

Appendix F
RF Test Data for 5.3G WLAN (Conducted Measurement)
Product Name: Communicator
Trade Mark: N/A
Test Model: Communicator 3

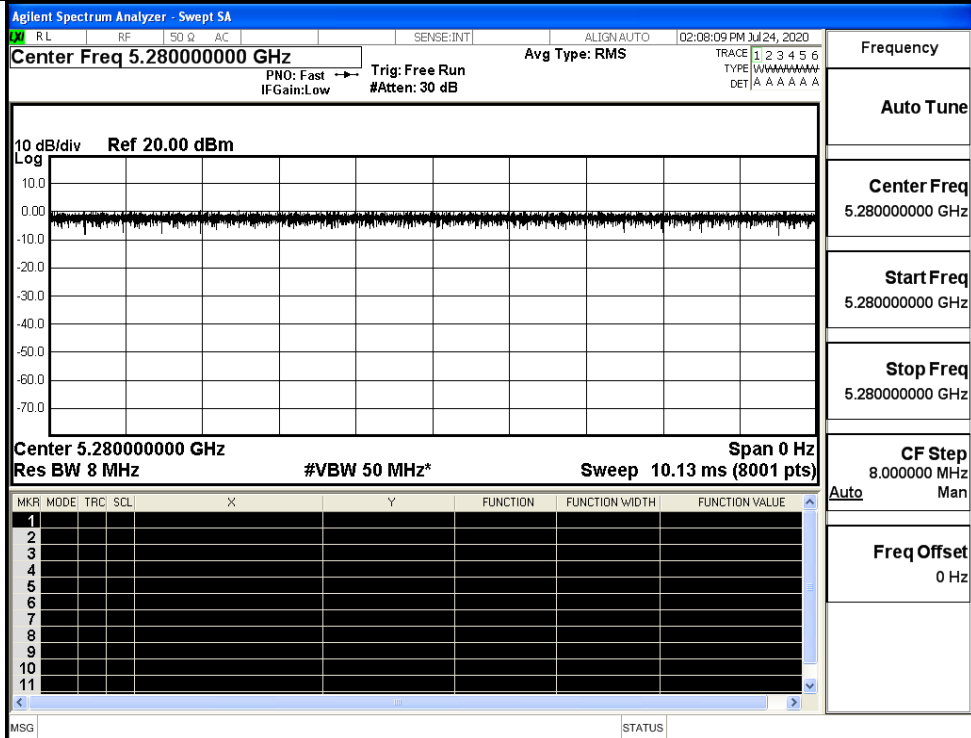
Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

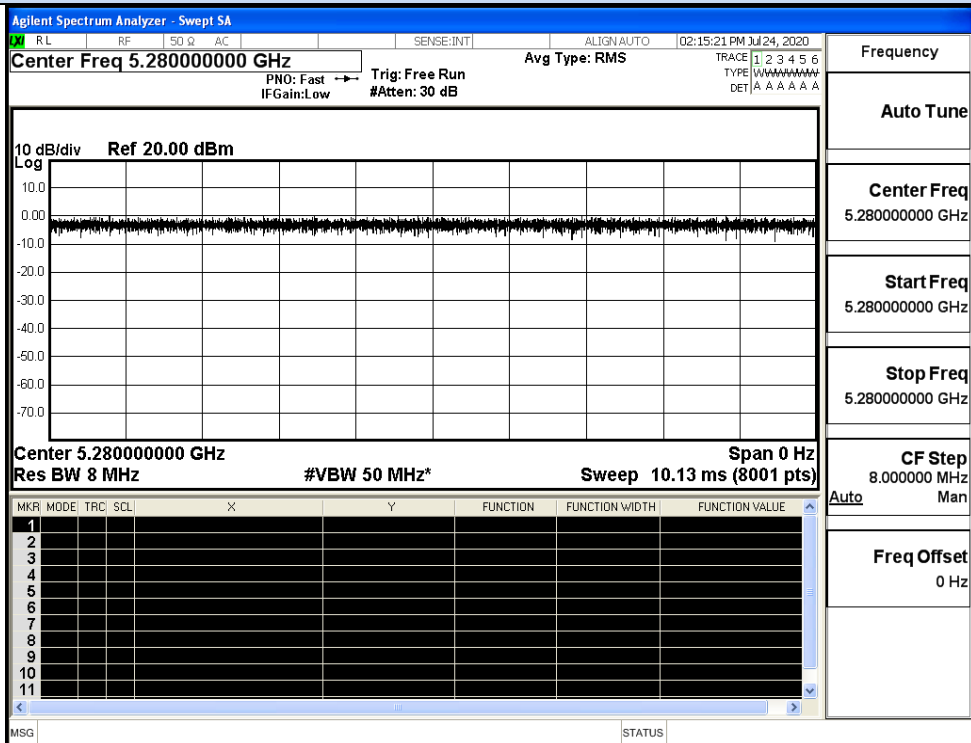
F.1 Duty Cycle

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

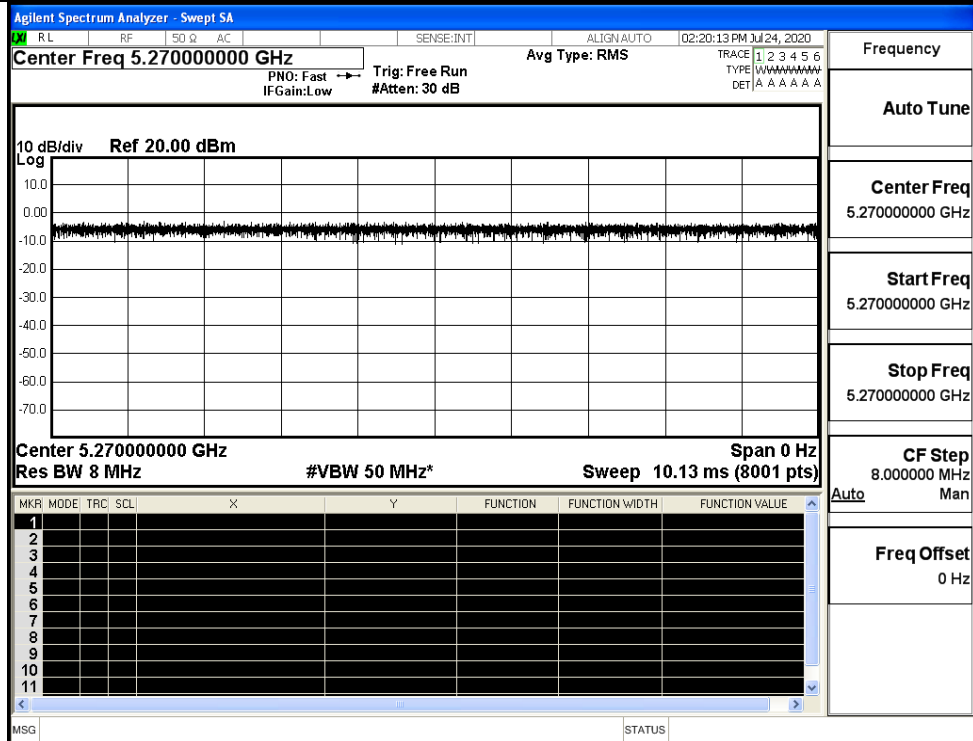
On Time and Duty Cycle



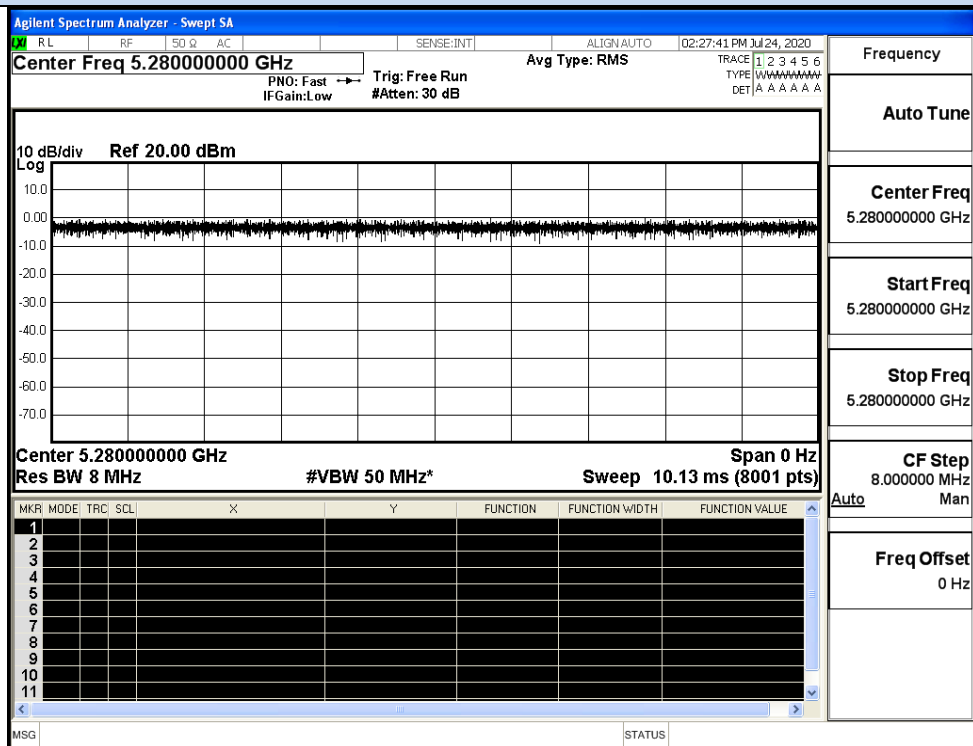
IEEE 802.11a



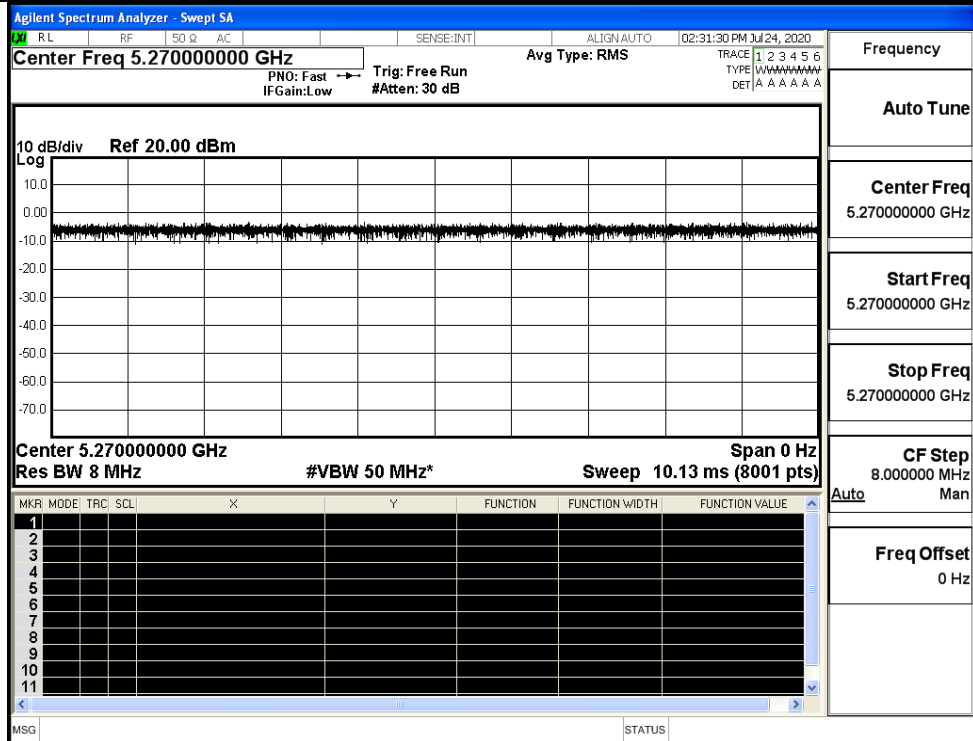
IEEE 802.11n HT20



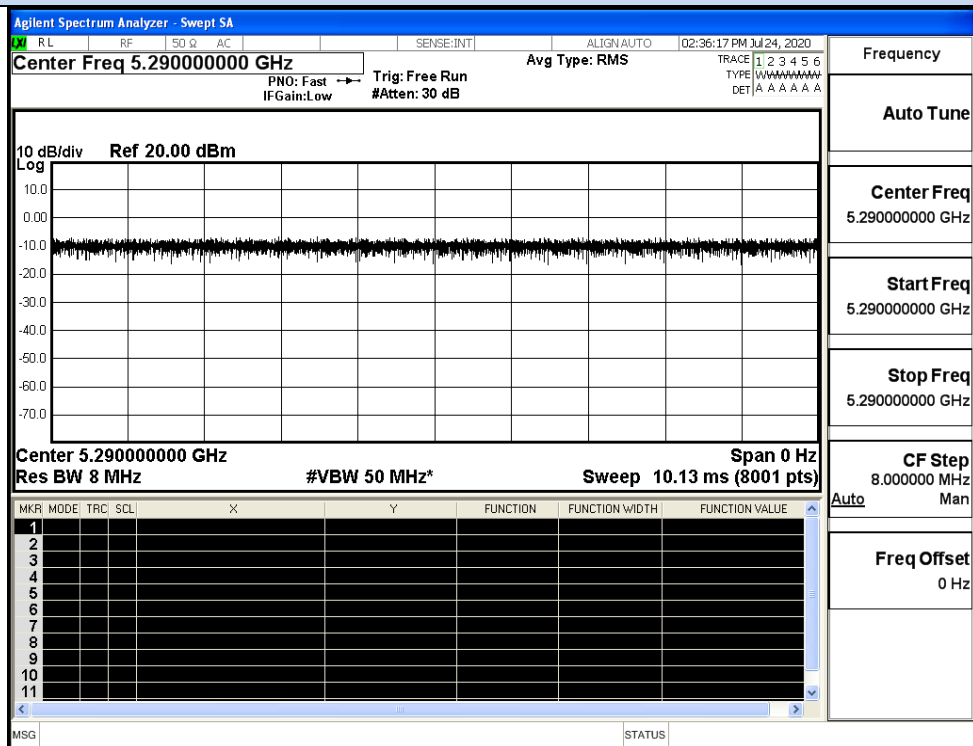
IEEE 802.11n HT40



IEEE 802.11AC20



IEEE 802.11 AC40



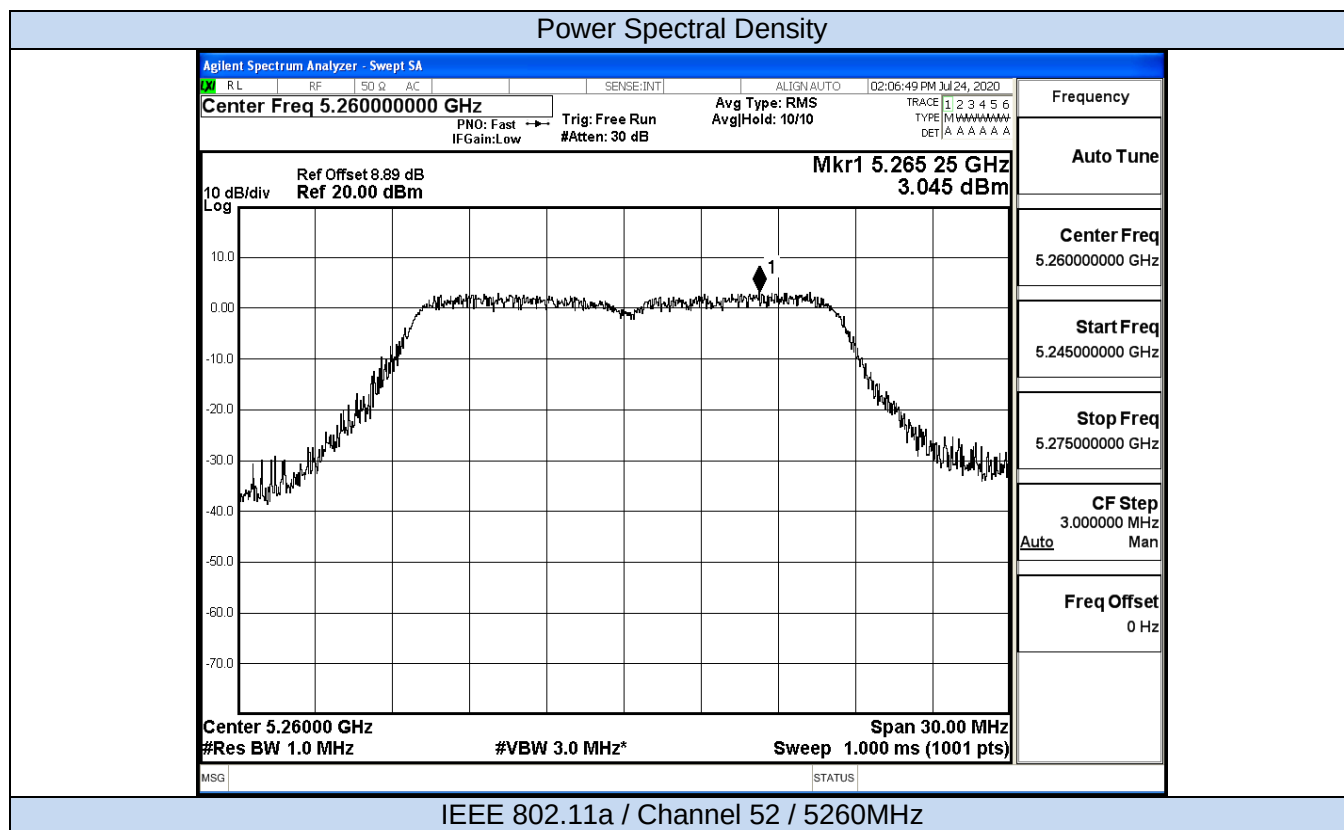
IEEE 802.11AC80

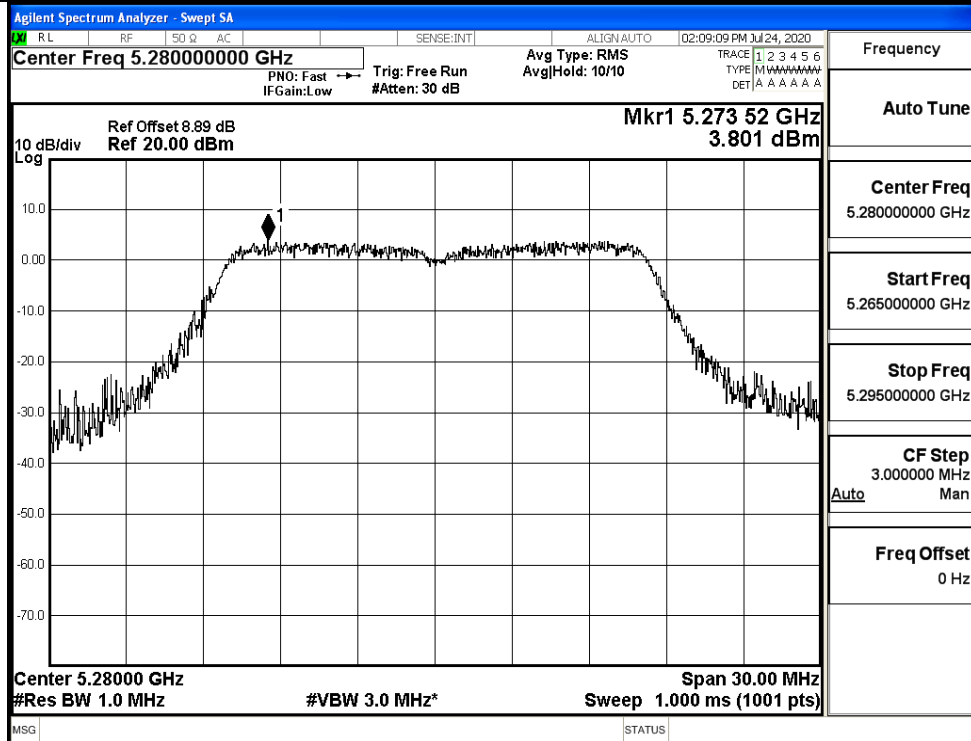
F.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	52	5260	13.79	0	13.79	24	Pass
	56	5280	14.5	0	14.5		Pass
	64	5320	14.72	0	14.72		Pass
11N20 SISO	52	5260	14.14	0	14.14	24	Pass
	56	5280	14.21	0	14.21		Pass
	64	5320	14.43	0	14.43		Pass
11N40 SISO	54	5270	14.22	0	14.22	24	Pass
	62	5310	14.44	0	14.44		Pass
11AC20 SISO	52	5260	13.88	0	13.88	24	Pass
	56	5280	14.07	0	14.07		Pass
	64	5320	14.32	0	14.32		Pass
11AC40 SISO	54	5270	13.99	0	13.99	24	Pass
	62	5310	14.36	0	14.36		Pass
11AC80 SISO	58	5290	14.07	0	14.07	24	Pass

