Appendix C

RF Test Data for 5.8G WLAN (Conducted Measurement)

Product Name: projector

Trade Mark: N/A

Test Model: 530

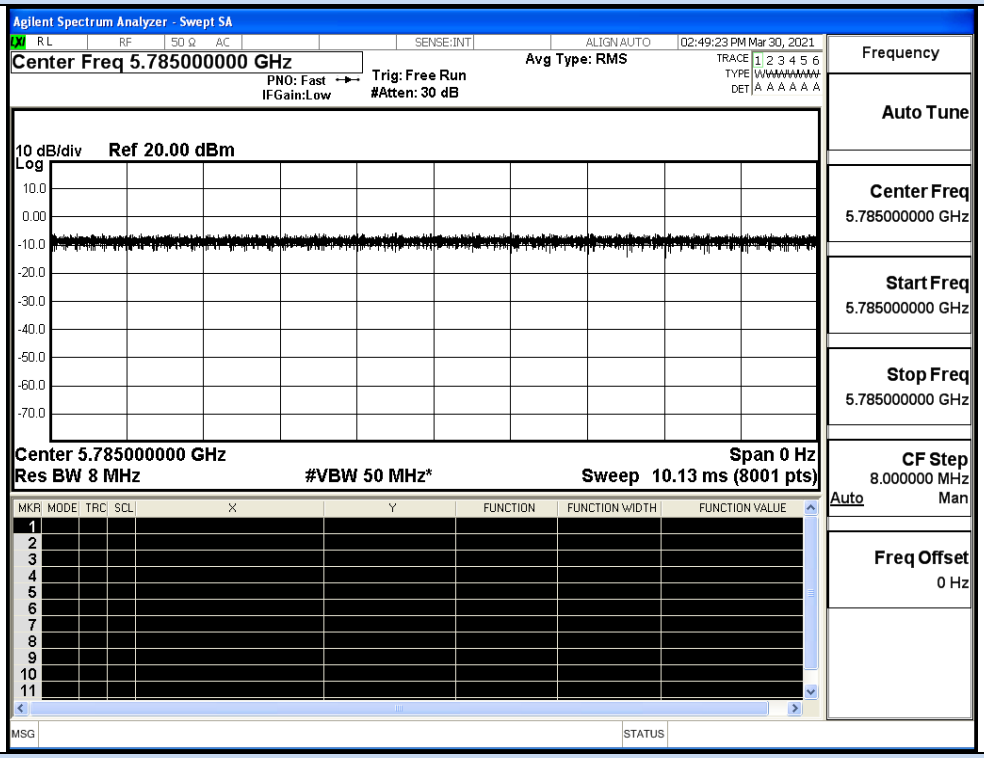
Environmental Conditions

Temperature:	22.5 ° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

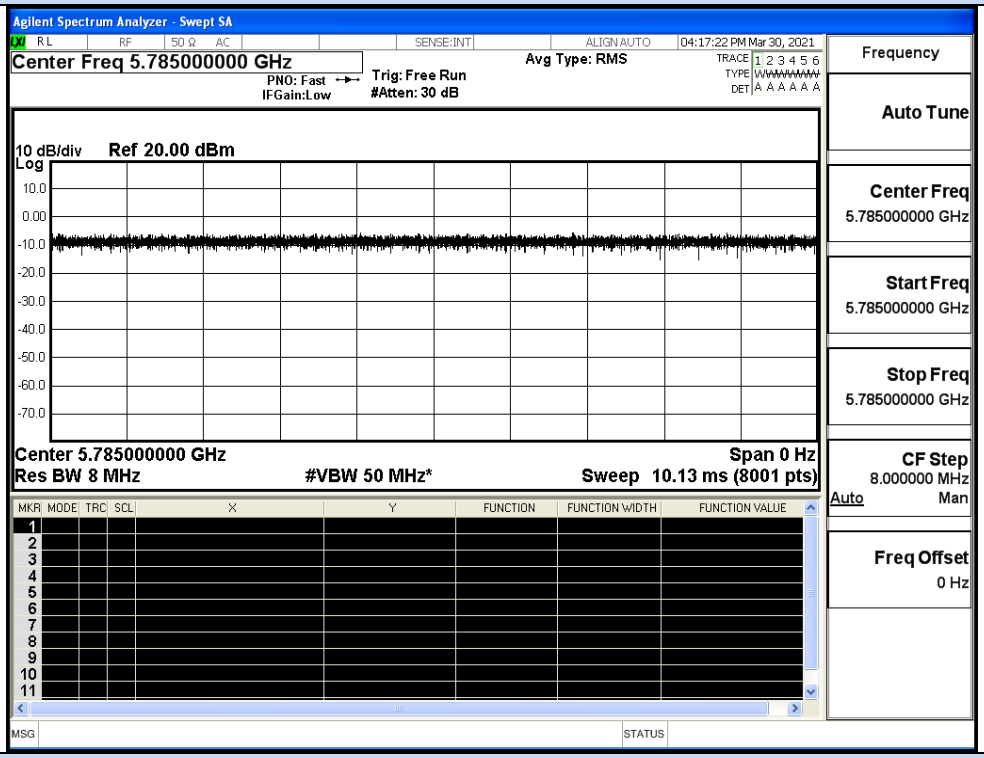
C.1 Duty Cycle

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5785	100	0.00	0.01
11N20 SISO	5785	100	0.00	0.01
11N40 SISO	5755	100	0.00	0.01

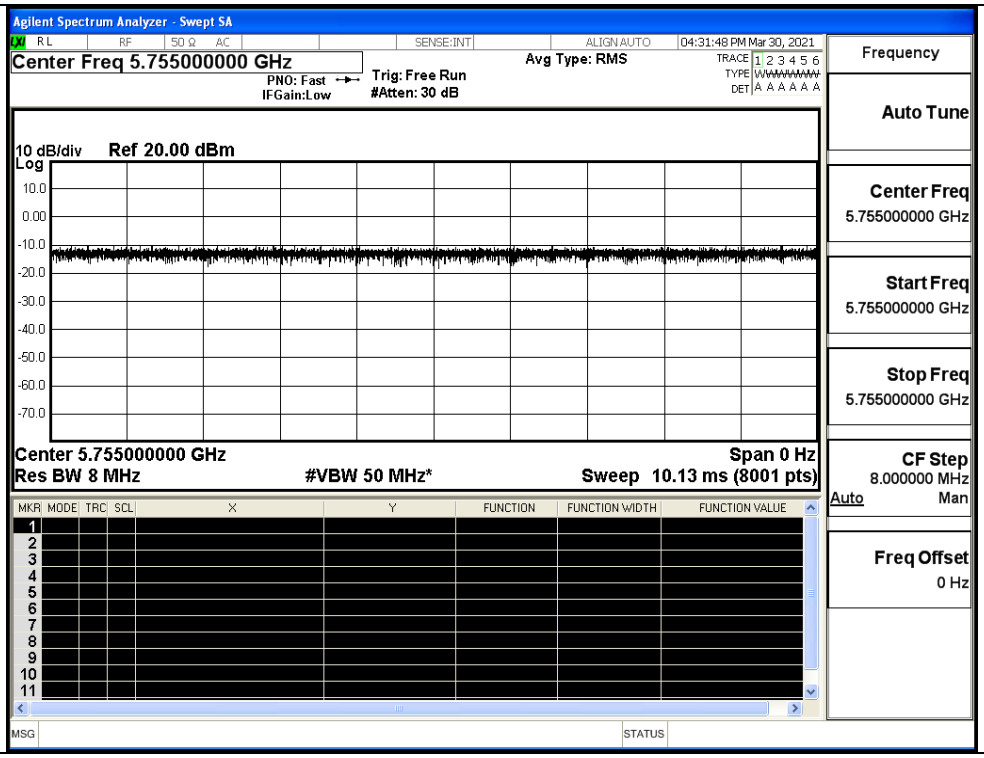
On Time and Duty Cycle



IEEE 802.11a



IEEE 802.11n HT20


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.755000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
04:31:48 PM Mar 30, 2021
10 dB/div Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 5.755000000 GHz
Span 0 Hz
Res BW 8 MHz
#VBW 50 MHz*
Sweep 10.13 ms (8001 pts)
Frequency
Auto Tune
Center Freq
5.755000000 GHz
Start Freq
5.755000000 GHz
Stop Freq
5.755000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz

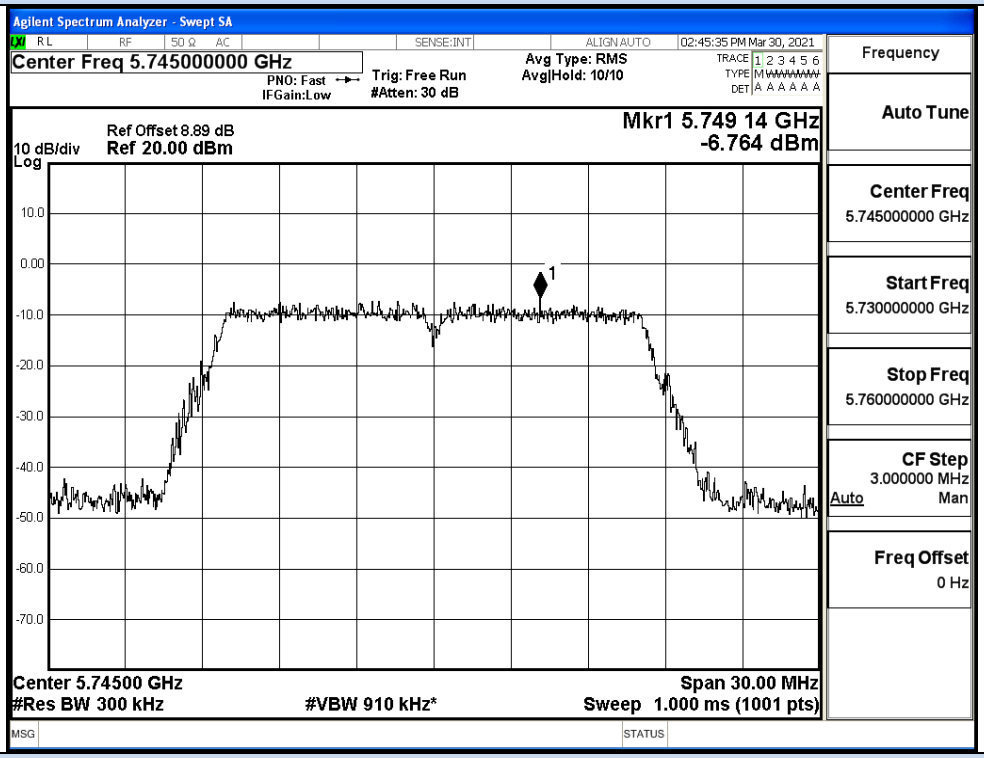
C.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	149	5745	7.43	0	7.43	30	Pass
	157	5785	8.25	0	8.25		Pass
	165	5825	7.16	0	7.16		Pass
11N20 SISO	149	5745	7.72	0	7.72	30	Pass
	157	5785	8.51	0	8.51		Pass
	165	5825	7.63	0	7.63		Pass
11N40 SISO	151	5755	7.47	0	7.47	30	Pass
	159	5795	7.41	0	7.41		Pass

