

## Appendix C

### RF Test Data for 5.8G WLAN (Conducted Measurement)

Product Name: Mini 802.11ac Wireless USB Adapter

Trade Mark: N/A

Test Model: U0611

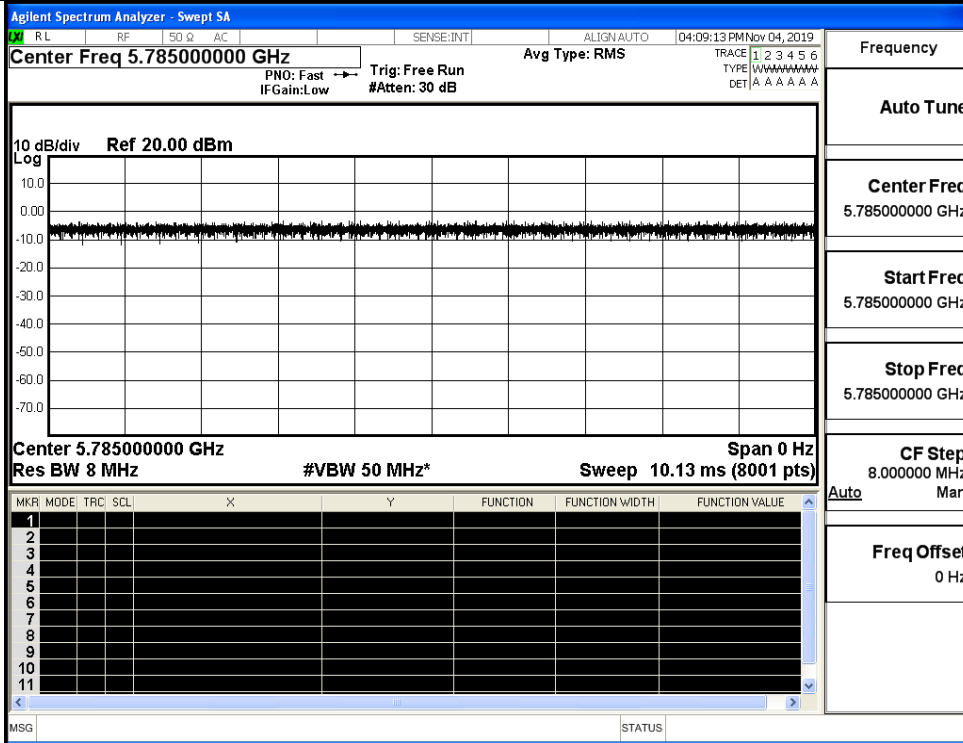
#### Environmental Conditions

Temperature:	23.6°C
Relative Humidity:	51.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Li Huan
Supervised by:	Wang Chuang

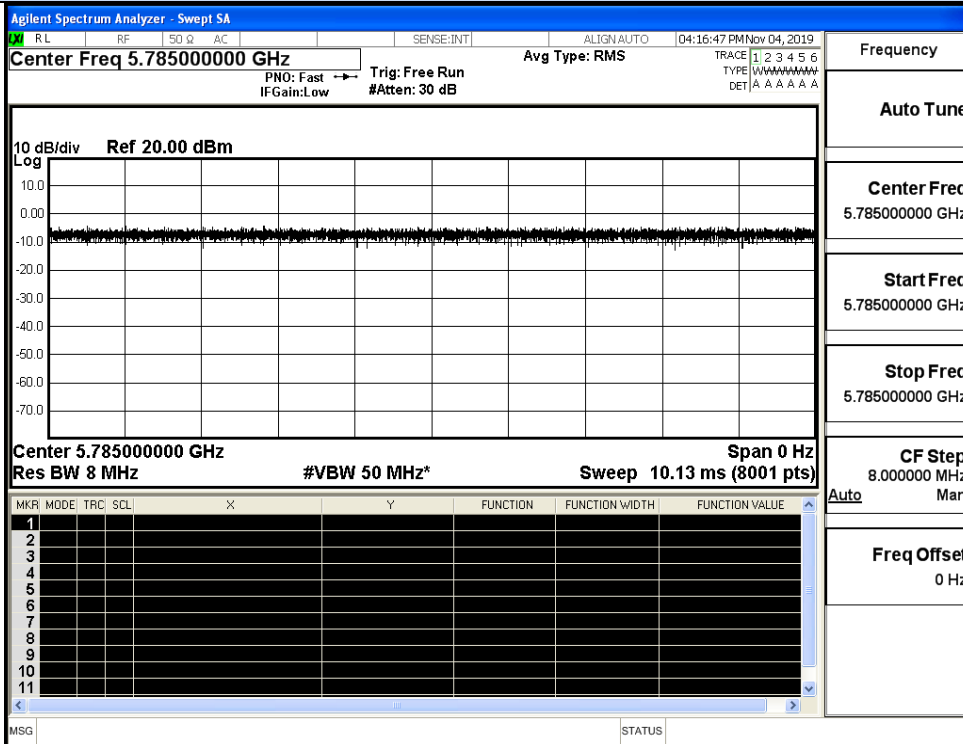
#### C.1 Duty Cycle

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

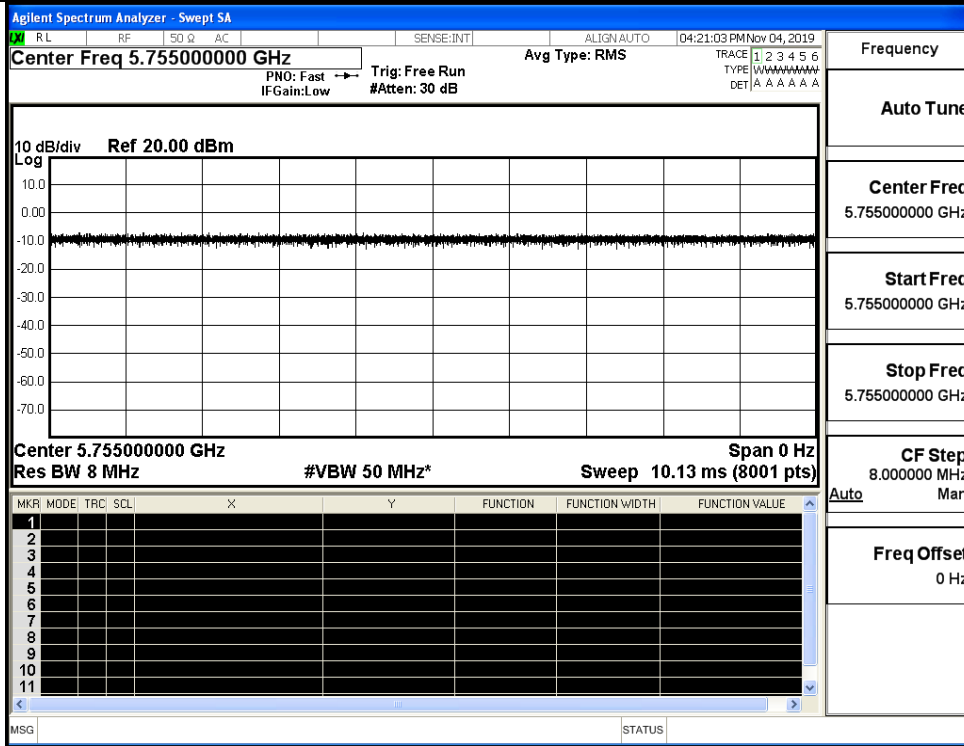
On Time and Duty Cycle



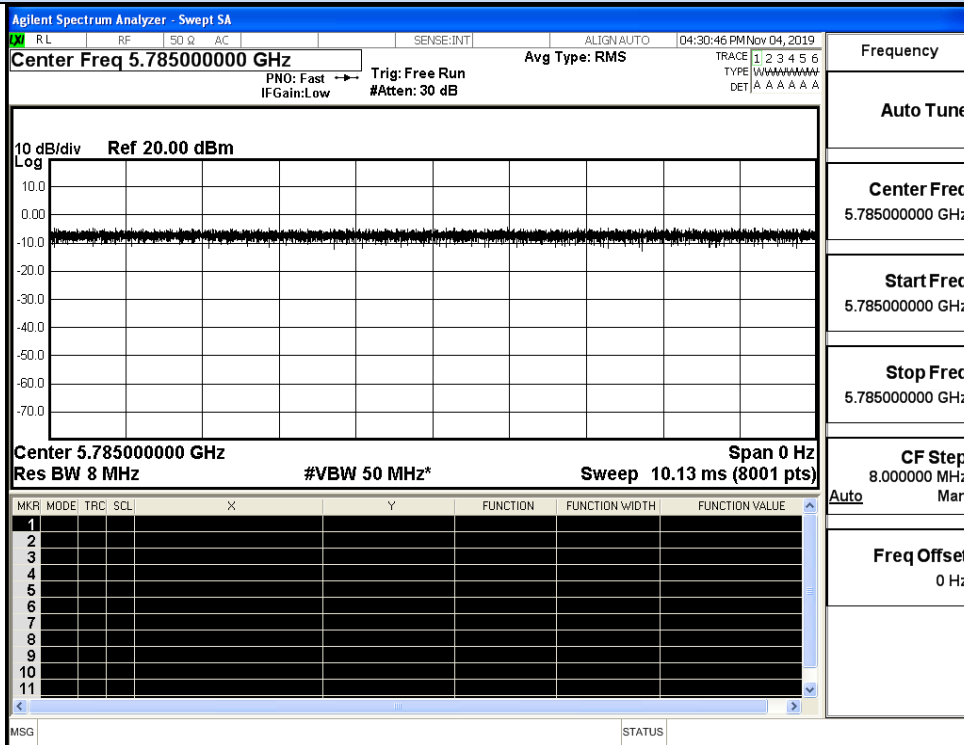
IEEE 802.11a



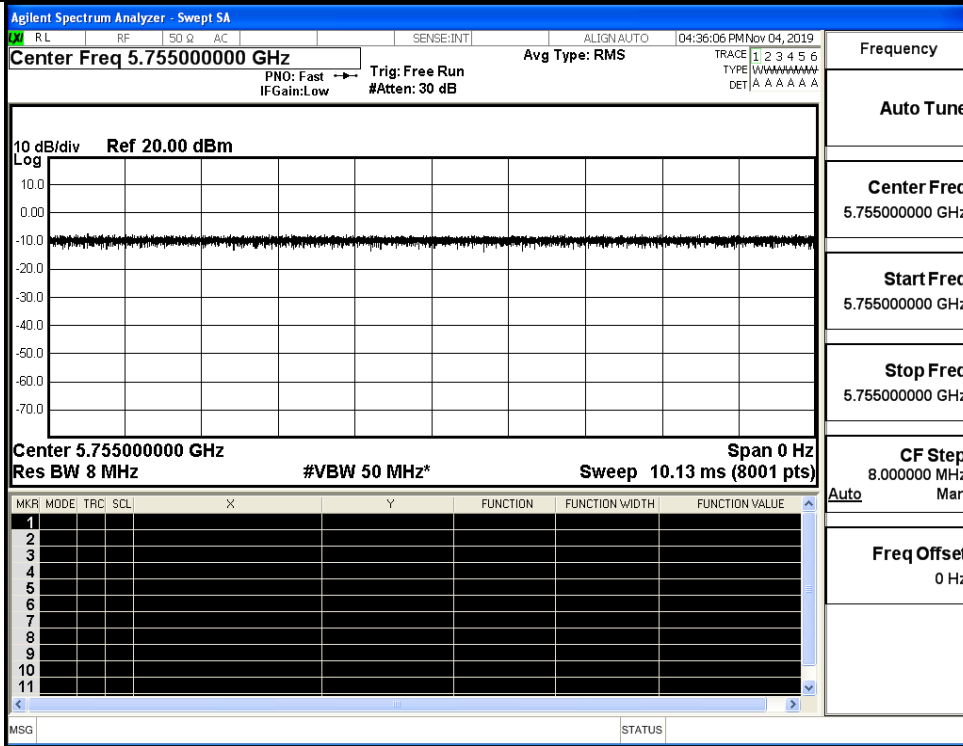
IEEE 802.11n HT20



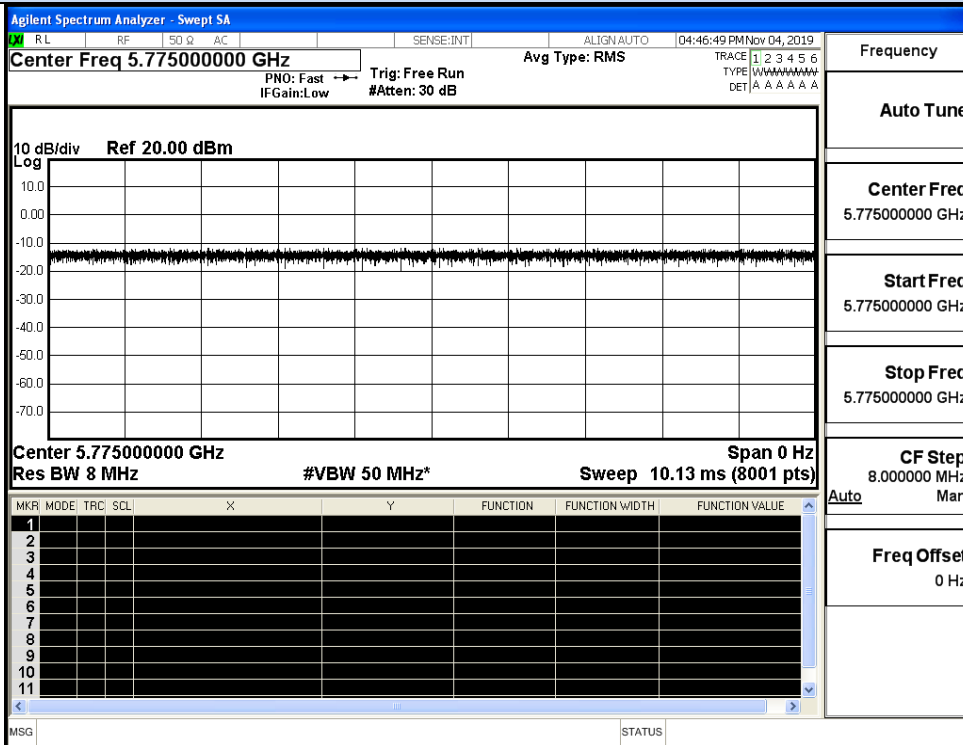
IEEE 802.11n HT40



IEEE 802.11AC20



IEEE 802.11AC40



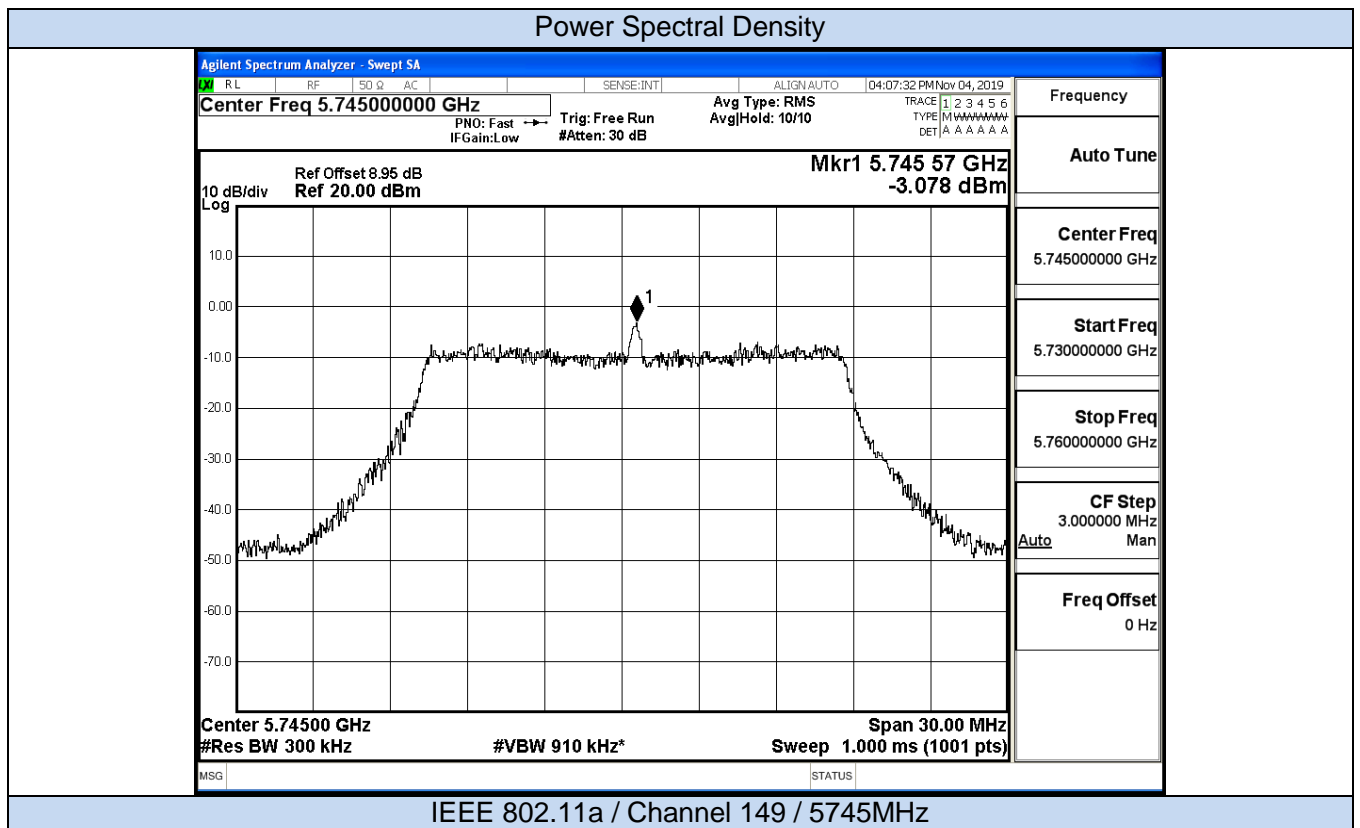
IEEE 802.11AC80

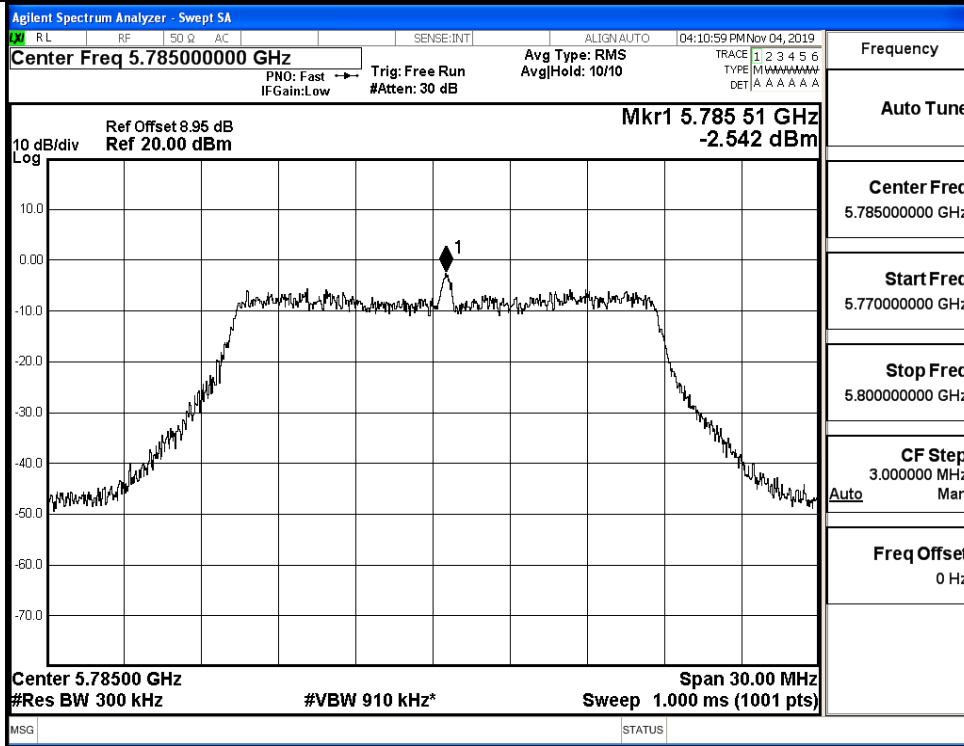
**C.2 Maximum Conduct Output Power**

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	149	5745	6.31	0	6.31	30	Pass
	157	5785	6.16	0	6.16		Pass
	165	5825	6.70	0	6.70		Pass
11N20 SISO	149	5745	6.97	0	6.97	30	Pass
	157	5785	5.91	0	5.91		Pass
	165	5825	6.04	0	6.04		Pass
11N40 SISO	151	5755	5.74	0	5.74	30	Pass
	159	5795	5.91	0	5.91		Pass
11AC20 SISO	149	5745	6.29	0	6.29	30	Pass
	157	5785	6.37	0	6.37		Pass
	165	5825	5.79	0	5.79		Pass
11AC40 SISO	151	5755	5.61	0	5.61	30	Pass
	159	5795	6.74	0	6.74		Pass
11AC80 SISO	155	5775	6.81	0	6.81	30	Pass

