

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)
802.11a	5180	87.37%	0.59
802.11a	5180	87.48%	0.58
802.11n HT20	5180	87.31%	0.59
802.11n HT20	5180	87.27%	0.59
802.11ac VHT20	5180	87.50%	0.58
802.11ac VHT20	5180	87.48%	0.58
802.11n HT40	5190	79.89%	0.98
802.11n HT40	5190	80.15%	0.96
802.11ac VHT40	5190	80.62%	0.94
802.11ac VHT40	5190	80.76%	0.93
802.11ac VHT80	5210	72.68%	1.39
802.11ac VHT80	5210	72.79%	1.38

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

Output Power

Mode	Tones/ RUIndex	Freq (MHz)	Antenna	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5180	Chain0	17.74	21.81
802.11a	NA	5180	Chain1	16.51	19.01
802.11a	NA	5220	Chain0	18.44	22.51
802.11a	NA	5220	Chain1	16.19	18.69
802.11a	NA	5240	Chain0	17.69	21.76
802.11a	NA	5240	Chain1	16.19	18.69
802.11n HT20	NA	5180	Chain0	16.97	21.04
802.11n HT20	NA	5180	Chain1	15.27	17.77
802.11n HT20	NA	5180	MIMO	19.21	22.56
802.11n HT20	NA	5220	Chain0	16.57	20.64
802.11n HT20	NA	5220	Chain1	15.58	18.08
802.11n HT20	NA	5220	MIMO	19.11	22.46
802.11n HT20	NA	5240	Chain0	16.73	20.80
802.11n HT20	NA	5240	Chain1	15.68	18.18
802.11n HT20	NA	5240	MIMO	19.25	22.60
802.11ac VHT20	NA	5180	Chain0	17.12	21.19
802.11ac VHT20	NA	5180	Chain1	15.36	17.86
802.11ac VHT20	NA	5180	MIMO	19.34	22.69
802.11ac VHT20	NA	5220	Chain0	16.59	20.66
802.11ac VHT20	NA	5220	Chain1	15.62	18.12
802.11ac VHT20	NA	5220	MIMO	19.14	22.49
802.11ac VHT20	NA	5240	Chain0	16.72	20.79
802.11ac VHT20	NA	5240	Chain1	15.62	18.12
802.11ac VHT20	NA	5240	MIMO	19.22	22.57
802.11n HT40	NA	5190	Chain0	16.14	20.21
802.11n HT40	NA	5190	Chain1	14.09	16.59

802.11n HT40	NA	5190	MIMO	18.25	21.60
802.11n HT40	NA	5230	Chain0	15.67	19.74
802.11n HT40	NA	5230	Chain1	14.58	17.08
802.11n HT40	NA	5230	MIMO	18.17	21.52
802.11ac VHT40	NA	5190	Chain0	15.77	19.84
802.11ac VHT40	NA	5190	Chain1	14.35	16.85
802.11ac VHT40	NA	5190	MIMO	18.13	21.48
802.11ac VHT40	NA	5230	Chain0	15.55	19.62
802.11ac VHT40	NA	5230	Chain1	14.59	17.09
802.11ac VHT40	NA	5230	MIMO	18.11	21.46
802.11ac VHT80	NA	5210	Chain0	13.41	17.48
802.11ac VHT80	NA	5210	Chain1	12.04	14.54
802.11ac VHT80	NA	5210	MIMO	15.79	19.14

Emission Bandwidth

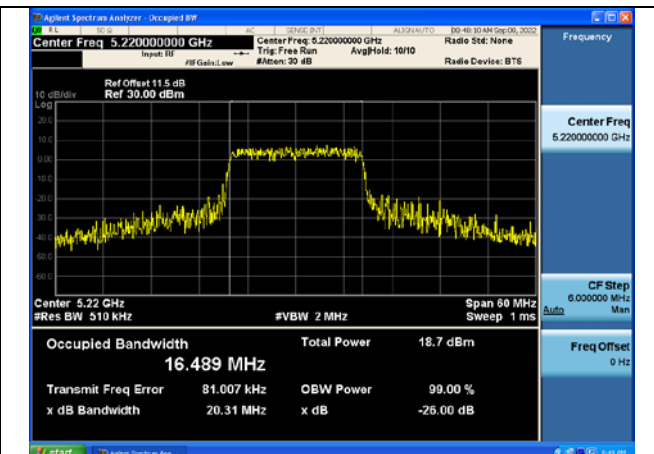
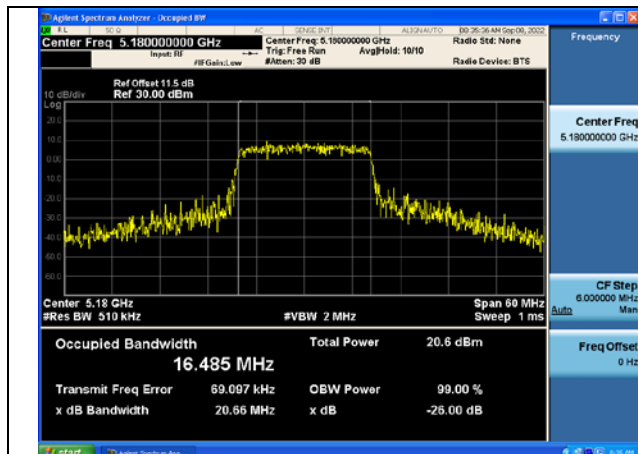
Offset 11.5dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.554	Channel No.562	Channel No.566
		5180MHz	5220MHz	5240MHz
802.11a	Chain0	20.66	20.31	20.30
802.11a	Chain1	20.76	22.05	20.17
802.11n HT20	Chain0	19.33	19.92	19.60
802.11n HT20	Chain1	19.74	20.14	22.36
802.11ac VHT20	Chain0	19.56	20.42	22.94
802.11ac VHT20	Chain1	20.48	21.52	21.84

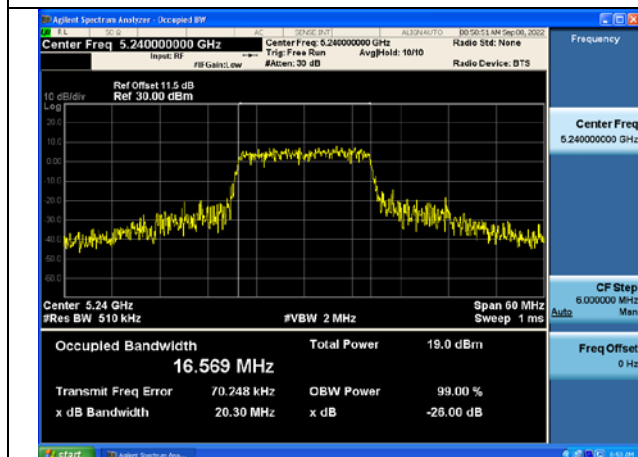
Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.556	---	Channel No.564
		5190MHz	---	5230MHz
802.11n HT40	Chain0	40.89	---	49.38
802.11n HT40	Chain1	40.07	---	39.77
802.11ac VHT40	Chain0	40.38	---	43.73
802.11ac VHT40	Chain1	39.88	---	43.73

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.560	---	---
		5210MHz	---	---
802.11ac VHT80	Chain0	81.19	---	---
802.11ac VHT80	Chain1	80.26	---	---

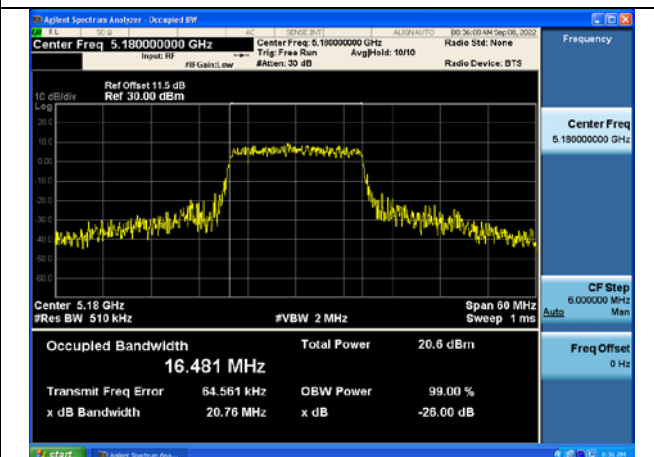
Test Mode: 802.11a



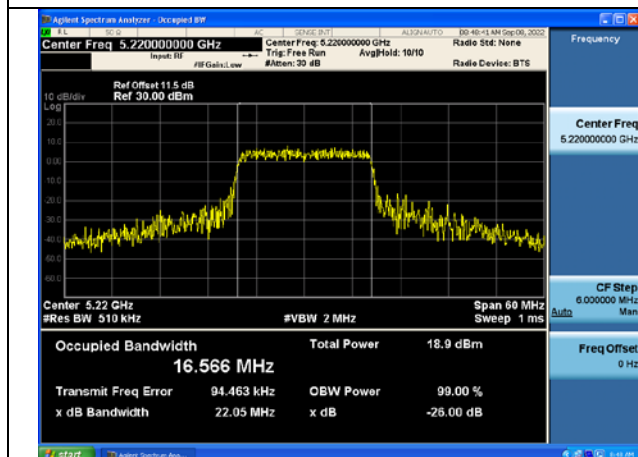
Test Mode:802.11a 5180MHz Chain0



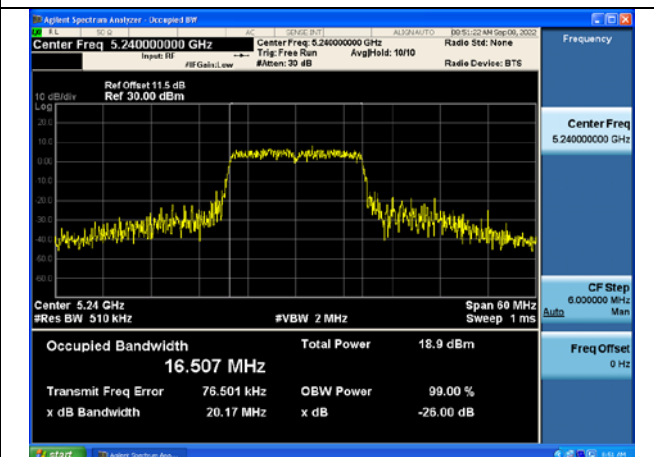
Test Mode:802.11a 5220MHz Chain0



Test Mode:802.11a 5240MHz Chain0



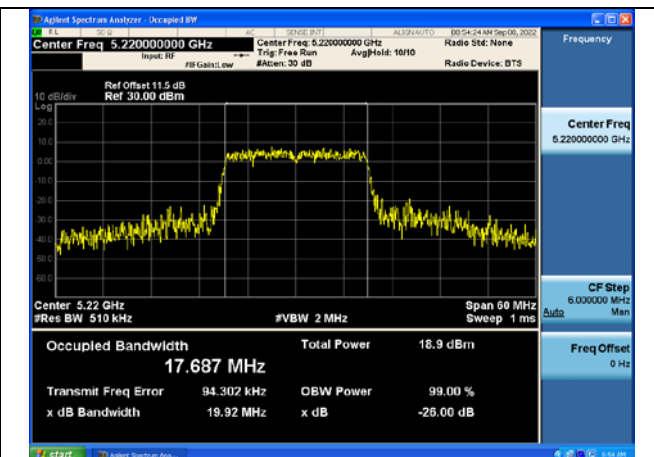
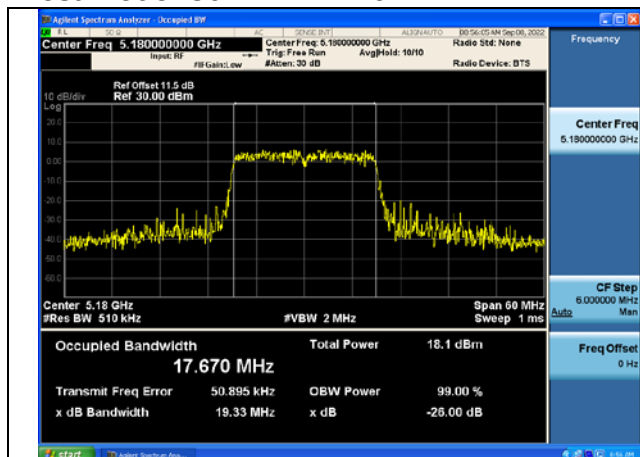
Test Mode:802.11a 5180MHz Chain1



