

Appendix D

RF Test Data for 5.2G WLAN (Conducted Measurement)

Product Name: Android TV BOX

Trade Mark: N/A

Test Model: KM

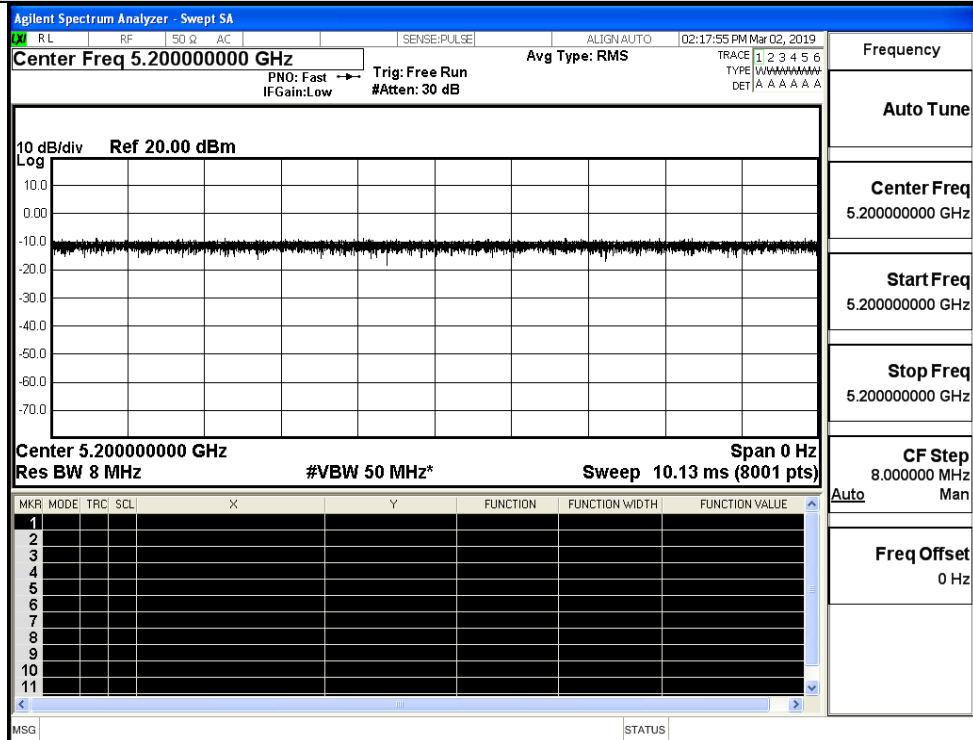
Environmental Conditions

Temperature:	23.2 ° C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Wang Chuang
Supervised by:	Jayden.Zhuo

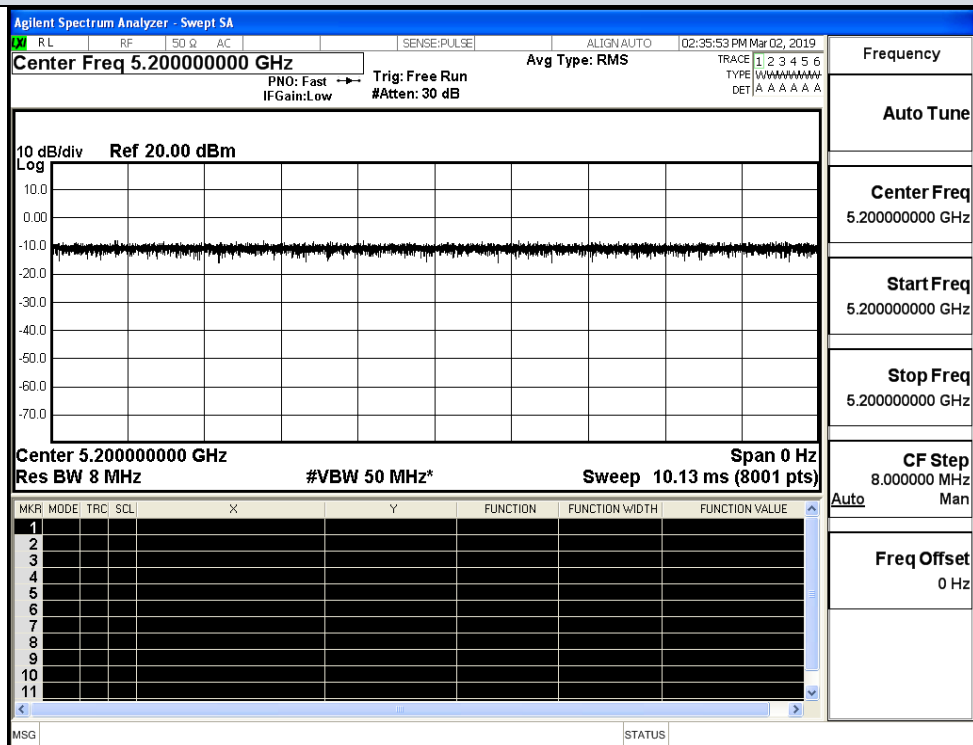
D.1 Duty Cycle

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW (KHz)
11A	5200	100	0.00	0.01
11N20 SISO	5200	100	0.00	0.01
11N40 SISO	5190	100	0.00	0.01
11AC20 SISO	5200	100	0.00	0.01
11AC40 SISO	5190	100	0.00	0.01
11AC80 SISO	5210	100	0.00	0.01