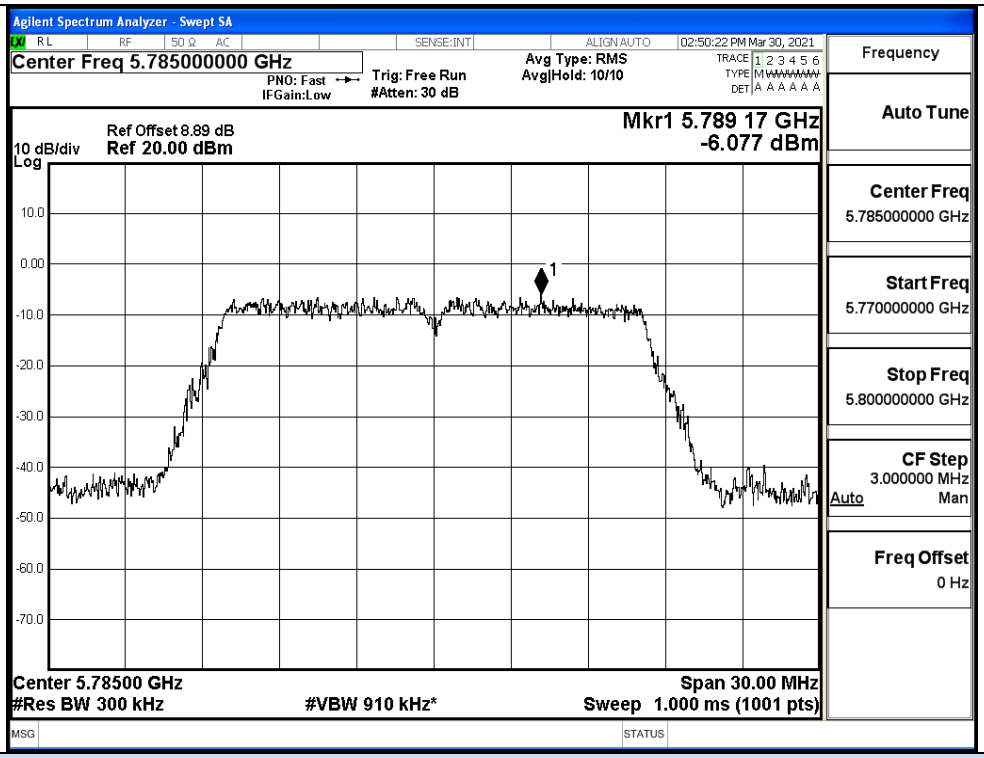
C.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/300KHz)	Duty Cycle Factor (dB)	RBW Factor (dB)	Report Power Density (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
11A	149	5745	-6.76	0	2.218	-4.55	30	Pass
	157	5785	-6.08	0	2.218	-3.86		Pass
	165	5825	-6.55	0	2.218	-4.33		Pass
11N20 SISO	149	5745	-7.56	0	2.218	-5.34	30	Pass
	157	5785	-6.73	0	2.218	-4.51		Pass
	165	5825	-7.28	0	2.218	-5.07		Pass
11N40 SISO	151	5755	-10.32	0	2.218	-8.10	30	Pass
	159	5795	-10.39	0	2.218	-8.17		Pass

