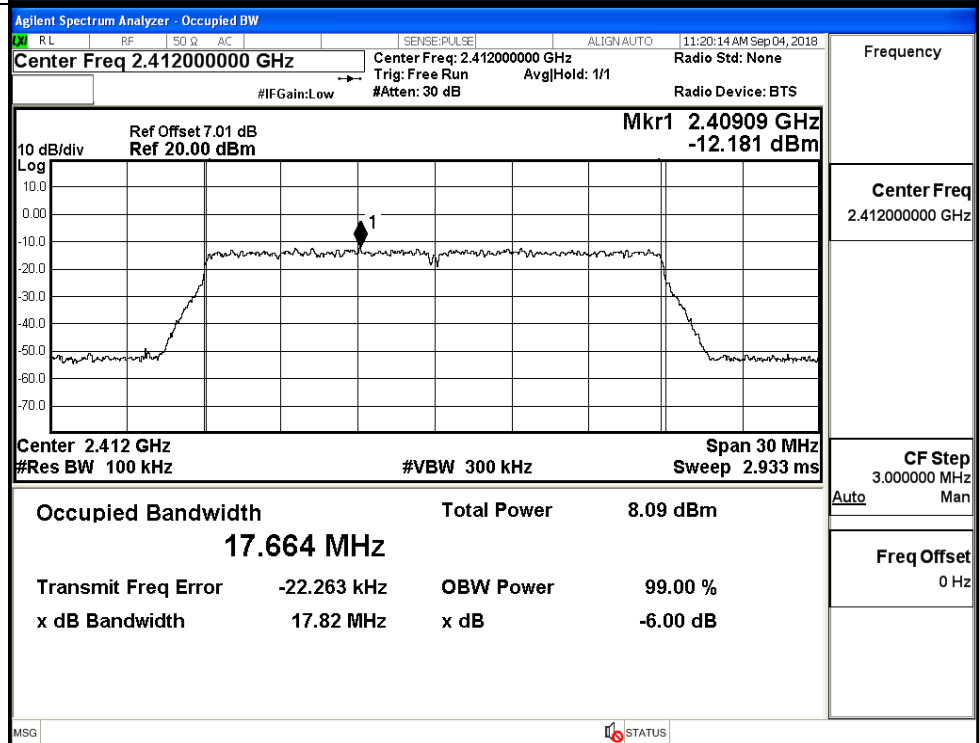
Frequency

Center Freq
2.462000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/LCH

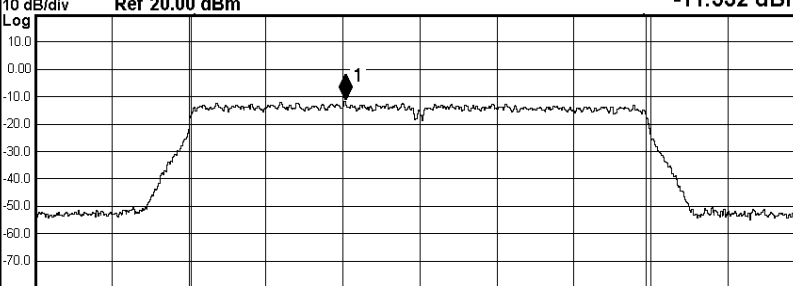


Frequency

Center Freq
2.412000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/MCH	Agilent Spectrum Analyzer - Occupied BW Center Freq 2.437000000 GHz Ref Offset 7.01 dB Ref 20.00 dBm  Center 2.437 GHz #Res BW 100 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.662 MHz Total Power 8.24 dBm Transmit Freq Error -40.649 kHz OBW Power 99.00 % x dB Bandwidth 17.76 MHz x dB -6.00 dB Frequency Center Freq 2.437000000 GHz CF Step 3.000000 MHz Freq Offset 0 Hz
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| 11N20SISO/HCH | Agilent Spectrum Analyzer - Occupied BW Center Freq 2.462000000 GHz Ref Offset 7.01 dB Ref 20.00 dBm Center 2.462 GHz #Res BW 100 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.669 MHz Total Power 8.37 dBm Transmit Freq Error -41.837 kHz OBW Power 99.00 % x dB Bandwidth 17.80 MHz x dB -6.00 dB Frequency Center Freq 2.462000000 GHz CF Step 3.000000 MHz Freq Offset 0 Hz |

11N40SISO/LCH

Agilent Spectrum Analyzer - Occupied BW

Center Freq 2.42200000 GHz

Ref Offset 7.01 dB
Ref 20.00 dBm

Mkr1 2.4241 GHz
-15.274 dBm

Center 2.422 GHz Span 60 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 5.8 ms

Occupied Bandwidth		Total Power	8.25 dBm
36.085 MHz			
Transmit Freq Error	-40.124 kHz	OBW Power	99.00 %
x dB Bandwidth	36.48 MHz	x dB	-6.00 dB

11N40SISO/MCH

Agilent Spectrum Analyzer - Occupied BW

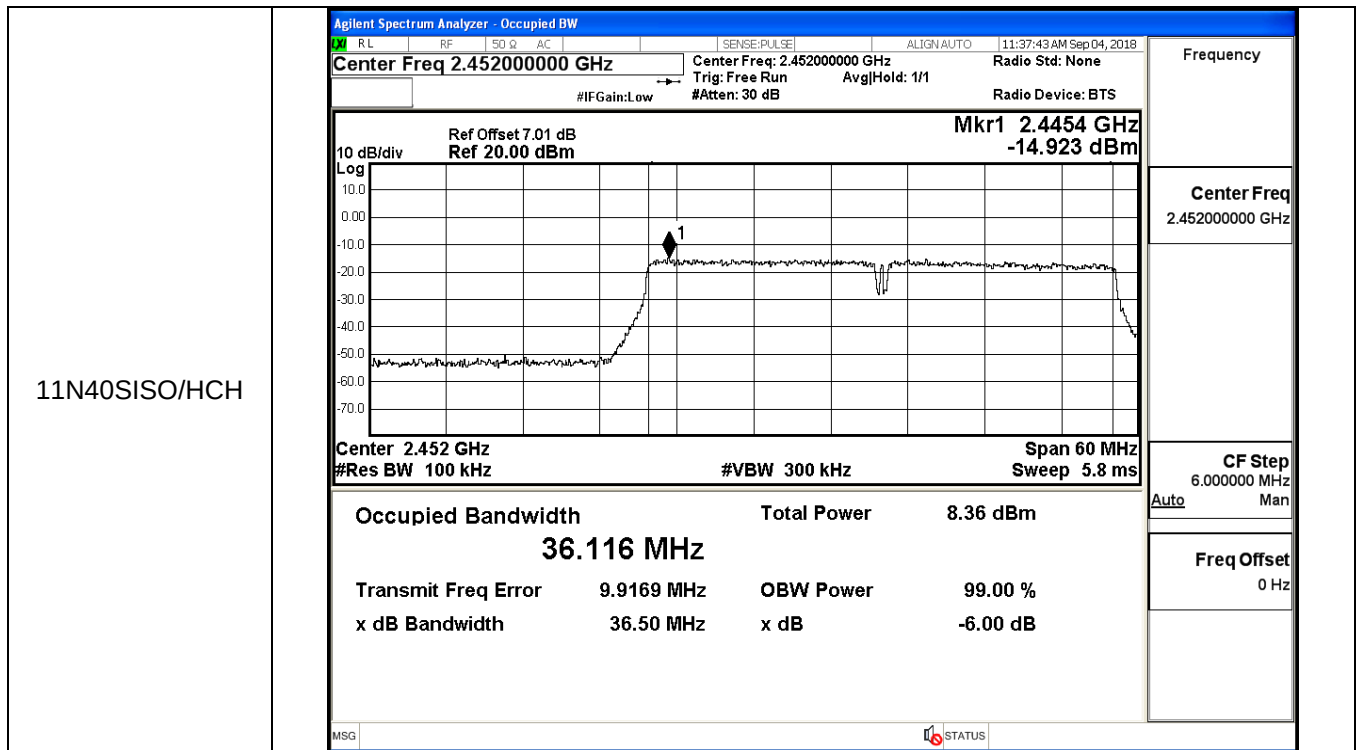
Center Freq 2.437000000 GHz

Ref Offset 7.01 dB
Ref 20.00 dBm

Mkr1 2.4322 GHz
-15.482 dBm

Center 2.437 GHz Span 60 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 5.8 ms

Occupied Bandwidth		Total Power	8.12 dBm
36.092 MHz			
Transmit Freq Error	-75.246 kHz	OBW Power	99.00 %
x dB Bandwidth	36.50 MHz	x dB	-6.00 dB

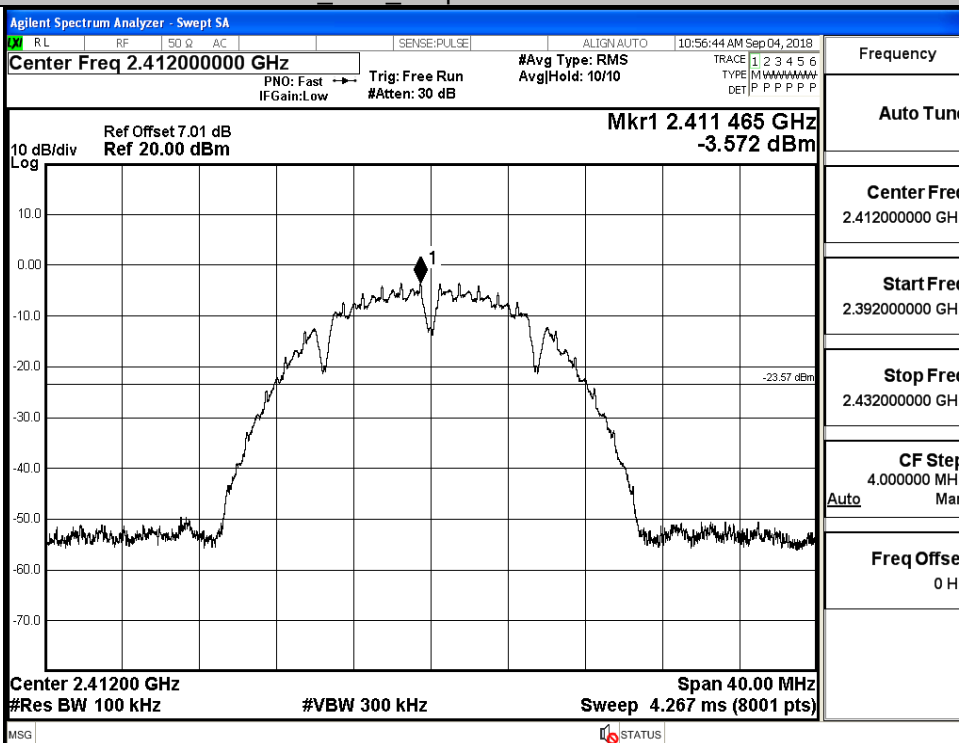


C.5 RF Conducted Spurious Emissions

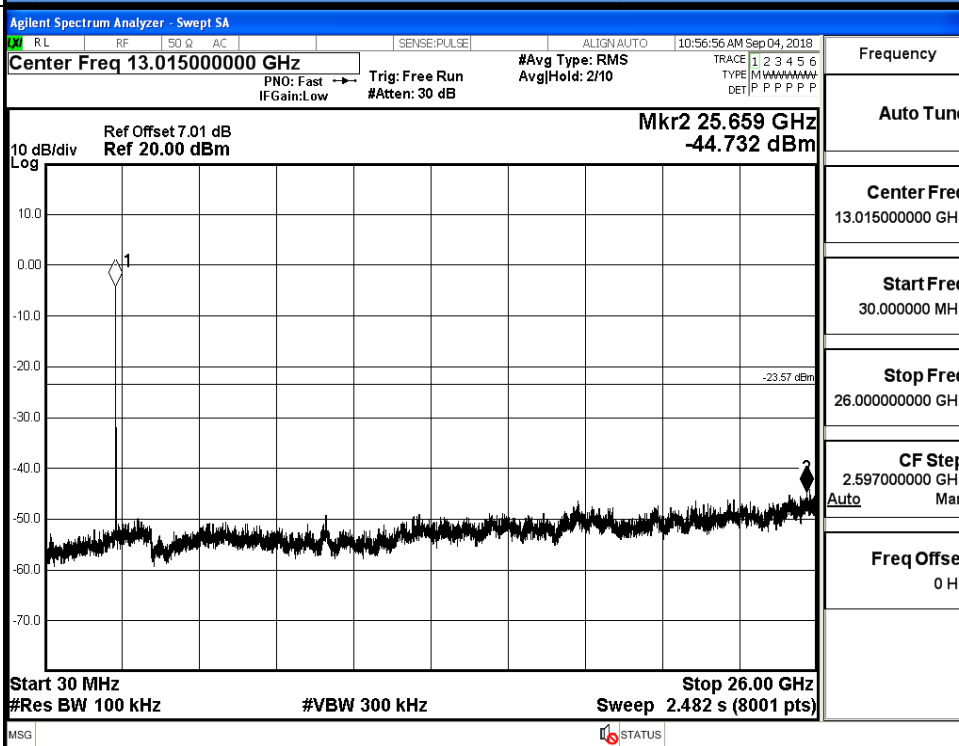
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-3.572	-44.732	-23.572	PASS
	MCH	-3.896	-44.995	-23.896	PASS
	HCH	-4.096	-44.481	-24.096	PASS
11G	LCH	-12.701	-44.702	-32.701	PASS
	MCH	-12.791	-45.357	-32.791	PASS
	HCH	-12.461	-44.718	-32.461	PASS
11N20 SISO	LCH	-12.374	-45.010	-32.374	PASS
	MCH	-11.571	-45.004	-31.571	PASS
	HCH	-11.629	-45.012	-31.629	PASS
11N40 SISO	LCH	-15.643	-44.305	-35.643	PASS
	MCH	-15.852	-44.947	-35.852	PASS
	HCH	-15.192	-44.853	-35.192	PASS