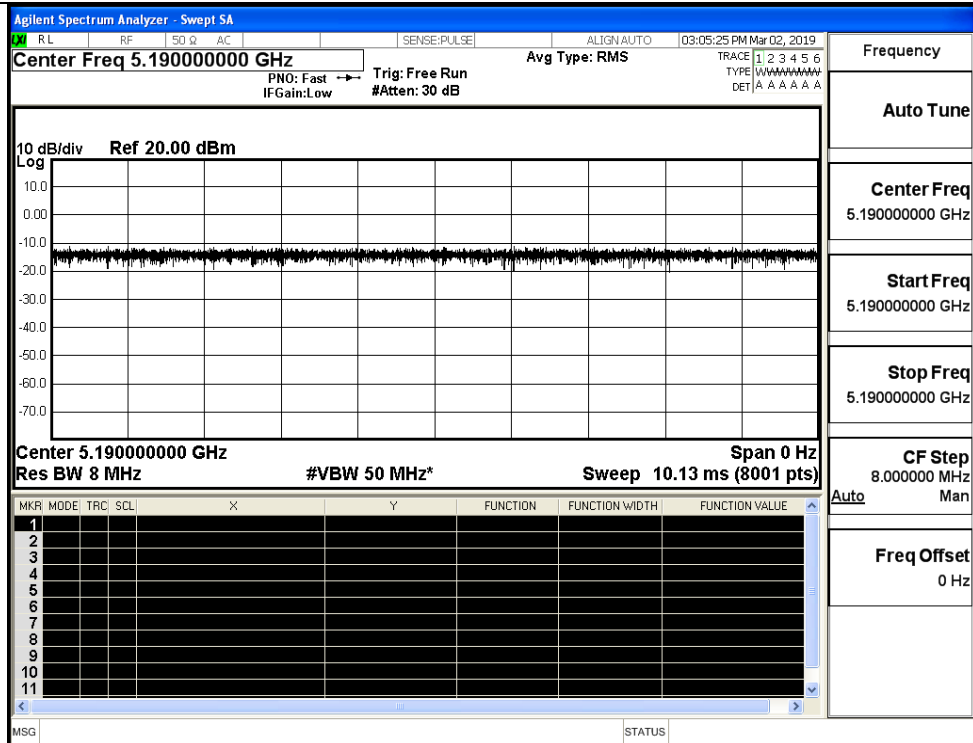
On Time and Duty Cycle



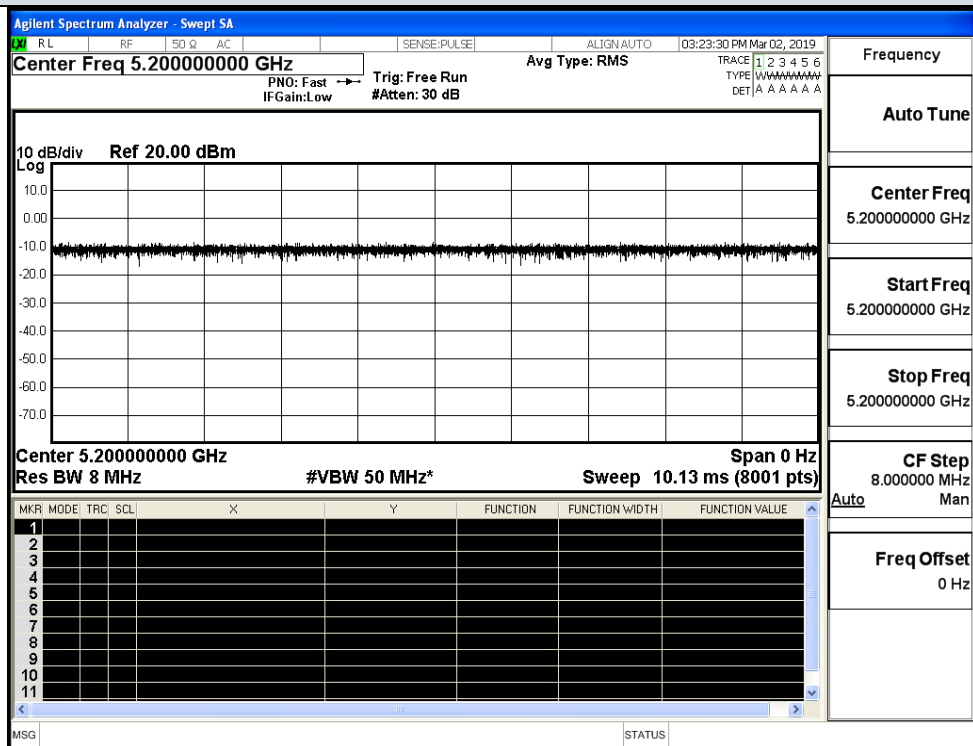
IEEE 802.11a



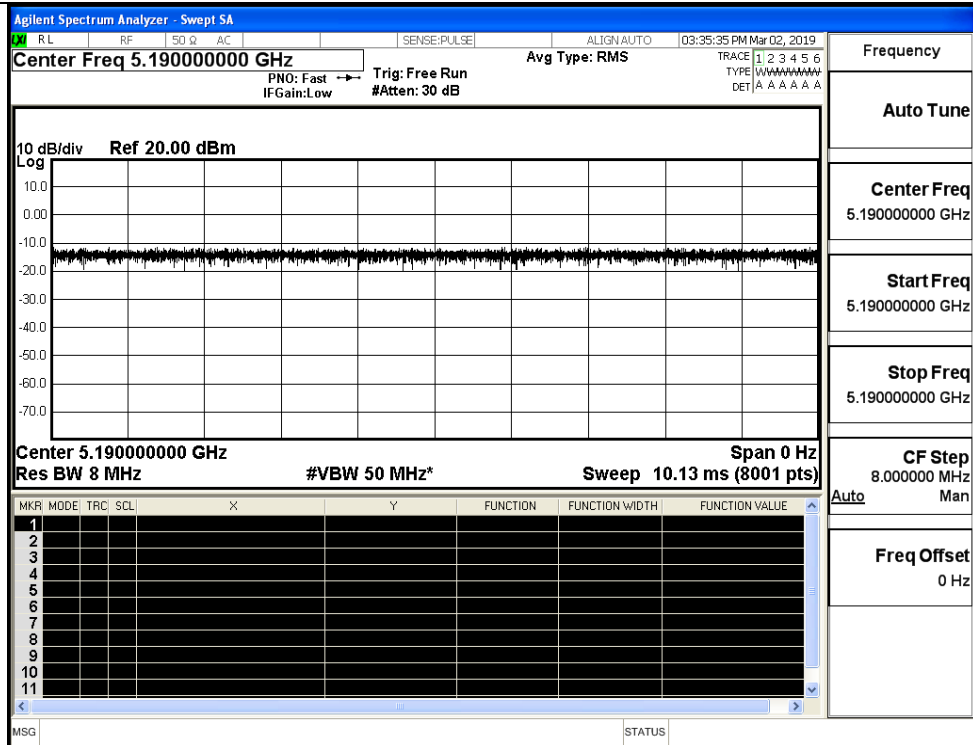
IEEE 802.11n HT20



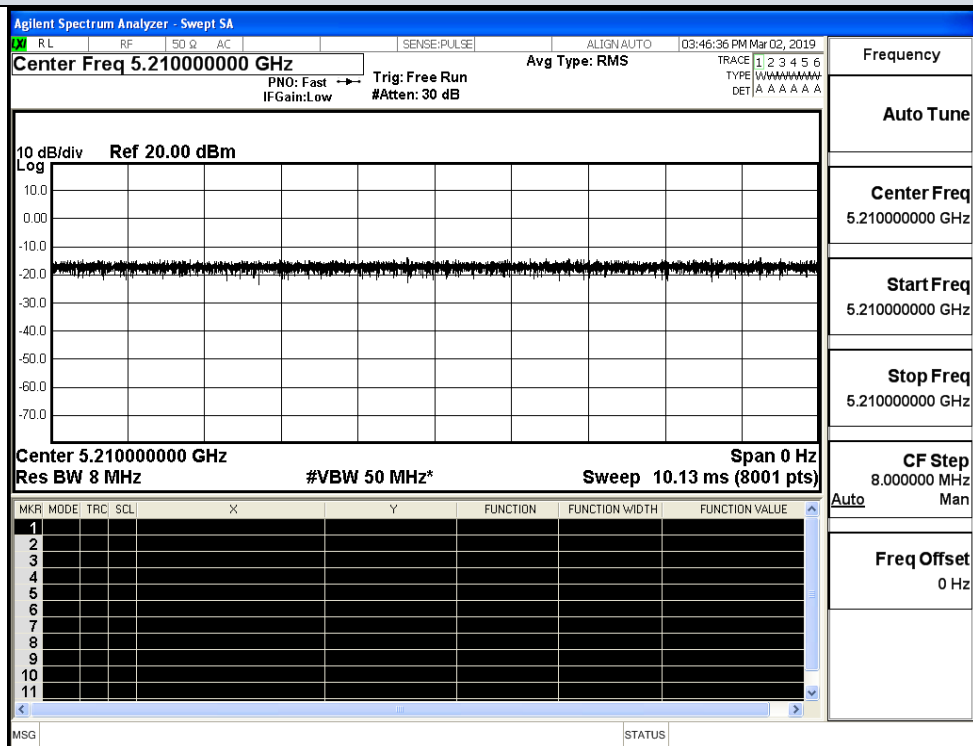
IEEE 802.11n HT40



IEEE 802.11ac VHT20



IEEE 802.11ac VHT40



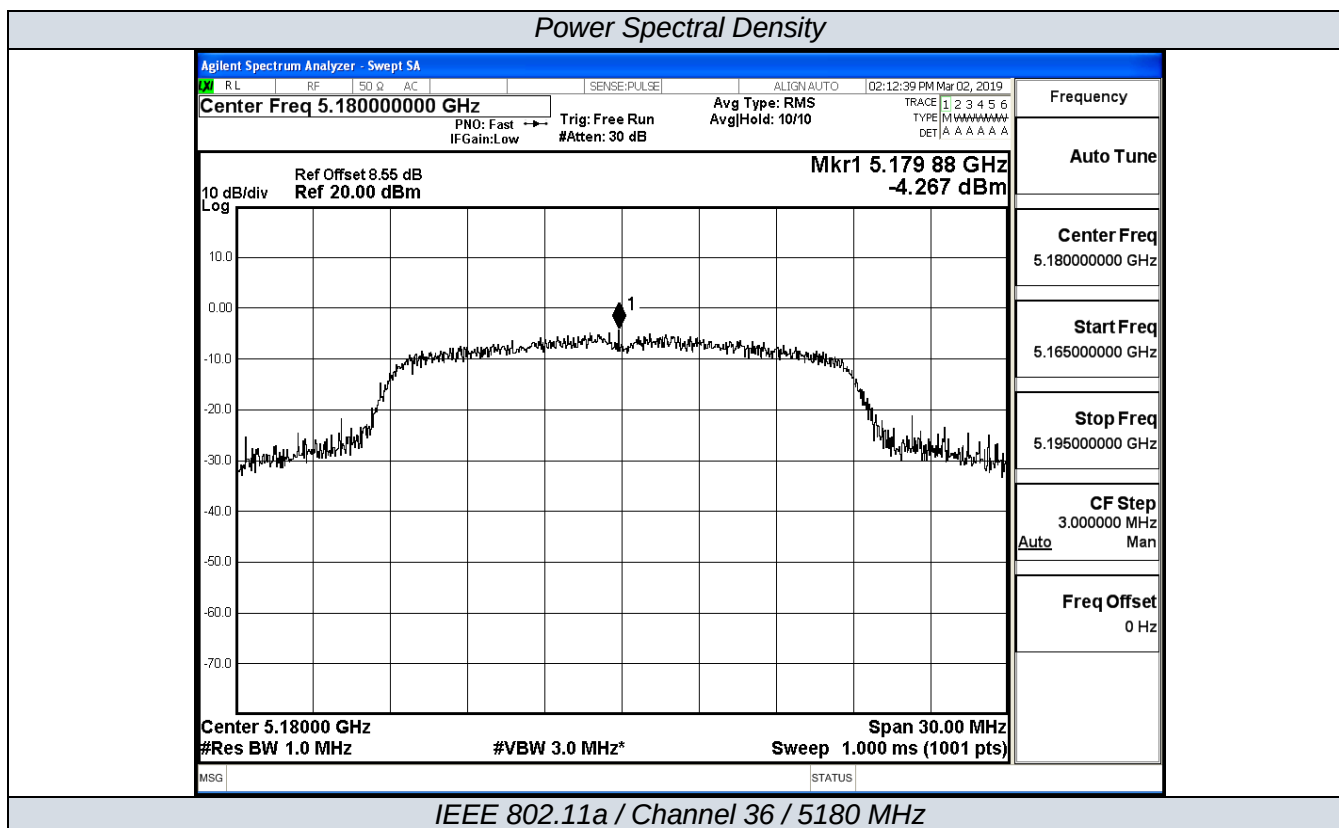
IEEE 802.11ac VHT80

D.2 Maximum Conduct Output Power

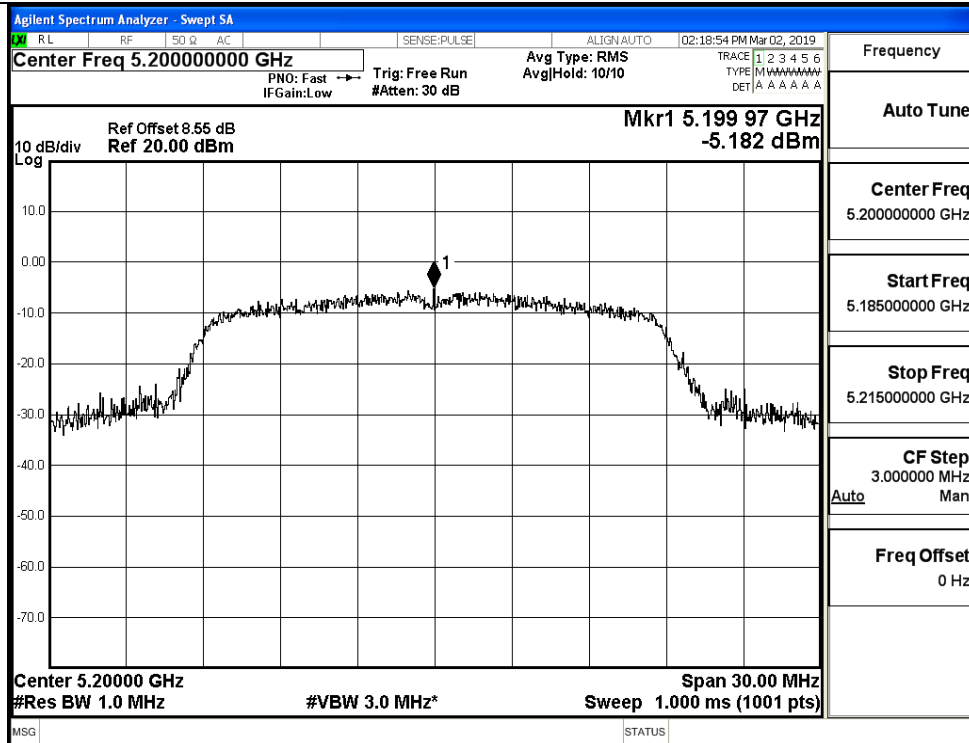
Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power (dBm)	Limit dBm)
IEEE 802.11a	36	5180	11.86	0	11.86	24.00
	40	5200	11.34	0	11.34	
	48	5240	11.16	0	11.16	
IEEE 802.11n HT20	36	5180	11.01	0	11.01	24.00
	40	5200	11.09	0	11.09	
	48	5240	11.48	0	11.48	
IEEE 802.11n HT40	38	5190	10.56	0	10.56	24.00
	46	5230	10.72	0	10.72	
IEEE 802.11ac VHT20	36	5180	11.17	0	11.17	24.00
	40	5200	11.68	0	11.68	
	48	5240	11.69	0	11.69	
IEEE 802.11ac VHT40	38	5190	10.73	0	10.73	24.00
	46	5230	10.32	0	10.32	
IEEE 802.11ac VHT80	42	5210	10.02	0	10.02	24.00

D.3 Power Spectral Density

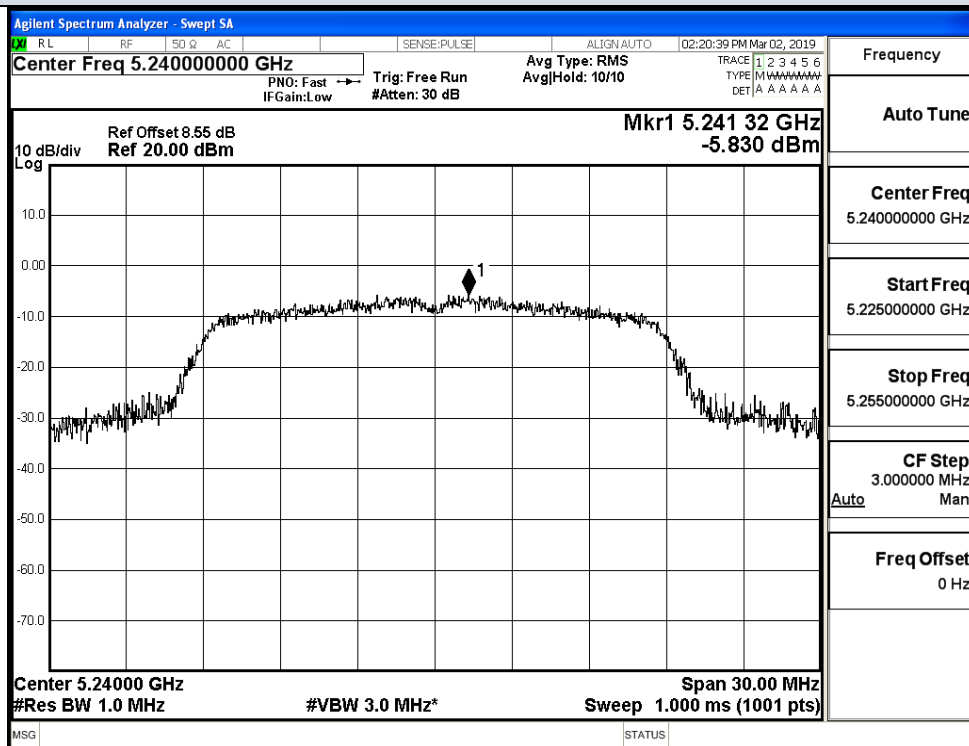
Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)
IEEE 802.11a	36	5180	-4.267	0	-4.267	11.00
	40	5200	-5.182	0	-5.182	
	48	5240	-5.830	0	-5.830	
IEEE 802.11n HT20	36	5180	-4.927	0	-4.927	11.00
	40	5200	-4.817	0	-4.817	
	48	5240	-5.410	0	-5.410	
IEEE 802.11n HT40	38	5190	-8.047	0	-8.047	11.00
	46	5230	-8.131	0	-8.131	
IEEE 802.11ac VHT20	36	5180	-4.208	0	-4.208	11.00
	40	5200	-4.833	0	-4.833	
	48	5240	-7.255	0	-7.255	
IEEE 802.11ac VHT40	38	5190	-7.979	0	-7.979	11.00
	46	5230	-8.657	0	-8.657	
IEEE 802.11ac VHT80	42	5210	-10.835	0	-10.835	11.00



