

Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Car intelligent Diagnosis

Trade Mark: XTOOL

Test Model: H6 PRO

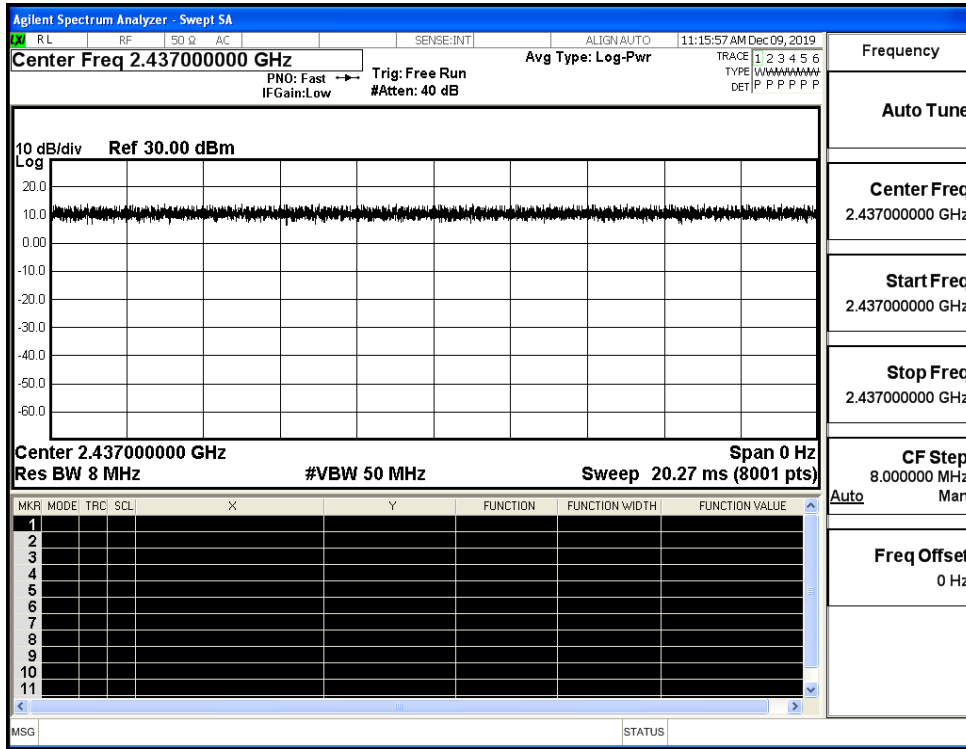
Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	53.1%
ATM Pressure:	100.0 kPa
Test Engineer:	JK Zhou
Supervised by:	Li Huan

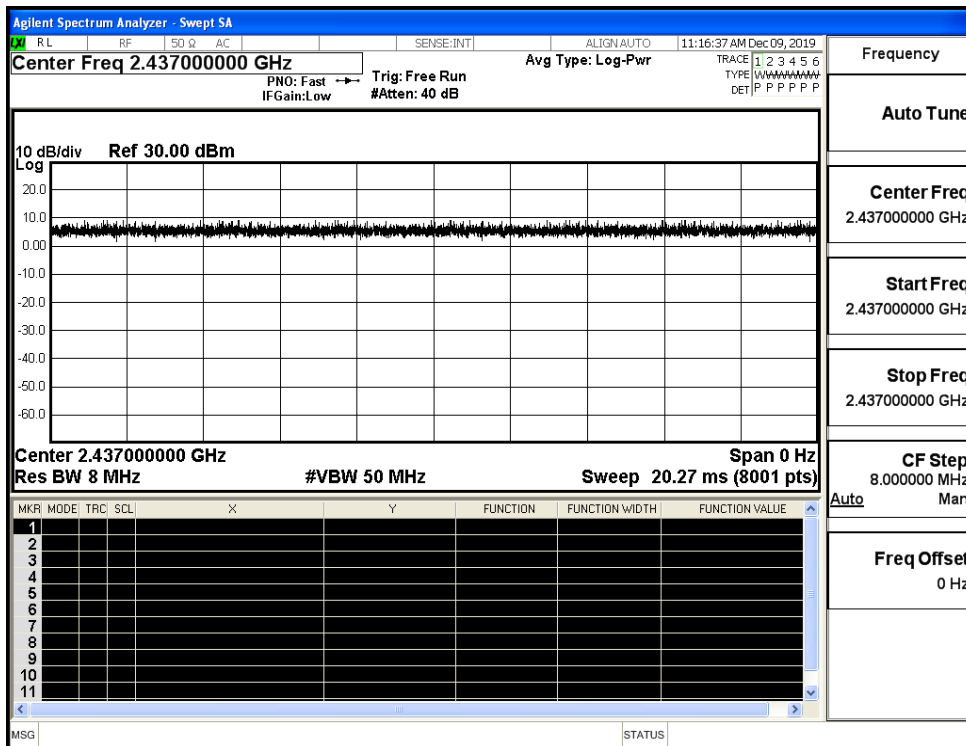
C.1 Duty Cycle

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_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1

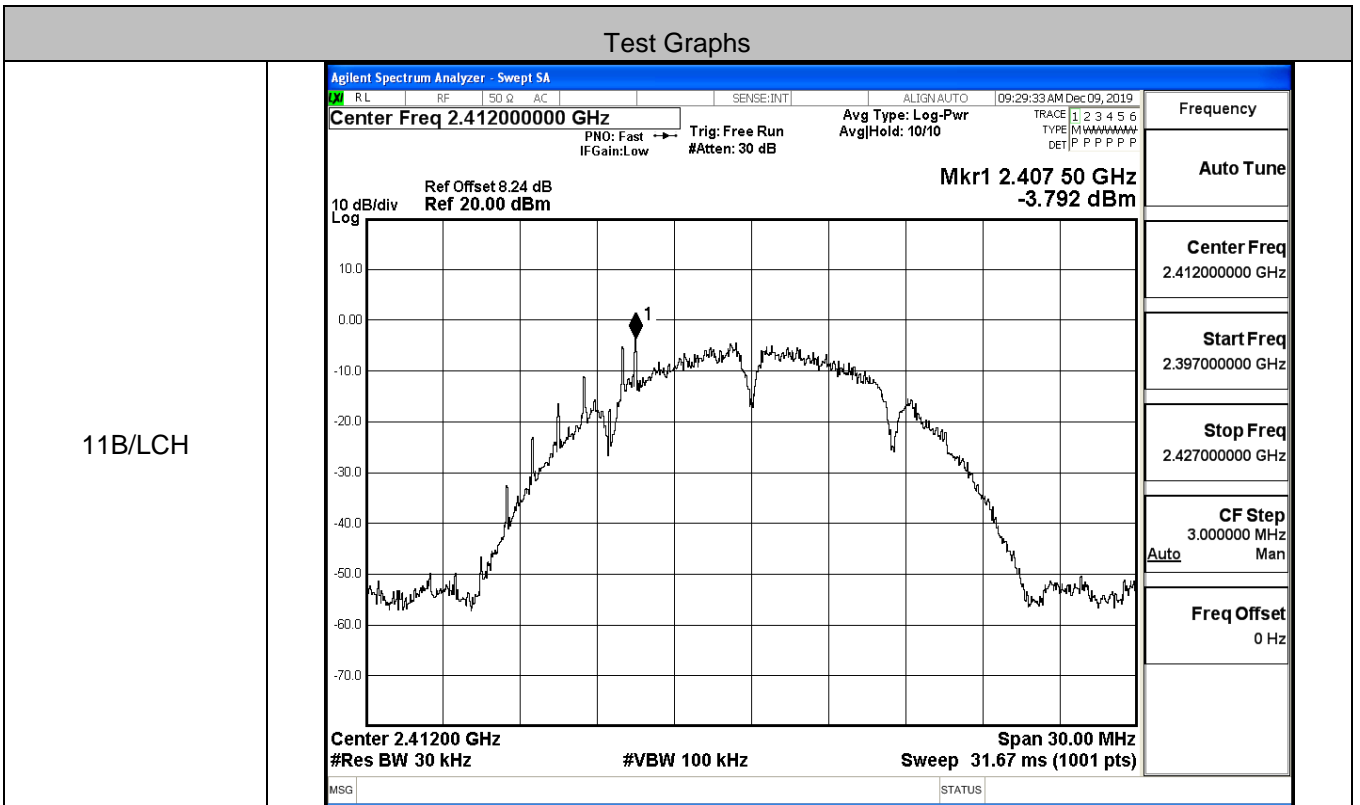


C.2 Maximum Conducted Output Power

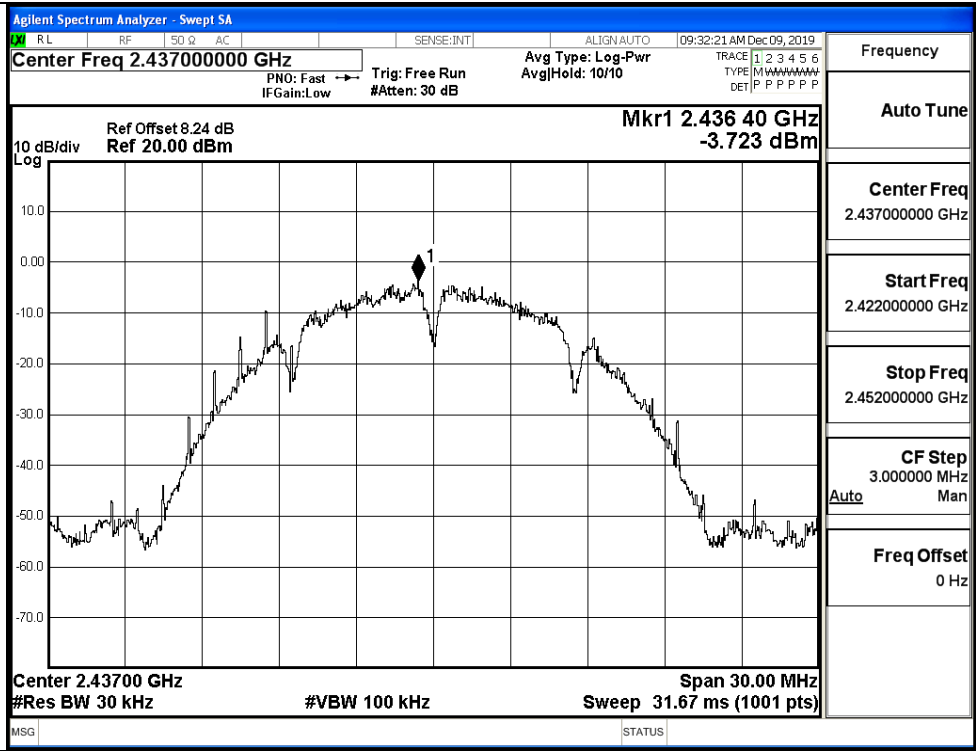
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	8.75	30	PASS
	MCH	8.11	30	PASS
	HCH	7.63	30	PASS
11G	LCH	8.54	30	PASS
	MCH	7.96	30	PASS
	HCH	7.55	30	PASS
11N20SISO	LCH	5.46	30	PASS
	MCH	6.92	30	PASS
	HCH	7.44	30	PASS
11N40SISO	LCH	5.94	30	PASS
	MCH	7.22	30	PASS
	HCH	6.32	30	PASS

C.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/30KHz]	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-3.792	-13.792	8	PASS
	MCH	-3.723	-13.723	8	PASS
	HCH	2.373	-7.627	8	PASS
11G	LCH	-11.495	-21.495	8	PASS
	MCH	-11.172	-21.172	8	PASS
	HCH	-10.867	-20.867	8	PASS
11N20SISO	LCH	-10.089	-20.089	8	PASS
	MCH	-10.099	-20.099	8	PASS
	HCH	-9.495	-19.495	8	PASS
11N40SISO	LCH	-14.188	-24.188	8	PASS
	MCH	-13.734	-23.734	8	PASS
	HCH	-13.088	-23.088	8	PASS