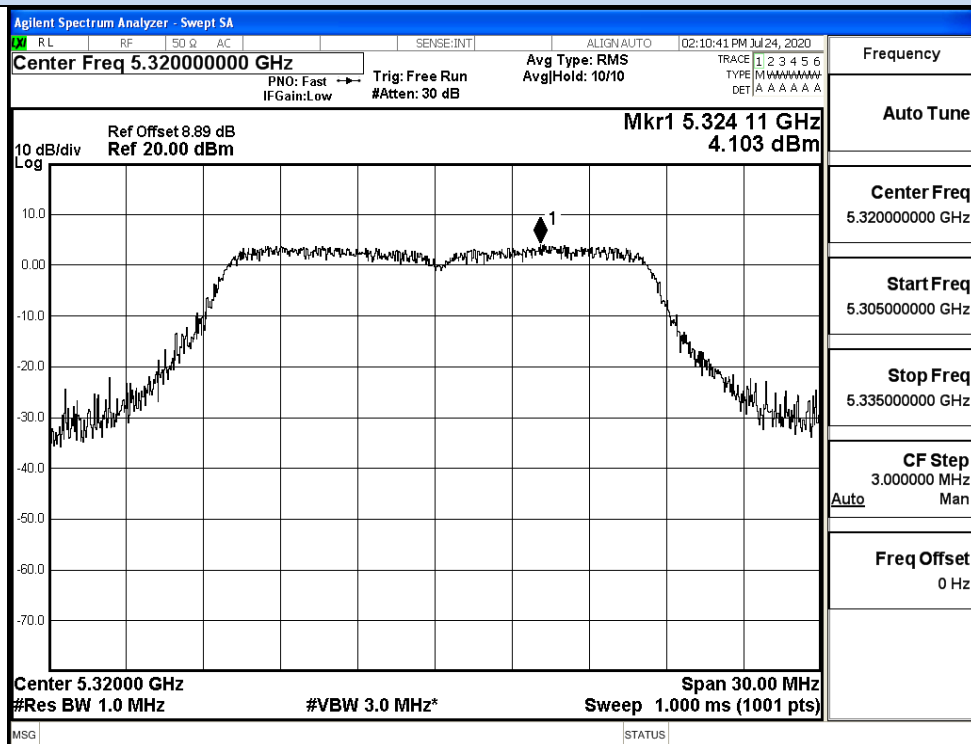
F.3 Power Spectral Density

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	3.05	0	3.05	11	Pass
	56	5280	3.80	0	3.80		Pass
	64	5320	4.10	0	4.10		Pass
11N20 SISO	52	5260	2.90	0	2.90	11	Pass
	56	5280	3.29	0	3.29		Pass
	64	5320	3.37	0	3.37		Pass
11N40 SISO	54	5270	0.19	0	0.19	11	Pass
	62	5310	0.58	0	0.58		Pass
11AC20 SISO	52	5260	2.95	0	2.95	11	Pass
	56	5280	3.09	0	3.09		Pass
	64	5320	3.28	0	3.28		Pass
11AC40 SISO	54	5270	0.35	0	0.35	11	Pass
	62	5310	0.45	0	0.45		Pass
11AC80 SISO	58	5290	-1.39	0	-1.39	11	Pass



