Appendix A

RF Test Data for 5.2G WLAN (Conducted Measurement)

Product Name: Beamink DUO

Trade Mark: CVW

Test Model: 3062

Environmental Conditions

Temperature:	24.1° C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom Liu
Supervised by:	Jayden Zhuo

A.1 Duty Cycle

Antenna 0

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11N40	5190	100	0.00	0.01

Antenna 1

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW (KHz)
11N40	5190	100	0.00	0.01

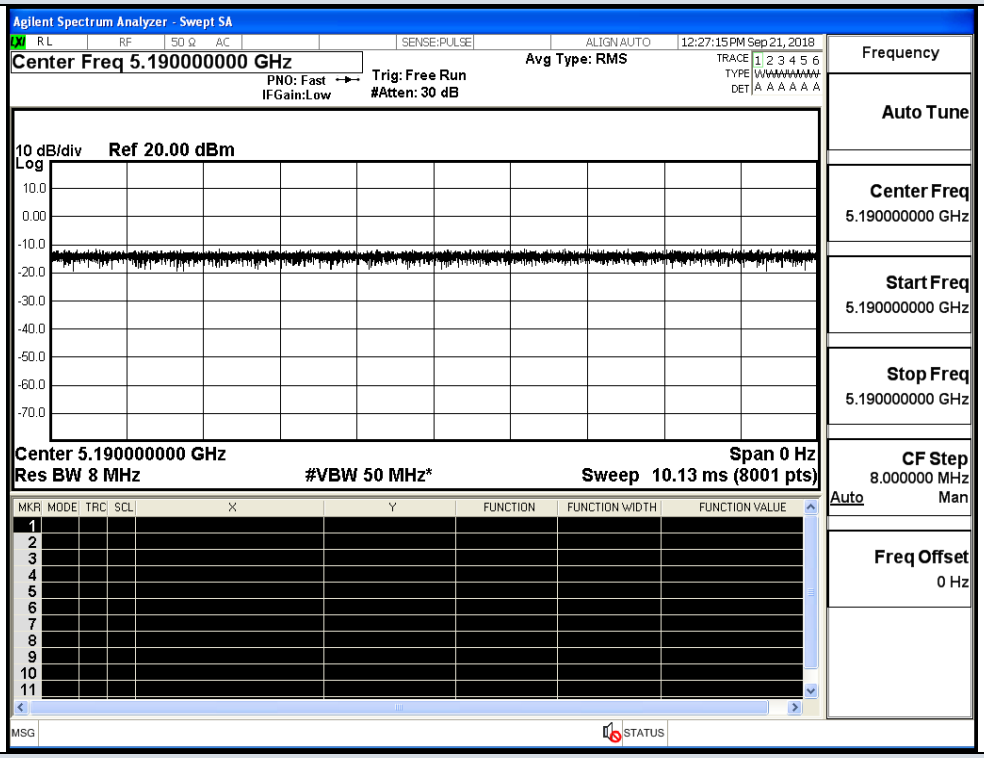
Antenna 2

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW (KHz)
11N40	5190	100	0.00	0.01

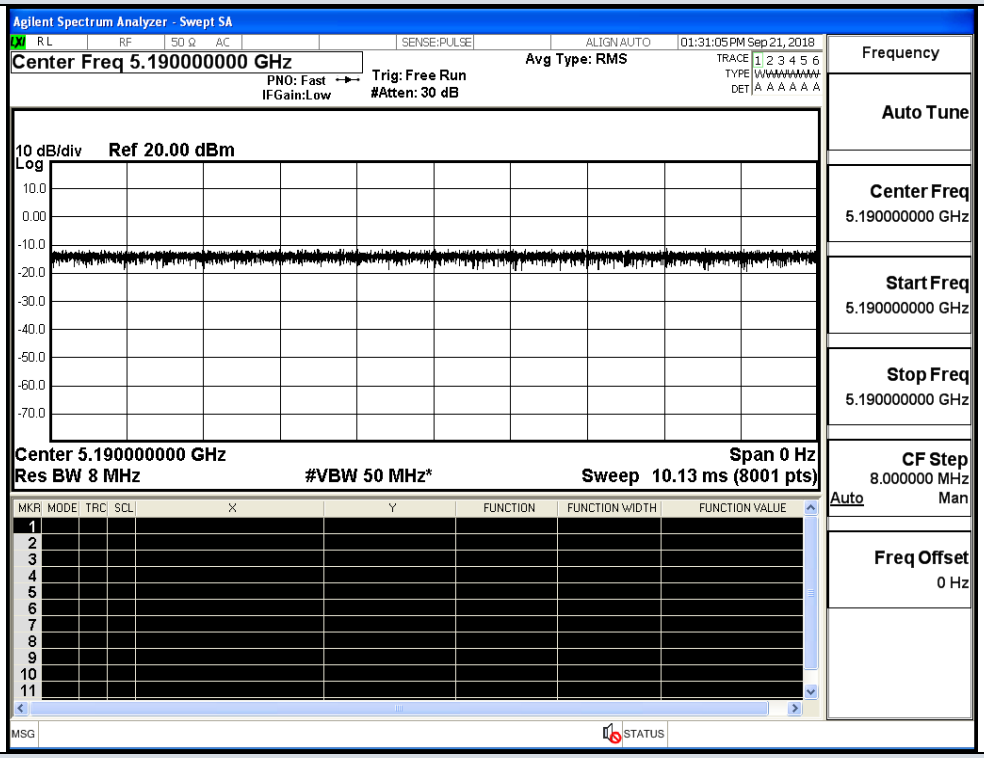
Antenna 3

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW (KHz)
11N40	5190	100	0.00	0.01

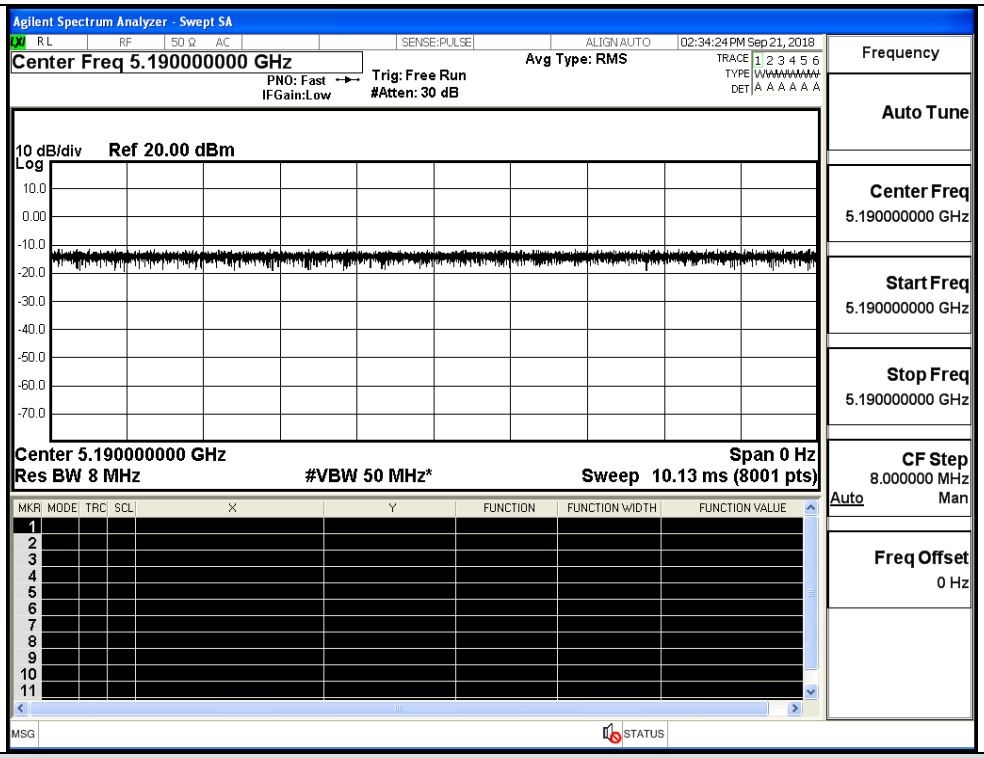
On Time and Duty Cycle



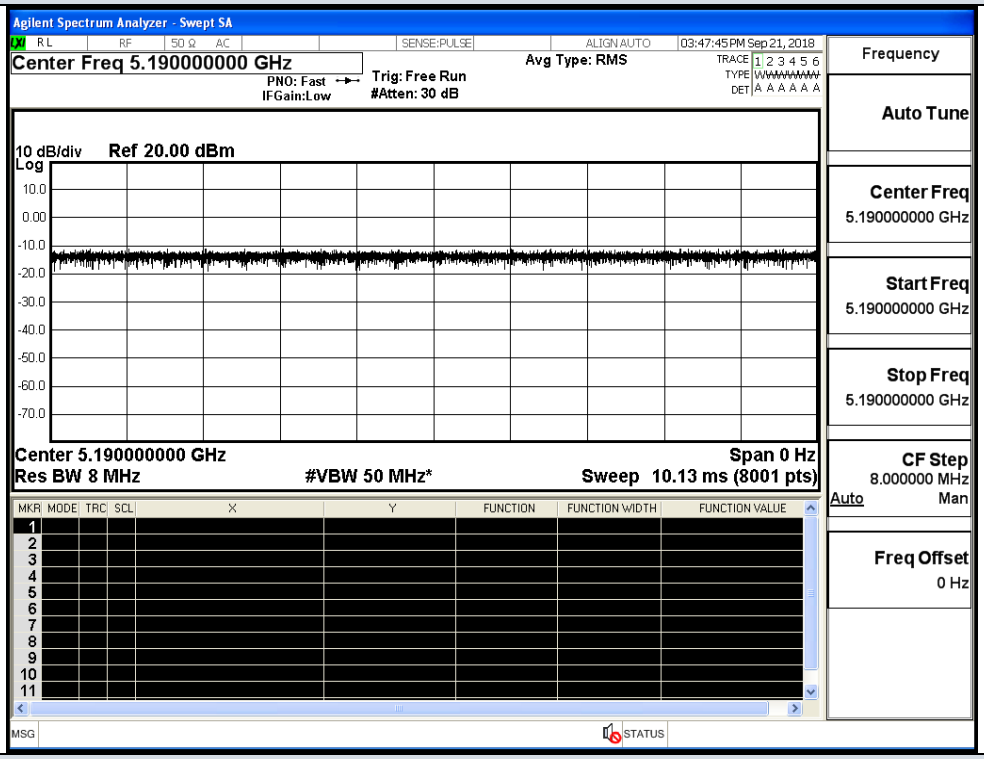
IEEE 802.11n HT40_Ant0



IEEE 802.11n HT40_Ant1



IEEE 802.11n HT40_Ant2



IEEE 802.11n HT40_Ant3

A.2 Maximum Conduct Output Power

Antenna 0

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power (dBm)	Limit (dBm)
11N40	38	5190	9.19	0	9.19	30
	46	5230	9.87	0	9.87	

Antenna 1

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power (dBm)	Limit (dBm)
11N40	38	5190	9.26	0	9.26	30
	46	5230	9.85	0	9.85	

Antenna 2

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power (dBm)	Limit (dBm)
11N40	38	5190	9.55	0	9.55	30
	46	5230	9.98	0	9.98	

Antenna 3

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power (dBm)	Limit (dBm)
11N40	38	5190	9.37	0	9.37	30
	46	5230	9.92	0	9.92	

Antenna 0+Antenna 1+Antenna 2+Antenna 3

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)					Duty Cycle Factor (dB)	Report Conducted Power(dBm)					Limit (dBm)
			Ant0	Ant1	Ant2	Ant3	Sum		Ant0	Ant1	Ant2	Ant3	Sum	
11N40	38	5190	9.19	9.26	9.55	9.37	15.37	0	9.19	9.26	9.55	9.37	15.37	30
	46	5230	9.87	9.85	9.98	9.92	15.93	0	9.87	9.85	9.98	9.92	15.93	

A.3 Power Spectral Density

Antenna 0

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)
11N40	38	5190	-6.995	0	-6.995	17
	46	5230	-6.366	0	-6.366	

Antenna 1

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)
11N40	38	5190	-6.616	0	-6.616	17
	46	5230	-5.193	0	-5.193	

Antenna 2

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)
11N40	38	5190	-7.013	0	-7.013	17
	46	5230	-5.794	0	-5.794	