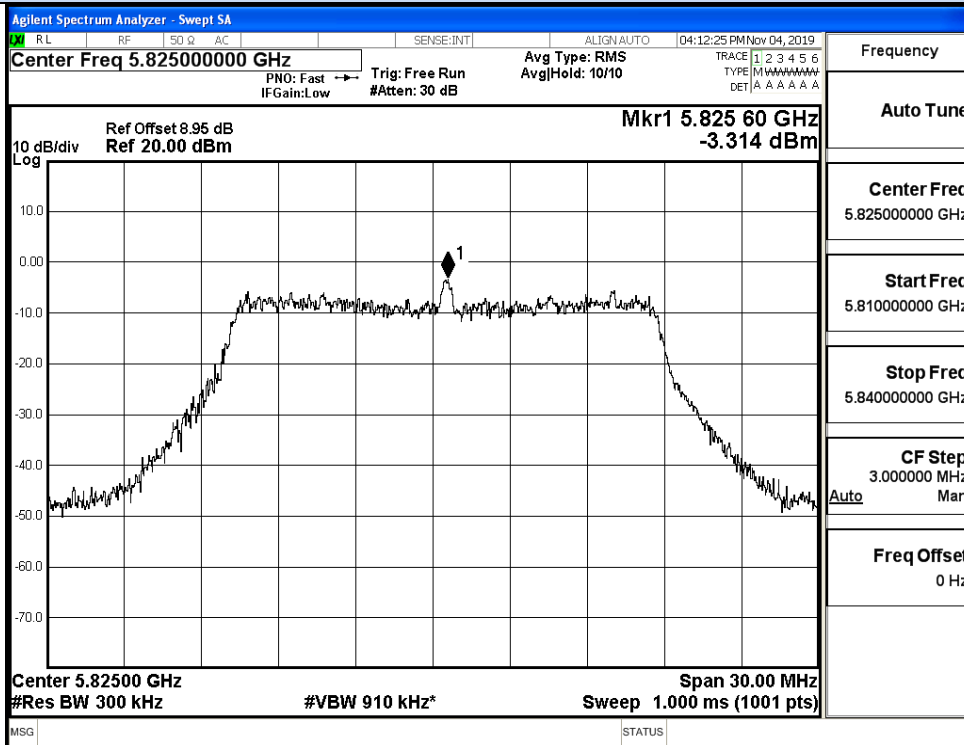
### C.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/500KHz)	Duty Cycle Factor (dB)	RBW Factor (dB)	Report Power Density (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
11A	149	5745	-3.08	0	2.218	-0.86	30	Pass
	157	5785	-2.54	0	2.218	-0.32		Pass
	165	5825	-3.31	0	2.218	-1.10		Pass
11N20 SISO	149	5745	-2.72	0	2.218	-0.50	30	Pass
	157	5785	-2.74	0	2.218	-0.52		Pass
	165	5825	-3.48	0	2.218	-1.26		Pass
11N40 SISO	151	5755	-4.70	0	2.218	-2.48	30	Pass
	159	5795	-5.67	0	2.218	-3.45		Pass
11AC20 SISO	149	5745	-2.83	0	2.218	-0.61	30	Pass
	157	5785	-2.73	0	2.218	-0.51		Pass
	165	5825	-3.37	0	2.218	-1.15		Pass
11AC40 SISO	151	5755	-5.22	0	2.218	-3.00	30	Pass
	159	5795	-5.77	0	2.218	-3.55		Pass
11AC80 SISO	155	5775	-8.51	0	2.218	-6.29	30	Pass



