

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)	Plot
802.11a	5745	99.85%	0	Fig.1
802.11n HT20	5745	99.91%	0	Fig.2
802.11ac VHT20	5745	99.89%	0	Fig.3
802.11n HT40	5755	99.92%	0	Fig.4
802.11ac VHT40	5755	99.81%	0	Fig.5
802.11ac VHT80	5775	99.65%	0	Fig.6

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

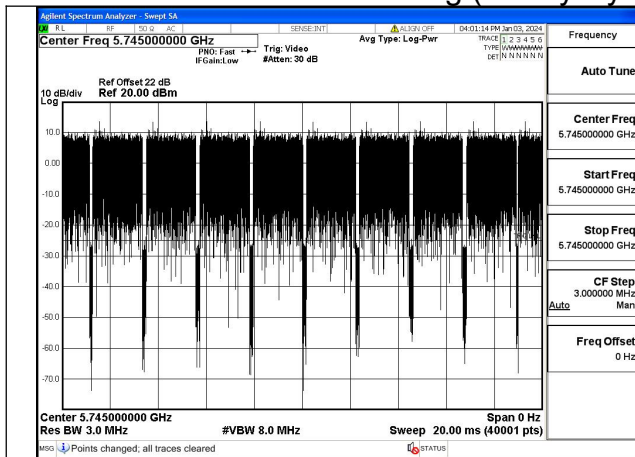


Fig.1

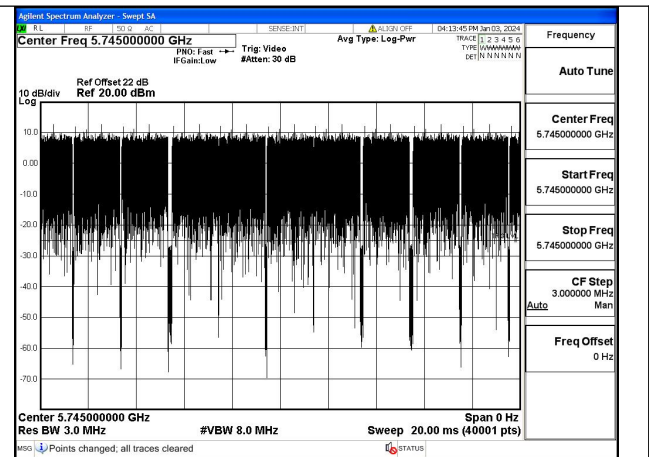


Fig.2

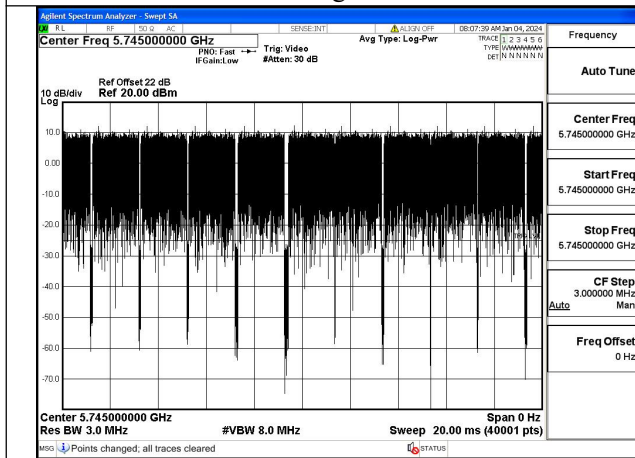


Fig.3

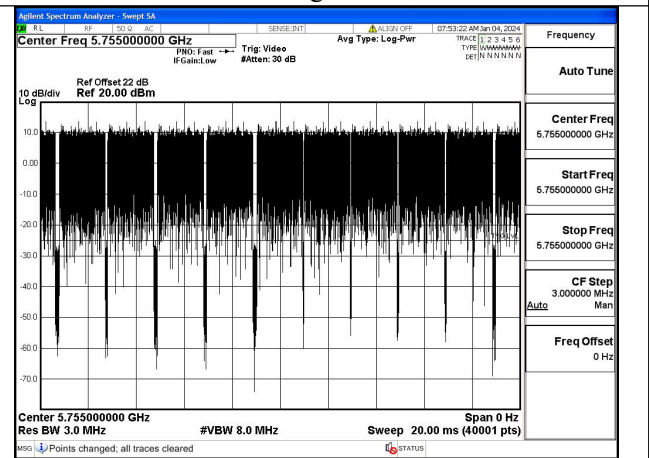


Fig.4

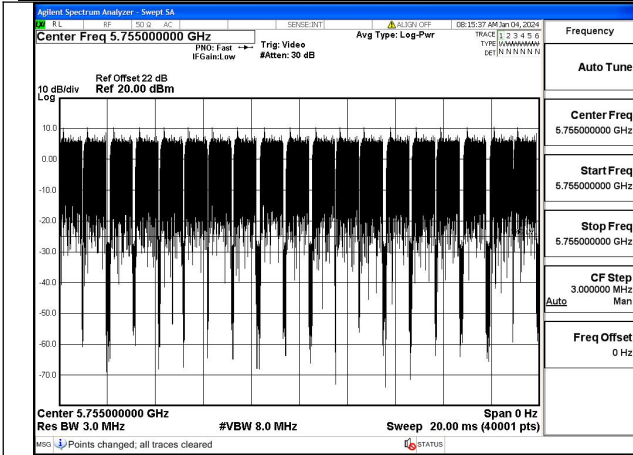


Fig.5

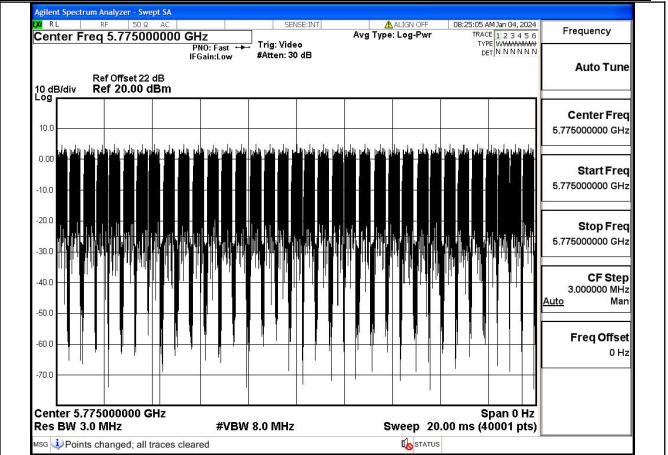


Fig.6

Output Power

Mode	Tones/ RU Index	Frequency (MHz)	Antenna	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5745	Chain0	8.85	11.85
802.11a	NA	5785	Chain0	8.39	11.39
802.11a	NA	5825	Chain0	7.82	10.82
802.11n HT20	NA	5745	Chain0	8.84	11.84
802.11n HT20	NA	5785	Chain0	8.59	11.59
802.11n HT20	NA	5825	Chain0	8.08	11.08
