Appendix C

RF Test Data for 5.8G WLAN (Conducted Measurement)

Product Name: Multi Touch Screen/interactive Flat Panel Display
Trade Mark: iBoard, StarBoard
Test Model: TE-IT-65

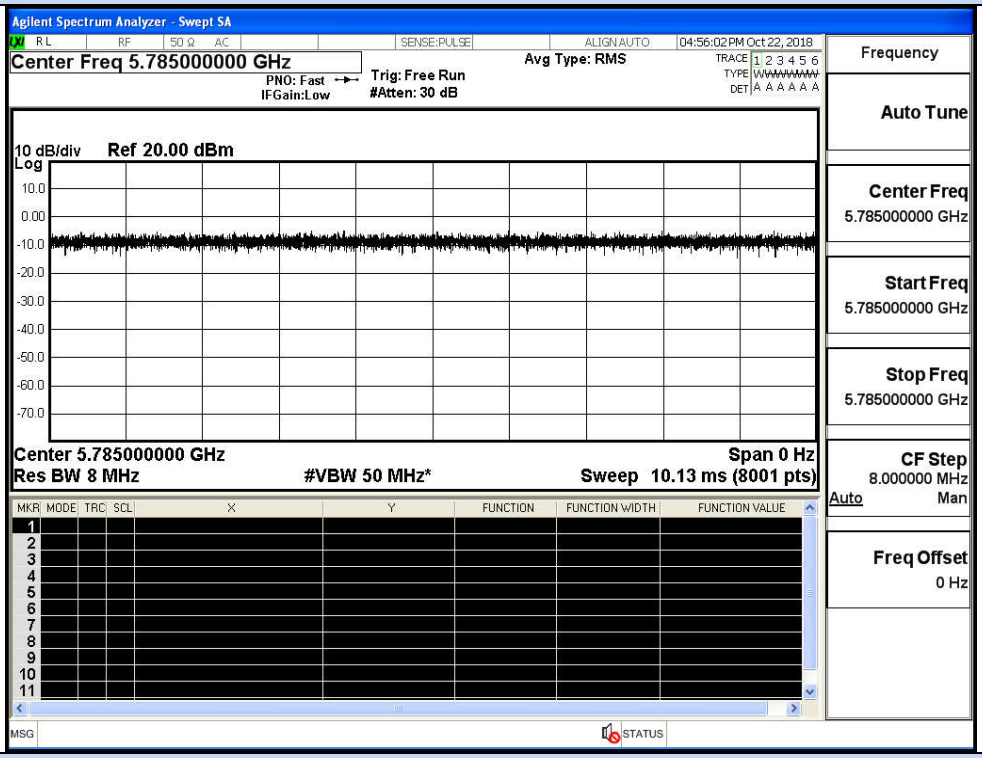
Environmental Conditions

Temperature:	23.7 ° C
Relative Humidity:	52.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Wang Chuang
Supervised by:	Jayden.Zhuo

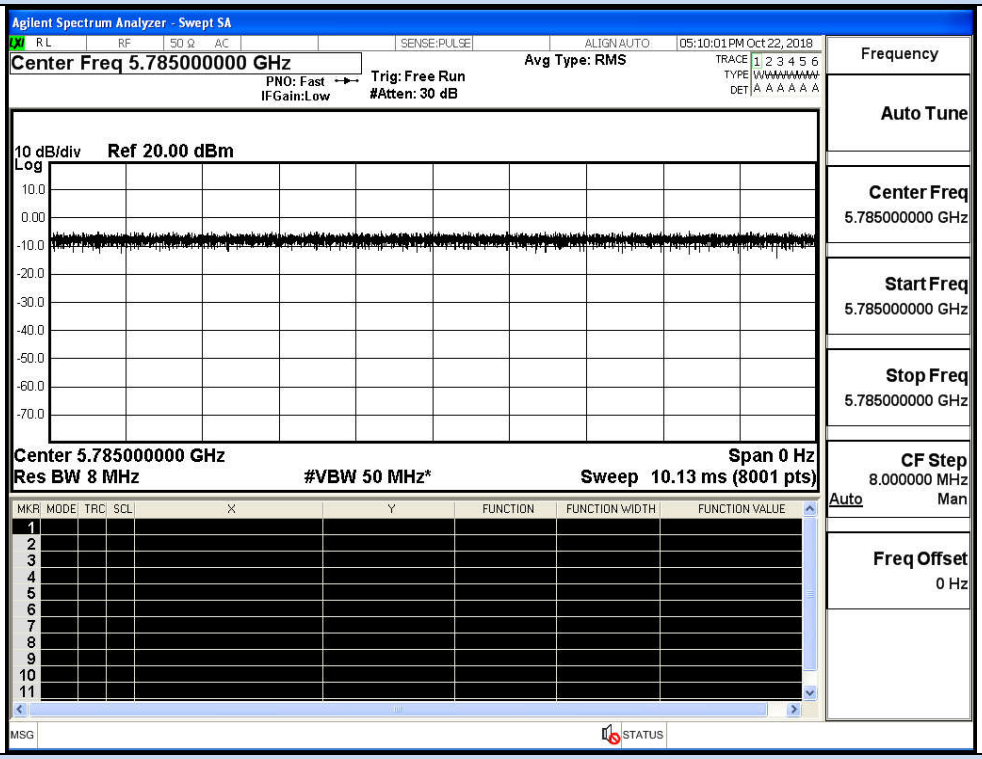
C.1 Duty Cycle

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

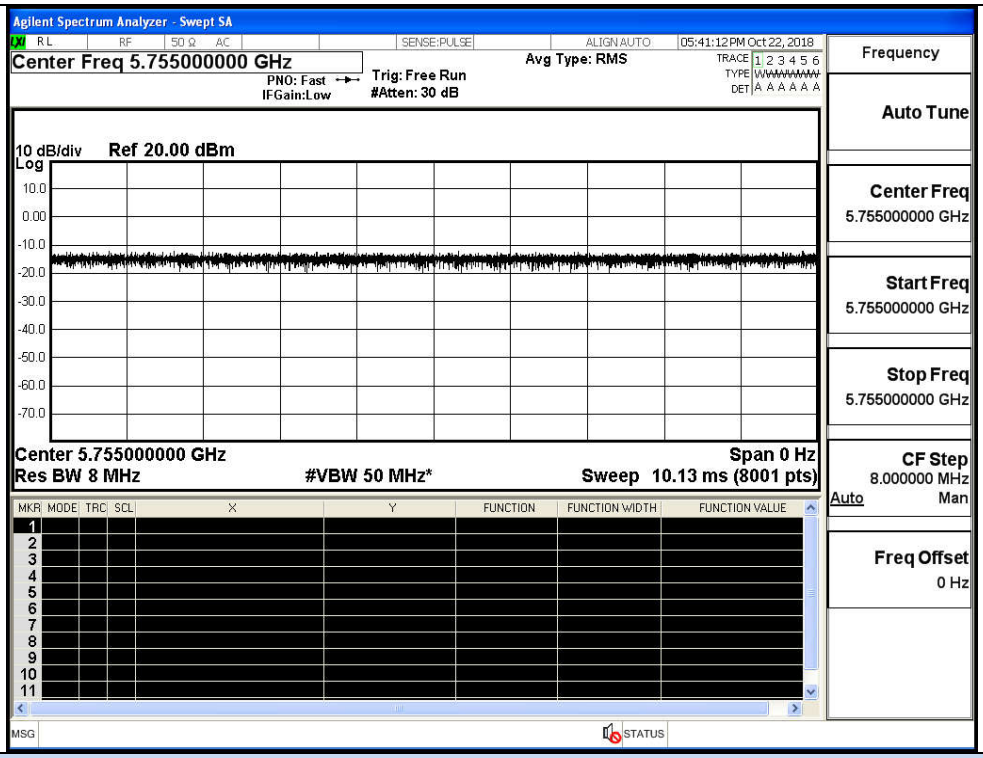
On Time and Duty Cycle



IEEE 802.11a



IEEE 802.11n HT20



IEEE 802.11n HT40

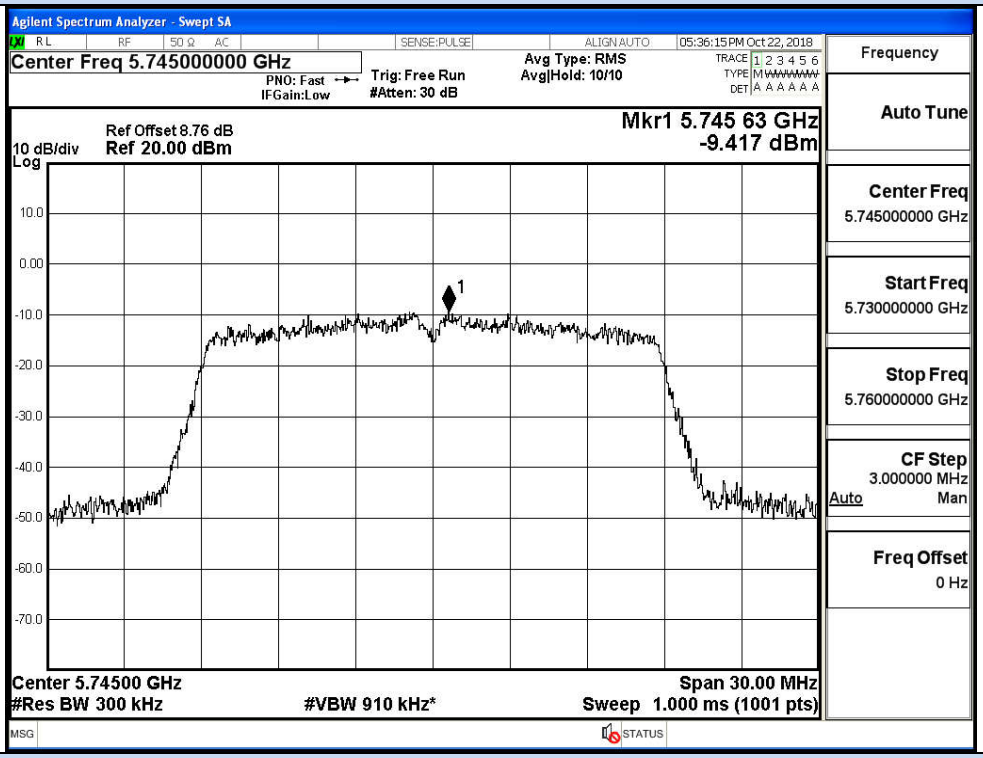
C.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	149	5745	5.81	0	5.81	30	Pass
	157	5785	8.52	0	8.52		Pass
	165	5825	8.59	0	8.59		Pass
11N20 SISO	149	5745	8.17	0	8.17	30	Pass
	157	5785	8.42	0	8.42		Pass
	165	5825	**8.85**	0	8.85		Pass
11N40 SISO	151	5755	5.96	0	5.96	30	Pass
	159	5795	8.35	0	8.35		Pass