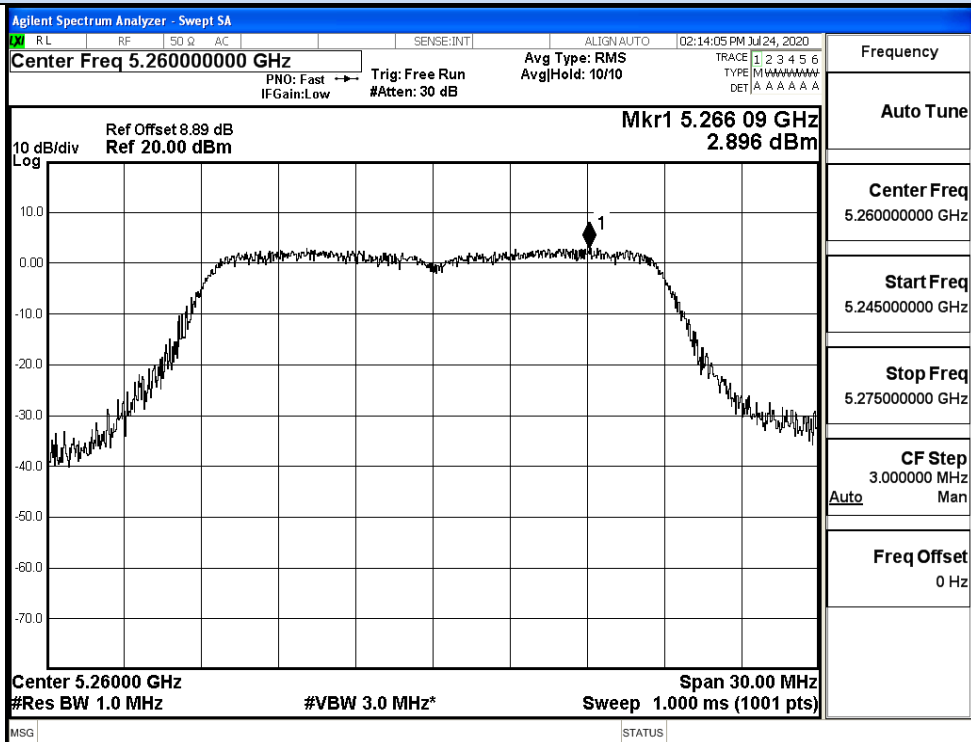


IEEE 802.11na / Channel 56 / 5280MHz

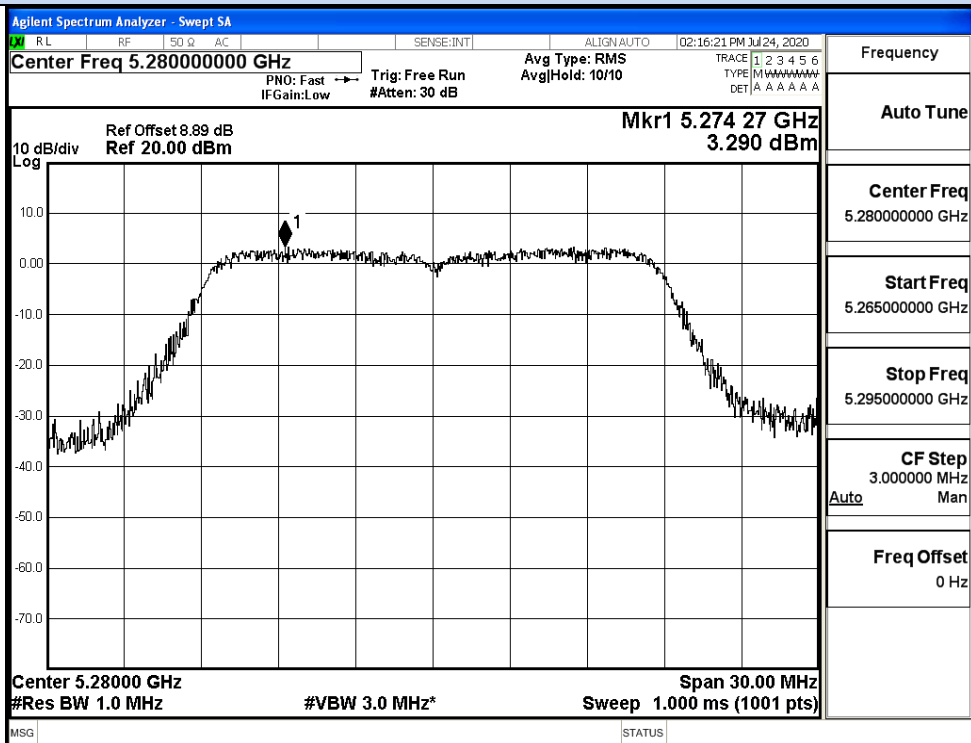


IEEE 802.11na / Channel 64 / 5320MHz

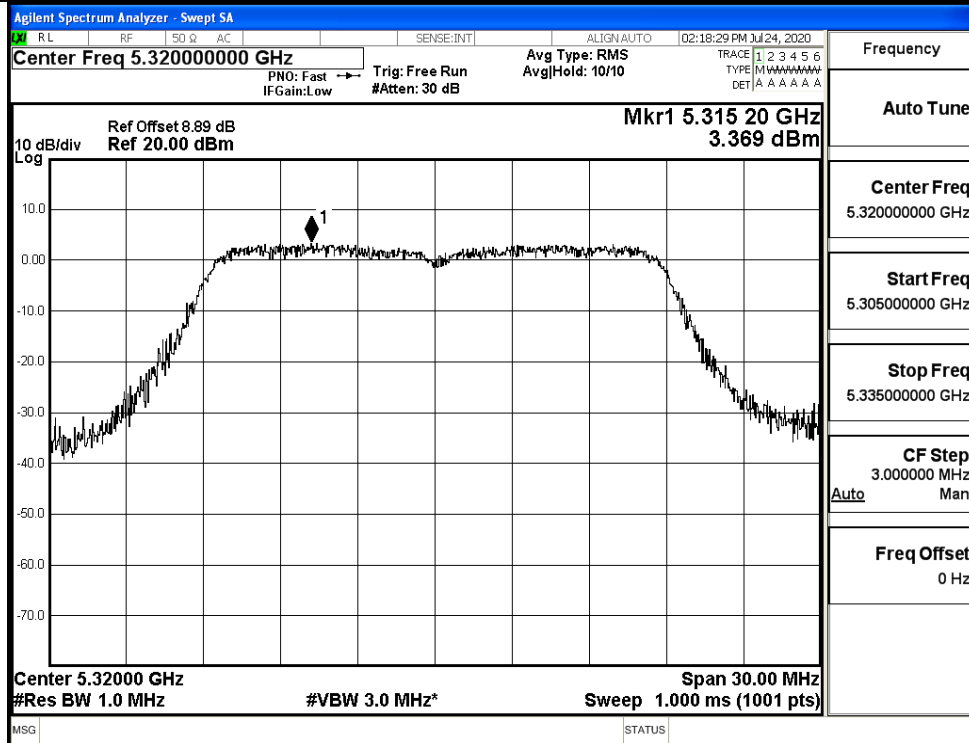
Power Spectral Density



IEEE 802.11n20 / Channel 52 / 5260MHz

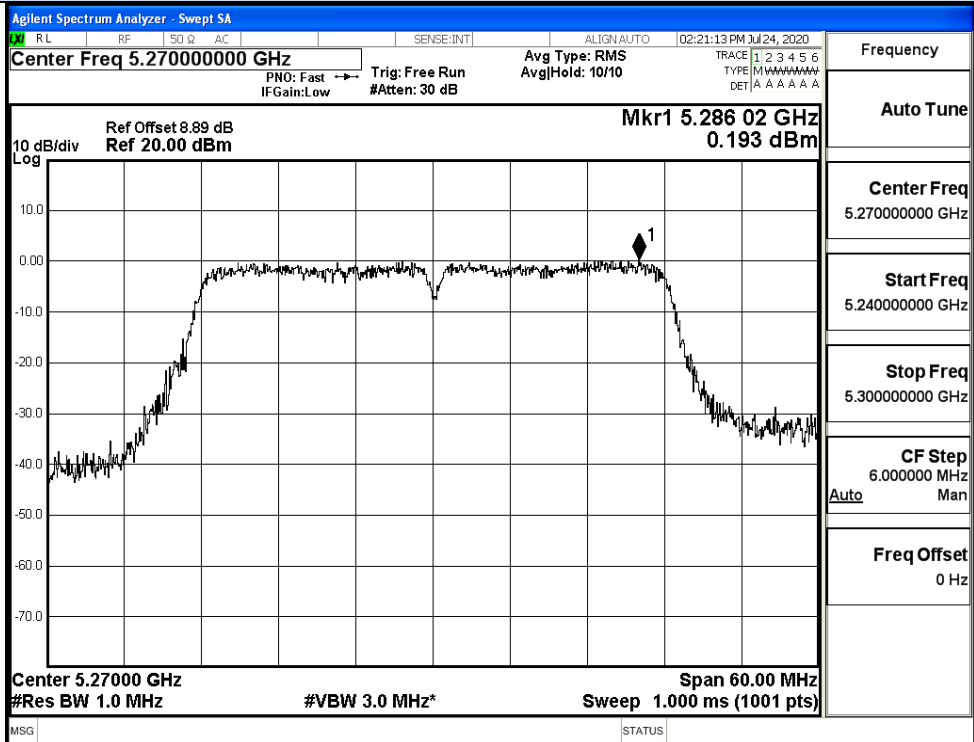


IEEE 802.11n20 / Channel 56 / 5280MHz

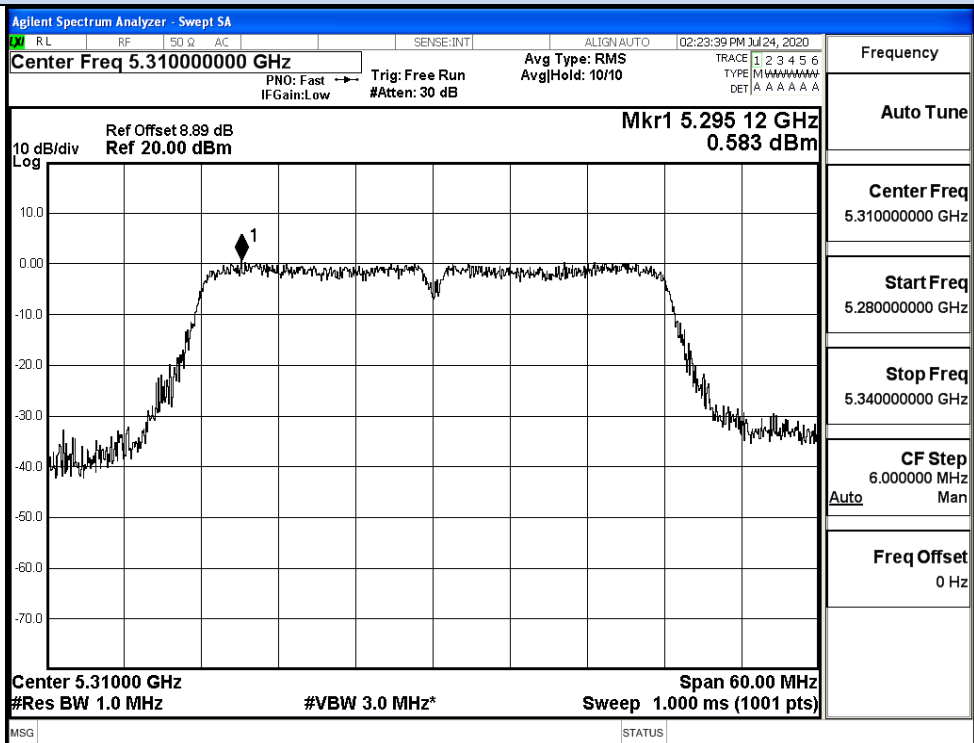


IEEE 802.11n20 / Channel 64 / 5320MHz

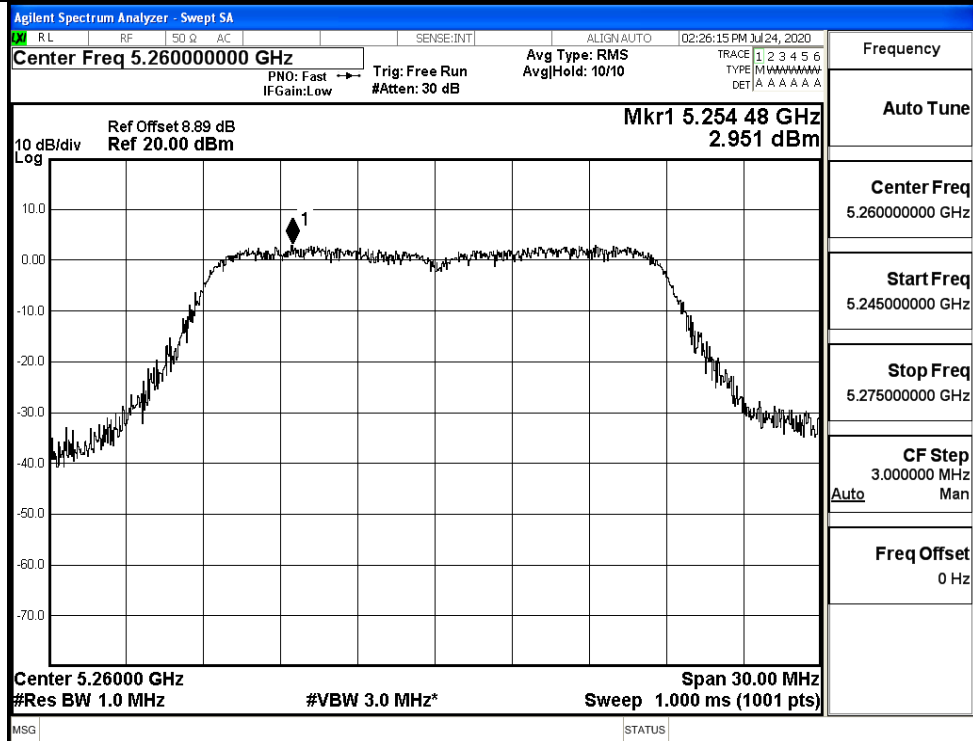
Power Spectral Density



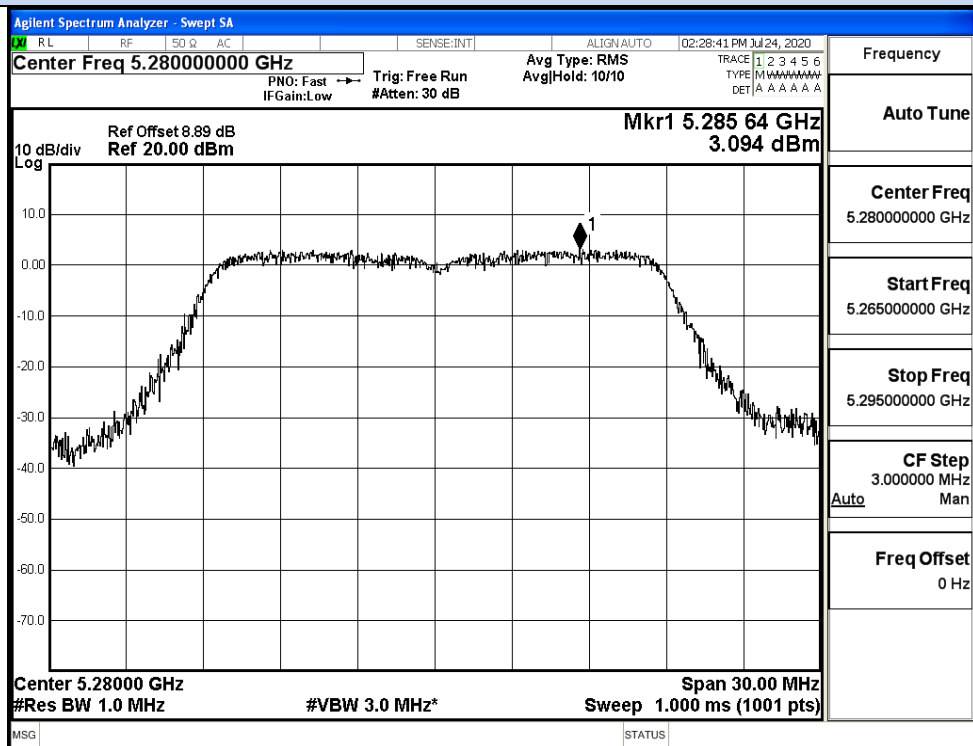
IEEE 802.11n40 / Channel 54 / 5270MHz



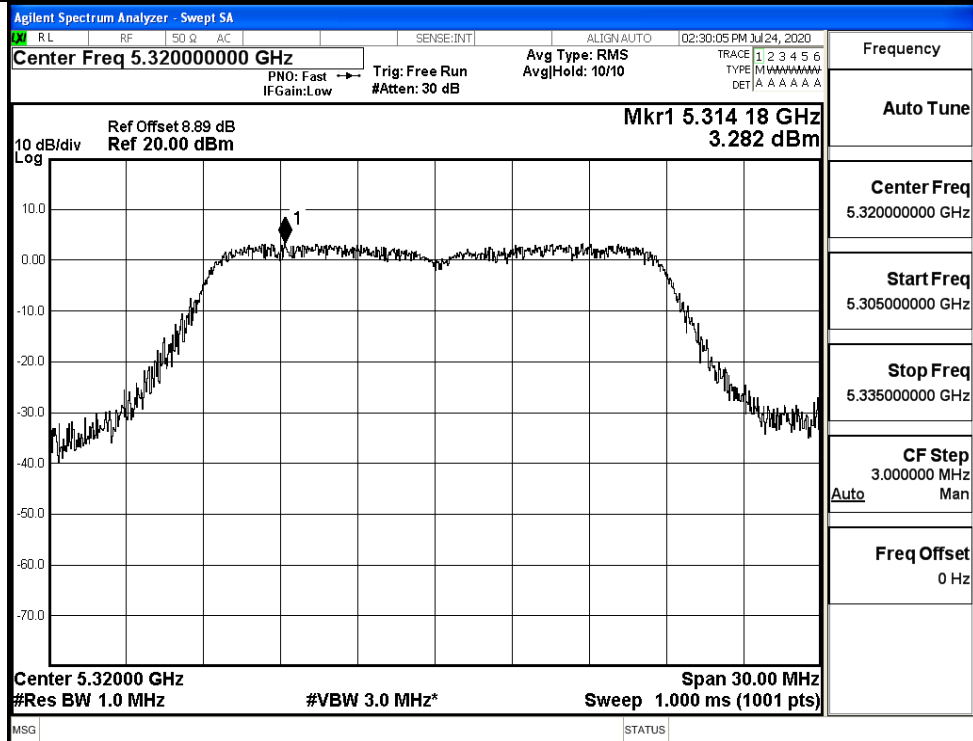
IEEE 802.11n40 / Channel 62 / 5310MHz



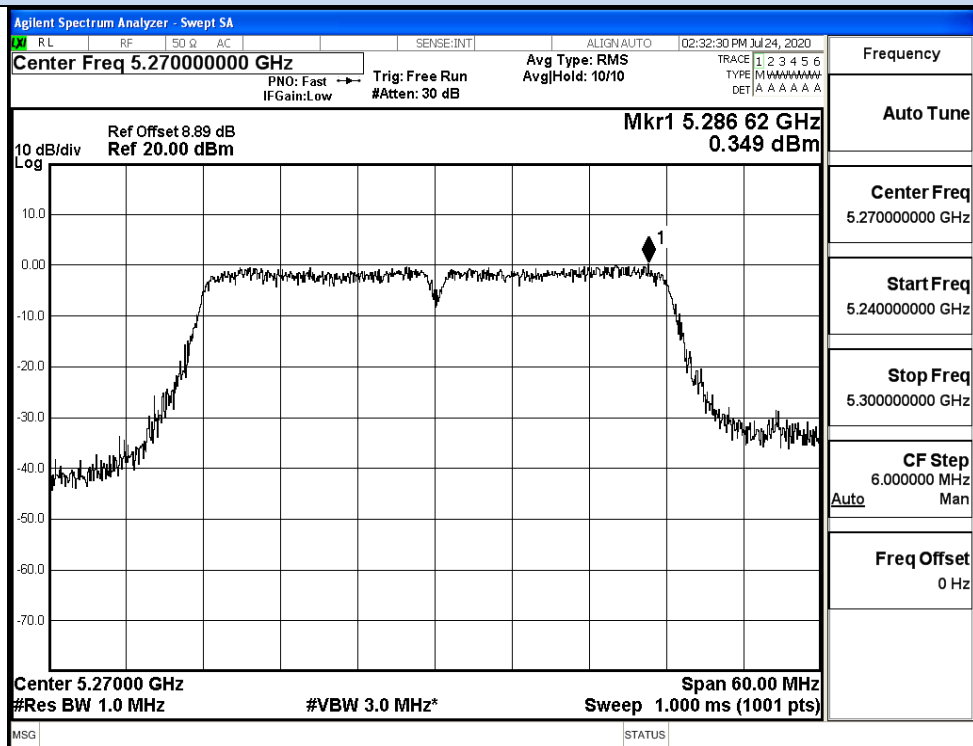
IEEE 802.11ac20 / Channel 52 / 5260MHz



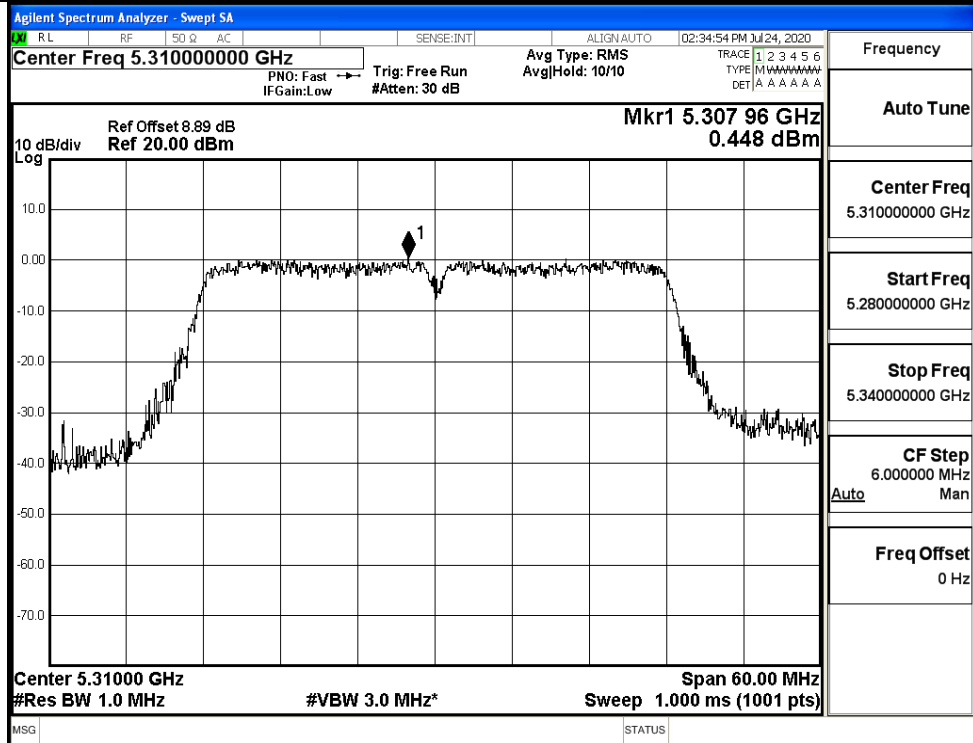
IEEE 802.11ac20 / Channel 56 / 5280MHz



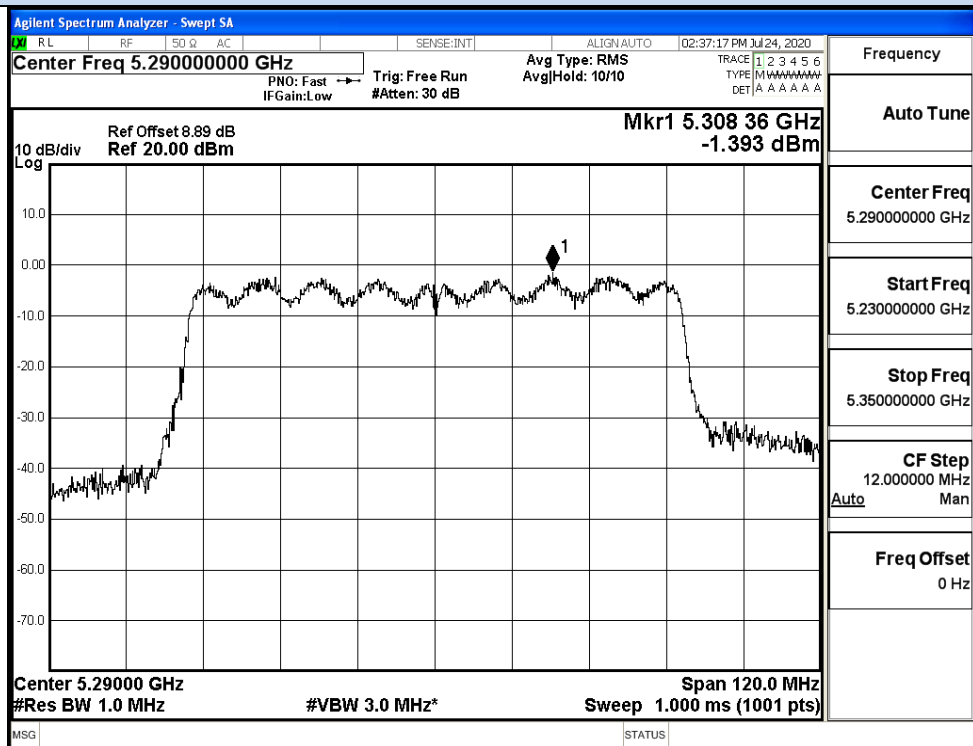