802.11ac VHT20	NA	5745	Chain0	9.64	12.64
802.11ac VHT20	NA	5785	Chain0	9.12	12.12
802.11ac VHT20	NA	5825	Chain0	8.65	11.65
802.11n HT40	NA	5755	Chain0	10.49	13.49
802.11n HT40	NA	5795	Chain0	9.58	12.58
802.11ac VHT40	NA	5755	Chain0	9.76	12.76
802.11ac VHT40	NA	5795	Chain0	9.00	12.00
802.11ac VHT80	NA	5775	Chain0	9.13	12.13

Emission Bandwidth

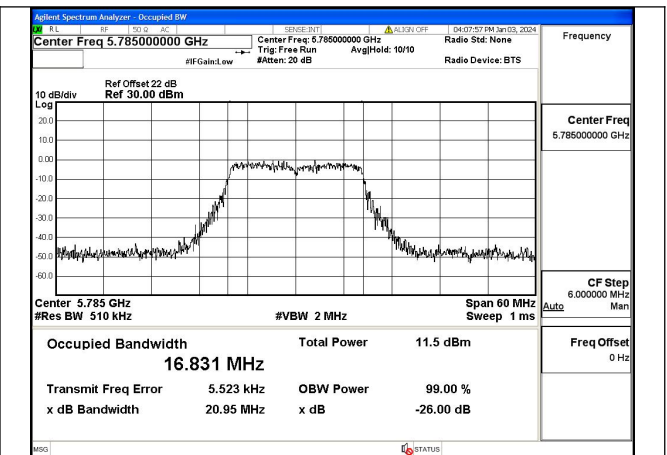
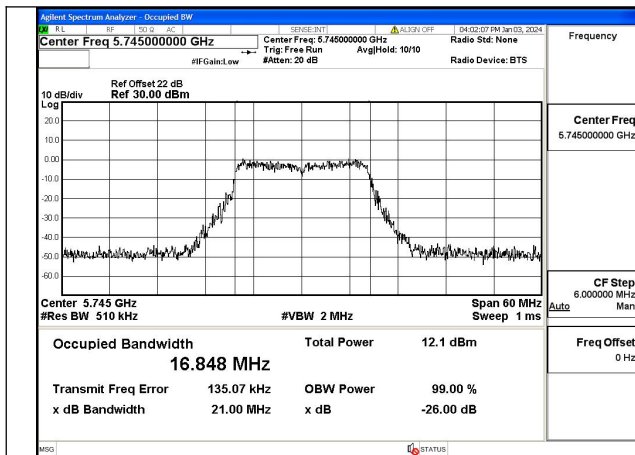
Offset 22dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5745MHz	5785MHz	5825MHz
802.11a	Chain0	21.00	20.95	20.50
802.11n HT20	Chain0	21.32	21.42	21.48
802.11ac VHT20	Chain0	21.59	21.80	21.84

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5755MHz	---	5795MHz
802.11n HT40	Chain0	41.67	---	42.02
802.11ac VHT40	Chain0	41.26	---	40.86

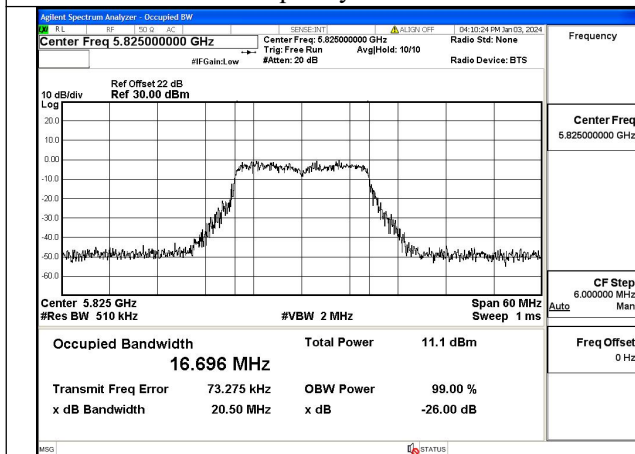
Test Mode	Antenna	26dB Bandwidth (MHz)		
		5775MHz	---	---
802.11ac VHT80	Chain0	81.70	---	---

