Appendix C

RF Test Data for 5.3G WLAN (Conducted Measurement)

Product Name: Wireless Cast
Trade Mark: N/A
Test Model: ZL006

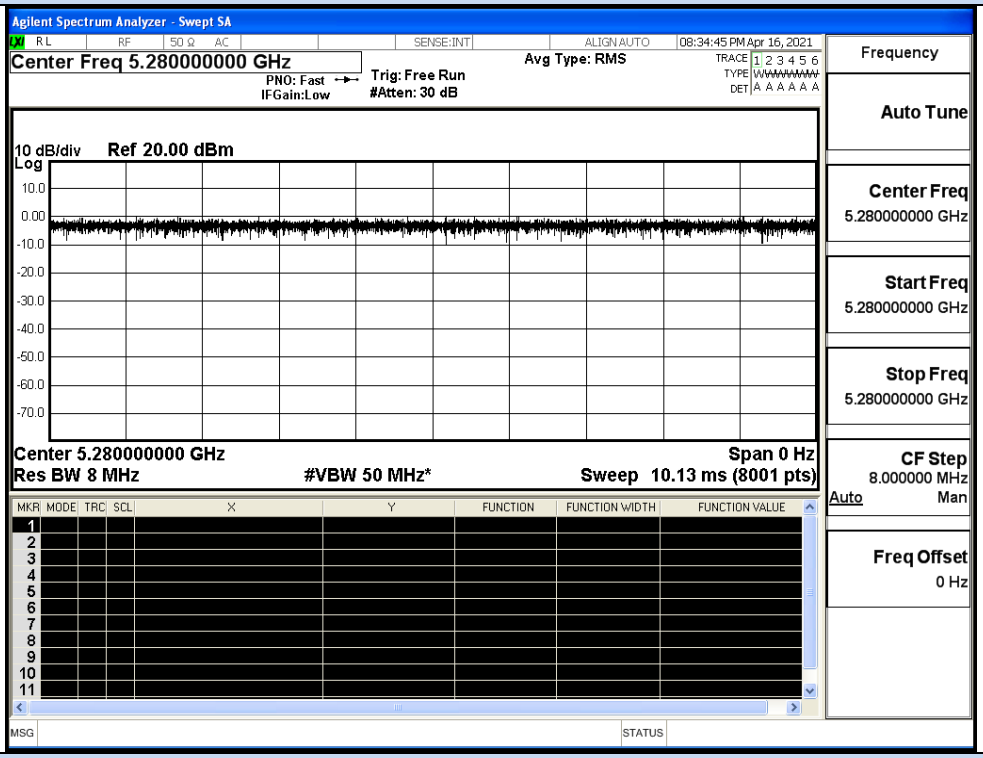
Environmental Conditions

Temperature:	24.9° C
Relative Humidity:	55.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

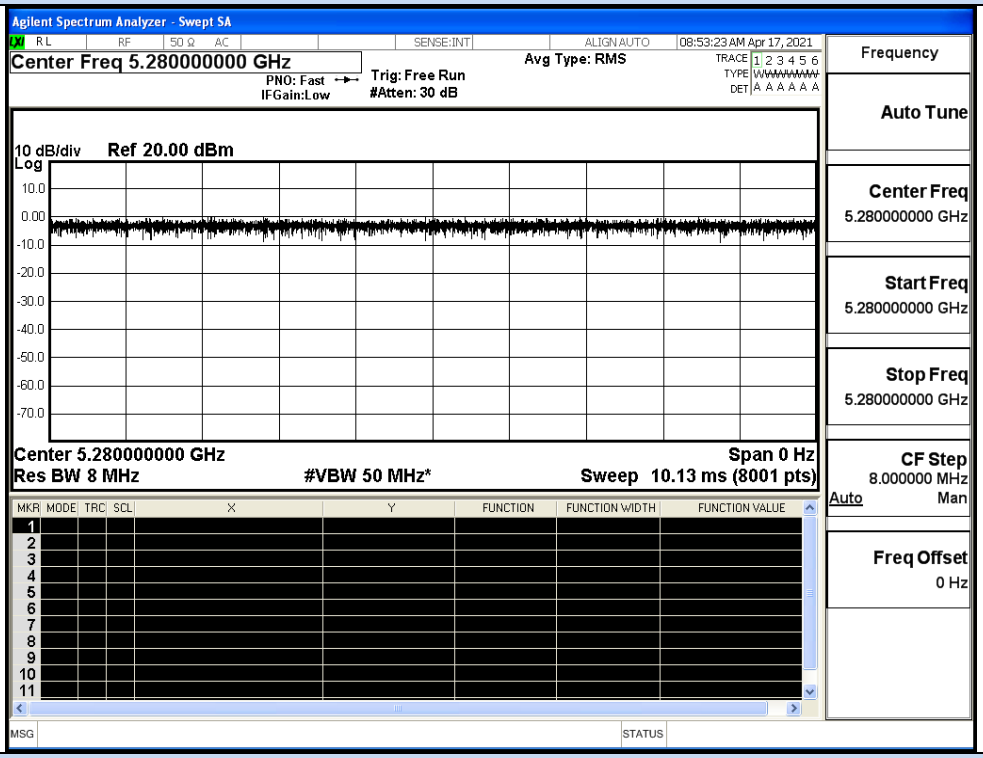
C.1 Duty Cycle

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

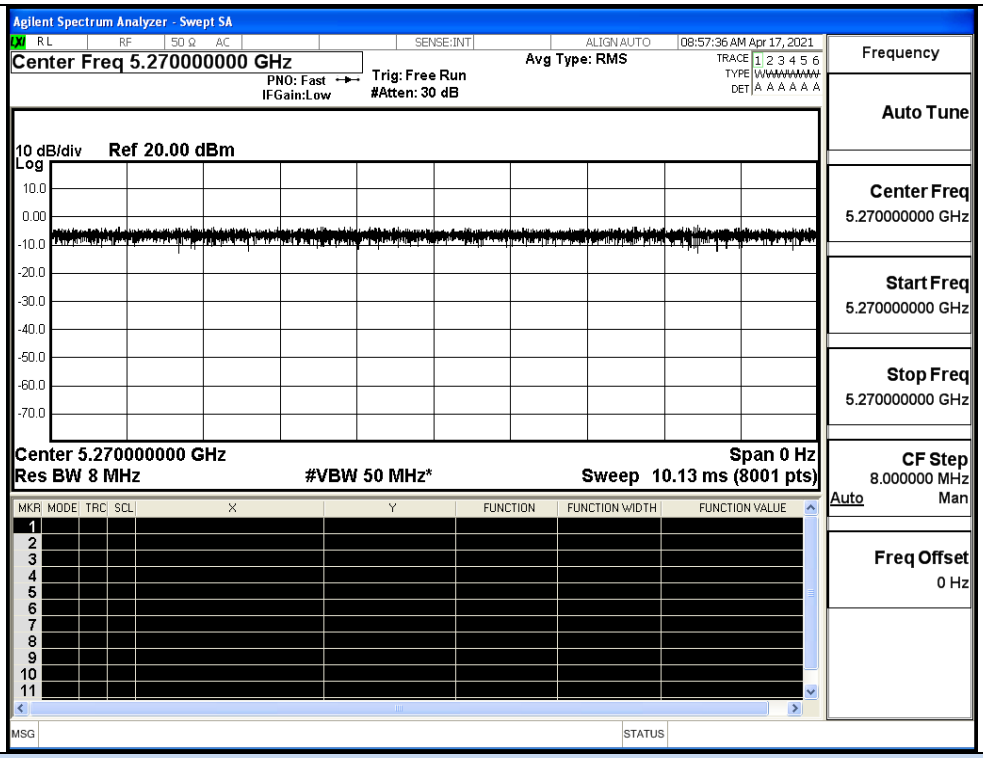
On Time and Duty Cycle



IEEE 802.11a



IEEE 802.11n HT20



IEEE 802.11n HT40

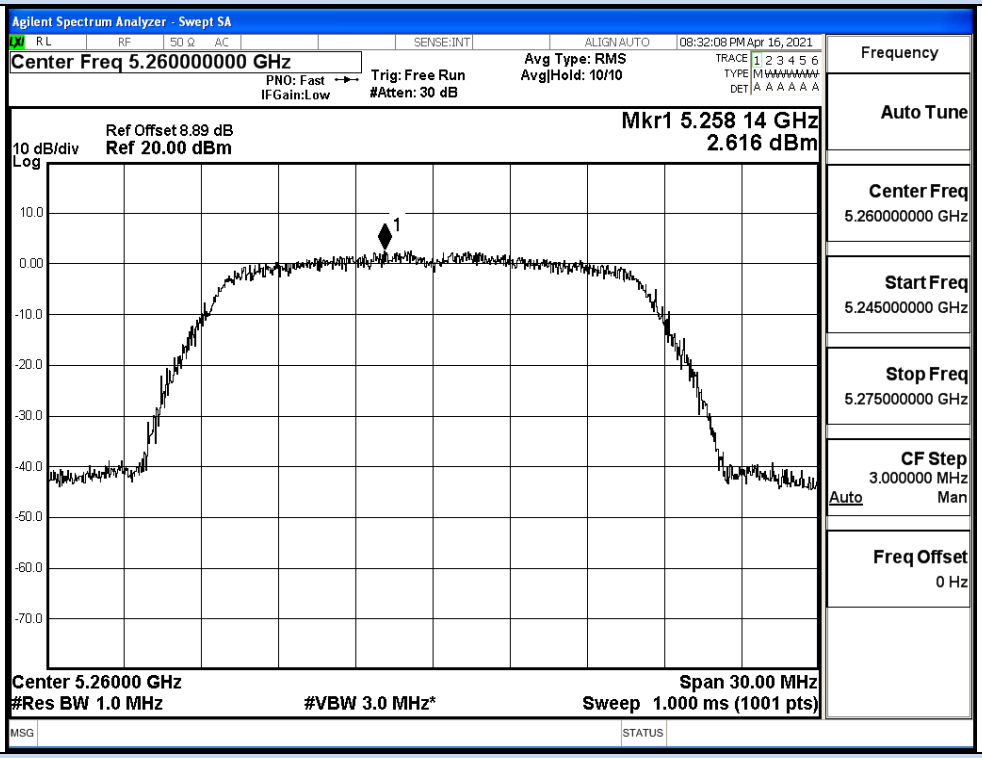
C.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	52	5260	12.46	0	12.46	24	Pass
	56	5280	12.83	0	12.83		Pass
	64	5320	13.16	0	13.16		Pass
11N20 SISO	52	5260	12.2	0	12.2	24	Pass
	56	5280	12.95	0	12.95		Pass
	64	5320	12.42	0	12.42		Pass
11N40 SISO	54	5270	12.74	0	12.74	24	Pass
	62	5310	12.57	0	12.57		Pass

