

Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Kids Tablets

Trade Mark: ASIUR

Test Model: ASIUR-701

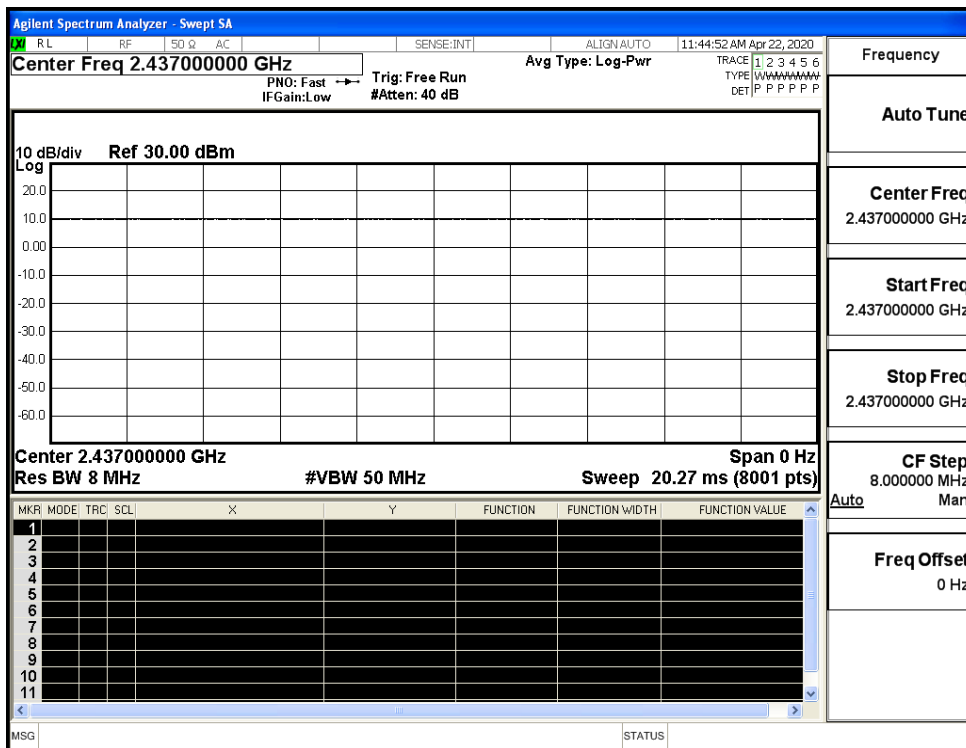
Environmental Conditions

Temperature:	24.2° C
Relative Humidity:	54.5%
ATM Pressure:	100.0 kPa
Test Engineer:	David Luo
Supervised by:	Li Huan

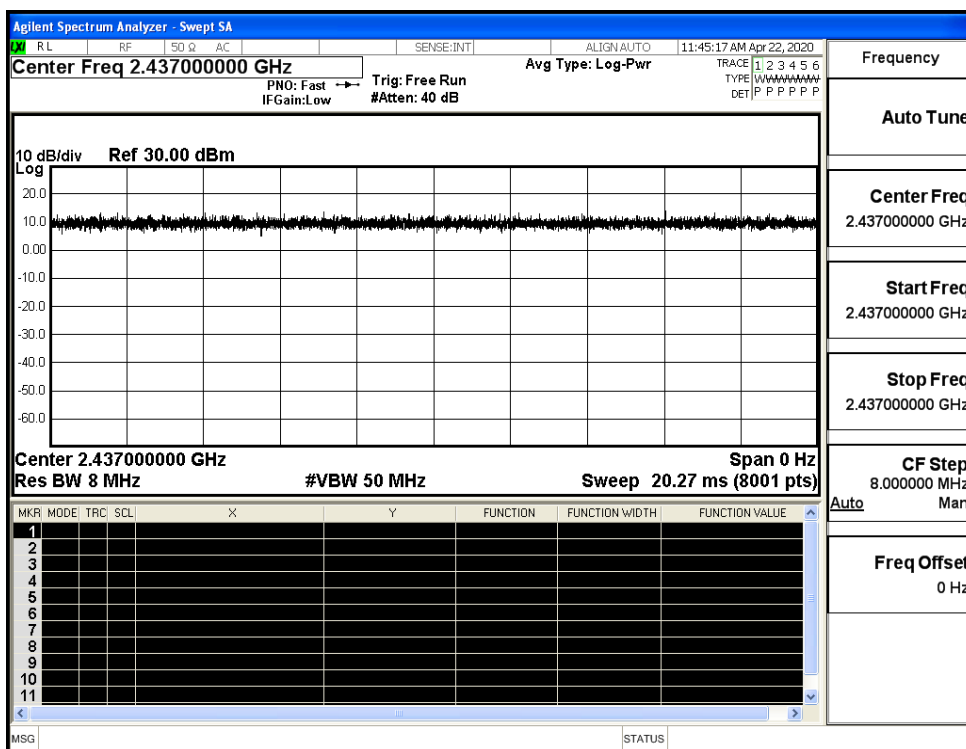
B.1 Duty Cycle

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

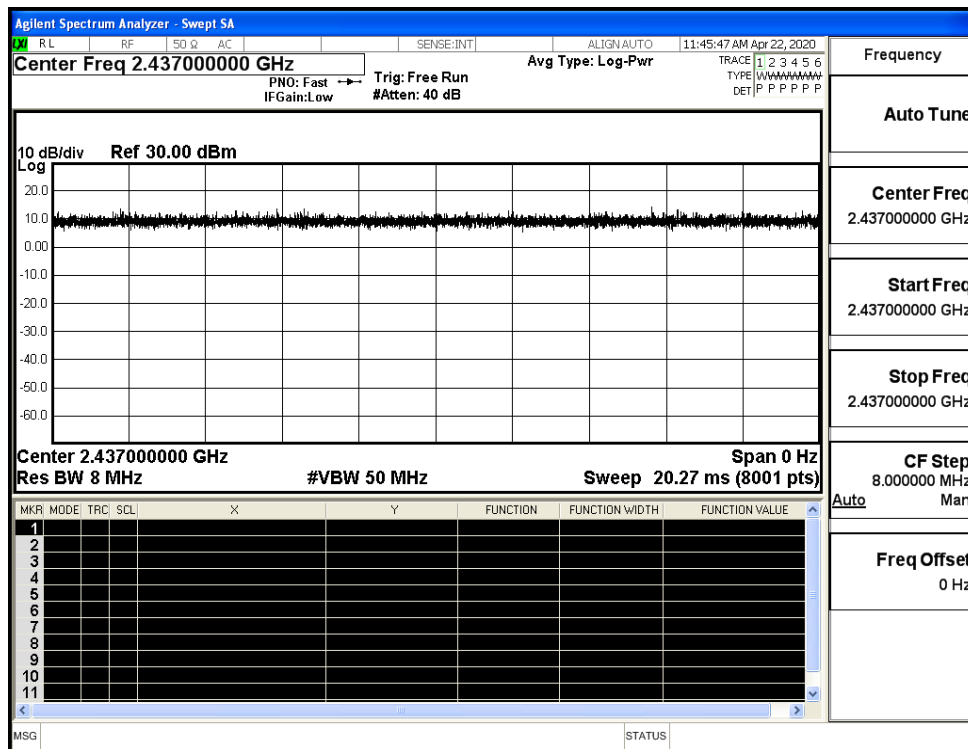
Duty Cycle_11B_2437_Ant1



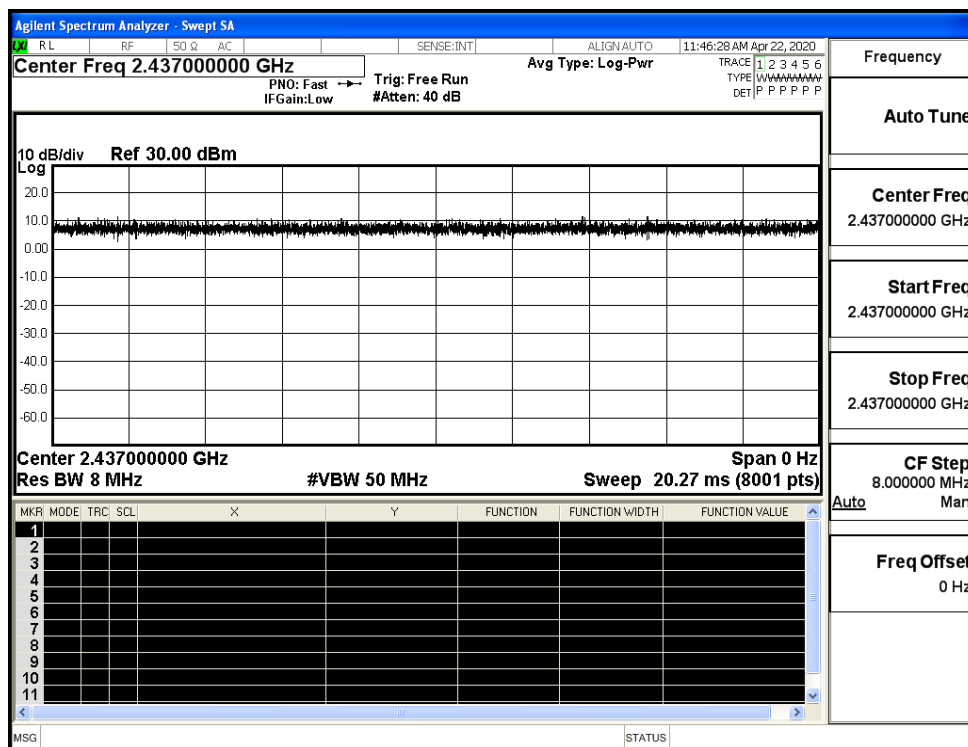
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



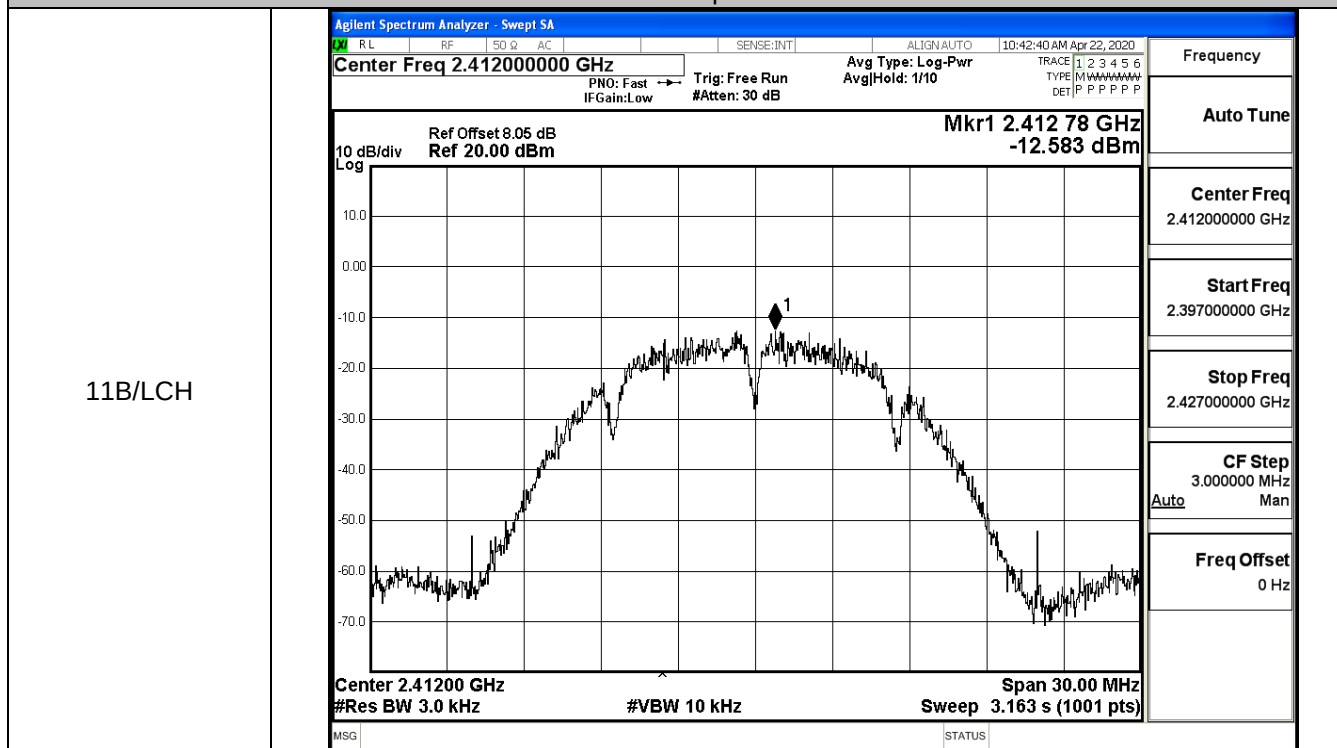
B.2 Maximum Conducted Output Power

Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	8.97	30	PASS
	MCH	8.53	30	PASS
	HCH	8.70	30	PASS
11G	LCH	9.02	30	PASS
	MCH	8.50	30	PASS
	HCH	8.73	30	PASS
11N20SISO	LCH	9.10	30	PASS
	MCH	8.73	30	PASS
	HCH	8.64	30	PASS
11N40SISO	LCH	9.32	30	PASS
	MCH	8.75	30	PASS
	HCH	8.85	30	PASS

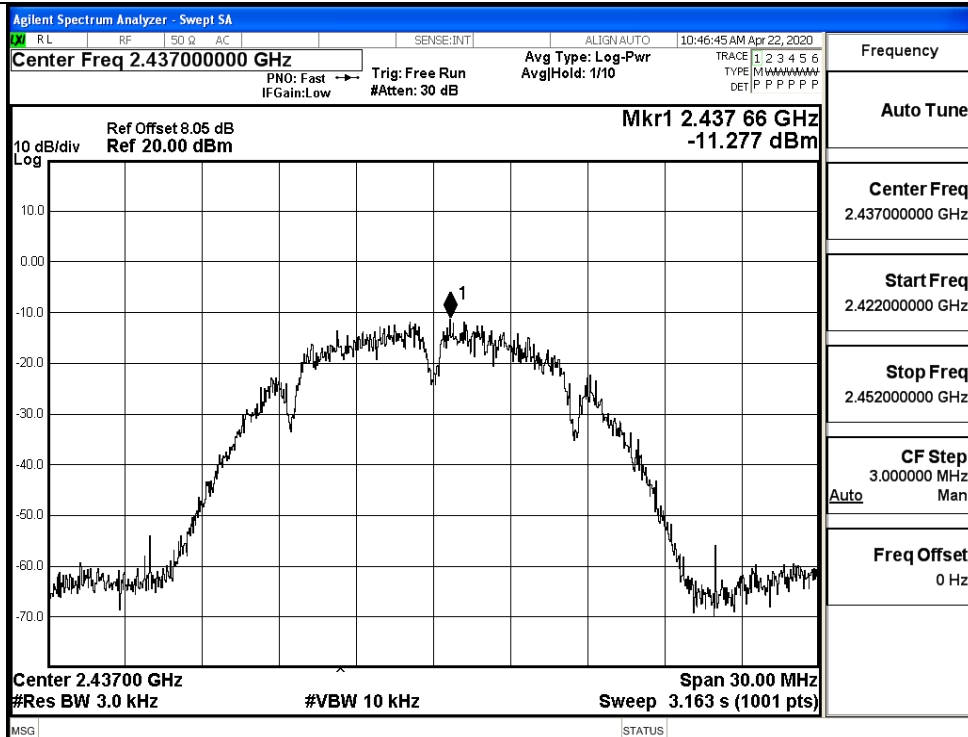
B.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-12.583	8	PASS
	MCH	-11.277	8	PASS
	HCH	-10.337	8	PASS
11G	LCH	-14.027	8	PASS
	MCH	-14.191	8	PASS
	HCH	-12.686	8	PASS
11N20SISO	LCH	-14.401	8	PASS
	MCH	-14.500	8	PASS
	HCH	-13.293	8	PASS
11N40SISO	LCH	-15.869	8	PASS
	MCH	-17.296	8	PASS
	HCH	-15.019	8	PASS

