

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)
802.11a	5180	98.62%	0
802.11a	5180	98.75%	0
802.11n HT20	5180	98.52%	0
802.11n HT20	5180	98.55%	0
802.11ac VHT20	5180	97.32%	0.12
802.11ac VHT20	5180	97.23%	0.12
802.11n HT40	5190	97.16%	0.13
802.11n HT40	5190	97.15%	0.13
802.11ac VHT40	5190	94.96%	0.22
802.11ac VHT40	5190	95.09%	0.22
802.11ac VHT80	5210	91.62%	0.38
802.11ac VHT80	5210	91.61%	0.38

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	15.43	19.50
802.11a	NA	5180	Chain1	16.06	17.56
802.11a	NA	5220	Chain0	15.09	19.16
802.11a	NA	5220	Chain1	15.08	16.58
802.11a	NA	5240	Chain0	15.10	19.17
802.11a	NA	5240	Chain1	15.65	17.15
802.11n HT20	NA	5180	Chain0	14.03	18.10
802.11n HT20	NA	5180	Chain1	14.99	16.49
802.11n HT20	NA	5180	MIMO	17.55	21.62
802.11n HT20	NA	5220	Chain0	13.85	17.92
802.11n HT20	NA	5220	Chain1	14.77	16.27
802.11n HT20	NA	5220	MIMO	17.34	21.41
802.11n HT20	NA	5240	Chain0	13.89	17.96
802.11n HT20	NA	5240	Chain1	14.91	16.41
802.11n HT20	NA	5240	MIMO	17.44	21.51
802.11ac VHT20	NA	5180	Chain0	14.06	18.13
802.11ac VHT20	NA	5180	Chain1	14.55	16.05
802.11ac VHT20	NA	5180	MIMO	17.32	21.39
802.11ac VHT20	NA	5220	Chain0	13.81	17.88
802.11ac VHT20	NA	5220	Chain1	14.57	16.07
802.11ac VHT20	NA	5220	MIMO	17.22	21.29
802.11ac VHT20	NA	5240	Chain0	14.00	18.07
802.11ac VHT20	NA	5240	Chain1	14.56	16.06

802.11ac VHT20	NA	5240	MIMO	17.30	21.37
802.11n HT40	NA	5190	Chain0	14.03	18.10
802.11n HT40	NA	5190	Chain1	14.82	16.32
802.11n HT40	NA	5190	MIMO	17.45	21.52
802.11n HT40	NA	5230	Chain0	13.99	18.06
802.11n HT40	NA	5230	Chain1	14.89	16.39
802.11n HT40	NA	5230	MIMO	17.47	21.54
802.11ac VHT40	NA	5190	Chain0	13.61	17.68
802.11ac VHT40	NA	5190	Chain1	14.39	15.89
802.11ac VHT40	NA	5190	MIMO	17.03	21.10
802.11ac VHT40	NA	5230	Chain0	13.78	17.85
802.11ac VHT40	NA	5230	Chain1	14.47	15.97
802.11ac VHT40	NA	5230	MIMO	17.15	21.22
802.11ac VHT80	NA	5210	Chain0	13.25	17.32
802.11ac VHT80	NA	5210	Chain1	13.99	15.49
802.11ac VHT80	NA	5210	MIMO	16.65	20.72

Emission Bandwidth

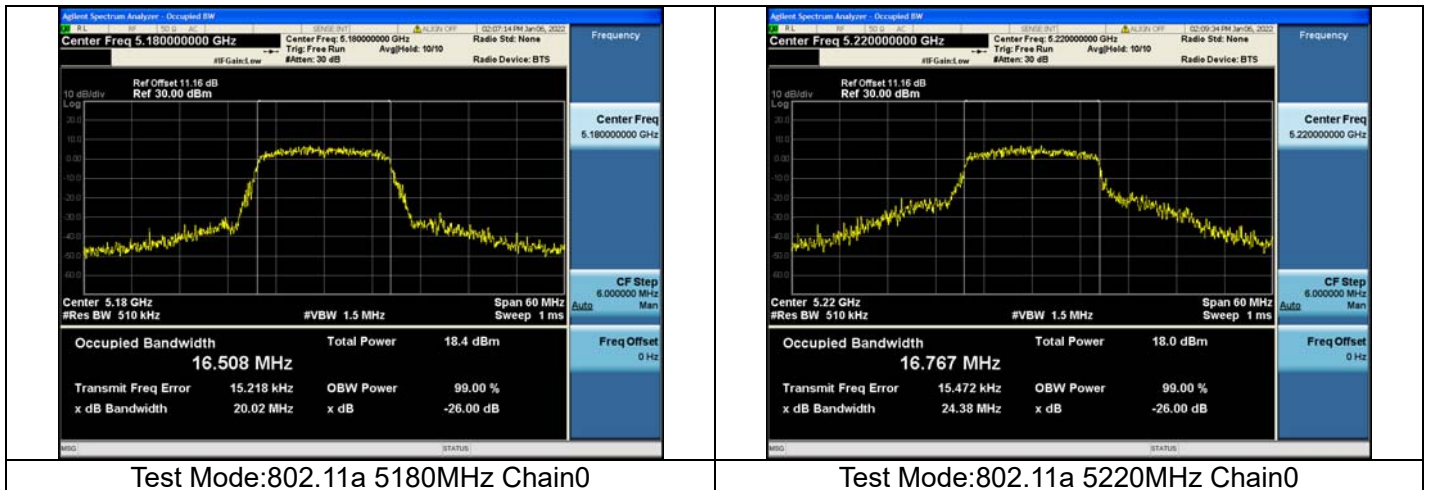
Offset 11.16dB = Attenuator 10 dB+ Temporary antenna connector loss 0.2 dB + Cable loss 0.96 dB

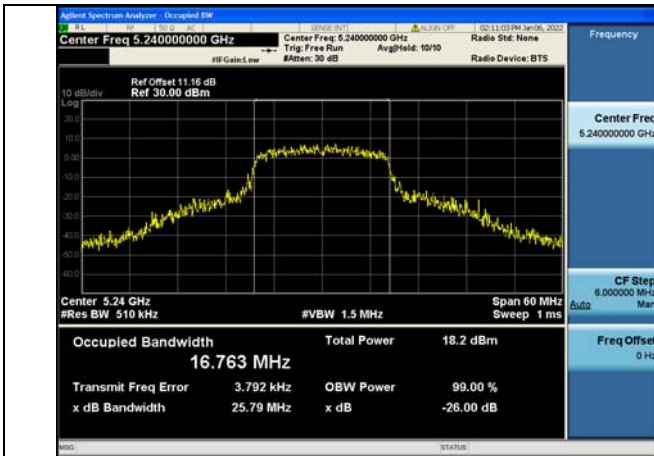
Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.554 5180MHz	Channel No.562 5220MHz	Channel No.566 5240MHz
802.11a	Chain0	20.02	24.38	25.79
802.11a	Chain1	20.14	24.22	20.25
802.11n HT20	Chain0	20.19	20.96	23.00
802.11n HT20	Chain1	20.03	20.47	20.27
802.11ac VHT20	Chain0	20.39	21.03	24.42
802.11ac VHT20	Chain1	20.09	20.09	20.21

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.556 5190MHz	---	Channel No.564 5230MHz
802.11n HT40	Chain0	40.74	---	44.06
802.11n HT40	Chain1	40.63	---	40.45
802.11ac VHT40	Chain0	41.01	---	46.04
802.11ac VHT40	Chain1	40.51	---	39.80

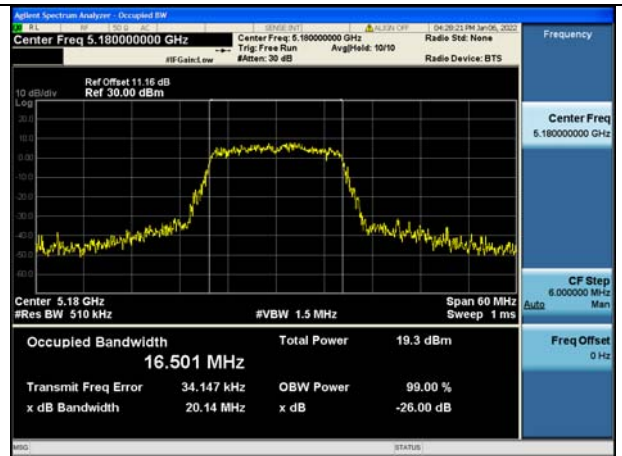
Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.560 5210MHz	---	---
802.11ac VHT80	Chain0	80.85	---	---
802.11ac VHT80	Chain1	81.13	---	---