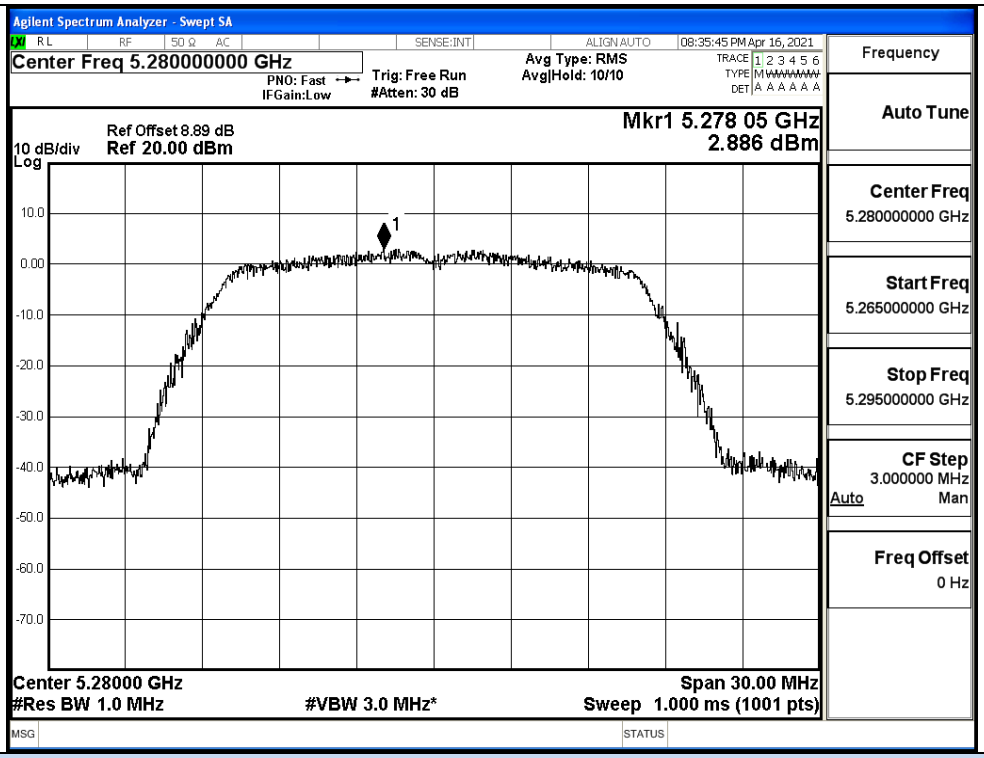
C.3 Power Spectral Density

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	2.62	0	2.62	11	Pass
	56	5280	2.89	0	2.89		Pass
	64	5320	3.19	0	3.19		Pass
11N20 SISO	52	5260	2.07	0	2.07	11	Pass
	56	5280	3.90	0	3.90		Pass
	64	5320	3.36	0	3.36		Pass
11N40 SISO	54	5270	-0.09	0	-0.09	11	Pass
	62	5310	0.09	0	0.09		Pass

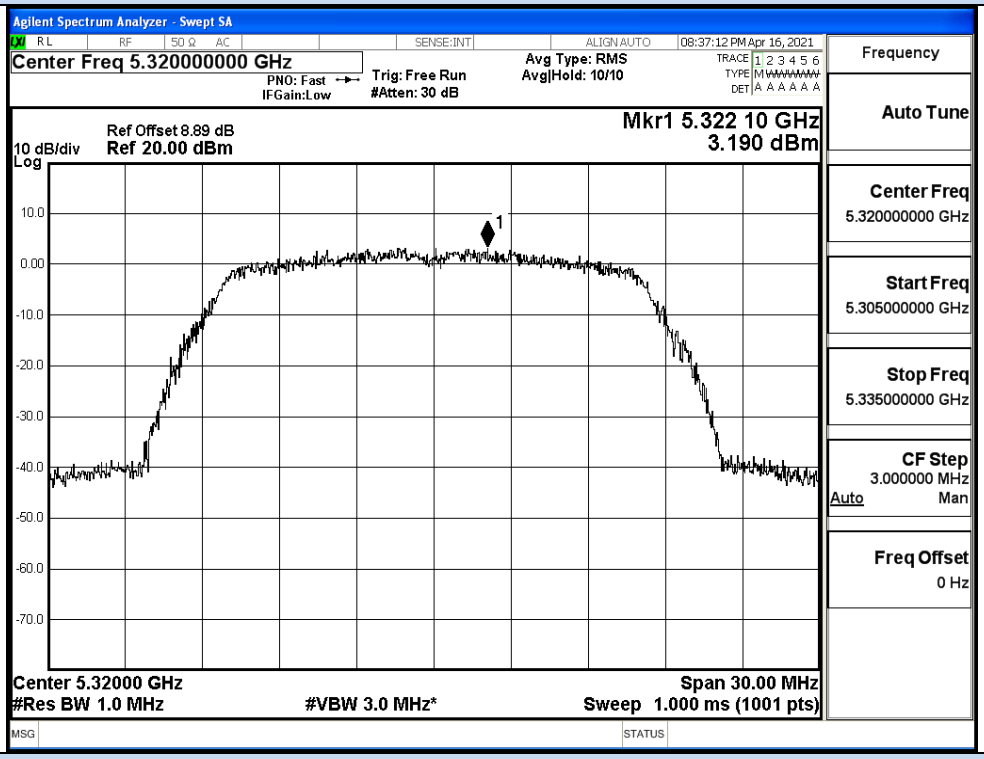
Power Spectral Density



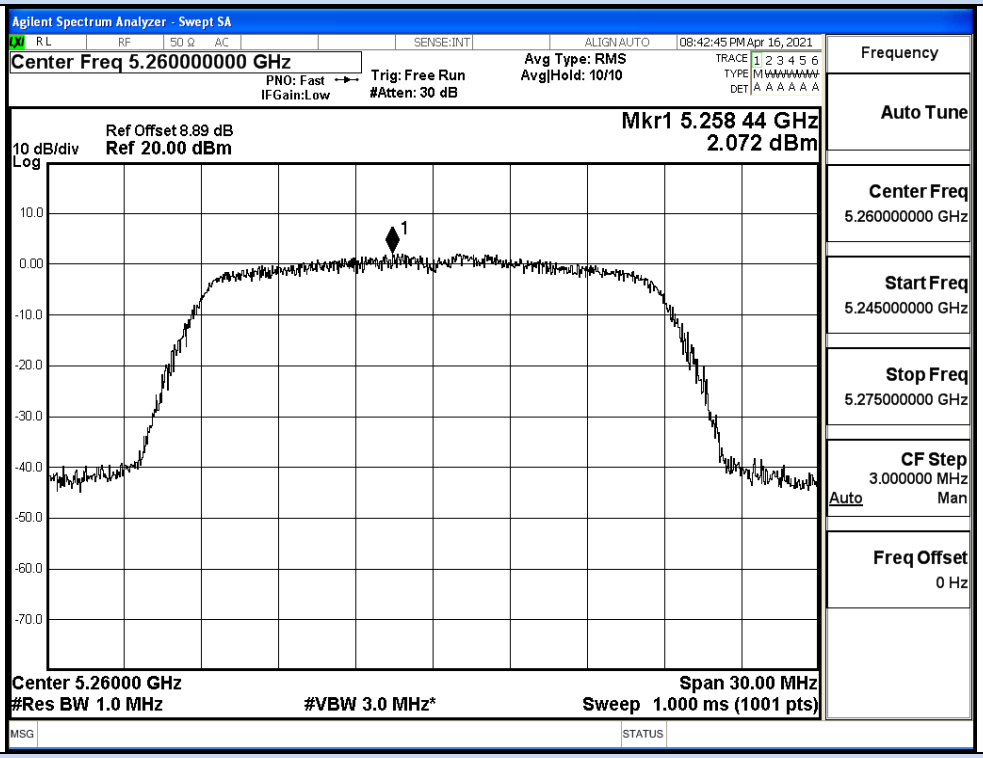
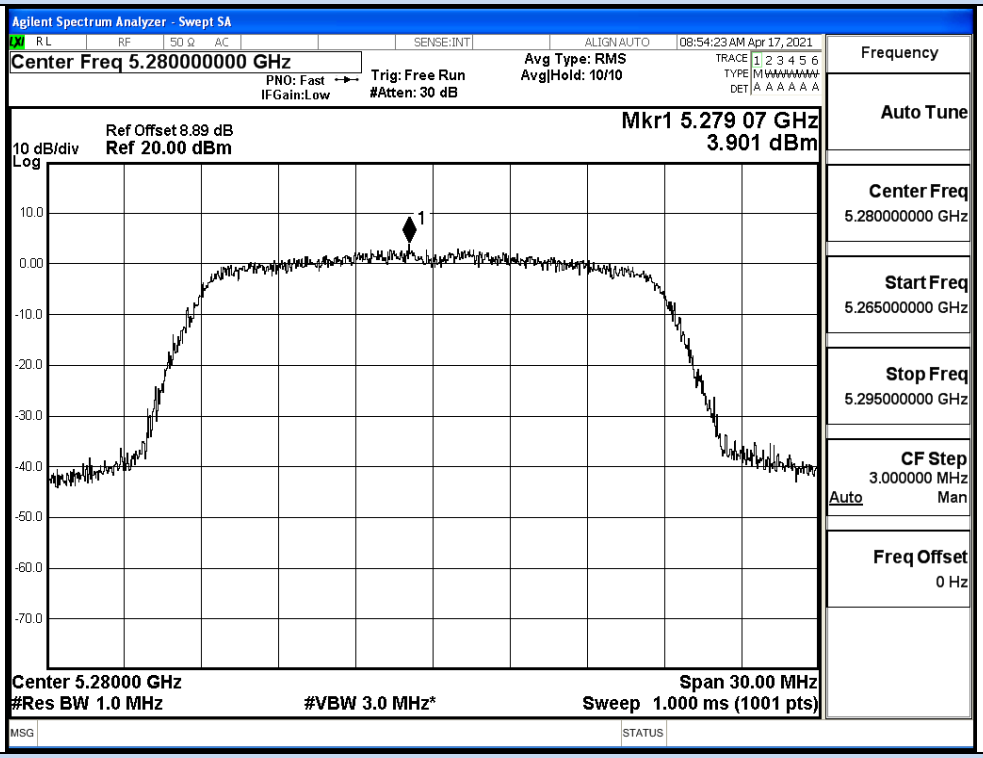
IEEE 802.11a / Channel 52 / 5260MHz