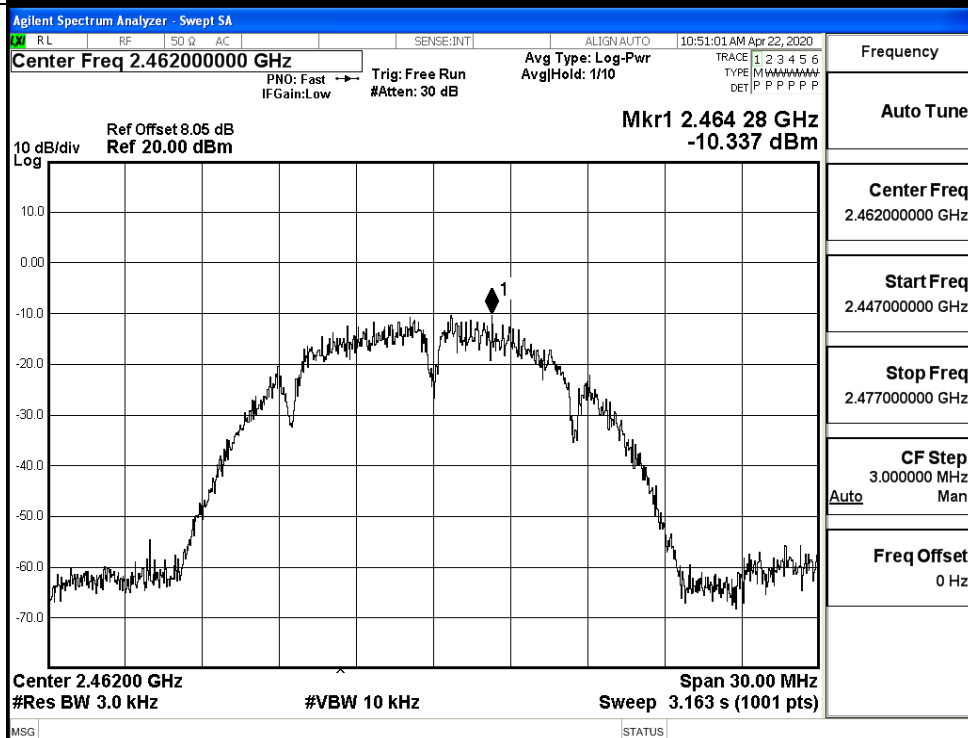
Test Graphs



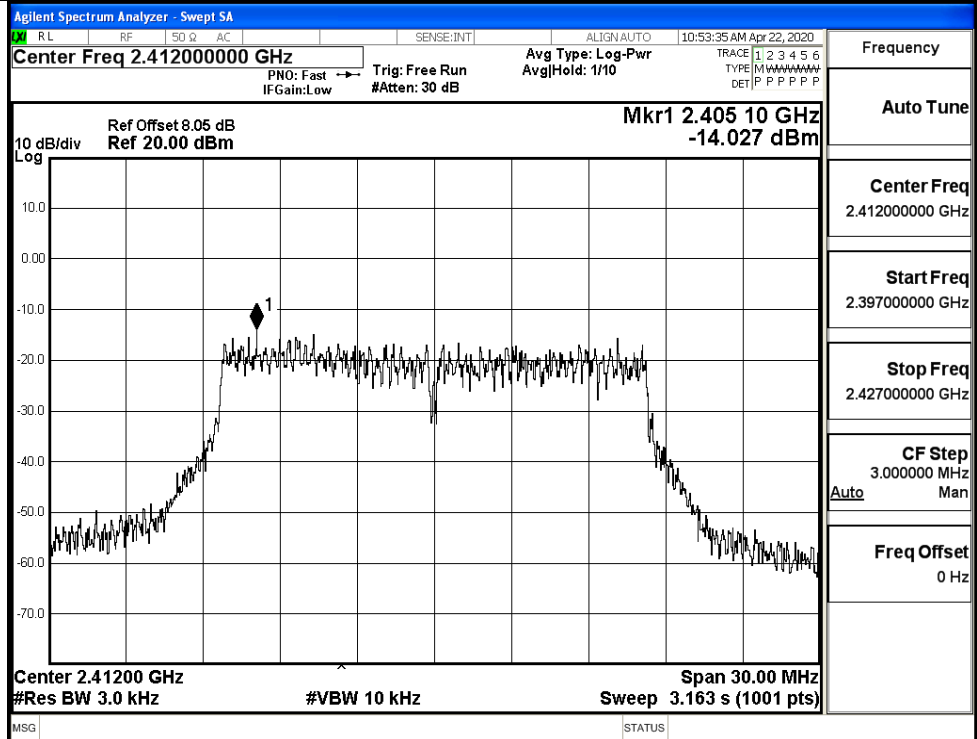
11B/MCH



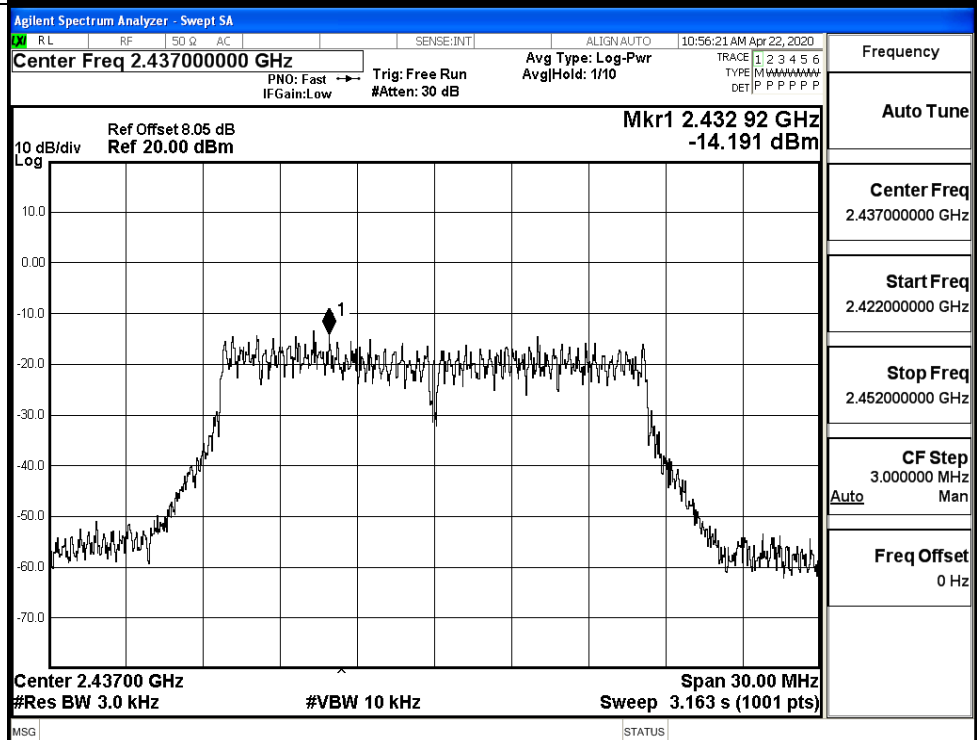
11B/HCH



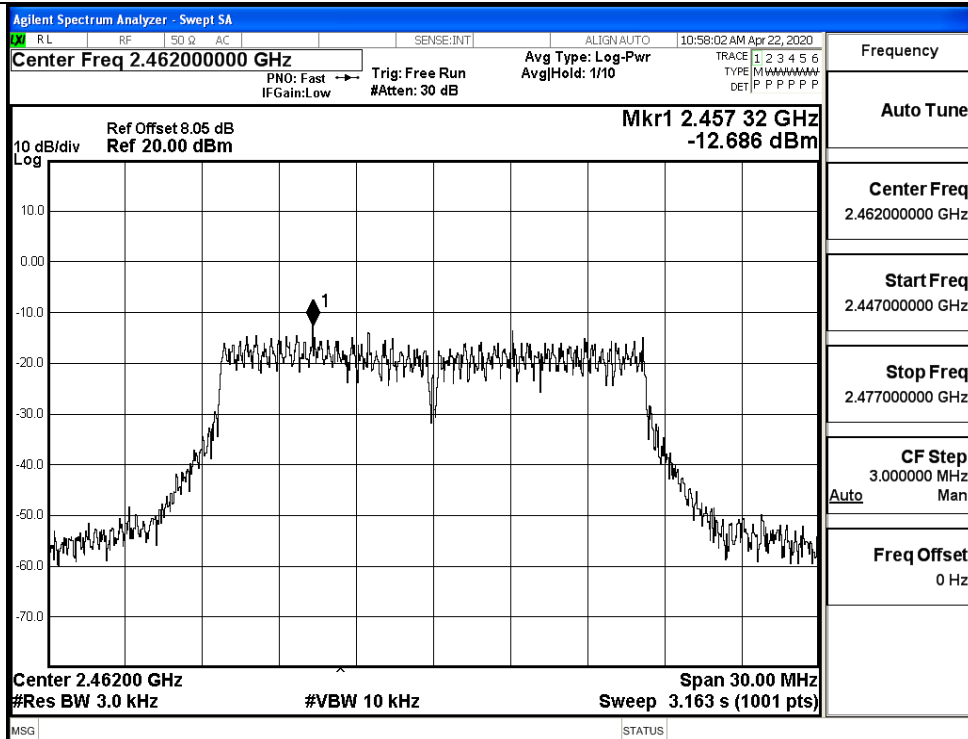
11G/LCH



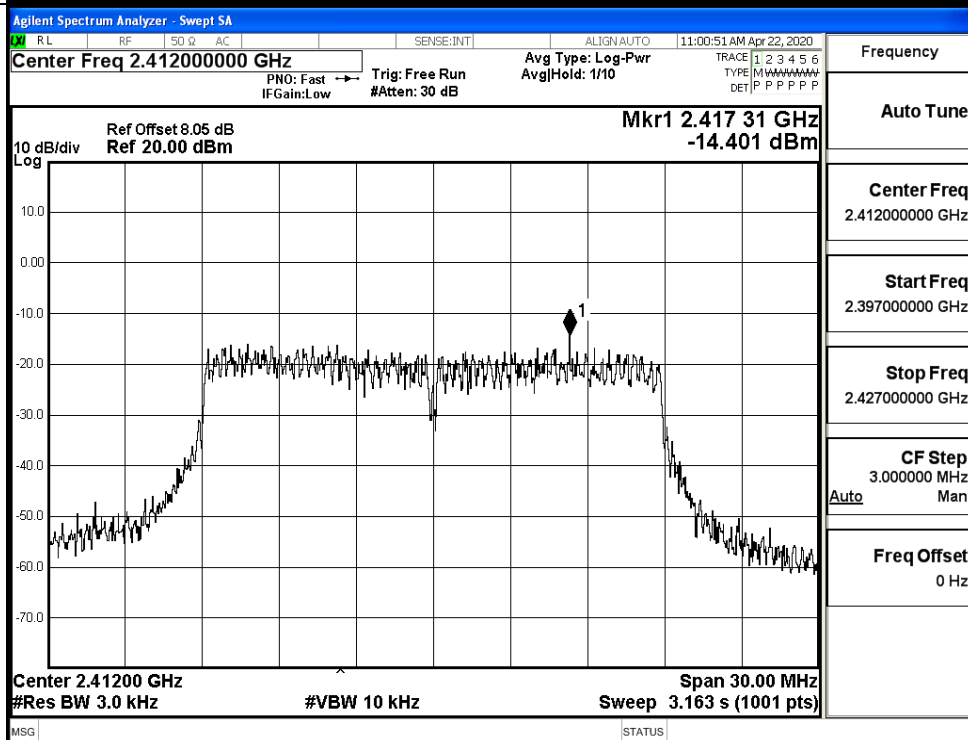
11G/MCH



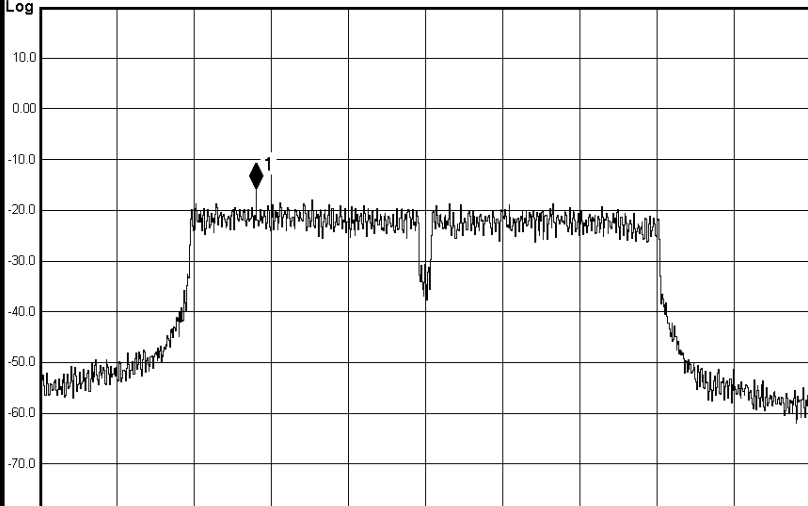
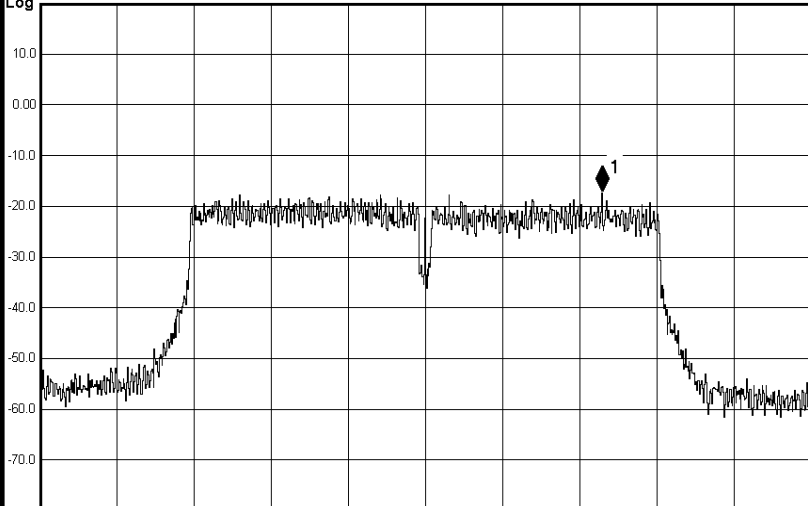
11G/HCH

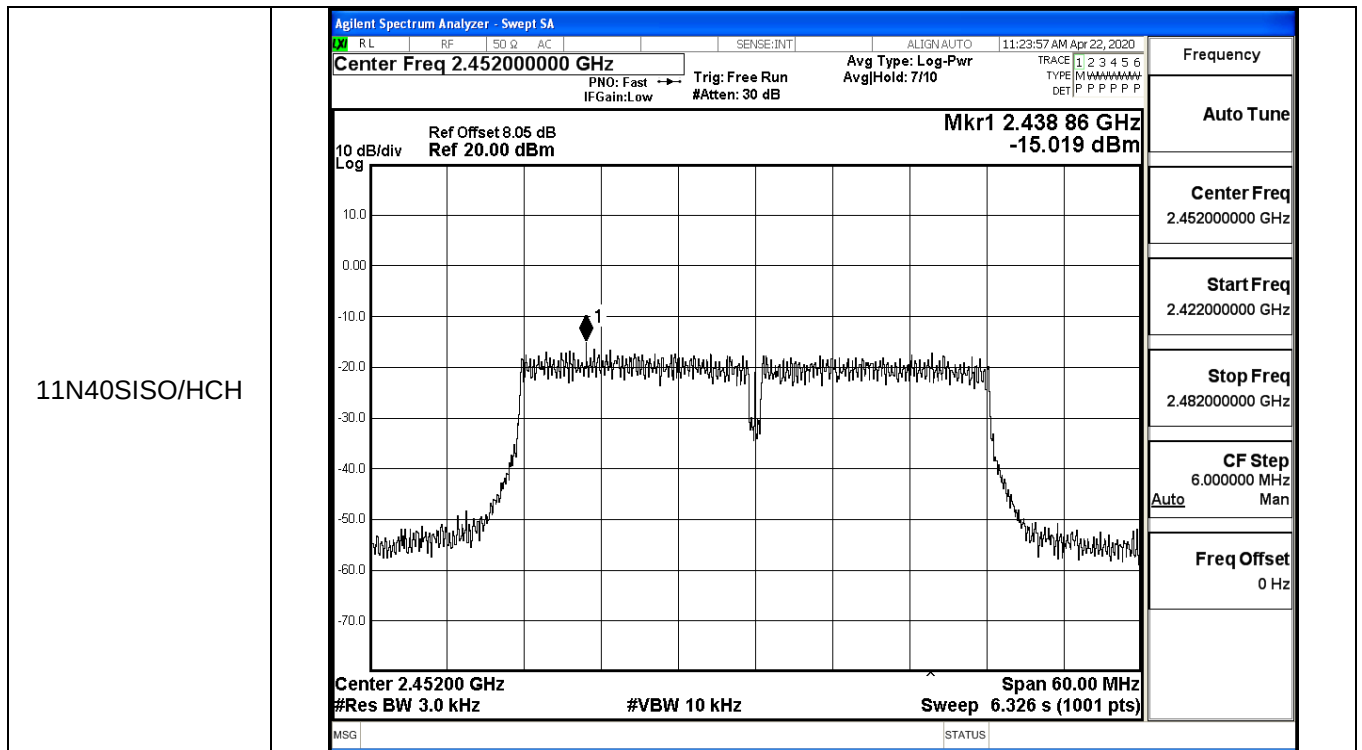


11N20SISO/LCH



11N20SISO/MCH	Agilent Spectrum Analyzer - Swept SA RL RF 50 Ω AC SENSE:INT ALIGN:Auto 11:03:50 AM Apr 22, 2020 Center Freq 2.437000000 GHz PNO: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg Hold: 1/10 TRACE 1 2 3 4 5 6 TYPE [M] W W W W W W W W DET [P] P P P P P P P Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.444 17 GHz -14.500 dBm 10 dB/div Log Center 2.43700 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 30.00 MHz Sweep 3.163 s (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 50 Ω AC SENSE:INT ALIGN:Auto 11:05:36 AM Apr 22, 2020 Center Freq 2.462000000 GHz PNO: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg Hold: 1/10 TRACE 1 2 3 4 5 6 TYPE [M] W W W W W W W W DET [P] P P P P P P P Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.468 87 GHz -13.293 dBm 10 dB/div Log Center 2.46200 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 30.00 MHz Sweep 3.163 s (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/LCH	Agilent Spectrum Analyzer - Swept SA Center Freq 2.422000000 GHz Ref Offset 8.05 dB Ref 20.00 dBm 10 dB/div Log  Center 2.42200 GHz #Res BW 3.0 kHz #VBW 10 kHz Sweep 6.326 s (1001 pts) Frequency Auto Tune Center Freq 2.422000000 GHz Start Freq 2.392000000 GHz Stop Freq 2.452000000 GHz CF Step 6.000000 MHz Auto Freq Offset 0 Hz
11N40SISO/MCH	Agilent Spectrum Analyzer - Swept SA Center Freq 2.437000000 GHz Ref Offset 8.05 dB Ref 20.00 dBm 10 dB/div Log  Center 2.43700 GHz #Res BW 3.0 kHz #VBW 10 kHz Sweep 6.326 s (1001 pts) Frequency Auto Tune Center Freq 2.437000000 GHz Start Freq 2.407000000 GHz Stop Freq 2.467000000 GHz CF Step 6.000000 MHz Auto Freq Offset 0 Hz

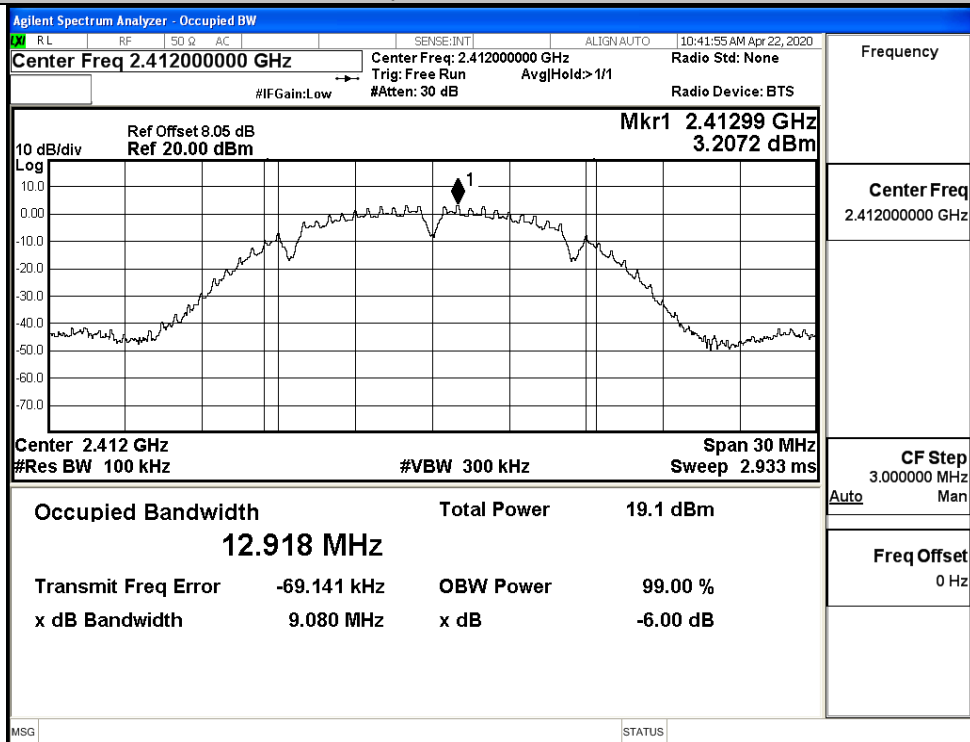


B.4 6dB Bandwidth

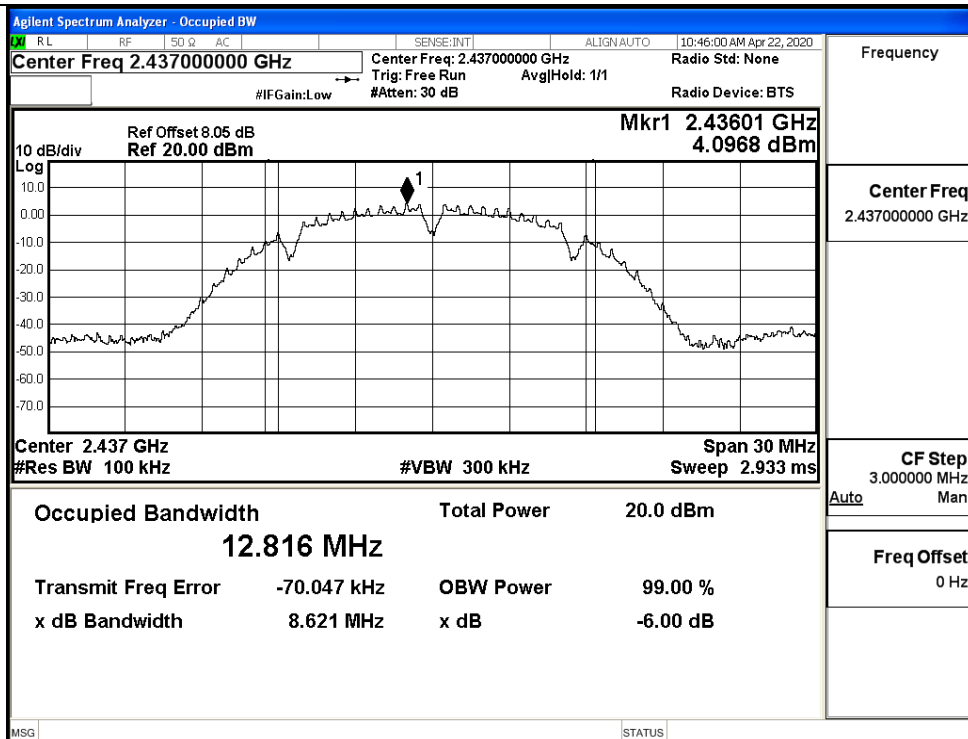
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.080	≥ 0.5	PASS
	MCH	8.621	≥ 0.5	PASS
	HCH	9.019	≥ 0.5	PASS
11G	LCH	16.40	≥ 0.5	PASS
	MCH	16.39	≥ 0.5	PASS
	HCH	16.40	≥ 0.5	PASS
11N20SISO	LCH	17.57	≥ 0.5	PASS
	MCH	17.58	≥ 0.5	PASS
	HCH	17.58	≥ 0.5	PASS
11N40SISO	LCH	36.11	≥ 0.5	PASS
	MCH	36.01	≥ 0.5	PASS
	HCH	36.15	≥ 0.5	PASS