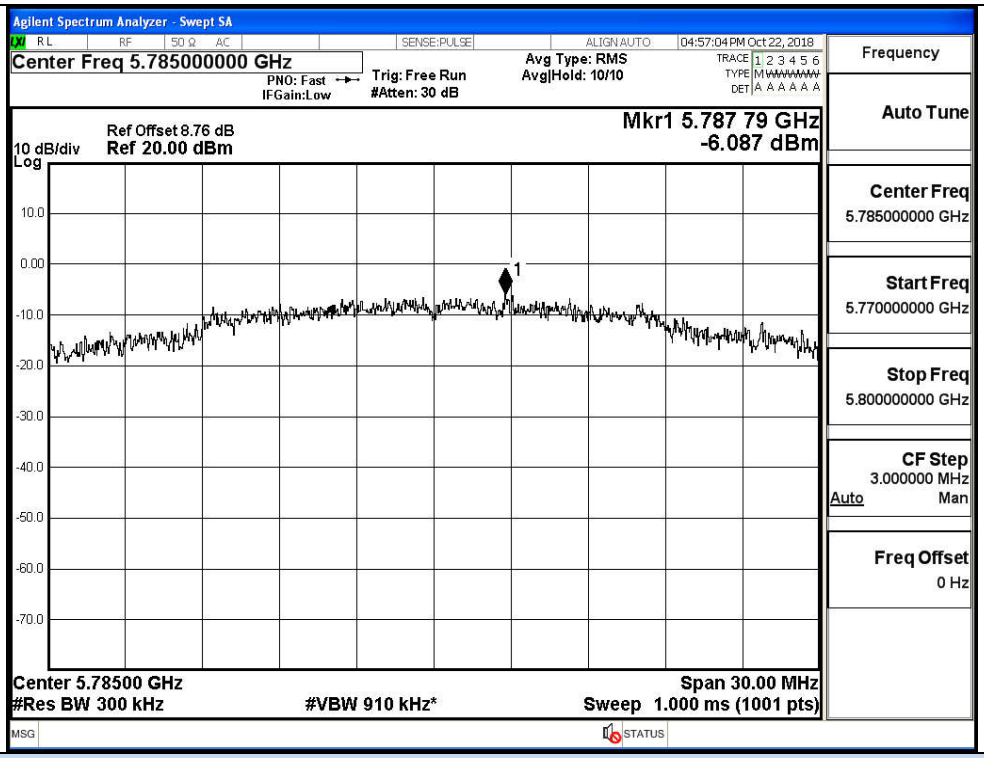
C.3 Power Spectral Density

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	-9.42	0	2.218	-7.20	30	Pass
	157	5785	-6.09	0	2.218	-3.87		Pass
	165	5825	-5.15	0	2.218	-2.93		Pass
11N20 SISO	149	5745	-5.49	0	2.218	-3.27	30	Pass
	157	5785	-5.36	0	2.218	-3.15		Pass
	165	5825	-4.84	0	2.218	-2.62		Pass
11N40 SISO	151	5755	-12.26	0	2.218	-10.04	30	Pass
	159	5795	-8.69	0	2.218	-6.47		Pass

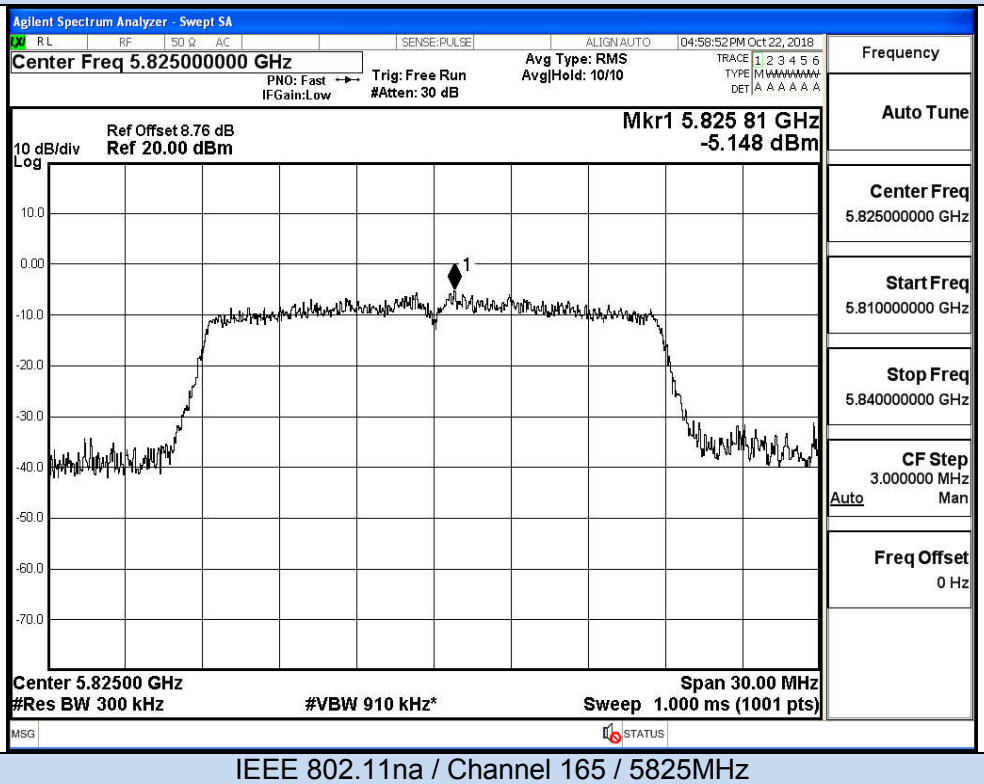
Power Spectral Density



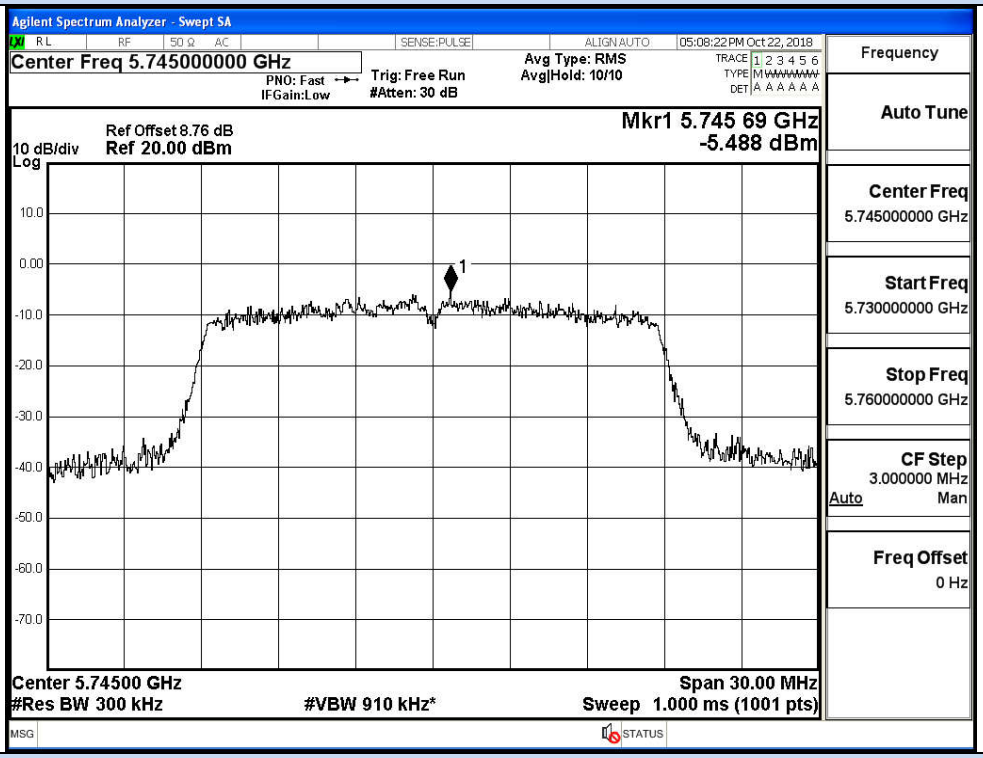
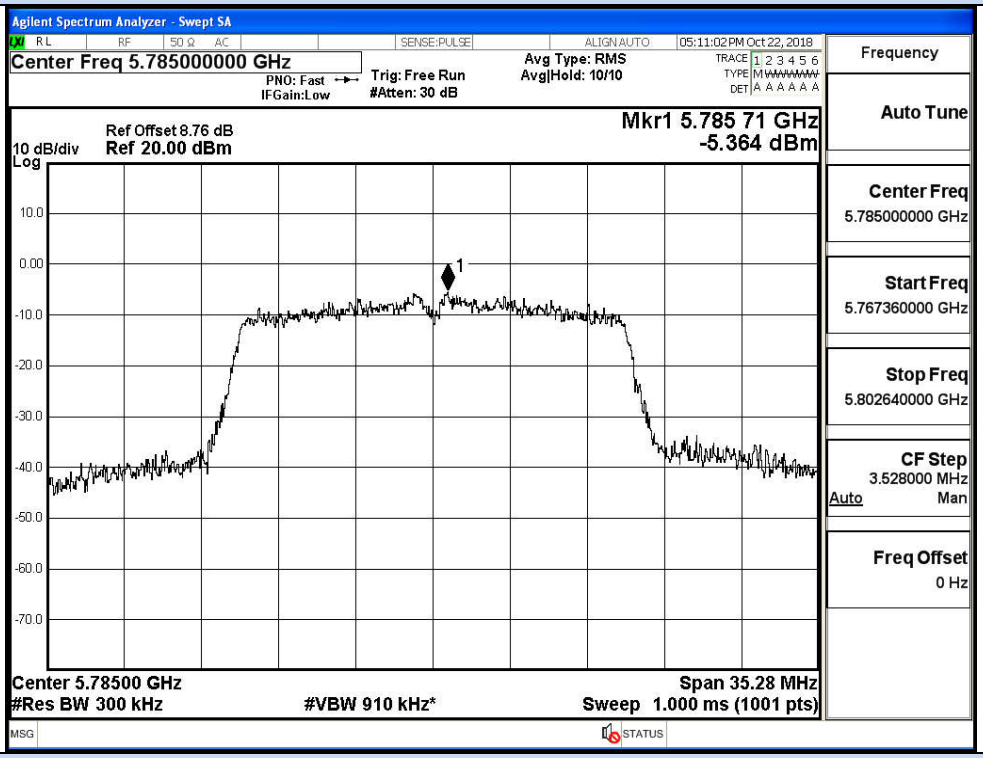
IEEE 802.11a / Channel 149 / 5745MHz

