

Appendix D
RF Test Data for 5.8G WLAN (Conducted Measurement)
Product Name: X96Mate
Trade Mark: N/A
Test Model: X96Mate

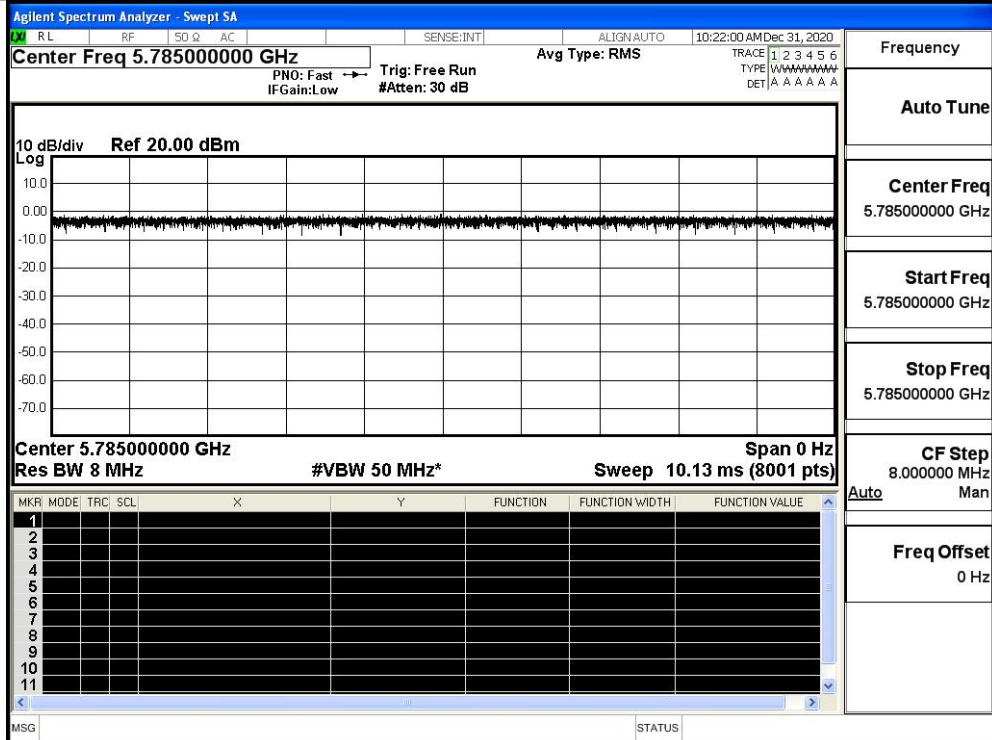
Environmental Conditions

Temperature:	23.4 ° C
Relative Humidity:	54.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Ken He
Supervised by:	Li Huan

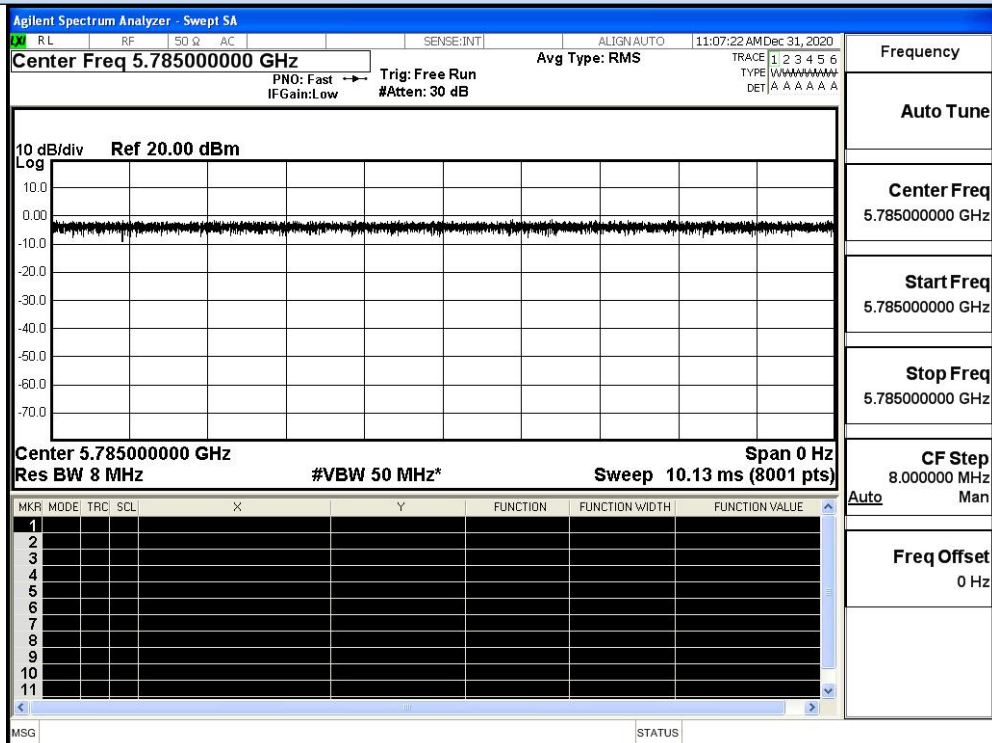
D.1 Duty Cycle

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5785	100	0.00	0.01
11N20 SISO	5785	100	0.00	0.01
11N40 SISO	5755	100	0.00	0.01
11AC20 SISO	5785	100	0.00	0.01
11AC40 SISO	5755	100	0.00	0.01
11AC80 SISO	5775	100	0.00	0.01

On Time and Duty Cycle



IEEE 802.11a



IEEE 802.11n HT20

Agilent Spectrum Analyzer - Swept SA

RL	RF	SQ	AC	SENSE:INT	ALIGN:AUTO	11:43:16 AM Dec 31, 2020
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Center Freq 5.785000000 GHz **Avg Type: RMS** PNO: Fast → Trig: Free Run
IF Gain: Low #Atten: 30 dB TRACE [1 2 3 4 5 6] TYPE [VVVVVVVVV] DET [A A A A A A]

10 dB/div Ref 20.00 dBm

Log

Center 5.785000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 50 MHz* Sweep 10.13 ms (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