Test Graphs

11B/LCH



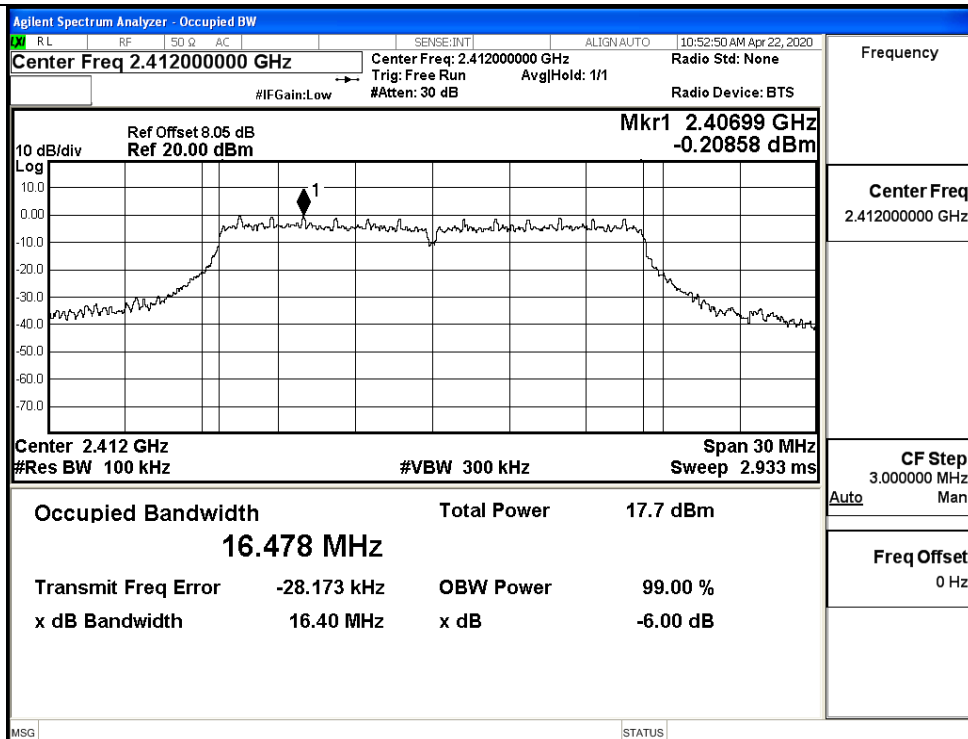
11B/MCH



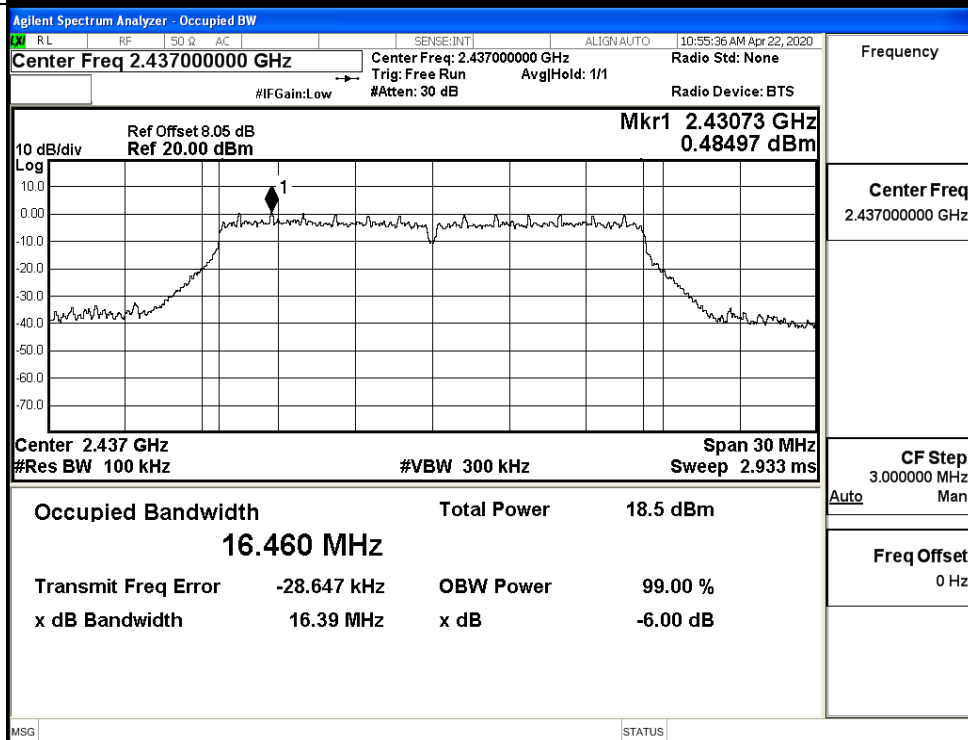
11B/HCH



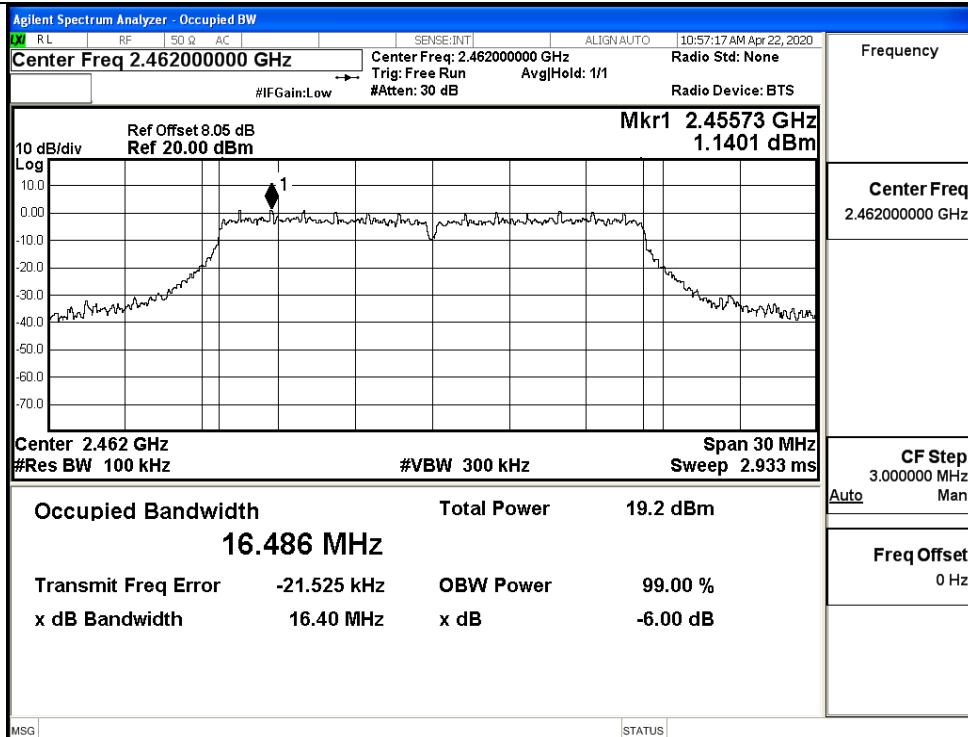
11G/LCH



11G/MCH



11G/HCH



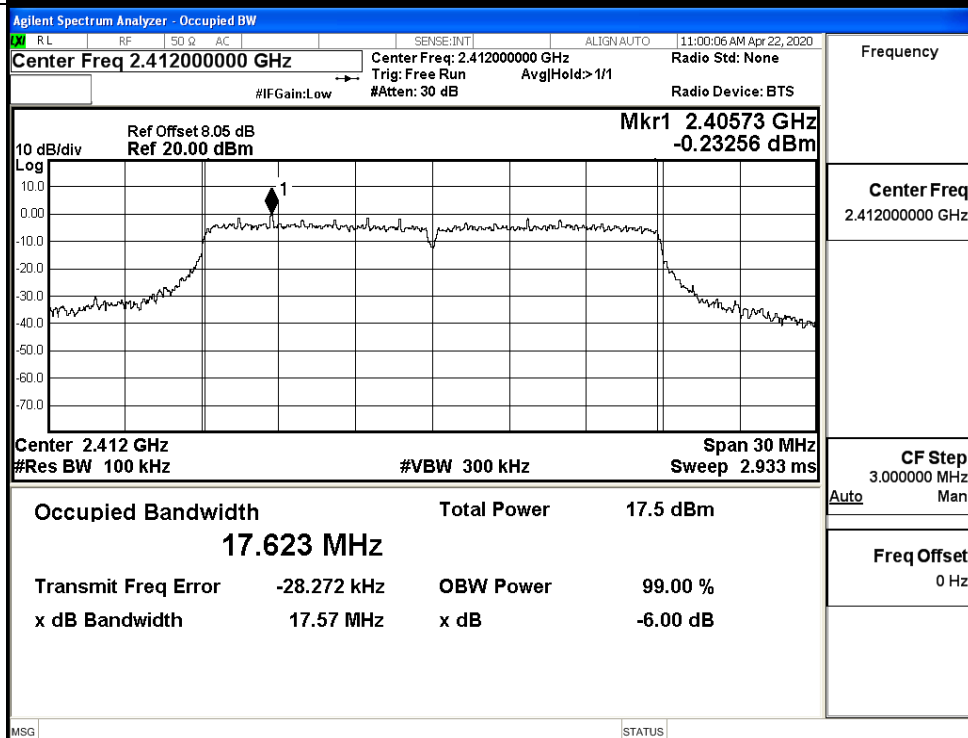
Frequency

Center Freq
2.462000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/LCH

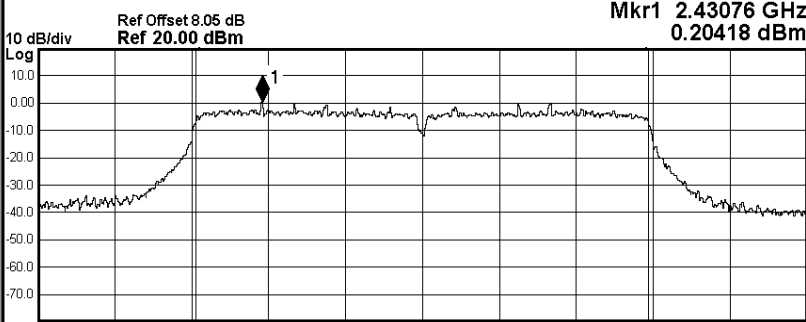
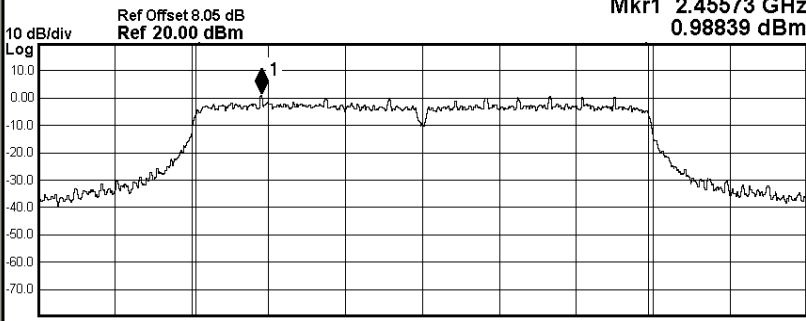


Frequency

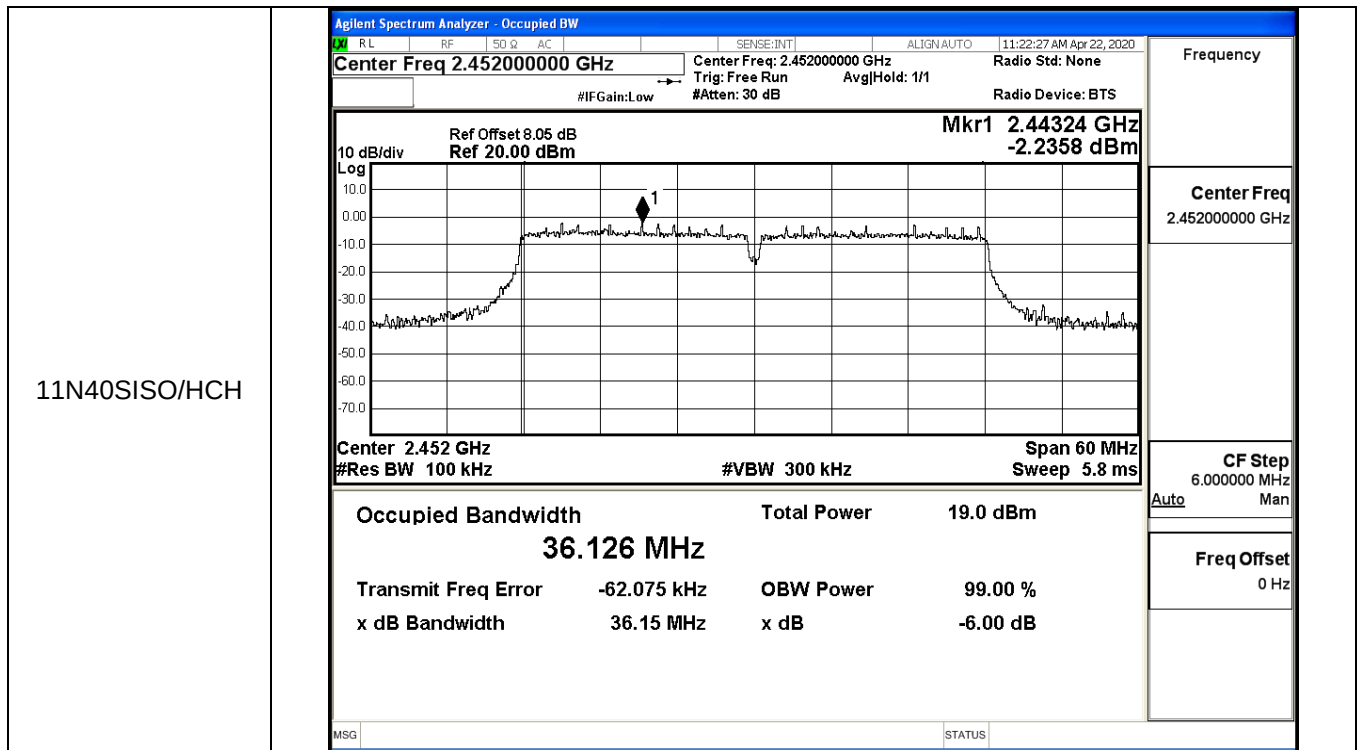
Center Freq
2.412000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/MCH	Agilent Spectrum Analyzer - Occupied BW Center Freq 2.437000000 GHz Ref Offset 8.05 dB Ref 20.00 dBm  Center 2.437 GHz #Res BW 100 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.604 MHz Total Power 18.4 dBm Transmit Freq Error -17.342 kHz OBW Power 99.00 % x dB Bandwidth 17.58 MHz x dB -6.00 dB Frequency Center Freq 2.437000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz
11N20SISO/HCH	Agilent Spectrum Analyzer - Occupied BW Center Freq 2.462000000 GHz Ref Offset 8.05 dB Ref 20.00 dBm  Center 2.462 GHz #Res BW 100 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.612 MHz Total Power 19.1 dBm Transmit Freq Error -13.996 kHz OBW Power 99.00 % x dB Bandwidth 17.58 MHz x dB -6.00 dB Frequency Center Freq 2.462000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz

	Agilent Spectrum Analyzer - Occupied BW	Frequency
11N40SISO/LCH	Center Freq 2.42200000 GHz Trig: Free Run Avg/Hold: > 1/1 #IF Gain: Low #Atten: 30 dB Radio Device: BTS	Center Freq 2.422000000 GHz
	Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.41324 GHz -3.2301 dBm	
	Center 2.422 GHz Span 60 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 5.8 ms	CF Step 6.000000 MHz Auto Man
	Occupied Bandwidth Total Power 17.8 dBm 36.171 MHz	Freq Offset 0 Hz
	Transmit Freq Error -60.810 kHz OBW Power 99.00 % x dB Bandwidth 36.11 MHz x dB -6.00 dB	
11N40SISO/MCH	Center Freq 2.437000000 GHz Trig: Free Run Avg/Hold: 1/1 #IF Gain: Low #Atten: 30 dB Radio Device: BTS	Center Freq 2.437000000 GHz
	Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.4295 GHz -2.9360 dBm	
	Center 2.437 GHz Span 60 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 5.8 ms	CF Step 6.000000 MHz Auto Man
	Occupied Bandwidth Total Power 18.4 dBm 36.099 MHz	Freq Offset 0 Hz
	Transmit Freq Error -63.414 kHz OBW Power 99.00 % x dB Bandwidth 36.01 MHz x dB -6.00 dB	

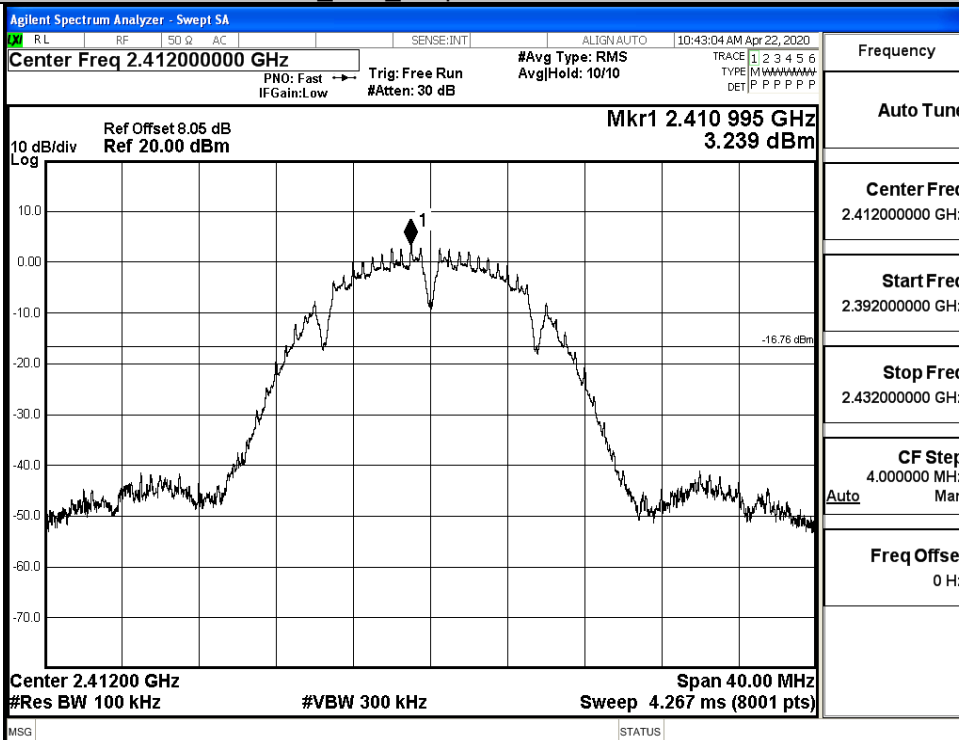


B.5 RF Conducted Spurious Emissions

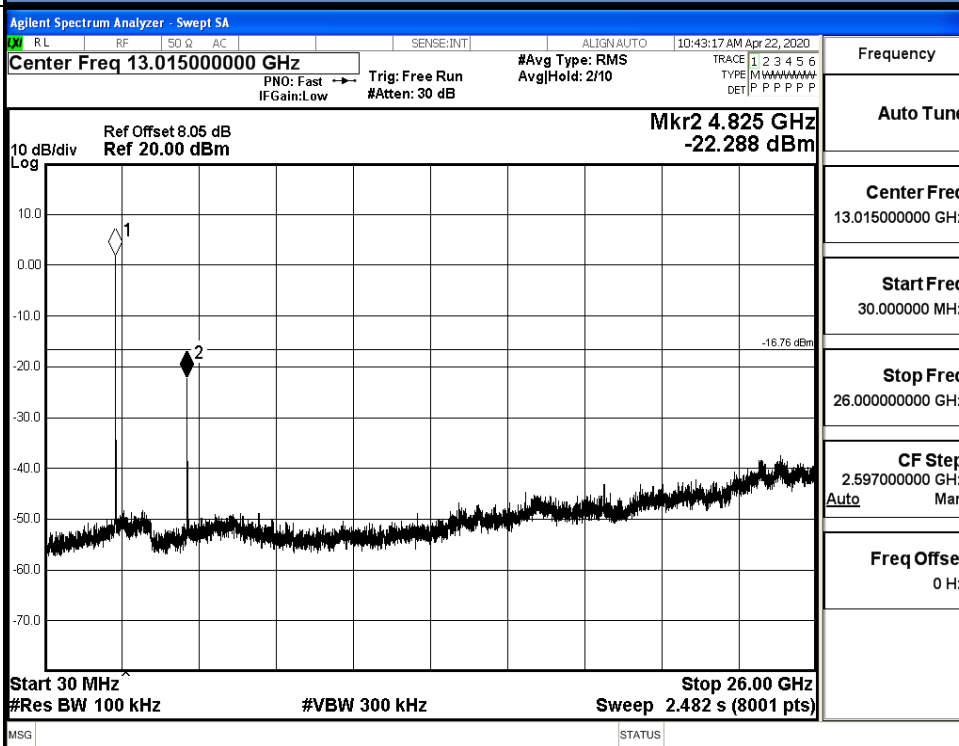
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	3.239	-22.288	-16.761	PASS
	MCH	4.274	-21.353	-15.726	PASS
	HCH	4.88	-20.949	-15.120	PASS
11G	LCH	-0.297	-31.820	-20.297	PASS
	MCH	0.484	-33.750	-19.516	PASS
	HCH	0.753	-33.621	-19.247	PASS
11N20 SISO	LCH	-0.574	-32.875	-20.574	PASS
	MCH	-0.643	-32.781	-20.643	PASS
	HCH	0.964	-33.745	-19.036	PASS
11N40 SISO	LCH	-3.364	-37.977	-23.364	PASS
	MCH	-2.864	-37.352	-22.864	PASS
	HCH	-2.504	-35.688	-22.504	PASS

