

Appendix D

RF Test Data for 5.3G WLAN (Conducted Measurement)

Product Name: Smart Lock

Trade Mark: REVOLO

Test Model: WFP01

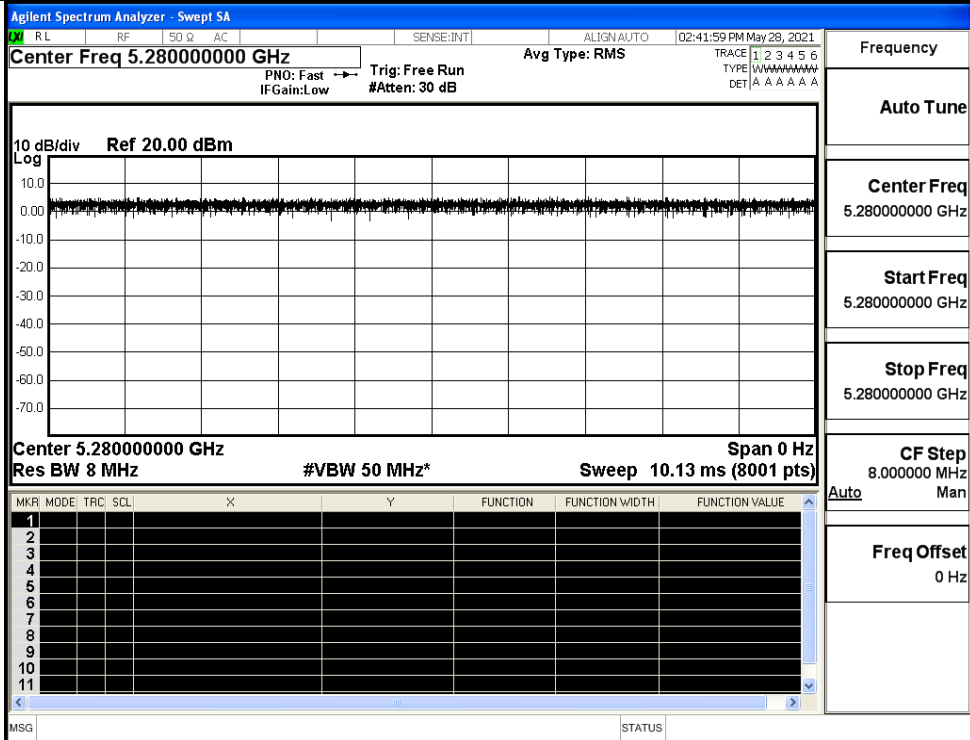
Environmental Conditions

Temperature:	23.7° C
Relative Humidity:	51.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

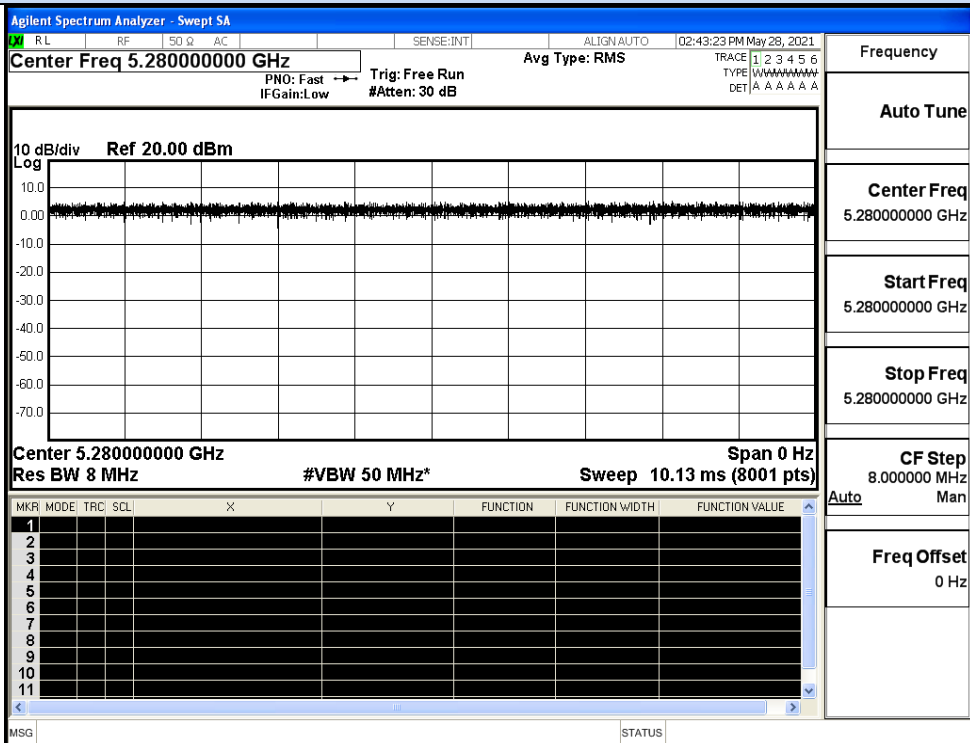
D.1 Duty Cycle

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
11AC20 SISO	5280	100	0.00	0.01