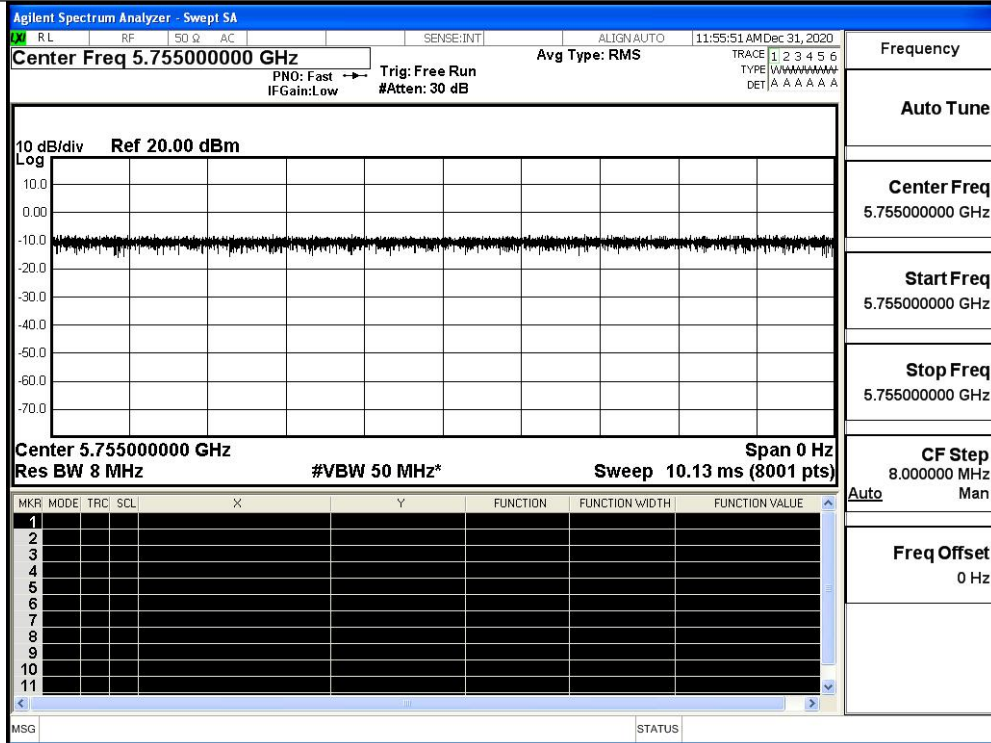
Center Freq
5.785000000 GHz

Start Freq
5.785000000 GHz

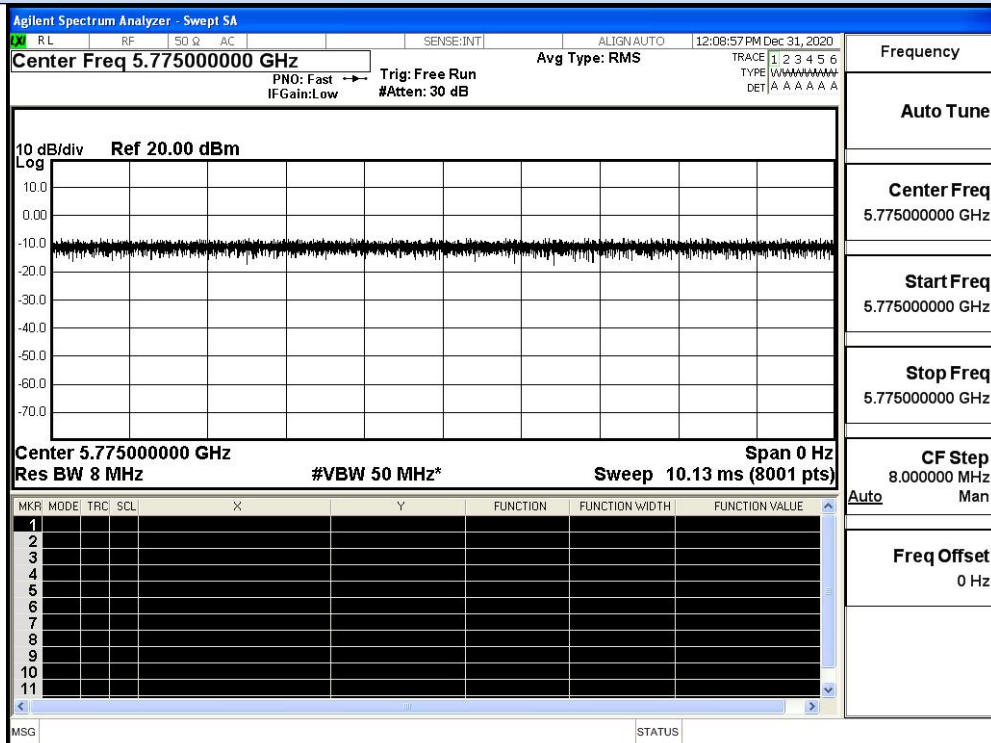
Stop Freq
5.785000000 GHz

CF Step
8.000000 MHz
Man

Freq Offset
0 Hz



IEEE 802.11AC40

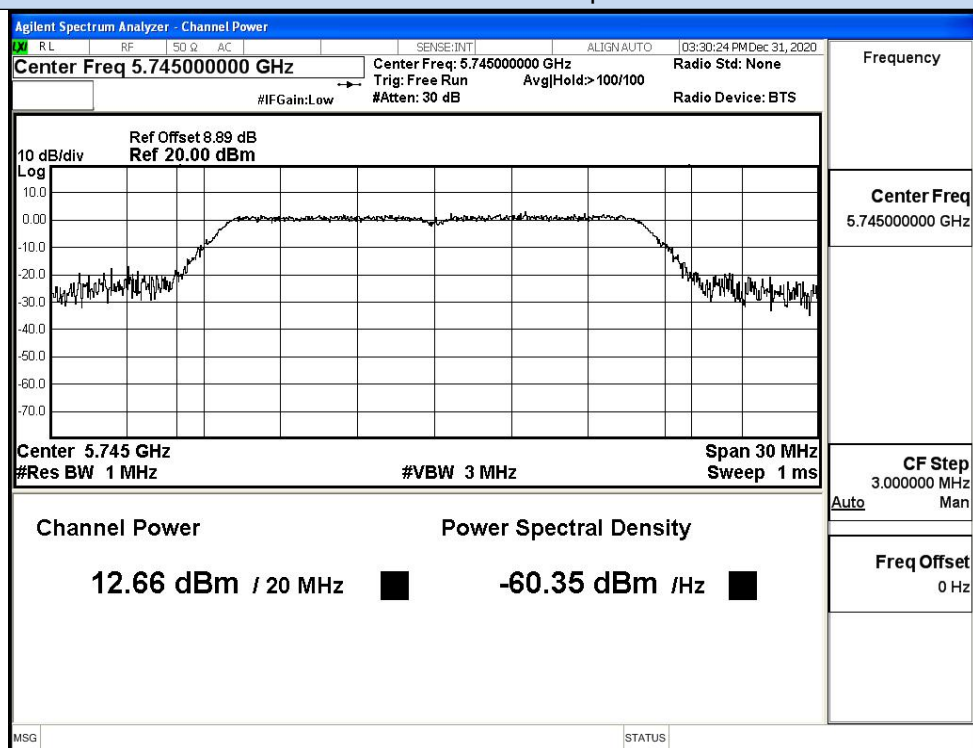


IEEE 802.11AC80

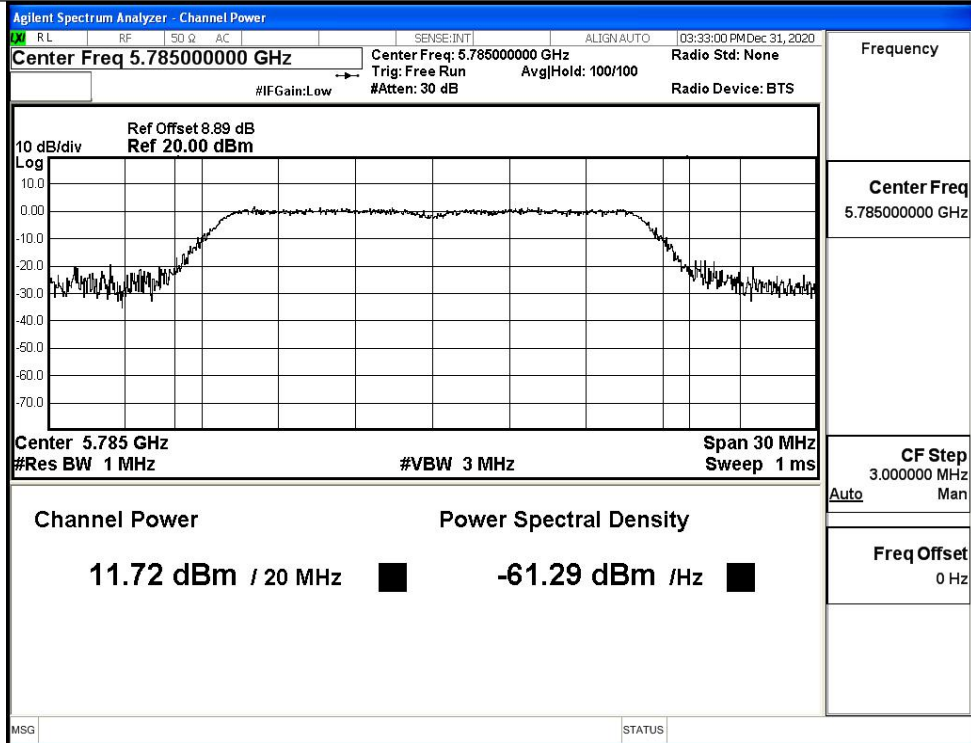
D.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	149	5745	12.66	0	12.66	30	Pass
	157	5785	11.72	0	11.72		Pass
	165	5825	10.41	0	10.41		Pass
11N20 SISO	149	5745	11.69	0	11.69	30	Pass
	157	5785	10.67	0	10.67		Pass
	165	5825	9.37	0	9.37		Pass
11N40 SISO	151	5755	10.52	0	10.52	30	Pass
	159	5795	9.30	0	9.30		Pass
11AC20 SISO	149	5745	12.89	0	12.89	30	Pass
	157	5785	12.81	0	12.81		Pass
	165	5825	13.08	0	13.08		Pass
11AC40 SISO	151	5755	12.72	0	12.72	30	Pass
	159	5795	12.70	0	12.70		Pass
11AC80 SISO	155	5775	13.19	0	13.19	30	Pass