11B LCH Graphs

Pref/11B/LCH

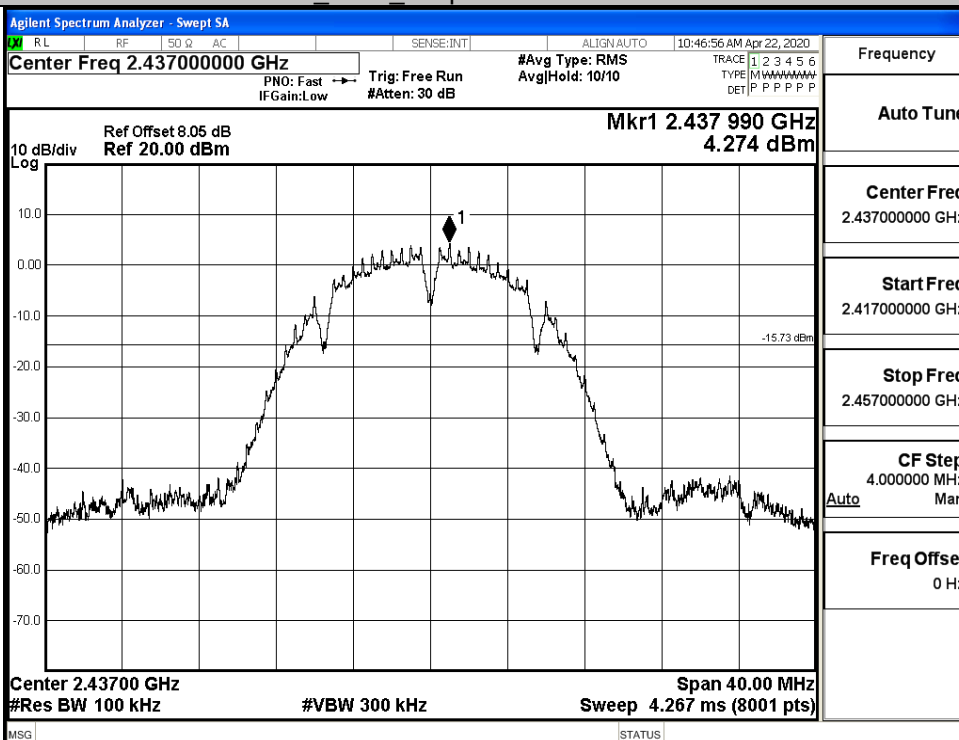


Puw/11B/LCH

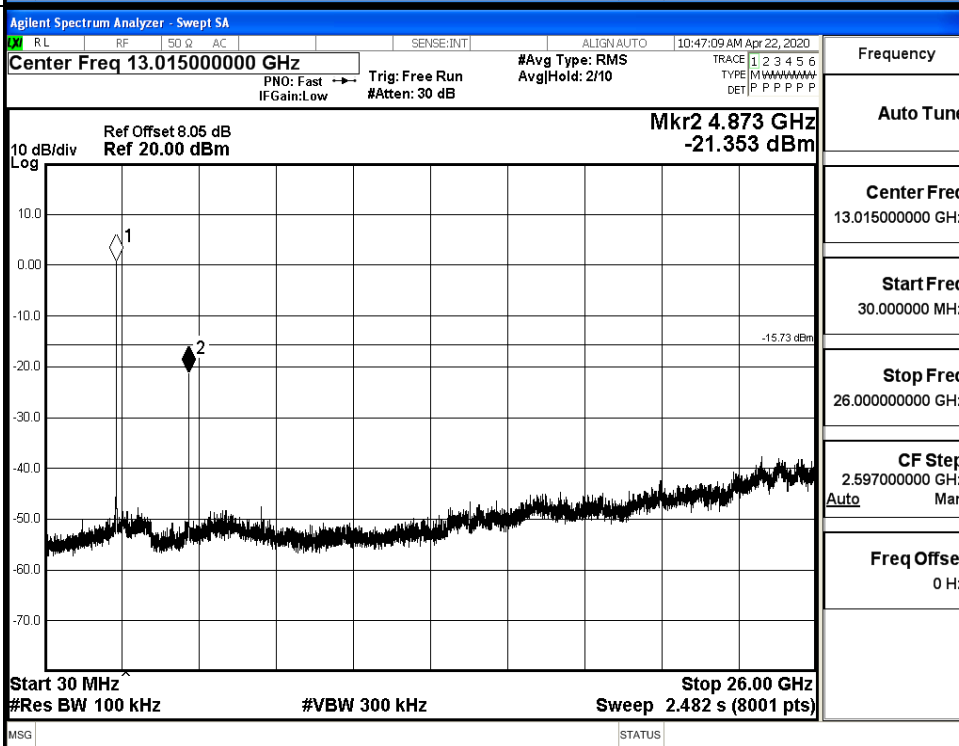


11B MCH Graphs

Pref/11B/MCH

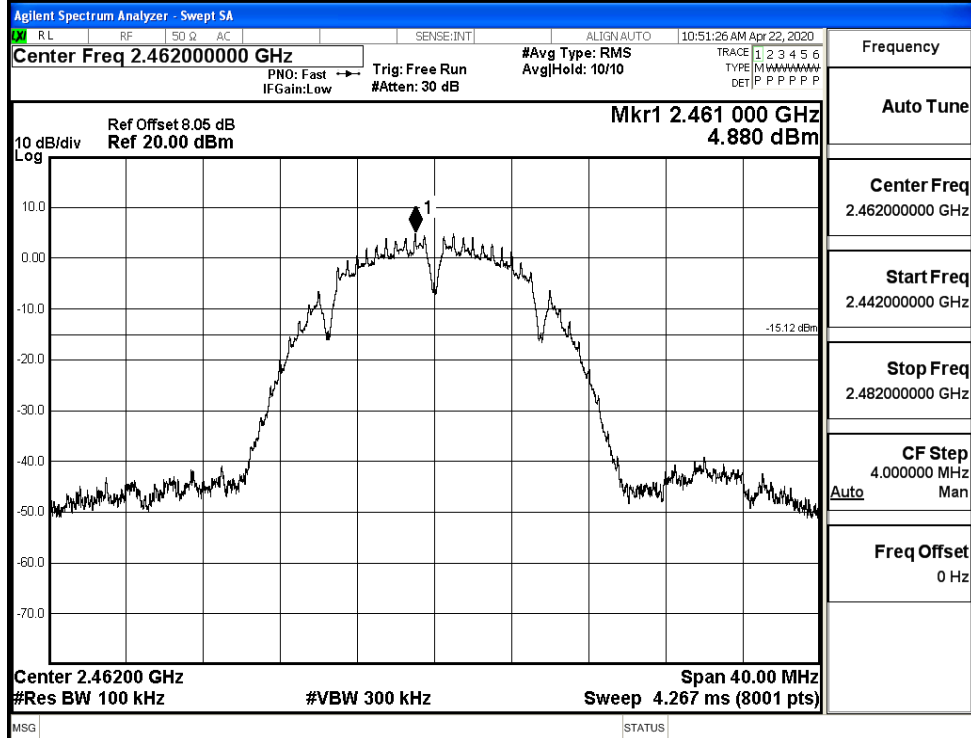


Puw/11B/MCH

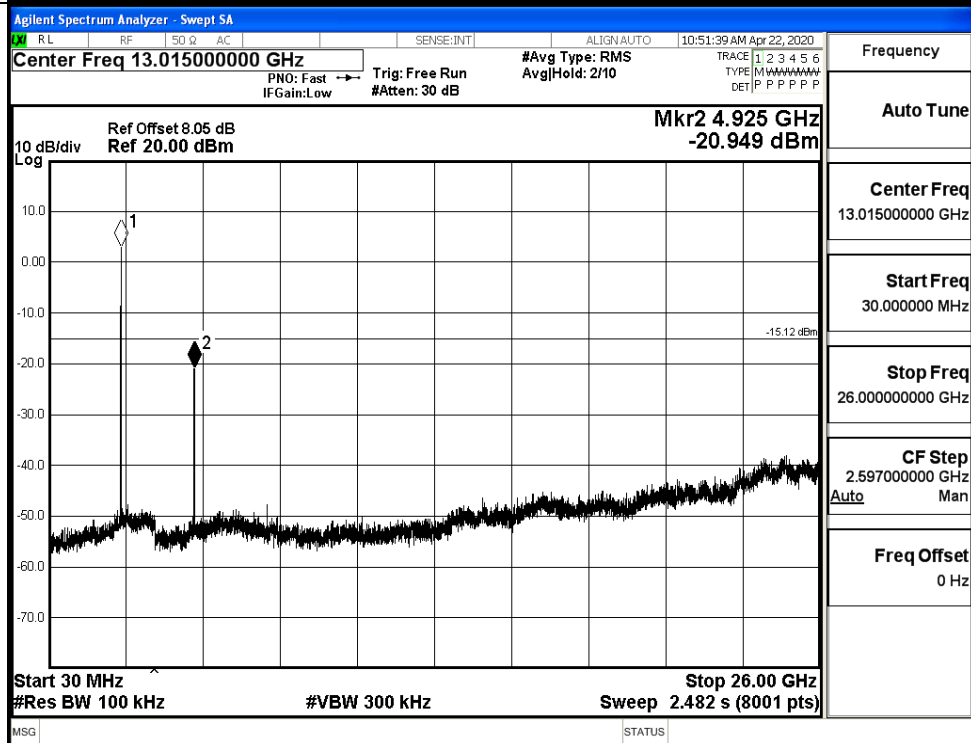


11B HCH Graphs

Pref/11B/HCH

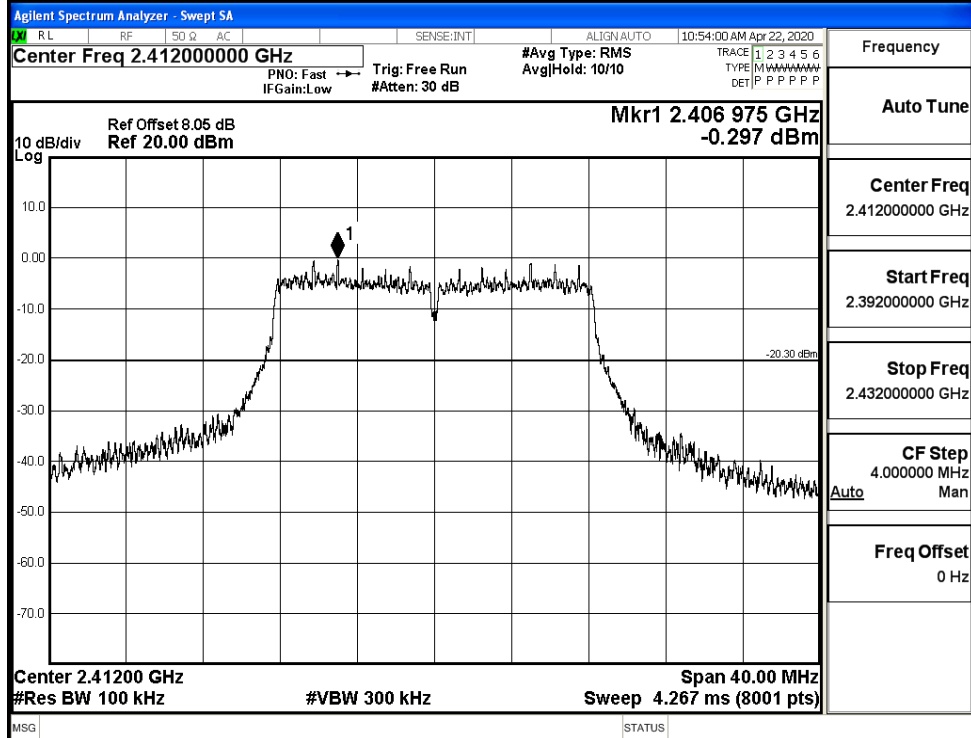


Puw/11B/HCH

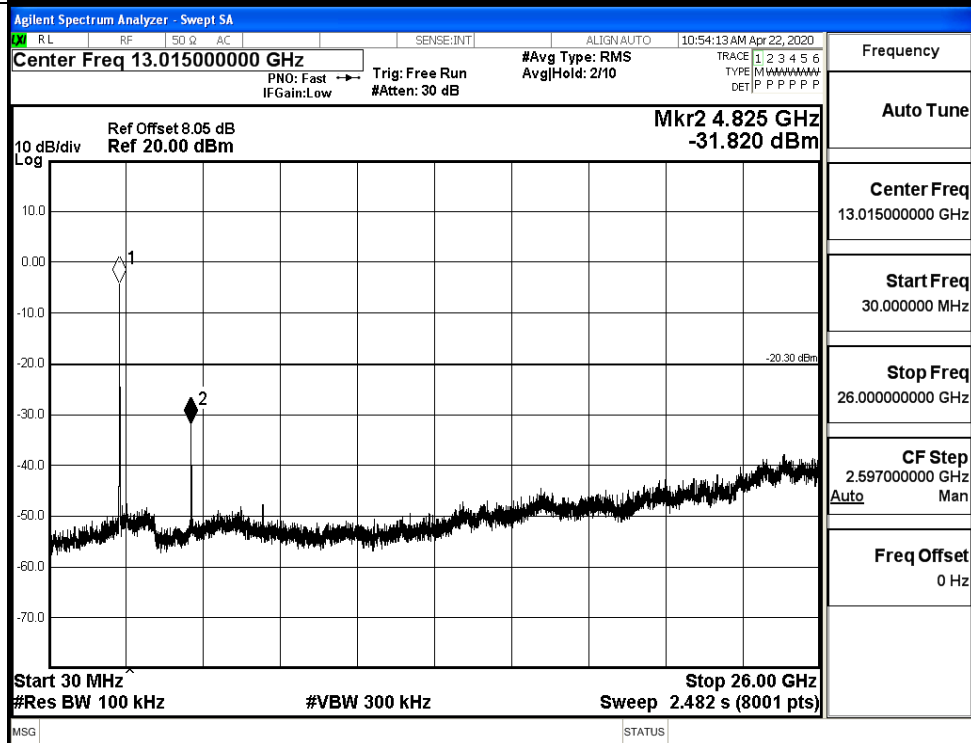


11G LCH Graphs

Pref/11G/LCH

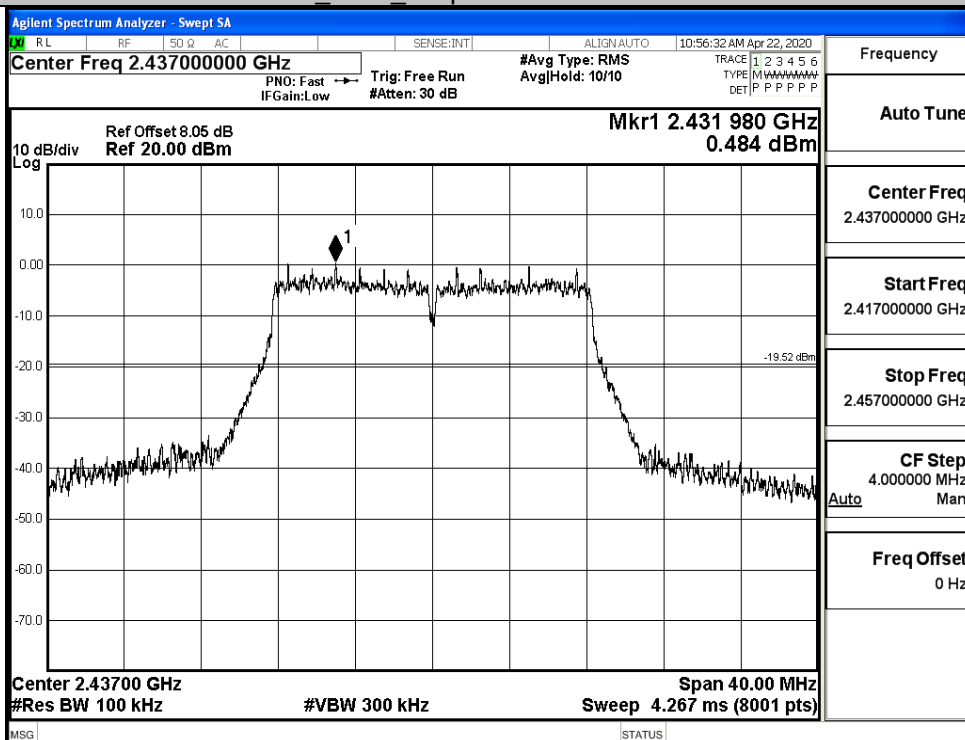


Puw/11G/LCH

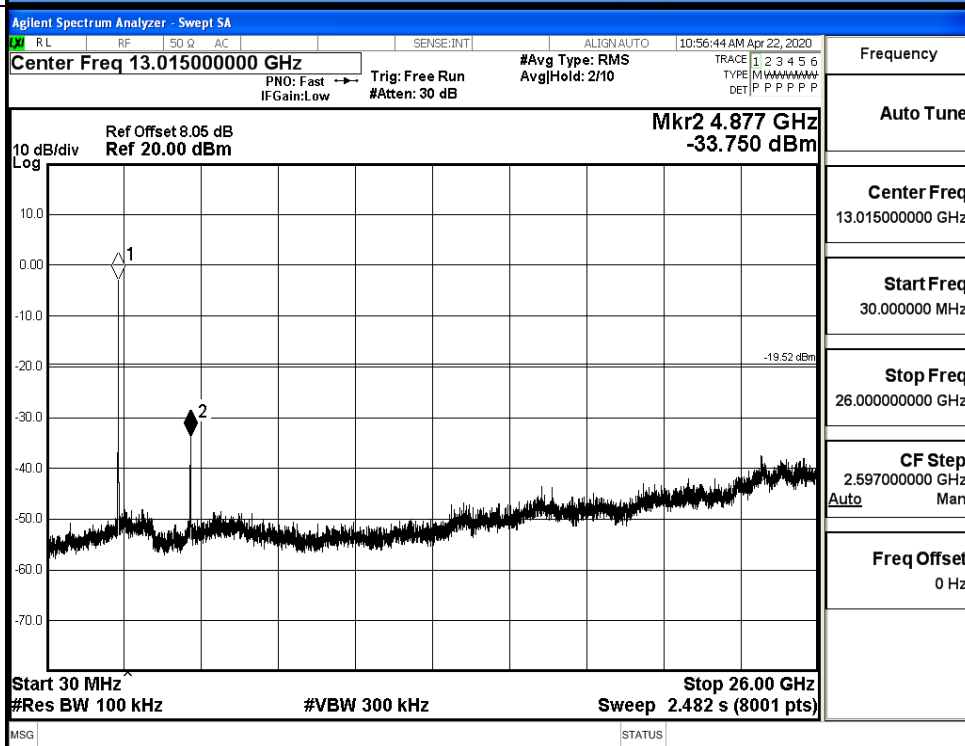


11G MCH Graphs

Pref/11G/MCH

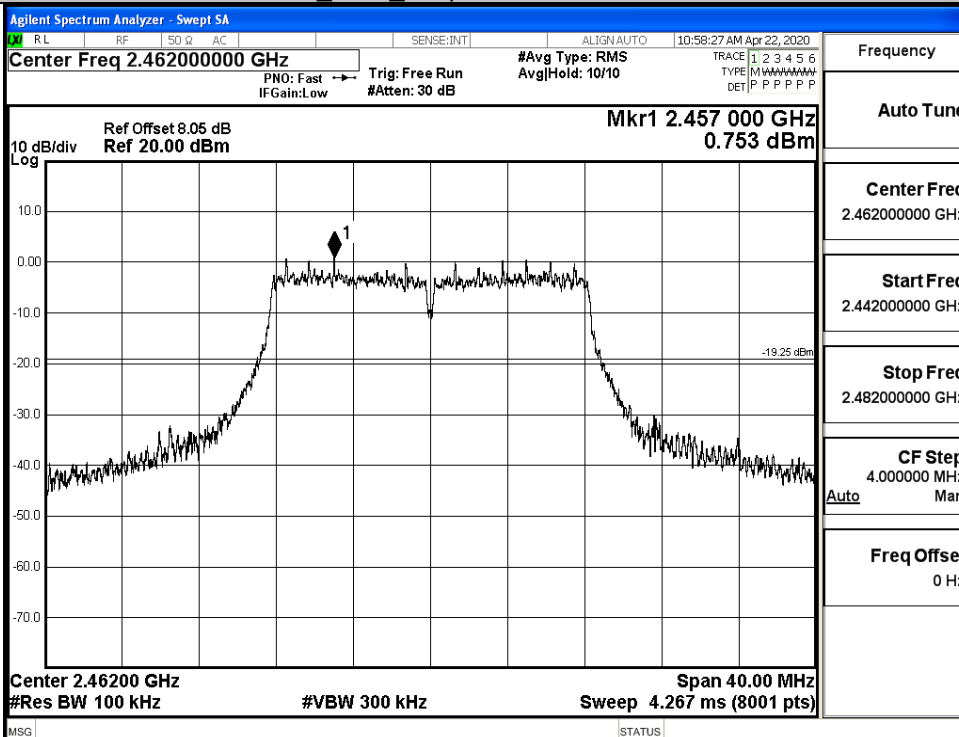


Puw/11G/MCH

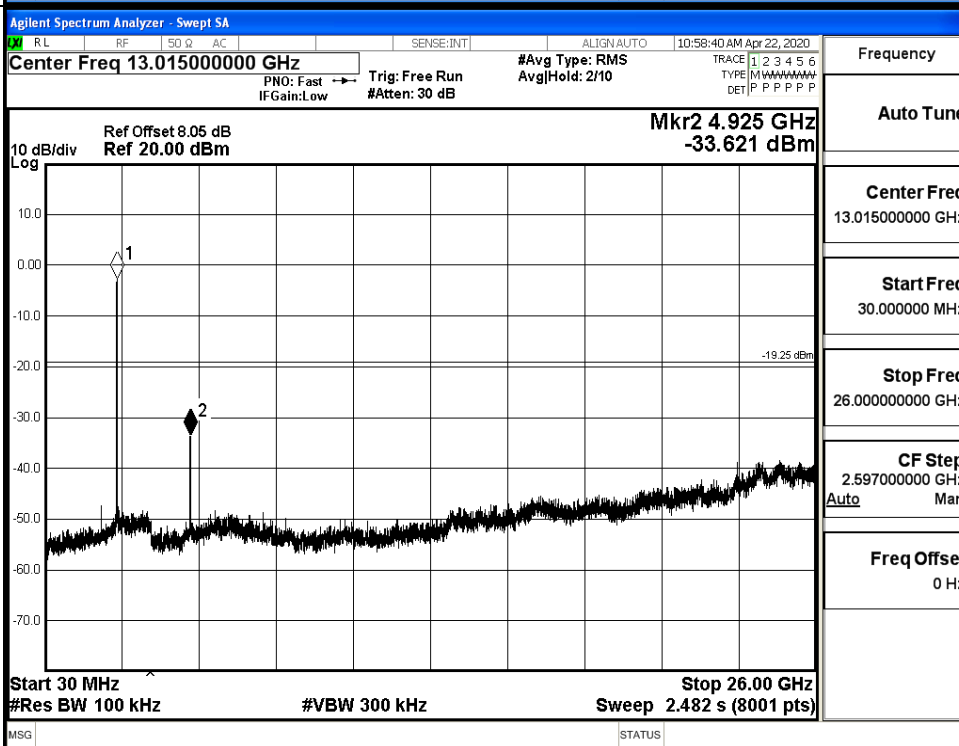


11G HCH Graphs

Pref/11G/HCH

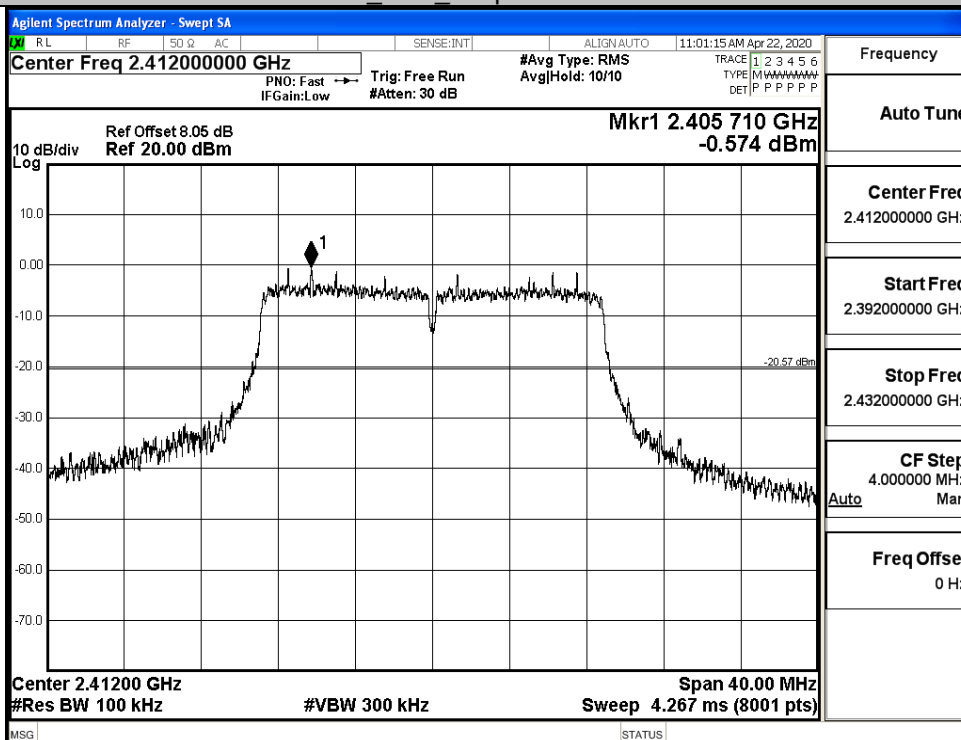


Puw/11G/HCH

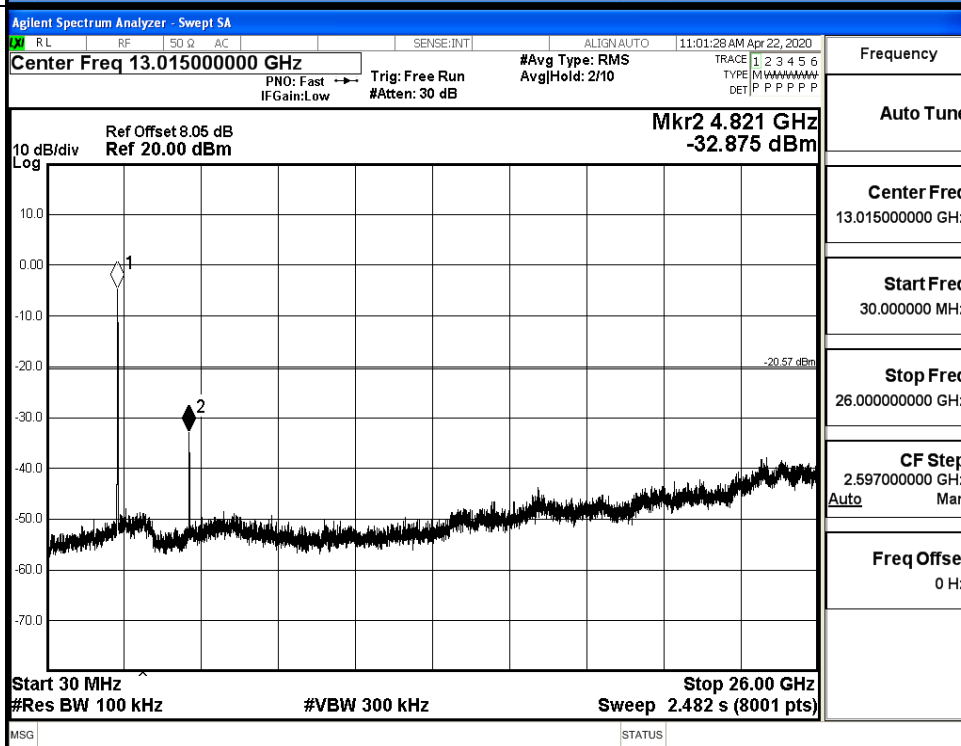


11N20SISO LCH Graphs

Pref/11N20SIS
O/LCH

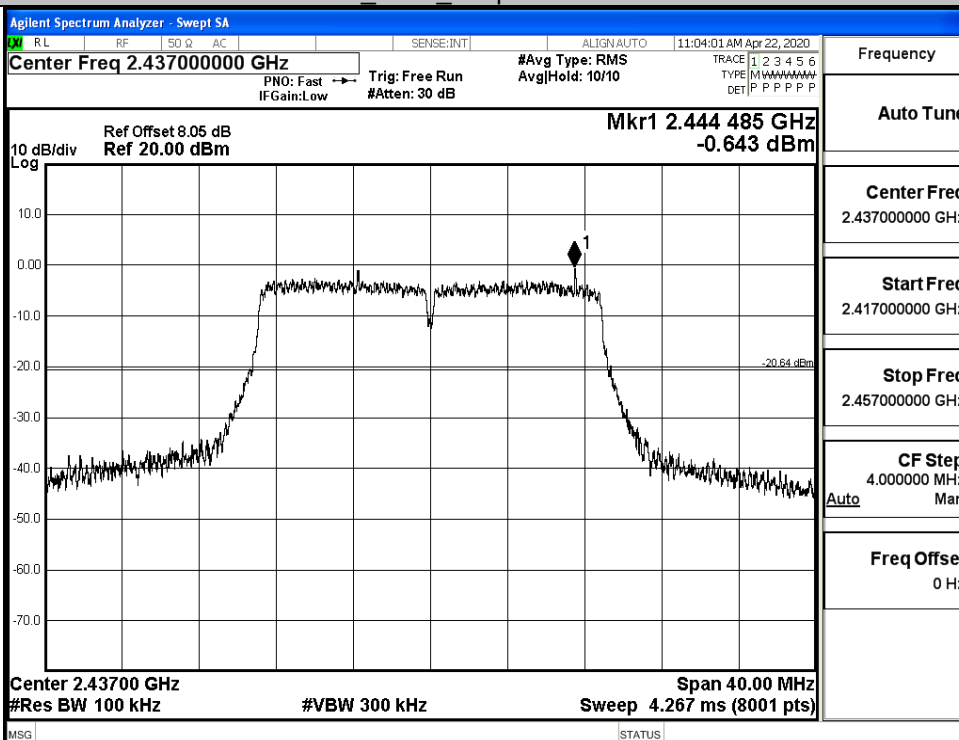


