

Appendix D

RF Test Data for 5.8G WLAN (Conducted Measurement)

Product Name: Car Dash Camera

Trade Mark: VIOFO

Test Model: A129

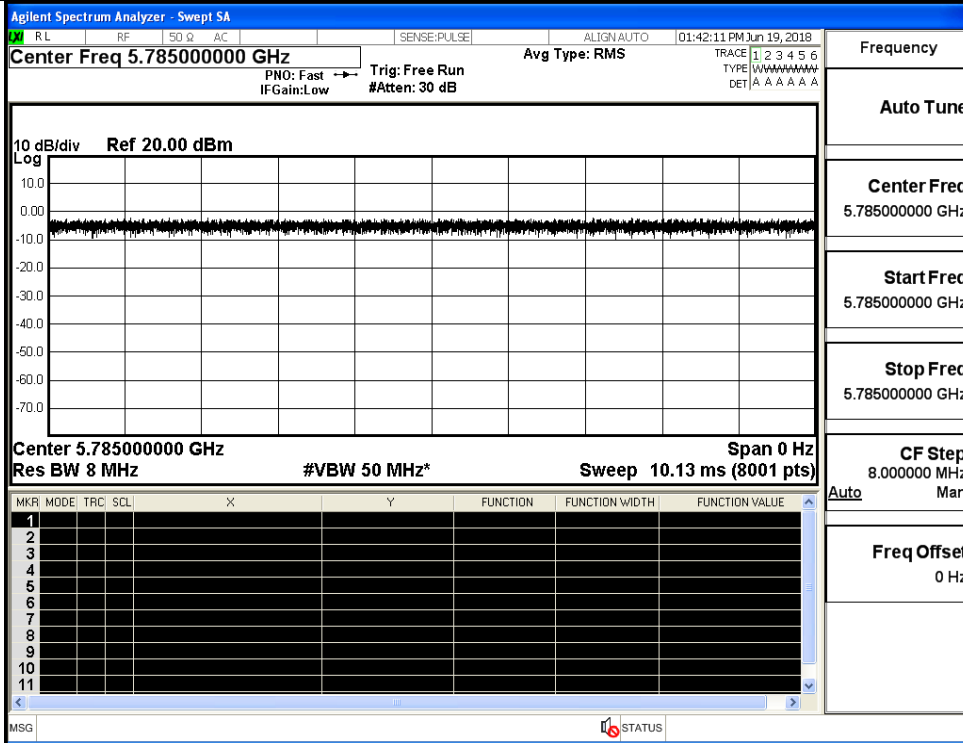
Environmental Conditions

Temperature:	22.5 ° C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Ryan.Hu
Supervised by:	Jayden.Zhuo

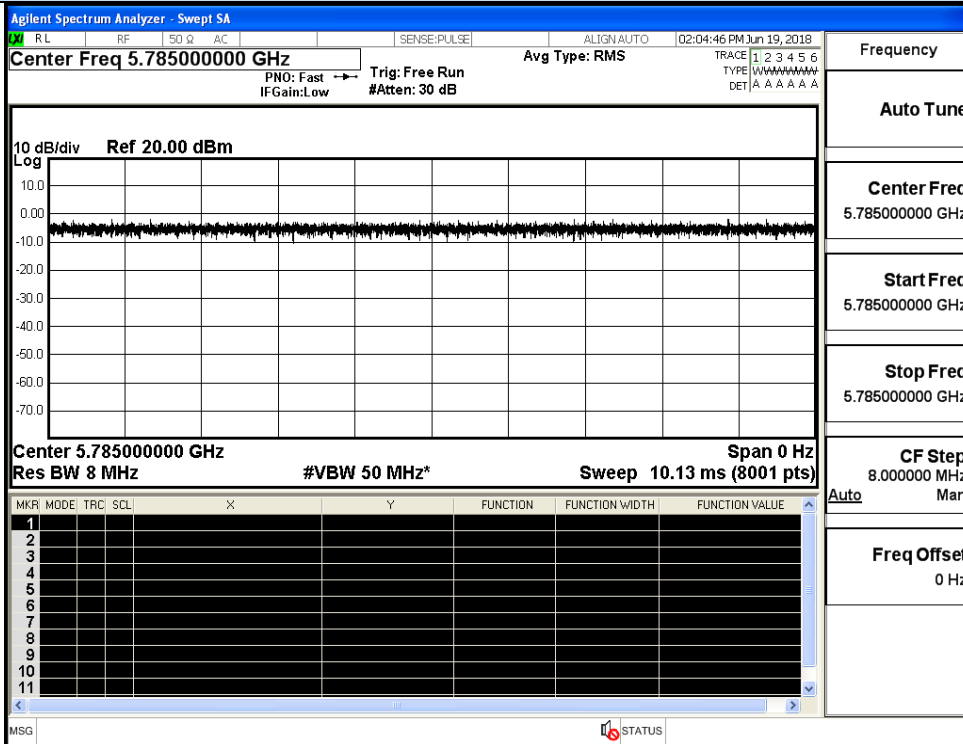
D.1 Duty Cycle

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW (KHz)
IEEE 802.11a	5785	100	0.00	0.01
IEEE 802.11n HT20	5785	100	0.00	0.01
IEEE 802.11n HT40	5755	100	0.00	0.01
IEEE 802.11ac VHT20	5785	100	0.00	0.01
IEEE 802.11ac VHT40	5755	100	0.00	0.01
IEEE 802.11ac VHT80	5775	100	0.00	0.01