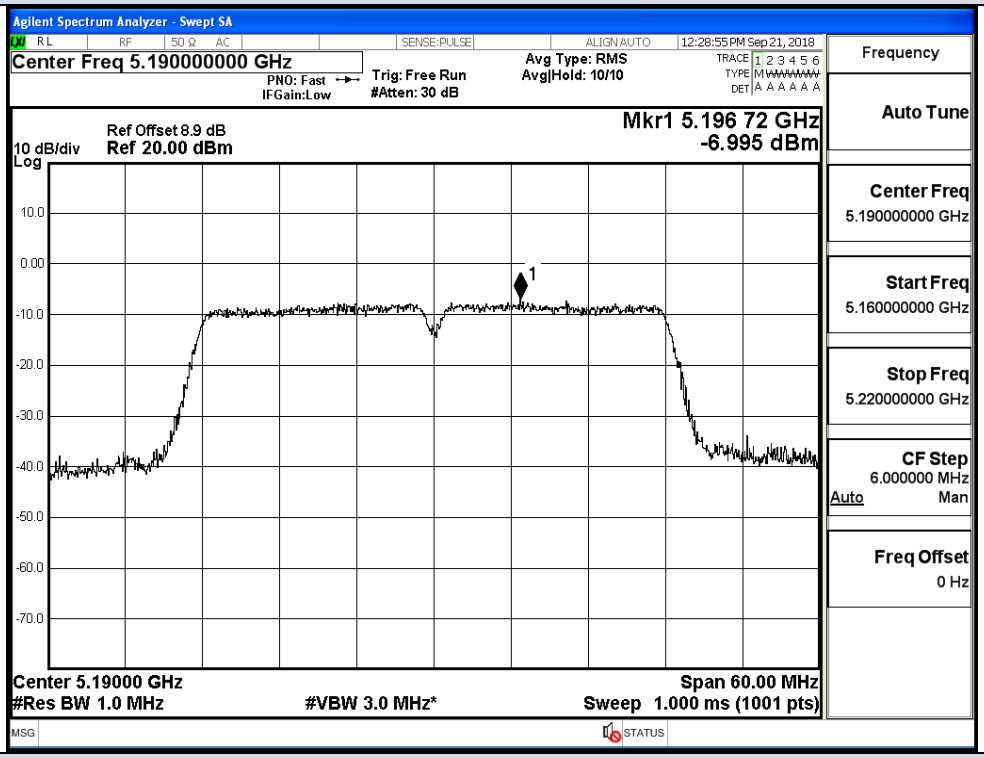
Antenna 3

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)
11N40	38	5190	-7.116	0	-7.116	17
	46	5230	-6.058	0	-6.058	

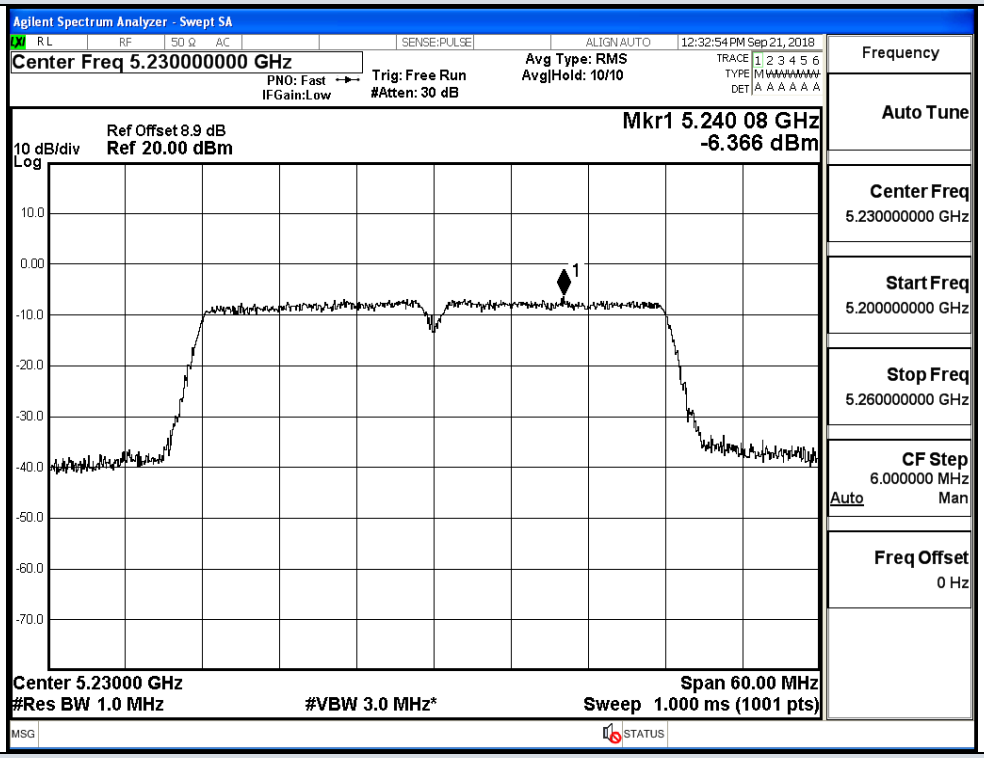
Antenna 0+Antenna 1+Antenna 2+Antenna 3

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)					Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)					Limit (dBm/MHz)
			Ant0	Ant1	Ant2	Ant3	Sum		Ant0	Ant1	Ant2	Ant3	Sum	
11N40	38	5190	-6.995	-6.616	-7.013	-7.116	-0.910	0	-6.995	-6.616	-7.013	-7.116	-0.910	11.979
	46	5230	-6.366	-5.193	-5.794	-6.058	0.190	0	-6.366	-5.193	-5.794	-6.058	0.190	