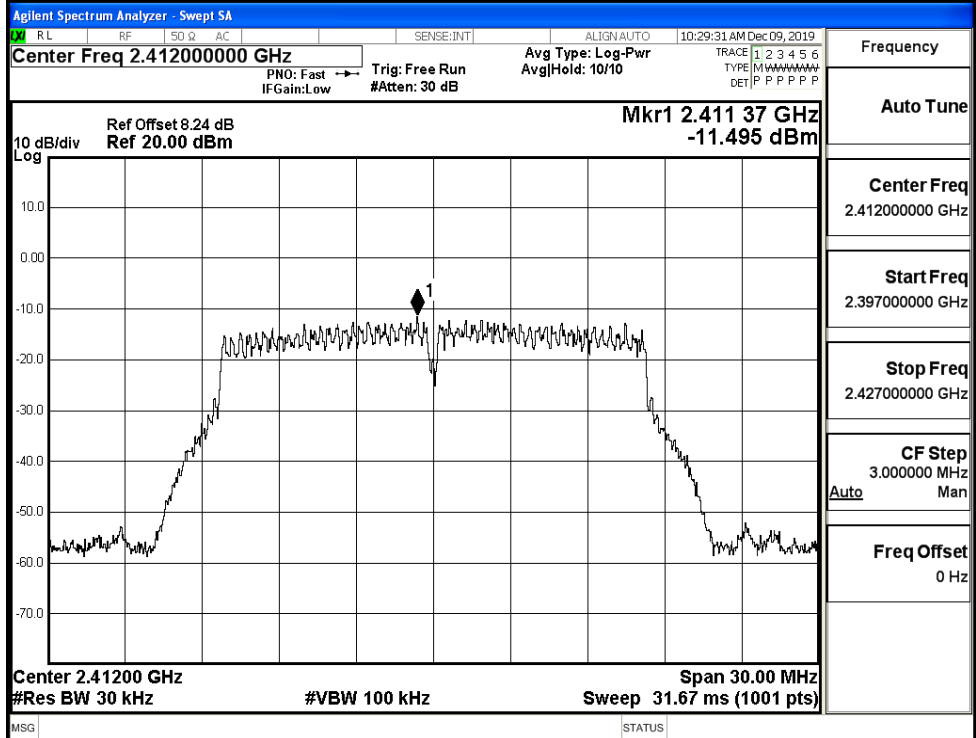
11B/MCH



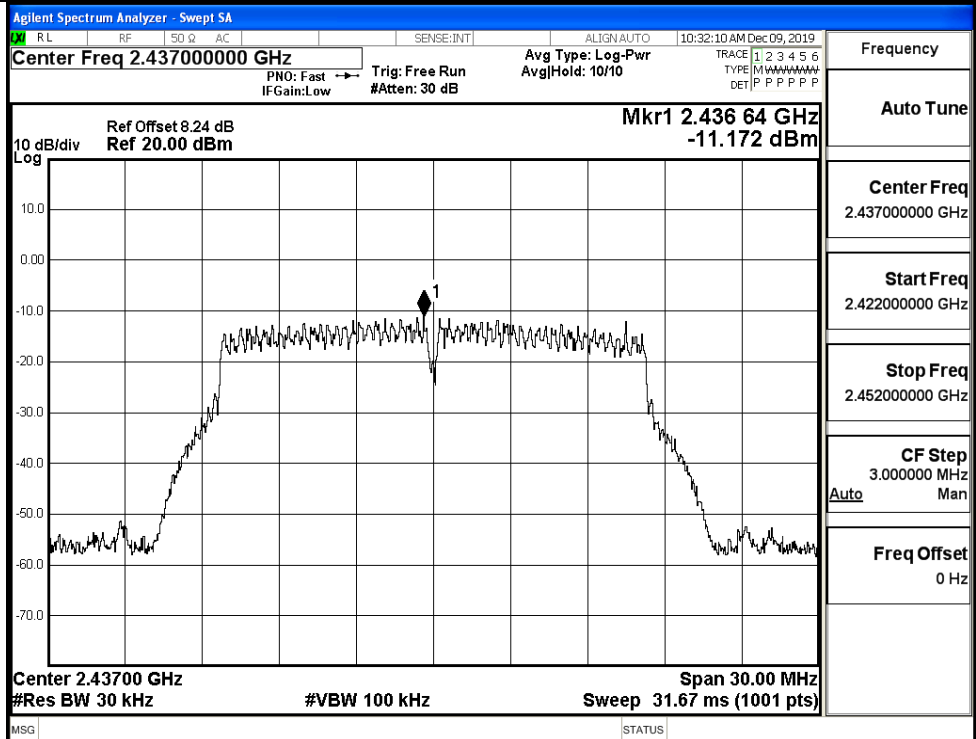
11B/HCH



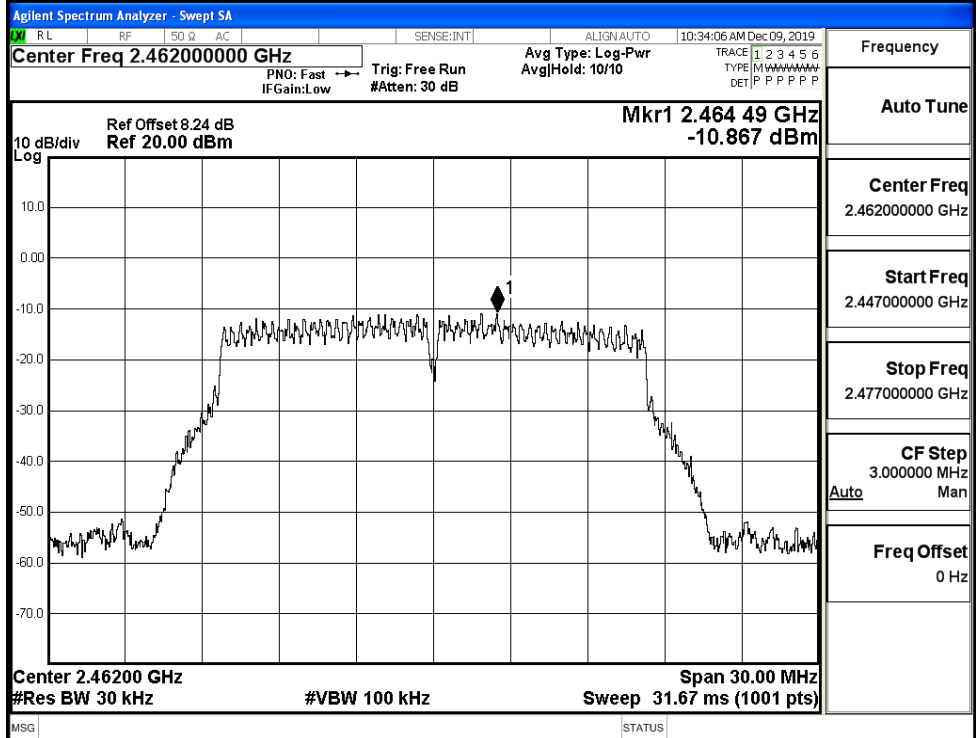
11G/LCH



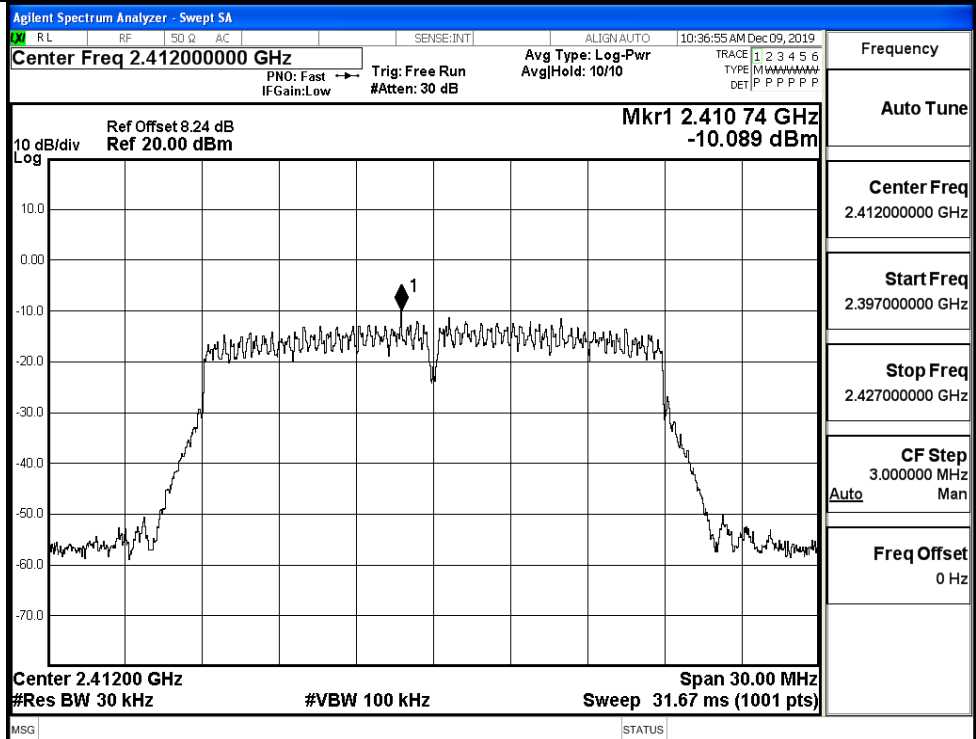
11G/MCH



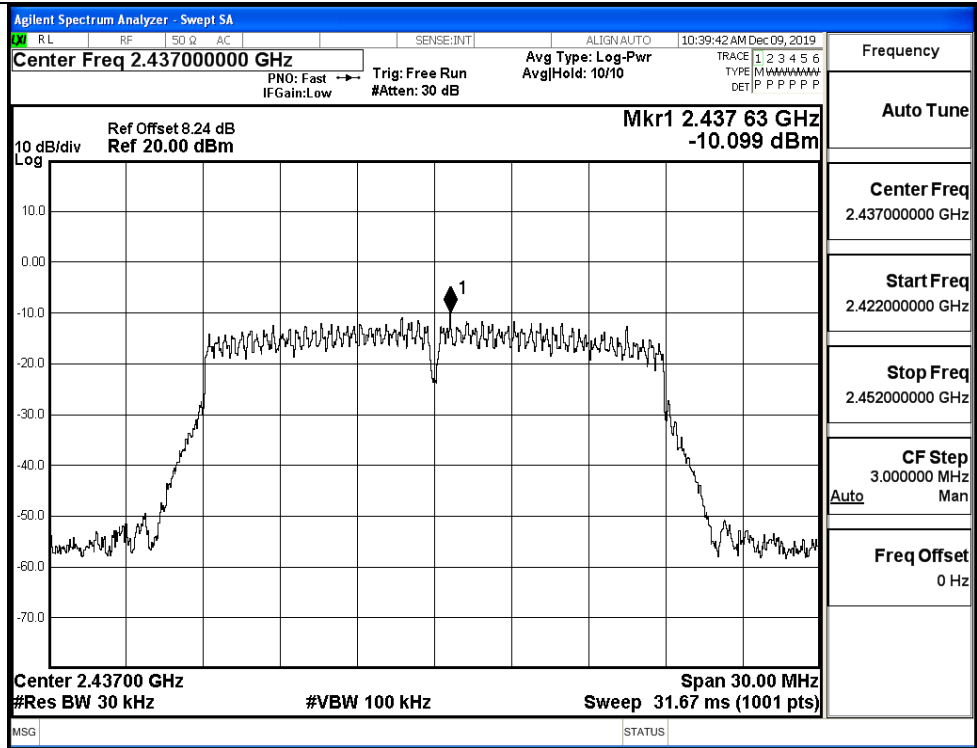
11G/HCH



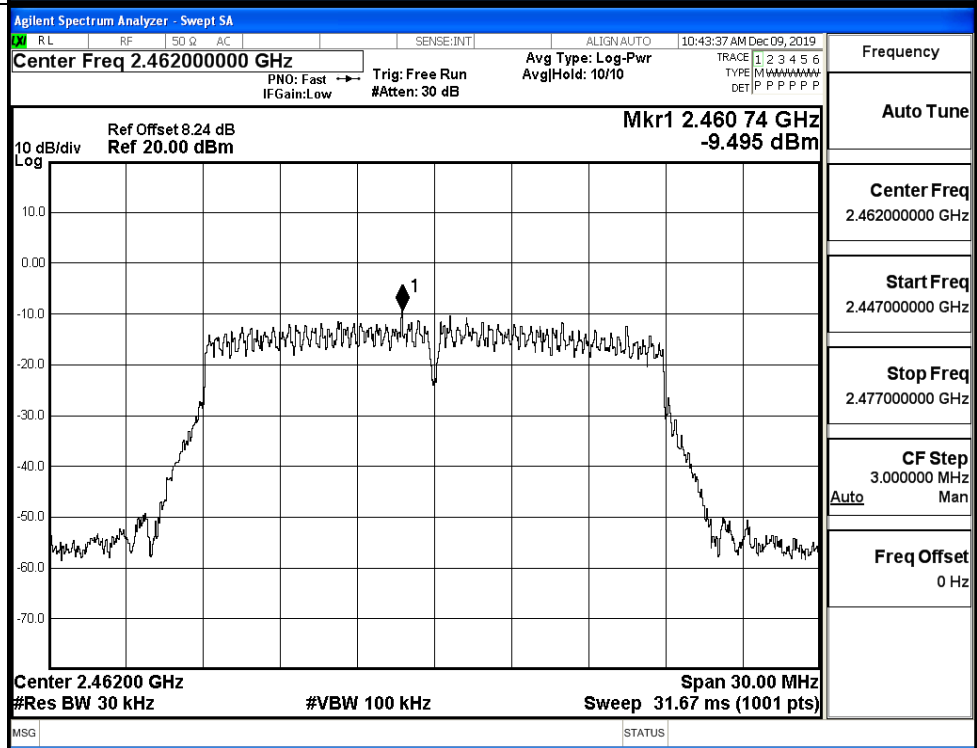
11N20SISO/LCH



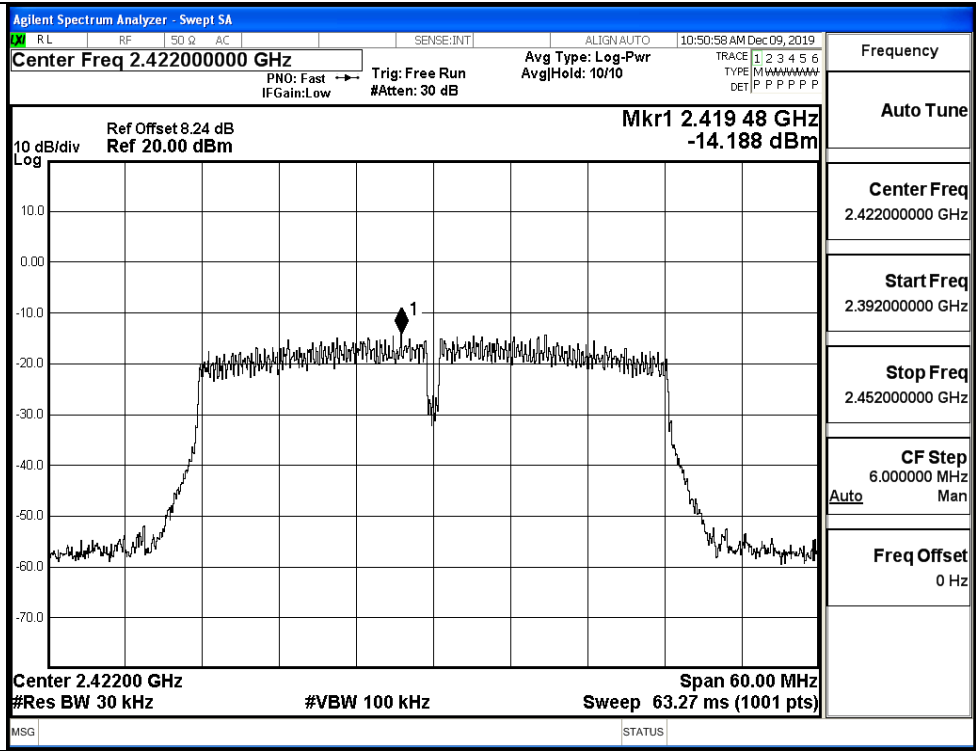
11N20SISO/MCH



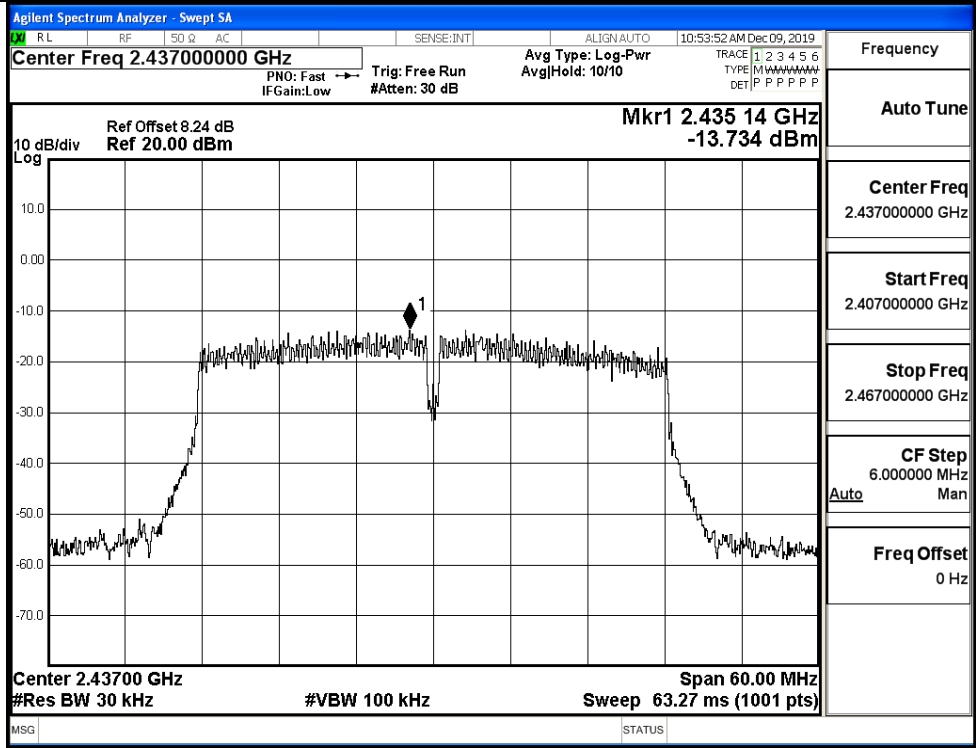
11N20SISO/HCH



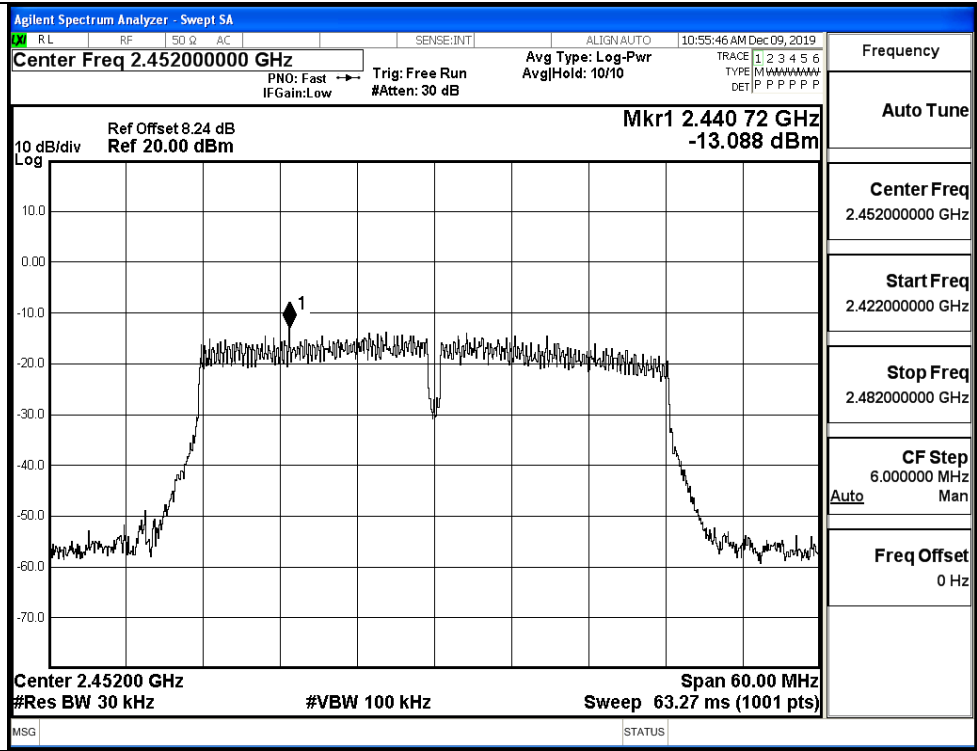
11N40SISO/LCH



11N40SISO/MCH

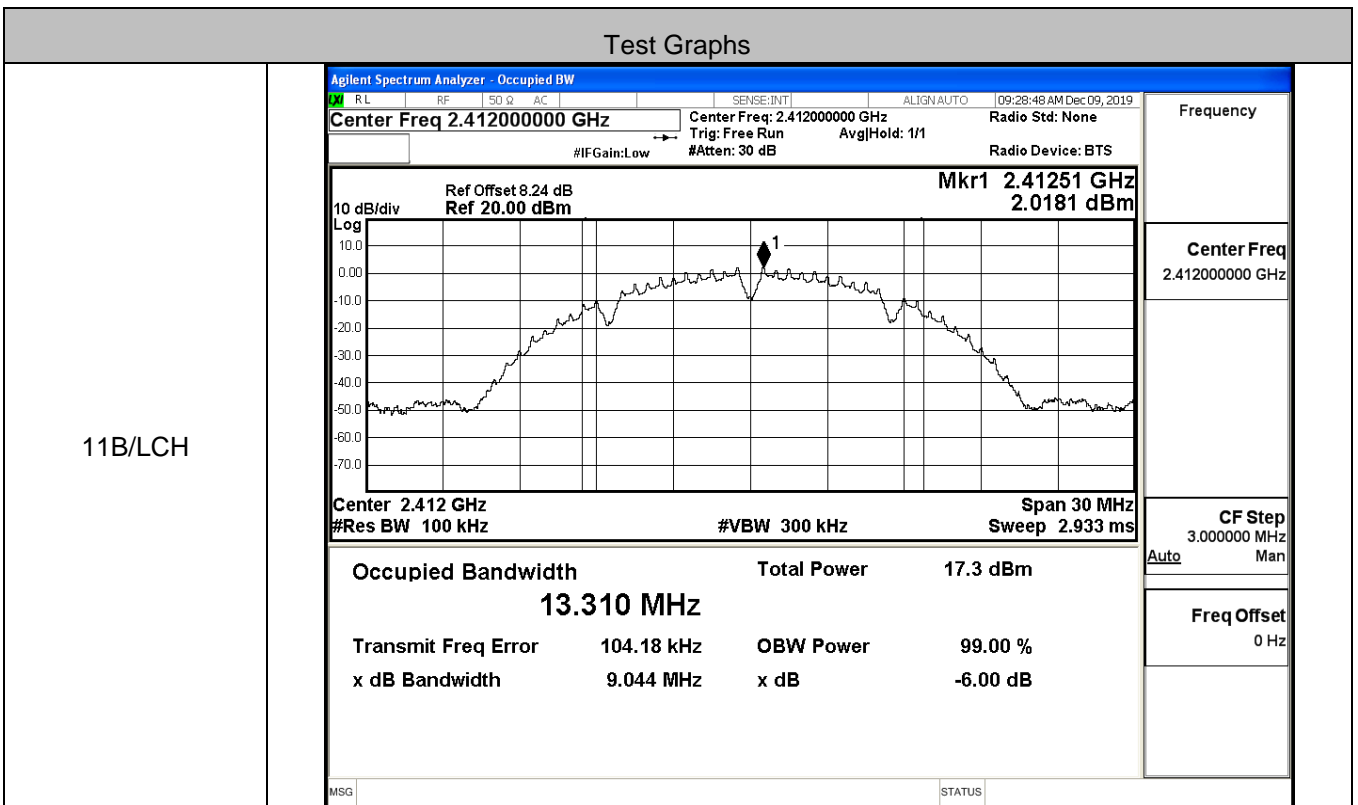


11N40SISO/HCH

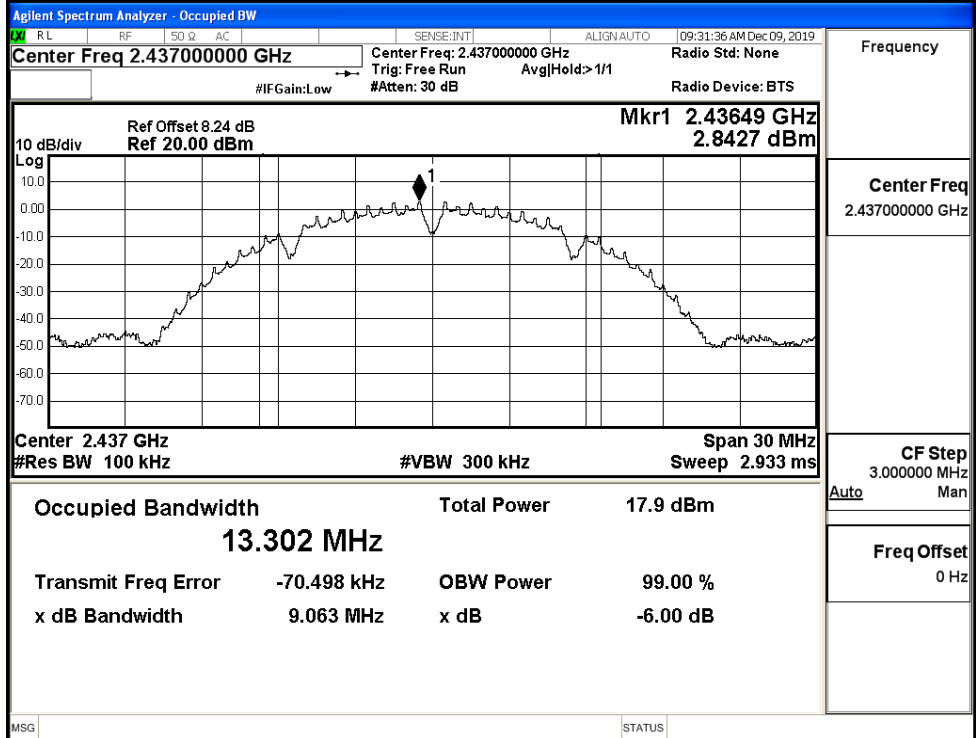


C.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.044	≥0.5	PASS
	MCH	9.063	≥0.5	PASS
	HCH	9.050	≥0.5	PASS
11G	LCH	15.46	≥0.5	PASS
	MCH	15.44	≥0.5	PASS
	HCH	15.50	≥0.5	PASS
11N20SISO	LCH	15.96	≥0.5	PASS
	MCH	15.48	≥0.5	PASS
	HCH	16.79	≥0.5	PASS
11N40SISO	LCH	35.18	≥0.5	PASS
	MCH	35.19	≥0.5	PASS
	HCH	35.48	≥0.5	PASS