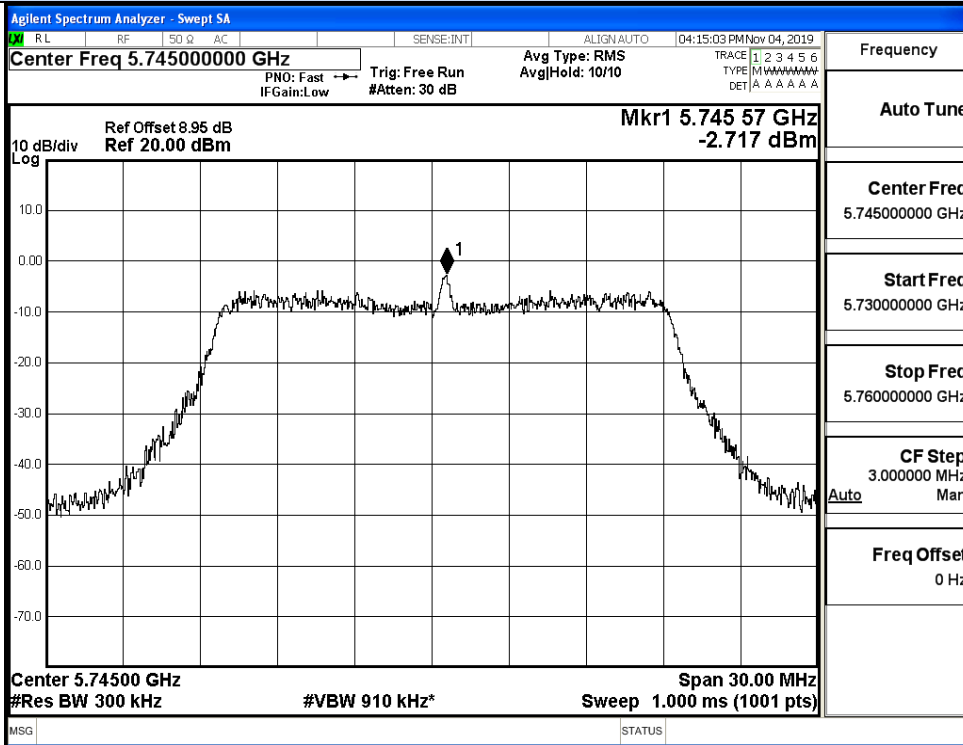


IEEE 802.11na / Channel 157 / 5785MHz

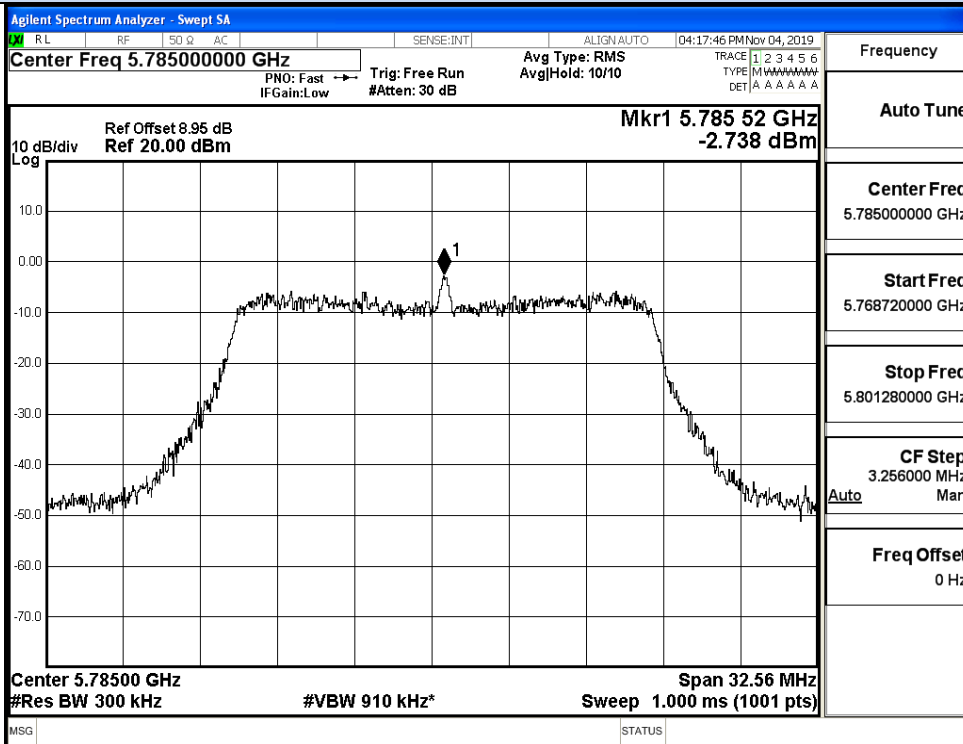


IEEE 802.11na / Channel 165 / 5825MHz

Power Spectral Density

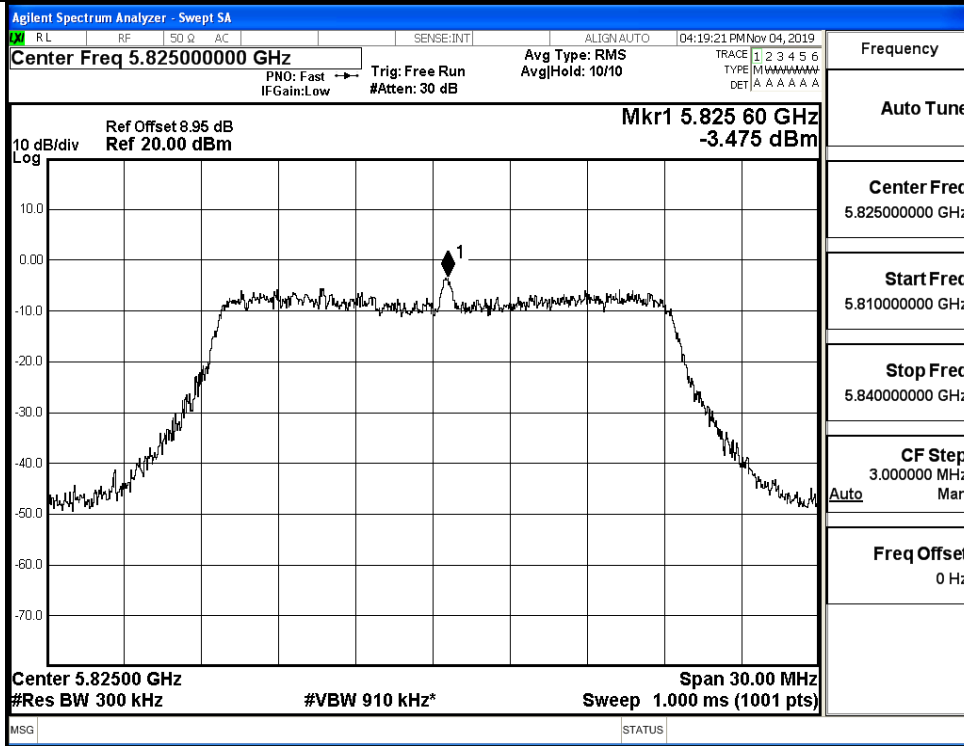


IEEE 802.11n20 / Channel 149 / 5745MHz



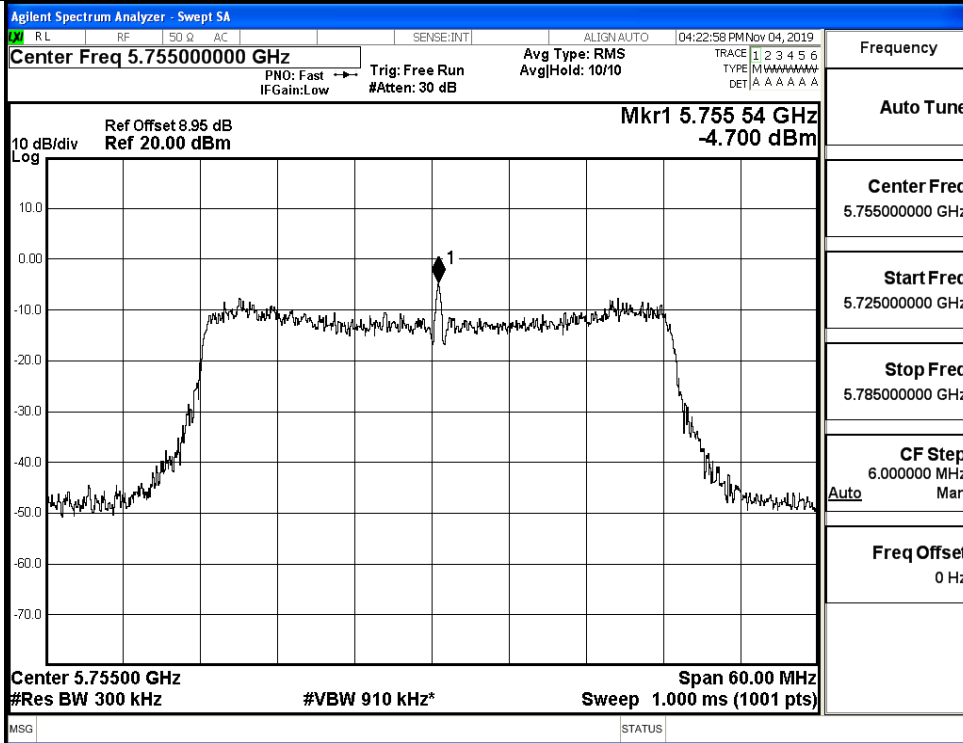
IEEE 802.11n20 / Channel 157 / 5785MHz



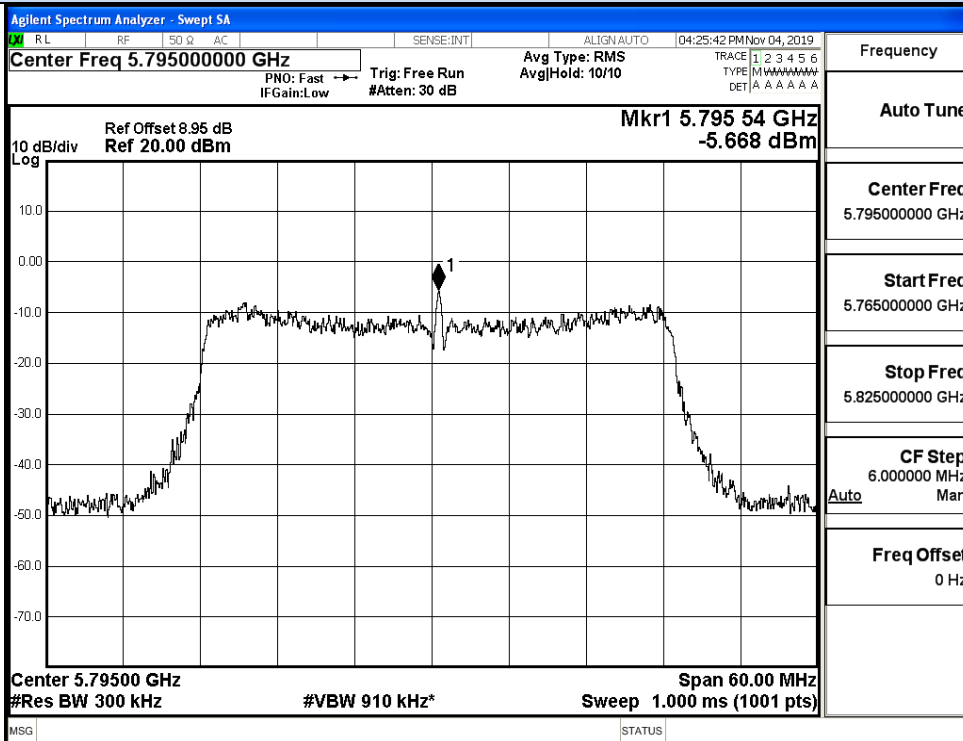


IEEE 802.11n20 / Channel 165 / 5825MHz

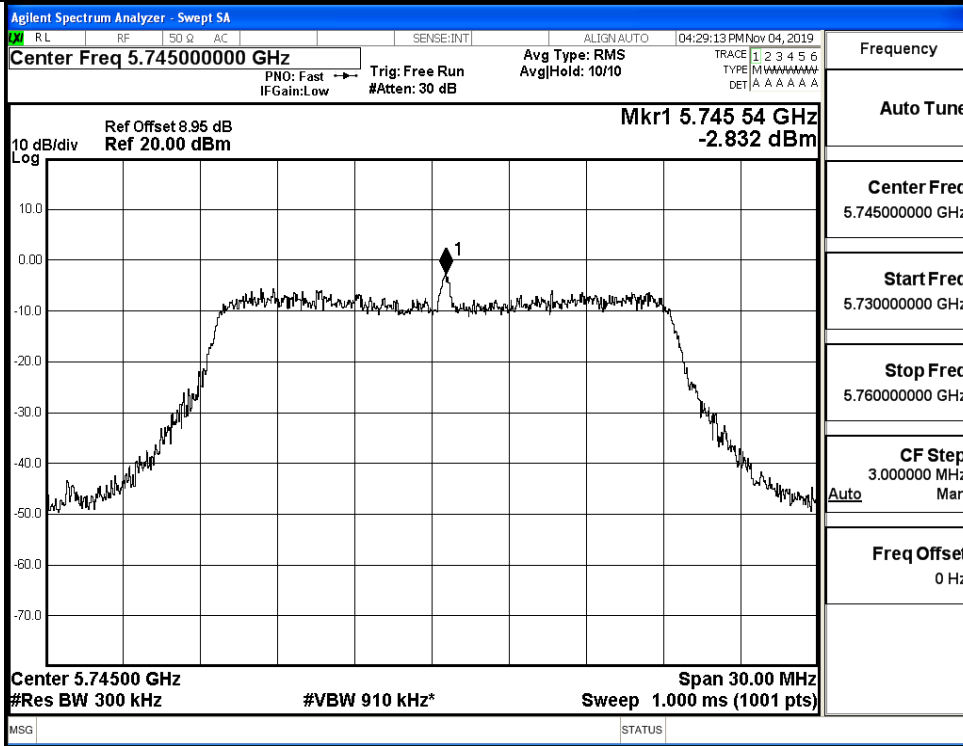
### Power Spectral Density



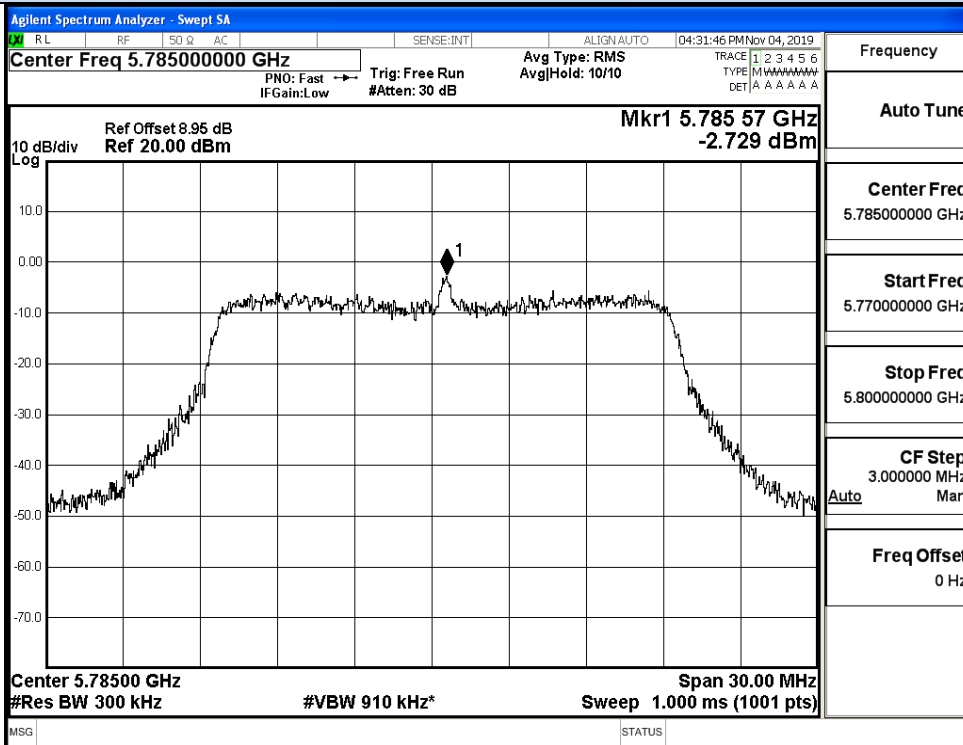
### IEEE 802.11n40 / Channel 151 / 5755MHz



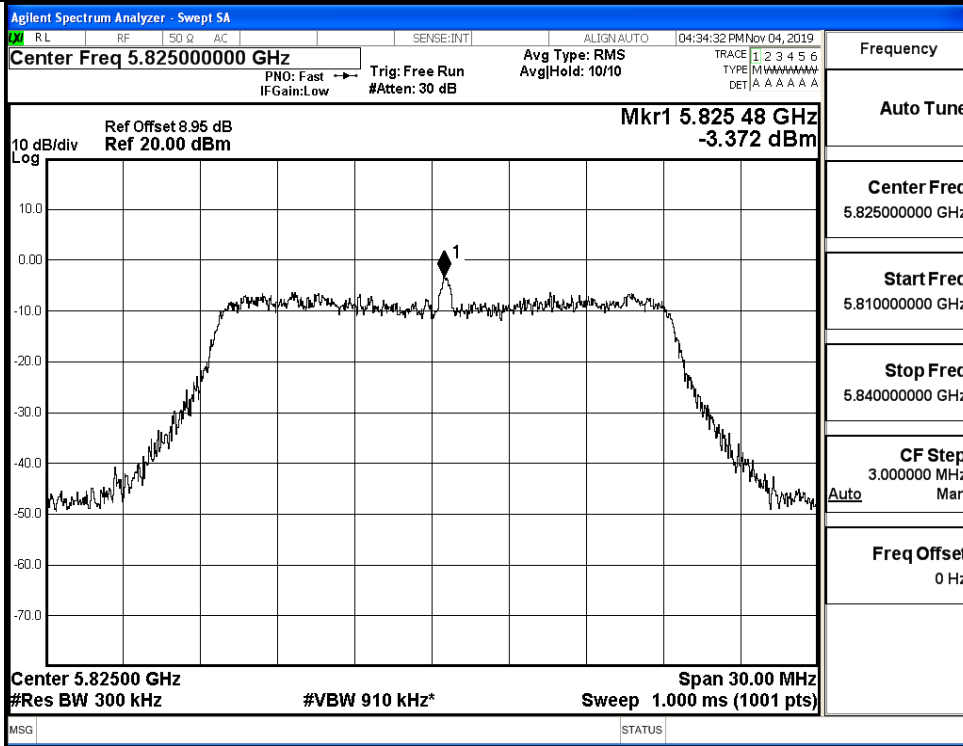
### IEEE 802.11n40 / Channel 159 / 5795MHz



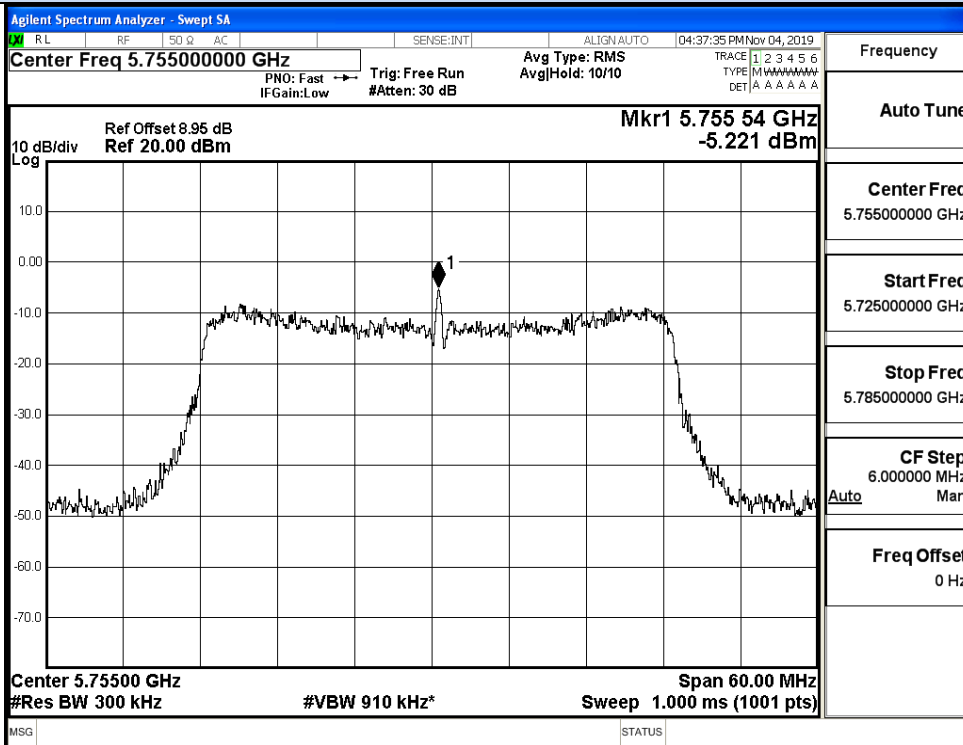
IEEE 802.11ac20 / Channel 149 / 5745MHz



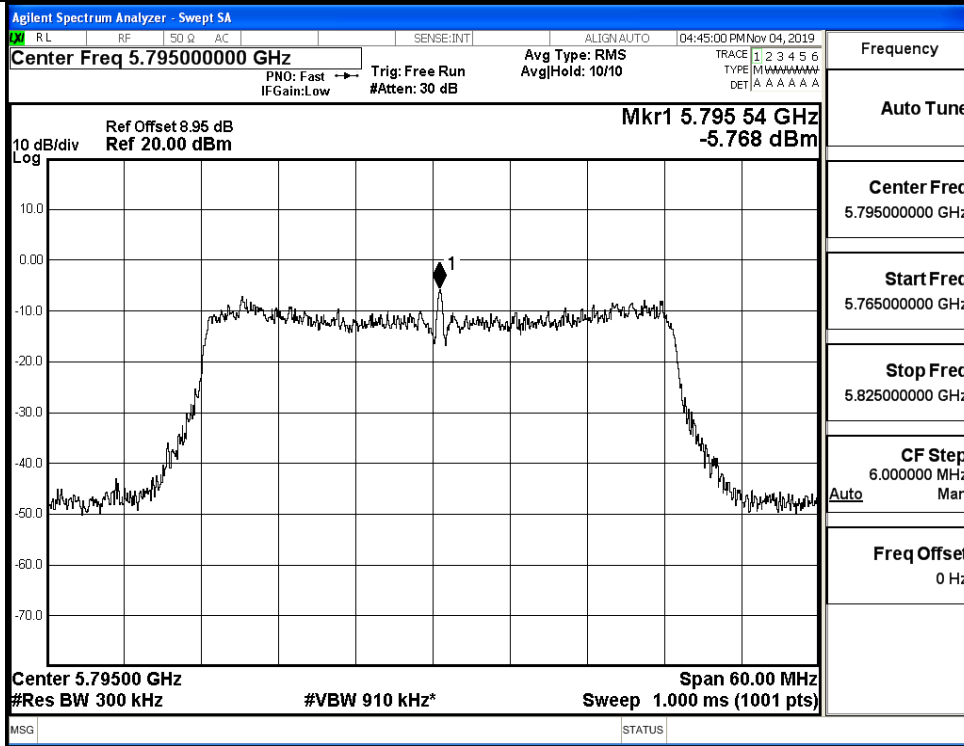