IEEE 802.11ac20 / Channel 64 / 5320MHz



IEEE 802.11ac40 / Channel 54 / 5270MHz



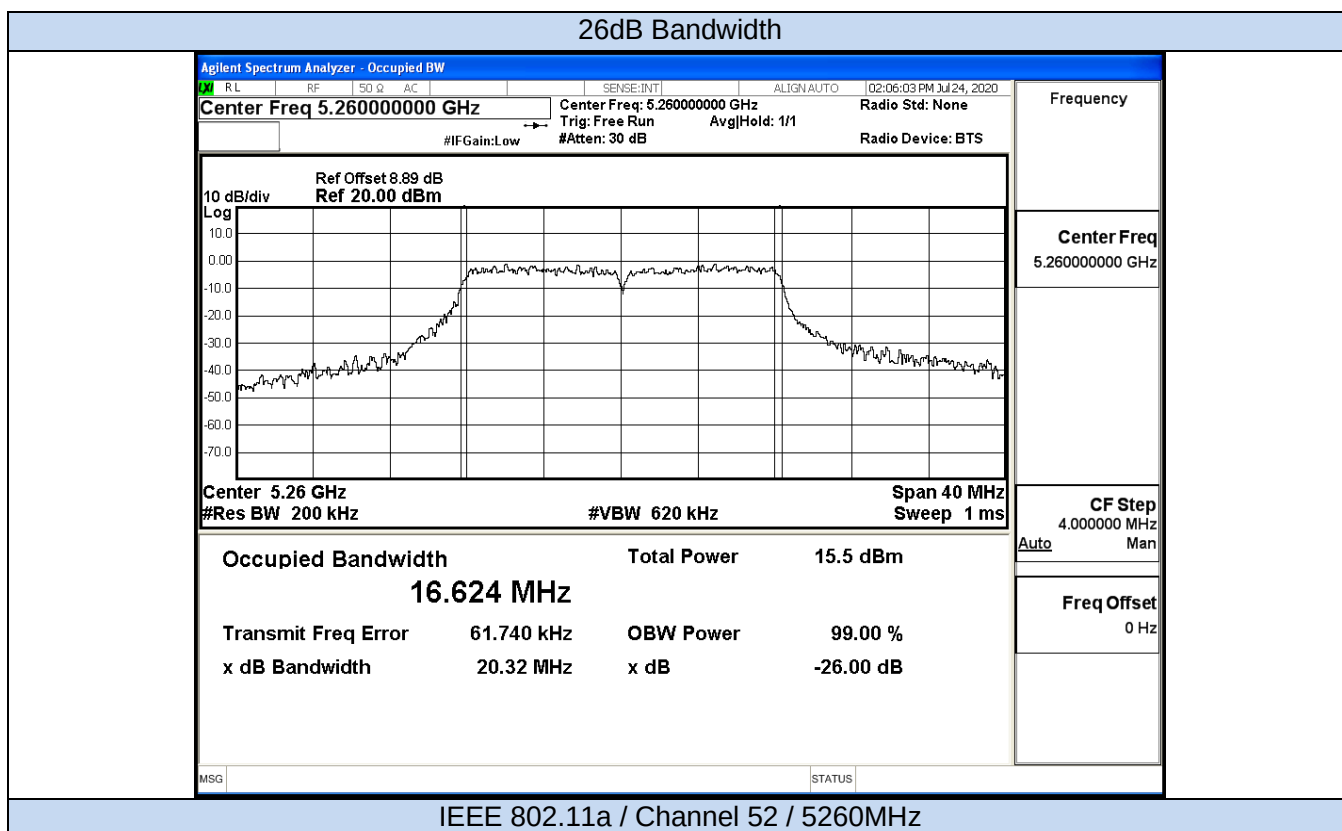
IEEE 802.11ac40 / Channel 62 / 5310MHz

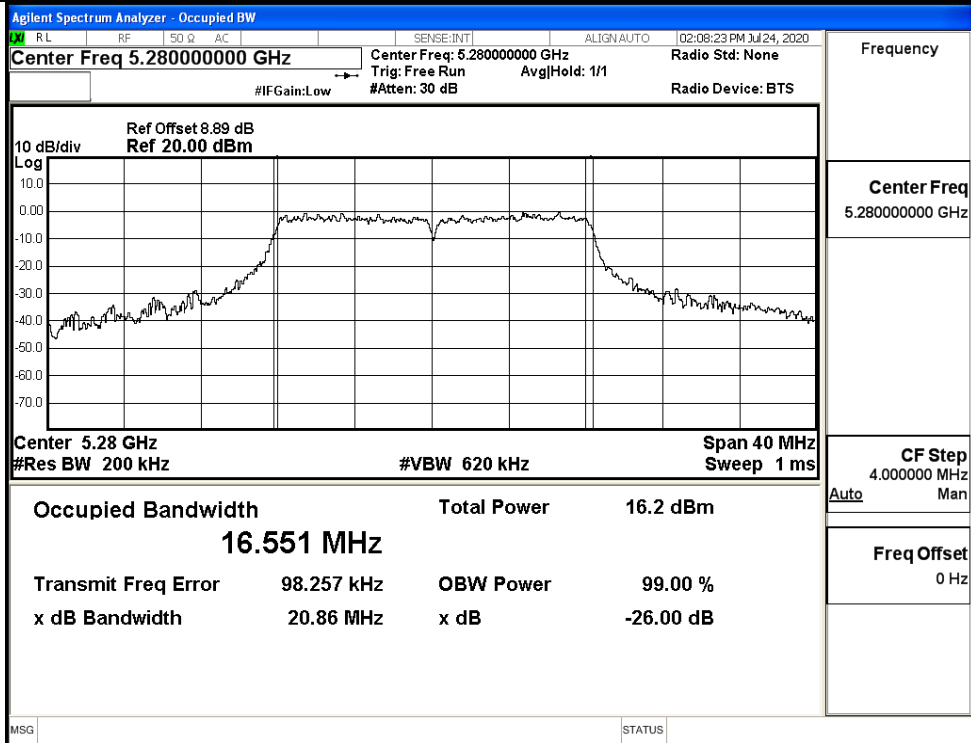


IEEE 802.11ac80 / Channel 58 / 5290MHz

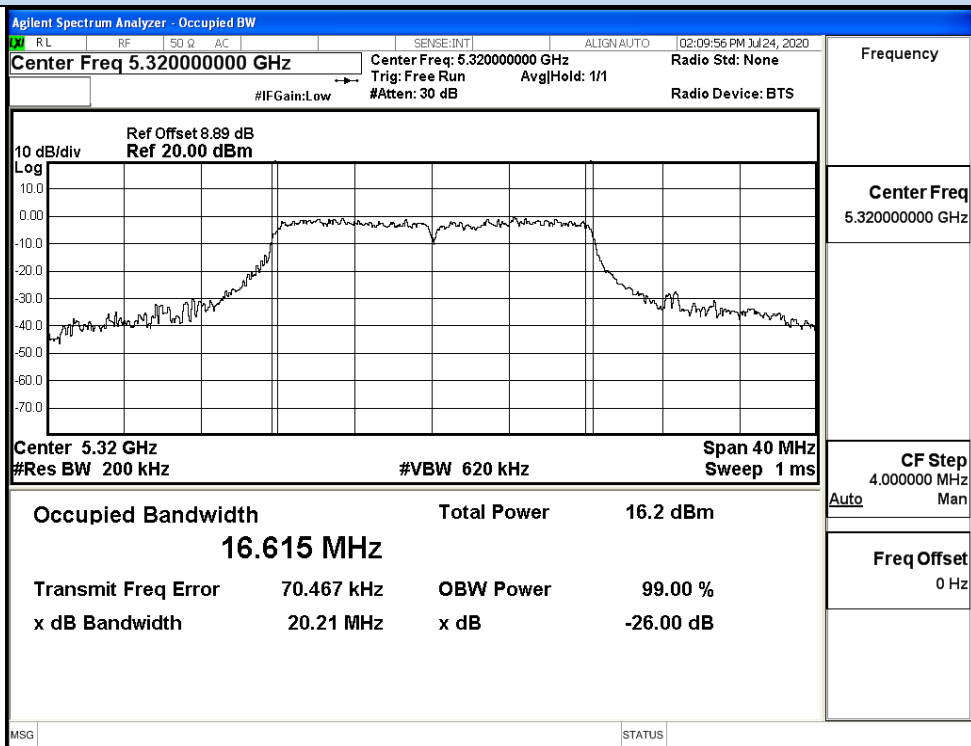
F.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)	Verdict
11A	52	5260	20.32	16.624	No Limit	Pass
	56	5280	20.86	16.551		Pass
	64	5320	20.21	16.615		Pass
11N20 SISO	52	5260	21.52	17.713	No Limit	Pass
	56	5280	21.35	17.721		Pass
	64	5320	21.22	17.711		Pass
11N40 SISO	54	5270	41.29	36.213	No Limit	Pass
	62	5310	41.27	36.209		Pass
11AC20 SISO	52	5260	21.35	17.691	No Limi	Pass
	56	5280	21.38	17.703		Pass
	64	5320	21.47	17.707		Pass
11AC40 SISO	54	5270	41.83	36.225	No Limi	Pass
	62	5310	41.31	36.205		Pass
11AC80 SISO	58	5290	81.99	75.511	No Limi	Pass



