

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)	Plot
802.11a	5500	99.02%	0	Fig.1
802.11n HT20	5500	98.89%	0	Fig.2
802.11ac VHT20	5500	98.97%	0	Fig.3
802.11n HT40	5510	97.89%	0.09	Fig.4
802.11ac VHT40	5510	98.00%	0.09	Fig.5
802.11ac VHT80	5530	95.78%	0.19	Fig.6

Note: Correction Factor=10*log (1/Duty Cycle)

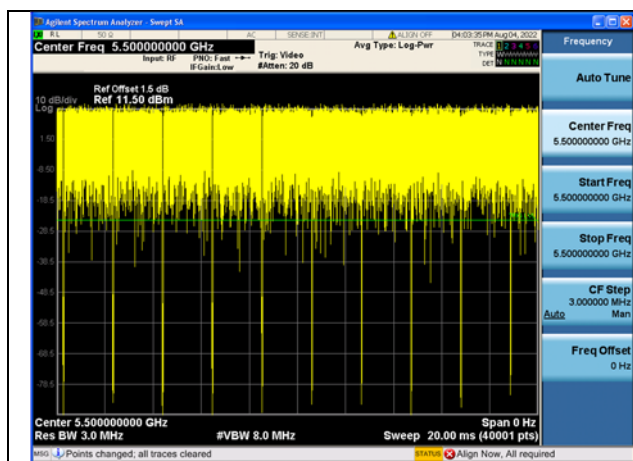


Fig.1

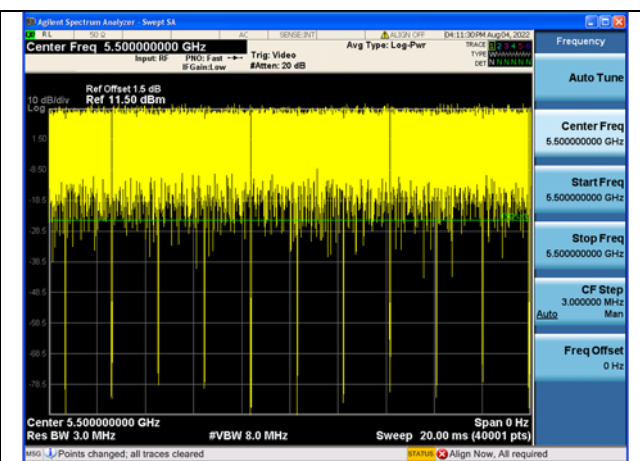


Fig.2

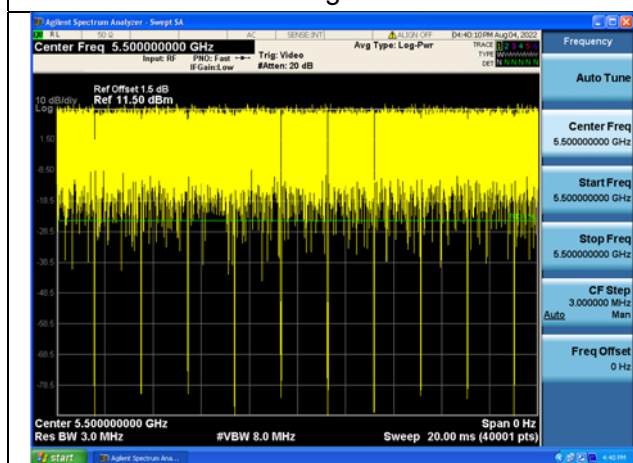


Fig.3

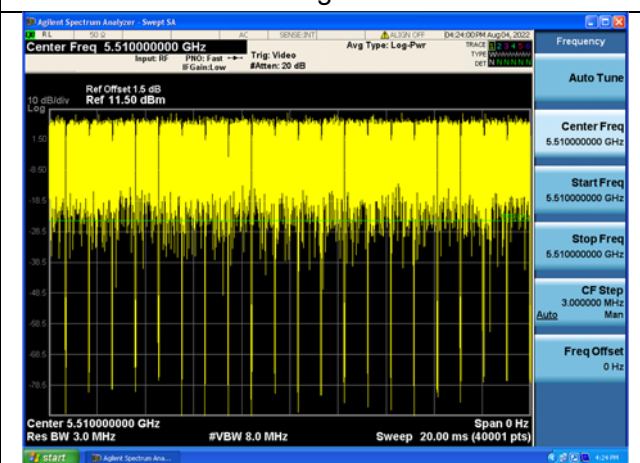


Fig.4

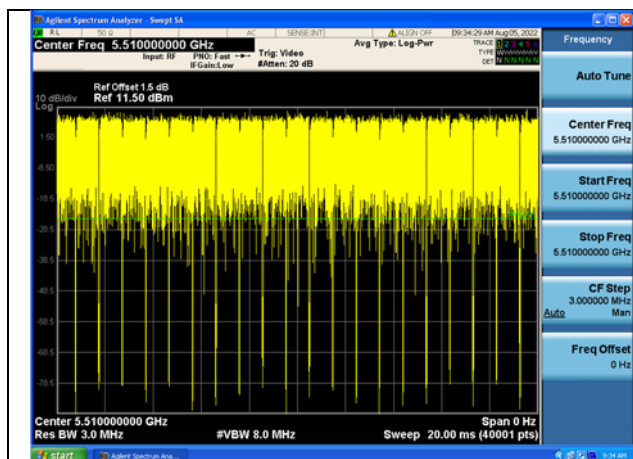


Fig.5

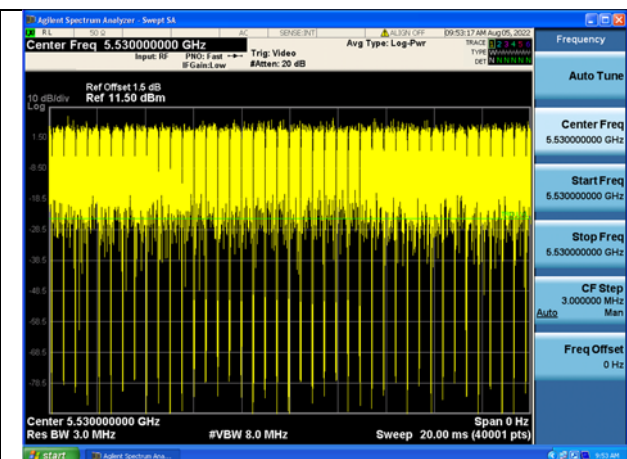


Fig.6

Output Power

Mode	Tones/ RUIndex	Freq (MHz)	Antenna	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5500	Chain0	11.09	11.89
802.11a	NA	5580	Chain0	11.33	12.13
802.11a	NA	5700	Chain0	11.28	12.08
802.11n HT20	NA	5500	Chain0	10.98	11.78
802.11n HT20	NA	5580	Chain0	11.10	11.90
802.11n HT20	NA	5700	Chain0	11.16	11.96
802.11ac VHT20	NA	5500	Chain0	10.63	11.43
802.11ac VHT20	NA	5580	Chain0	11.14	11.94
802.11ac VHT20	NA	5700	Chain0	10.77	11.57
802.11n HT40	NA	5510	Chain0	11.09	11.89
802.11n HT40	NA	5590	Chain0	11.20	12.00
802.11n HT40	NA	5670	Chain0	10.85	11.65
802.11ac VHT40	NA	5510	Chain0	10.83	11.63
802.11ac VHT40	NA	5590	Chain0	10.76	11.56
802.11ac VHT40	NA	5670	Chain0	10.97	11.77
802.11ac VHT80	NA	5530	Chain0	10.84	11.64
802.11ac VHT80	NA	5610	Chain0	10.76	11.56

Mode	Tones/ RUIndex	Freq (MHz)	Antenna	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5720	Chain0	11.29	12.09
802.11n HT20	NA	5720	Chain0	10.47	11.27
802.11ac VHT20	NA	5720	Chain0	11.12	11.92
802.11n HT40	NA	5710	Chain0	10.96	11.76
802.11ac VHT40	NA	5710	Chain0	10.99	11.79
802.11ac VHT80	NA	5690	Chain0	11.07	11.87

Emission Bandwidth

Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.618	Channel No.634	Channel No.658
		5500MHz	5580MHz	5700MHz
802.11a	Chain0	22.04	21.44	21.81
802.11n HT20	Chain0	22.93	23.24	22.48
802.11ac VHT20	Chain0	23.28	24.38	23.94

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.620	Channel No.636	Channel No.652
		5510MHz	5590MHz	5670MHz
802.11n HT40	Chain0	40.69	40.16	40.50
802.11ac VHT40	Chain0	40.51	40.10	40.57

