Appendix E

RF Test Data for 5.8G WLAN (Conducted Measurement)

Product Name: Formuler Z8 pro
Trade Mark: FORMULER
Test Model: Z8 pro

Environmental Conditions

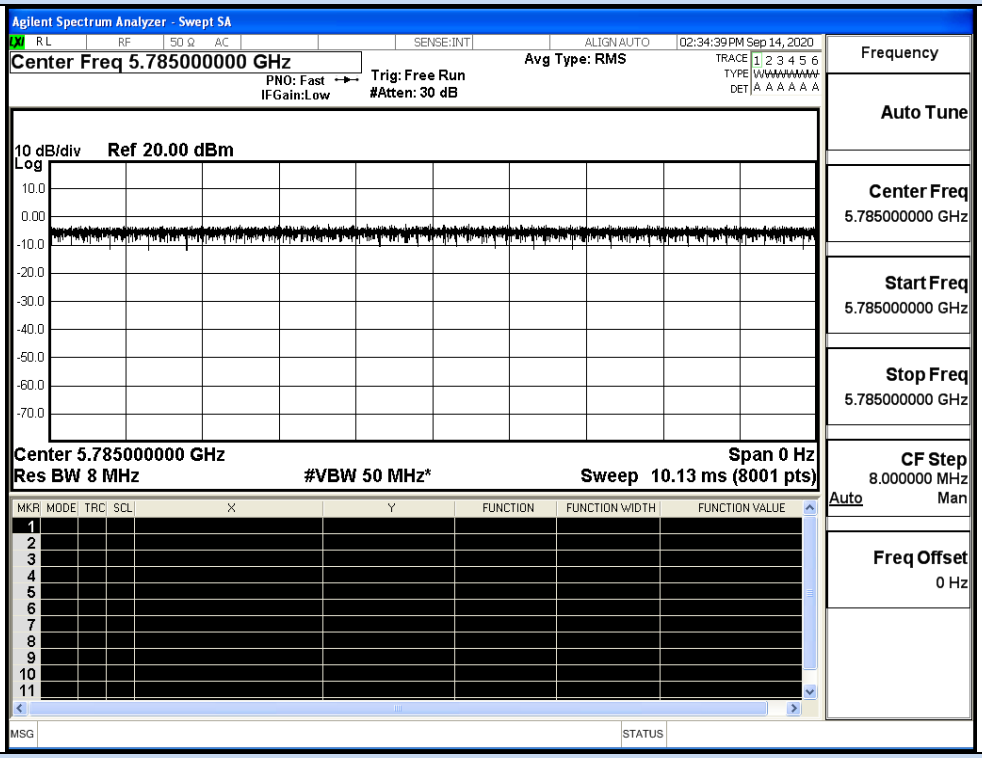
Temperature:	24.6° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

E.1 Duty Cycle

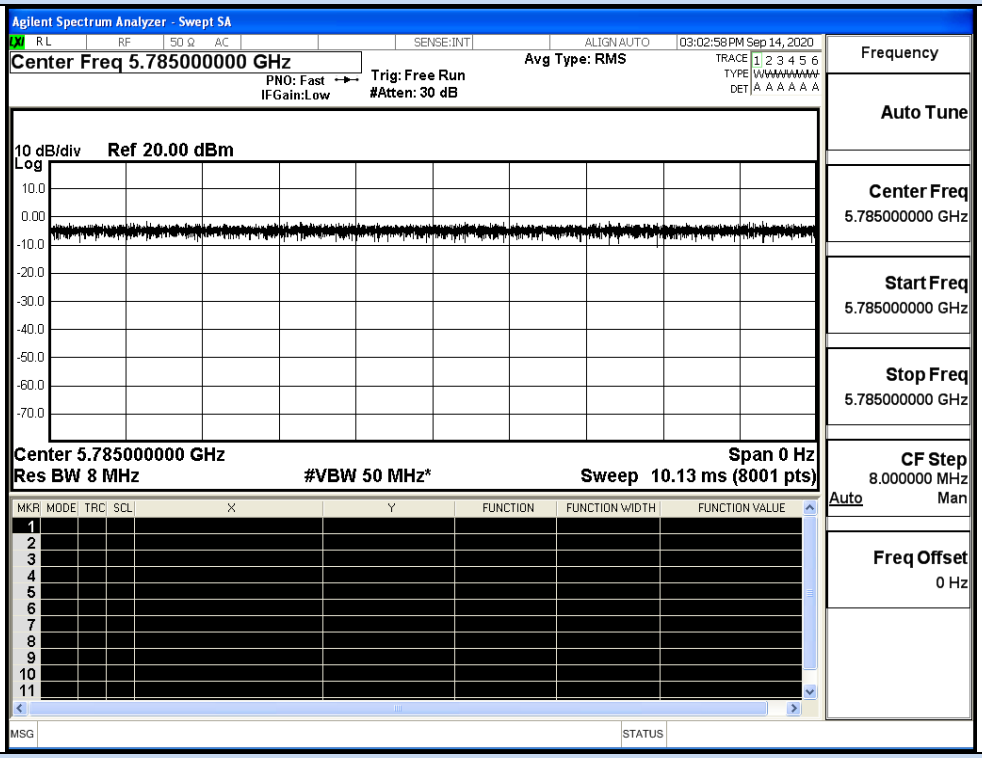
ANT 0

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	5785	100	0.00	0.01
11N40	5755	100	0.00	0.01
11AC20	5785	100	0.00	0.01
11AC40	5755	100	0.00	0.01
11AC80	5775	100	0.00	0.01

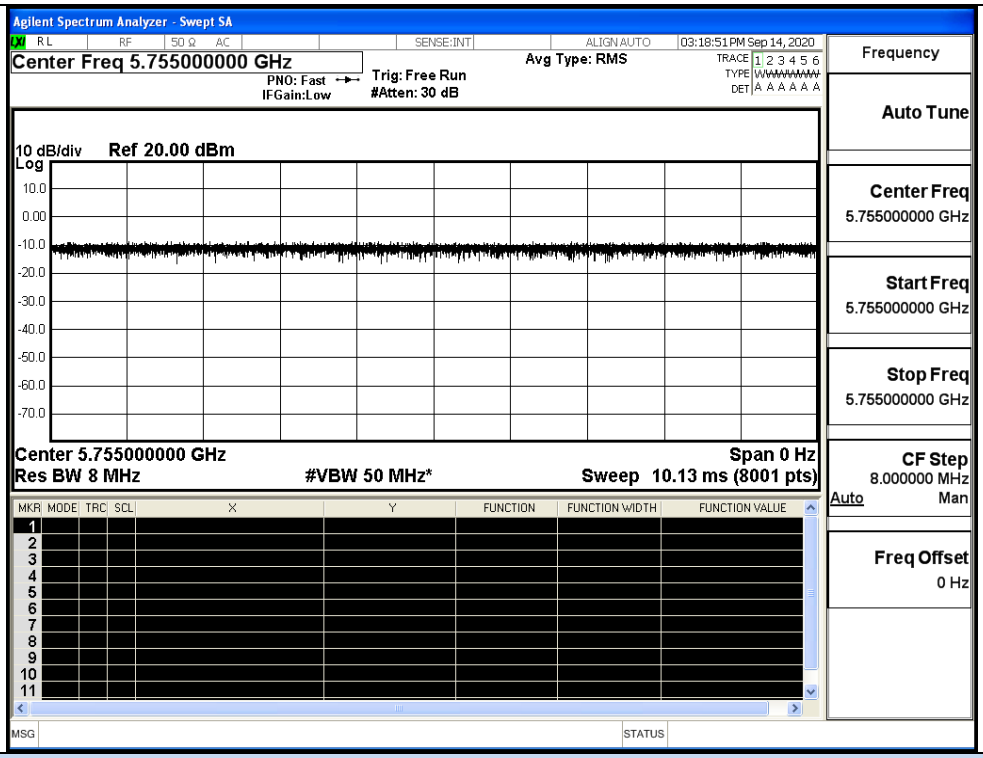
On Time and Duty Cycle



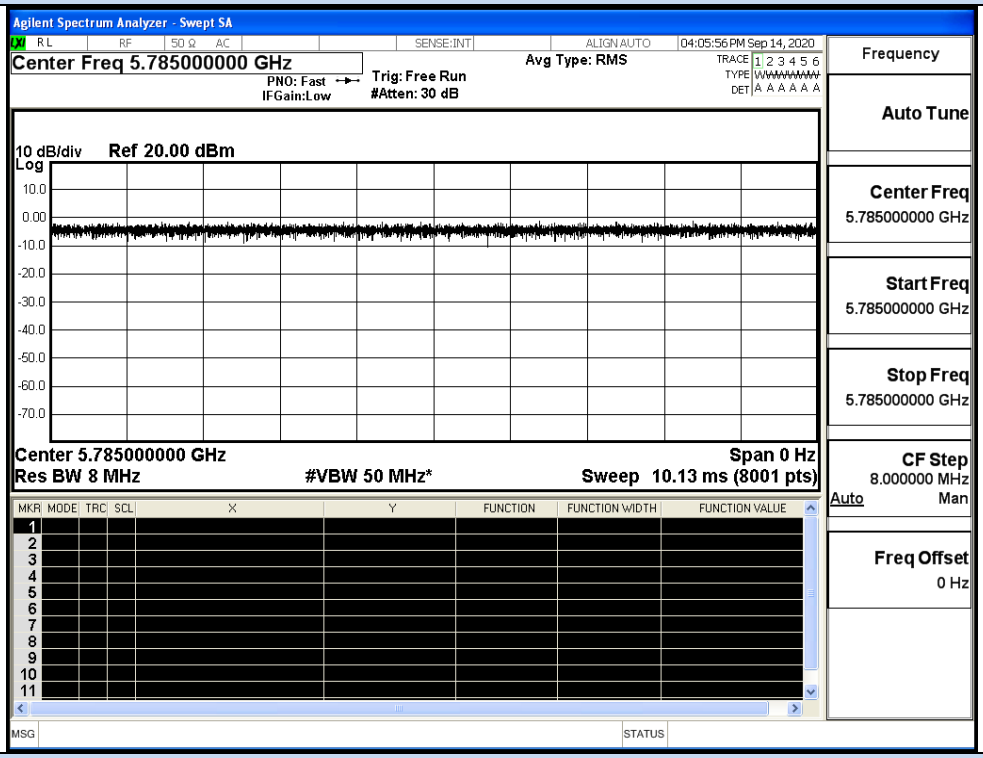
IEEE 802.11a



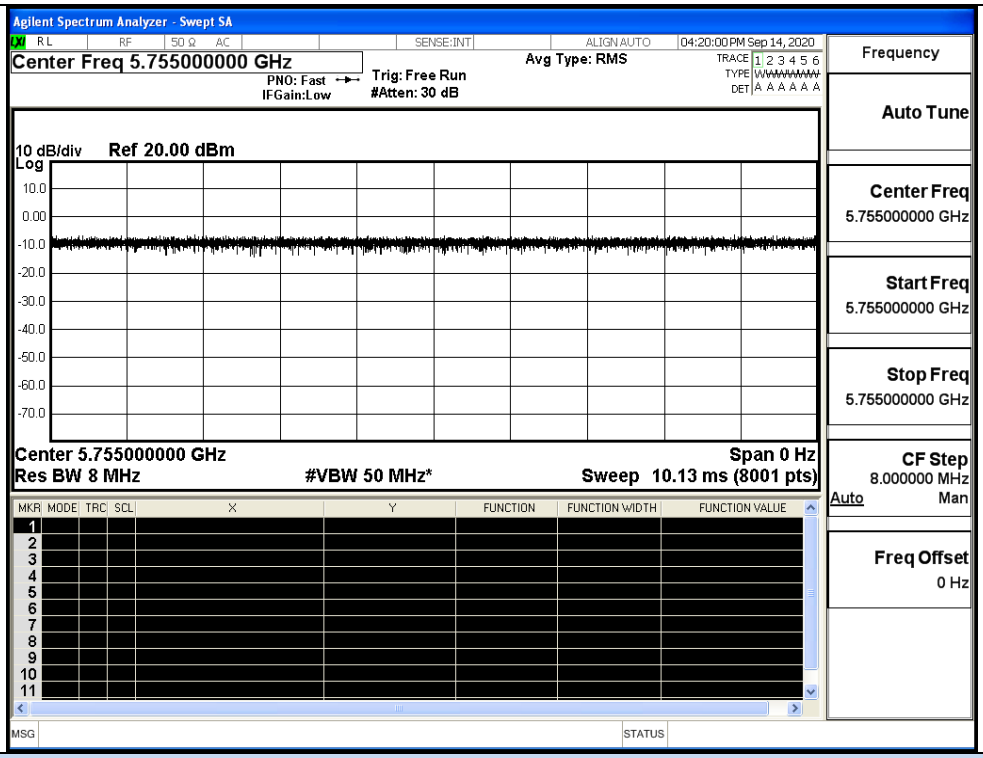
IEEE 802.11n HT20



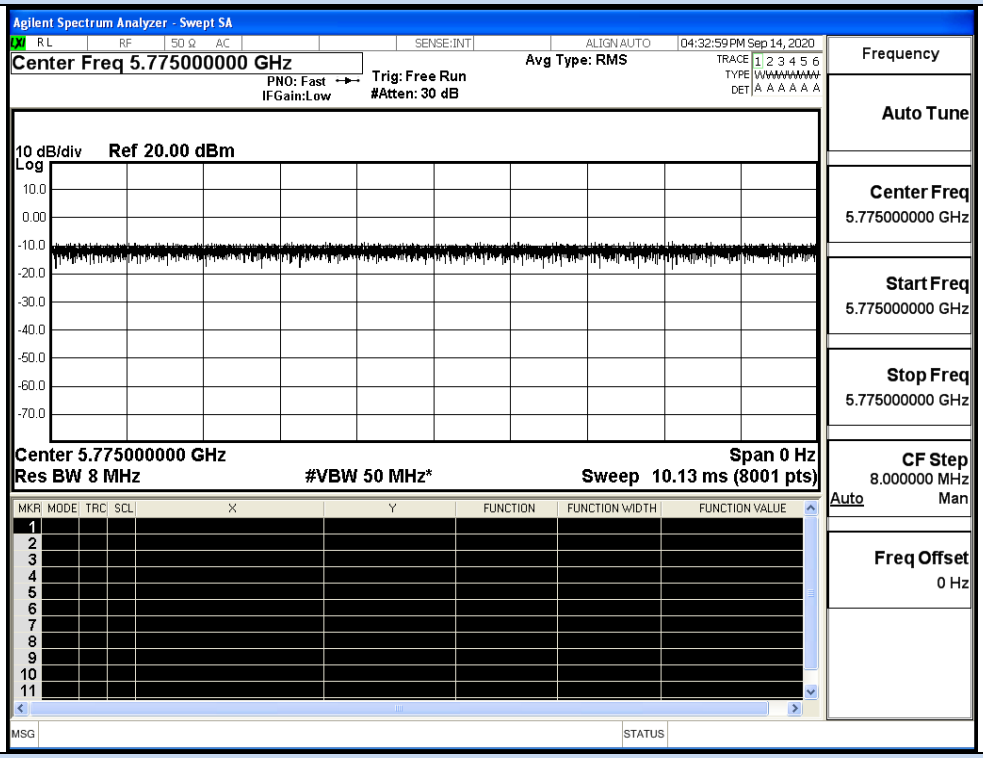
IEEE 802.11n HT40



IEEE 802.11AC20



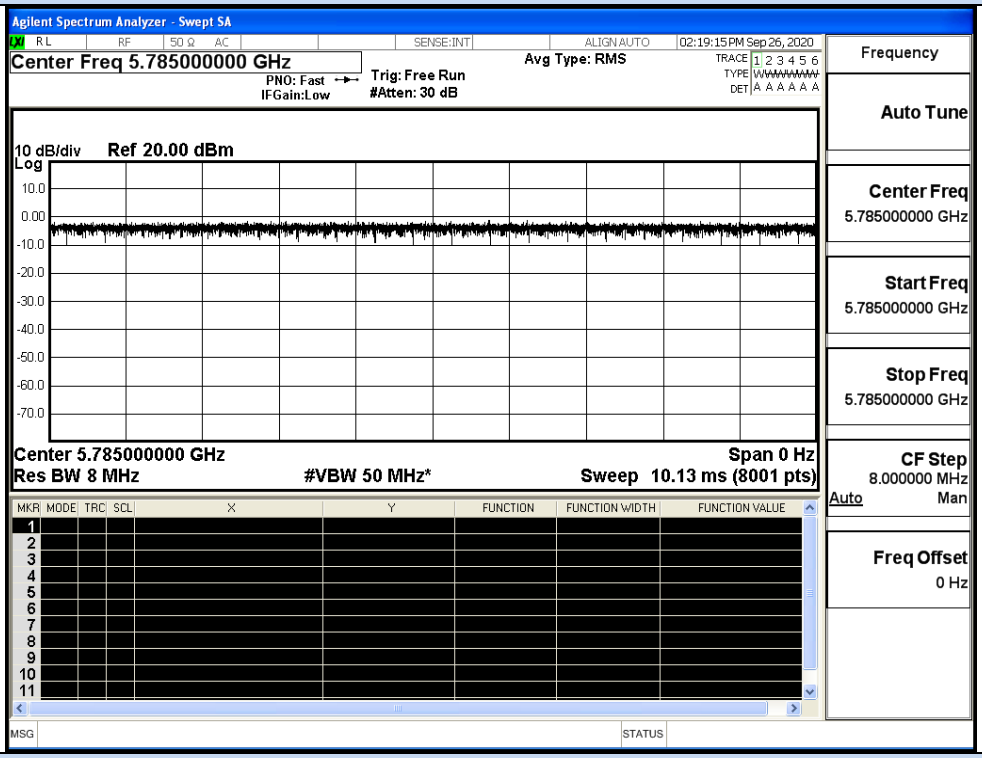
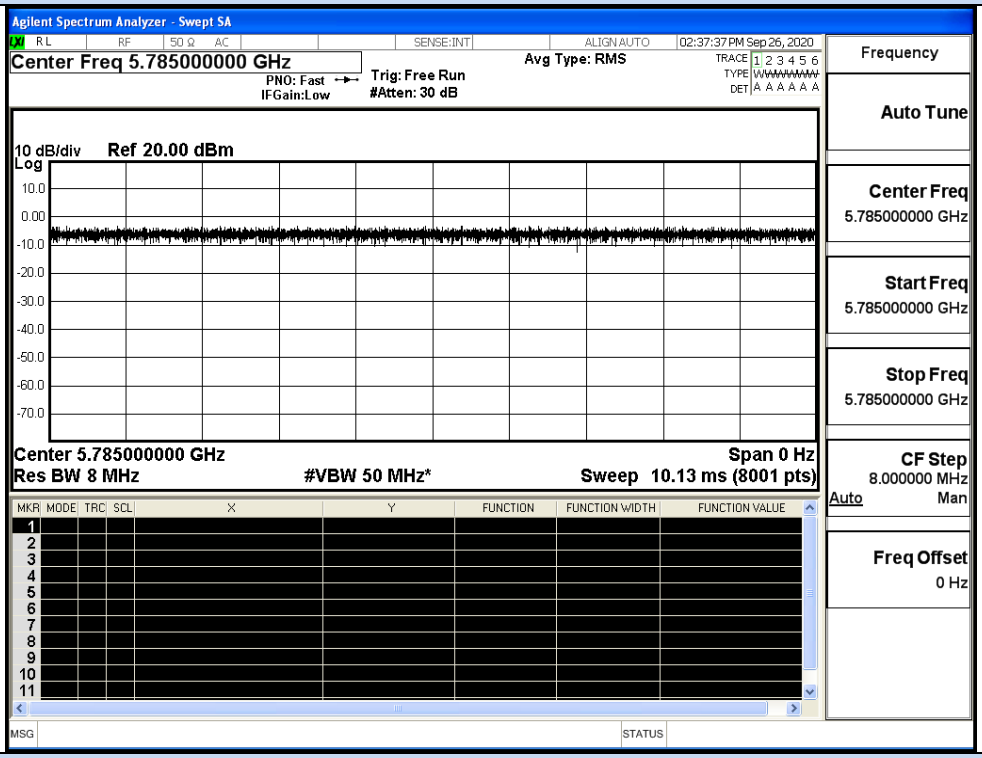
IEEE 802.11AC40

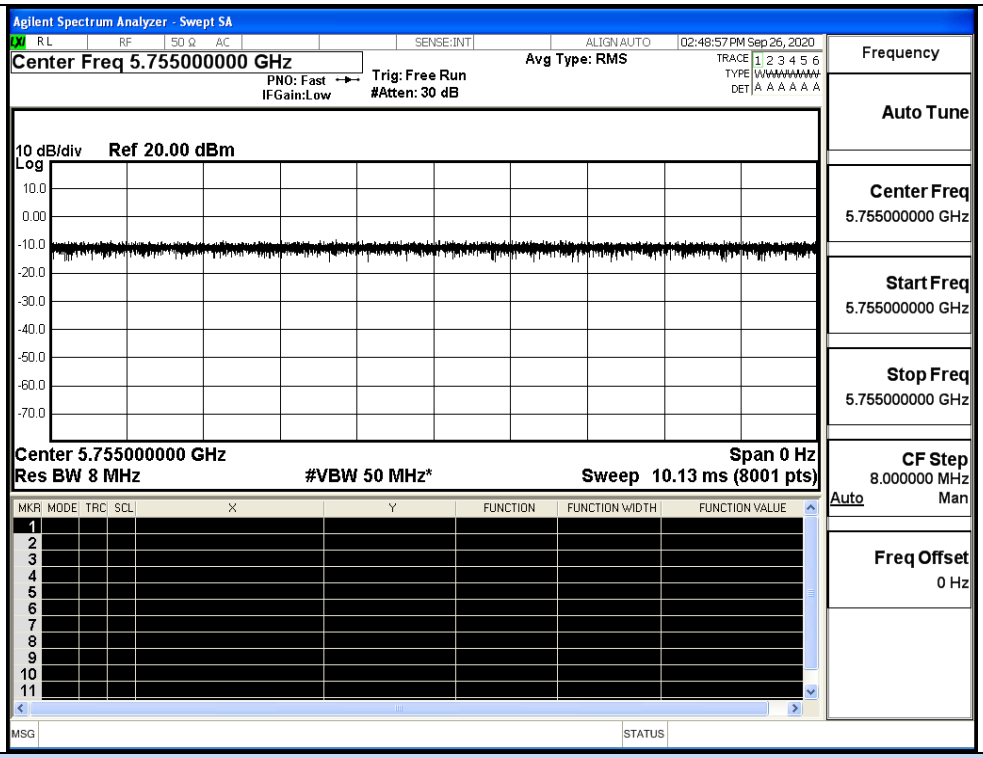


IEEE 802.11AC80

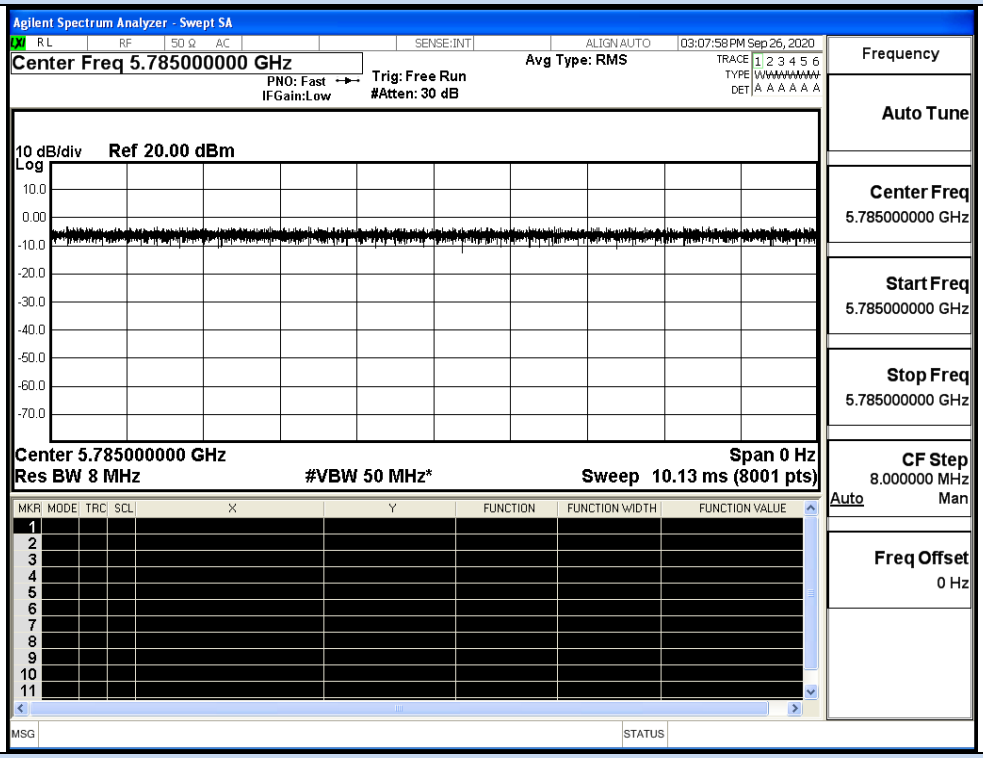
ANT 1

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	5785	100	0.00	0.01
11N40	5755	100	0.00	0.01
11AC20	5785	100	0.00	0.01
11AC40	5755	100	0.00	0.01
11AC80	5775	100	0.00	0.01

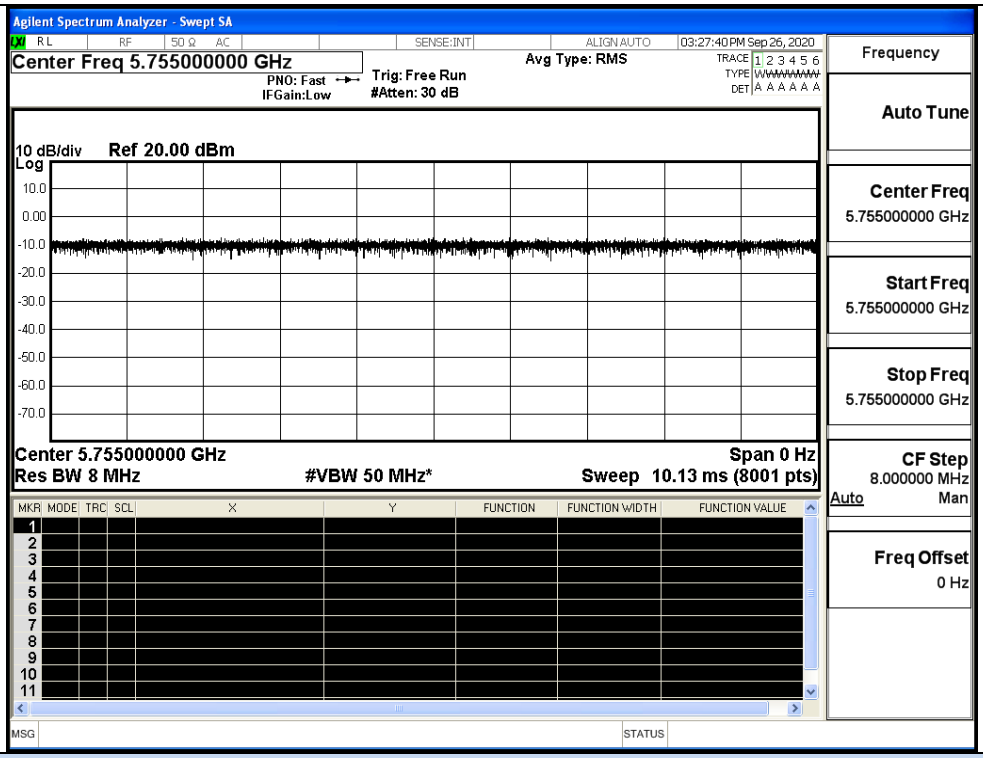
On Time and Duty Cycle

IEEE 802.11a

IEEE 802.11n HT20



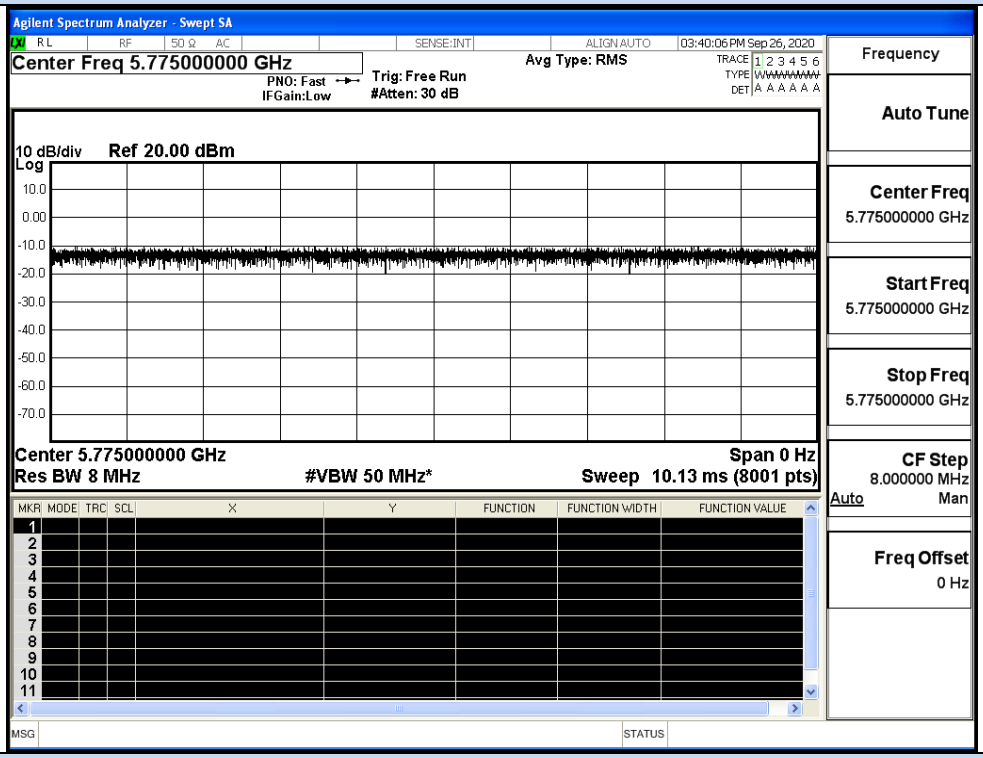
IEEE 802.11n HT40



IEEE 802.11AC20



IEEE 802.11AC40



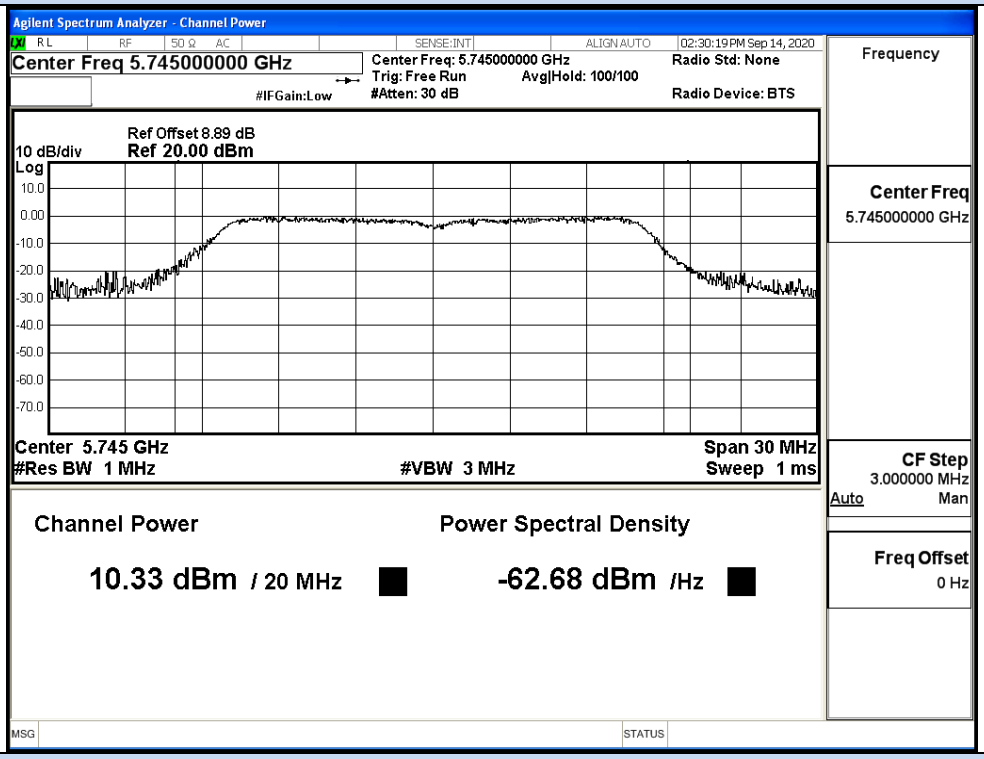
IEEE 802.11AC80

E.2 Maximum Conduct Output Power

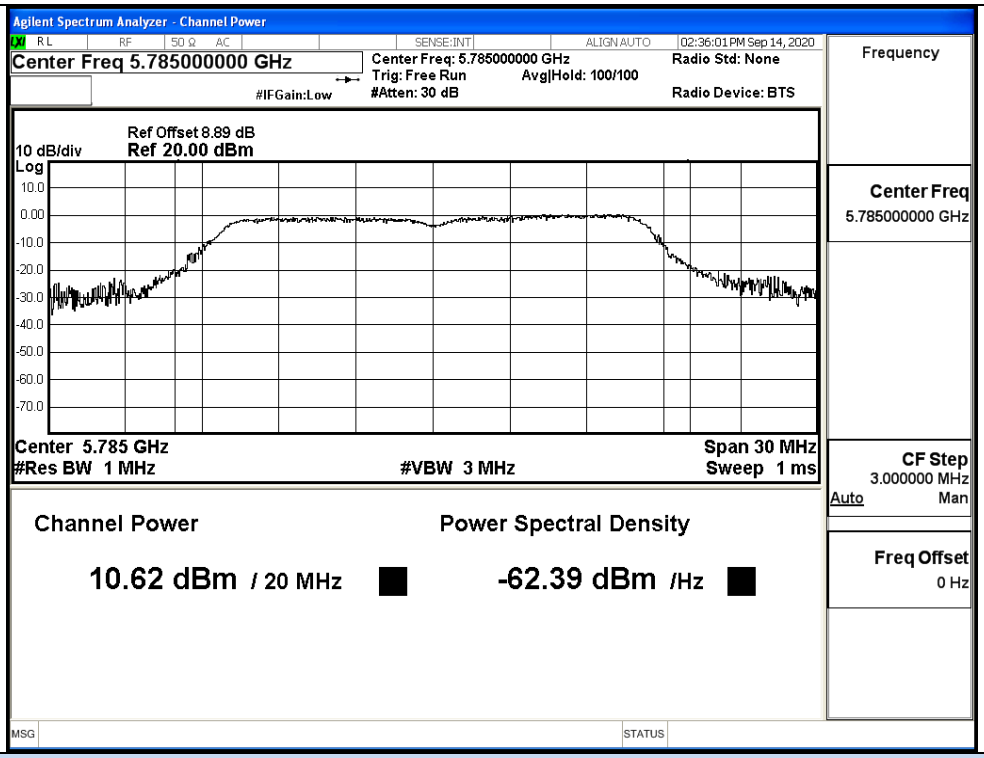
ANT 0

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	149	5745	10.33	0	10.33	30	Pass
	157	5785	10.62	0	10.62		Pass
	165	5825	10.49	0	10.49		Pass
11N20	149	5745	10.37	0	10.37	30	Pass
	157	5785	10.8	0	10.8		Pass
	165	5825	10.4	0	10.4		Pass
11N40	151	5755	10.41	0	10.41	30	Pass
	159	5795	10.55	0	10.55		Pass
11AC20	149	5745	10.44	0	10.44	30	Pass
	157	5785	10.36	0	10.36		Pass
	165	5825	10.58	0	10.58		Pass
11AC40	151	5755	10.42	0	10.42	30	Pass
	159	5795	10.55	0	10.55		Pass
11AC80	155	5775	10.46	0	10.46	30	Pass

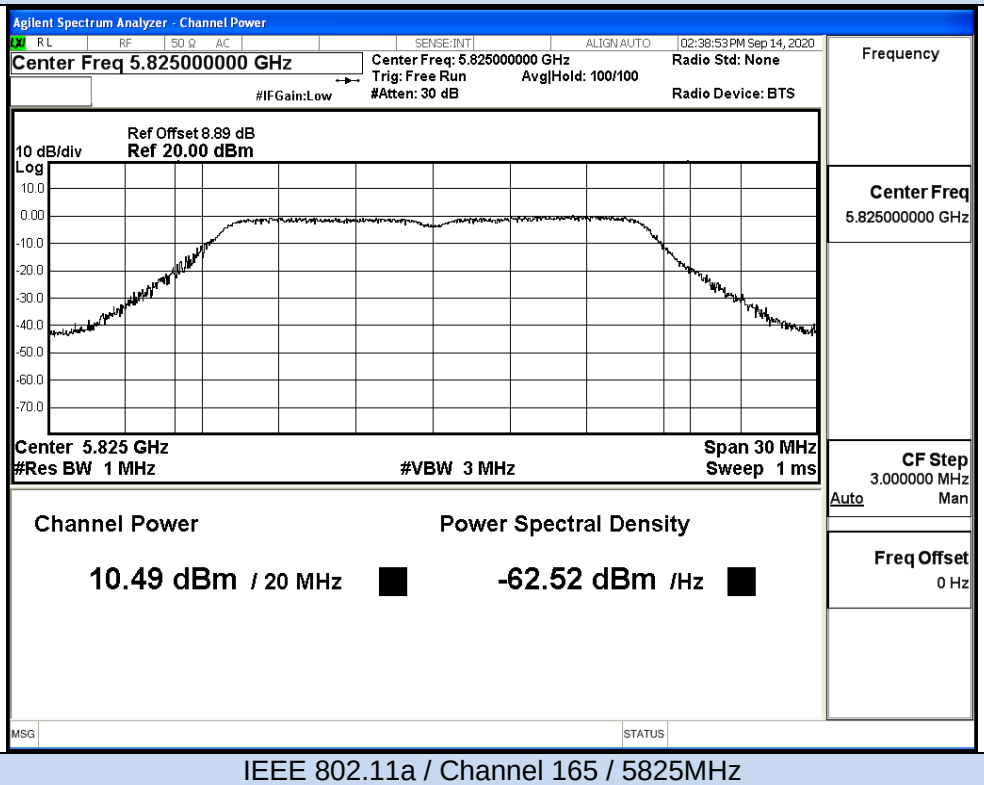
Maximum Conducted Output Power



IEEE 802.11a / Channel 149 / 5745MHz

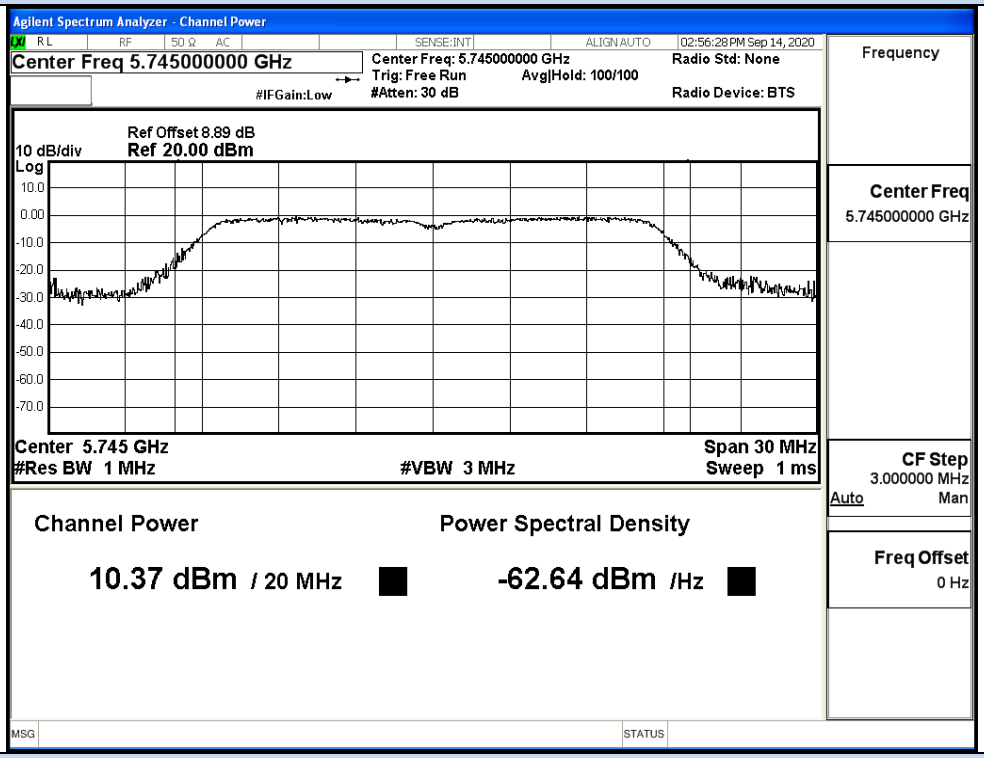


IEEE 802.11a / Channel 157 / 5785MHz

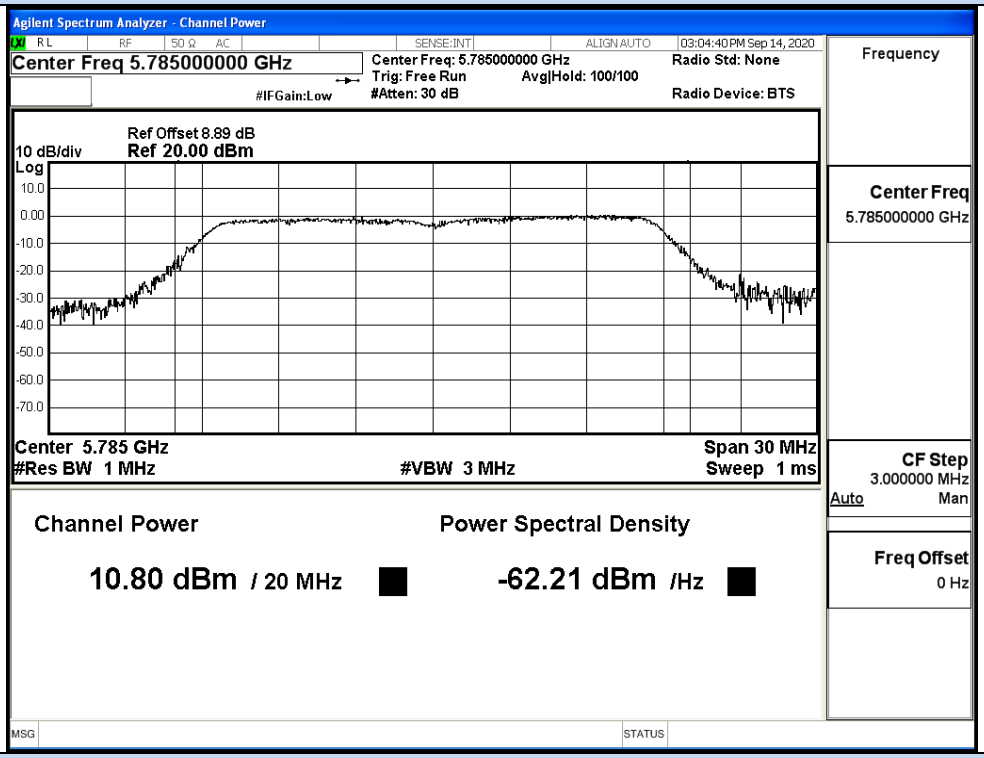


IEEE 802.11a / Channel 165 / 5825MHz

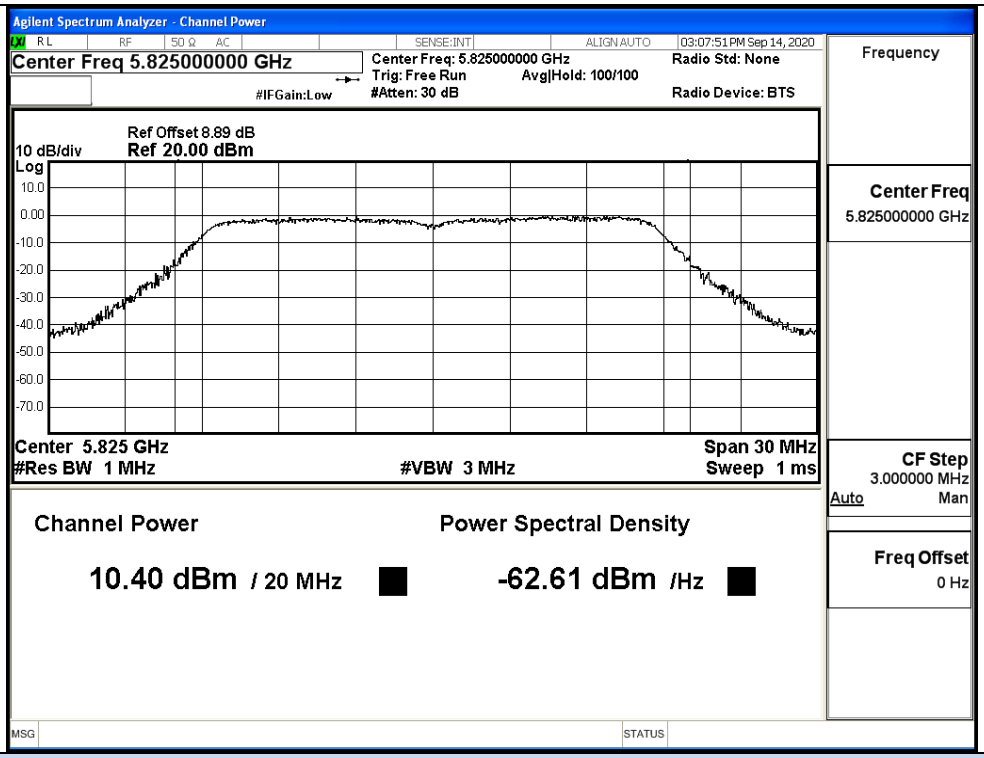
Maximum Conducted Output Power



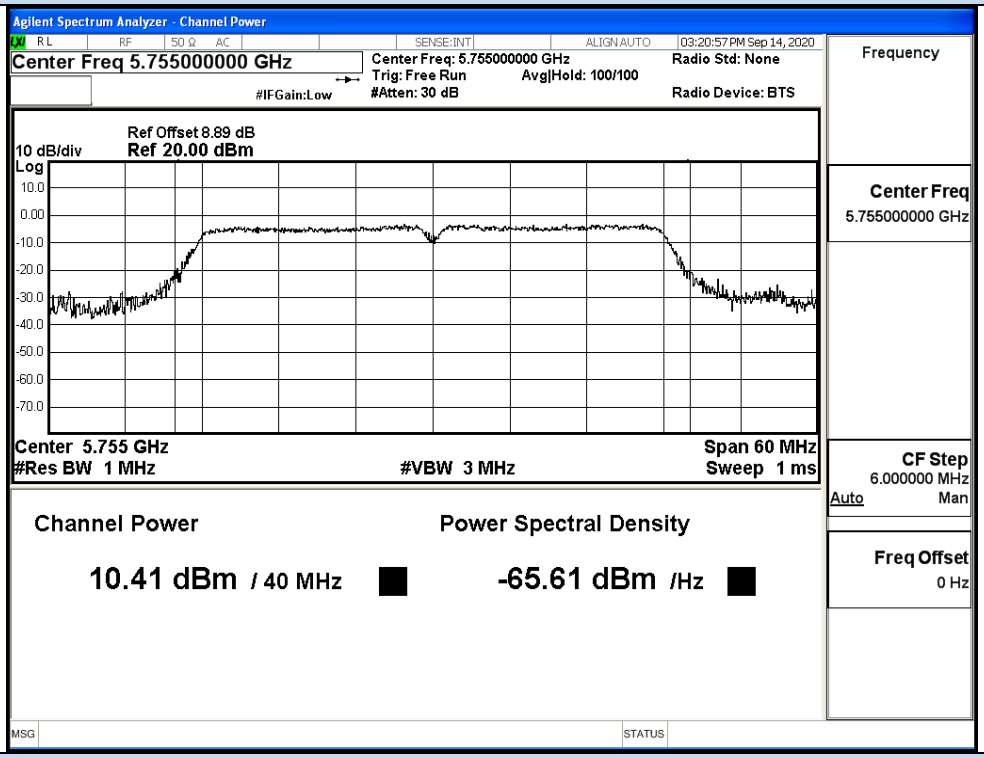
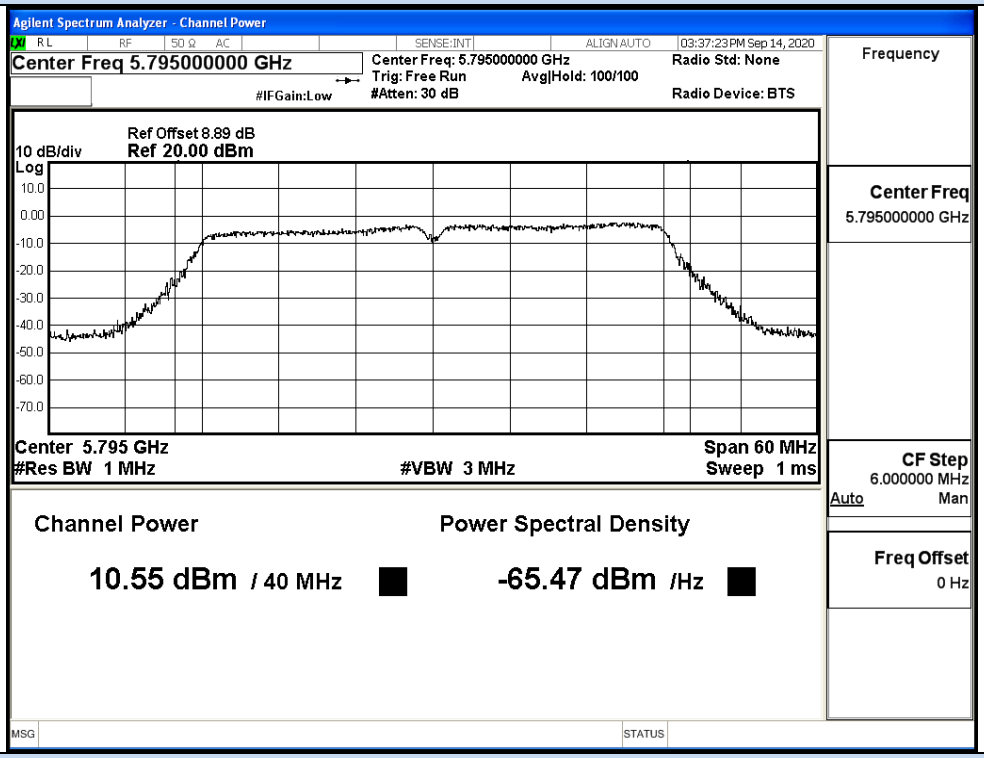
IEEE 802.11n20 / Channel 149 / 5745MHz