Test Mode: 802.11a

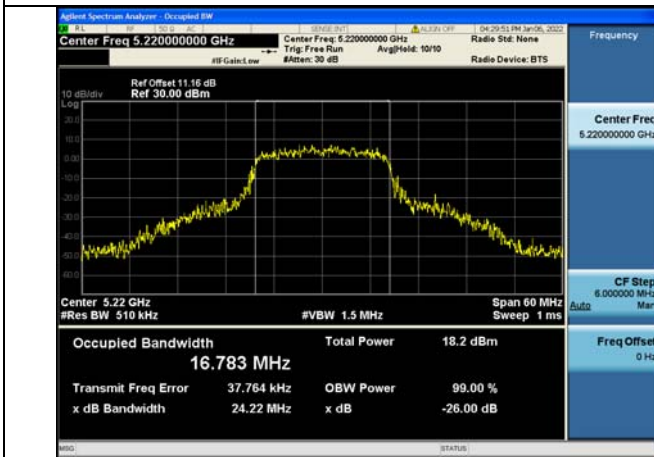




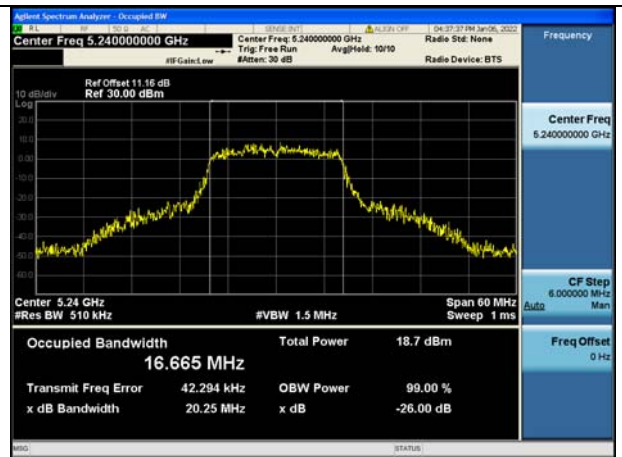
Test Mode:802.11a 5240MHz Chain0



Test Mode:802.11a 5180MHz Chain1

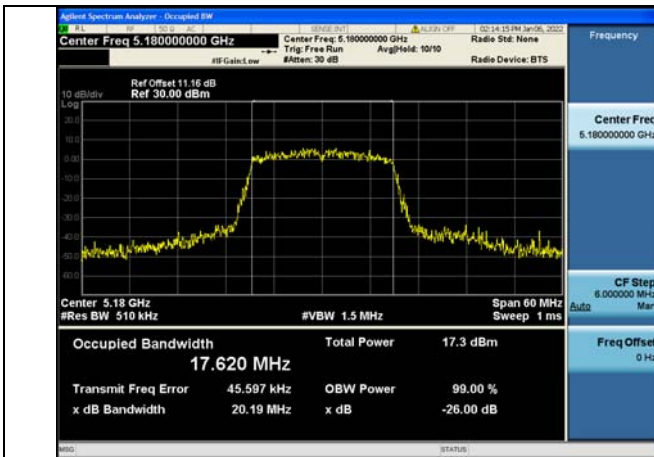


Test Mode:802.11a 5220MHz Chain1

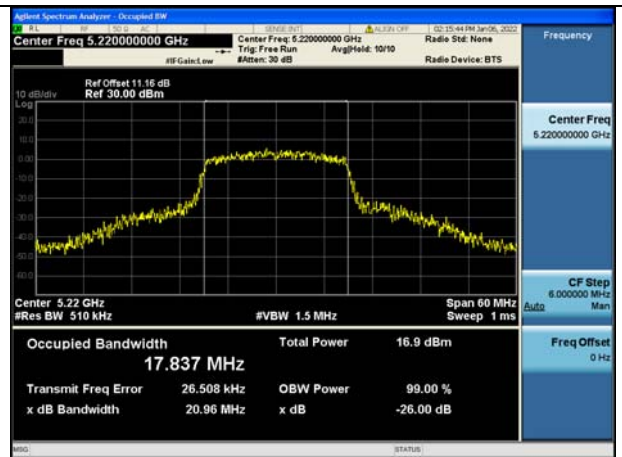


Test Mode:802.11a 5240MHz Chain1

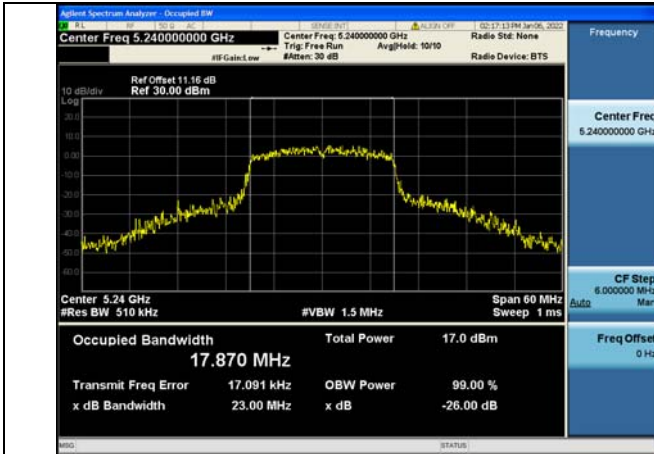
Test Mode: 802.11n HT20



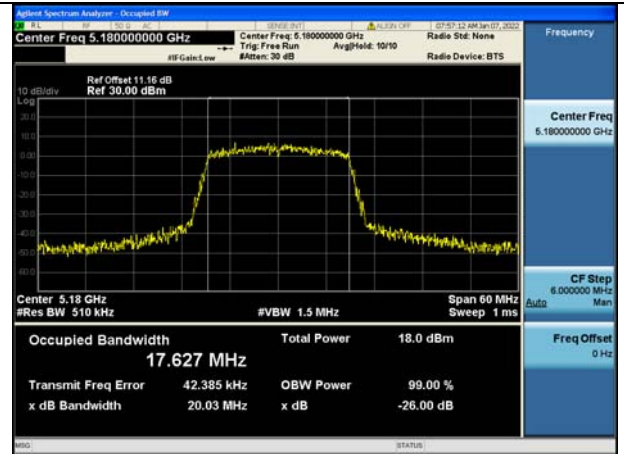
Test Mode:802.11n HT20 5180MHz Chain0



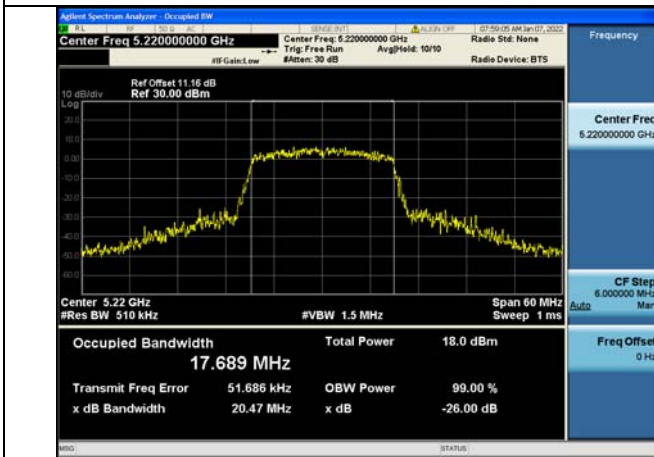
Test Mode:802.11n HT20 5220MHz Chain0



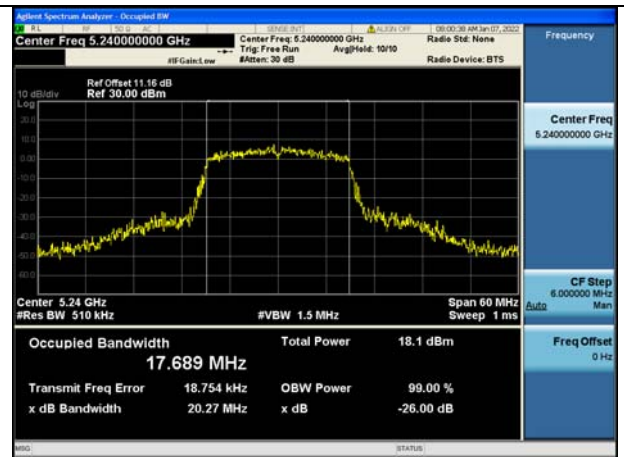
Test Mode:802.11n HT20 5240MHz Chain0



Test Mode:802.11n HT20 5180MHz Chain1

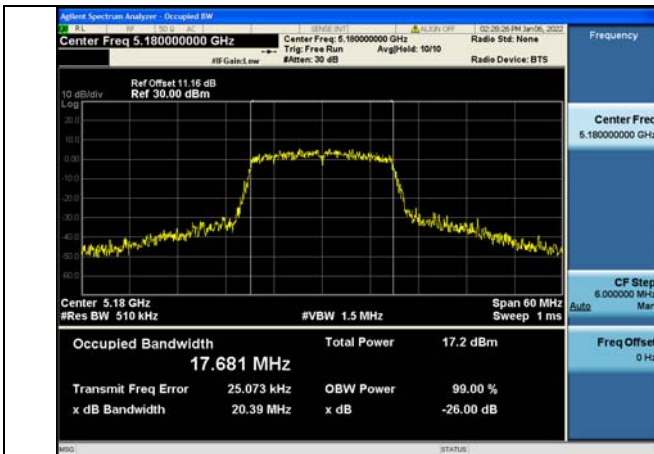


Test Mode:802.11n HT20 5220MHz Chain1

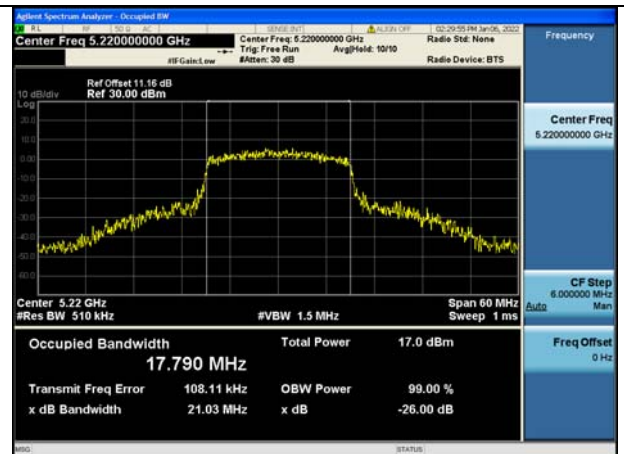


Test Mode:802.11n HT20 5240MHz Chain1

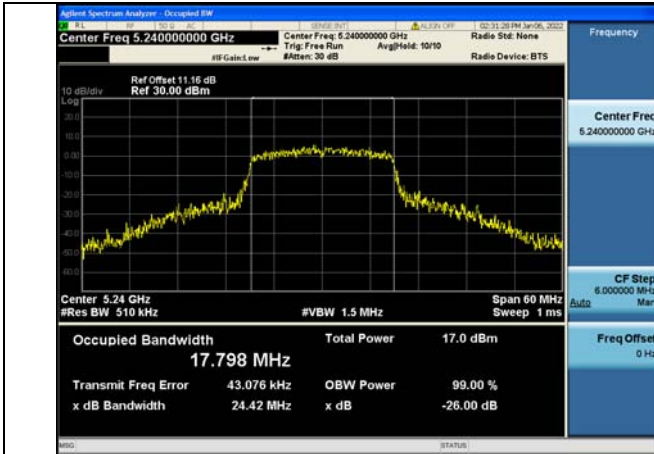
Test Mode: 802.11ac VHT20



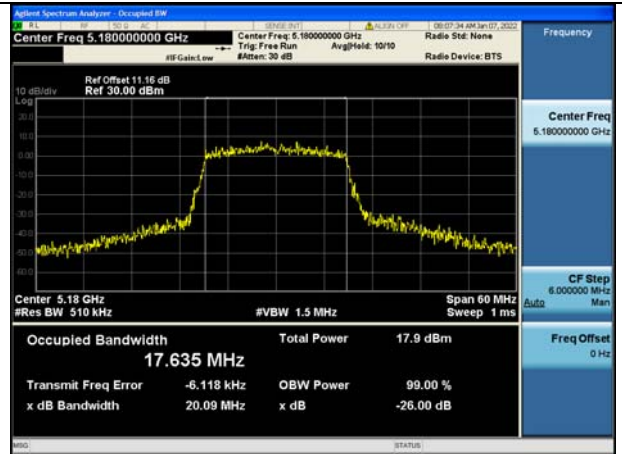
Test Mode:802.11ac VHT20 5180MHz Chain0