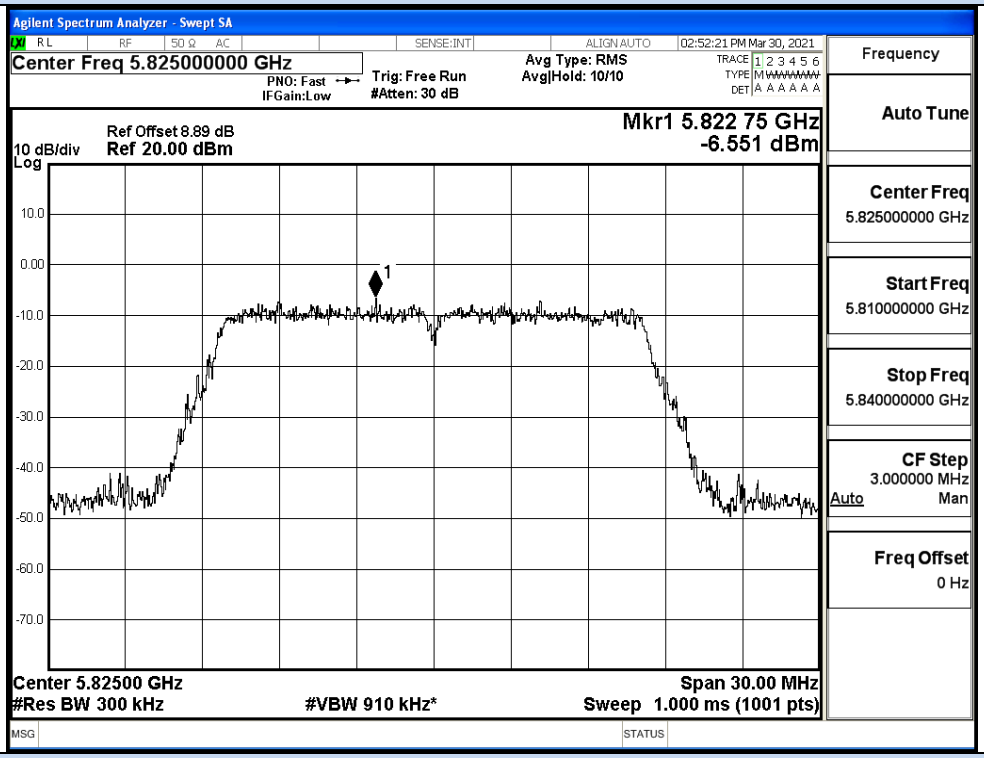
Power Spectral Density



IEEE 802.11a / Channel 149 / 5745MHz

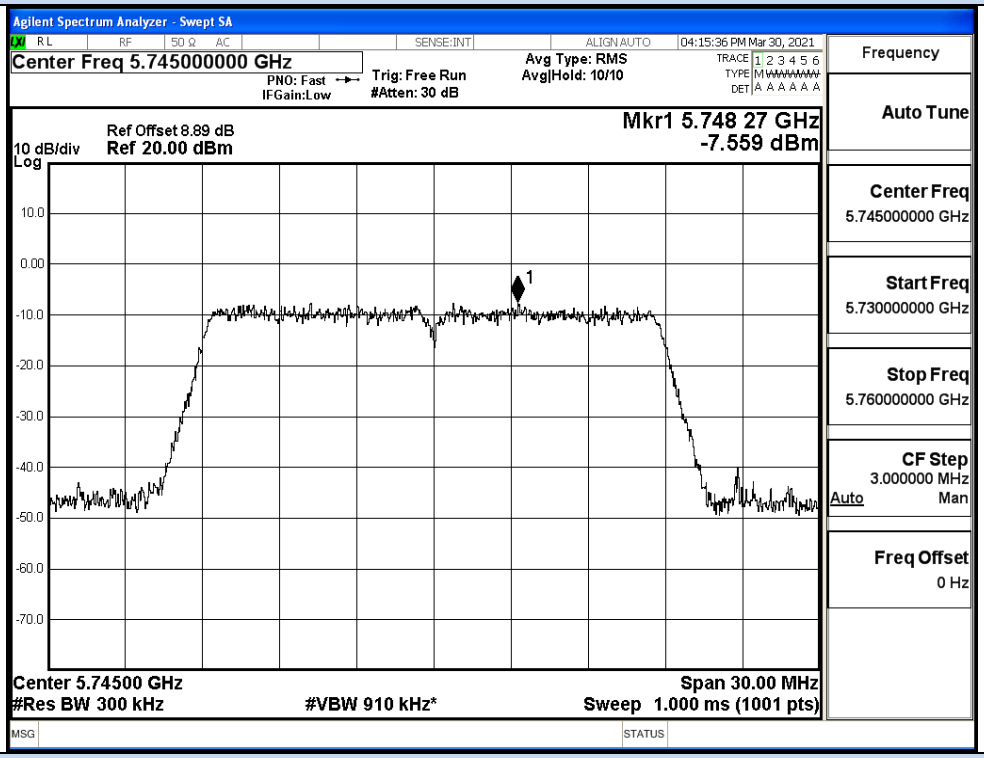


IEEE 802.11na / Channel 157 / 5785MHz

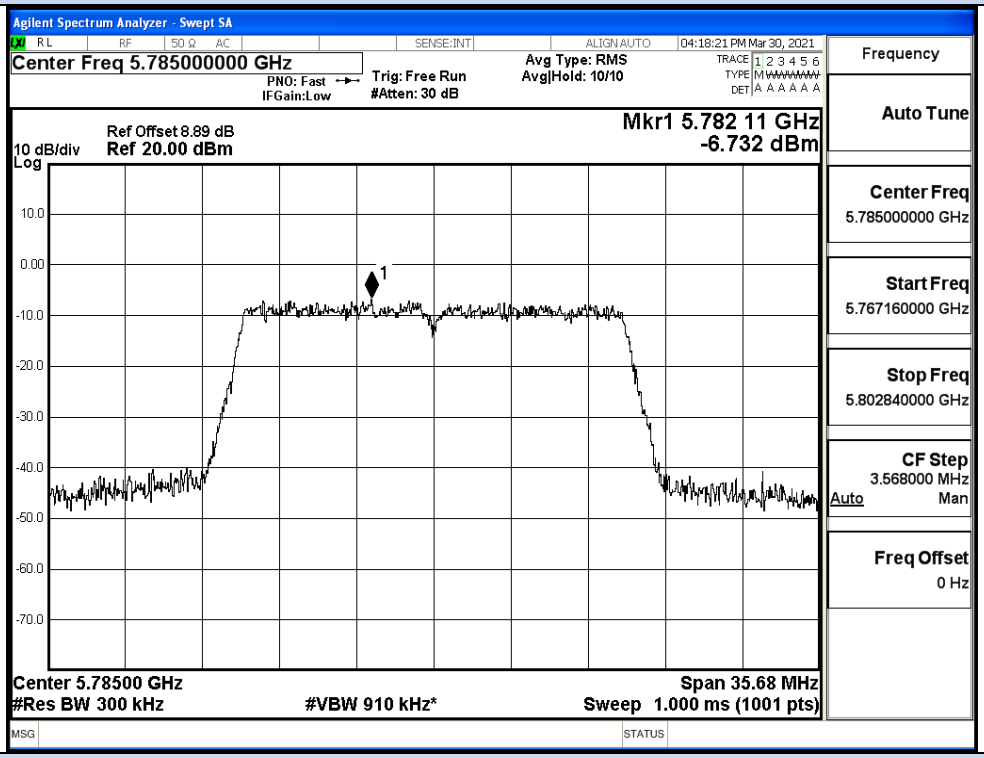


IEEE 802.11na / Channel 165 / 5825MHz

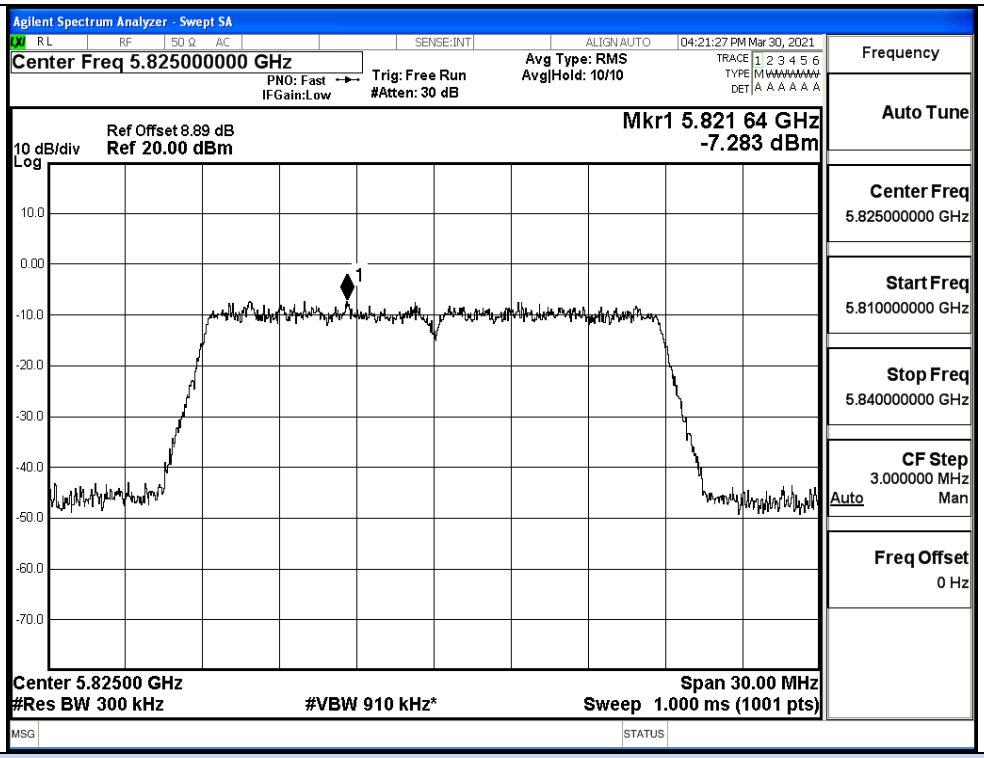
Power Spectral Density



IEEE 802.11n20 / Channel 149 / 5745MHz

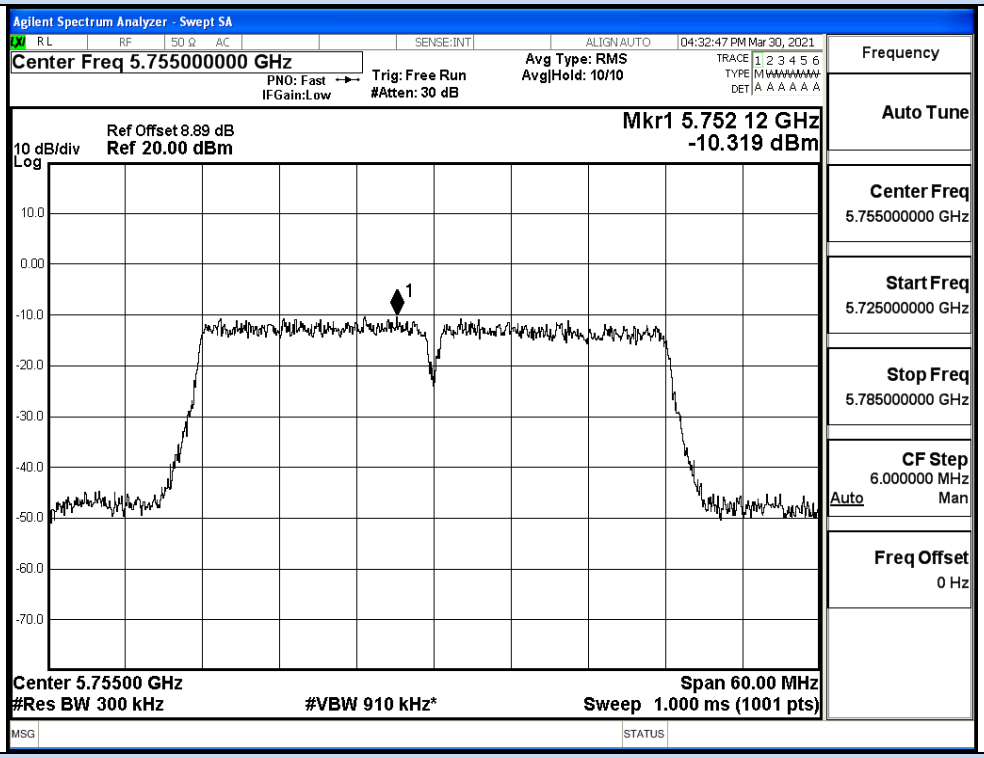


IEEE 802.11n20 / Channel 157 / 5785MHz

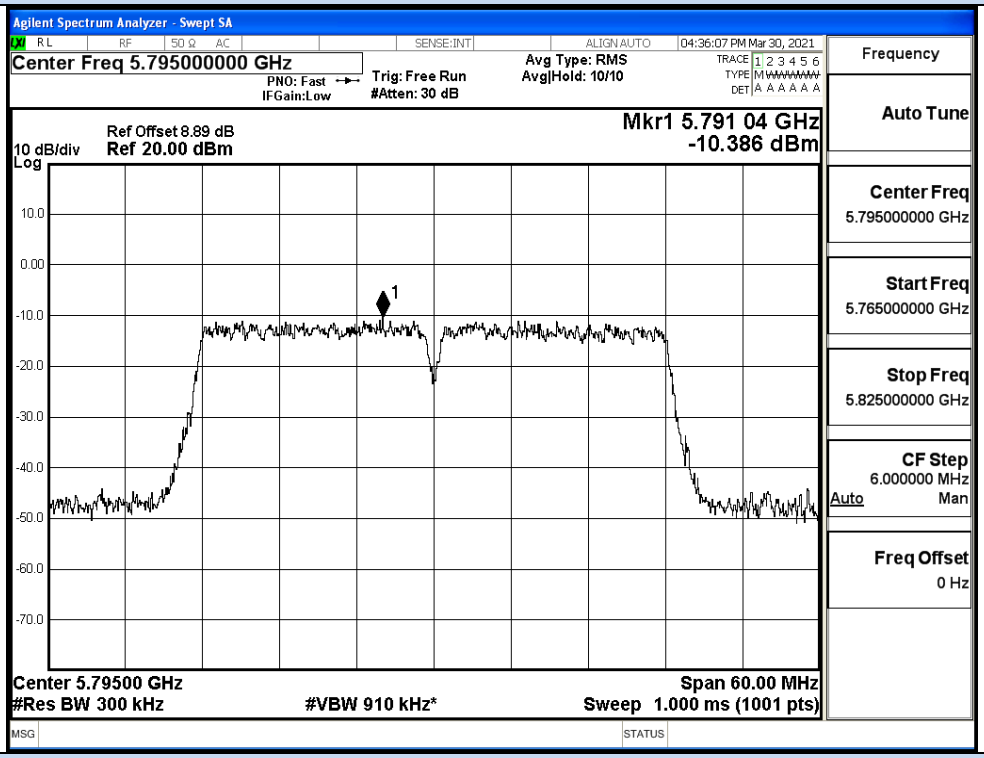