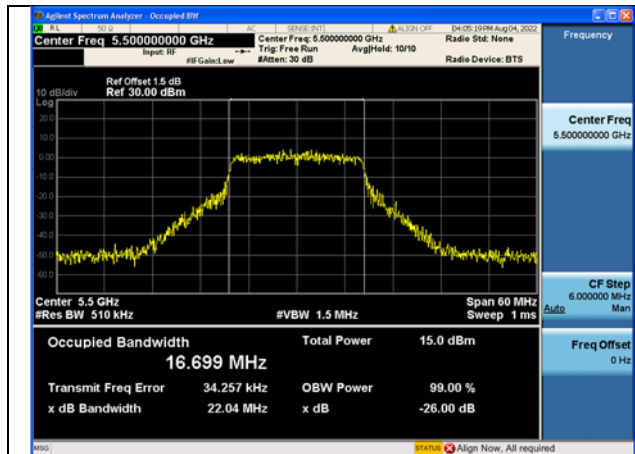
Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.624	---	Channel No.640
		5530MHz	---	5610MHz
802.11ac VHT80	Chain0	81.95	---	82.63

Test Mode	Antenna	26dB Bandwidth (MHz)		
		---	---	Channel No.662
		---	---	5720MHz
802.11a	Chain0	---	---	22.62
802.11n HT20	Chain0	---	---	25.49
802.11ac VHT20	Chain0	---	---	22.98

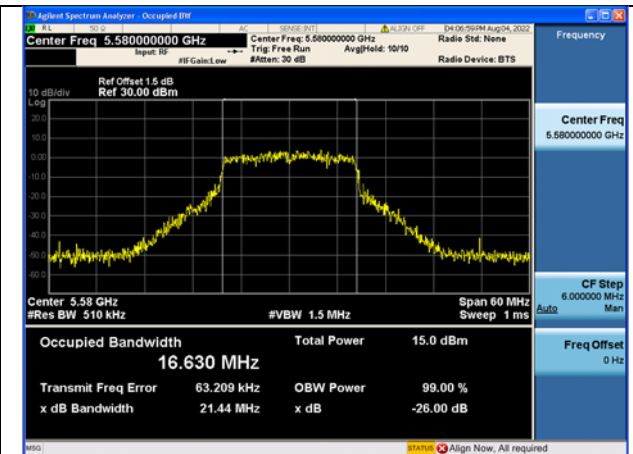
Test Mode	Antenna	26dB Bandwidth (MHz)		
		---	---	Channel No.660
		---	---	5710MHz
802.11n HT40	Chain0	---	---	40.86
802.11ac VHT40	Chain0	---	---	40.52

Test Mode	Antenna	26dB Bandwidth (MHz)		
		---	---	Channel No.656
		---	---	5690MHz
802.11ac VHT80	Chain0	---	---	82.65

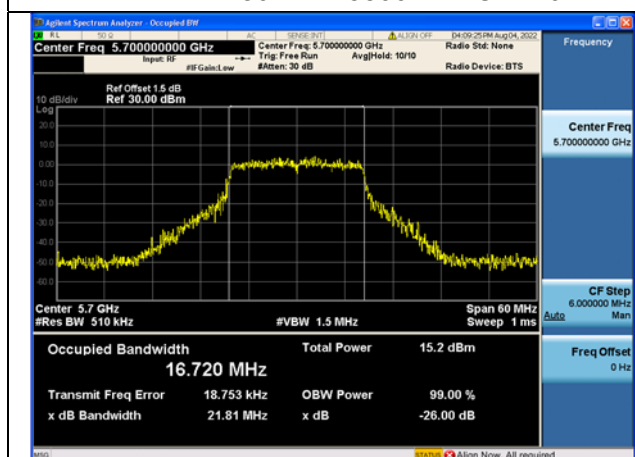
Test Mode: 802.11a



Test Mode:802.11a 5500MHz Chain0

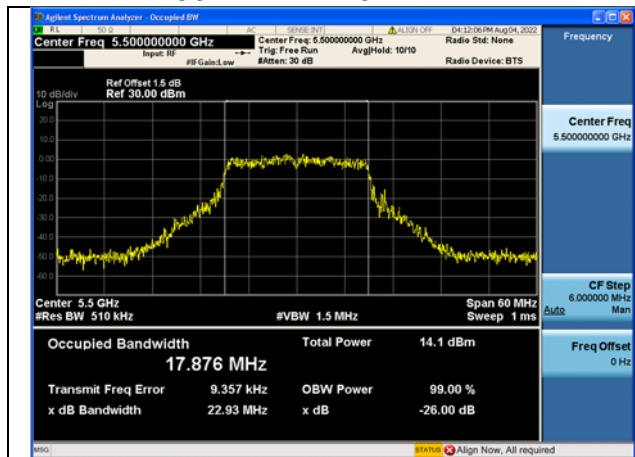


Test Mode:802.11a 5580MHz Chain0

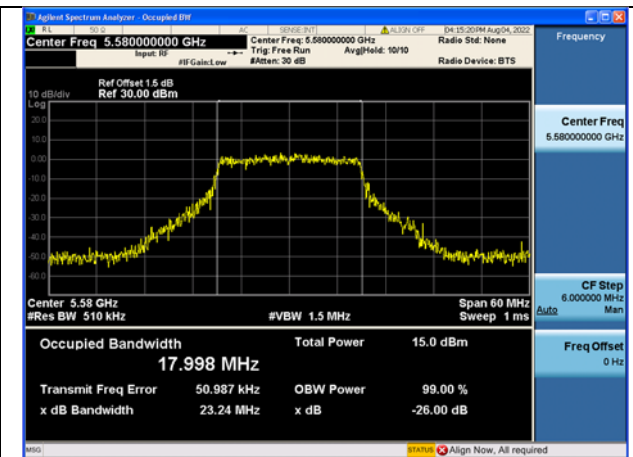


Test Mode:802.11a 5700MHz Chain0

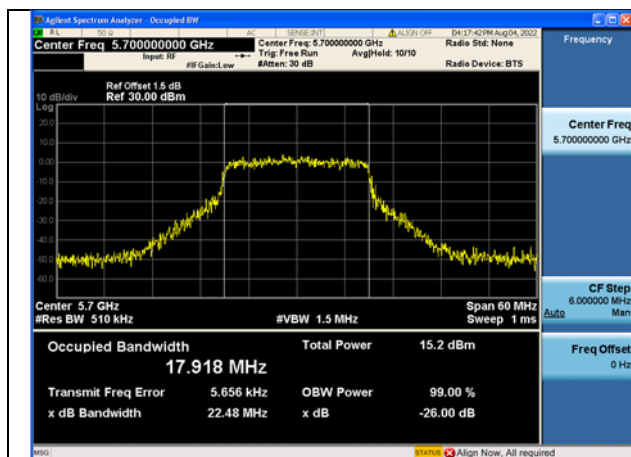
Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5500MHz Chain0

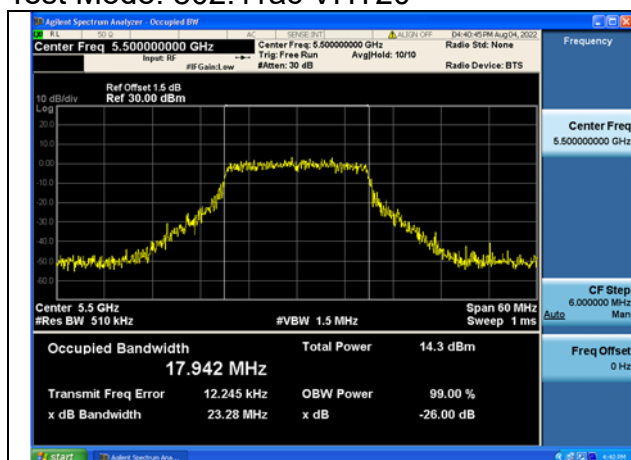


Test Mode:802.11n HT20 5580MHz Chain0

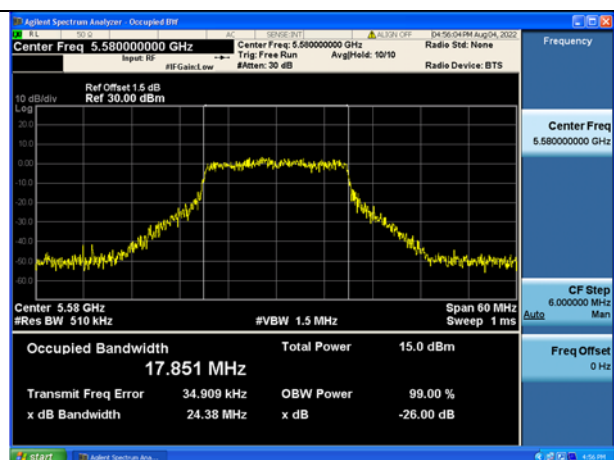


Test Mode:802.11n HT20 5700MHz Chain0

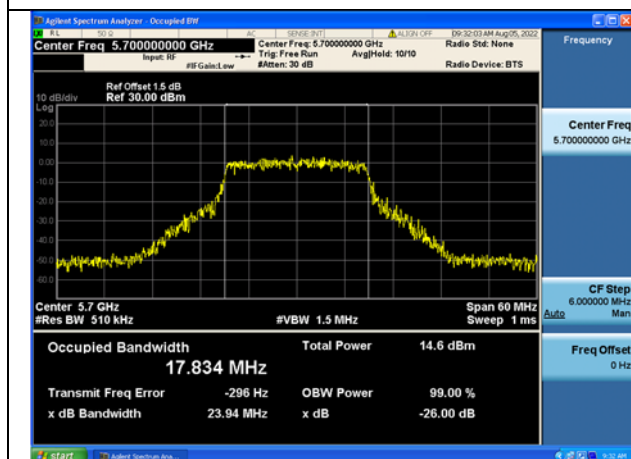
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5500MHz Chain0