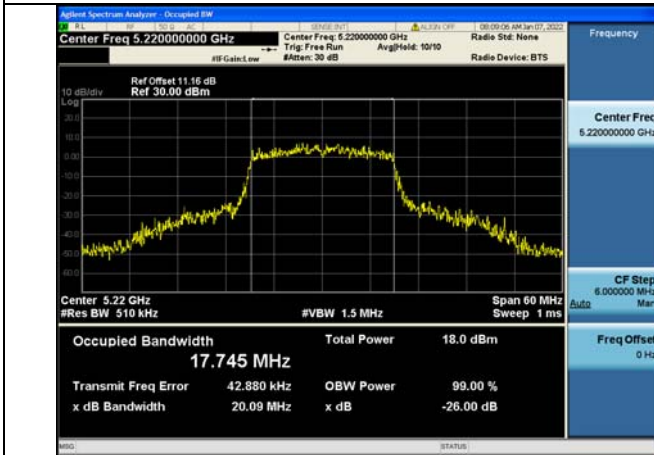
Test Mode:802.11ac VHT20 5220MHz Chain0



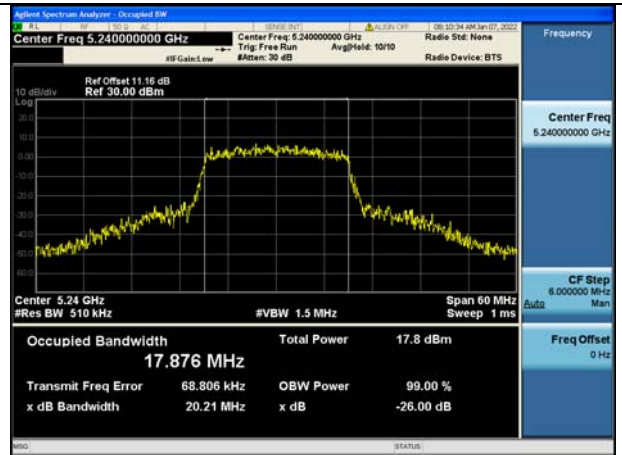
Test Mode:802.11ac VHT20 5240MHz Chain0



Test Mode:802.11ac VHT20 5180MHz Chain1

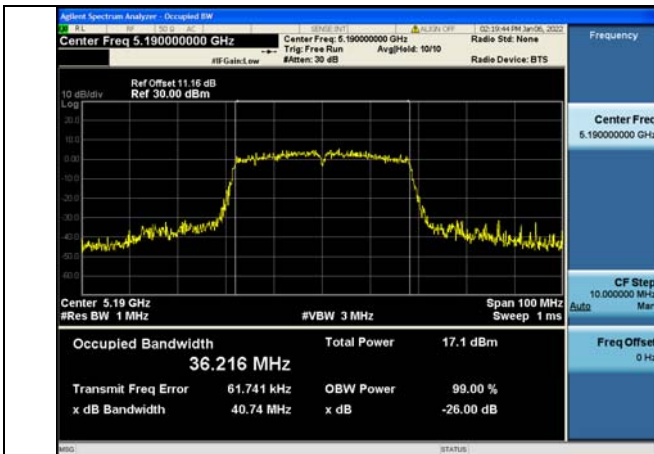


Test Mode:802.11ac VHT20 5220MHz Chain1

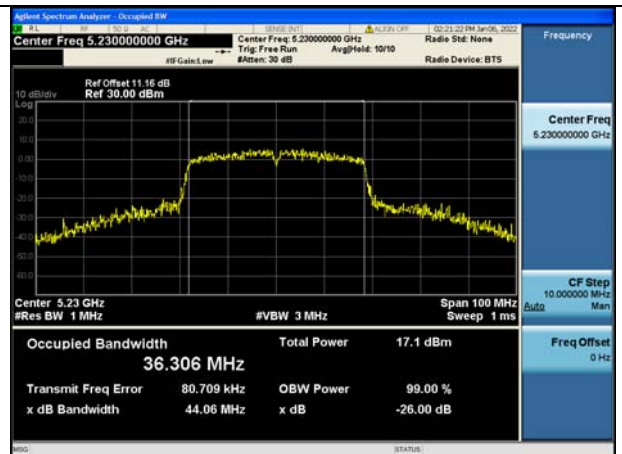


Test Mode:802.11ac VHT20 5240MHz Chain1

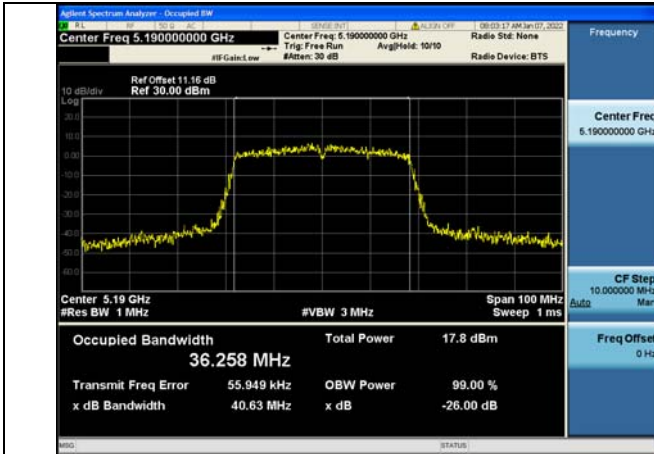
Test Mode: 802.11n HT40



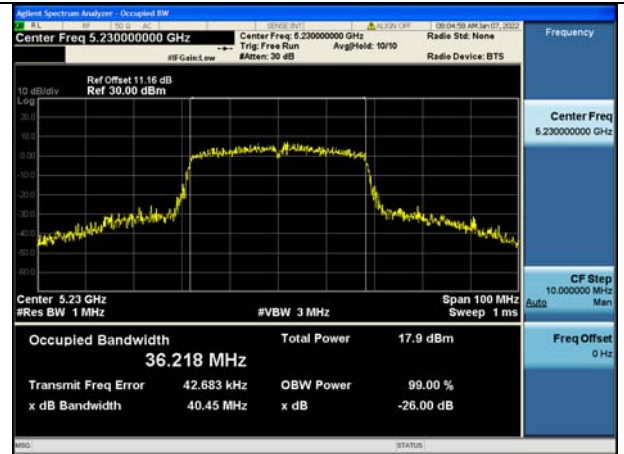
Test Mode:802.11n HT40 5190MHz Chain0



Test Mode:802.11n HT40 5230MHz Chain0

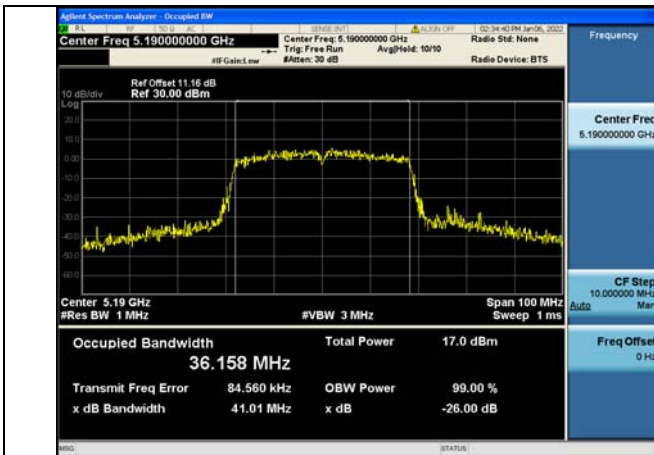


Test Mode:802.11n HT40 5190MHz Chain1

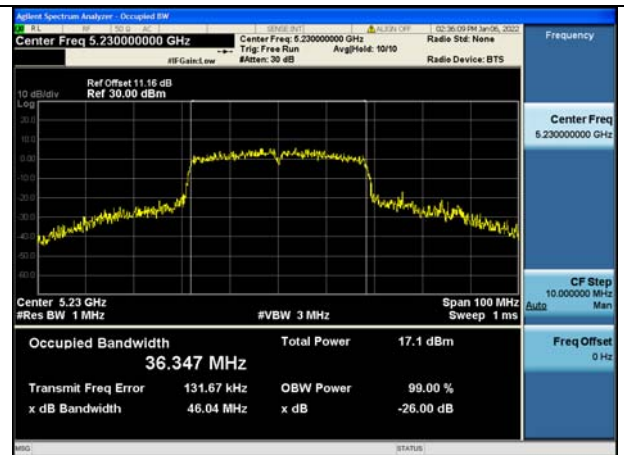


Test Mode:802.11n HT40 5230MHz Chain1

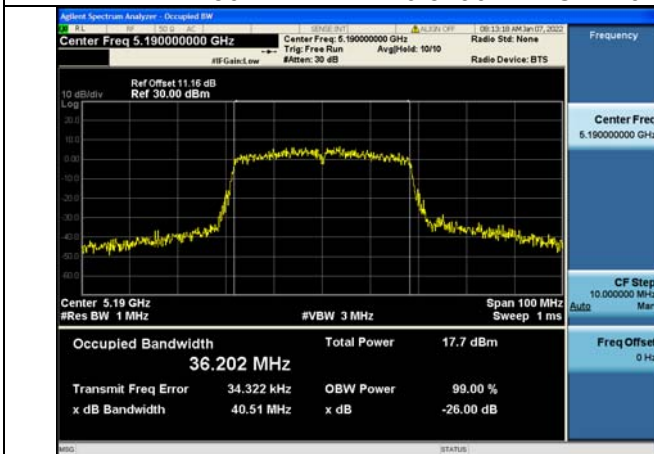
Test Mode: 802.11ac VHT40



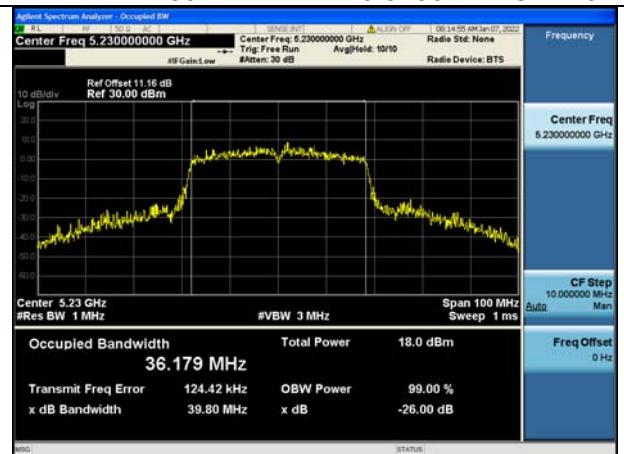
Test Mode:802.11ac VHT40 5190MHz Chain0



Test Mode:802.11ac VHT40 5230MHz Chain0

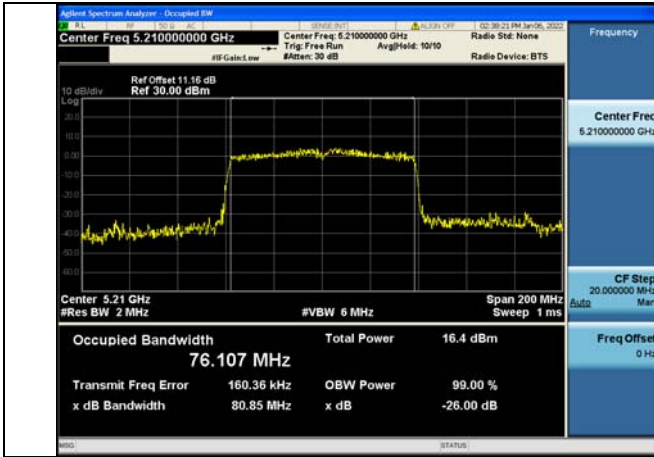


Test Mode:802.11ac VHT40 5190MHz Chain1