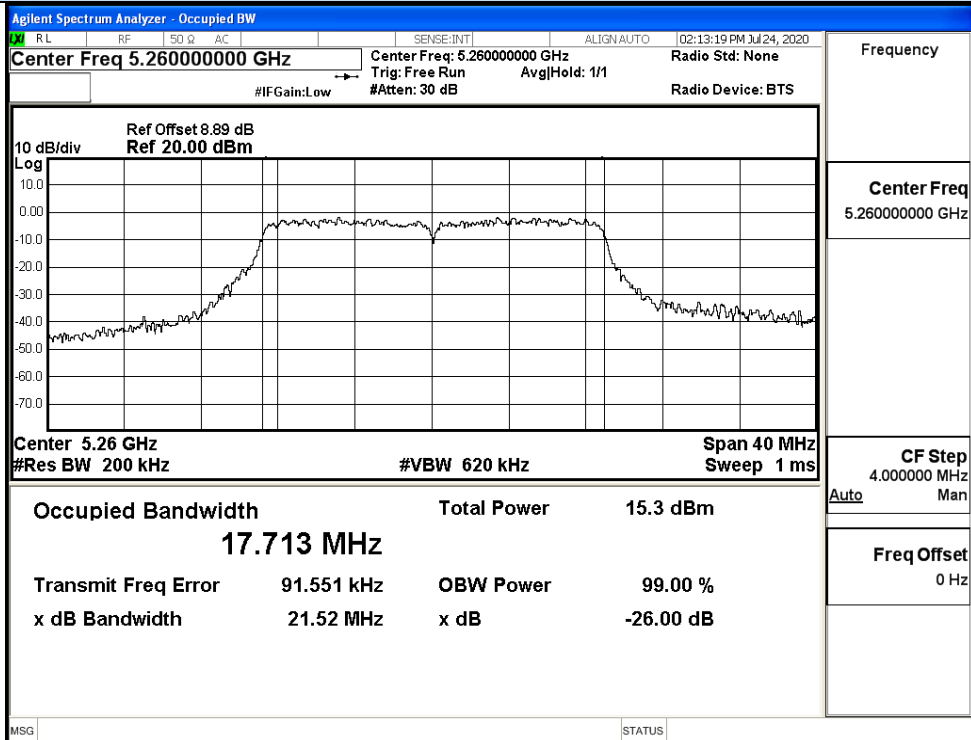


IEEE 802.11a / Channel 56 / 5280MHz

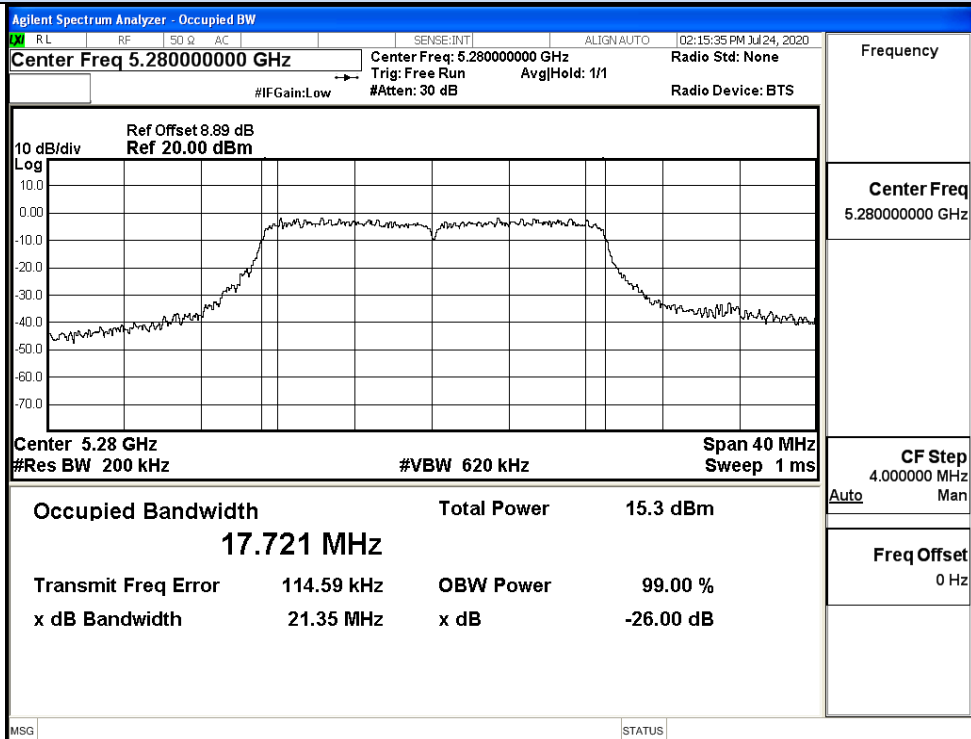


IEEE 802.11a / Channel 64 / 5320MHz

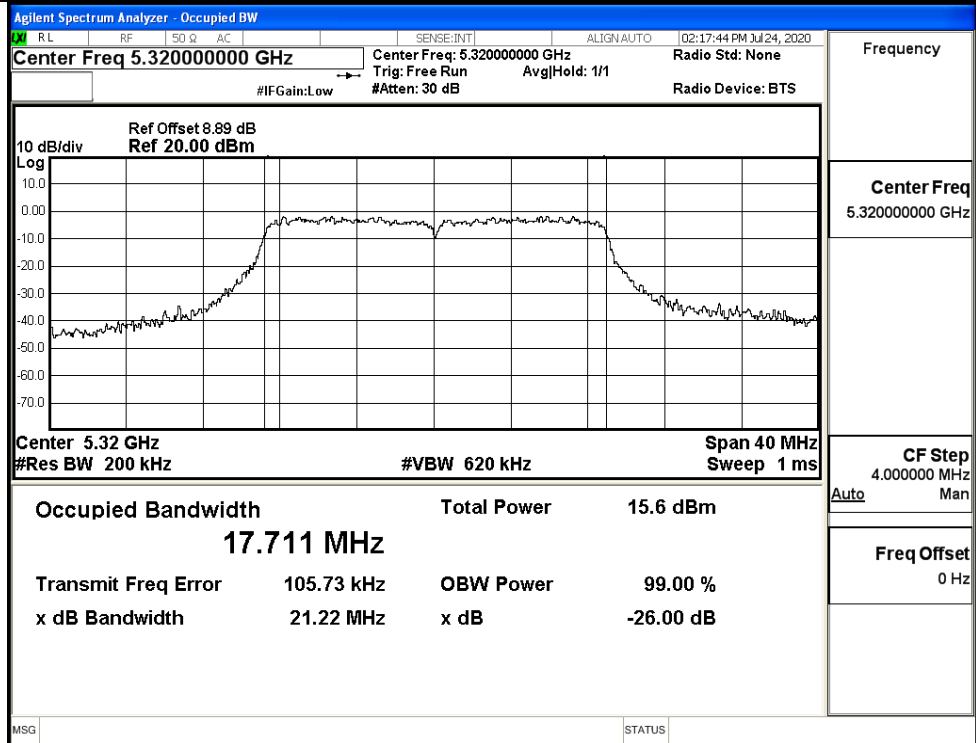
26dB Bandwidth



IEEE 802.11n20 / Channel 52 / 5260MHz

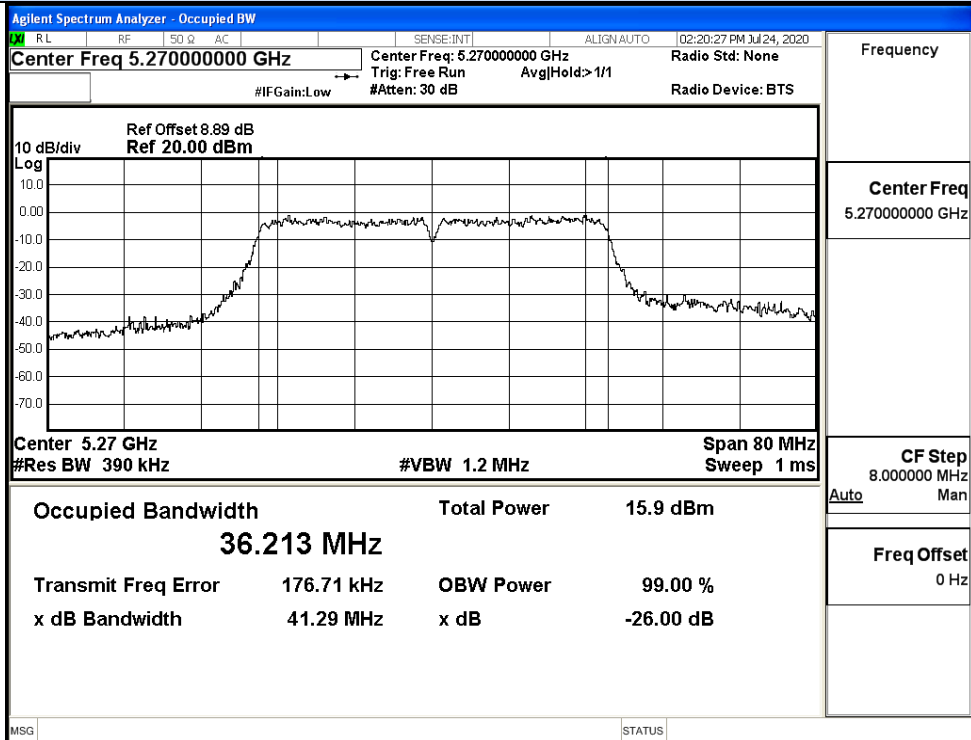


IEEE 802.11n20 / Channel 56 / 5280MHz

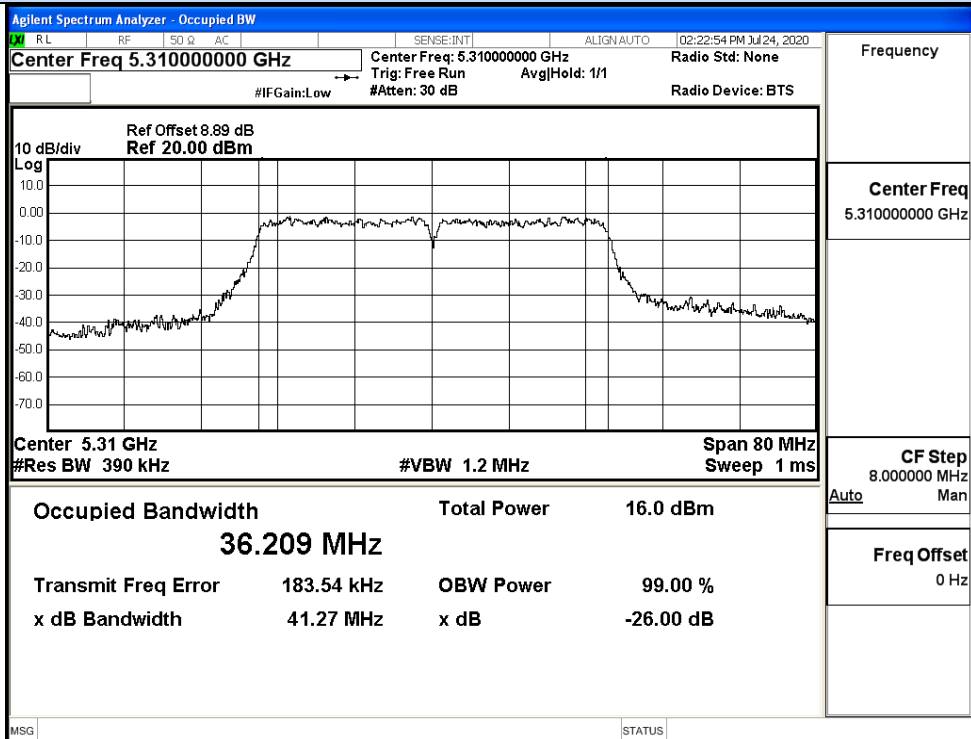


IEEE 802.11n20 / Channel 64 / 5320MHz

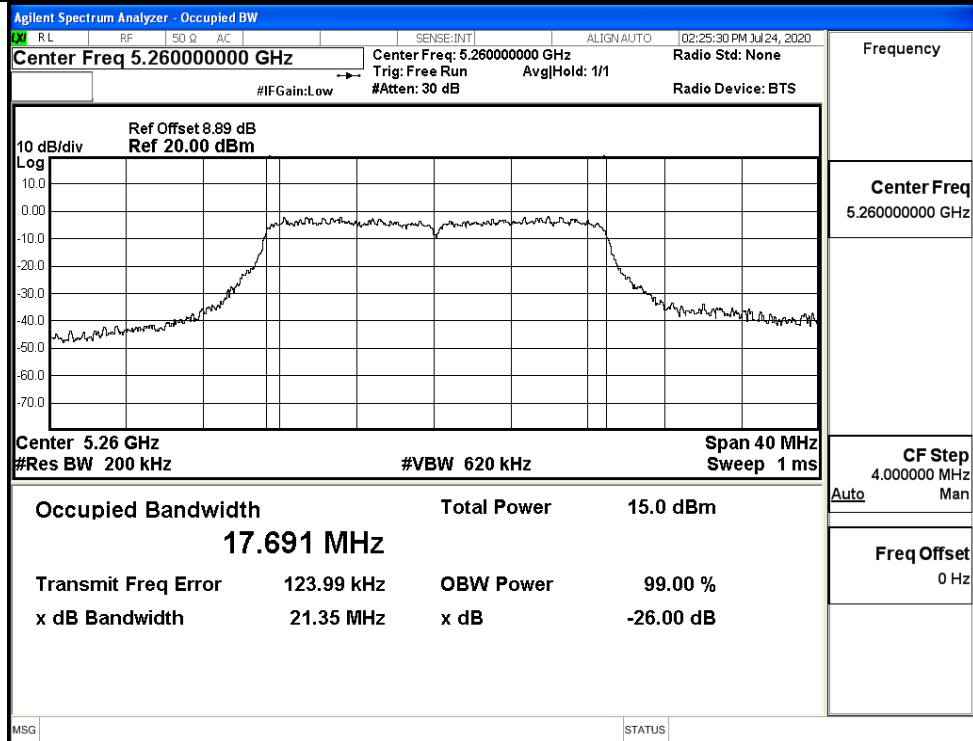
26dB Bandwidth



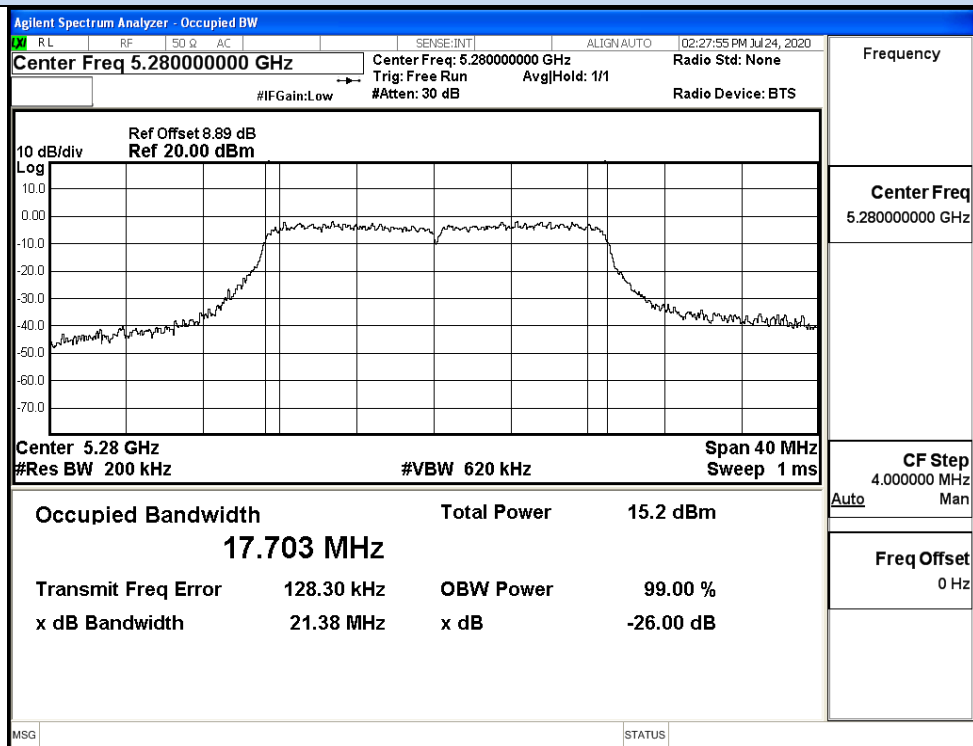
IEEE 802.11n40 / Channel 54 / 5270MHz



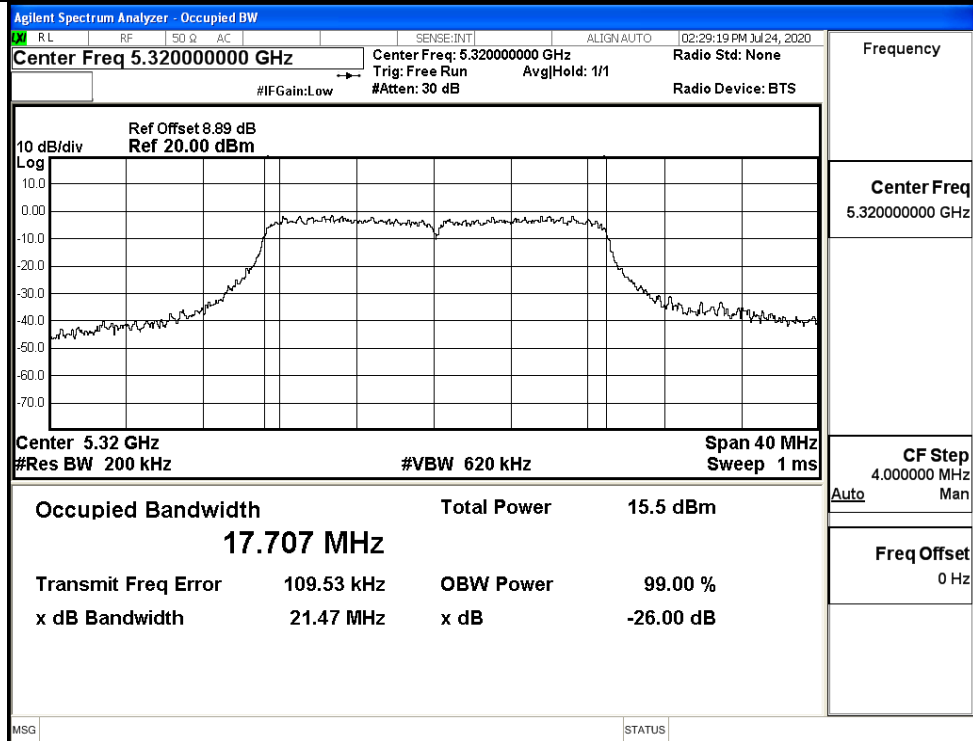
IEEE 802.11n40 / Channel 62 / 5310MHz



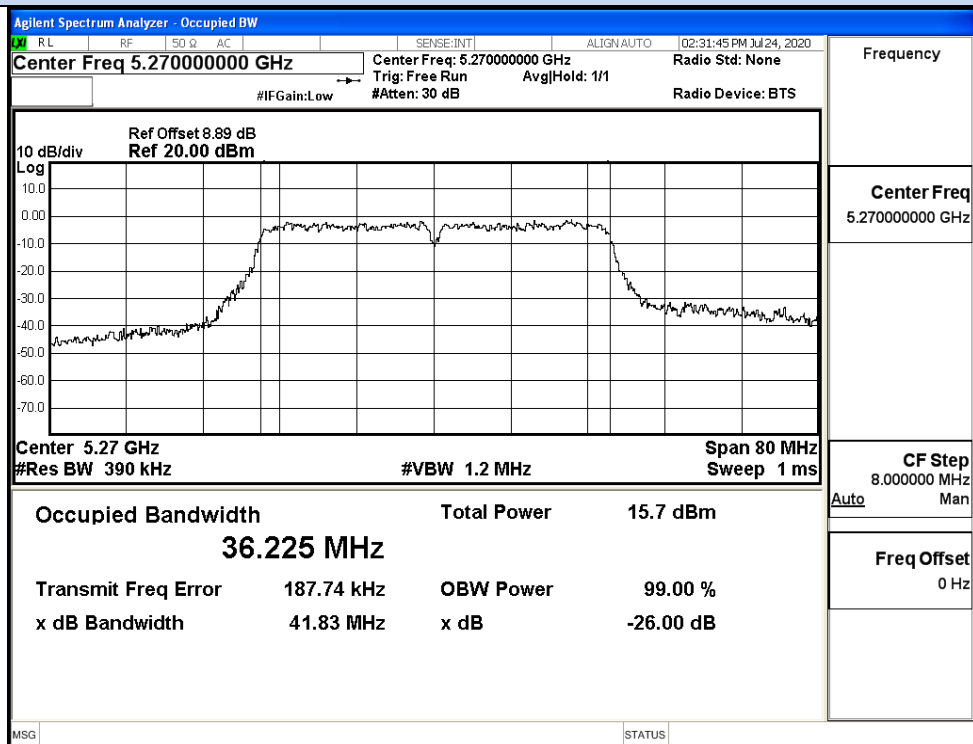
IEEE 802.11ac20 / Channel 52 / 5260MHz



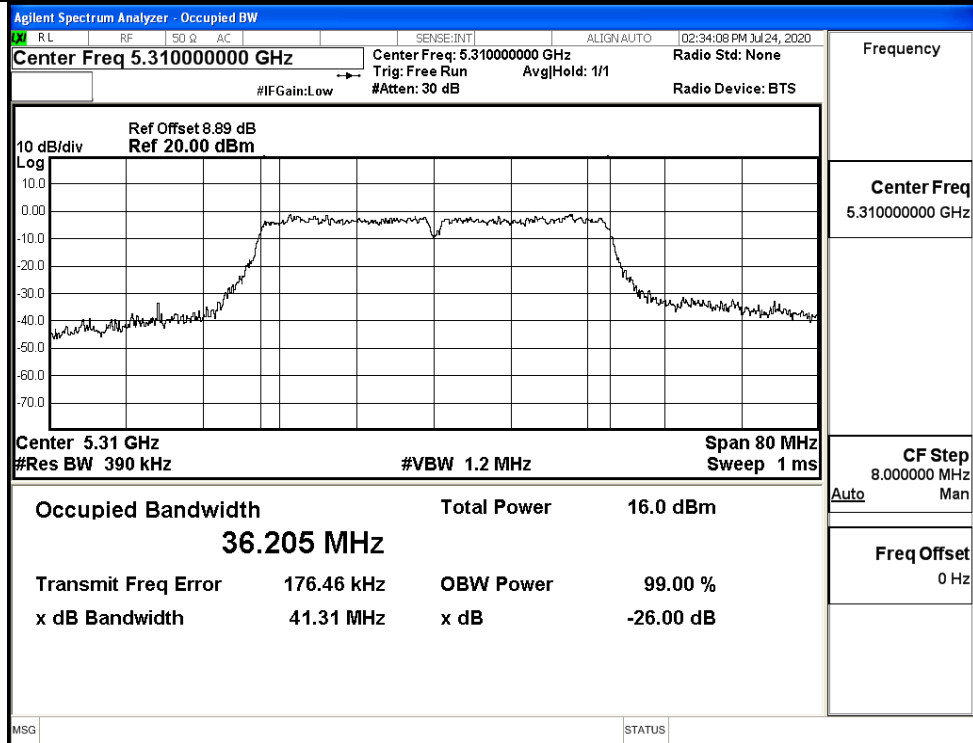
IEEE 802.11ac20 / Channel 56 / 5280MHz



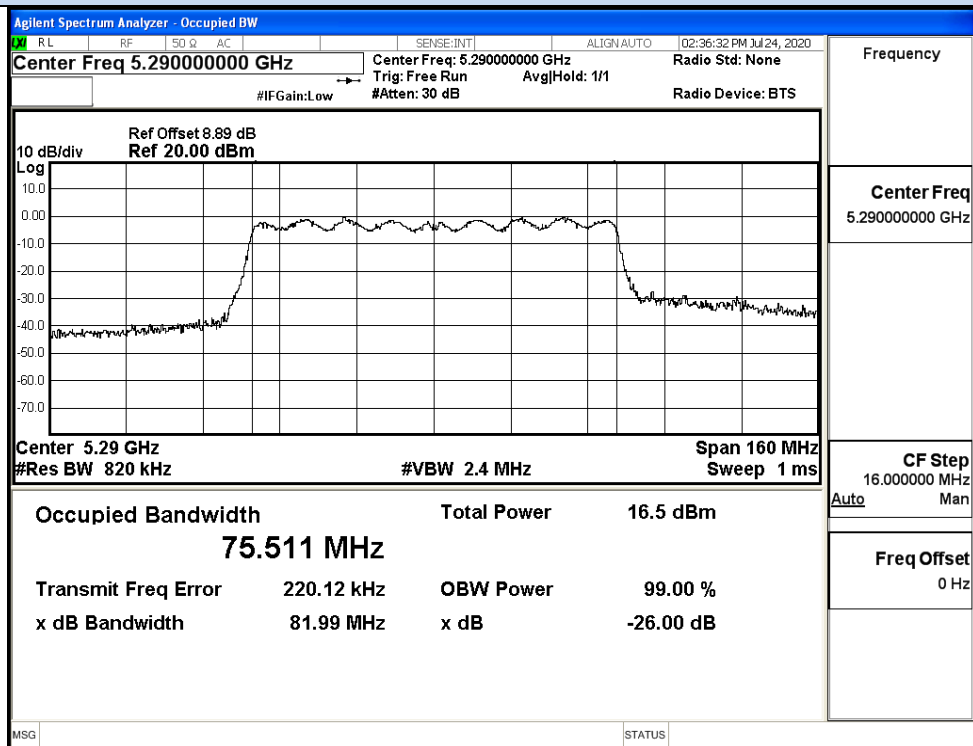
IEEE 802.11ac20 / Channel 64 / 5320MHz



IEEE 802.11ac40 / Channel 54 / 5270MHz



IEEE 802.11ac40 / Channel 62 / 5310MHz

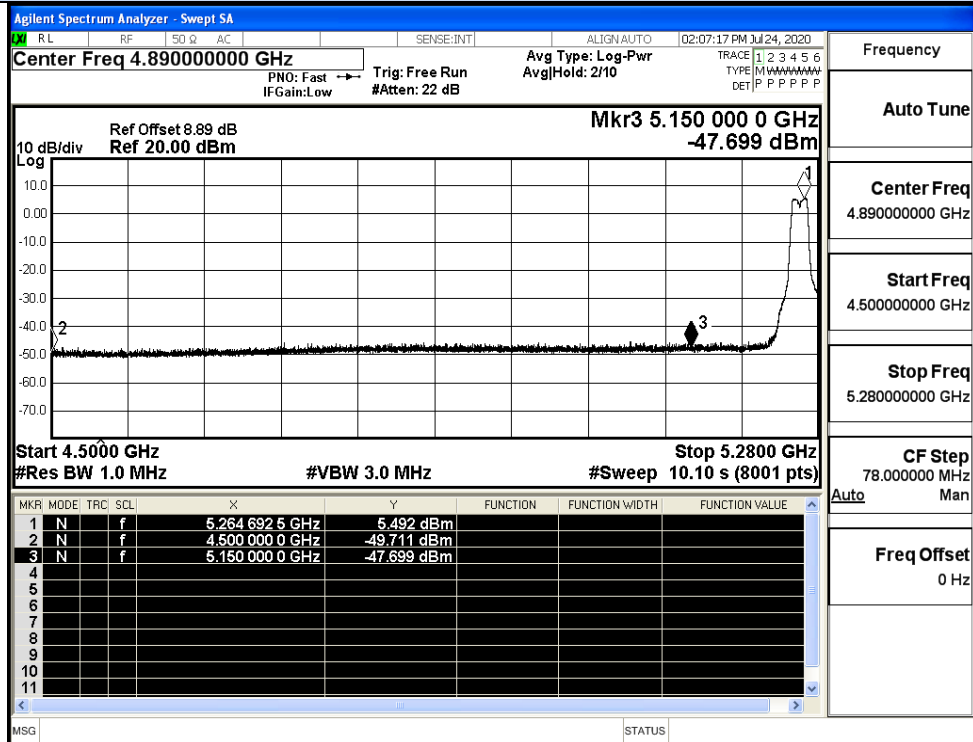


IEEE 802.11ac80 / Channel 58 / 5290MHz

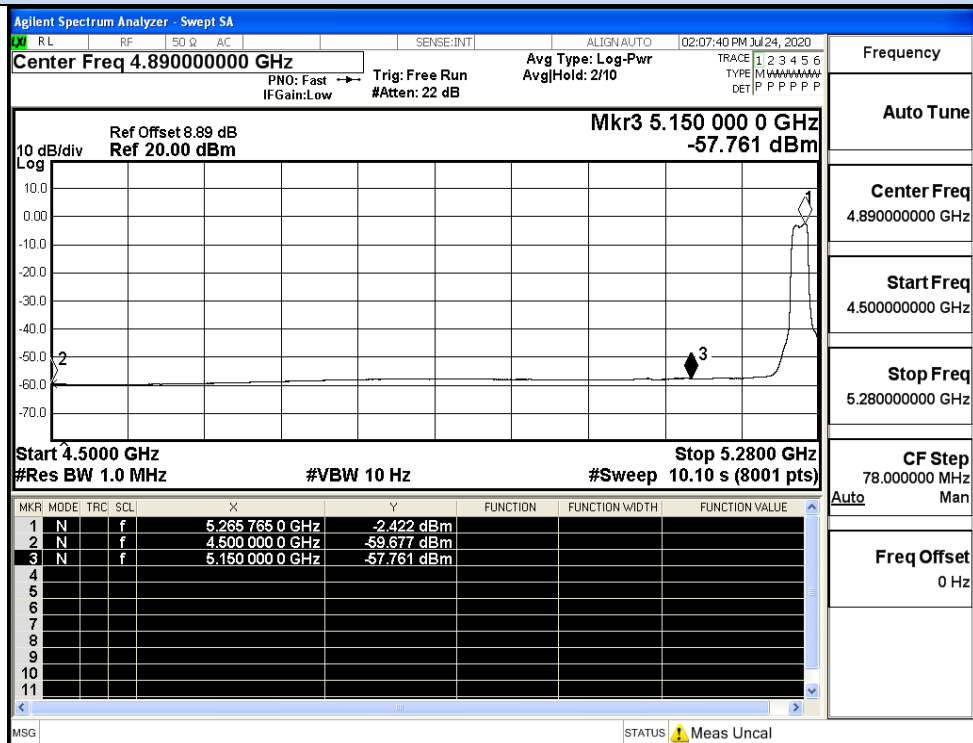
F.5 Undesirable Emissions Measurement

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	-49.71	4.2	0	49.72	Peak	68.20	Pass
		4500.0	-59.68	4.2	0	39.75	Average	54.00	Pass
		5150.0	-47.70	4.2	0	51.73	Peak	68.20	Pass
		5150.0	-57.76	4.2	0	41.67	Average	54.00	Pass
	64	5350.0	-42.95	4.2	0	56.48	Peak	68.20	Pass
		5350.0	-58.19	4.2	0	41.24	Average	54.00	Pass
		5460.0	-48.88	4.2	0	50.55	Peak	68.20	Pass
		5460.0	-60.00	4.2	0	39.43	Average	54.00	Pass
11N2 0 SISO	52	4500.0	-49.85	4.2	0	49.58	Peak	68.20	Pass
		4500.0	-59.65	4.2	0	39.78	Average	54.00	Pass
		5150.0	-48.39	4.2	0	51.04	Peak	68.20	Pass
		5150.0	-57.74	4.2	0	41.69	Average	54.00	Pass
