

Appendix C

RF Test Data for 5.8G WLAN (Conducted Measurement)

Product Name: KE2 Edge Manager Cell

Trade Mark: KE2, KE2 Connect, KE2 Therm

Test Model: KE2EM-Cell

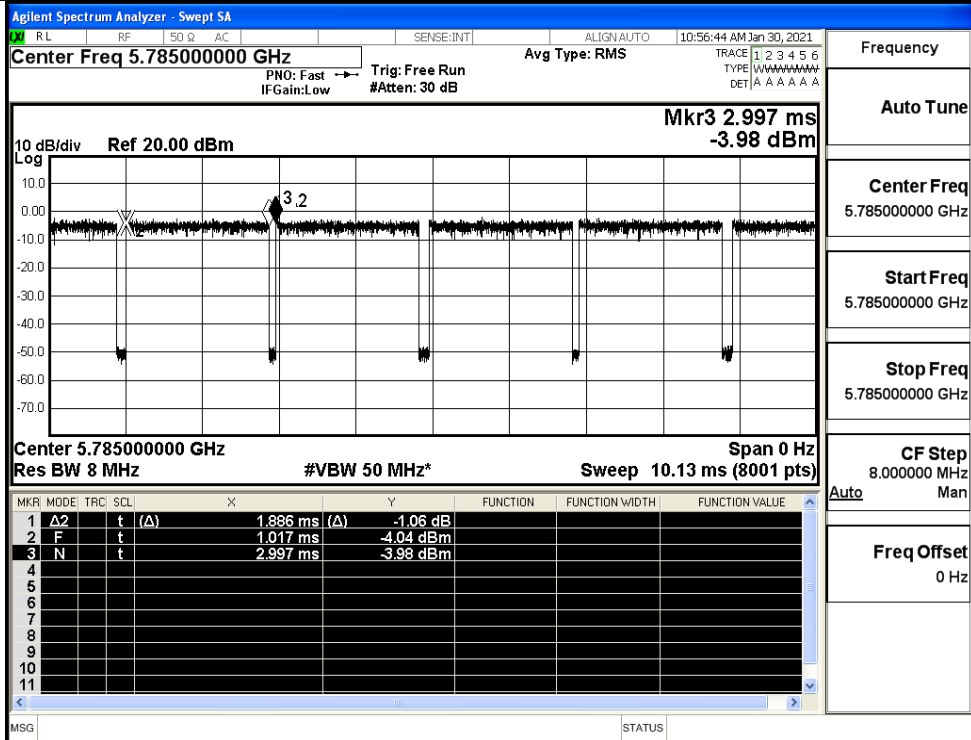
Environmental Conditions

Temperature:	23.7 ° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

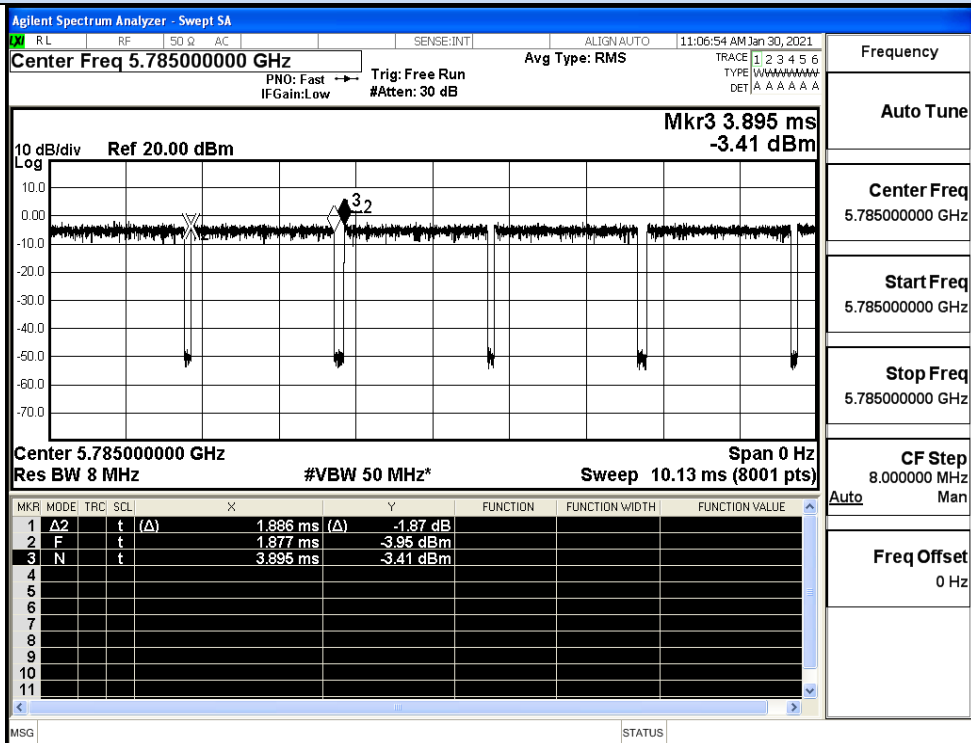
C.1 Duty Cycle

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5785	95.27	0.21	0.53
11N20 SISO	5785	93.47	0.29	0.53
11N40 SISO	5755	92.53	0.34	1.08
11AC20 SISO	5785	93.65	0.28	0.53
11AC40 SISO	5755	92.88	0.32	1.08
11AC80 SISO	5775	48.67	3.13	14.35

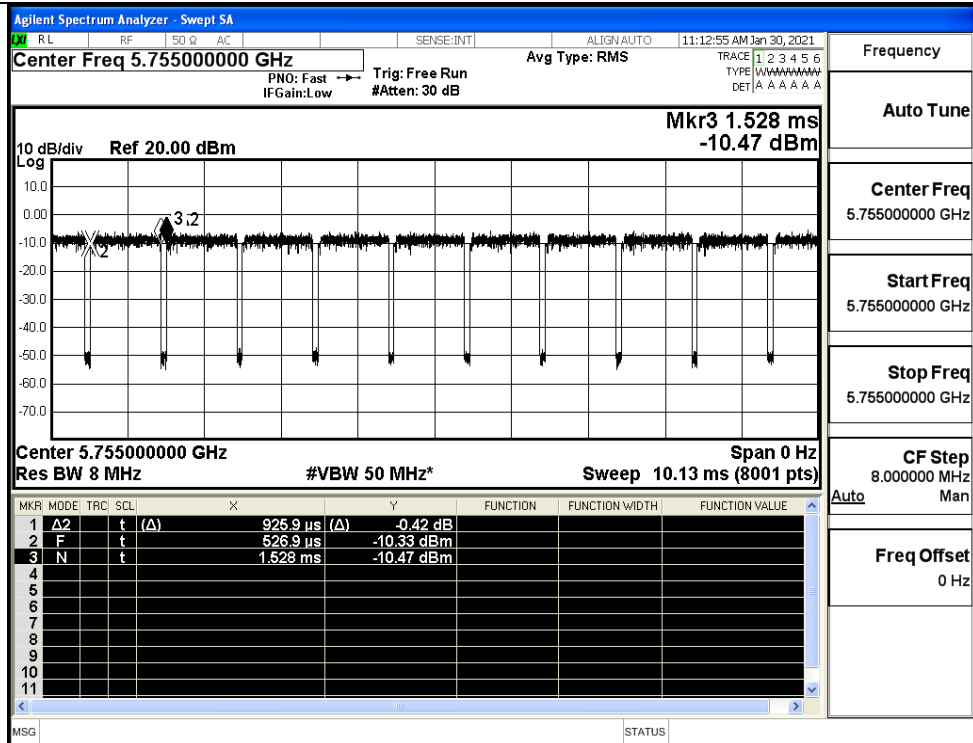
On Time and Duty Cycle



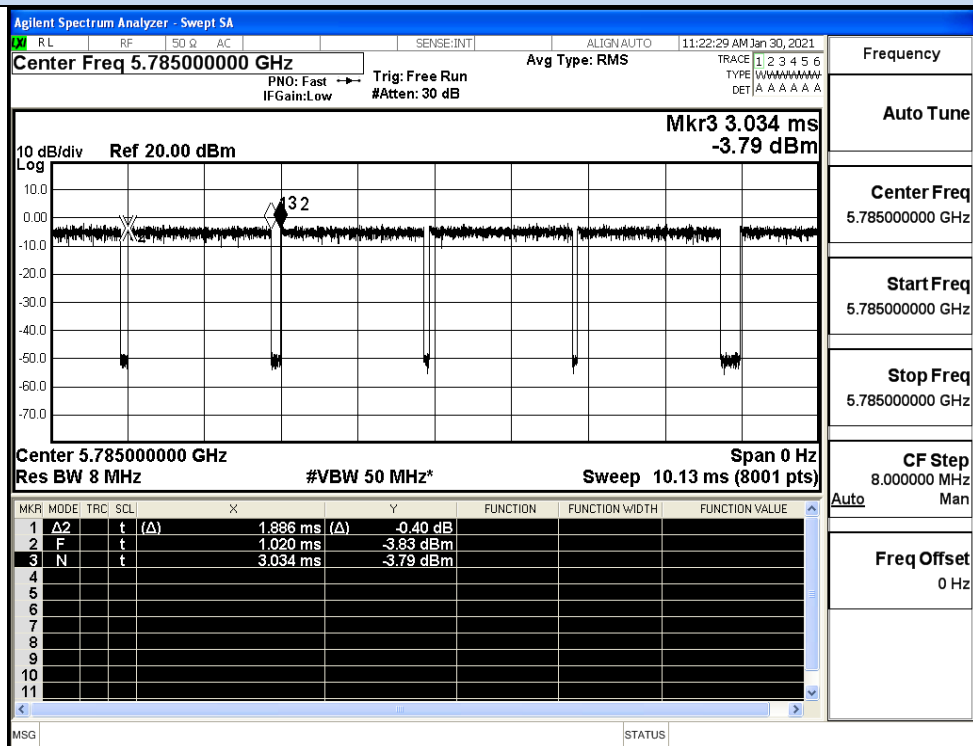
IEEE 802.11a



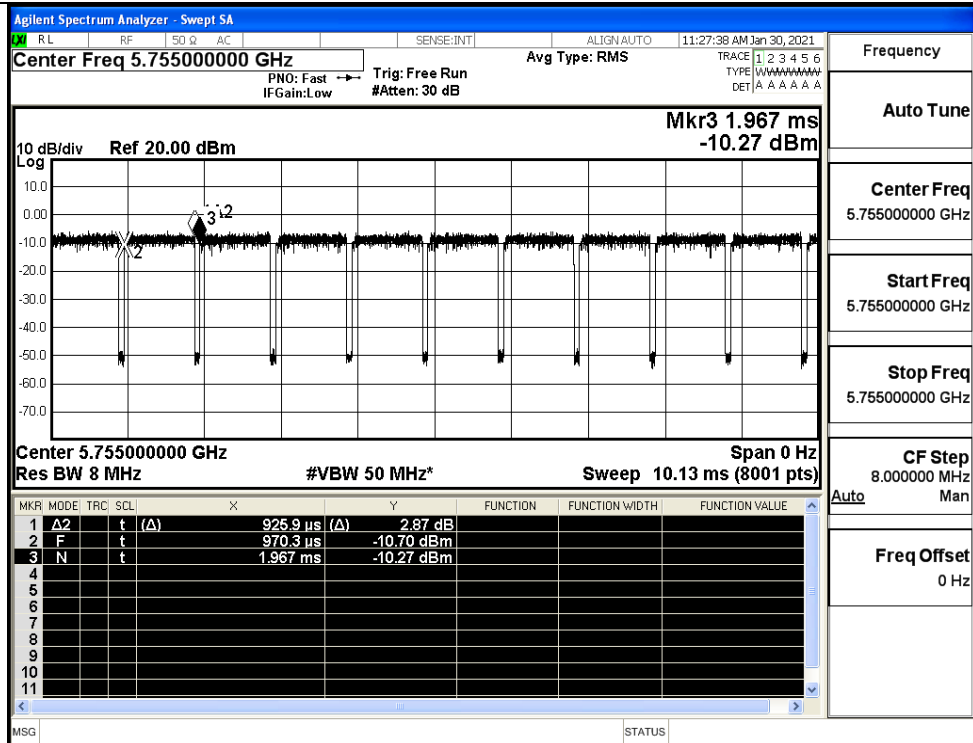
IEEE 802.11n HT20



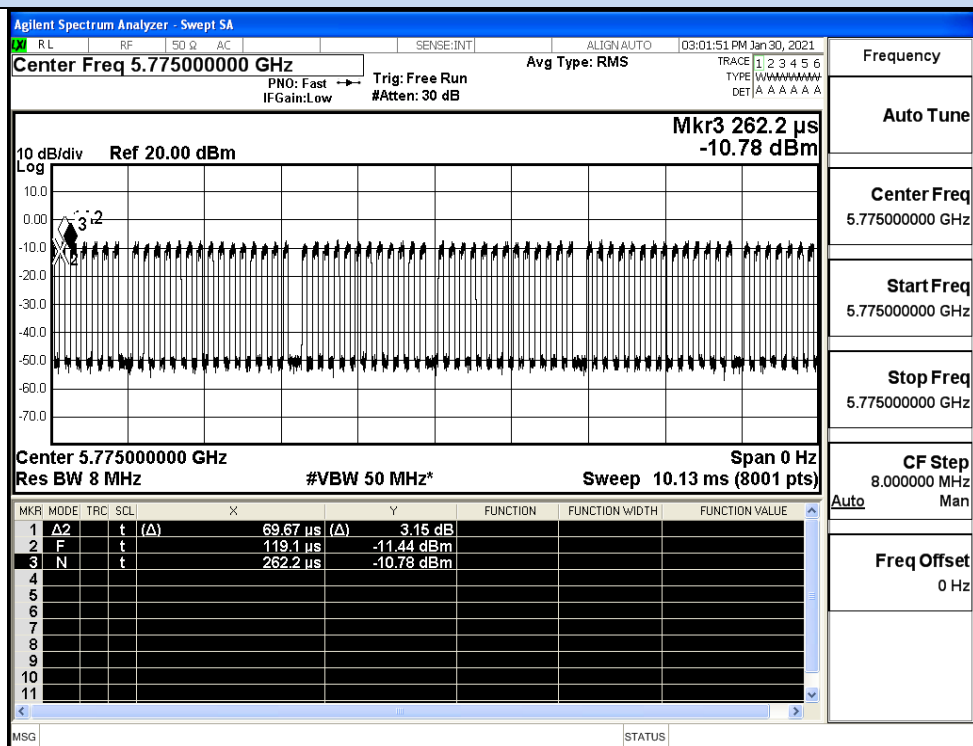
IEEE 802.11n HT40



IEEE 802.11AC20



IEEE 802.11AC40



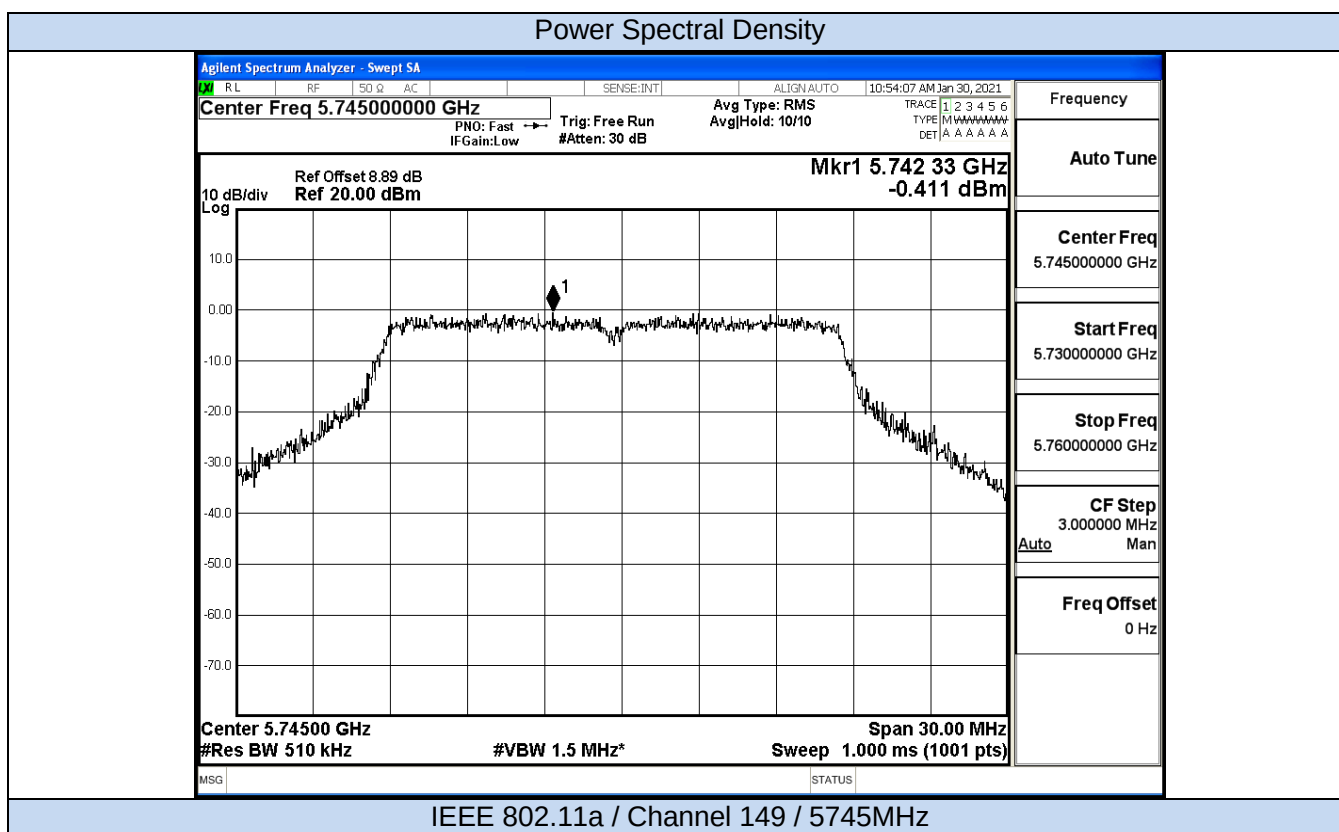
IEEE 802.11AC80

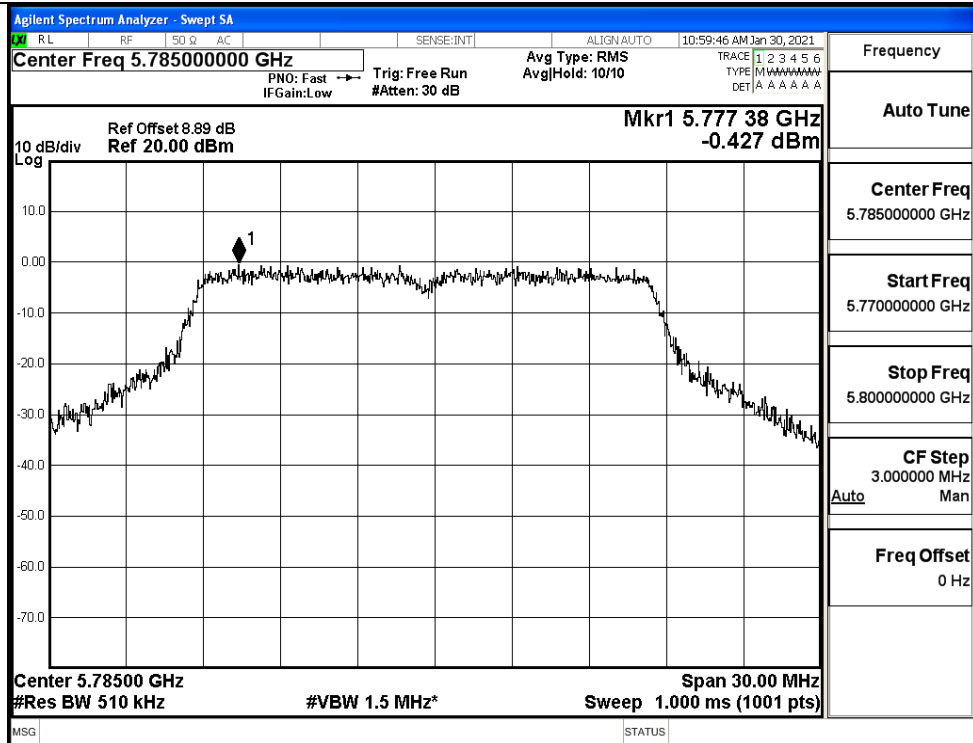
C.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	149	5745	12.46	0.20	12.66	30	Pass
	157	5785	12.38	0.21	12.59		Pass
	165	5825	12.02	0.18	12.2		Pass
11N20 SISO	149	5745	12.51	0.05	12.56	30	Pass
	157	5785	12.36	0.29	12.65		Pass
	165	5825	11.91	0.22	12.13		Pass
11N40 SISO	151	5755	12.29	0.29	12.58	30	Pass
	159	5795	12.24	0.34	12.58		Pass
11AC20 SISO	149	5745	13.55	0.31	13.86	30	Pass
	157	5785	14.03	0.28	14.31		Pass
	165	5825	14.74	0.26	15.00		Pass
11AC40 SISO	151	5755	13.77	0.27	14.04	30	Pass
	159	5795	14.30	0.32	14.62		Pass
11AC80 SISO	155	5775	12.58	3.13	15.71	30	Pass