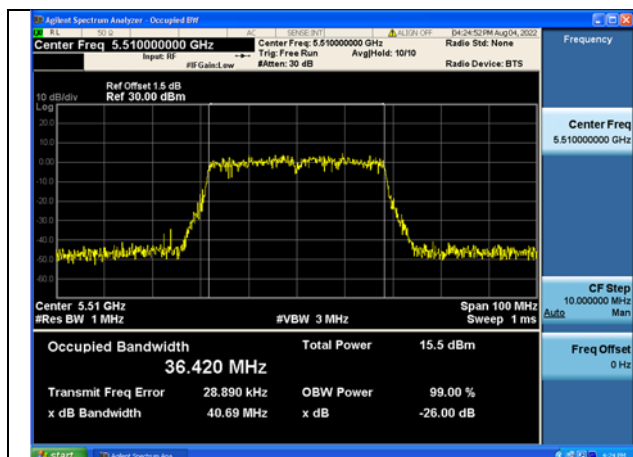


Test Mode:802.11ac VHT20 5580MHz Chain0

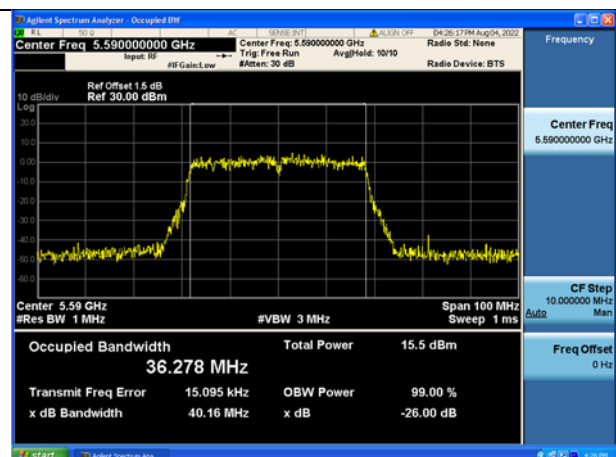


Test Mode:802.11ac VHT20 5700MHz Chain0

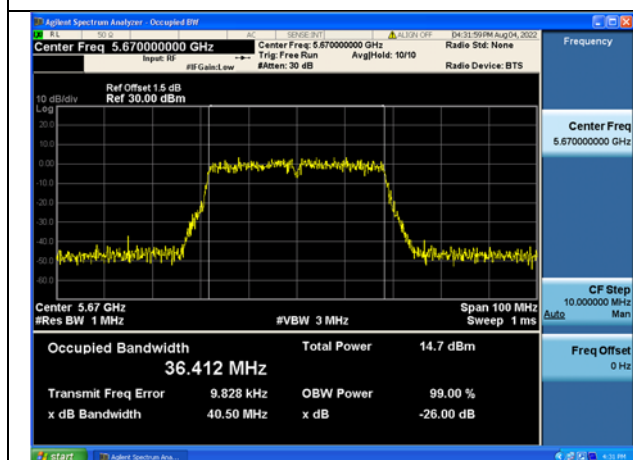
Test Mode: 802.11n HT40



Test Mode:802.11n HT40 5510MHz Chain0

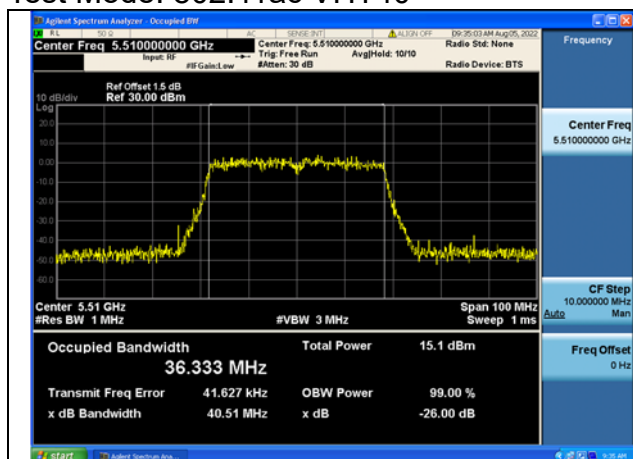


Test Mode:802.11n HT40 5590MHz Chain0

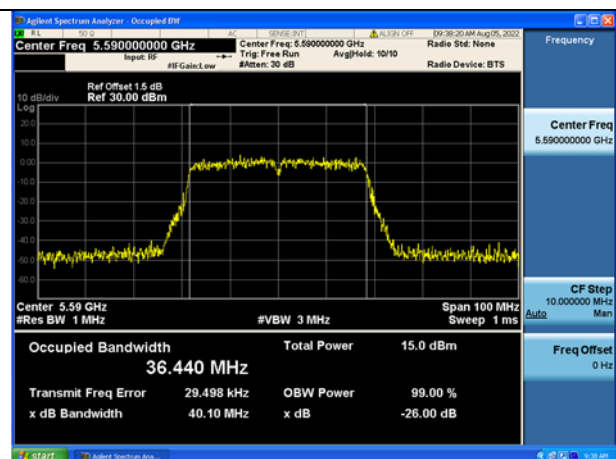


Test Mode:802.11n HT40 5670MHz Chain0

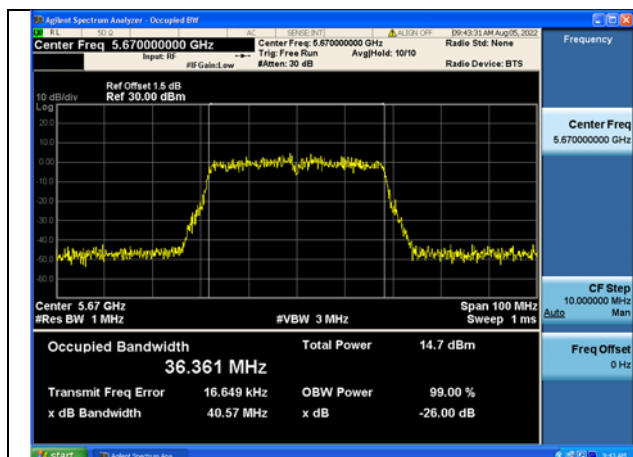
Test Mode: 802.11ac VHT40



Test Mode:802.11ac VHT40 5510MHz Chain0

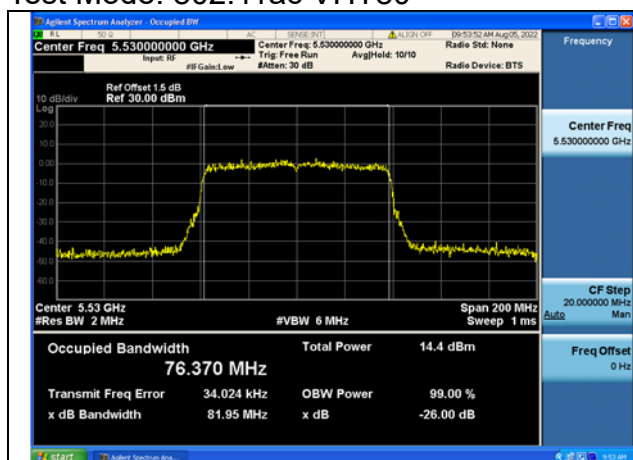


Test Mode:802.11ac VHT40 5590MHz Chain0

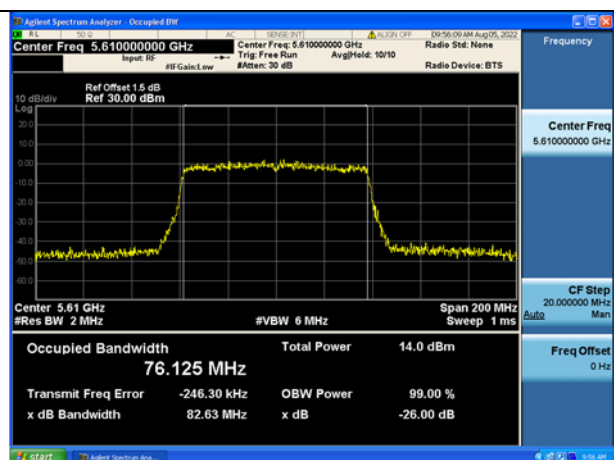


Test Mode:802.11ac VHT40 5670MHz Chain0

Test Mode: 802.11ac VHT80

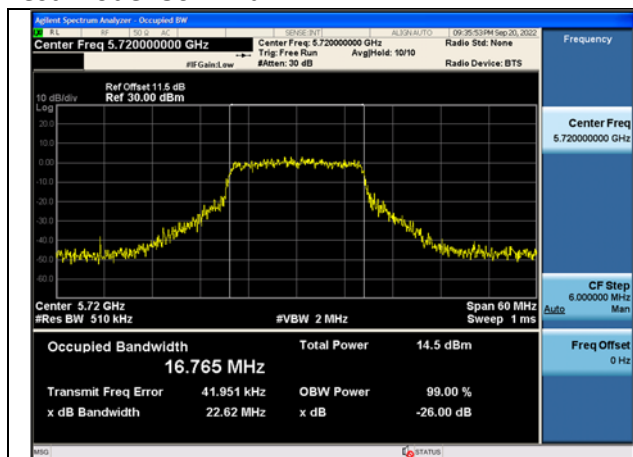


Test Mode:802.11ac VHT80 5530MHz Chain0



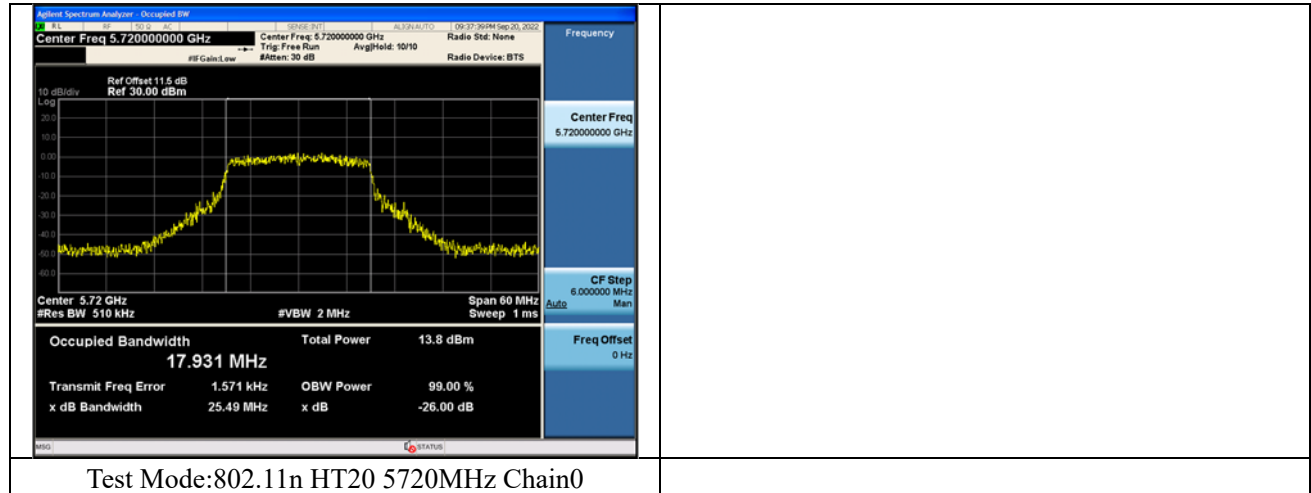
Test Mode:802.11ac VHT80 5610MHz Chain0

Test Mode: 802.11a