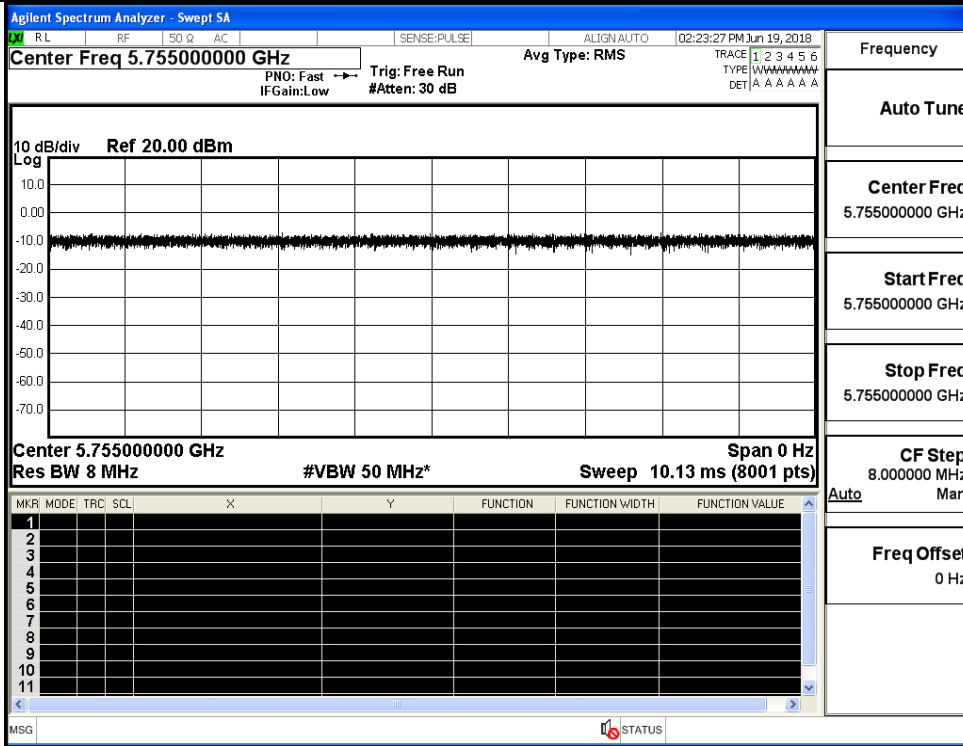
On Time and Duty Cycle



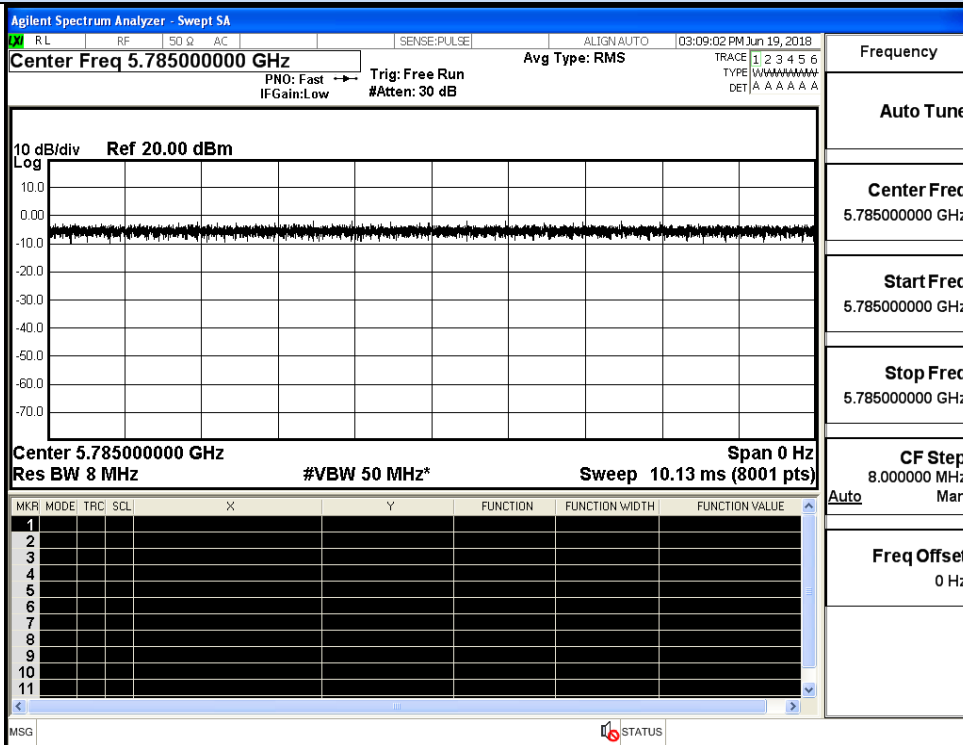
IEEE 802.11a



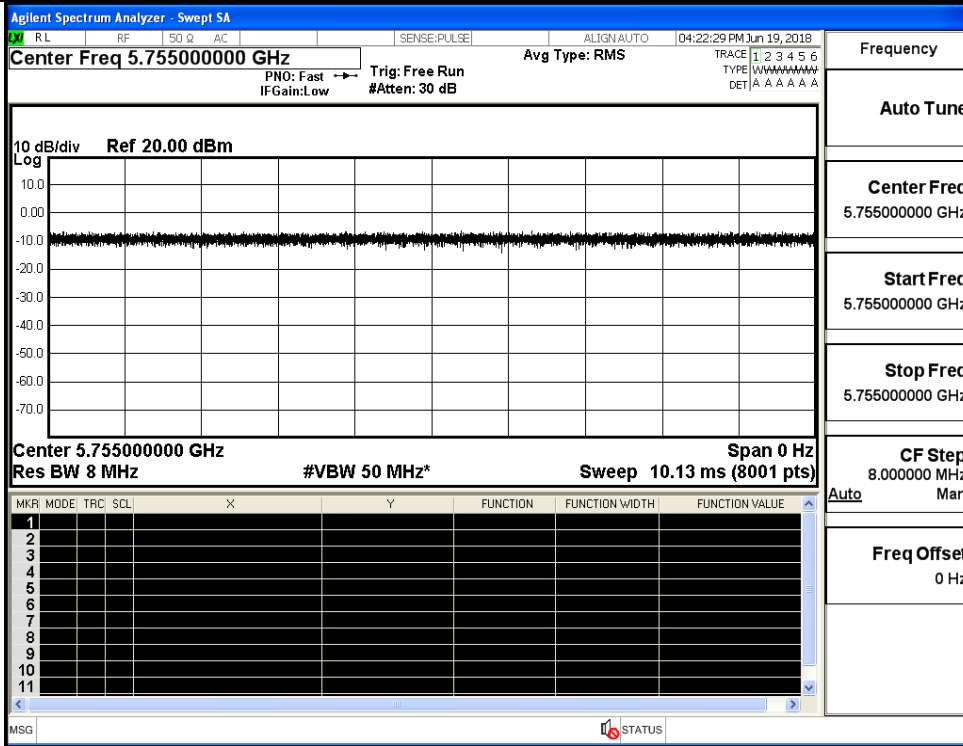
IEEE 802.11n HT20



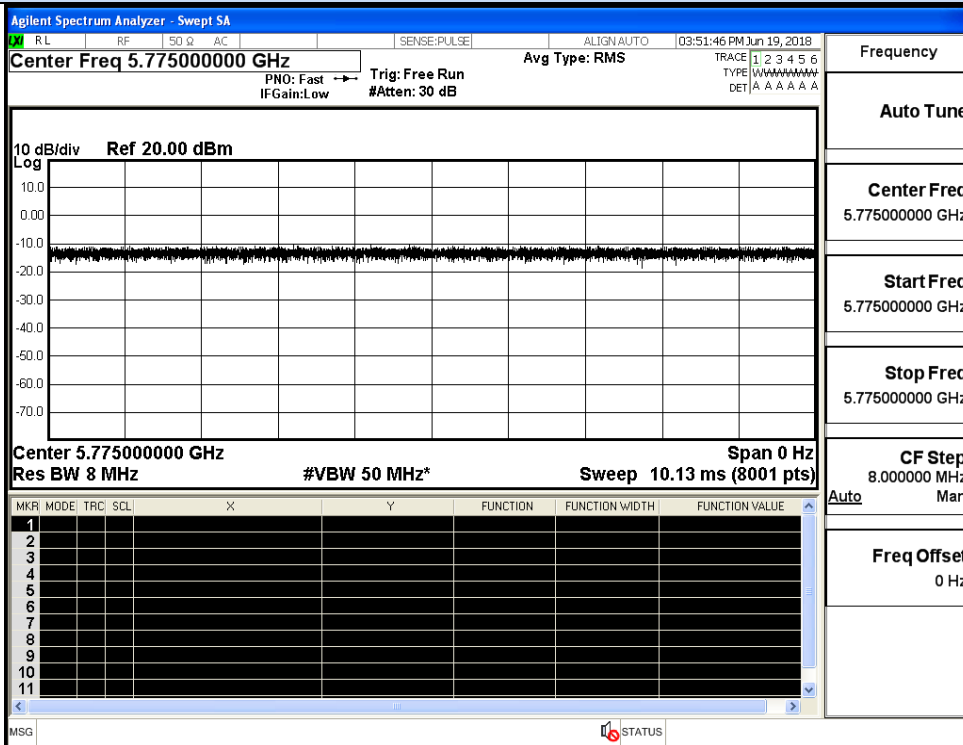
IEEE 802.11n HT40



IEEE 802.11ac VHT20



IEEE 802.11ac VHT40



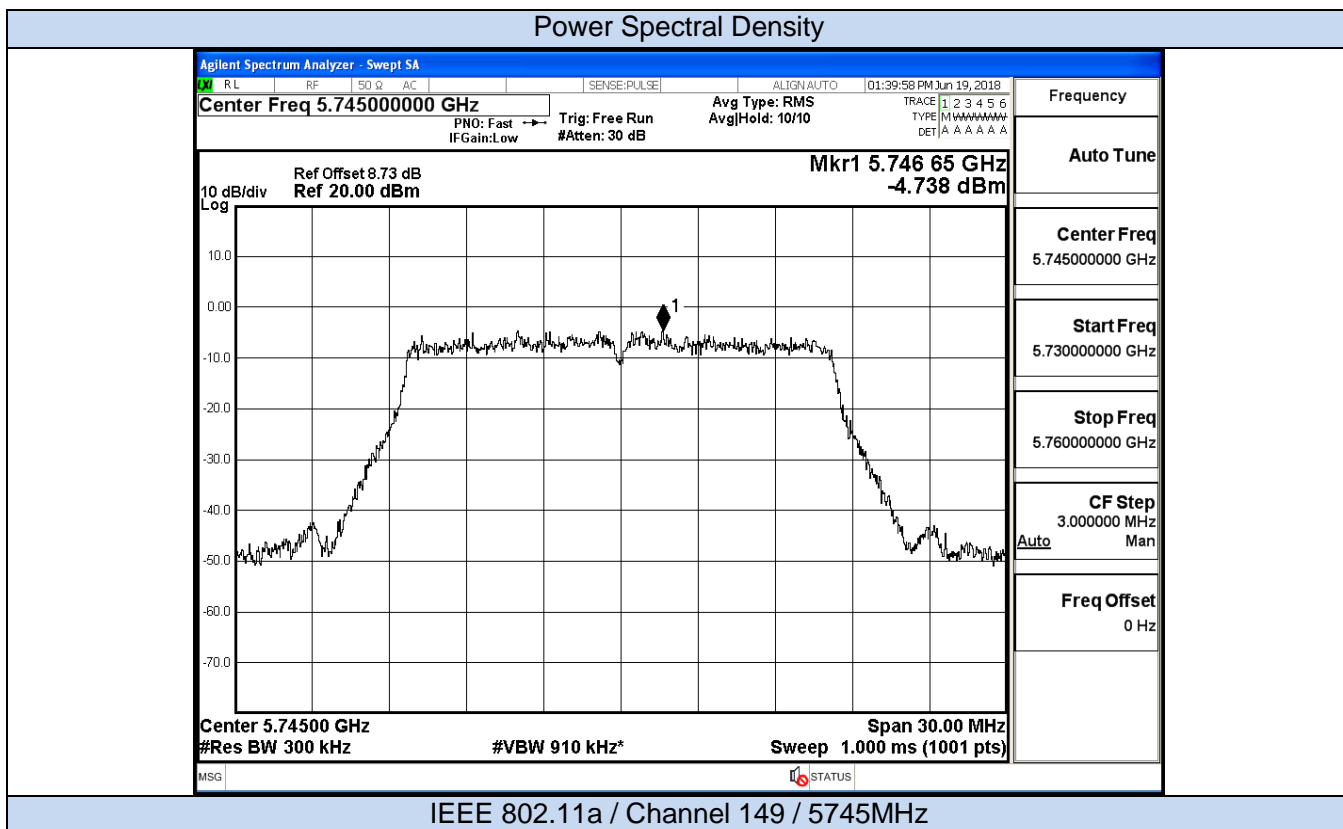
IEEE 802.11ac VHT80

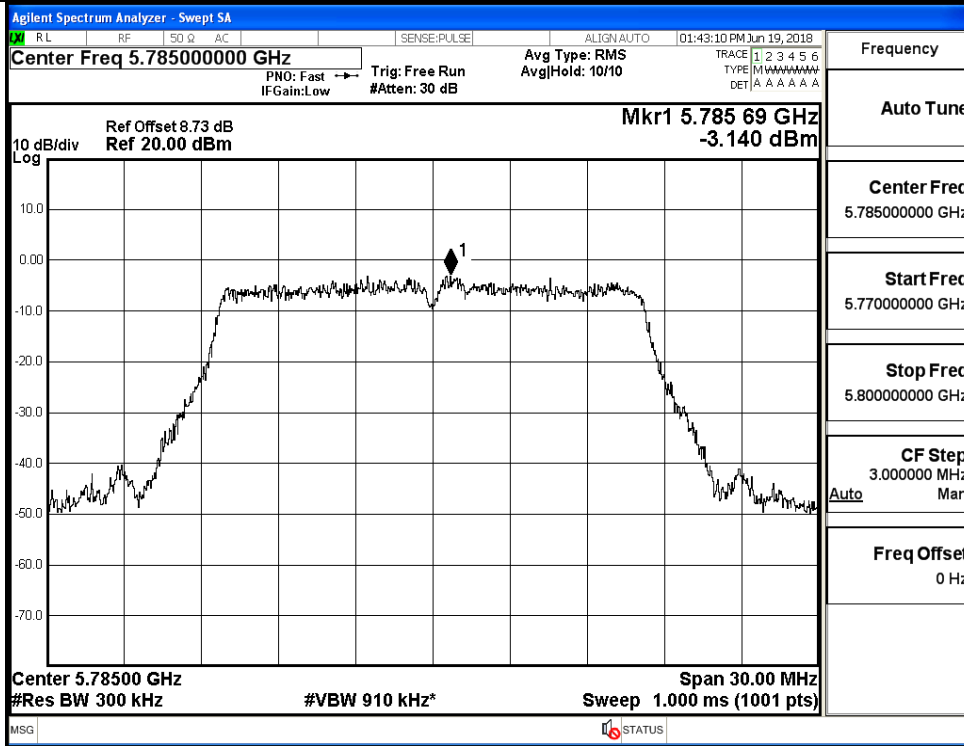
D.2 Maximum Conduct Average Output Power

Test Mode	Channel	Frequency (MHz)	Average Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power (dBm)	Limit (dBm)
IEEE 802.11a	149	5745	12.14	0	12.14	30
	157	5785	11.47	0	11.47	
	165	5825	12.21	0	12.21	
IEEE 802.11n HT20	149	5745	12.36	0	12.36	30
	157	5785	11.46	0	11.46	
	165	5825	12.25	0	12.25	
IEEE 802.11n HT40	151	5755	12.15	0	12.15	30
	159	5795	11.38	0	11.38	
IEEE 802.11ac VHT20	149	5745	13.31	0	13.31	30
	157	5785	13.42	0	13.42	
	165	5825	13.76	0	13.76	
IEEE 802.11ac VHT40	151	5755	13.31	0	13.31	30
	159	5795	13.76	0	13.76	
IEEE 802.11ac VHT80	155	5775	10.51	0	10.51	30

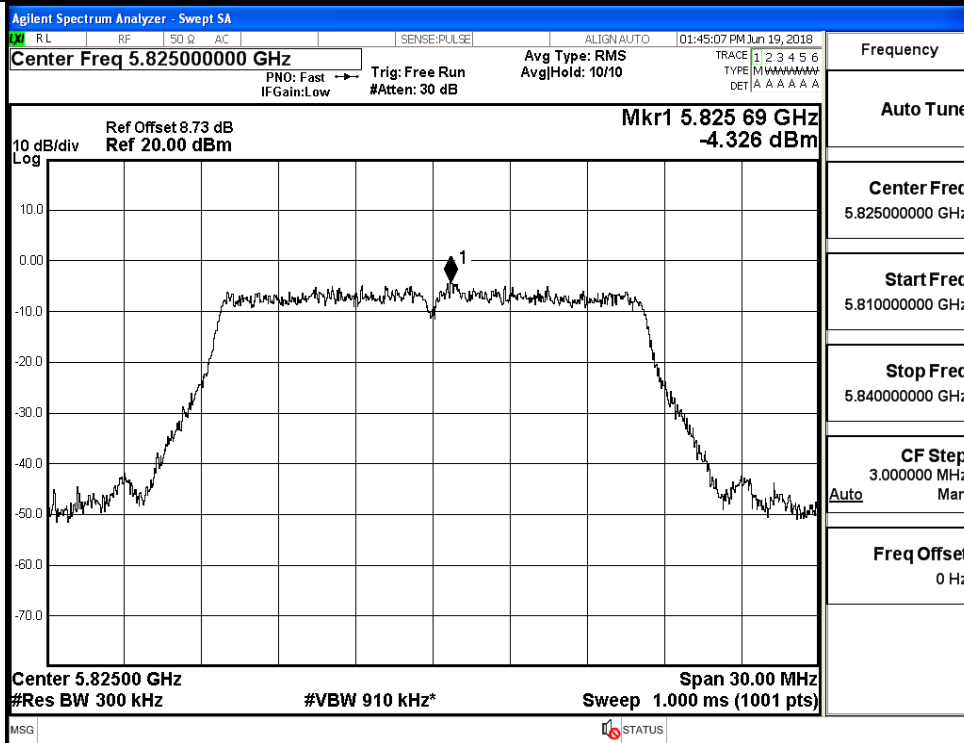
D.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/300KHz)	Duty Cycle Factor (dB)	RBW Factor (dB)	Report Power Density (dBm/500KHz)	Limit (dBm/500KHz)
IEEE 802.11a	149	5745	-4.738	0	2.218	-2.520	30
	157	5785	-3.140	0	2.218	-0.922	
	165	5825	-4.326	0	2.218	-2.108	
IEEE 802.11n HT20	149	5745	-3.618	0	2.218	-1.400	30
	157	5785	-2.278	0	2.218	-0.060	
	165	5825	-4.019	0	2.218	-1.801	
IEEE 802.11n HT40	151	5755	-7.975	0	2.218	-5.757	30
	159	5795	-6.043	0	2.218	-3.825	
IEEE 802.11ac VHT20	149	5745	-4.296	0	2.218	-2.078	30
	157	5785	-2.872	0	2.218	-0.654	
	165	5825	-4.001	0	2.218	-1.783	
IEEE 802.11ac VHT40	151	5755	-7.246	0	2.218	-5.028	30
	159	5795	-7.053	0	2.218	-4.835	
IEEE 802.11ac VHT80	155	5775	-10.559	0	2.218	-8.341	30