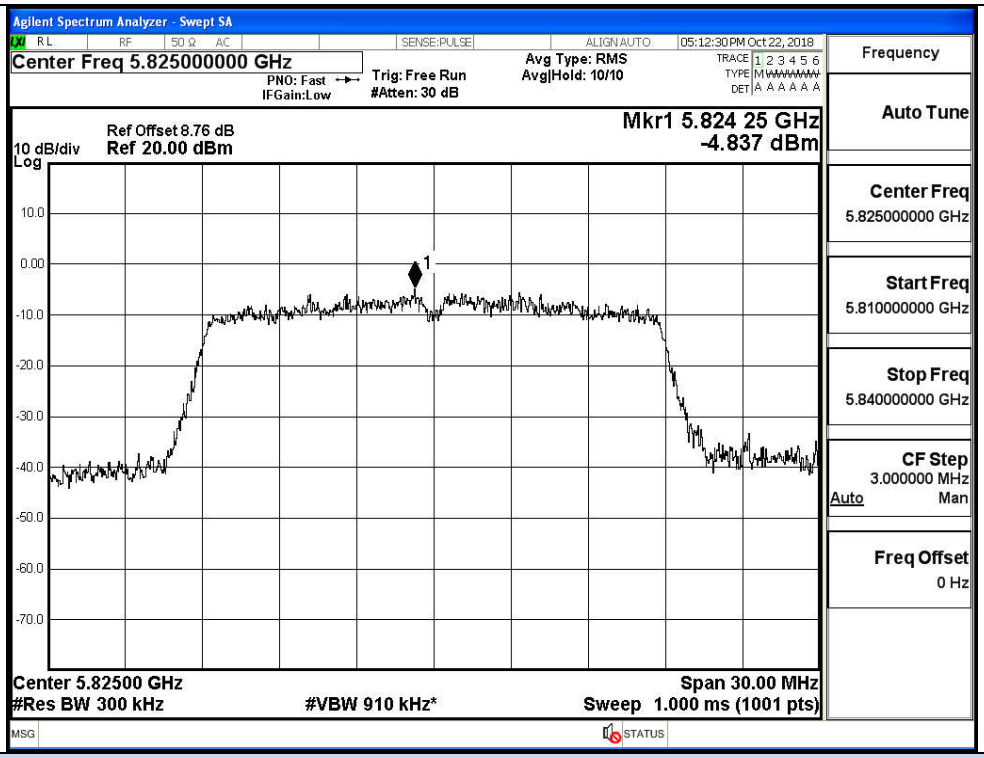


IEEE 802.11na / Channel 157 / 5785MHz



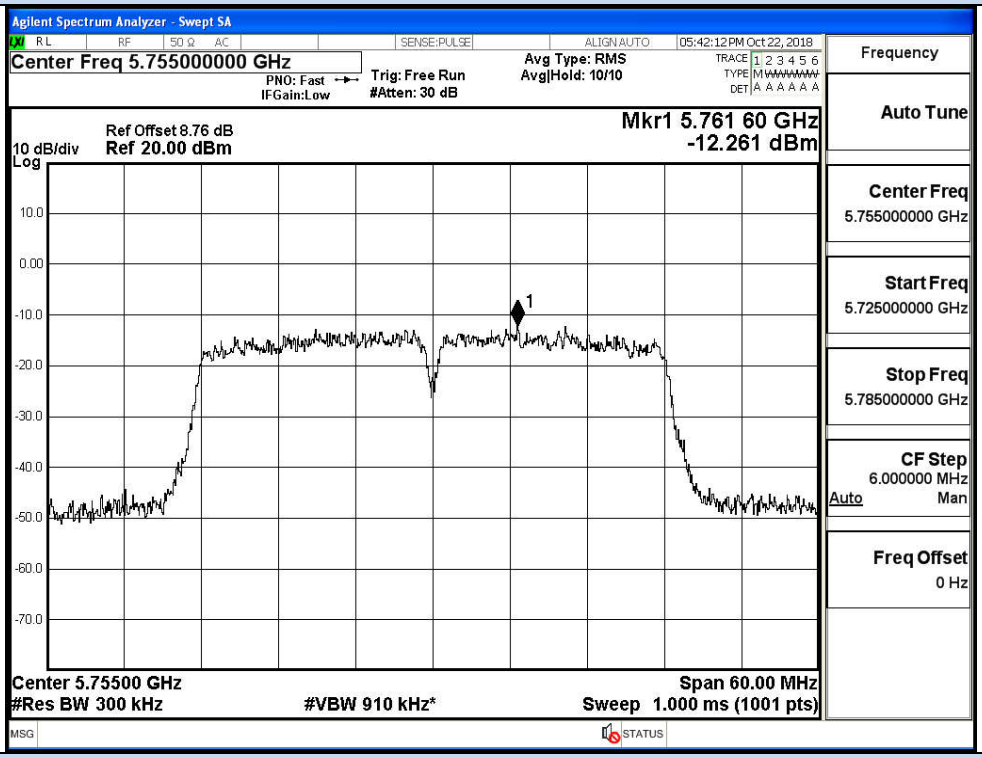
IEEE 802.11na / Channel 165 / 5825MHz

Power Spectral Density

IEEE 802.11n20 / Channel 149 / 5745MHz

IEEE 802.11n20 / Channel 157 / 5785MHz

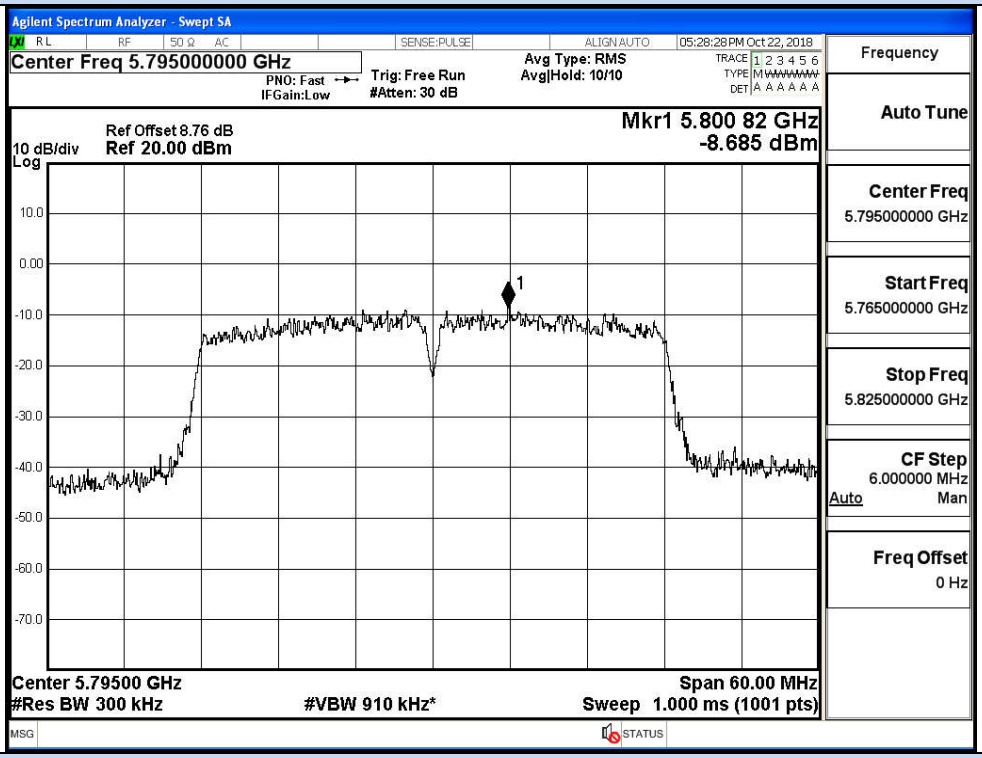


IEEE 802.11n20 / Channel 165 / 5825MHz

Power Spectral Density



IEEE 802.11n40 / Channel 151 / 5755MHz

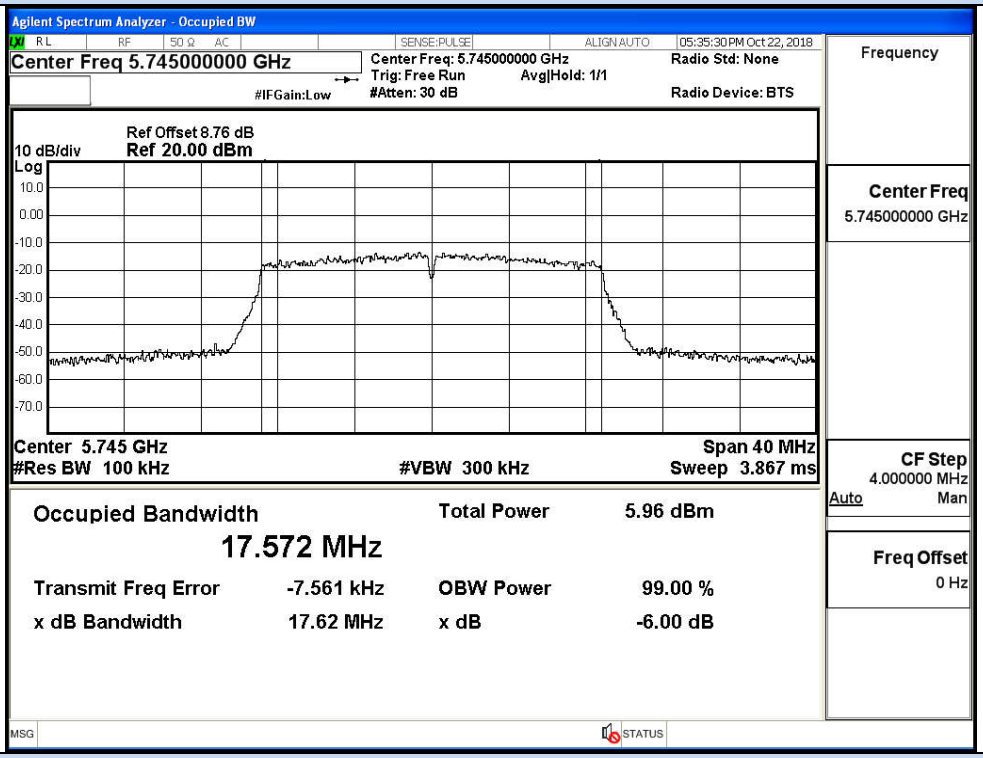


IEEE 802.11n40 / Channel 159 / 5795MHz

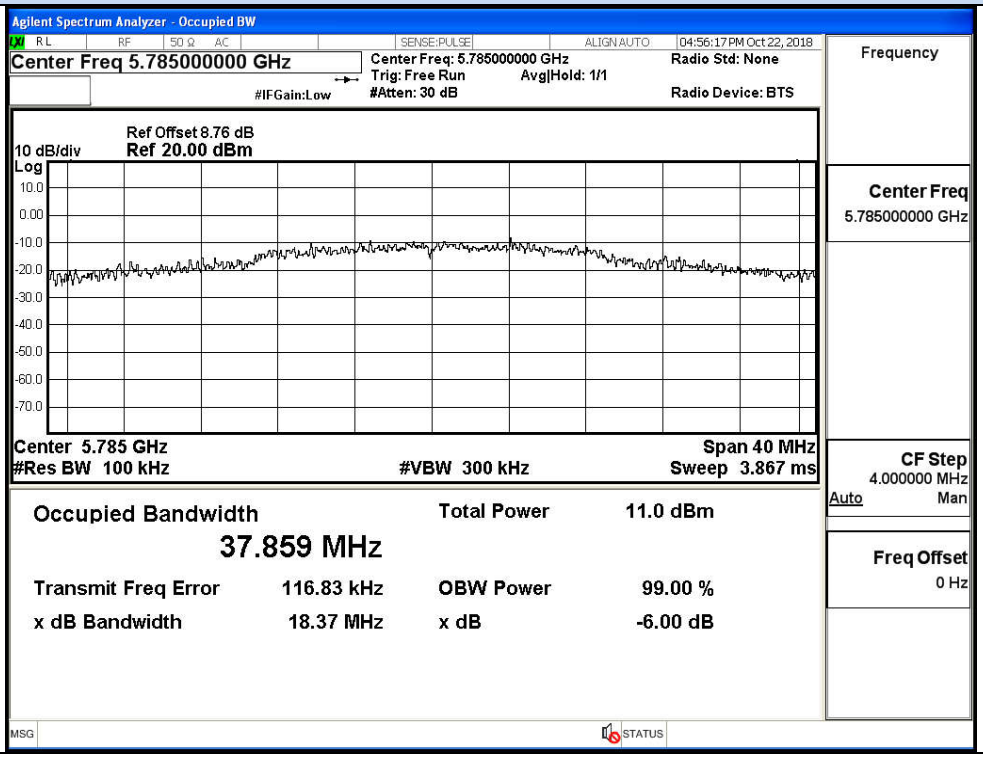
C.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
11A	149	5745	17.62	>=0.5	Pass
	157	5785	18.37		Pass
	165	5825	17.63		Pass
11N20 SISO	149	5745	17.64	>=0.5	Pass
	157	5785	17.64		Pass
	165	5825	17.65		Pass
11N40 SISO	151	5755	36.39	>=0.5	Pass
	159	5795	36.13		Pass