Power Spectral Density

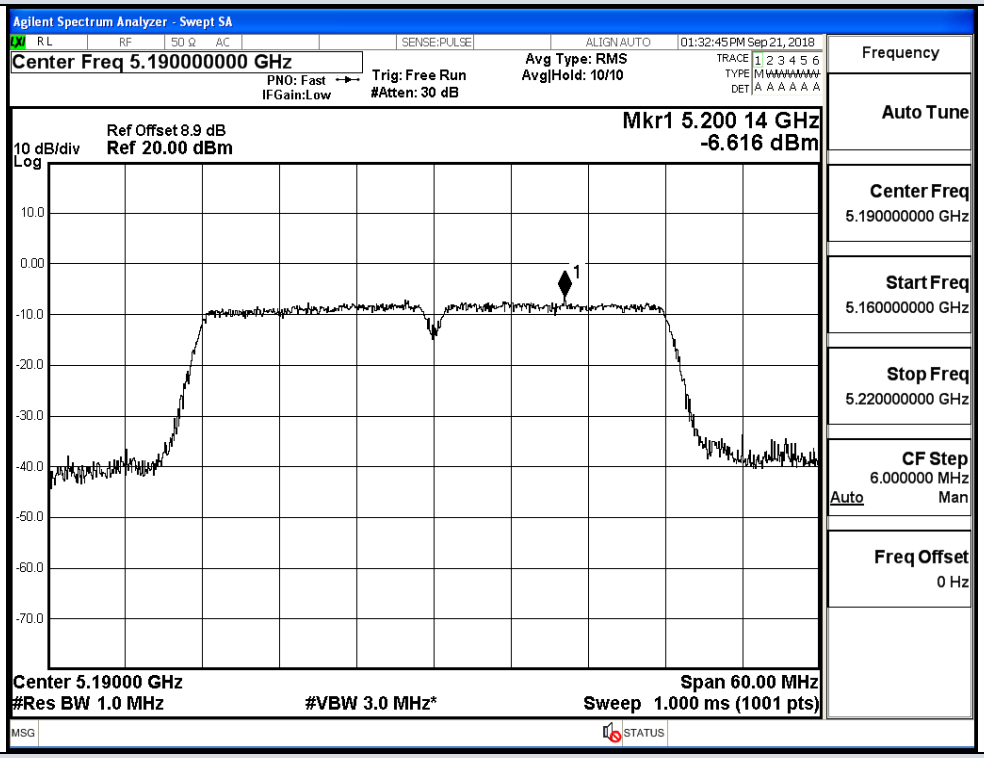


IEEE 802.11n HT40 / Channel 38 / 5190 MHz_Ant0

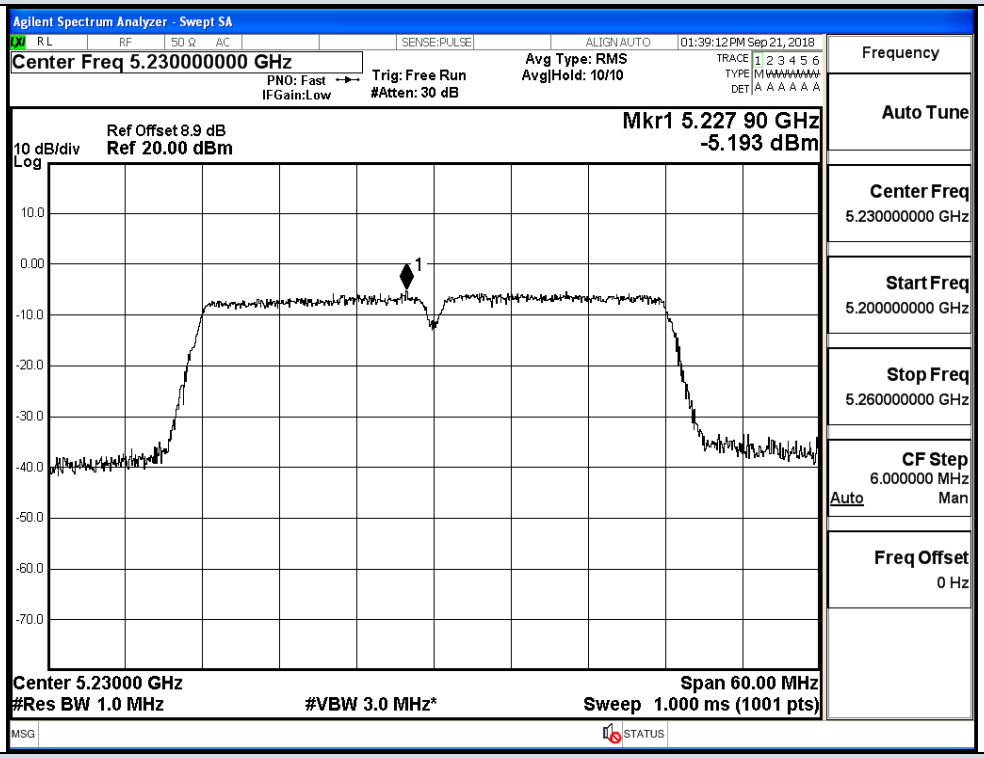


IEEE 802.11n HT40 / Channel 46 / 5230 MHz_Ant0

Power Spectral Density

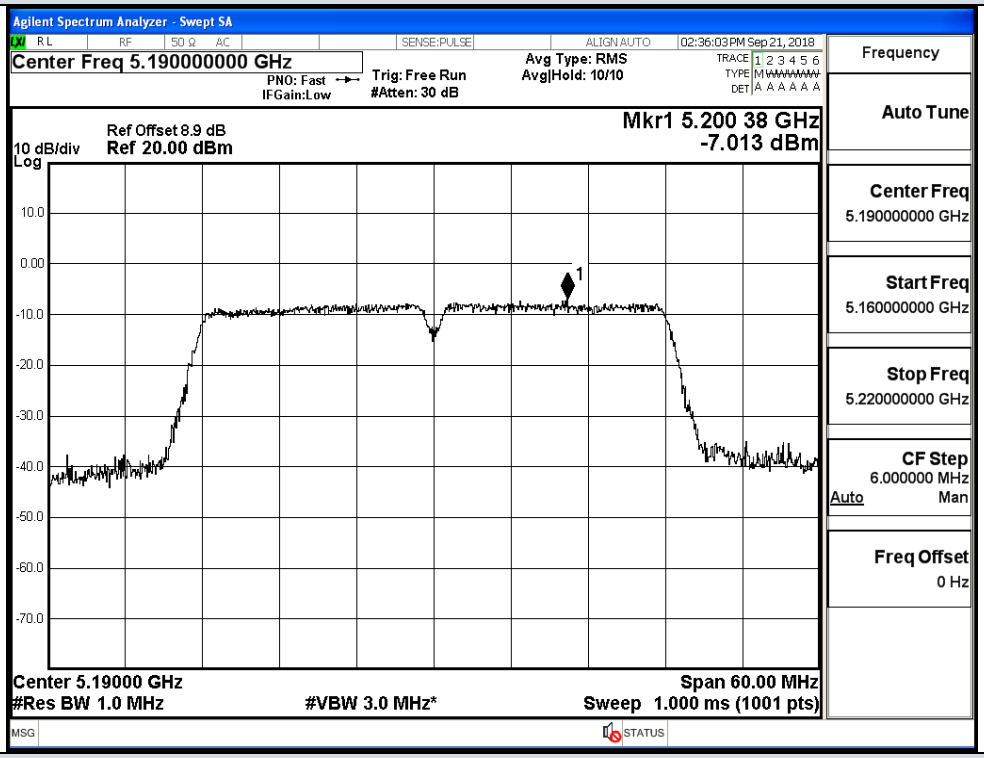


IEEE 802.11n HT40 / Channel 38 / 5190 MHz_Ant1

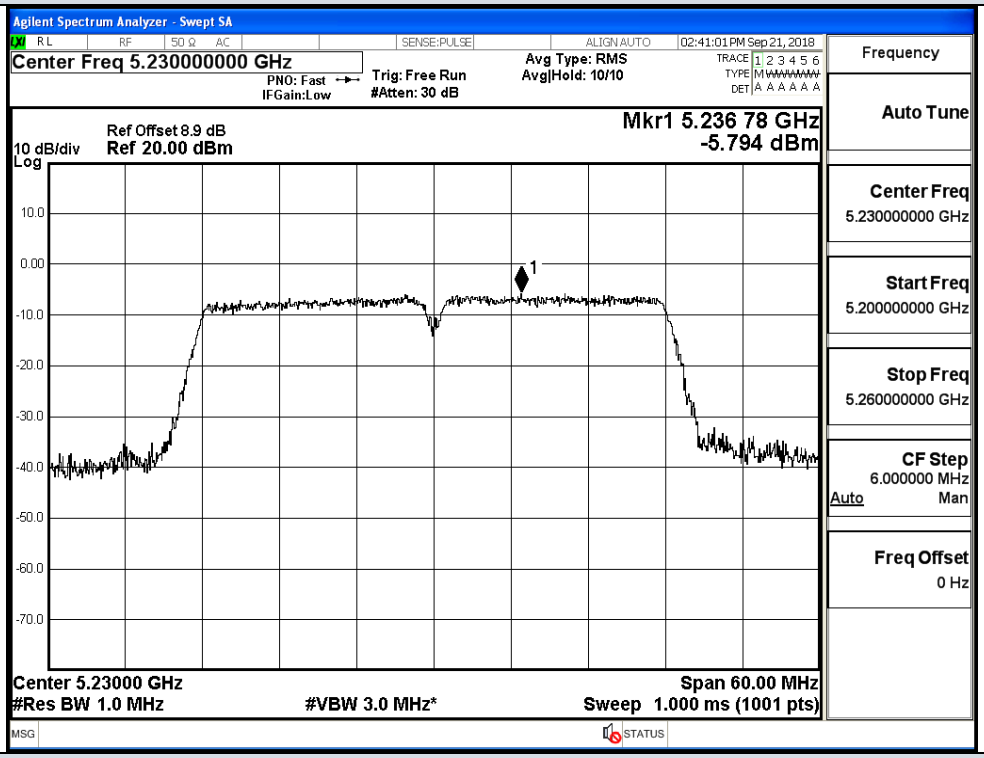


IEEE 802.11n HT40 / Channel 46 / 5230 MHz_Ant1

Power Spectral Density

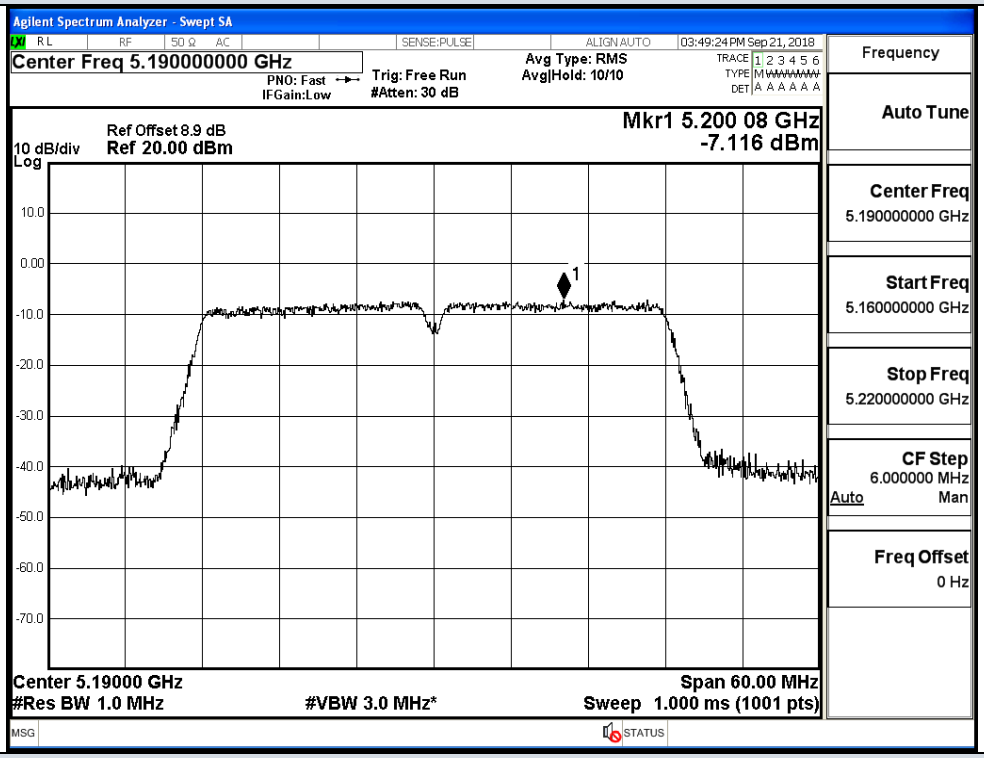


IEEE 802.11n HT40 / Channel 38 / 5190 MHz_Ant2

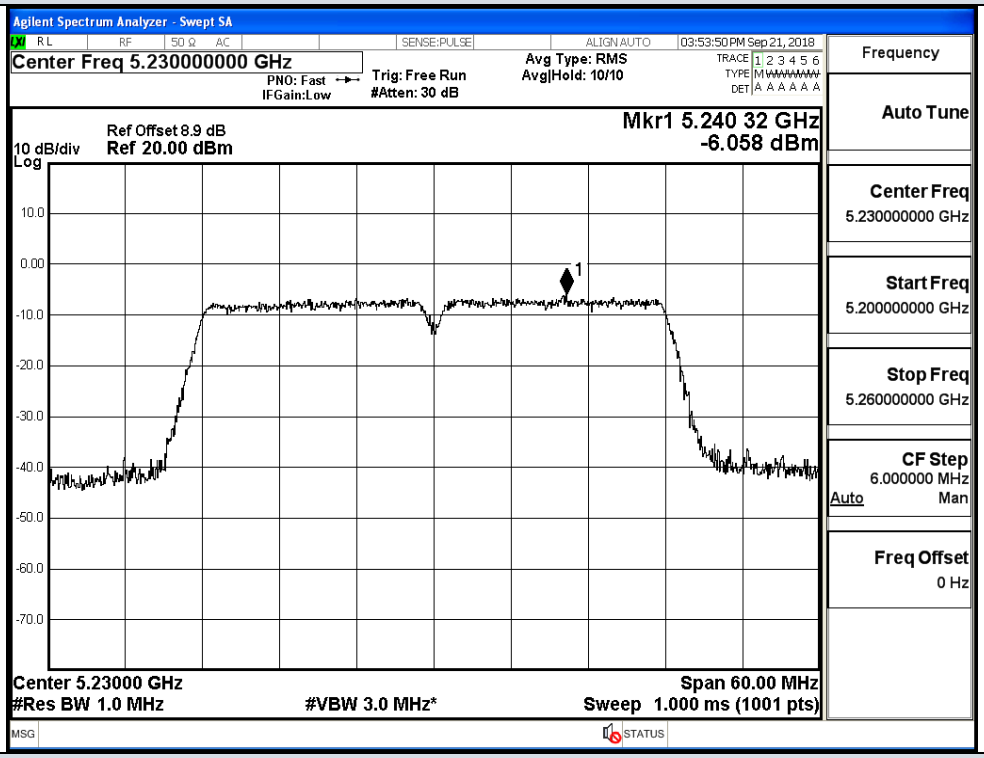


IEEE 802.11n HT40 / Channel 46 / 5230 MHz_Ant2

Power Spectral Density



IEEE 802.11n HT40 / Channel 38 / 5190 MHz_Ant3



IEEE 802.11n HT40 / Channel 46 / 5230 MHz_Ant3

A.4 Emission Bandwidth

Antenna 0

Test Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)
11N40	38	5190	36.199	40.050	No Limit
	46	5230	36.233	40.260	

Antenna 1

Test Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)
11N40	38	5190	36.177	39.940	No Limit
	46	5230	36.229	40.020	

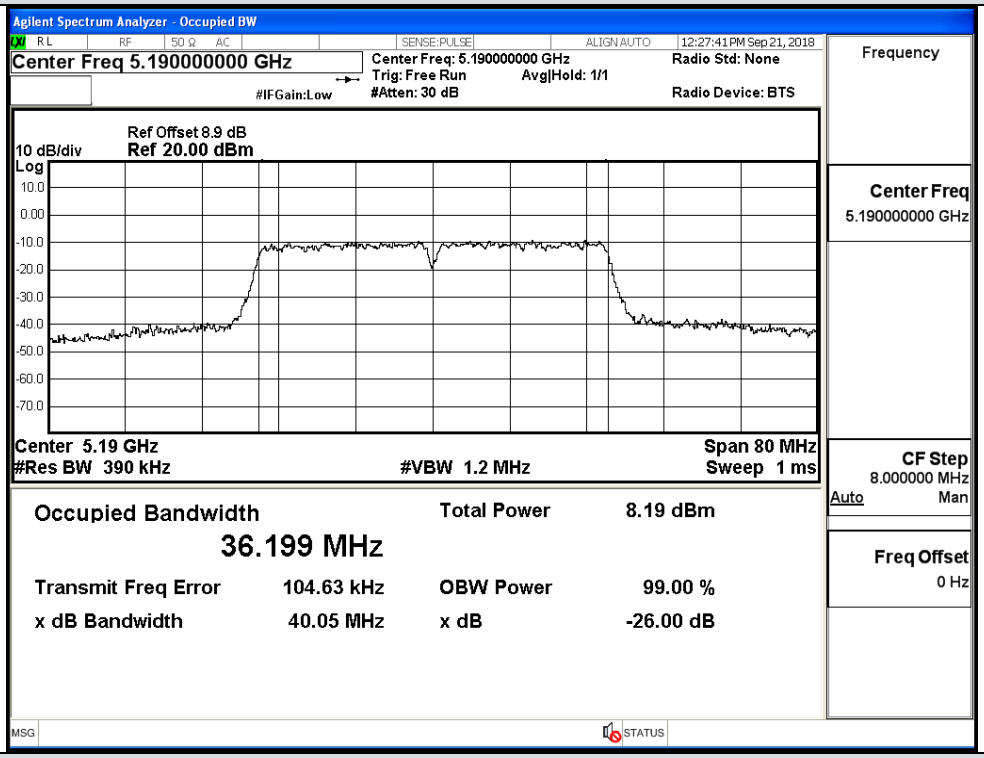
Antenna 2

Test Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)
11N40	38	5190	36.213	39.960	No Limit
	46	5230	36.205	40.280	

