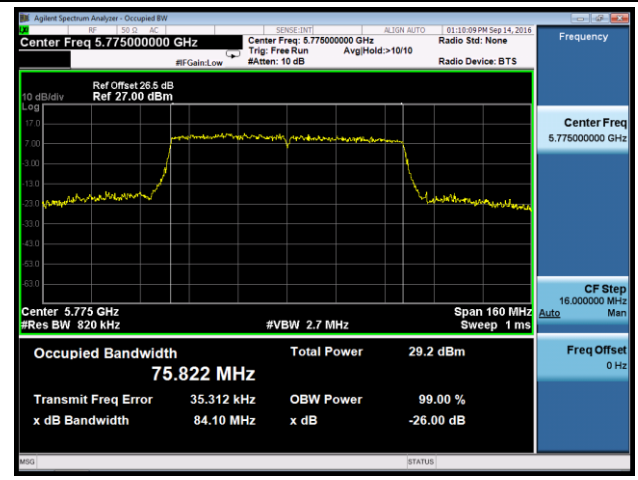
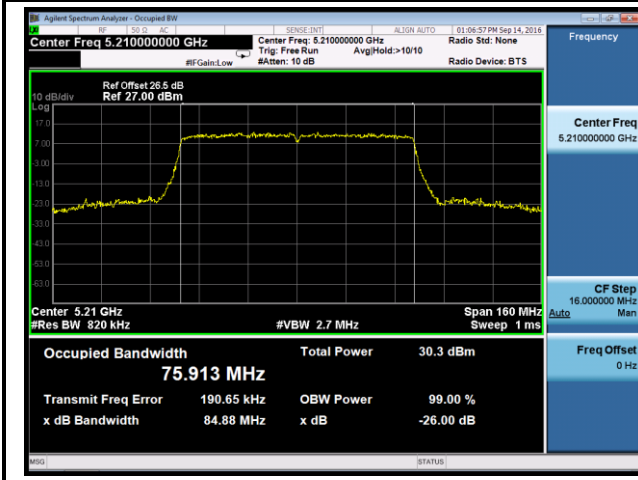


802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth - Ant 1

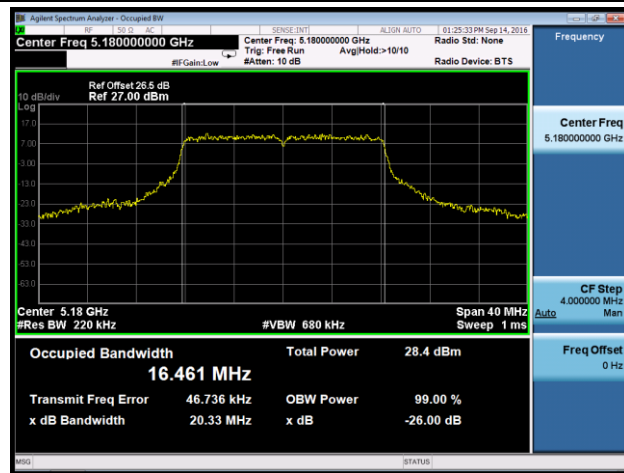
Channel 42 (5210MHz)

Channel 155 (5755MHz)

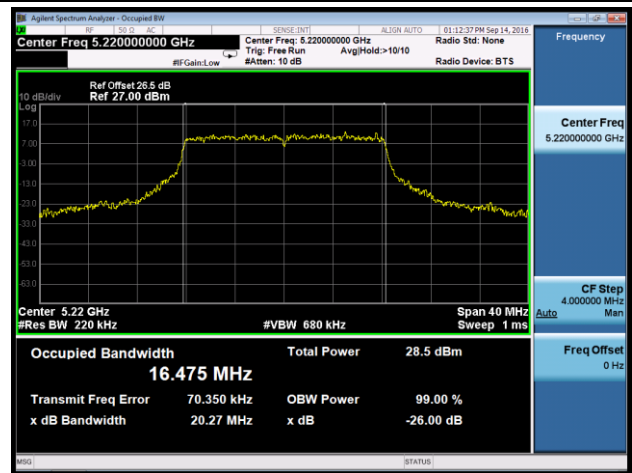


802.11a 26dB Bandwidth & 99% Bandwidth - Ant 2

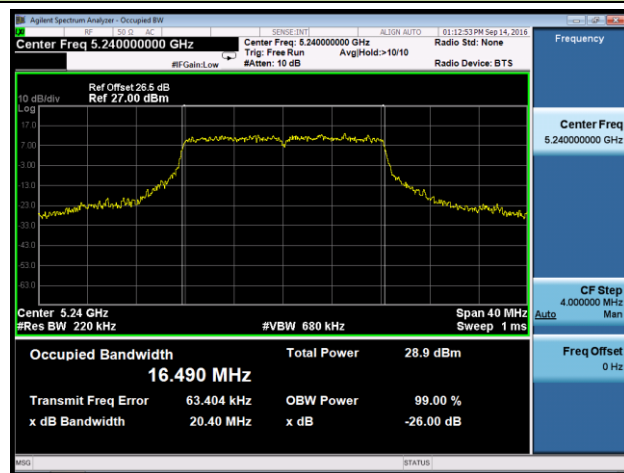
Channel 36 (5180MHz)



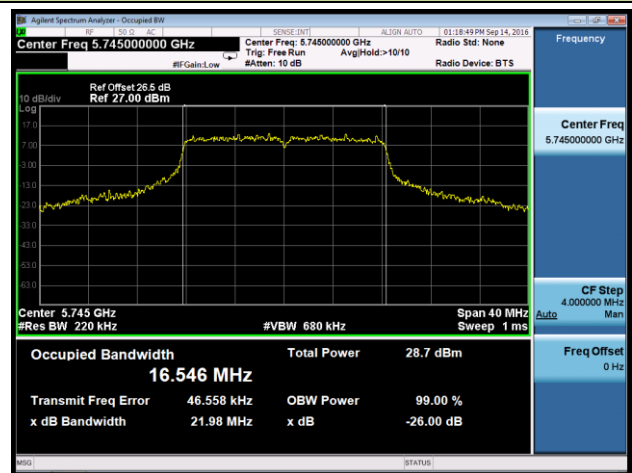
Channel 44 (5220MHz)