IEEE 802.11ac20 / Channel 157 / 5785MHz



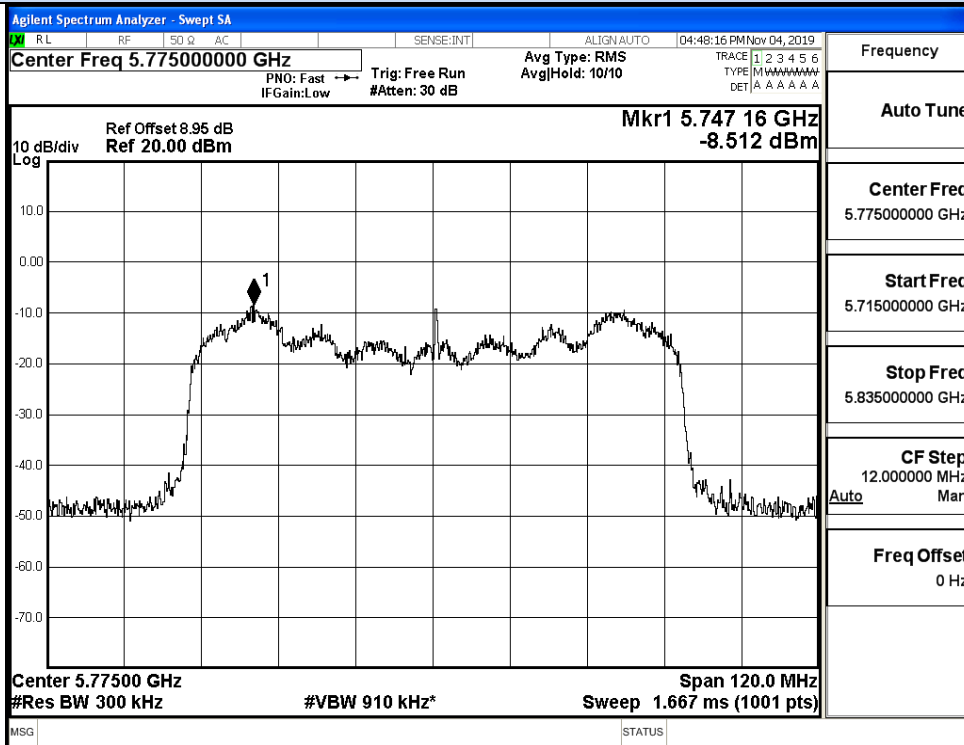
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



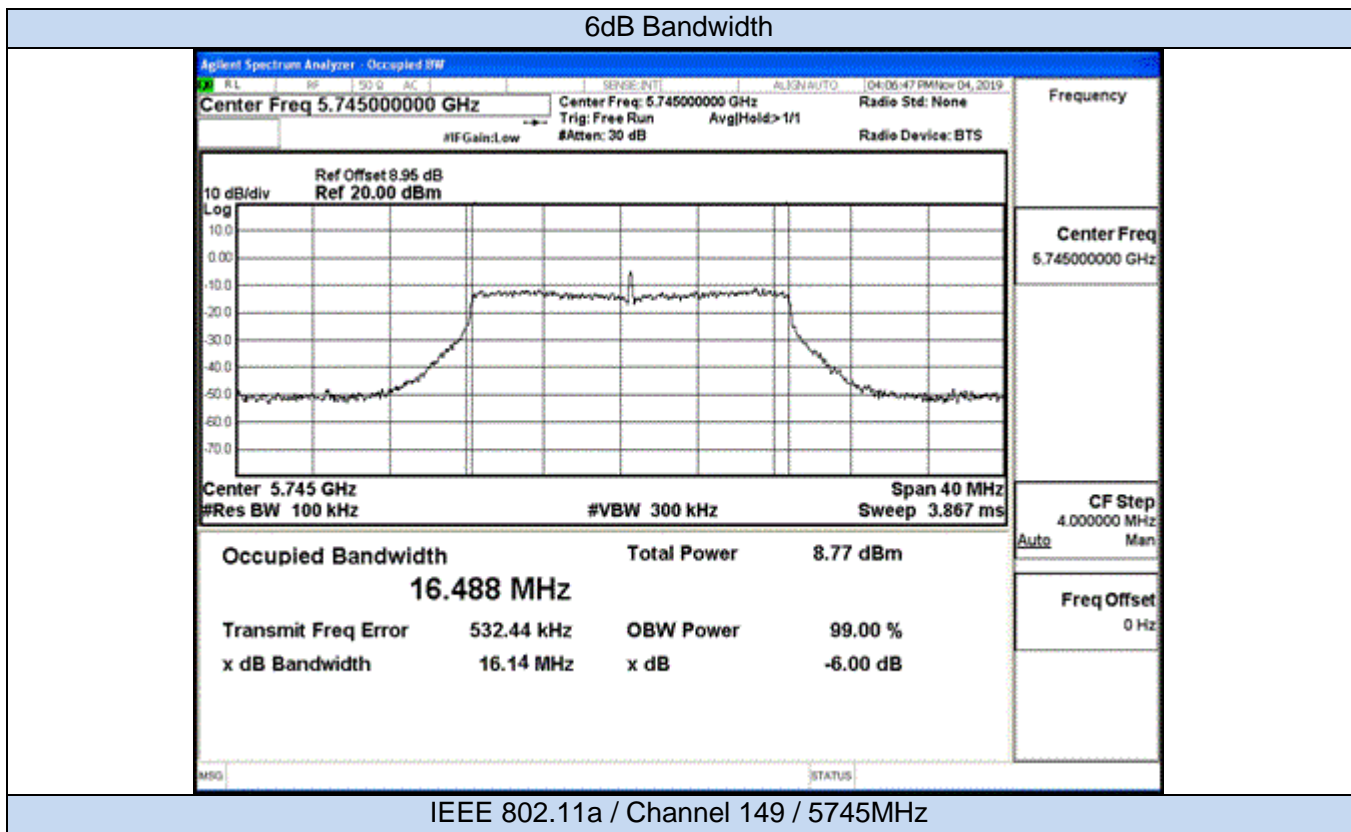
IEEE 802.11ac40 / Channel 159 / 5795MHz

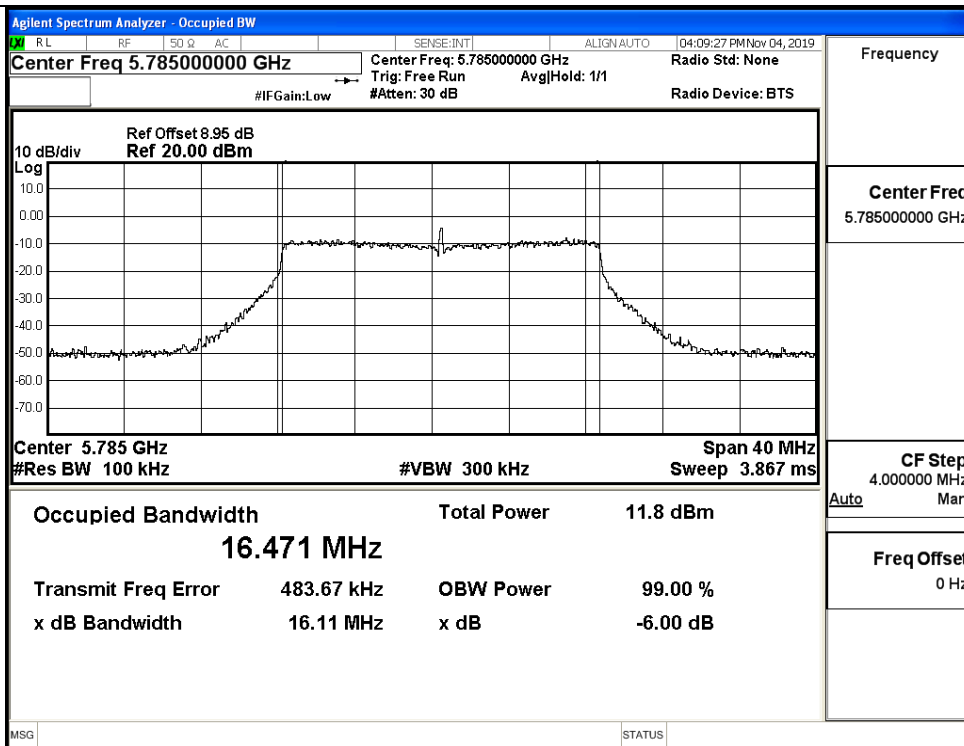


IEEE 802.11ac80 / Channel 155/ 5775MHz

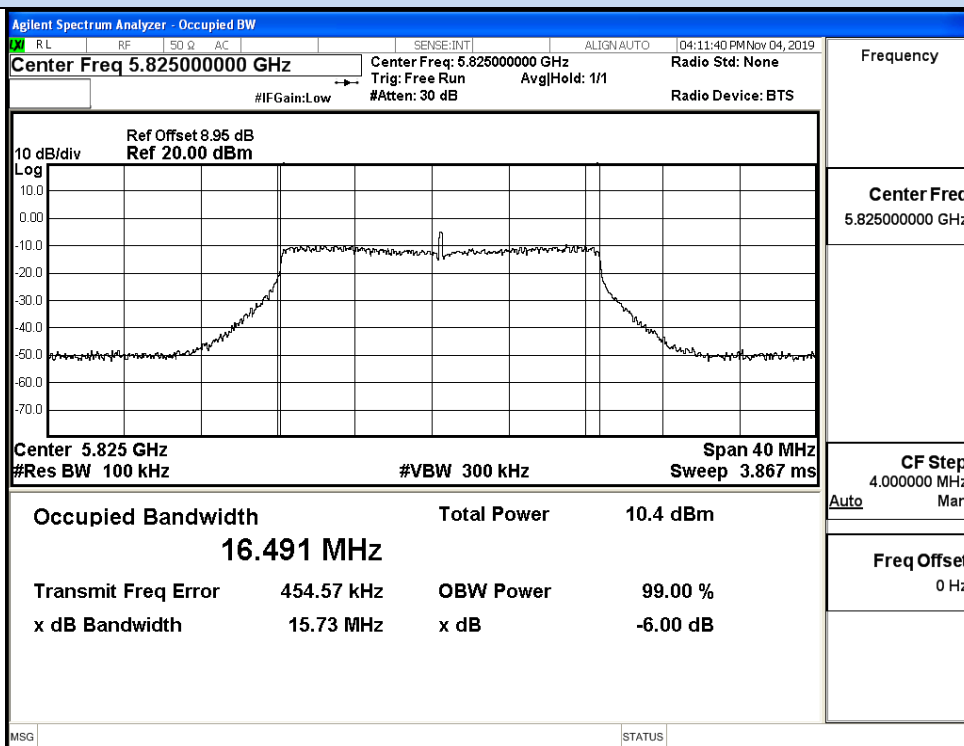
### C.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
11A	149	5745	16.14	>=0.5	Pass
	157	5785	16.11		Pass
	165	5825	15.73		Pass
11N20 SISO	149	5745	16.82	>=0.5	Pass
	157	5785	16.28		Pass
	165	5825	16.32		Pass
11N40 SISO	151	5755	33.20	>=0.5	Pass
	159	5795	14.79		Pass
11AC20S ISO	149	5745	15.81	>=0.5	Pass
	157	5785	15.94		Pass
	165	5825	16.30		Pass
11AC40S ISO	151	5755	33.28	>=0.5	Pass
	159	5795	15.36		Pass
11AC80S ISO	155	5775	65.71	>=0.5	Pass