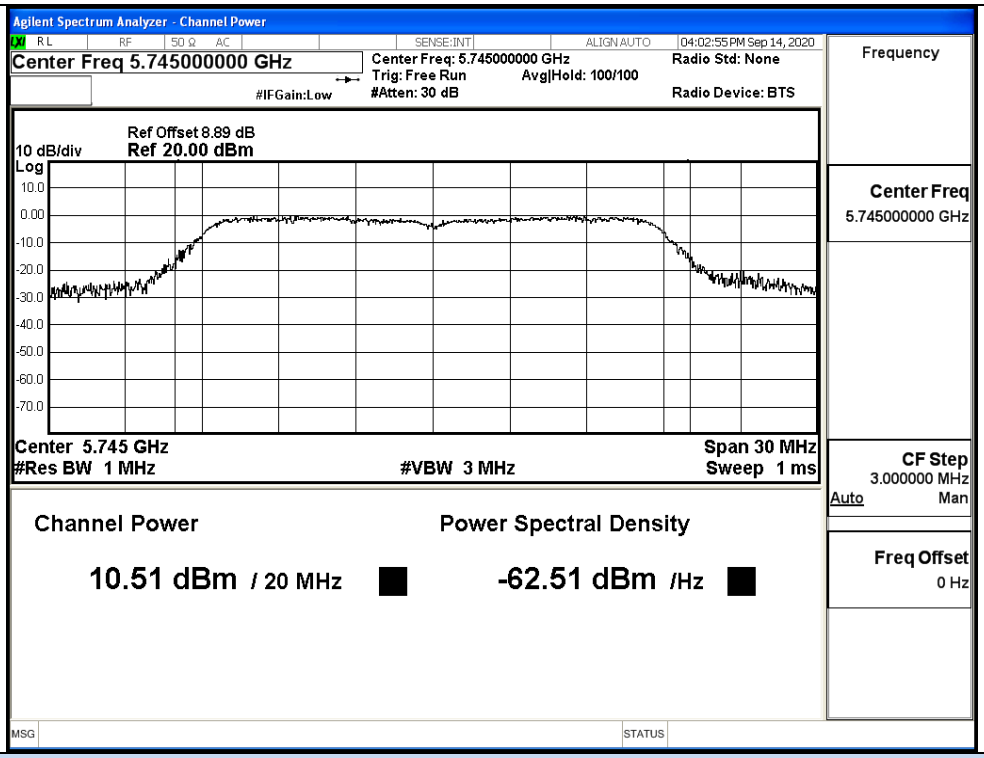


IEEE 802.11n20 / Channel 157 / 5785MHz

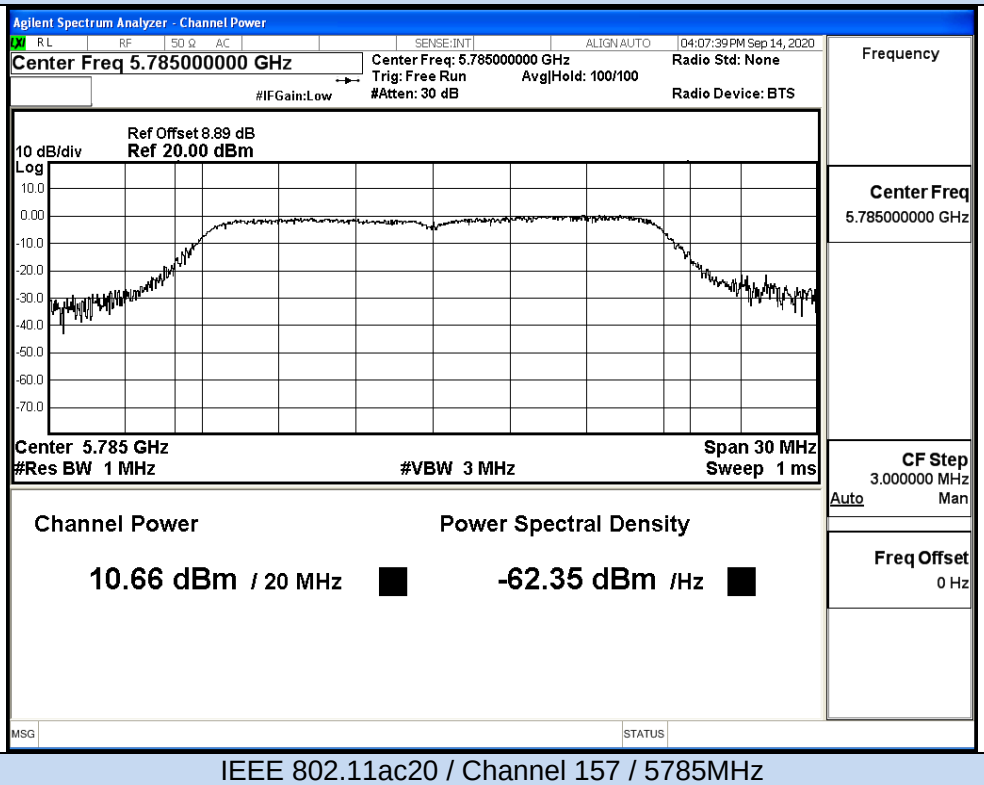


IEEE 802.11n20 / Channel 165 / 5825MHz

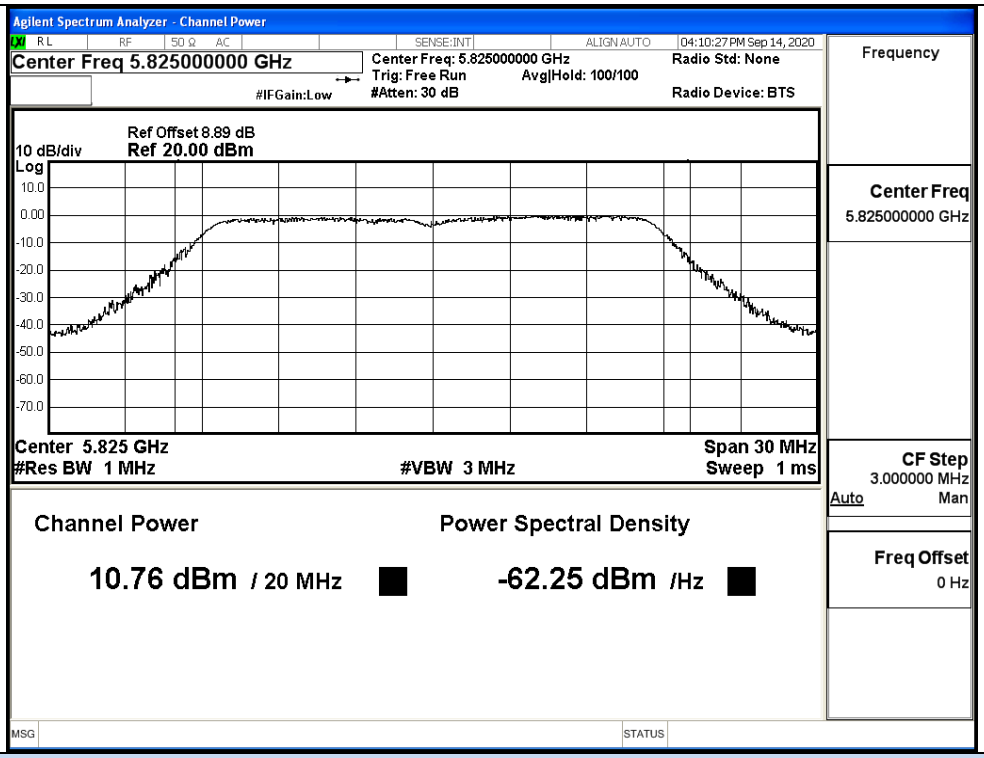
Maximum Conducted Output Power

IEEE 802.11n40 / Channel 151 / 5755MHz

IEEE 802.11n40 / Channel 159 / 5795MHz



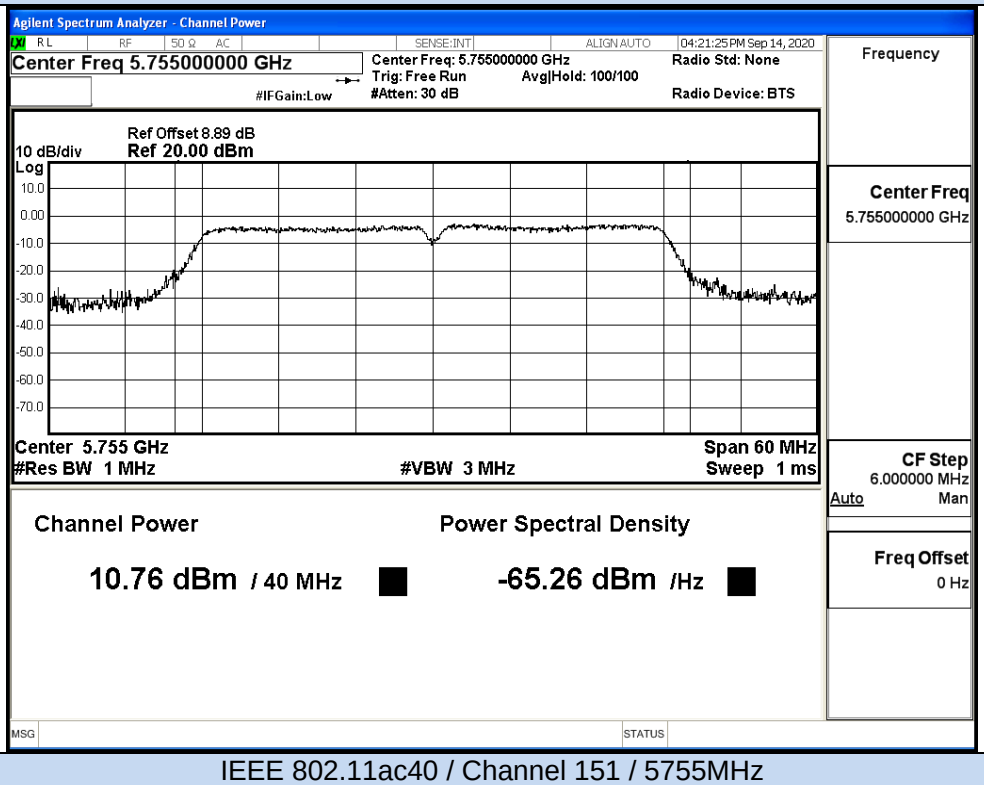
IEEE 802.11ac20 / Channel 149 / 5745MHz



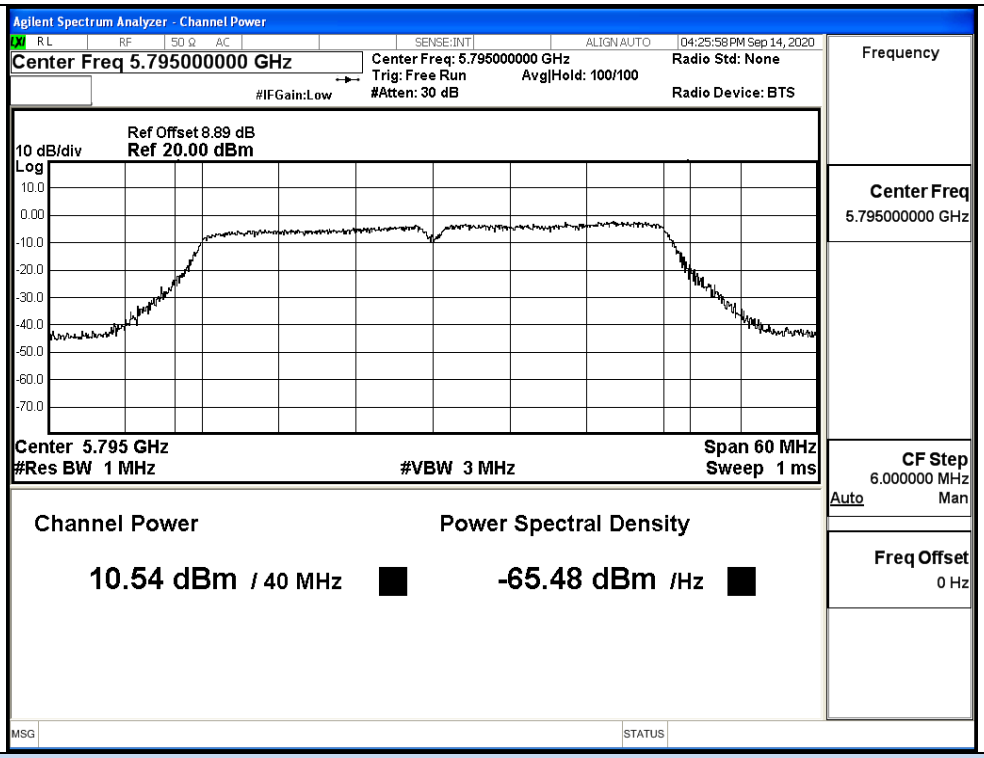
IEEE 802.11ac20 / Channel 157 / 5785MHz



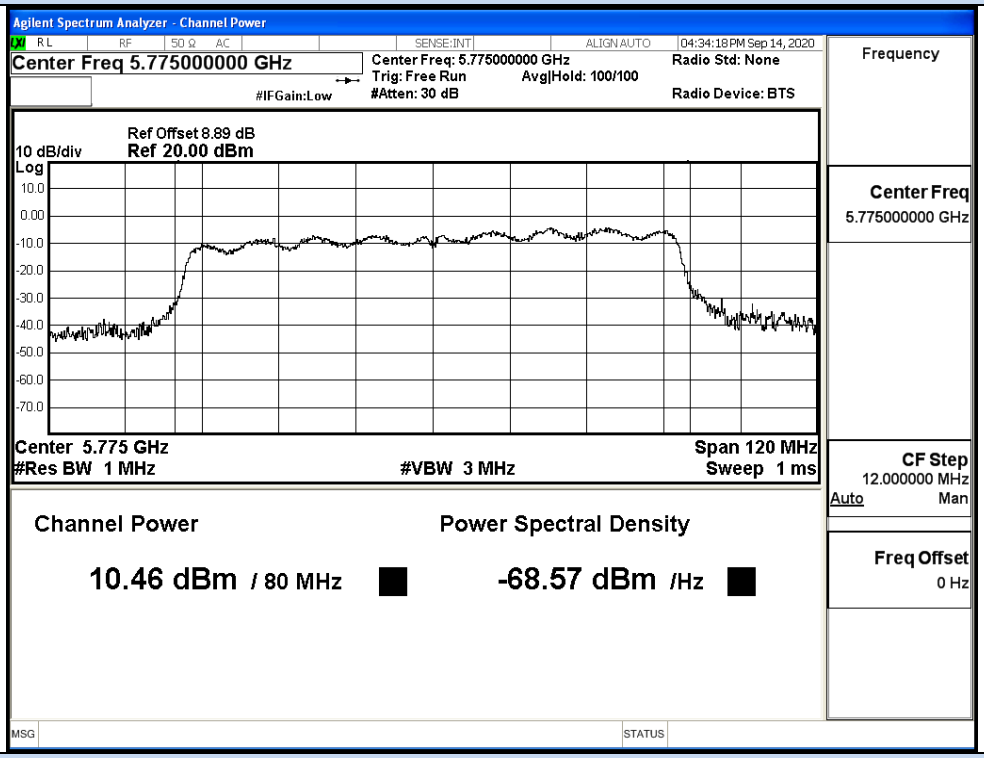
IEEE 802.11ac20 / Channel 165/ 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



IEEE 802.11ac40 / Channel 159 / 5795MHz

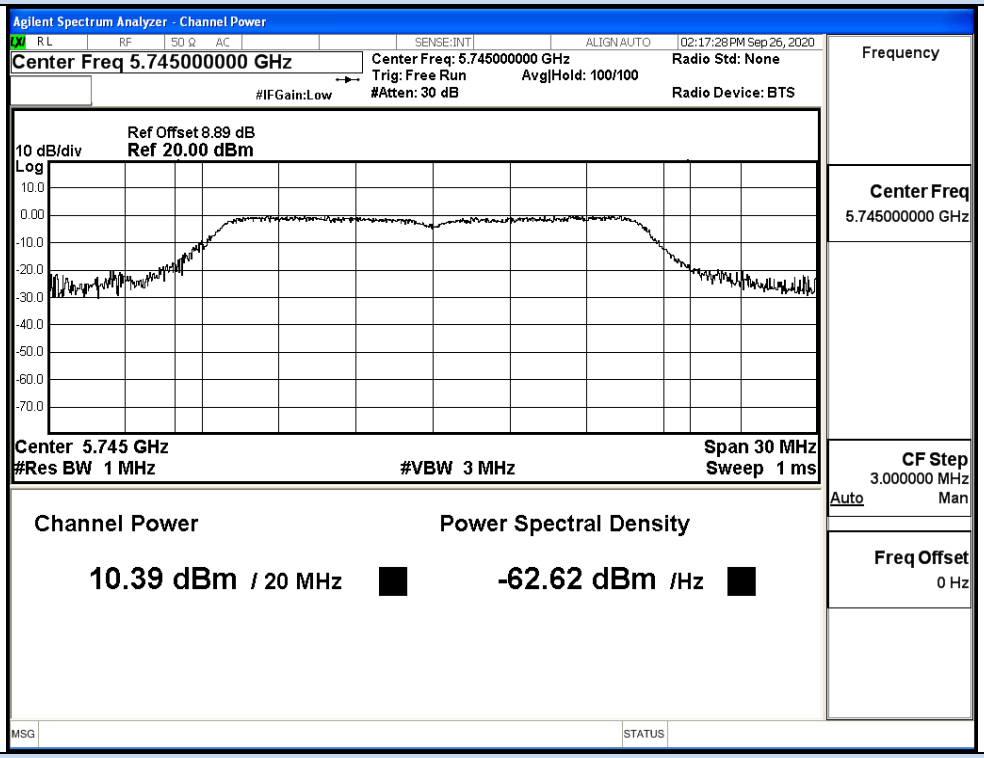


IEEE 802.11ac80 / Channel 155 / 5775MHz

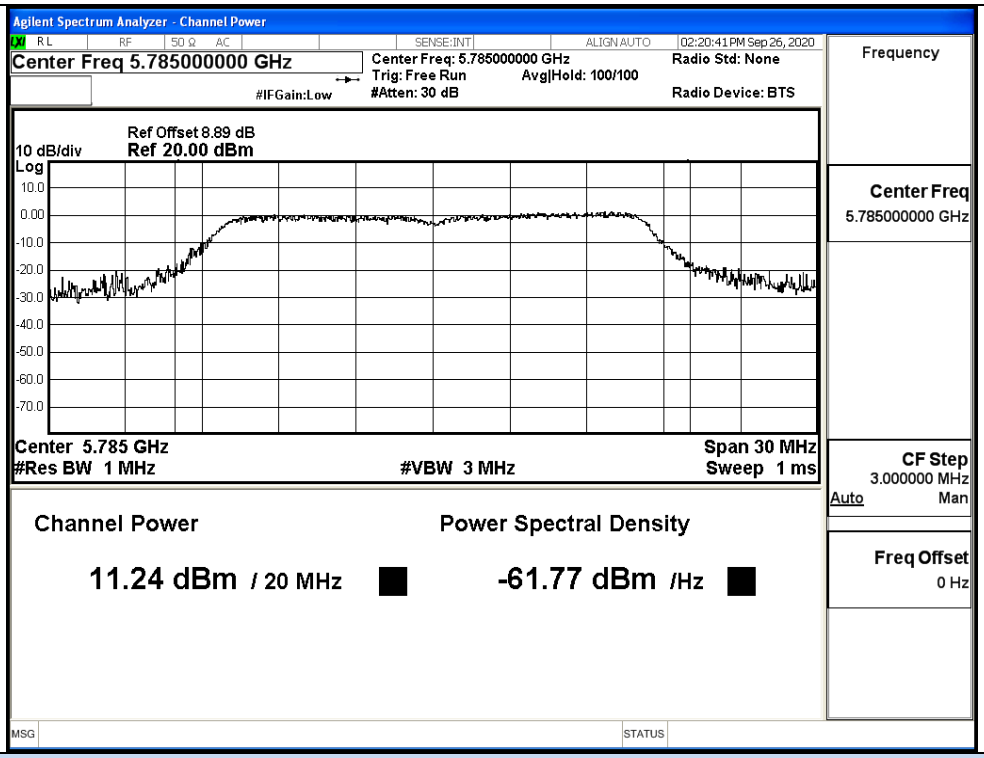
ANT 1

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	149	5745	10.39	0	10.39	30	Pass
	157	5785	11.24	0	11.24		Pass
	165	5825	10.22	0	10.22		Pass
11N20	149	5745	10.45	0	10.45	30	Pass
	157	5785	11.23	0	11.23		Pass
	165	5825	9.82	0	9.82		Pass
11N40	151	5755	10.64	0	10.64	30	Pass
	159	5795	10.9	0	10.9		Pass
11AC20	149	5745	10.27	0	10.27	30	Pass
	157	5785	9.81	0	9.81		Pass
	165	5825	10.58	0	10.58		Pass
11AC40	151	5755	11.21	0	11.21	30	Pass
	159	5795	10.31	0	10.31		Pass
11AC80	155	5775	10.9	0	10.9	30	Pass

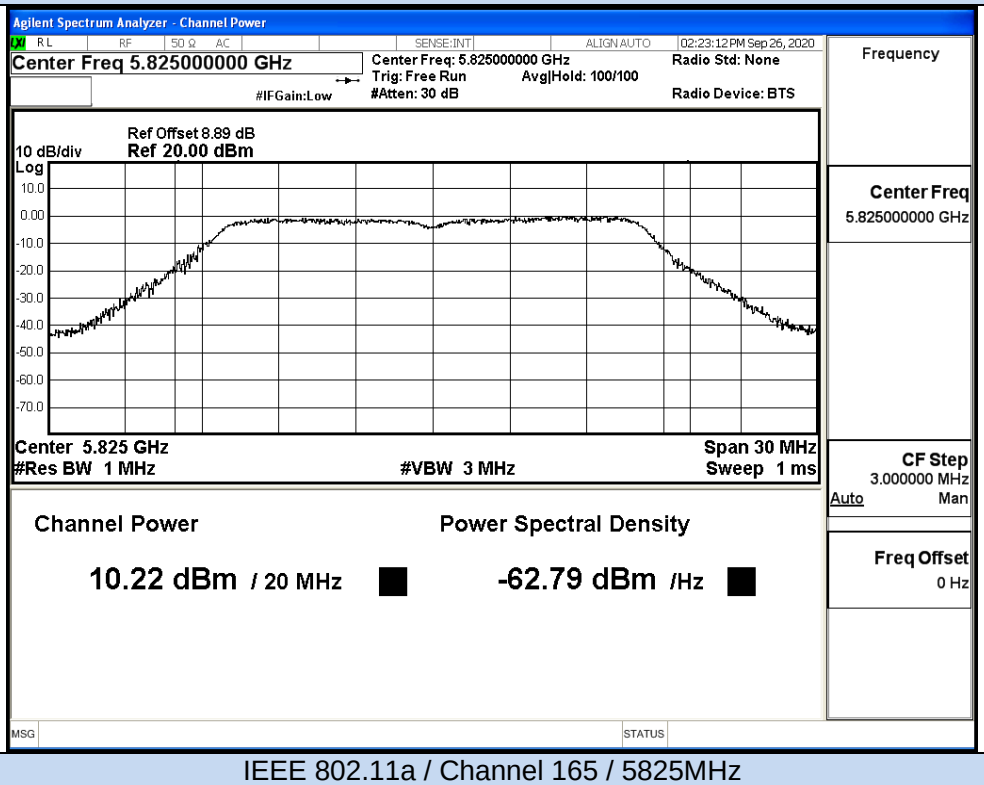
Maximum Conducted Output Power



IEEE 802.11a / Channel 149 / 5745MHz

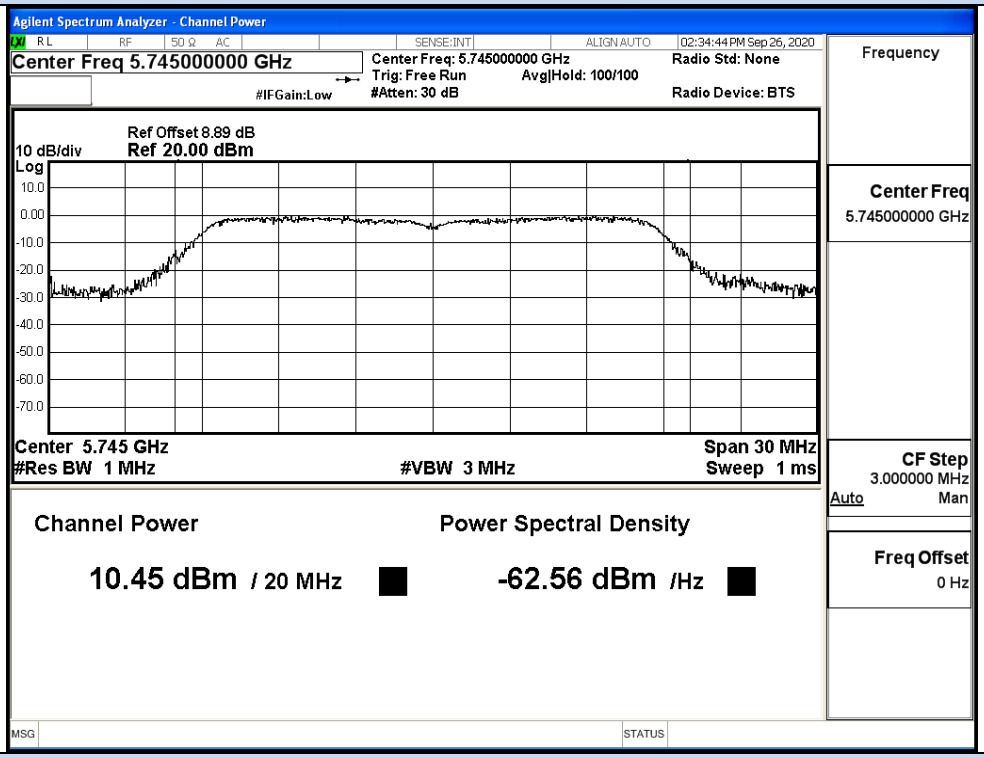


IEEE 802.11a / Channel 157 / 5785MHz

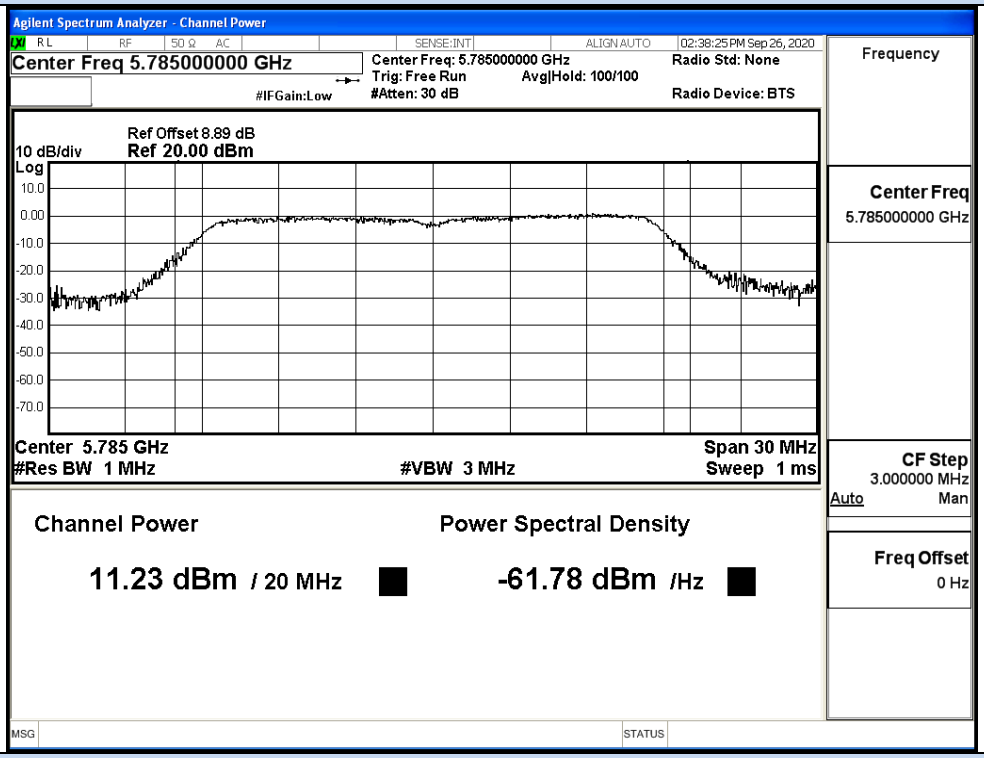


IEEE 802.11a / Channel 165 / 5825MHz

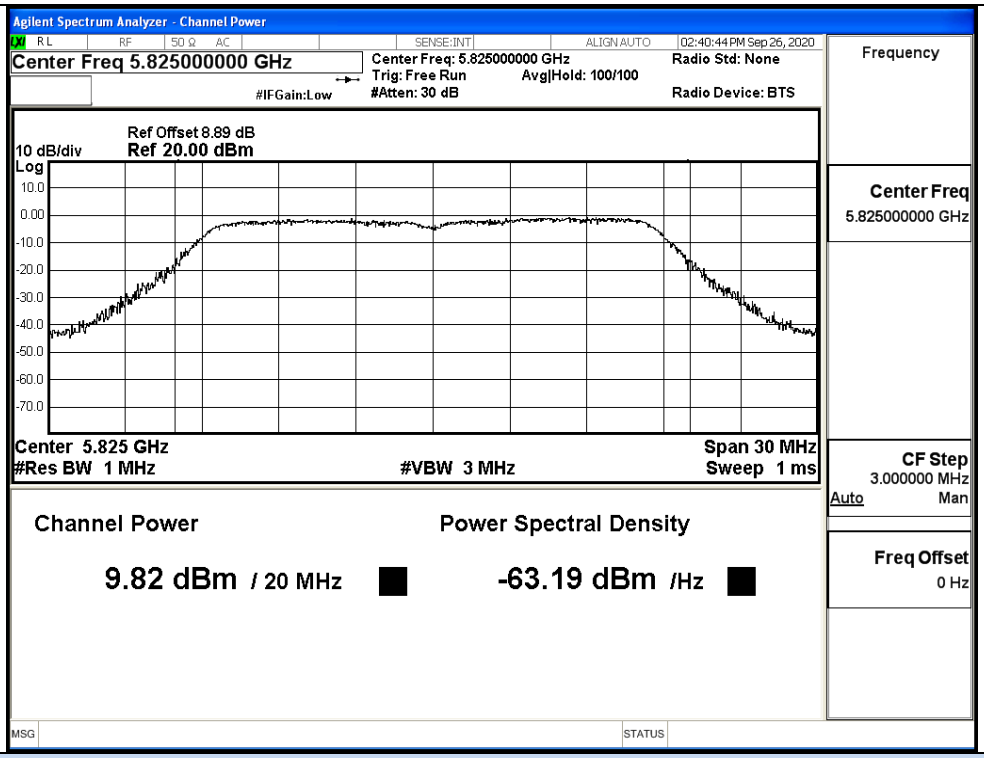
Maximum Conducted Output Power



IEEE 802.11n20 / Channel 149 / 5745MHz

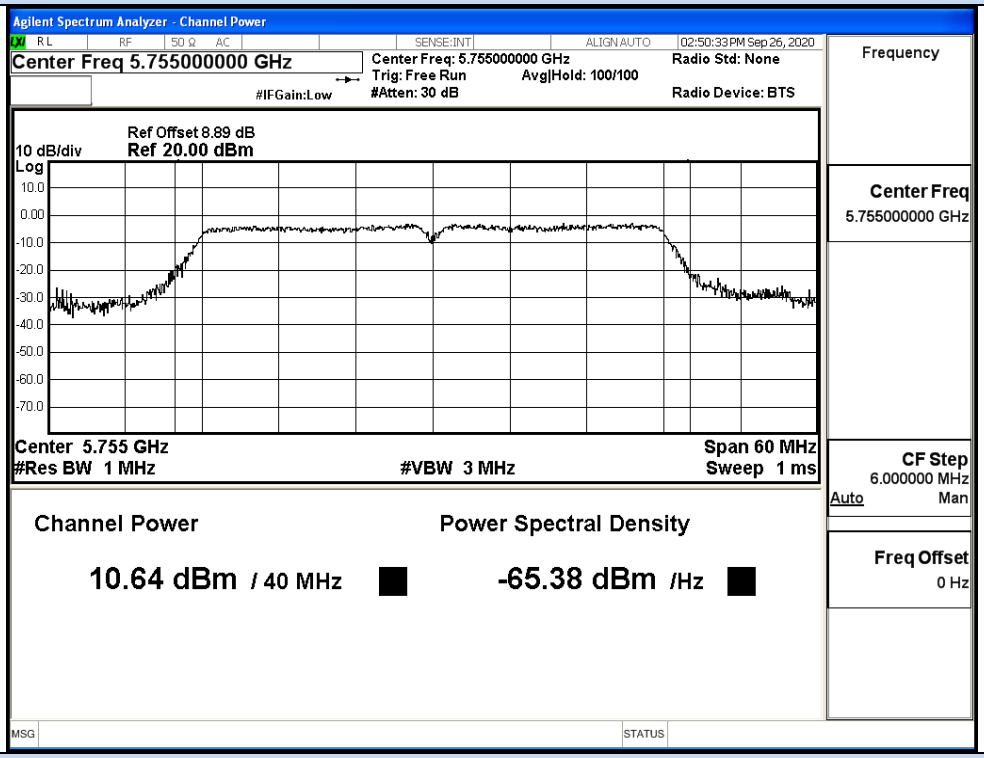


IEEE 802.11n20 / Channel 157 / 5785MHz

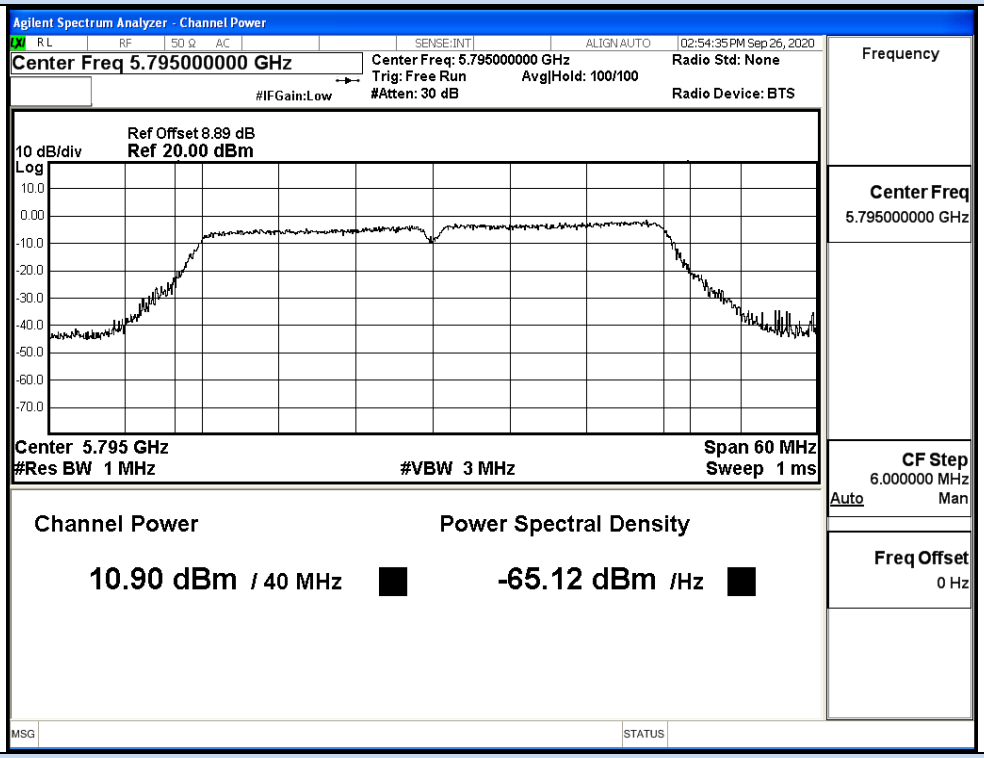


IEEE 802.11n20 / Channel 165 / 5825MHz

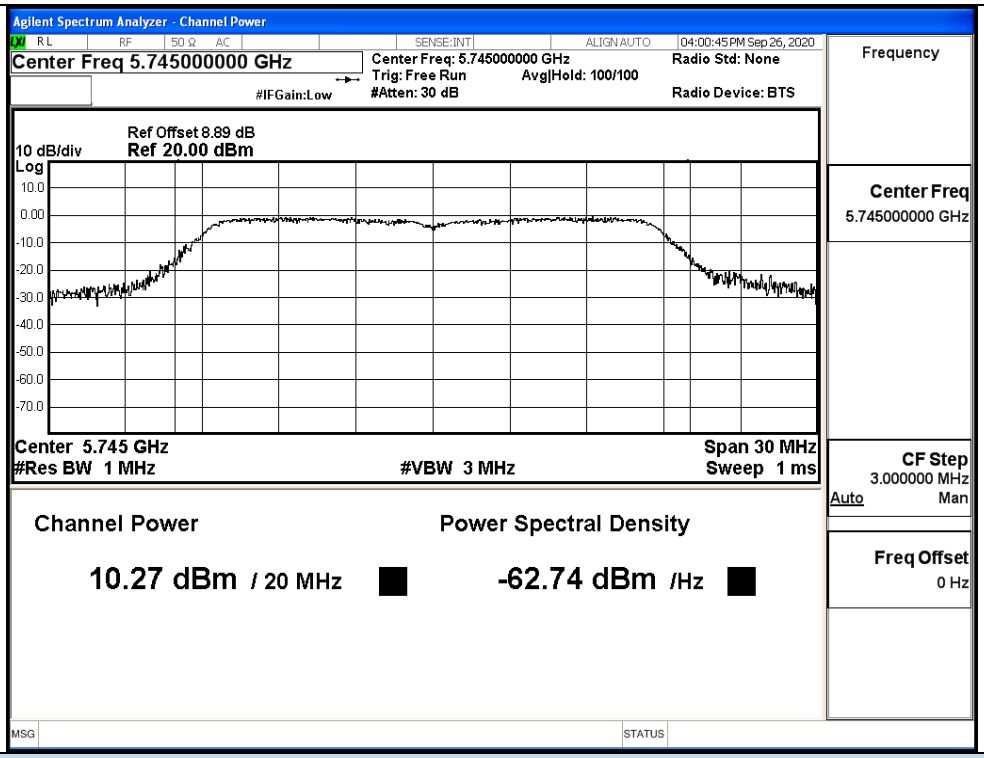
Maximum Conducted Output Power



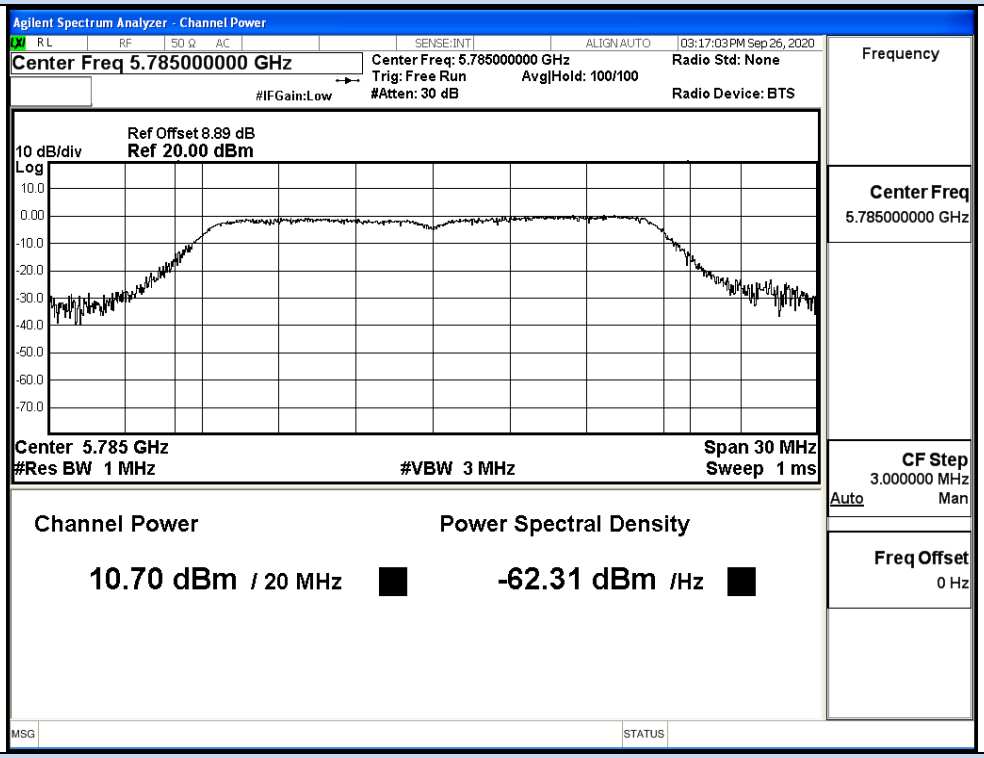
IEEE 802.11n40 / Channel 151 / 5755MHz



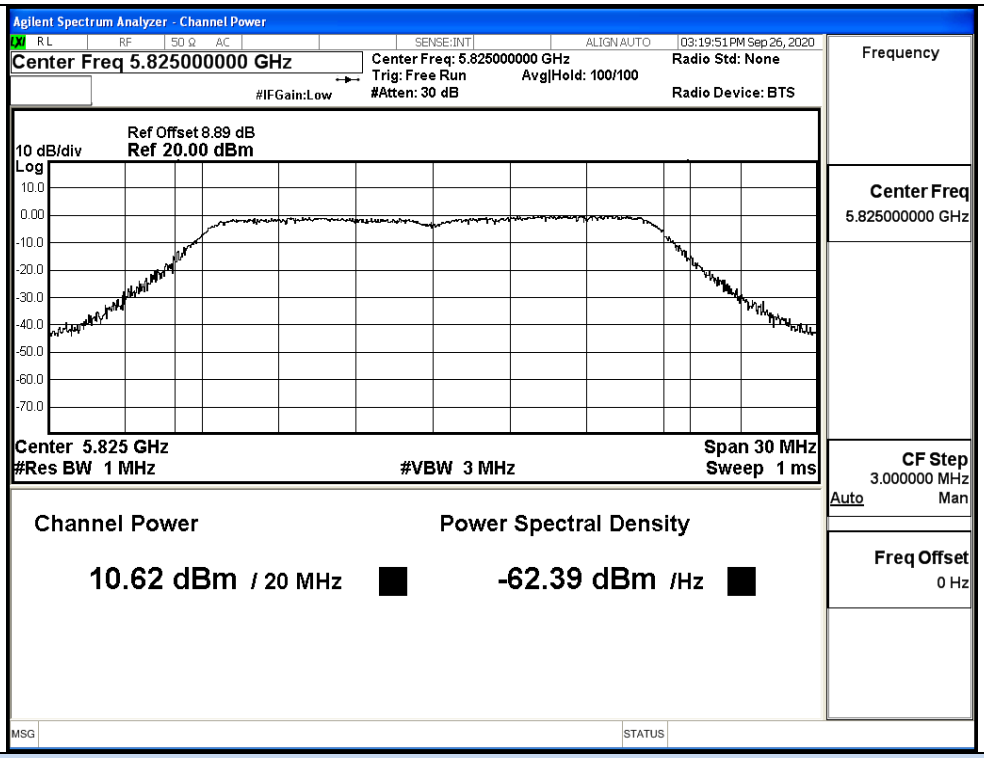
IEEE 802.11n40 / Channel 159 / 5795MHz



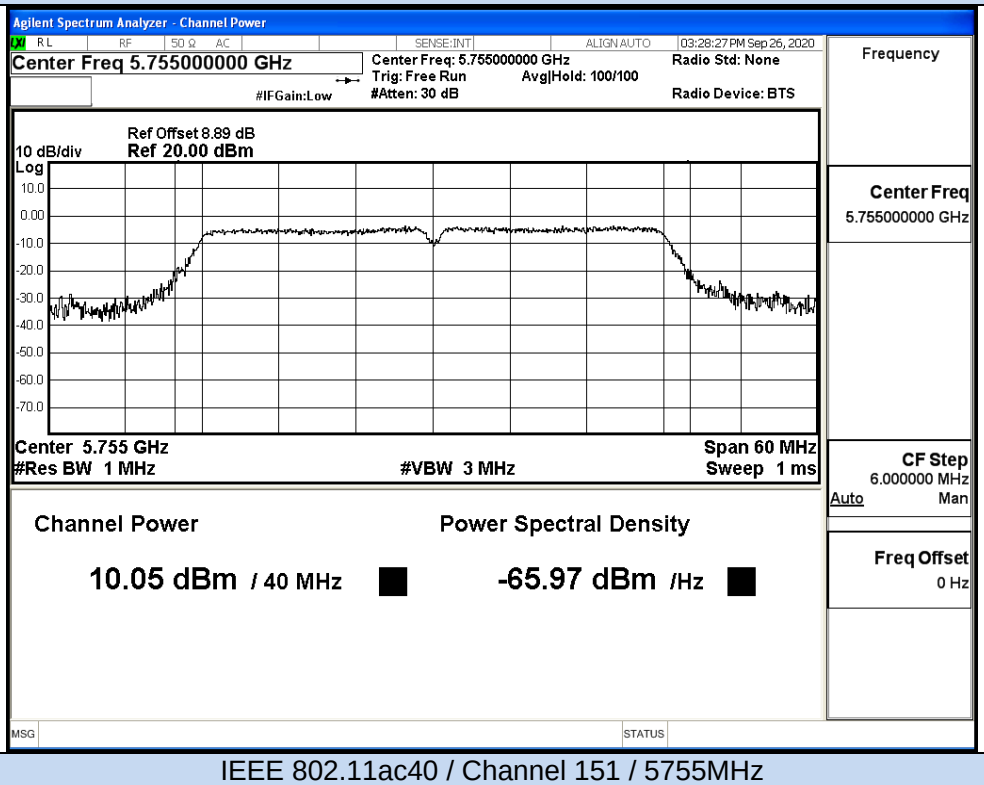
IEEE 802.11ac20 / Channel 149 / 5745MHz



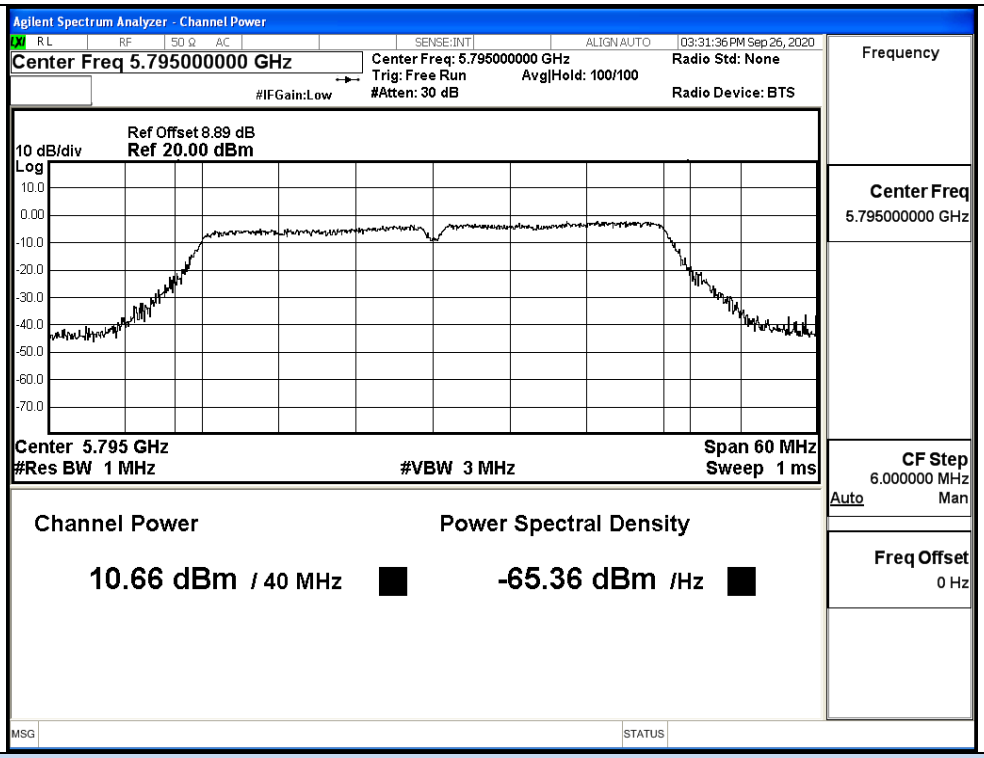
IEEE 802.11ac20 / Channel 157 / 5785MHz



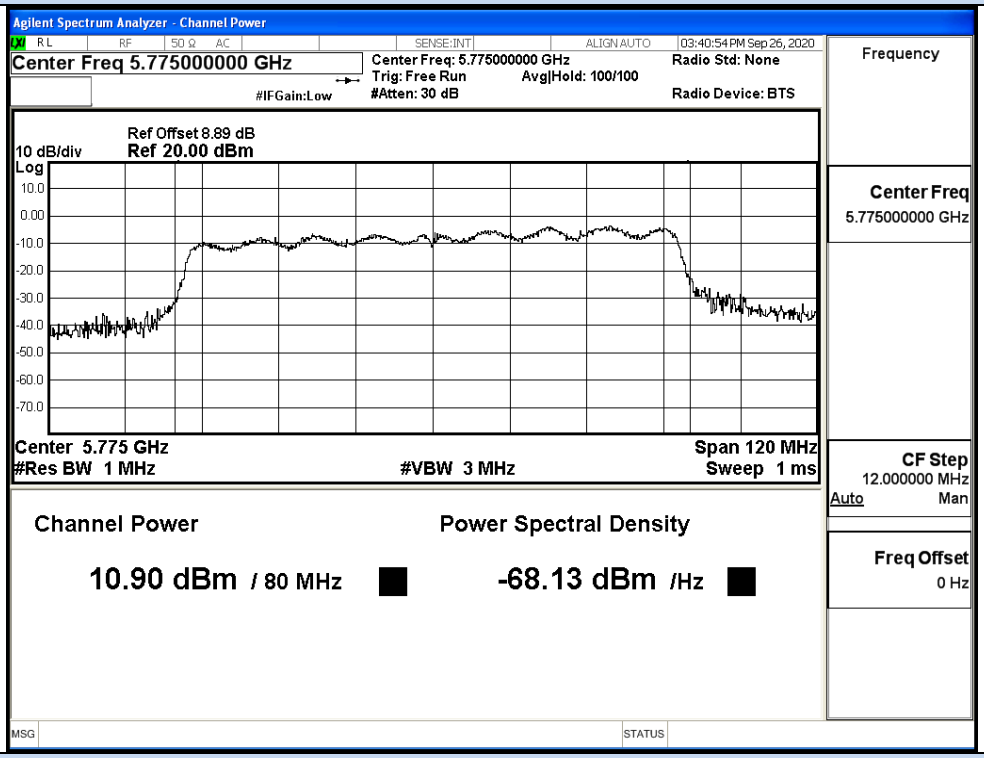
IEEE 802.11ac20 / Channel 165/ 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



