

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)
802.11a	5180	98.66%	0
802.11a	5180	98.68%	0
802.11n HT20	5180	98.58%	0
802.11n HT20	5180	98.59%	0
802.11ac VHT20	5180	98.56%	0
802.11ac VHT20	5180	98.56%	0
802.11n HT40	5190	97.27%	0.12
802.11n HT40	5190	97.23%	0.12
802.11ac VHT40	5190	97.20%	0.12
802.11ac VHT40	5190	97.32%	0.12
802.11ac VHT80	5210	94.87%	0.23
802.11ac VHT80	5210	94.87%	0.23

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	15.95	17.95
802.11a	NA	5180	Chain1	16.16	17.66
802.11a	NA	5220	Chain0	15.69	17.69
802.11a	NA	5220	Chain1	15.69	17.19
802.11a	NA	5240	Chain0	15.71	17.71
802.11a	NA	5240	Chain1	15.76	17.26
802.11n HT20	NA	5180	Chain0	15.75	17.75
802.11n HT20	NA	5180	Chain1	15.89	17.39
802.11n HT20	NA	5180	MIMO	18.83	20.59
802.11n HT20	NA	5220	Chain0	15.62	17.62
802.11n HT20	NA	5220	Chain1	15.69	17.19
802.11n HT20	NA	5220	MIMO	18.67	20.43
802.11n HT20	NA	5240	Chain0	15.62	17.62
802.11n HT20	NA	5240	Chain1	15.64	17.14
802.11n HT20	NA	5240	MIMO	18.64	20.40
802.11ac VHT20	NA	5180	Chain0	15.87	17.87
802.11ac VHT20	NA	5180	Chain1	15.99	17.49
802.11ac VHT20	NA	5180	MIMO	18.94	20.70
802.11ac VHT20	NA	5220	Chain0	15.75	17.75
802.11ac VHT20	NA	5220	Chain1	15.66	17.16
802.11ac VHT20	NA	5220	MIMO	18.72	20.48
802.11ac VHT20	NA	5240	Chain0	15.72	17.72
802.11ac VHT20	NA	5240	Chain1	15.61	17.11

802.11ac VHT20	NA	5240	MIMO	18.68	20.44
802.11n HT40	NA	5190	Chain0	15.64	17.64
802.11n HT40	NA	5190	Chain1	15.74	17.24
802.11n HT40	NA	5190	MIMO	18.70	20.46
802.11n HT40	NA	5230	Chain0	15.71	17.71
802.11n HT40	NA	5230	Chain1	15.62	17.12
802.11n HT40	NA	5230	MIMO	18.68	20.44
802.11ac VHT40	NA	5190	Chain0	15.66	17.66
802.11ac VHT40	NA	5190	Chain1	15.72	17.22
802.11ac VHT40	NA	5190	MIMO	18.70	20.46
802.11ac VHT40	NA	5230	Chain0	15.73	17.73
802.11ac VHT40	NA	5230	Chain1	15.60	17.10
802.11ac VHT40	NA	5230	MIMO	18.68	20.44
802.11ac VHT80	NA	5210	Chain0	15.34	17.34
802.11ac VHT80	NA	5210	Chain1	15.29	16.79
802.11ac VHT80	NA	5210	MIMO	18.33	20.09

Emission Bandwidth

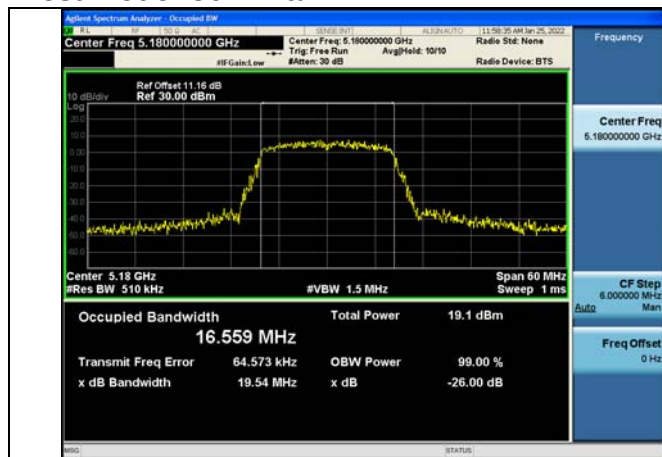
Offset 11.16dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.554	Channel No.562	Channel No.566
		5180MHz	5220MHz	5240MHz
802.11a	Chain0	19.54	20.05	20.33
802.11a	Chain1	19.32	19.90	20.08
802.11n HT20	Chain0	20.11	20.48	20.42
802.11n HT20	Chain1	20.13	20.70	20.19
802.11ac VHT20	Chain0	20.42	20.43	20.52
802.11ac VHT20	Chain1	20.25	20.08	20.10

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.556	---	Channel No.564
		5190MHz	---	5230MHz
802.11n HT40	Chain0	40.78	---	40.53
802.11n HT40	Chain1	40.50	---	40.11
802.11ac VHT40	Chain0	40.58	---	43.14
802.11ac VHT40	Chain1	40.55	---	40.81

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.560	---	---
		5210MHz	---	---
802.11ac VHT80	Chain0	81.04	---	---
802.11ac VHT80	Chain1	81.03	---	---