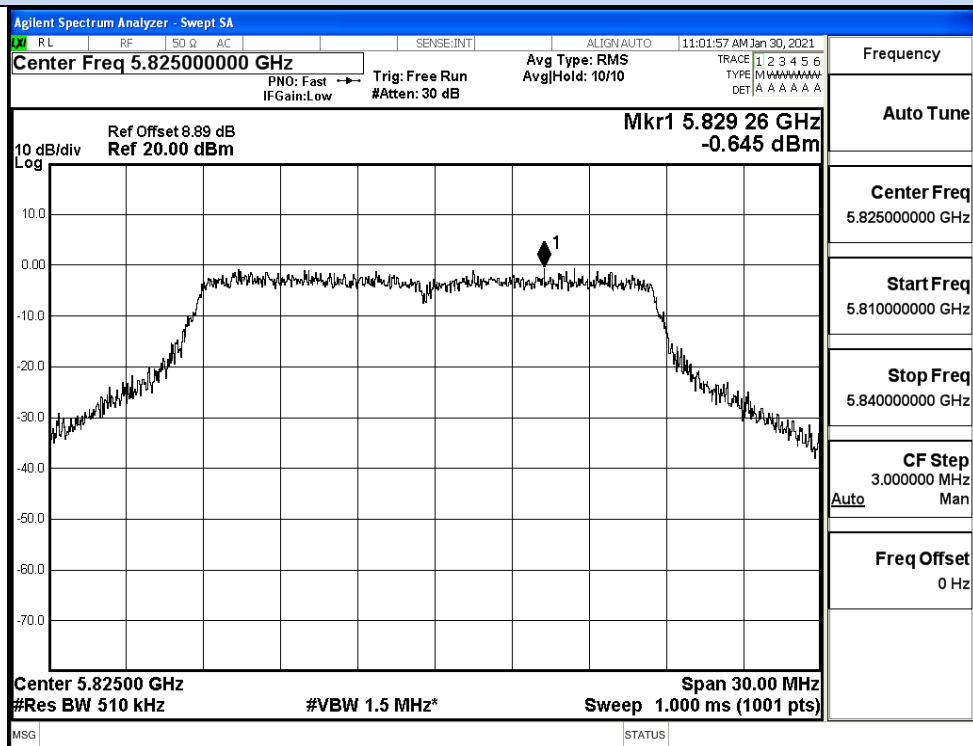
C.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/510KHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
11A	149	5745	-0.41	0.20	-0.21	30	Pass
	157	5785	-0.43	0.21	-0.22		Pass
	165	5825	-0.65	0.18	-0.47		Pass
11N20 SISO	149	5745	0.16	0.05	0.21	30	Pass
	157	5785	-0.10	0.29	0.19		Pass
	165	5825	-0.94	0.22	-0.72		Pass
11N40 SISO	151	5755	-3.66	0.29	-3.37	30	Pass
	159	5795	-3.63	0.34	-3.29		Pass
11AC20 SISO	149	5745	0.77	0.31	1.08	30	Pass
	157	5785	-0.38	0.28	-0.1		Pass
	165	5825	-0.52	0.26	-0.26		Pass
11AC40 SISO	151	5755	-2.86	0.27	-2.59	30	Pass
	159	5795	-3.30	0.32	-2.98		Pass
11AC80 SISO	155	5775	-3.74	3.13	-0.61	30	Pass