11B LCH Graphs

Pref/11B/LCH

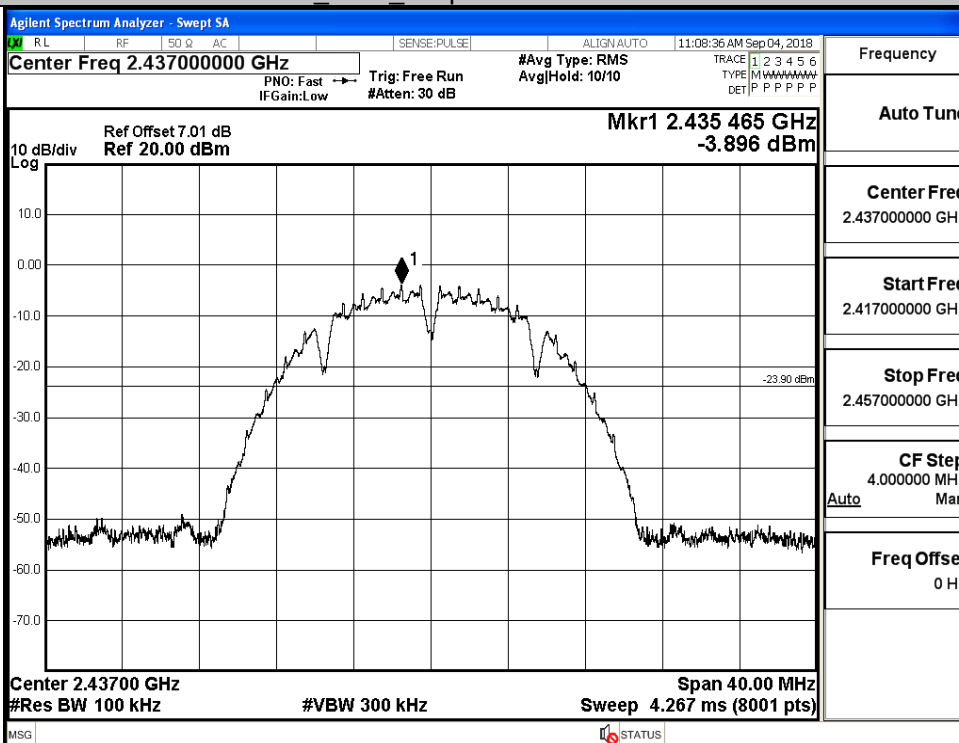


Puw/11B/LCH

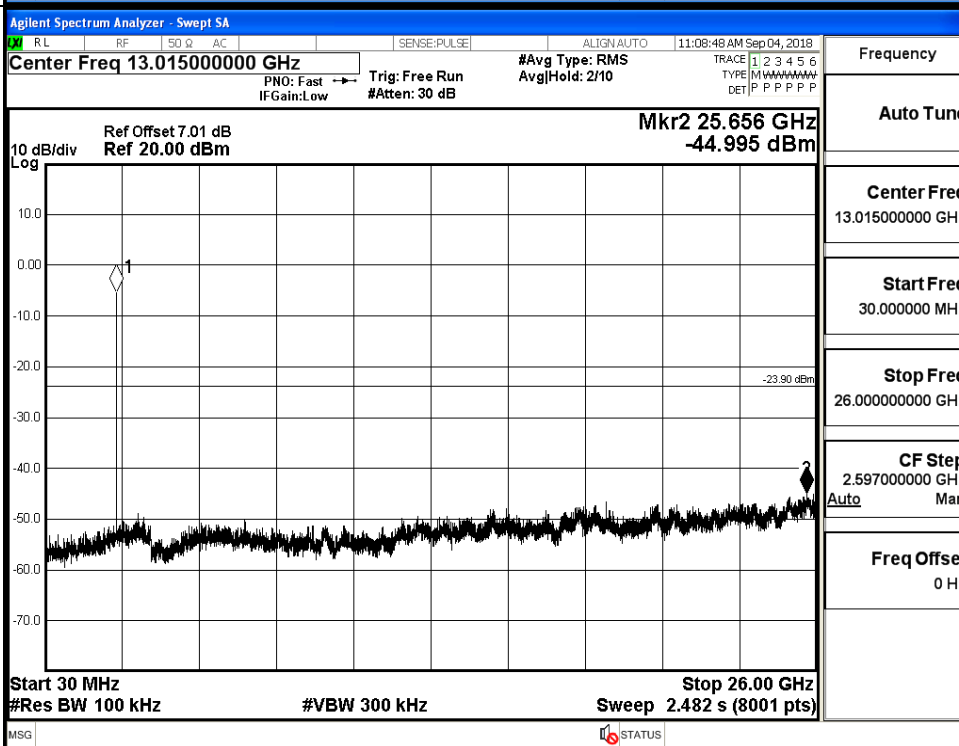


11B MCH Graphs

Pref/11B/MCH

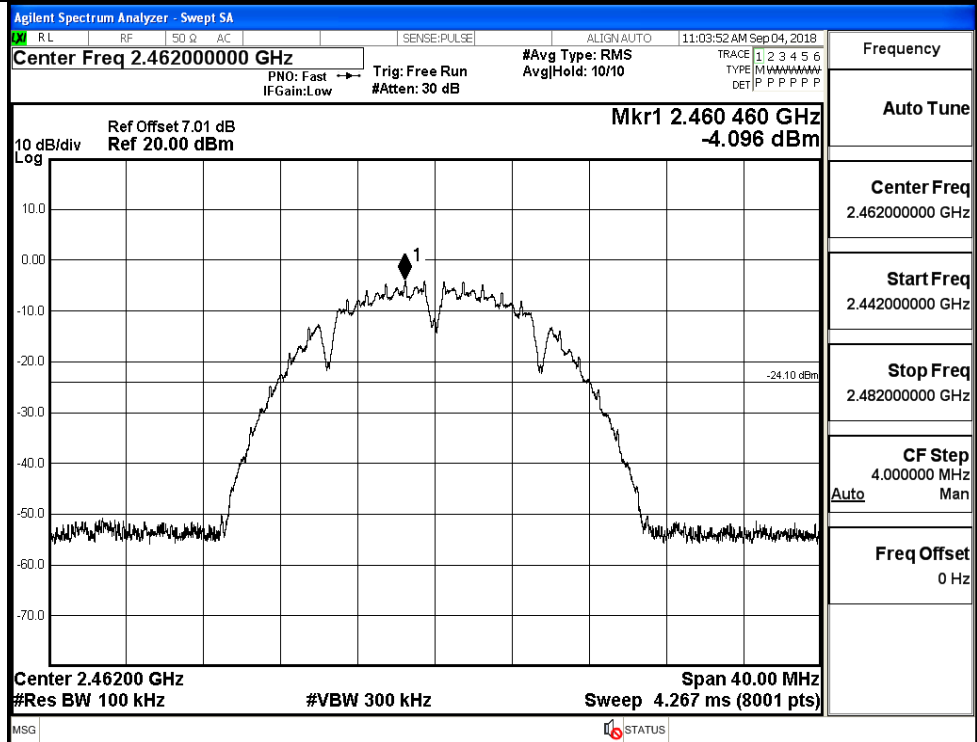


Puw/11B/MCH

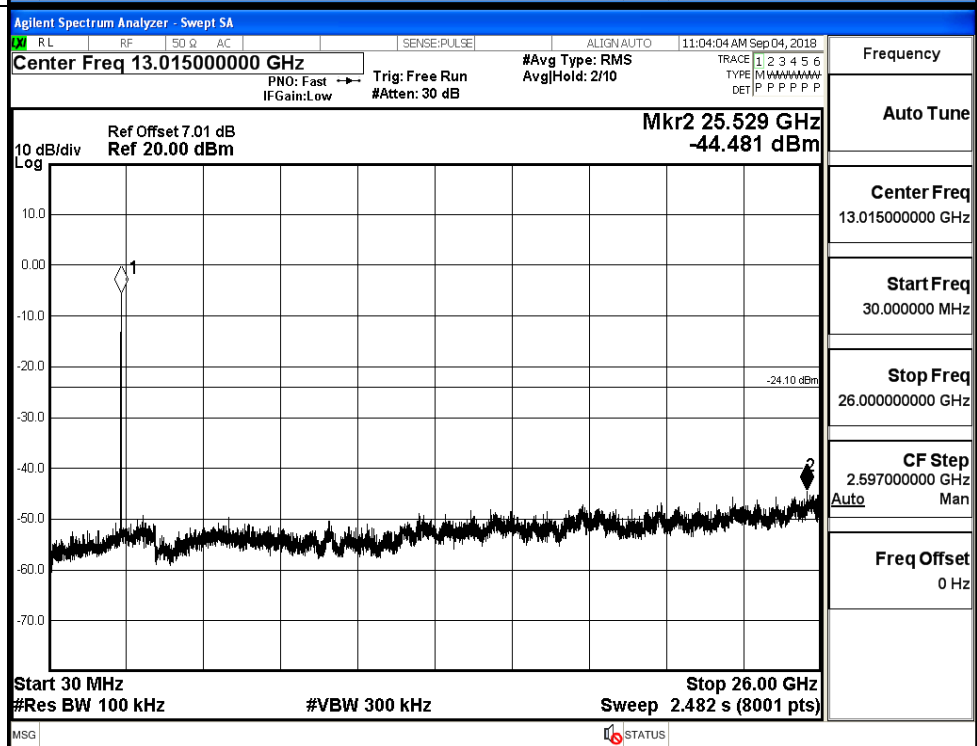


11B HCH Graphs

Pref/11B/HCH

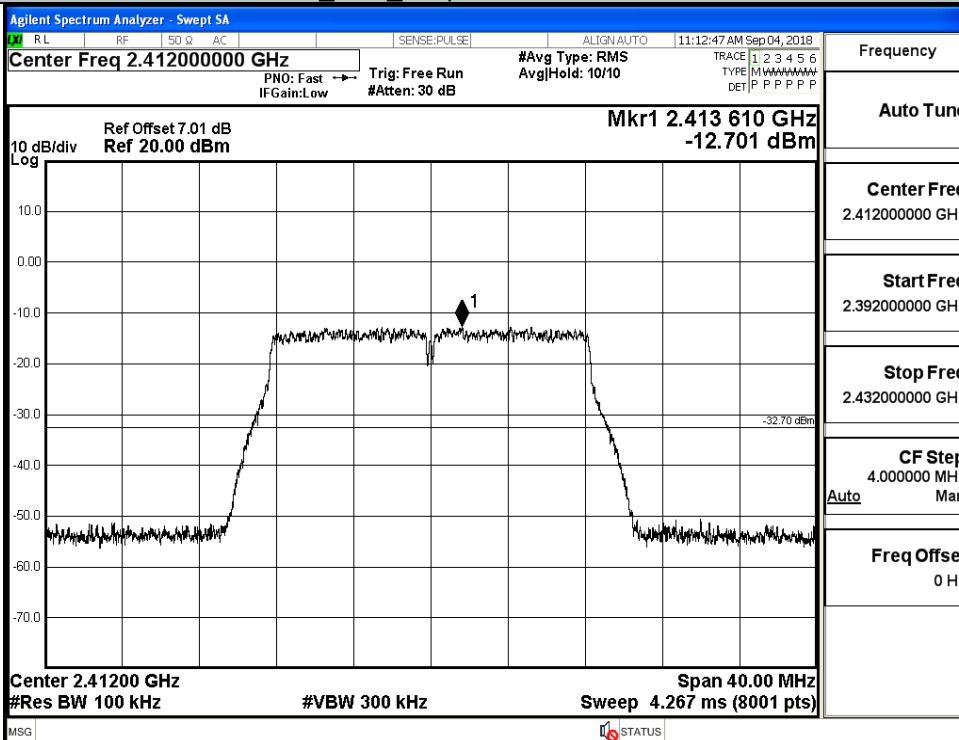


Puw/11B/HCH

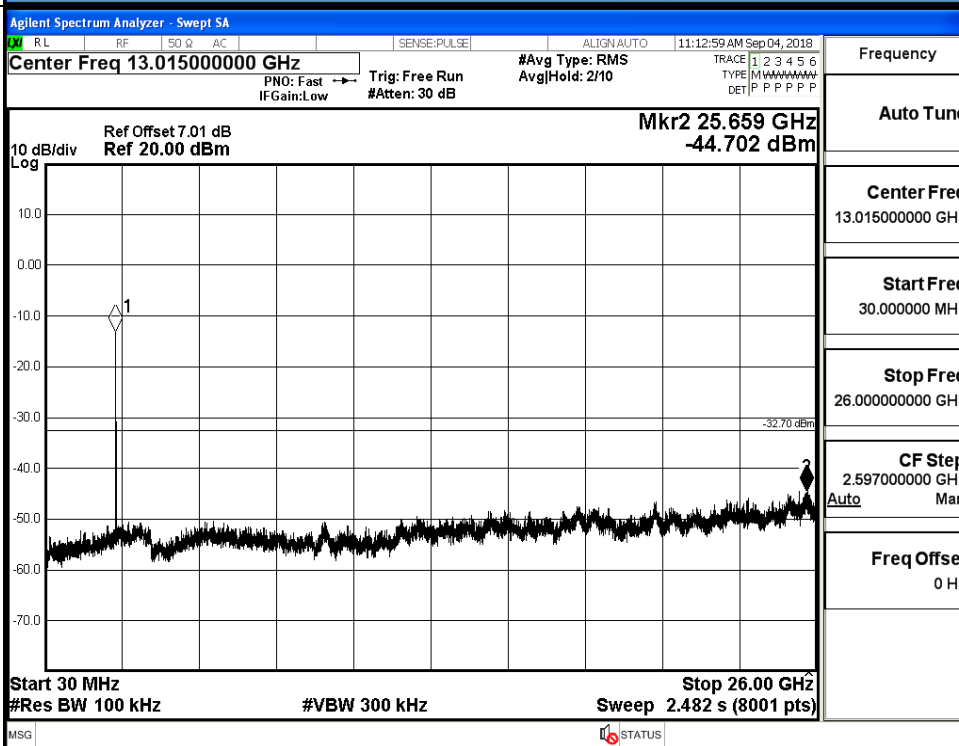


11G LCH Graphs

Pref/11G/LCH

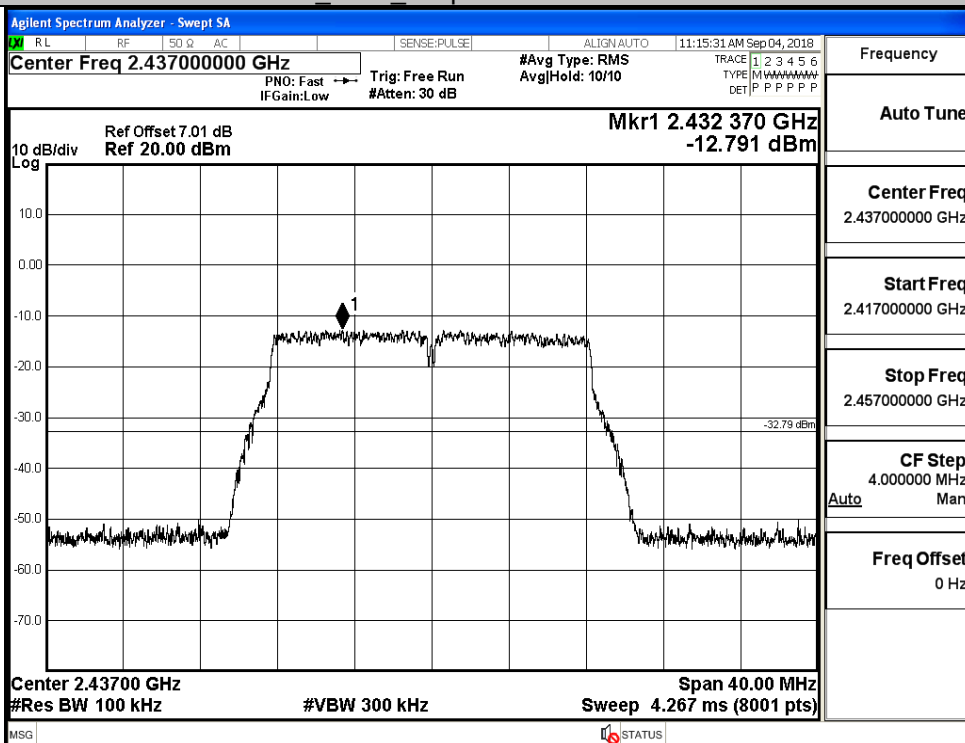


Puw/11G/LCH

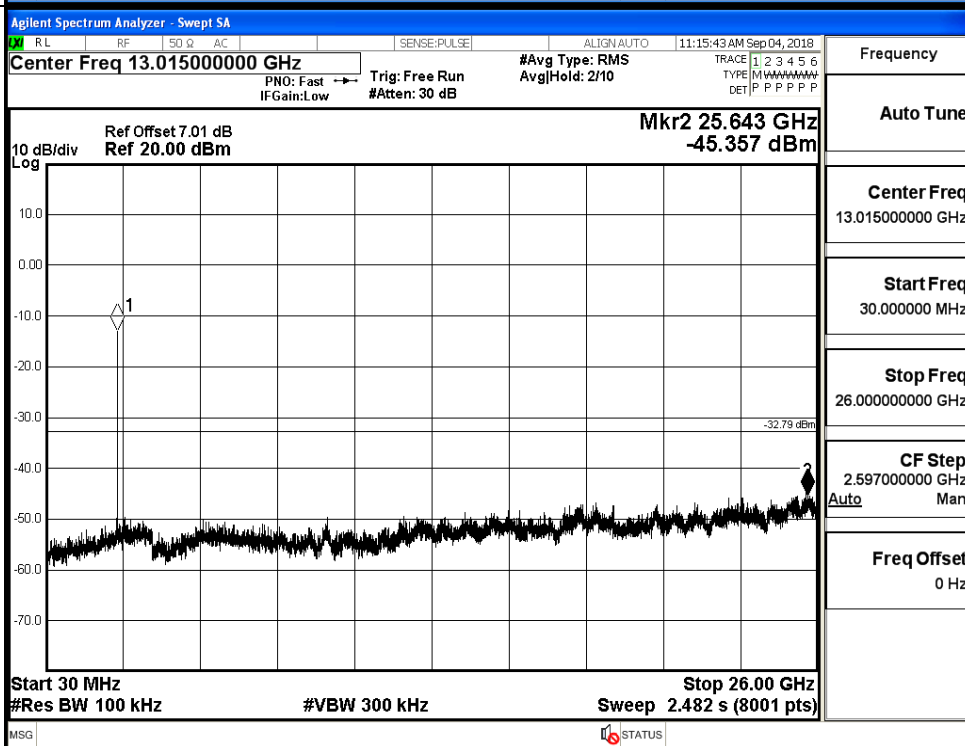