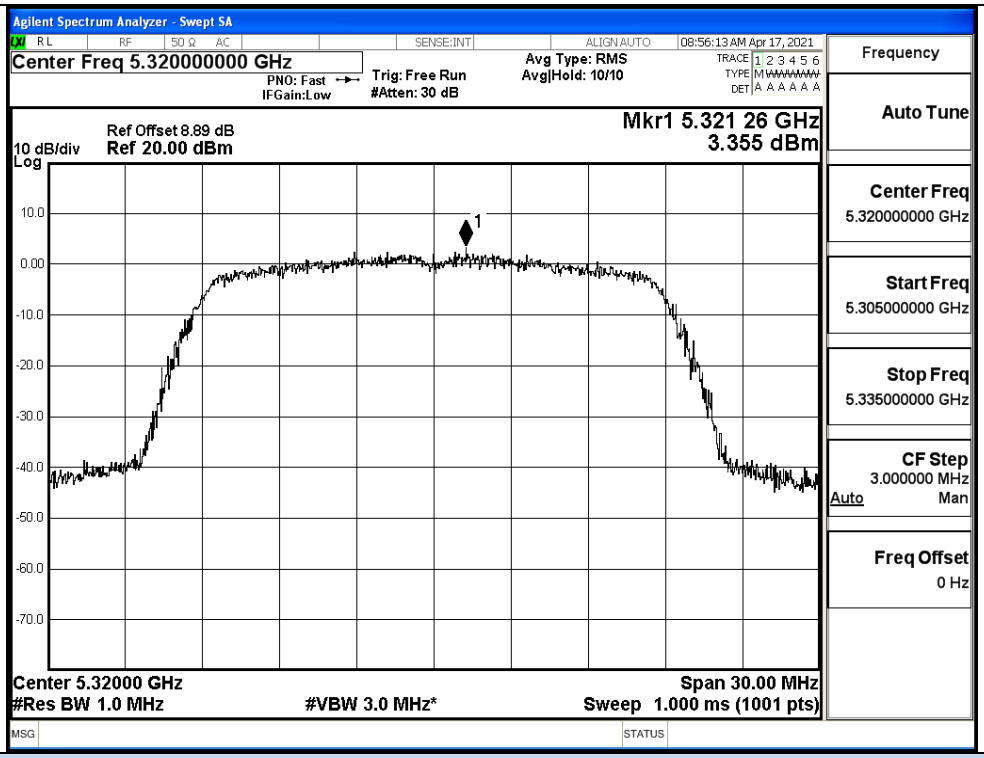


IEEE 802.11a / Channel 56 / 5280MHz



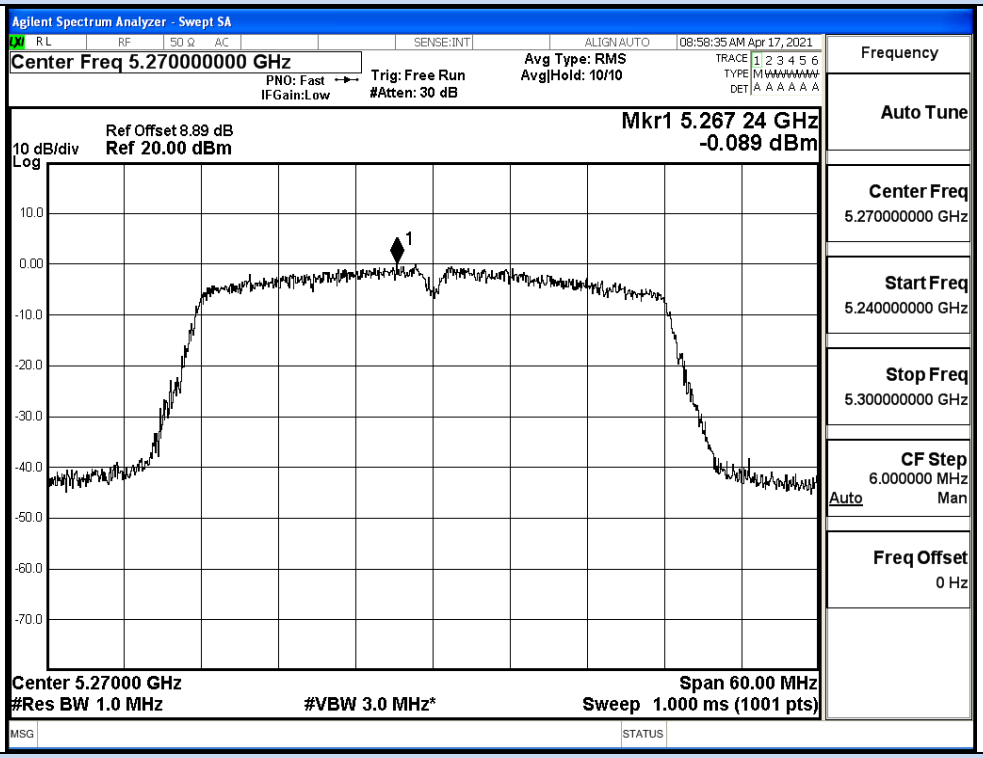
IEEE 802.11a / Channel 64 / 5320MHz

Power Spectral Density

IEEE 802.11n20 / Channel 52 / 5260MHz

IEEE 802.11n20 / Channel 56 / 5280MHz

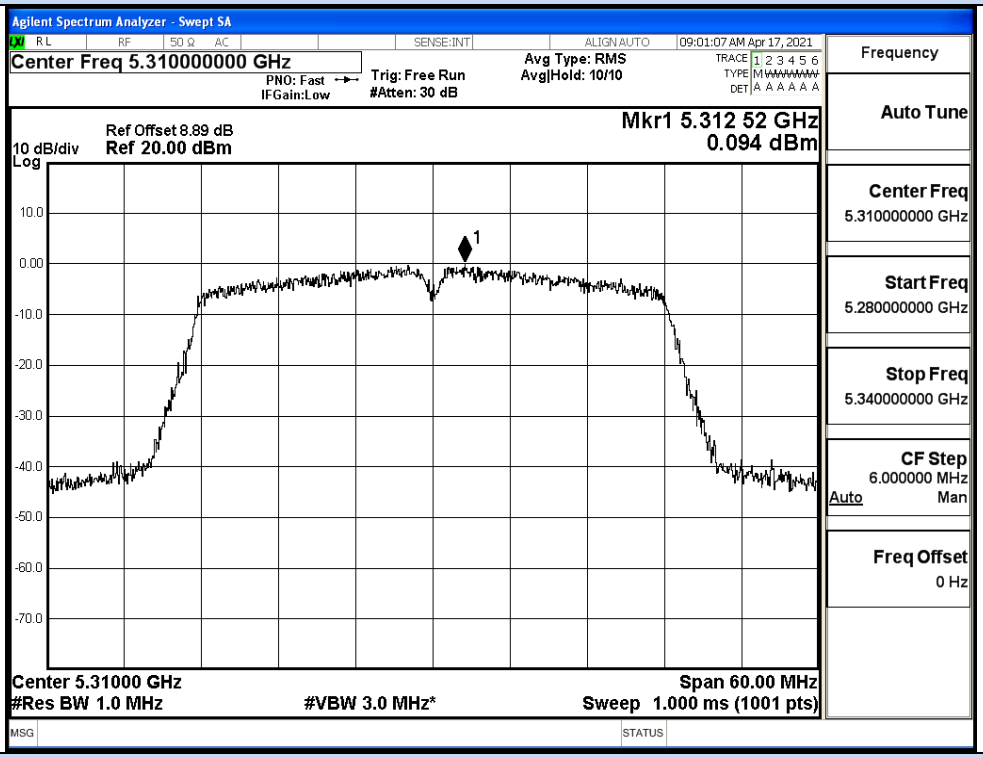


IEEE 802.11n20 / Channel 64 / 5320MHz

Power Spectral Density



IEEE 802.11n40 / Channel 54 / 5270MHz

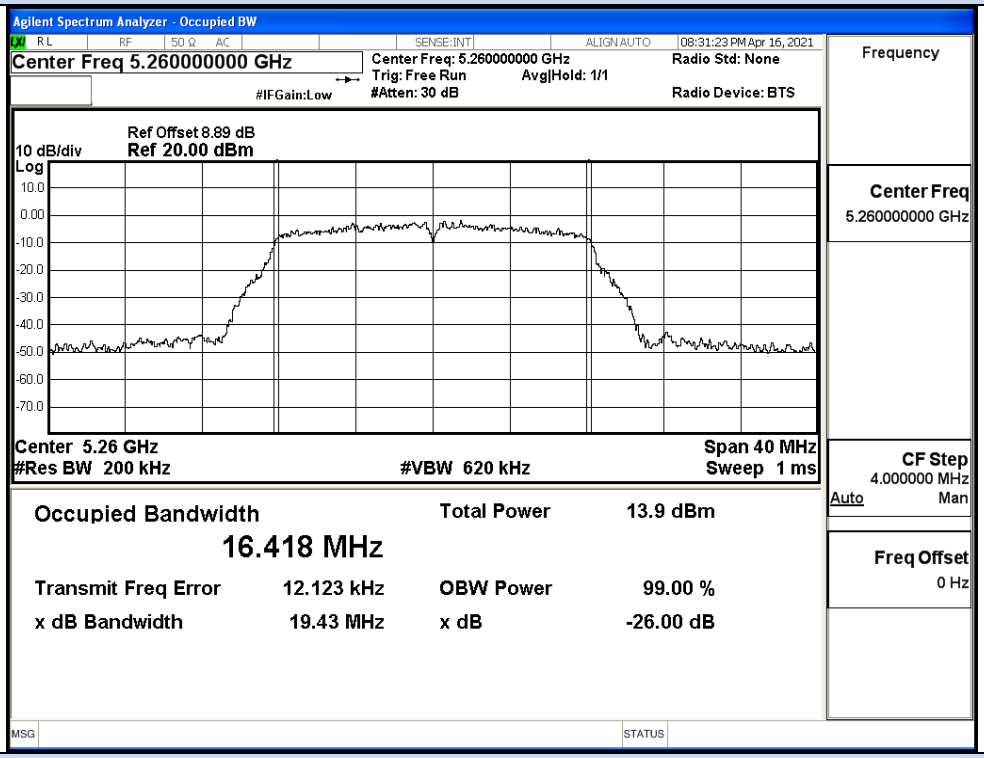


IEEE 802.11n40 / Channel 62 / 5310MHz

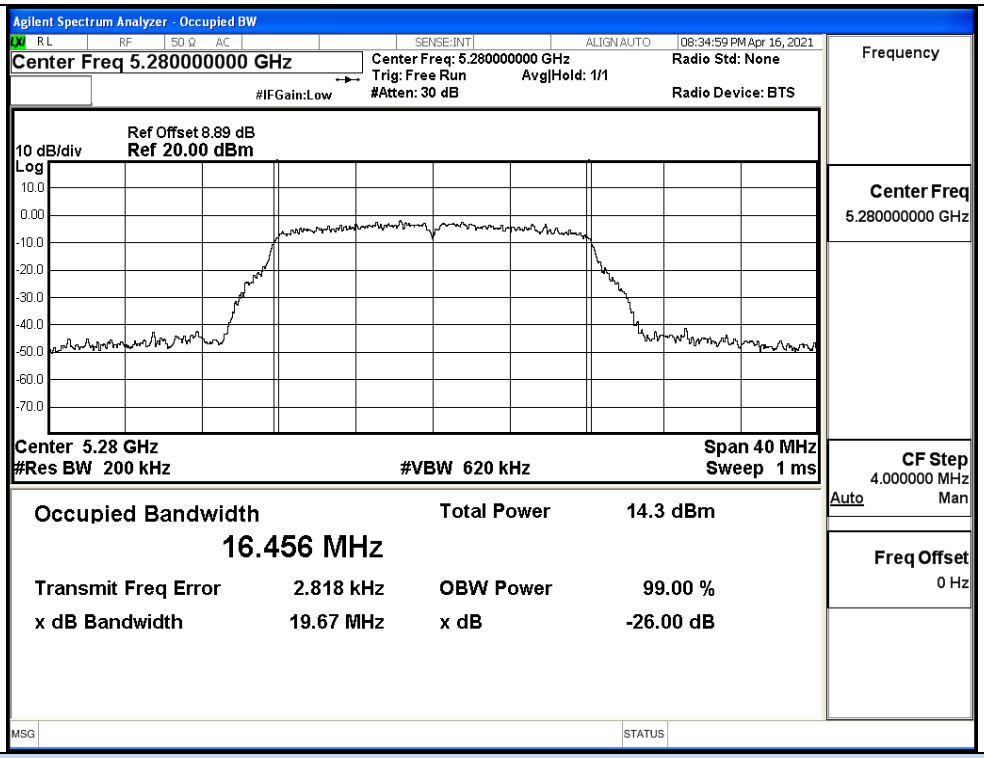
C.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
11A	52	5260	19.43	No Limit	Pass
	56	5280	19.67		Pass
	64	5320	19.78		Pass
11N20 SISO	52	5260	19.95	No Limit	Pass
	56	5280	20.11		Pass
	64	5320	20.01		Pass
11N40 SISO	54	5270	39.88	No Limit	Pass
	62	5310	40.08		Pass