Test Mode: 802.11a



Mode:802.11a Frequency:5745MHz Ant:Chain0

Mode:802.11a Frequency:5785MHz Ant:Chain0

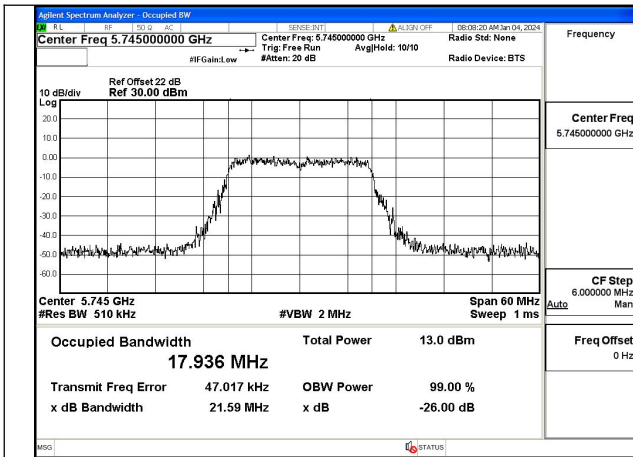


Mode:802.11a Frequency:5825MHz Ant:Chain0

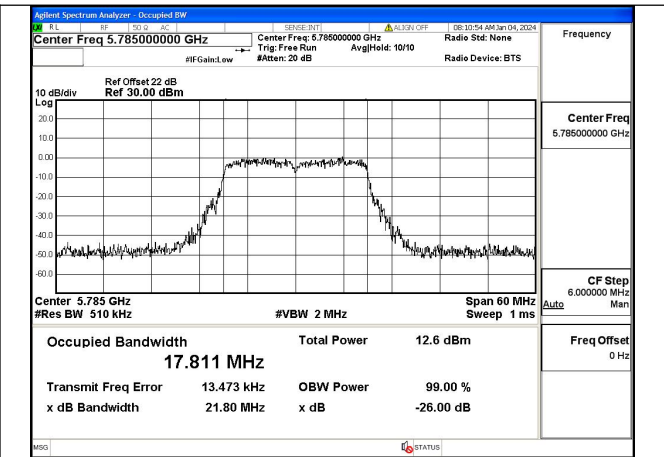
Test Mode: 802.11n HT20

<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.745000000 GHz</p> <p>Center Freq: 5.745000000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: 10/10</p> <p>Radio Device: BTS</p> <p>Ref Offset 22 dB</p> <p>Ref 30.00 dBm</p> <p>Center 5.745 GHz</p> <p>#Res BW 510 kHz</p> <p>#VBW 2 MHz</p> <p>Span 60 MHz</p> <p>Sweep 1 ms</p> <p>Occupied Bandwidth 17.802 MHz</p> <p>Total Power 12.2 dBm</p> <p>Transmit Freq Error 38.070 kHz</p> <p>x dB Bandwidth 21.32 MHz</p> <p>OBW Power 99.00 %</p> <p>x dB -26.00 dB</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.785000000 GHz</p> <p>Center Freq: 5.785000000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: 10/10</p> <p>Radio Device: BTS</p> <p>Ref Offset 22 dB</p> <p>Ref 30.00 dBm</p> <p>Center 5.785 GHz</p> <p>#Res BW 510 kHz</p> <p>#VBW 2 MHz</p> <p>Span 60 MHz</p> <p>Sweep 1 ms</p> <p>Occupied Bandwidth 17.837 MHz</p> <p>Total Power 11.9 dBm</p> <p>Transmit Freq Error -13.505 kHz</p> <p>x dB Bandwidth 21.42 MHz</p> <p>OBW Power 99.00 %</p> <p>x dB -26.00 dB</p>
<p>Mode:802.11n HT20 Frequency:5745MHz Ant:Chain0</p> <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.825000000 GHz</p> <p>Center Freq: 5.825000000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: 10/10</p> <p>Radio Device: BTS</p> <p>Ref Offset 22 dB</p> <p>Ref 30.00 dBm</p> <p>Center 5.825 GHz</p> <p>#Res BW 510 kHz</p> <p>#VBW 2 MHz</p> <p>Span 60 MHz</p> <p>Sweep 1 ms</p> <p>Occupied Bandwidth 17.864 MHz</p> <p>Total Power 11.3 dBm</p> <p>Transmit Freq Error 87.567 kHz</p> <p>x dB Bandwidth 21.48 MHz</p> <p>OBW Power 99.00 %</p> <p>x dB -26.00 dB</p>	<p>Mode:802.11n HT20 Frequency:5785MHz Ant:Chain0</p>
<p>Mode:802.11n HT20 Frequency:5825MHz Ant:Chain0</p>	

