Appendix D

RF Test Data for 5.8G WLAN (Conducted Measurement)

Product Name: Lapbook

Trade Mark: Fusion5

Test Model: T90B+ Pro

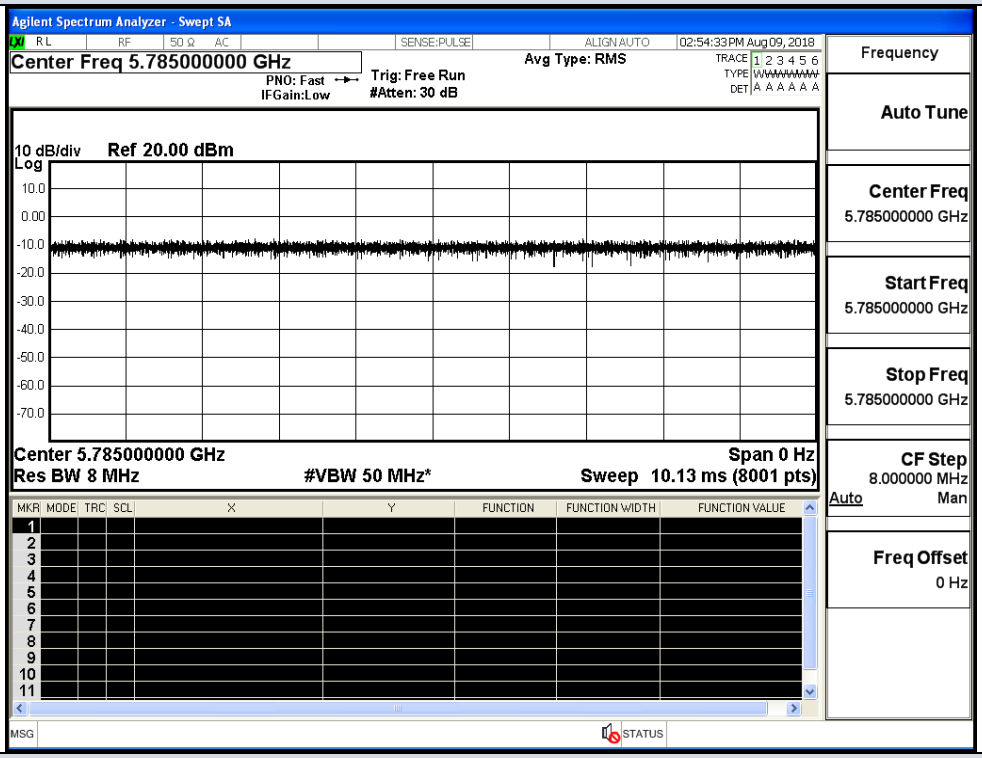
Environmental Conditions

Temperature:	24.6 ° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom.Liu
Supervised by:	Jayden.Zhuo

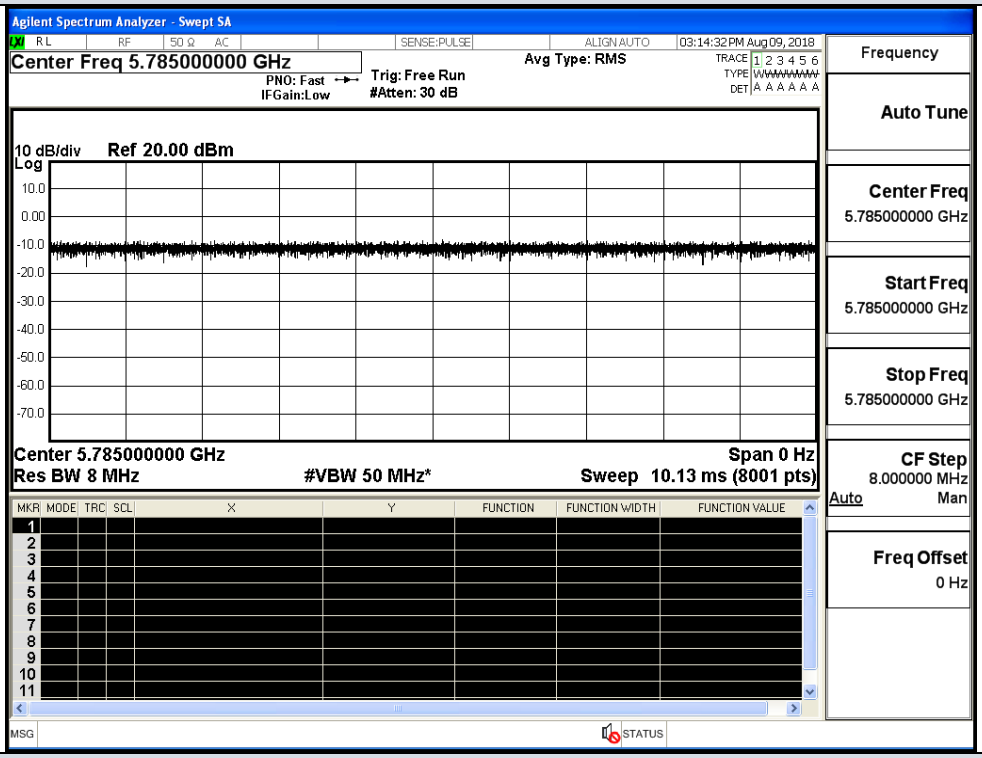
D.1 Duty Cycle

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
11AC20 SISO	5785	100	0.00	0.01
11AC40 SISO	5755	100	0.00	0.01
11AC80 SISO	5775	100	0.00	0.01