11G MCH Graphs

Pref/11G/MCH

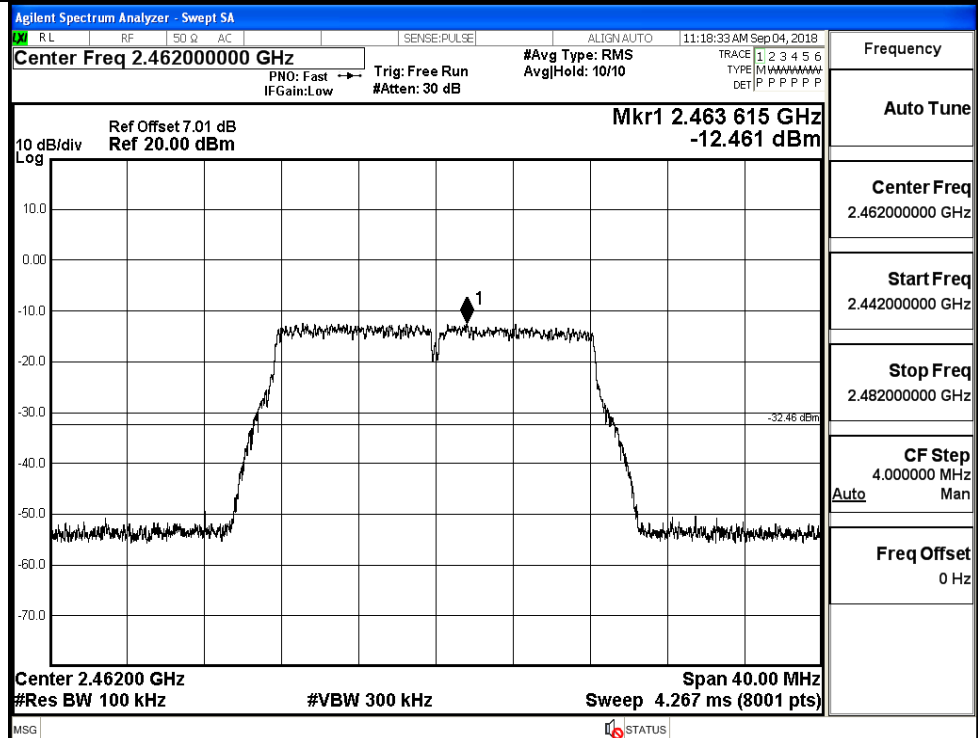


Puw/11G/MCH

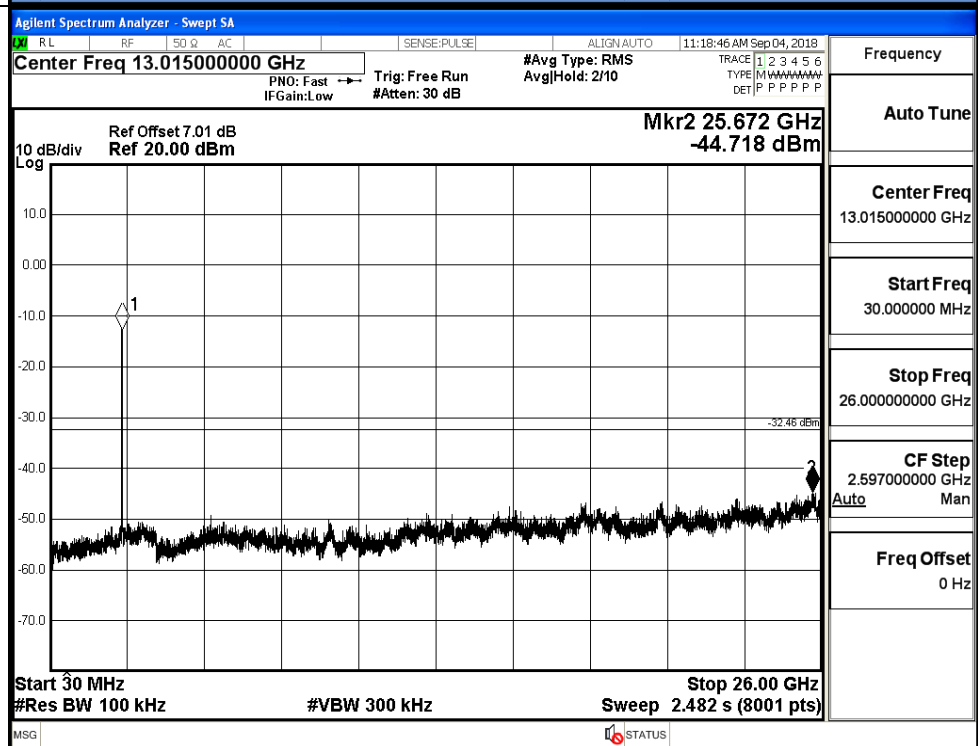


11G HCH Graphs

Pref/11G/HCH

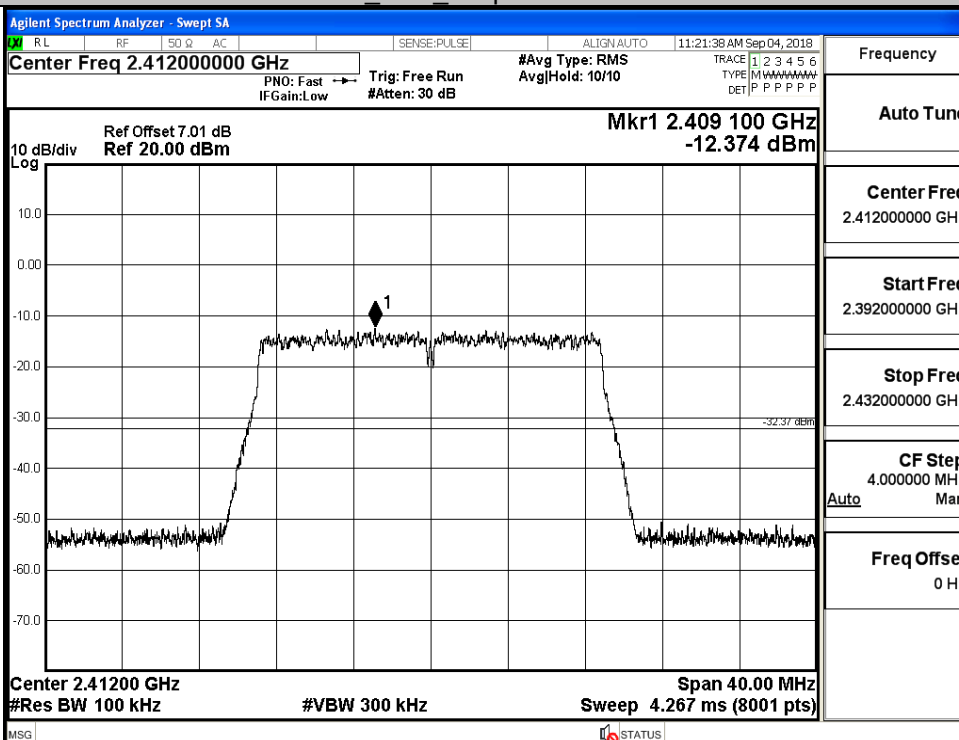


Puw/11G/HCH

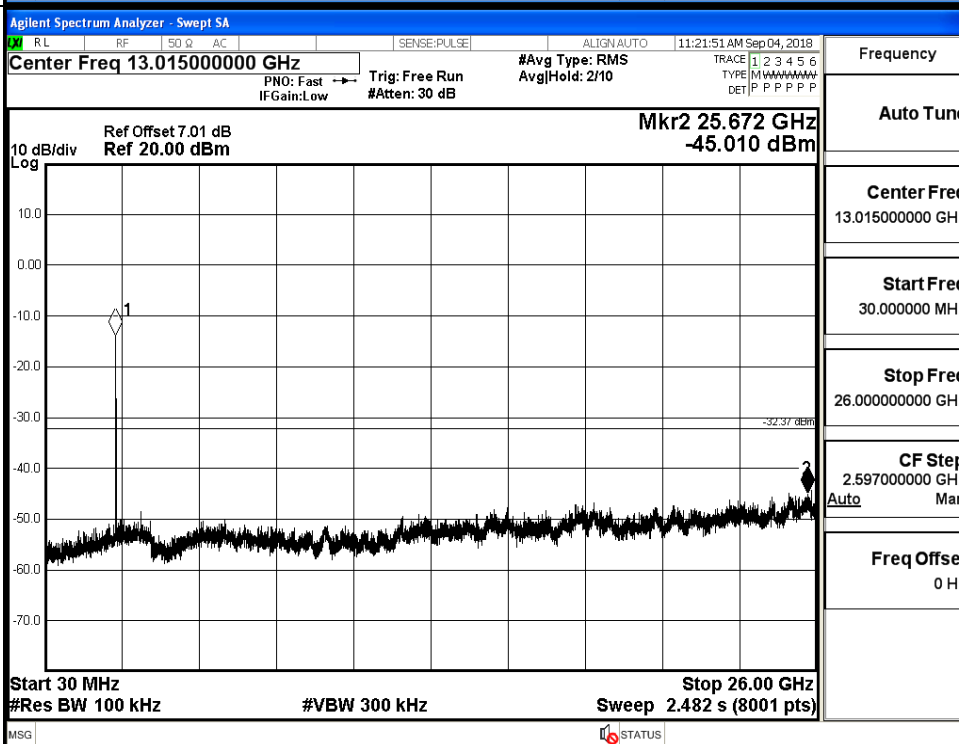


11N20SISO LCH Graphs

Pref/11N20SIS
O/LCH

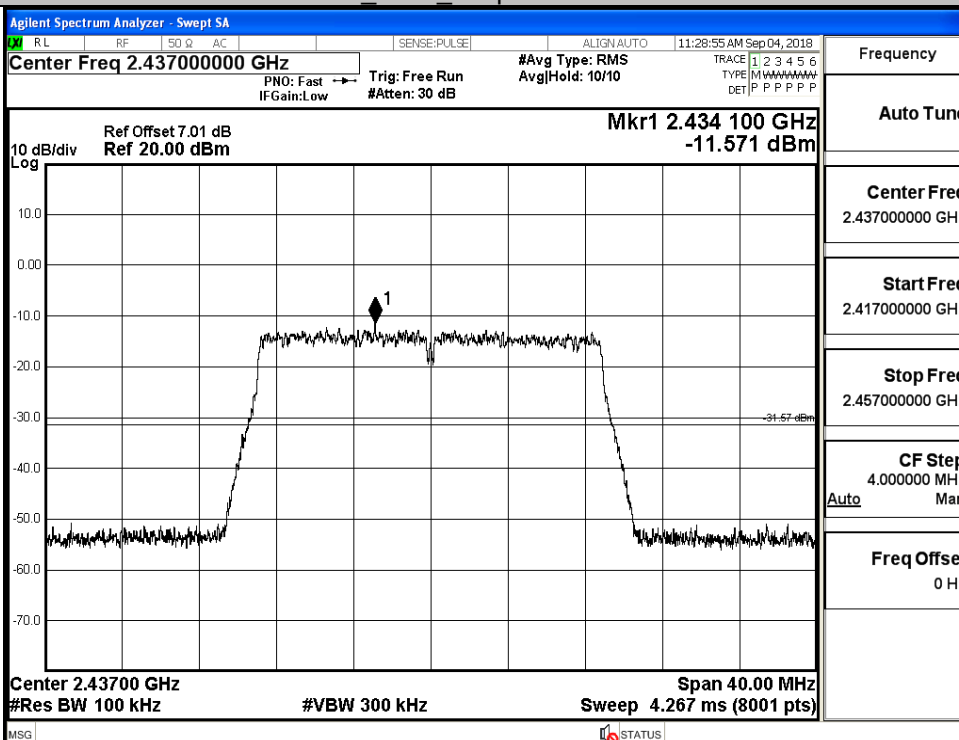


Puw/11N20
SISO/LCH

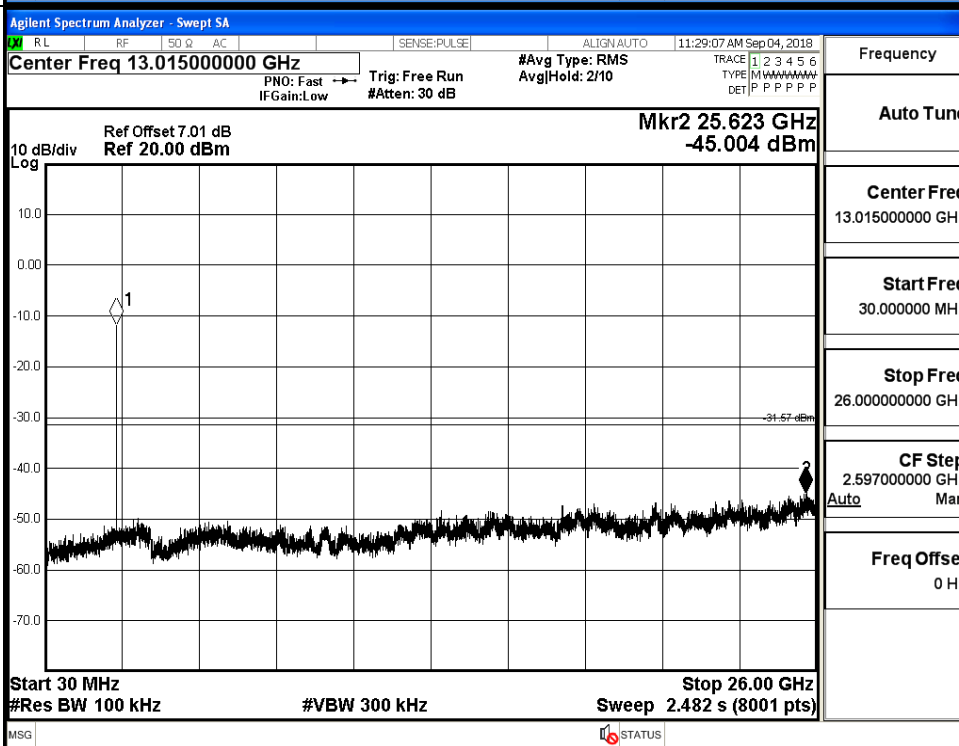


11N20SISO MCH_Graphs

Pref/11N20
SISO/MCH

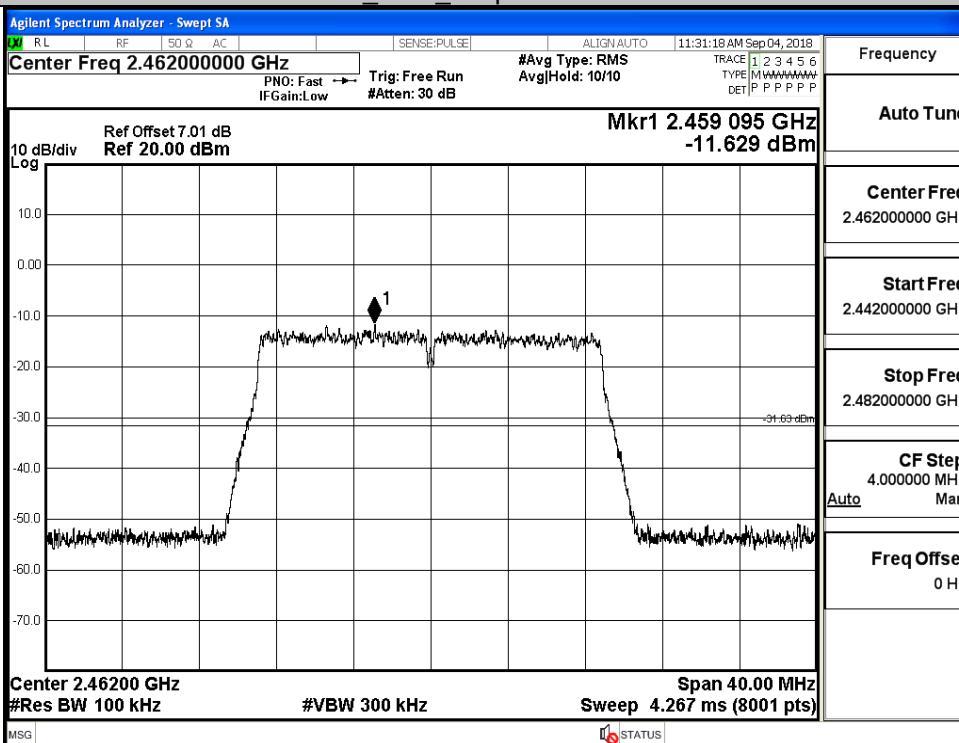


Puw/11N20