IEEE 802.11a / Channel 36 / 5180 MHz

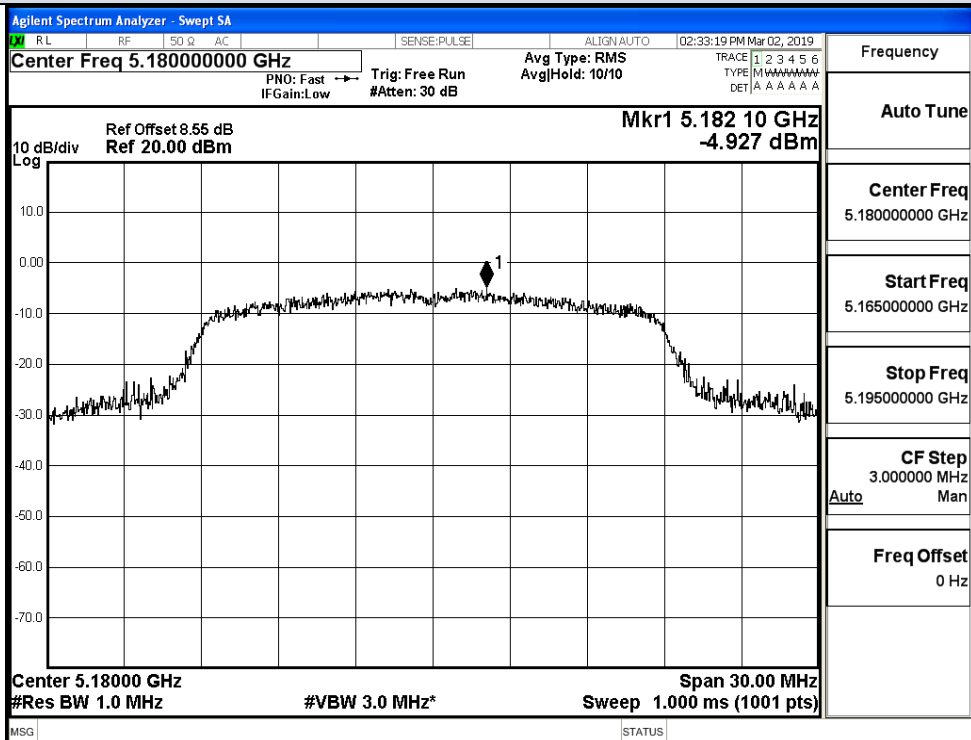


IEEE 802.11a / Channel 40 / 5200 MHz

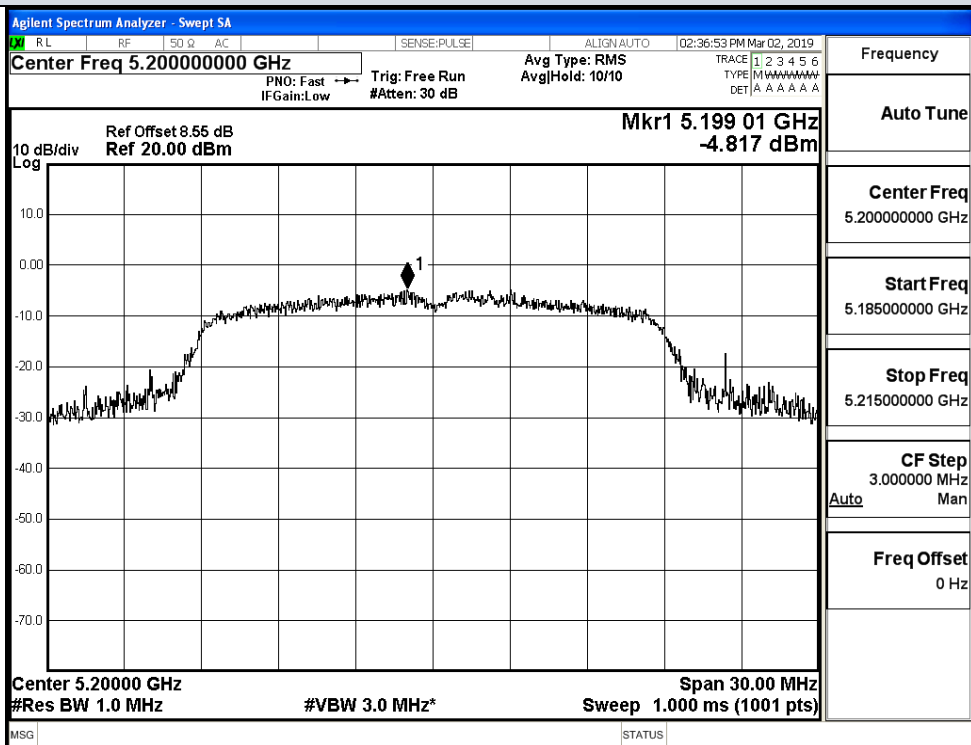


IEEE 802.11a / Channel 48 / 5240 MHz

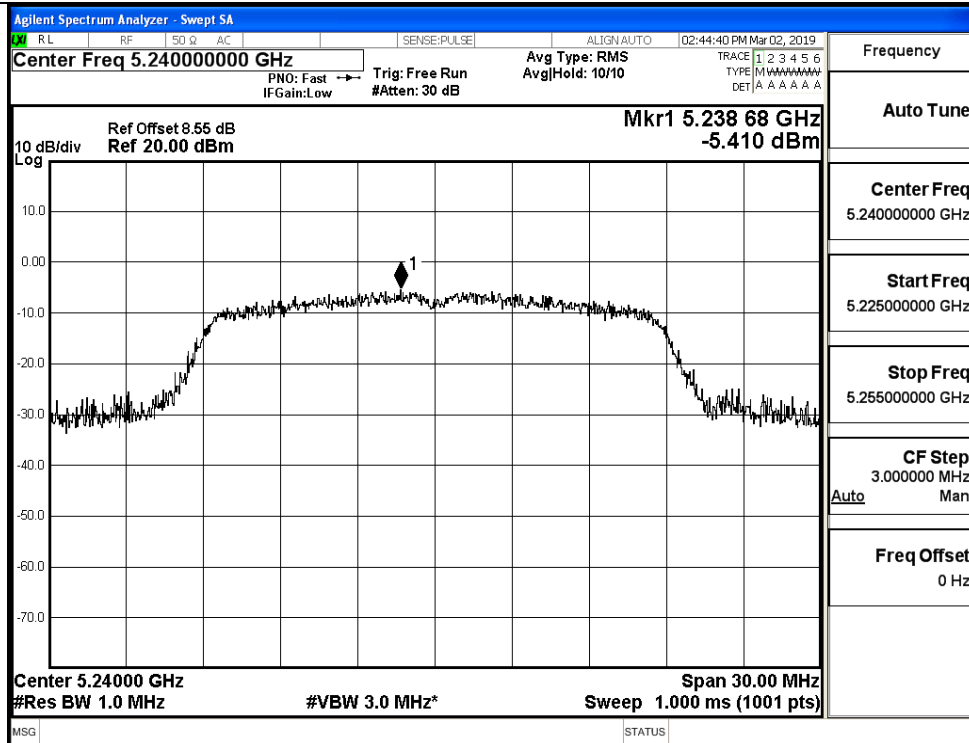
Power Spectral Density



IEEE 802.11n HT20 / Channel 36 / 5180 MHz

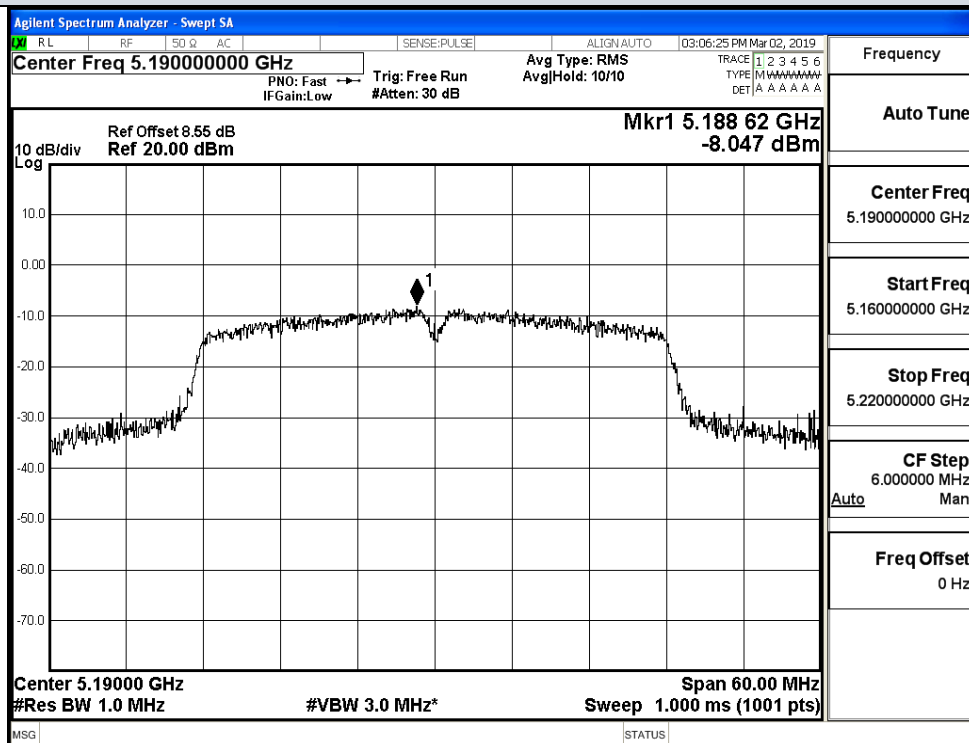


IEEE 802.11n HT20 / Channel 40 / 5200 MHz

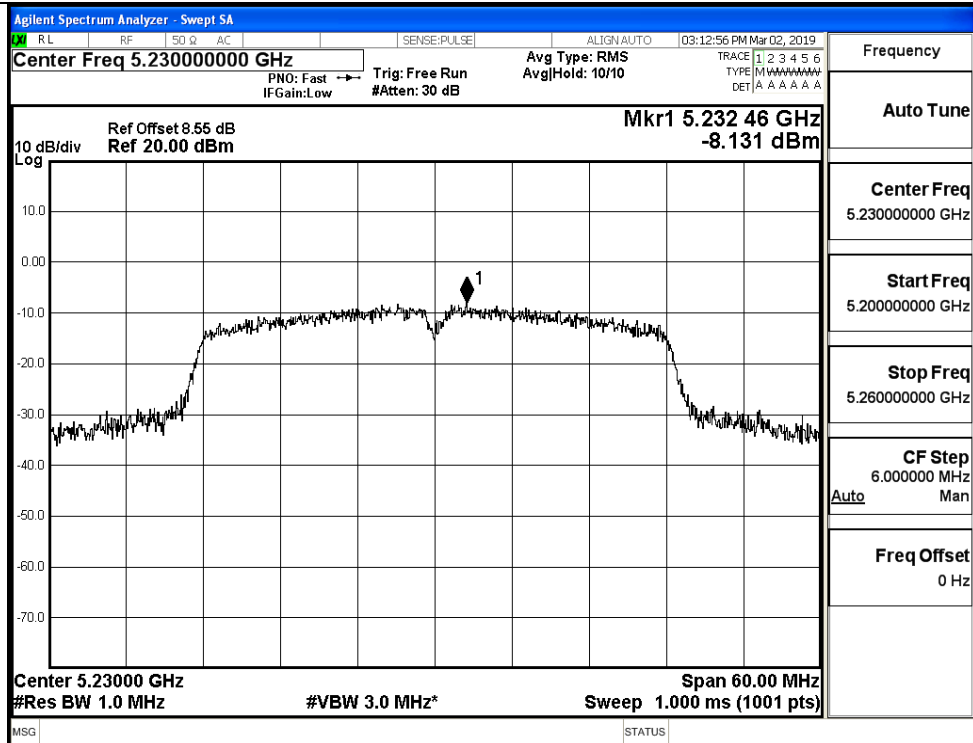


IEEE 802.11n HT20 / Channel 48 / 5240 MHz

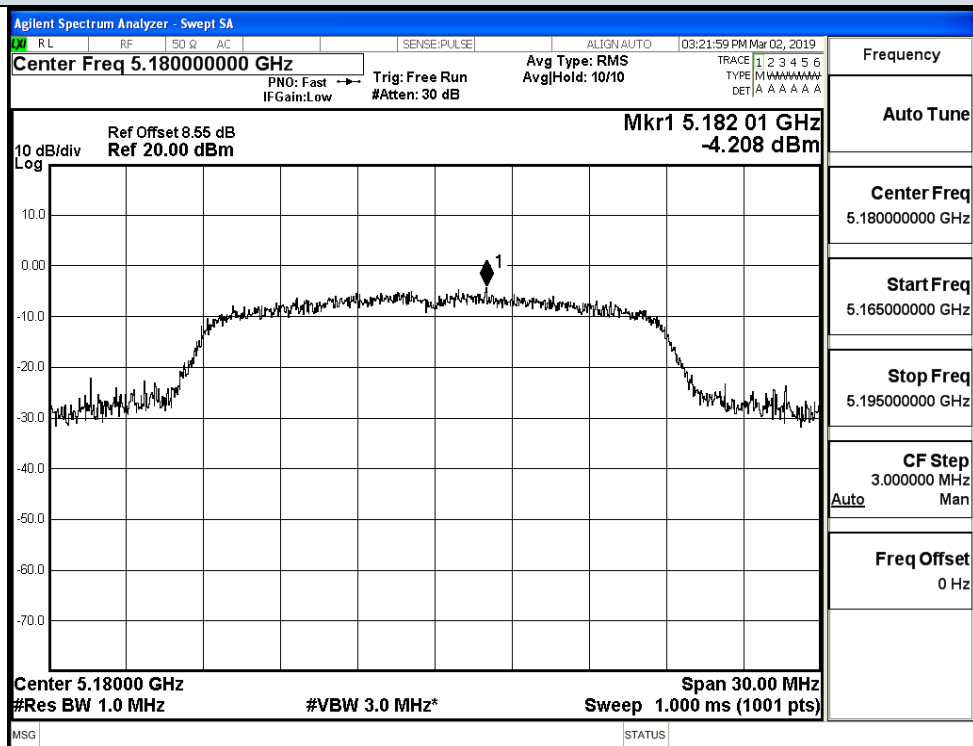
Power Spectral Density



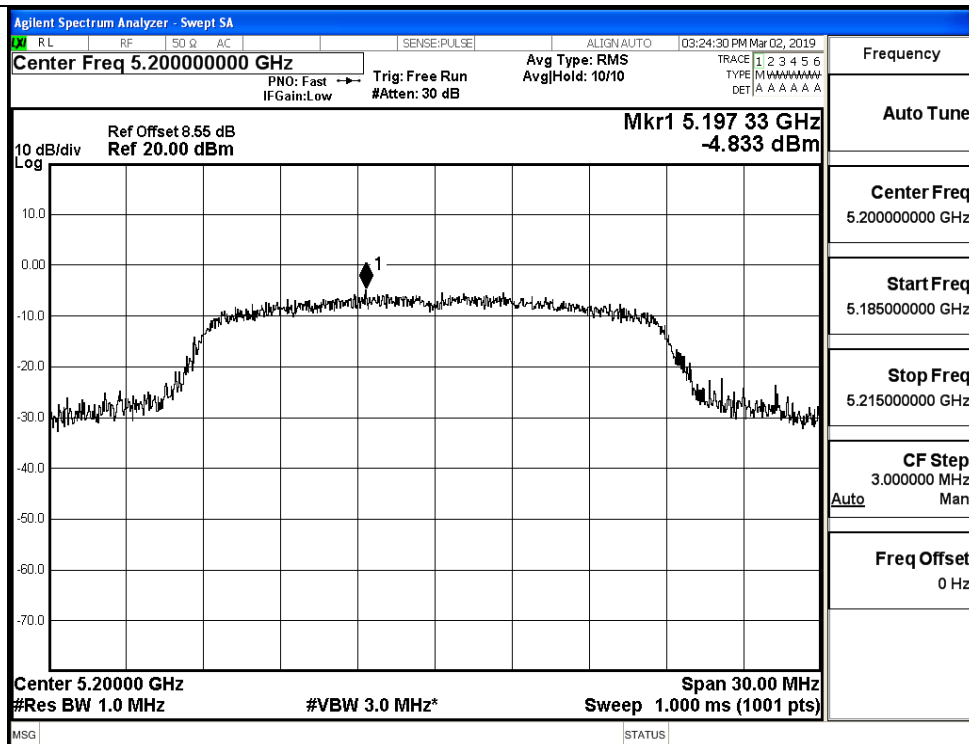
IEEE 802.11n HT40 / Channel 38 / 5190 MHz



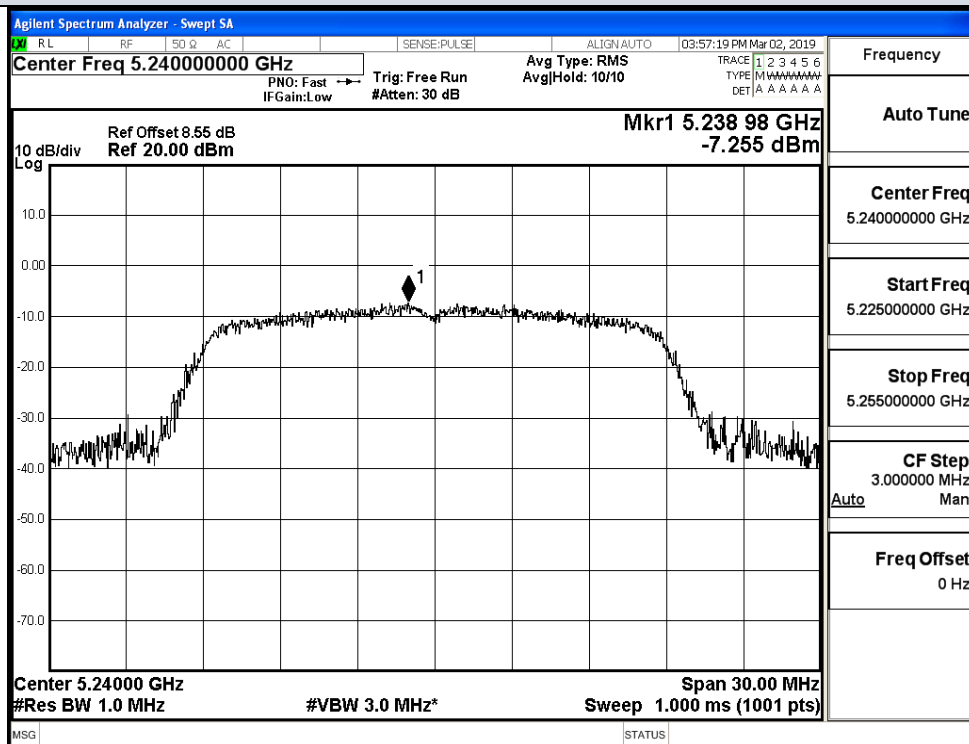
IEEE 802.11n HT40 / Channel 46 / 5230 MHz



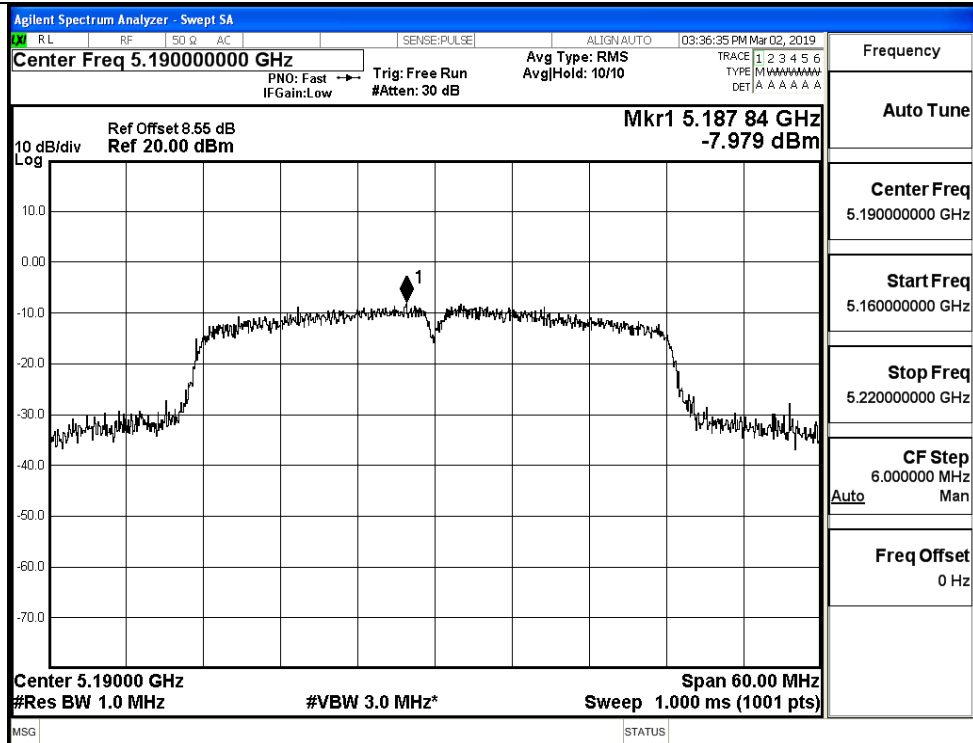
IEEE 802.11ac VHT20 / Channel 36 / 5180 MHz



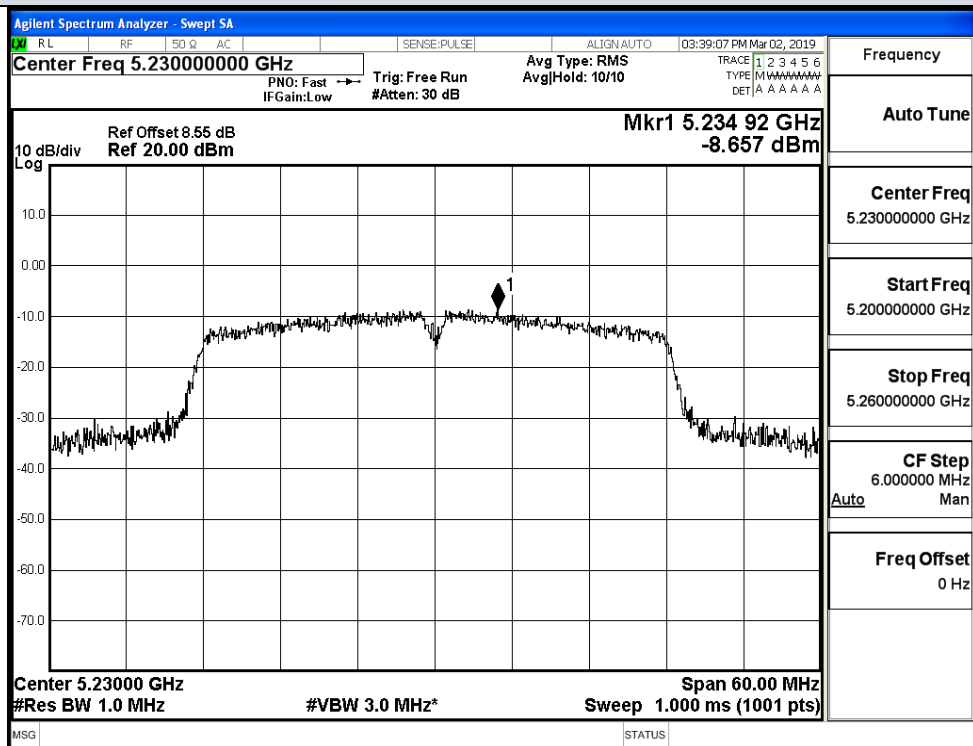
IEEE 802.11ac VHT20 / Channel 40 / 5200 MHz



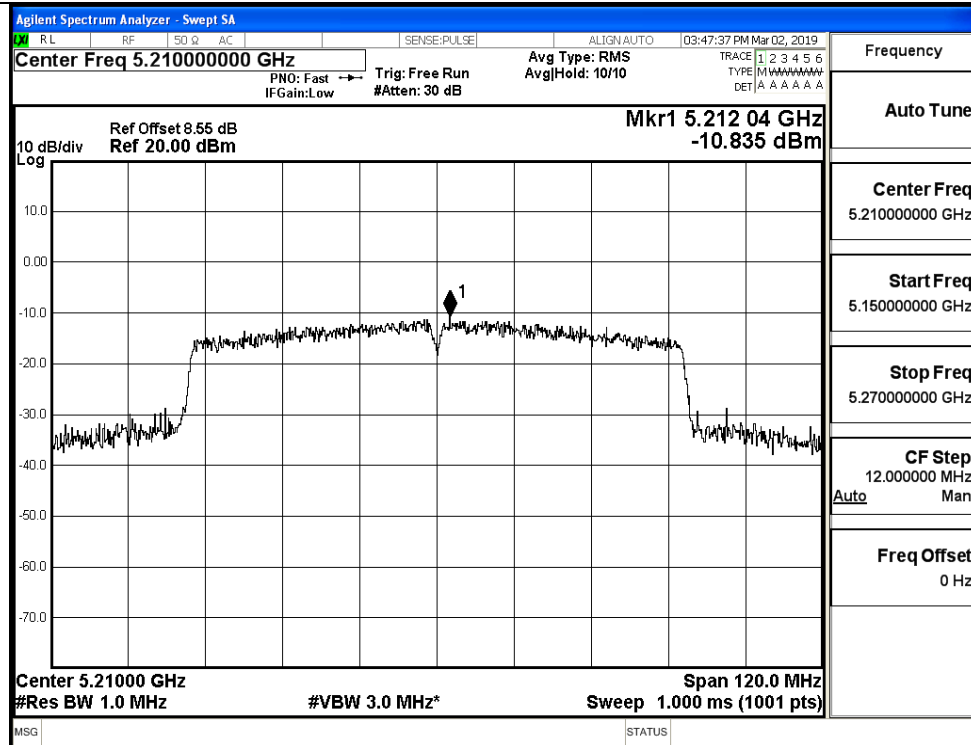
IEEE 802.11ac VHT20 / Channel 48 / 5240 MHz



IEEE 802.11ac VHT40 / Channel 38 / 5190 MHz



IEEE 802.11ac VHT40 / Channel 46 / 5230 MHz

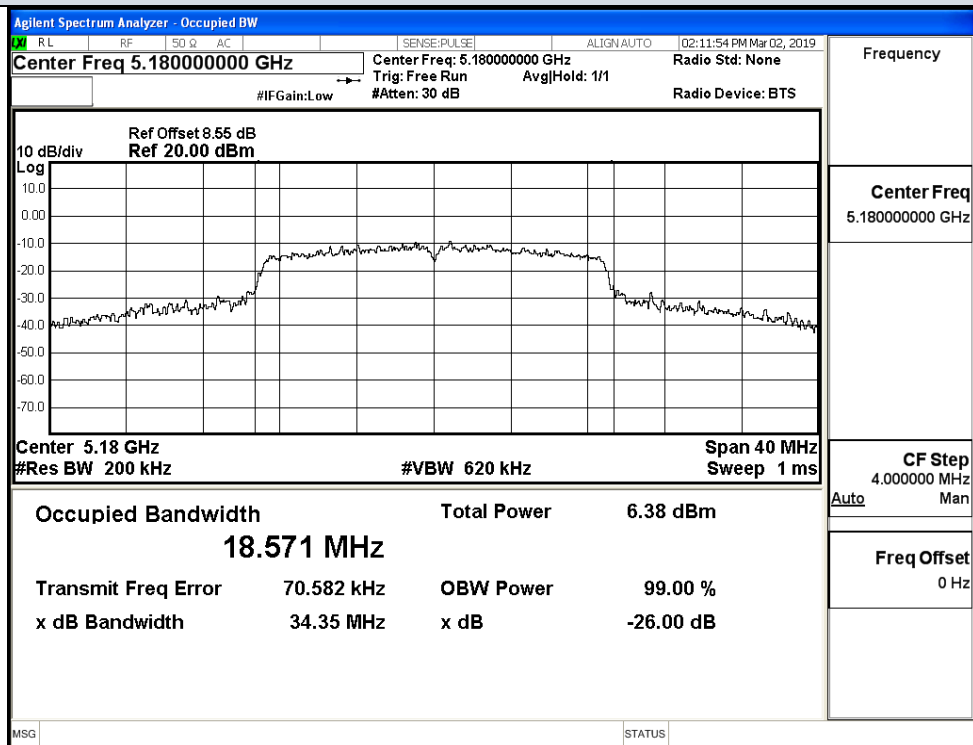


IEEE 802.11ac VHT80 / Channel 42 / 5210 MHz

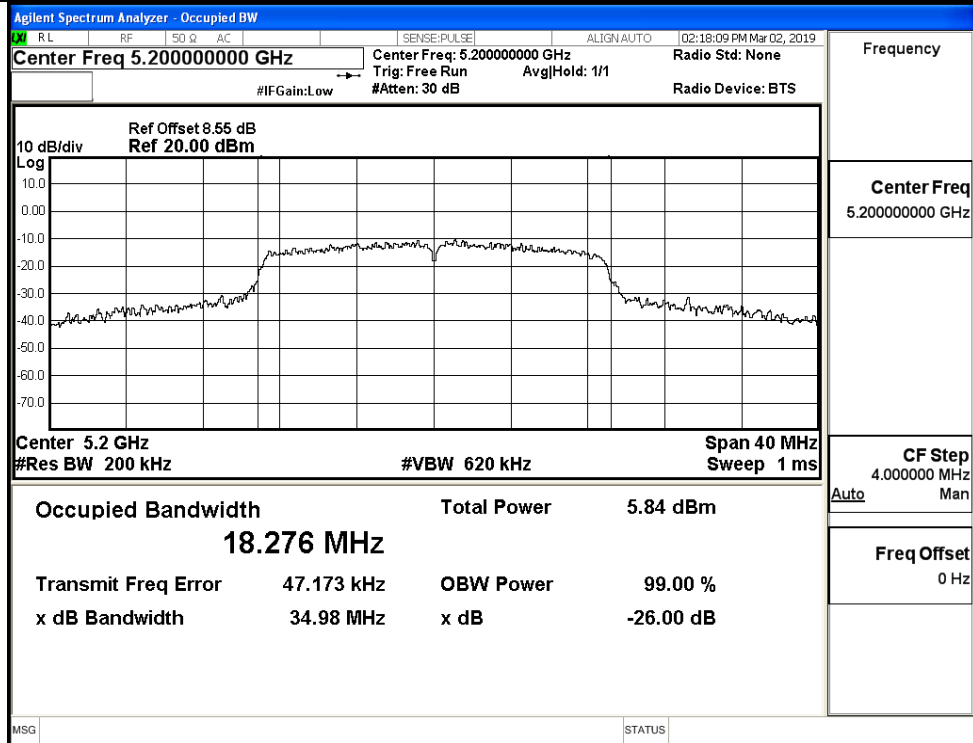
D.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)
IEEE 802.11a	36	5180	18.751	34.350	No Limit
	40	5200	18.276	34.980	
	48	5240	18.169	36.990	
IEEE 802.11n HT20	36	5180	19.762	37.410	No Limit
	40	5200	19.804	36.860	
	48	5240	18.209	35.000	
IEEE 802.11n HT40	38	5190	36.864	68.550	No Limit
	46	5230	37.287	73.770	
IEEE 802.11ac VHT20	36	5180	19.457	36.780	No Limit
	40	5200	19.038	34.140	
	48	5240	17.735	26.380	
IEEE 802.11ac VHT40	38	5190	36.748	69.570	No Limit
	46	5230	36.600	71.490	
IEEE 802.11ac VHT80	42	5210	77.735	153.700	No Limit