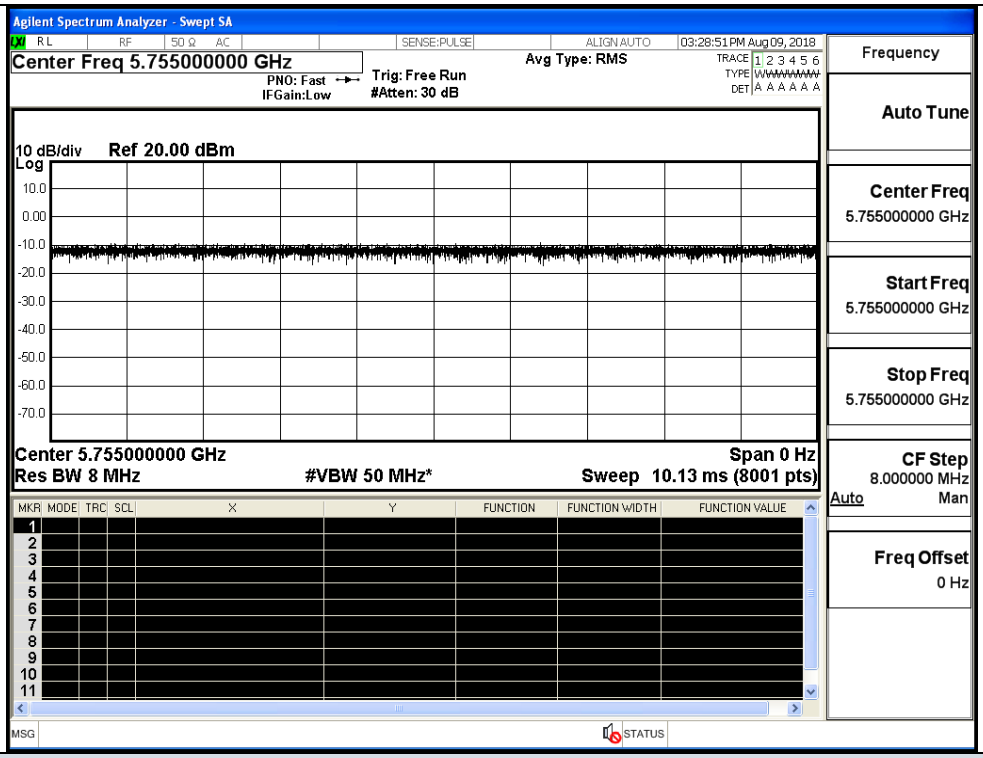
On Time and Duty Cycle



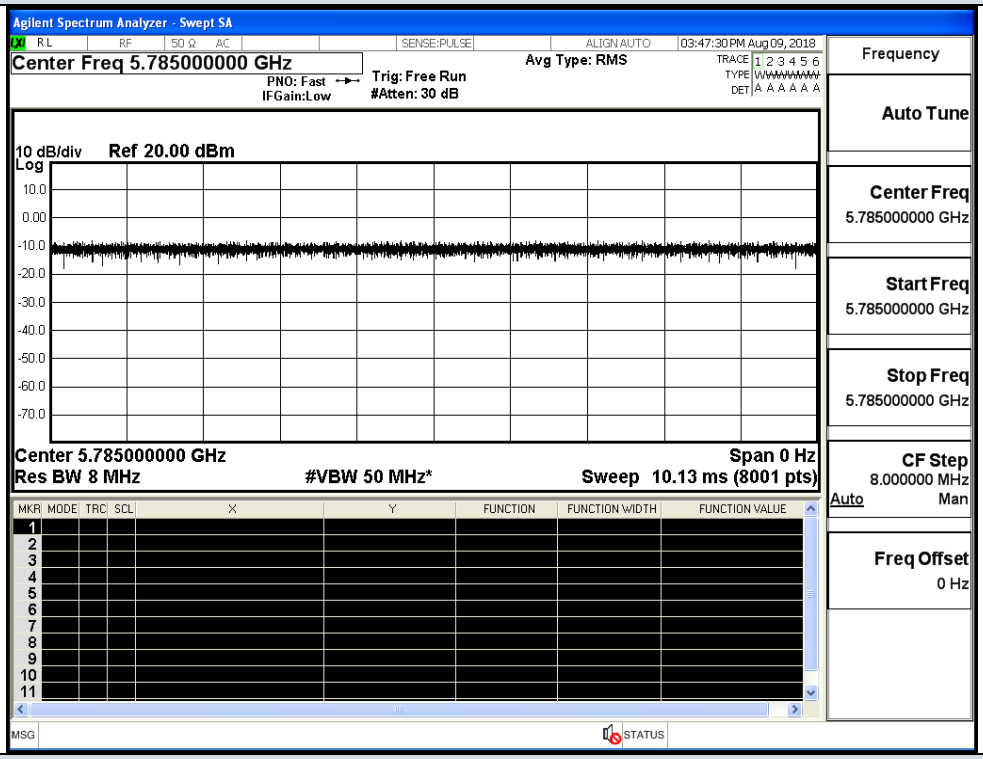
IEEE 802.11a



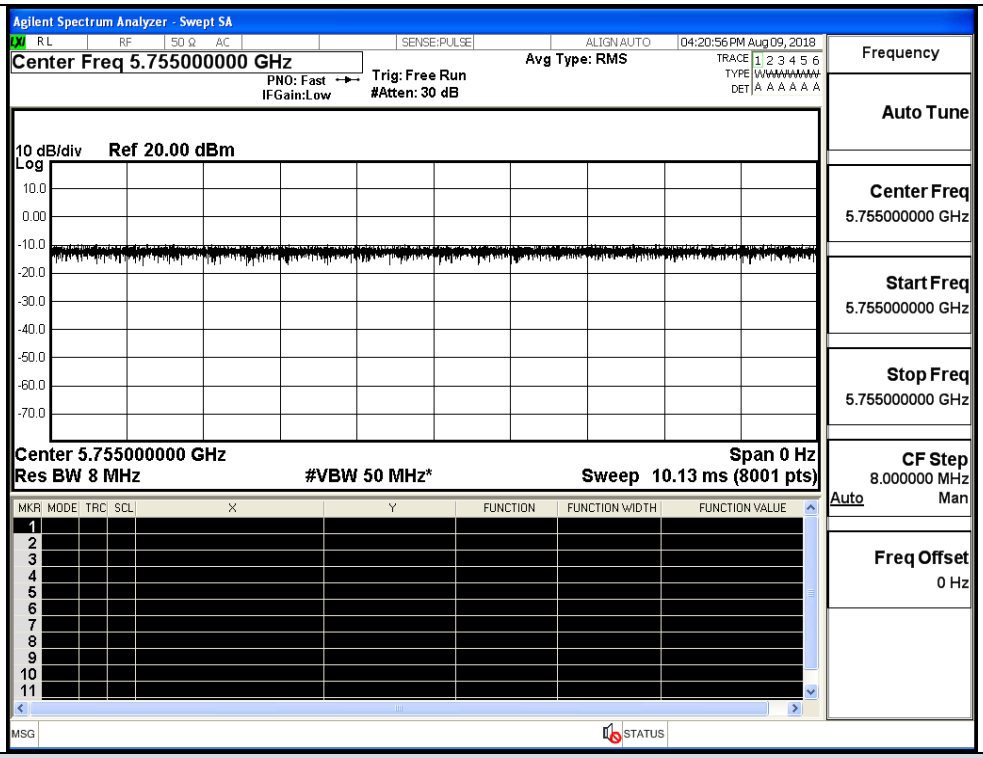
IEEE 802.11n HT20



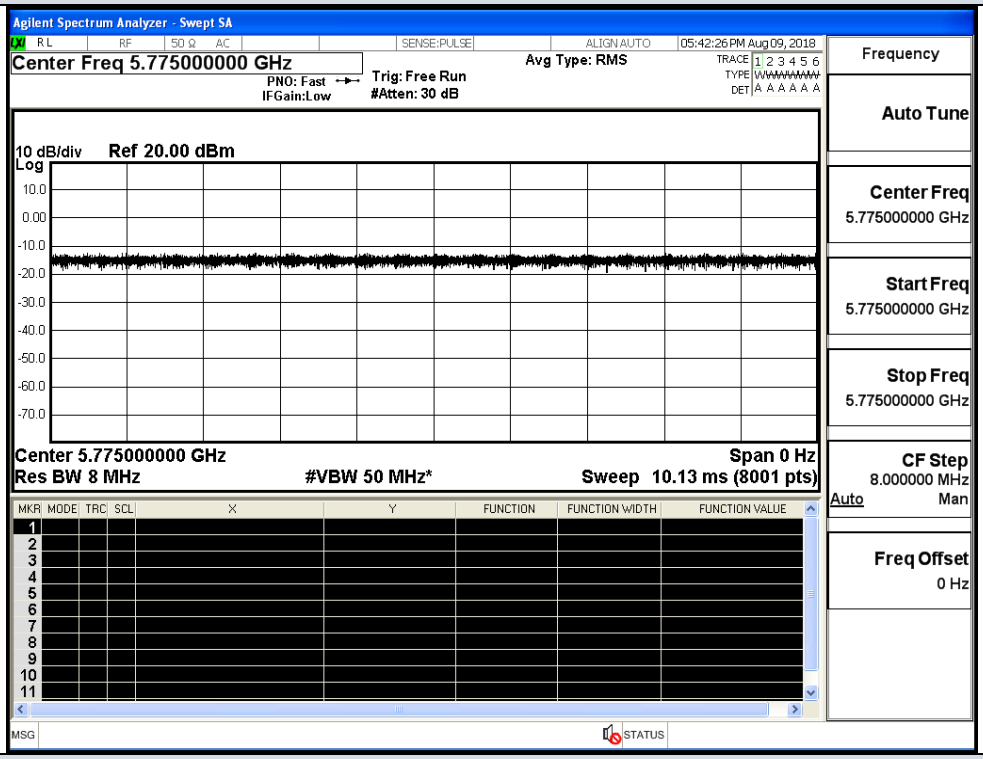
IEEE 802.11n HT40



IEEE 802.11ac VHT20



IEEE 802.11ac VHT40



IEEE 802.11ac VHT80

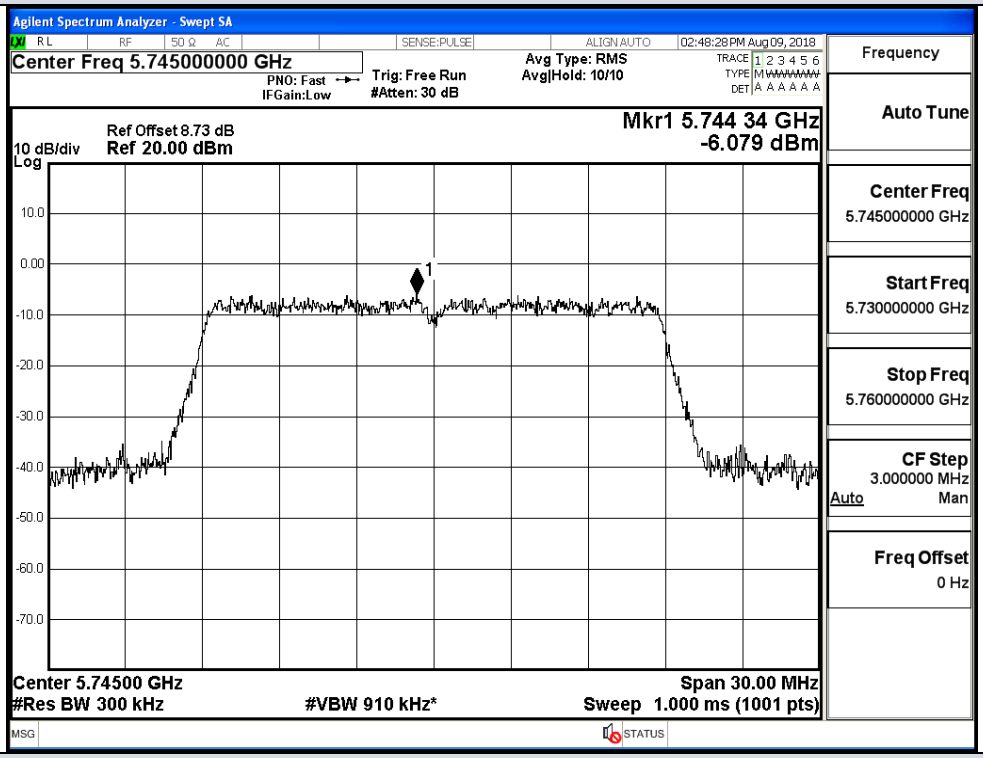
D.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power (dBm)	Limit (dBm)
11A	149	5745	11.32	0	11.32	30
	157	5785	11.17	0	11.17	
	165	5825	11.24	0	11.24	
11N20 SISO	149	5745	12.09	0	12.09	30
	157	5785	12.16	0	12.16	
	165	5825	12.22	0	12.22	
11N40 SISO	151	5755	12.84	0	12.84	30
	159	5795	12.79	0	12.79	
11AC20 SISO	149	5745	12.21	0	12.21	30
	157	5785	12.16	0	12.16	
	165	5825	12.25	0	12.25	
11AC40 SISO	151	5755	12.89	0	12.89	30
	159	5795	12.76	0	12.76	
11AC80 SISO	155	5775	13.59	0	13.59	30

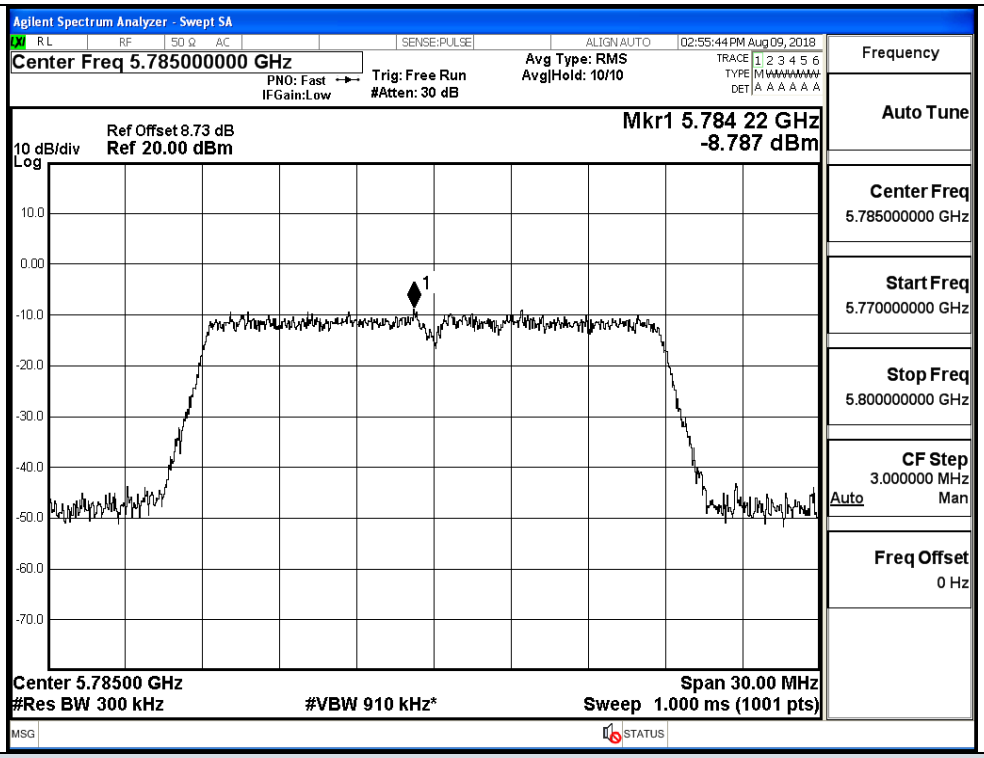
D.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/300KHz)	Duty Cycle Factor (dB)	RBW Factor (dB)	Report Power Density (dBm/500KHz)	Limit (dBm/500 KHz)
11A	149	5745	-6.079	0	2.218	-3.86	30
	157	5785	-8.787	0	2.218	-6.57	
	165	5825	-9.597	0	2.218	-7.38	
11N20 SISO	149	5745	-6.664	0	2.218	-4.45	30
	157	5785	-9.562	0	2.218	-7.34	
	165	5825	-9.435	0	2.218	-7.22	
11N40 SISO	151	5755	-9.212	0	2.218	-6.99	30
	159	5795	-11.624	0	2.218	-9.41	
11AC20 SISO	149	5745	-6.834	0	2.218	-4.62	30
	157	5785	-9.059	0	2.218	-6.84	
	165	5825	-9.184	0	2.218	-6.97	
11AC40 SISO	151	5755	-10.110	0	2.218	-7.89	30
	159	5795	-11.885	0	2.218	-9.67	
11AC80 SISO	155	5775	-12.039	0	2.218	-9.82	30