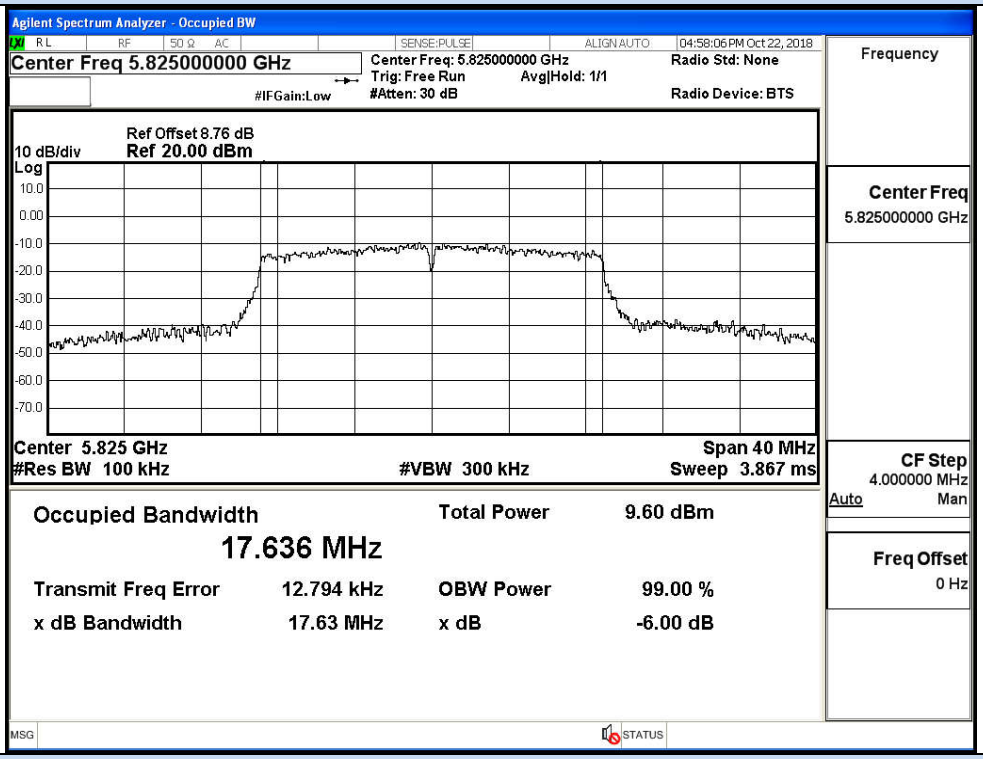
6dB Bandwidth



IEEE 802.11a / Channel 149 / 5745MHz

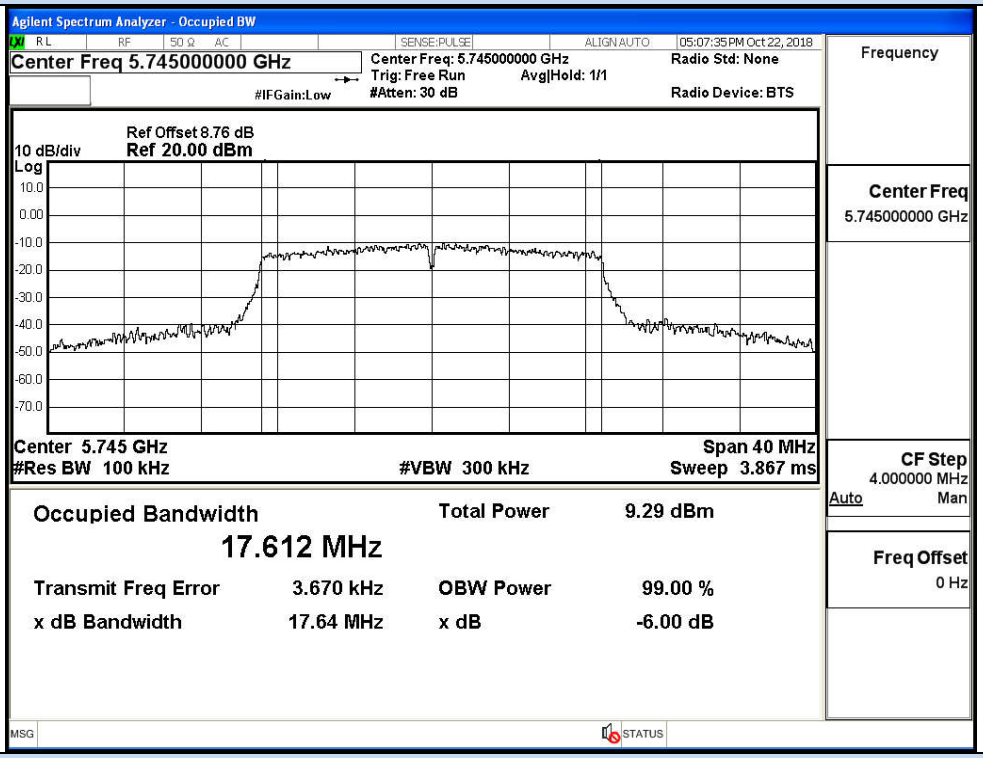


IEEE 802.11a / Channel 157 / 5785MHz

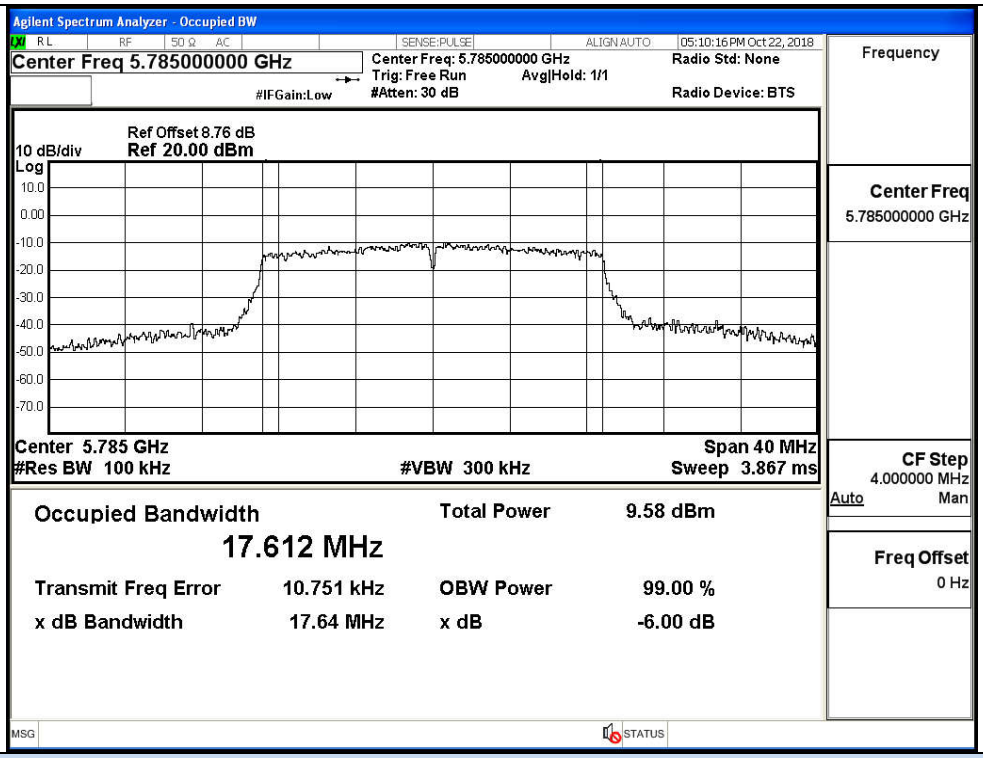


IEEE 802.11a / Channel 165 / 5825MHz

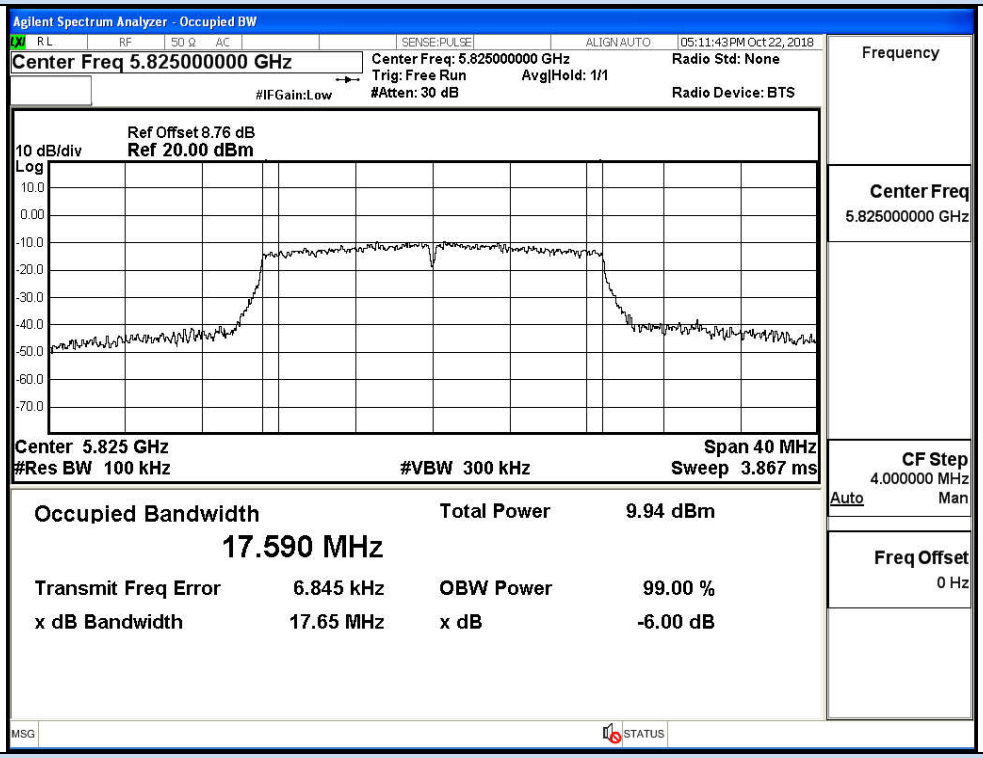
6dB Bandwidth



IEEE 802.11n20 / Channel 149 / 5745MHz

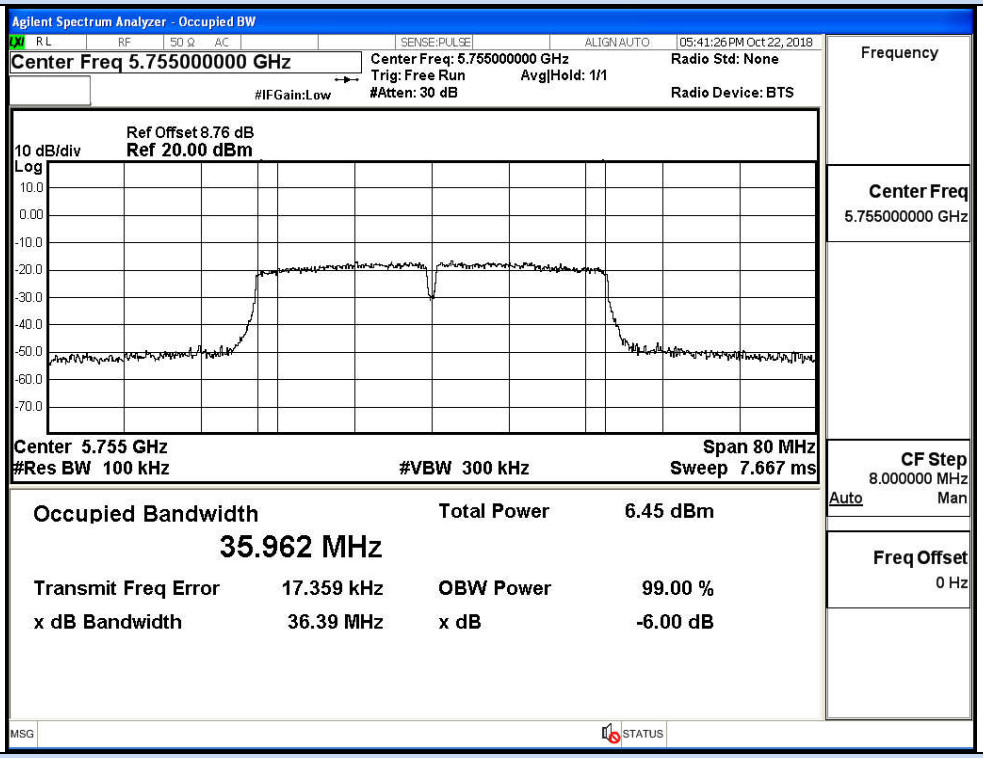


IEEE 802.11n20 / Channel 157 / 5785MHz

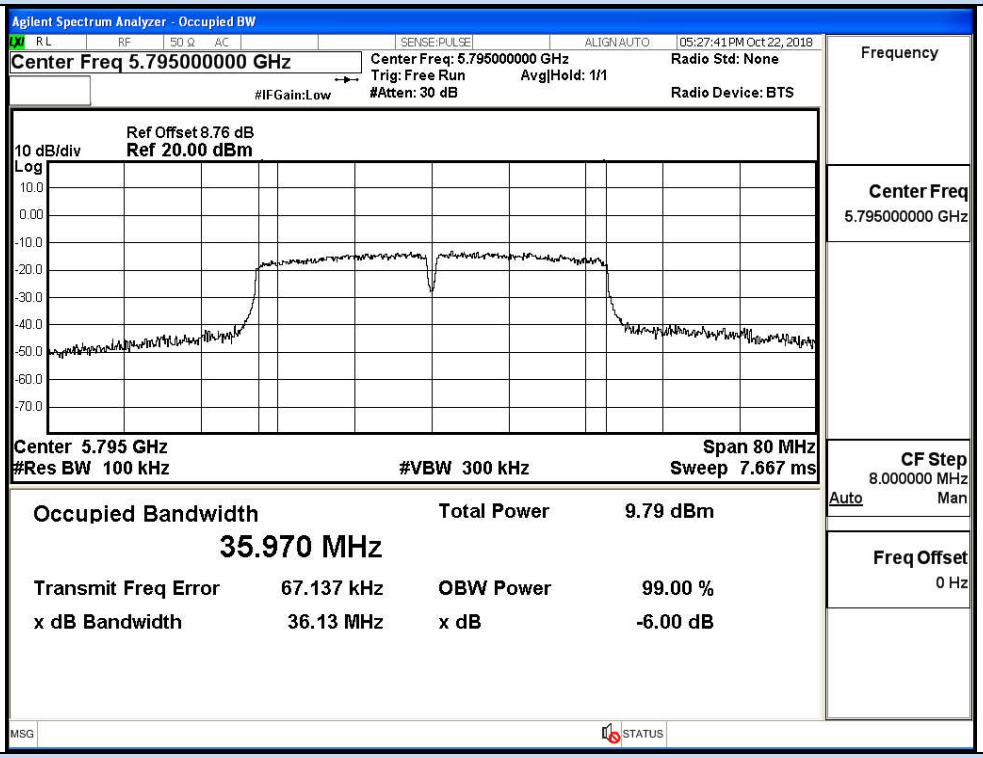


IEEE 802.11n20 / Channel 165 / 5825MHz

26dB Bandwidth



IEEE 802.11n40 / Channel 151 / 5755MHz



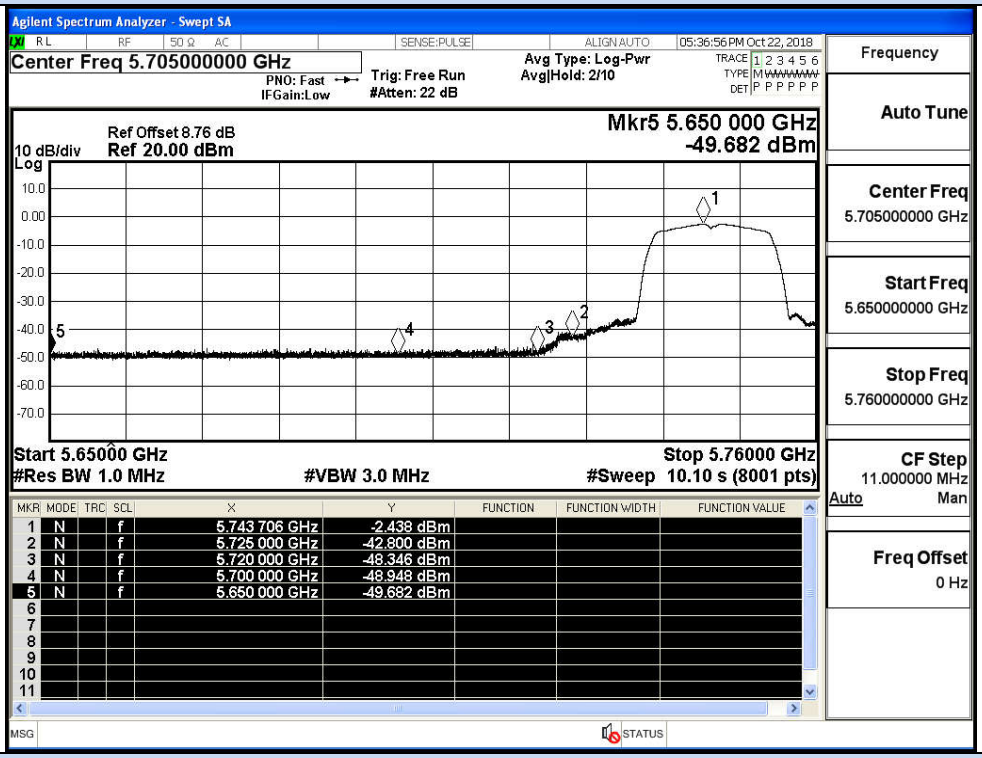
IEEE 802.11n40 / Channel 159 / 5795MHz

C.5 Undesirable Emissions Measurement

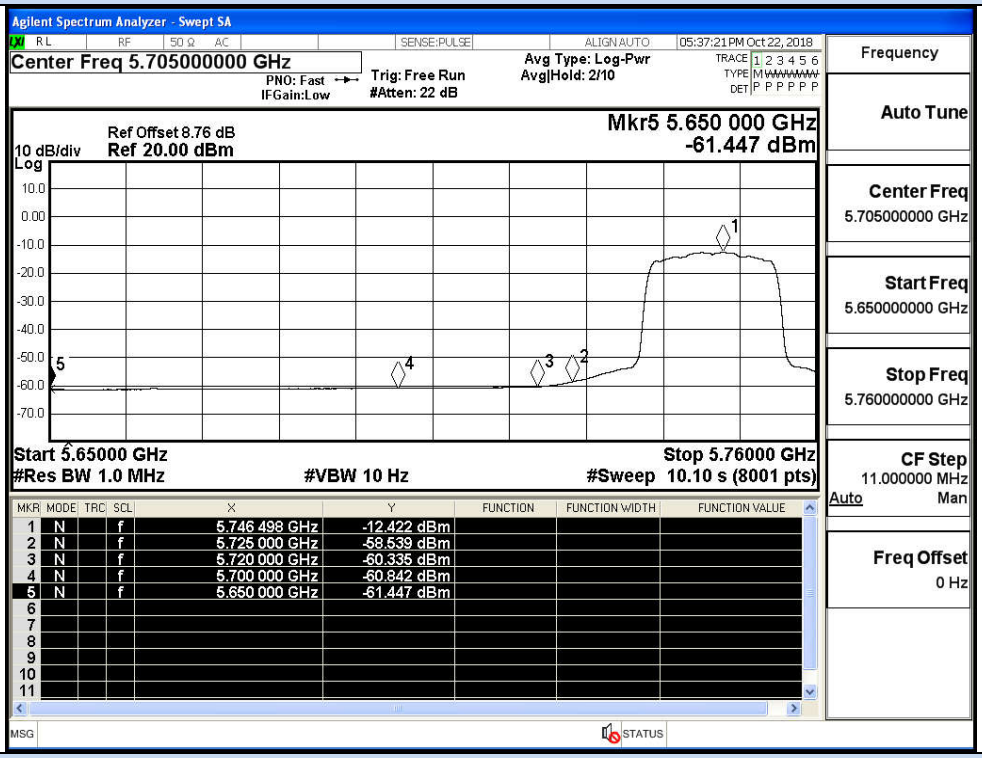
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11A	149	5650.0	-49.68	2.50	-47.18	Peak	-27.0	Pass
		5650.0	-61.45	2.50	-58.95	Average	-27.0	Pass
		5700.0	-48.95	2.50	-46.45	Peak	10	Pass
		5700.0	-60.84	2.50	-58.34	Average	10	Pass
		5720.0	-48.35	2.50	-45.85	Peak	15.6	Pass
		5720.0	-60.34	2.50	-57.84	Average	15.6	Pass
		5725.0	-42.80	2.50	-40.30	Peak	27.0	Pass
		5725.0	-58.54	2.50	-56.04	Average	27.0	Pass
	165	5850.0	-30.38	2.50	-27.88	Peak	27.0	Pass
		5850.0	-51.94	2.50	-49.44	Average	27.0	Pass
		5855.0	-33.77	2.50	-31.27	Peak	15.6	Pass
		5855.0	-54.48	2.50	-51.98	Average	15.6	Pass
		5875.0	-45.66	2.50	-43.16	Peak	10	Pass
		5875.0	-58.43	2.50	-55.93	Average	10	Pass
		5925.0	-48.61	2.50	-46.11	Peak	-27.0	Pass