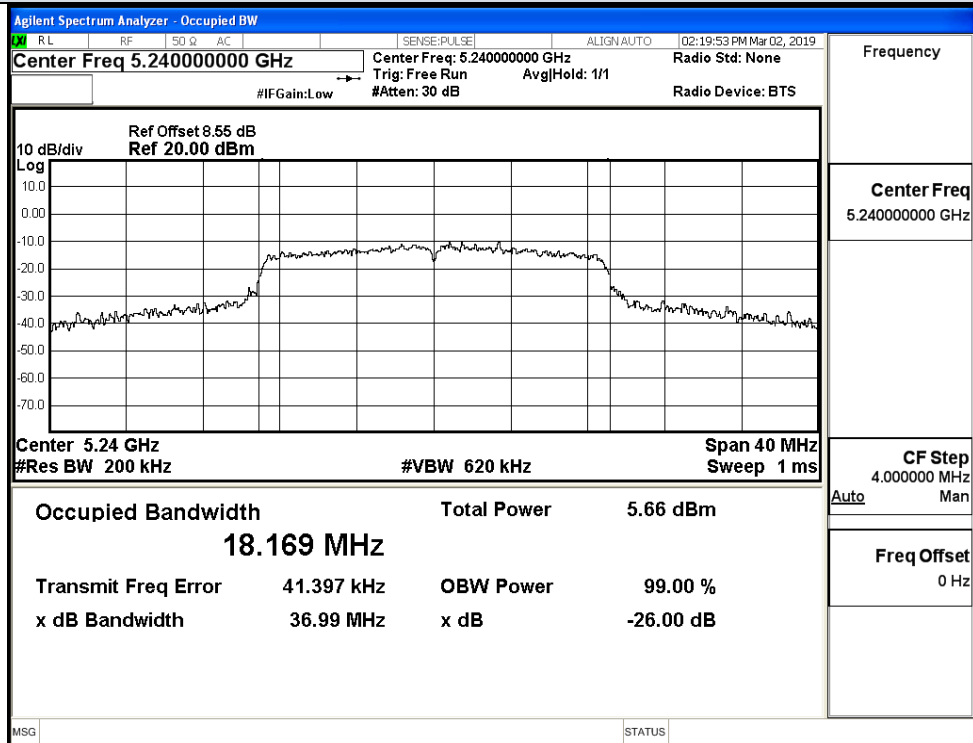
99% and 26dB Bandwidth



IEEE 802.11a / Channel 36 / 5180 MHz

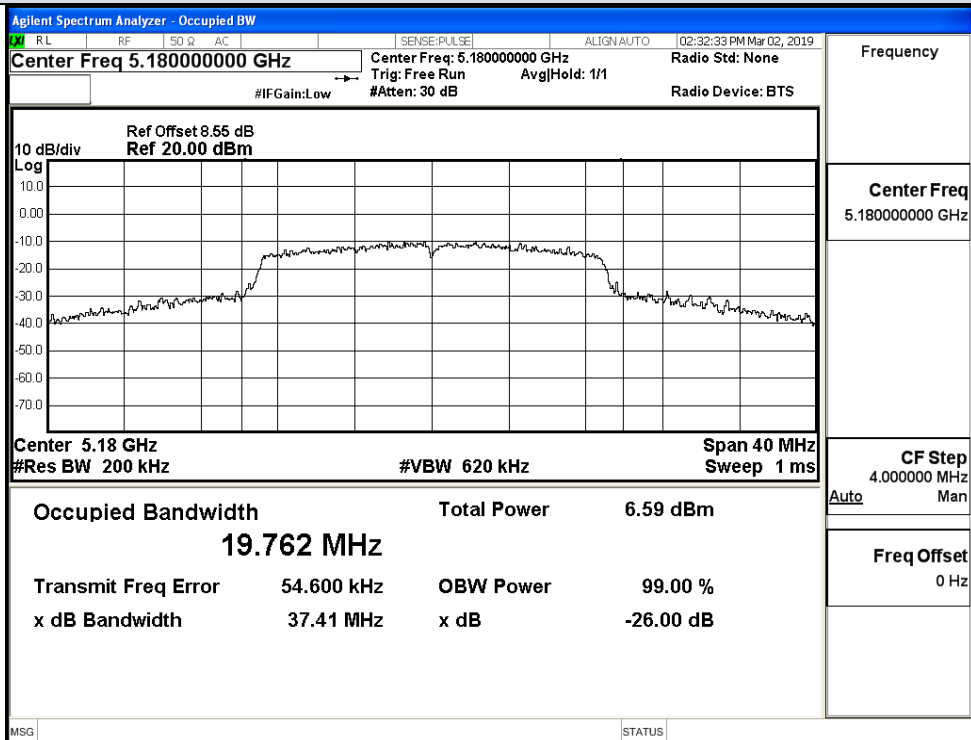


IEEE 802.11a / Channel 40 / 5200 MHz

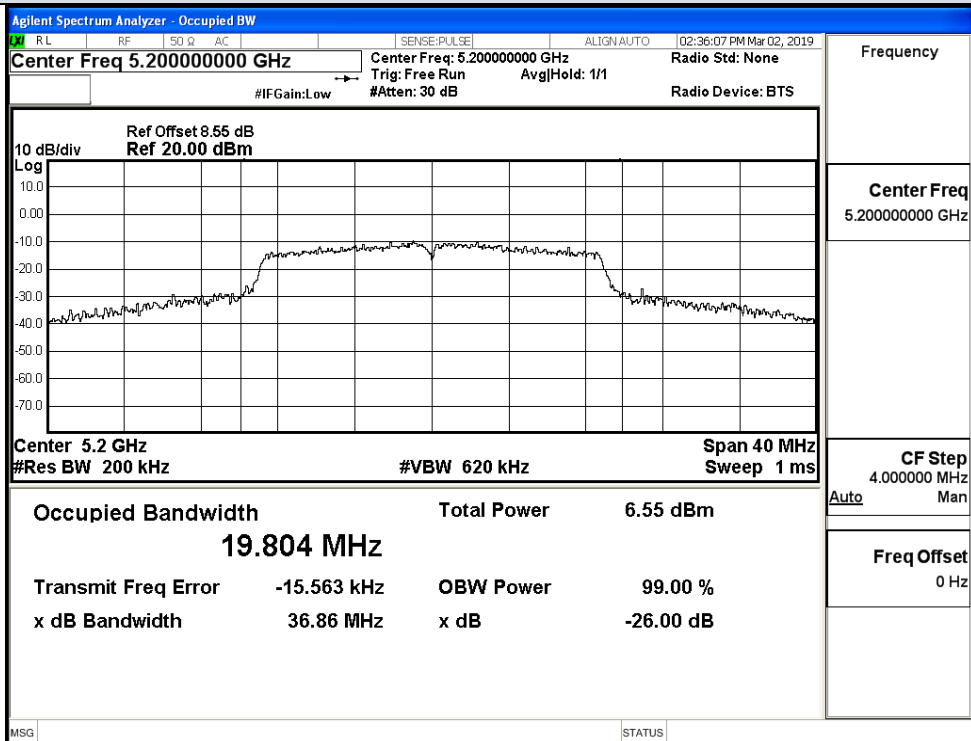


IEEE 802.11a / Channel 48 / 5240 MHz

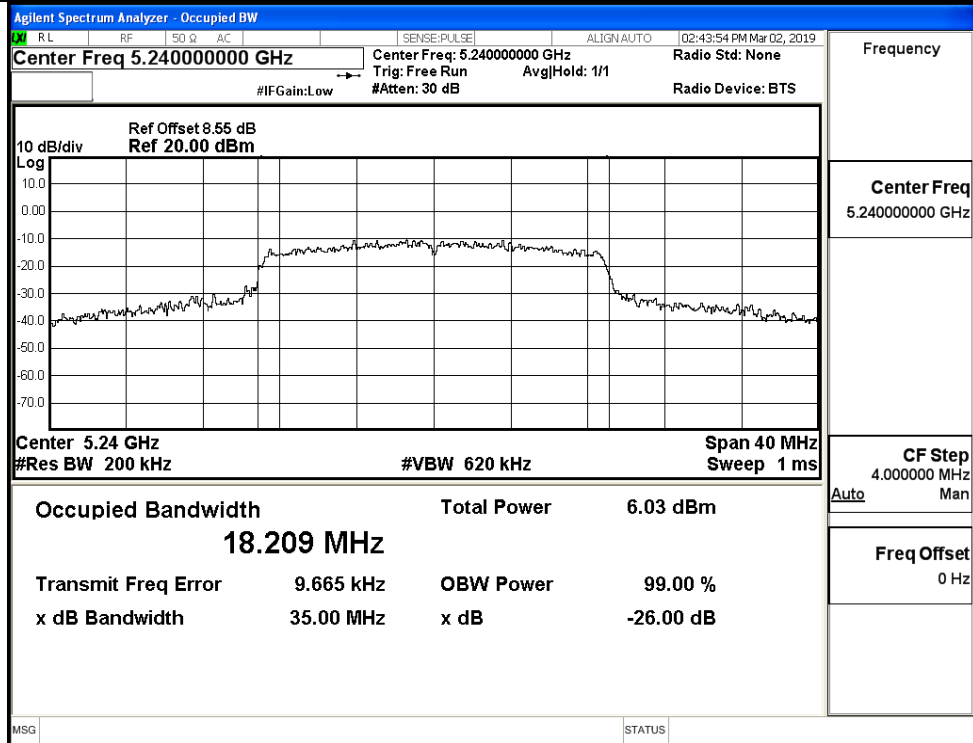
99% and 26dB Bandwidth



IEEE 802.11n HT20 / Channel 36 / 5180 MHz

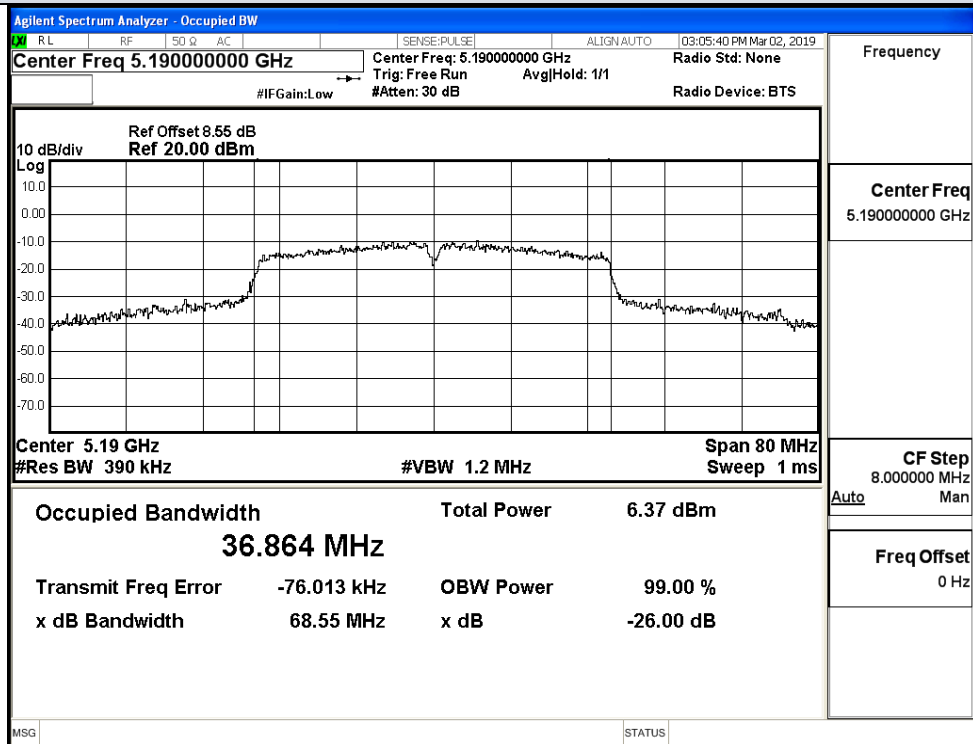


IEEE 802.11n H T20 / Channel 40 / 5200 MHz

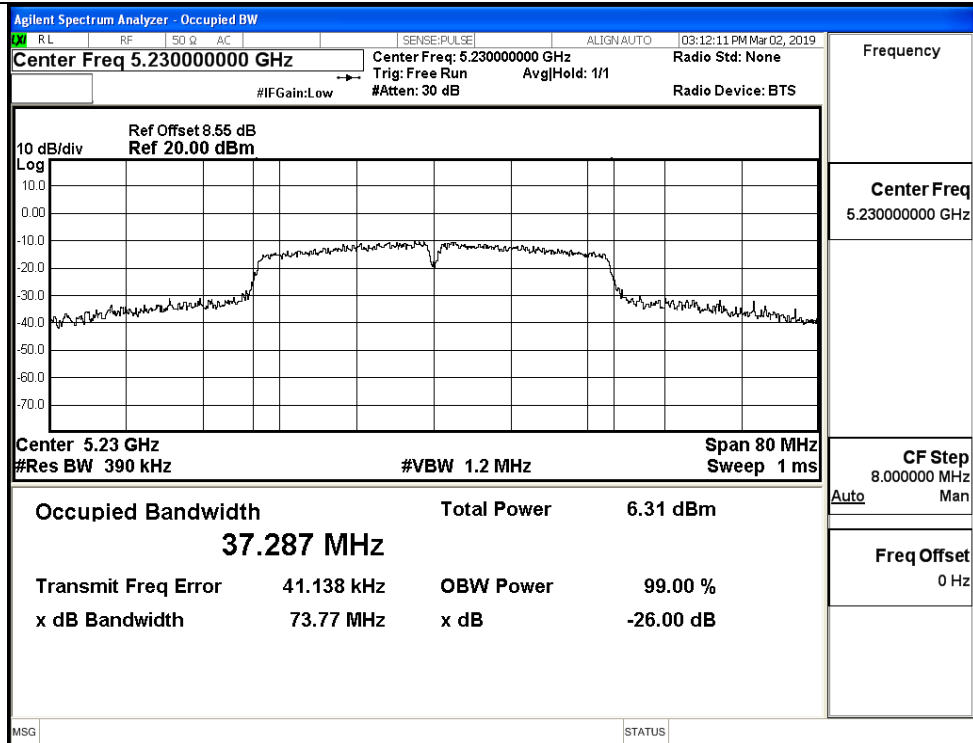


IEEE 802.11n HT20 / Channel 48 / 5240 MHz

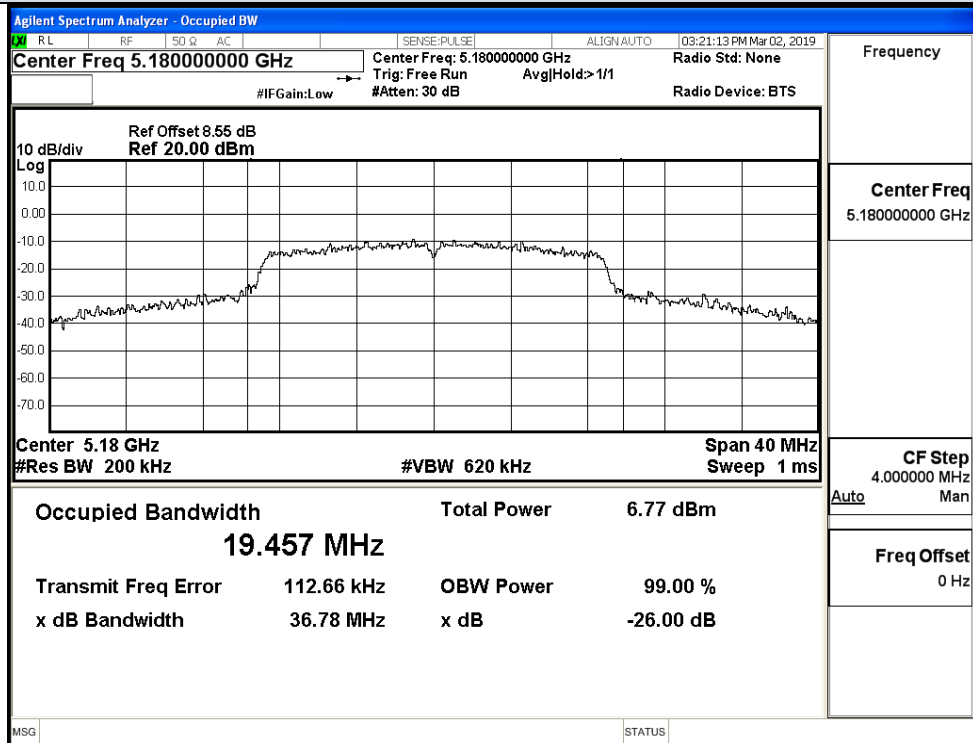
99% and 26dB Bandwidth



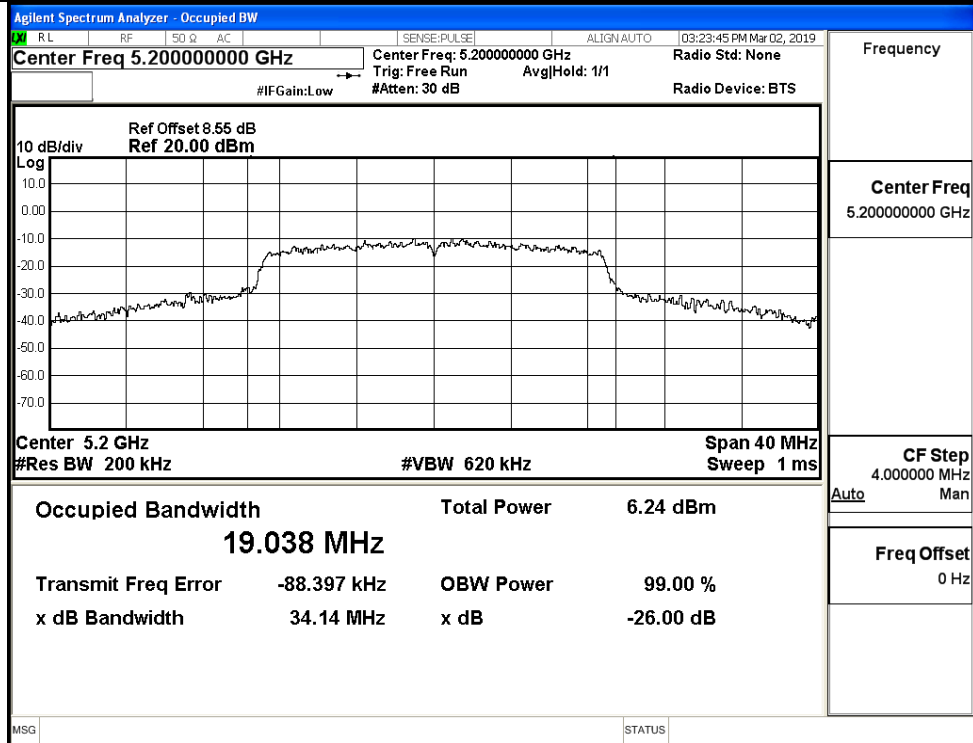
IEEE 802.11n ht40 / Channel 38 / 5190 MHz



