

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)	Plot
802.11a	5745	99.02%	0	Fig.1
802.11n HT20	5745	99.00%	0	Fig.2
802.11ac VHT20	5745	99.02%	0	Fig.3
802.11n HT40	5755	98.02%	0	Fig.4
802.11ac VHT40	5755	97.94%	0.09	Fig.5
802.11ac VHT80	5775	95.92%	0.18	Fig.6

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

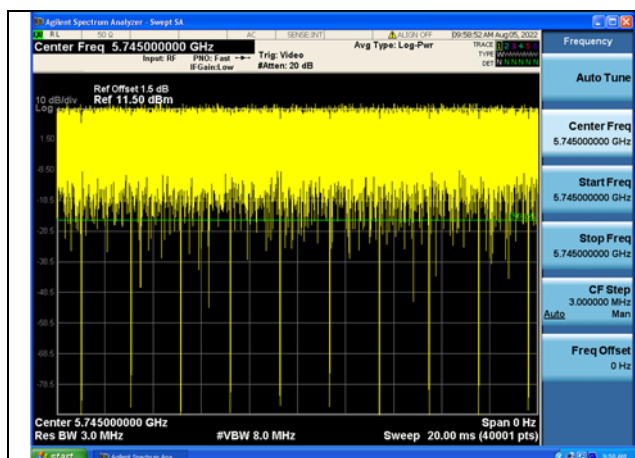


Fig.1

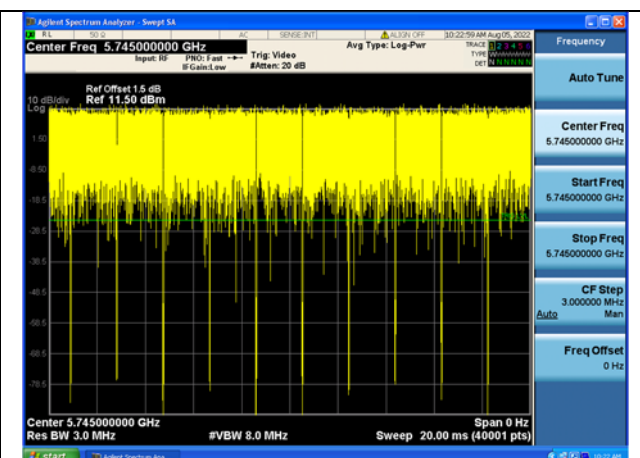


Fig.2

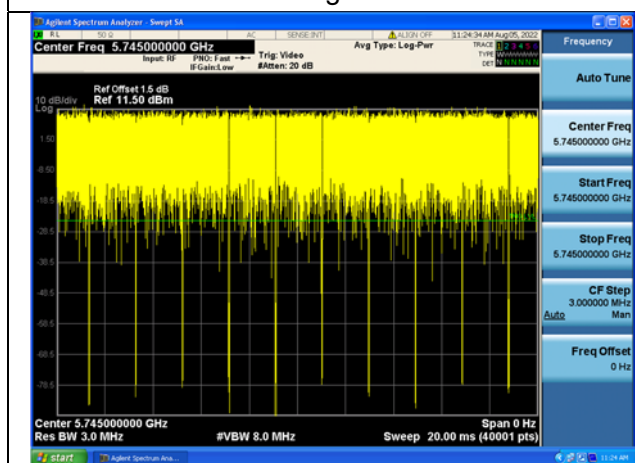


Fig.3

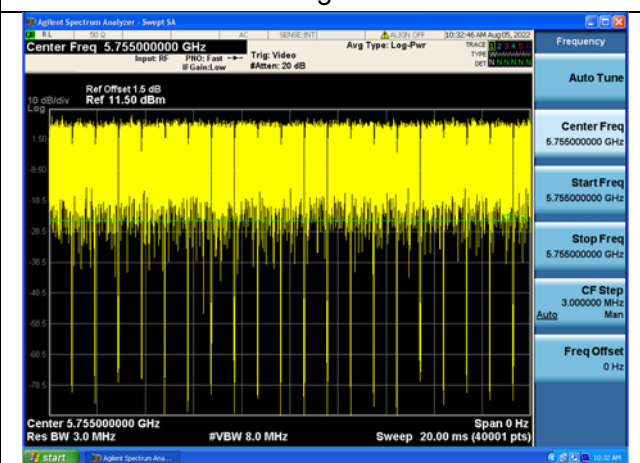


Fig.4

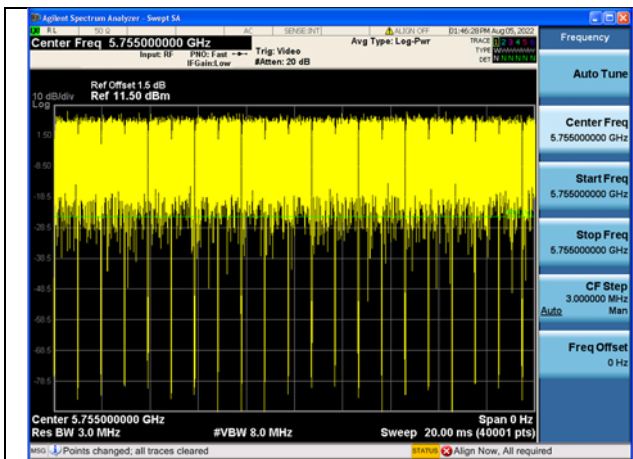


Fig.5

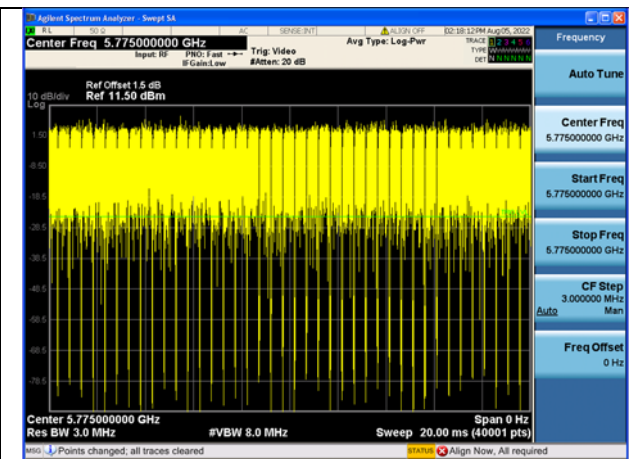


Fig.6

Output Power

Mode	Tones/ RUIndex	Freq (MHz)	Antenna	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5745	Chain0	10.88	9.88
802.11a	NA	5785	Chain0	10.76	9.76
802.11a	NA	5825	Chain0	10.78	9.78
802.11n HT20	NA	5745	Chain0	10.74	9.74
802.11n HT20	NA	5785	Chain0	10.59	9.59
802.11n HT20	NA	5825	Chain0	10.68	9.68
802.11ac VHT20	NA	5745	Chain0	10.72	9.72
802.11ac VHT20	NA	5785	Chain0	10.66	9.66
802.11ac VHT20	NA	5825	Chain0	10.76	9.76
802.11n HT40	NA	5755	Chain0	10.73	9.73
802.11n HT40	NA	5795	Chain0	10.63	9.63
802.11ac VHT40	NA	5755	Chain0	10.70	9.70
802.11ac VHT40	NA	5795	Chain0	10.46	9.46
802.11ac VHT80	NA	5775	Chain0	10.41	9.41

Emission Bandwidth

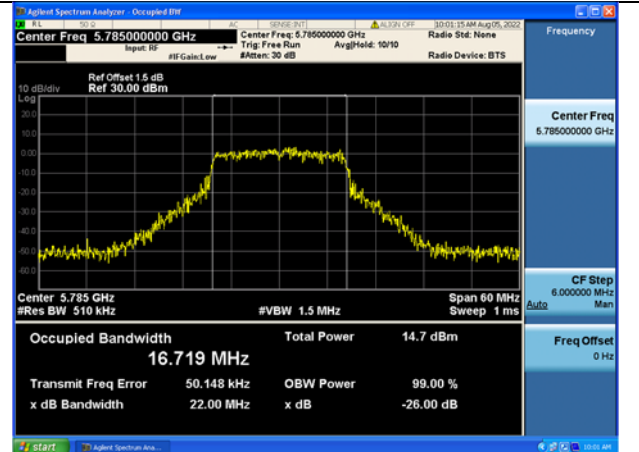
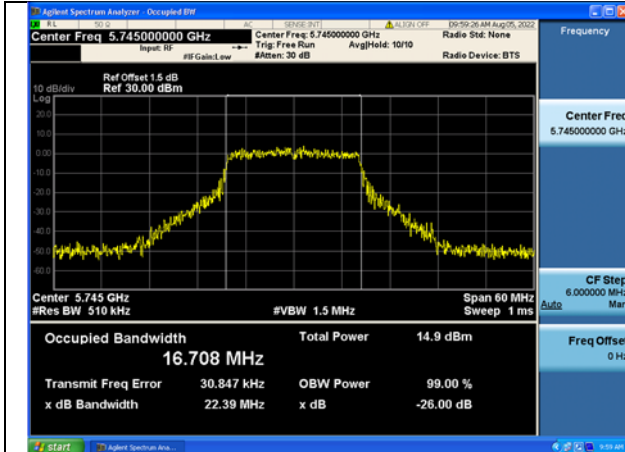
Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.667	Channel No.675	Channel No.683
		5745MHz	5785MHz	5825MHz
802.11a	Chain0	22.39	22.00	22.64
802.11n HT20	Chain0	22.48	22.82	23.75
802.11ac VHT20	Chain0	22.37	23.62	22.88