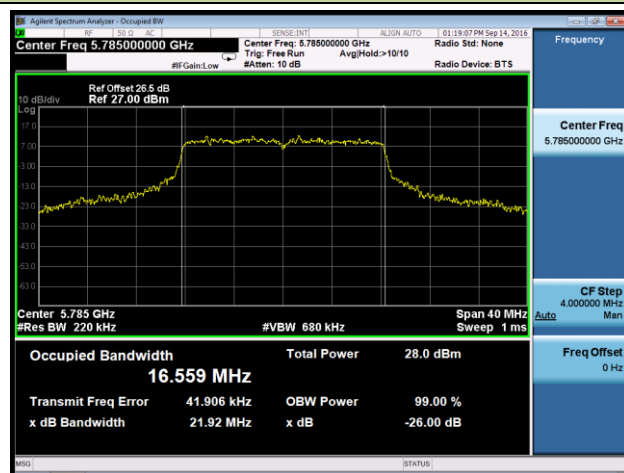
Channel 48 (5240MHz)



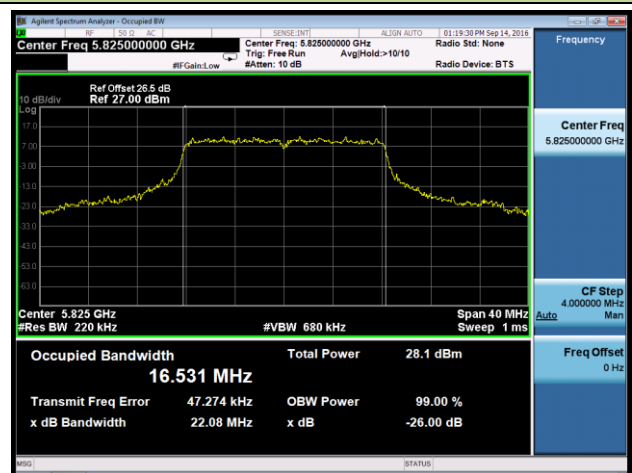
Channel 149 (5745MHz)



Channel 157 (5785MHz)

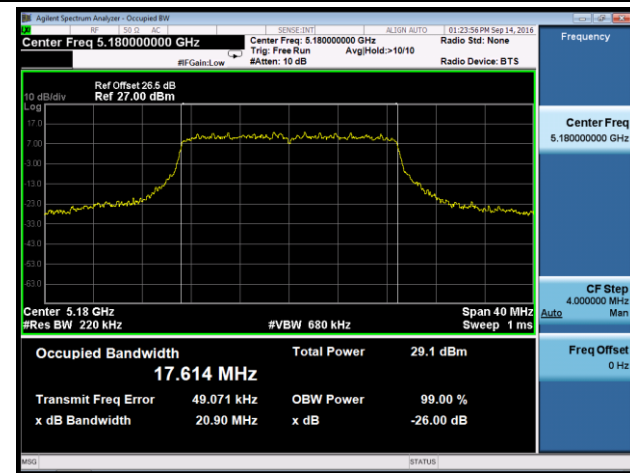


Channel 165 (5825MHz)

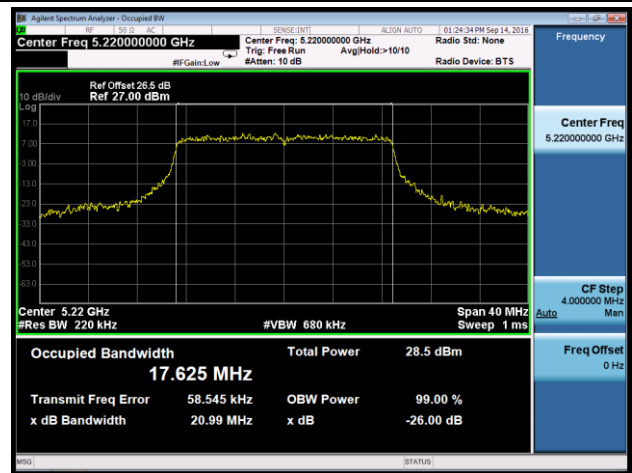


802.11n-HT20 26dB Bandwidth & 99% Bandwidth - Ant 2

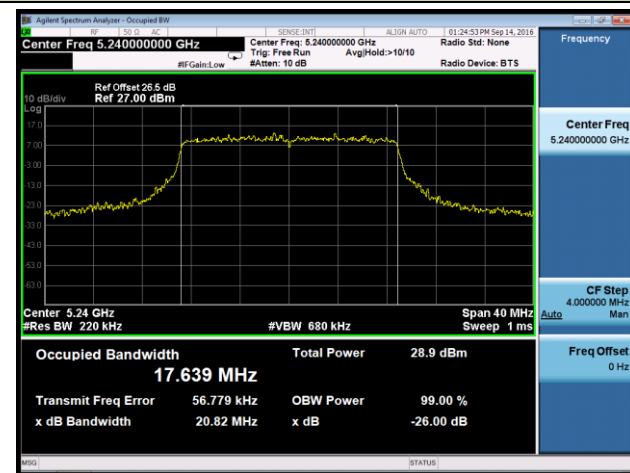
Channel 36 (5180MHz)



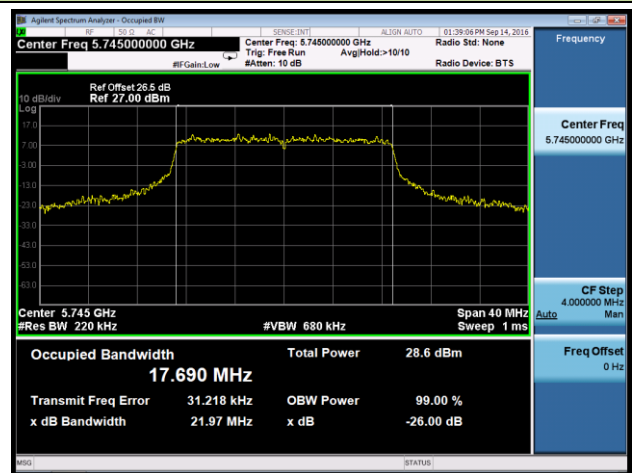
Channel 44 (5220MHz)



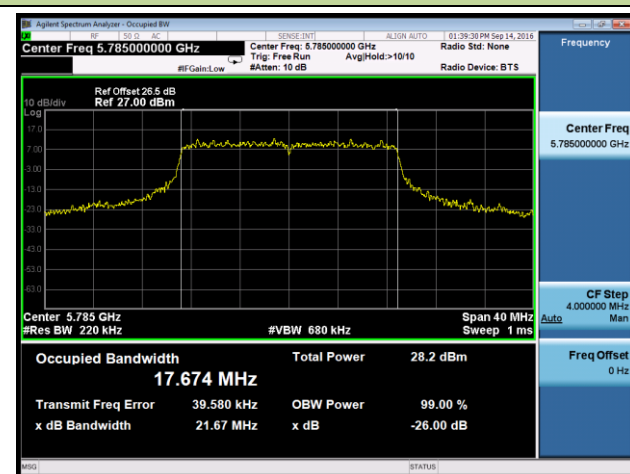
Channel 48 (5240MHz)