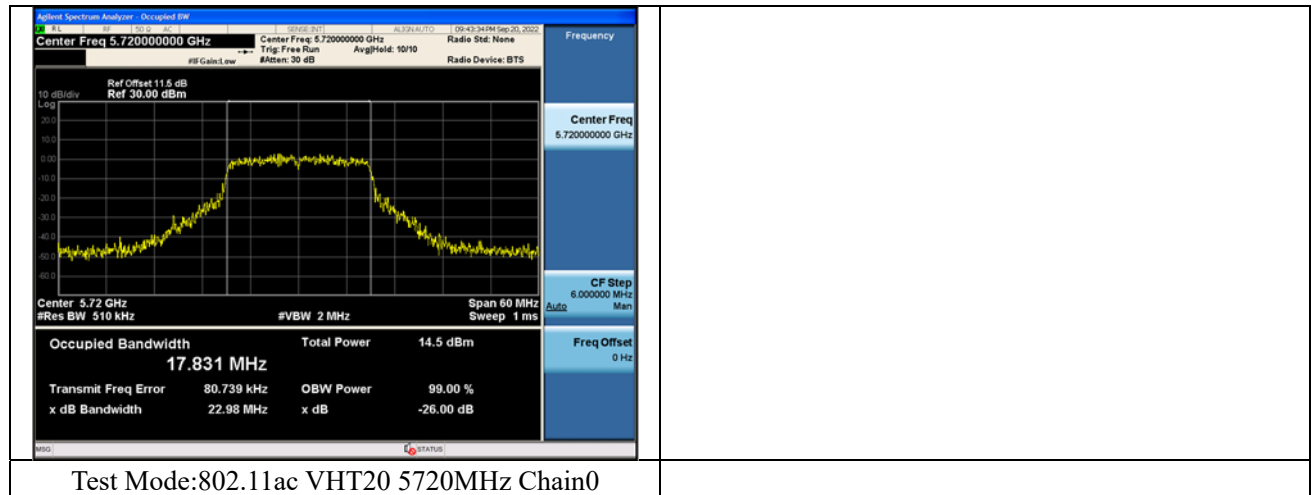


Test Mode:802.11a 5720MHz Chain0

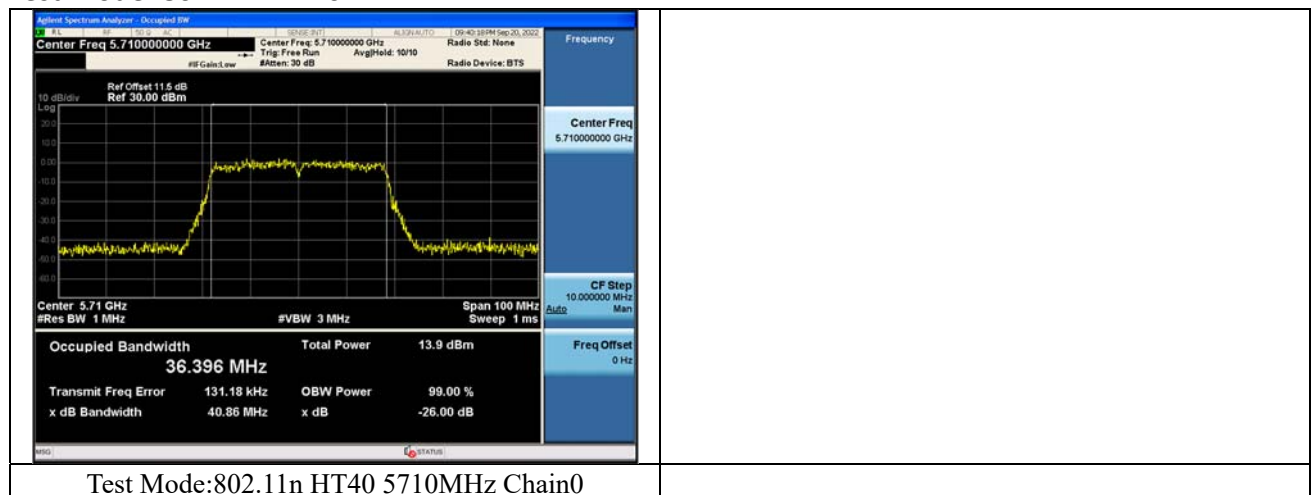
Test Mode: 802.11n HT20



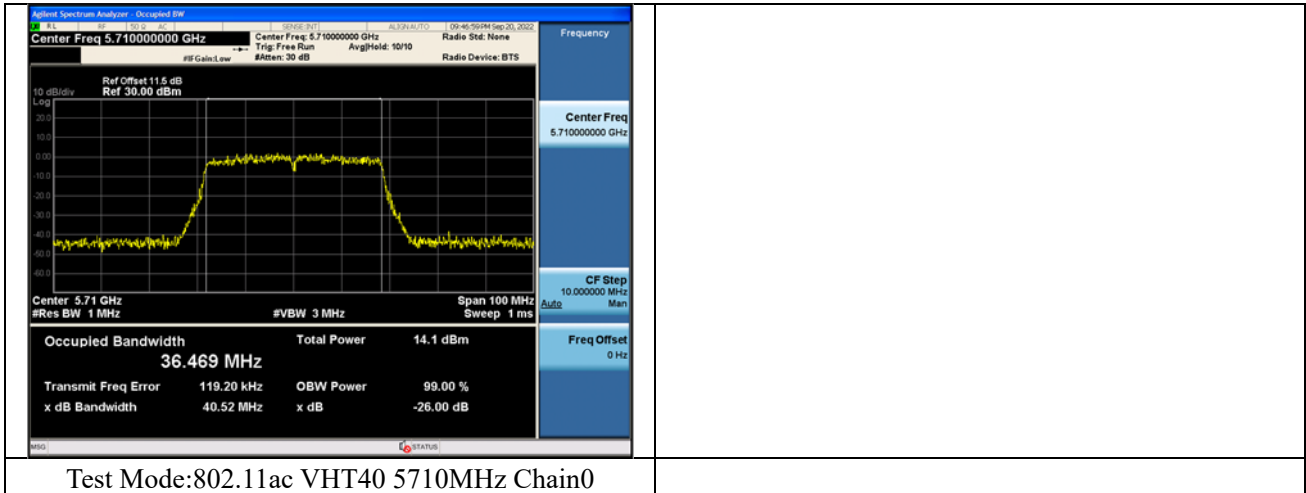
Test Mode: 802.11ac VHT20



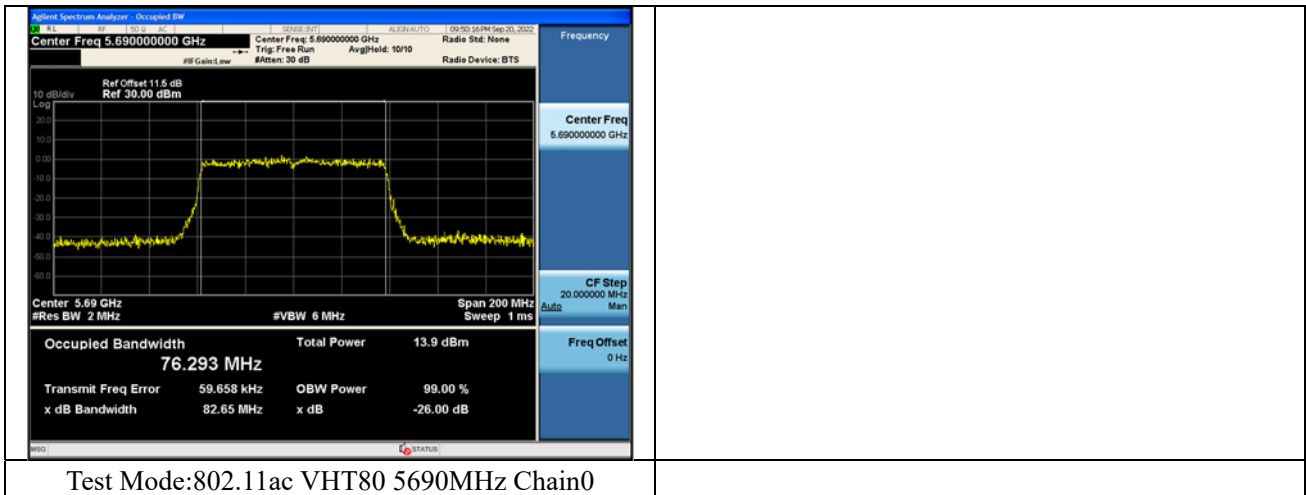
Test Mode: 802.11n HT40



Test Mode: 802.11ac VHT40



Test Mode: 802.11ac VHT80



Occupied Bandwidth

Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.618	Channel No.634	Channel No.658
		5500MHz	5580MHz	5700MHz
802.11a	Chain0	16.646	16.723	16.697
802.11n HT20	Chain0	17.885	17.937	17.868
802.11ac VHT20	Chain0	17.920	17.935	17.926

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.620	Channel No.636	Channel No.652
		5510MHz	5590MHz	5670MHz
802.11n HT40	Chain0	36.369	36.334	36.427
802.11ac VHT40	Chain0	36.480	36.469	36.422

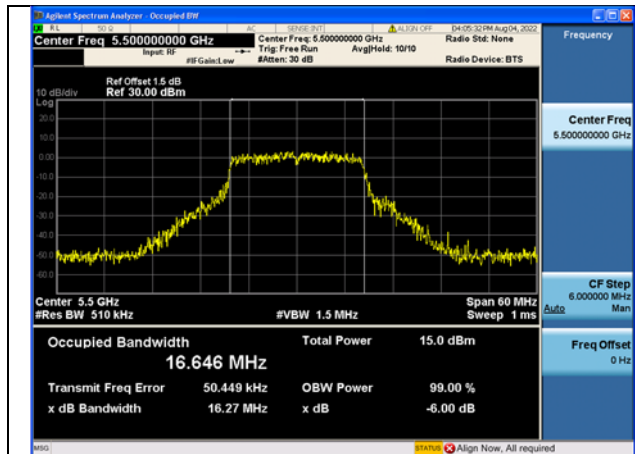
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.624	---	Channel No.640
		5530MHz	---	5610MHz
