

Appendix F
RF Test Data for 5.3G WLAN (Conducted Measurement)
Product Name: Projector
Trade Mark: N/A
Test Model: H6

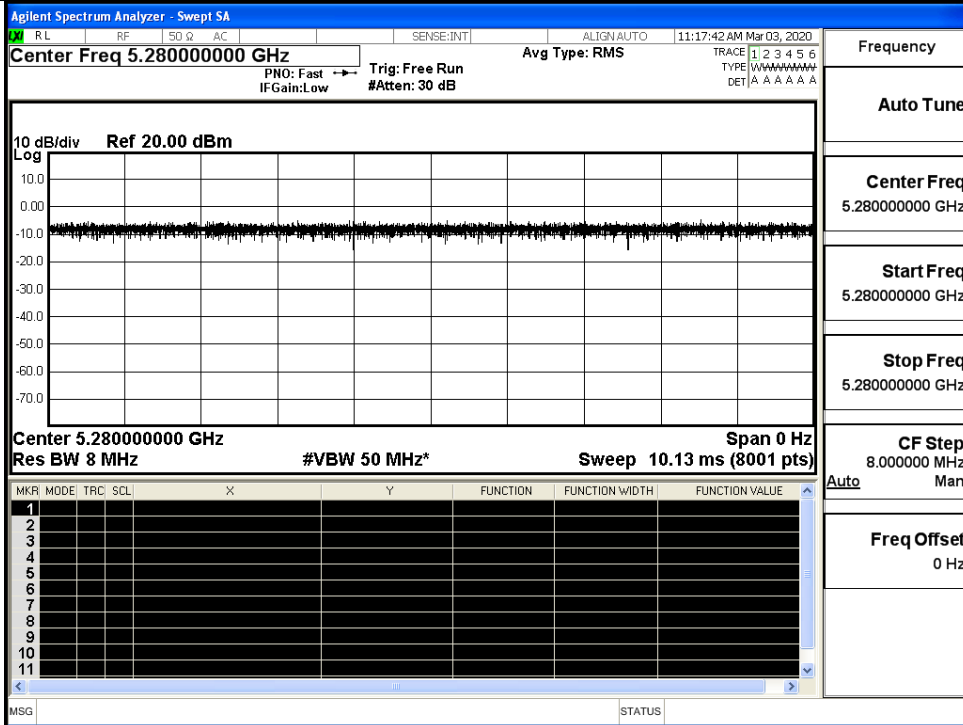
Environmental Conditions

Temperature:	22.5 ° C
Relative Humidity:	52.9%
ATM Pressure:	100.0 kPa
Test Engineer:	Scout Wu
Supervised by:	Tom Liu

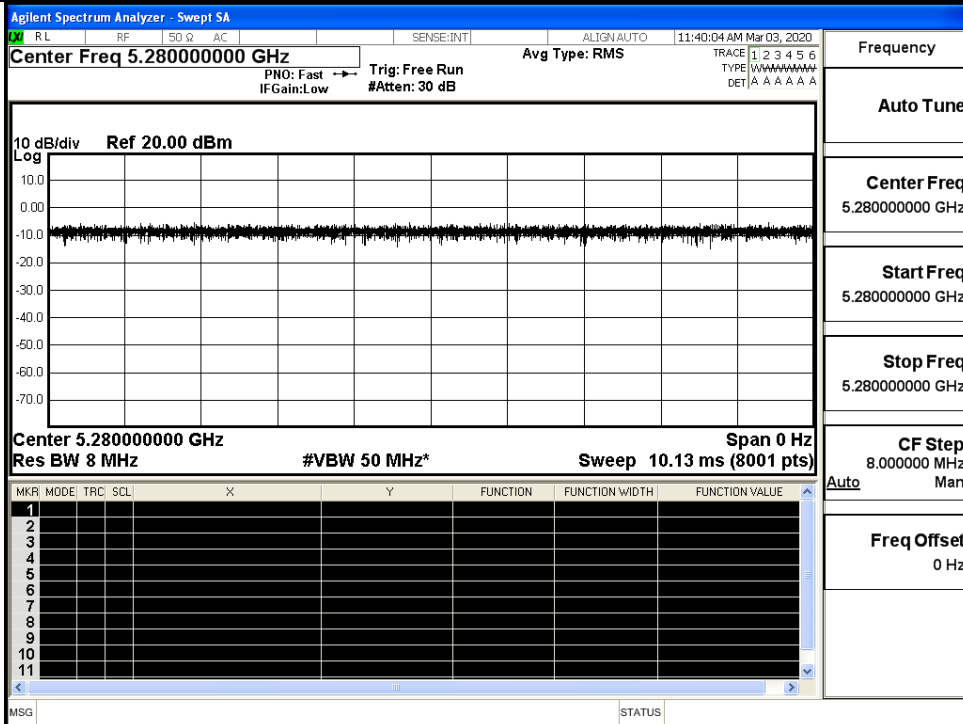
F.1 Duty Cycle

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5280	100	0.00	0.01
11N20 SISO	5280	100	0.00	0.01
11N40 SISO	5270	100	0.00	0.01
11AC20 SISO	5280	100	0.00	0.01
11AC40 SISO	5270	100	0.00	0.01
11AC80 SISO	5290	100	0.00	0.01