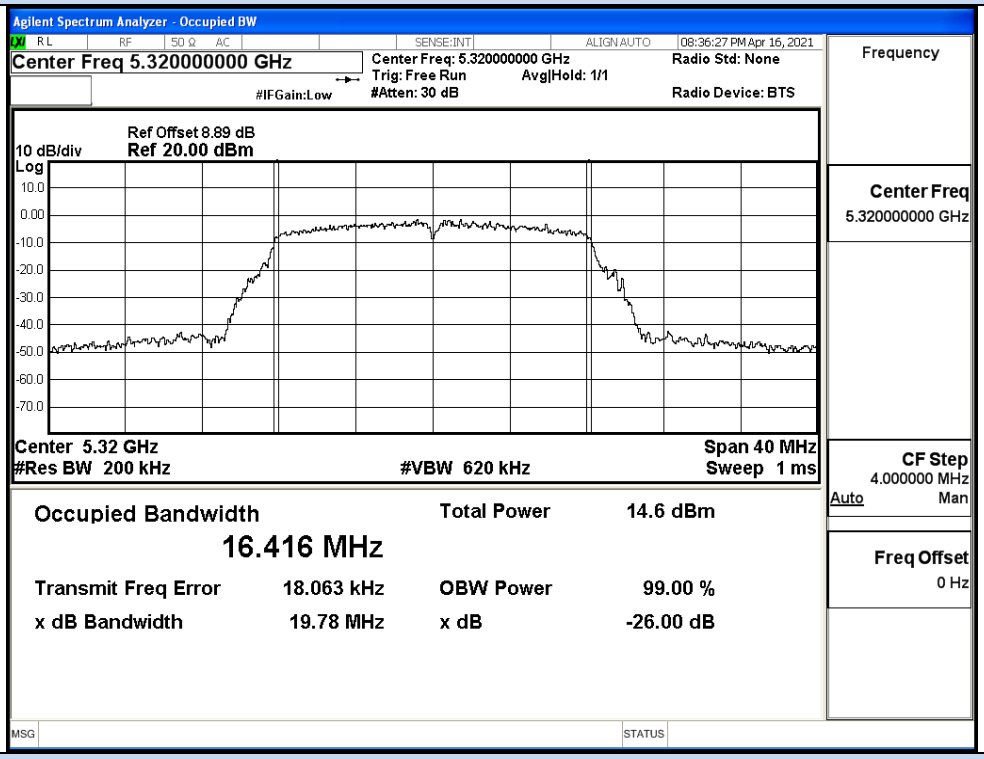
26dB Bandwidth



IEEE 802.11a / Channel 52 / 5260MHz

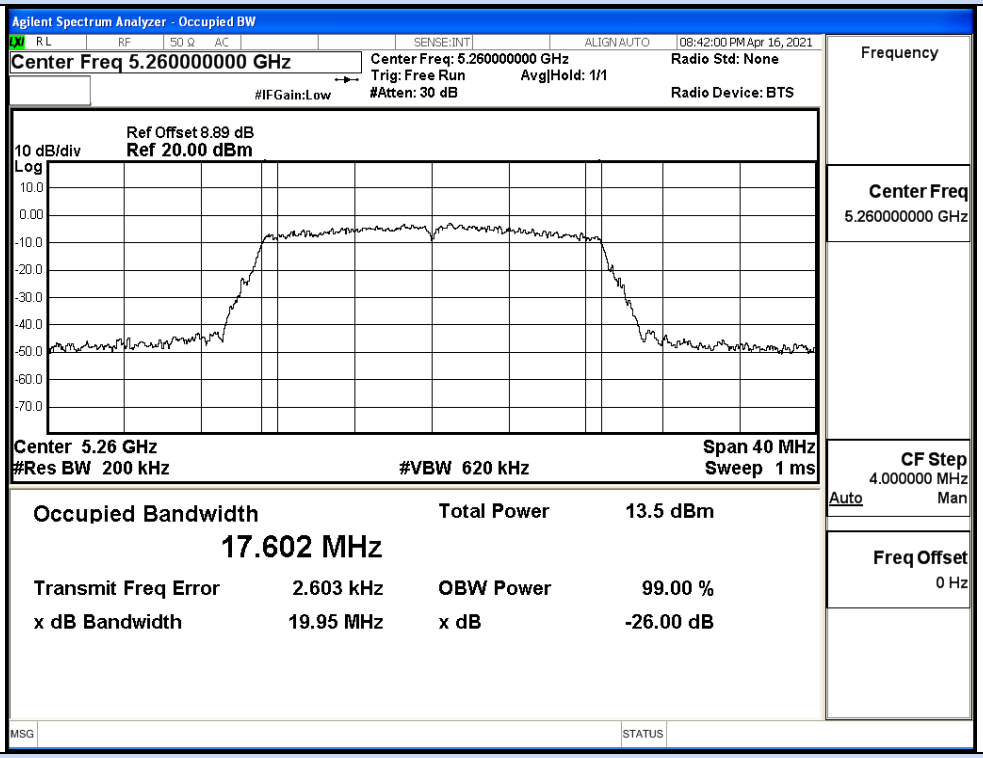


IEEE 802.11a / Channel 56 / 5280MHz

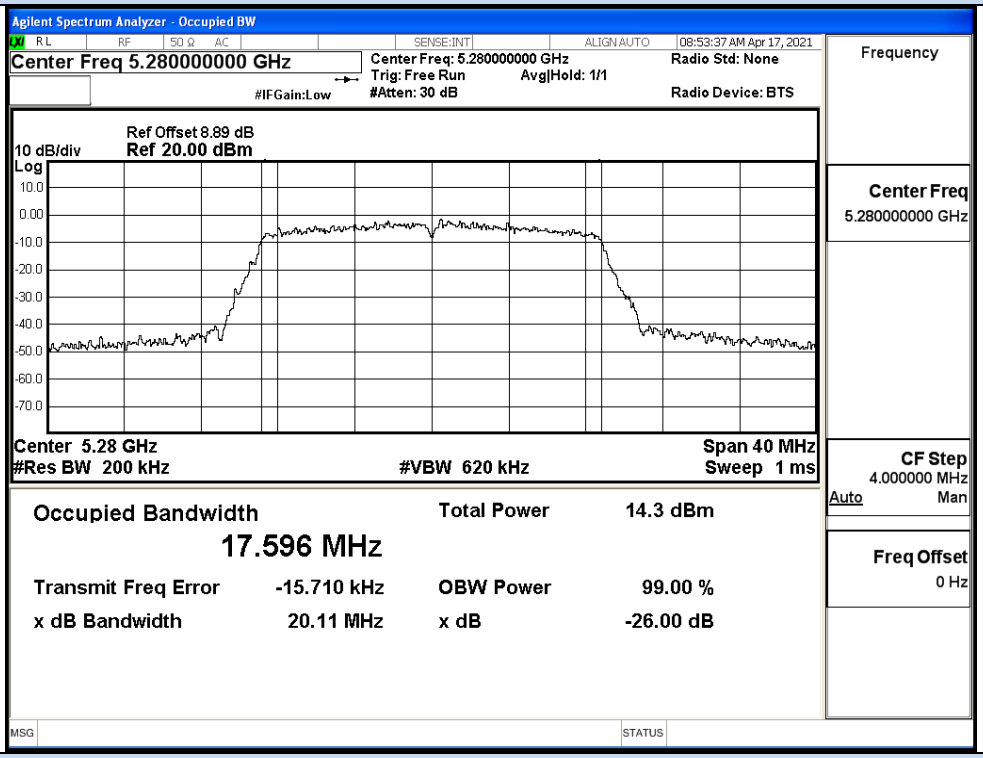


IEEE 802.11a / Channel 64 / 5320MHz

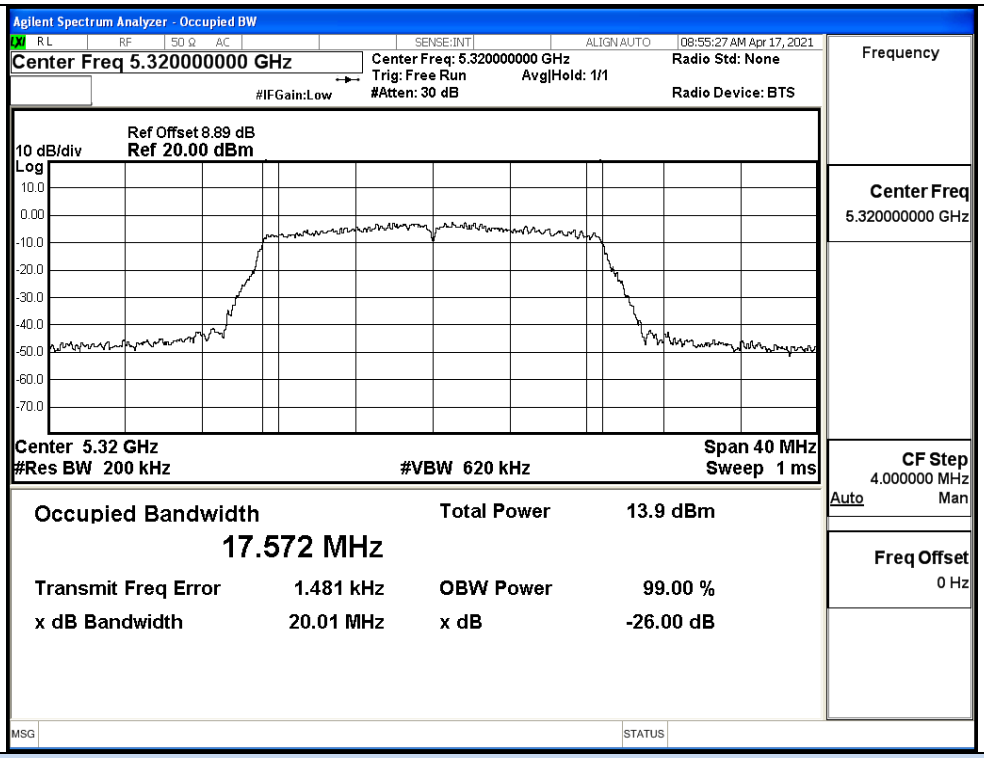
26dB Bandwidth



IEEE 802.11n20 / Channel 52 / 5260MHz

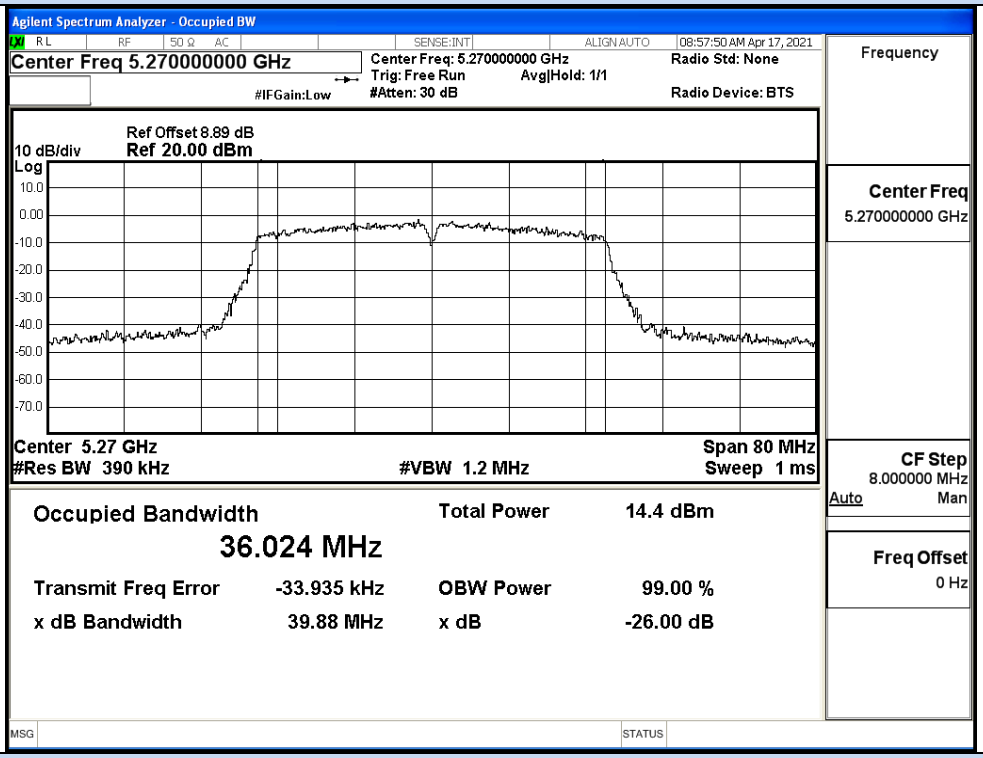


IEEE 802.11n20 / Channel 56 / 5280MHz

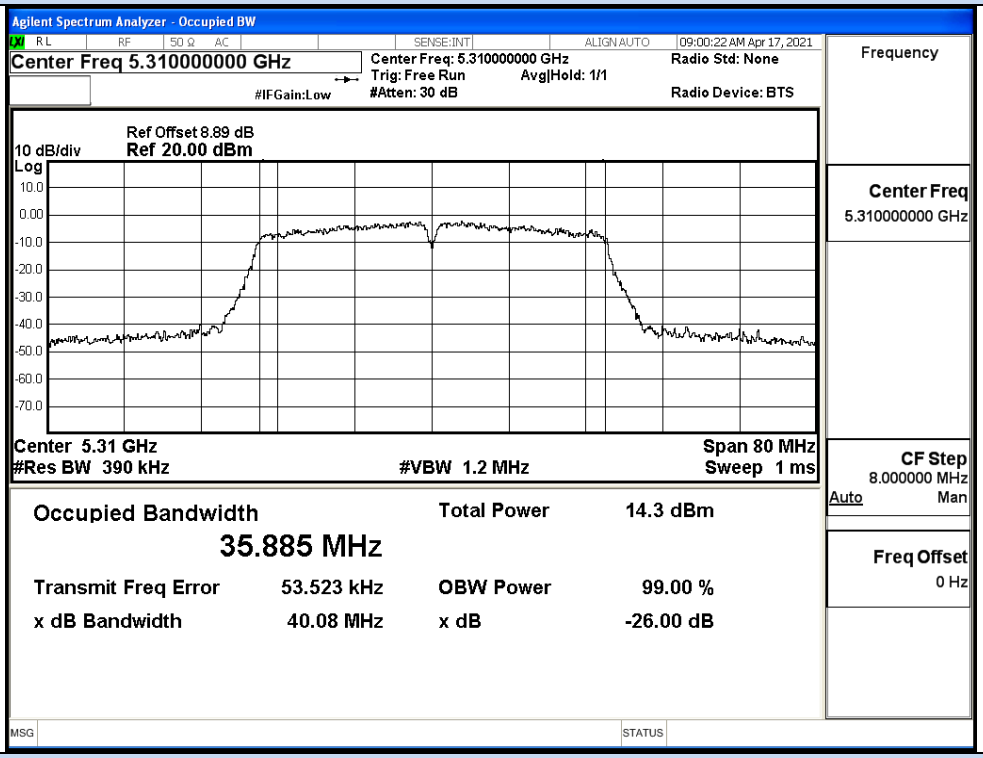


IEEE 802.11n20 / Channel 64 / 5320MHz

26dB Bandwidth



IEEE 802.11n40 / Channel 54 / 5270MHz

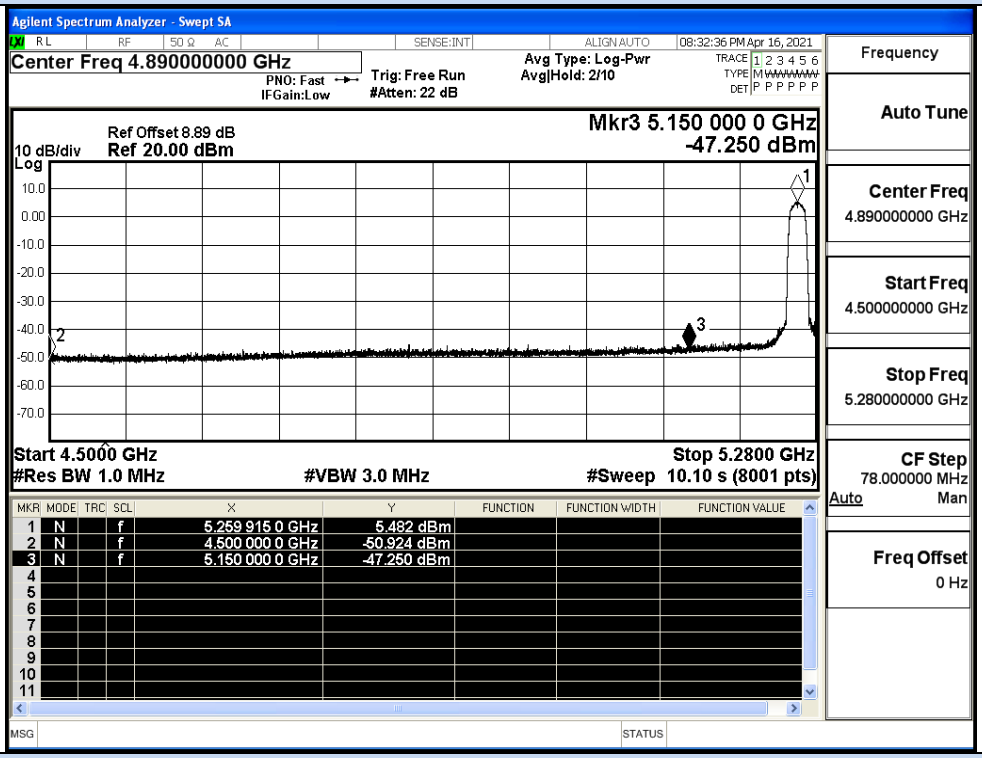


IEEE 802.11n40 / Channel 62 / 5310MHz

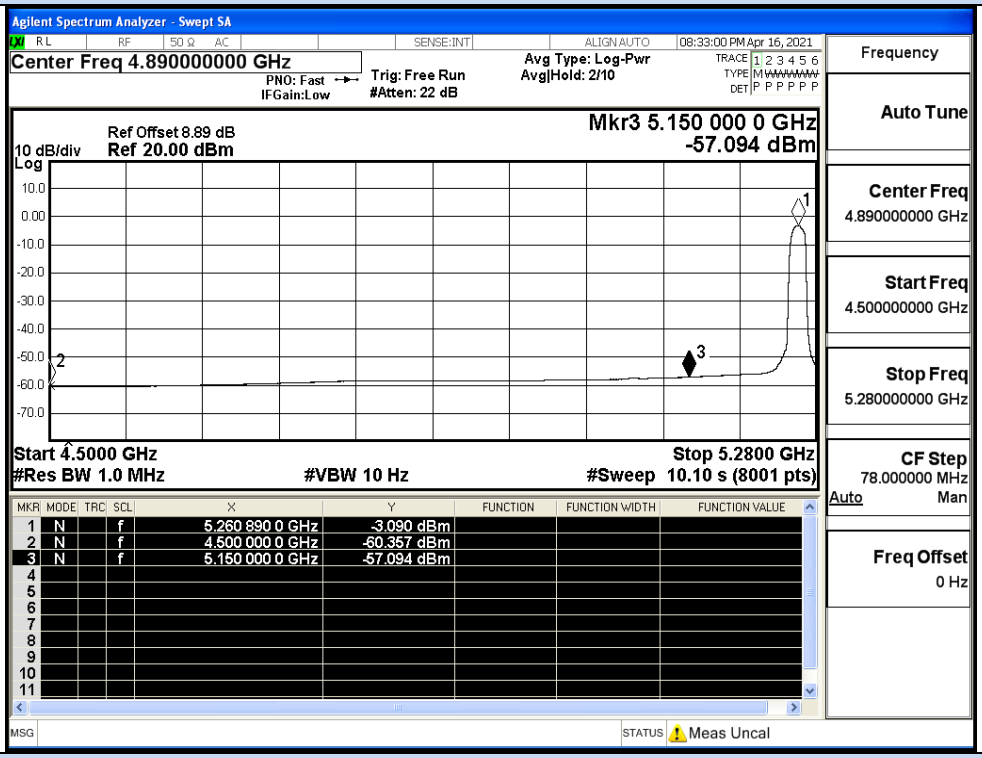
C.5 Undesirable Emissions Measurement

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	-50.92	2.00	0	44.30	Peak	68.20	Pass
		4500.0	-60.36	2.00	0	34.87	Average	54.00	Pass
		5150.0	-47.25	2.00	0	47.98	Peak	68.20	Pass
		5150.0	-57.09	2.00	0	38.13	Average	54.00	Pass