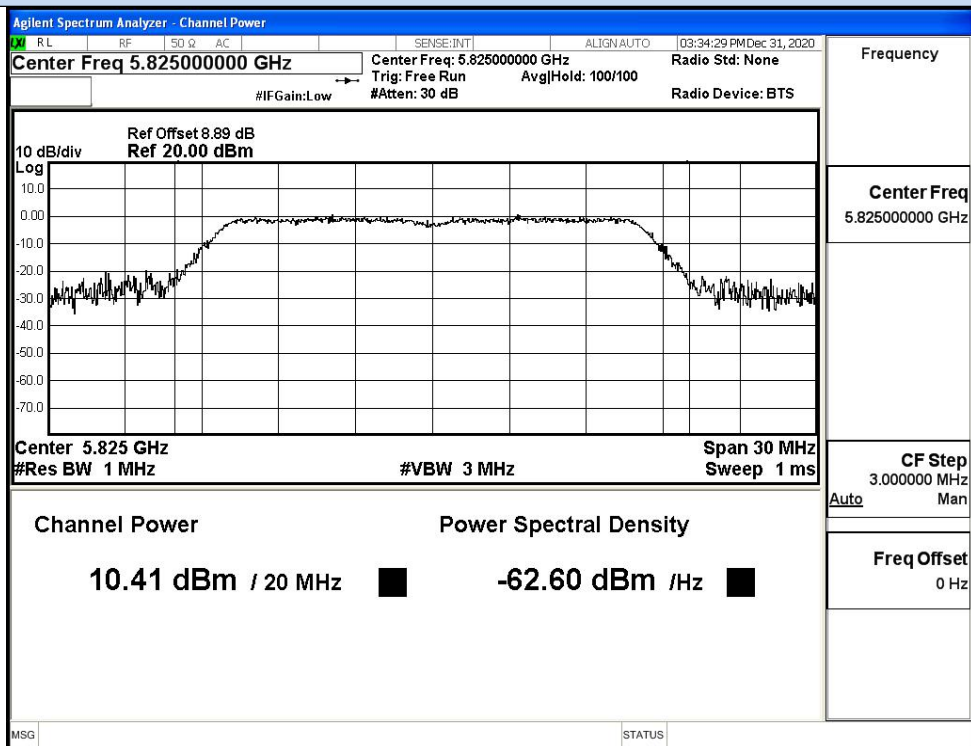
Maximum Conducted Output Power



IEEE 802.11a / Channel 149 / 5745MHz

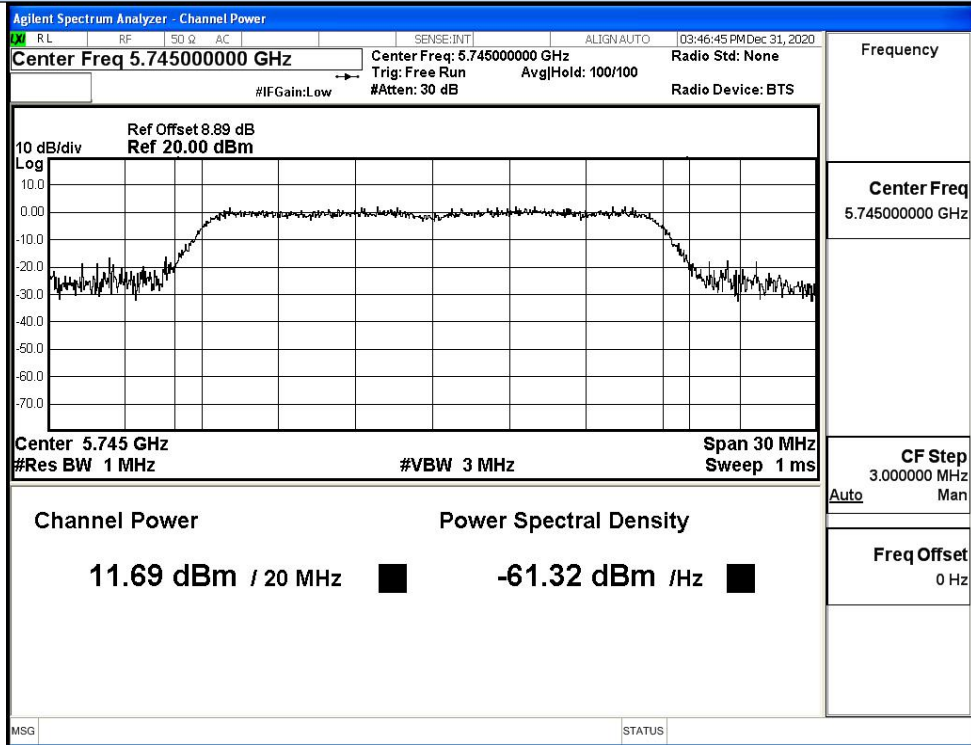


IEEE 802.11a / Channel 157 / 5785MHz

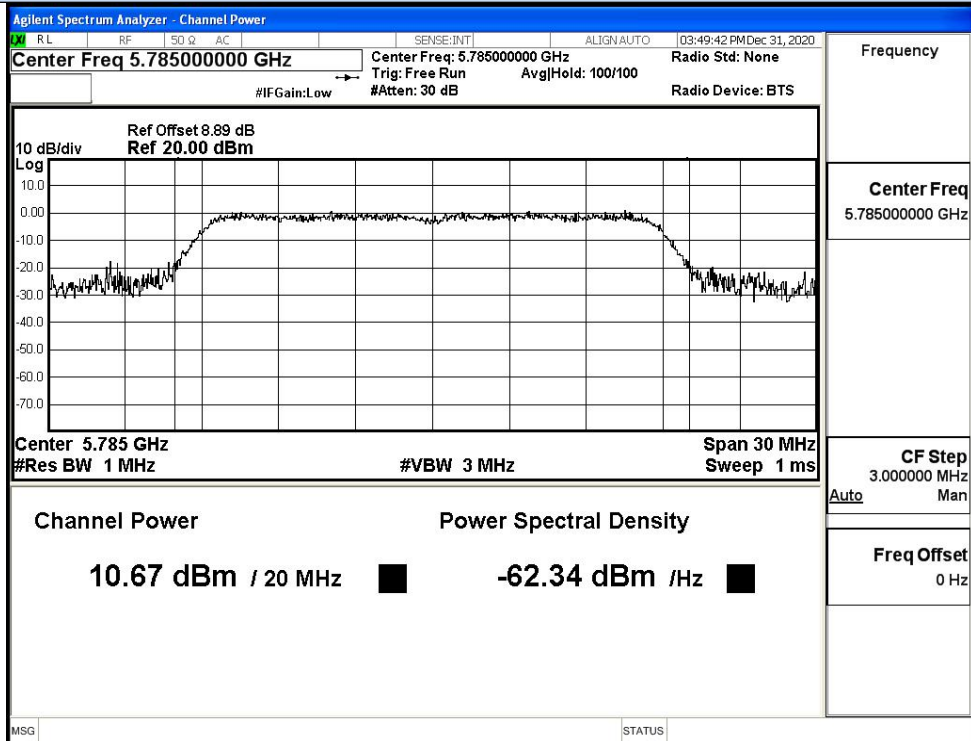


IEEE 802.11a / Channel 165 / 5825MHz

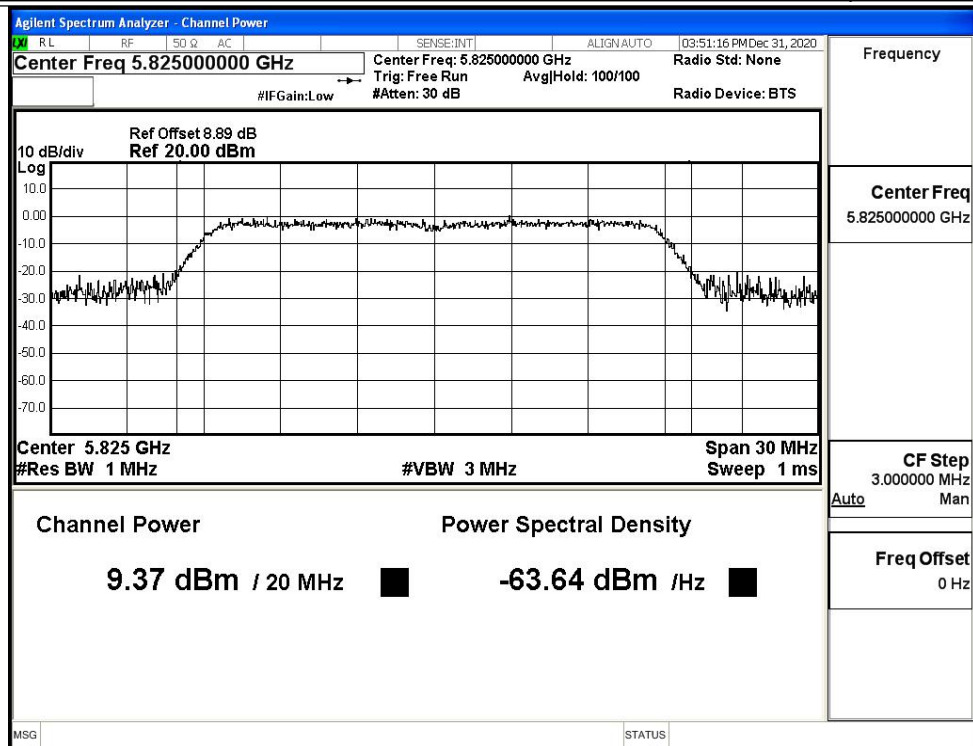
Maximum Conducted Output Power