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.669	---	Channel No.677
		5755MHz	---	5795MHz
802.11n HT40	Chain0	40.82	---	40.15
802.11ac VHT40	Chain0	40.72	---	40.16

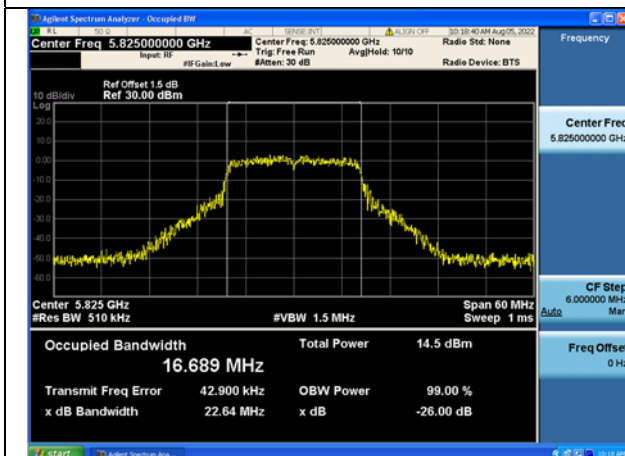
Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.673	---	---
		5775MHz	---	---
802.11ac VHT80	Chain0	83.00	---	---

Test Mode: 802.11a



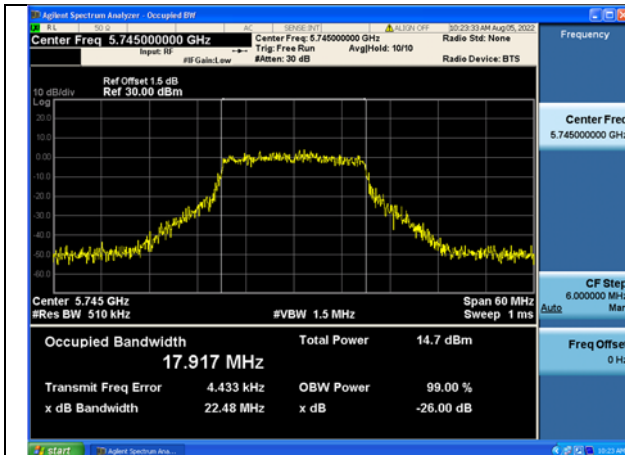
Test Mode:802.11a 5745MHz Chain0

Test Mode:802.11a 5785MHz Chain0

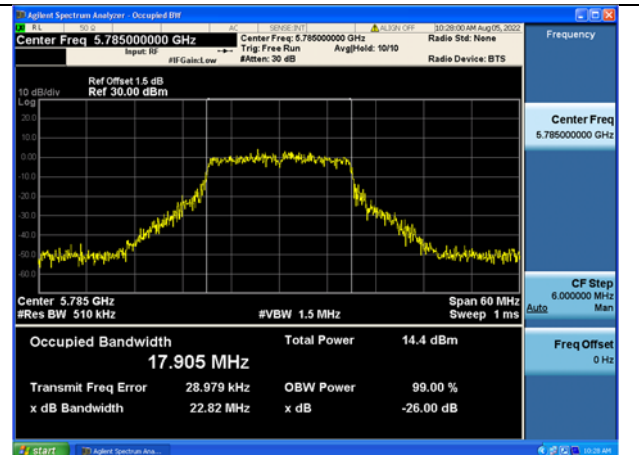


Test Mode:802.11a 5825MHz Chain0

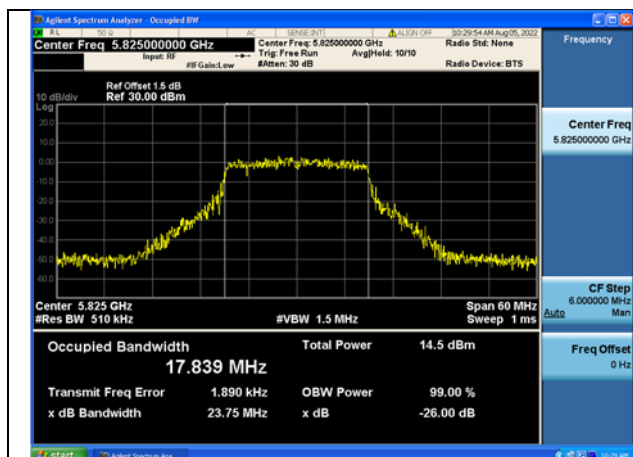
Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5745MHz Chain0

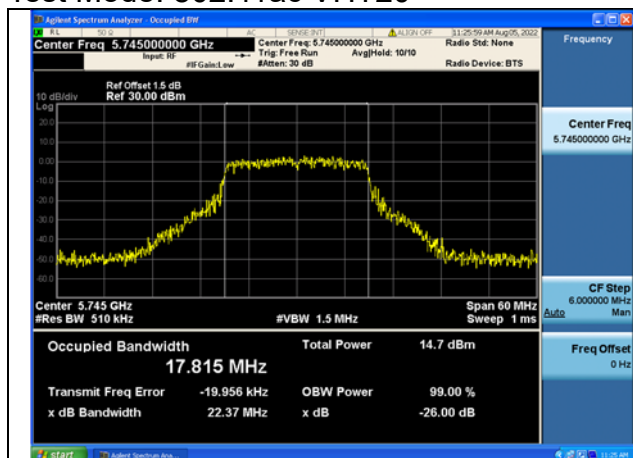


Test Mode:802.11n HT20 5785MHz Chain0

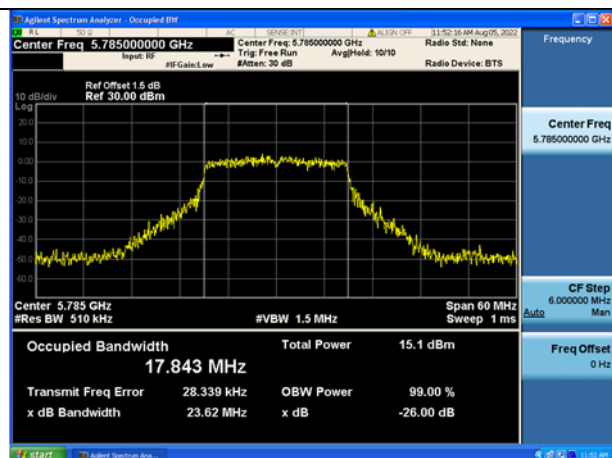


Test Mode:802.11n HT20 5825MHz Chain0

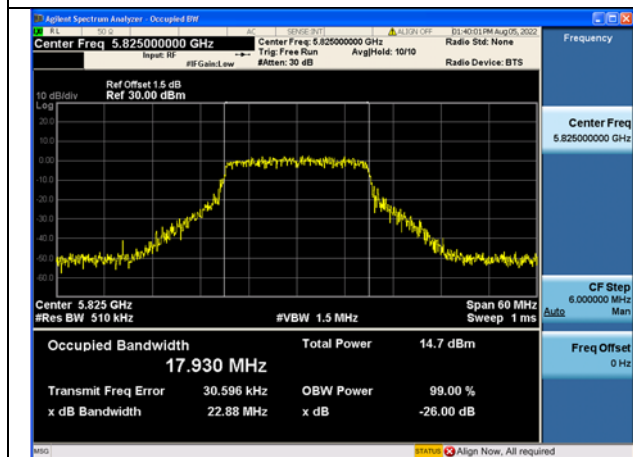
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5745MHz Chain0