SISO/MCH

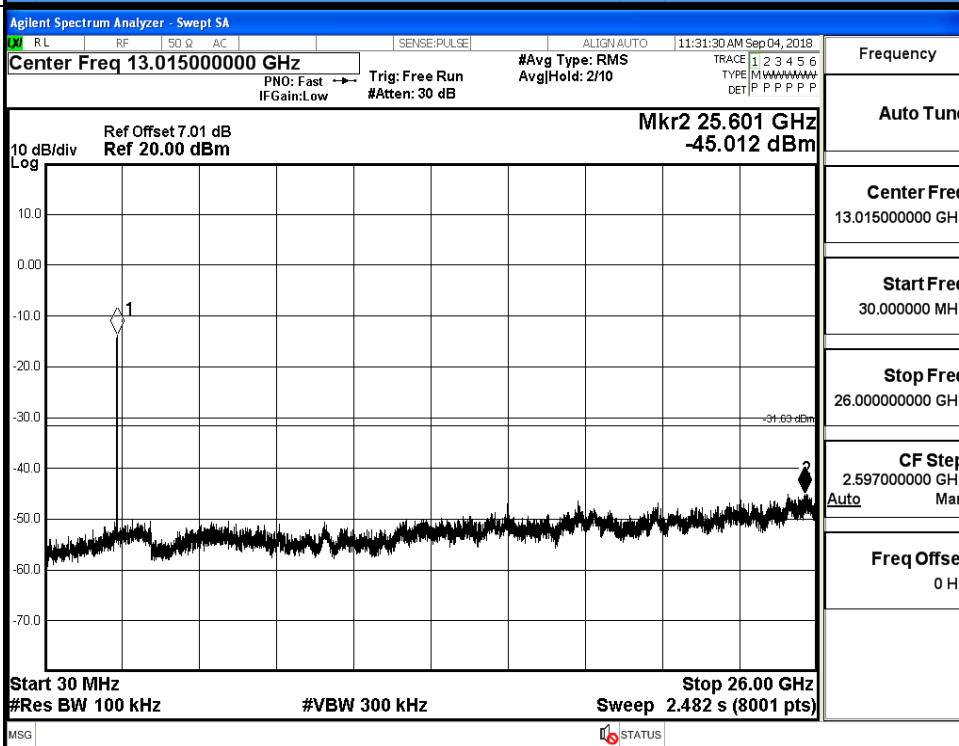


11N20SISO HCH Graphs

Pref/11N20
SISO/HCH

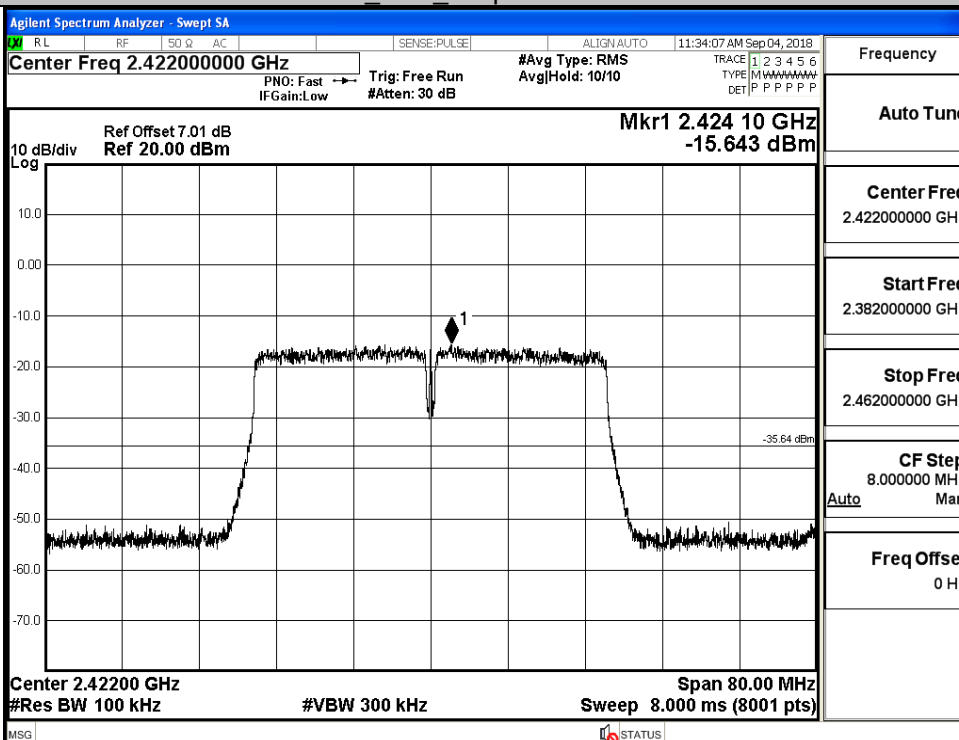


Puw/11N20
SISO/HCH

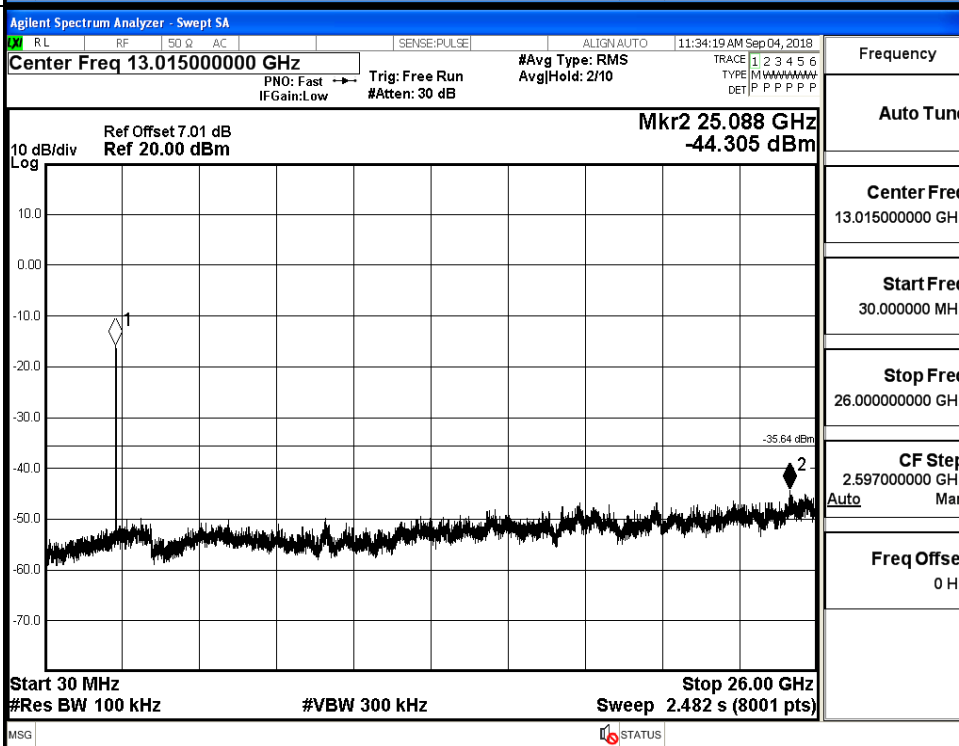


11N40SISO LCH Graphs

Pref/11N40
SISO/LCH

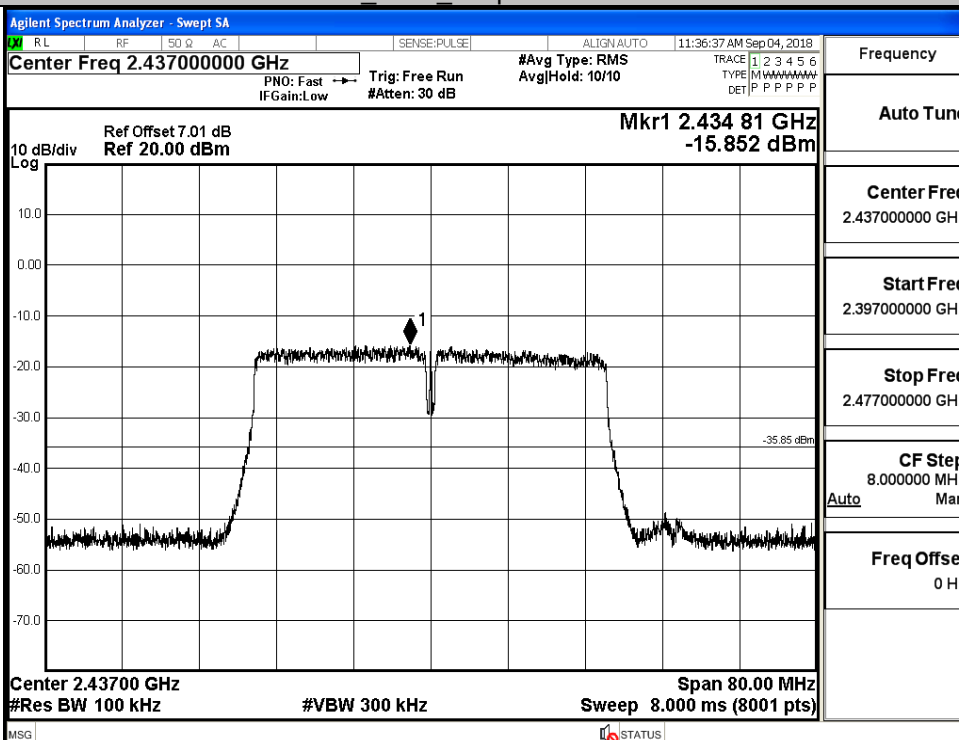


Puw/11N40
SISO/LCH

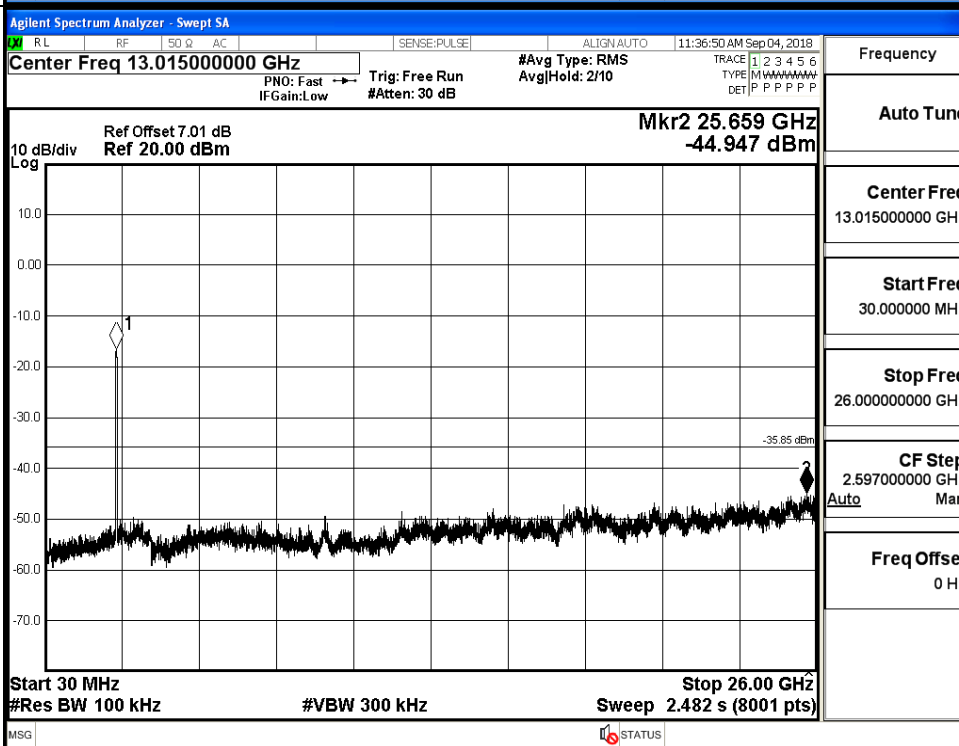


11N40SISO MCH Graphs

Pref/11N40
SISO/MCH

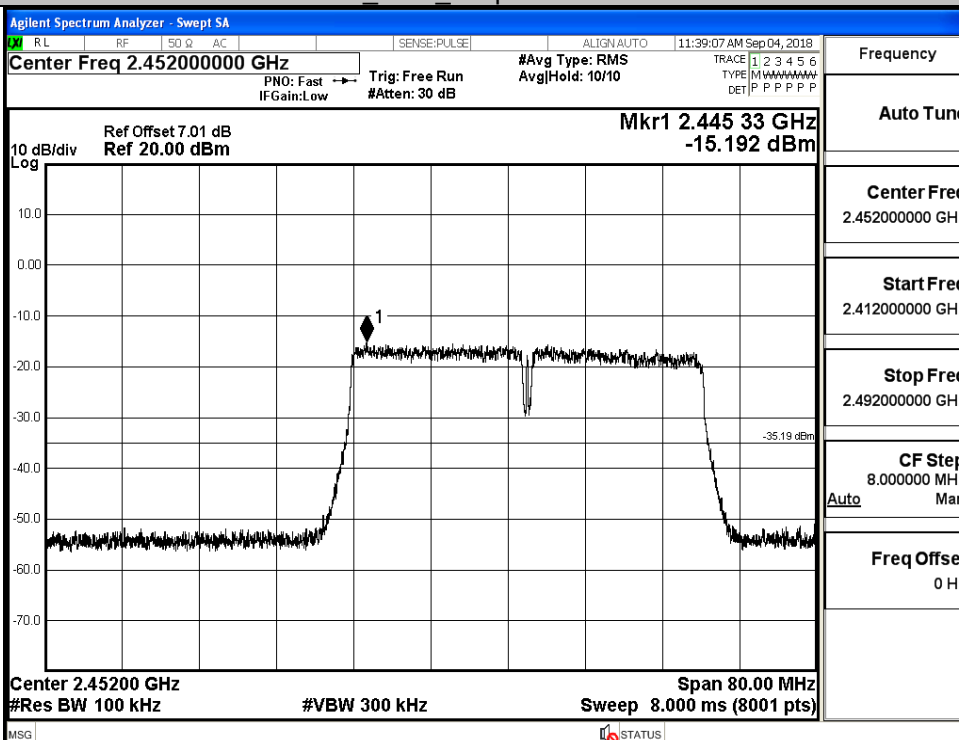


Puw/11N40
SISO/MCH

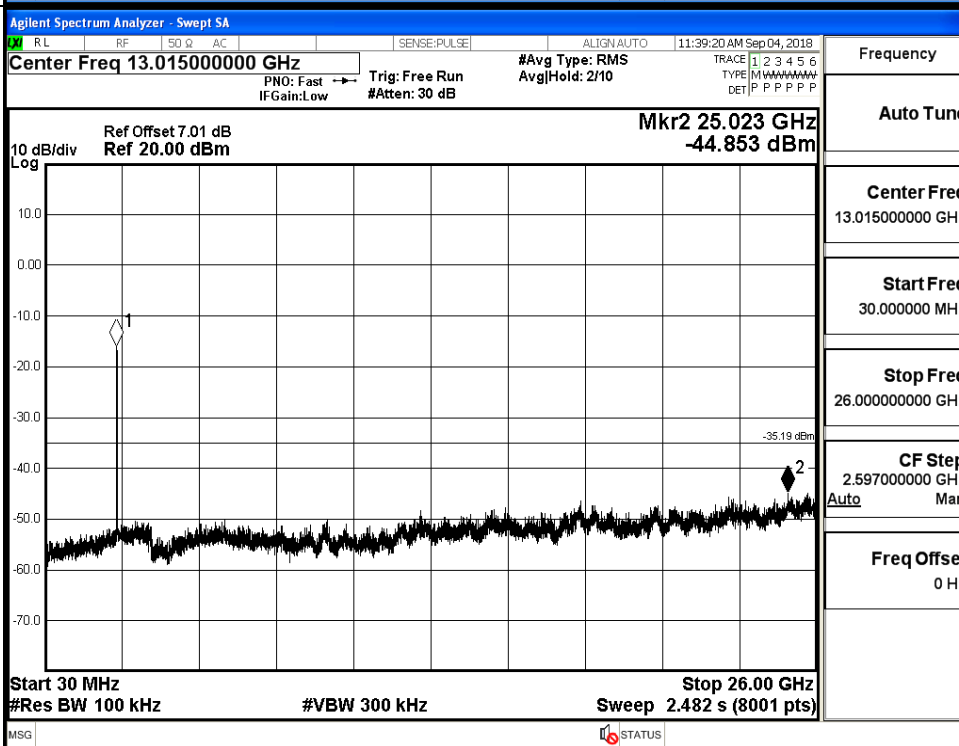


11N40SISO HCH Graphs

