

Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Tablet PC

Test Model: Z1

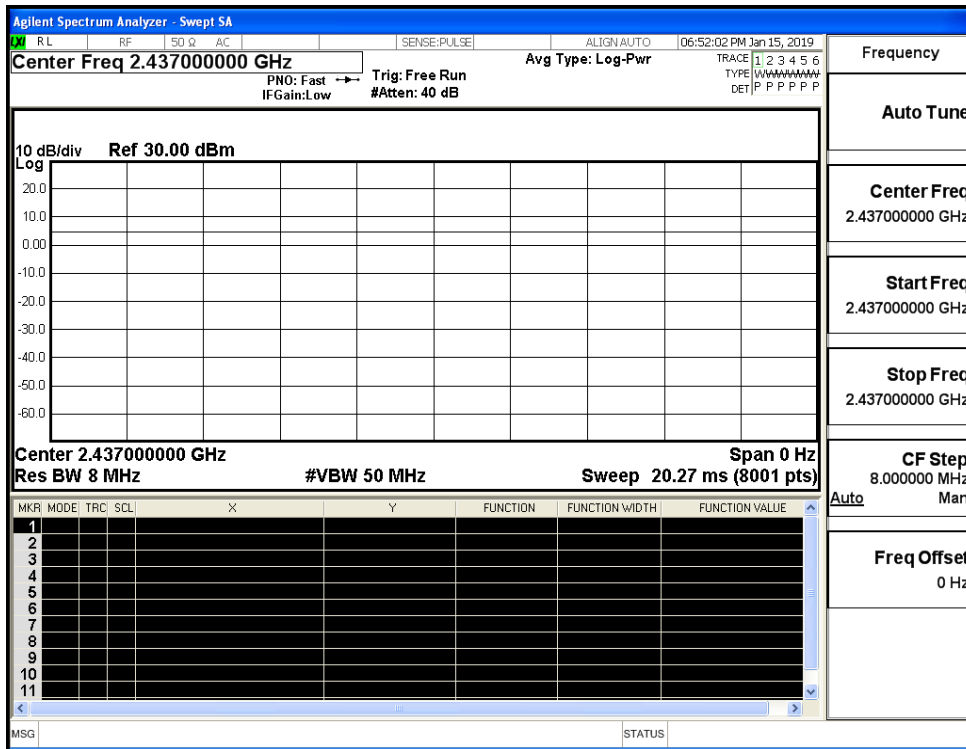
Environmental Conditions

Temperature:	24.3° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	WANG CHUANG
Supervised by:	Jayden Zhuo

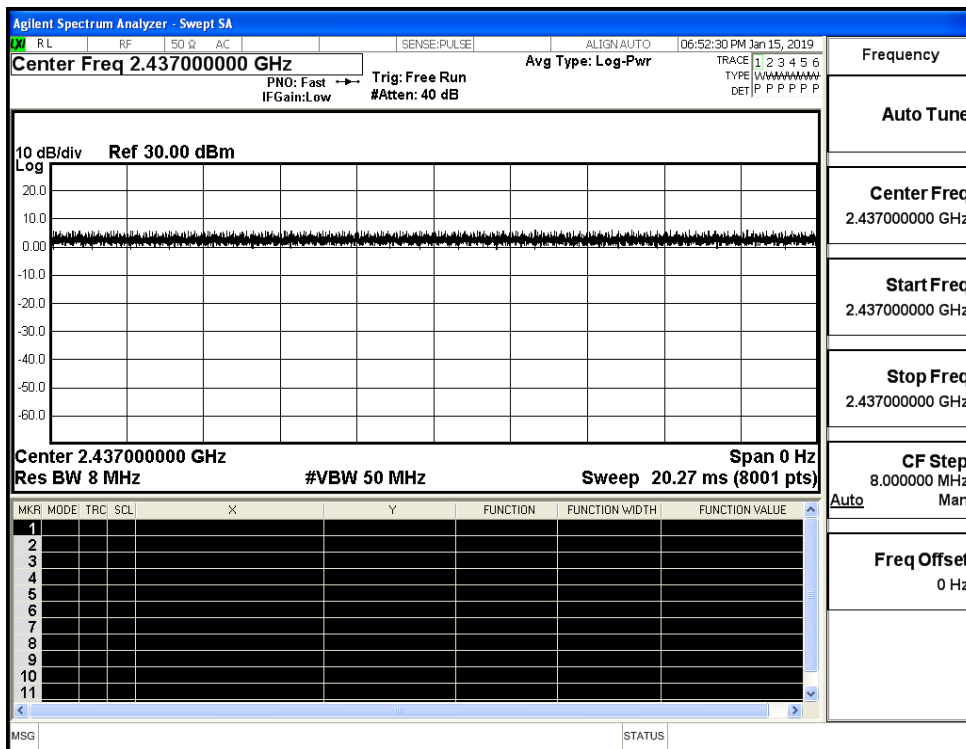
C.1 Duty Cycle

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

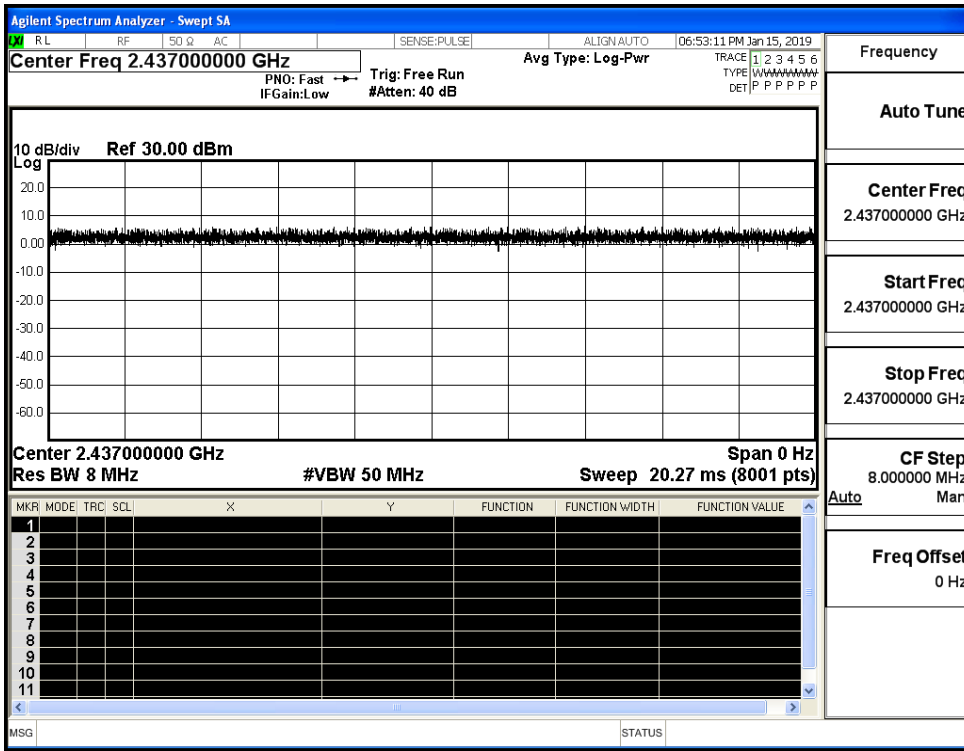
Duty Cycle_11B_2437_Ant1



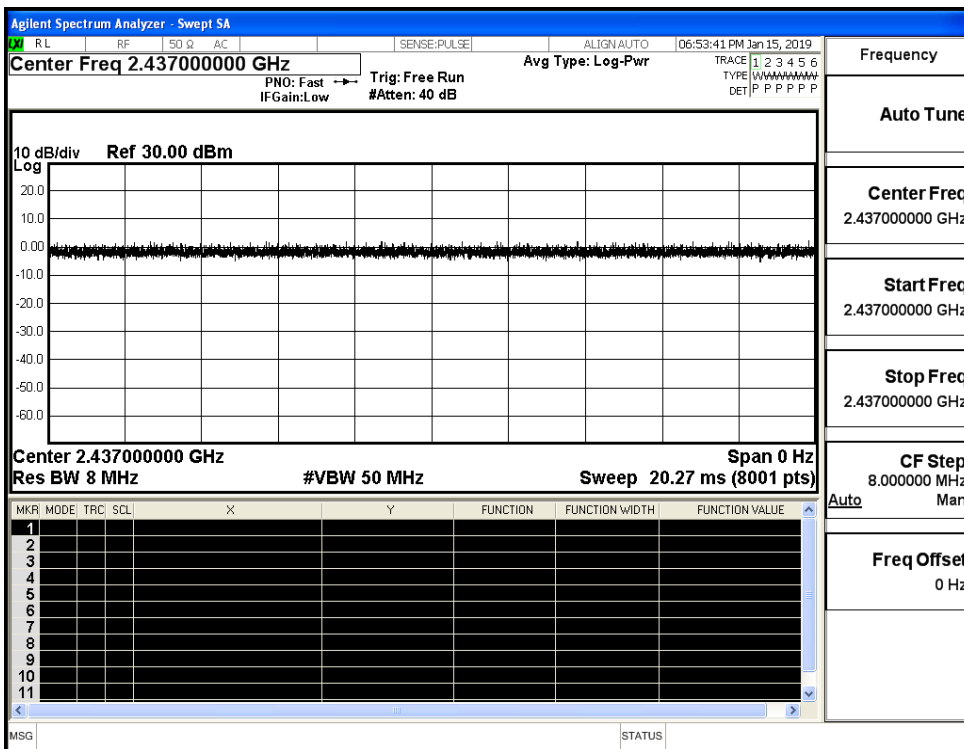
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



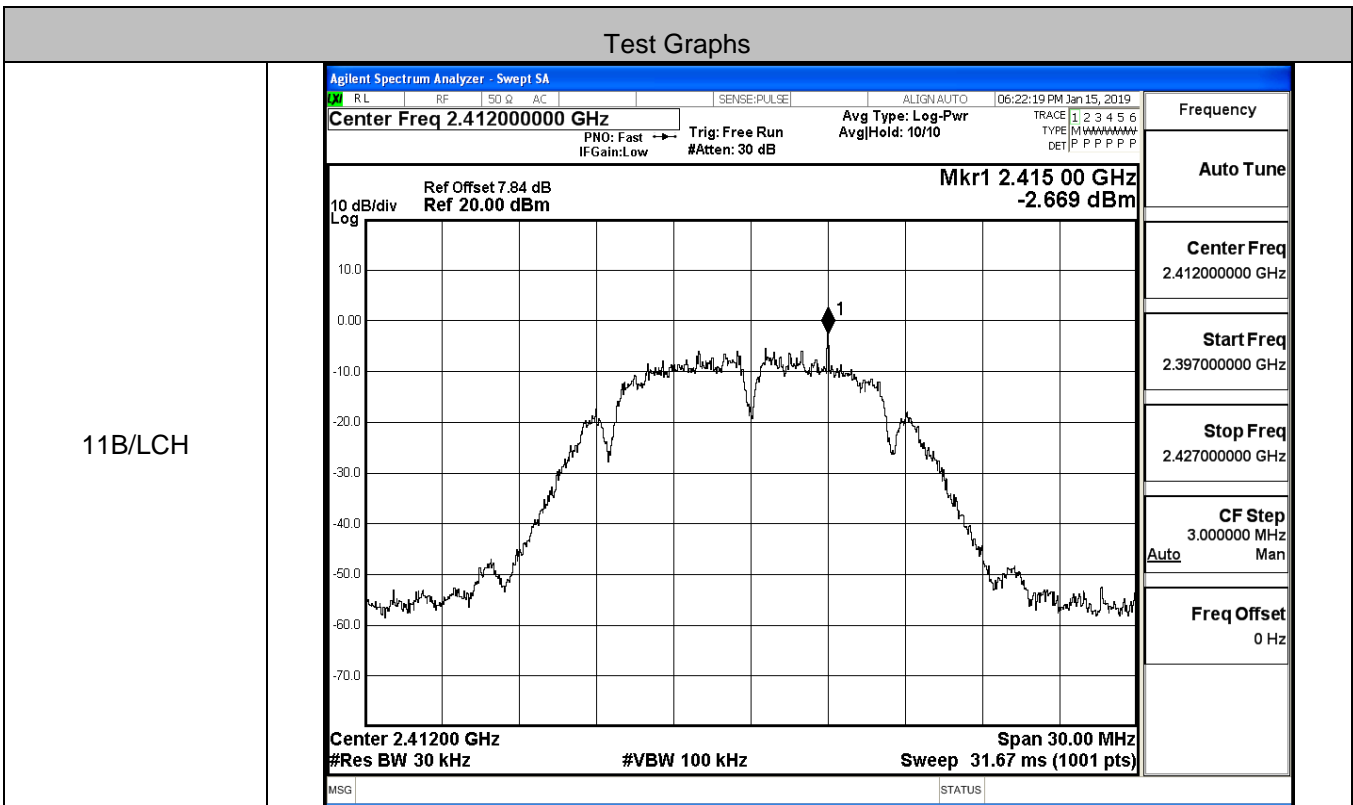
C.2 Maximum Conducted Output Power

Mode	Channel	Meas. Peak Level [dBm]	Meas. Average Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.95	2.79	30	PASS
	MCH	5.03	2.93	30	PASS
	HCH	5.02	2.84	30	PASS
11G	LCH	7.02	3.57	30	PASS
	MCH	7.31	3.83	30	PASS
	HCH	7.30	3.79	30	PASS
11N20SISO	LCH	6.79	3.28	30	PASS
	MCH	7.03	3.54	30	PASS
	HCH	7.17	3.71	30	PASS
11N40SISO	LCH	5.65	0.23	30	PASS
	MCH	6.57	1.26	30	PASS
	HCH	5.89	0.47	30	PASS

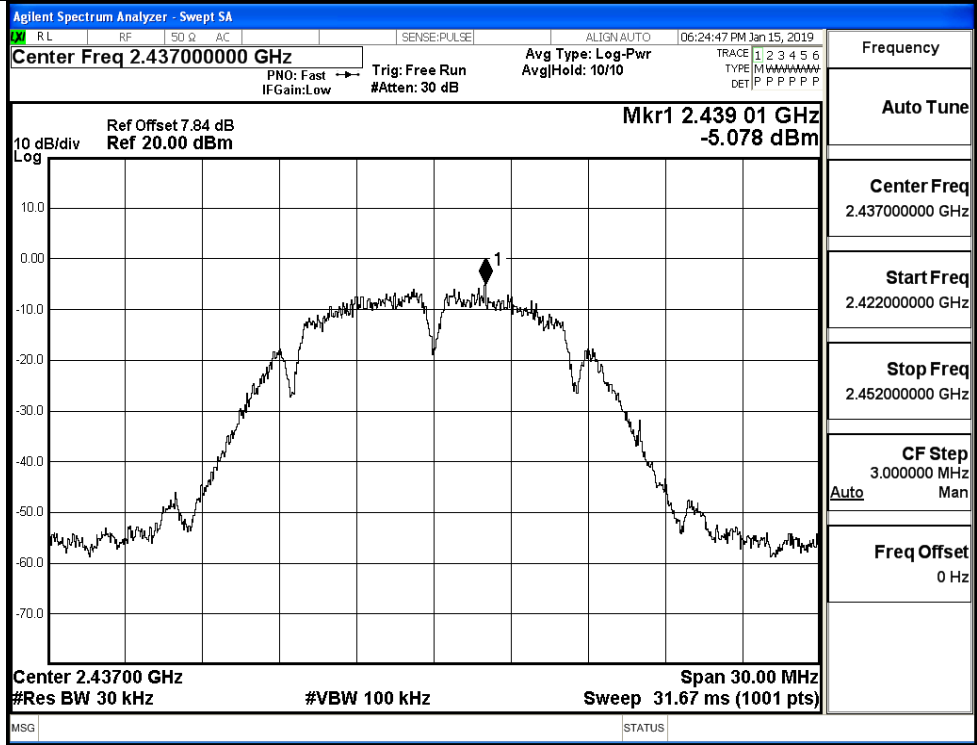
C.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/30KHz]	Convert Factor	Result [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-2.669	-10	-12.669	8	PASS
	MCH	-5.078	-10	-15.078	8	PASS
	HCH	-3.274	-10	-13.274	8	PASS
11G	LCH	-10.392	-10	-20.392	8	PASS
	MCH	-9.859	-10	-19.859	8	PASS
	HCH	-9.303	-10	-19.303	8	PASS
11N20SISO	LCH	-9.167	-10	-19.167	8	PASS
	MCH	-10.177	-10	-20.177	8	PASS
	HCH	-8.969	-10	-18.969	8	PASS
11N40SISO	LCH	-15.569	-10	-25.569	8	PASS
	MCH	-12.617	-10	-22.617	8	PASS
	HCH	-15.380	-10	-25.380	8	PASS

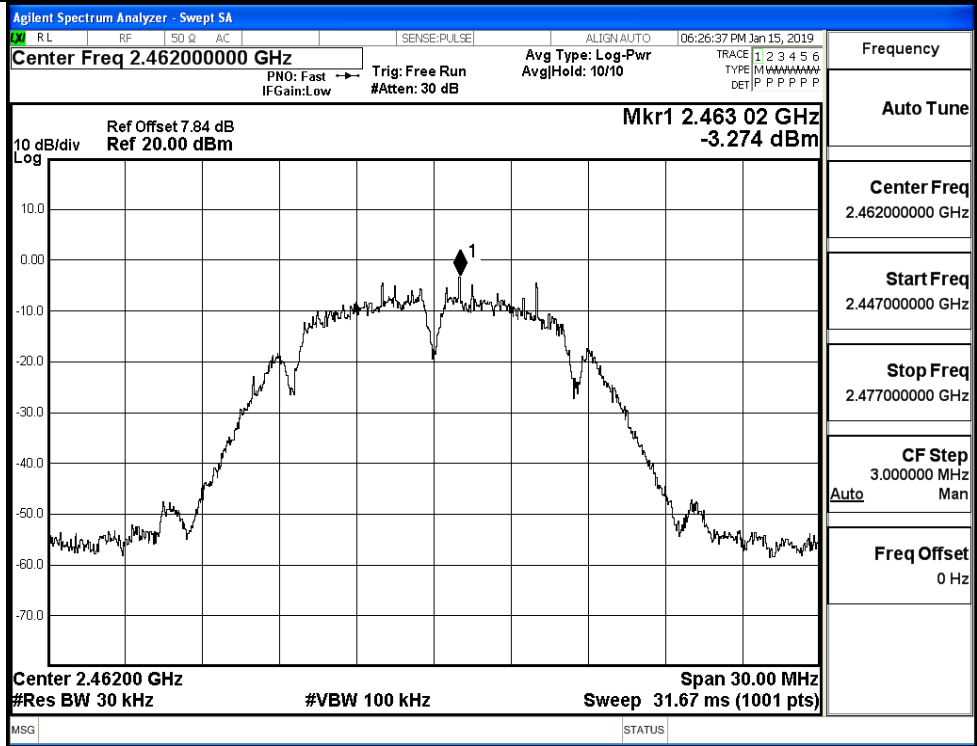
***Note: The Convert Factor = $10 \cdot \log(3\text{KHz}/30\text{KHz}) = -10$