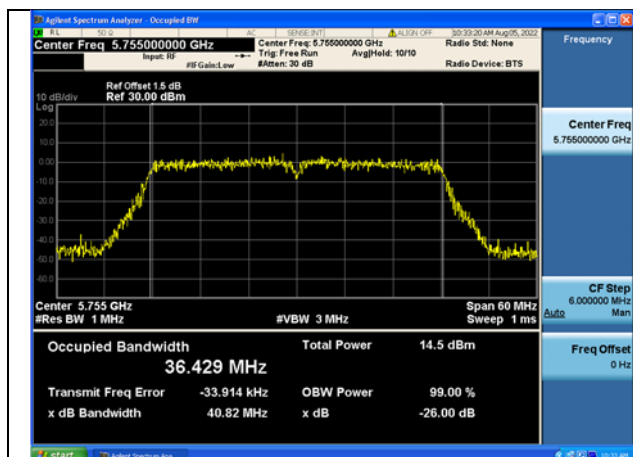


Test Mode:802.11ac VHT20 5785MHz Chain0

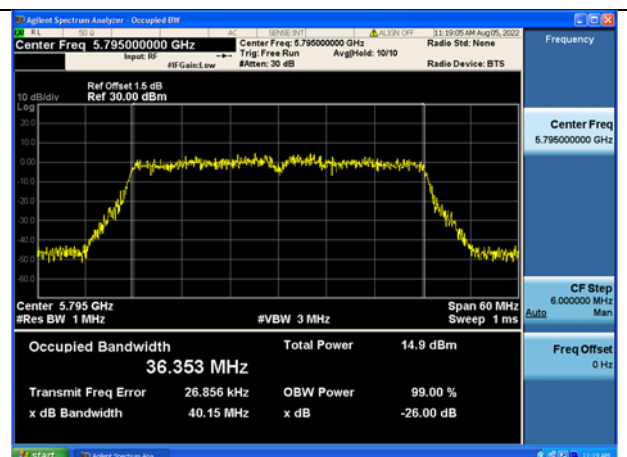


Test Mode:802.11ac VHT20 5825MHz Chain0

Test Mode: 802.11n HT40

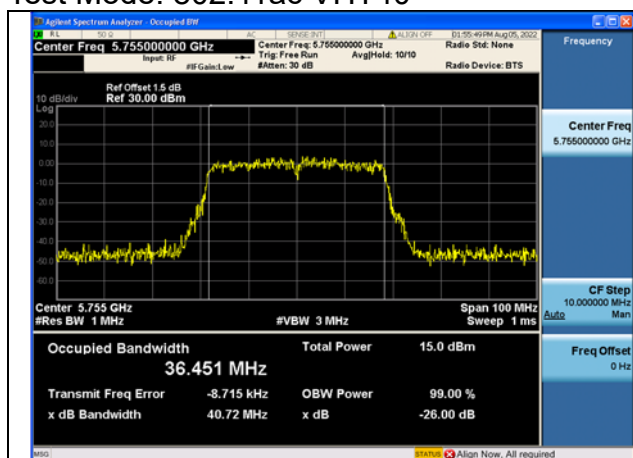


Test Mode:802.11n HT40 5755MHz Chain0

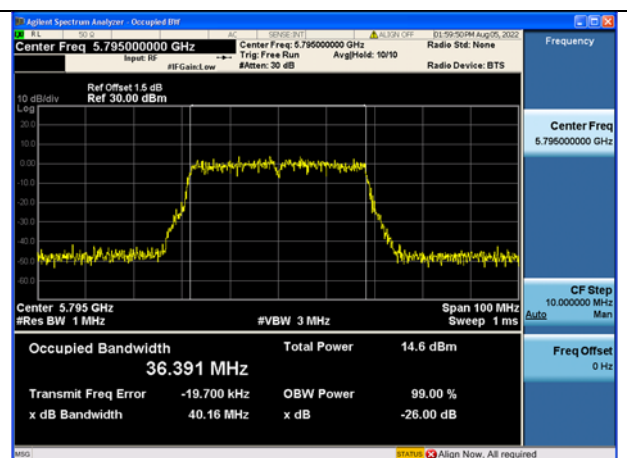


Test Mode:802.11n HT40 5795MHz Chain0

Test Mode: 802.11ac VHT40

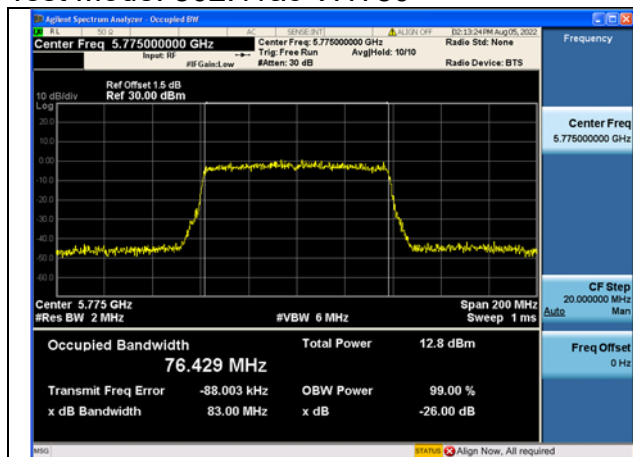


Test Mode:802.11ac VHT40 5755MHz Chain0



Test Mode:802.11ac VHT40 5795MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5775MHz Chain0

Occupied Bandwidth

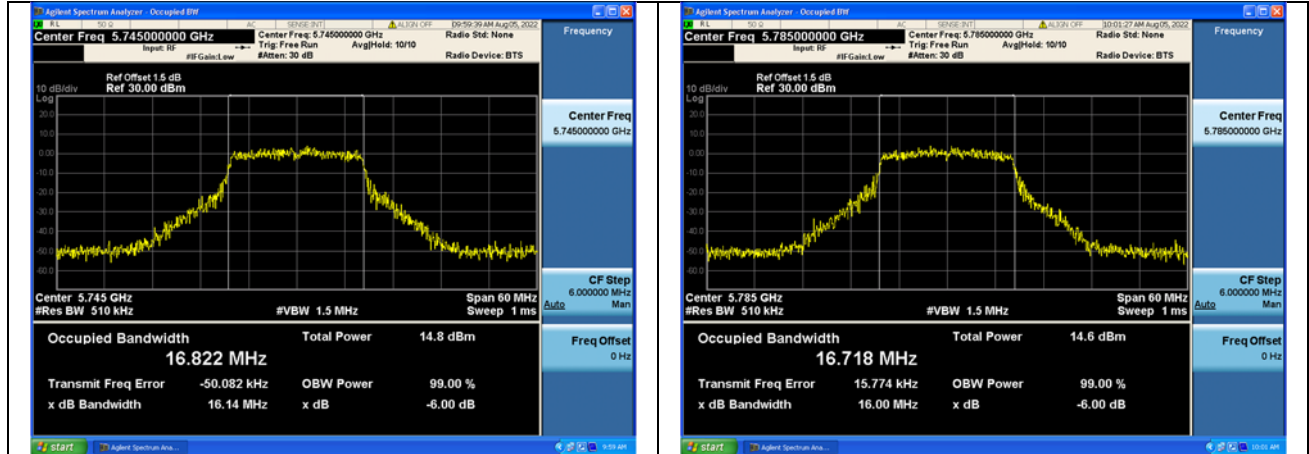
Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.667	Channel No.675	Channel No.683
		5745MHz	5785MHz	5825MHz
802.11a	Chain0	16.822	16.718	16.790
802.11n HT20	Chain0	17.967	17.953	18.002
802.11ac VHT20	Chain0	17.953	17.861	17.964

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.669	---	Channel No.677
		5755MHz	---	5795MHz
802.11n HT40	Chain0	36.328	---	36.541
802.11ac VHT40	Chain0	36.465	---	36.340

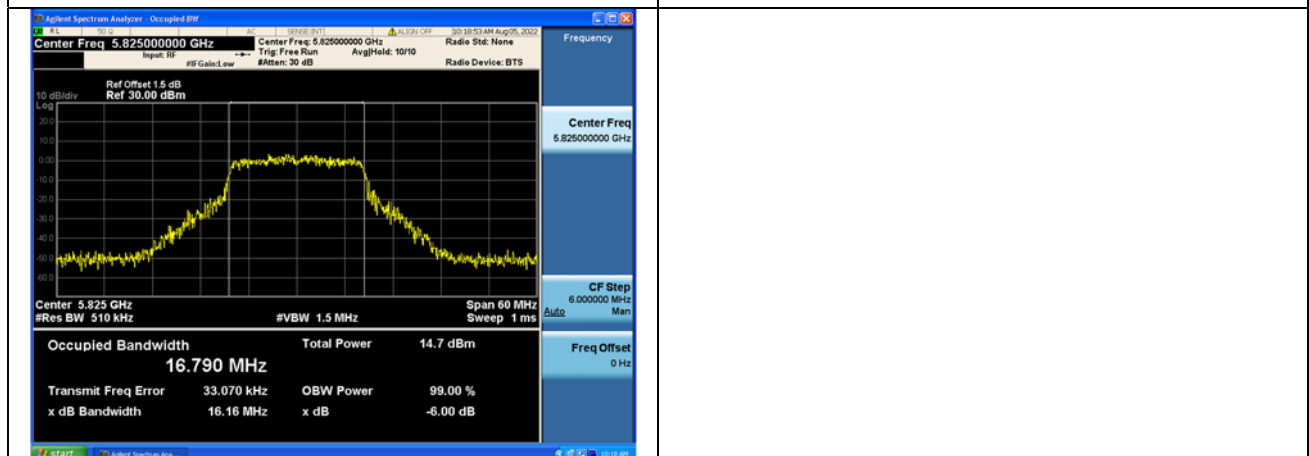
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.673	---	---
		5775MHz	---	---
802.11ac VHT80	Chain0	76.301	---	---

