

Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Set top box

Trade Mark: N/A

Test Model: J5S

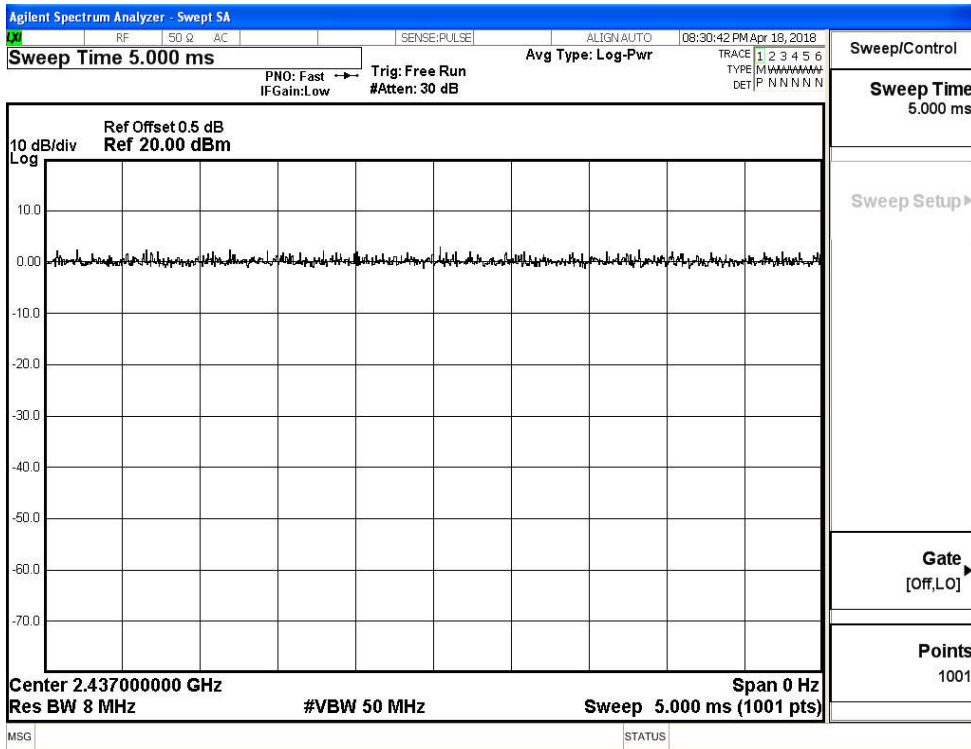
Environmental Conditions

Temperature:	24.1° C
Relative Humidity:	53.2%
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

Duty Cycle_11N20SISO_2437_Ant1

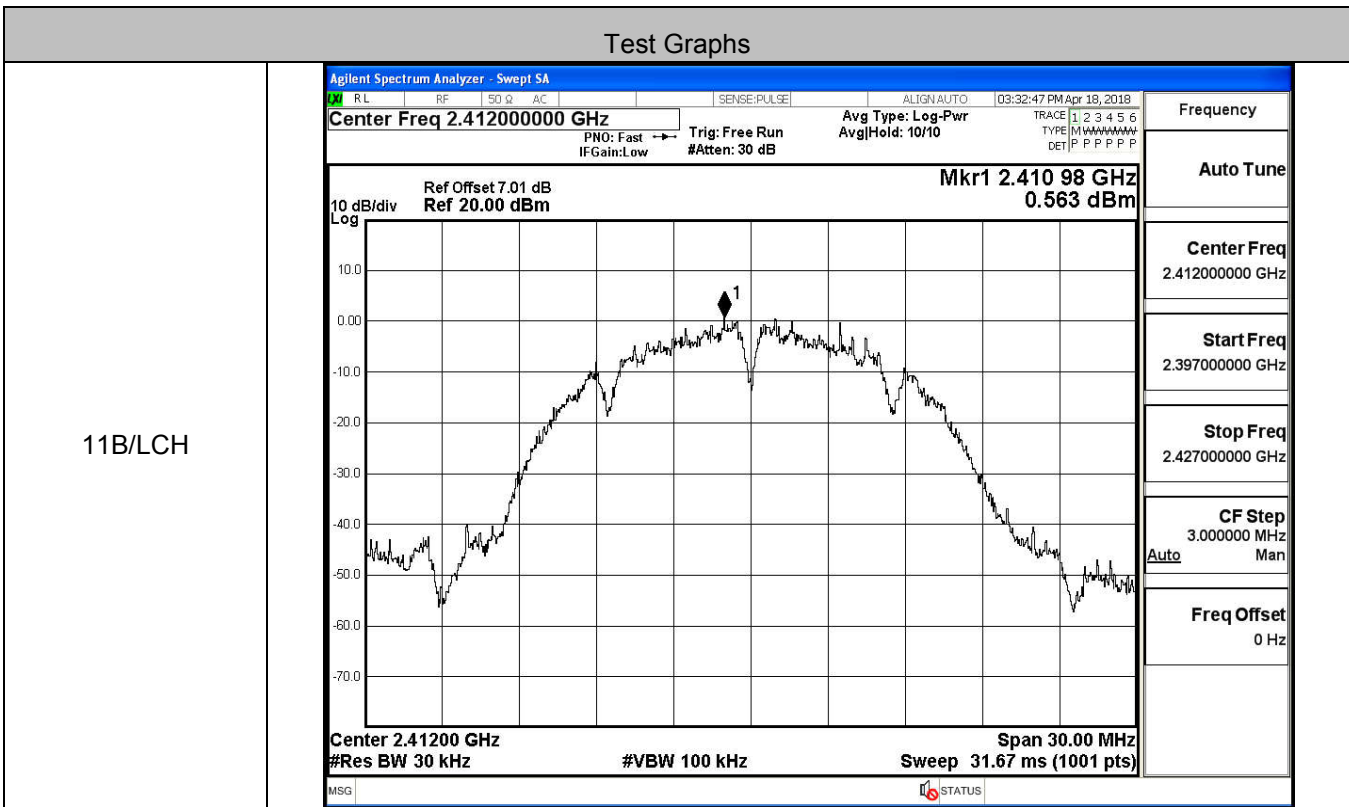


C.2 Maximum Peak Conducted Output Power

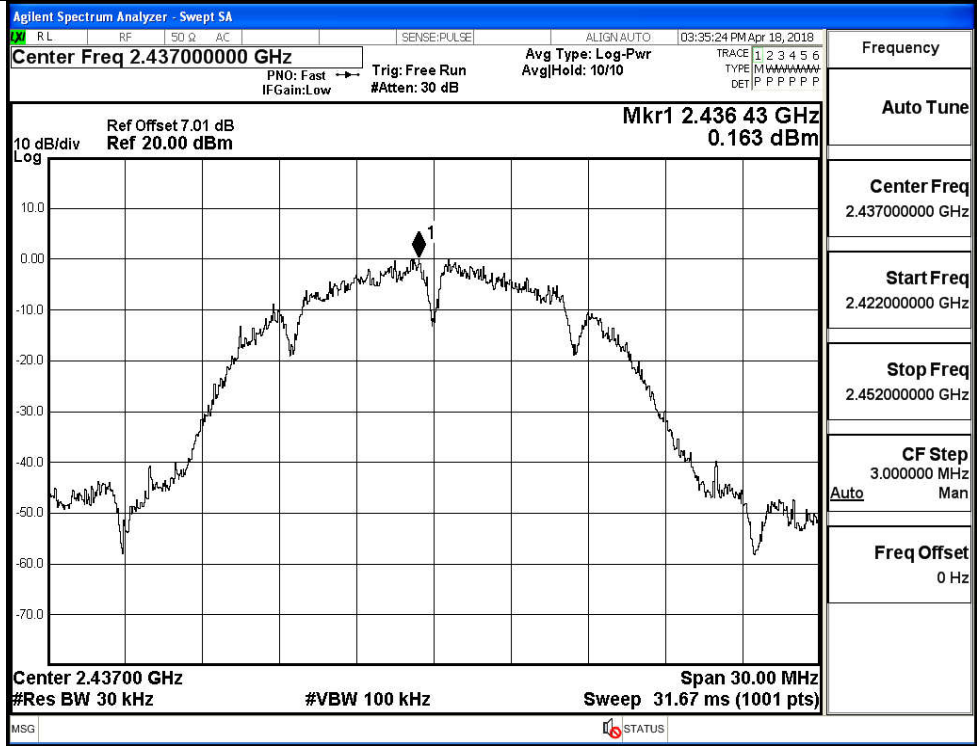
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	16.62	30	PASS
	MCH	16.53	30	PASS
	HCH	16.69	30	PASS
11G	LCH	16.52	30	PASS
	MCH	16.00	30	PASS
	HCH	16.31	30	PASS
11N20SISO	LCH	16.43	30	PASS
	MCH	16.00	30	PASS
	HCH	16.26	30	PASS

C.3 Maximum Power Spectral Density

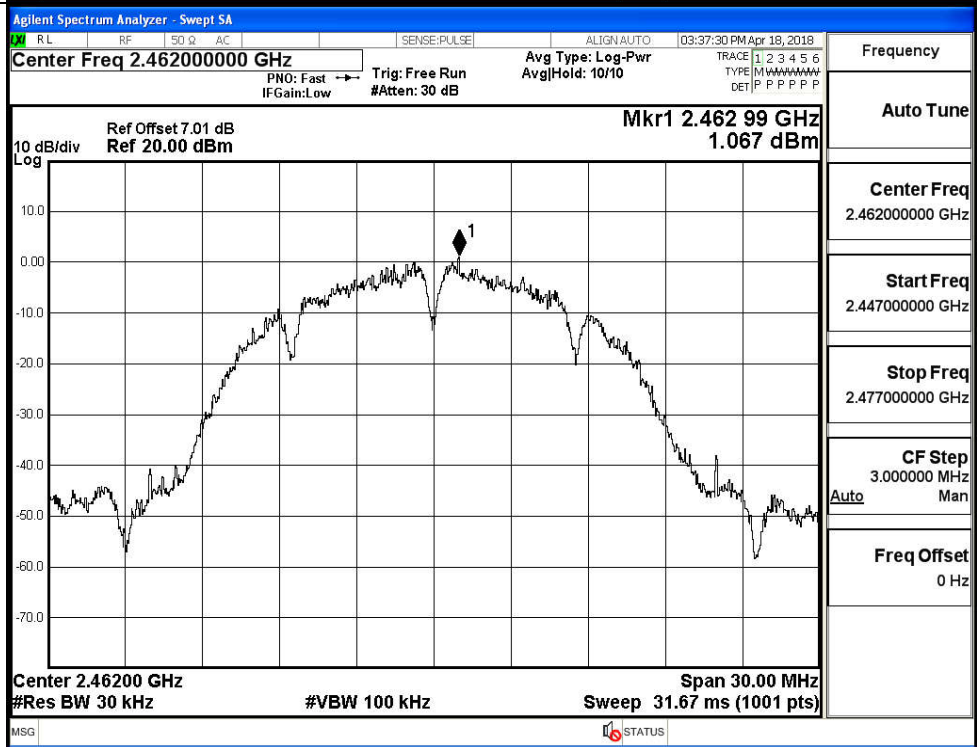
Mode	Channel	Meas.Level [dBm/30KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	0.563	8	PASS
	MCH	0.163	8	PASS
	HCH	1.067	8	PASS
11G	LCH	-3.271	8	PASS
	MCH	-3.173	8	PASS
	HCH	-2.788	8	PASS
11N20SISO	LCH	-3.759	8	PASS
	MCH	-4.320	8	PASS
	HCH	-4.209	8	PASS