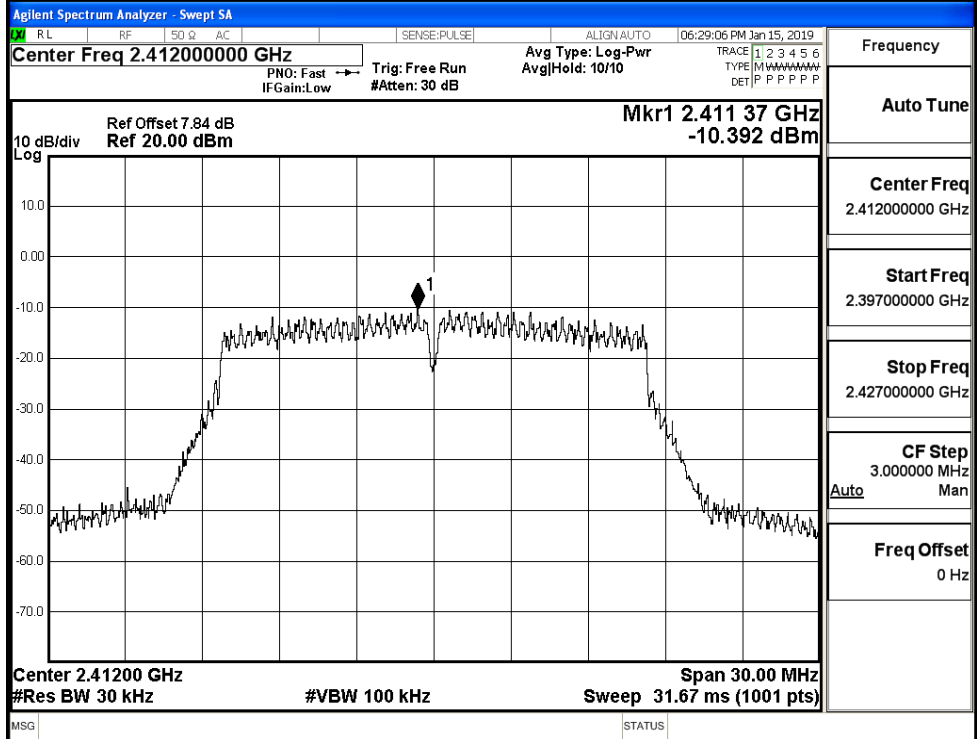
11B/MCH



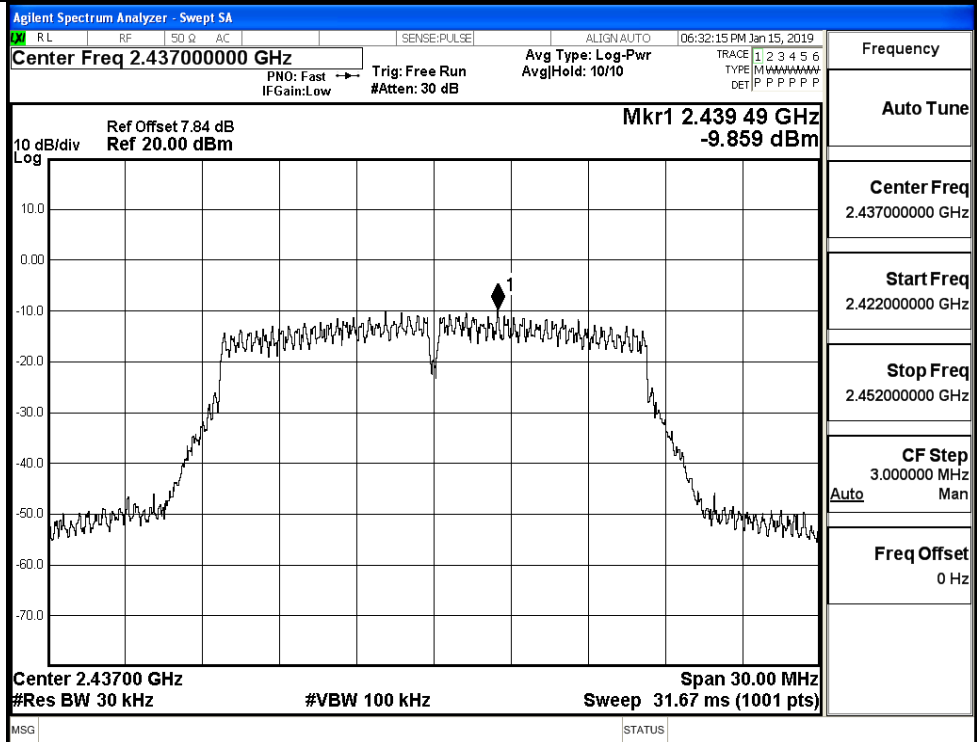
11B/HCH



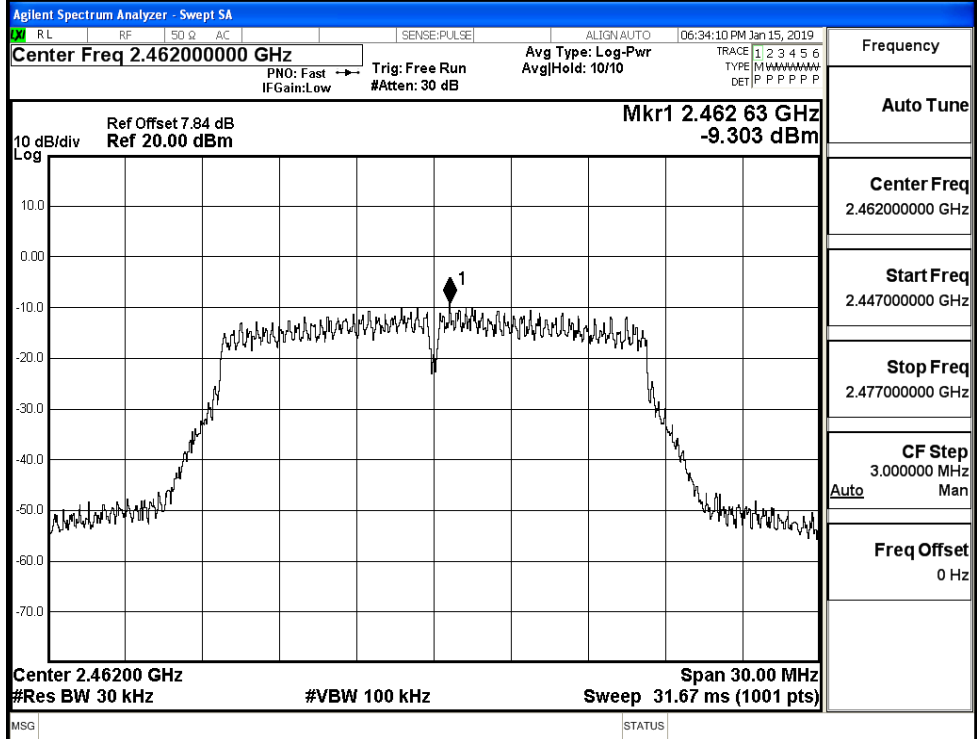
11G/LCH



11G/MCH

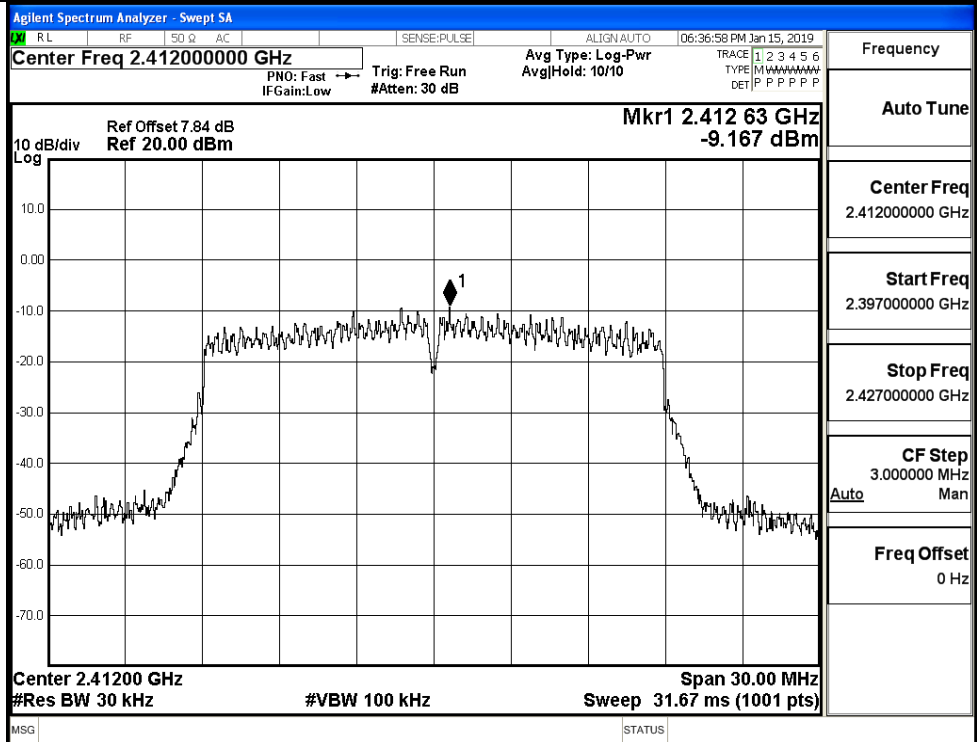


11G/HCH



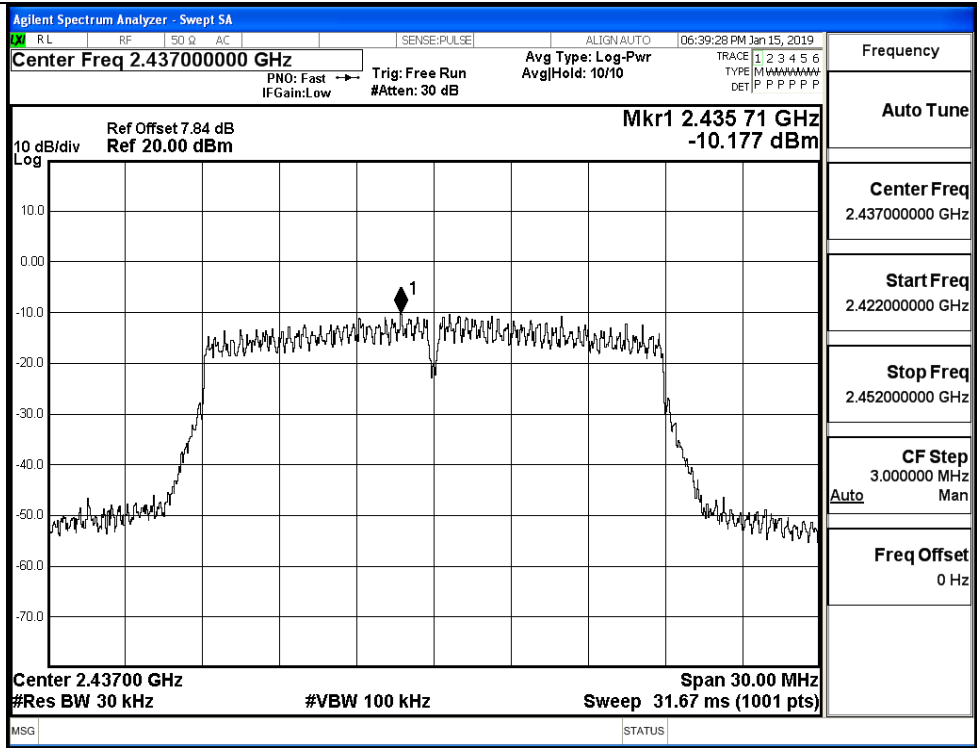
Frequency
Auto Tune
Center Freq 2.46200000 GHz
Start Freq 2.447000000 GHz
Stop Freq 2.477000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11N20SISO/LCH

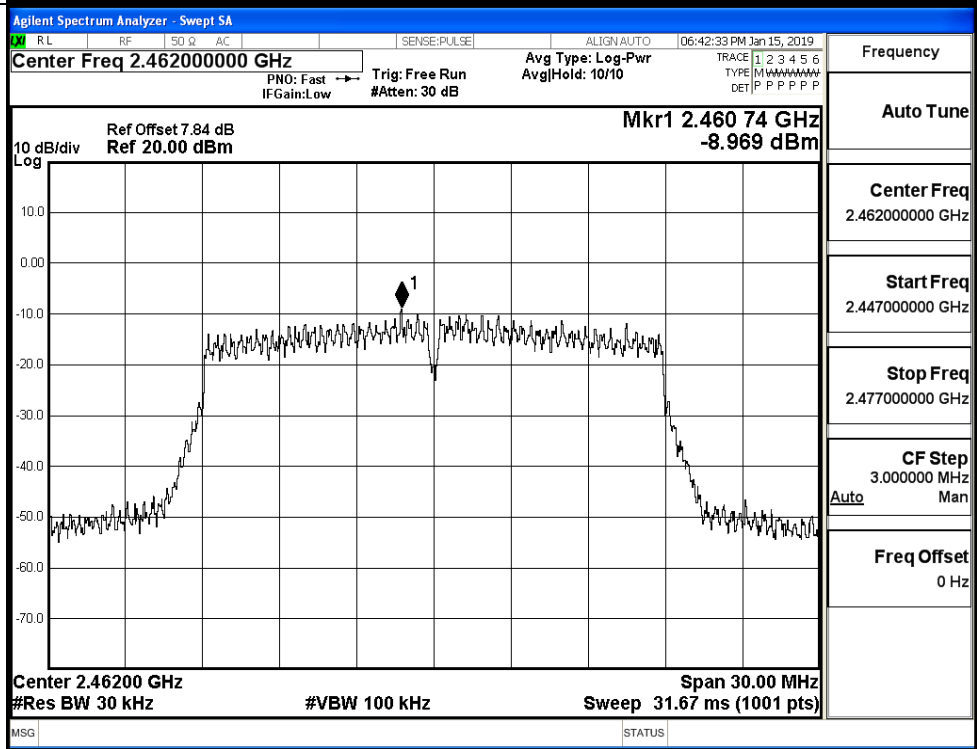


Frequency
Auto Tune
Center Freq 2.41200000 GHz
Start Freq 2.397000000 GHz
Stop Freq 2.427000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

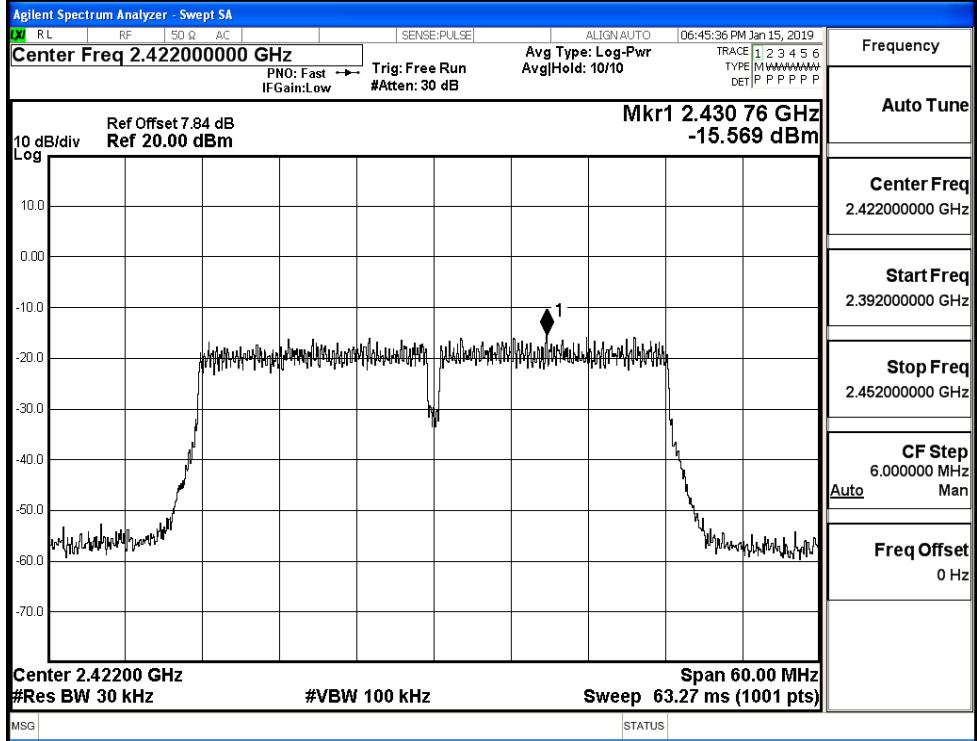
11N20SISO/MCH



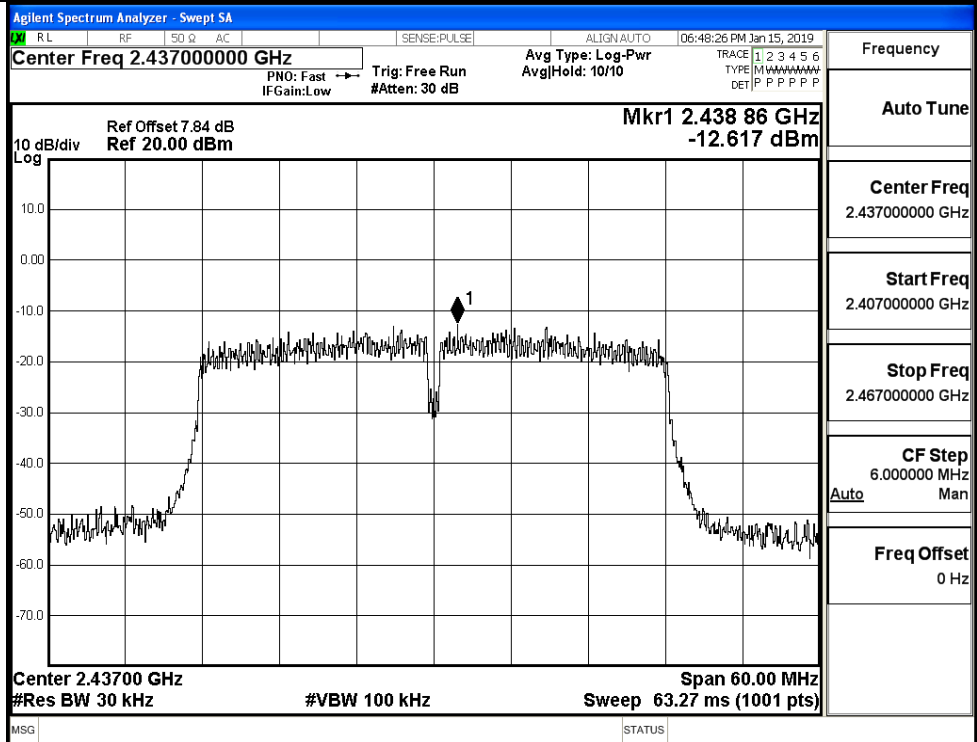
11N20SISO/HCH



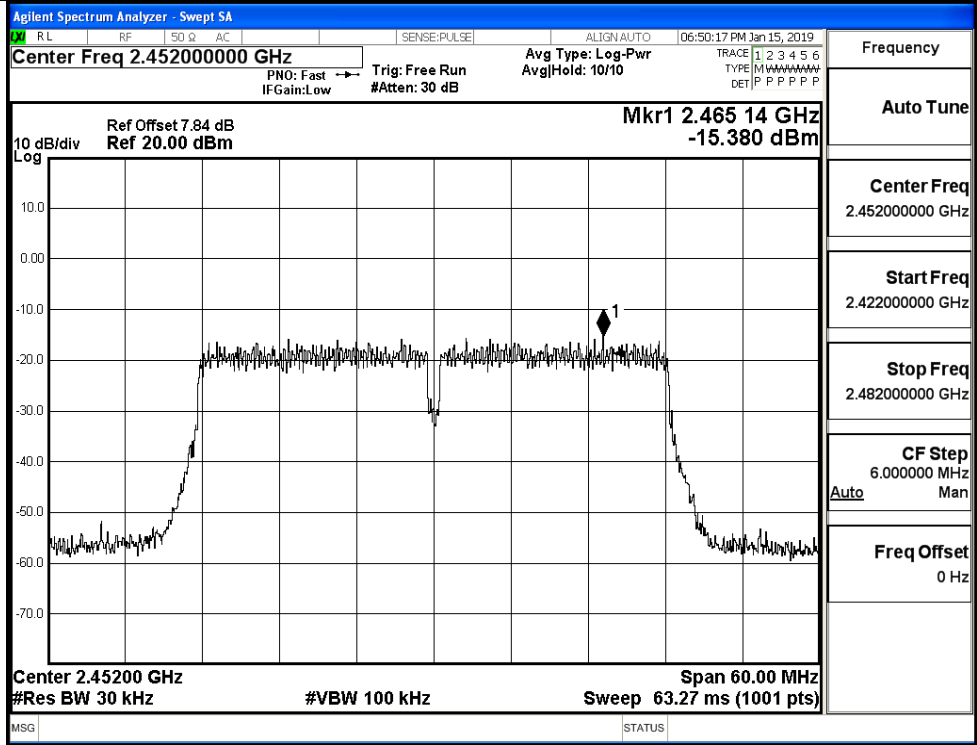
11N40SISO/LCH



11N40SISO/MCH

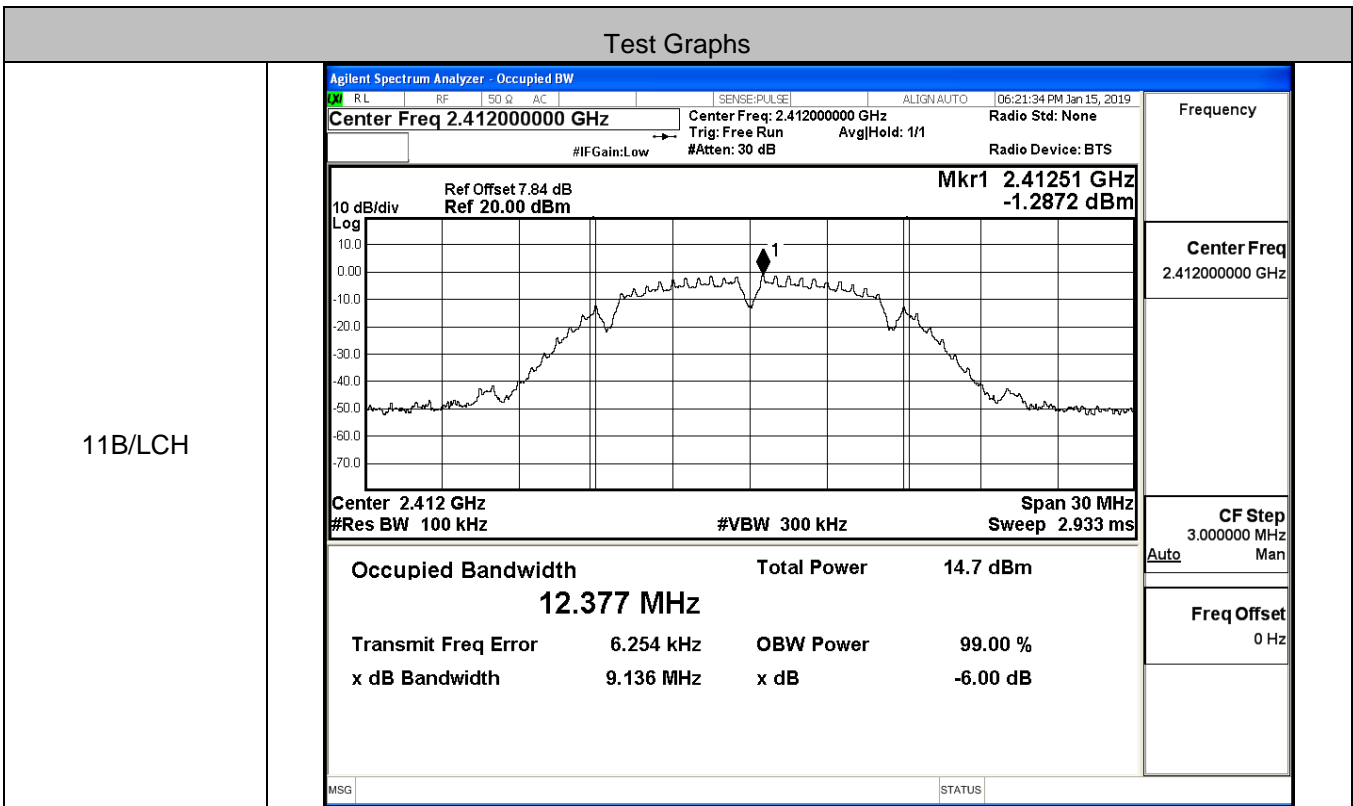


11N40SISO/HCH

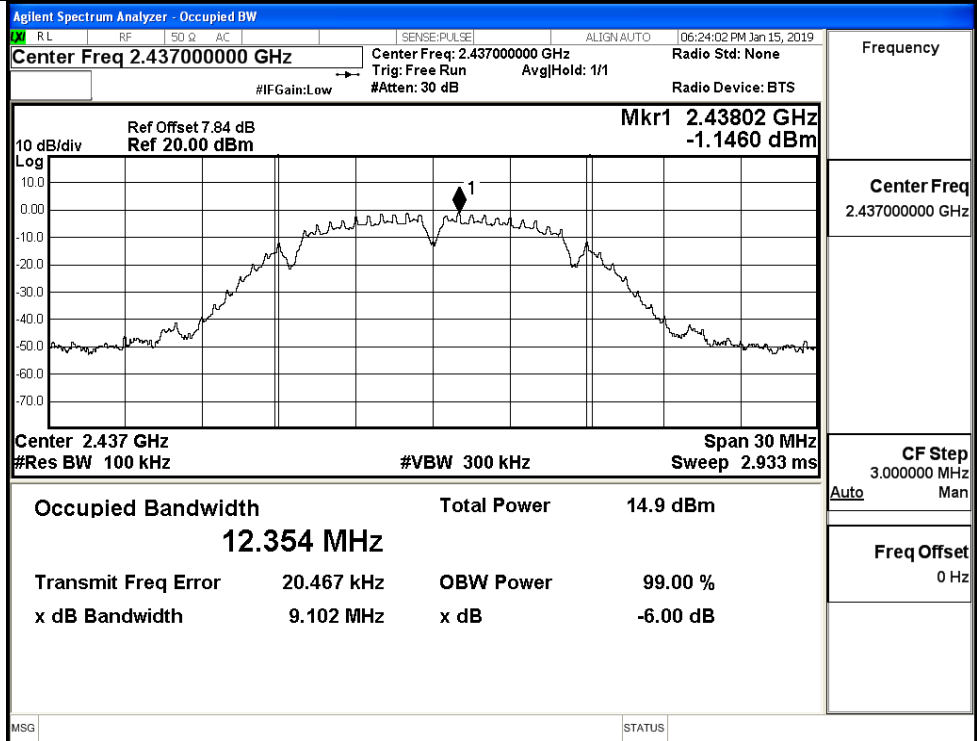


C.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.136	≥0.5	PASS
	MCH	9.102	≥0.5	PASS
	HCH	9.113	≥0.5	PASS
11G	LCH	15.16	≥0.5	PASS
	MCH	15.82	≥0.5	PASS
	HCH	15.16	≥0.5	PASS
11N20SISO	LCH	15.11	≥0.5	PASS
	MCH	15.15	≥0.5	PASS
	HCH	15.71	≥0.5	PASS
11N40SISO	LCH	36.29	≥0.5	PASS
	MCH	35.23	≥0.5	PASS
	HCH	36.09	≥0.5	PASS

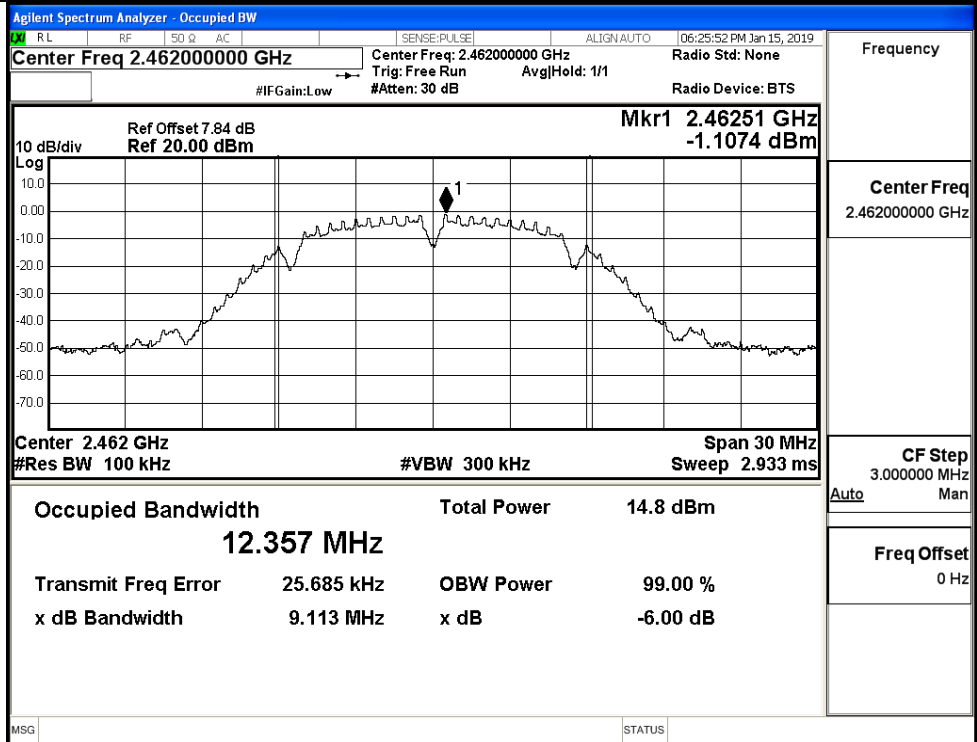


11B/MCH



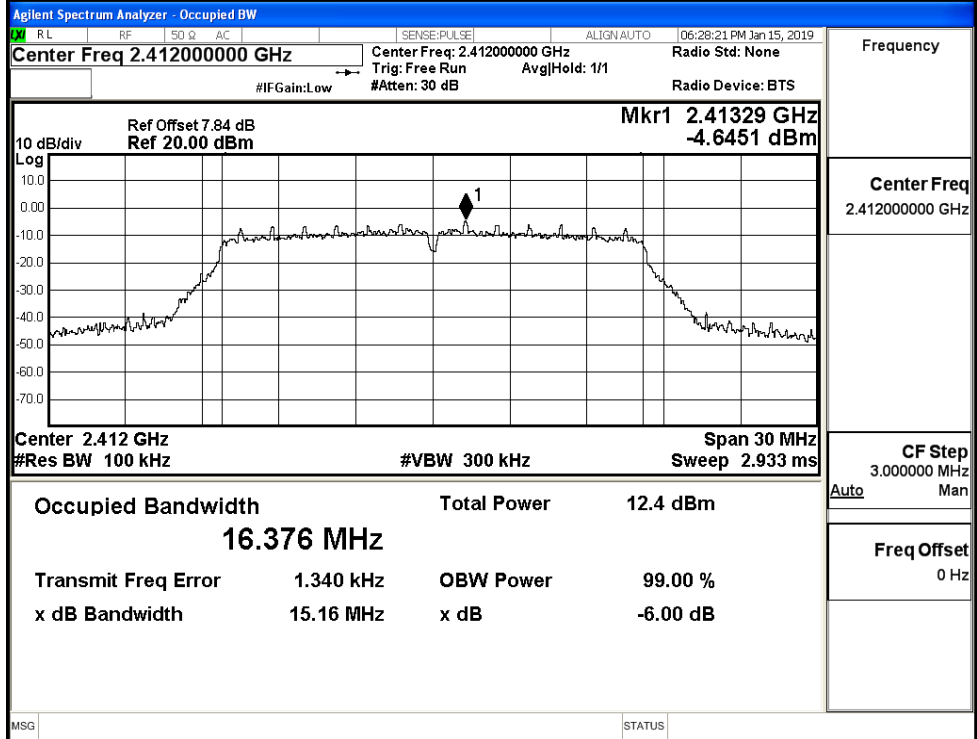
Frequency	2.43700000 GHz
Center Freq	2.43700000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11B/HCH



Frequency	2.46200000 GHz
Center Freq	2.46200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11G/LCH



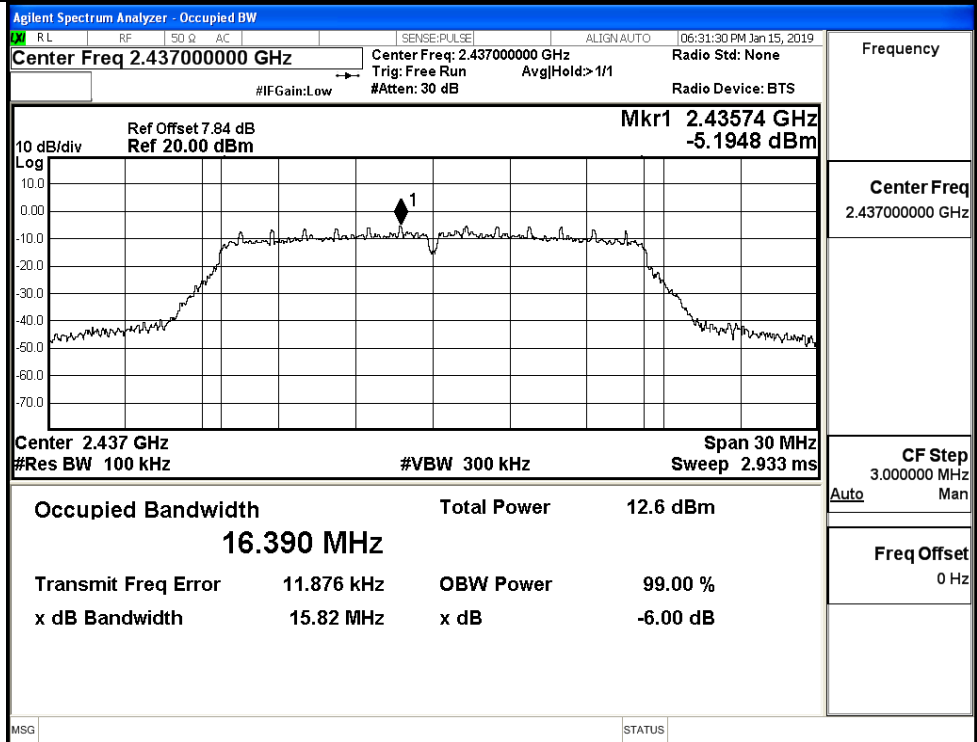
Frequency

Center Freq
2.41200000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11G/MCH