11B/MCH



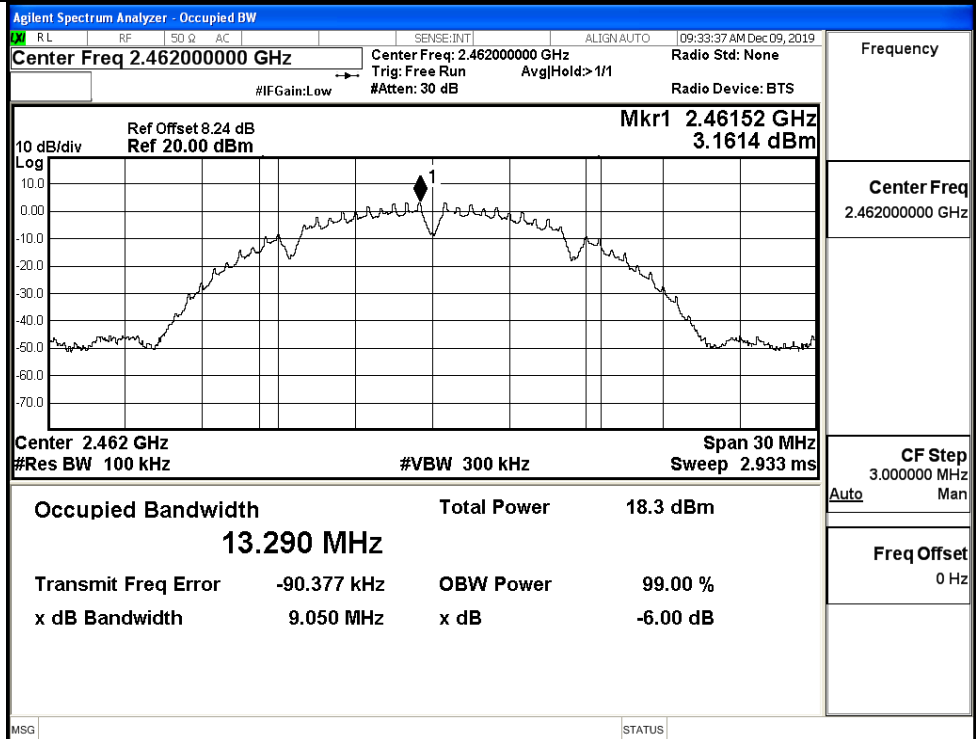
Frequency

Center Freq
2.43700000 GHz

CF Step
3.000000 MHz

Freq Offset
0 Hz

11B/HCH



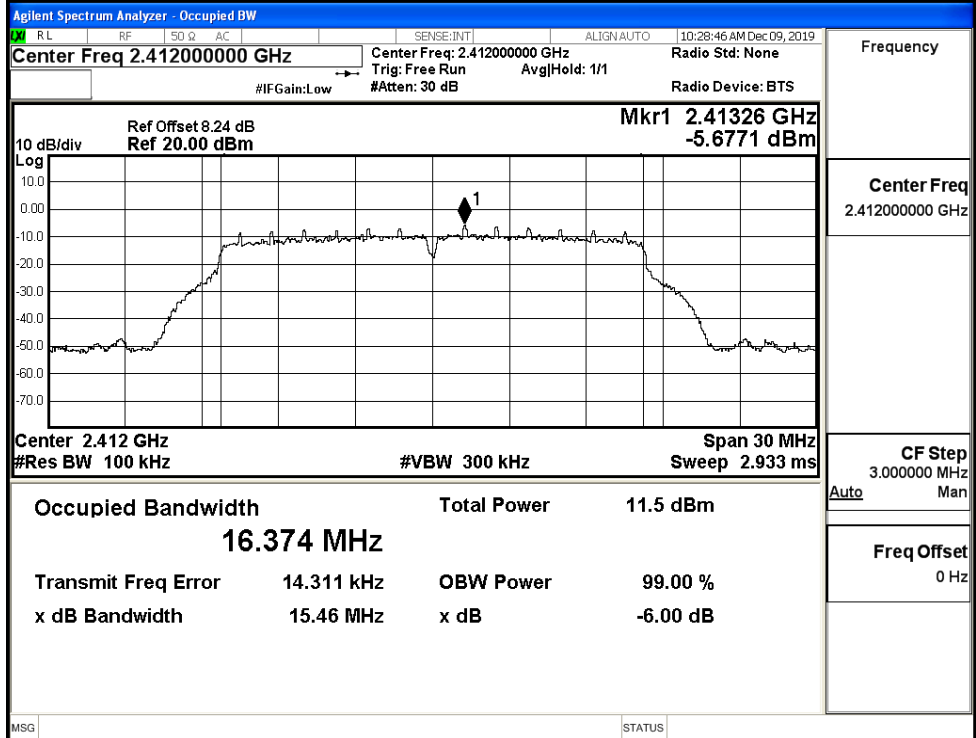
Frequency

Center Freq
2.46200000 GHz

CF Step
3.000000 MHz

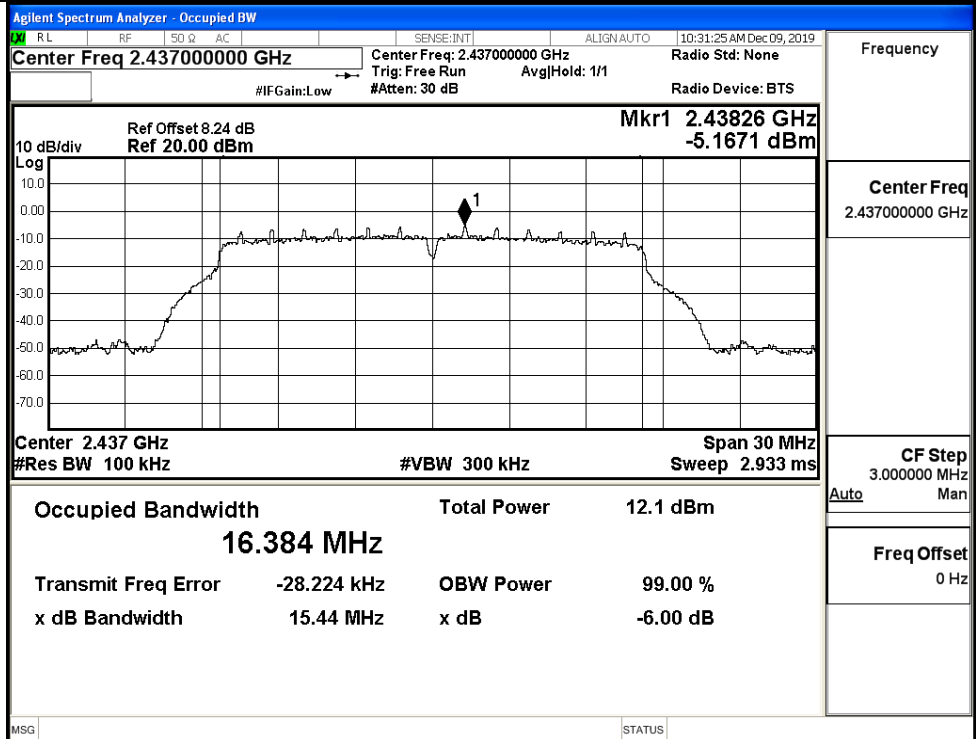
Freq Offset
0 Hz

11G/LCH



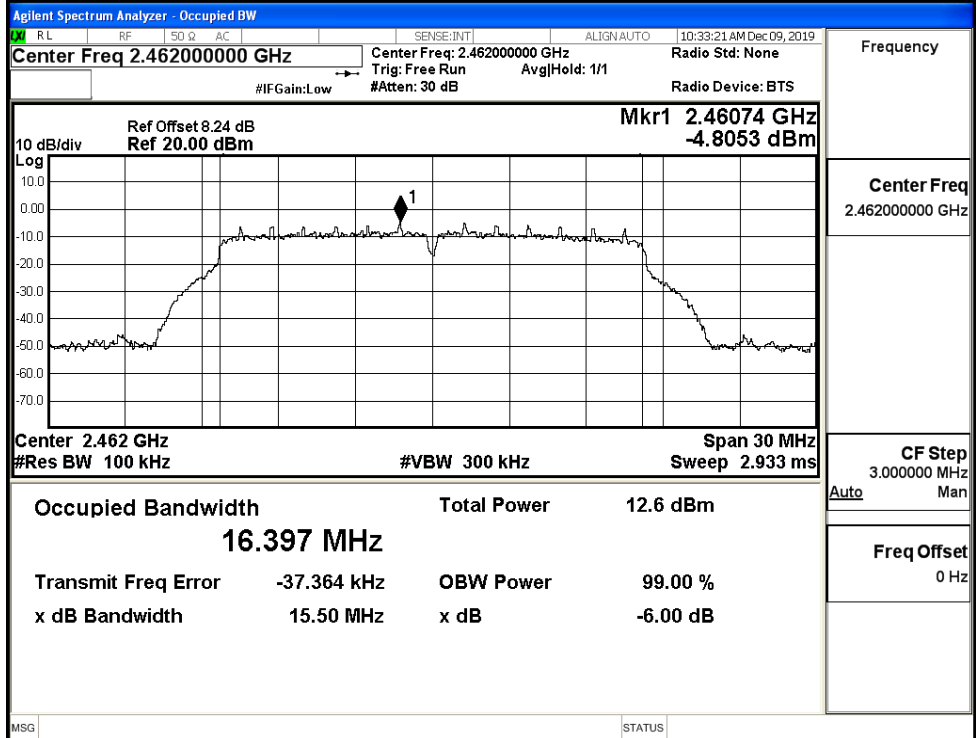
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Center Freq	2.41200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11G/MCH



Frequency	2.43700000 GHz
Center Freq	2.43700000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11G/HCH