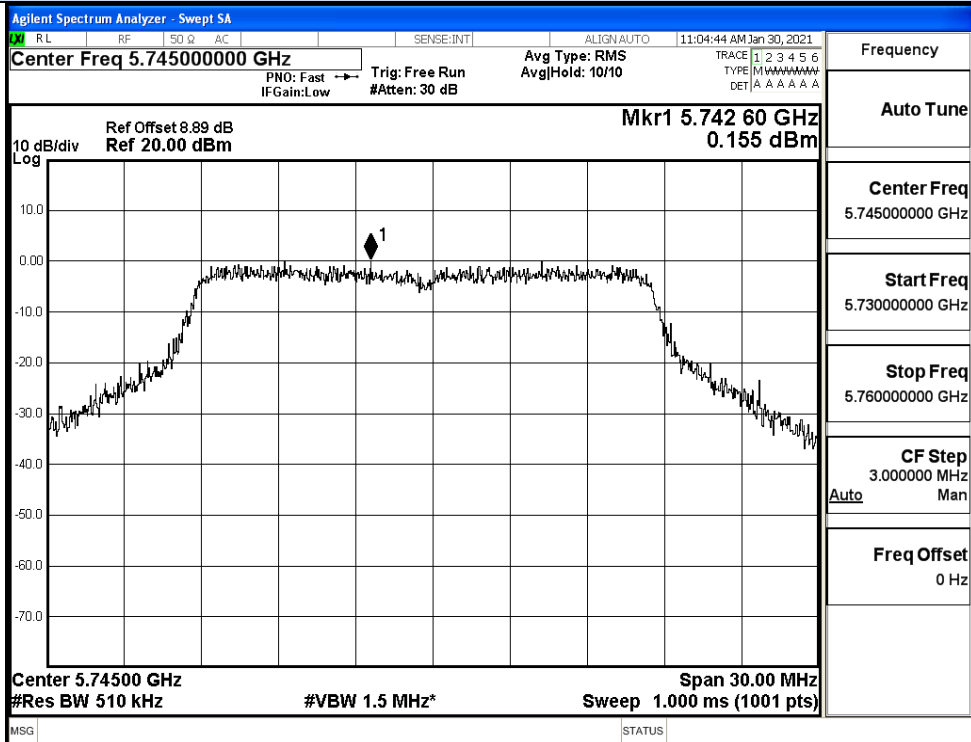


IEEE 802.11na / Channel 157 / 5785MHz

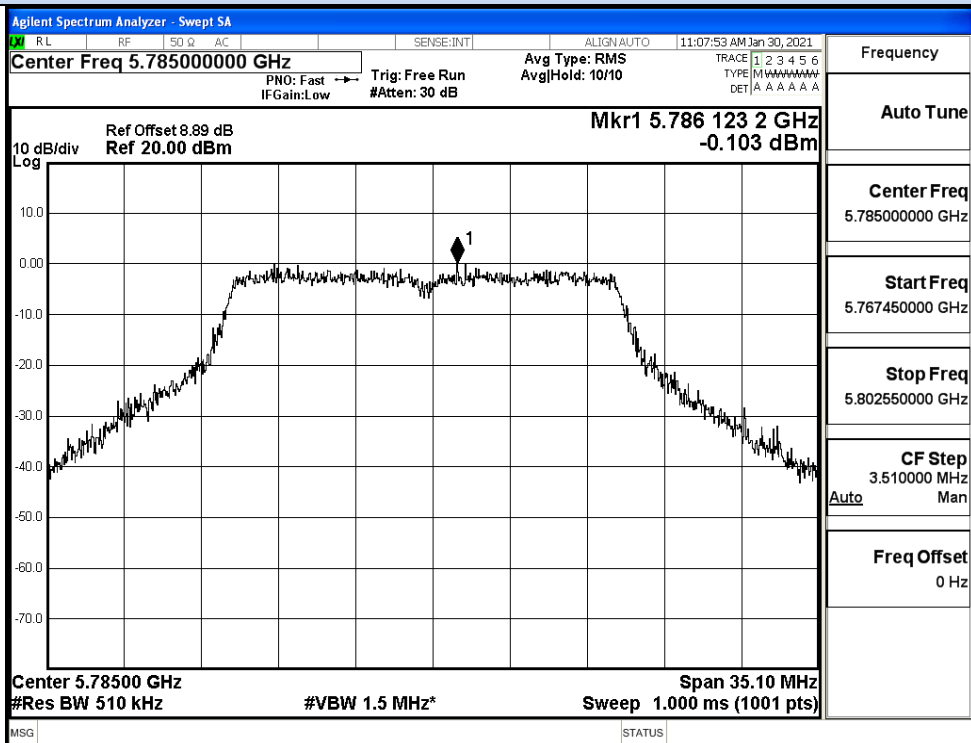


IEEE 802.11na / Channel 165 / 5825MHz

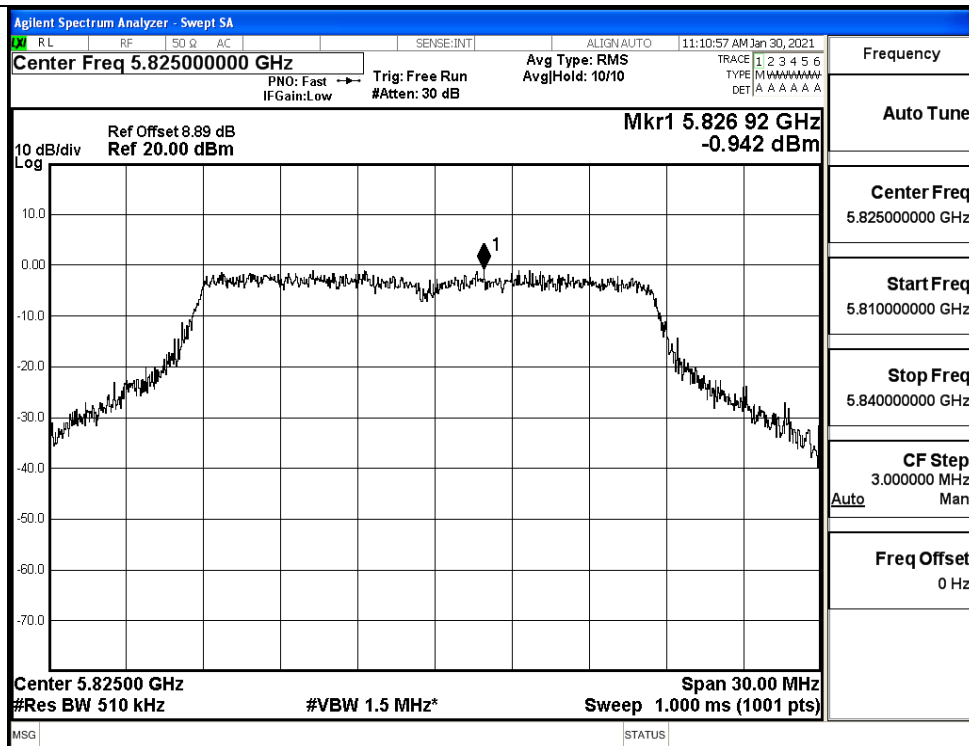
Power Spectral Density



IEEE 802.11n20 / Channel 149 / 5745MHz

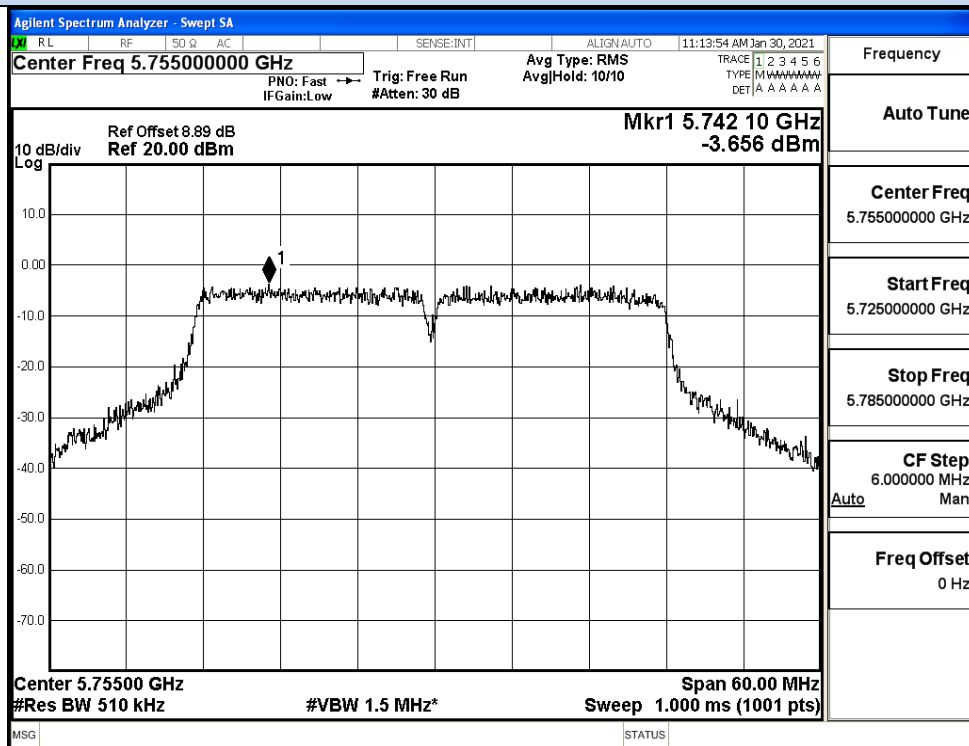


IEEE 802.11n20 / Channel 157 / 5785MHz

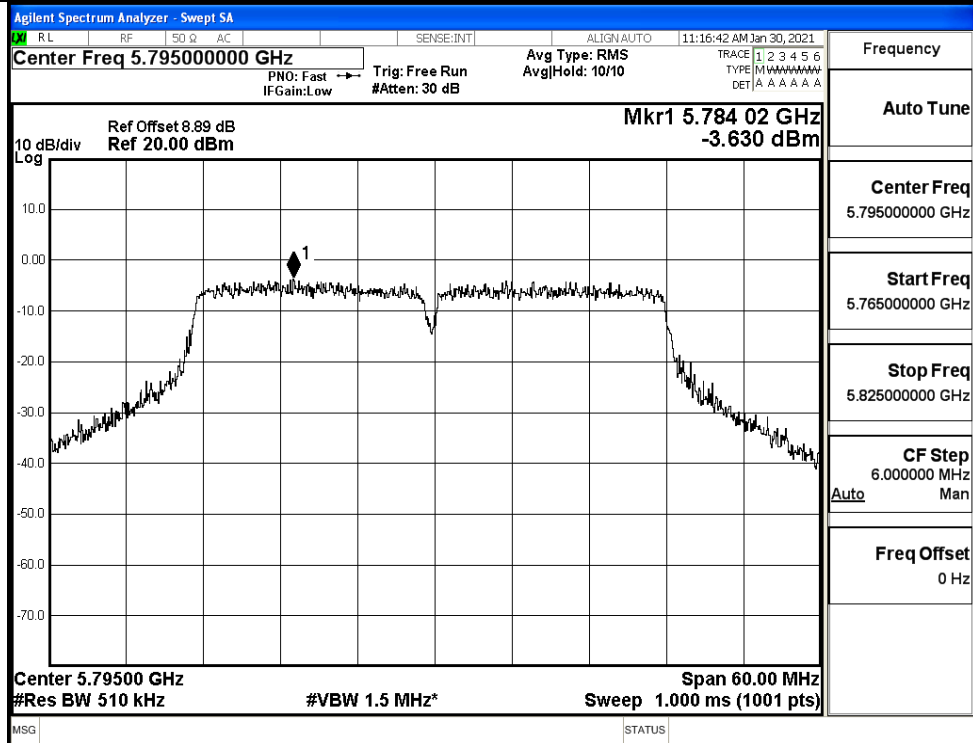


IEEE 802.11n20 / Channel 165 / 5825MHz

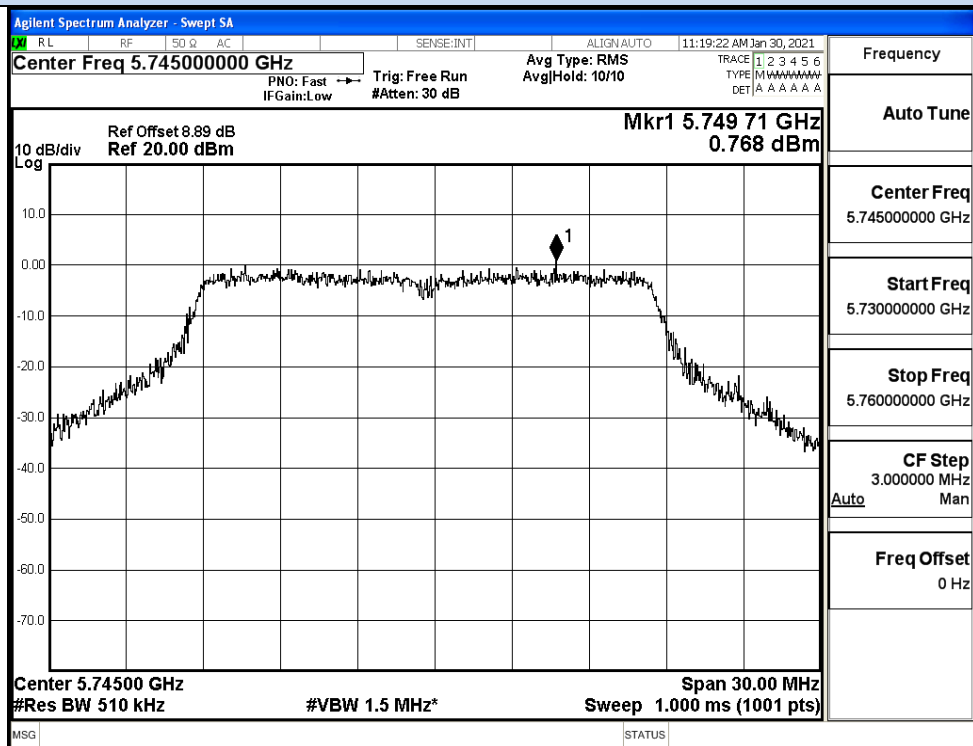
Power Spectral Density



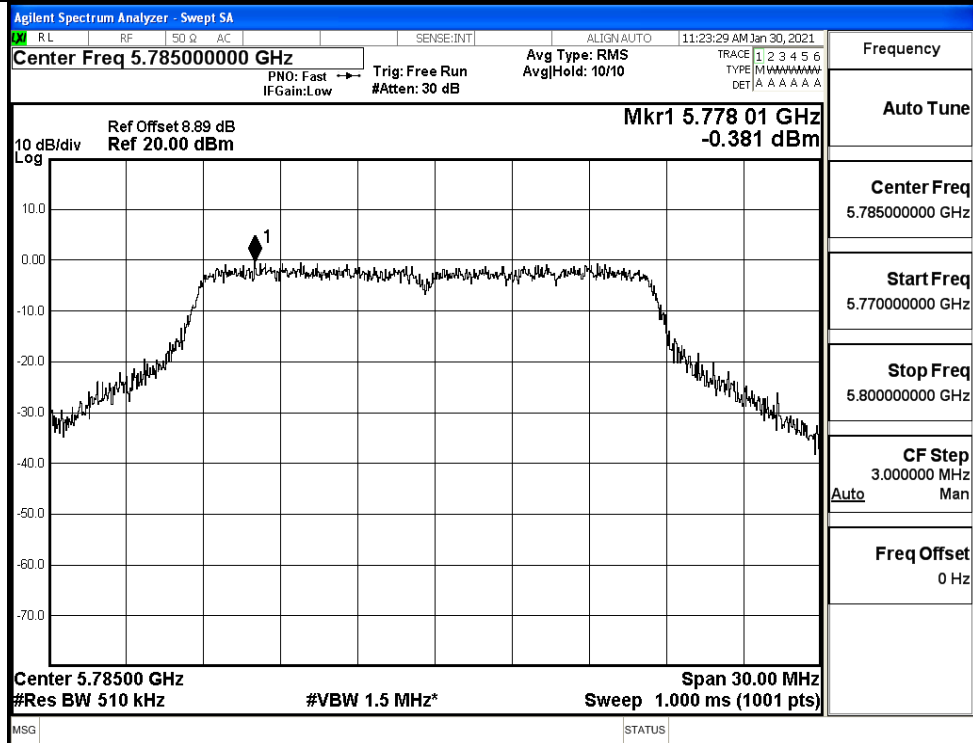
IEEE 802.11n40 / Channel 151 / 5755MHz



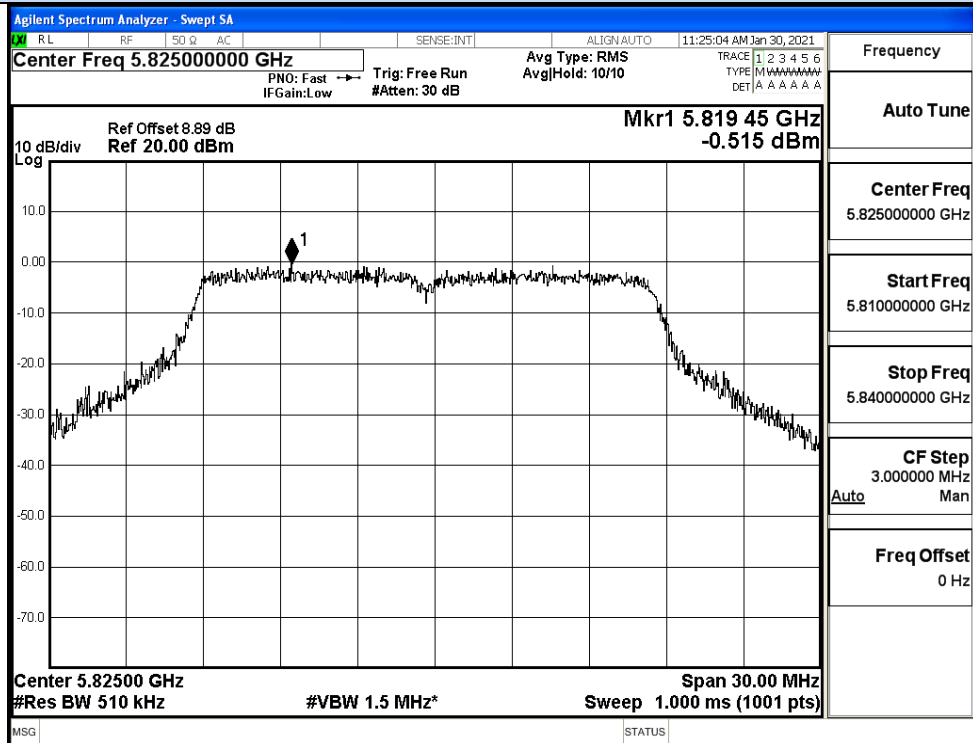
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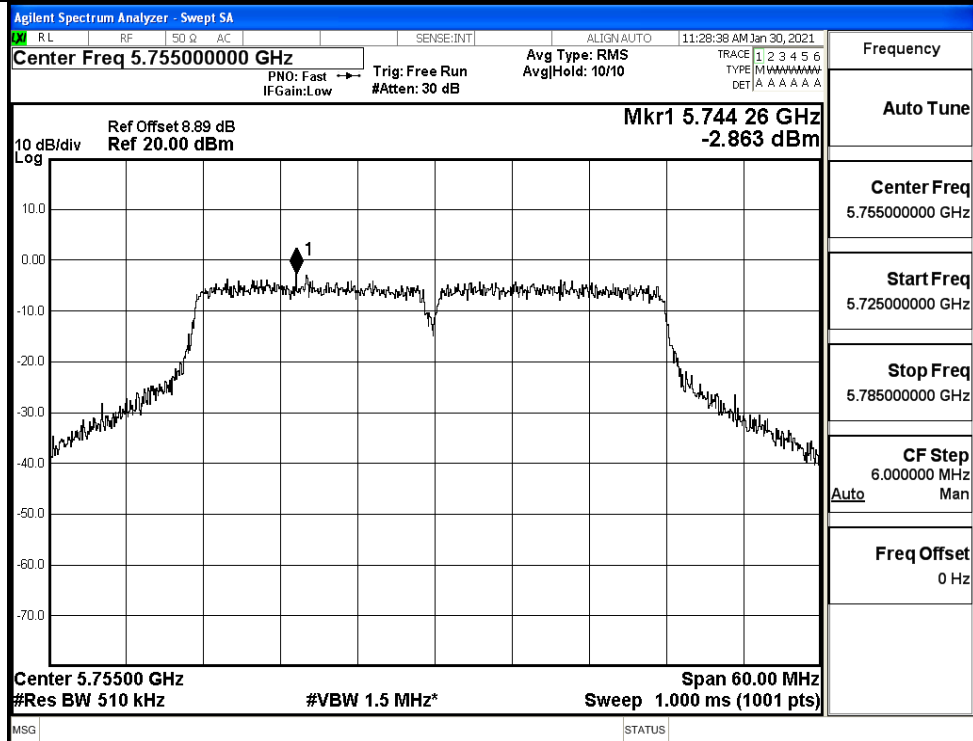
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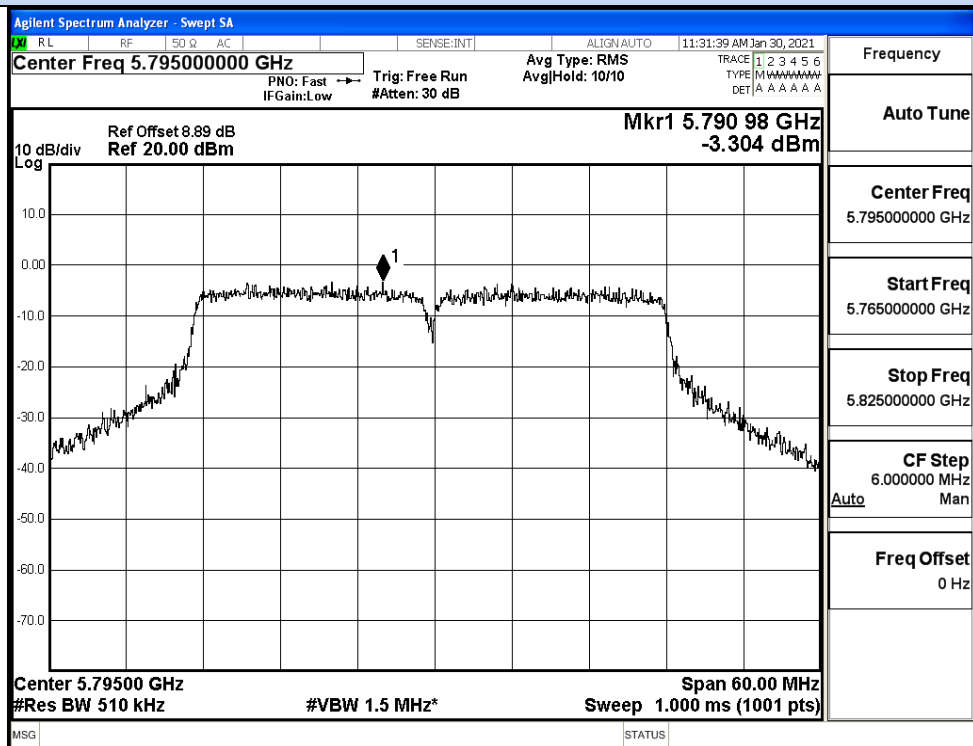
IEEE 802.11ac20 / Channel 157 / 5785MHz



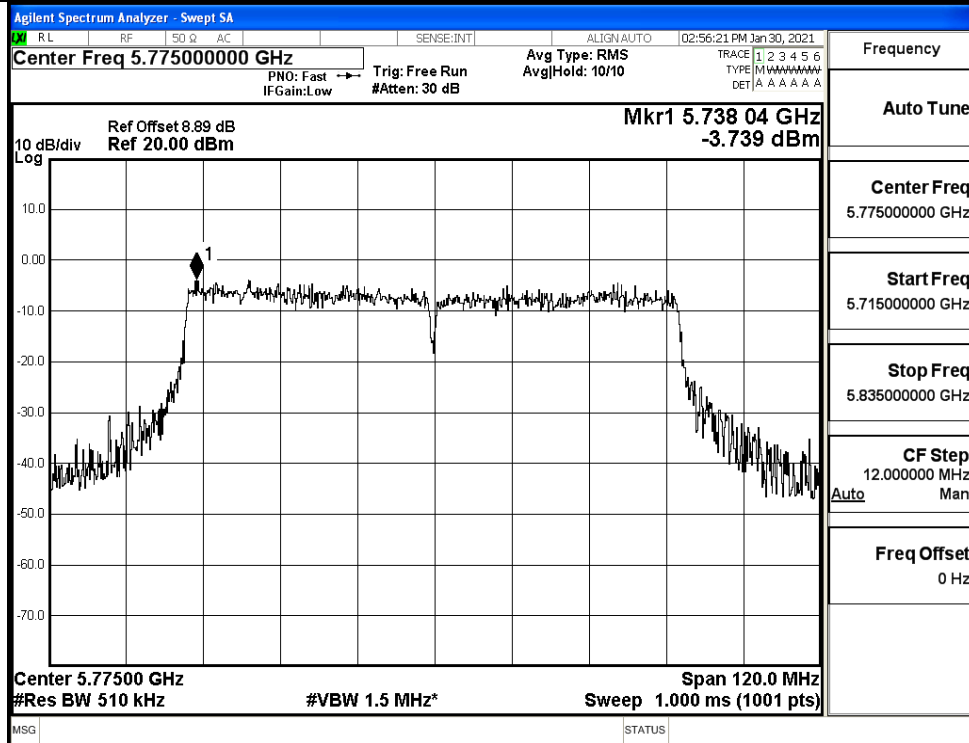
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



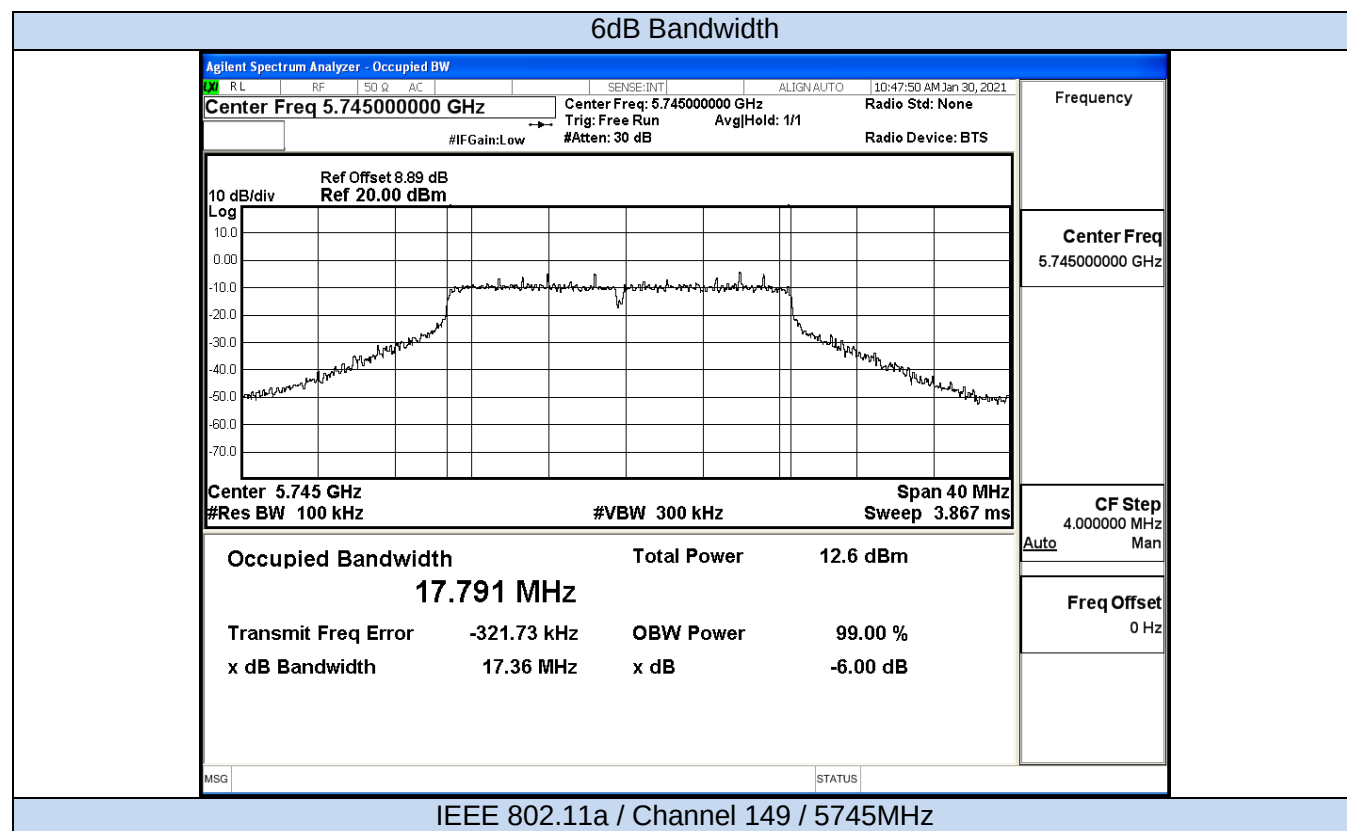
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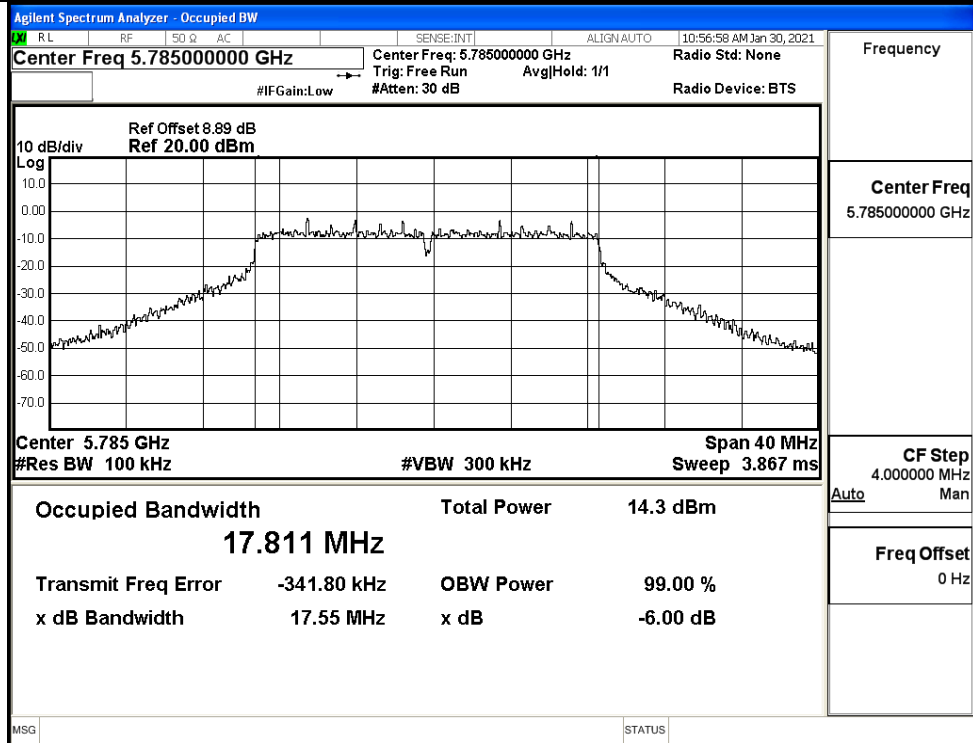