		5925.0	-60.30	2.50	-57.80	Average	-27.0	Pass
11N20 SISO	149	5650.0	-49.14	2.50	-46.64	Peak	-27.0	Pass
		5650.0	-60.87	2.50	-58.37	Average	-27.0	Pass
		5700.0	-47.63	2.50	-45.13	Peak	10	Pass
		5700.0	-57.28	2.50	-54.78	Average	10	Pass
		5720.0	-39.01	2.50	-36.51	Peak	15.6	Pass
		5720.0	-59.73	2.50	-57.23	Average	15.6	Pass
		5725.0	-31.21	2.50	-28.71	Peak	27.0	Pass
		5725.0	-51.50	2.50	-49.00	Average	27.0	Pass
	165	5850.0	-37.23	2.50	-34.73	Peak	27.0	Pass
		5850.0	-52.33	2.50	-49.83	Average	27.0	Pass
		5855.0	-40.09	2.50	-37.59	Peak	15.6	Pass
		5855.0	-55.02	2.50	-52.52	Average	15.6	Pass
		5875.0	-47.01	2.50	-44.51	Peak	10	Pass
		5875.0	-58.54	2.50	-56.04	Average	10	Pass
		5925.0	-48.60	2.50	-46.10	Peak	-27.0	Pass
		5925.0	-60.35	2.50	-57.85	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	-49.86	2.50	-47.36	Peak	-27.0	Pass
		5650.0	-61.42	2.50	-58.92	Average	-27.0	Pass
		5700.0	-48.77	2.50	-46.27	Peak	10	Pass
		5700.0	-60.77	2.50	-58.27	Average	10	Pass
		5720.0	-42.56	2.50	-40.06	Peak	15.6	Pass
		5720.0	-57.11	2.50	-54.61	Average	15.6	Pass
		5725.0	-39.82	2.50	-37.32	Peak	27.0	Pass
		5725.0	-55.27	2.50	-52.77	Average	27.0	Pass
	159	5850.0	-41.86	2.50	-39.36	Peak	27.0	Pass
		5850.0	-55.67	2.50	-53.17	Average	27.0	Pass
		5855.0	-44.10	2.50	-41.60	Peak	15.6	Pass
		5855.0	-56.64	2.50	-54.14	Average	15.6	Pass
		5875.0	-47.46	2.50	-44.96	Peak	10	Pass
		5875.0	-58.87	2.50	-56.37	Average	10	Pass
		5925.0	-48.16	2.50	-45.66	Peak	-27.0	Pass
		5925.0	-60.48	2.00	-57.98	Average	-27.0	Pass