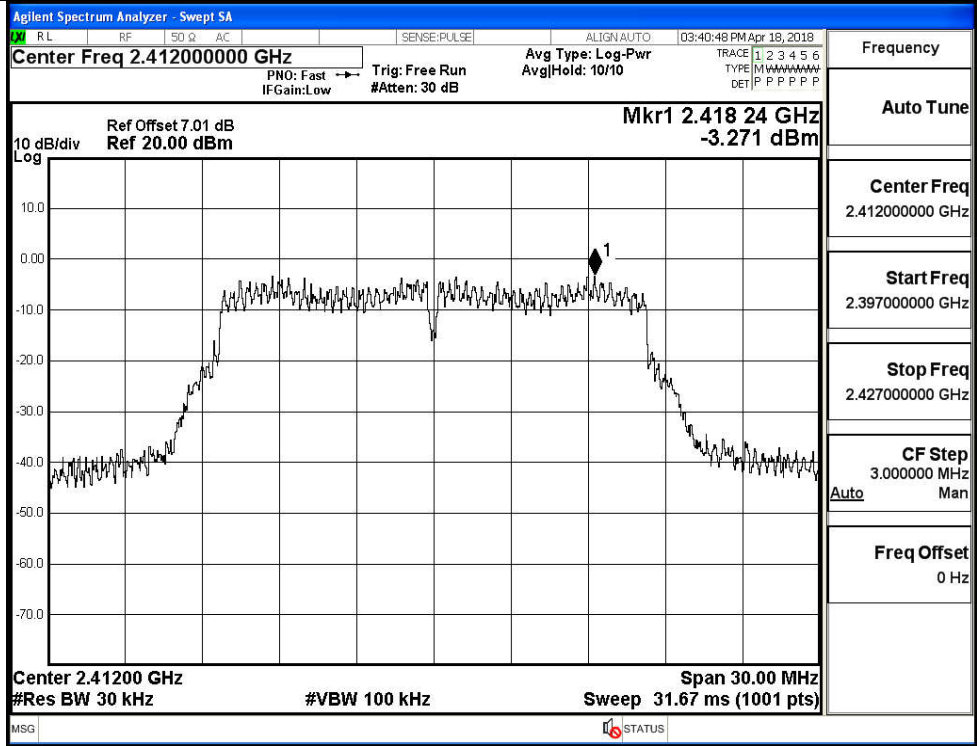
11B/MCH



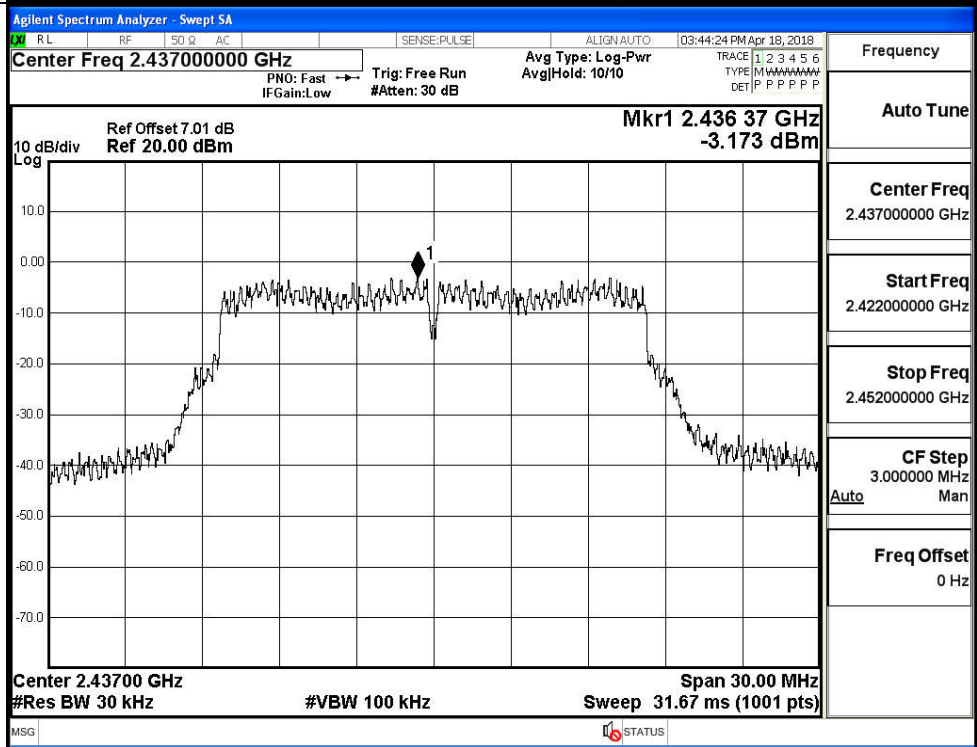
11B/HCH



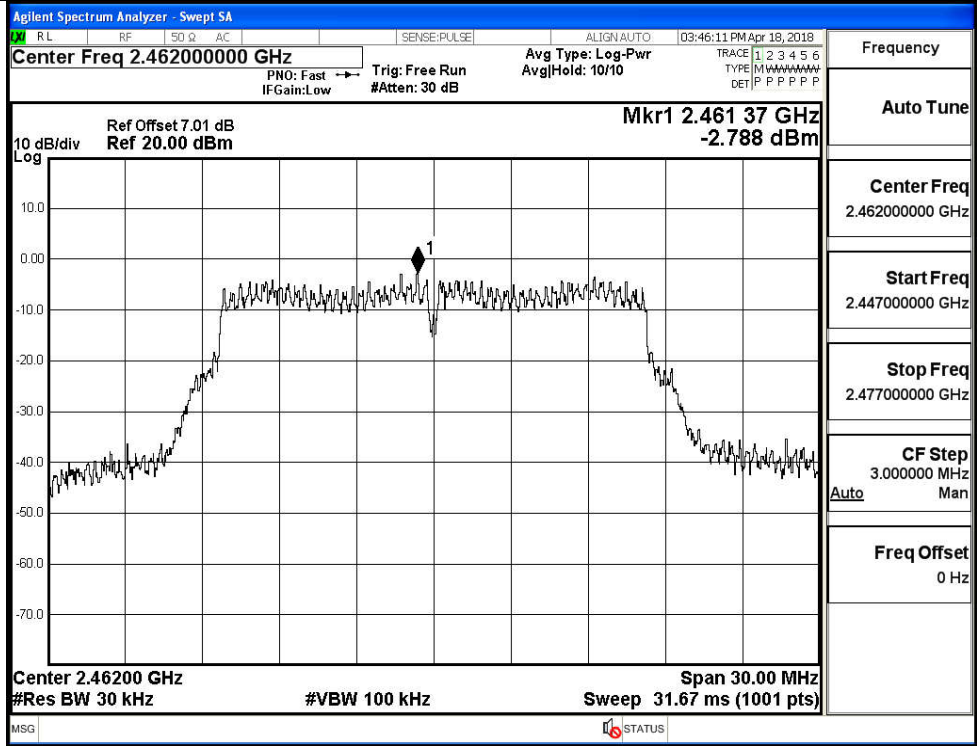
11G/LCH



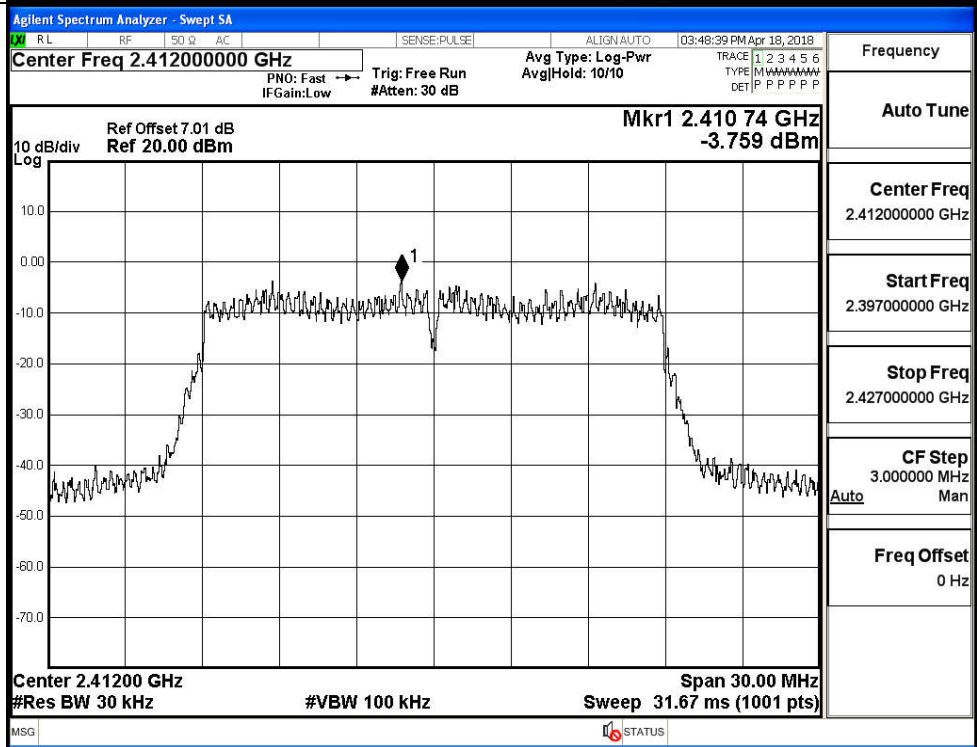
11G/MCH



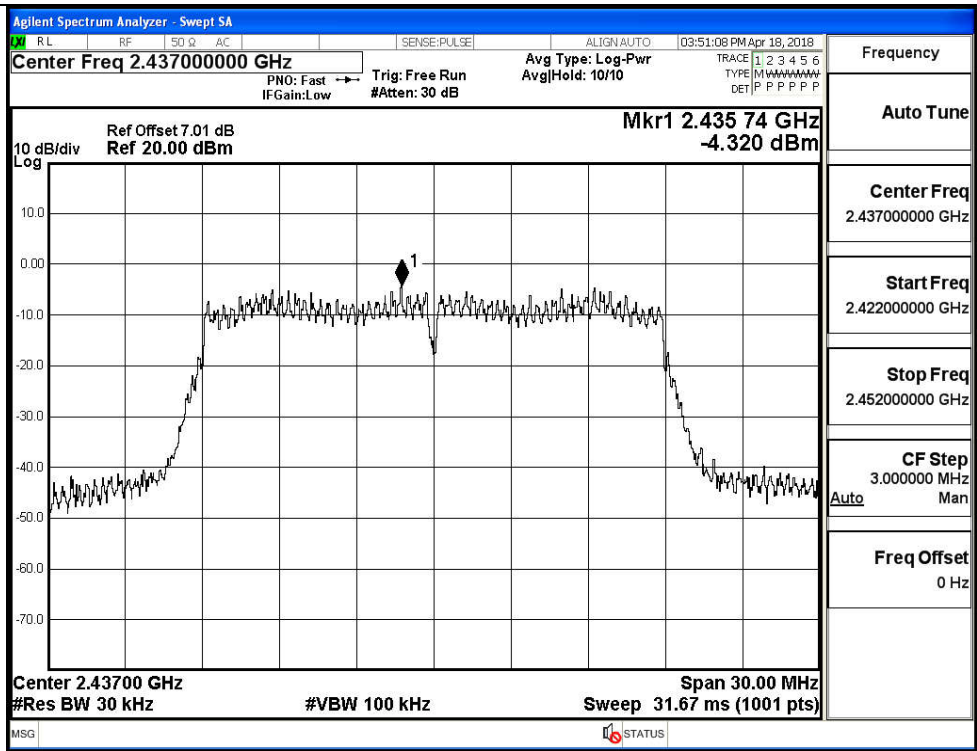
11G/HCH



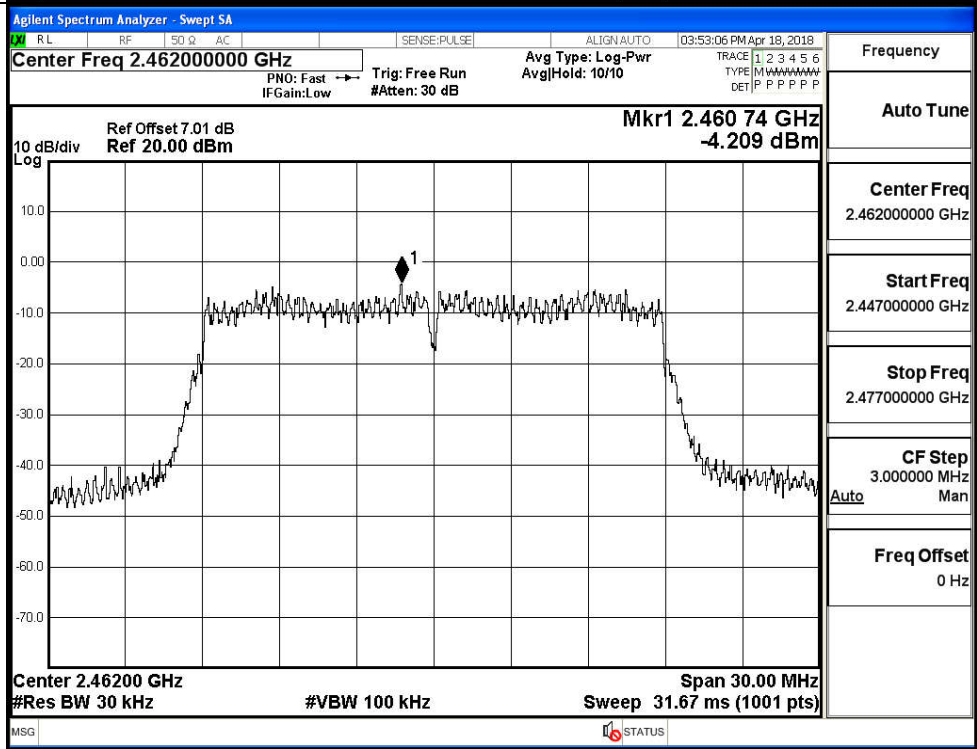
11N20SISO/LCH



11N20SISO/MCH



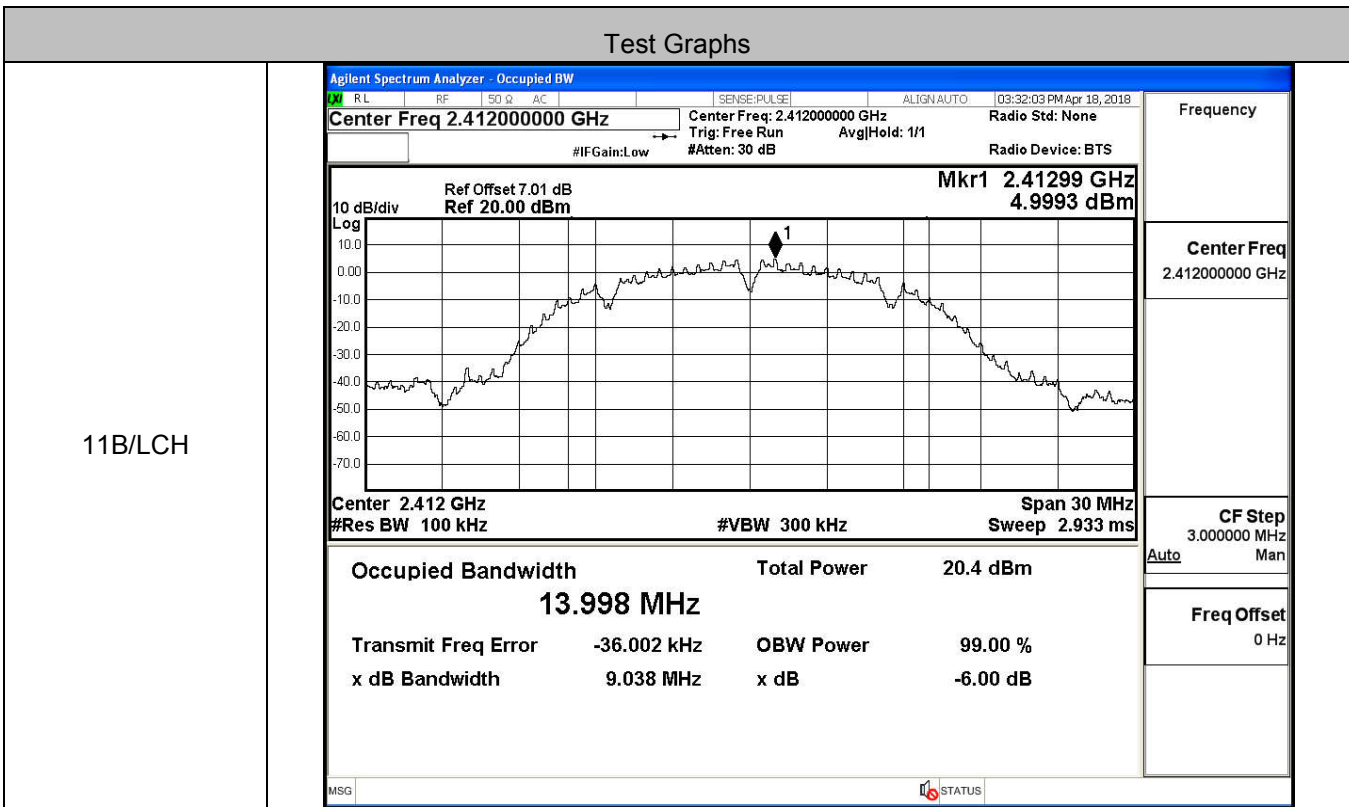
11N20SISO/HCH



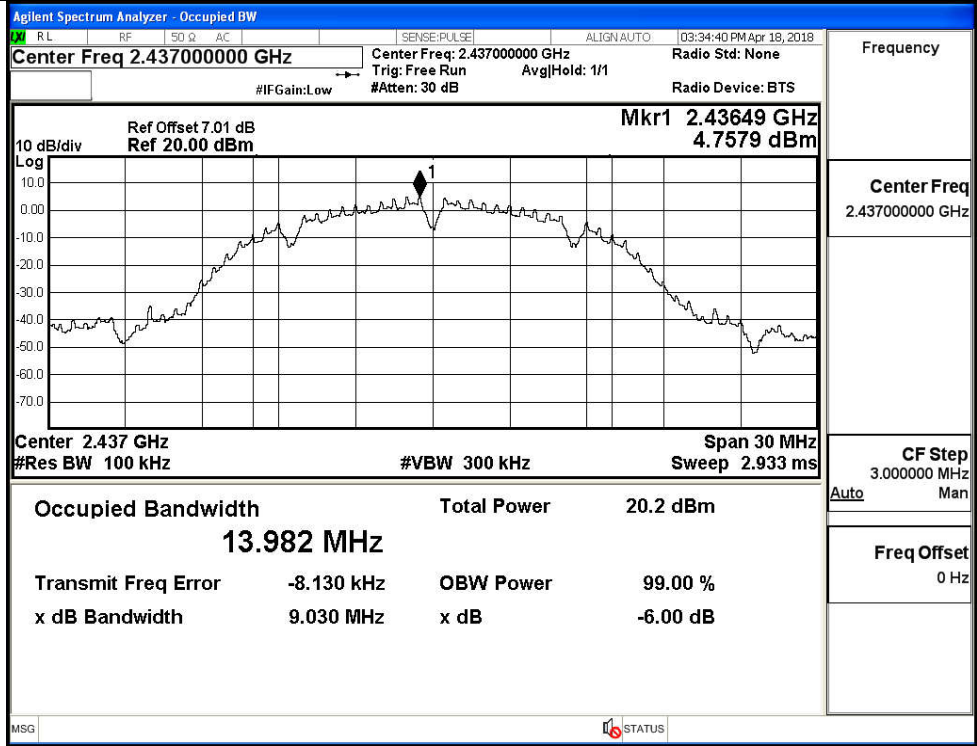
C.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.038	≥0.5	PASS
	MCH	9.030	≥0.5	PASS
	HCH	9.076	≥0.5	PASS
11G	LCH	16.04	≥0.5	PASS
	MCH	15.57	≥0.5	PASS
	HCH	16.05	≥0.5	PASS
11N20SISO	LCH	17.53	≥0.5	PASS
	MCH	17.55	≥0.5	PASS
	HCH	16.70	≥0.5	PASS