Test Mode: 802.11a



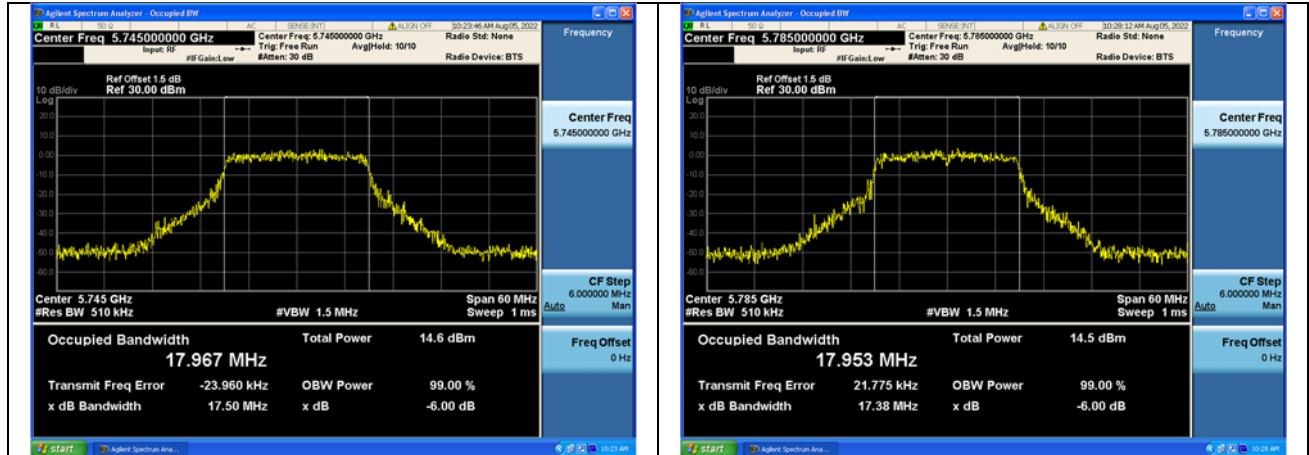
Test Mode:802.11a 5745MHz Chain0

Test Mode:802.11a 5785MHz Chain0



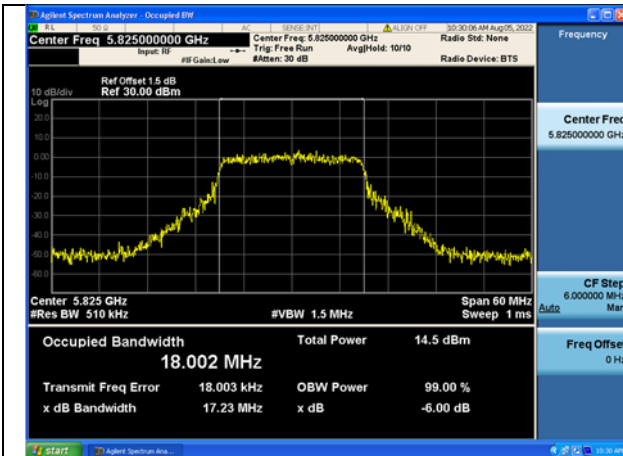
Test Mode:802.11a 5825MHz Chain0

Test Mode: 802.11n HT20



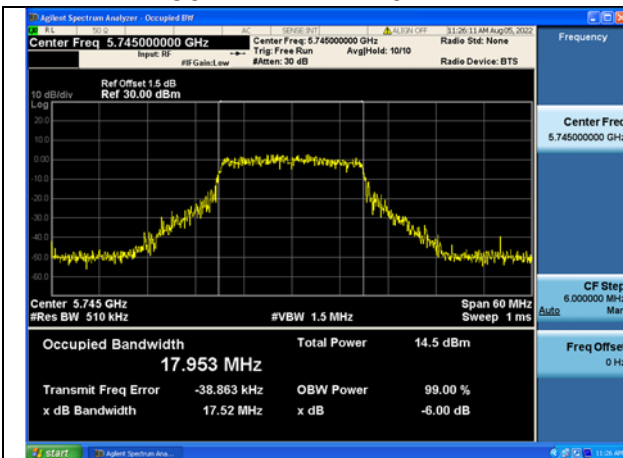
Test Mode:802.11n HT20 5745MHz Chain0

Test Mode:802.11n HT20 5785MHz Chain0

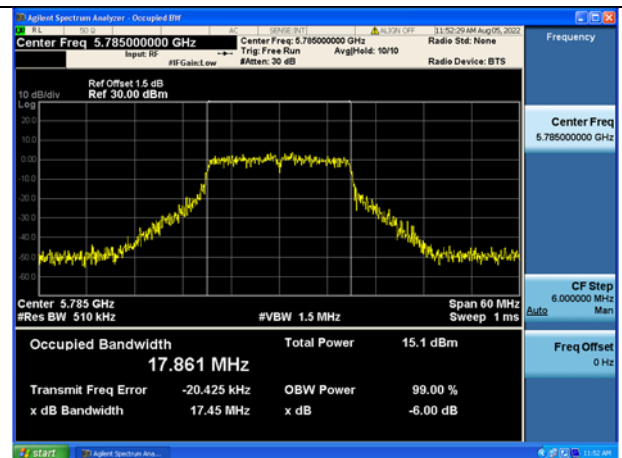


Test Mode:802.11n HT20 5825MHz Chain0

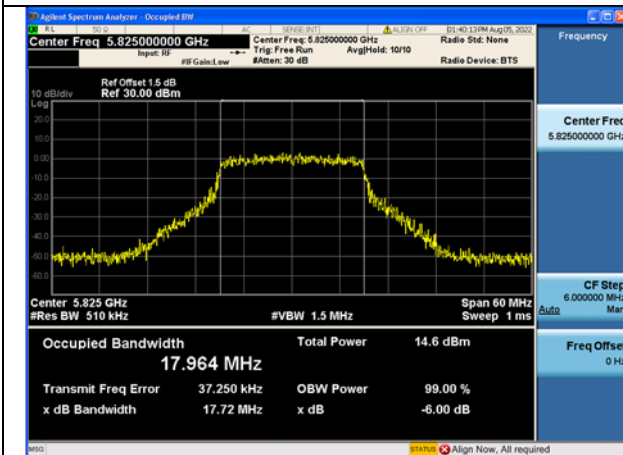
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5745MHz Chain0