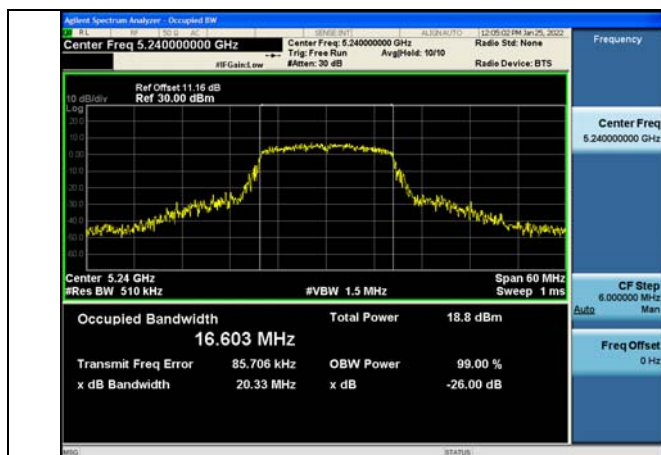
Test Mode: 802.11a



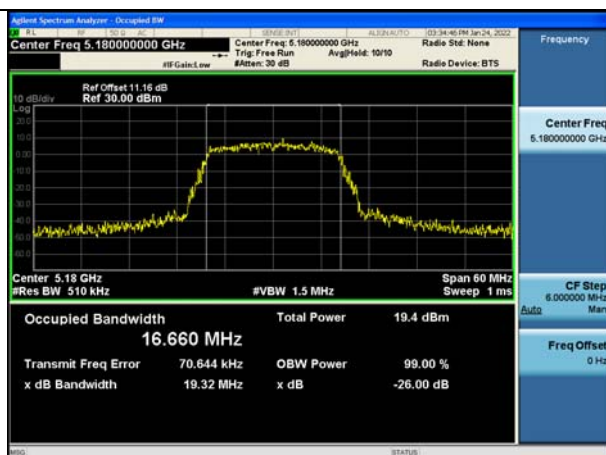
Test Mode:802.11a 5180MHz Chain0



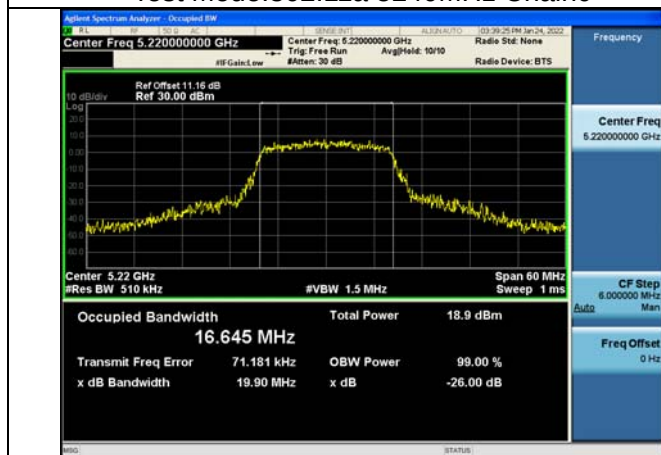
Test Mode:802.11a 5220MHz Chain0



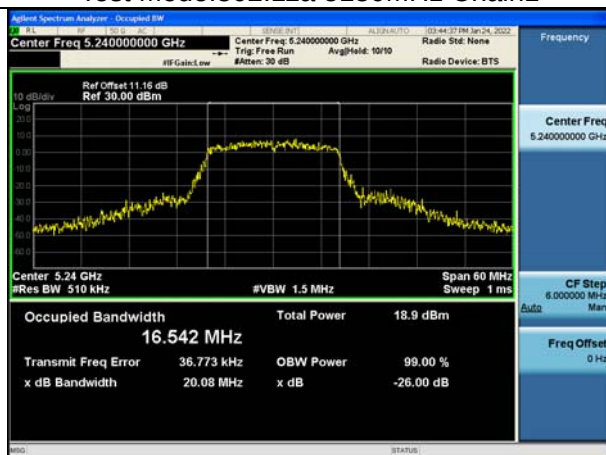
Test Mode:802.11a 5240MHz Chain0



Test Mode:802.11a 5180MHz Chain1

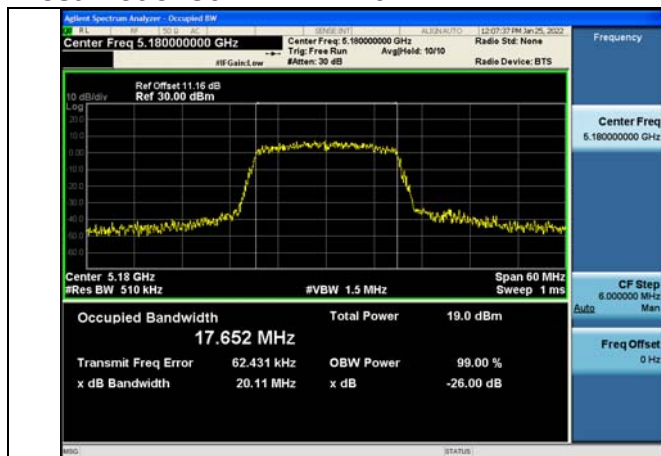


Test Mode:802.11a 5220MHz Chain1

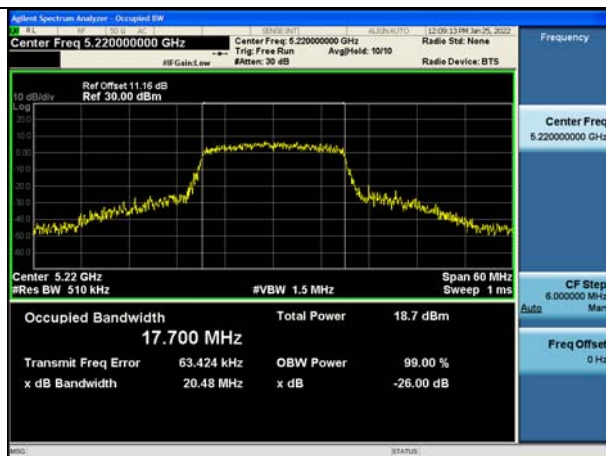


Test Mode:802.11a 5240MHz Chain1

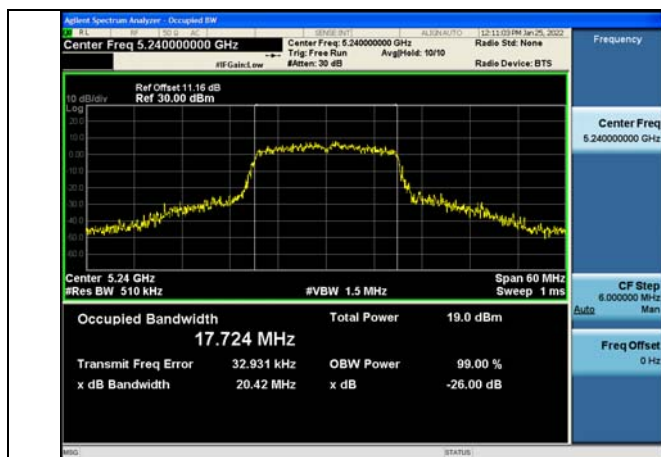
Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5180MHz Chain0