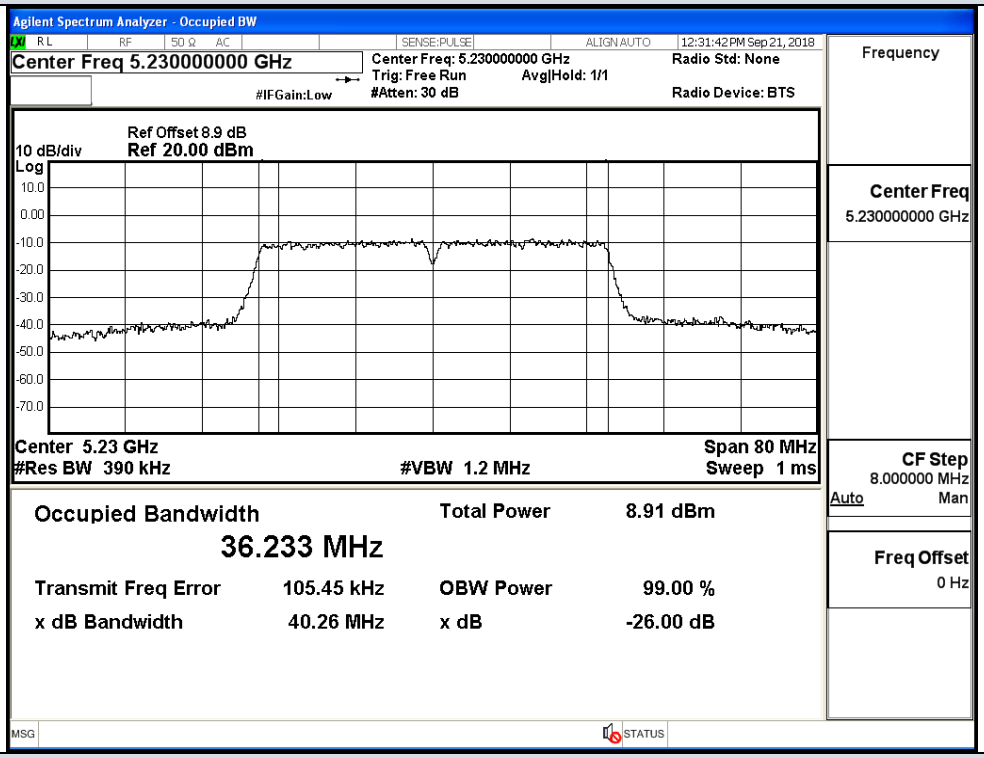
Antenna 3

Test Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)
11N40	38	5190	36.155	40.300	No Limit
	46	5230	36.235	40.320	