IEEE 802.11n20 / Channel 165 / 5825MHz

Power Spectral Density



IEEE 802.11n40 / Channel 151 / 5755MHz

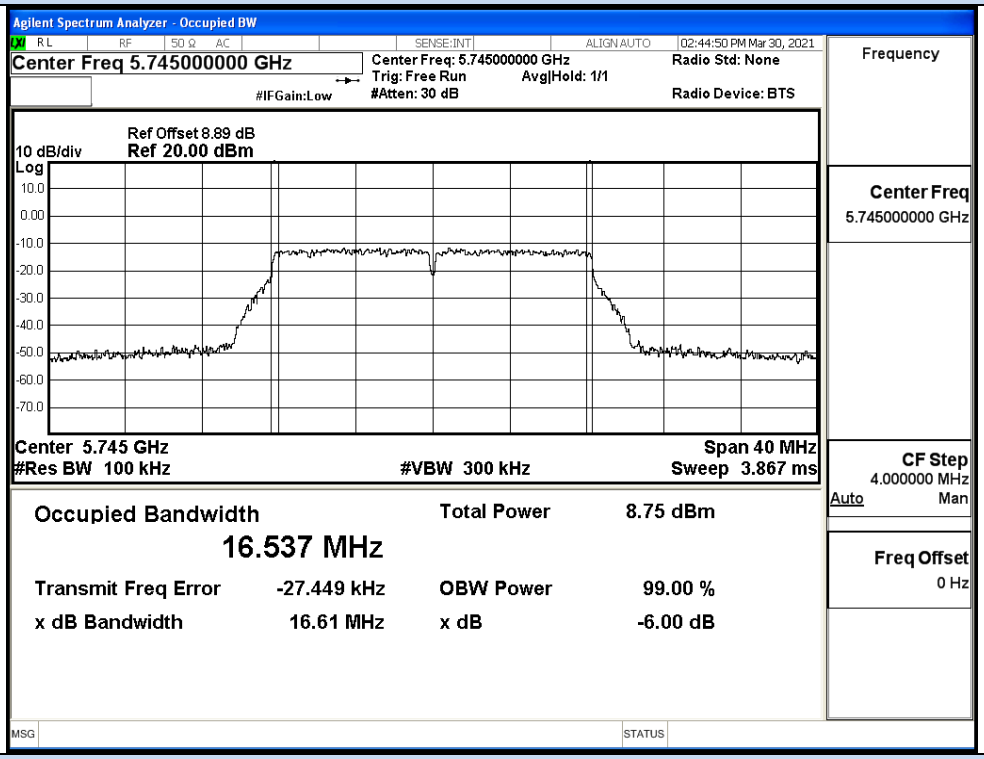


IEEE 802.11n40 / Channel 159 / 5795MHz

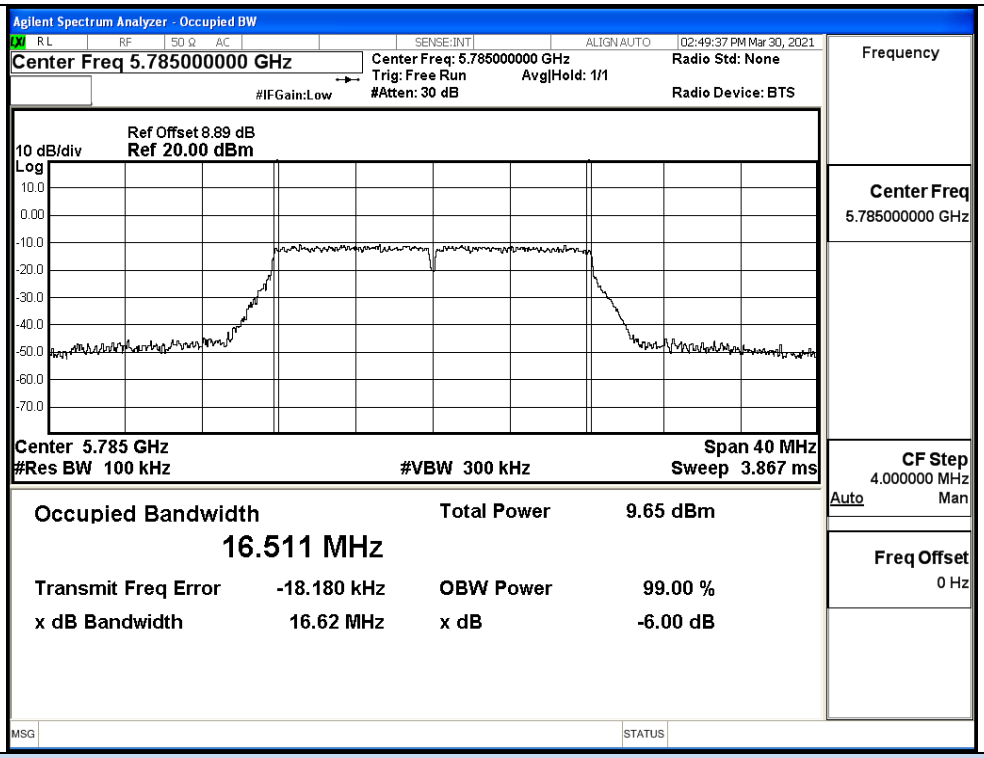
C.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
11A	149	5745	16.61	>=0.5	Pass
	157	5785	16.62		Pass
	165	5825	16.60		Pass
11N20 SISO	149	5745	17.83	>=0.5	Pass
	157	5785	17.84		Pass
	165	5825	17.84		Pass
11N40 SISO	151	5755	36.51	>=0.5	Pass
	159	5795	36.53		Pass