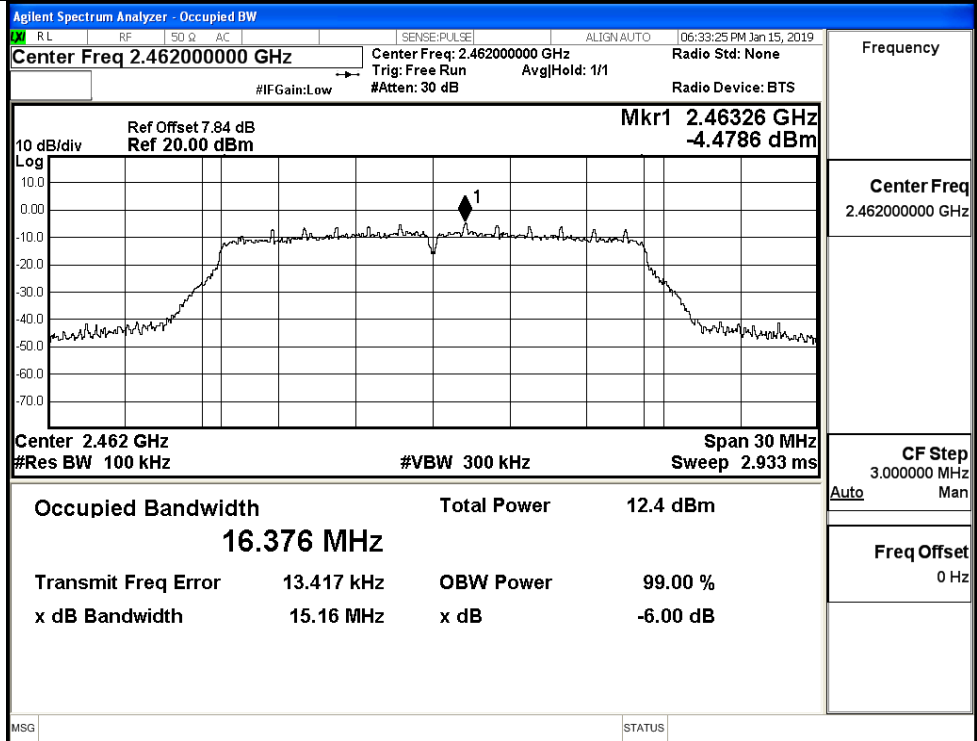
Frequency

Center Freq
2.43700000 GHz

CF Step
3.000000 MHz
Auto Man

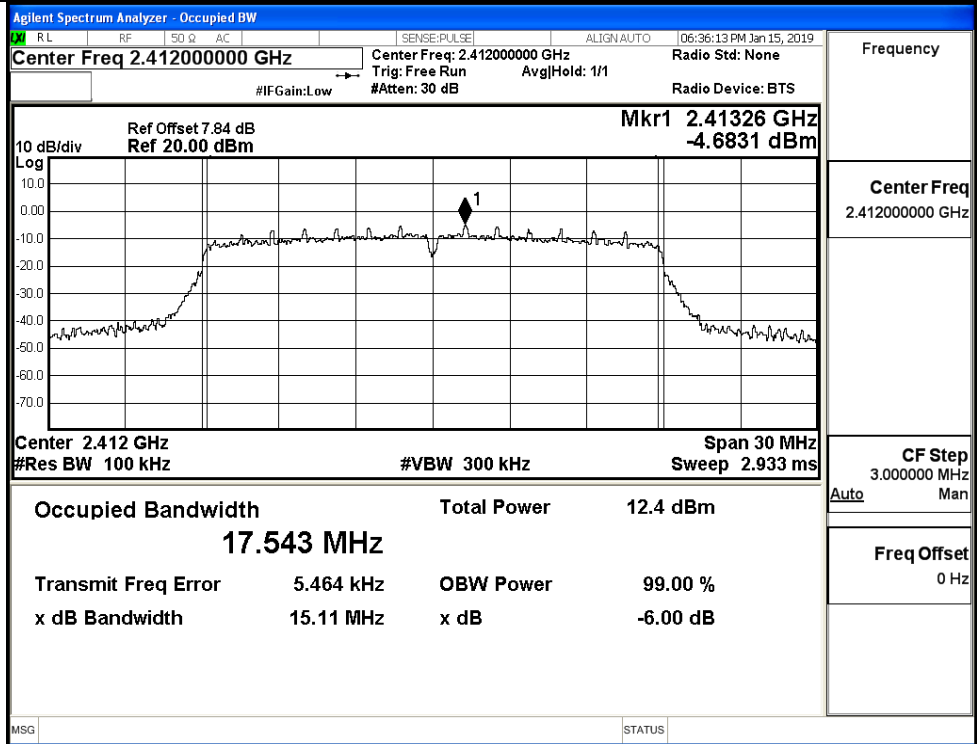
Freq Offset
0 Hz

11G/HCH



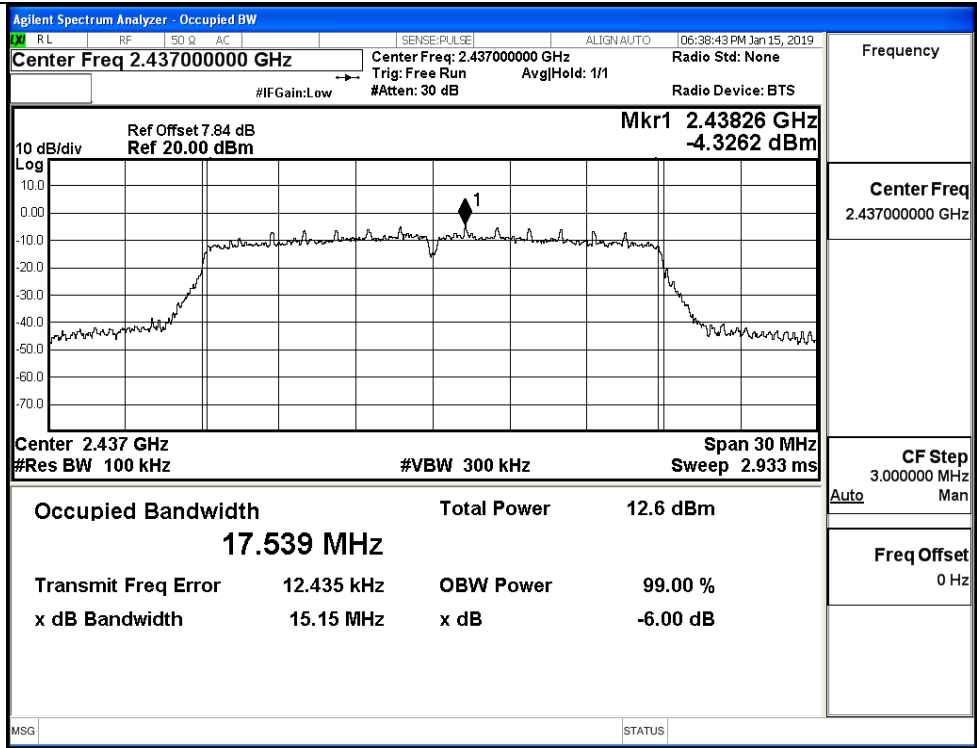
Frequency	2.46200000 GHz
Center Freq	2.46200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11N20SISO/LCH

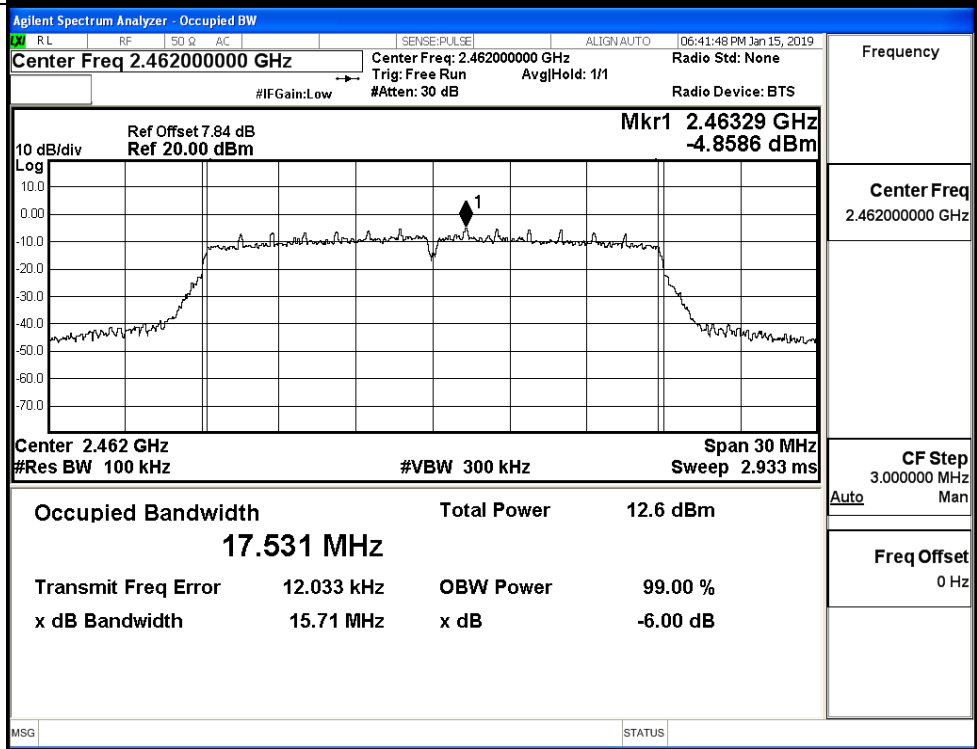


Frequency	2.41200000 GHz
Center Freq	2.41200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

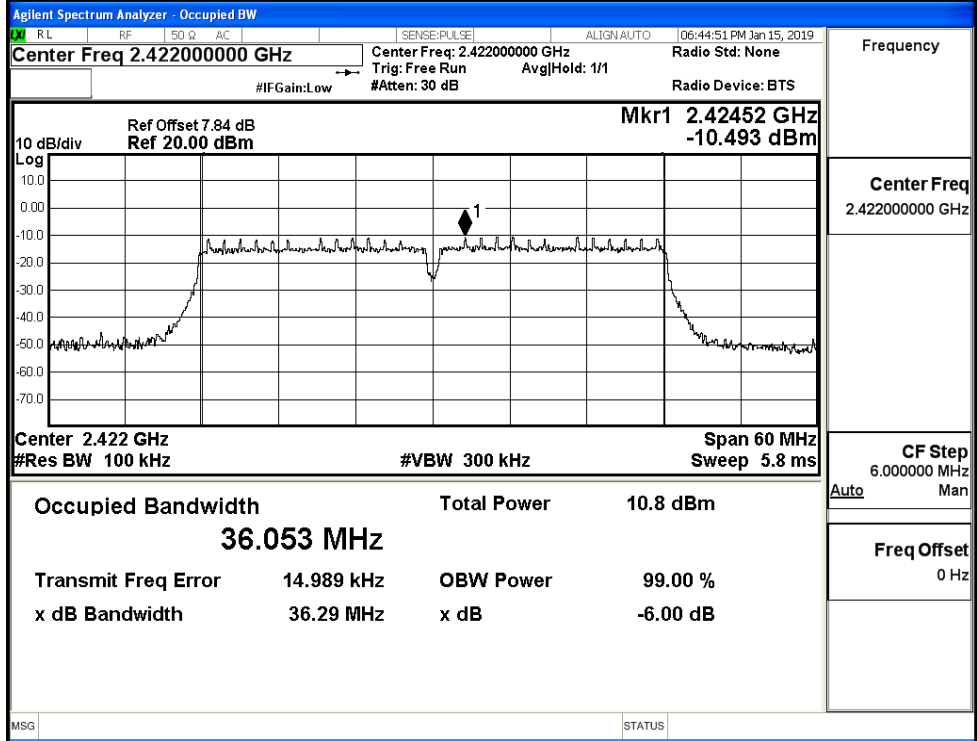
11N20SISO/MCH



11N20SISO/HCH

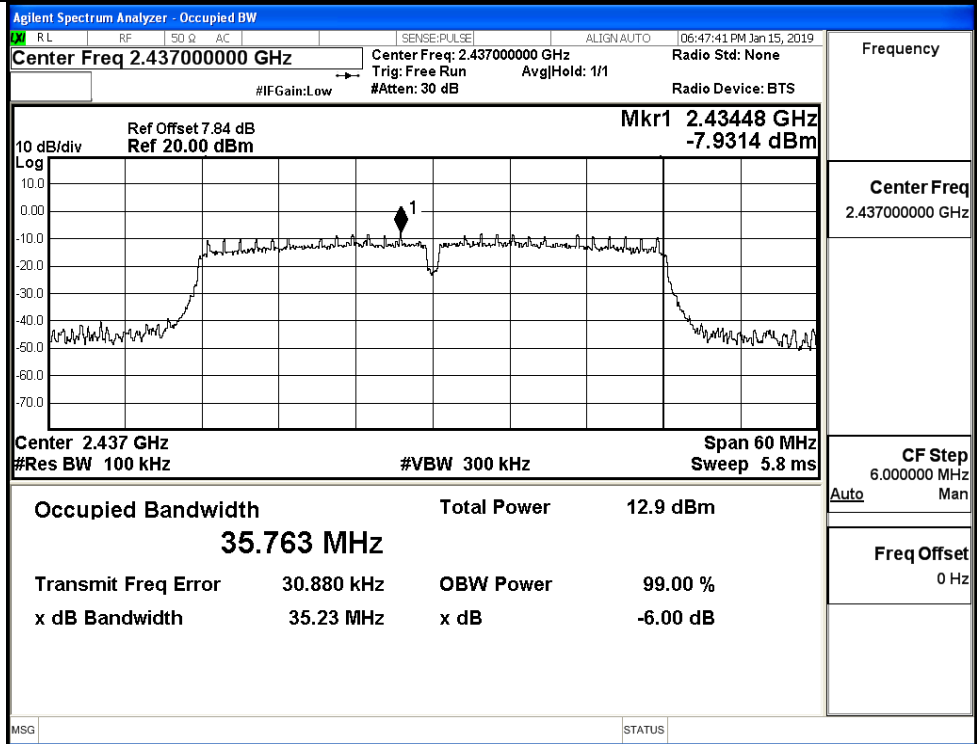


11N40SISO/LCH



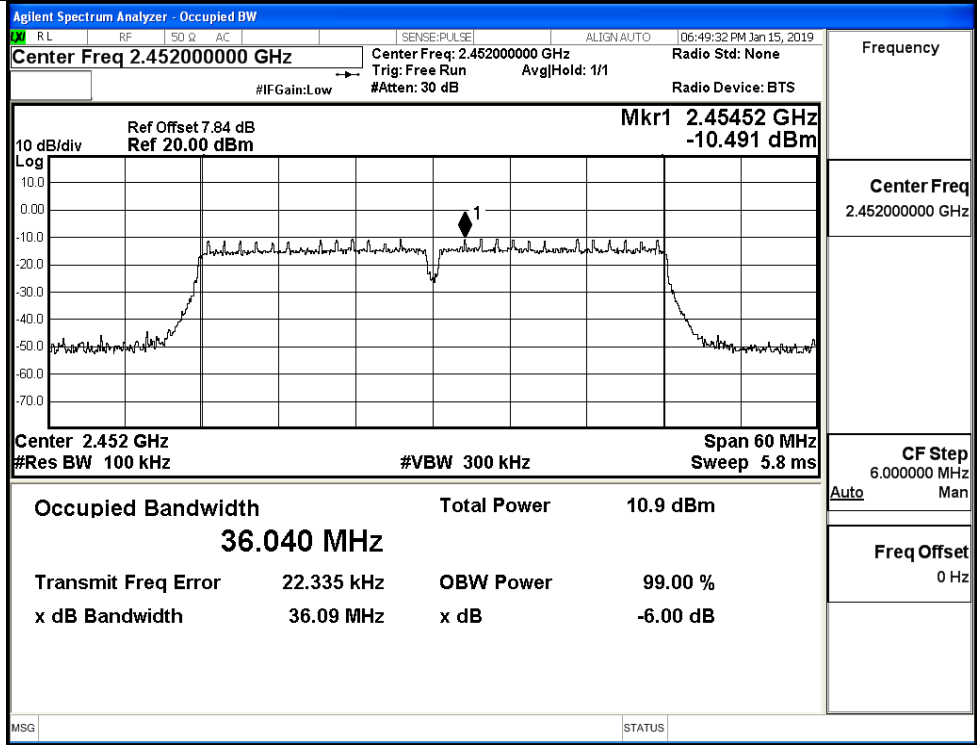
Frequency	2.42200000 GHz
Center Freq	2.42200000 GHz
CF Step	6.000000 MHz
Auto	Man
Freq Offset	0 Hz

11N40SISO/MCH



Frequency	2.43700000 GHz
Center Freq	2.43700000 GHz
CF Step	6.000000 MHz
Auto	Man
Freq Offset	0 Hz

11N40SISO/HCH



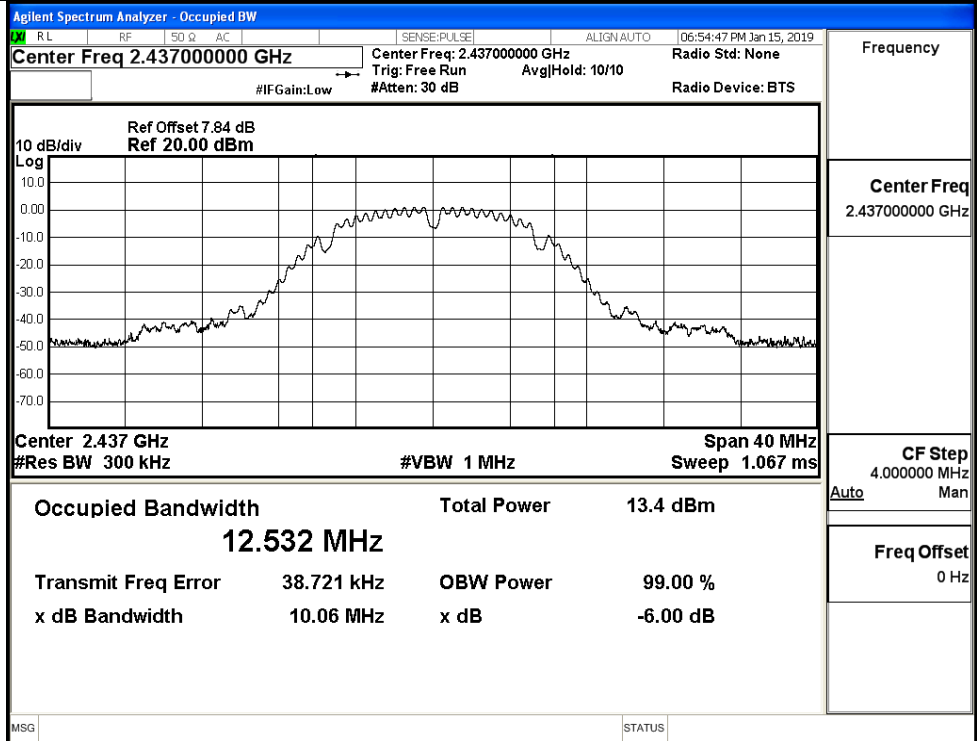
C.5 Occupied Bandwidth

Mode	Channel	Occupied Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	12.498	≥0.5	PASS
	MCH	12.532	≥0.5	PASS
	HCH	12.567	≥0.5	PASS
11G	LCH	16.713	≥0.5	PASS
	MCH	16.721	≥0.5	PASS
	HCH	16.650	≥0.5	PASS
11N20SISO	LCH	17.637	≥0.5	PASS
	MCH	17.677	≥0.5	PASS
	HCH	17.650	≥0.5	PASS
11N40SISO	LCH	36.317	≥0.5	PASS
	MCH	36.018	≥0.5	PASS
	HCH	36.295	≥0.5	PASS

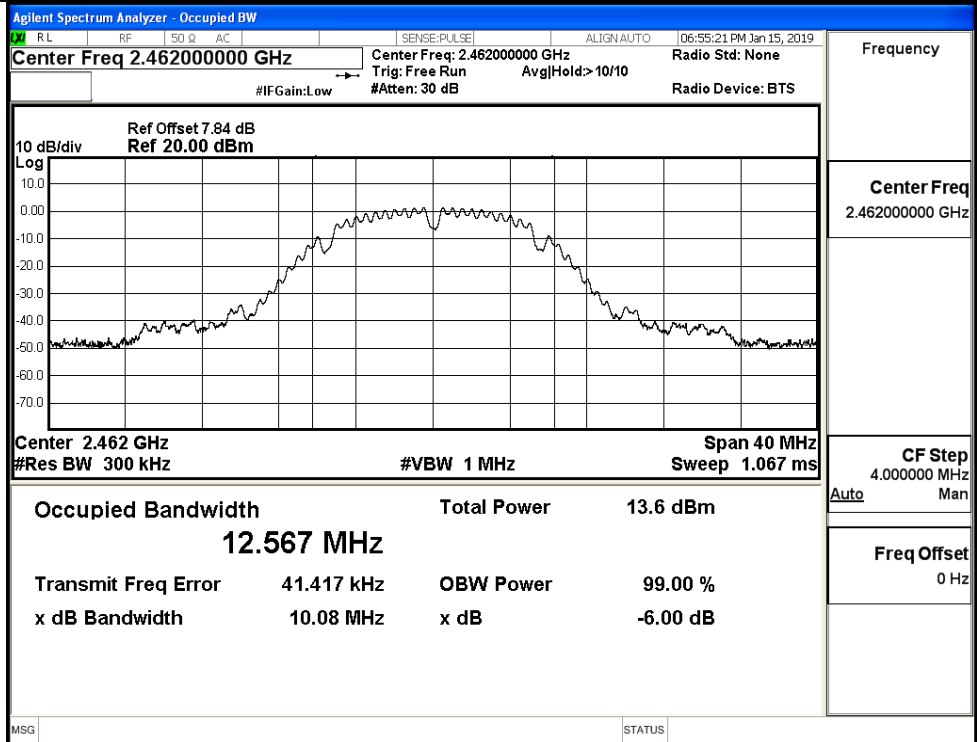
Test Graphs

11B/LCH		<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.41200000 GHz</p> <p>Trig: Free Run AvgHold: >10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref Offset 7.84 dB</p> <p>Ref 20.00 dBm</p> <p>10 dB/div</p> <p>Log</p> <p>Center 2.412 GHz</p> <p>#Res BW 300 kHz</p> <p>#VBW 1 MHz</p> <p>Span 40 MHz</p> <p>Sweep 1.067 ms</p> <p>Occupied Bandwidth 12.498 MHz</p> <p>Total Power 12.9 dBm</p> <p>Transmit Freq Error 15.304 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 10.07 MHz</p> <p>x dB -6.00 dB</p> <p>Frequency 2.41200000 GHz</p> <p>CF Step 4.000000 MHz</p> <p>Freq Offset 0 Hz</p>
	MSG	STATUS