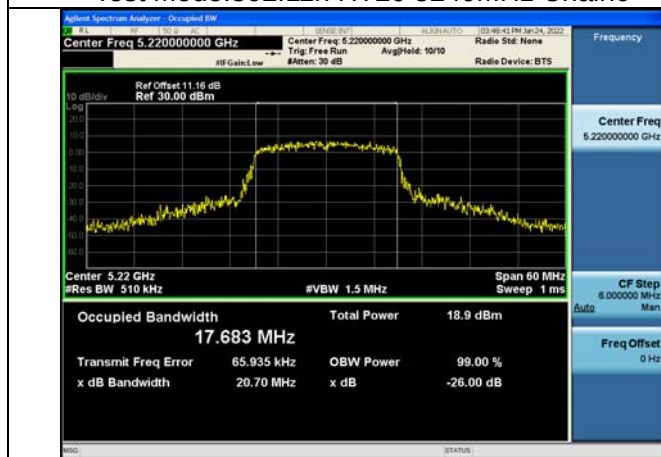
Test Mode:802.11n HT20 5220MHz Chain0



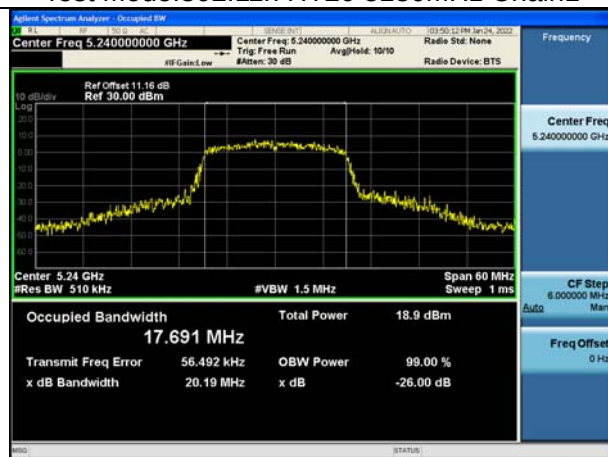
Test Mode:802.11n HT20 5240MHz Chain0



Test Mode:802.11n HT20 5180MHz Chain1

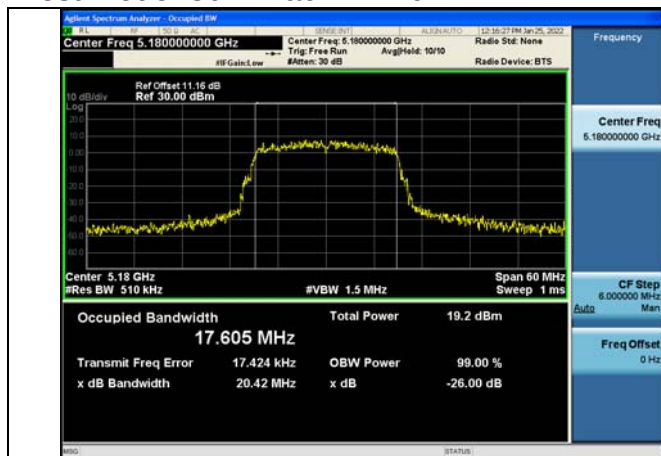


Test Mode:802.11n HT20 5220MHz Chain1

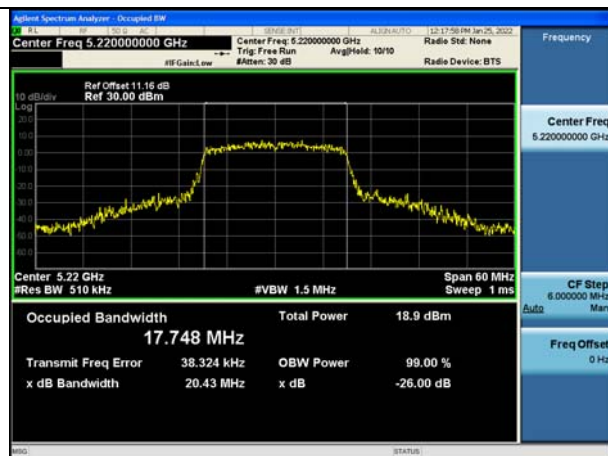


Test Mode:802.11n HT20 5240MHz Chain1

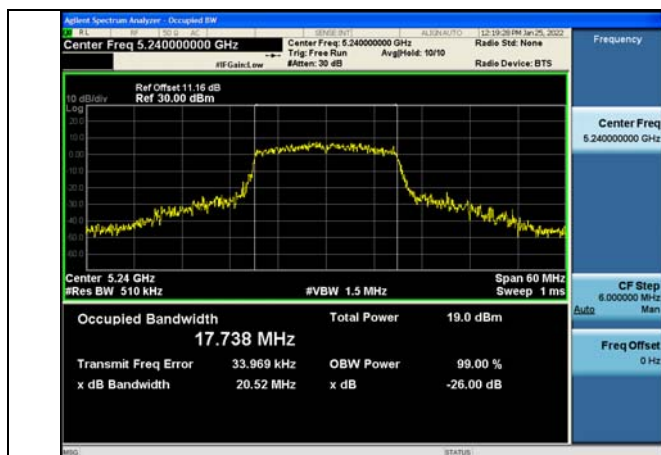
Test Mode: 802.11ac VHT20



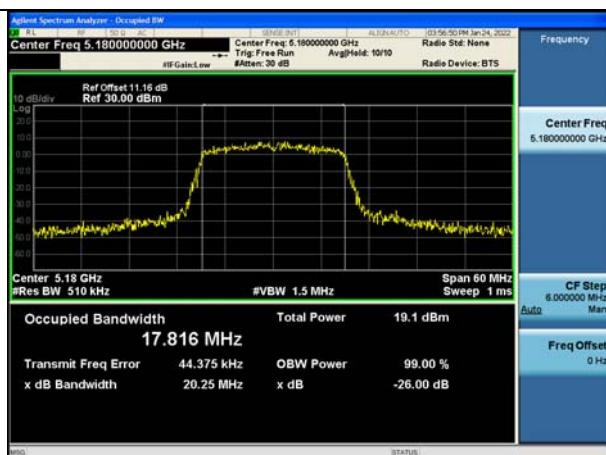
Test Mode:802.11ac VHT20 5180MHz Chain0



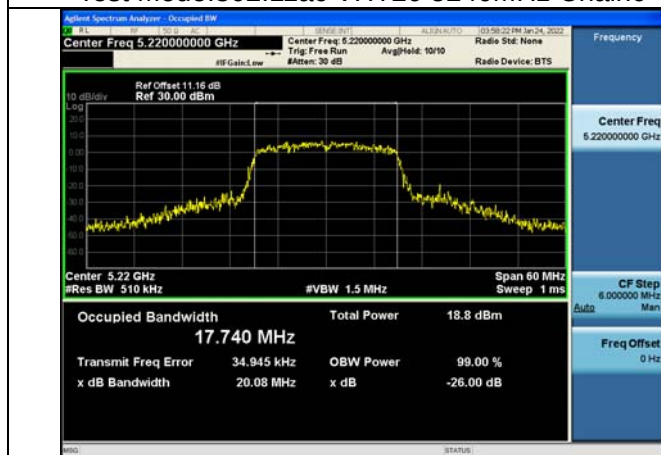
Test Mode:802.11ac VHT20 5220MHz Chain0



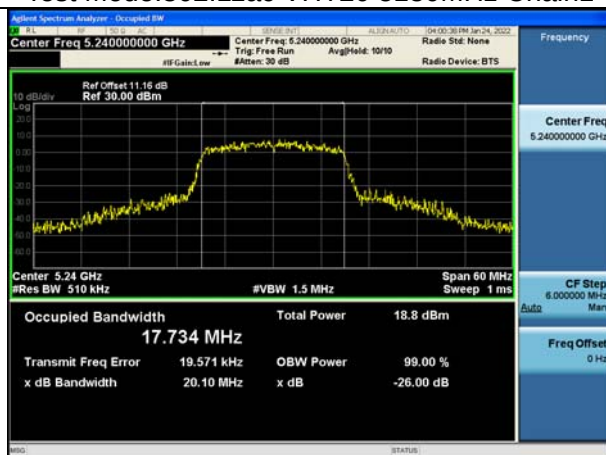
Test Mode:802.11ac VHT20 5240MHz Chain0



Test Mode:802.11ac VHT20 5180MHz Chain1

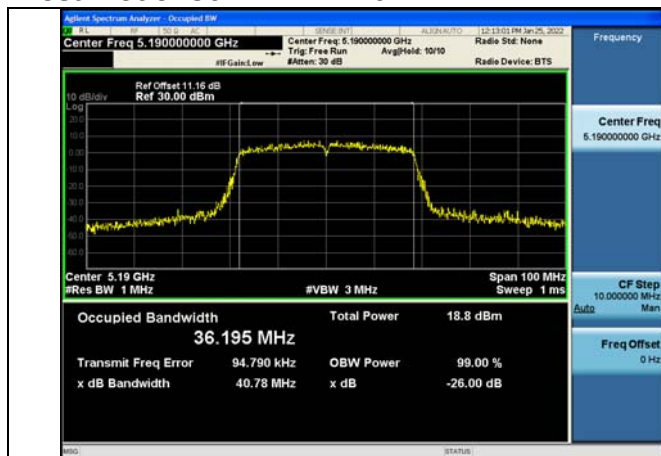


Test Mode:802.11ac VHT20 5220MHz Chain1

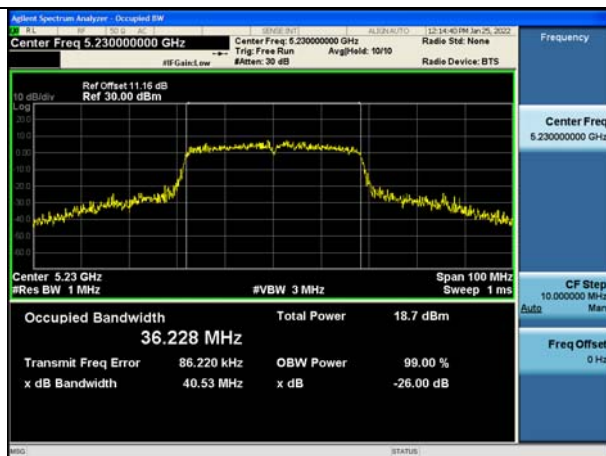


Test Mode:802.11ac VHT20 5240MHz Chain1

Test Mode: 802.11n HT40



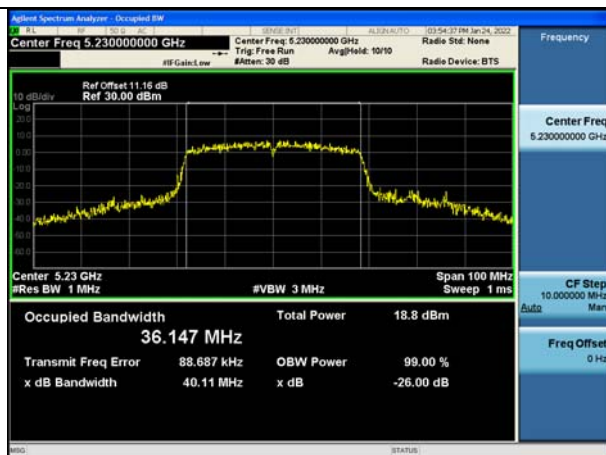
Test Mode:802.11n HT40 5190MHz Chain0



Test Mode:802.11n HT40 5230MHz Chain0

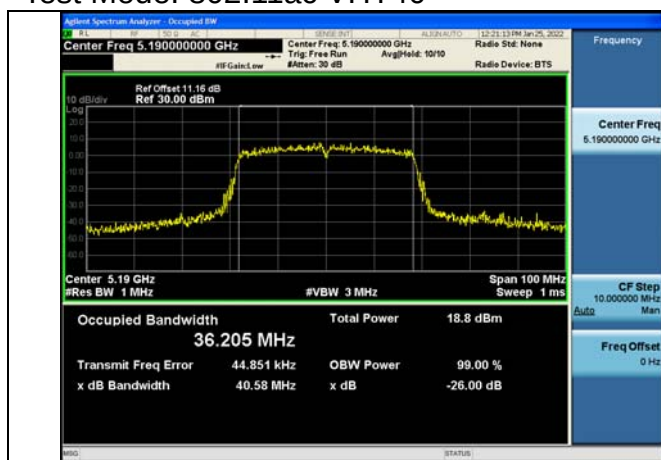


Test Mode:802.11n HT40 5190MHz Chain1



Test Mode:802.11n HT40 5230MHz Chain1