IEEE 802.11ac80 / Channel 155/ 5775MHz

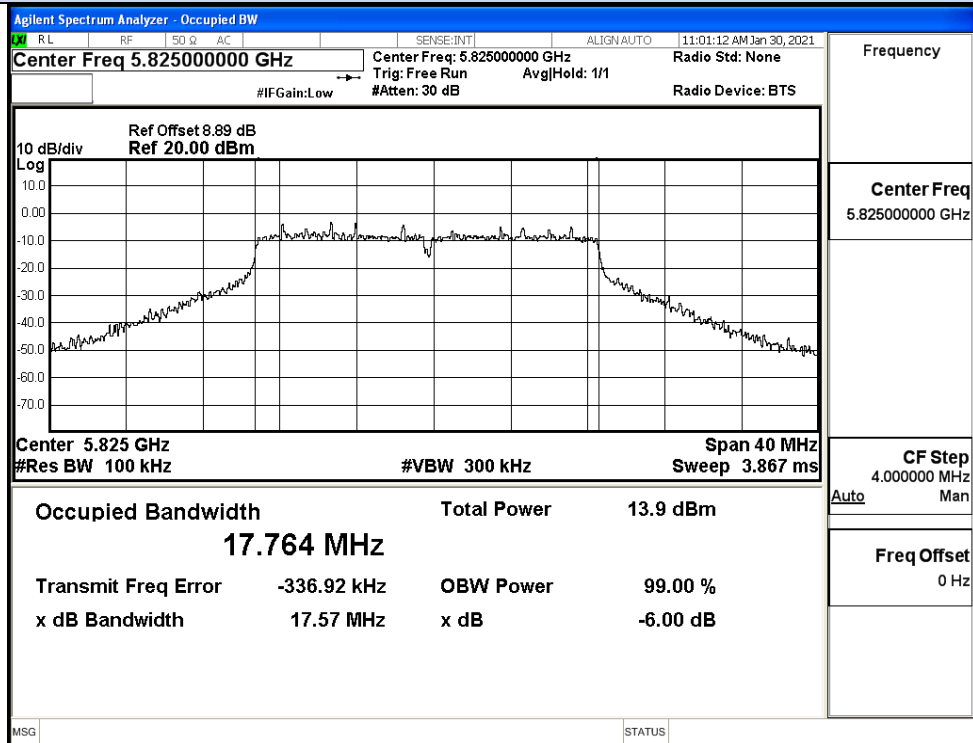
C.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Verdict
11A	149	5745	17.36	17.927	>=0.5	Pass
	157	5785	17.55	17.943		Pass
	165	5825	17.57	17.938		Pass
11N20 SISO	149	5745	17.02	17.942	>=0.5	Pass
	157	5785	17.55	17.908		Pass
	165	5825	17.32	17.934		Pass
11N40 SISO	151	5755	36.15	36.531	>=0.5	Pass
	159	5795	35.90	36.519		Pass
11AC20S ISO	149	5745	17.59	17.921	>=0.5	Pass
	157	5785	17.57	17.949		Pass
	165	5825	17.58	17.900		Pass
11AC40S ISO	151	5755	36.41	36.549	>=0.5	Pass
	159	5795	36.36	36.524		Pass
11AC80S ISO	155	5775	75.98	76.253	>=0.5	Pass