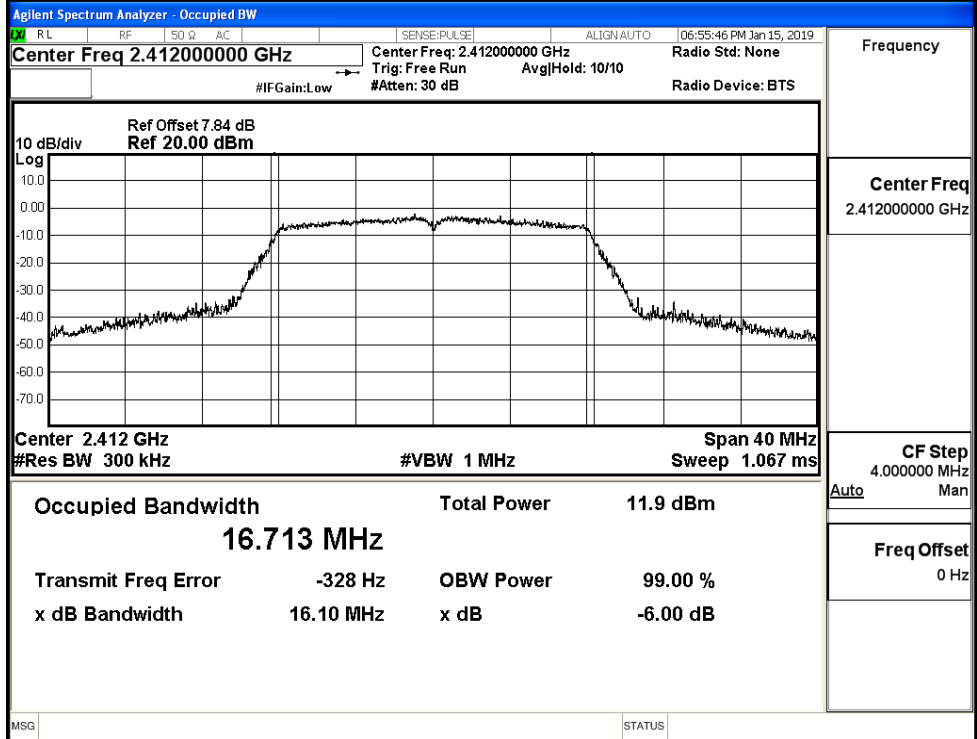
11B/MCH



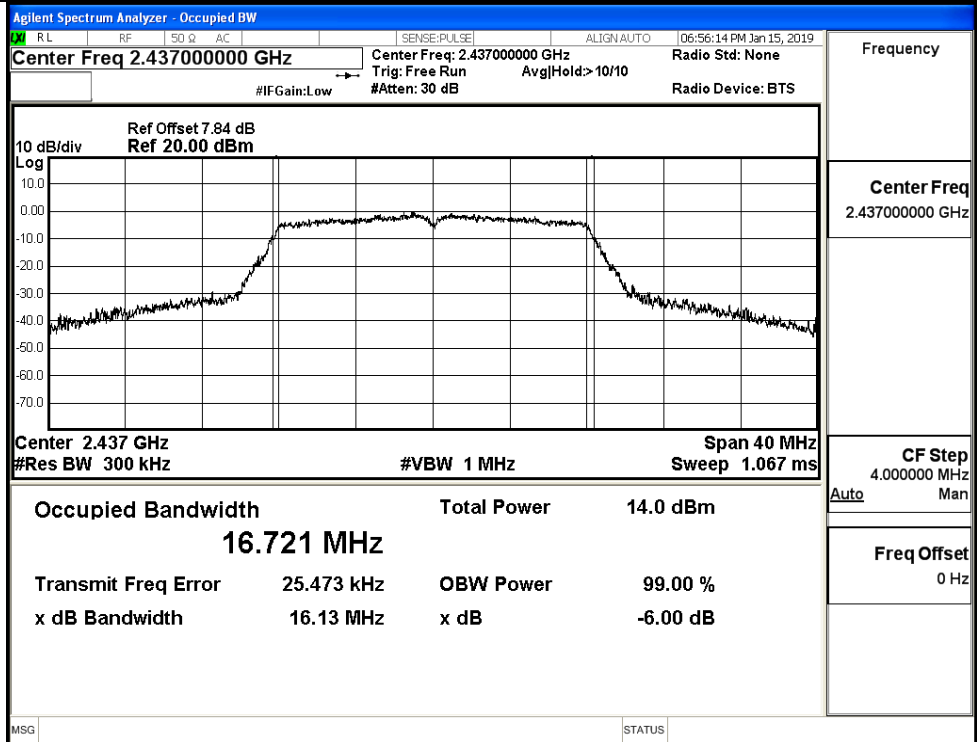
11B/HCH



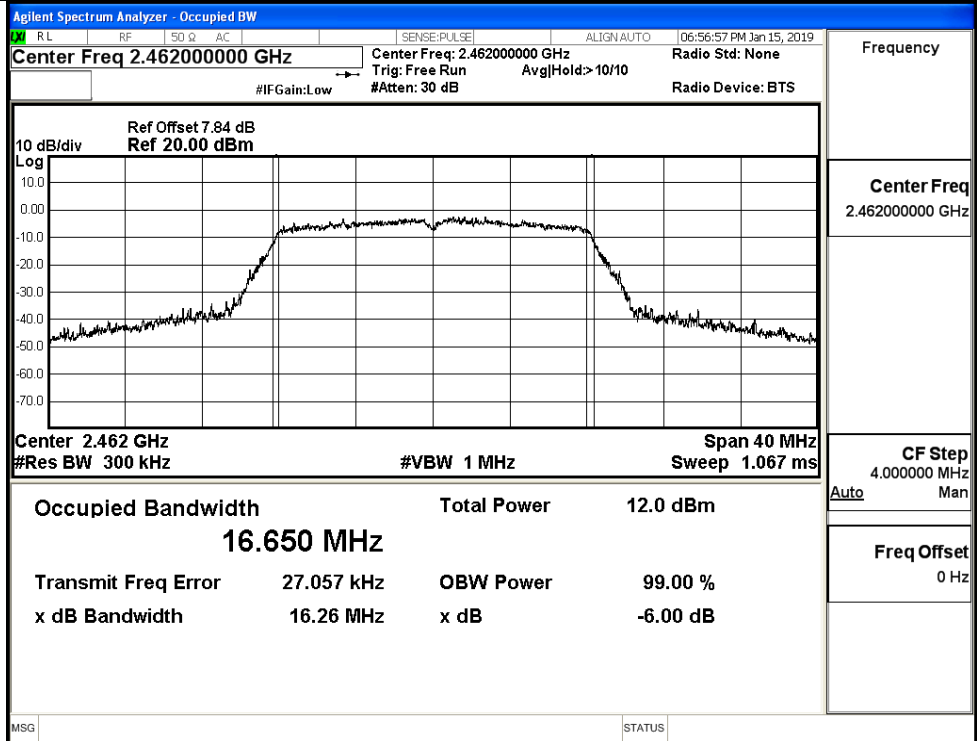
11G/LCH



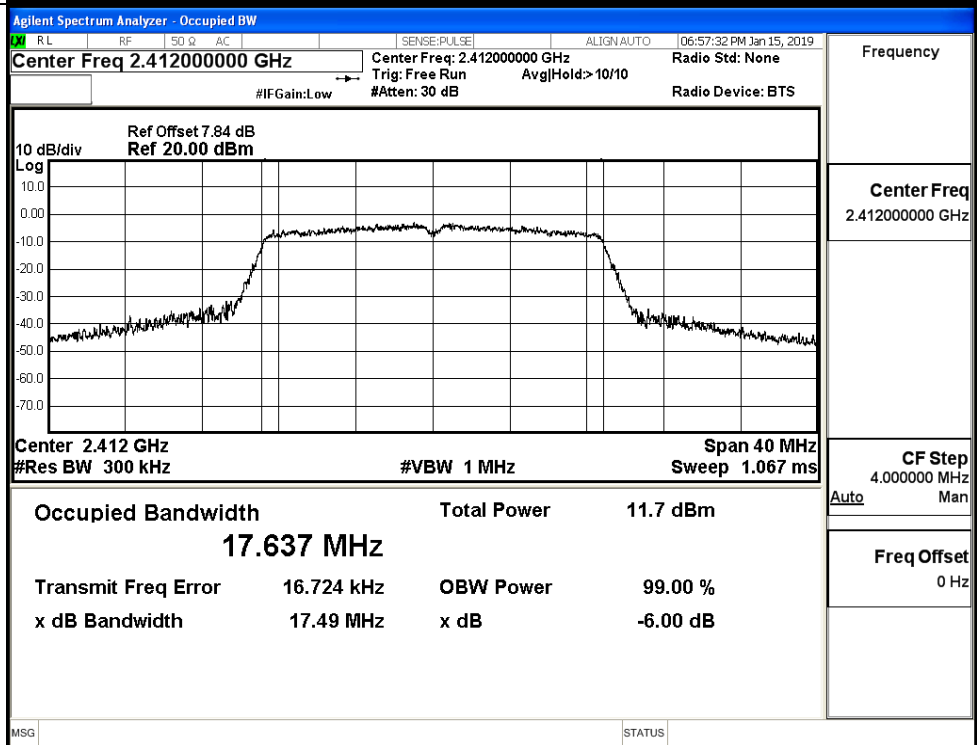
11G/MCH



11G/HCH

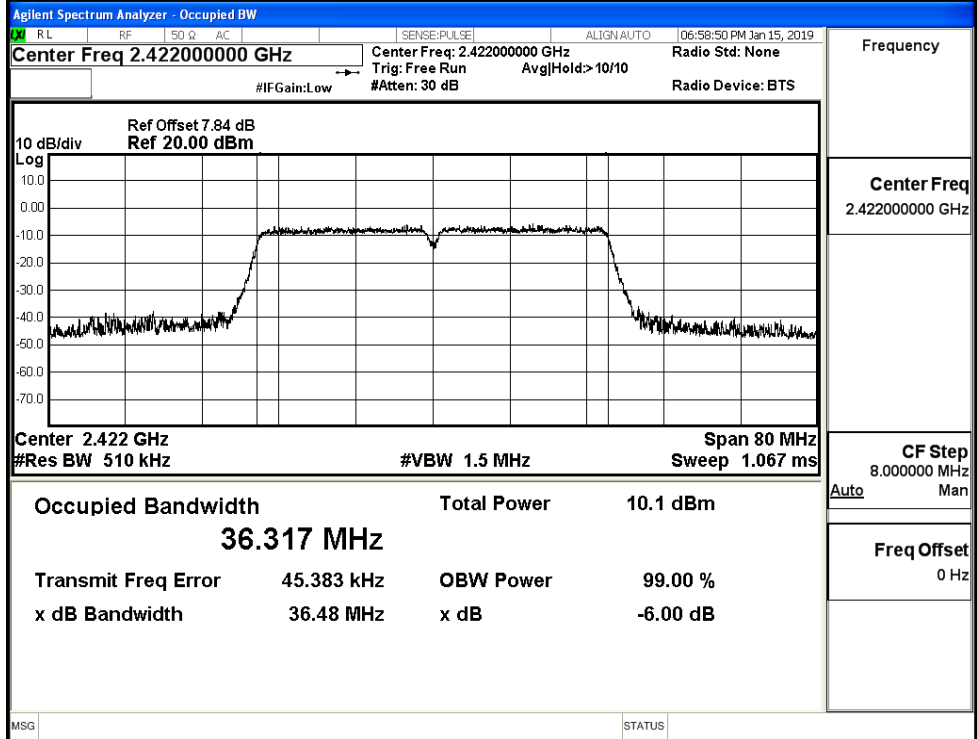


11N20SISO/LCH



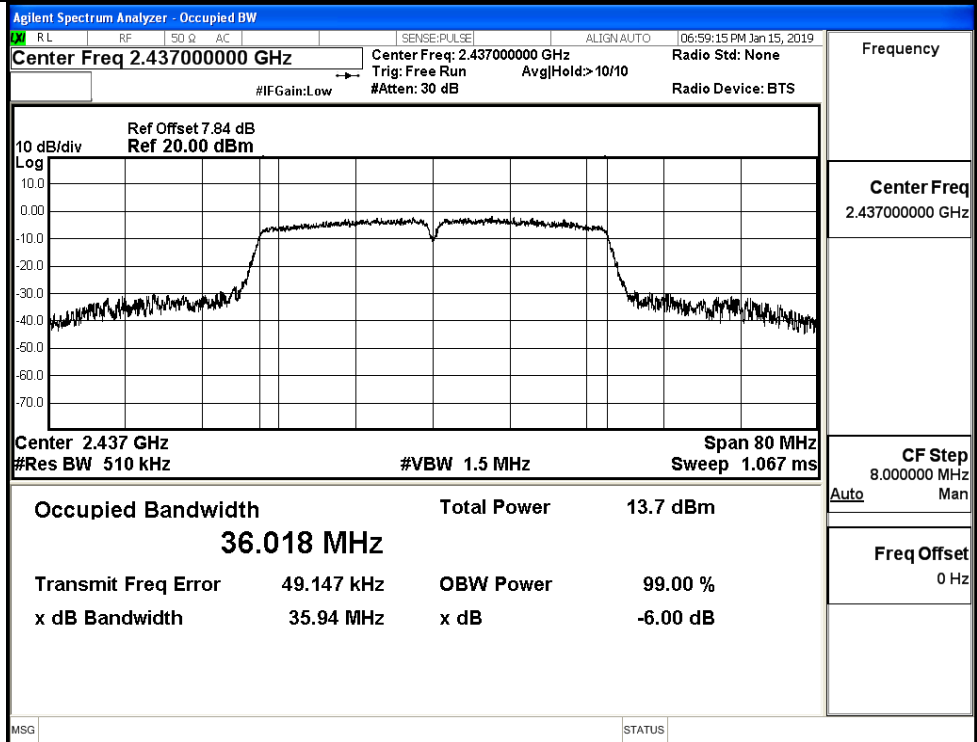
<p>11N20SISO/MCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>RL RF 50 Ω AC SENSE:PULSE ALIGN AUTO 06:58:00 PM Jan 15, 2019</p> <p>Center Freq 2.43700000 GHz Center Freq: 2.43700000 GHz Radio Std: None Trig: Free Run AvgHold: 10/10 #IFGain:Low #Atten: 30 dB Radio Device: BTS</p> <p>10 dB/div Ref Offset 7.84 dB Ref 20.00 dBm</p> <p>Center 2.437 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 1.067 ms</p> <p>Occupied Bandwidth 17.677 MHz Total Power 14.0 dBm</p> <p>Transmit Freq Error 12.640 kHz OBW Power 99.00 % x dB Bandwidth 17.38 MHz x dB -6.00 dB</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Center Freq 2.43700000 GHz</p> <p>CF Step 4.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>11N20SISO/HCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>RL RF 50 Ω AC SENSE:PULSE ALIGN AUTO 06:58:25 PM Jan 15, 2019</p> <p>Center Freq 2.46200000 GHz Center Freq: 2.46200000 GHz Radio Std: None Trig: Free Run AvgHold: 10/10 #IFGain:Low #Atten: 30 dB Radio Device: BTS</p> <p>10 dB/div Ref Offset 7.84 dB Ref 20.00 dBm</p> <p>Center 2.462 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 1.067 ms</p> <p>Occupied Bandwidth 17.650 MHz Total Power 12.0 dBm</p> <p>Transmit Freq Error 23.343 kHz OBW Power 99.00 % x dB Bandwidth 17.49 MHz x dB -6.00 dB</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Center Freq 2.46200000 GHz</p> <p>CF Step 4.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>

11N40SISO/LCH



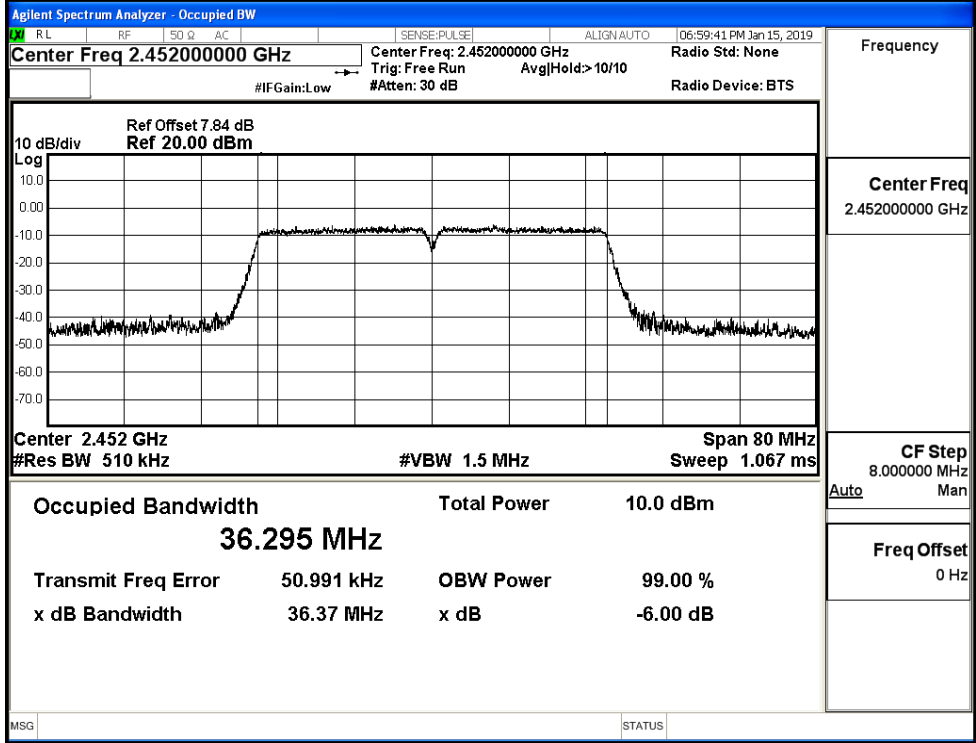
Frequency	2.42200000 GHz
CF Step	8.000000 MHz
Freq Offset	0 Hz

11N40SISO/MCH



Frequency	2.43700000 GHz
CF Step	8.000000 MHz
Freq Offset	0 Hz

11N40SISO/HCH



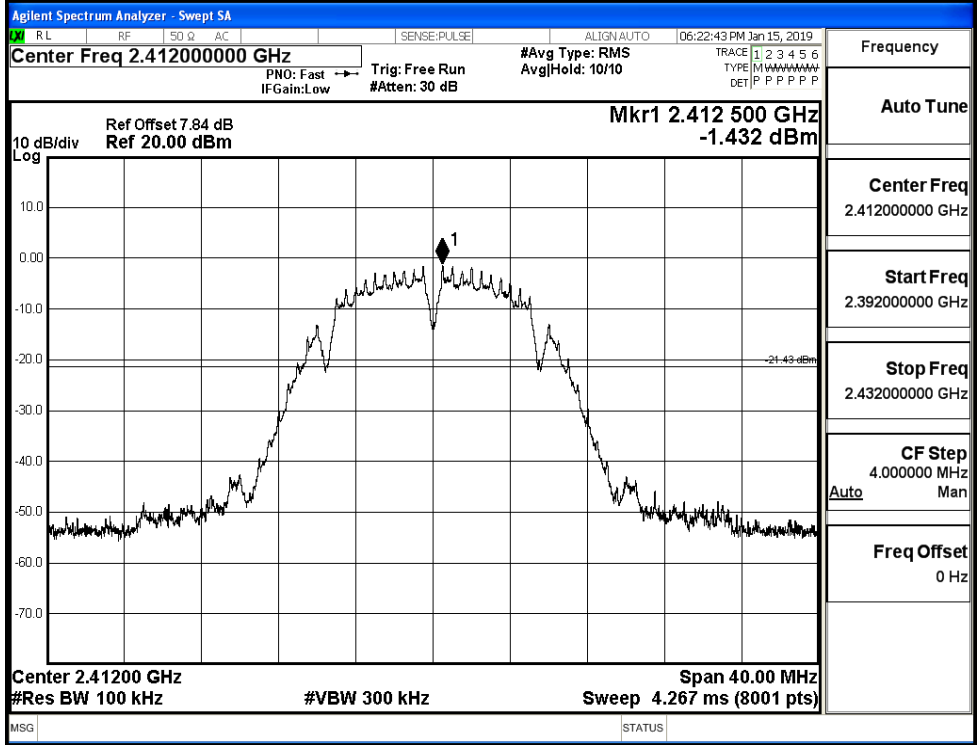
Frequency	Center Freq 2.45200000 GHz
CF Step	8.000000 MHz Auto Man
Freq Offset	0 Hz

C.6 RF Conducted Spurious Emissions

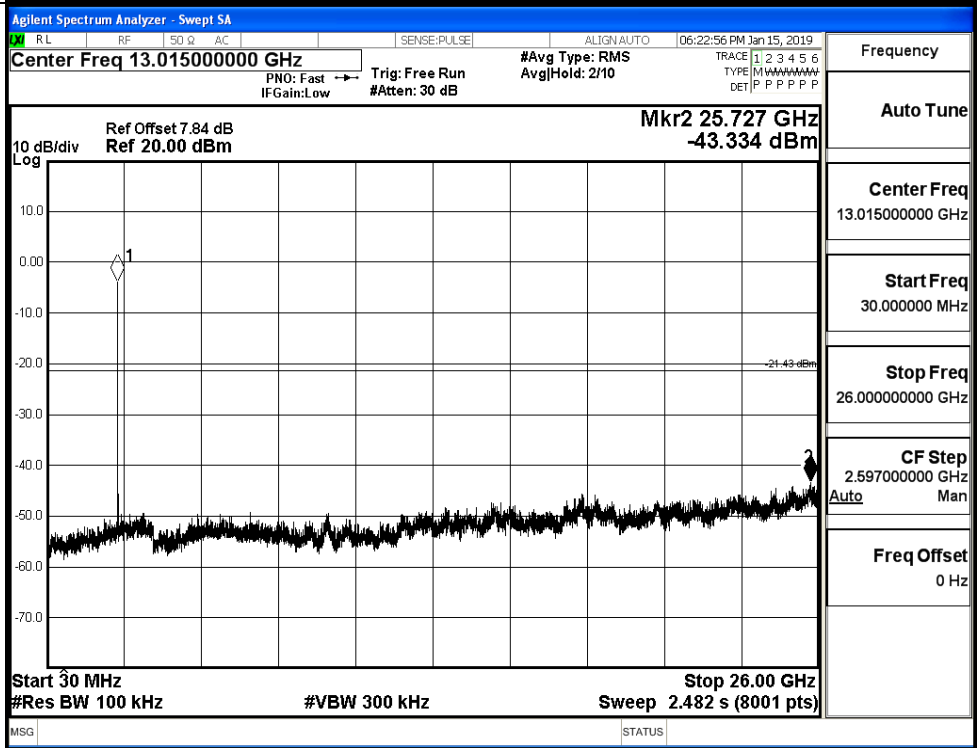
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-1.432	-43.334	-21.432	PASS
	MCH	-1.211	-44.260	-21.211	PASS
	HCH	-1.33	-43.961	-21.330	PASS
11G	LCH	-4.885	-43.655	-24.885	PASS
	MCH	-5.251	-44.076	-25.251	PASS
	HCH	-4.969	-44.125	-24.969	PASS
11N20 SISO	LCH	-4.633	-43.744	-24.633	PASS
	MCH	-5.296	-42.825	-25.296	PASS
	HCH	-5.571	-43.666	-25.571	PASS
11N40 SISO	LCH	-10.64	-44.244	-30.640	PASS
	MCH	-8.036	-43.572	-28.036	PASS
	HCH	-10.3	-43.162	-30.300	PASS