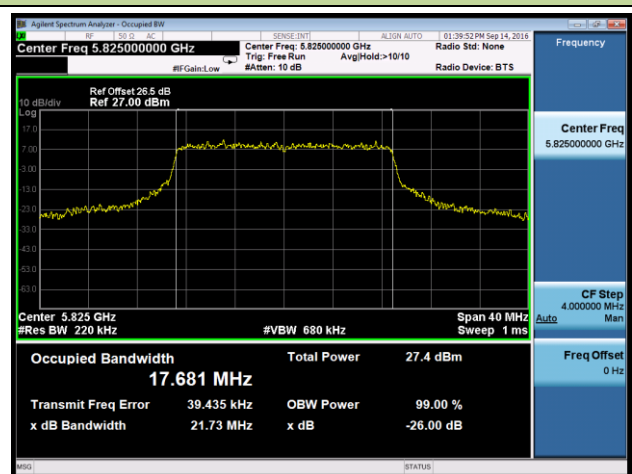
Channel 149 (5745MHz)



Channel 157 (5785MHz)

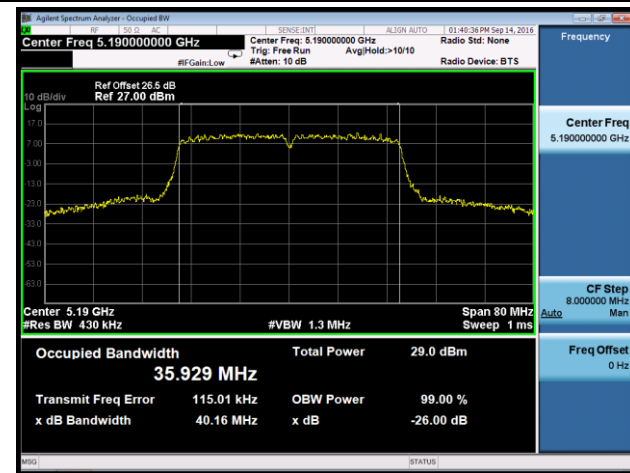


Channel 165 (5825MHz)

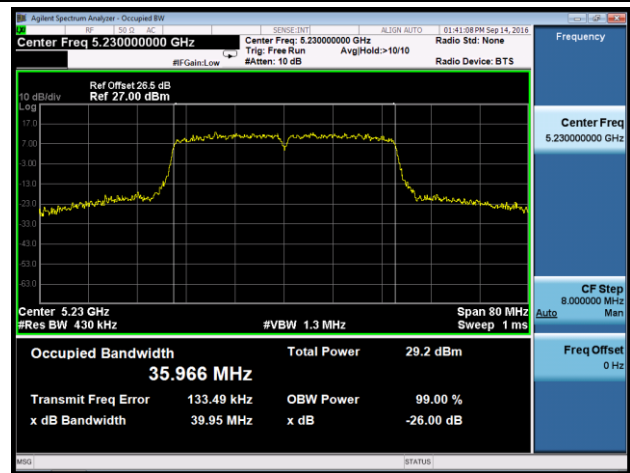


802.11n-HT40 26dB Bandwidth & 99% Bandwidth - Ant 2

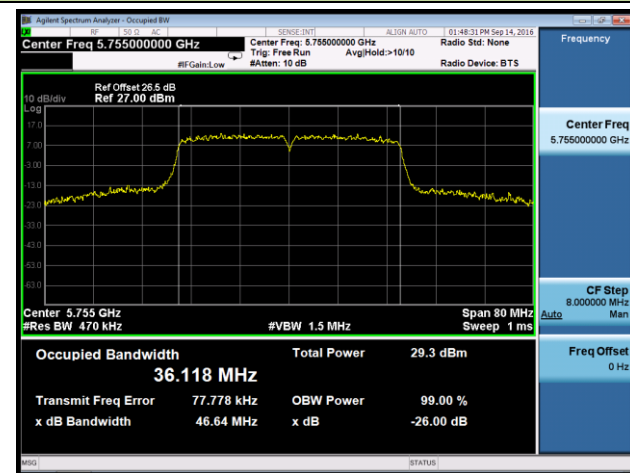
Channel 38 (5190MHz)



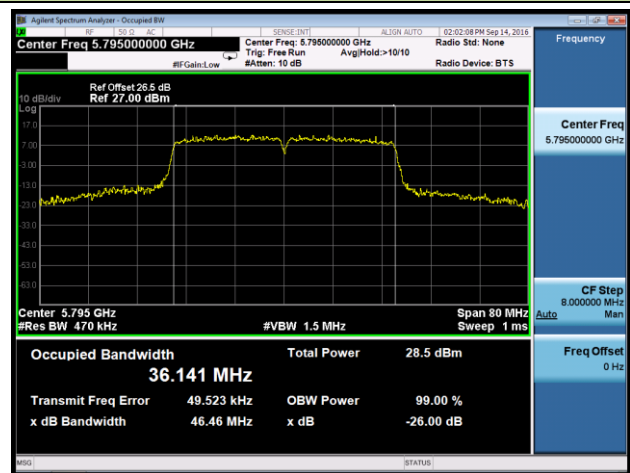
Channel 46 (5230MHz)



Channel 151 (5755MHz)

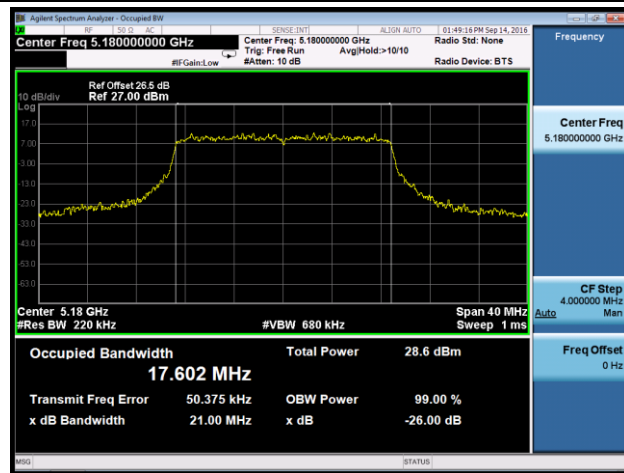


Channel 159 (5795MHz)

