

Appendix B

RF Test Data for 5.5G WLAN (Conducted Measurement)

Product Name: IPTV Set-Top Box

Trade Mark: N/A

Test Model: SML-5041W

Environmental Conditions

Temperature:	22.3° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

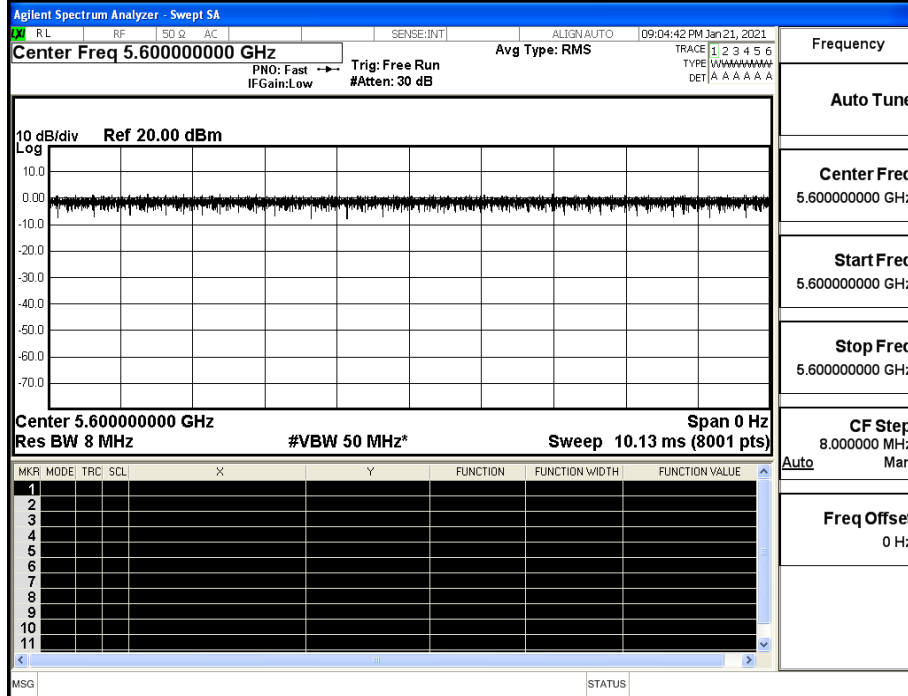
B.1 Duty Cycle

ANT0:

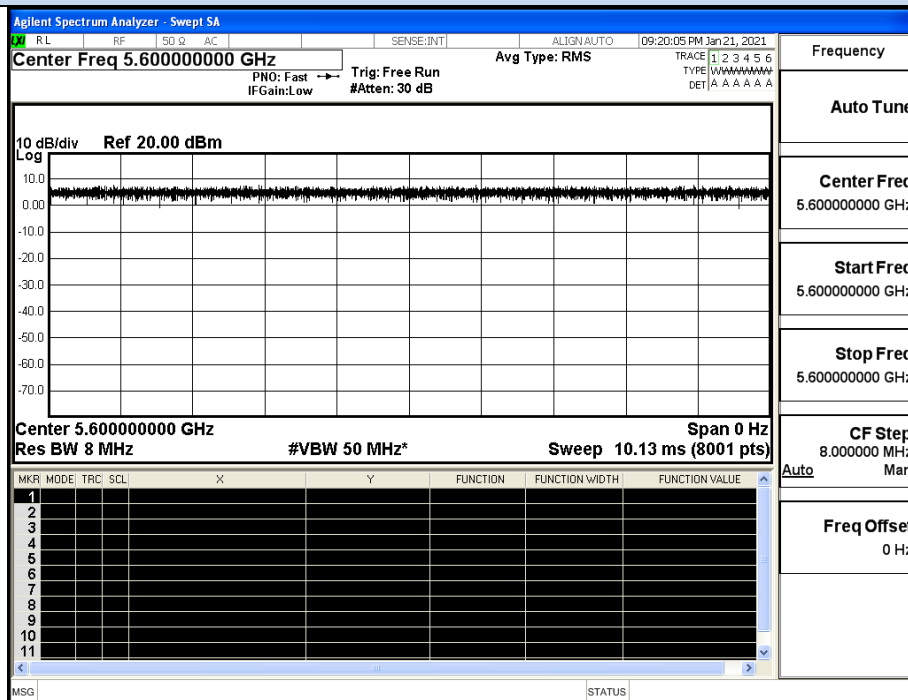
Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5600	100	0.00	0.01
11N20 SISO	5600	100	0.00	0.01
11N40 SISO	5590	100	0.00	0.01
11AC20 SISO	5600	100	0.00	0.01
11AC40 SISO	5590	100	0.00	0.01
11AC80 SISO	5610	100	0.00	0.01

Note: The frequency 5590&5610MHz data is only applicable to FCC, not applicable to ISED.

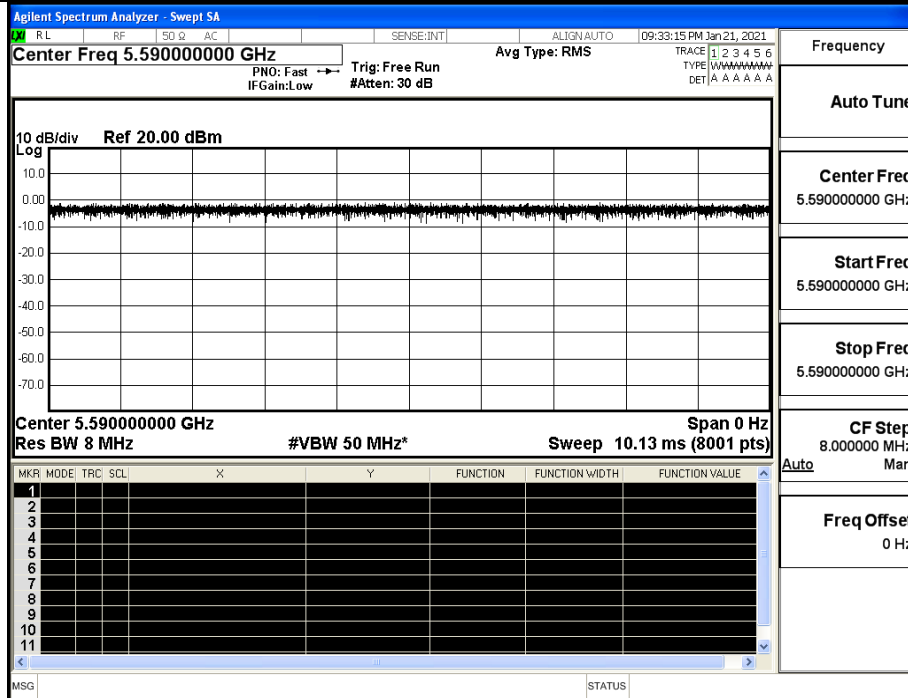
On Time and Duty Cycle



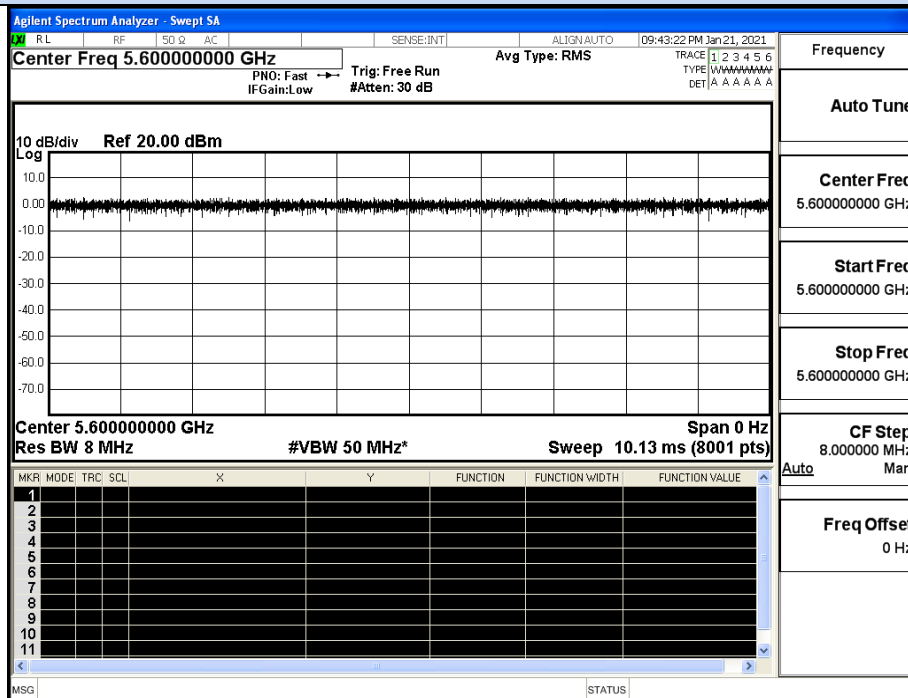
IEEE 802.11a



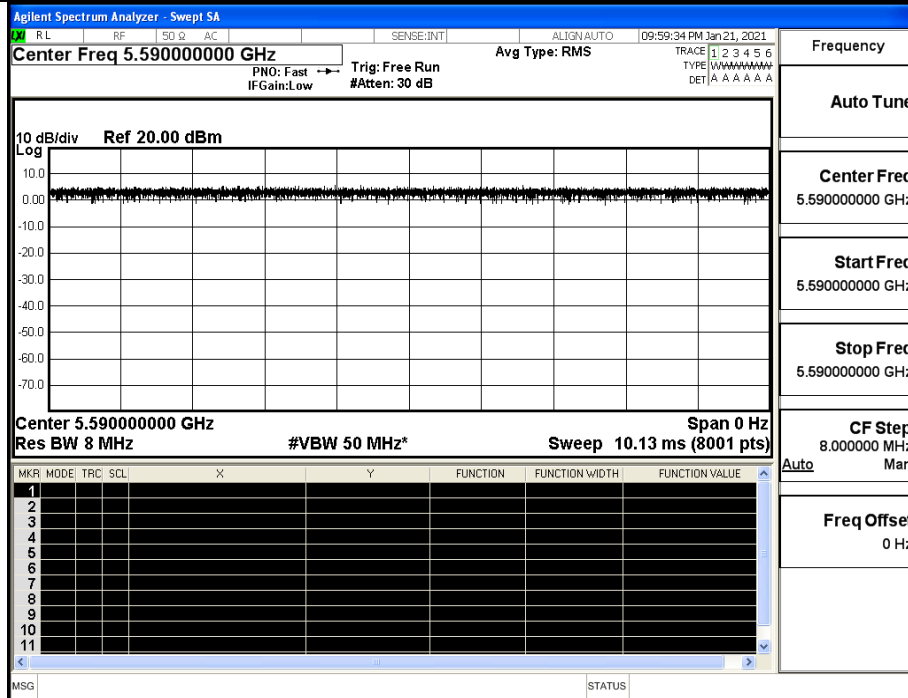
IEEE 802.11n HT20



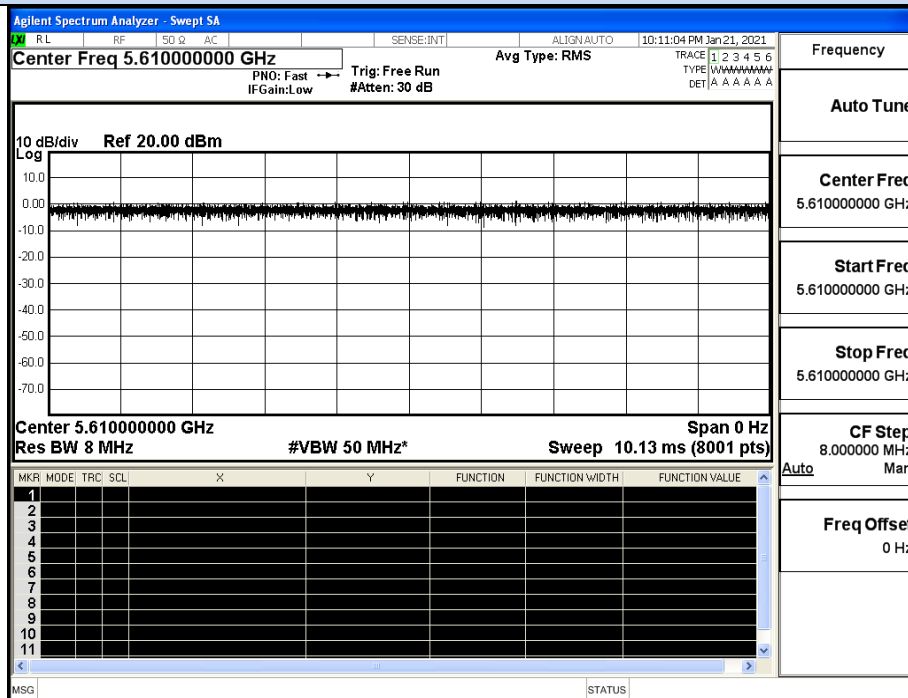
IEEE 802.11n HT40



IEEE 802.11AC20



IEEE 802.11AC40



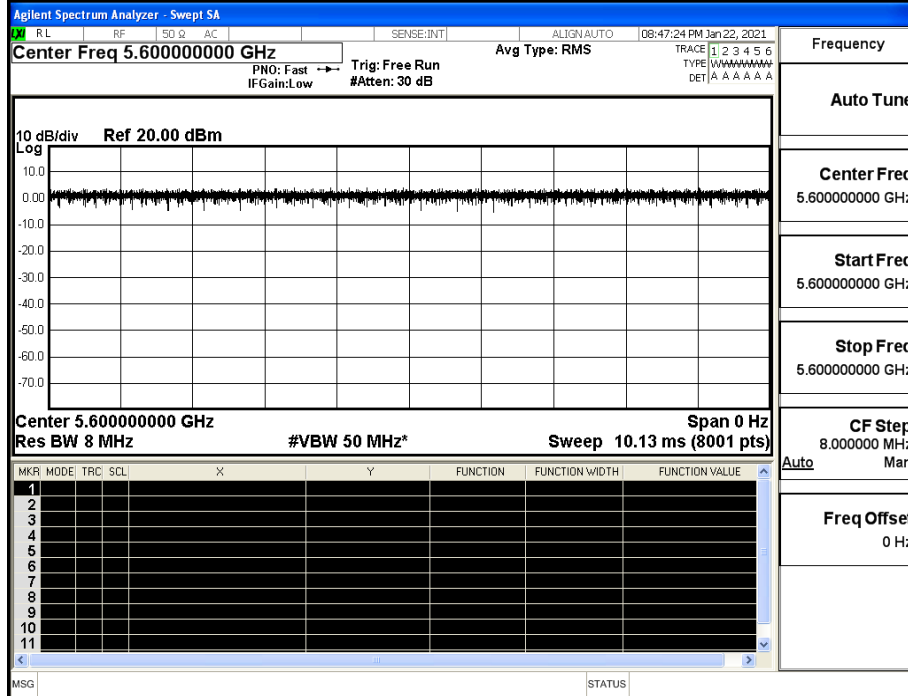
IEEE 802.11AC80

ANT1:

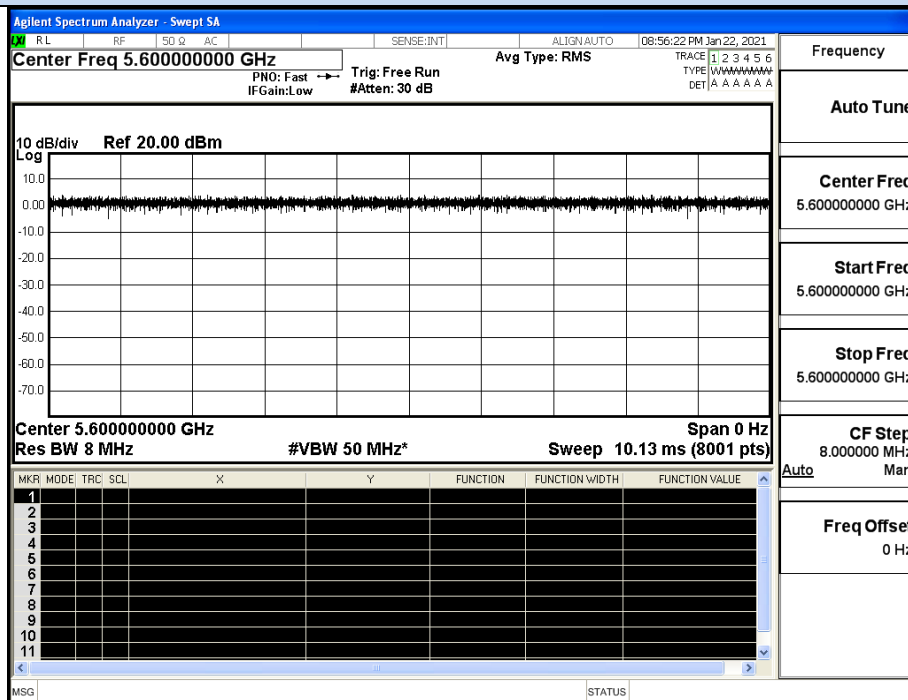
Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5600	100	0.00	0.01
11N20 SISO	5600	100	0.00	0.01
11N40 SISO	5590	100	0.00	0.01
11AC20 SISO	5600	100	0.00	0.01
11AC40 SISO	5590	100	0.00	0.01
11AC80 SISO	5610	100	0.00	0.01

Note: The frequency 5590&5610MHz data is only applicable to FCC, not applicable to ISCED.

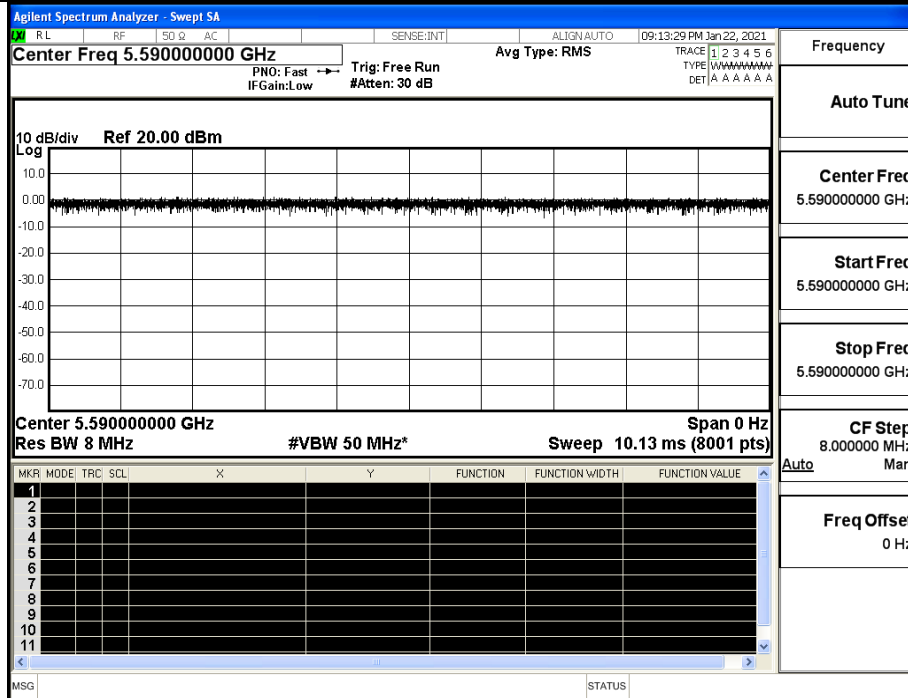
On Time and Duty Cycle



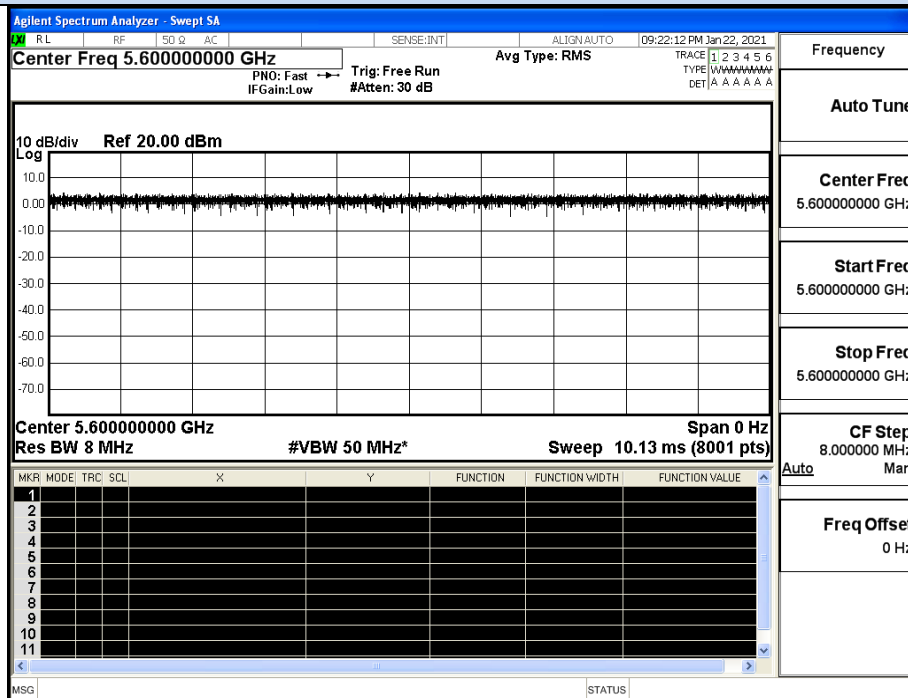
IEEE 802.11a



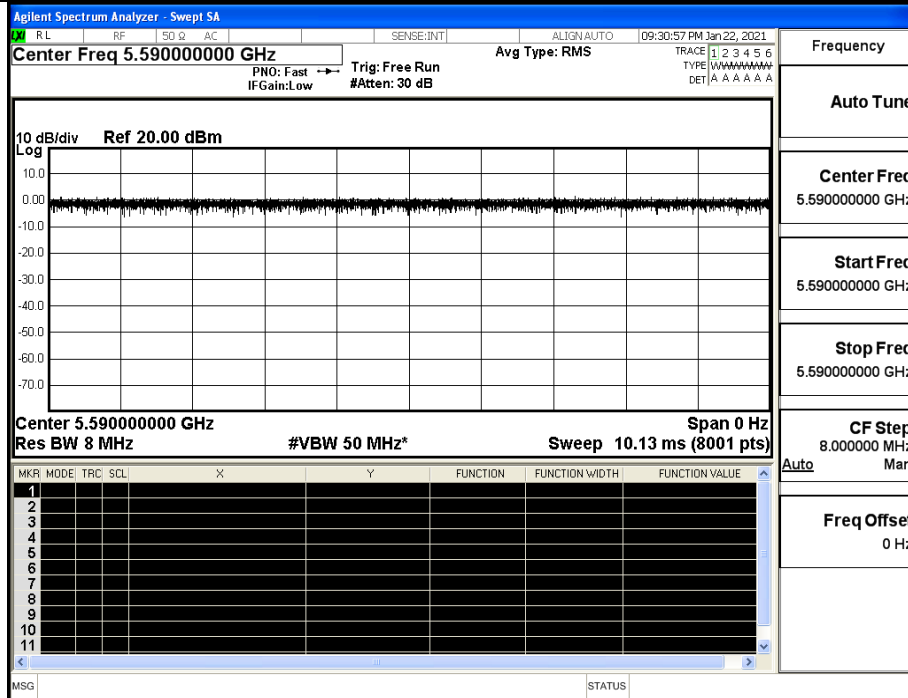
IEEE 802.11n HT20



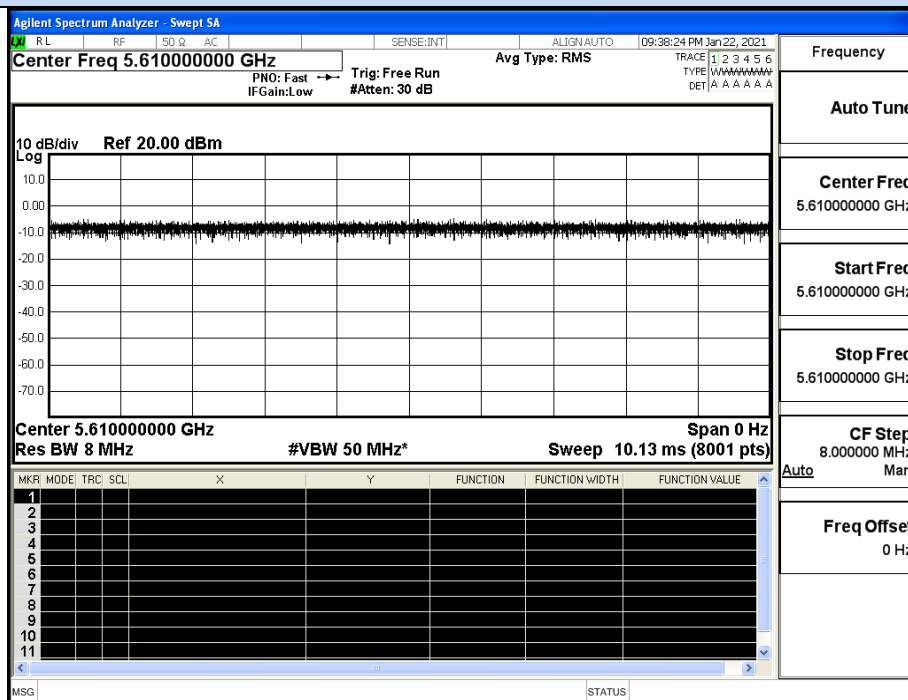
IEEE 802.11n HT40



IEEE 802.11AC20



IEEE 802.11AC40



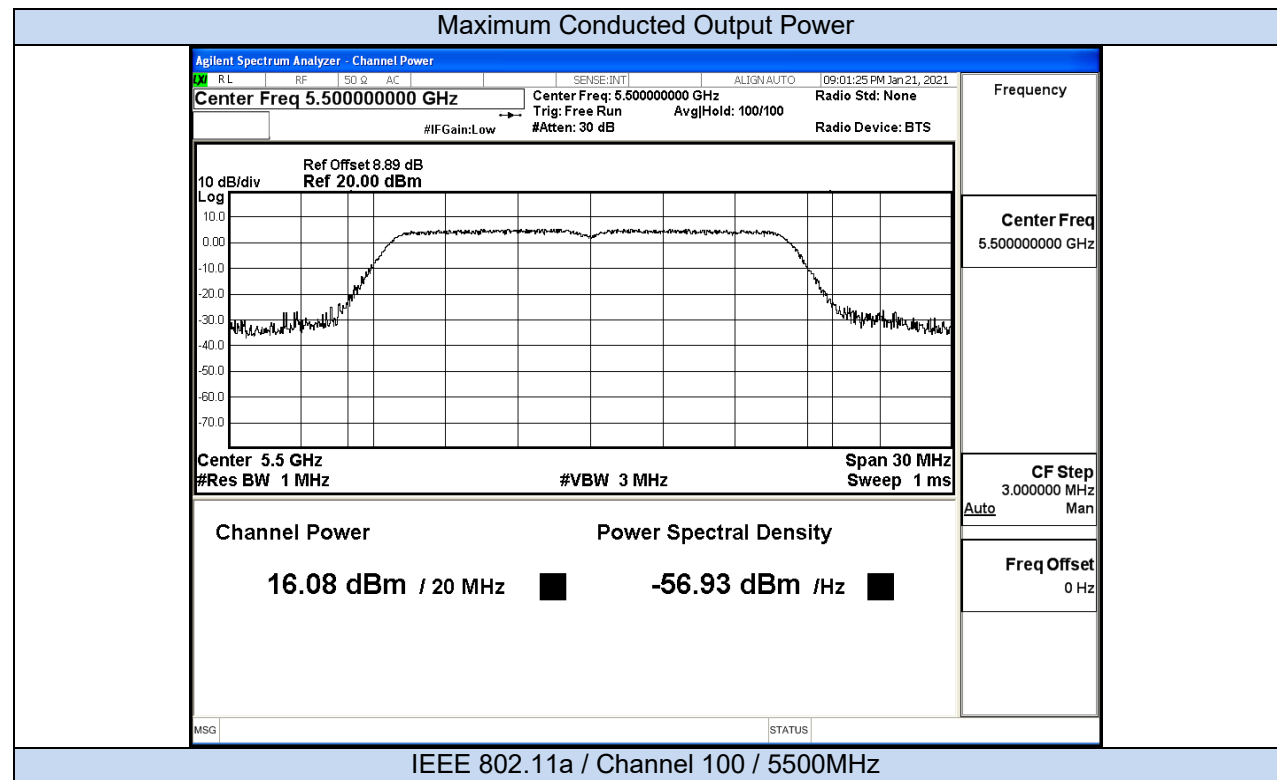
IEEE 802.11AC80

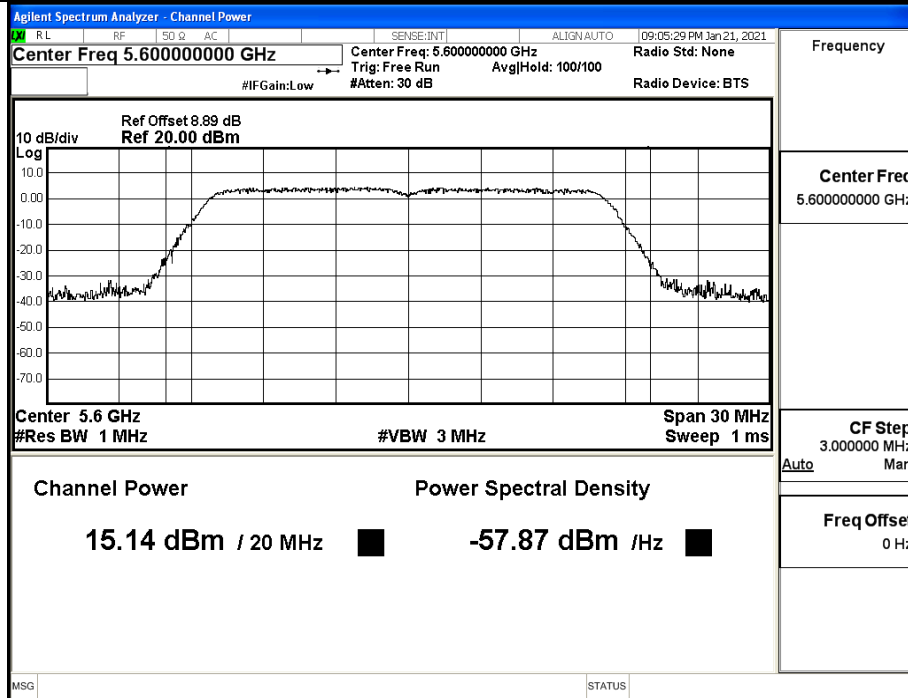
B.2 Maximum Conduct Output Power

ANT0:

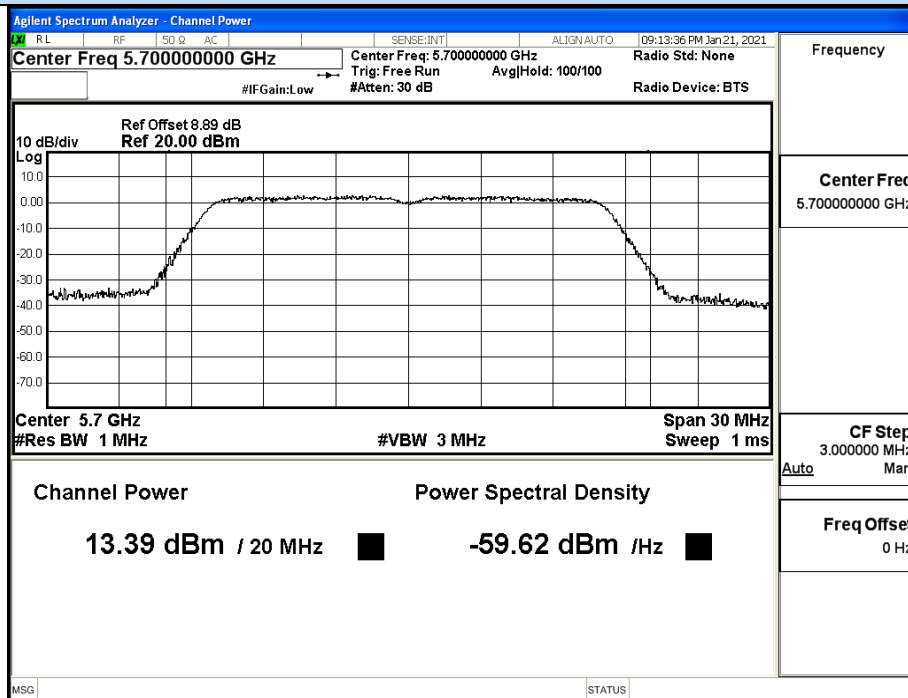
Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	100	5500	16.08	0	16.08	24	Pass
	120	5600	15.14	0	15.14		Pass
	140	5700	13.39	0	13.39		Pass
11N20 SISO	100	5500	16.38	0	16.38	24	Pass
	120	5600	15.62	0	15.62		Pass
	140	5700	13.76	0	13.76		Pass
11N40 SISO	102	5510	16.8	0	16.8	24	Pass
	118	5590	16.39	0	16.39		Pass
	134	5670	14.24	0	14.24		Pass
11ac20 SISO	100	5500	17.32	0	17.32	24	Pass
	120	5600	16.73	0	16.73		Pass
	140	5700	13.52	0	13.52		Pass
11ac40 SISO	102	5510	16.98	0	16.98	24	Pass
	118	5590	16.03	0	16.03		Pass
	134	5670	13.99	0	13.99		Pass
11ac80 SISO	106	5530	17.68	0	17.68	24	Pass
	122	5610	14.97	0	14.97		Pass

Note: The frequency 5590&5610MHz data is only applicable to FCC, not applicable to ISED.