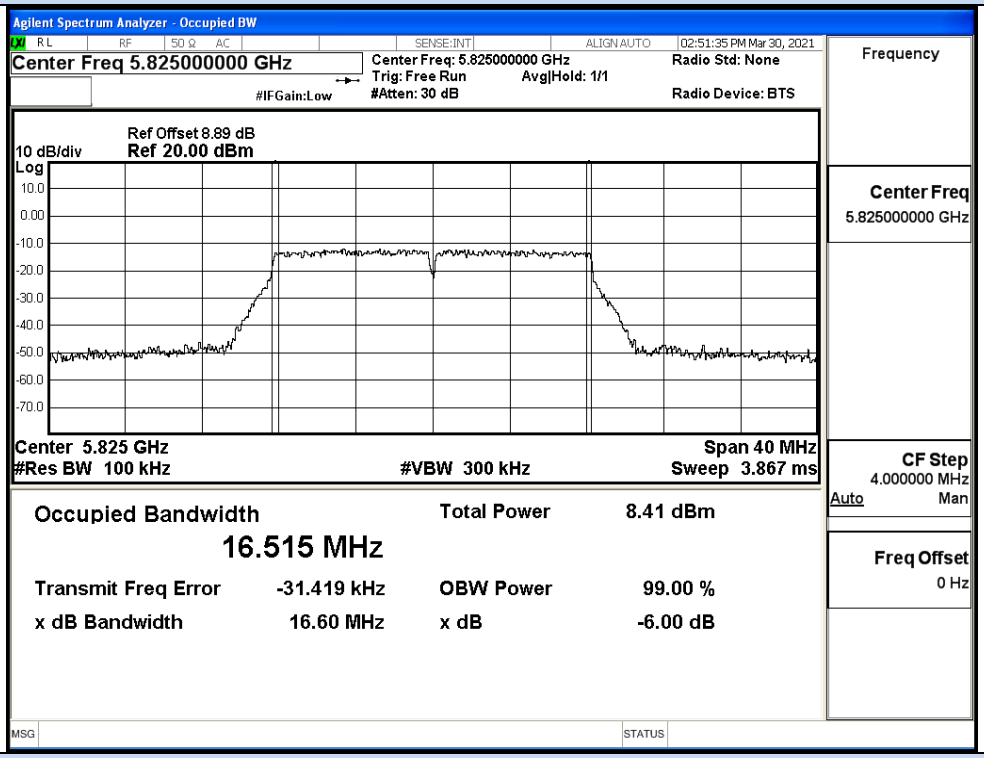
6dB Bandwidth



IEEE 802.11a / Channel 149 / 5745MHz

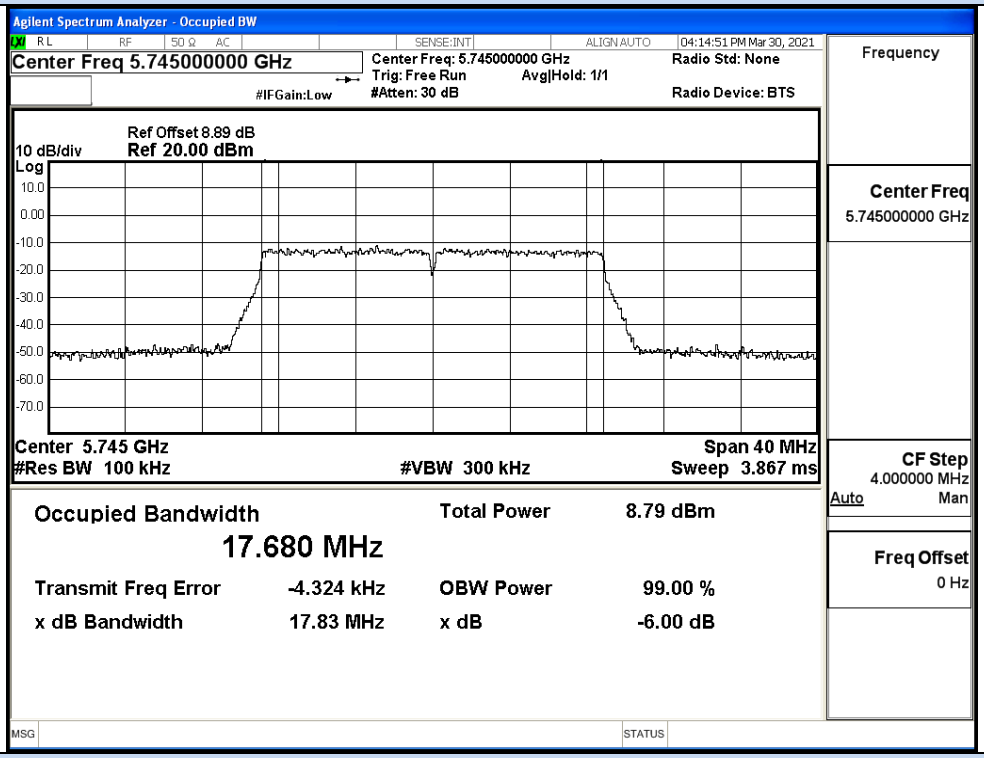


IEEE 802.11a / Channel 157 / 5785MHz

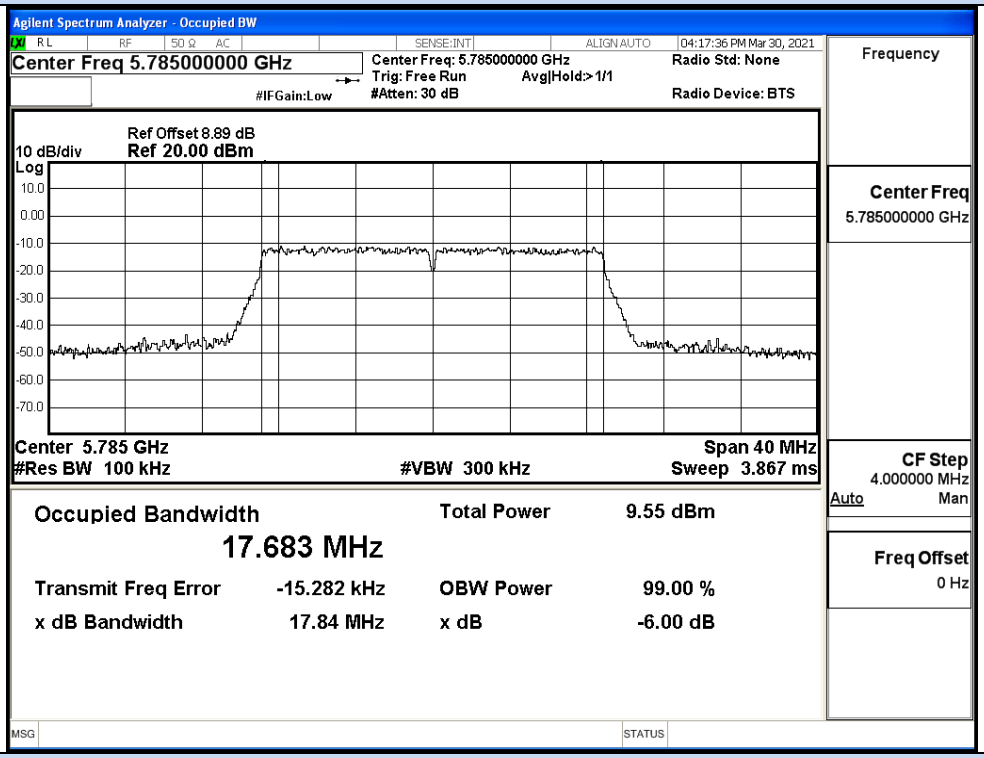


IEEE 802.11a / Channel 165 / 5825MHz

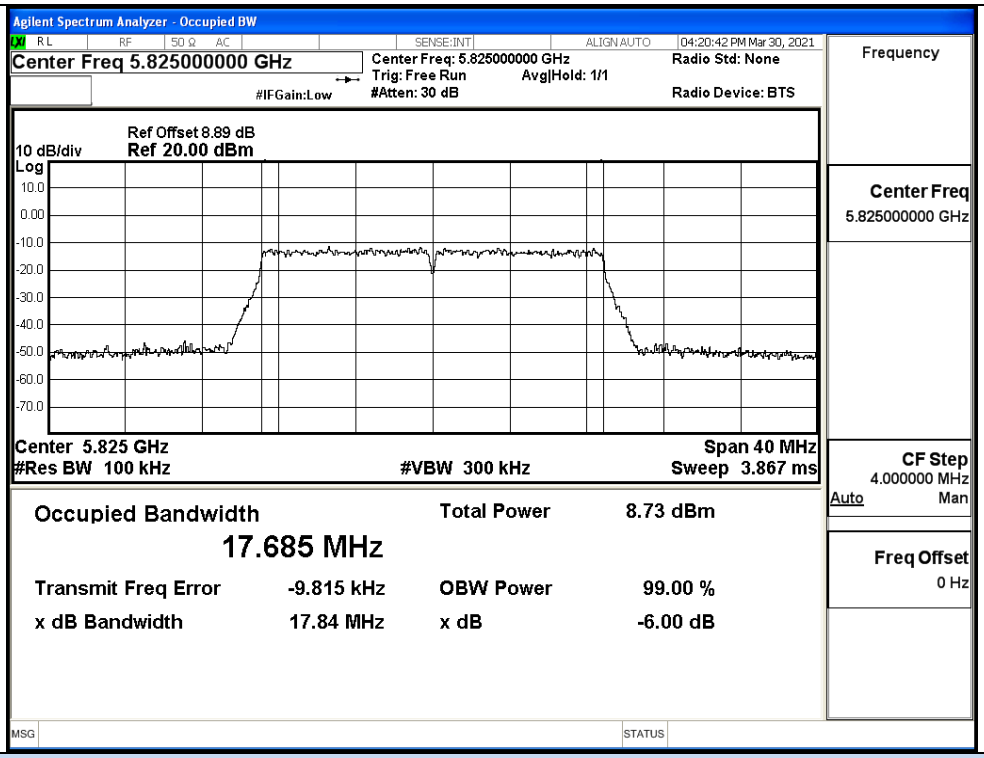
6dB Bandwidth



IEEE 802.11n20 / Channel 149 / 5745MHz

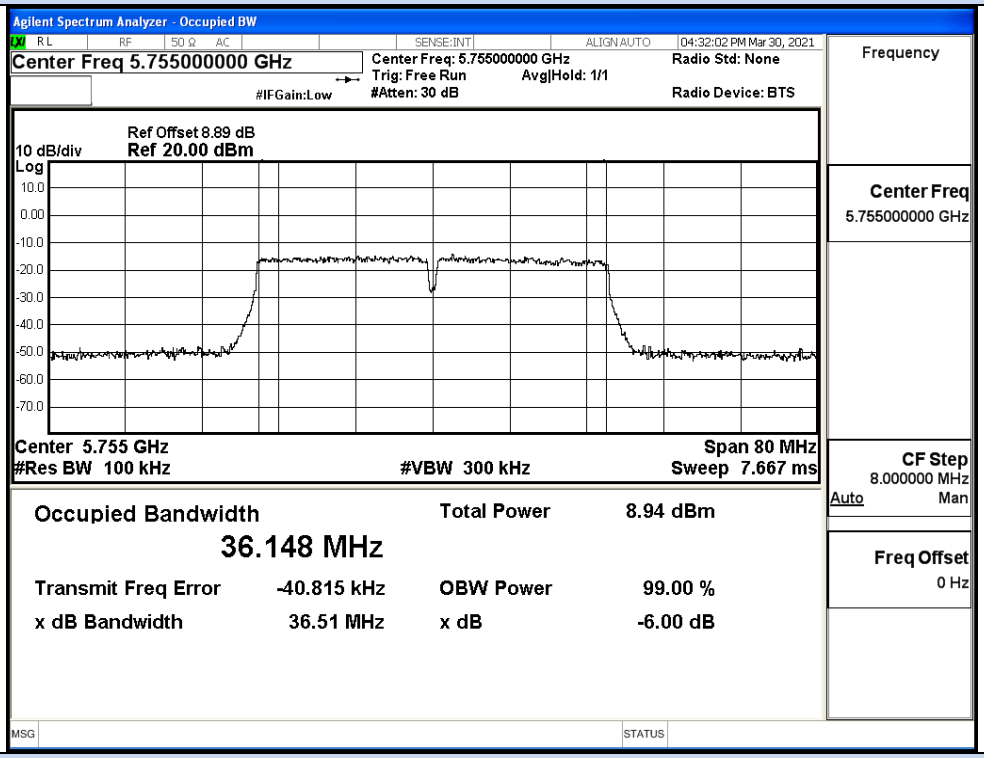


IEEE 802.11n20 / Channel 157 / 5785MHz

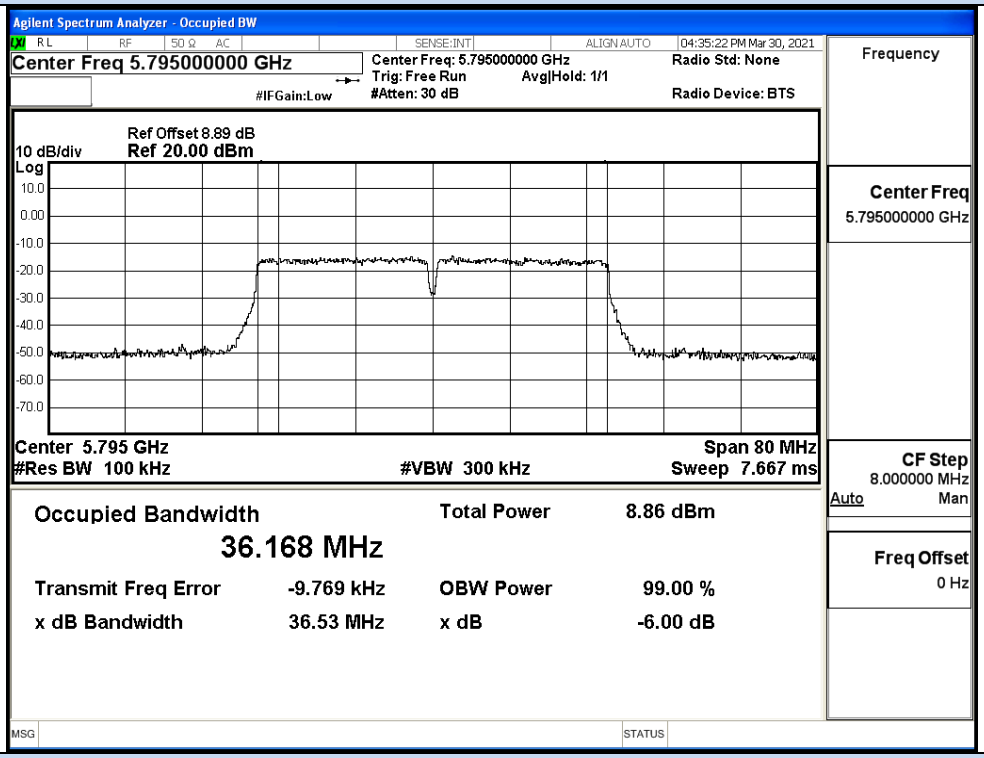


IEEE 802.11n20 / Channel 165 / 5825MHz

6dB Bandwidth



IEEE 802.11n40 / Channel 151 / 5755MHz



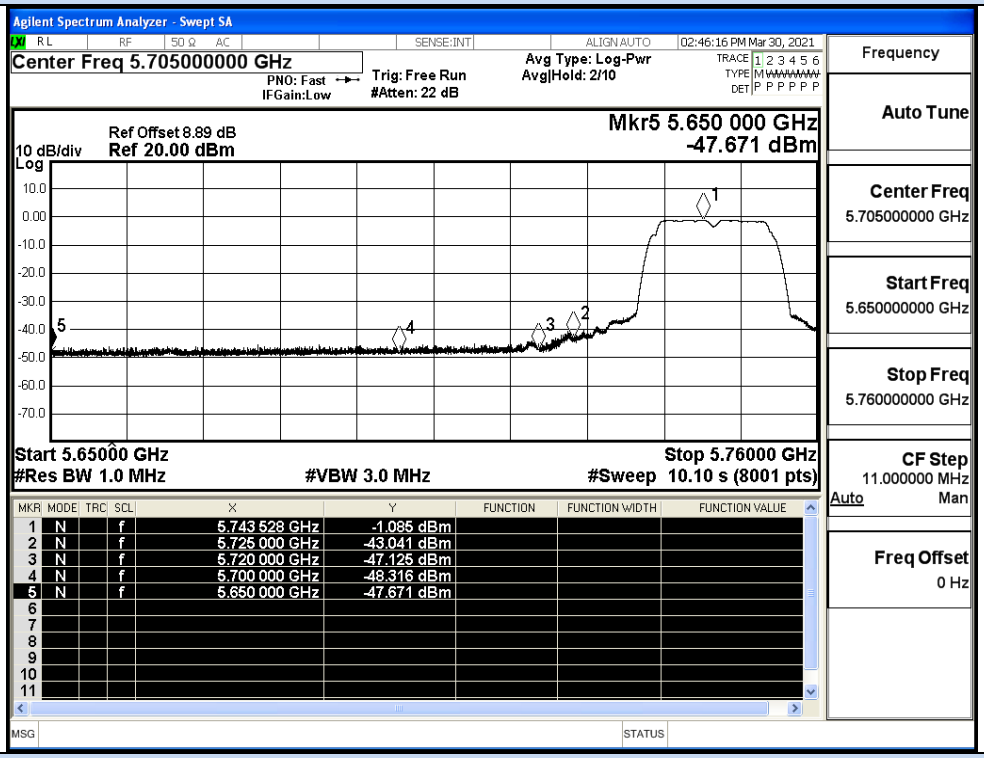
IEEE 802.11n40 / Channel 159 / 5795MHz

C.5 Undesirable Emissions Measurement

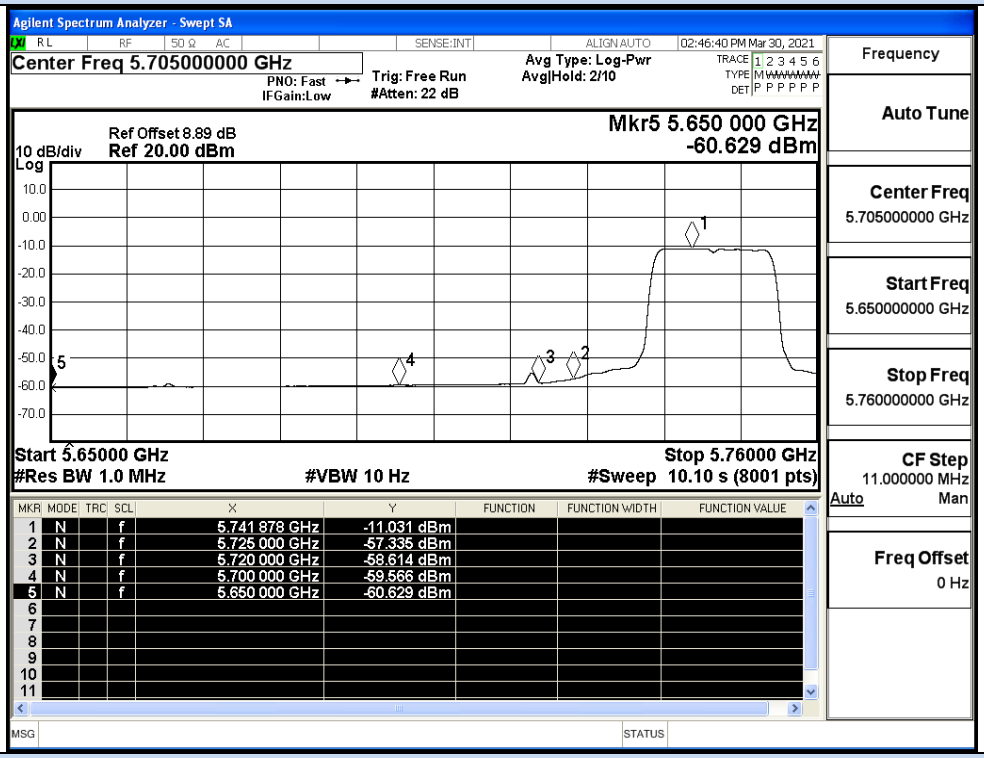
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11A	149	5650.0	-47.67	2.00	-45.67	Peak	-27.0	Pass
		5650.0	-60.63	2.00	-58.63	Average	-27.0	Pass
		5700.0	-48.32	2.00	-46.32	Peak	10	Pass
		5700.0	-59.57	2.00	-57.57	Average	10	Pass
		5720.0	-47.13	2.00	-45.13	Peak	15.6	Pass
		5720.0	-58.61	2.00	-56.61	Average	15.6	Pass
		5725.0	-43.04	2.00	-41.04	Peak	27.0	Pass
		5725.0	-57.34	2.00	-55.34	Average	27.0	Pass
	165	5850.0	-46.90	2.00	-44.90	Peak	27.0	Pass
		5850.0	-58.38	2.00	-56.38	Average	27.0	Pass
		5855.0	-46.11	2.00	-44.11	Peak	15.6	Pass
		5855.0	-58.90	2.00	-56.90	Average	15.6	Pass
		5875.0	-47.51	2.00	-45.51	Peak	10	Pass
		5875.0	-59.33	2.00	-57.33	Average	10	Pass
		5925.0	-48.08	2.00	-46.08	Peak	-27.0	Pass
		5925.0	-60.23	2.00	-58.23	Average	-27.0	Pass
