

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Antenna	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)	Plot
802.11a	Chain0	5180	95.28%	0.21	Fig.1
802.11a	Chain1	5180	95.18%	0.21	Fig.2
802.11n HT20	Chain0	5180	95.06%	0.22	Fig.3
802.11n HT20	Chain1	5180	95.33%	0.21	Fig.4
802.11ac VHT20	Chain0	5180	95.21%	0.21	Fig.5
802.11ac VHT20	Chain1	5180	95.30%	0.21	Fig.6
802.11n HT40	Chain0	5190	91.83%	0.37	Fig.7
802.11n HT40	Chain1	5190	91.76%	0.37	Fig.8
802.11ac VHT40	Chain0	5190	91.68%	0.38	Fig.9
802.11ac VHT40	Chain1	5190	91.63%	0.38	Fig.10
802.11ac VHT80	Chain0	5210	86.32%	0.64	Fig.11
802.11ac VHT80	Chain1	5210	86.32%	0.64	Fig.12

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

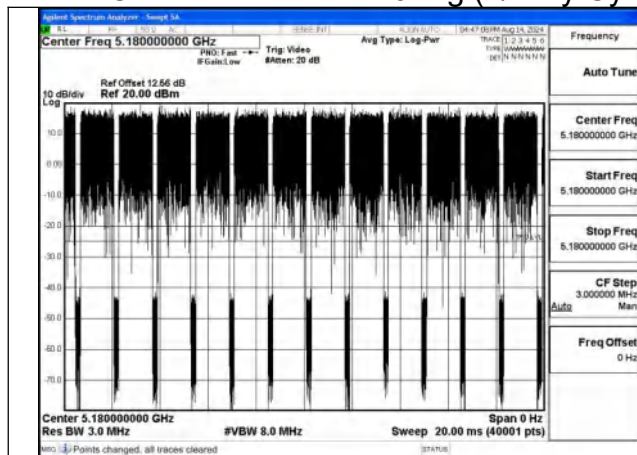


Fig.1

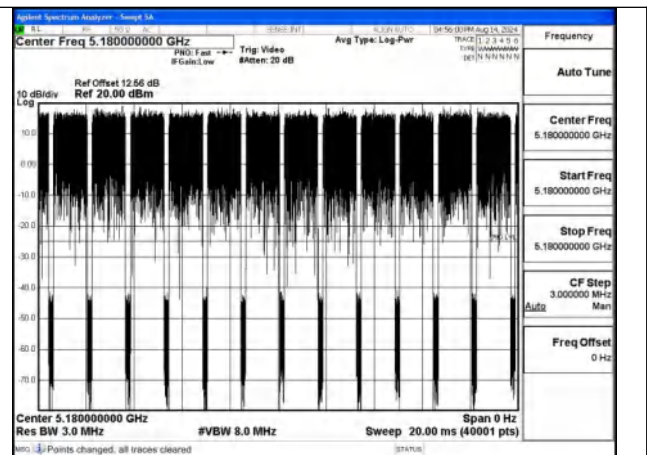


Fig.2

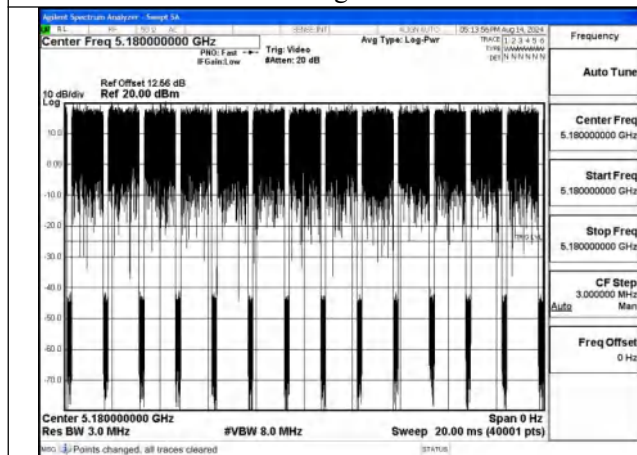


Fig.3

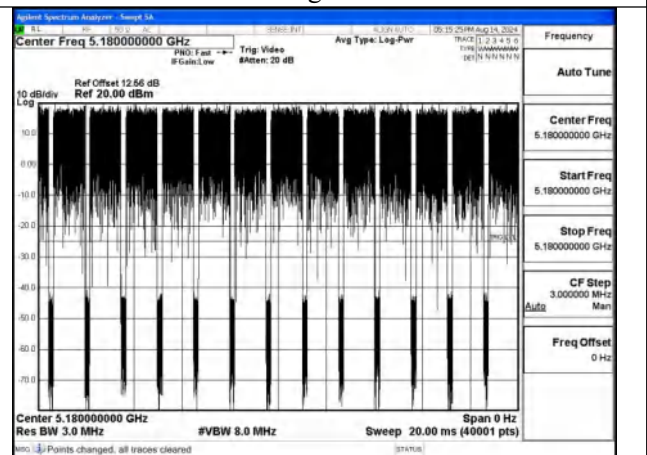


Fig.4

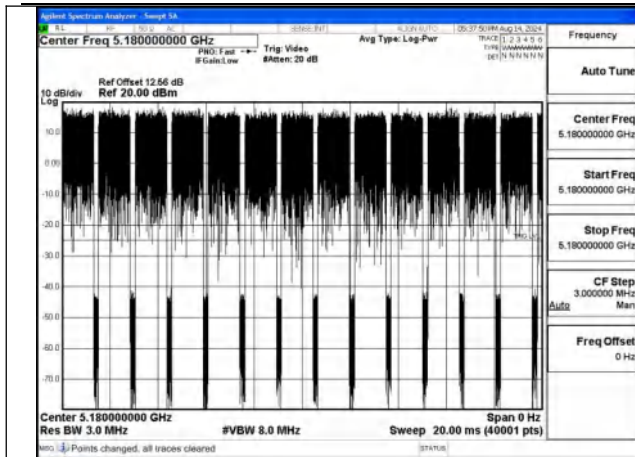


Fig.5

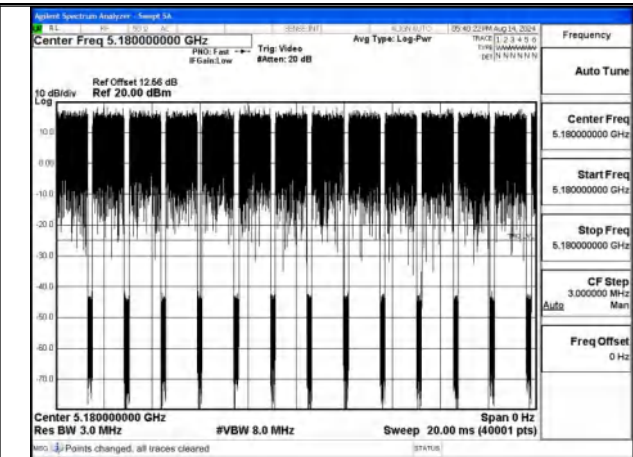


Fig.6

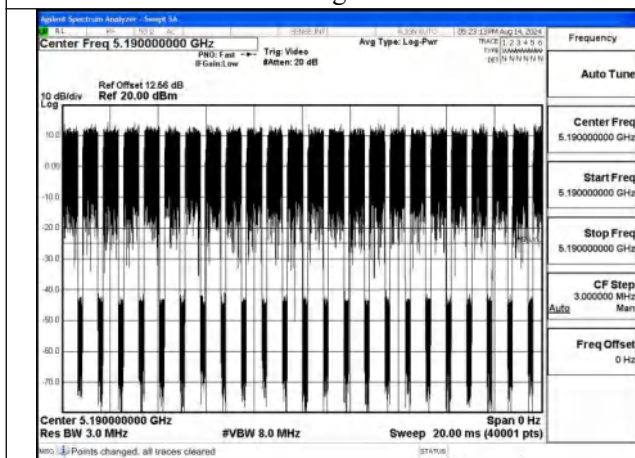


Fig.7

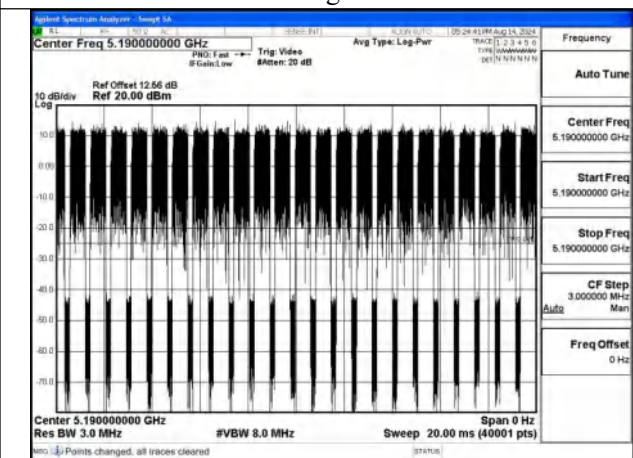


Fig.8

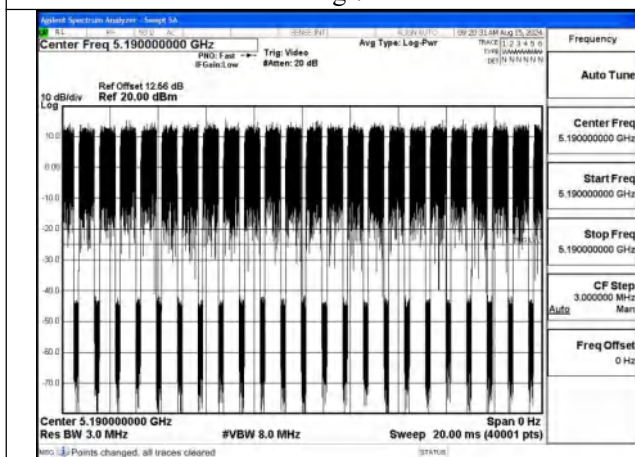


Fig.9

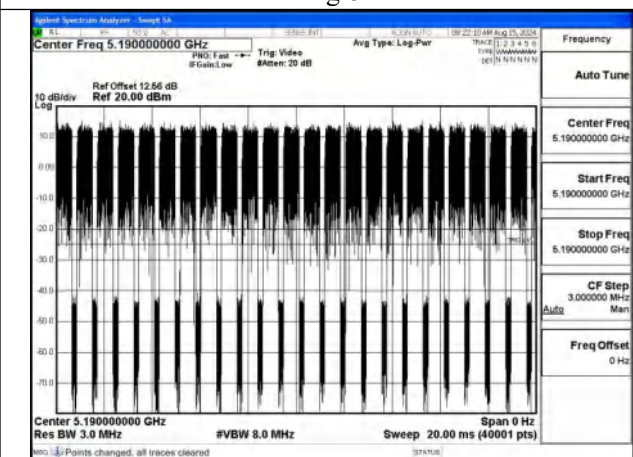


Fig.10

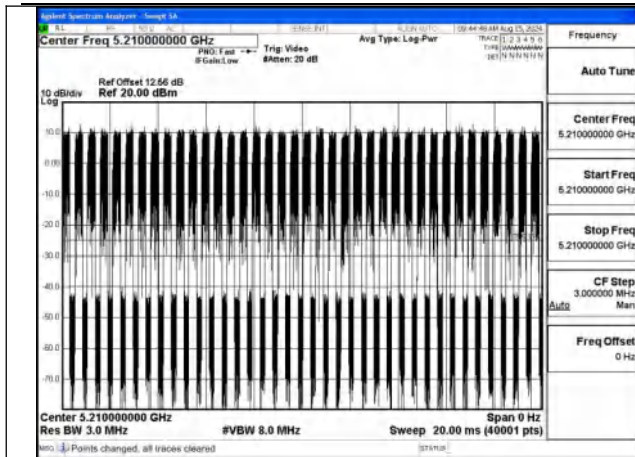


Fig.11

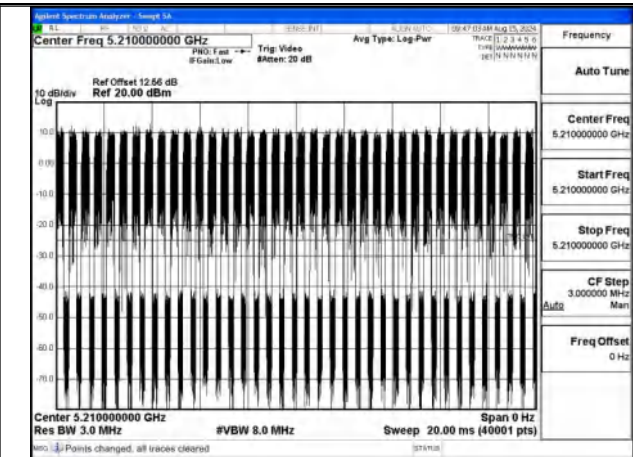


Fig.12

Output Power

Mode	Tones/ RUIndex	Frequency (MHz)	Antenna	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5180	Chain0	14.94	14.35
802.11a	NA	5180	Chain1	14.98	12.24
802.11a	NA	5220	Chain0	14.86	14.27
802.11a	NA	5220	Chain1	14.59	11.85
802.11a	NA	5240	Chain0	14.71	14.12
802.11a	NA	5240	Chain1	14.65	11.91
802.11n HT20	NA	5180	Chain0	14.77	14.18
802.11n HT20	NA	5180	Chain1	14.77	12.03
802.11n HT20	NA	5180	MIMO	17.78	16.25
802.11n HT20	NA	5220	Chain0	15.39	14.80
802.11n HT20	NA	5220	Chain1	15.34	12.60
802.11n HT20	NA	5220	MIMO	18.38	16.85