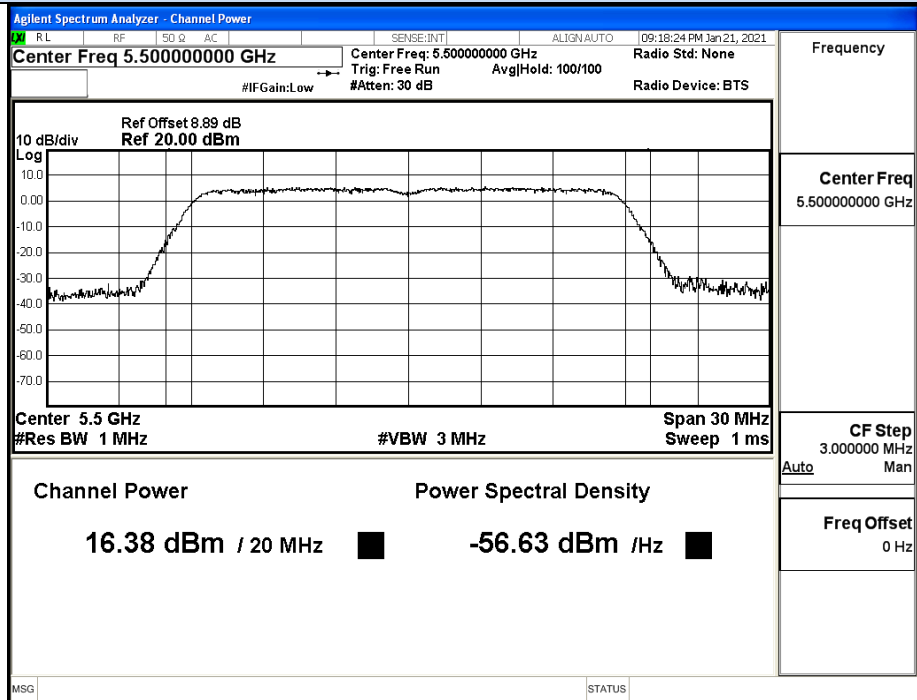


IEEE 802.11a / Channel 120 / 5600MHz

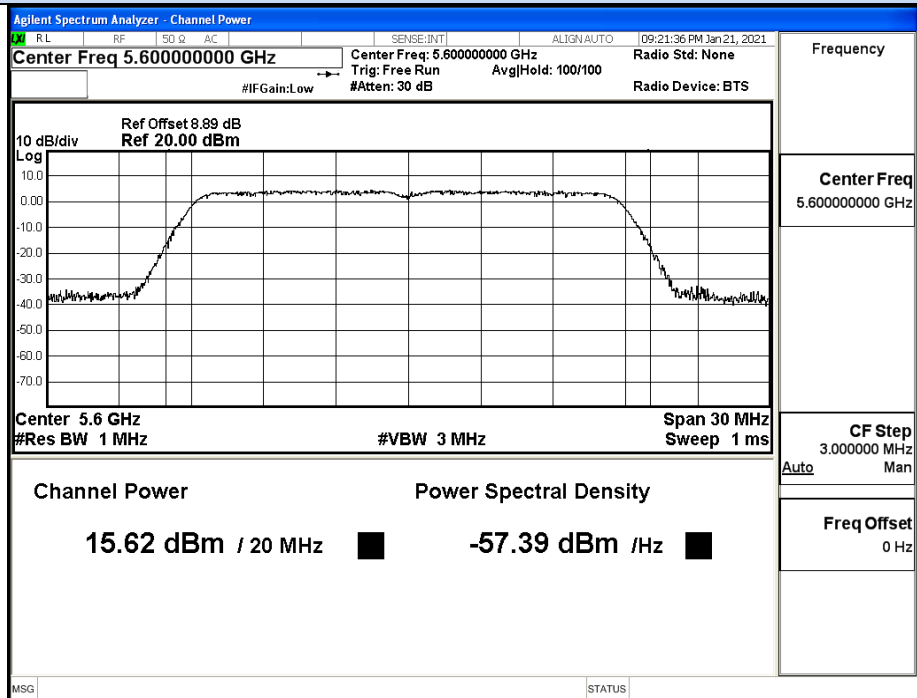


IEEE 802.11a / Channel 140 / 5700MHz

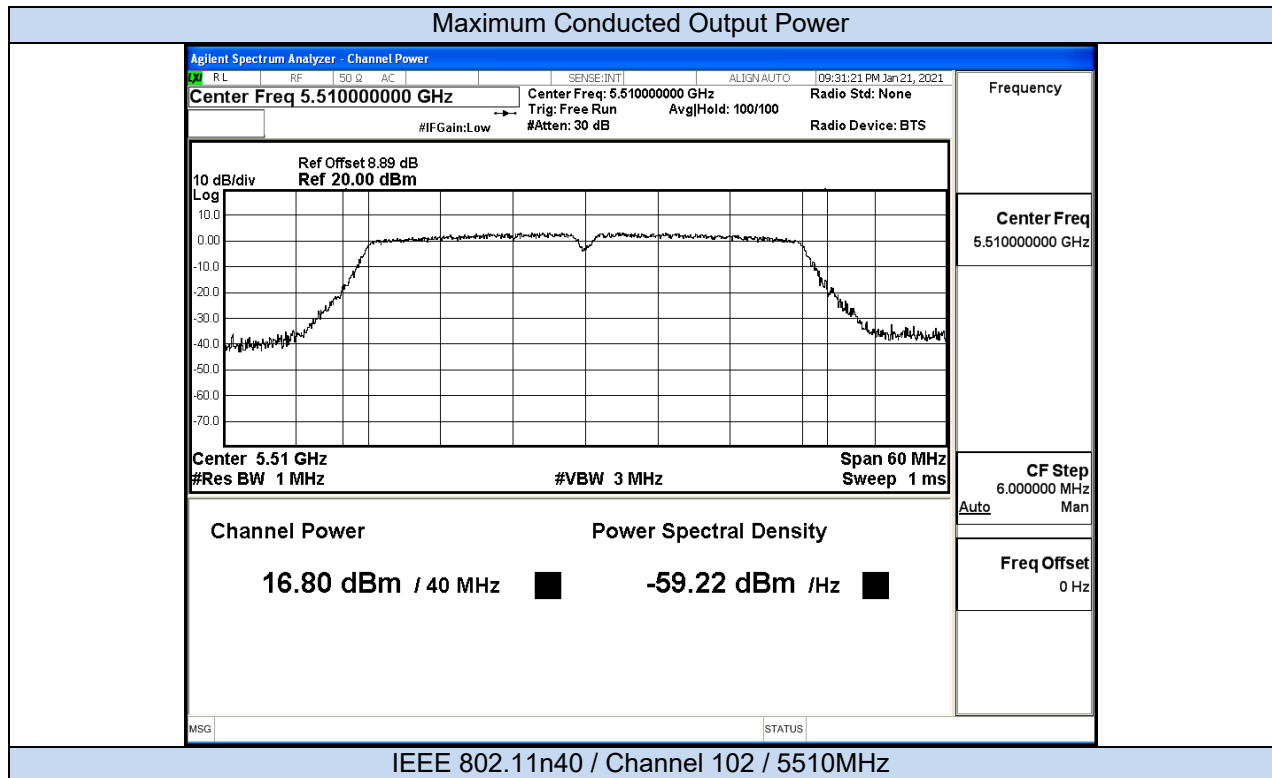
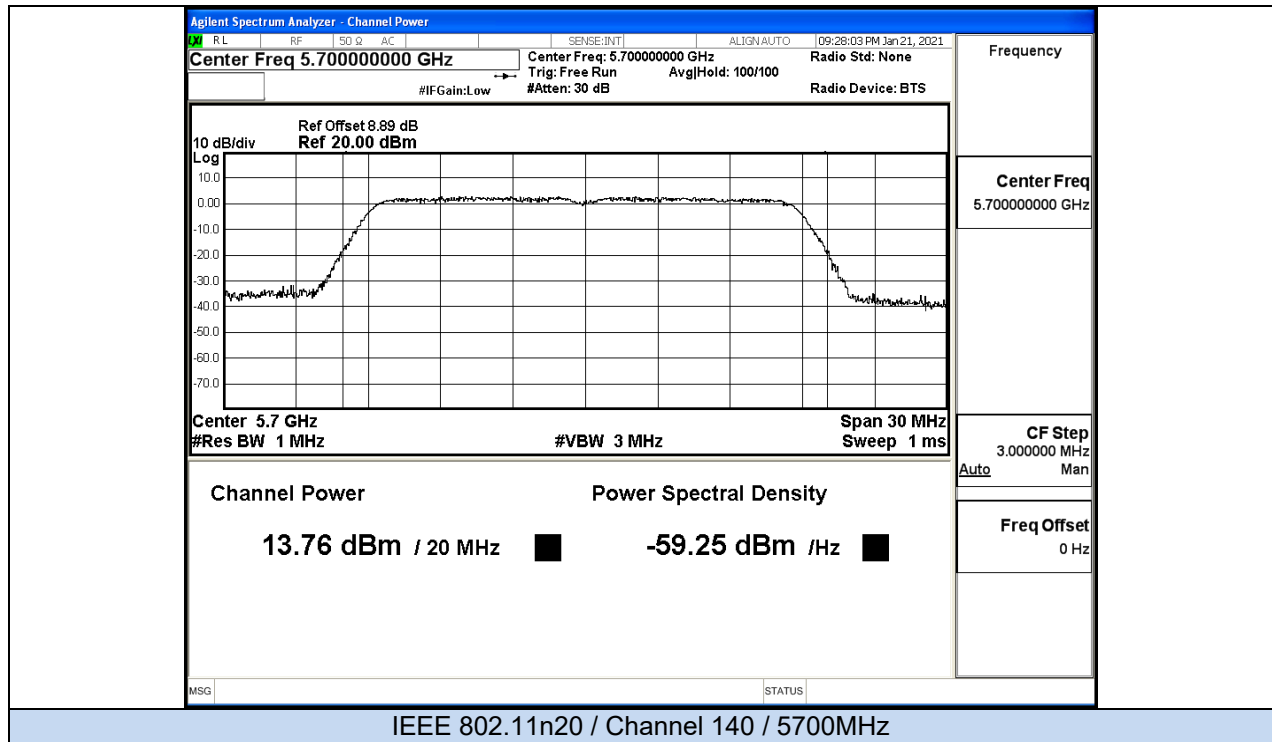
Maximum Conducted Output Power

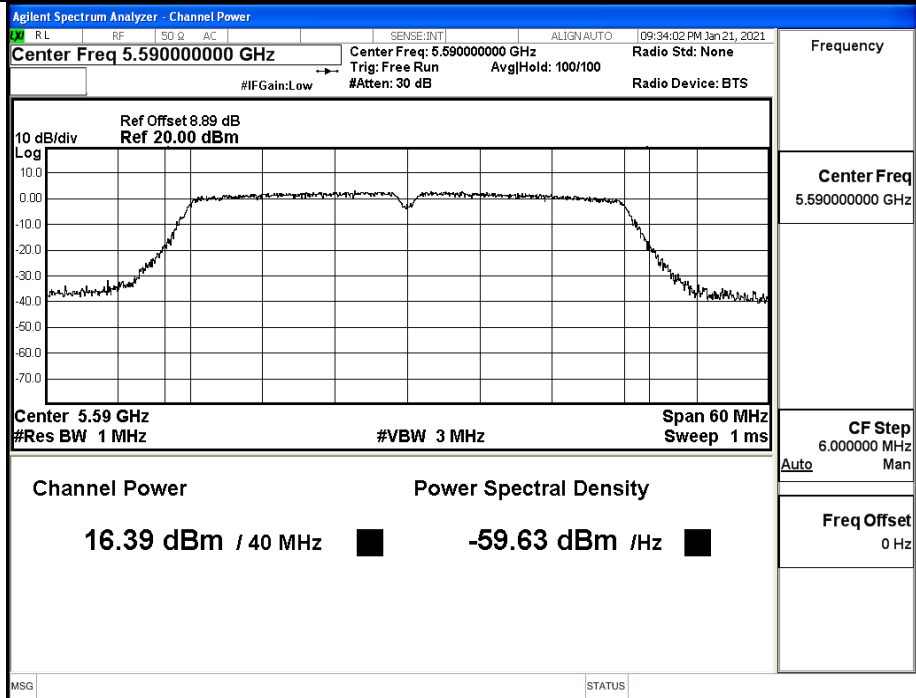


IEEE 802.11n20 / Channel 100 / 5500MHz

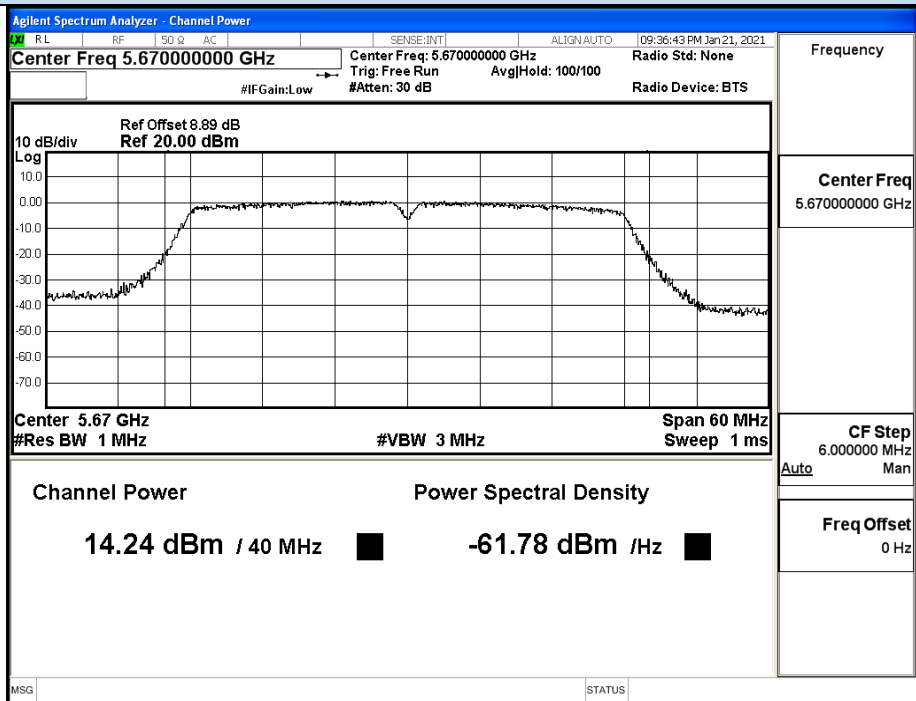


IEEE 802.11n20 / Channel 120 / 5600MHz

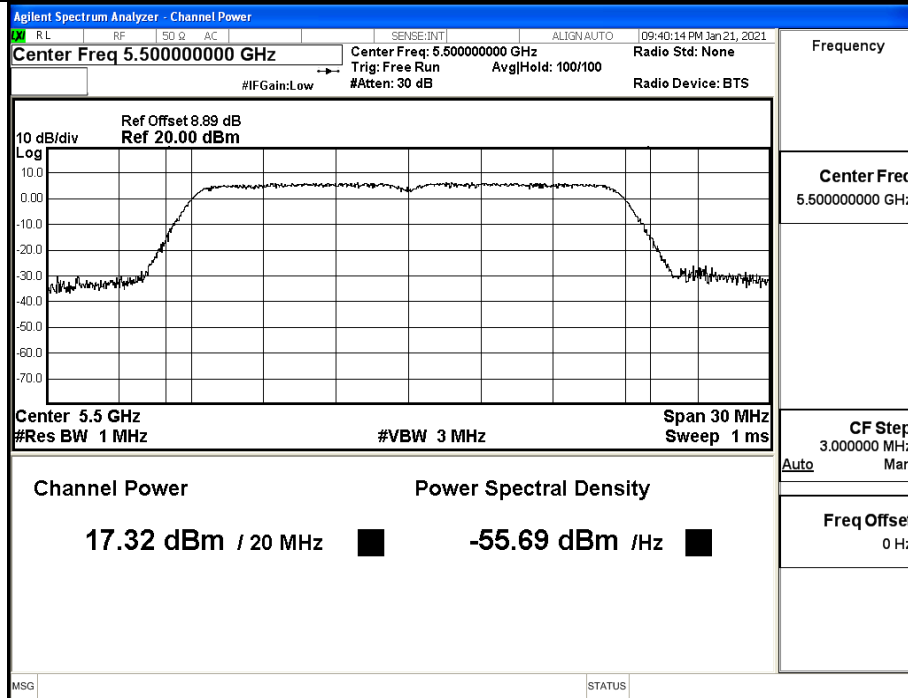




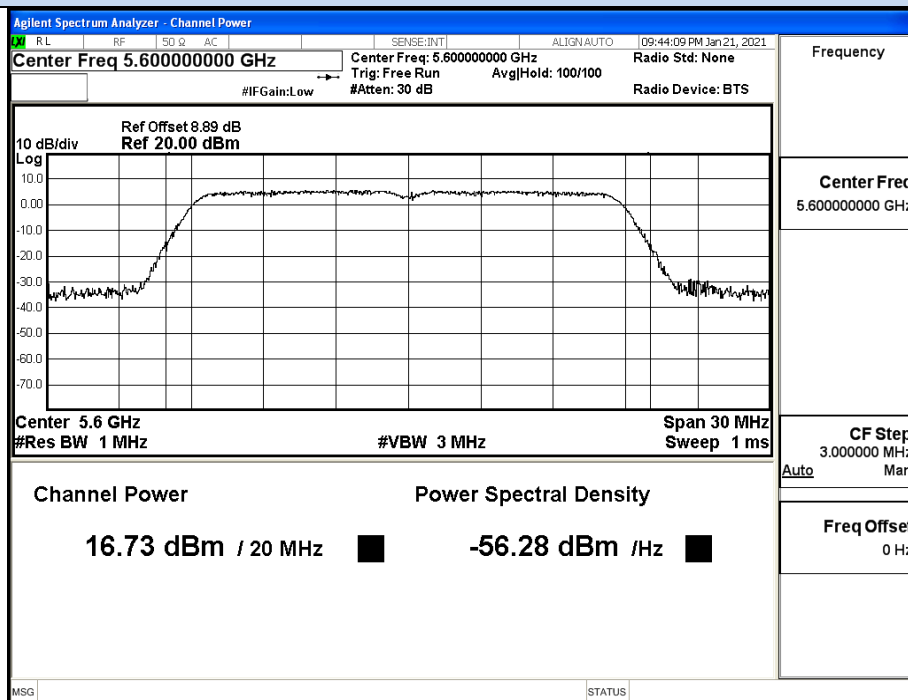
IEEE 802.11n40 / Channel 118 / 5590MHz



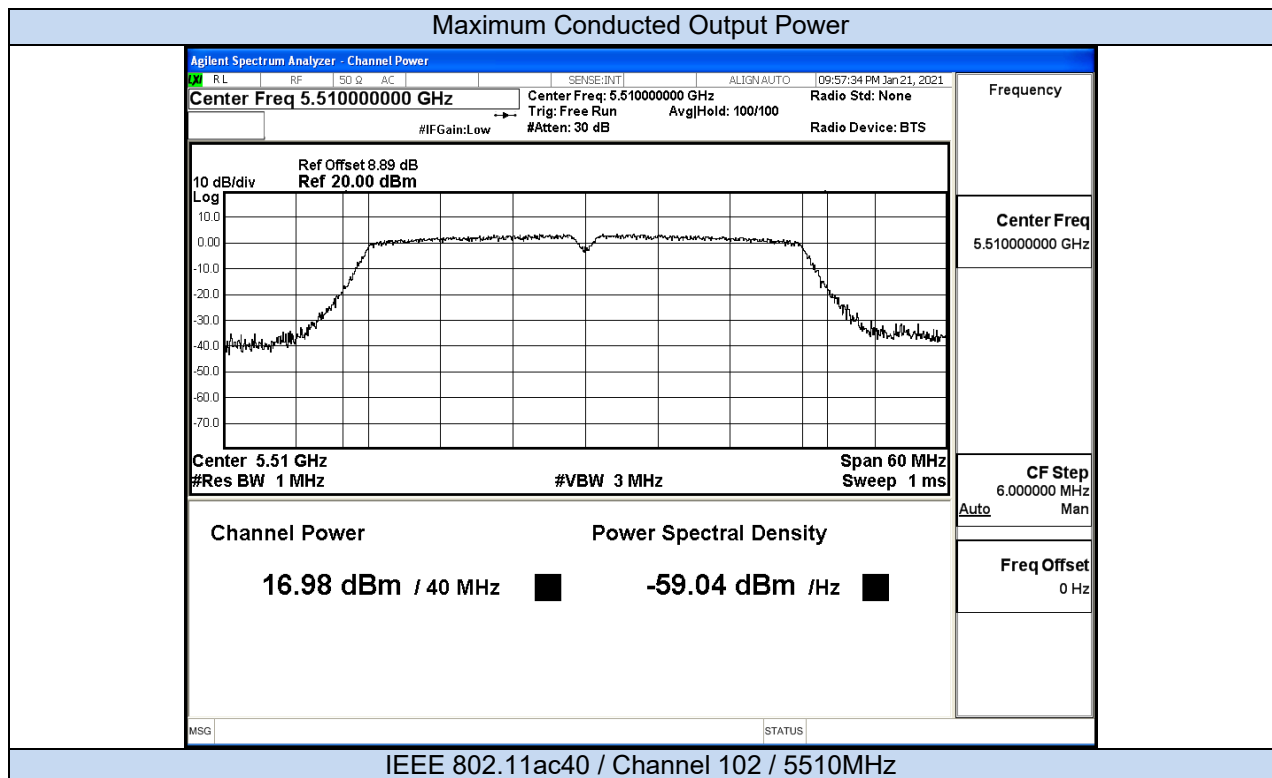
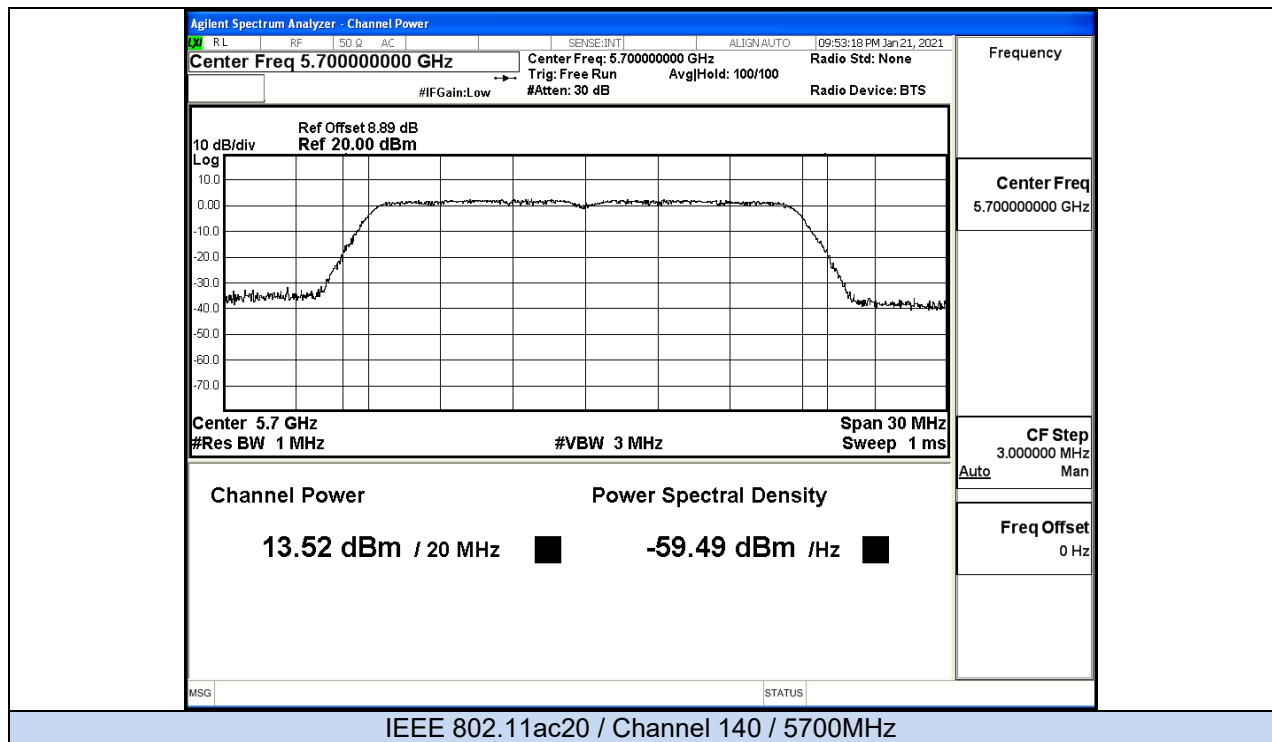
IEEE 802.11n40 / Channel 134 / 5670MHz