99% and 26dB Bandwidth

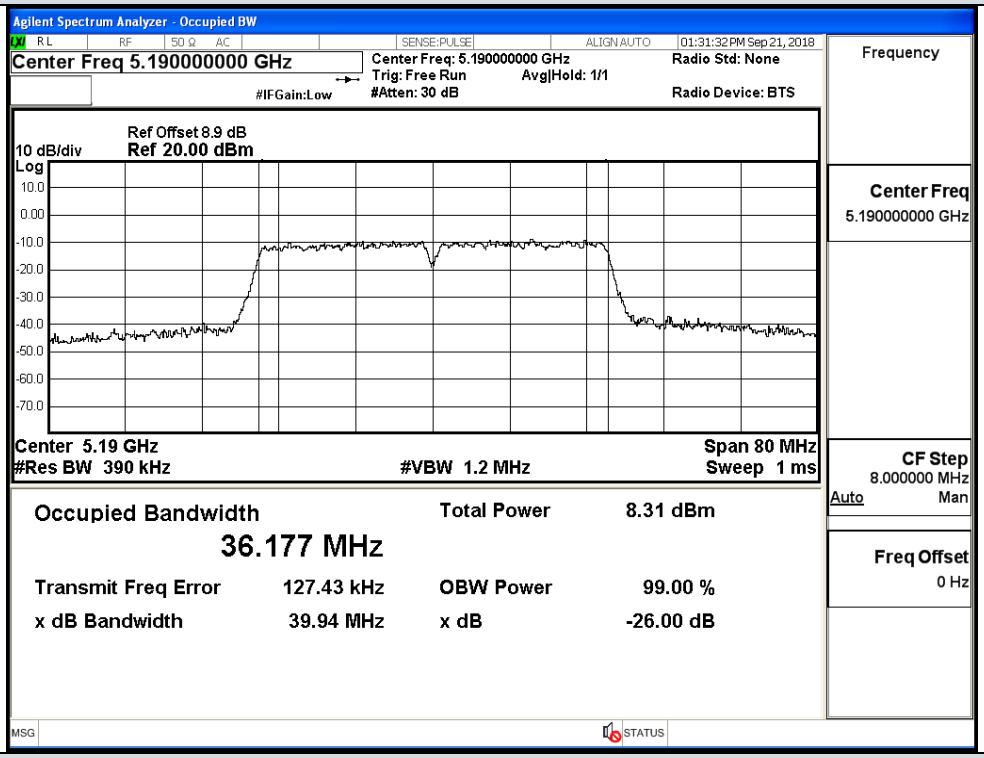


IEEE 802.11n HT40 / Channel 38 / 5190 MHz_Ant0

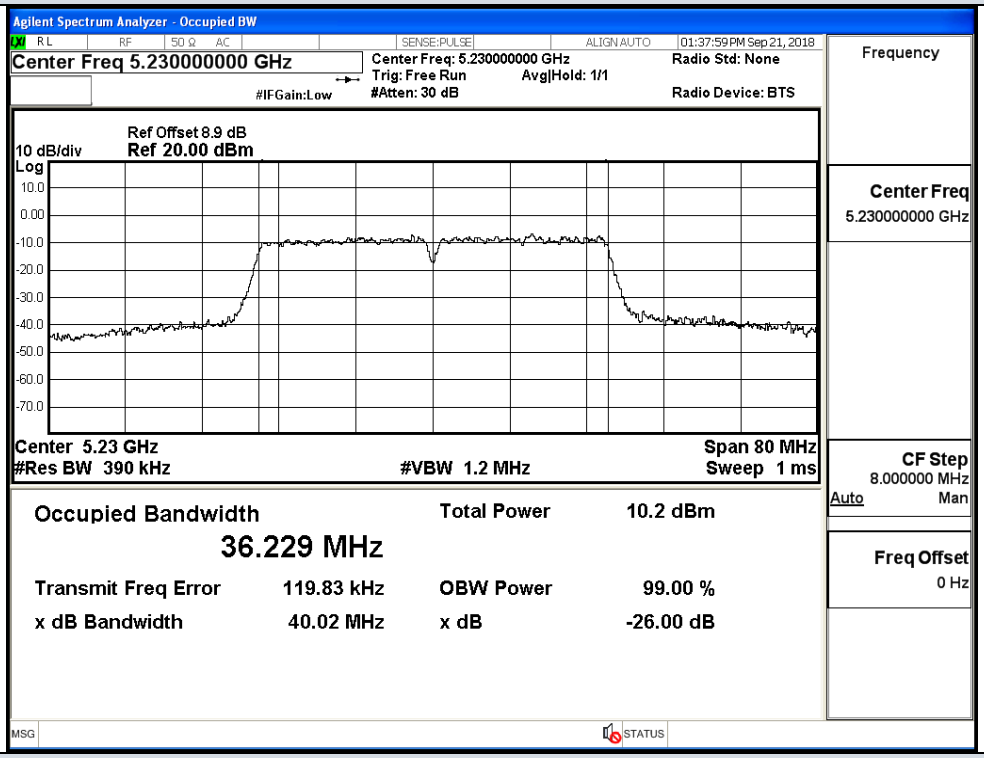


IEEE 802.11n HT40 / Channel 46 / 5230 MHz_Ant0

99% and 26dB Bandwidth

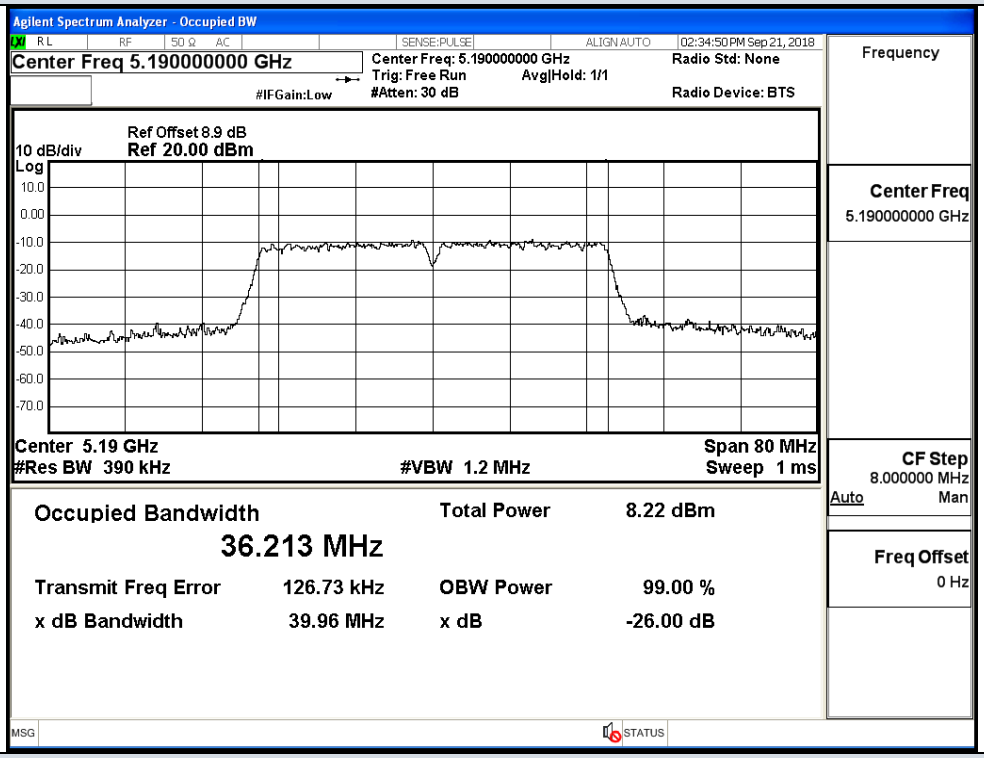


IEEE 802.11n HT40 / Channel 38 / 5190 MHz_Ant1

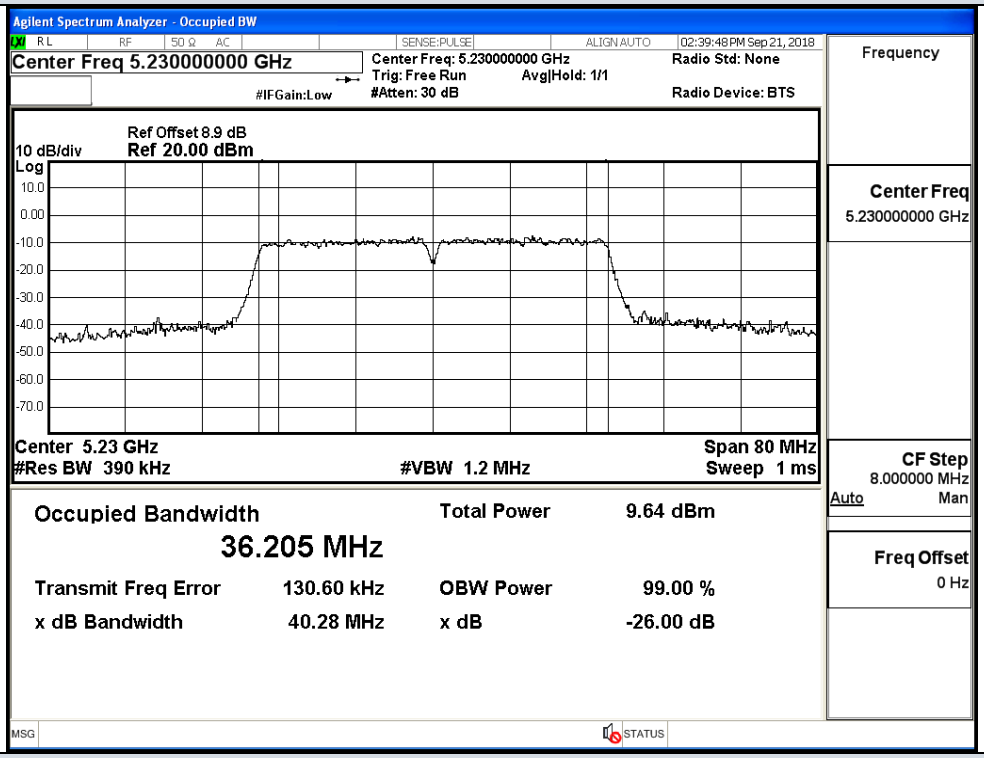


IEEE 802.11n HT40 / Channel 46 / 5230 MHz_Ant1

99% and 26dB Bandwidth

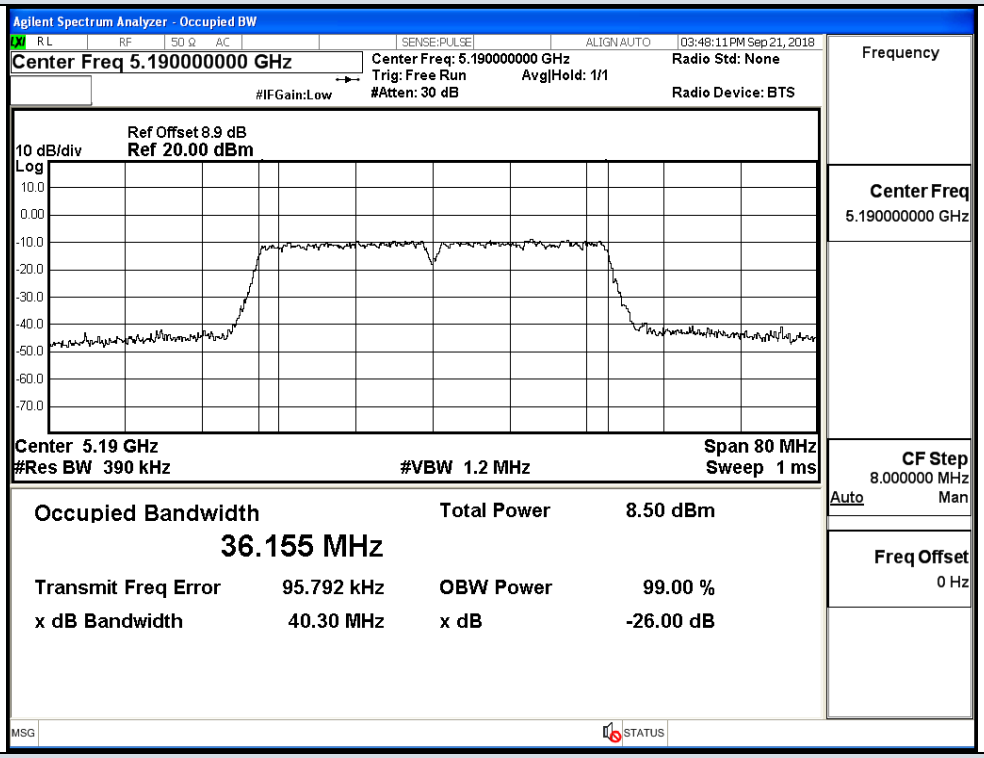


IEEE 802.11n HT40 / Channel 38 / 5190 MHz_Ant2

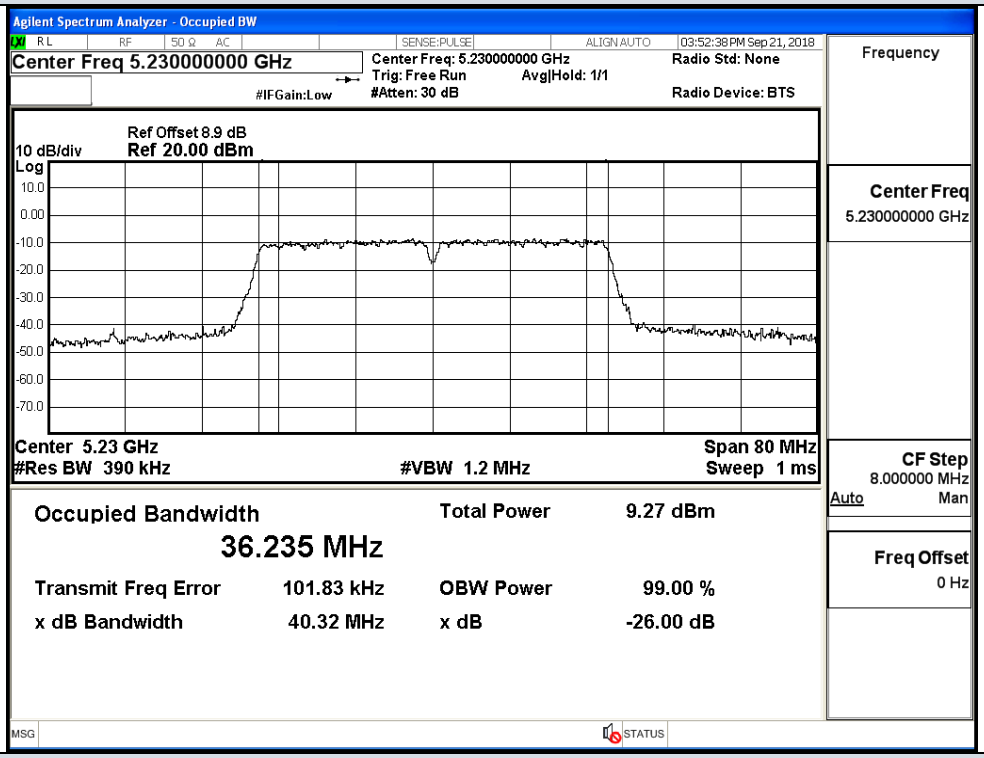


IEEE 802.11n HT40 / Channel 46 / 5230 MHz_Ant2

99% and 26dB Bandwidth



IEEE 802.11n HT40 / Channel 38 / 5190 MHz_Ant3



IEEE 802.11n HT40 / Channel 46 / 5230 MHz_Ant3

A.5 Undesirable Emissions Measurement

Antenna 0

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)
11N40	38	4500.0	-62.348	5.00	0	37.880	Peak	74.00
		4500.0	-71.951	5.00	0	28.277	Average	54.00
		5150.0	-40.699	5.00	0	59.529	Peak	74.00
		5150.0	-59.642	5.00	0	40.586	Average	54.00
	46	5350.0	-54.436	5.00	0	45.792	Peak	74.00
		5350.0	-65.722	5.00	0	34.506	Average	54.00
		5460.0	-58.498	5.00	0	41.730	Peak	74.00
		5460.0	-68.594	5.00	0	31.634	Average	54.00

Antenna 1

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)
11N40	38	4500.0	-62.444	5.00	0	37.784	Peak	74.00
		4500.0	-72.138	5.00	0	28.090	Average	54.00
		5150.0	-42.306	5.00	0	57.922	Peak	74.00
		5150.0	-59.051	5.00	0	41.177	Average	54.00
	46	5350.0	-53.781	5.00	0	46.447	Peak	74.00
		5350.0	-64.909	5.00	0	35.319	Average	54.00
		5460.0	-57.524	5.00	0	42.704	Peak	74.00
		5460.0	-68.150	5.00	0	32.078	Average	54.00

Antenna 2

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)
11N40	38	4500.0	-61.827	5.00	0	38.401	Peak	74.00
		4500.0	-72.177	5.00	0	28.051	Average	54.00
		5150.0	-43.012	5.00	0	57.216	Peak	74.00
		5150.0	-59.541	5.00	0	40.687	Average	54.00
	46	5350.0	-55.690	5.00	0	44.538	Peak	74.00
		5350.0	-66.712	5.00	0	33.516	Average	54.00
		5460.0	-59.710	5.00	0	40.518	Peak	74.00
		5460.0	-70.134	5.00	0	30.094	Average	54.00

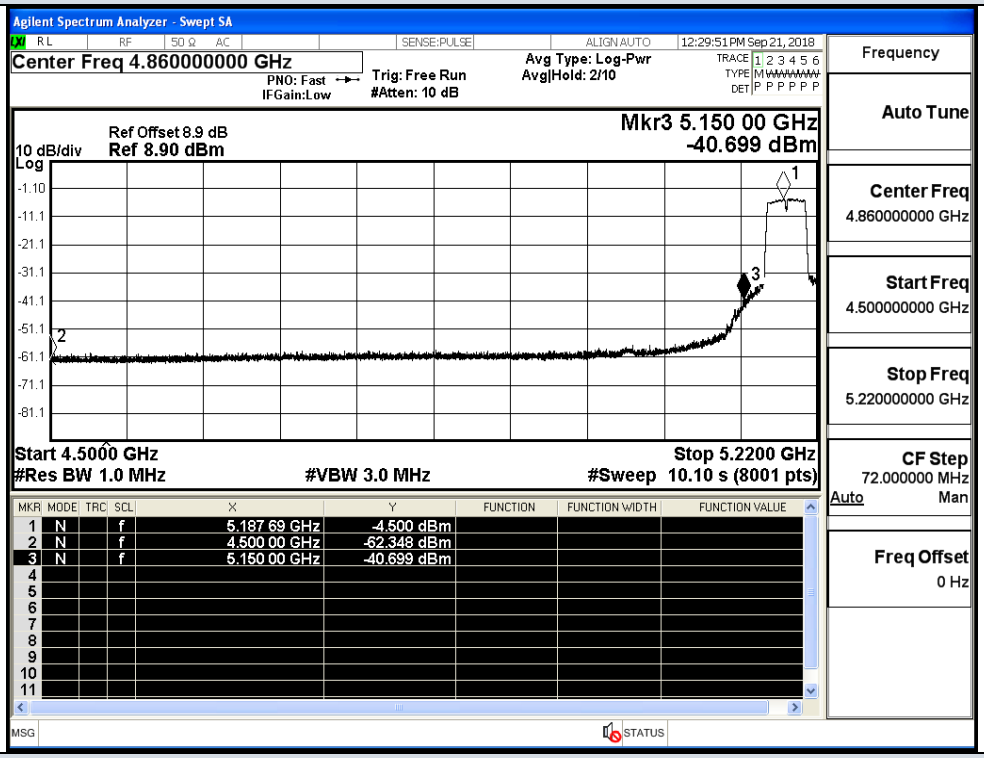
Antenna 3

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)
11N40	38	4500.0	-62.099	5.00	0	38.129	Peak	74.00
		4500.0	-72.153	5.00	0	28.075	Average	54.00
		5150.0	-45.670	5.00	0	54.558	Peak	74.00
		5150.0	-59.356	5.00	0	40.872	Average	54.00
	46	5350.0	-57.135	5.00	0	43.093	Peak	74.00
		5350.0	-67.199	5.00	0	33.029	Average	54.00
		5460.0	-60.182	5.00	0	40.046	Peak	74.00
		5460.0	-70.135	5.00	0	30.093	Average	54.00

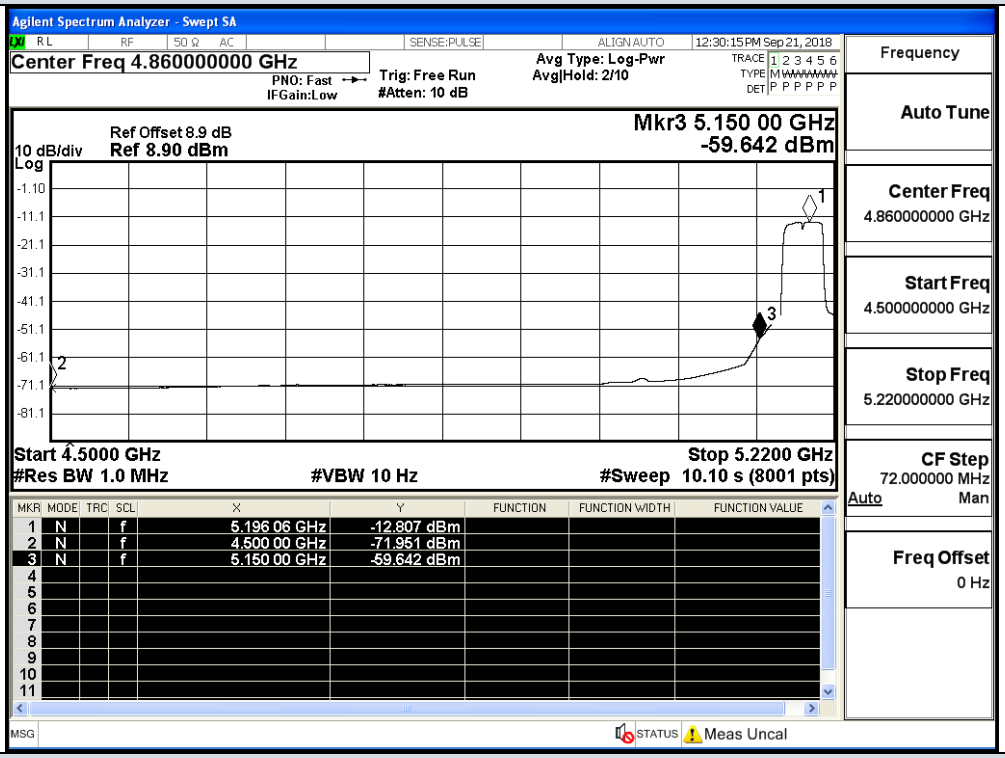
Antenna 0+Antenna 1+ Antenna 2+Antenna 3