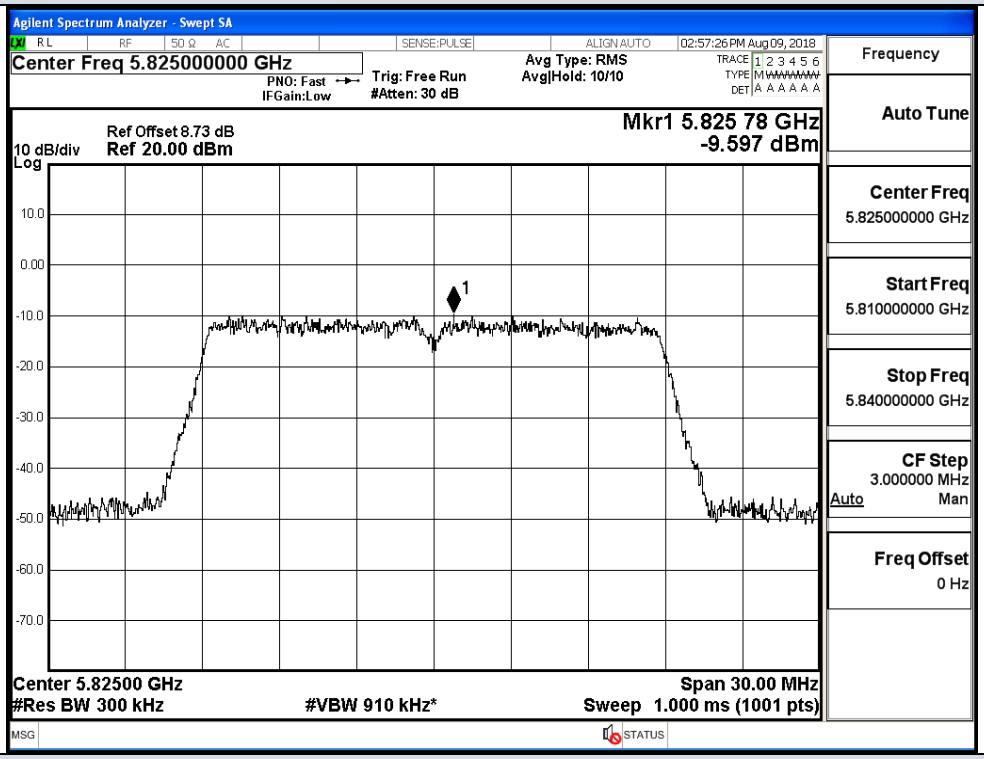
Power Spectral Density



IEEE 802.11a / Channel 149 / 5745 MHz

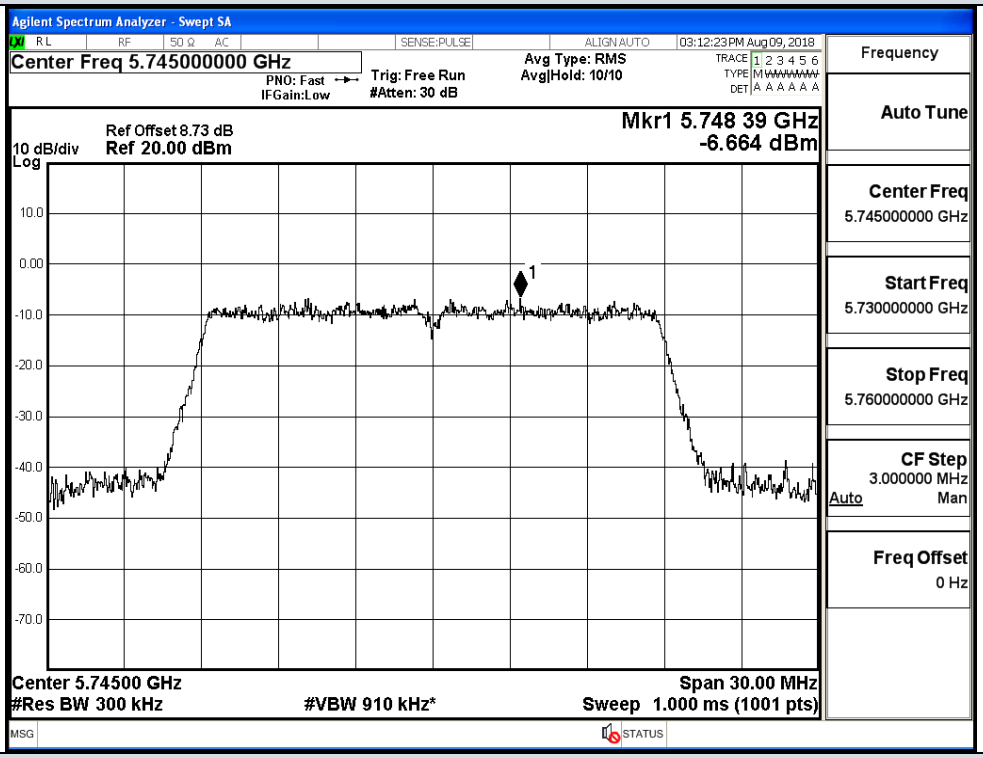


IEEE 802.11na / Channel 157 / 5785 MHz

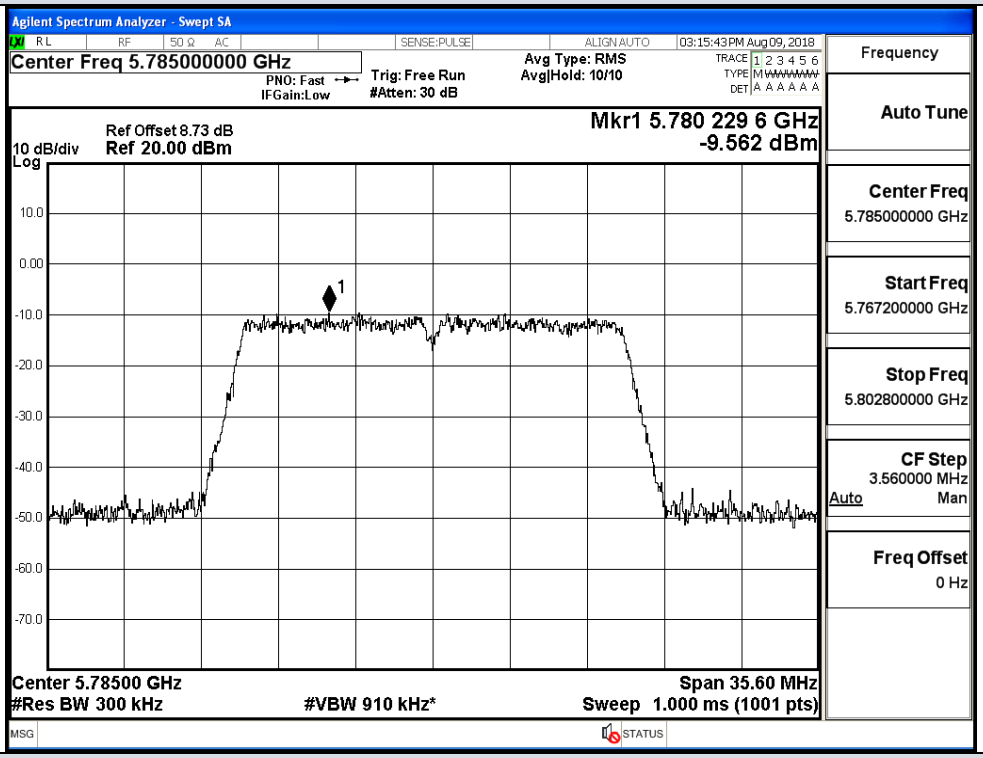


IEEE 802.11a / Channel 165 / 5825 MHz

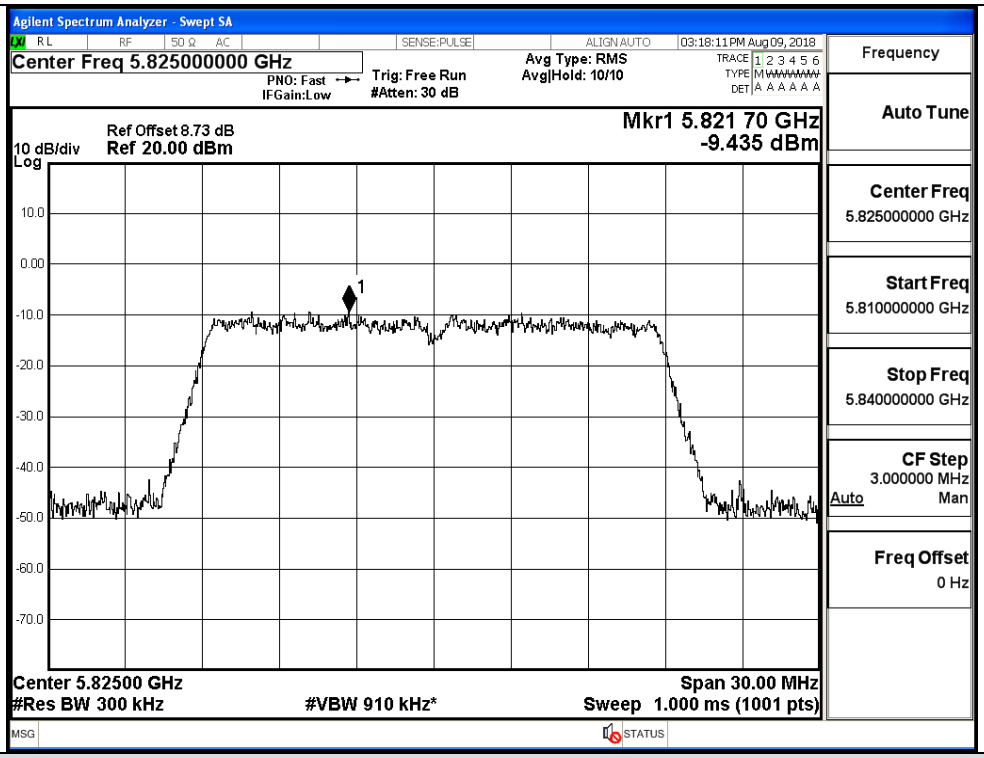
Power Spectral Density



IEEE 802.11n HT20 / Channel 149 / 5745 MHz

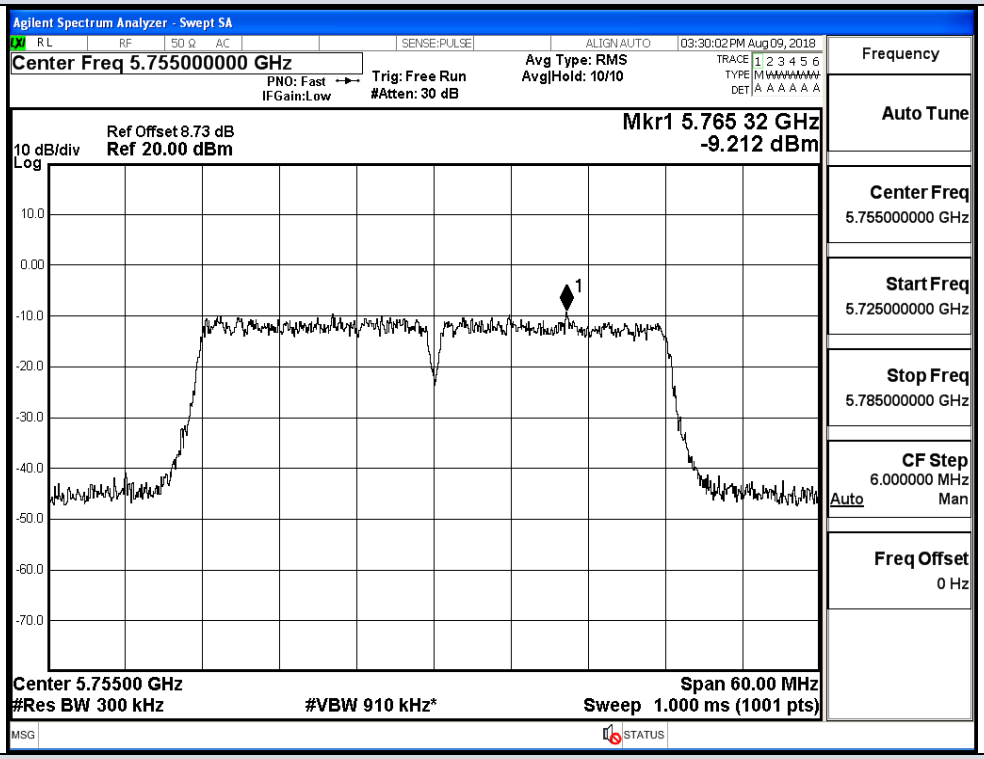


IEEE 802.11n HT20 / Channel 157 / 5785 MHz

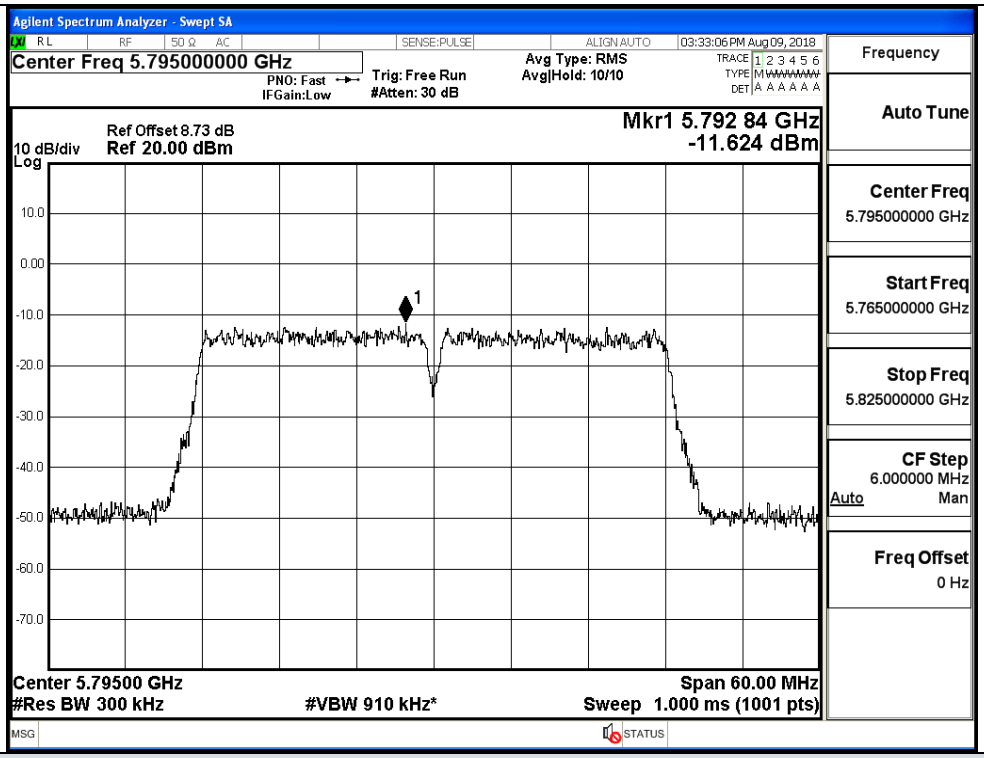


IEEE 802.11n HT20 / Channel 165 / 5825 MHz

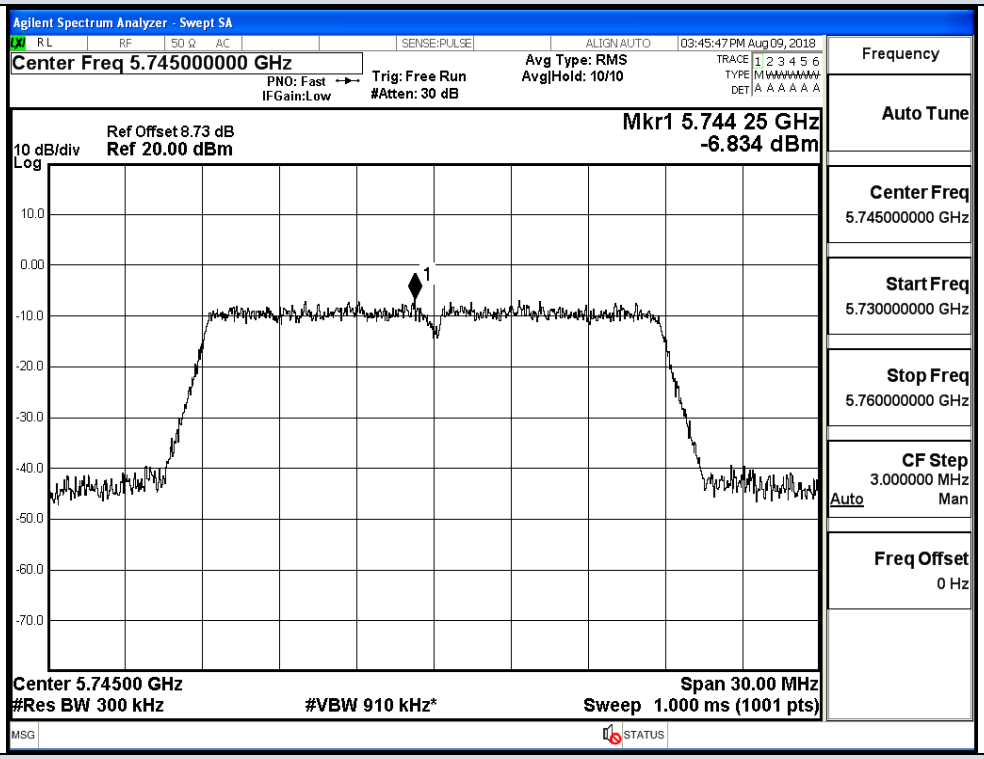
Power Spectral Density



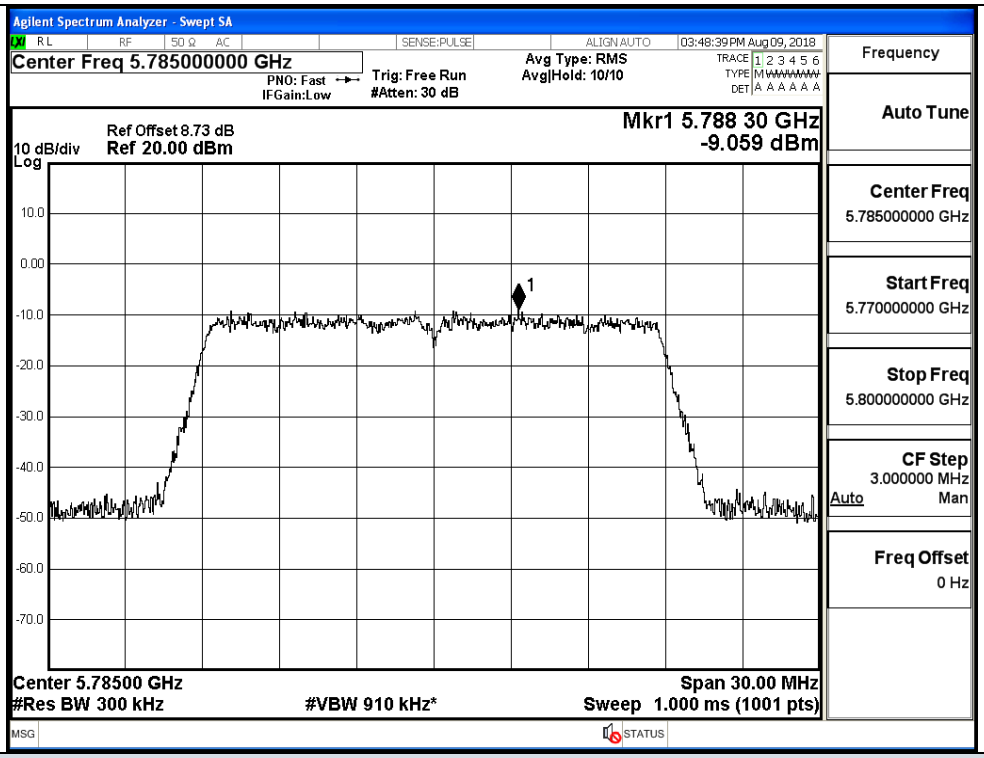
IEEE 802.11n HT40 / Channel 151 / 5755 MHz



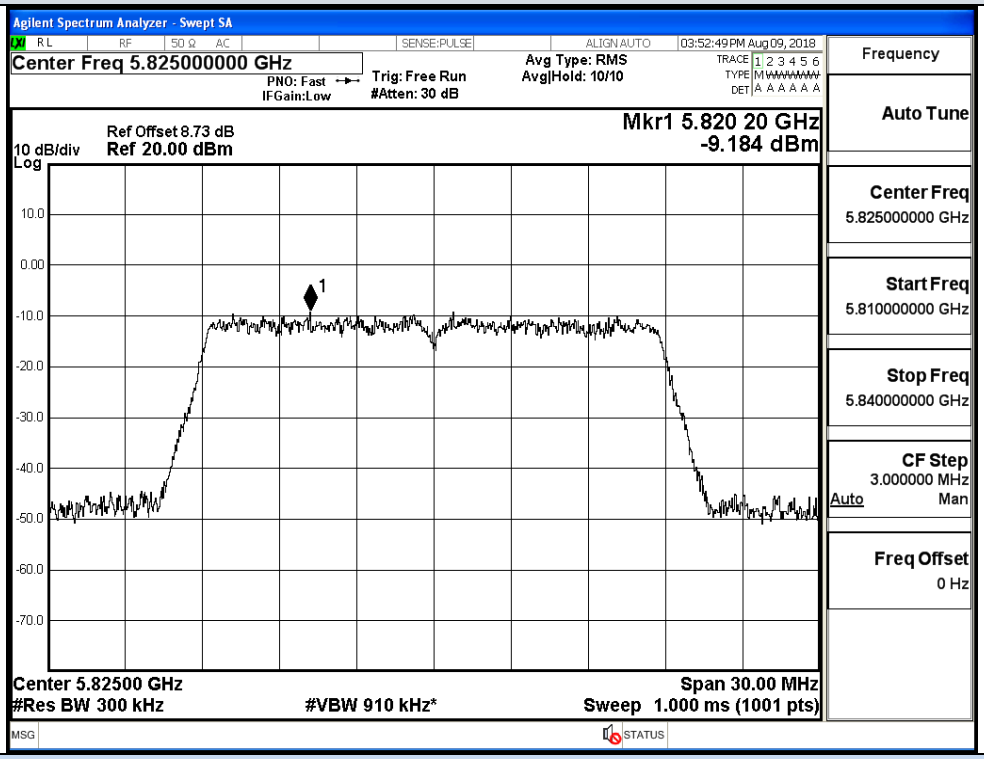
IEEE 802.11n HT40 / Channel 159 / 5795 MHz