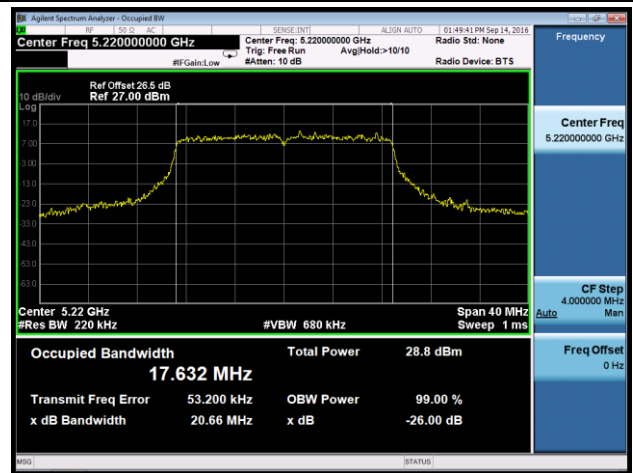


802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth - Ant 2

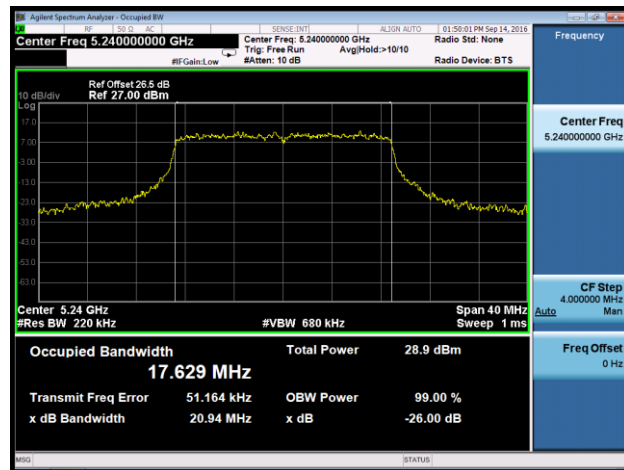
Channel 36 (5180MHz)



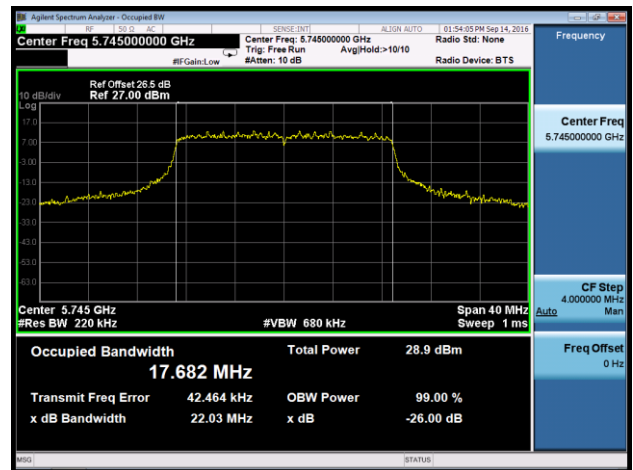
Channel 44 (5220MHz)



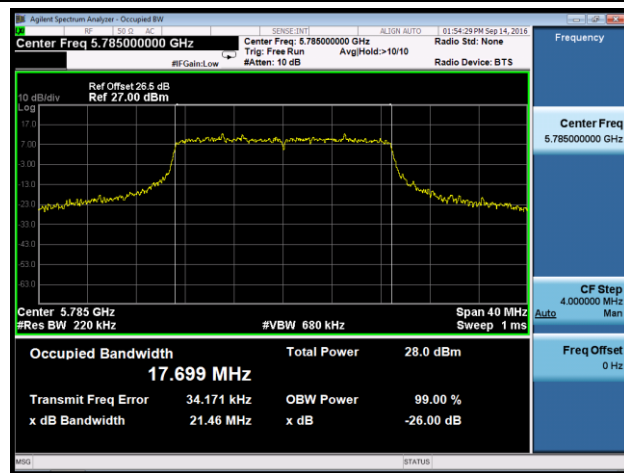
Channel 48 (5240MHz)



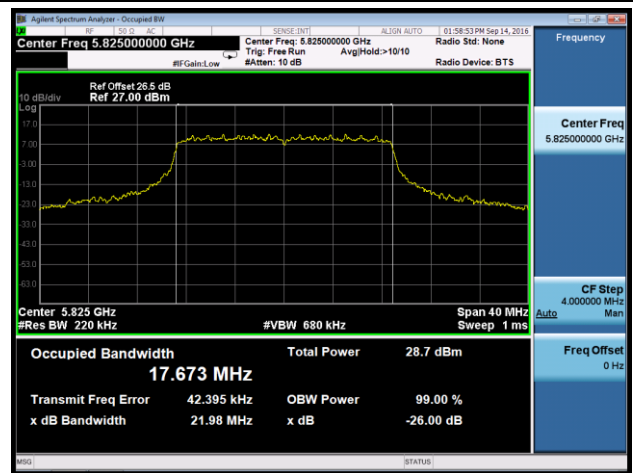
Channel 149 (5745MHz)



Channel 157 (5785MHz)

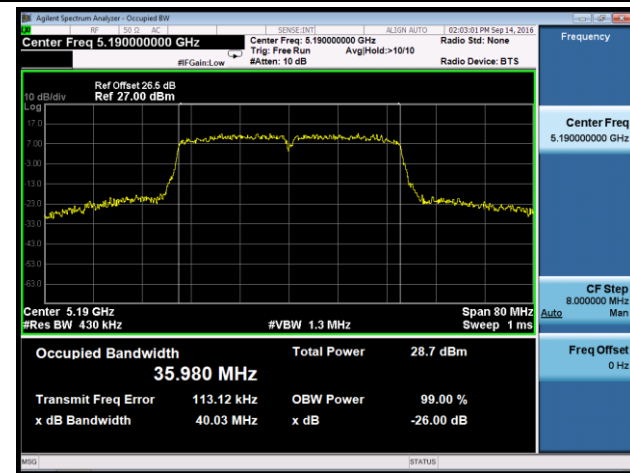


Channel 165 (5825MHz)

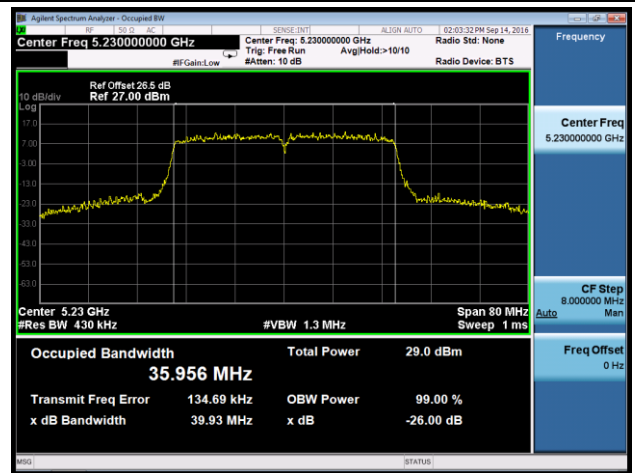


802.11ac-VHT40 26dB Bandwidth & 99% Bandwidth - Ant 2

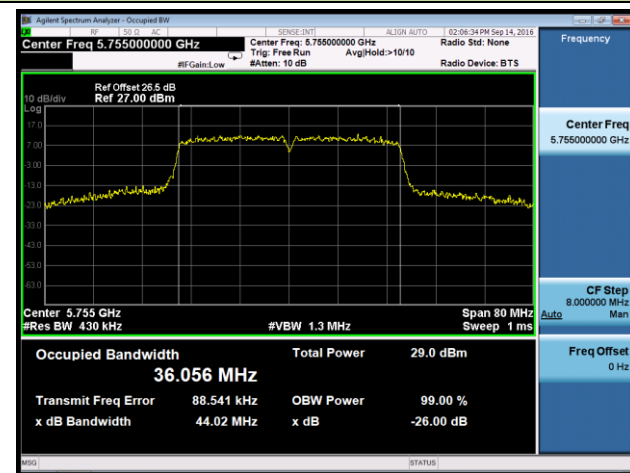
Channel 38 (5190MHz)