802.11n HT20	NA	5240	Chain0	15.52	14.93
802.11n HT20	NA	5240	Chain1	15.48	12.74
802.11n HT20	NA	5240	MIMO	18.51	16.98
802.11ac VHT20	NA	5180	Chain0	14.37	13.78
802.11ac VHT20	NA	5180	Chain1	14.74	12.00
802.11ac VHT20	NA	5180	MIMO	17.57	16.04
802.11ac VHT20	NA	5220	Chain0	14.17	13.58
802.11ac VHT20	NA	5220	Chain1	14.07	11.33
802.11ac VHT20	NA	5220	MIMO	17.13	15.60
802.11ac VHT20	NA	5240	Chain0	14.70	14.11
802.11ac VHT20	NA	5240	Chain1	14.67	11.93
802.11ac VHT20	NA	5240	MIMO	17.70	16.17
802.11n HT40	NA	5190	Chain0	13.34	12.75
802.11n HT40	NA	5190	Chain1	13.36	10.62
802.11n HT40	NA	5190	MIMO	16.36	14.83
802.11n HT40	NA	5230	Chain0	14.96	14.37
802.11n HT40	NA	5230	Chain1	14.93	12.19
802.11n HT40	NA	5230	MIMO	17.96	16.43
802.11ac VHT40	NA	5190	Chain0	14.48	13.89
802.11ac VHT40	NA	5190	Chain1	14.43	11.69
802.11ac VHT40	NA	5190	MIMO	17.47	15.94
802.11ac VHT40	NA	5230	Chain0	14.32	13.73
802.11ac VHT40	NA	5230	Chain1	14.28	11.54
802.11ac VHT40	NA	5230	MIMO	17.31	15.78
802.11ac VHT80	NA	5210	Chain0	13.98	13.39
802.11ac VHT80	NA	5210	Chain1	13.95	11.21
802.11ac VHT80	NA	5210	MIMO	16.98	15.45

Emission Bandwidth

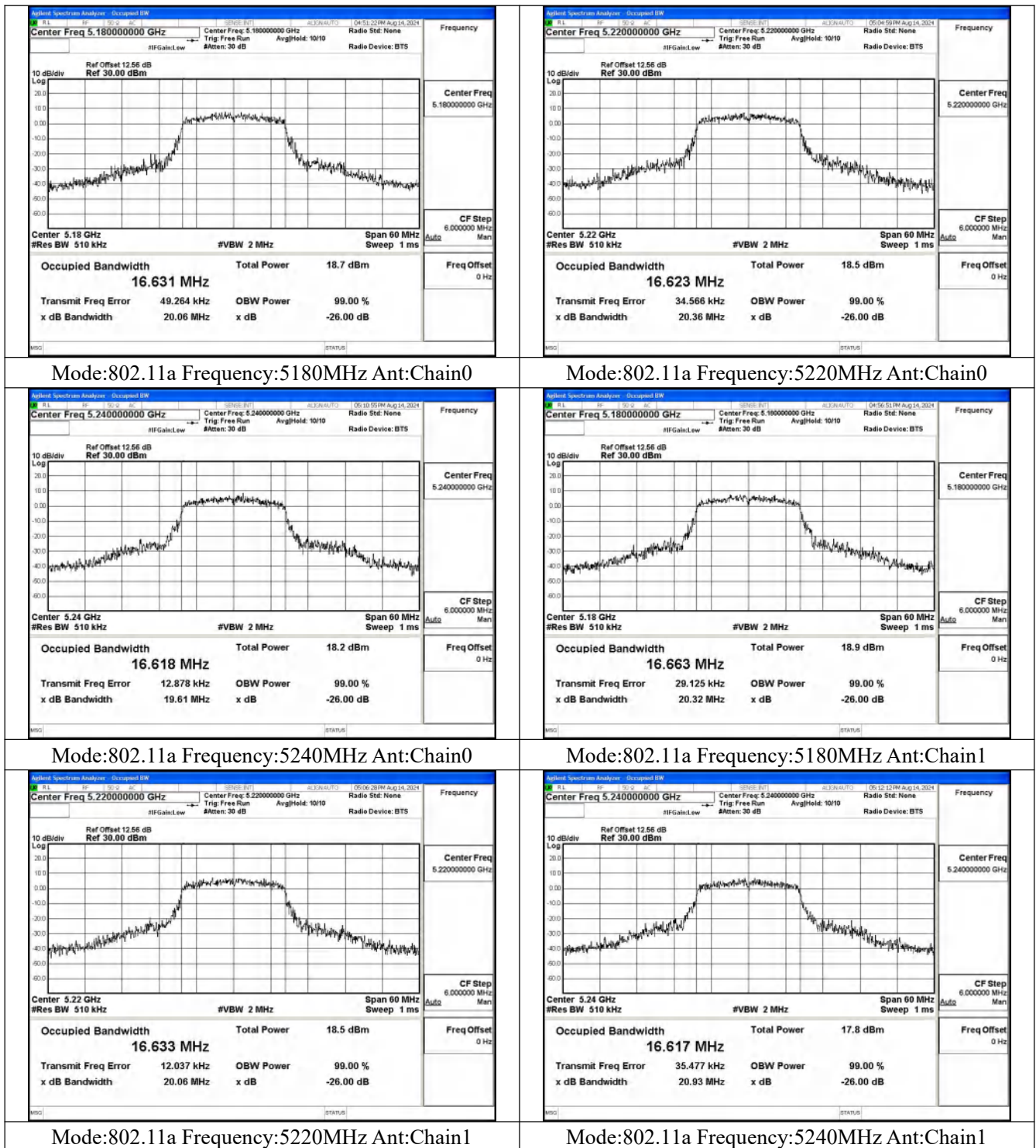
Offset 12.56dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5180MHz	5220MHz	5240MHz
802.11a	Chain0	20.06	20.36	19.61
802.11a	Chain1	20.32	20.06	20.93
802.11n HT20	Chain0	27.02	26.91	29.33
802.11n HT20	Chain1	29.59	24.01	28.29
802.11ac VHT20	Chain0	20.23	20.73	21.06
802.11ac VHT20	Chain1	20.69	20.68	21.12

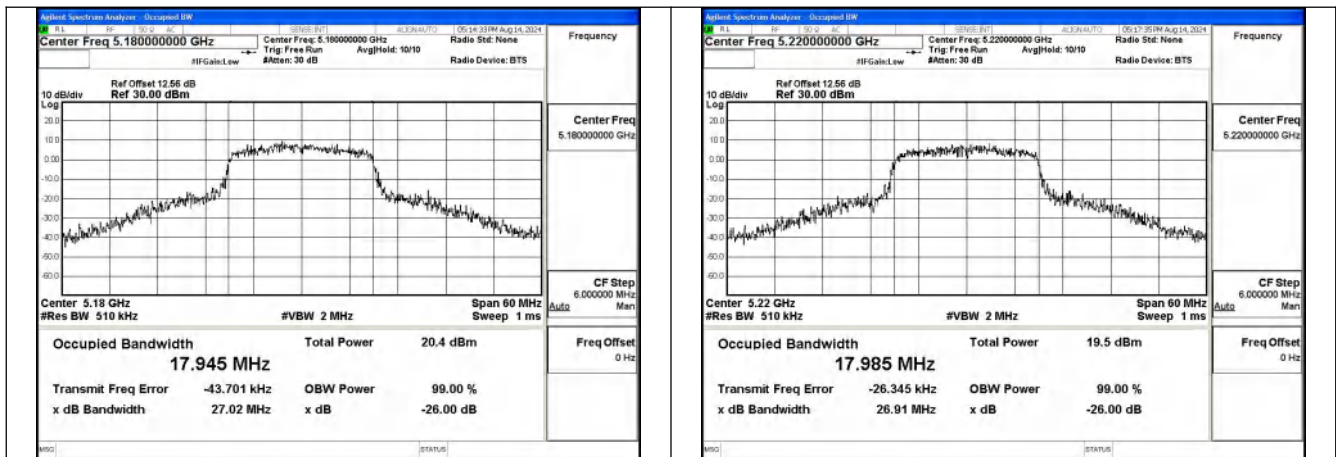
Test Mode	Antenna	26dB Bandwidth (MHz)		
		5190MHz	---	5230MHz
802.11n HT40	Chain0	40.30	---	41.38
802.11n HT40	Chain1	40.12	---	40.60
802.11ac VHT40	Chain0	40.90	---	49.06
802.11ac VHT40	Chain1	41.02	---	40.84

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5210MHz	---	---
802.11ac VHT80	Chain0	89.55	---	---
802.11ac VHT80	Chain1	85.89	---	---