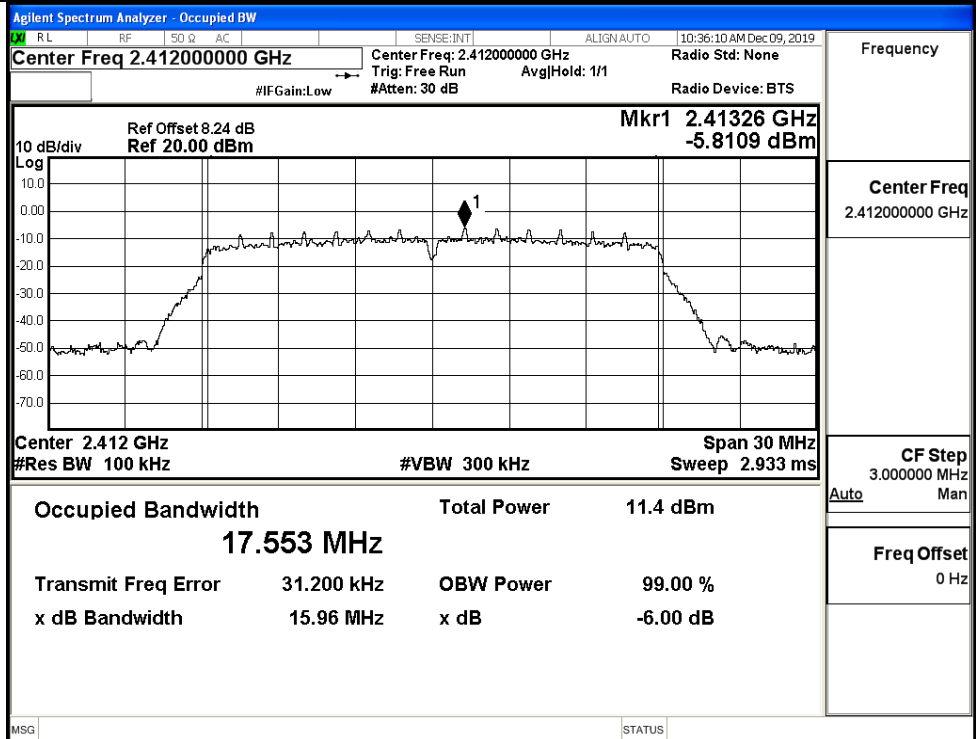
Frequency

Center Freq
2.46200000 GHz

CF Step
3.000000 MHz

Freq Offset
0 Hz

11N20SISO/LCH



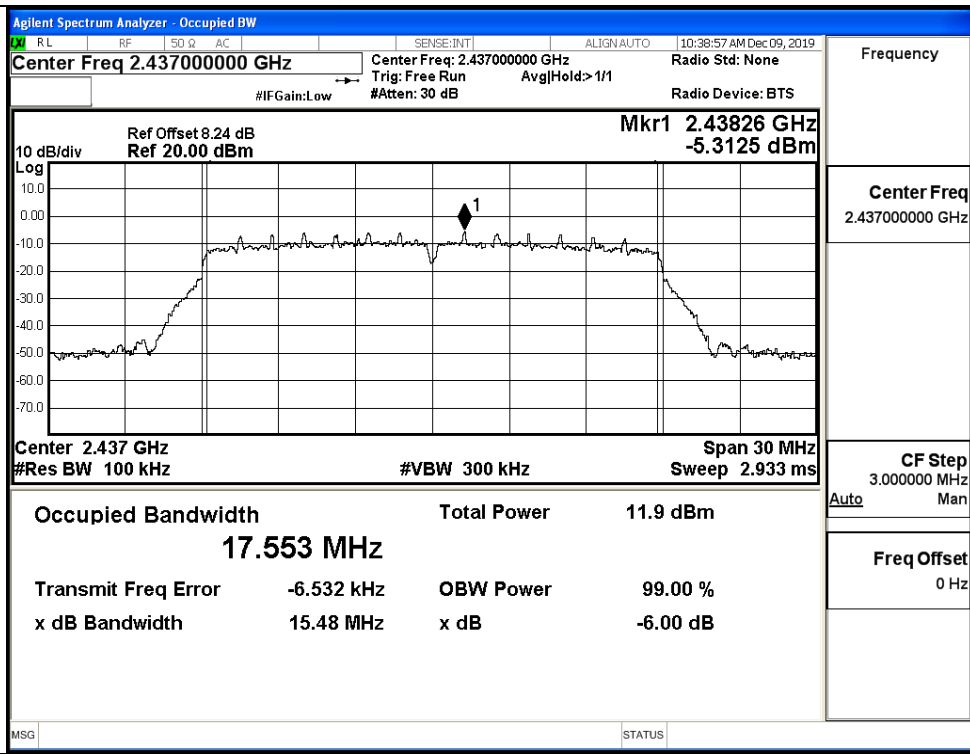
Frequency

Center Freq
2.41200000 GHz

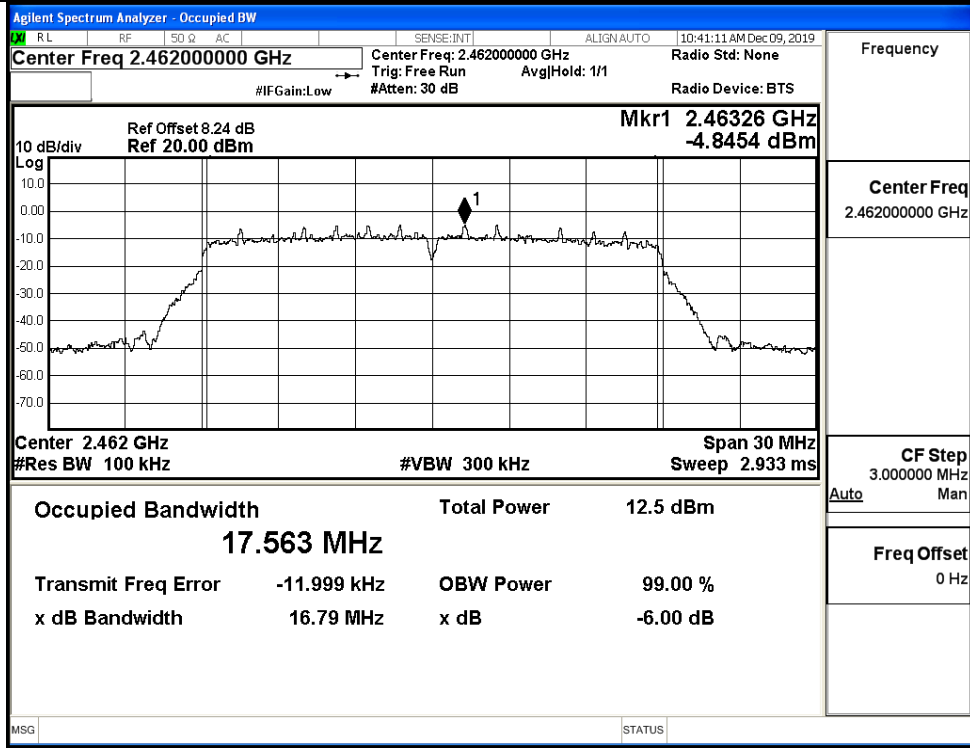
CF Step
3.000000 MHz

Freq Offset
0 Hz

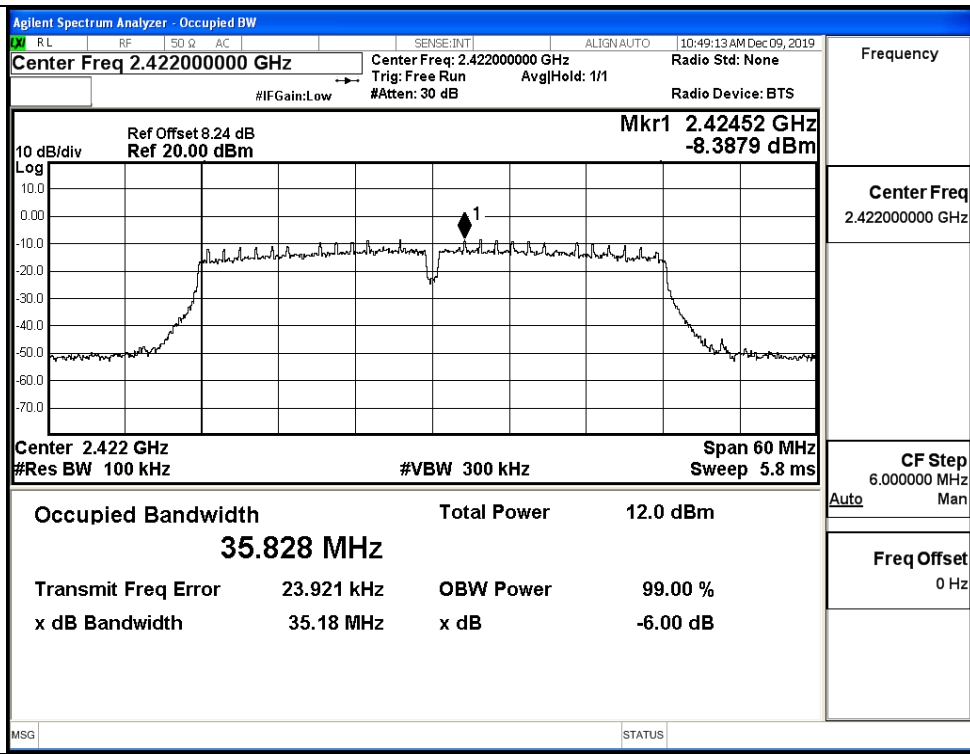
11N20SISO/MCH



11N20SISO/HCH



11N40SISO/LCH



Frequency

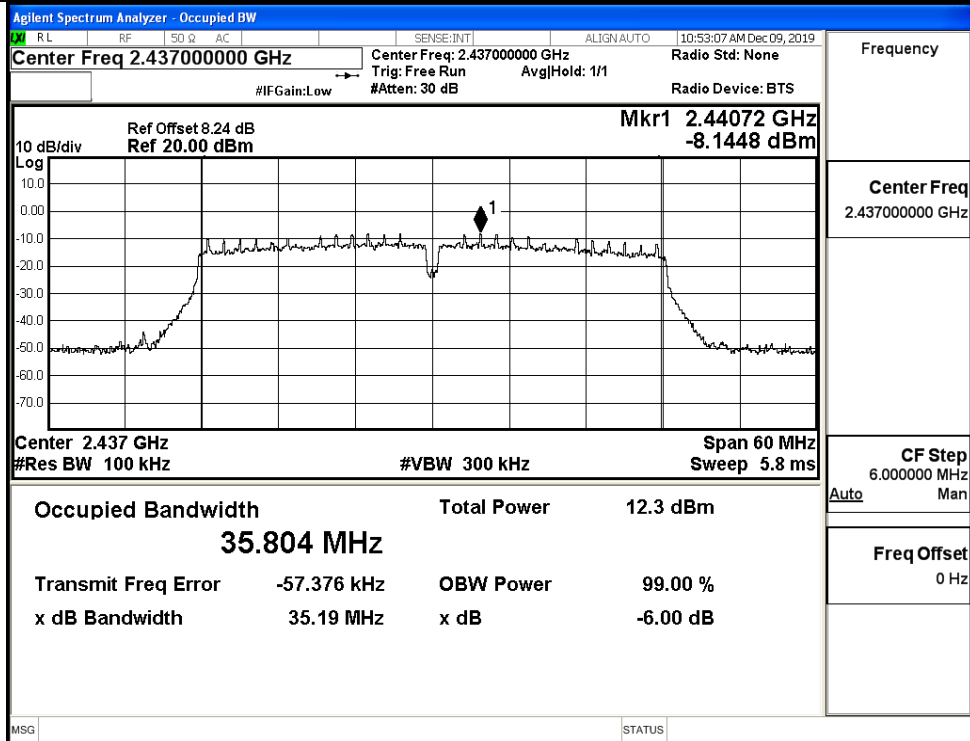
Center Freq 2.42200000 GHz

CF Step 6.000000 MHz

Auto Man

Freq Offset 0 Hz

11N40SISO/MCH



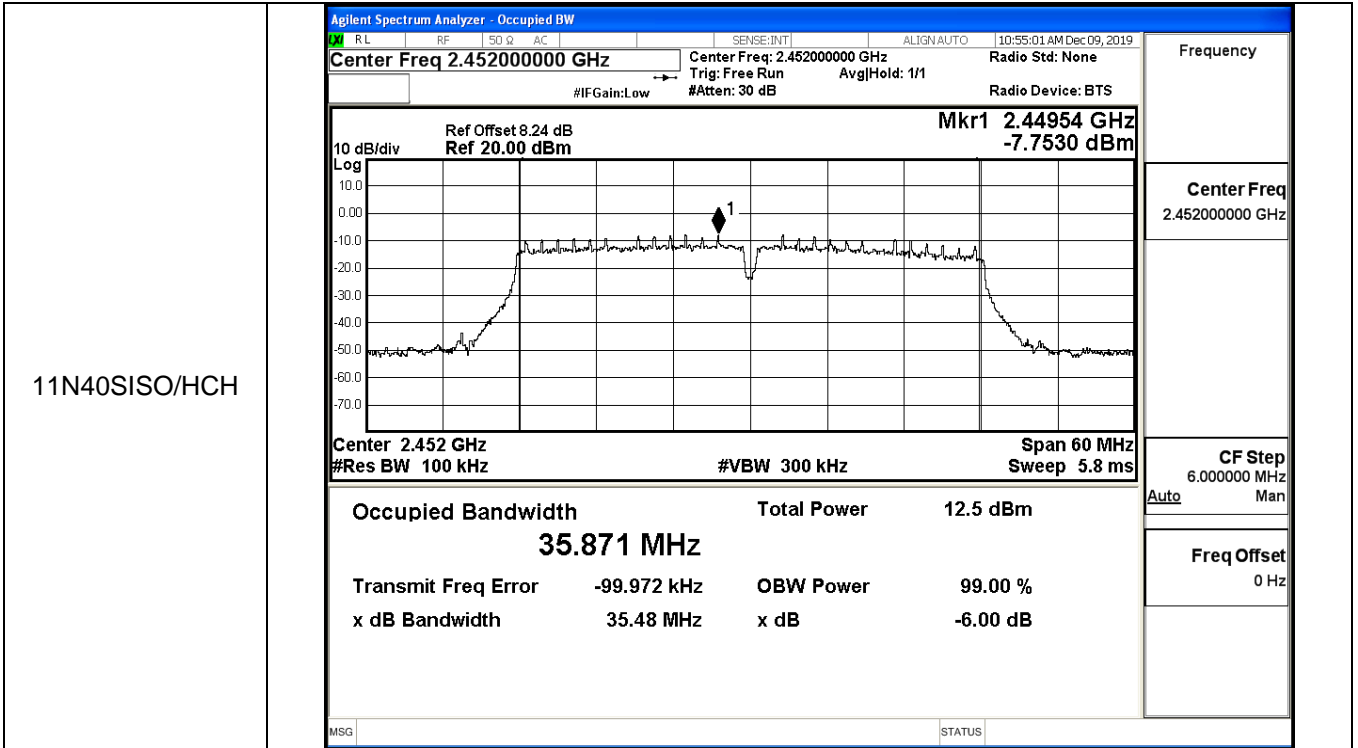
Frequency

Center Freq 2.43700000 GHz

CF Step 6.000000 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	2.302	-37.297	-17.698	PASS
	MCH	2.556	-37.982	-17.444	PASS
	HCH	3.201	-37.807	-16.799	PASS
11G	LCH	-5.829	-37.242	-25.829	PASS
	MCH	-5.365	-37.990	-25.365	PASS
	HCH	-5.435	-37.881	-25.435	PASS
11N20 SISO	LCH	-5.497	-37.793	-25.497	PASS
	MCH	-5.67	-38.151	-25.670	PASS
	HCH	-4.758	-37.813	-24.758	PASS
11N40 SISO	LCH	-8.438	-37.957	-28.438	PASS
	MCH	-8.006	-37.020	-28.006	PASS
	HCH	-7.659	-38.086	-27.659	PASS

11B_LCH_Graphs

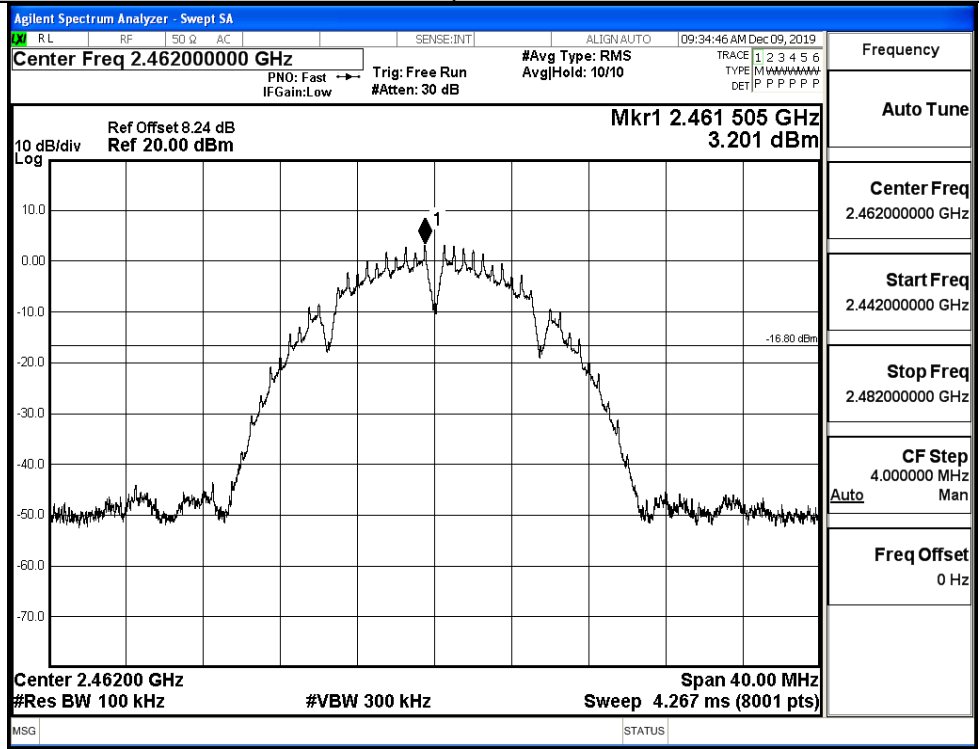
<p>Pref/11B/LCH</p>		<table border="1"> <tr><td>Frequency</td></tr> <tr><td>Auto Tune</td></tr> <tr><td>Center Freq 2.412000000 GHz</td></tr> <tr><td>Start Freq 2.392000000 GHz</td></tr> <tr><td>Stop Freq 2.432000000 GHz</td></tr> <tr><td>CF Step 4.000000 MHz Auto Man</td></tr> <tr><td>Freq Offset 0 Hz</td></tr> </table>	Frequency	Auto Tune	Center Freq 2.412000000 GHz	Start Freq 2.392000000 GHz	Stop Freq 2.432000000 GHz	CF Step 4.000000 MHz Auto Man	Freq Offset 0 Hz
Frequency									
Auto Tune									
Center Freq 2.412000000 GHz									
Start Freq 2.392000000 GHz									
Stop Freq 2.432000000 GHz									
CF Step 4.000000 MHz Auto Man									
Freq Offset 0 Hz									
<p>Puw/11B/LCH</p>		<table border="1"> <tr><td>Frequency</td></tr> <tr><td>Auto Tune</td></tr> <tr><td>Center Freq 13.015000000 GHz</td></tr> <tr><td>Start Freq 30.000000 MHz</td></tr> <tr><td>Stop Freq 26.000000000 GHz</td></tr> <tr><td>CF Step 2.597000000 GHz Auto Man</td></tr> <tr><td>Freq Offset 0 Hz</td></tr> </table>	Frequency	Auto Tune	Center Freq 13.015000000 GHz	Start Freq 30.000000 MHz	Stop Freq 26.000000000 GHz	CF Step 2.597000000 GHz Auto Man	Freq Offset 0 Hz
Frequency									
Auto Tune									
Center Freq 13.015000000 GHz									
Start Freq 30.000000 MHz									
Stop Freq 26.000000000 GHz									
CF Step 2.597000000 GHz Auto Man									
Freq Offset 0 Hz									

11B_MCH_Graphs

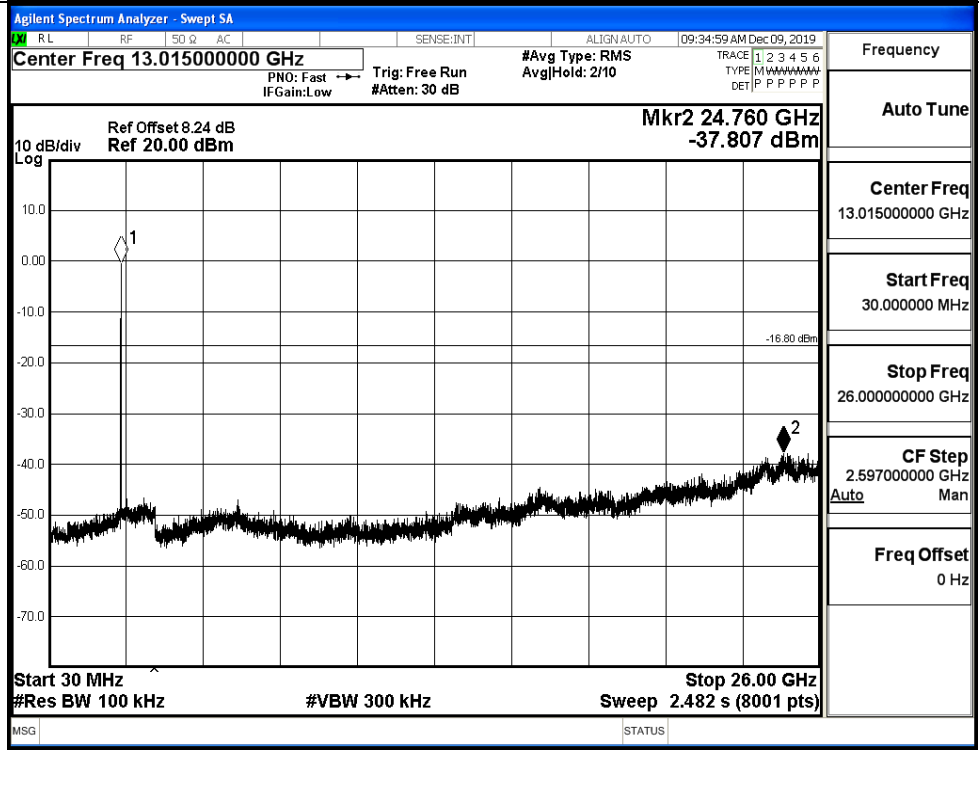
<p>Pref/11B/MCH</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.43700000 GHz</p> <p>Mkr1 2.438 005 GHz 2.556 dBm</p> <p>Ref Offset 8.24 dB Ref 20.00 dBm</p> <p>10 dB/div Log</p> <p>Center 2.43700 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 4.267 ms (8001 pts)</p> <p>Span 40.00 MHz</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.437000000 GHz</p> <p>Start Freq 2.417000000 GHz</p> <p>Stop Freq 2.457000000 GHz</p> <p>CF Step 4.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>Puw/11B/MCH</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 13.01500000 GHz</p> <p>Mkr2 24.763 GHz -37.982 dBm</p> <p>Ref Offset 8.24 dB Ref 20.00 dBm</p> <p>10 dB/div Log</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.482 s (8001 pts)</p> <p>Stop 26.00 GHz</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 13.015000000 GHz</p> <p>Start Freq 30.000000 MHz</p> <p>Stop Freq 26.000000000 GHz</p> <p>CF Step 2.597000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>