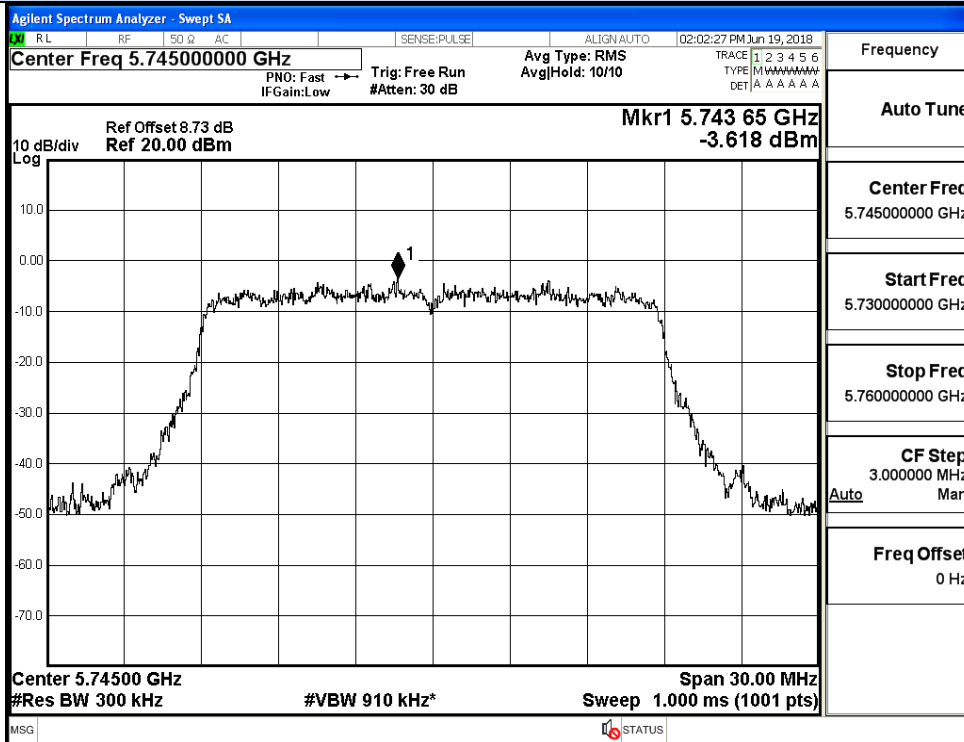


IEEE 802.11a / Channel 157 / 5785MHz

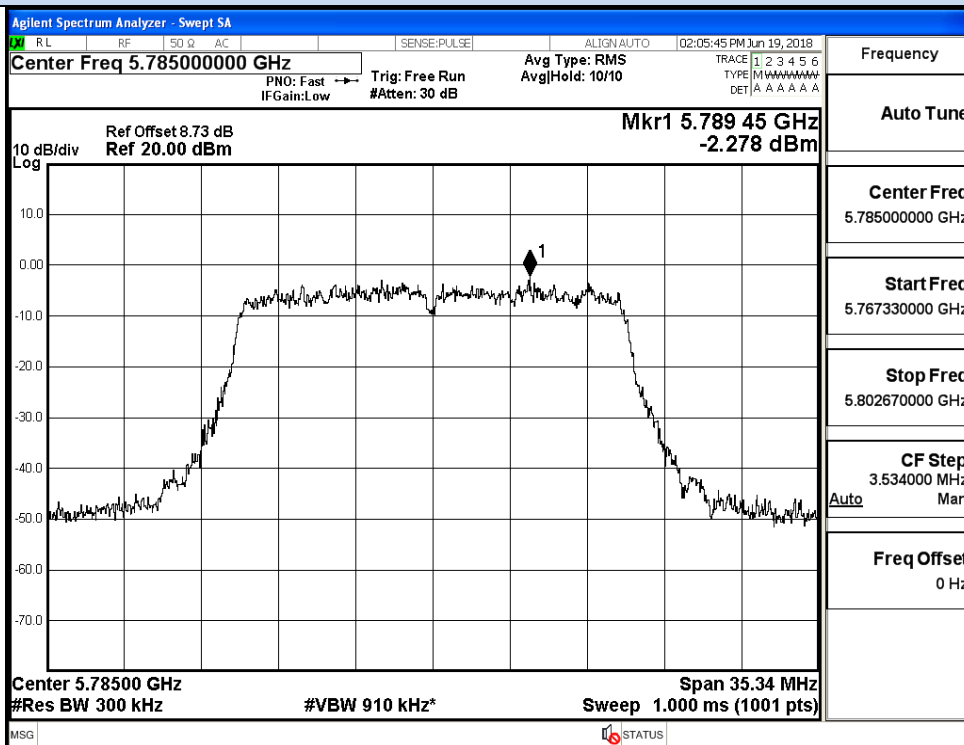


IEEE 802.11a / Channel 165 / 5825MHz

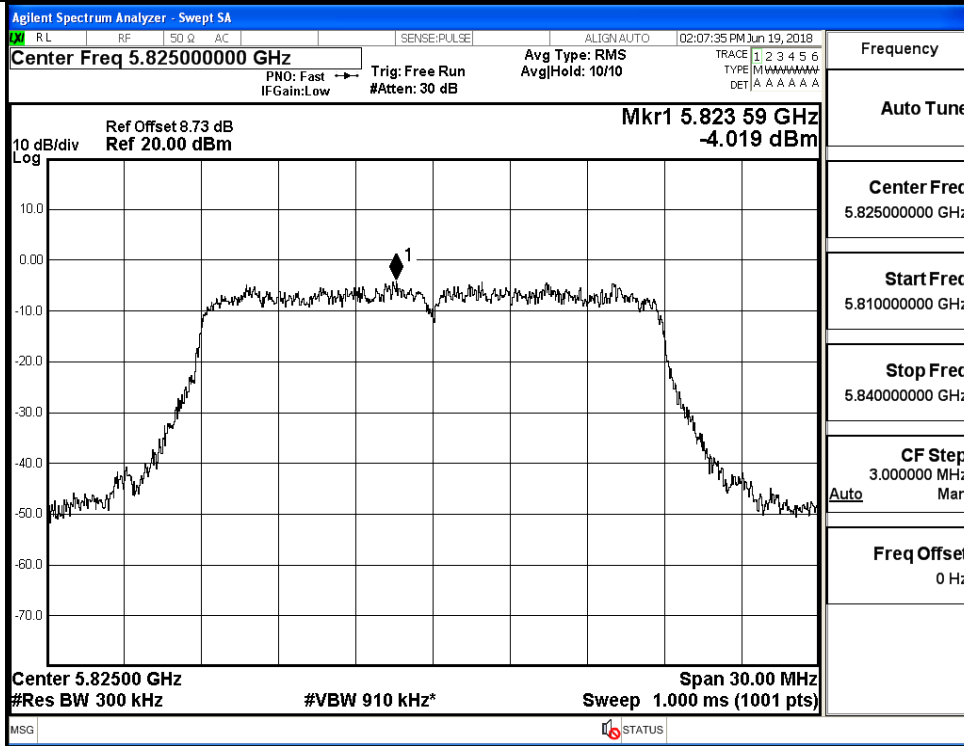
Power Spectral Density



IEEE 802.11n HT20 / Channel 149 / 5745MHz

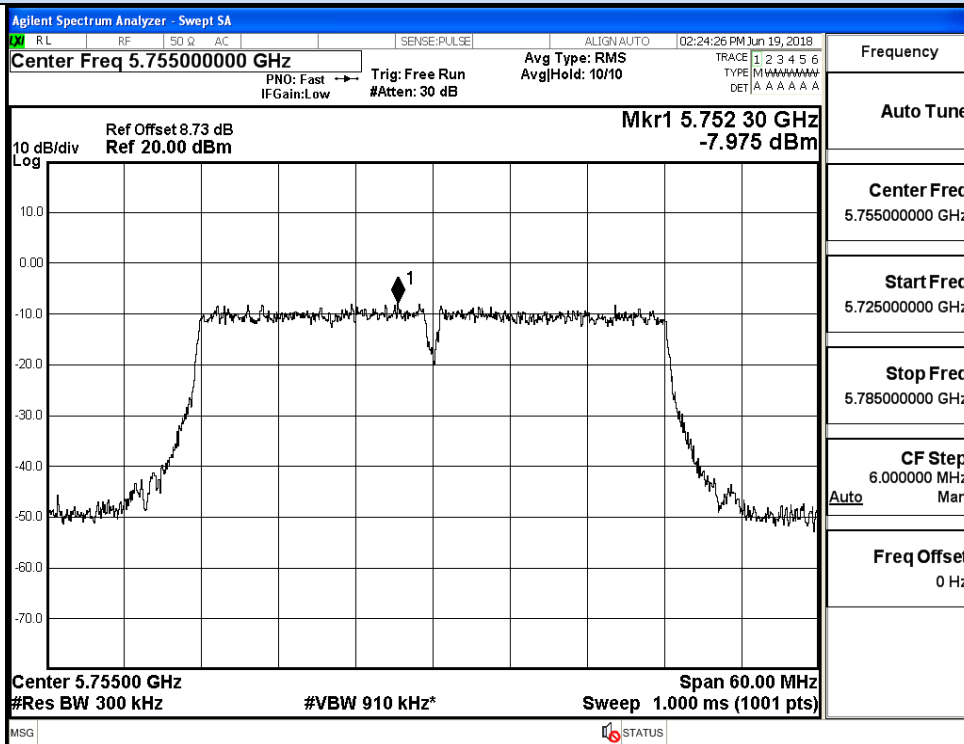


IEEE 802.11n HT20 / Channel 157 / 5785MHz

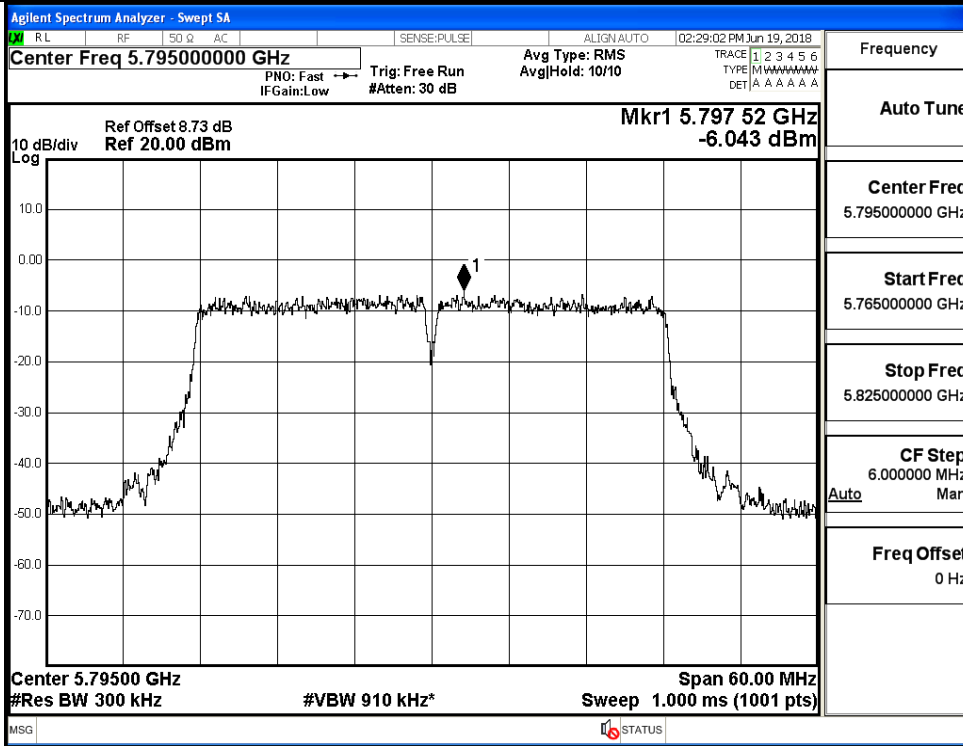


IEEE 802.11n HT20 / Channel 165 / 5825MHz

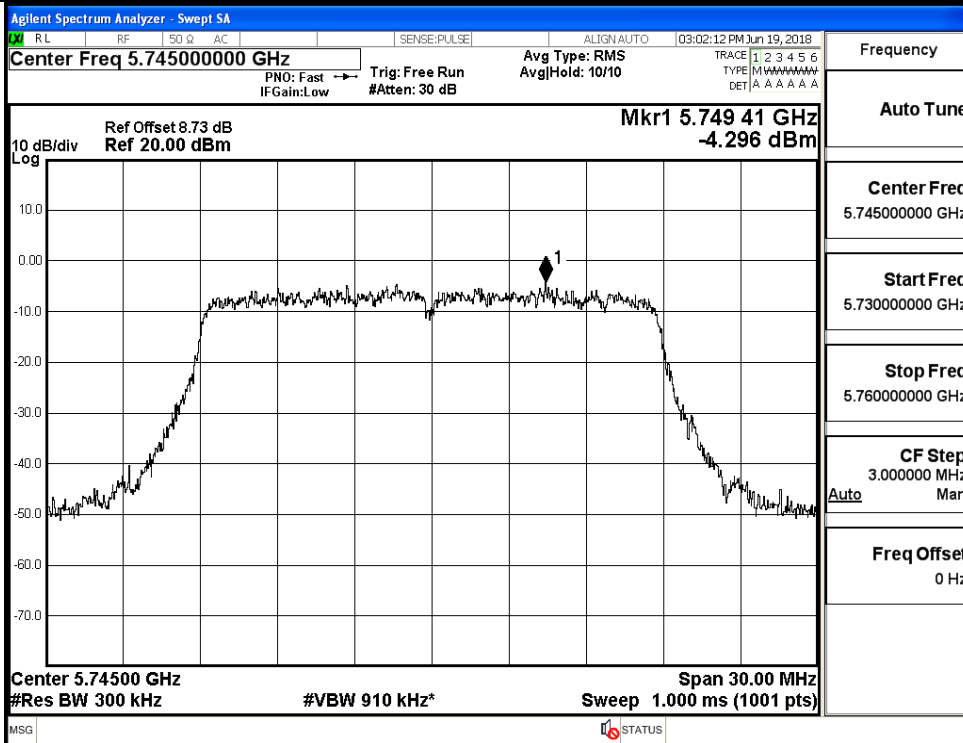
Power Spectral Density



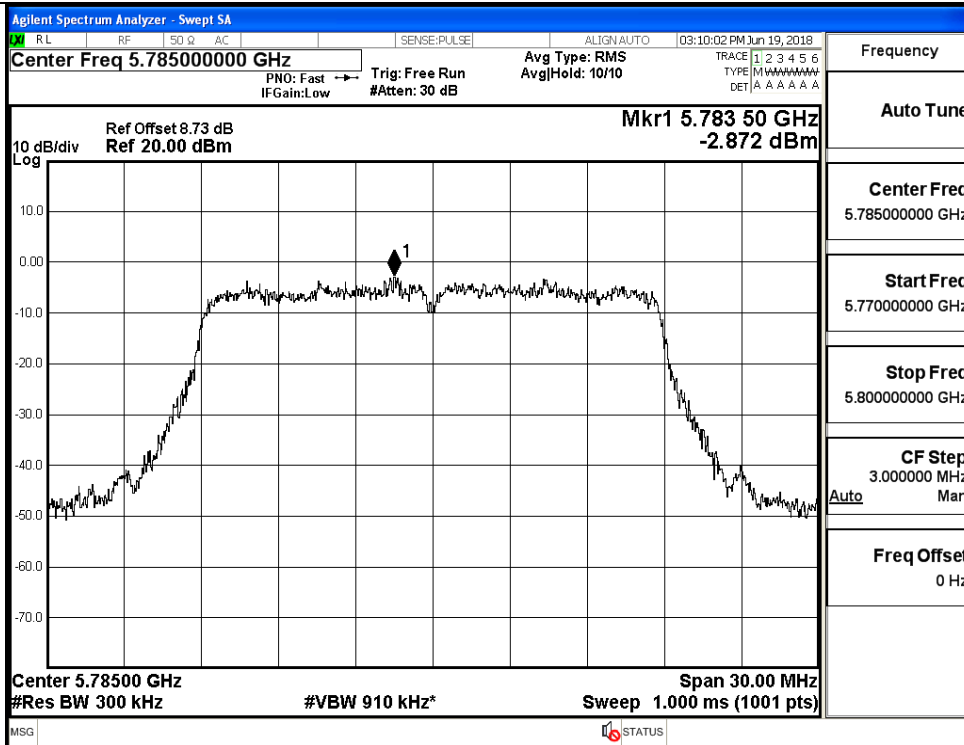
IEEE 802.11n HT40 / Channel 151 / 5755MHz



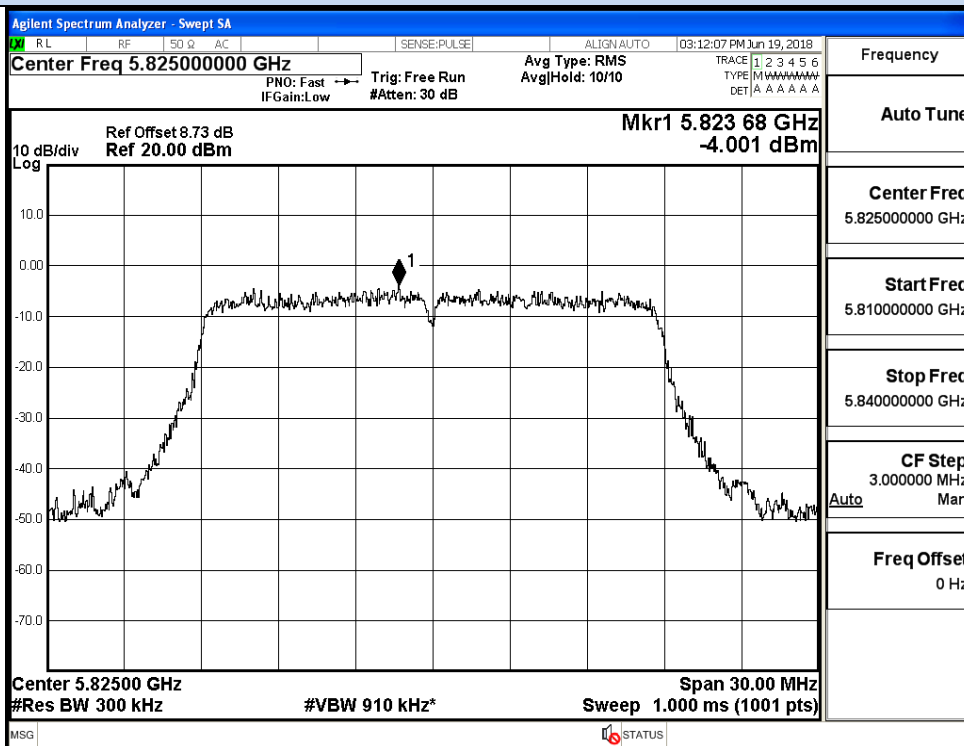
IEEE 802.11n HT40 / Channel 159 / 5795MHz