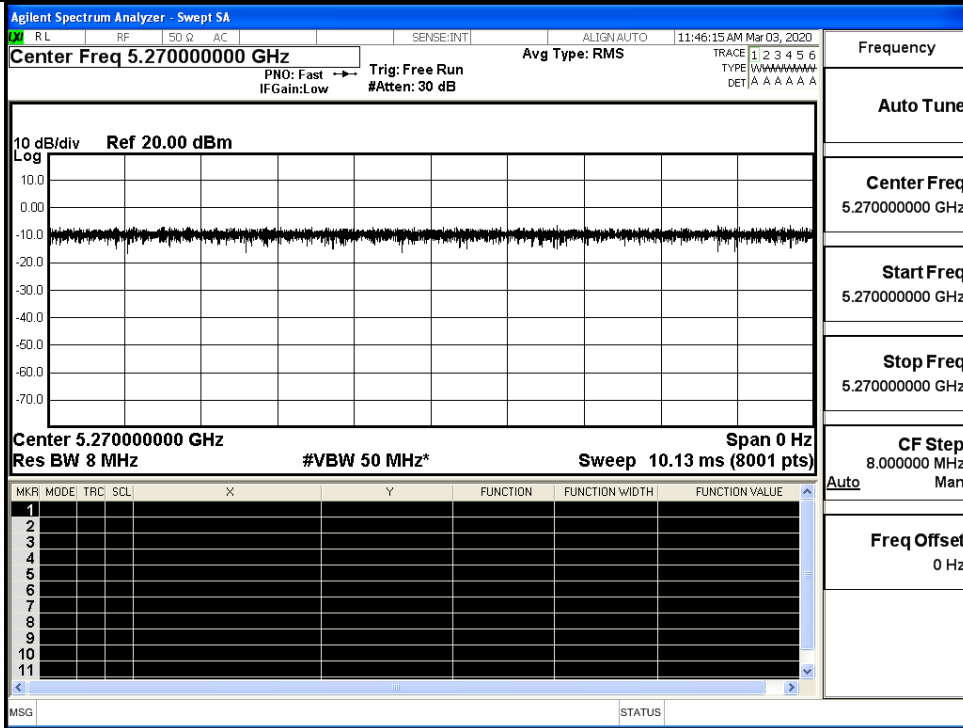
On Time and Duty Cycle



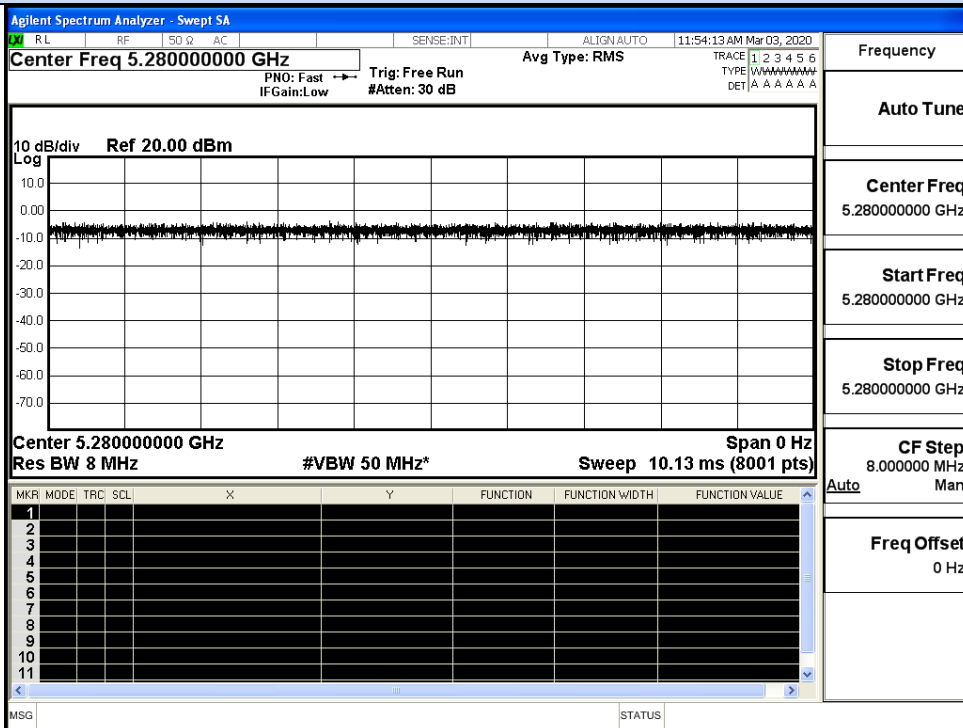
IEEE 802.11a



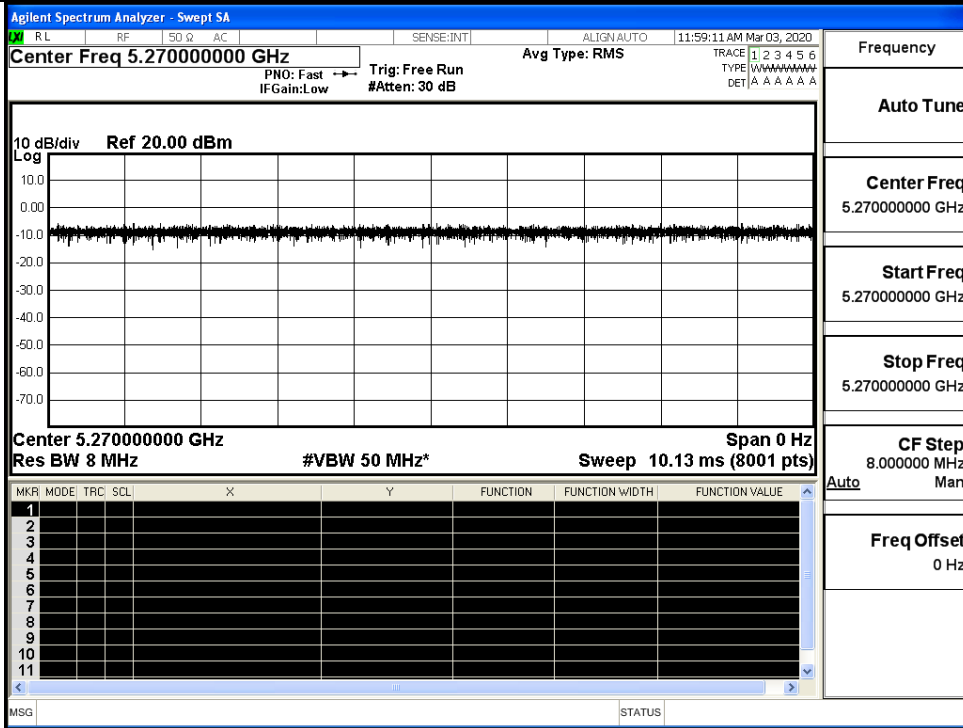
IEEE 802.11n HT20



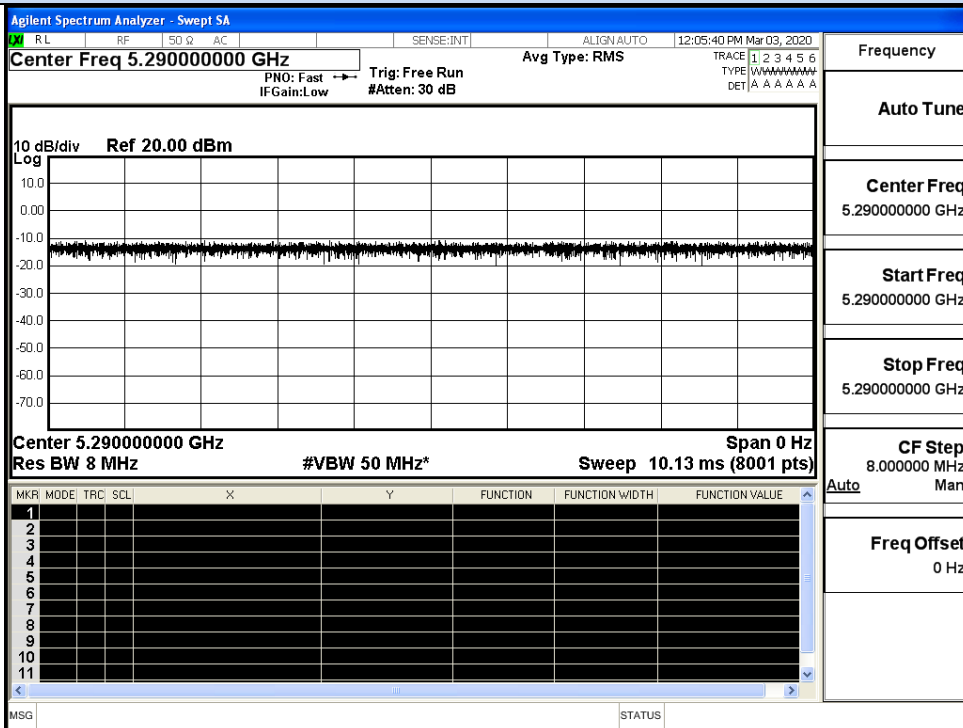
IEEE 802.11n HT40



IEEE 802.11AC20



IEEE 802.11 AC40



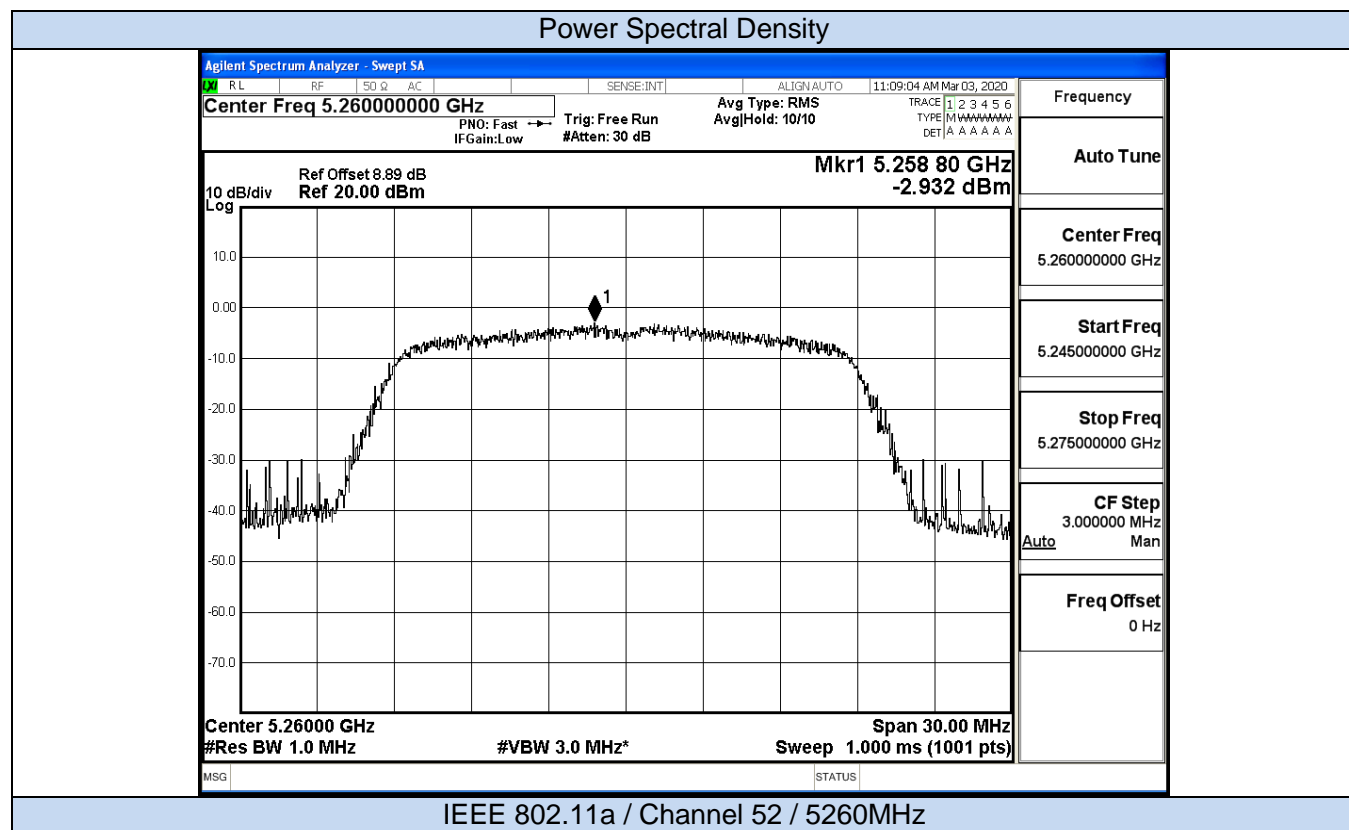
IEEE 802.11AC80

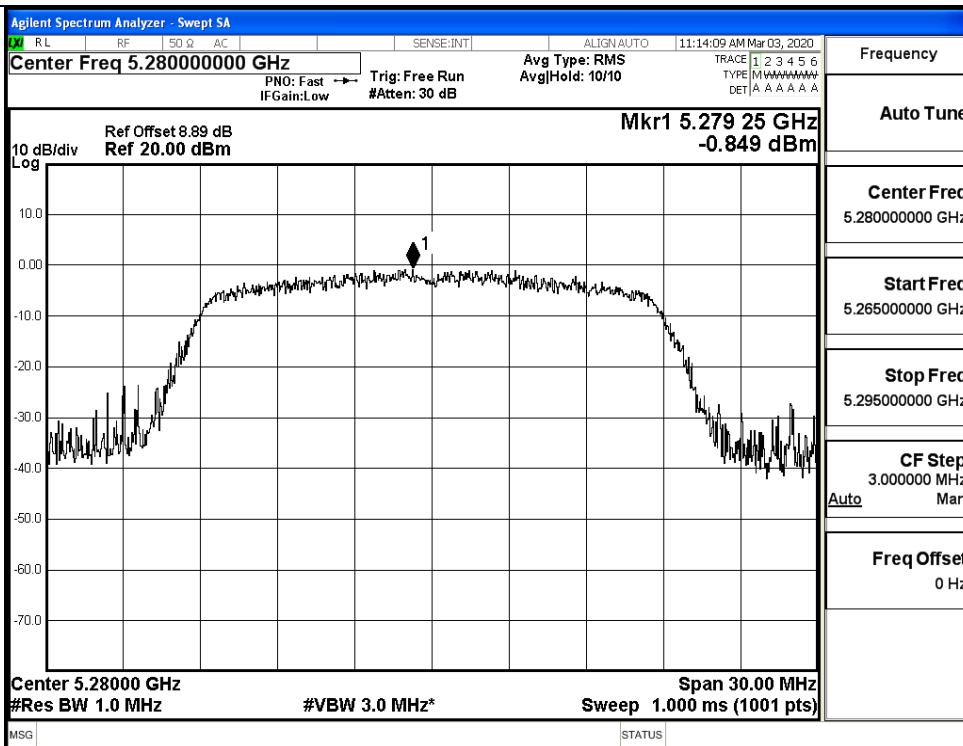
F.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power (dBm)	Limit (dBm)	Verdict
11A	52	5260	9.24	0	9.24	24	Pass
	56	5280	9.07	0	9.07		Pass
	64	5320	9.02	0	9.02		Pass
11N20 SISO	52	5260	9.23	0	9.23	24	Pass
	56	5280	9.05	0	9.05		Pass
	64	5320	9.51	0	9.51		Pass
11N40 SISO	54	5270	9.73	0	9.73	24	Pass
	62	5310	9.47	0	9.47		Pass
11AC20 SISO	52	5260	9.76	0	9.76	24	Pass
	56	5280	9.56	0	9.56		Pass
	64	5320	9.41	0	9.41		Pass
11AC40 SISO	54	5270	9.63	0	9.63	24	Pass
	62	5310	9.37	0	9.37		Pass
11AC80 SISO	58	5290	9.79	0	9.79	24	Pass

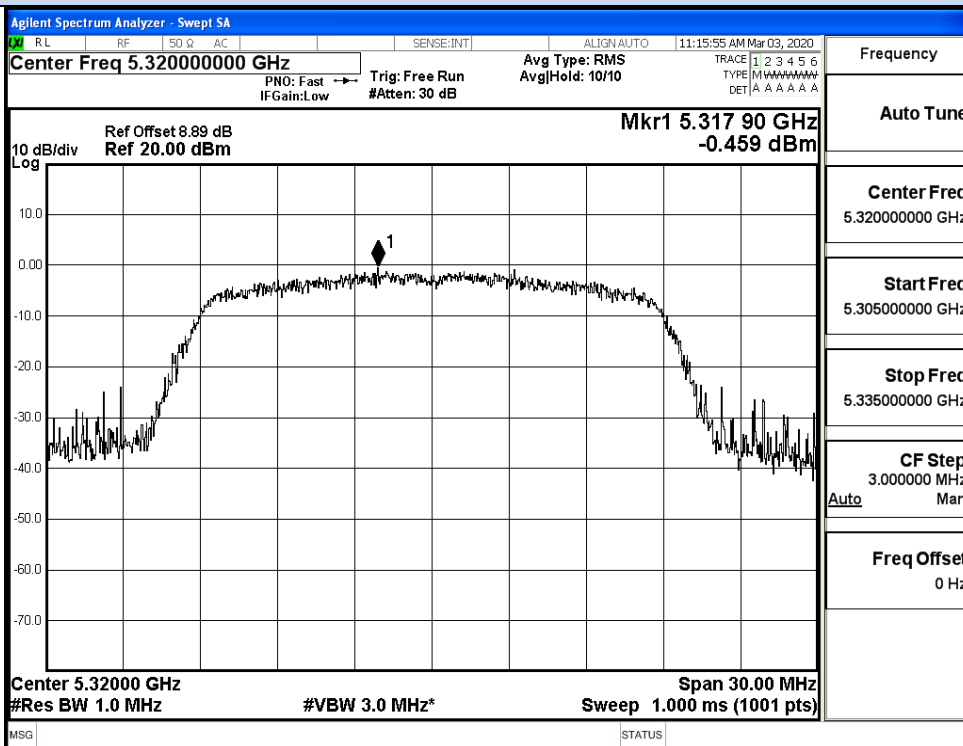
F.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)	Verdict
11A	52	5260	-2.93	0	-2.93	11	Pass
	56	5280	-0.85	0	-0.85		Pass
	64	5320	-0.46	0	-0.46		Pass
11N20 SISO	52	5260	-0.62	0	-0.62	11	Pass
	56	5280	-0.93	0	-0.93		Pass
	64	5320	-0.95	0	-0.95		Pass
11N40 SISO	54	5270	-3.04	0	-3.04	11	Pass
	62	5310	-3.17	0	-3.17		Pass
11AC20 SISO	52	5260	-0.38	0	-0.38	11	Pass
	56	5280	-0.29	0	-0.29		Pass
	64	5320	-0.59	0	-0.59		Pass
11AC40 SISO	54	5270	-3.31	0	-3.31	11	Pass
	62	5310	-3.67	0	-3.67		Pass
11AC80 SISO	58	5290	-6.07	0	-6.07	11	Pass