Test Mode: 802.11a

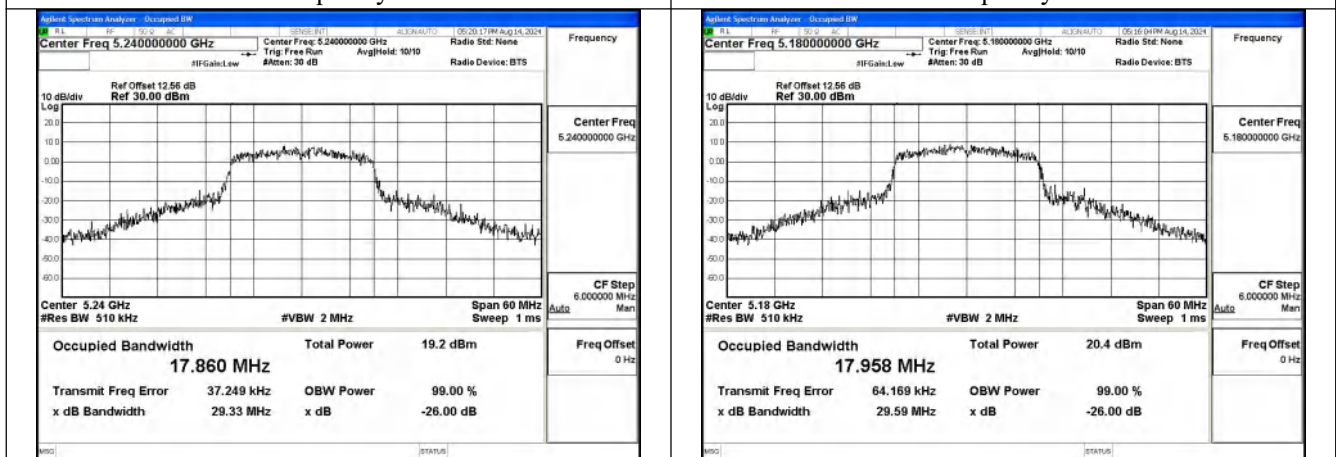


Test Mode: 802.11n HT20



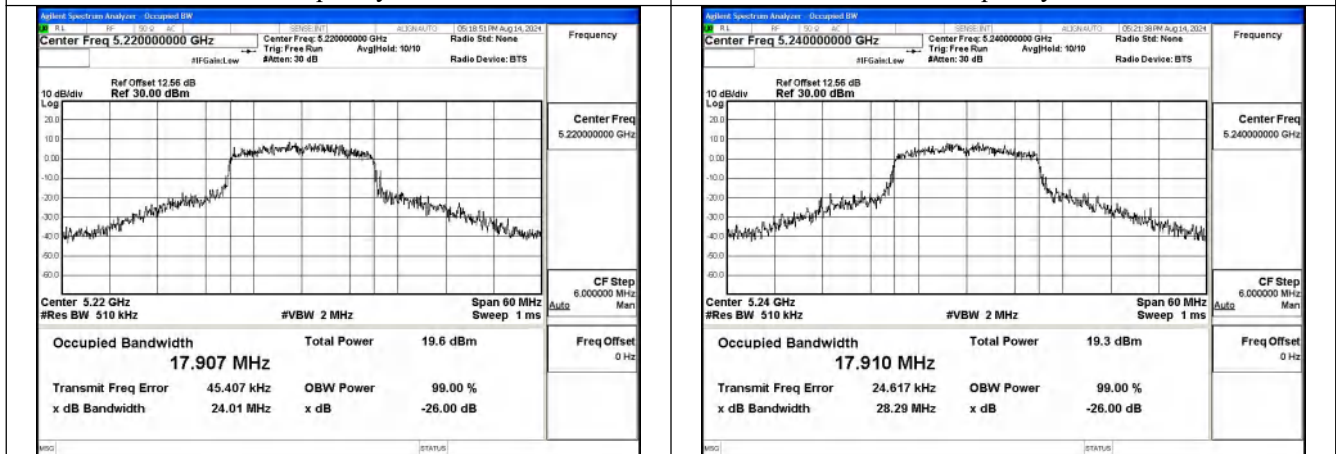
Mode:802.11n HT20 Frequency:5180MHz Ant:Chain0

Mode:802.11n HT20 Frequency:5220MHz Ant:Chain0



Mode:802.11n HT20 Frequency:5240MHz Ant:Chain0

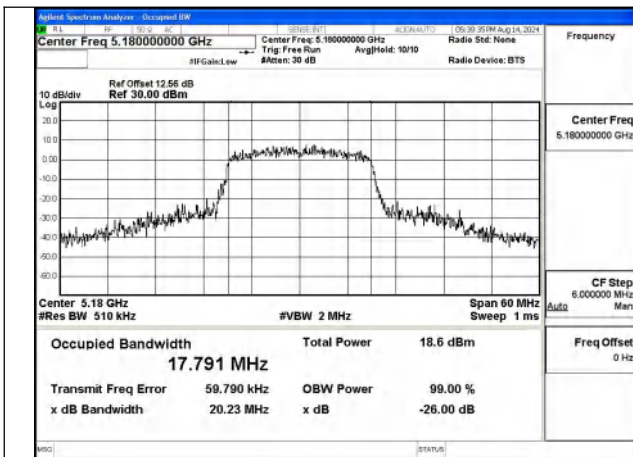
Mode:802.11n HT20 Frequency:5180MHz Ant:Chain1



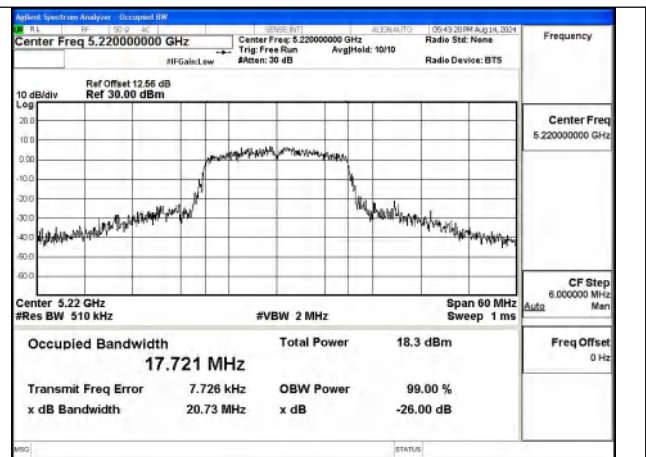
Mode:802.11n HT20 Frequency:5220MHz Ant:Chain1

Mode:802.11n HT20 Frequency:5240MHz Ant:Chain1

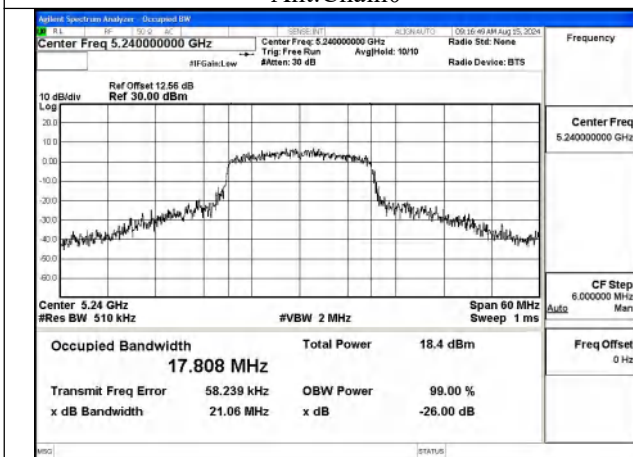
Test Mode: 802.11ac VHT20



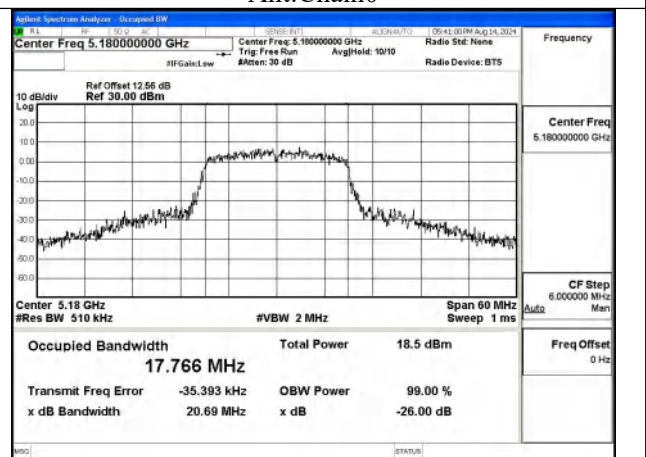
Mode:802.11ac VHT20 Frequency:5180MHz
Ant:Chain0



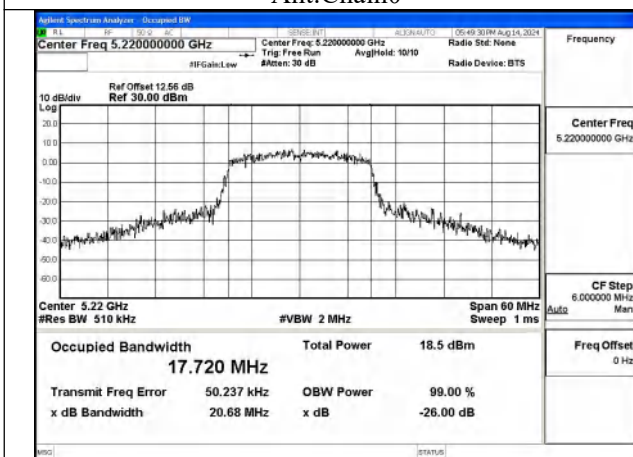
Mode:802.11ac VHT20 Frequency:5220MHz
Ant:Chain0



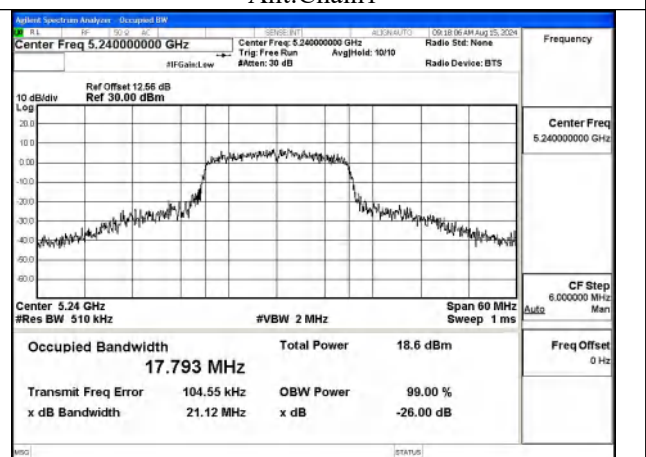
Mode:802.11ac VHT20 Frequency:5240MHz
Ant:Chain0



Mode:802.11ac VHT20 Frequency:5180MHz
Ant:Chain1

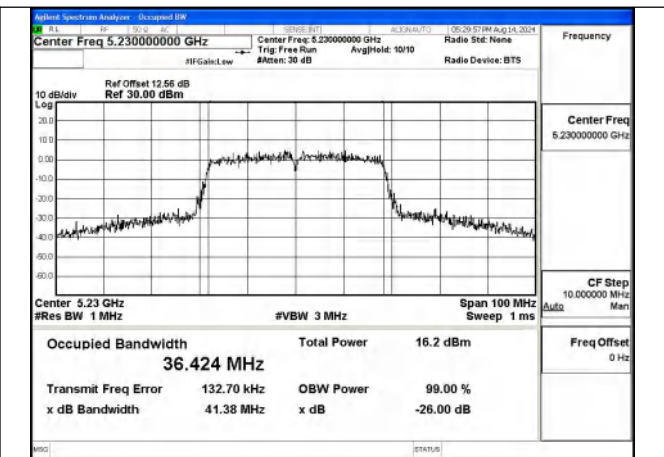
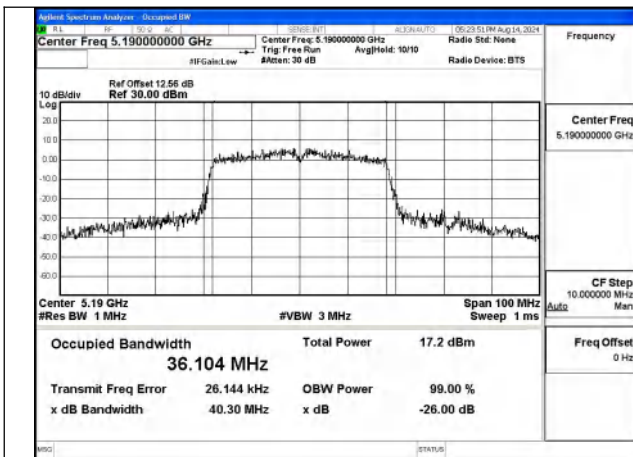