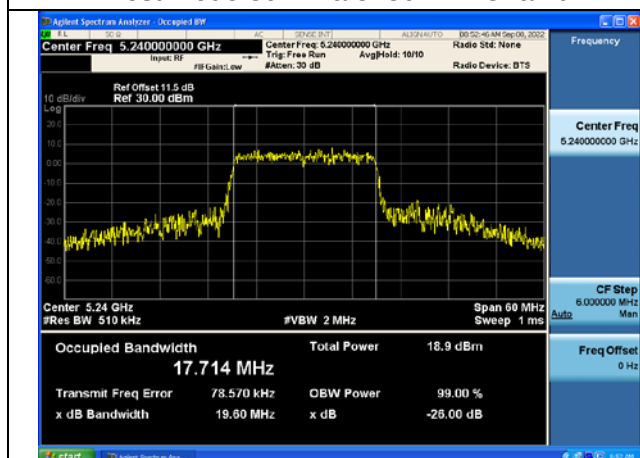
Test Mode:802.11a 5220MHz Chain1

Test Mode:802.11a 5240MHz Chain1

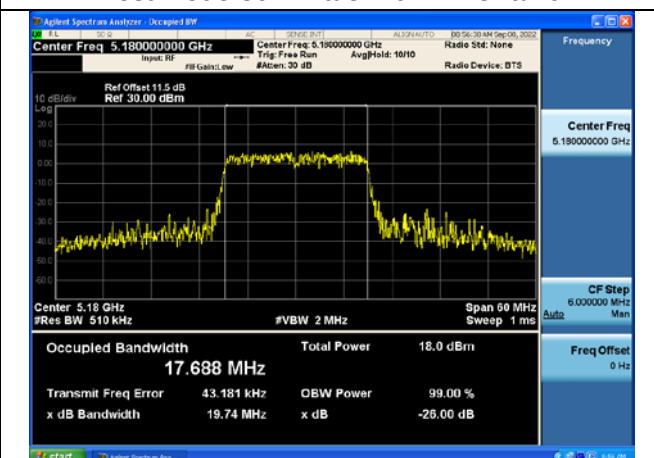
Test Mode: 802.11n HT20



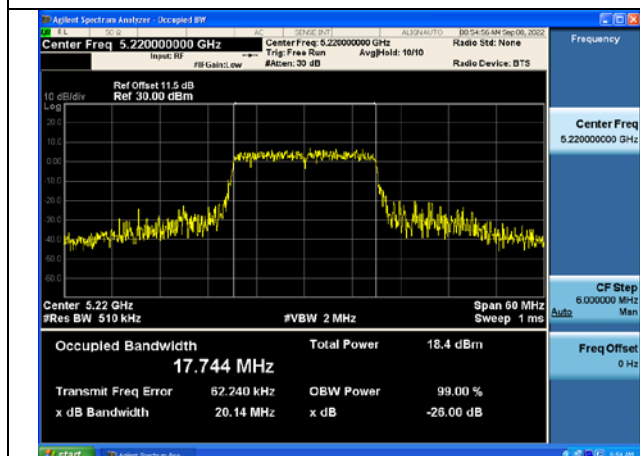
Test Mode: 802.11a 5180MHz Chain0



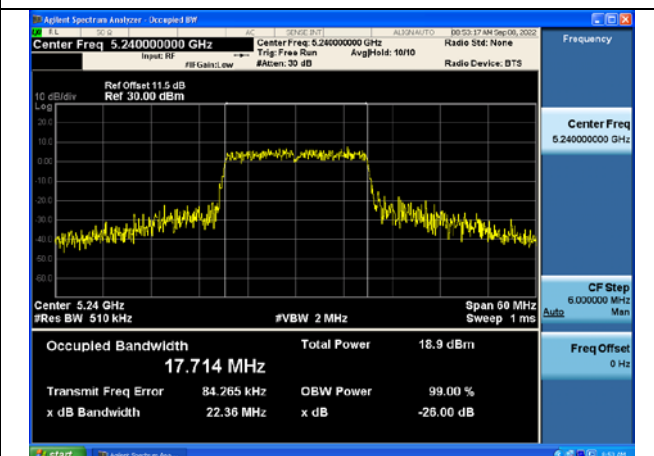
Test Mode: 802.11a 5220MHz Chain0



Test Mode: 802.11a 5240MHz Chain0



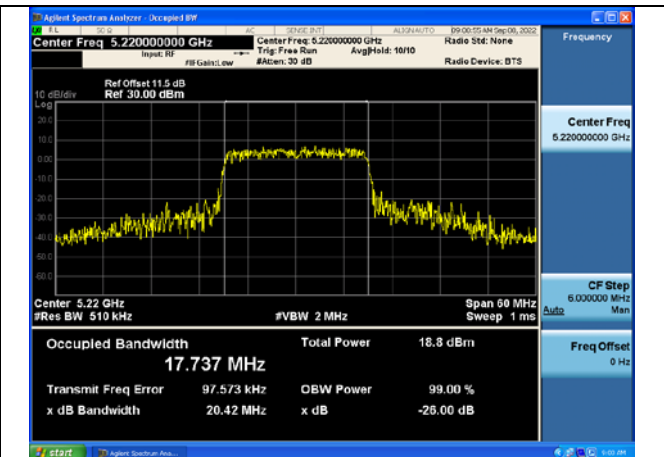
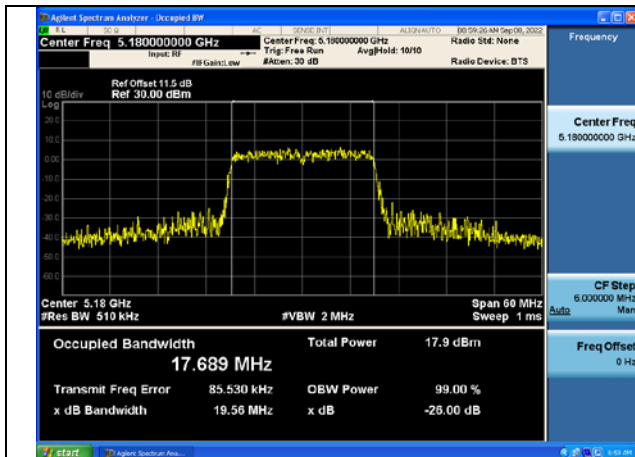
Test Mode: 802.11a 5180MHz Chain1