11B_HCH_Graphs

Pref/11B/HCH

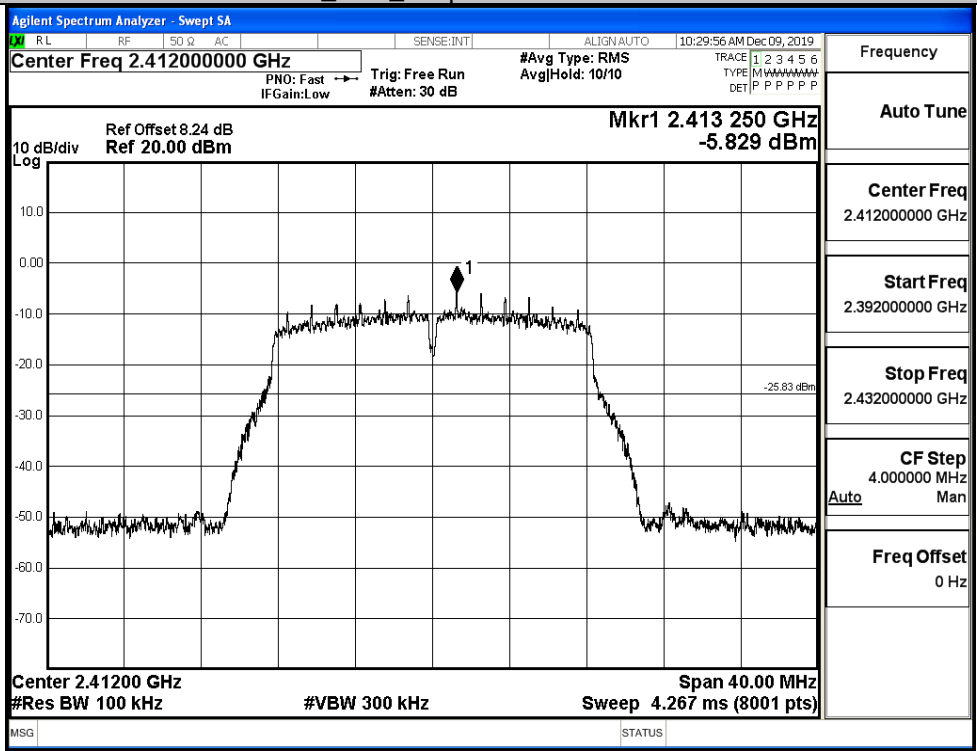


Puw/11B/HCH

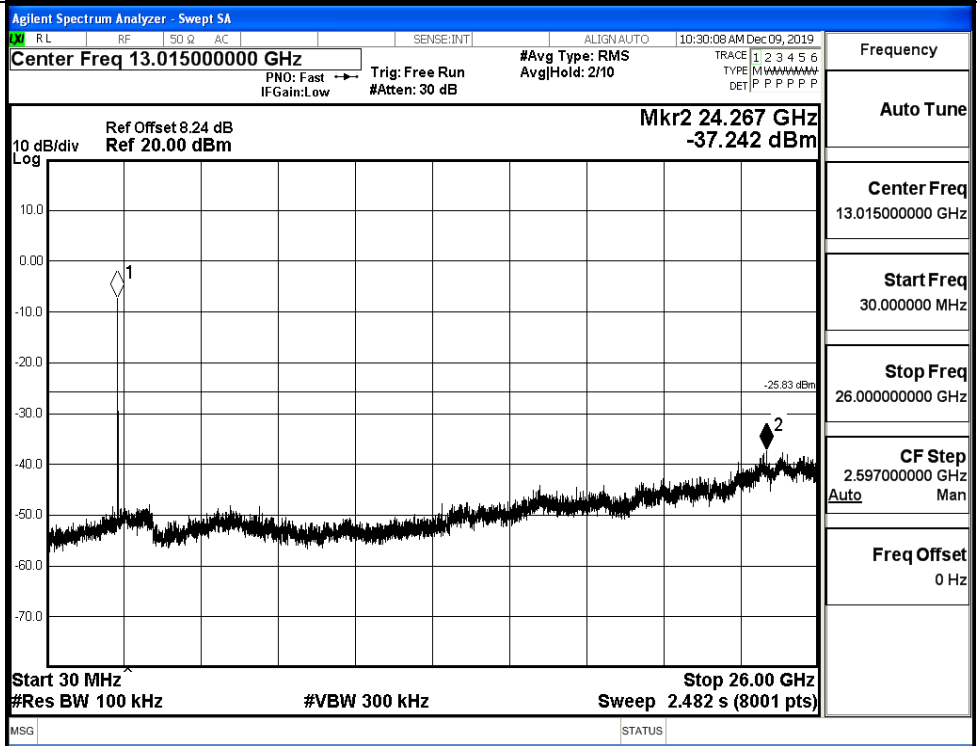


11G_LCH_Graphs

Pref/11G/LCH

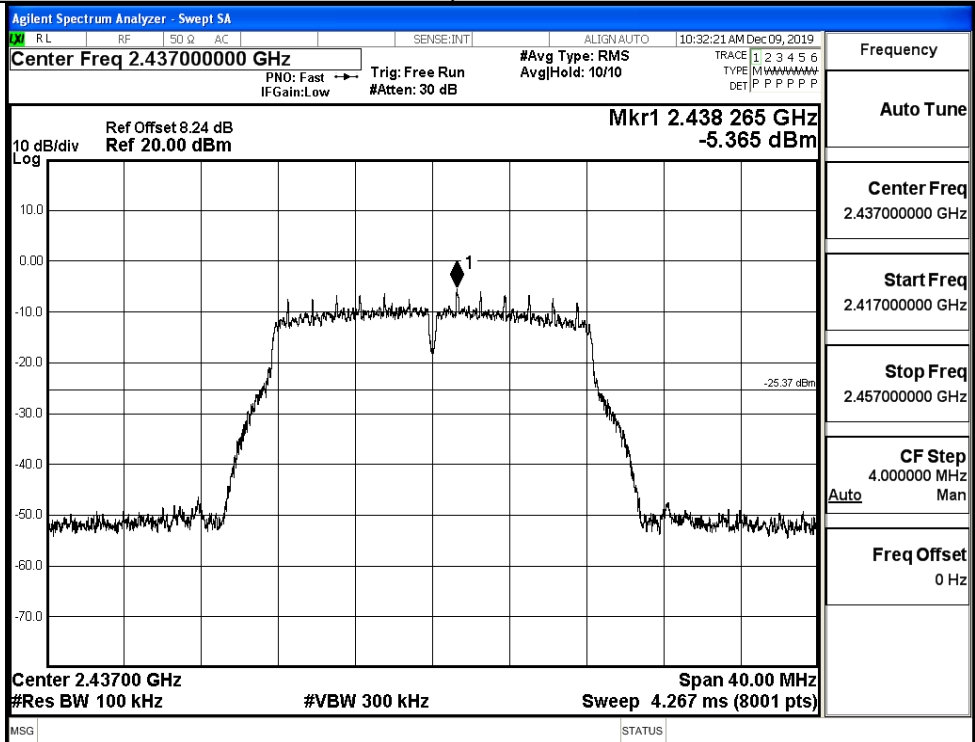


Puw/11G/LCH

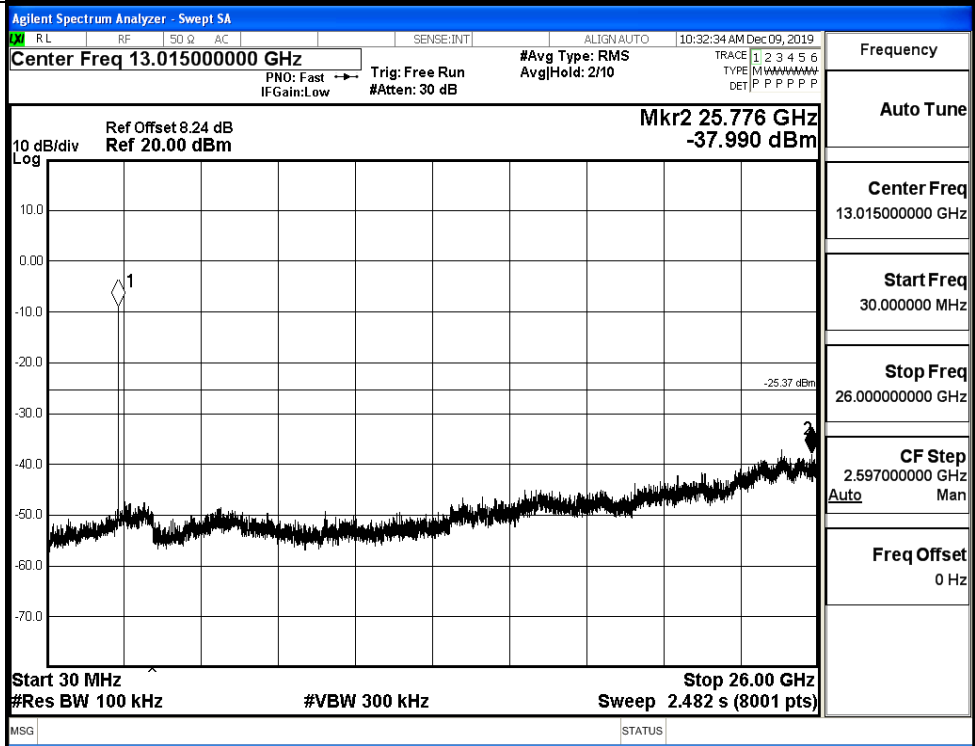


11G_MCH_Graphs

Pref/11G/MCH

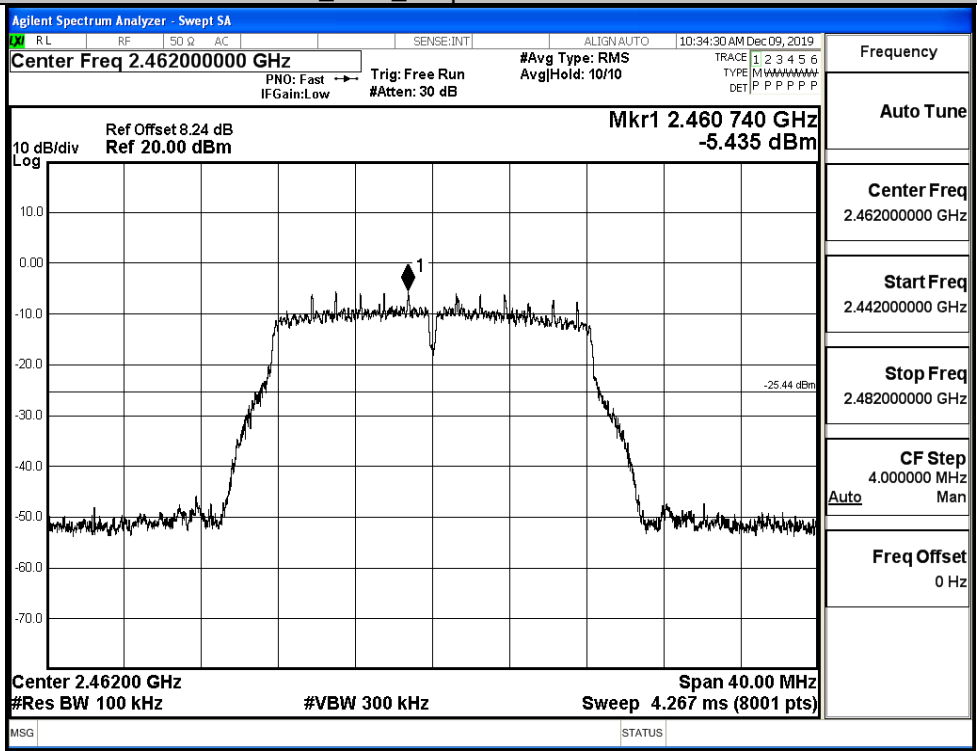


Puw/11G/MCH

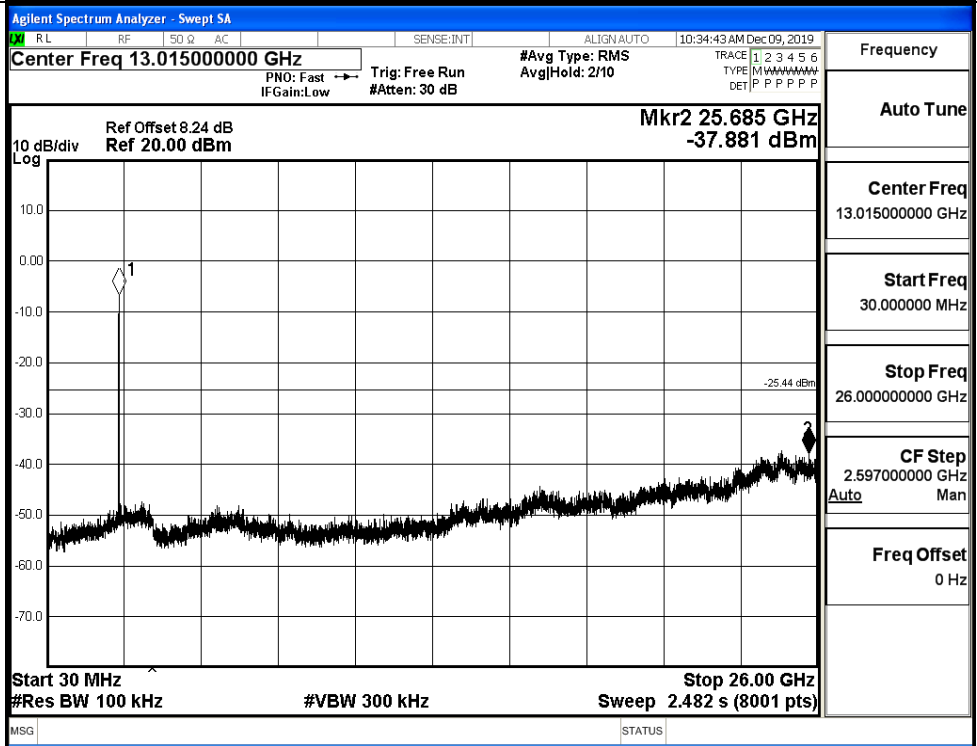


11G_HCH_Graphs

Pref/11G/HCH

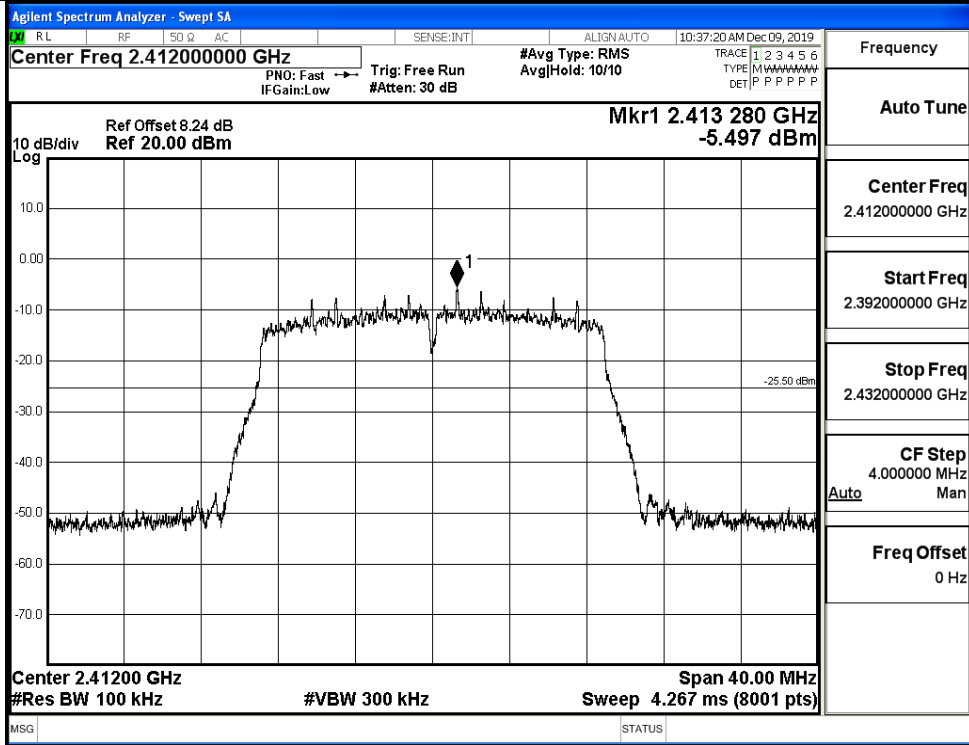


Puw/11G/HCH

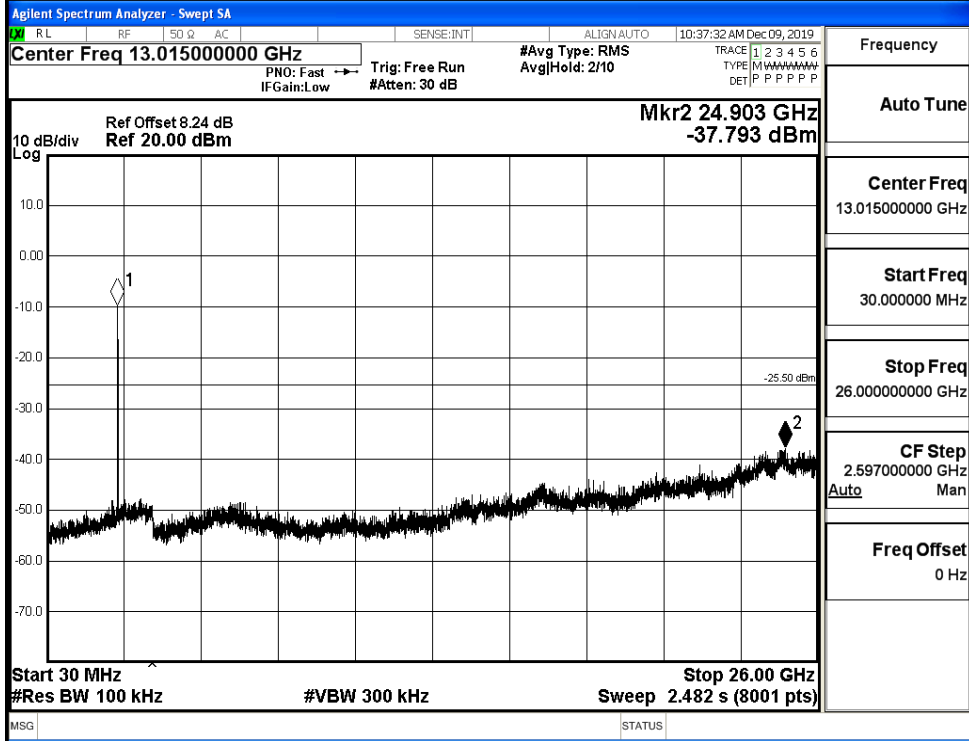


11N20SISO LCH_Graphs

Pref/11N20SISO/LCH



Puw/11N20SISO/LCH

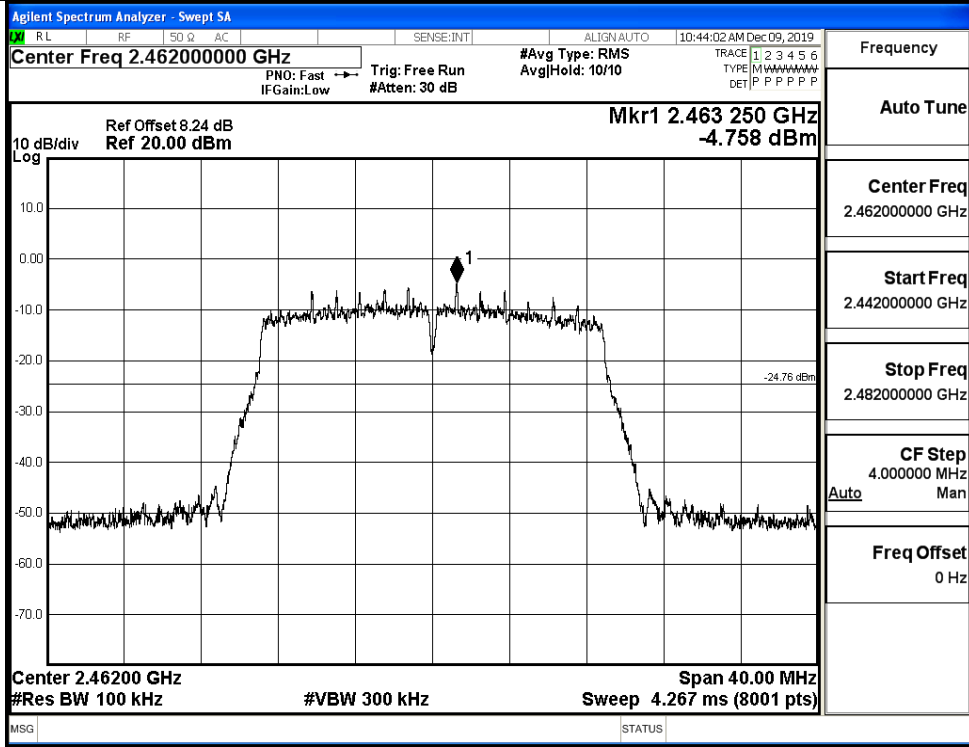


11N20SISO_MCH_Graphs

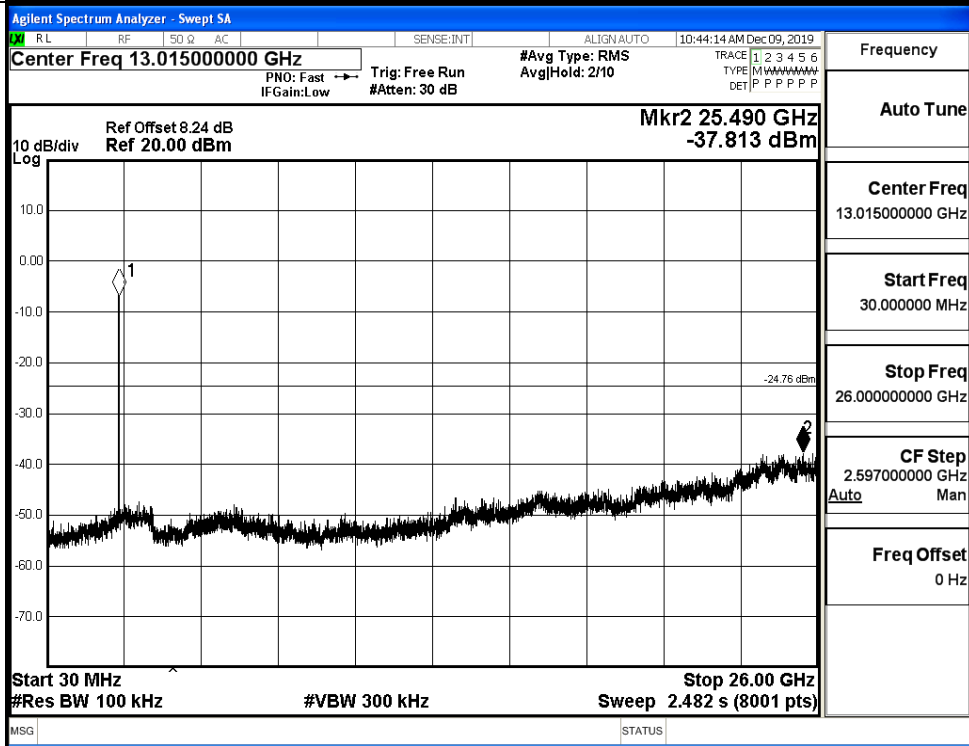
<p>Pref/11N20 SISO/MCH</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.437000000 GHz</p> <p>Start Freq 2.417000000 GHz</p> <p>Stop Freq 2.457000000 GHz</p> <p>CF Step 4.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>Puw/11N20 SISO/MCH</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 13.015000000 GHz</p> <p>Start Freq 30.000000 MHz</p> <p>Stop Freq 26.000000000 GHz</p> <p>CF Step 2.597000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>

11N20SISO_HCH_Graphs

Pref/11N20
SISO/HCH



Puw/11N20
SISO/HCH

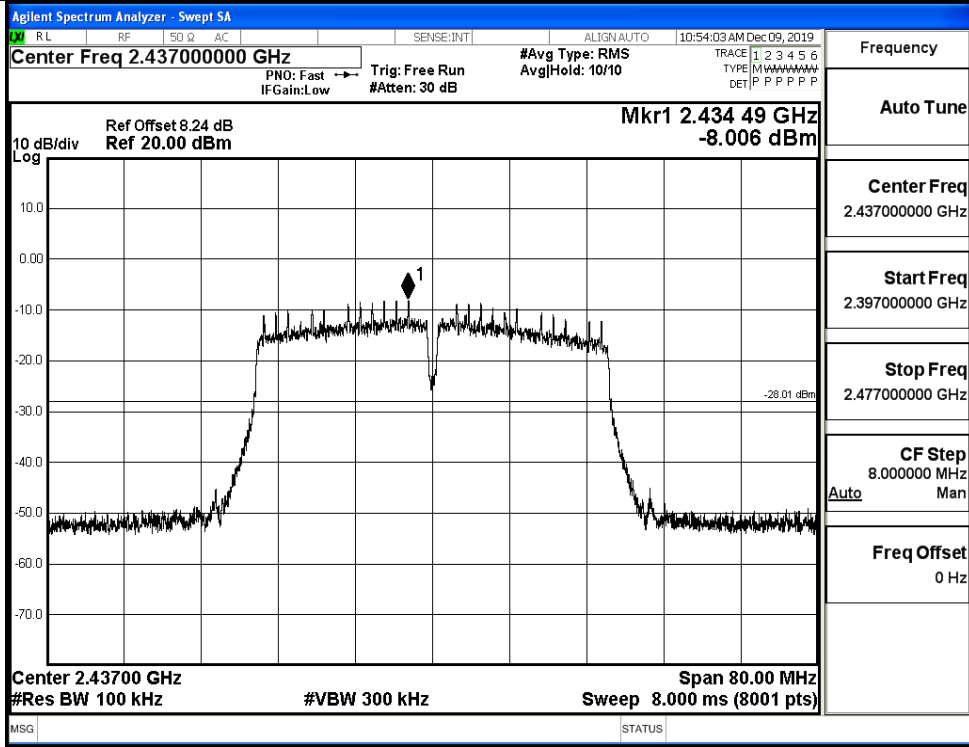


11N40SISO LCH Graphs

<p>Pref/11N40 SISO/LCH</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.42200000 GHz</p> <p>Ref Offset 8.24 dB Ref 20.00 dBm</p> <p>Mkr1 2.427 00 GHz -8.438 dBm</p> <p>10 dB/div Log</p> <p>Center 2.42200 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 8.000 ms (8001 pts)</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.422000000 GHz</p> <p>Start Freq 2.382000000 GHz</p> <p>Stop Freq 2.462000000 GHz</p> <p>CF Step 8.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>Puw/11N40 SISO/LCH</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 13.01500000 GHz</p> <p>Ref Offset 8.24 dB Ref 20.00 dBm</p> <p>Mkr2 25.503 GHz -37.957 dBm</p> <p>10 dB/div Log</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.482 s (8001 pts)</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 13.015000000 GHz</p> <p>Start Freq 30.000000 MHz</p> <p>Stop Freq 26.000000000 GHz</p> <p>CF Step 2.597000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>

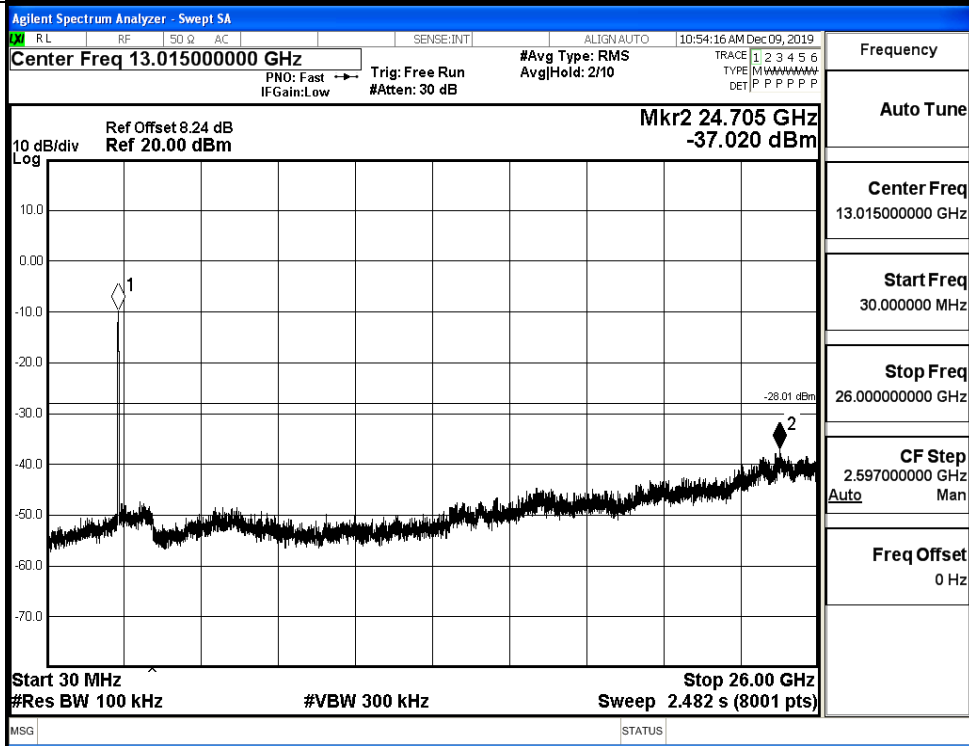
11N40SISO_MCH_Graphs

Pref/11N40
SISO/MCH



Frequency	
Auto Tune	
Center Freq	2.437000000 GHz
Start Freq	2.397000000 GHz
Stop Freq	2.477000000 GHz
CF Step	8.000000 MHz
Auto	Man
Freq Offset	0 Hz