Undesirable Emissions Measurement

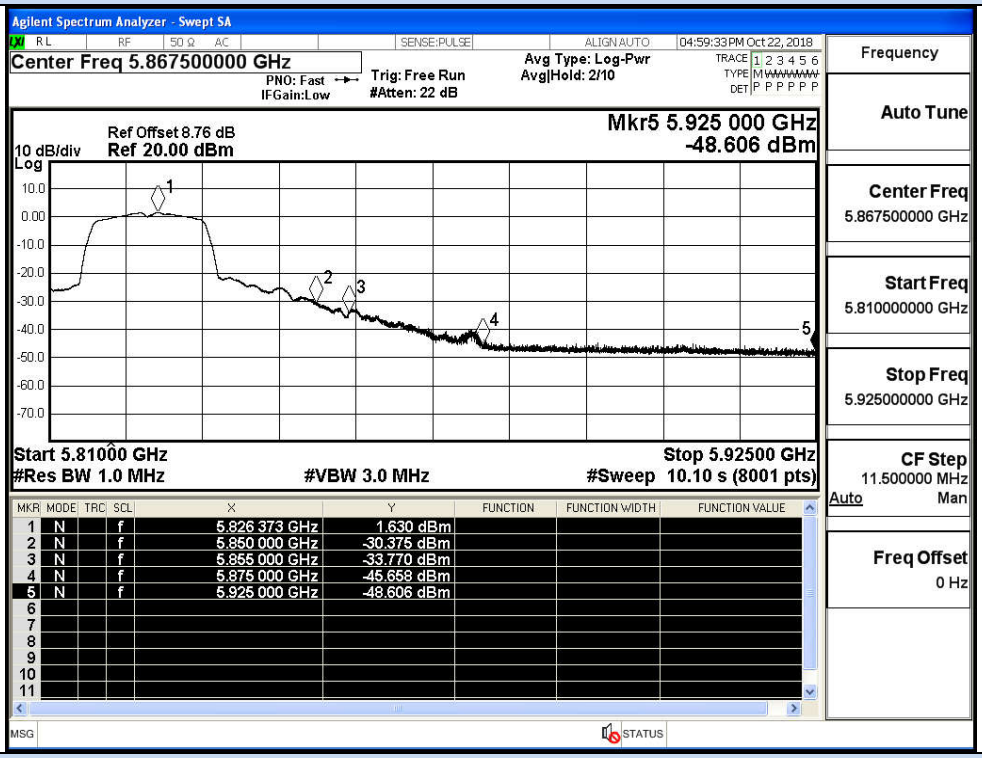


IEEE 802.11a / Channel 149 / 5745MHz / Peak

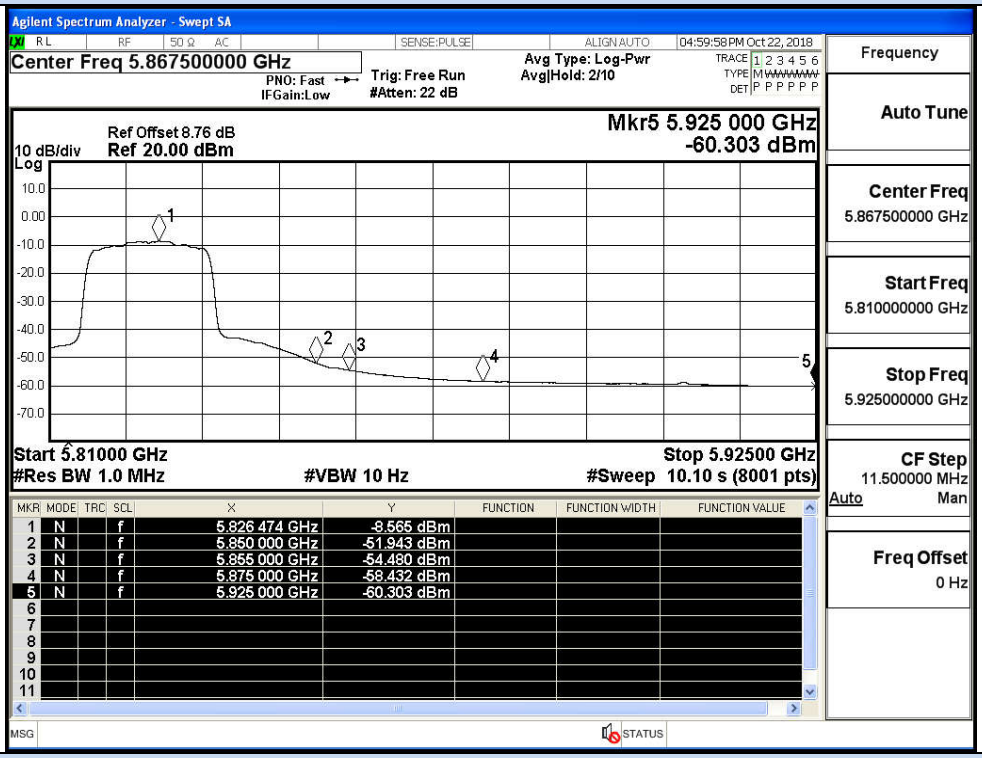


IEEE 802.11a / Channel 148 / 5745MHz / Average

Undesirable Emissions Measurement

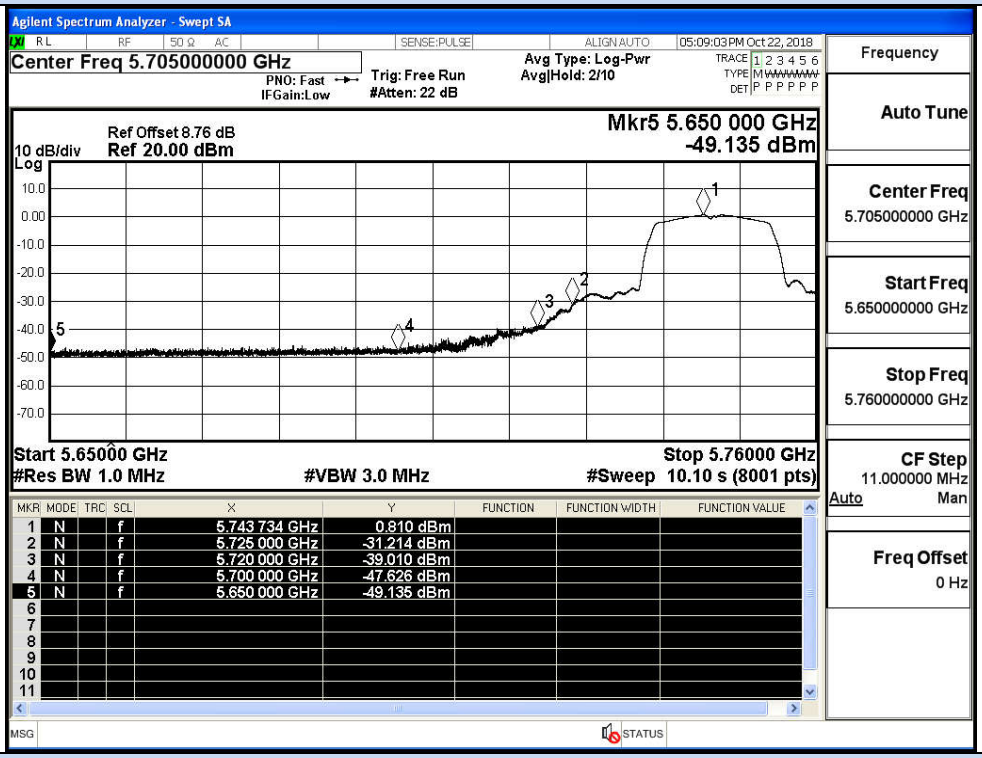


IEEE 802.11a / Channel 165 / 5825MHz / Peak

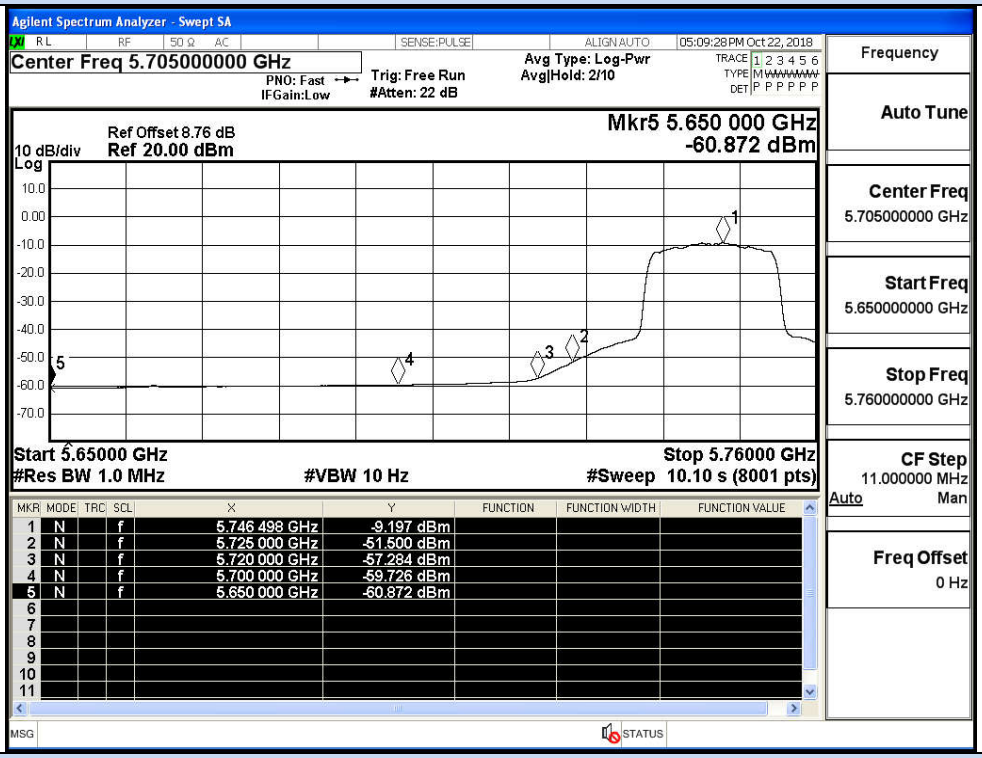