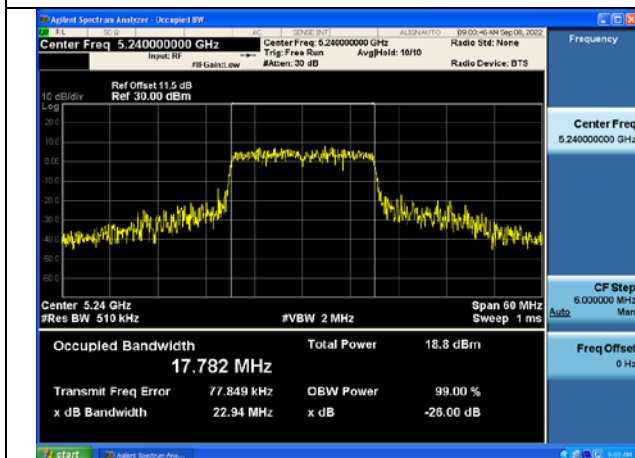
Test Mode: 802.11a 5220MHz Chain1

Test Mode: 802.11a 5240MHz Chain1

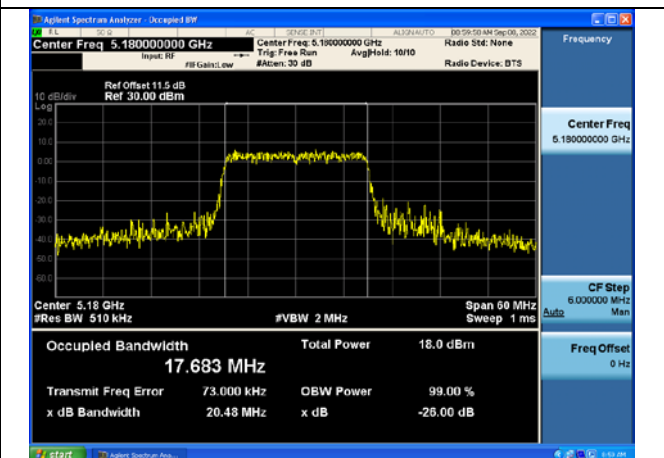
Test Mode: 802.11ac VHT20



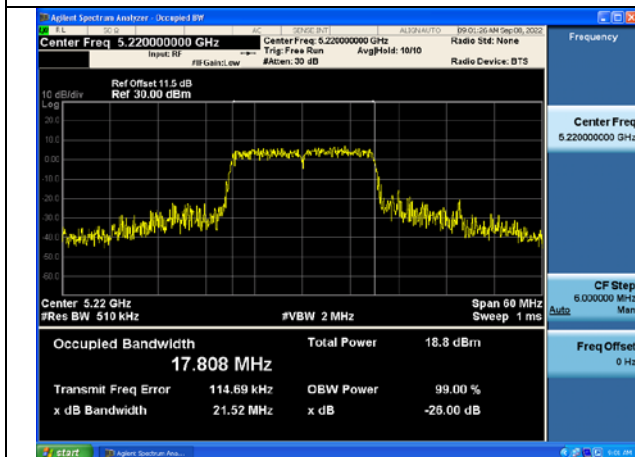
Test Mode:802.11ac VHT20 5180MHz Chain0



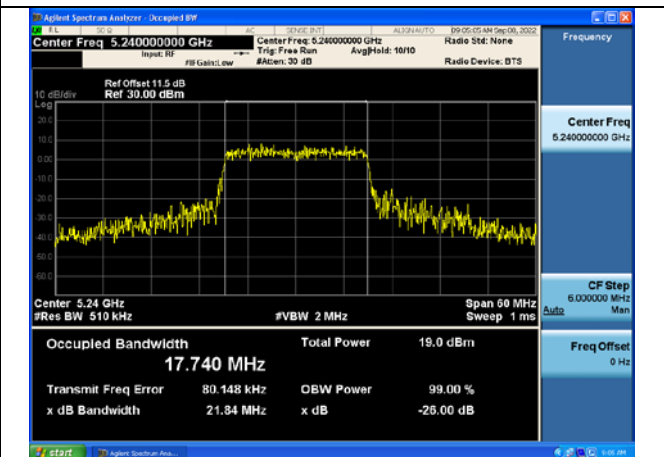
Test Mode:802.11ac VHT20 5220MHz Chain0



Test Mode:802.11ac VHT20 5240MHz Chain0



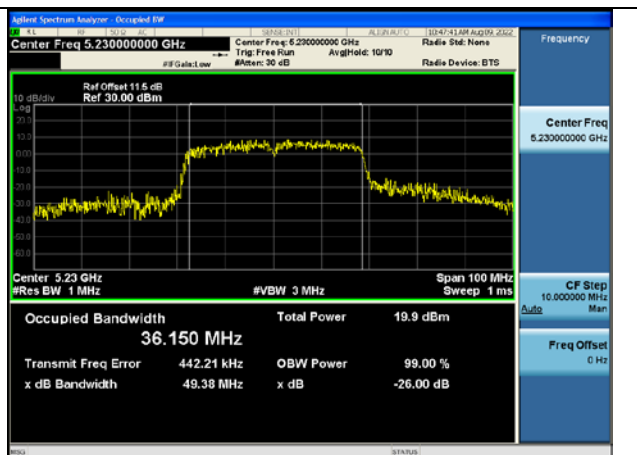
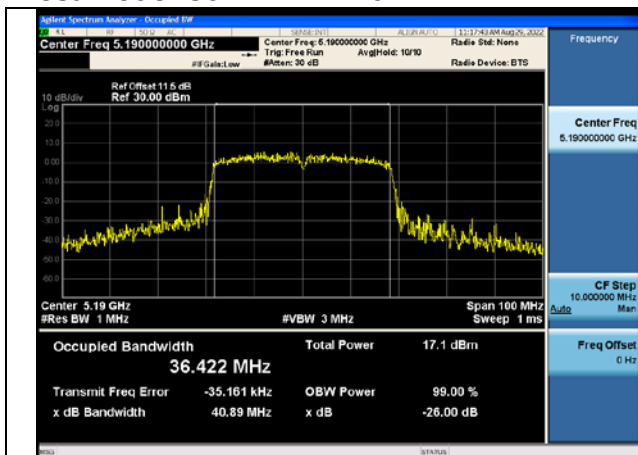
Test Mode:802.11ac VHT20 5180MHz Chain1



Test Mode:802.11ac VHT20 5220MHz Chain1

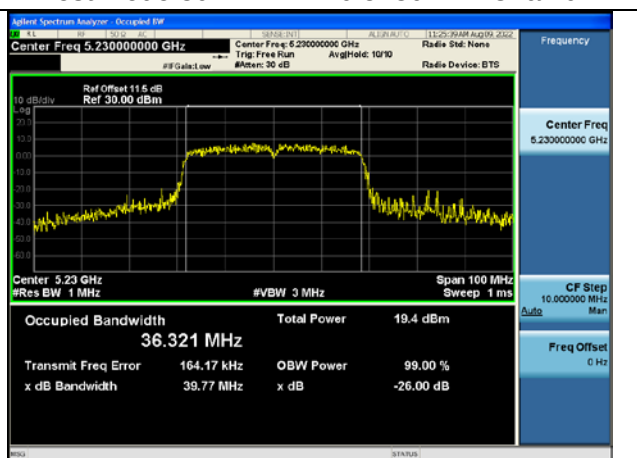
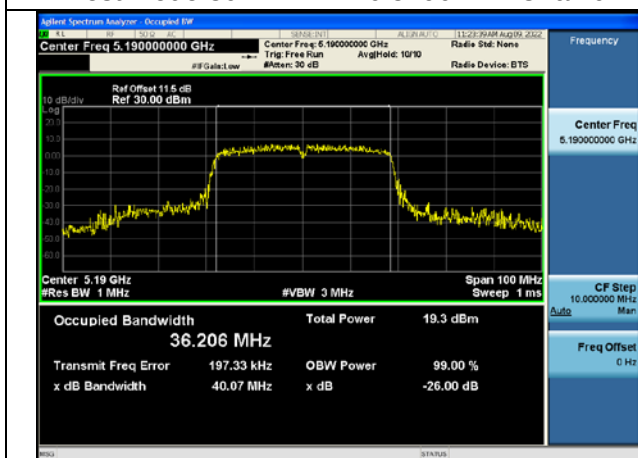
Test Mode:802.11ac VHT20 5240MHz Chain1

Test Mode: 802.11n HT40



Test Mode:802.11n HT40 5190MHz Chain0

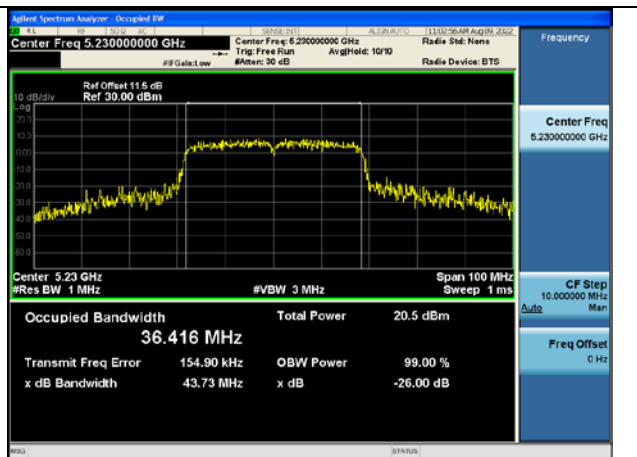
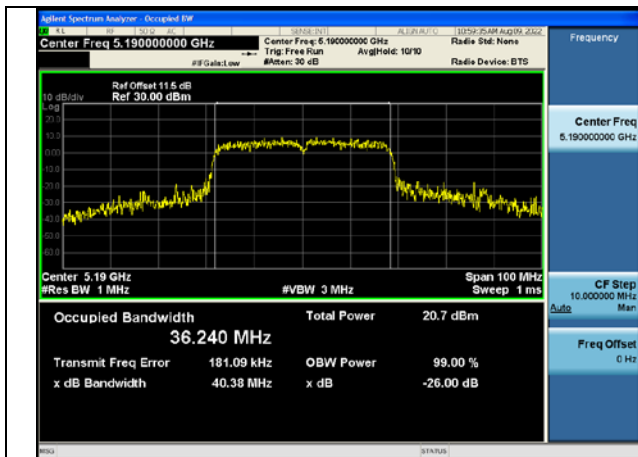
Test Mode:802.11n HT40 5230MHz Chain0