Test Mode: 802.11ac VHT40



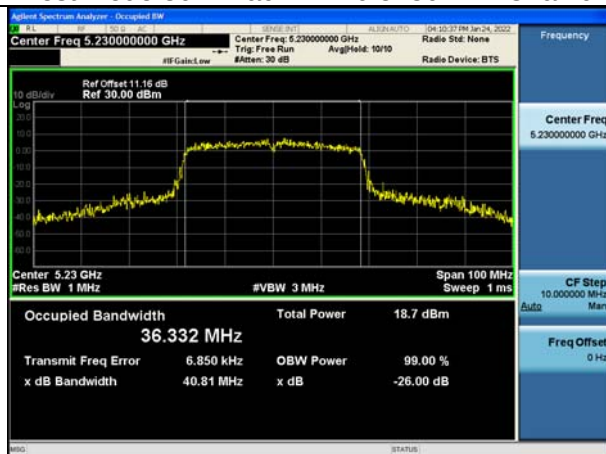
Test Mode:802.11ac VHT40 5190MHz Chain0



Test Mode:802.11ac VHT40 5230MHz Chain0

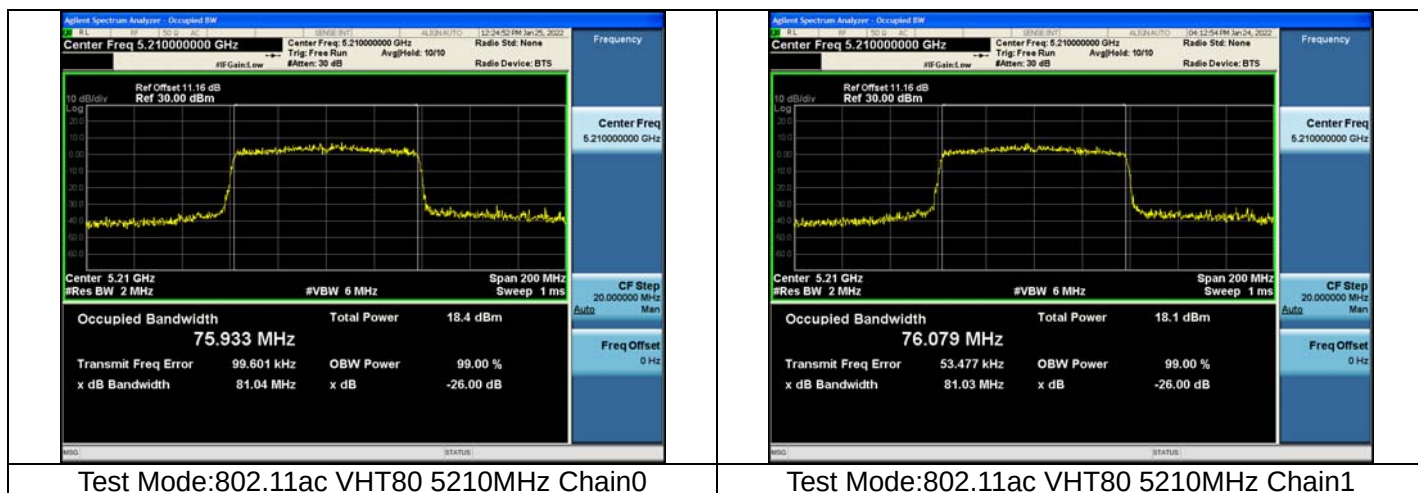


Test Mode:802.11ac VHT40 5190MHz Chain1



Test Mode:802.11ac VHT40 5230MHz Chain1

Test Mode: 802.11ac VHT80



Occupied Bandwidth

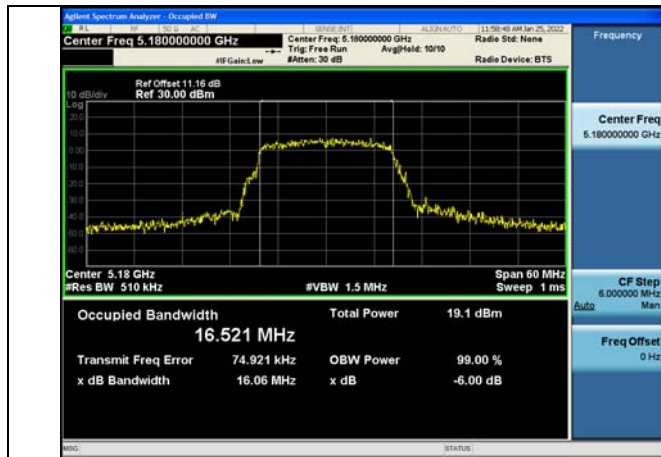
Offset 11.16dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.554	Channel No.562	Channel No.566
		5180MHz	5220MHz	5240MHz
802.11a	Chain0	16.521	16.598	16.655
802.11a	Chain1	16.635	16.533	16.609
802.11n HT20	Chain0	17.694	17.723	17.756
802.11n HT20	Chain1	17.614	17.670	17.744
802.11ac VHT20	Chain0	17.654	17.654	17.779
802.11ac VHT20	Chain1	17.622	17.620	17.771

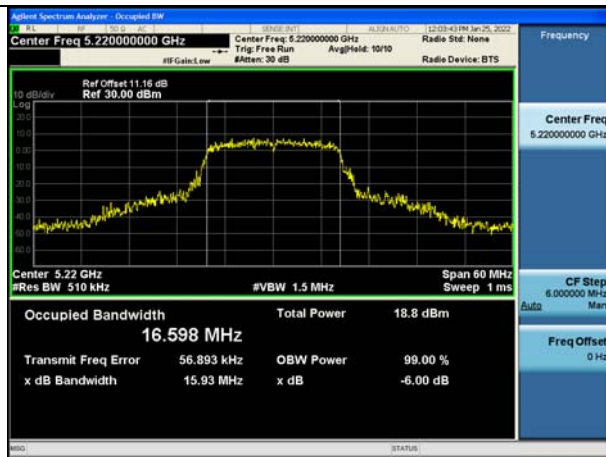
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.556	---	Channel No.564
		5190MHz	---	5230MHz
802.11n HT40	Chain0	36.194	---	36.325
802.11n HT40	Chain1	36.253	---	36.325
802.11ac VHT40	Chain0	36.162	---	36.274
802.11ac VHT40	Chain1	36.176	---	36.275

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.560	---	---
		5210MHz	---	---
802.11ac VHT80	Chain0	75.839	---	---
802.11ac VHT80	Chain1	75.924	---	---