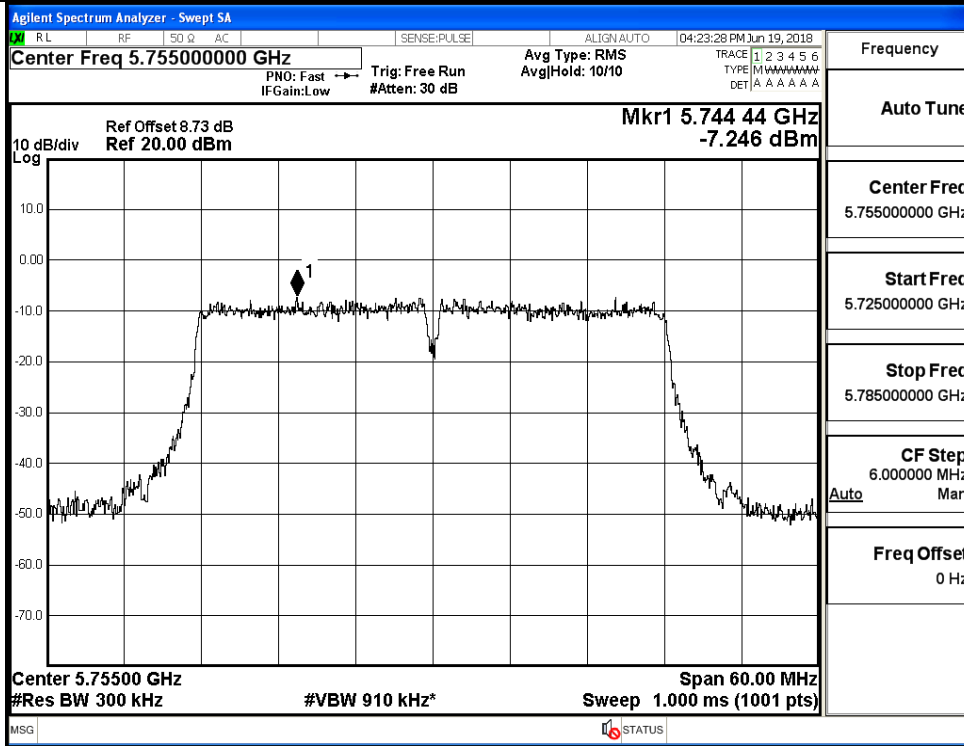
IEEE 802.11ac VHT20 / Channel 149 / 5745MHz



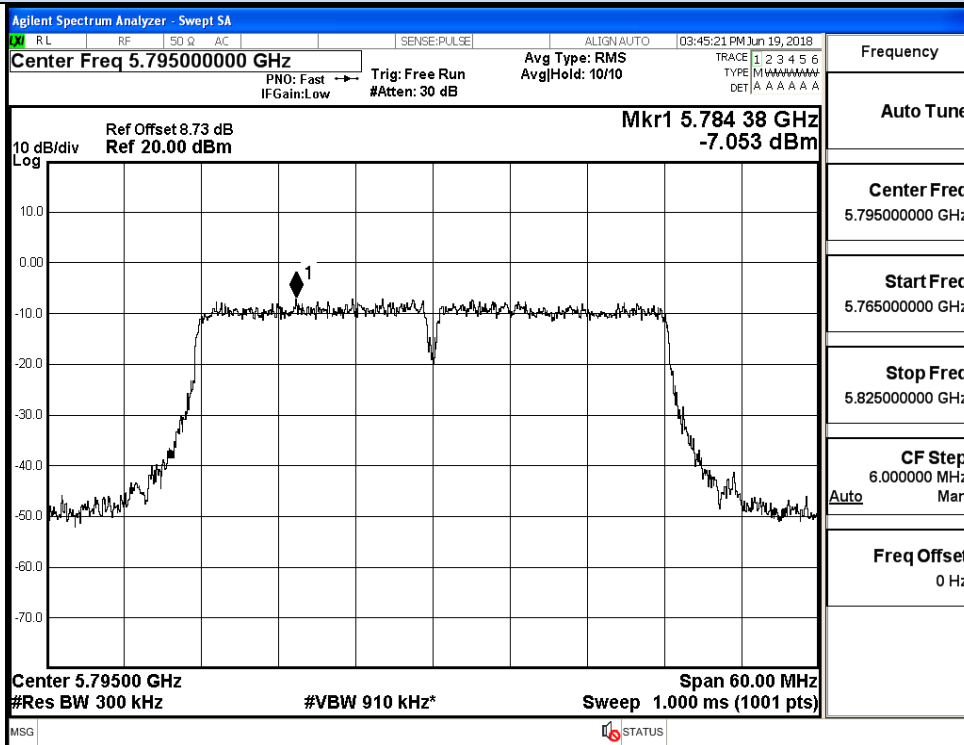
IEEE 802.11ac VHT20 / Channel 157 / 5785MHz



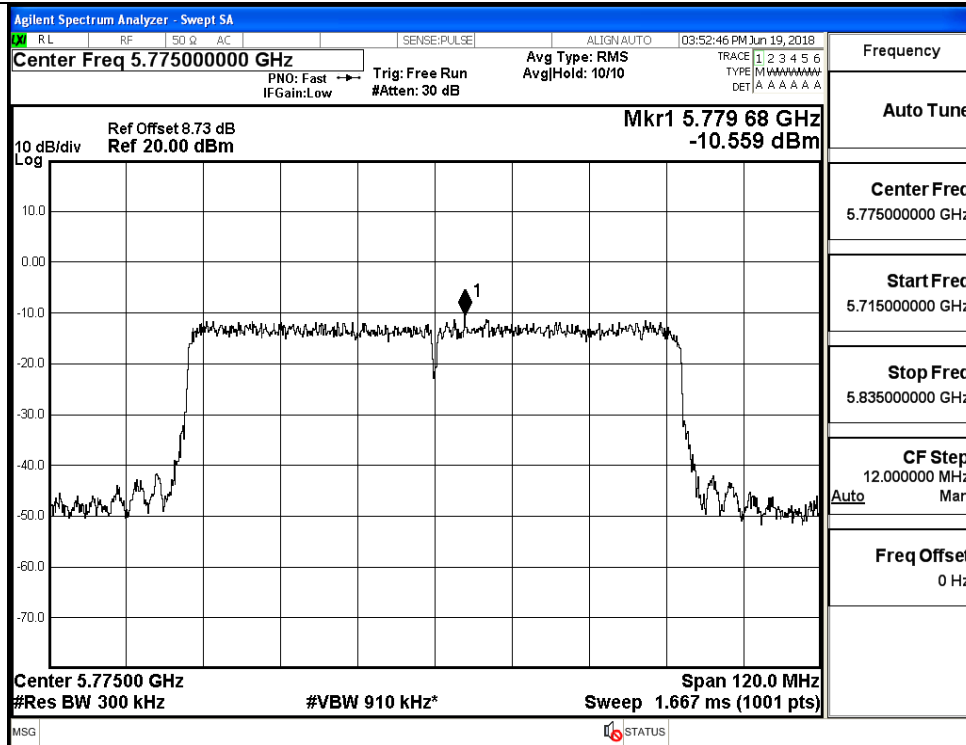
IEEE 802.11ac VHT20 / Channel 165 / 5825MHz



IEEE 802.11ac VHT40 / Channel 151 / 5755MHz



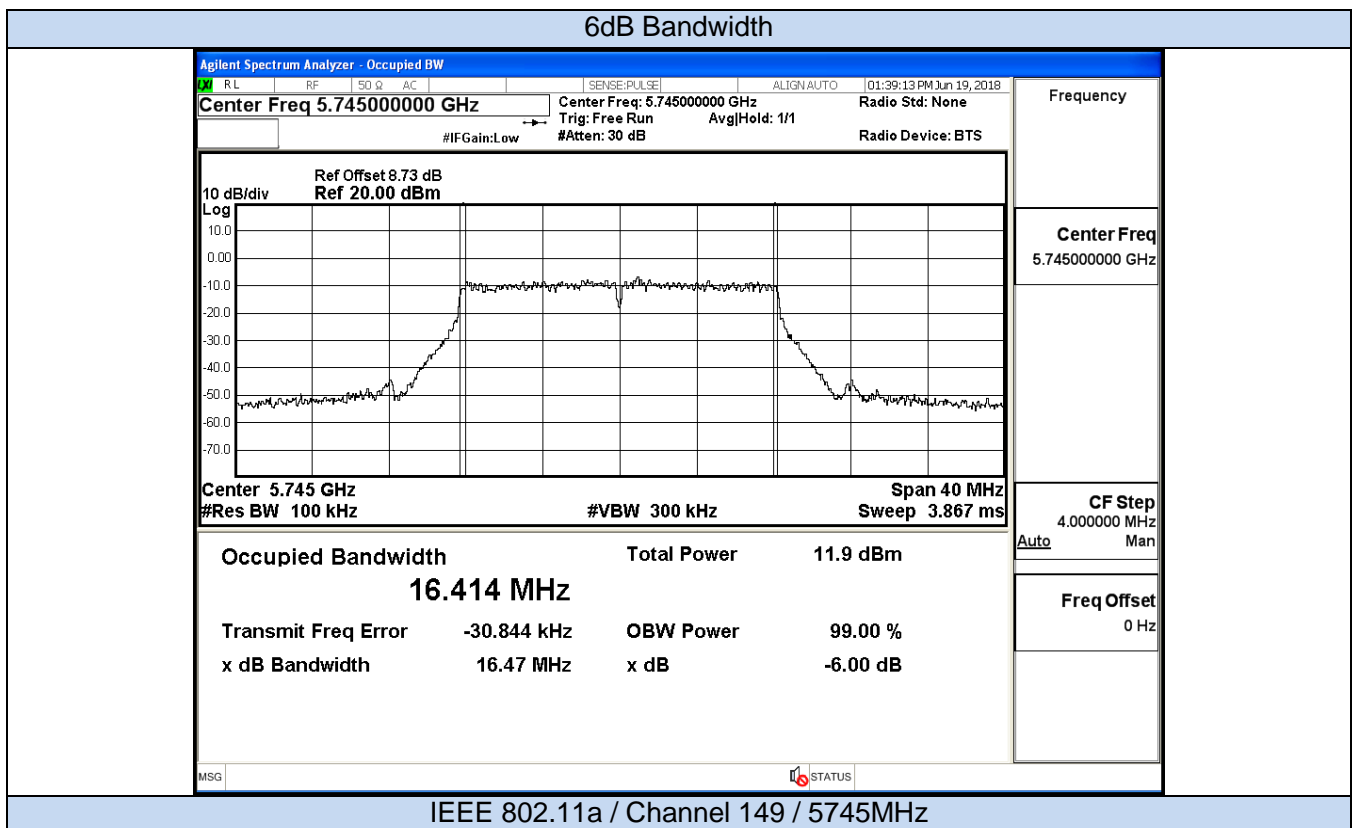
IEEE 802.11ac VHT40 / Channel 159 / 5795MHz

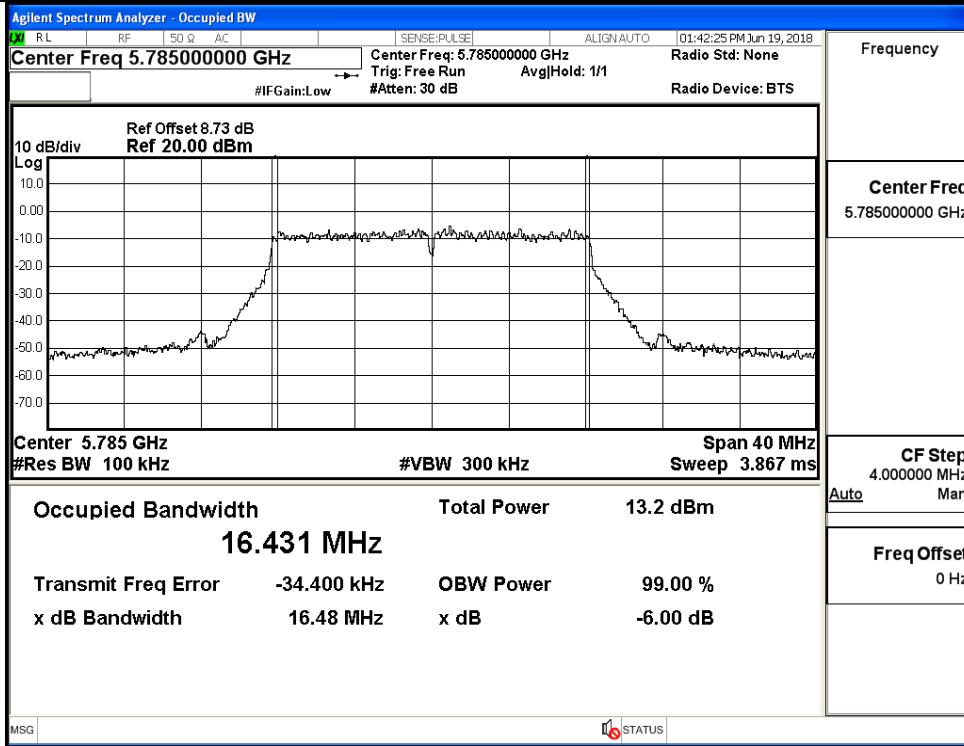


IEEE 802.11ac VHT80 / Channel 155/ 5775MHz

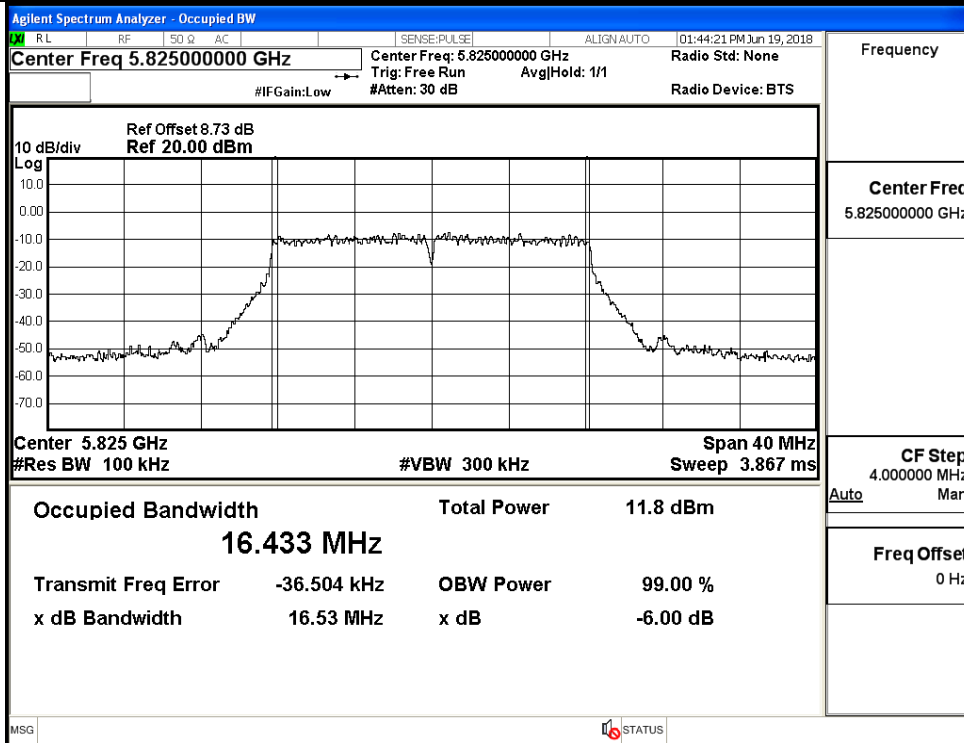
D.4 6dB Bandwidth

Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
IEEE 802.11a	149	5745	16.470	≥0.5
	157	5785	16.480	
	165	5825	16.530	
IEEE 802.11n HT20	149	5745	17.700	≥0.5
	157	5785	17.670	
	165	5825	17.670	
IEEE 802.11n HT40	151	5755	36.510	≥0.5
	159	5795	36.550	
IEEE 802.11ac VHT20	149	5745	17.720	≥0.5
	157	5785	17.690	
	165	5825	17.710	
IEEE 802.11ac VHT40	151	5755	36.550	≥0.5
	159	5795	36.530	
IEEE 802.11ac VHT80	155	5775	76.160	≥0.5