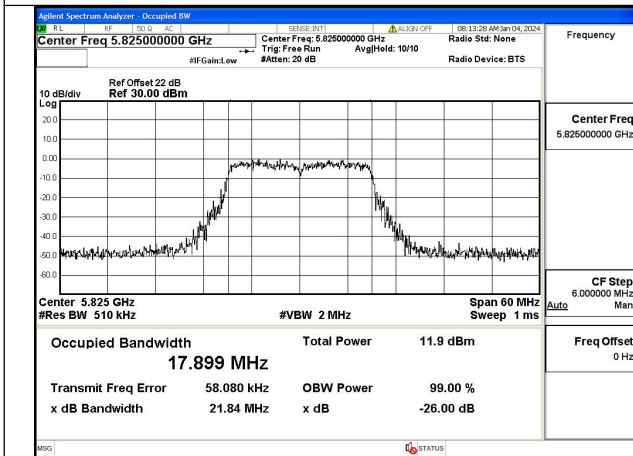
Test Mode: 802.11ac VHT20



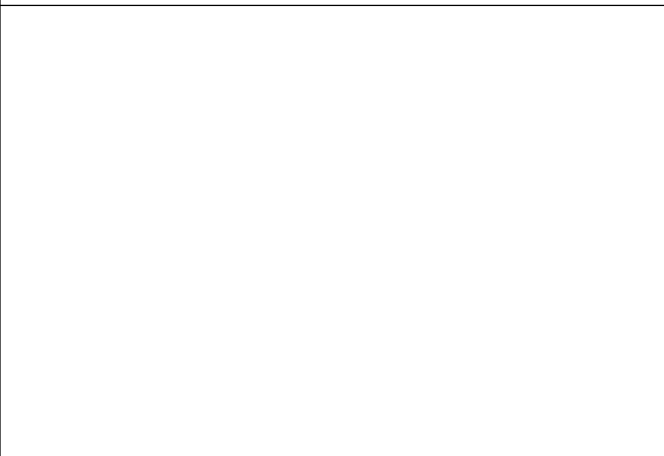
Mode:802.11ac VHT20 Frequency:5745MHz
Ant:Chain0



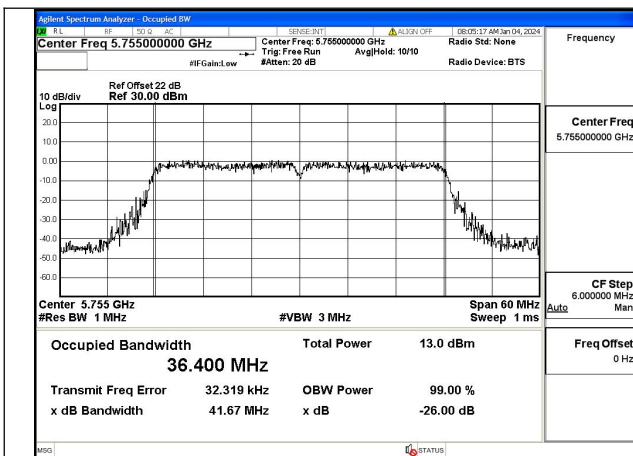
Mode:802.11ac VHT20 Frequency:5785MHz
Ant:Chain0



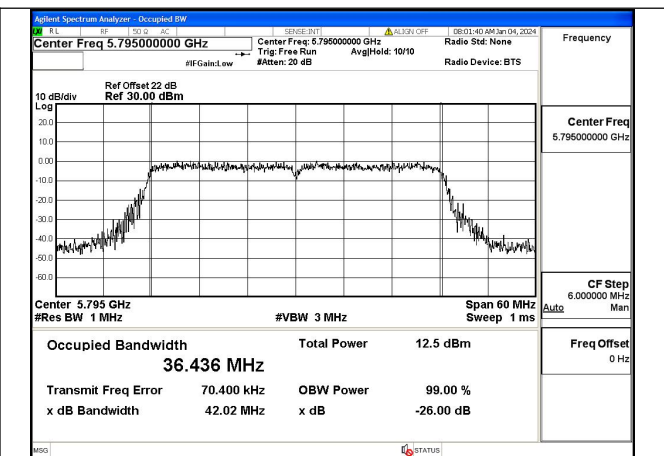
Mode:802.11ac VHT20 Frequency:5825MHz
Ant:Chain0