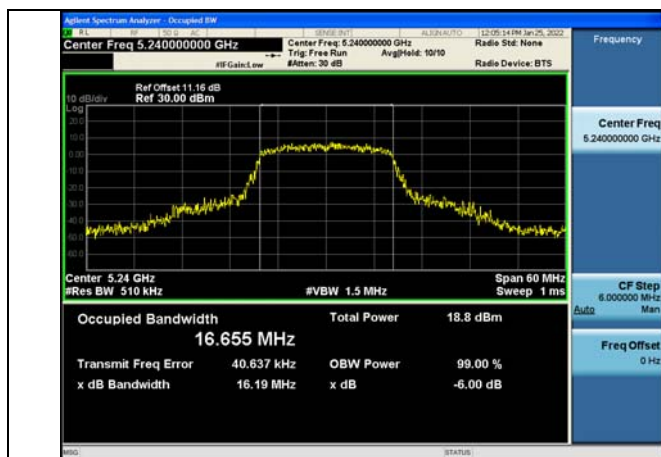
Test Mode: 802.11a



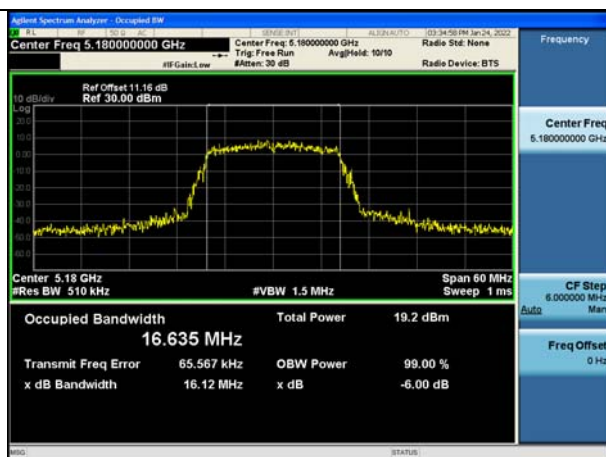
Test Mode:802.11a 5180MHz Chain0



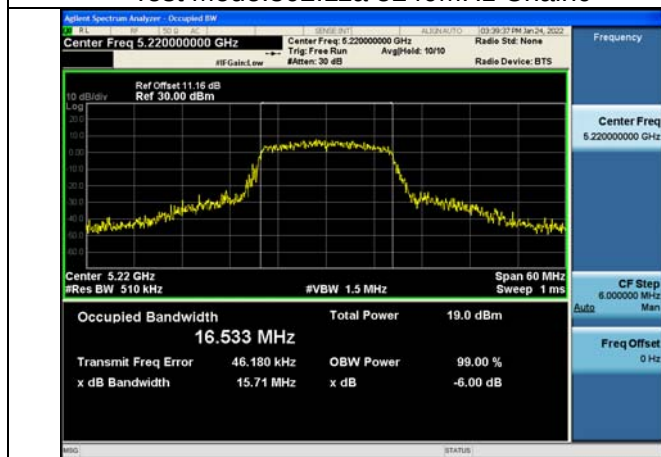
Test Mode:802.11a 5220MHz Chain0



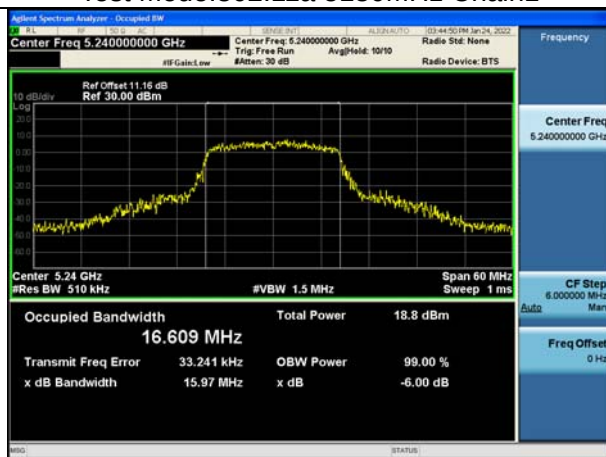
Test Mode:802.11a 5240MHz Chain0



Test Mode:802.11a 5180MHz Chain1

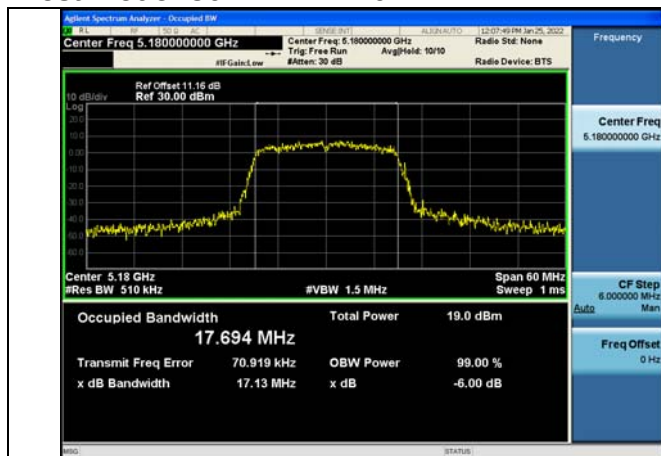


Test Mode:802.11a 5220MHz Chain1

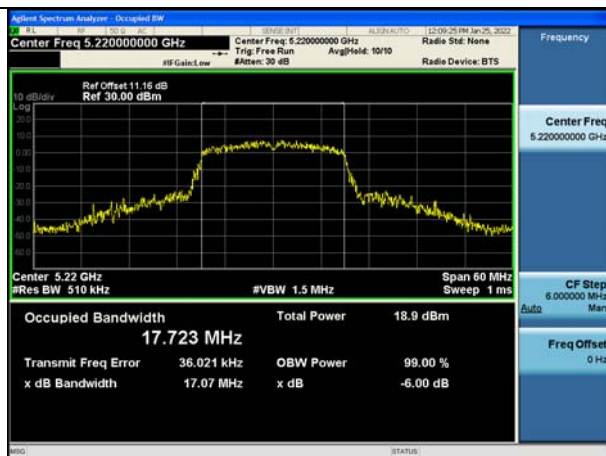


Test Mode:802.11a 5240MHz Chain1

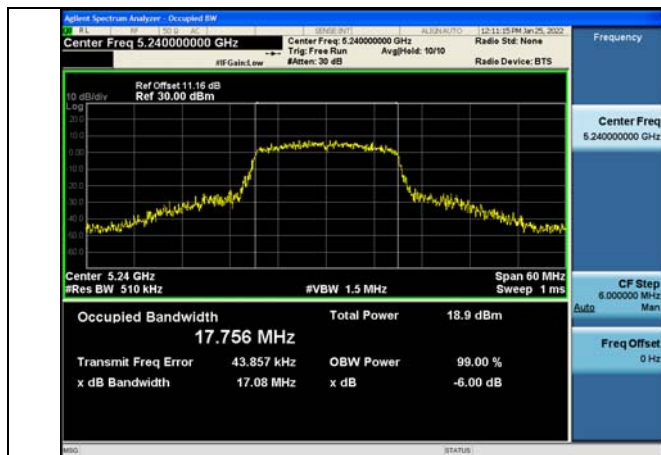
Test Mode: 802.11n HT20



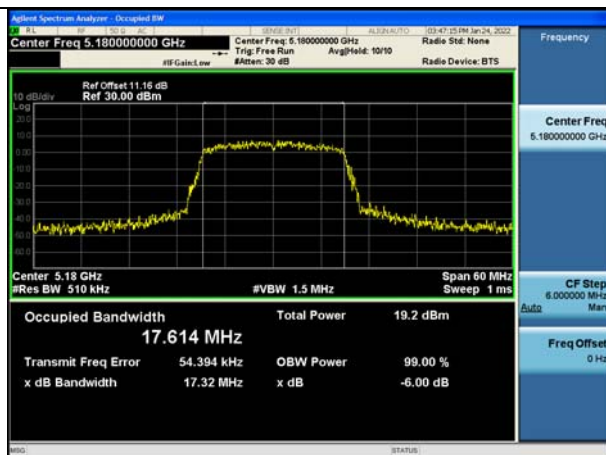
Test Mode:802.11n HT20 5180MHz Chain0



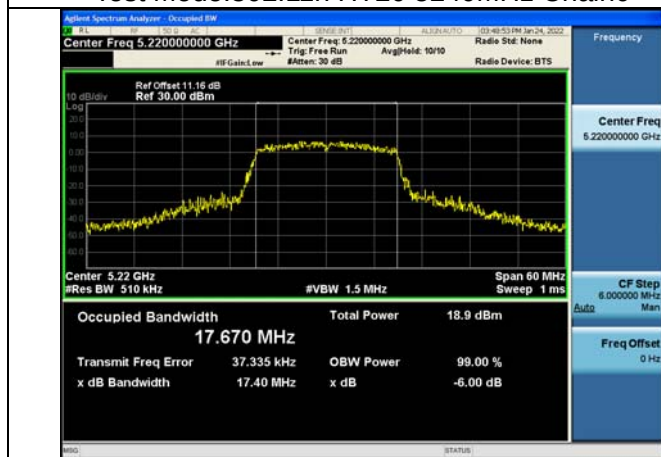
Test Mode:802.11n HT20 5220MHz Chain0



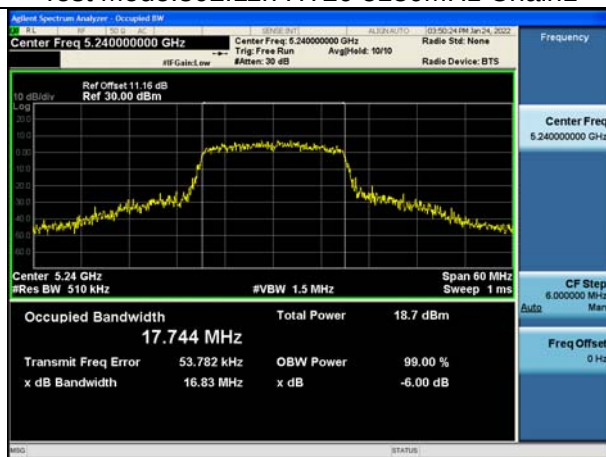
Test Mode:802.11n HT20 5240MHz Chain0



Test Mode:802.11n HT20 5180MHz Chain1

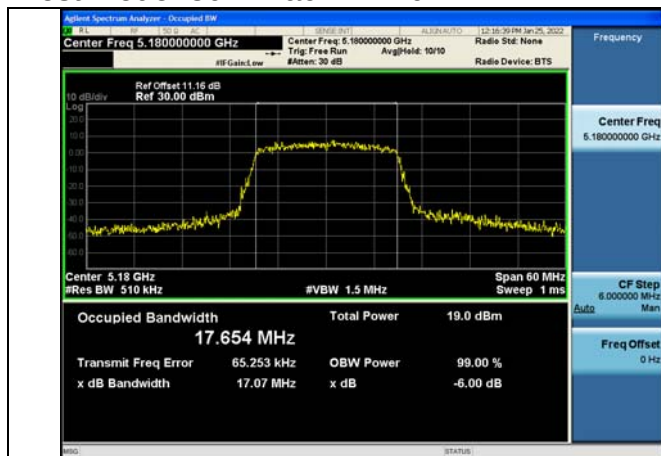


Test Mode:802.11n HT20 5220MHz Chain1

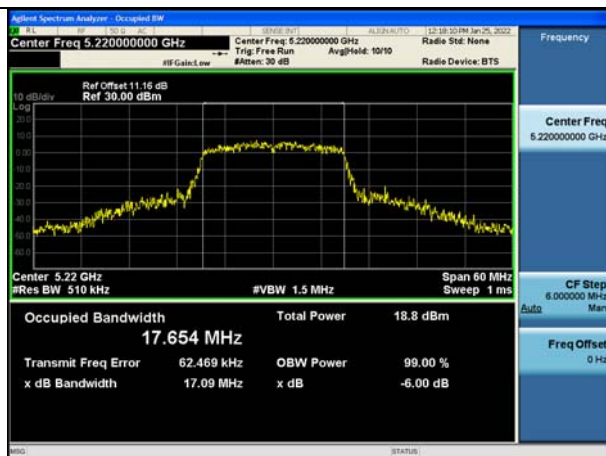


Test Mode:802.11n HT20 5240MHz Chain1

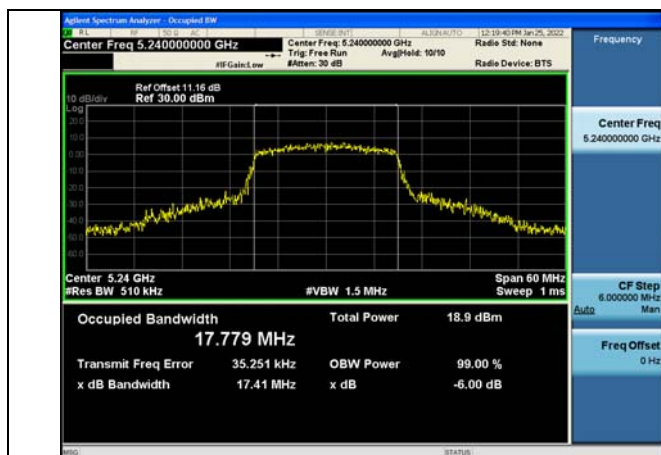
Test Mode: 802.11ac VHT20