IEEE 802.11n20 / Channel 149 / 5745MHz

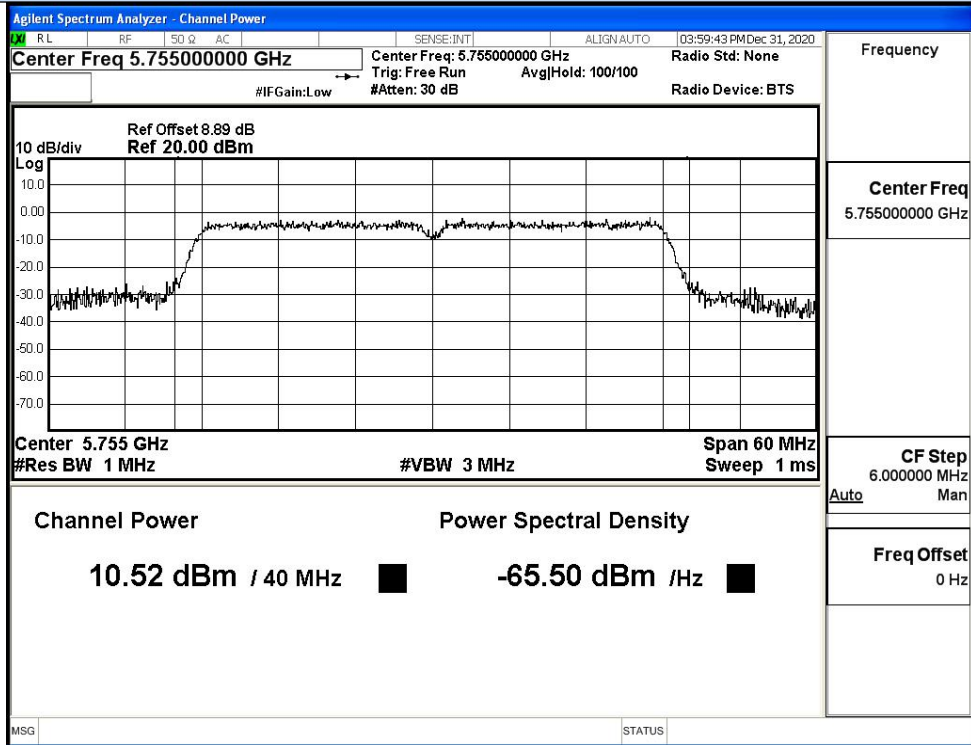


IEEE 802.11n20 / Channel 157 / 5785MHz

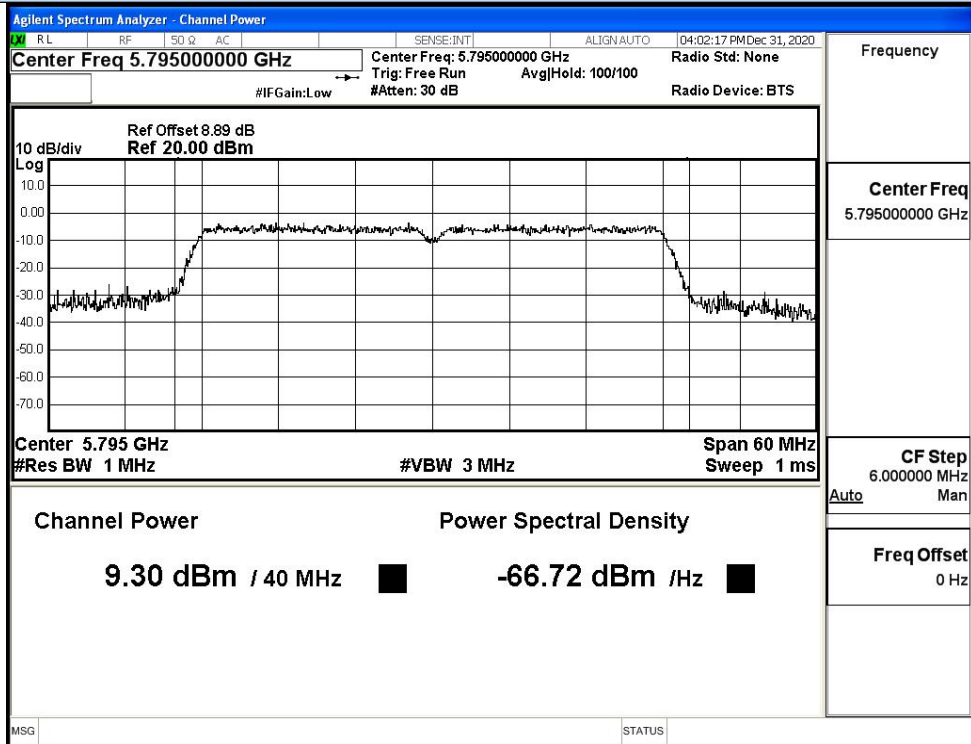


IEEE 802.11n20 / Channel 165 / 5825MHz

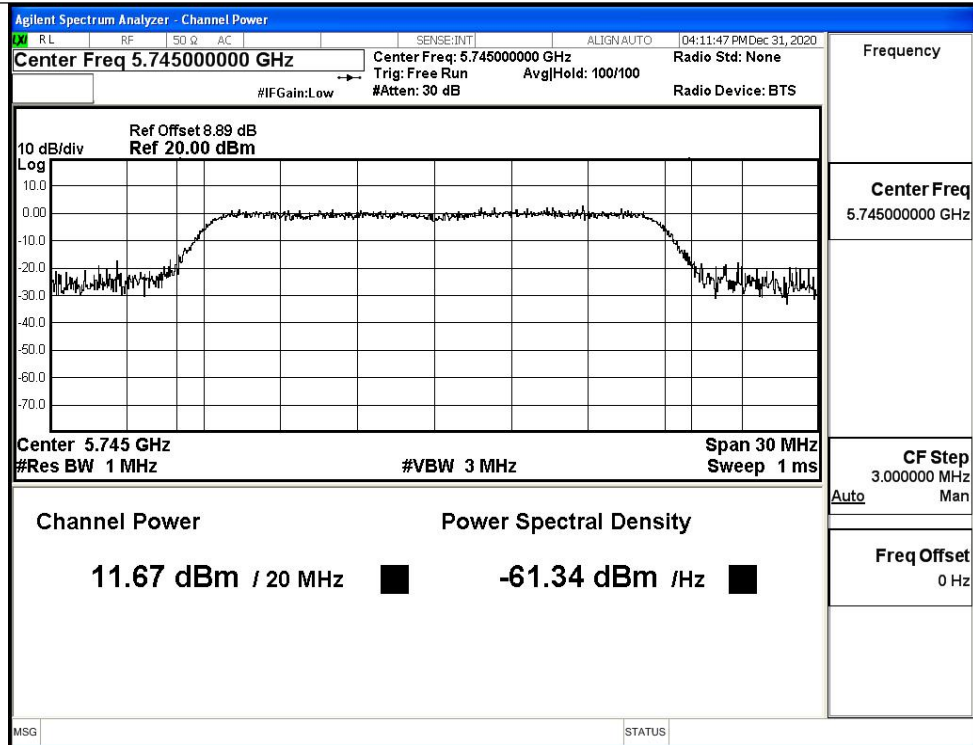
Maximum Conducted Output Power



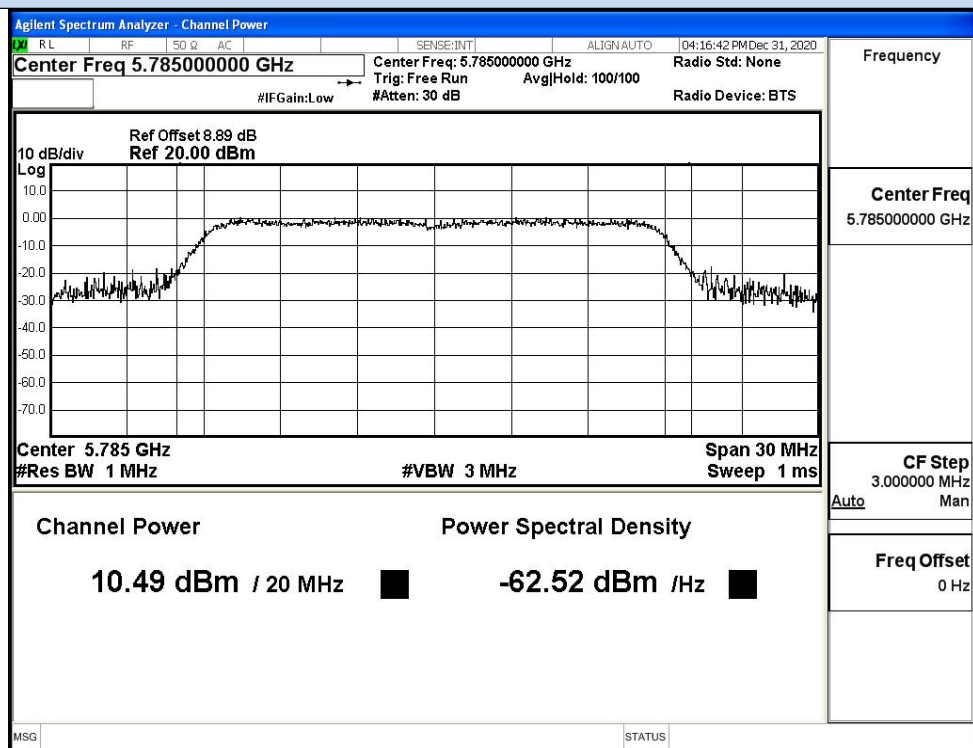
IEEE 802.11n40 / Channel 151 / 5755MHz