Mode:802.11ac VHT20 Frequency:5220MHz
Ant:Chain1

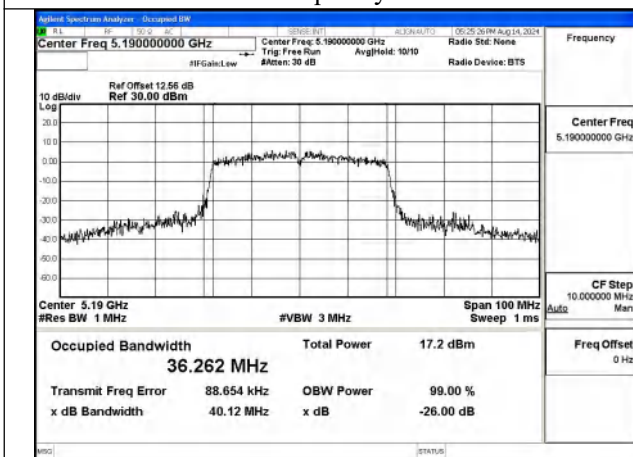


Mode:802.11ac VHT20 Frequency:5240MHz
Ant:Chain1

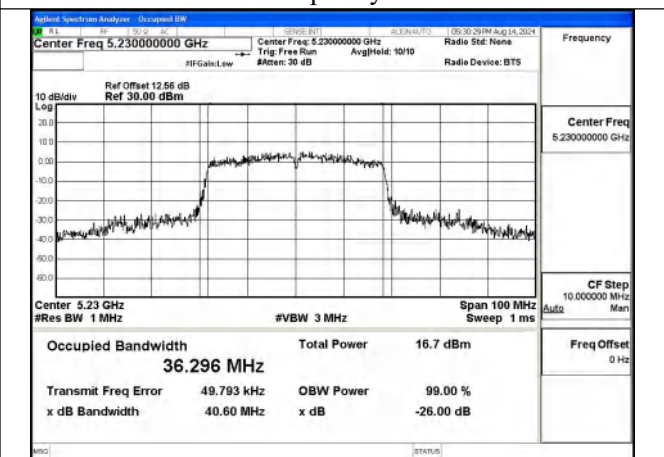
Test Mode: 802.11n HT40



Mode:802.11n HT40 Frequency:5190MHz Ant:Chain0



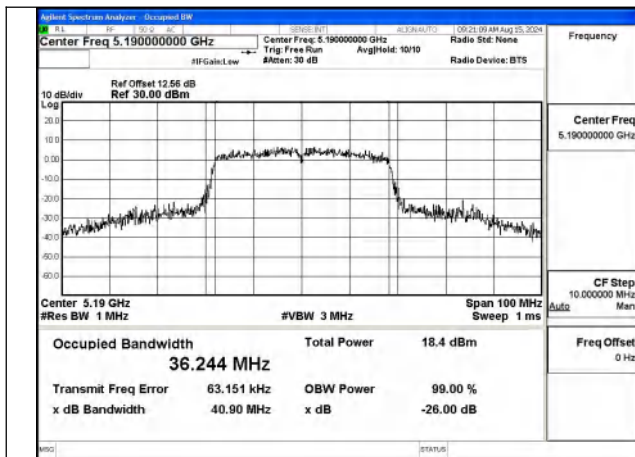
Mode:802.11n HT40 Frequency:5230MHz Ant:Chain0



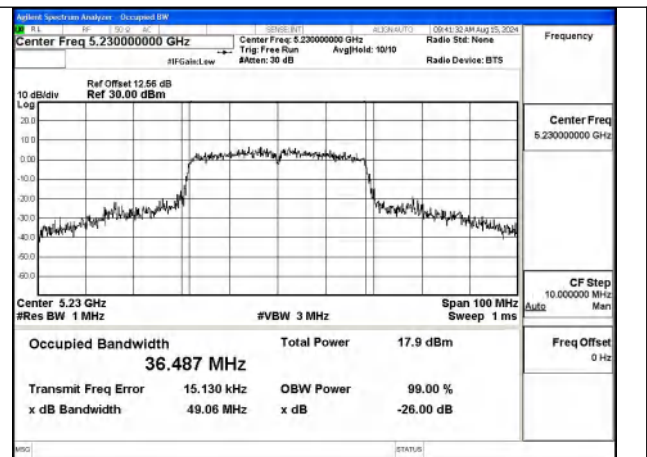
Mode:802.11n HT40 Frequency:5190MHz Ant:Chain1

Mode:802.11n HT40 Frequency:5230MHz Ant:Chain1

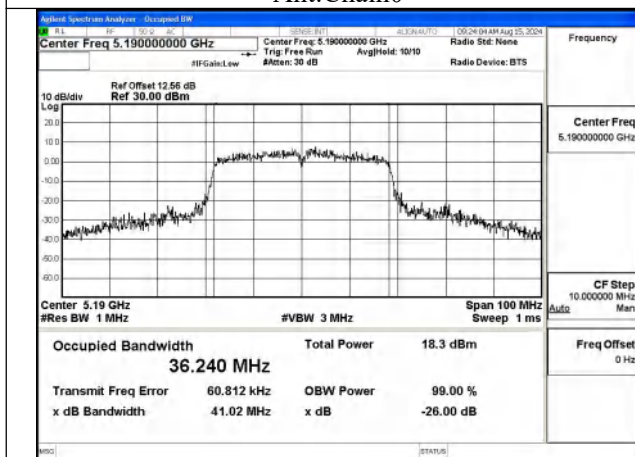
Test Mode: 802.11ac VHT40



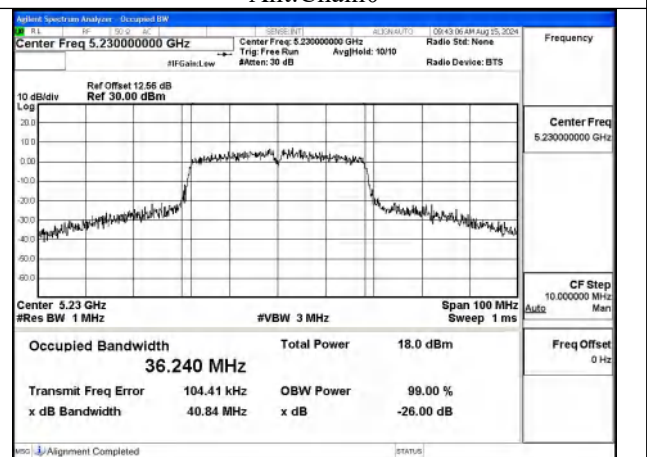
Mode:802.11ac VHT40 Frequency:5190MHz
Ant:Chain0



Mode:802.11ac VHT40 Frequency:5230MHz
Ant:Chain0

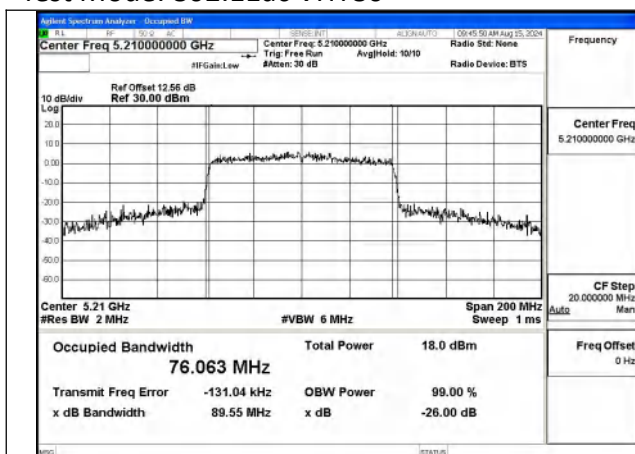


Mode:802.11ac VHT40 Frequency:5190MHz
Ant:Chain1

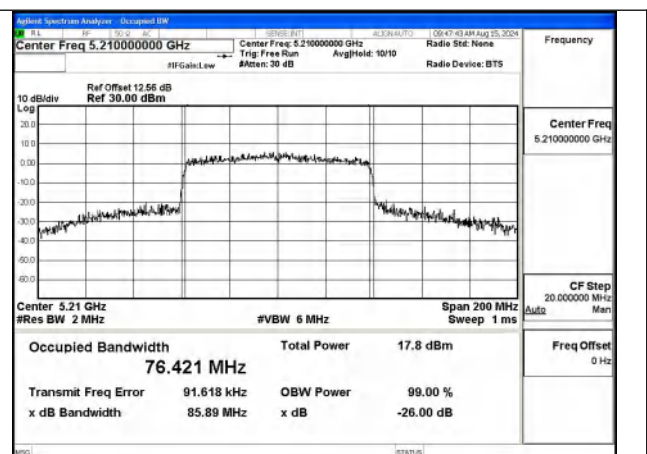


Mode:802.11ac VHT40 Frequency:5230MHz
Ant:Chain1

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5210MHz
Ant:Chain0



Mode:802.11ac VHT80 Frequency:5210MHz
Ant:Chain1

Occupied Bandwidth

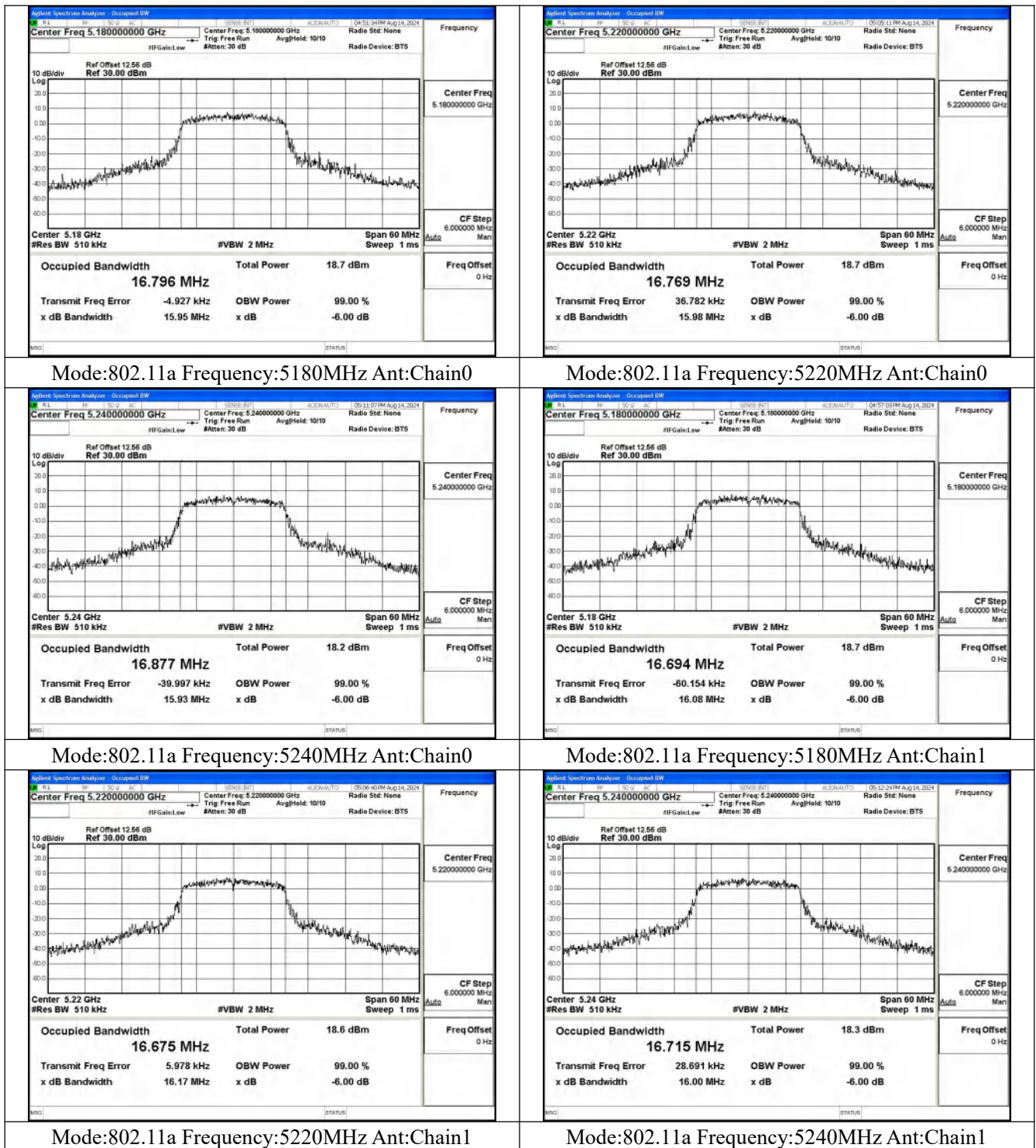
Offset 12.56dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5180MHz	5220MHz	5240MHz
802.11a	Chain0	16.796	16.769	16.877
802.11a	Chain1	16.694	16.675	16.715
802.11n HT20	Chain0	17.892	17.878	17.963
802.11n HT20	Chain1	17.802	17.814	17.846
802.11ac VHT20	Chain0	17.692	17.758	17.808
802.11ac VHT20	Chain1	17.771	17.760	17.800