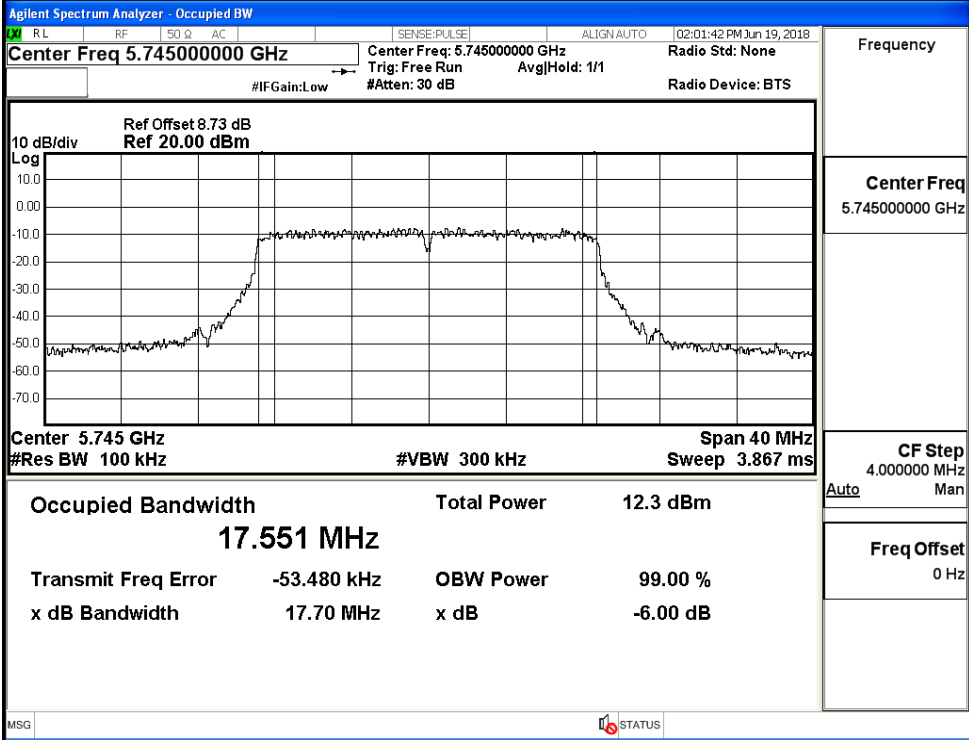


IEEE 802.11a / Channel 157 / 5785MHz

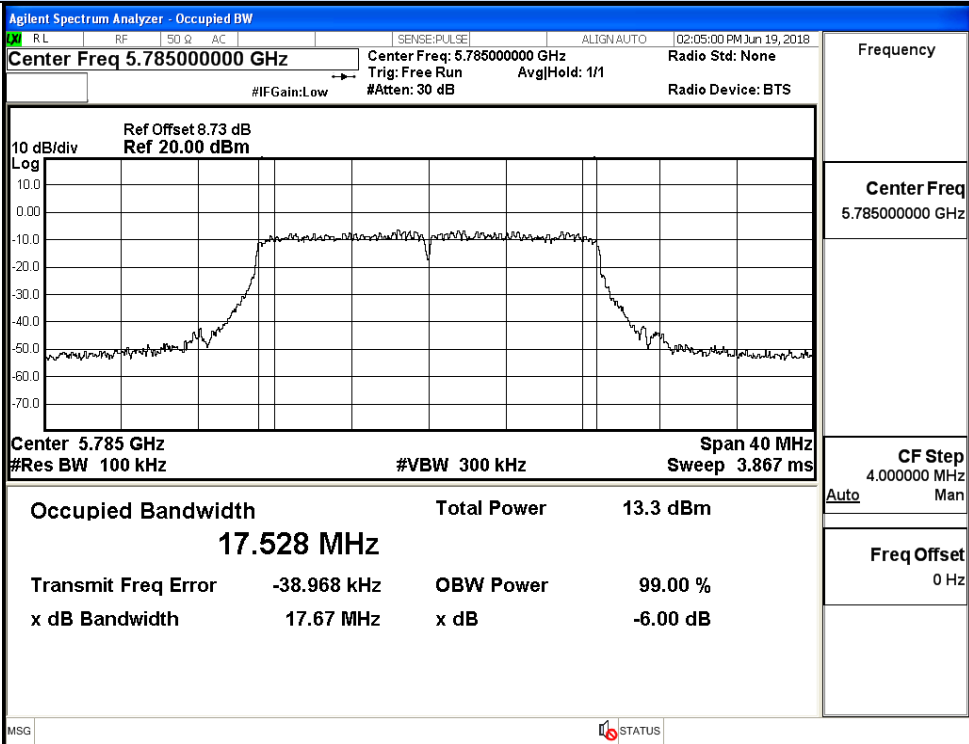


IEEE 802.11a / Channel 165 / 5825MHz

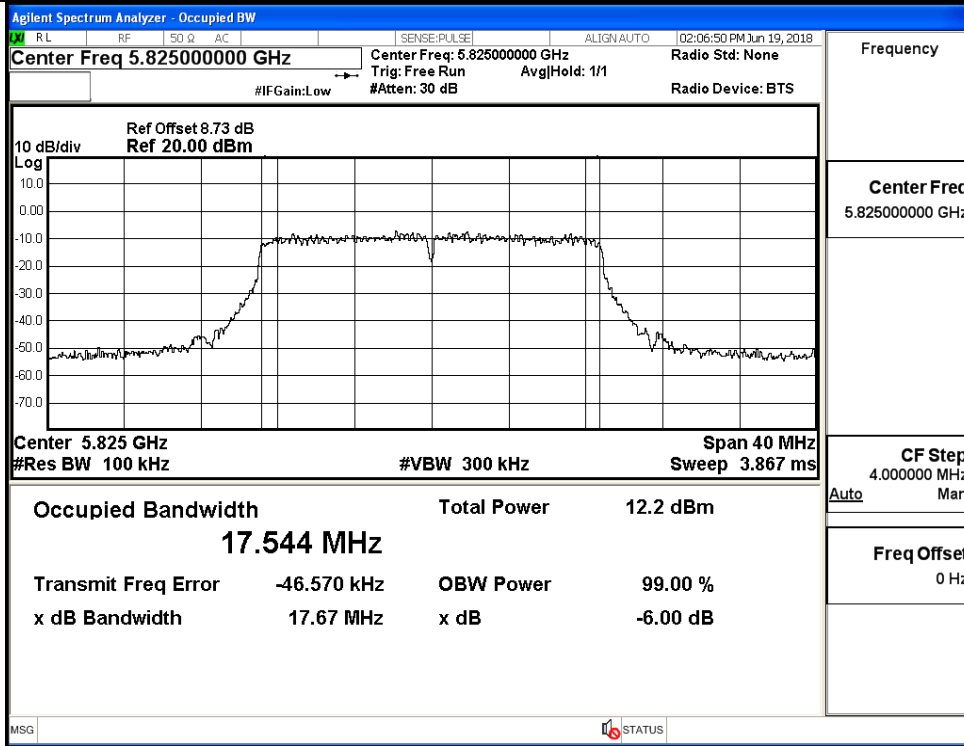
6dB Bandwidth



IEEE 802.11n HT20 / Channel 149 / 5745MHz

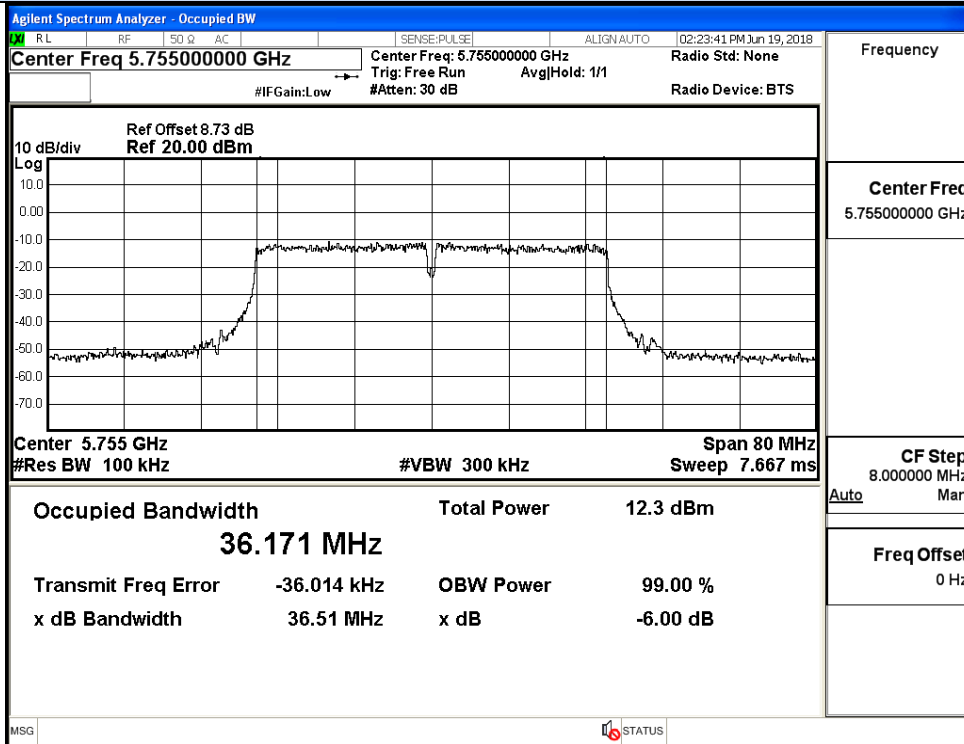


IEEE 802.11n HT20 / Channel 157 / 5785MHz

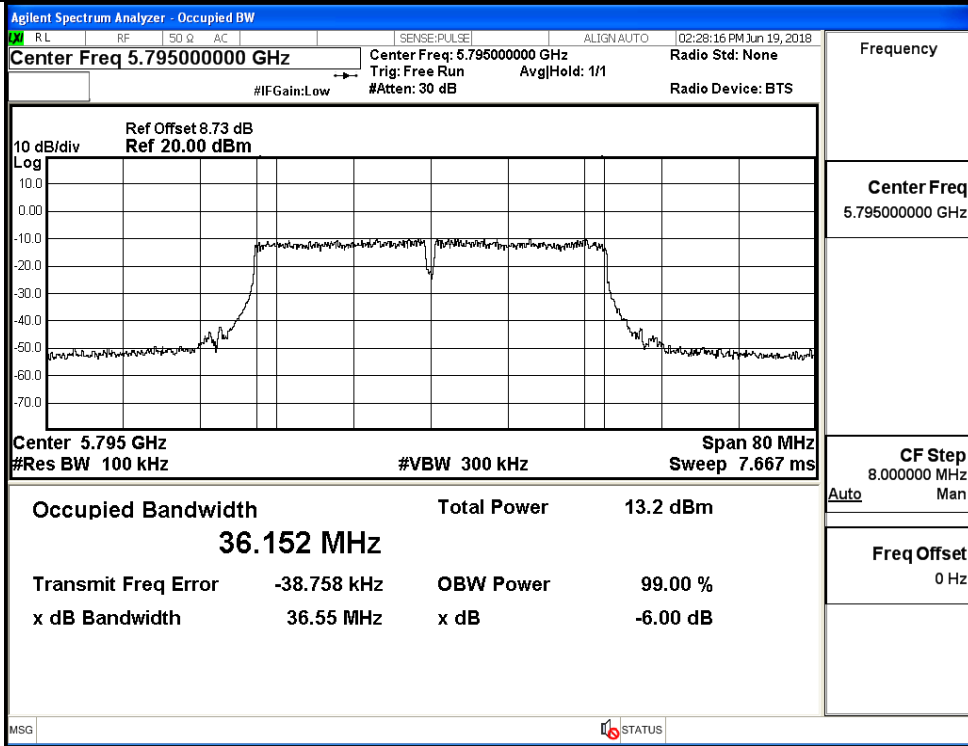


IEEE 802.11n HT20 / Channel 165 / 5825MHz

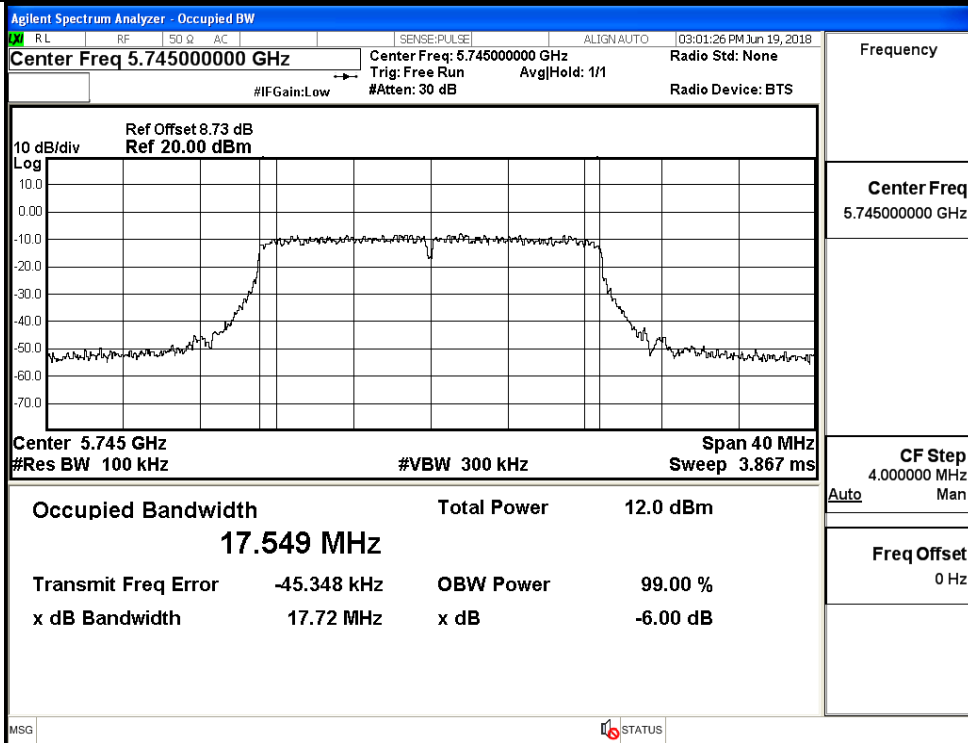