802.11ac VHT80	Chain0	76.228	---	76.389

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		---	---	Channel No.662
		---	---	5720MHz
802.11a	Chain0	---	---	16.826
802.11n HT20	Chain0	---	---	17.866
802.11ac VHT20	Chain0	---	---	17.906

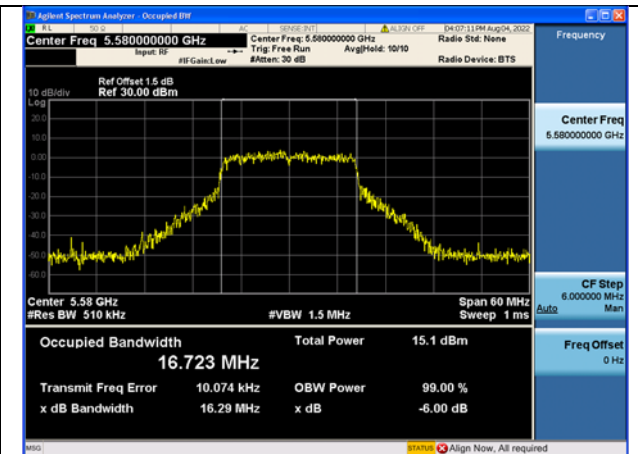
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		---	---	Channel No.660
		---	---	5710MHz
802.11n HT40	Chain0	---	---	36.533
802.11ac VHT40	Chain0	---	---	36.400

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		---	---	Channel No.656
		---	---	5690MHz
802.11ac VHT80	Chain0	---	---	76.510

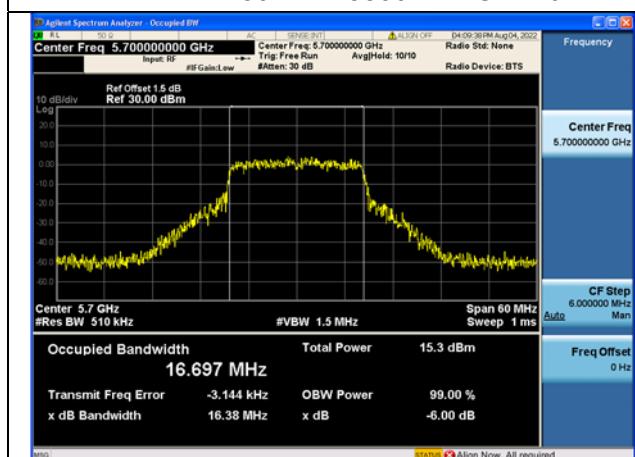
Test Mode: 802.11a



Test Mode:802.11a 5500MHz Chain0

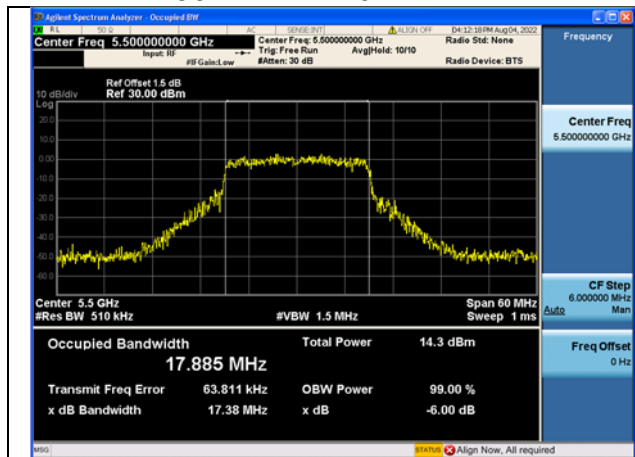


Test Mode:802.11a 5580MHz Chain0

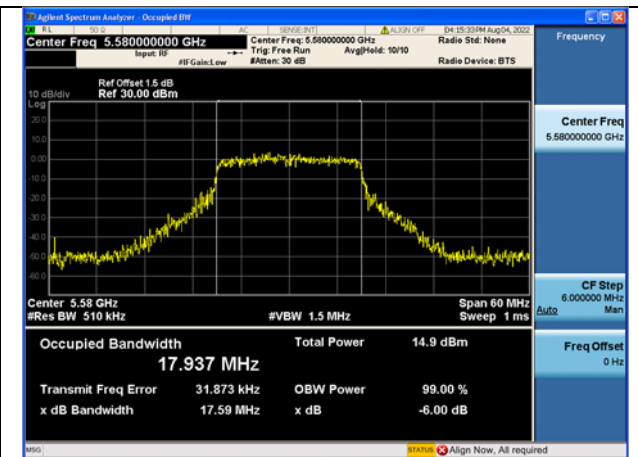


Test Mode:802.11a 5700MHz Chain0

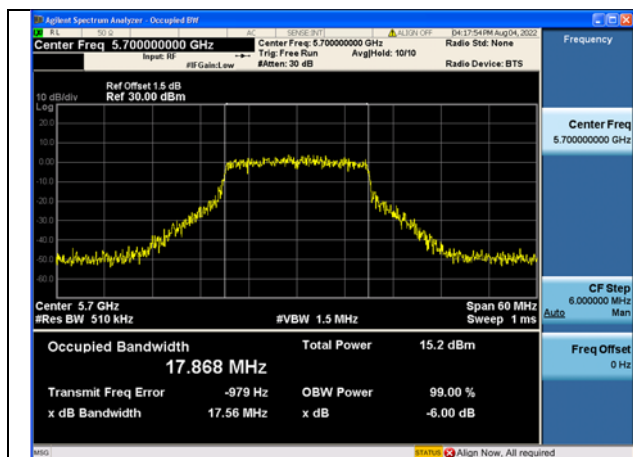
Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5500MHz Chain0