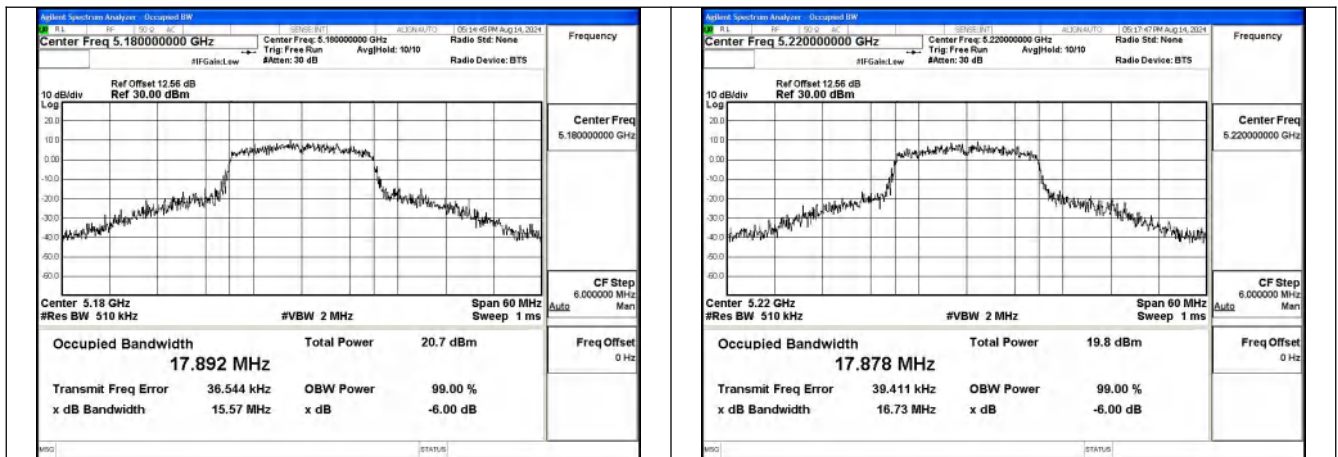
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5190MHz	---	5230MHz
802.11n HT40	Chain0	36.235	---	36.387
802.11n HT40	Chain1	36.251	---	36.273
802.11ac VHT40	Chain0	36.373	---	36.239
802.11ac VHT40	Chain1	36.198	---	36.280

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5210MHz	---	---
802.11ac VHT80	Chain0	76.218	---	---
802.11ac VHT80	Chain1	76.416	---	---

Test Mode: 802.11a

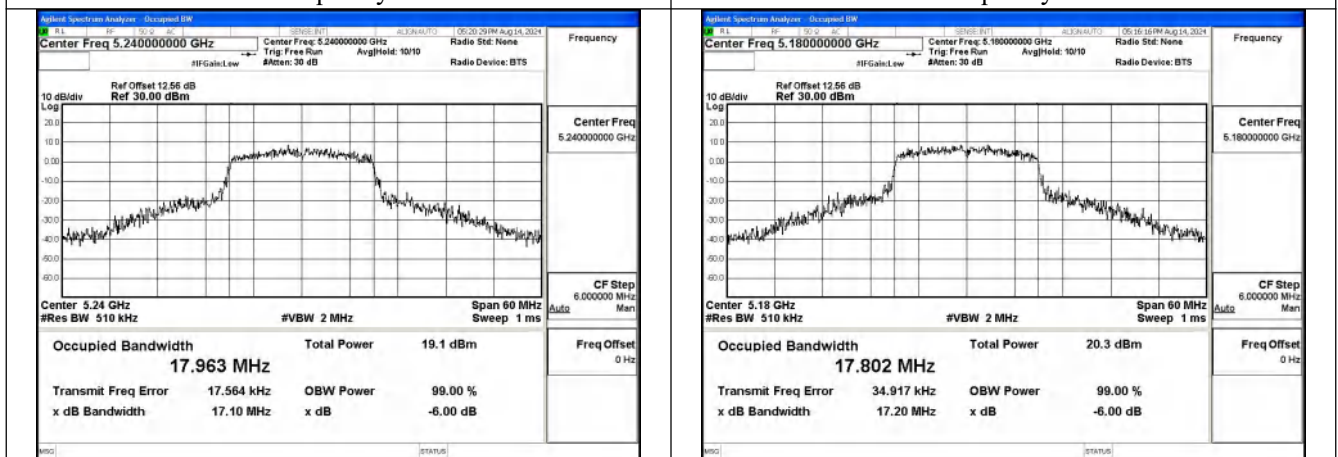


Test Mode: 802.11n HT20



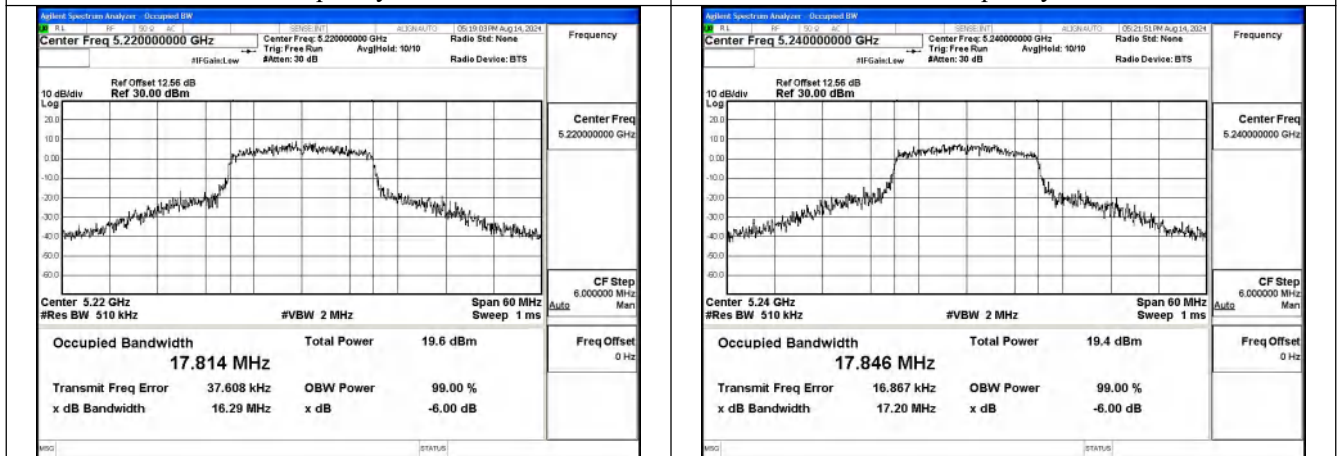
Mode:802.11n HT20 Frequency:5180MHz Ant:Chain0

Mode:802.11n HT20 Frequency:5220MHz Ant:Chain0



Mode:802.11n HT20 Frequency:5240MHz Ant:Chain0

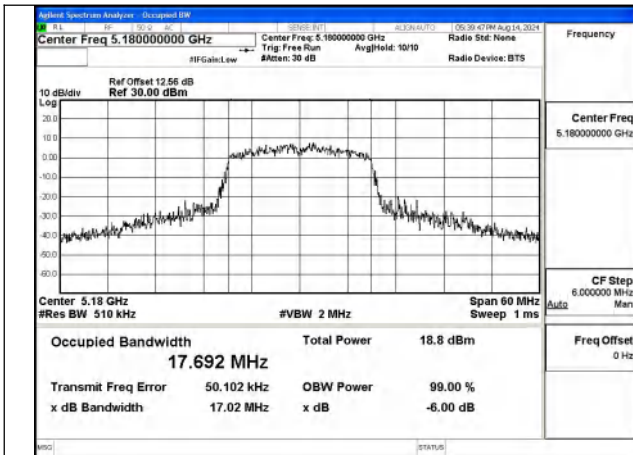
Mode:802.11n HT20 Frequency:5180MHz Ant:Chain1



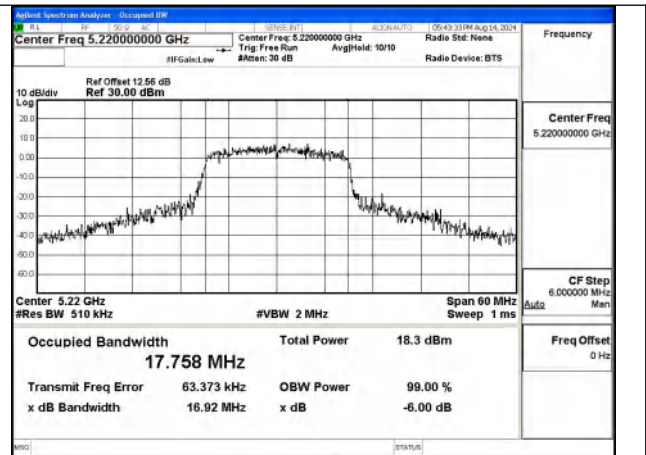
Mode:802.11n HT20 Frequency:5220MHz Ant:Chain1

Mode:802.11n HT20 Frequency:5240MHz Ant:Chain1

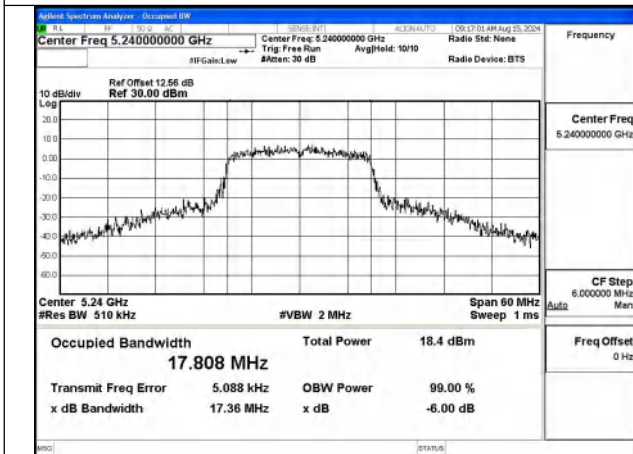
Test Mode: 802.11ac VHT20



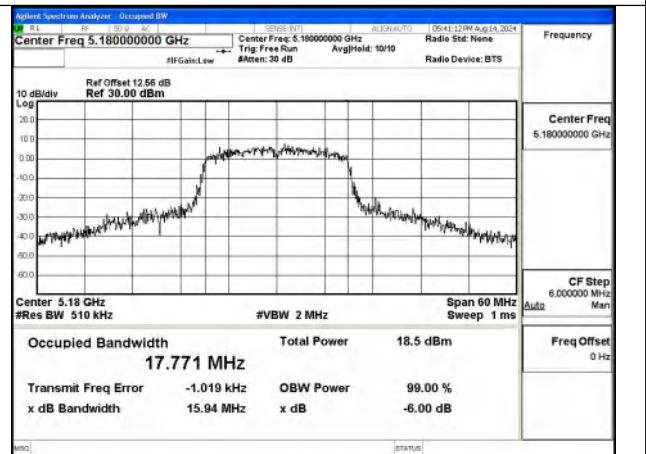
Mode:802.11ac VHT20 Frequency:5180MHz
Ant:Chain0



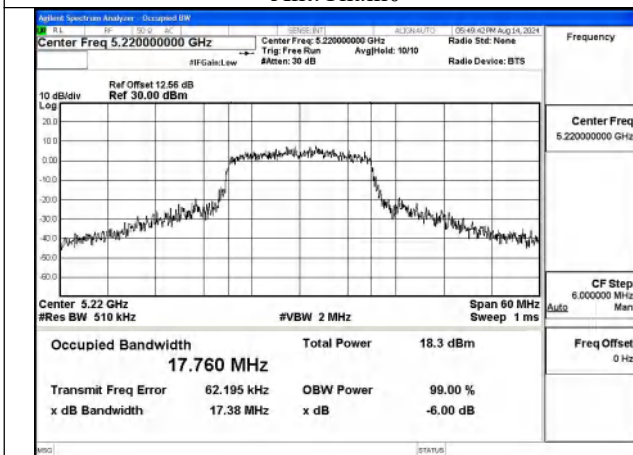
Mode:802.11ac VHT20 Frequency:5220MHz
Ant:Chain0