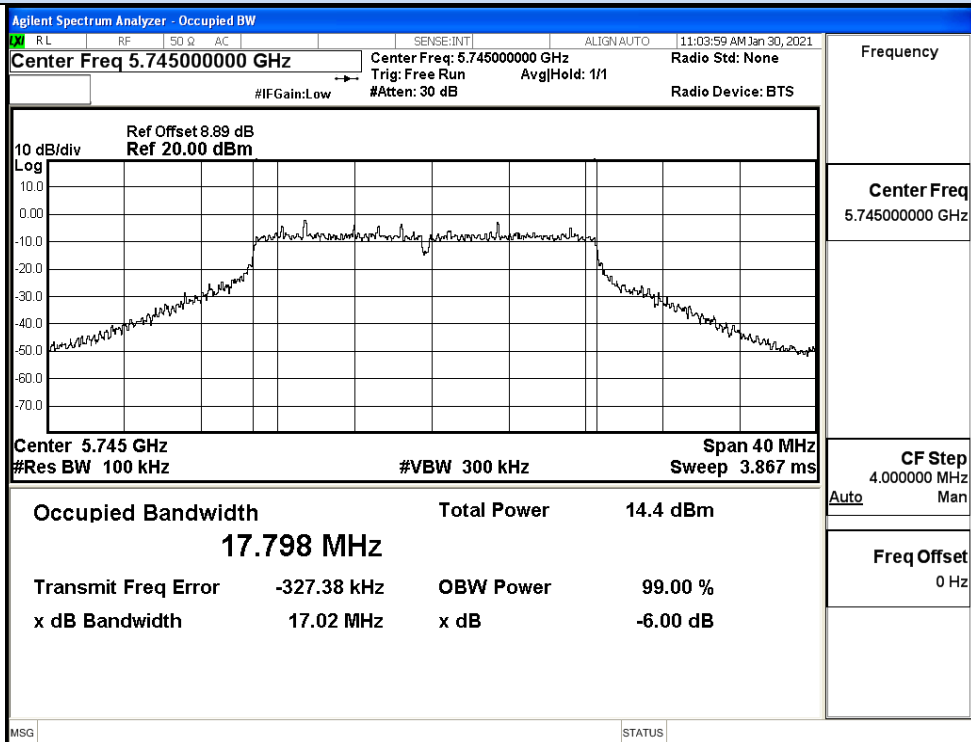


IEEE 802.11a / Channel 157 / 5785MHz

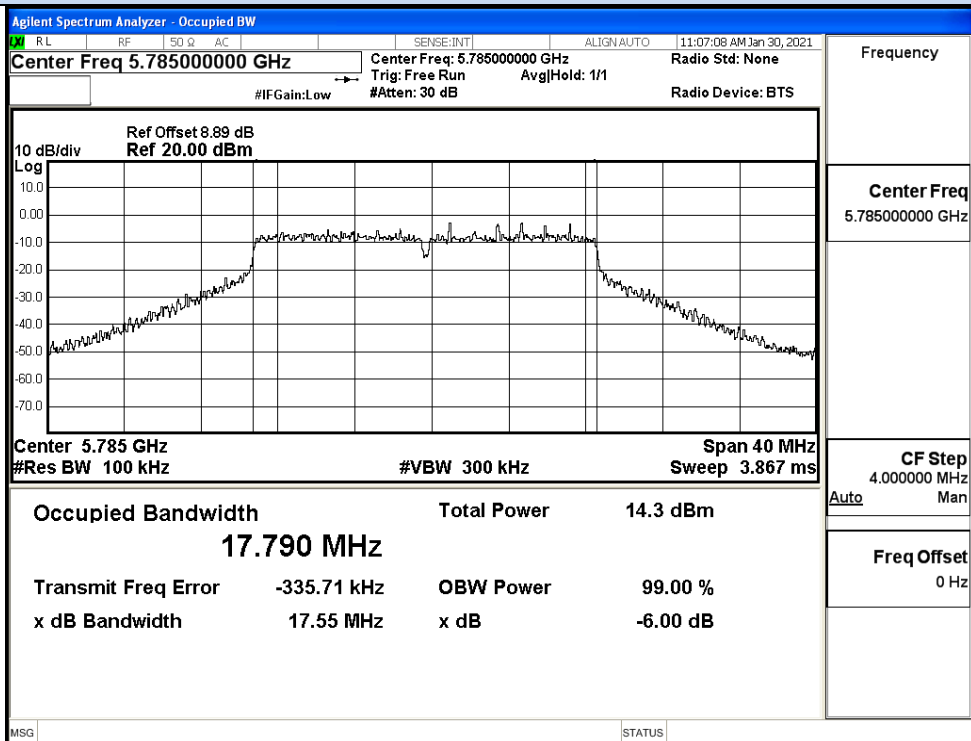


IEEE 802.11a / Channel 165 / 5825MHz

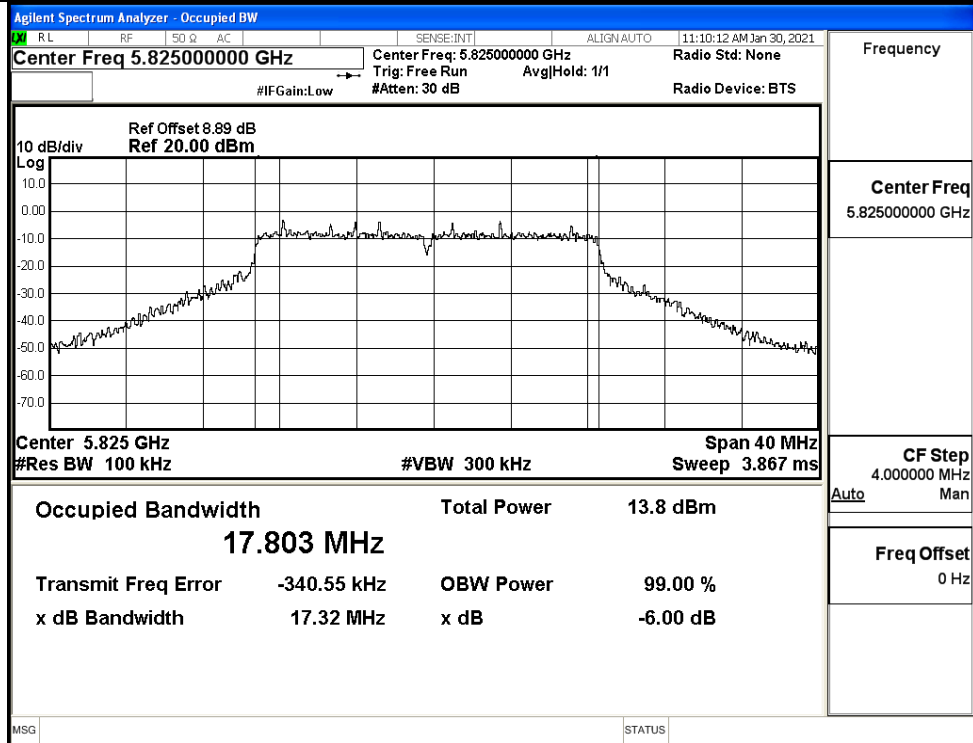
6dB Bandwidth



IEEE 802.11n20 / Channel 149 / 5745MHz

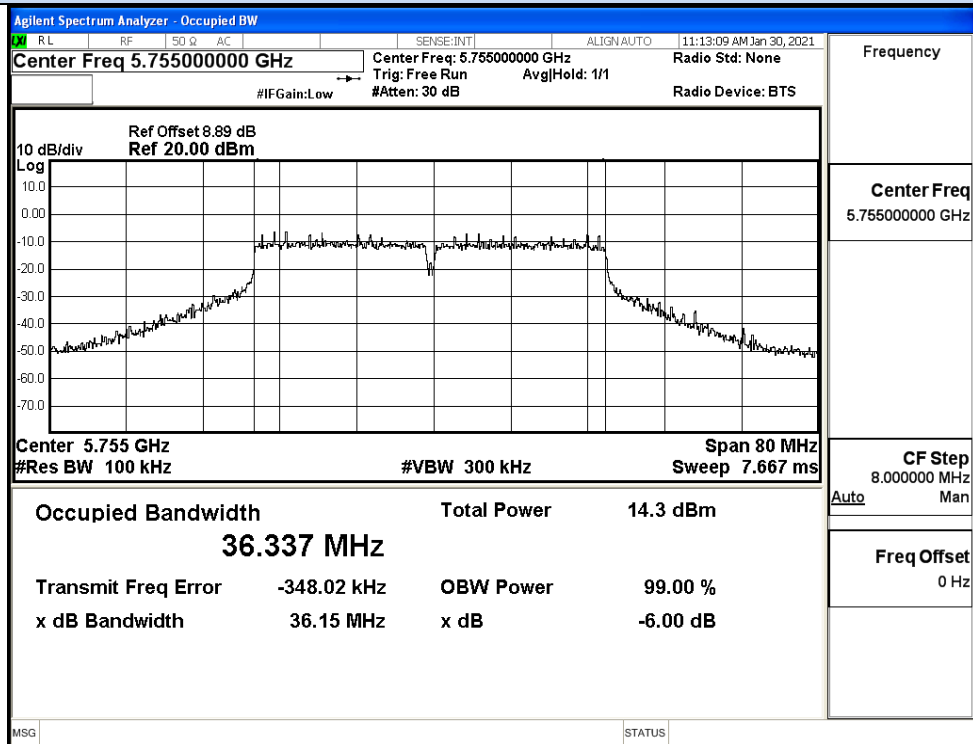


IEEE 802.11n20 / Channel 157 / 5785MHz

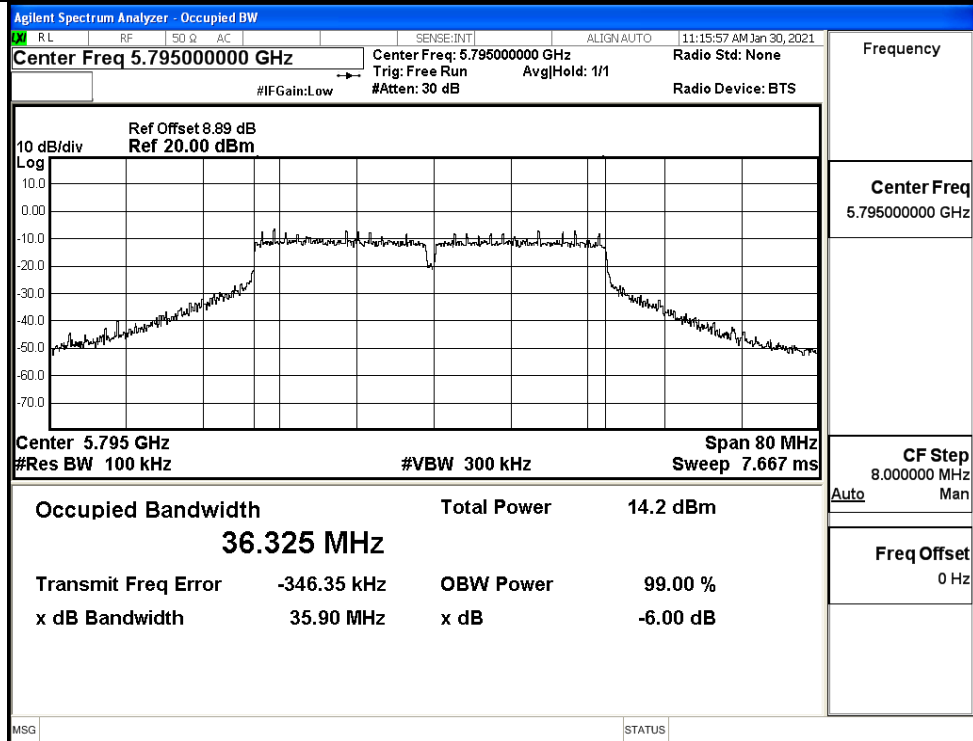


IEEE 802.11n20 / Channel 165 / 5825MHz

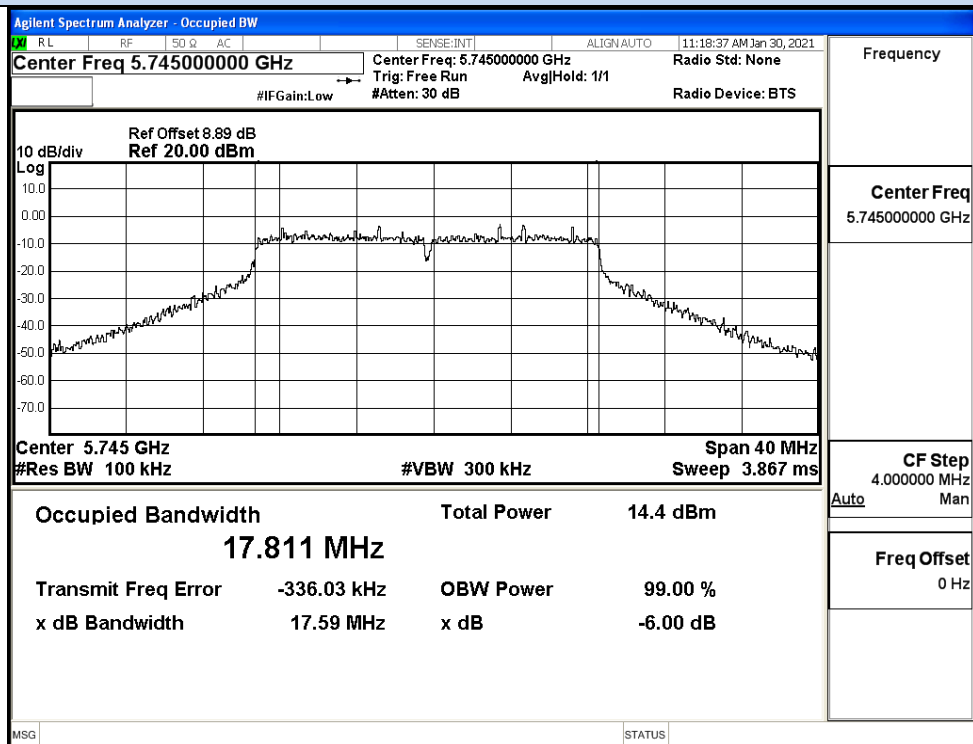
6dB Bandwidth



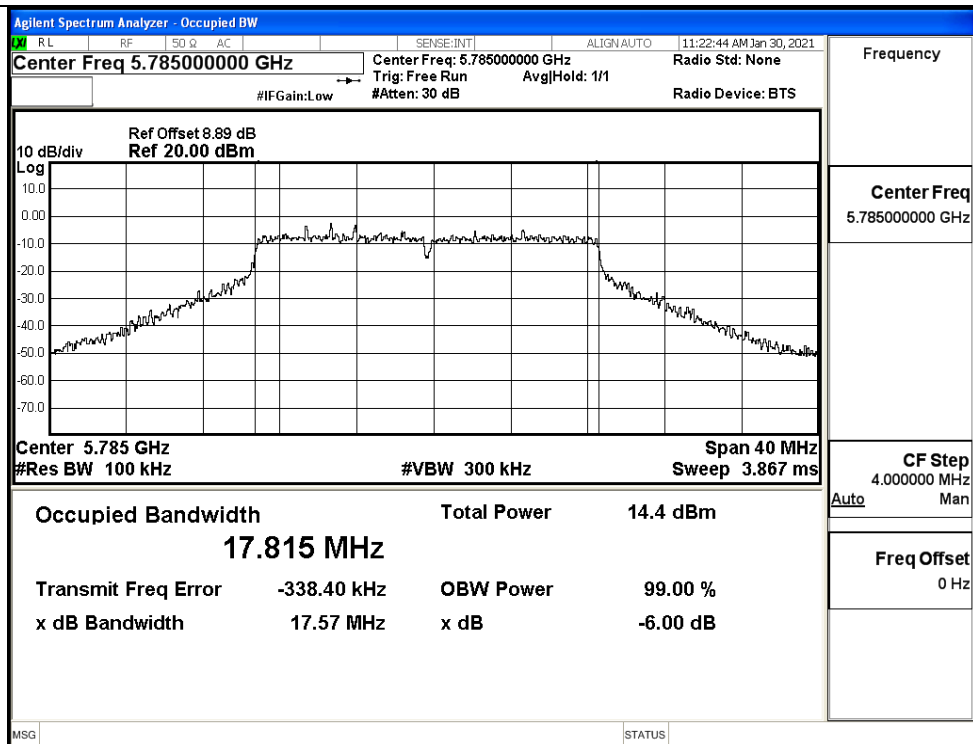
IEEE 802.11n40 / Channel 151 / 5755MHz



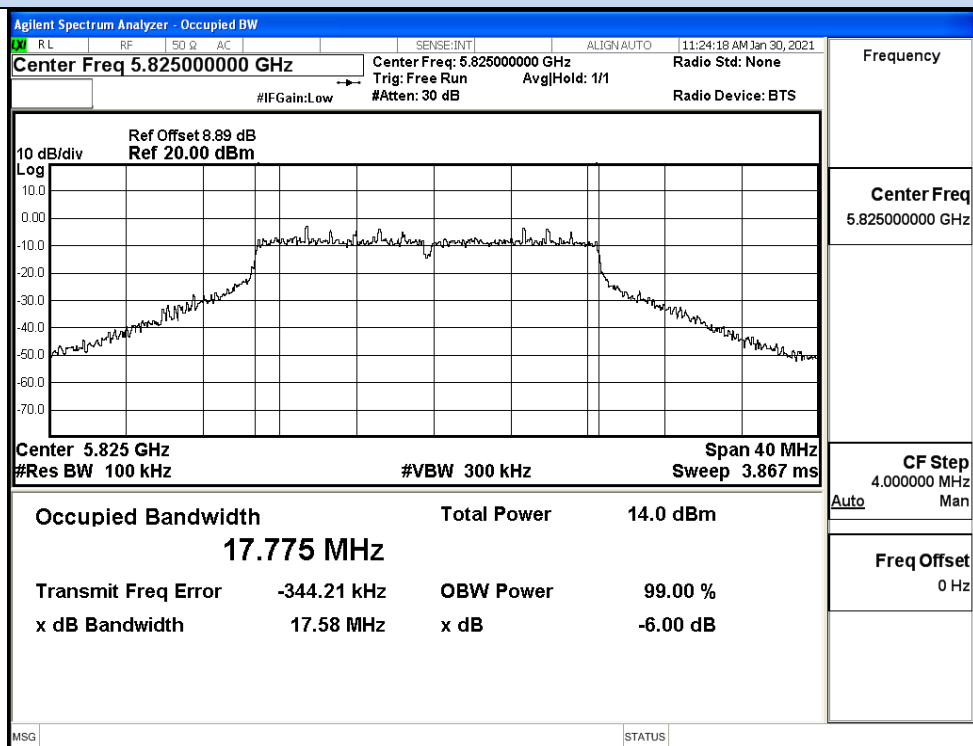
IEEE 802.11n40 / Channel 159 / 5795MHz



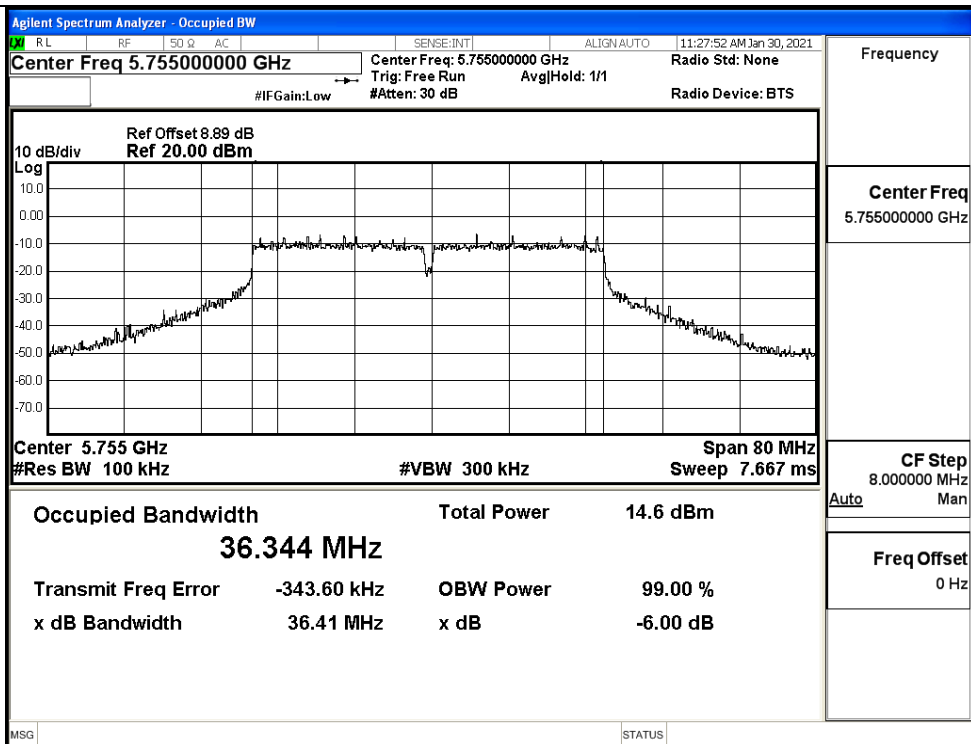
IEEE 802.11ac20 / Channel 149 / 5745MHz



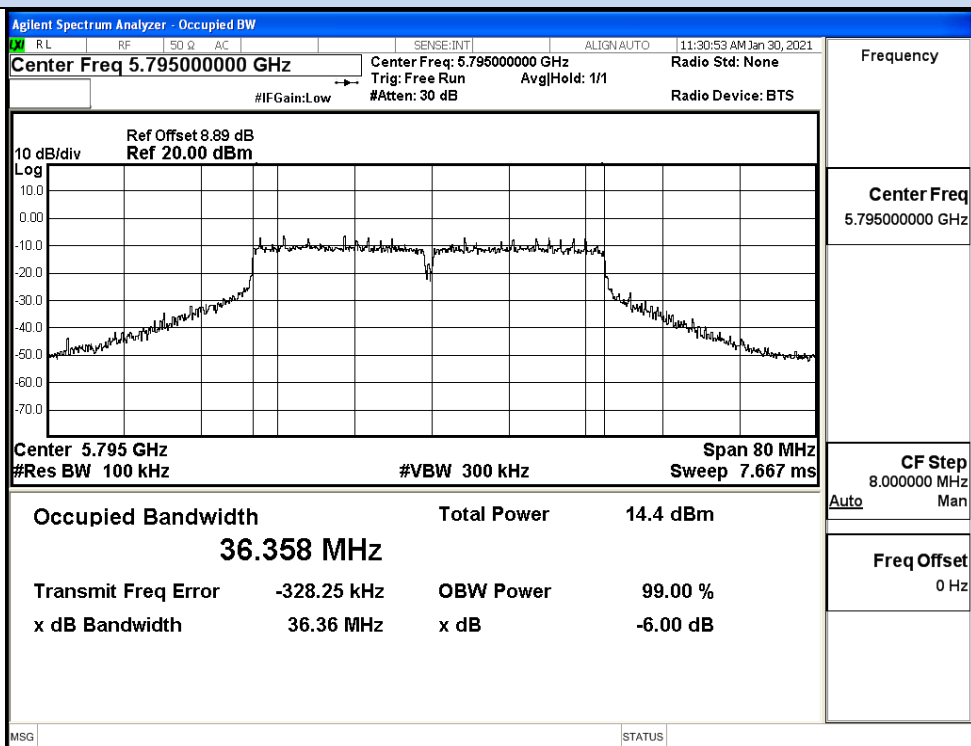
IEEE 802.11ac20 / Channel 157 / 5785MHz



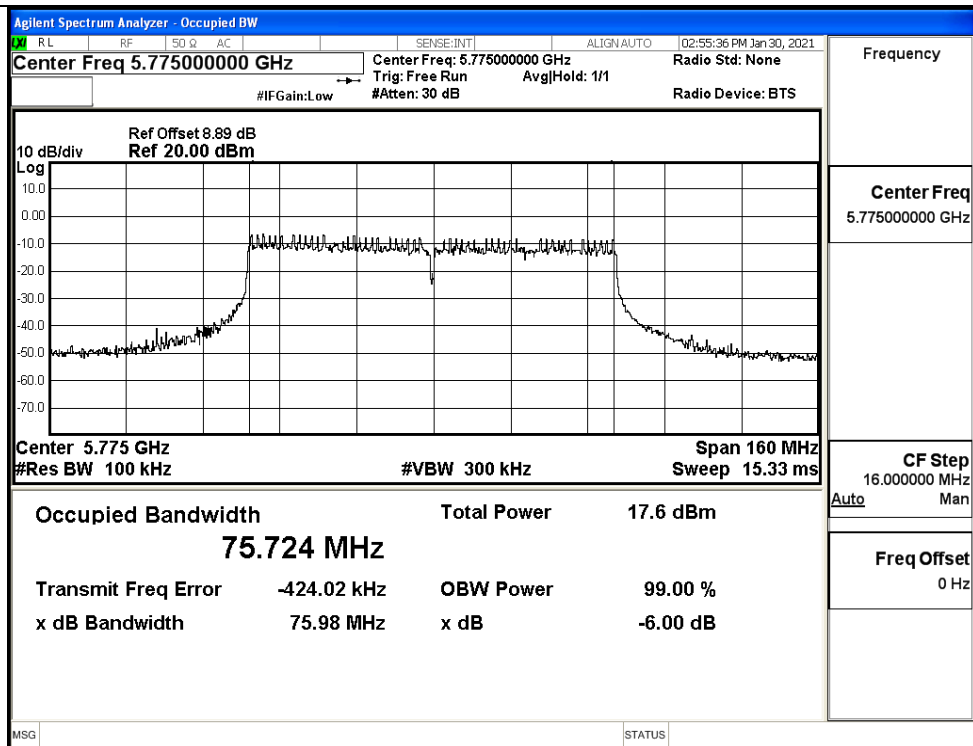
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz