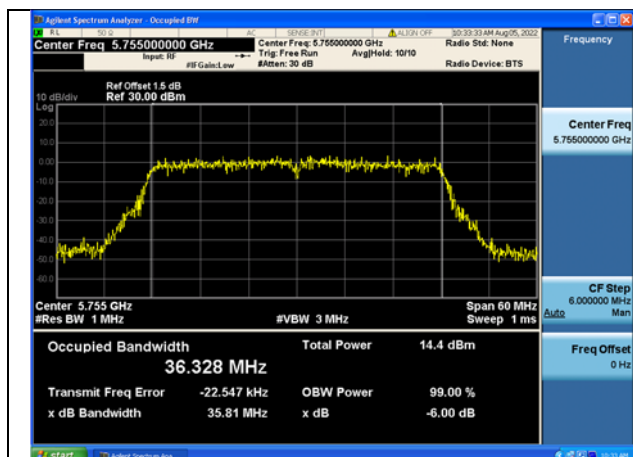


Test Mode:802.11ac VHT20 5785MHz Chain0

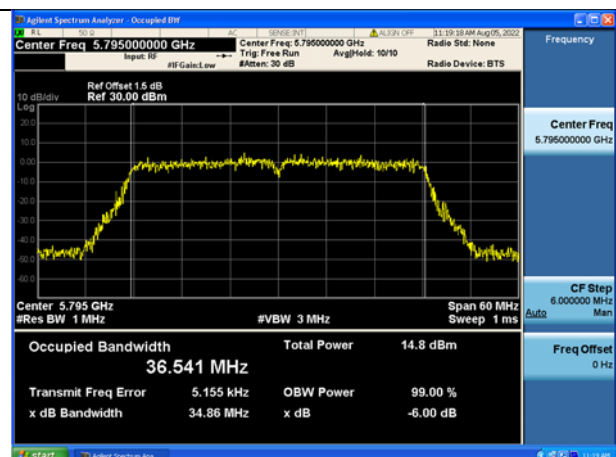


Test Mode:802.11ac VHT20 5825MHz Chain0

Test Mode: 802.11n HT40

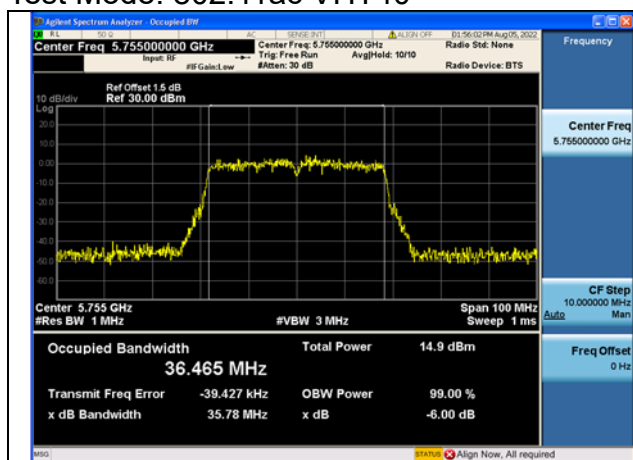


Test Mode:802.11n HT40 5755MHz Chain0

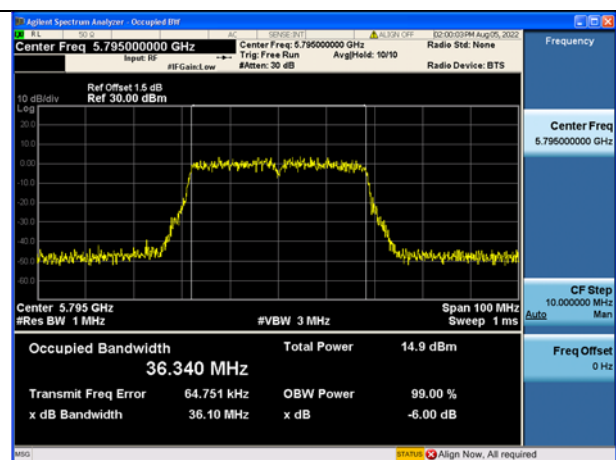


Test Mode:802.11n HT40 5795MHz Chain0

Test Mode: 802.11ac VHT40

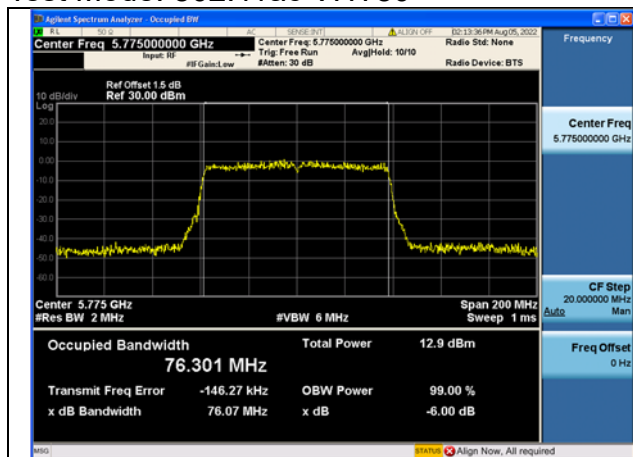


Test Mode:802.11ac VHT40 5755MHz Chain0



Test Mode:802.11ac VHT40 5795MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5775MHz Chain0

6dB Bandwidth

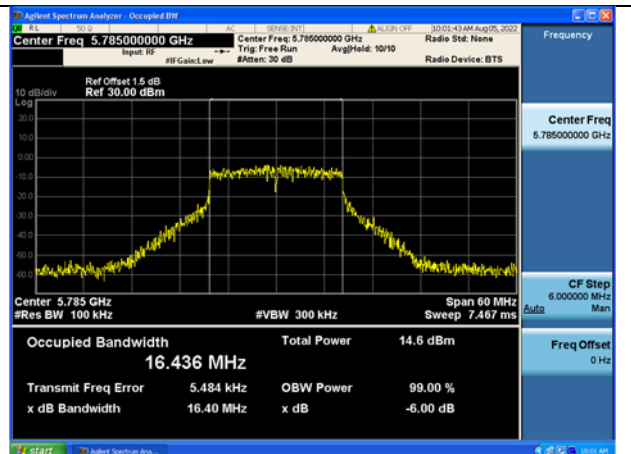
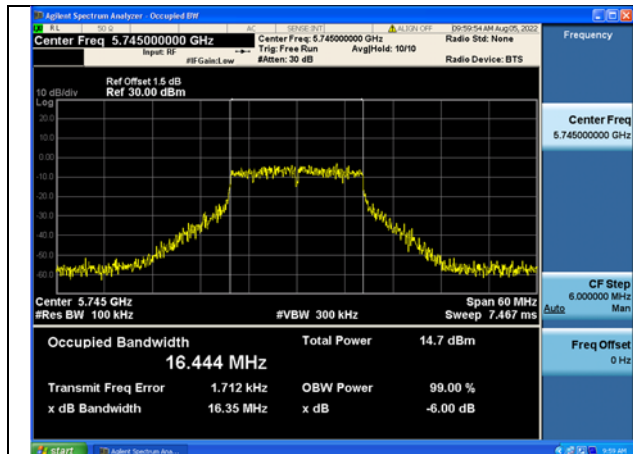
Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	6dB Bandwidth (MHz)		
		Channel No.667	Channel No.675	Channel No.683
		5745MHz	5785MHz	5825MHz
802.11a	Chain0	16.35	16.40	16.28
802.11n HT20	Chain0	17.55	17.58	17.63
802.11ac VHT20	Chain0	17.05	17.33	17.52

Test Mode	Antenna	6dB Bandwidth (MHz)		
		Channel No.669	---	Channel No.677
		5755MHz	---	5795MHz
802.11n HT40	Chain0	35.68	---	35.76
802.11ac VHT40	Chain0	36.06	---	36.38

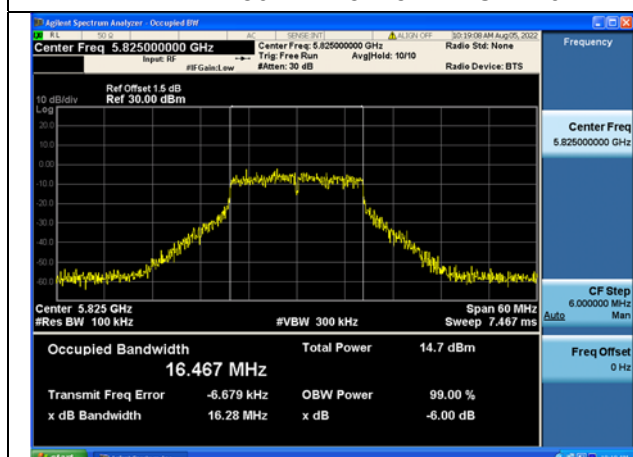
Test Mode	Antenna	6dB Bandwidth (MHz)		
		Channel No.673	---	---
		5775MHz	---	---
802.11ac VHT80	Chain0	76.39	---	---