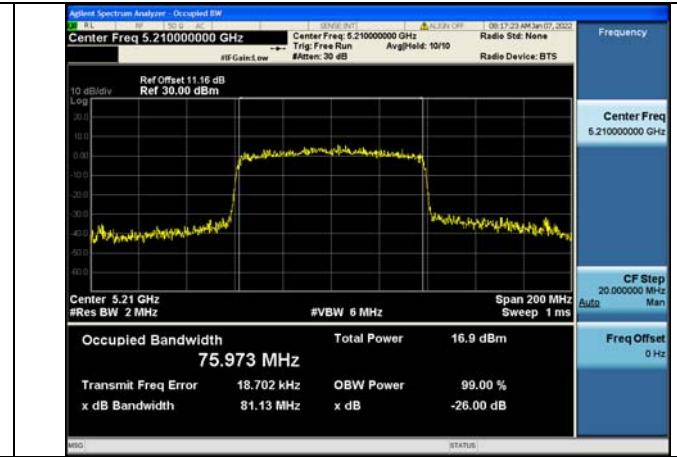


Test Mode:802.11ac VHT40 5230MHz Chain1

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5210MHz Chain0



Test Mode:802.11ac VHT80 5210MHz Chain1

Occupied Bandwidth

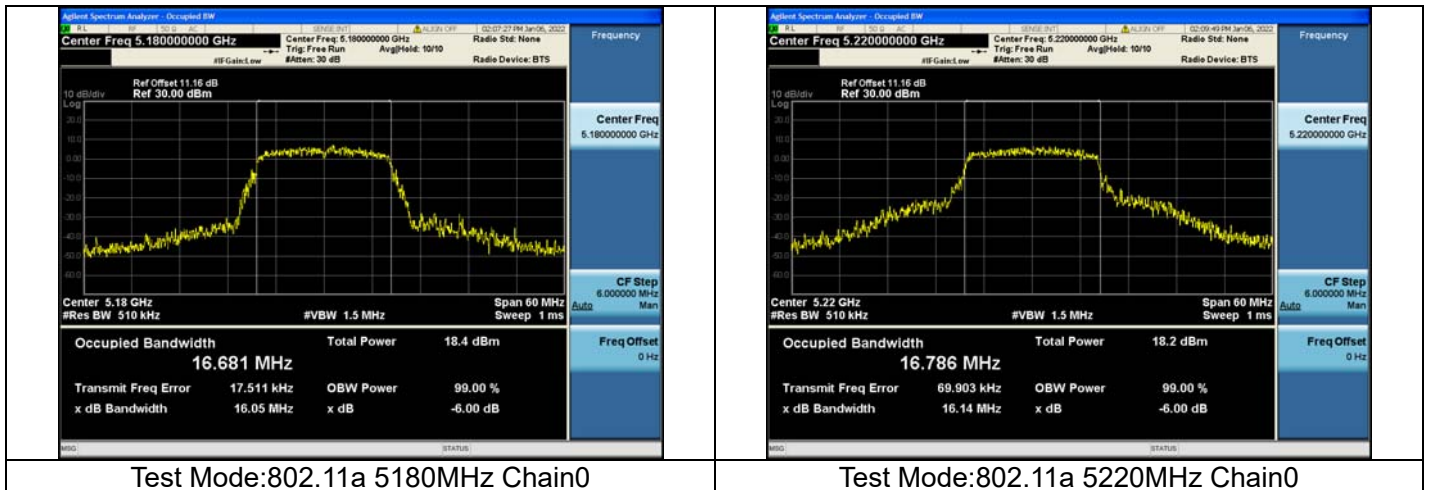
Offset 11.16dB = Attenuator 10 dB+ Temporary antenna connector loss 0.2 dB + Cable loss 0.96 dB

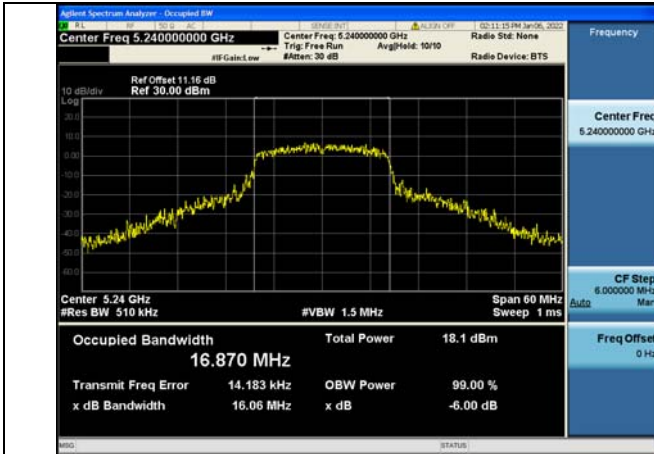
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.554	Channel No.562	Channel No.566
		5180MHz	5220MHz	5240MHz
802.11a	Chain0	16.681	16.786	16.870
802.11a	Chain1	16.665	16.752	16.645
802.11n HT20	Chain0	17.666	17.732	17.778
802.11n HT20	Chain1	17.650	17.672	17.688
802.11ac VHT20	Chain0	17.676	17.858	17.758
802.11ac VHT20	Chain1	17.669	17.829	17.769

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.556	---	Channel No.564
		5190MHz	---	5230MHz
802.11n HT40	Chain0	36.211	---	36.347
802.11n HT40	Chain1	36.061	---	36.251
802.11ac VHT40	Chain0	36.048	---	36.462
802.11ac VHT40	Chain1	36.266	---	36.310