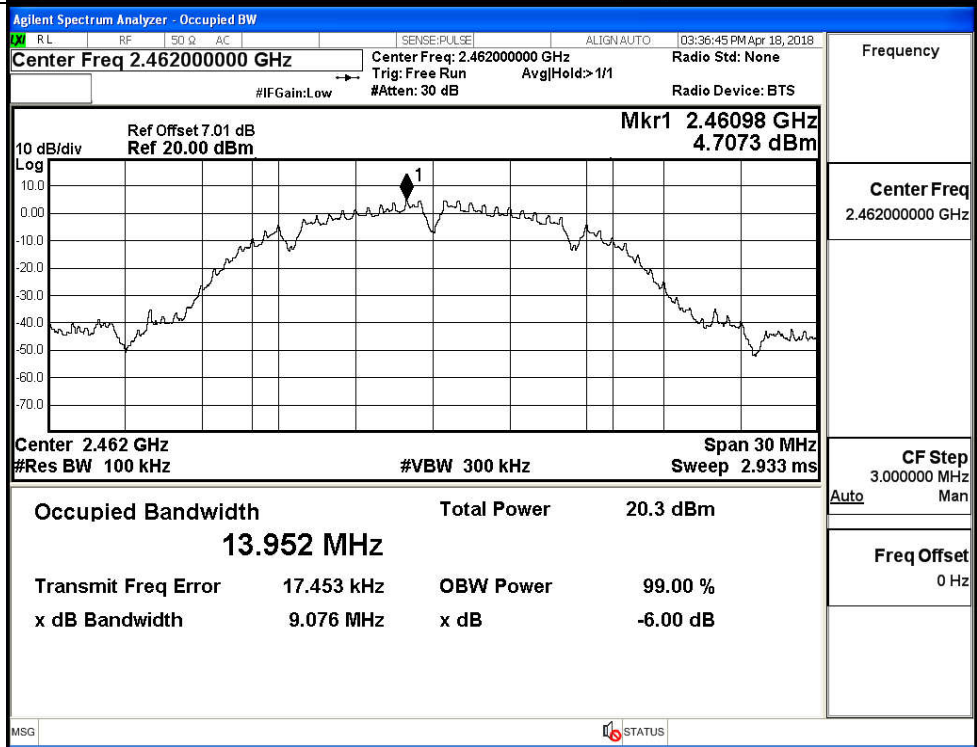
Test Graphs



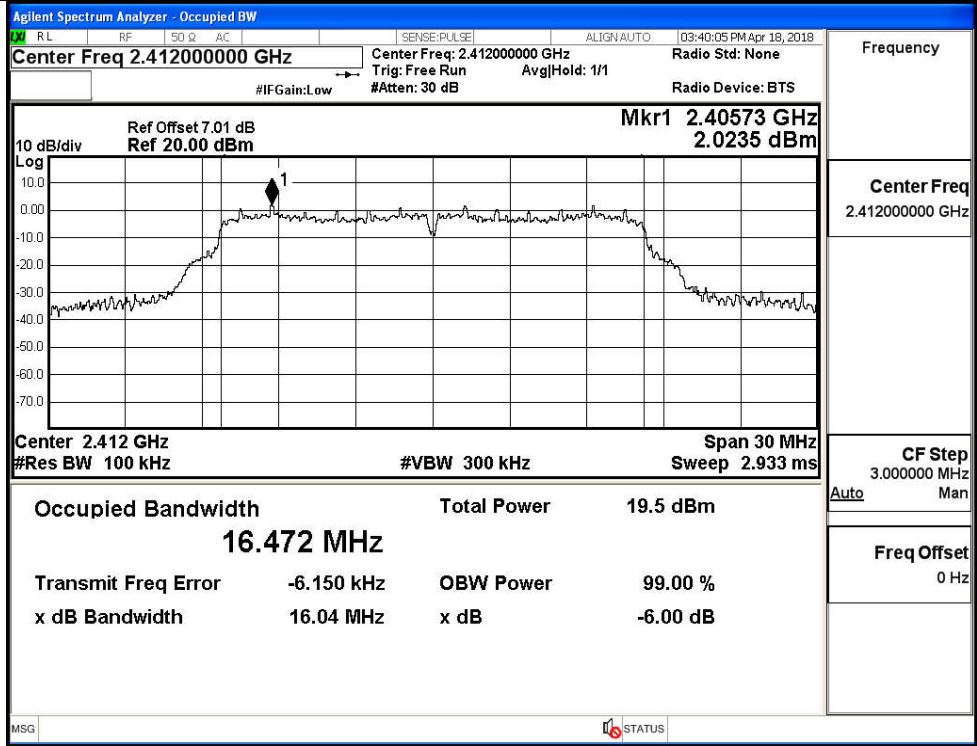
11B/MCH



11B/HCH

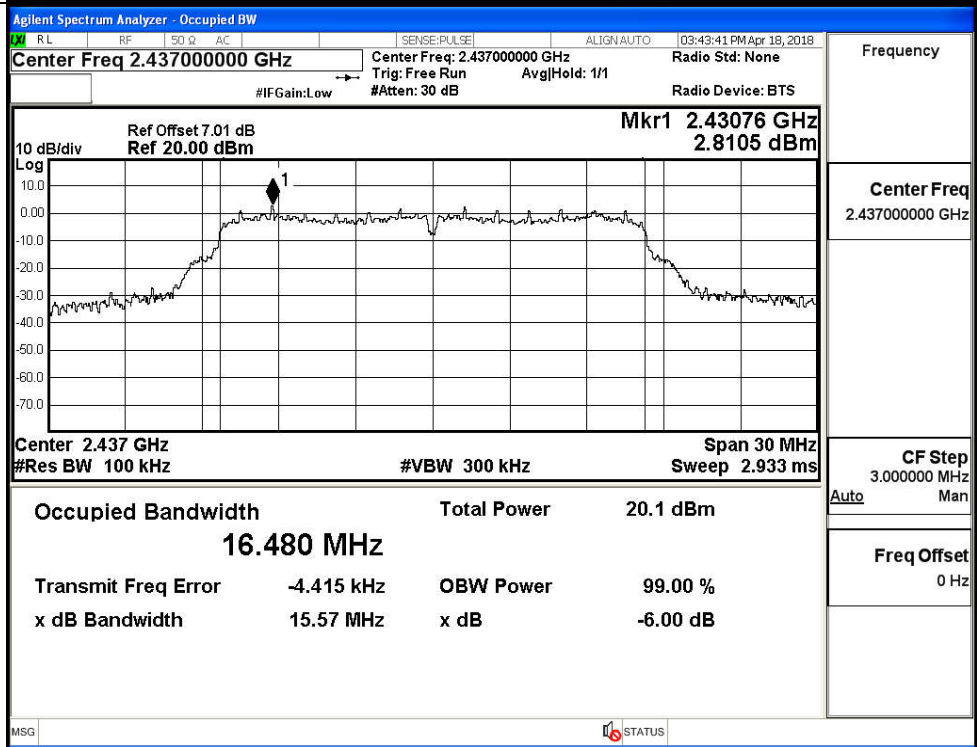


11G/LCH



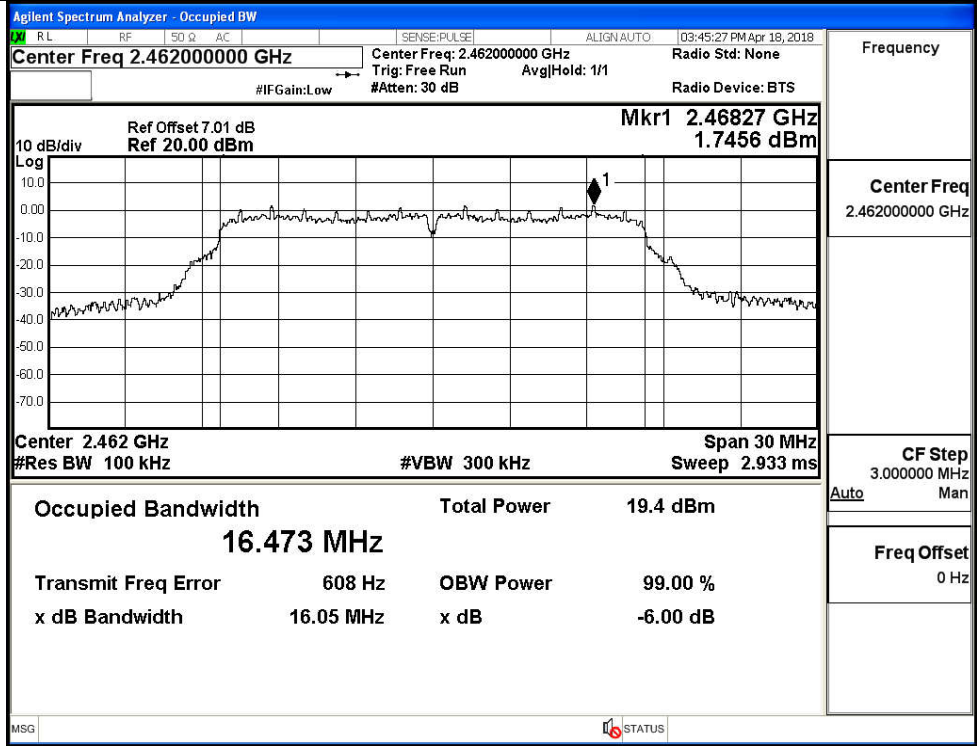
Frequency	2.41200000 GHz
Center Freq	2.41200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11G/MCH



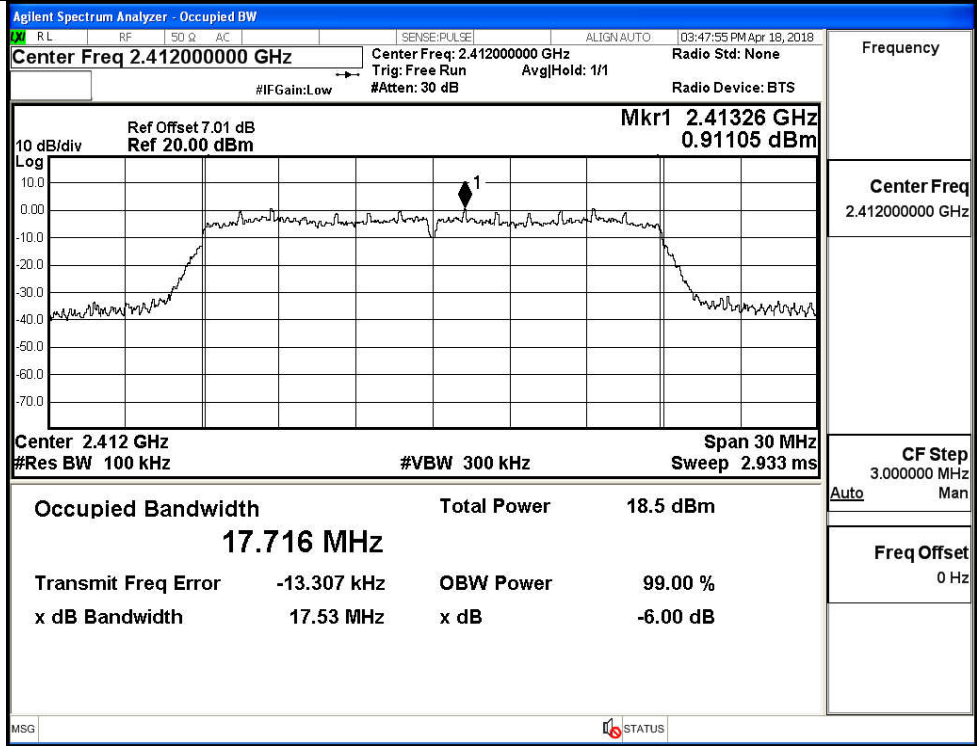
Frequency	2.43700000 GHz
Center Freq	2.43700000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11G/HCH

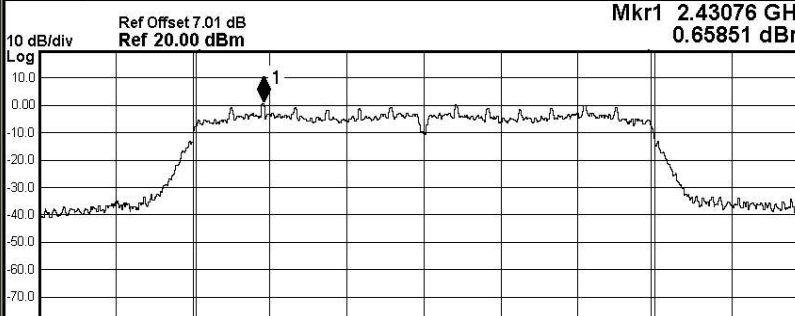
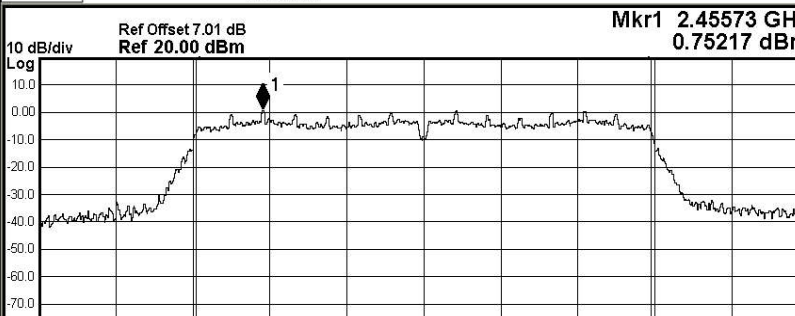


Frequency	2.46200000 GHz
Center Freq	2.46200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11N20SISO/LCH



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

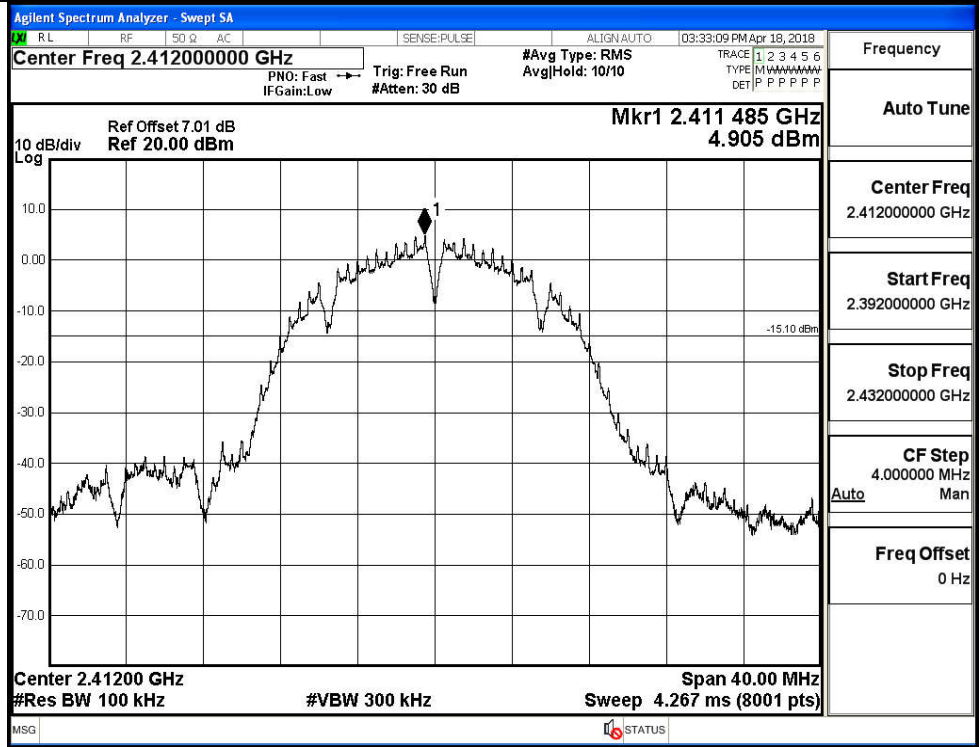
<p>11N20SISO/MCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.43700000 GHz</p> <p>Center Freq: 2.43700000 GHz Trig: Free Run #IFGain: Low #Atten: 30 dB</p> <p>ALIGN AUTO 103:50:23 PM Apr 18, 2018 Radio Std: None Avg/Hold: 1/1 Radio Device: BTS</p>  <p>10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.43076 GHz 0.65851 dBm</p> <p>Center 2.437 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.933 ms</p> <p>Occupied Bandwidth 17.708 MHz Total Power 18.2 dBm</p> <p>Transmit Freq Error -7.849 kHz OBW Power 99.00 % x dB Bandwidth 17.55 MHz x dB -6.00 dB</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Center Freq 2.43700000 GHz</p> <p>CF Step 3.