IEEE 802.11ac40 / Channel 159 / 5795MHz



IEEE 802.11ac80 / Channel 155 / 5775MHz

MIMO

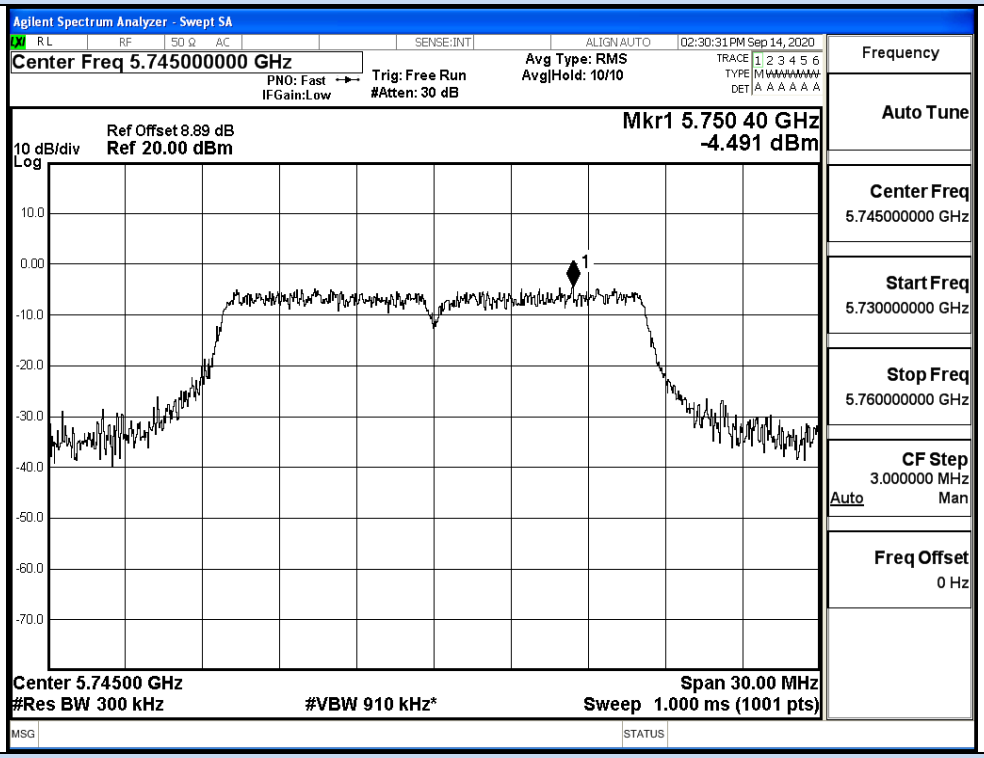
Test Mode	Channel	Frequency (MHz)	ANT 0 AVG Conducted Power (dBm)	ANT 1 AVG Conducted Power (dBm)	MIMO AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11N20	149	5745	10.37	10.45	13.42	0	13.42	30	Pass
	157	5785	10.8	11.23	14.03	0	14.03		Pass
	165	5825	10.4	9.82	13.13	0	13.13		Pass
11N40	151	5755	10.41	10.64	13.54	0	13.54	30	Pass
	159	5795	10.55	10.9	13.74	0	13.74		Pass
11AC20	149	5745	10.44	10.27	13.37	0	13.37	30	Pass
	157	5785	10.36	9.81	13.10	0	13.10		Pass
	165	5825	10.58	10.58	13.59	0	13.59		Pass
11AC40	151	5755	10.42	11.21	13.84	0	13.84	30	Pass
	159	5795	10.55	10.31	13.44	0	13.44		Pass
11AC80	155	5775	10.46	10.9	13.70	0	13.70	30	Pass

E.3 Power Spectral Density

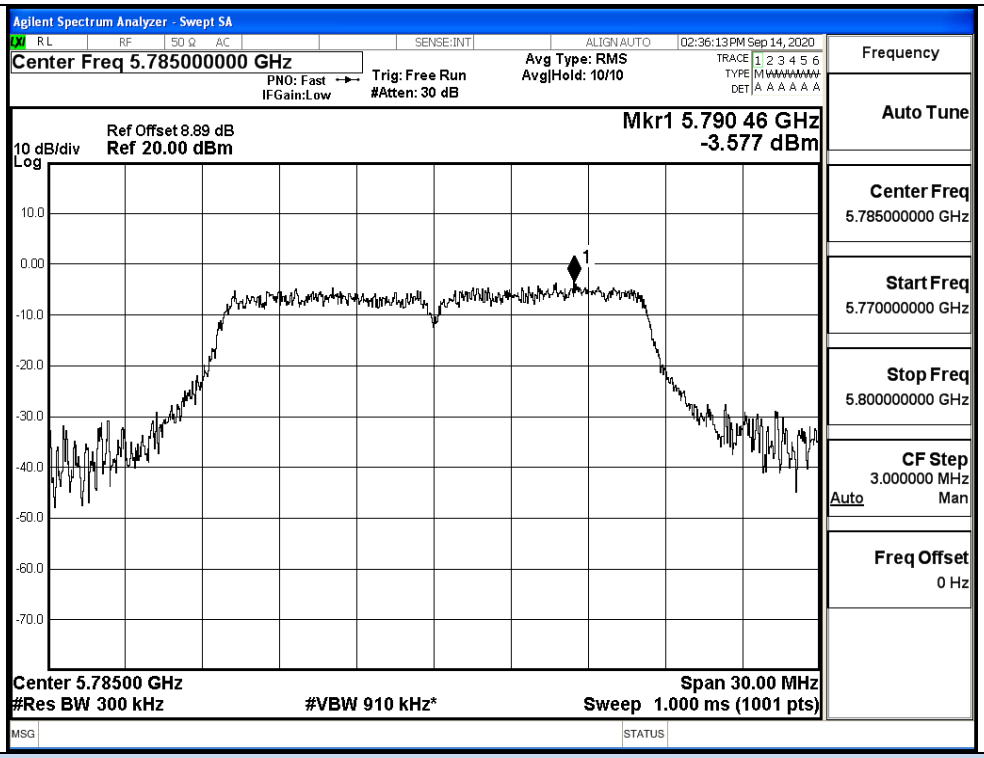
ANT 0

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	-4.49	0	2.218	-2.27	30	Pass
	157	5785	-3.58	0	2.218	-1.36		Pass
	165	5825	-3.93	0	2.218	-1.71		Pass
11N20	149	5745	-4.20	0	2.218	-1.99	30	Pass
	157	5785	-4.37	0	2.218	-2.16		Pass
	165	5825	-4.30	0	2.218	-2.08		Pass
11N40	151	5755	-6.71	0	2.218	-4.49	30	Pass
	159	5795	-6.12	0	2.218	-3.91		Pass
11AC20	149	5745	-4.71	0	2.218	-2.50	30	Pass
	157	5785	-4.49	0	2.218	-2.27		Pass
	165	5825	-4.45	0	2.218	-2.23		Pass
11AC40	151	5755	-7.15	0	2.218	-4.93	30	Pass
	159	5795	-5.90	0	2.218	-3.69		Pass
11AC80	155	5775	-9.49	0	2.218	-7.27	30	Pass

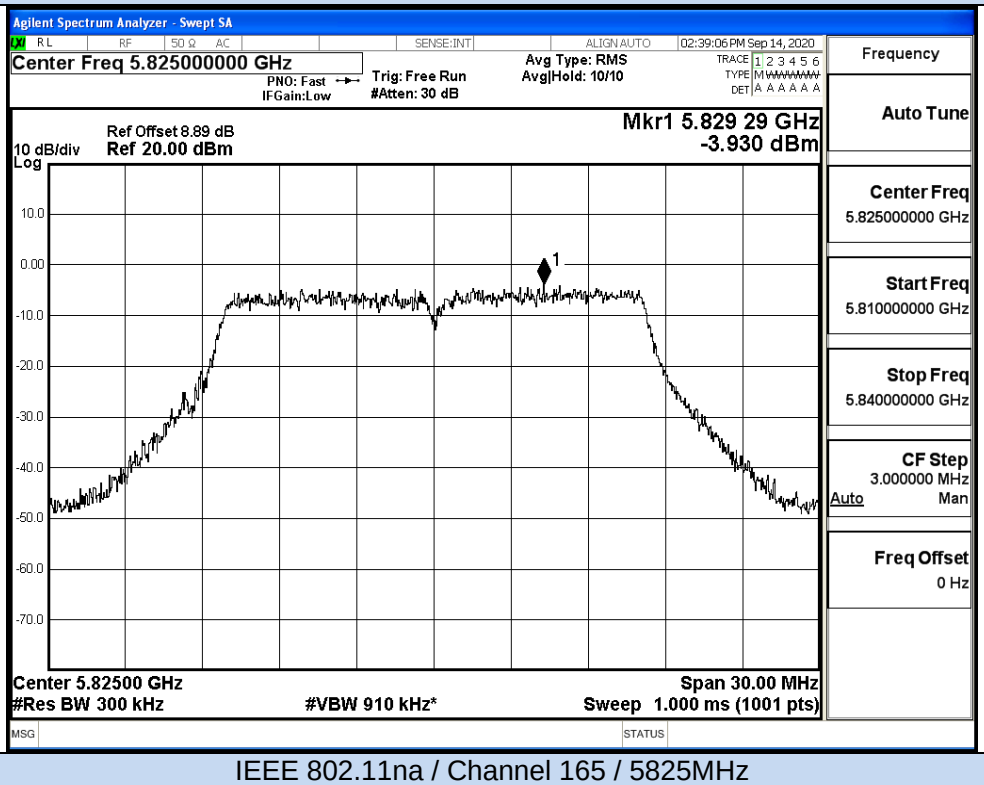
Power Spectral Density



IEEE 802.11a / Channel 149 / 5745MHz

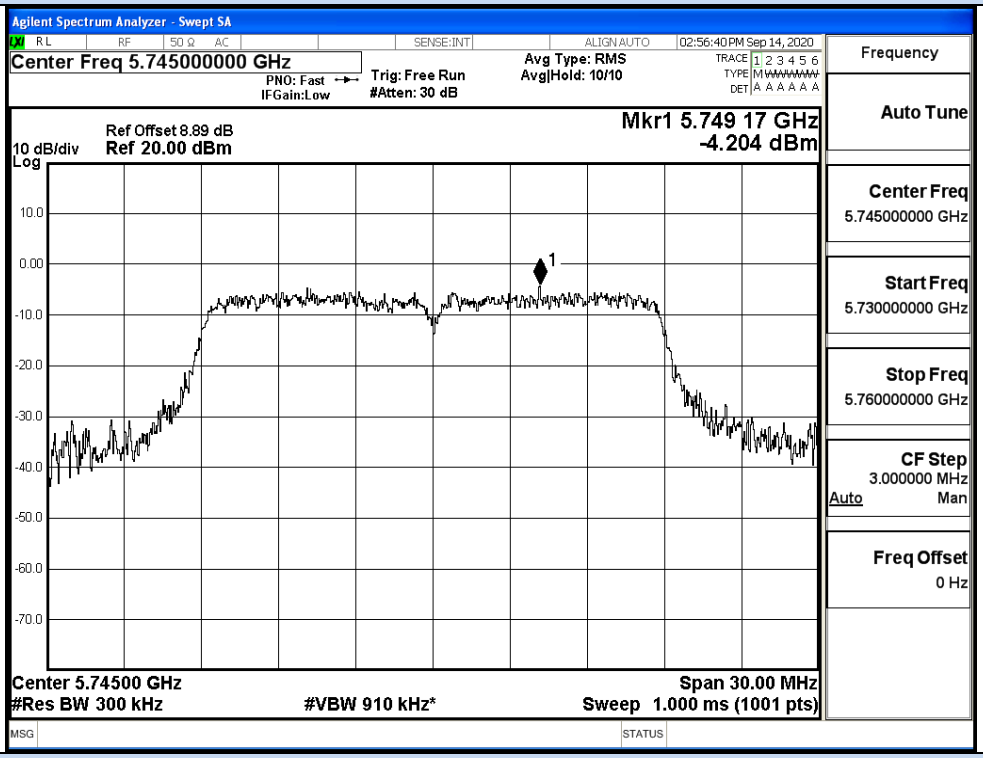


IEEE 802.11na / Channel 157 / 5785MHz

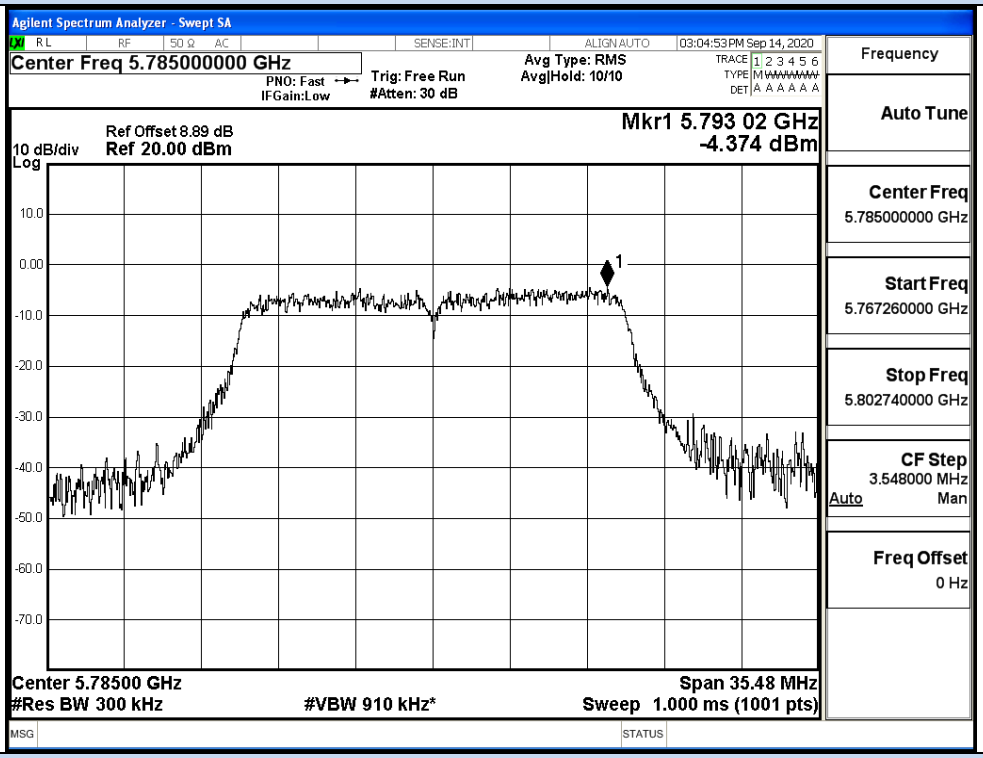


IEEE 802.11na / Channel 165 / 5825MHz

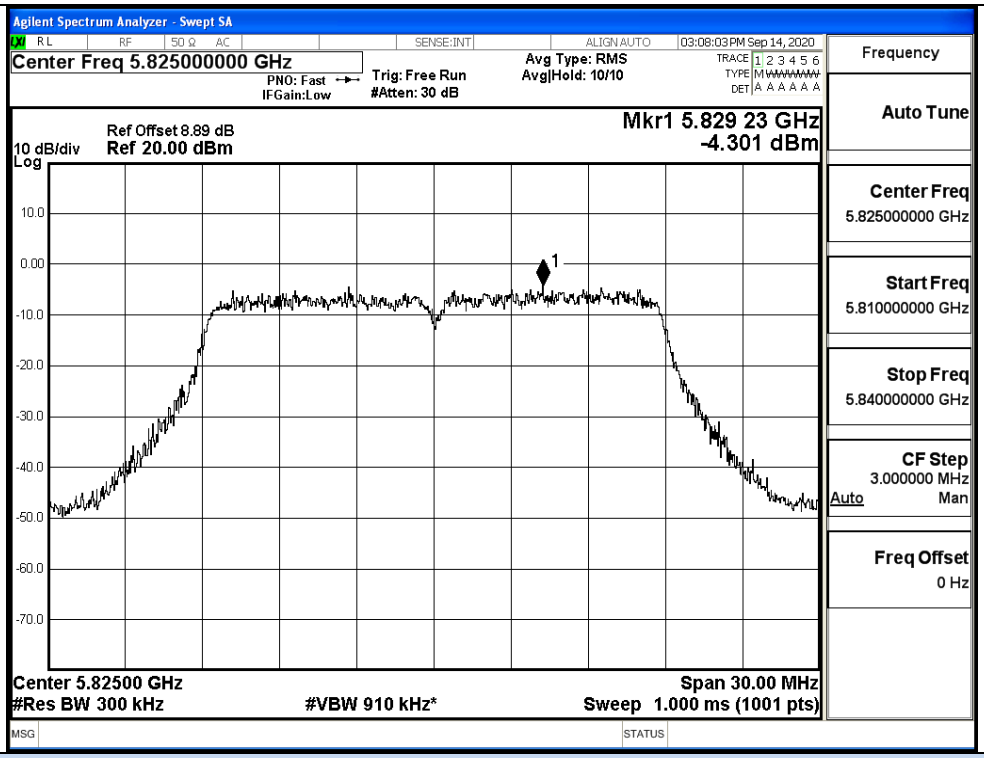
Power Spectral Density



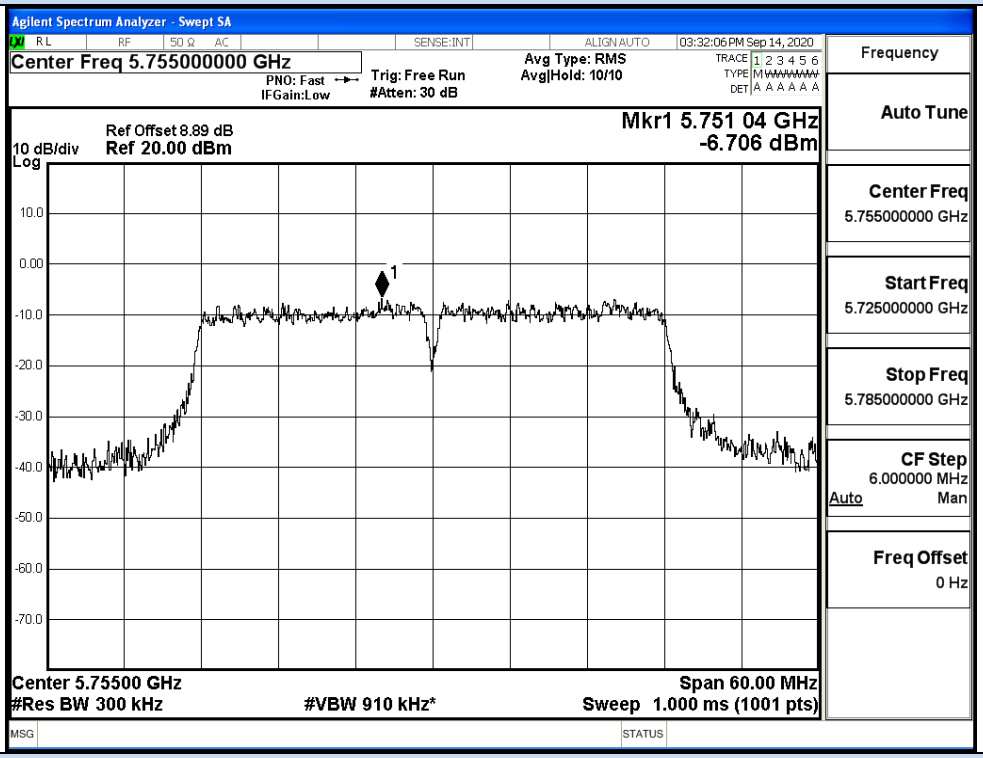
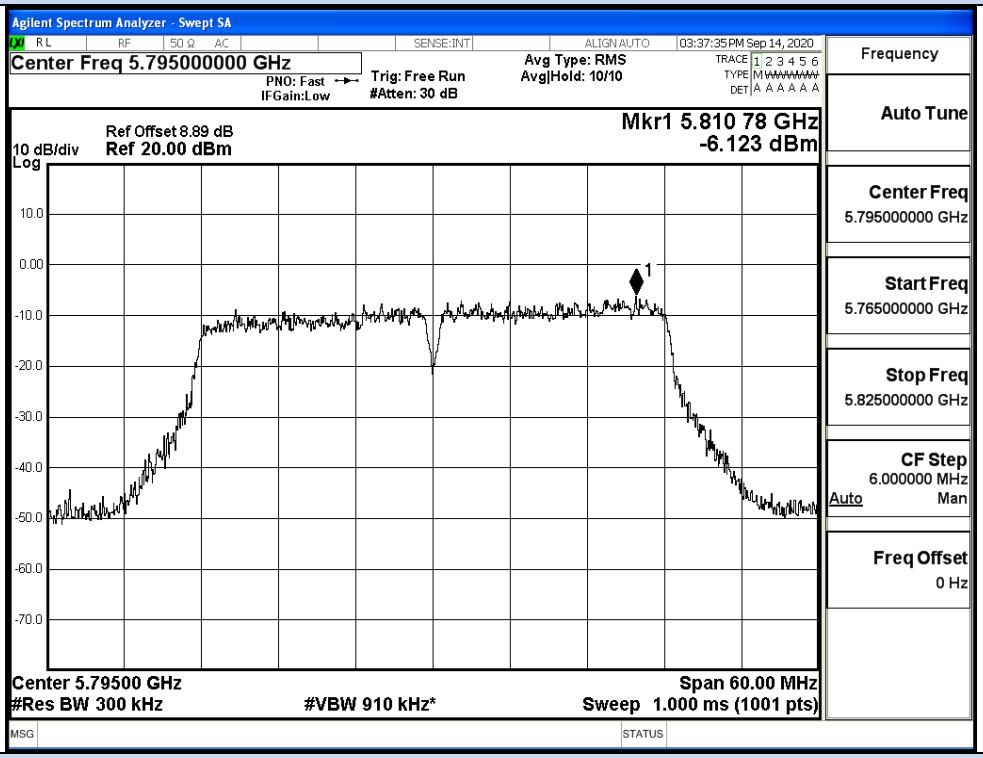
IEEE 802.11n20 / Channel 149 / 5745MHz

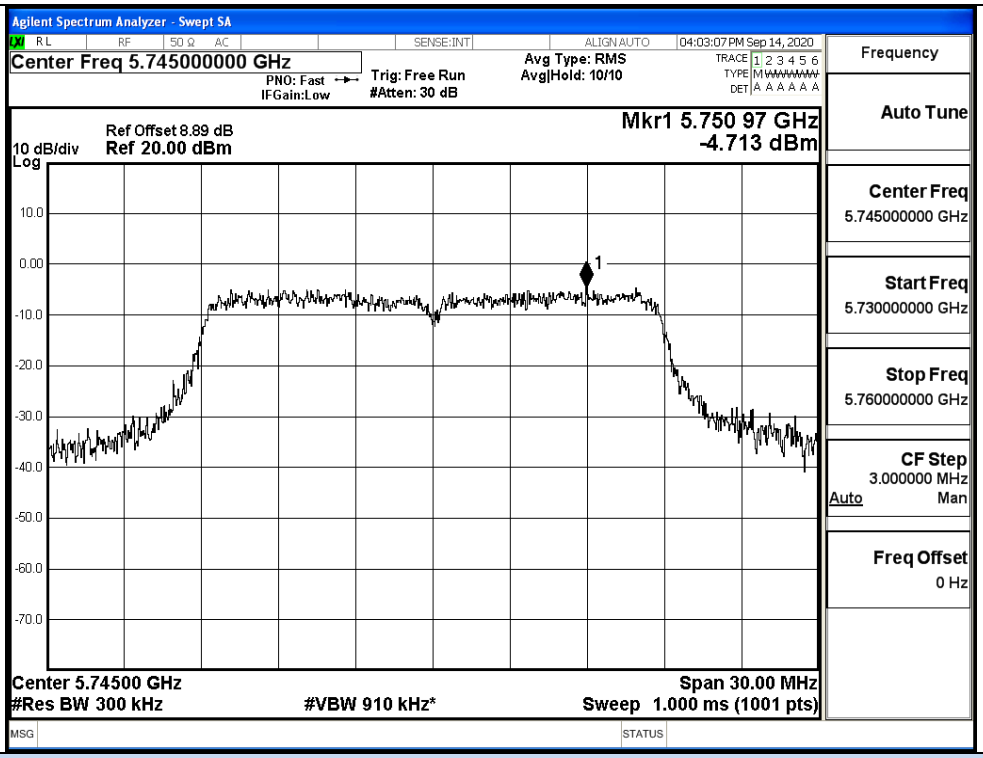


IEEE 802.11n20 / Channel 157 / 5785MHz

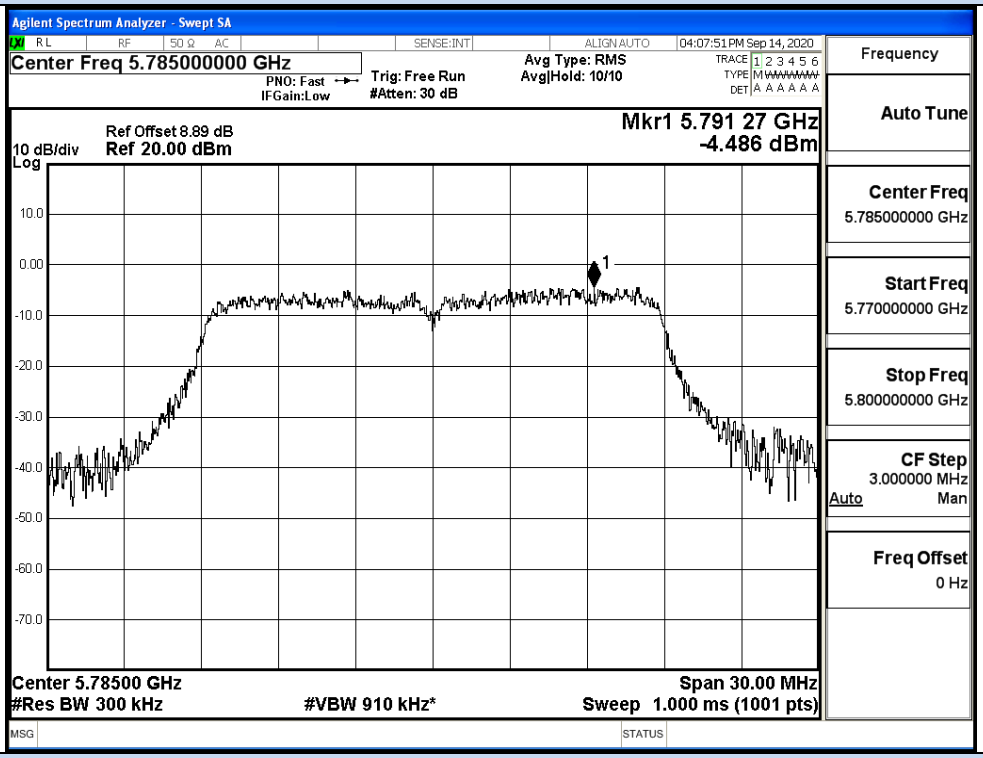


IEEE 802.11n20 / Channel 165 / 5825MHz

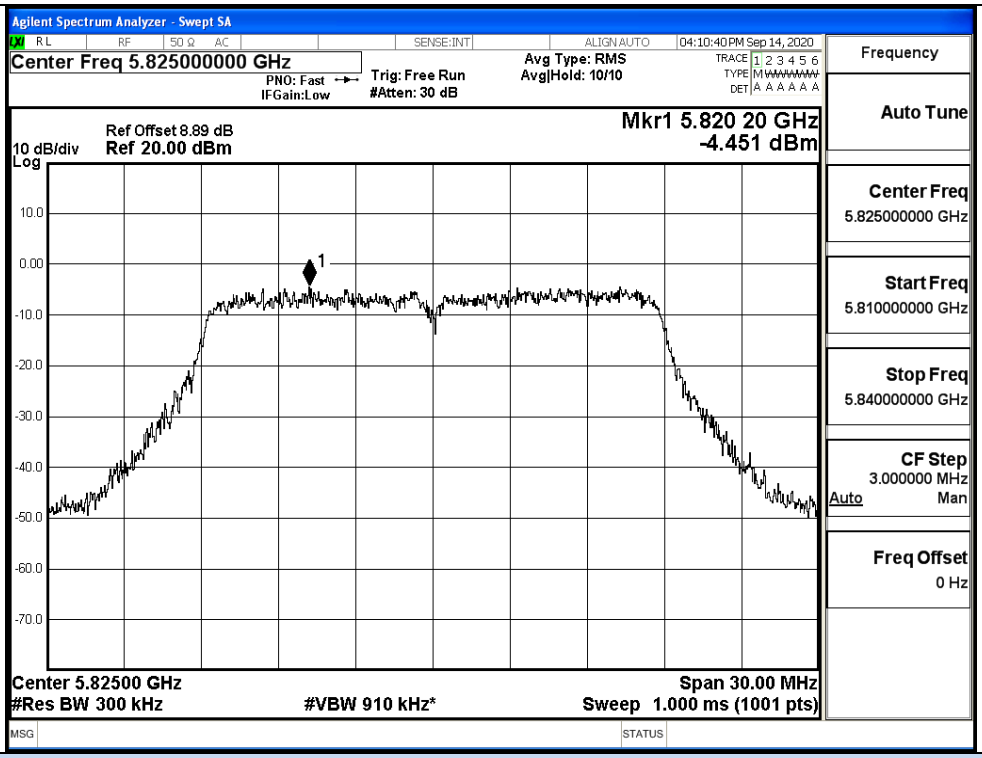
Power Spectral Density

IEEE 802.11n40 / Channel 151 / 5755MHz

IEEE 802.11n40 / Channel 159 / 5795MHz



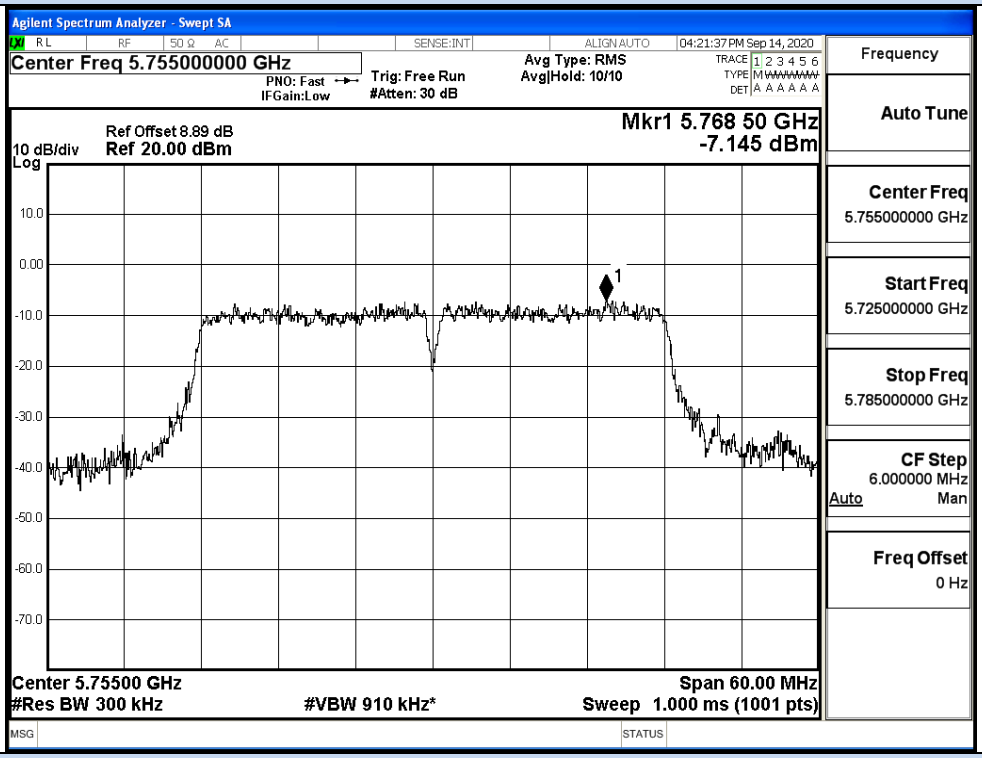
IEEE 802.11ac20 / Channel 149 / 5745MHz



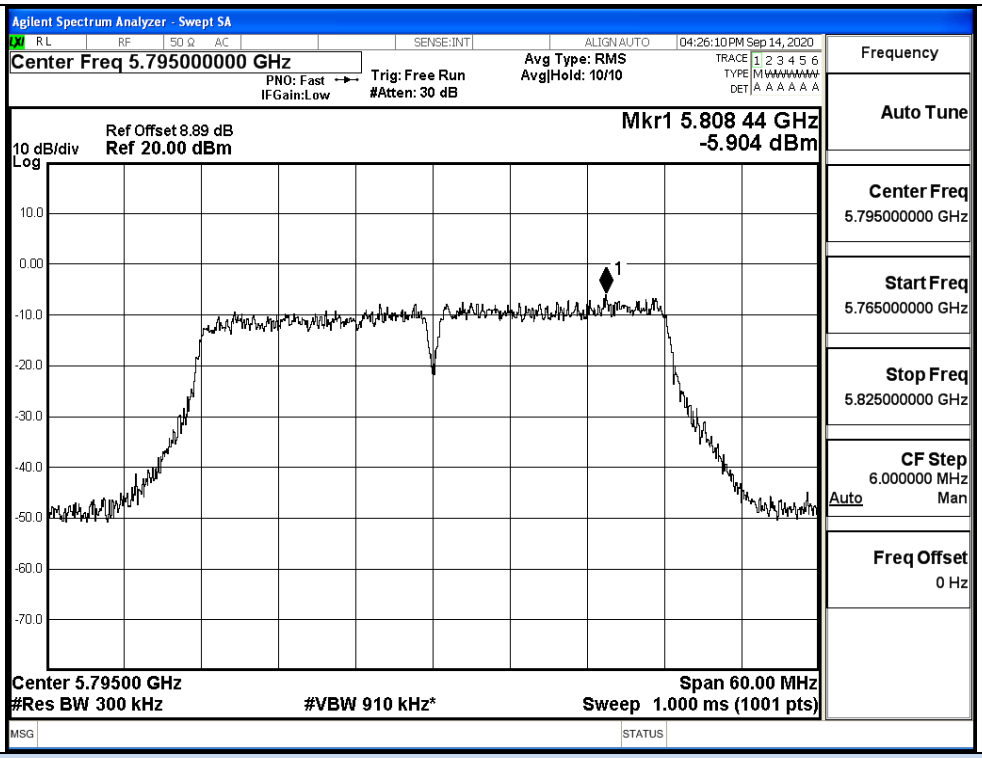
IEEE 802.11ac20 / Channel 157 / 5785MHz



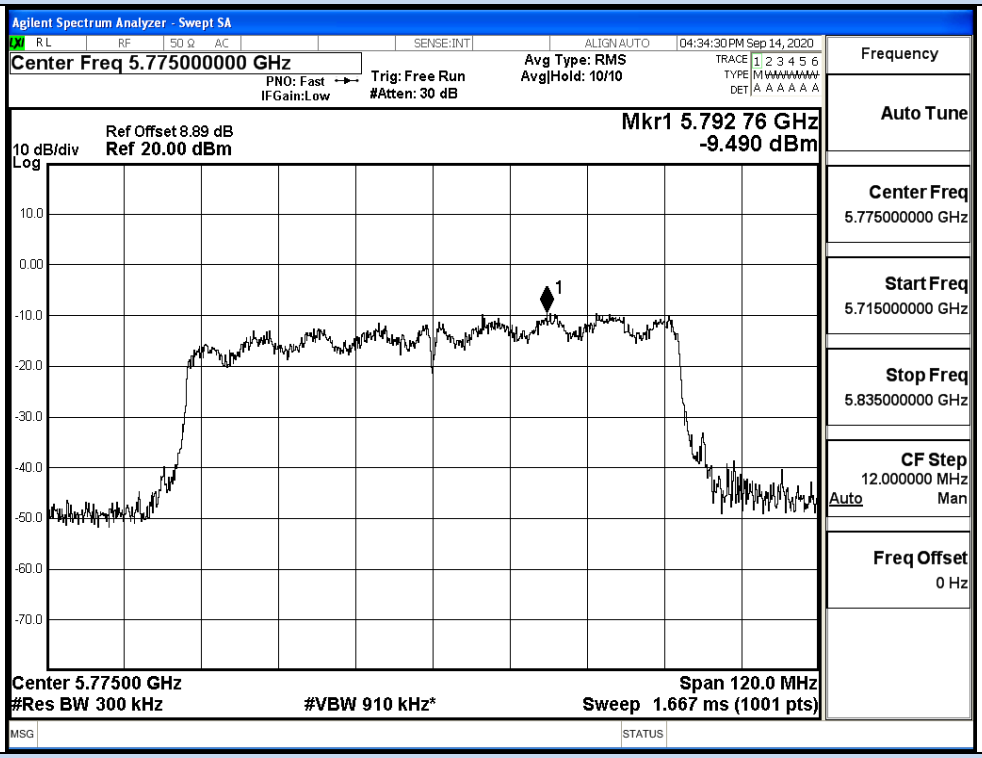
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



IEEE 802.11ac40 / Channel 159 / 5795MHz

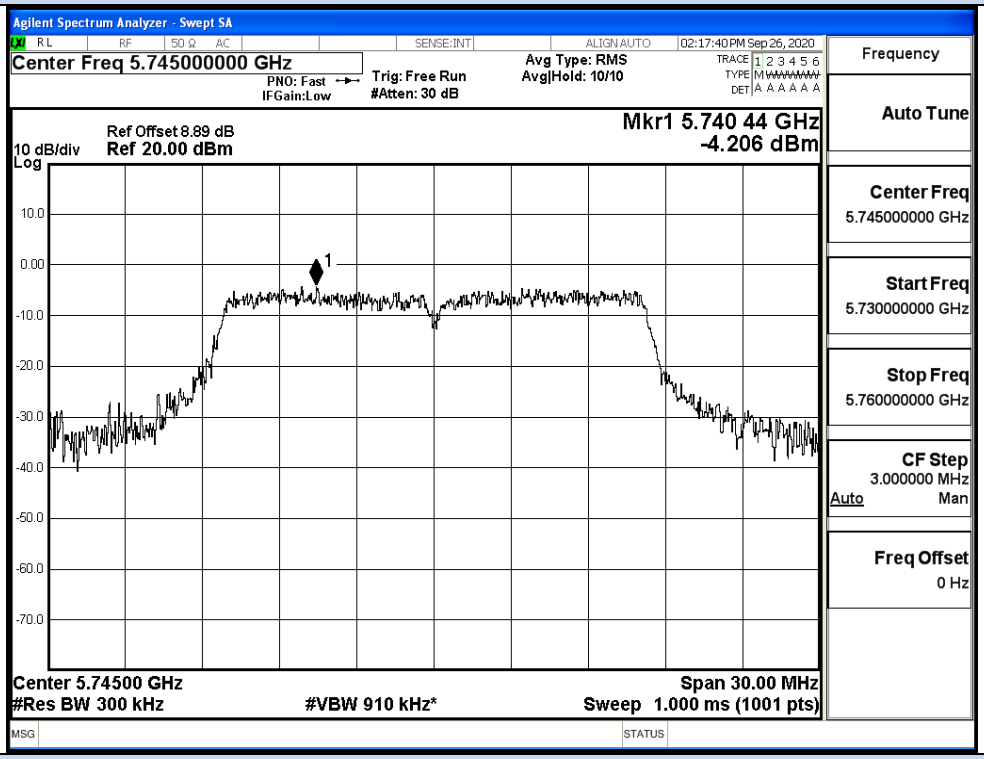


IEEE 802.11ac80 / Channel 155/ 5775MHz

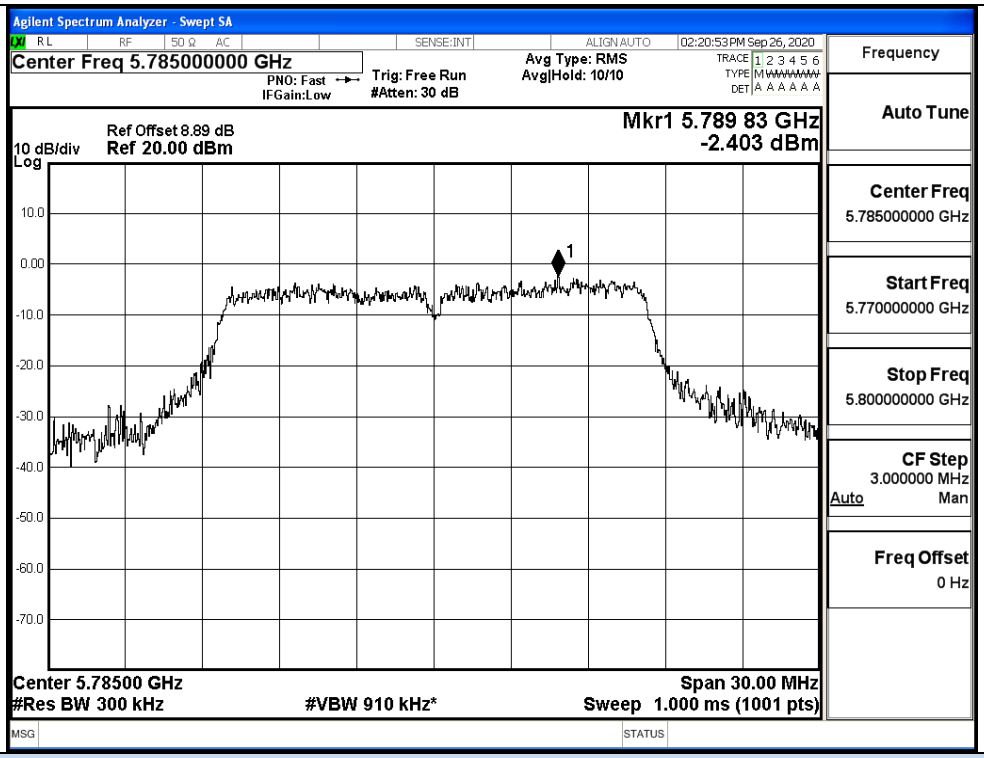
ANT 1

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	-4.21	0	2.218	-1.99	30	Pass
	157	5785	-2.40	0	2.218	-0.19		Pass
	165	5825	-3.79	0	2.218	-1.57		Pass
11N20	149	5745	-4.35	0	2.218	-2.14	30	Pass
	157	5785	-3.37	0	2.218	-1.15		Pass
	165	5825	-5.16	0	2.218	-2.95		Pass
11N40	151	5755	-7.40	0	2.218	-5.18	30	Pass
	159	5795	-5.57	0	2.218	-3.36		Pass
11AC20	149	5745	-4.65	0	2.218	-2.43	30	Pass
	157	5785	-4.01	0	2.218	-1.79		Pass
	165	5825	-4.08	0	2.218	-1.86		Pass
11AC40	151	5755	-7.75	0	2.218	-5.53	30	Pass
	159	5795	-5.96	0	2.218	-3.75		Pass
11AC80	155	5775	-8.30	0	2.218	-6.09	30	Pass