6dB Bandwidth



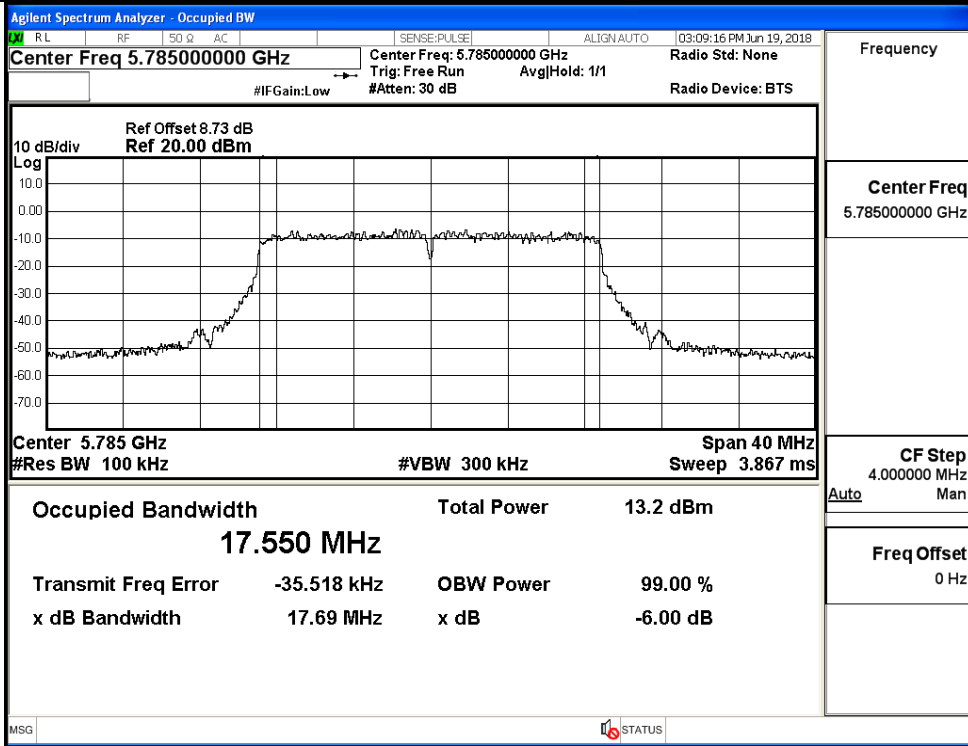
IEEE 802.11n HT40 / Channel 151 / 5755MHz



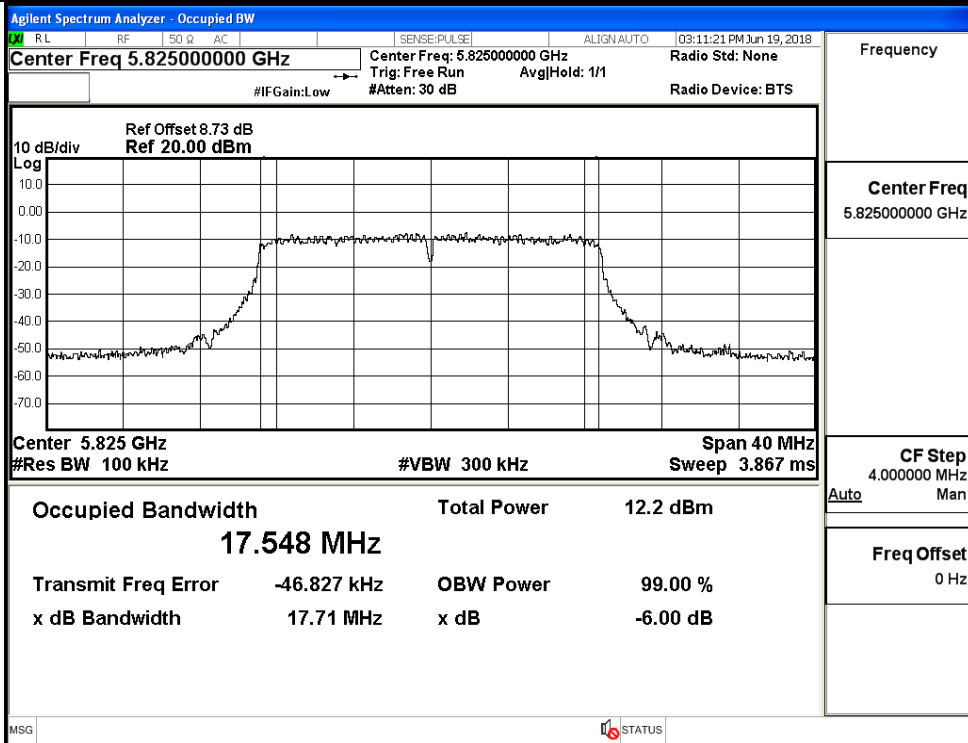
IEEE 802.11n HT40 / Channel 159 / 5795MHz



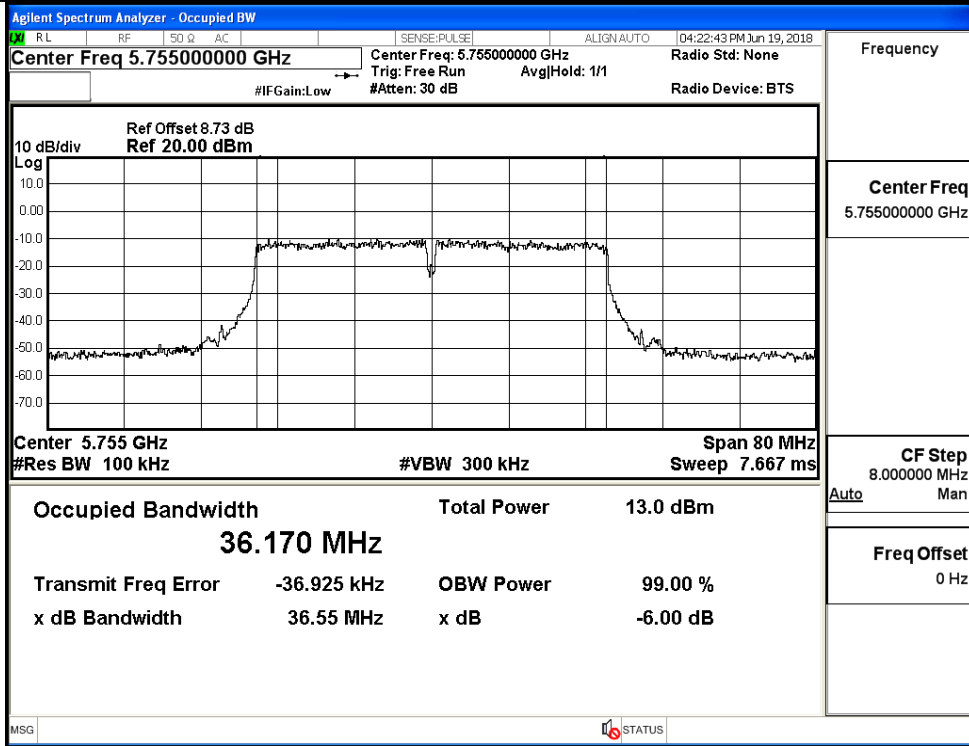
IEEE 802.11ac VHT20 / Channel 149 / 5745MHz



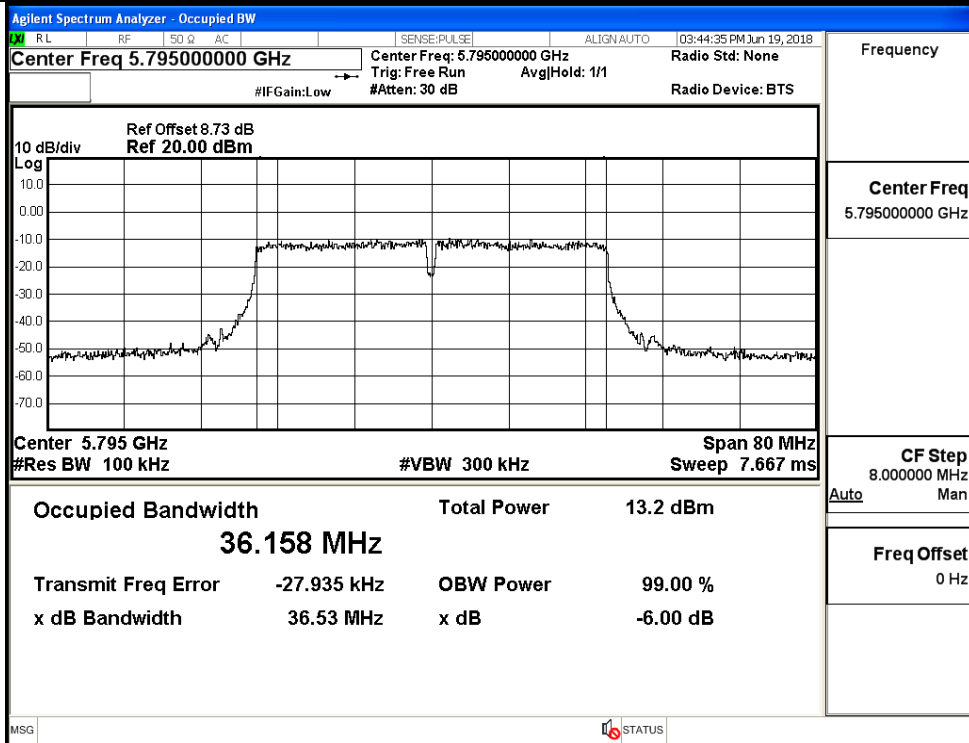
IEEE 802.11ac VHT20 / Channel 157 / 5785MHz



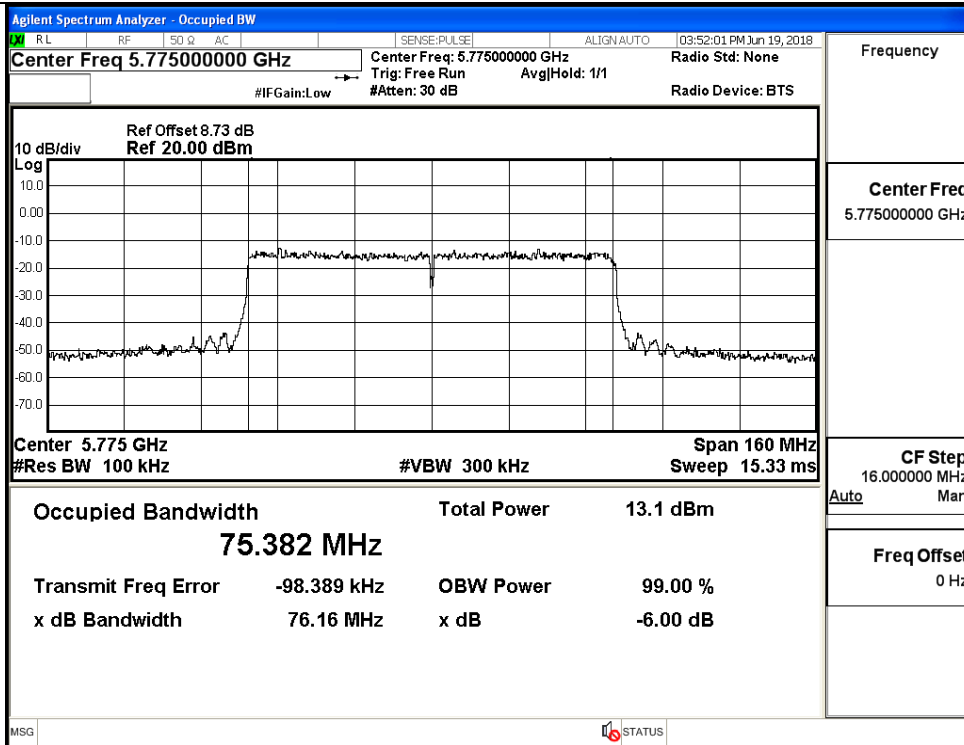
IEEE 802.11ac VHT20 / Channel 165 / 5825MHz