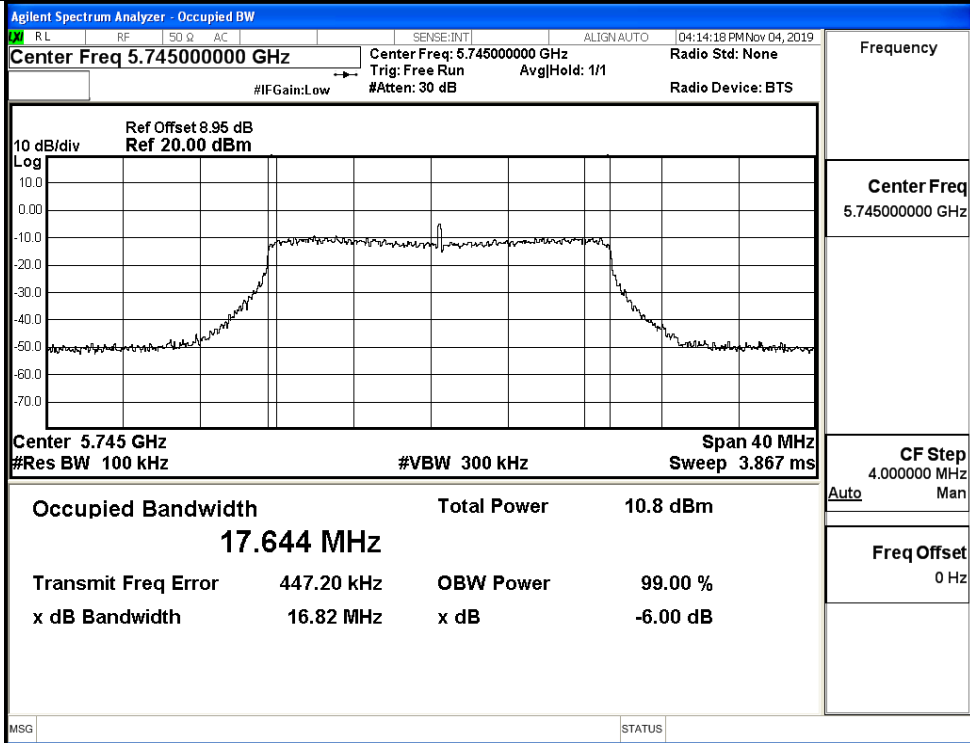


IEEE 802.11a / Channel 157 / 5785MHz

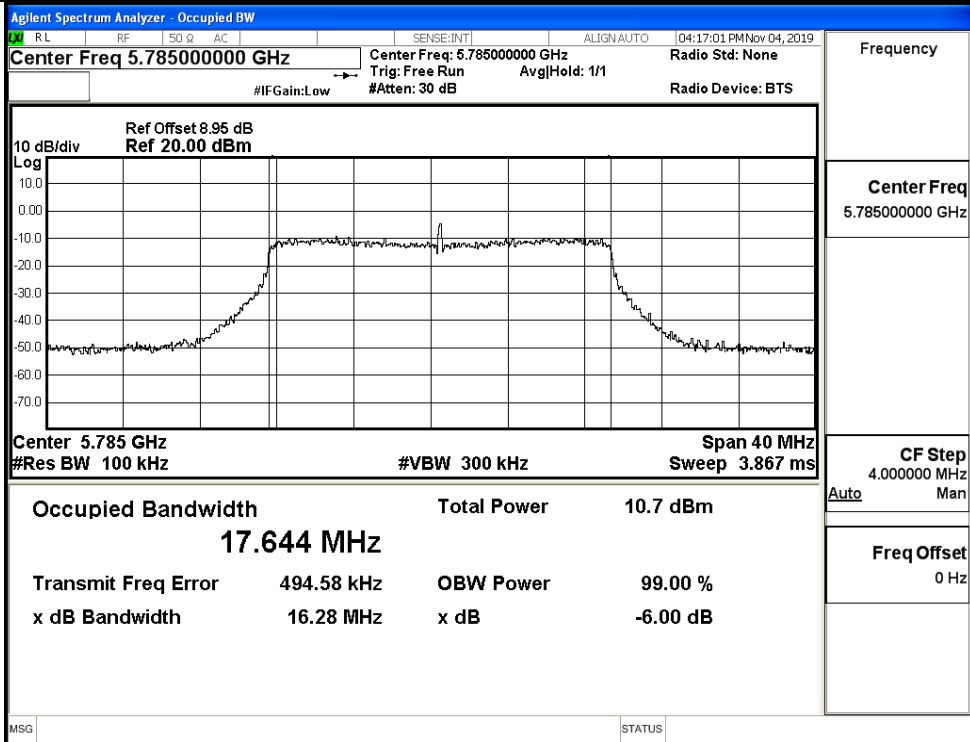


IEEE 802.11a / Channel 165 / 5825MHz

6dB Bandwidth

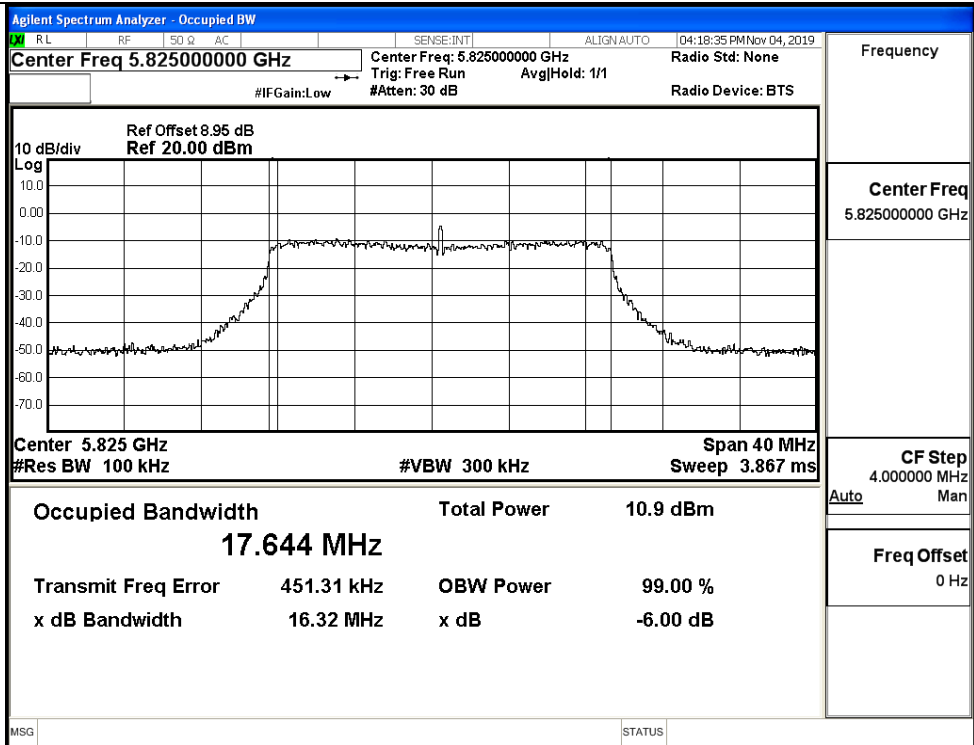


IEEE 802.11n20 / Channel 149 / 5745MHz



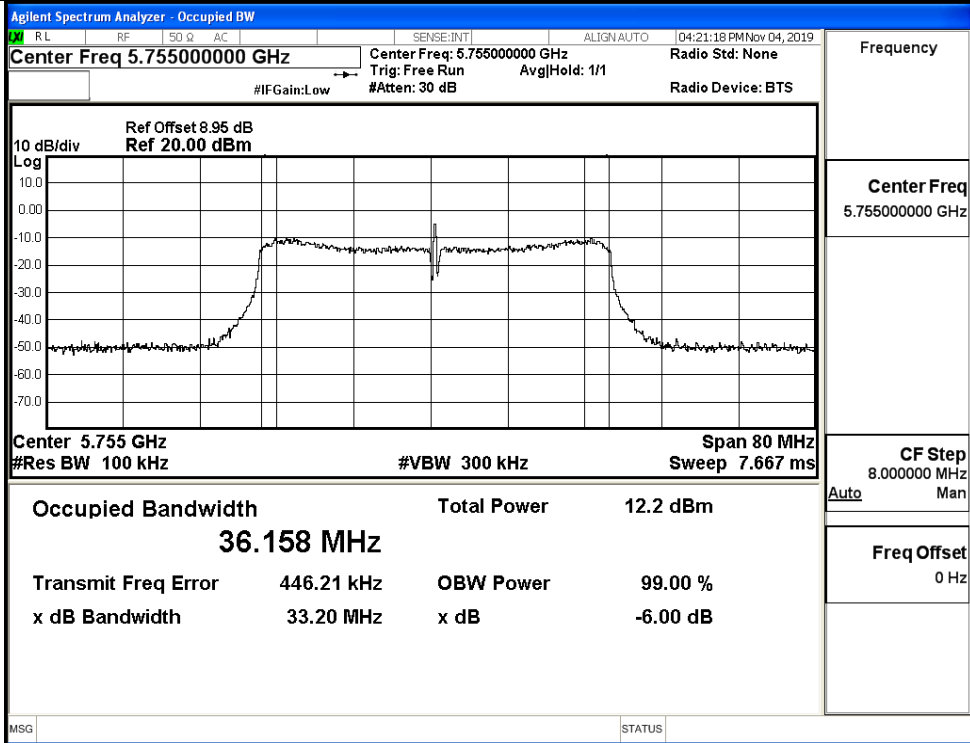
IEEE 802.11n20 / Channel 157 / 5785MHz



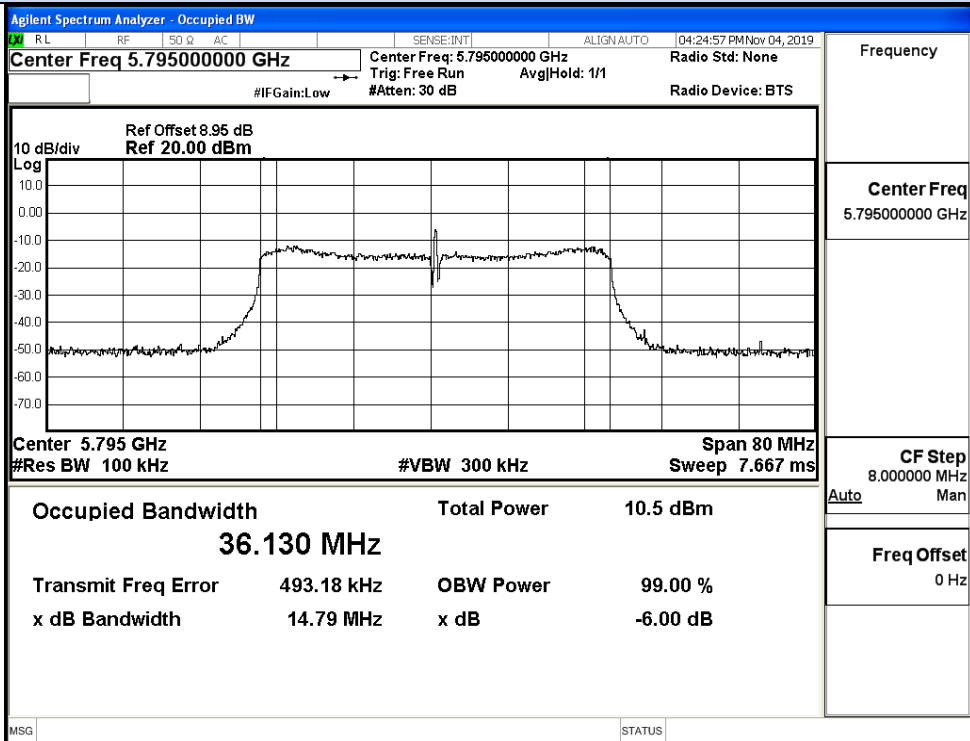


IEEE 802.11n20 / Channel 165 / 5825MHz

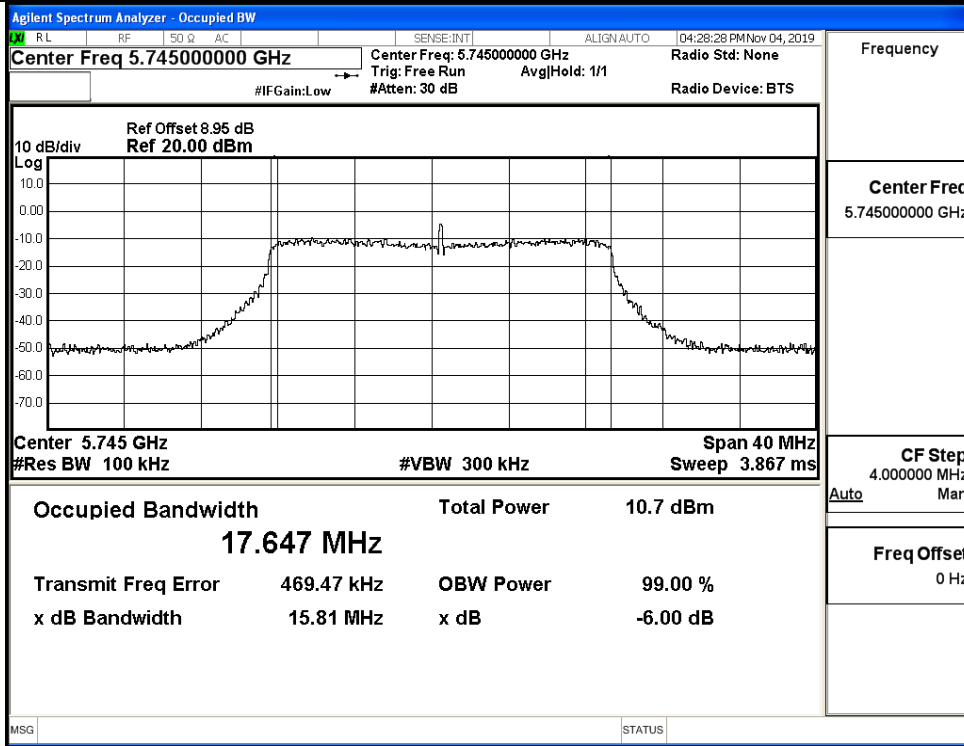
26dB Bandwidth



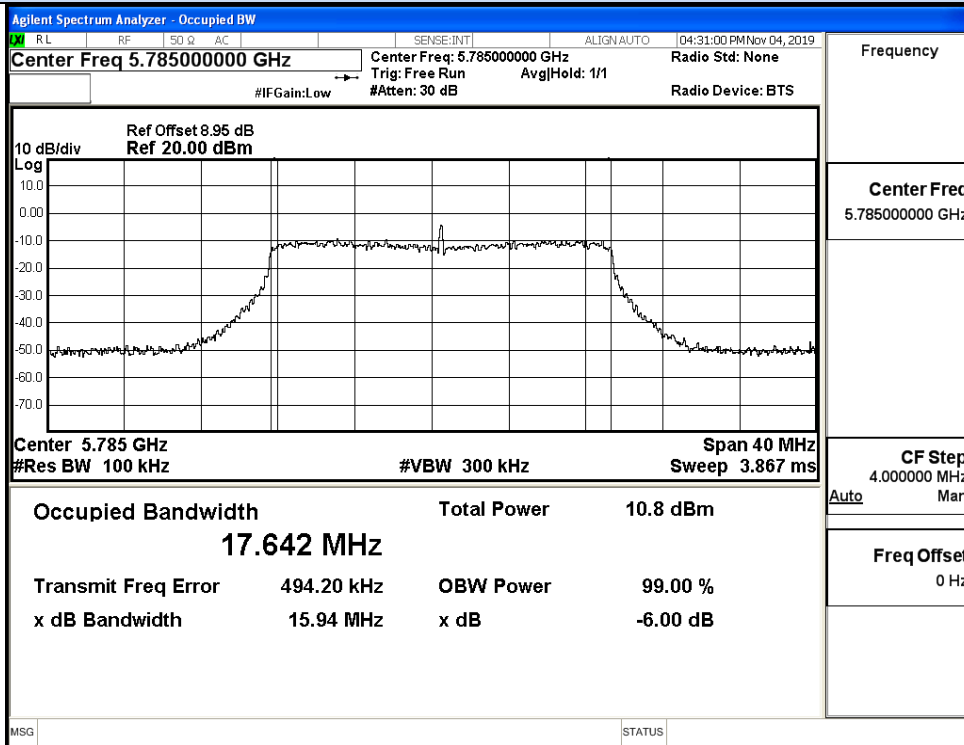
IEEE 802.11n40 / Channel 151 / 5755MHz



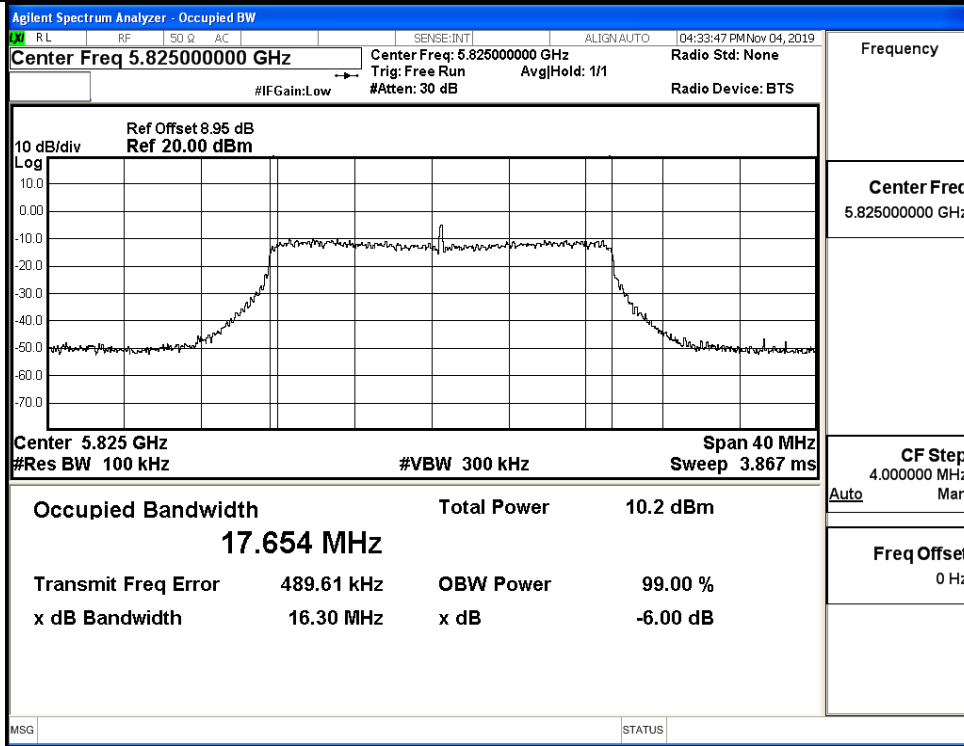
IEEE 802.11n40 / Channel 159 / 5795MHz



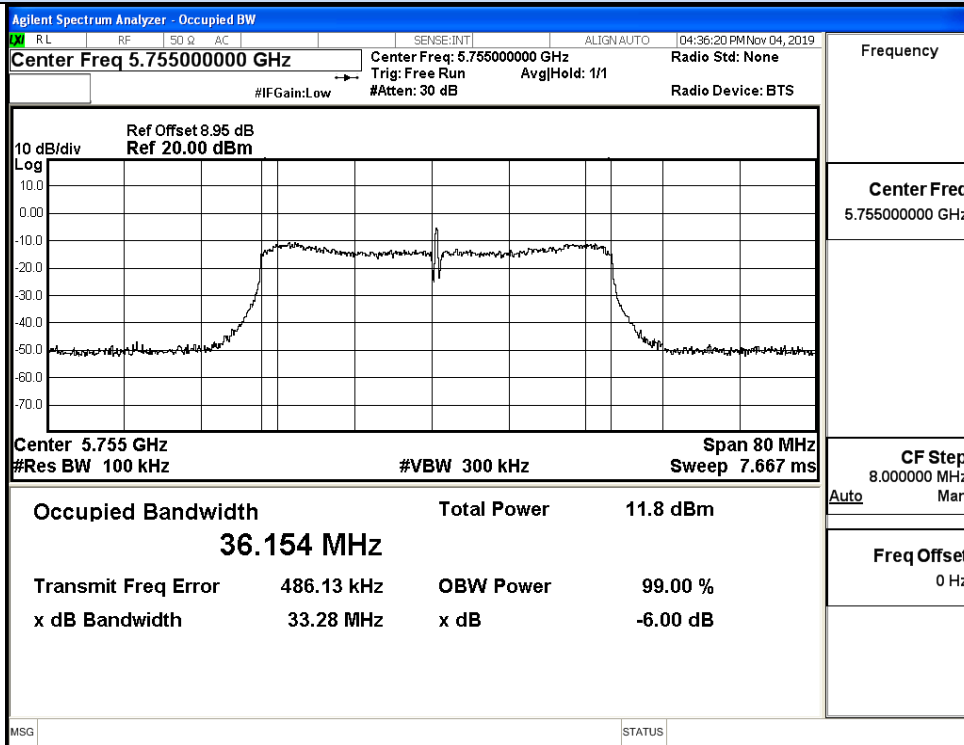
IEEE 802.11ac20 / Channel 149 / 5745MHz



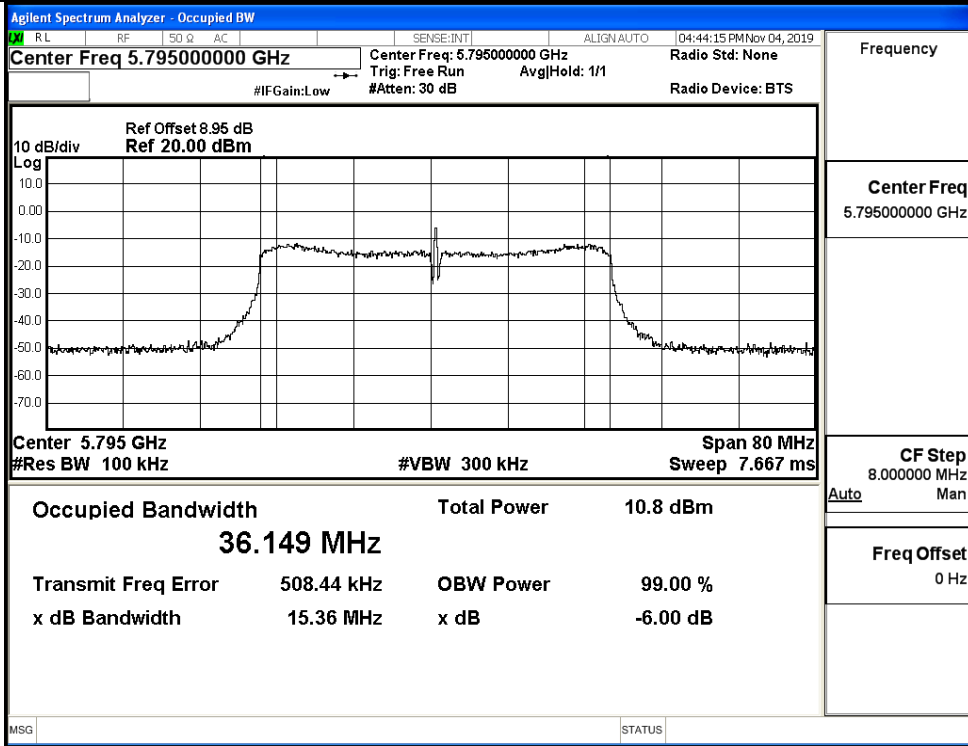
IEEE 802.11ac20 / Channel 157 / 5785MHz



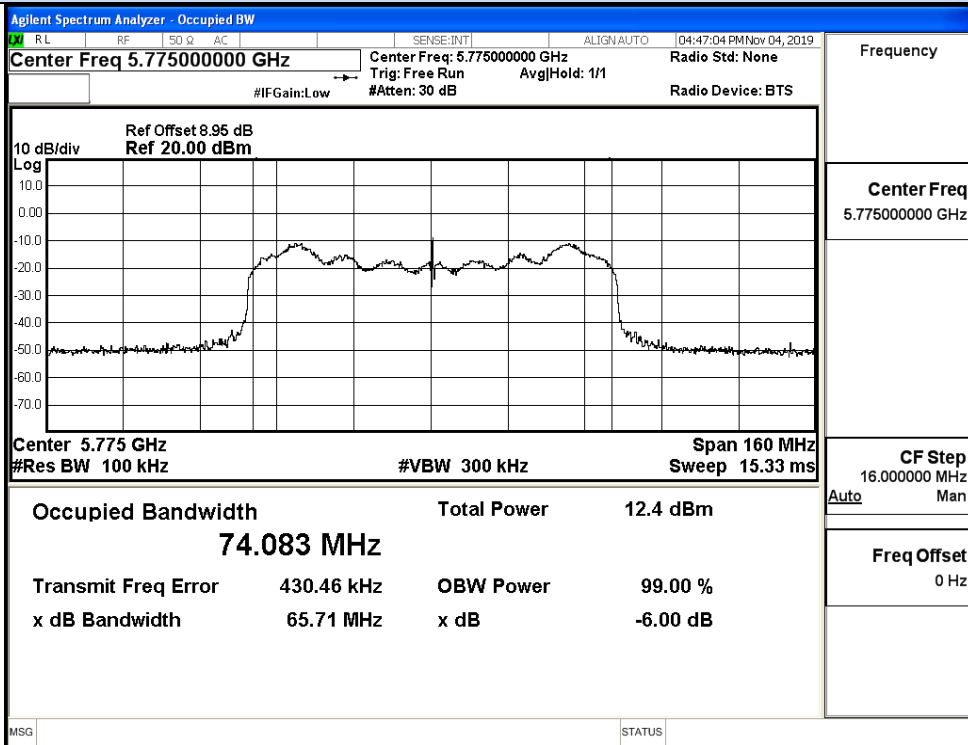
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



IEEE 802.11ac40 / Channel 159 / 5795MHz



IEEE 802.11ac80 / Channel 155 / 5775MHz

### C.5 Undesirable Emissions Measurement

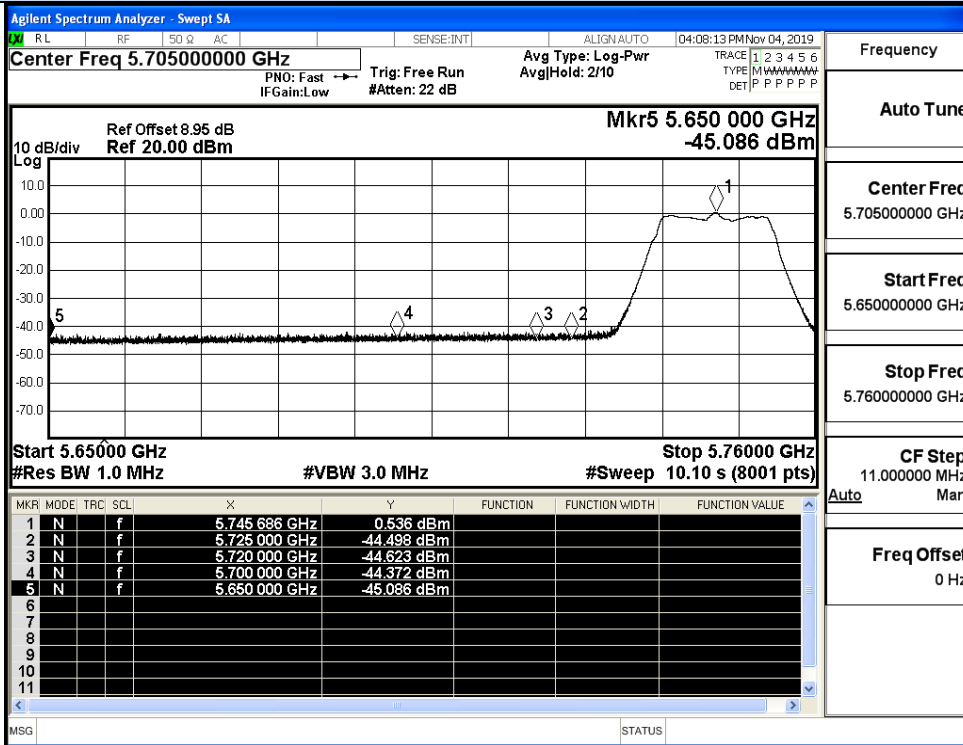
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11A	149	5650.0	-45.09	2.00	-43.09	Peak	-27.0	Pass
		5650.0	-57.37	2.00	-55.37	Average	-27.0	Pass
		5700.0	-44.37	2.00	-42.37	Peak	10	Pass
		5700.0	-56.25	2.00	-54.25	Average	10	Pass
		5720.0	-44.62	2.00	-42.62	Peak	15.6	Pass
		5720.0	-55.96	2.00	-53.96	Average	15.6	Pass
		5725.0	-44.50	2.00	-42.50	Peak	27.0	Pass
		5725.0	-55.79	2.00	-53.79	Average	27.0	Pass
	165	5850.0	-43.07	2.00	-41.07	Peak	27.0	Pass
		5850.0	-55.16	2.00	-53.16	Average	27.0	Pass
		5855.0	-43.74	2.00	-41.74	Peak	15.6	Pass
		5855.0	-55.33	2.00	-53.33	Average	15.6	Pass
		5875.0	-42.99	2.00	-40.99	Peak	10	Pass
		5875.0	-55.86	2.00	-53.86	Average	10	Pass
		5925.0	-46.11	2.00	-44.11	Peak	-27.0	Pass
		5925.0	-56.92	2.00	-54.92	Average	-27.0	Pass
11N20 SISO	149	5650.0	-44.91	2.00	-42.91	Peak	-27.0	Pass
		5650.0	-57.07	2.00	-55.07	Average	-27.0	Pass
		5700.0	-43.60	2.00	-41.60	Peak	10	Pass
		5700.0	-55.59	2.00	-53.59	Average	10	Pass
		5720.0	-43.40	2.00	-41.40	Peak	15.6	Pass
		5720.0	-55.95	2.00	-53.95	Average	15.6	Pass
		5725.0	-43.08	2.00	-41.08	Peak	27.0	Pass
		5725.0	-55.29	2.00	-53.29	Average	27.0	Pass
	165	5850.0	-44.18	2.00	-42.18	Peak	27.0	Pass
		5850.0	-55.32	2.00	-53.32	Average	27.0	Pass
		5855.0	-44.51	2.00	-42.51	Peak	15.6	Pass
		5855.0	-55.51	2.00	-53.51	Average	15.6	Pass
		5875.0	-43.94	2.00	-41.94	Peak	10	Pass
		5875.0	-56.00	2.00	-54.00	Average	10	Pass
		5925.0	-45.09	2.00	-43.09	Peak	-27.0	Pass
		5925.0	-57.11	2.00	-55.11	Average	-27.0	Pass
11N40 SISO	151	5650.0	-45.60	2.00	-43.60	Peak	-27.0	Pass
		5650.0	-57.82	2.00	-55.82	Average	-27.0	Pass
		5700.0	-45.06	2.00	-43.06	Peak	10	Pass
		5700.0	-56.77	2.00	-54.77	Average	10	Pass
		5720.0	-44.28	2.00	-42.28	Peak	15.6	Pass

	159	5720.0	-56.21	2.00	-54.21	Average	15.6	Pass		
		5725.0	-43.47	2.00	-41.47	Peak	27.0	Pass		
		5725.0	-55.85	2.00	-53.85	Average	27.0	Pass		
		5850.0	-44.42	2.00	-42.42	Peak	27.0	Pass		
		5850.0	-56.29	2.00	-54.29	Average	27.0	Pass		
		5855.0	-44.69	2.00	-42.69	Peak	15.6	Pass		
		5855.0	-56.40	2.00	-54.40	Average	15.6	Pass		
		5875.0	-45.81	2.00	-43.81	Peak	10	Pass		
		5875.0	-56.77	2.00	-54.77	Average	10	Pass		
		5925.0	-45.59	2.00	-43.59	Peak	-27.0	Pass		
		5925.0	-57.76	2.00	-55.76	Average	-27.0	Pass		
		11AC20 SISO	149	5650.0	-45.75	2.00	-43.75	Peak	-27.0	Pass
5650.0	-57.09			2.00	-55.09	Average	-27.0	Pass		
5700.0	-44.15			2.00	-42.15	Peak	10	Pass		
5700.0	-55.54			2.00	-53.54	Average	10	Pass		
5720.0	-43.72			2.00	-41.72	Peak	15.6	Pass		
5720.0	-55.91			2.00	-53.91	Average	15.6	Pass		
5725.0	-42.55			2.00	-40.55	Peak	27.0	Pass		
5725.0	-55.27			2.00	-53.27	Average	27.0	Pass		
165	5850.0		-43.52	2.00	-41.52	Peak	27.0	Pass		
	5850.0		-55.31	2.00	-53.31	Average	27.0	Pass		
	5855.0		-44.14	2.00	-42.14	Peak	15.6	Pass		
	5855.0		-55.47	2.00	-53.47	Average	15.6	Pass		
	5875.0		-44.49	2.00	-42.49	Peak	10	Pass		
	5875.0		-56.00	2.00	-54.00	Average	10	Pass		
	5925.0		-44.72	2.00	-42.72	Peak	-27.0	Pass		
	5925.0		-57.10	2.00	-55.10	Average	-27.0	Pass		
	11AC40 SISO		151	5650.0	-46.67	2.00	-44.67	Peak	-27.0	Pass
				5650.0	-57.95	2.00	-55.95	Average	-27.0	Pass
5700.0		-45.52		2.00	-43.52	Peak	10	Pass		
5700.0		-56.96		2.00	-54.96	Average	10	Pass		
5720.0		-45.19		2.00	-43.19	Peak	15.6	Pass		
5720.0		-56.46		2.00	-54.46	Average	15.6	Pass		
5725.0		-43.14		2.00	-41.14	Peak	27.0	Pass		
5725.0		-56.06		2.00	-54.06	Average	27.0	Pass		
159		5850.0	-45.26	2.00	-43.26	Peak	27.0	Pass		
		5850.0	-56.47	2.00	-54.47	Average	27.0	Pass		
		5855.0	-44.62	2.00	-42.62	Peak	15.6	Pass		
		5855.0	-56.66	2.00	-54.66	Average	15.6	Pass		
		5875.0	-44.29	2.00	-42.29	Peak	10	Pass		