	64	5350.0	-45.76	2.00	0	49.47	Peak	68.20	Pass
		5350.0	-57.52	2.00	0	37.71	Average	54.00	Pass
		5460.0	-47.96	2.00	0	47.27	Peak	68.20	Pass
		5460.0	-59.60	2.00	0	35.63	Average	54.00	Pass
11N20 SISO	52	4500.0	-49.92	2.00	0	45.31	Peak	68.20	Pass
		4500.0	-60.33	2.00	0	34.90	Average	54.00	Pass
		5150.0	-47.33	2.00	0	47.90	Peak	68.20	Pass
		5150.0	-57.06	2.00	0	38.17	Average	54.00	Pass
	64	5350.0	-46.97	2.00	0	48.26	Peak	68.20	Pass
		5350.0	-57.81	2.00	0	37.42	Average	54.00	Pass
		5460.0	-48.54	2.00	0	46.69	Peak	68.20	Pass
		5460.0	-59.87	2.00	0	35.36	Average	54.00	Pass
11N40 SISO	54	4500.0	-50.56	2.00	0	44.67	Peak	68.20	Pass
		4500.0	-59.89	2.00	0	35.34	Average	54.00	Pass
		5150.0	-47.72	2.00	0	47.51	Peak	68.20	Pass
		5150.0	-56.77	2.00	0	38.46	Average	54.00	Pass
	62	5350.0	-43.47	2.00	0	51.76	Peak	68.20	Pass
		5350.0	-55.93	2.00	0	39.30	Average	54.00	Pass
		5460.0	-48.68	2.00	0	46.55	Peak	68.20	Pass
		5460.0	-59.62	2.00	0	35.61	Average	54.00	Pass