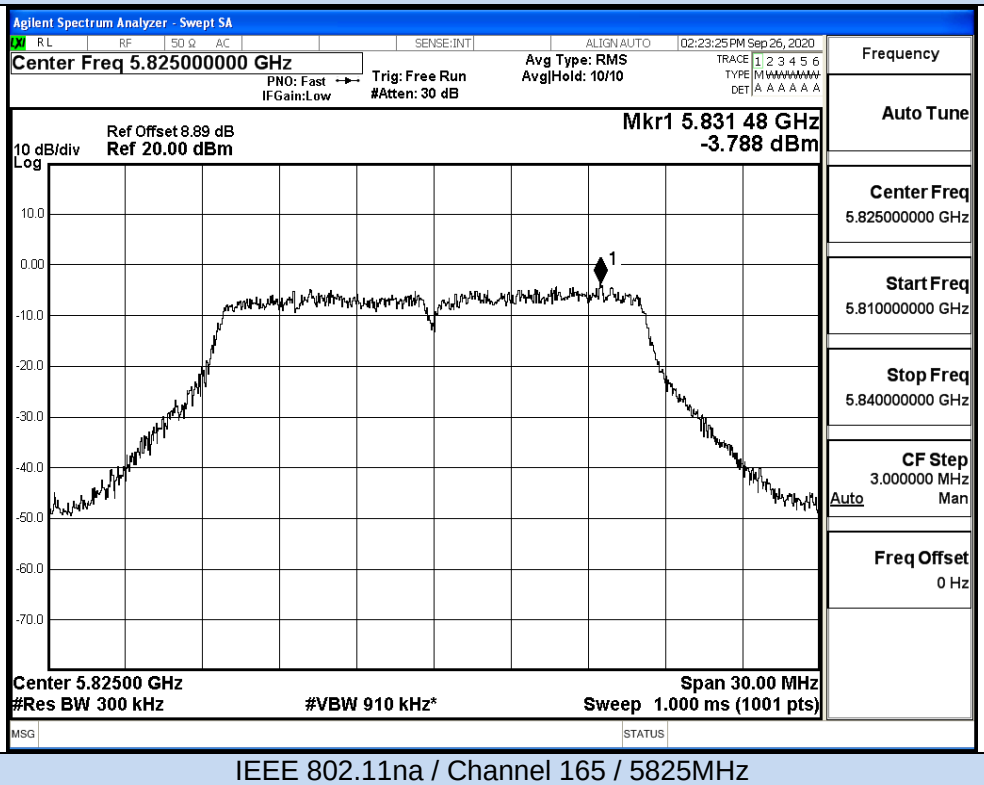
Power Spectral Density



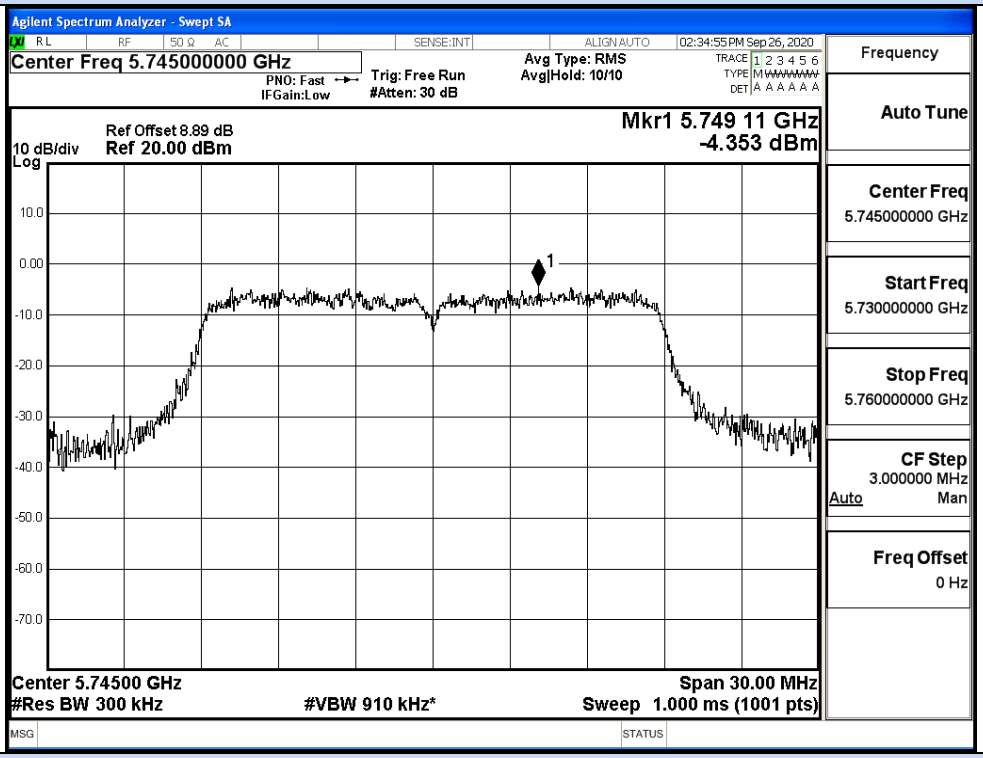
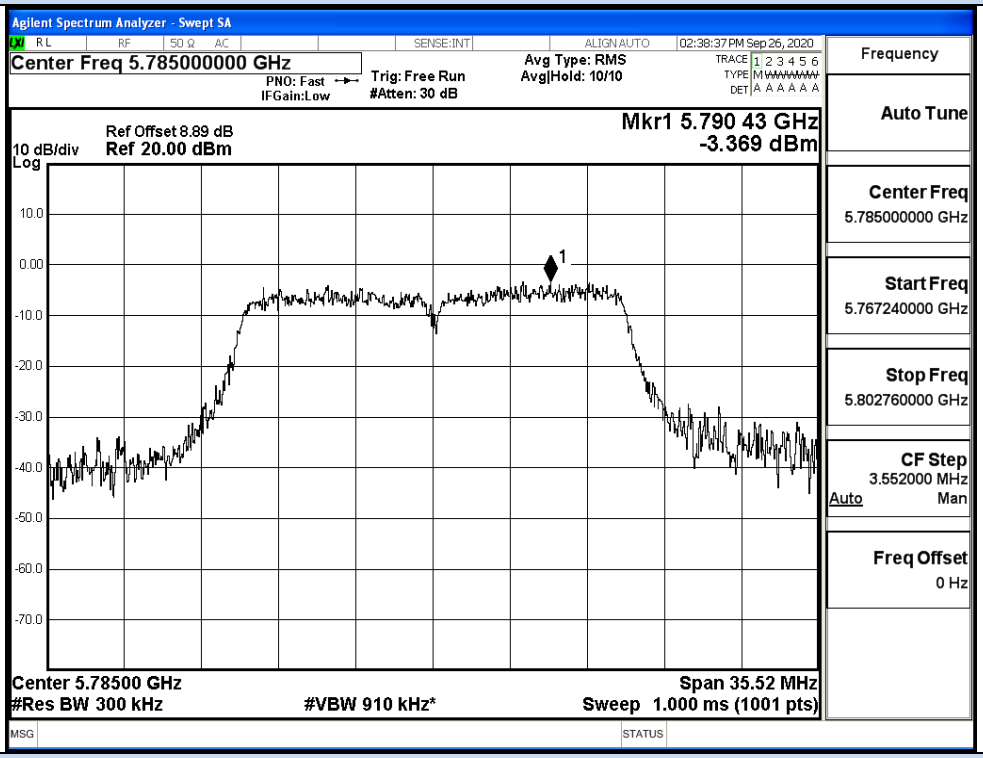
IEEE 802.11a / Channel 149 / 5745MHz

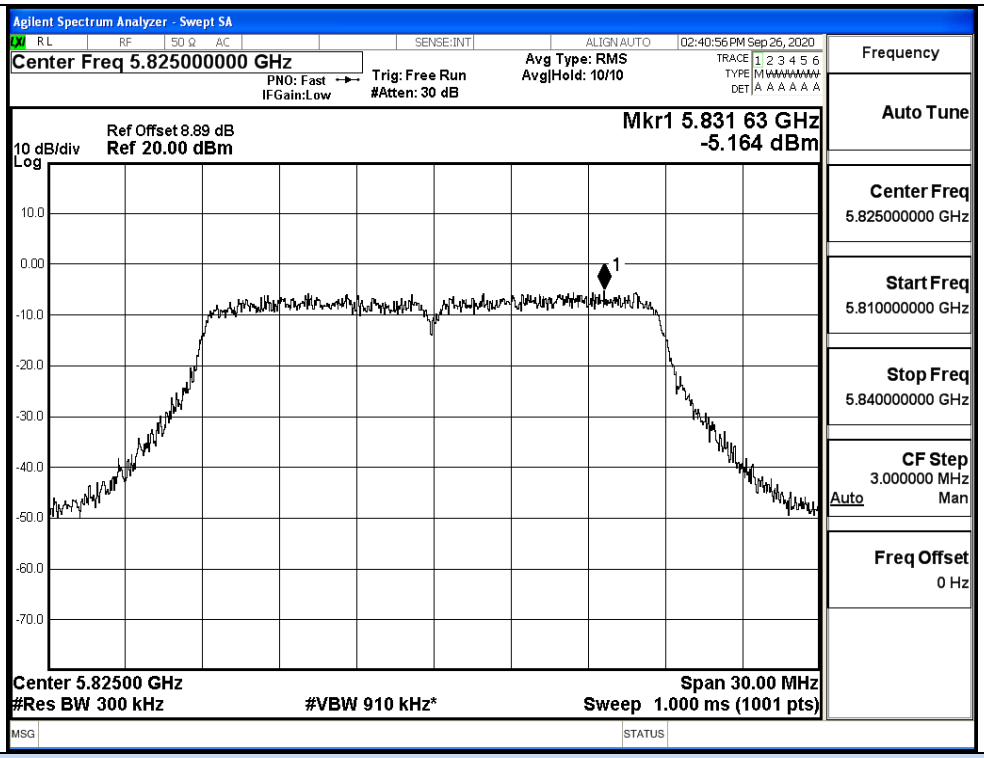


IEEE 802.11na / Channel 157 / 5785MHz



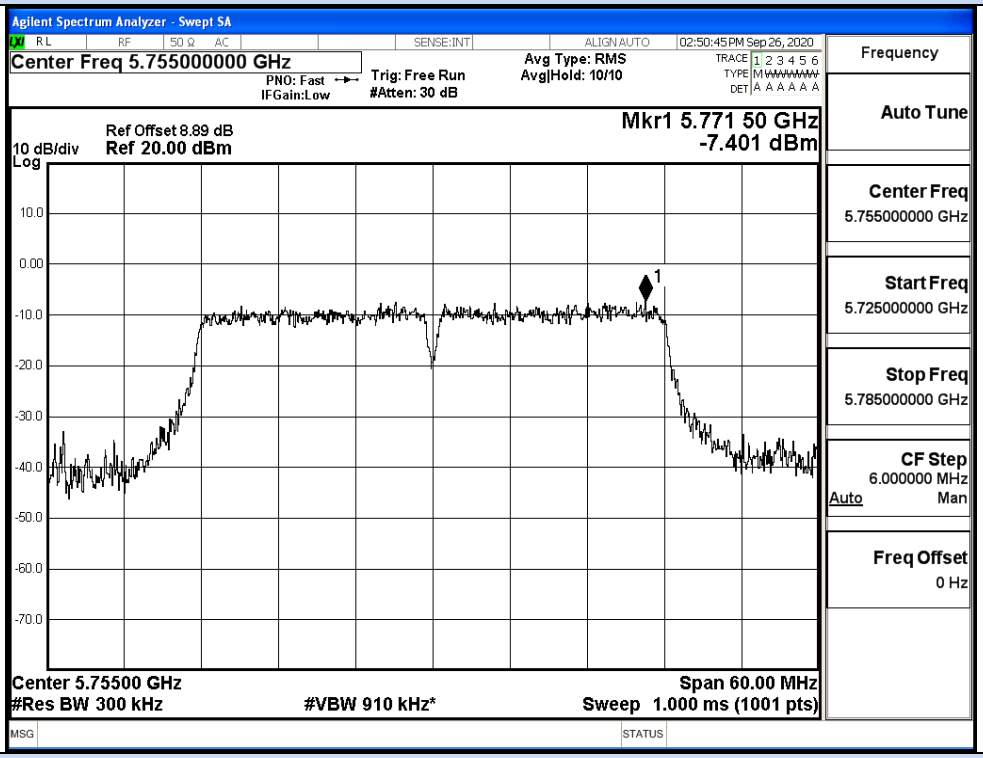
IEEE 802.11na / Channel 165 / 5825MHz

Power Spectral Density

IEEE 802.11n20 / Channel 149 / 5745MHz

IEEE 802.11n20 / Channel 157 / 5785MHz

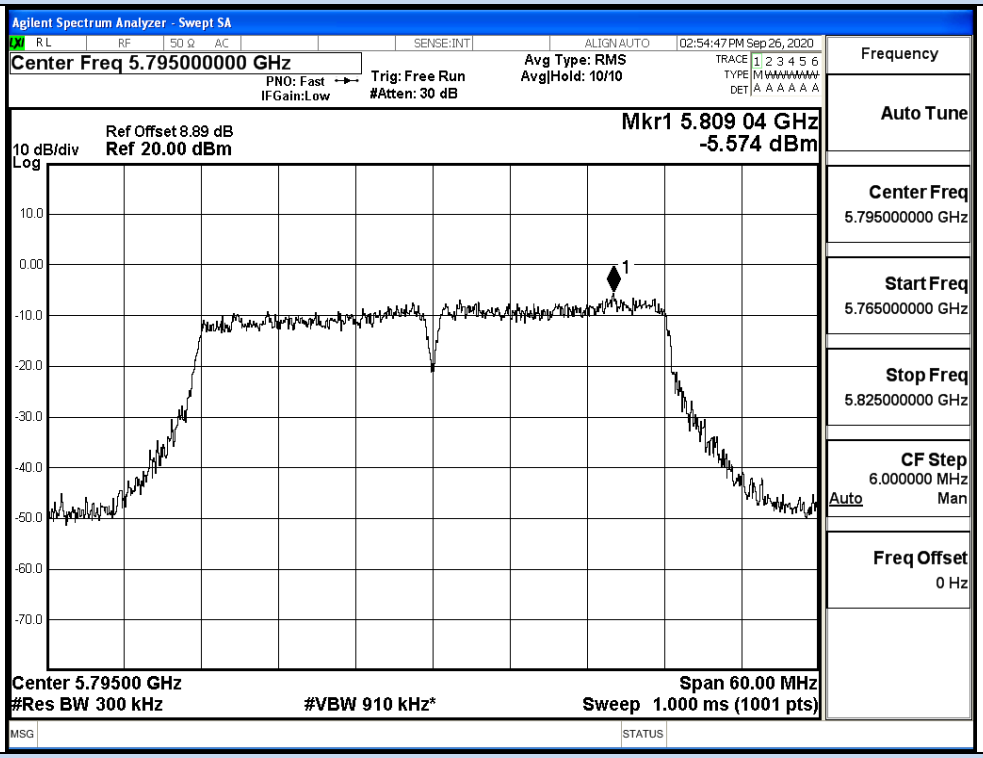


IEEE 802.11n20 / Channel 165 / 5825MHz

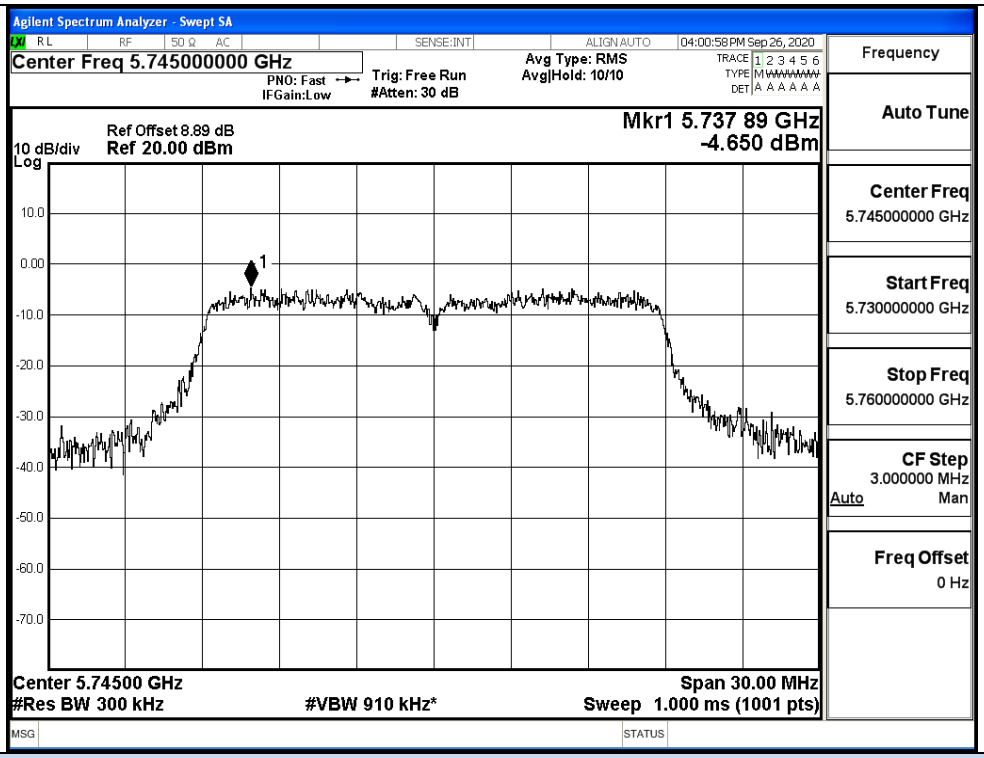
Power Spectral Density



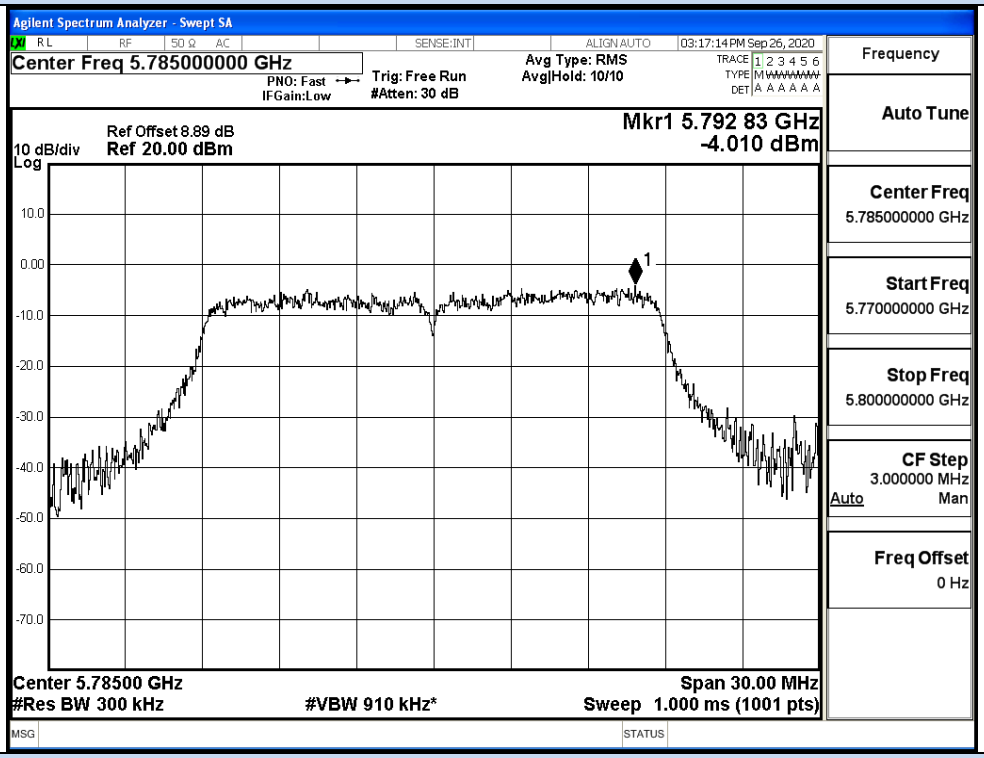
IEEE 802.11n40 / Channel 151 / 5755MHz



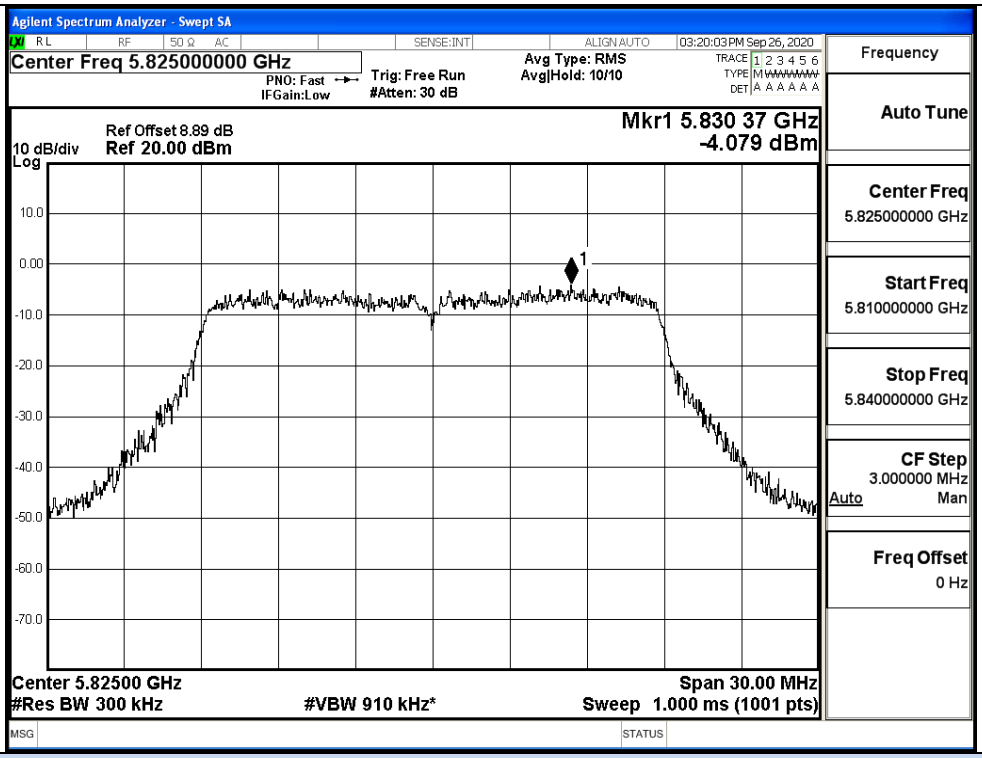
IEEE 802.11n40 / Channel 159 / 5795MHz



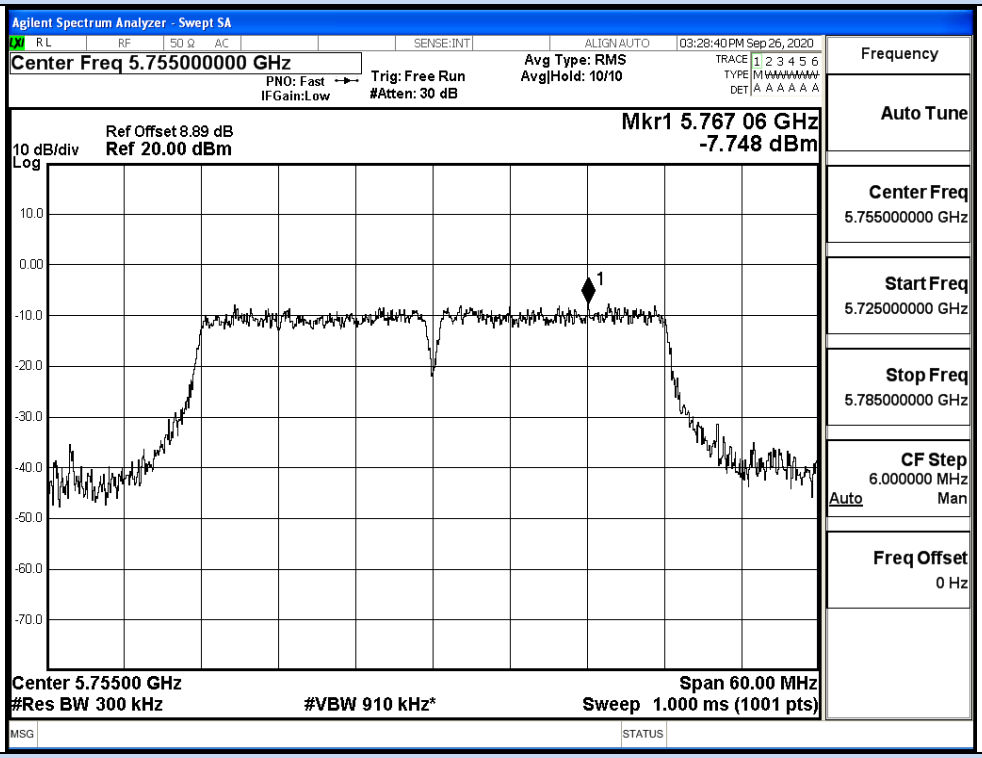
IEEE 802.11ac20 / Channel 149 / 5745MHz



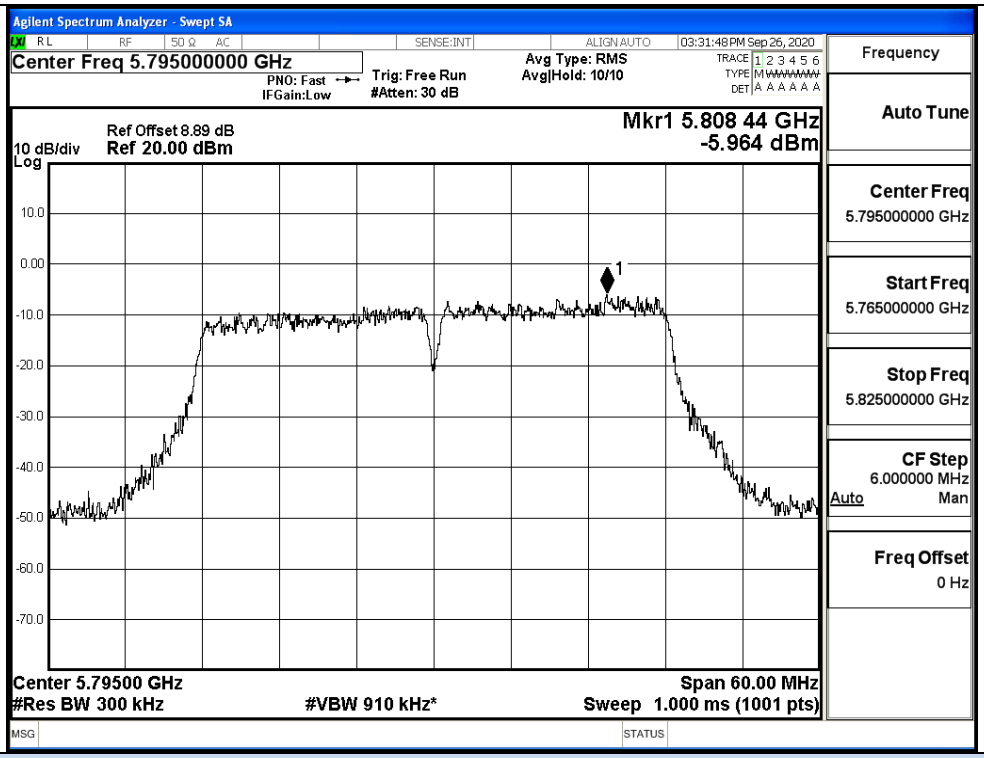
IEEE 802.11ac20 / Channel 157 / 5785MHz



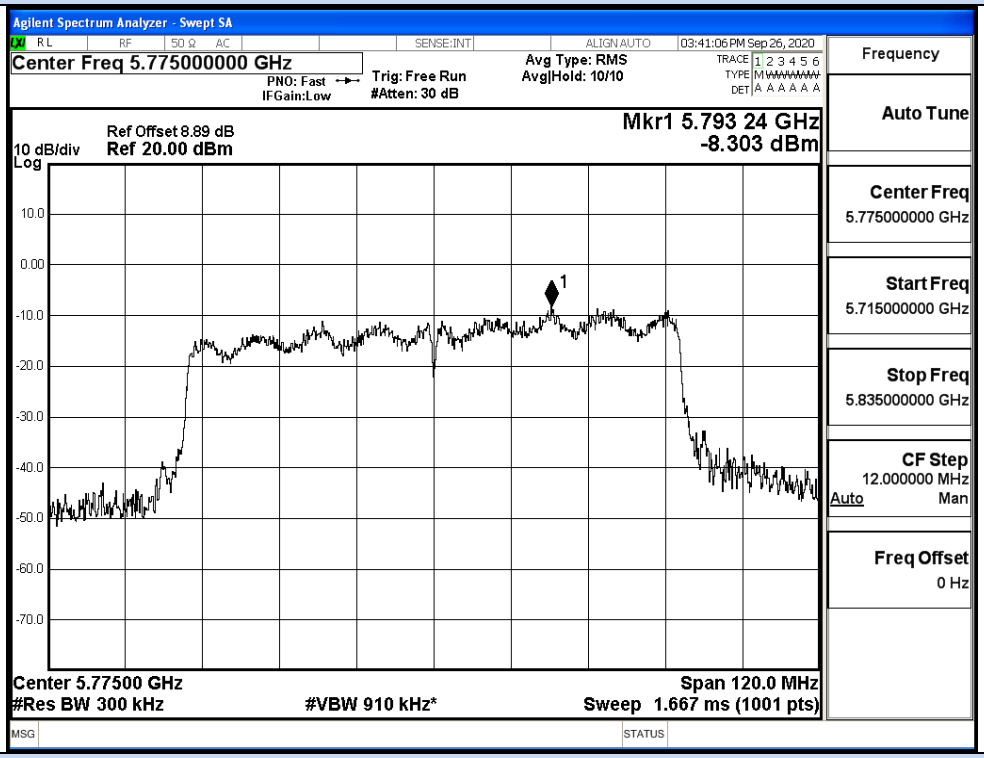
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



IEEE 802.11ac40 / Channel 159 / 5795MHz



IEEE 802.11ac80 / Channel 155/ 5775MHz

MIMO

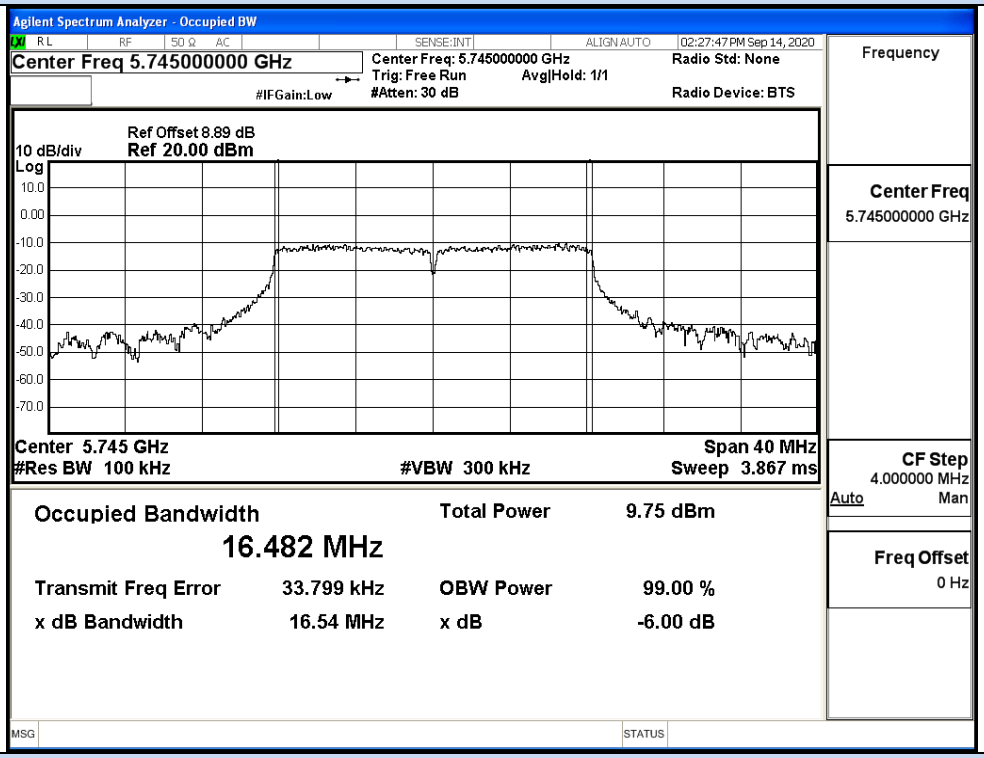
Test Mode	Channel	Frequency (MHz)	ANT 0 Power Density (dBm/300KHz)	ANT 1 Power Density (dBm/300KHz)	MIMO Power Density (dBm/300KHz)	Duty Cycle Factor (dB)	RBW Factor (dB)	Report Power Density (dBm/500KHz)	Report Power Density (dBm/500KHz)	Verdict
11N20	149	5745	-4.2	-4.35	-1.26	0	2.218	0.95	30	Pass
	157	5785	-4.37	-3.37	-0.83	0	2.218	1.39		Pass
	165	5825	-4.3	-5.16	-1.70	0	2.218	0.52		Pass
11N40	151	5755	-6.71	-7.4	-4.03	0	2.218	-1.81	30	Pass
	159	5795	-6.12	-5.57	-2.83	0	2.218	-0.61		Pass
11AC20	149	5745	-4.71	-4.65	-1.67	0	2.218	0.55	30	Pass
	157	5785	-4.49	-4.01	-1.23	0	2.218	0.98		Pass
	165	5825	-4.45	-4.08	-1.25	0	2.218	0.97		Pass
11AC40	151	5755	-7.15	-7.75	-4.43	0	2.218	-2.21	30	Pass
	159	5795	-5.9	-5.96	-2.92	0	2.218	-0.70		Pass
11AC80	155	5775	-9.49	-8.3	-5.84	0	2.218	-3.63	30	Pass

E.4 Emission Bandwidth

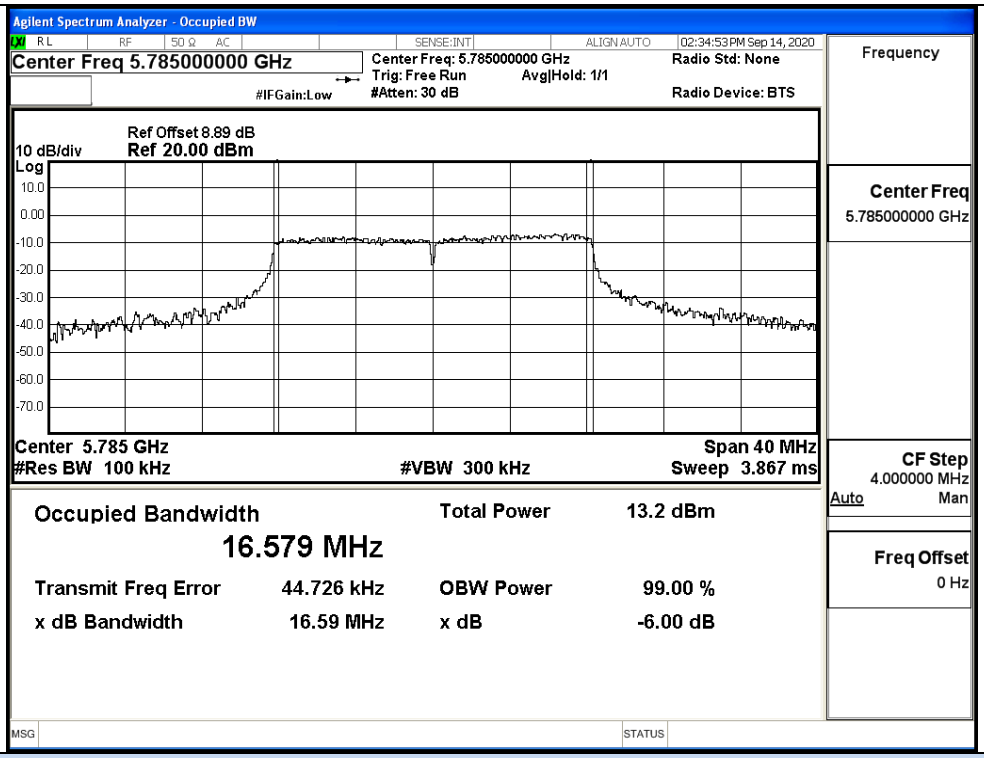
ANT 0

Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
11A	149	5745	16.54	>=0.5	Pass
	157	5785	16.59		Pass
	165	5825	16.54		Pass
11N20	149	5745	17.76	>=0.5	Pass
	157	5785	17.74		Pass
	165	5825	17.74		Pass
11N40	151	5755	36.58	>=0.5	Pass
	159	5795	36.20		Pass
11AC20	149	5745	17.77	>=0.5	Pass
	157	5785	17.77		Pass
	165	5825	17.76		Pass
11AC40	151	5755	36.53	>=0.5	Pass
	159	5795	36.15		Pass
11AC80	155	5775	73.75	>=0.5	Pass