Pref/11N40
SISO/HCH



Puw/11N40
SISO/HCH

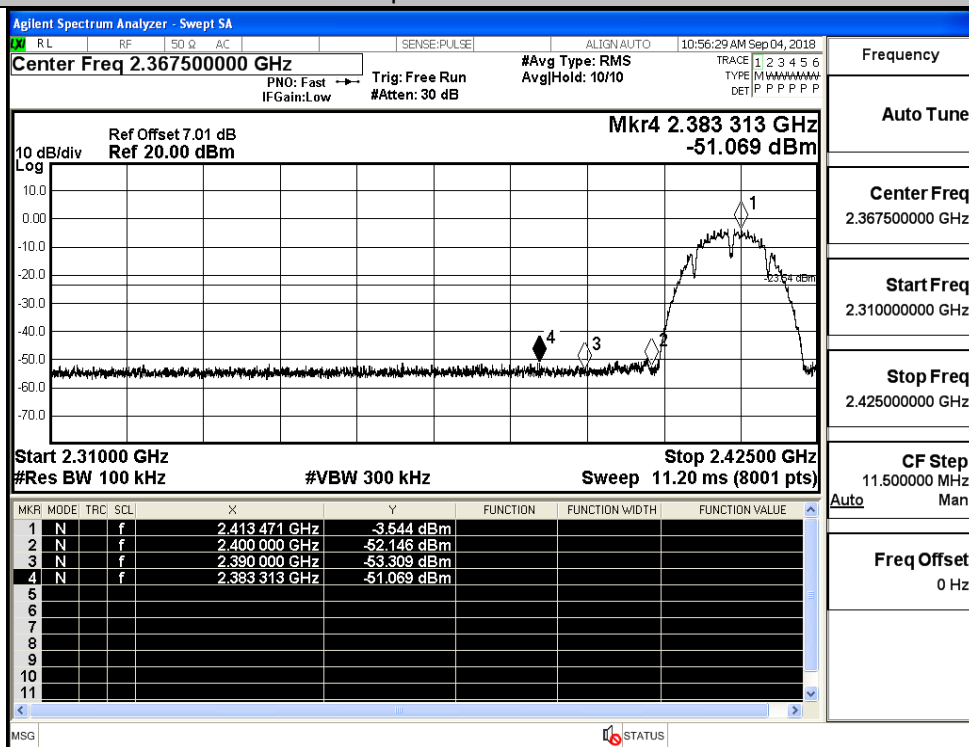


C.6 Band-edge for RF Conducted Emissions

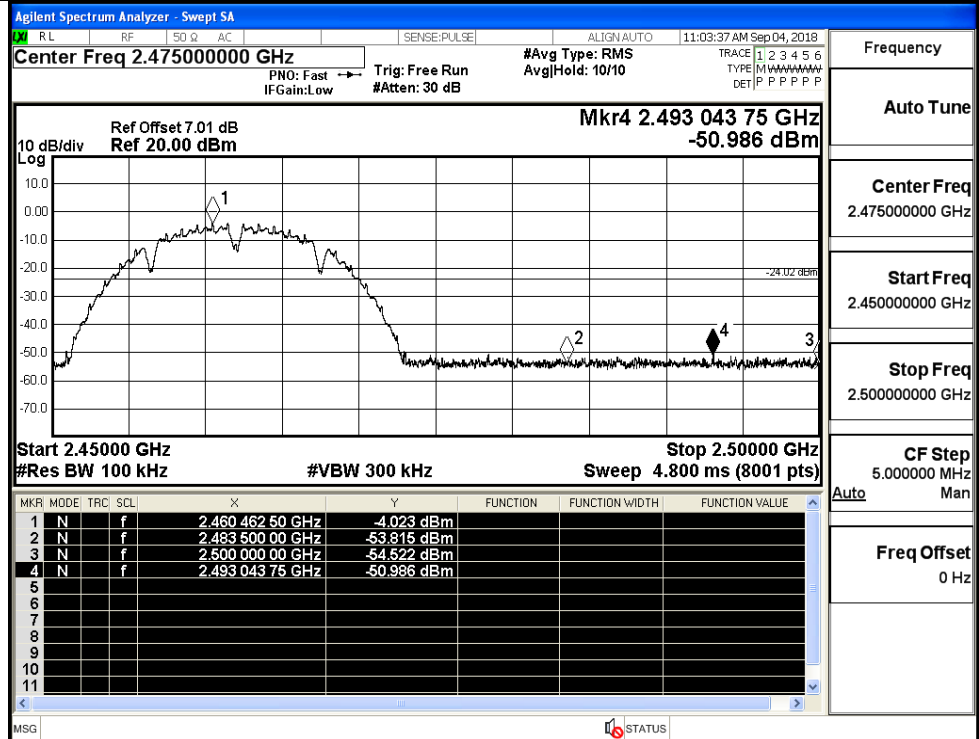
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-3.544	-51.069	-23.54	PASS
	HCH	-4.023	-50.986	-24.02	PASS
11G	LCH	-12.679	-51.330	-32.68	PASS
	HCH	-12.293	-51.218	-32.29	PASS
11N20SISO	LCH	-12.413	-50.757	-32.41	PASS
	HCH	-11.556	-51.066	-31.56	PASS
11N40SISO	LCH	-15.888	-51.006	-35.89	PASS
	HCH	-15.027	-50.978	-35.03	PASS