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)					Directional Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)
			Ant0	Ant1	Ant2	Ant3	Sum					
11N40	38	4500.0	-62.348	-62.444	-61.827	-62.099	-56.152	11.021	0	50.097	Peak	74.00
		4500.0	-71.951	-72.138	-72.177	-72.153	-66.083	11.021	0	40.166	Average	54.00
		5150.0	-40.699	-42.306	-43.012	-45.670	-36.556	11.021	0	69.693	Peak	74.00
		5150.0	-59.642	-59.051	-59.541	-59.356	-53.371	11.021	0	52.878	Average	54.00
	46	5350.0	-54.436	-53.781	-55.690	-57.135	-49.059	11.021	0	57.190	Peak	74.00
		5350.0	-65.722	-64.909	-66.712	-67.199	-60.024	11.021	0	46.225	Average	54.00
		5460.0	-58.498	-57.524	-59.710	-60.182	-52.832	11.021	0	53.417	Peak	74.00
		5460.0	-68.594	-68.150	-70.134	-70.135	-63.140	11.021	0	43.109	Average	54.00

Undesirable Emissions Measurement

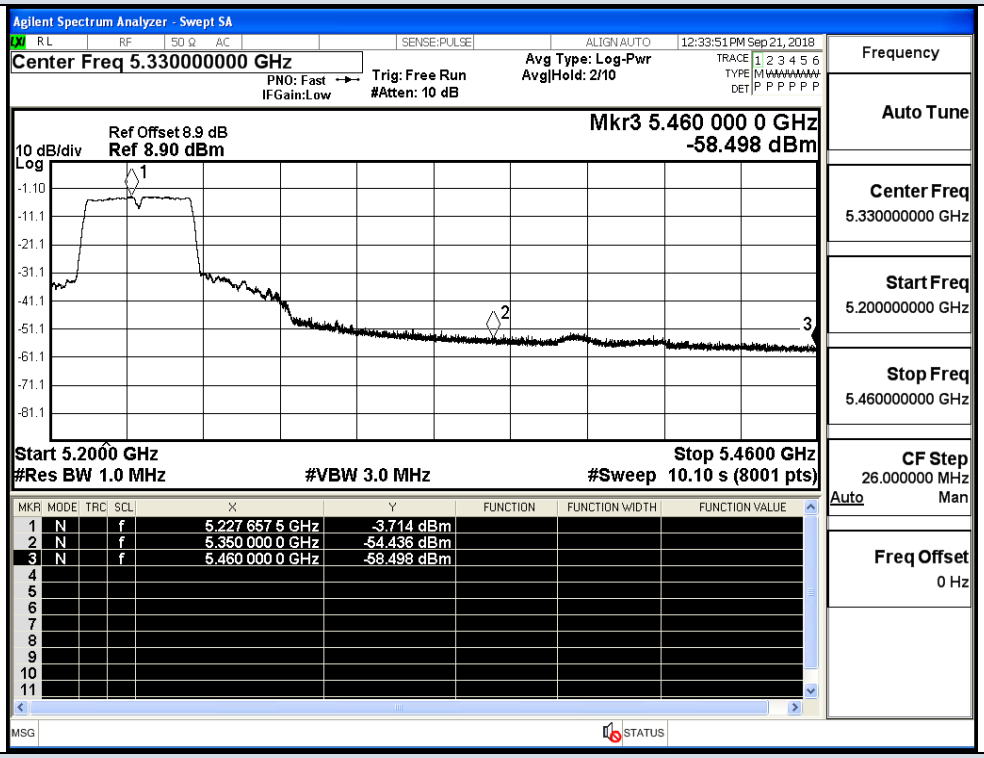