Puw/11N40
SISO/MCH



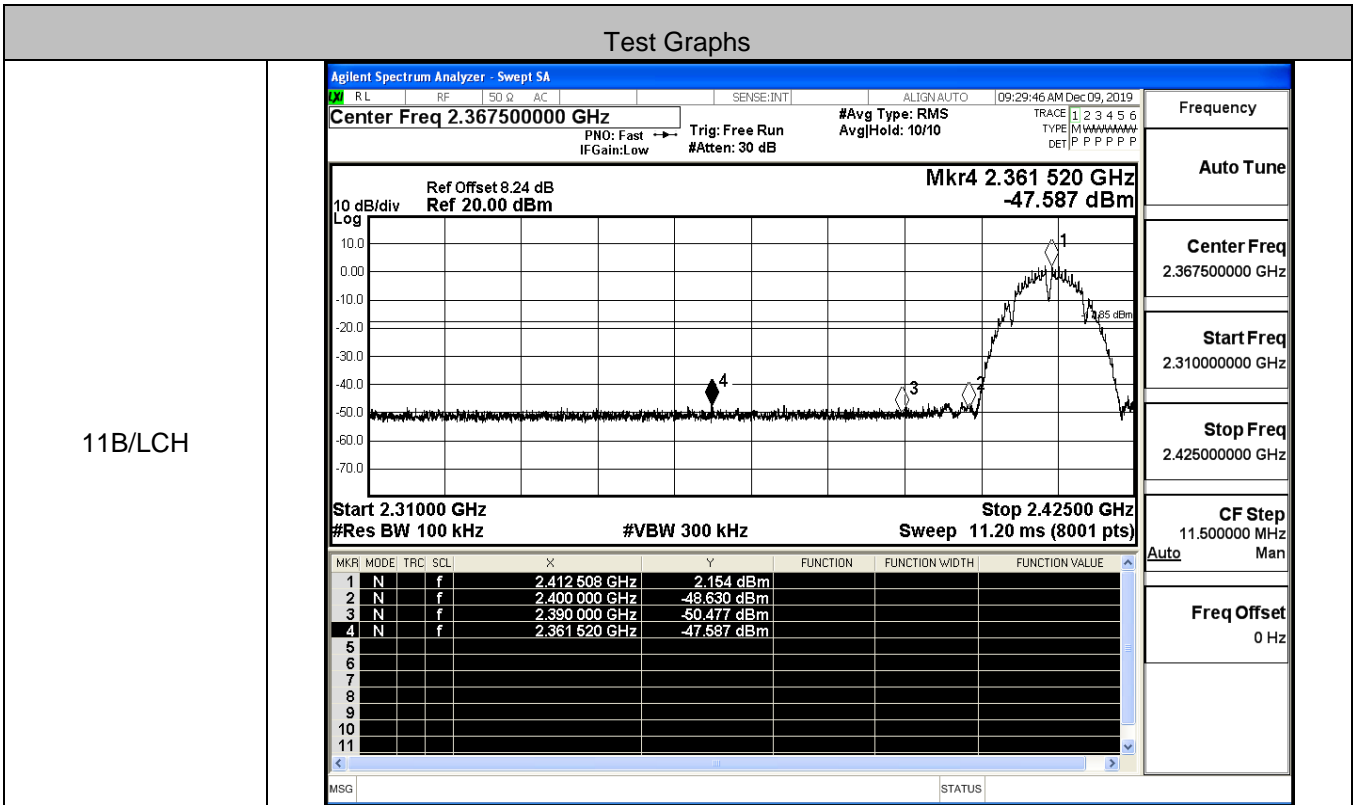
Frequency	
Auto Tune	
Center Freq	13.015000000 GHz
Start Freq	30.000000 MHz
Stop Freq	26.000000000 GHz
CF Step	2.597000000 GHz
Auto	Man
Freq Offset	0 Hz

11N40SISO_HCH_Graphs

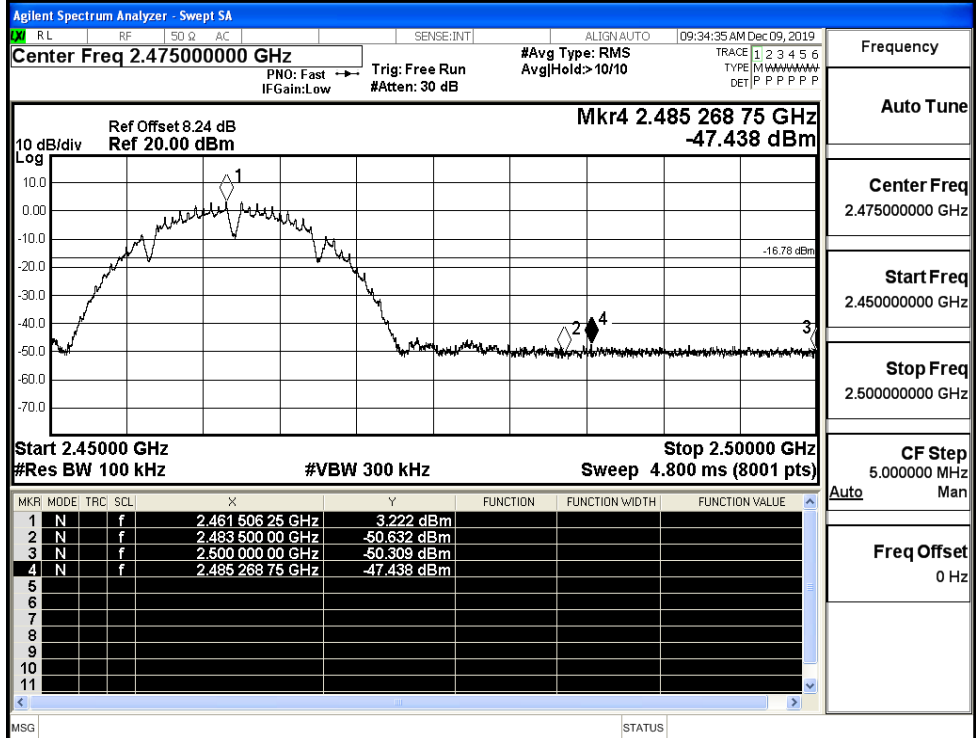
<p>Pref/11N40 SISO/HCH</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.45200000 GHz</p> <p>Ref Offset 8.24 dB Ref 20.00 dBm</p> <p>Mkr1 2.444 50 GHz -7.659 dBm</p> <p>10 dB/div Log</p> <p>Center 2.45200 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 8.000 ms (8001 pts)</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.452000000 GHz</p> <p>Start Freq 2.412000000 GHz</p> <p>Stop Freq 2.492000000 GHz</p> <p>CF Step 8.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>Puw/11N40 SISO/HCH</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 13.01500000 GHz</p> <p>Ref Offset 8.24 dB Ref 20.00 dBm</p> <p>Mkr2 24.750 GHz -38.086 dBm</p> <p>10 dB/div Log</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.482 s (8001 pts)</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 13.015000000 GHz</p> <p>Start Freq 30.000000 MHz</p> <p>Stop Freq 26.000000000 GHz</p> <p>CF Step 2.597000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>

C.6 Band-edge for RF Conducted Emissions

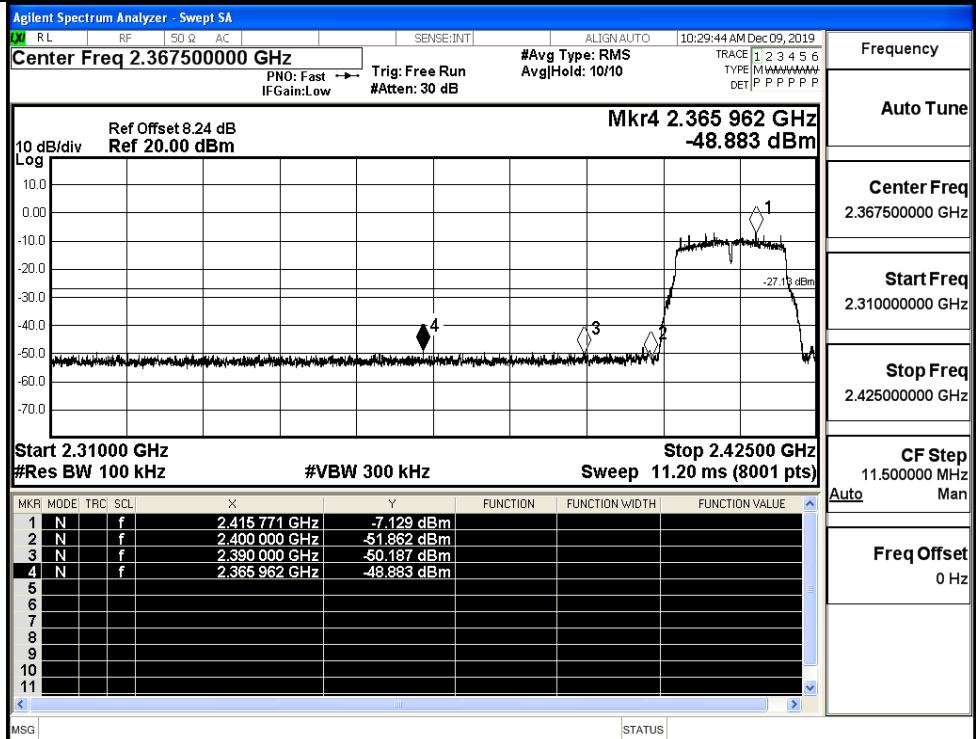
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	2.154	-47.587	-17.85	PASS
	HCH	3.222	-47.438	-16.78	PASS
11G	LCH	-7.129	-48.883	-27.13	PASS
	HCH	-4.966	-48.936	-24.97	PASS
11N20SISO	LCH	-5.968	-49.039	-25.97	PASS
	HCH	-5.063	-48.444	-25.06	PASS
11N40SISO	LCH	-8.448	-49.195	-28.45	PASS
	HCH	-8.189	-48.903	-28.19	PASS