	64	5350.0	-43.29	4.2	0	56.14	Peak	68.20	Pass
		5350.0	-58.46	4.2	0	40.97	Average	54.00	Pass
		5460.0	-47.78	4.2	0	51.65	Peak	68.20	Pass
		5460.0	-60.05	4.2	0	39.38	Average	54.00	Pass
11N4 0 SISO	54	4500.0	-50.17	4.2	0	49.26	Peak	68.20	Pass
		4500.0	-59.64	4.2	0	39.79	Average	54.00	Pass
		5150.0	-45.83	4.2	0	53.60	Peak	68.20	Pass
		5150.0	-57.69	4.2	0	41.74	Average	54.00	Pass
	62	5350.0	-33.25	4.2	0	66.18	Peak	68.20	Pass
		5350.0	-47.81	4.2	0	51.62	Average	54.00	Pass
		5460.0	-48.44	4.2	0	50.99	Peak	68.20	Pass
		5460.0	-59.42	4.2	0	40.01	Average	54.00	Pass
11A C20 SIS O	52	4500.0	-49.84	4.2	0	49.59	Peak	68.20	Pass
		4500.0	-59.69	4.2	0	39.74	Average	54.00	Pass
		5150.0	-46.47	4.2	0	52.96	Peak	68.20	Pass
		5150.0	-57.71	4.2	0	41.72	Average	54.00	Pass
	64	4500.0	-49.84	4.2	0	49.59	Peak	68.20	Pass
		4500.0	-59.69	4.2	0	39.74	Average	54.00	Pass
		5150.0	-46.47	4.2	0	52.96	Peak	68.20	Pass
		5150.0	-57.71	4.2	0	41.72	Average	54.00	Pass
11A C40 SIS O	54	4500.0	-49.76	4.2	0	49.67	Peak	68.20	Pass
		4500.0	-59.69	4.2	0	39.74	Average	54.00	Pass
		5150.0	-48.30	4.2	0	51.13	Peak	68.20	Pass
		5150.0	-57.71	4.2	0	41.72	Average	54.00	Pass
	62	5350.0	-32.96	4.2	0	66.47	Peak	68.20	Pass
		5350.0	-47.88	4.2	0	51.55	Average	54.00	Pass
		5460.0	-48.70	4.2	0	50.73	Peak	68.20	Pass
		5460.0	-59.49	4.2	0	39.94	Average	54.00	Pass
11A C80 SIS O	58	4500.0	-49.49	4.2	0	49.94	Peak	68.20	Pass
		5150.0	-59.68	4.2	0	39.75	Average	54.00	Pass
		4500.0	-47.38	4.2	0	52.05	Peak	68.20	Pass
		5150.0	-57.56	4.2	0	41.87	Average	54.00	Pass
		5350.0	-35.36	4.2	0	64.07	Peak	68.20	Pass
		5460.0	-52.47	4.2	0	46.96	Average	54.00	Pass
		5350.0	-48.85	4.2	0	50.58	Peak	68.20	Pass
		5460.0	-59.72	4.2	0	39.71	Average	54.00	Pass