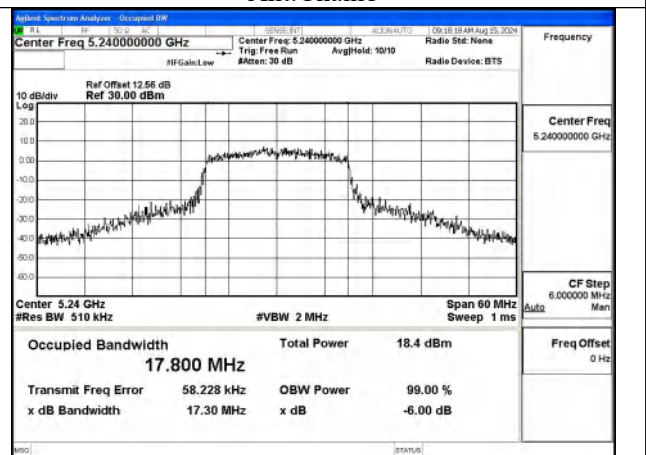
Mode:802.11ac VHT20 Frequency:5240MHz
Ant:Chain0



Mode:802.11ac VHT20 Frequency:5180MHz
Ant:Chain1

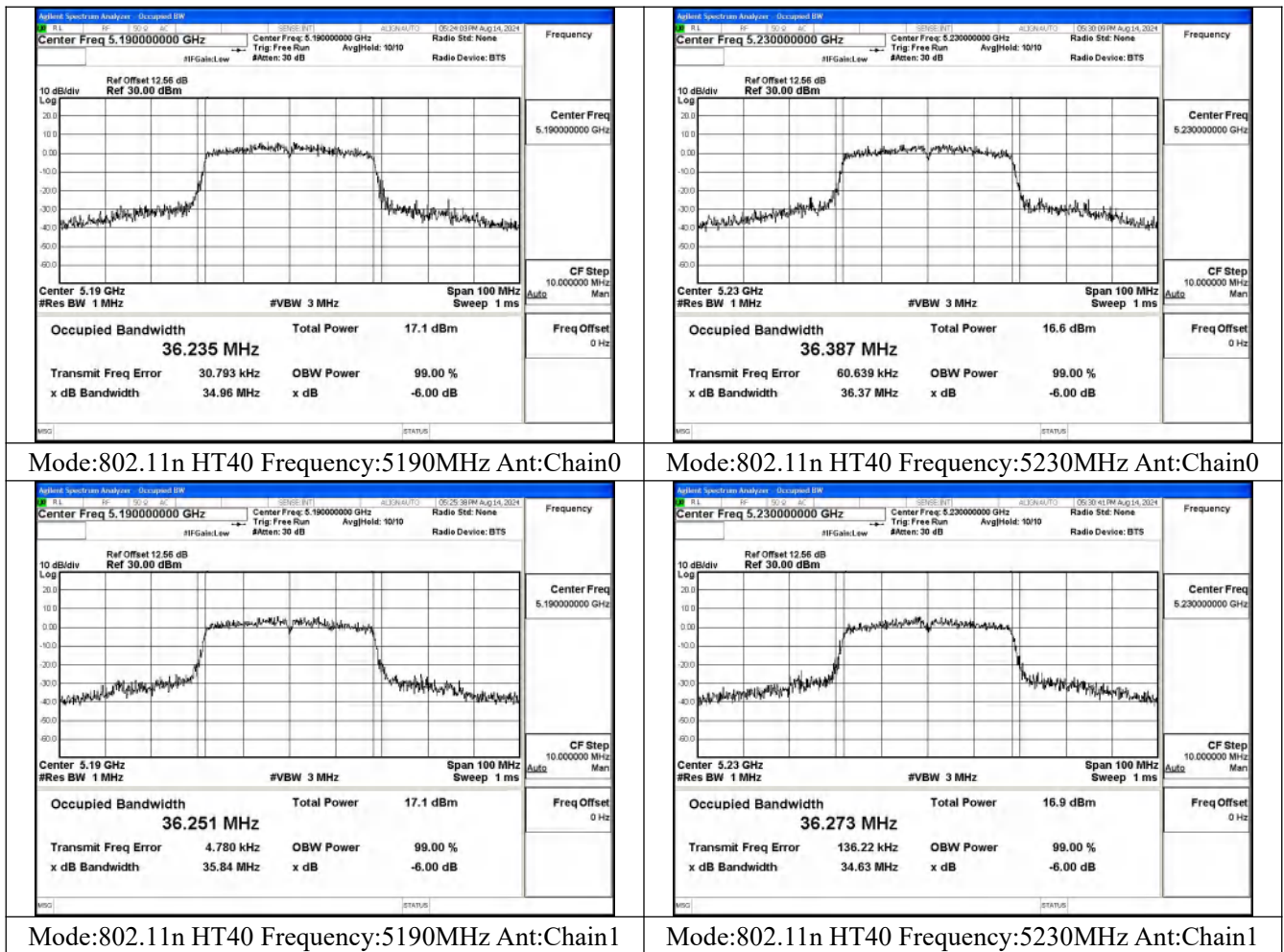


Mode:802.11ac VHT20 Frequency:5220MHz
Ant:Chain1

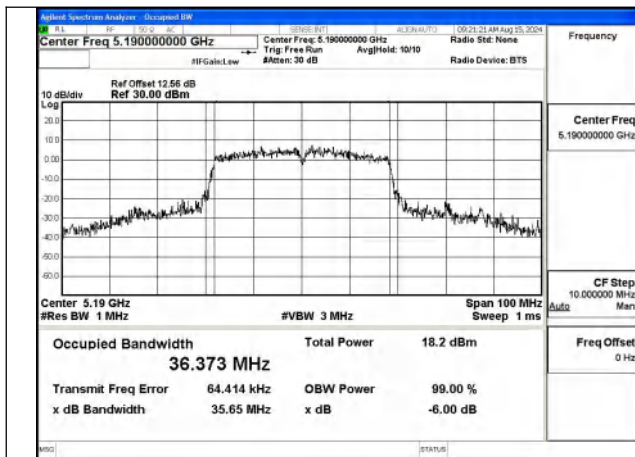


Mode:802.11ac VHT20 Frequency:5240MHz
Ant:Chain1

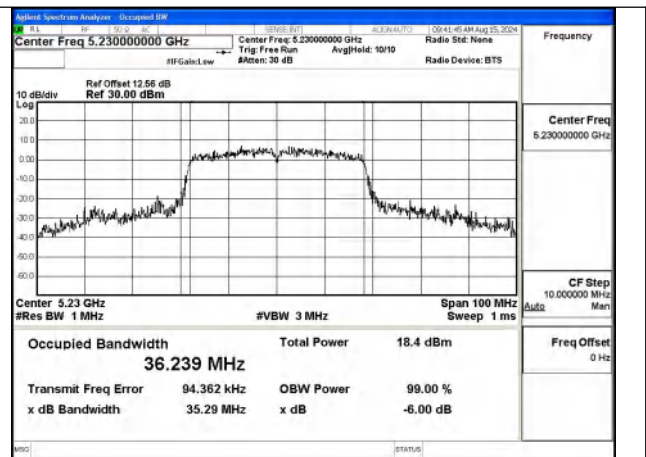
Test Mode: 802.11n HT40



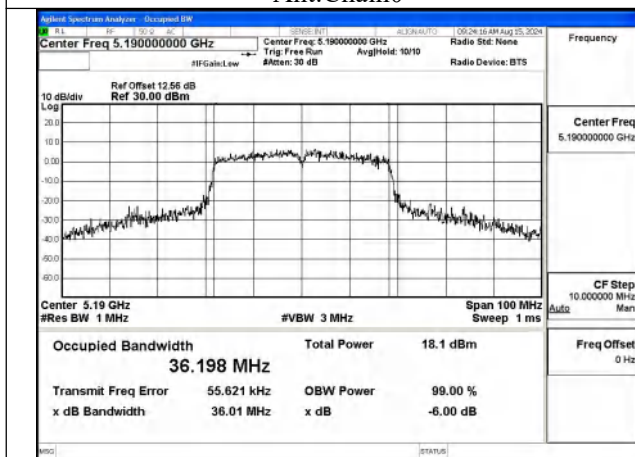
Test Mode: 802.11ac VHT40



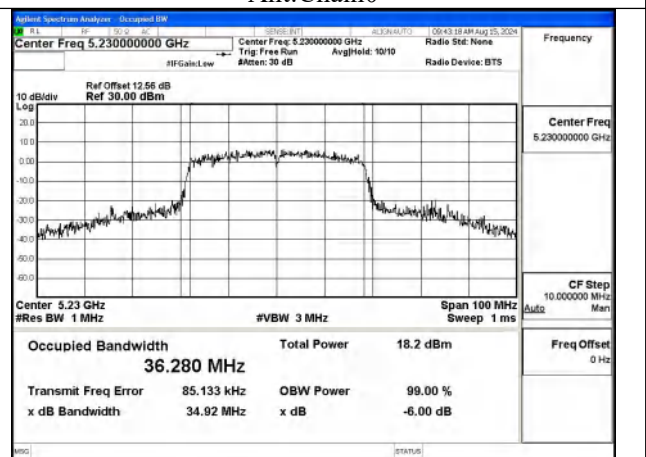
Mode:802.11ac VHT40 Frequency:5190MHz
Ant:Chain0