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>11N20SISO/HCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.46200000 GHz</p> <p>Center Freq: 2.46200000 GHz Trig: Free Run #IFGain: Low #Atten: 30 dB</p> <p>ALIGN AUTO 103:52:20 PM Apr 18, 2018 Radio Std: None Avg/Hold: 1/1 Radio Device: BTS</p>  <p>10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.45573 GHz 0.75217 dBm</p> <p>Center 2.462 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.933 ms</p> <p>Occupied Bandwidth 17.695 MHz Total Power 18.3 dBm</p> <p>Transmit Freq Error 2.378 kHz OBW Power 99.00 % x dB Bandwidth 16.70 MHz x dB -6.00 dB</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Center Freq 2.46200000 GHz</p> <p>CF Step 3.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>

C.5 RF Conducted Spurious Emissions

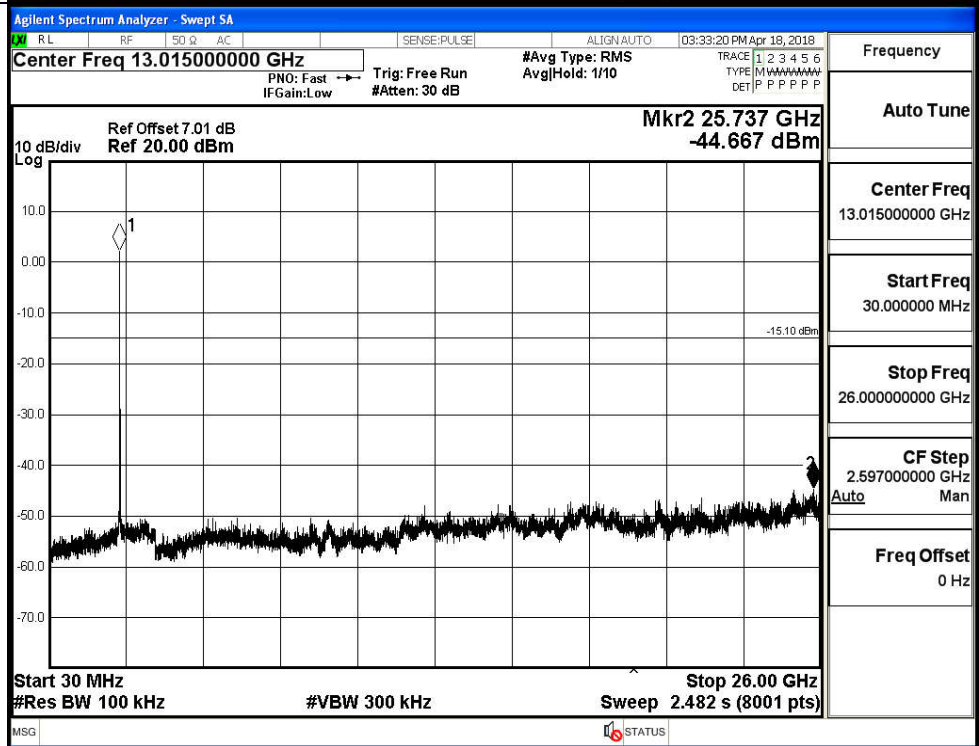
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.905	-44.667	-15.095	PASS
	MCH	4.619	-45.608	-15.381	PASS
	HCH	4.843	-45.515	-15.157	PASS
11G	LCH	2.441	-45.425	-17.559	PASS
	MCH	2.152	-45.293	-17.848	PASS
	HCH	1.601	-44.111	-18.399	PASS
11N20 SISO	LCH	0.279	-44.944	-19.721	PASS
	MCH	0.387	-45.246	-19.613	PASS
	HCH	0.42	-44.397	-19.580	PASS