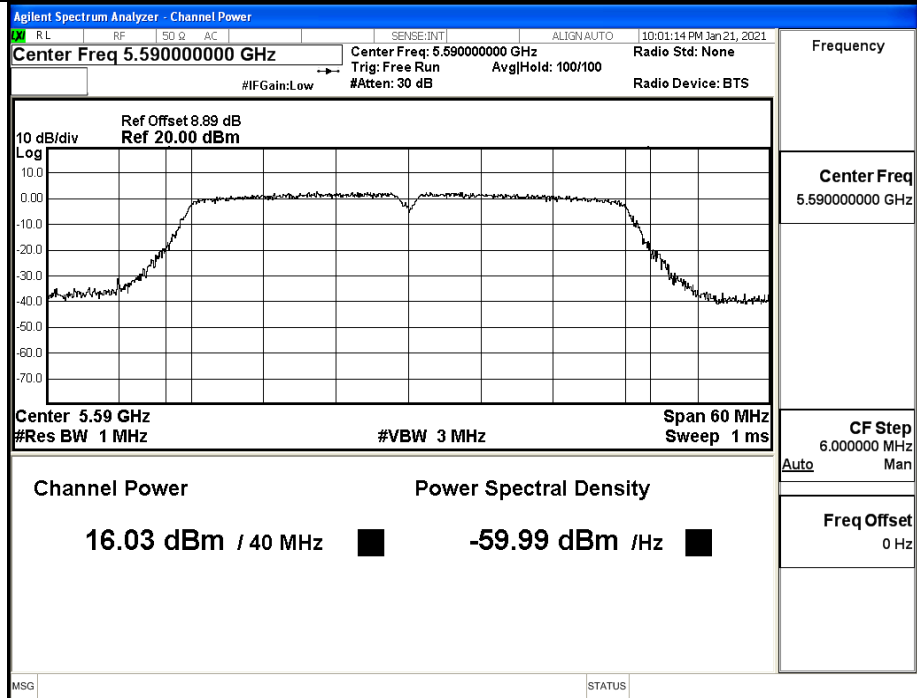


IEEE 802.11ac20 / Channel 100 / 5500MHz

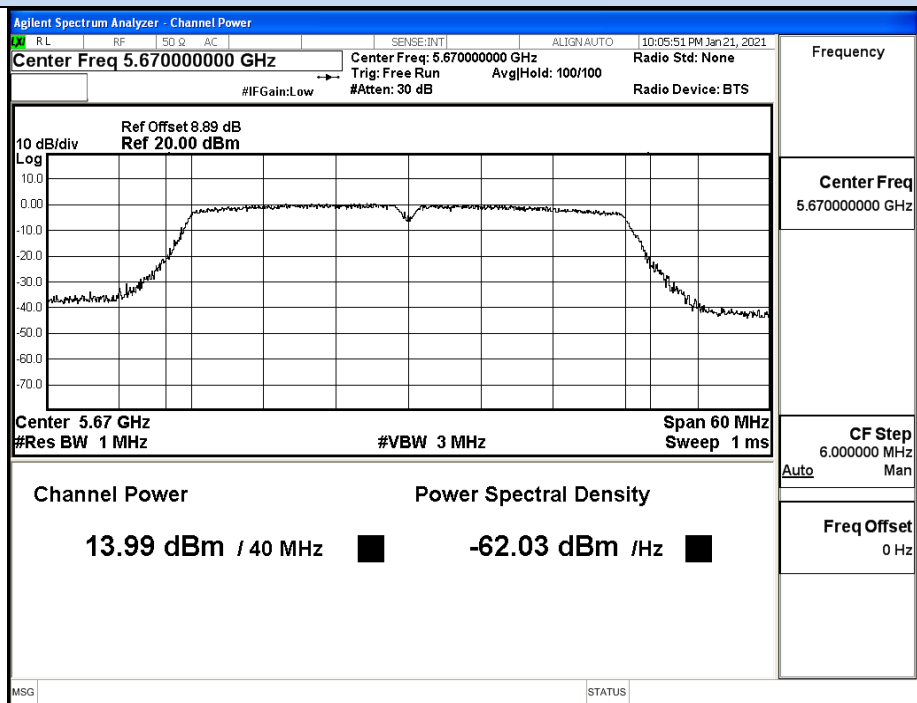


IEEE 802.11ac20 / Channel 120 / 5600MHz

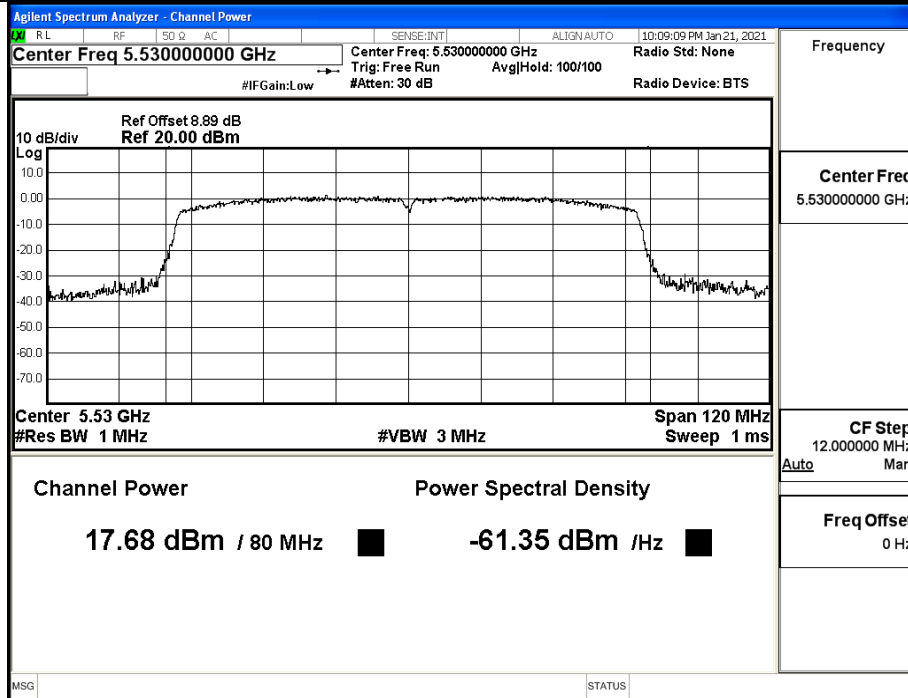




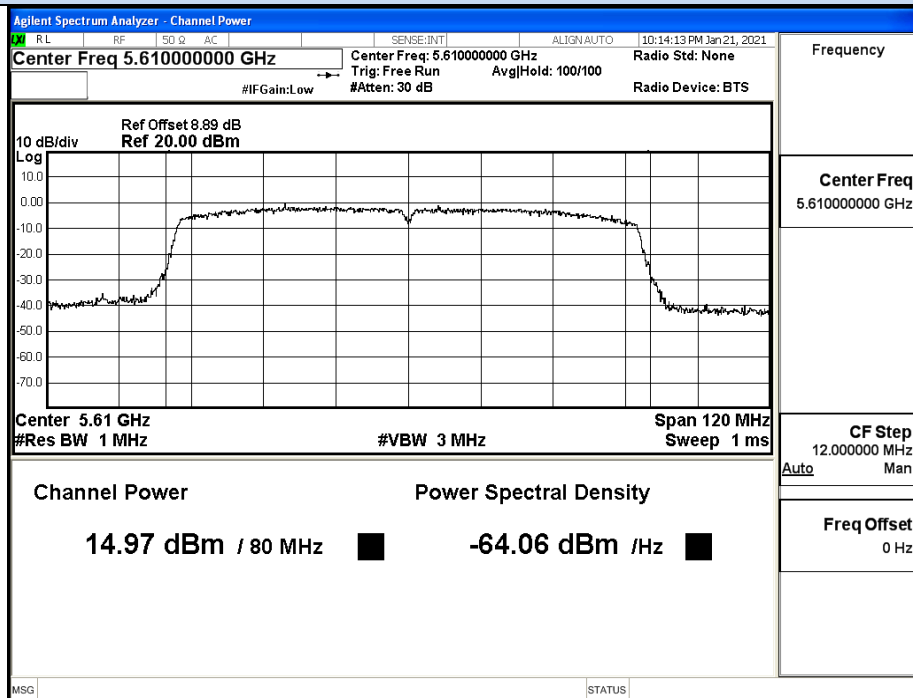
IEEE 802.11ac40 / Channel 118 / 5590MHz



IEEE 802.11ac40 / Channel 134 / 5670MHz



IEEE 802.11ac80 / Channel 106 / 5530MHz

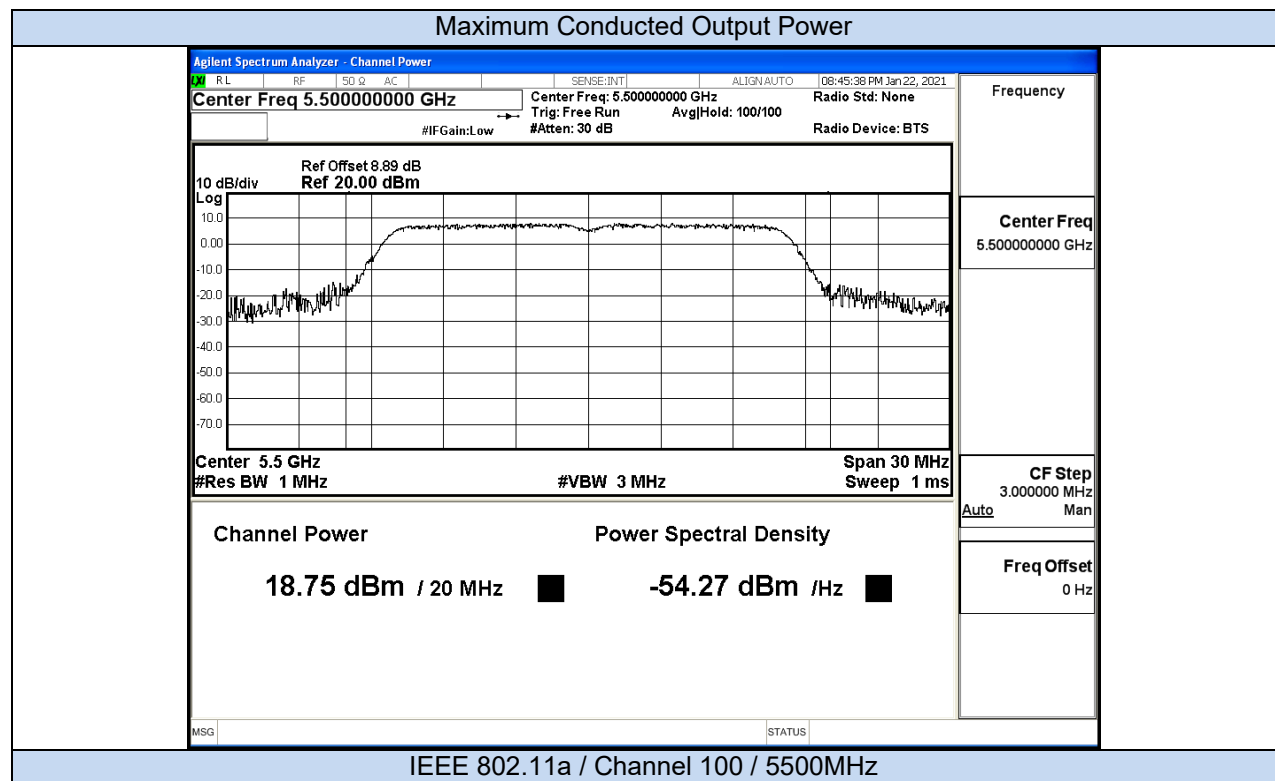


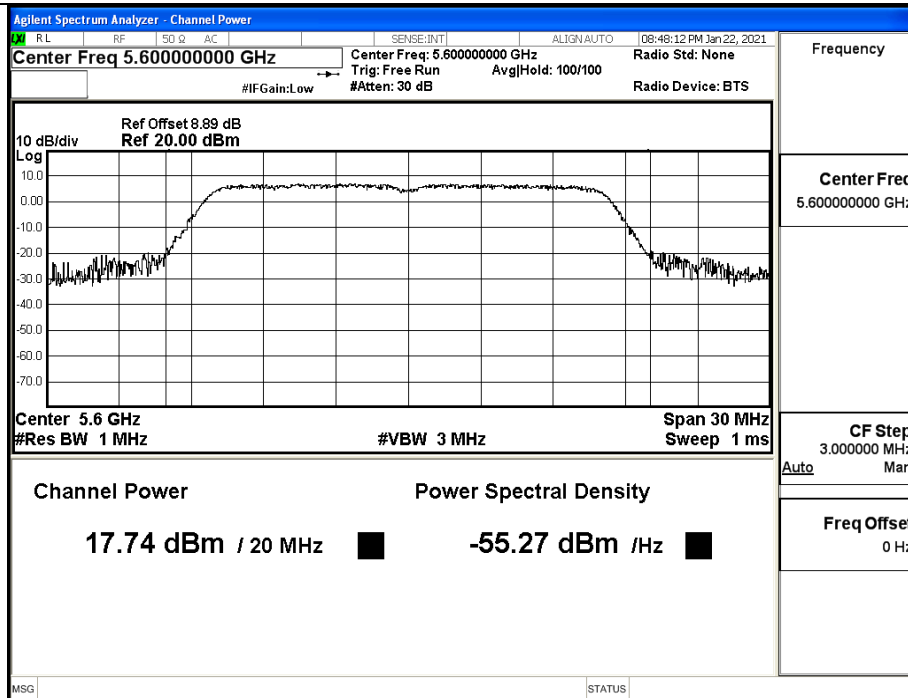
IEEE 802.11ac80 / Channel 122 / 5610MHz

ANT1:

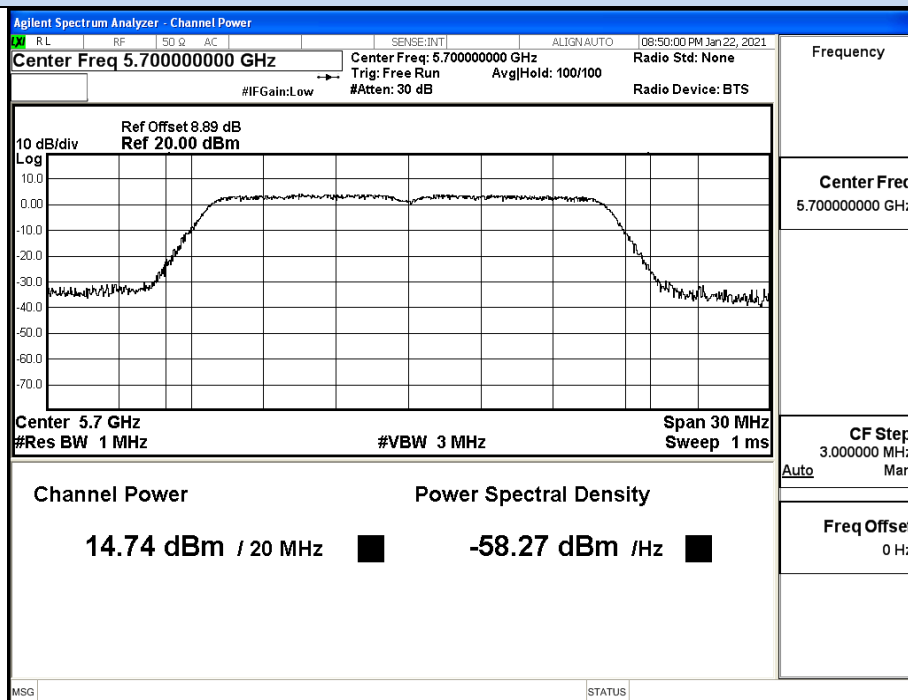
Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	100	5500	18.75	0	18.75	24	Pass
	120	5600	17.74	0	17.74		Pass
	140	5700	14.74	0	14.74		Pass
11N20 SISO	100	5500	18.26	0	18.26	24	Pass
	120	5600	18.12	0	18.12		Pass
	140	5700	15.07	0	15.07		Pass
11N40 SISO	102	5510	18.75	0	18.75	24	Pass
	118	5590	18.61	0	18.61		Pass
	134	5670	14.85	0	14.85		Pass
11ac20 SISO	100	5500	18.77	0	18.77	24	Pass
	120	5600	18.21	0	18.21		Pass
	140	5700	14.73	0	14.73		Pass
11ac40 SISO	102	5510	15.79	0	15.79	24	Pass
	118	5590	18.57	0	18.57		Pass
	134	5670	15.68	0	15.68		Pass
11ac80 SISO	106	5530	16.68	0	16.68	24	Pass
	122	5610	15.39	0	15.39		Pass

Note: The frequency 5590&5610MHz data is only applicable to FCC, not applicable to ISCED.