Undesirable Emissions Measurement

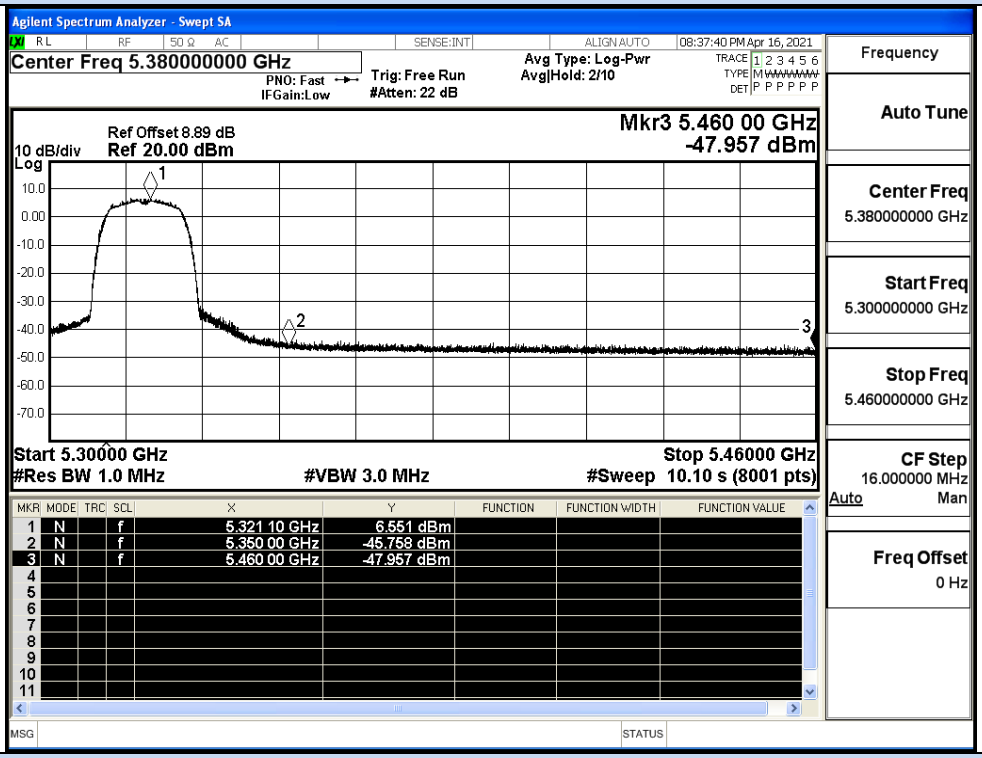


IEEE 802.11a / Channel 36 / 5260MHz / Peak

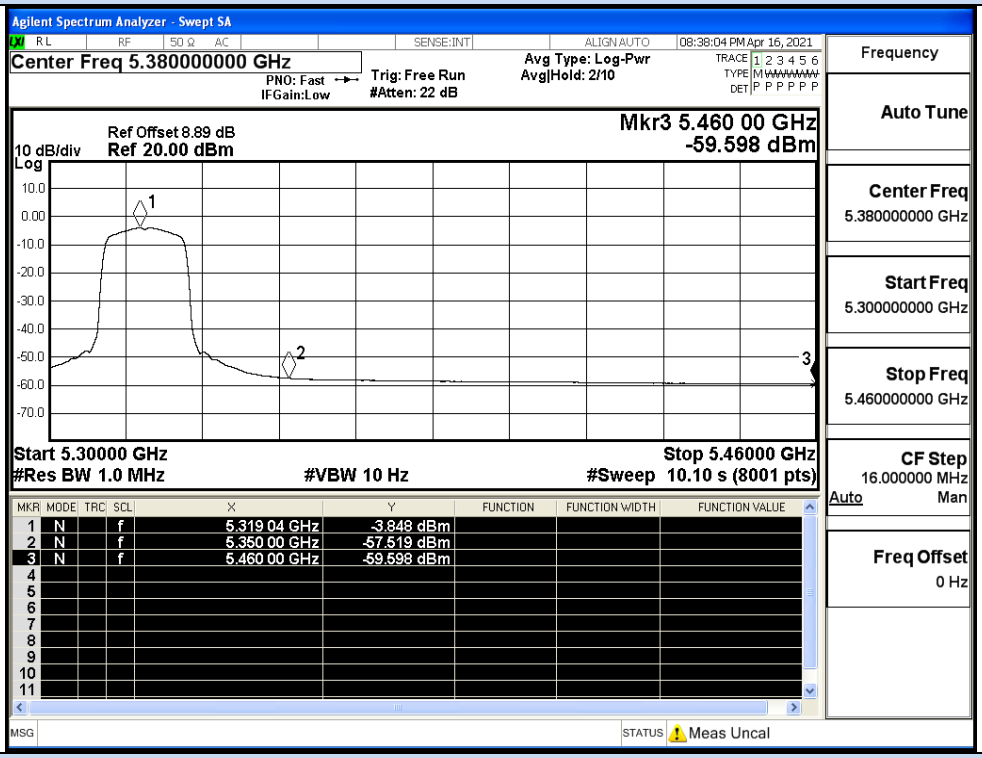


IEEE 802.11a / Channel 36 / 5260MHz / Average

Undesirable Emissions Measurement

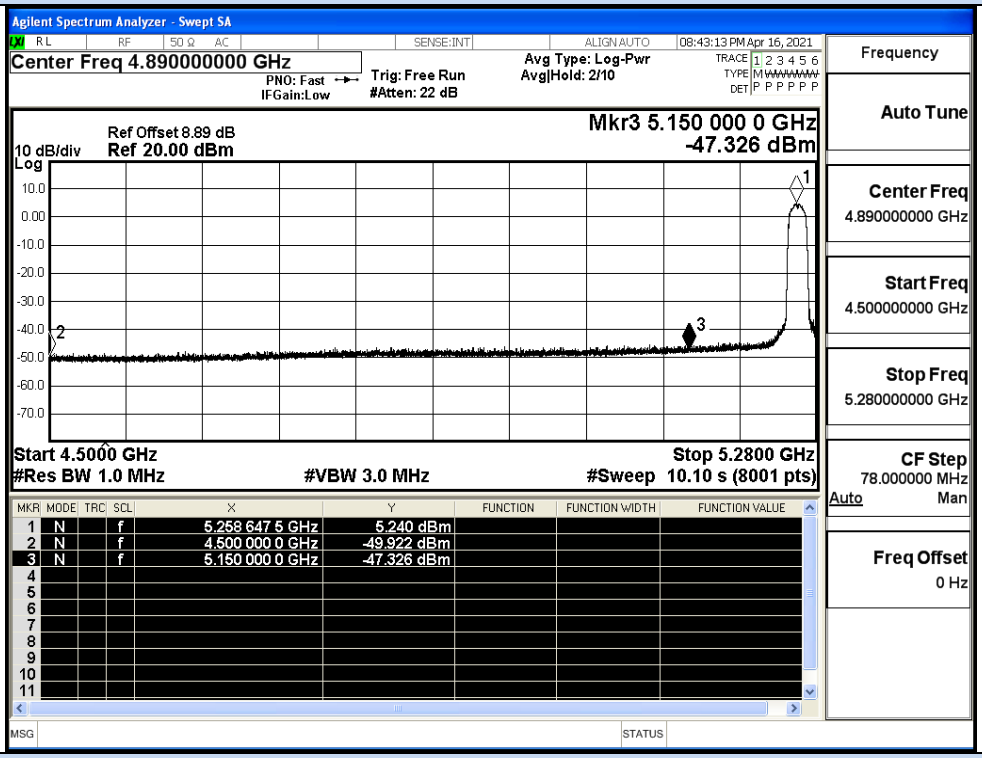


IEEE 802.11a / Channel 48 / 5320MHz / Peak

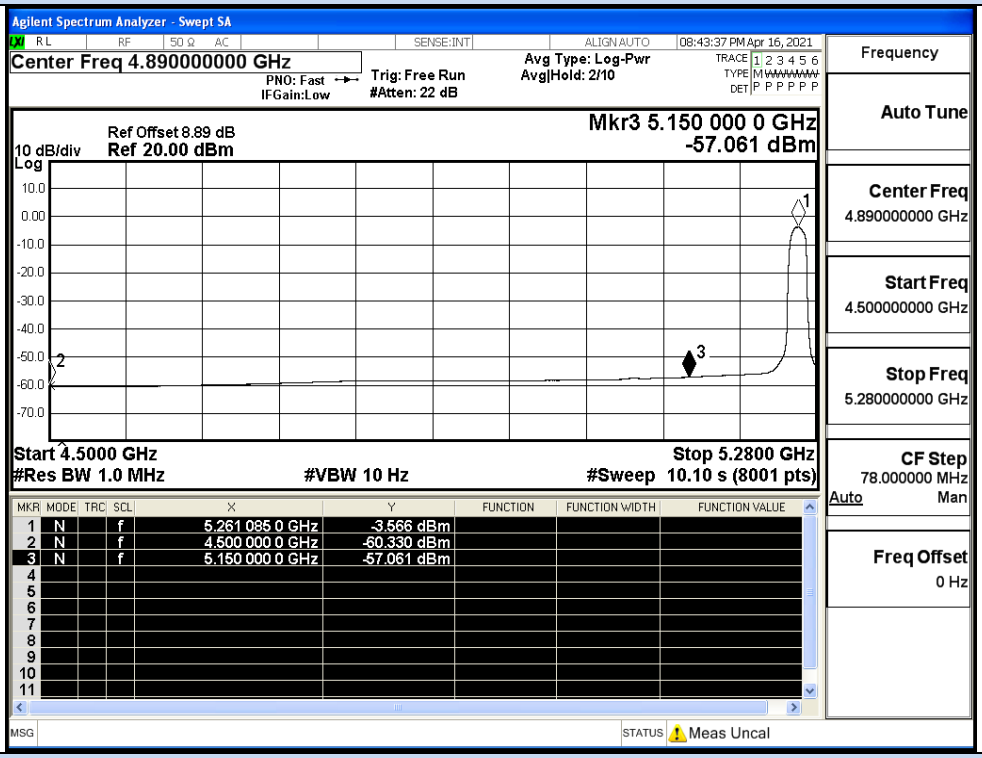


IEEE 802.11a / Channel 48 / 5320MHz / Average