Undesirable Emissions Measurement

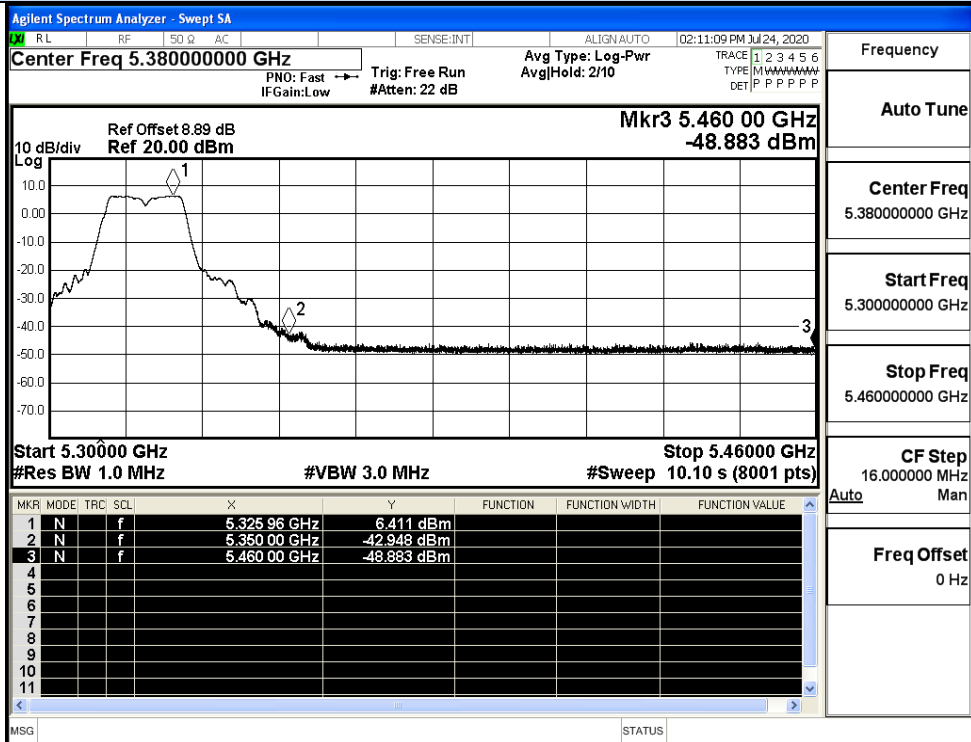


IEEE 802.11a / Channel 36 / 5260MHz / Peak

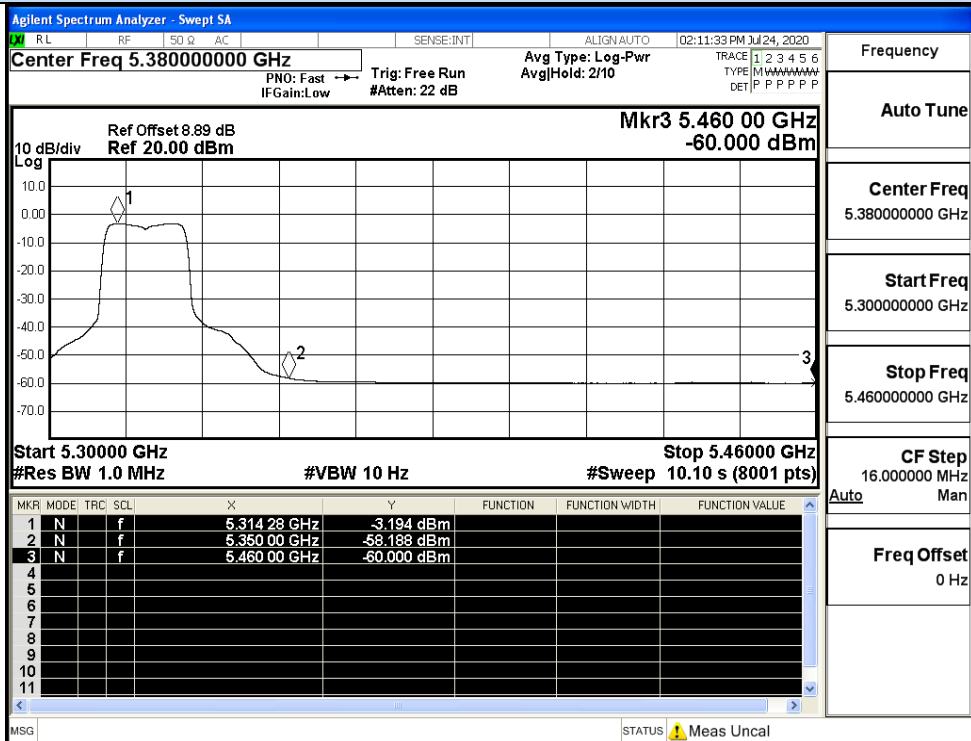


IEEE 802.11a / Channel 36 / 5260MHz / Average

Undesirable Emissions Measurement

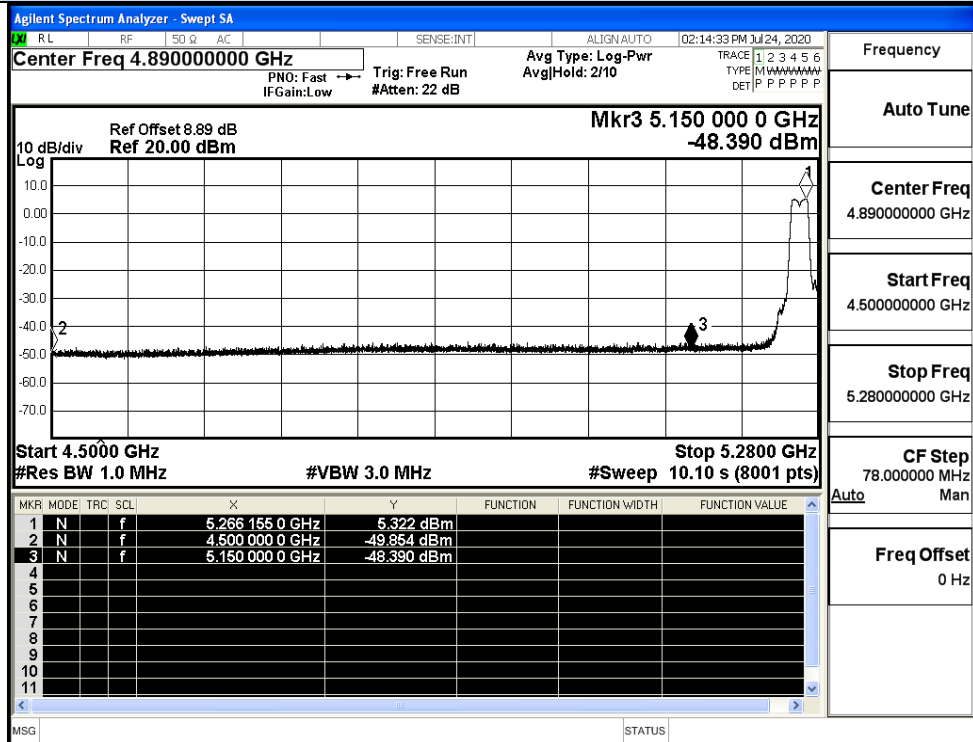


IEEE 802.11a / Channel 48 / 5320MHz / Peak

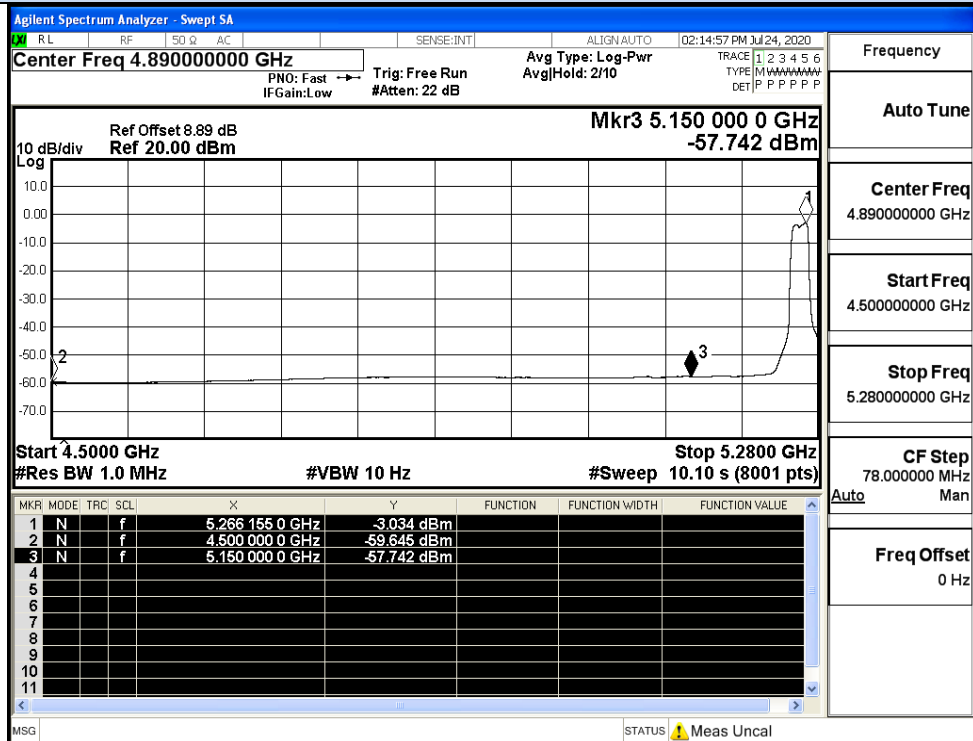


IEEE 802.11a / Channel 48 / 5320MHz / Average

Undesirable Emissions Measurement

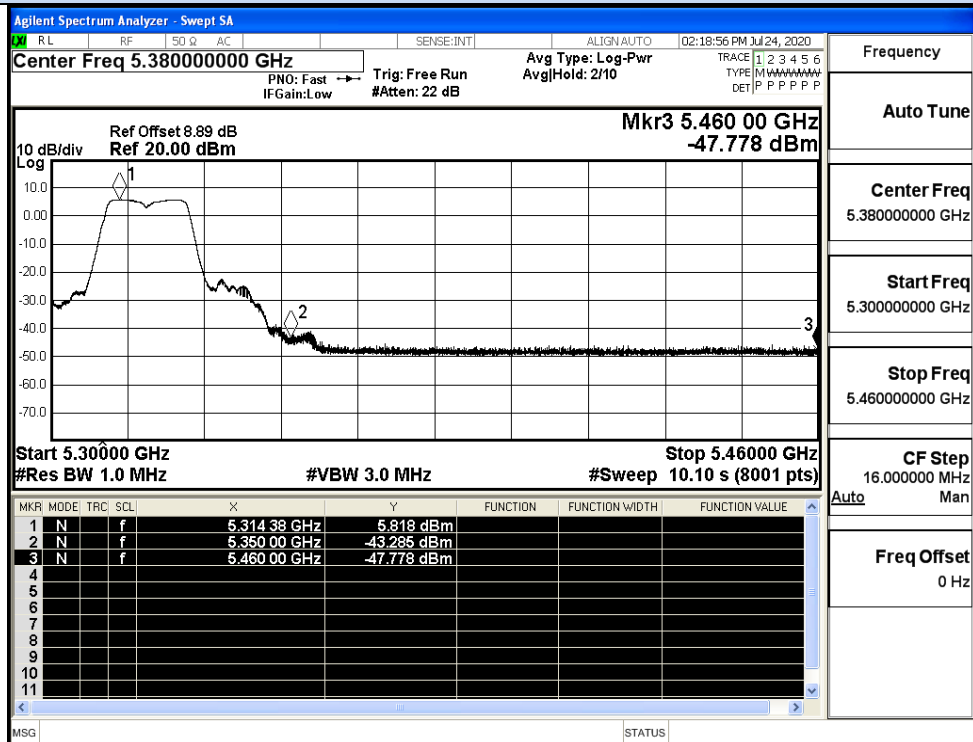


IEEE 802.11n20 / Channel 36 / 5260MHz / Peak

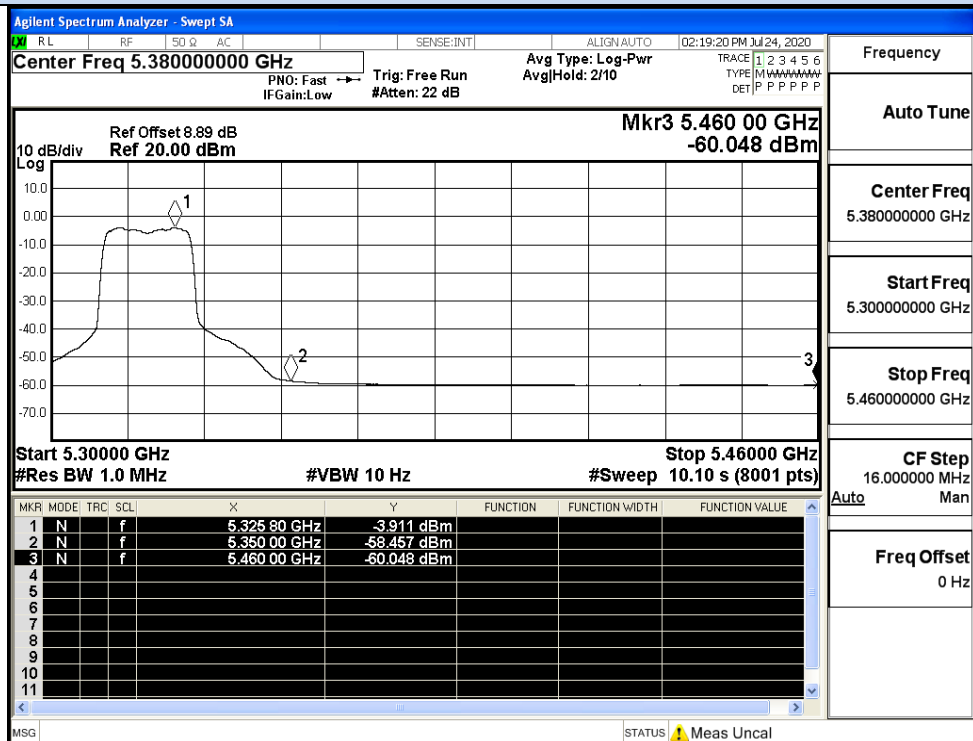


IEEE 802.11n20 / Channel 36 / 5260MHz / Average

Undesirable Emissions Measurement

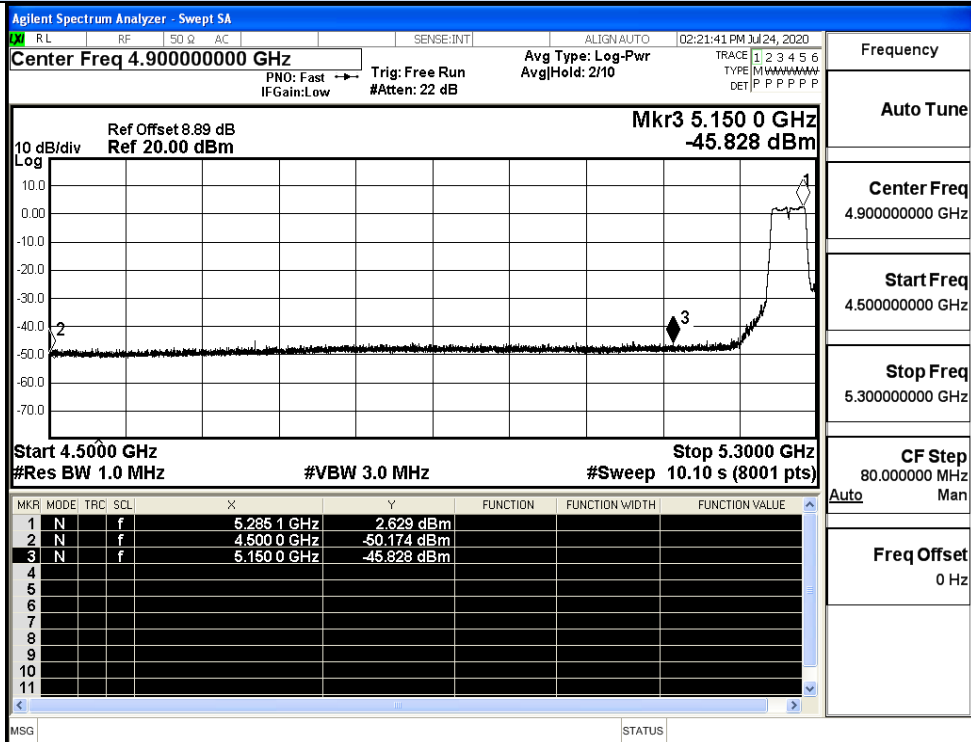


IEEE 802.11n20 / Channel 48 / 5320MHz / Peak

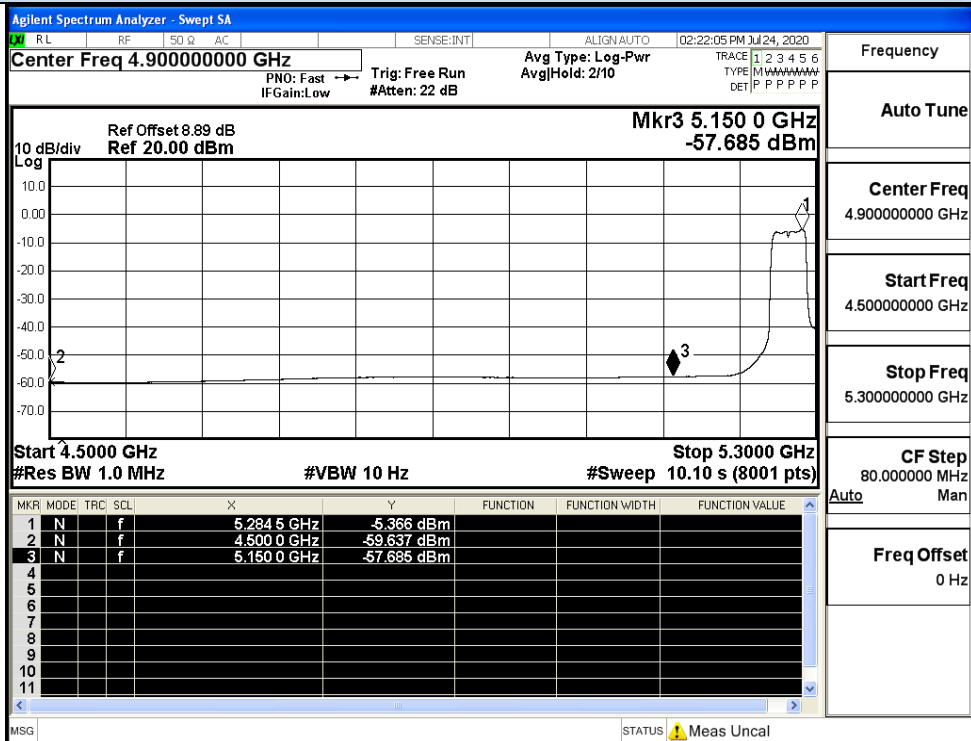


IEEE 802.11n20 / Channel 48 / 5320MHz / Average

Undesirable Emissions Measurement

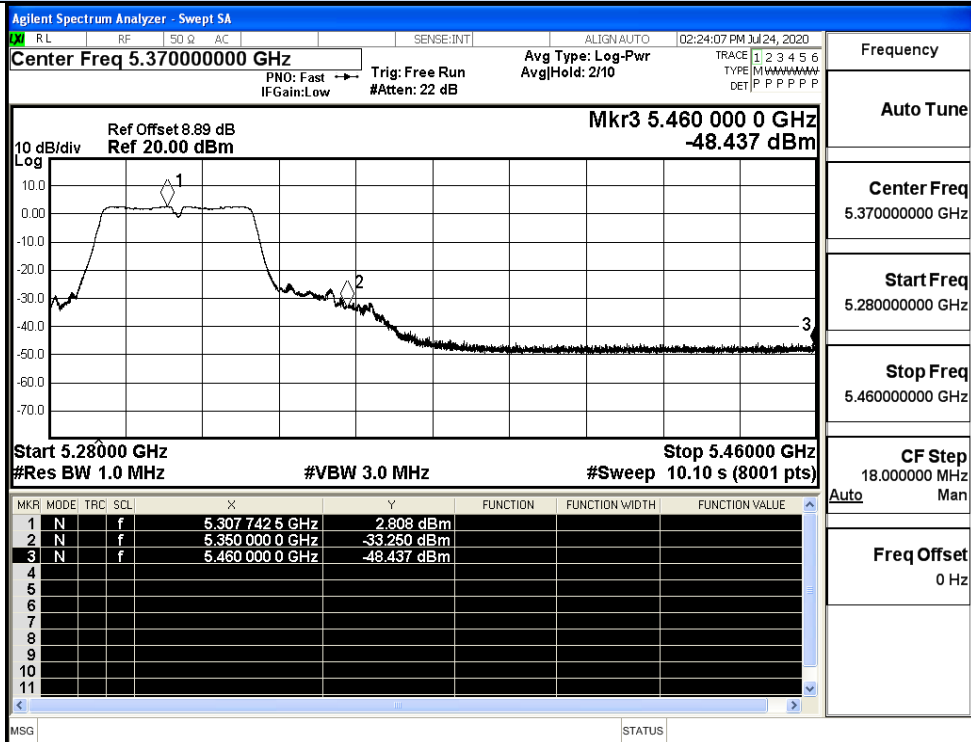


IEEE 802.11n40 / Channel 38 / 5270MHz / Peak

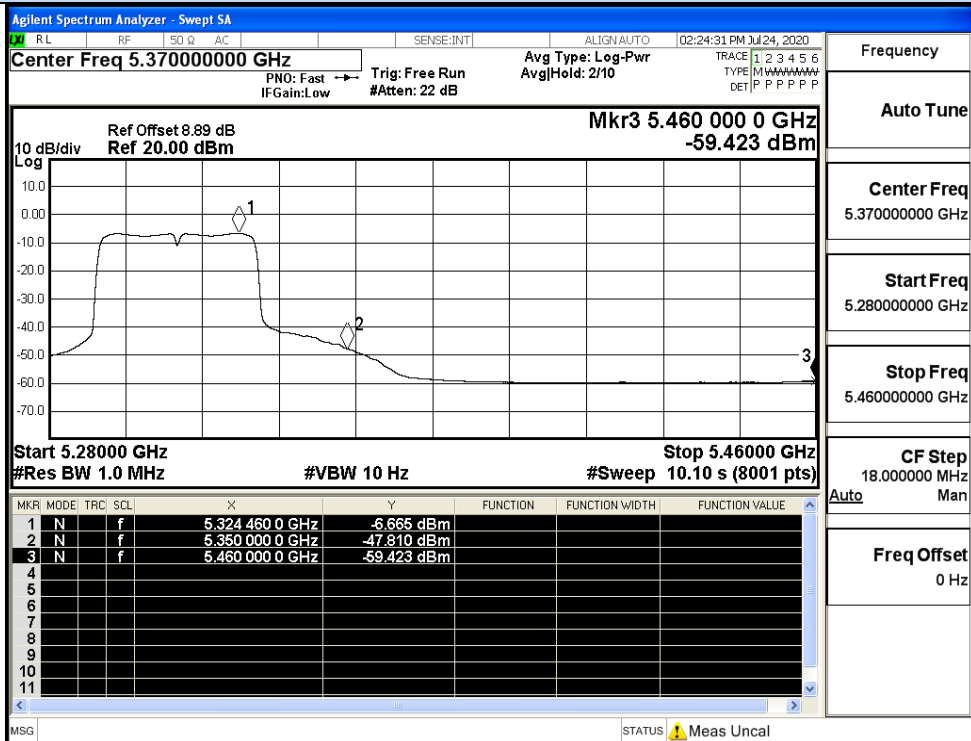


IEEE 802.11n40 / Channel 38 / 5270MHz / Average

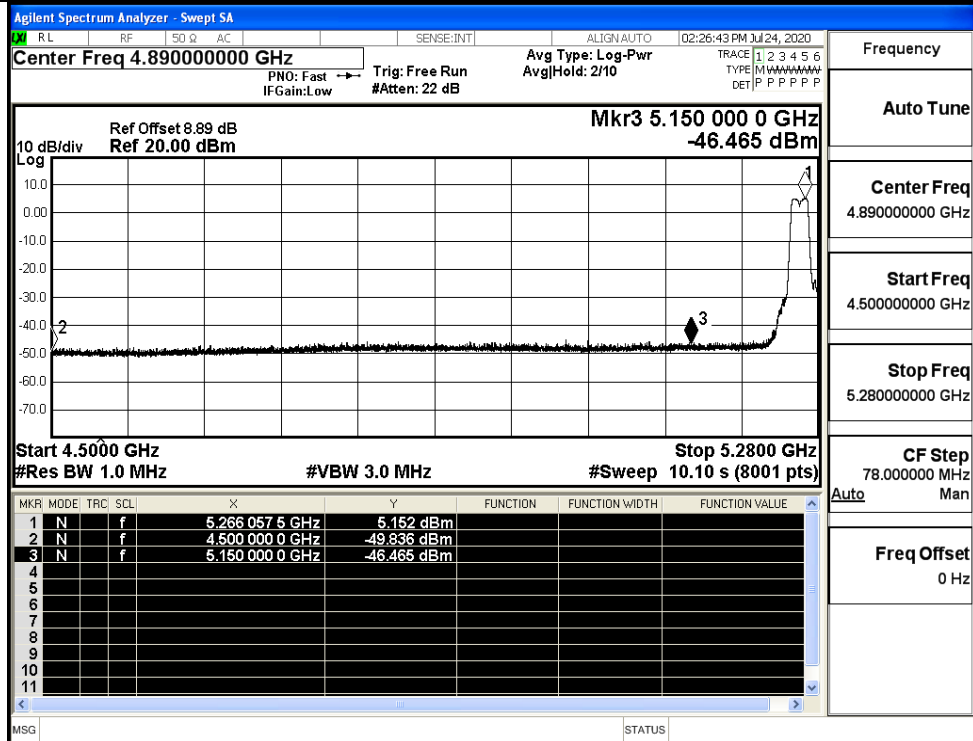
Undesirable Emissions Measurement



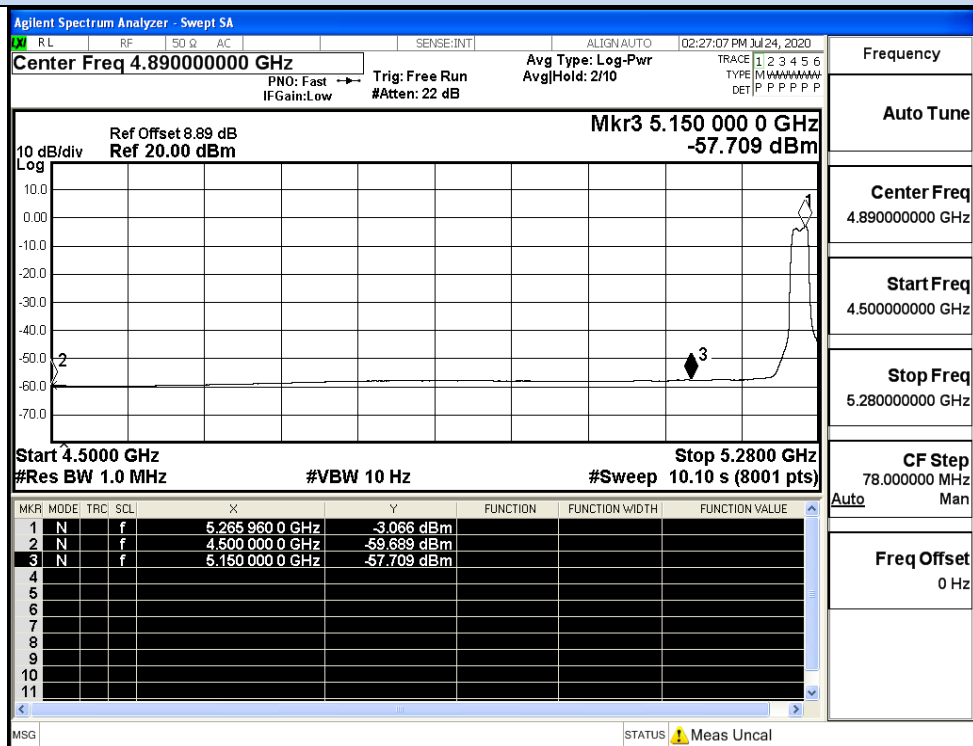
IEEE 802.11n40 / Channel 46 / 5310MHz / Peak



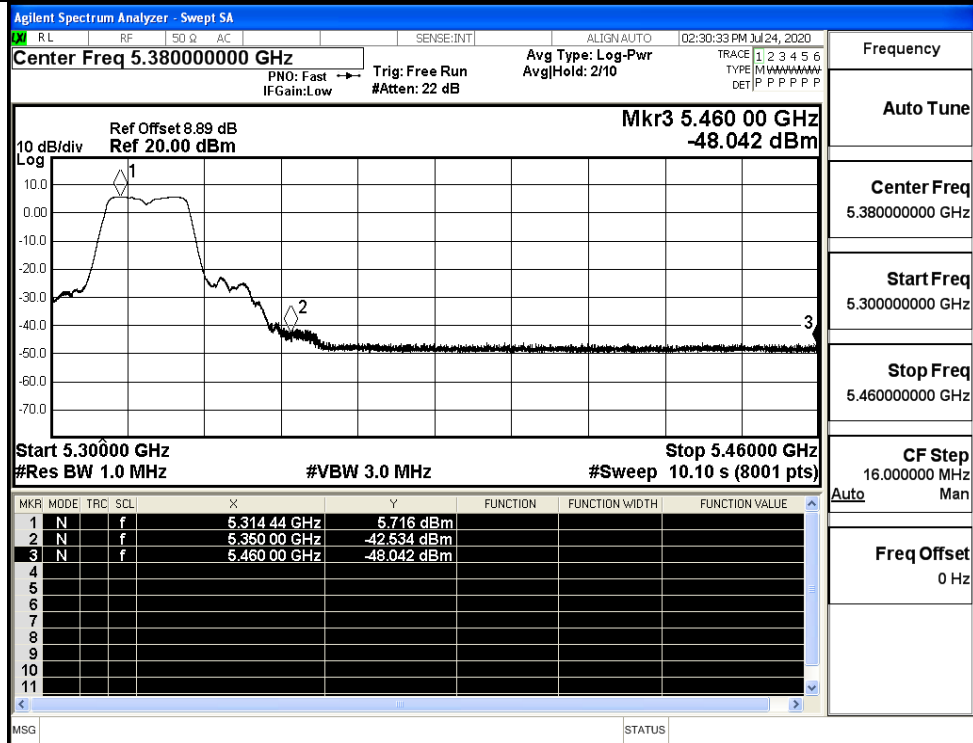
IEEE 802.11n40 / Channel 46 / 5310MHz / Average



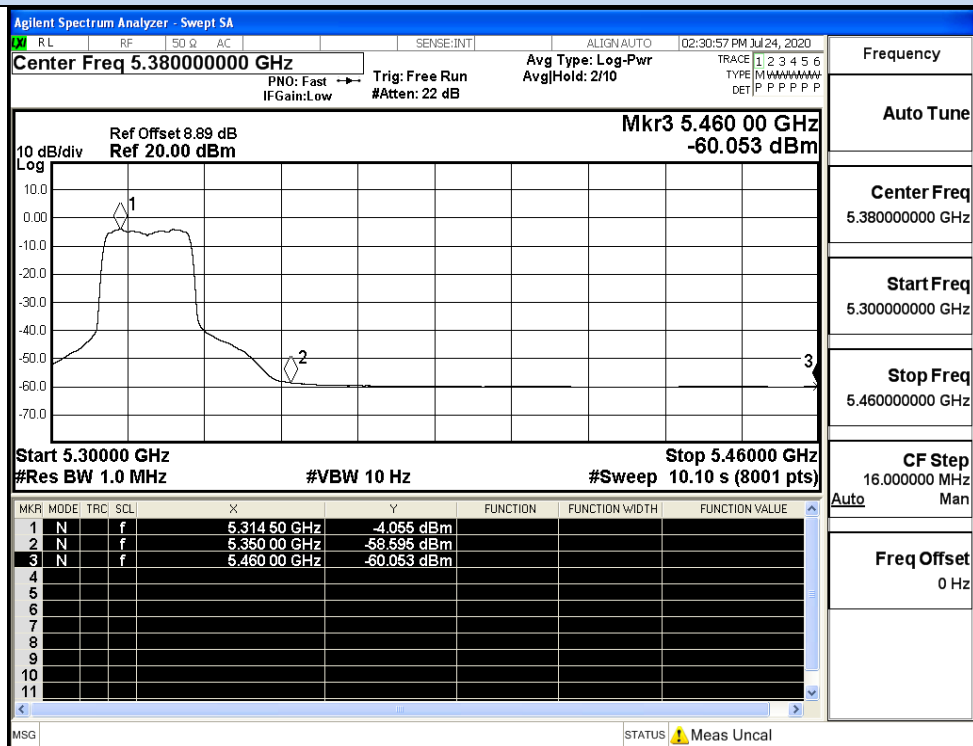
IEEE 802.11ac20 / Channel 36 / 5260MHz / Peak