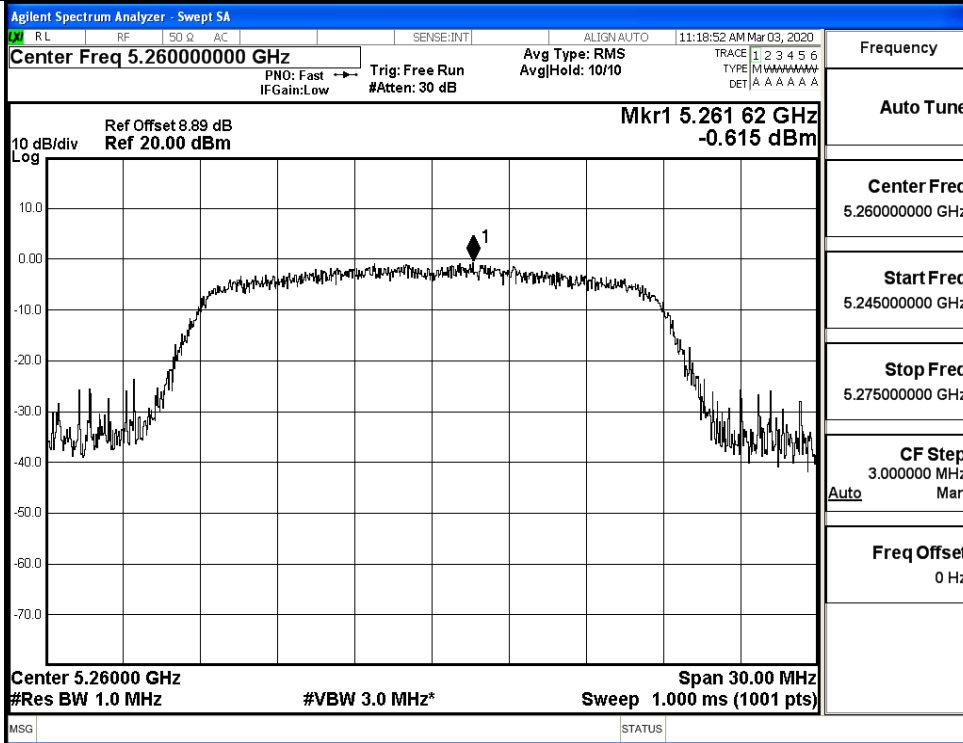


IEEE 802.11na / Channel 56 / 5280MHz

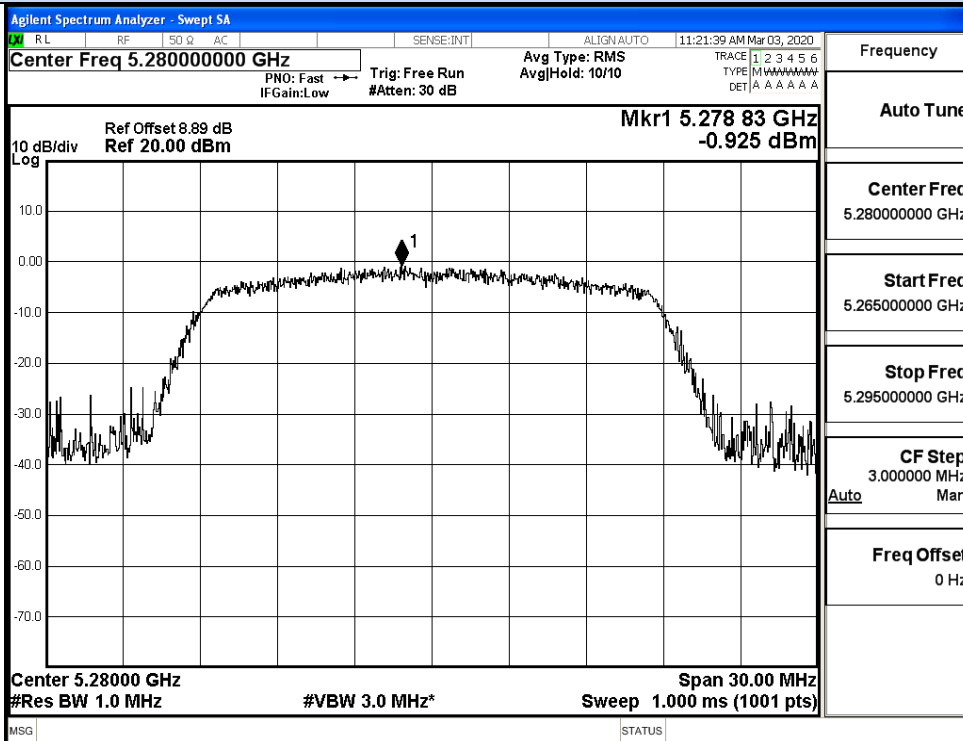


IEEE 802.11na / Channel 64 / 5320MHz

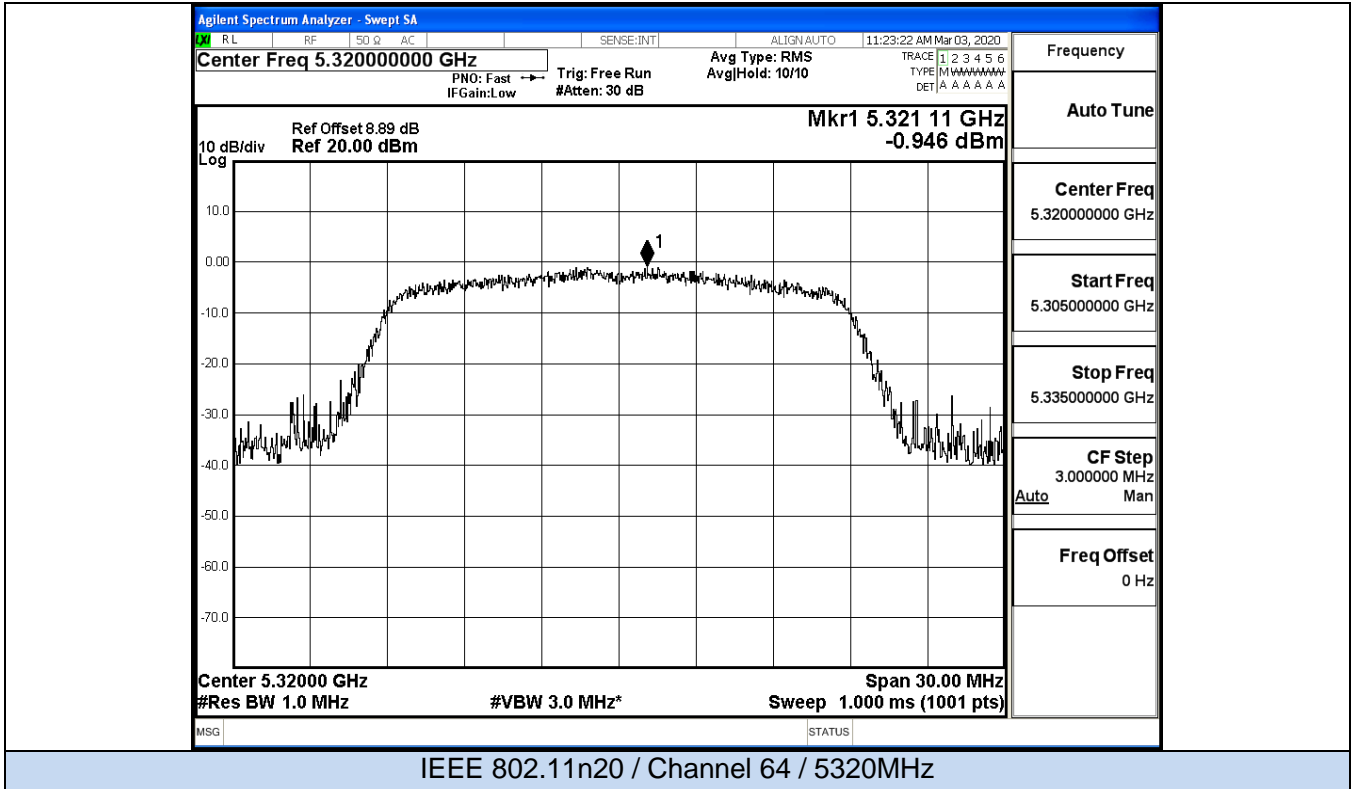
Power Spectral Density



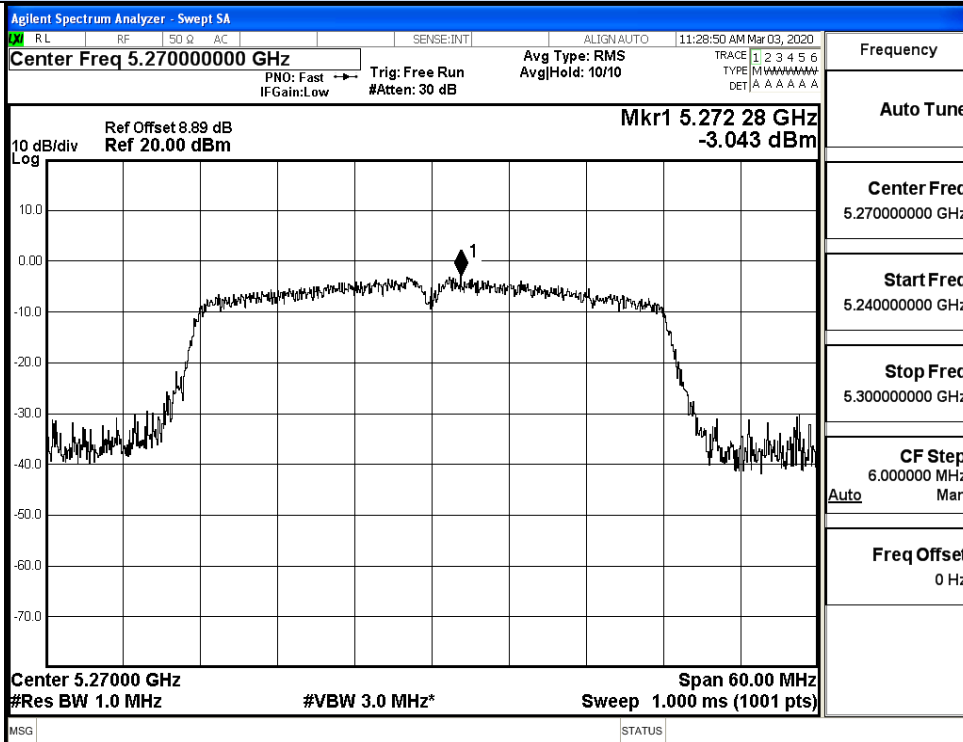
IEEE 802.11n20 / Channel 52 / 5260MHz



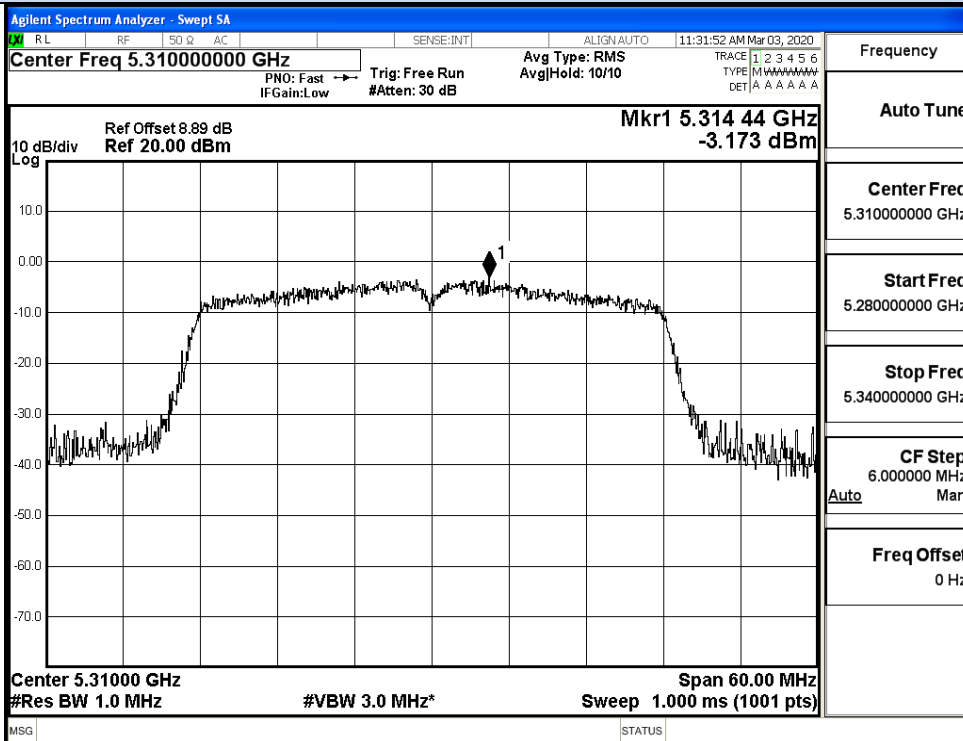
IEEE 802.11n20 / Channel 56 / 5280MHz



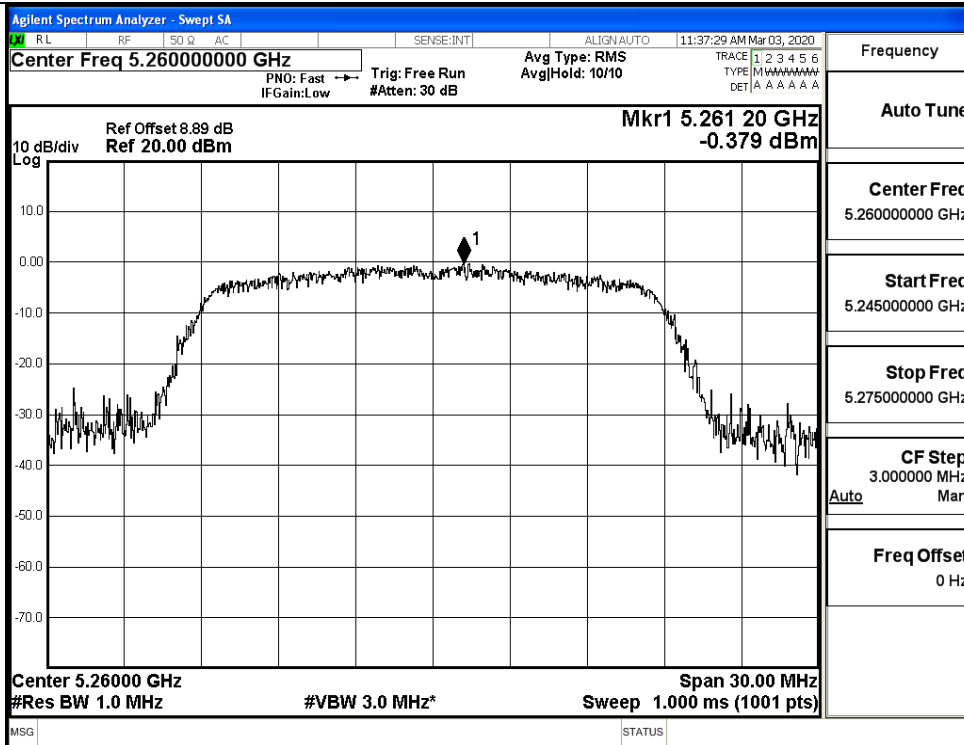
Power Spectral Density



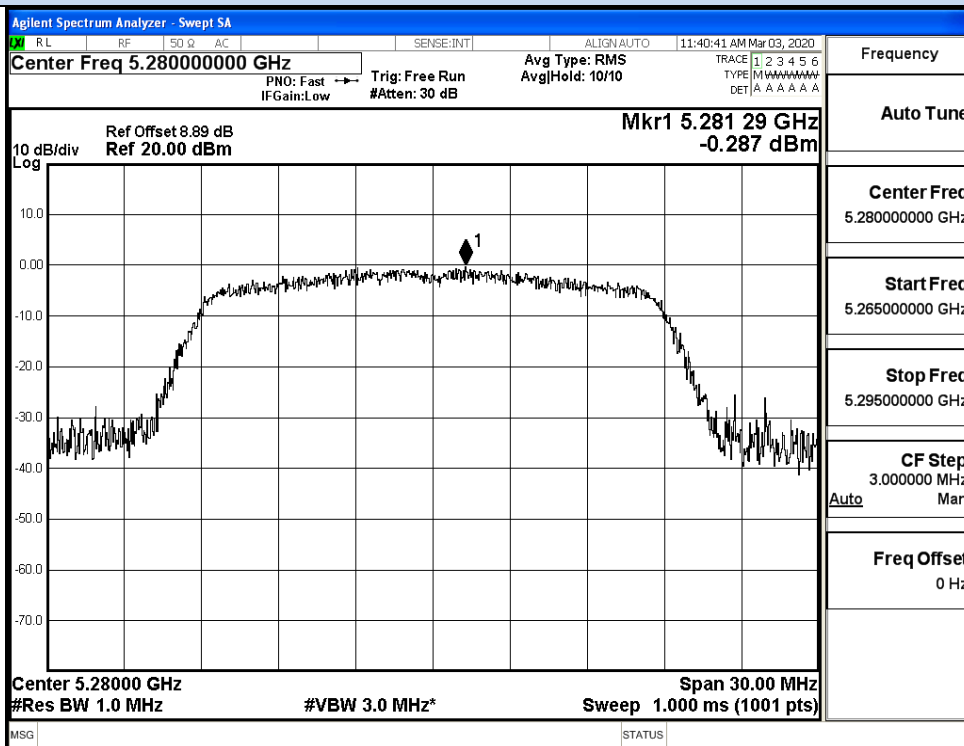
IEEE 802.11n40 / Channel 54 / 5270MHz



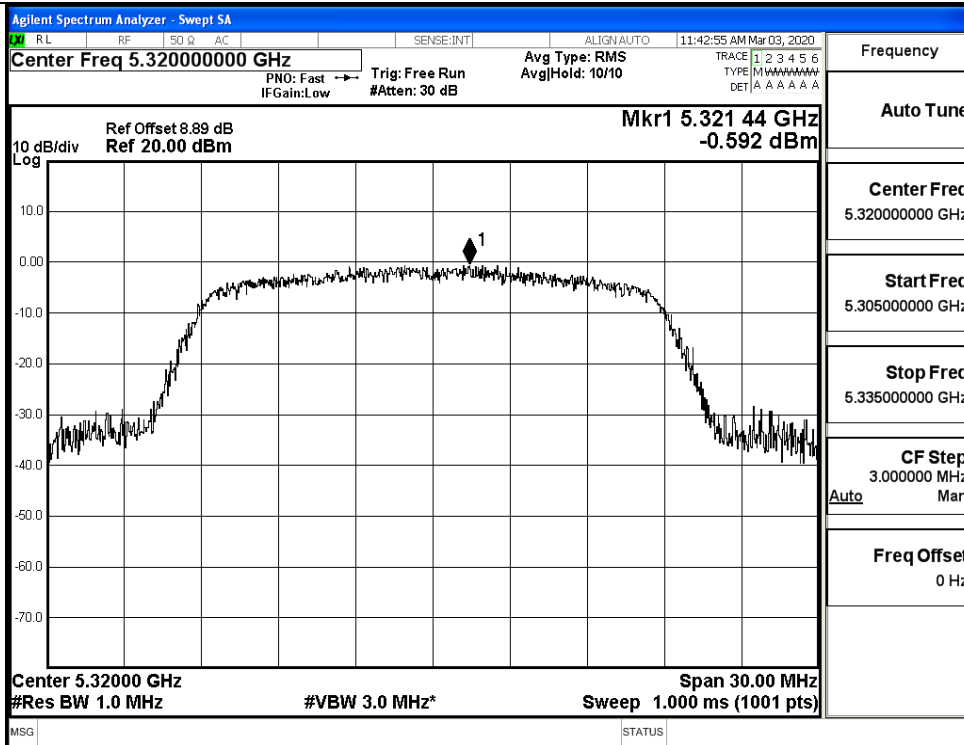
IEEE 802.11n40 / Channel 62 / 5310MHz



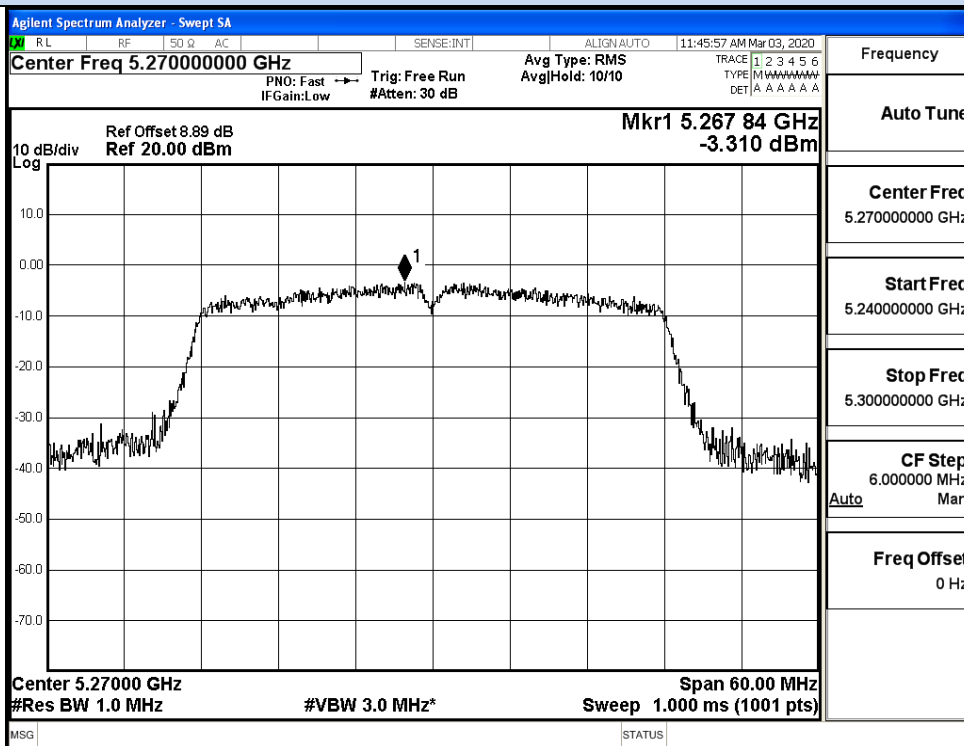
IEEE 802.11ac20 / Channel 52 / 5260MHz



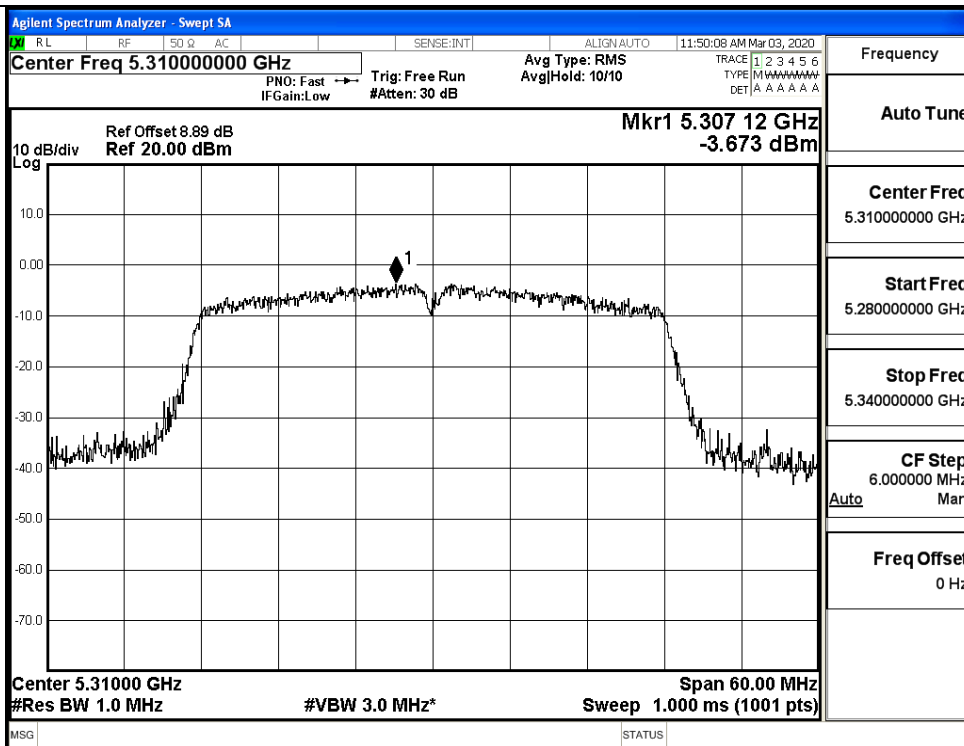
IEEE 802.11ac20 / Channel 56 / 5280MHz



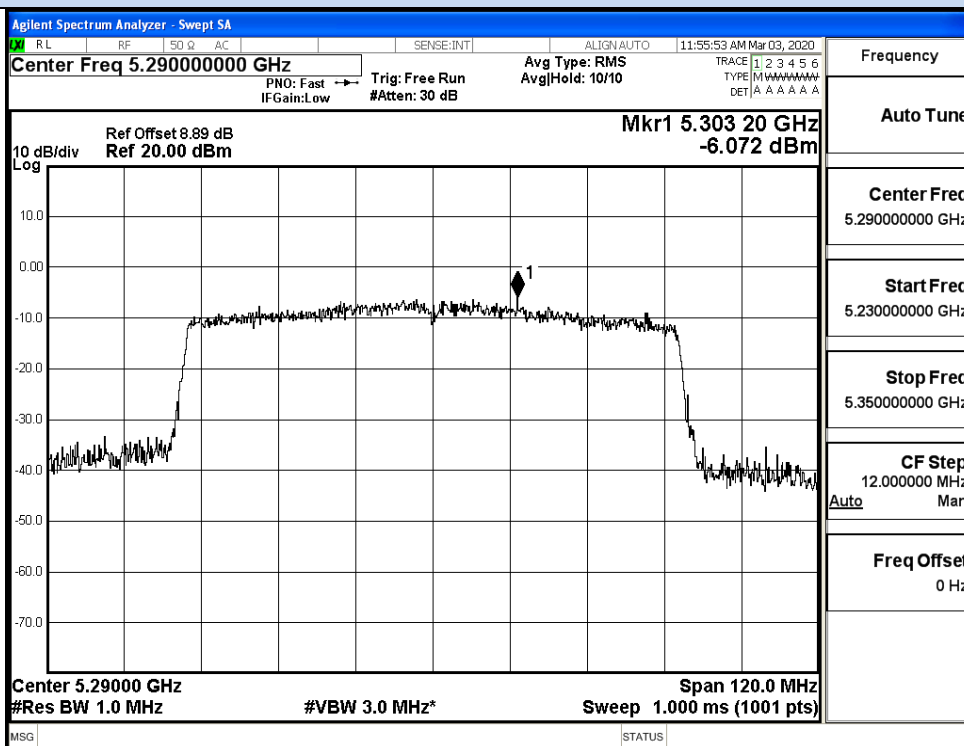
IEEE 802.11ac20 / Channel 64 / 5320MHz



IEEE 802.11ac40 / Channel 54 / 5270MHz



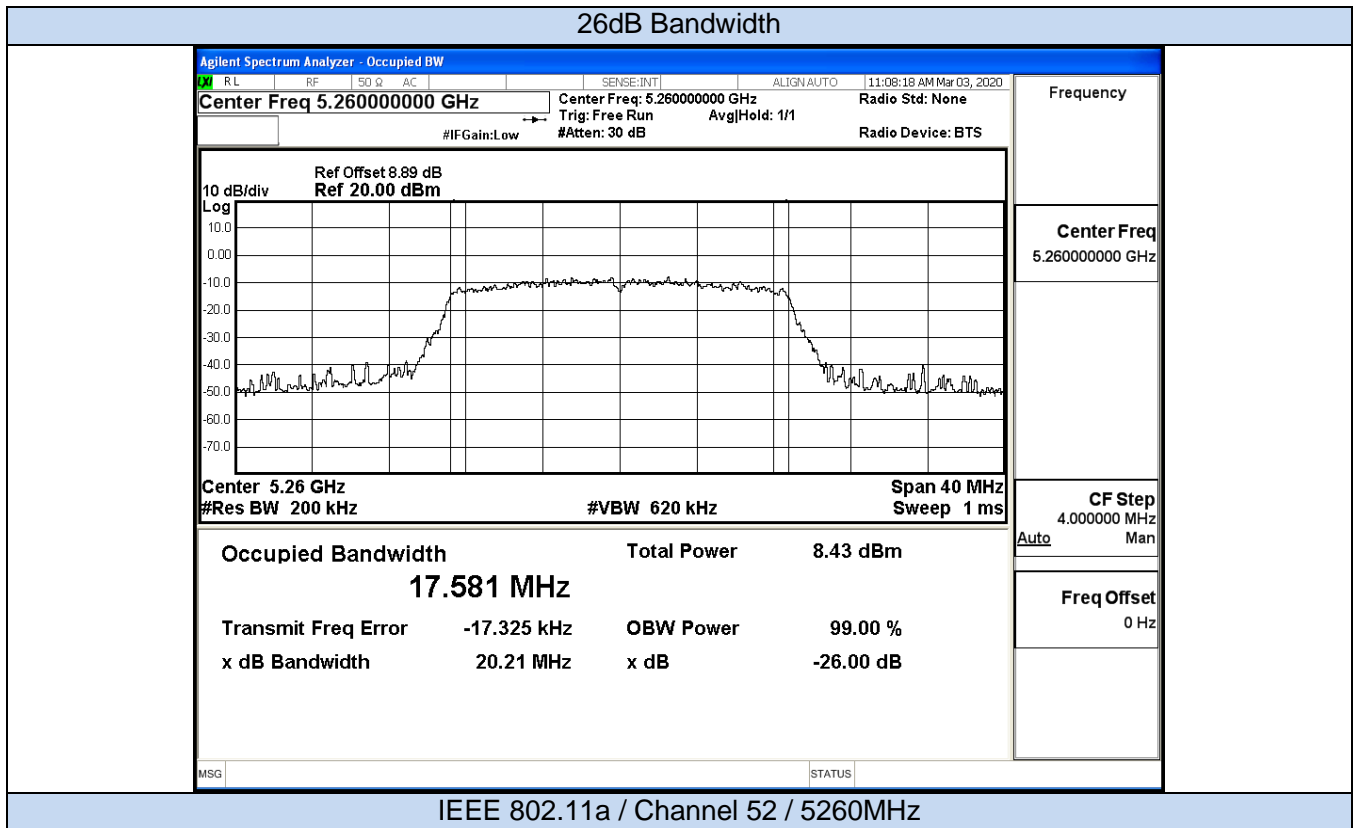
IEEE 802.11ac40 / Channel 62 / 5310MHz

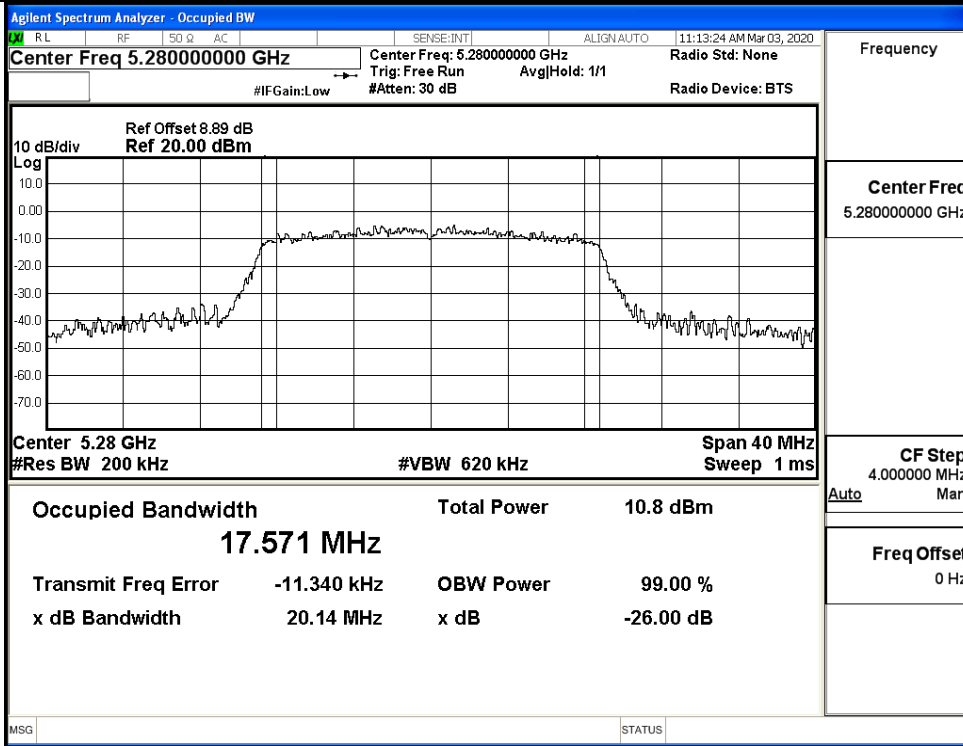


IEEE 802.11ac80 / Channel 58 / 5290MHz

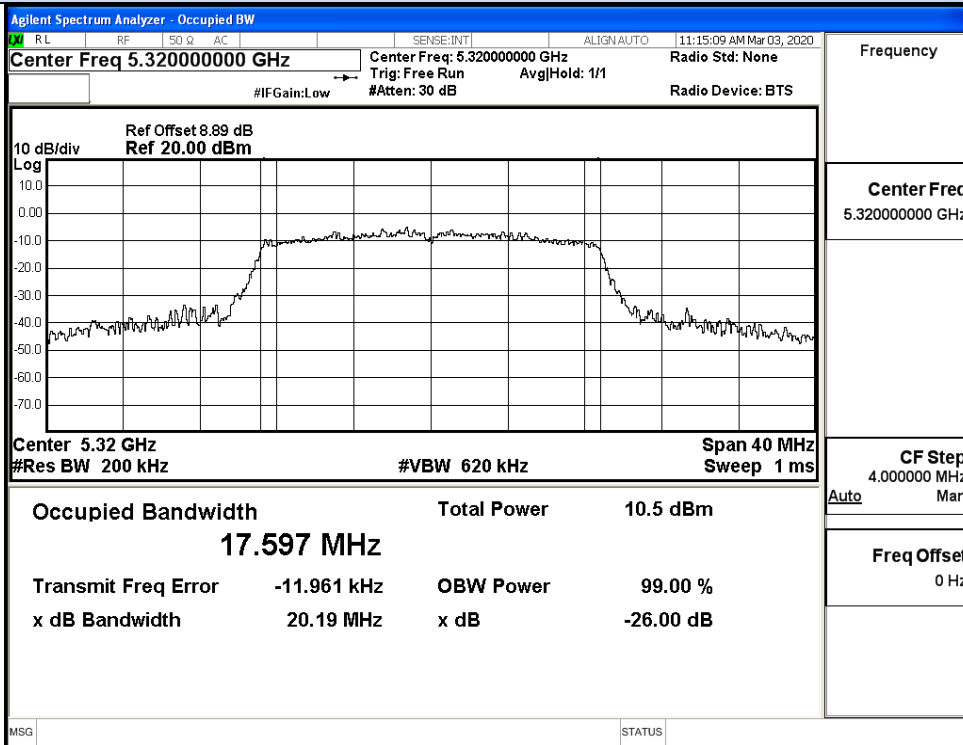
F.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
11A	52	5260	20.21	No Limit	Pass
	56	5280	20.14		Pass
	64	5320	20.19		Pass
11N20 SISO	52	5260	19.97	No Limit	Pass
	56	5280	20.05		Pass
	64	5320	20.20		Pass
11N40 SISO	54	5270	40.29	No Limit	Pass
	62	5310	39.98		Pass
11AC20 SISO	52	5260	20.36	No Limi	Pass