Test Graphs

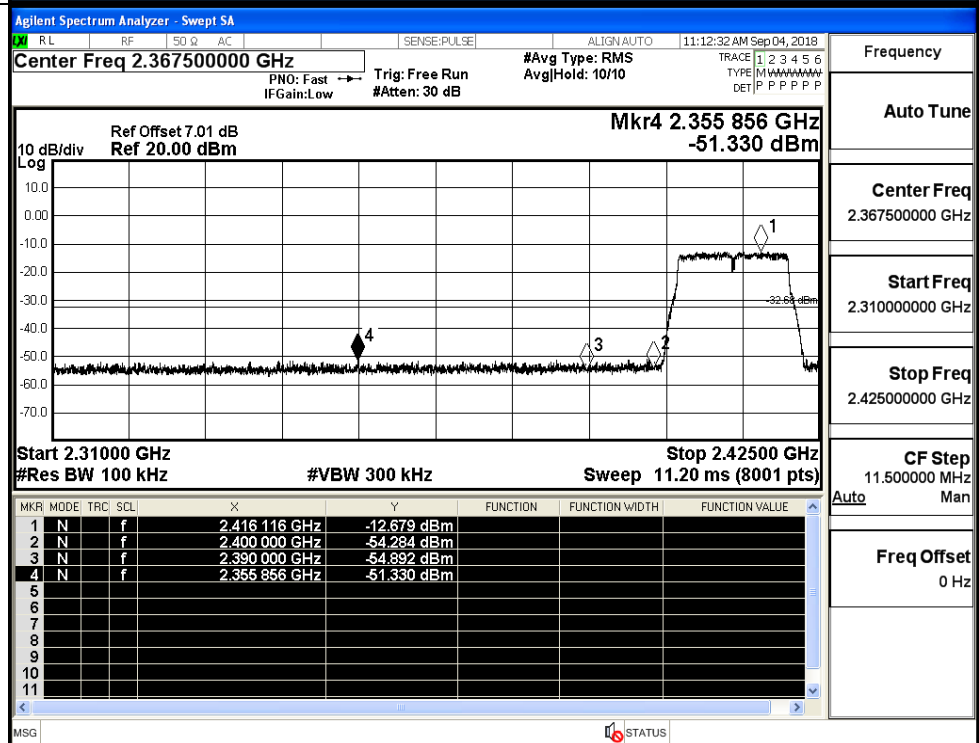
11B/LCH



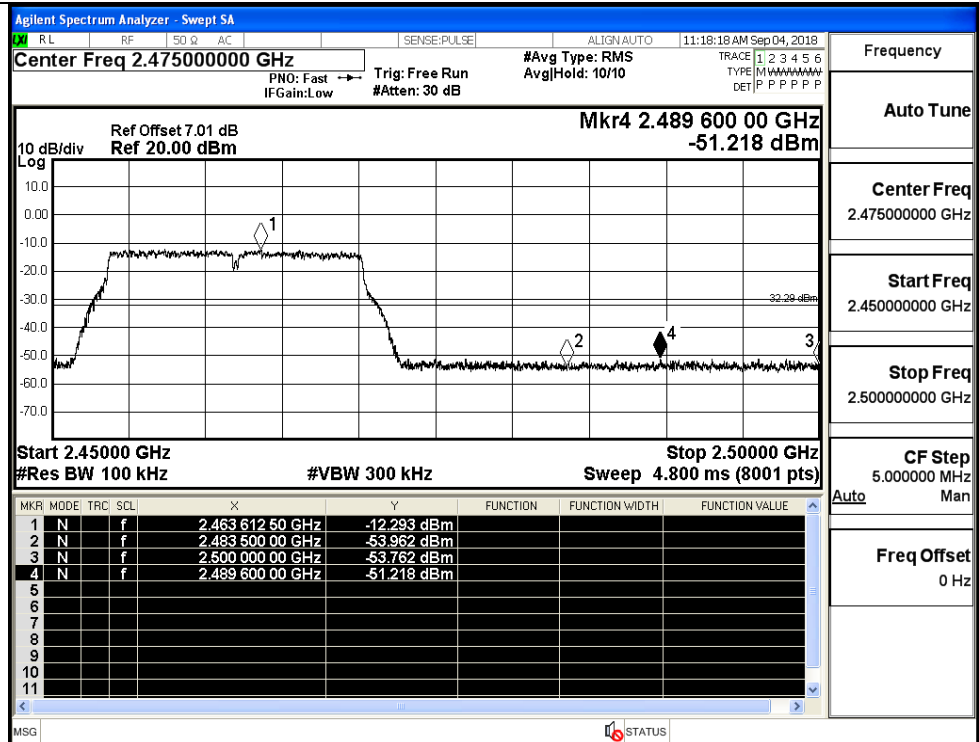
11B/HCH



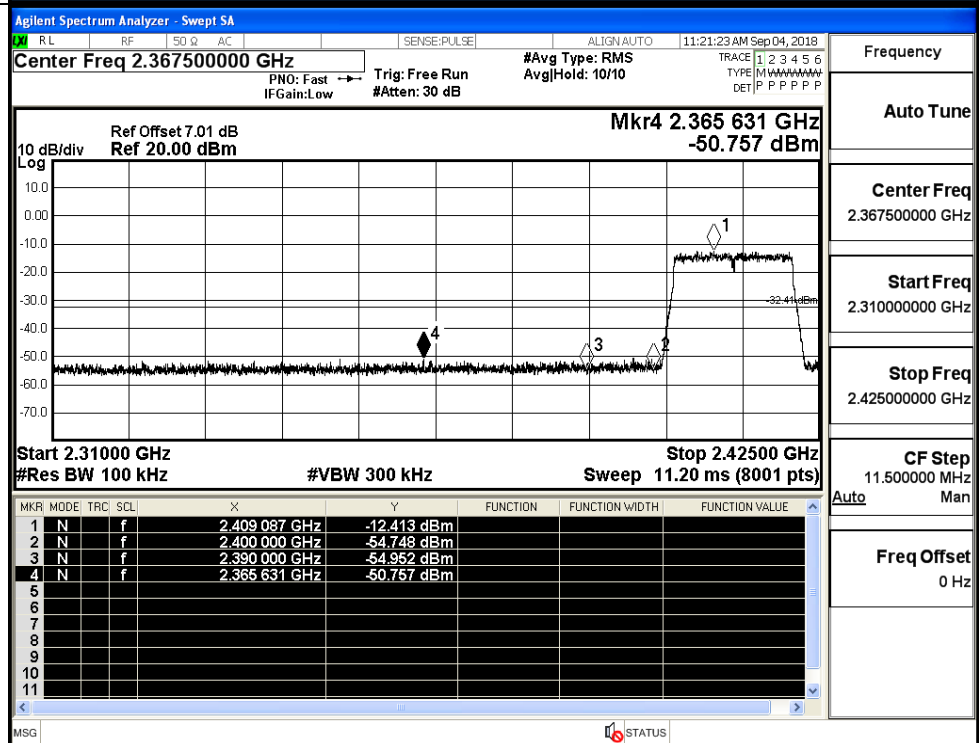
11G/LCH



11G/HCH



11N20SISO/LCH



The figure consists of two screenshots of an Agilent Spectrum Analyzer interface, both set to "Swept SA" mode.

Screenshot 1 (Top):

- Title:** Agilent Spectrum Analyzer - Swept SA
- Center Freq:** 2.47500000 GHz
- Mkr4:** 2.488 843 75 GHz, -51.066 dBm
- Ref Offset:** 7.01 dB, Ref: 20.00 dBm
- Y-axis:** 10 dB/div Log, ranging from -70.0 to 10.0
- X-axis:** Frequency range from 2.450000 GHz to 2.500000 GHz
- Resolution Bandwidth (#Res BW):** 100 kHz
- Video Bandwidth (#VBW):** 300 kHz
- Sweep:** 4.800 ms (8001 pts)
- Table Data:**

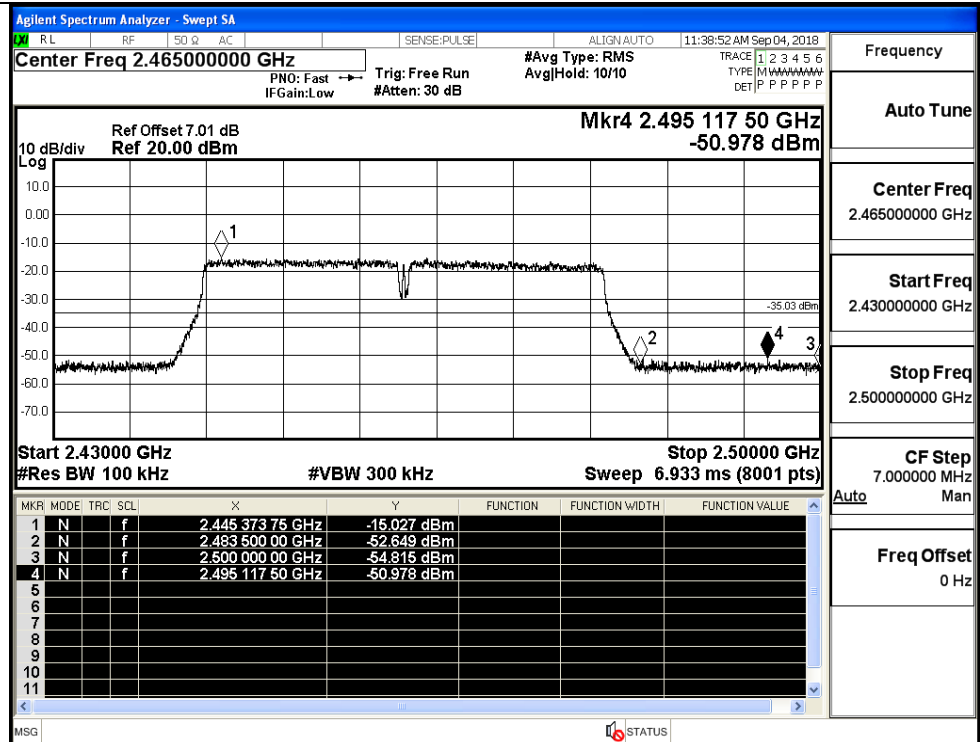
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f		2.459 093 75 GHz	-11.556 dBm			
2	N	f		2.483 500 00 GHz	-53.929 dBm			
3	N	f		2.500 000 00 GHz	-52.924 dBm			
4	N	f		2.488 843 75 GHz	-51.066 dBm			

Screenshot 2 (Bottom):

- Title:** Agilent Spectrum Analyzer - Swept SA
- Center Freq:** 2.37750000 GHz
- Mkr4:** 2.382 731 GHz, -51.006 dBm
- Ref Offset:** 7.01 dB, Ref: 20.00 dBm
- Y-axis:** 10 dB/div Log, ranging from -70.0 to 10.0
- X-axis:** Frequency range from 2.310000 GHz to 2.445000 GHz
- Resolution Bandwidth (#Res BW):** 100 kHz
- Video Bandwidth (#VBW):** 300 kHz
- Sweep:** 13.33 ms (8001 pts)
- Table Data:**

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f		2.414 237 GHz	-15.888 dBm			
2	N	f		2.400 000 GHz	-53.570 dBm			
3	N	f		2.390 000 GHz	-54.277 dBm			
4	N	f		2.382 731 GHz	-51.006 dBm			

11N40SISO/HCH



Frequency

Auto Tune

Center Freq
2.465000000 GHz

Start Freq
2.430000000 GHz

Stop Freq
2.500000000 GHz

CF Step
7.000000 MHz
Auto Man

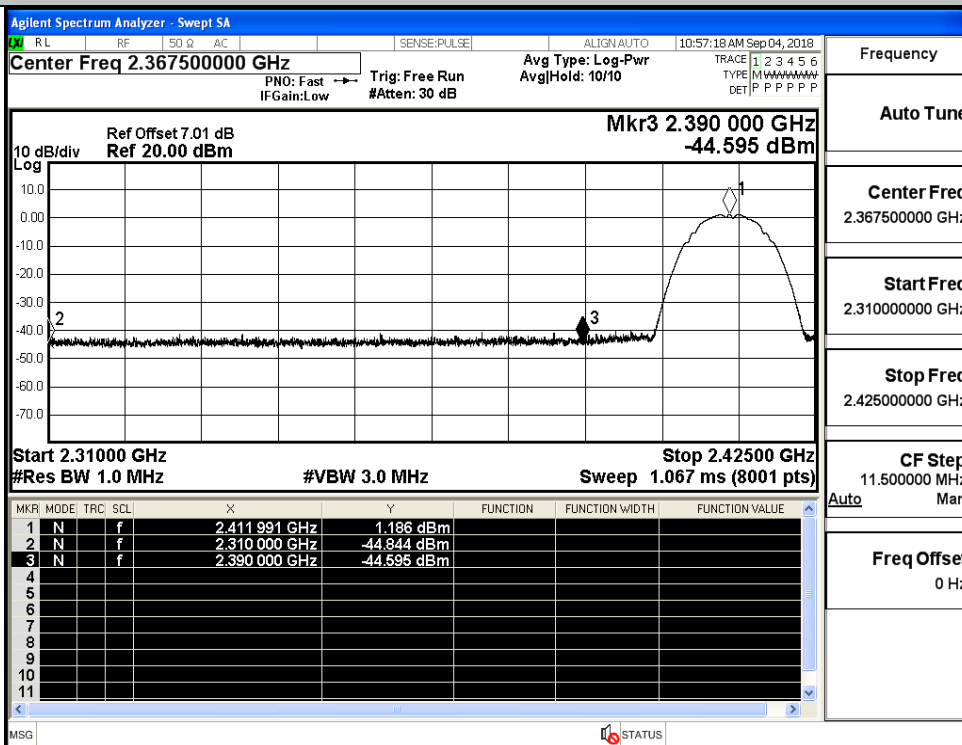
Freq Offset
0 Hz

C.7 Restrict-band band-edge measurements

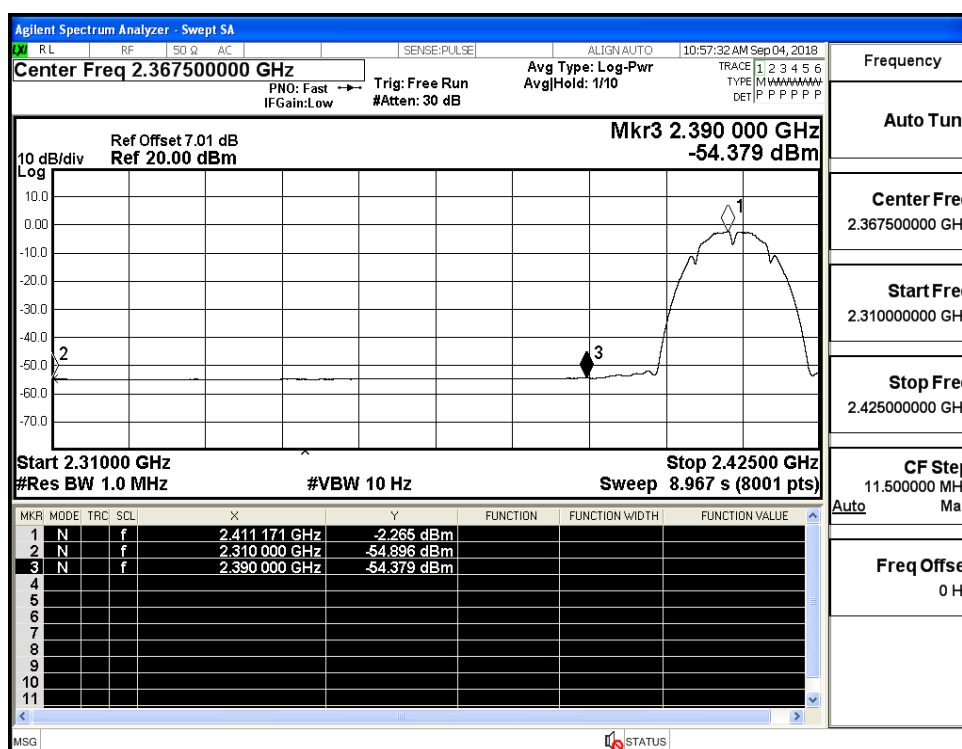
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-44.84	2.5	0	52.92	PEAK	74	PASS
	2412	Ant1	2310.0	-54.90	2.5	0	42.86	AV	54	PASS
	2412	Ant1	2390.0	-44.60	2.5	0	53.16	PEAK	74	PASS
	2412	Ant1	2390.0	-54.38	2.5	0	43.38	AV	54	PASS
	2462	Ant1	2483.5	-43.55	2.5	0	54.21	PEAK	74	PASS
	2462	Ant1	2483.5	-54.28	2.5	0	43.48	AV	54	PASS
	2462	Ant1	2500.0	-42.15	2.5	0	55.61	PEAK	74	PASS
	2462	Ant1	2500.0	-54.22	2.5	0	43.54	AV	54	PASS
11G	2412	Ant1	2310.0	-44.35	2.5	0	53.41	PEAK	74	PASS
	2412	Ant1	2310.0	-54.92	2.5	0	42.84	AV	54	PASS
	2412	Ant1	2390.0	-44.23	2.5	0	53.53	PEAK	74	PASS
	2412	Ant1	2390.0	-54.25	2.5	0	43.51	AV	54	PASS
	2462	Ant1	2483.5	-42.21	2.5	0	55.55	PEAK	74	PASS
	2462	Ant1	2483.5	-54.13	2.5	0	43.63	AV	54	PASS
	2462	Ant1	2500.0	-44.10	2.5	0	53.66	PEAK	74	PASS
	2462	Ant1	2500.0	-54.10	2.5	0	43.66	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-44.63	2.5	0	53.13	PEAK	74	PASS
	2412	Ant1	2310.0	-54.94	2.5	0	42.82	AV	54	PASS
	2412	Ant1	2390.0	-44.38	2.5	0	53.38	PEAK	74	PASS
	2412	Ant1	2390.0	-54.29	2.5	0	43.47	AV	54	PASS
	2462	Ant1	2483.5	-43.17	2.5	0	54.59	PEAK	74	PASS
	2462	Ant1	2483.5	-54.13	2.5	0	43.63	AV	54	PASS
	2462	Ant1	2500.0	-43.98	2.5	0	53.78	PEAK	74	PASS
	2462	Ant1	2500.0	-54.11	2.5	0	43.65	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-44.20	2.5	0	53.56	PEAK	74	PASS
	2422	Ant1	2310.0	-54.92	2.5	0	42.84	AV	54	PASS

	2422	Ant1	2390.0	-43.87	2.5	0	53.89	PEAK	74	PASS
	2422	Ant1	2390.0	-54.22	2.5	0	43.54	AV	54	PASS
	2452	Ant1	2483.5	-41.09	2.5	0	56.67	PEAK	74	PASS
	2452	Ant1	2483.5	-53.52	2.5	0	44.24	AV	54	PASS
	2452	Ant1	2500.0	-44.18	2.5	0	53.58	PEAK	74	PASS
	2452	Ant1	2500.0	-54.22	2.5	0	43.54	AV	54	PASS