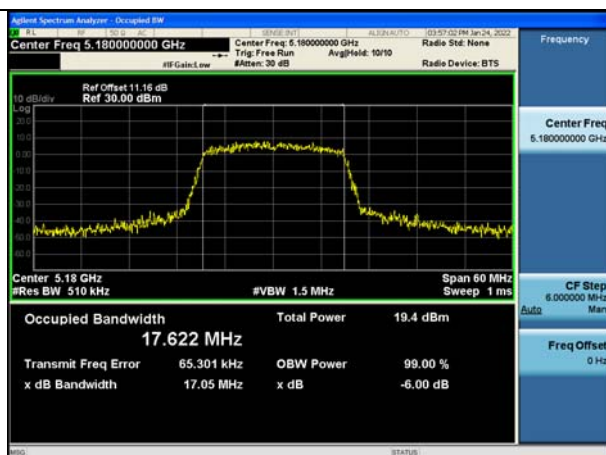
Test Mode:802.11ac VHT20 5180MHz Chain0



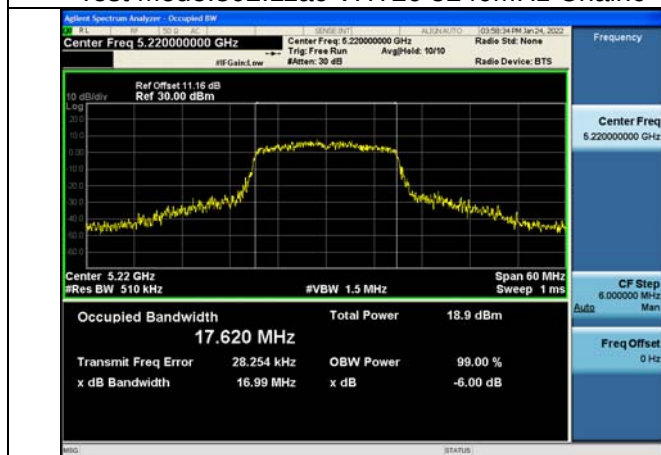
Test Mode:802.11ac VHT20 5220MHz Chain0



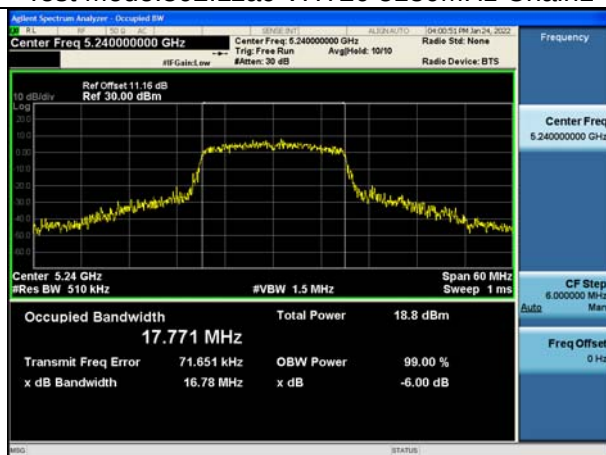
Test Mode:802.11ac VHT20 5240MHz Chain0



Test Mode:802.11ac VHT20 5180MHz Chain1

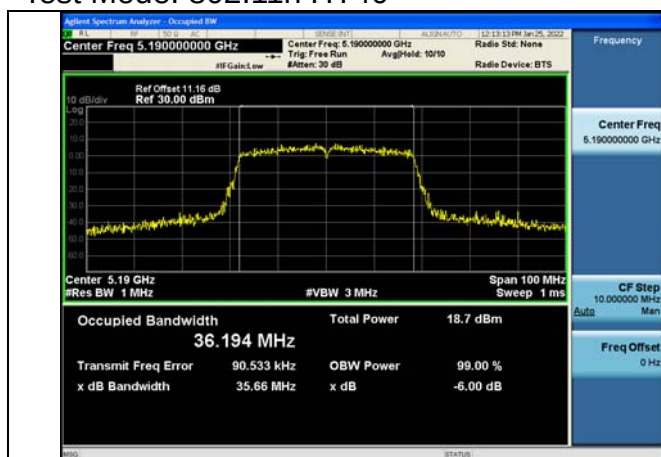


Test Mode:802.11ac VHT20 5220MHz Chain1

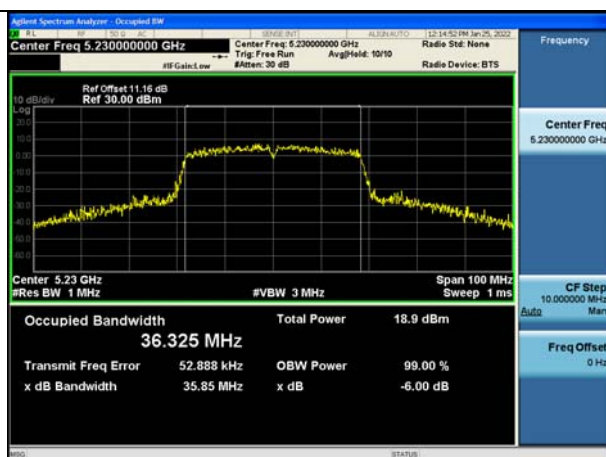


Test Mode:802.11ac VHT20 5240MHz Chain1

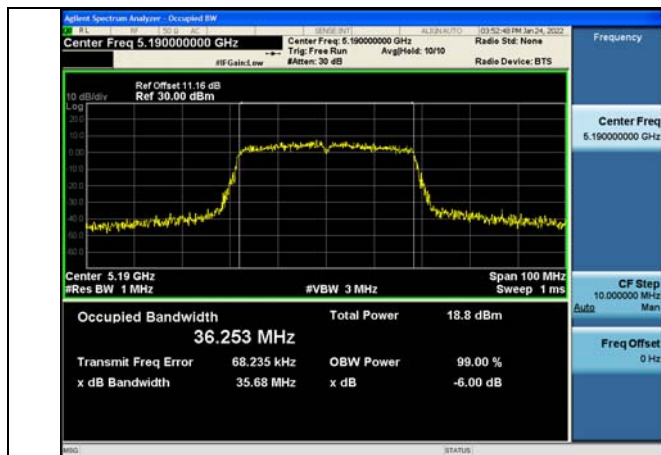
Test Mode: 802.11n HT40



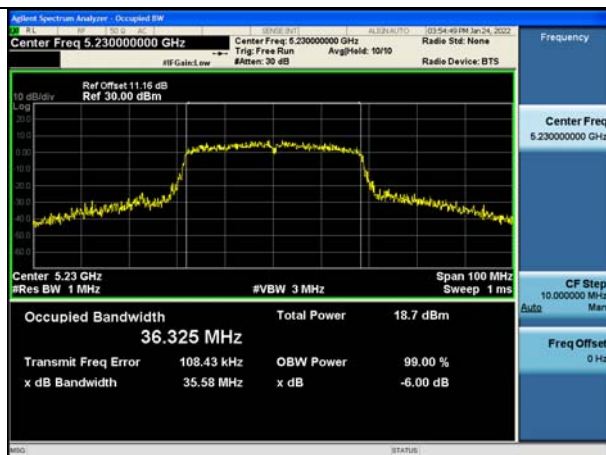
Test Mode:802.11n HT40 5190MHz Chain0



Test Mode:802.11n HT40 5230MHz Chain0

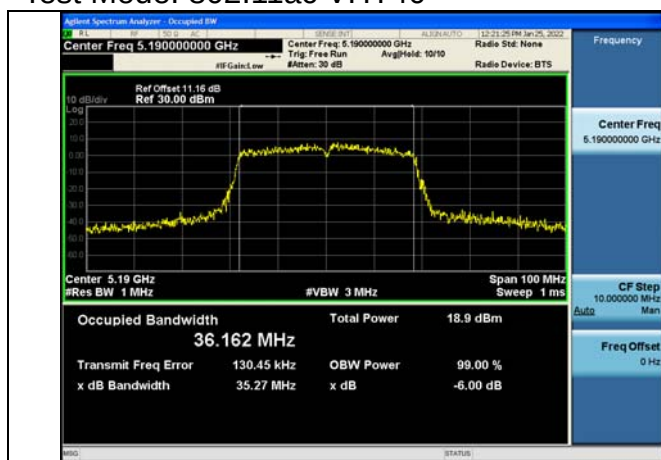


Test Mode:802.11n HT40 5190MHz Chain1



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

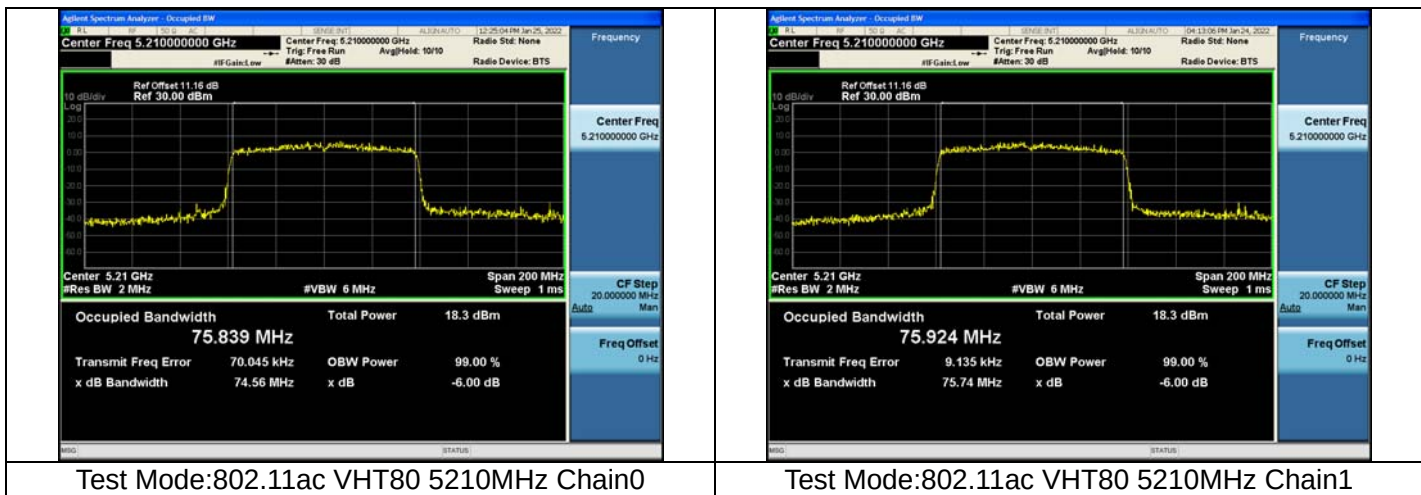


Test Mode:802.11ac VHT40 5190MHz Chain1



Test Mode:802.11ac VHT40 5230MHz Chain1

Test Mode: 802.11ac VHT80



Transmitter Power Spectral Density

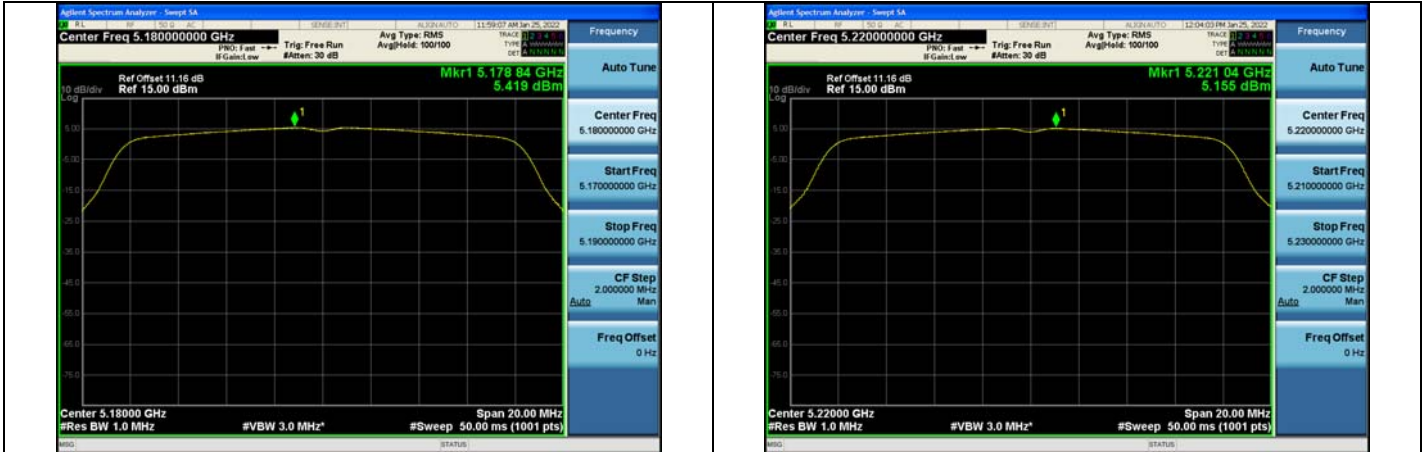