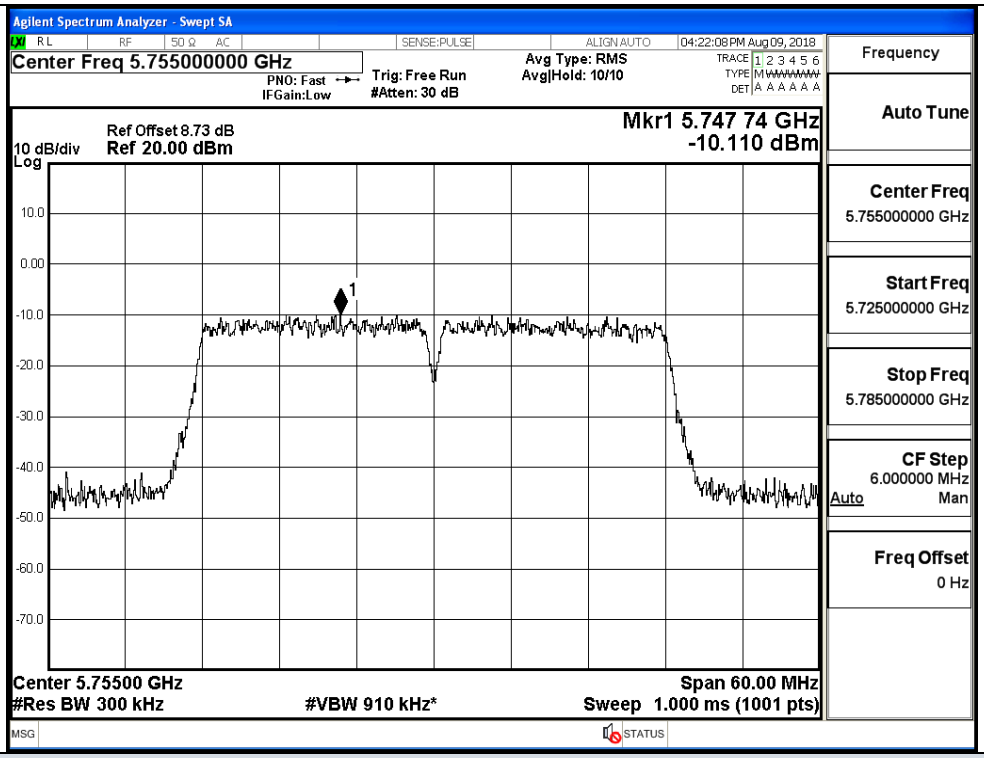
IEEE 802.11ac VHT20 / Channel 149 / 5745 MHz



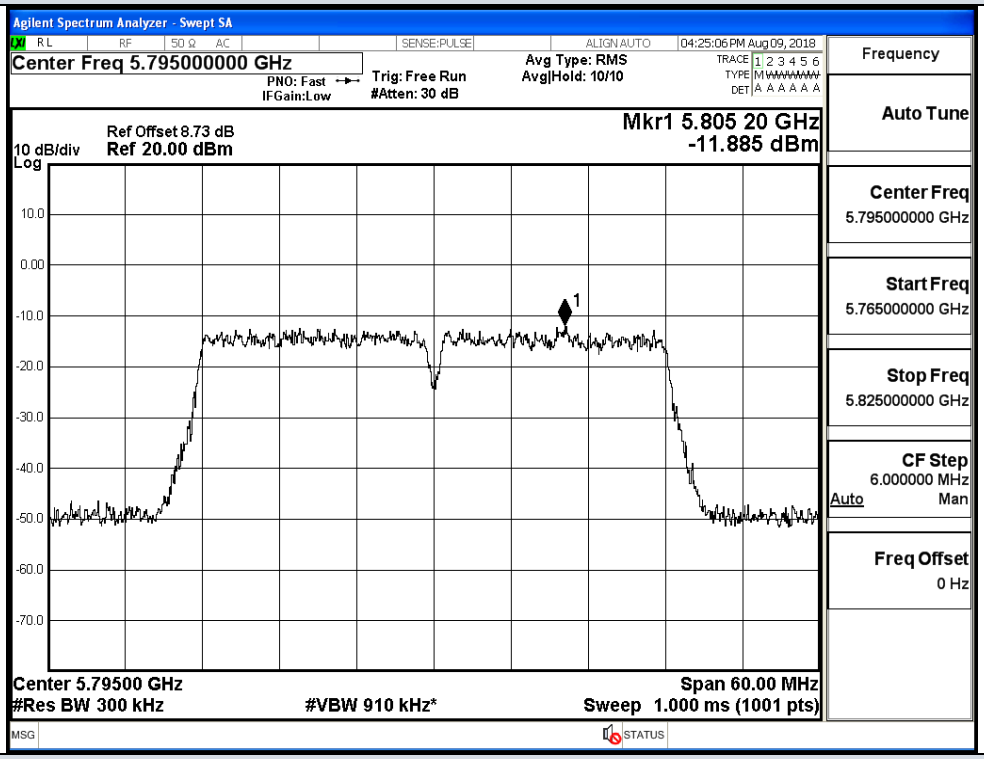
IEEE 802.11ac VHT20 / Channel 157 / 5785 MHz



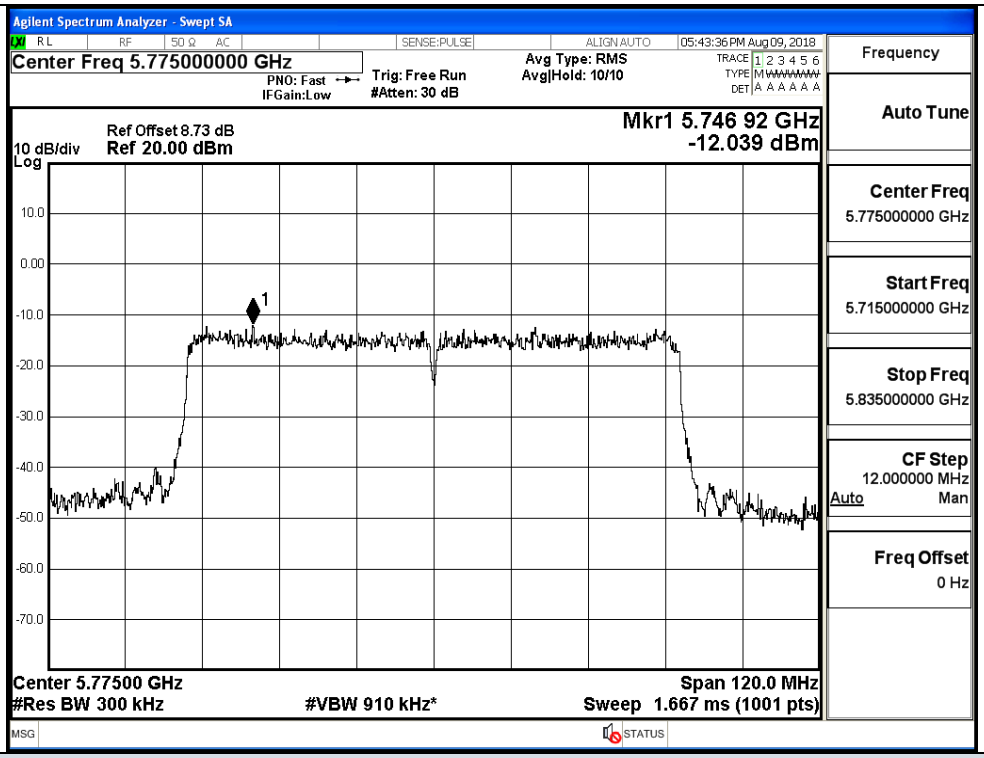
IEEE 802.11ac VHT20 / Channel 165 / 5825 MHz



IEEE 802.11ac VHT40 / Channel 151 / 5755 MHz



IEEE 802.11ac VHT40 / Channel 159 / 5795 MHz

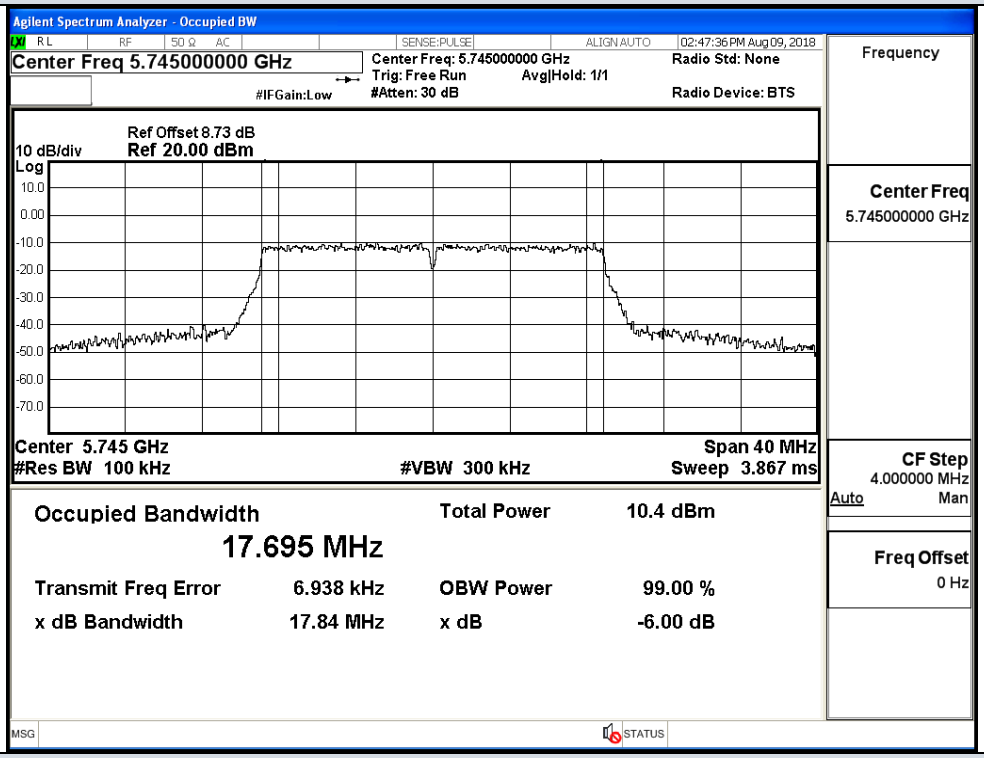


IEEE 802.11ac VHT80 / Channel 155/ 5775 MHz

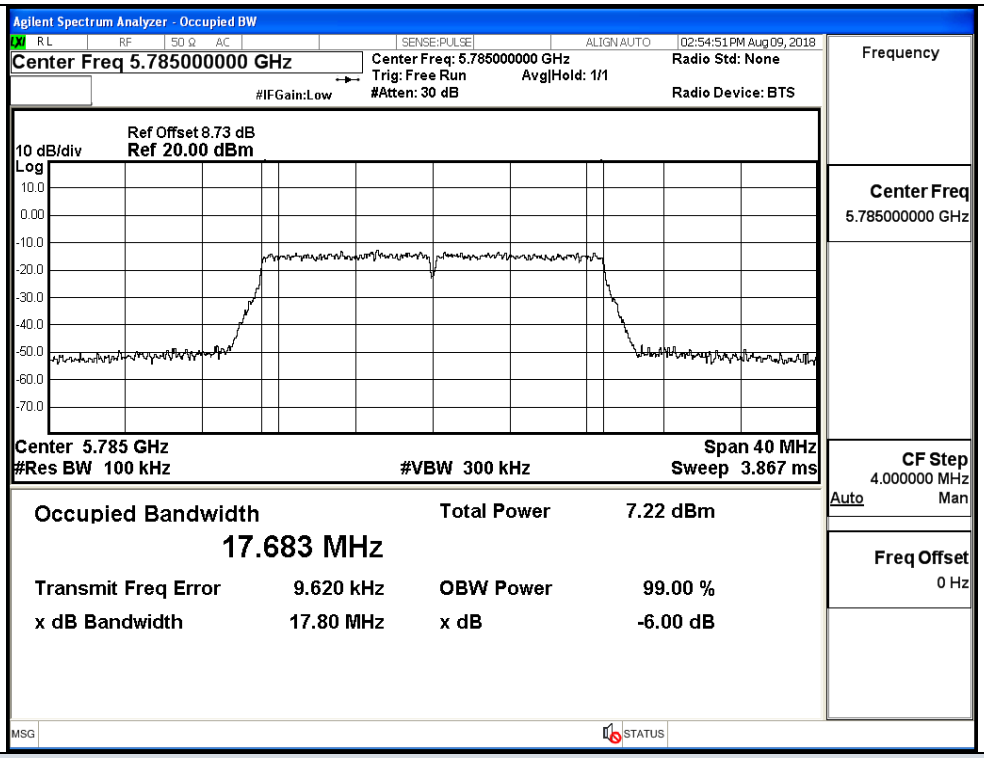
D.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
11A	149	5745	17.84	>=0.5
	157	5785	17.80	
	165	5825	17.85	
11N20 SISO	149	5745	17.85	>=0.5
	157	5785	17.80	
	165	5825	17.83	
11N40 SISO	151	5755	36.52	>=0.5
	159	5795	36.51	
11AC20SISO	149	5745	17.83	>=0.5
	157	5785	17.79	
	165	5825	17.81	
11AC40SISO	151	5755	36.52	>=0.5
	159	5795	36.51	
11AC80SISO	155	5775	76.53	>=0.5