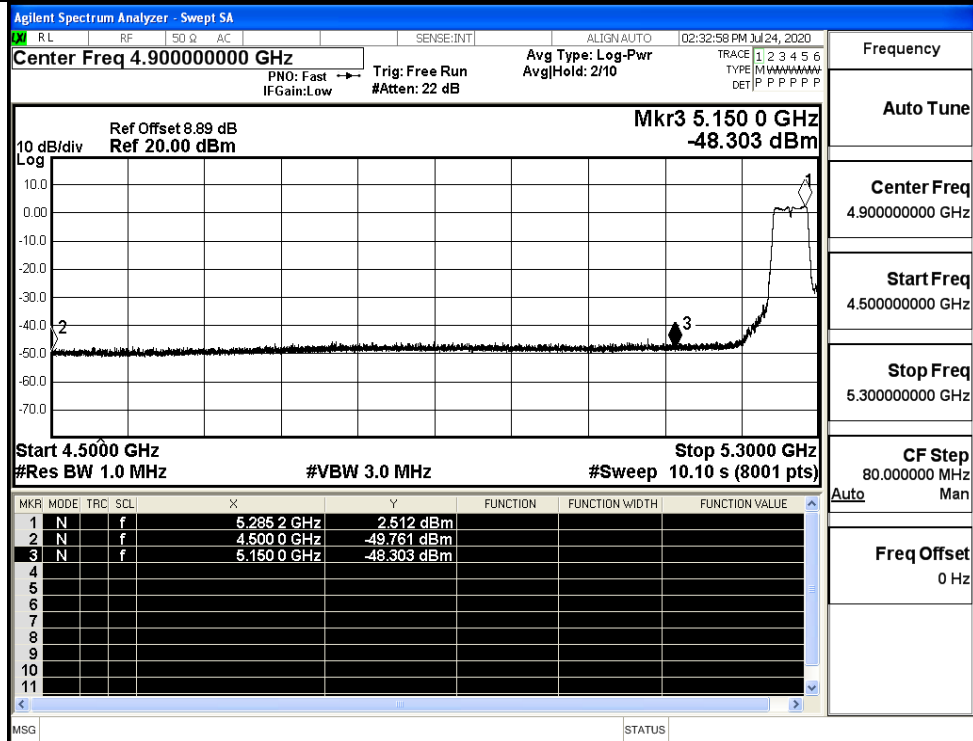
IEEE 802.11ac20 / Channel 36 / 5260MHz / Average



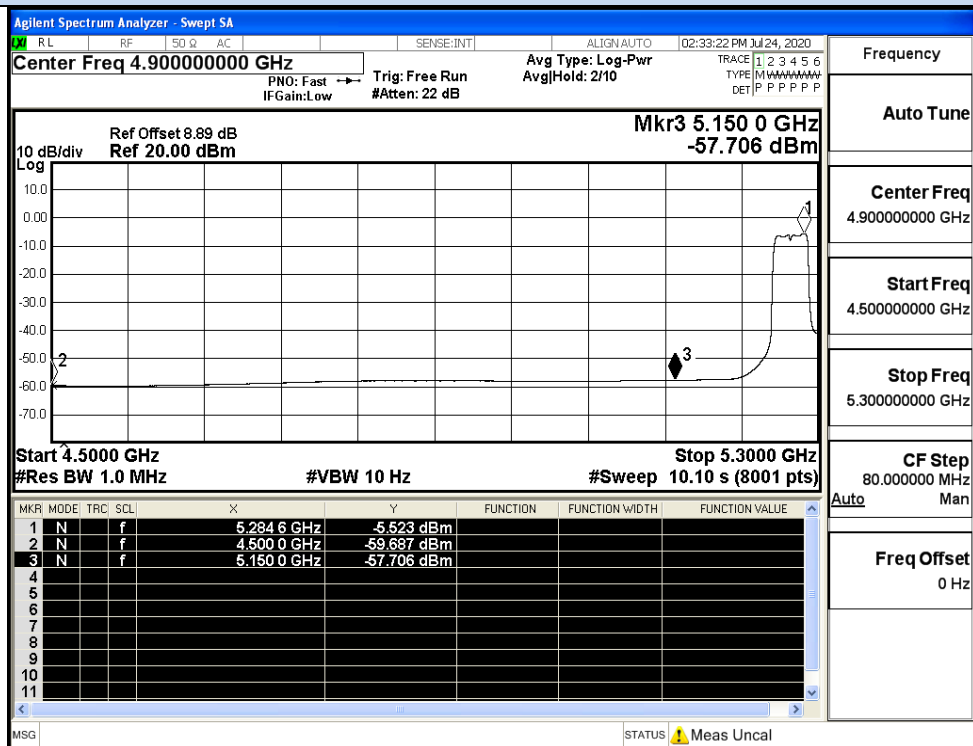
IEEE 802.11ac20 / Channel 48 / 5320MHz / Peak



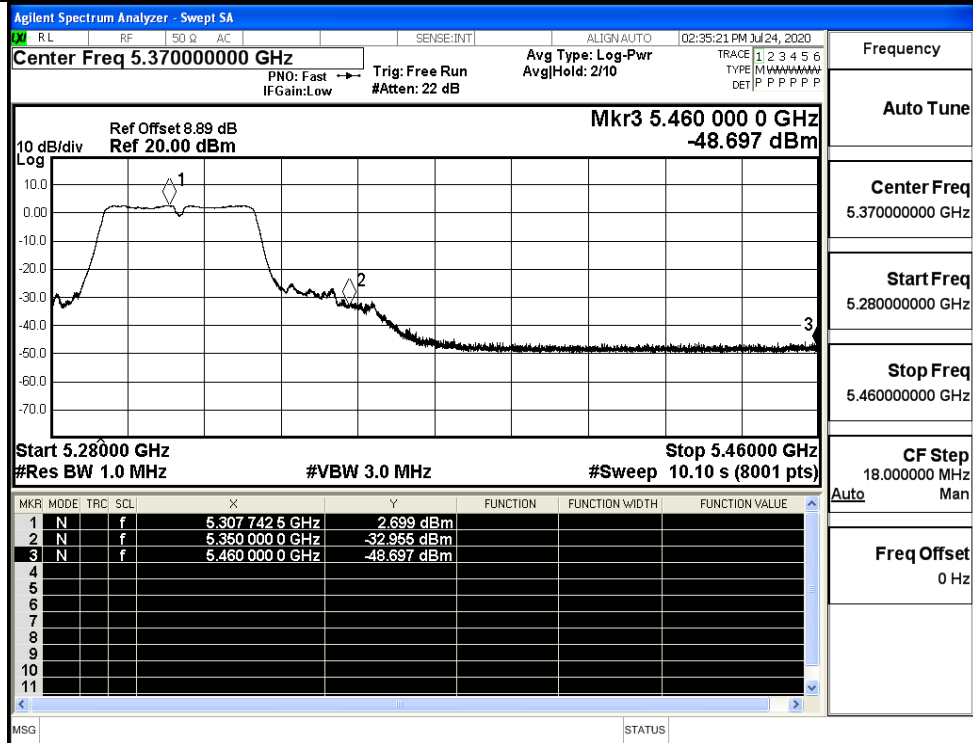
IEEE 802.11ac20 / Channel 48 / 5320MHz / Average



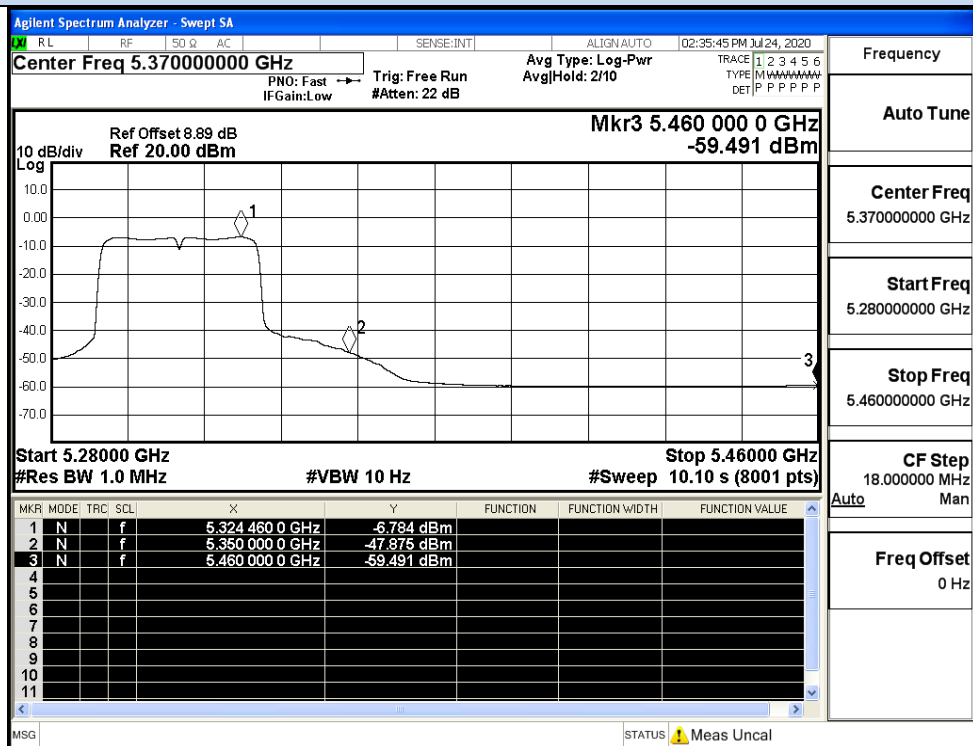
IEEE 802.11ac40 / Channel 38/ 5270MHz / Peak



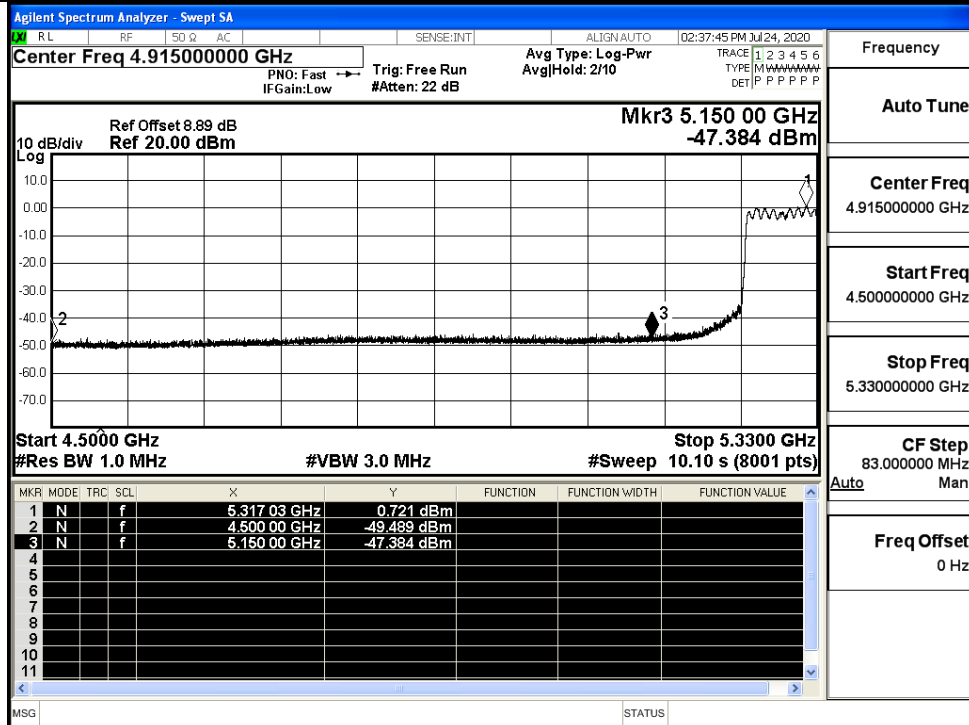
IEEE 802.11ac40 / Channel 38 / 5270MHz / Average



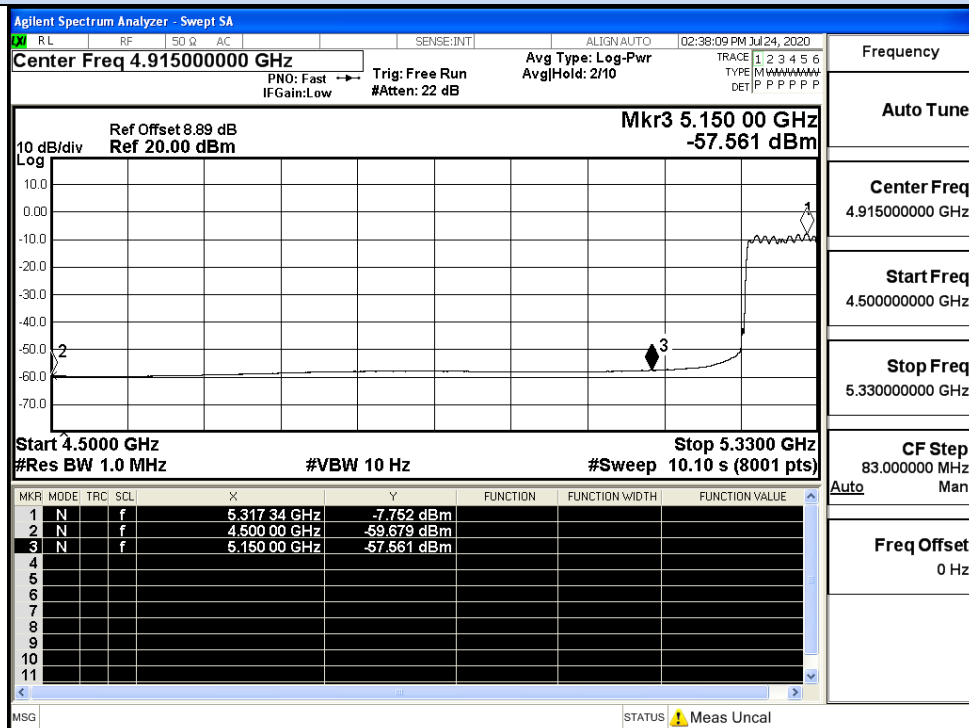
IEEE 802.11ac40 / Channel 46/ 5310MHz / Peak



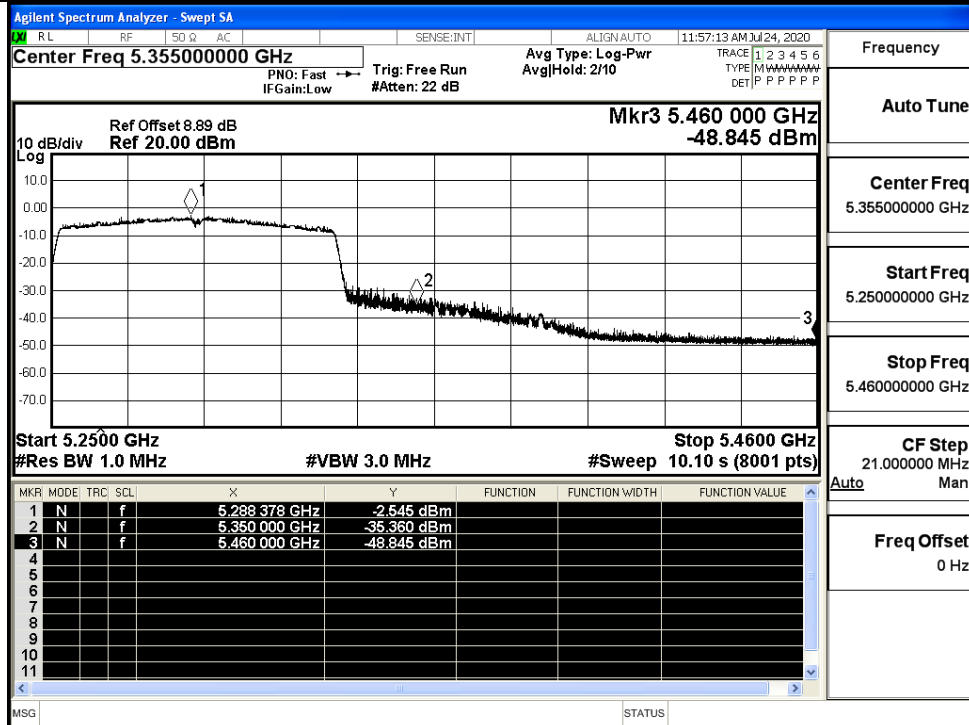
IEEE 802.11ac40 / Channel 46 / 5310MHz / Average



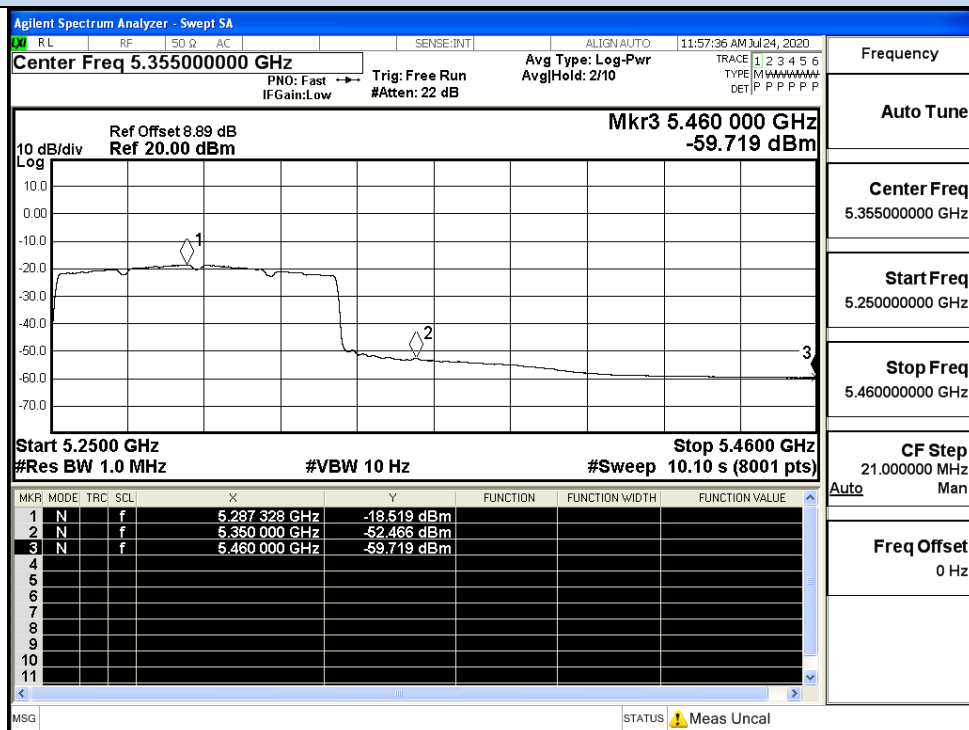
IEEE 802.11ac80 / Channel 42 / 5290MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5290MHz / Average



IEEE 802.11ac80 / Channel 42/ 5290MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5290MHz / Average