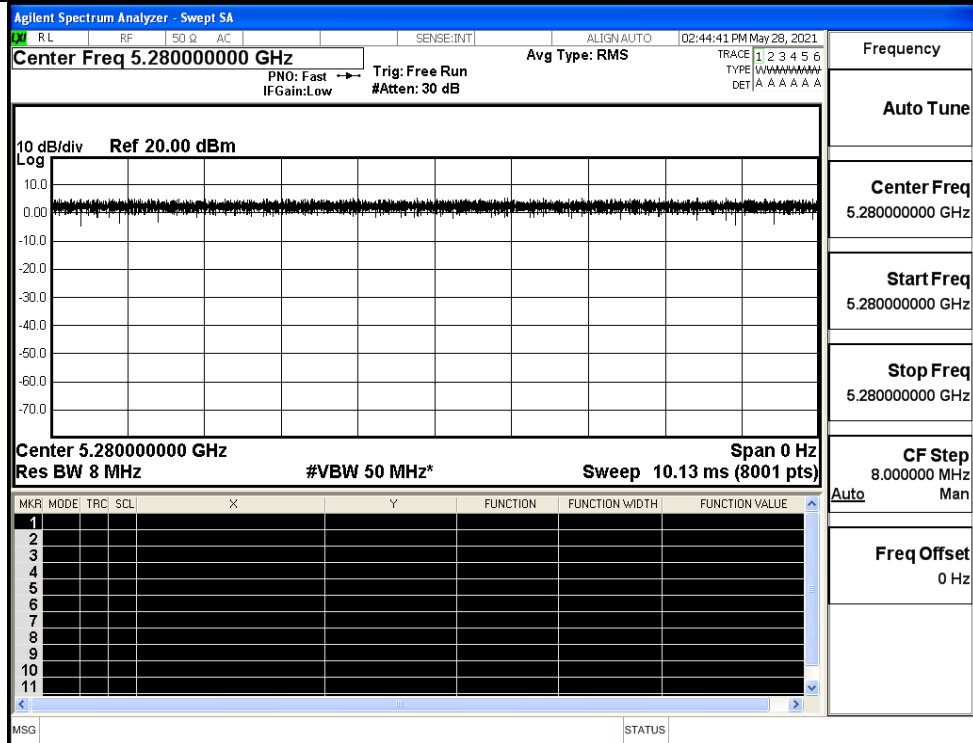
On Time and Duty Cycle



IEEE 802.11a



IEEE 802.11n HT20



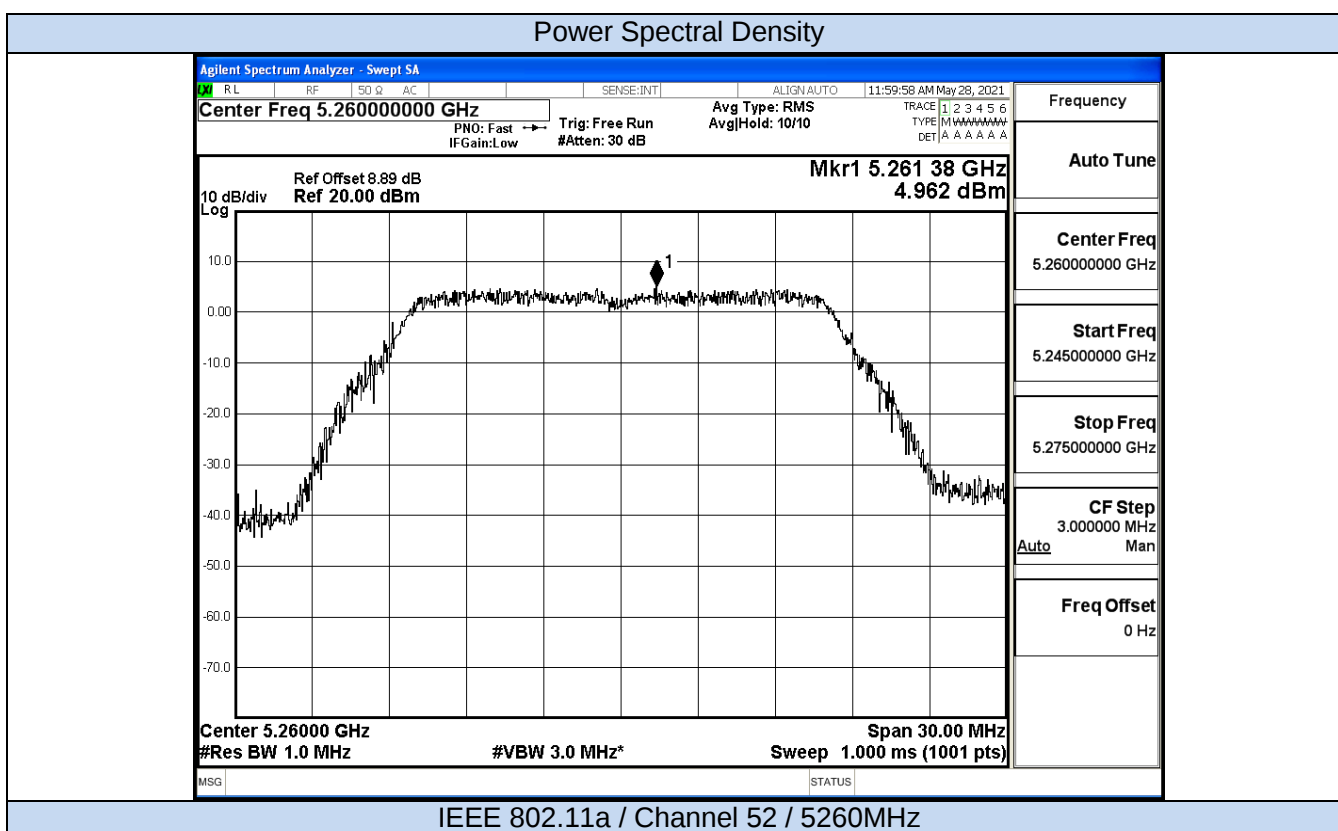
IEEE 802.11AC20

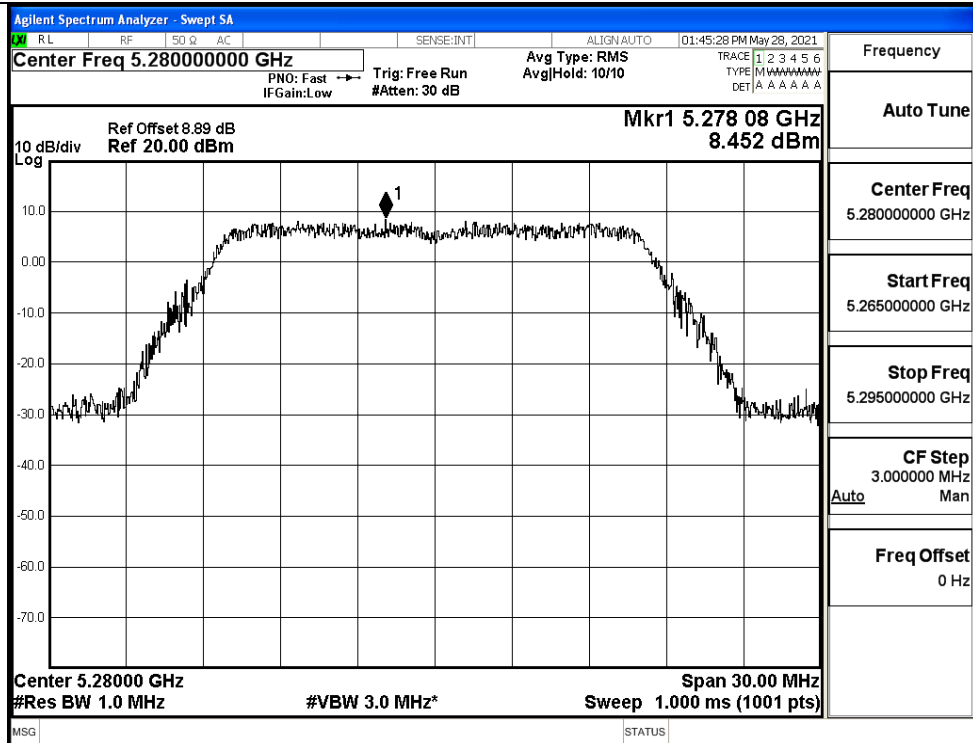
D.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	52	5260	15.35	0	15.35	24	Pass
	56	5280	18.91	0	18.91		Pass
	64	5320	18.94	0	18.94		Pass
11N20 SISO	52	5260	15.25	0	15.25	24	Pass
	56	5280	15.09	0	15.09		Pass
	64	5320	14.08	0	14.08		Pass
11AC20 SISO	52	5260	14.47	0	14.47	24	Pass
	56	5280	13.3	0	13.3		Pass
	64	5320	15.51	0	15.51		Pass

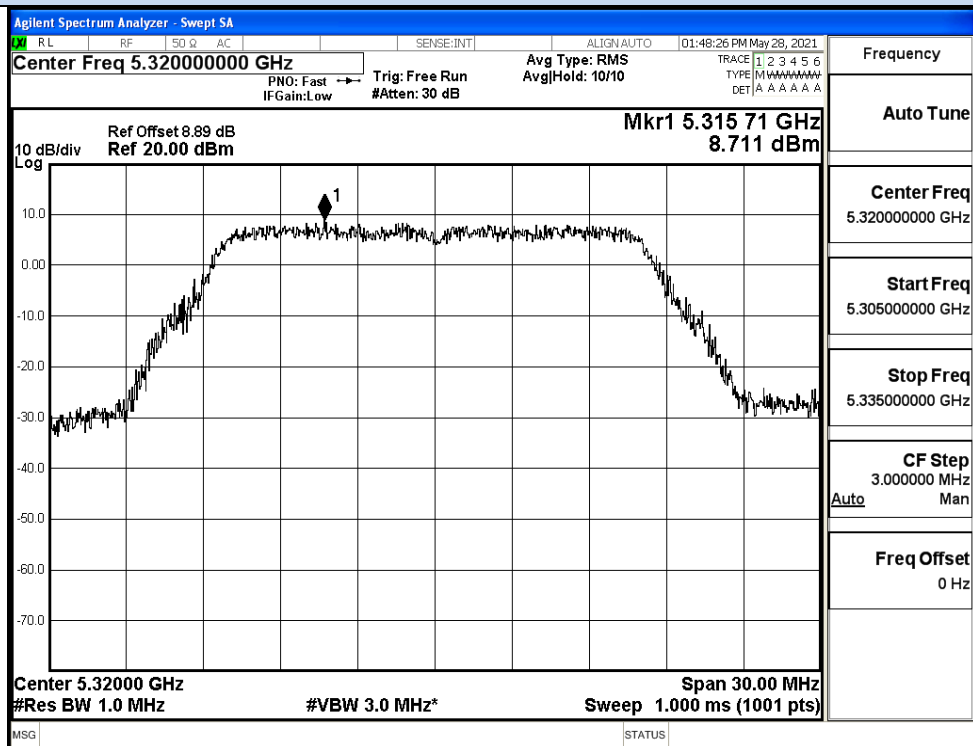
D.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor(dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)	Verdict
11A	52	5260	4.96	0	4.96	11	Pass
	56	5280	8.45	0	8.45		Pass
	64	5320	8.71	0	8.71		Pass
11N20 SISO	52	5260	5.01	0	5.01	11	Pass
	56	5280	4.56	0	4.56		Pass
	64	5320	4.64	0	4.64		Pass
11AC20 SISO	52	5260	4.01	0	4.01	11	Pass
	56	5280	3.69	0	3.69		Pass
	64	5320	3.14	0	3.14		Pass