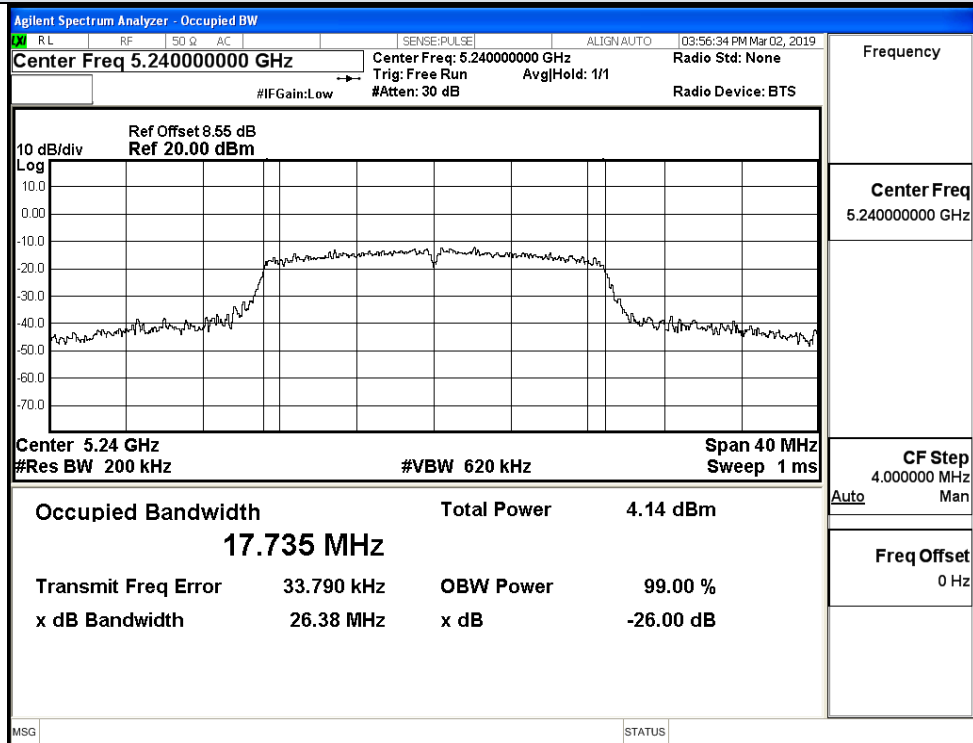
IEEE 802.11n VHT40 / Channel 46 / 523 0MHz



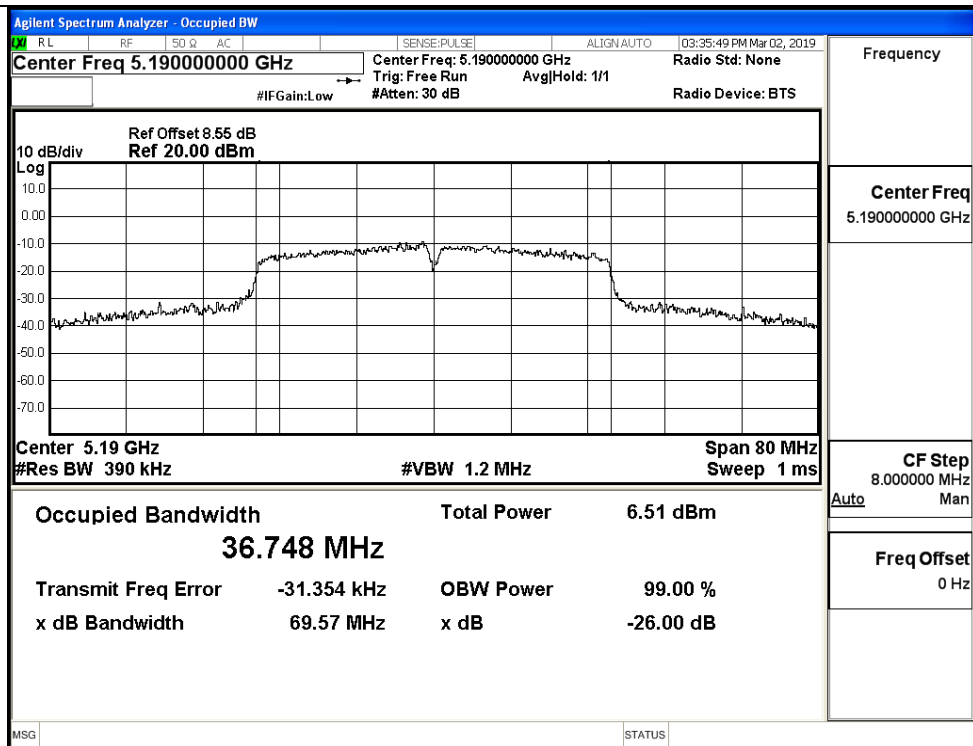
IEEE 802.11ac VHT20 / Channel 36 / 5180 MHz



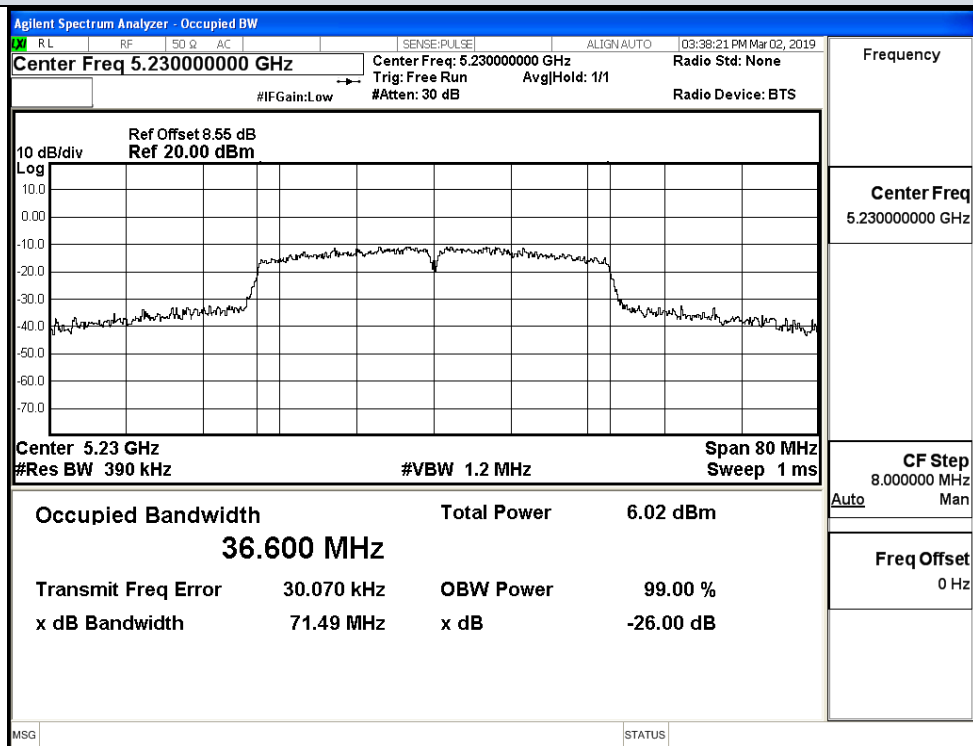
IEEE 802.11ac VHT20 / Channel 40 / 5200 MHz



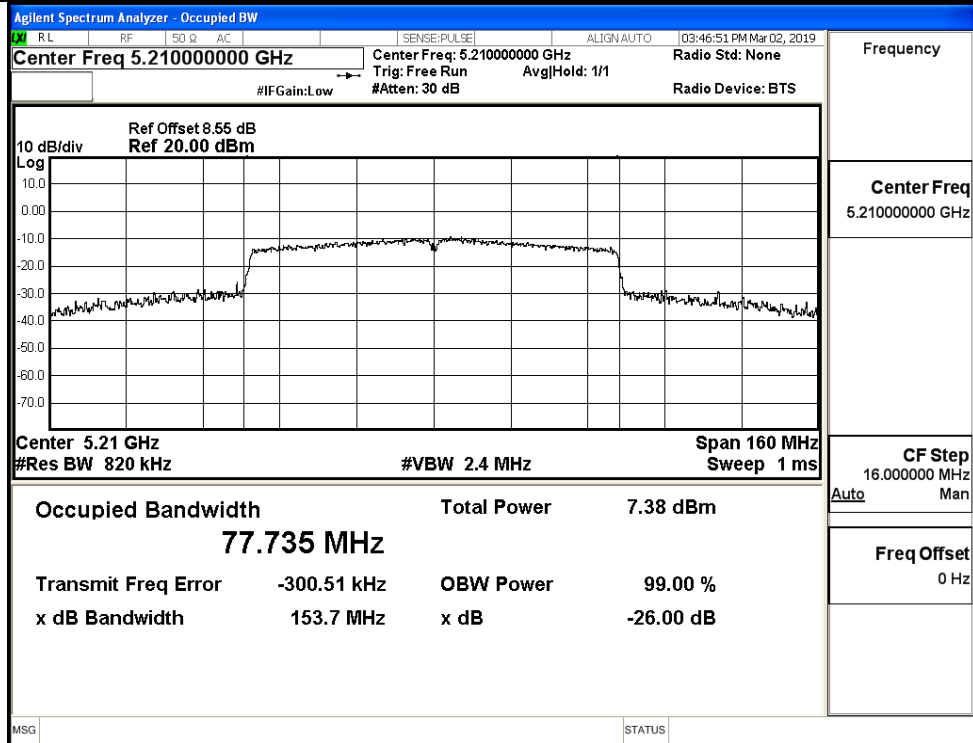
IEEE 802.11ac VHT20 / Channel 48 / 5240 MHz



IEEE 802.11ac VHT40 / Channel 38 / 5190 MHz



IEEE 802.11ac VHT40 / Channel 46 / 5230 MHz



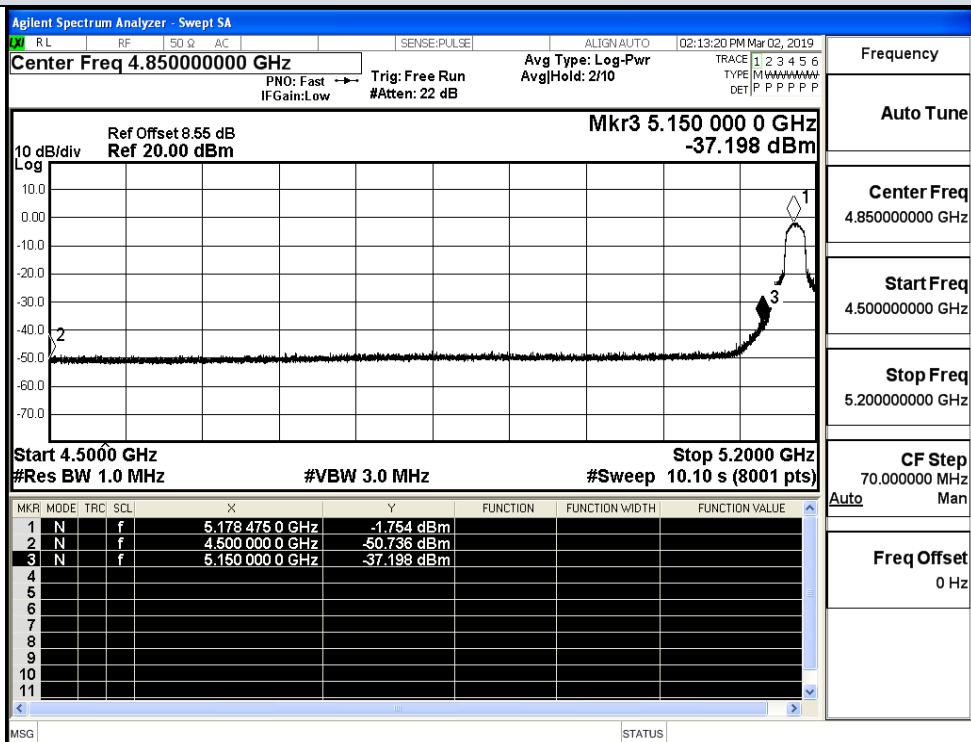
IEEE 802.11ac VHT80 / Channel 42 / 5210 MHz

D.5 Undesirable Emissions Measurement

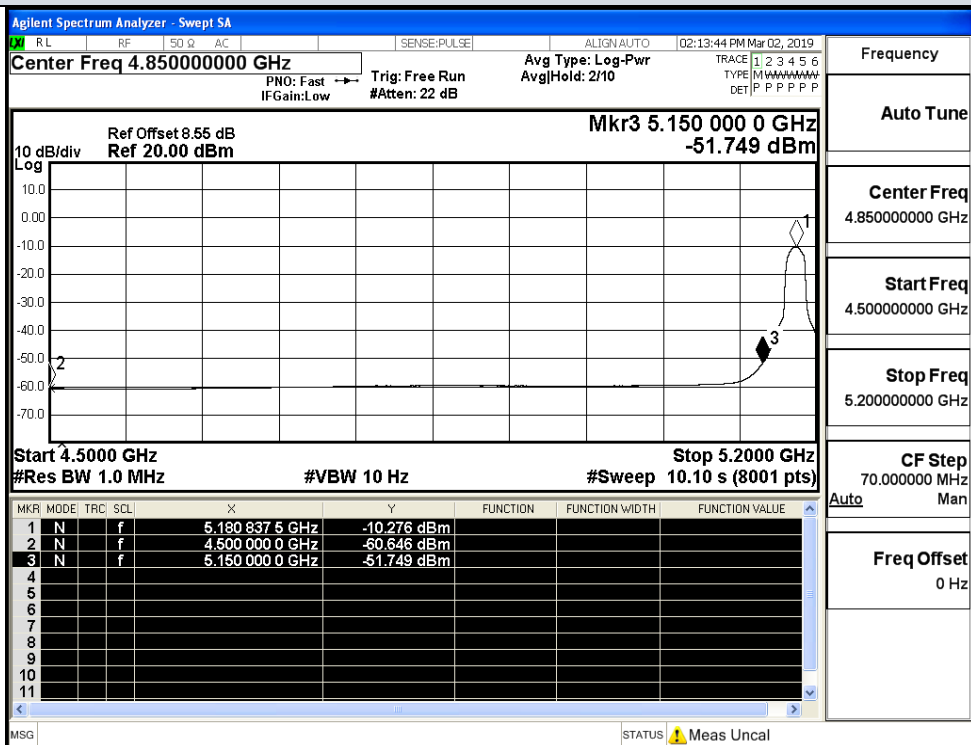
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)
11A	36	4500.0	-50.736	3.00	0	47.492	Peak	68.20
		4500.0	-60.646	3.00	0	37.582	Average	54.00
		5150.0	-37.198	3.00	0	61.030	Peak	68.20
		5150.0	-51.749	3.00	0	46.479	Average	54.00
	48	5350.0	-48.976	3.00	0	49.252	Peak	68.20
		5350.0	-60.659	3.00	0	37.569	Average	54.00
		5460.0	-49.963	3.00	0	48.265	Peak	68.20
		5460.0	-60.921	3.00	0	37.307	Average	54.00
11N20 SISO	36	4500.0	-50.296	3.00	0	47.932	Peak	68.20
		4500.0	-60.604	3.00	0	37.624	Average	54.00
		5150.0	-42.259	3.00	0	55.969	Peak	68.20
		5150.0	-57.277	3.00	0	40.951	Average	54.00
	48	5350.0	-50.176	3.00	0	48.052	Peak	68.20
		5350.0	-60.687	3.00	0	37.541	Average	54.00
		5460.0	-50.548	3.00	0	47.680	Peak	68.20
		5460.0	-60.960	3.00	0	37.268	Average	54.00
11N40 SISO	38	4500.0	-51.611	3.00	0	46.617	Peak	68.20
		4500.0	-60.613	3.00	0	37.615	Average	54.00
		5150.0	-31.638	3.00	0	66.590	Peak	68.20
		5150.0	-46.655	3.00	0	51.573	Average	54.00
	46	5350.0	-50.557	3.00	0	47.671	Peak	68.20
		5350.0	-60.182	3.00	0	38.046	Average	54.00
		5460.0	-50.283	3.00	0	47.945	Peak	68.20
		5460.0	-60.662	3.00	0	37.566	Average	54.00
11AC20 SISO	36	4500.0	-50.763	3.00	0	47.465	Peak	68.20
		4500.0	-60.613	3.00	0	37.615	Average	54.00
		5150.0	-43.512	3.00	0	54.716	Peak	68.20
		5150.0	-56.256	3.00	0	41.972	Average	54.00
	48	4500.0	-50.599	3.00	0	47.629	Peak	68.20
		4500.0	-60.658	3.00	0	37.570	Average	54.00
		5150.0	-49.953	3.00	0	48.275	Peak	68.20
		5150.0	-60.908	3.00	0	37.320	Average	54.00
11AC40 SISO	38	4500.0	-49.942	3.00	0	48.286	Peak	68.20
		4500.0	-60.604	3.00	0	37.624	Average	54.00
		5150.0	-33.869	3.00	0	64.359	Peak	68.20
		5150.0	-45.480	3.00	0	52.748	Average	54.00
	46	5350.0	-50.113	3.00	0	48.115	Peak	68.20
		5350.0	-60.279	3.00	0	37.949	Average	54.00
		5460.0	-50.529	3.00	0	47.699	Peak	68.20
		5460.0	-60.630	3.00	0	37.598	Average	54.00
11AC80 SISO	42	4500.0	-50.477	3.00	0	47.751	Peak	68.20
		5150.0	-60.645	3.00	0	37.583	Average	54.00
		4500.0	-42.367	3.00	0	55.861	Peak	68.20
		5150.0	-55.594	3.00	0	42.634	Average	54.00