11B_LCH_Graphs

Pref/11B/LCH

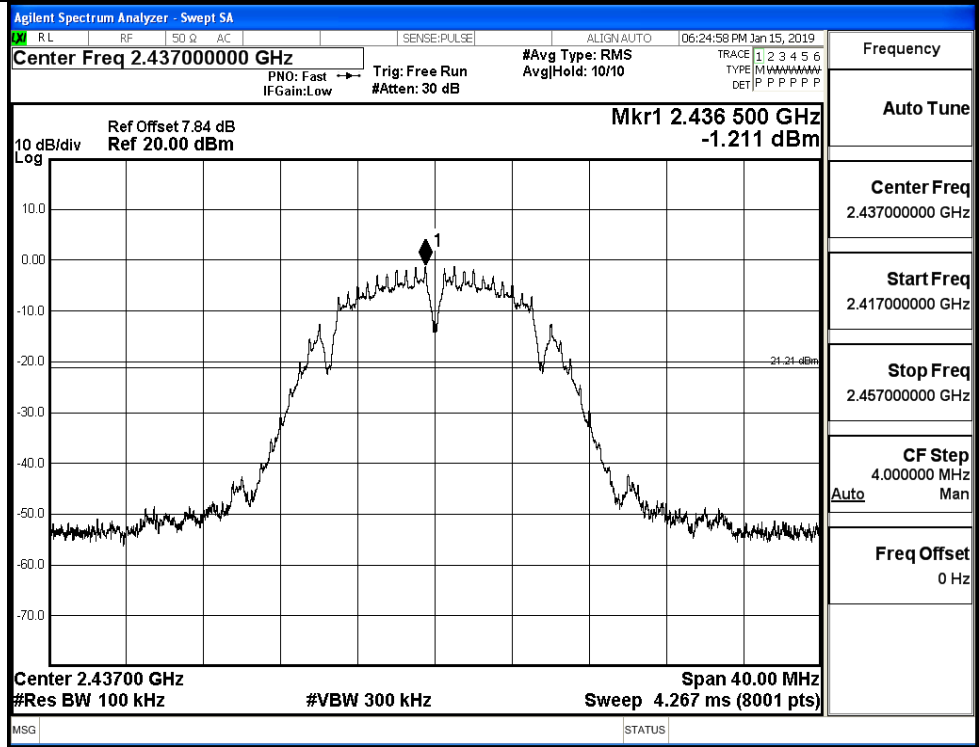


Puw/11B/LCH

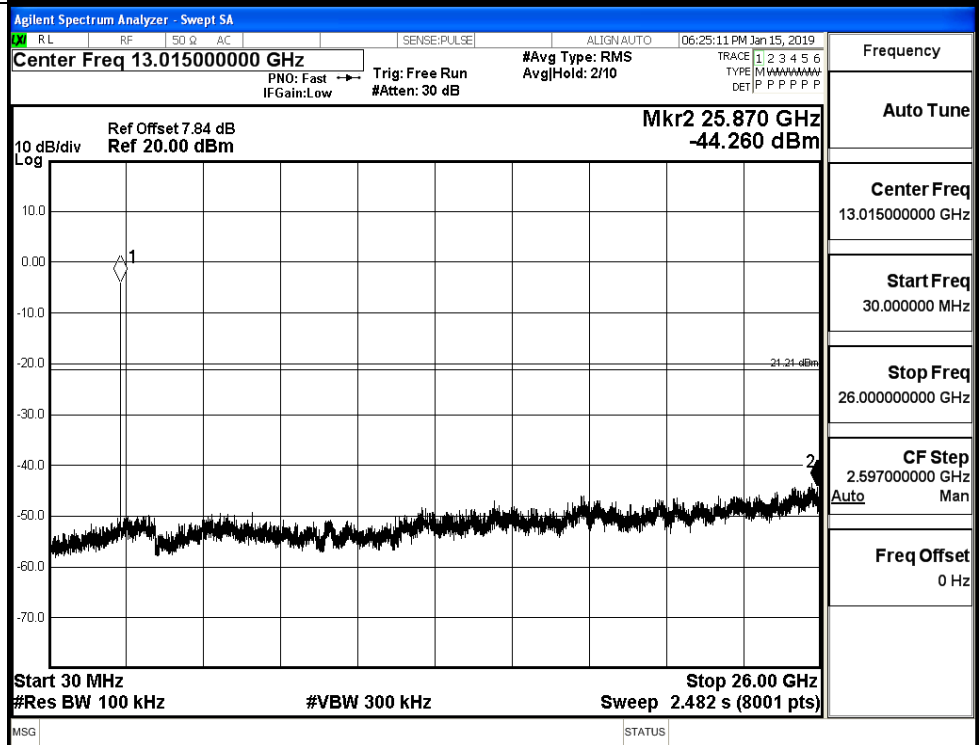


11B_MCH_Graphs

Pref/11B/MCH

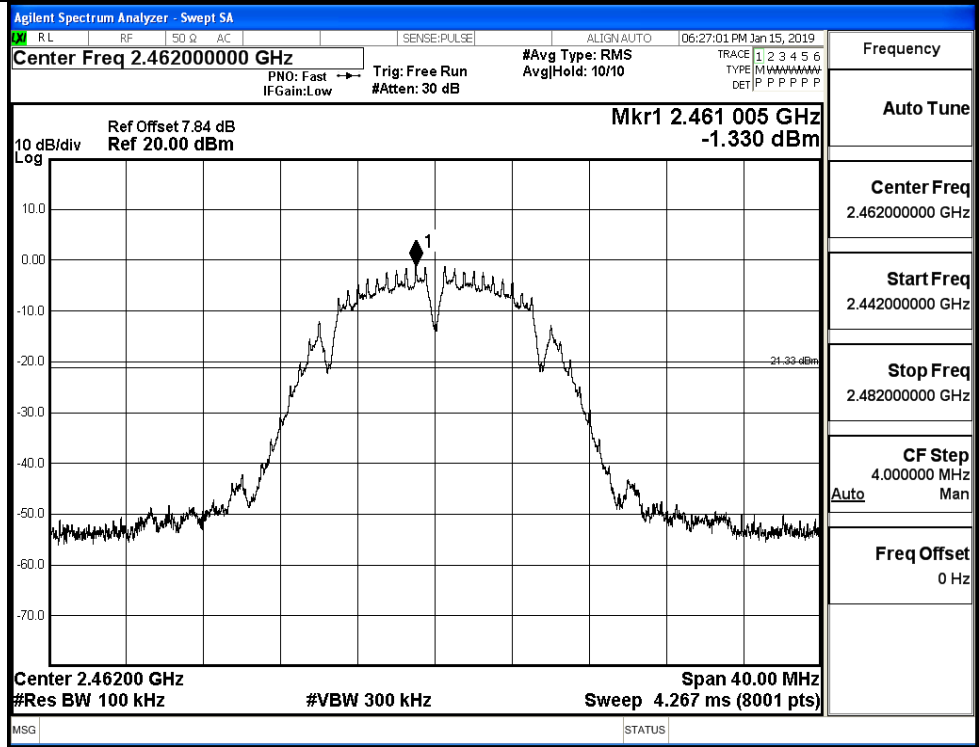


Puw/11B/MCH

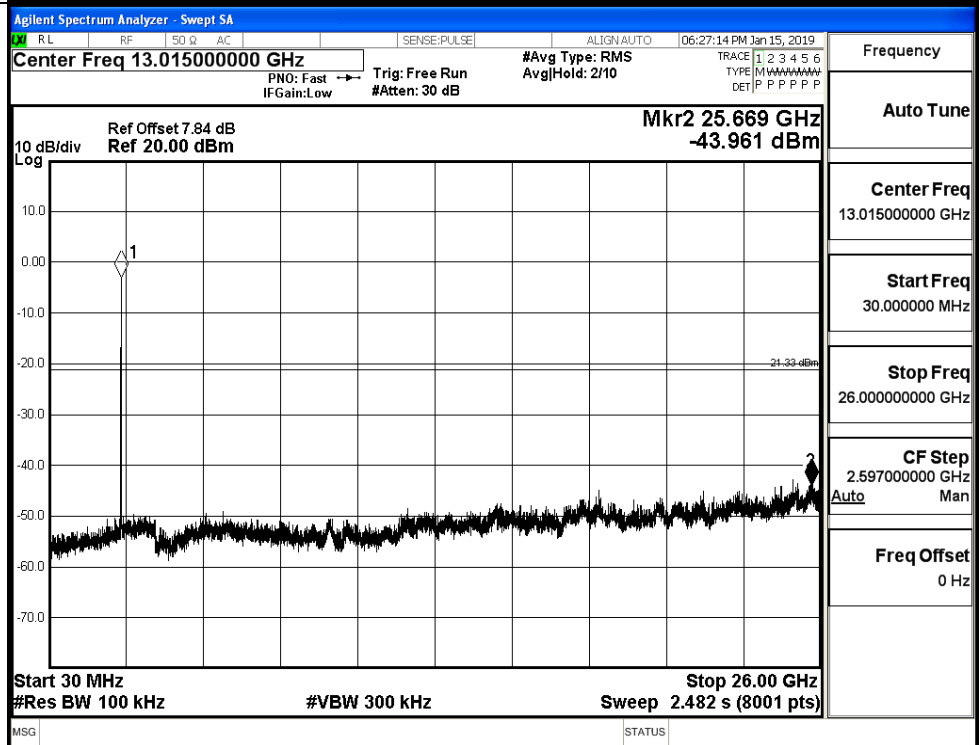


11B_HCH_Graphs

Pref/11B/HCH

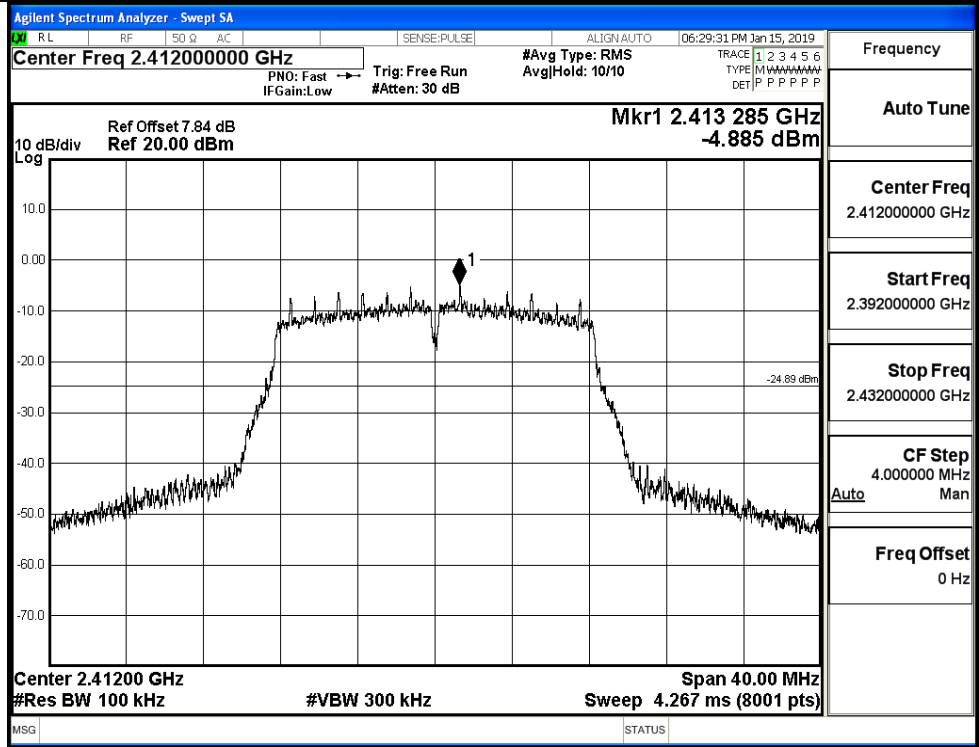


Puw/11B/HCH

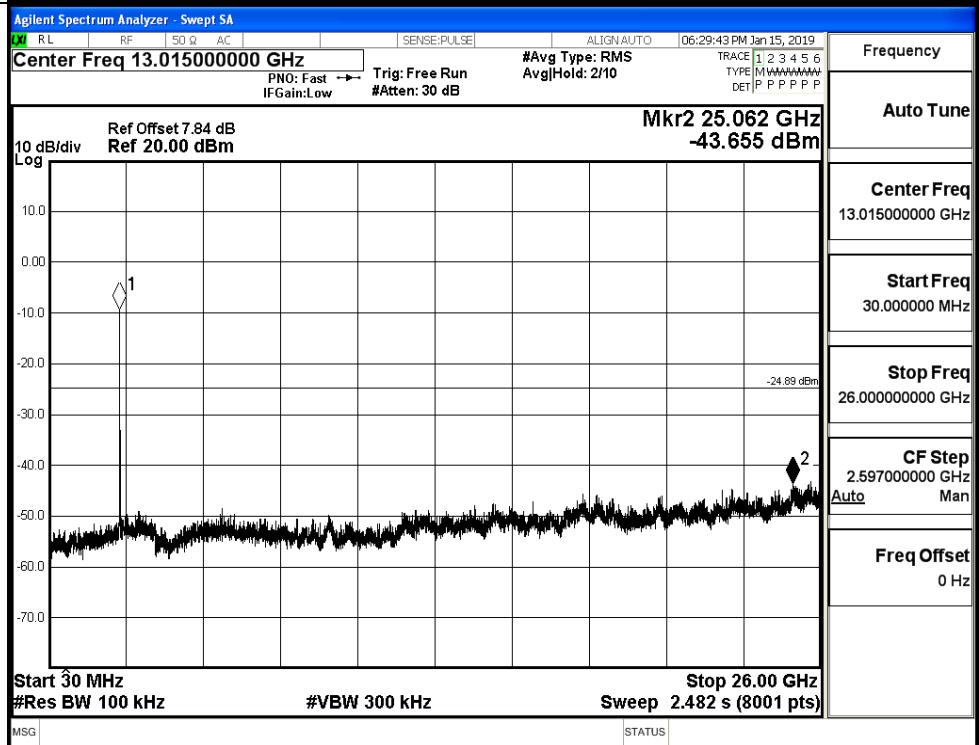


11G_LCH_Graphs

Pref/11G/LCH

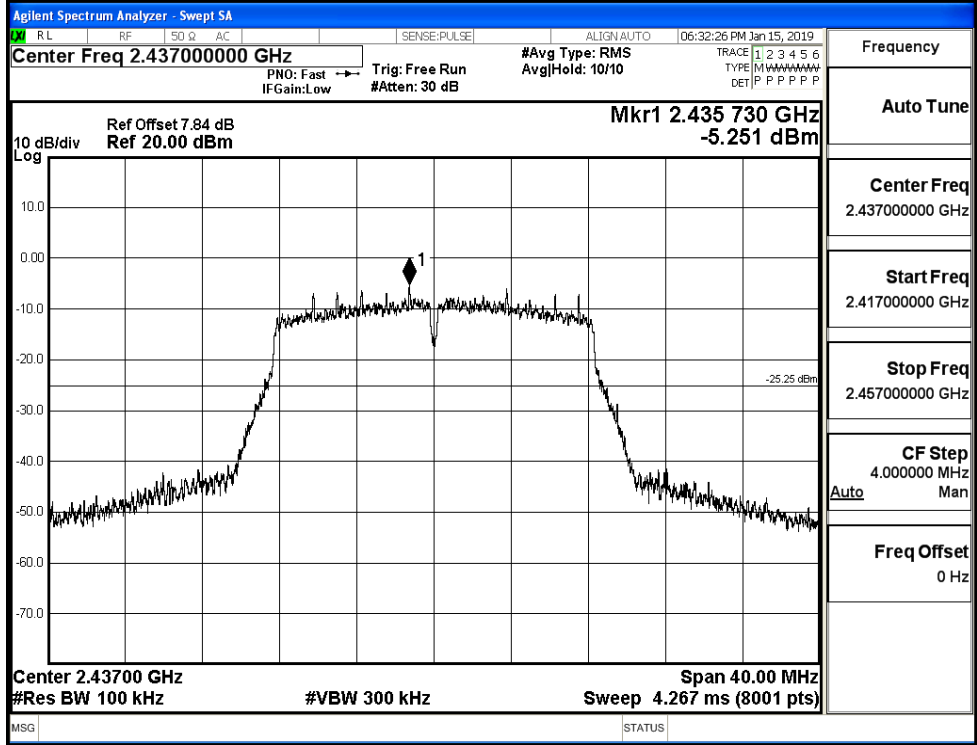


Puw/11G/LCH

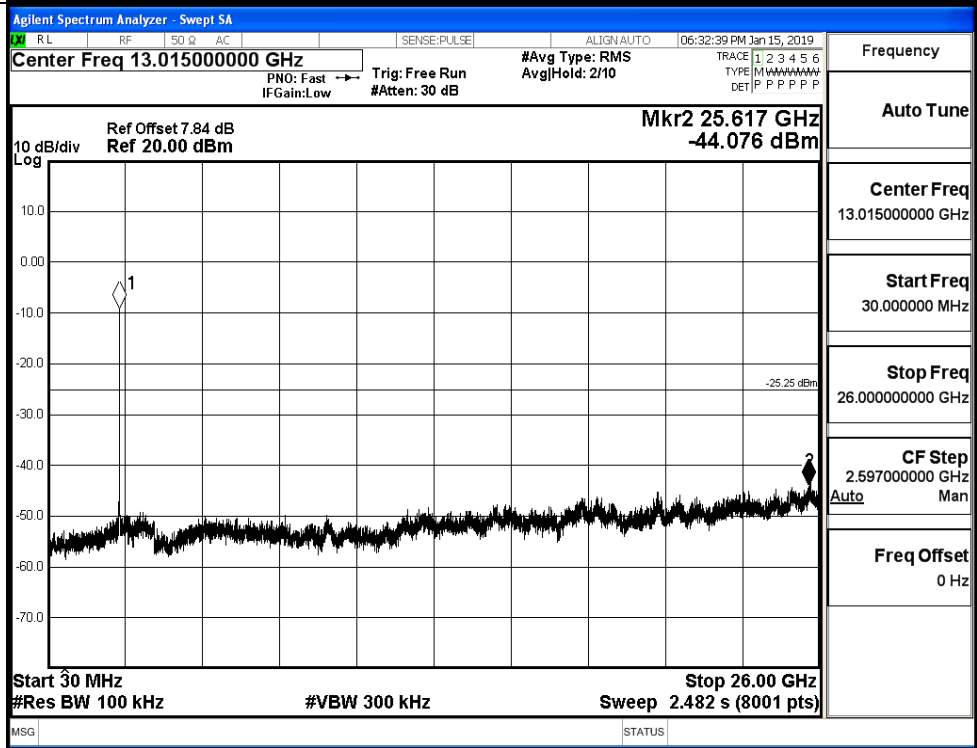


11G_MCH_Graphs

Pref/11G/MCH

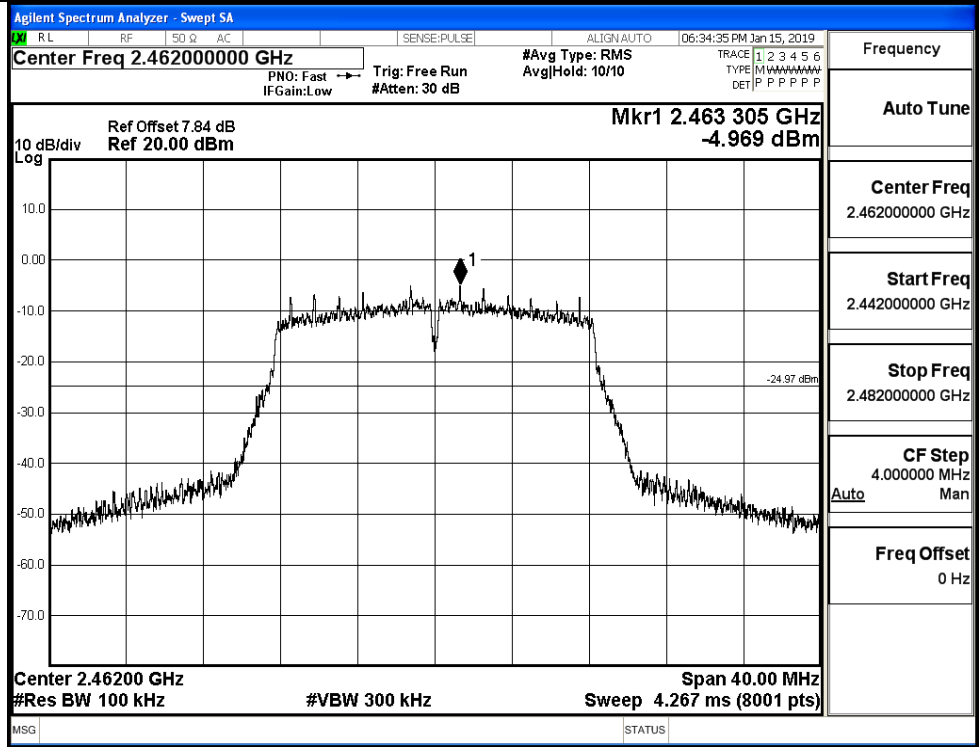


Puw/11G/MCH

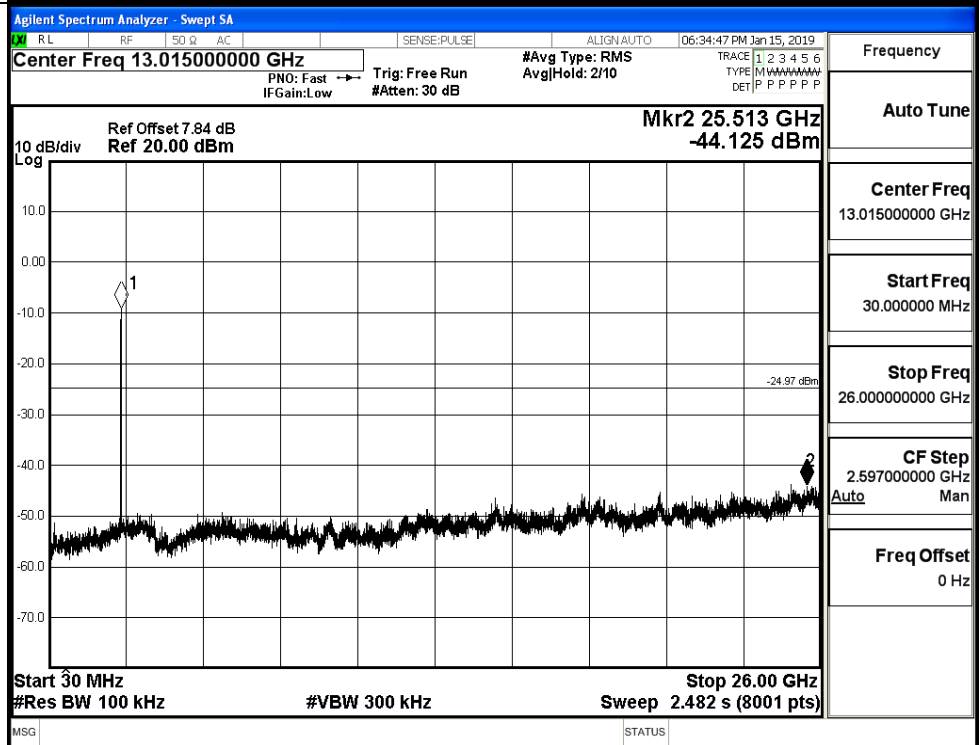


11G_HCH_Graphs

Pref/11G/HCH

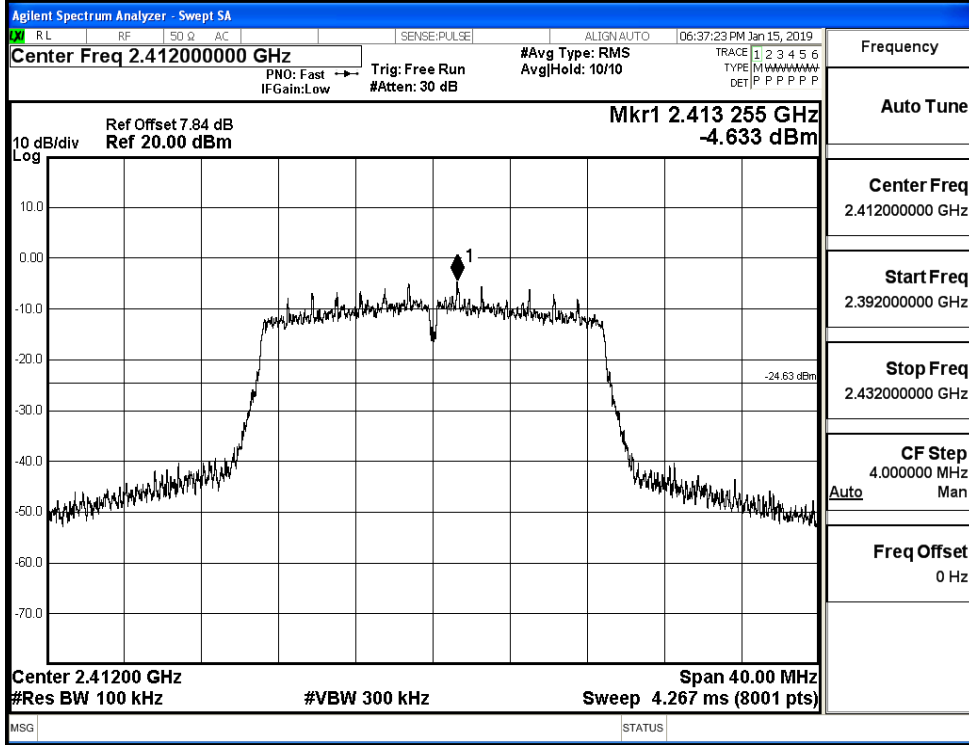


Puw/11G/HCH

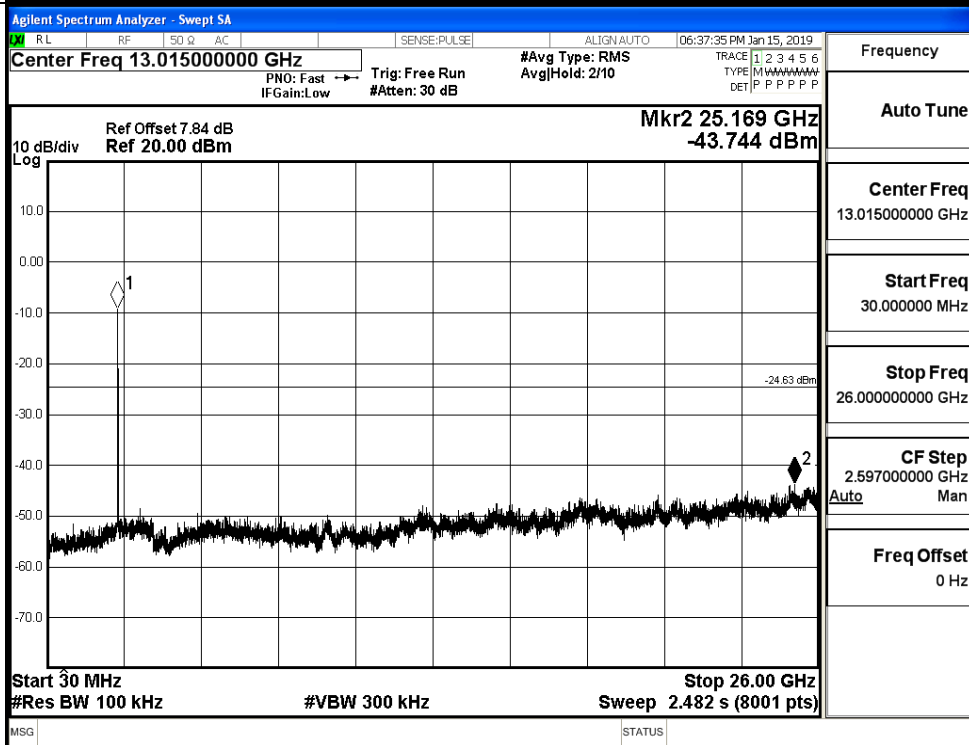


11N20SISO_LCH_Graphs

Pref/11N20SIS
O/LCH

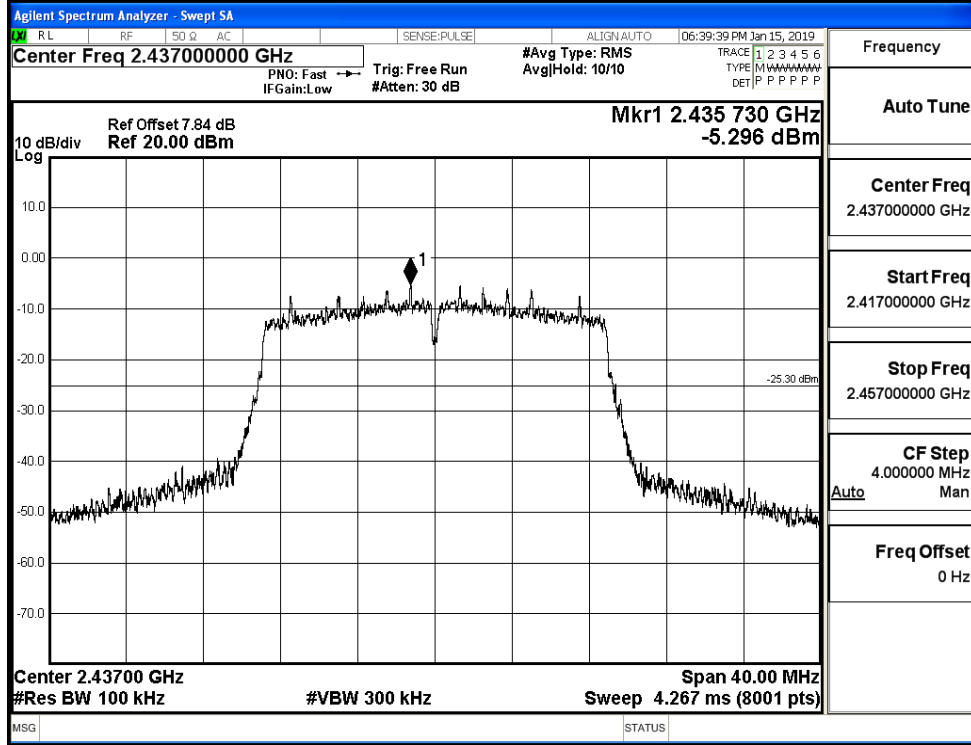


Puw/11N20
SISO/LCH

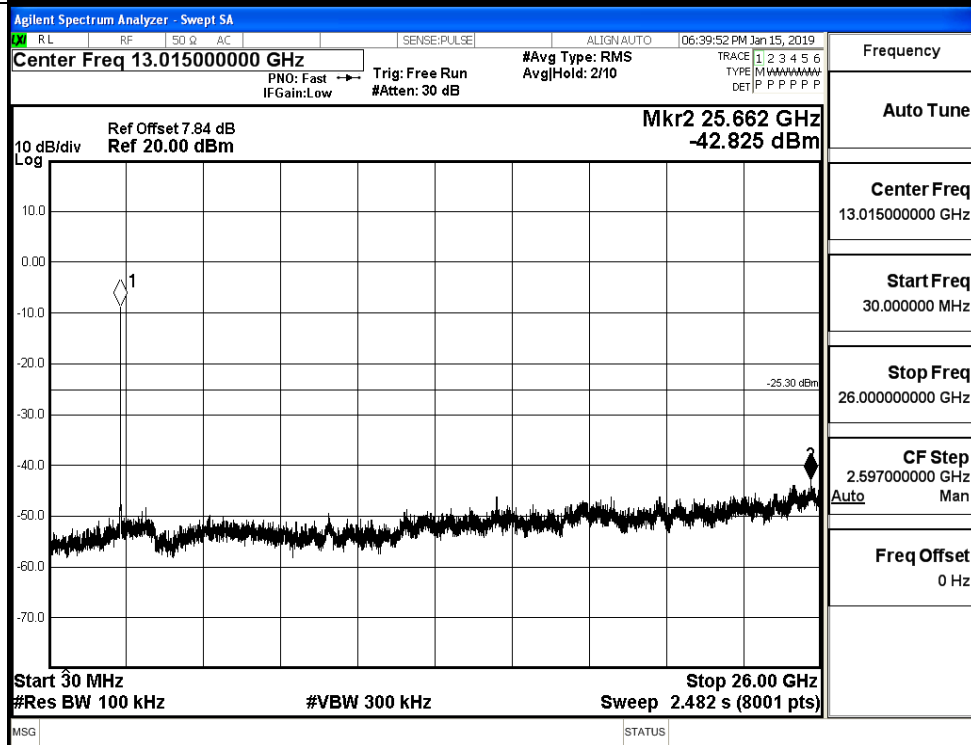


11N20SISO_MCH_Graphs

Pref/11N20
SISO/MCH

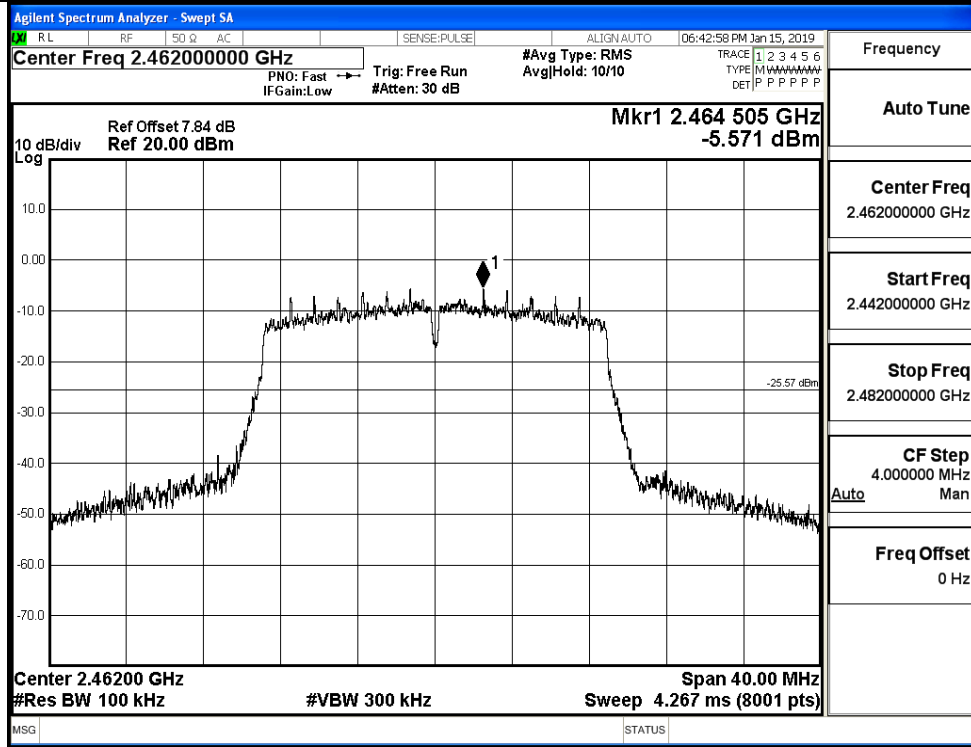