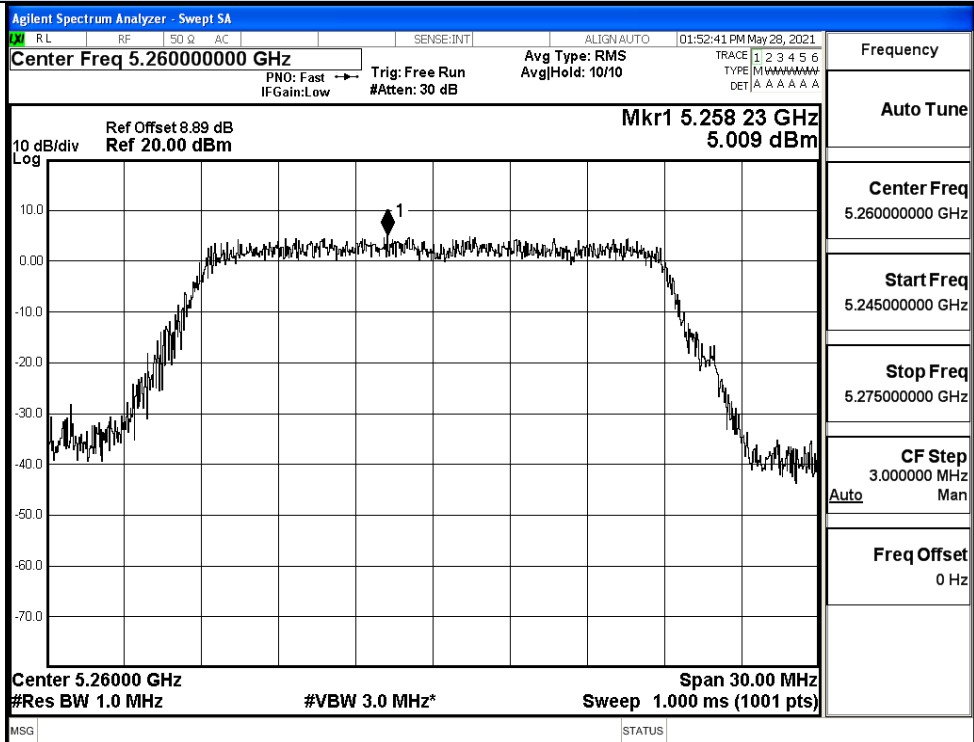


IEEE 802.11na / Channel 56 / 5280MHz

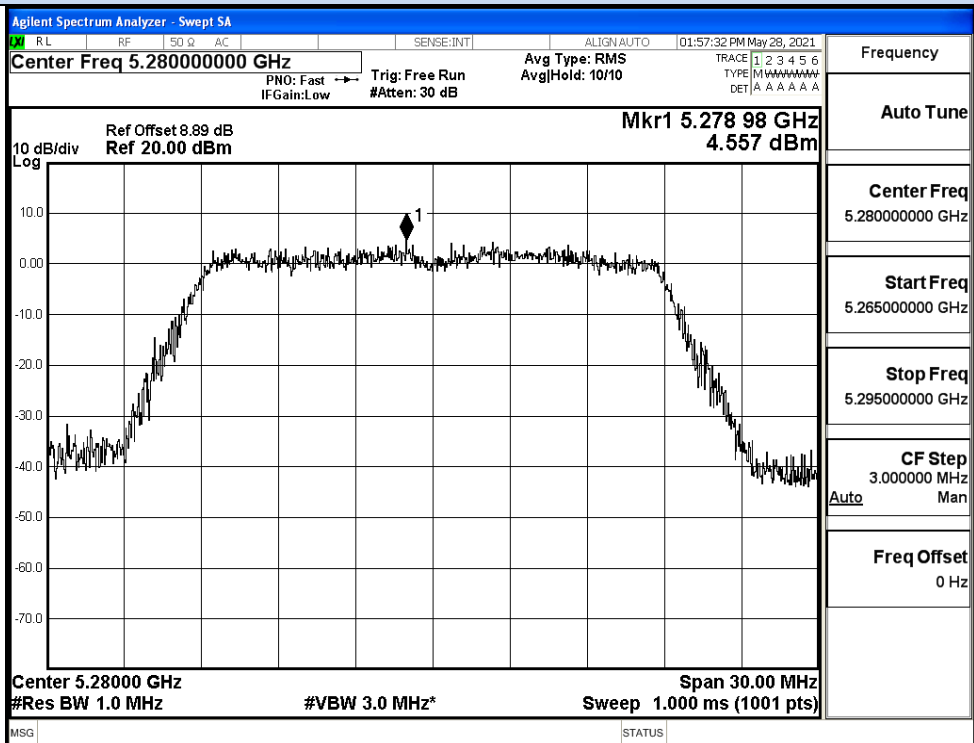


IEEE 802.11na / Channel 64 / 5320MHz

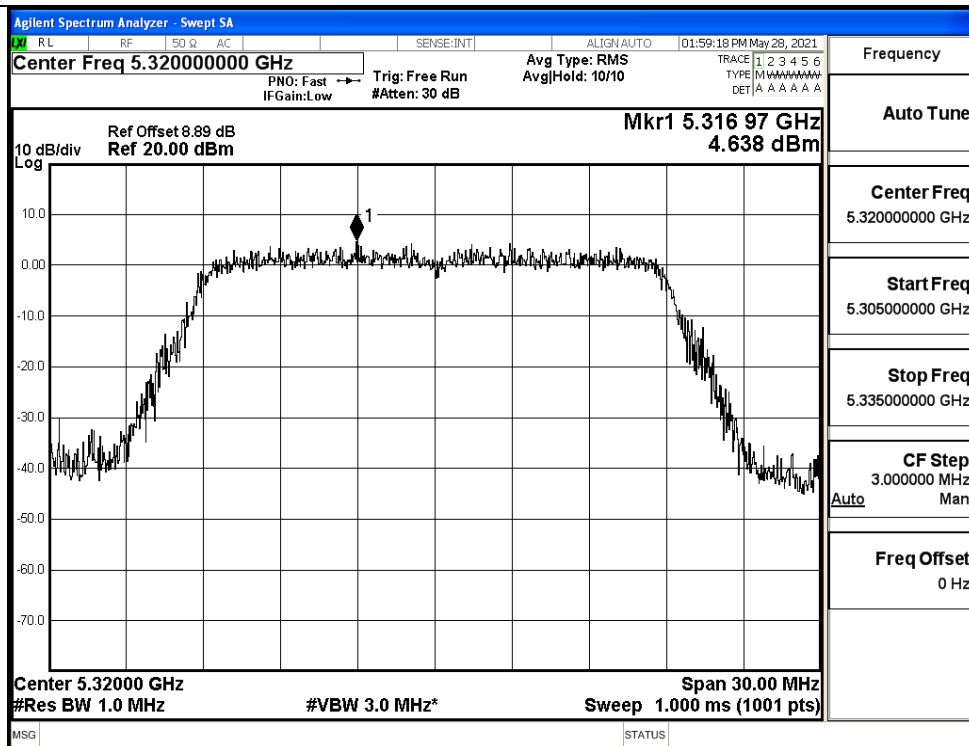
Power Spectral Density



IEEE 802.11n20 / Channel 52 / 5260MHz

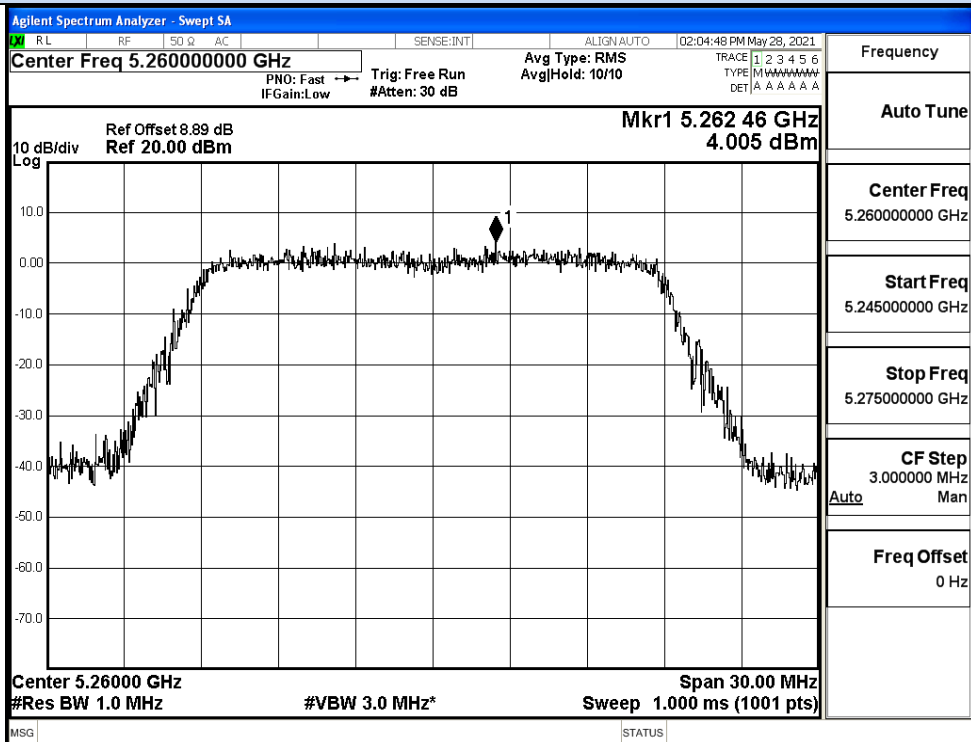


IEEE 802.11n20 / Channel 56 / 5280MHz

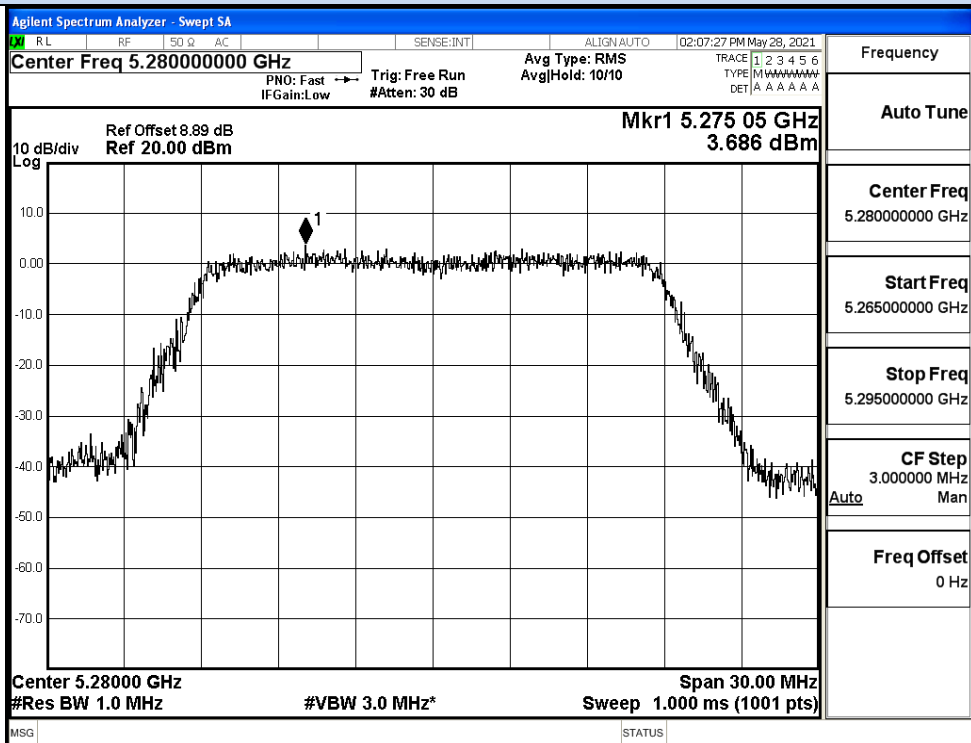


IEEE 802.11n20 / Channel 64 / 5320MHz

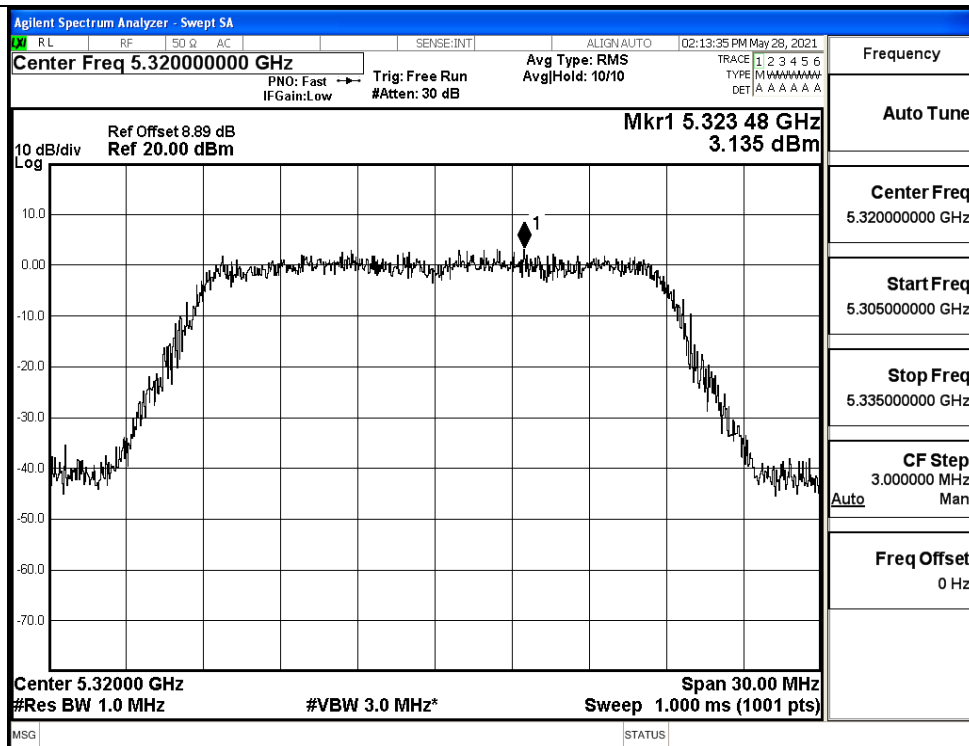
Power Spectral Density



IEEE 802.11ac20 / Channel 52 / 5260MHz