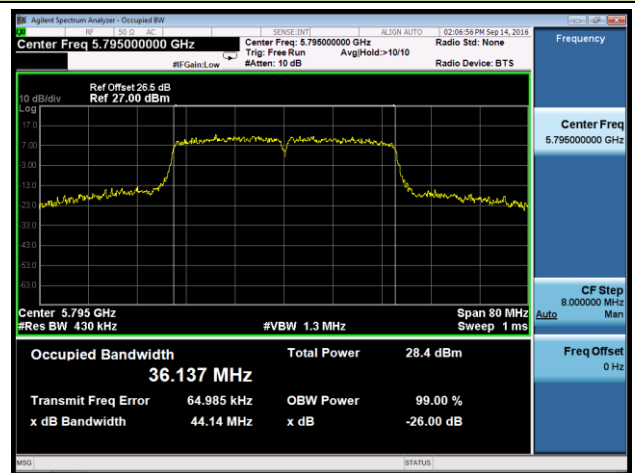
Channel 46 (5230MHz)



Channel 151 (5755MHz)



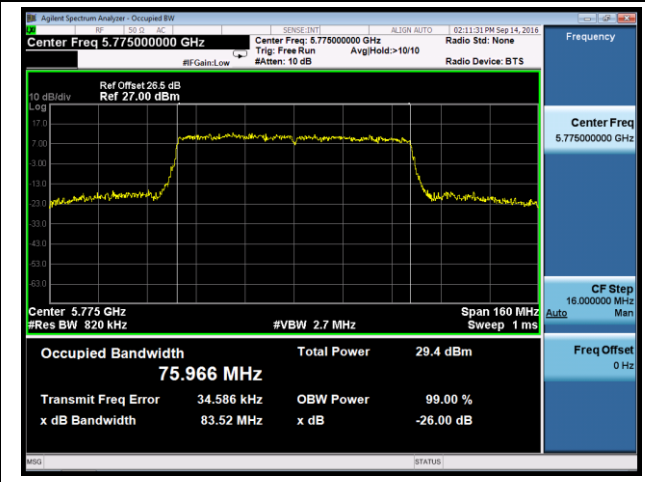
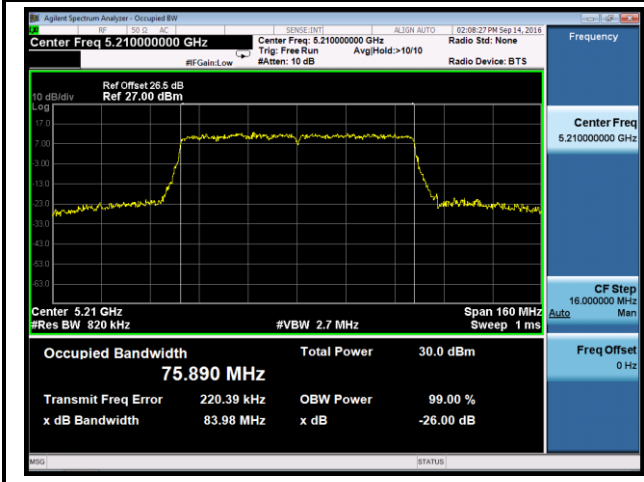
Channel 159 (5795MHz)



802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth - Ant 2

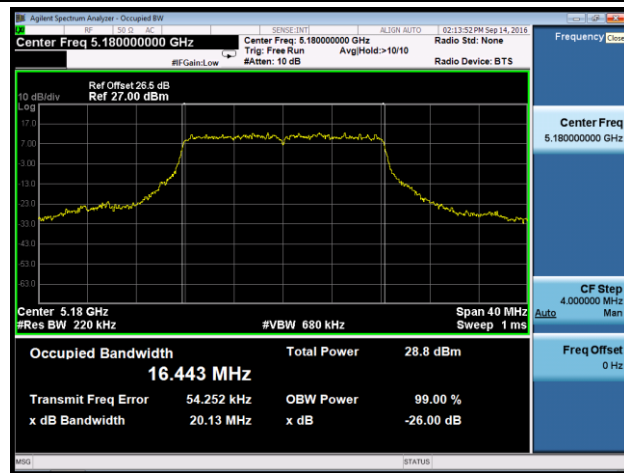
Channel 42 (5210MHz)

Channel 155 (5755MHz)

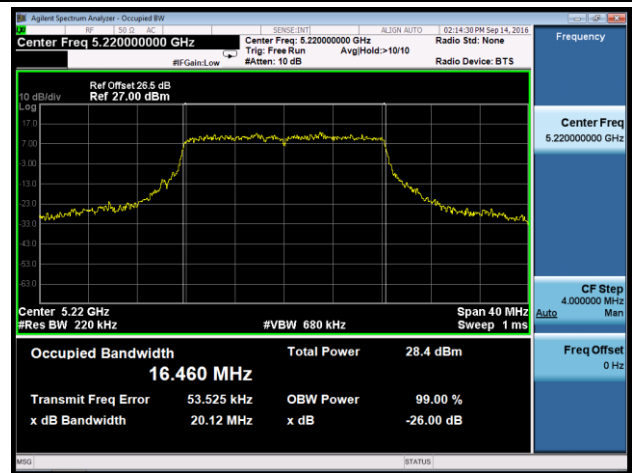


802.11a 26dB Bandwidth & 99% Bandwidth - Ant 3

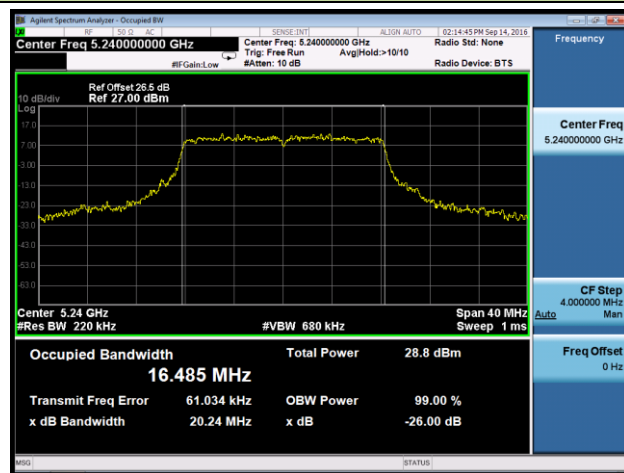
Channel 36 (5180MHz)