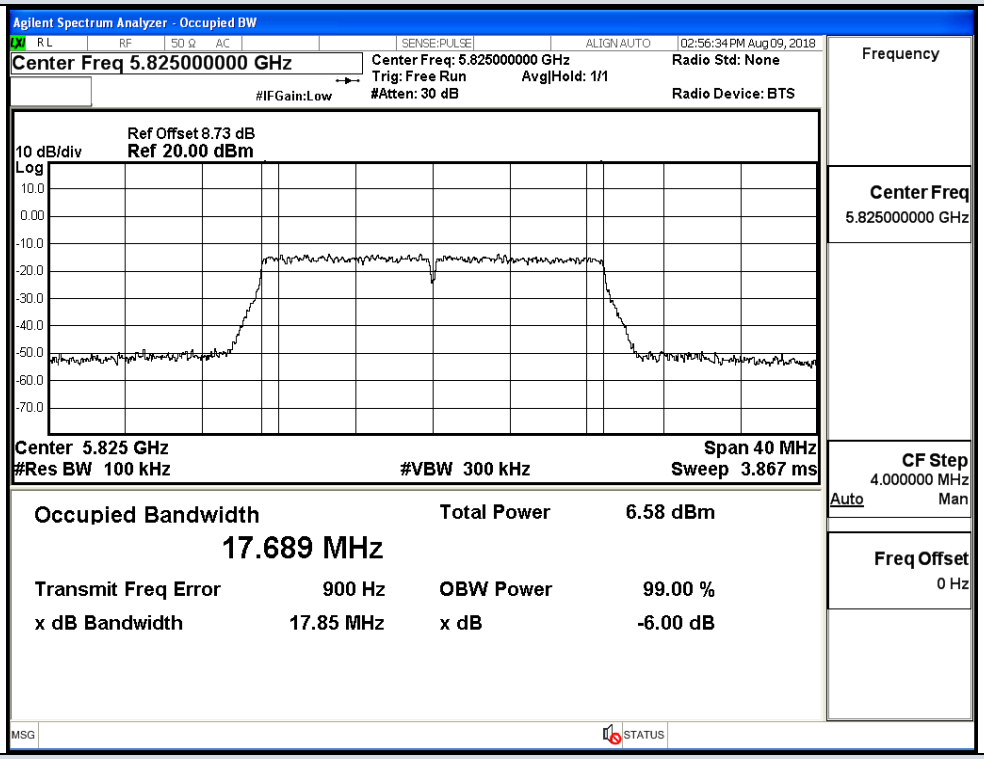
6dB Bandwidth



IEEE 802.11a / Channel 149 / 5745 MHz

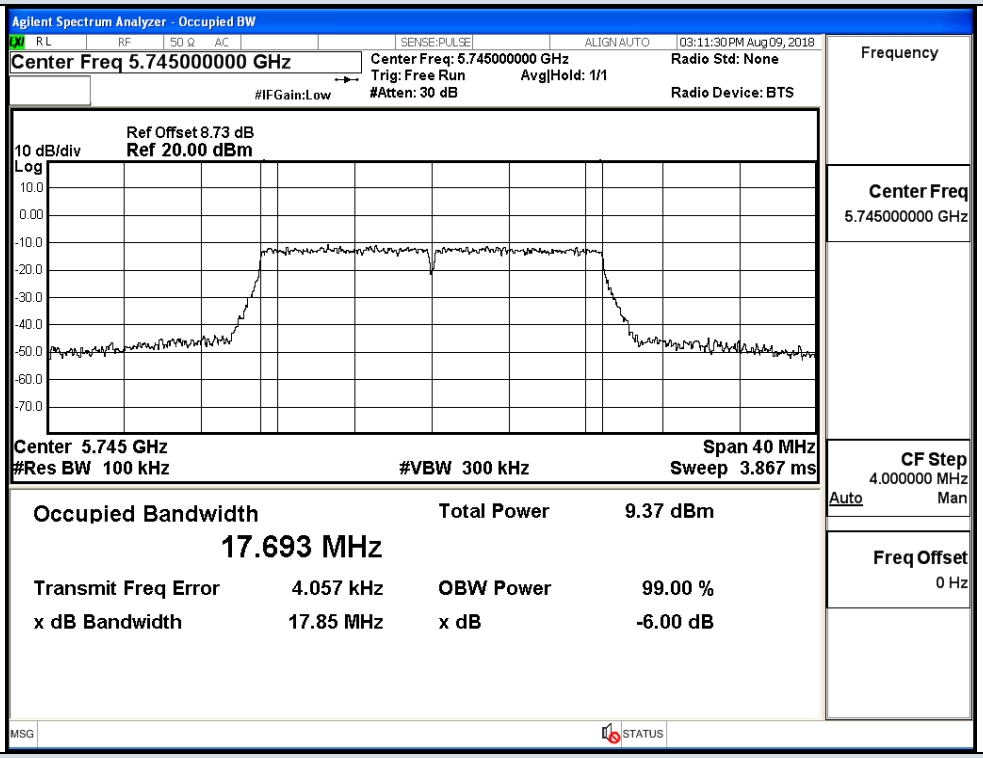


IEEE 802.11a / Channel 157 / 5785 MHz

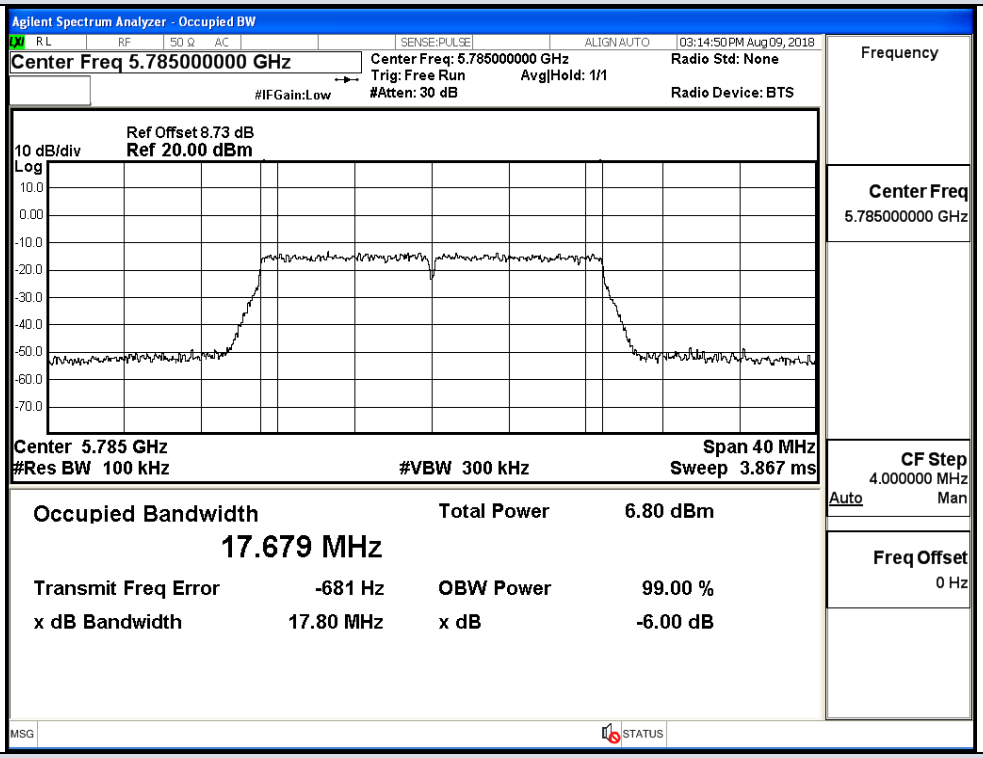


IEEE 802.11a / Channel 165 / 5825 MHz

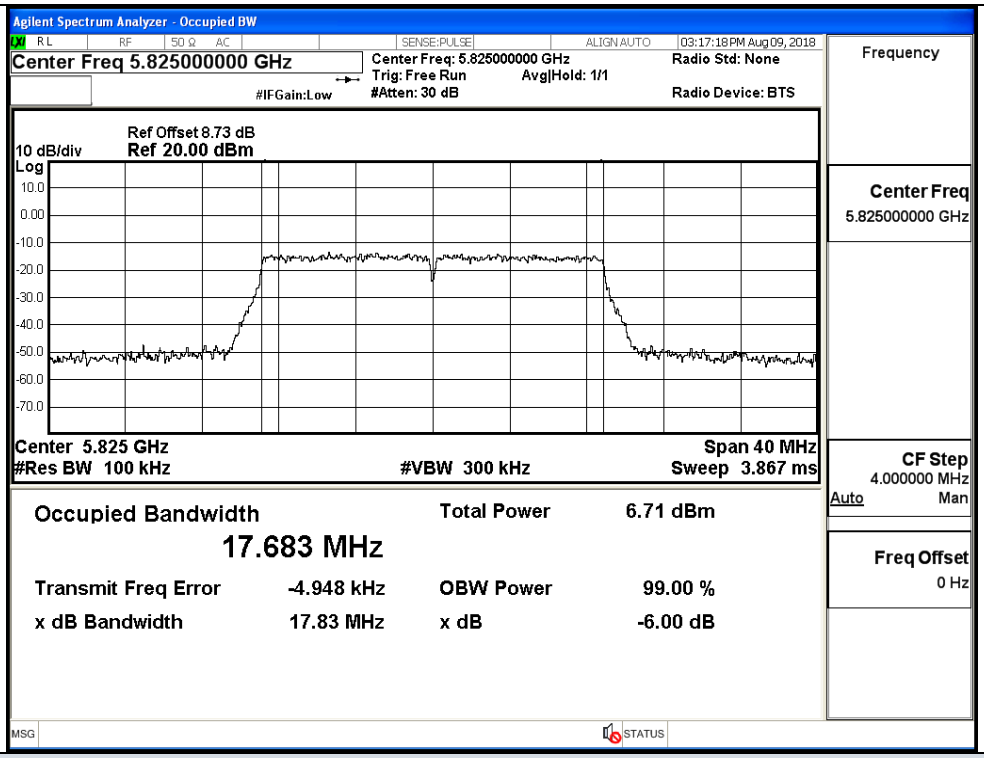
6dB Bandwidth



IEEE 802.11n HT20 / Channel 149 / 5745 MHz

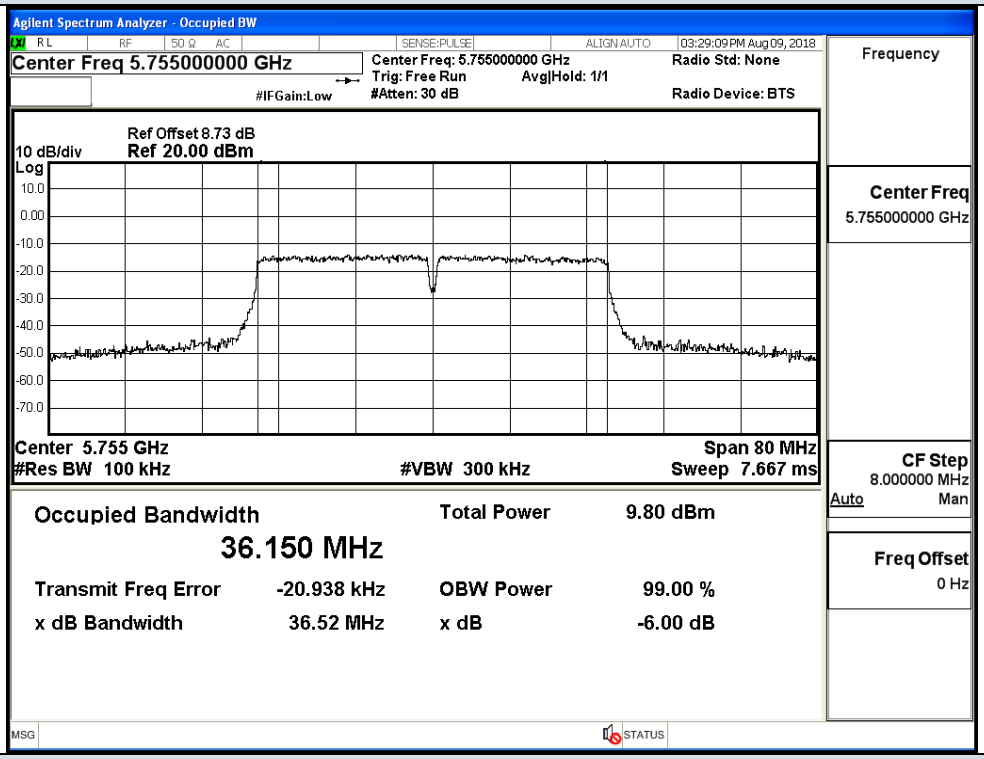


IEEE 802.11n HT20 / Channel 157 / 5785 MHz

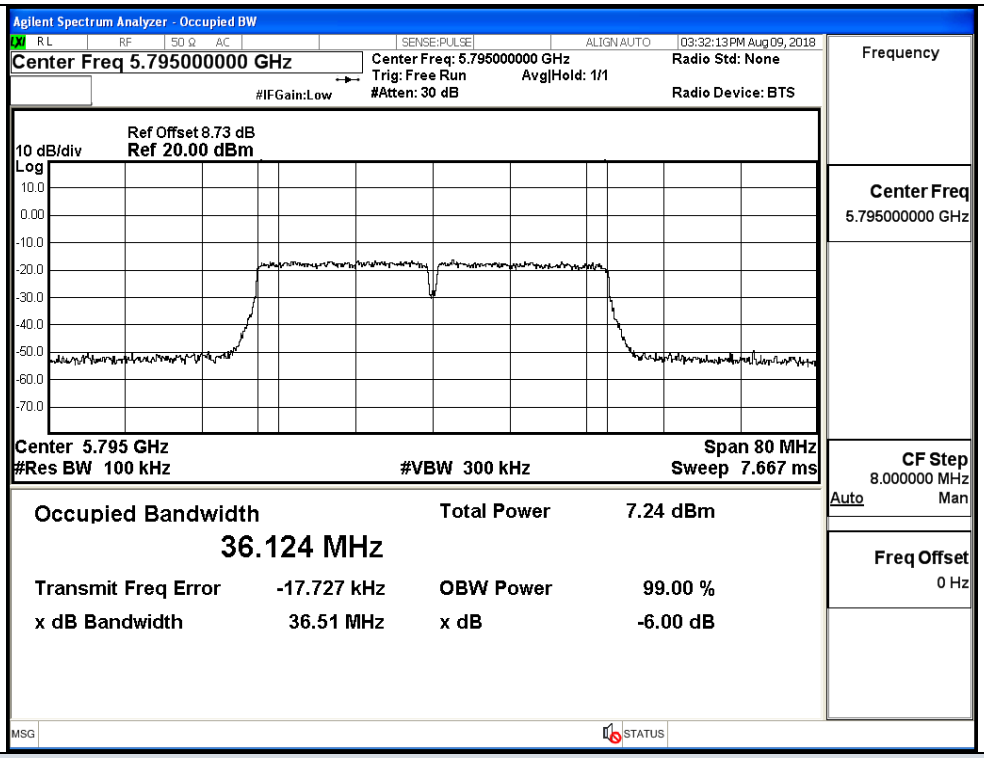


IEEE 802.11n HT20 / Channel 165 / 5825 MHz

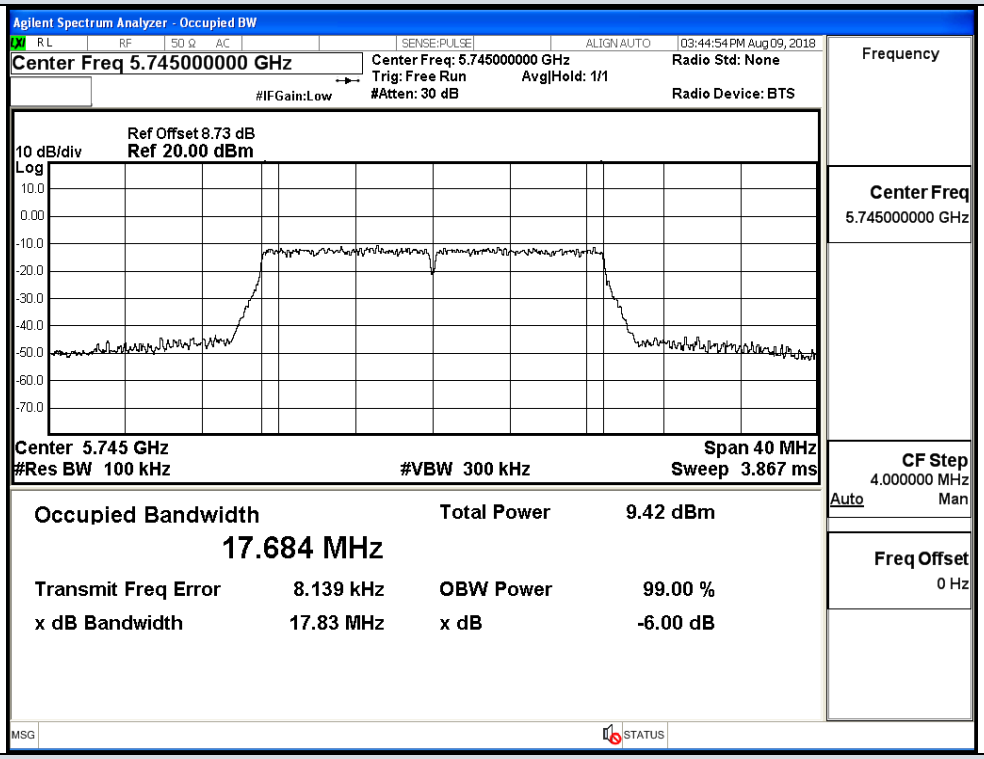
6dB Bandwidth



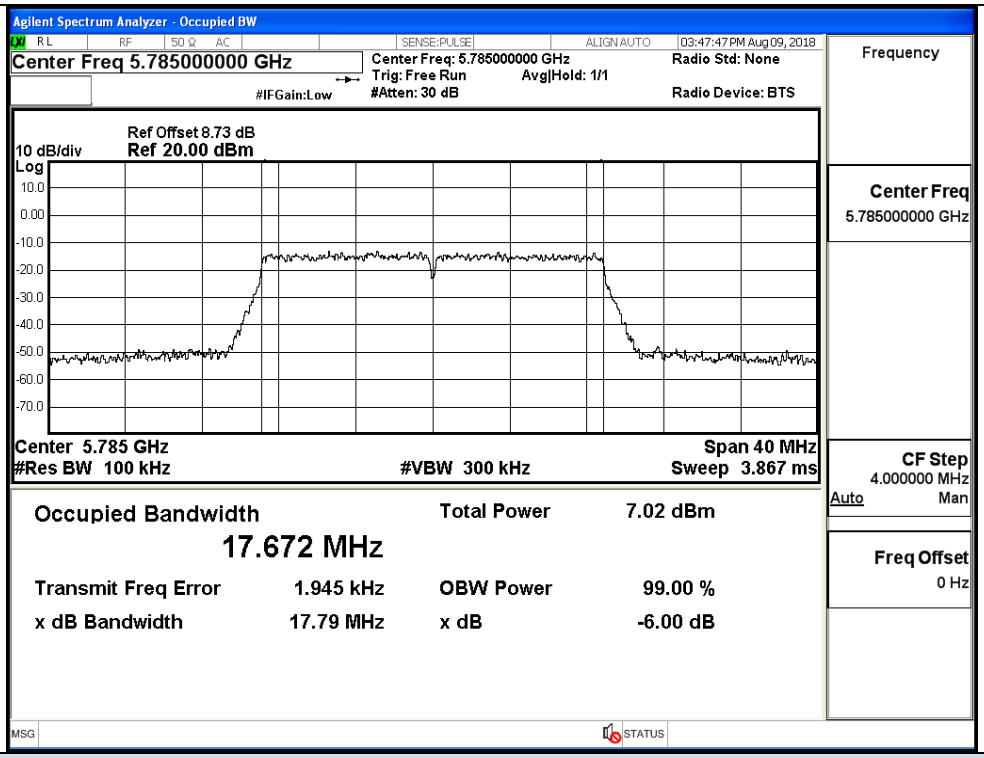
IEEE 802.11n HT40 / Channel 151 / 5755 MHz