Offset 11.16dB = Attenuator + Temporary antenna connector loss + Cable loss

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	5.419	0	5.155	0	5.173
802.11a	Chain1	0	5.650	0	5.343	0	5.273
802.11n HT20	Chain0	0	5.170	0	4.908	0	5.041
802.11n HT20	Chain1	0	5.268	0	5.013	0	4.930
802.11n HT20	MIMO	0	8.230	0	7.971	0	7.996
802.11a c VHT20	Chain0	0	5.174	0	4.910	0	4.972
802.11a c VHT20	Chain1	0	5.297	0	4.949	0	4.956
802.11a c VHT20	MIMO	0	8.246	0	7.940	0	7.974

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	0.12	2.483	---	---	0.12	2.371
802.11n HT40	Chain1	0.12	2.626	---	---	0.12	2.649
802.11n HT40	MIMO	0.12	5.143	---	---	0.12	5.034
802.11a c VHT40	Chain0	0.12	2.103	---	---	0.12	2.152
802.11a c VHT40	Chain1	0.12	2.133	---	---	0.12	2.006
802.11a c VHT40	MIMO	0.12	5.128	---	---	0.12	5.090

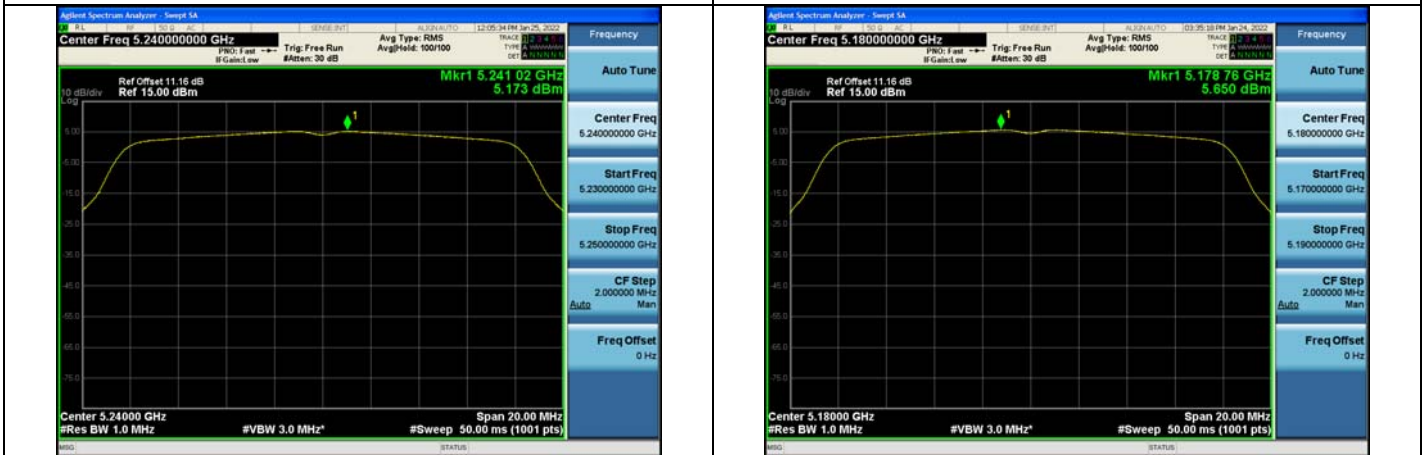
Test Mode	Antenna	5210MHz		---		---	
		Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11a c VHT80	Chain0	0.23	-1.170	---	---	---	---
802.11a c VHT80	Chain1	0.23	-1.315	---	---	---	---
802.11a c VHT80	MIMO	0.23	1.768	---	---	---	---