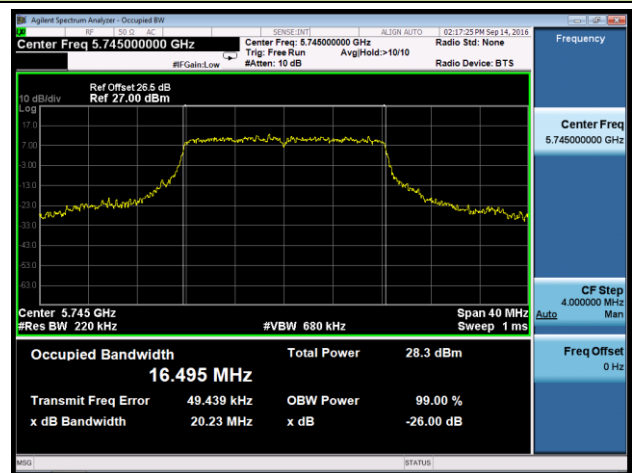
Channel 44 (5220MHz)



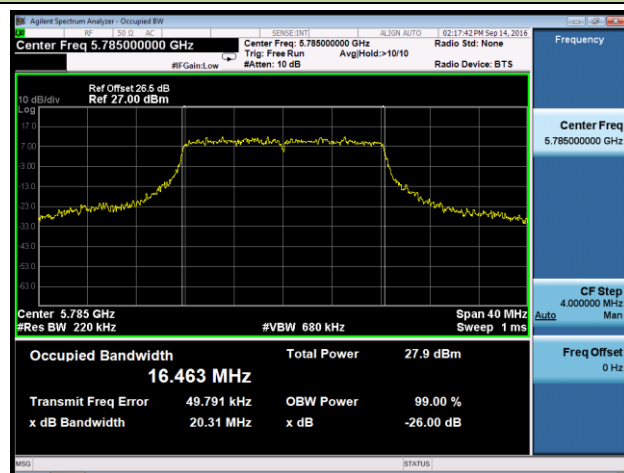
Channel 48 (5240MHz)



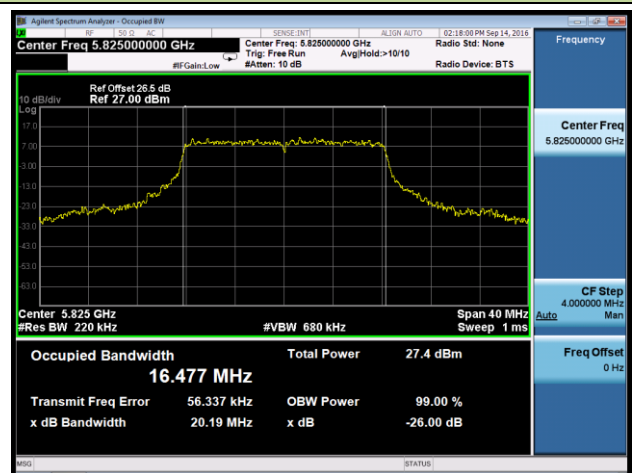
Channel 149 (5745MHz)



Channel 157 (5785MHz)

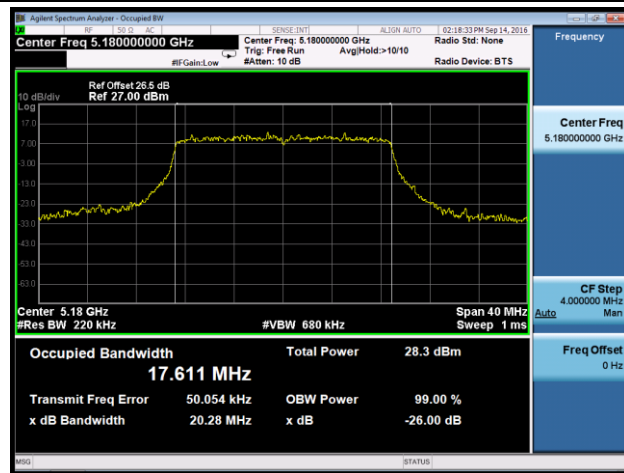


Channel 165 (5825MHz)

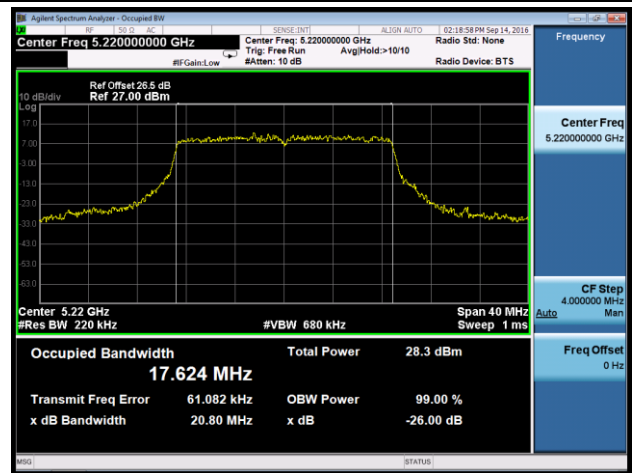


802.11n-HT20 26dB Bandwidth & 99% Bandwidth - Ant 3

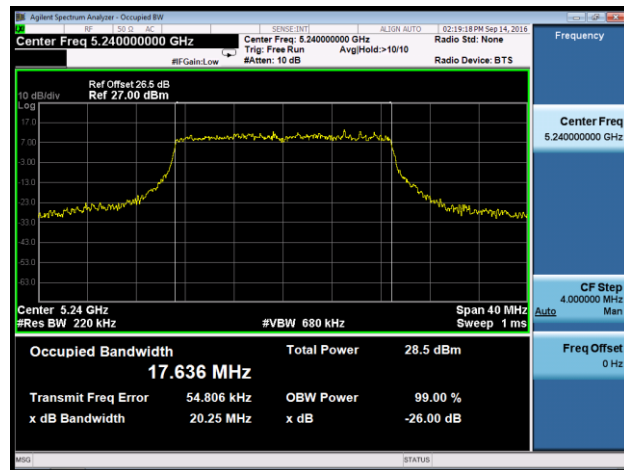
Channel 36 (5180MHz)