11N20 SISO	149	5650.0	-49.11	2.00	-47.11	Peak	-27.0	Pass
		5650.0	-60.58	2.00	-58.58	Average	-27.0	Pass
		5700.0	-47.55	2.00	-45.55	Peak	10	Pass
		5700.0	-58.34	2.00	-56.34	Average	10	Pass
		5720.0	-45.64	2.00	-43.64	Peak	15.6	Pass
		5720.0	-59.61	2.00	-57.61	Average	15.6	Pass
		5725.0	-40.32	2.00	-38.32	Peak	27.0	Pass
		5725.0	-56.80	2.00	-54.80	Average	27.0	Pass
	165	5850.0	-46.20	2.00	-44.20	Peak	27.0	Pass
		5850.0	-58.16	2.00	-56.16	Average	27.0	Pass
		5855.0	-46.16	2.00	-44.16	Peak	15.6	Pass
		5855.0	-58.91	2.00	-56.91	Average	15.6	Pass
		5875.0	-46.59	2.00	-44.59	Peak	10	Pass
		5875.0	-59.27	2.00	-57.27	Average	10	Pass
		5925.0	-48.36	2.00	-46.36	Peak	-27.0	Pass
		5925.0	-60.24	2.00	-58.24	Average	-27.0	Pass

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11N40 SISO	151	5650.0	-47.53	2.00	-45.53	Peak	-27.0	Pass
		5650.0	-60.61	2.00	-58.61	Average	-27.0	Pass
		5700.0	-48.60	2.00	-46.60	Peak	10	Pass
		5700.0	-59.56	2.00	-57.56	Average	10	Pass
		5720.0	-41.63	2.00	-39.63	Peak	15.6	Pass
		5720.0	-56.43	2.00	-54.43	Average	15.6	Pass
		5725.0	-39.83	2.00	-37.83	Peak	27.0	Pass
		5725.0	-55.23	2.00	-53.23	Average	27.0	Pass
	159	5850.0	-47.69	2.00	-45.69	Peak	27.0	Pass
		5850.0	-58.88	2.00	-56.88	Average	27.0	Pass
		5855.0	-47.89	2.00	-45.89	Peak	15.6	Pass
		5855.0	-59.00	2.00	-57.00	Average	15.6	Pass
		5875.0	-47.11	2.00	-45.11	Peak	10	Pass
		5875.0	-59.40	2.00	-57.40	Average	10	Pass
		5925.0	-47.45	2.00	-45.45	Peak	-27.0	Pass
		5925.0	-59.51	2.00	-57.51	Average	-27.0	Pass