Undesirable Emissions Measurement

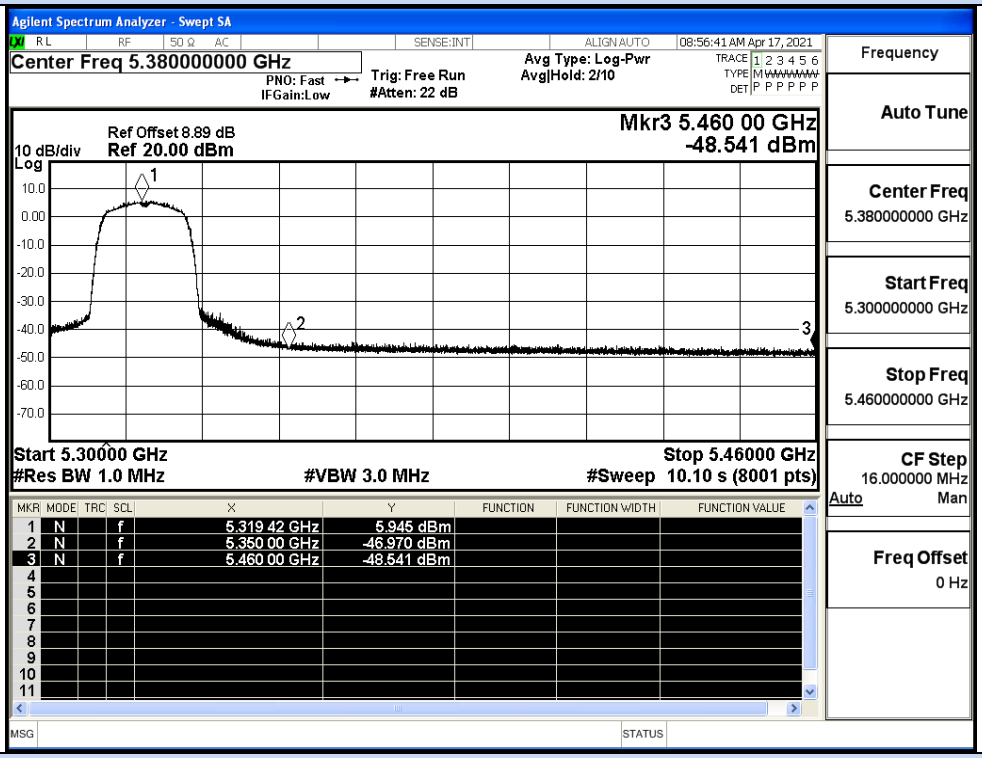


IEEE 802.11n20 / Channel 36 / 5260MHz / Peak

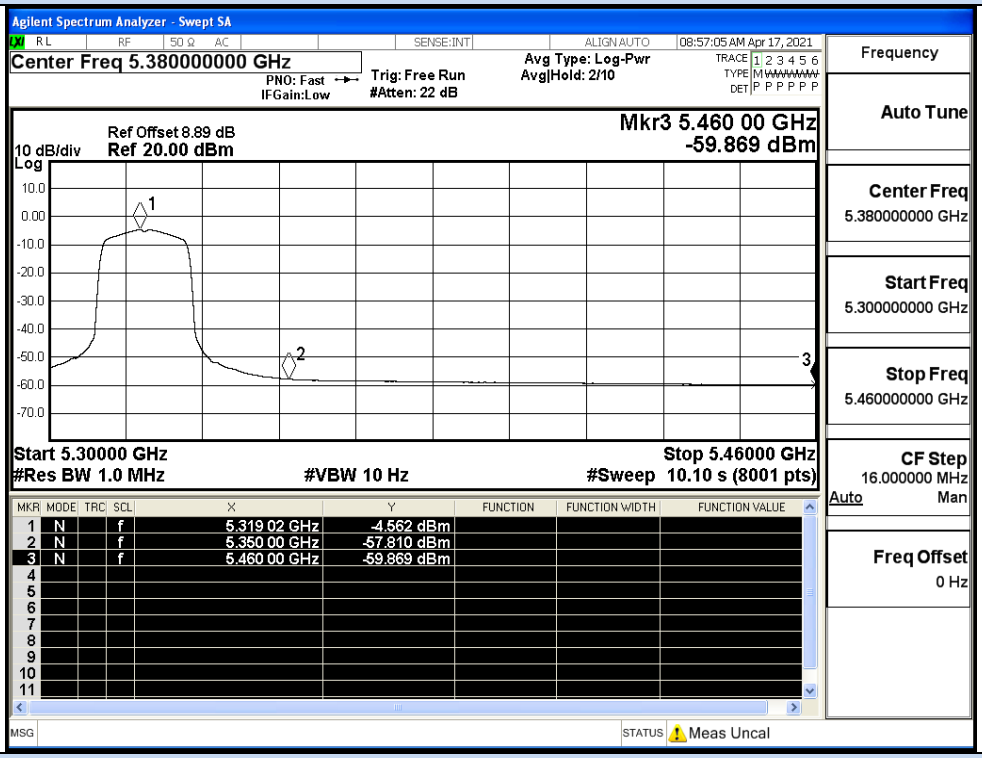


IEEE 802.11n20 / Channel 36 / 5260MHz / Average

Undesirable Emissions Measurement

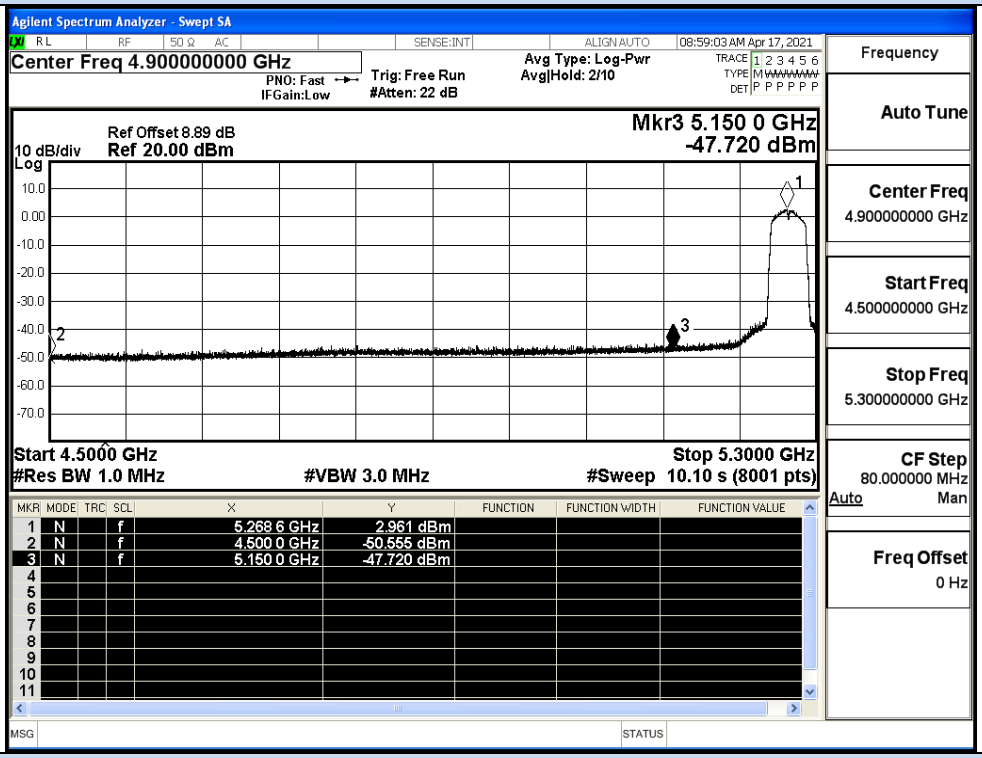


IEEE 802.11n20 / Channel 48 / 5320MHz / Peak

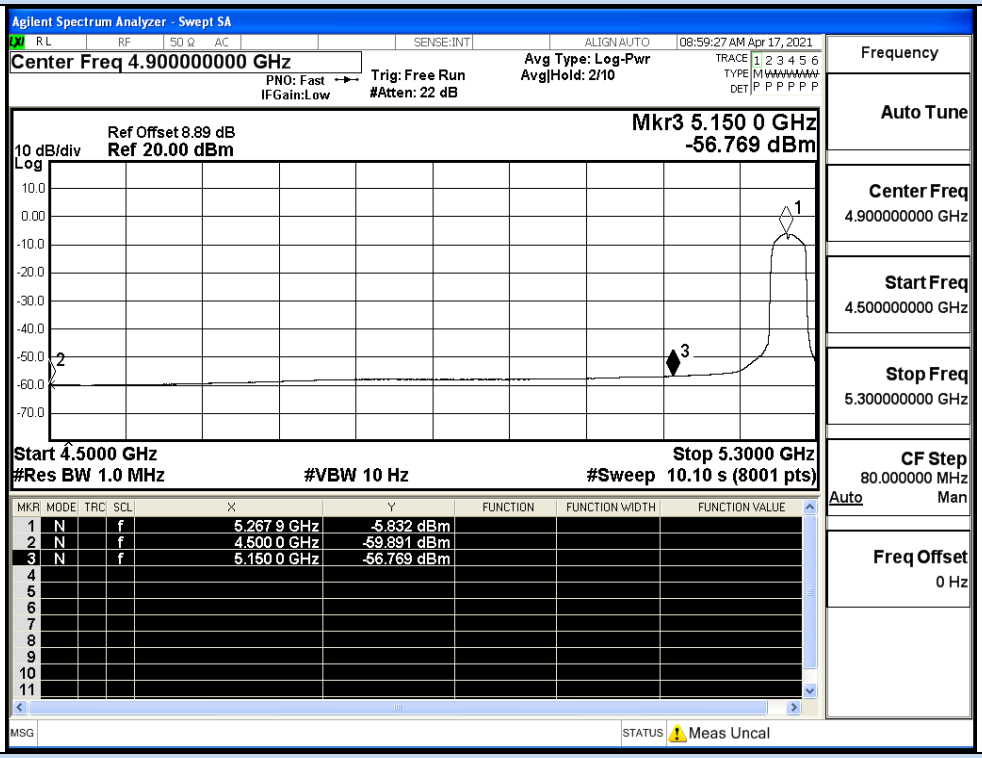