IEEE 802.11n HT40 / Channel 38 / 5190 MHz / Peak_Ant0

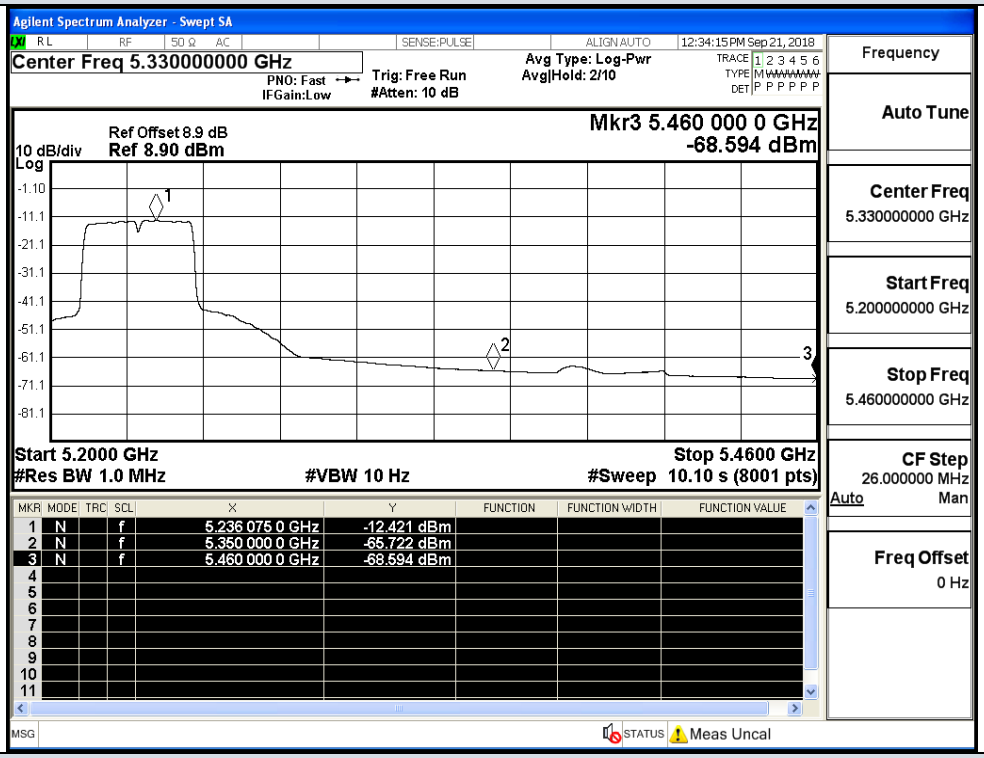


IEEE 802.11 HTn40 / Channel 38 / 5190 MHz / Average_Ant0

Undesirable Emissions Measurement

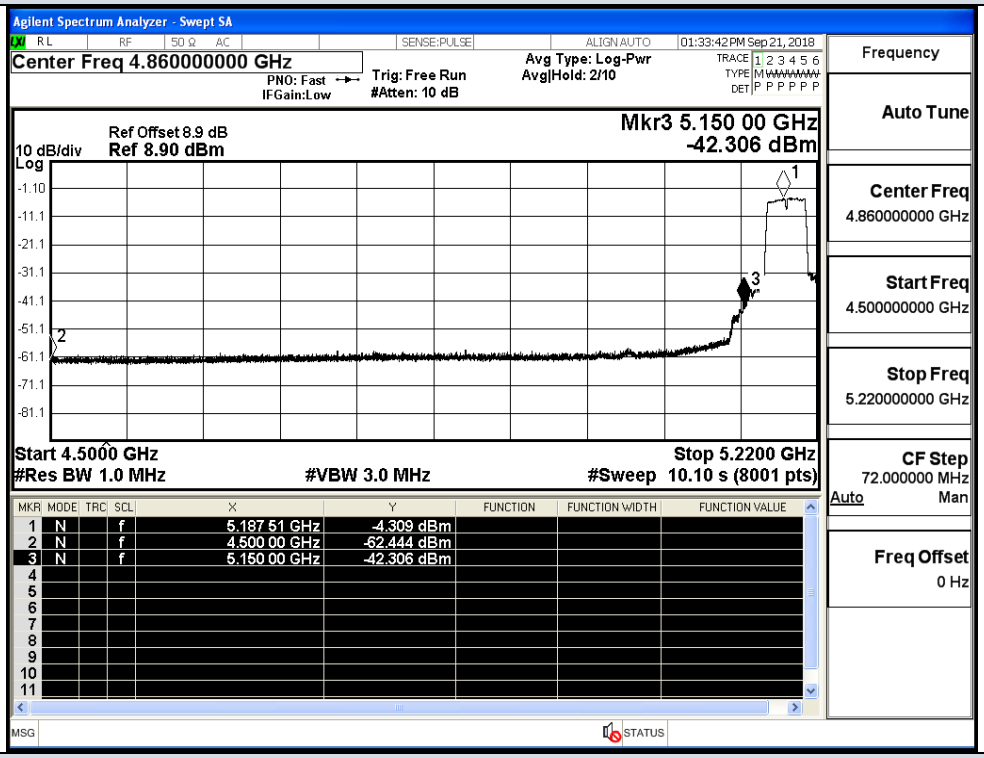


IEEE 802.11n HT40 / Channel 46 / 5230 MHz / Peak_Ant0

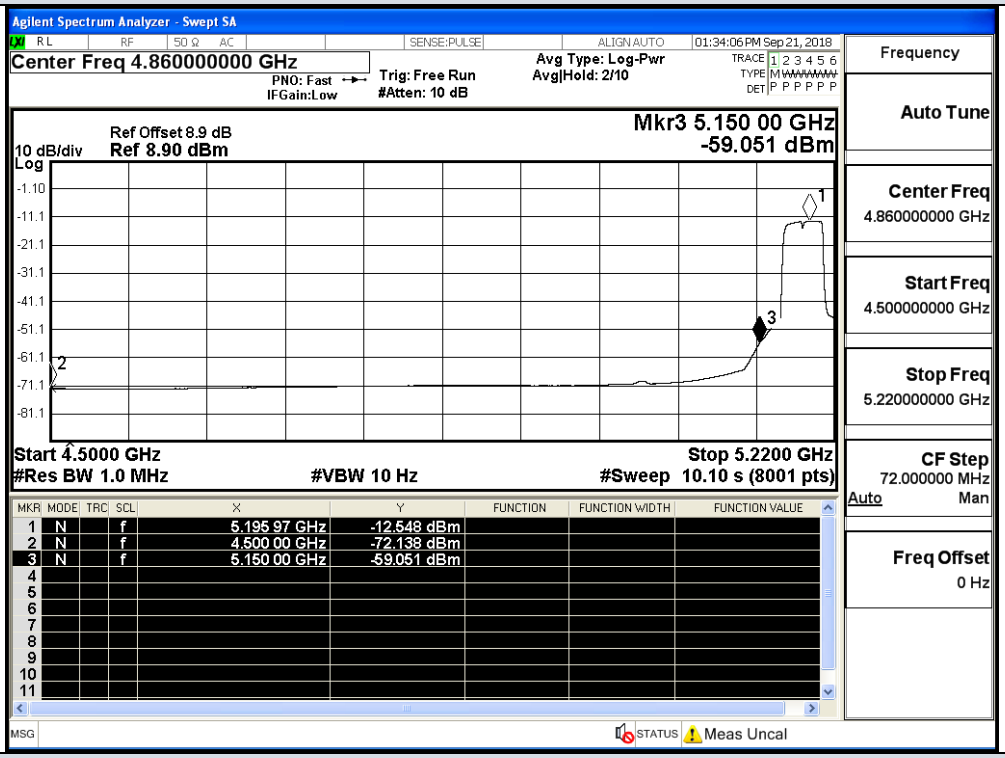


IEEE 802.11n HT40 / Channel 46 / 5230 MHz / Average_Ant0

Undesirable Emissions Measurement

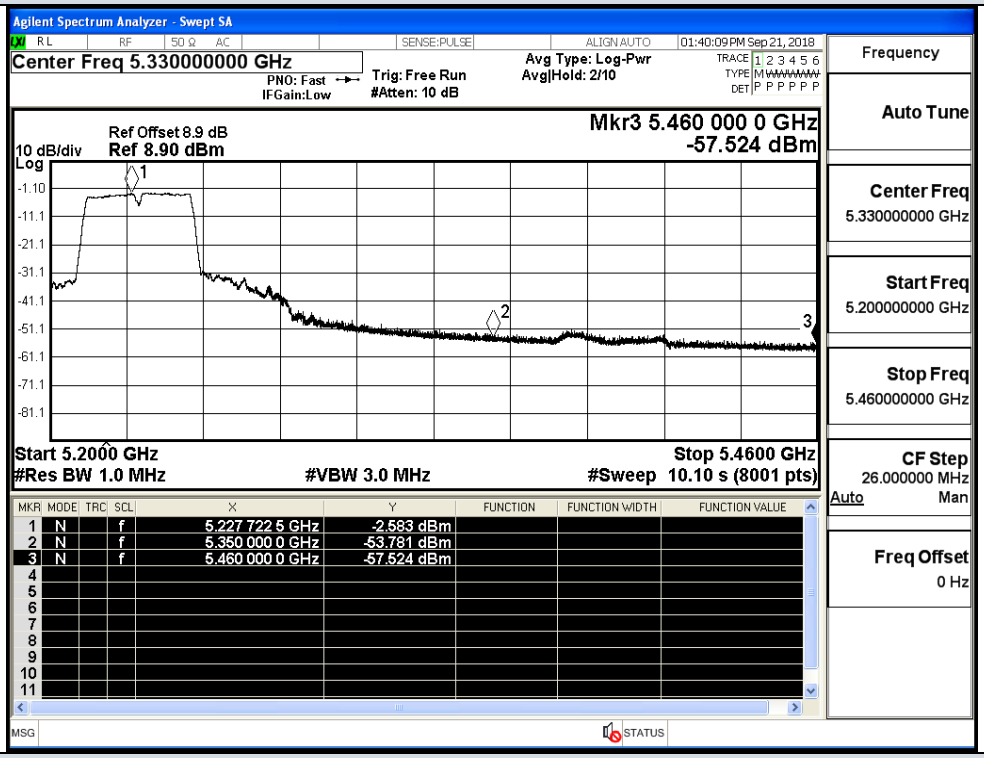


IEEE 802.11n HT40 / Channel 38 / 5190 MHz / Peak_Ant1

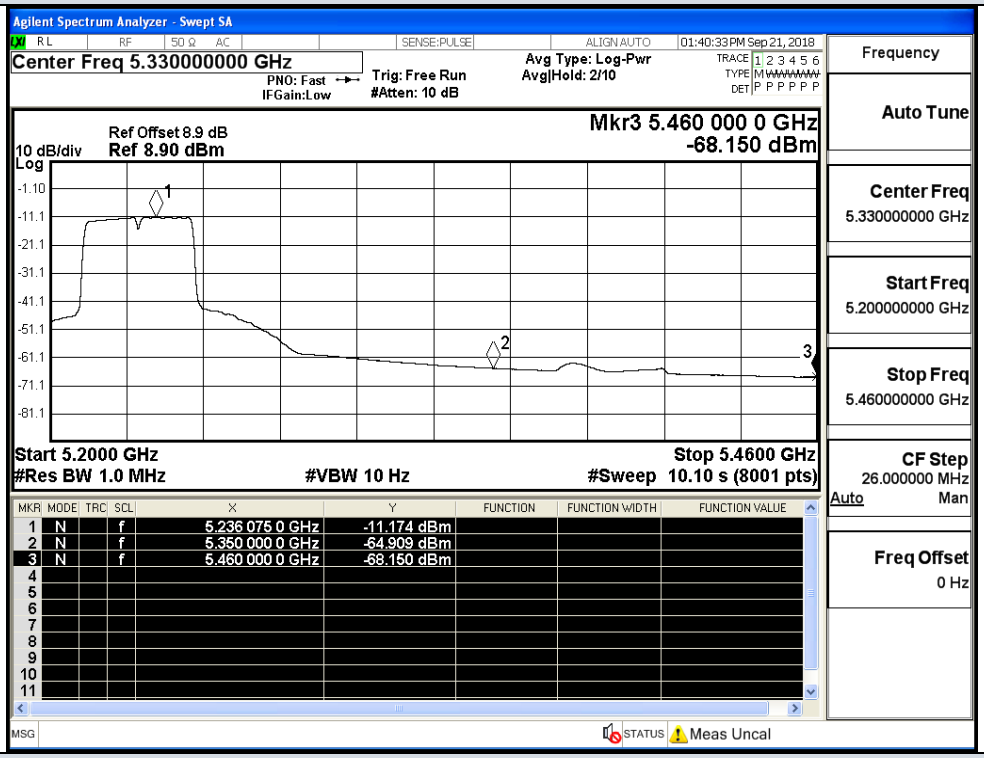


IEEE 802.11n HT40 / Channel 38 / 5190 MHz / Average_Ant1

Undesirable Emissions Measurement

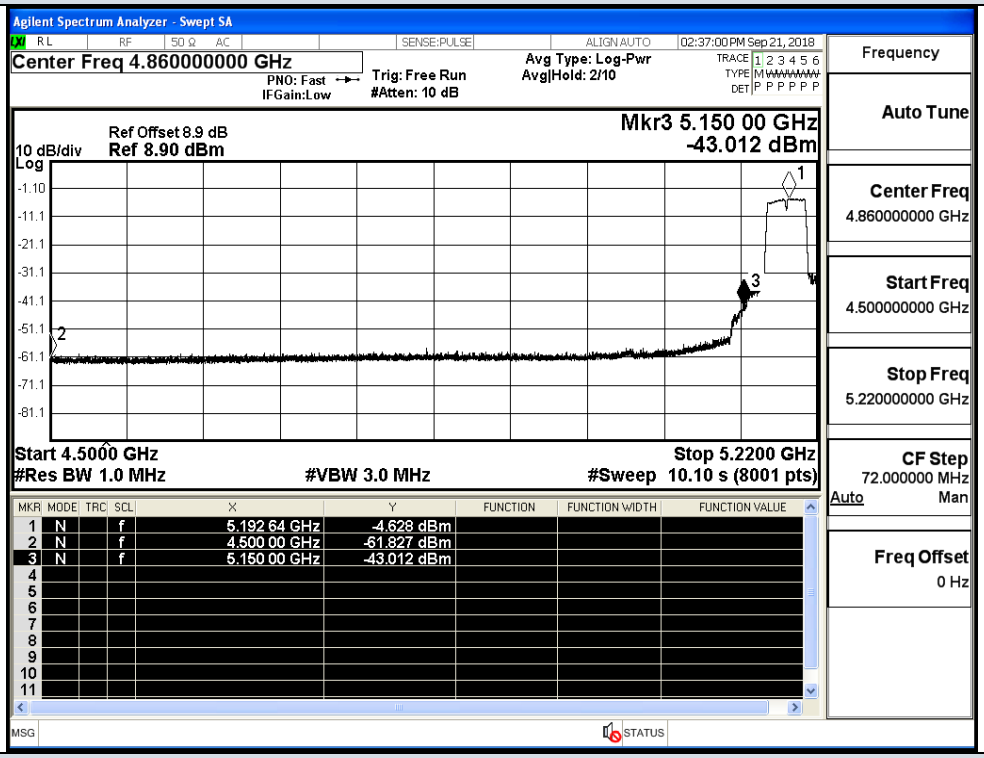


IEEE 802.11n HT40 / Channel 46 / 5230 MHz / Peak_Ant1

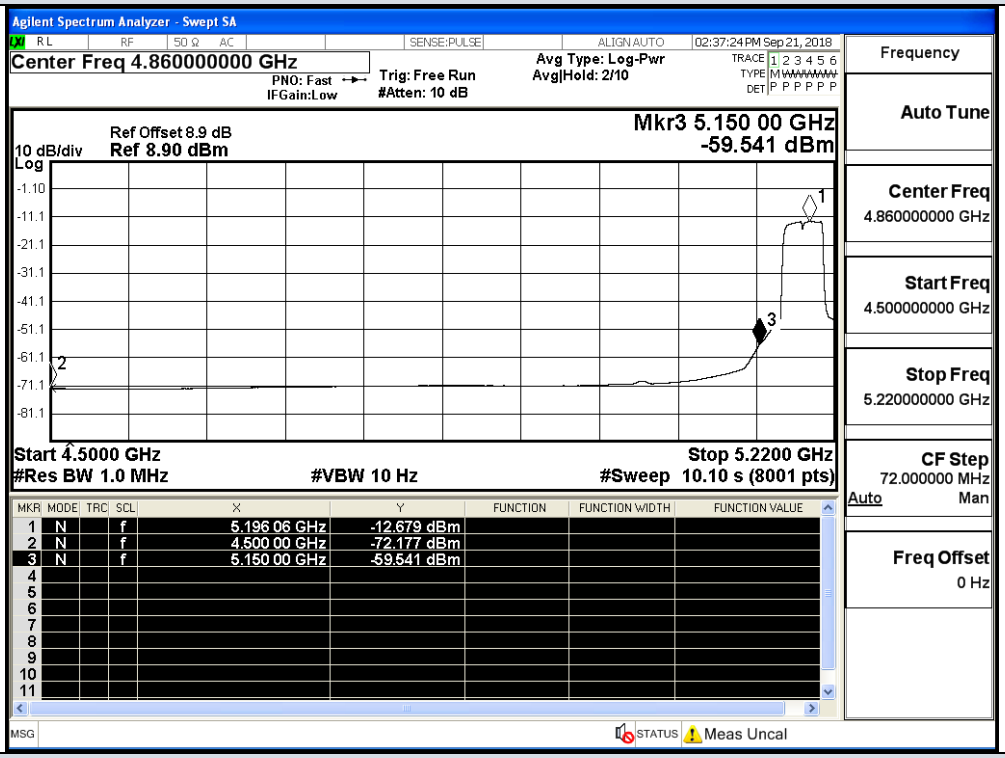


IEEE 802.11n HT40 / Channel 46 / 5230 MHz / Average_Ant1