Test Mode: 802.11a



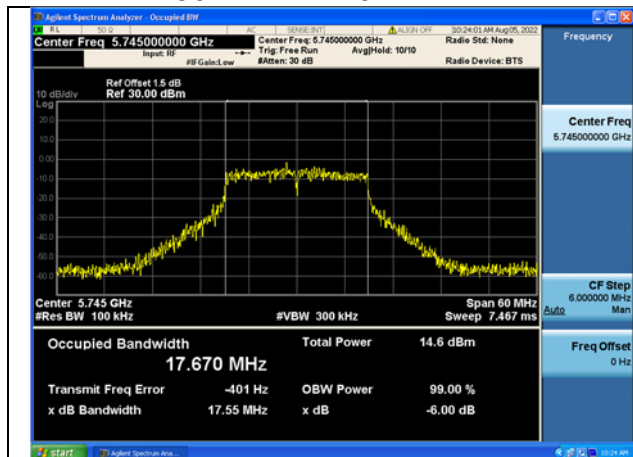
Test Mode:802.11a 5745MHz Chain0

Test Mode:802.11a 5785MHz Chain0

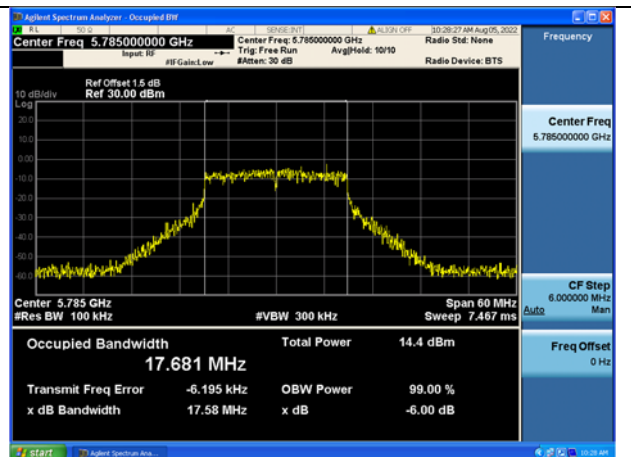


Test Mode:802.11a 5825MHz Chain0

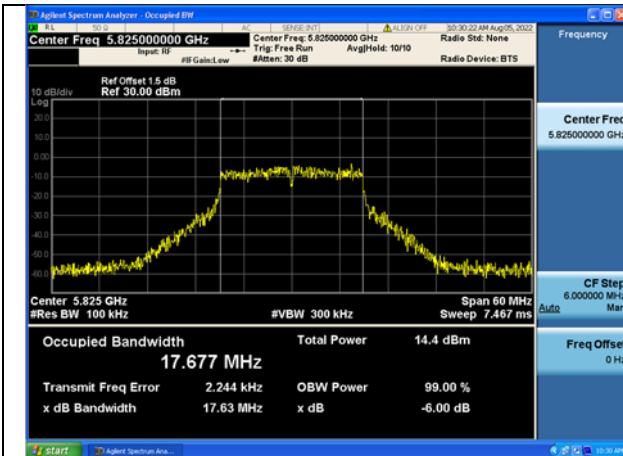
Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5745MHz Chain0

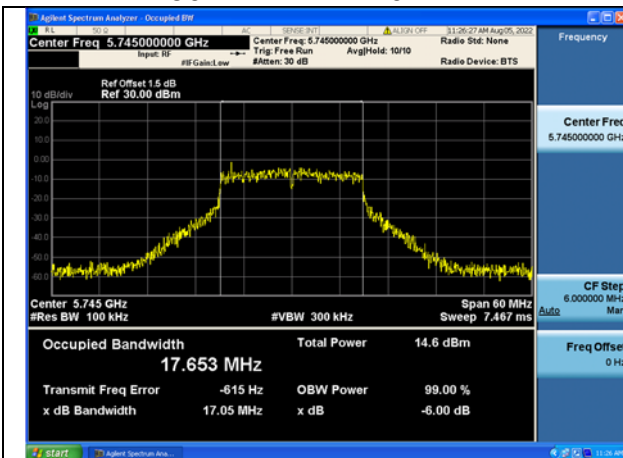


Test Mode:802.11n HT20 5785MHz Chain0

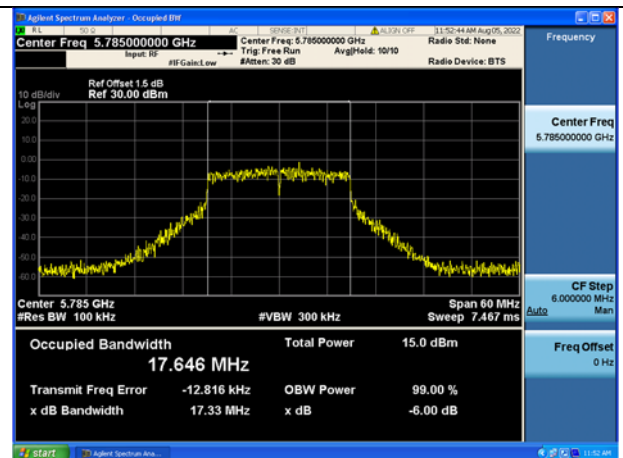


Test Mode:802.11n HT20 5825MHz Chain0

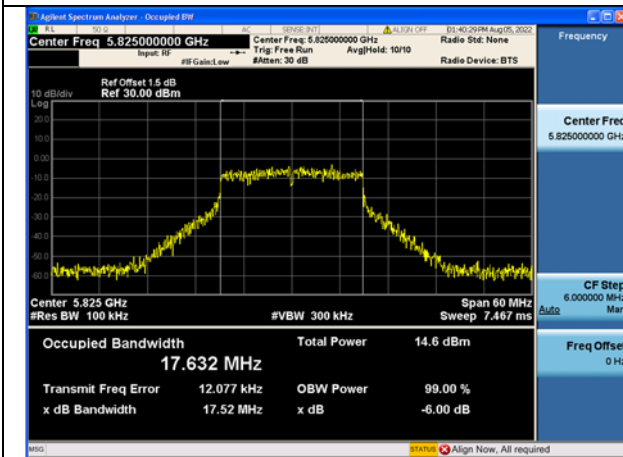
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5745MHz Chain0