Puw/11N20
SISO/LCH

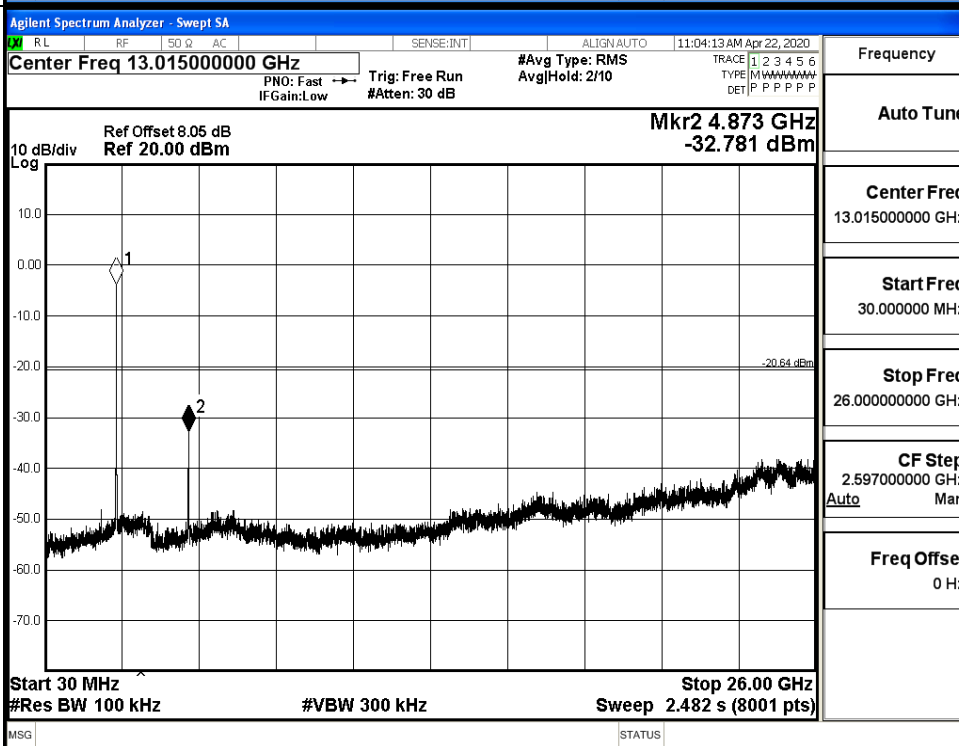


11N20SISO_MCH_Graphs

Pref/11N20
SISO/MCH

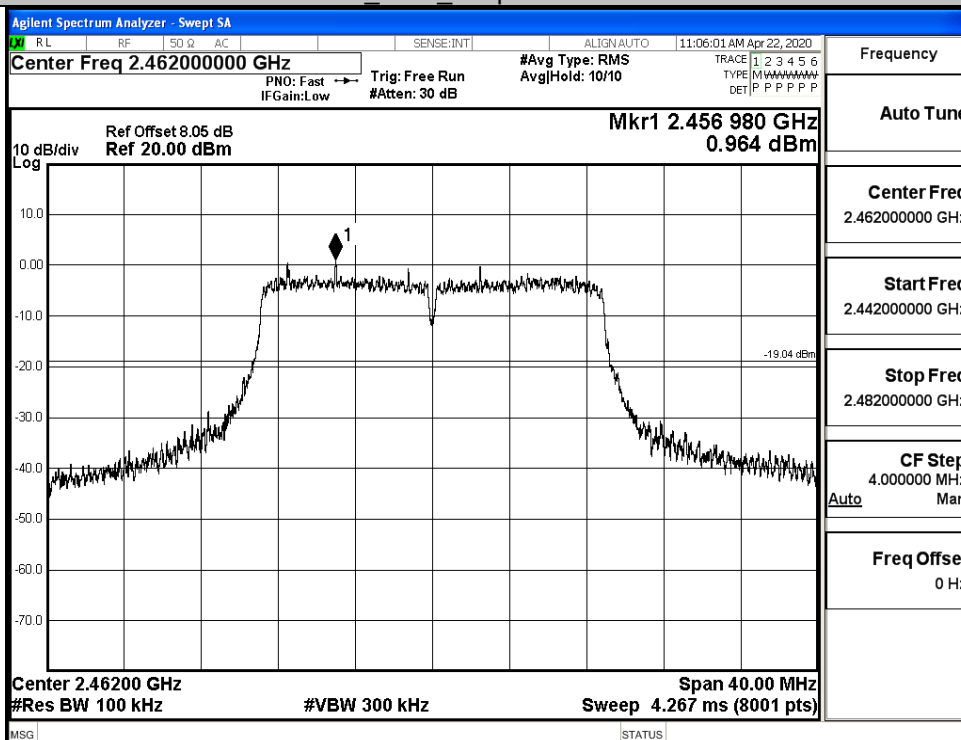


Puw/11N20
SISO/MCH

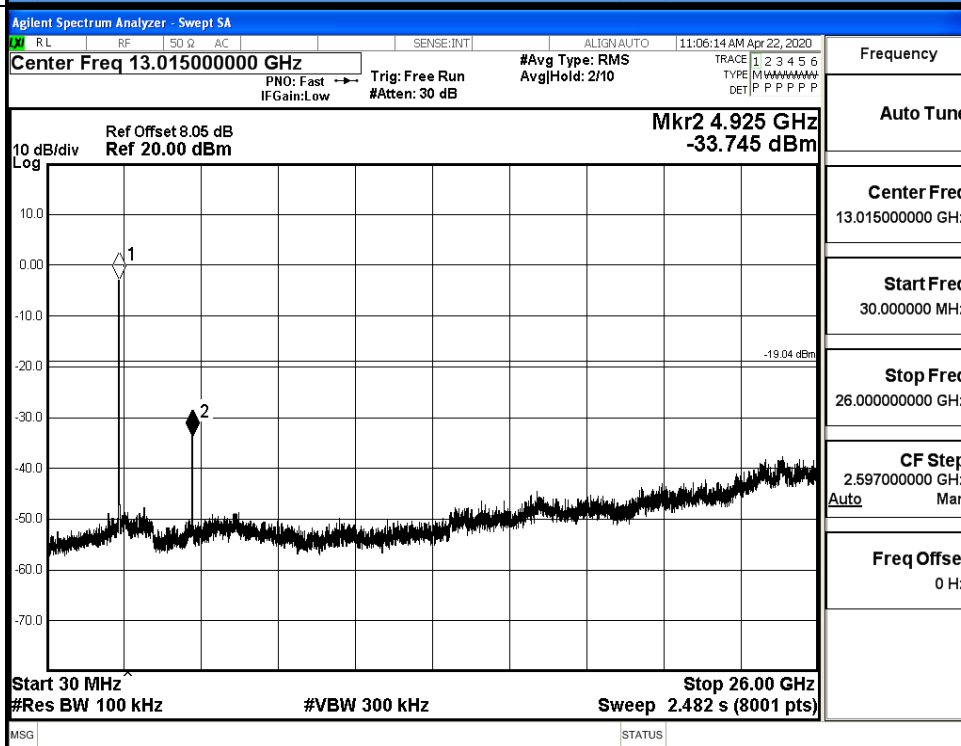


11N20SISO HCH Graphs

Pref/11N20
SISO/HCH

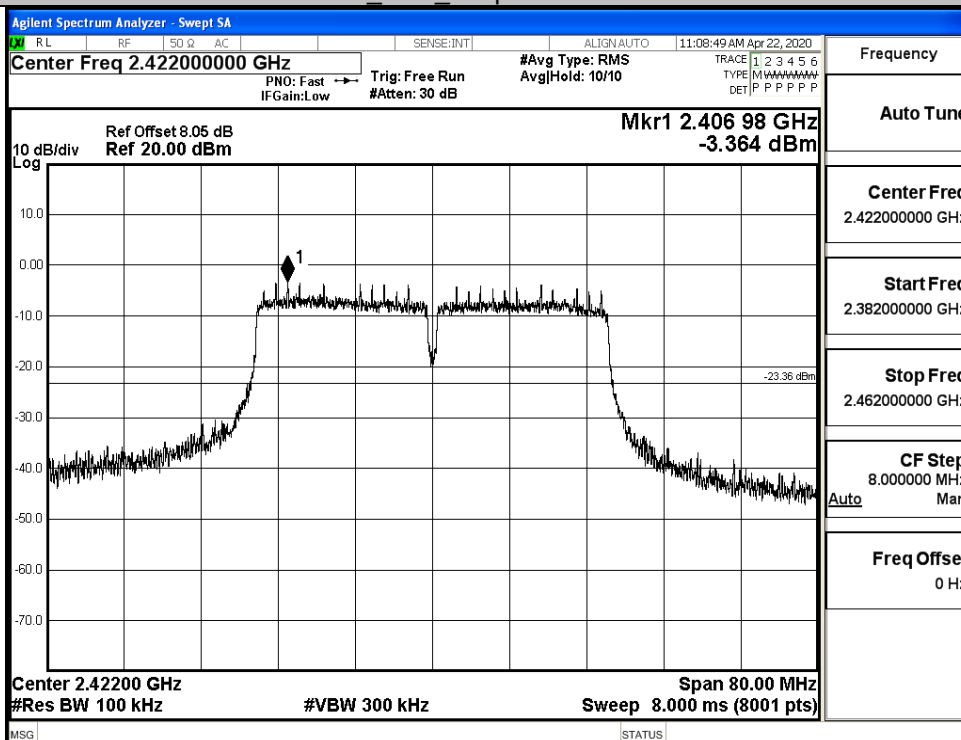


Puw/11N20
SISO/HCH

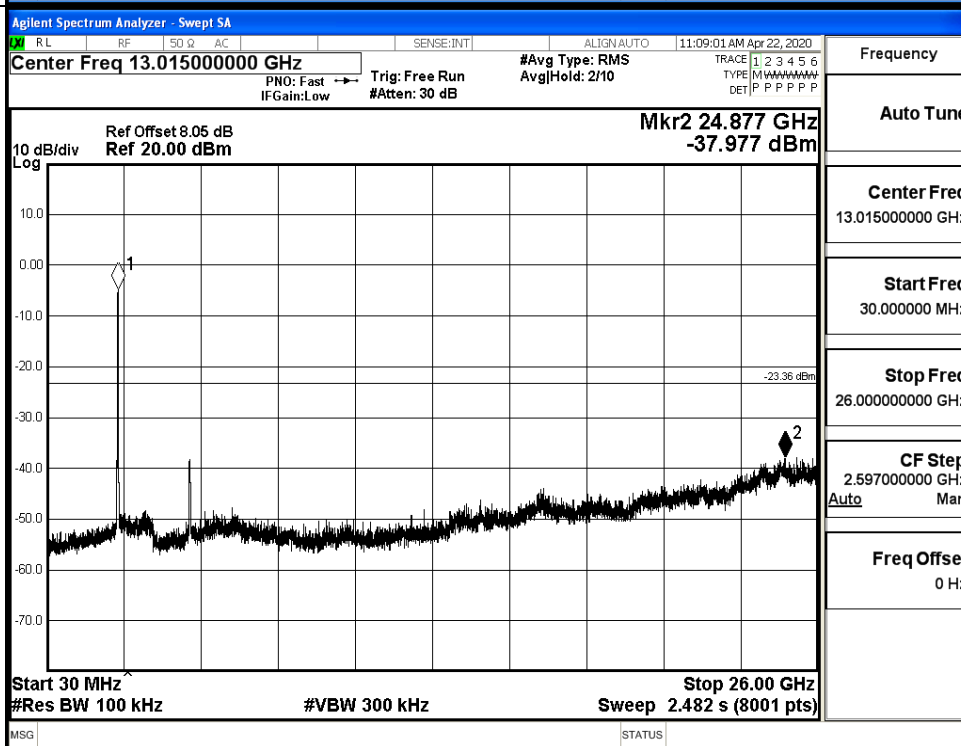


11N40SISO LCH Graphs

Pref/11N40
SISO/LCH

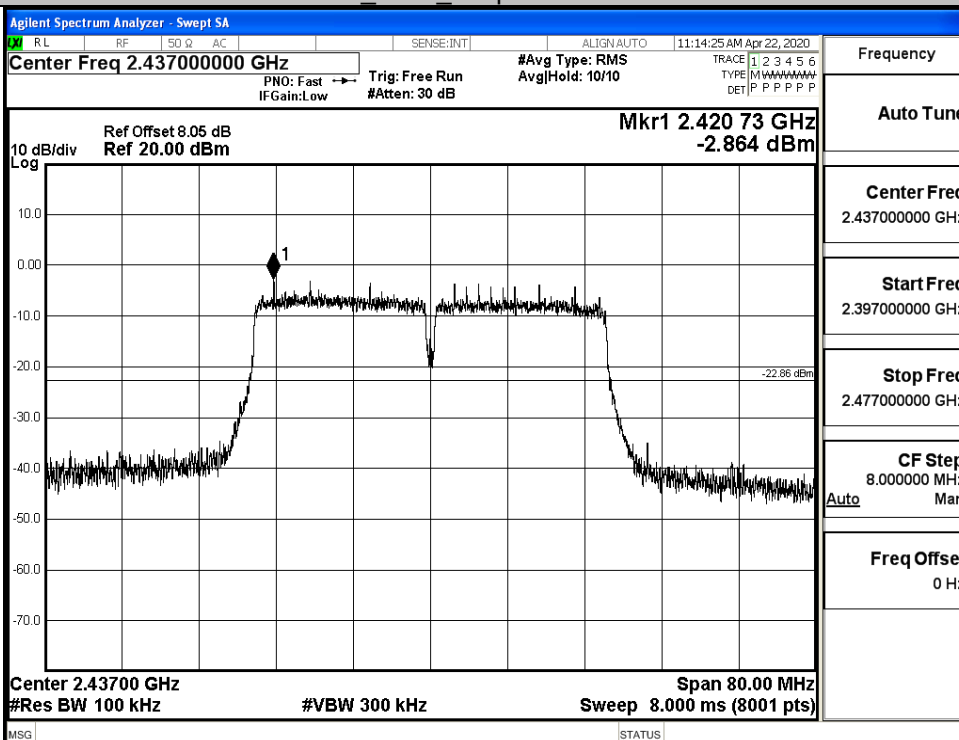


Puw/11N40
SISO/LCH

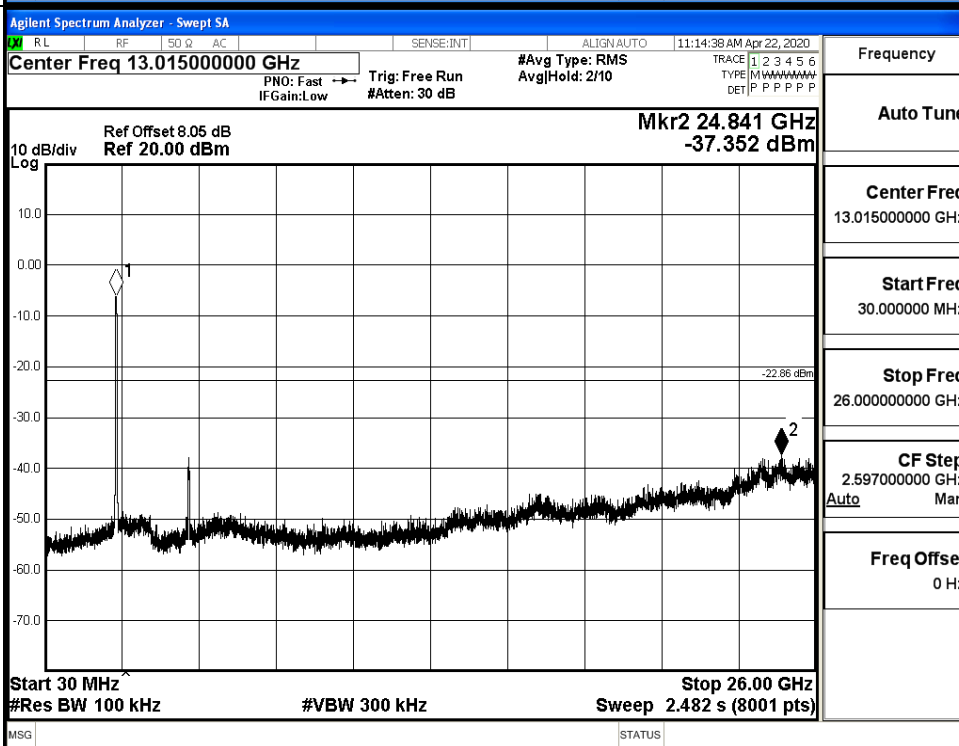


11N40SISO_MCH_Graphs

Pref/11N40
SISO/MCH

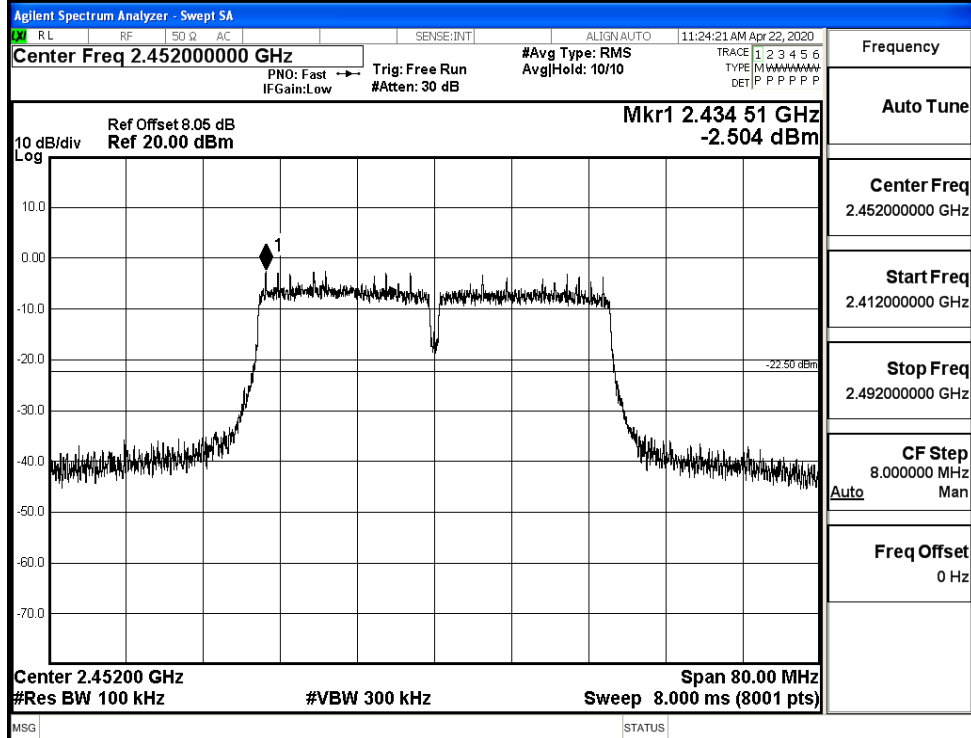


Puw/11N40
SISO/MCH

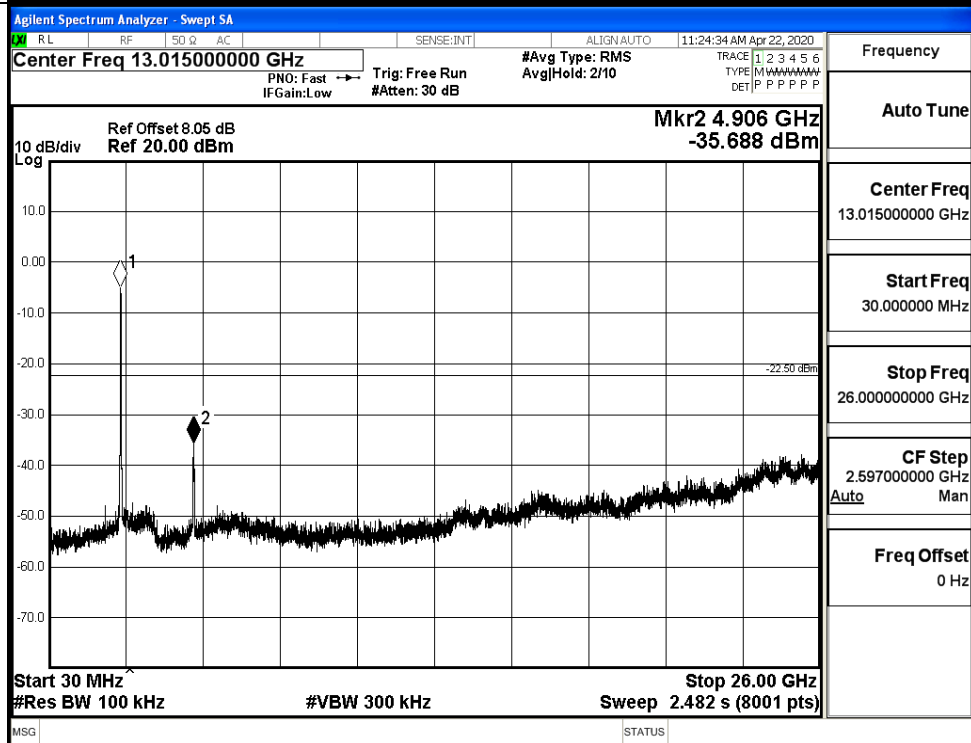


11N40SISO HCH Graphs

Pref/11N40
SISO/HCH



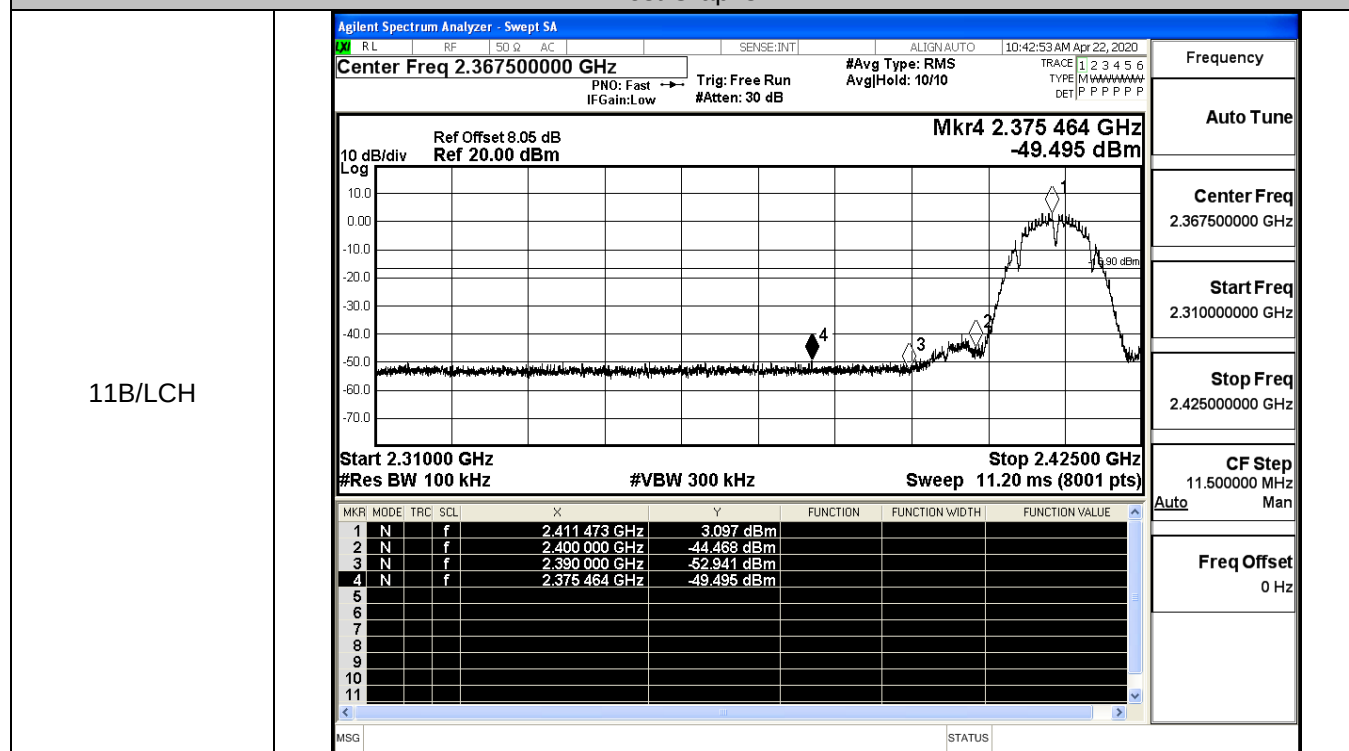
Puw/11N40
SISO/HCH



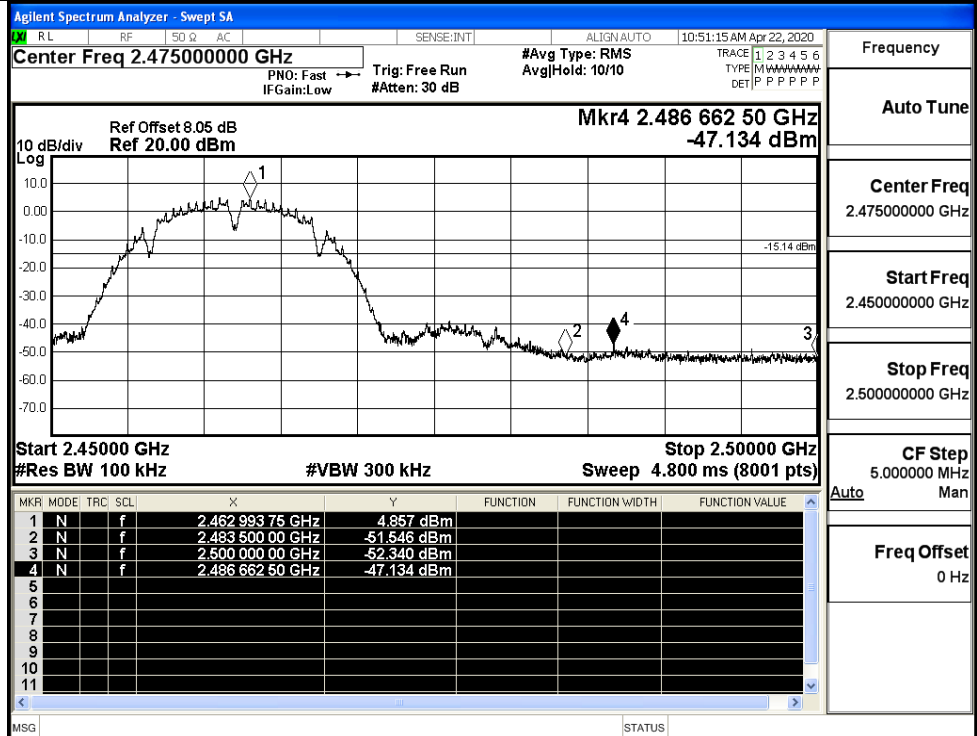