Undesirable Emissions Measurement

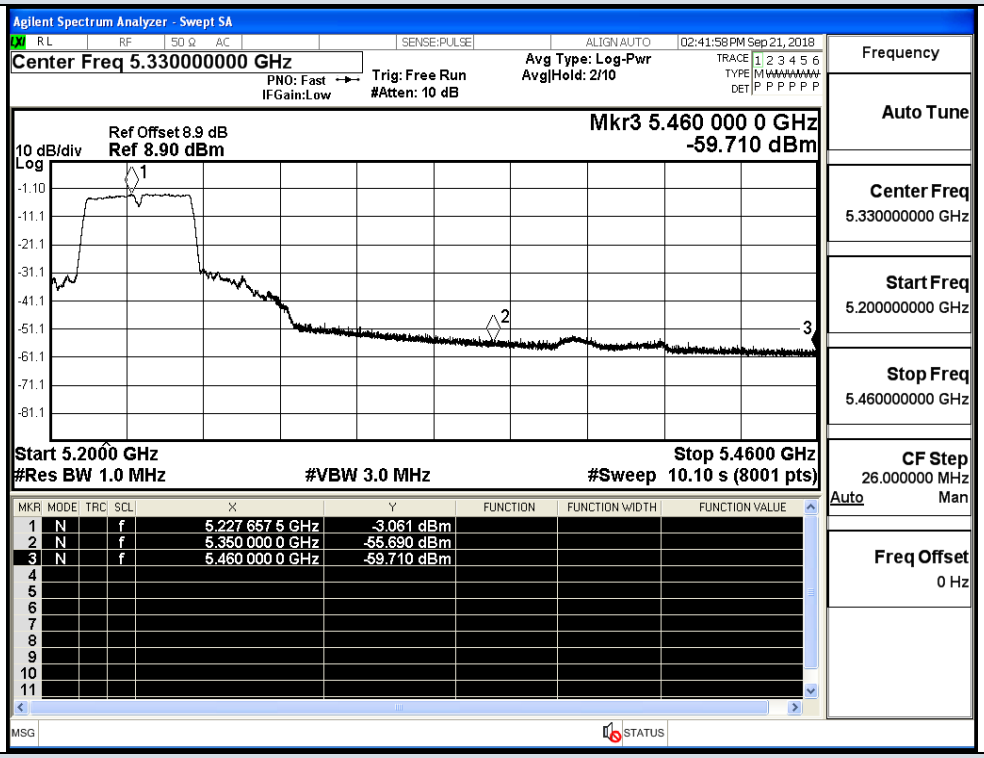


IEEE 802.11n HT40 / Channel 38 / 5190 MHz / Peak_Ant2

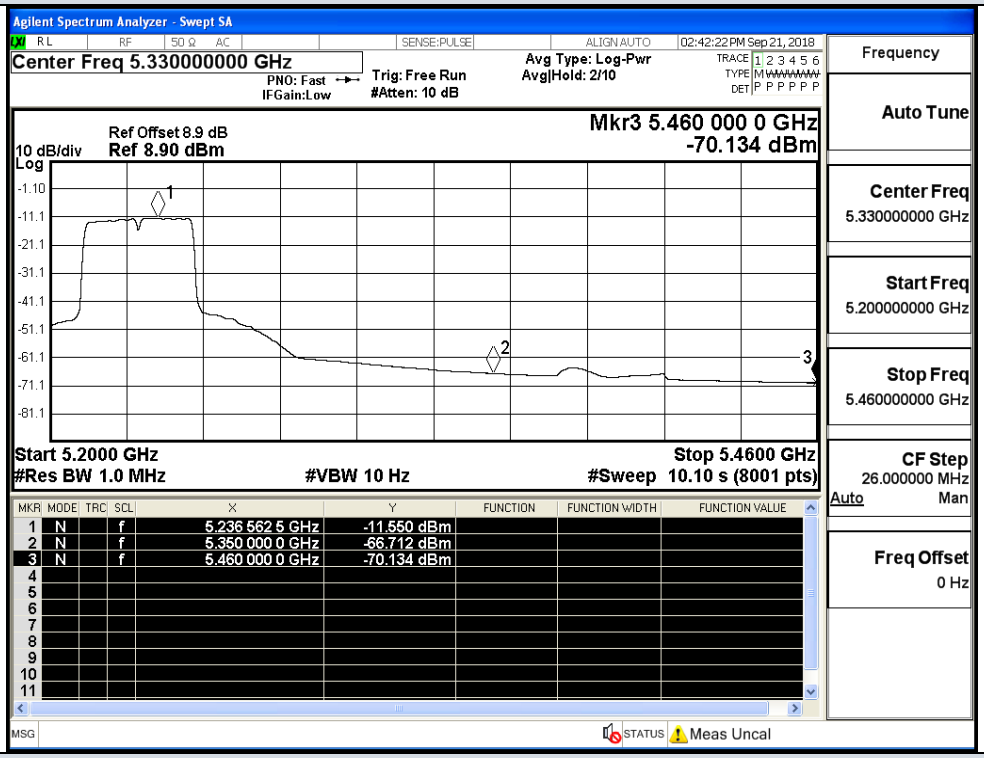


IEEE 802.11n HT40 / Channel 38 / 5190 MHz / Average_Ant2

Undesirable Emissions Measurement

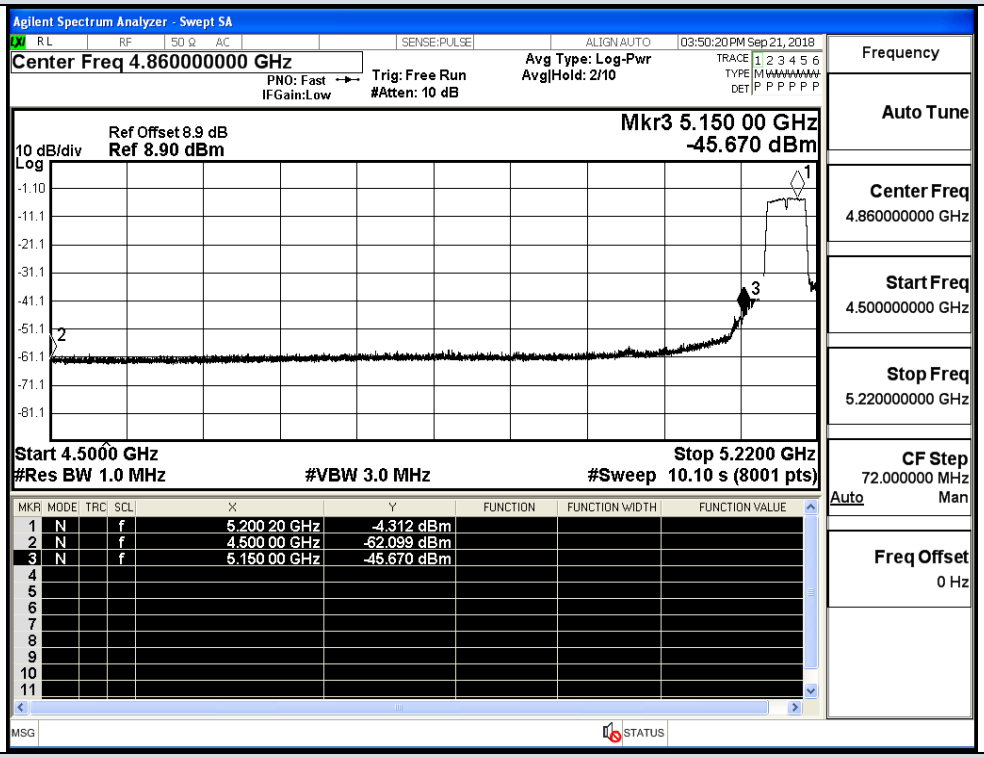


IEEE 802.11n HT40 / Channel 46 / 5230 MHz / Peak_Ant2

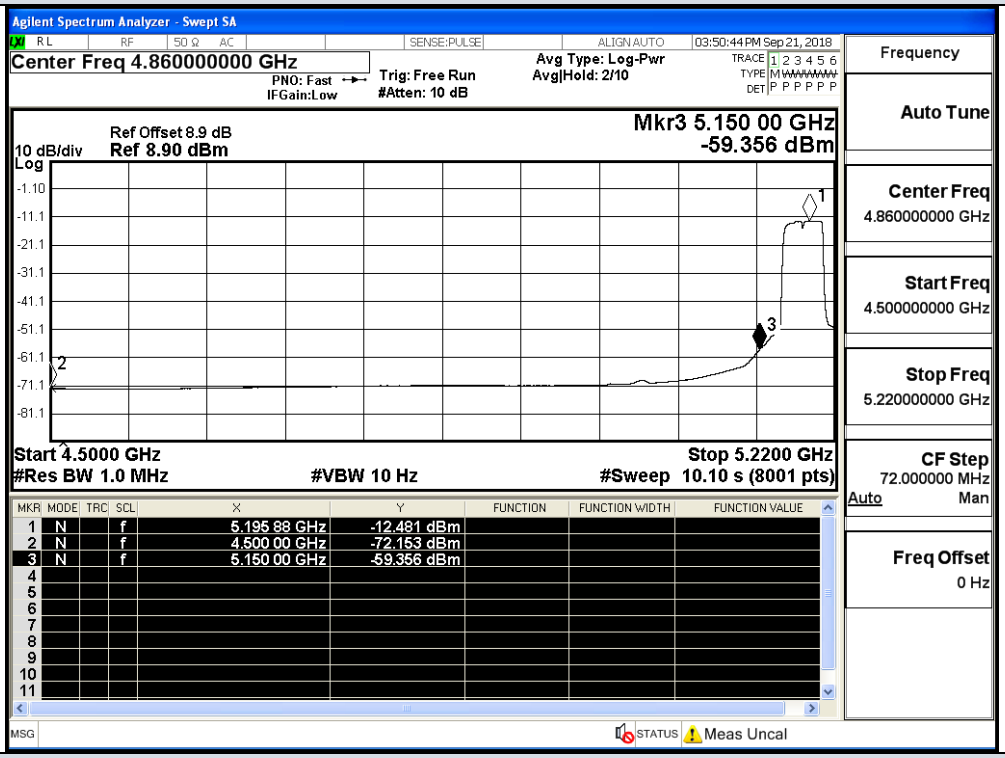


IEEE 802.11n HT40 / Channel 46 / 5230 MHz / Average_Ant2

Undesirable Emissions Measurement

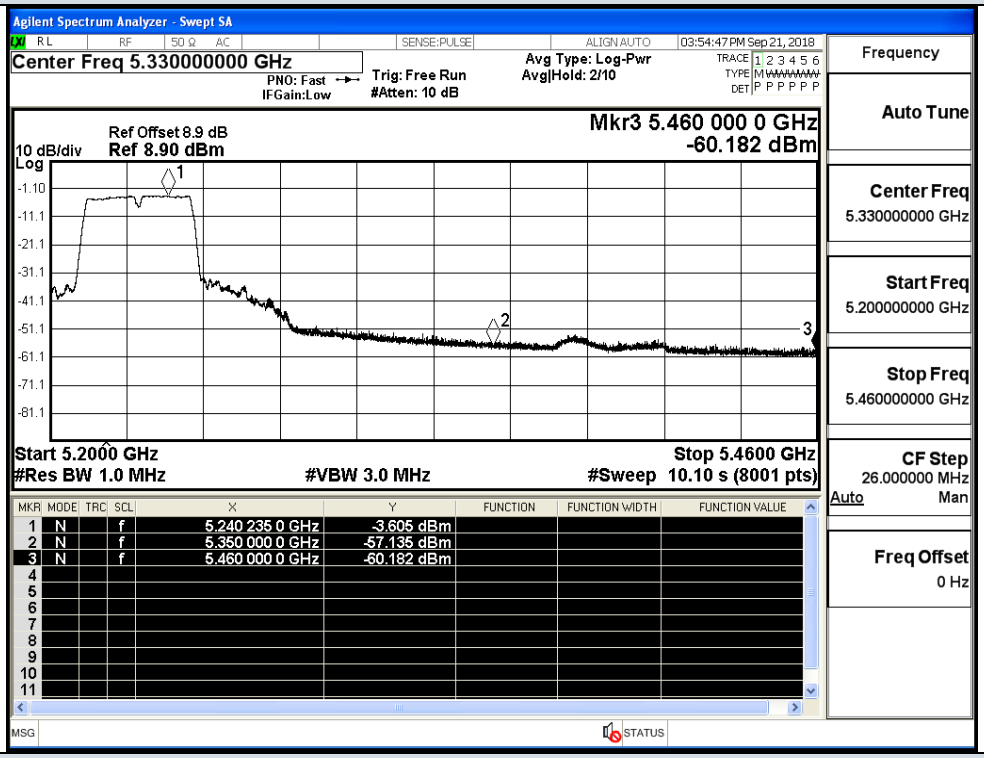


IEEE 802.11n HT40 / Channel 38 / 5190 MHz / Peak_Ant3

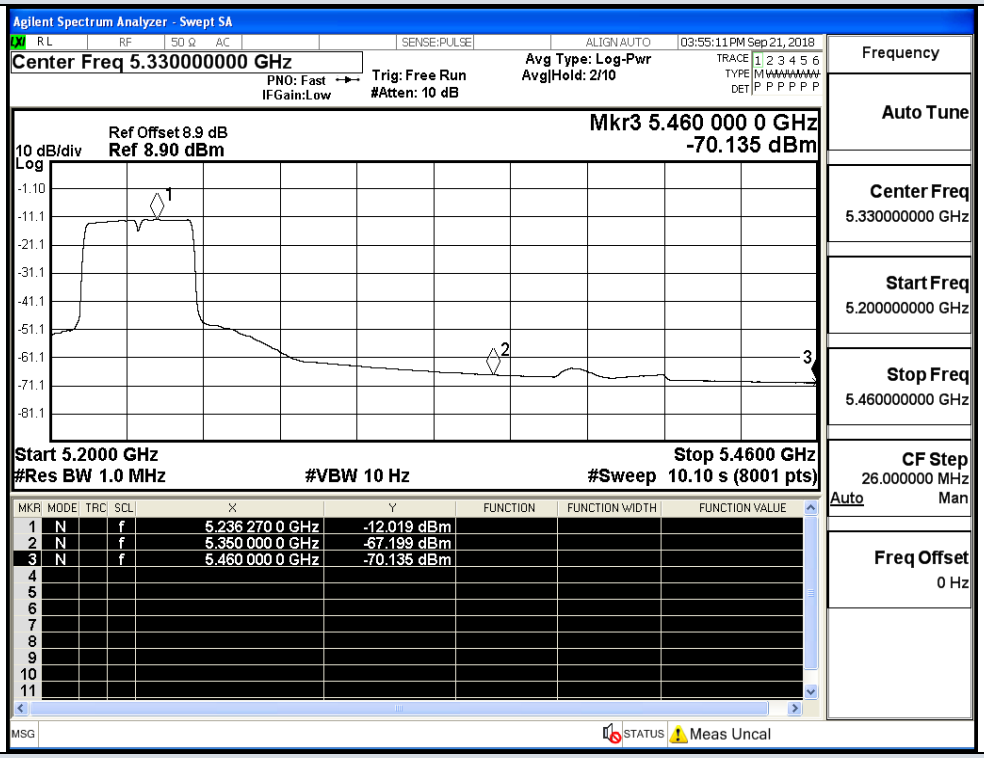


IEEE 802.11n HT40 / Channel 38 / 5190 MHz / Average_Ant3

Undesirable Emissions Measurement



IEEE 802.11n HT40 / Channel 46 / 5230 MHz / Peak_Ant3



IEEE 802.11n HT40 / Channel 46 / 5230 MHz / Average_Ant3