	56	5280	20.07		Pass
	64	5320	20.05		Pass
11AC40 SISO	54	5270	40.31	No Limi	Pass
	62	5310	40.13		Pass
11AC80 SISO	58	5290	87.78	No Limi	Pass





IEEE 802.11a / Channel 56 / 5280MHz



IEEE 802.11a / Channel 64 / 5320MHz

26dB Bandwidth

Agilent Spectrum Analyzer - Occupied BW

RL	RF	SO	Q	AC	SENSE:INT	ALIGN:AUTO	11:18:07 AM Mar 03, 2020
Center Freq 5.26000000 GHz					Center Freq: 5.260000000 GHz	Radio Std: None	Frequency
#IFGain:Low					Trig: Free Run	AvgHold: 1/1	Radio Device: BTS
#Atten: 30 dB							

Ref Offset 8.89 dB
Ref 20.00 dBm

Center 5.26 GHz Span 40 MHz
#Res BW 200 kHz #VBW 620 kHz Sweep 1 ms

Occupied Bandwidth	Total Power	10.8 dBm
17.571 MHz		
Transmit Freq Error	-22.005 kHz	OBW Power 99.00 %
x dB Bandwidth	19.97 MHz	x dB -26.00 dB

CF Step 4.000000 MHz
Auto Man
Freq Offset 0 Hz

MSG STATUS

IEEE 802.11n20 / Channel 52 / 5260MHz

Agilent Spectrum Analyzer - Occupied BW

RL	RF	SO	Q	AC	SENSE:INT	ALIGN:AUTO	11:20:54 AM Mar 03, 2020
Center Freq 5.28000000 GHz					Center Freq: 5.280000000 GHz	Radio Std: None	Frequency
#IFGain:Low					Trig: Free Run	AvgHold: 1/1	Radio Device: BTS
#Atten: 30 dB							

Ref Offset 8.89 dB
Ref 20.00 dBm

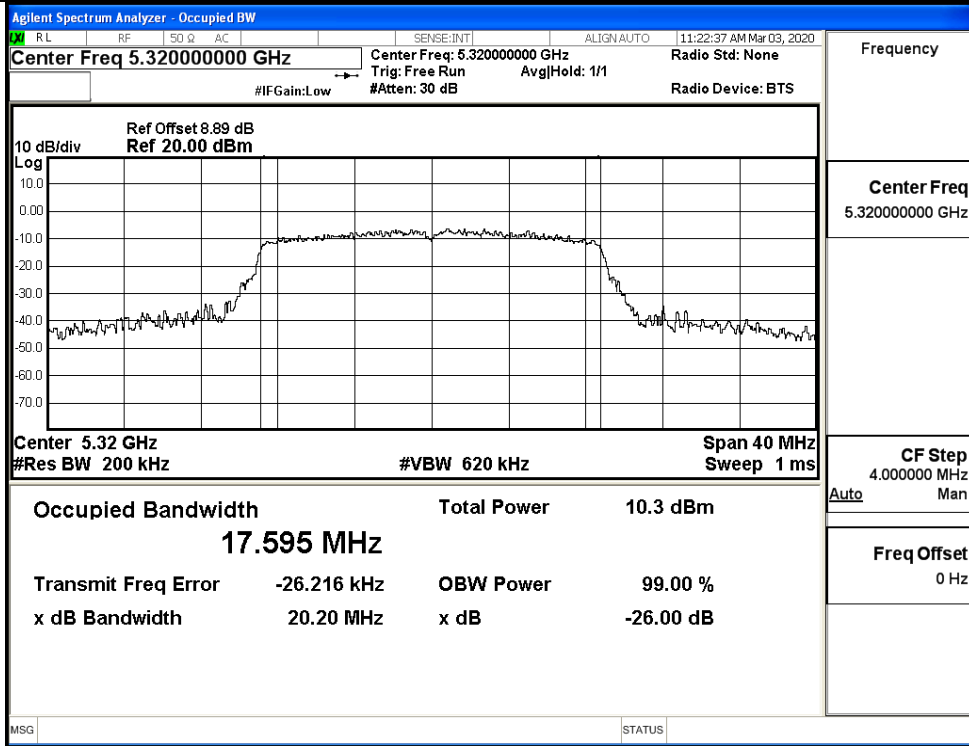
Center 5.28 GHz Span 40 MHz
#Res BW 200 kHz #VBW 620 kHz Sweep 1 ms

Occupied Bandwidth	Total Power	10.6 dBm
17.573 MHz		
Transmit Freq Error	-4.367 kHz	OBW Power 99.00 %
x dB Bandwidth	20.05 MHz	x dB -26.00 dB