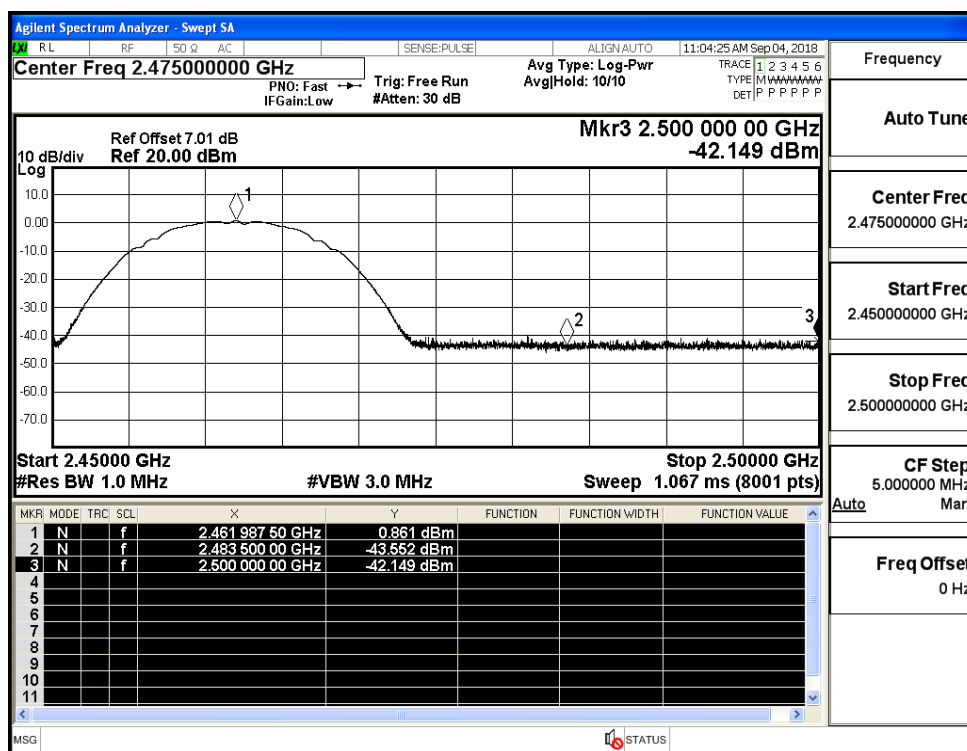
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



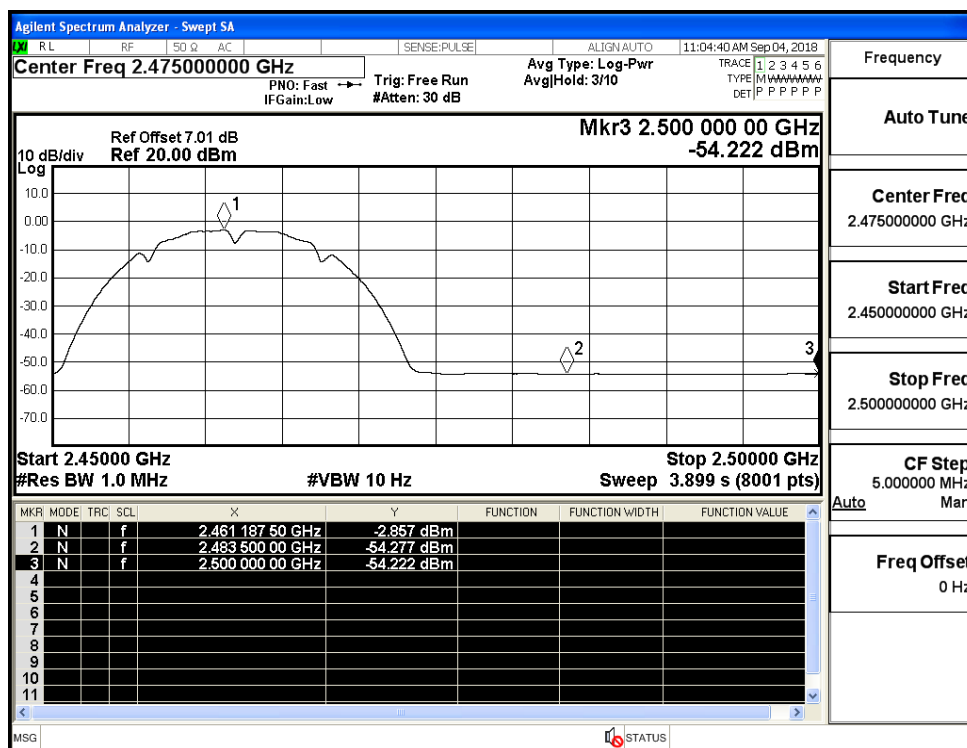
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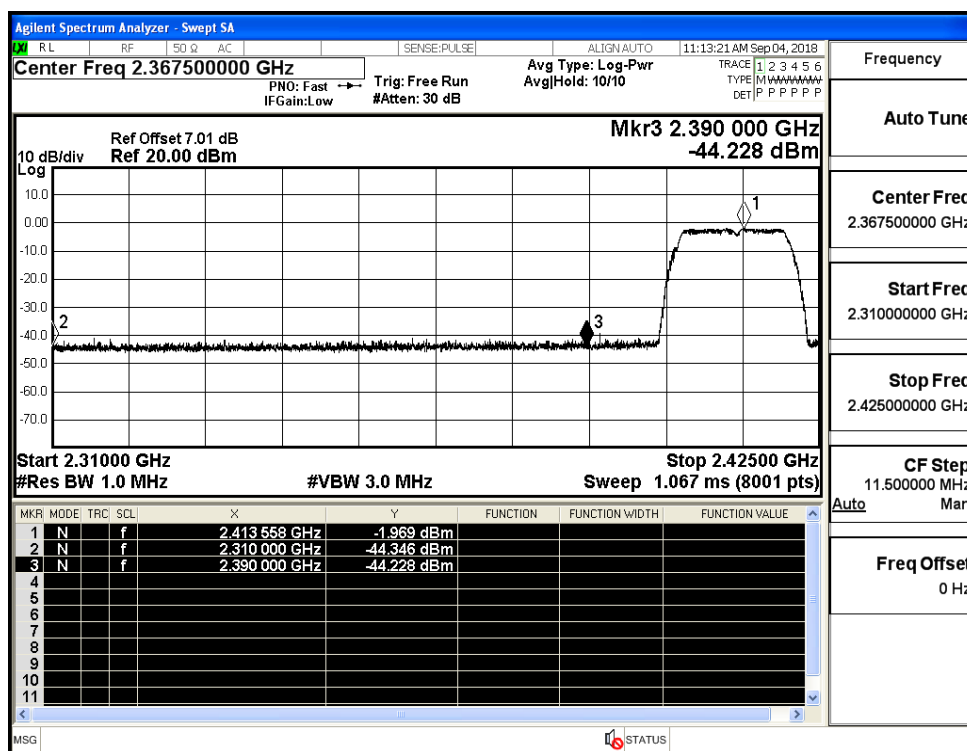
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



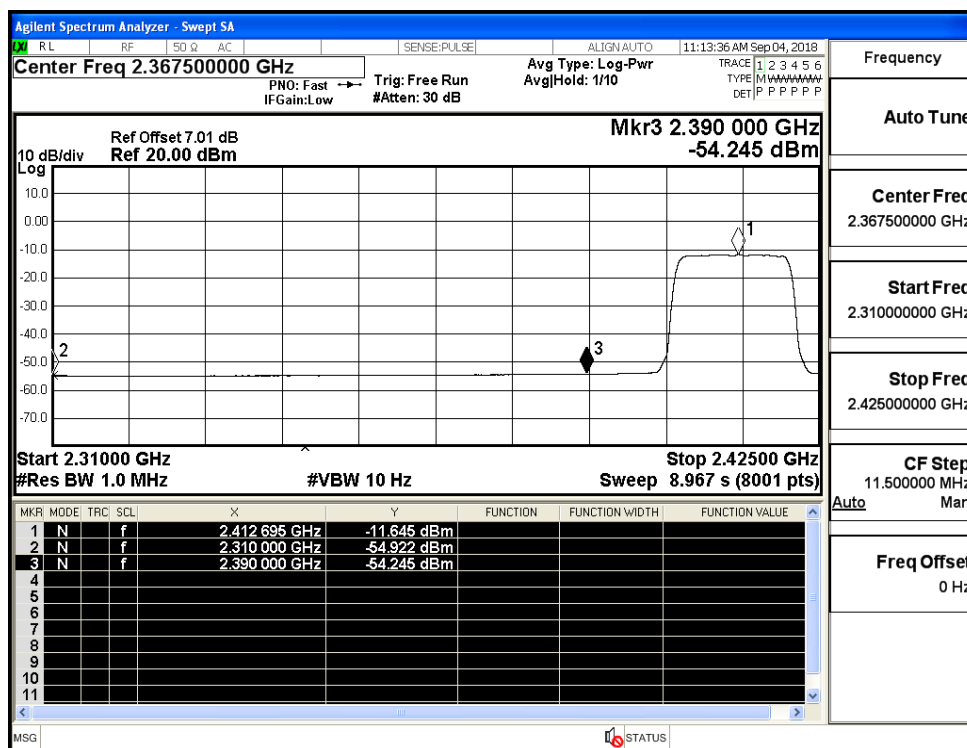
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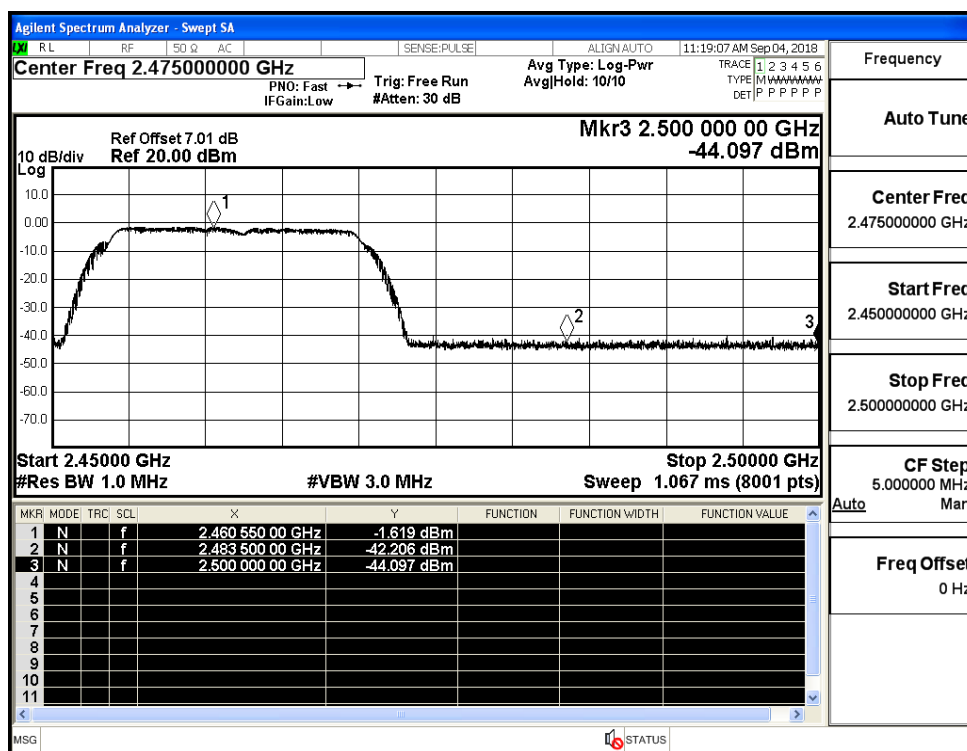
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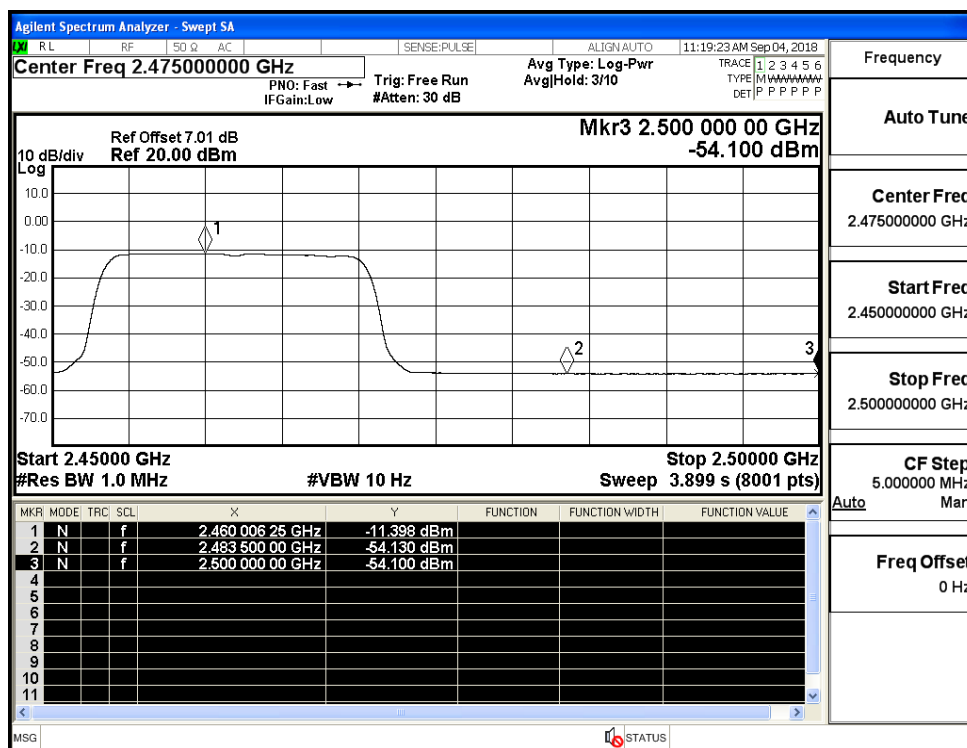
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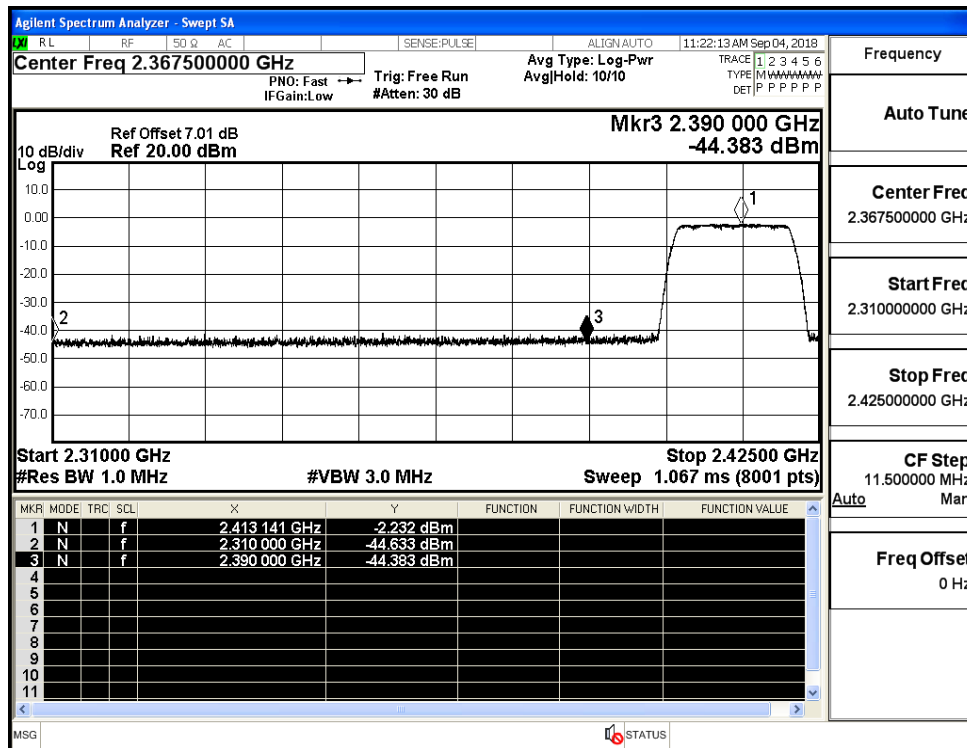
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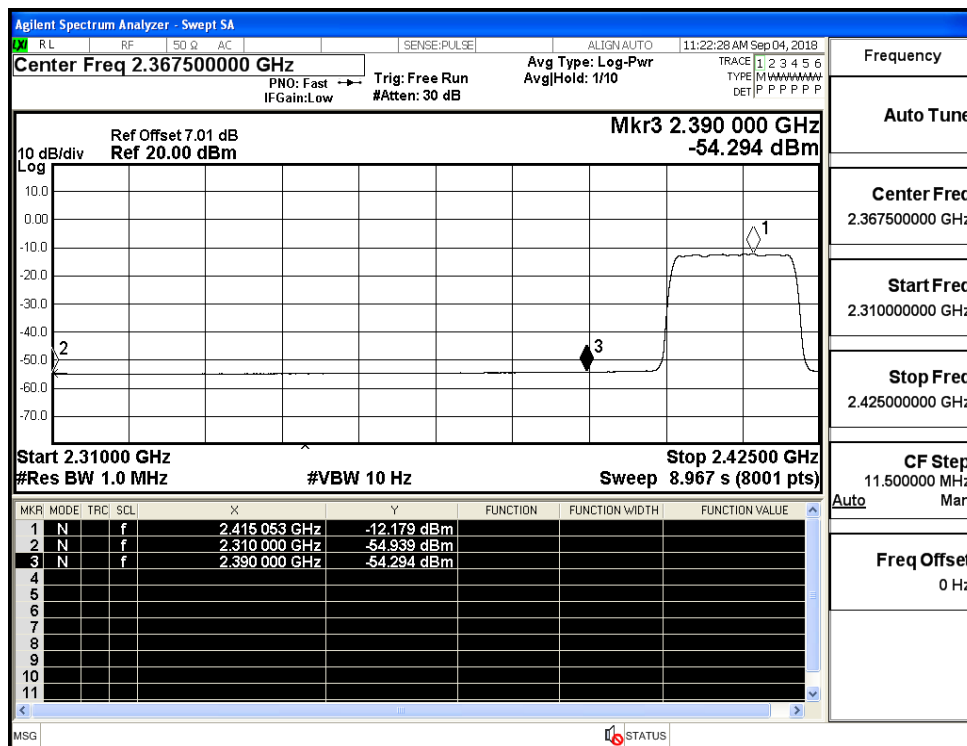
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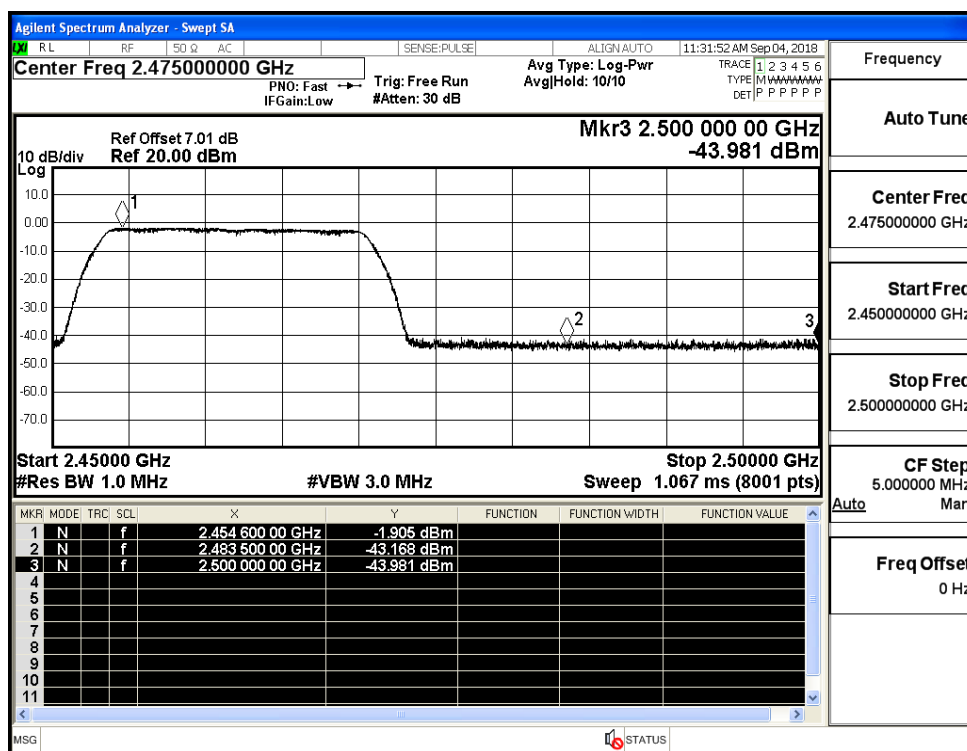
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