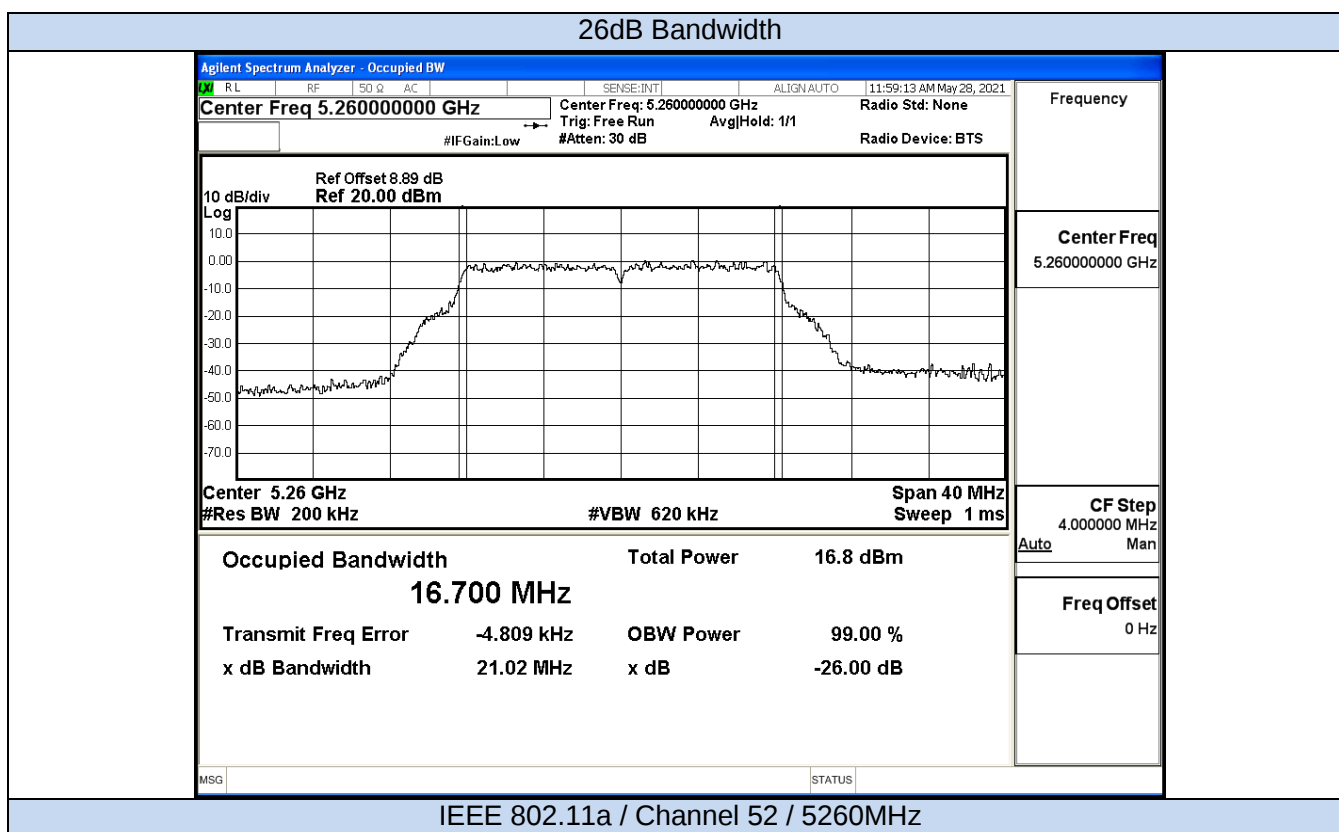
IEEE 802.11ac20 / Channel 56 / 5280MHz

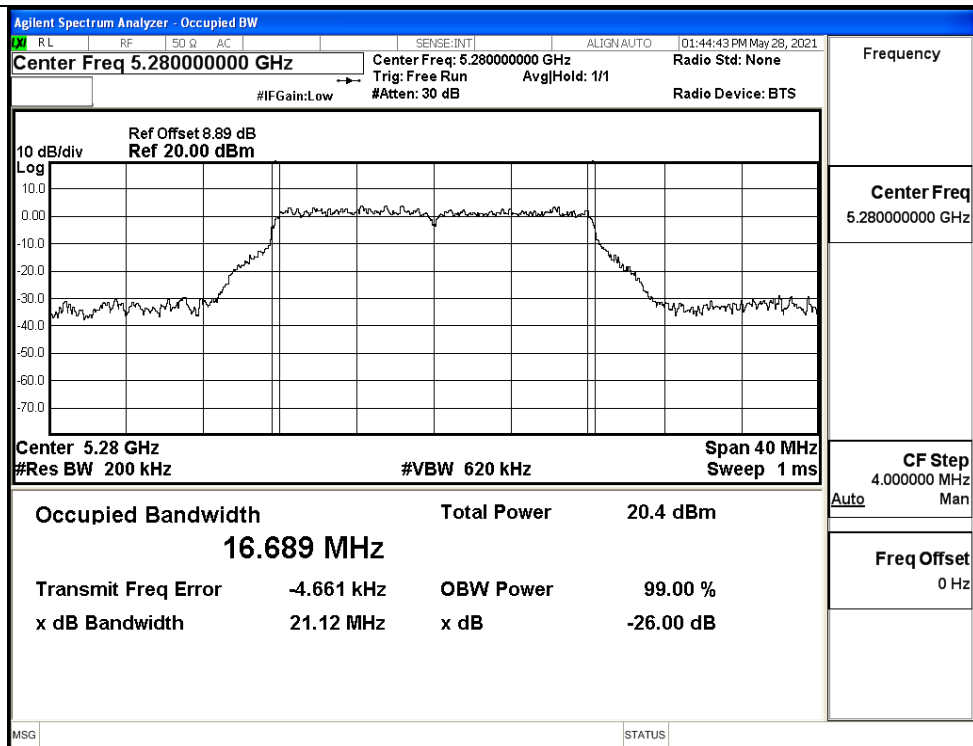


IEEE 802.11ac20 / Channel 64 / 5320MHz

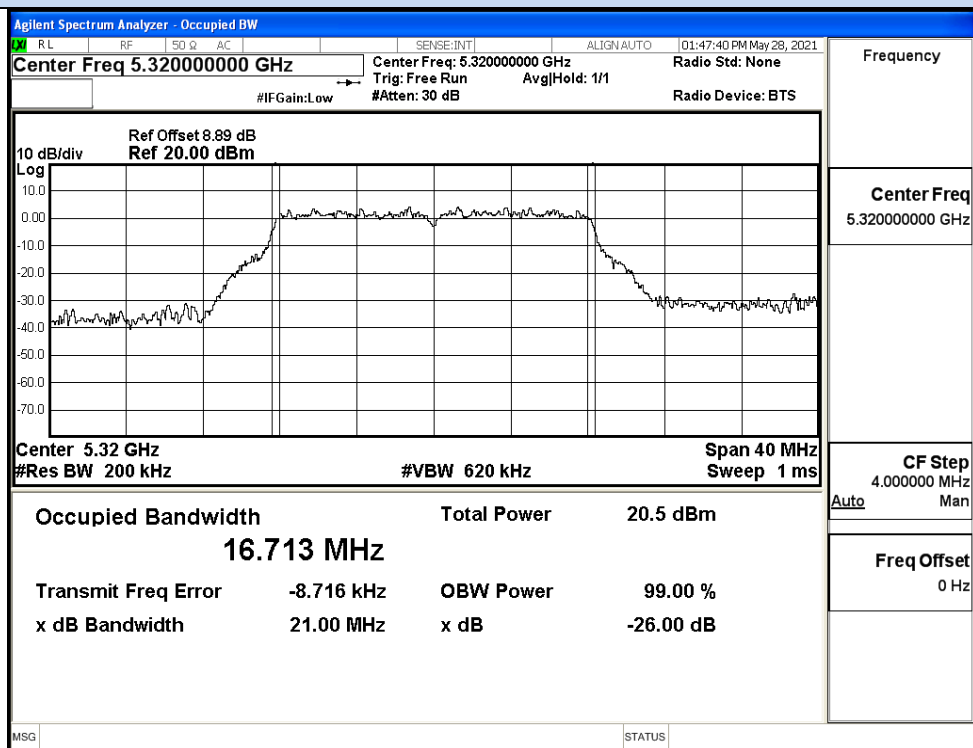
D.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
11A	52	5260	21.02	No Limit	Pass
	56	5280	21.12		Pass
	64	5320	21.00		Pass
11N20 SISO	52	5260	21.08	No Limit	Pass
	56	5280	20.95		Pass
	64	5320	20.85		Pass
11AC20 SISO	52	5260	20.96	No Limi	Pass
	56	5280	20.98		Pass
	64	5320	20.75		Pass