Puw/11N20
SISO/MCH

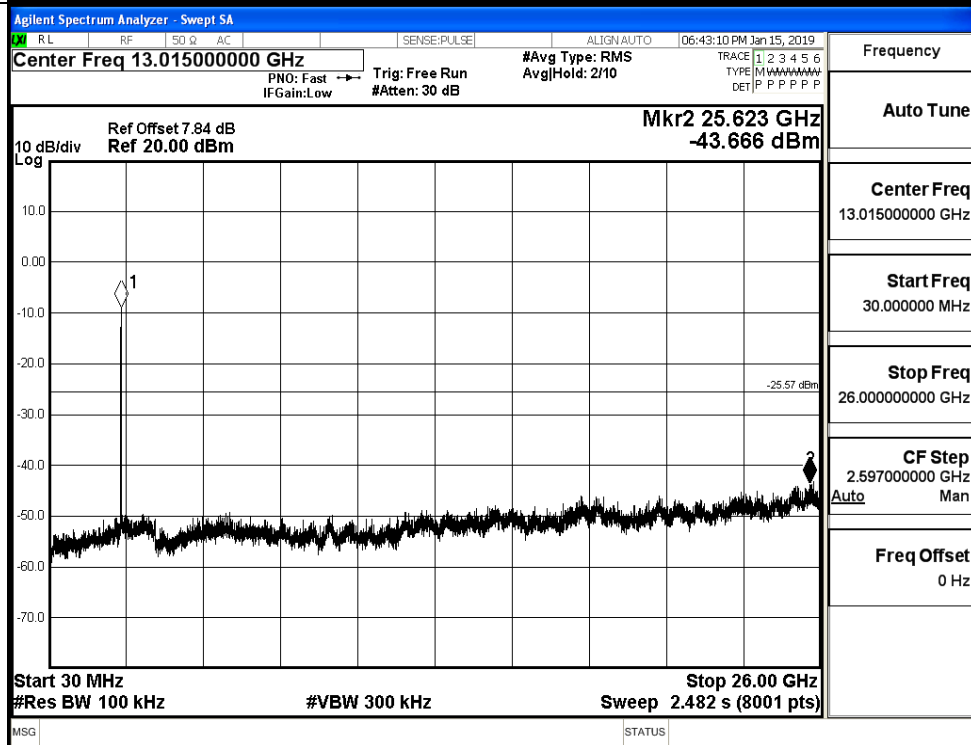


11N20SISO_HCH_Graphs

Pref/11N20
SISO/HCH

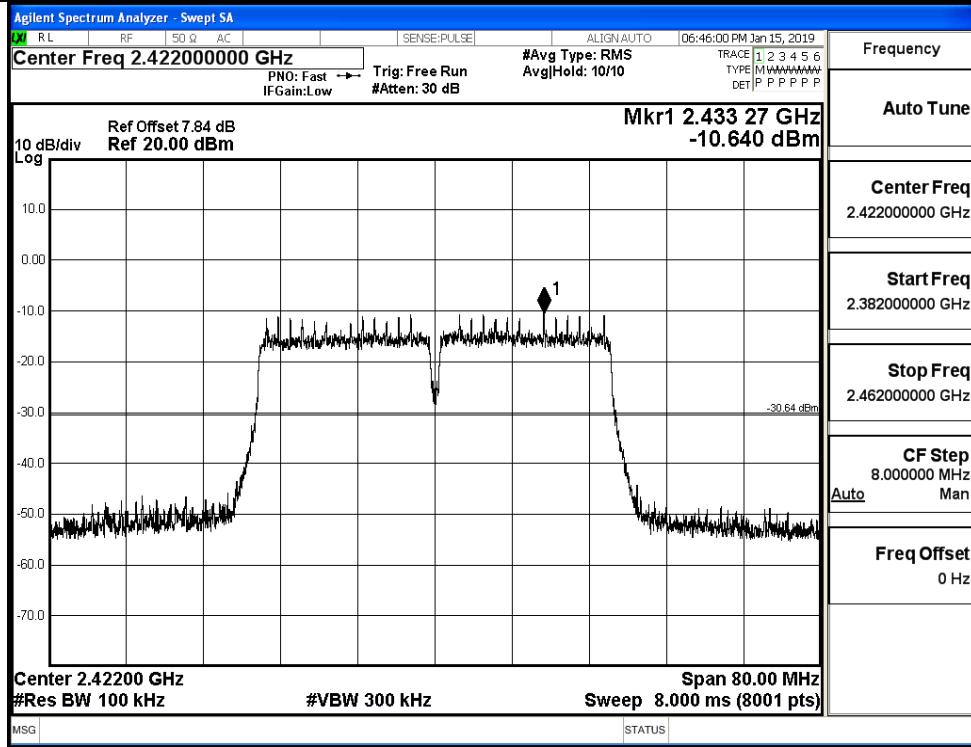


Puw/11N20
SISO/HCH

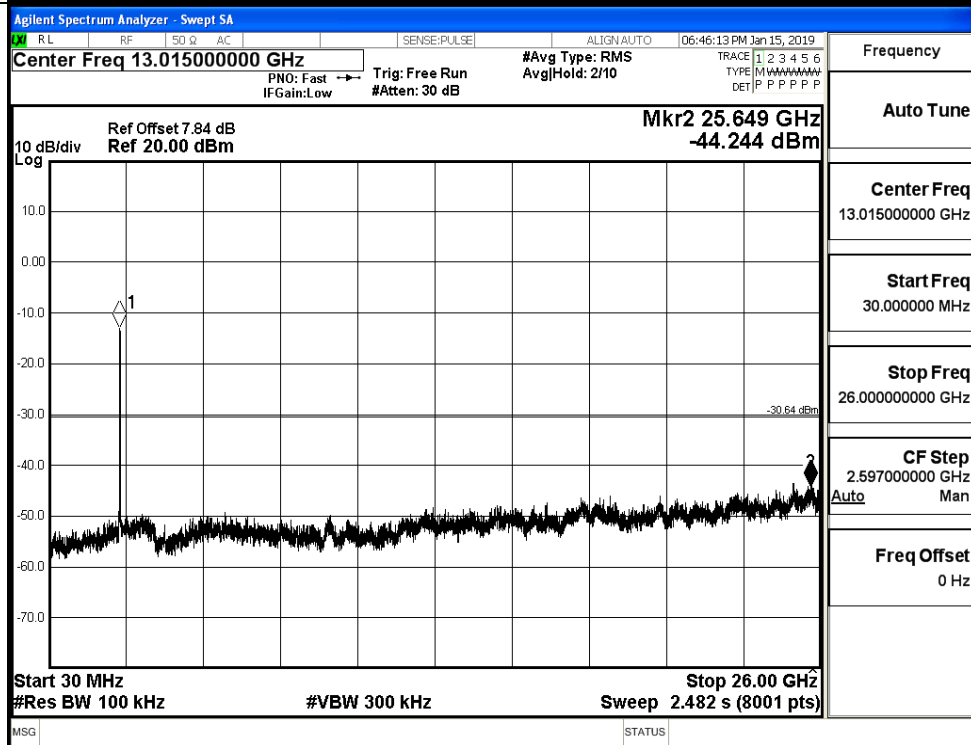


11N40SISO_LCH_Graphs

Pref/11N40
SISO/LCH

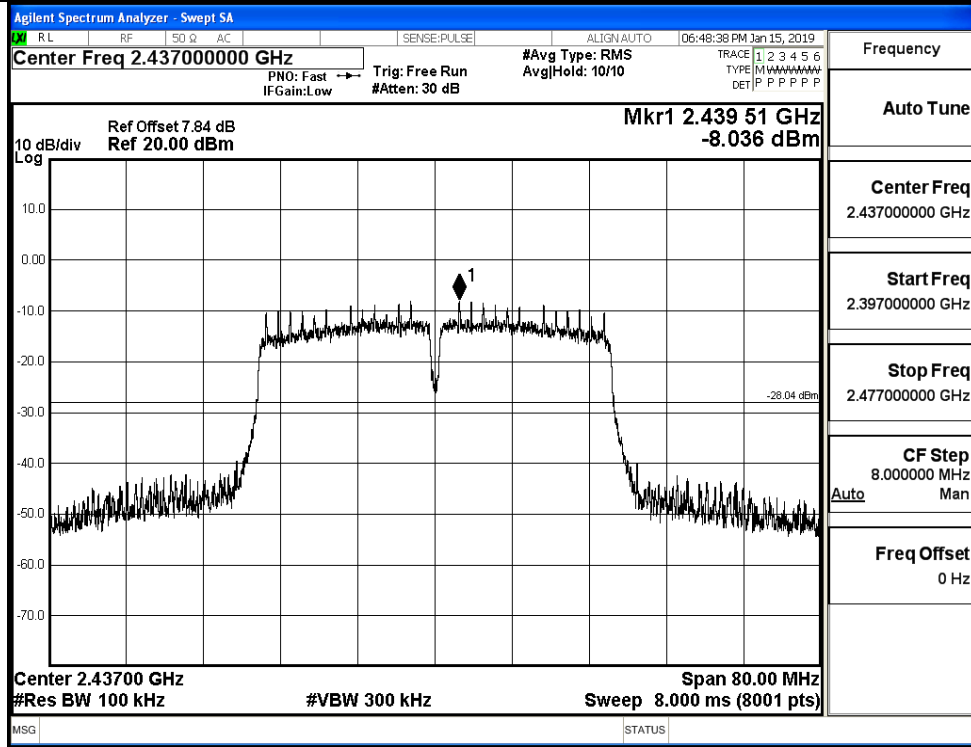


Puw/11N40
SISO/LCH

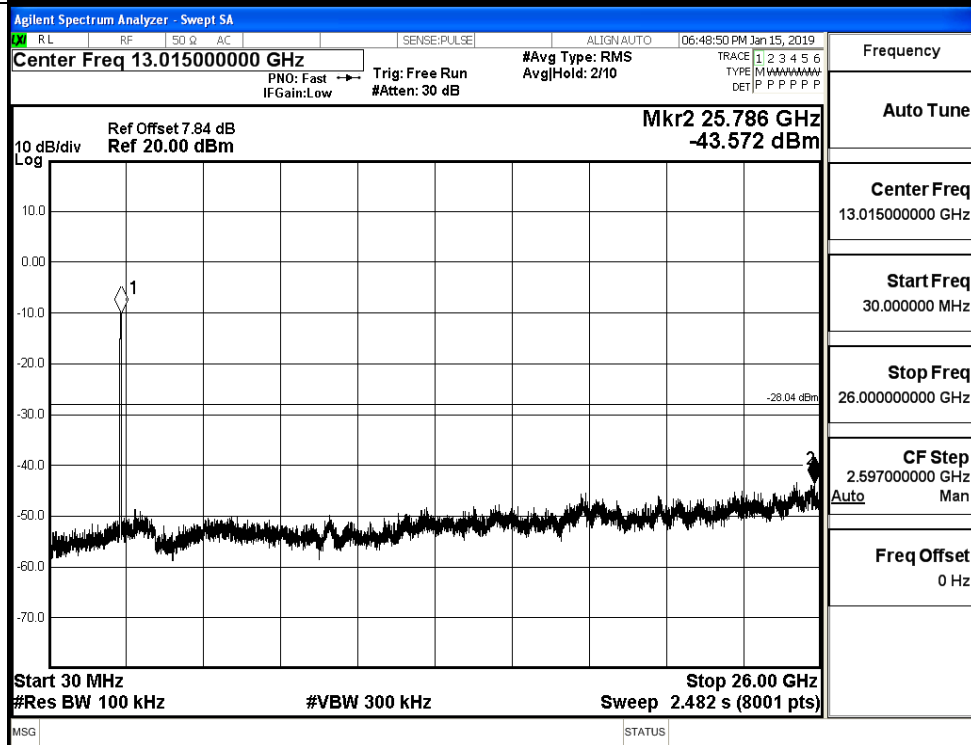


11N40SISO_MCH_Graphs

Pref/11N40
SISO/MCH

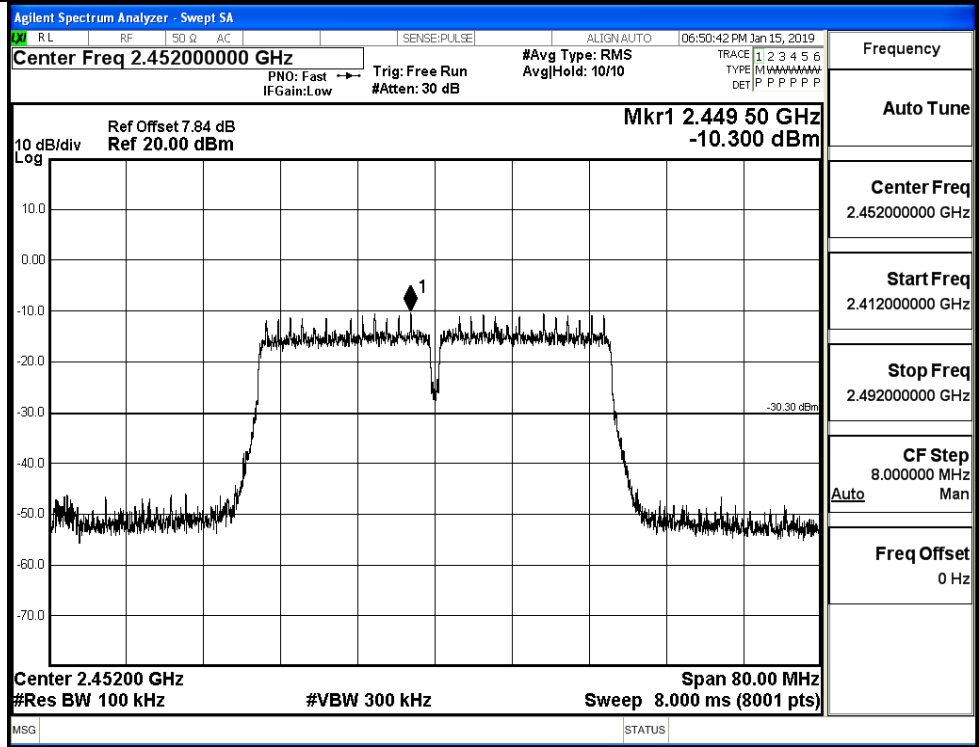


Puw/11N40
SISO/MCH

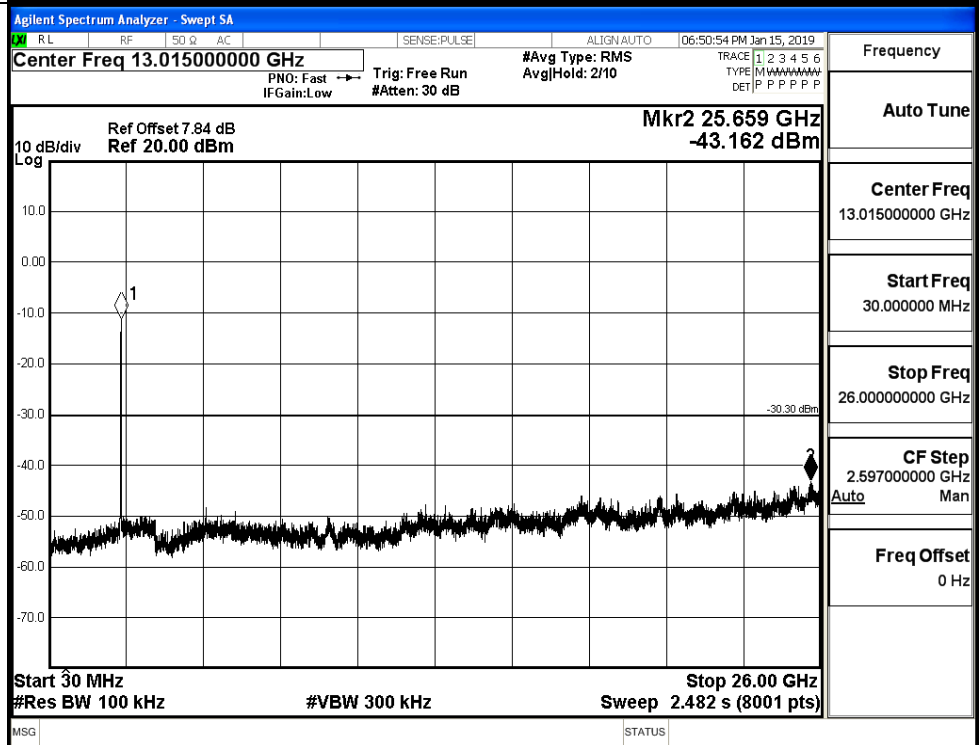


11N40SISO_HCH_Graphs

Pref/11N40
SISO/HCH

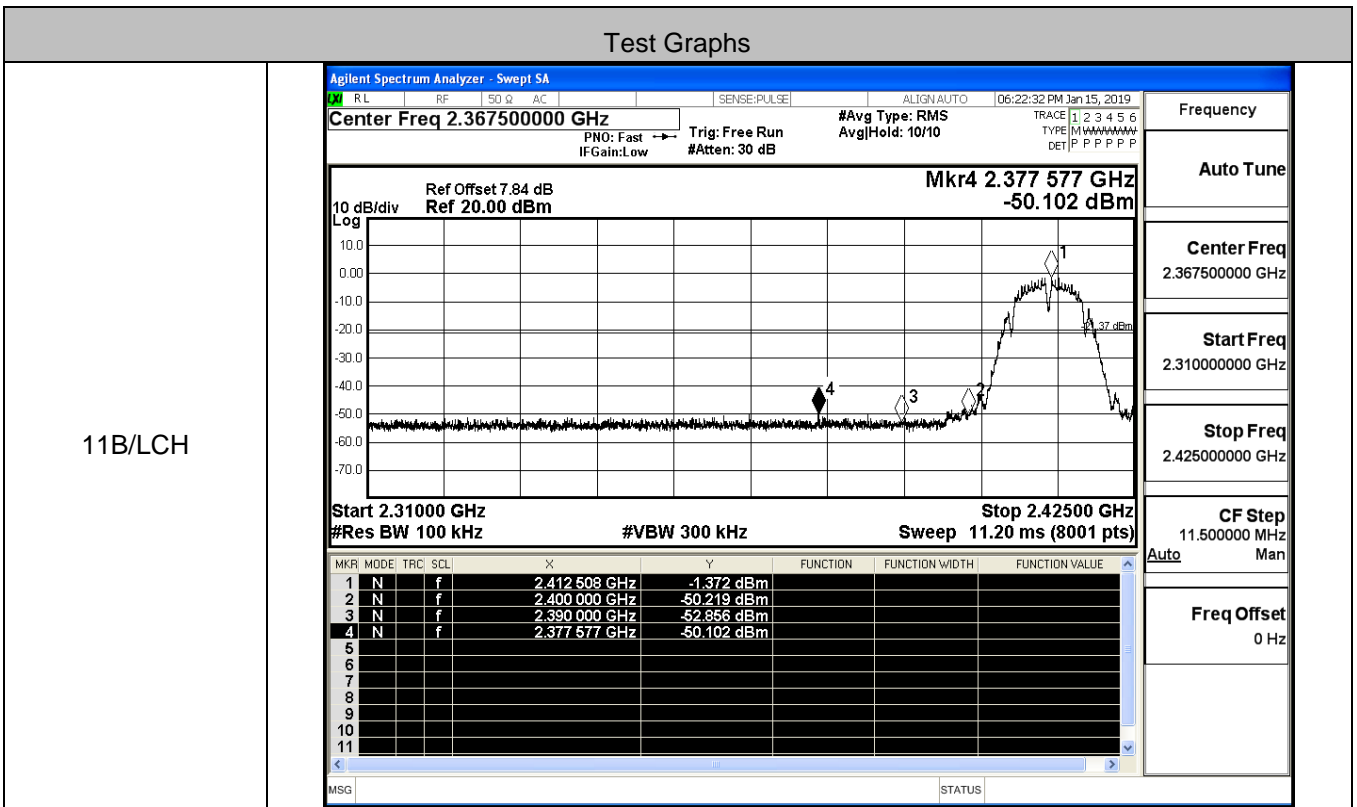


Puw/11N40
SISO/HCH

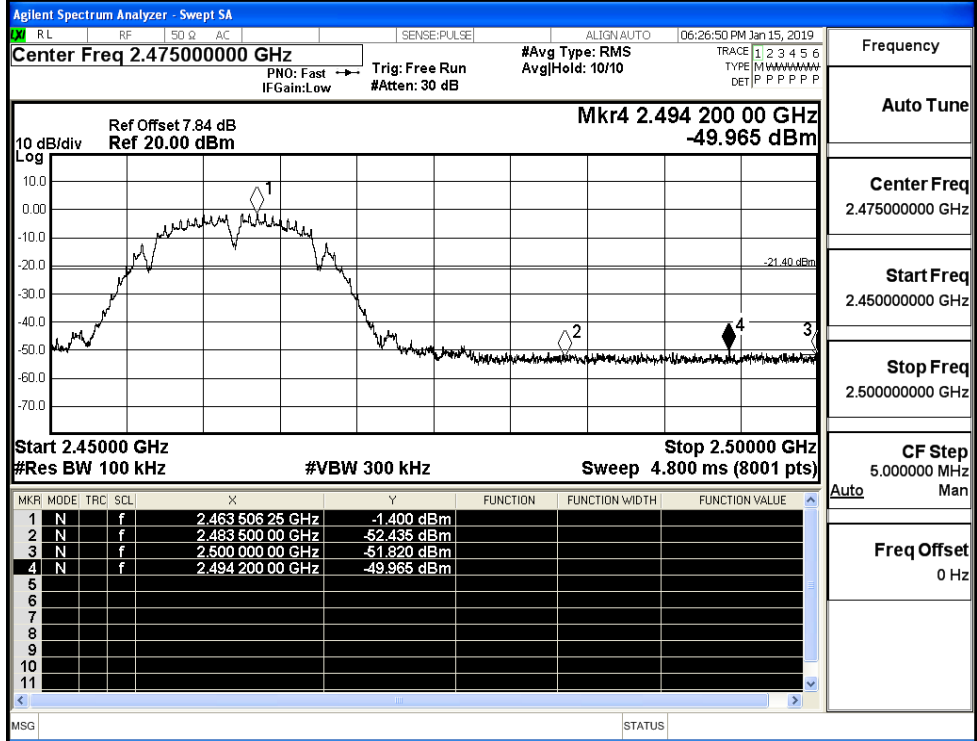


C.7 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-1.372	-50.102	-21.37	PASS
	HCH	-1.400	-49.965	-21.4	PASS
11G	LCH	-4.617	-49.937	-24.62	PASS
	HCH	-4.595	-50.085	-24.6	PASS
11N20SISO	LCH	-4.380	-50.101	-24.38	PASS
	HCH	-4.449	-49.524	-24.45	PASS
11N40SISO	LCH	-10.849	-47.844	-30.85	PASS
	HCH	-10.369	-49.637	-30.37	PASS