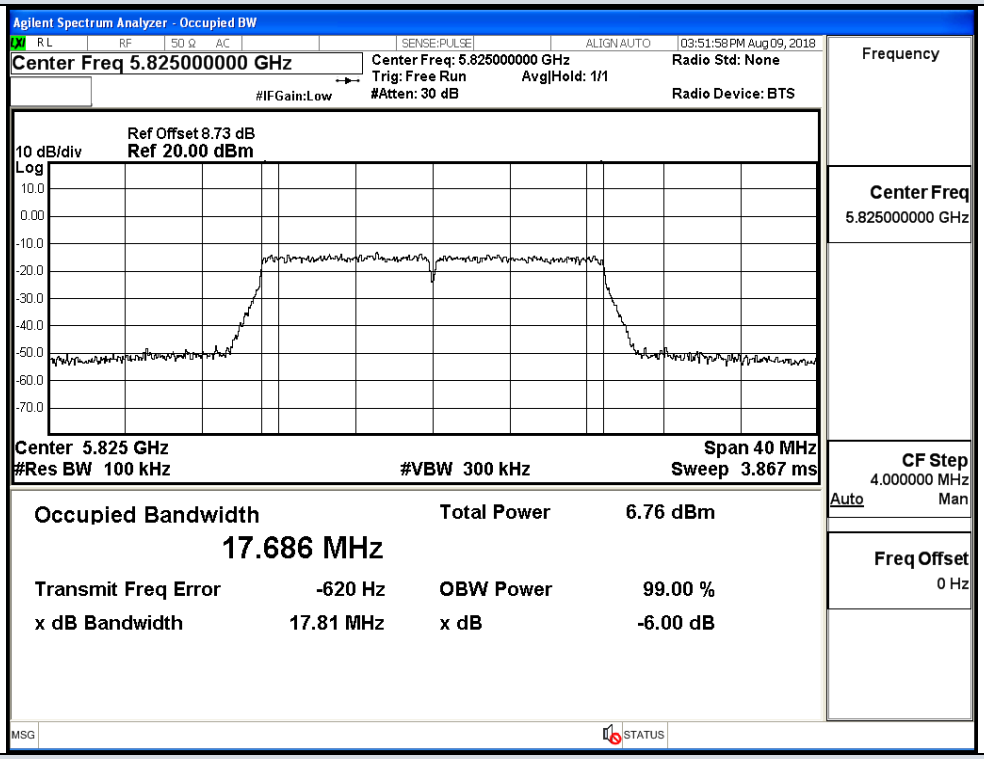
IEEE 802.11n HT40 / Channel 159 / 5795 MHz



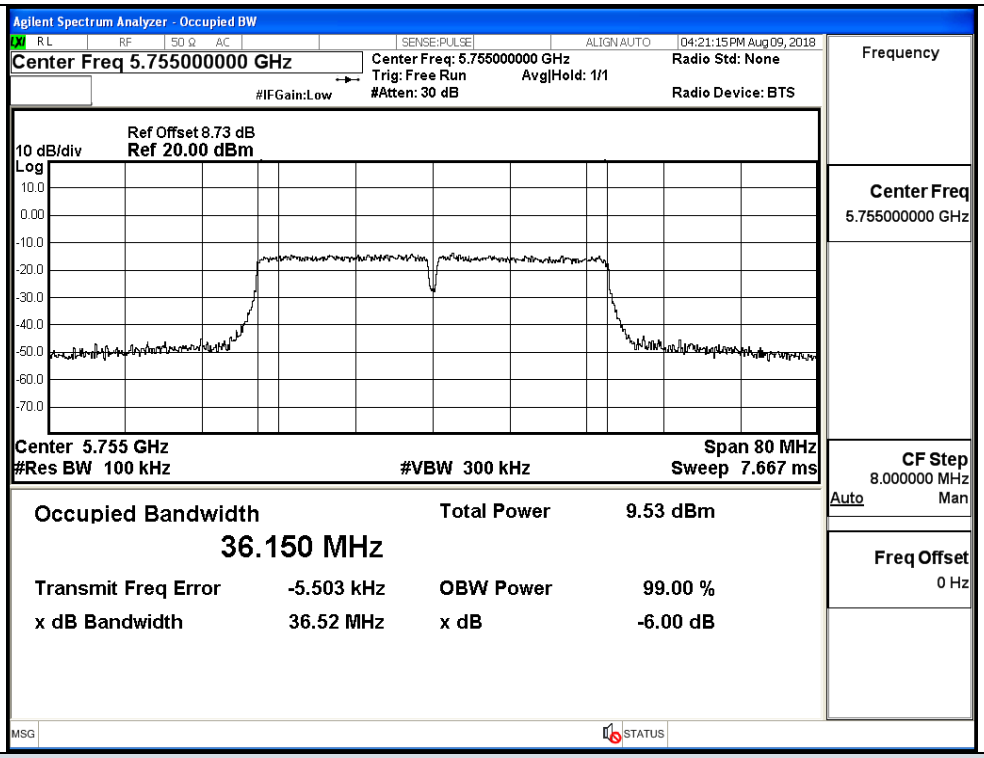
IEEE 802.11ac VHT20 / Channel 149 / 5745 MHz



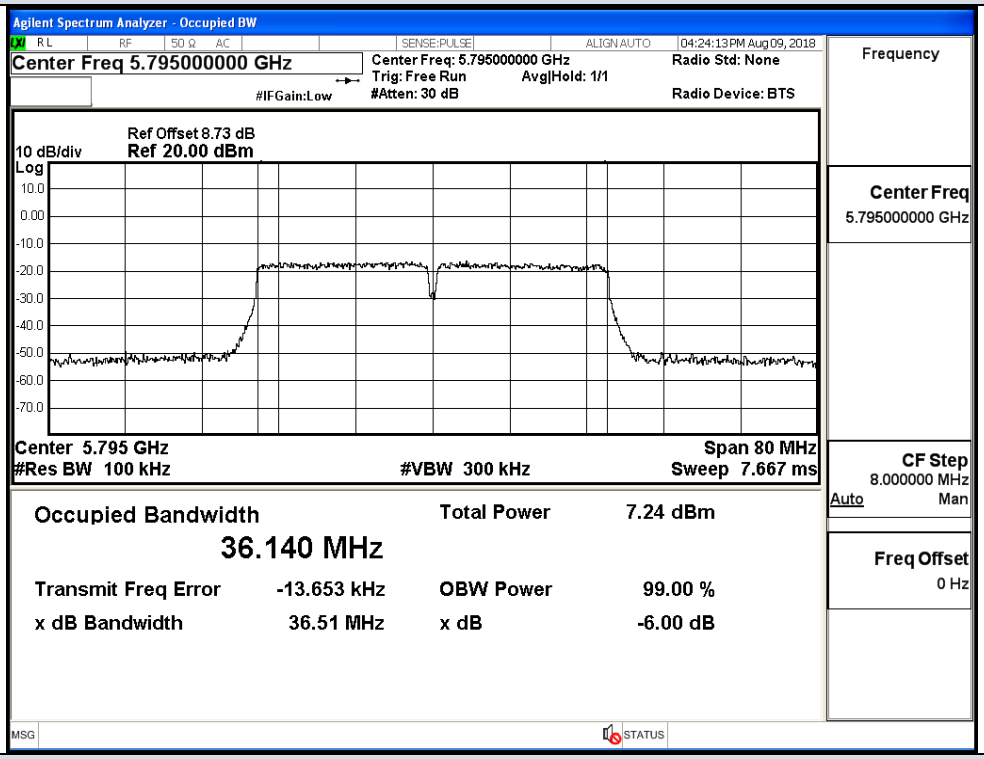
IEEE 802.11ac VHT20 / Channel 157/ 5785 MHz



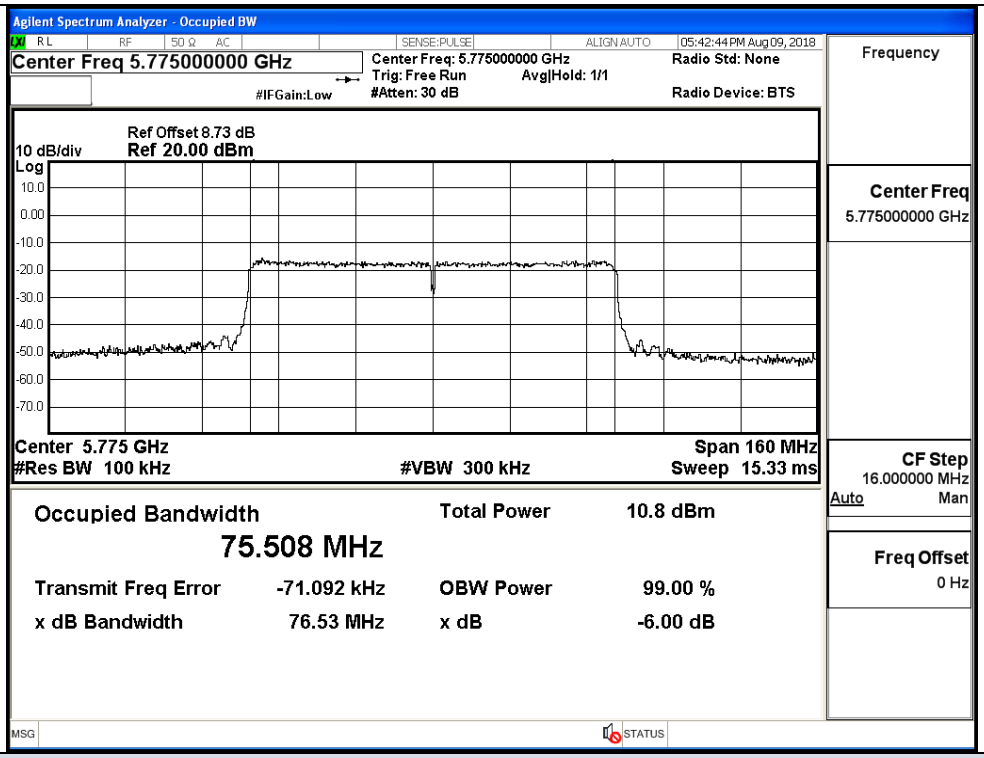
IEEE 802.11ac VHT20 / Channel 165 / 5825 MHz



IEEE 802.11ac VHT40 / Channel 151 / 5755 MHz



IEEE 802.11ac VHT40 / Channel 159 / 5795 MHz



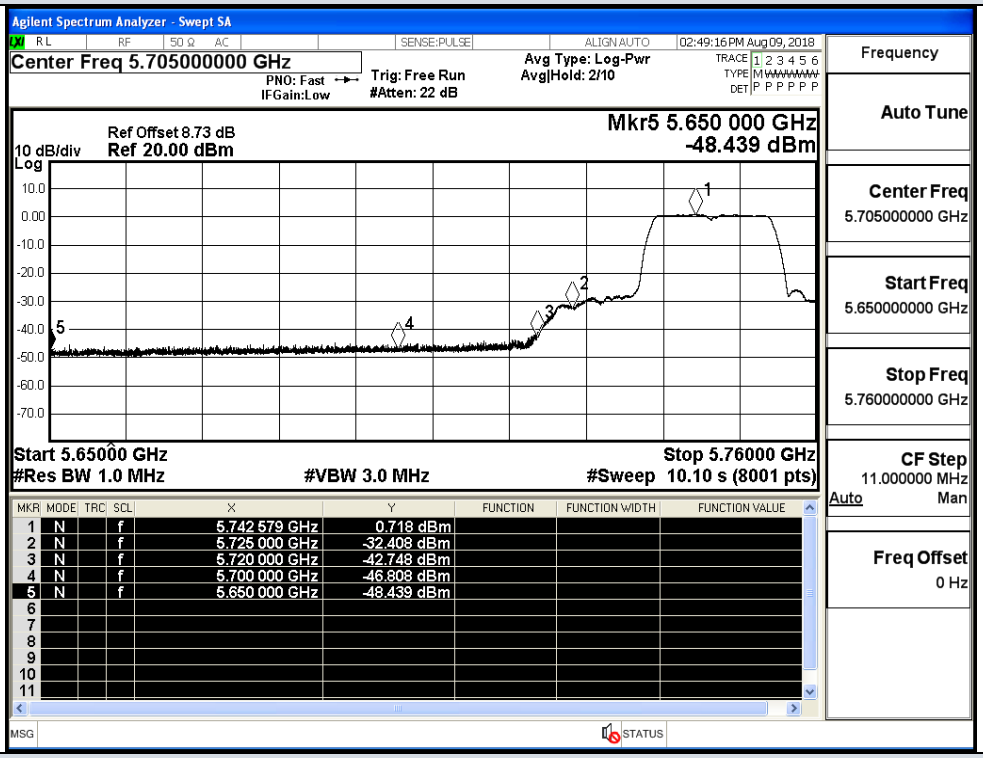
IEEE 802.11ac VHT80 / Channel 155 / 5775 MHz