		5350.0	-49.527	3.00	0	48.701	Peak	68.20
		5460.0	-59.763	3.00	0	38.465	Average	54.00
		5350.0	-49.873	3.00	0	48.355	Peak	68.20
		5460.0	-60.167	3.00	0	38.061	Average	54.00

Undesirable Emissions Measurement

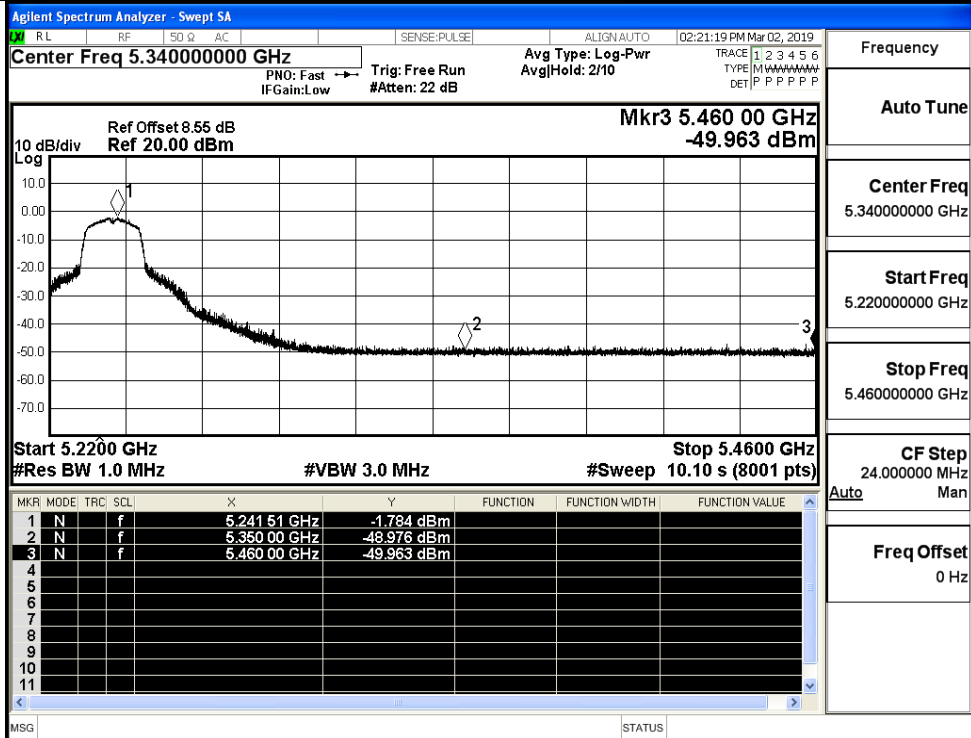


IEEE 802.11a / Channel 36 / 5180 MHz / Peak

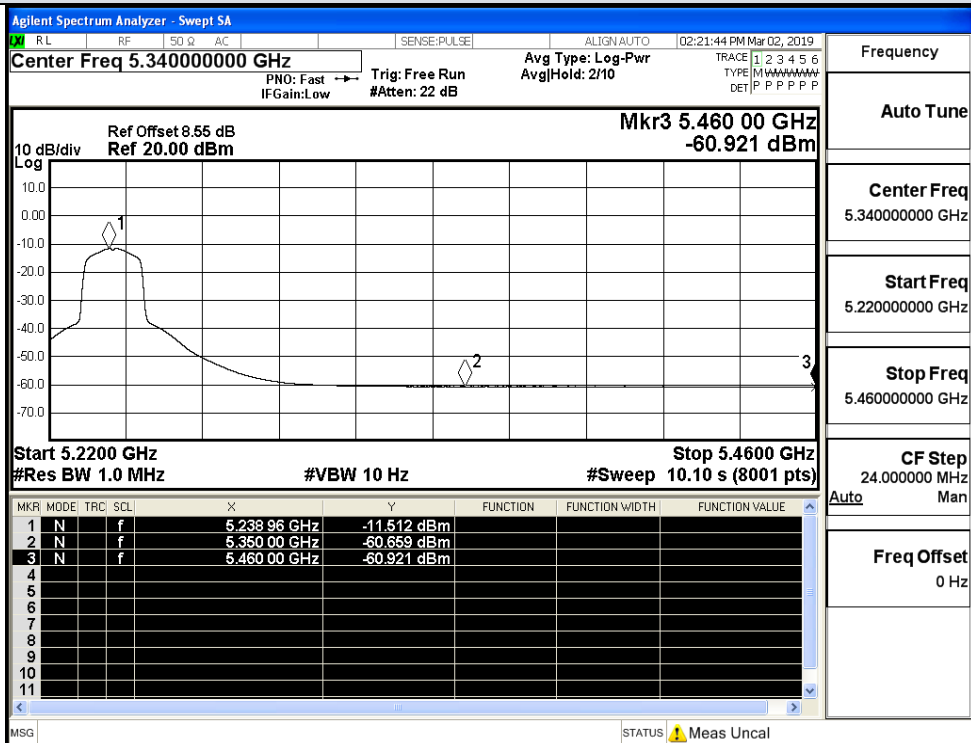


IEEE 802.11a / Channel 36 / 5180 MHz / Average

Undesirable Emissions Measurement

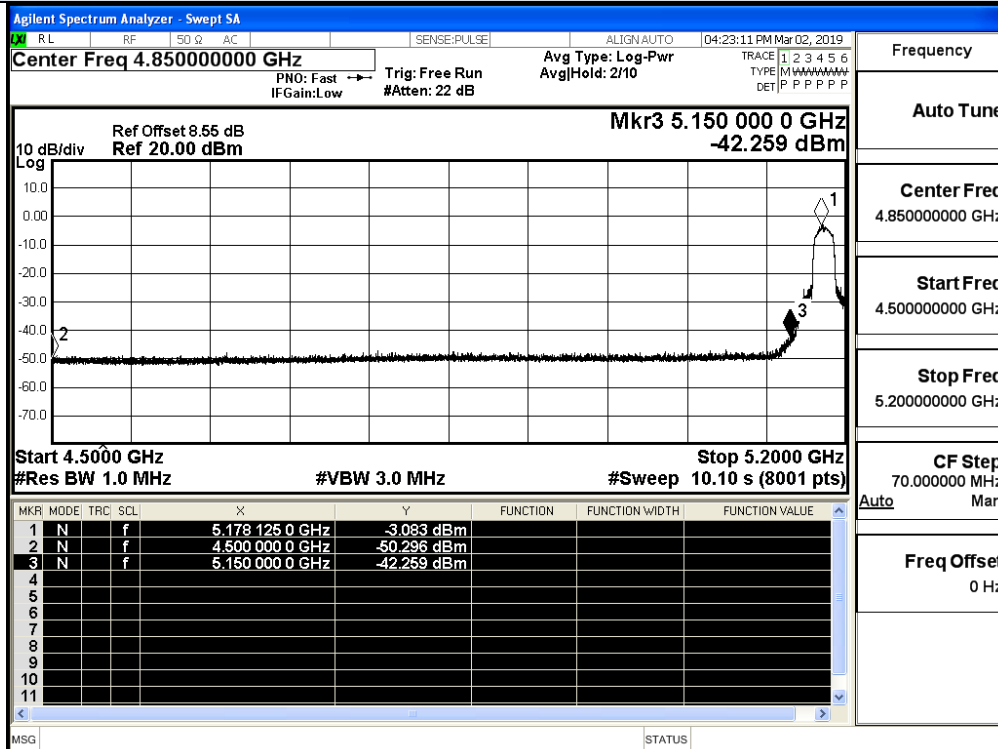


IEEE 802.11a / Channel 48 / 5240 MHz / Peak

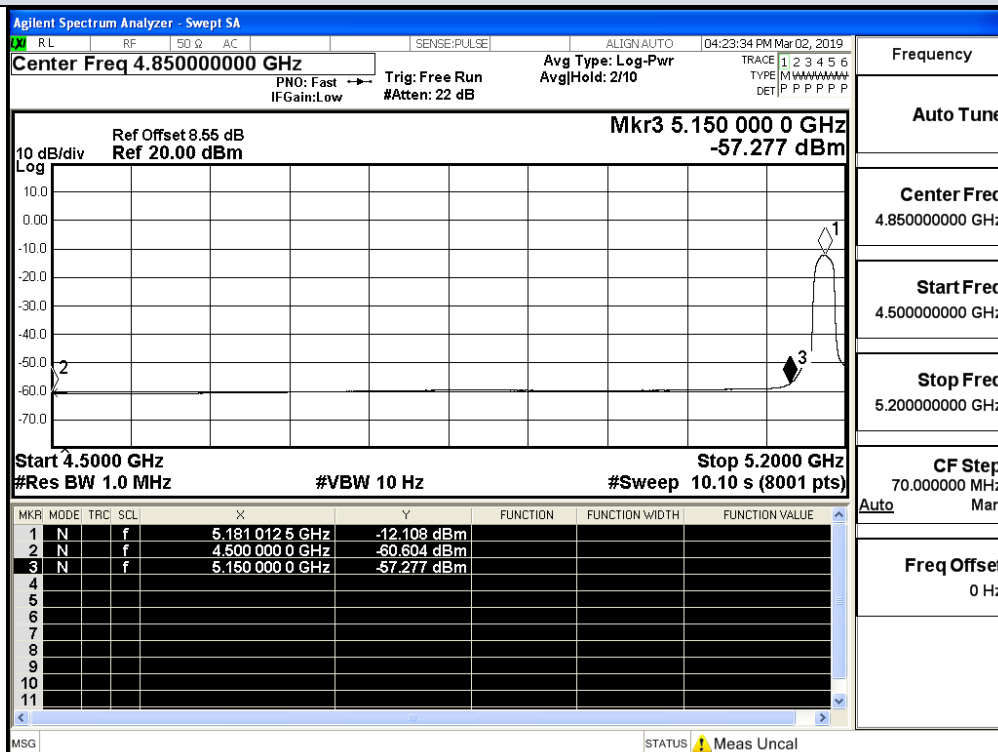


IEEE 802.11a / Channel 48 / 5240 MHz / Average

Undesirable Emissions Measurement

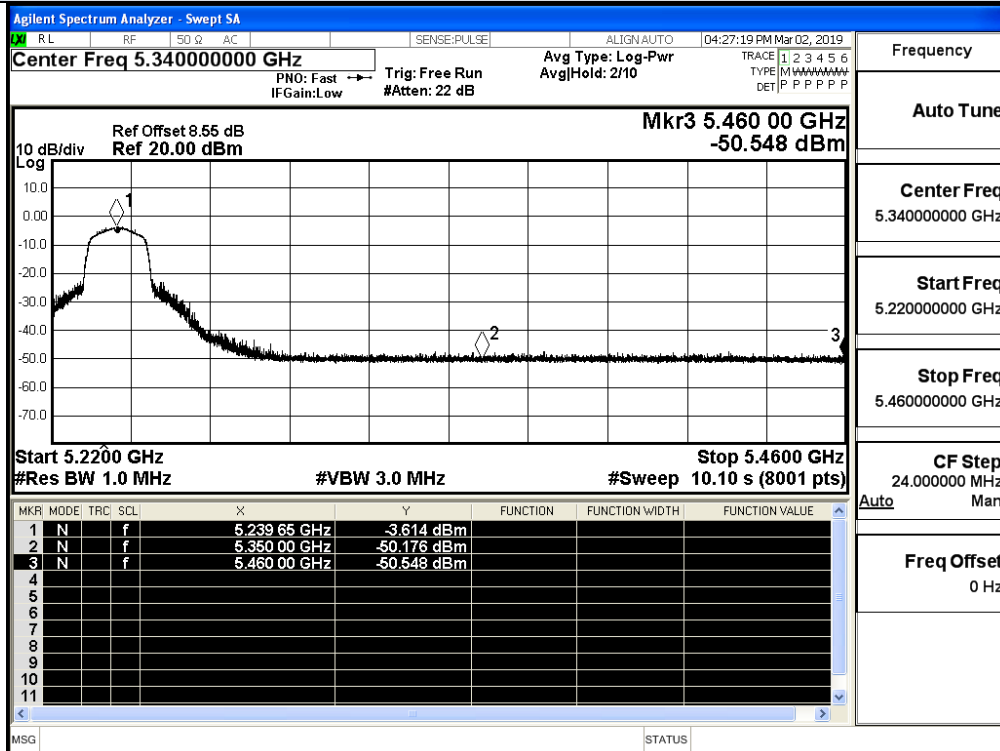


IEEE 802.11n HT20 / Channel 36 / 5180 MHz / Peak

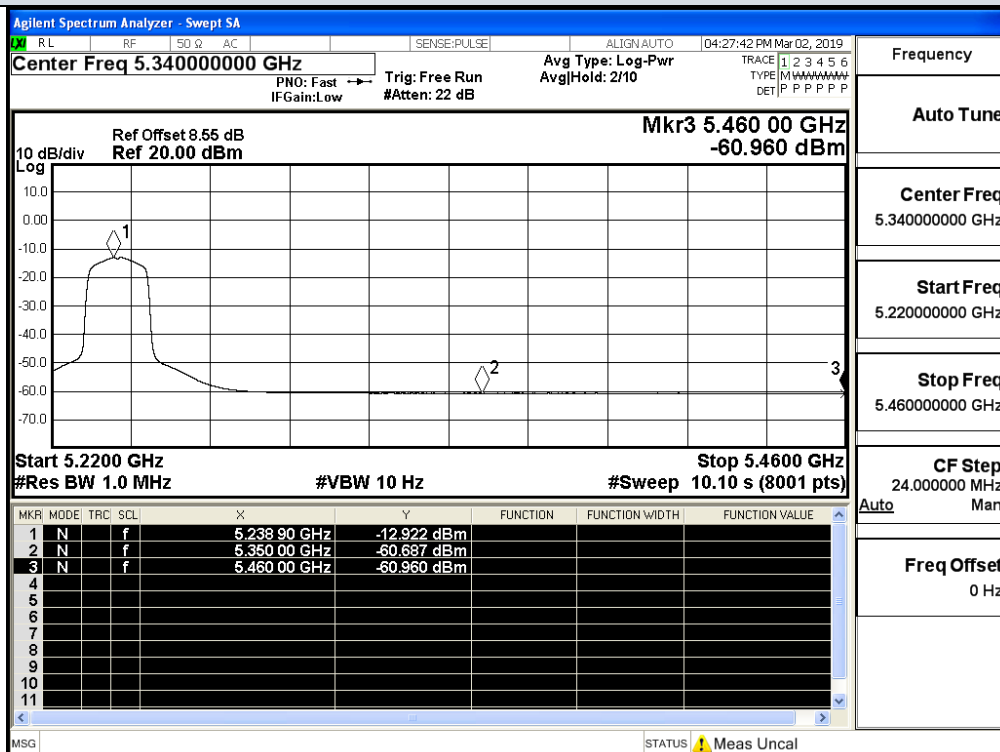


IEEE 802.11n HT20 / Channel 36 / 5180 MHz / Average

Undesirable Emissions Measurement