11B/HCH



Frequency

Auto Tune

Center Freq
2.47500000 GHz

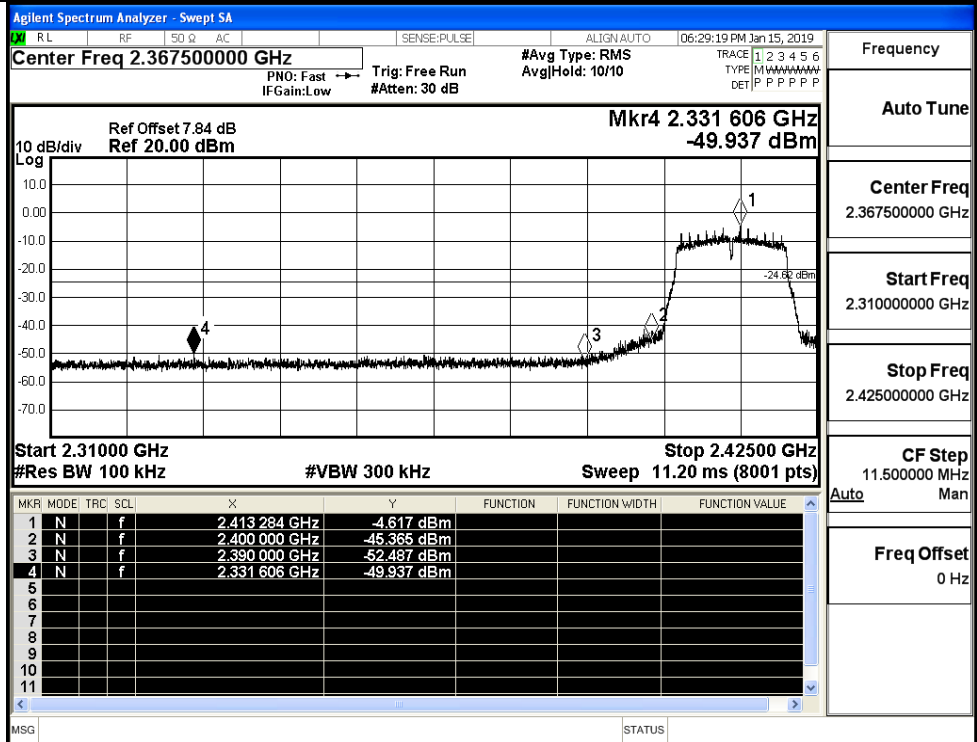
Start Freq
2.45000000 GHz

Stop Freq
2.50000000 GHz

CF Step
5.000000 MHz

Freq Offset
0 Hz

11G/LCH



Frequency

Auto Tune

Center Freq
2.36750000 GHz

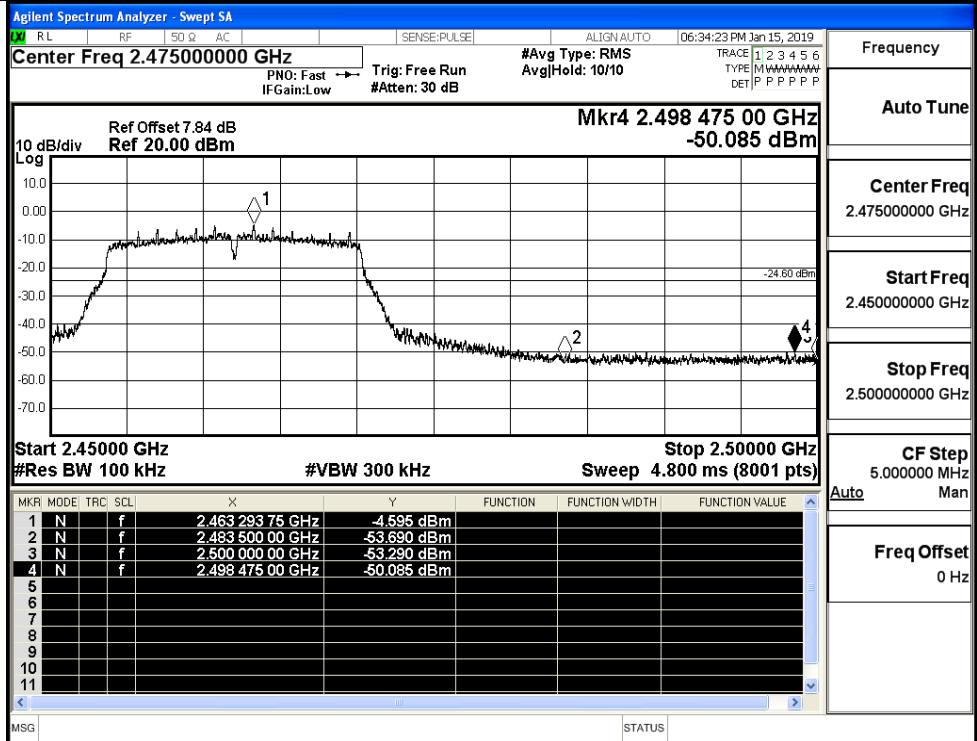
Start Freq
2.31000000 GHz

Stop Freq
2.42500000 GHz

CF Step
11.500000 MHz

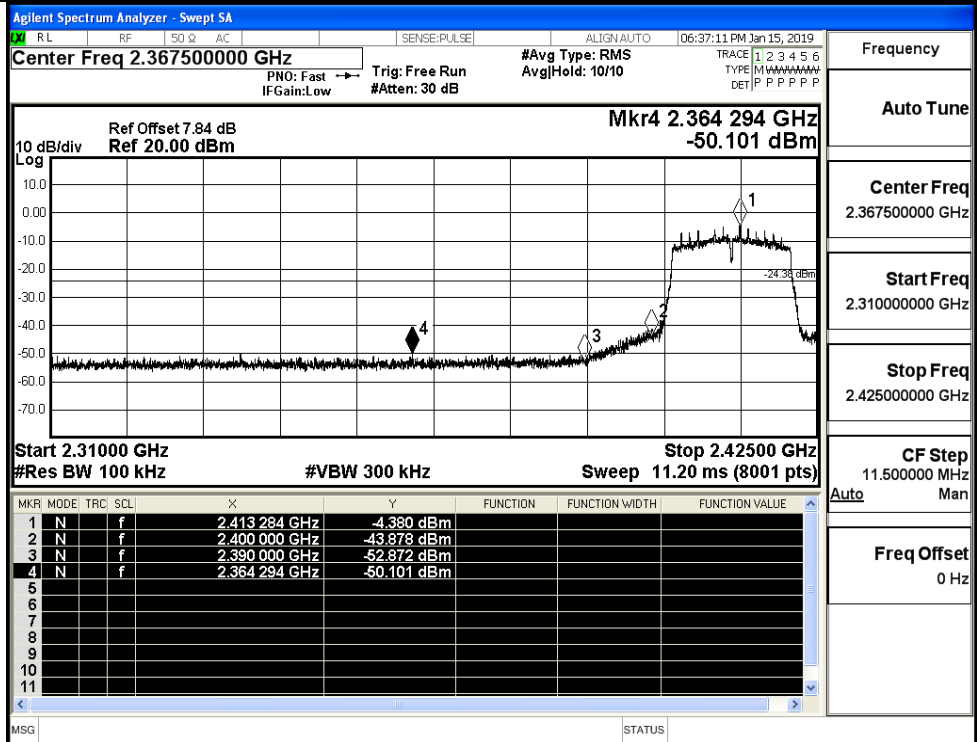
Freq Offset
0 Hz

11G/HCH



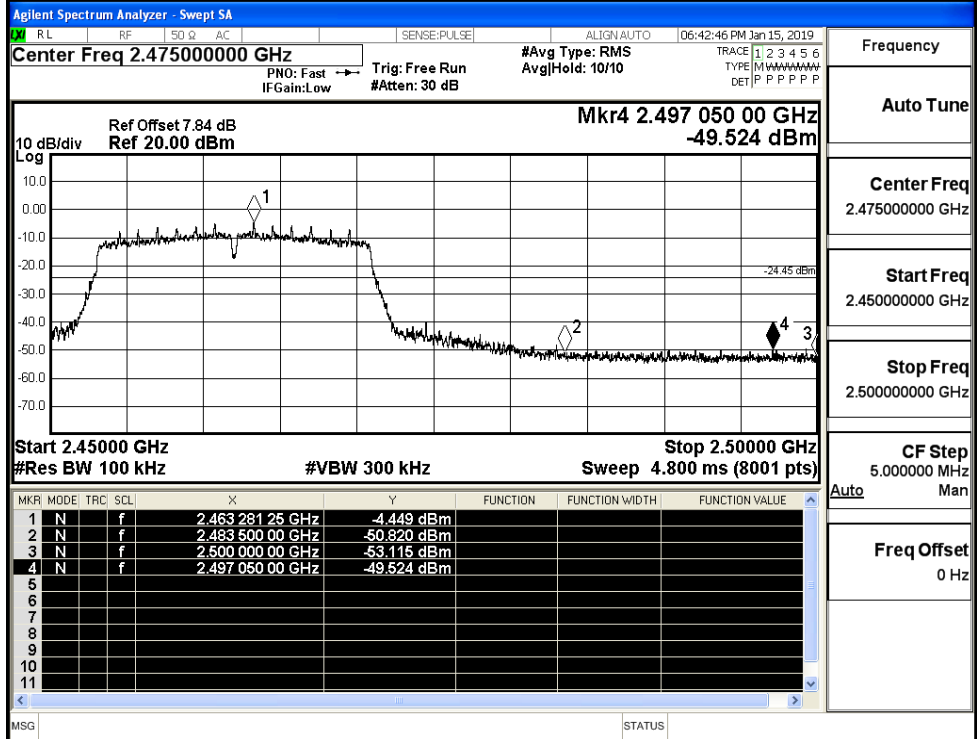
Frequency	2.47500000 GHz
Auto Tune	
Center Freq	2.47500000 GHz
Start Freq	2.45000000 GHz
Stop Freq	2.50000000 GHz
CF Step	5.000000 MHz
Freq Offset	0 Hz

11N20SISO/LCH



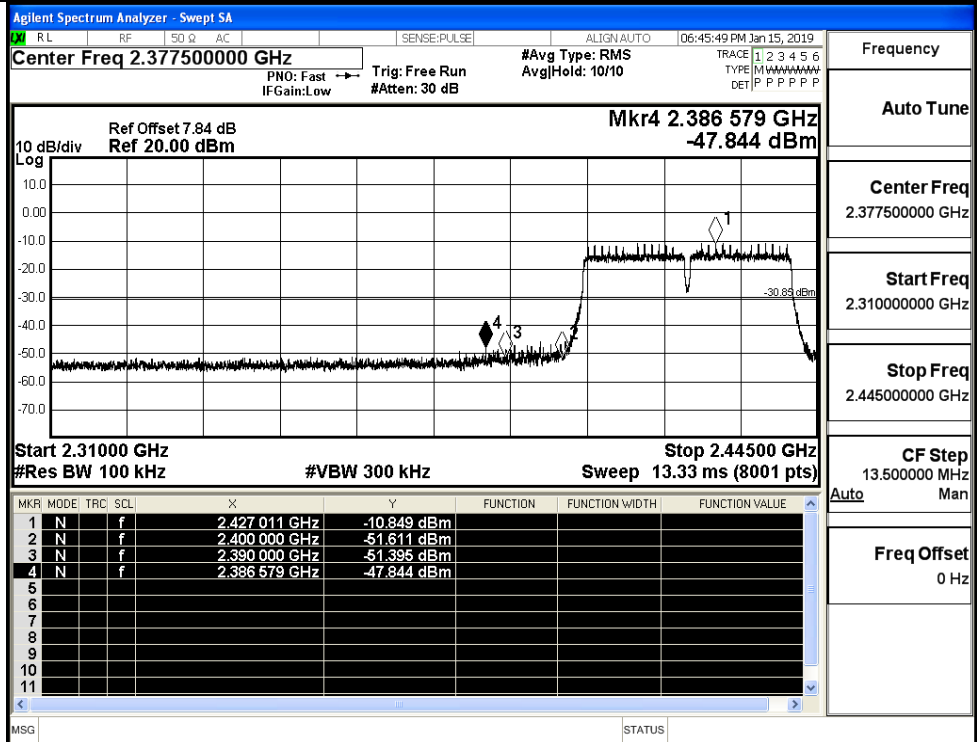
Frequency	2.36750000 GHz
Auto Tune	
Center Freq	2.36750000 GHz
Start Freq	2.31000000 GHz
Stop Freq	2.42500000 GHz
CF Step	11.500000 MHz
Freq Offset	0 Hz

11N20SISO/HCH



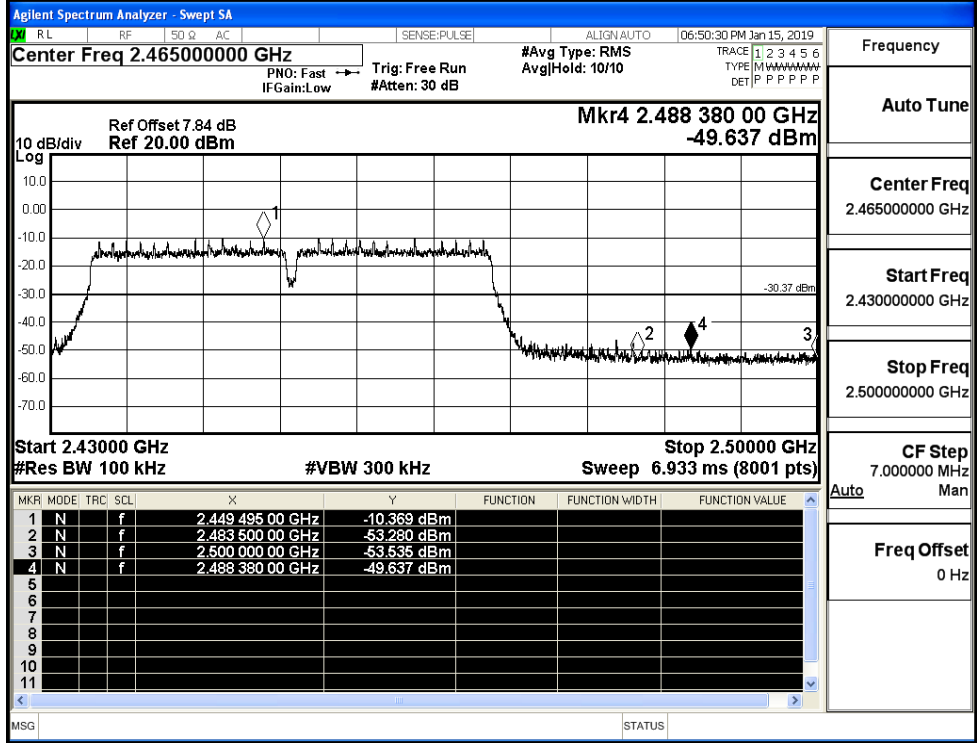
Frequency	
Auto Tune	
Center Freq	2.47500000 GHz
Start Freq	2.45000000 GHz
Stop Freq	2.50000000 GHz
CF Step	5.000000 MHz
Freq Offset	0 Hz

11N40SISO/LCH



Frequency	
Auto Tune	
Center Freq	2.37750000 GHz
Start Freq	2.31000000 GHz
Stop Freq	2.44500000 GHz
CF Step	13.500000 MHz
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

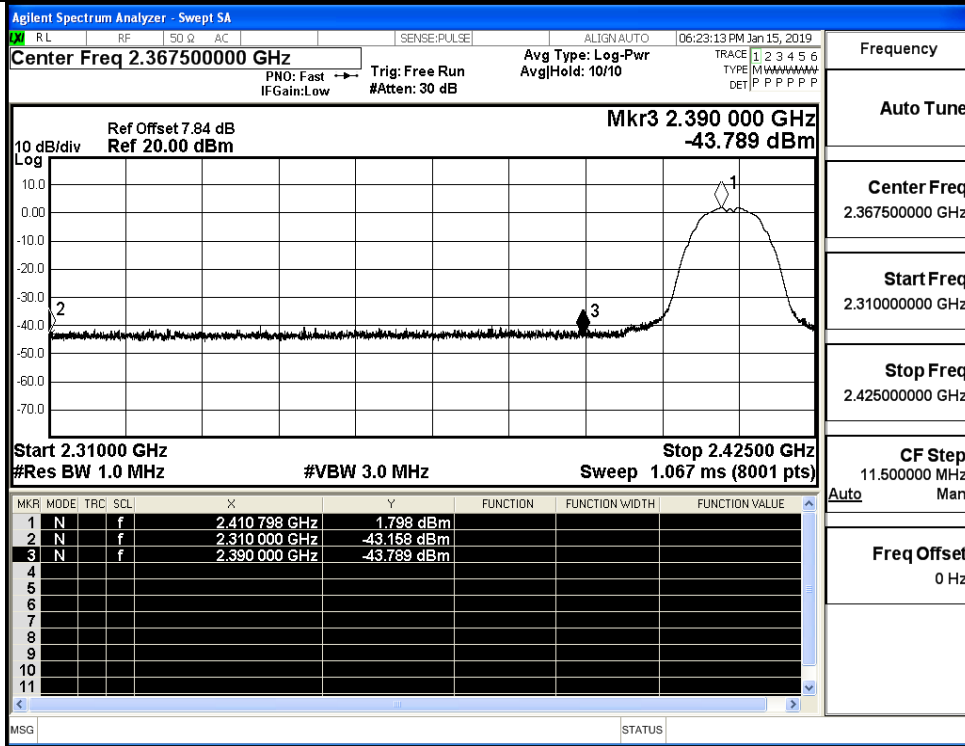
Freq Offset
0 Hz

C.8 Restrict-band band-edge measurements

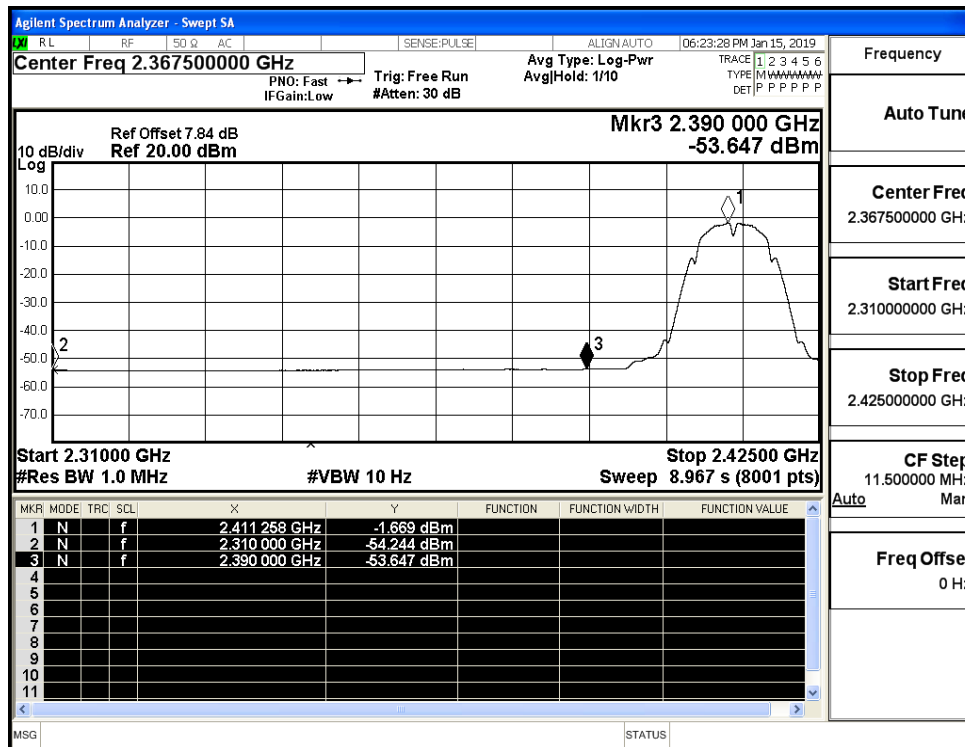
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-43.16	2.0	0	54.10	PEAK	74	PASS
	2412	Ant1	2310.0	-54.24	2.0	0	43.01	AV	54	PASS
	2412	Ant1	2390.0	-43.79	2.0	0	53.47	PEAK	74	PASS
	2412	Ant1	2390.0	-53.65	2.0	0	43.61	AV	54	PASS
	2462	Ant1	2483.5	-42.77	2.0	0	54.49	PEAK	74	PASS
	2462	Ant1	2483.5	-53.35	2.0	0	43.91	AV	54	PASS
	2462	Ant1	2500.0	-42.88	2.0	0	54.38	PEAK	74	PASS
	2462	Ant1	2500.0	-53.53	2.0	0	43.73	AV	54	PASS
11G	2412	Ant1	2310.0	-42.40	2.0	0	54.86	PEAK	74	PASS
	2412	Ant1	2310.0	-54.24	2.0	0	43.02	AV	54	PASS
	2412	Ant1	2390.0	-42.59	2.0	0	54.67	PEAK	74	PASS
	2412	Ant1	2390.0	-53.02	2.0	0	44.23	AV	54	PASS
	2462	Ant1	2483.5	-40.73	2.0	0	56.52	PEAK	74	PASS
	2462	Ant1	2483.5	-52.70	2.0	0	44.56	AV	54	PASS
	2462	Ant1	2500.0	-42.33	2.0	0	54.93	PEAK	74	PASS
	2462	Ant1	2500.0	-53.10	2.0	0	44.16	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-43.97	2.0	0	53.29	PEAK	74	PASS
	2412	Ant1	2310.0	-54.23	2.0	0	43.03	AV	54	PASS
	2412	Ant1	2390.0	-41.21	2.0	0	56.05	PEAK	74	PASS
	2412	Ant1	2390.0	-52.56	2.0	0	44.70	AV	54	PASS
	2462	Ant1	2483.5	-41.15	2.0	0	56.11	PEAK	74	PASS
	2462	Ant1	2483.5	-52.43	2.0	0	44.83	AV	54	PASS
	2462	Ant1	2500.0	-42.98	2.0	0	54.28	PEAK	74	PASS
	2462	Ant1	2500.0	-53.08	2.0	0	44.18	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-44.74	2.0	0	52.52	PEAK	74	PASS
	2422	Ant1	2310.0	-54.27	2.0	0	42.99	AV	54	PASS
	2422	Ant1	2390.0	-37.22	2.0	0	60.04	PEAK	74	PASS

	2422	Ant1	2390.0	-52.71	2.0	0	44.55	AV	54	PASS
	2452	Ant1	2483.5	-41.50	2.0	0	55.76	PEAK	74	PASS
	2452	Ant1	2483.5	-52.87	2.0	0	44.39	AV	54	PASS
	2452	Ant1	2500.0	-42.33	2.0	0	54.93	PEAK	74	PASS
	2452	Ant1	2500.0	-53.29	2.0	0	43.97	AV	54	PASS

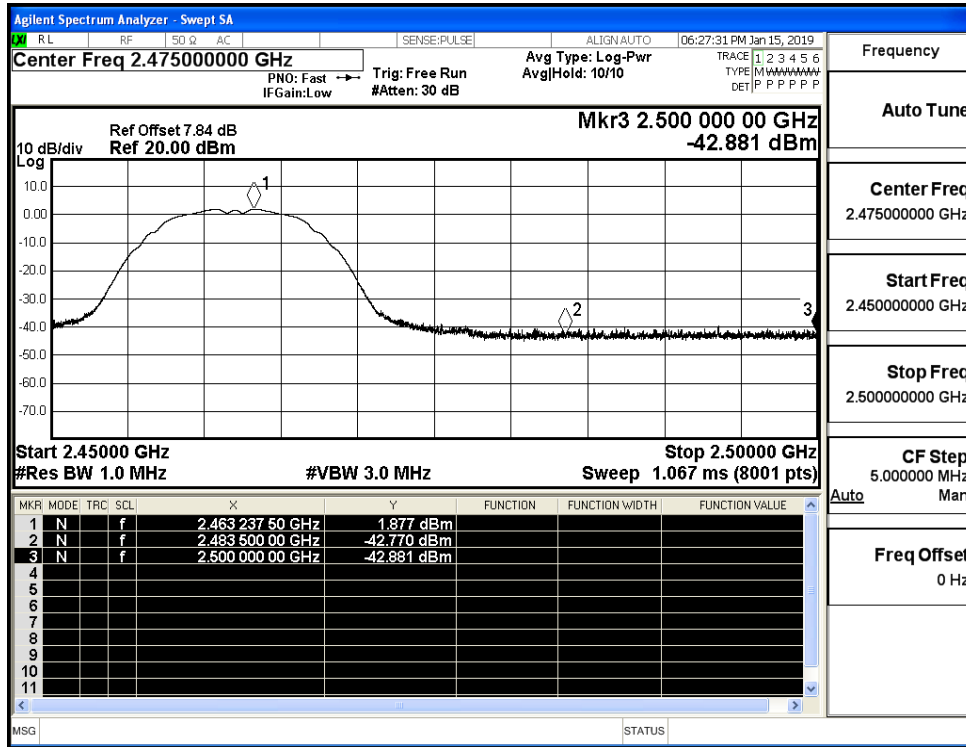
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



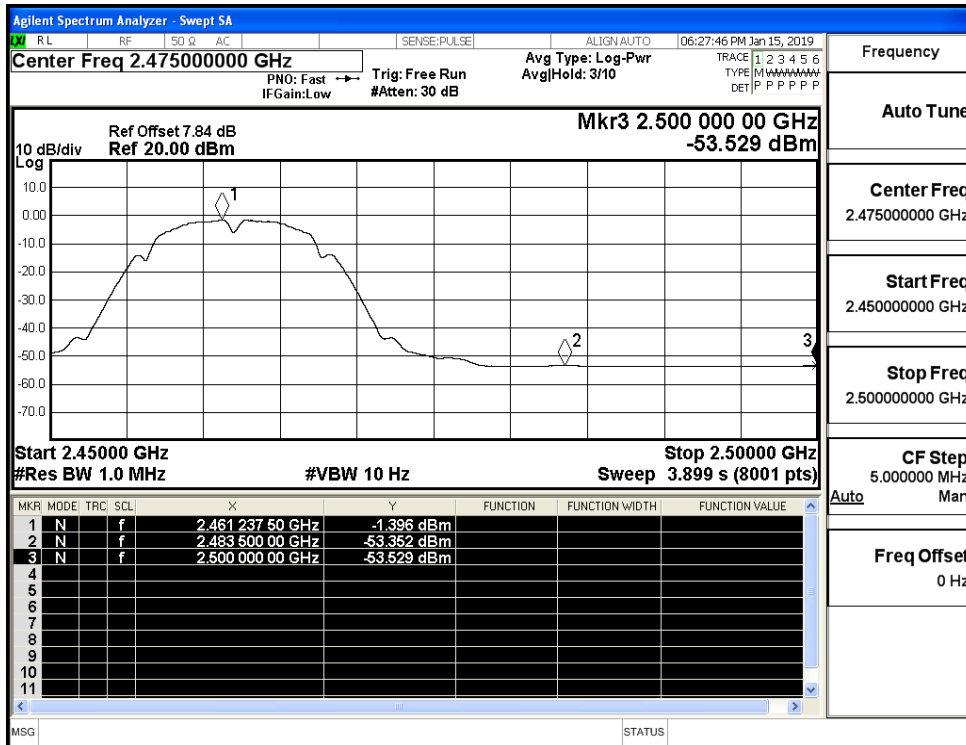
Restrict-band band-edge measurements_11B_2412_Ant1_AV