Undesirable Emissions Measurement

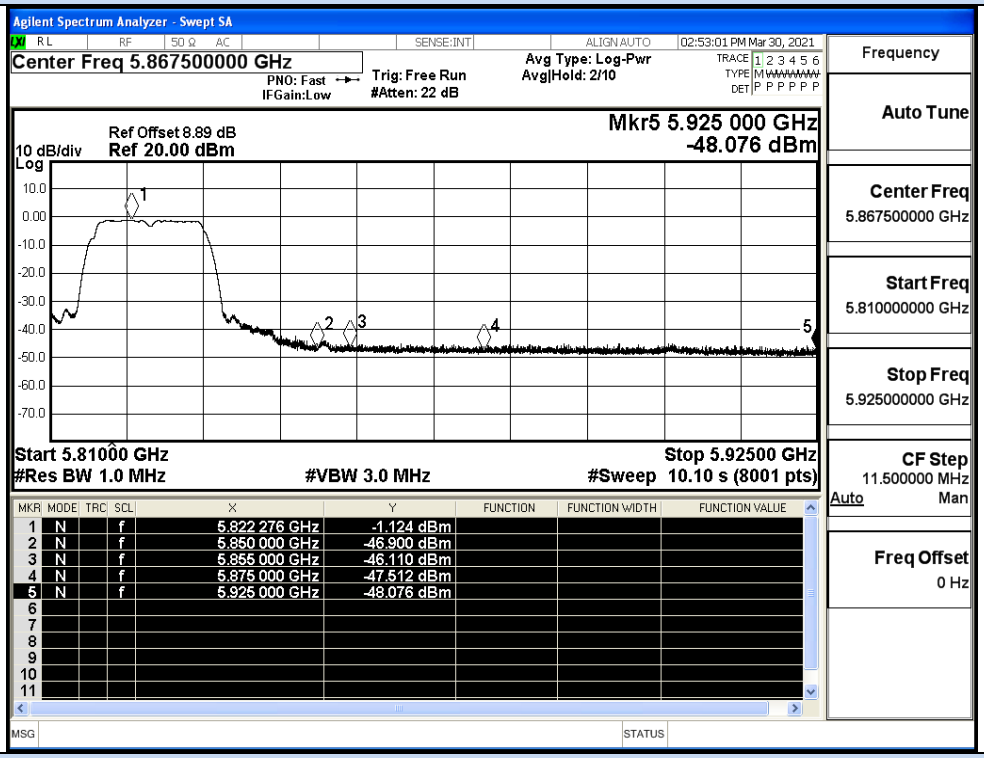


IEEE 802.11a / Channel 149 / 5745MHz / Peak

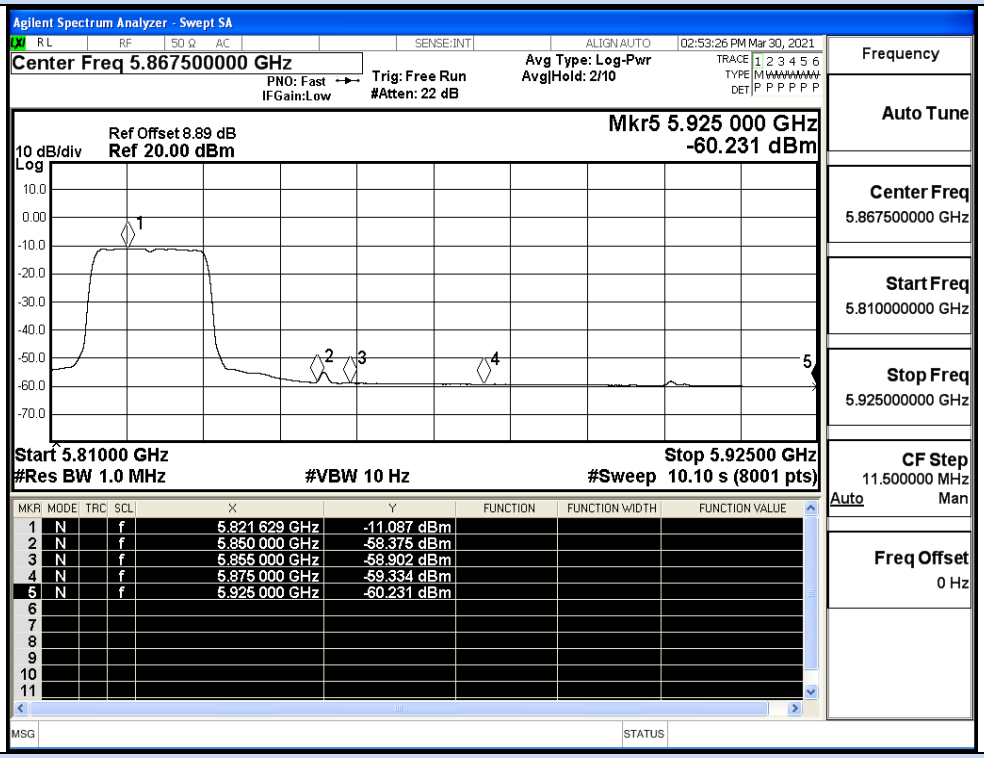


IEEE 802.11a / Channel 148 / 5745MHz / Average

Undesirable Emissions Measurement

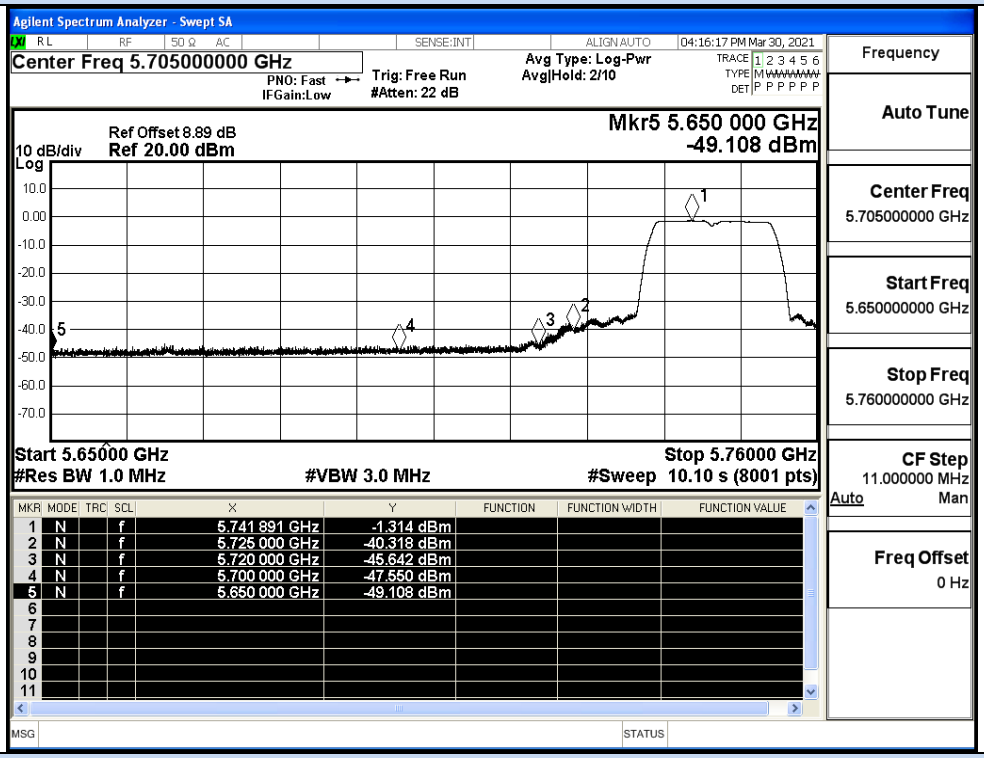


IEEE 802.11a / Channel 165 / 5825MHz / Peak

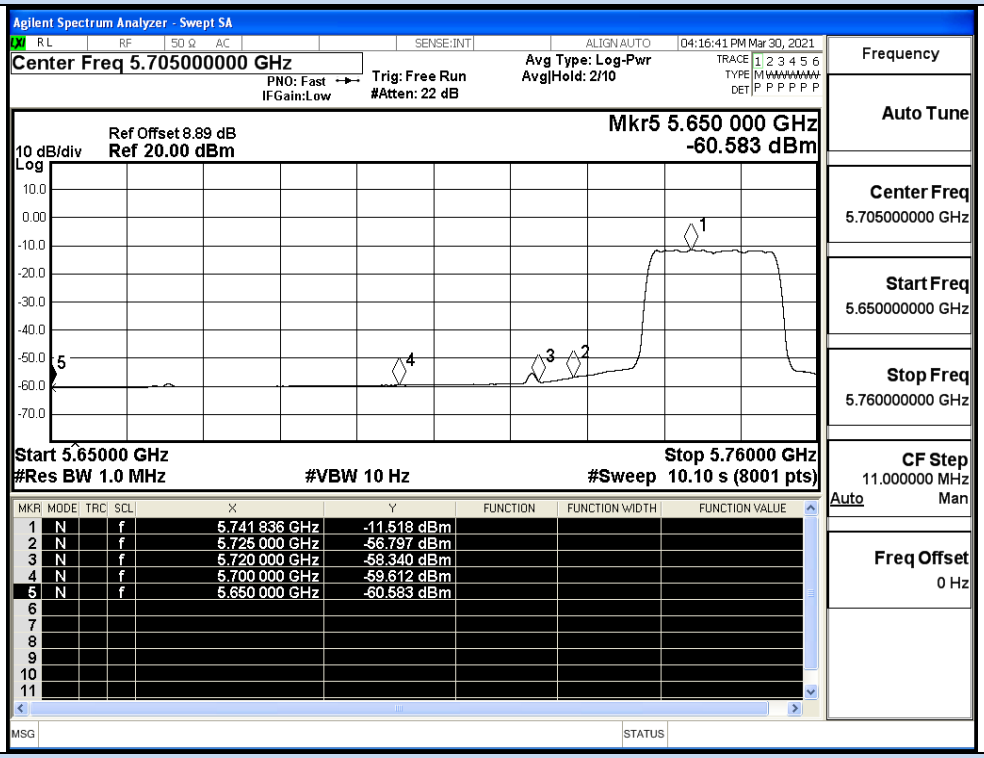


IEEE 802.11a / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

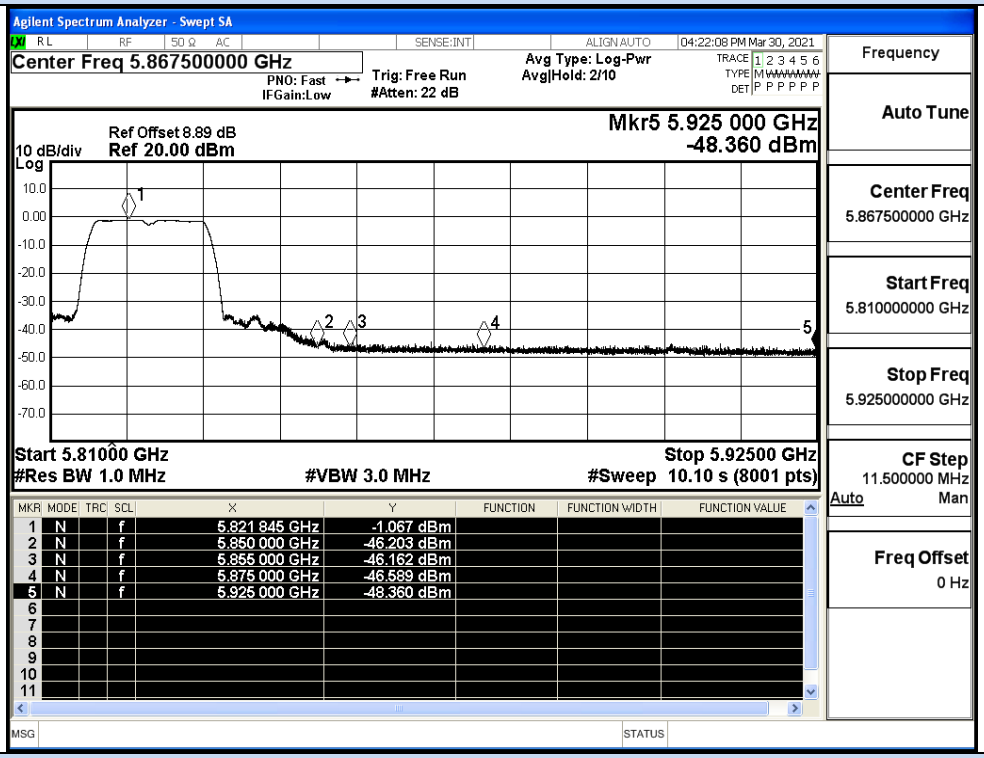


IEEE 802.11n20 / Channel 149 / 5745MHz / Peak

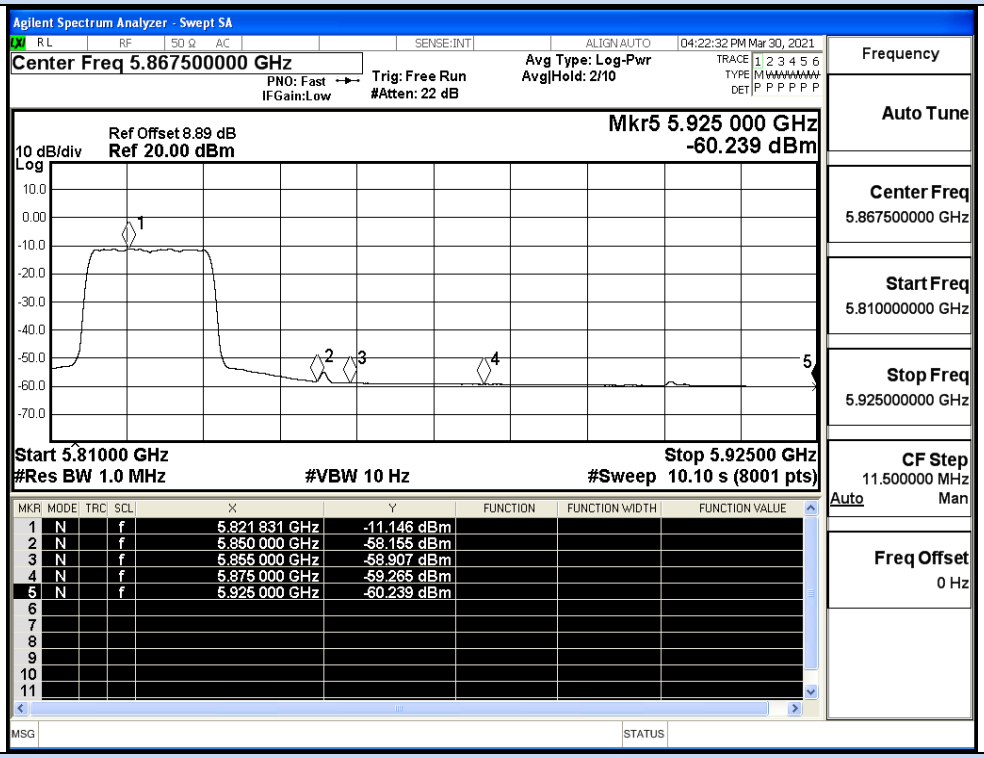