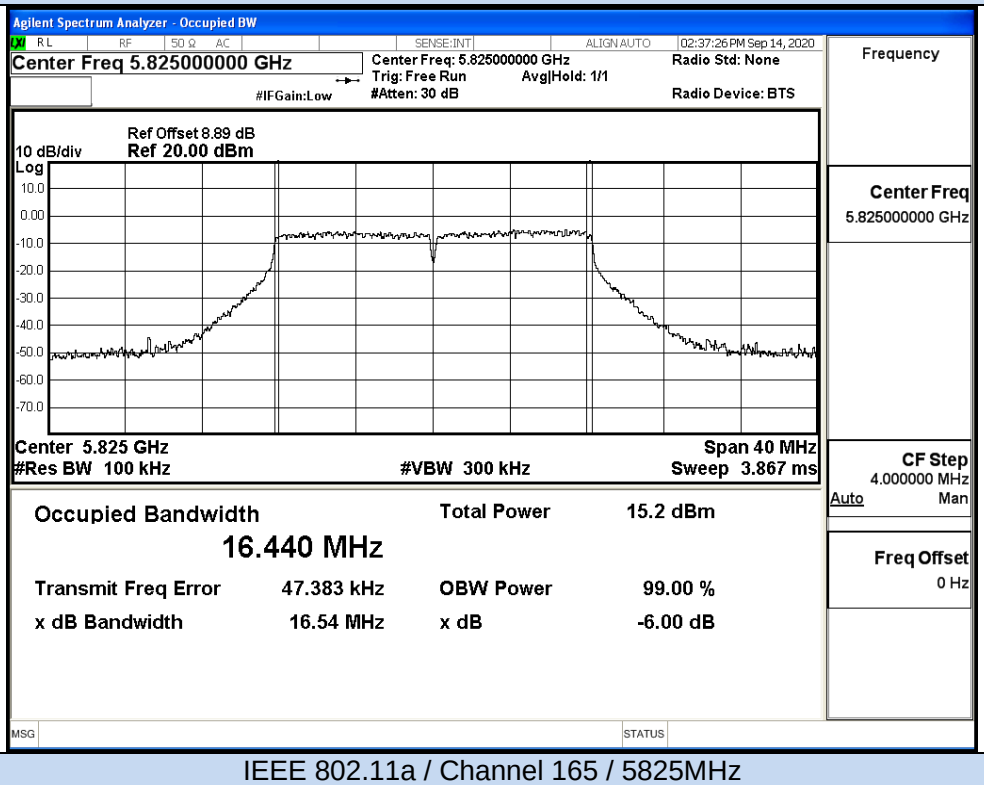
6dB Bandwidth



IEEE 802.11a / Channel 149 / 5745MHz

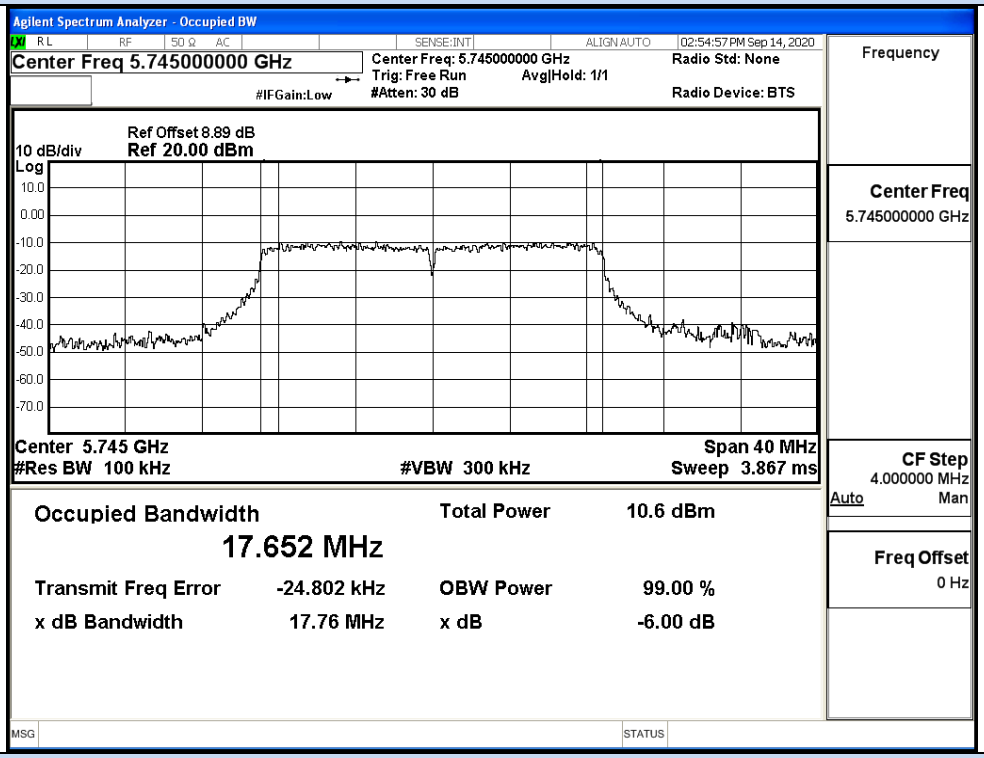


IEEE 802.11a / Channel 157 / 5785MHz

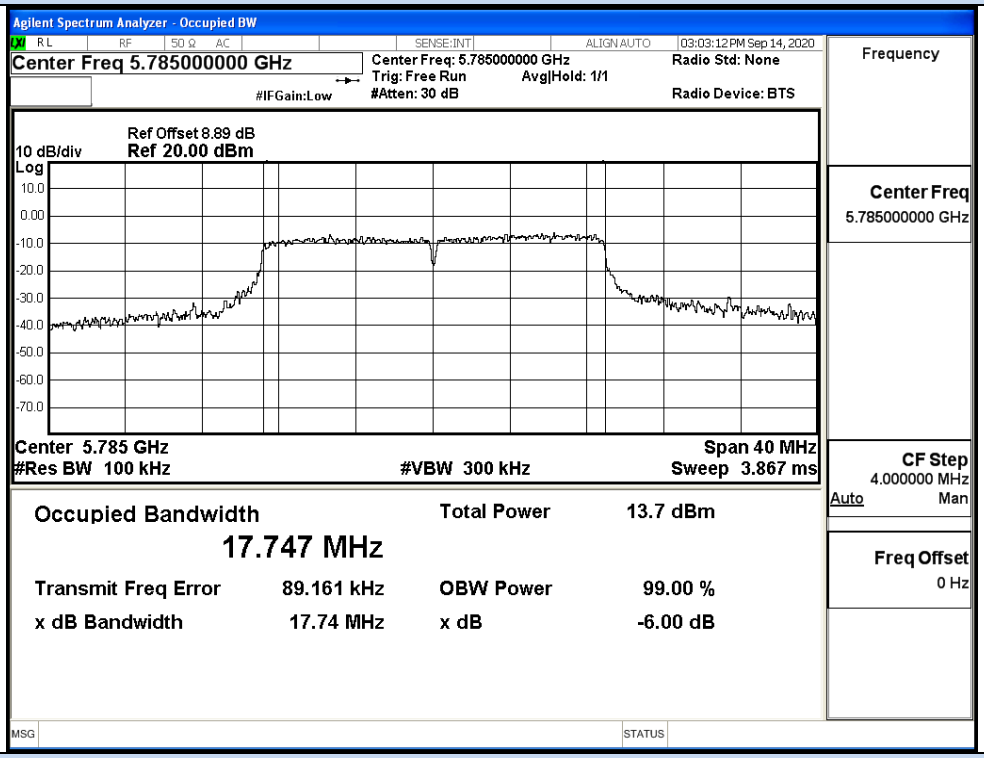


IEEE 802.11a / Channel 165 / 5825MHz

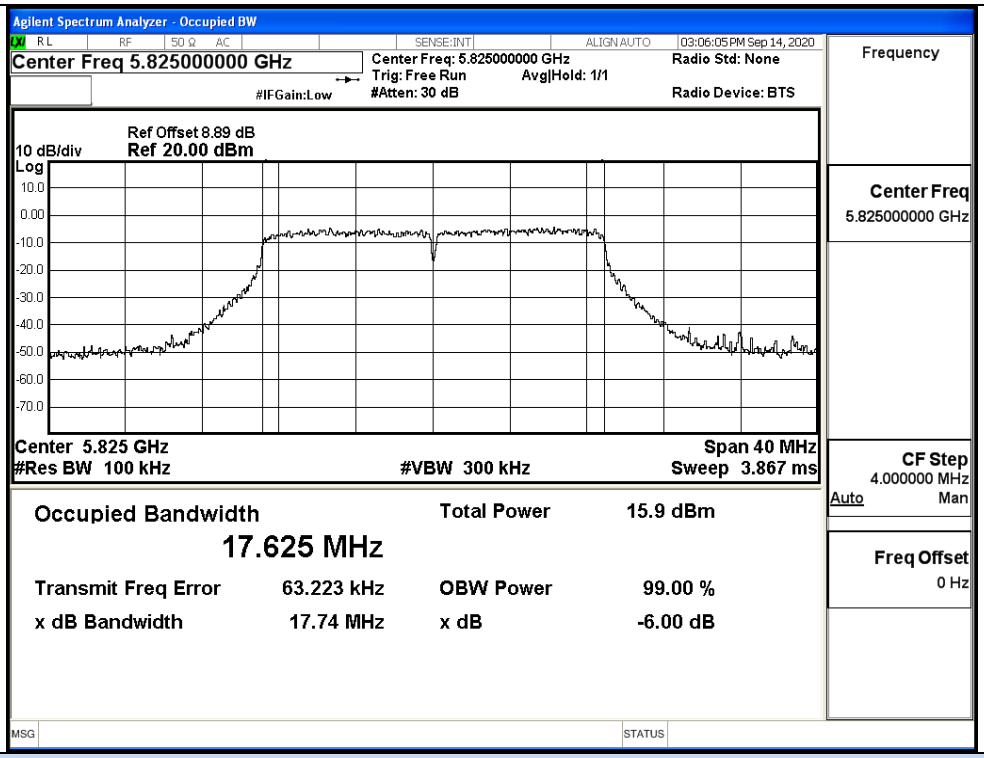
6dB Bandwidth



IEEE 802.11n20 / Channel 149 / 5745MHz

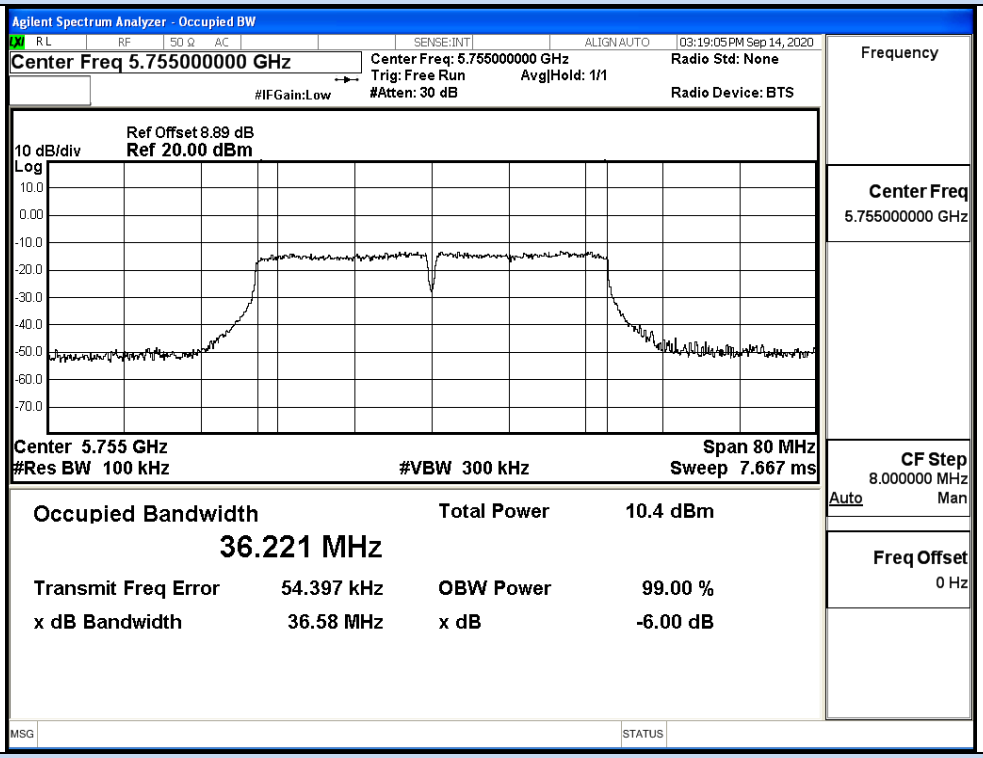


IEEE 802.11n20 / Channel 157 / 5785MHz

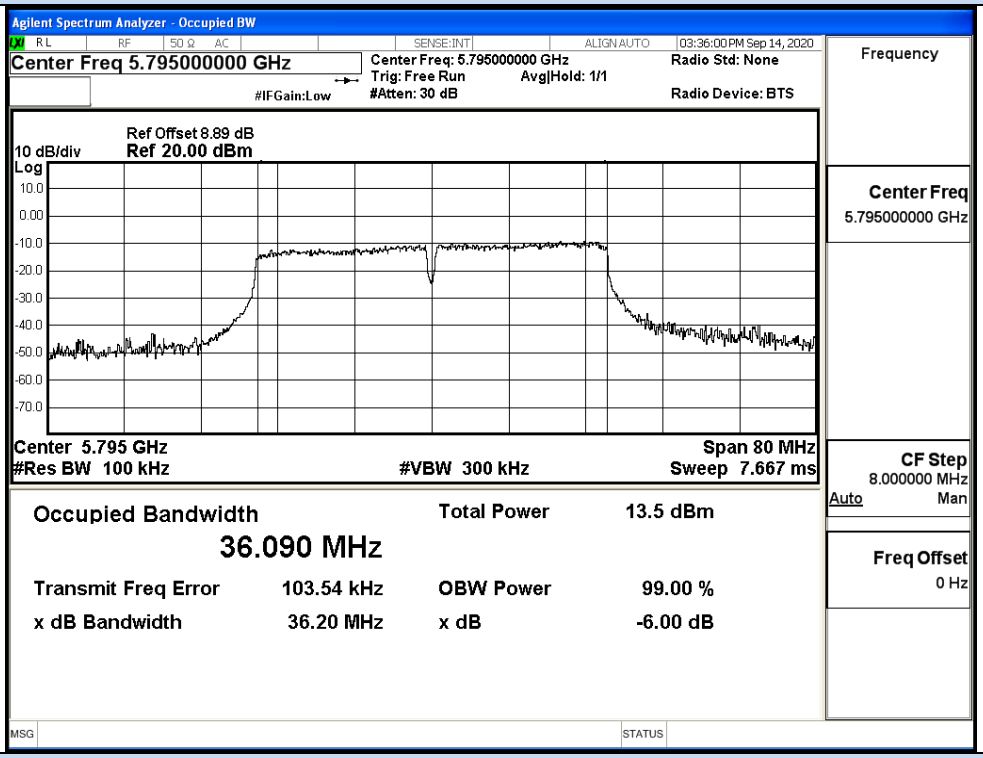


IEEE 802.11n20 / Channel 165 / 5825MHz

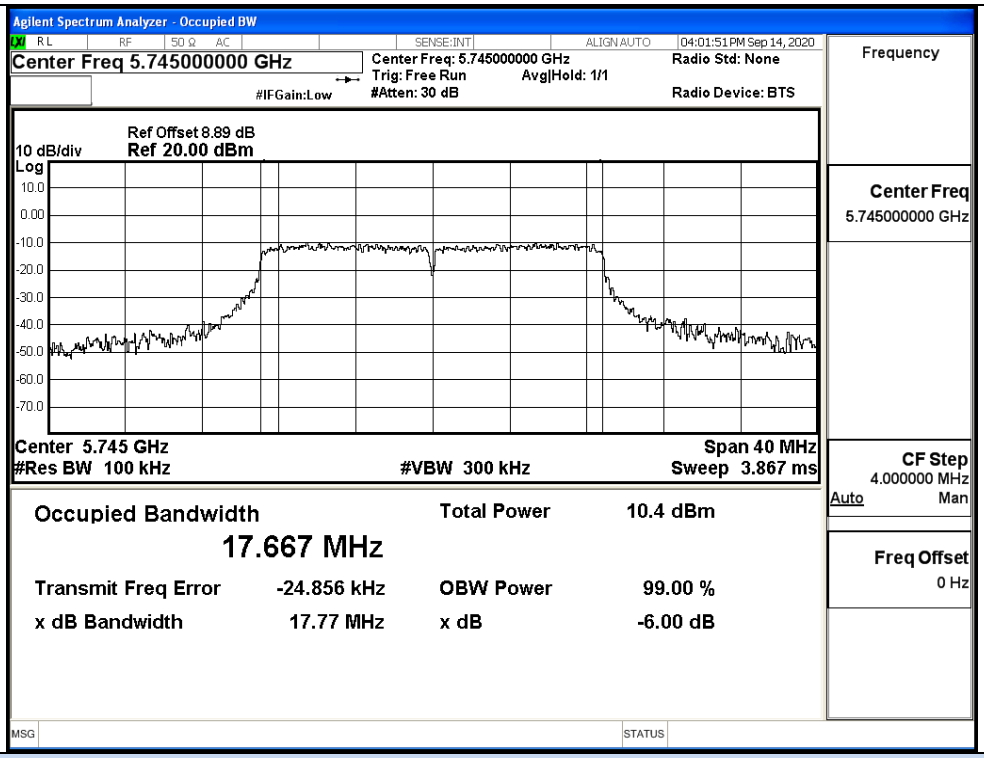
26dB Bandwidth



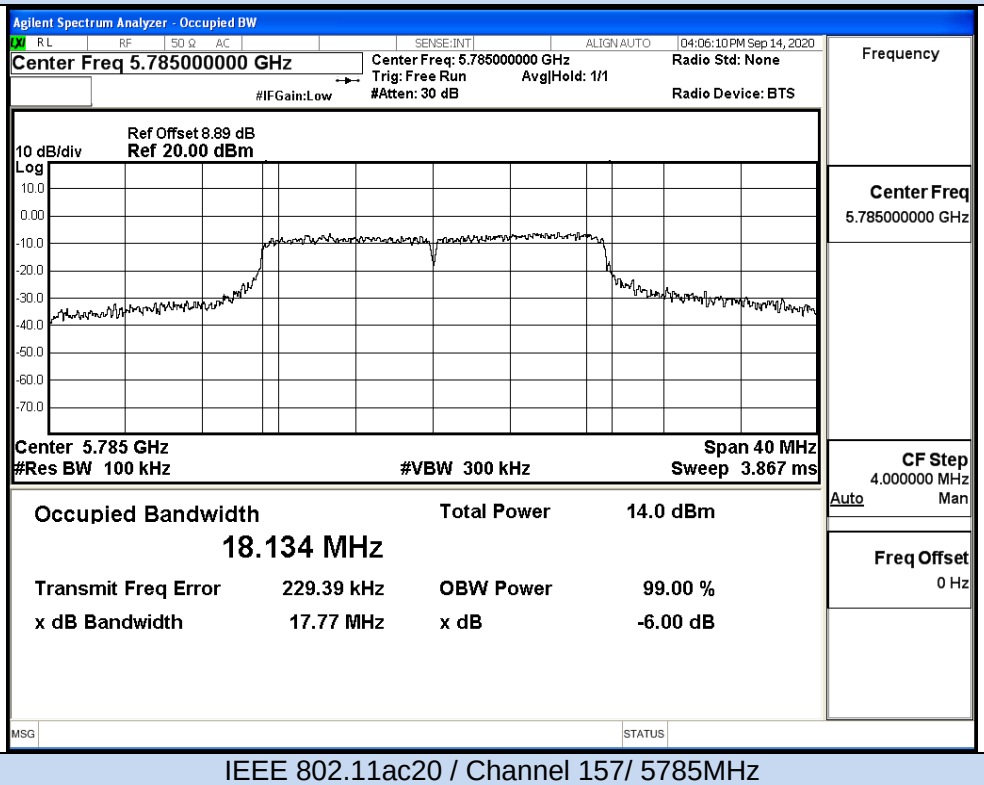
IEEE 802.11n40 / Channel 151 / 5755MHz



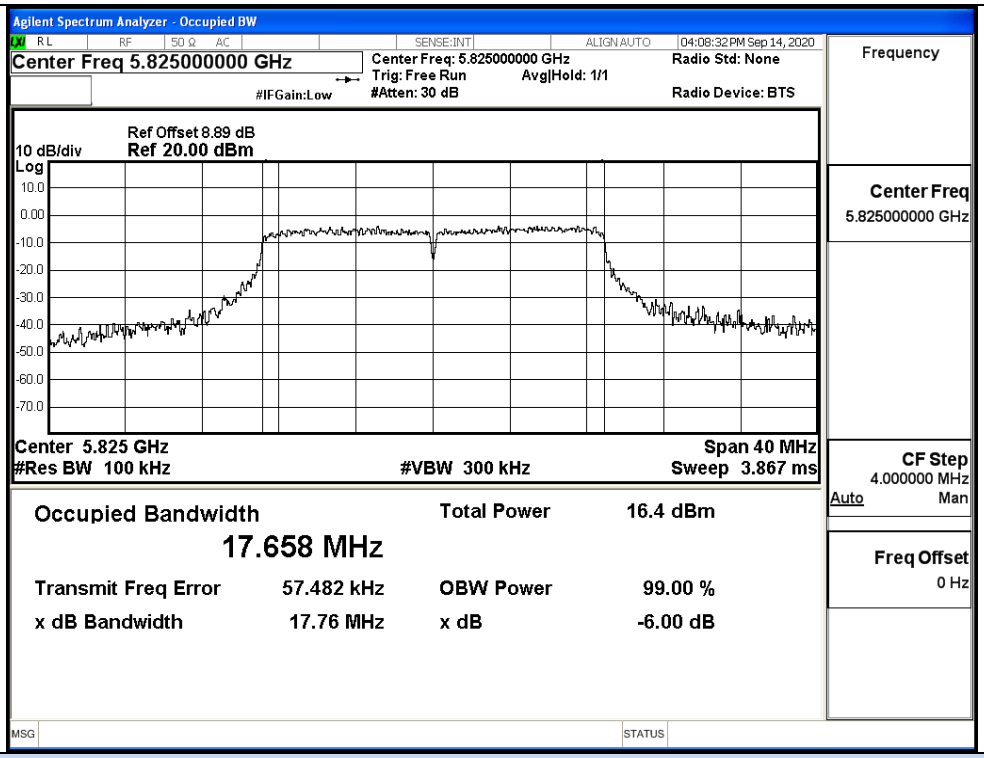
IEEE 802.11n40 / Channel 159 / 5795MHz



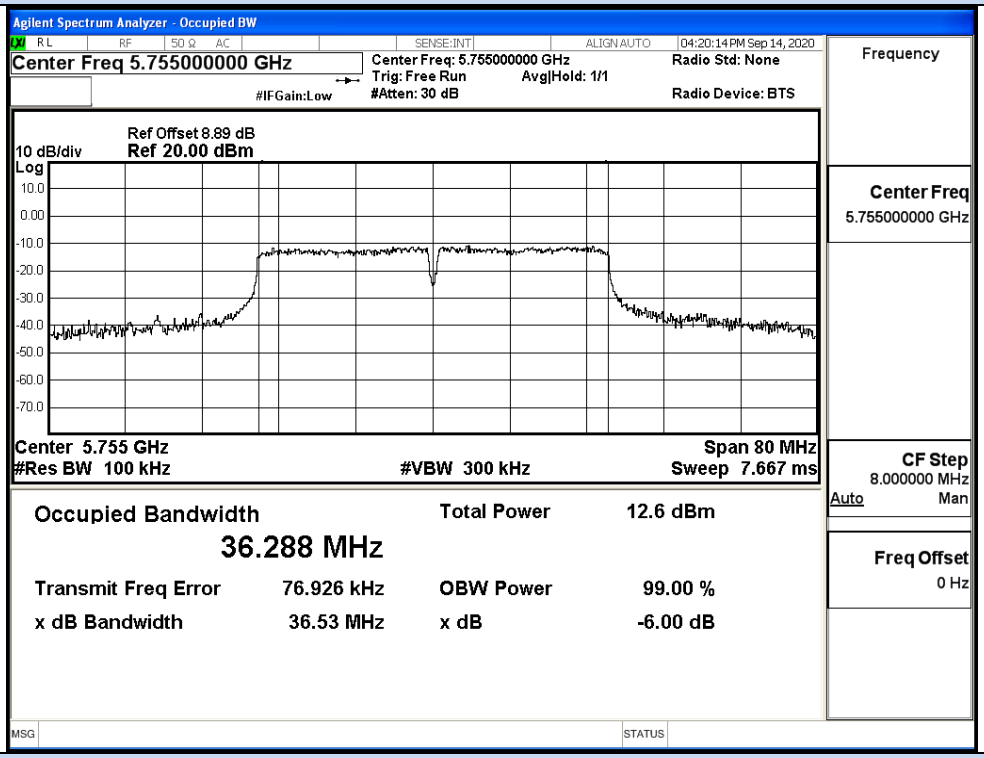
IEEE 802.11ac20 / Channel 149 / 5745MHz



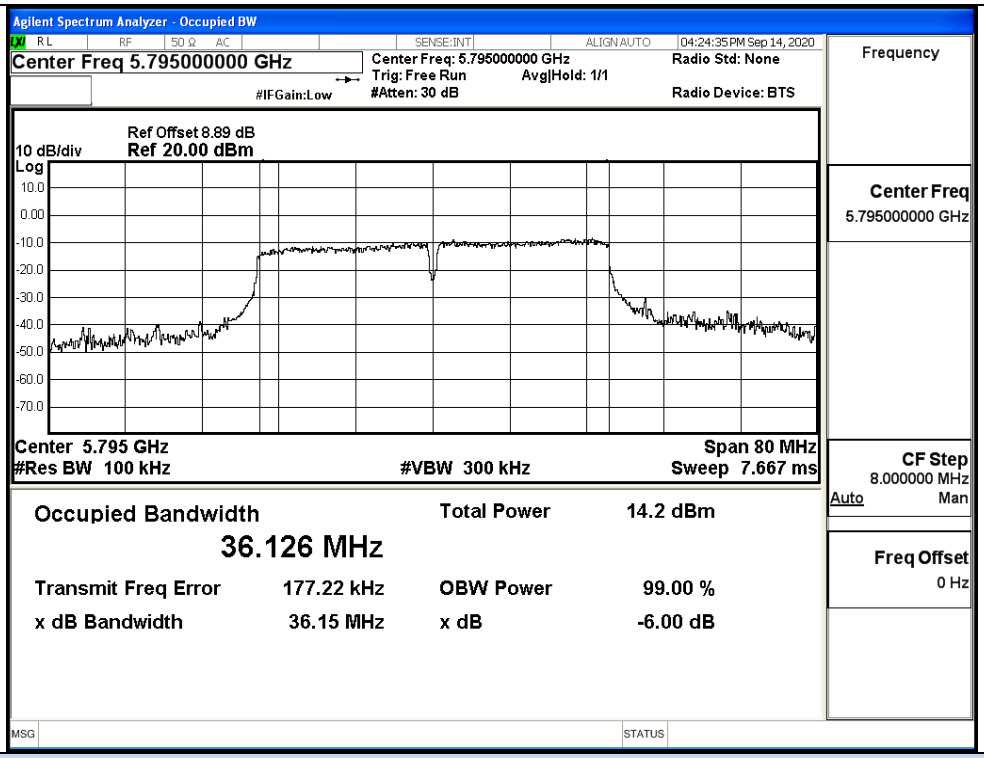
IEEE 802.11ac20 / Channel 157/ 5785MHz



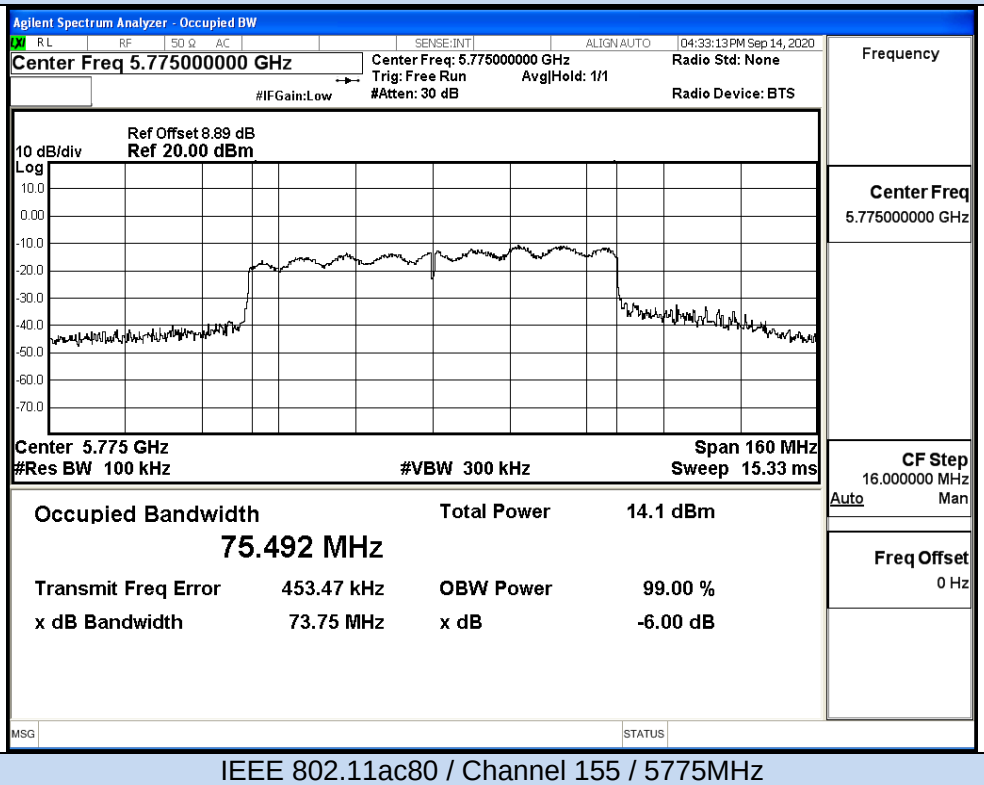
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



IEEE 802.11ac40 / Channel 159 / 5795MHz

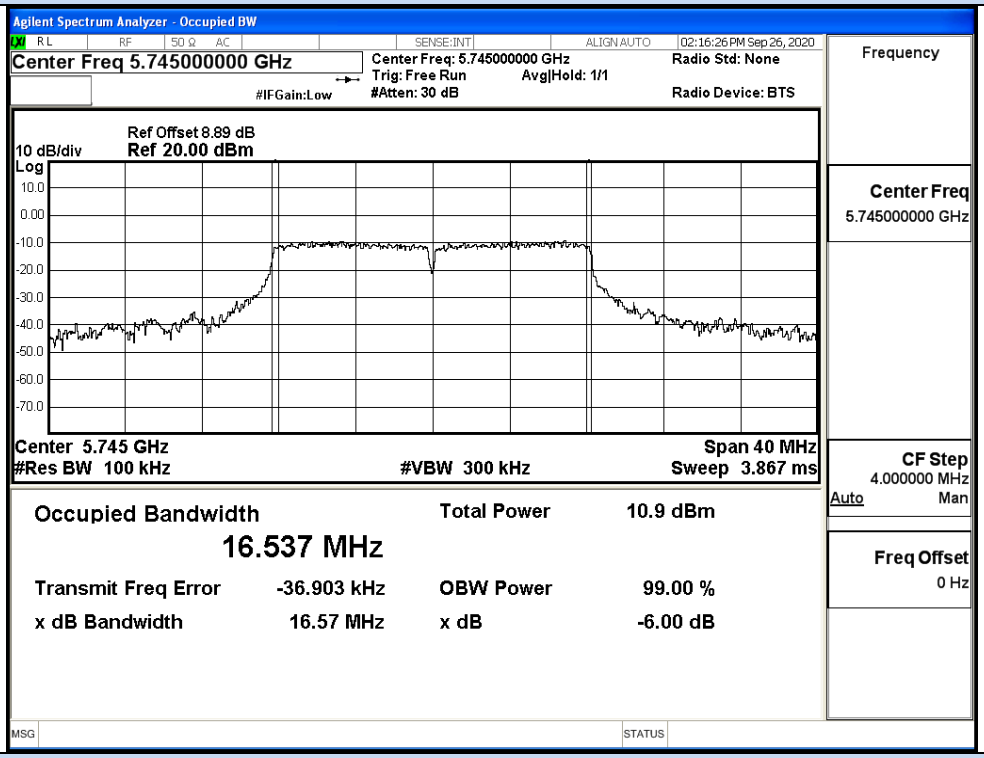


IEEE 802.11ac80 / Channel 155 / 5775MHz

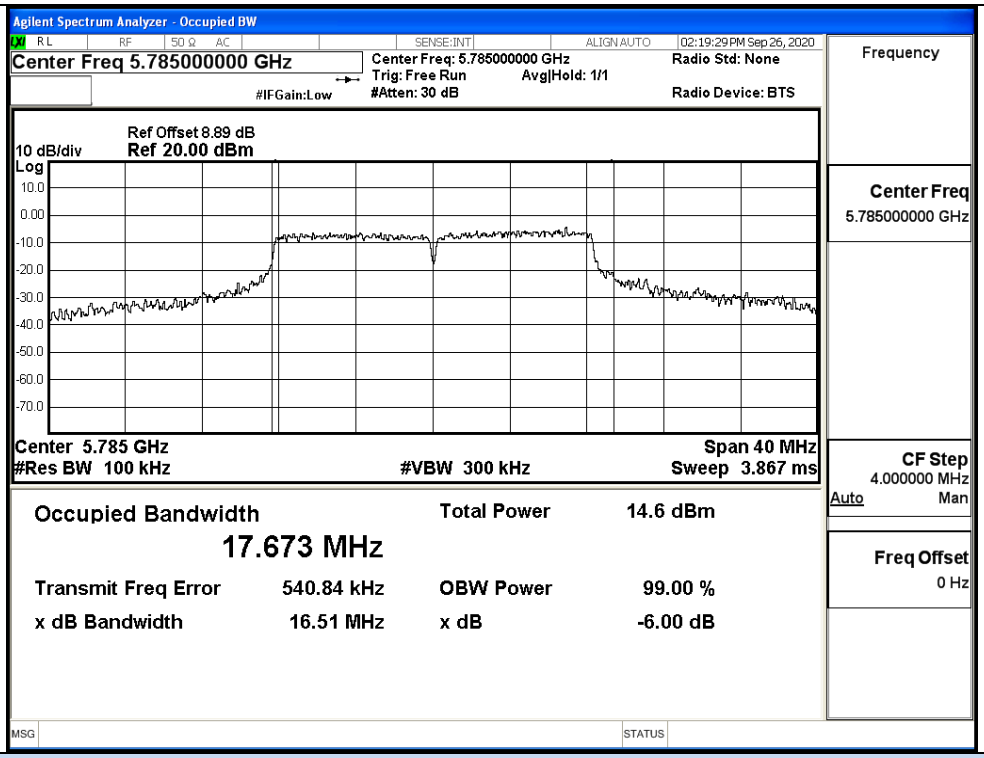
ANT 1

Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
11A	149	5745	16.57	>=0.5	Pass
	157	5785	16.51		Pass
	165	5825	16.52		Pass
11N20	149	5745	17.74	>=0.5	Pass
	157	5785	17.76		Pass
	165	5825	17.74		Pass
11N40	151	5755	36.52	>=0.5	Pass
	159	5795	36.27		Pass
11AC20	149	5745	17.73	>=0.5	Pass
	157	5785	17.78		Pass
	165	5825	17.79		Pass
11AC40	151	5755	36.55	>=0.5	Pass
	159	5795	36.28		Pass
11AC80	155	5775	74.05	>=0.5	Pass

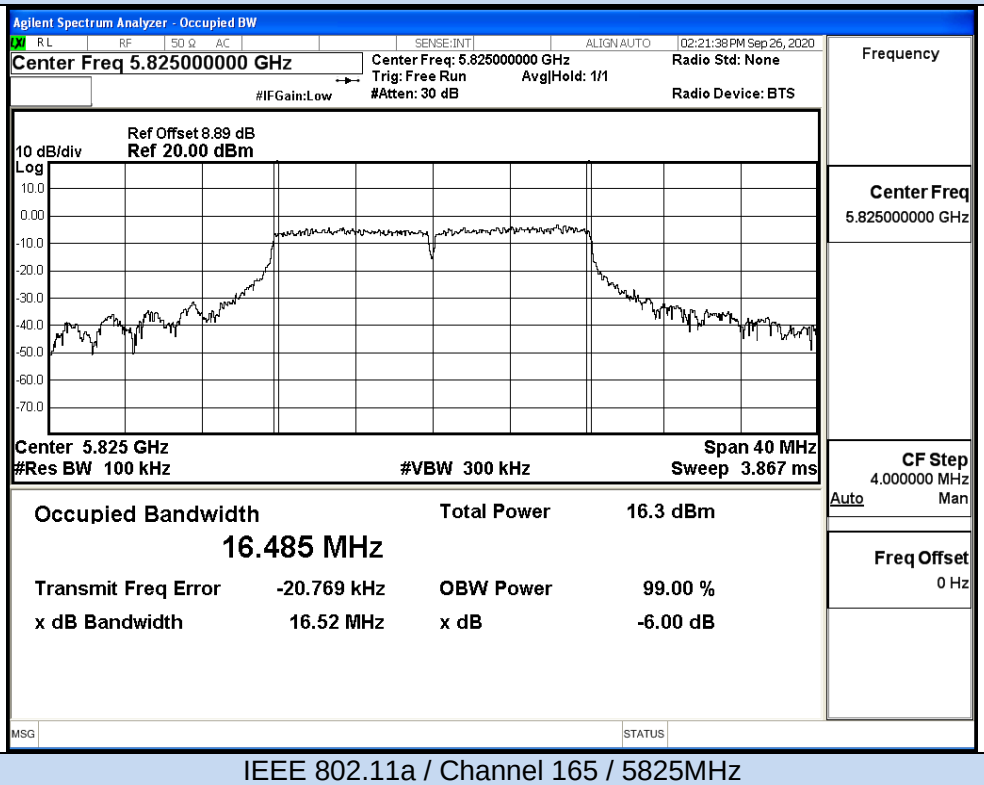
6dB Bandwidth



IEEE 802.11a / Channel 149 / 5745MHz

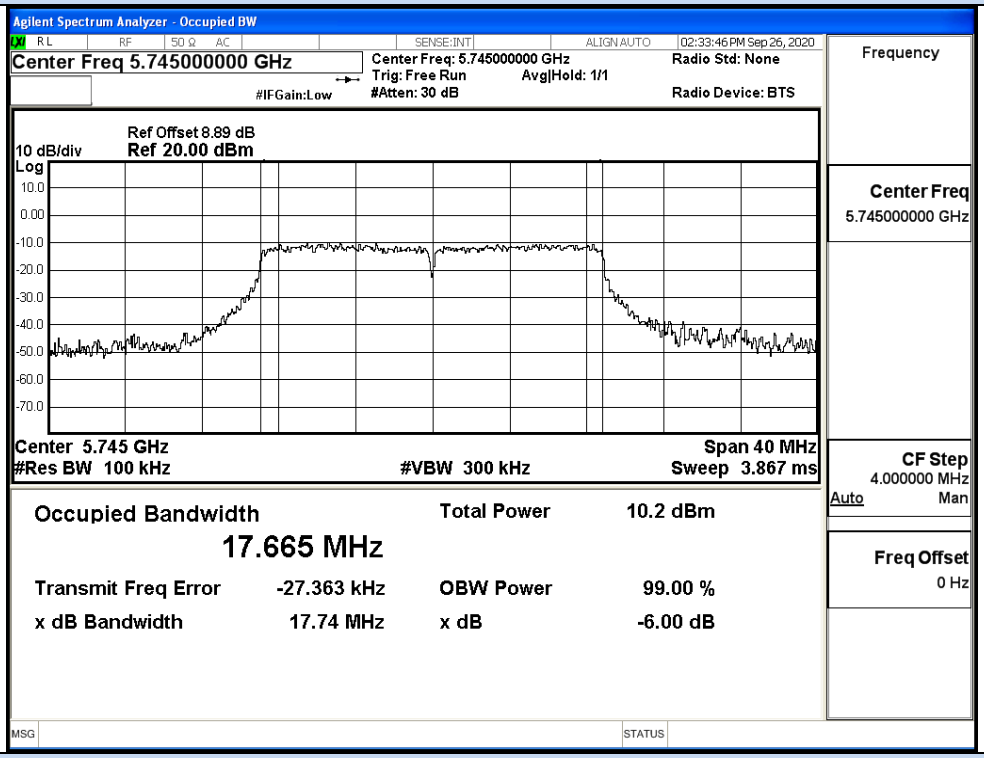


IEEE 802.11a / Channel 157 / 5785MHz

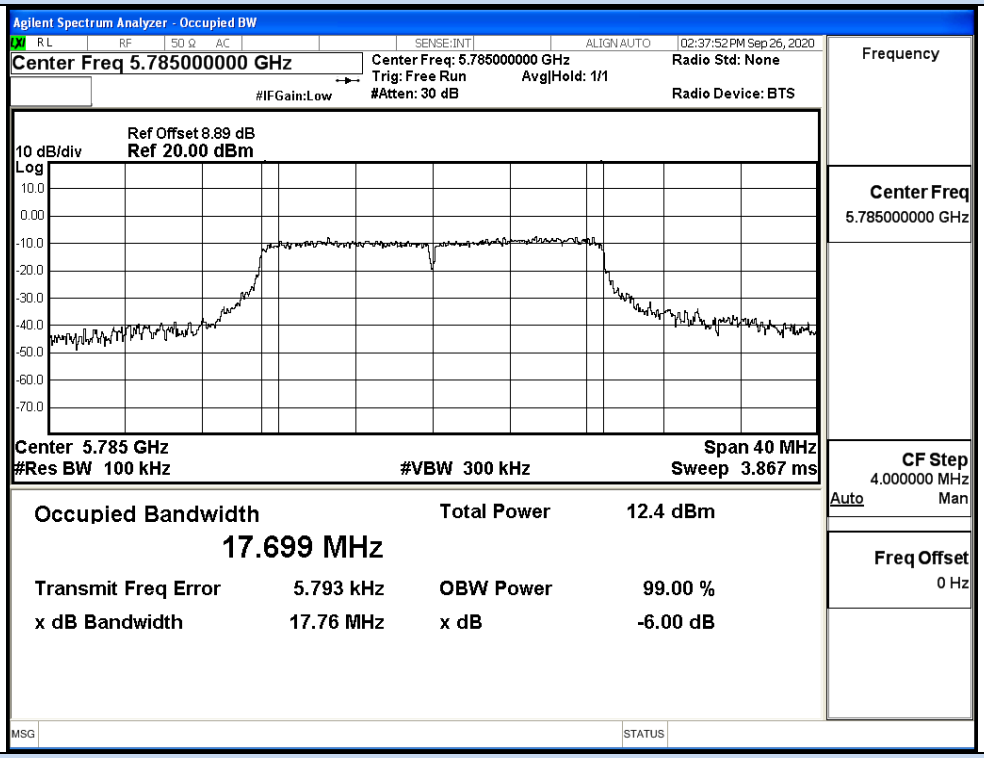


IEEE 802.11a / Channel 165 / 5825MHz

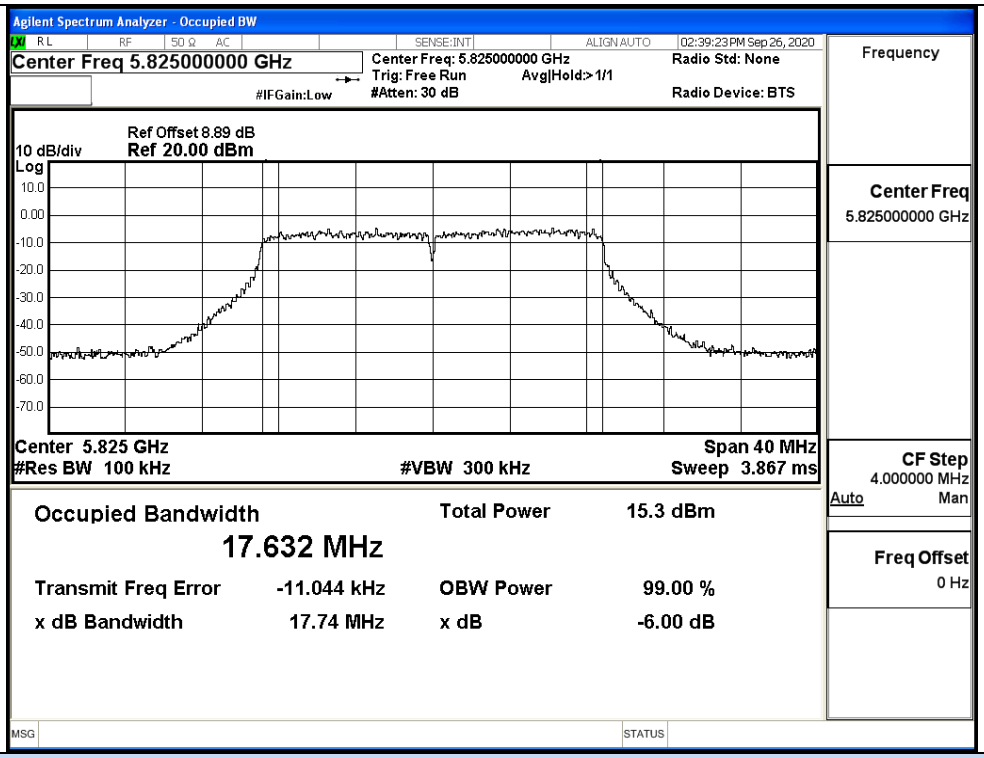
6dB Bandwidth



IEEE 802.11n20 / Channel 149 / 5745MHz

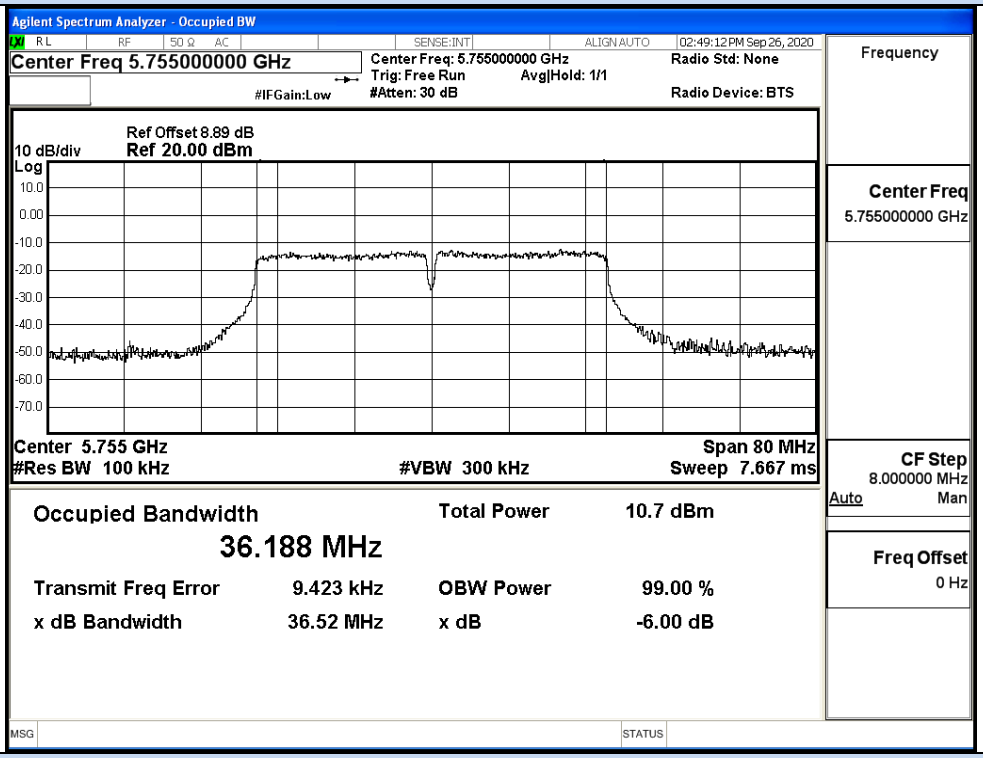


IEEE 802.11n20 / Channel 157 / 5785MHz

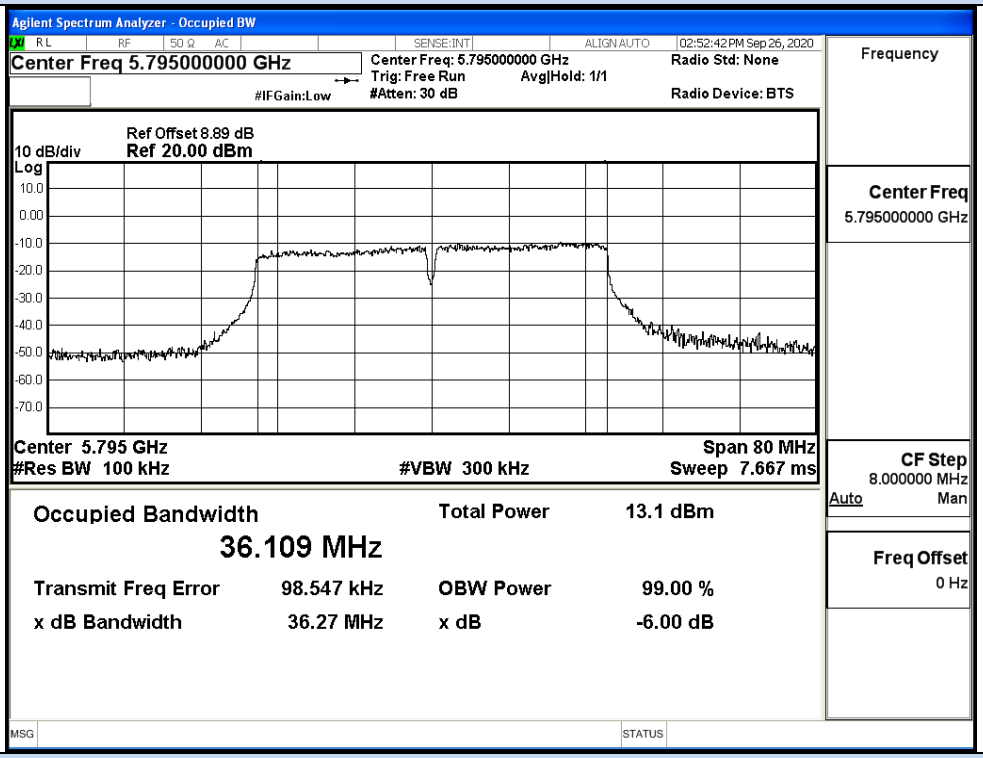


IEEE 802.11n20 / Channel 165 / 5825MHz

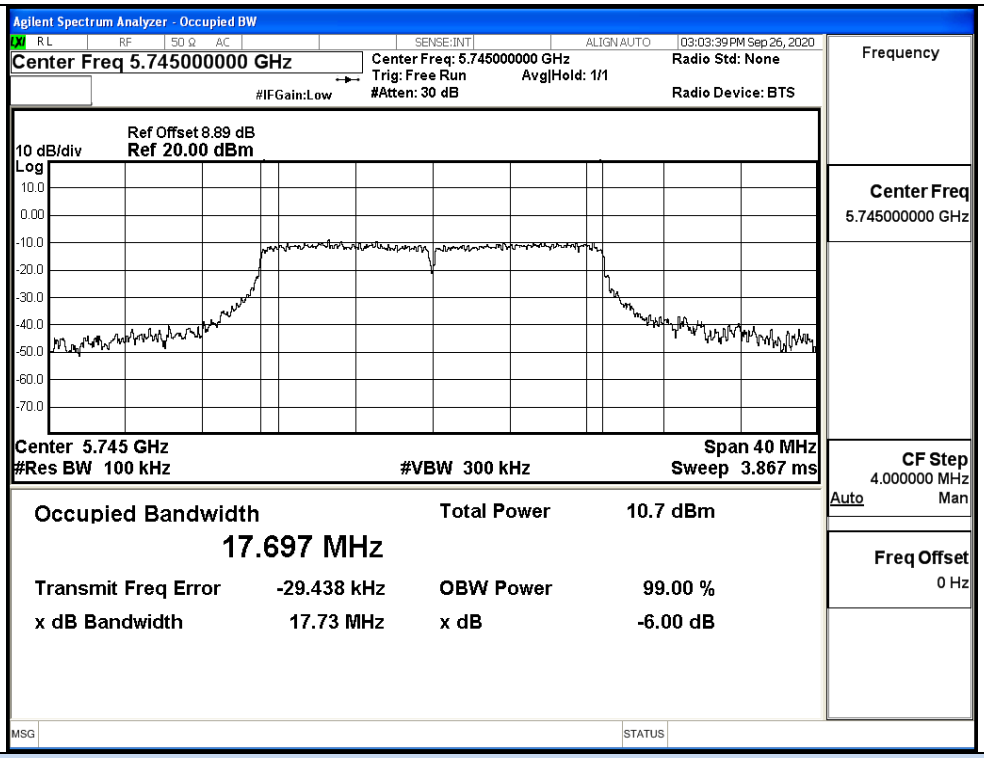
26dB Bandwidth



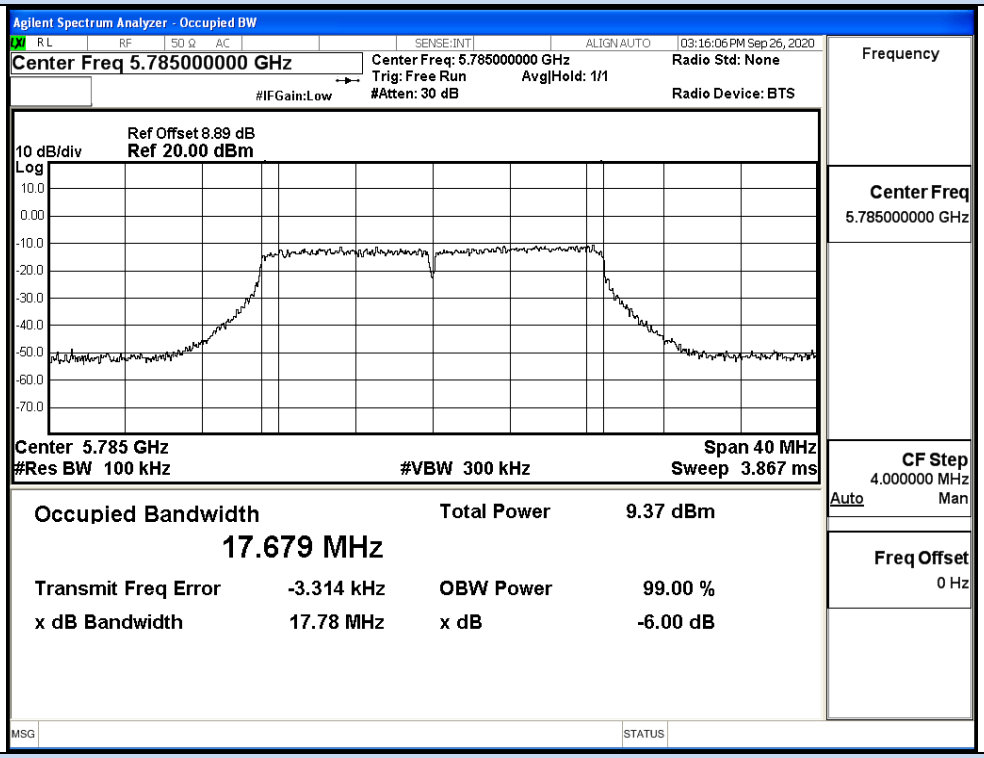
IEEE 802.11n40 / Channel 151 / 5755MHz



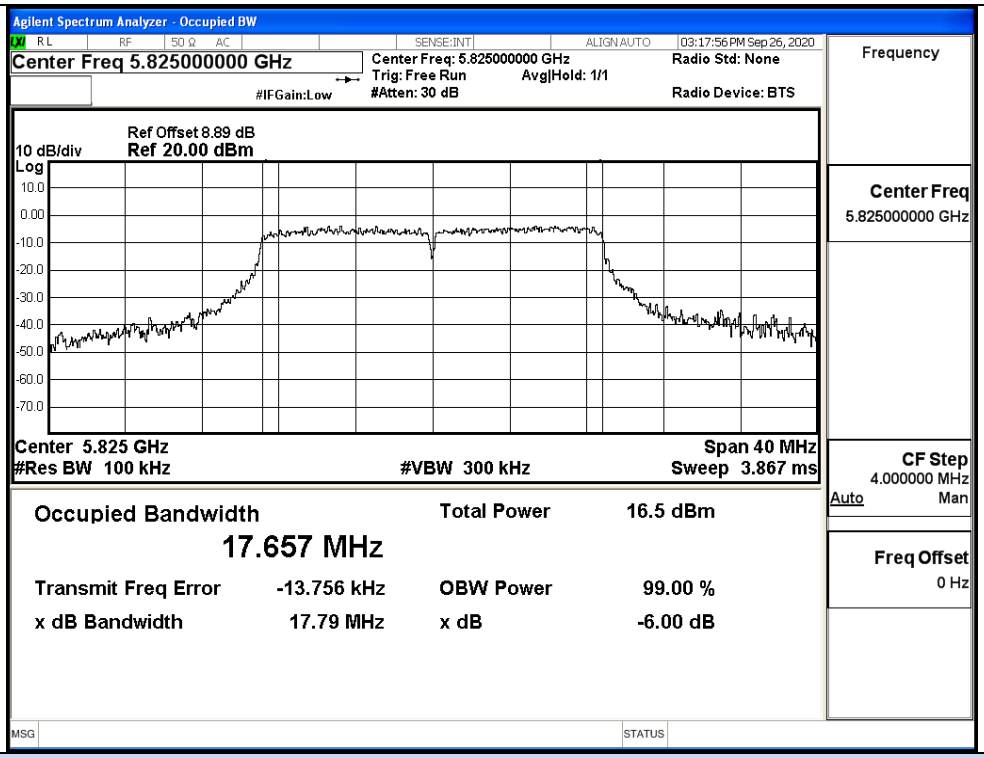
IEEE 802.11n40 / Channel 159 / 5795MHz



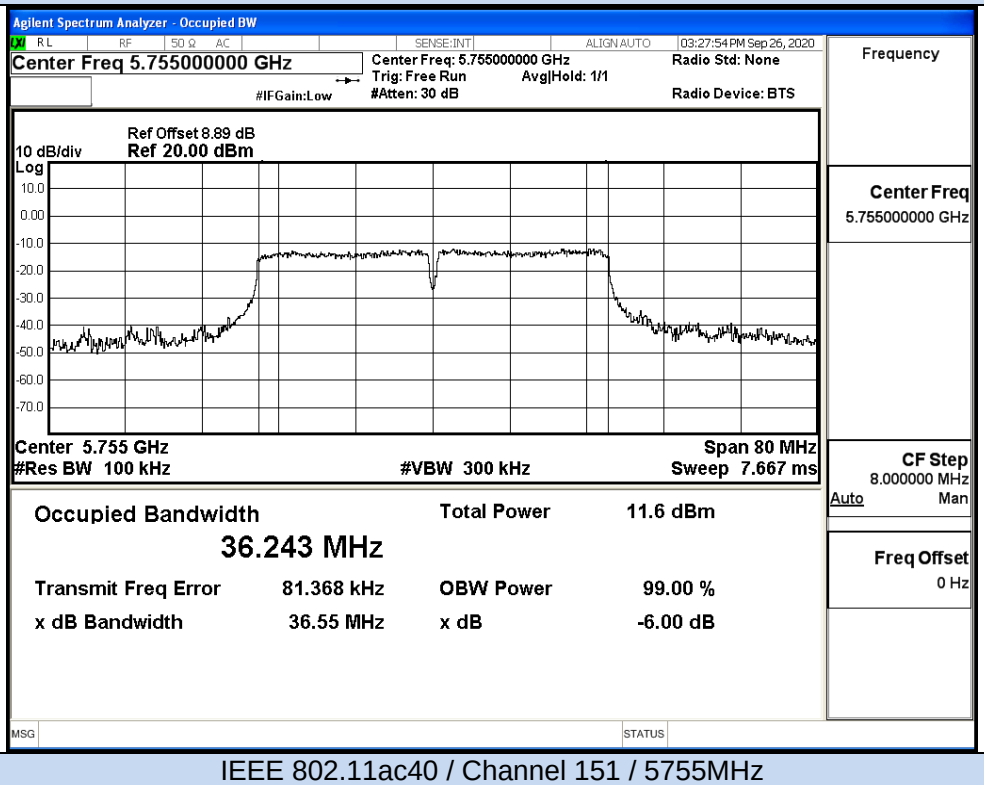
IEEE 802.11ac20 / Channel 149 / 5745MHz



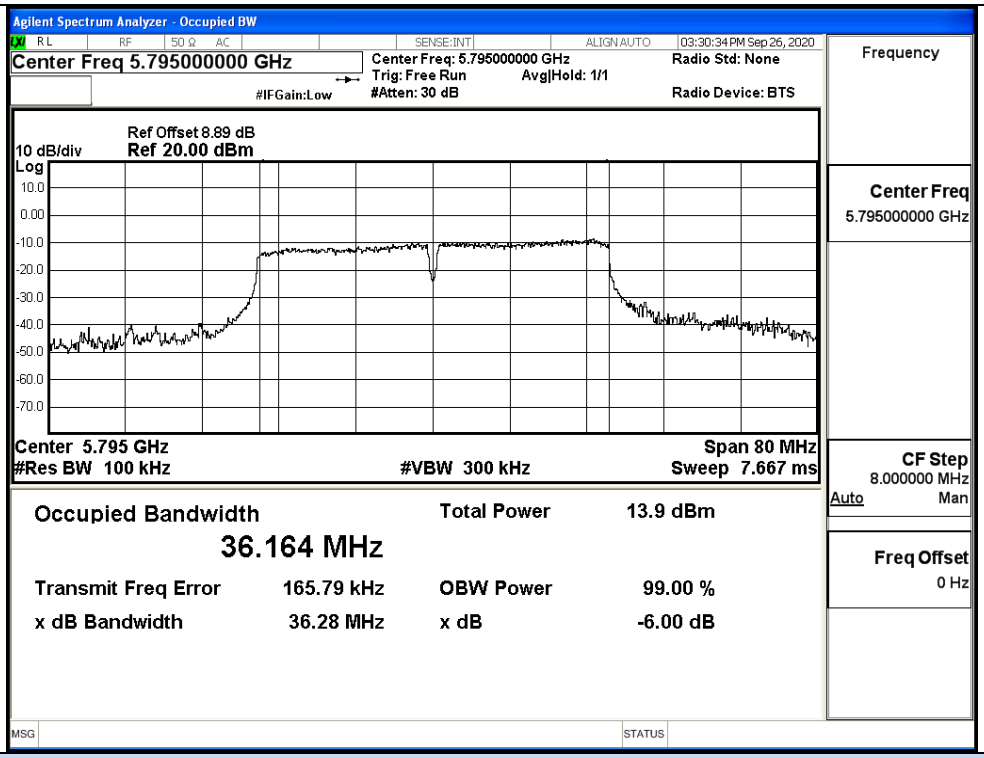
IEEE 802.11ac20 / Channel 157/ 5785MHz



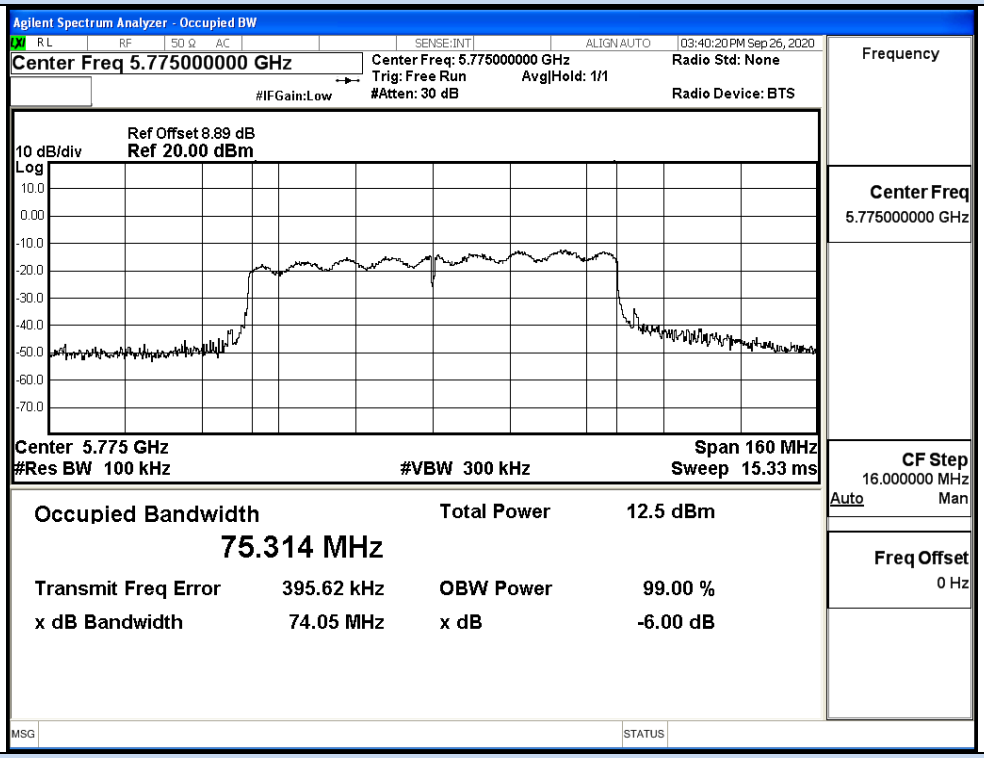
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