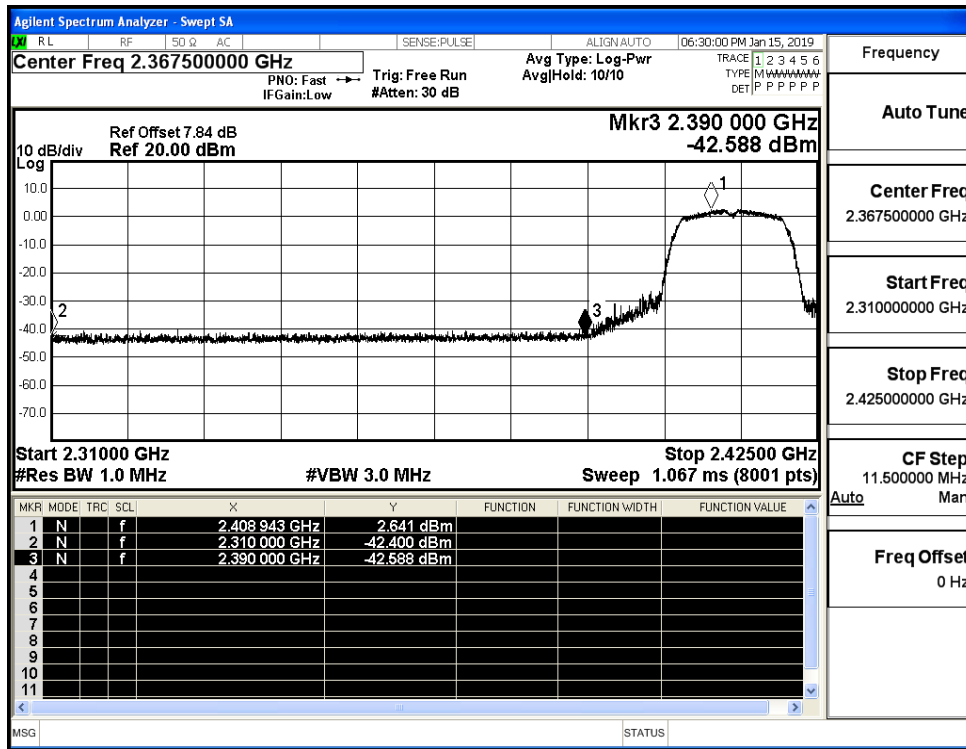
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



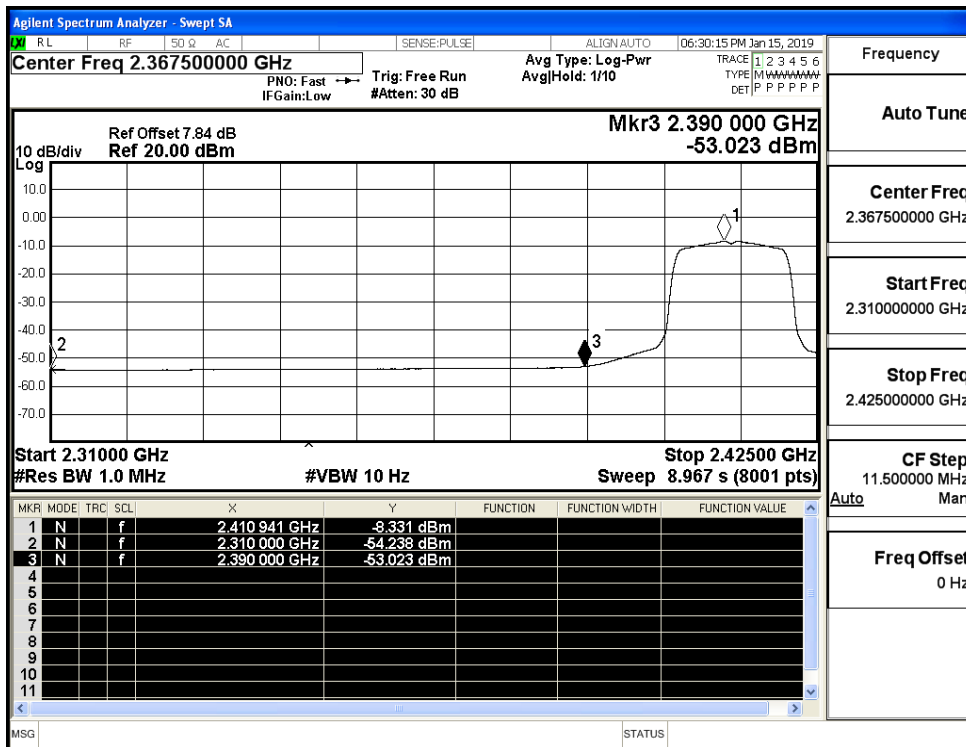
Restrict-band band-edge measurements_11B_2462_Ant1_AV



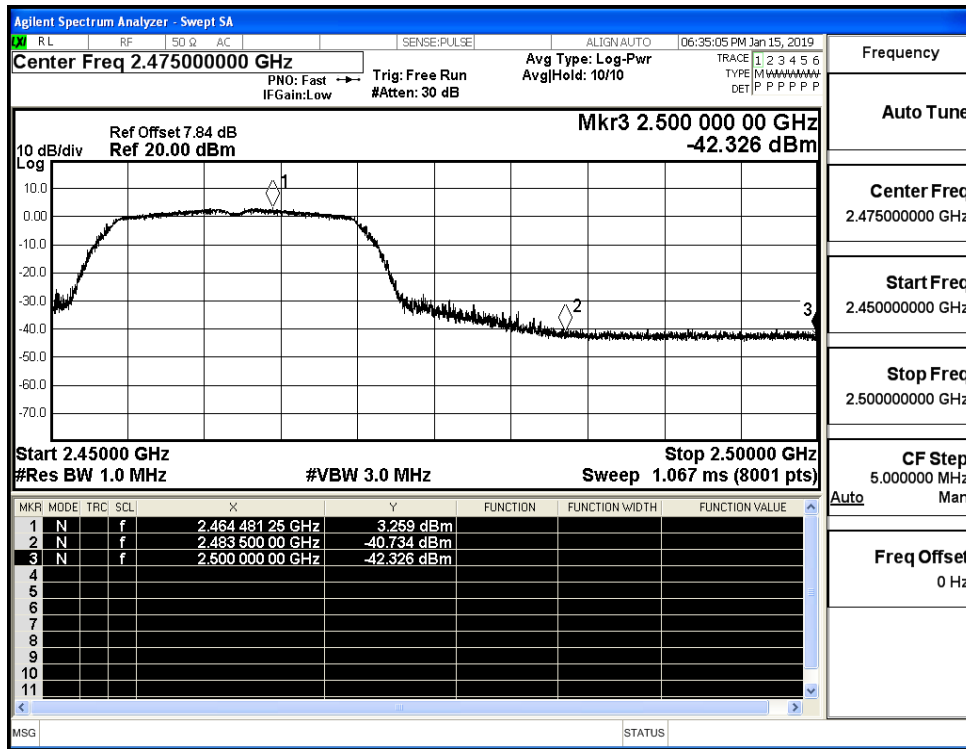
Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



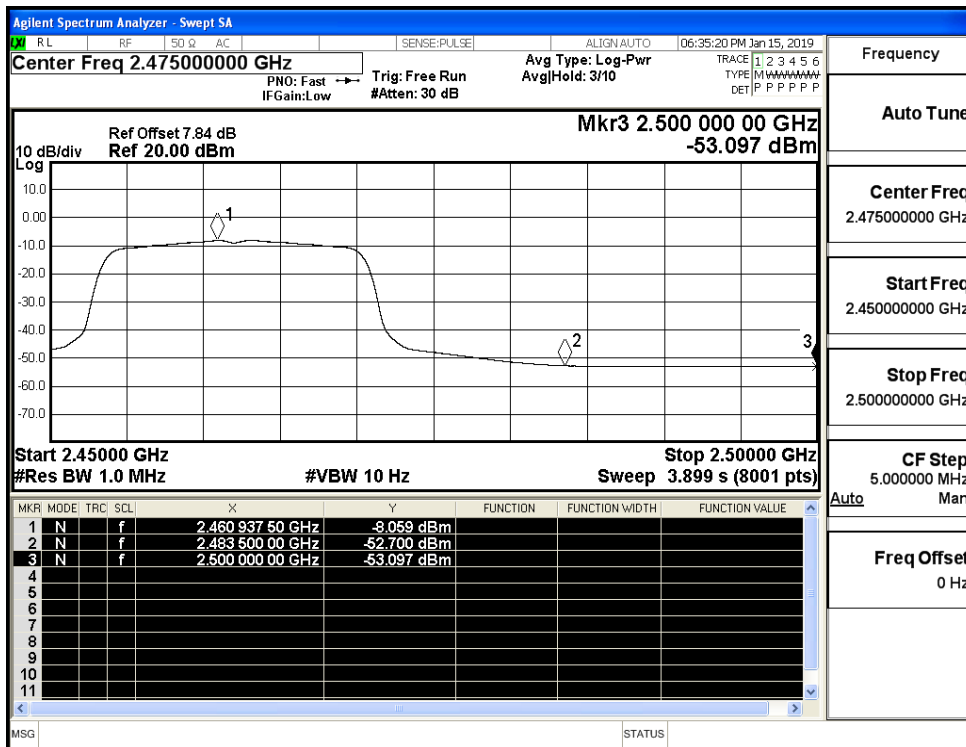
Restrict-band band-edge measurements_11G_2412_Ant1_AV



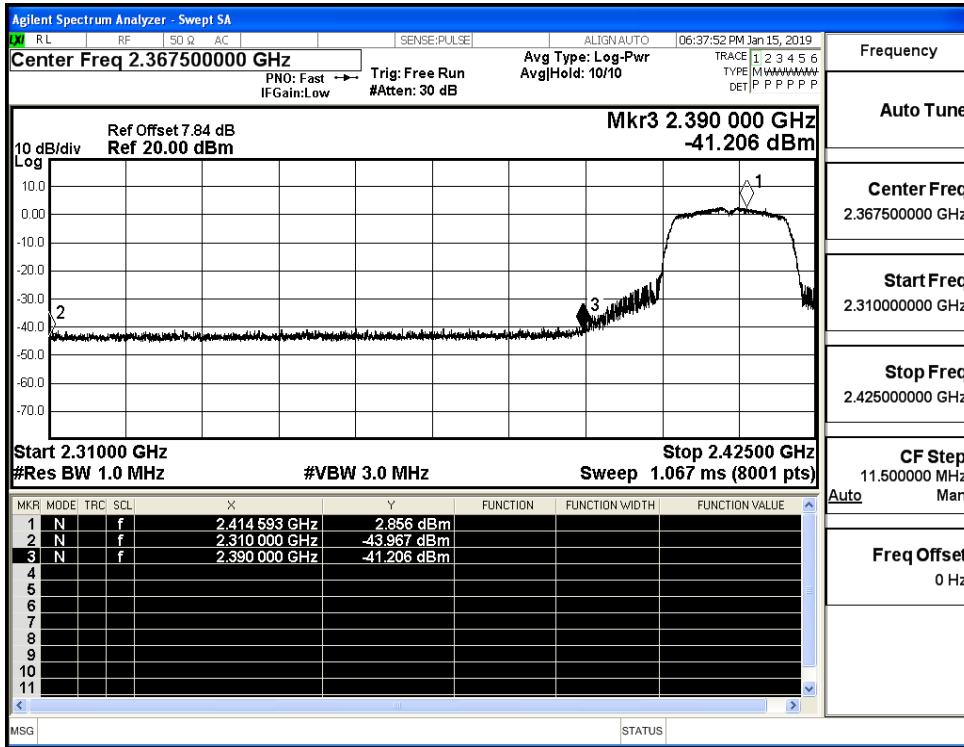
Restrict-band band-edge measurements_11G_2462_Ant1_PEAK



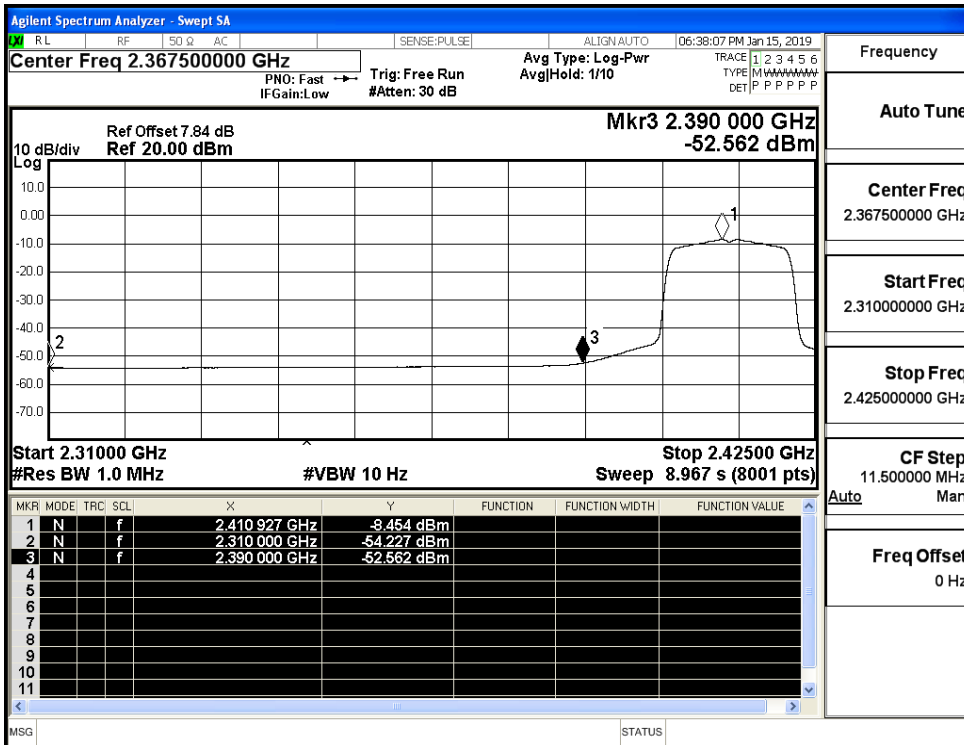
Restrict-band band-edge measurements_11G_2462_Ant1_AV



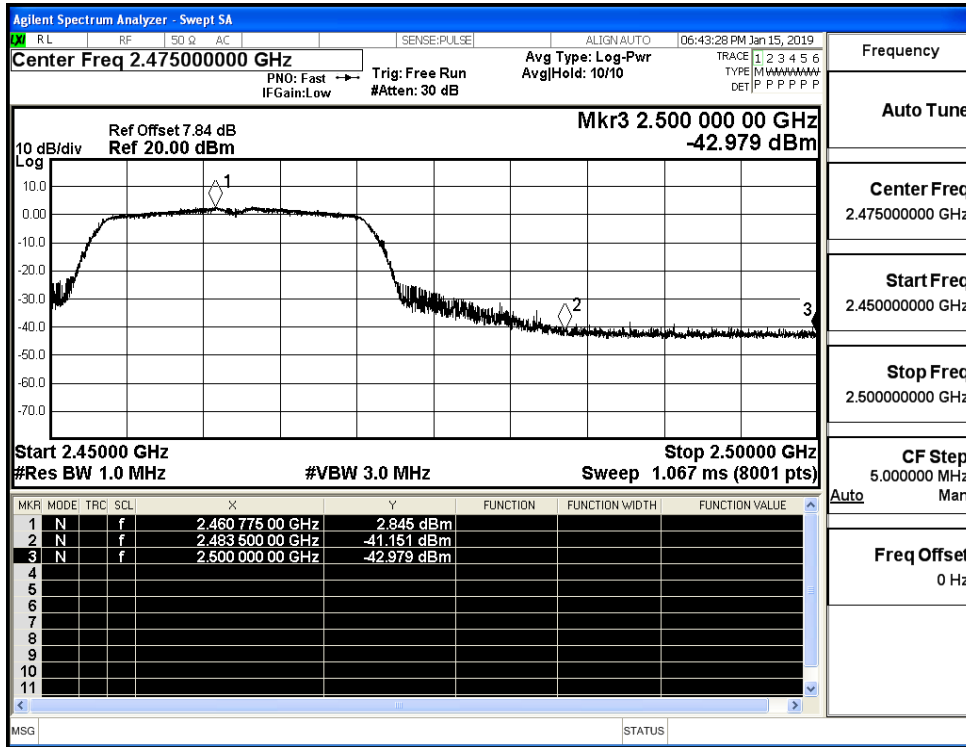
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



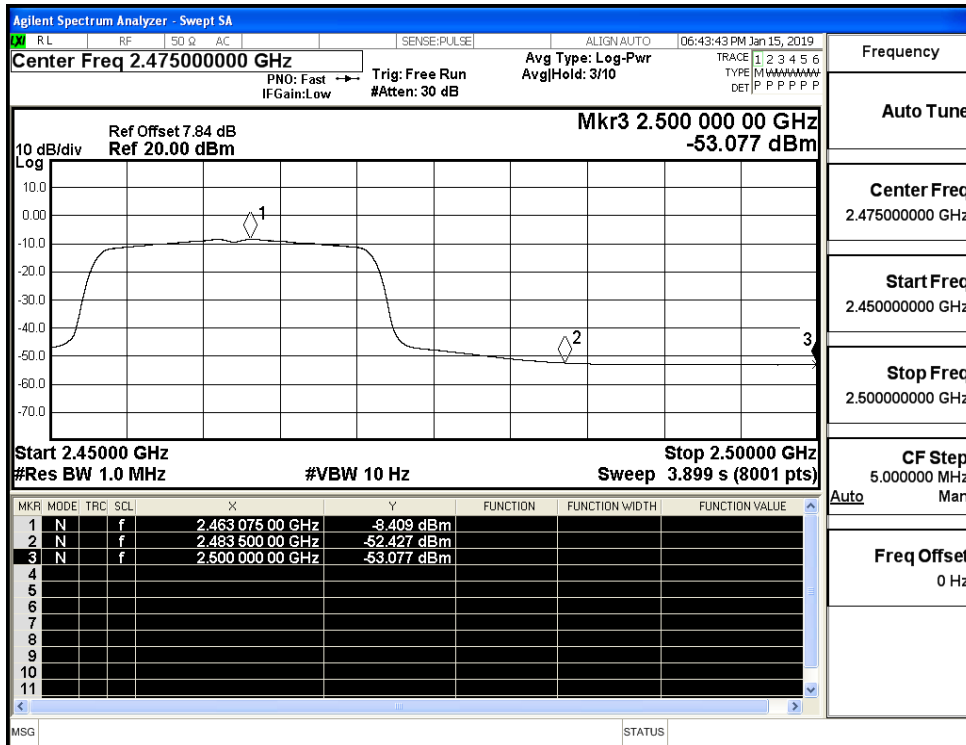
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_AV



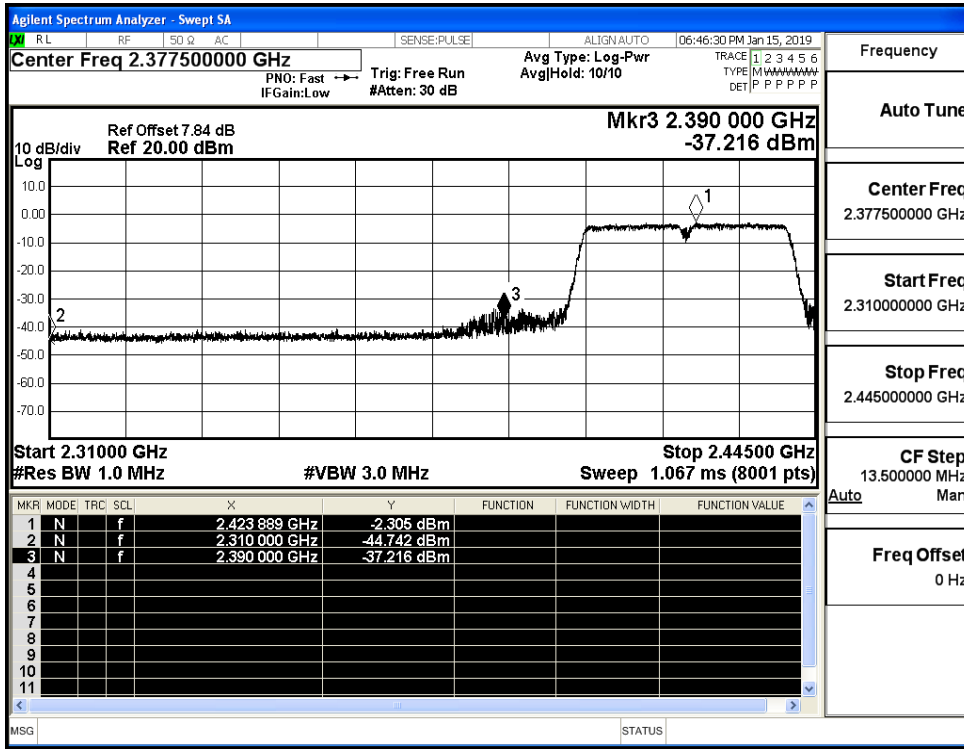
Restrict-band band-edge measurements_11N20SISO_2462_Ant1_PEAK



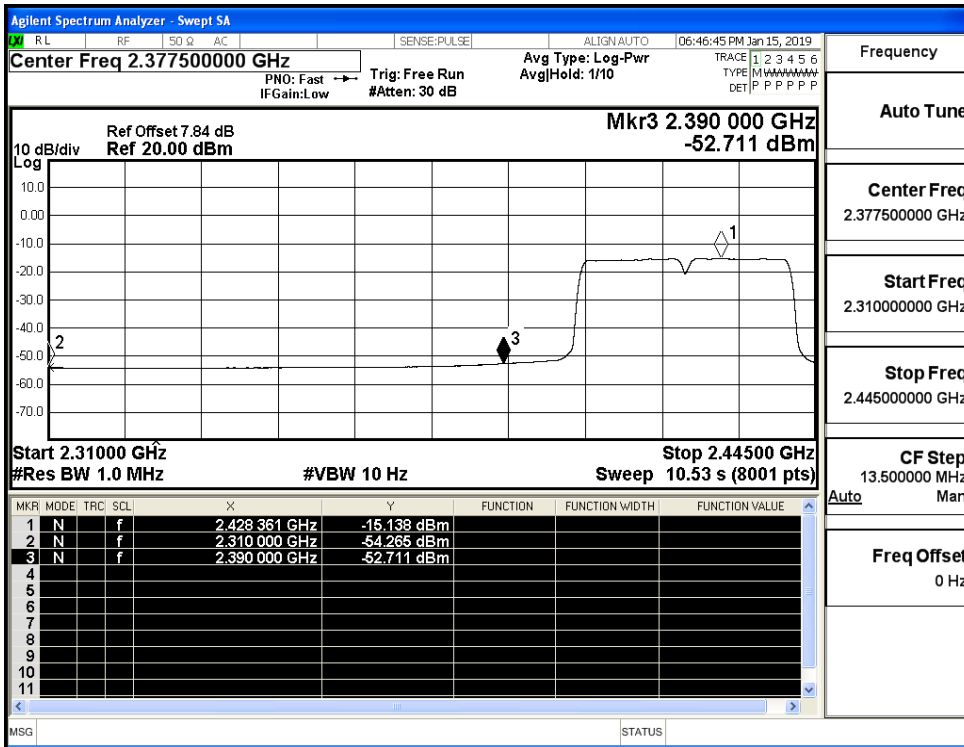
Restrict-band band-edge measurements_11N20SISO_2462_Ant1_AV



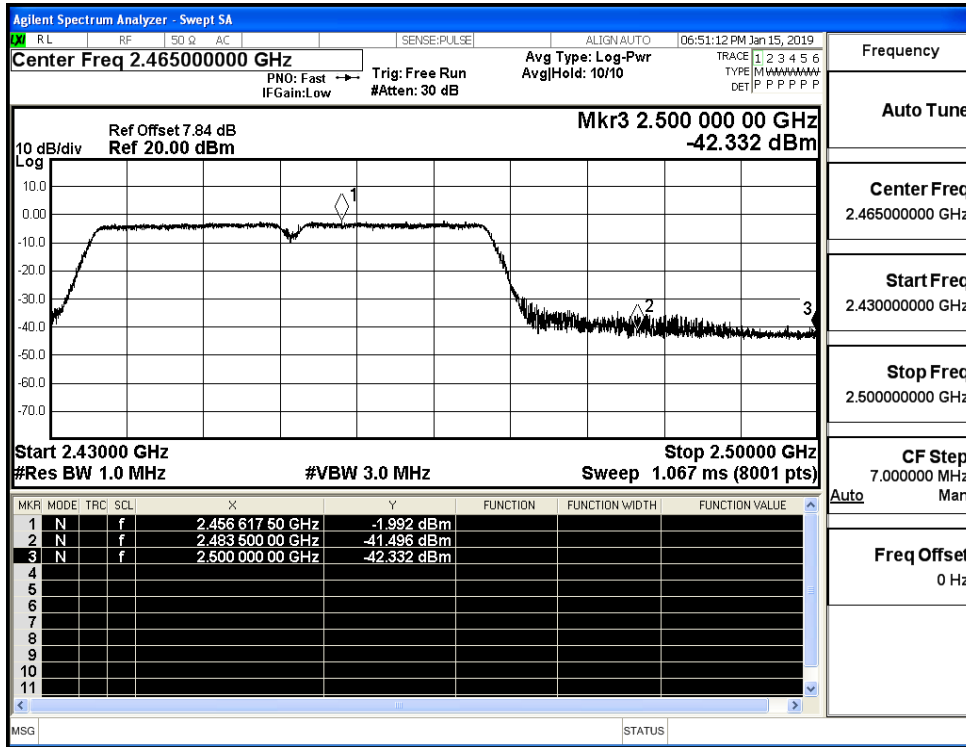
Restrict-band band-edge measurements_11N40SISO_2422_Ant1_PEAK



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