CF Step 4.000000 MHz
Auto Man
Freq Offset 0 Hz

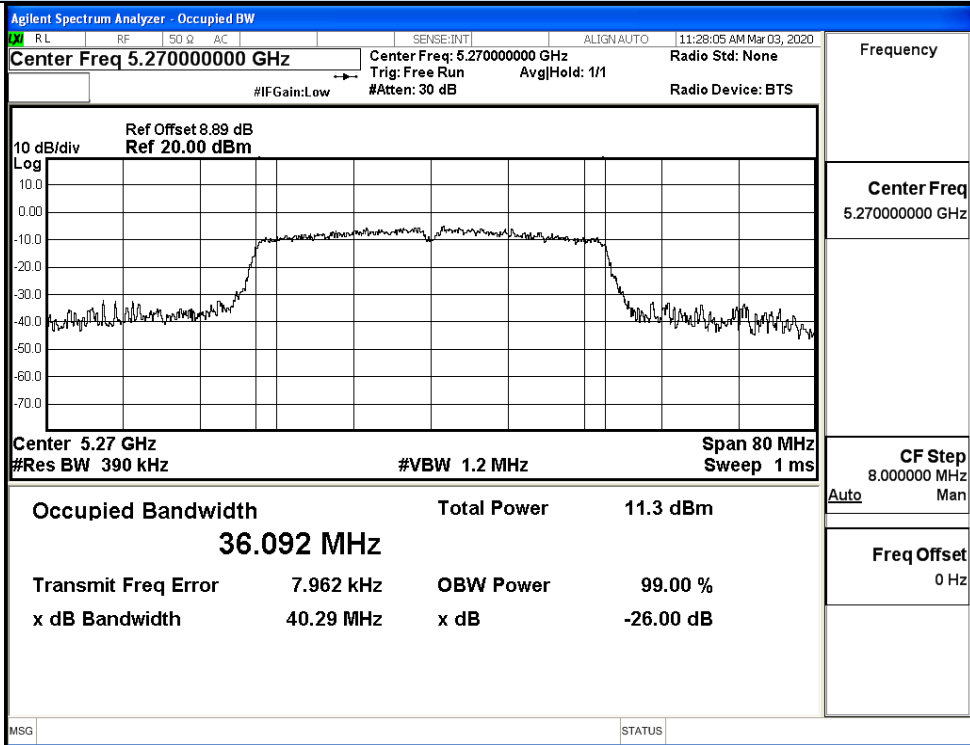
MSG STATUS

IEEE 802.11n20 / Channel 56 / 5280MHz

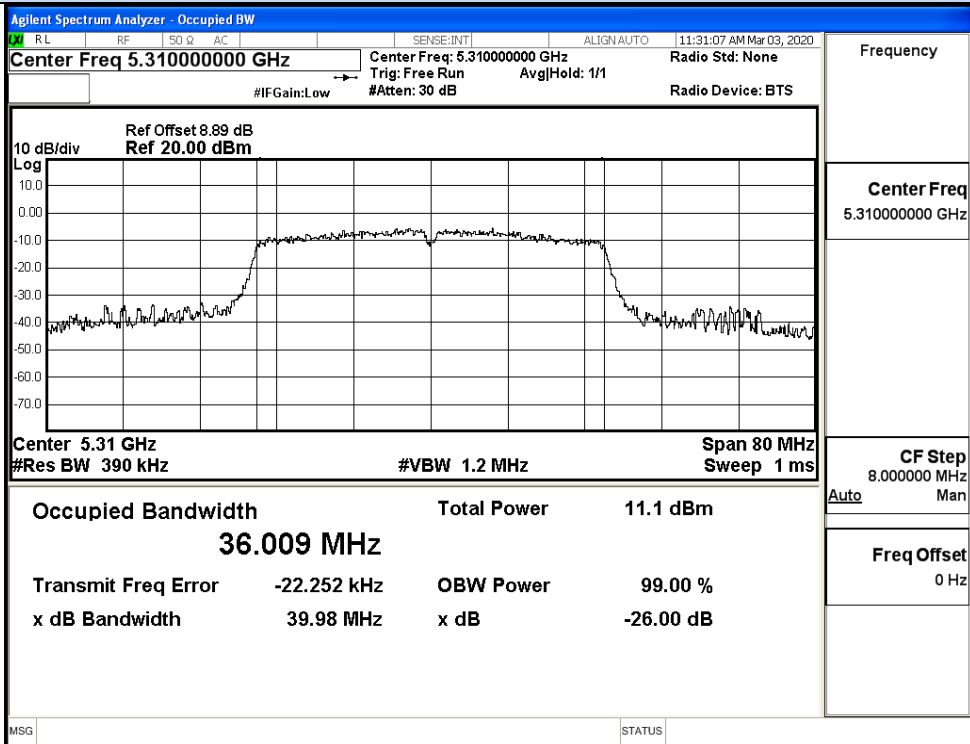


IEEE 802.11n20 / Channel 64 / 5320MHz

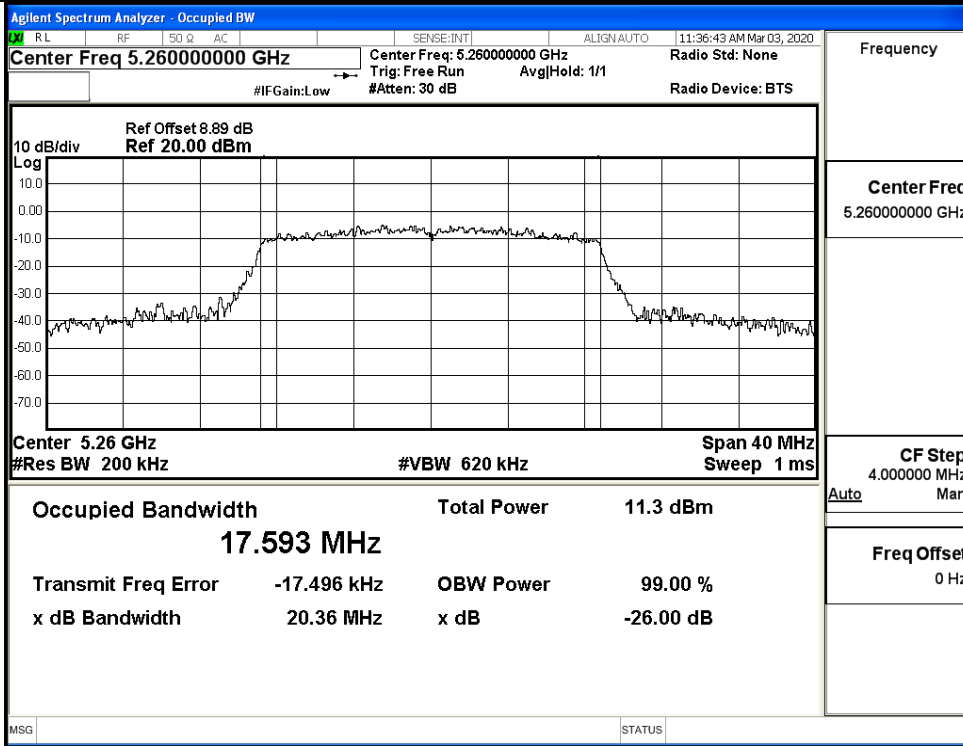
26dB Bandwidth



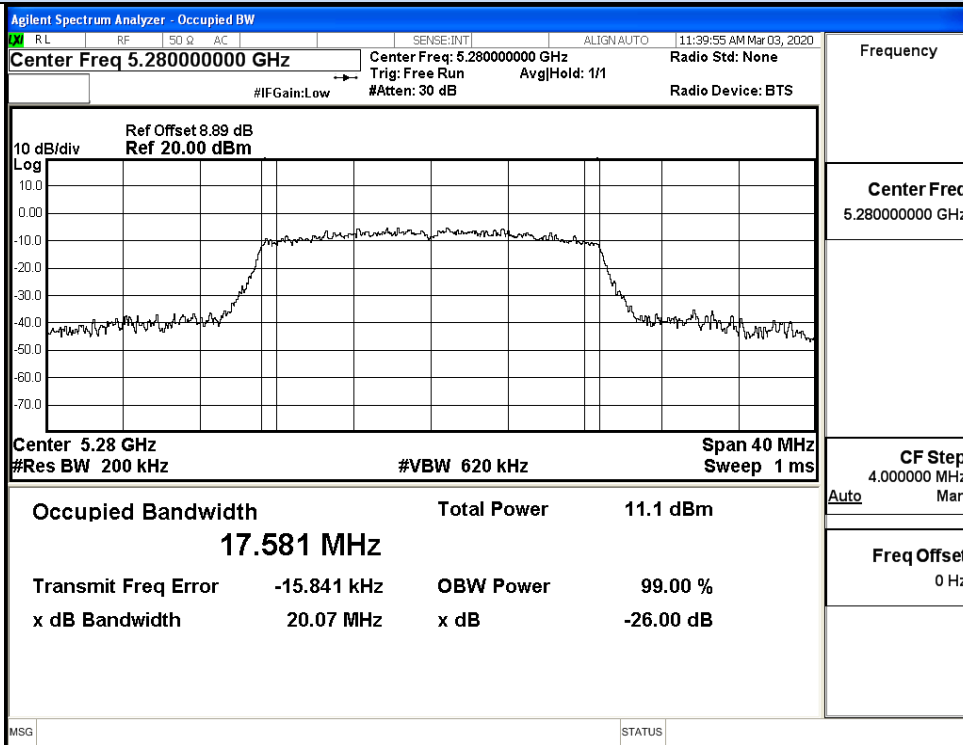
IEEE 802.11n40 / Channel 54 / 5270MHz



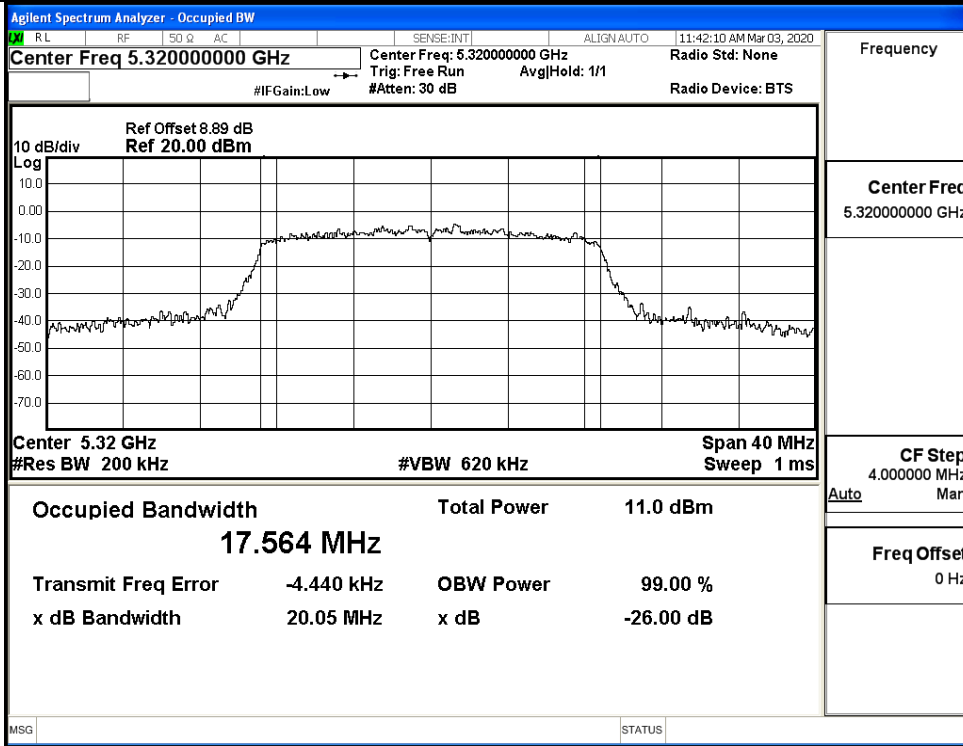
IEEE 802.11n40 / Channel 62 / 5310MHz



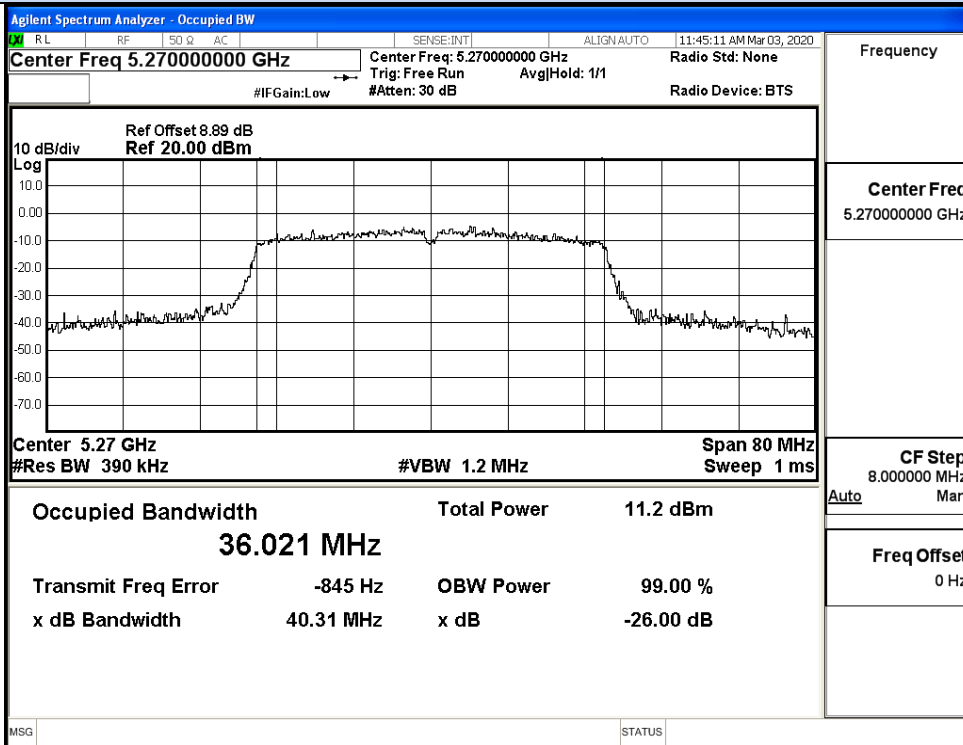
IEEE 802.11ac20 / Channel 52 / 5260MHz



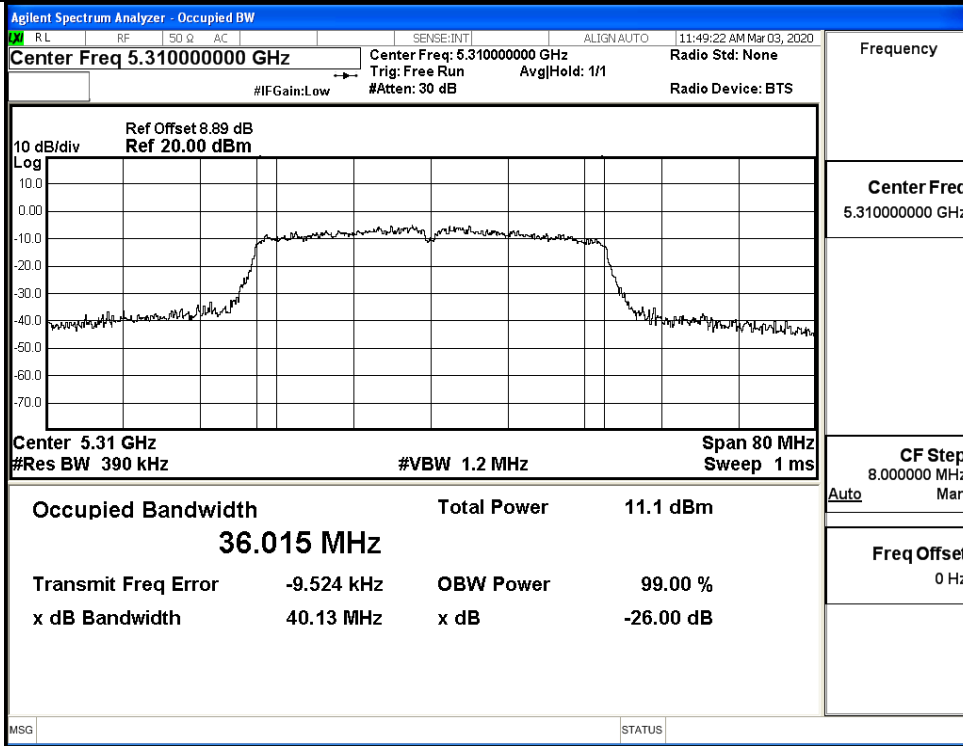
IEEE 802.11ac20 / Channel 56 / 5280MHz



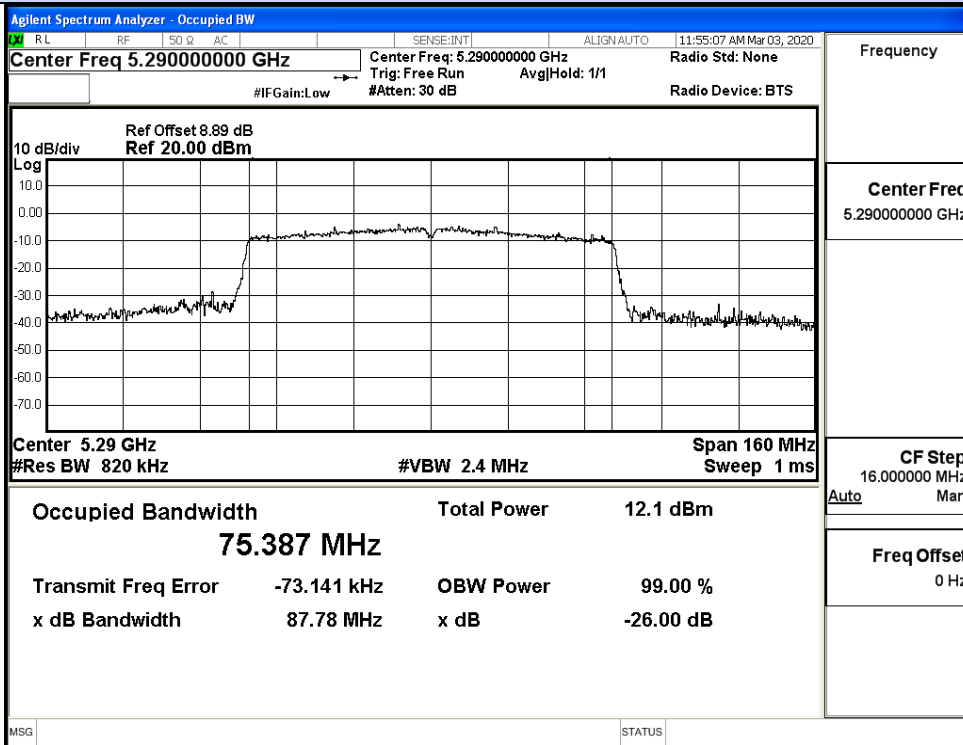
IEEE 802.11ac20 / Channel 64 / 5320MHz



IEEE 802.11ac40 / Channel 54 / 5270MHz



IEEE 802.11ac40 / Channel 62 / 5310MHz

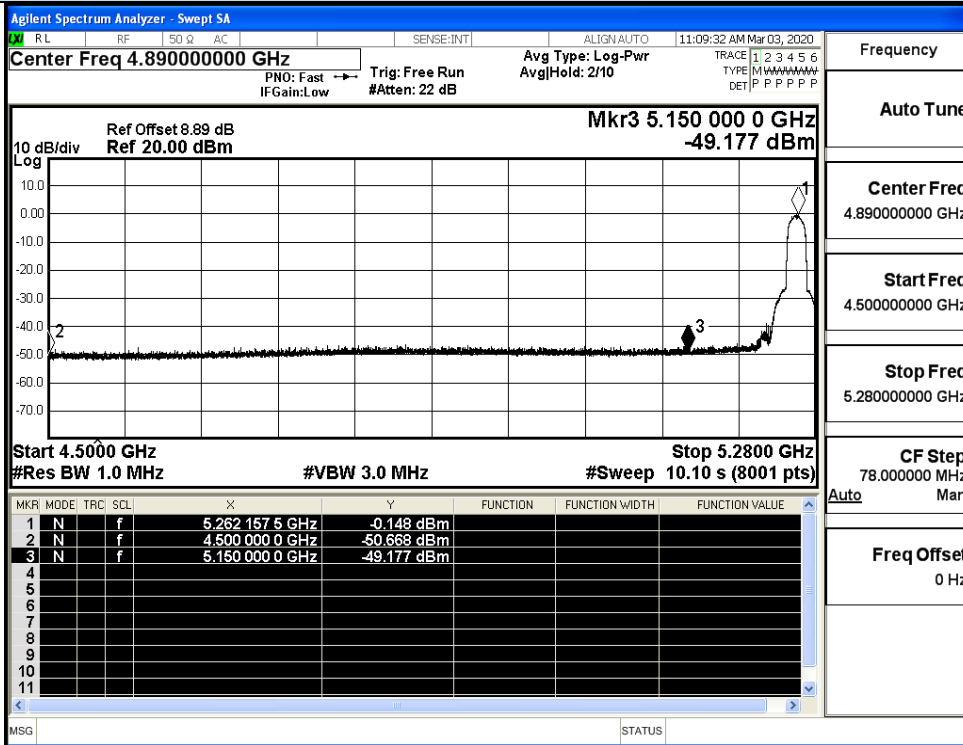


IEEE 802.11ac80 / Channel 58 / 5290MHz

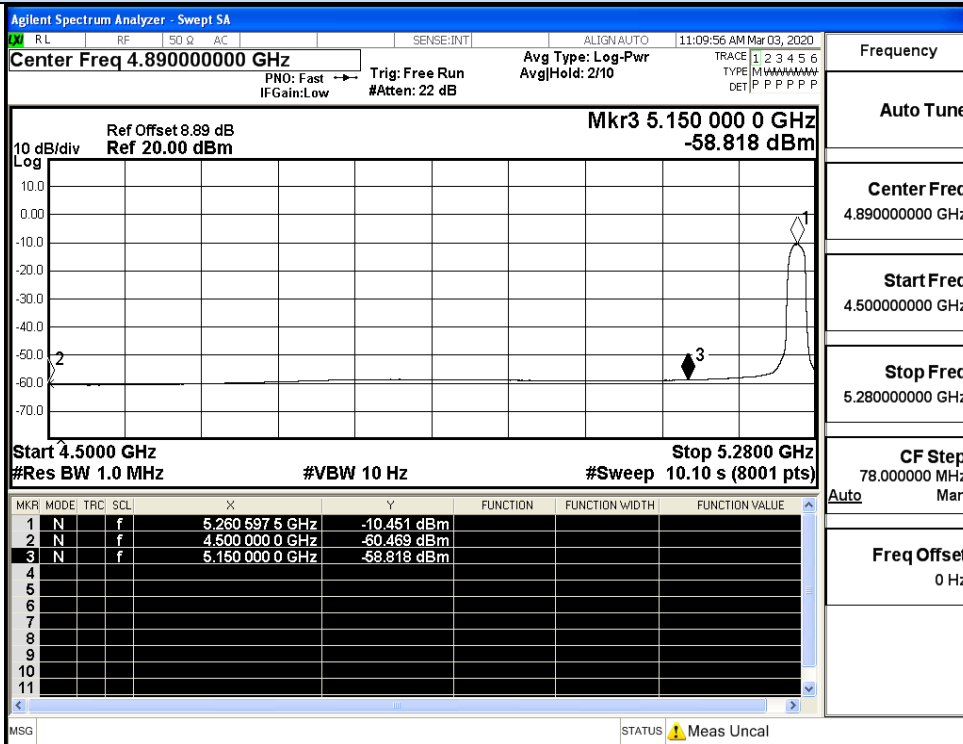
F.5 Undesirable Emissions Measurement

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)	Verdict
11A	52	4500.0	-50.67	2.00	0	46.56	Peak	68.20	Pass
		4500.0	-60.47	2.00	0	36.76	Average	54.00	Pass
		5150.0	-49.18	2.00	0	48.05	Peak	68.20	Pass
	64	5150.0	-58.82	2.00	0	38.41	Average	54.00	Pass
		5350.0	-40.39	2.00	0	56.84	Peak	68.20	Pass
		5350.0	-57.04	2.00	0	40.19	Average	54.00	Pass
		5460.0	-48.55	2.00	0	48.68	Peak	68.20	Pass
11N2 0 SISO	52	5460.0	-60.27	2.00	0	36.96	Average	54.00	Pass
		4500.0	-49.03	2.00	0	48.2	Peak	68.20	Pass
		4500.0	-60.44	2.00	0	36.79	Average	54.00	Pass
		5150.0	-48.21	2.00	0	49.02	Peak	68.20	Pass
	64	5150.0	-58.51	2.00	0	38.72	Average	54.00	Pass
		5350.0	-40.21	2.00	0	57.02	Peak	68.20	Pass
		5350.0	-57.00	2.00	0	40.23	Average	54.00	Pass
11N4 0 SISO	54	5460.0	-49.35	2.00	0	47.88	Peak	68.20	Pass
		4500.0	-50.01	2.00	0	47.22	Peak	68.20	Pass
		4500.0	-60.45	2.00	0	36.78	Average	54.00	Pass
		5150.0	-49.02	2.00	0	48.21	Peak	68.20	Pass
	62	5150.0	-58.27	2.00	0	38.96	Average	54.00	Pass
		5350.0	-35.94	2.00	0	61.29	Peak	68.20	Pass
		5350.0	-55.18	2.00	0	42.05	Average	54.00	Pass
11A C20 SIS O	54	5460.0	-48.46	2.00	0	48.77	Peak	68.20	Pass
		4500.0	-51.50	2.00	0	45.73	Peak	68.20	Pass
		4500.0	-60.40	2.00	0	36.83	Average	54.00	Pass
		5150.0	-47.87	2.00	0	49.36	Peak	68.20	Pass
	62	5150.0	-58.34	2.00	0	38.89	Average	54.00	Pass
		4500.0	-51.50	2.00	0	45.73	Peak	68.20	Pass
		4500.0	-60.40	2.00	0	36.83	Average	54.00	Pass
11A C40 SIS O	54	5150.0	-47.87	2.00	0	49.36	Peak	68.20	Pass
		4500.0	-50.57	2.00	0	46.66	Peak	68.20	Pass
		4500.0	-60.44	2.00	0	36.79	Average	54.00	Pass
		5150.0	-48.80	2.00	0	48.43	Peak	68.20	Pass
	62	5150.0	-58.27	2.00	0	38.96	Average	54.00	Pass
		5350.0	-37.42	2.00	0	59.81	Peak	68.20	Pass
		5350.0	-55.02	2.00	0	42.21	Average	54.00	Pass
11A C80 SIS O	58	5460.0	-48.83	2.00	0	48.4	Peak	68.20	Pass
		4500.0	-35.36	2.00	0	61.87	Peak	68.20	Pass
		4500.0	-60.06	2.00	0	37.17	Average	54.00	Pass
		5150.0	-52.47	2.00	0	44.76	Average	54.00	Pass
	58	4500.0	-48.85	2.00	0	48.38	Peak	68.20	Pass
		5150.0	-59.72	2.00	0	37.51	Average	54.00	Pass
		5350.0	-35.36	2.00	0	61.87	Peak	68.20	Pass
58	5460.0	-52.47	2.00	0	44.76	Average	54.00	Pass	
	5350.0	-48.85	2.00	0	48.38	Peak	68.20	Pass	
58	5460.0	-59.72	2.00	0	37.51	Average	54.00	Pass	
	5460.0	-60.06	2.00	0	37.17	Average	54.00	Pass	