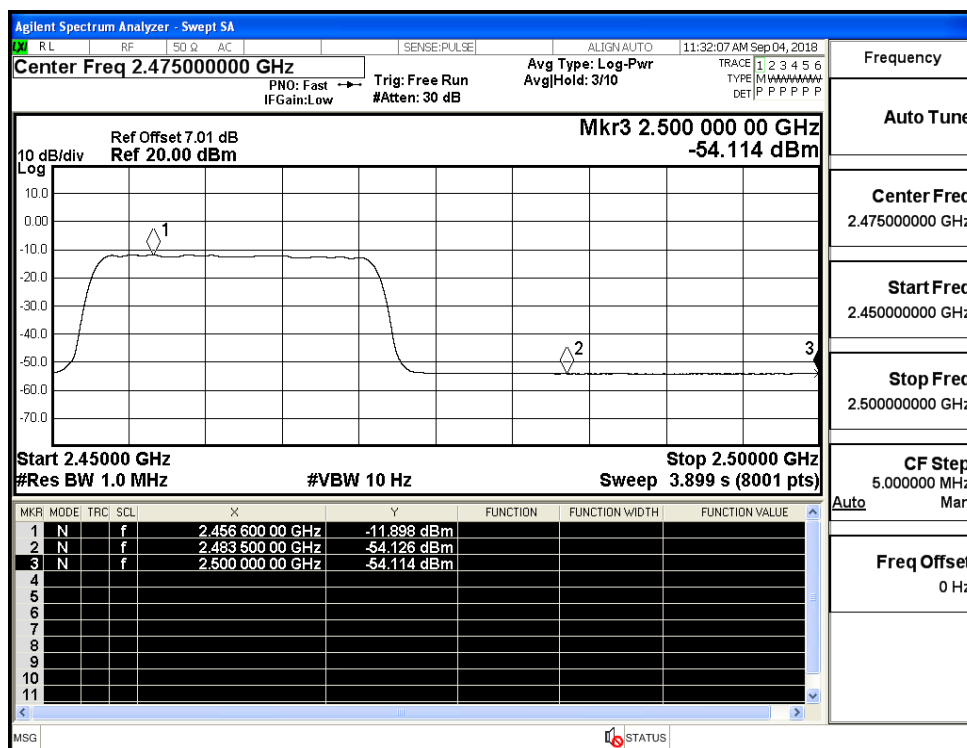
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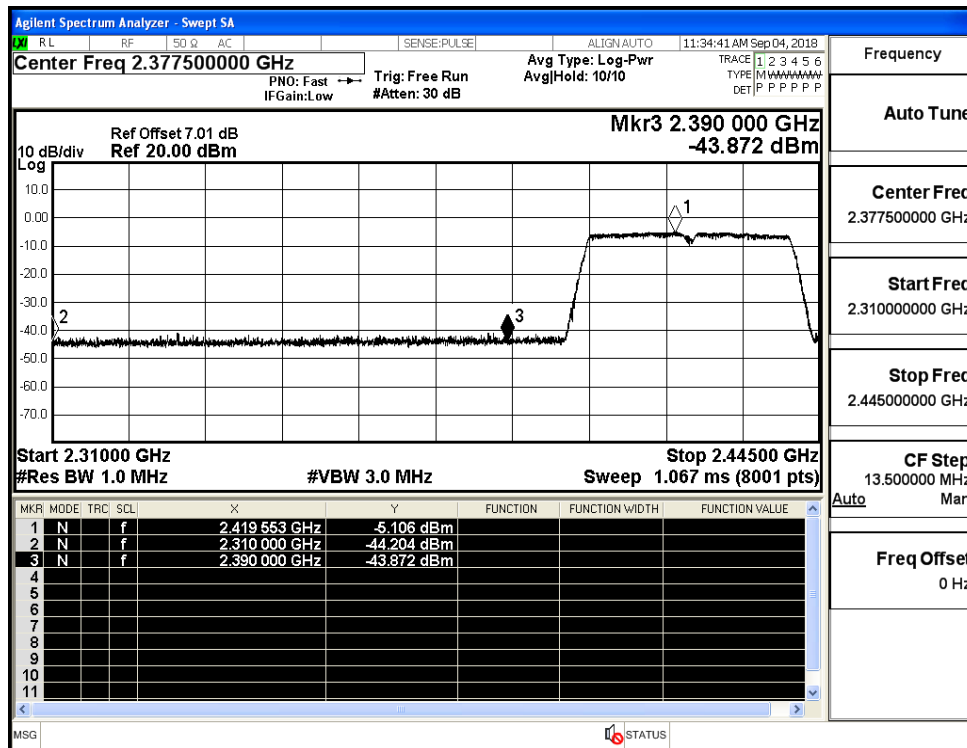
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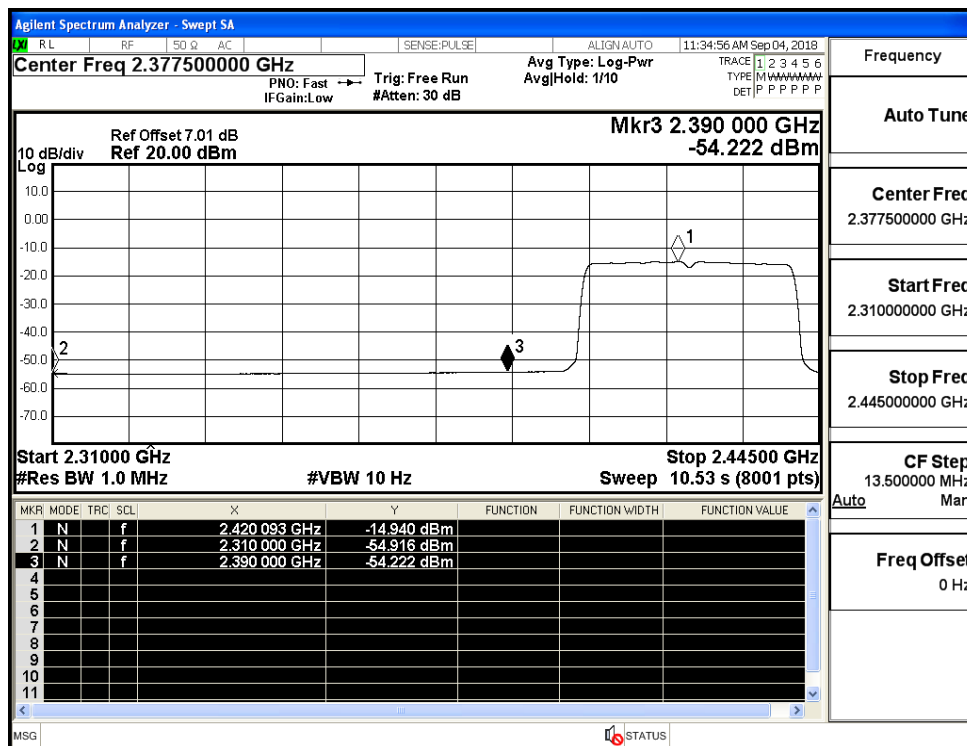
Restrict-band band-edge measurements_11N20SISO_2462_Ant1_AV



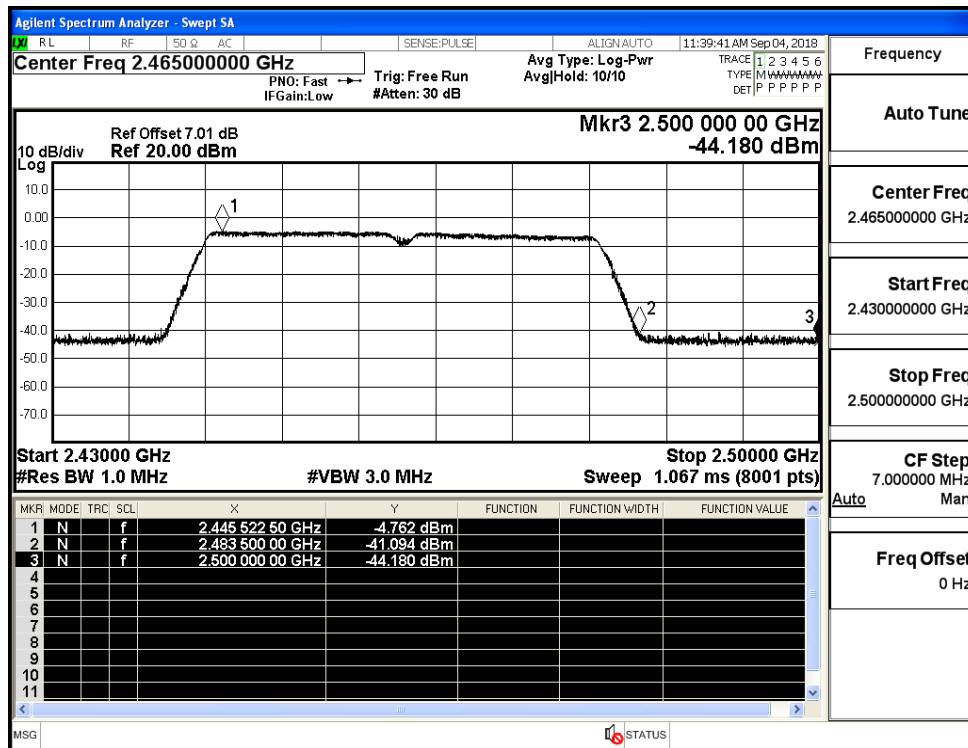
Restrict-band band-edge measurements_11N40SISO_2422_Ant1_PEAK



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