Mode:802.11ac VHT40 Frequency:5230MHz
Ant:Chain0

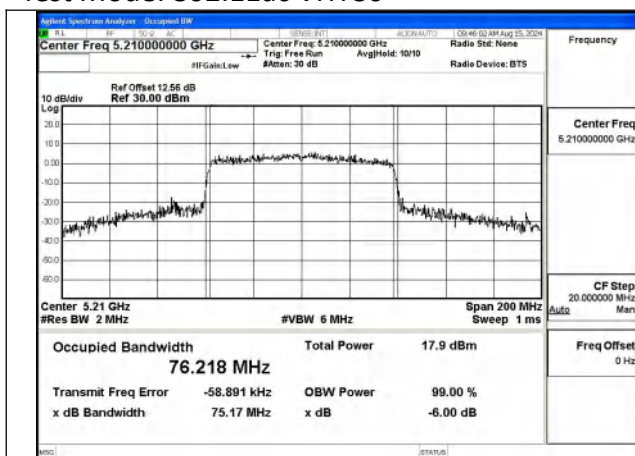


Mode:802.11ac VHT40 Frequency:5190MHz
Ant:Chain1

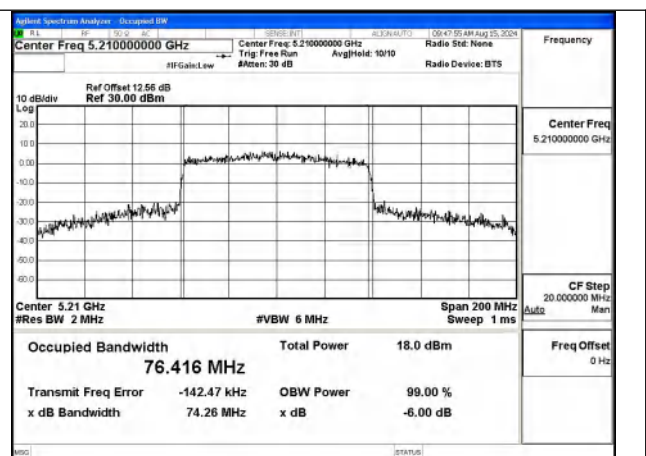


Mode:802.11ac VHT40 Frequency:5230MHz
Ant:Chain1

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5210MHz
Ant:Chain0



Mode:802.11ac VHT80 Frequency:5210MHz
Ant:Chain1

Transmitter Power Spectral Density

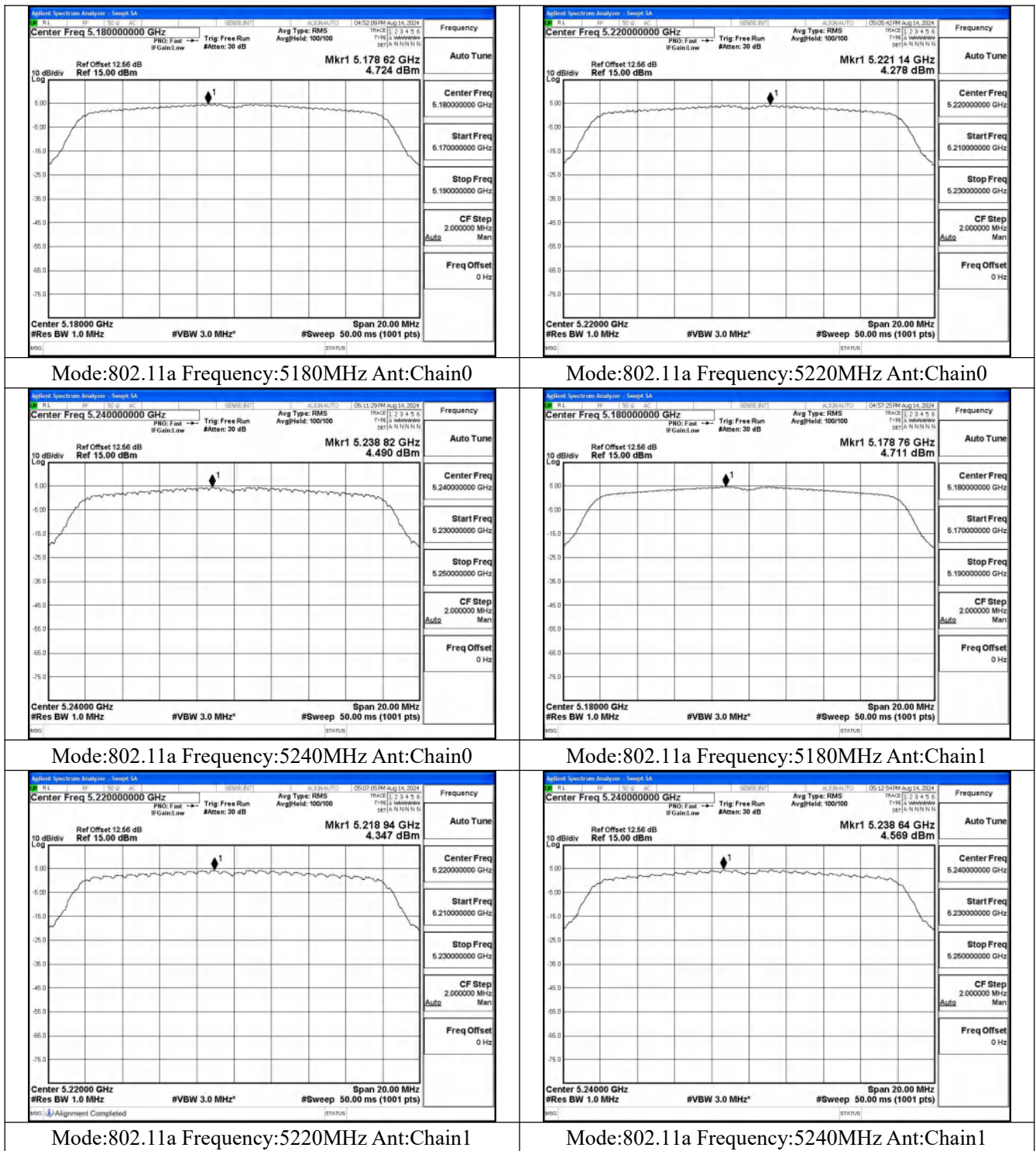
Offset 12.56dB = Attenuator + Temporary antenna connector loss + Cable loss

TestMode	Antenna	Tones	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	NA	0.21	4.934	0.21	4.488	0.21	4.700
802.11a	Chain1	NA	0.21	4.921	0.21	4.557	0.21	4.779
802.11n HT20	Chain0	NA	0.22	6.396	0.22	5.059	0.22	5.199
802.11n HT20	Chain1	NA	0.22	6.371	0.22	5.170	0.22	5.024
802.11n HT20	MIMO	NA	0.22	9.394	0.22	8.125	0.22	8.123
802.11ac VHT20	Chain0	NA	0.21	4.498	0.21	3.699	0.21	4.492
802.11ac VHT20	Chain1	NA	0.21	4.576	0.21	4.133	0.21	4.450
802.11ac VHT20	MIMO	NA	0.21	7.547	0.21	6.932	0.21	7.481

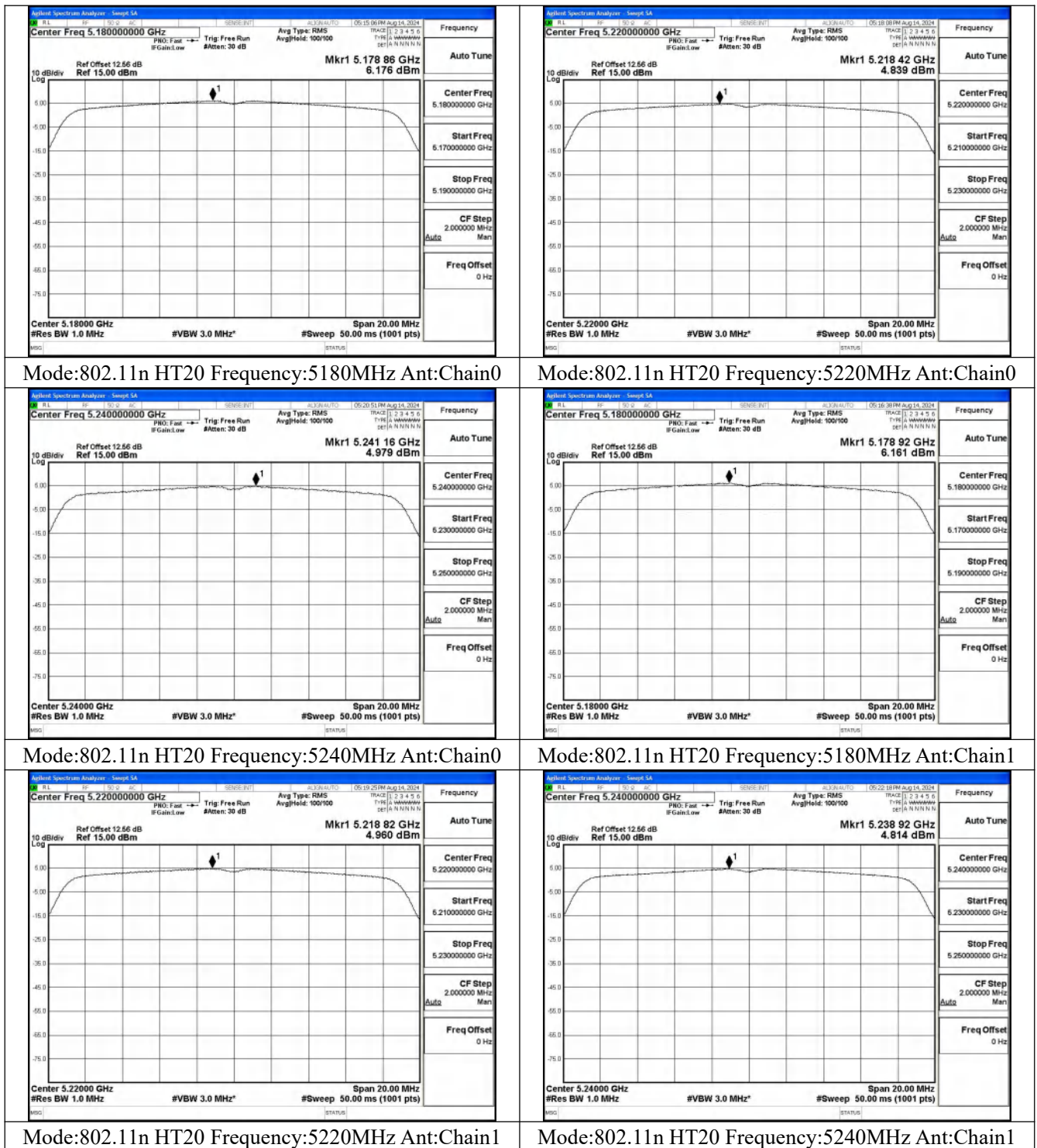
TestMode	Antenna	Tones	5190MHz		---		5230MHz	
			Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11n HT40	Chain0	NA	0.37	0.291	---	---	0.37	1.856
802.11n HT40	Chain1	NA	0.37	0.175	---	---	0.37	1.900
802.11n HT40	MIMO	NA	0.37	3.244	---	---	0.37	4.888
802.11ac VHT40	Chain0	NA	0.38	1.502	---	---	0.38	1.153
802.11ac VHT40	Chain1	NA	0.38	1.281	---	---	0.38	1.162
802.11ac VHT40	MIMO	NA	0.38	4.403	---	---	0.38	4.168

TestMode	Antenna	Tones	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	NA	0.64	-1.726	---	---	---	---
802.11ac VHT80	Chain1	NA	0.64	-1.846	---	---	---	---
802.11ac VHT80	MIMO	NA	0.64	1.225	---	---	---	---