IEEE 802.11a / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

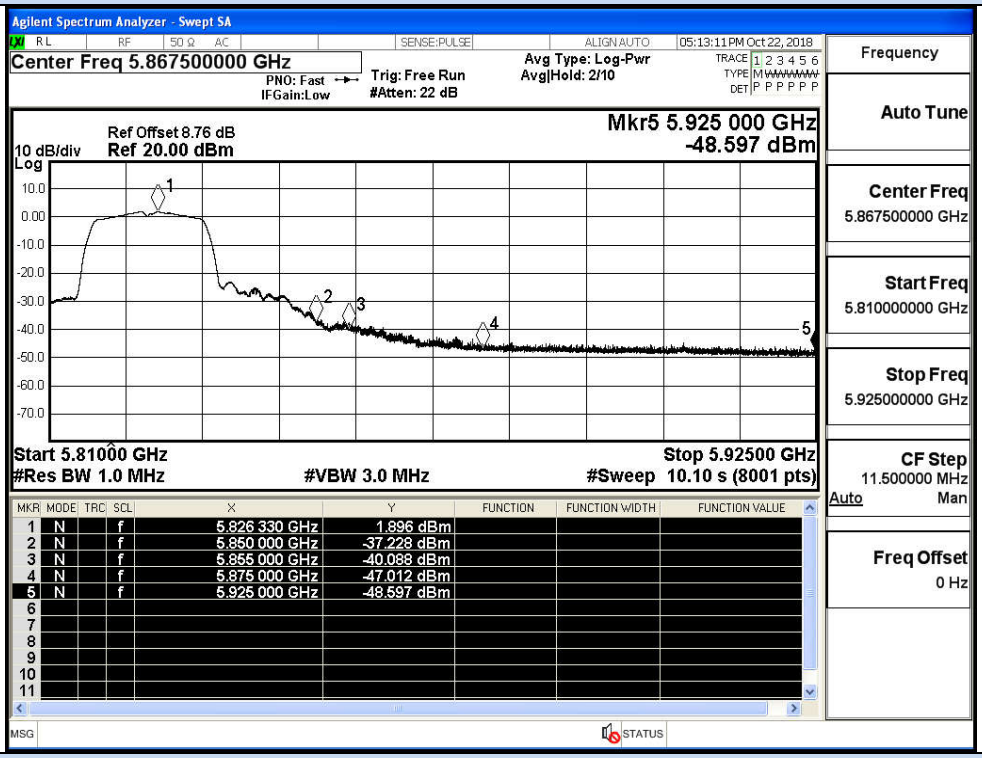


IEEE 802.11n20 / Channel 149 / 5745MHz / Peak

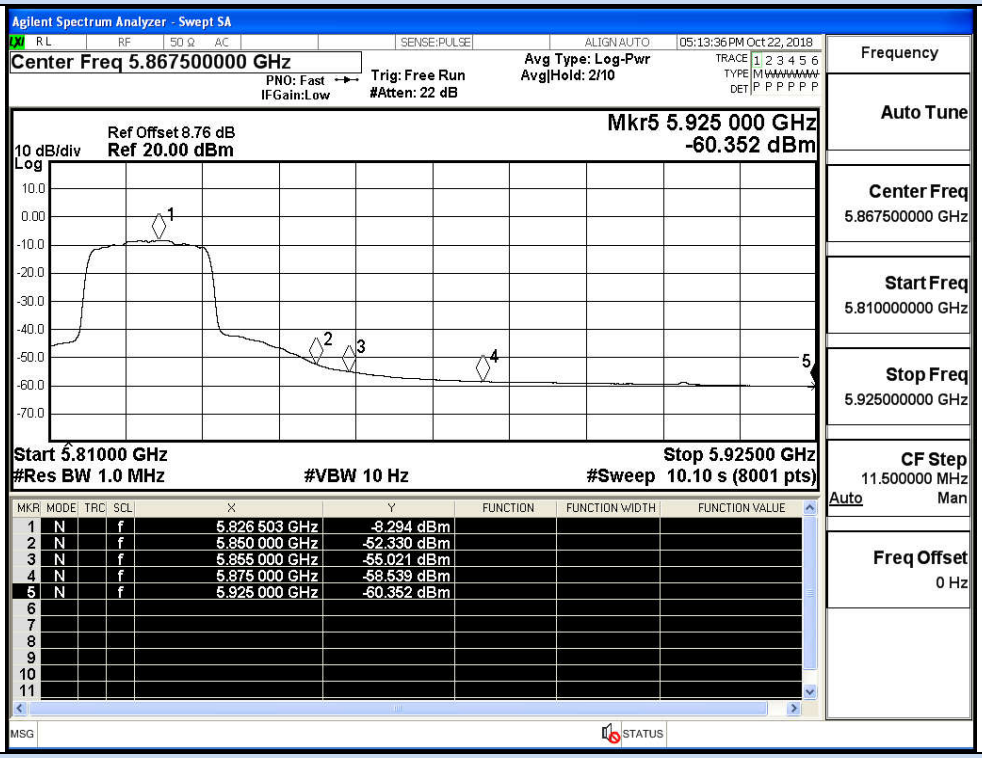


IEEE 802.11n20 / Channel 149 / 5745MHz / Average

Undesirable Emissions Measurement

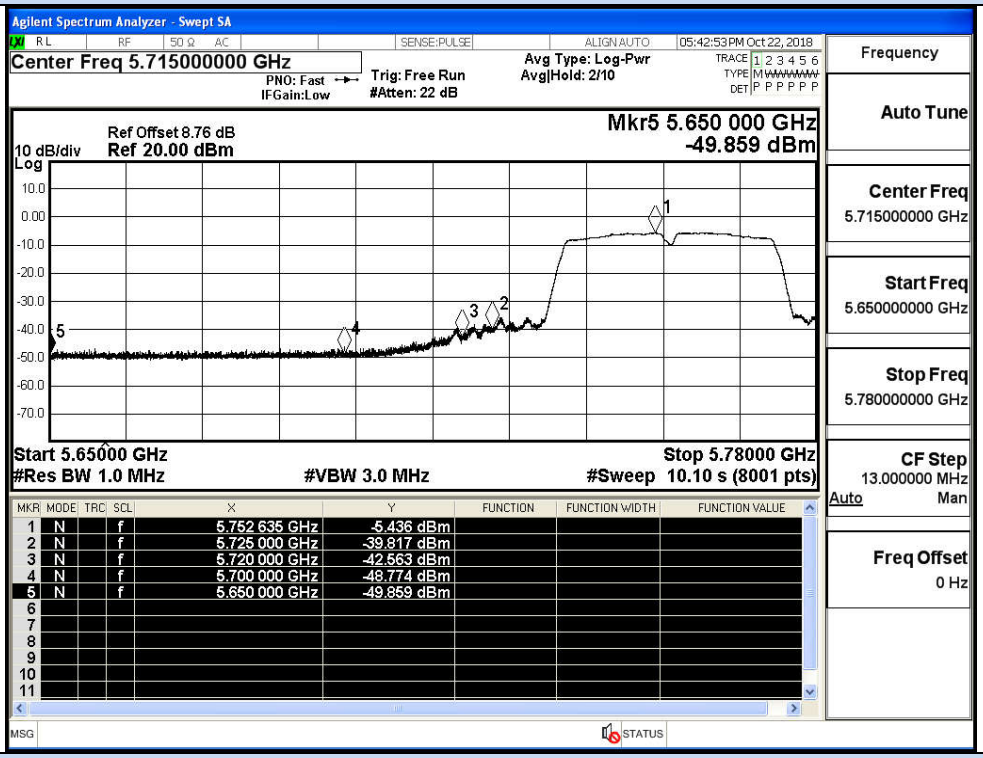


IEEE 802.11n20 / Channel 165 / 5825MHz / Peak

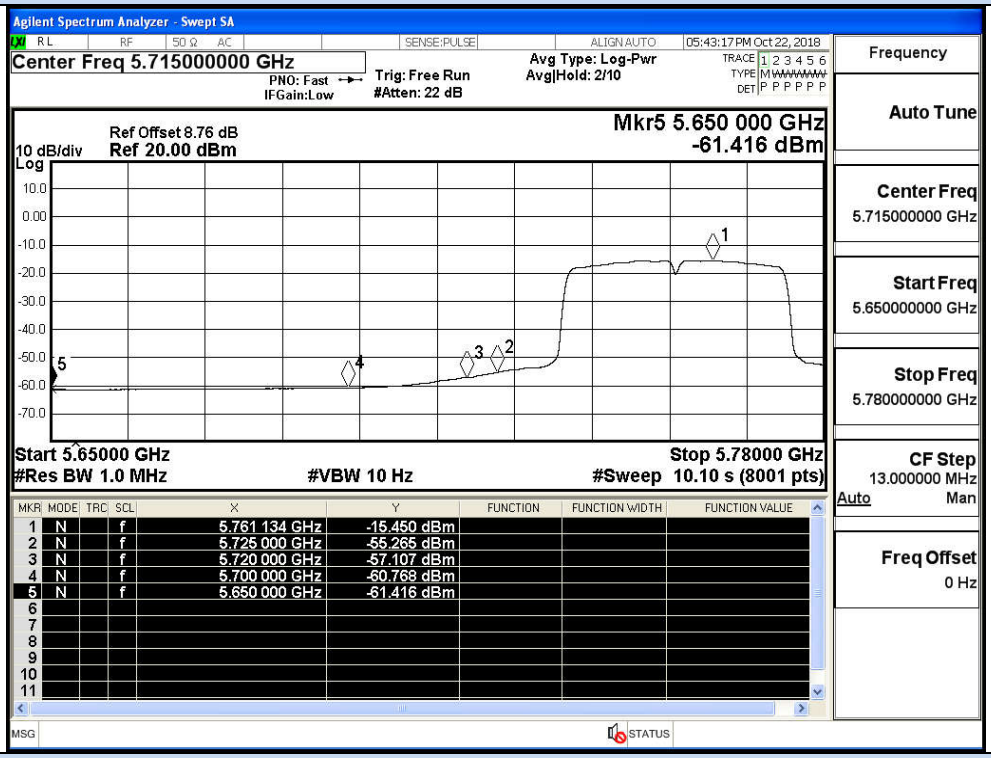