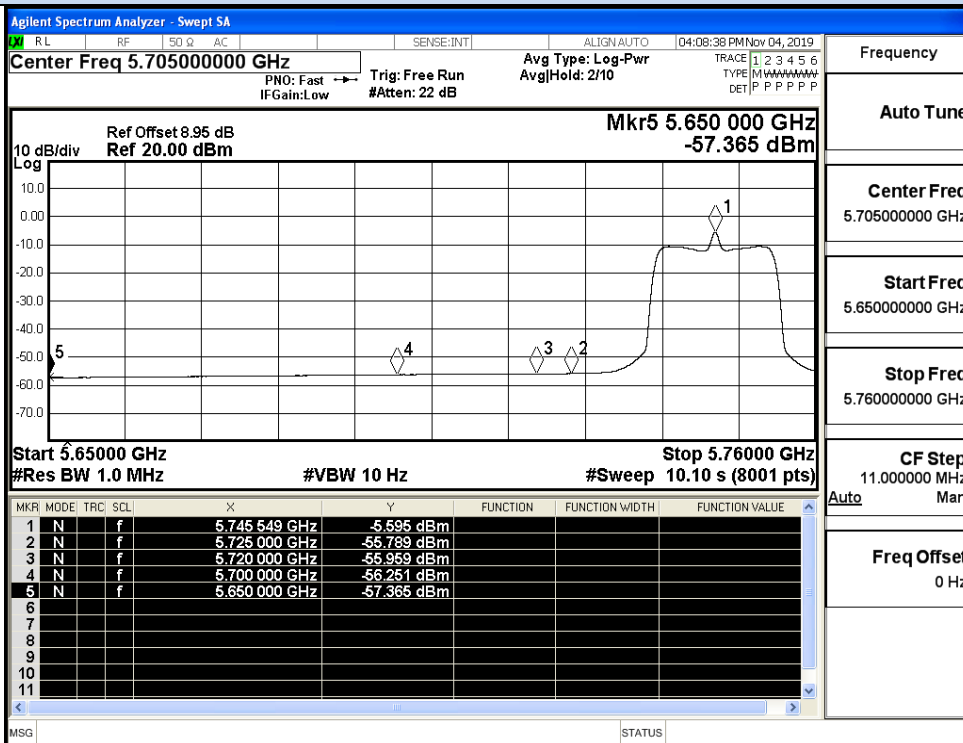
		5875.0	-56.98	2.00	-54.98	Average	10	Pass
		5925.0	-46.01	2.00	-44.01	Peak	-27.0	Pass
		5925.0	-57.96	2.00	-55.96	Average	-27.0	Pass
11AC80 SISO	155	5725.0	-45.52	2.00	-43.52	Peak	27.0	Pass
		5720.0	-45.49	2.00	-43.49	Peak	15.6	Pass
		5700.0	-46.65	2.00	-44.65	Peak	10	Pass
		5650.0	-45.95	2.00	-43.95	Peak	-27.0	Pass
		5725.0	-56.41	2.00	-54.41	Average	27.0	Pass
		5720.0	-56.52	2.00	-54.52	Average	15.6	Pass
		5700.0	-57.24	2.00	-55.24	Average	10	Pass
		5650.0	-58.09	2.00	-56.09	Average	-27.0	Pass
		5850.0	-45.52	2.00	-43.52	Peak	27.0	Pass
		5855.0	-45.49	2.00	-43.49	Peak	15.6	Pass
		5875.0	-46.65	2.00	-44.65	Peak	10	Pass
		5925.0	-45.95	2.00	-43.95	Peak	-27.0	Pass
		5850.0	-56.41	2.00	-54.41	Average	27.0	Pass
		5855.0	-56.52	2.00	-54.52	Average	15.6	Pass
		5875.0	-57.24	2.00	-55.24	Average	10	Pass
		5925.0	-58.09	2.00	-56.09	Average	-27.0	Pass