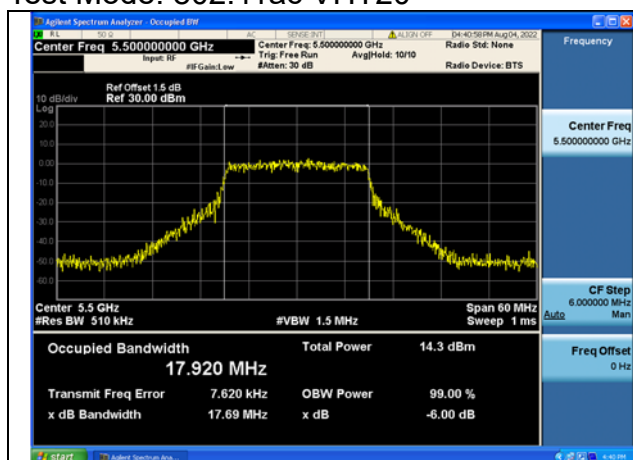


Test Mode:802.11n HT20 5580MHz Chain0

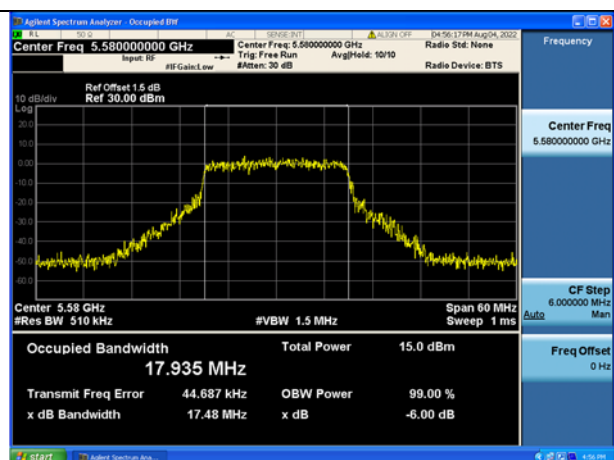


Test Mode:802.11n HT20 5700MHz Chain0

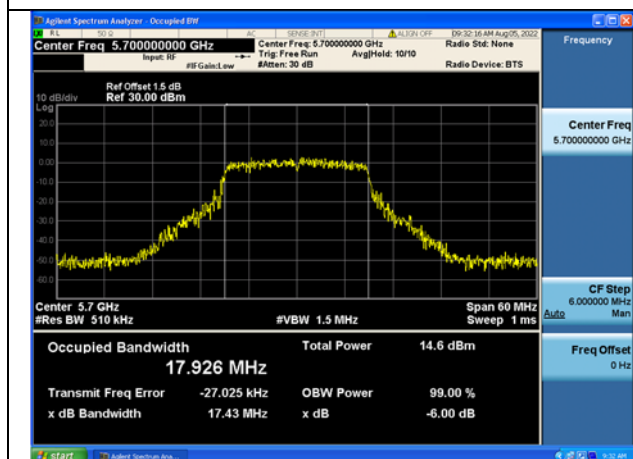
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5500MHz Chain0