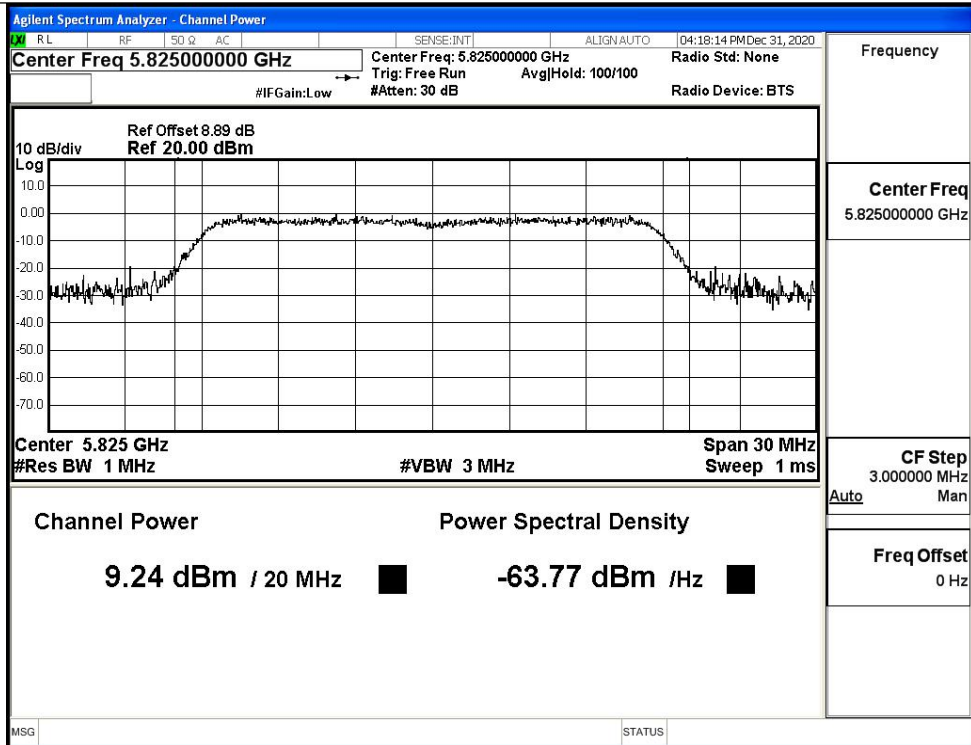
IEEE 802.11n40 / Channel 159 / 5795MHz



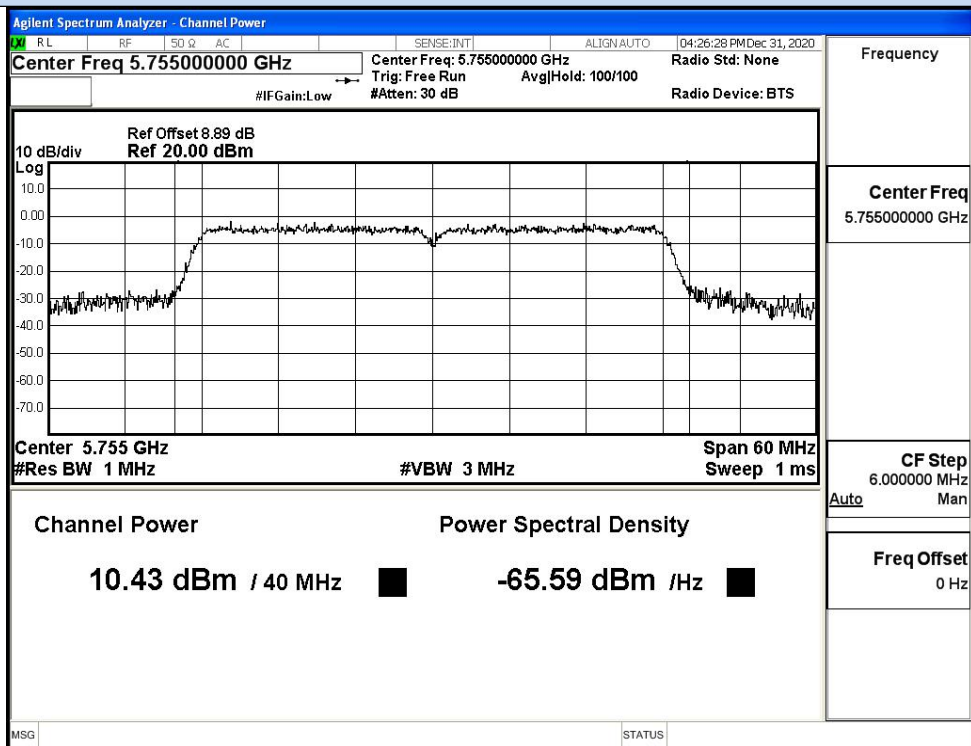
IEEE 802.11ac20 / Channel 149 / 5745MHz



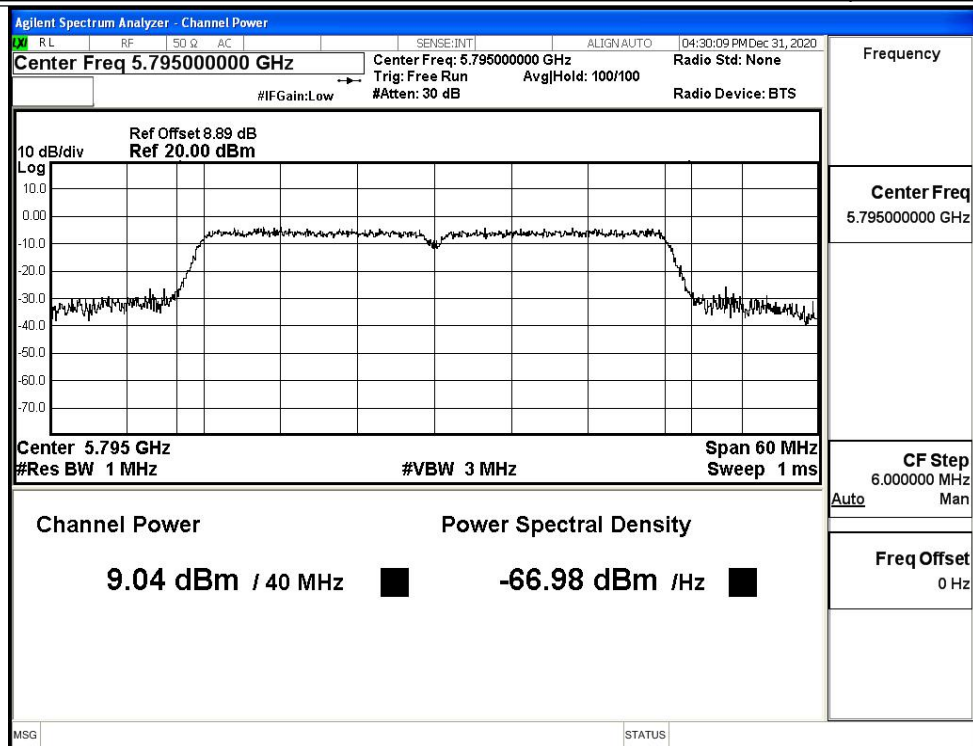
IEEE 802.11ac20 / Channel 157 / 5785MHz



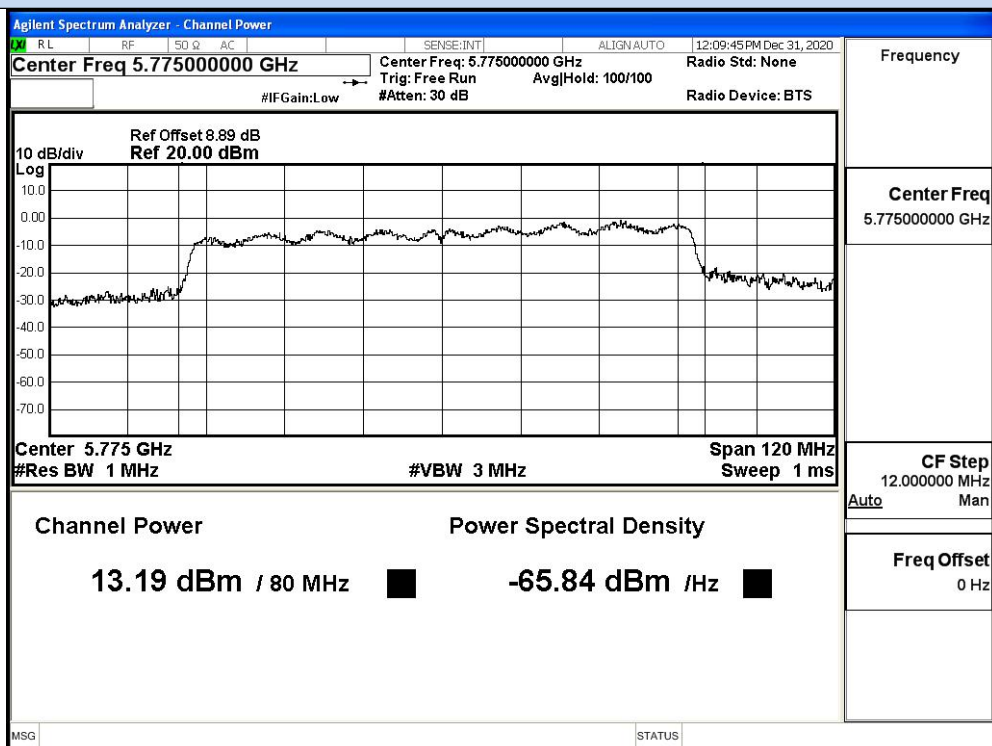
IEEE 802.11ac20 / Channel 165/ 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