D.5 Undesirable Emissions Measurement

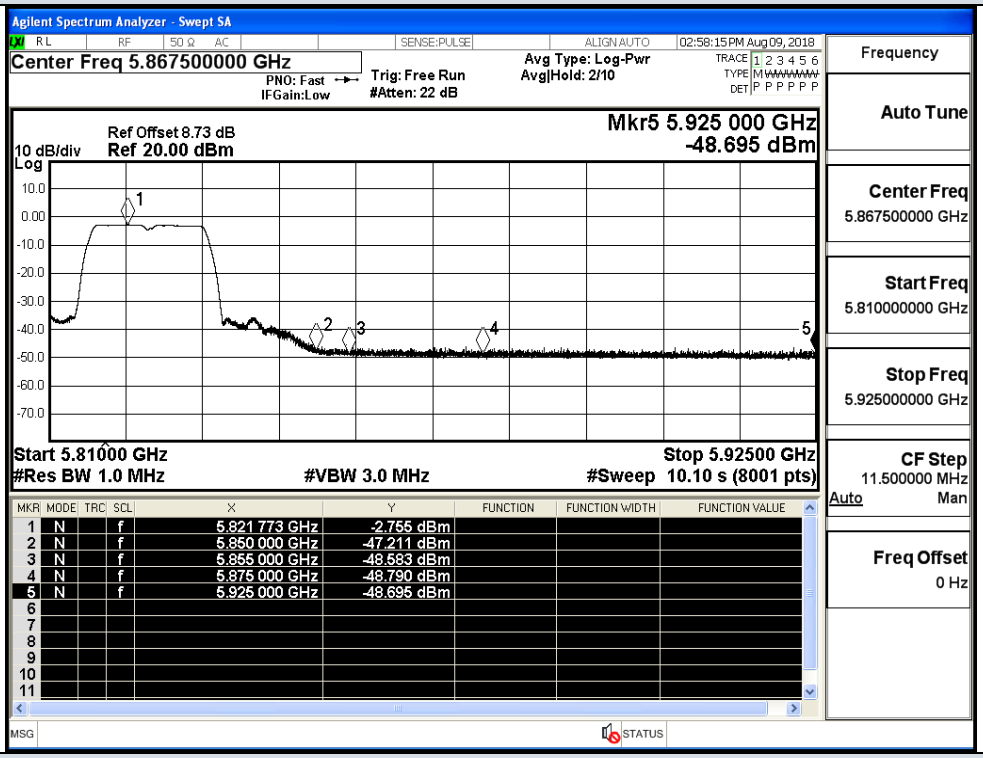
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)
11A	149	5650.0	-48.439	3.000	-45.439	Peak	-27.0
		5700.0	-46.808	3.000	-43.808	Peak	10.0
		5720.0	-42.748	3.000	-39.748	Peak	15.6
		5725.0	-34.408	3.000	-31.408	Peak	27.0
	165	5850.0	-47.211	3.000	-44.211	Peak	27.0
		5855.0	-48.583	3.000	-45.583	Peak	15.6
		5875.0	-48.790	3.000	-45.790	Peak	10.0
		5925.0	-48.695	3.000	-45.695	Peak	-27.0
11N20 SISO	149	5650.0	-49.268	3.000	-46.268	Peak	-27.0
		5700.0	-48.507	3.000	-45.507	Peak	10.0
		5720.0	-44.545	3.000	-41.545	Peak	15.6
		5725.0	-36.685	3.000	-33.685	Peak	27.0
	165	5850.0	-47.763	3.000	-44.763	Peak	27.0
		5855.0	-47.828	3.000	-44.828	Peak	15.6
		5875.0	-49.627	3.000	-46.627	Peak	10.0
		5925.0	-49.507	3.000	-46.507	Peak	-27.0
11N40 SISO	151	5650.0	-47.751	3.000	-44.751	Peak	-27.0
		5700.0	-48.477	3.000	-45.477	Peak	10.0
		5720.0	-38.718	3.000	-35.718	Peak	15.6
		5725.0	-35.776	3.000	-32.776	Peak	27.0
	159	5850.0	-49.257	3.000	-46.257	Peak	27.0
		5855.0	-48.311	3.000	-45.311	Peak	15.6
		5875.0	-47.911	3.000	-44.911	Peak	10.0
		5925.0	-49.200	3.000	-46.200	Peak	-27.0
11AC20 SISO	149	5650.0	-49.891	3.000	-46.891	Peak	-27.0
		5700.0	-47.731	3.000	-44.731	Peak	10.0
		5720.0	-43.786	3.000	-40.786	Peak	15.6
		5725.0	-34.708	3.000	-31.708	Peak	27.0
	165	5850.0	-47.000	3.000	-44.000	Peak	27.0
		5855.0	-48.254	3.000	-45.254	Peak	15.6
		5875.0	-49.042	3.000	-46.042	Peak	10.0
		5925.0	-49.008	3.000	-46.008	Peak	-27.0
11AC40 SISO	151	5650.0	-49.379	3.000	-46.379	Peak	-27.0
		5700.0	-47.066	3.000	-44.066	Peak	10.0
		5720.0	-37.127	3.000	-34.127	Peak	15.6
		5725.0	-35.820	3.000	-32.820	Peak	27.0
	159	5850.0	-49.210	3.000	-46.210	Peak	27.0
		5855.0	-48.723	3.000	-45.723	Peak	15.6
		5875.0	-49.530	3.000	-46.530	Peak	10.0
		5925.0	-49.887	3.000	-46.887	Peak	-27.0
11AC80 SISO	155	5725.0	-51.521	3.000	-48.521	Peak	-27.0
		5720.0	-44.399	3.000	-41.399	Peak	10.0
		5700.0	-41.285	3.000	-38.285	Peak	15.6
		5650.0	-35.831	3.000	-32.831	Peak	27.0
		5850.0	-45.659	3.000	-42.659	Peak	27.0

		5855.0	-46.204	3.000	-43.204	Peak	15.6
		5875.0	-47.607	3.000	-44.607	Peak	10.0
		5925.0	-49.867	3.000	-46.867	Peak	-27.0