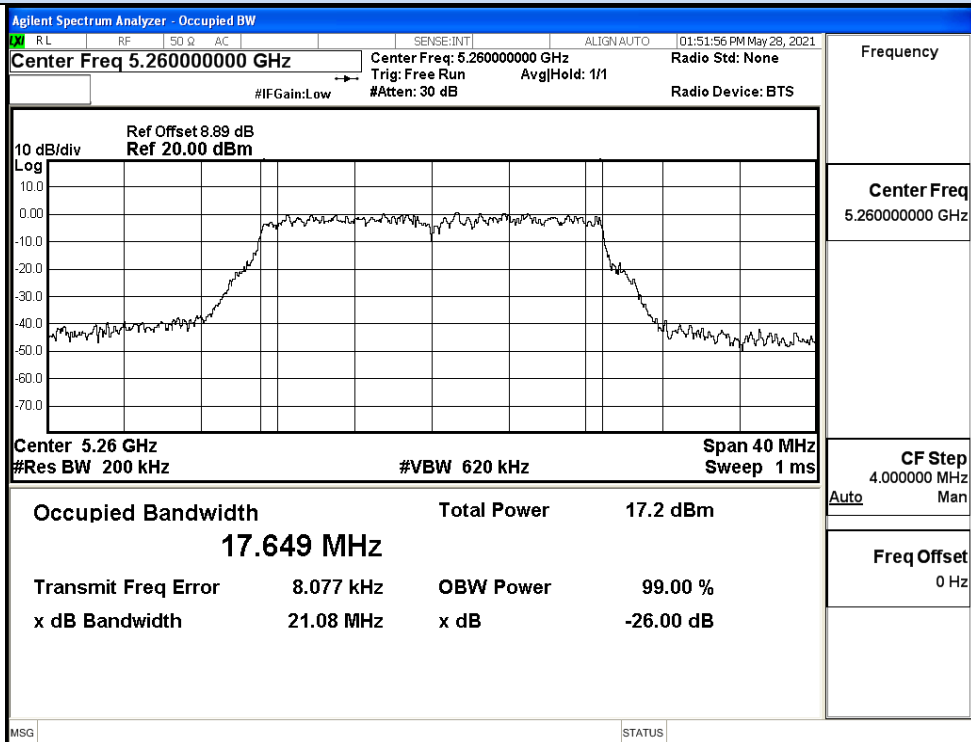


IEEE 802.11a / Channel 56 / 5280MHz

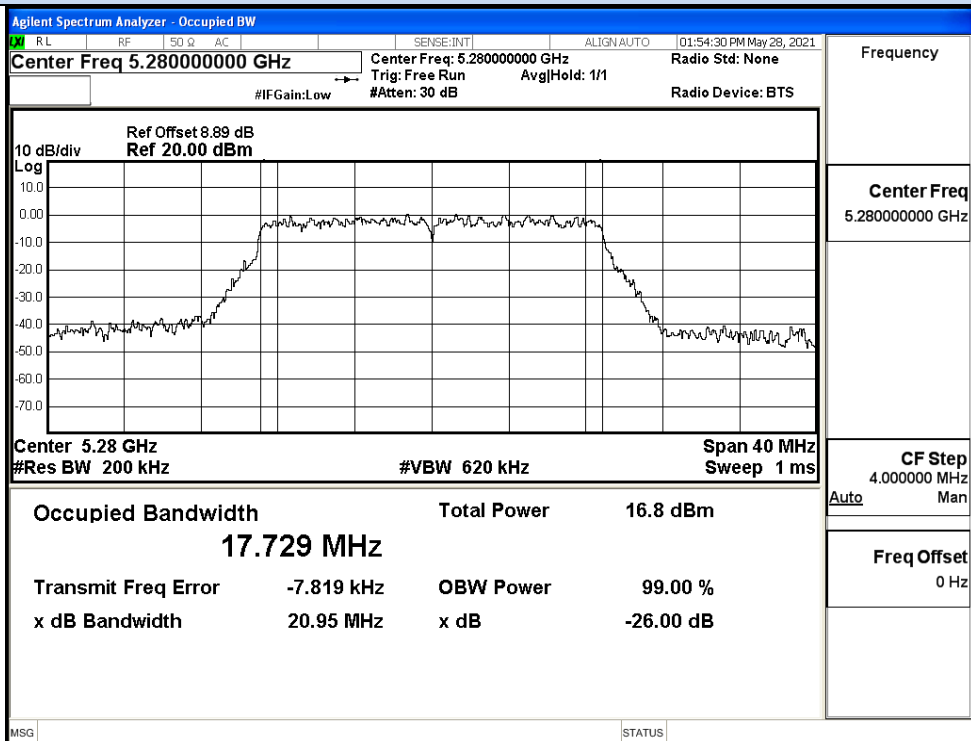


IEEE 802.11a / Channel 64 / 5320MHz

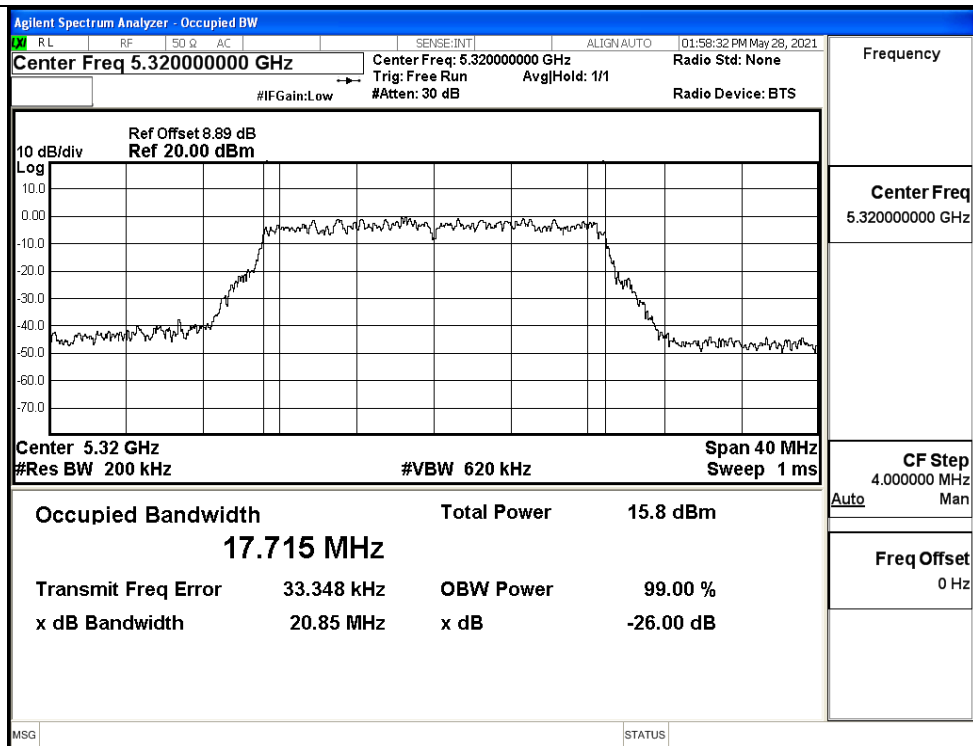
26dB Bandwidth



IEEE 802.11n20 / Channel 52 / 5260MHz

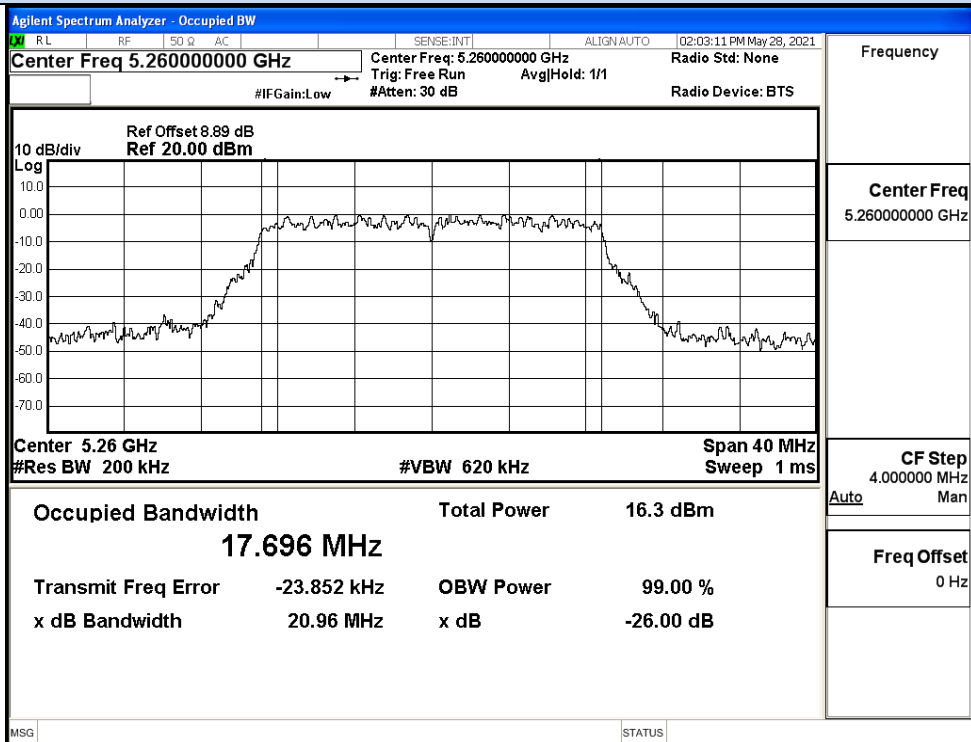


IEEE 802.11n20 / Channel 56 / 5280MHz

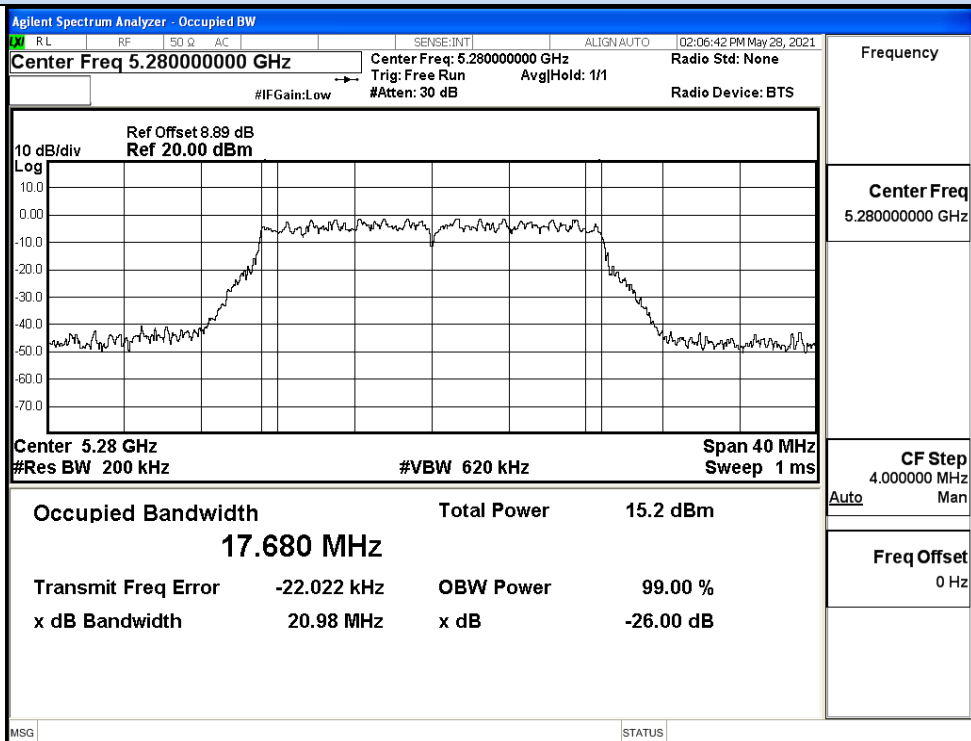


IEEE 802.11n20 / Channel 64 / 5320MHz

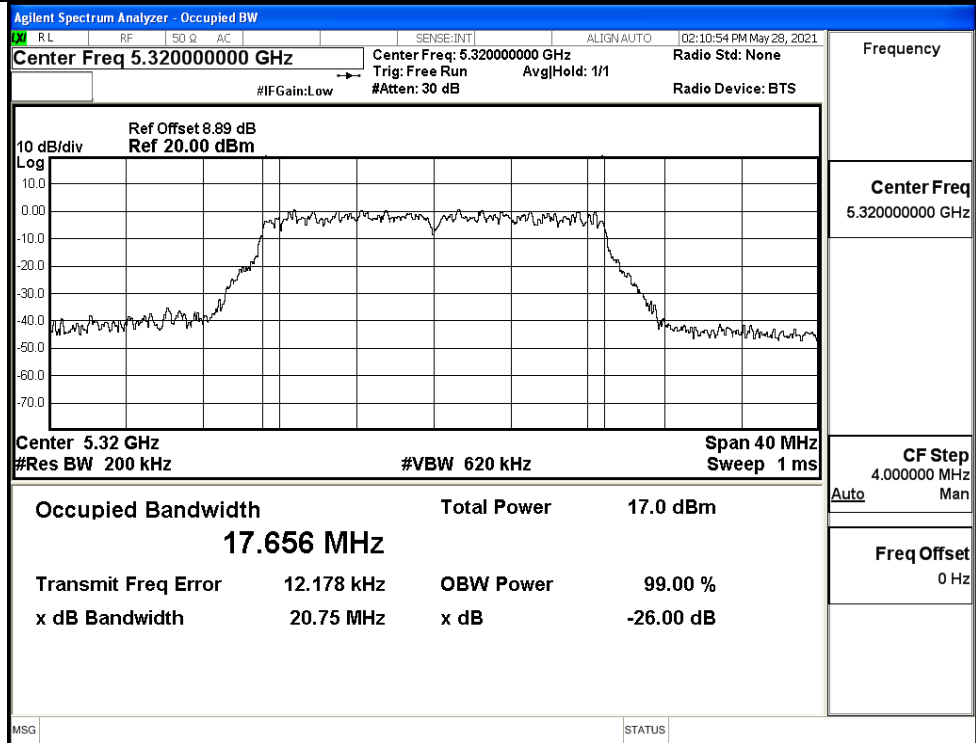
26dB Bandwidth



IEEE 802.11ac20 / Channel 52 / 5260MHz



IEEE 802.11ac20 / Channel 56 / 5280MHz

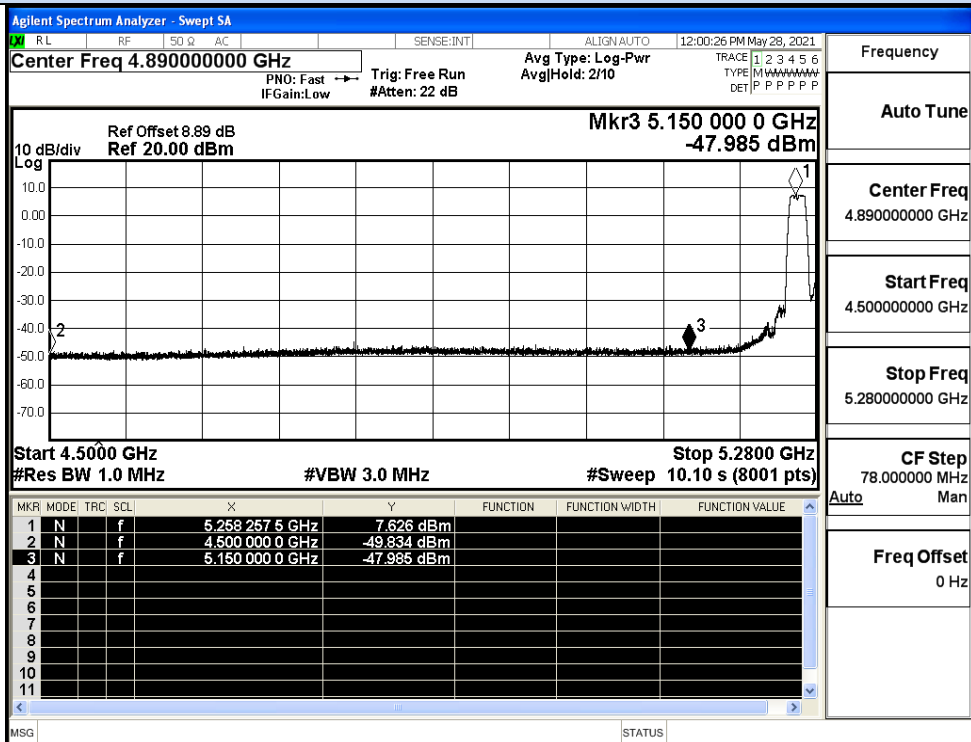


IEEE 802.11ac20 / Channel 64 / 5320MHz

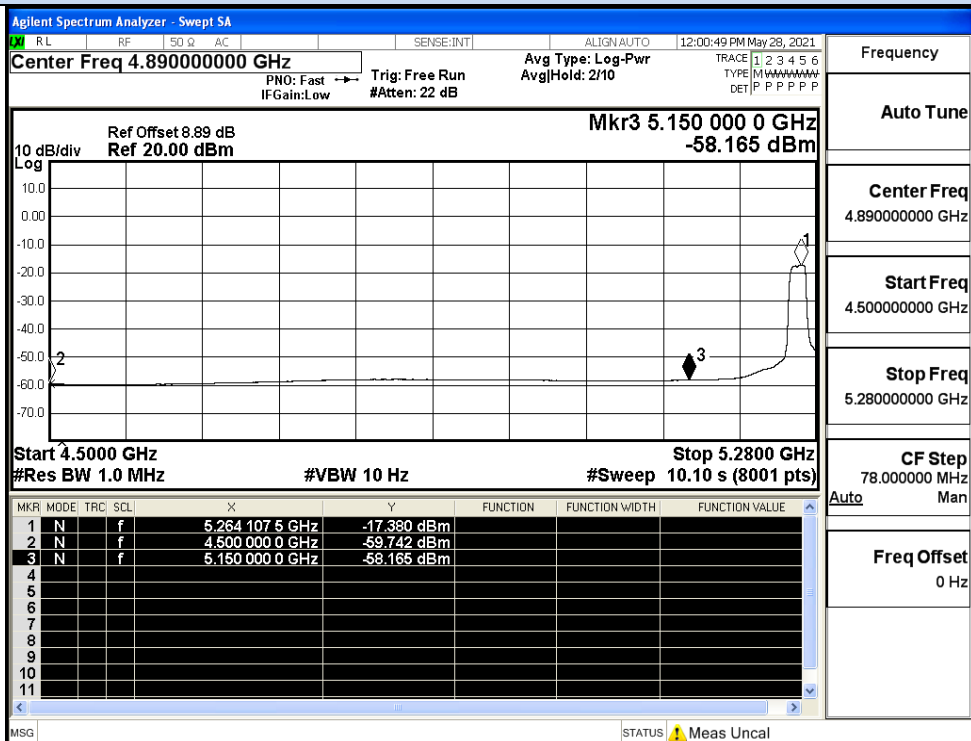
D.5 Undesirable Emissions Measurement

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)	Verdict
11A	52	4500.0	-49.83	2.00	0	47.40	Peak	68.20	Pass
		4500.0	-59.74	2.00	0	37.49	Average	54.00	Pass
		5150.0	-47.99	2.00	0	49.24	Peak	68.20	Pass
		5150.0	-58.17	2.00	0	39.06	Average	54.00	Pass