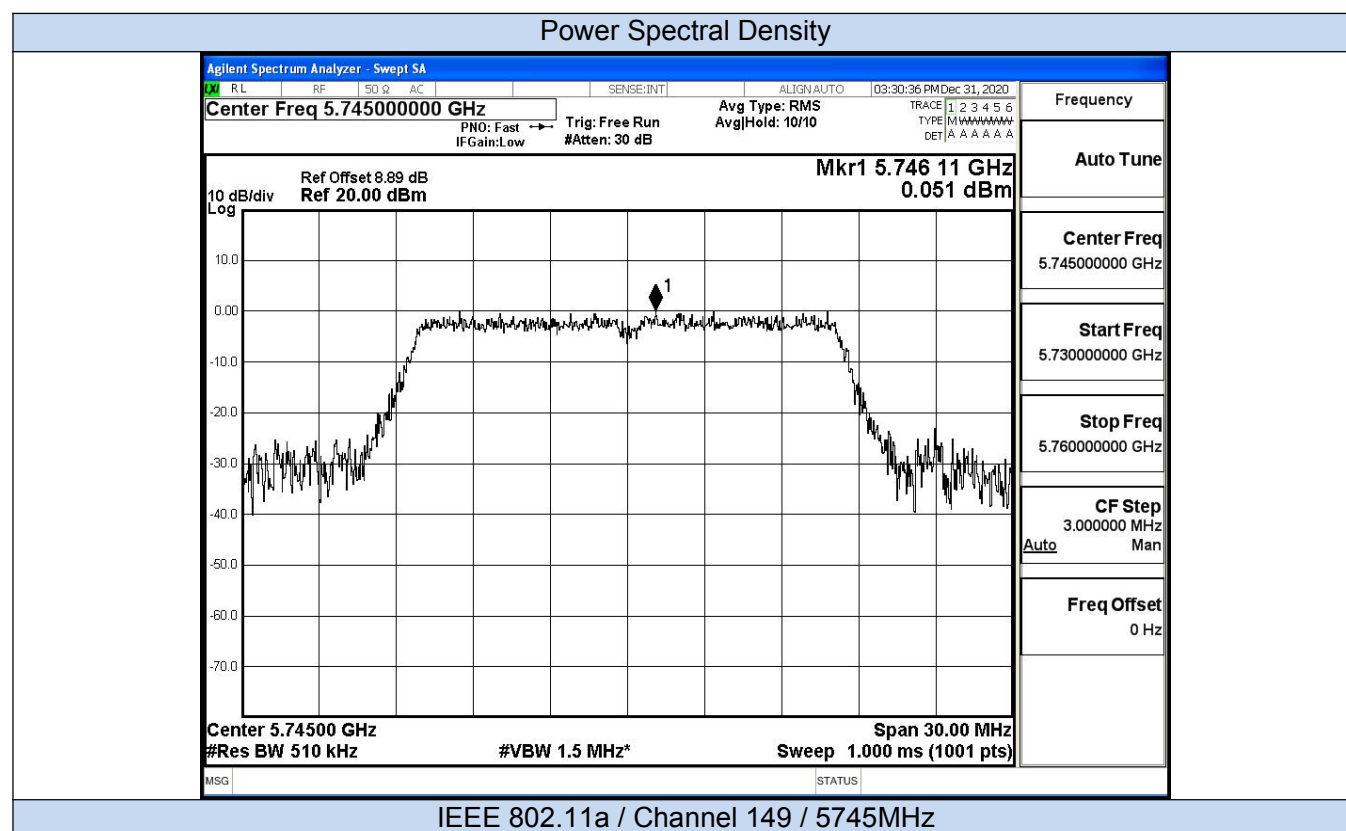
IEEE 802.11ac40 / Channel 159 / 5795MHz

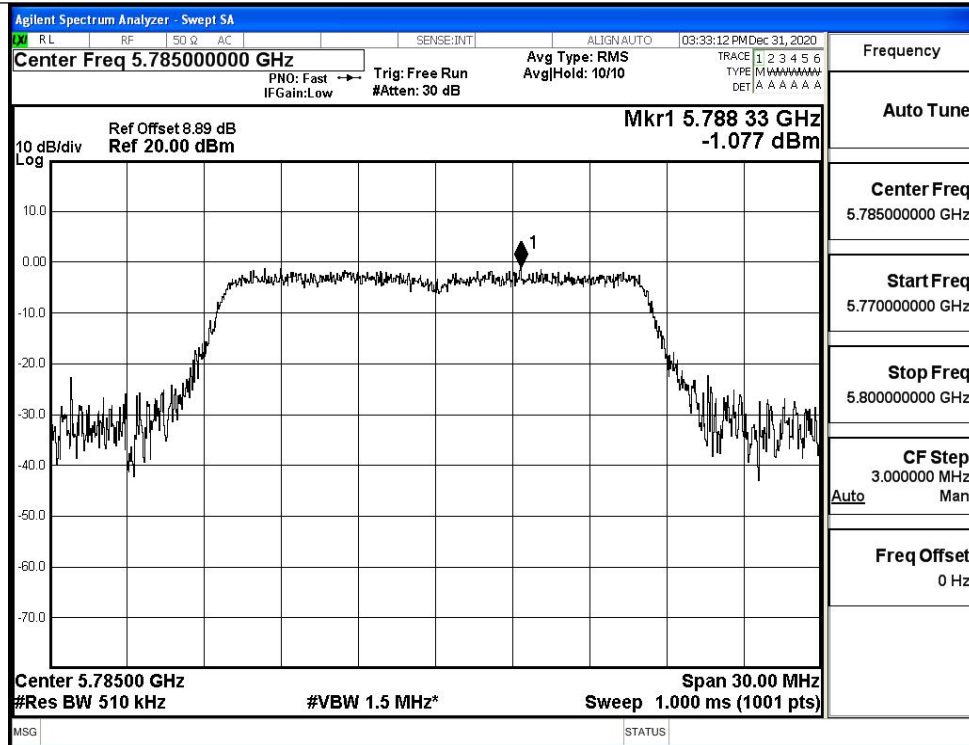


IEEE 802.11ac80 / Channel 155 / 5775MHz

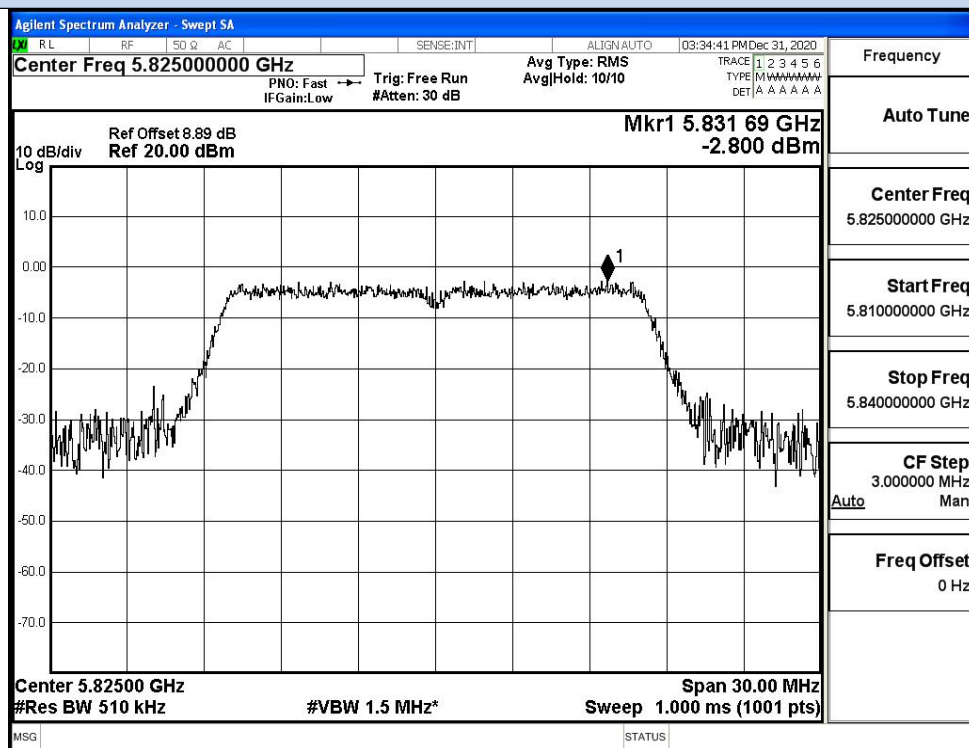
D.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/510KHz)	Duty Cycle Factor (dB)	Limit (dBm/500KHz)	Verdict
11A	149	5745	0.05	0	30	Pass
	157	5785	-1.08	0		Pass
	165	5825	-2.80	0		Pass
11N20 SISO	149	5745	0.39	0	30	Pass
	157	5785	-0.93	0		Pass
	165	5825	-2.10	0		Pass
11N40 SISO	151	5755	-4.38	0	30	Pass
	159	5795	-6.58	0		Pass
11AC20 SISO	149	5745	-0.75	0	30	Pass
	157	5785	-2.03	0		Pass
	165	5825	-3.07	0		Pass
11AC40 SISO	151	5755	-4.69	0	30	Pass
	159	5795	-6.45	0		Pass
11AC80 SISO	155	5775	-12.16	0	30	Pass