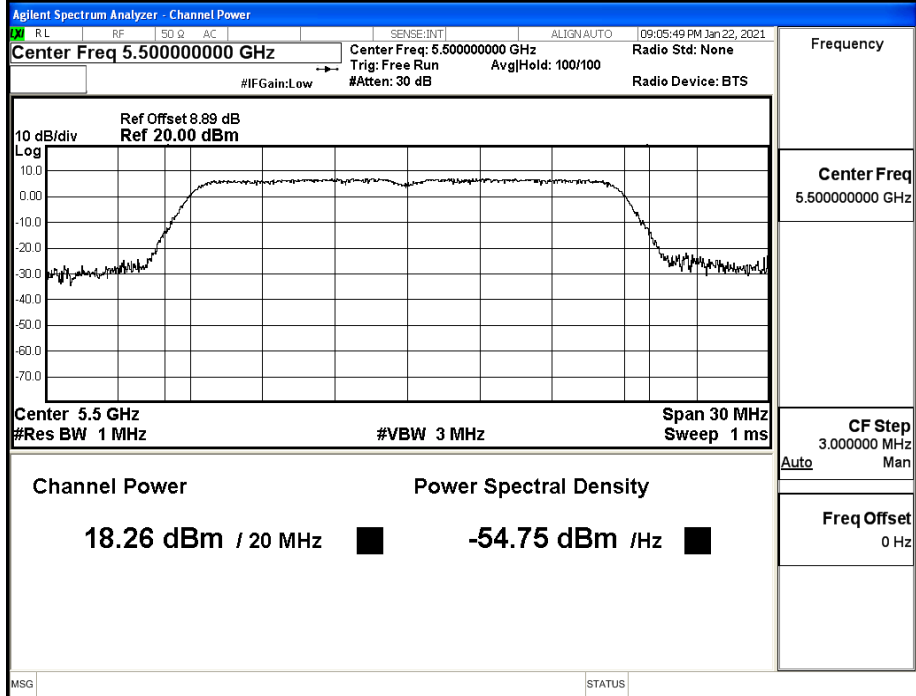


IEEE 802.11a / Channel 120 / 5600MHz

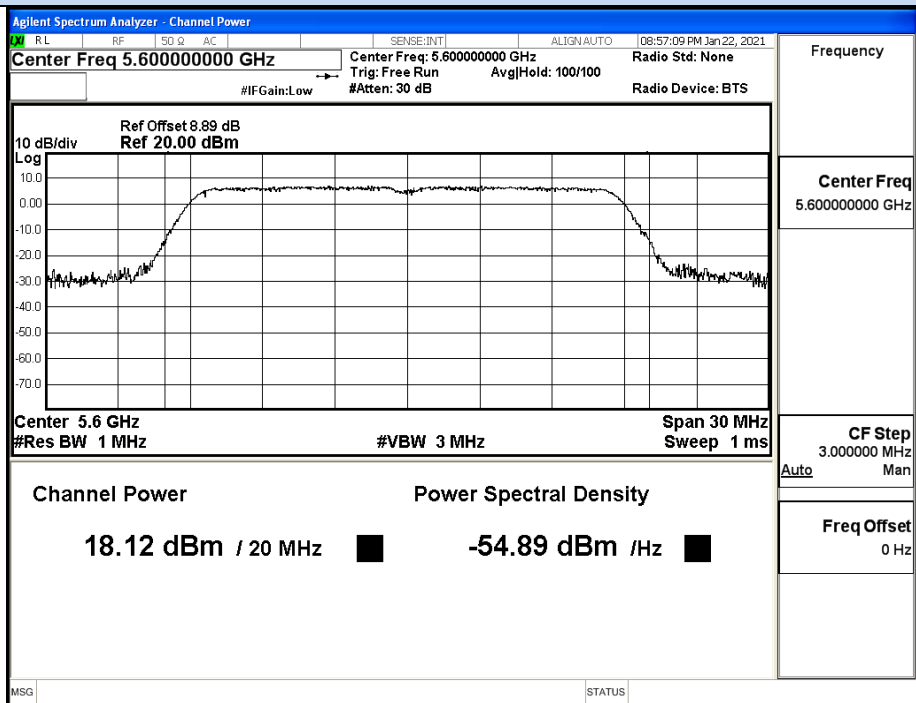


IEEE 802.11a / Channel 140 / 5700MHz

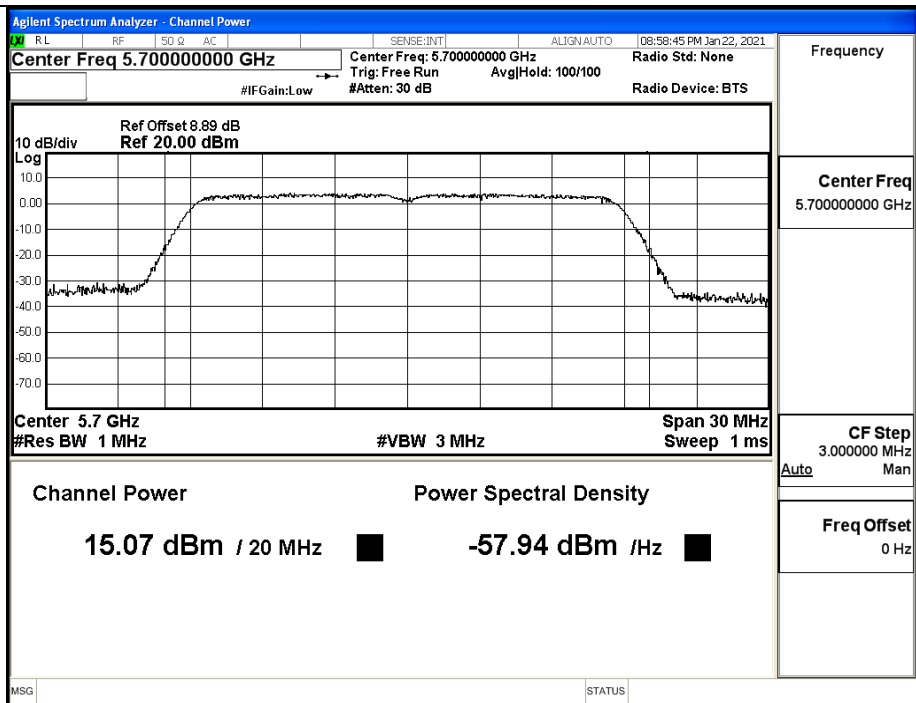
Maximum Conducted Output Power



IEEE 802.11n20 / Channel 100 / 5500MHz

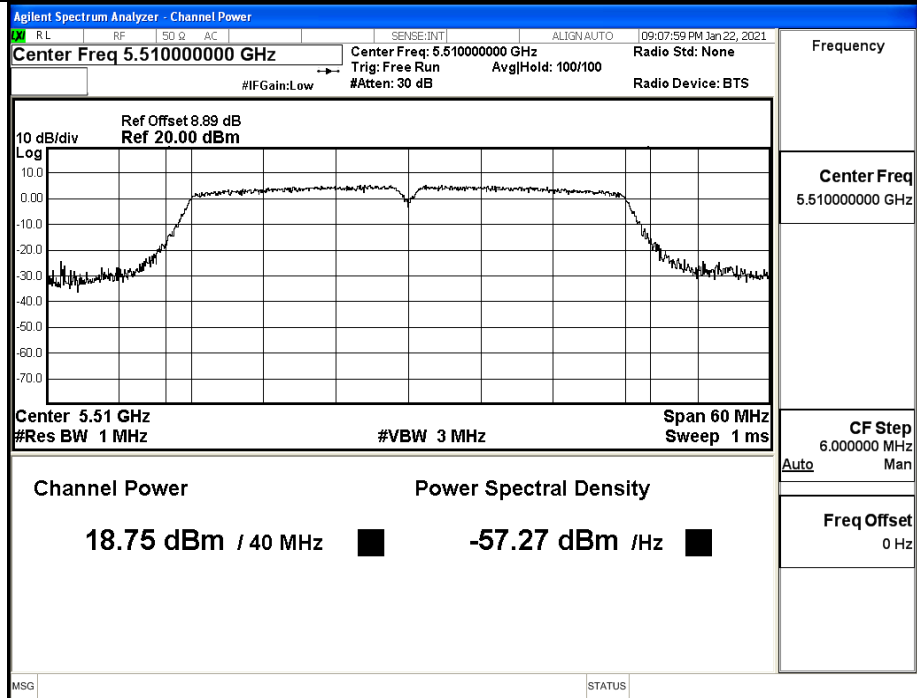


IEEE 802.11n20 / Channel 120 / 5600MHz

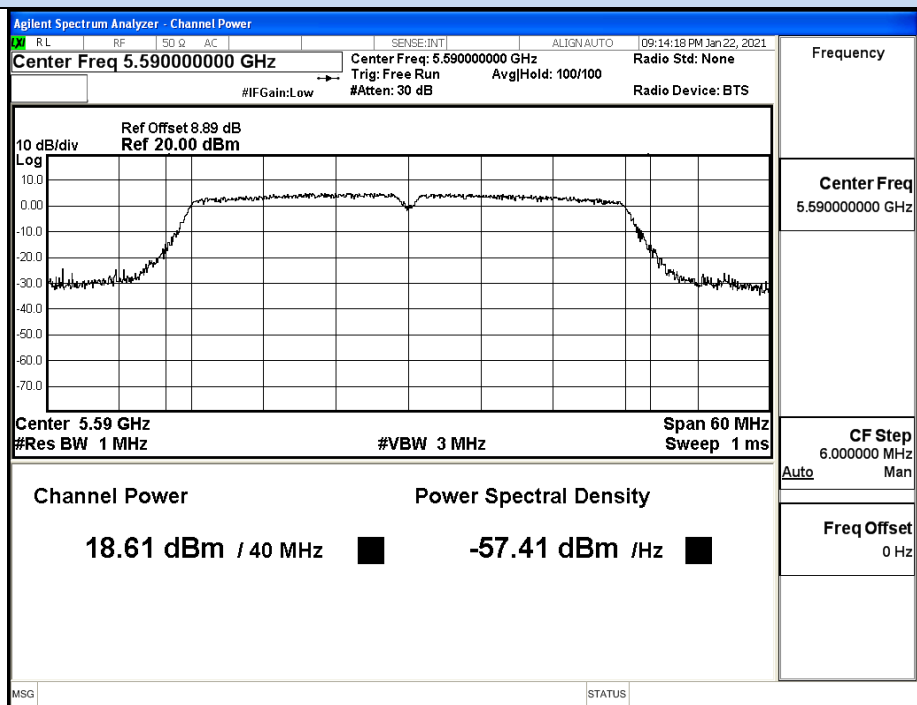


IEEE 802.11n20 / Channel 140 / 5700MHz

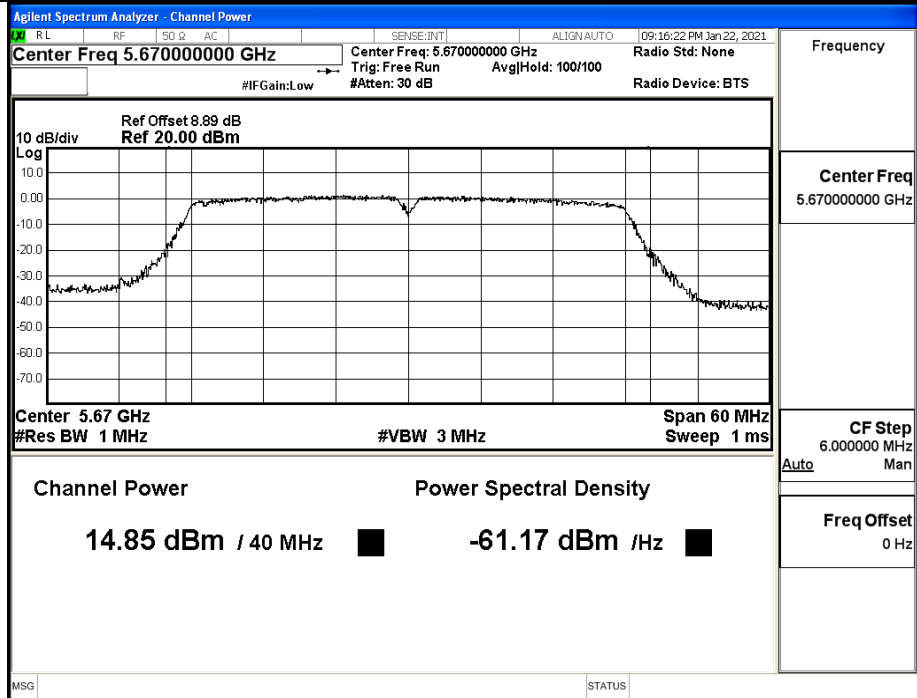
Maximum Conducted Output Power



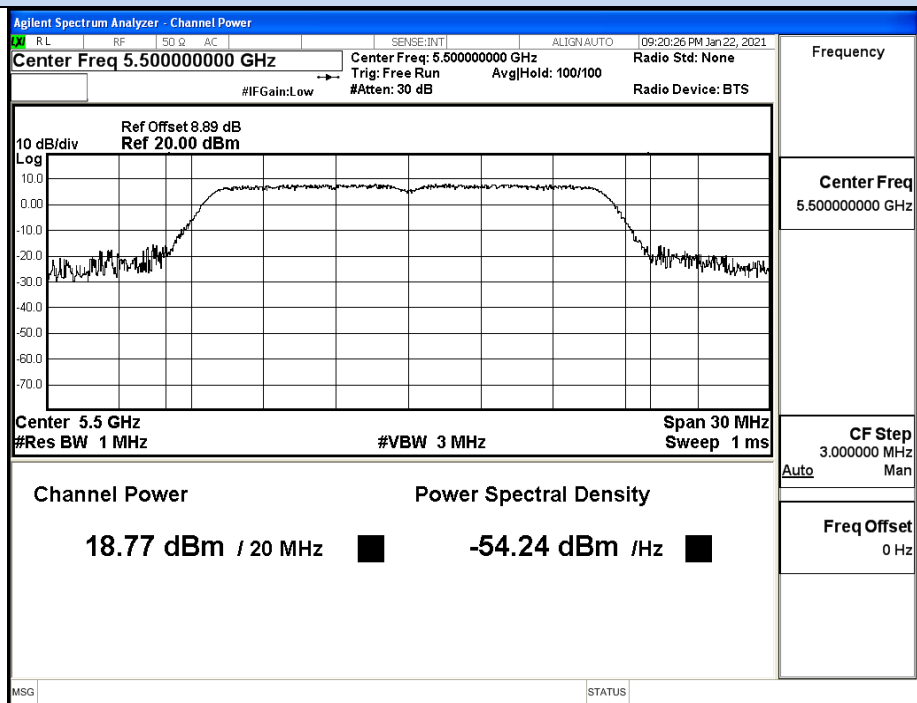
IEEE 802.11n40 / Channel 102 / 5510MHz



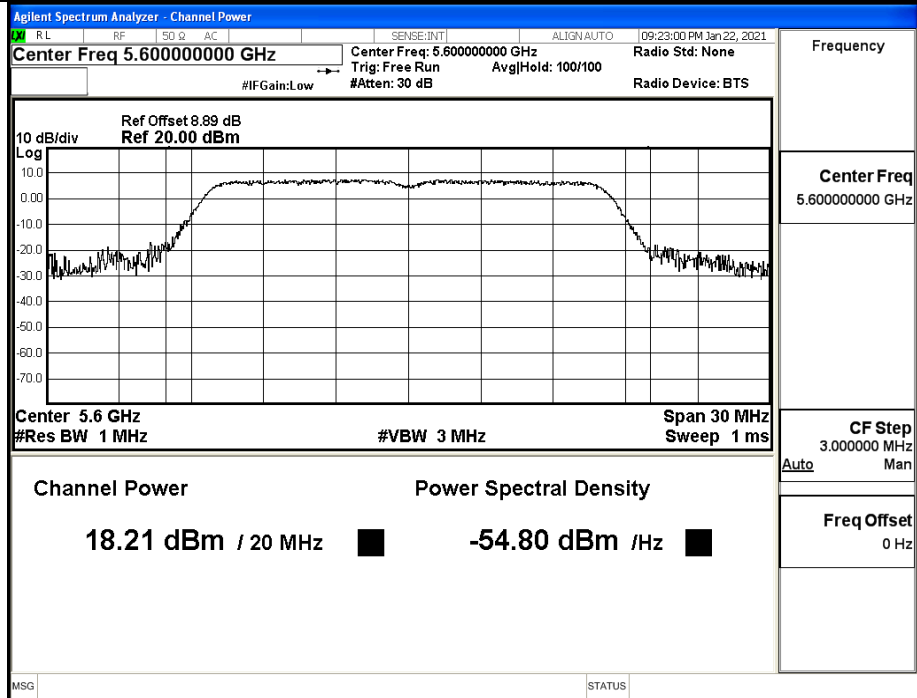
IEEE 802.11n40 / Channel 118 / 5590MHz



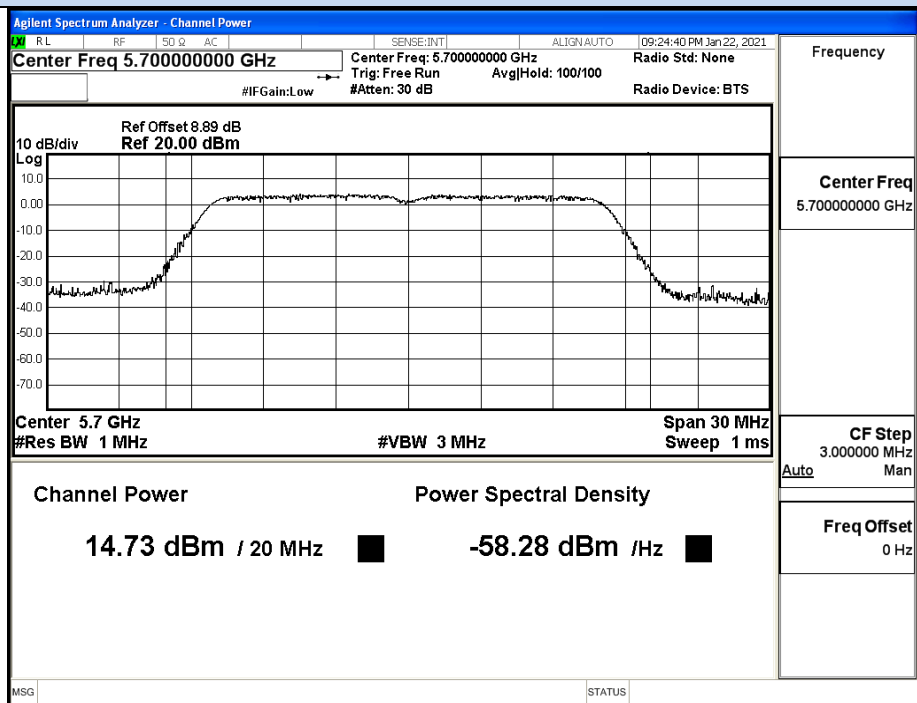
IEEE 802.11n40 / Channel 134 / 5670MHz



IEEE 802.11ac20 / Channel 100 / 5500MHz

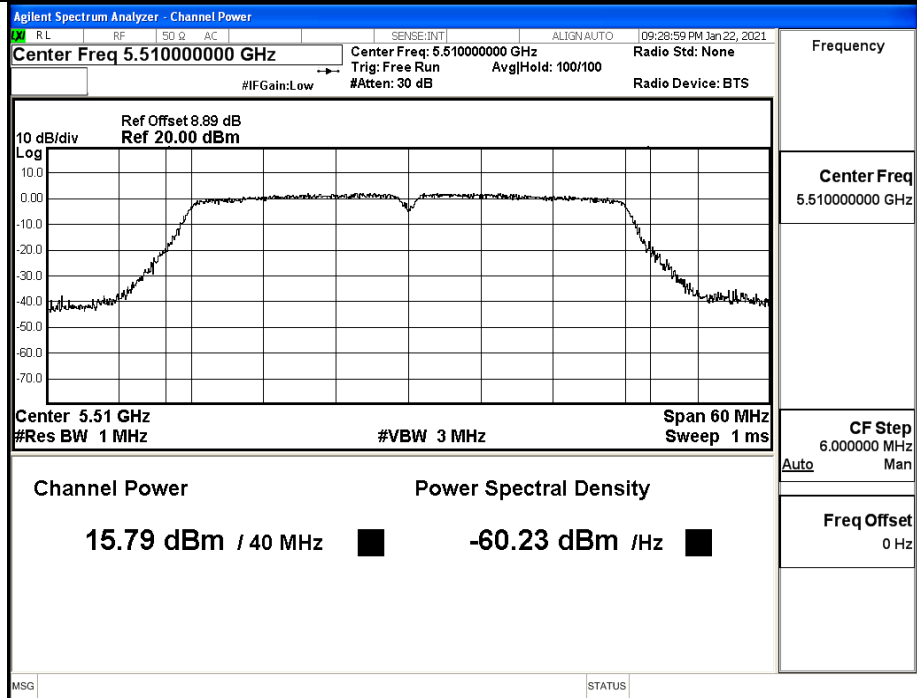


IEEE 802.11ac20 / Channel 120 / 5600MHz

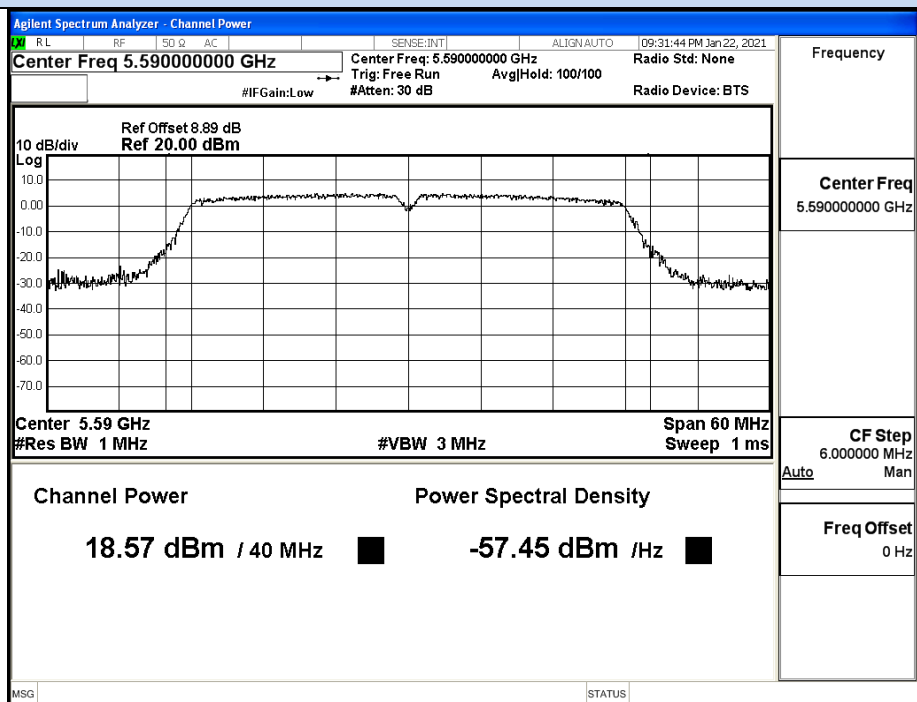


IEEE 802.11ac20 / Channel 140 / 5700MHz

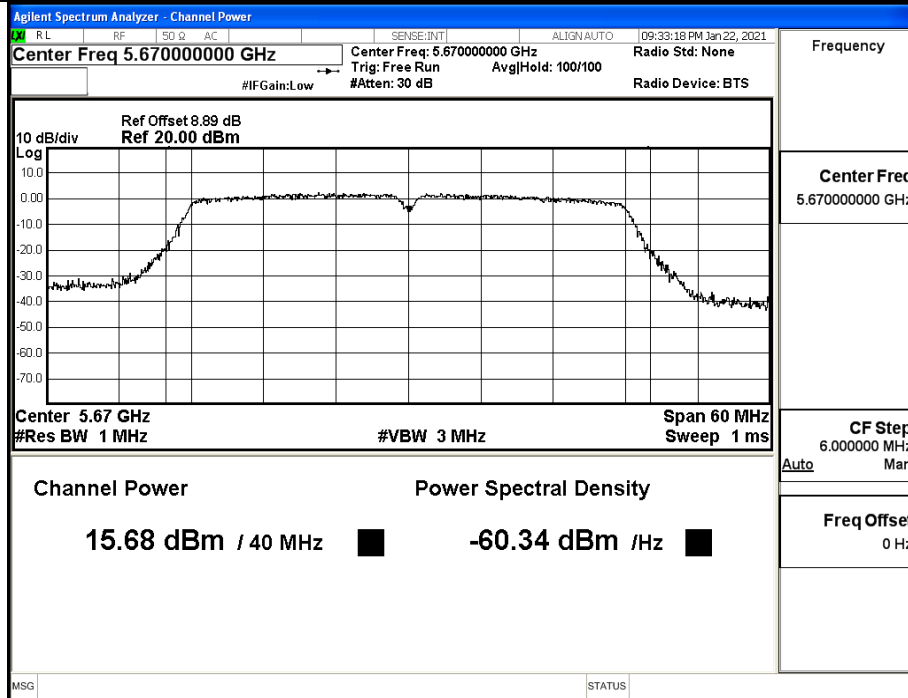
Maximum Conducted Output Power



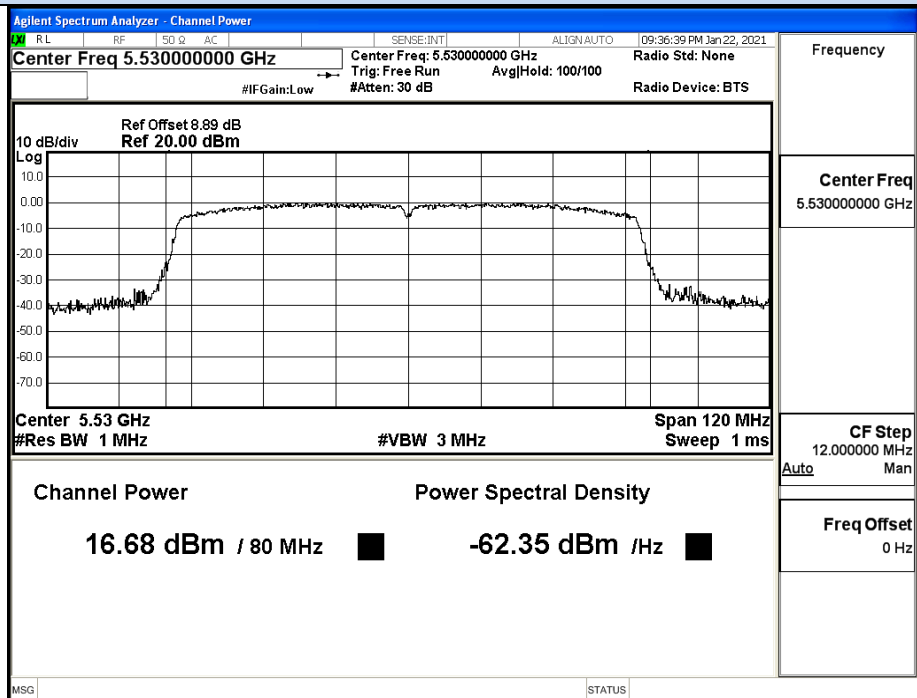
IEEE 802.11ac40 / Channel 102 / 5510MHz



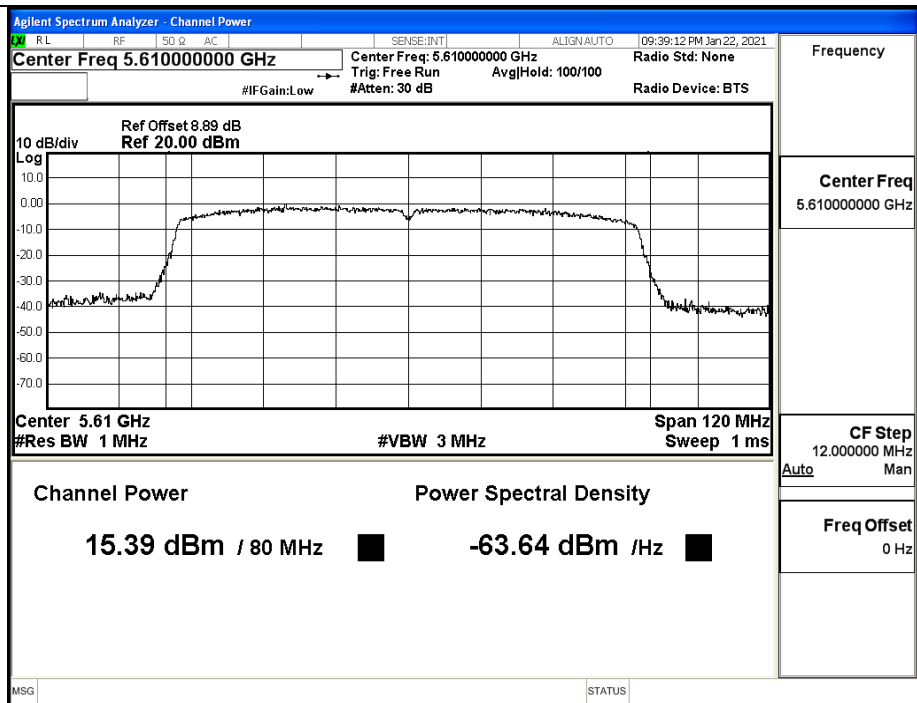
IEEE 802.11ac40 / Channel 118 / 5590MHz



IEEE 802.11ac40 / Channel 134 / 5670MHz



IEEE 802.11ac80 / Channel 106 / 5530MHz



IEEE 802.11ac80 / Channel 122 / 5610MHz

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 SISO	100	5500	16.38	18.26	20.43	0	20.43	23.99	Pass
	120	5600	15.62	18.12	20.06	0	20.06		Pass
	140	5700	13.76	15.07	17.47	0	17.47		Pass
11N40 SISO	102	5510	16.8	18.75	20.89	0	20.89	23.99	Pass
	118	5590	16.39	18.61	20.65	0	20.65		Pass
	134	5670	14.24	14.85	17.57	0	17.57		Pass
11ac20 SISO	100	5500	17.32	18.77	21.12	0	21.12	23.99	Pass
	120	5600	16.73	18.21	20.54	0	20.54		Pass
	140	5700	13.52	14.73	17.18	0	17.18		Pass
11ac40 SISO	102	5510	16.98	15.79	19.44	0	19.44	23.99	Pass
	118	5590	16.03	18.57	20.49	0	20.49		Pass
	134	5670	13.99	15.68	17.93	0	17.93		Pass
11ac80 SISO	106	5530	17.68	16.68	20.22	0	20.22	23.99	Pass
	122	5610	14.97	15.39	18.20	0	18.20		Pass

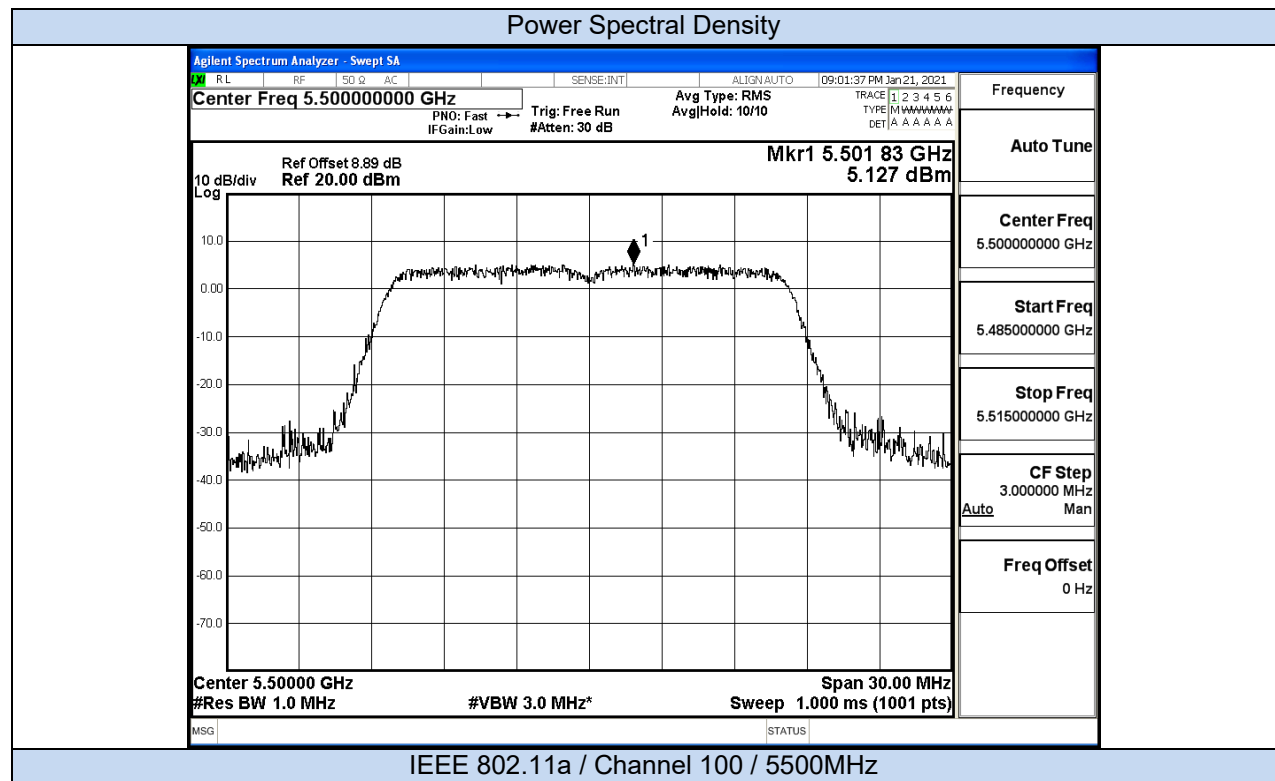
Note: The frequency 5590&5610MHz data is only applicable to FCC, not applicable to ISSED.

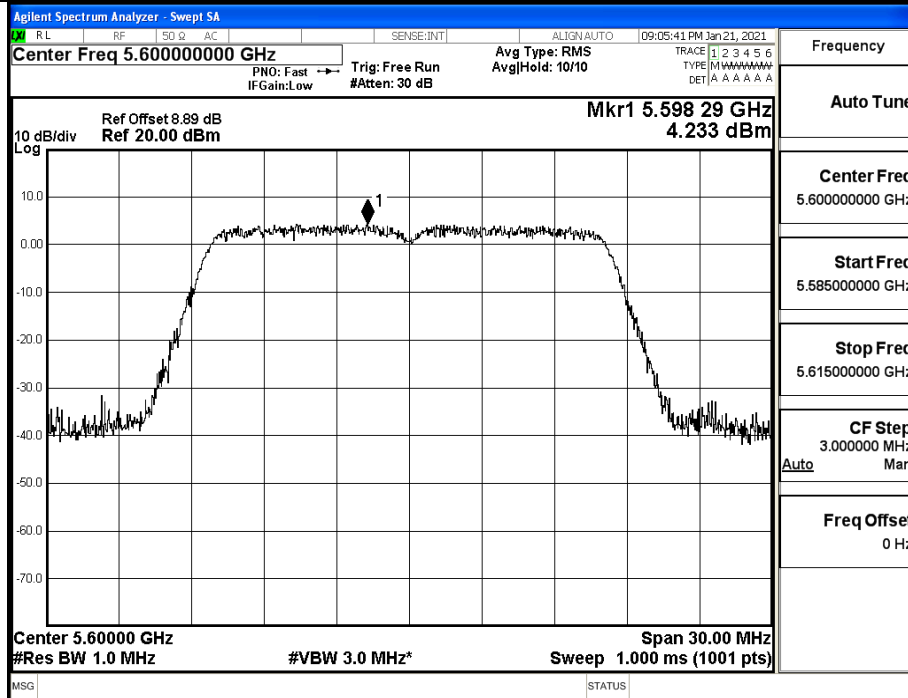
B.3 Power Spectral Density

ANT0:

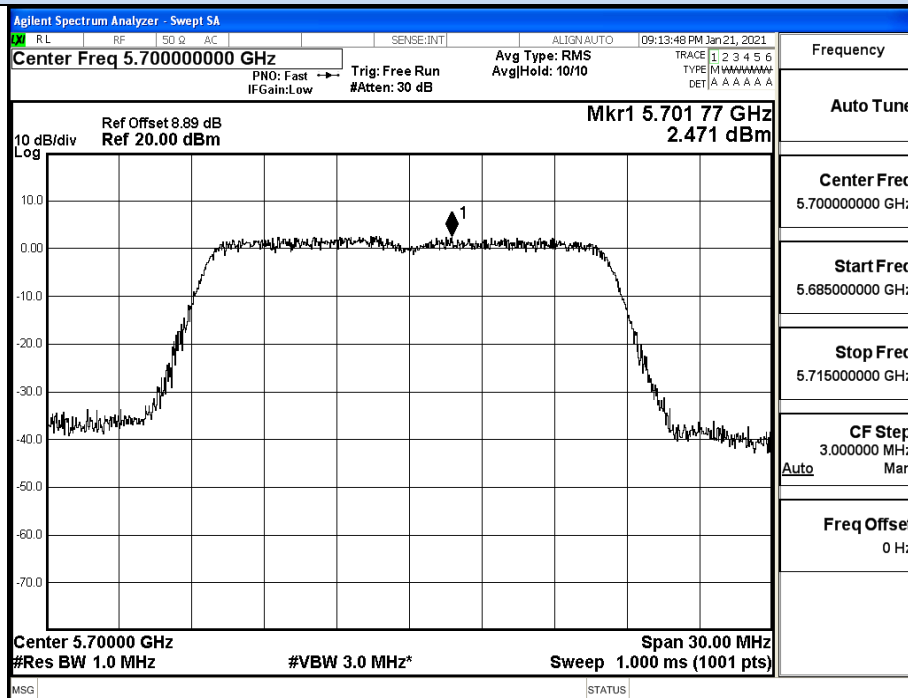
Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)	Verdict
11A	100	5500	5.13	0	5.13	11	Pass
	120	5600	4.23	0	4.23		Pass
	140	5700	2.47	0	2.47		Pass
11N20 SISO	100	5500	5.19	0	5.19	11	Pass
	120	5600	4.22	0	4.22		Pass
	140	5700	2.73	0	2.73		Pass
11N40 SISO	102	5510	3.28	0	3.28	11	Pass
	118	5590	2.60	0	2.60		Pass
	134	5670	0.22	0	0.22		Pass
11AC20 SISO	100	5500	6.19	0	6.19	11	Pass
	120	5600	5.88	0	5.88		Pass
	140	5700	2.62	0	2.62		Pass
11AC40 SISO	102	5510	3.22	0	3.22	11	Pass
	118	5590	2.28	0	2.28		Pass
	134	5670	0.37	0	0.37		Pass
11AC80 SISO	106	5530	1.54	0	1.54	11	Pass
	122	5610	-1.17	0	-1.17		Pass

Note: The frequency 5590&5610MHz data is only applicable to FCC, not applicable to ISED.