B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	3.097	-49.495	-16.9	PASS
	HCH	4.857	-47.134	-15.14	PASS
11G	LCH	-0.591	-43.032	-20.59	PASS
	HCH	0.987	-40.874	-19.01	PASS
11N20SISO	LCH	-1.557	-41.746	-21.56	PASS
	HCH	0.286	-41.019	-19.71	PASS
11N40SISO	LCH	-3.501	-35.461	-23.5	PASS
	HCH	-2.530	-35.745	-22.53	PASS

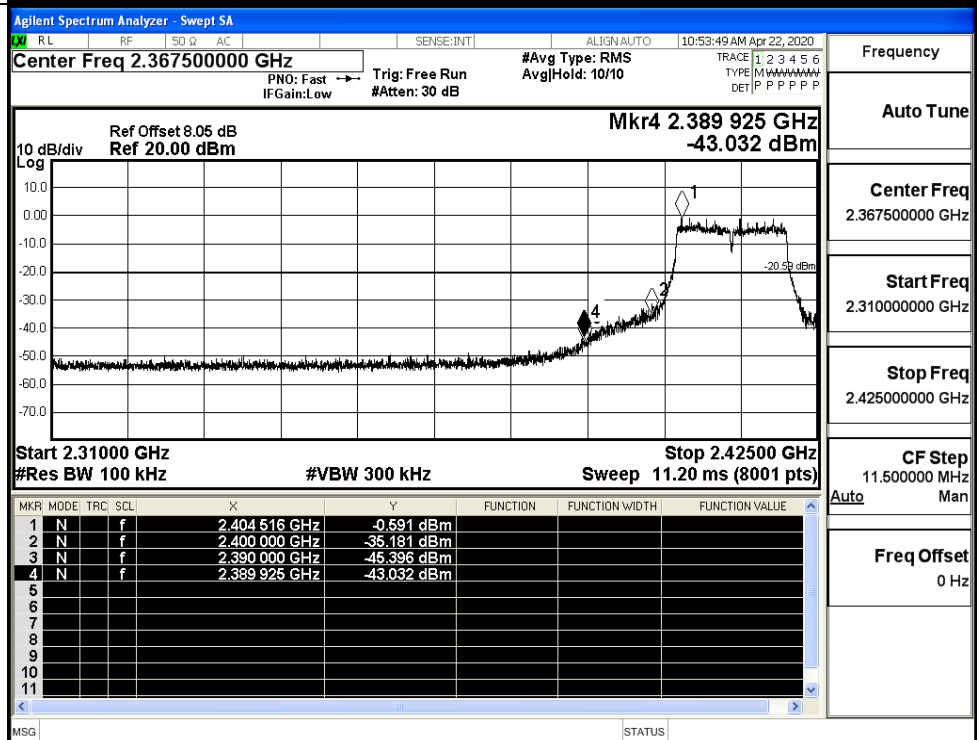
Test Graphs



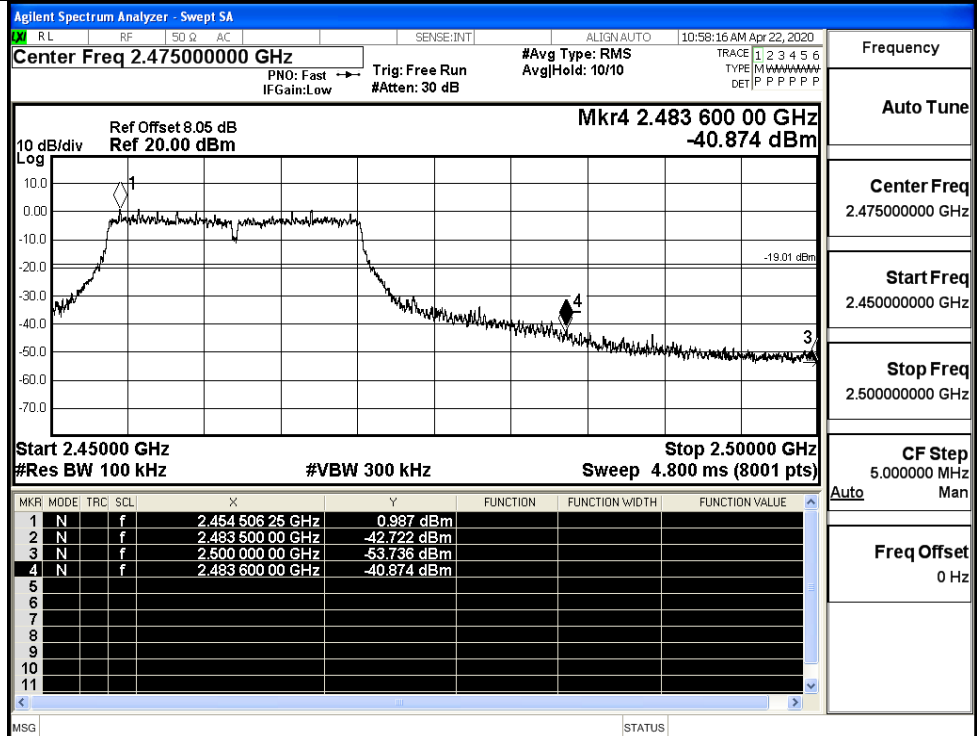
11B/HCH



11G/LCH



11G/HCH



Frequency

Auto Tune

Center Freq
2.475000000 GHz

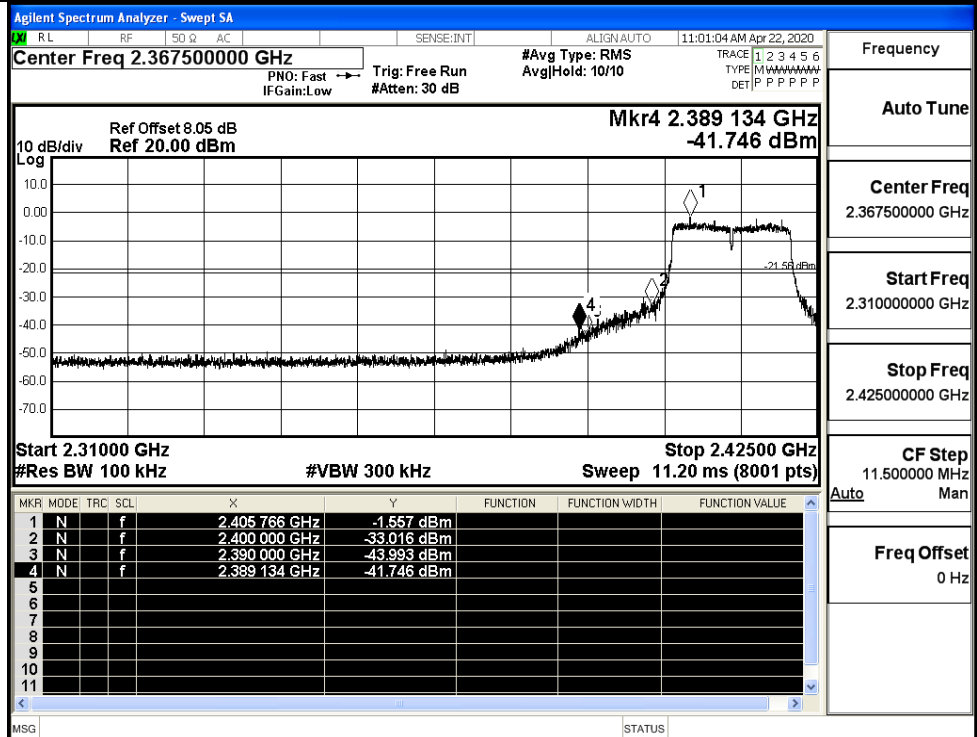
Start Freq
2.450000000 GHz

Stop Freq
2.500000000 GHz

CF Step
5.000000 MHz

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

Freq Offset
0 Hz

11N20SISO/HCH

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.475000000 GHz

PNO: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB #Avg Type: RMS Avg|Hold: 10/10