Test Mode: 802.11n HT40

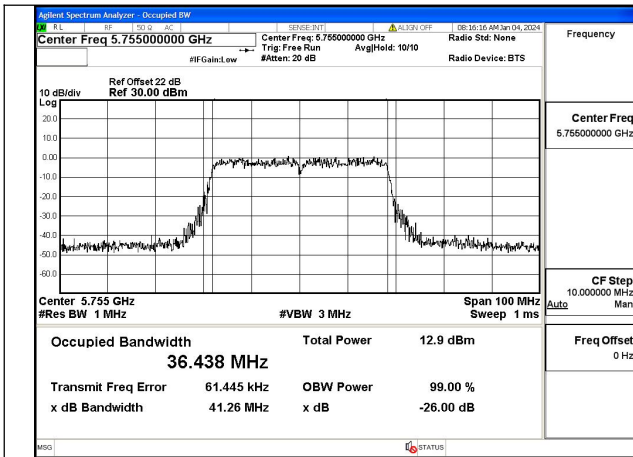


Mode:802.11n HT40 Frequency:5755MHz Ant:Chain0

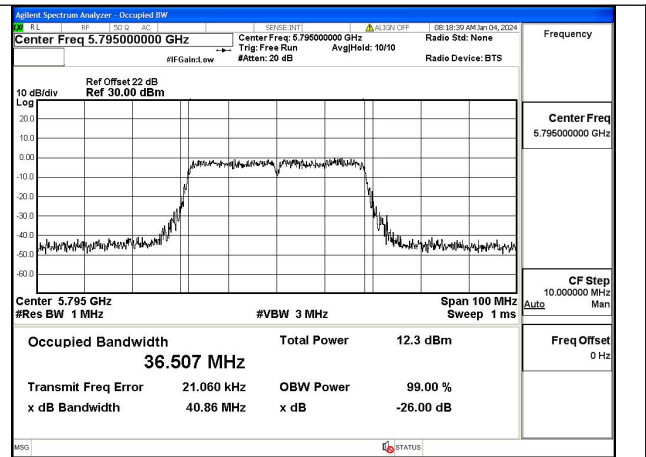


Mode:802.11n HT40 Frequency:5795MHz Ant:Chain0

Test Mode: 802.11ac VHT40

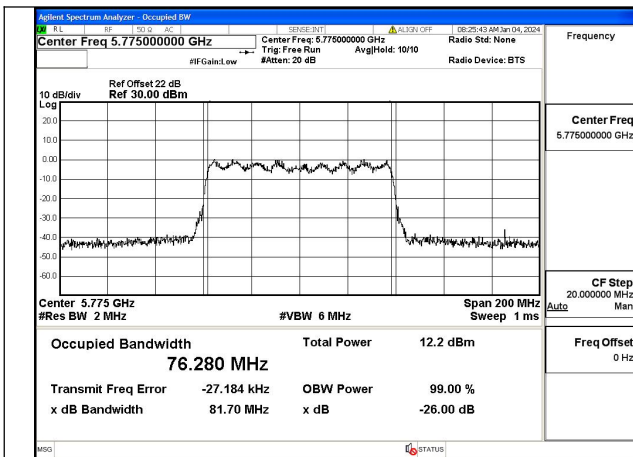


Mode:802.11ac VHT40 Frequency:5755MHz
Ant:Chain0



Mode:802.11ac VHT40 Frequency:5795MHz
Ant:Chain0

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5775MHz
Ant:Chain0

Occupied Bandwidth

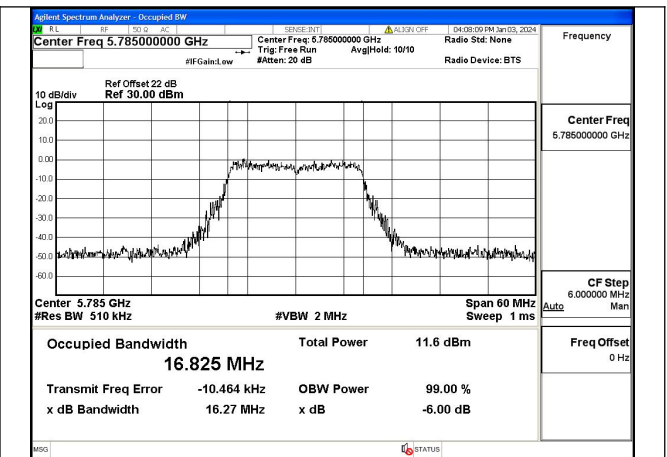
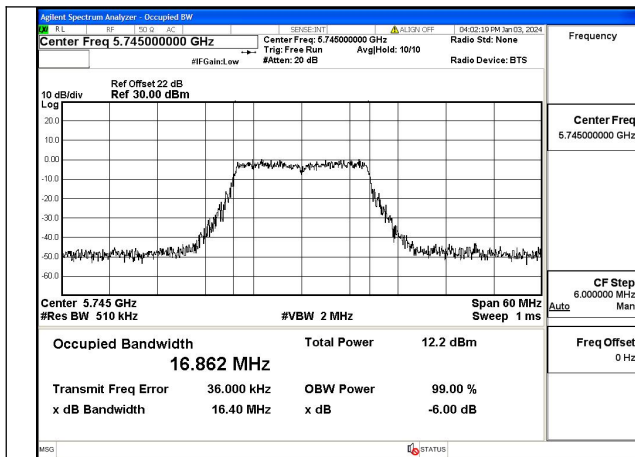
Offset 22dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5745MHz	5785MHz	5825MHz
802.11a	Chain0	16.862	16.825	16.664
802.11n HT20	Chain0	17.800	17.878	17.842
802.11ac VHT20	Chain0	17.945	17.869	17.868

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5755MHz	---	5795MHz
802.11n HT40	Chain0	36.402	---	36.473
802.11ac VHT40	Chain0	36.443	---	36.429

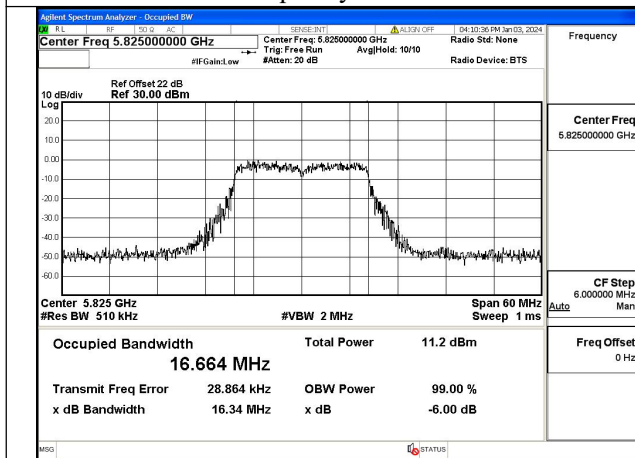
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5775MHz	---	---
802.11ac VHT80	Chain0	76.412	---	---