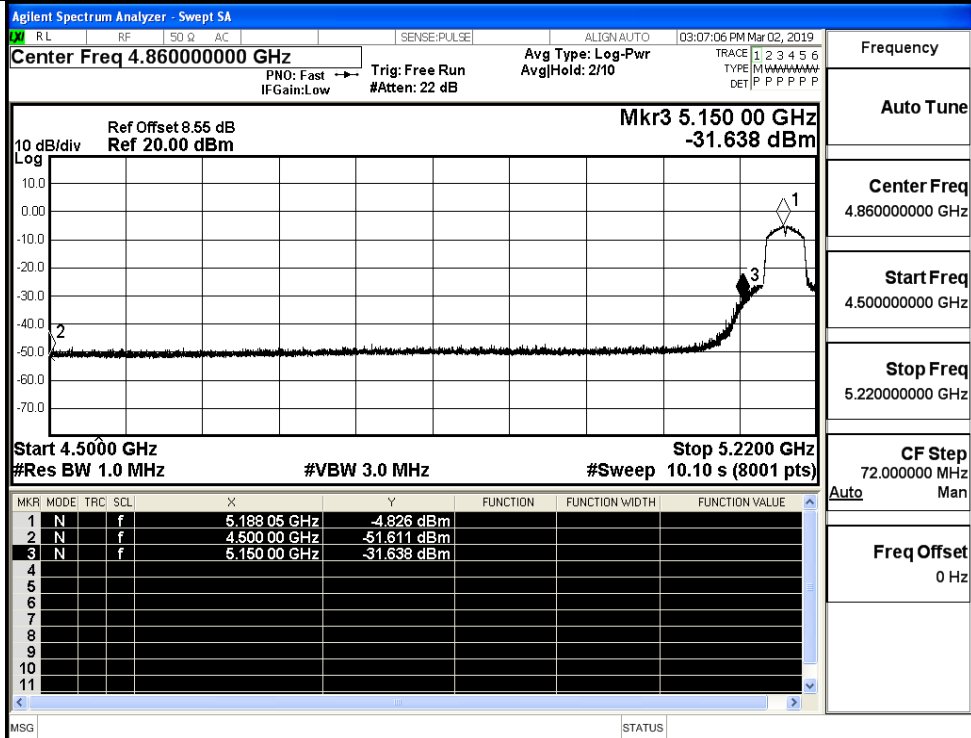


IEEE 802.11n HT20 / Channel 48 / 5240 MHz / Peak

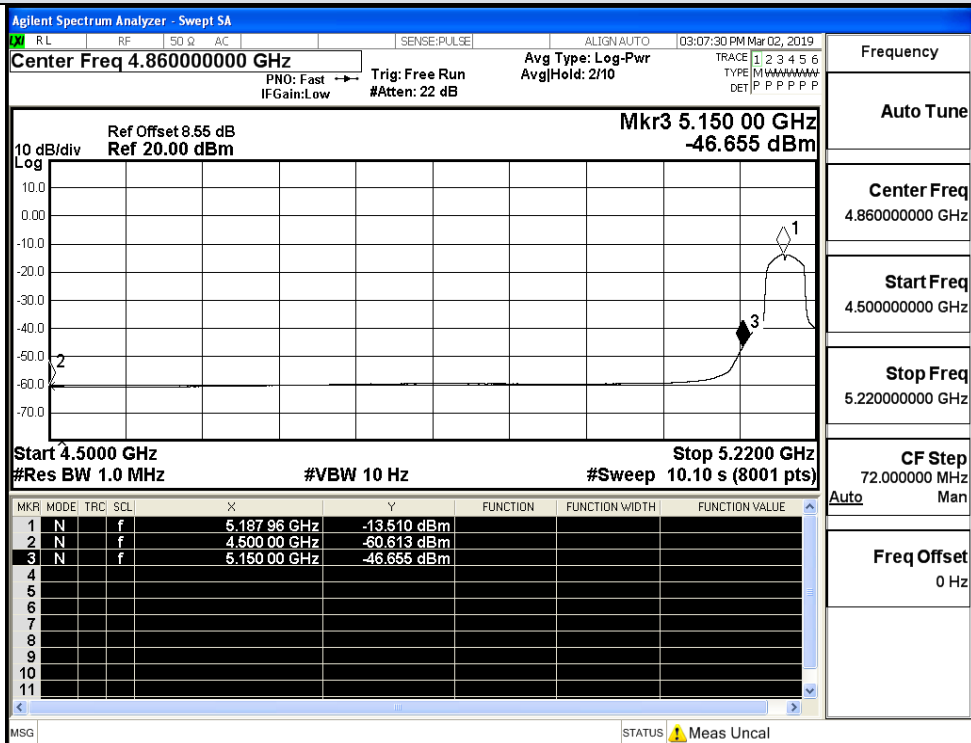


IEEE 802.11n HT20 / Channel 48 / 5240 MHz / Average

Undesirable Emissions Measurement

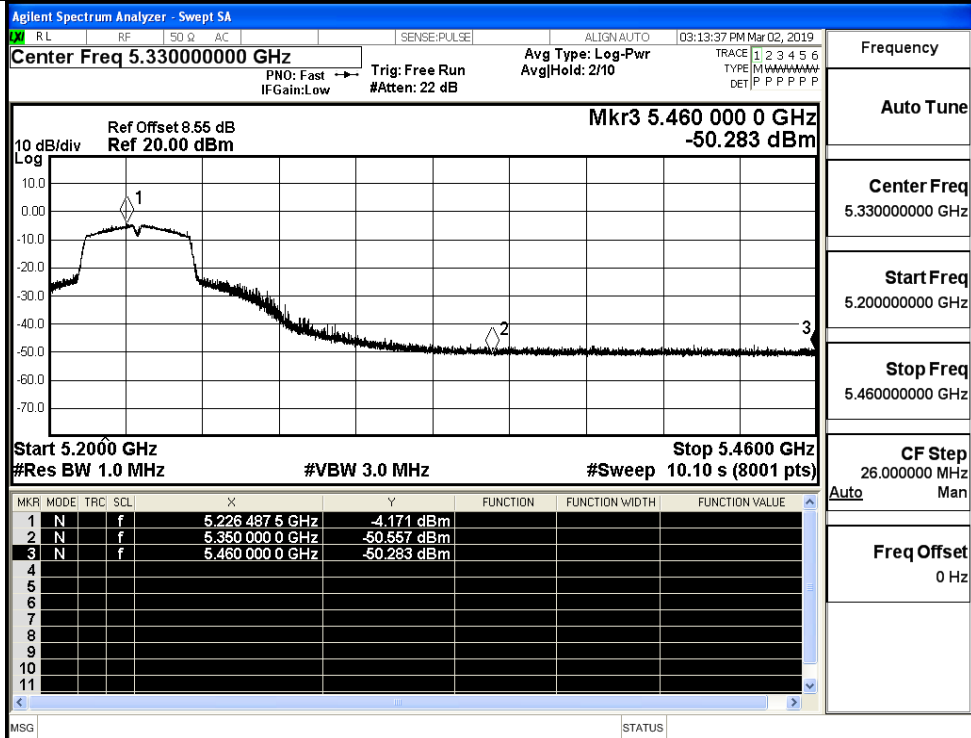


IEEE 802.11n HT40 / Channel 38 / 5190 MHz / Peak

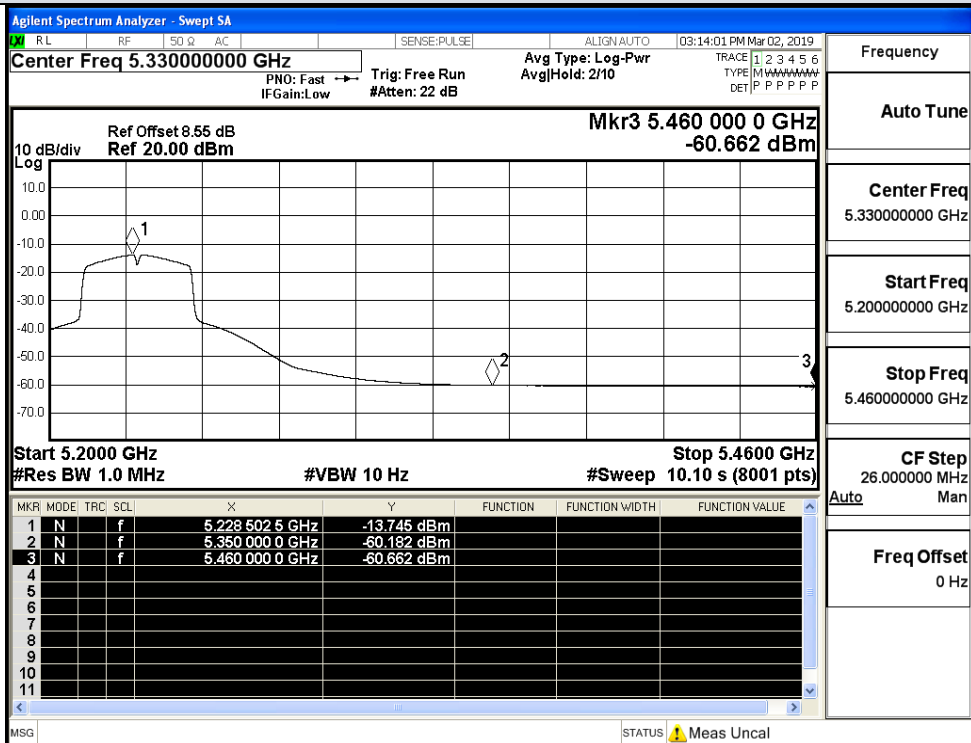


IEEE 802.11n HT40 / Channel 38 / 5190 MHz / Average

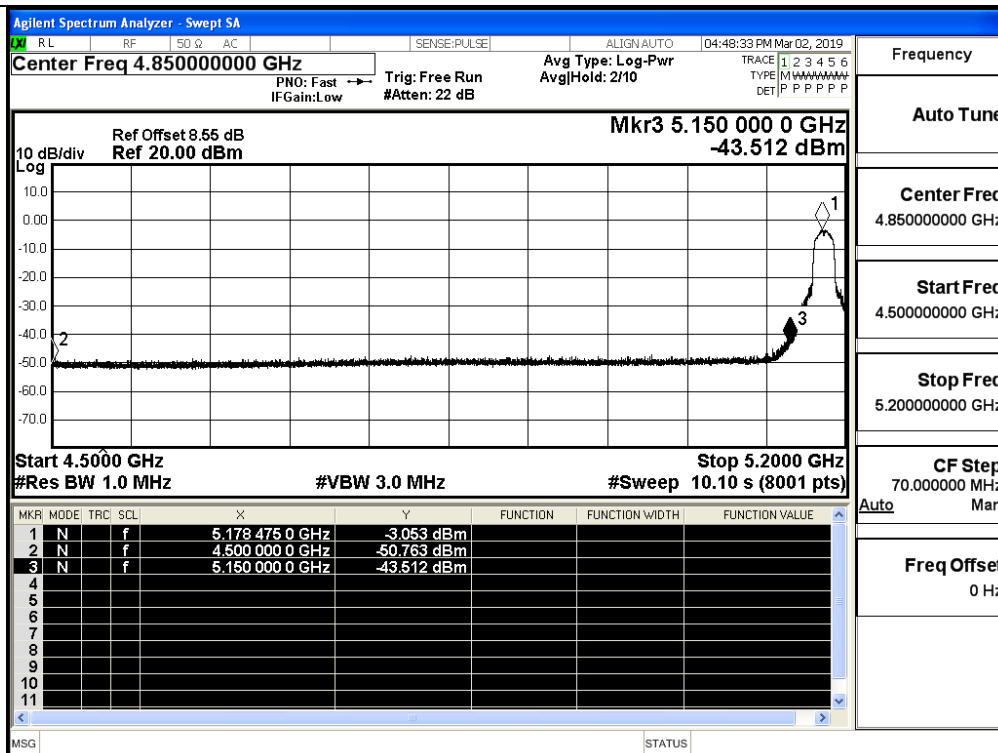
Undesirable Emissions Measurement



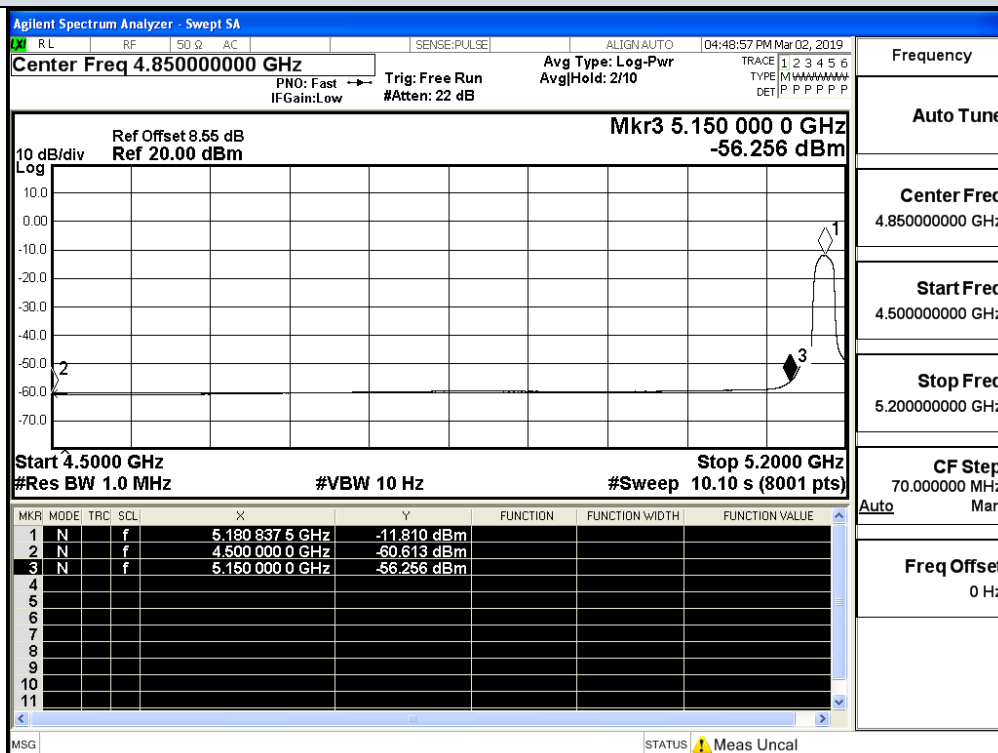
IEEE 802.11n HT40 / Channel 46 / 5230 MHz / Peak



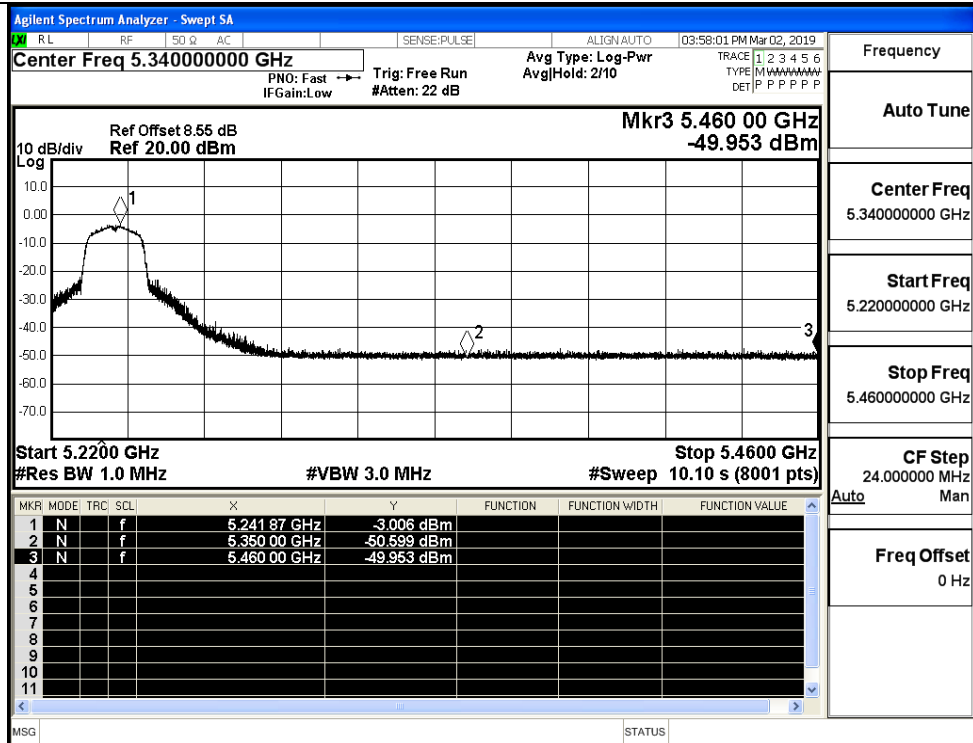
IEEE 802.11n HT40 / Channel 46 / 5230 MHz / Average



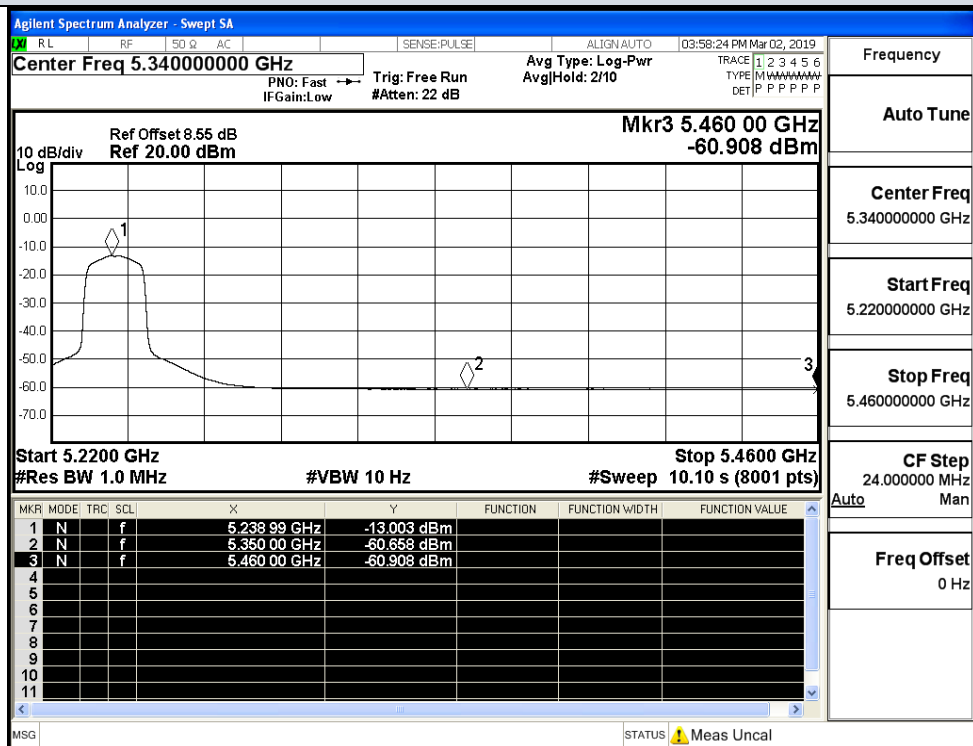
IEEE 802.11ac VHT20 / Channel 36 / 5180 MHz / Peak



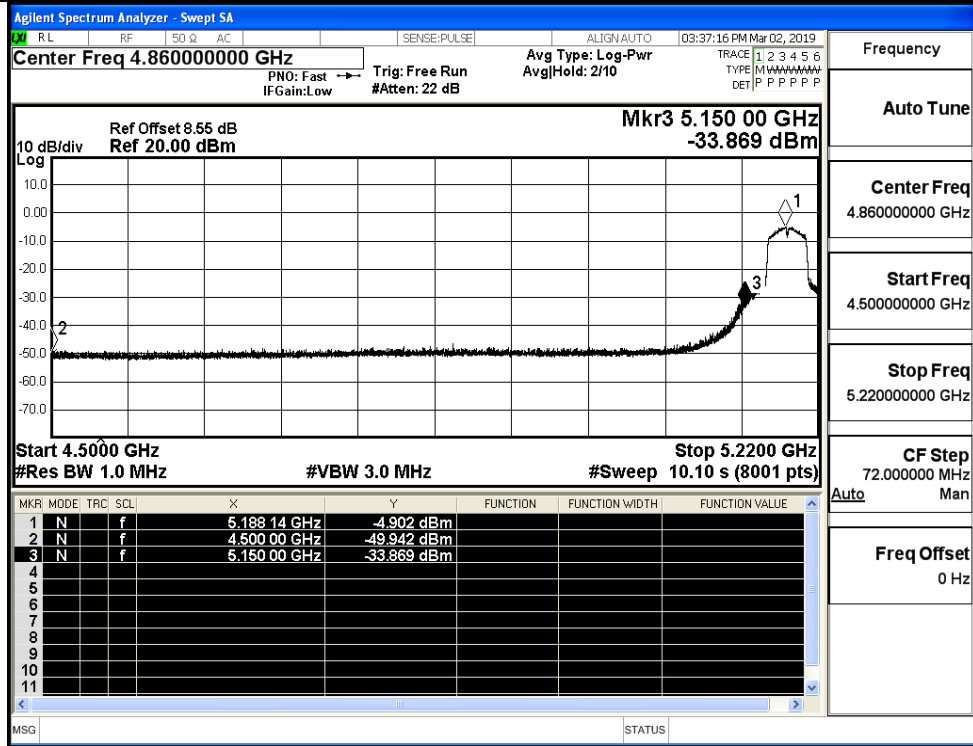
IEEE 802.11ac VHT20 / Channel 36 / 5180 MHz / Average