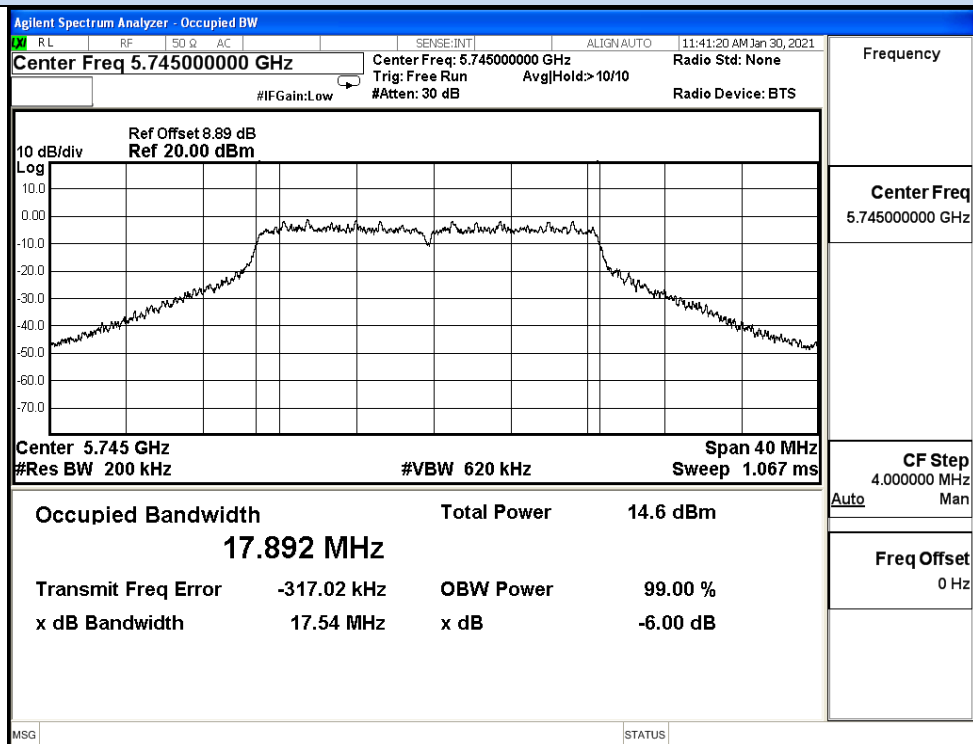


IEEE 802.11ac40 / Channel 159 / 5795MHz

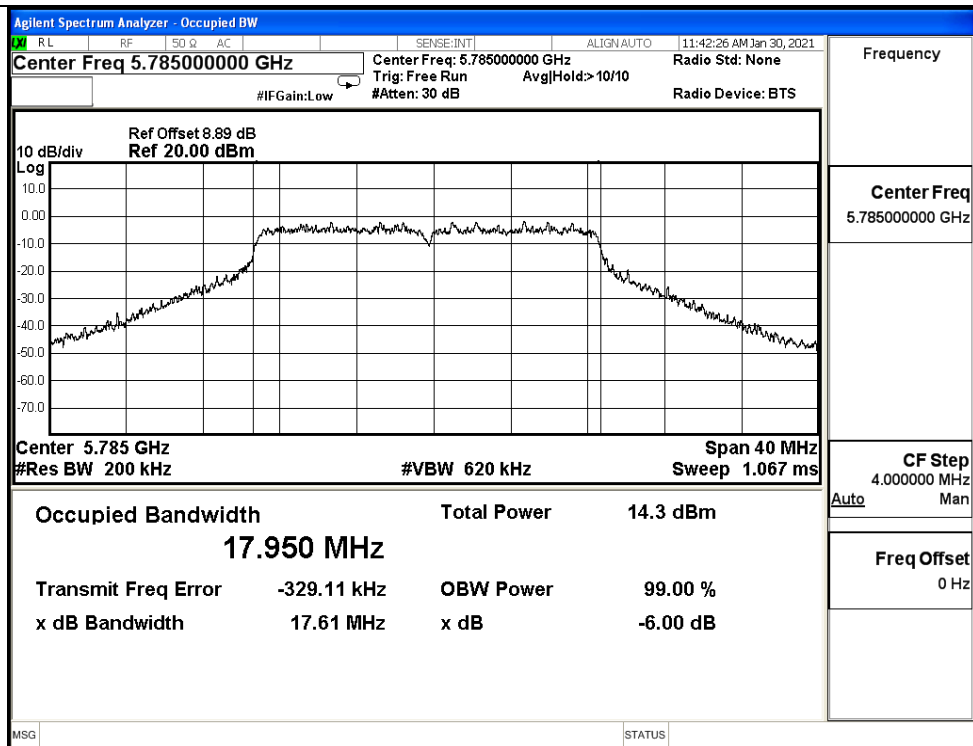


IEEE 802.11ac80 / Channel 155 / 5775MHz

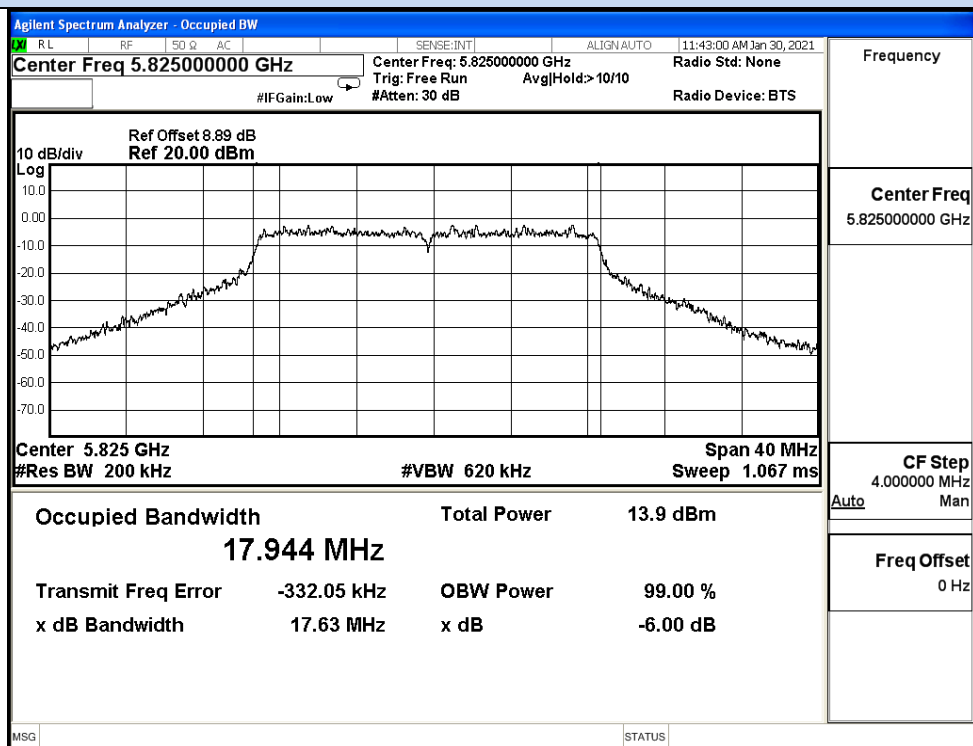
99% Occupied Bandwidth



IEEE 802.11a / Channel 149 / 5745MHz

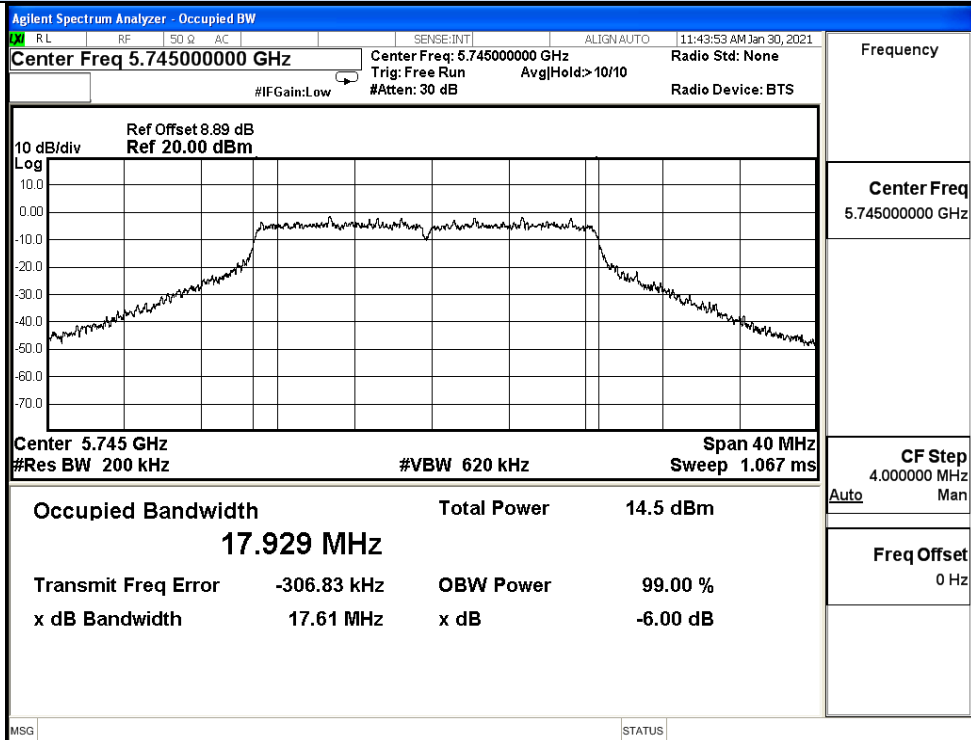


IEEE 802.11a / Channel 157 / 5785MHz

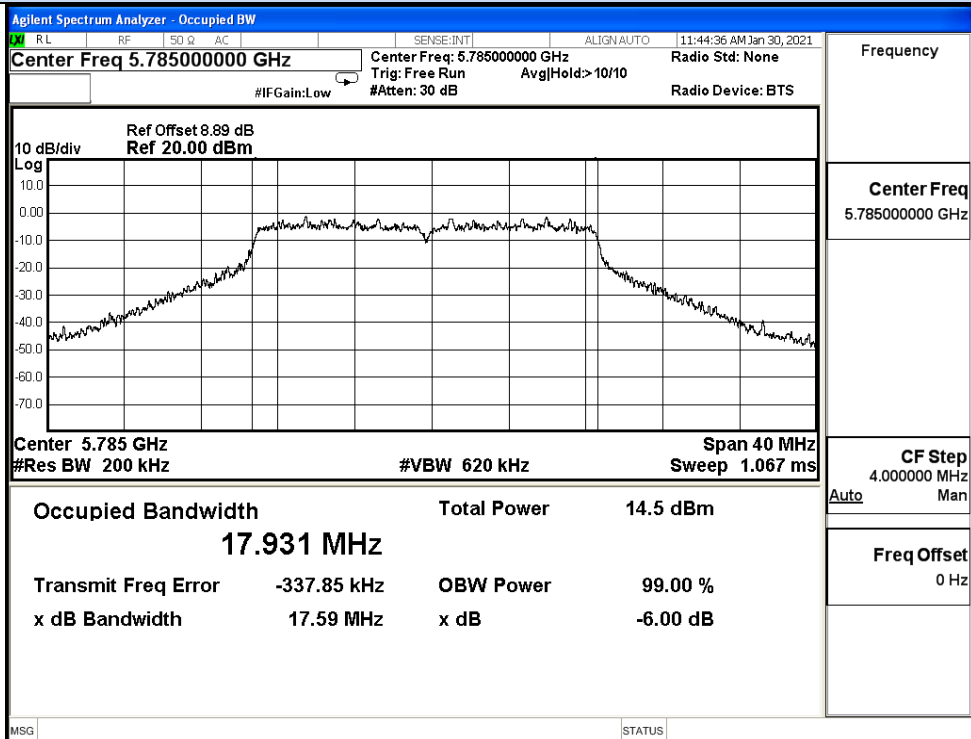


IEEE 802.11a / Channel 165 / 5825MHz

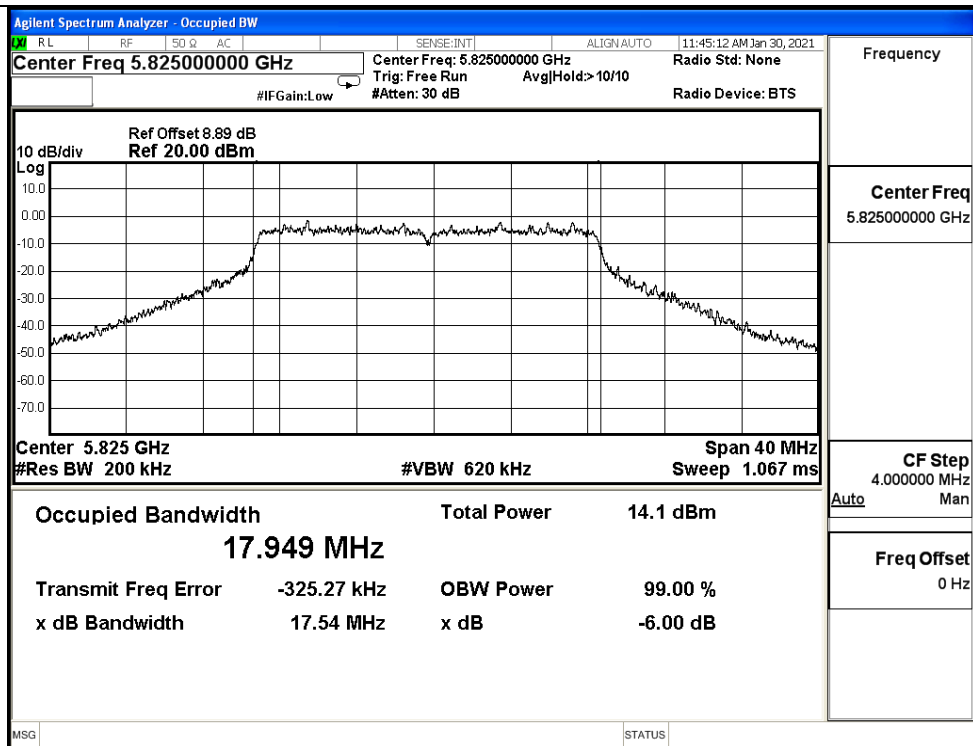
99% Occupied Bandwidth



IEEE 802.11n20 / Channel 149 / 5745MHz

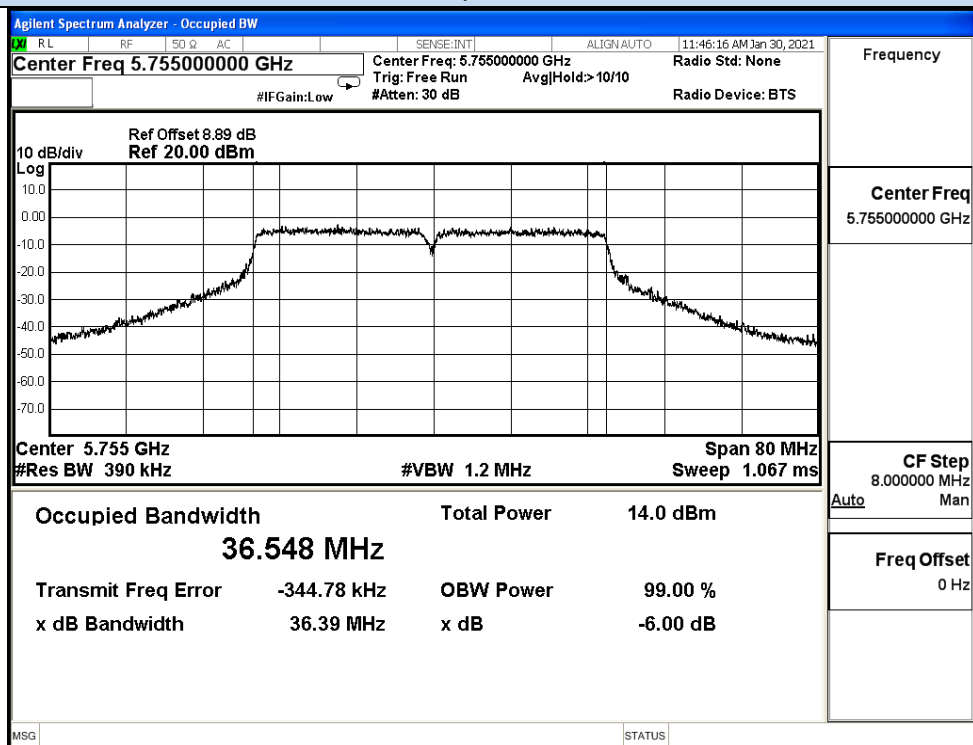


IEEE 802.11n20 / Channel 157 / 5785MHz

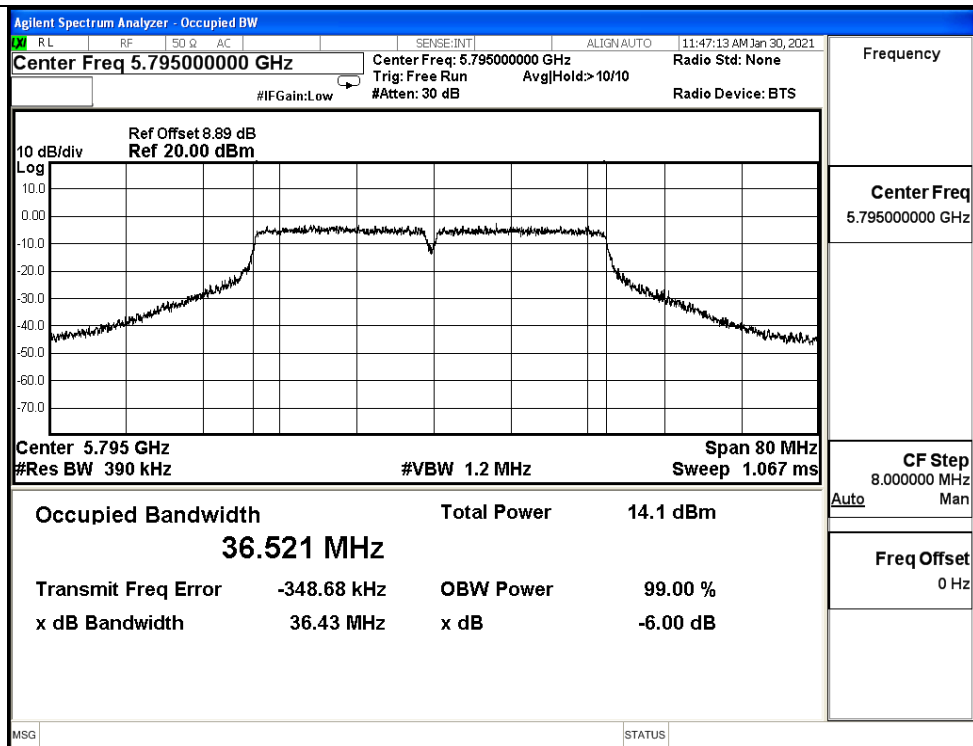


IEEE 802.11n20 / Channel 165 / 5825MHz

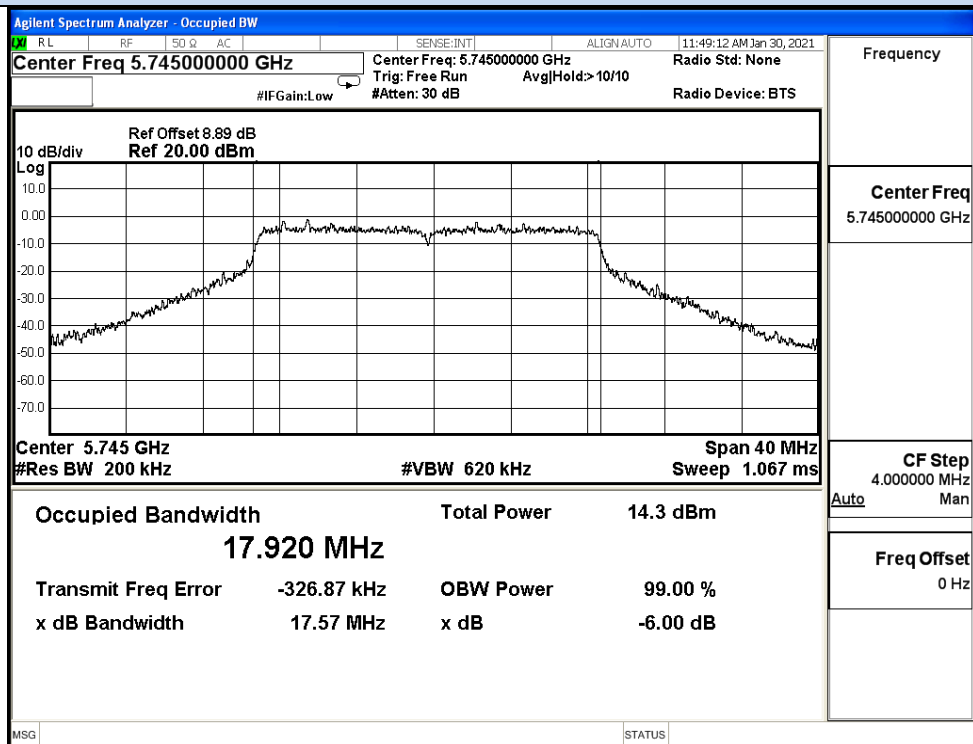
99% Occupied Bandwidth



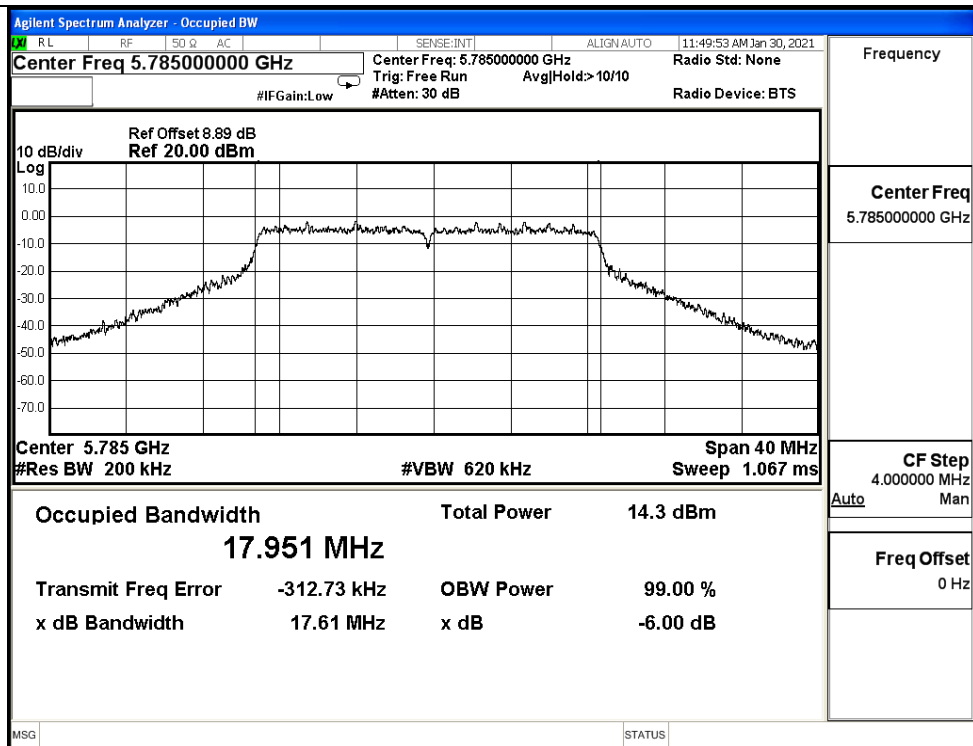
IEEE 802.11n40 / Channel 151 / 5755MHz



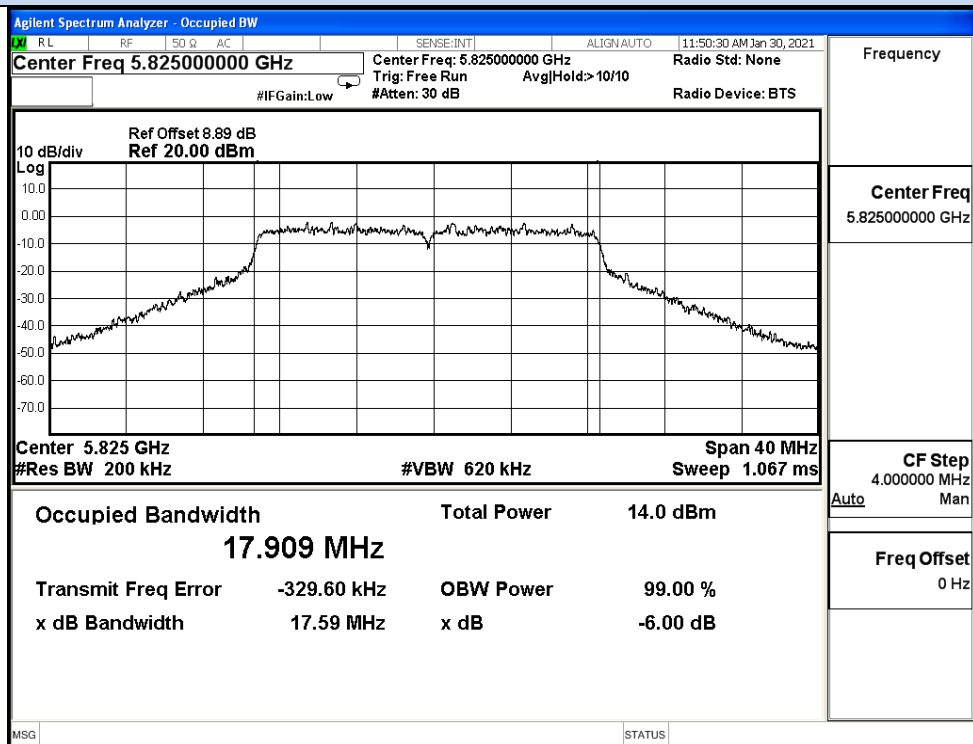
IEEE 802.11n40 / Channel 159 / 5795MHz



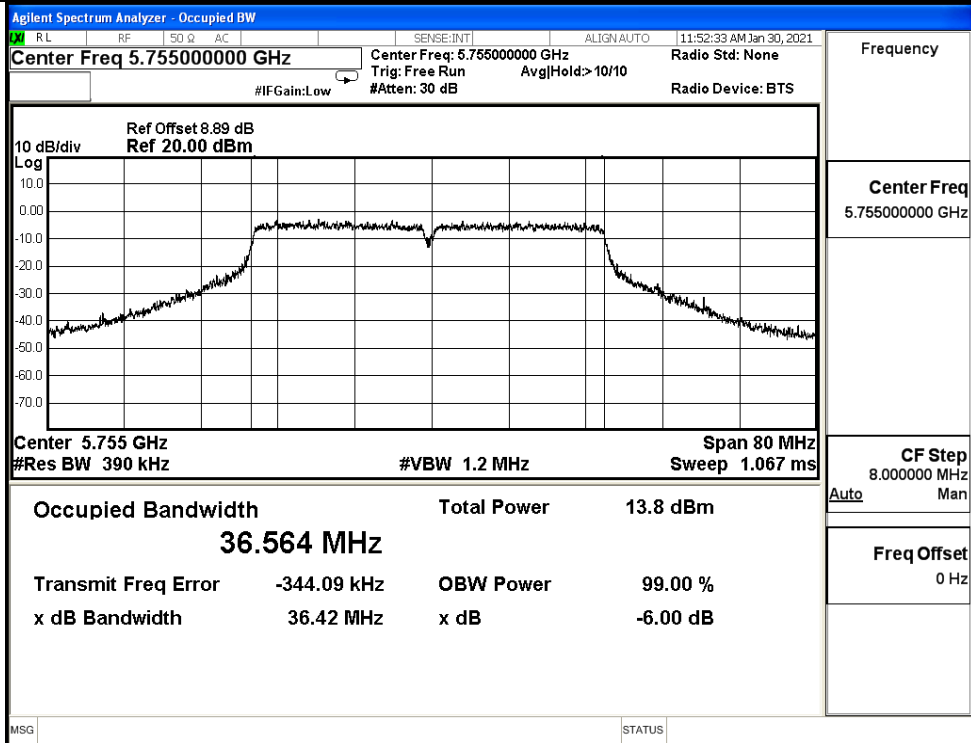
IEEE 802.11ac20 / Channel 149 / 5745MHz



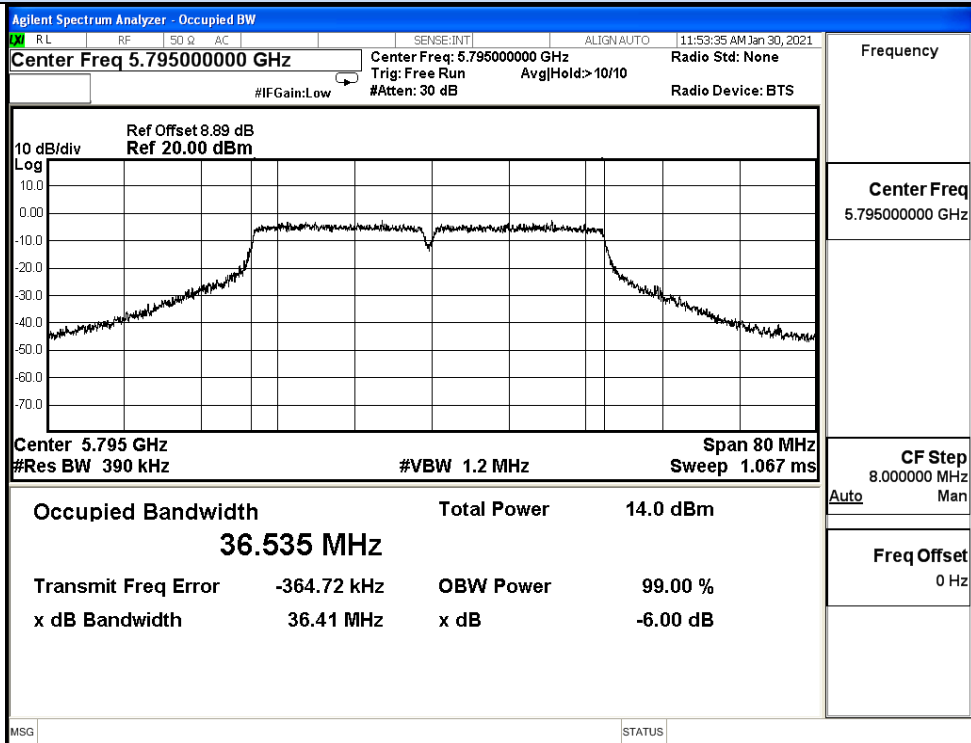
IEEE 802.11ac20 / Channel 157 / 5785MHz



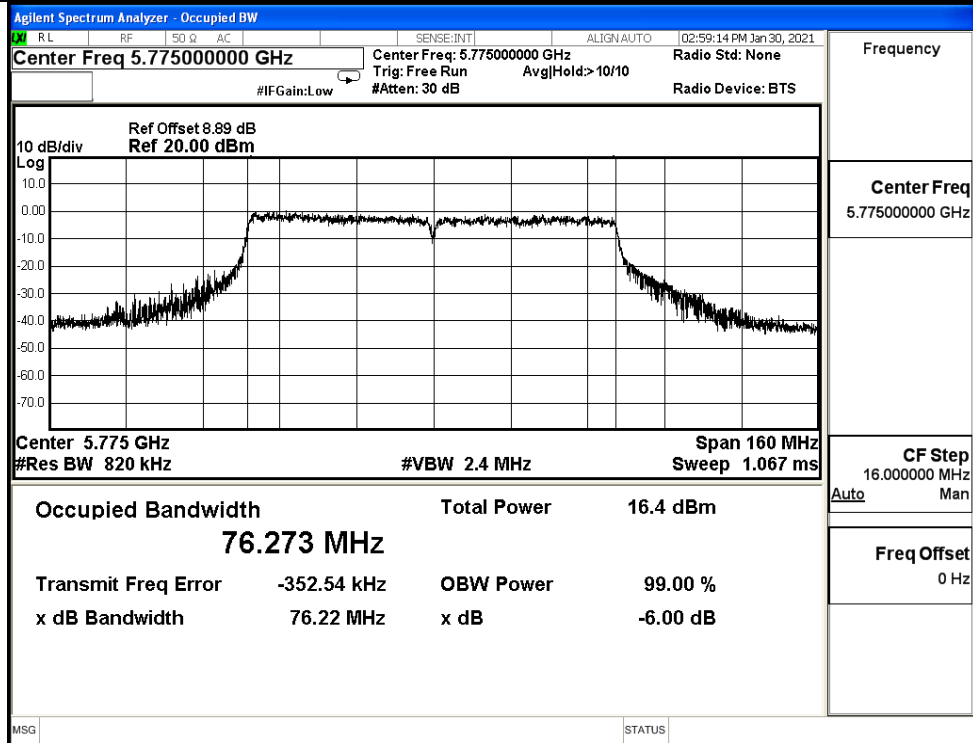
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



IEEE 802.11ac40 / Channel 159 / 5795MHz



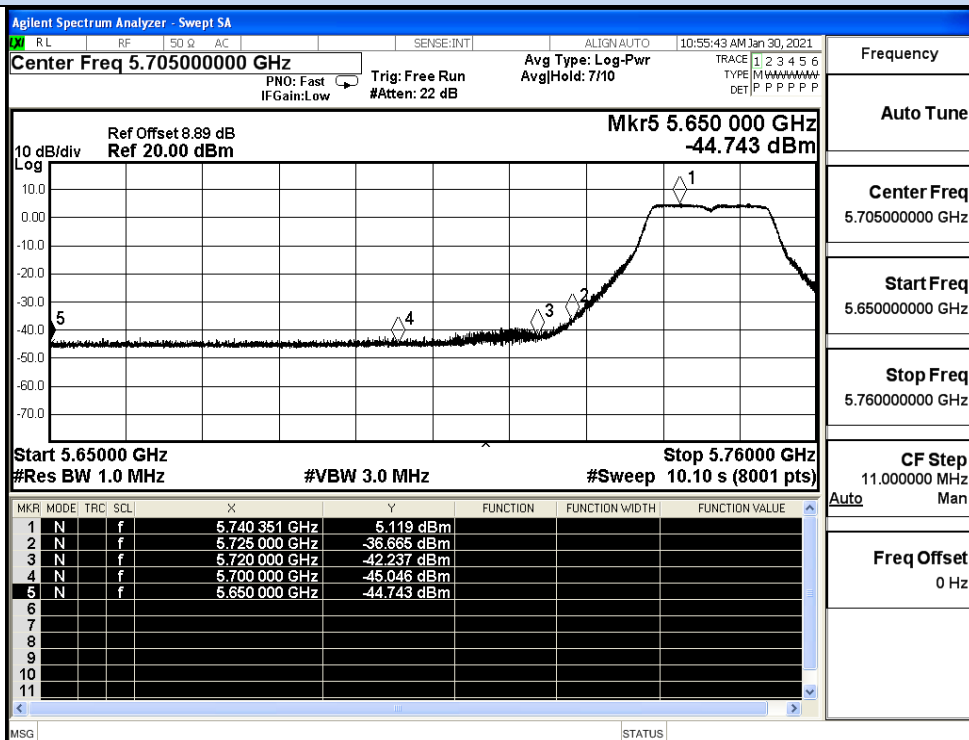
IEEE 802.11ac80 / Channel 155 / 5775MHz

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	-44.74	6.00	-38.74	Peak	27.0	Pass
		5700.0	-45.05	6.00	-39.05	Peak	15.6	Pass
		5720.0	-42.24	6.00	-36.24	Peak	10.0	Pass
		5725.0	-36.67	6.00	-30.67	Peak	-27.0	Pass
	165	5850.0	-42.83	6.00	-36.83	Peak	-27.0	Pass
		5855.0	-43.64	6.00	-37.64	Peak	10.0	Pass
		5875.0	-47.09	6.00	-41.09	Peak	15.6	Pass
		5925.0	-48.24	6.00	-42.24	Peak	27.0	Pass
11N20 SISO	149	5650.0	-44.39	6.00	-38.39	Peak	27.0	Pass
		5700.0	-45.53	6.00	-39.53	Peak	15.6	Pass
		5720.0	-42.14	6.00	-36.14	Peak	10.0	Pass
		5725.0	-36.73	6.00	-30.73	Peak	-27.0	Pass