Undesirable Emissions Measurement

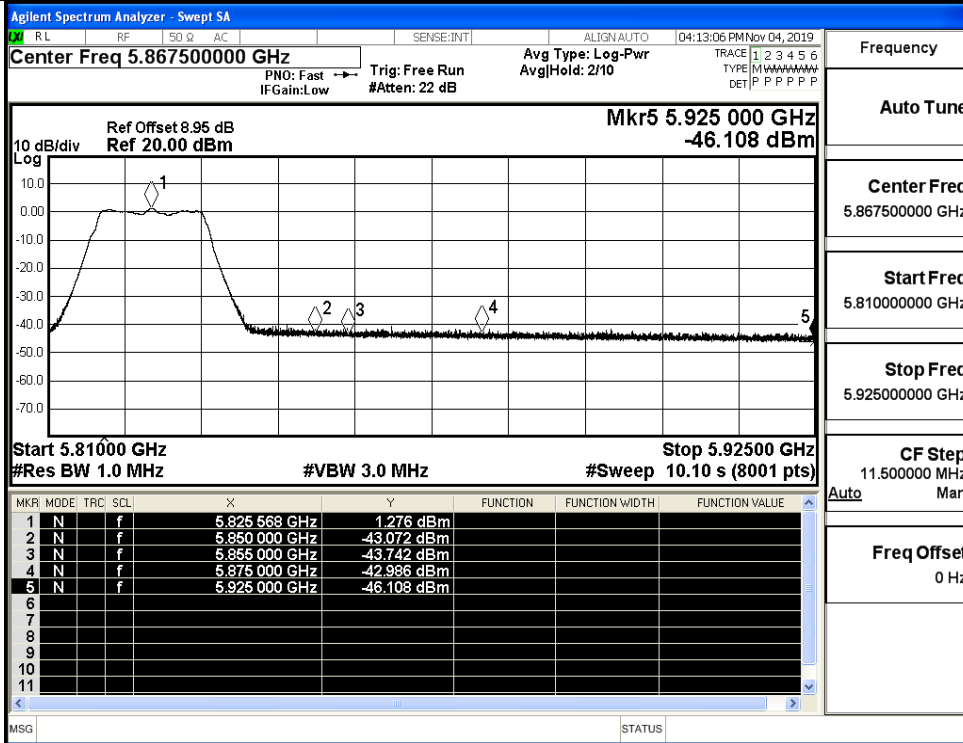


IEEE 802.11a / Channel 149 / 5745MHz / Peak

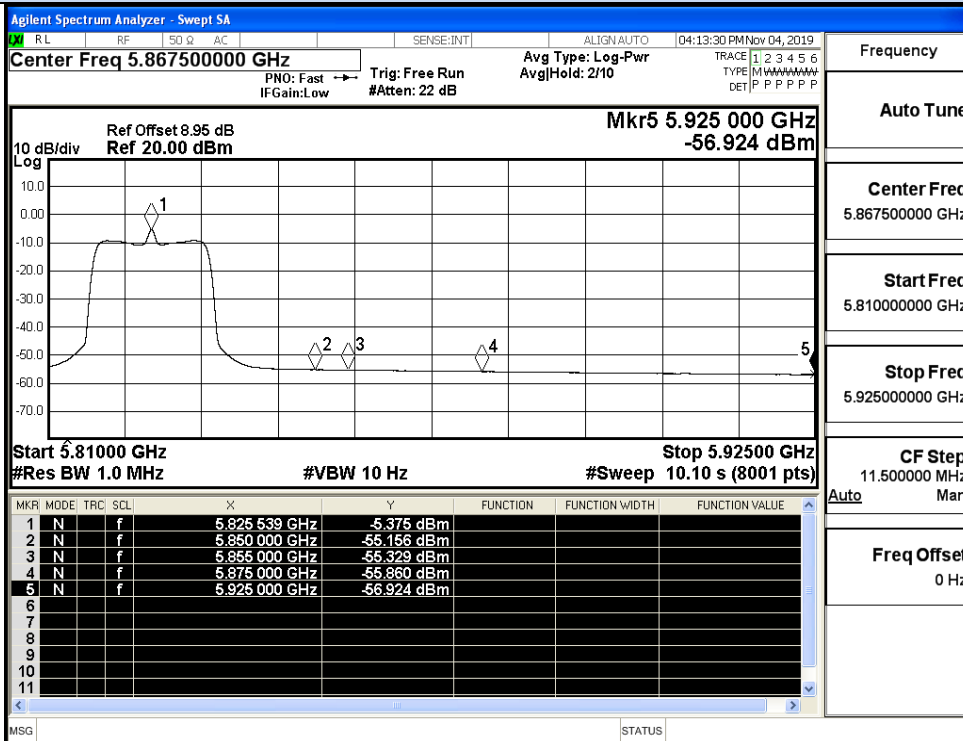


IEEE 802.11a / Channel 148 / 5745MHz / Average

Undesirable Emissions Measurement

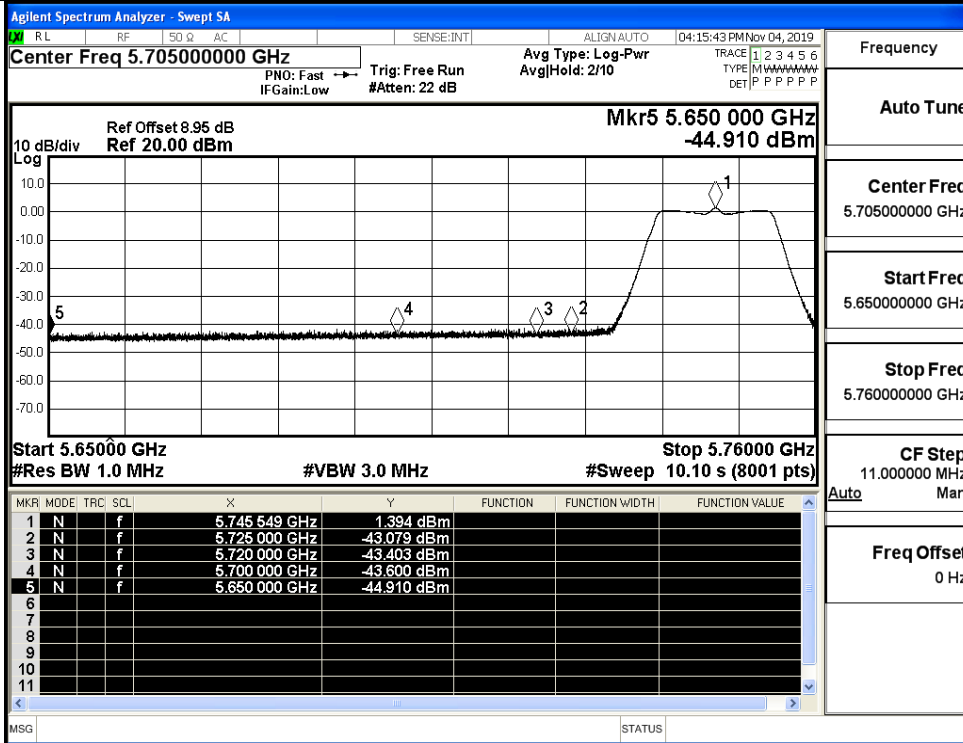


IEEE 802.11a / Channel 165 / 5825MHz / Peak

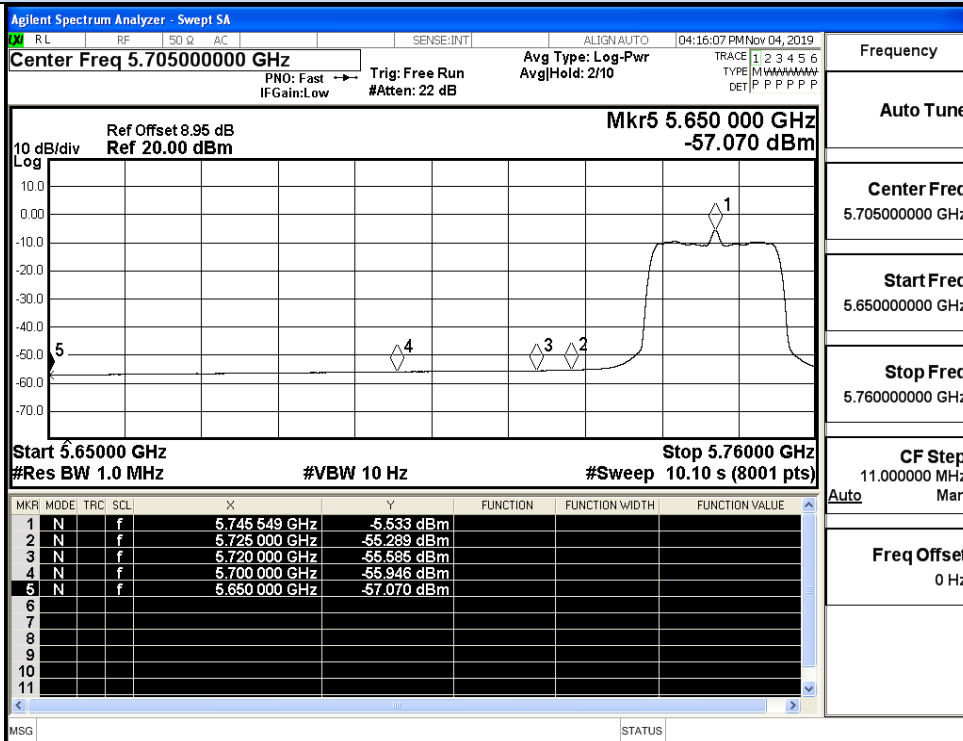


IEEE 802.11a / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

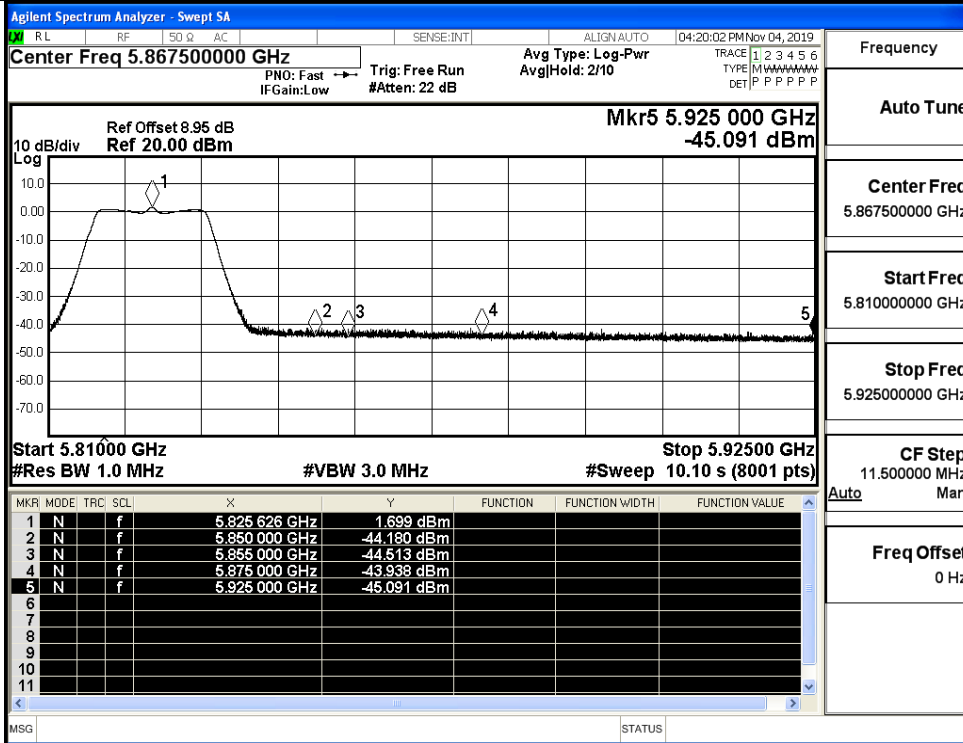


IEEE 802.11n20 / Channel 149 / 5745MHz / Peak

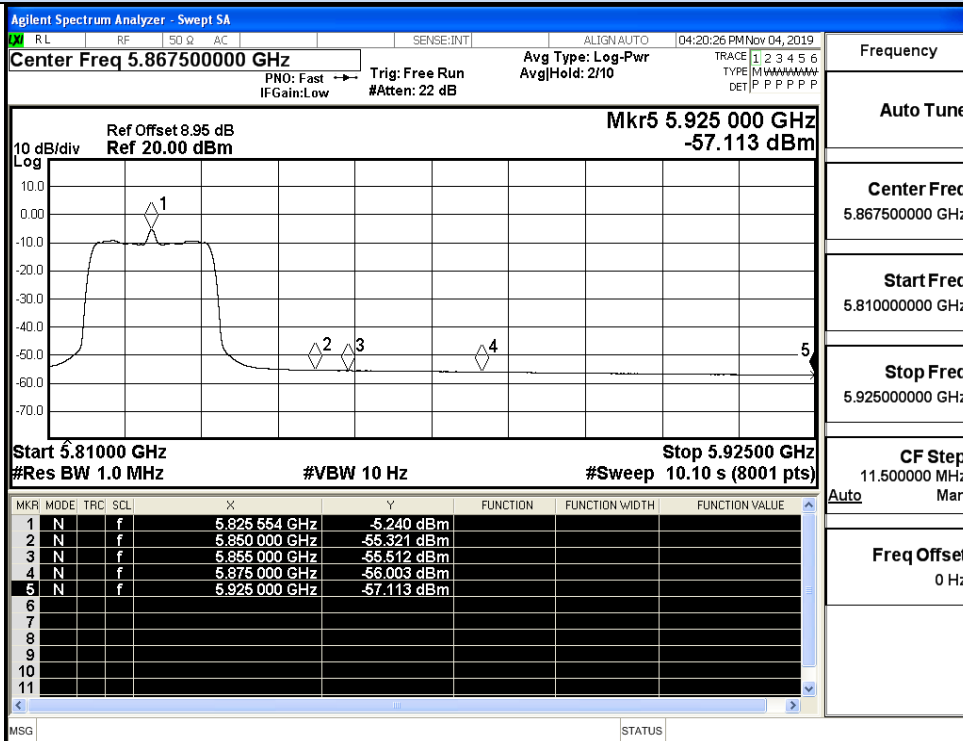


IEEE 802.11n20 / Channel 149 / 5745MHz / Average

Undesirable Emissions Measurement

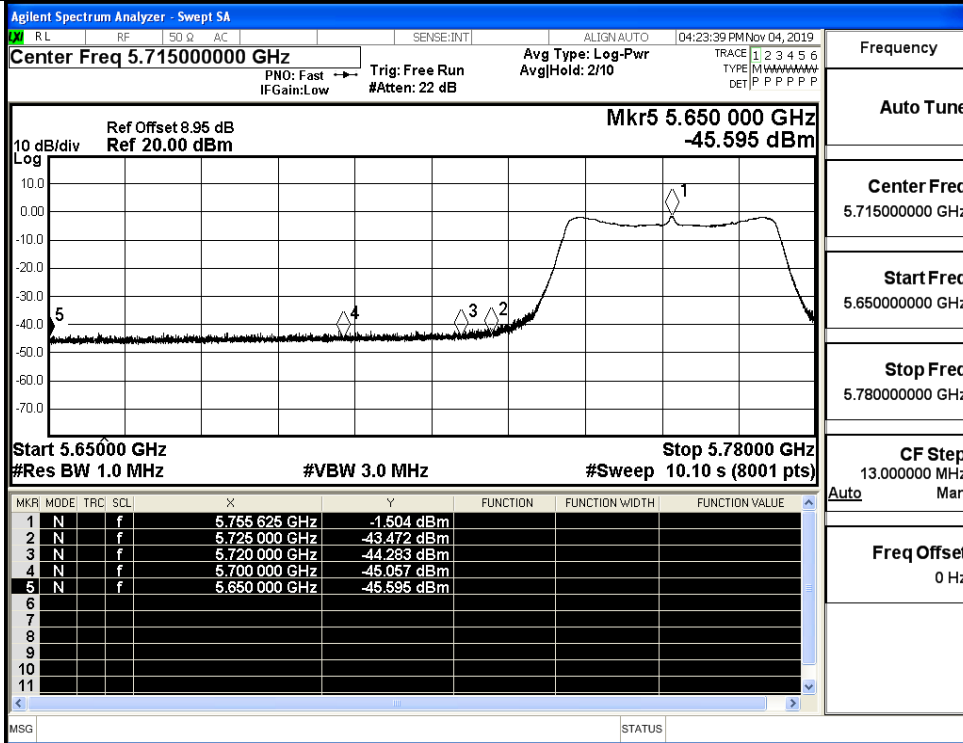


IEEE 802.11n20 / Channel 165 / 5825MHz / Peak

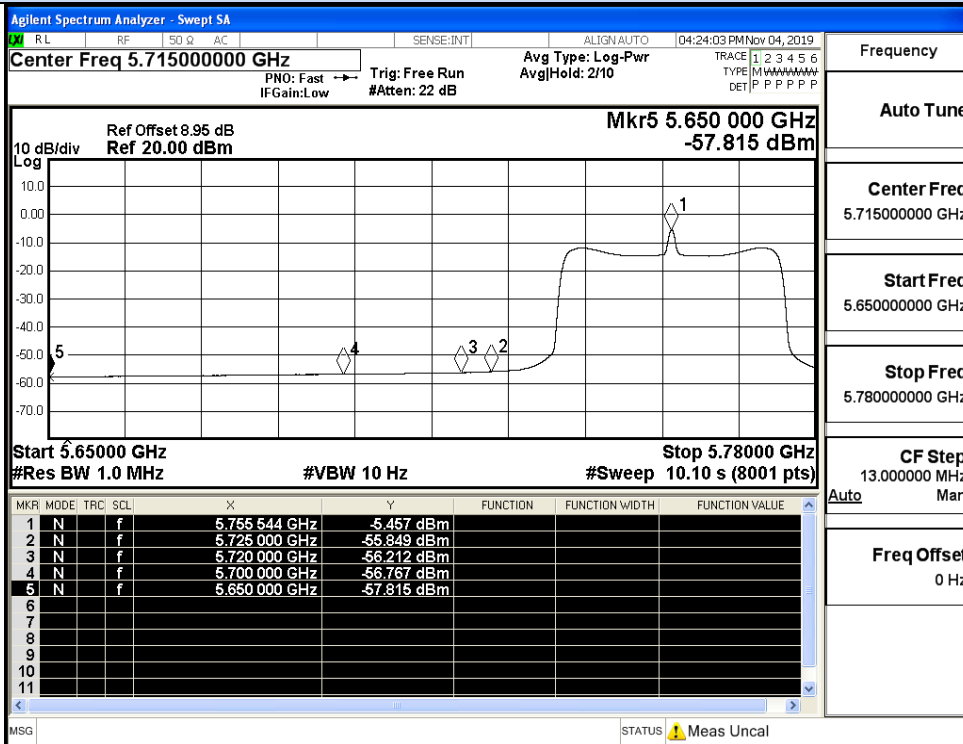


IEEE 802.11n20 / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

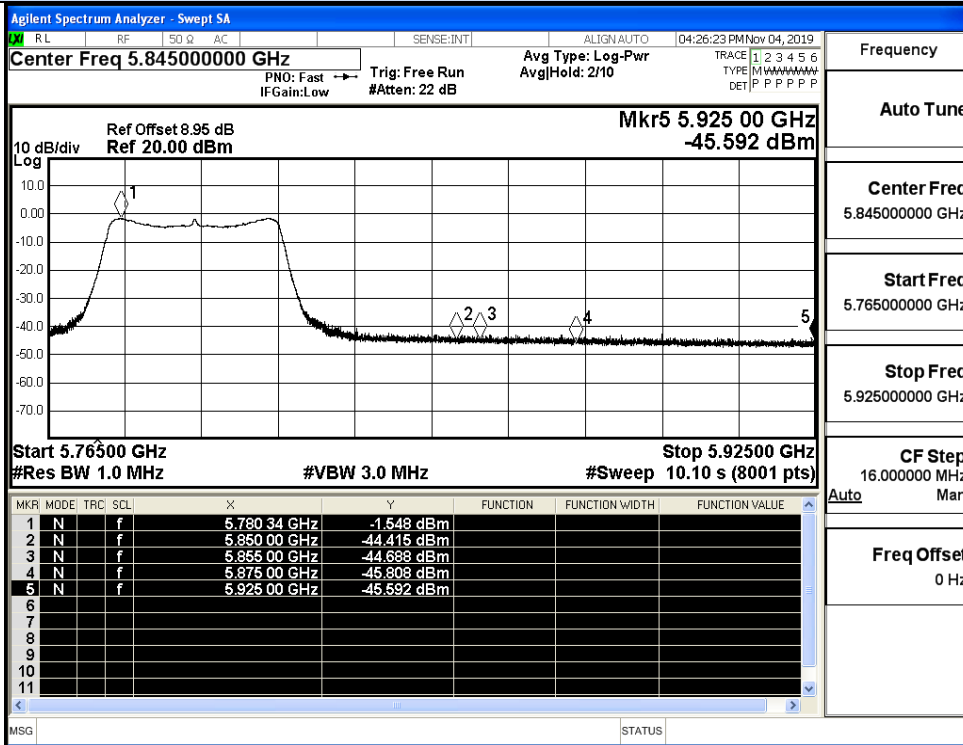


IEEE 802.11n40 / Channel 151 / 5755MHz / Peak

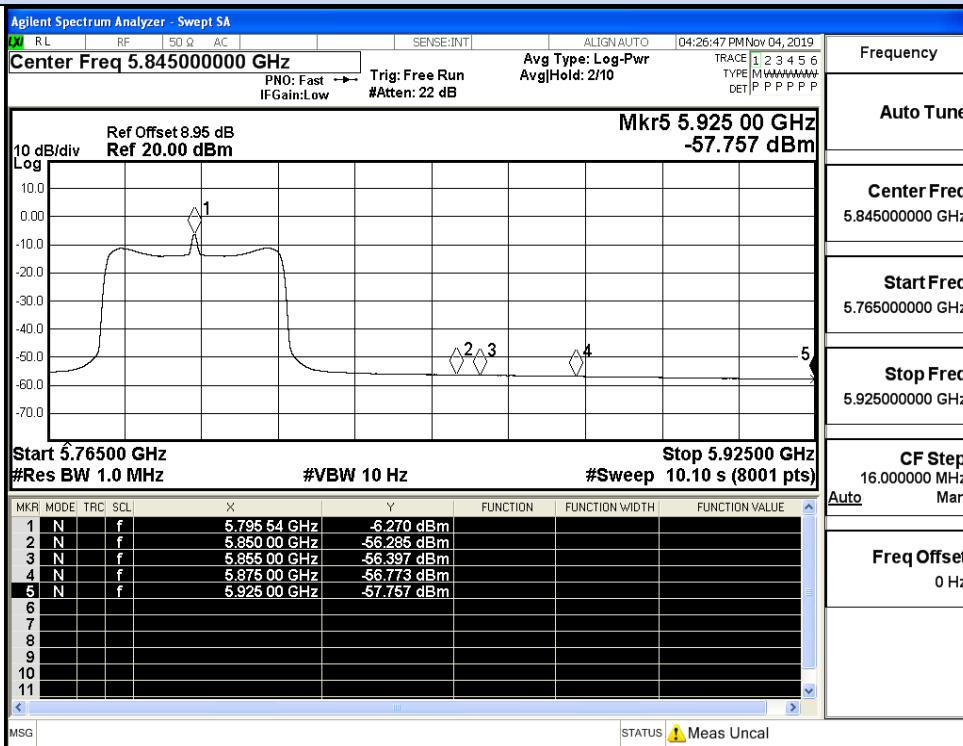


IEEE 802.11n40 / Channel 151 / 5755MHz / Average

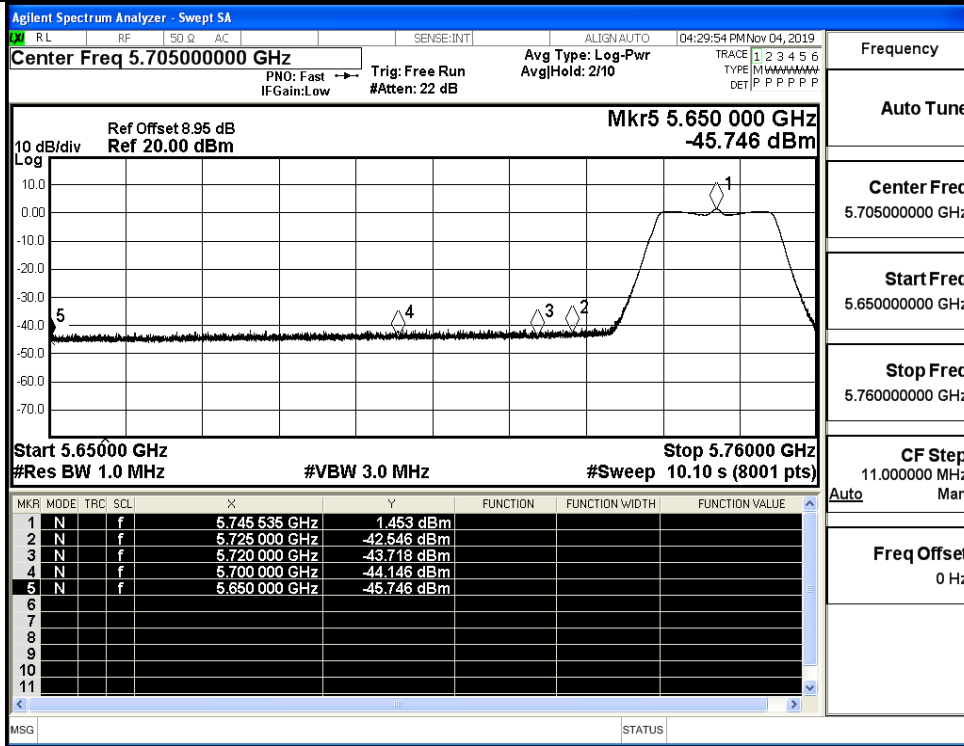
Undesirable Emissions Measurement



IEEE 802.11n40 / Channel 159 / 5795MHz / Peak

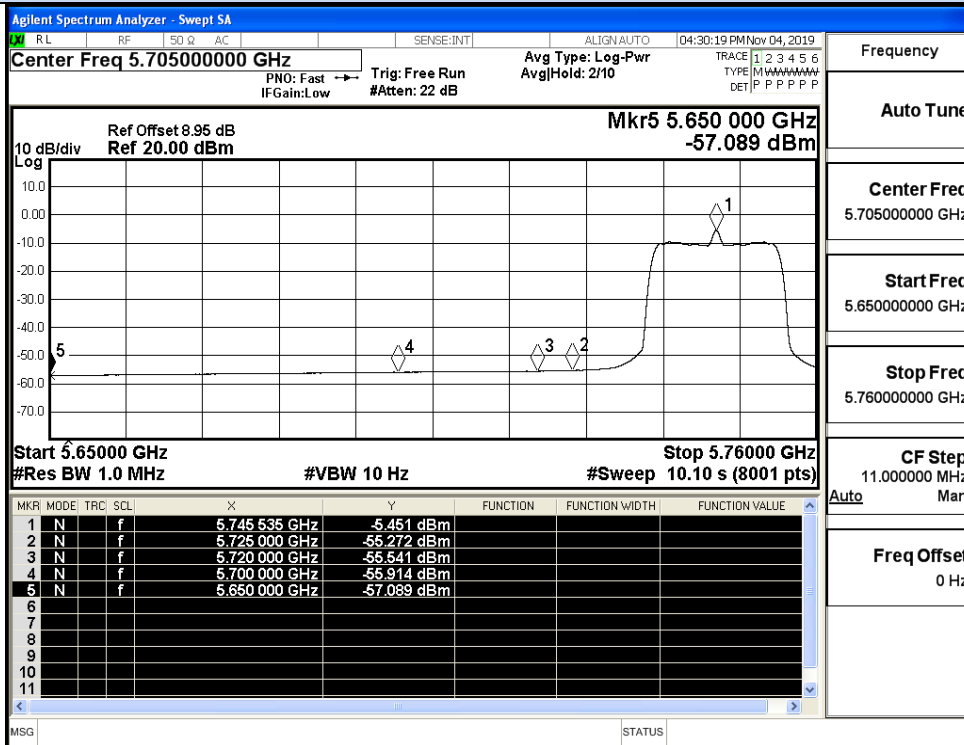


IEEE 802.11n40 / Channel 159 / 5795MHz / Average



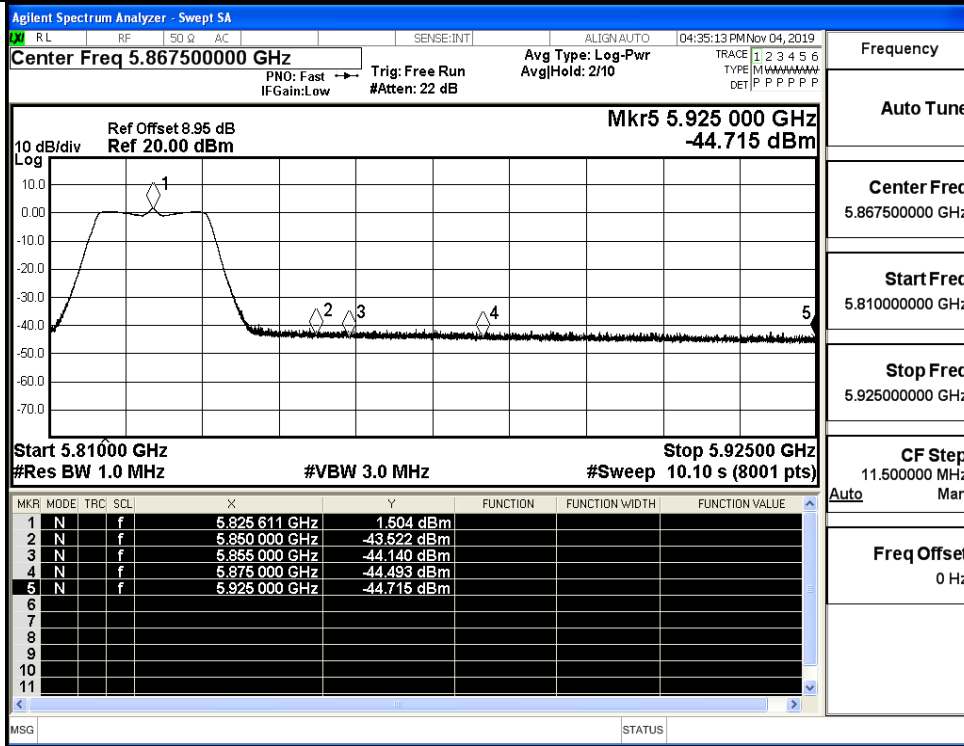
Frequency	
Auto Tune	
Center Freq	5.705000000 GHz
Start Freq	5.650000000 GHz
Stop Freq	5.760000000 GHz
CF Step	11.000000 MHz
Auto	Man
Freq Offset	0 Hz

IEEE 802.11ac20 / Channel 149 / 5745MHz / Peak



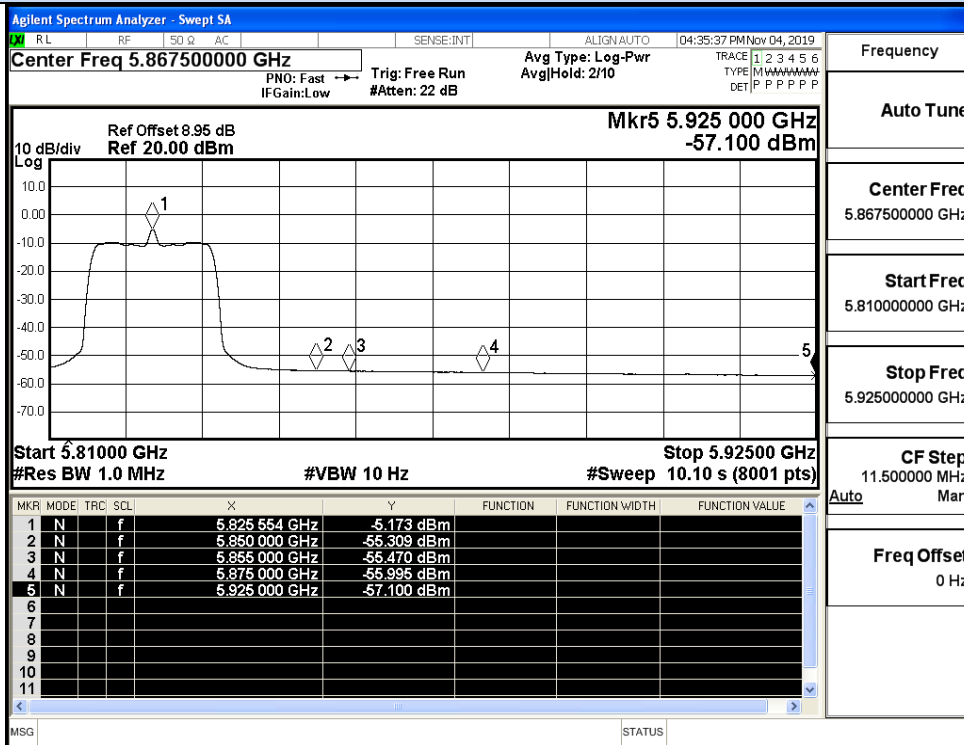
Frequency	
Auto Tune	
Center Freq	5.705000000 GHz
Start Freq	5.650000000 GHz
Stop Freq	5.760000000 GHz
CF Step	11.000000 MHz
Auto	Man
Freq Offset	0 Hz

IEEE 802.11ac20 / Channel 149 / 5745MHz / Average



Frequency  
Auto Tune  
Center Freq  
5.867500000 GHz  
Start Freq  
5.810000000 GHz  
Stop Freq  
5.925000000 GHz  
CF Step  
11.500000 MHz  
Auto Man  
Freq Offset  
0 Hz