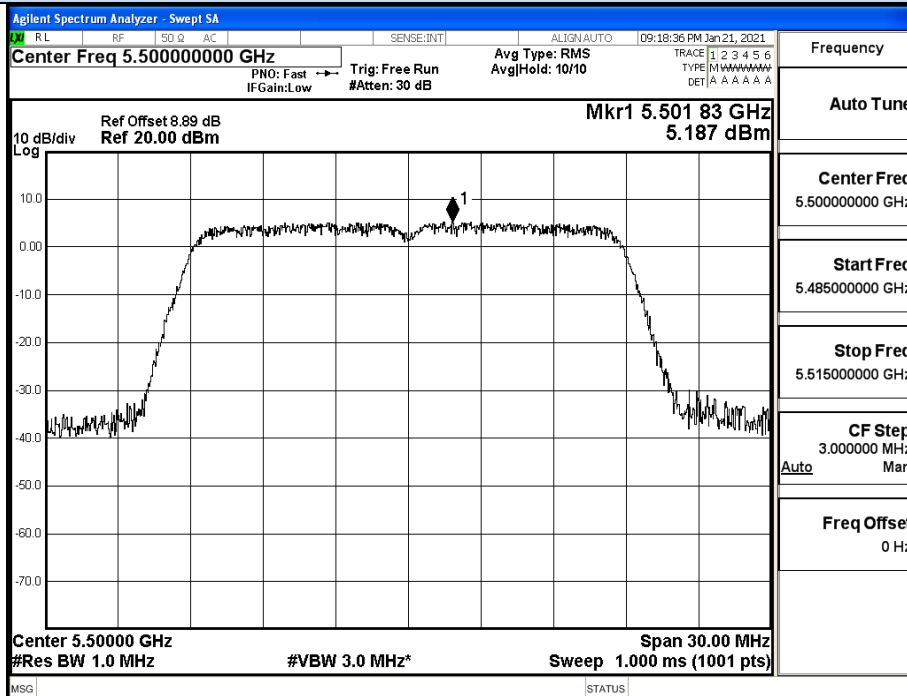


IEEE 802.11a / Channel 120 / 5600MHz

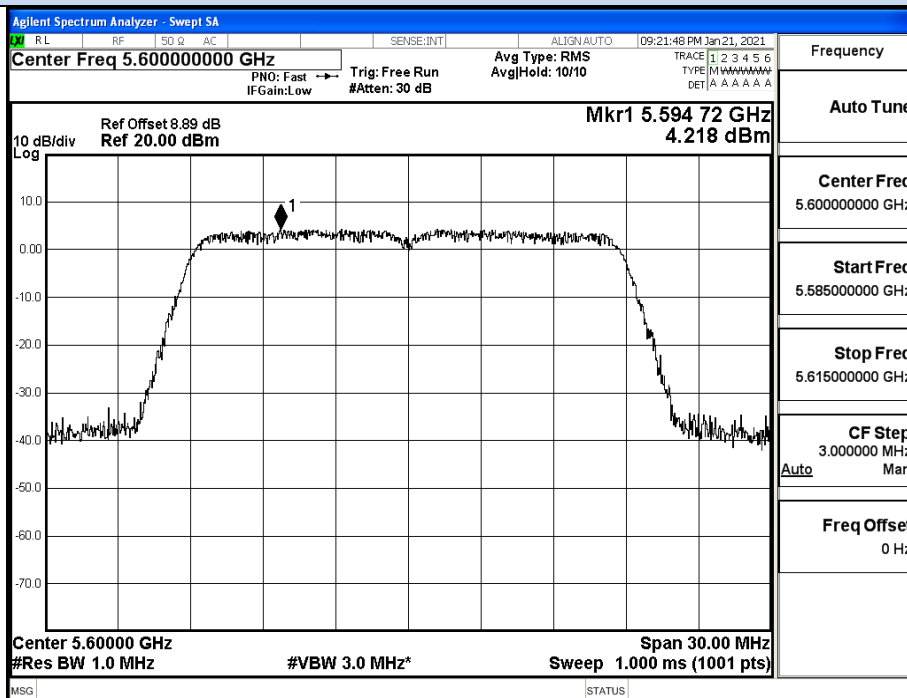


IEEE 802.11a / Channel 140 / 5700MHz

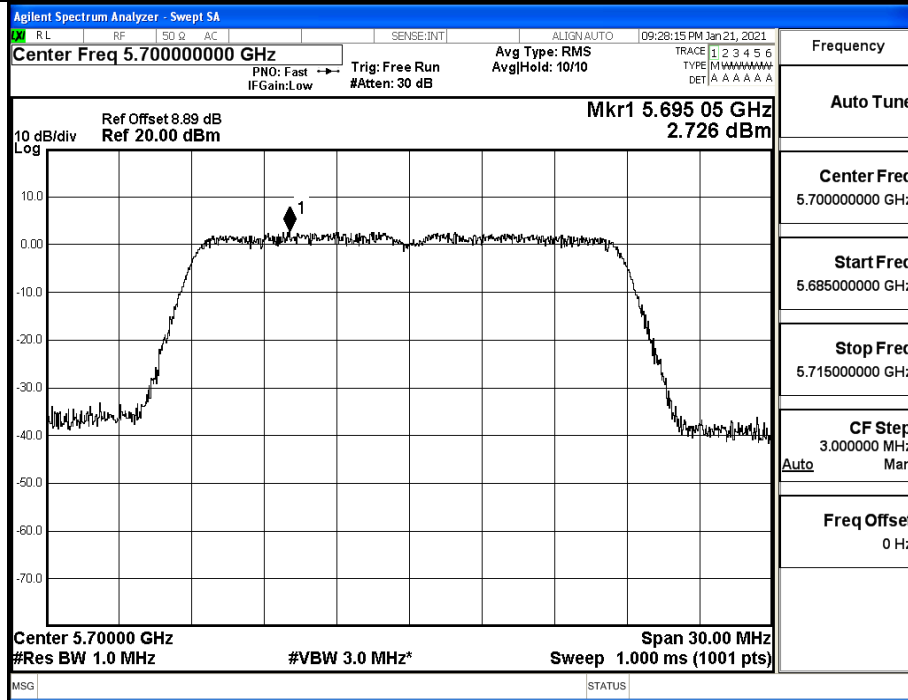
Power Spectral Density



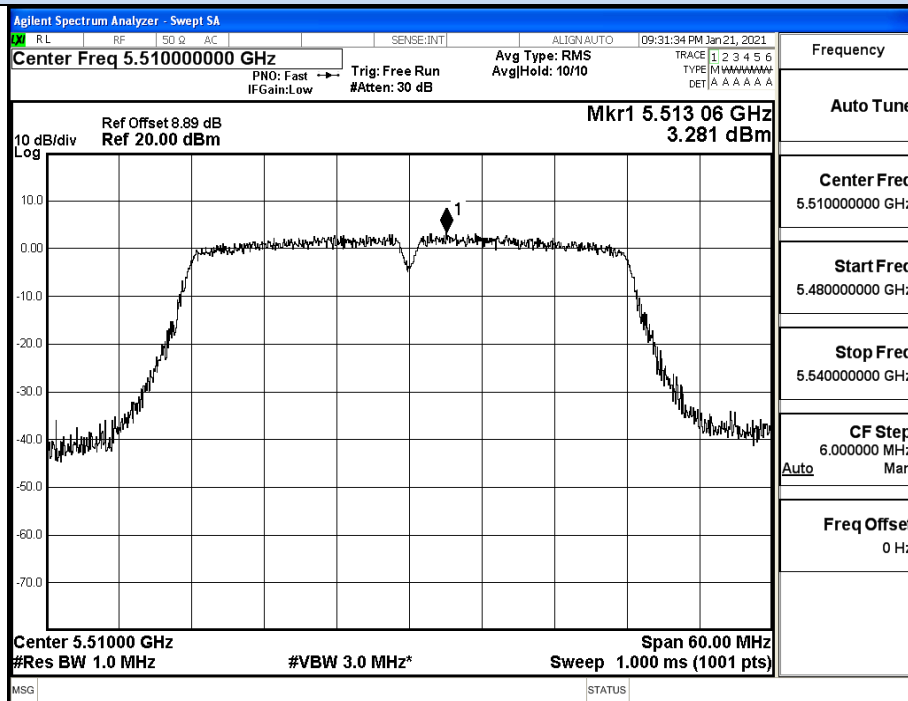
IEEE 802.11n20 / Channel 100 / 5500MHz



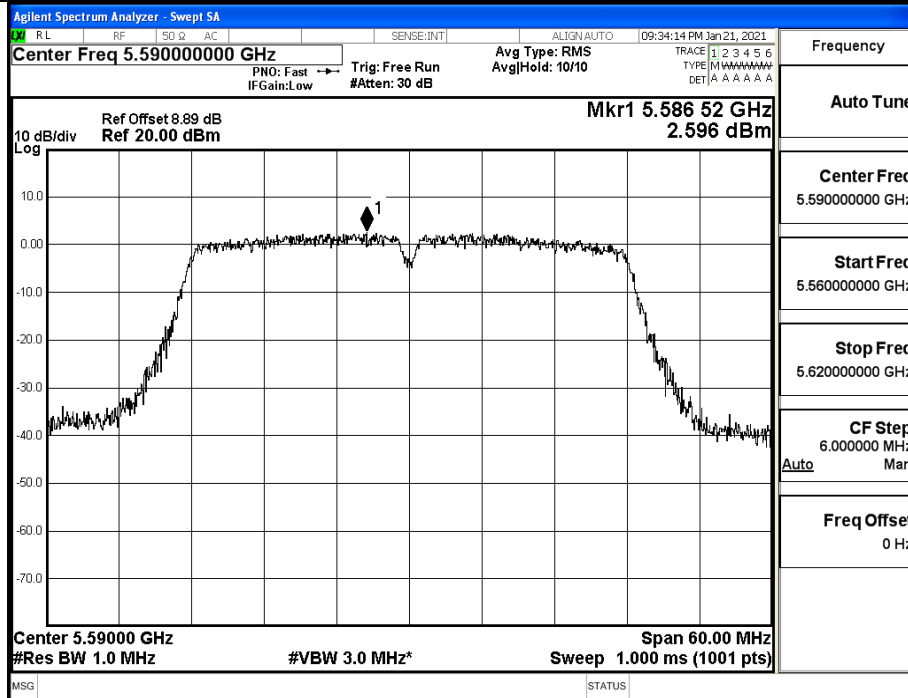
IEEE 802.11n20 / Channel 120 / 5600MHz



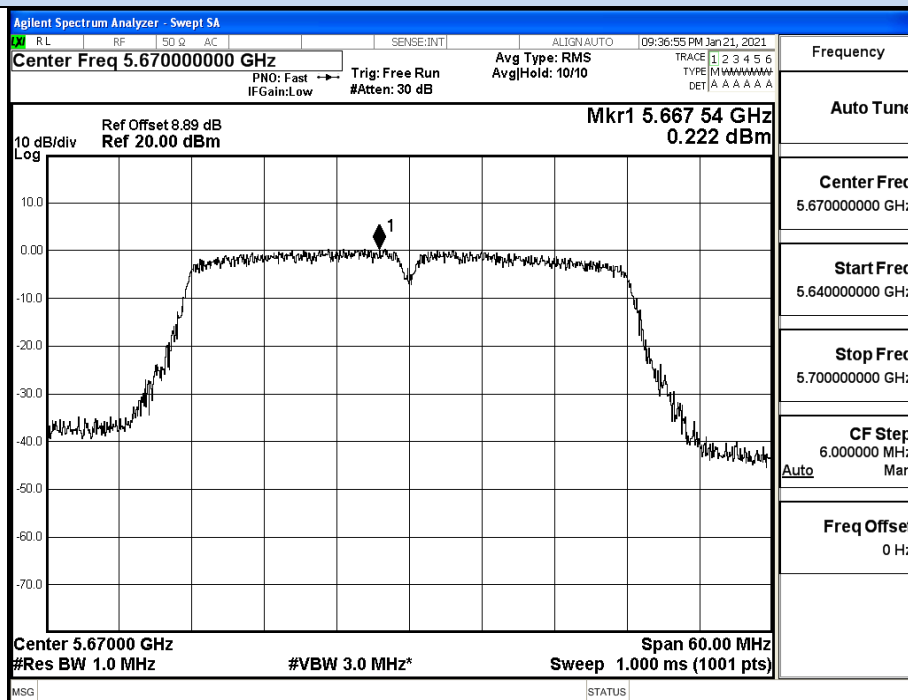
IEEE 802.11n20 / Channel 140 / 5700MHz



IEEE 802.11n40 / Channel 102 / 5510MHz

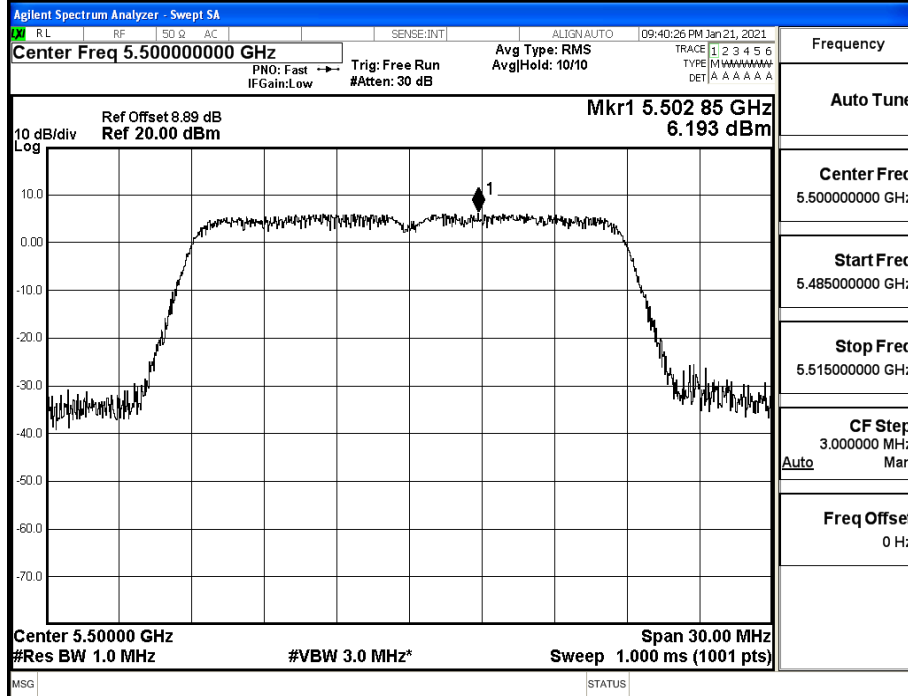


IEEE 802.11n40 / Channel 118 / 5590MHz

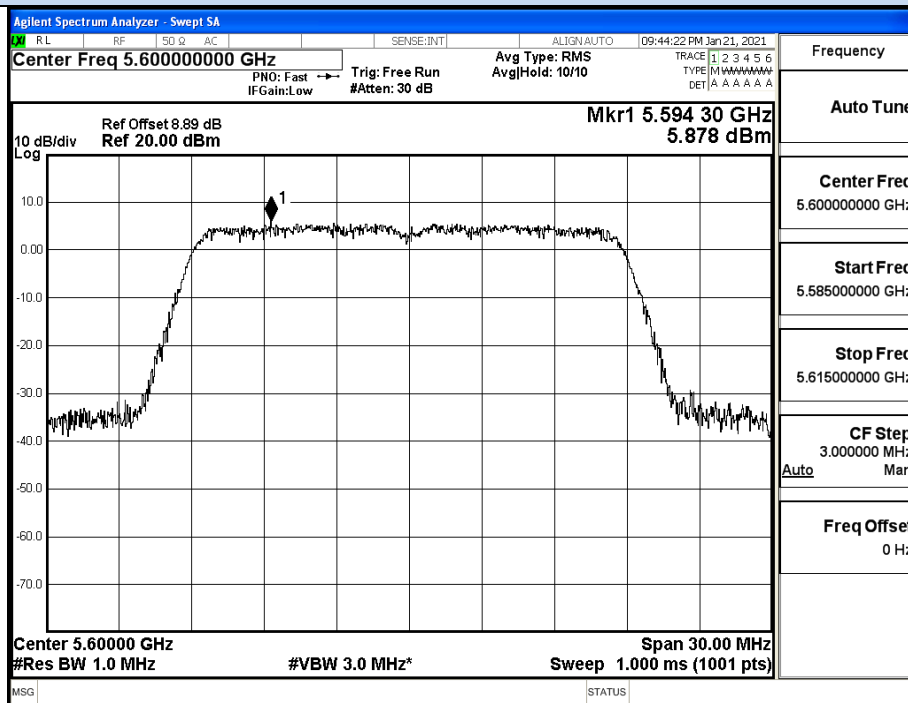


IEEE 802.11n40 / Channel 134 / 5670MHz

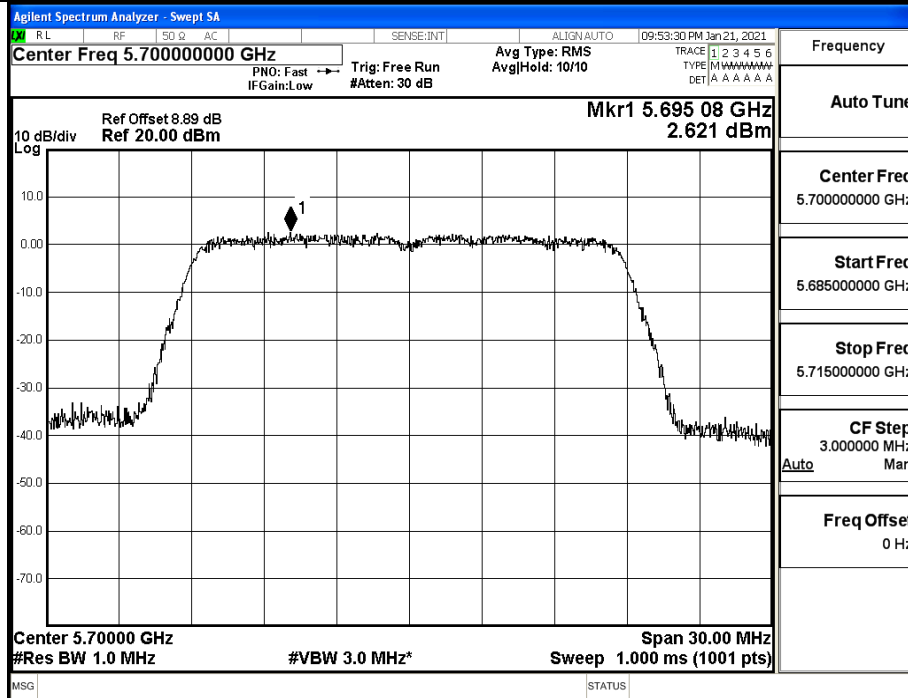
Power Spectral Density



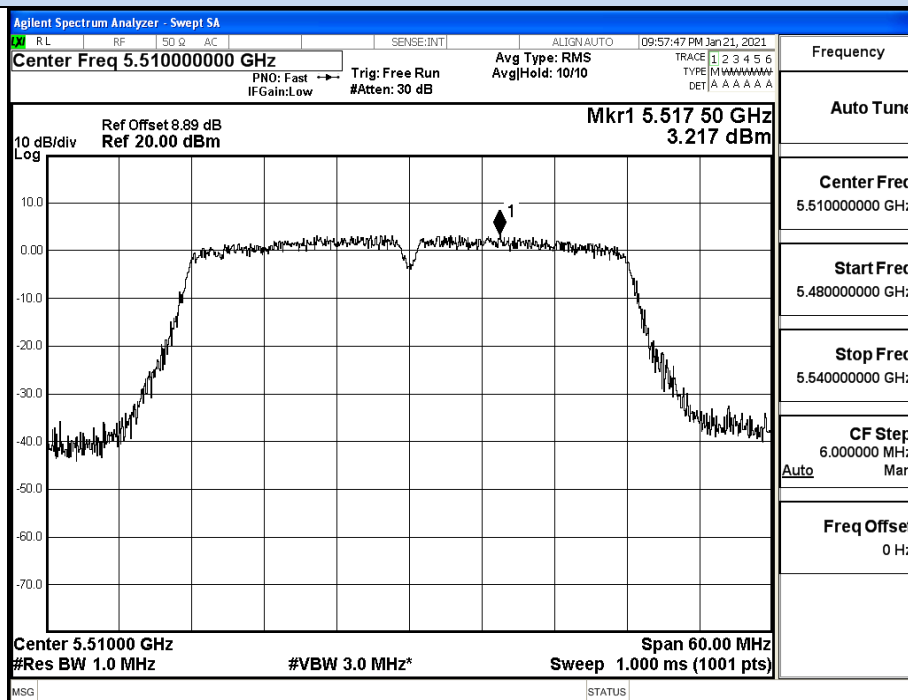
IEEE 802.11ac20 / Channel 100 / 5500MHz



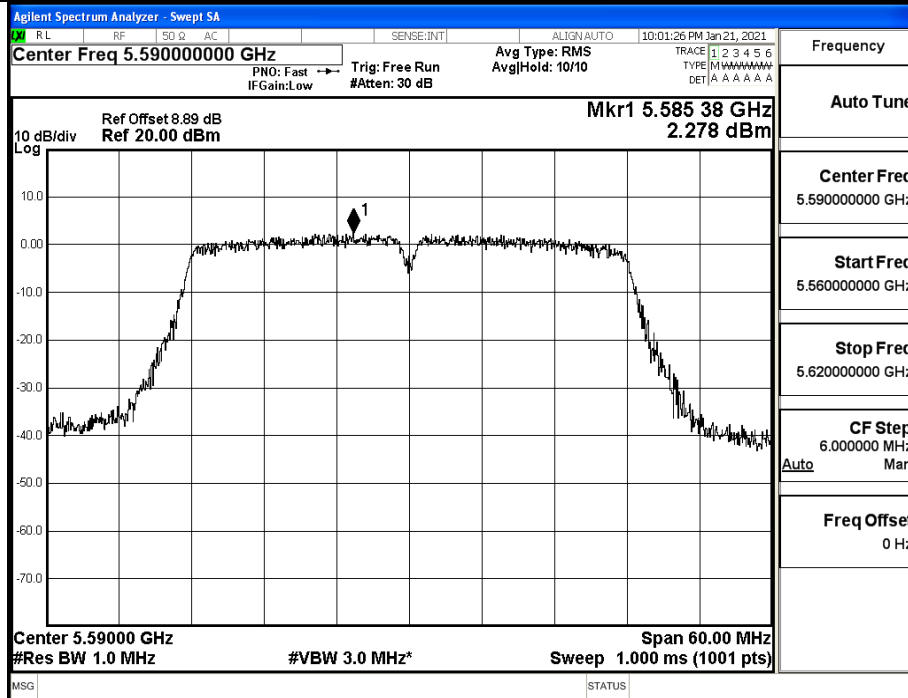
IEEE 802.11ac20 / Channel 120 / 5600MHz



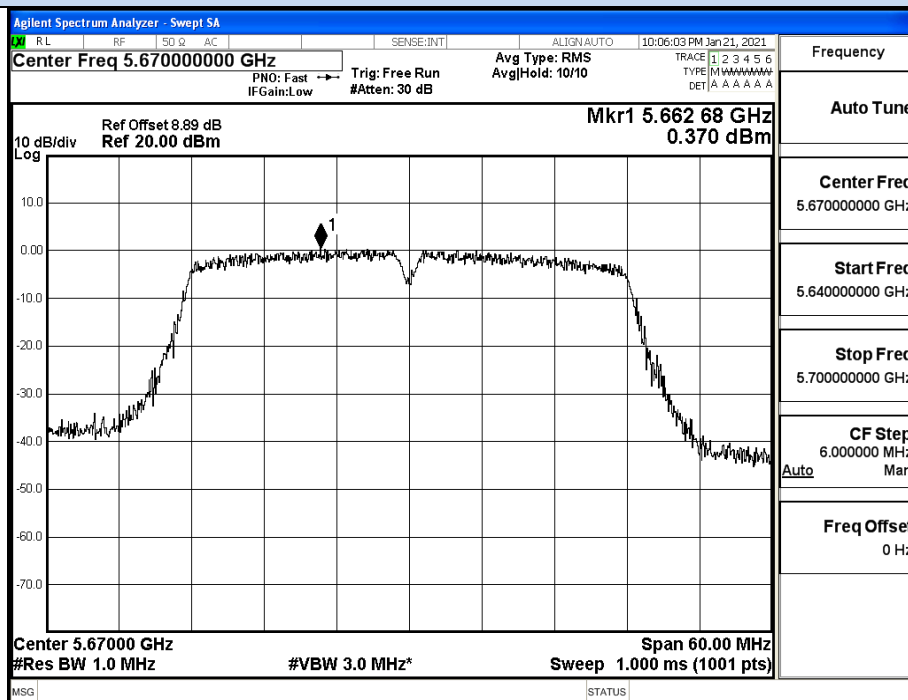
IEEE 802.11ac20 / Channel 140 / 5700MHz



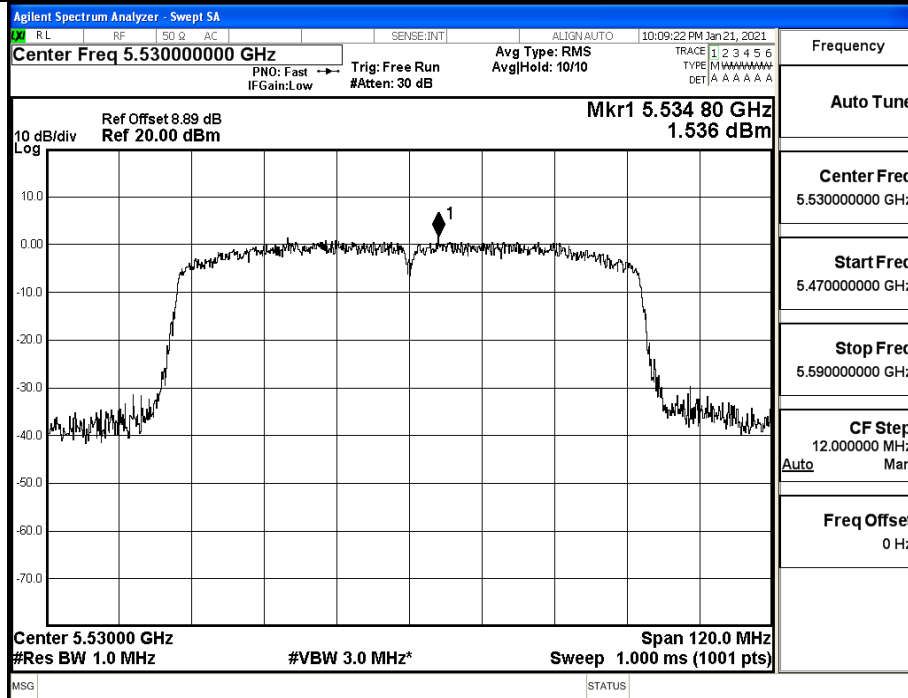
IEEE 802.11ac40 / Channel 102 / 5510MHz



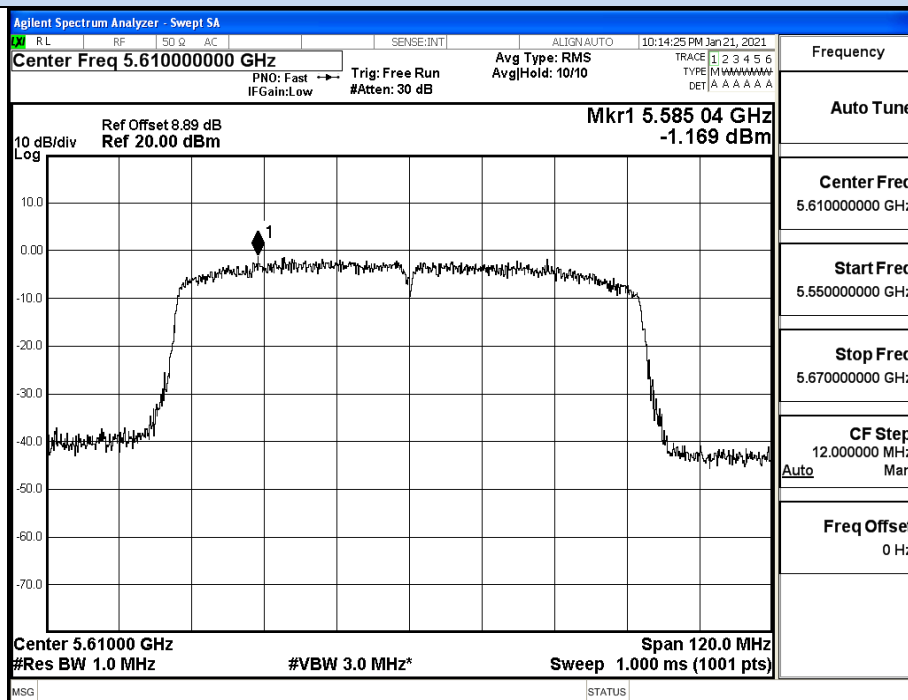
IEEE 802.11ac40 / Channel 118 / 5590MHz



IEEE 802.11ac40 / Channel 134 / 5670MHz



IEEE 802.11ac80 / Channel 106 / 5530MHz

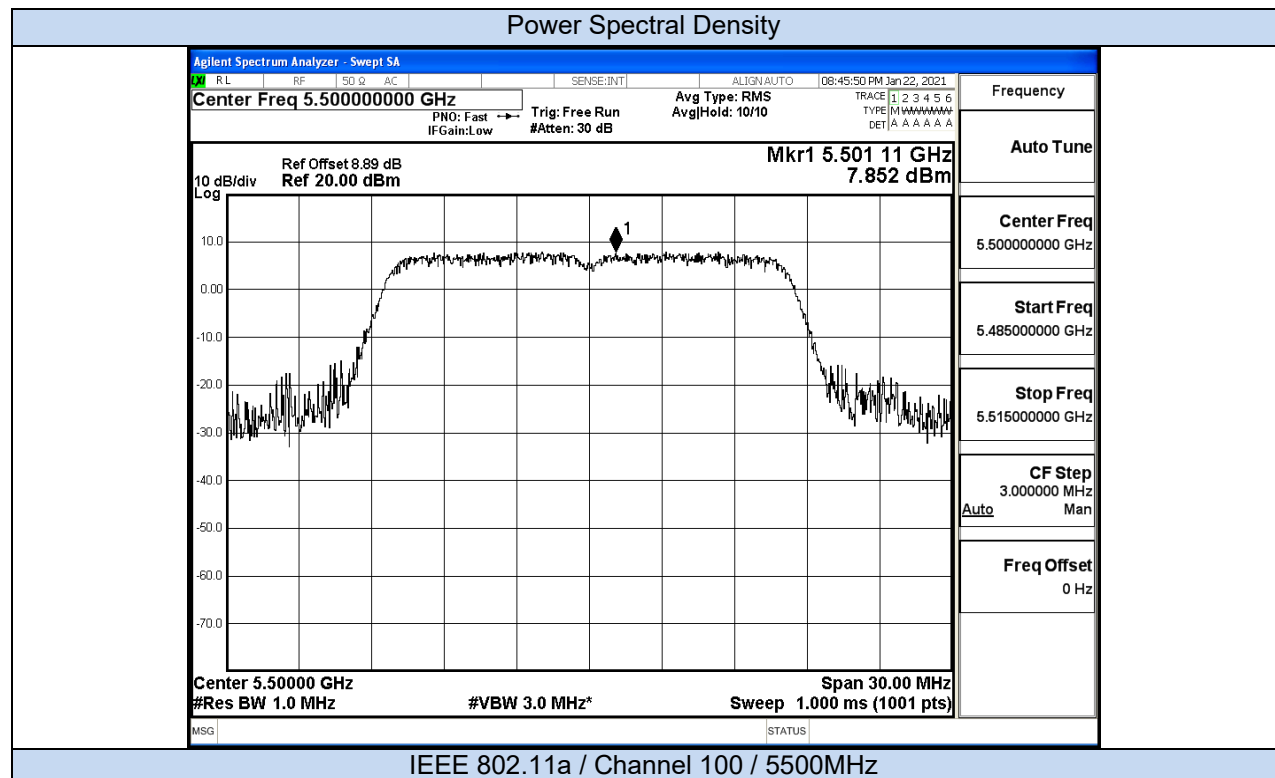


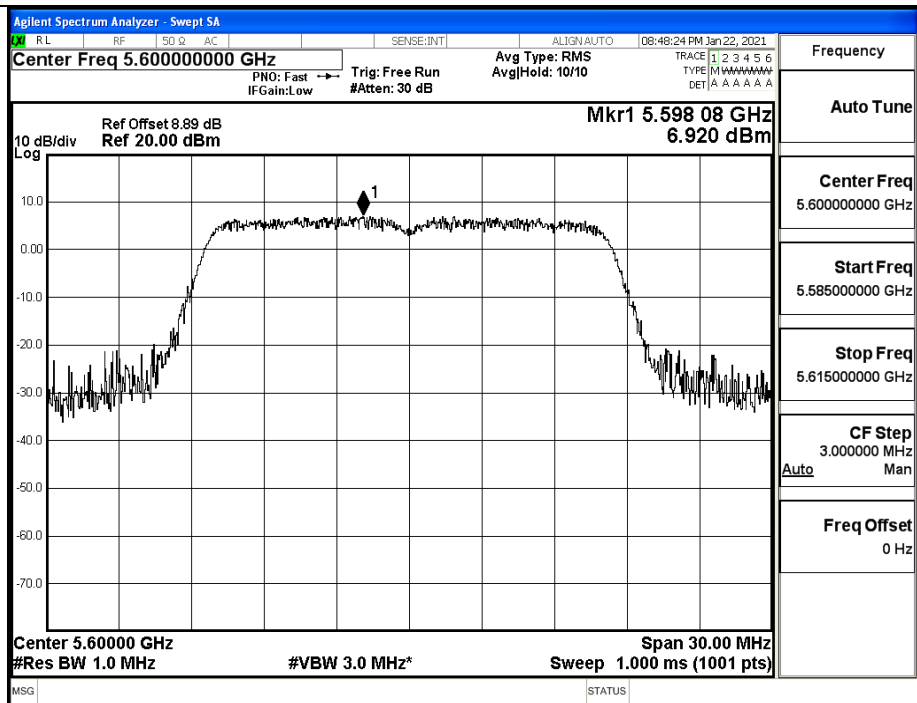
IEEE 802.11ac80 / Channel 122 / 5610MHz

ANT1:

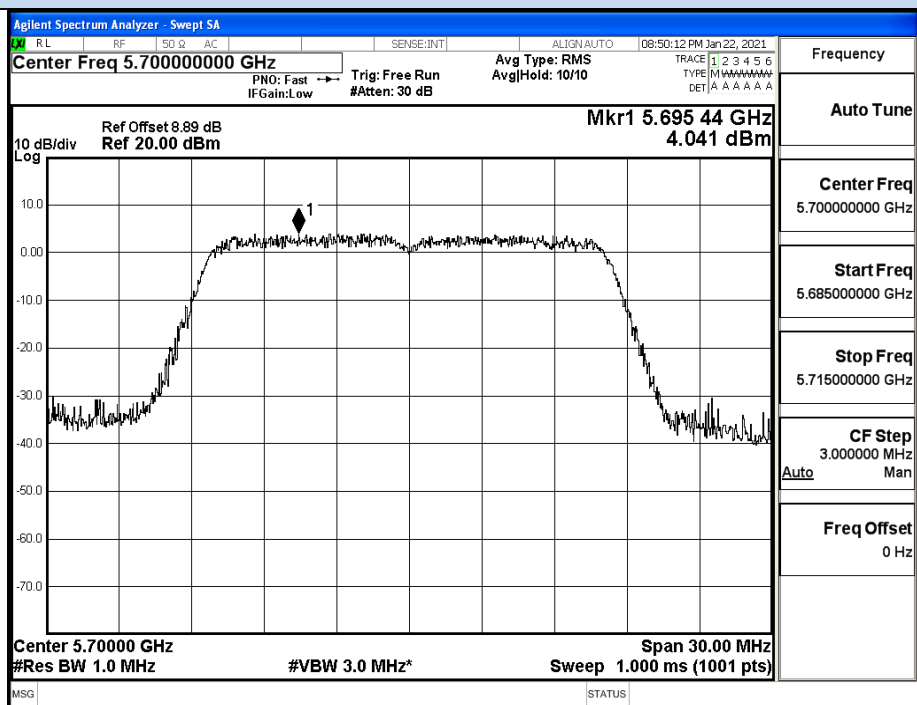
Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)	Verdict
11A	100	5500	7.85	0	7.85	11	Pass
	120	5600	6.92	0	6.92		Pass
	140	5700	4.04	0	4.04		Pass
11N20 SISO	100	5500	7.71	0	7.71	11	Pass
	120	5600	6.84	0	6.84		Pass
	140	5700	3.91	0	3.91		Pass
11N40 SISO	102	5510	5.17	0	5.17	11	Pass
	118	5590	4.88	0	4.88		Pass
	134	5670	1.26	0	1.26		Pass
11AC20 SISO	100	5500	7.82	0	7.82	11	Pass
	120	5600	7.34	0	7.34		Pass
	140	5700	3.91	0	3.91		Pass
11AC40 SISO	102	5510	2.17	0	2.17	11	Pass
	118	5590	4.99	0	4.99		Pass
	134	5670	1.93	0	1.93		Pass
11AC80 SISO	106	5530	-0.09	0	-0.09	11	Pass
	122	5610	-0.65	0	-0.65		Pass

Note: The frequency 5590&5610MHz data is only applicable to FCC, not applicable to ISCED.