IEEE 802.11n20 / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

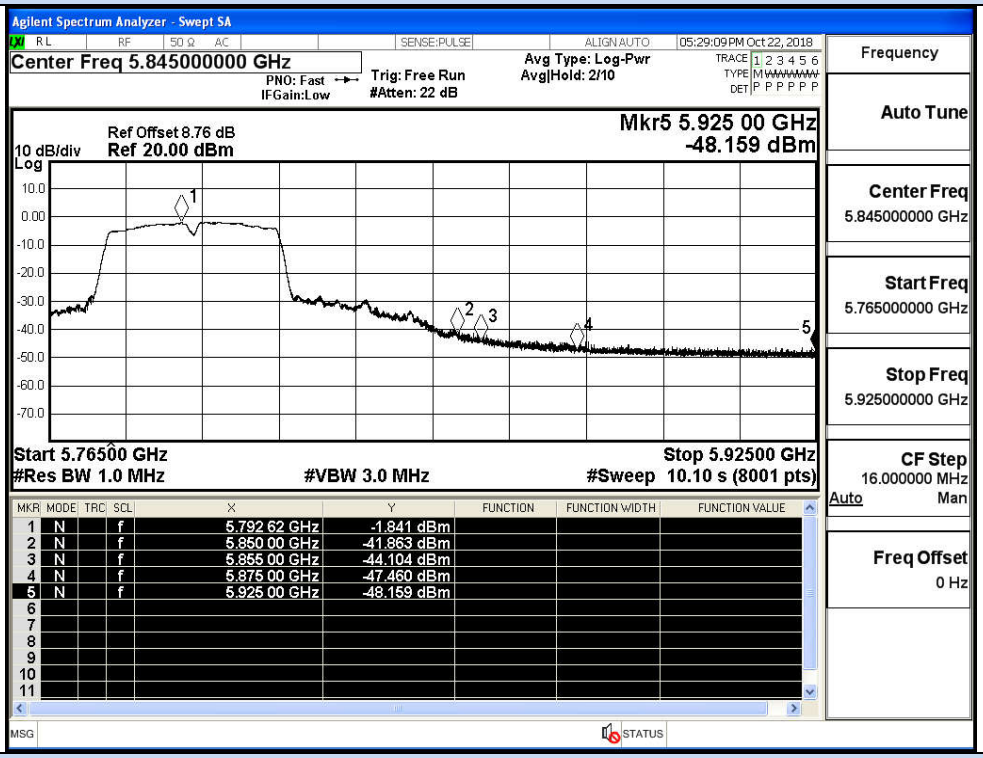


IEEE 802.11n40 / Channel 151 / 5755MHz / Peak

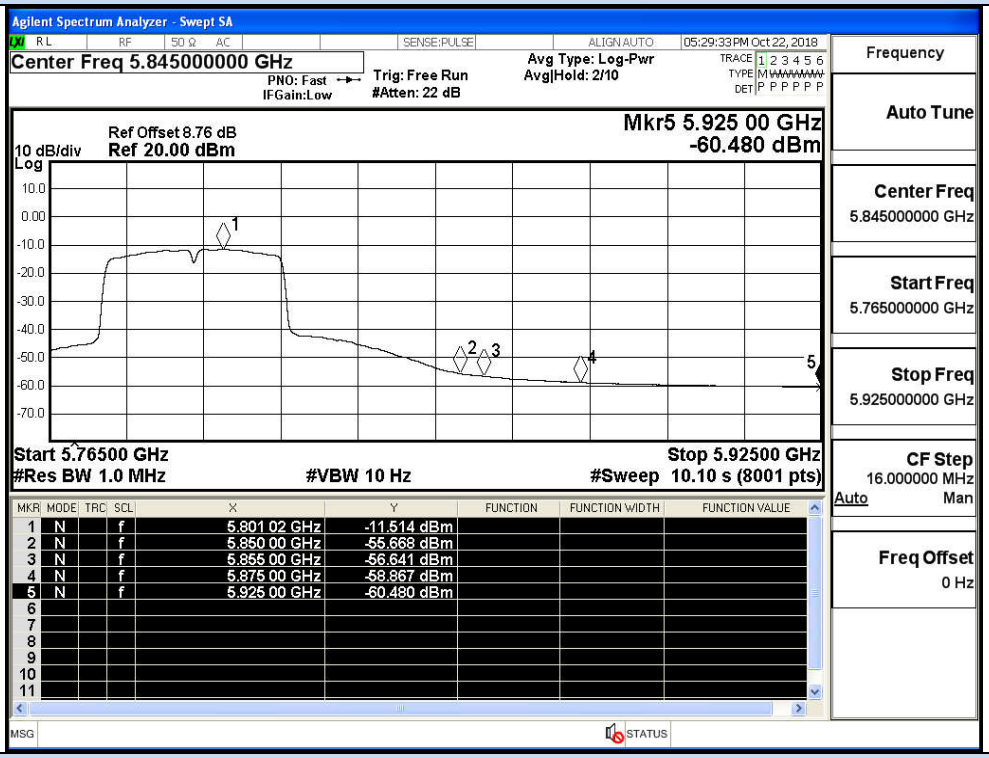


IEEE 802.11n40 / Channel 151 / 5755MHz / Average

Undesirable Emissions Measurement



IEEE 802.11n40 / Channel 159 / 5795MHz / Peak



IEEE 802.11n40 / Channel 159 / 5795MHz / Average