11B_LCH_Graphs

Pref/11B/LCH

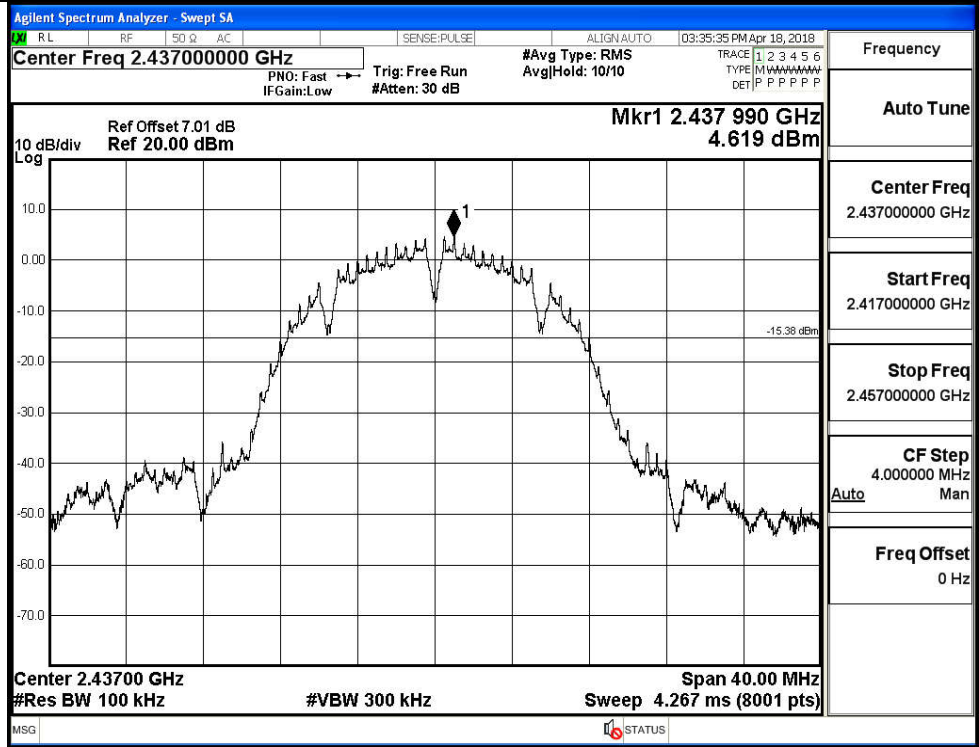


Puw/11B/LCH

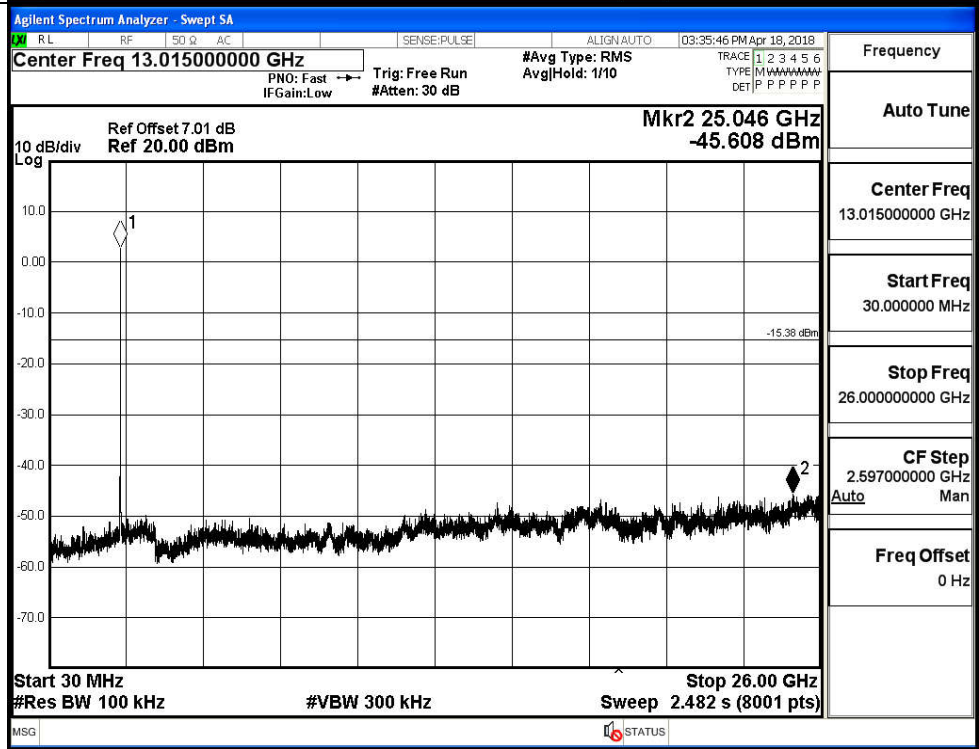


11B_MCH_Graphs

Pref/11B/MCH

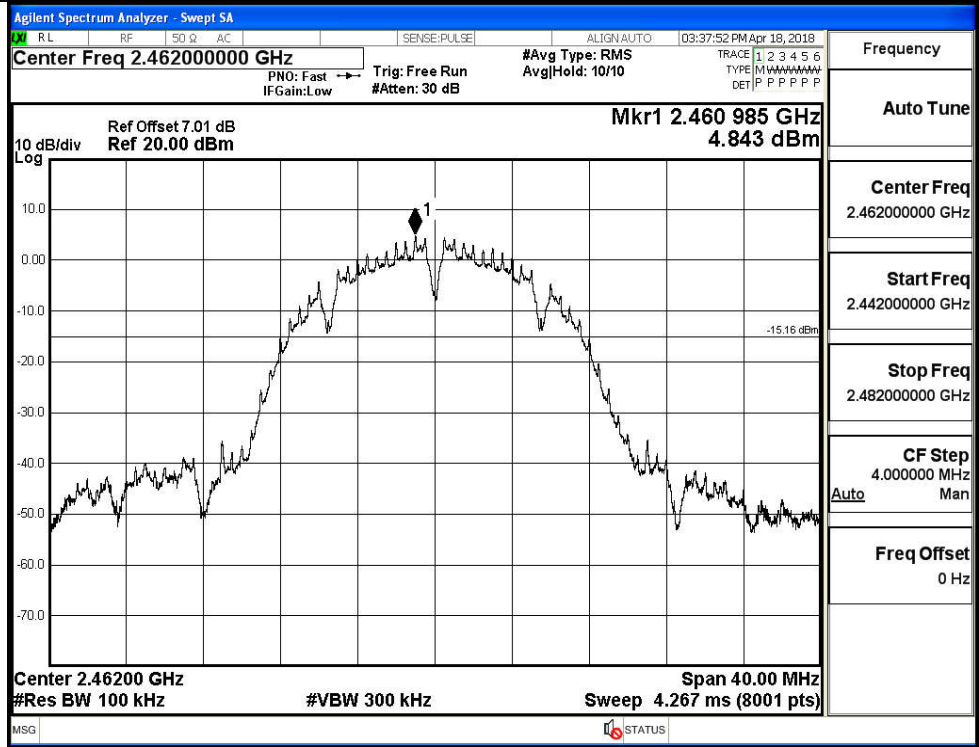


Puw/11B/MCH

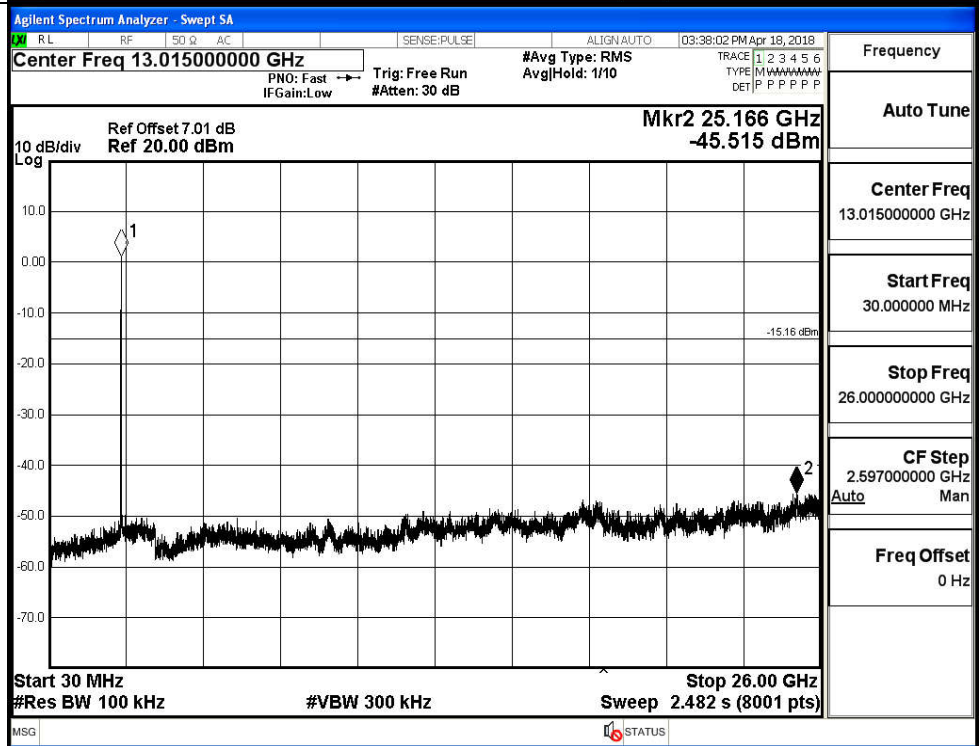


11B_HCH_Graphs

Pref/11B/HCH

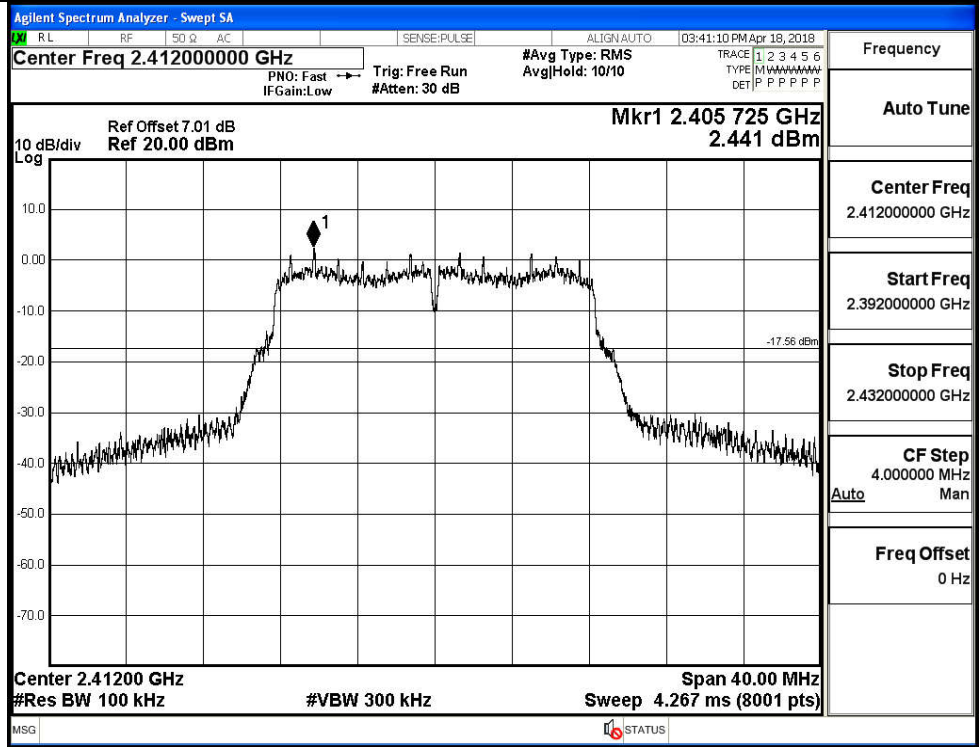


Puw/11B/HCH

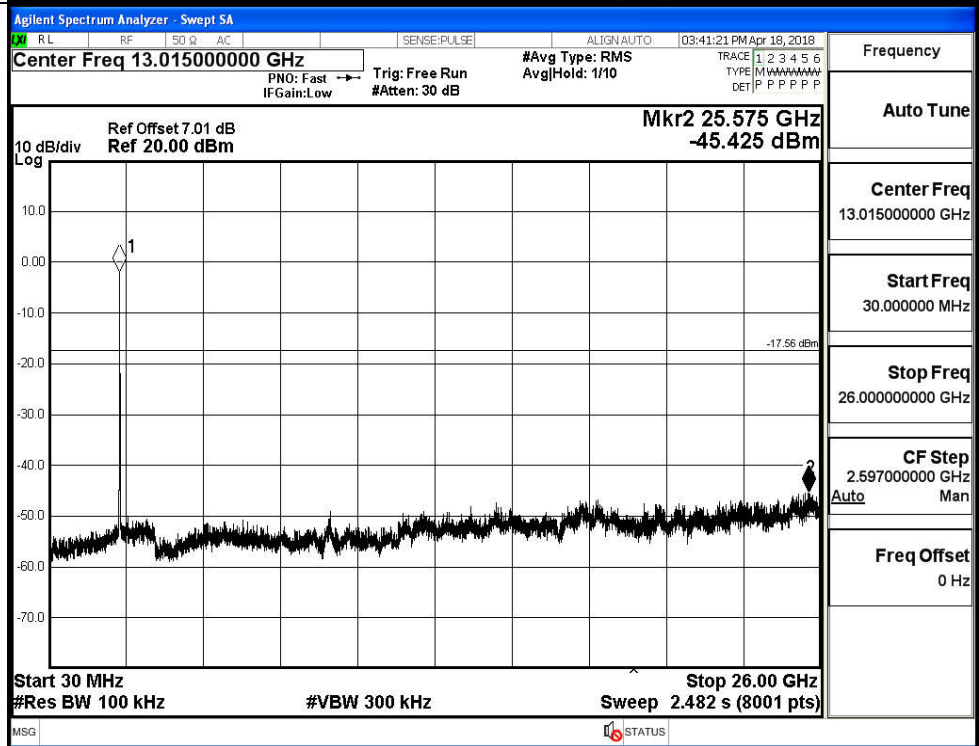


11G_LCH_Graphs

Pref/11G/LCH

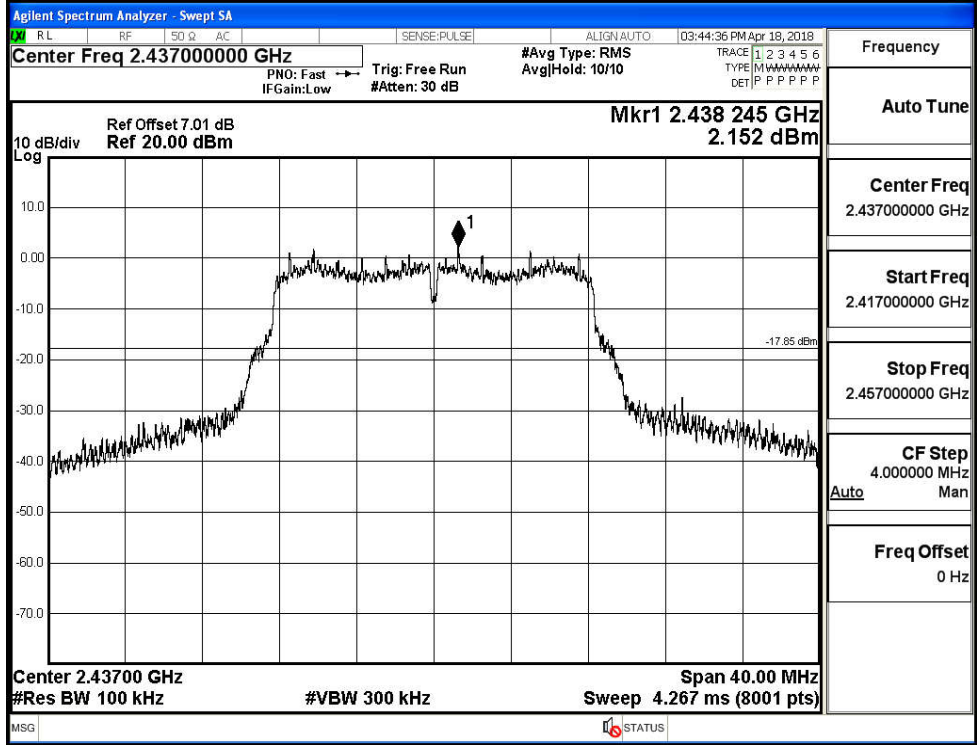


Puw/11G/LCH