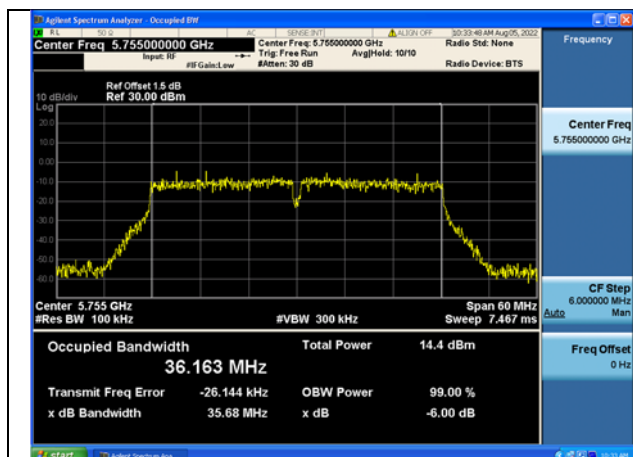


Test Mode:802.11ac VHT20 5785MHz Chain0

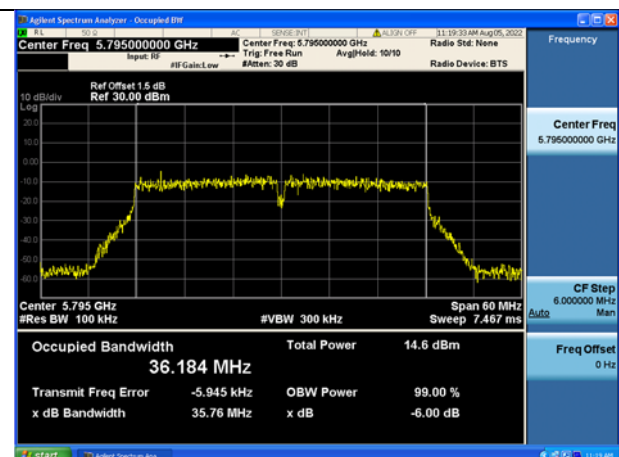


Test Mode:802.11ac VHT20 5825MHz Chain0

Test Mode: 802.11n HT40

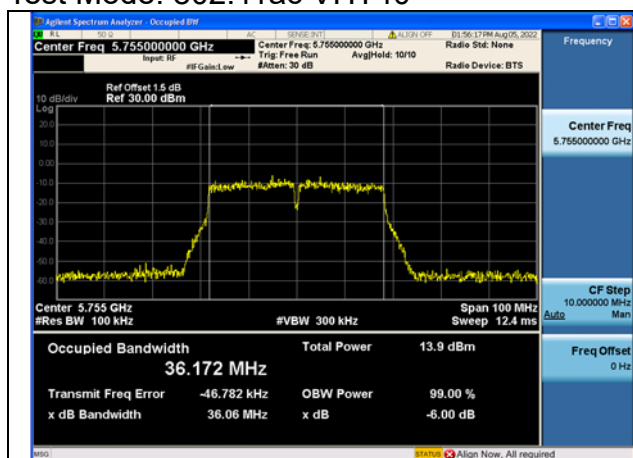


Test Mode:802.11n HT40 5755MHz Chain0

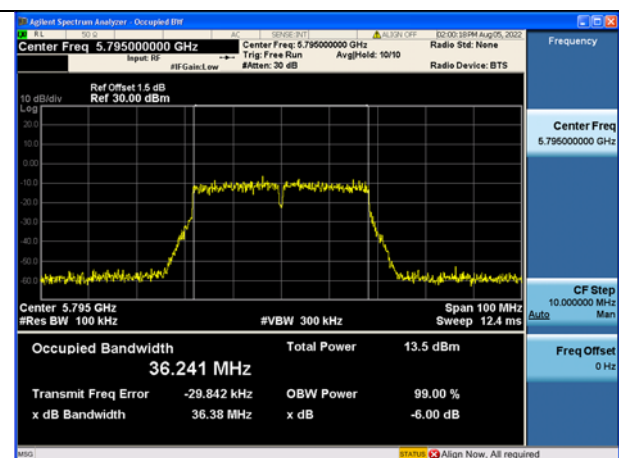


Test Mode:802.11n HT40 5795MHz Chain0

Test Mode: 802.11ac VHT40

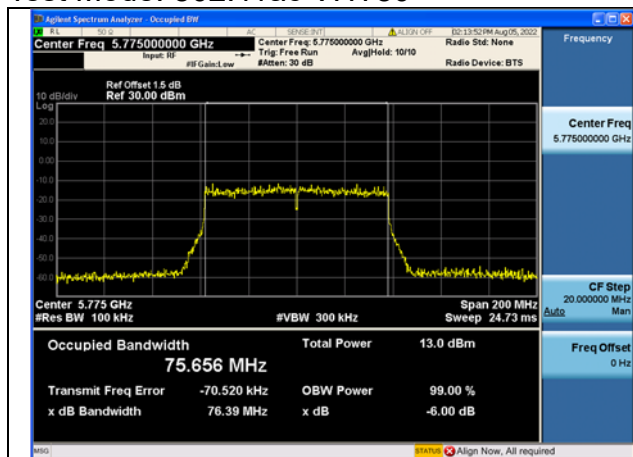


Test Mode:802.11ac VHT40 5755MHz Chain0



Test Mode:802.11ac VHT40 5795MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5775MHz Chain0

Transmitter Power Spectral Density

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

Test Mode	Antenna	5745MHz		5785MHz		5825MHz	
		Correction Factor(dB)	Power Density (dBm/500KHz)	Correction Factor(dB)	Power Density (dBm/500KHz)	Correction Factor(dB)	Power Density (dBm/500KHz)
802.11a	Chain0	0	-1.576	0	-1.790	0	-1.677
802.11n HT20	Chain0	0	-1.849	0	-1.978	0	-2.123
802.11ac VHT20	Chain0	0	-2.036	0	-1.712	0	-1.858

Note: As measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/\text{RBW})$ to the measured result.

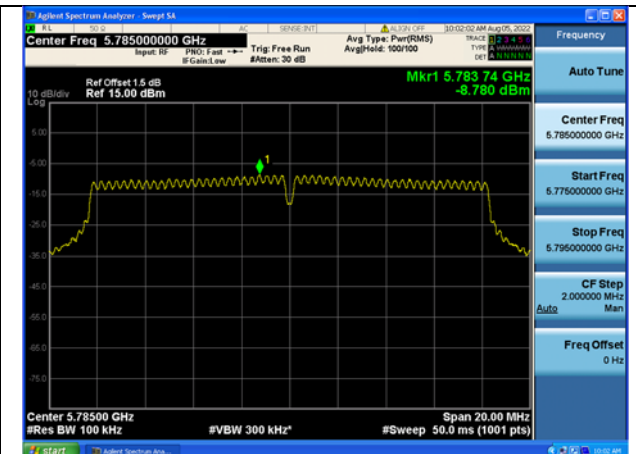
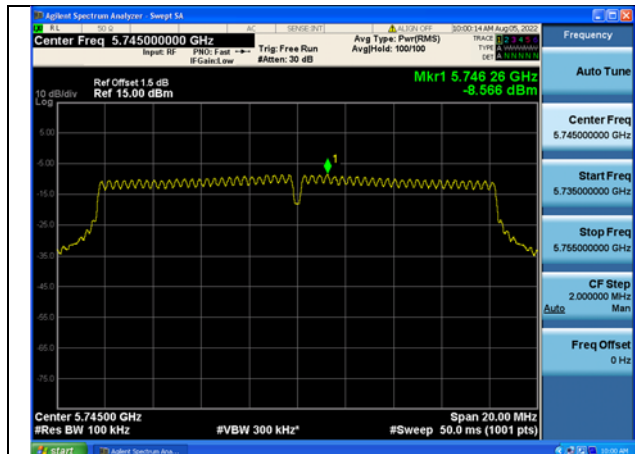
Test Mode	Antenna	5755MHz		---		5795MHz	
		Correction Factor(dB)	Power Density (dBm/500KHz)	Correction Factor(dB)	Power Density (dBm/500KHz)	Correction Factor(dB)	Power Density (dBm/500KHz)
802.11n HT40	Chain0	0	-5.016	---	---	0	-4.353
802.11ac VHT40	Chain0	0.09	-5.056	---	---	0.09	-5.272

Note: As measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/\text{RBW})$ to the measured result.

Test Mode	Antenna	5775MHz		---		---	
		Correction Factor(dB)	Power Density (dBm/500KHz)	Correction Factor(dB)	Power Density (dBm/500KHz)	Correction Factor(dB)	Power Density (dBm/500KHz)
802.11ac VHT80	Chain0	0.18	-8.280	---	---	---	---

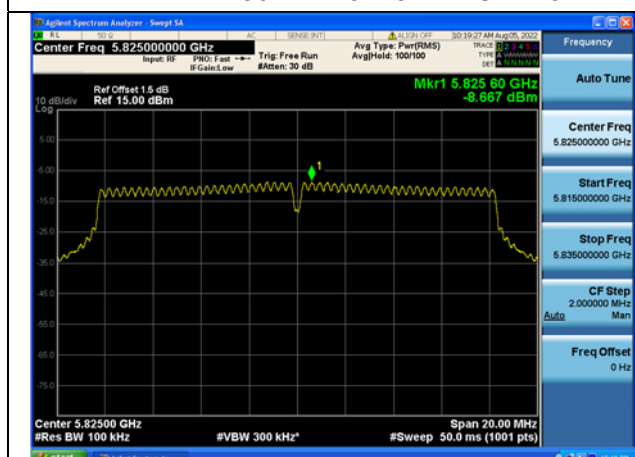
Note: As measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10log(500kHz/RBW) to the measured result.

Test Mode: 802.11a



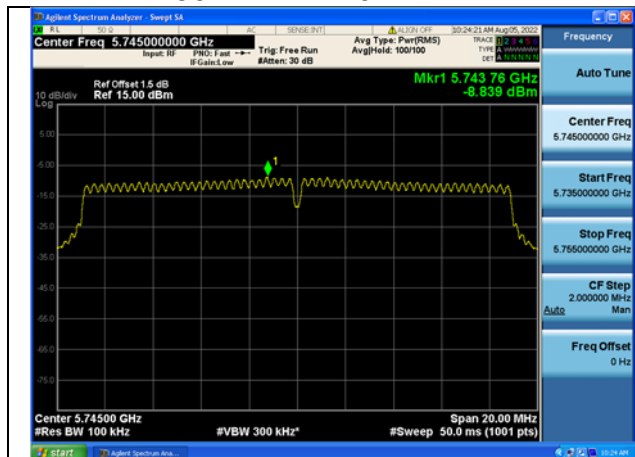
Test Mode:802.11a 5745MHz Chain0

Test Mode:802.11a 5785MHz Chain0

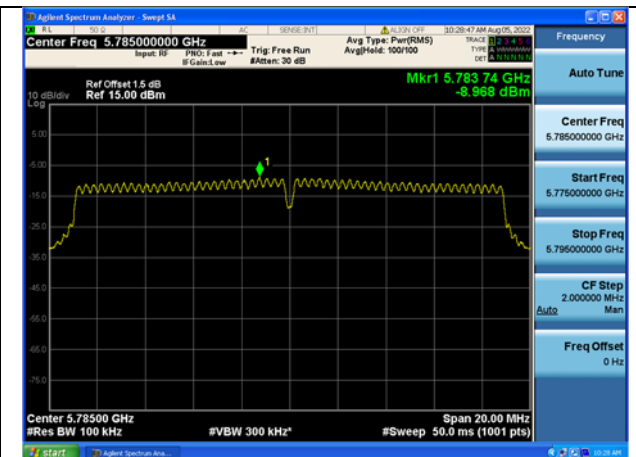


Test Mode:802.11a 5825MHz Chain0

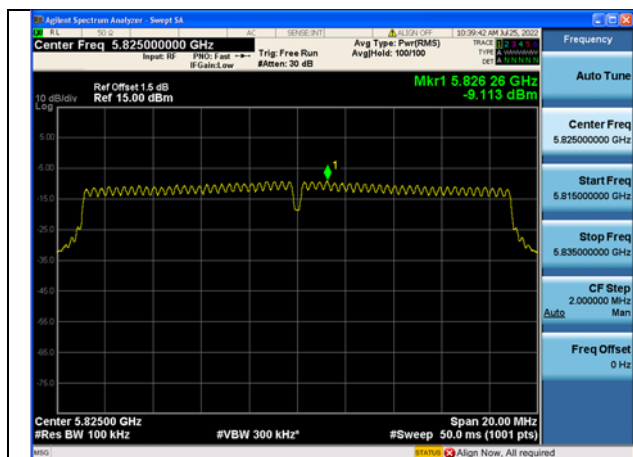
Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5745MHz Chain0