Undesirable Emissions Measurement

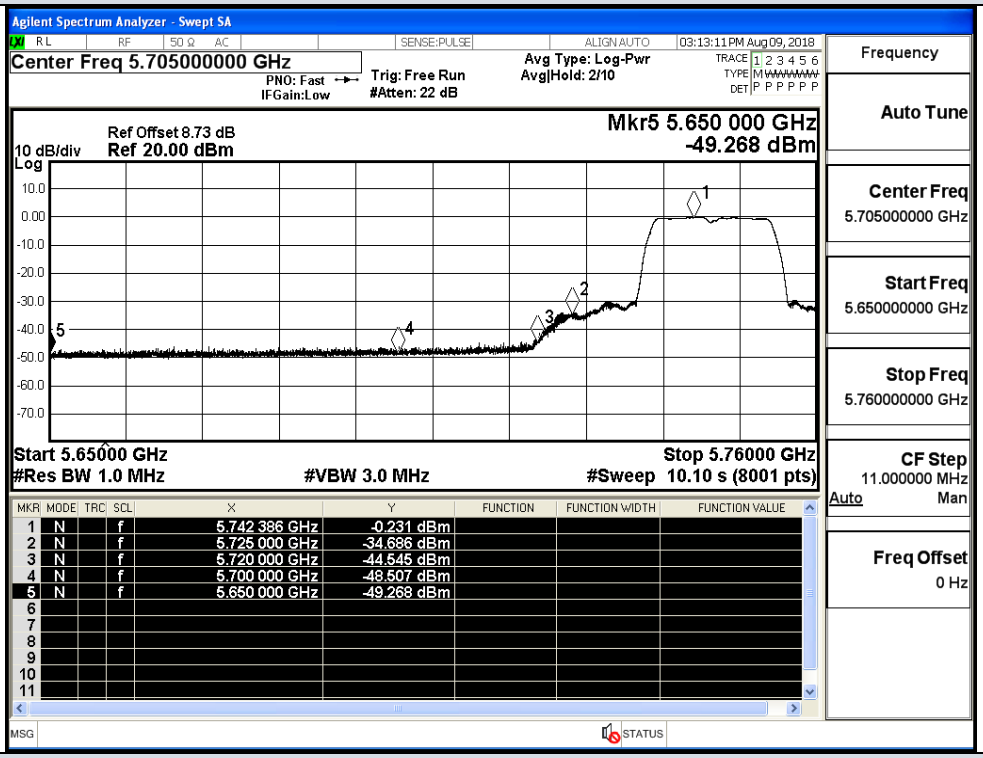


IEEE 802.11a / Channel 149 / 5745 MHz / Peak

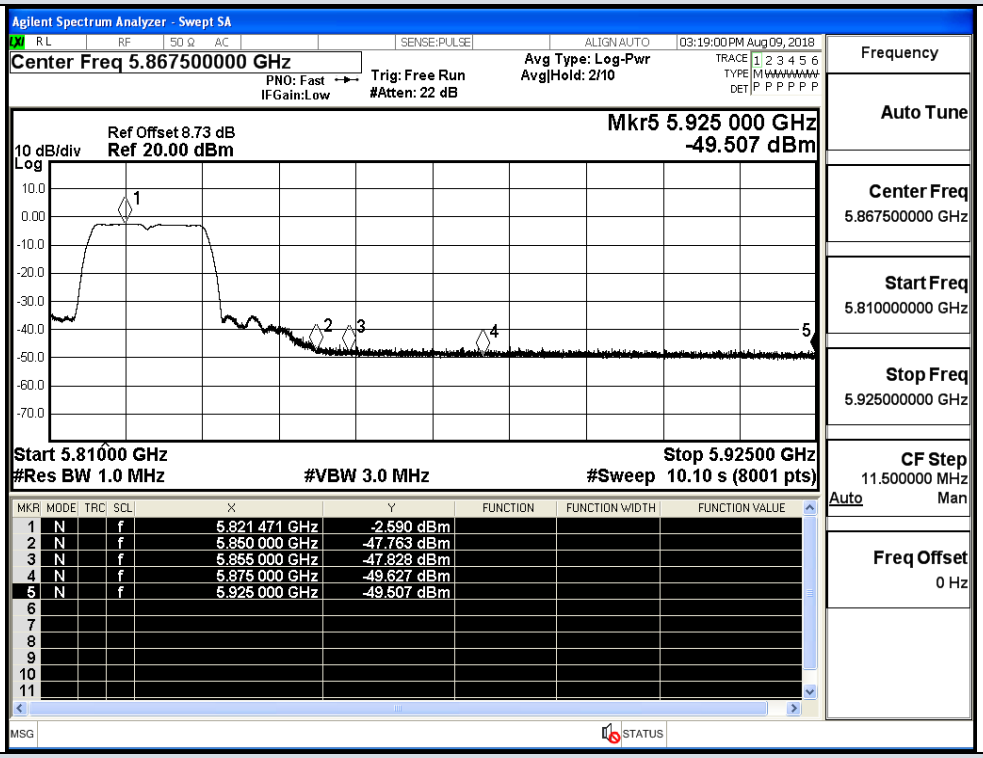


IEEE 802.11a / Channel 165 / 5825 MHz / Peak

Undesirable Emissions Measurement

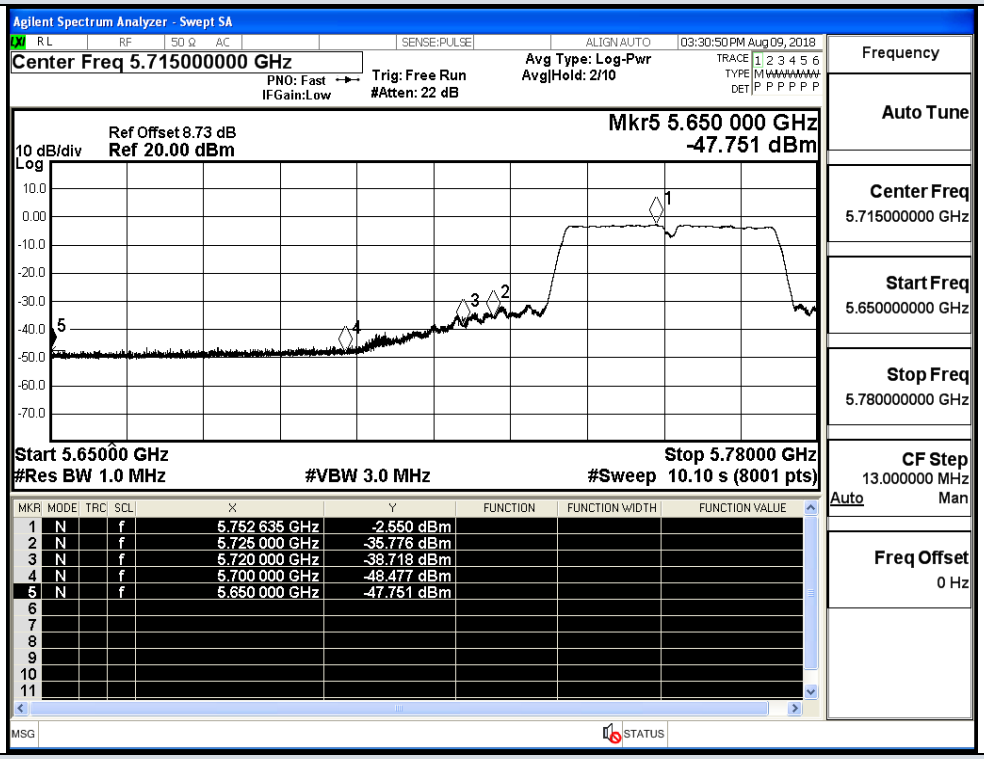


IEEE 802.11n HT20 / Channel 149 / 5745 MHz / Peak

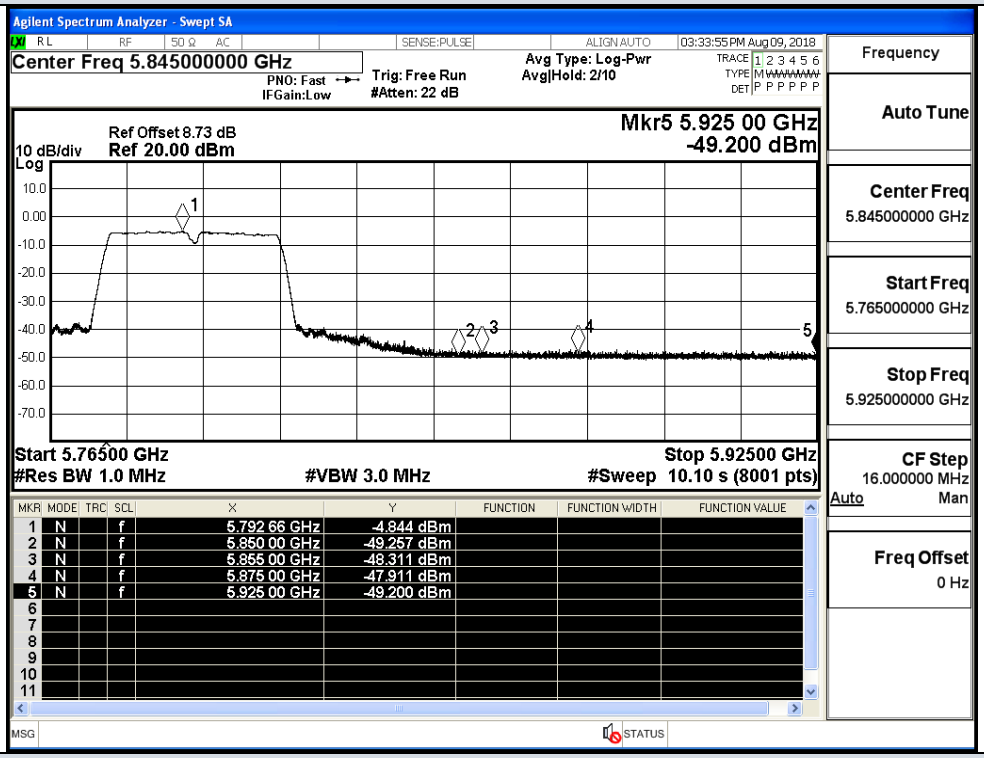


IEEE 802.11n HT20 / Channel 165 / 5825 MHz / Peak

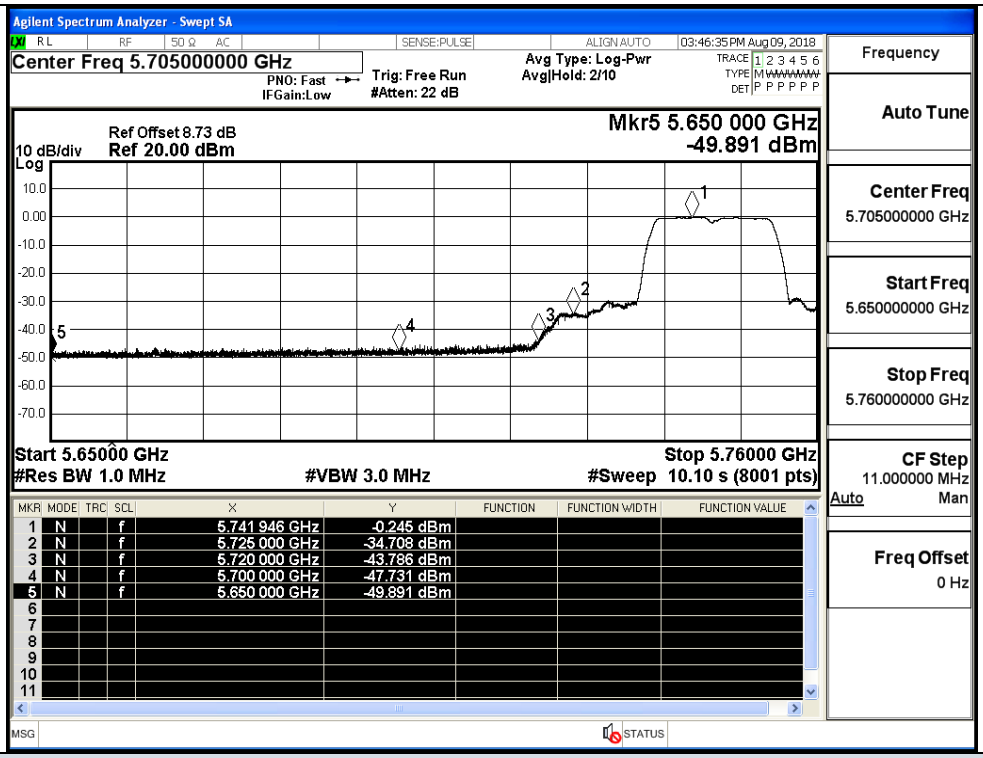
Undesirable Emissions Measurement



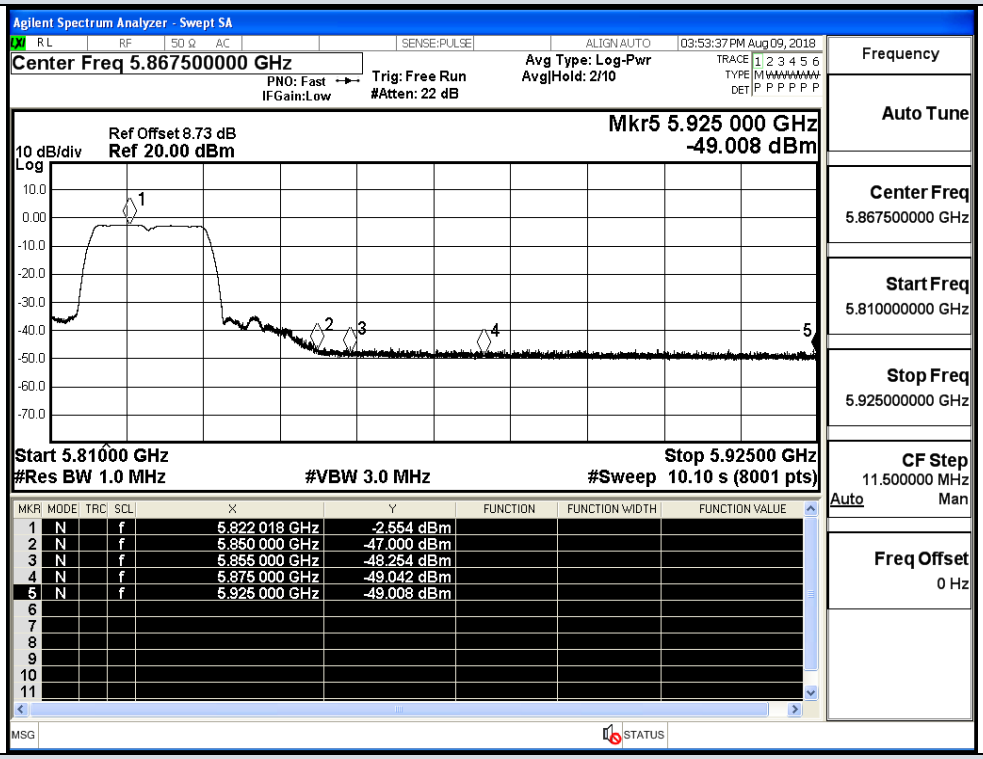
IEEE 802.11n HT40 / Channel 151 / 5755 MHz / Peak



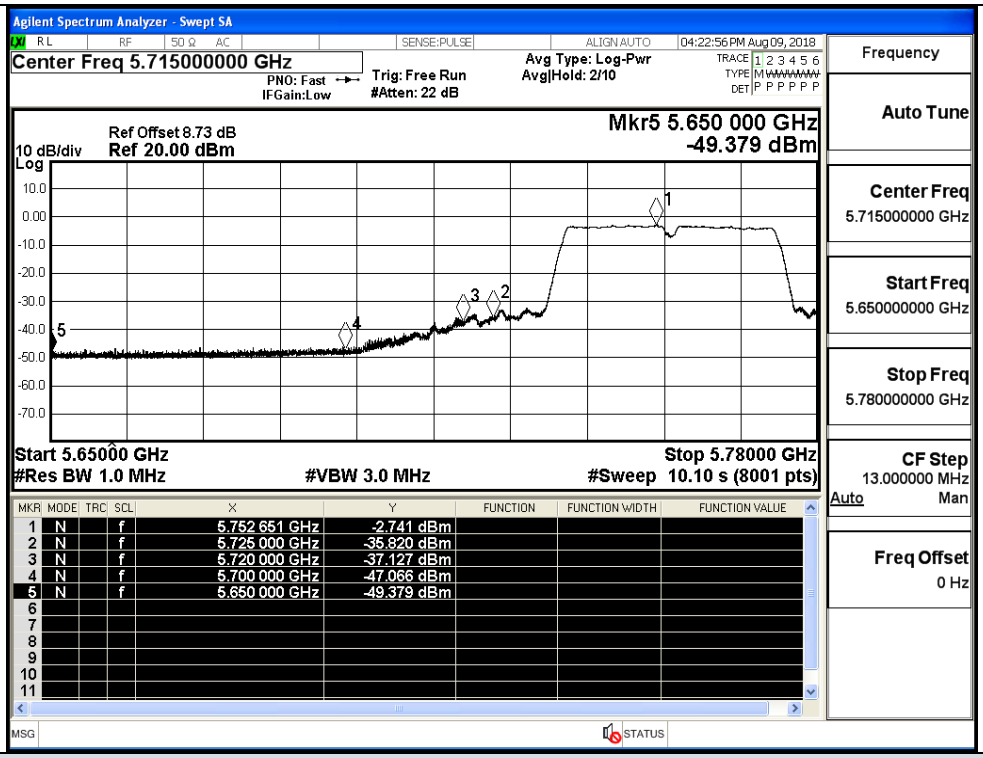
IEEE 802.11n HT40 / Channel 159 / 5795 MHz / Peak



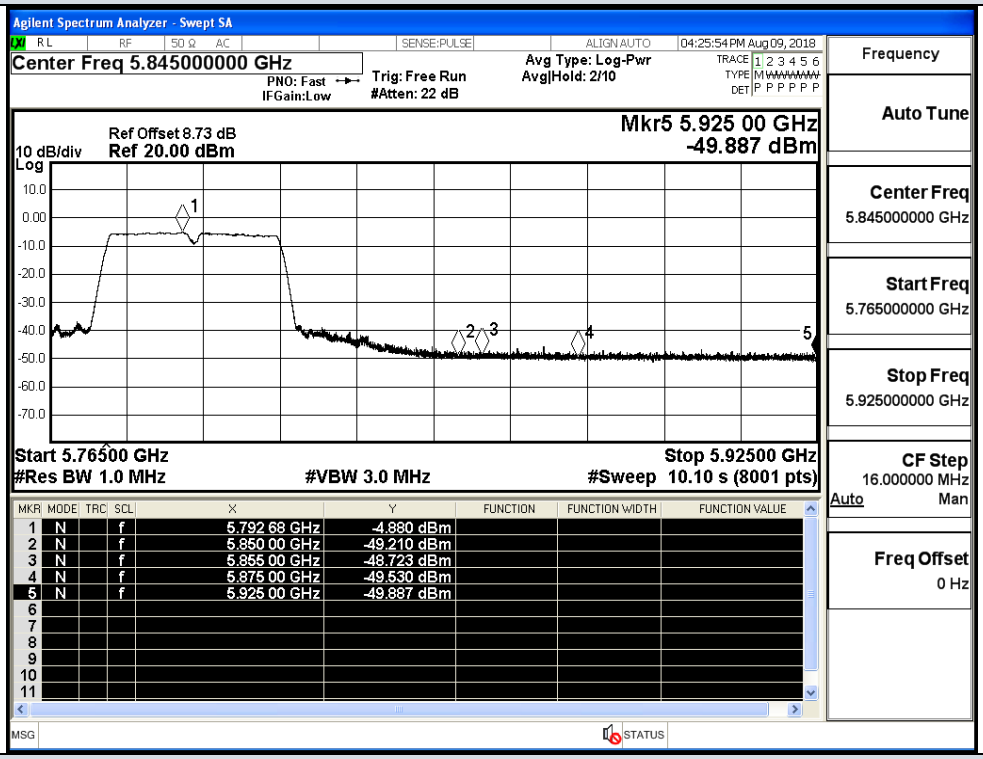
IEEE 802.11ac VHT20 / Channel 149 / 5745 MHz / Peak



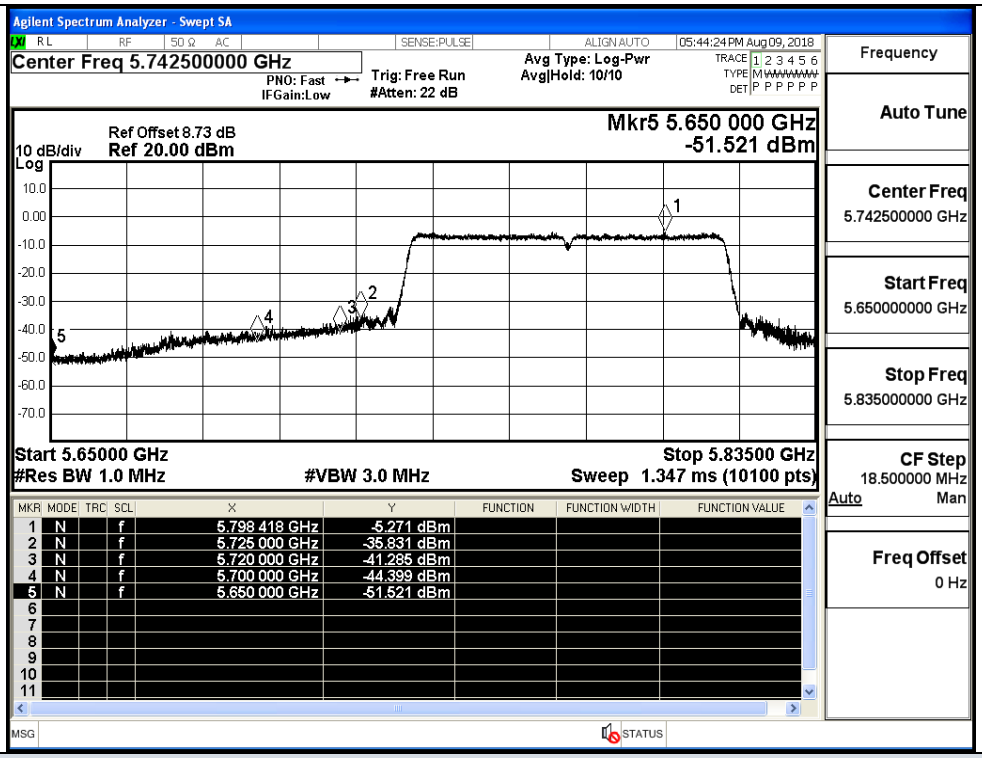
IEEE 802.11ac VHT20 / Channel 165 / 5825 MHz / Peak



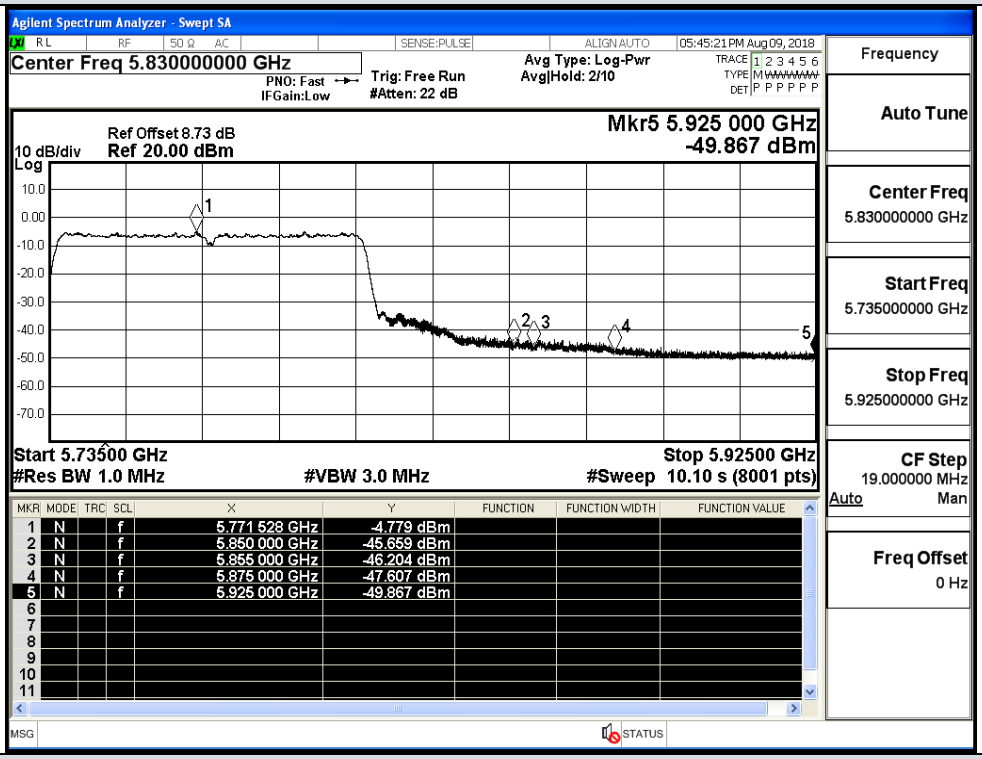
IEEE 802.11ac VHT40 / Channel 151 / 5755 MHz / Peak



IEEE 802.11ac VHT40 / Channel 159 / 5795 MHz / Peak



IEEE 802.11ac VHT80 / Channel 155 / 5775 MHz / Peak



IEEE 802.11ac VHT80 / Channel 155/ 5775 MHz / Peak