Undesirable Emissions Measurement

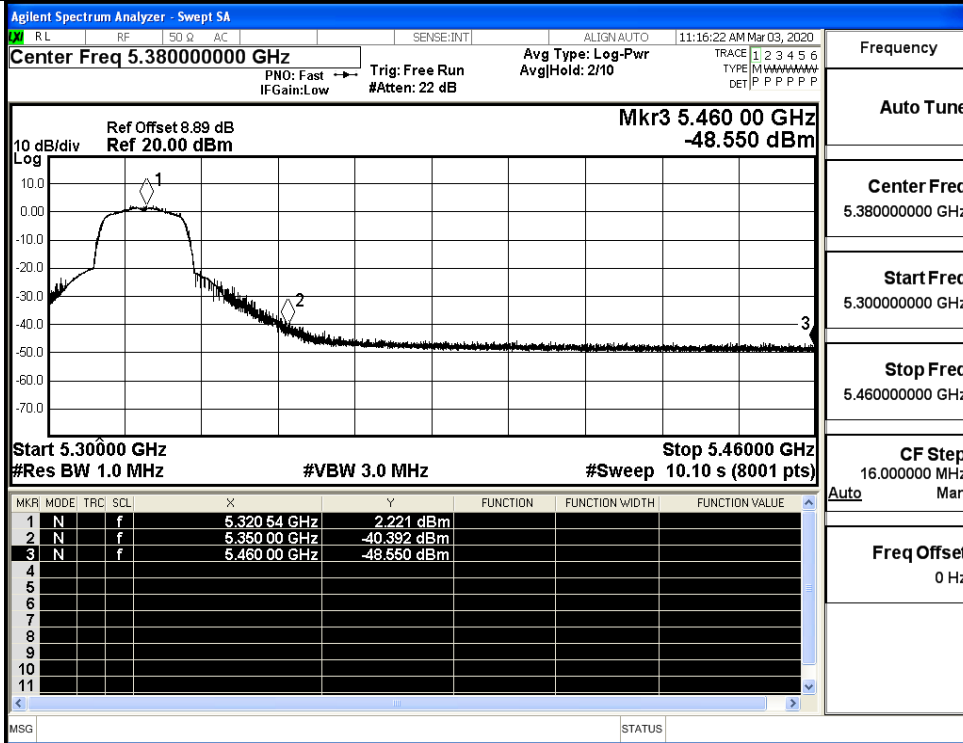


IEEE 802.11a / Channel 36 / 5260MHz / Peak

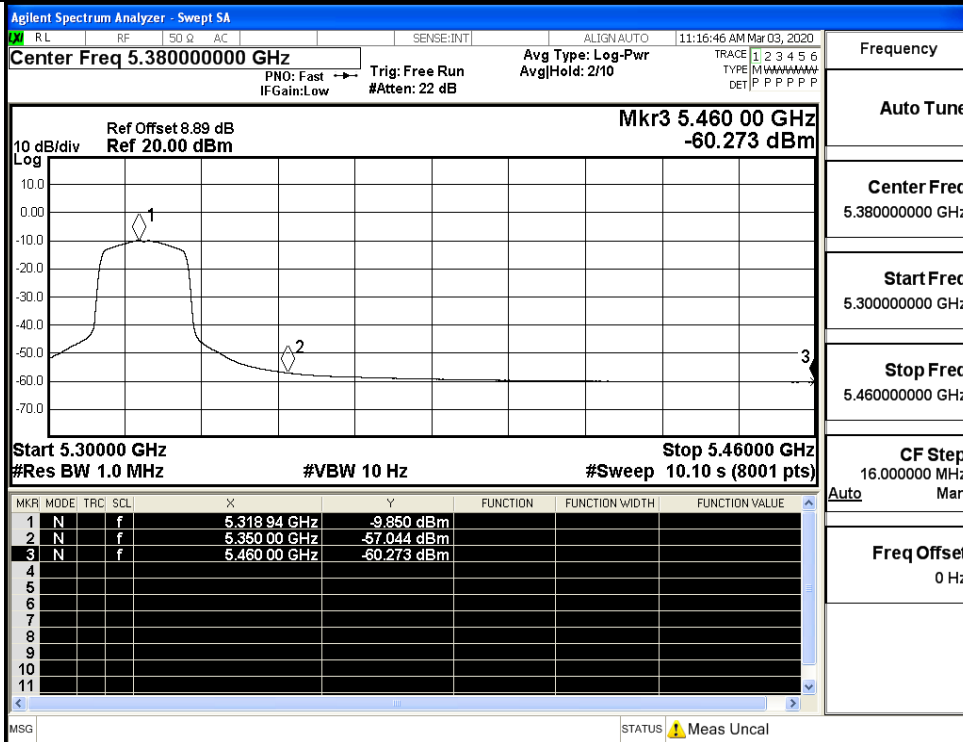


IEEE 802.11a / Channel 36 / 5260MHz / Average

Undesirable Emissions Measurement

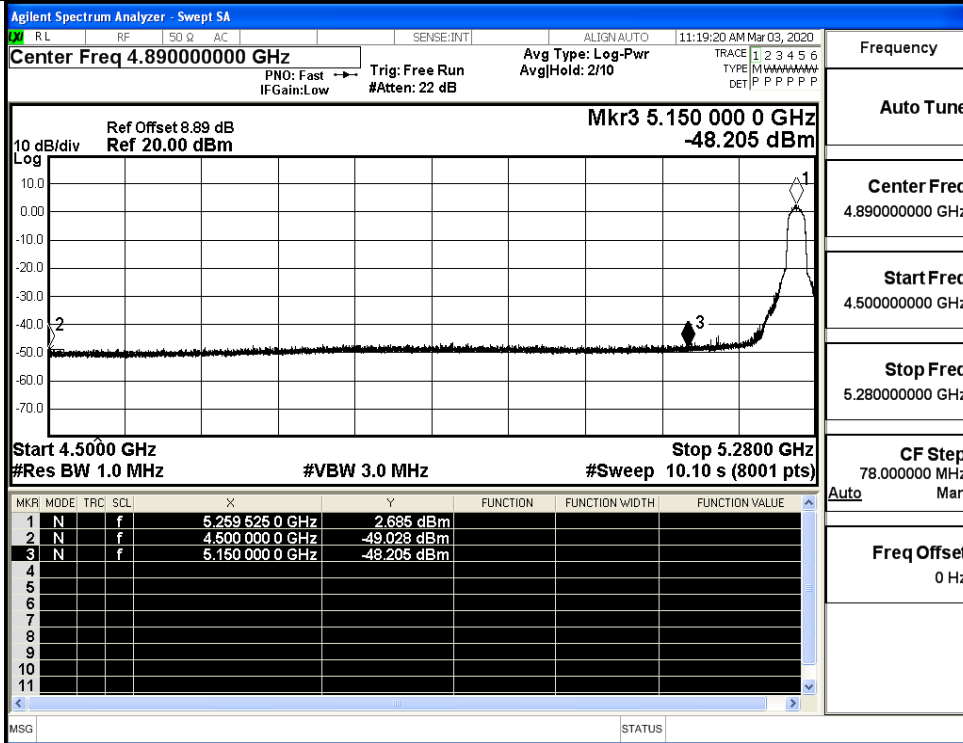


IEEE 802.11a / Channel 48 / 5320MHz / Peak

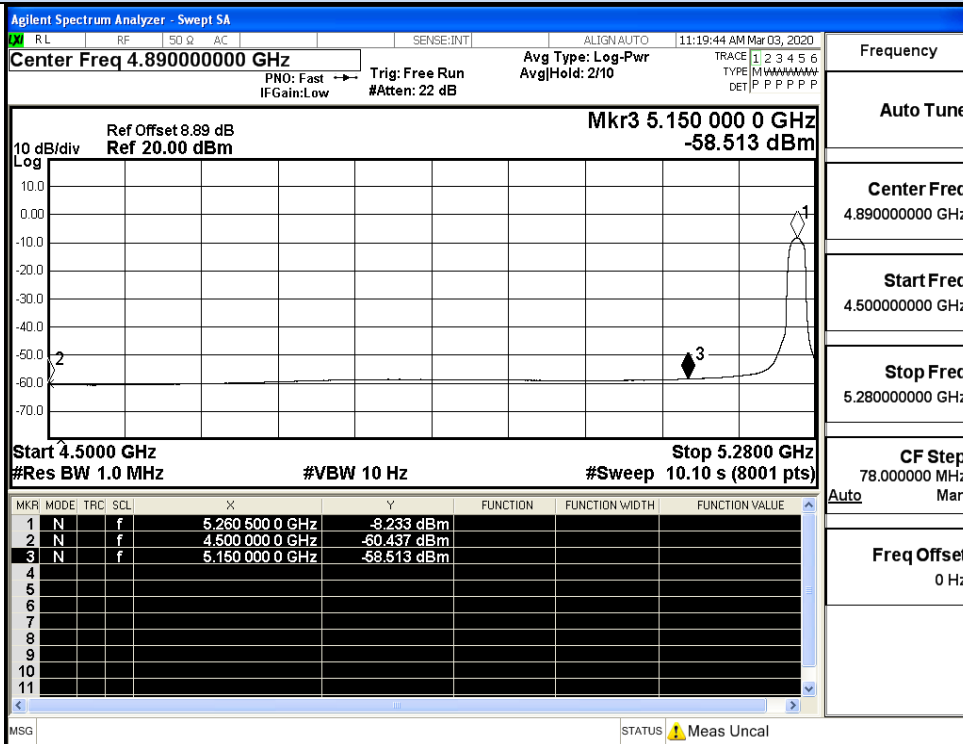


IEEE 802.11a / Channel 48 / 5320MHz / Average

Undesirable Emissions Measurement

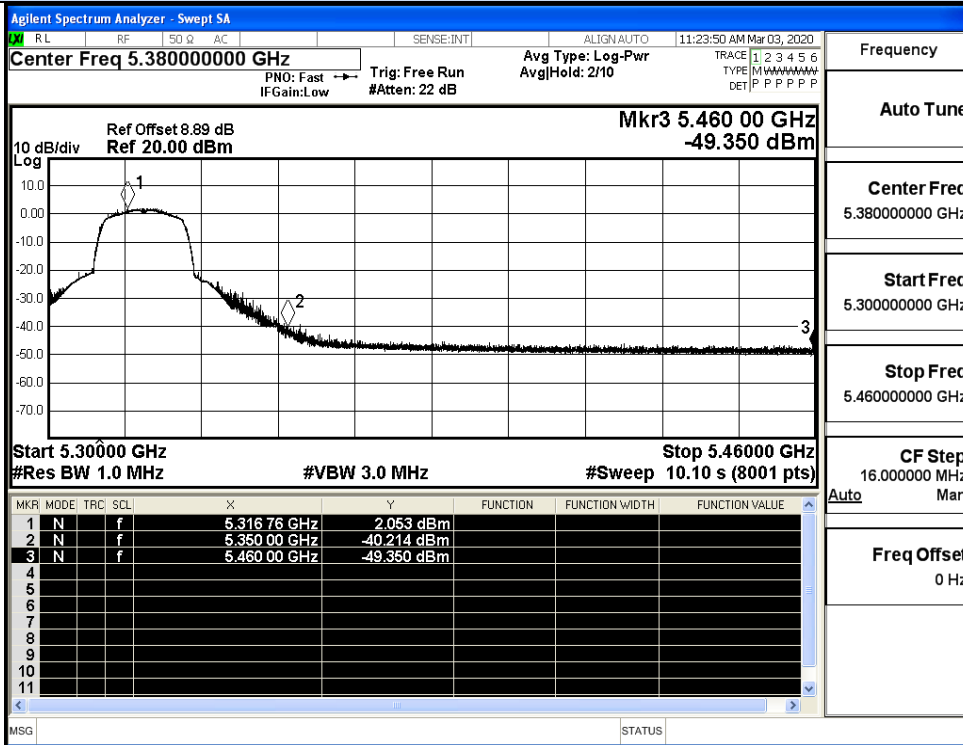


IEEE 802.11n20 / Channel 36 / 5260MHz / Peak

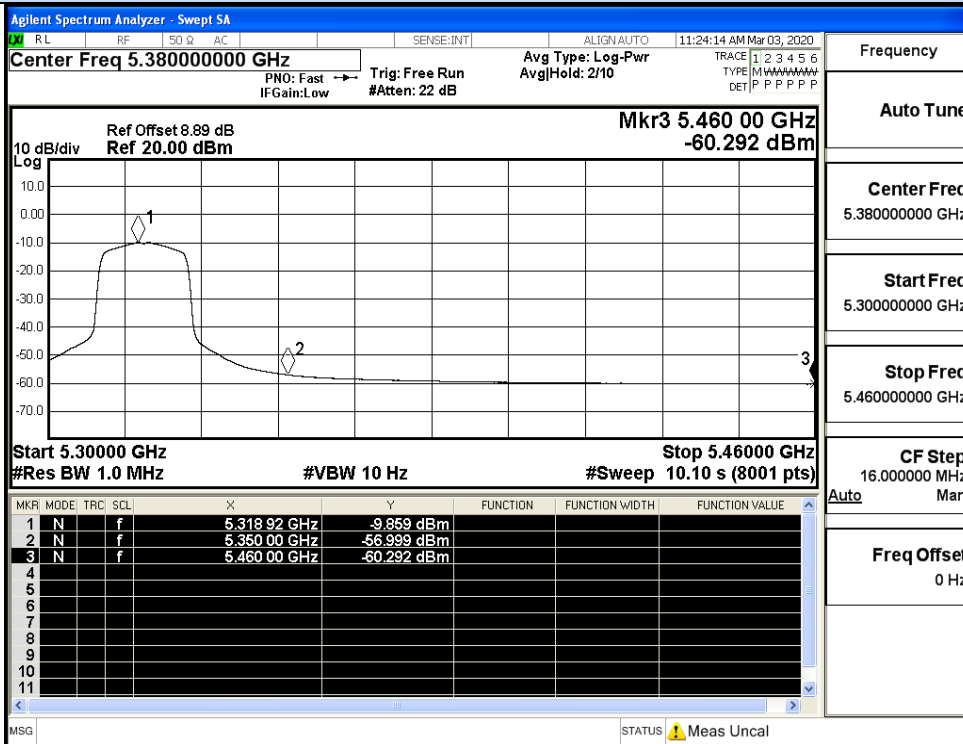


IEEE 802.11n20 / Channel 36 / 5260MHz / Average

Undesirable Emissions Measurement

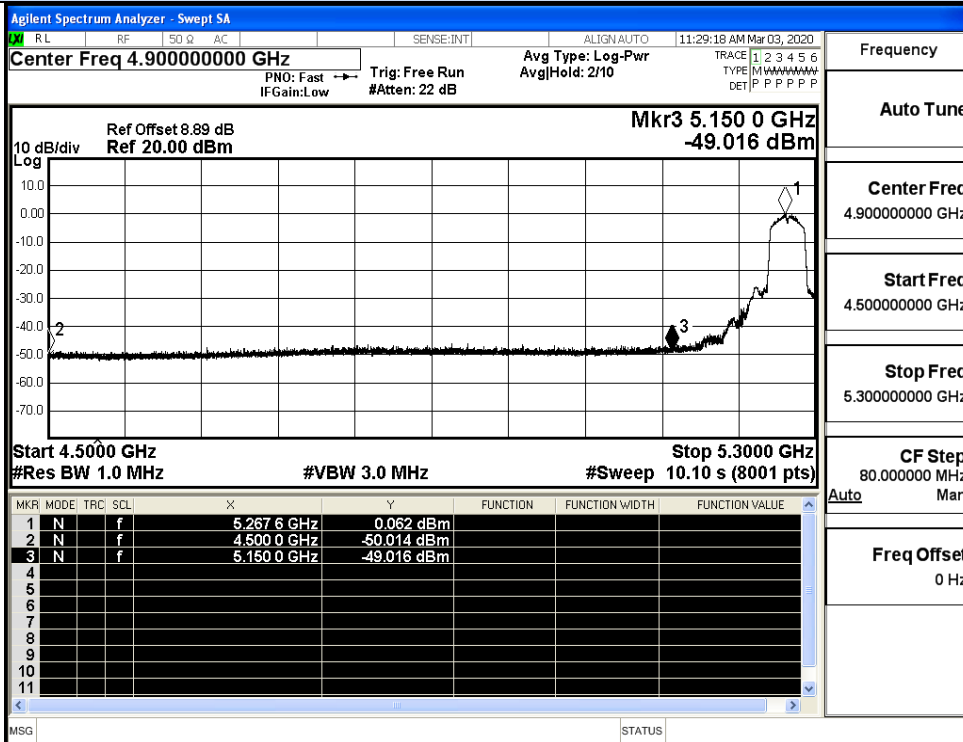