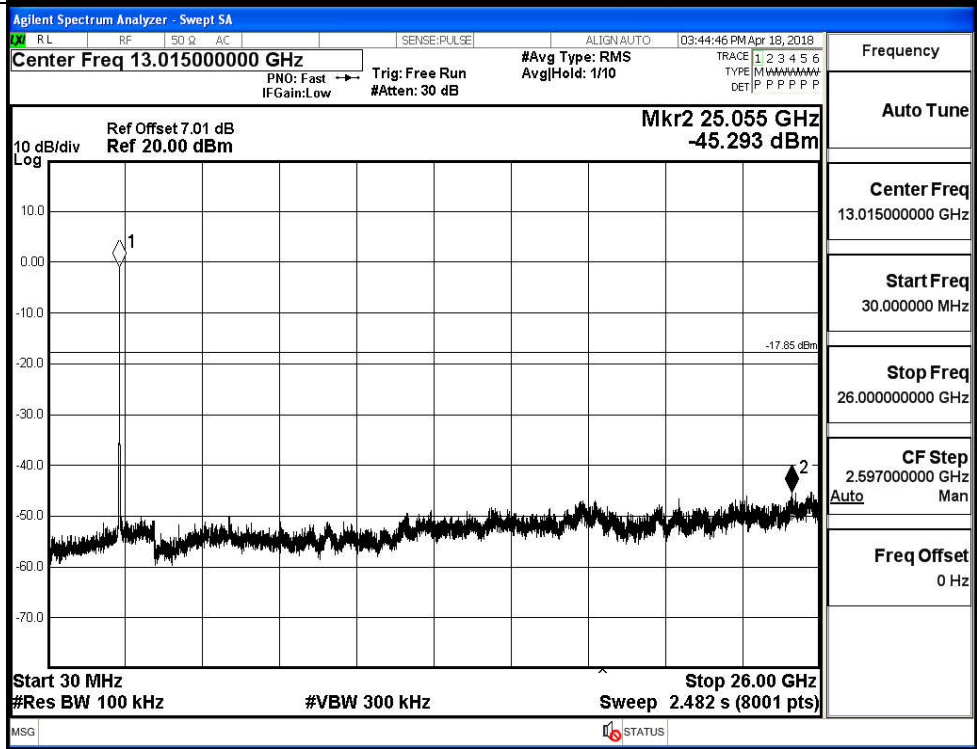


11G MCH Graphs

Pref/11G/MCH

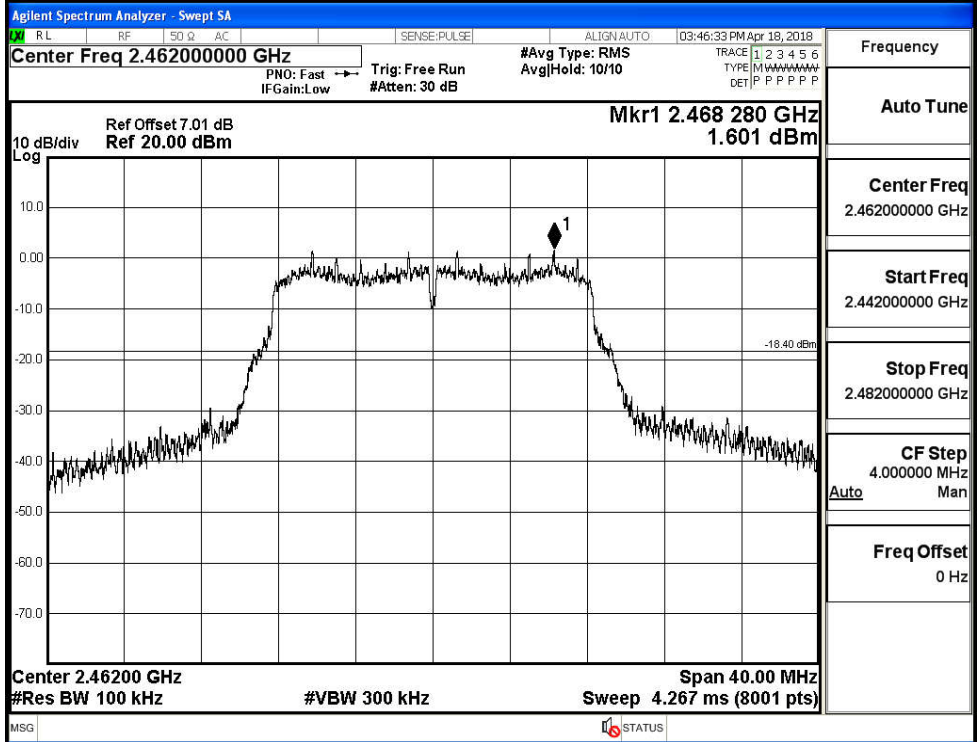


Puw/11G/MCH

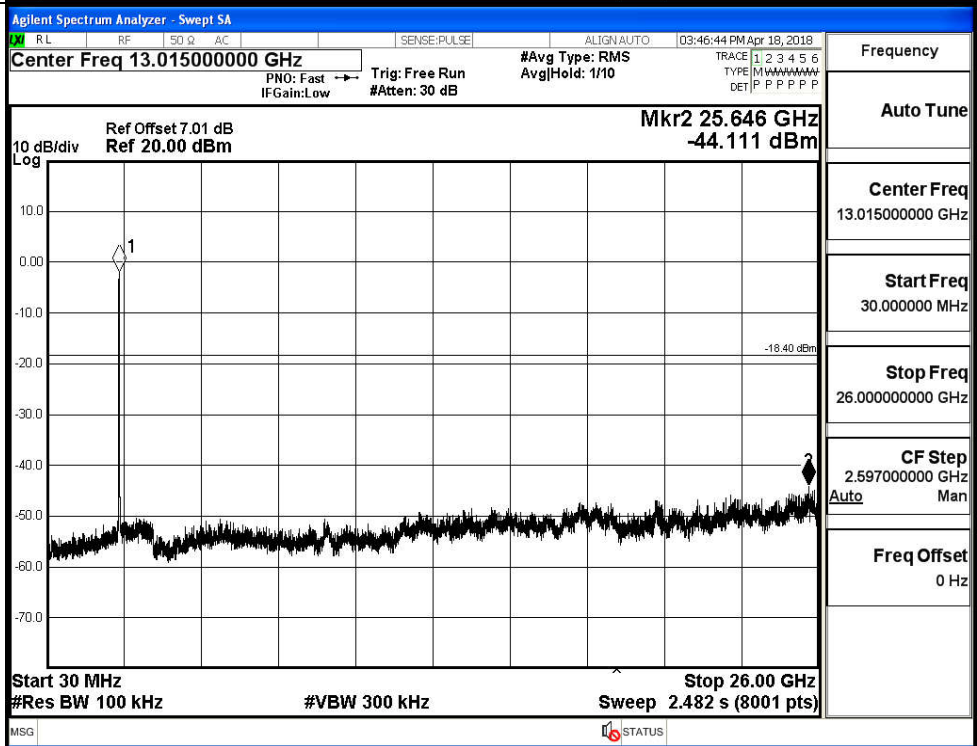


11G HCH Graphs

Pref/11G/HCH

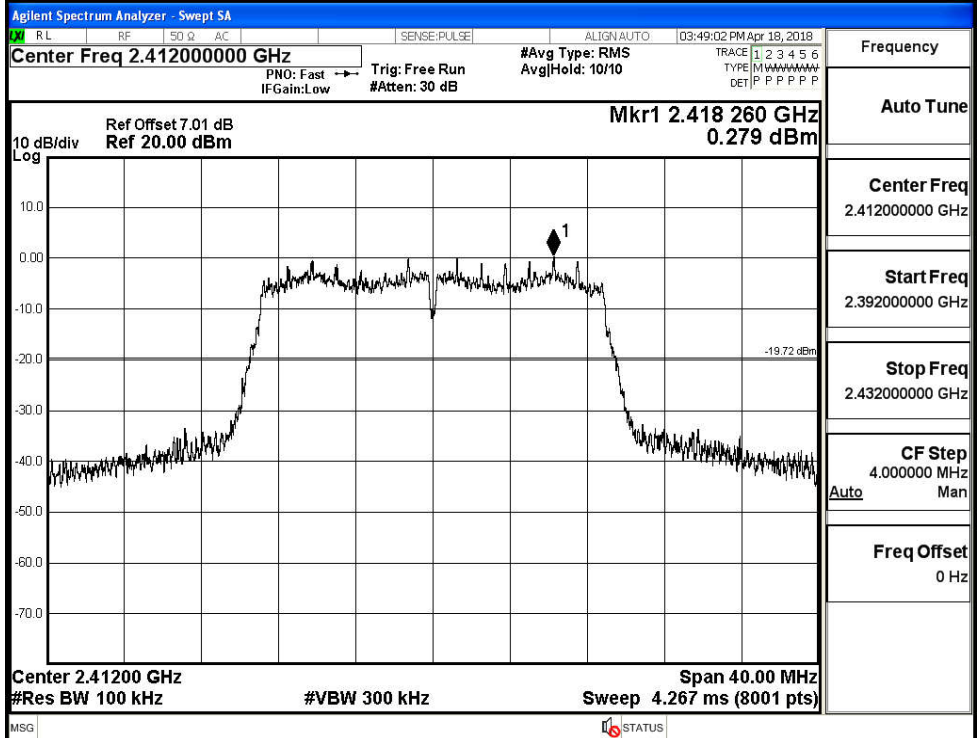


Puw/11G/HCH

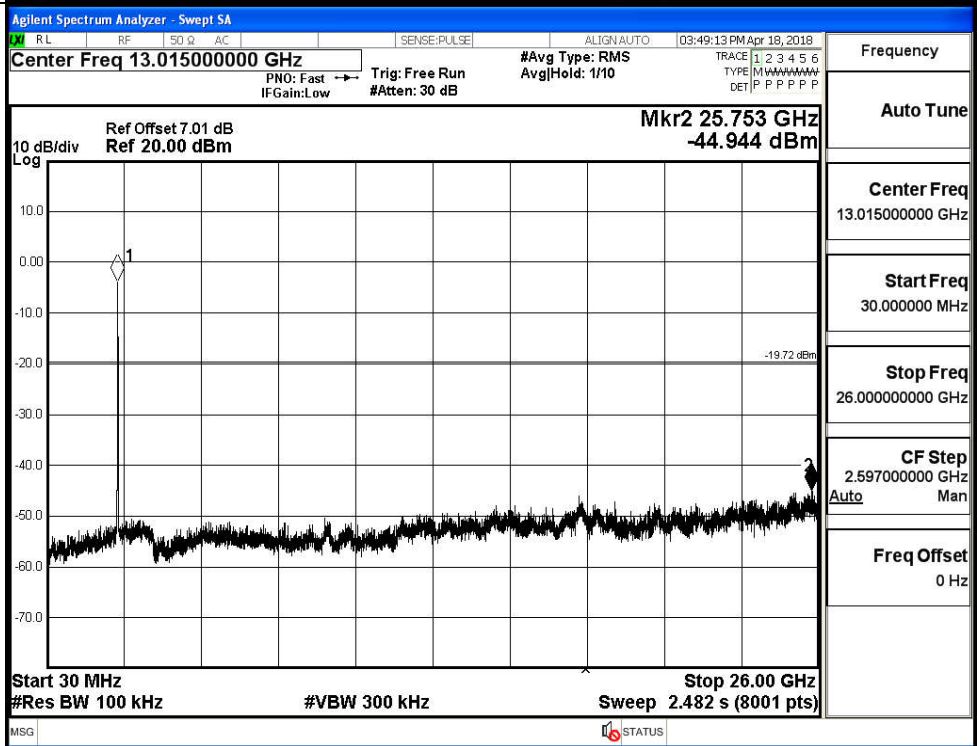


11N20SISO LCH_Graphs

Pref/11N20SIS
O/LCH

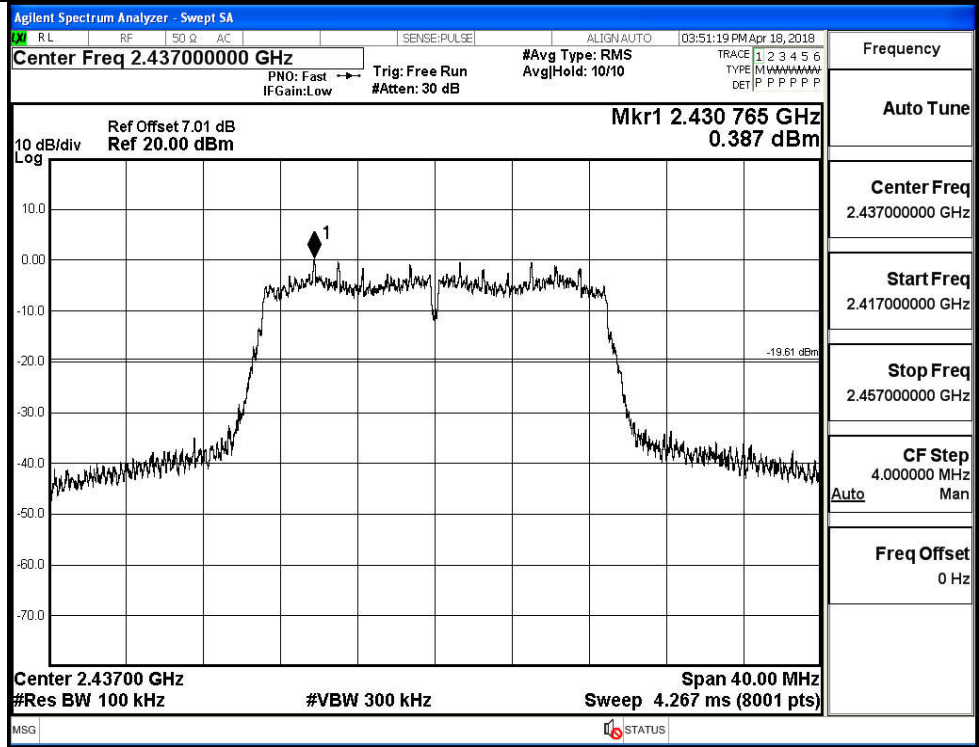


Puw/11N20
SISO/LCH

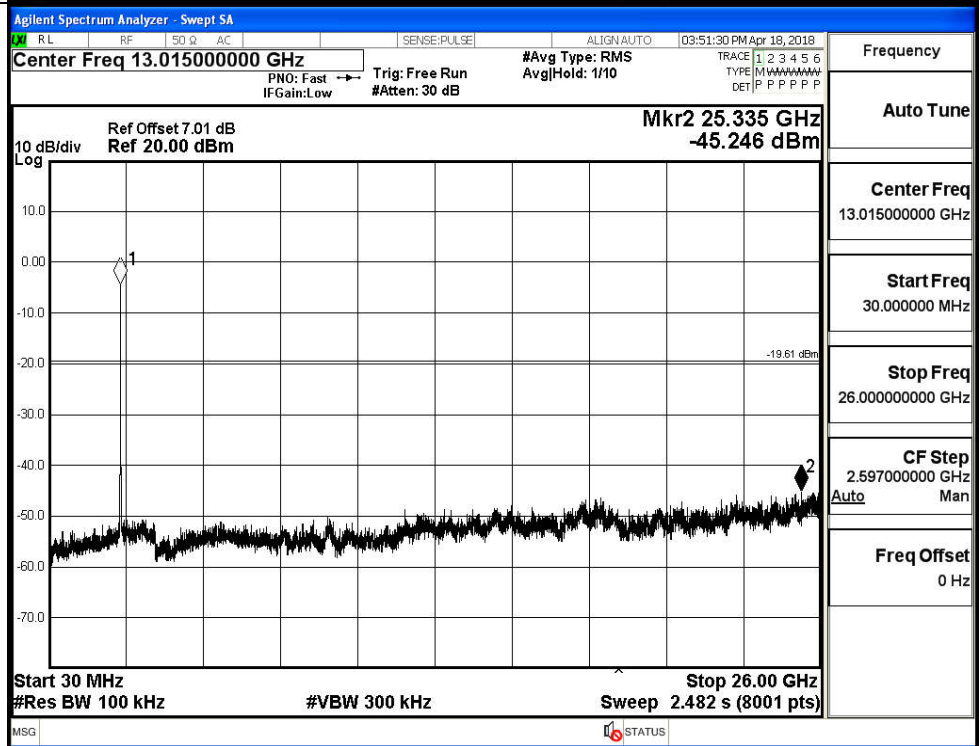


11N20SISO_MCH_Graphs

Pref/11N20
SISO/MCH

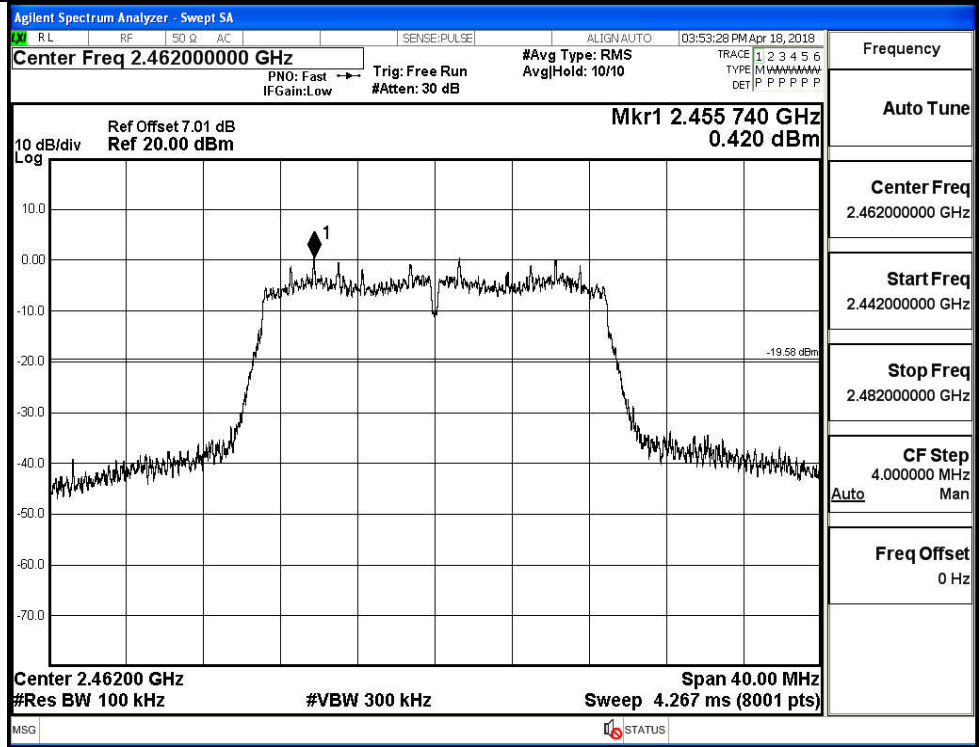