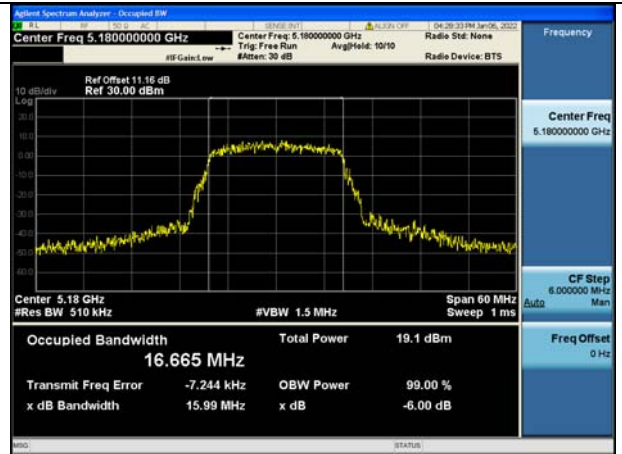
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.560	---	---
		5210MHz	---	---
802.11ac VHT80	Chain0	76.095	---	---
802.11ac VHT80	Chain1	75.836	---	---

Test Mode: 802.11a

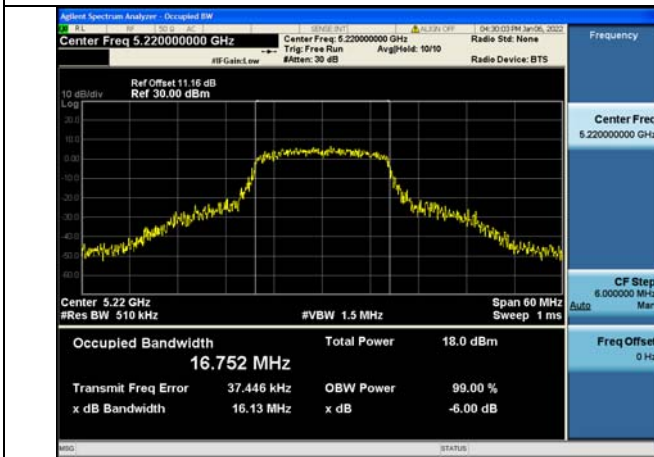




Test Mode:802.11a 5240MHz Chain0



Test Mode:802.11a 5180MHz Chain1

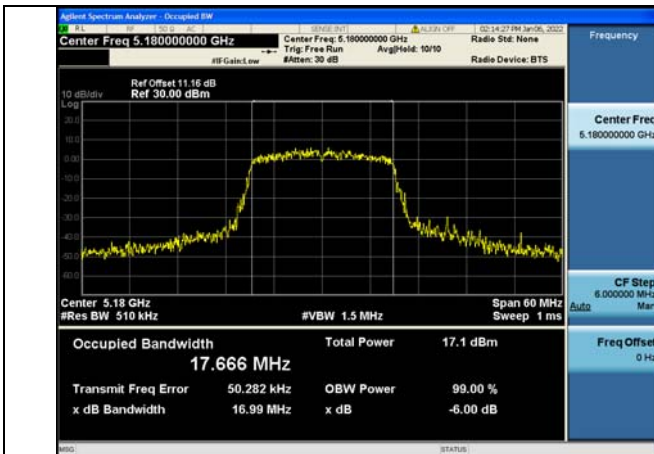


Test Mode:802.11a 5220MHz Chain1

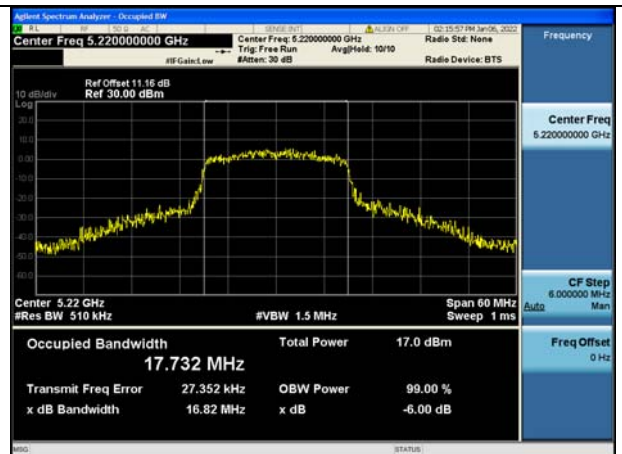


Test Mode:802.11a 5240MHz Chain1

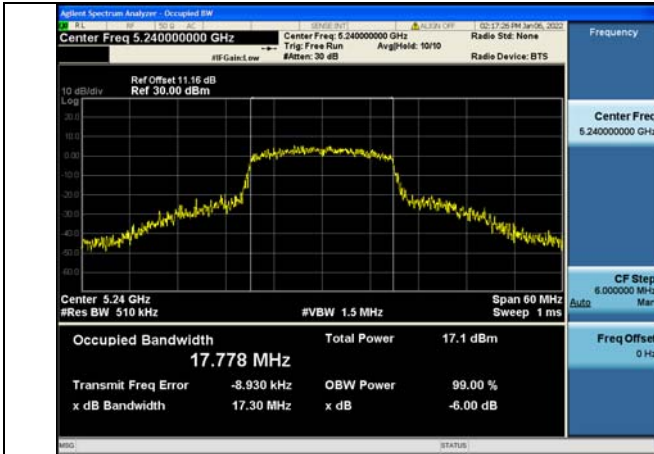
Test Mode: 802.11n HT20



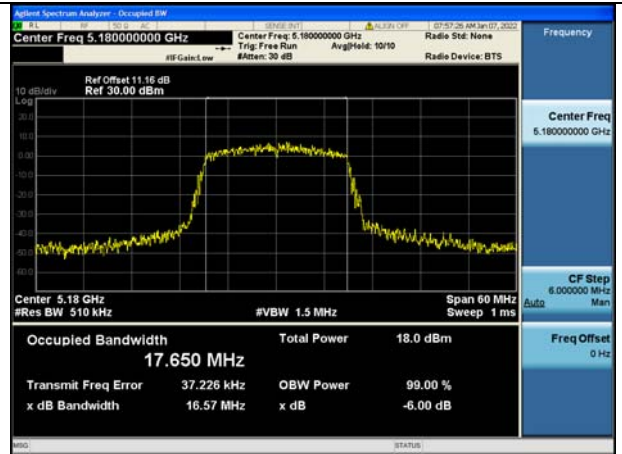
Test Mode:802.11n HT20 5180MHz Chain0



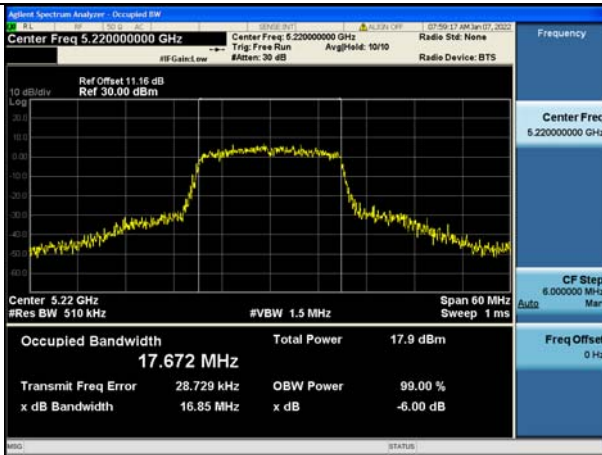
Test Mode:802.11n HT20 5220MHz Chain0



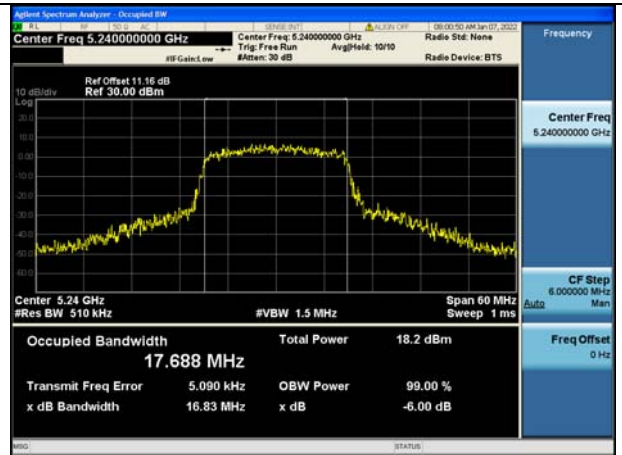
Test Mode:802.11n HT20 5240MHz Chain0



Test Mode:802.11n HT20 5180MHz Chain1

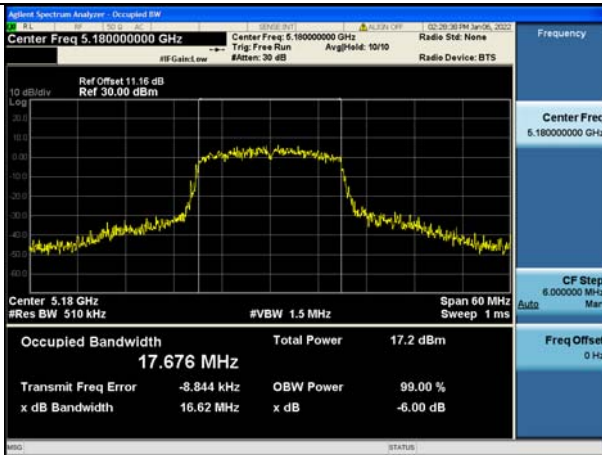


Test Mode:802.11n HT20 5220MHz Chain1

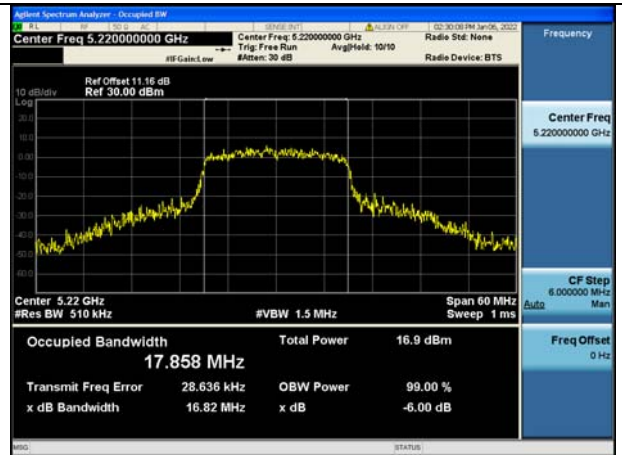


Test Mode:802.11n HT20 5240MHz Chain1

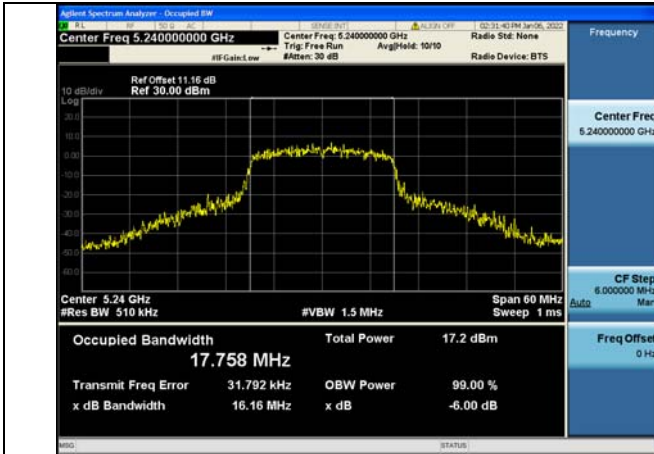
Test Mode: 802.11ac VHT20



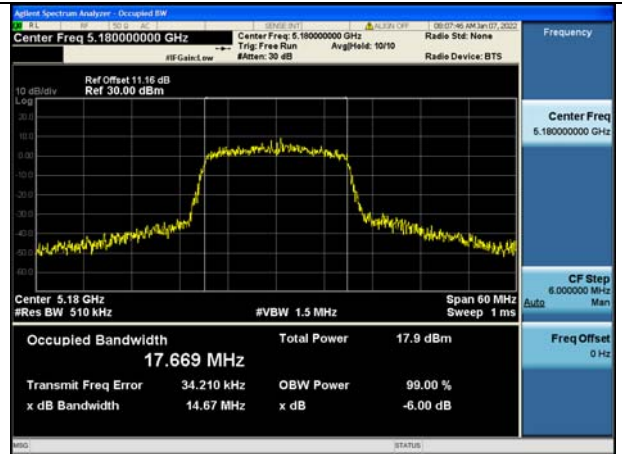