IEEE 802.11n20 / Channel 48 / 5320MHz / Peak

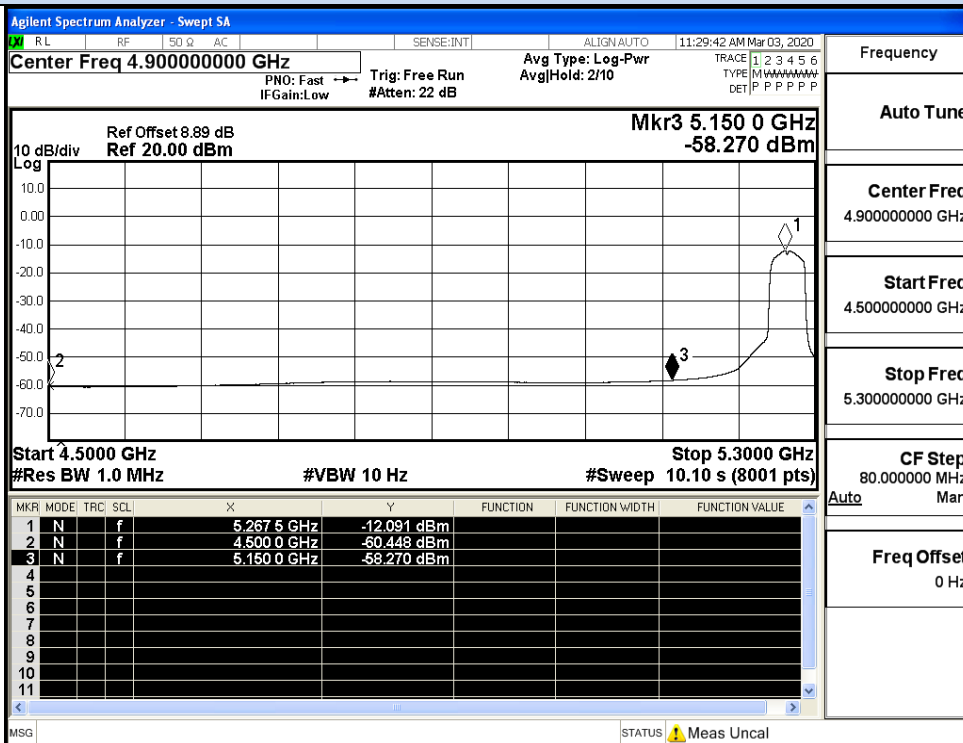


IEEE 802.11n20 / Channel 48 / 5320MHz / Average

Undesirable Emissions Measurement

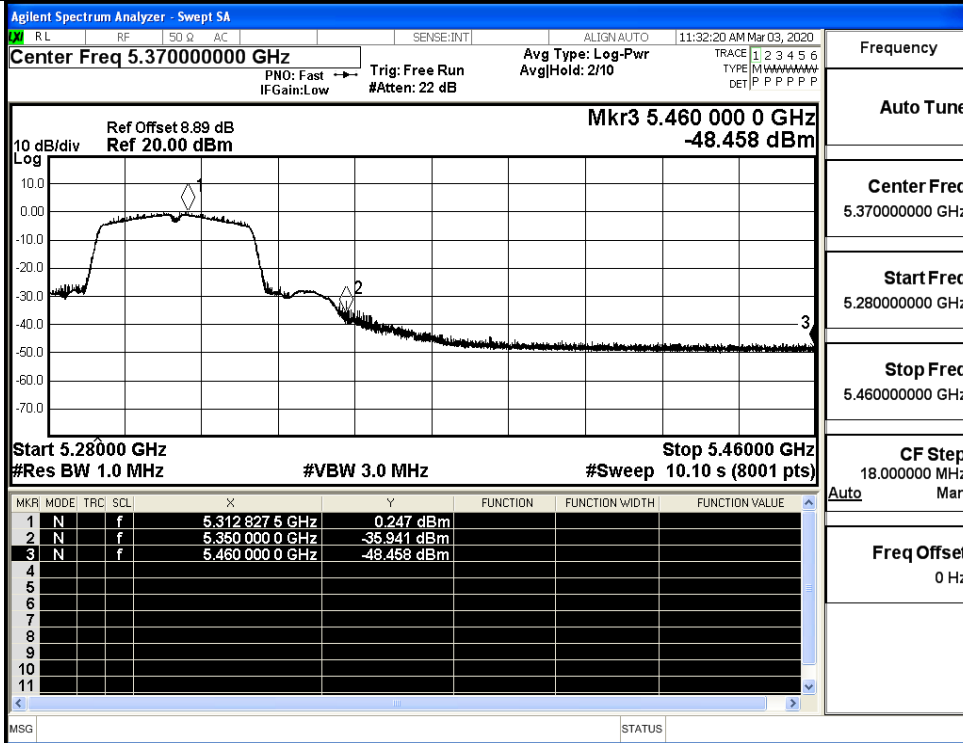


IEEE 802.11n40 / Channel 38 / 5270MHz / Peak

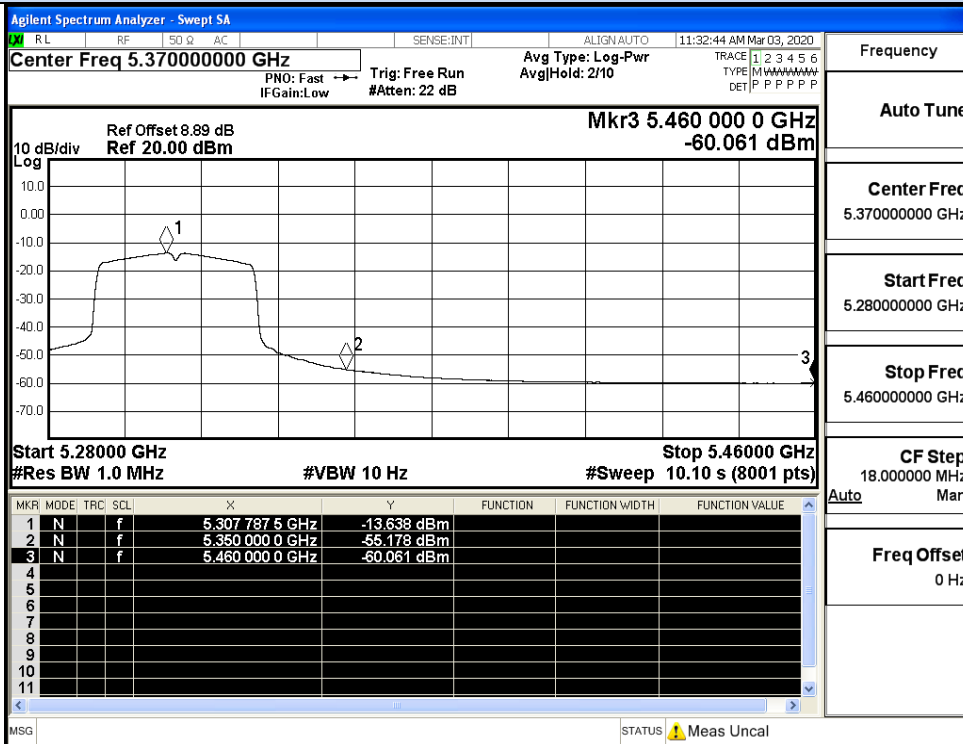


IEEE 802.11n40 / Channel 38 / 5270MHz / Average

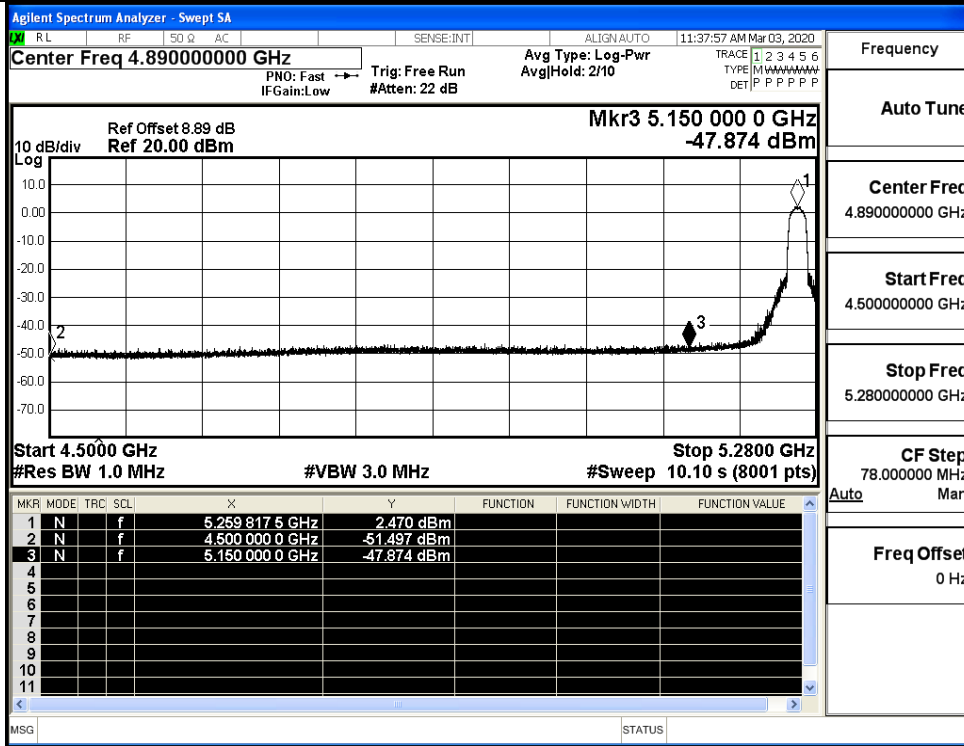
Undesirable Emissions Measurement



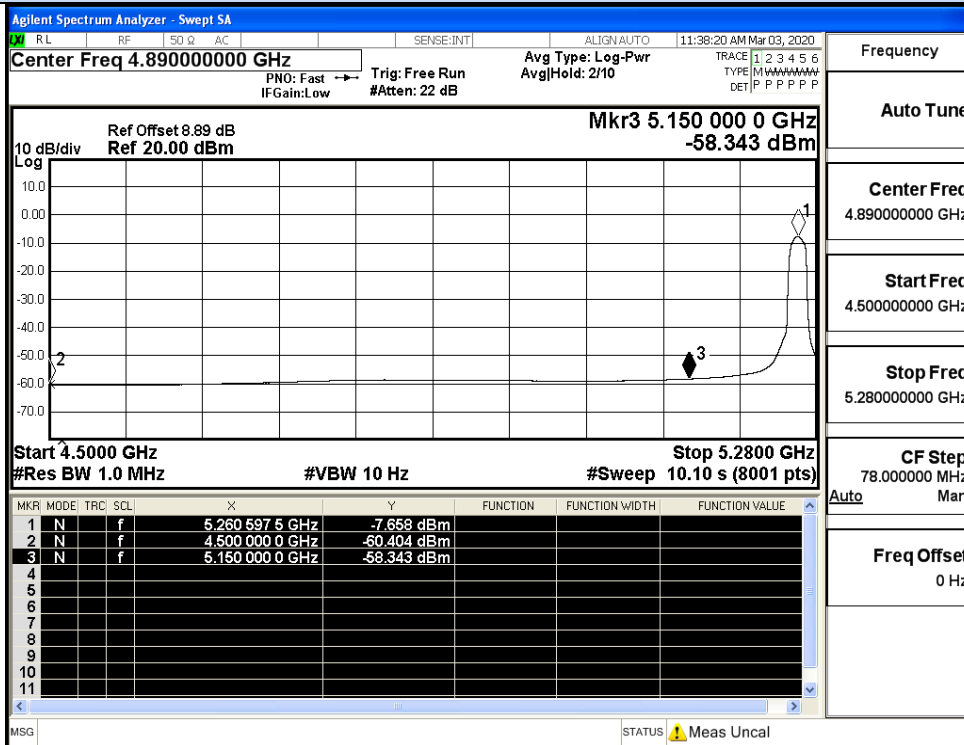
IEEE 802.11n40 / Channel 46 / 5310MHz / Peak



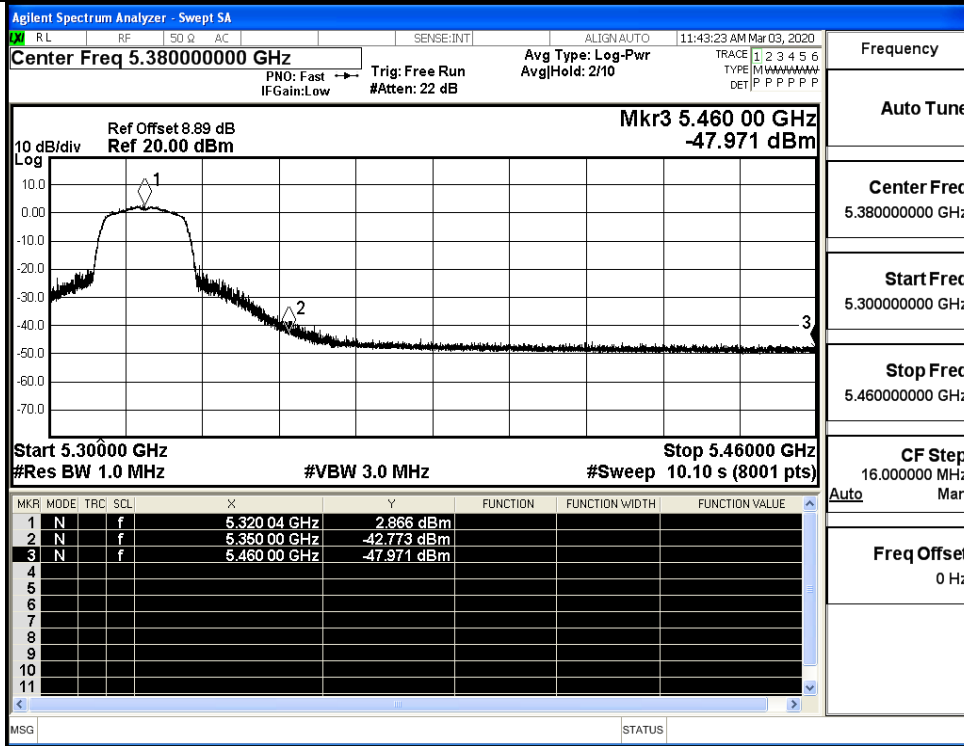
IEEE 802.11n40 / Channel 46 / 5310MHz / Average



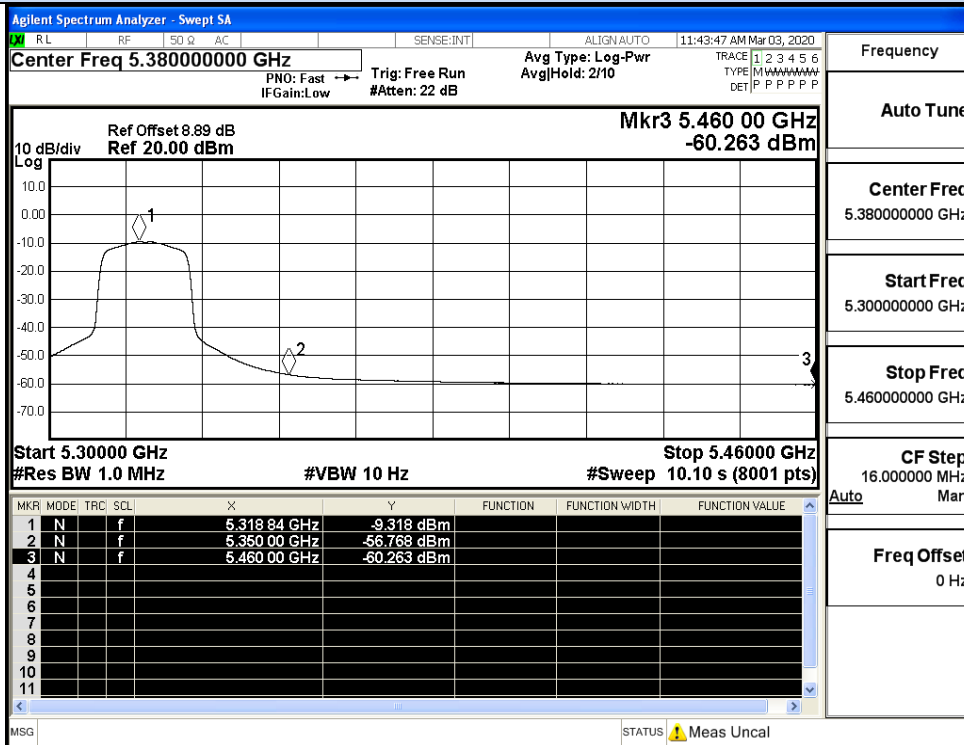
IEEE 802.11ac20 / Channel 36 / 5260MHz / Peak