Puw/11N20
SISO/MCH

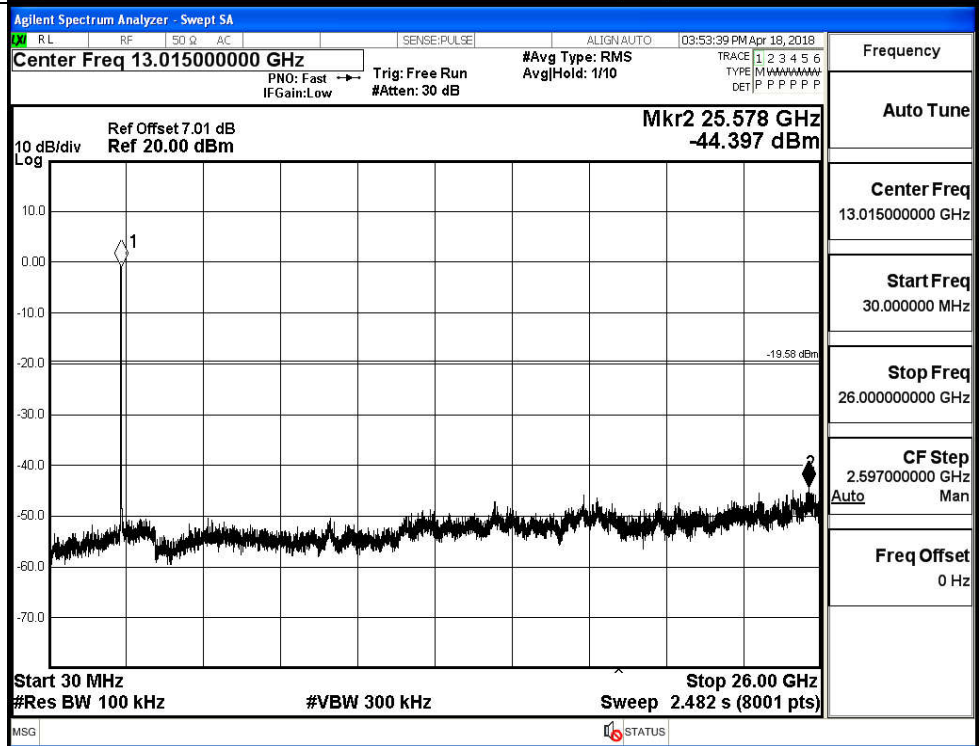


11N20SISO HCH_Graphs

Pref/11N20
SISO/HCH

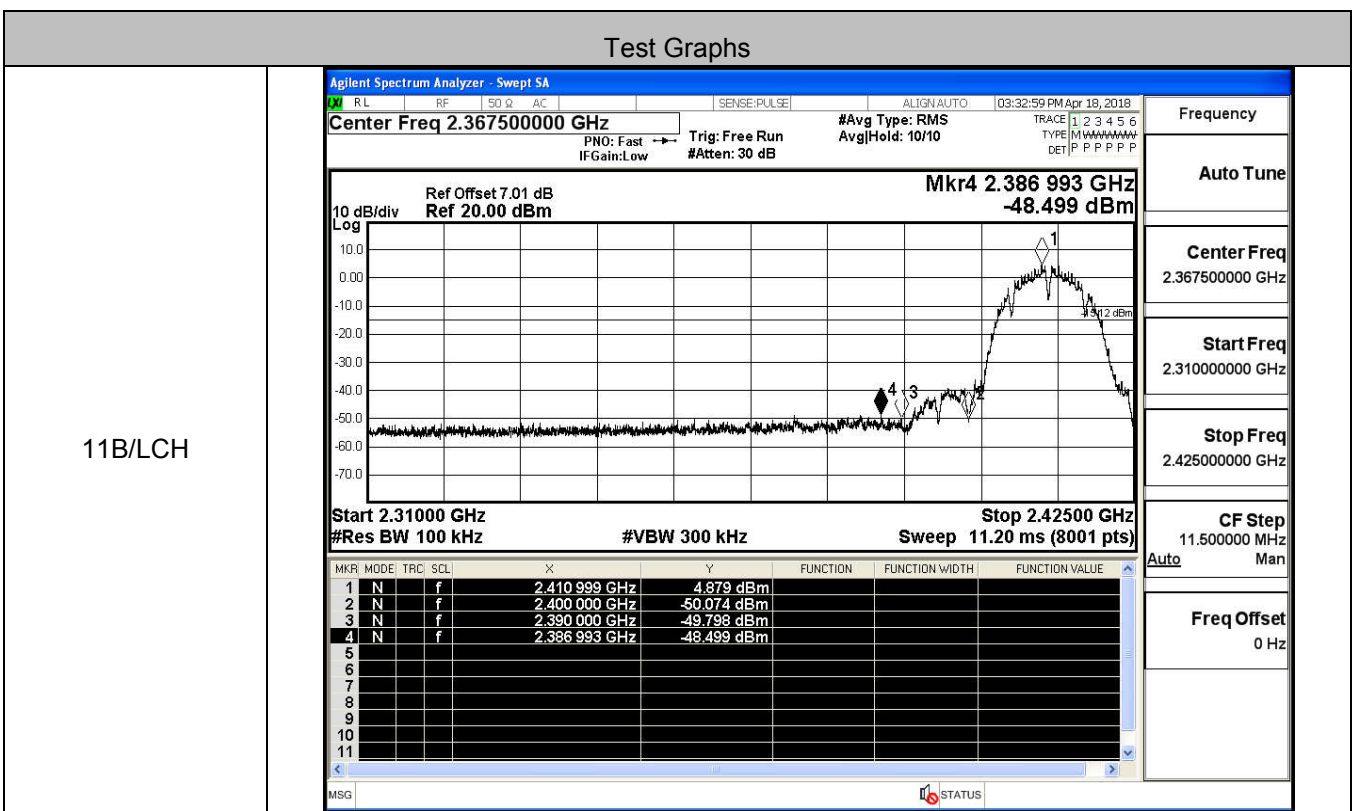


Puw/11N20
SISO/HCH

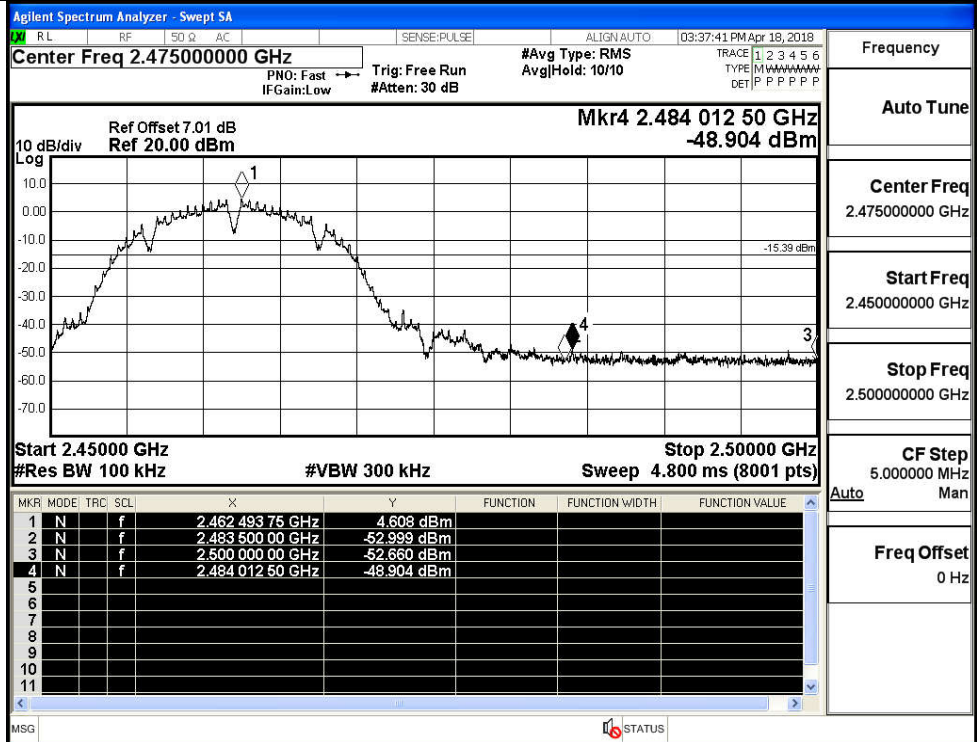


C.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.879	-48.499	-15.12	PASS
	HCH	4.608	-48.904	-15.39	PASS
11G	LCH	2.197	-42.346	-17.8	PASS
	HCH	2.073	-38.485	-17.93	PASS
11N20SISO	LCH	0.810	-43.332	-19.19	PASS
	HCH	0.344	-39.963	-19.66	PASS



11B/HCH