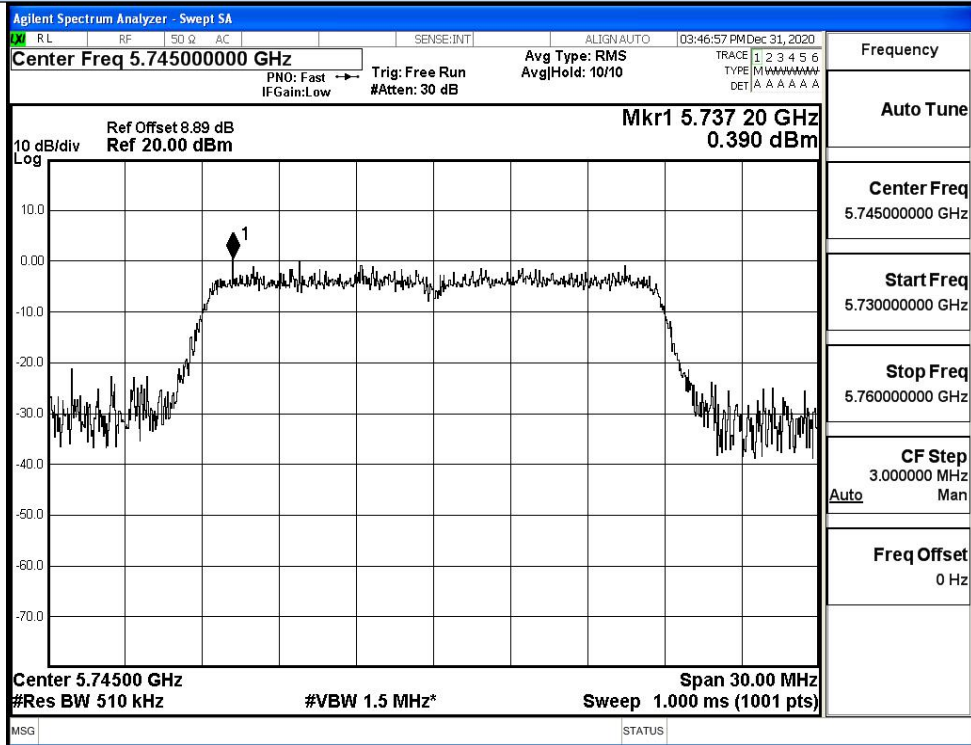


IEEE 802.11na / Channel 157 / 5785MHz

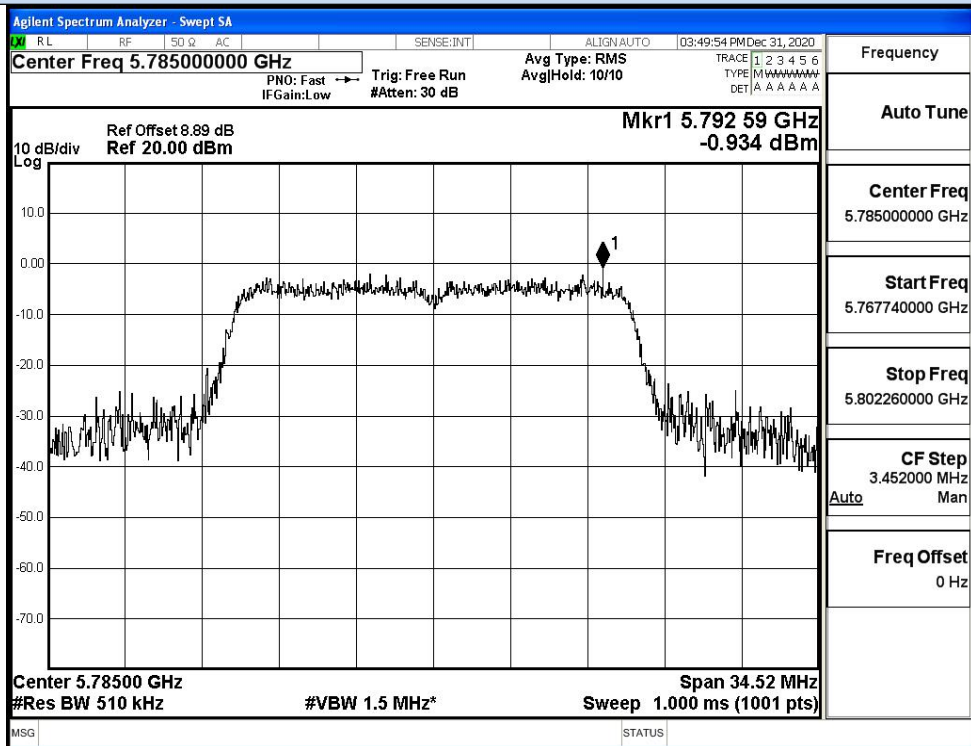


IEEE 802.11na / Channel 165 / 5825MHz

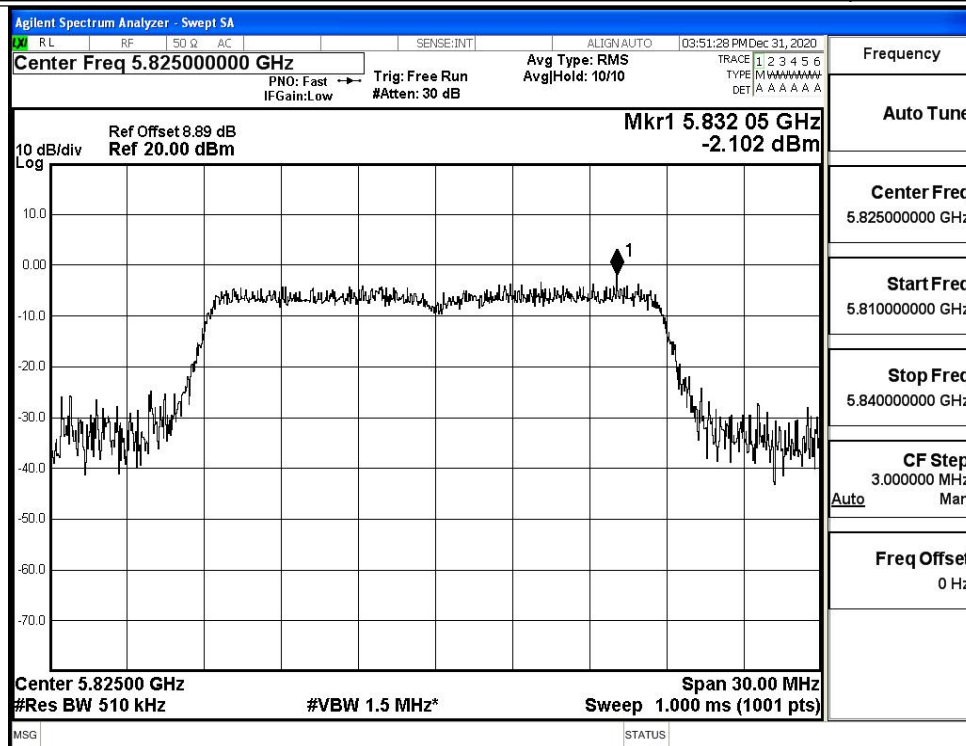
Power Spectral Density



IEEE 802.11n20 / Channel 149 / 5745MHz

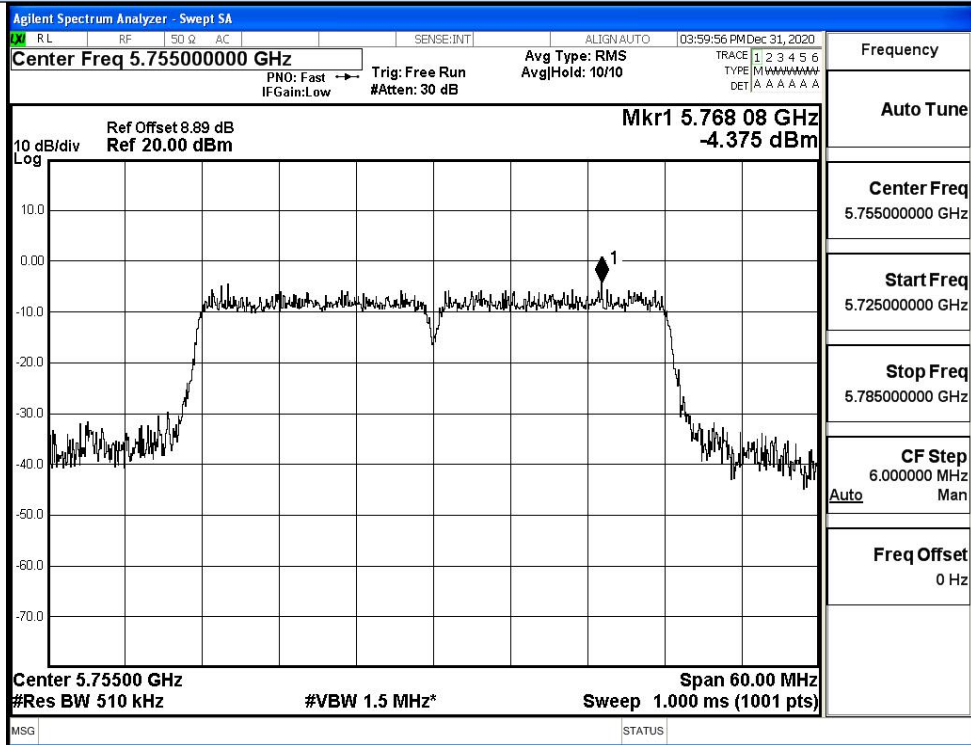


IEEE 802.11n20 / Channel 157 / 5785MHz

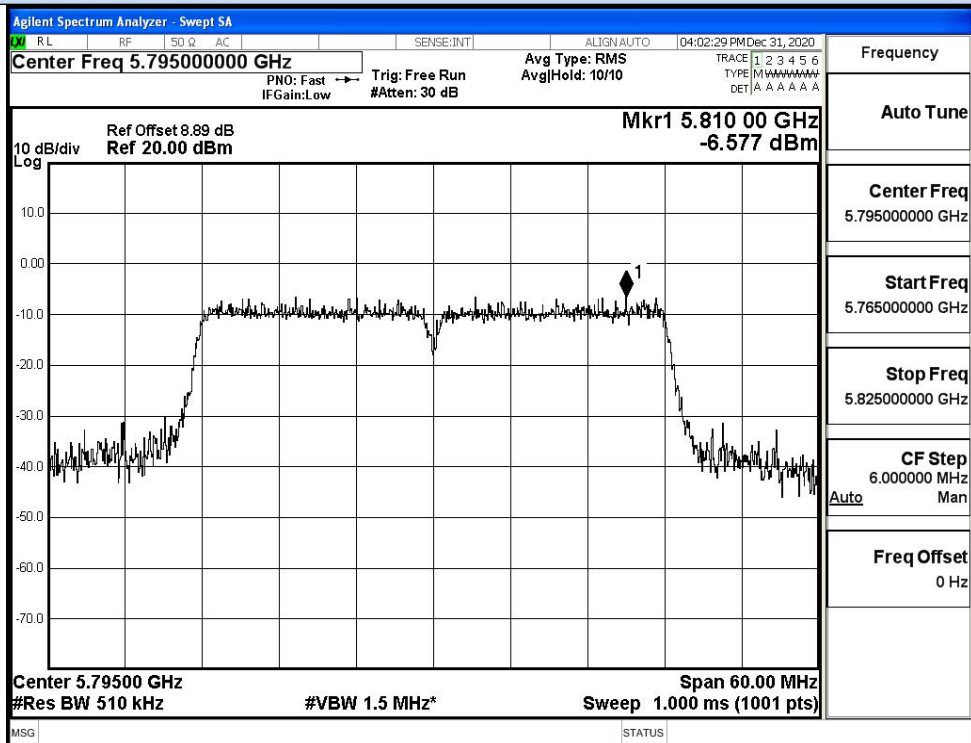


IEEE 802.11n20 / Channel 165 / 5825MHz

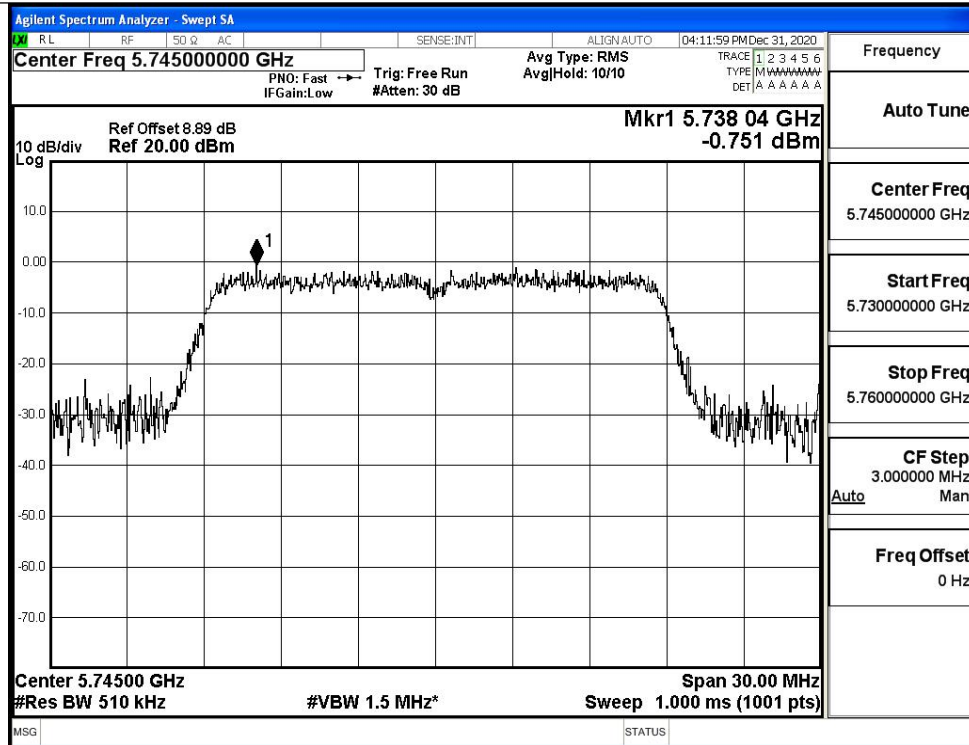
Power Spectral Density