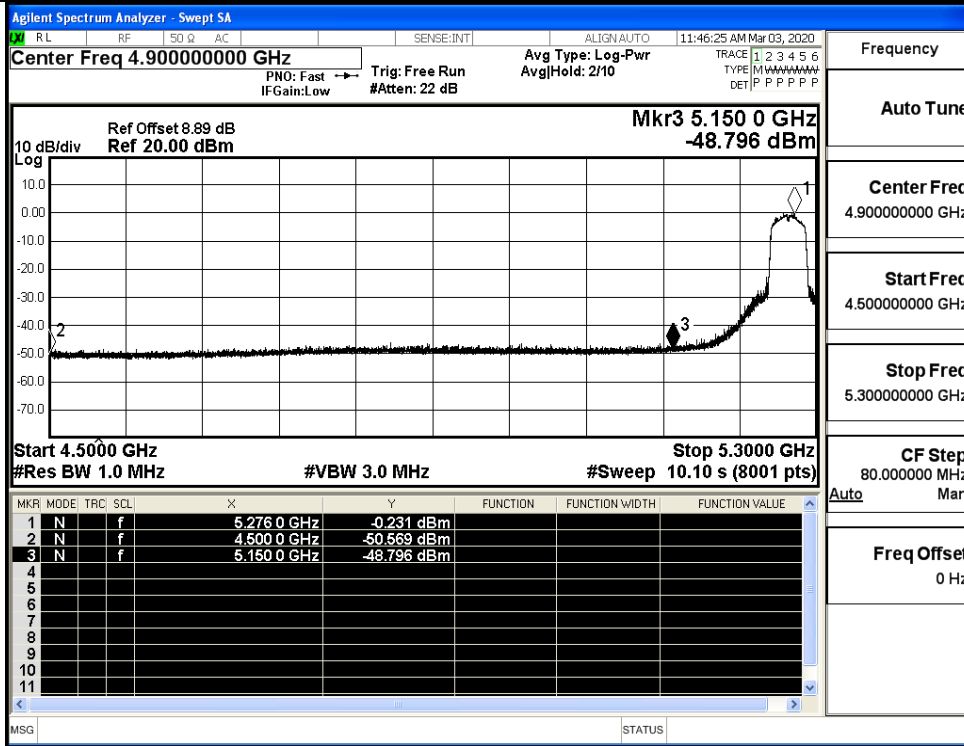
IEEE 802.11ac20 / Channel 36 / 5260MHz / Average



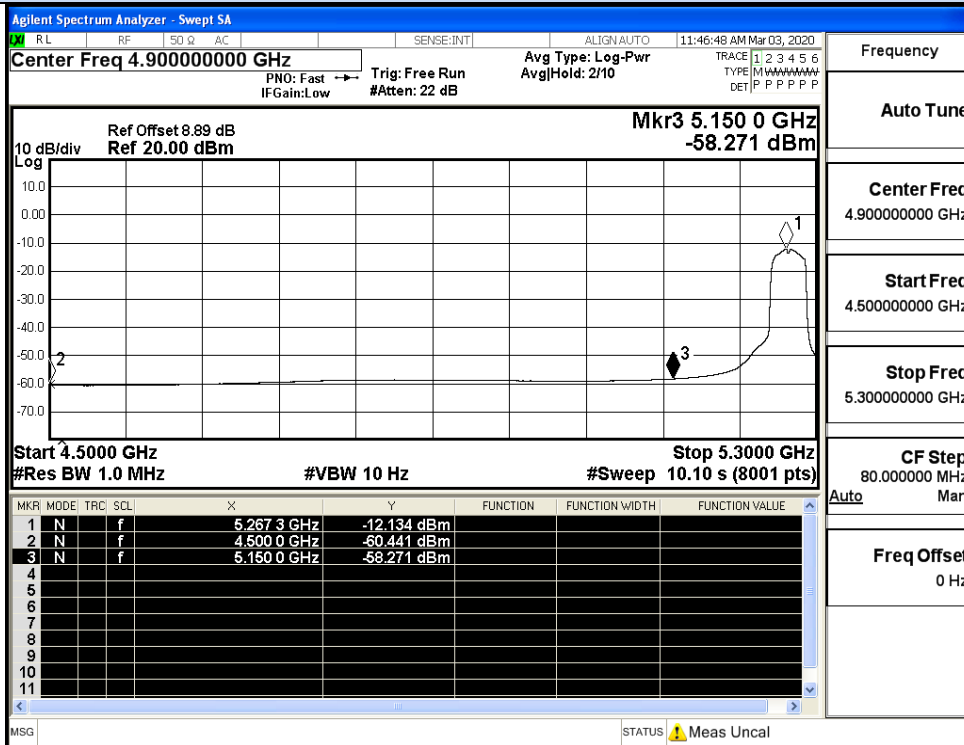
IEEE 802.11ac20 / Channel 48 / 5320MHz / Peak



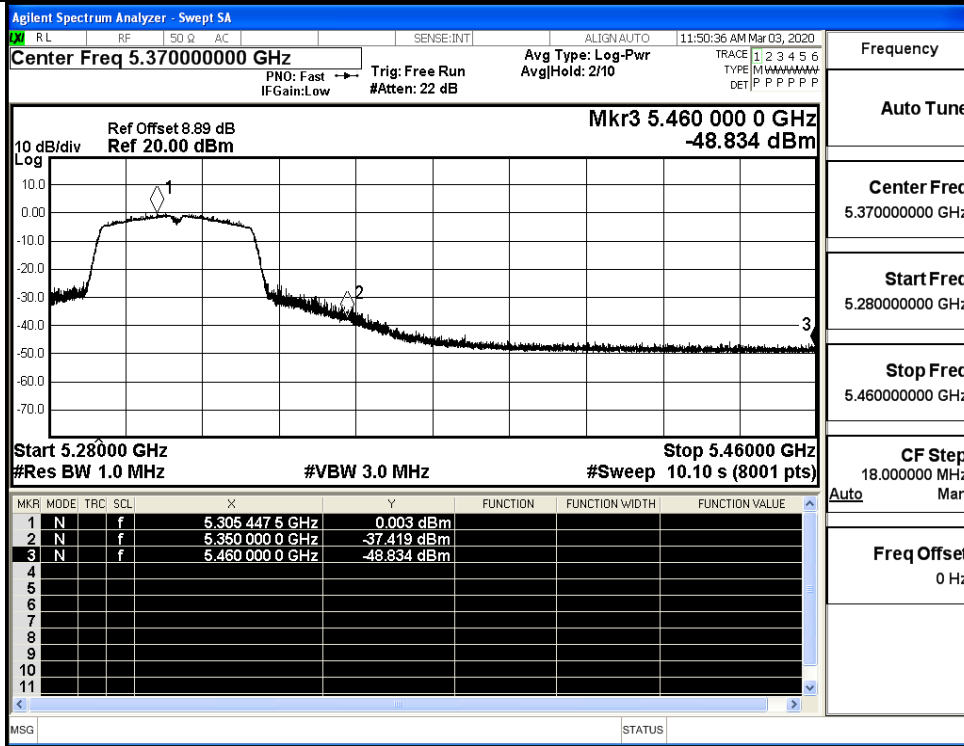
IEEE 802.11ac20 / Channel 48 / 5320MHz / Average



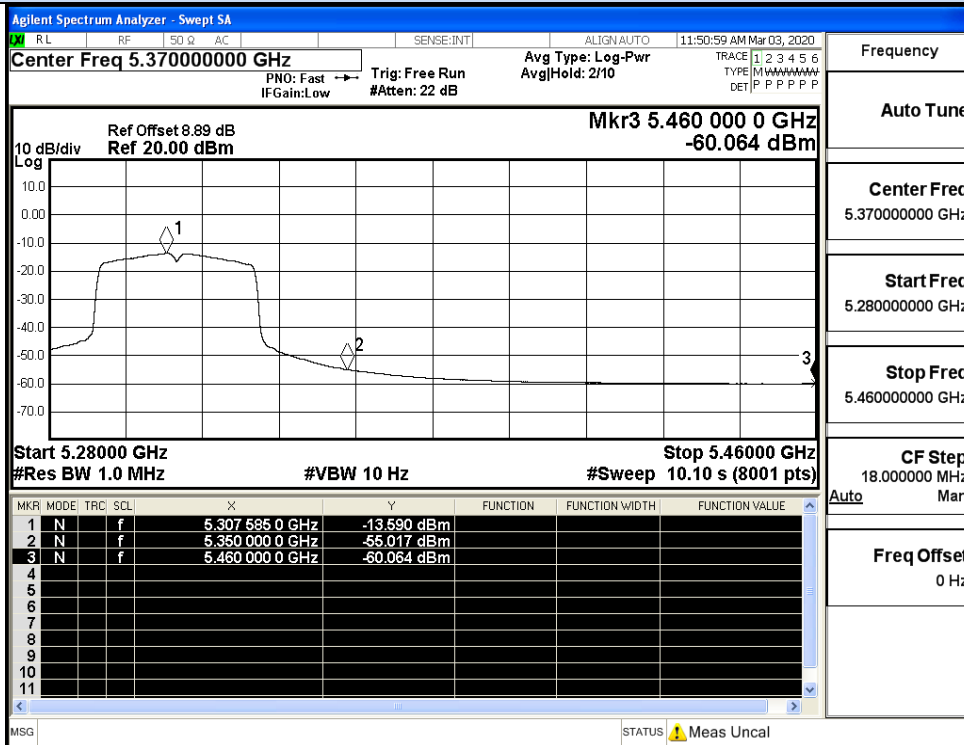
IEEE 802.11ac40 / Channel 38/ 5270MHz / Peak



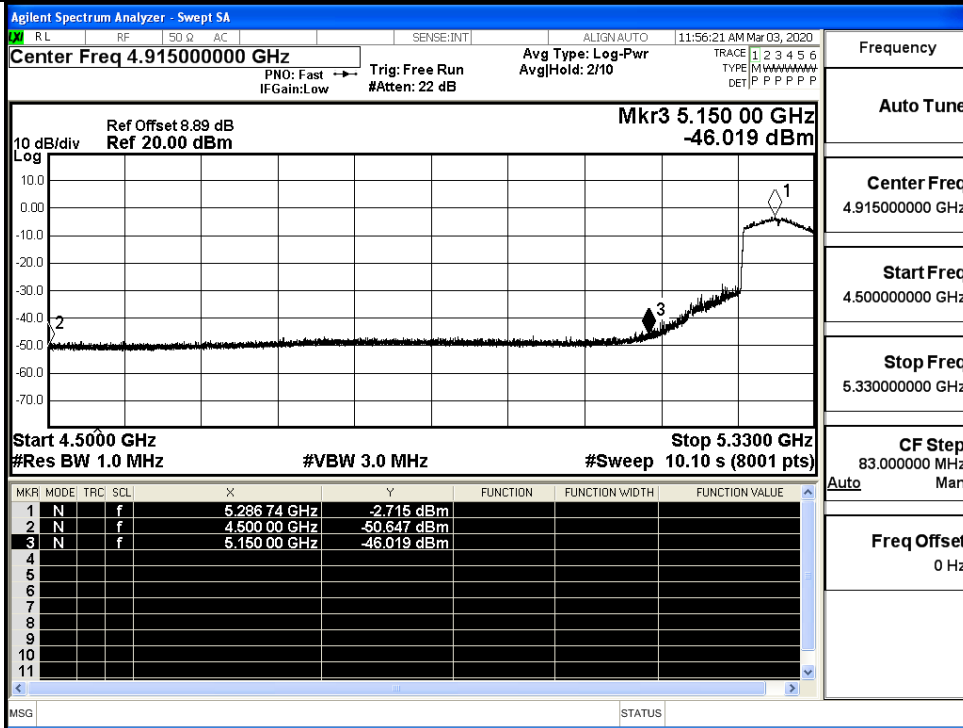
IEEE 802.11ac40 / Channel 38 / 5270MHz / Average



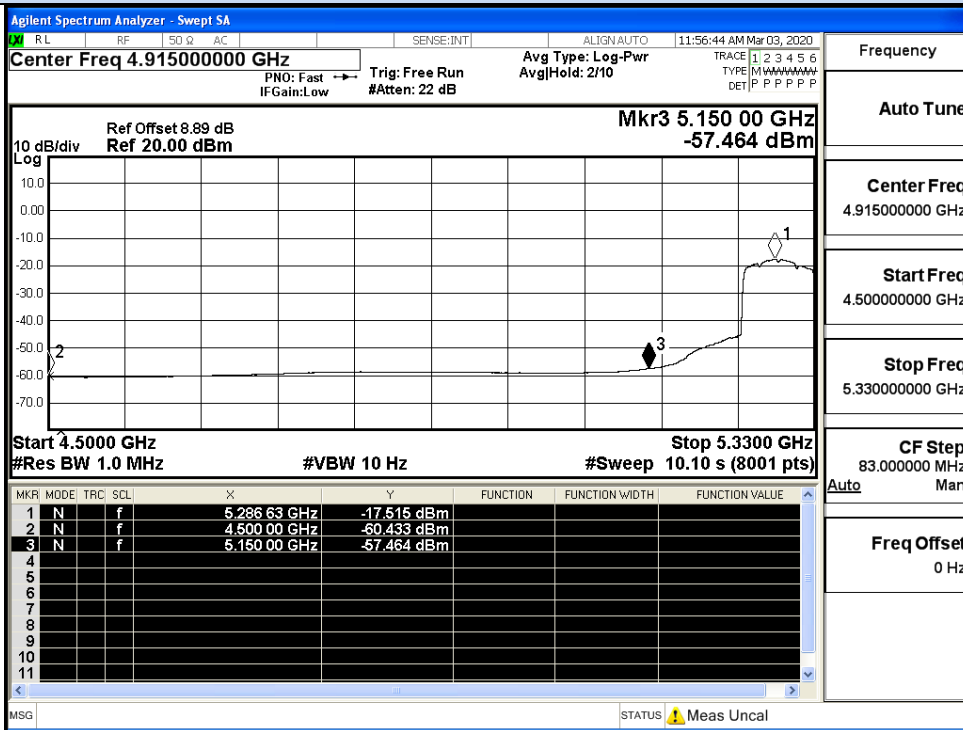
IEEE 802.11ac40 / Channel 46/ 5310MHz / Peak



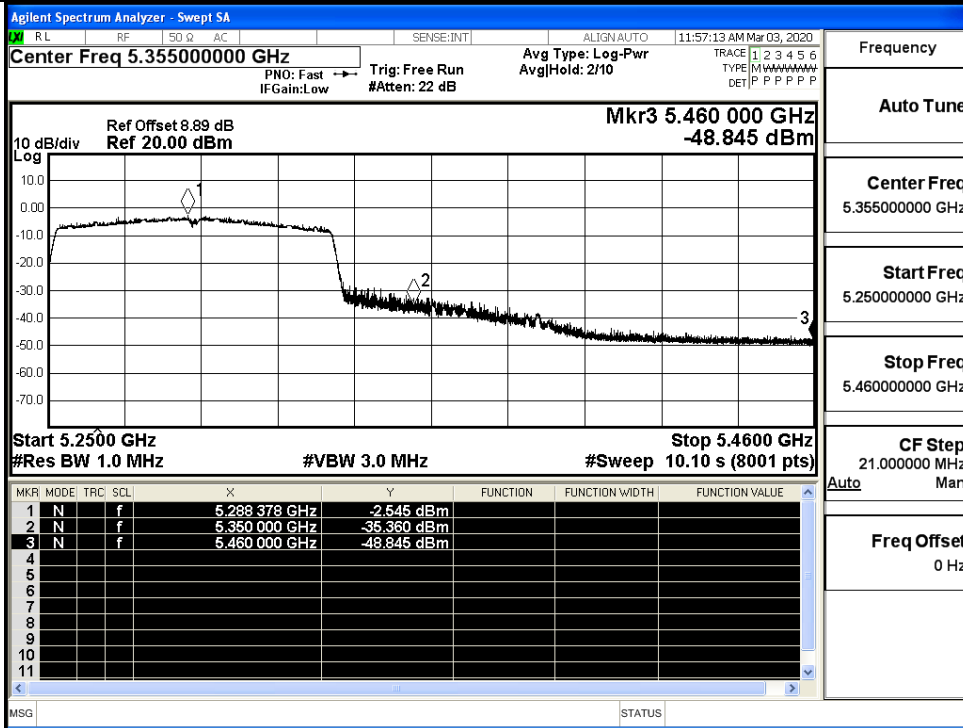
IEEE 802.11ac40 / Channel 46 / 5310MHz / Average



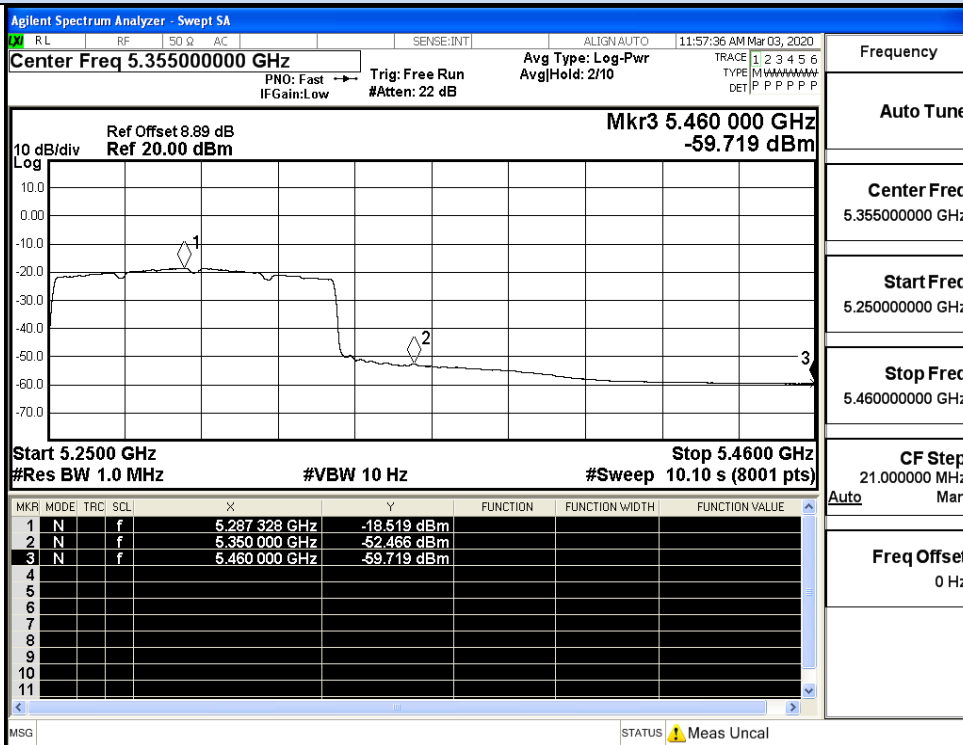
IEEE 802.11ac80 / Channel 42 / 5290MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5290MHz / Average



IEEE 802.11ac80 / Channel 42 / 5290MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5290MHz / Average