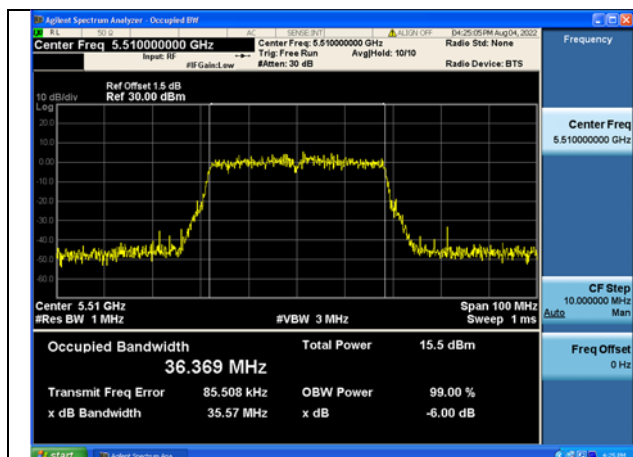


Test Mode:802.11ac VHT20 5580MHz Chain0

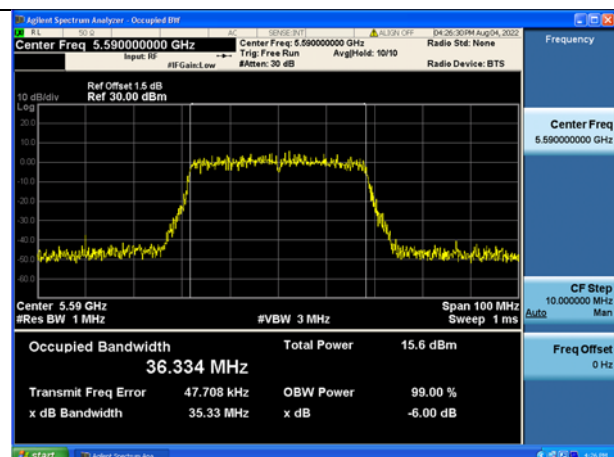


Test Mode:802.11ac VHT20 5700MHz Chain0

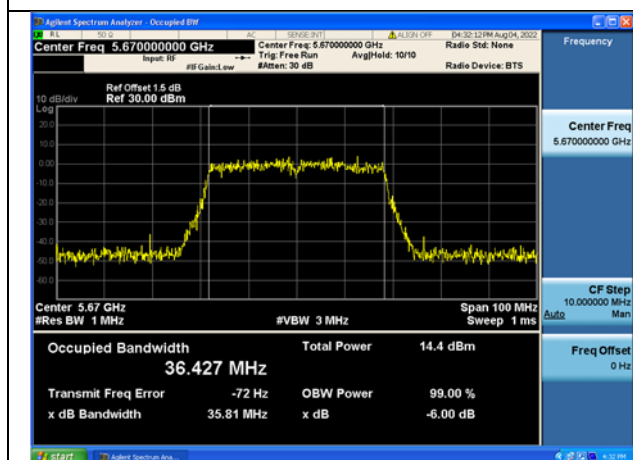
Test Mode: 802.11n HT40



Test Mode:802.11n HT40 5510MHz Chain0

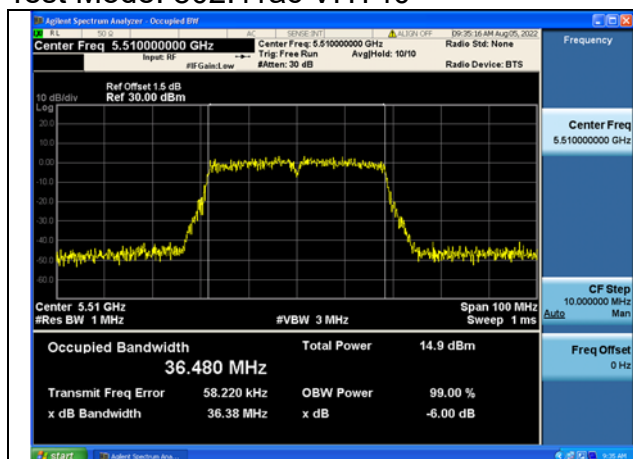


Test Mode:802.11n HT40 5590MHz Chain0

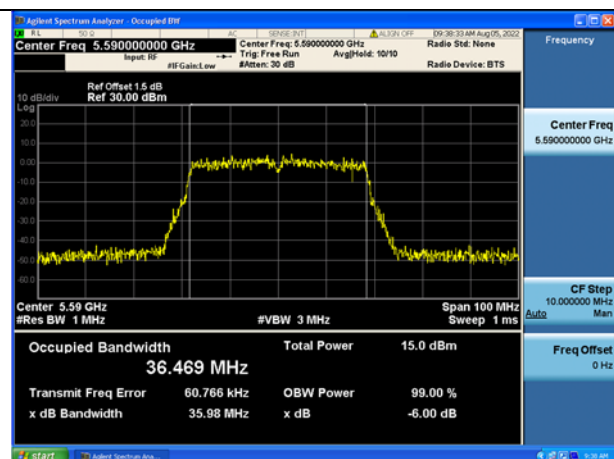


Test Mode:802.11n HT40 5670MHz Chain0

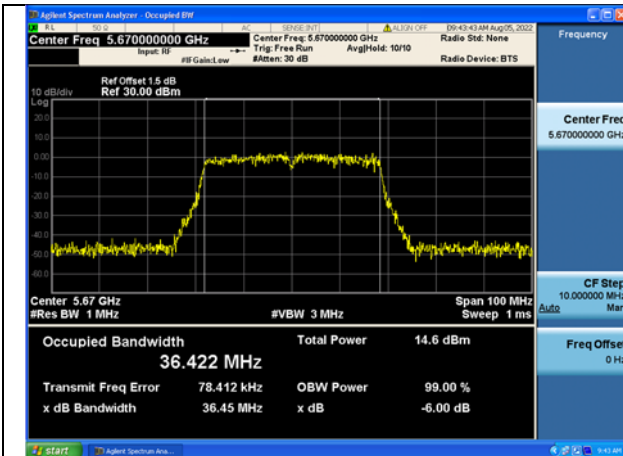
Test Mode: 802.11ac VHT40



Test Mode:802.11ac VHT40 5510MHz Chain0

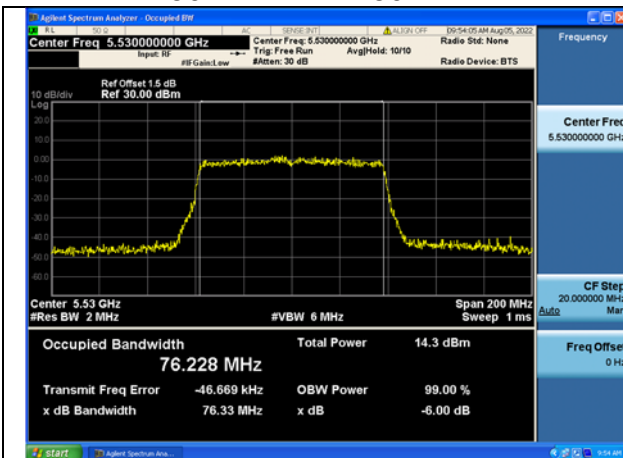


Test Mode:802.11ac VHT40 5590MHz Chain0

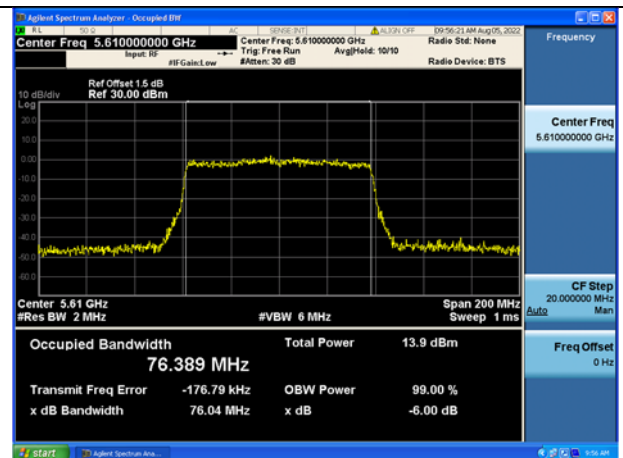


Test Mode:802.11ac VHT40 5670MHz Chain0

Test Mode: 802.11ac VHT80

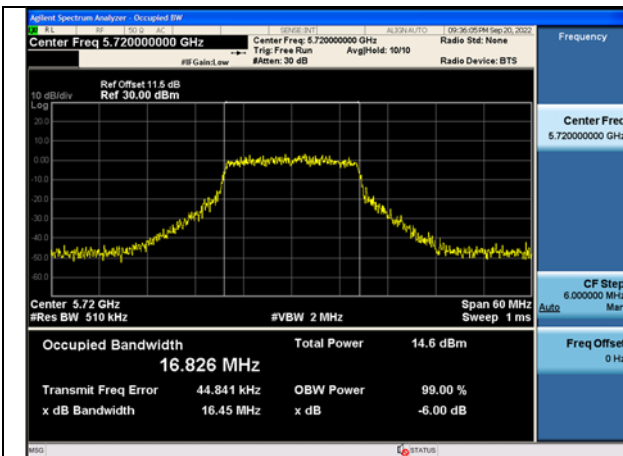


Test Mode:802.11ac VHT80 5530MHz Chain0



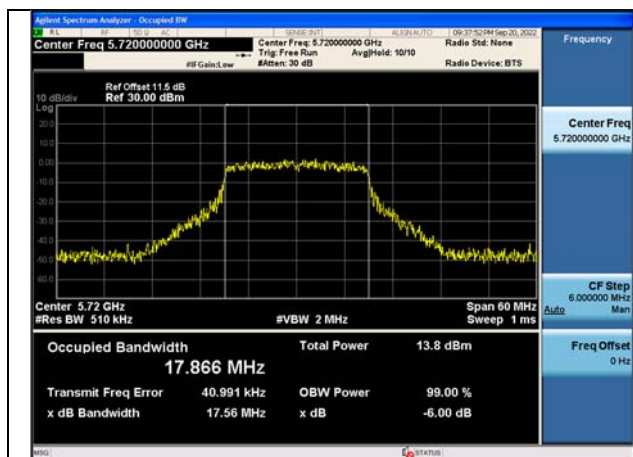
Test Mode:802.11ac VHT80 5610MHz Chain0

Test Mode: 802.11a



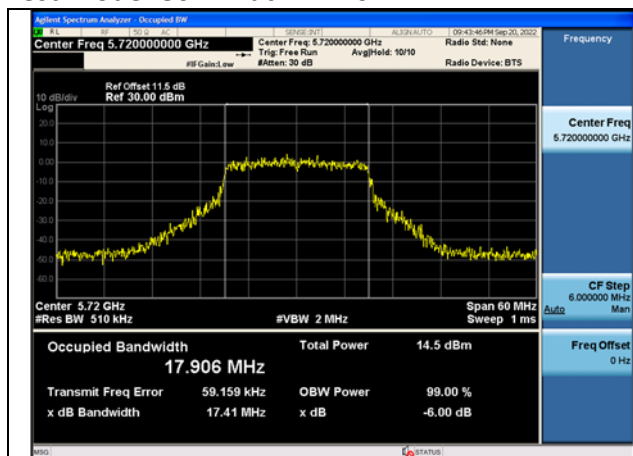
Test Mode:802.11a 5720MHz Chain0

Test Mode: 802.11n HT20



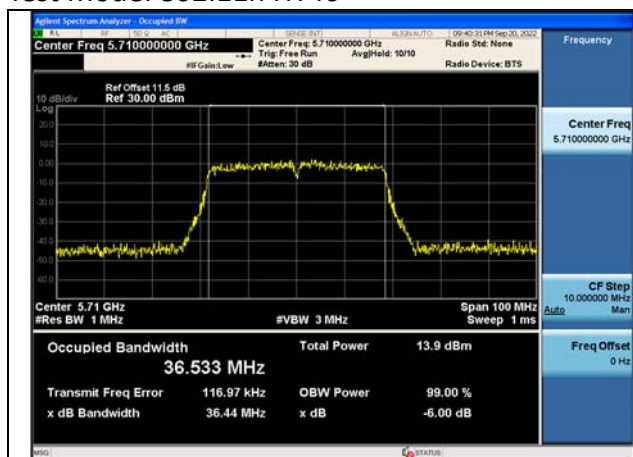
Test Mode:802.11n HT20 5720MHz Chain0

Test Mode: 802.11ac VHT20



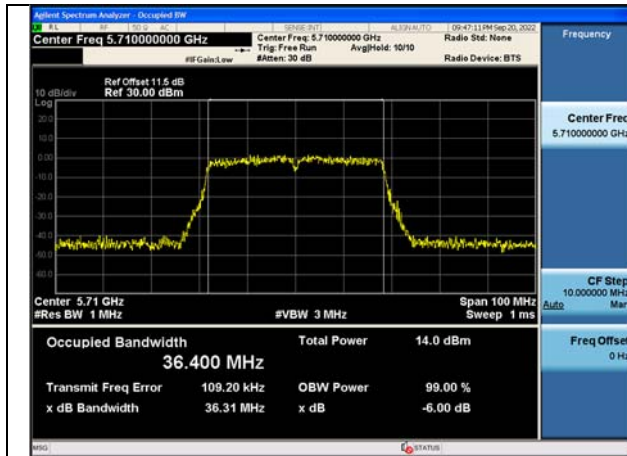
Test Mode:802.11ac VHT20 5720MHz Chain0

Test Mode: 802.11n HT40



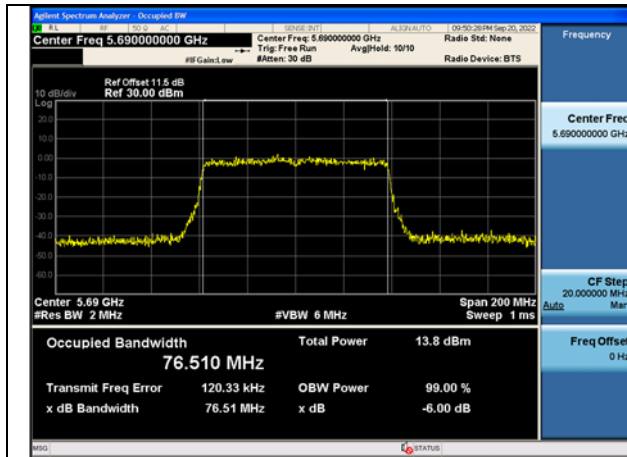
Test Mode:802.11n HT40 5710MHz Chain0

Test Mode: 802.11ac VHT40



Test Mode:802.11ac VHT40 5710MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5690MHz Chain0