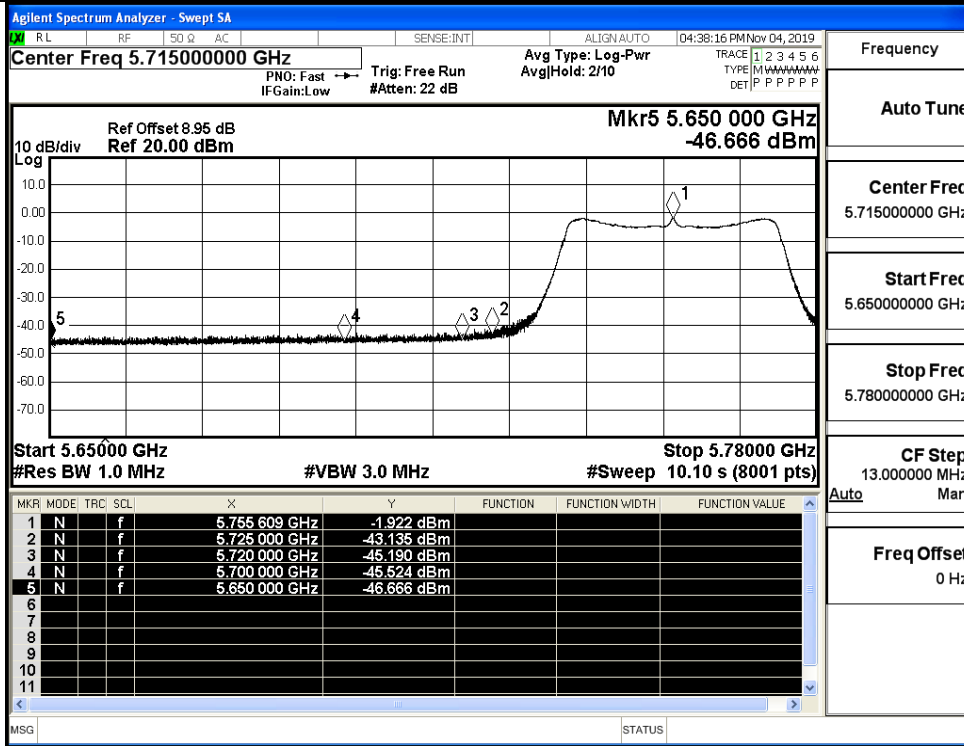
IEEE 802.11ac20 / Channel 165 / 5825MHz / Peak



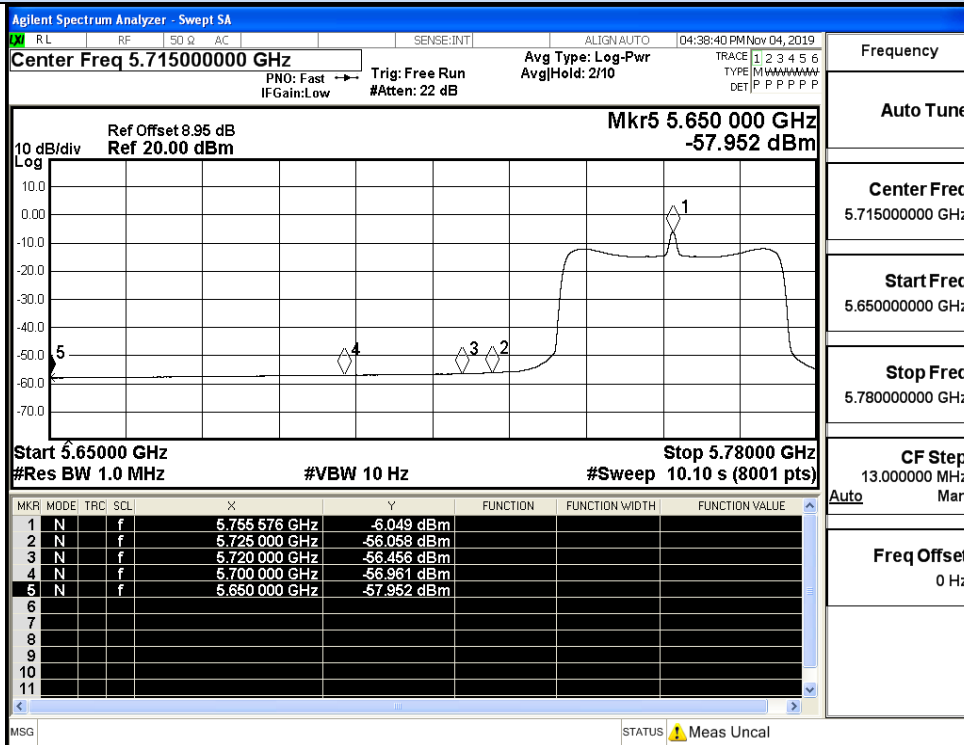
Frequency  
Auto Tune  
Center Freq  
5.867500000 GHz  
Start Freq  
5.810000000 GHz  
Stop Freq  
5.925000000 GHz  
CF Step  
11.500000 MHz  
Auto Man  
Freq Offset  
0 Hz

IEEE 802.11ac20 / Channel 165 / 5825MHz / Average

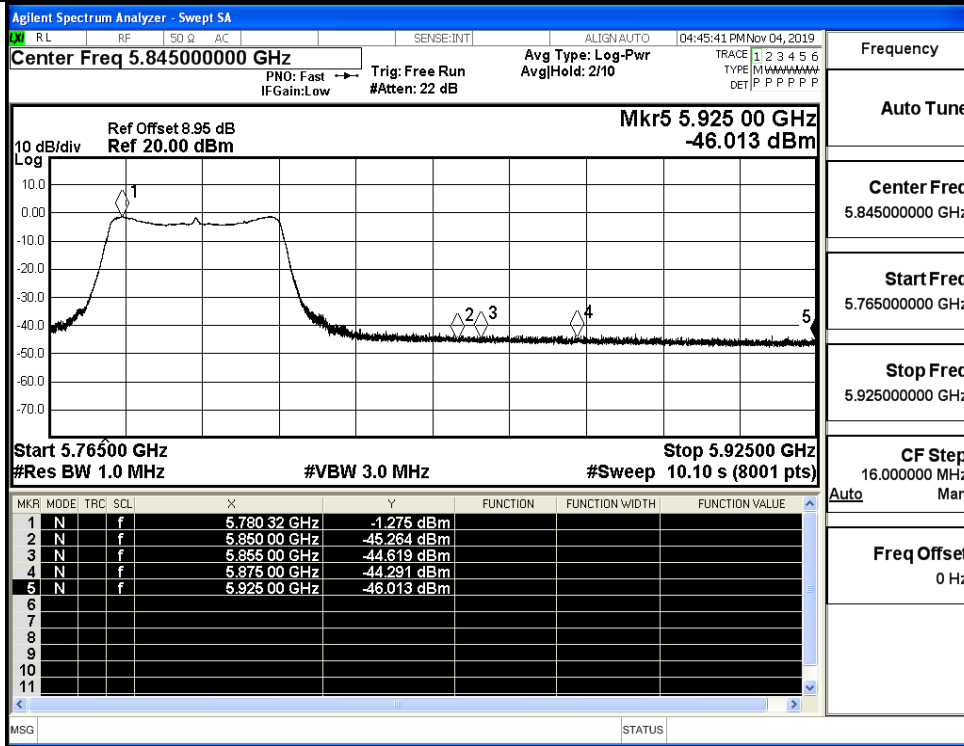




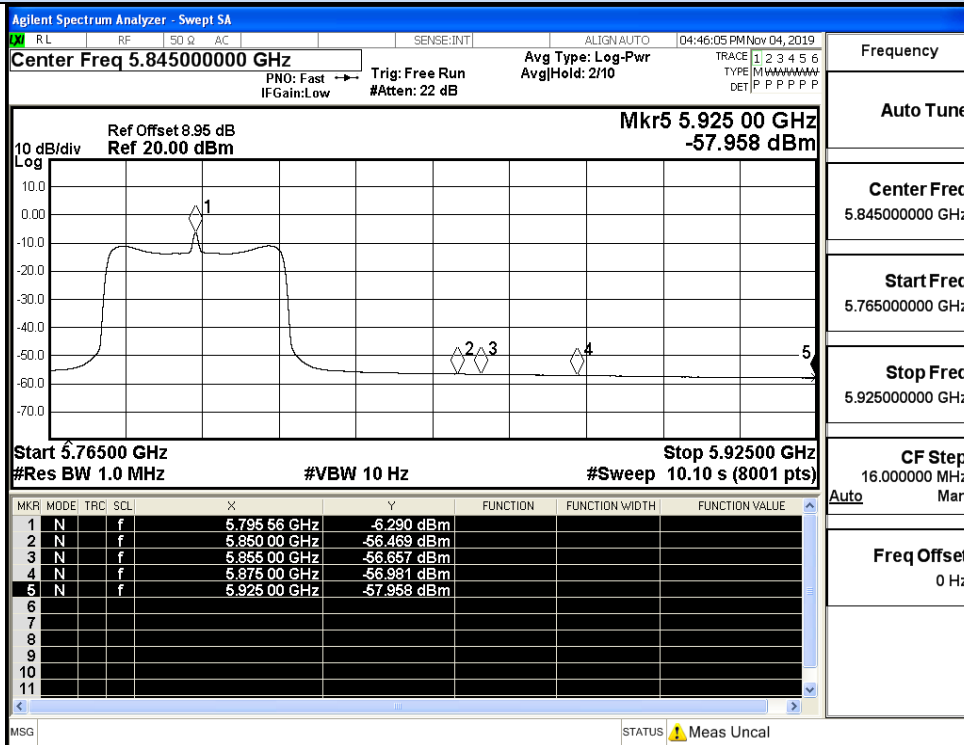
IEEE 802.11ac40 / Channel 151 / 5755MHz / Peak



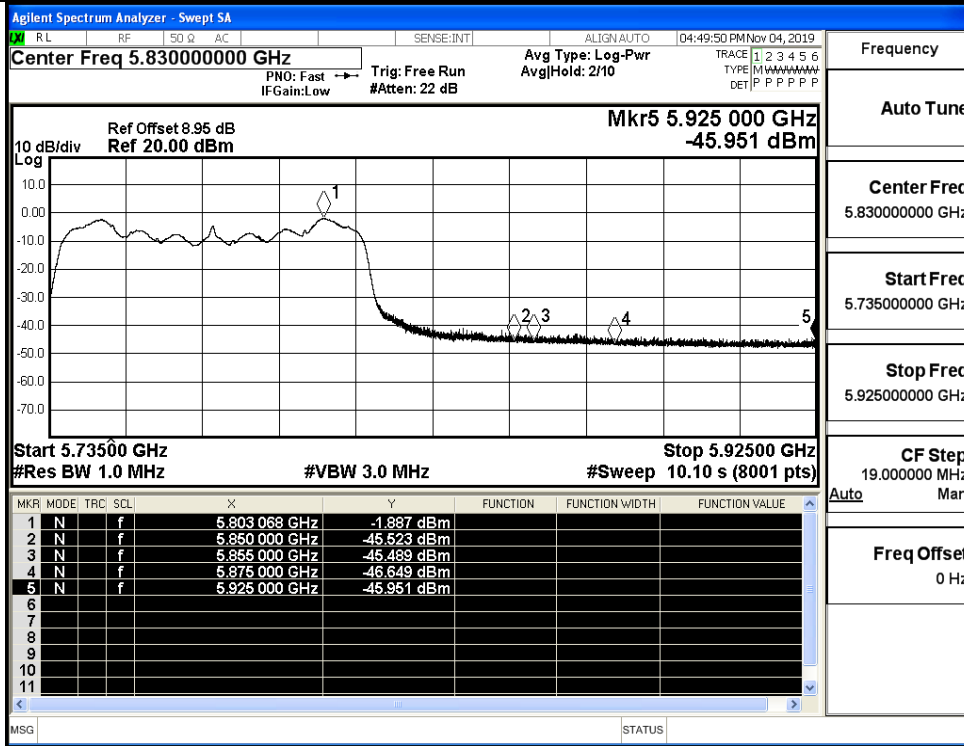
IEEE 802.11ac40 / Channel 151 / 5755MHz / Average



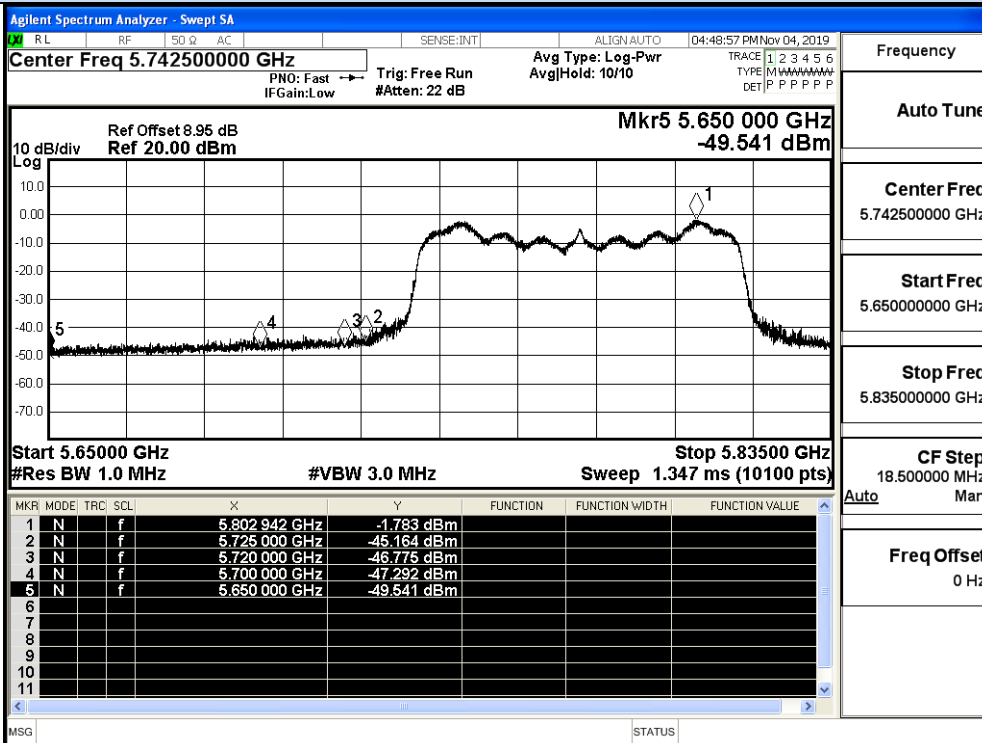
IEEE 802.11ac40 / Channel 159 / 5795MHz / Peak



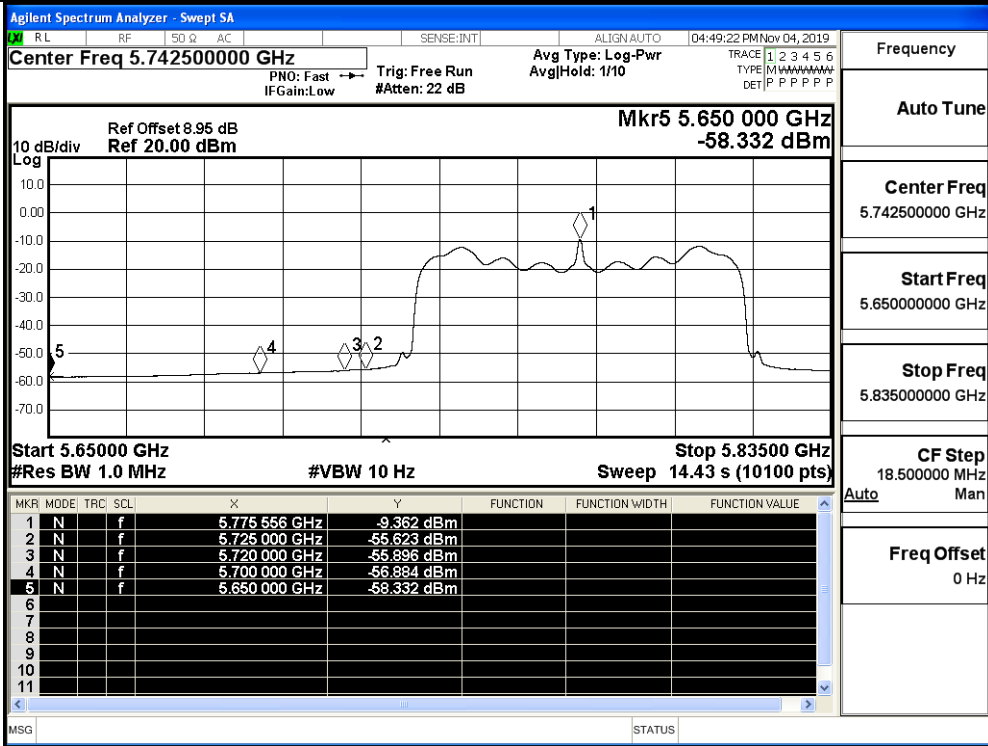
IEEE 802.11ac40 / Channel 159 / 5795MHz / Average



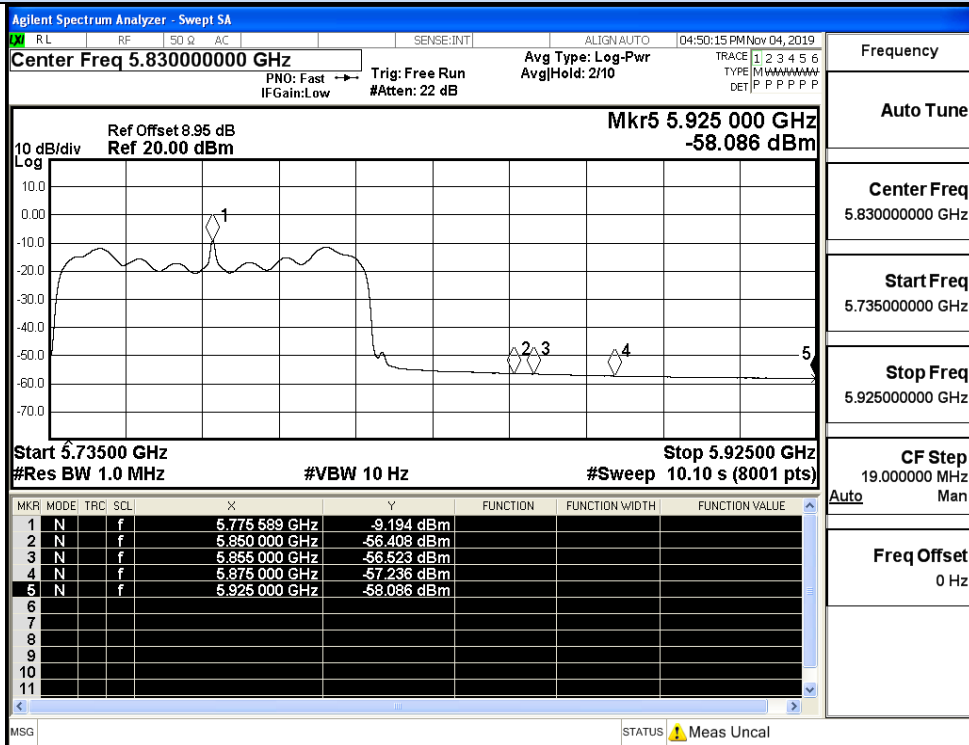
IEEE 802.11ac80 / Channel 155 / 5775MHz / Peak



IEEE 802.11ac80 / Channel 155 / 5775MHz / Average



IEEE 802.11ac80 / Channel 155/ 5775MHz / Peak



IEEE 802.11ac80 / Channel 155 / 5775MHz / Average