Test Mode:802.11n HT40 5190MHz Chain1

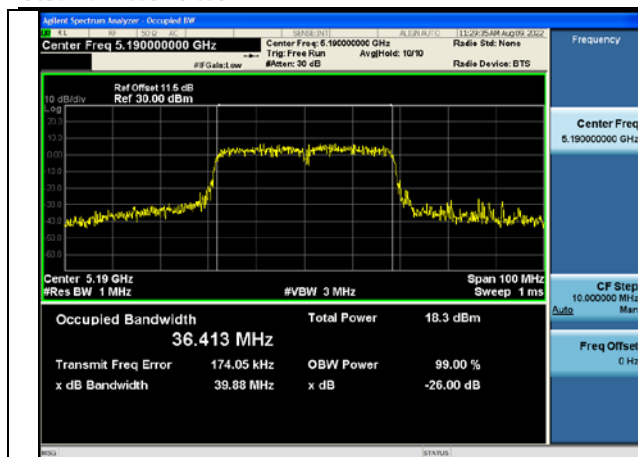
Test Mode:802.11n HT40 5230MHz Chain1

Test Mode: 802.11ac VHT40

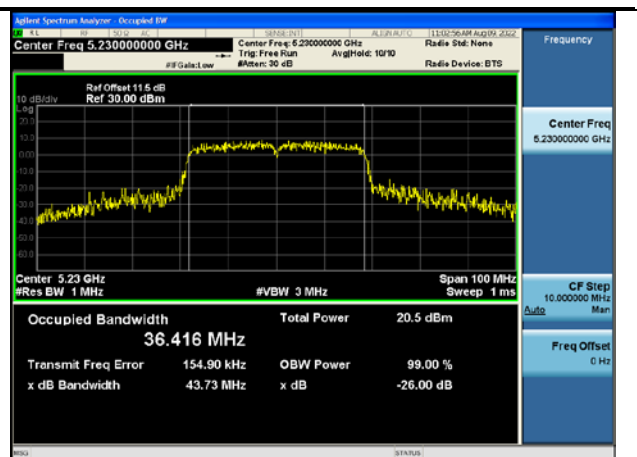


Test Mode:802.11ac VHT40 5190MHz Chain0

Test Mode:802.11ac VHT40 5230MHz Chain0

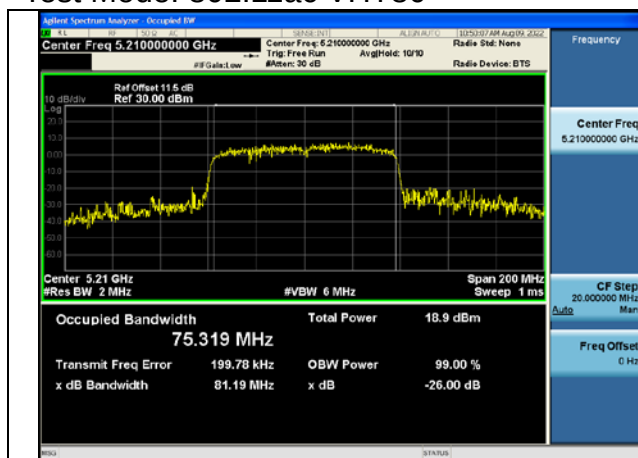


Test Mode:802.11ac VHT40 5190MHz Chain1

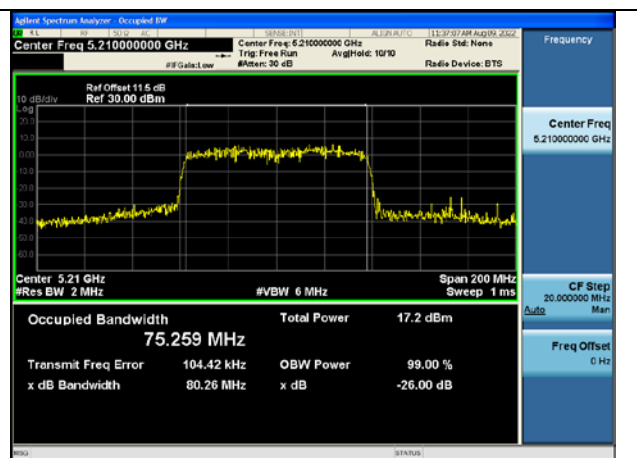


Test Mode:802.11ac VHT40 5230MHz Chain1

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5210MHz Chain0



Test Mode:802.11ac VHT80 5210MHz Chain1

Occupied Bandwidth

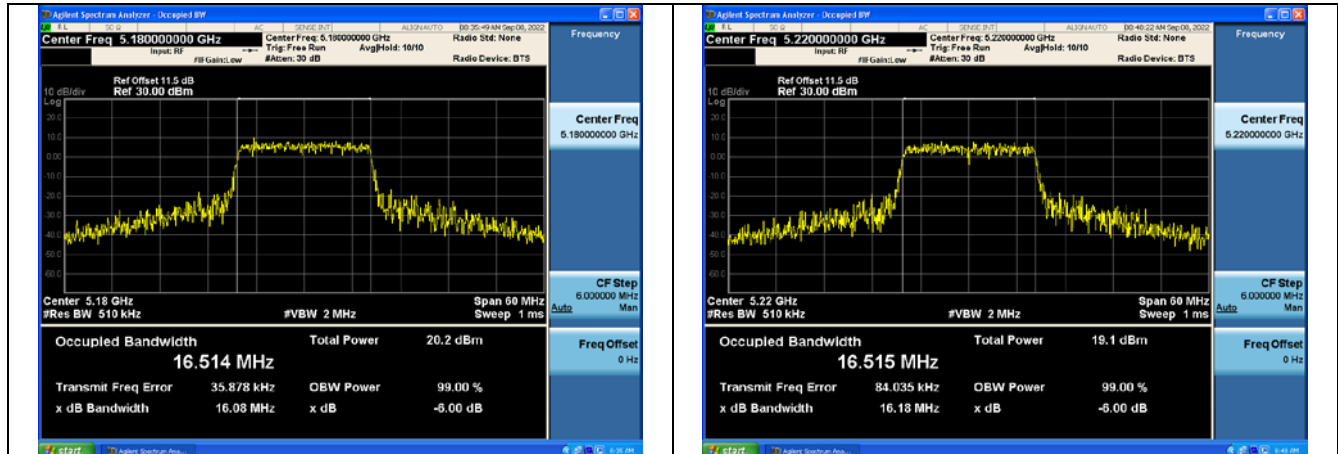
Offset 11.16dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.554	Channel No.562	Channel No.566
		5180MHz	5220MHz	5240MHz
802.11a	Chain0	16.514	16.515	16.588
802.11a	Chain1	16.557	16.588	16.575
802.11n HT20	Chain0	17.707	17.694	17.739
802.11n HT20	Chain1	17.692	17.751	17.741
802.11ac VHT20	Chain0	17.698	17.730	17.724
802.11ac VHT20	Chain1	17.711	17.667	17.731

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.556	---	Channel No.564
		5190MHz	---	5230MHz
802.11n HT40	Chain0	36.469	---	36.386
802.11n HT40	Chain1	36.280	---	36.154
802.11ac VHT40	Chain0	36.521	---	36.364
802.11ac VHT40	Chain1	36.262	---	36.260

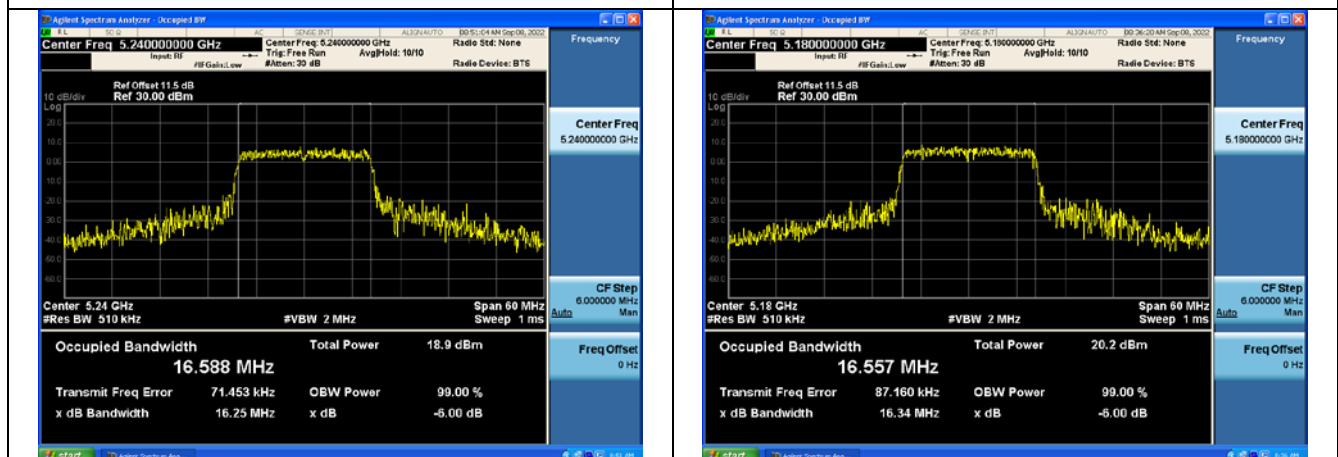
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.560	---	---
		5210MHz	---	---
802.11ac VHT80	Chain0	75.055	---	---
802.11ac VHT80	Chain1	75.135	---	---

Test Mode: 802.11a



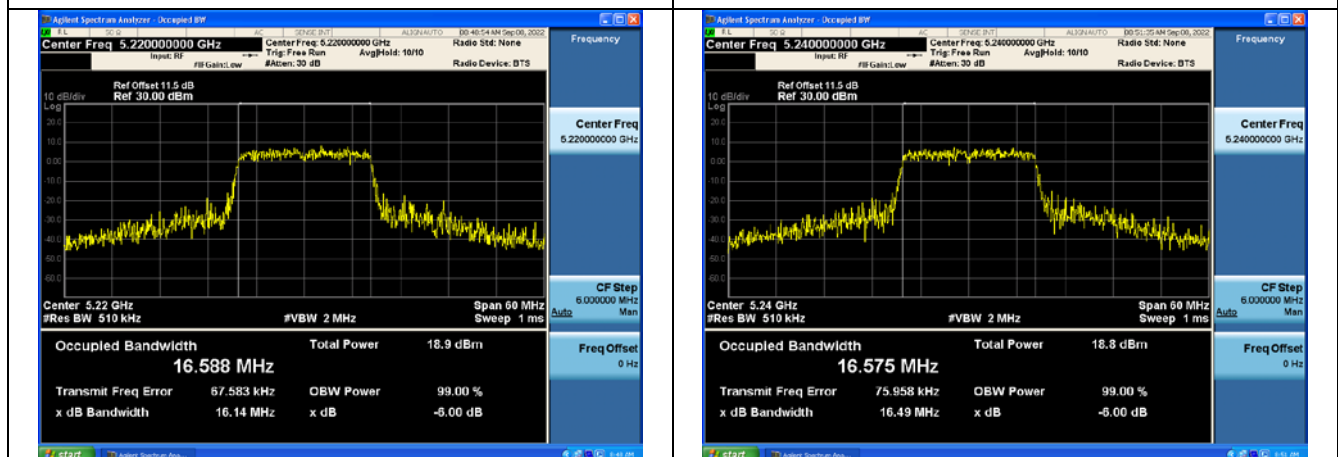
Test Mode:802.11a 5180MHz Chain0

Test Mode:802.11a 5220MHz Chain0



Test Mode:802.11a 5240MHz Chain0

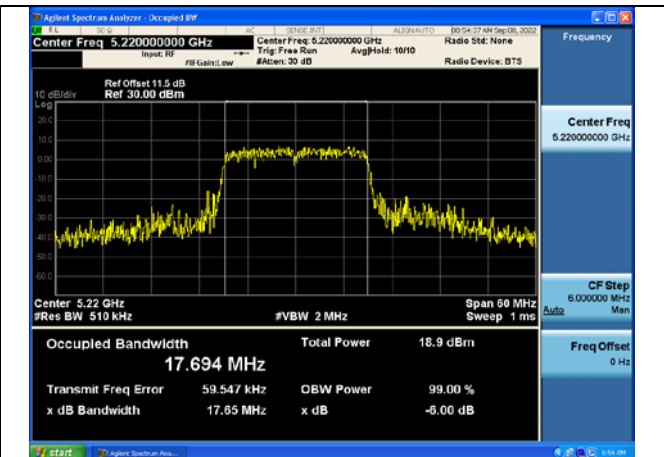
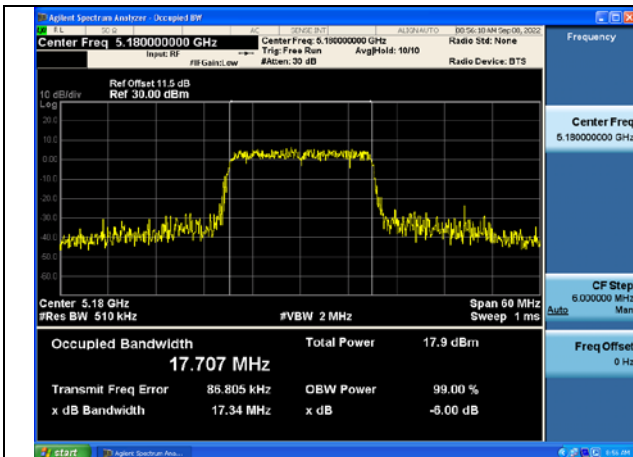
Test Mode:802.11a 5180MHz Chain1