Test Mode: 802.11a



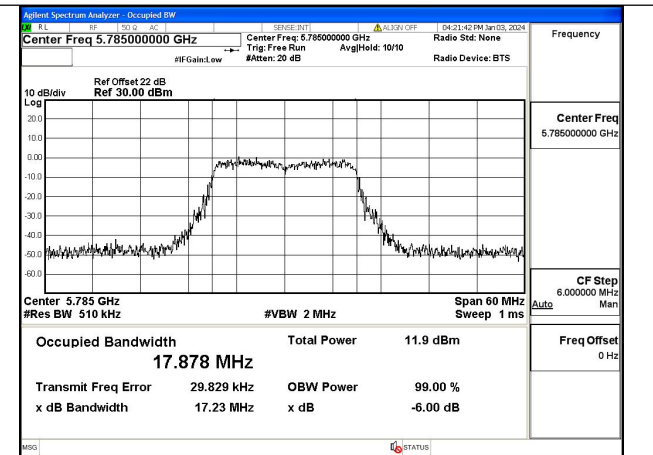
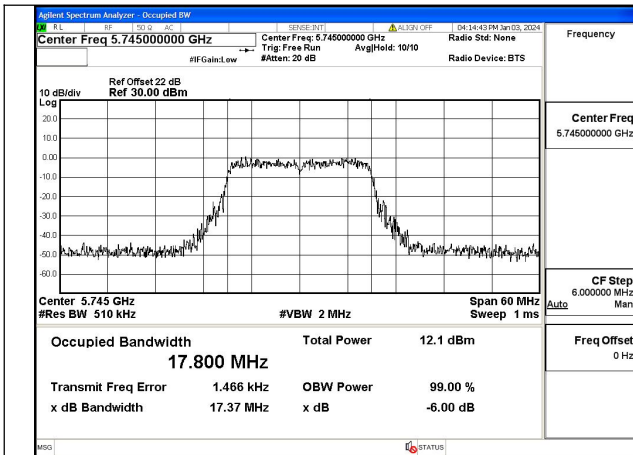
Mode:802.11a Frequency:5745MHz Ant:Chain0

Mode:802.11a Frequency:5785MHz Ant:Chain0



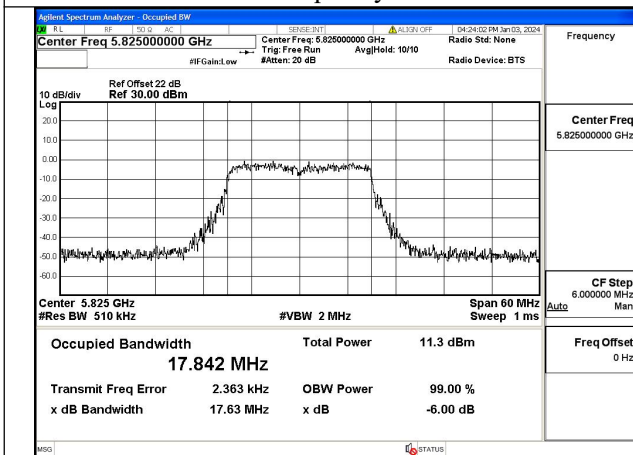
Mode:802.11a Frequency:5825MHz Ant:Chain0

Test Mode: 802.11n HT20



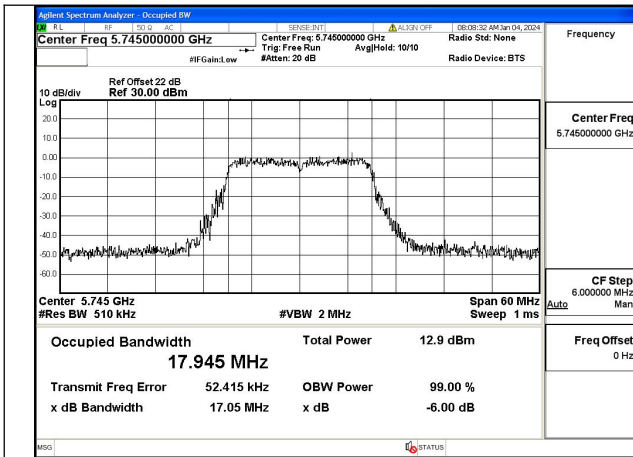
Mode:802.11n HT20 Frequency:5745MHz Ant:Chain0