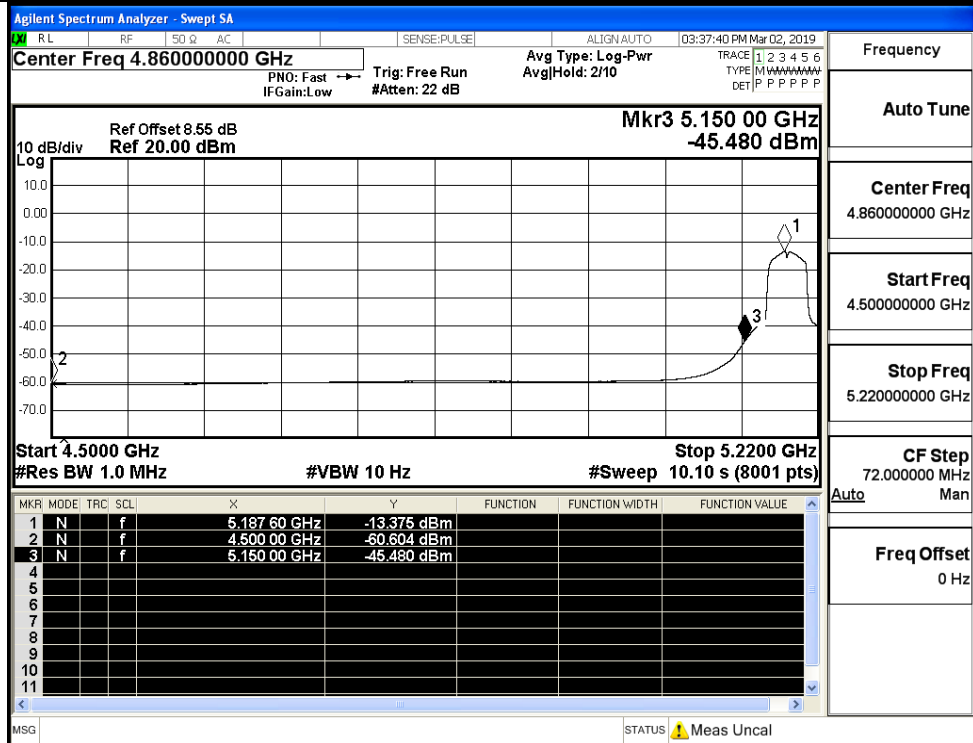
IEEE 802.11ac VHT20 / Channel 48 / 5240 MHz / Peak



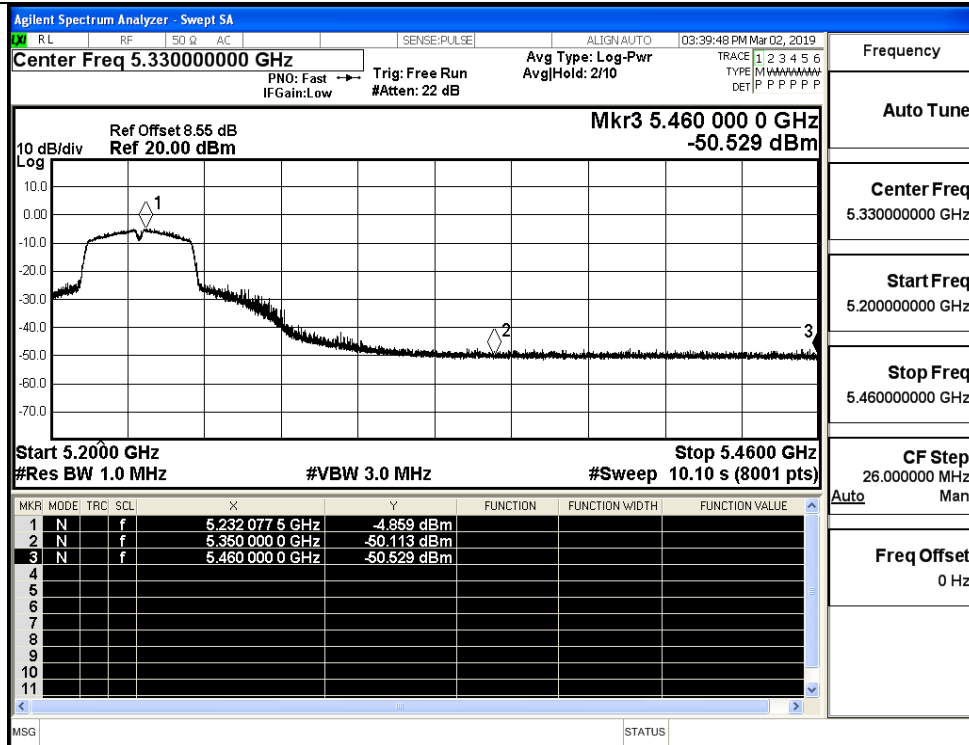
IEEE 802.11ac VHT20 / Channel 48 / 5240 MHz / Average



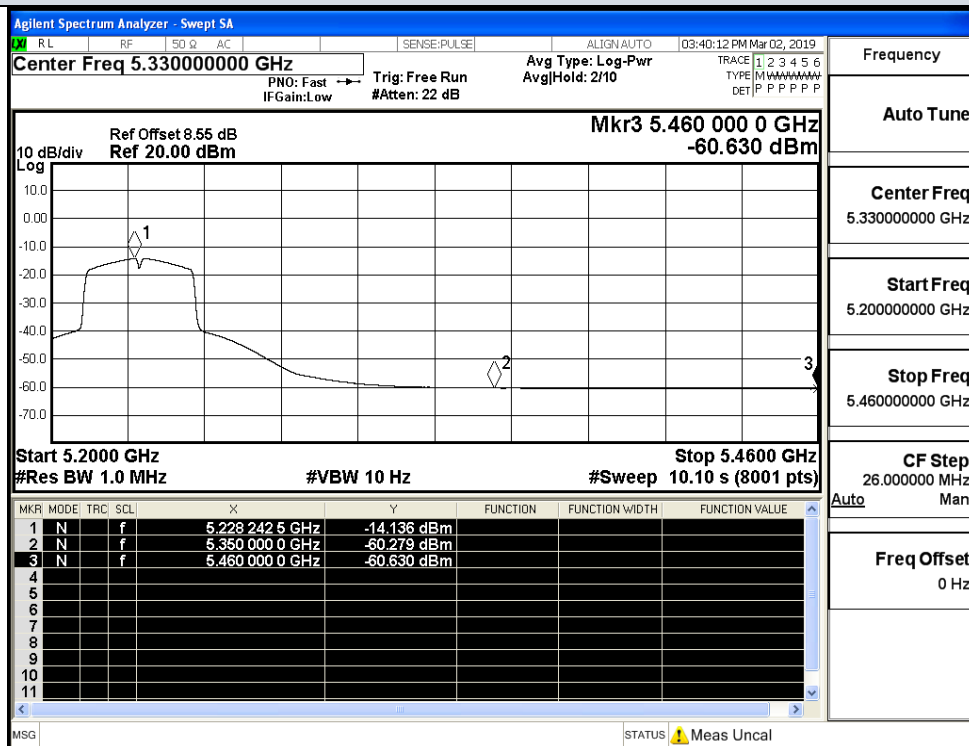
IEEE 802.11ac VHT40 / Channel 38 / 5190 MHz / Peak



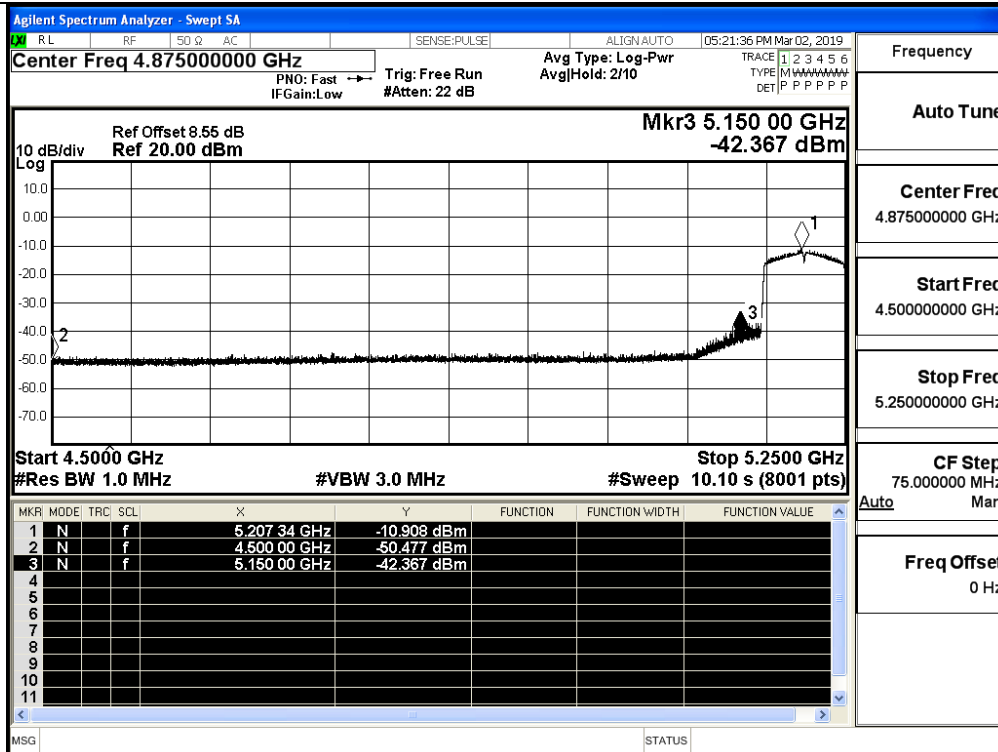
IEEE 802.11ac VHT40 / Channel 38 / 5190 MHz / Average



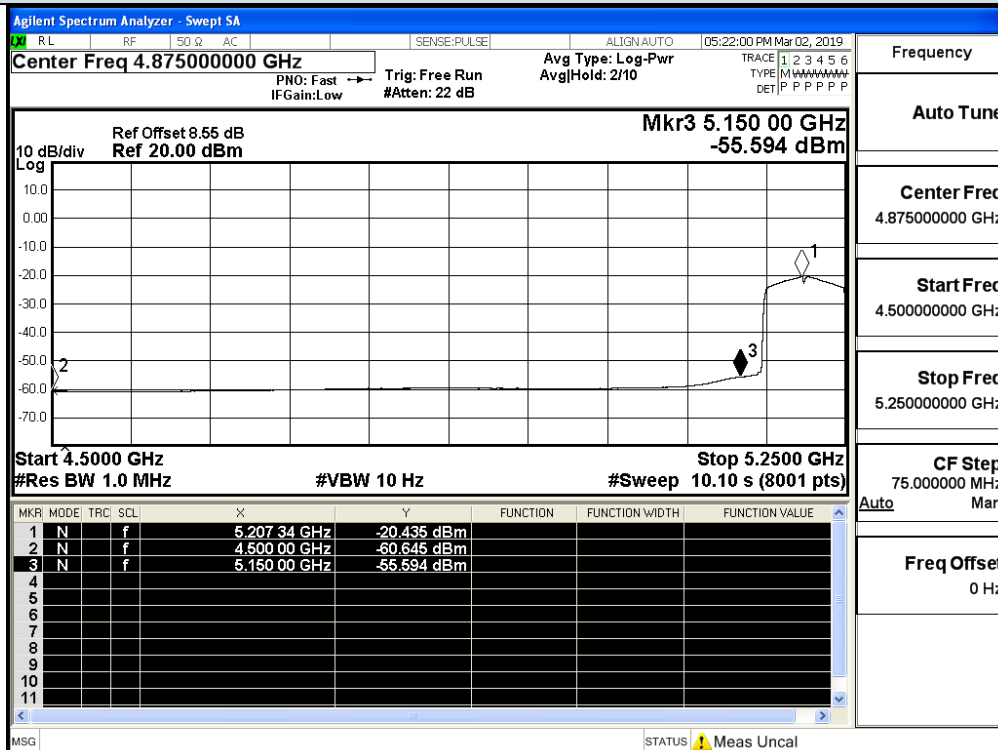
IEEE 802.11ac VHT40 / Channel 46 / 5230 MHz / Peak



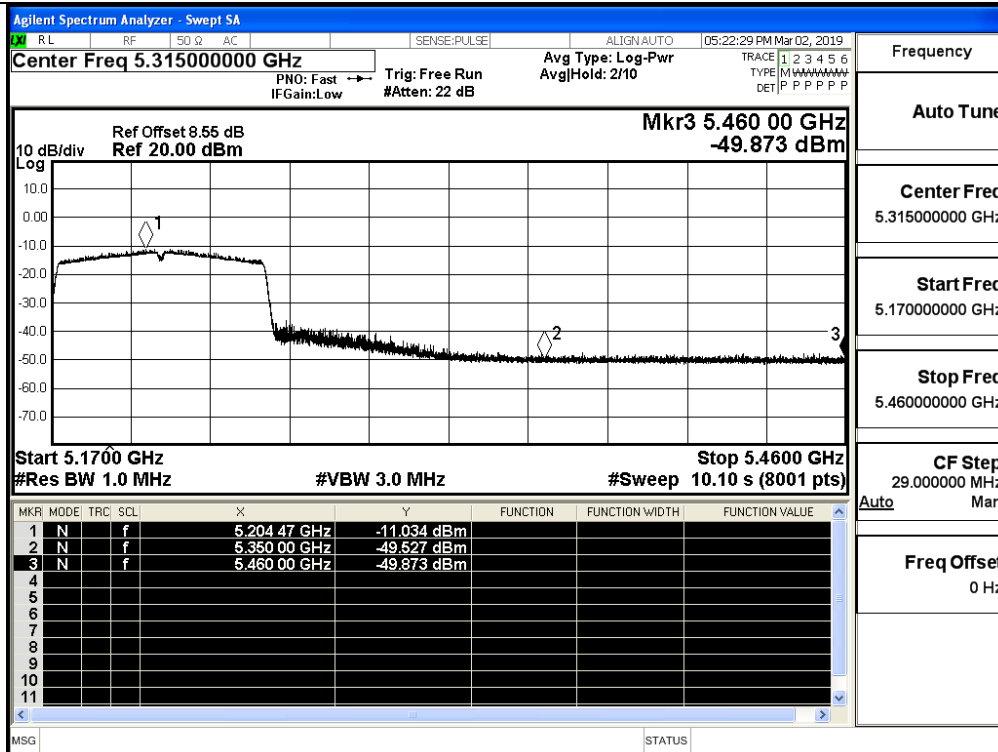
IEEE 802.11ac VHT40 / Channel 46 / 5230 MHz / Average



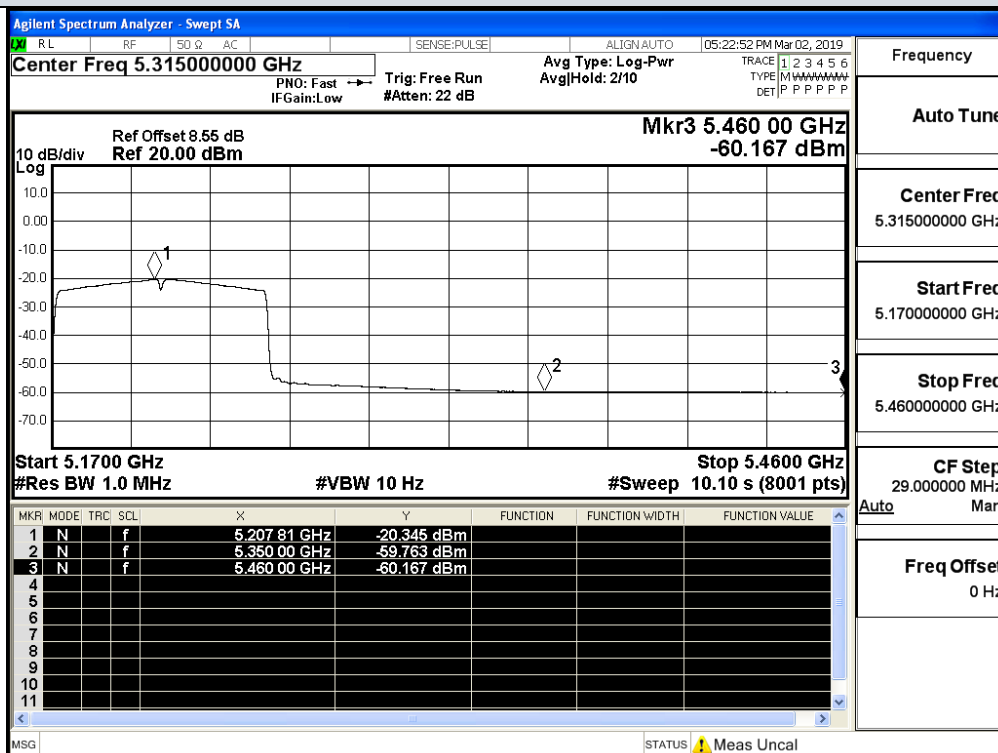
IEEE 802.11ac VHT80 / Channel 42 / 5210 MHz / Peak



IEEE 802.11ac VHT80 / Channel 42 / 5210 MHz / Average



IEEE 802.11ac VHT80 / Channel 42 / 5210 MHz / Peak



IEEE 802.11ac VHT80 / Channel 42 / 5210 MHz / Average