IEEE 802.11ac40 / Channel 159 / 5795MHz



IEEE 802.11ac80 / Channel 155 / 5775MHz

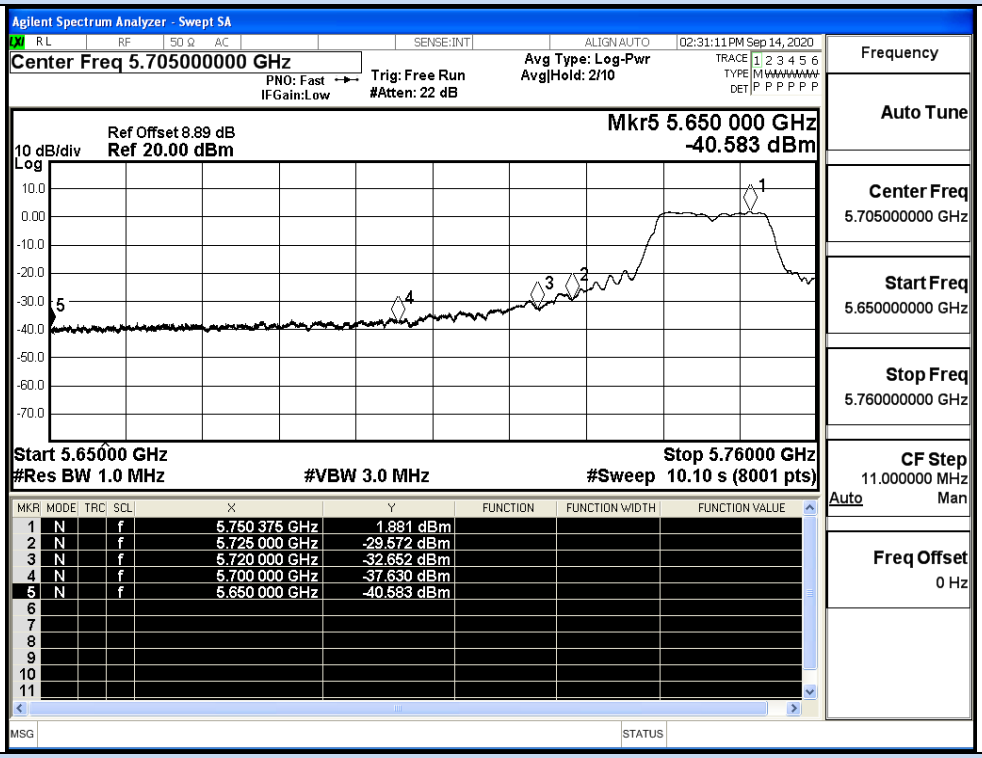
E.5 Undesirable Emissions Measurement

ANT 0

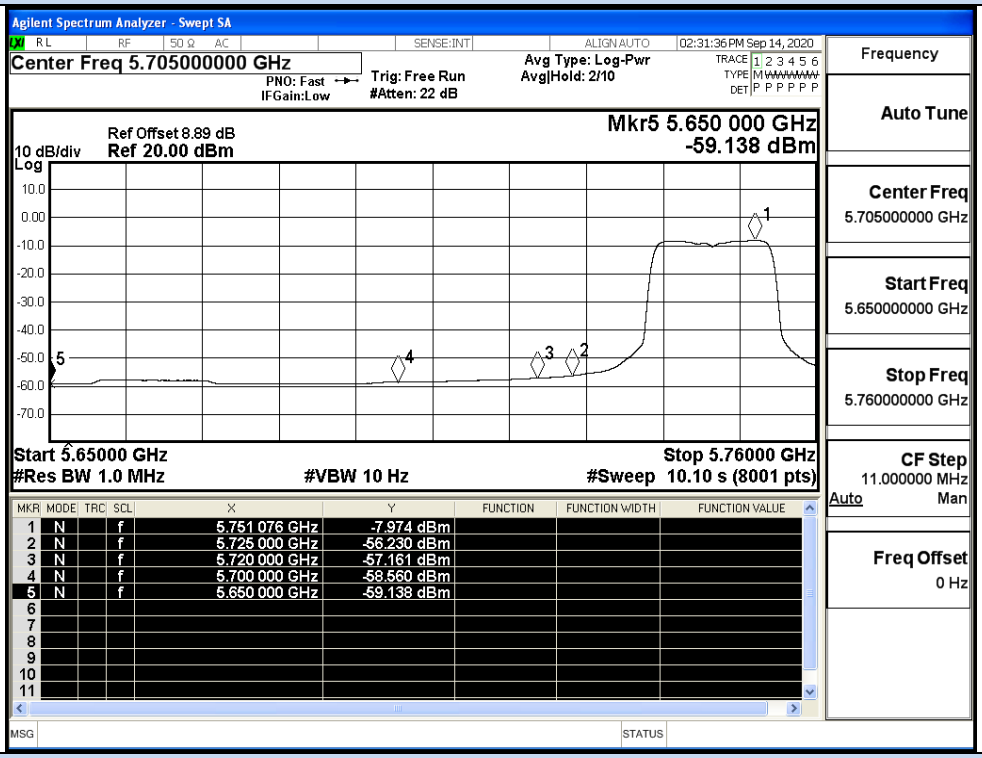
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11A	149	5650.0	-40.58	2.00	-40.58	Peak	-27.0	Pass
		5650.0	-59.14	2.00	-59.14	Average	-27.0	Pass
		5700.0	-37.63	2.00	-37.63	Peak	10	Pass
		5700.0	-58.56	2.00	-58.56	Average	10	Pass
		5720.0	-32.65	2.00	-32.65	Peak	15.6	Pass
		5720.0	-57.16	2.00	-57.16	Average	15.6	Pass
		5725.0	-29.57	2.00	-29.57	Peak	27.0	Pass
		5725.0	-56.23	2.00	-56.23	Average	27.0	Pass
	165	5850.0	-46.45	2.00	-46.45	Peak	27.0	Pass
		5850.0	-57.79	2.00	-57.79	Average	27.0	Pass
		5855.0	-47.30	2.00	-47.30	Peak	15.6	Pass
		5855.0	-58.58	2.00	-58.58	Average	15.6	Pass
		5875.0	-47.66	2.00	-47.66	Peak	10	Pass
		5875.0	-59.69	2.00	-59.69	Average	10	Pass
		5925.0	-48.19	2.00	-48.19	Peak	-27.0	Pass
		5925.0	-60.31	2.00	-60.31	Average	-27.0	Pass
11N20	149	5650.0	-49.36	2.00	-49.36	Peak	-27.0	Pass
		5650.0	-60.61	2.00	-60.61	Average	-27.0	Pass
		5700.0	-48.53	2.00	-48.53	Peak	10	Pass
		5700.0	-60.40	2.00	-60.40	Average	10	Pass
		5720.0	-48.25	2.00	-48.25	Peak	15.6	Pass
		5720.0	-60.43	2.00	-60.43	Average	15.6	Pass
		5725.0	-45.01	2.00	-45.01	Peak	27.0	Pass
		5725.0	-59.88	2.00	-59.88	Average	27.0	Pass
	165	5850.0	-46.16	2.00	-46.16	Peak	27.0	Pass
		5850.0	-57.89	2.00	-57.89	Average	27.0	Pass
		5855.0	-46.96	2.00	-46.96	Peak	15.6	Pass
		5855.0	-58.68	2.00	-58.68	Average	15.6	Pass
		5875.0	-47.59	2.00	-47.59	Peak	10	Pass
		5875.0	-59.81	2.00	-59.81	Average	10	Pass
		5925.0	-49.08	2.00	-49.08	Peak	-27.0	Pass
		5925.0	-60.45	2.00	-60.45	Average	-27.0	Pass

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11N40	151	5650.0	-48.57	2.00	-48.57	Peak	-27.0	Pass
		5650.0	-60.44	2.00	-60.44	Average	-27.0	Pass
		5700.0	-47.48	2.00	-47.48	Peak	10	Pass
		5700.0	-60.39	2.00	-60.39	Average	10	Pass
		5720.0	-46.56	2.00	-46.56	Peak	15.6	Pass
		5720.0	-59.95	2.00	-59.95	Average	15.6	Pass
		5725.0	-48.33	2.00	-48.33	Peak	27.0	Pass
		5725.0	-59.62	2.00	-59.62	Average	27.0	Pass
	159	5850.0	-45.94	2.00	-45.94	Peak	27.0	Pass
		5850.0	-57.55	2.00	-57.55	Average	27.0	Pass
		5855.0	-46.35	2.00	-46.35	Peak	15.6	Pass
		5855.0	-58.13	2.00	-58.13	Average	15.6	Pass
		5875.0	-47.97	2.00	-47.97	Peak	10	Pass
		5875.0	-59.16	2.00	-59.16	Average	10	Pass
		5925.0	-49.14	2.00	-49.14	Peak	-27.0	Pass
		5925.0	-60.10	2.00	-60.10	Average	-27.0	Pass
11AC20	149	5650.0	-48.99	2.00	-48.99	Peak	-27.0	Pass
		5650.0	-60.64	2.00	-60.64	Average	-27.0	Pass
		5700.0	-49.03	2.00	-49.03	Peak	10	Pass
		5700.0	-60.49	2.00	-60.49	Average	10	Pass
		5720.0	-48.65	2.00	-48.65	Peak	15.6	Pass
		5720.0	-60.53	2.00	-60.53	Average	15.6	Pass
		5725.0	-48.45	2.00	-48.45	Peak	27.0	Pass
		5725.0	-59.98	2.00	-59.98	Average	27.0	Pass
	165	5850.0	-45.61	2.00	-45.61	Peak	27.0	Pass
		5850.0	-57.75	2.00	-57.75	Average	27.0	Pass
		5855.0	-46.74	2.00	-46.74	Peak	15.6	Pass
		5855.0	-58.63	2.00	-58.63	Average	15.6	Pass
		5875.0	-47.25	2.00	-47.25	Peak	10	Pass
		5875.0	-59.83	2.00	-59.83	Average	10	Pass
		5925.0	-49.12	2.00	-49.12	Peak	-27.0	Pass
		5925.0	-60.49	2.00	-60.49	Average	-27.0	Pass
11AC40	151	5650.0	-48.68	2.00	-48.68	Peak	-27.0	Pass
		5650.0	-60.50	2.00	-60.50	Average	-27.0	Pass
		5700.0	-48.82	2.00	-48.82	Peak	10	Pass
		5700.0	-60.41	2.00	-60.41	Average	10	Pass
		5720.0	-48.37	2.00	-48.37	Peak	15.6	Pass
		5720.0	-60.04	2.00	-60.04	Average	15.6	Pass
		5725.0	-47.59	2.00	-47.59	Peak	27.0	Pass
		5725.0	-59.75	2.00	-59.75	Average	27.0	Pass
	159	5850.0	-46.54	2.00	-46.54	Peak	27.0	Pass
		5850.0	-57.55	2.00	-57.55	Average	27.0	Pass
		5855.0	-46.42	2.00	-46.42	Peak	15.6	Pass
		5855.0	-58.20	2.00	-58.20	Average	15.6	Pass
		5875.0	-48.23	2.00	-48.23	Peak	10	Pass
		5875.0	-59.23	2.00	-59.23	Average	10	Pass
		5925.0	-48.20	2.00	-48.20	Peak	-27.0	Pass
		5925.0	-60.13	2.00	-60.13	Average	-27.0	Pass
11AC80	155	5725.0	-37.97	2.00	-37.97	Peak	27.0	Pass
		5720.0	-37.61	2.00	-37.61	Peak	15.6	Pass
		5700.0	-45.07	2.00	-45.07	Peak	10	Pass
		5650.0	-48.52	2.00	-48.52	Peak	-27.0	Pass
		5725.0	-54.51	2.00	-54.51	Average	27.0	Pass
		5720.0	-55.39	2.00	-55.39	Average	15.6	Pass
		5700.0	-58.21	2.00	-58.21	Average	10	Pass
		5650.0	-59.68	2.00	-59.68	Average	-27.0	Pass
		5850.0	-37.97	2.00	-37.97	Peak	27.0	Pass
		5855.0	-37.61	2.00	-37.61	Peak	15.6	Pass
		5875.0	-45.07	2.00	-45.07	Peak	10	Pass
		5925.0	-48.52	2.00	-48.52	Peak	-27.0	Pass
		5850.0	-54.51	2.00	-54.51	Average	27.0	Pass
		5855.0	-55.39	2.00	-55.39	Average	15.6	Pass
		5875.0	-58.21	2.00	-58.21	Average	10	Pass
		5925.0	-59.68	2.00	-59.68	Average	-27.0	Pass

Undesirable Emissions Measurement

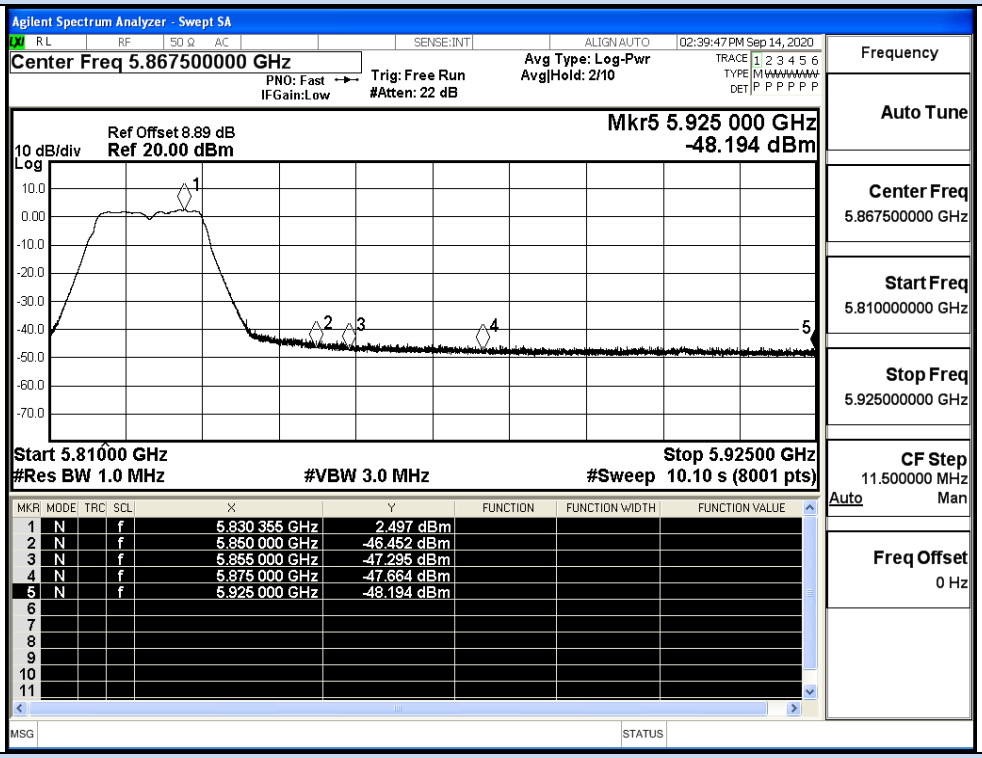


IEEE 802.11a / Channel 149 / 5745MHz / Peak

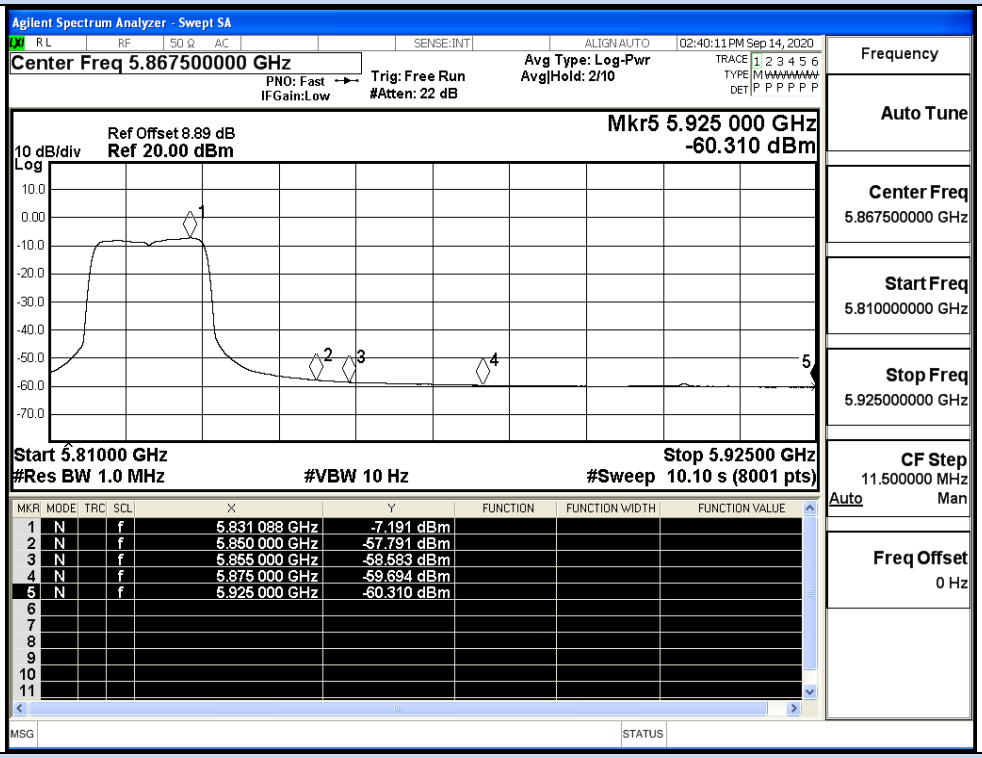


IEEE 802.11a / Channel 148 / 5745MHz / Average

Undesirable Emissions Measurement

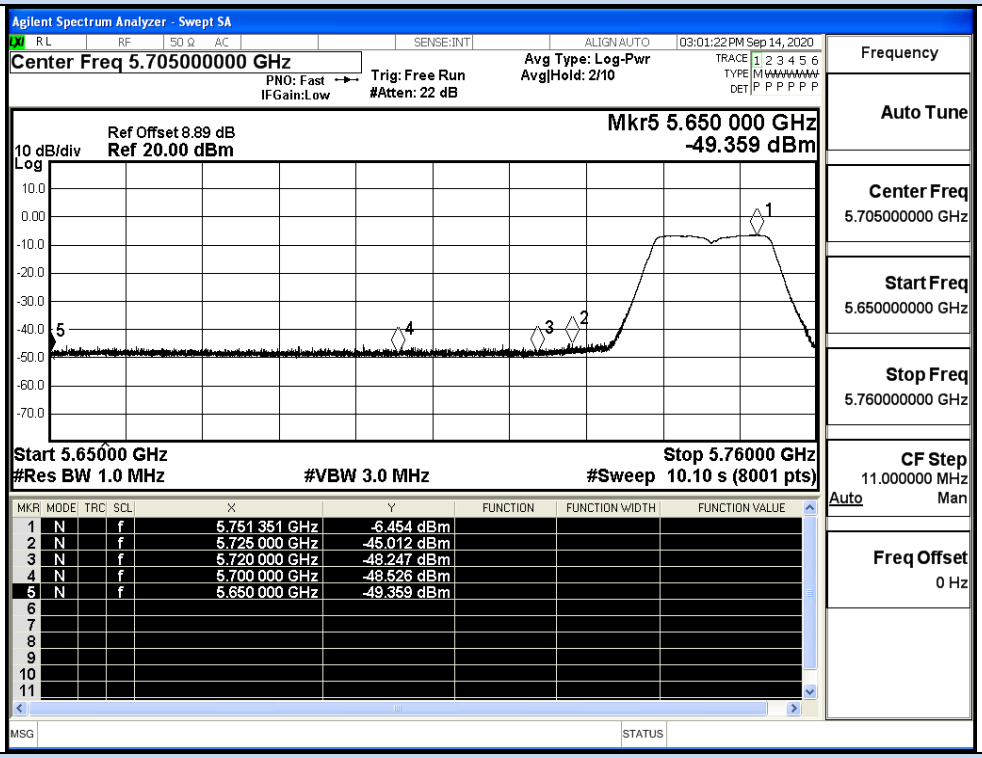


IEEE 802.11a / Channel 165 / 5825MHz / Peak

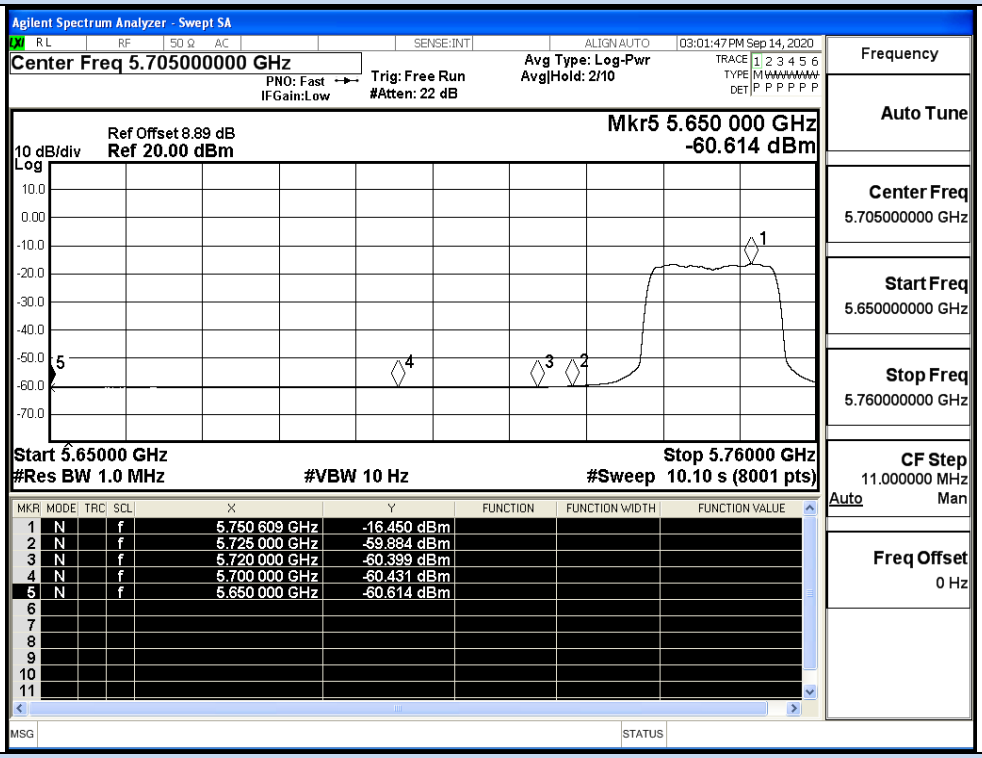


IEEE 802.11a / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

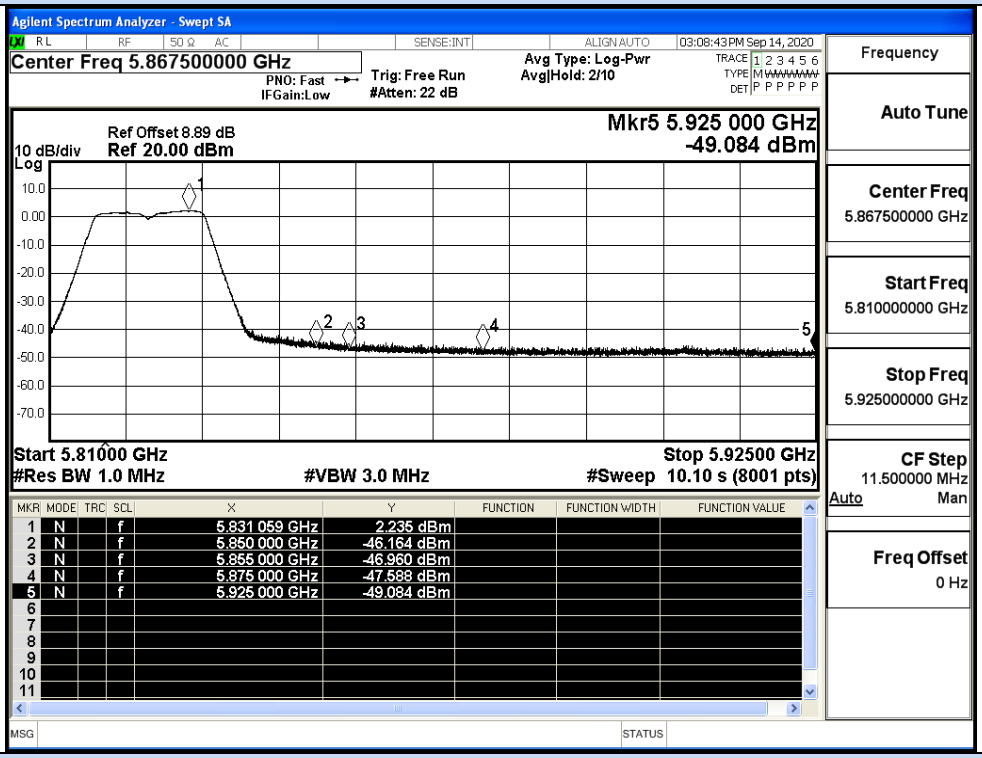


IEEE 802.11n20 / Channel 149 / 5745MHz / Peak

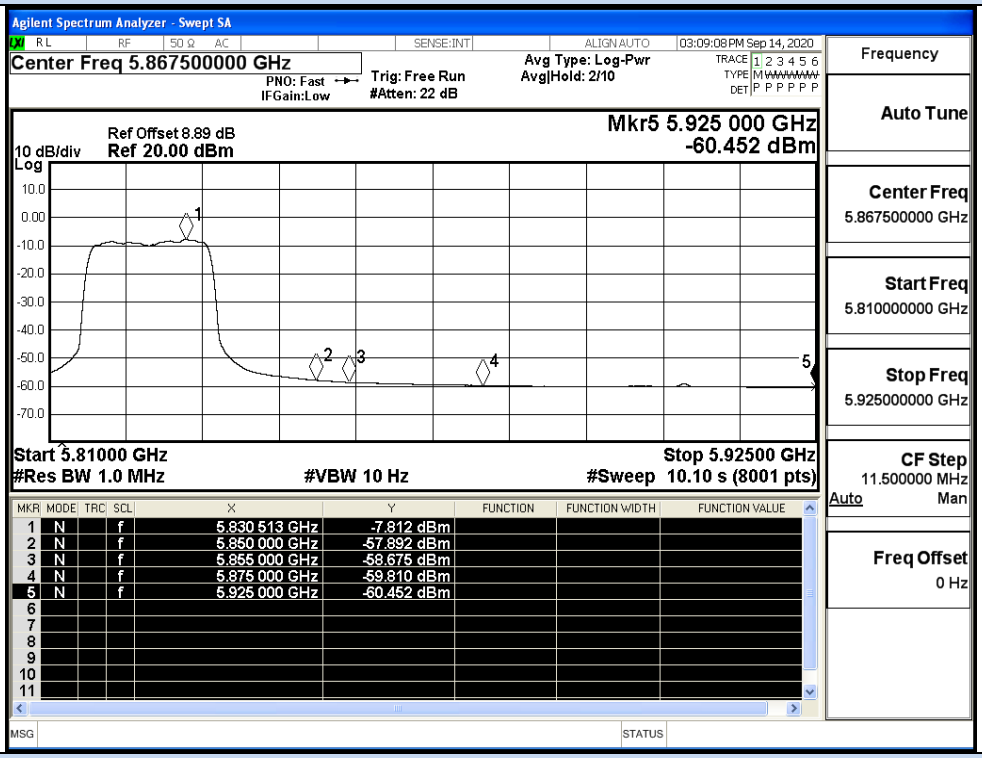


IEEE 802.11n20 / Channel 149 / 5745MHz / Average

Undesirable Emissions Measurement

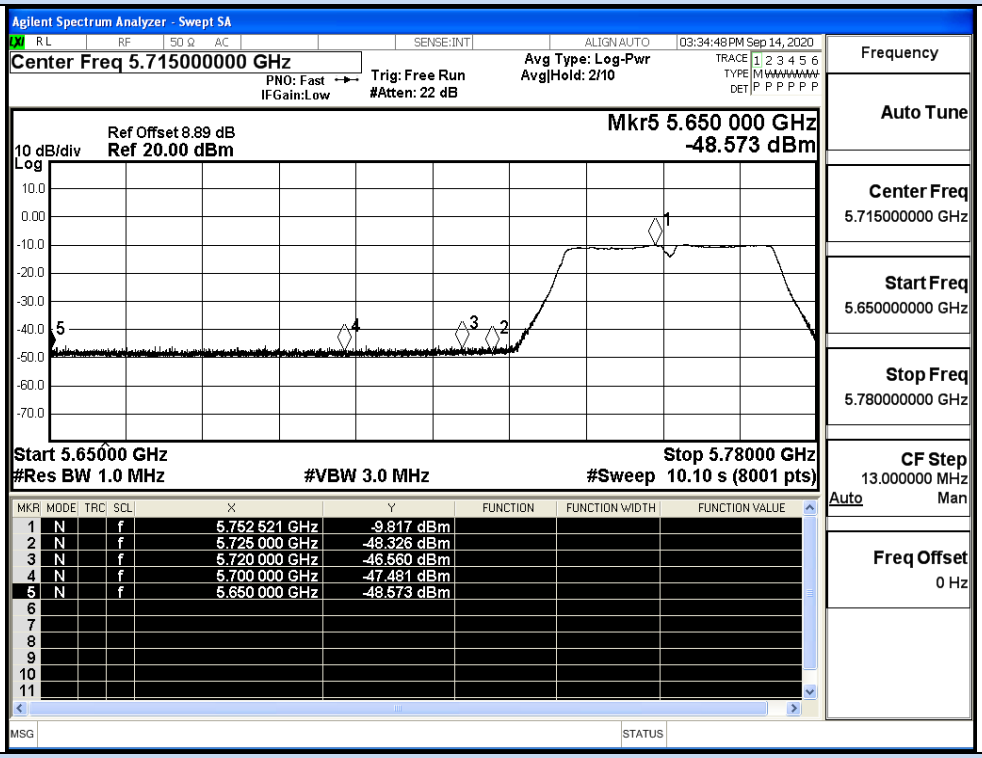


IEEE 802.11n20 / Channel 165 / 5825MHz / Peak

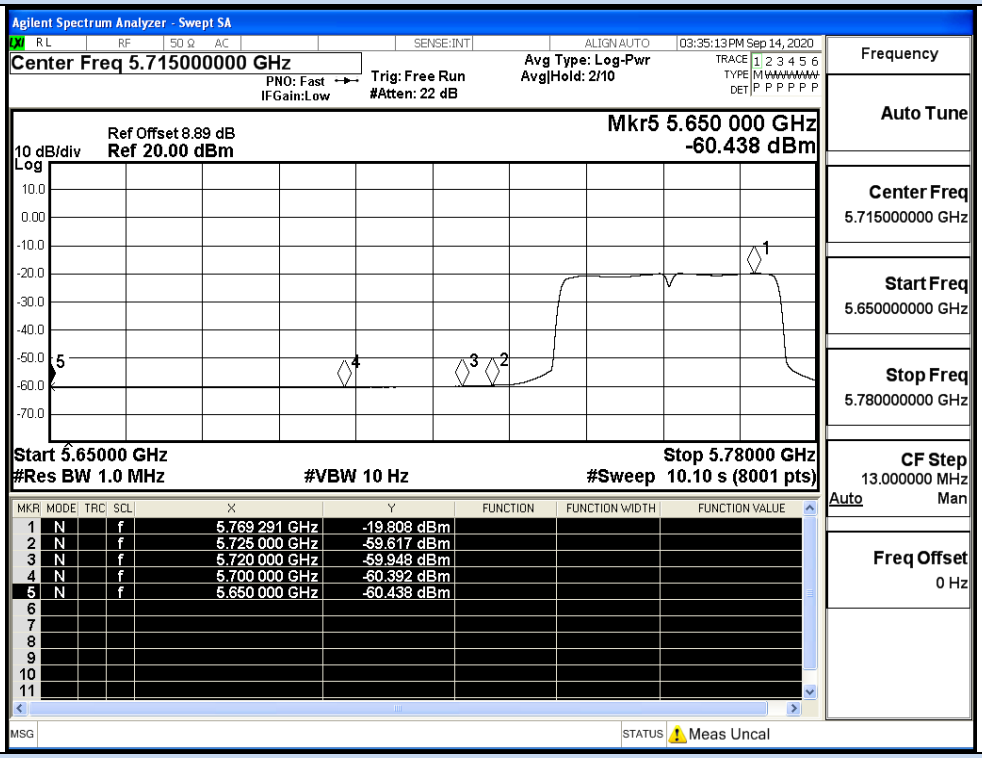


IEEE 802.11n20 / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

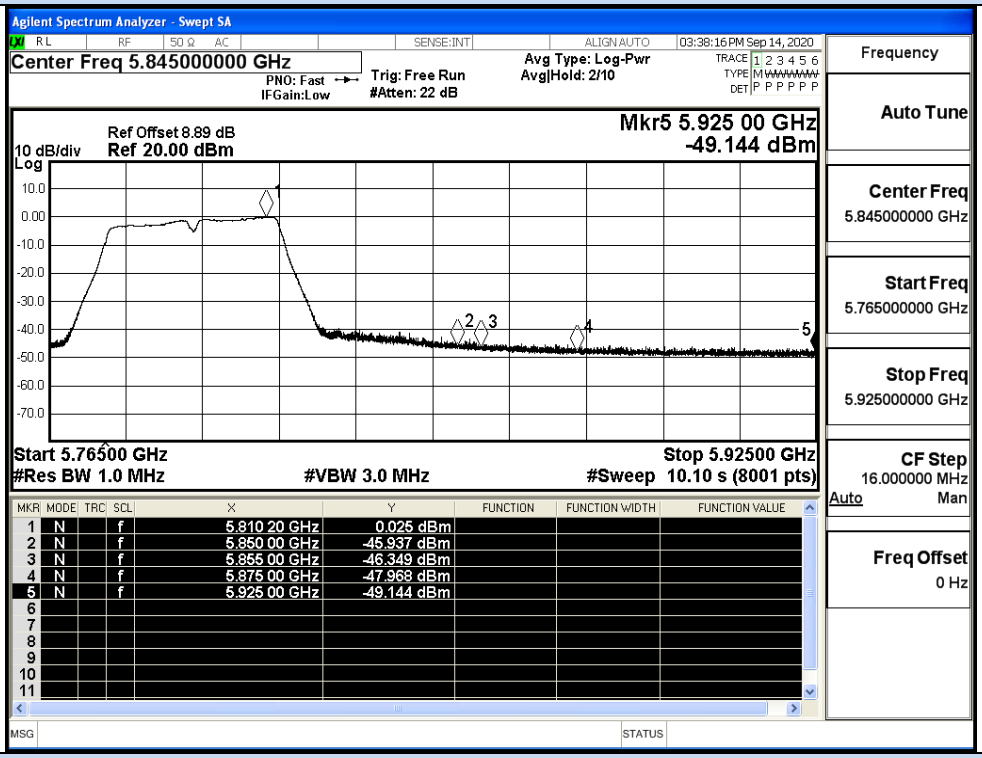


IEEE 802.11n40 / Channel 151 / 5755MHz / Peak

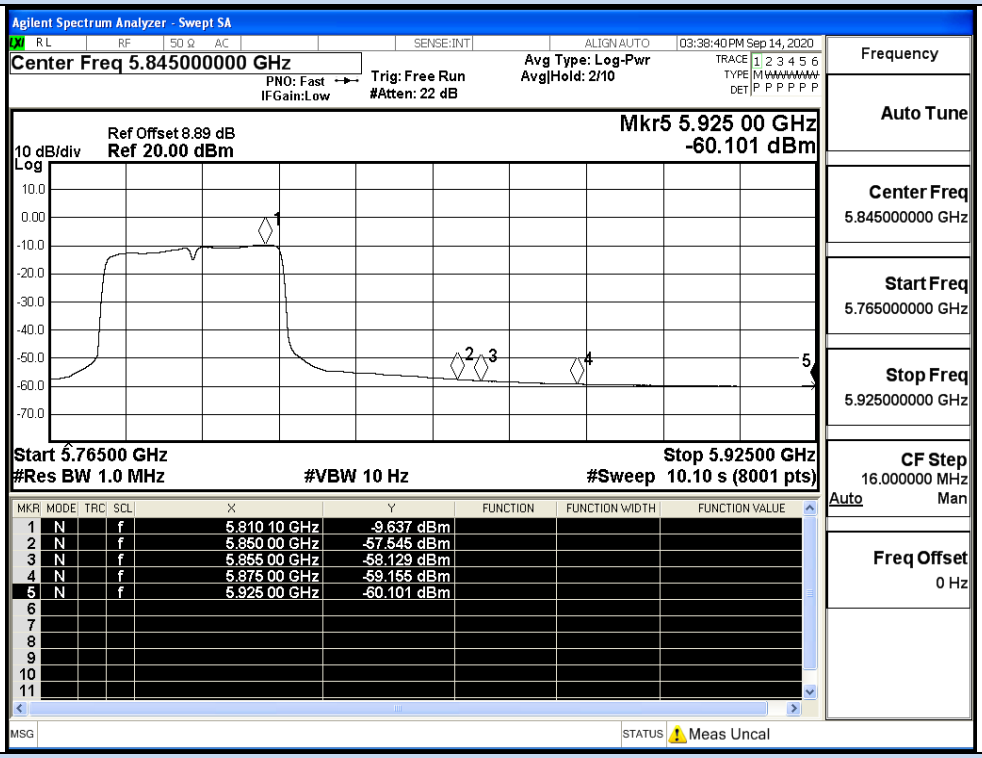


IEEE 802.11n40 / Channel 151 / 5755MHz / Average

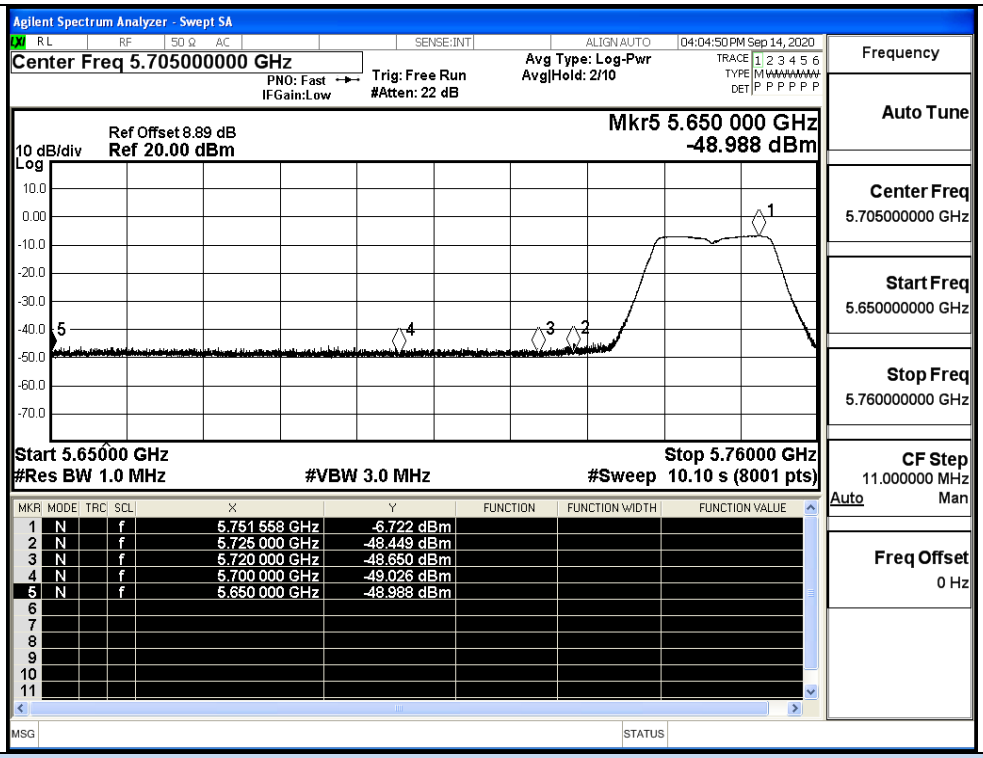
Undesirable Emissions Measurement



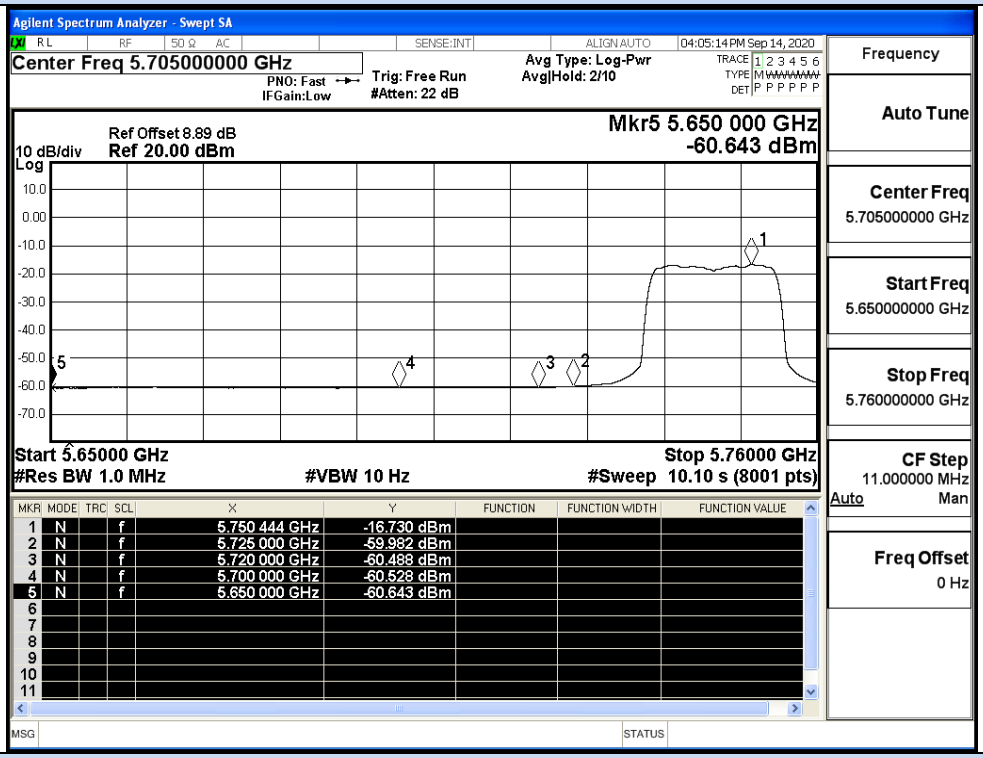
IEEE 802.11n40 / Channel 159 / 5795MHz / Peak



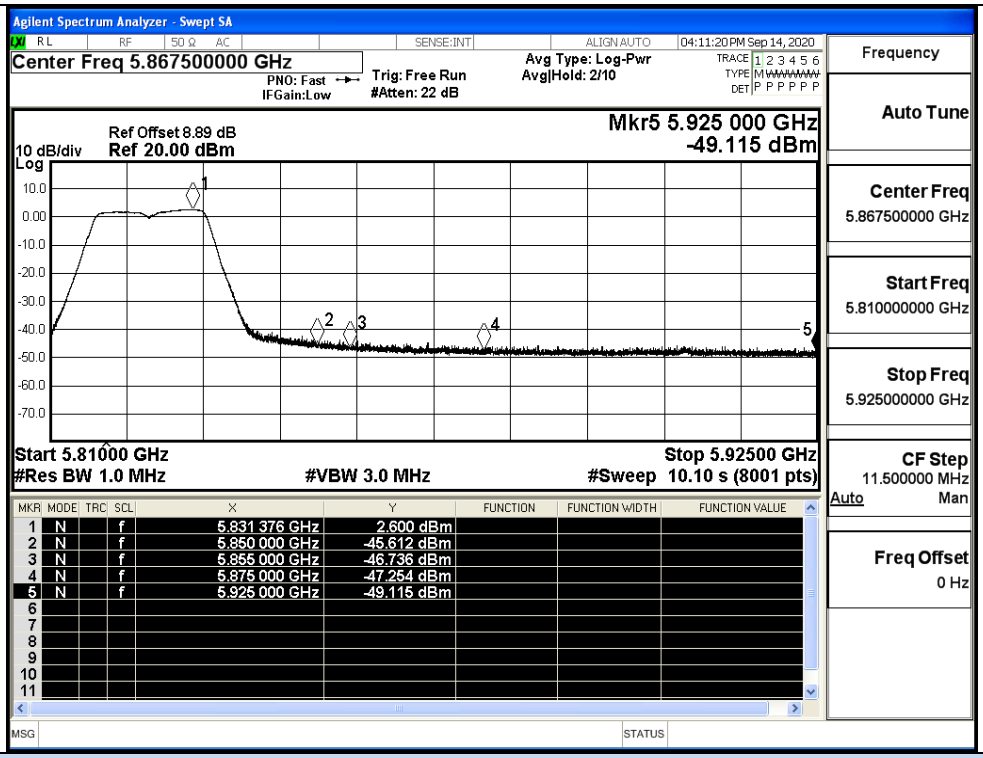
IEEE 802.11n40 / Channel 159 / 5795MHz / Average