Frequency

Auto Tune

Center Freq
2.47500000 GHz

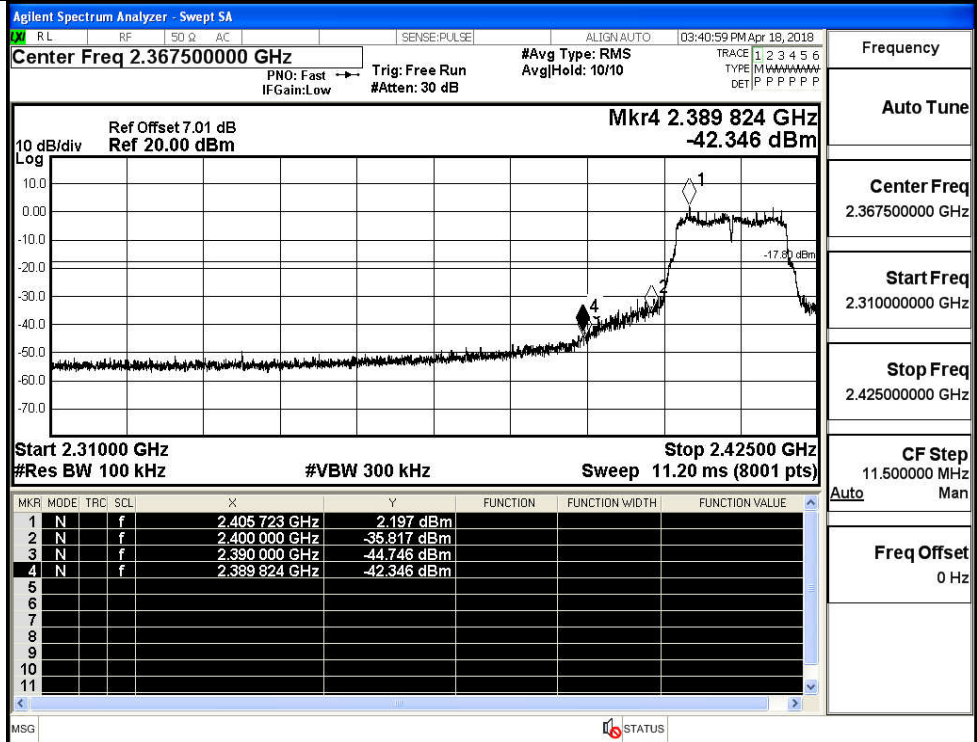
Start Freq
2.45000000 GHz

Stop Freq
2.50000000 GHz

CF Step
5.000000 MHz

Freq Offset
0 Hz

11G/LCH



Frequency

Auto Tune

Center Freq
2.36750000 GHz

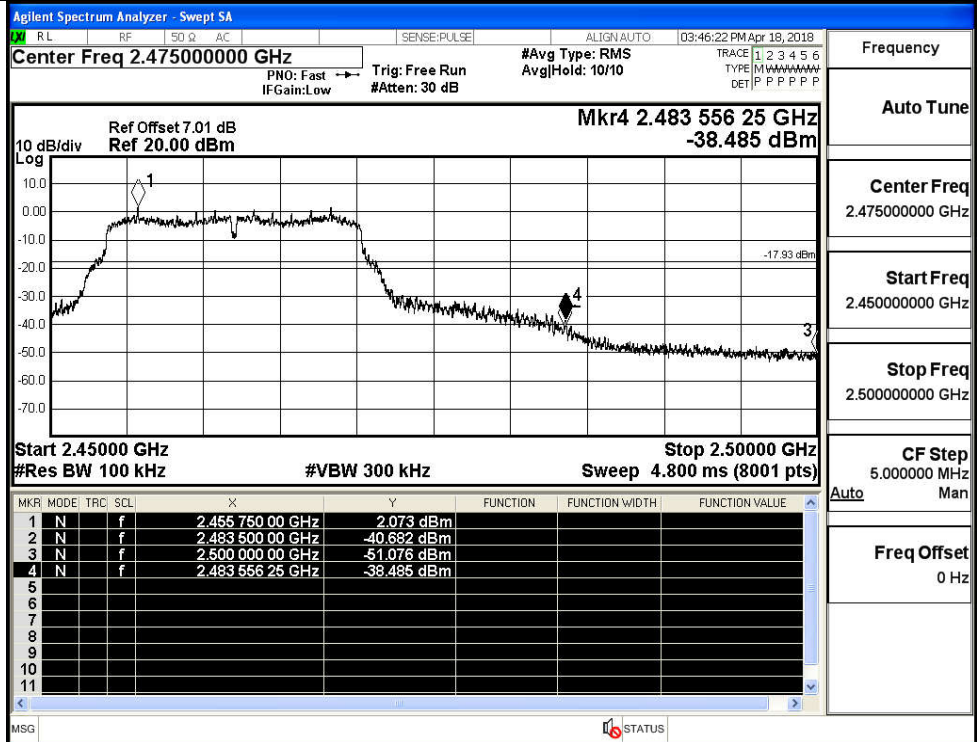
Start Freq
2.31000000 GHz

Stop Freq
2.42500000 GHz

CF Step
11.500000 MHz

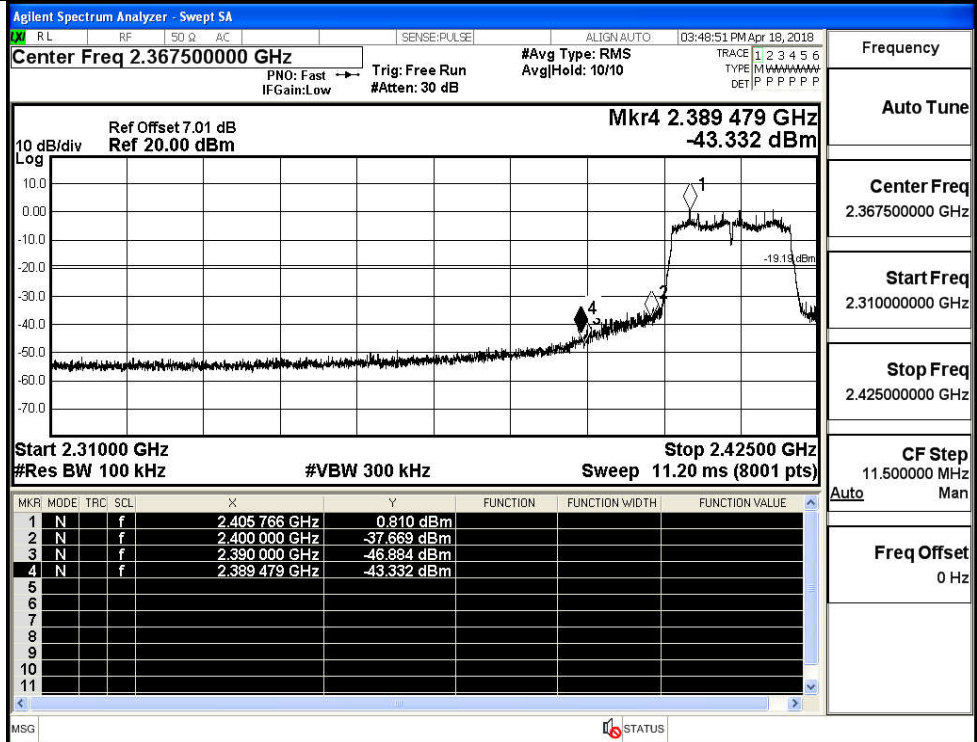
Freq Offset
0 Hz

11G/HCH



Frequency	
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