	64	5350.0	-37.87	2.00	0	59.36	Peak	68.20	Pass
		5350.0	-53.74	2.00	0	43.49	Average	54.00	Pass
		5460.0	-47.17	2.00	0	50.06	Peak	68.20	Pass
		5460.0	-60.34	2.00	0	36.89	Average	54.00	Pass
11N20 SISO	52	4500.0	-49.82	2.00	0	47.41	Peak	68.20	Pass
		4500.0	-60.55	2.00	0	36.68	Average	54.00	Pass
		5150.0	-49.20	2.00	0	48.03	Peak	68.20	Pass
		5150.0	-59.13	2.00	0	38.10	Average	54.00	Pass
	64	5350.0	-42.74	2.00	0	54.49	Peak	68.20	Pass
		5350.0	-58.90	2.00	0	38.33	Average	54.00	Pass
		5460.0	-49.13	2.00	0	48.10	Peak	68.20	Pass
		5460.0	-60.49	2.00	0	36.74	Average	54.00	Pass
11AC20 SISO	52	4500.0	-50.18	2.00	0	47.05	Peak	68.20	Pass
		4500.0	-60.56	2.00	0	36.67	Average	54.00	Pass
		5150.0	-49.96	2.00	0	47.27	Peak	68.20	Pass
		5150.0	-59.16	2.00	0	38.07	Average	54.00	Pass
	64	4500.0	-50.18	2.00	0	47.05	Peak	68.20	Pass
		4500.0	-60.56	2.00	0	36.67	Average	54.00	Pass
		5150.0	-49.96	2.00	0	47.27	Peak	68.20	Pass
		5150.0	-59.16	2.00	0	38.07	Average	54.00	Pass