IEEE 802.11ac VHT40 / Channel 151 / 5755MHz



IEEE 802.11ac VHT40 / Channel 159 / 5795MHz

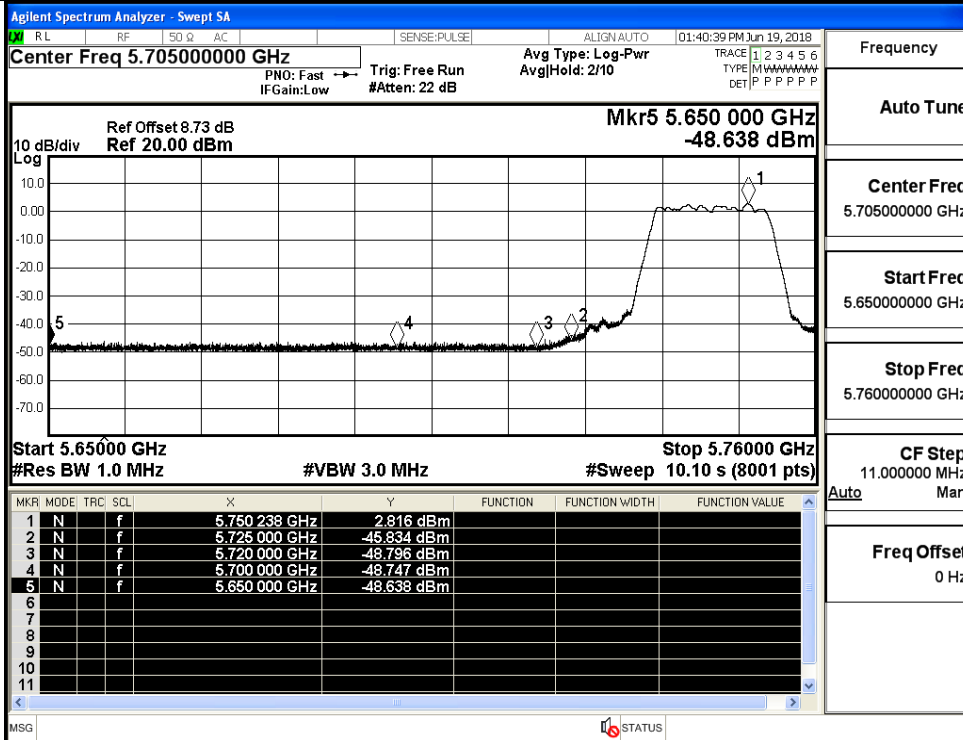


IEEE 802.11ac VHT80 / Channel 155 / 5775MHz

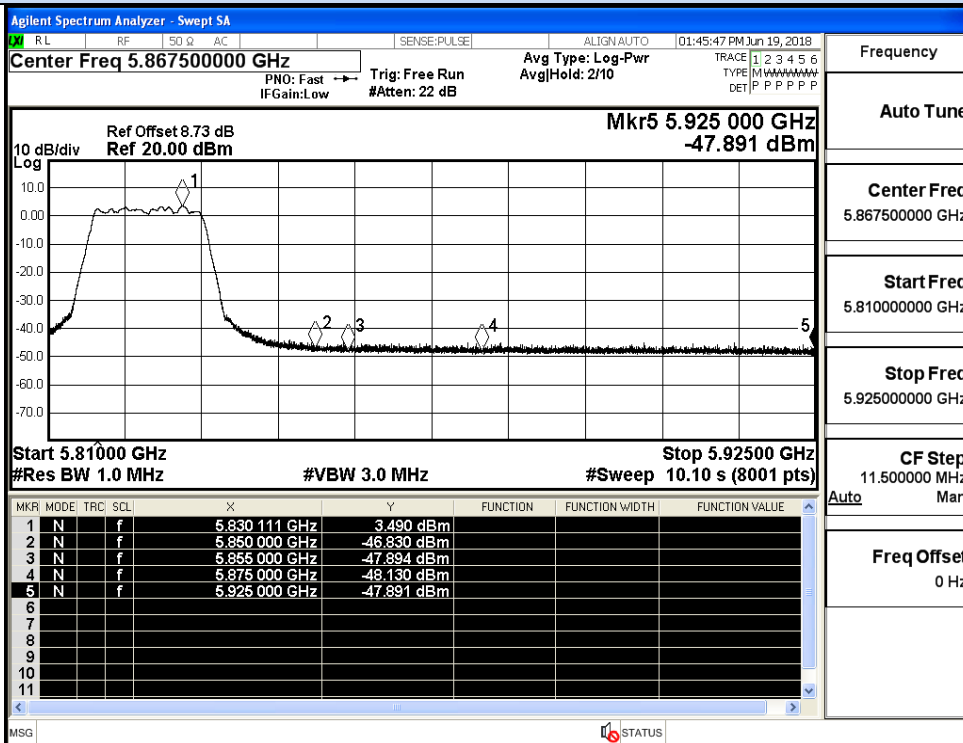
D.5 Undesirable Emissions Measurement

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)
IEEE 802.11a	149	5650.0	-48.638	5.000	-43.638	Peak	27.000
		5700.0	-48.747	5.000	-43.747	Peak	15.600
		5720.0	-48.796	5.000	-43.796	Peak	10.000
		5725.0	-45.834	5.000	-40.834	Peak	-27.000
	165	5850.0	-46.830	5.000	-41.830	Peak	-27.000
		5855.0	-47.894	5.000	-42.894	Peak	10.000
		5875.0	-48.130	5.000	-43.130	Peak	15.600
		5925.0	-47.891	5.000	-42.891	Peak	27.000
IEEE 802.11n HT20	149	5650.0	-47.723	5.000	-42.723	Peak	27.000
		5700.0	-48.252	5.000	-43.252	Peak	15.600
		5720.0	-48.493	5.000	-43.493	Peak	10.000
		5725.0	-44.086	5.000	-39.086	Peak	-27.000
	165	5850.0	-46.593	5.000	-41.593	Peak	-27.000
		5855.0	-46.945	5.000	-41.945	Peak	10.000
		5875.0	-47.790	5.000	-42.790	Peak	15.600
		5925.0	-48.946	5.000	-43.946	Peak	27.000
IEEE 802.11n HT40	151	5650.0	-47.862	5.000	-42.862	Peak	27.000
		5700.0	-48.627	5.000	-43.627	Peak	15.600
		5720.0	-43.48	5.000	-38.480	Peak	10.000
		5725.0	-43.107	5.000	-38.107	Peak	-27.000
	159	5850.0	-46.633	5.000	-41.633	Peak	-27.000
		5855.0	-47.958	5.000	-42.958	Peak	10.000
		5875.0	-46.336	5.000	-41.336	Peak	15.600
		5925.0	-49.014	5.000	-44.014	Peak	27.000
IEEE 802.11ac VHT20	149	5650.0	-48.746	5.000	-43.746	Peak	27.000
		5700.0	-49.117	5.000	-44.117	Peak	15.600
		5720.0	-48.651	5.000	-43.651	Peak	10.000
		5725.0	-46.87	5.000	-41.870	Peak	-27.000
	165	5850.0	-46.900	5.000	-41.900	Peak	-27.000
		5855.0	-47.619	5.000	-42.619	Peak	10.000
		5875.0	-47.198	5.000	-42.198	Peak	15.600
		5925.0	-47.726	5.000	-42.726	Peak	27.000
IEEE 802.11ac VHT40	151	5650.0	-48.629	5.000	-43.629	Peak	27.000
		5700.0	-48.753	5.000	-43.753	Peak	15.600
		5720.0	-43.039	5.000	-38.039	Peak	10.000
		5725.0	-42.786	5.000	-37.786	Peak	-27.000
	159	5850.0	-47.896	5.000	-42.896	Peak	-27.000
		5855.0	-47.745	5.000	-42.745	Peak	10.000
		5875.0	-47.413	5.000	-42.413	Peak	15.600
		5925.0	-47.041	5.000	-42.041	Peak	27.000
IEEE 802.11ac VHT80	155	5650.0	-50.014	5.000	-45.014	Peak	27.000
		5700.0	-46.068	5.000	-41.068	Peak	15.600
		5720.0	-43.625	5.000	-38.625	Peak	10.000
		5725.0	-39.246	5.000	-34.246	Peak	-27.000
		5850.0	-45.481	5.000	-40.481	Peak	-27.000
		5855.0	-46.922	5.000	-41.922	Peak	10.000
		5875.0	-47.904	5.000	-42.904	Peak	15.600
		5925.0	-50.080	5.000	-45.080	Peak	27.000