Test Mode:802.11ac VHT20 5180MHz Chain0



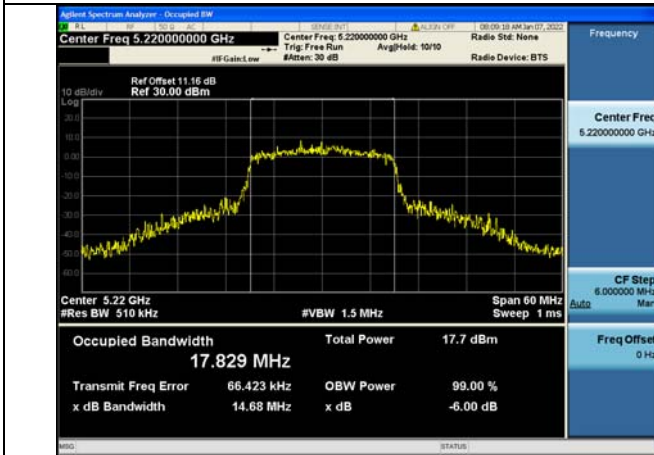
Test Mode:802.11ac VHT20 5220MHz Chain0



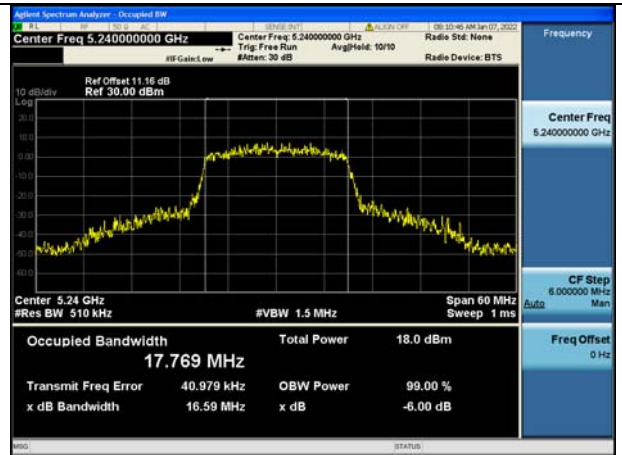
Test Mode:802.11ac VHT20 5240MHz Chain0



Test Mode:802.11ac VHT20 5180MHz Chain1

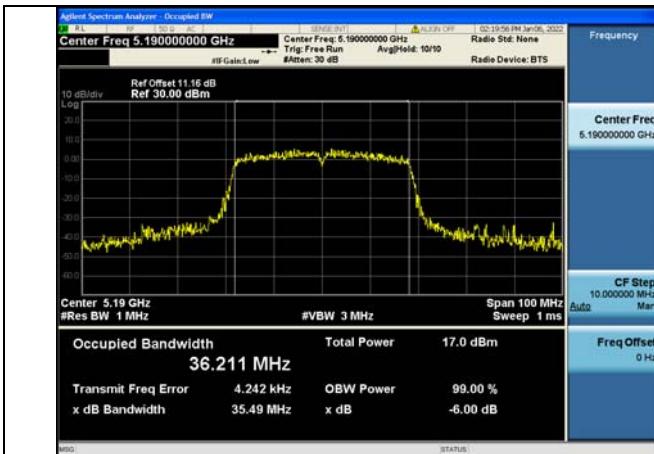


Test Mode:802.11ac VHT20 5220MHz Chain1

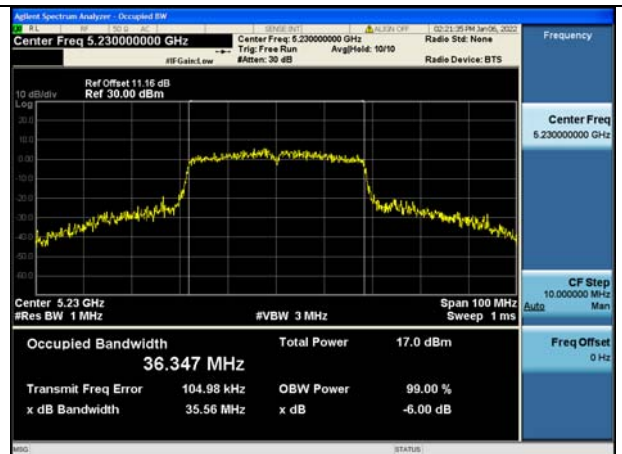


Test Mode:802.11ac VHT20 5240MHz Chain1

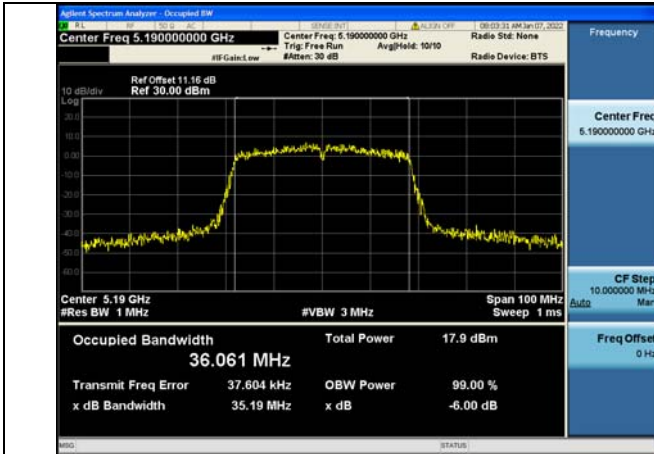
Test Mode: 802.11n HT40



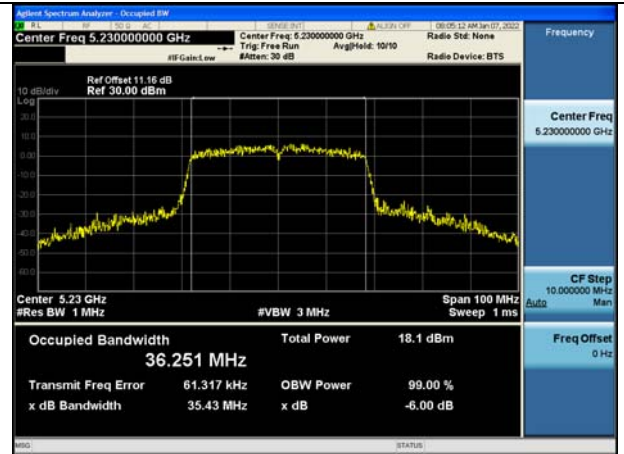
Test Mode:802.11n HT40 5190MHz Chain0



Test Mode:802.11n HT40 5230MHz Chain0



Test Mode:802.11n HT40 5190MHz Chain1

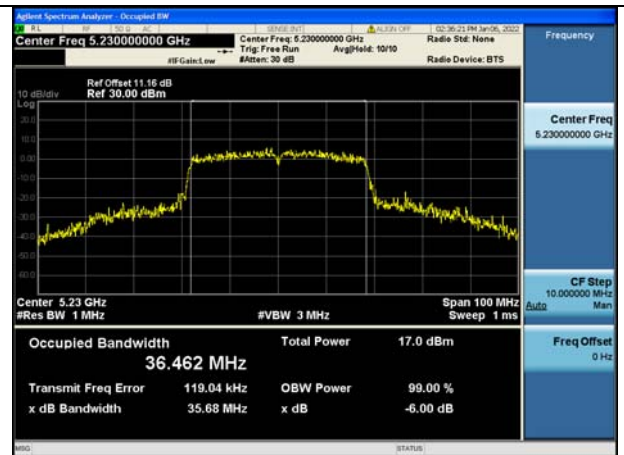


Test Mode:802.11n HT40 5230MHz Chain1

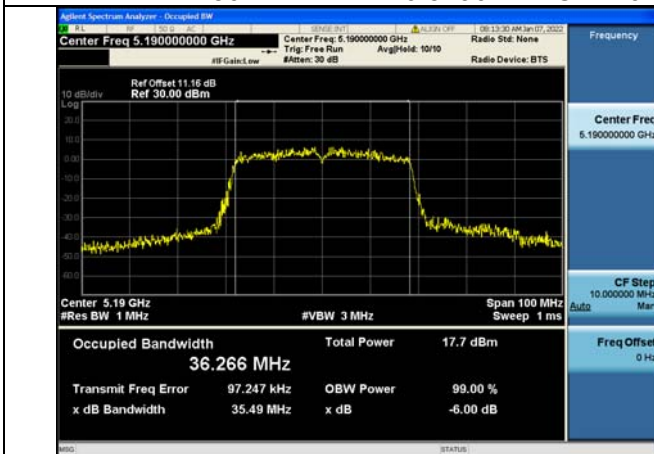
Test Mode: 802.11ac VHT40



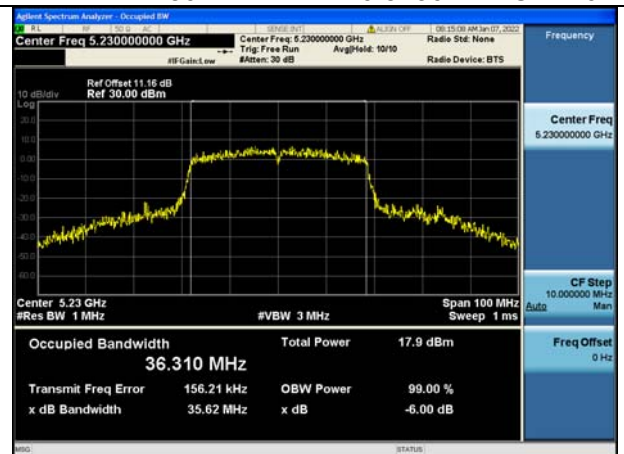
Test Mode:802.11ac VHT40 5190MHz Chain0



Test Mode:802.11ac VHT40 5230MHz Chain0

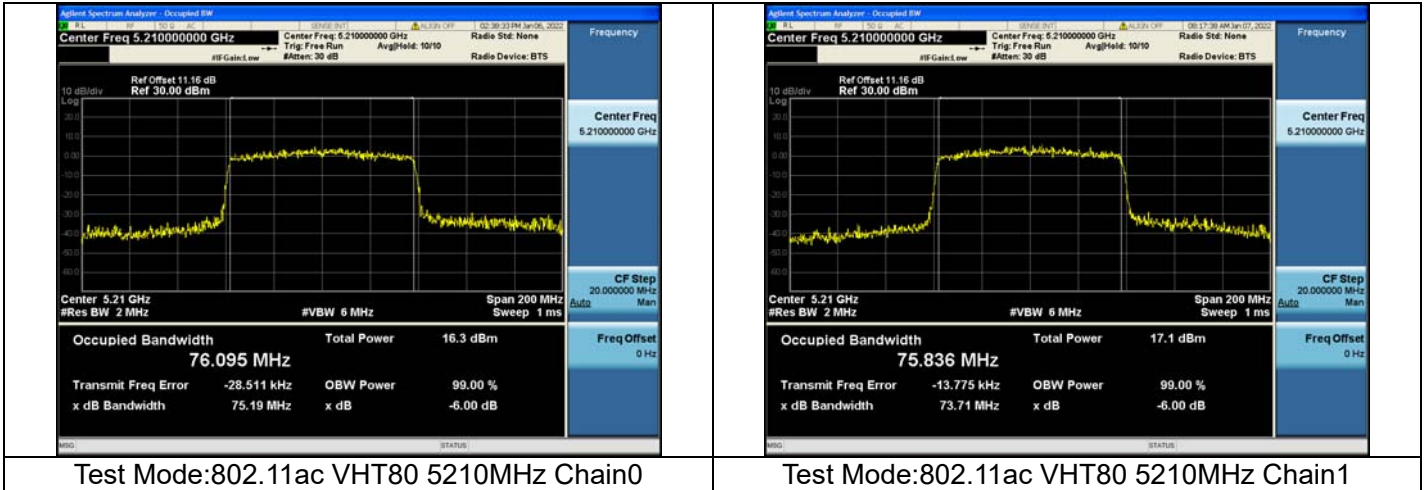


Test Mode:802.11ac VHT40 5190MHz Chain1



Test Mode:802.11ac VHT40 5230MHz Chain1

Test Mode: 802.11ac VHT80