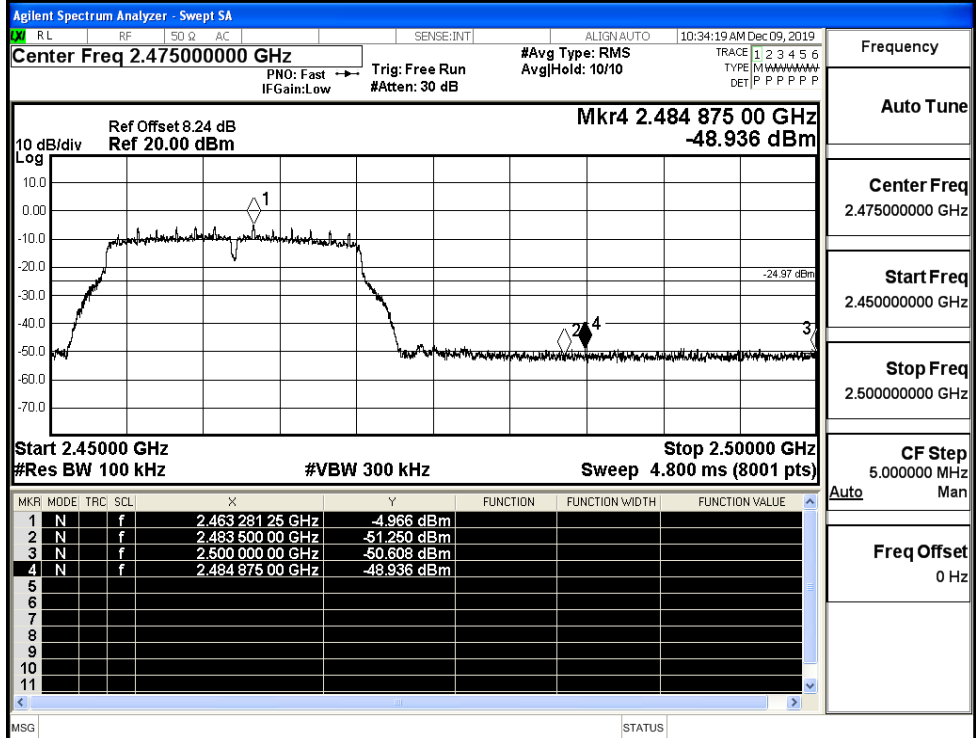
11B/HCH



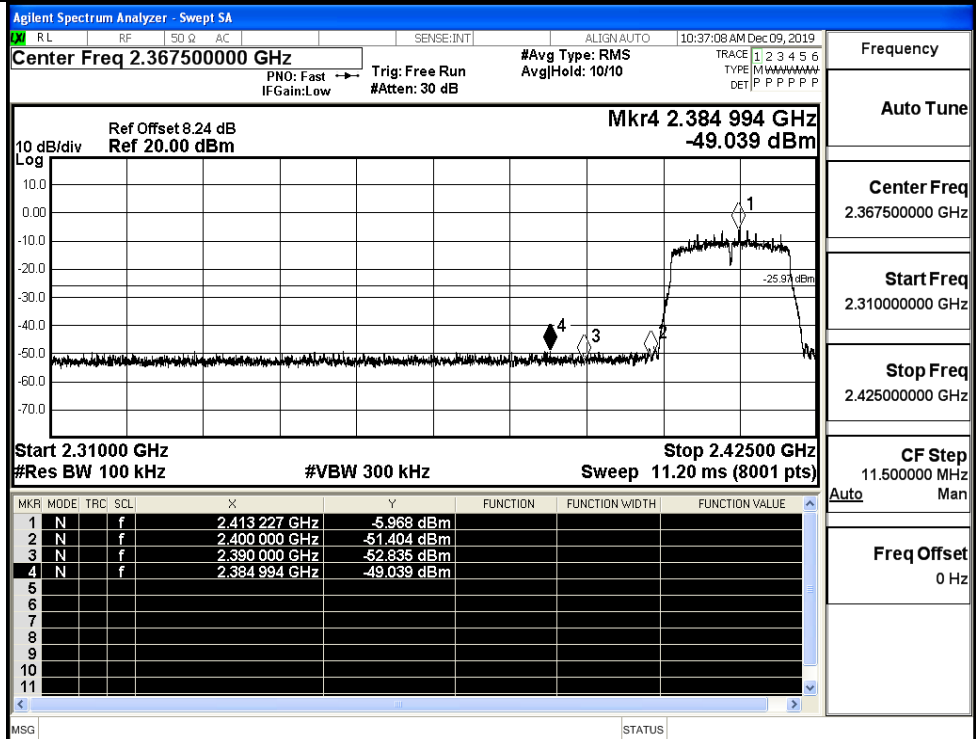
11G/LCH



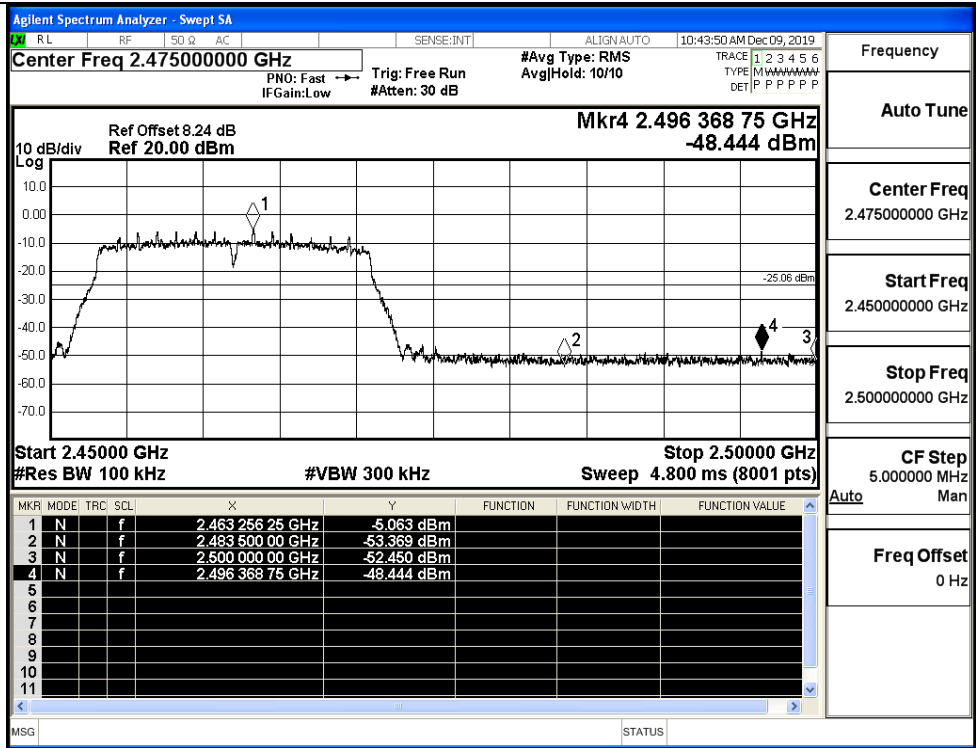
11G/HCH



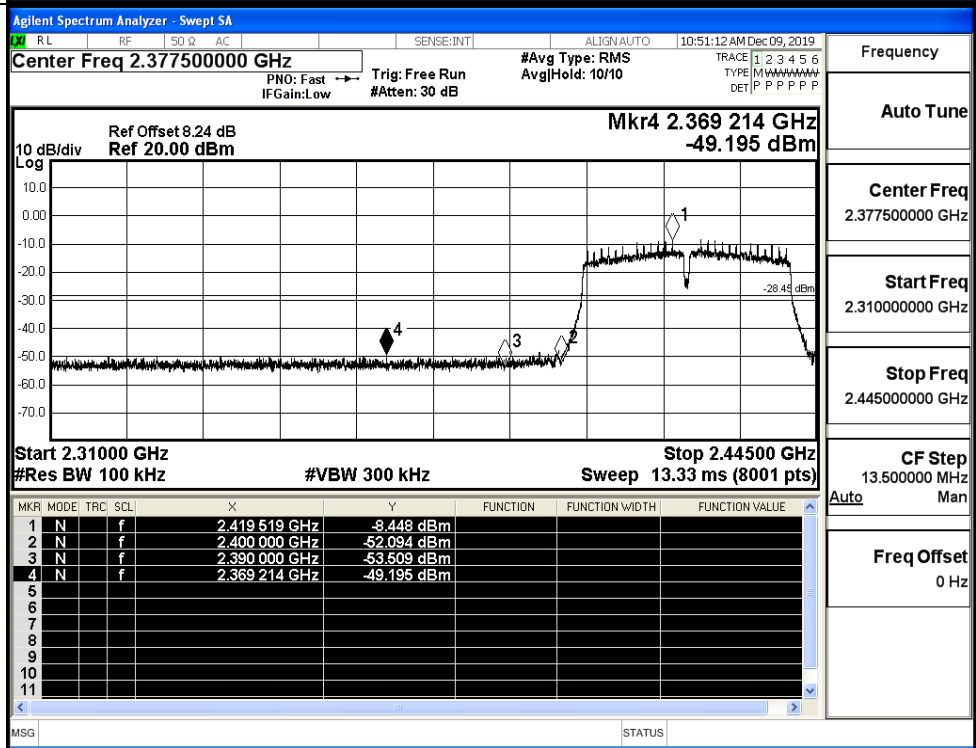
11N20SISO/LCH



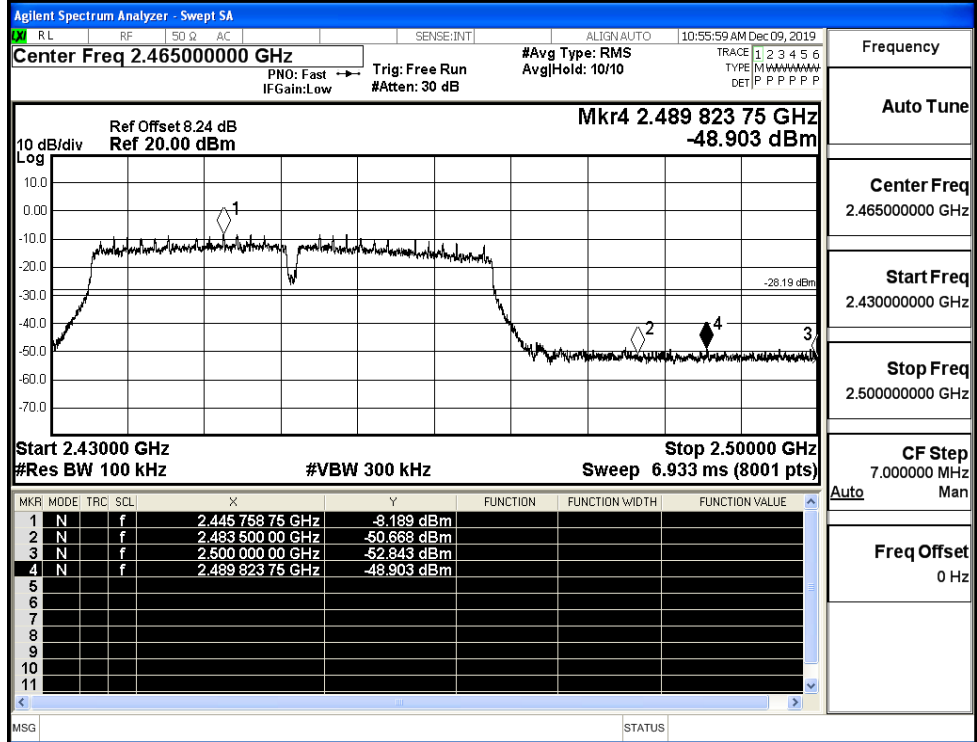
11N20SISO/HCH



11N40SISO/LCH



11N40SISO/HCH

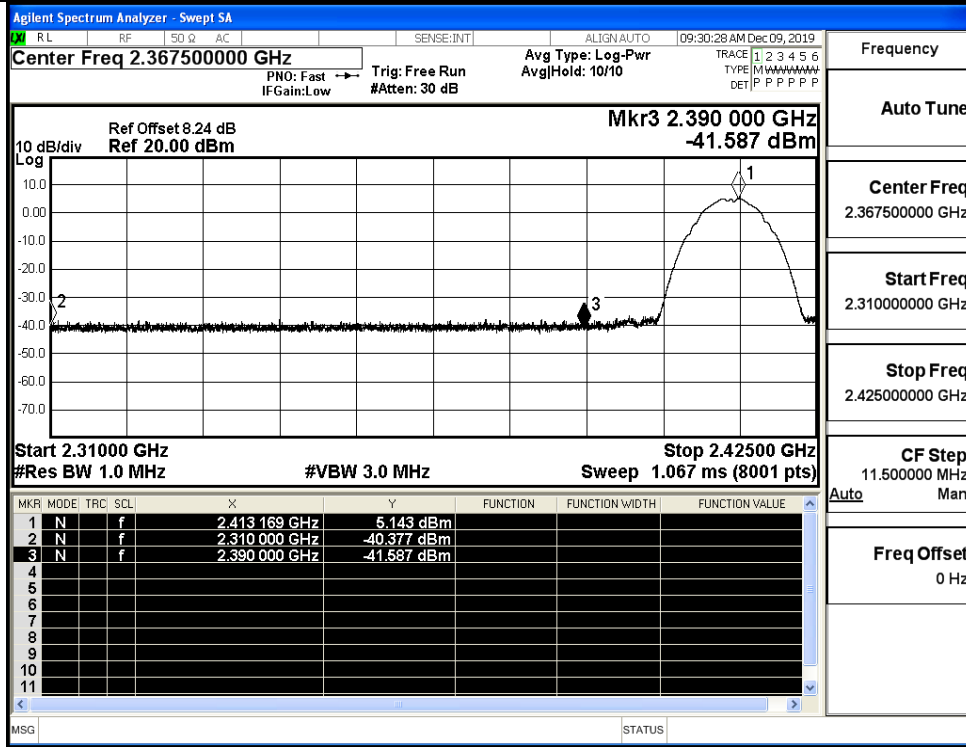


C.7 Restrict-band band-edge measurements

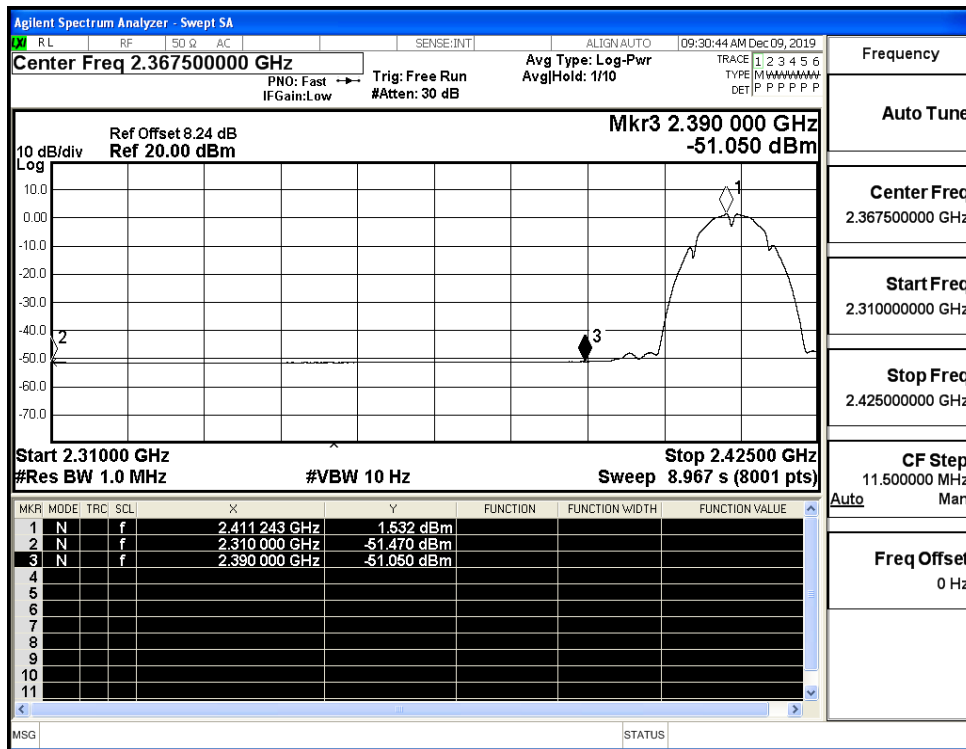
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBu V/m]	Verdict
11B	2412	Ant1	2310.0	-40.38	2.0	0	56.88	PEAK	74	PASS
	2412	Ant1	2310.0	-51.47	2.0	0	45.79	AV	54	PASS
	2412	Ant1	2390.0	-41.59	2.0	0	55.67	PEAK	74	PASS
	2412	Ant1	2390.0	-51.05	2.0	0	46.21	AV	54	PASS
	2462	Ant1	2483.5	-40.06	2.0	0	57.20	PEAK	74	PASS
	2462	Ant1	2483.5	-50.59	2.0	0	46.67	AV	54	PASS
	2462	Ant1	2500.0	-40.46	2.0	0	56.80	PEAK	74	PASS
	2462	Ant1	2500.0	-50.44	2.0	0	46.82	AV	54	PASS
11G	2412	Ant1	2310.0	-40.24	2.0	0	57.02	PEAK	74	PASS
	2412	Ant1	2310.0	-53.06	2.0	0	44.20	AV	54	PASS
	2412	Ant1	2390.0	-41.57	2.0	0	55.69	PEAK	74	PASS
	2412	Ant1	2390.0	-52.56	2.0	0	44.70	AV	54	PASS
	2462	Ant1	2483.5	-40.04	2.0	0	57.22	PEAK	74	PASS
	2462	Ant1	2483.5	-52.12	2.0	0	45.14	AV	54	PASS
	2462	Ant1	2500.0	-40.12	2.0	0	57.14	PEAK	74	PASS
	2462	Ant1	2500.0	-51.99	2.0	0	45.27	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-42.35	2.0	0	54.91	PEAK	74	PASS
	2412	Ant1	2310.0	-53.02	2.0	0	44.24	AV	54	PASS
	2412	Ant1	2390.0	-42.11	2.0	0	55.15	PEAK	74	PASS
	2412	Ant1	2390.0	-52.55	2.0	0	44.71	AV	54	PASS
	2462	Ant1	2483.5	-41.78	2.0	0	55.48	PEAK	74	PASS
	2462	Ant1	2483.5	-52.11	2.0	0	45.15	AV	54	PASS
	2462	Ant1	2500.0	-42.32	2.0	0	54.94	PEAK	74	PASS
	2462	Ant1	2500.0	-52.00	2.0	0	45.26	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-43.02	2.0	0	54.24	PEAK	74	PASS
	2422	Ant1	2310.0	-53.00	2.0	0	44.26	AV	54	PASS

	2422	Ant1	2390.0	-41.32	2.0	0	55.94	PEAK	74	PASS
	2422	Ant1	2390.0	-52.41	2.0	0	44.85	AV	54	PASS
	2452	Ant1	2483.5	-40.80	2.0	0	56.46	PEAK	74	PASS
	2452	Ant1	2483.5	-52.03	2.0	0	45.23	AV	54	PASS
	2452	Ant1	2500.0	-41.71	2.0	0	55.55	PEAK	74	PASS
	2452	Ant1	2500.0	-51.98	2.0	0	45.28	AV	54	PASS

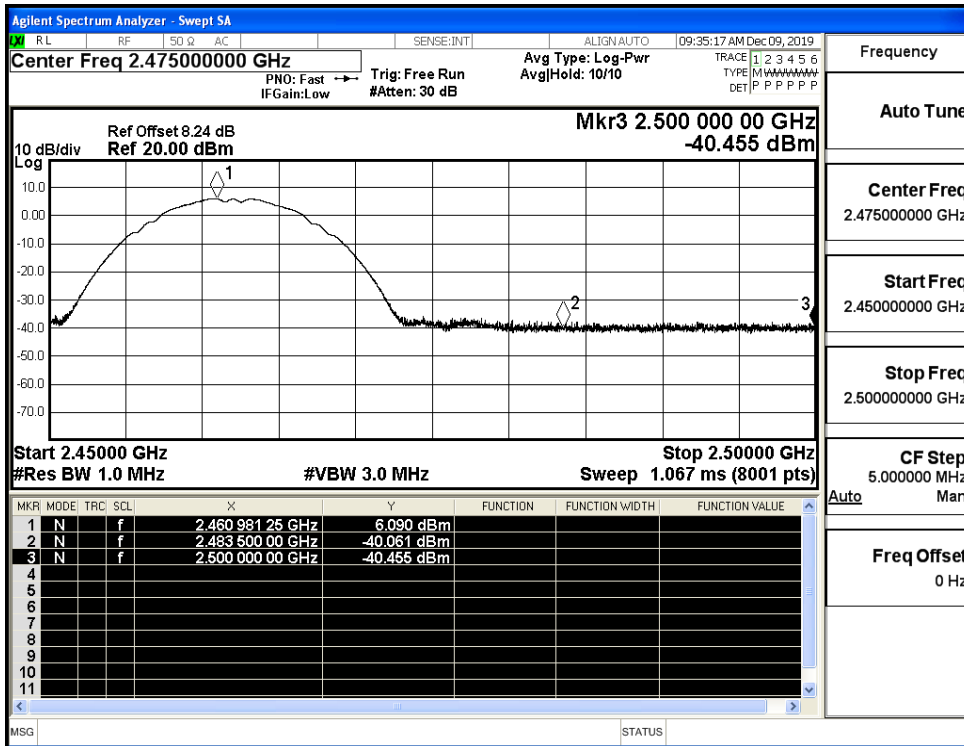
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



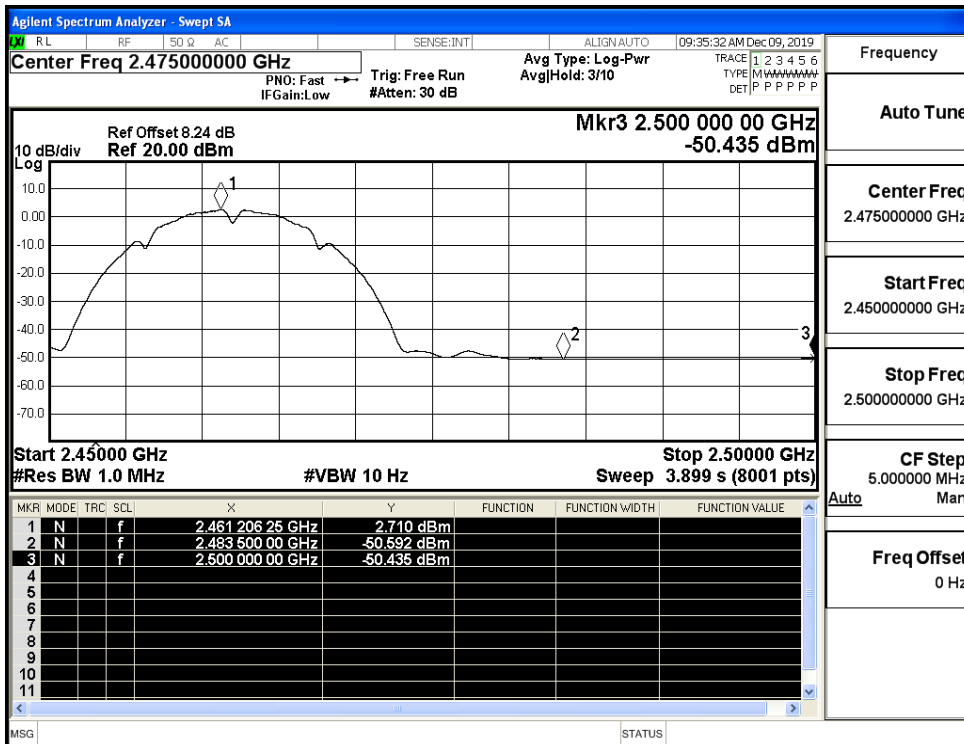
Restrict-band band-edge measurements_11B_2412_Ant1_AV



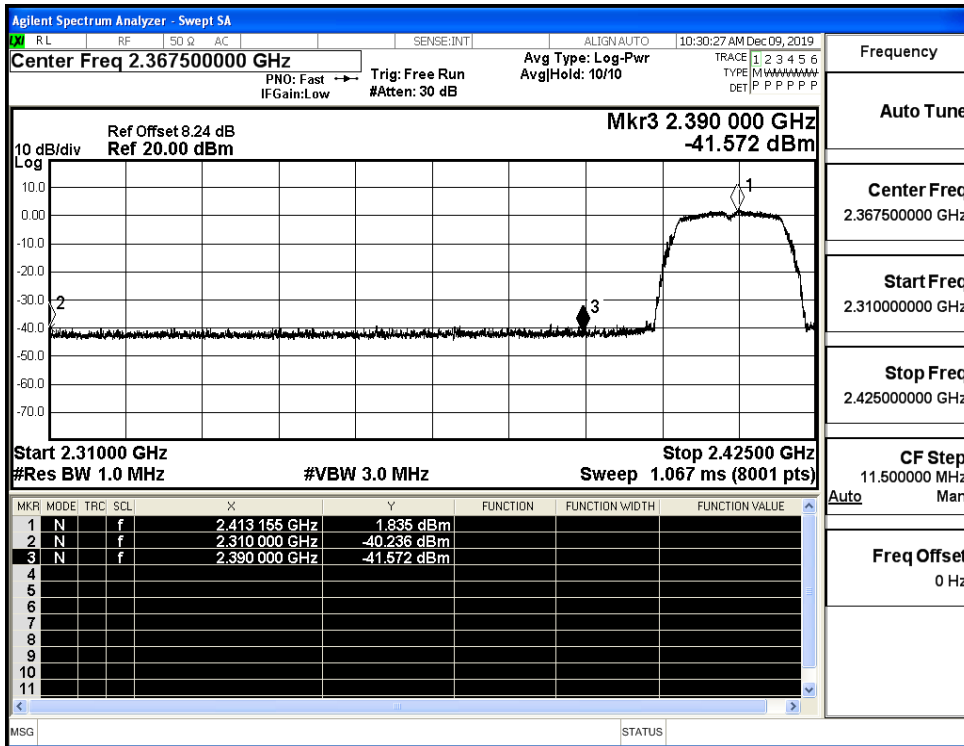
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



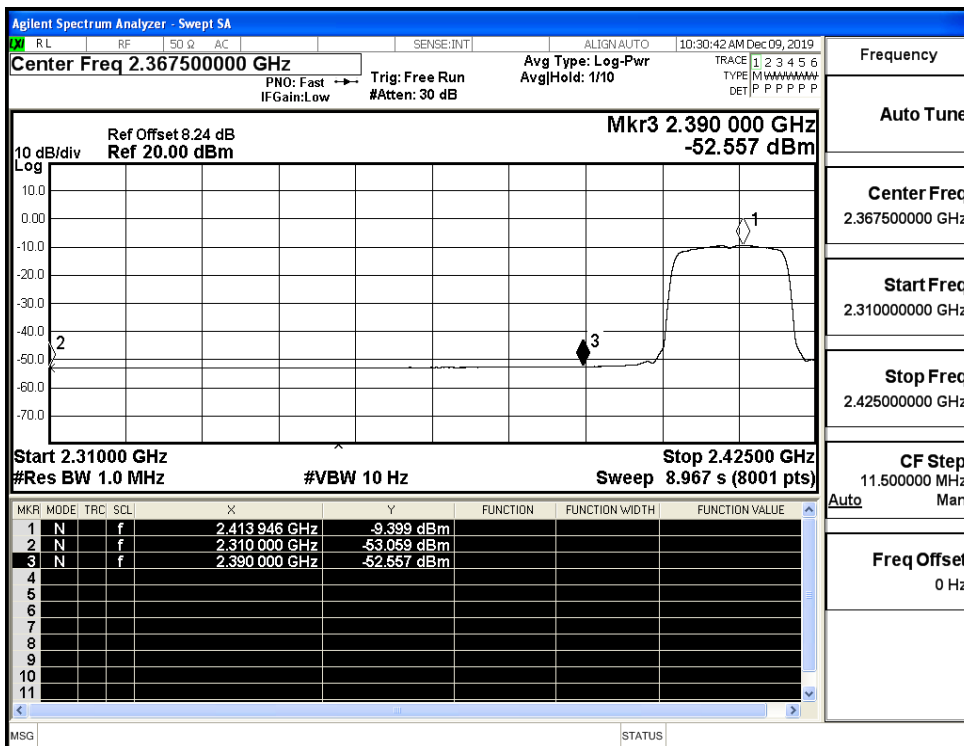
Restrict-band band-edge measurements_11B_2462_Ant1_AV