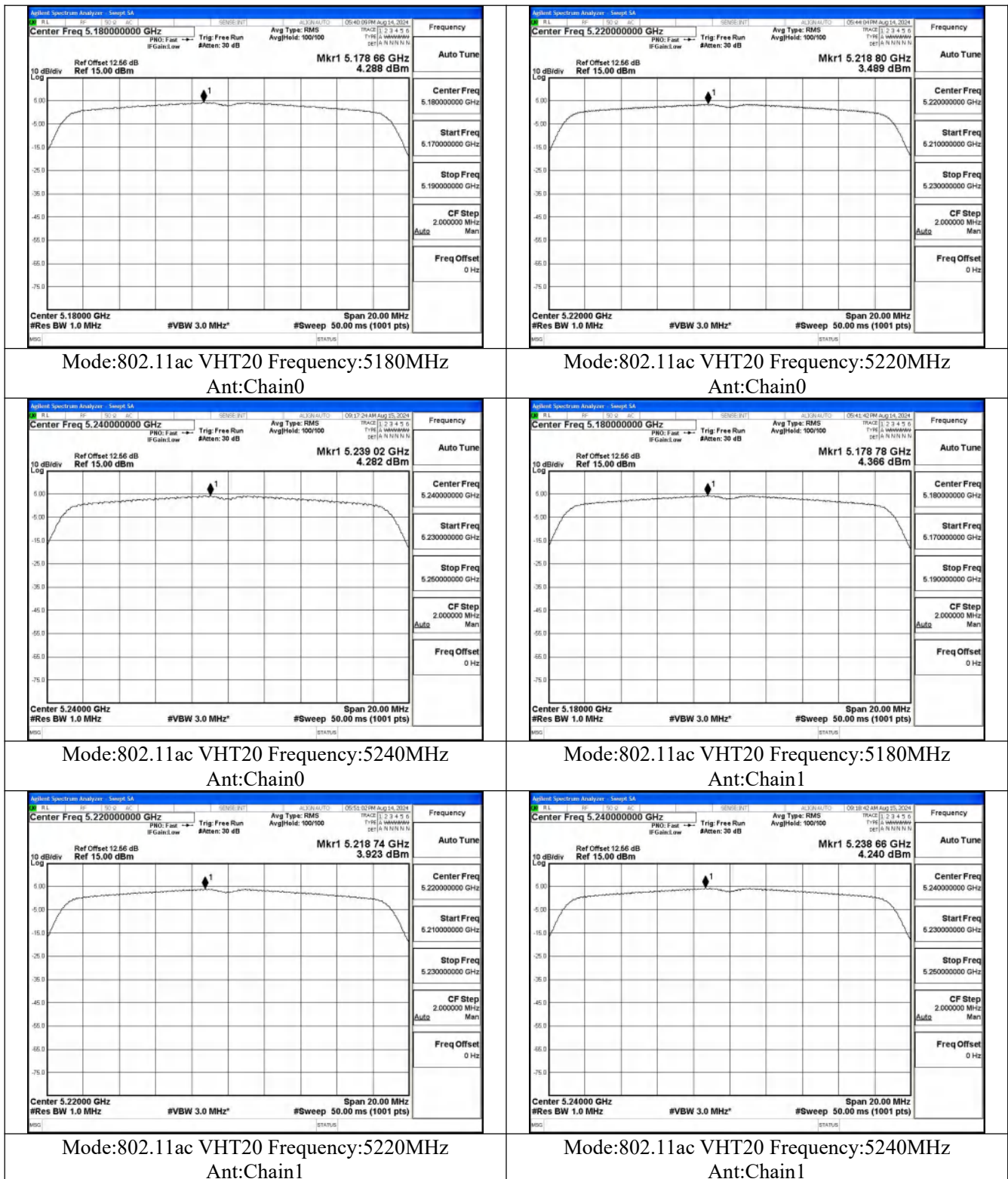
Test Mode: 802.11a



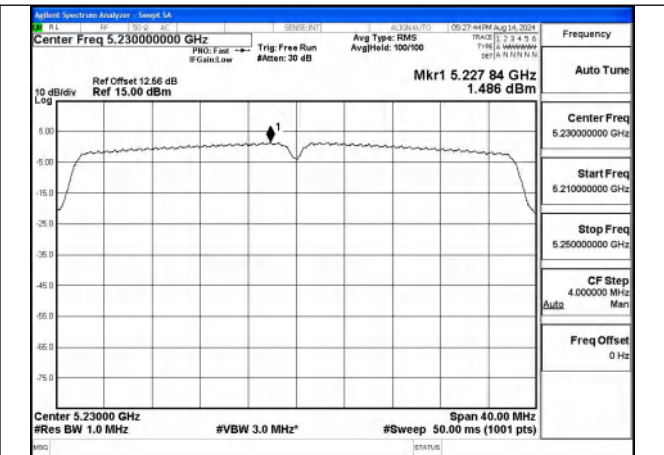
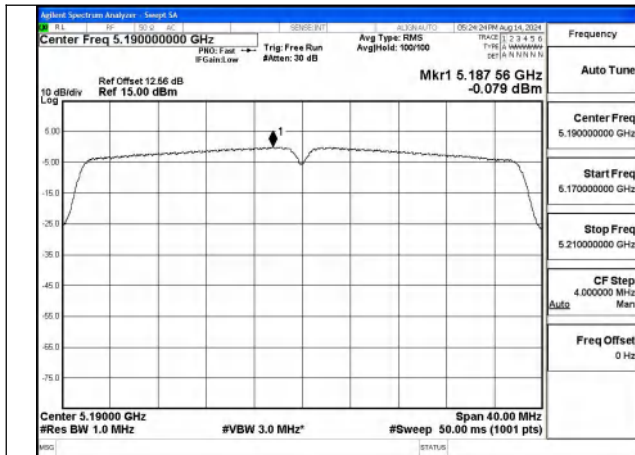
Test Mode: 802.11n HT20



Test Mode: 802.11ac VHT20

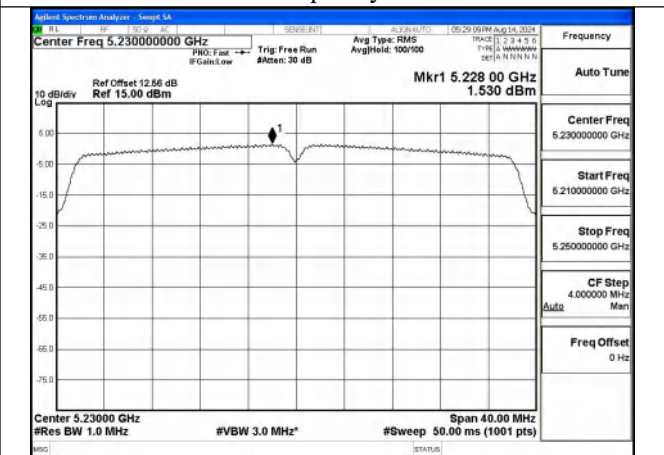
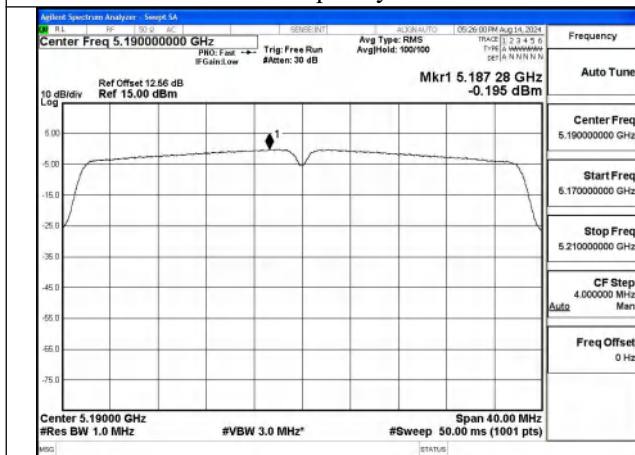


Test Mode: 802.11n HT40



Mode:802.11n HT40 Frequency:5190MHz Ant:Chain0

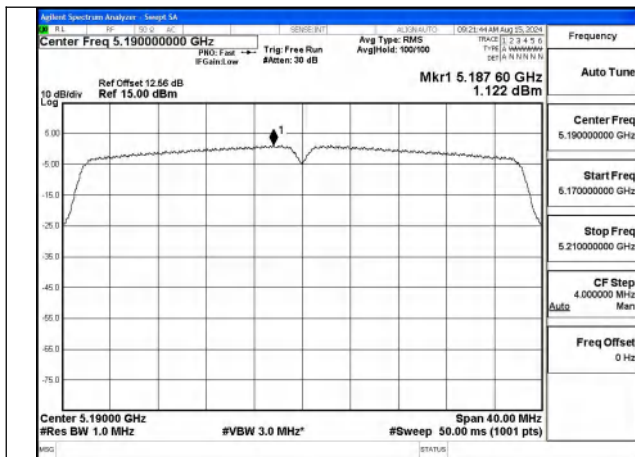
Mode:802.11n HT40 Frequency:5230MHz Ant:Chain0



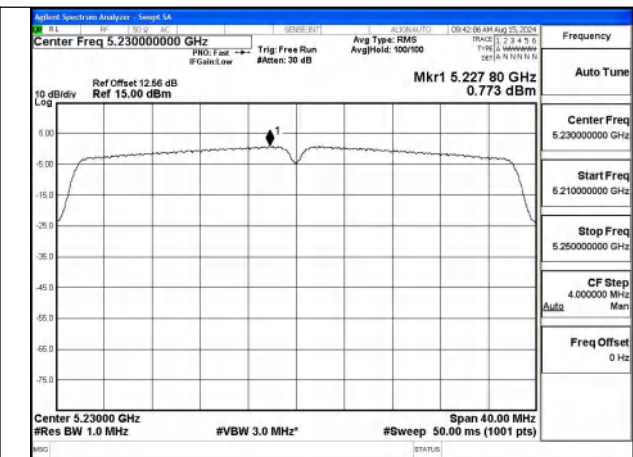
Mode:802.11n HT40 Frequency:5190MHz Ant:Chain1

Mode:802.11n HT40 Frequency:5230MHz Ant:Chain1

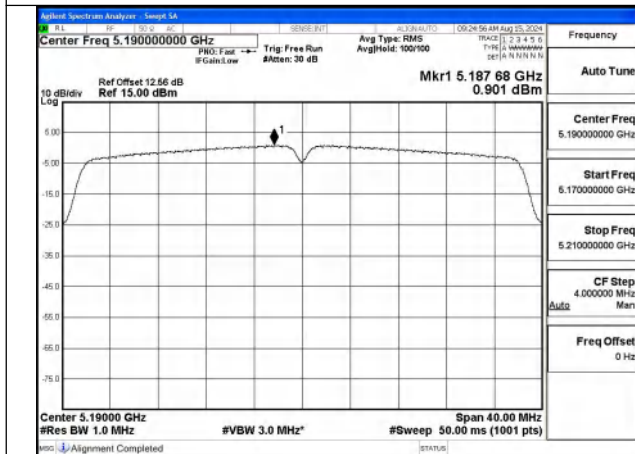
Test Mode: 802.11ac VHT40



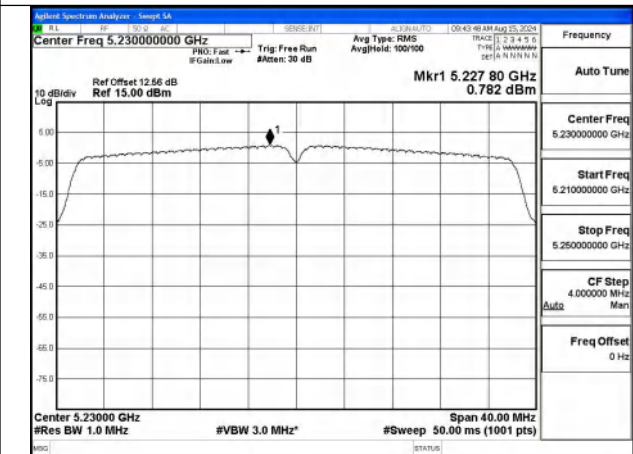
Mode:802.11ac VHT40 Frequency:5190MHz
Ant:Chain0



Mode:802.11ac VHT40 Frequency:5230MHz
Ant:Chain0

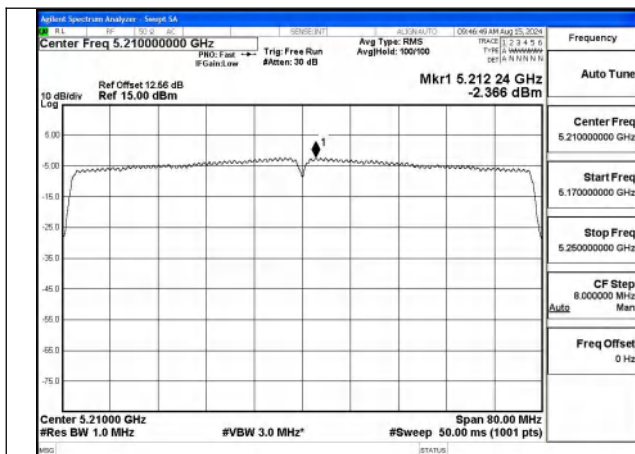


Mode:802.11ac VHT40 Frequency:5190MHz
Ant:Chain1

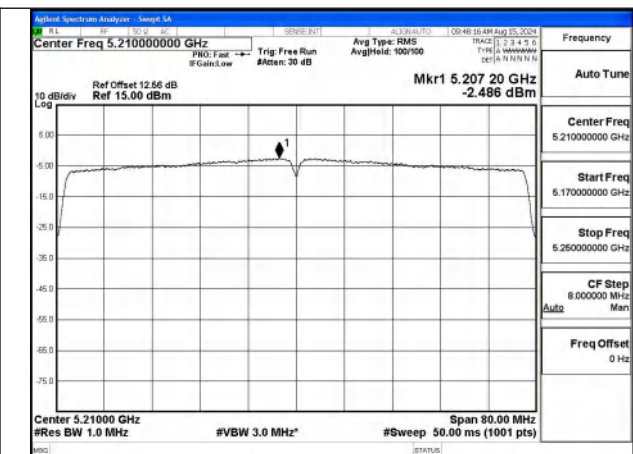


Mode:802.11ac VHT40 Frequency:5230MHz
Ant:Chain1

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5210MHz
Ant:Chain0



Mode:802.11ac VHT80 Frequency:5210MHz
Ant:Chain1