Ref Offset 8.05 dB Ref 20.00 dBm

Mkr4 2.484 512 50 GHz -41.019 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	2.463 256 25 GHz	0.286 dBm			
2	N		f	2.483 500 00 GHz	-42.148 dBm			
3	N		f	2.500 000 00 GHz	-52.455 dBm			
4	N		f	2.484 512 50 GHz	-41.019 dBm			

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

Center Freq 2.377500000 GHz

PNO: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB #Avg Type: RMS Avg|Hold: 10/10

Ref Offset 8.05 dB Ref 20.00 dBm

Mkr4 2.389 836 GHz -35.461 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	2.405 749 GHz	-35.601 dBm			
2	N		f	2.400 000 GHz	-35.821 dBm			
3	N		f	2.390 000 GHz	-40.138 dBm			
4	N		f	2.389 836 GHz	-35.461 dBm			

MSG STATUS

Frequency

Auto Tune

Center Freq
2.377500000 GHz

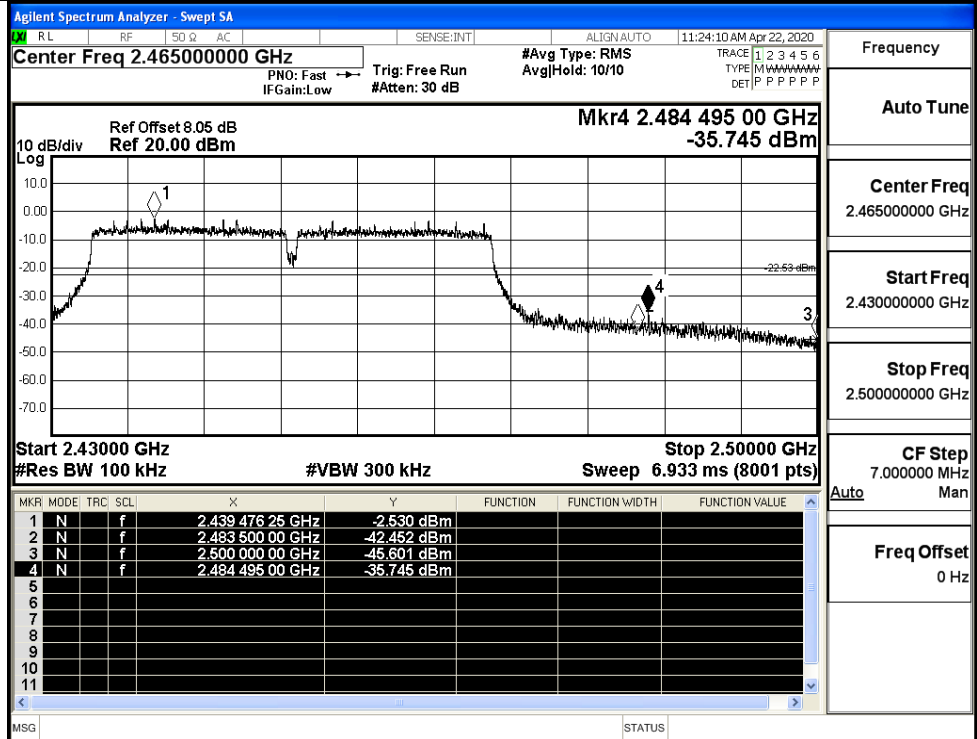
Start Freq
2.310000000 GHz

Stop Freq
2.445000000 GHz

CF Step
13.500000 MHz
Auto Man

Freq Offset
0 Hz

11N40SISO/HCH



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

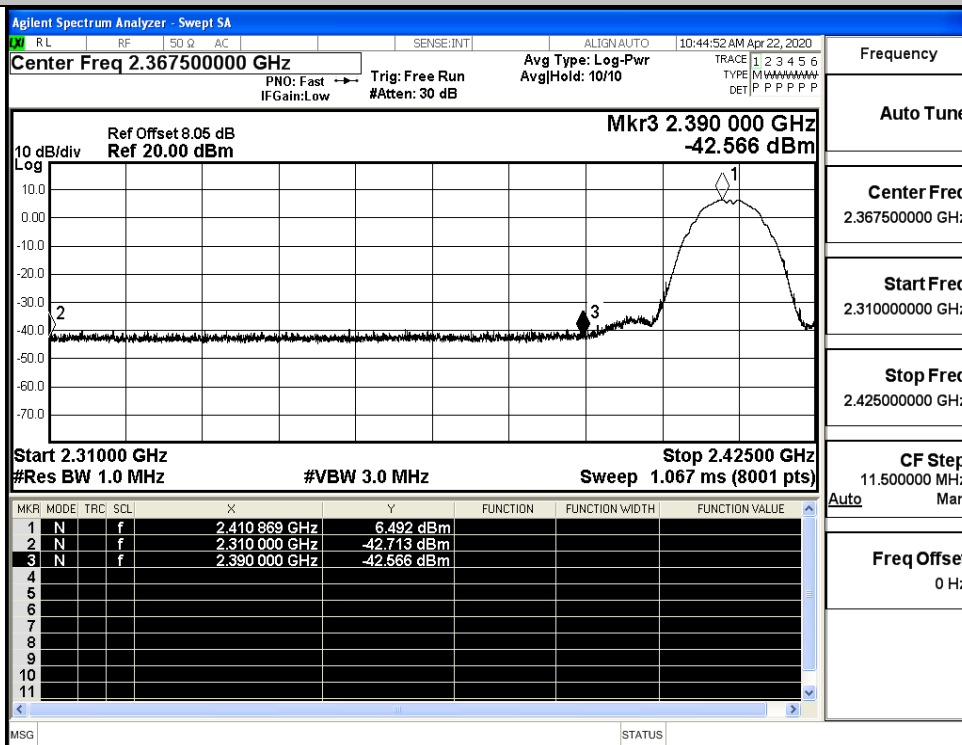
Freq Offset
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B.7 Restrict-band band-edge measurements

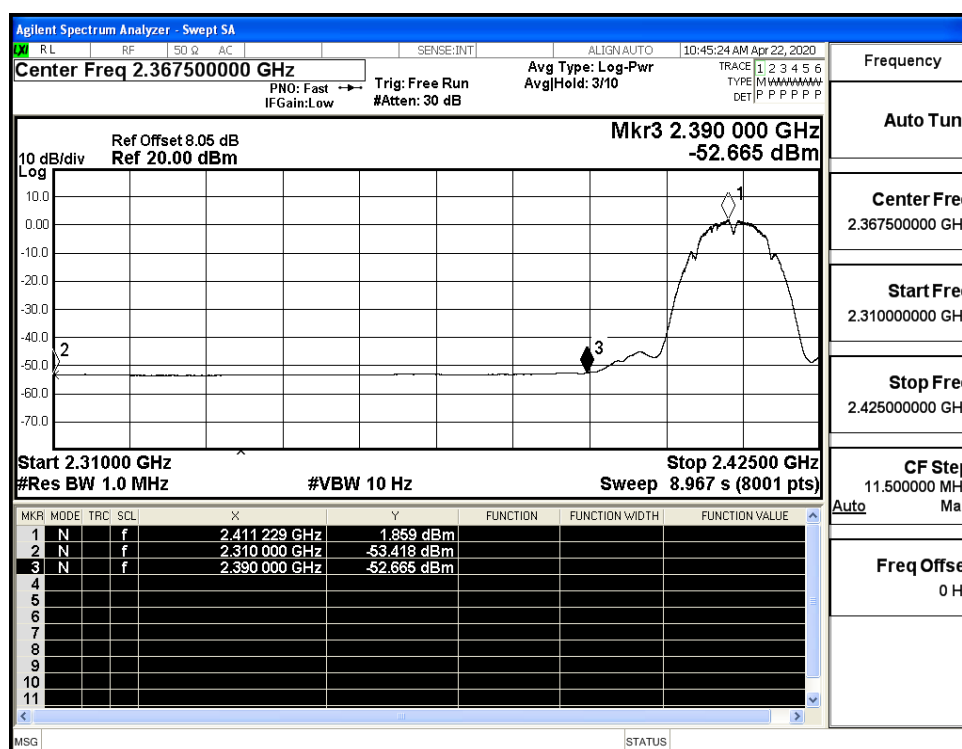
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-42.71	2.0	0	54.54	PEAK	74	PASS
	2412	Ant1	2310.0	-53.42	2.0	0	43.84	AV	54	PASS
	2412	Ant1	2390.0	-42.57	2.0	0	54.69	PEAK	74	PASS
	2412	Ant1	2390.0	-52.67	2.0	0	44.59	AV	54	PASS
	2462	Ant1	2483.5	-40.69	2.0	0	56.57	PEAK	74	PASS
	2462	Ant1	2483.5	-51.25	2.0	0	46.01	AV	54	PASS
	2462	Ant1	2500.0	-41.92	2.0	0	55.33	PEAK	74	PASS
	2462	Ant1	2500.0	-52.35	2.0	0	44.91	AV	54	PASS
11G	2412	Ant1	2310.0	-42.63	2.0	0	54.62	PEAK	74	PASS
	2412	Ant1	2310.0	-53.40	2.0	0	43.86	AV	54	PASS
	2412	Ant1	2390.0	-28.32	2.0	0	68.94	PEAK	74	PASS
	2412	Ant1	2390.0	-47.61	2.0	0	49.65	AV	54	PASS
	2462	Ant1	2483.5	-31.51	2.0	0	65.75	PEAK	74	PASS
	2462	Ant1	2483.5	-46.50	2.0	0	50.76	AV	54	PASS
	2462	Ant1	2500.0	-40.67	2.0	0	56.59	PEAK	74	PASS
	2462	Ant1	2500.0	-52.17	2.0	0	45.08	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-43.52	2.0	0	53.74	PEAK	74	PASS
	2412	Ant1	2310.0	-53.37	2.0	0	43.89	AV	54	PASS
	2412	Ant1	2390.0	-29.99	2.0	0	67.27	PEAK	74	PASS
	2412	Ant1	2390.0	-45.78	2.0	0	51.48	AV	54	PASS
	2462	Ant1	2483.5	-31.91	2.0	0	65.34	PEAK	74	PASS
	2462	Ant1	2483.5	-44.62	2.0	0	52.63	AV	54	PASS
	2462	Ant1	2500.0	-42.01	2.0	0	55.25	PEAK	74	PASS
	2462	Ant1	2500.0	-52.05	2.0	0	45.21	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-43.10	2.0	0	54.16	PEAK	74	PASS
	2422	Ant1	2310.0	-53.46	2.0	0	43.80	AV	54	PASS

	2422	Ant1	2390.0	-28.99	2.0	0	68.27	PEAK	74	PASS
	2422	Ant1	2390.0	-44.37	2.0	0	52.89	AV	54	PASS
	2452	Ant1	2483.5	-32.74	2.0	0	64.52	PEAK	74	PASS
	2452	Ant1	2483.5	-44.73	2.0	0	52.53	AV	54	PASS
	2452	Ant1	2500.0	-38.44	2.0	0	58.82	PEAK	74	PASS
	2452	Ant1	2500.0	-49.89	2.0	0	47.37	AV	54	PASS

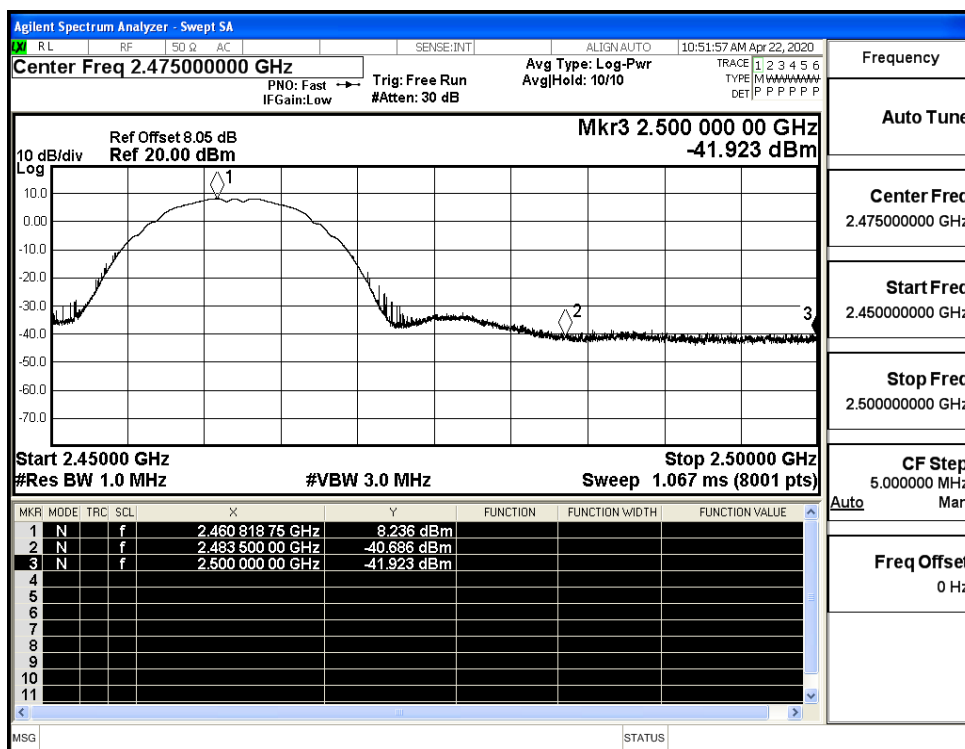
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



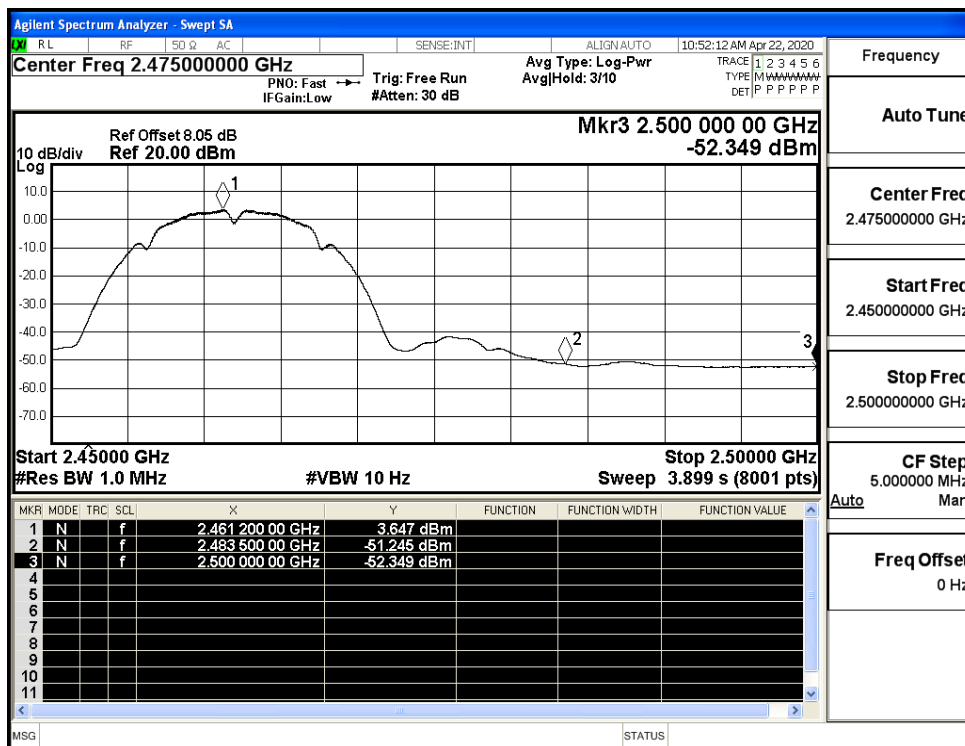
Restrict-band band-edge measurements_11B_2412_Ant1_AV



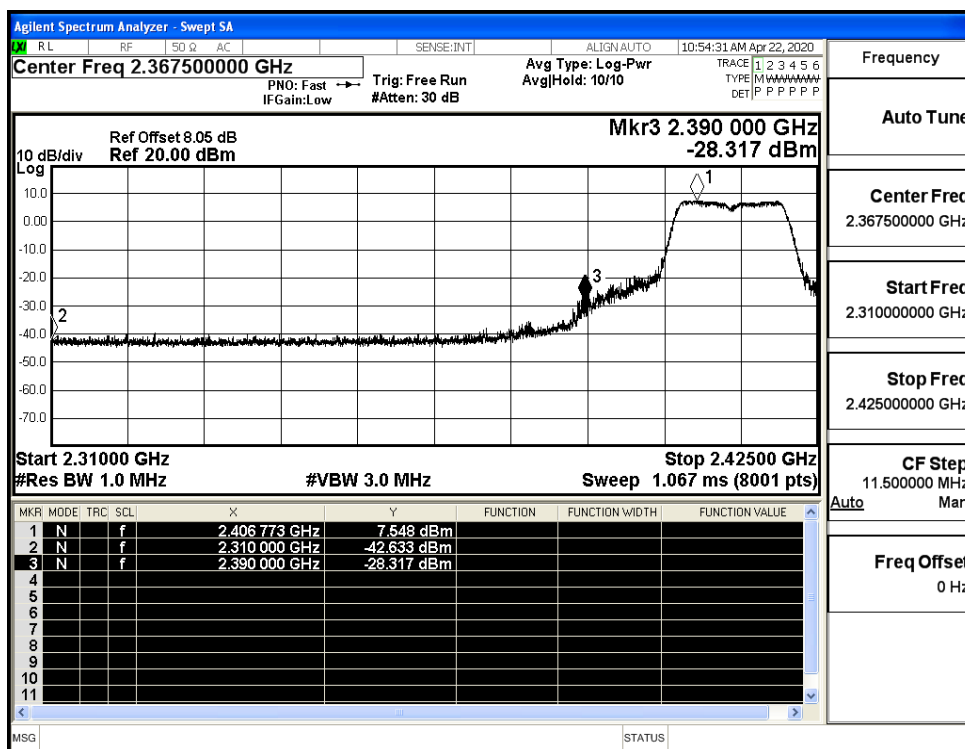
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