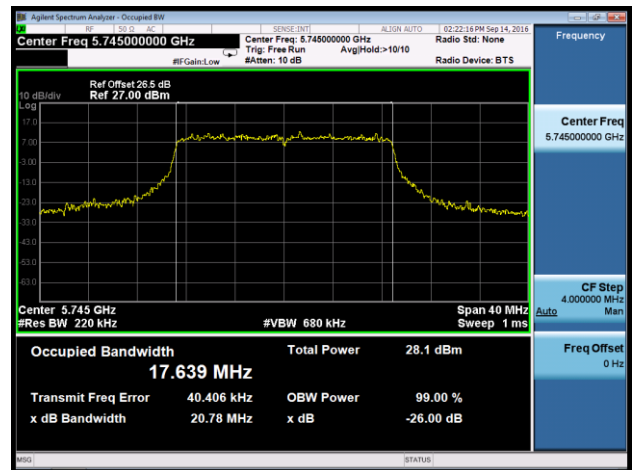
Channel 44 (5220MHz)



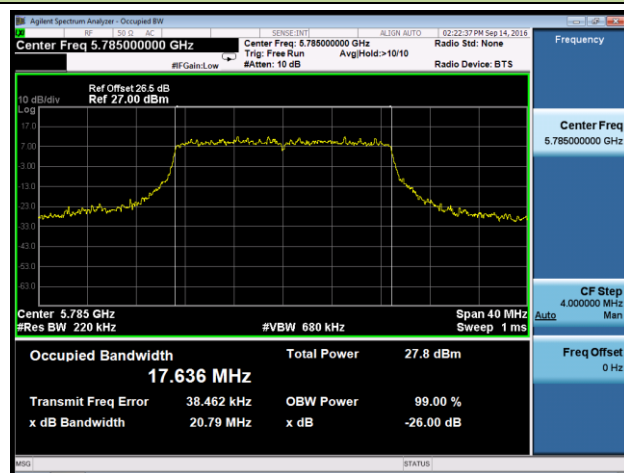
Channel 48 (5240MHz)



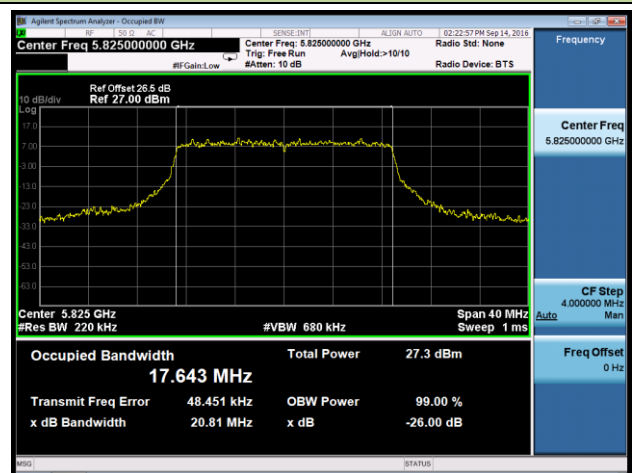
Channel 149 (5745MHz)



Channel 157 (5785MHz)

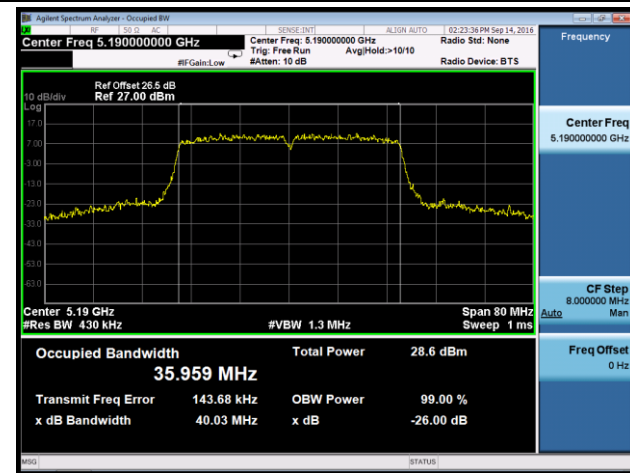


Channel 165 (5825MHz)

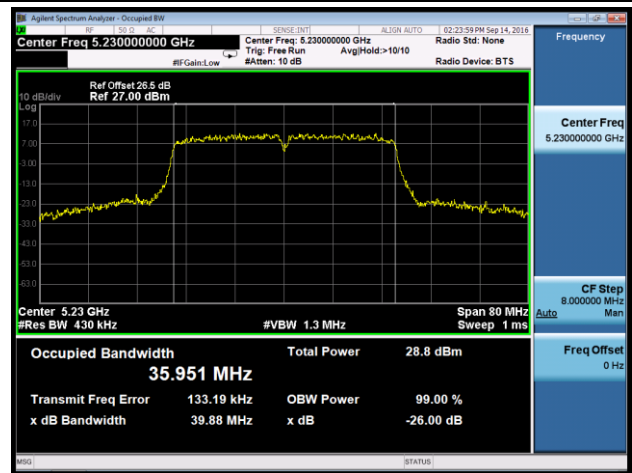


802.11n-HT40 26dB Bandwidth & 99% Bandwidth - Ant 3

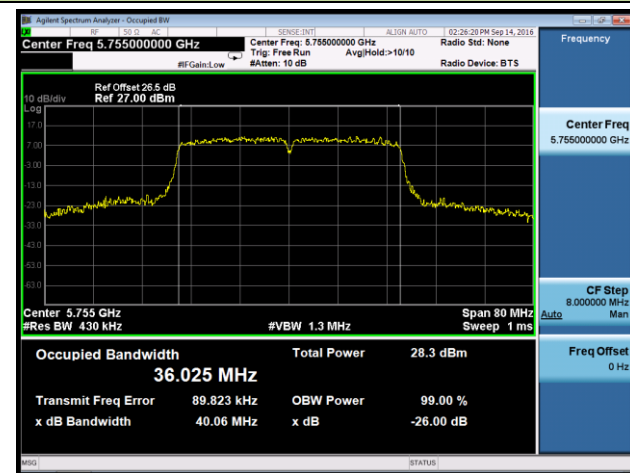
Channel 38 (5190MHz)