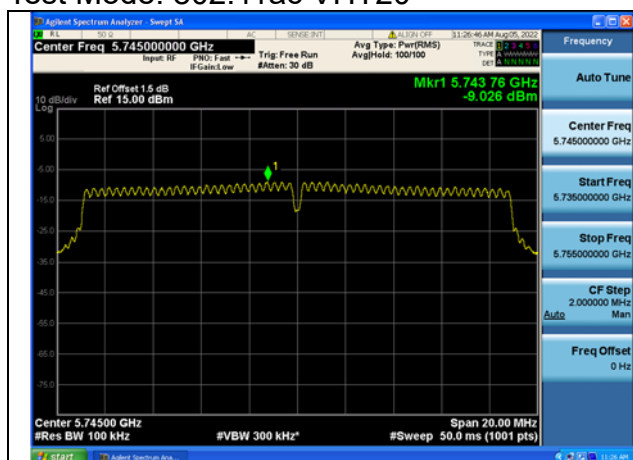


Test Mode:802.11n HT20 5785MHz Chain0

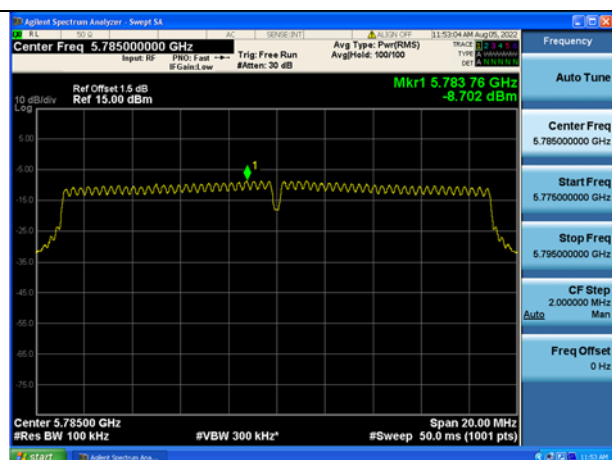


Test Mode:802.11n HT20 5825MHz Chain0

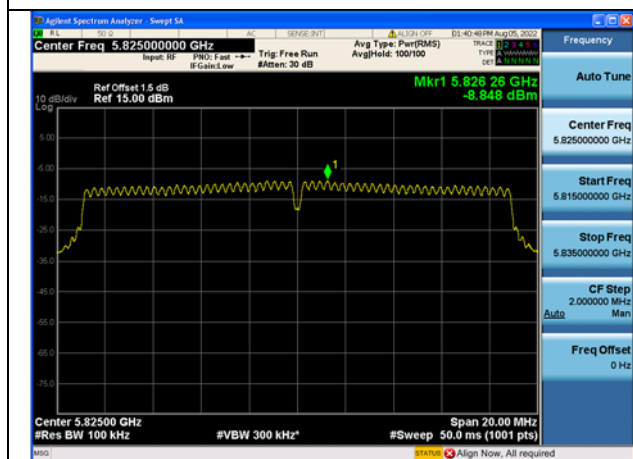
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5745MHz Chain0

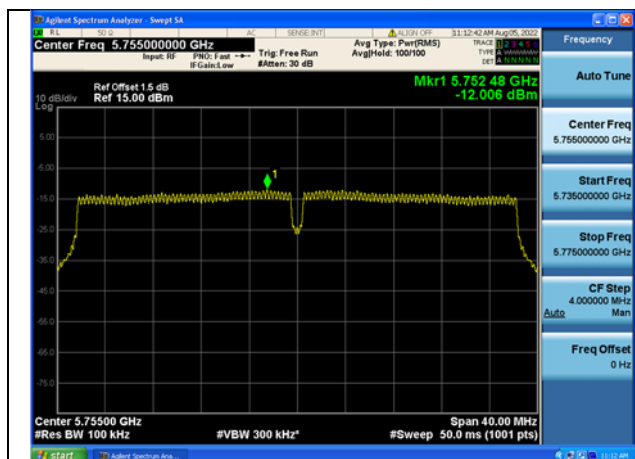


Test Mode:802.11ac VHT20 5785MHz Chain0

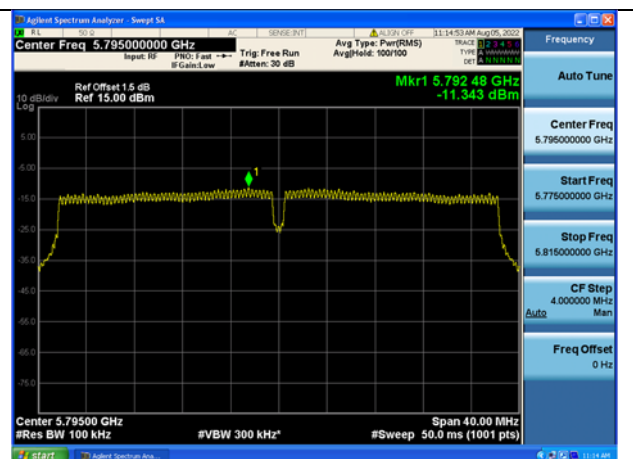


Test Mode:802.11ac VHT20 5825MHz Chain0

Test Mode: 802.11n HT40

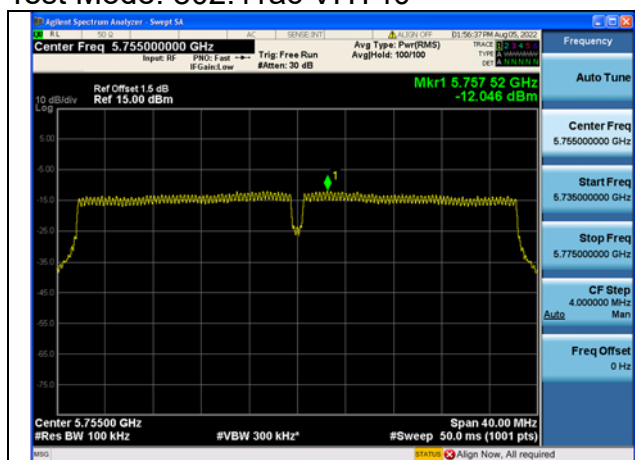


Test Mode:802.11n HT40 5755MHz Chain0

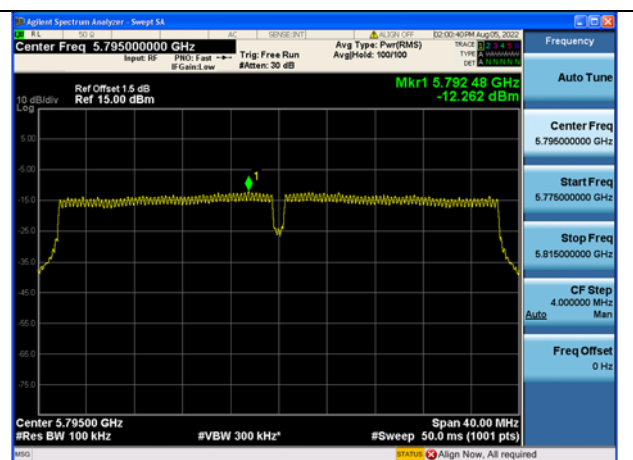


Test Mode:802.11n HT40 5795MHz Chain0

Test Mode: 802.11ac VHT40

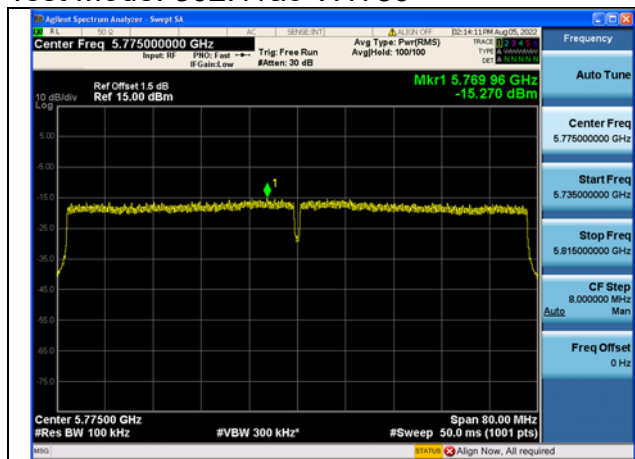


Test Mode:802.11ac VHT40 5755MHz Chain0



Test Mode:802.11ac VHT40 5795MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5775MHz Chain0