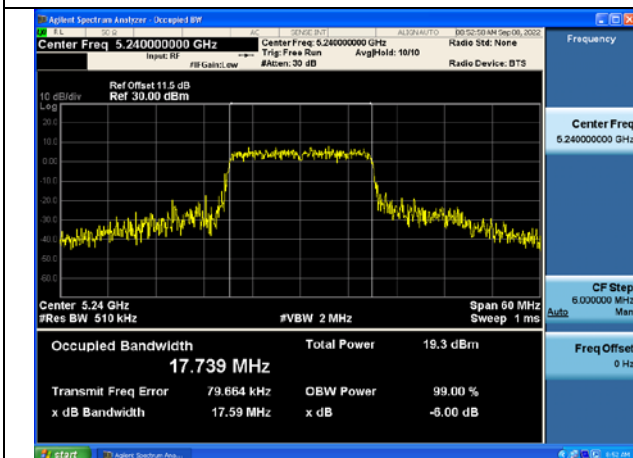
Test Mode:802.11a 5220MHz Chain1

Test Mode:802.11a 5240MHz Chain1

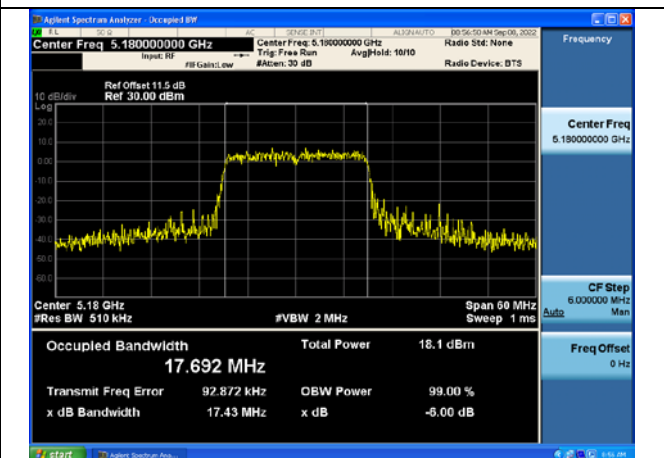
Test Mode: 802.11n HT20



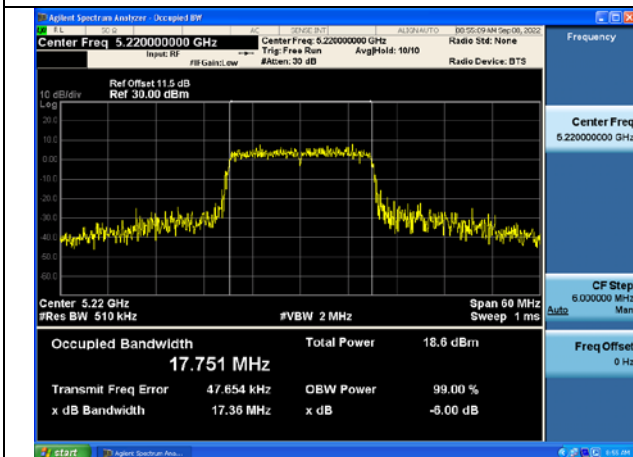
Test Mode: 802.11n HT20 5180MHz Chain0



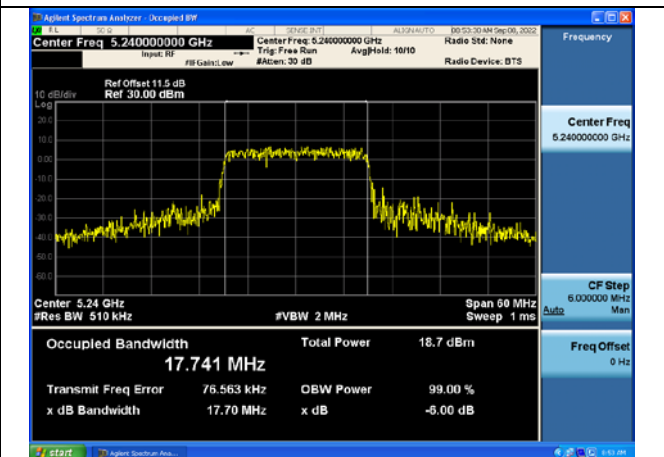
Test Mode: 802.11n HT20 5220MHz Chain0



Test Mode: 802.11n HT20 5240MHz Chain0



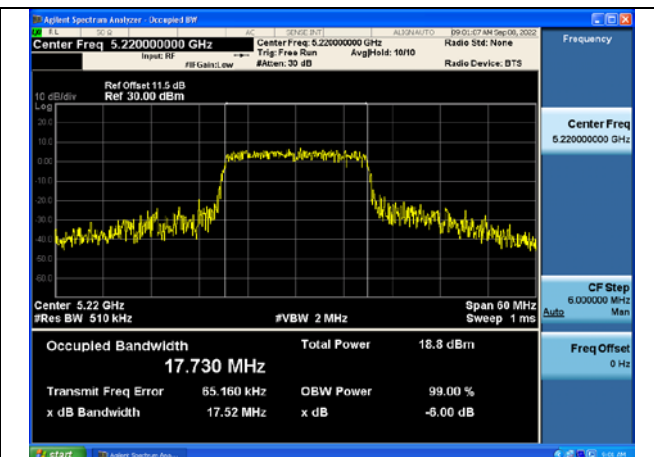
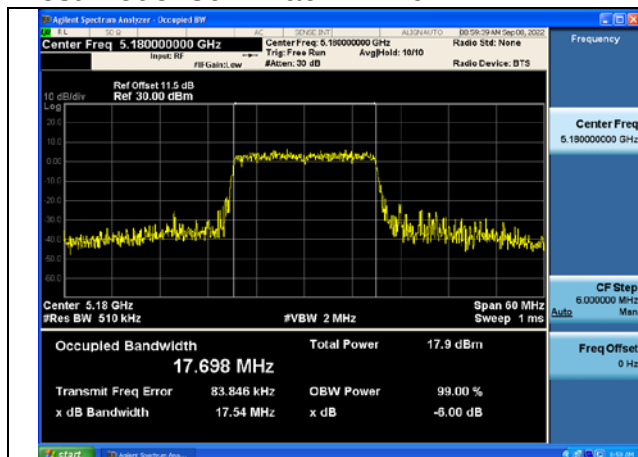
Test Mode: 802.11n HT20 5180MHz Chain1



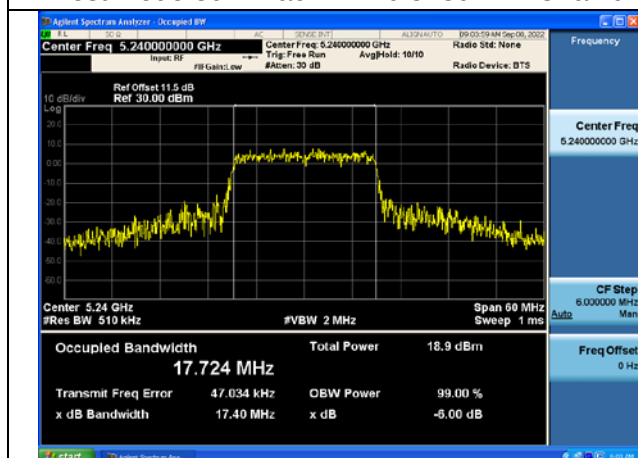
Test Mode: 802.11n HT20 5220MHz Chain1

Test Mode: 802.11n HT20 5240MHz Chain1

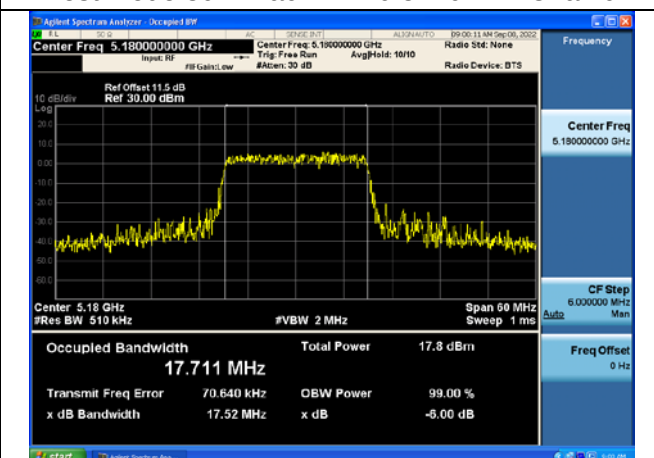
Test Mode: 802.11ac VHT20



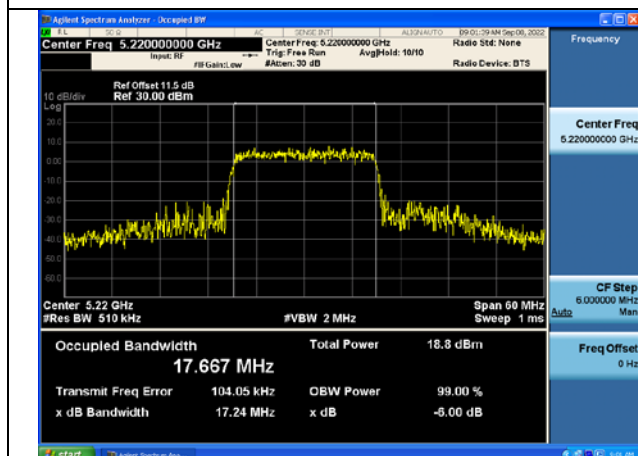
Test Mode: 802.11ac VHT20 5180MHz Chain0



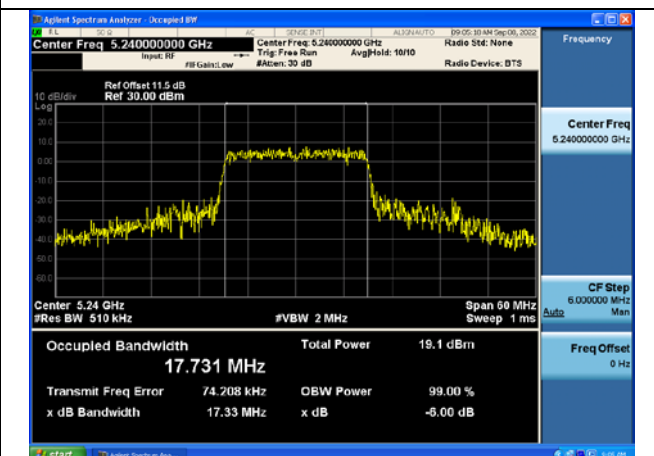
Test Mode: 802.11ac VHT20 5220MHz Chain0



Test Mode: 802.11ac VHT20 5240MHz Chain0



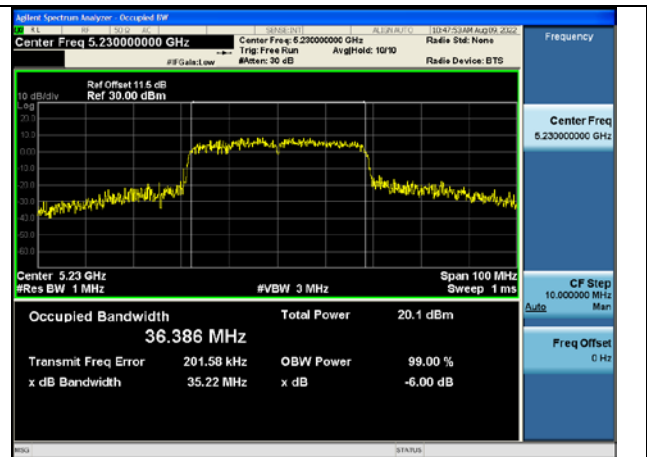
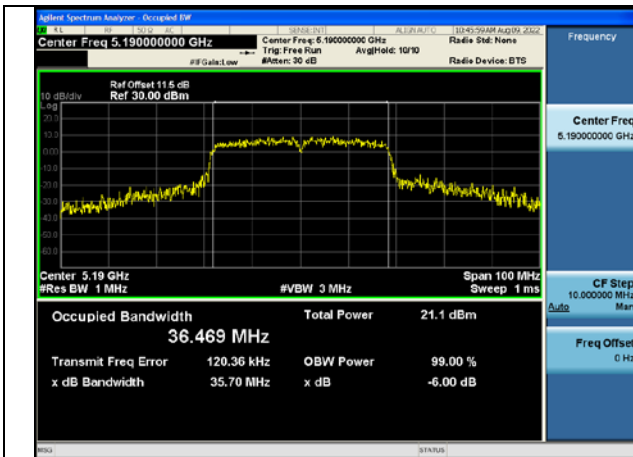
Test Mode: 802.11ac VHT20 5180MHz Chain1



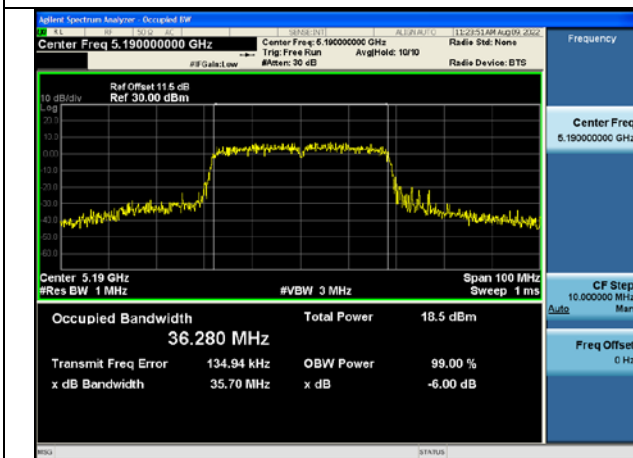
Test Mode: 802.11ac VHT20 5220MHz Chain1