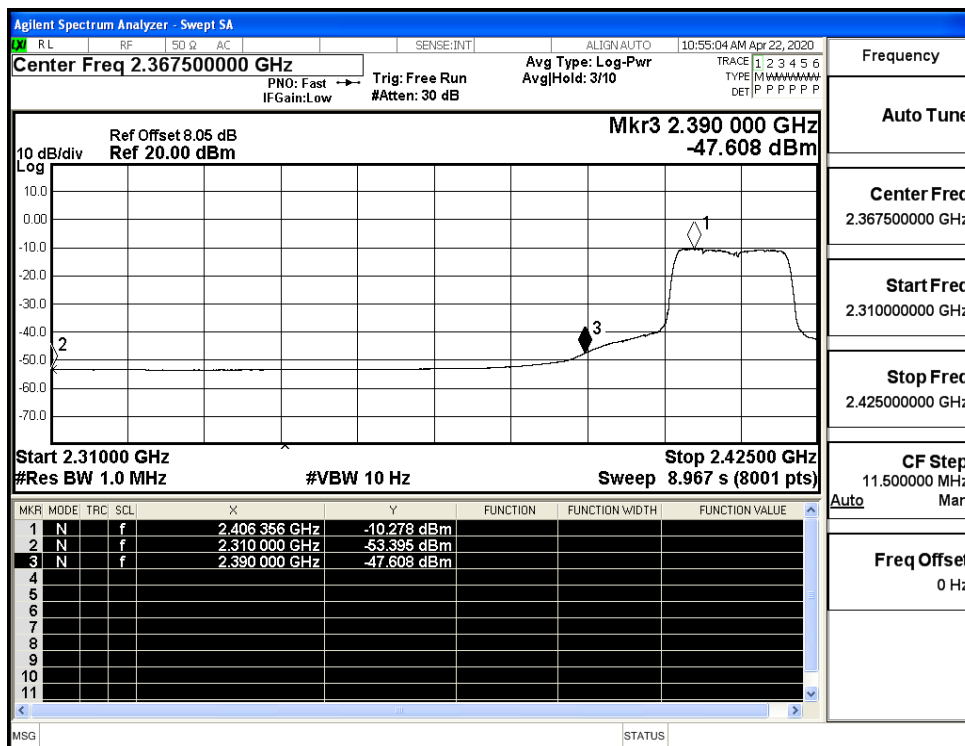
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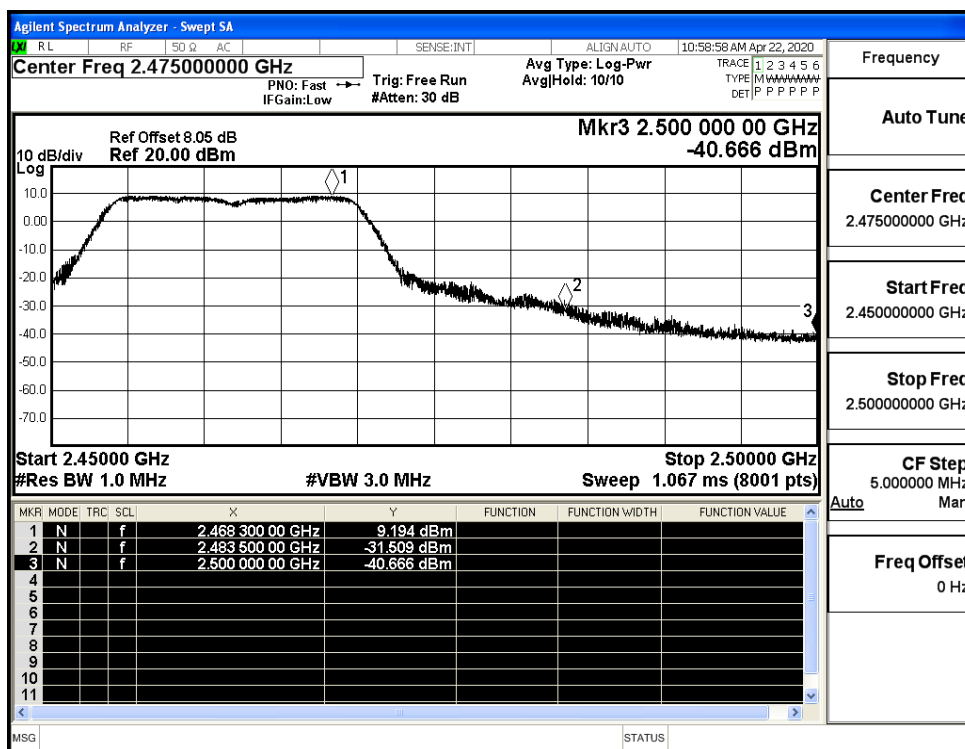
Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



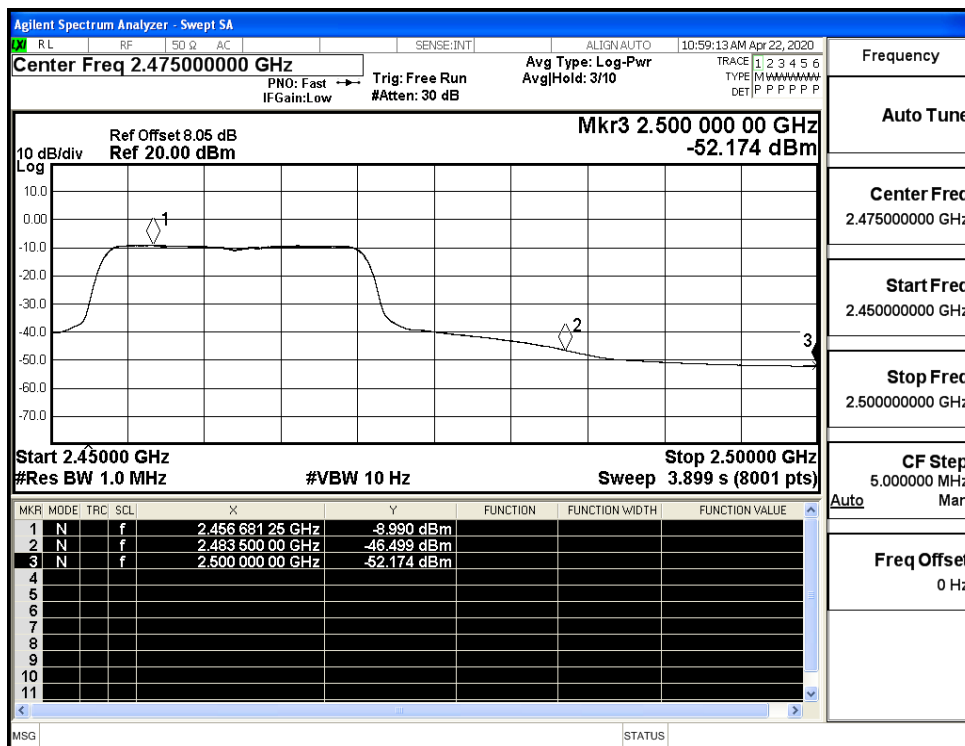
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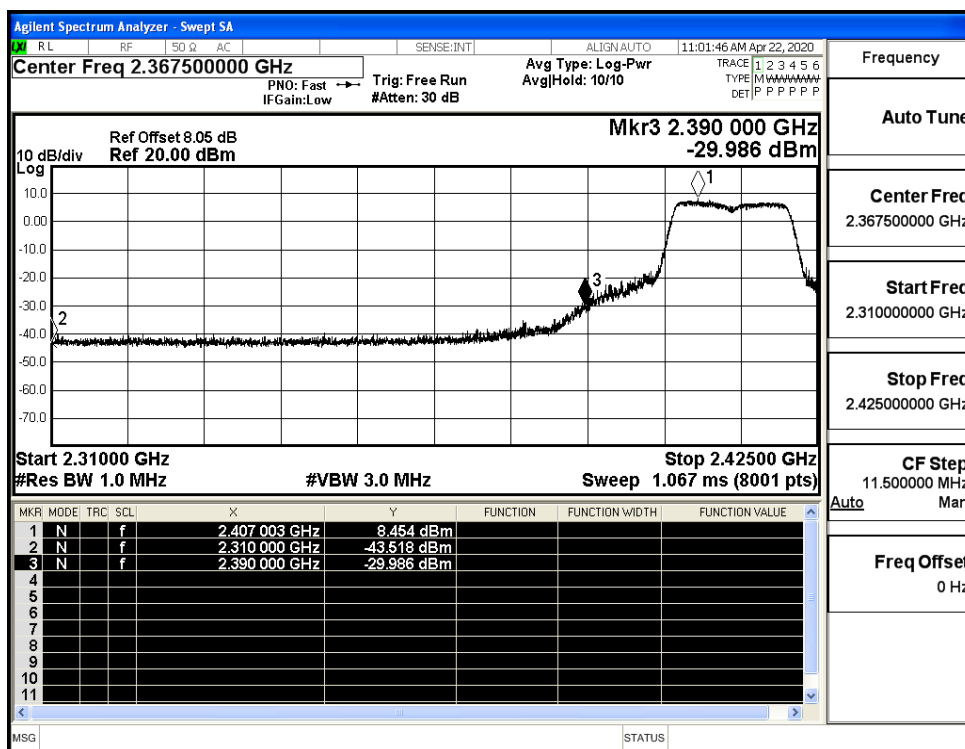
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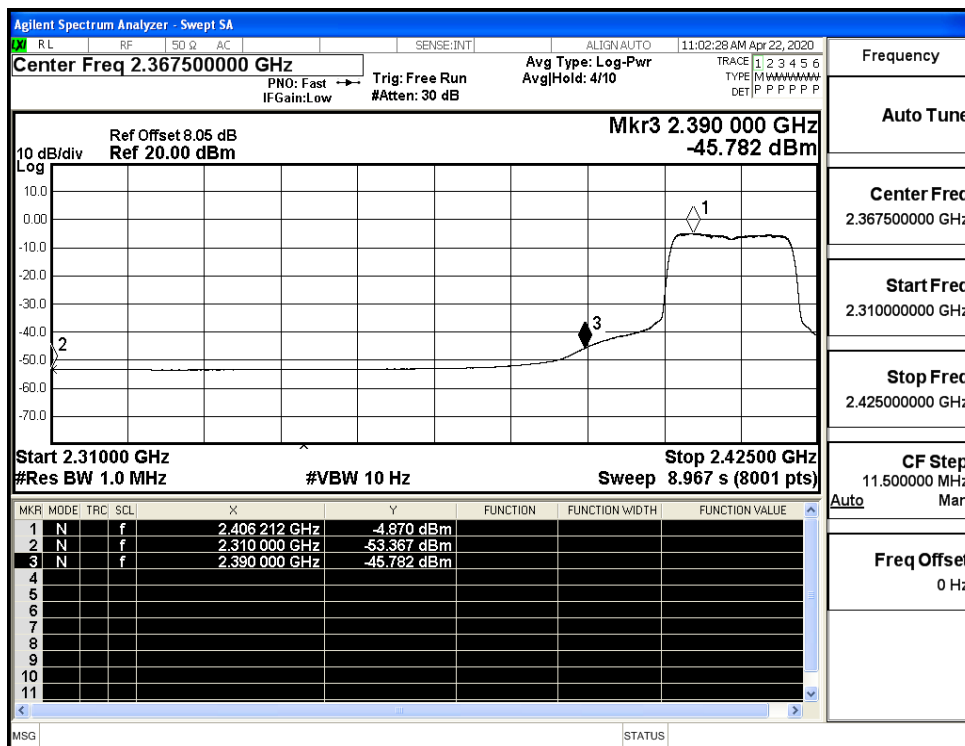
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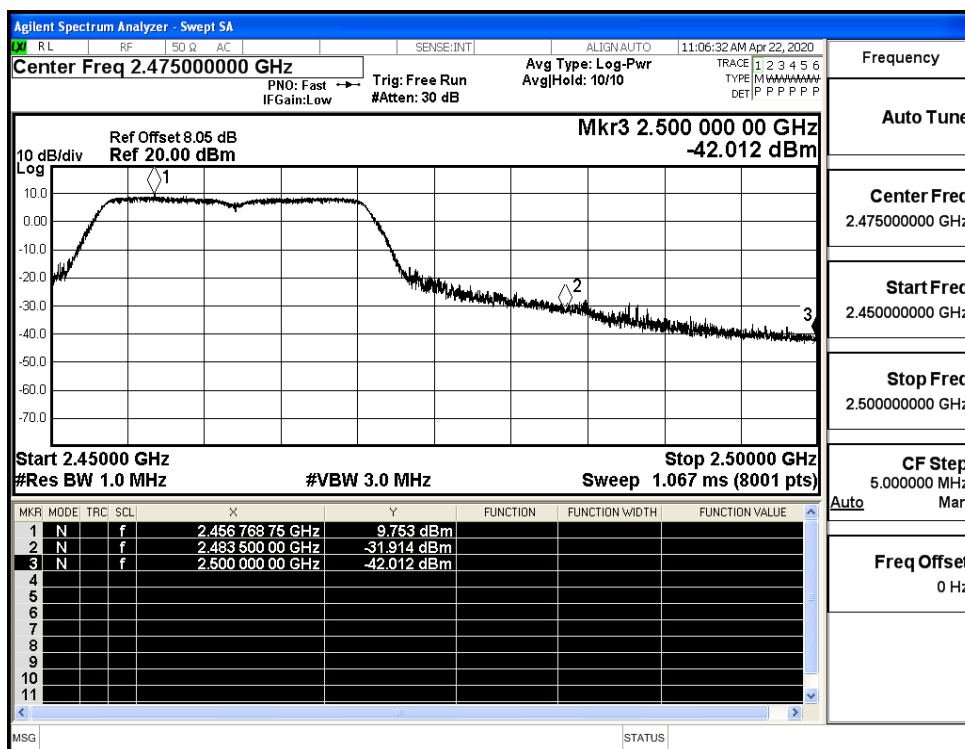
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



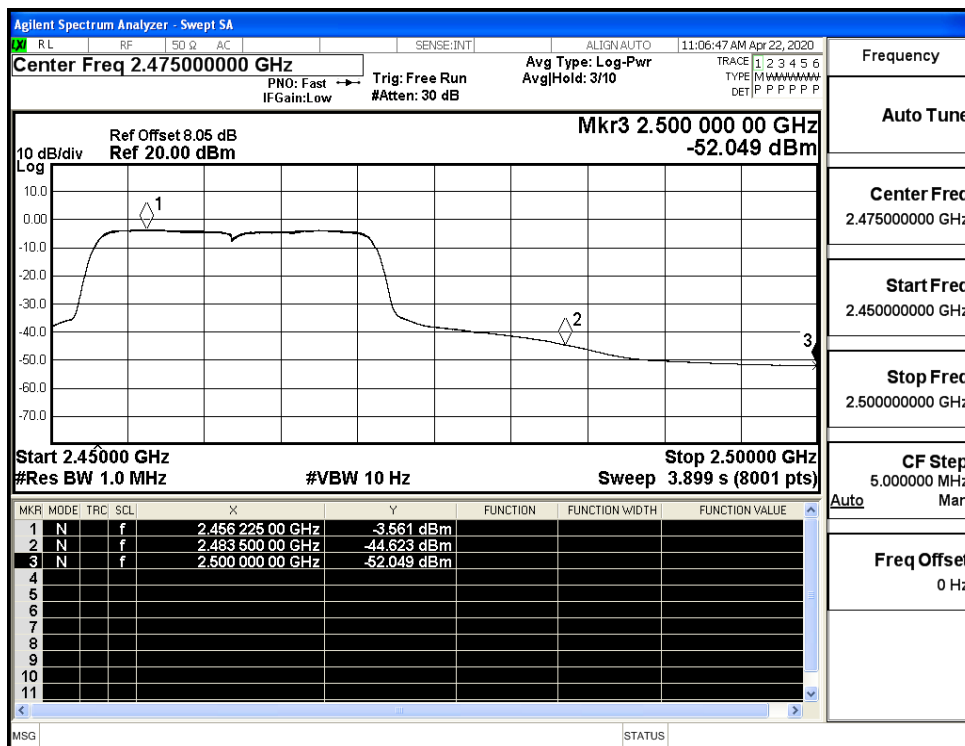
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_AV



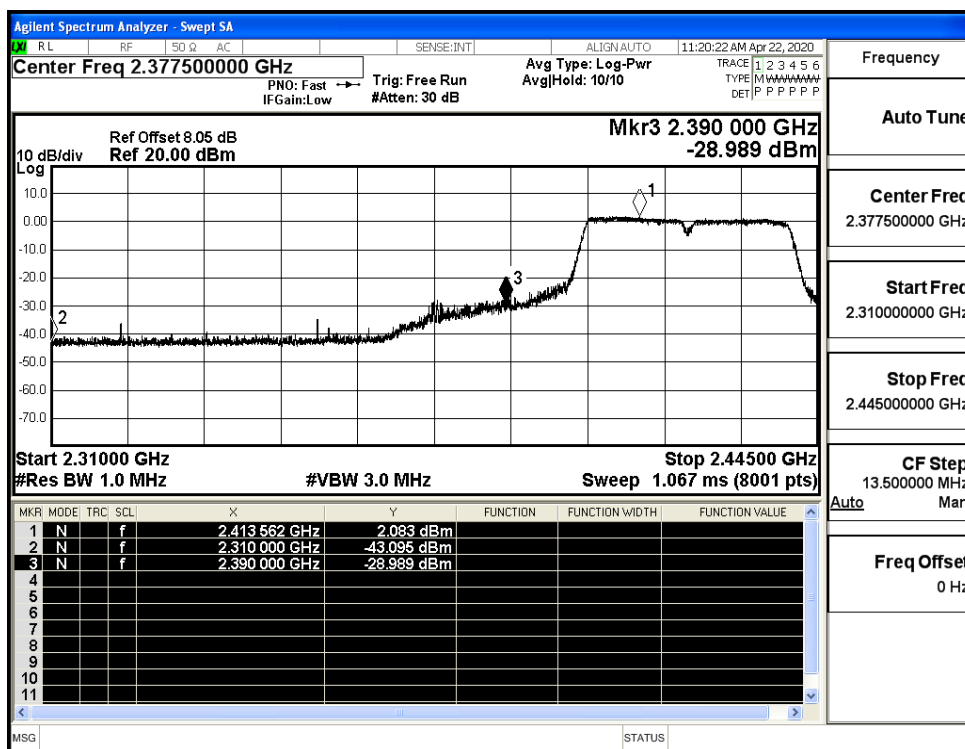
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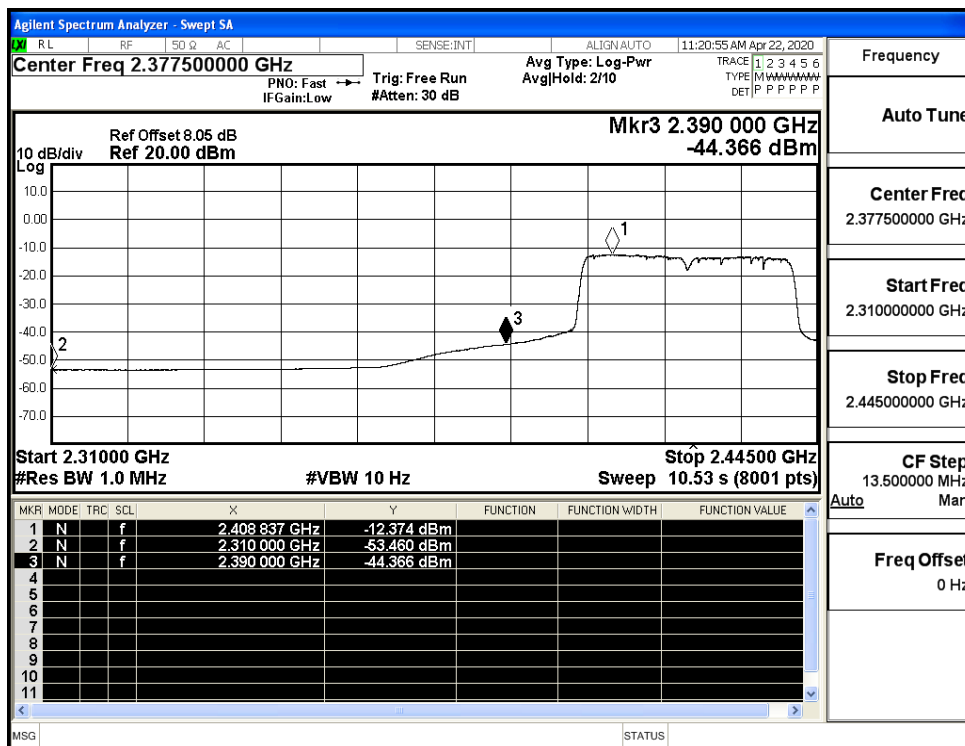
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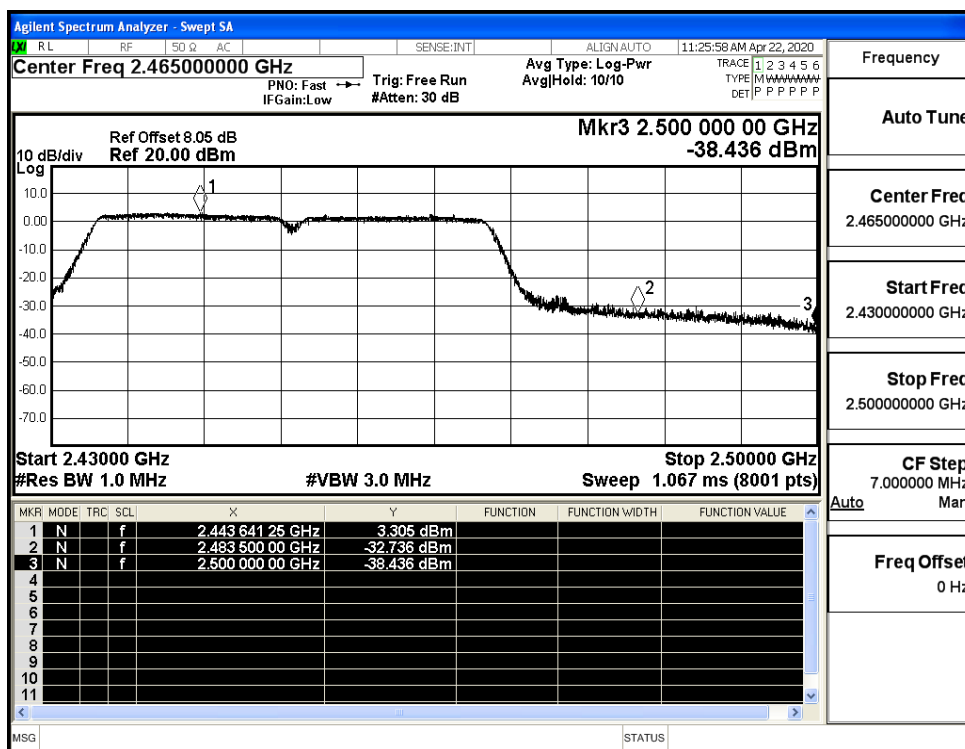
Restrict-band band-edge measurements_11N40SISO_2422_Ant1_PEAK



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