Transmitter Power Spectral Density

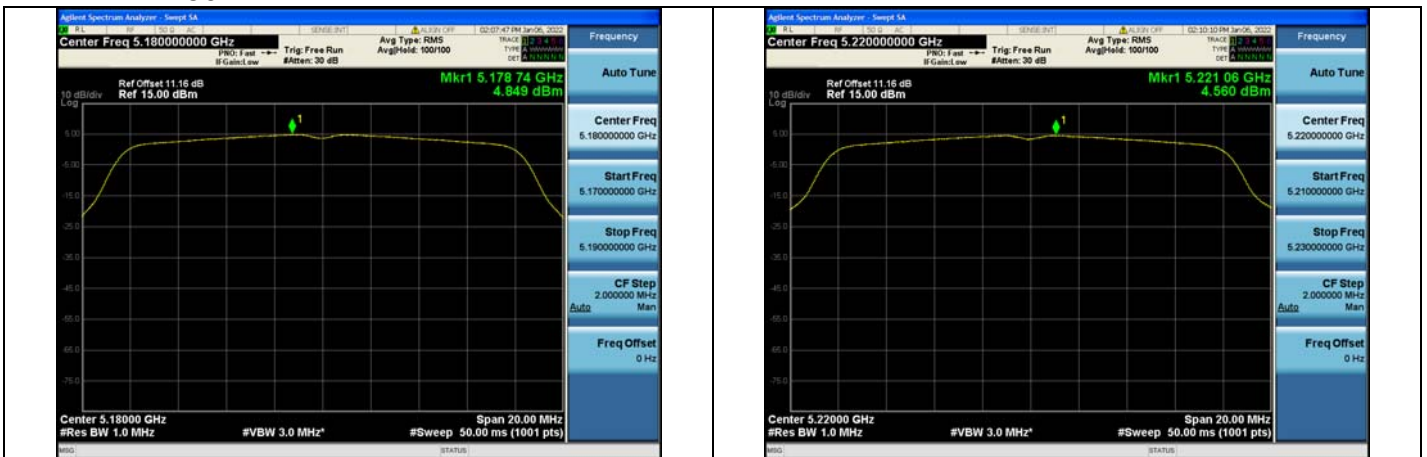
Offset 11.16dB = Attenuator 10 dB+ Temporary antenna connector loss 0.2 dB + Cable loss 0.96 dB

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	4.849	0	4.560	0	4.572
802.11a	Chain1	0	5.389	0	4.425	0	5.123
802.11n HT20	Chain0	0	3.358	0	3.148	0	3.447
802.11n HT20	Chain1	0	4.283	0	4.126	0	4.326
802.11n HT20	MIMO	0	6.855	0	6.675	0	6.919
802.11a c VHT20	Chain0	0.12	3.426	0.12	3.232	0.12	3.347
802.11a c VHT20	Chain1	0.12	3.964	0.12	3.896	0.12	3.967
802.11a c VHT20	MIMO	0.12	6.714	0.12	6.587	0.12	6.678

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	0.13	0.266	---	---	0.13	0.219
802.11n HT40	Chain1	0.13	1.142	---	---	0.13	1.262
802.11n HT40	MIMO	0.13	3.736	---	---	0.13	3.782
802.11a c VHT40	Chain0	0.22	-0.017	---	---	0.22	0.112
802.11a c VHT40	Chain1	0.22	0.815	---	---	0.22	0.920
802.11a c VHT40	MIMO	0.22	3.429	---	---	0.22	3.545

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	0.38	-3.375	---	---	---	---
802.11a c VHT80	Chain1	0.38	-2.473	---	---	---	---
802.11a c VHT80	MIMO	0.38	0.110	---	---	---	---