Test Mode: 802.11ac VHT20 5240MHz Chain1

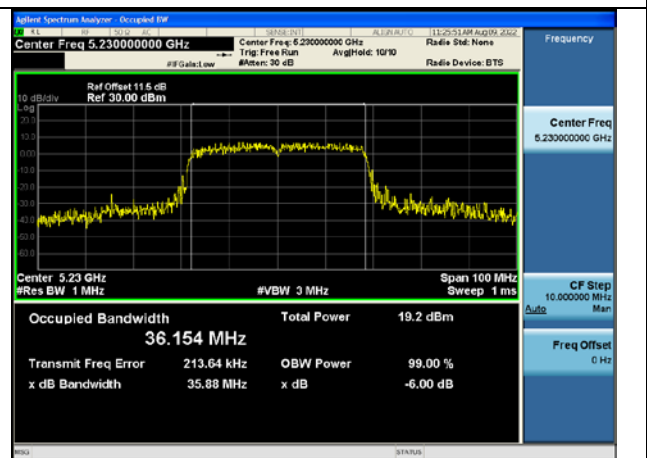
Test Mode: 802.11n HT40



Test Mode:802.11n HT40 5190MHz Chain0



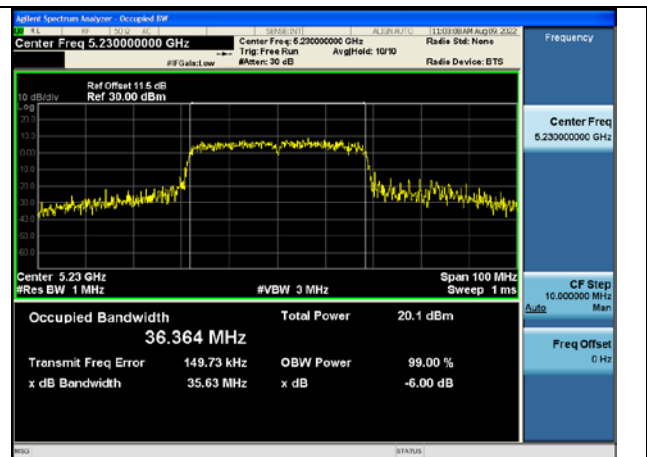
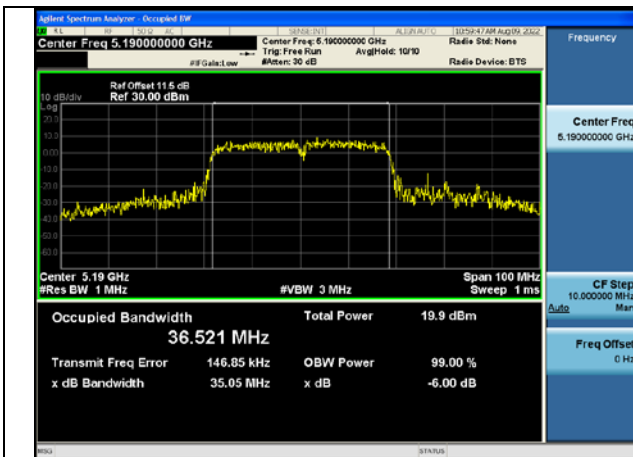
Test Mode:802.11n HT40 5230MHz Chain0



Test Mode:802.11n HT40 5190MHz Chain1

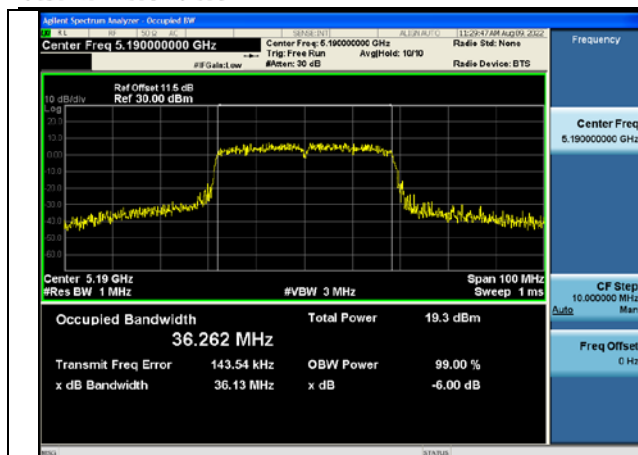
Test Mode:802.11n HT40 5230MHz Chain1

Test Mode: 802.11ac VHT40

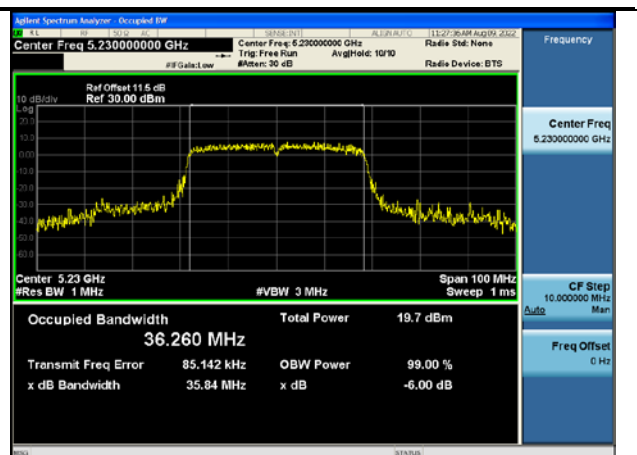


Test Mode:802.11ac VHT40 5190MHz Chain0

Test Mode:802.11ac VHT40 5230MHz Chain0

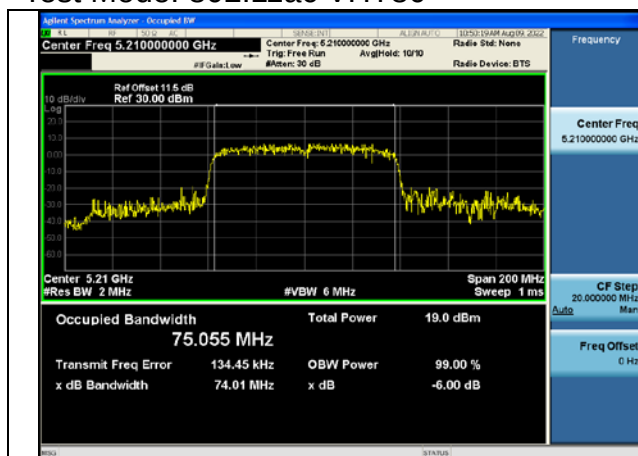


Test Mode:802.11ac VHT40 5190MHz Chain1

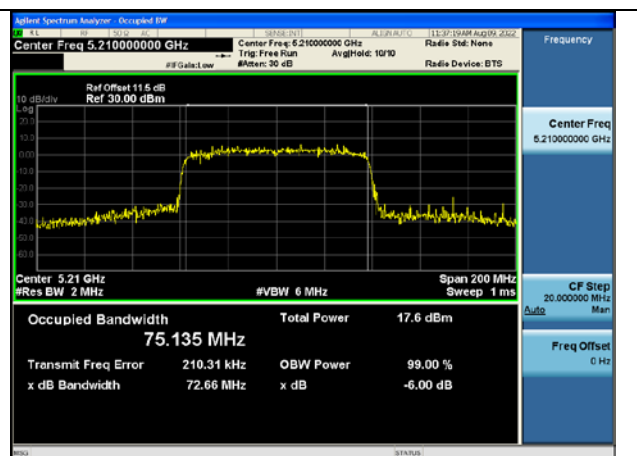


Test Mode:802.11ac VHT40 5230MHz Chain1

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5210MHz Chain0



Test Mode:802.11ac VHT80 5210MHz Chain1

Transmitter Power Spectral Density

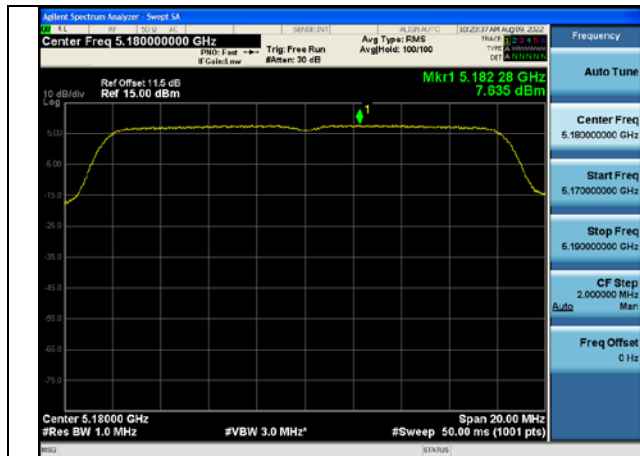
Offset 11.5dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	5180MHz		5220MHz		5240MHz	
		Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11a	Chain0	0.59	8.225	0.59	8.013	0.59	6.990
802.11a	Chain1	0.59	5.820	0.59	5.558	0.59	5.463
802.11n HT20	Chain0	0.59	6.026	0.59	5.739	0.59	5.819
802.11n HT20	Chain1	0.59	4.465	0.59	4.900	0.59	4.586
802.11n HT20	MIMO	0.59	8.326	0.59	8.350	0.59	8.256
802.11ac VHT20	Chain0	0.58	6.037	0.58	5.574	0.58	5.545
802.11ac VHT20	Chain1	0.58	4.281	0.58	4.585	0.58	4.606
802.11ac VHT20	MIMO	0.58	8.257	0.58	8.118	0.58	8.111

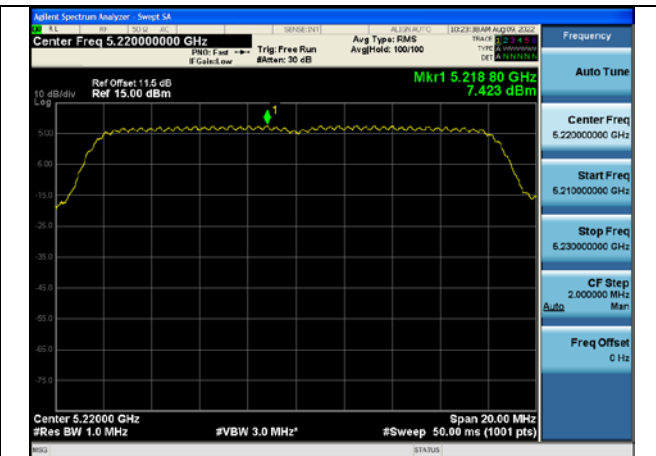
Test Mode	Antenna	5190MHz		---		5230MHz	
		Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11n HT40	Chain0	0.98	3.200	---	---	0.98	2.845
802.11n HT40	Chain1	0.98	1.477	---	---	0.98	1.587
802.11n HT40	MIMO	0.98	5.434	---	---	0.98	5.272
802.11ac VHT40	Chain0	0.94	3.004	---	---	0.94	2.428
802.11ac VHT40	Chain1	0.94	1.266	---	---	0.94	1.629
802.11ac VHT40	MIMO	0.94	5.232	---	---	0.94	5.057

Test Mode	Antenna	5210MHz		---		---	
		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	1.39	-1.659	---	---	---	---
802.11ac VHT80	Chain1	1.39	-3.154	---	---	---	---
802.11ac VHT80	MIMO	1.39	0.668	---	---	---	---