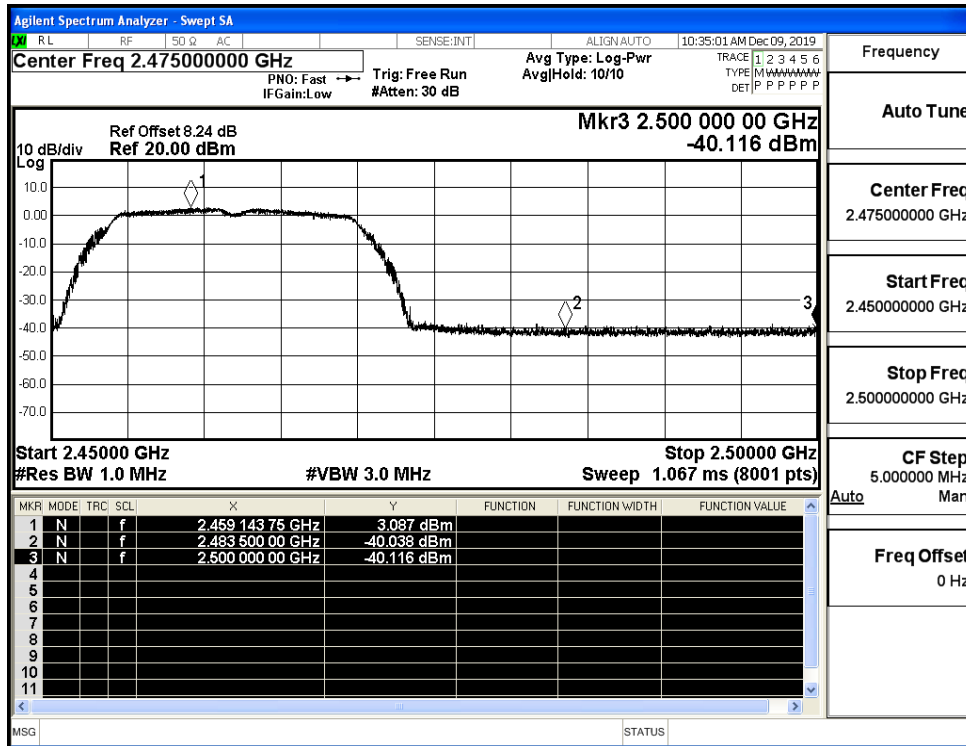
Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



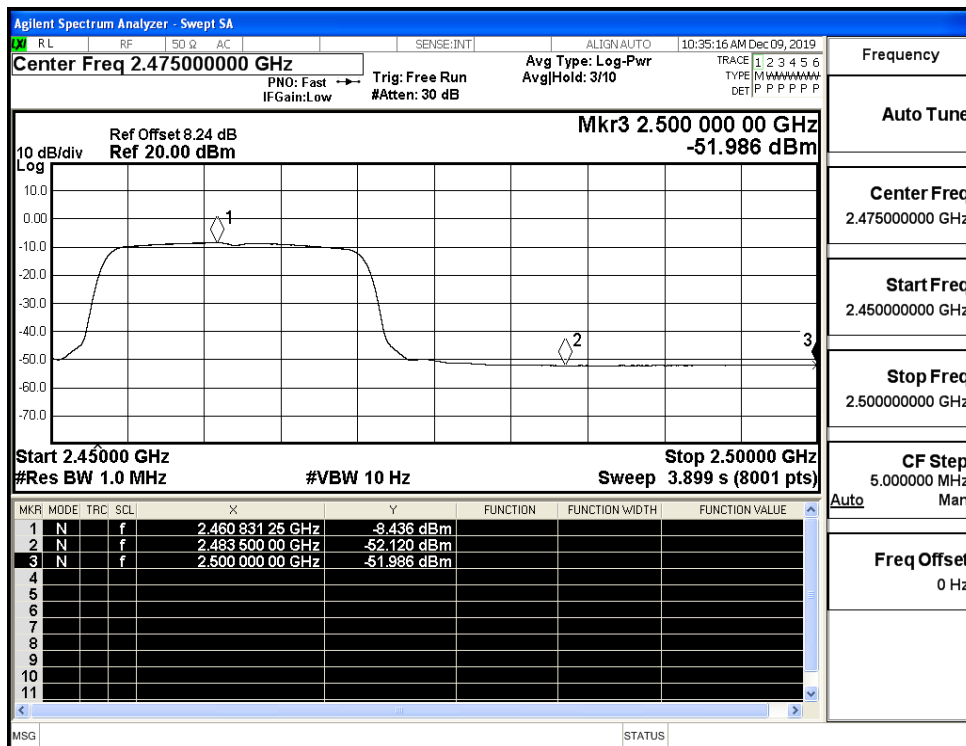
Restrict-band band-edge measurements_11G_2412_Ant1_AV



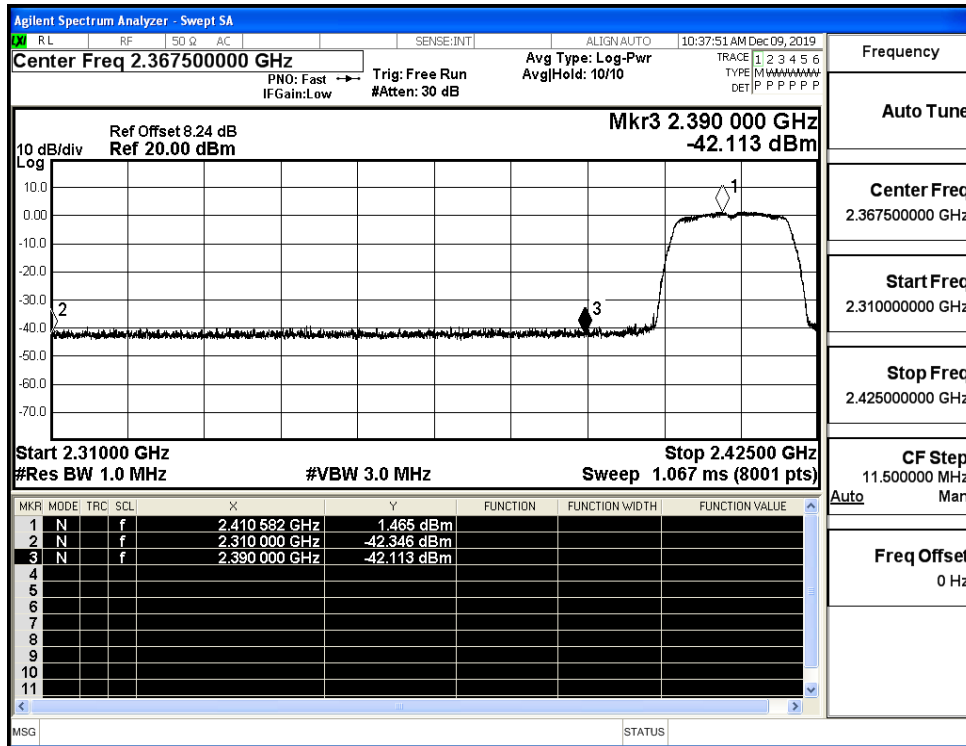
Restrict-band band-edge measurements_11G_2462_Ant1_PEAK



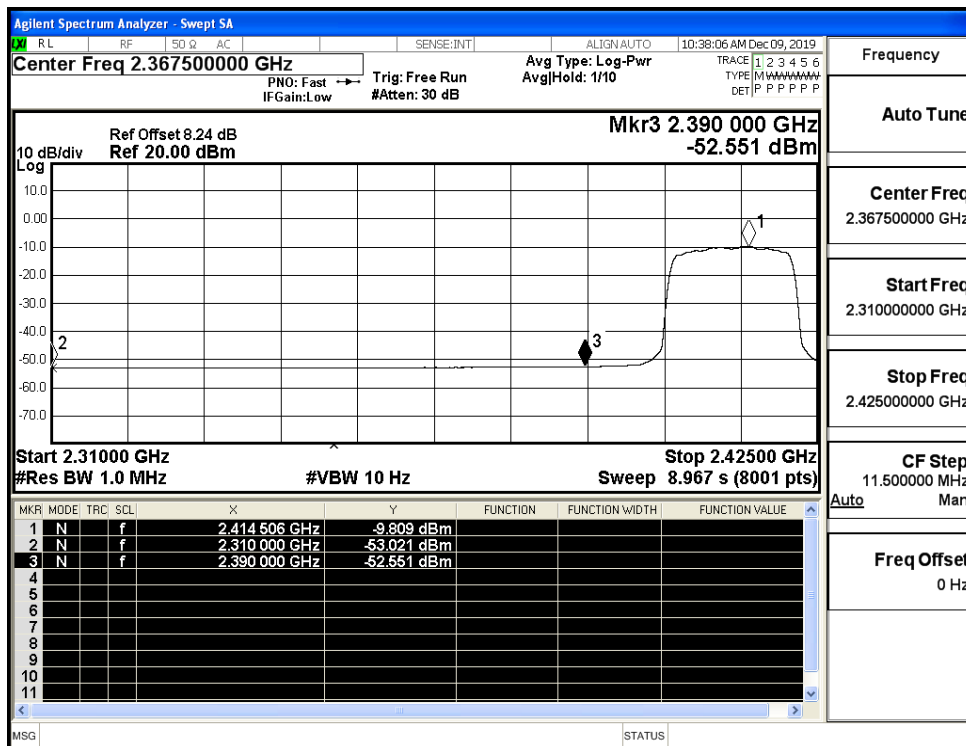
Restrict-band band-edge measurements_11G_2462_Ant1_AV



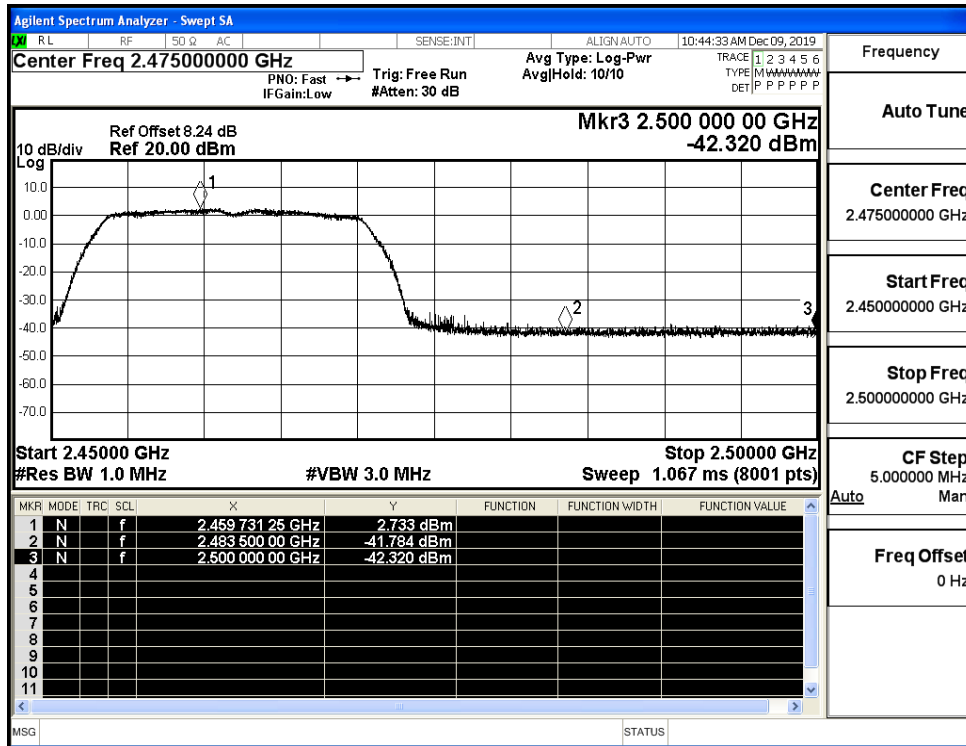
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



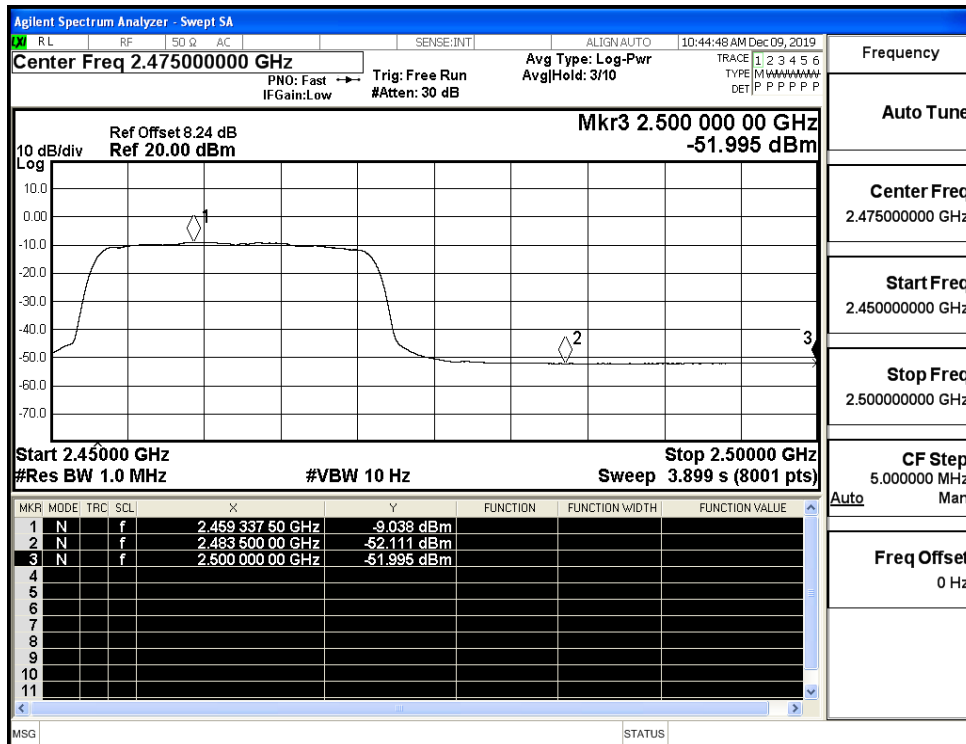
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_AV



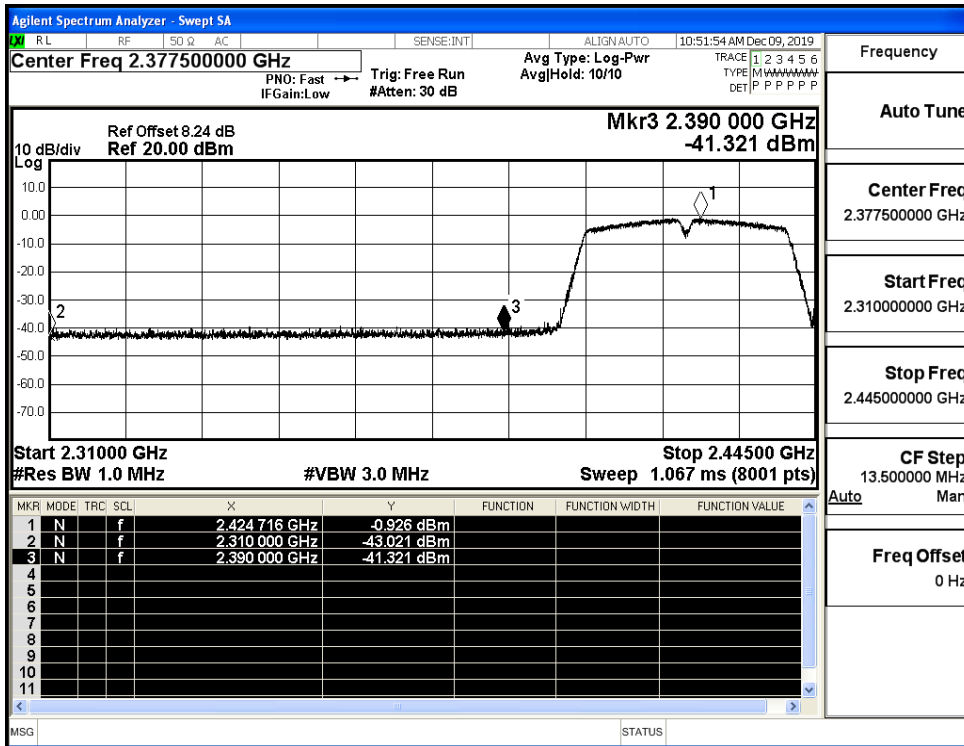
Restrict-band band-edge measurements_11N20SISO_2462_Ant1_PEAK



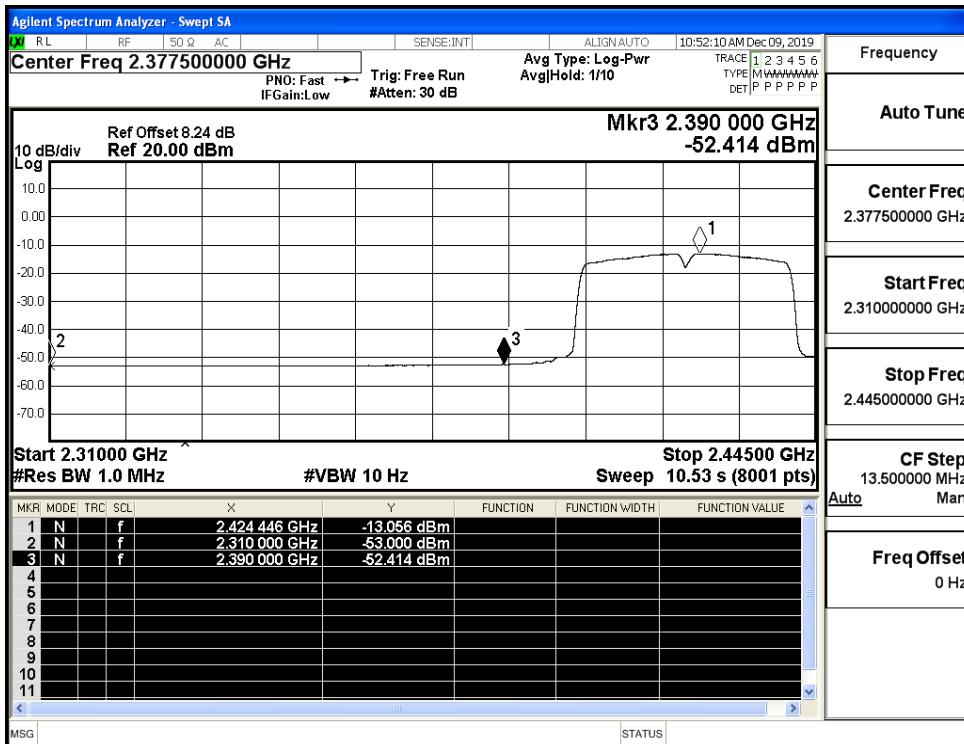
Restrict-band band-edge measurements_11N20SISO_2462_Ant1_AV



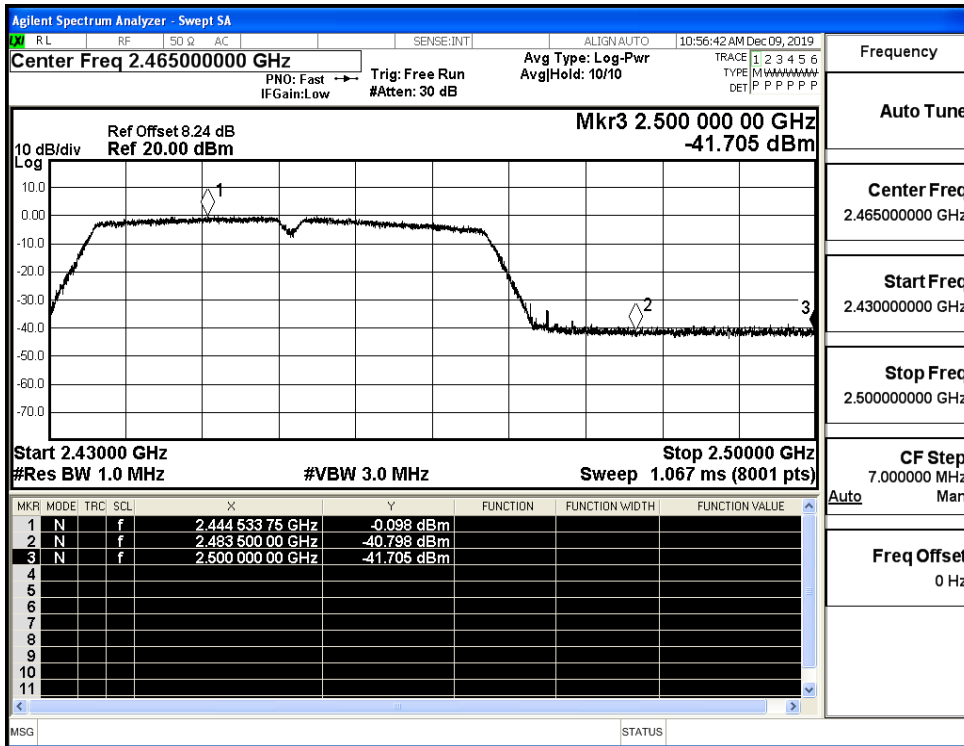
Restrict-band band-edge measurements_11N40SISO_2422_Ant1_PEAK



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