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

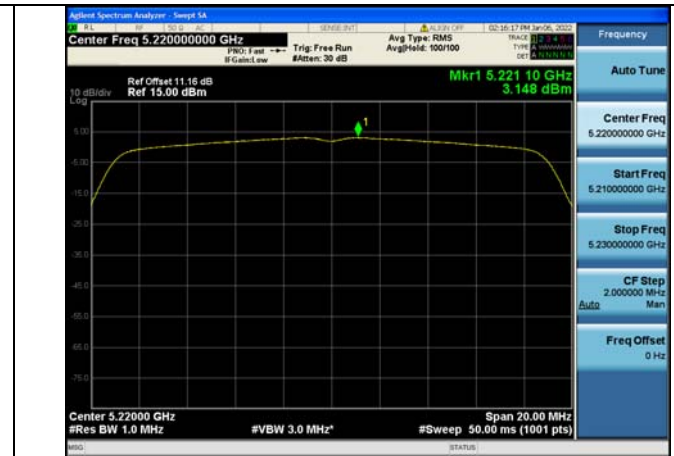


Test Mode:802.11a 5240MHz Chain1

Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5180MHz Chain0



Test Mode:802.11n HT20 5220MHz Chain0



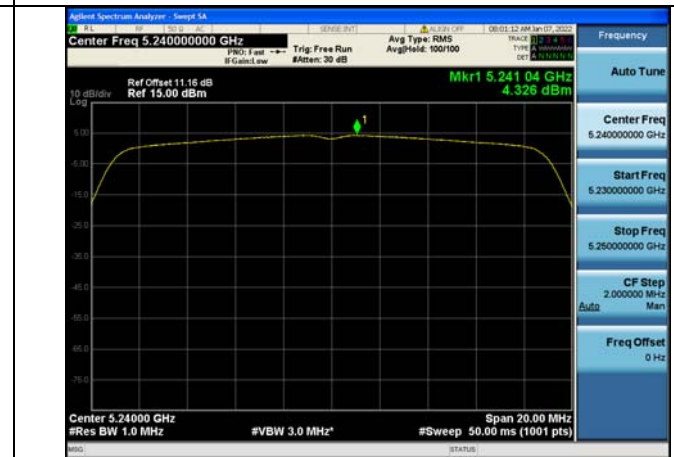
Test Mode:802.11n HT20 5240MHz Chain0



Test Mode:802.11n HT20 5180MHz Chain1

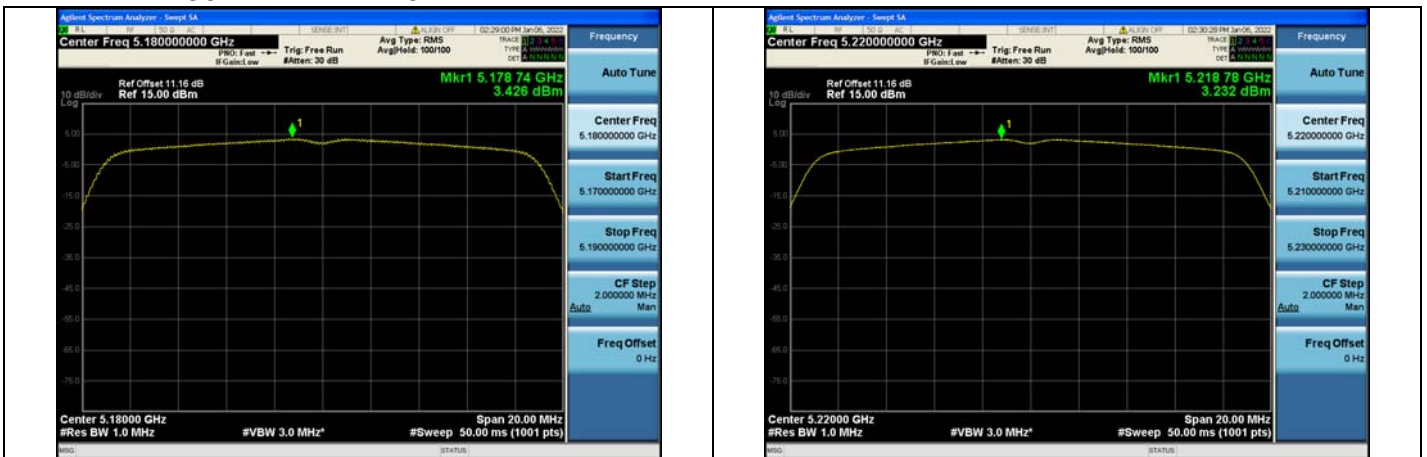


Test Mode:802.11n HT20 5220MHz Chain1



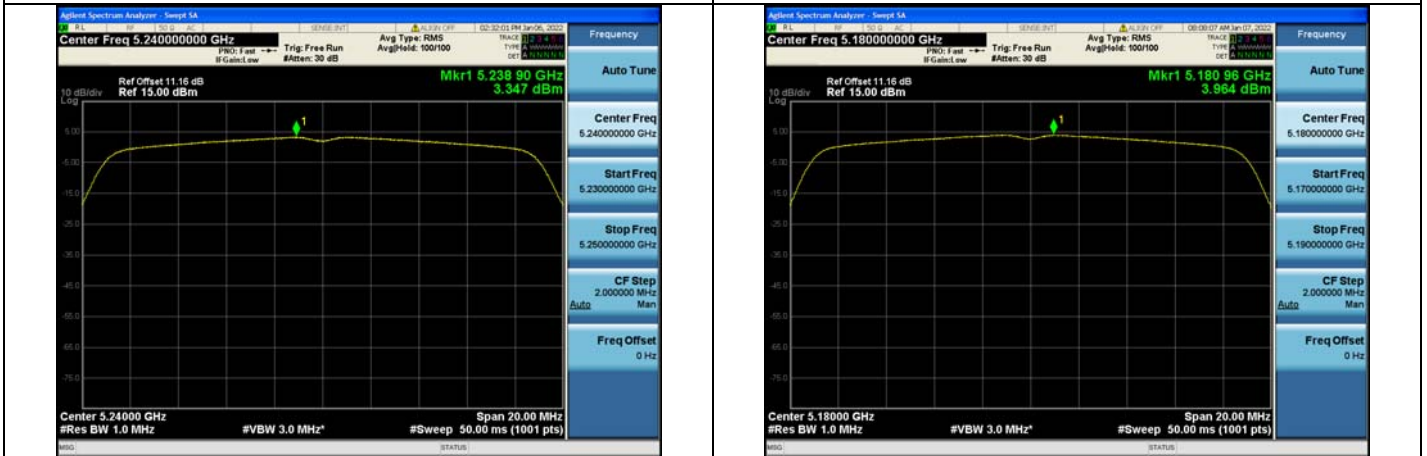
Test Mode:802.11n HT20 5240MHz Chain1

Test Mode: 802.11ac VHT20



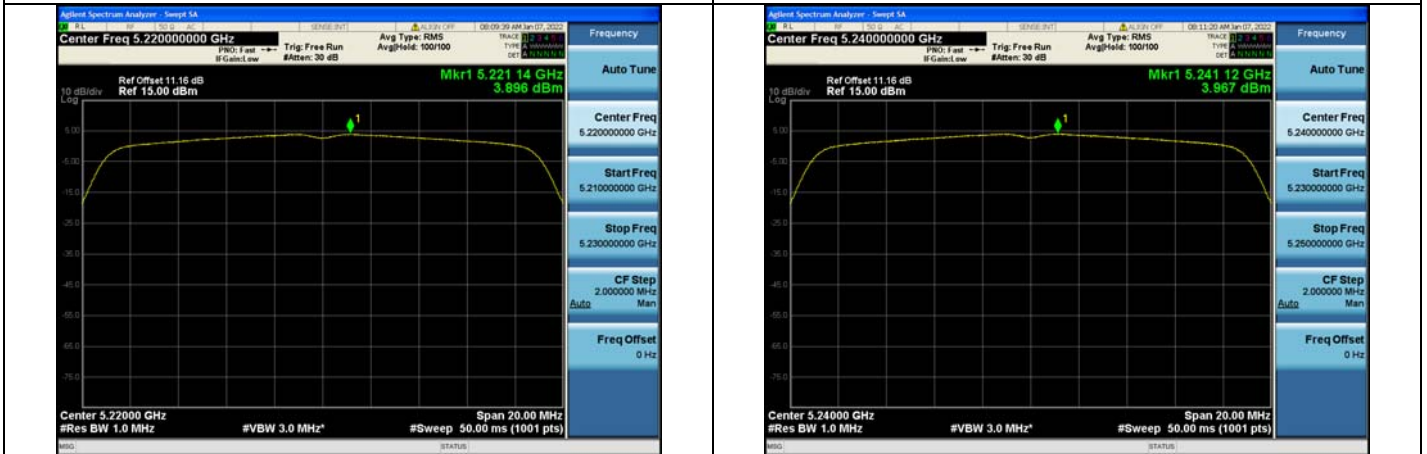
Test Mode:802.11ac VHT20 5180MHz Chain0

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

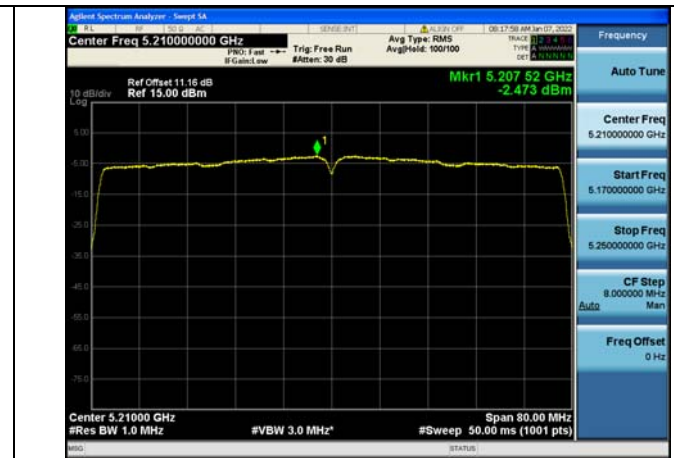


Test Mode:802.11ac VHT40 5230MHz Chain1

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5210MHz Chain0



Test Mode:802.11ac VHT80 5210MHz Chain1