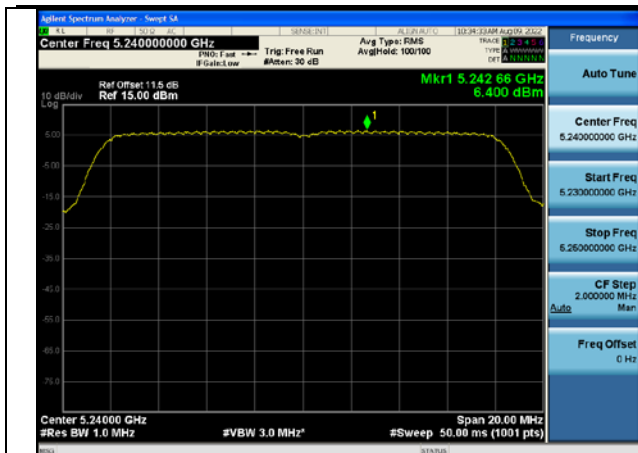
Test Mode: 802.11a



Test Mode:802.11a 5180MHz Chain0



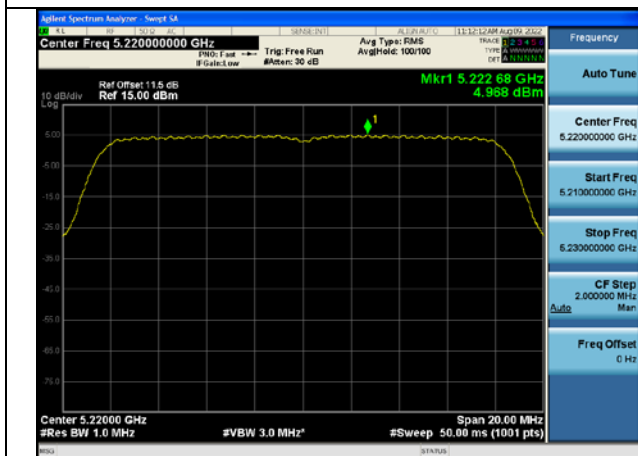
Test Mode:802.11a 5220MHz Chain0



Test Mode:802.11a 5240MHz Chain0



Test Mode:802.11a 5180MHz Chain1

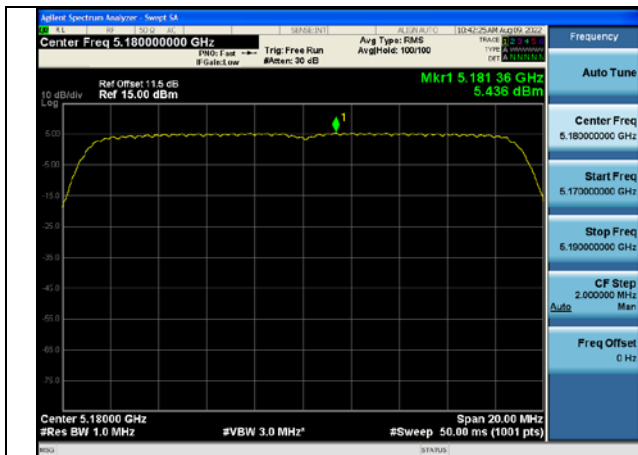


Test Mode:802.11a 5220MHz Chain1



Test Mode:802.11a 5240MHz Chain1

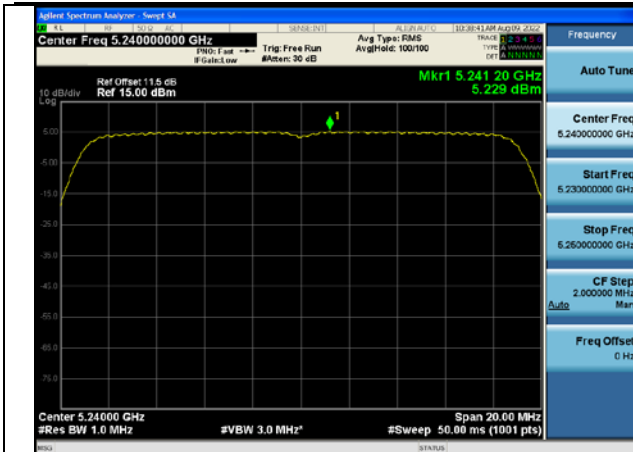
Test Mode: 802.11n HT20



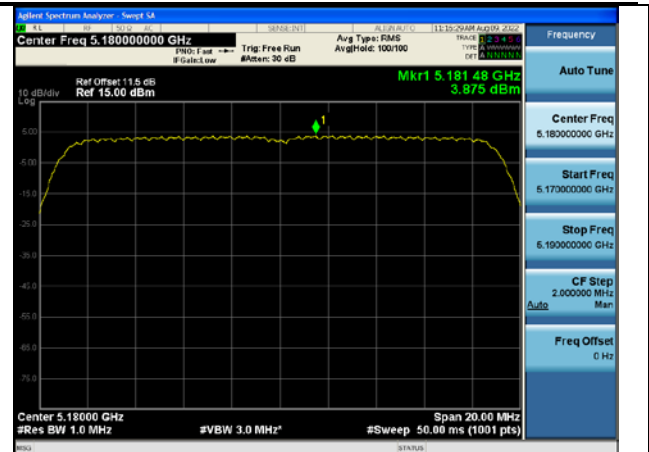
Test Mode:802.11n HT20 5180MHz Chain0



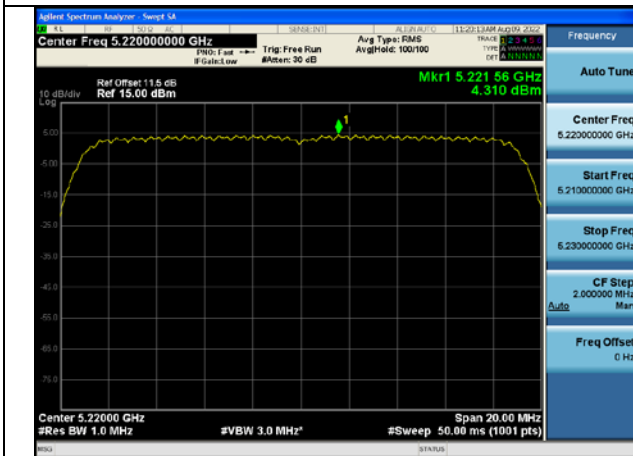
Test Mode:802.11n HT20 5220MHz Chain0



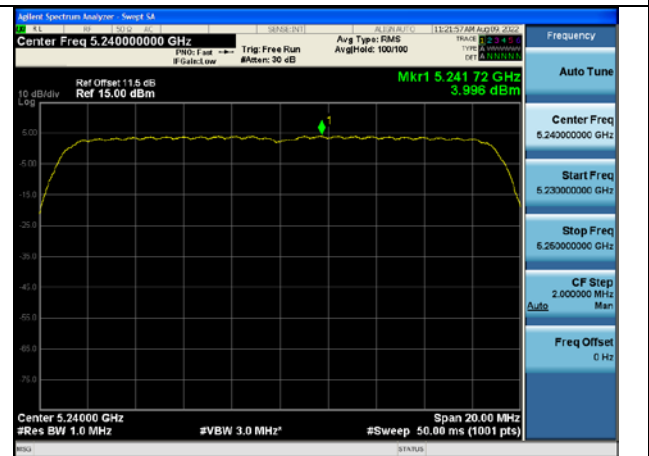
Test Mode:802.11n HT20 5240MHz Chain0



Test Mode:802.11n HT20 5180MHz Chain1

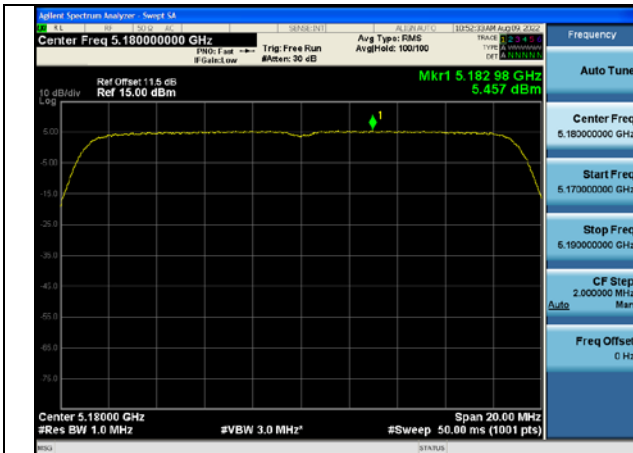


Test Mode:802.11n HT20 5220MHz Chain1

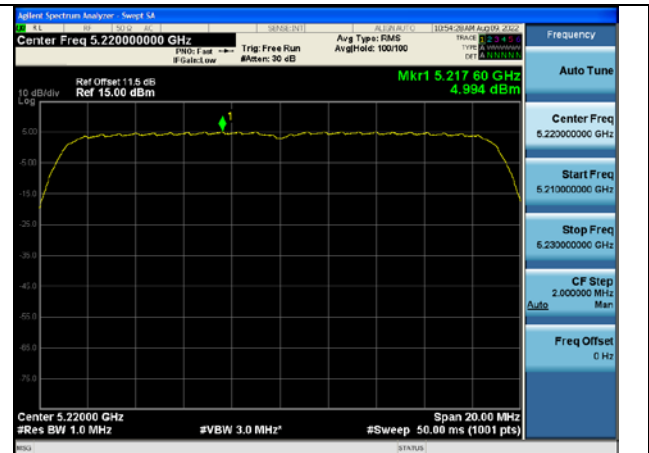


Test Mode:802.11n HT20 5240MHz Chain1

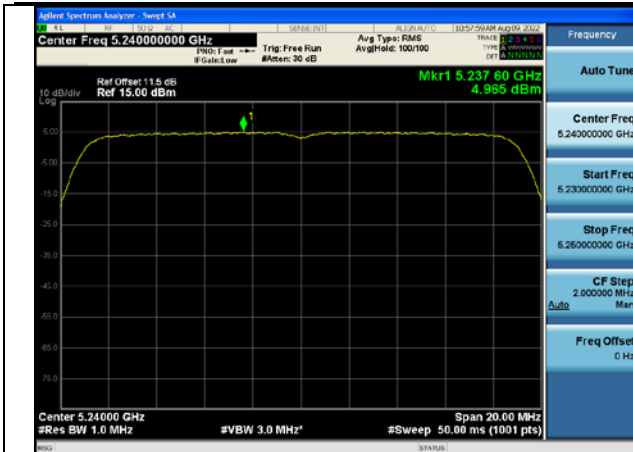
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5180MHz Chain0