Undesirable Emissions Measurement

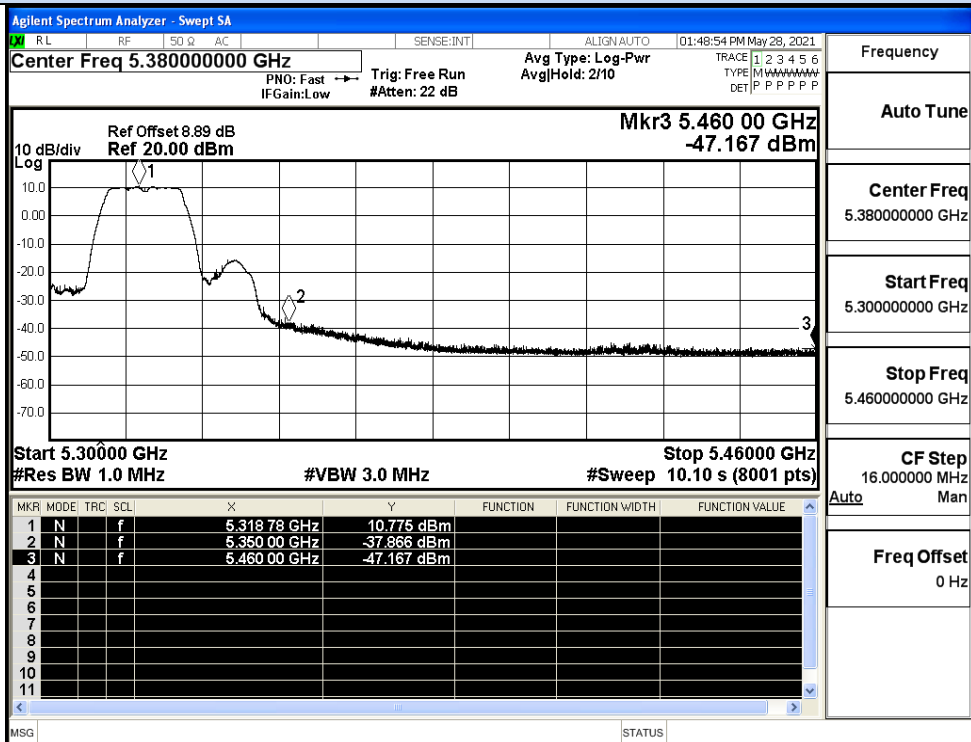


IEEE 802.11a / Channel 36 / 5260MHz / Peak

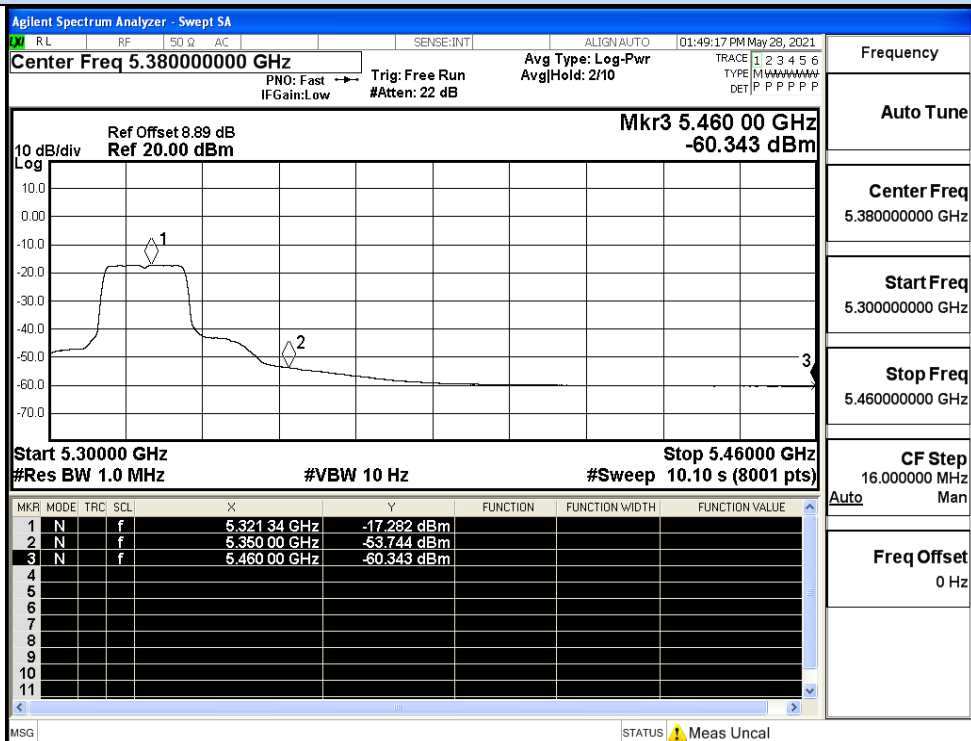


IEEE 802.11a / Channel 36 / 5260MHz / Average

Undesirable Emissions Measurement

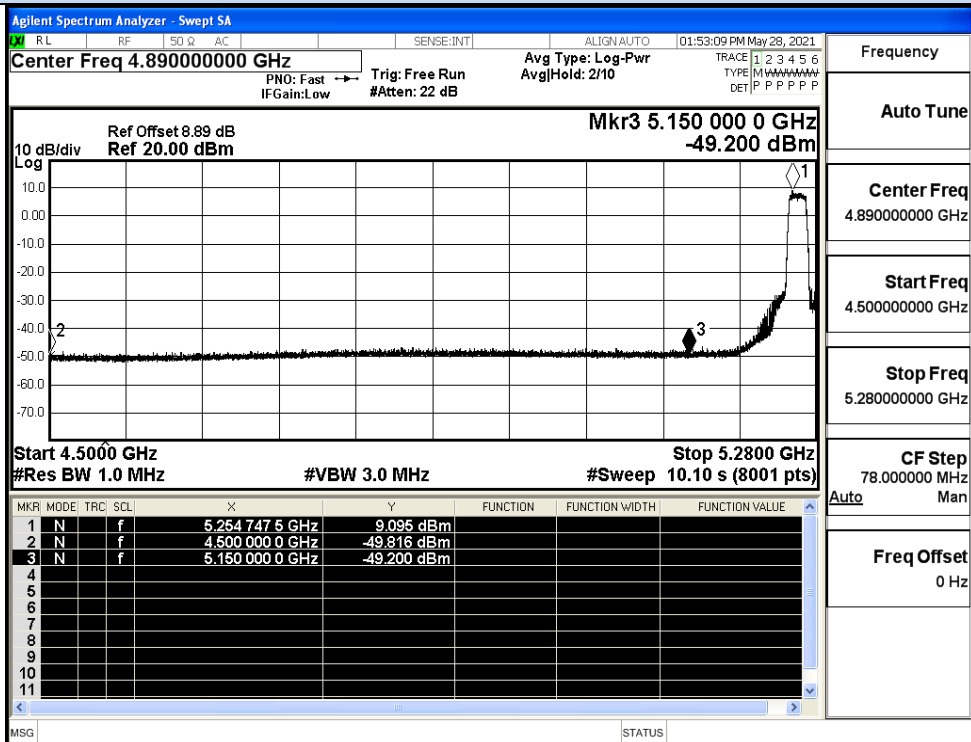


IEEE 802.11a / Channel 48 / 5320MHz / Peak

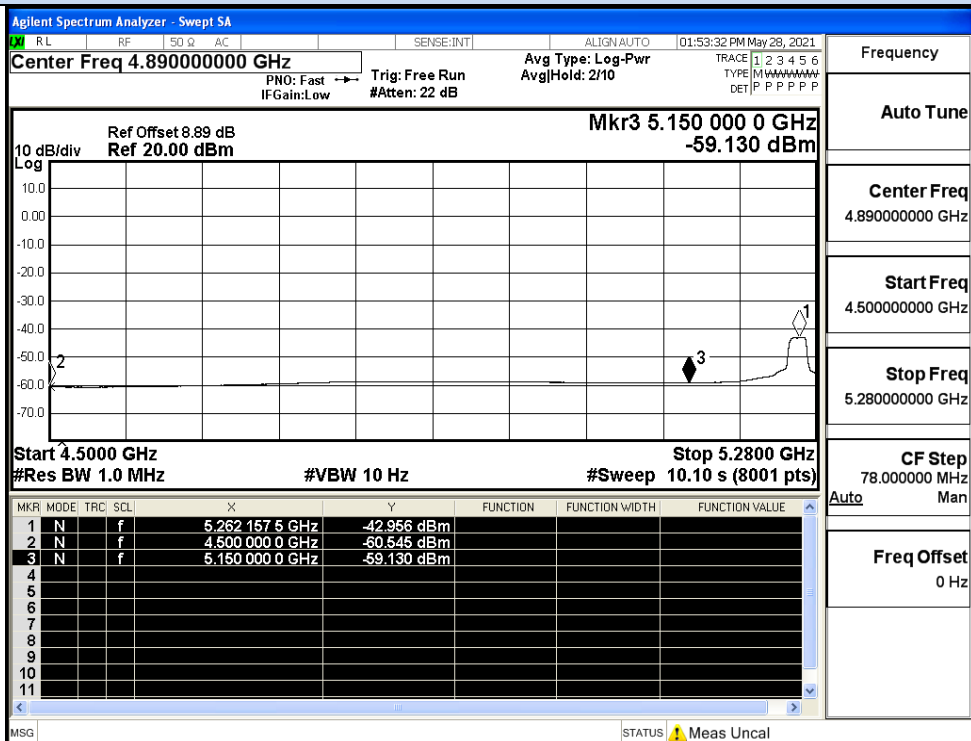


IEEE 802.11a / Channel 48 / 5320MHz / Average

Undesirable Emissions Measurement

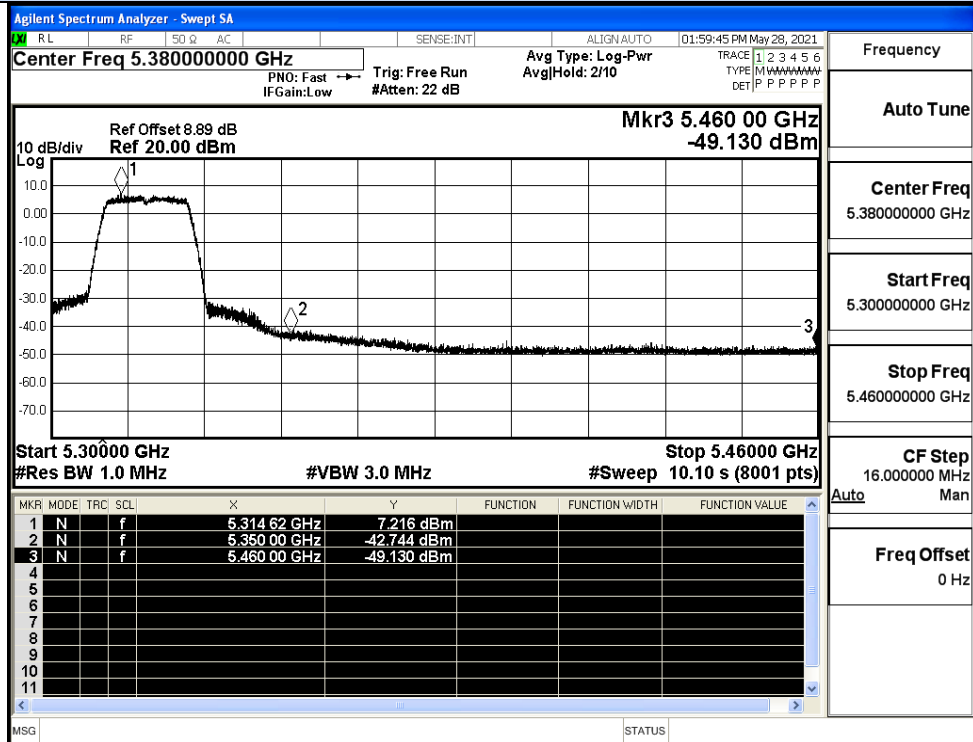


IEEE 802.11n20 / Channel 36 / 5260MHz / Peak

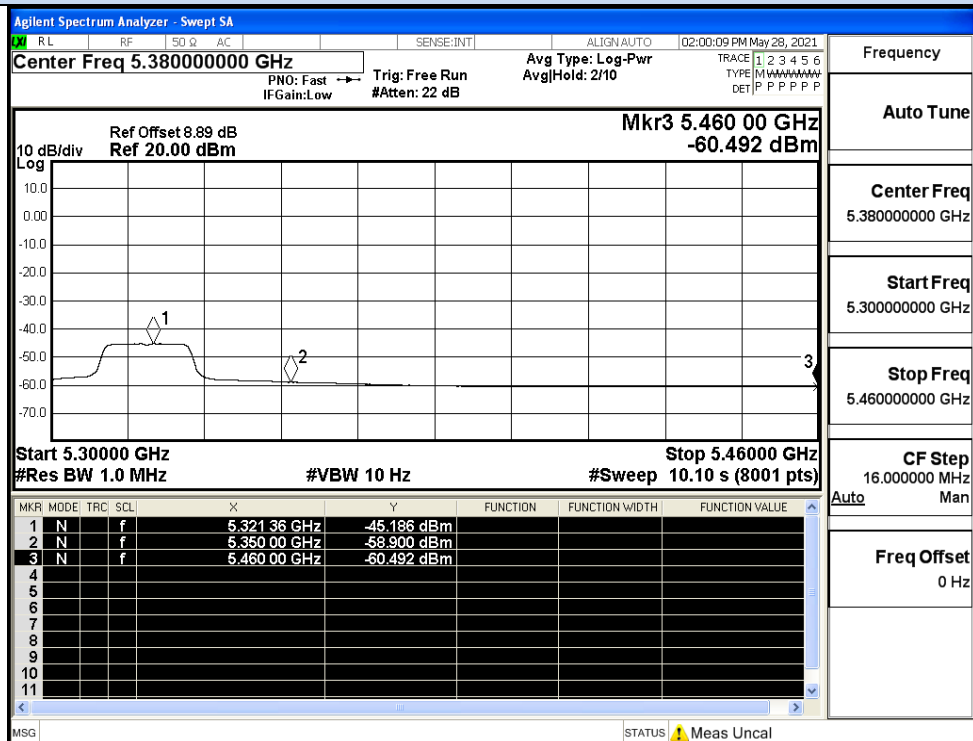