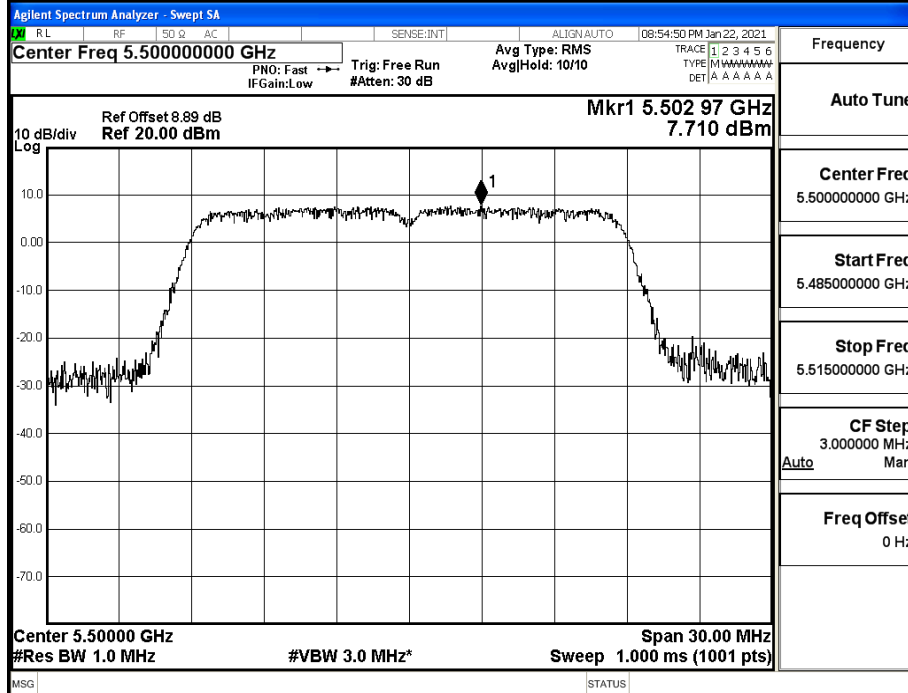


IEEE 802.11a / Channel 120 / 5600MHz

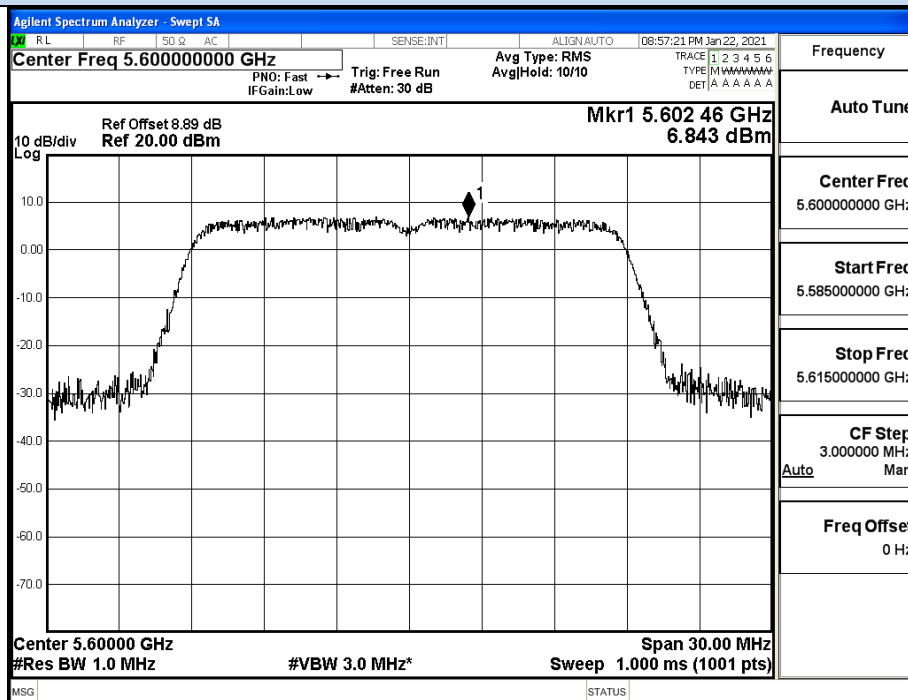


IEEE 802.11a / Channel 140 / 5700MHz

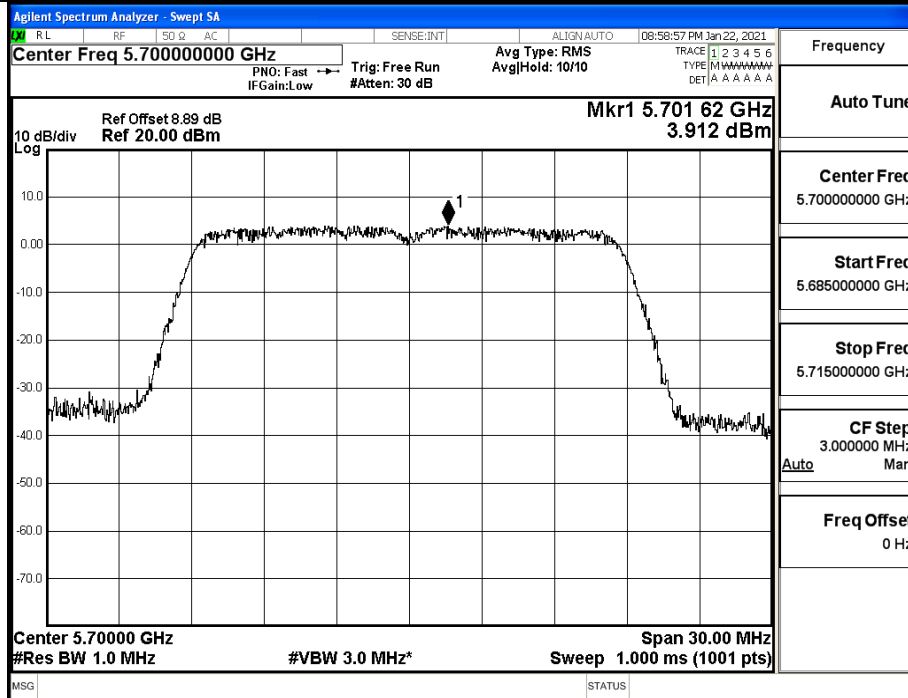
Power Spectral Density



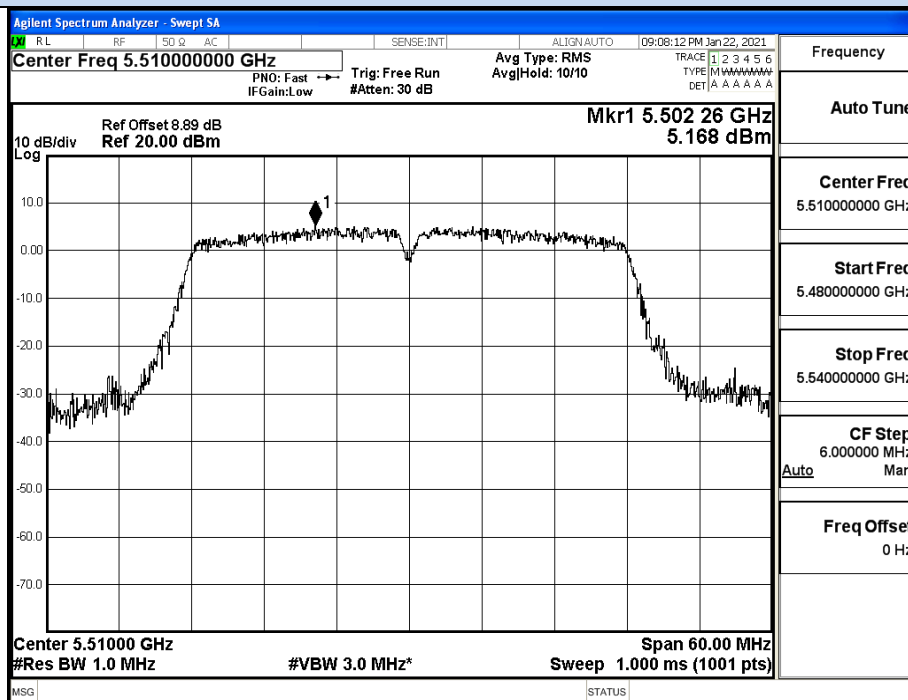
IEEE 802.11n20 / Channel 100 / 5500MHz



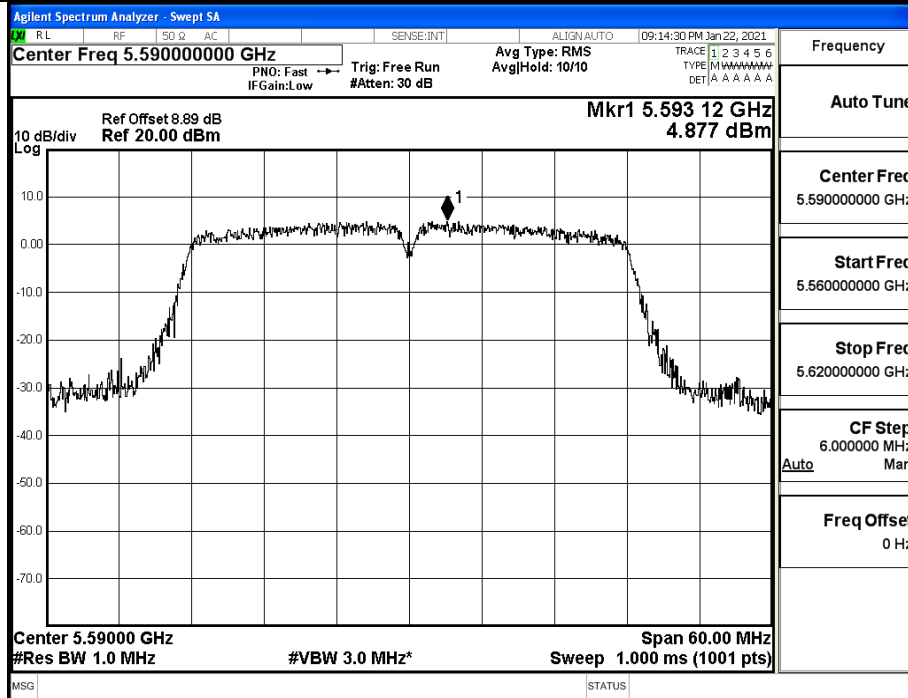
IEEE 802.11n20 / Channel 120 / 5600MHz



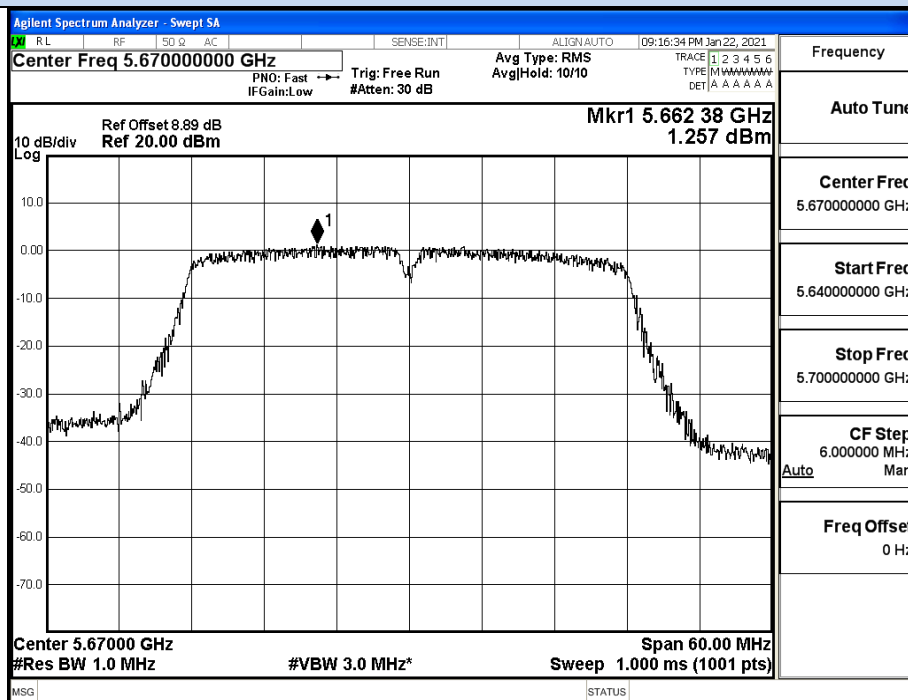
IEEE 802.11n20 / Channel 140 / 5700MHz



IEEE 802.11n40 / Channel 102 / 5510MHz

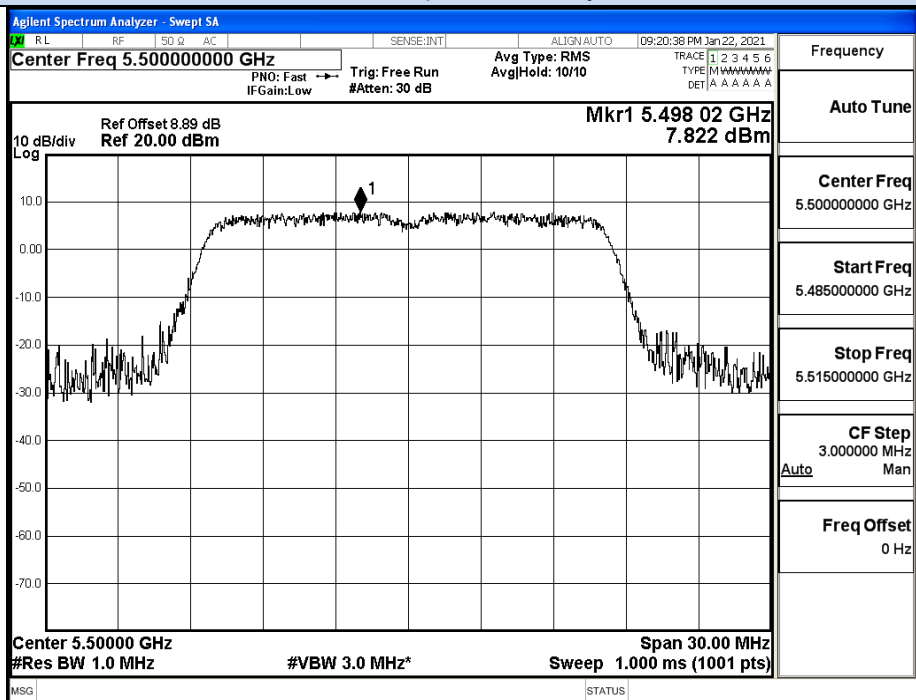


IEEE 802.11n40 / Channel 118 / 5590MHz

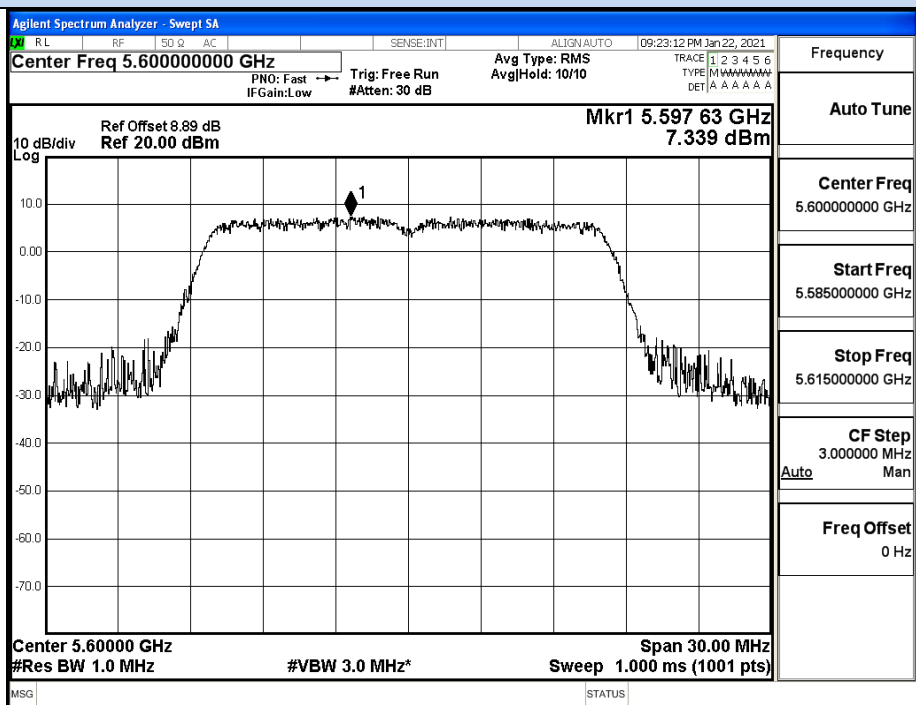


IEEE 802.11n40 / Channel 134 / 5670MHz

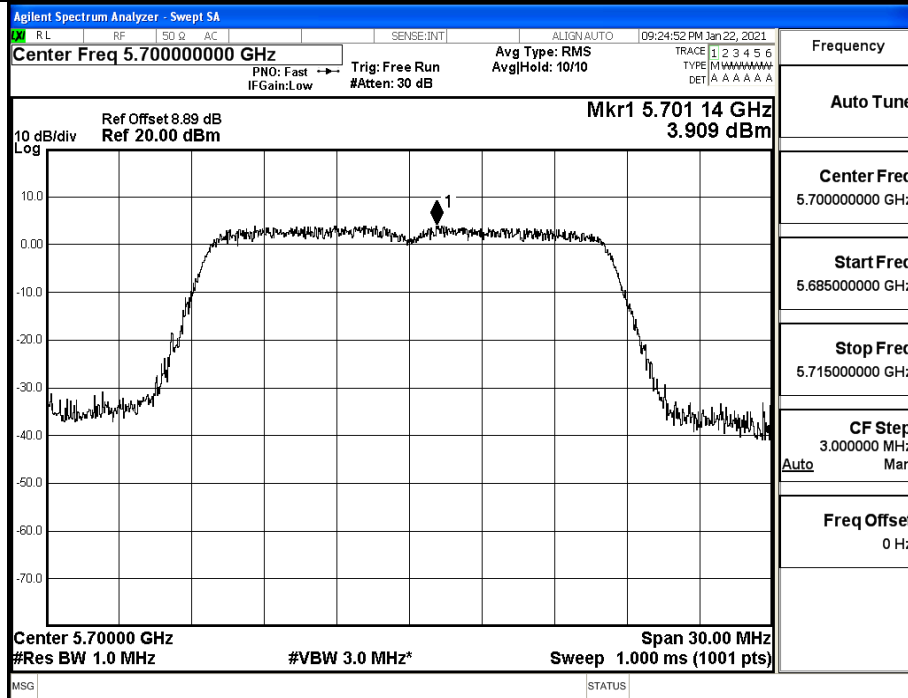
Power Spectral Density



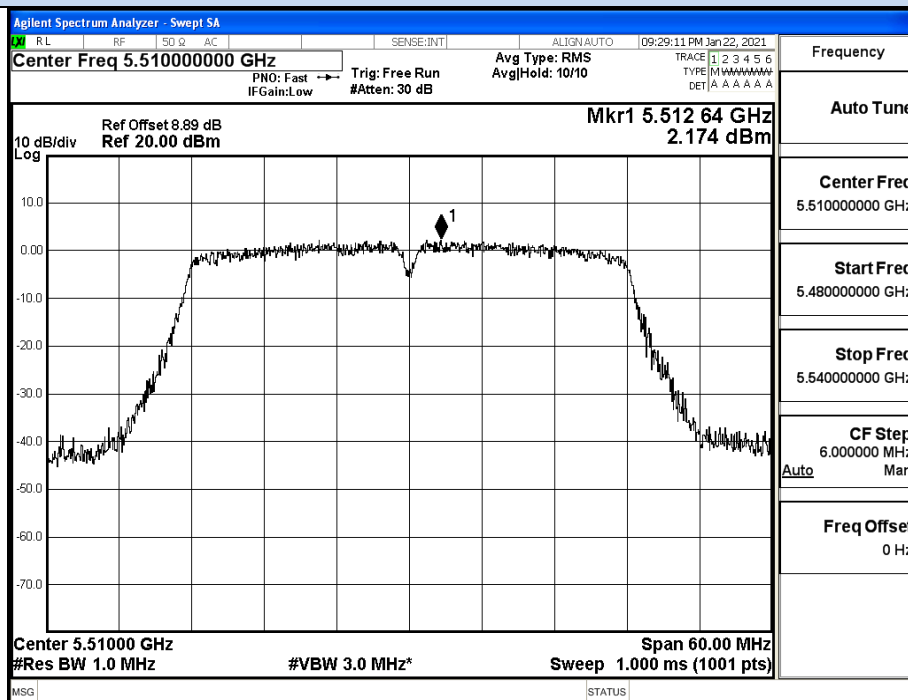
IEEE 802.11ac20 / Channel 100 / 5500MHz



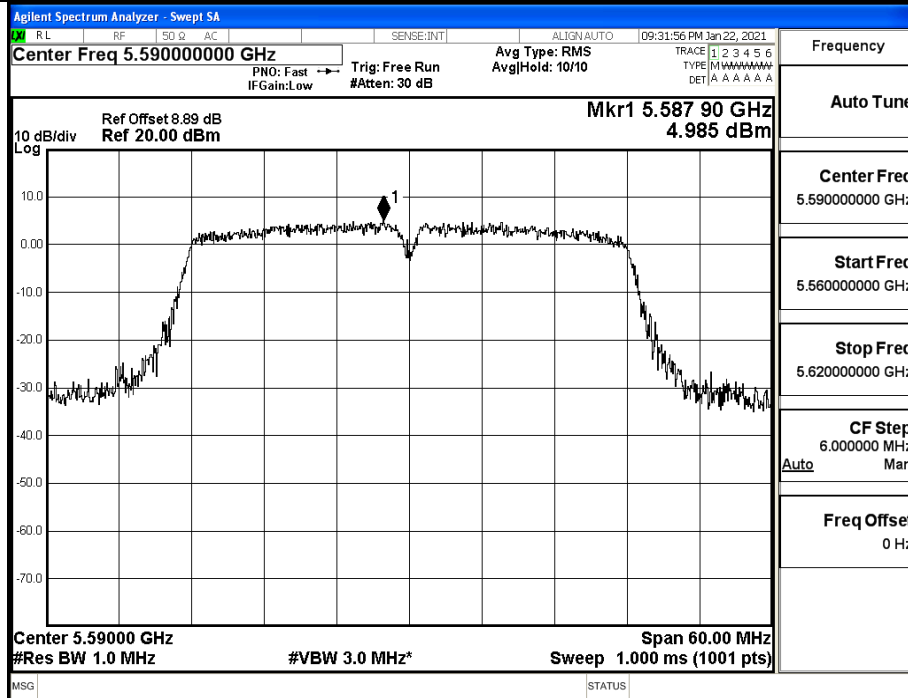
IEEE 802.11ac20 / Channel 120 / 5600MHz



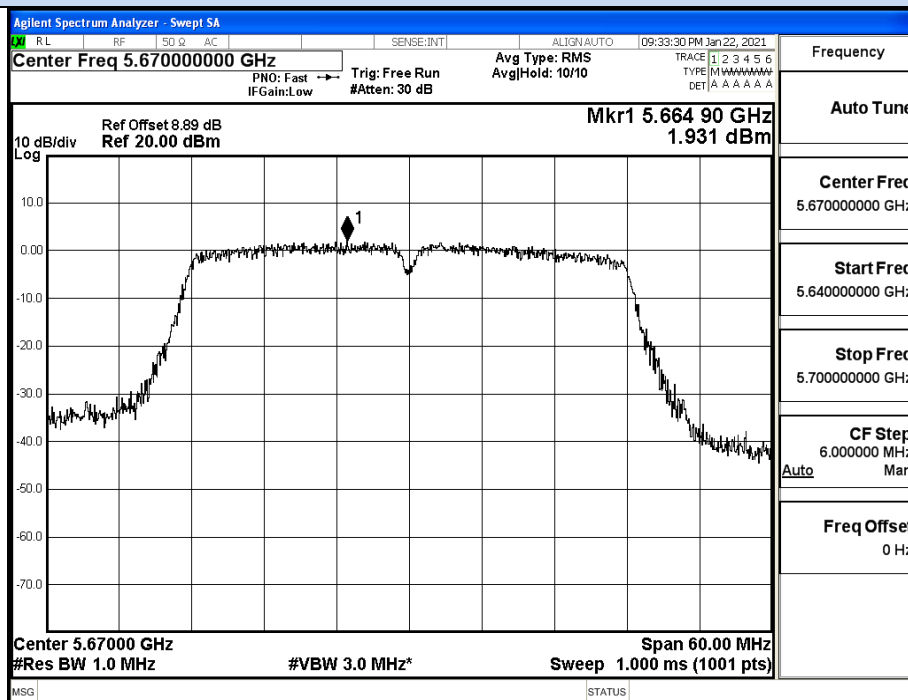
IEEE 802.11ac20 / Channel 140 / 5700MHz



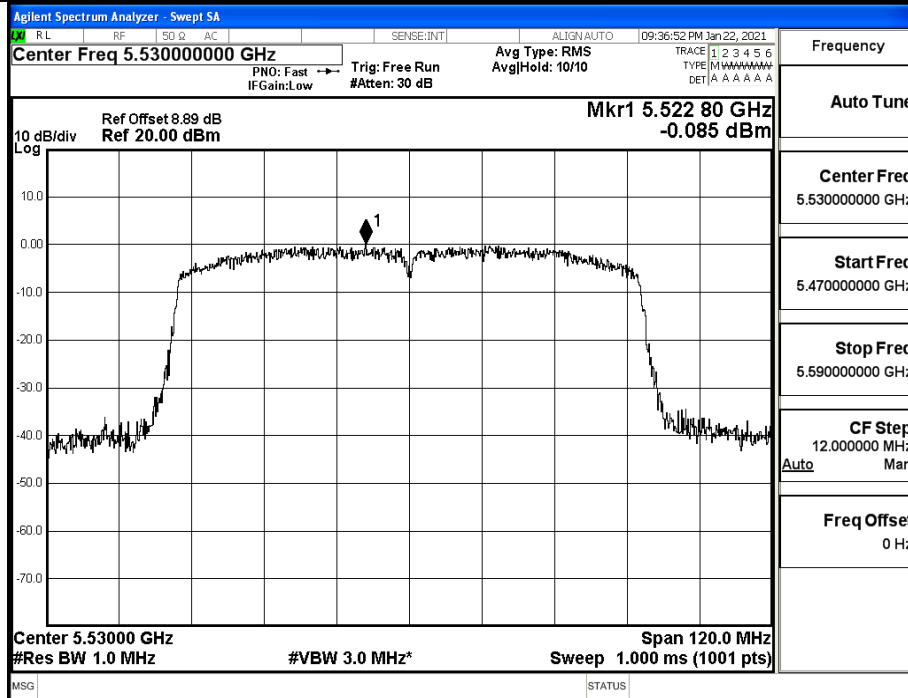
IEEE 802.11ac40 / Channel 102 / 5510MHz



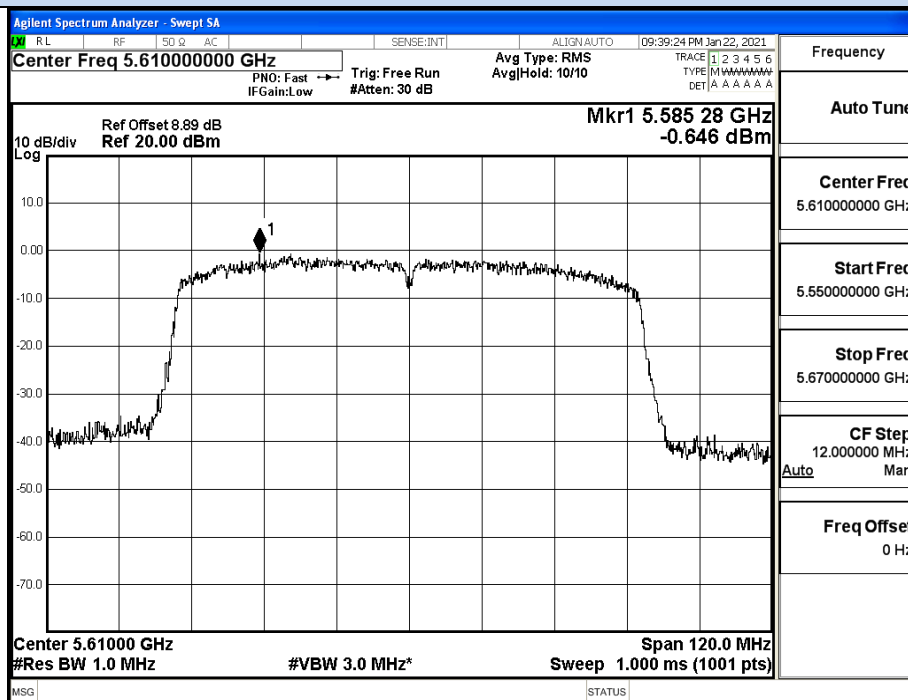
IEEE 802.11ac40 / Channel 118 / 5590MHz



IEEE 802.11ac40 / Channel 134 / 5670MHz



IEEE 802.11ac80 / Channel 106 / 5530MHz



IEEE 802.11ac80 / Channel 122 / 5610MHz

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 Power Density (dBm/MHz)	Limit (dBm/MHz)	Verdict
11N20 SISO	100	5500	5.19	7.71	9.64	0	9.64	11	Pass
	120	5600	4.22	6.84	8.73	0	8.73		Pass
	140	5700	2.73	3.91	6.37	0	6.37		Pass
11N40 SISO	102	5510	3.28	5.17	7.34	0	7.34	11	Pass
	118	5590	2.60	4.88	6.90	0	6.90		Pass
	134	5670	0.22	1.26	3.78	0	3.78		Pass
11AC20 SISO	100	5500	6.19	7.82	10.09	0	10.09	11	Pass
	120	5600	5.88	7.34	9.68	0	9.68		Pass
	140	5700	2.62	3.91	6.32	0	6.32		Pass
11AC40 SISO	102	5510	3.22	2.17	5.74	0	5.74	11	Pass
	118	5590	2.28	4.99	6.85	0	6.85		Pass
	134	5670	0.37	1.93	4.23	0	4.23		Pass
11AC80 SISO	106	5530	1.54	-0.09	3.81	0	3.81	11	Pass
	122	5610	-1.17	-0.65	2.11	0	2.11		Pass

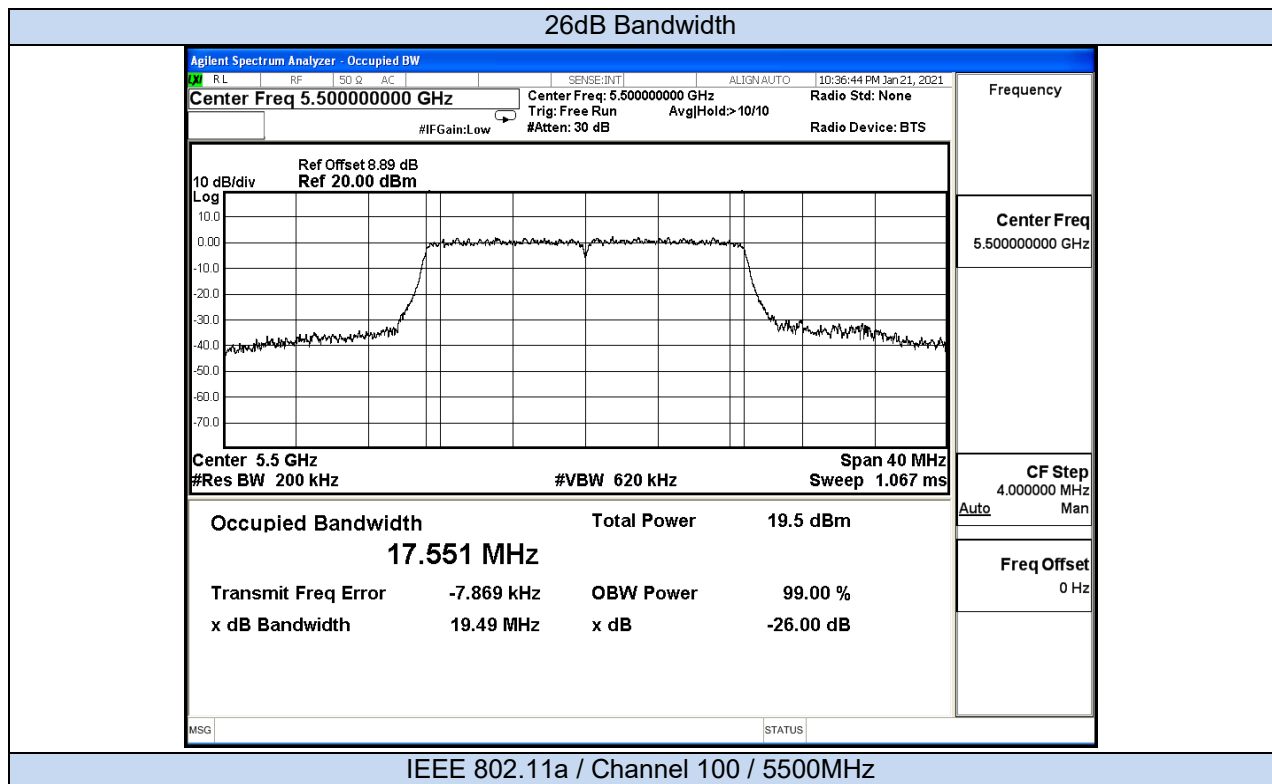
Note: The frequency 5590&5610MHz data is only applicable to FCC, not applicable to ISED.

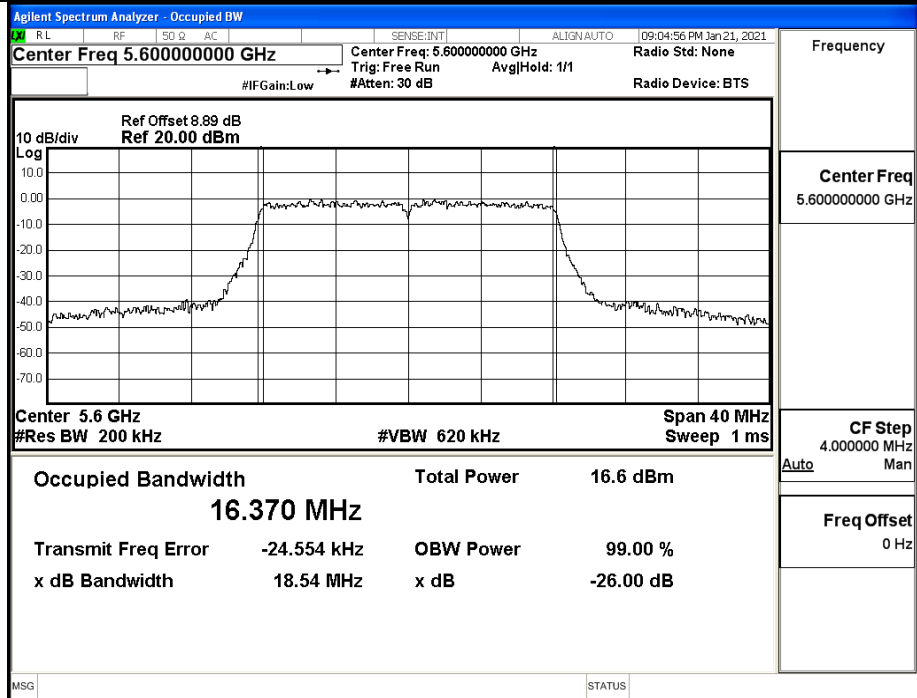
B.4 Emission Bandwidth

ANT0:

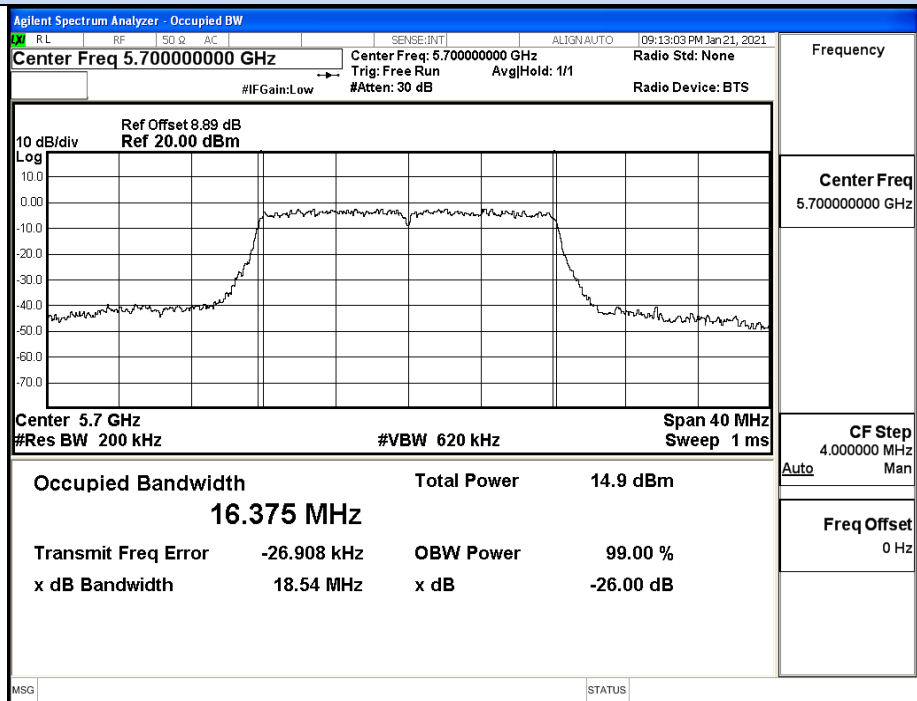
Test Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Verdict
11A	100	5500	19.49	17.551	No Limit	Pass
	120	5600	18.54	16.370		Pass
	140	5700	18.54	16.375		Pass
11N20 SISO	100	5500	19.45	17.511	No Limit	Pass
	120	5600	28.02	17.543		Pass
	140	5700	19.67	17.547		Pass
11N40 SISO	102	5510	41.05	36.001	No Limit	Pass
	118	5590	40.61	36.007		Pass
	134	5670	40.61	36.028		Pass
11AC20 SISO	100	5500	19.43	17.543	No Limit	Pass
	120	5600	19.51	17.544		Pass
	140	5700	19.45	17.544		Pass
11AC40 SISO	102	5510	40.79	36.011	No Limit	Pass
	118	5590	40.81	36.001		Pass
	134	5670	40.86	36.001		Pass
11AC80 SISO	106	5530	80.45	74.623	No Limit	Pass
	122	5610	80.53	74.632		Pass

Note: The frequency 5590&5610MHz data is only applicable to FCC, not applicable to ISCED.