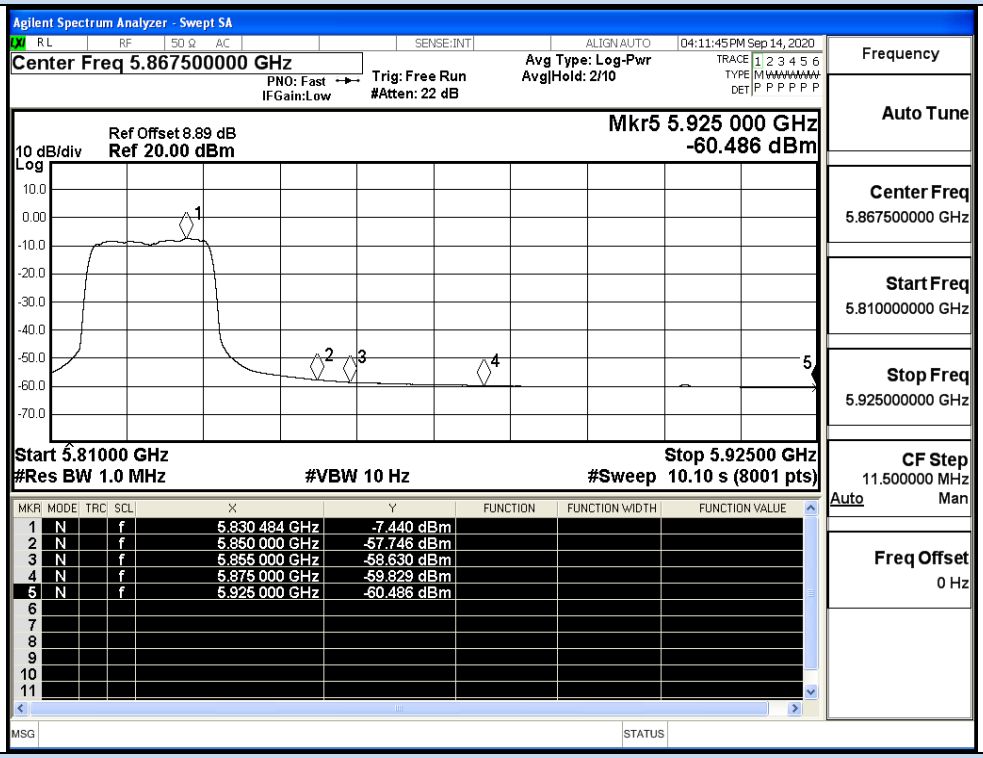
IEEE 802.11ac20 / Channel 149 / 5745MHz / Peak



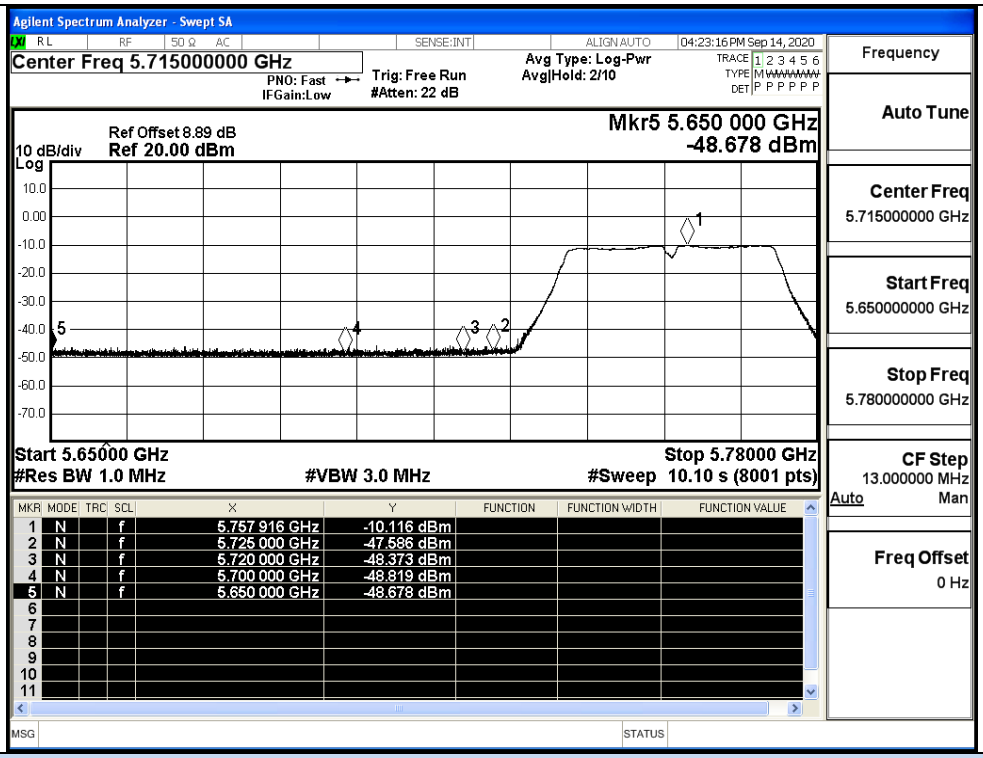
IEEE 802.11ac20 / Channel 149 / 5745MHz / Average



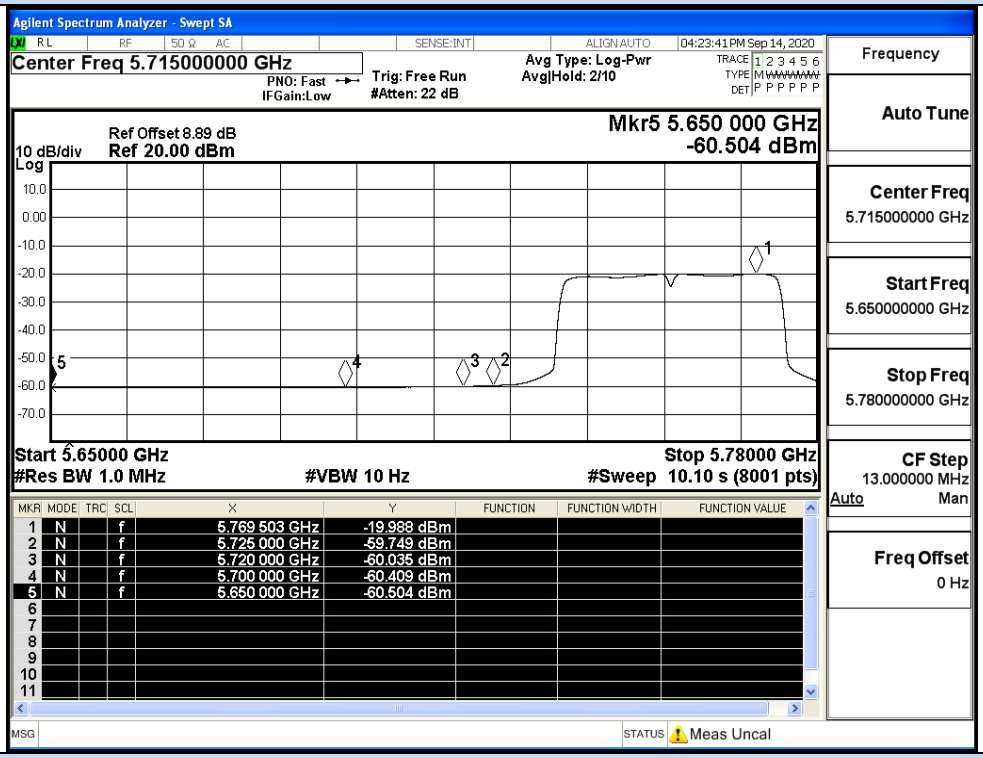
IEEE 802.11ac20 / Channel 165 / 5825MHz / Peak



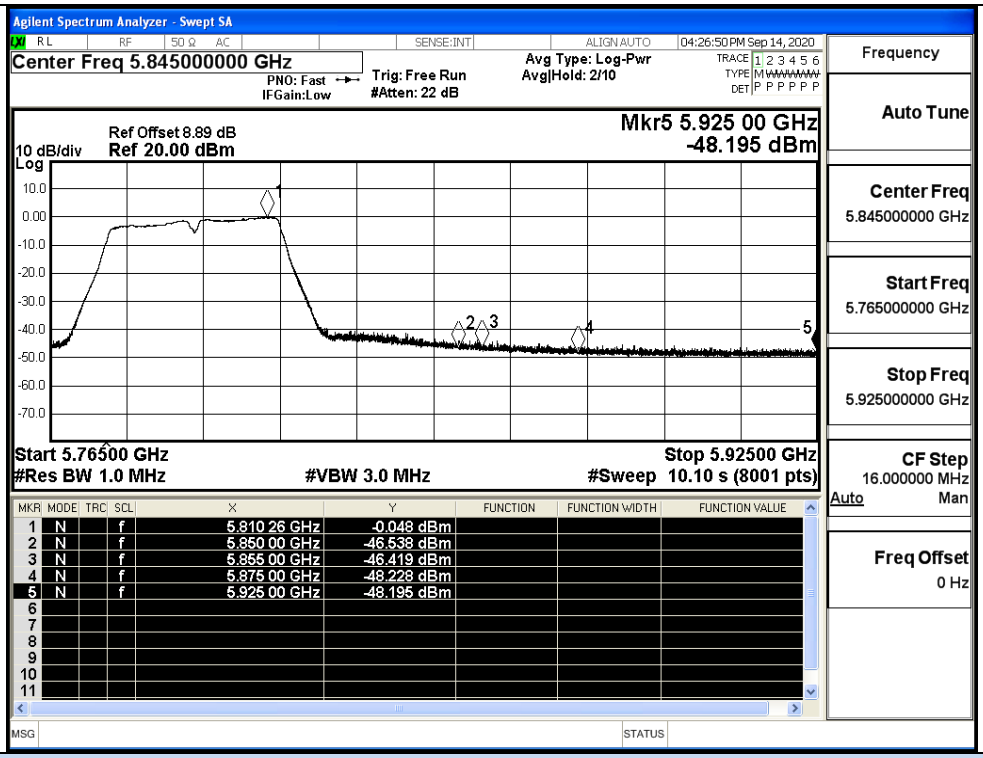
IEEE 802.11ac20 / Channel 165 / 5825MHz / Average



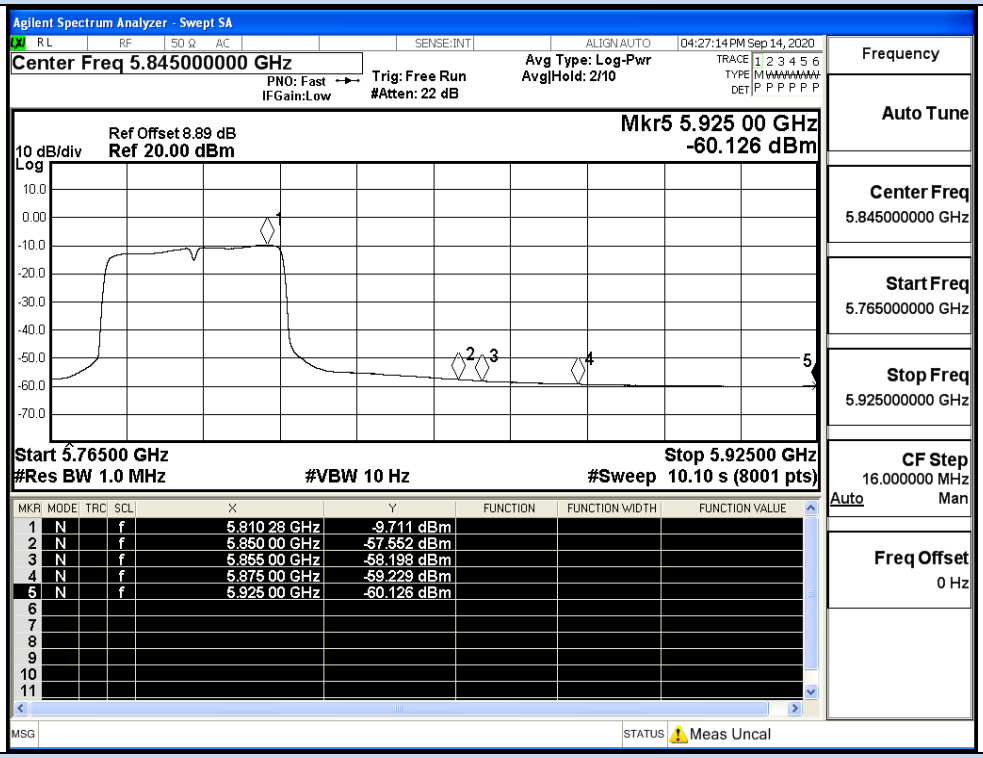
IEEE 802.11ac40 / Channel 151 / 5755MHz / Peak



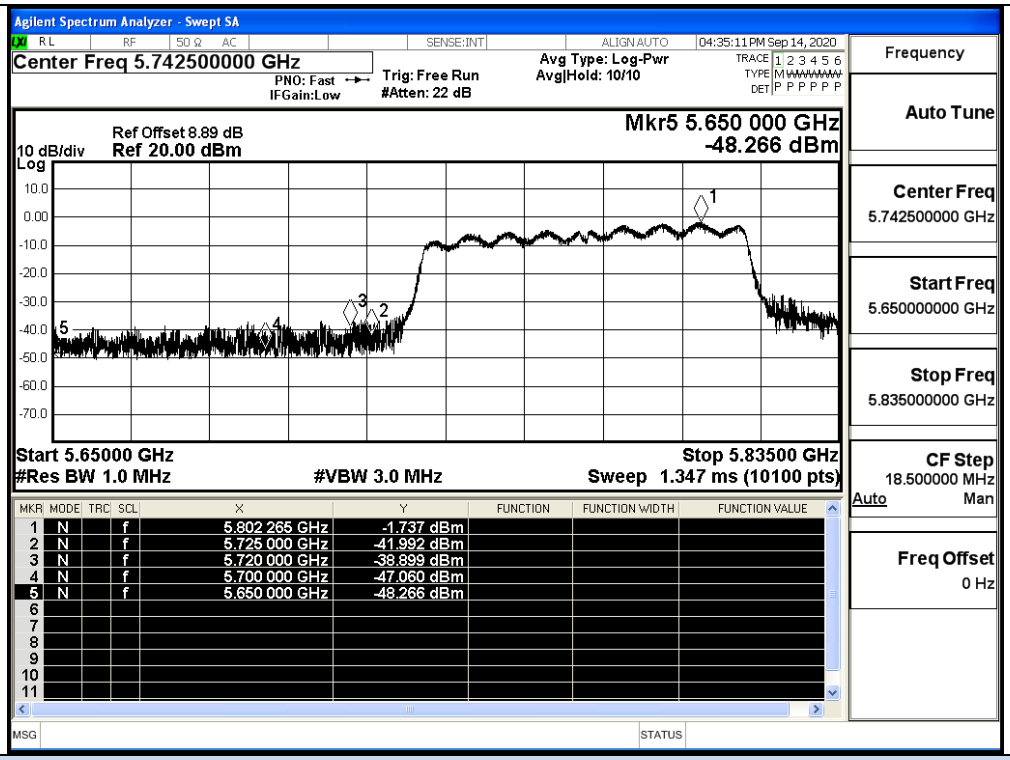
IEEE 802.11ac40 / Channel 151 / 5755MHz / Average



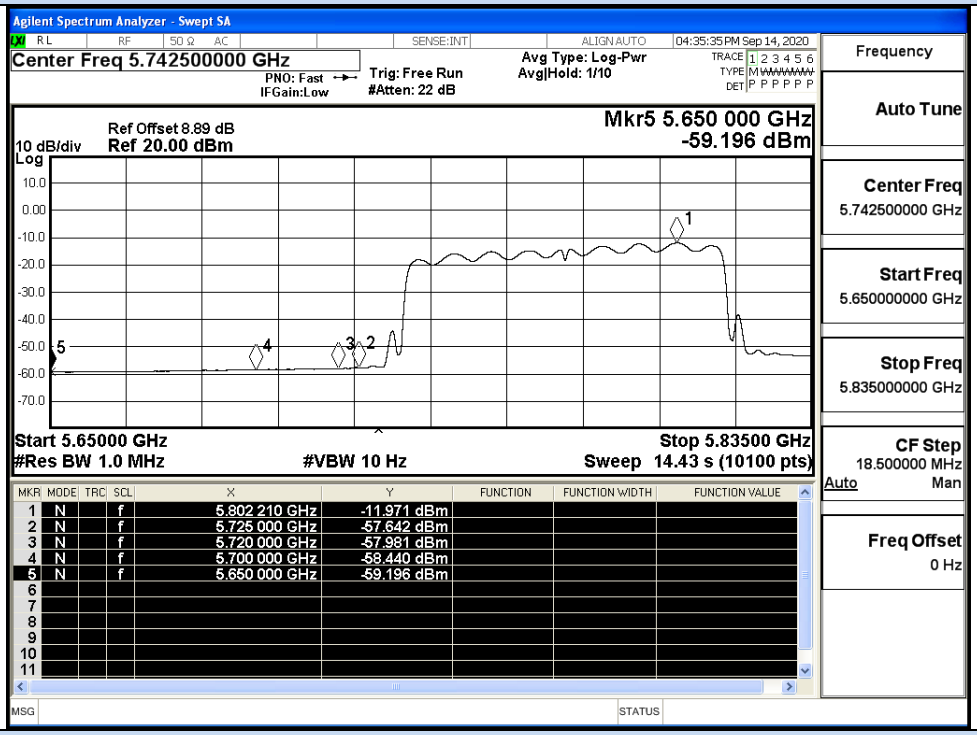
IEEE 802.11ac40 / Channel 159 / 5795MHz / Peak



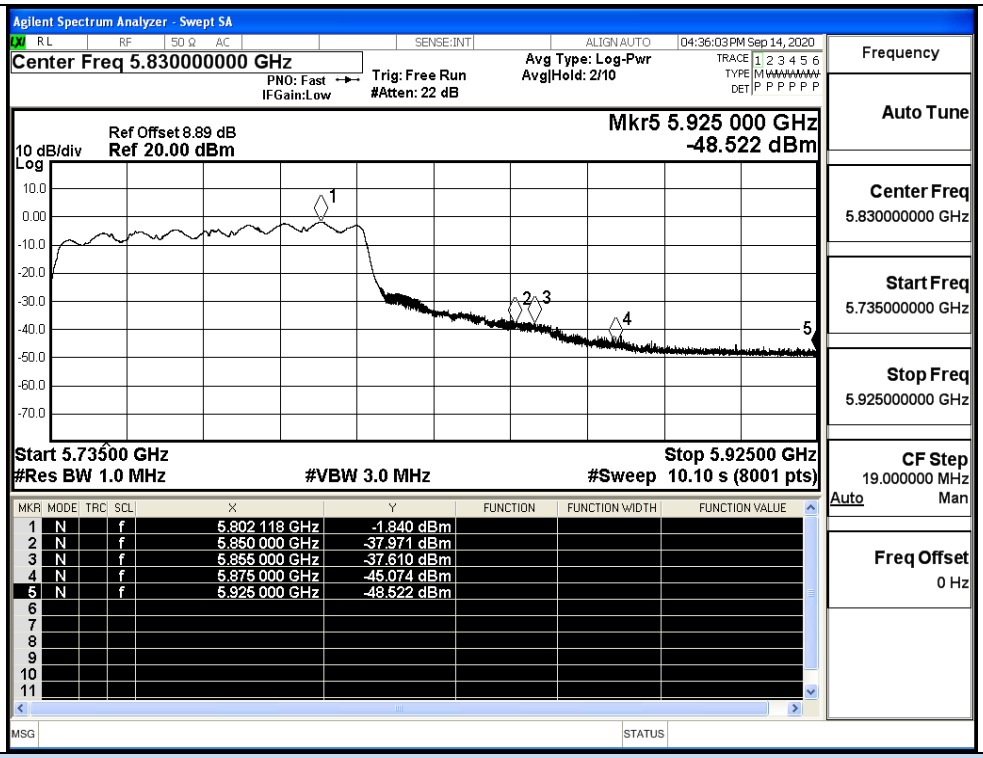
IEEE 802.11ac40 / Channel 159 / 5795MHz / Average



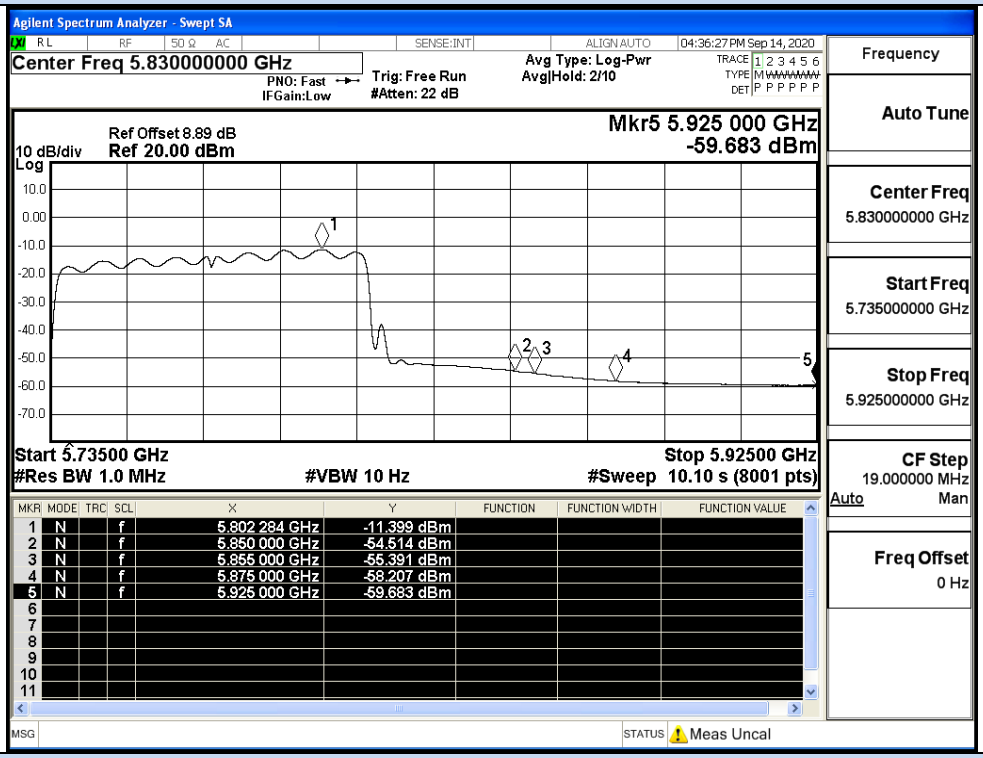
IEEE 802.11ac80 / Channel 155 / 5775MHz / Peak



IEEE 802.11ac80 / Channel 155 / 5775MHz / Average



IEEE 802.11ac80 / Channel 155/ 5775MHz / Peak



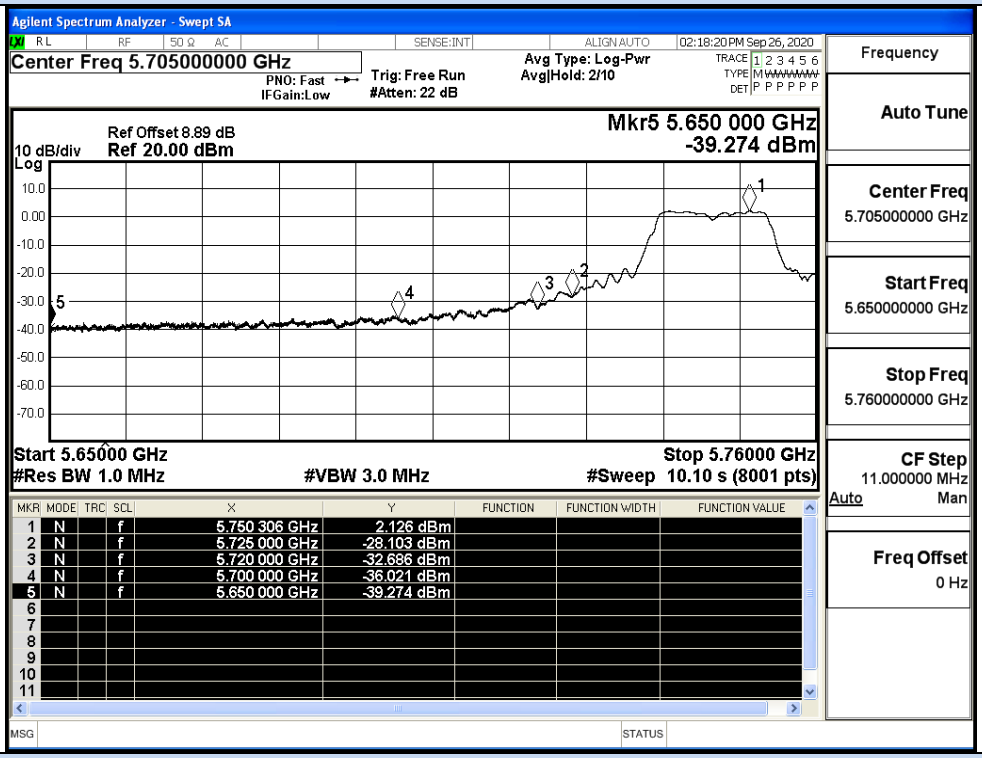
IEEE 802.11ac80 / Channel 155 / 5775MHz / Average

ANT 1

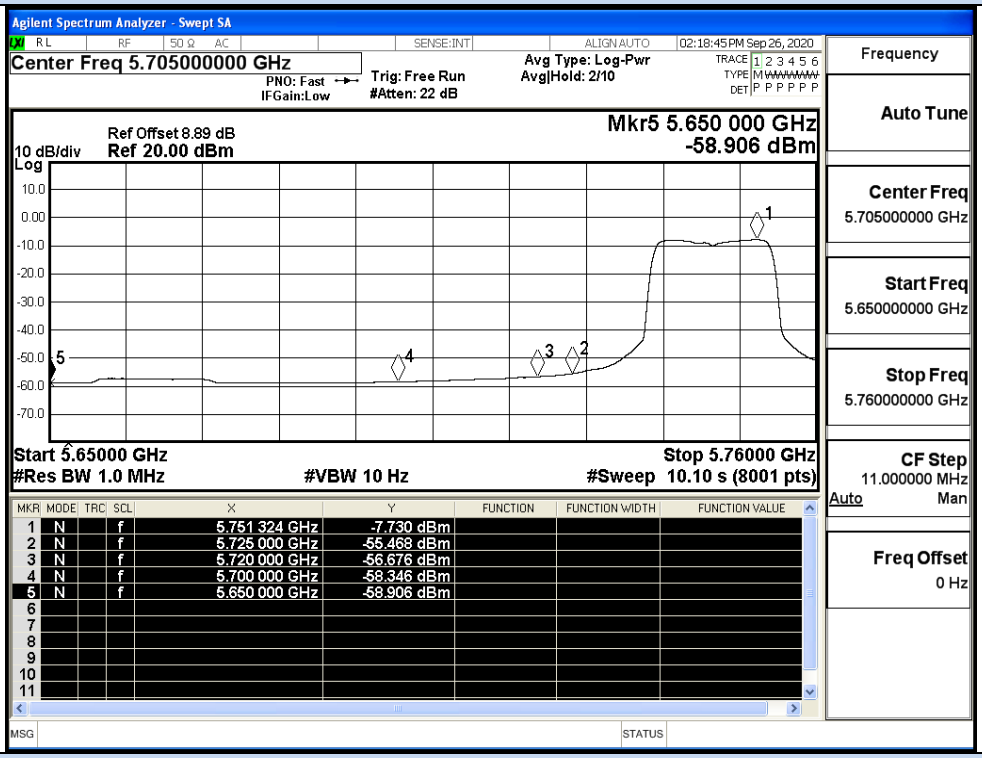
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11A	149	5650.0	-39.27	2.00	-39.27	Peak	-27.0	Pass
		5650.0	-58.91	2.00	-58.91	Average	-27.0	Pass
		5700.0	-36.02	2.00	-36.02	Peak	10	Pass
		5700.0	-58.35	2.00	-58.35	Average	10	Pass
		5720.0	-32.69	2.00	-32.69	Peak	15.6	Pass
		5720.0	-56.68	2.00	-56.68	Average	15.6	Pass
		5725.0	-28.10	2.00	-28.10	Peak	27.0	Pass
		5725.0	-55.47	2.00	-55.47	Average	27.0	Pass
	165	5850.0	-45.44	2.00	-45.44	Peak	27.0	Pass
		5850.0	-57.74	2.00	-57.74	Average	27.0	Pass
		5855.0	-45.87	2.00	-45.87	Peak	15.6	Pass
		5855.0	-58.50	2.00	-58.50	Average	15.6	Pass
		5875.0	-47.90	2.00	-47.90	Peak	10	Pass
		5875.0	-59.65	2.00	-59.65	Average	10	Pass
		5925.0	-49.19	2.00	-49.19	Peak	-27.0	Pass
		5925.0	-60.35	2.00	-60.35	Average	-27.0	Pass
11N20	149	5650.0	-48.14	2.00	-48.14	Peak	-27.0	Pass
		5650.0	-59.99	2.00	-59.99	Average	-27.0	Pass
		5700.0	-48.57	2.00	-48.57	Peak	10	Pass
		5700.0	-59.79	2.00	-59.79	Average	10	Pass
		5720.0	-48.57	2.00	-48.57	Peak	15.6	Pass
		5720.0	-60.09	2.00	-60.09	Average	15.6	Pass
		5725.0	-46.28	2.00	-46.28	Peak	27.0	Pass
		5725.0	-59.31	2.00	-59.31	Average	27.0	Pass
	165	5850.0	-45.66	2.00	-45.66	Peak	27.0	Pass
		5850.0	-57.90	2.00	-57.90	Average	27.0	Pass
		5855.0	-47.28	2.00	-47.28	Peak	15.6	Pass
		5855.0	-58.54	2.00	-58.54	Average	15.6	Pass
		5875.0	-47.89	2.00	-47.89	Peak	10	Pass
		5875.0	-59.67	2.00	-59.67	Average	10	Pass
		5925.0	-49.25	2.00	-49.25	Peak	-27.0	Pass
		5925.0	-60.41	2.00	-60.41	Average	-27.0	Pass

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11N40	151	5650.0	-36.93	2.00	-36.93	Peak	-27.0	Pass
		5650.0	-58.45	2.00	-58.45	Average	-27.0	Pass
		5700.0	-32.47	2.00	-32.47	Peak	10	Pass
		5700.0	-57.13	2.00	-57.13	Average	10	Pass
		5720.0	-31.04	2.00	-31.04	Peak	15.6	Pass
		5720.0	-56.16	2.00	-56.16	Average	15.6	Pass
		5725.0	-27.28	2.00	-27.28	Peak	27.0	Pass
		5725.0	-55.64	2.00	-55.64	Average	27.0	Pass
	159	5850.0	-46.30	2.00	-46.30	Peak	27.0	Pass
		5850.0	-57.41	2.00	-57.41	Average	27.0	Pass
		5855.0	-46.20	2.00	-46.20	Peak	15.6	Pass
		5855.0	-57.98	2.00	-57.98	Average	15.6	Pass
		5875.0	-48.23	2.00	-48.23	Peak	10	Pass
		5875.0	-59.04	2.00	-59.04	Average	10	Pass
		5925.0	-47.18	2.00	-47.18	Peak	-27.0	Pass
		5925.0	-60.05	2.00	-60.05	Average	-27.0	Pass
11AC20	149	5650.0	-48.62	2.00	-48.62	Peak	-27.0	Pass
		5650.0	-60.08	2.00	-60.08	Average	-27.0	Pass
		5700.0	-47.93	2.00	-47.93	Peak	10	Pass
		5700.0	-59.94	2.00	-59.94	Average	10	Pass
		5720.0	-47.83	2.00	-47.83	Peak	15.6	Pass
		5720.0	-60.14	2.00	-60.14	Average	15.6	Pass
		5725.0	-48.23	2.00	-48.23	Peak	27.0	Pass
		5725.0	-59.48	2.00	-59.48	Average	27.0	Pass
	165	5850.0	-44.71	2.00	-44.71	Peak	27.0	Pass
		5850.0	-57.63	2.00	-57.63	Average	27.0	Pass
		5855.0	-46.55	2.00	-46.55	Peak	15.6	Pass
		5855.0	-58.49	2.00	-58.49	Average	15.6	Pass
		5875.0	-47.53	2.00	-47.53	Peak	10	Pass
		5875.0	-59.70	2.00	-59.70	Average	10	Pass
		5925.0	-48.84	2.00	-48.84	Peak	-27.0	Pass
		5925.0	-60.46	2.00	-60.46	Average	-27.0	Pass
11AC40	151	5650.0	-38.25	2.00	-38.25	Peak	-27.0	Pass
		5650.0	-58.96	2.00	-58.96	Average	-27.0	Pass
		5700.0	-32.75	2.00	-32.75	Peak	10	Pass
		5700.0	-57.88	2.00	-57.88	Average	10	Pass
		5720.0	-30.97	2.00	-30.97	Peak	15.6	Pass
		5720.0	-57.00	2.00	-57.00	Average	15.6	Pass
		5725.0	-27.96	2.00	-27.96	Peak	27.0	Pass
		5725.0	-56.62	2.00	-56.62	Average	27.0	Pass
	159	5850.0	-45.98	2.00	-45.98	Peak	27.0	Pass
		5850.0	-57.36	2.00	-57.36	Average	27.0	Pass
		5855.0	-46.09	2.00	-46.09	Peak	15.6	Pass
		5855.0	-57.95	2.00	-57.95	Average	15.6	Pass
		5875.0	-48.14	2.00	-48.14	Peak	10	Pass
		5875.0	-59.07	2.00	-59.07	Average	10	Pass
		5925.0	-48.34	2.00	-48.34	Peak	-27.0	Pass
		5925.0	-60.14	2.00	-60.14	Average	-27.0	Pass
11AC80	155	5725.0	-37.12	2.00	-37.12	Peak	27.0	Pass
		5720.0	-38.89	2.00	-38.89	Peak	15.6	Pass
		5700.0	-45.03	2.00	-45.03	Peak	10	Pass
		5650.0	-48.17	2.00	-48.17	Peak	-27.0	Pass
		5725.0	-52.73	2.00	-52.73	Average	27.0	Pass
		5720.0	-53.88	2.00	-53.88	Average	15.6	Pass
		5700.0	-57.70	2.00	-57.70	Average	10	Pass
		5650.0	-59.57	2.00	-59.57	Average	-27.0	Pass
		5850.0	-37.12	2.00	-37.12	Peak	27.0	Pass
		5855.0	-38.89	2.00	-38.89	Peak	15.6	Pass
		5875.0	-45.03	2.00	-45.03	Peak	10	Pass
		5925.0	-48.17	2.00	-48.17	Peak	-27.0	Pass
		5850.0	-52.73	2.00	-52.73	Average	27.0	Pass
		5855.0	-53.88	2.00	-53.88	Average	15.6	Pass
		5875.0	-57.70	2.00	-57.70	Average	10	Pass
		5925.0	-59.57	2.00	-59.57	Average	-27.0	Pass