Mode:802.11n HT20 Frequency:5785MHz Ant:Chain0

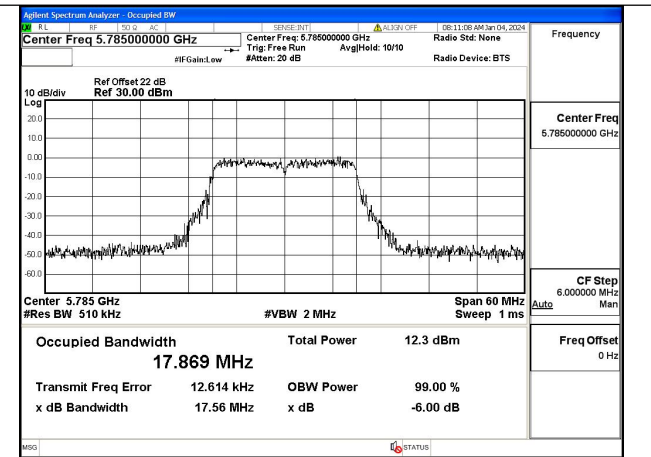


Mode:802.11n HT20 Frequency:5825MHz Ant:Chain0

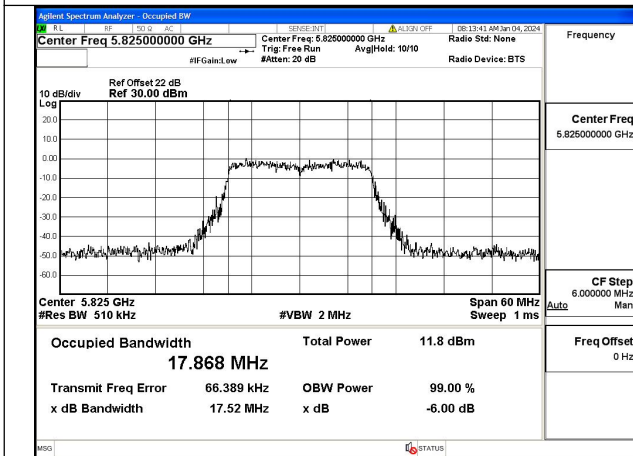
Test Mode: 802.11ac VHT20



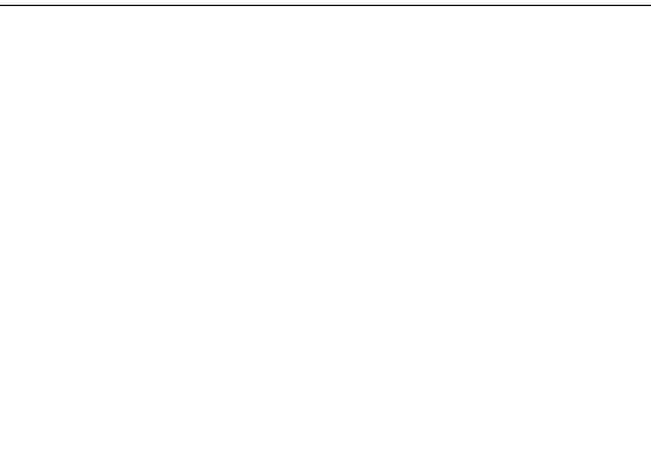
Mode:802.11ac VHT20 Frequency:5745MHz
Ant:Chain0



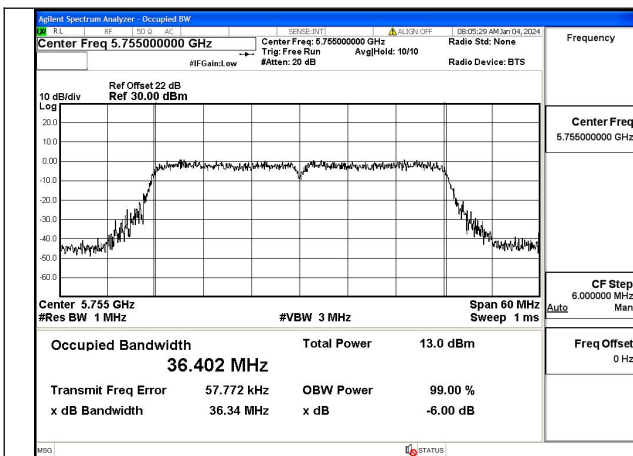
Mode:802.11ac VHT20 Frequency:5785MHz
Ant:Chain0



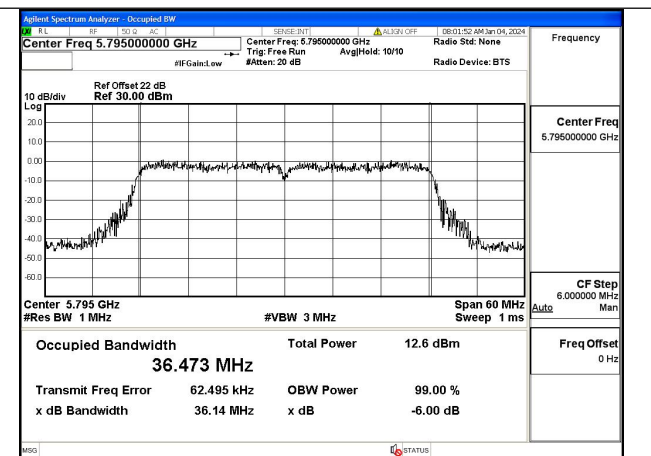
Mode:802.11ac VHT20 Frequency:5825MHz
Ant:Chain0