IEEE 802.11n20 / Channel 48 / 5320MHz / Average

Undesirable Emissions Measurement

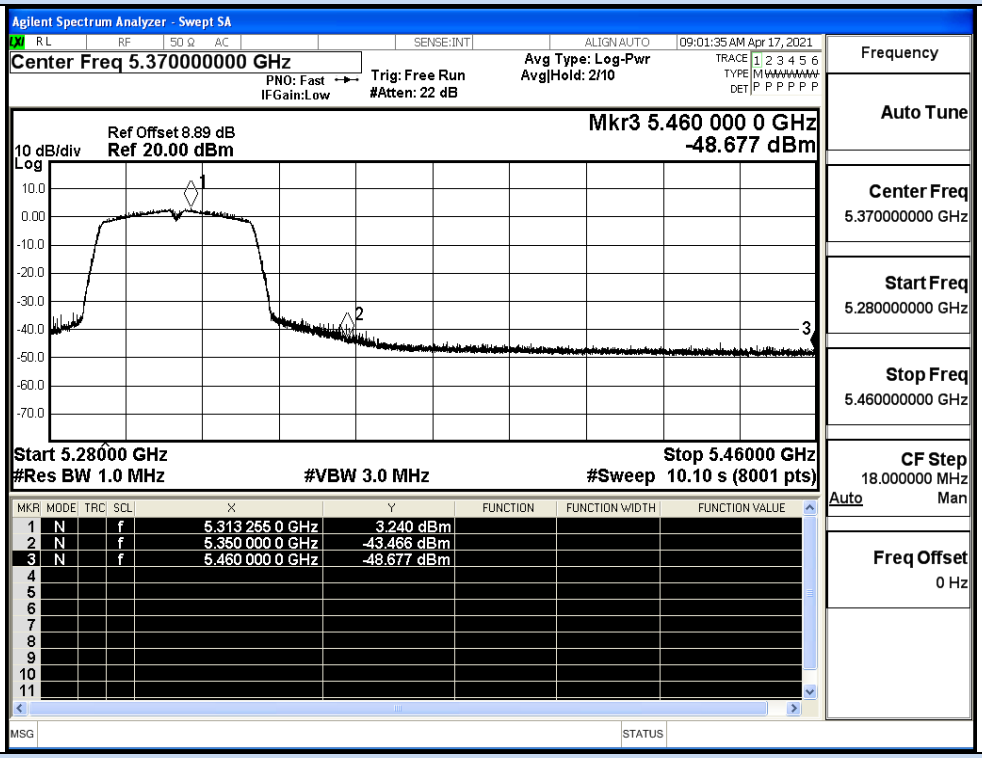


IEEE 802.11n40 / Channel 38 / 5270MHz / Peak

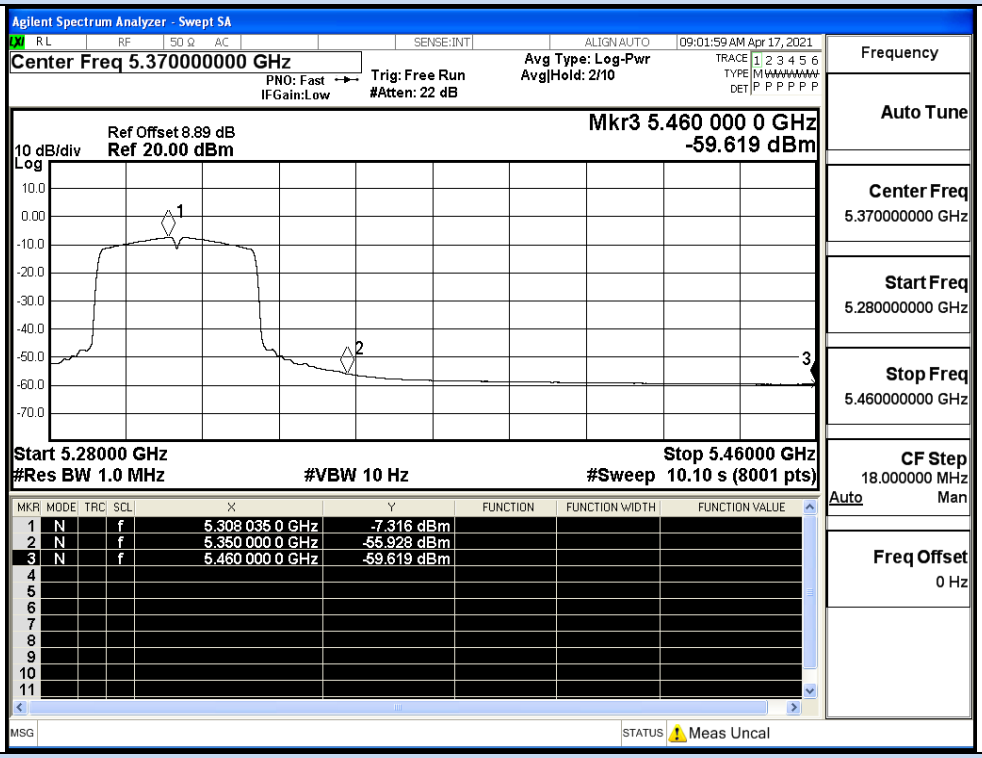


IEEE 802.11n40 / Channel 38 / 5270MHz / Average

Undesirable Emissions Measurement



IEEE 802.11n40 / Channel 46 / 5310MHz / Peak



IEEE 802.11n40 / Channel 46 / 5310MHz / Average