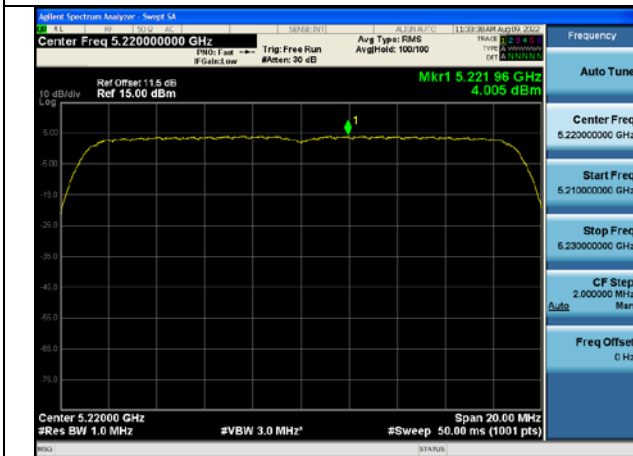
Test Mode:802.11ac VHT20 5220MHz Chain0



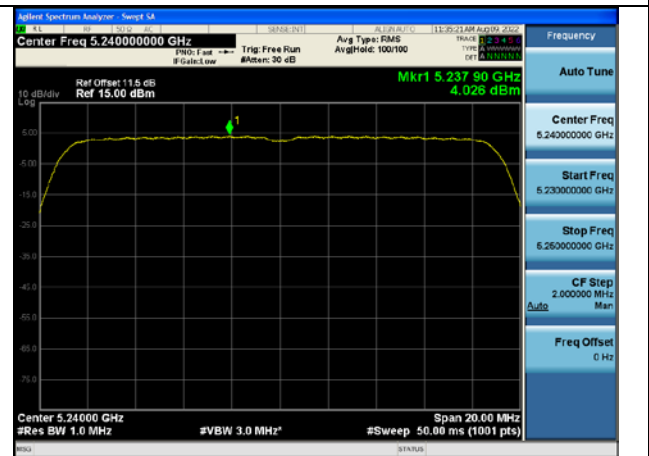
Test Mode:802.11ac VHT20 5240MHz Chain0



Test Mode:802.11ac VHT20 5180MHz Chain1

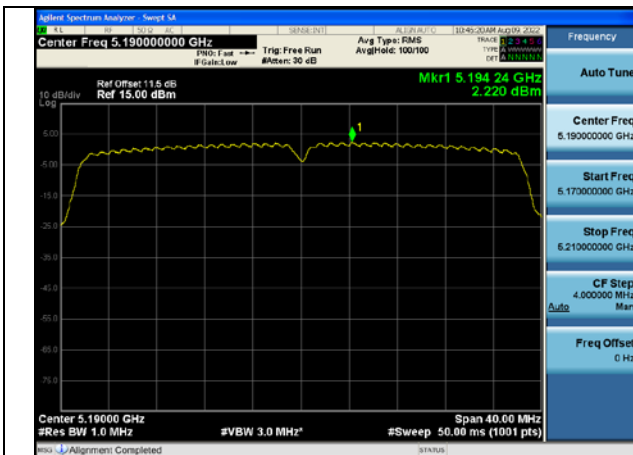


Test Mode:802.11ac VHT20 5220MHz Chain1

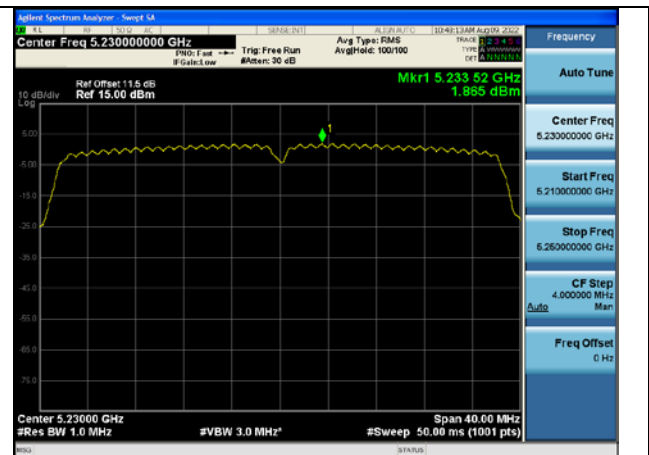


Test Mode:802.11ac VHT20 5240MHz Chain1

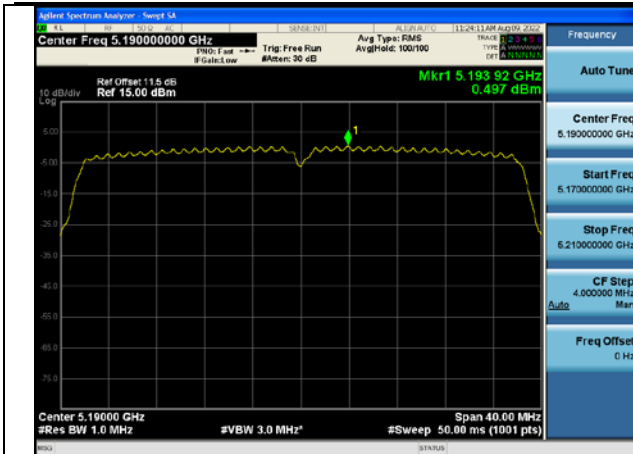
Test Mode: 802.11n HT40



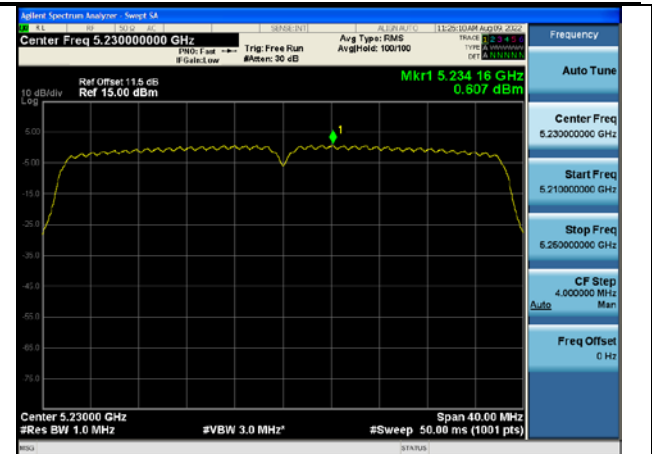
Test Mode:802.11n HT40 5190MHz Chain0



Test Mode:802.11n HT40 5230MHz Chain0

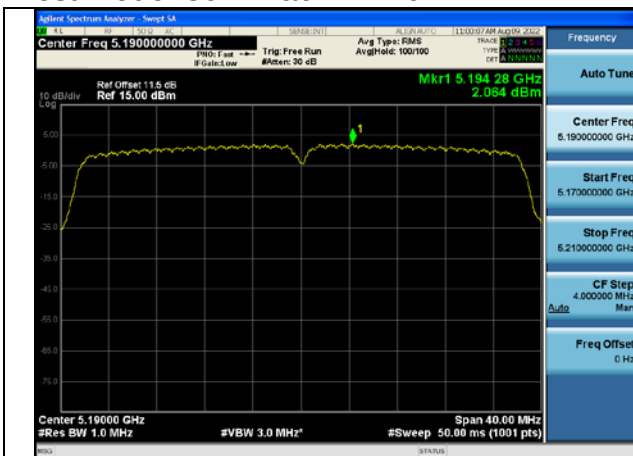


Test Mode:802.11n HT40 5190MHz Chain1

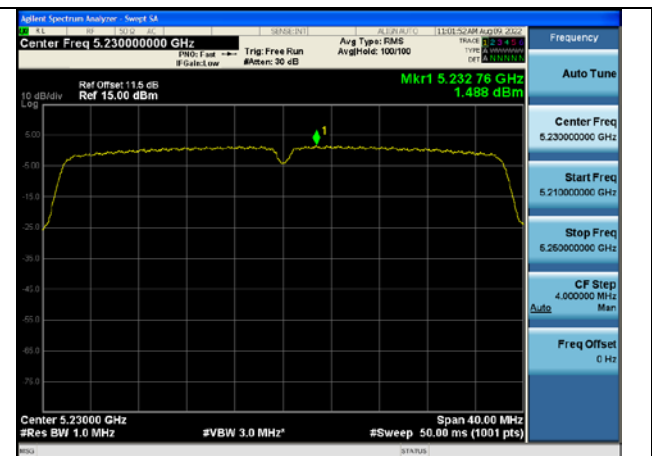


Test Mode:802.11n HT40 5230MHz Chain1

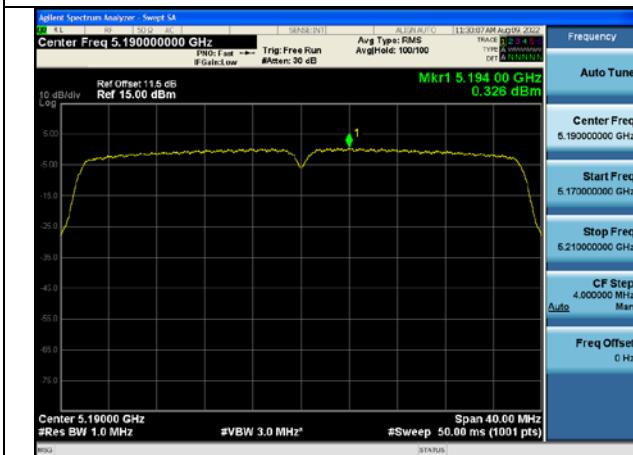
Test Mode: 802.11ac VHT40



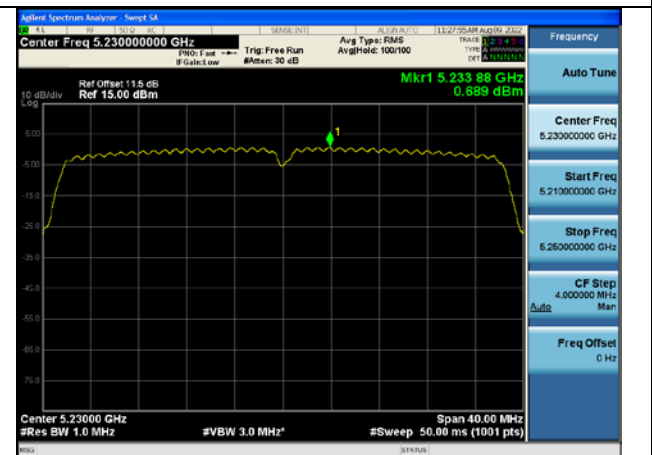
Test Mode:802.11ac VHT40 5190MHz Chain0



Test Mode:802.11ac VHT40 5230MHz Chain0

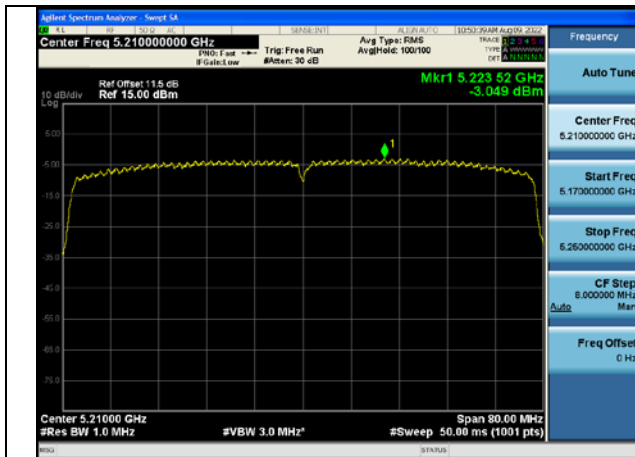


Test Mode:802.11ac VHT40 5190MHz Chain1

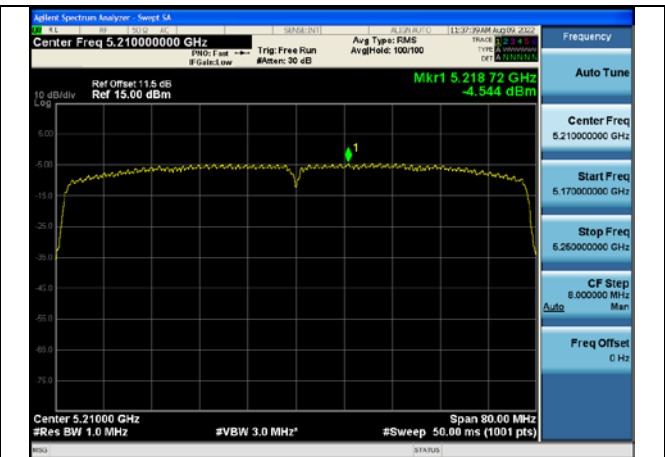


Test Mode:802.11ac VHT40 5230MHz Chain1

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5210MHz Chain0



Test Mode:802.11ac VHT80 5210MHz Chain1