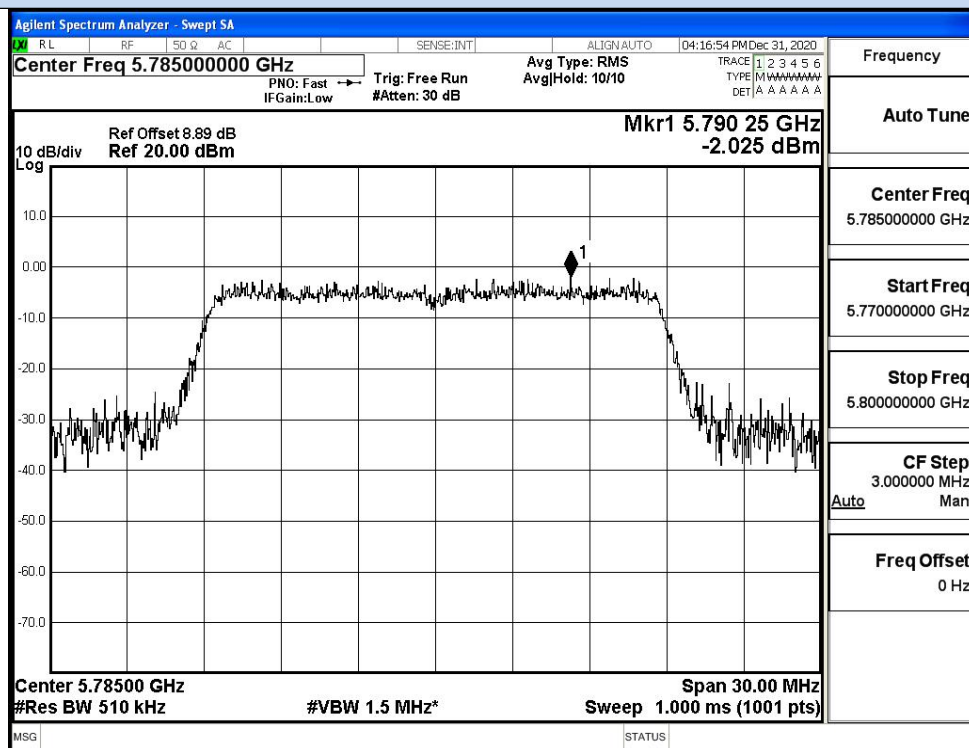
IEEE 802.11n40 / Channel 151 / 5755MHz



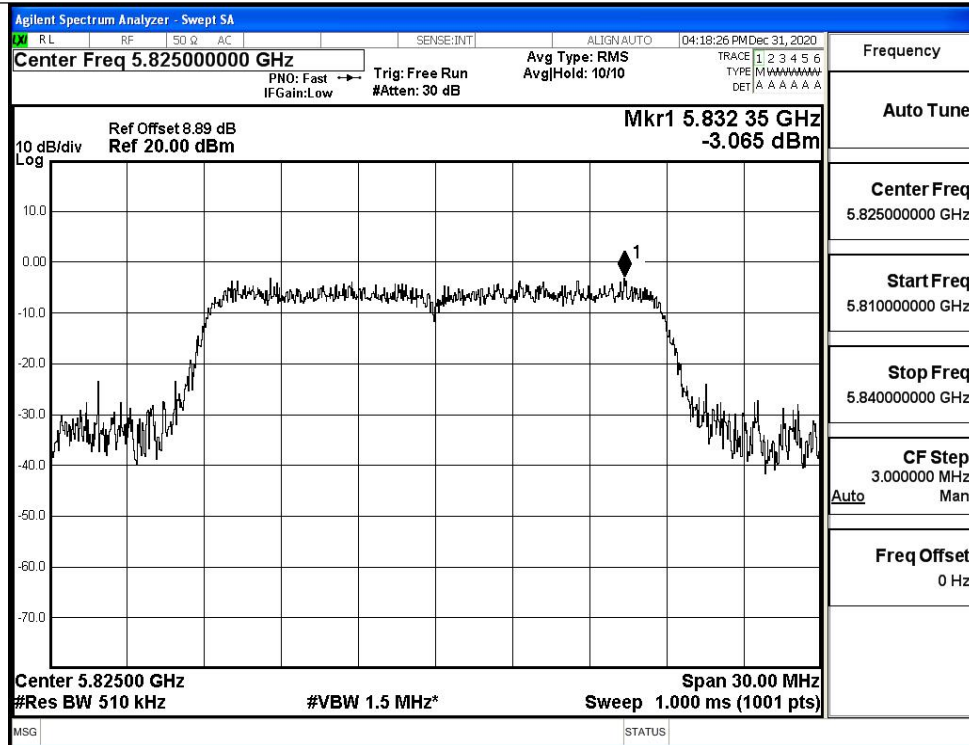
IEEE 802.11n40 / Channel 159 / 5795MHz



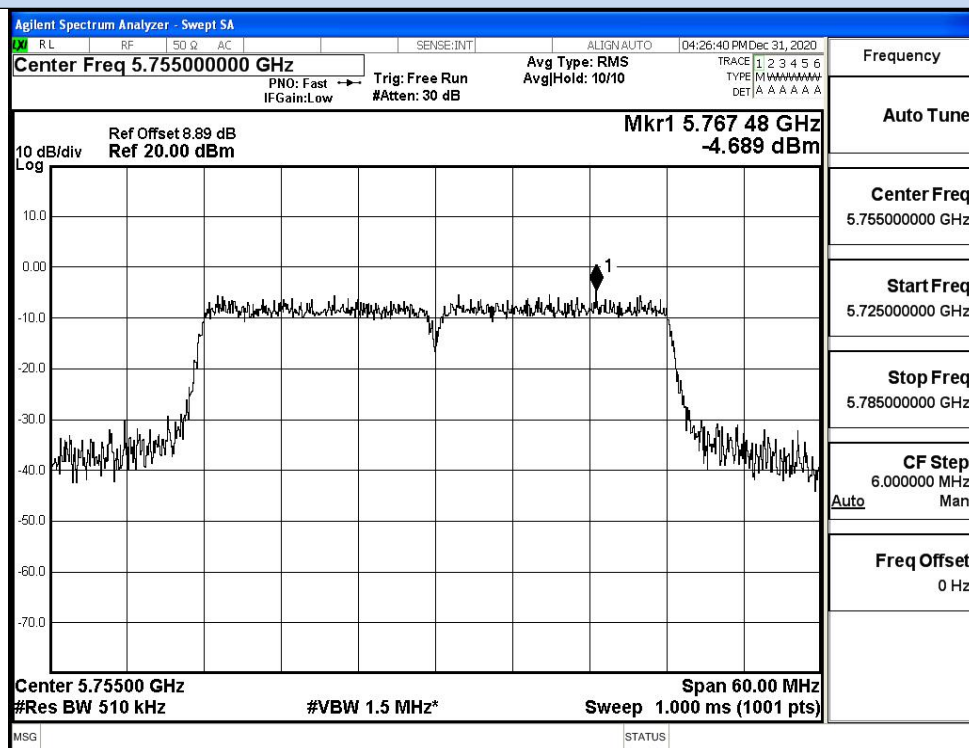
IEEE 802.11ac20 / Channel 149 / 5745MHz



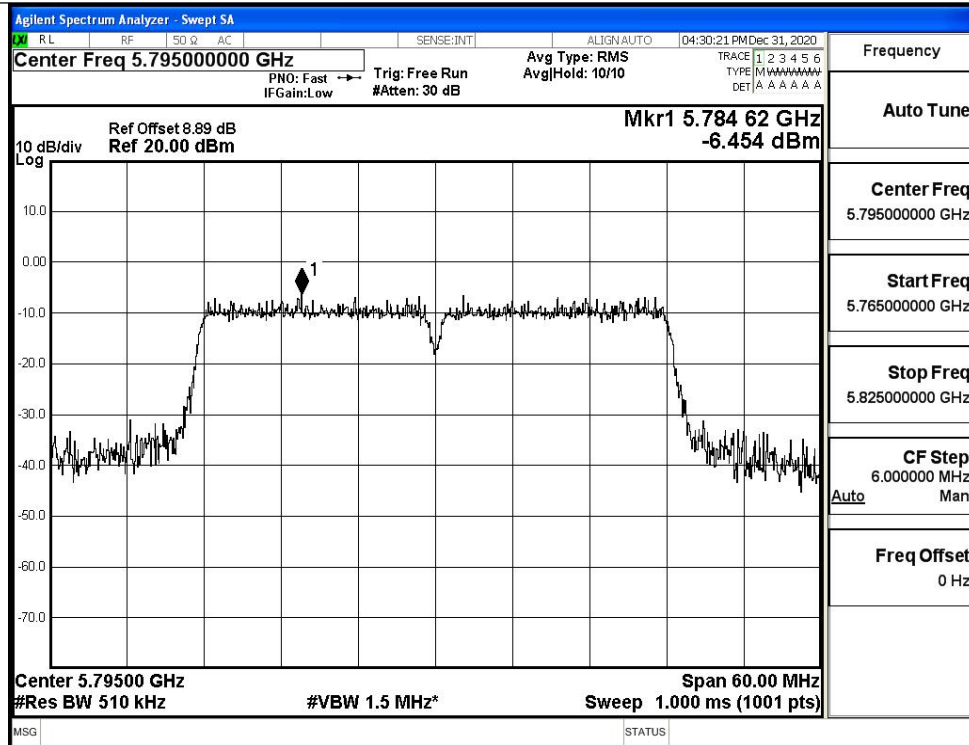
IEEE 802.11ac20 / Channel 157 / 5785MHz



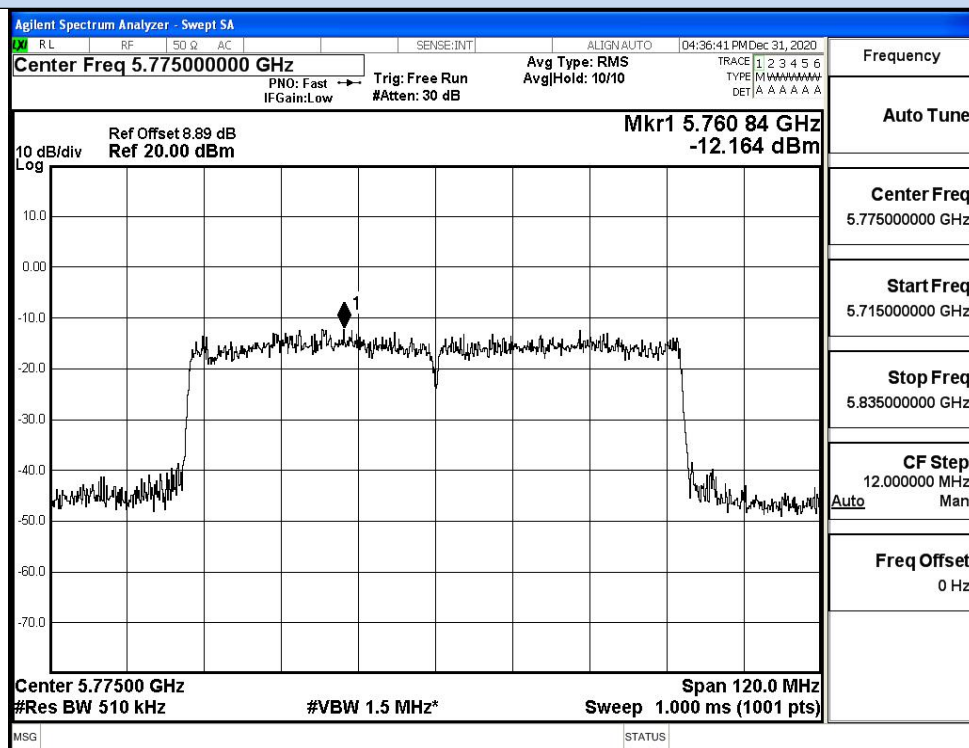
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



IEEE 802.11ac40 / Channel 159 / 5795MHz



IEEE 802.11ac80 / Channel 155/ 5775MHz