IEEE 802.11n20 / Channel 149 / 5745MHz / Average

Undesirable Emissions Measurement

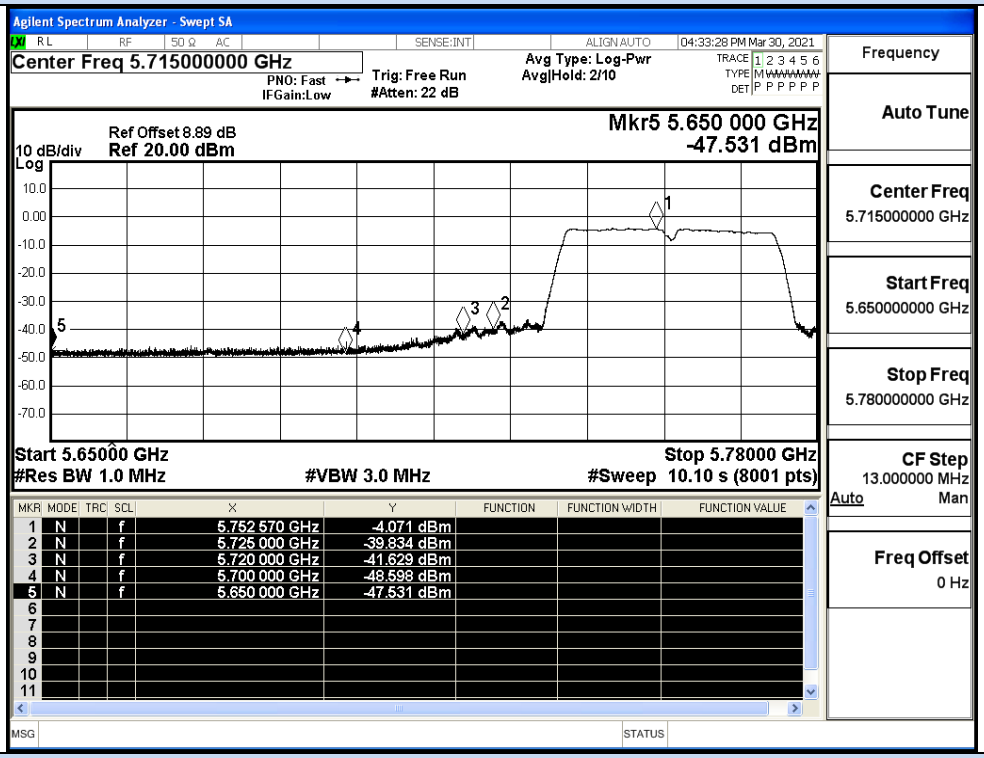


IEEE 802.11n20 / Channel 165 / 5825MHz / Peak

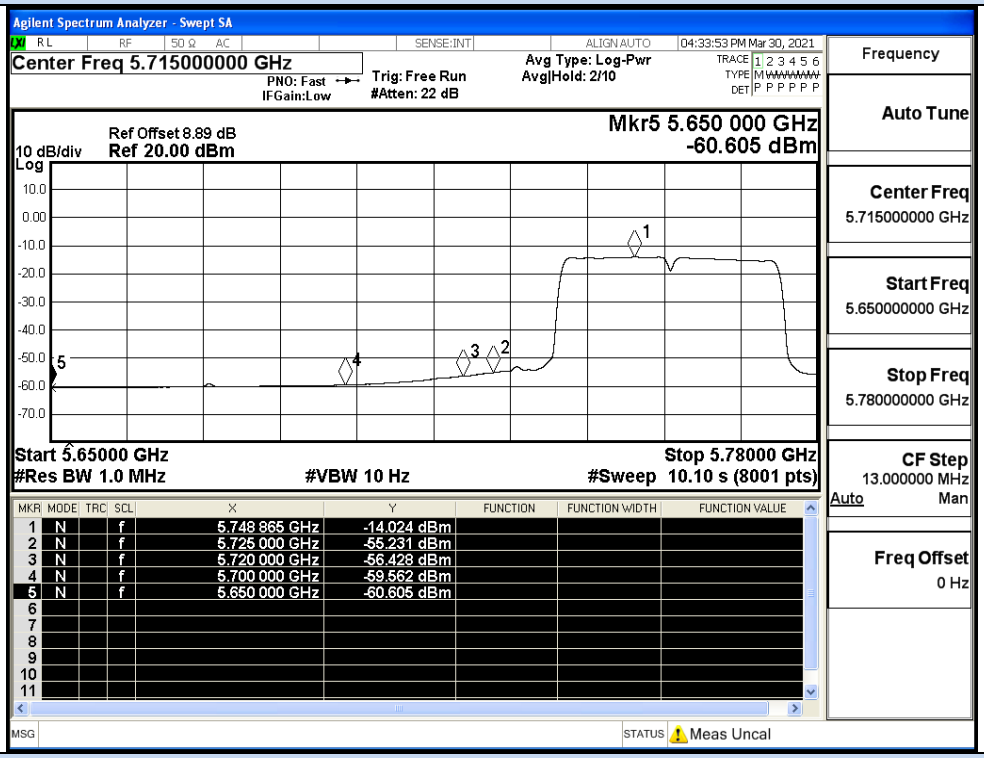


IEEE 802.11n20 / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

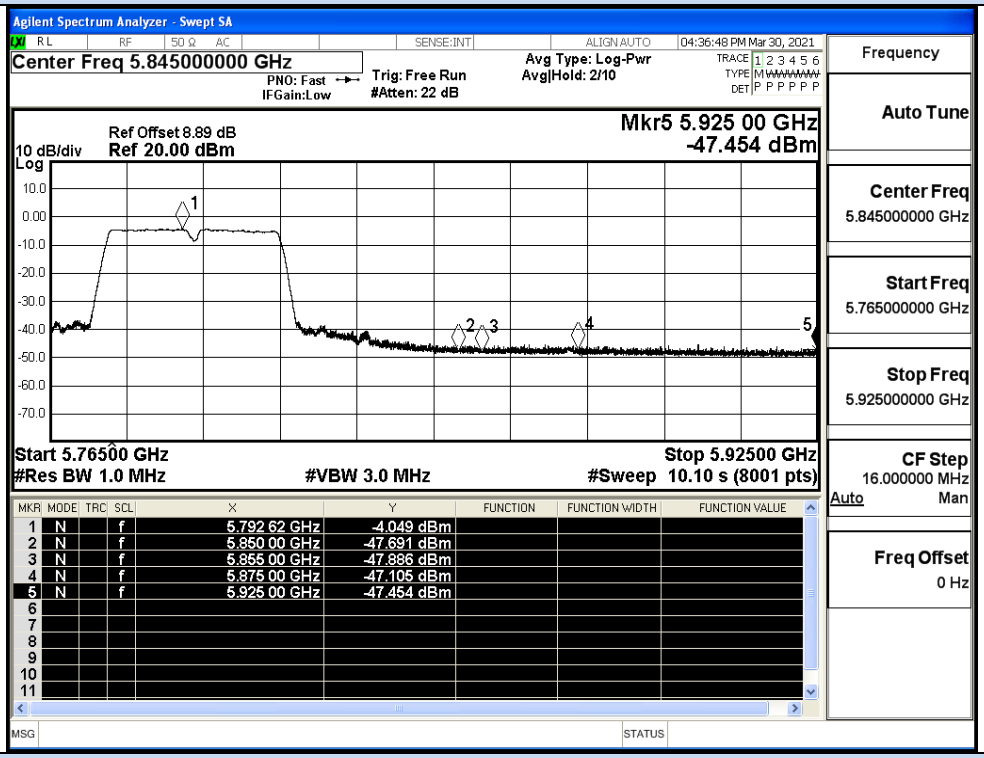


IEEE 802.11n40 / Channel 151 / 5755MHz / Peak

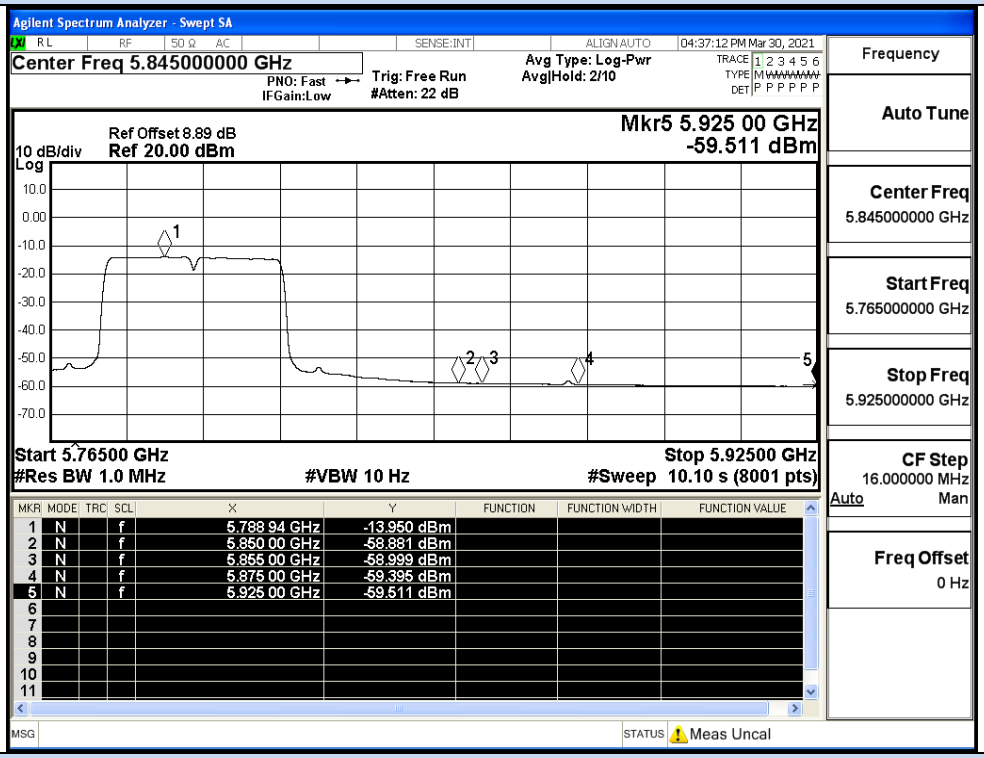


IEEE 802.11n40 / Channel 151 / 5755MHz / Average

Undesirable Emissions Measurement



IEEE 802.11n40 / Channel 159 / 5795MHz / Peak



IEEE 802.11n40 / Channel 159 / 5795MHz / Average