	165	5850.0	-45.83	6.00	-39.83	Peak	-27.0	Pass
		5855.0	-44.08	6.00	-38.08	Peak	10.0	Pass
		5875.0	-46.74	6.00	-40.74	Peak	15.6	Pass
		5925.0	-47.61	6.00	-41.61	Peak	27.0	Pass

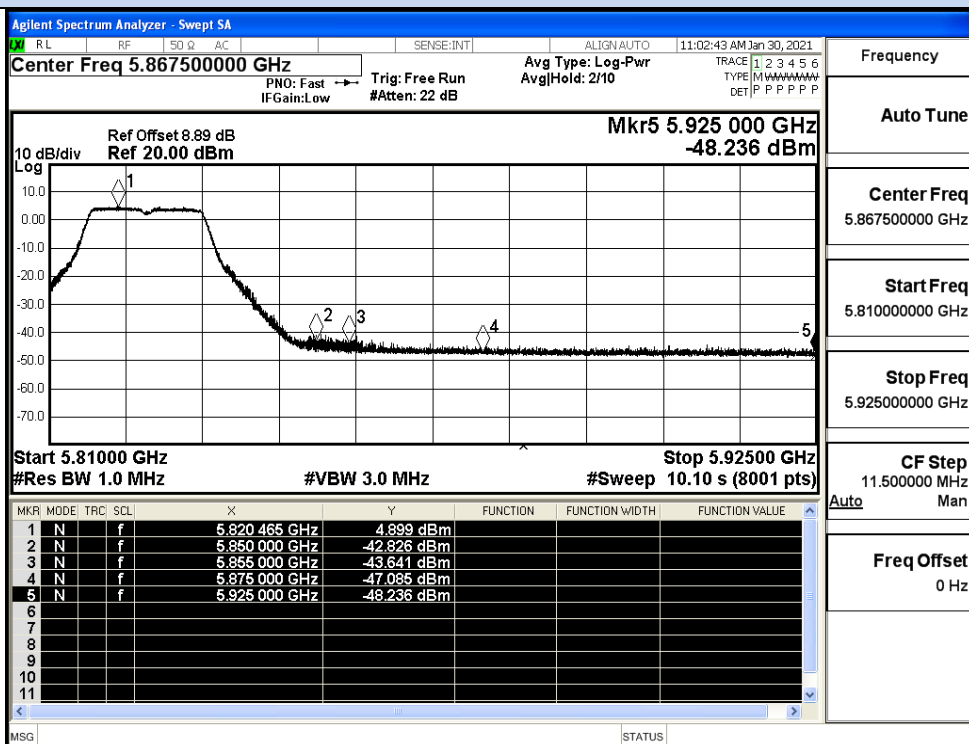
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11N40 SISO	151	5650.0	-47.46	6.00	-41.46	Peak	27.0	Pass
		5700.0	-46.43	6.00	-40.43	Peak	15.6	Pass
		5720.0	-41.33	6.00	-35.33	Peak	10.0	Pass
		5725.0	-35.62	6.00	-29.62	Peak	-27.0	Pass
	159	5850.0	-46.55	6.00	-40.55	Peak	-27.0	Pass
		5855.0	-46.32	6.00	-40.32	Peak	10.0	Pass
		5875.0	-47.43	6.00	-41.43	Peak	15.6	Pass
		5925.0	-46.61	6.00	-40.61	Peak	27.0	Pass
11AC2 0 SISO	149	5650.0	-46.58	6.00	-40.58	Peak	27.0	Pass
		5700.0	-45.87	6.00	-39.87	Peak	15.6	Pass
		5720.0	-43.02	6.00	-37.02	Peak	10.0	Pass
		5725.0	-38.21	6.00	-32.21	Peak	-27.0	Pass
	165	5850.0	-45.91	6.00	-39.91	Peak	-27.0	Pass
		5855.0	-43.69	6.00	-37.69	Peak	10.0	Pass
		5875.0	-46.63	6.00	-40.63	Peak	15.6	Pass
		5925.0	-46.91	6.00	-40.91	Peak	27.0	Pass
11AC4 0 SISO	151	5650.0	-48.28	6.00	-42.28	Peak	27.0	Pass
		5700.0	-48.98	6.00	-42.98	Peak	15.6	Pass
		5720.0	-43.20	6.00	-37.20	Peak	10.0	Pass
		5725.0	-36.44	6.00	-30.44	Peak	-27.0	Pass
	159	5850.0	-46.79	6.00	-40.79	Peak	-27.0	Pass
		5855.0	-47.58	6.00	-41.58	Peak	10.0	Pass
		5875.0	-47.21	6.00	-41.21	Peak	15.6	Pass
		5925.0	-47.29	6.00	-41.29	Peak	27.0	Pass
11AC8 0 SISO	155	5725.0	-38.63	6.00	-32.63	Peak	-27	Pass
		5720.0	-38.45	6.00	-32.45	Peak	10	Pass
		5700.0	-43.09	6.00	-37.09	Peak	15.6	Pass
		5650.0	-50.34	6.00	-44.34	Peak	27	Pass
		5850.0	-41.56	6.00	-35.56	Peak	-27	Pass
		5855.0	-42.47	6.00	-36.47	Peak	10	Pass
		5875.0	-45.67	6.00	-39.67	Peak	15.6	Pass
		5925.0	-46.23	6.00	-40.23	Peak	27	Pass

Undesirable Emissions Measurement



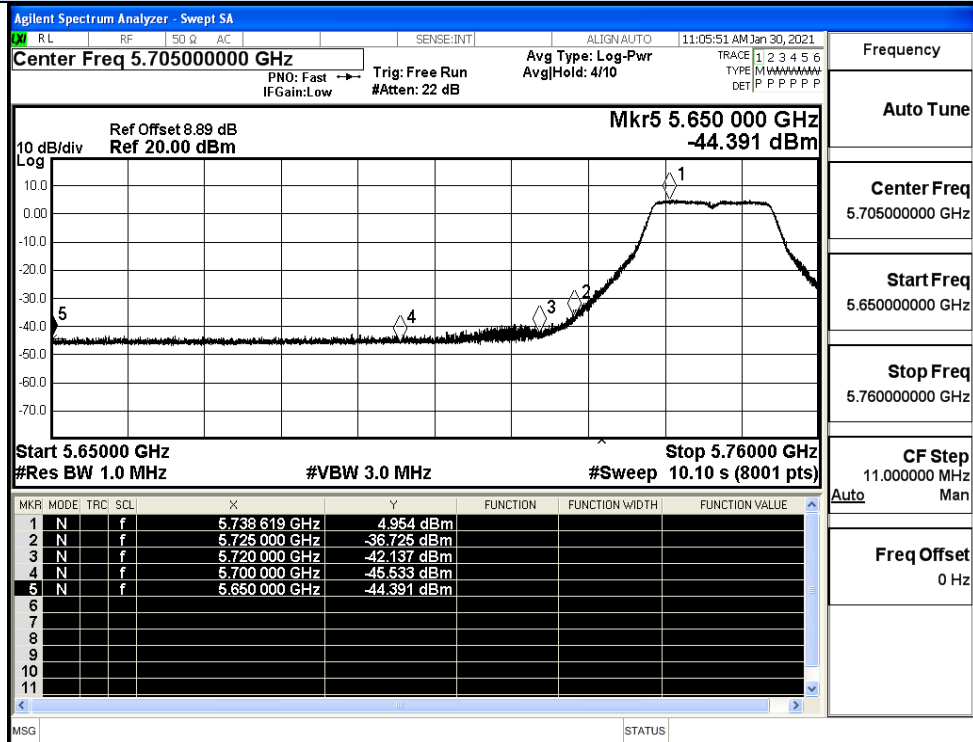
IEEE 802.11a / Channel 149 / 5745MHz / Peak

Undesirable Emissions Measurement



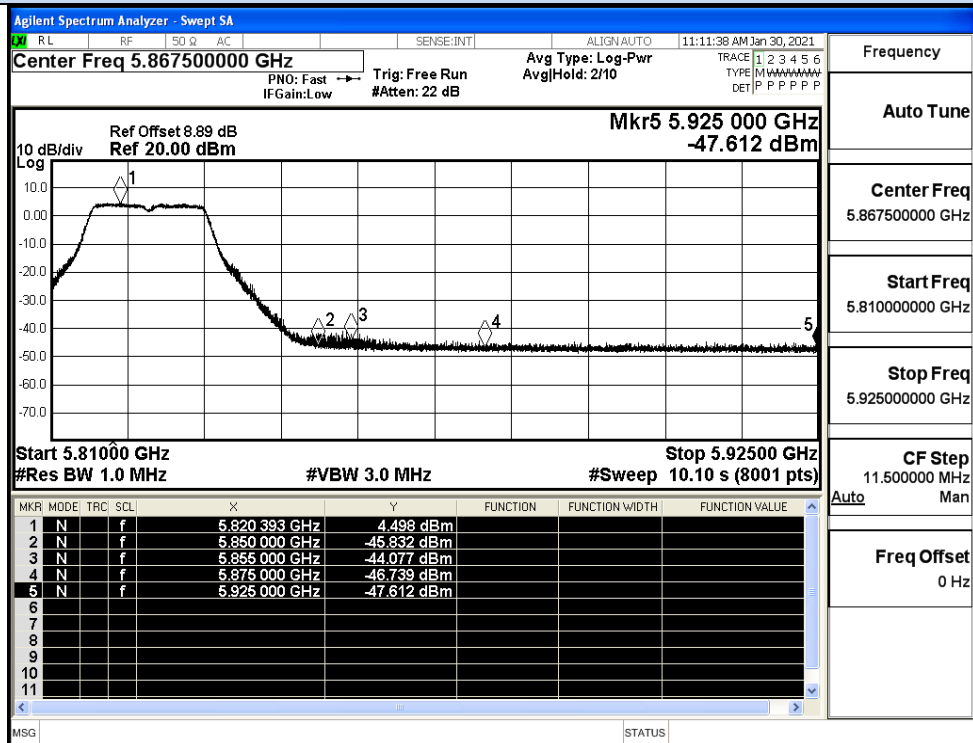
IEEE 802.11a / Channel 165 / 5825MHz / Peak