Test Mode: 802.11n HT40

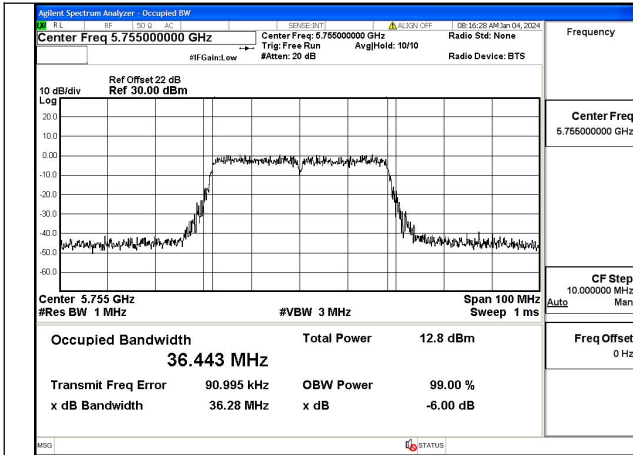


Mode:802.11n HT40 Frequency:5755MHz Ant:Chain0

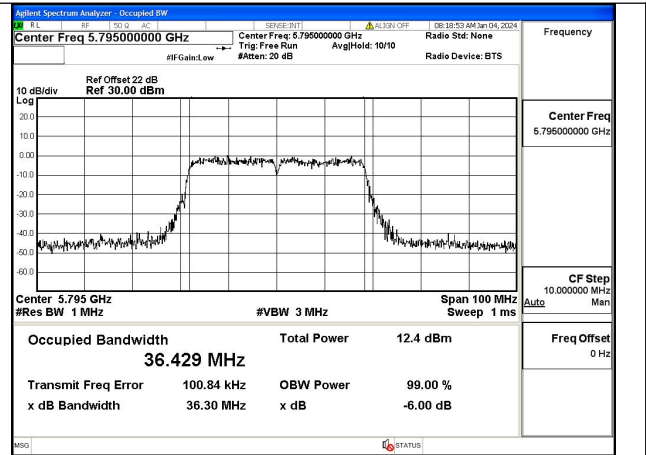


Mode:802.11n HT40 Frequency:5795MHz Ant:Chain0

Test Mode: 802.11ac VHT40

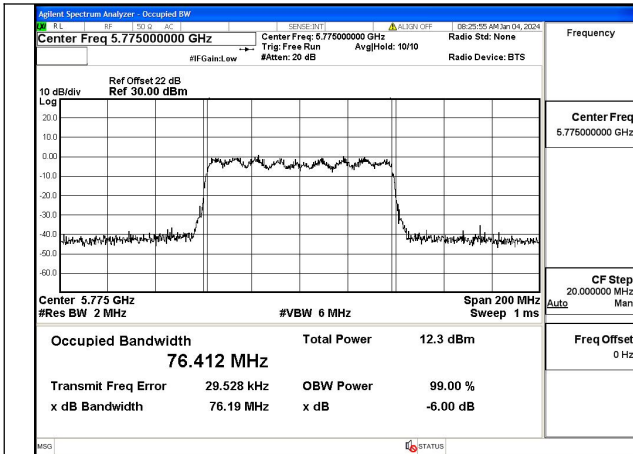


Mode:802.11ac VHT40 Frequency:5755MHz
Ant:Chain0



Mode:802.11ac VHT40 Frequency:5795MHz
Ant:Chain0

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5775MHz
Ant:Chain0

6dB Bandwidth

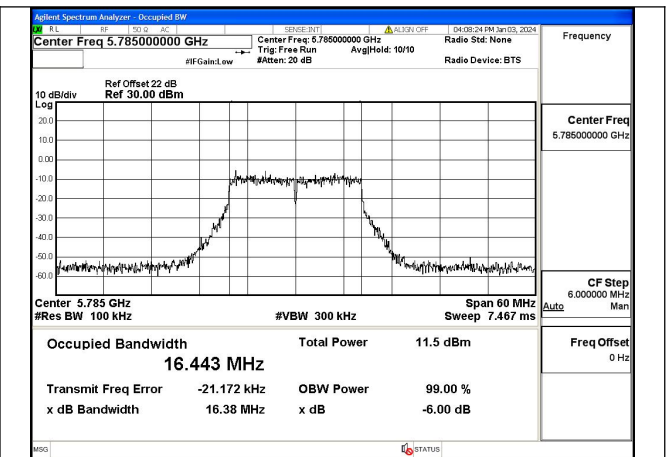
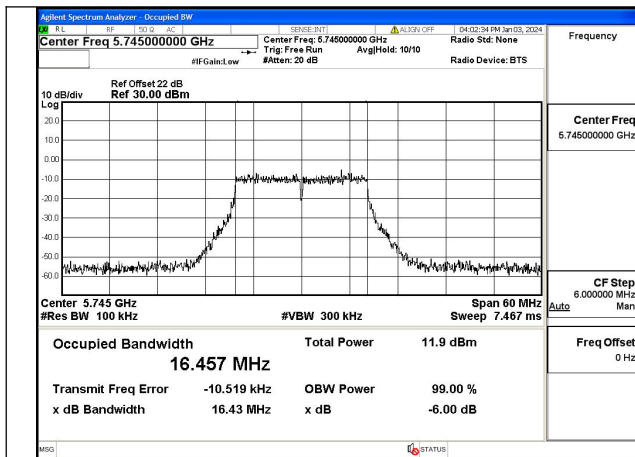
Offset 22dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	6dB Bandwidth (MHz)		
		5745MHz	5785MHz	5825MHz
802.11a	Chain0	16.43	16.38	16.46
802.11n HT20	Chain0	17.58	17.65	17.54
802.11ac VHT20	Chain0	17.31	17.67	17.64

Test Mode	Antenna	6dB Bandwidth (MHz)		
		5755MHz	---	5795MHz
802.11n HT40	Chain0	36.35	---	35.54
802.11ac VHT40	Chain0	35.72	---	35.48

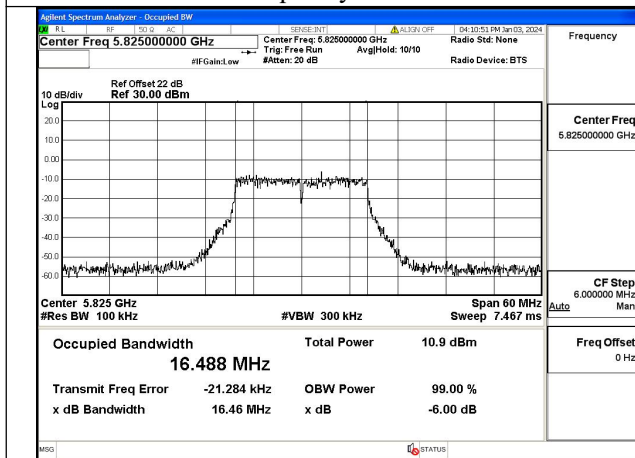
Test Mode	Antenna	6dB Bandwidth (MHz)		
		5775MHz	---	---
802.11ac VHT80	Chain0	75.30	---	---

Test Mode: 802.11a



Mode:802.11a Frequency:5745MHz Ant:Chain0

Mode:802.11a Frequency:5785MHz Ant:Chain0



Mode:802.11a Frequency:5825MHz Ant:Chain0