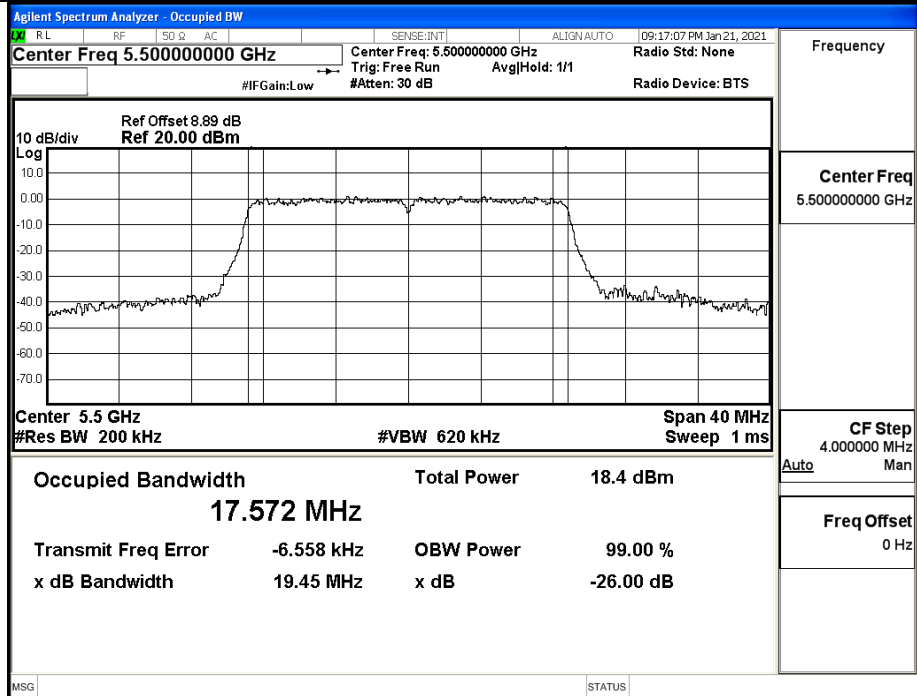


IEEE 802.11a / Channel 120 / 5600MHz

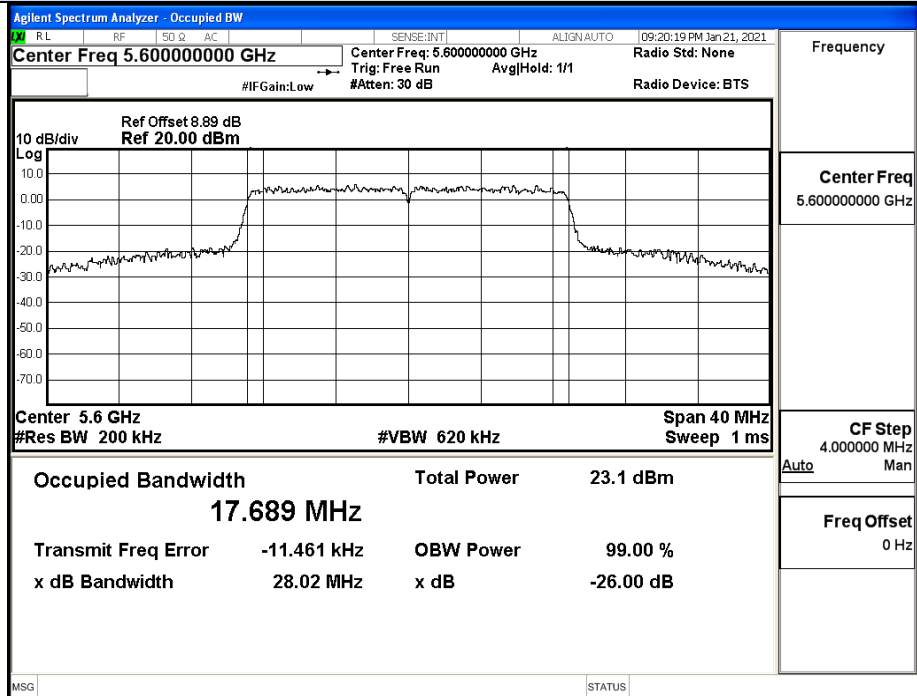


IEEE 802.11a / Channel 140 / 5700MHz

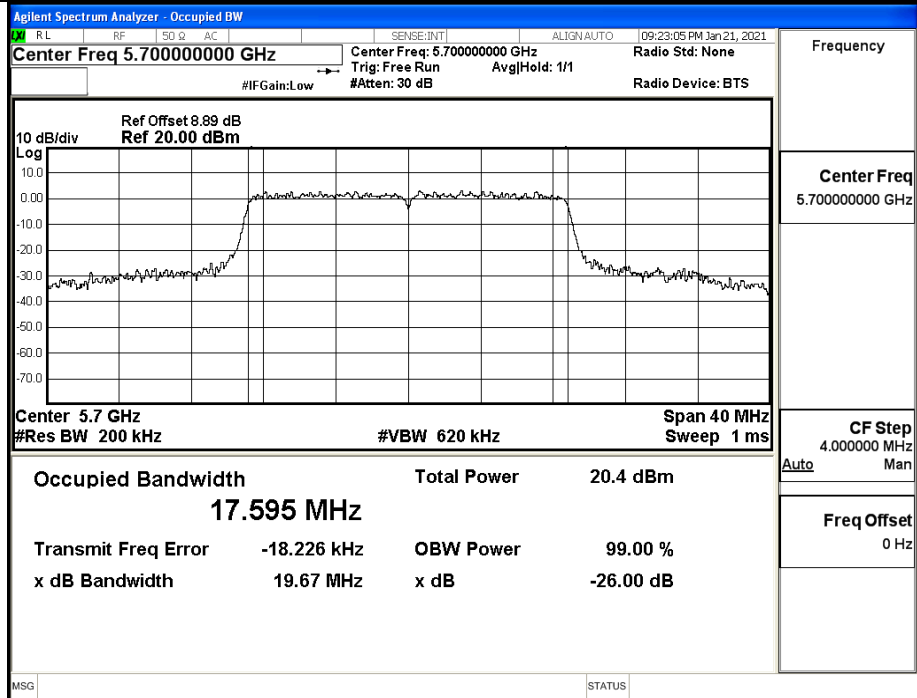
26dB Bandwidth



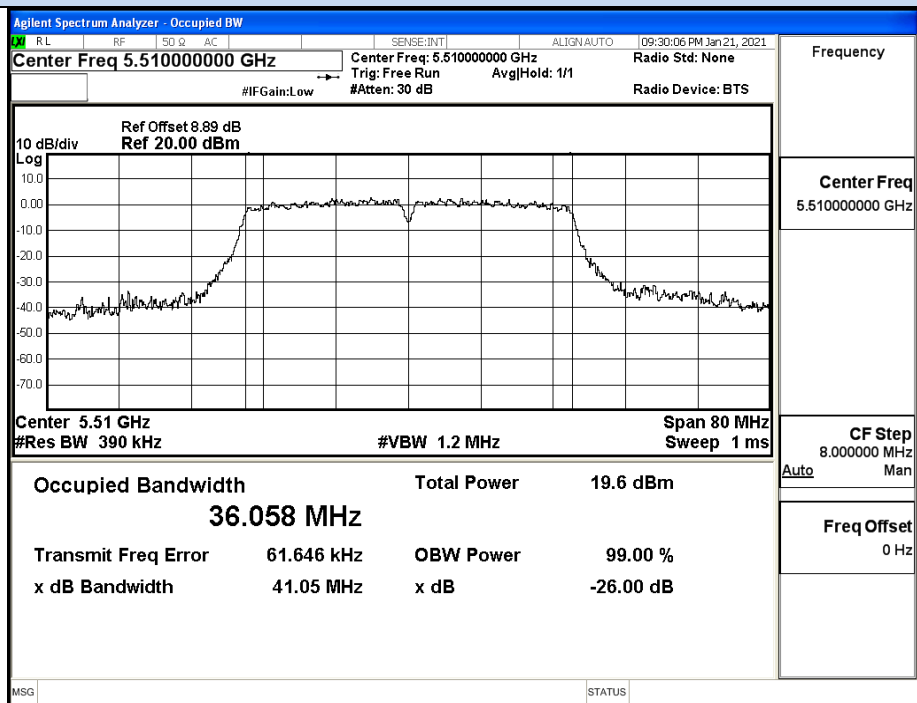
IEEE 802.11n20 / Channel 100 / 5500MHz



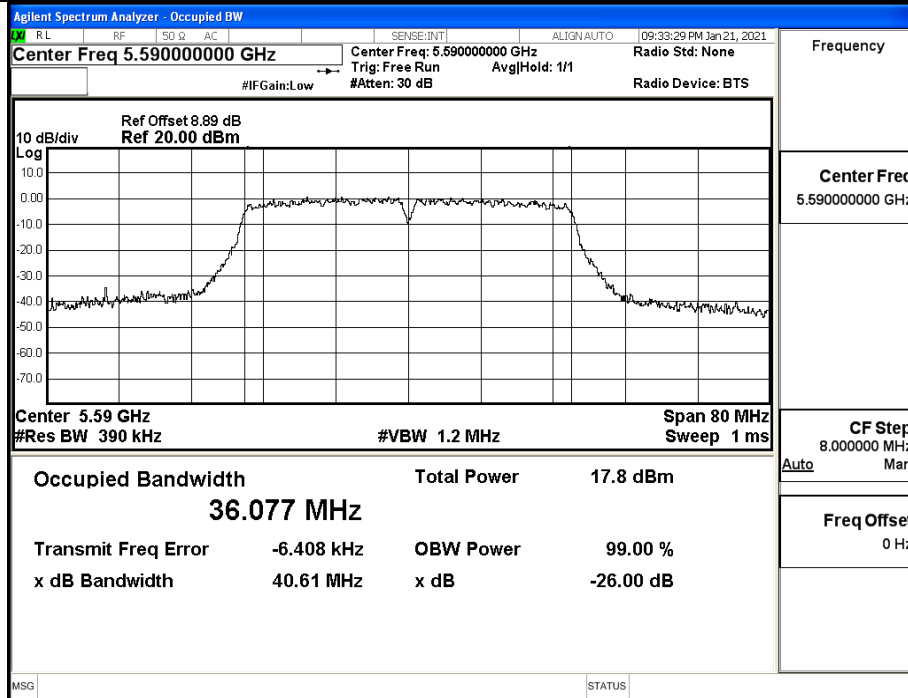
IEEE 802.11n20 / Channel 120 / 5600MHz



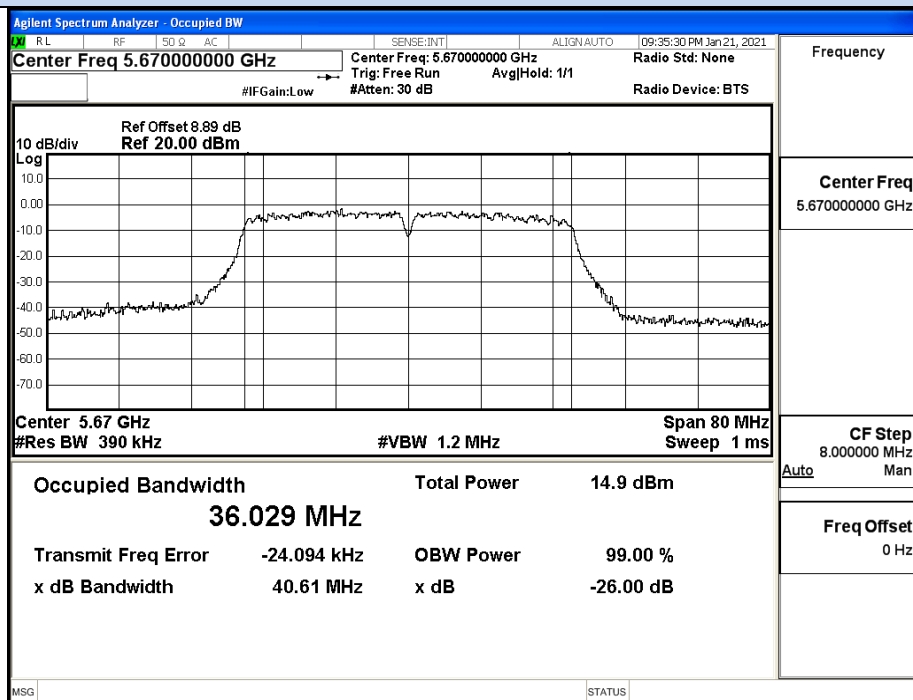
IEEE 802.11n20 / Channel 140 / 5700MHz



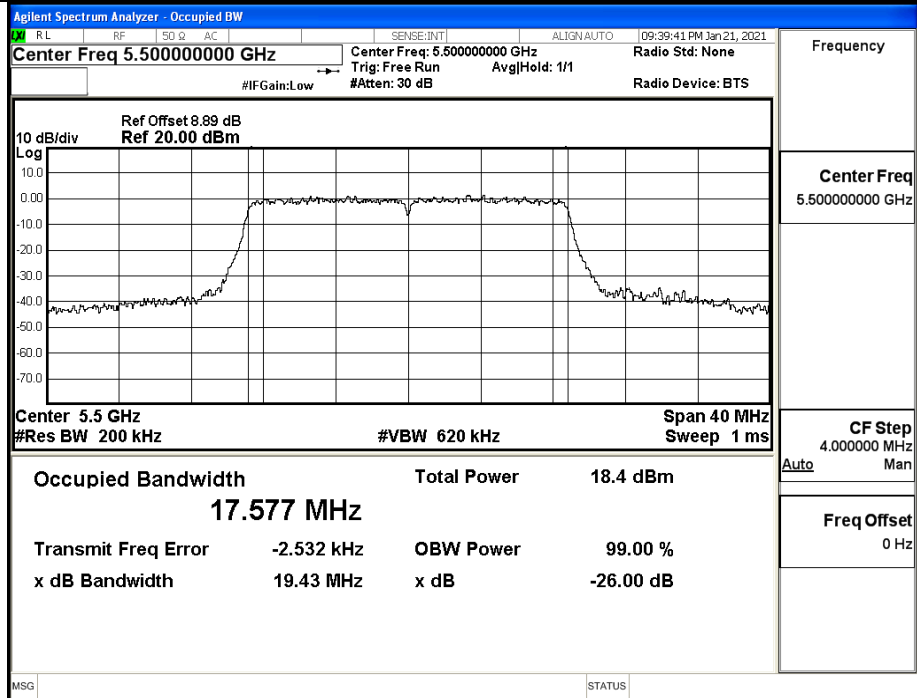
IEEE 802.11n40 / Channel 102 / 5510MHz



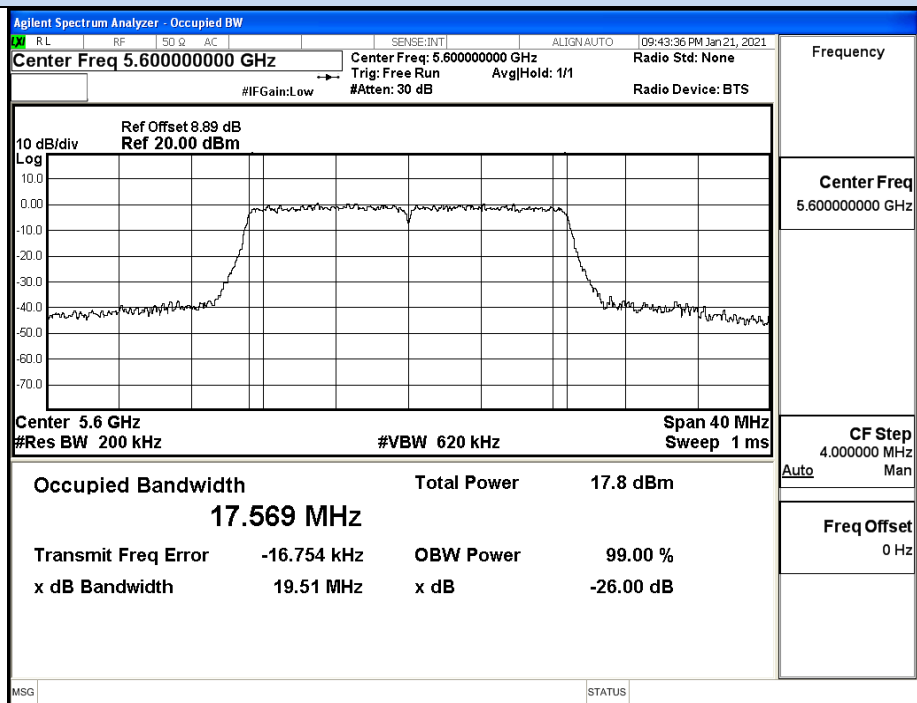
IEEE 802.11n40 / Channel 118 / 5590MHz



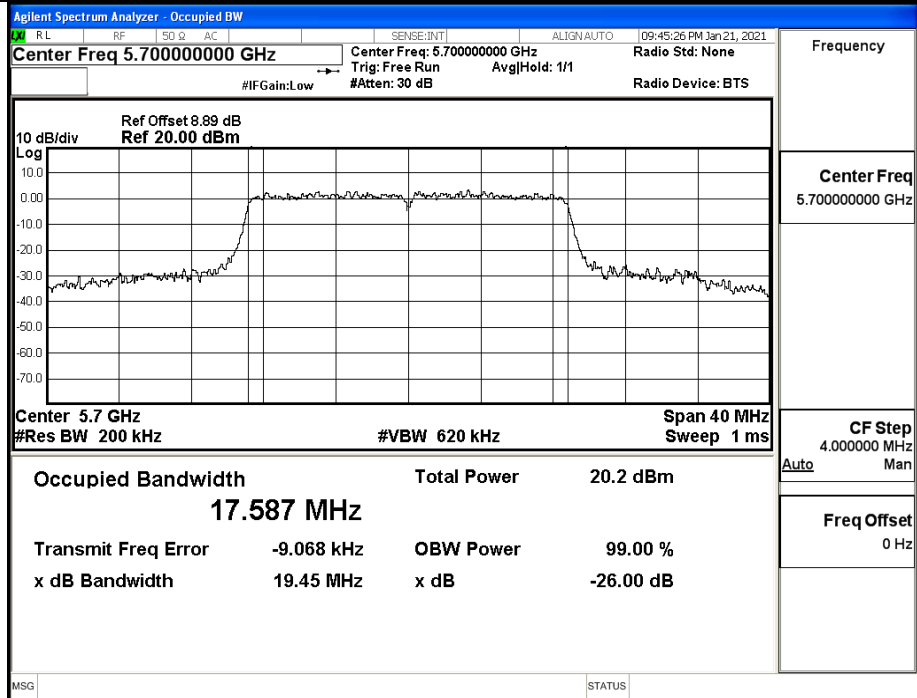
IEEE 802.11n40 / Channel 134 / 5670MHz



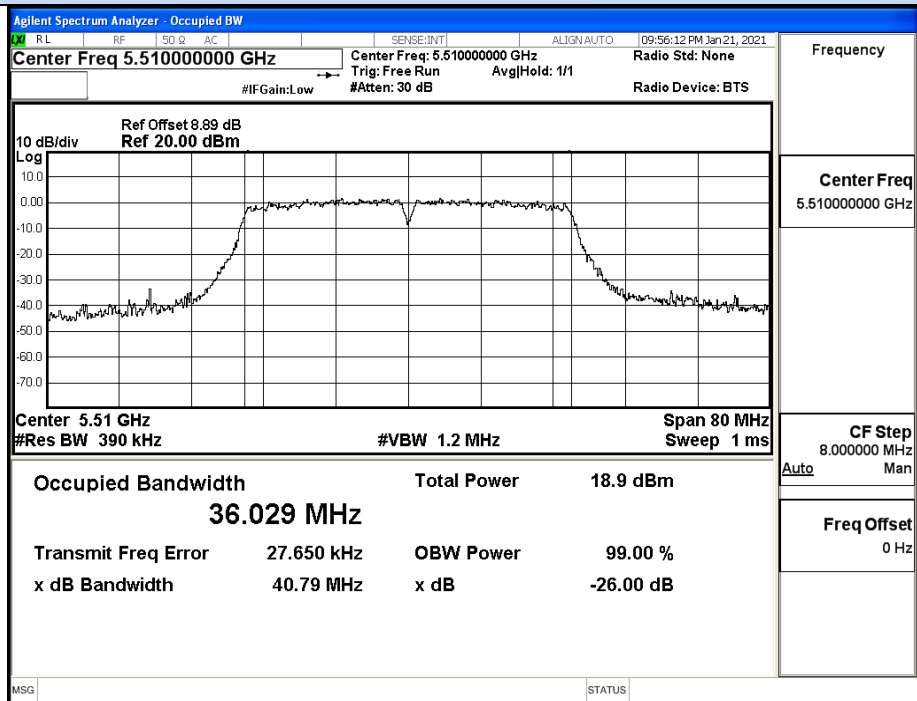
IEEE 802.11ac20 / Channel 100 / 5500MHz



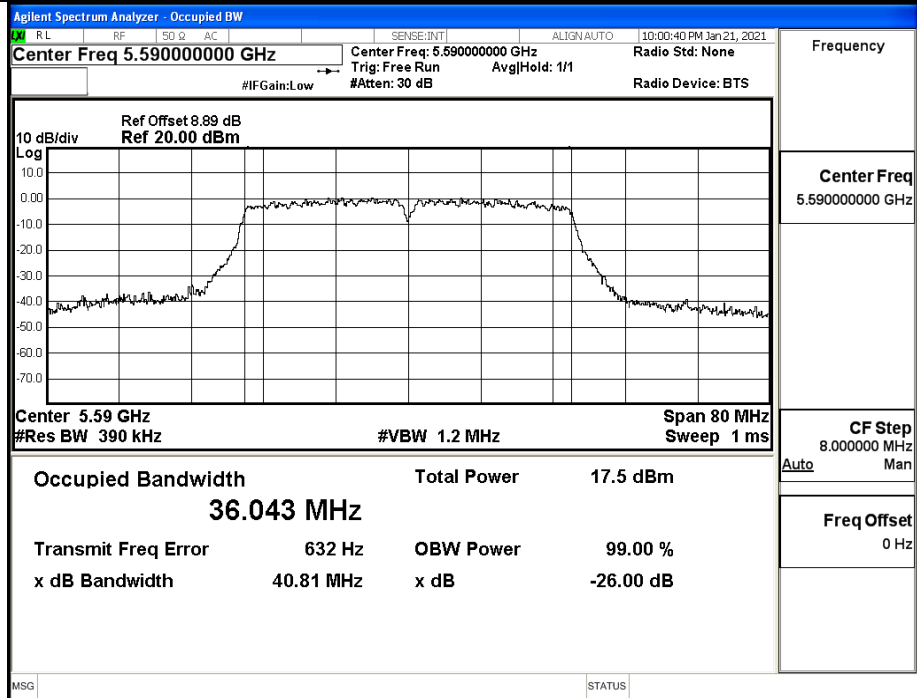
IEEE 802.11ac20 / Channel 120 / 5600MHz



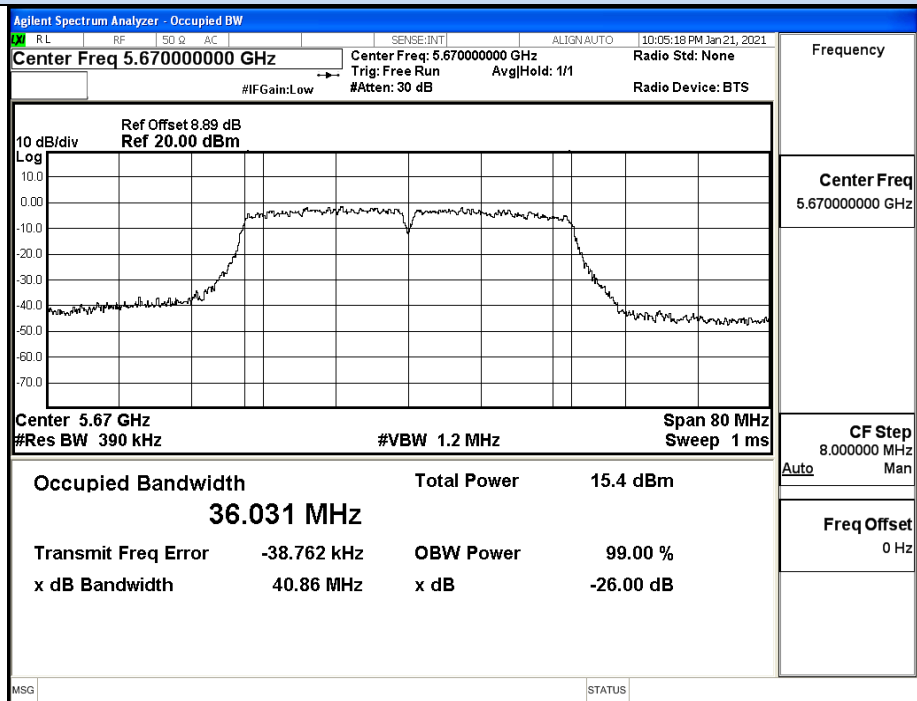
IEEE 802.11ac20 / Channel 140 / 5700MHz



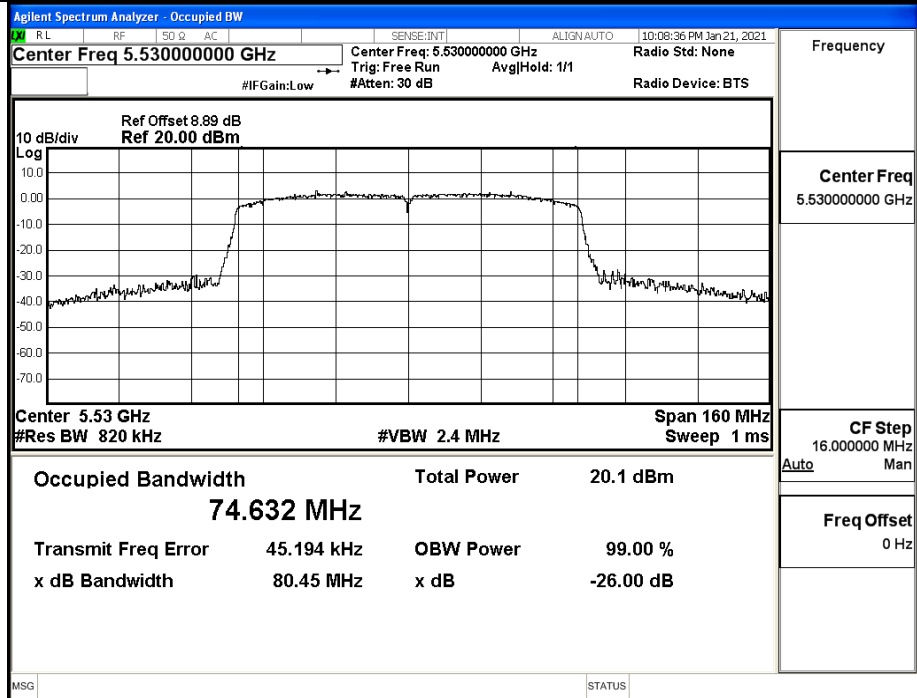
IEEE 802.11ac40 / Channel 102 / 5510MHz



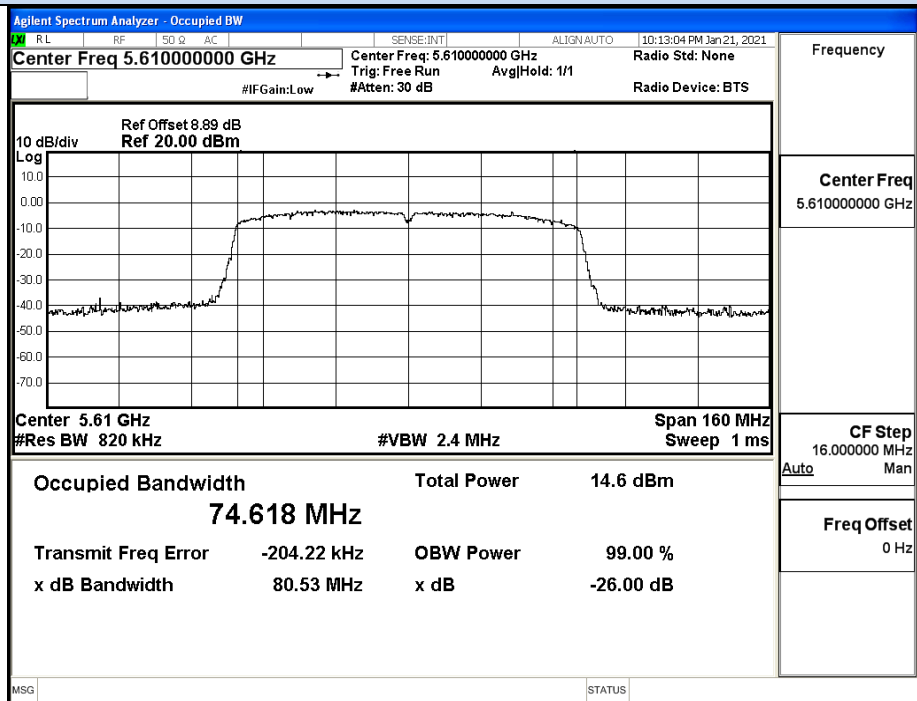
IEEE 802.11ac40 / Channel 118 / 5590MHz



IEEE 802.11ac40 / Channel 134 / 5670MHz

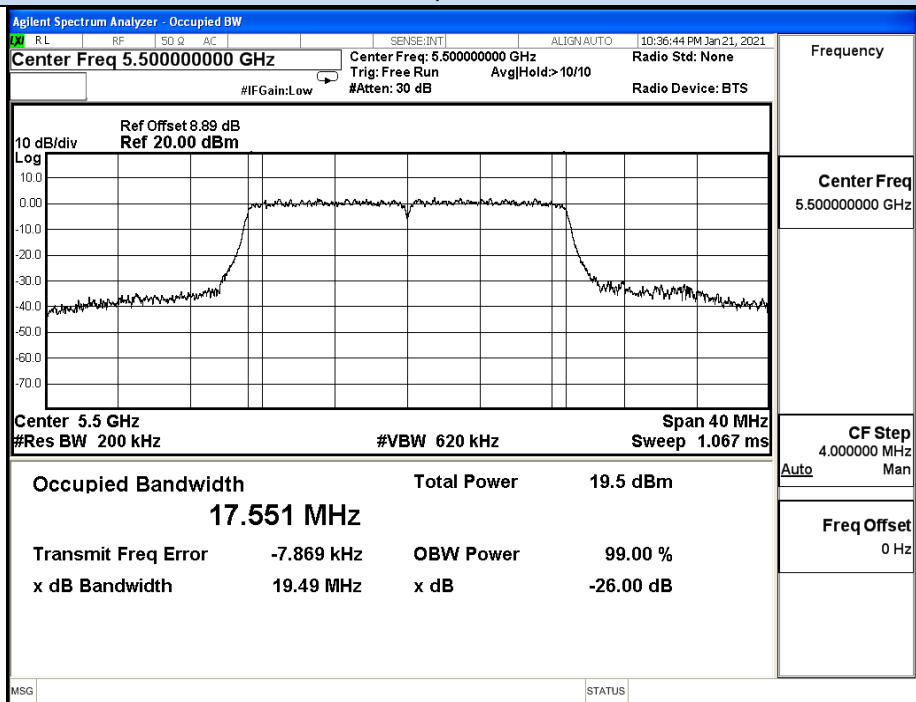


IEEE 802.11ac80 / Channel 106 / 5530MHz

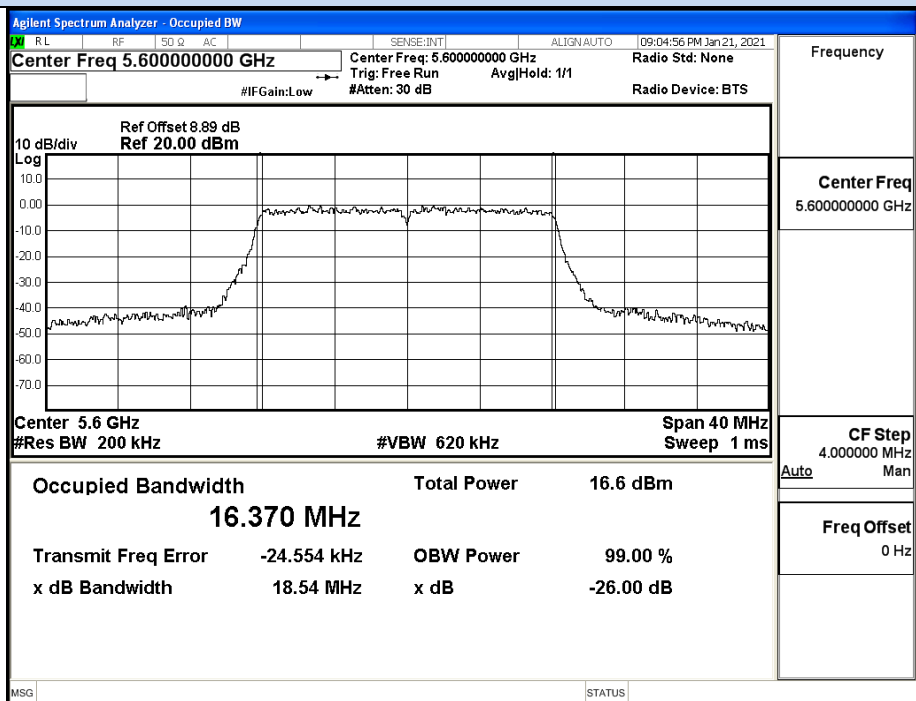


IEEE 802.11ac80 / Channel 122 / 5610MHz