Undesirable Emissions Measurement



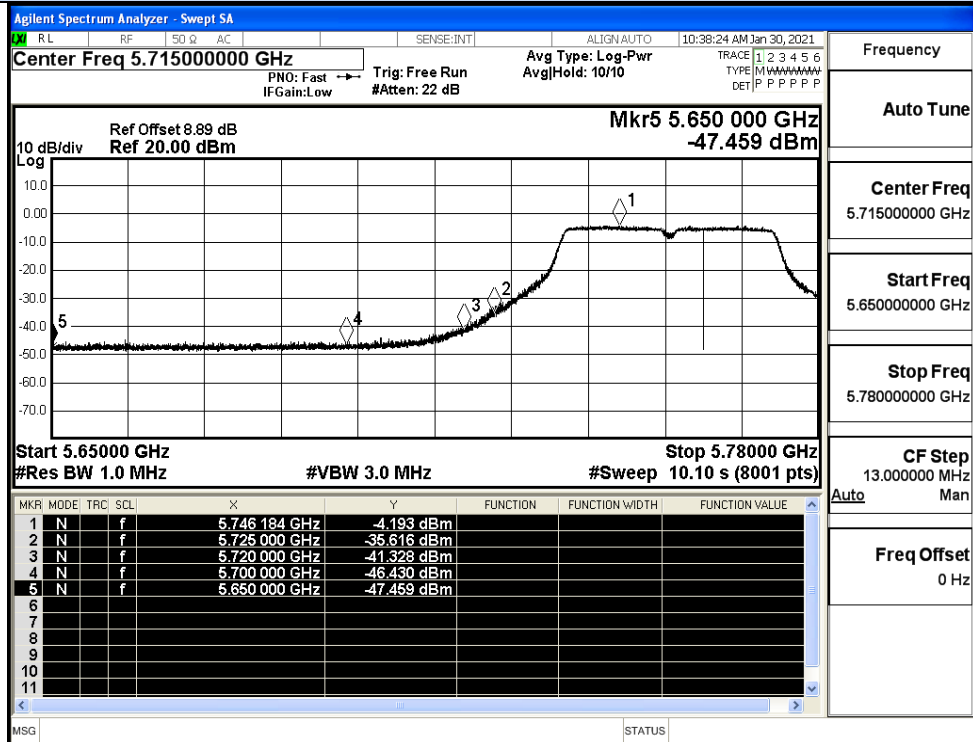
IEEE 802.11n20 / Channel 149 / 5745MHz / Peak

Undesirable Emissions Measurement



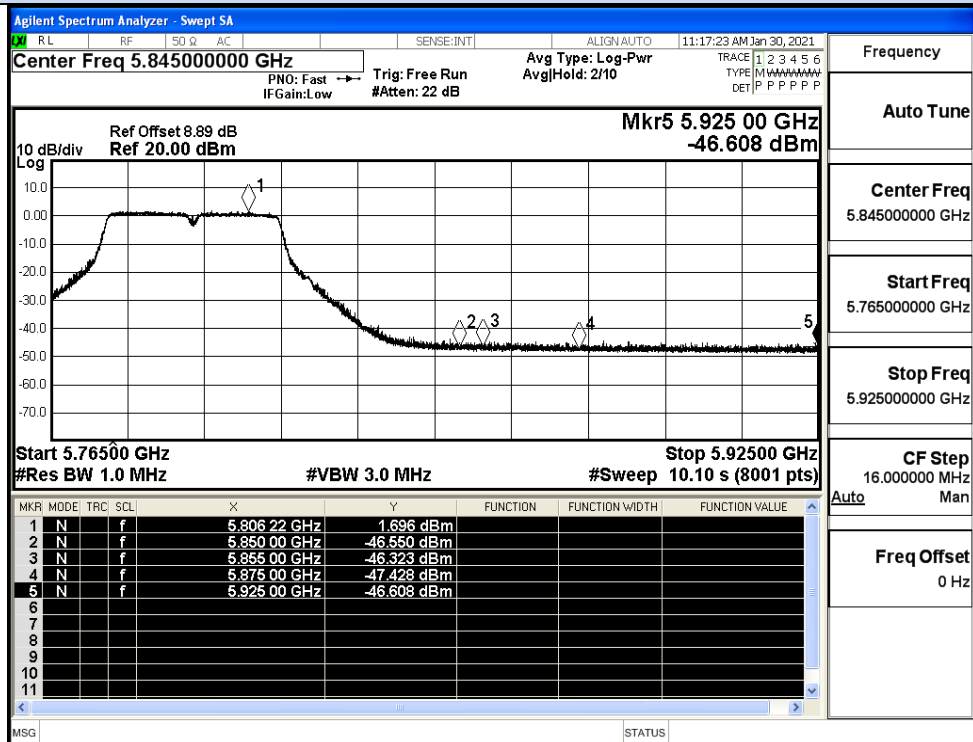
IEEE 802.11n20 / Channel 165 / 5825MHz / Peak

Undesirable Emissions Measurement

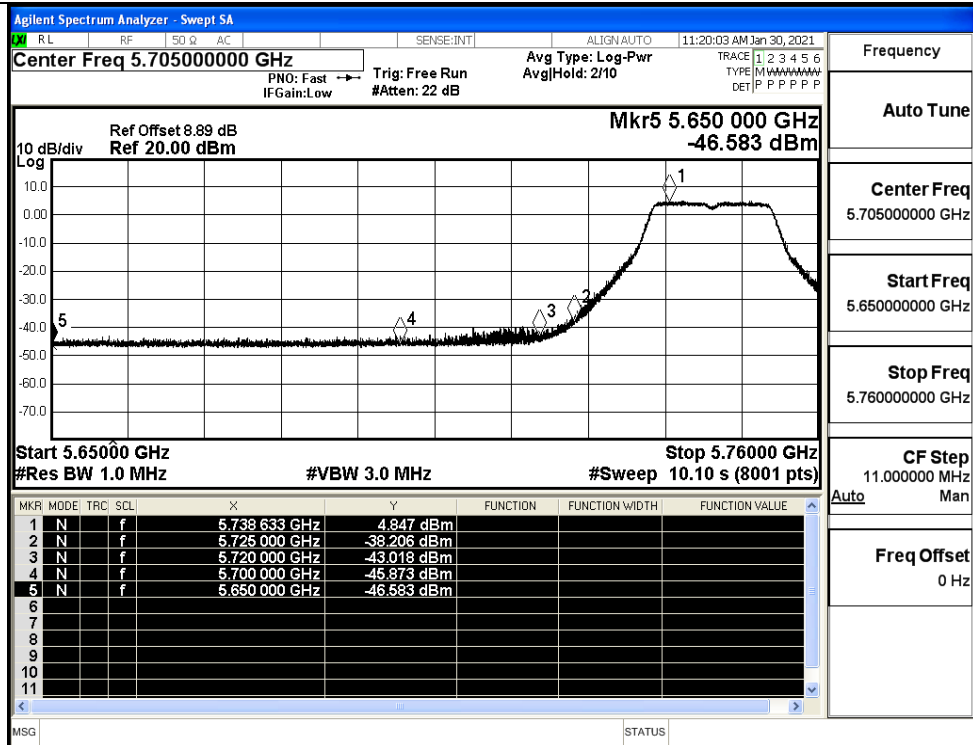


IEEE 802.11n40 / Channel 151 / 5755MHz / Peak

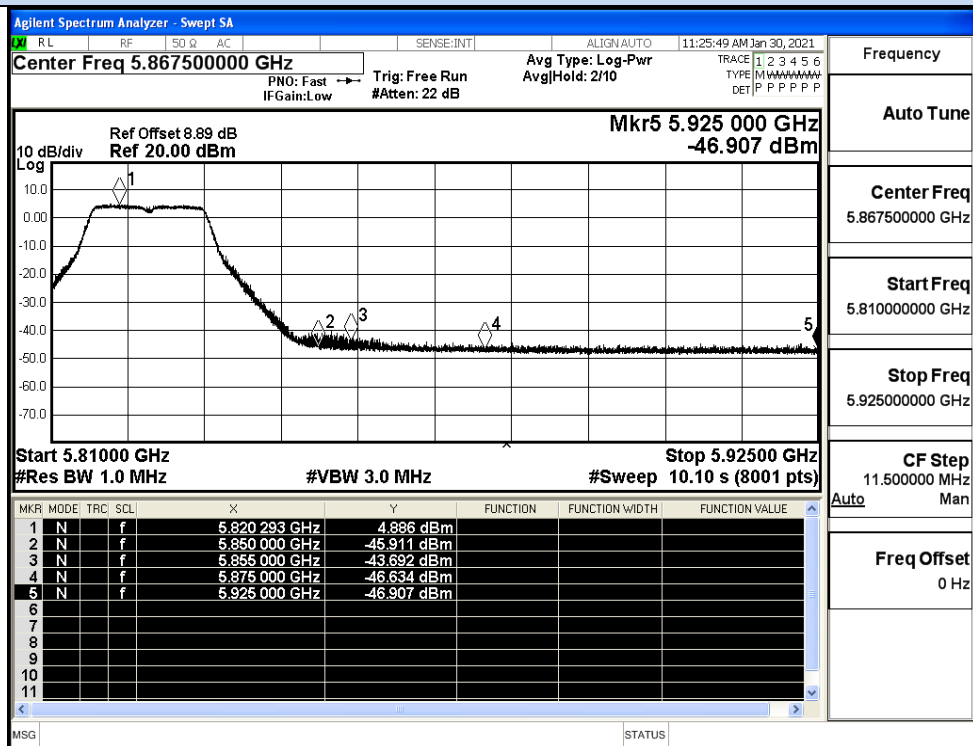
Undesirable Emissions Measurement



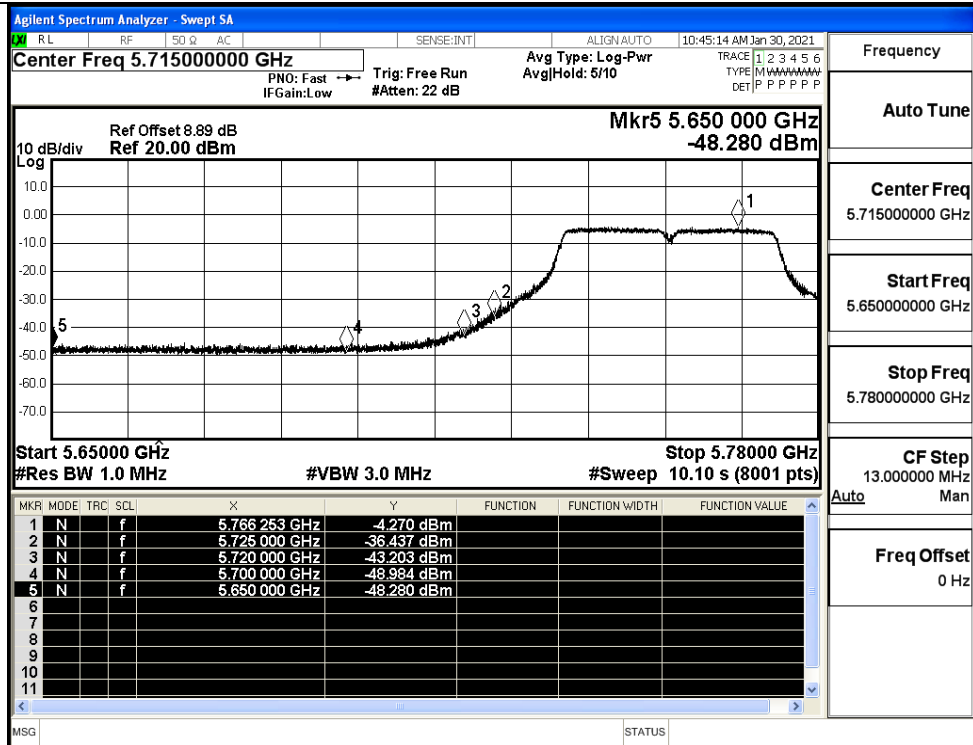
IEEE 802.11n40 / Channel 159 / 5795MHz / Peak



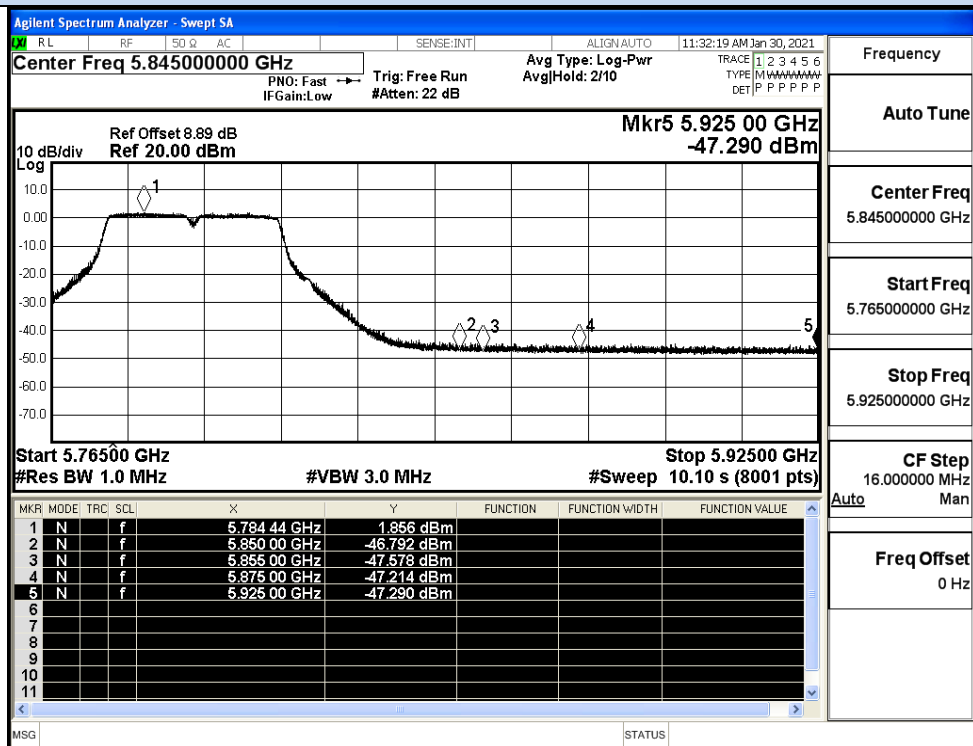
IEEE 802.11ac20 / Channel 149 / 5745MHz / Peak



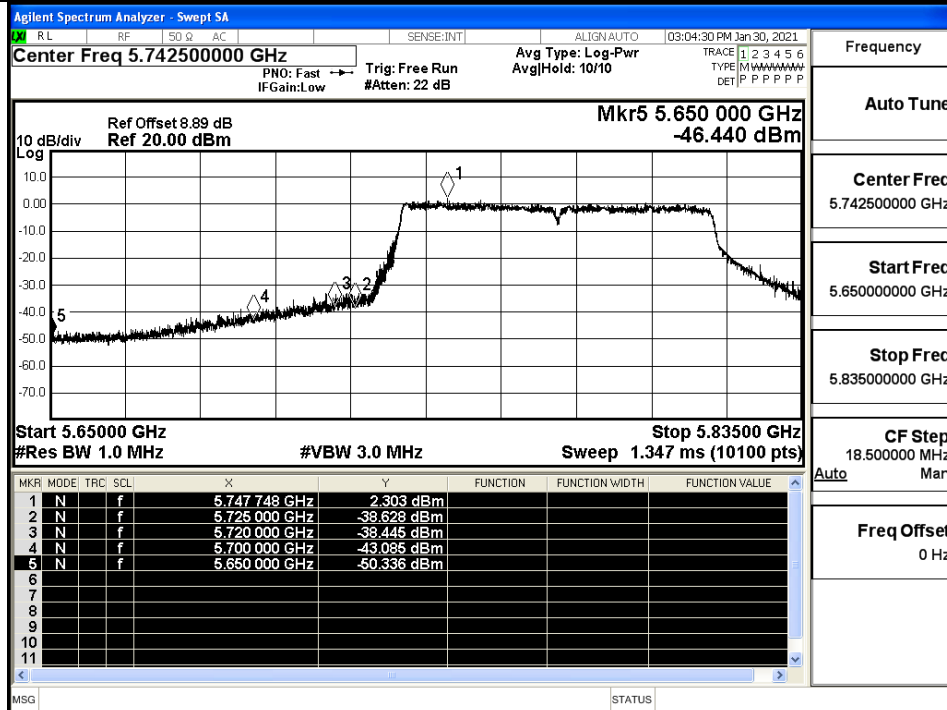
IEEE 802.11ac20 / Channel 165 / 5825MHz / Peak



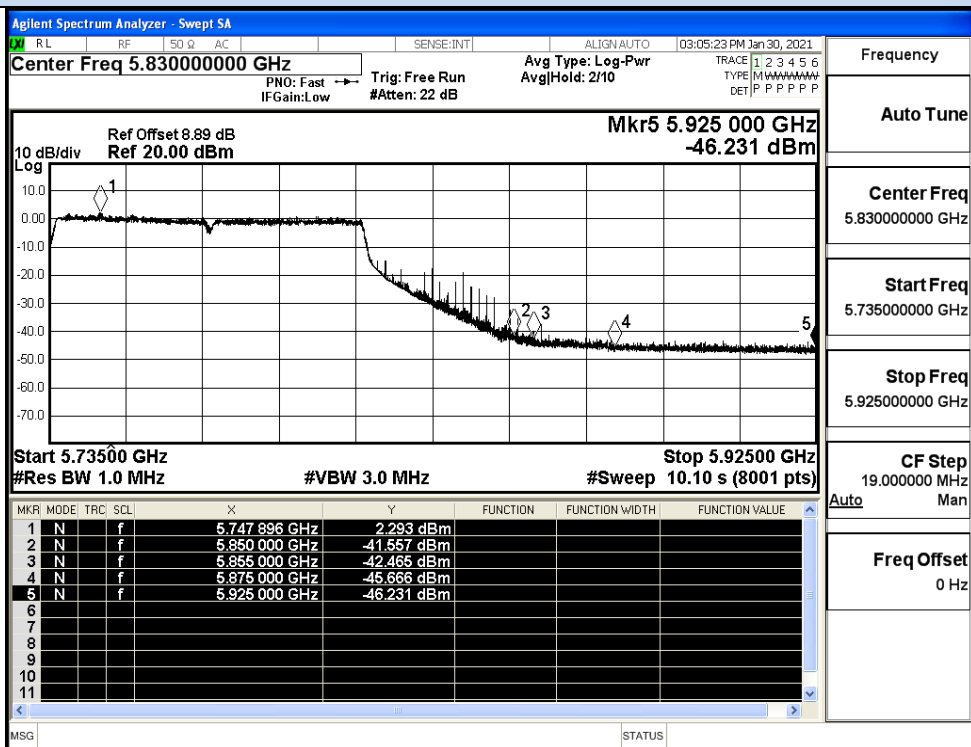
IEEE 802.11ac40 / Channel 151 / 5755MHz / Peak



IEEE 802.11ac40 / Channel 159 / 5795MHz / Peak



IEEE 802.11ac80 / Channel 155 / 5775MHz / Peak



IEEE 802.11ac80 / Channel 155/ 5775MHz / Peak