IEEE 802.11n20 / Channel 36 / 5260MHz / Average

Undesirable Emissions Measurement

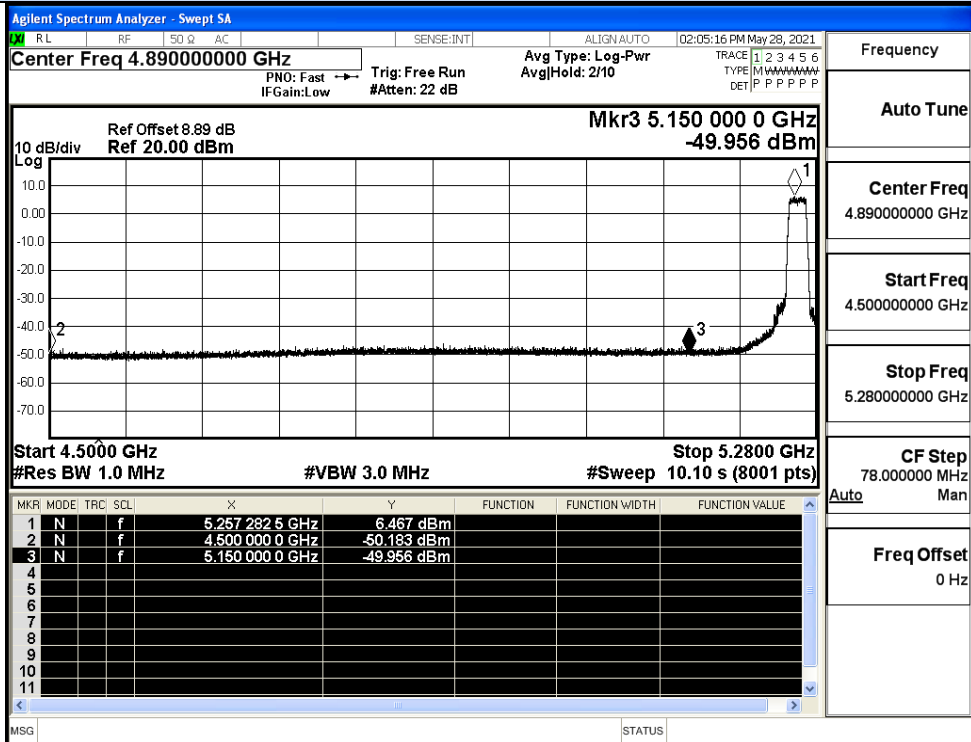


IEEE 802.11n20 / Channel 48 / 5320MHz / Peak

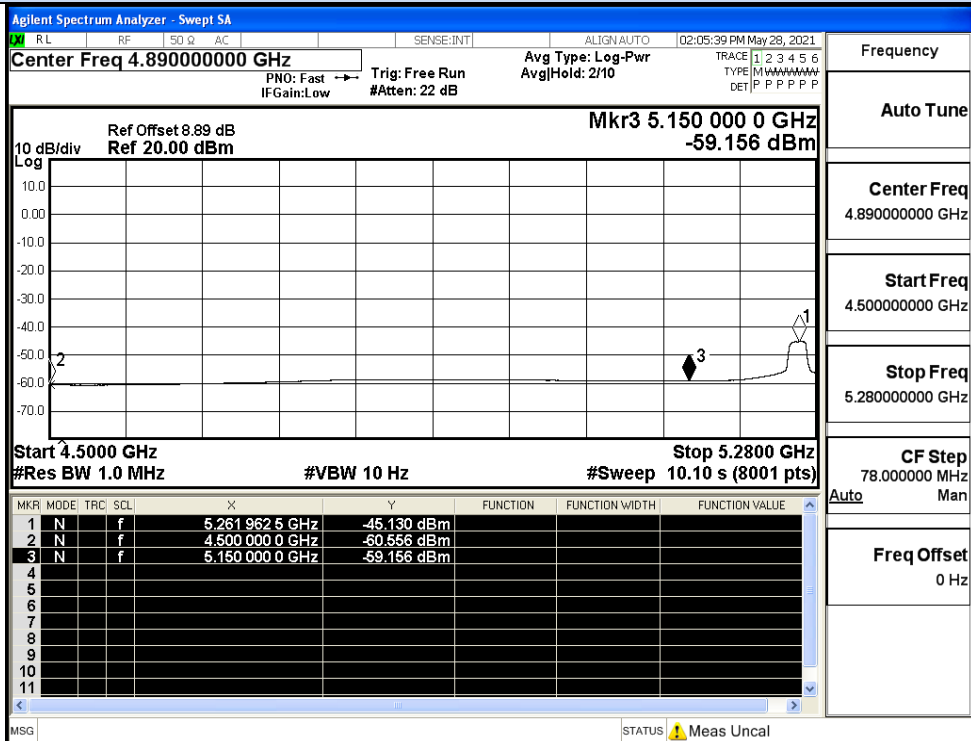


IEEE 802.11n20 / Channel 48 / 5320MHz / Average

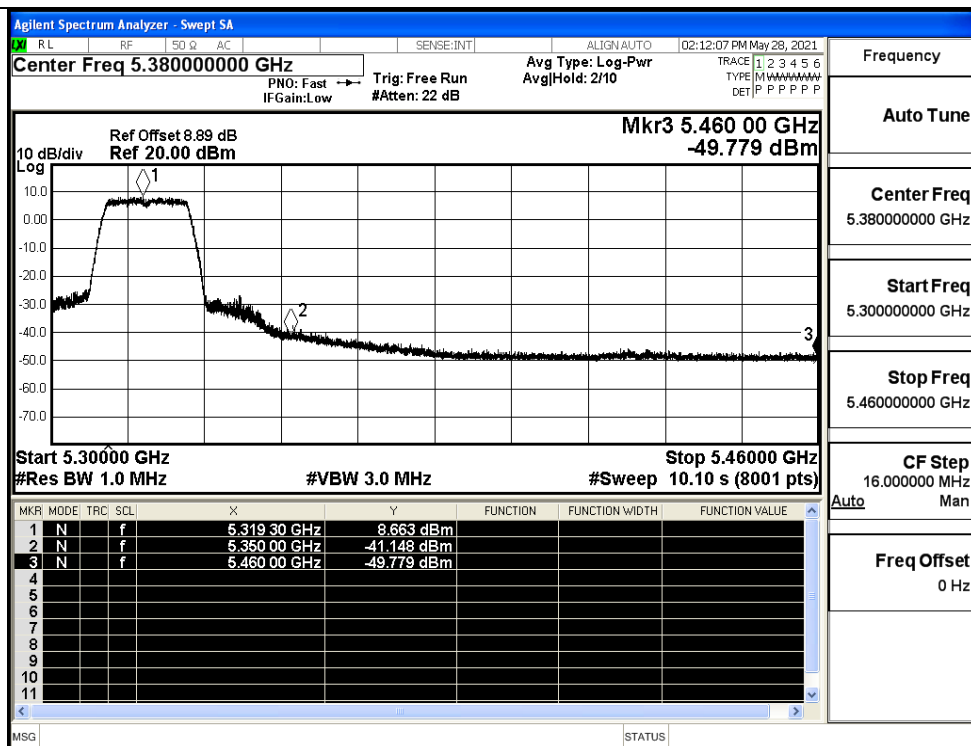
Undesirable Emissions Measurement



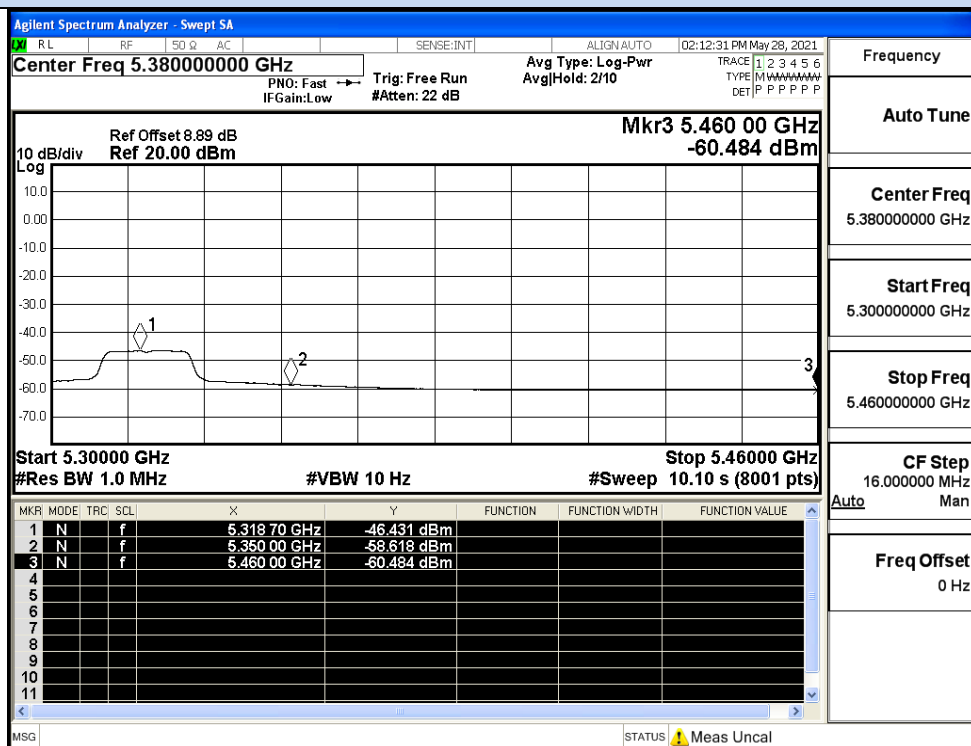
IEEE 802.11ac20 / Channel 36 / 5260MHz / Peak



IEEE 802.11ac20 / Channel 36 / 5260MHz / Average



IEEE 802.11ac20 / Channel 48 / 5320MHz / Peak



IEEE 802.11ac20 / Channel 48 / 5320MHz / Average