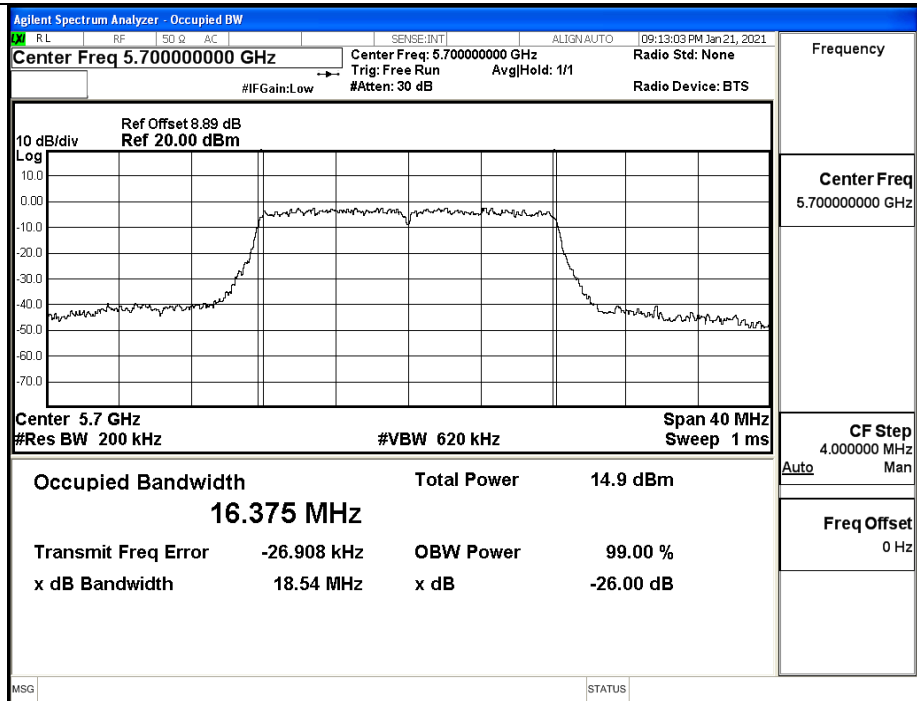
99% Occupied Bandwidth



IEEE 802.11a / Channel 100 / 5500MHz

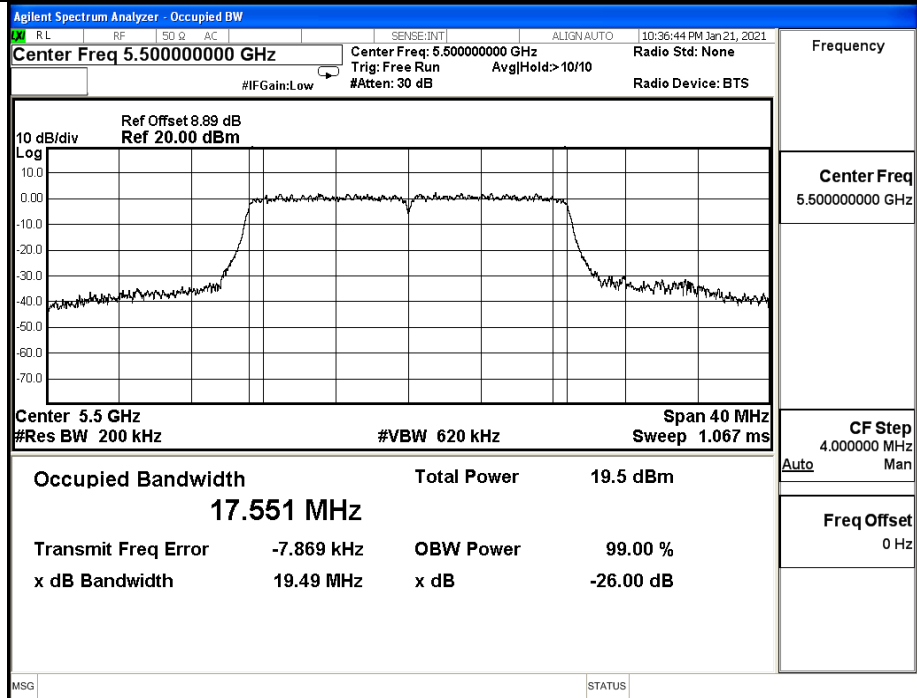


IEEE 802.11a / Channel 120 / 5600MHz

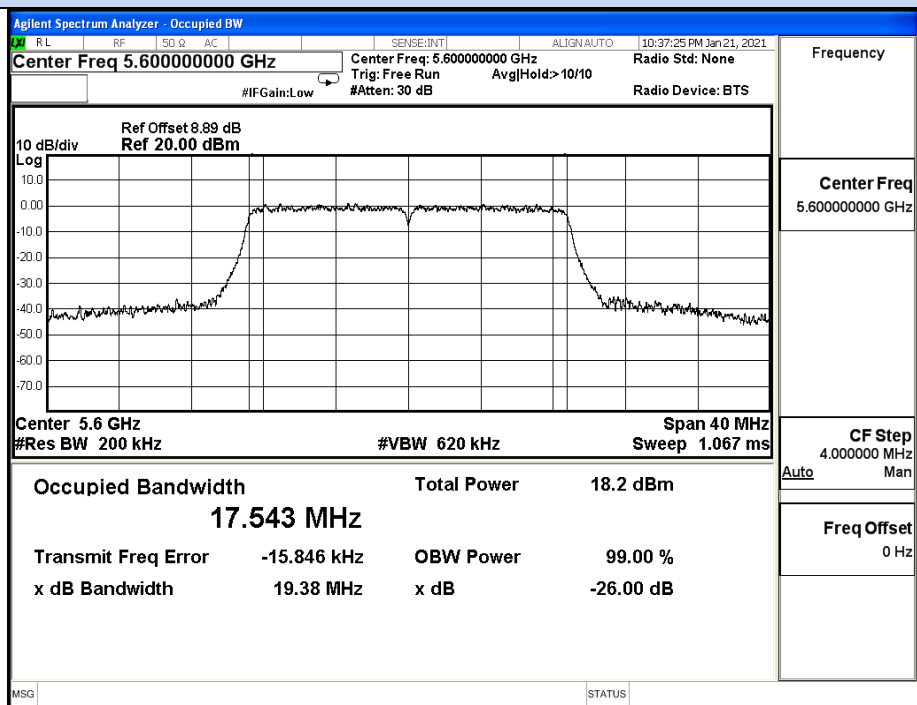


IEEE 802.11a / Channel 140 / 5700MHz

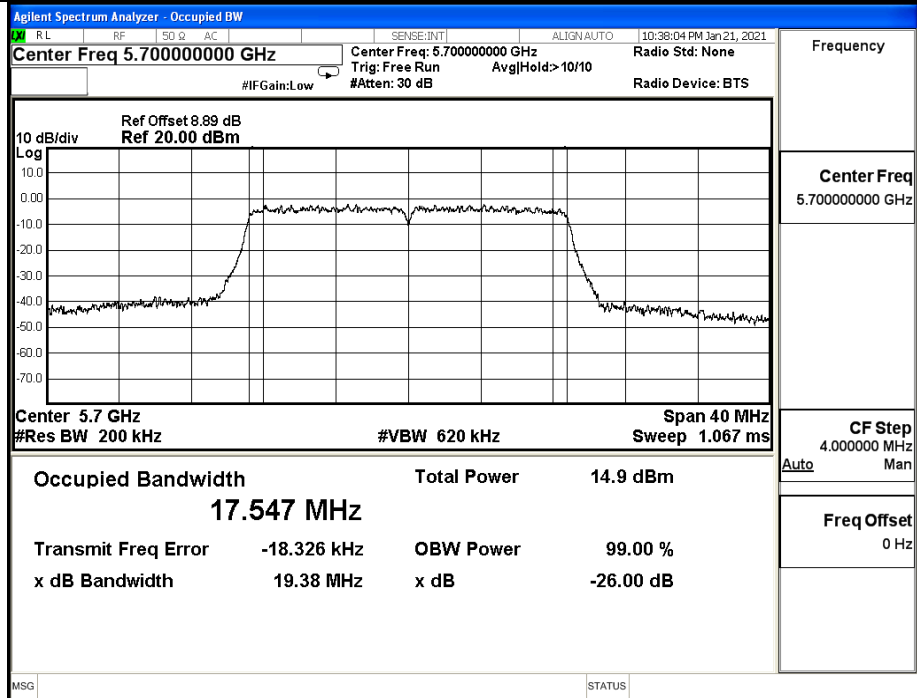
99% Occupied Bandwidth



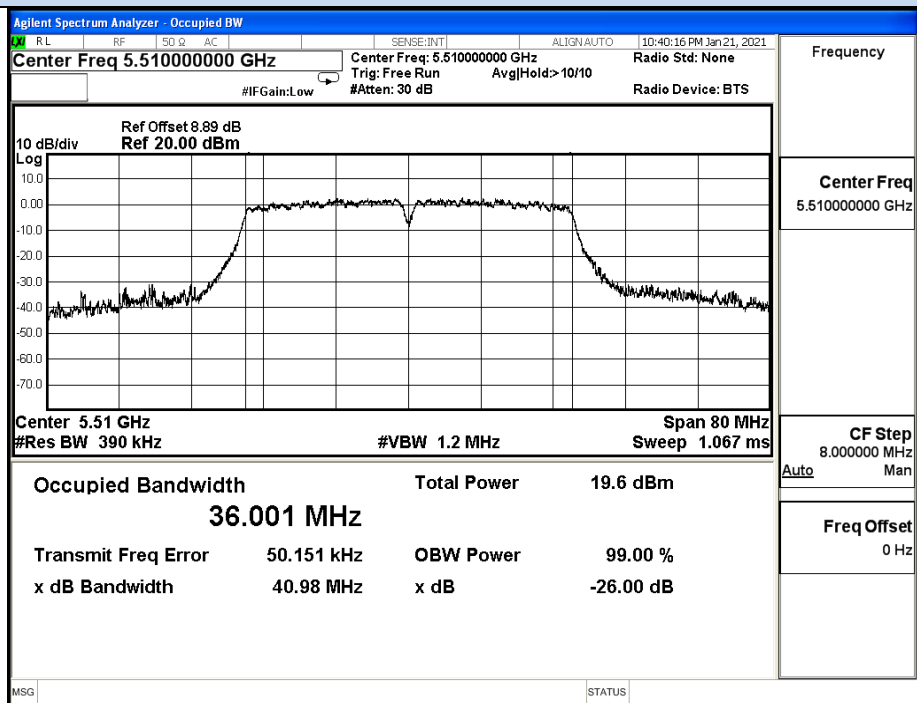
IEEE 802.11n20 / Channel 100 / 5500MHz



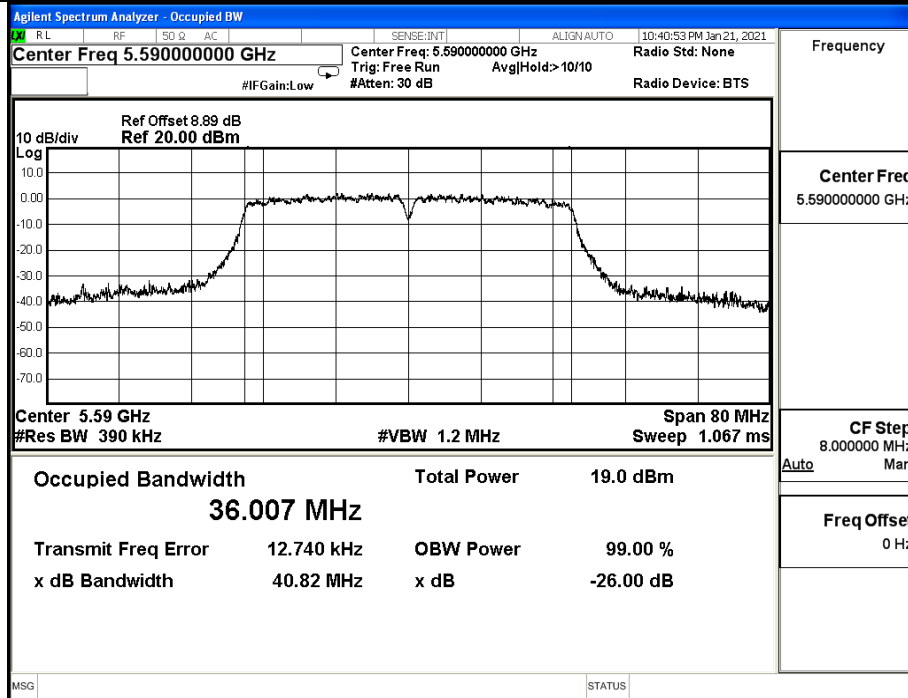
IEEE 802.11n20 / Channel 120 / 5600MHz



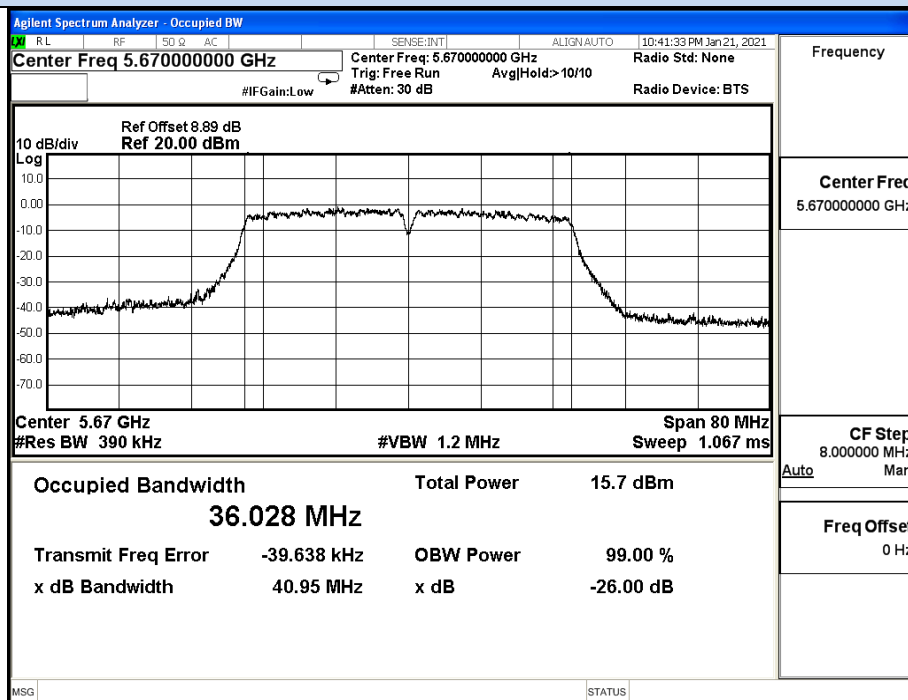
IEEE 802.11n20 / Channel 140 / 5700MHz



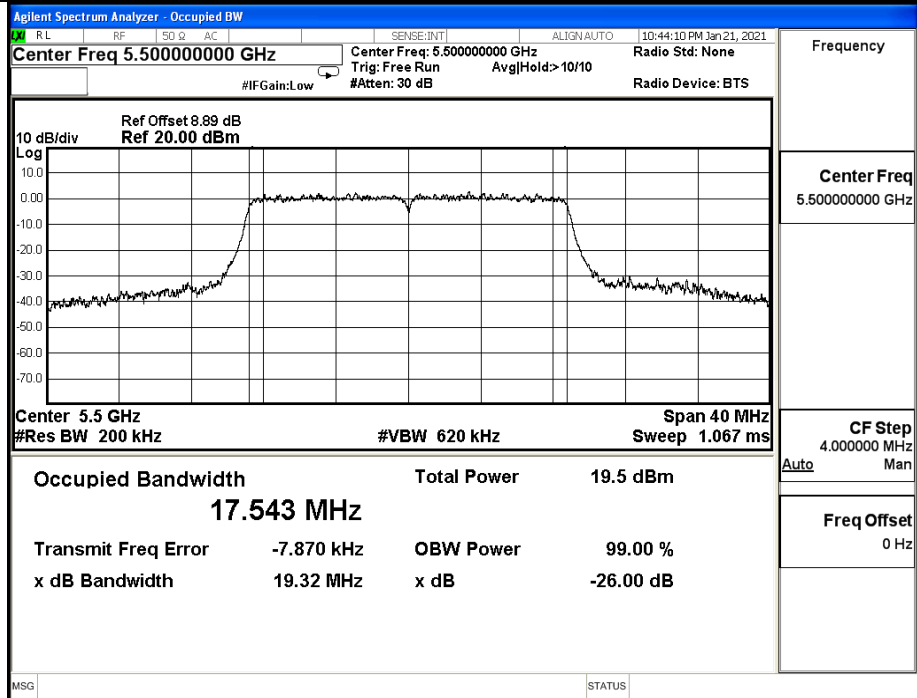
IEEE 802.11n40 / Channel 102 / 5510MHz



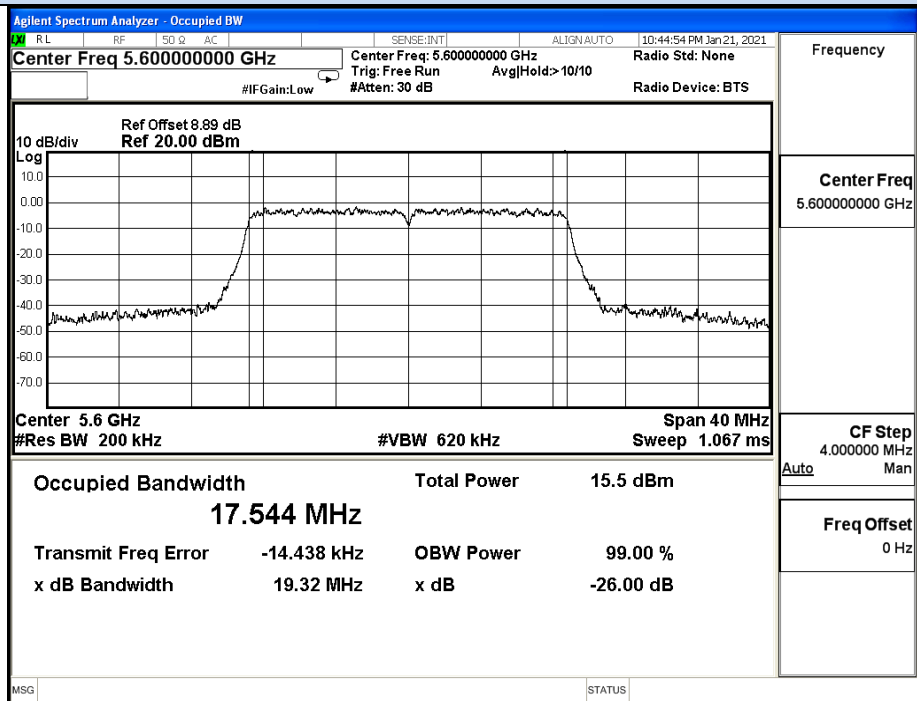
IEEE 802.11n40 / Channel 118 / 5590MHz



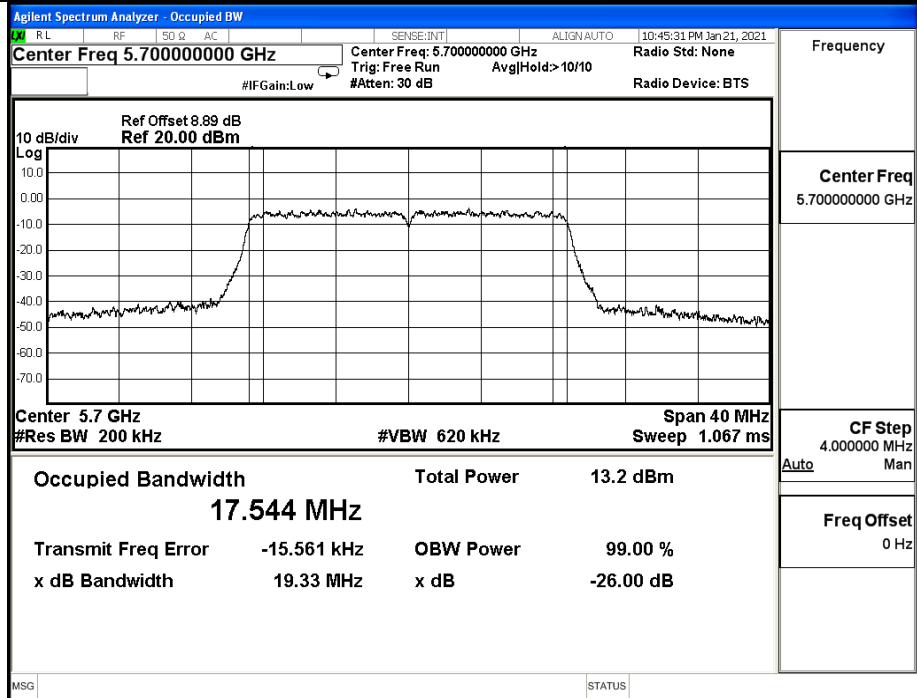
IEEE 802.11n40 / Channel 134 / 5670MHz



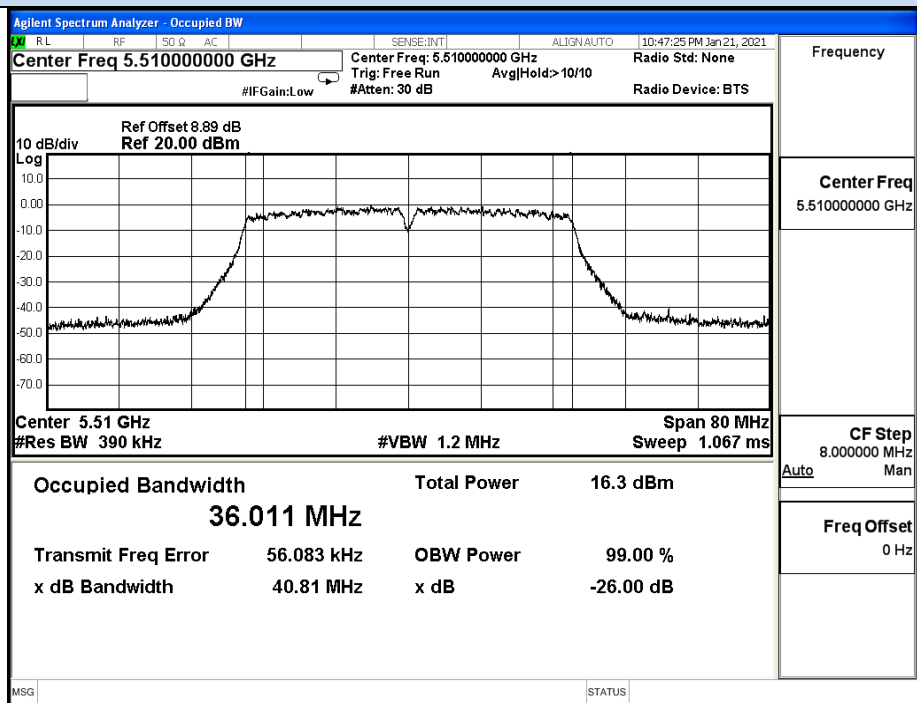
IEEE 802.11ac20 / Channel 100 / 5500MHz



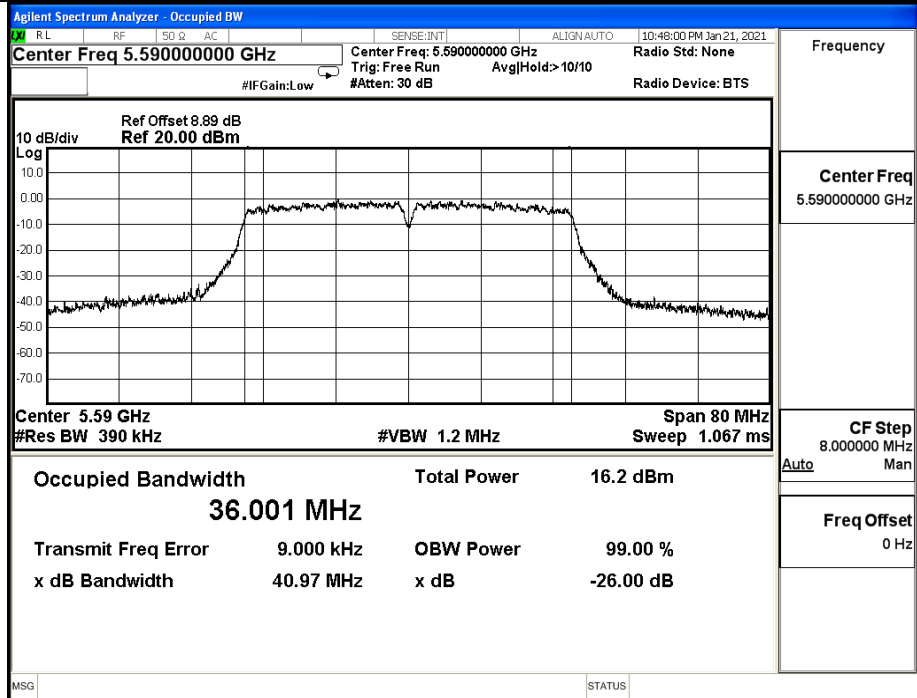
IEEE 802.11ac20 / Channel 120 / 5600MHz



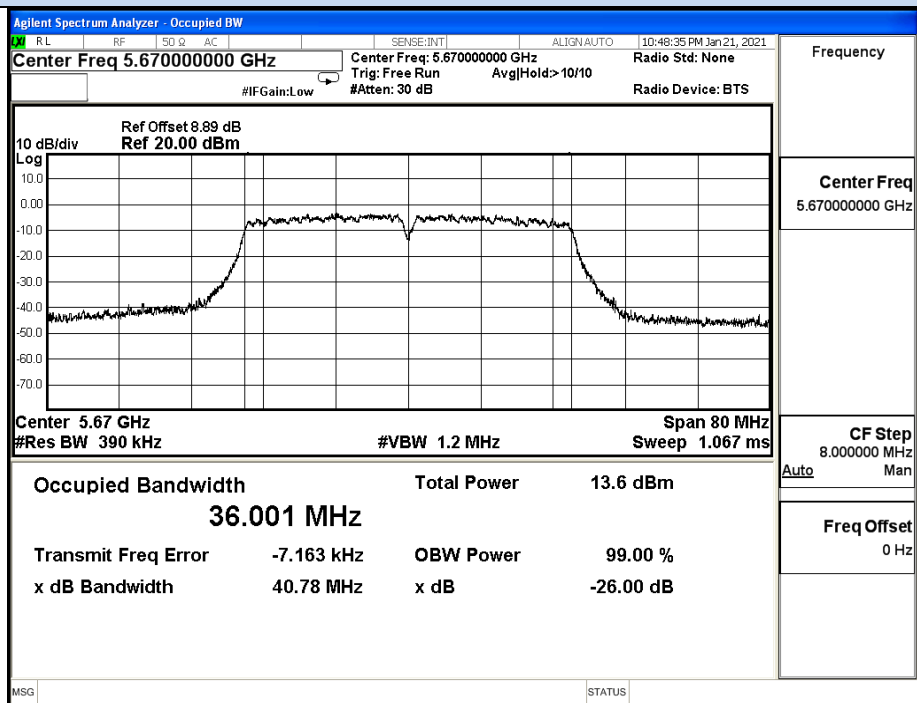
IEEE 802.11ac20 / Channel 140 / 5700MHz



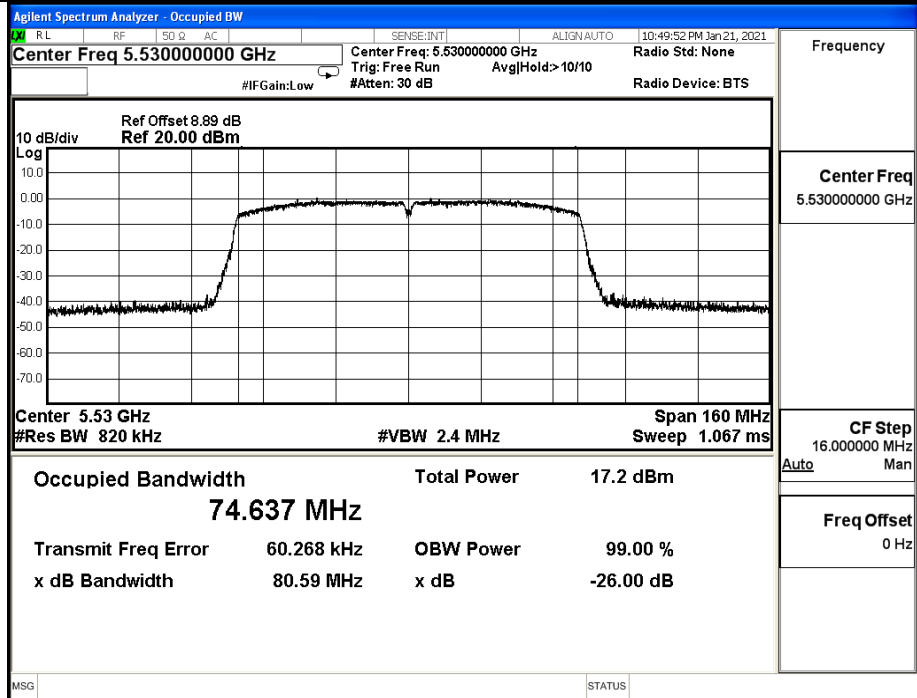
IEEE 802.11ac40 / Channel 102 / 5510MHz



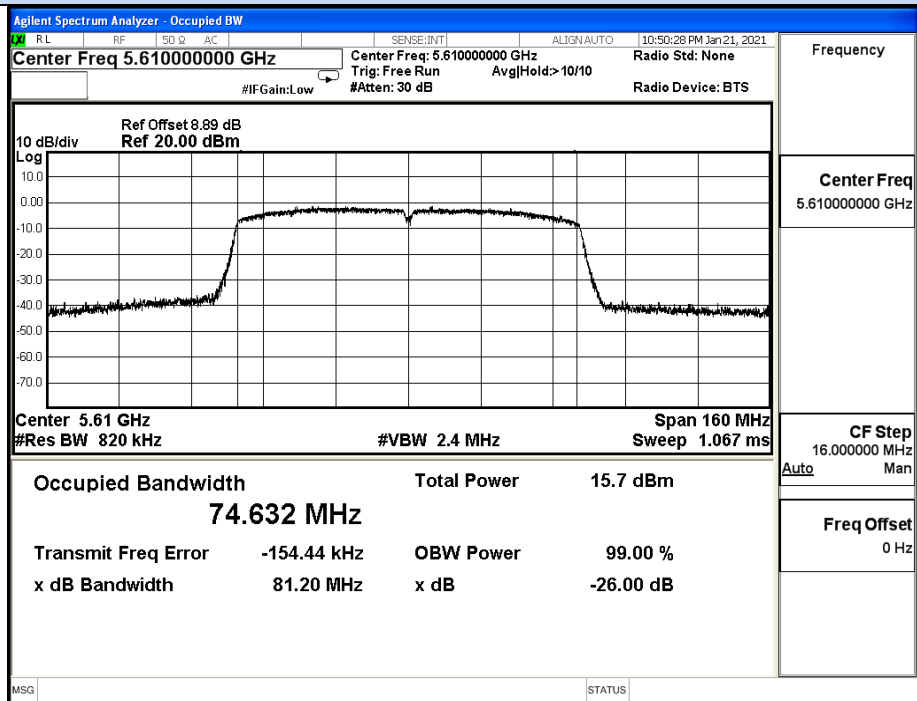
IEEE 802.11ac40 / Channel 118 / 5590MHz



IEEE 802.11ac40 / Channel 134 / 5670MHz



IEEE 802.11ac80 / Channel 106 / 5530MHz



IEEE 802.11ac80 / Channel 122 / 5610MHz