Undesirable Emissions Measurement

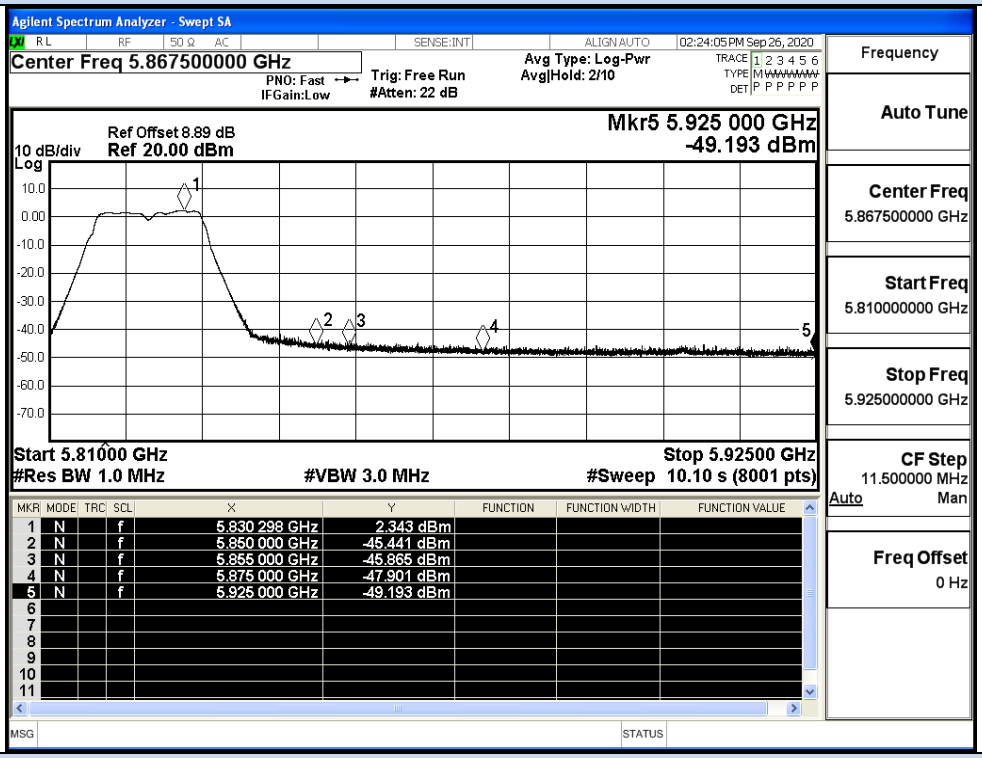


IEEE 802.11a / Channel 149 / 5745MHz / Peak

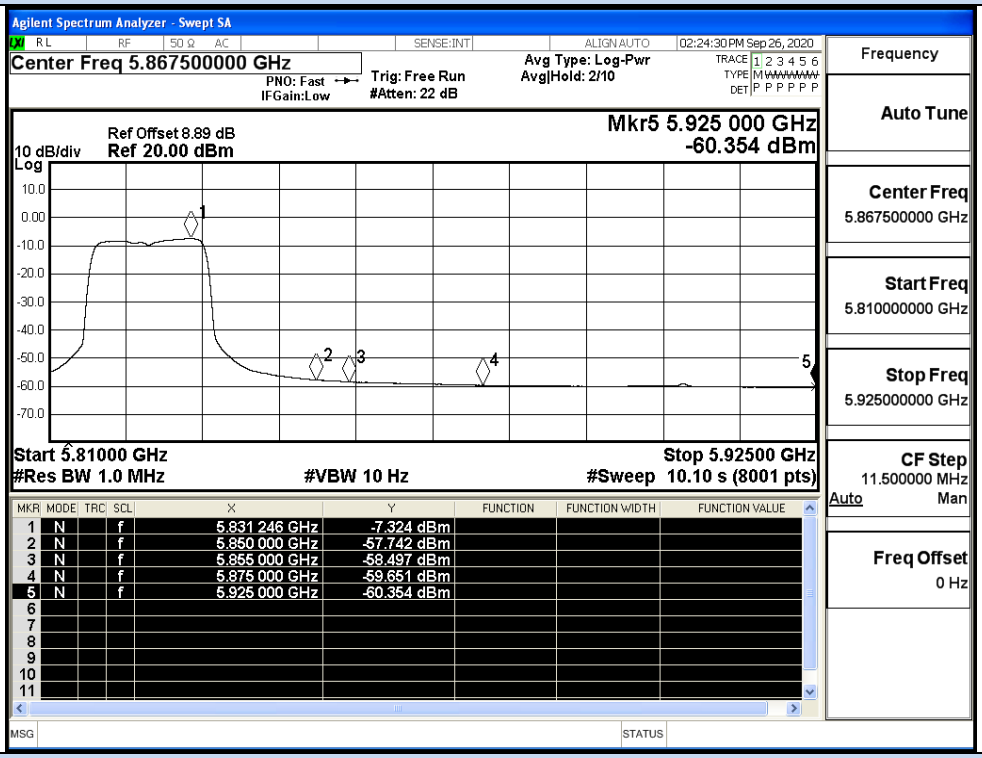


IEEE 802.11a / Channel 148 / 5745MHz / Average

Undesirable Emissions Measurement

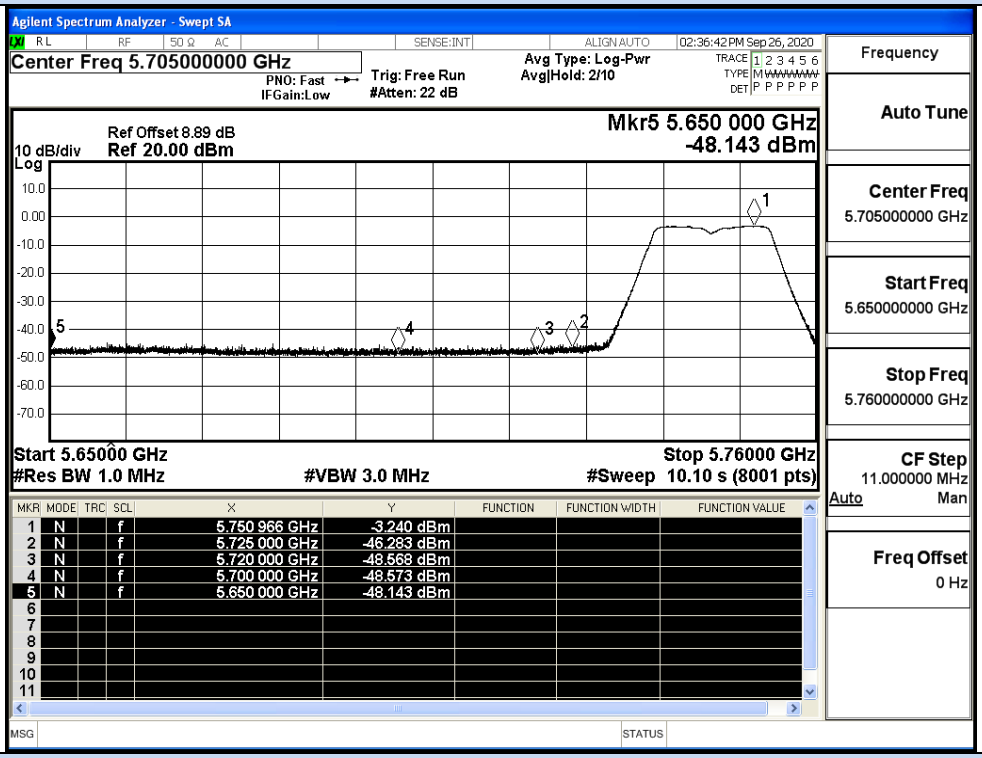


IEEE 802.11a / Channel 165 / 5825MHz / Peak

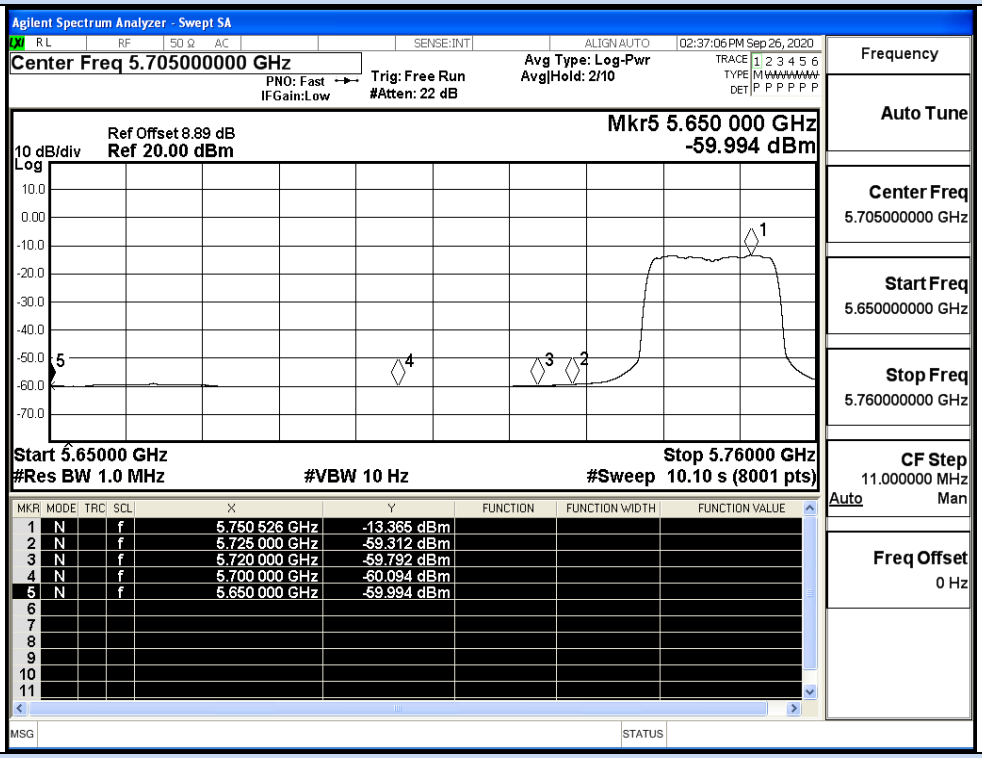


IEEE 802.11a / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

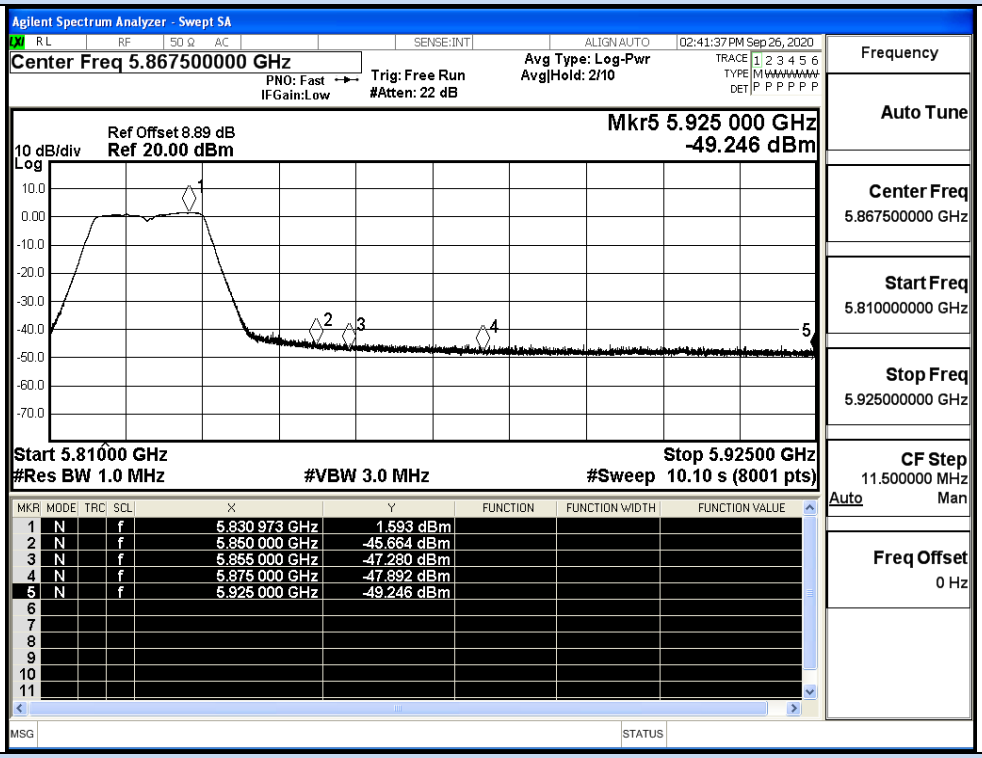


IEEE 802.11n20 / Channel 149 / 5745MHz / Peak

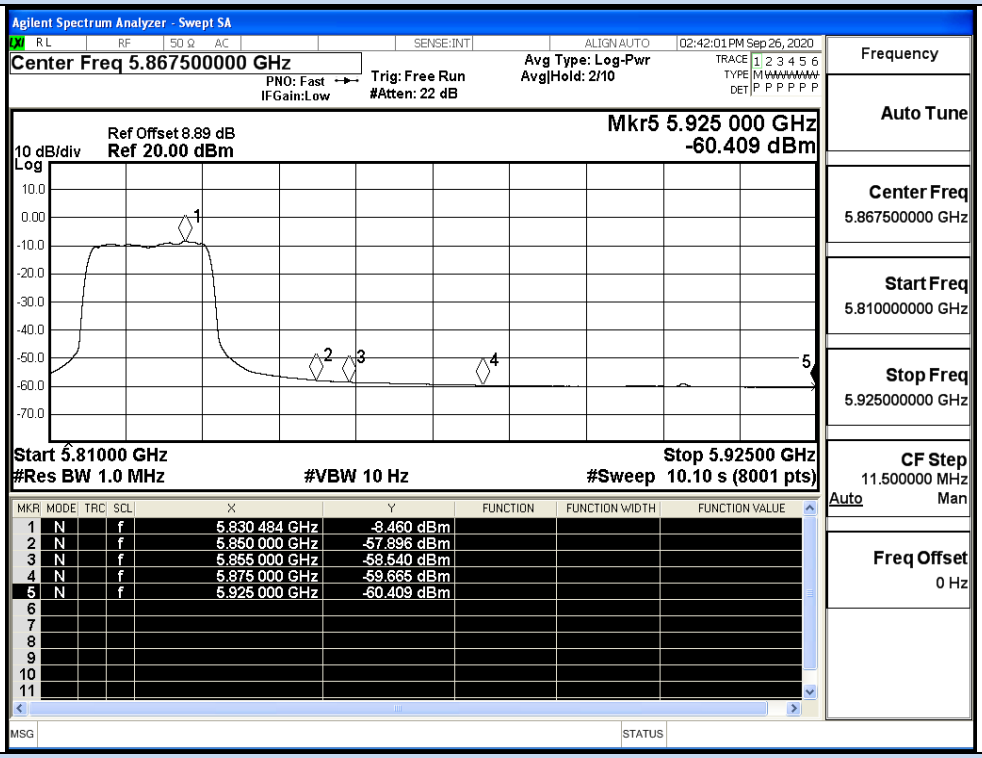


IEEE 802.11n20 / Channel 149 / 5745MHz / Average

Undesirable Emissions Measurement

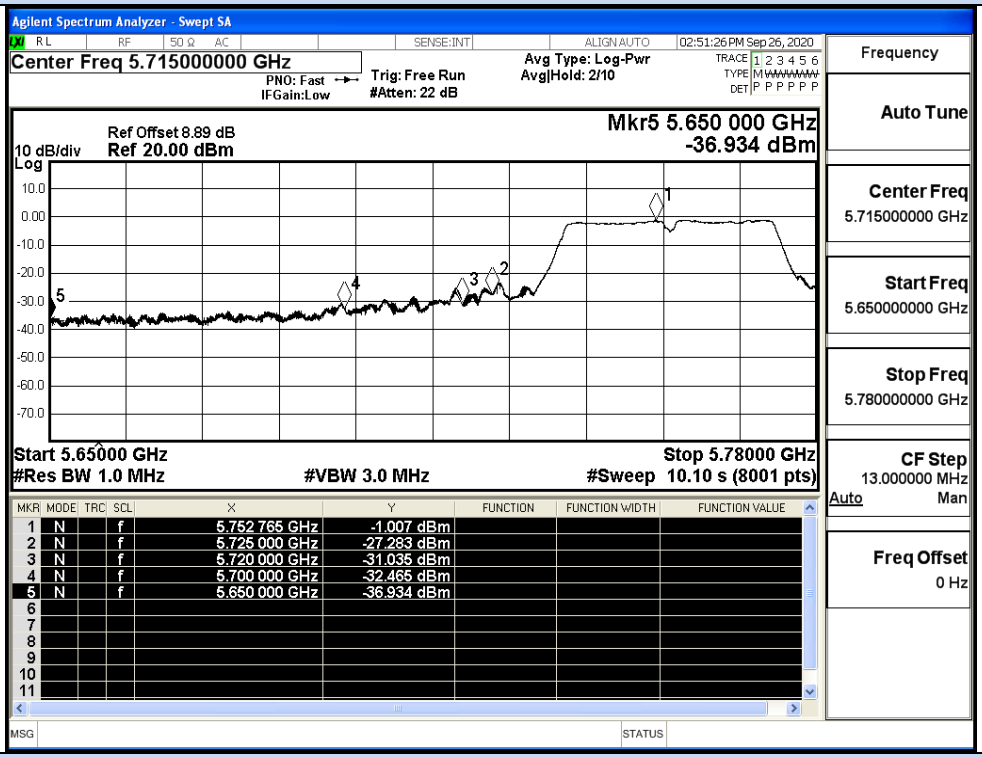


IEEE 802.11n20 / Channel 165 / 5825MHz / Peak

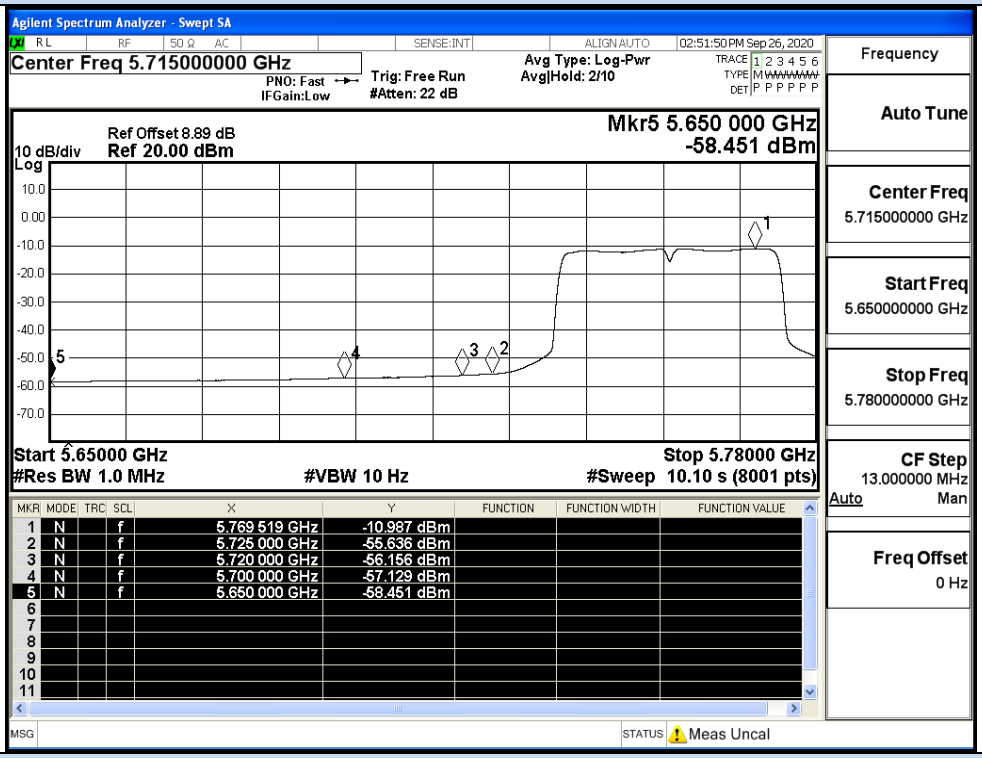


IEEE 802.11n20 / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

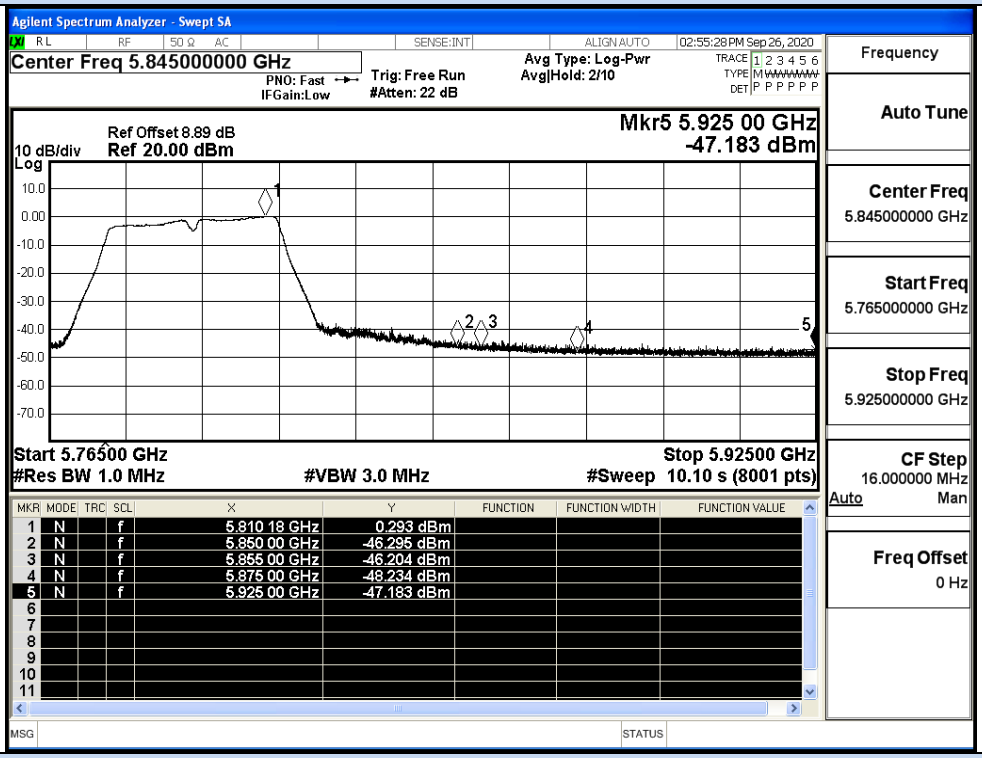


IEEE 802.11n40 / Channel 151 / 5755MHz / Peak

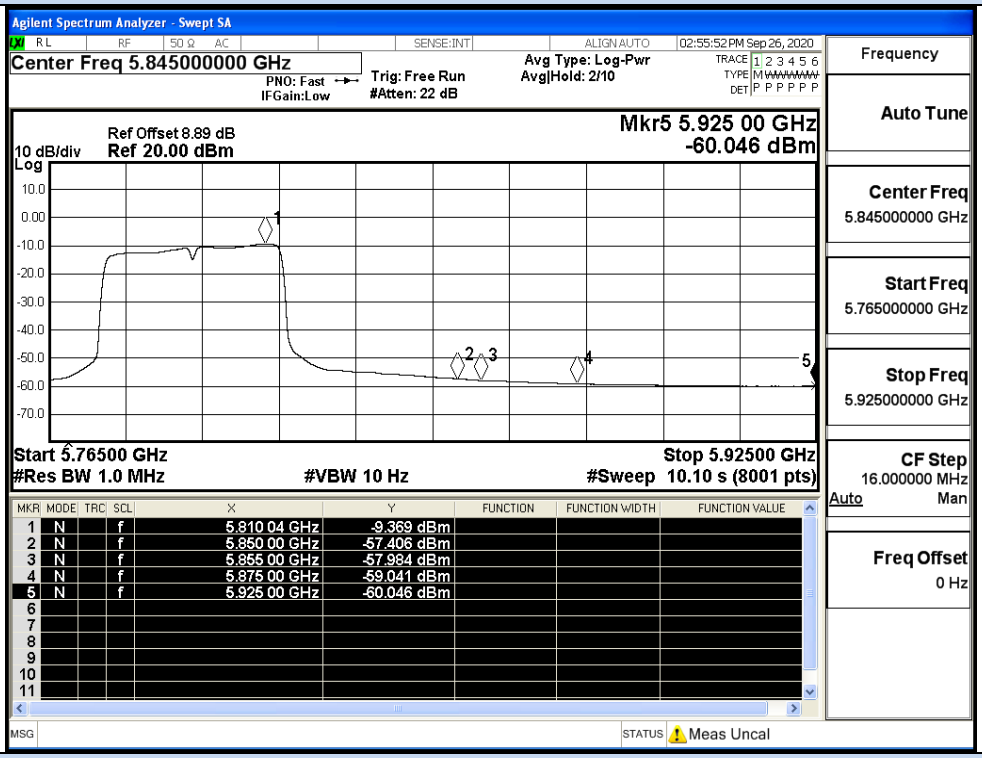


IEEE 802.11n40 / Channel 151 / 5755MHz / Average

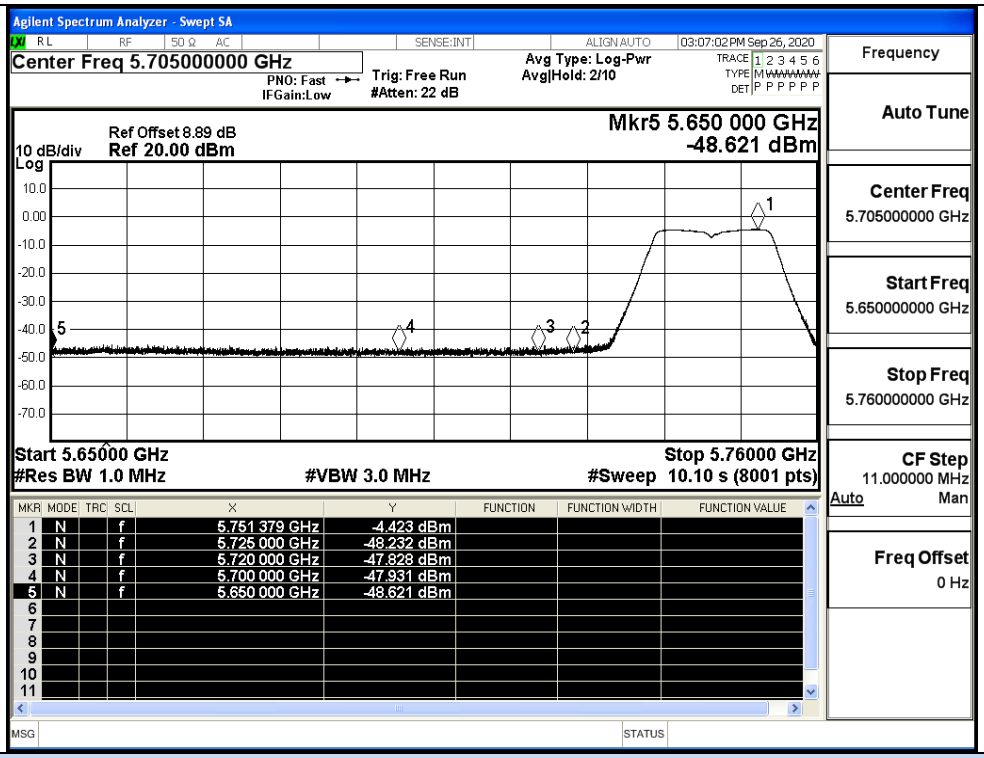
Undesirable Emissions Measurement



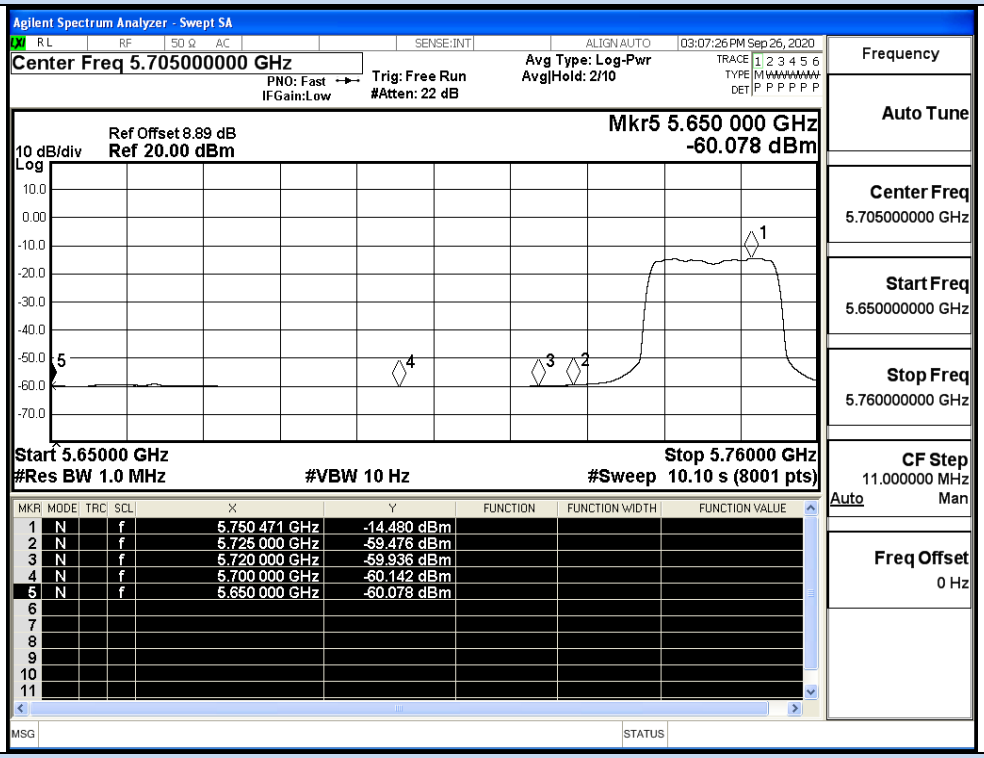
IEEE 802.11n40 / Channel 159 / 5795MHz / Peak



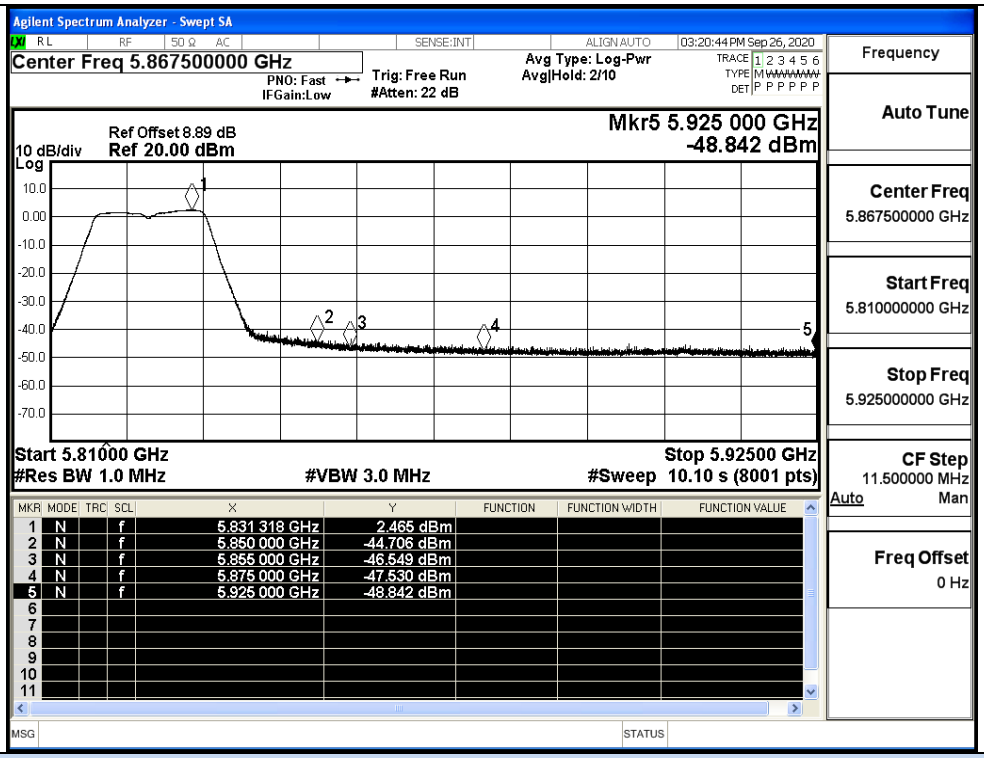
IEEE 802.11n40 / Channel 159 / 5795MHz / Average



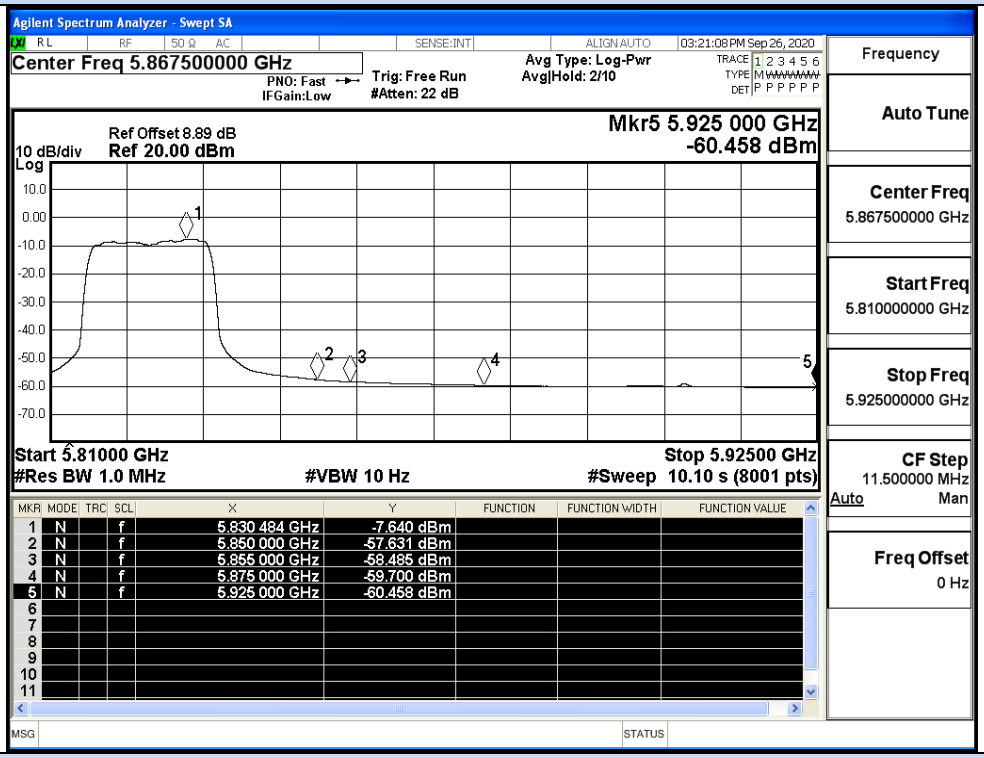
IEEE 802.11ac20 / Channel 149 / 5745MHz / Peak



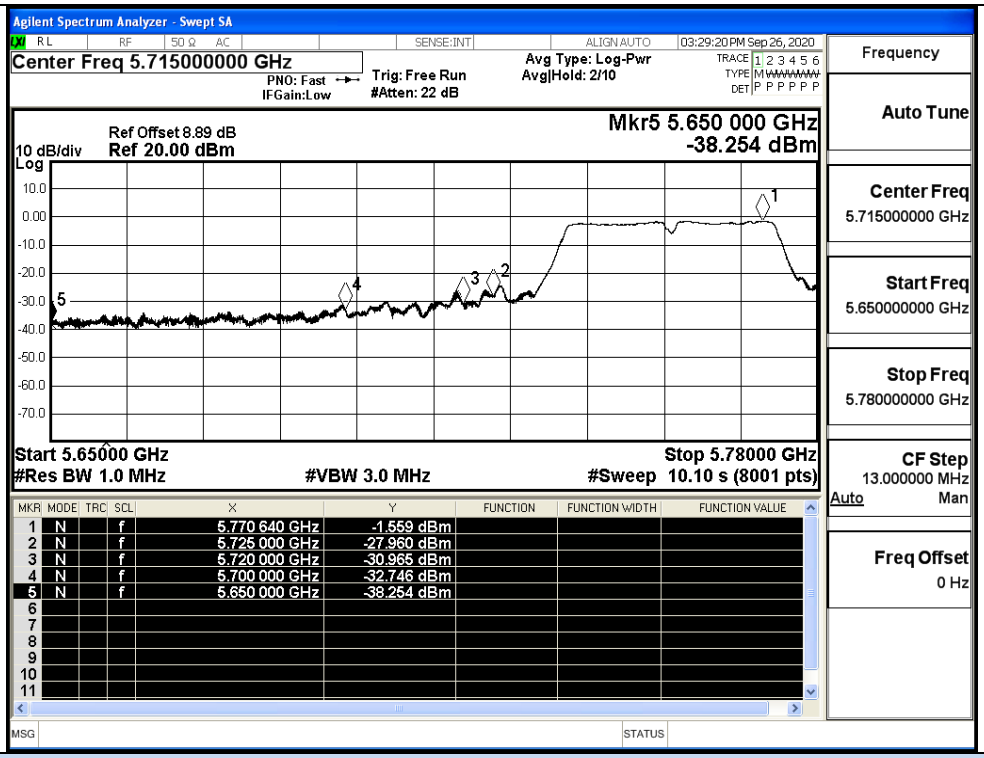
IEEE 802.11ac20 / Channel 149 / 5745MHz / Average



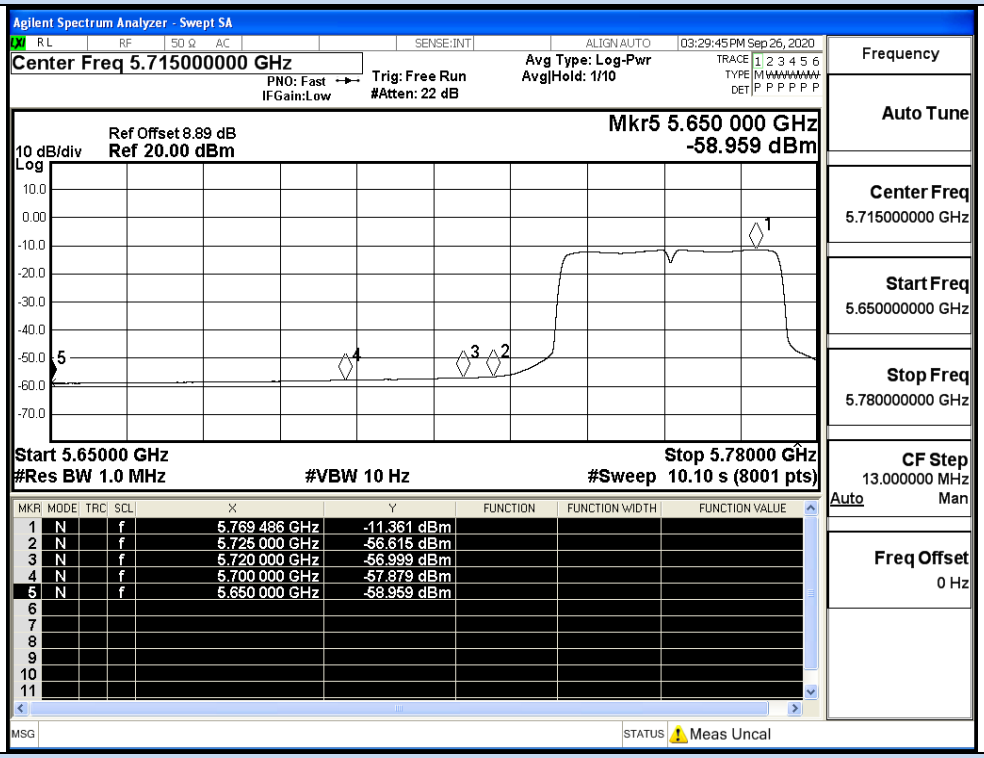
IEEE 802.11ac20 / Channel 165 / 5825MHz / Peak



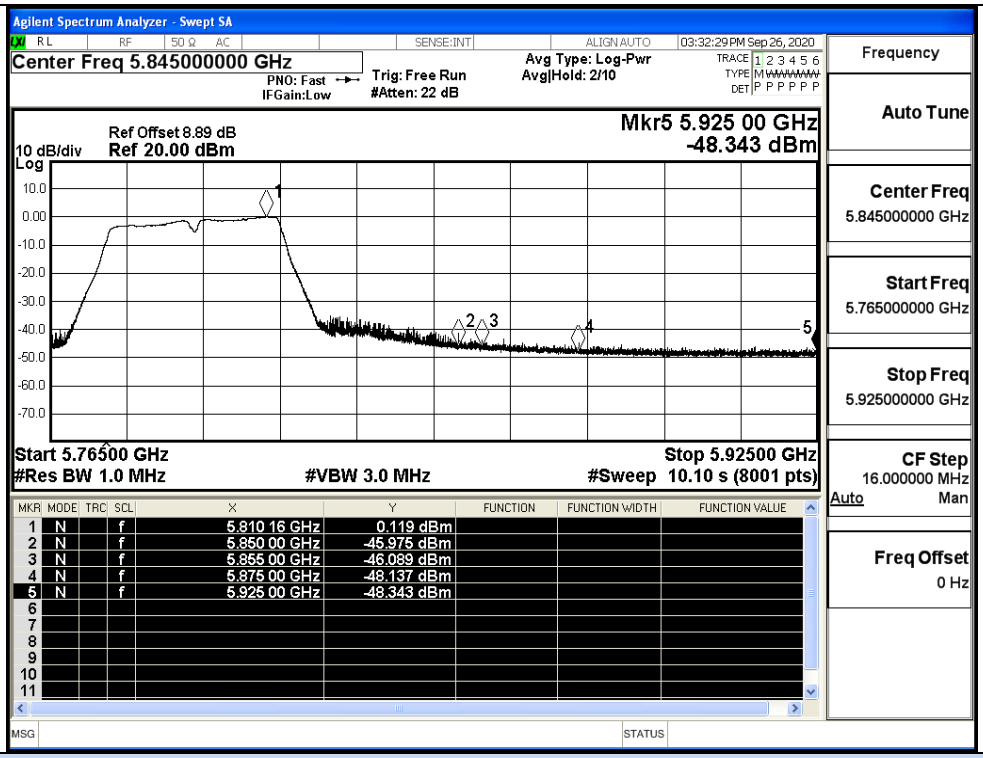
IEEE 802.11ac20 / Channel 165 / 5825MHz / Average



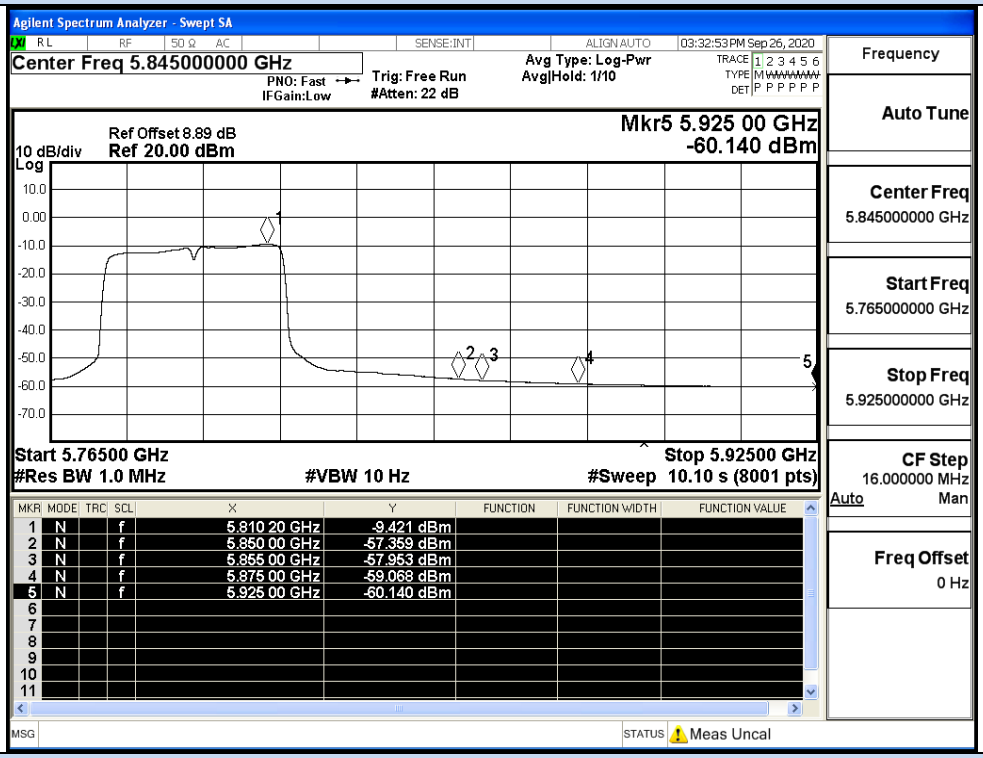
IEEE 802.11ac40 / Channel 151 / 5755MHz / Peak



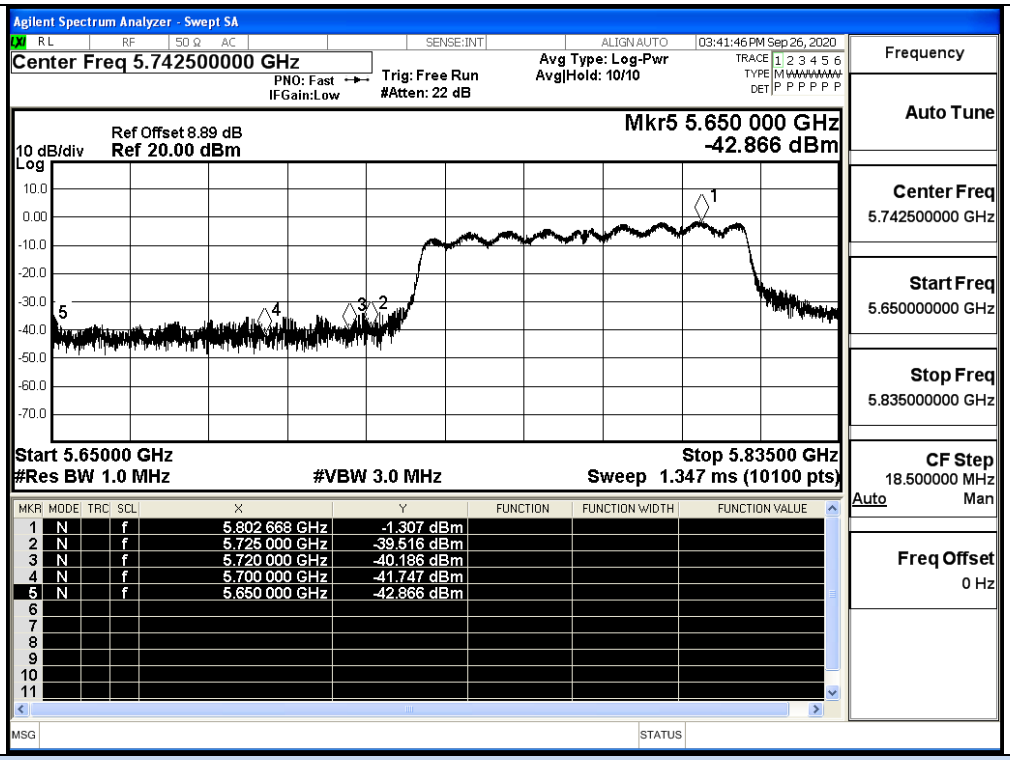
IEEE 802.11ac40 / Channel 151 / 5755MHz / Average



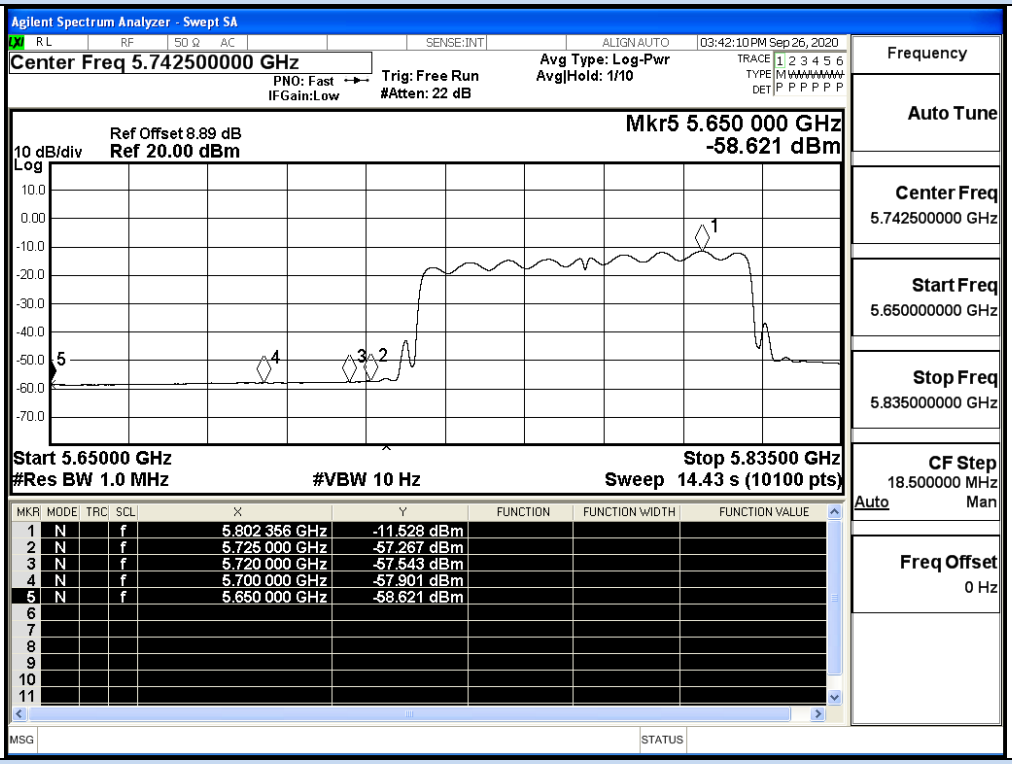
IEEE 802.11ac40 / Channel 159 / 5795MHz / Peak



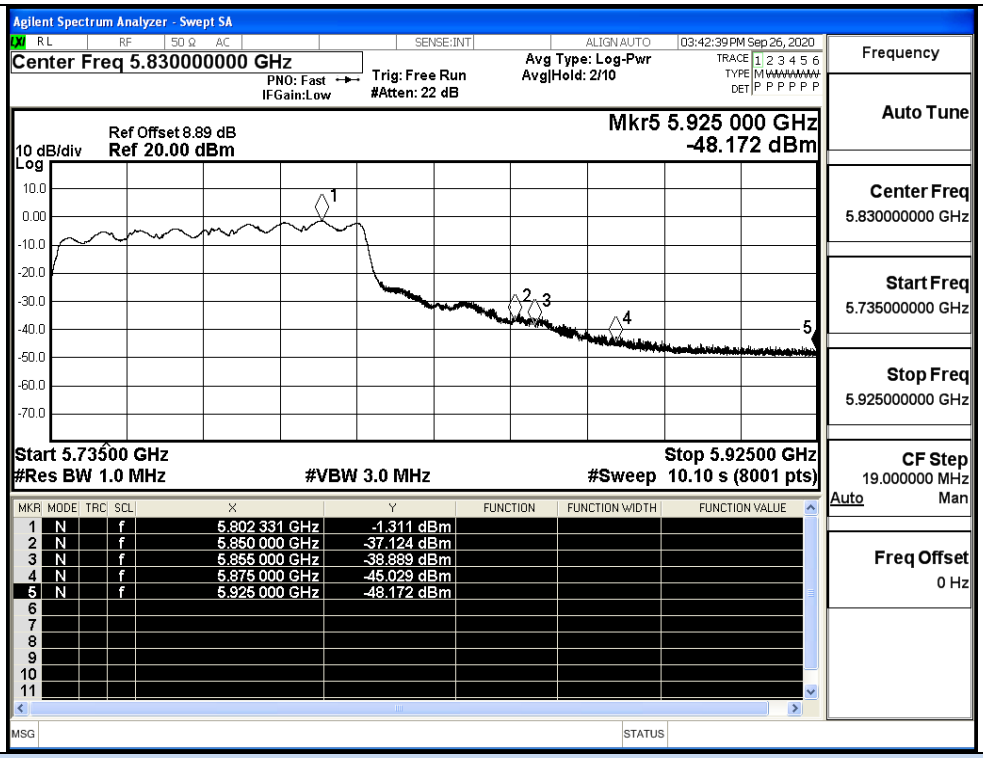
IEEE 802.11ac40 / Channel 159 / 5795MHz / Average



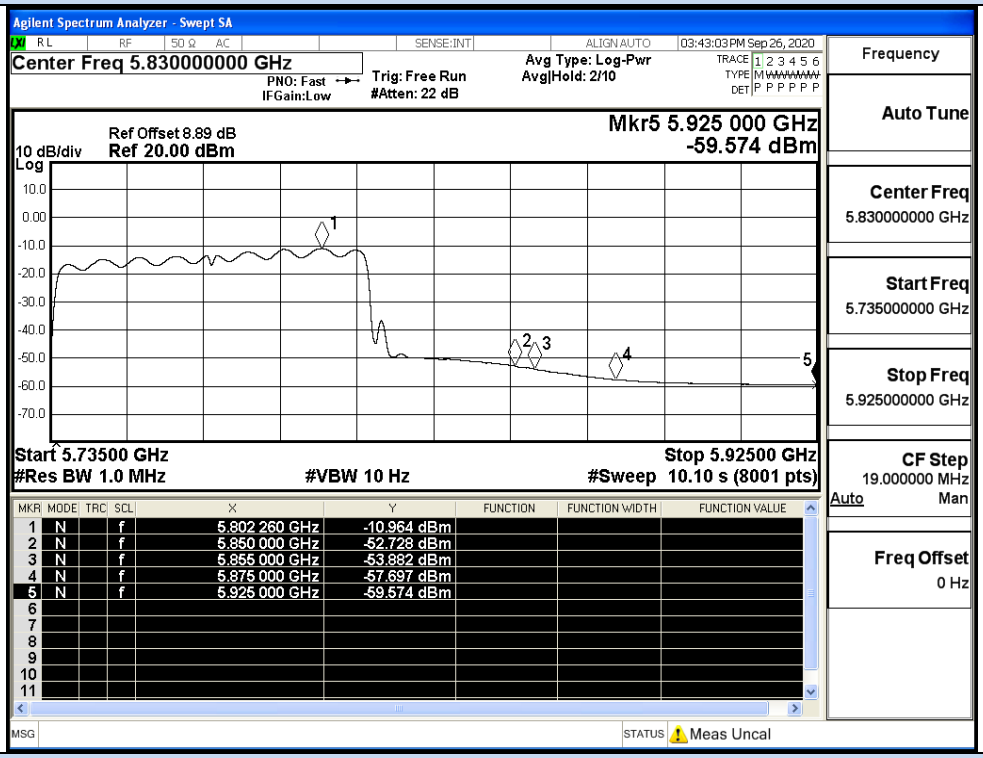
IEEE 802.11ac80 / Channel 155 / 5775MHz / Peak



IEEE 802.11ac80 / Channel 155 / 5775MHz / Average



IEEE 802.11ac80 / Channel 155/ 5775MHz / Peak



IEEE 802.11ac80 / Channel 155 / 5775MHz / Average

MIMO

Test Mode	Channel	Frequency (MHz)	ANT 0 Conducted Power (dBm)	ANT 1 Conducted Power (dBm)	MIMO Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11N20	149	5650.0	-49.36	-48.14	-45.70	5.01	-40.69	Peak	-27.0	Pass
		5650.0	-60.61	-59.99	-57.28	5.01	-52.27	Average	-27.0	Pass
		5700.0	-48.53	-48.57	-45.54	5.01	-40.53	Peak	10	Pass
		5700.0	-60.4	-59.79	-57.07	5.01	-52.06	Average	10	Pass
		5720.0	-48.25	-48.57	-45.40	5.01	-40.39	Peak	15.6	Pass
		5720.0	-60.43	-60.09	-57.25	5.01	-52.24	Average	15.6	Pass
		5725.0	-45.01	-46.28	-42.59	5.01	-37.58	Peak	27.0	Pass
		5725.0	-59.88	-59.31	-56.58	5.01	-51.57	Average	27.0	Pass
	165	5850.0	-46.16	-45.66	-42.89	5.01	-37.88	Peak	27.0	Pass
		5850.0	-57.89	-57.9	-54.88	5.01	-49.87	Average	27.0	Pass
		5855.0	-46.96	-47.28	-44.11	5.01	-39.10	Peak	15.6	Pass
		5855.0	-58.68	-58.54	-55.60	5.01	-50.59	Average	15.6	Pass
		5875.0	-47.59	-47.89	-44.73	5.01	-39.72	Peak	10	Pass
		5875.0	-59.81	-59.67	-56.73	5.01	-51.72	Average	10	Pass
		5925.0	-49.08	-49.25	-46.15	5.01	-41.14	Peak	-27.0	Pass
		5925.0	-60.45	-60.41	-57.42	5.01	-52.41	Average	-27.0	Pass

Test Mode	Channel	Frequency (MHz)	ANT 0 Conducted Power (dBm)	ANT 1 Conducted Power (dBm)	MIMO Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11N40	151	5650.0	-48.57	-36.93	-36.64	5.01	-31.63	Peak	-27.0	Pass
		5650.0	-60.44	-58.45	-56.32	5.01	-51.31	Average	-27.0	Pass
		5700.0	-47.48	-32.47	-32.34	5.01	-27.33	Peak	10	Pass
		5700.0	-60.39	-57.13	-55.45	5.01	-50.44	Average	10	Pass
		5720.0	-46.56	-31.04	-30.92	5.01	-25.91	Peak	15.6	Pass
		5720.0	-59.95	-56.16	-54.64	5.01	-49.63	Average	15.6	Pass
		5725.0	-48.33	-27.28	-27.25	5.01	-22.24	Peak	27.0	Pass
		5725.0	-59.62	-55.64	-54.18	5.01	-49.17	Average	27.0	Pass
	159	5850.0	-45.94	-46.3	-43.11	5.01	-38.10	Peak	27.0	Pass
		5850.0	-57.55	-57.41	-54.47	5.01	-49.46	Average	27.0	Pass
		5855.0	-46.35	-46.2	-43.26	5.01	-38.25	Peak	15.6	Pass
		5855.0	-58.13	-57.98	-55.04	5.01	-50.03	Average	15.6	Pass
		5875.0	-47.97	-48.23	-45.09	5.01	-40.08	Peak	10	Pass
		5875.0	-59.16	-59.04	-56.09	5.01	-51.08	Average	10	Pass
		5925.0	-49.14	-47.18	-45.04	5.01	-40.03	Peak	-27.0	Pass
		5925.0	-60.1	-60.05	-57.06	5.01	-52.05	Average	-27.0	Pass
11AC20	149	5650.0	-48.99	-48.62	-45.79	5.01	-40.78	Peak	-27.0	Pass
		5650.0	-60.64	-60.08	-57.34	5.01	-52.33	Average	-27.0	Pass
		5700.0	-49.03	-47.93	-45.43	5.01	-40.42	Peak	10	Pass
		5700.0	-60.49	-59.94	-57.20	5.01	-52.19	Average	10	Pass
		5720.0	-48.65	-47.83	-45.21	5.01	-40.20	Peak	15.6	Pass
		5720.0	-60.53	-60.14	-57.32	5.01	-52.31	Average	15.6	Pass
		5725.0	-48.45	-48.23	-45.33	5.01	-40.32	Peak	27.0	Pass
		5725.0	-59.98	-59.48	-56.71	5.01	-51.70	Average	27.0	Pass
	165	5850.0	-45.61	-44.71	-42.13	5.01	-37.12	Peak	27.0	Pass
		5850.0	-57.75	-57.63	-54.68	5.01	-49.67	Average	27.0	Pass
		5855.0	-46.74	-46.55	-43.63	5.01	-38.62	Peak	15.6	Pass
		5855.0	-58.63	-58.49	-55.55	5.01	-50.54	Average	15.6	Pass
		5875.0	-47.25	-47.53	-44.38	5.01	-39.37	Peak	10	Pass
		5875.0	-59.83	-59.7	-56.75	5.01	-51.74	Average	10	Pass
		5925.0	-49.12	-48.84	-45.97	5.01	-40.96	Peak	-27.0	Pass
		5925.0	-60.49	-60.46	-57.46	5.01	-52.45	Average	-27.0	Pass
11AC40	151	5650.0	-48.68	-38.25	-37.87	5.01	-32.86	Peak	-27.0	Pass
		5650.0	-60.5	-58.96	-56.65	5.01	-51.64	Average	-27.0	Pass
		5700.0	-48.82	-32.75	-32.64	5.01	-27.63	Peak	10	Pass
		5700.0	-60.41	-57.88	-55.95	5.01	-50.94	Average	10	Pass
		5720.0	-48.37	-30.97	-30.89	5.01	-25.88	Peak	15.6	Pass
		5720.0	-60.04	-57	-55.25	5.01	-50.24	Average	15.6	Pass
		5725.0	-47.59	-27.96	-27.91	5.01	-22.90	Peak	27.0	Pass
		5725.0	-59.75	-56.62	-54.90	5.01	-49.89	Average	27.0	Pass
	159	5850.0	-46.54	-45.98	-43.24	5.01	-38.23	Peak	27.0	Pass
		5850.0	-57.55	-57.36	-54.44	5.01	-49.43	Average	27.0	Pass

		5855.0	-46.42	-46.09	-43.24	5.01	-38.23	Peak	15.6	Pass
		5855.0	-58.2	-57.95	-55.06	5.01	-50.05	Average	15.6	Pass
		5875.0	-48.23	-48.14	-45.17	5.01	-40.16	Peak	10	Pass
		5875.0	-59.23	-59.07	-56.14	5.01	-51.13	Average	10	Pass
		5925.0	-48.2	-48.34	-45.26	5.01	-40.25	Peak	-27.0	Pass
		5925.0	-60.13	-60.14	-57.12	5.01	-52.11	Average	-27.0	Pass
11AC80	155	5725.0	-37.97	-37.12	-34.51	5.01	-29.50	Peak	27.0	Pass
		5720.0	-37.61	-38.89	-35.19	5.01	-30.18	Peak	15.6	Pass
		5700.0	-45.07	-45.03	-42.04	5.01	-37.03	Peak	10	Pass
		5650.0	-48.52	-48.17	-45.33	5.01	-40.32	Peak	-27.0	Pass
		5725.0	-54.51	-52.73	-50.52	5.01	-45.51	Average	27.0	Pass
		5720.0	-55.39	-53.88	-51.56	5.01	-46.55	Average	15.6	Pass
		5700.0	-58.21	-57.7	-54.94	5.01	-49.93	Average	10	Pass
		5650.0	-59.68	-59.57	-56.61	5.01	-51.60	Average	-27.0	Pass
		5850.0	-37.97	-37.12	-34.51	5.01	-29.50	Peak	27.0	Pass
		5855.0	-37.61	-38.89	-35.19	5.01	-30.18	Peak	15.6	Pass
		5875.0	-45.07	-45.03	-42.04	5.01	-37.03	Peak	10	Pass
		5925.0	-48.52	-48.17	-45.33	5.01	-40.32	Peak	-27.0	Pass
		5850.0	-54.51	-52.73	-50.52	5.01	-45.51	Average	27.0	Pass
		5855.0	-55.39	-53.88	-51.56	5.01	-46.55	Average	15.6	Pass
		5875.0	-58.21	-57.7	-54.94	5.01	-49.93	Average	10	Pass
		5925.0	-59.68	-59.57	-56.61	5.01	-51.60	Average	-27.0	Pass

EIRP(dBm/MHz)= Conducted Power (dBm) + Antenna Gain (dBi)

The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater

Directional gain=2dBi+10 log (2) = 5.01dBi