Transmitter Power Spectral Density

Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	5500MHz		5580MHz		5700MHz	
		Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11a	Chain0	0	0.266	0	0.379	0	0.470
802.11n HT20	Chain0	0	-0.040	0	-0.005	0	0.057
802.11ac VHT20	Chain0	0	-0.564	0	0.056	0	-0.429

Test Mode	Antenna	5510MHz		5590MHz		5670MHz	
		Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11n HT40	Chain0	0.09	-3.026	0.09	-2.850	0.09	-3.194
802.11ac VHT40	Chain0	0.09	-3.389	0.09	-3.273	0.09	-3.061

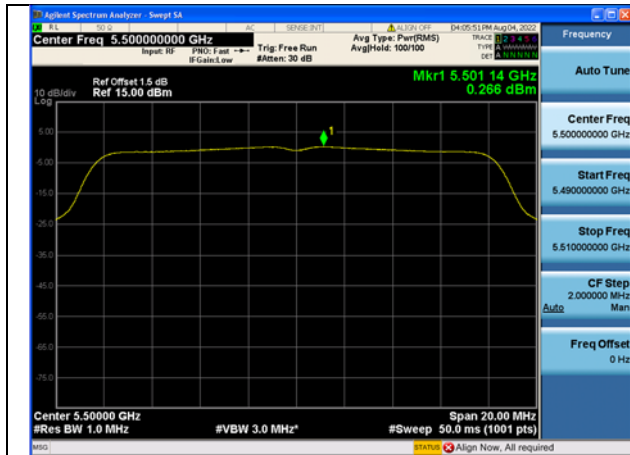
Test Mode	Antenna	5530MHz		---		5610MHz	
		Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11ac VHT80	Chain0	0.19	-6.504	---	---	0.19	-6.575

Test Mode	Antenna	Tones	---		---		5720MHz	
			Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11a	Chain0	NA	---	---	---	---	---	0.459
802.11n HT20	Chain0	NA	---	---	---	---	---	-0.647
802.11ac VHT20	Chain0	NA	---	---	---	---	---	-0.011

Test Mode	Antenna	Tones	---		---		5710MHz	
			Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11n HT40	Chain0	NA	---	---	---	---	---	-3.215
802.11ac VHT40	Chain0	NA	---	---	---	---	---	-3.070

Test Mode	Antenna	Tones	---		---		5690MHz	
			Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11ac VHT80	Chain0	NA	---	---	---	---	---	-6.289

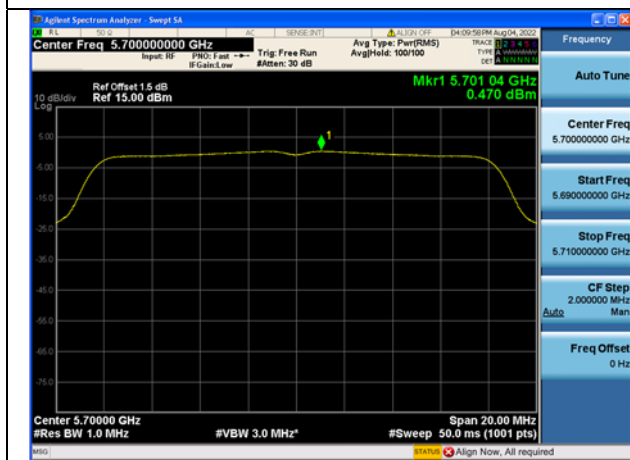
Test Mode: 802.11a



Test Mode:802.11a 5500MHz Chain0



Test Mode:802.11a 5580MHz Chain0

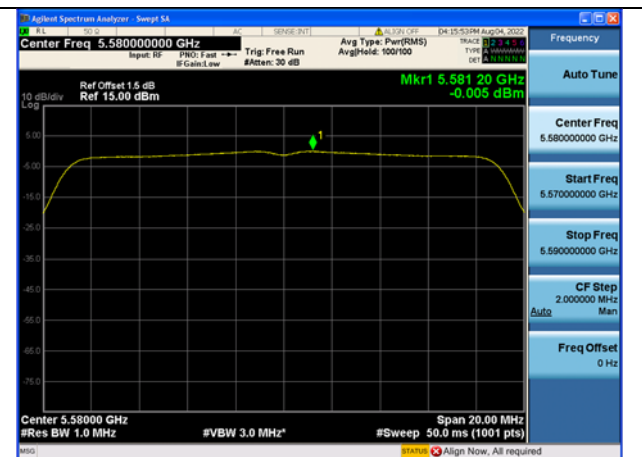


Test Mode:802.11a 5700MHz Chain0

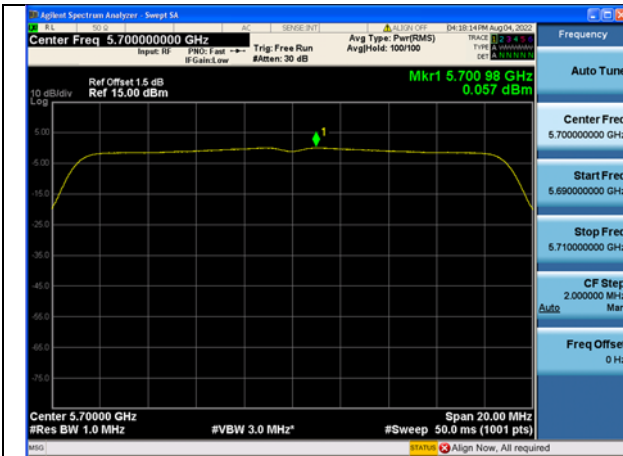
Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5500MHz Chain0

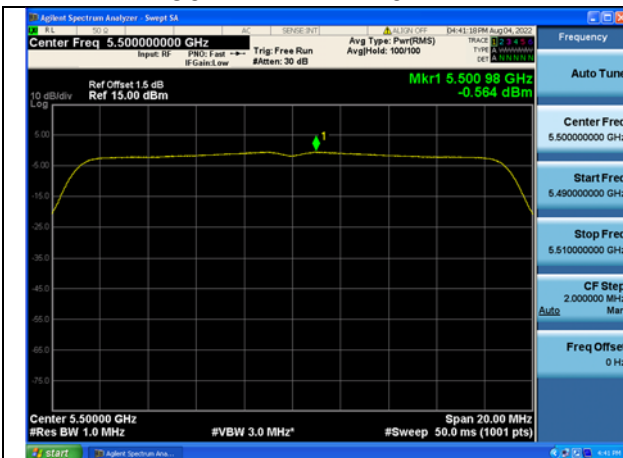


Test Mode:802.11n HT20 5580MHz Chain0

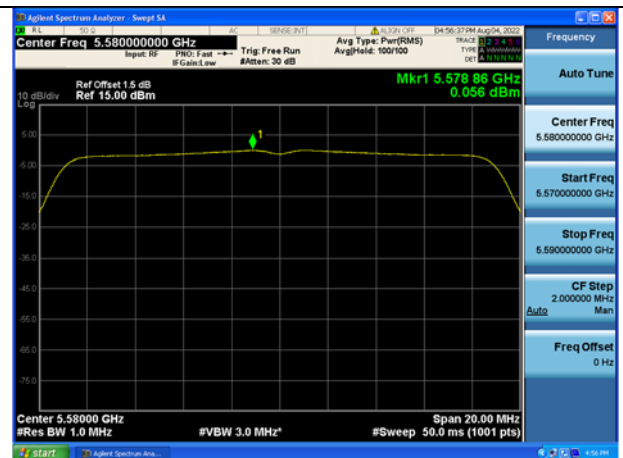


Test Mode:802.11n HT20 5700MHz Chain0

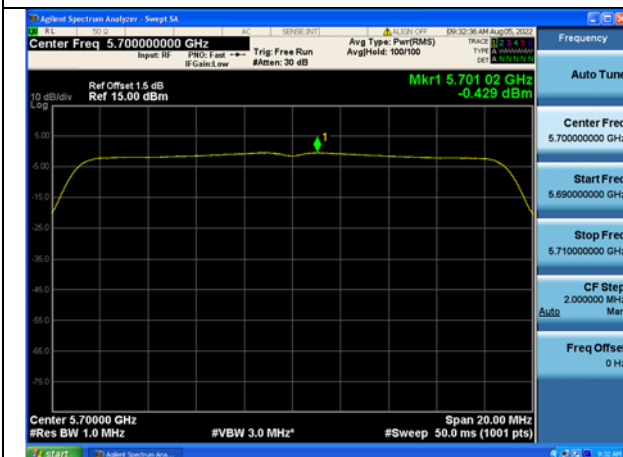
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5500MHz Chain0



Test Mode:802.11ac VHT20 5580MHz Chain0



Test Mode:802.11ac VHT20 5700MHz Chain0

Test Mode: 802.11n HT40