Test Mode: 802.11a



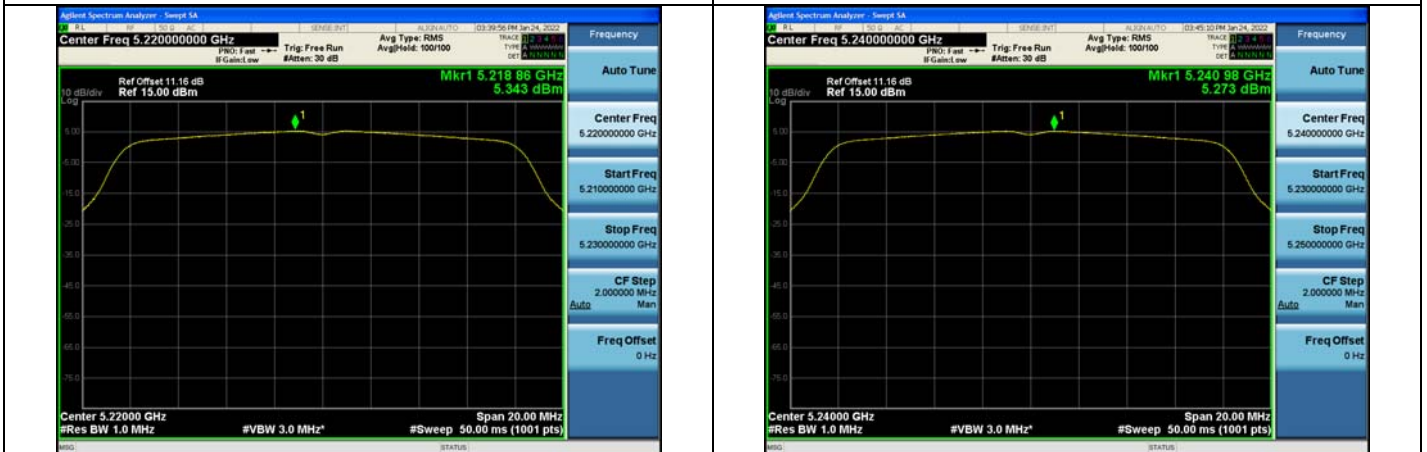
Test Mode:802.11a 5180MHz Chain0

Test Mode:802.11a 5220MHz Chain0



Test Mode:802.11a 5240MHz Chain0

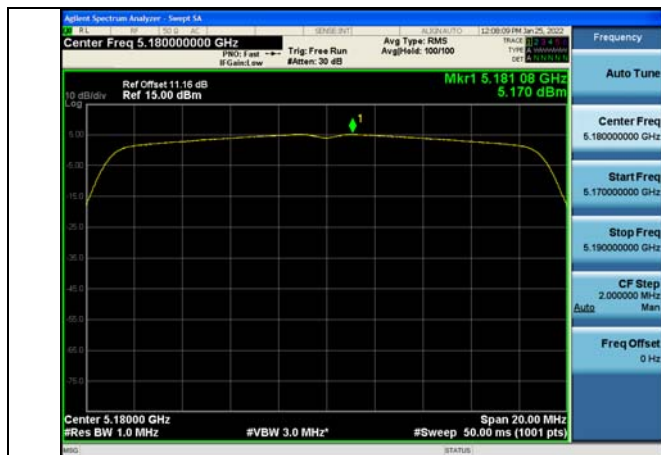
Test Mode:802.11a 5180MHz Chain1



Test Mode:802.11a 5220MHz Chain1

Test Mode:802.11a 5240MHz Chain1

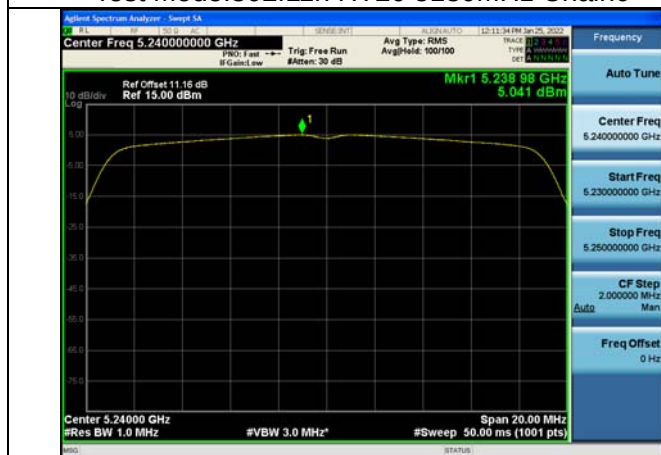
Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5180MHz Chain0



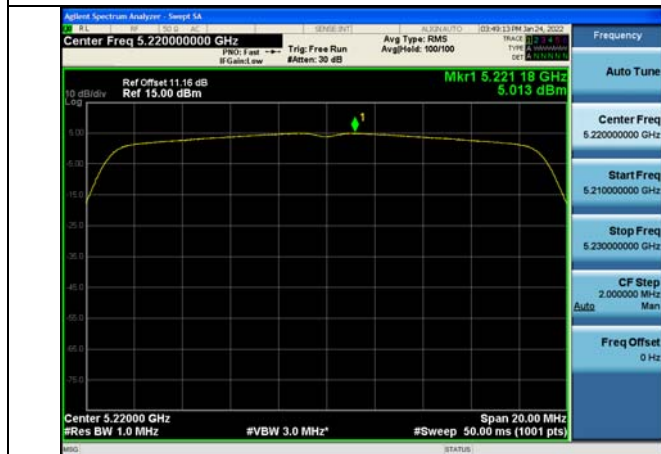
Test Mode:802.11n HT20 5220MHz Chain0



Test Mode:802.11n HT20 5240MHz Chain0



Test Mode:802.11n HT20 5180MHz Chain1

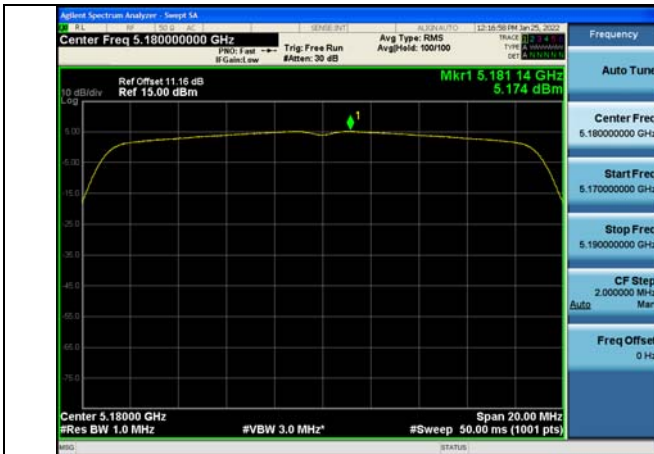


Test Mode:802.11n HT20 5220MHz Chain1



Test Mode:802.11n HT20 5240MHz Chain1

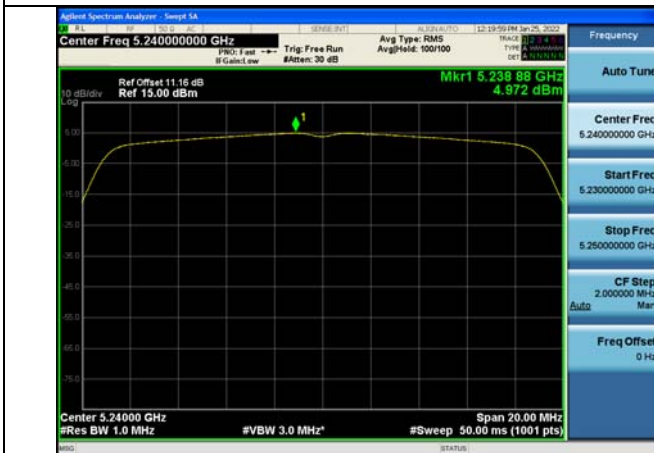
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5180MHz Chain0



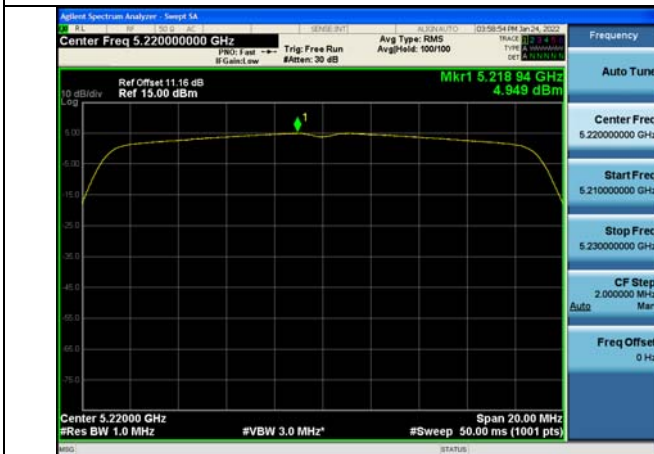
Test Mode:802.11ac VHT20 5220MHz Chain0



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