Undesirable Emissions Measurement

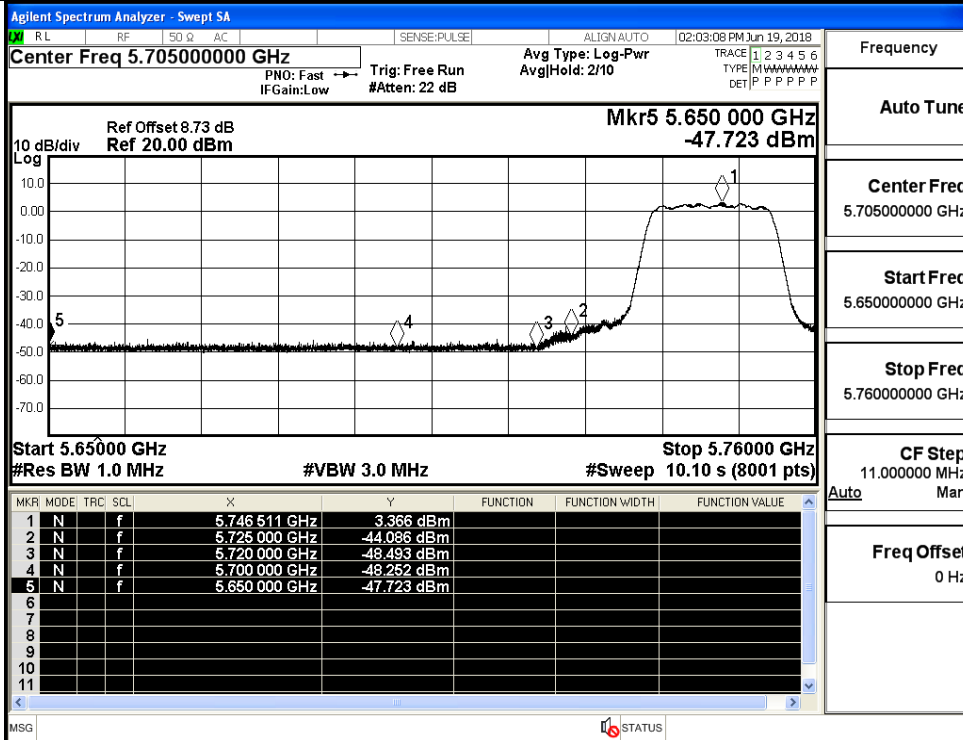


IEEE 802.11a / Channel 149 / 5745MHz / Peak

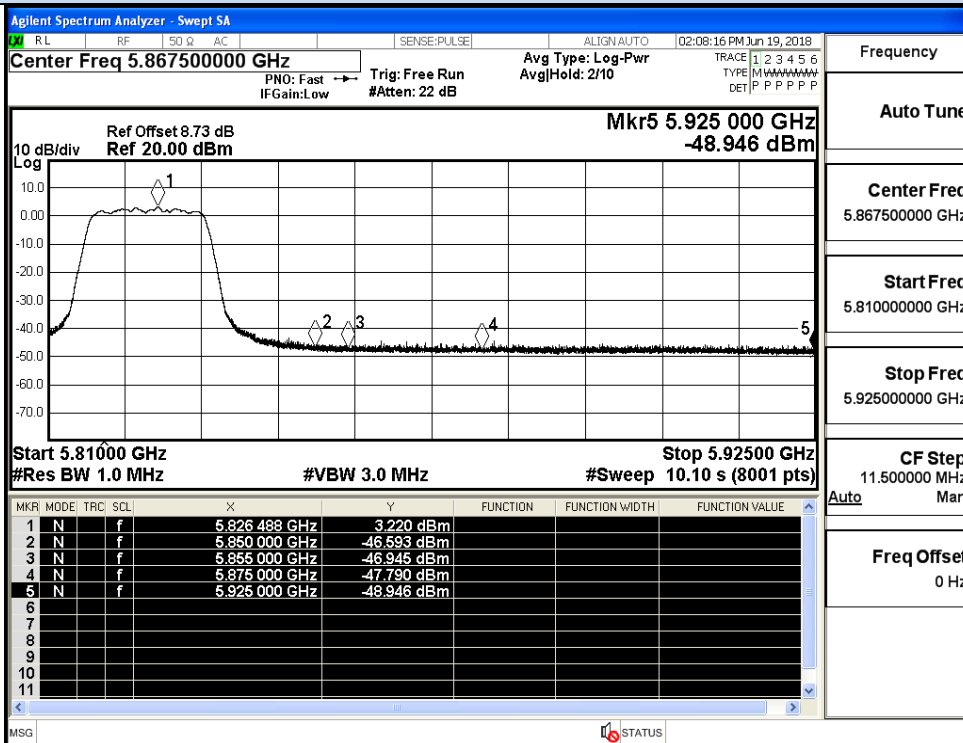


IEEE 802.11a / Channel 165 / 5825MHz / Peak

Undesirable Emissions Measurement

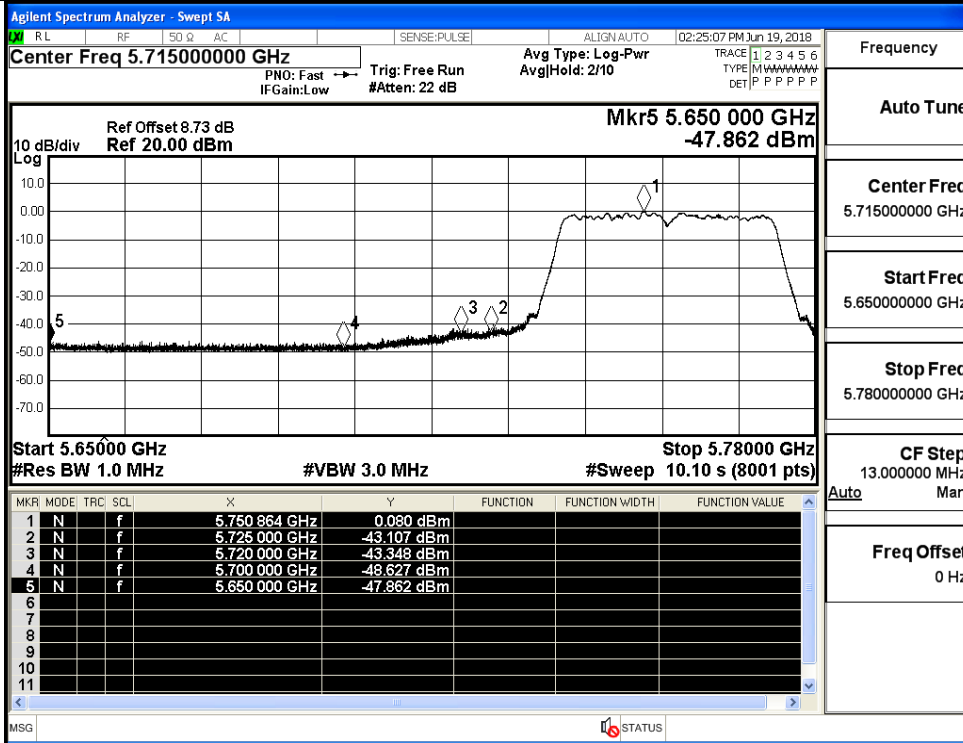


IEEE 802.11n HT20 / Channel 149 / 5745MHz / Peak

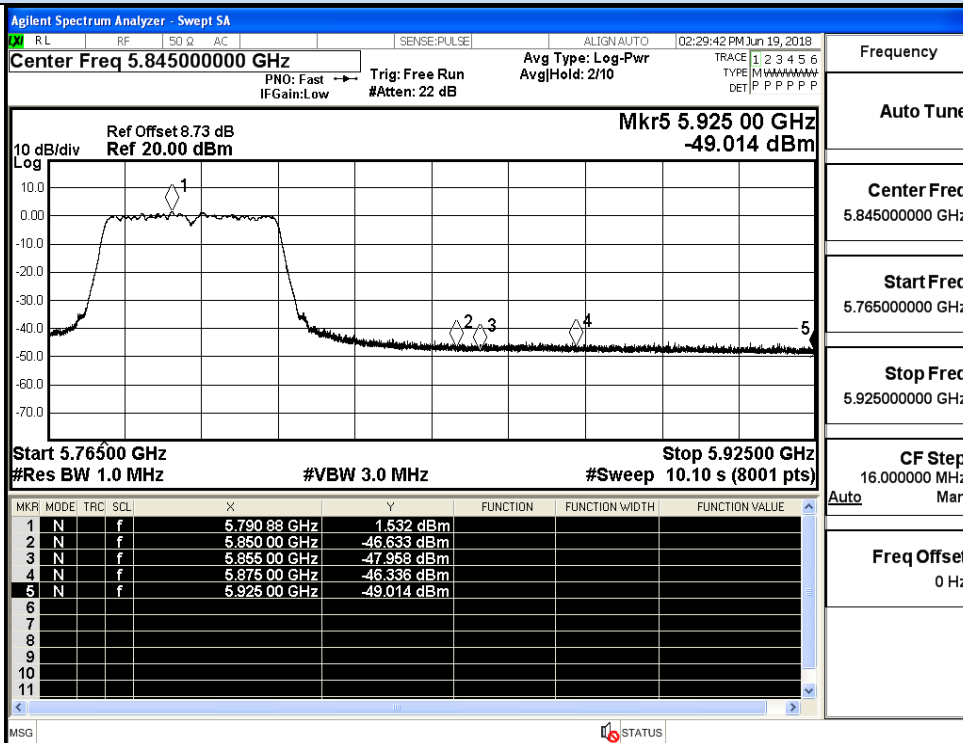


IEEE 802.11n HT20 / Channel 165 / 5825MHz / Peak

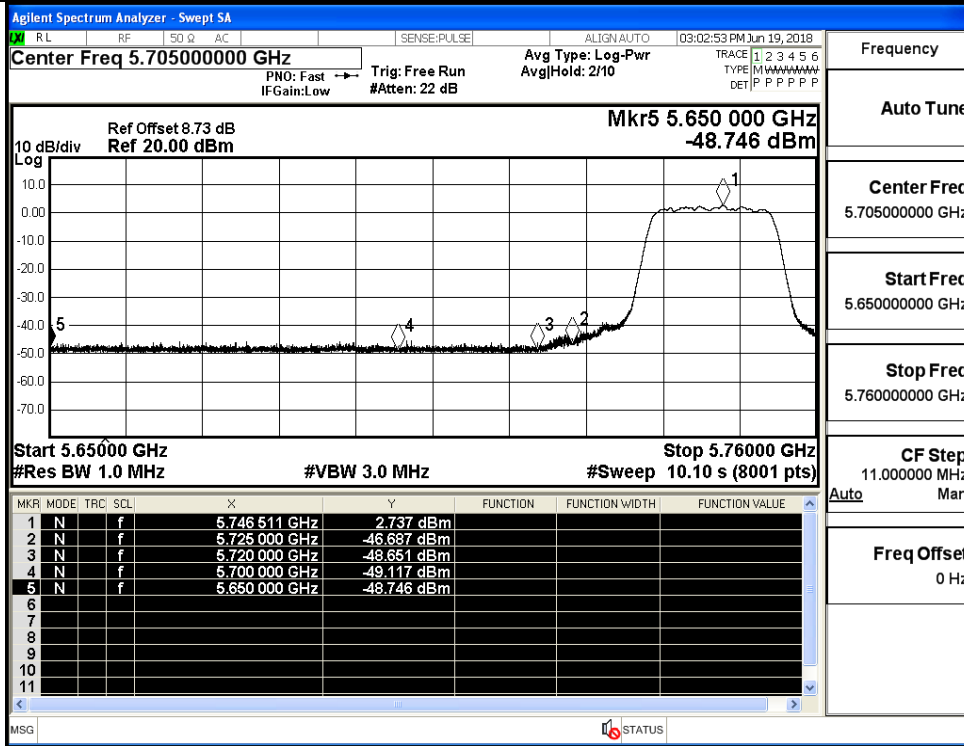
Undesirable Emissions Measurement



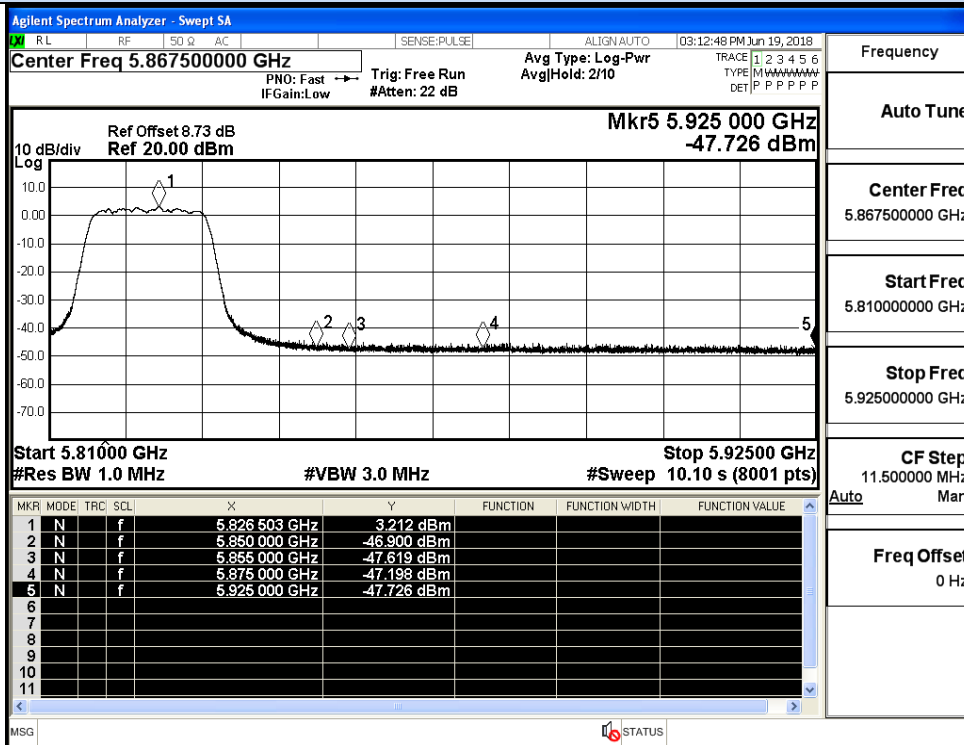
IEEE 802.11n HT40 / Channel 151 / 5755MHz / Peak



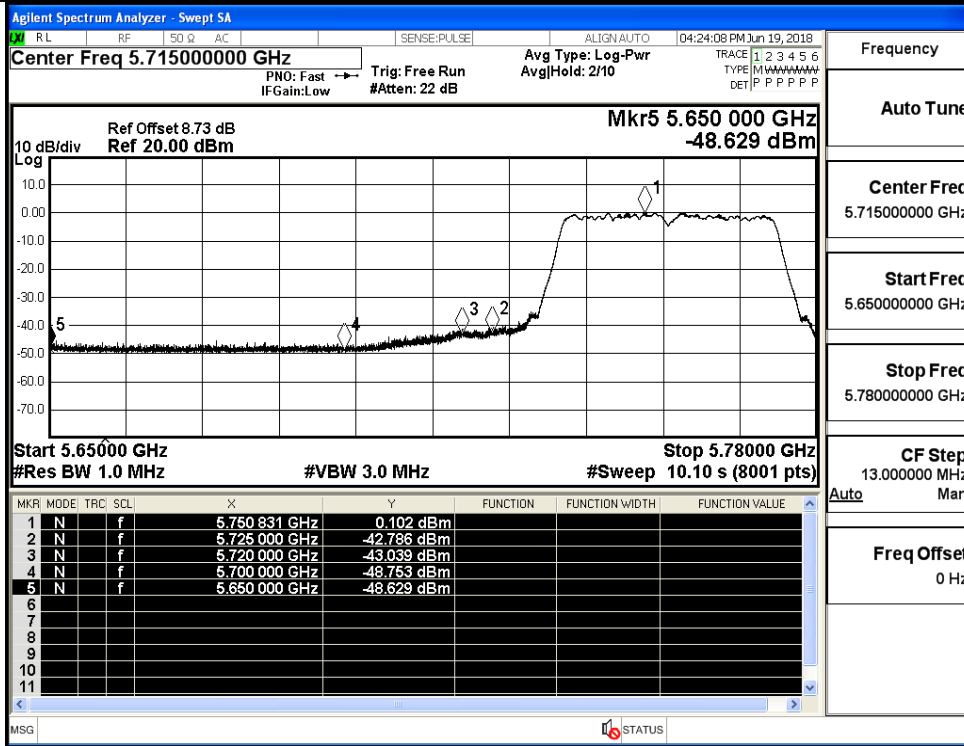
IEEE 802.11n HT40 / Channel 159 / 5795MHz / Peak



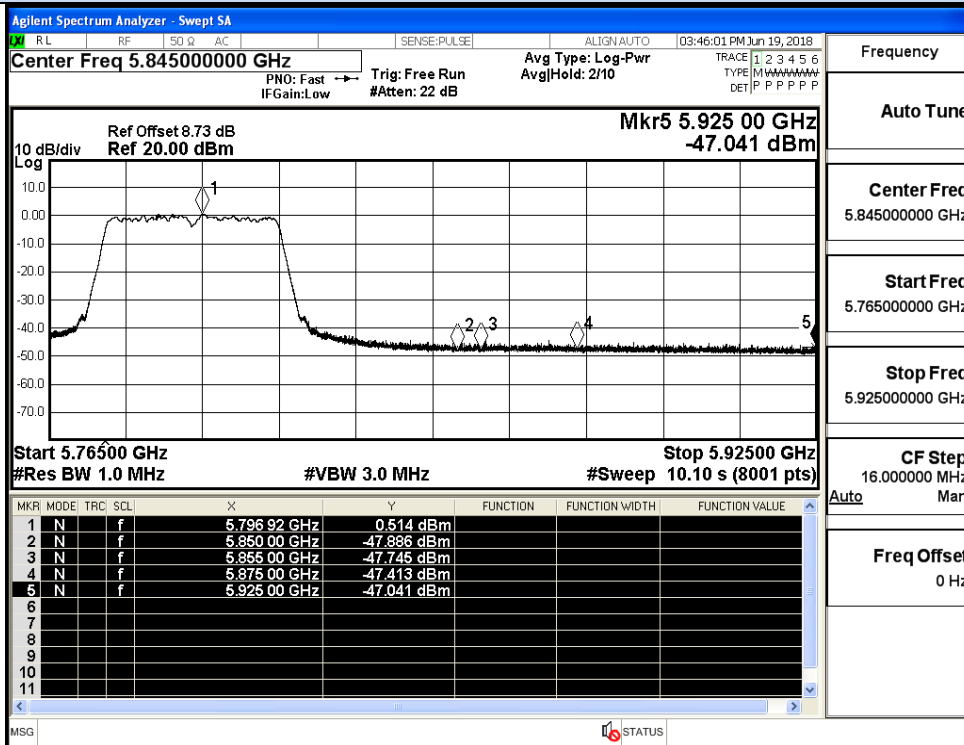
IEEE 802.11ac VHT20 / Channel 149 / 5745MHz / Peak



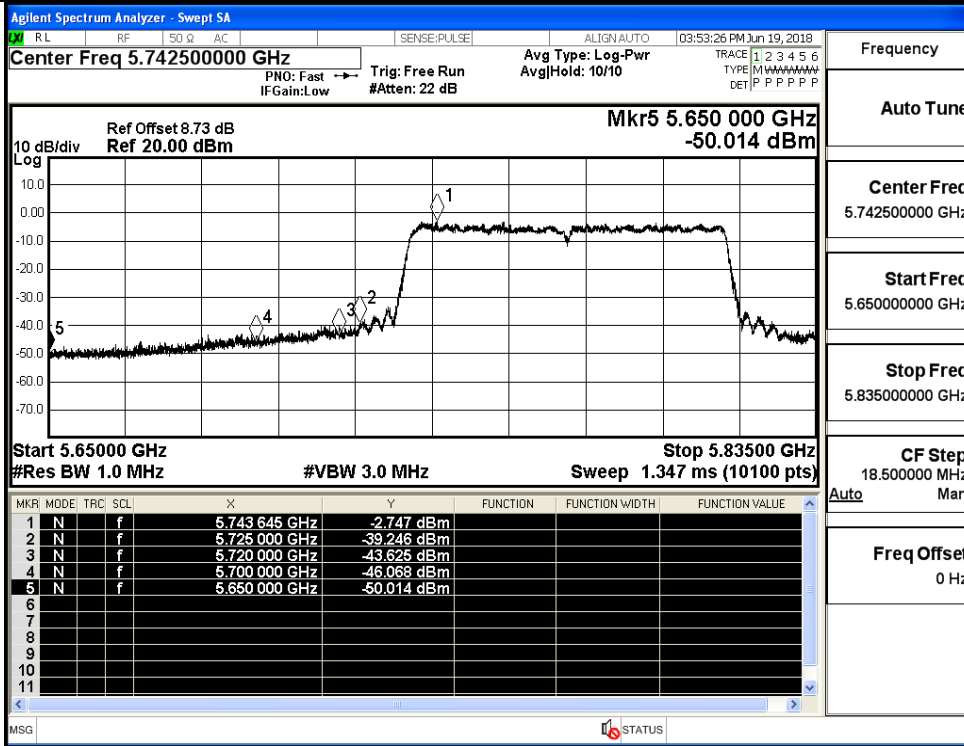
IEEE 802.11ac VHT20 / Channel 165 / 5825MHz / Peak



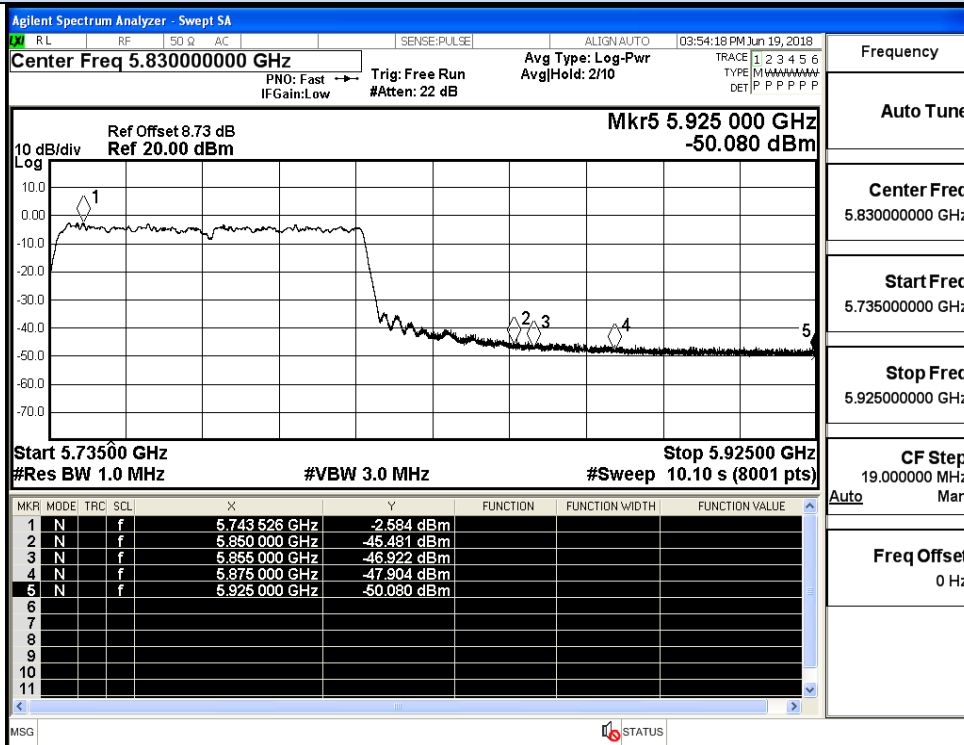
IEEE 802.11ac VHT40 / Channel 151 / 5755MHz / Peak



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



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



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