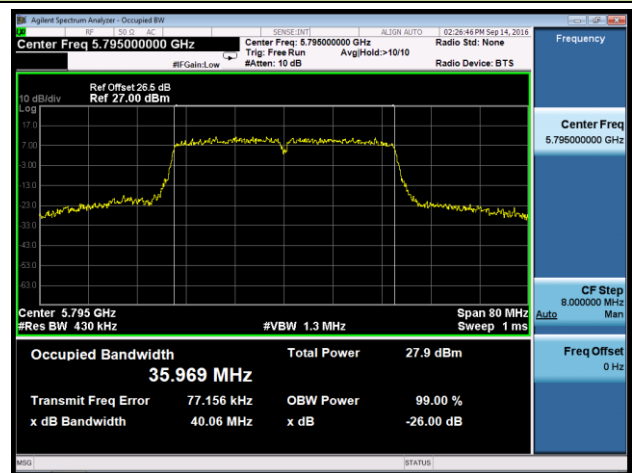
Channel 46 (5230MHz)



Channel 151 (5755 MHz)

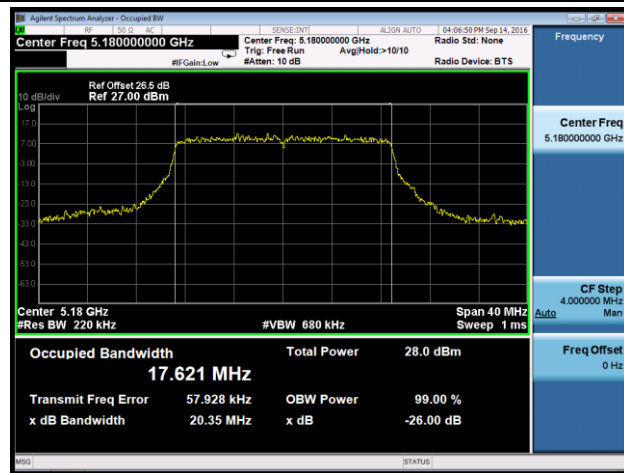


Channel 159 (5795 MHz)

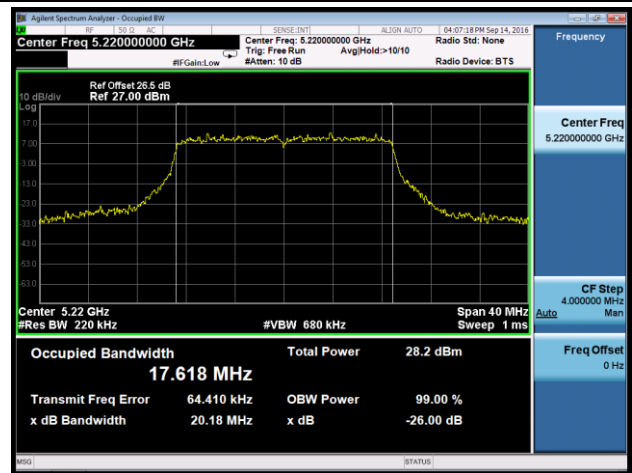


802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth - Ant 3

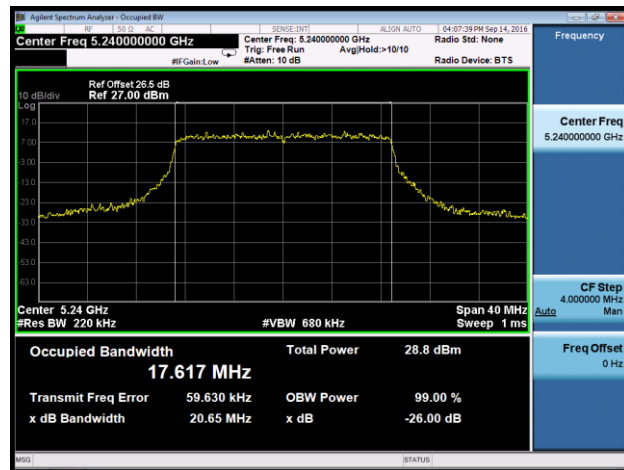
Channel 36 (5180MHz)



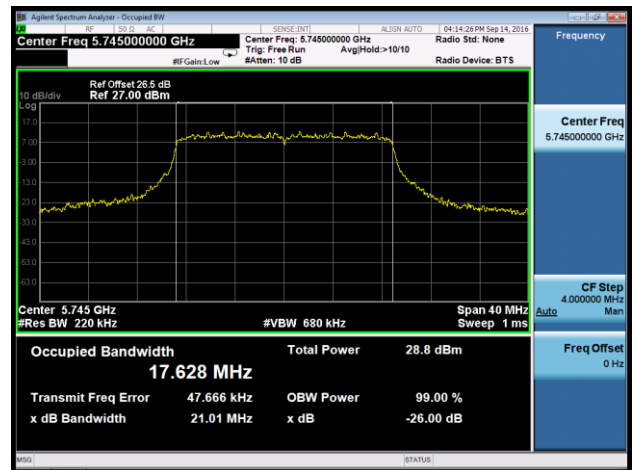
Channel 44 (5220MHz)



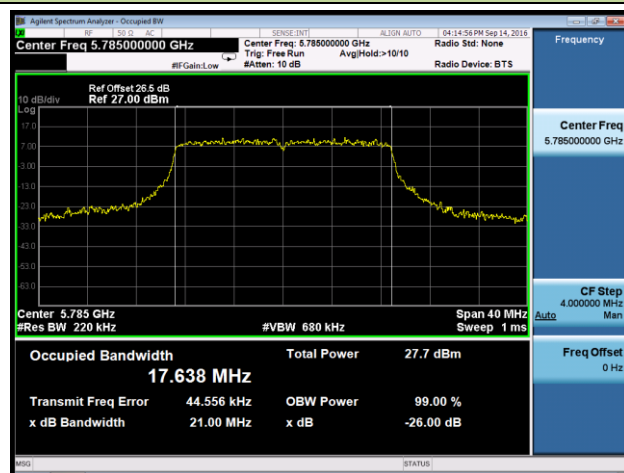
Channel 48 (5240MHz)



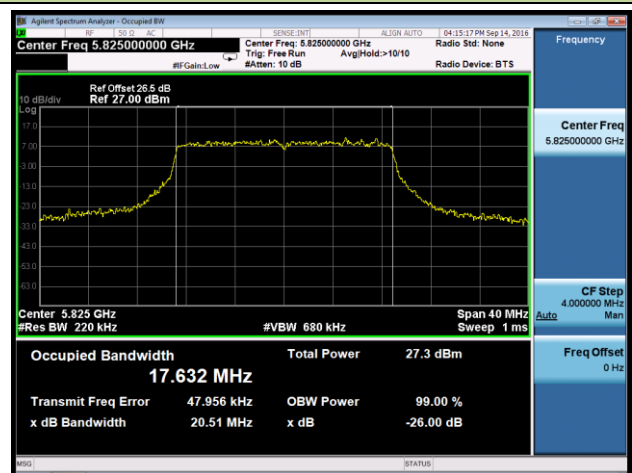
Channel 149 (5745MHz)



Channel 157 (5785MHz)

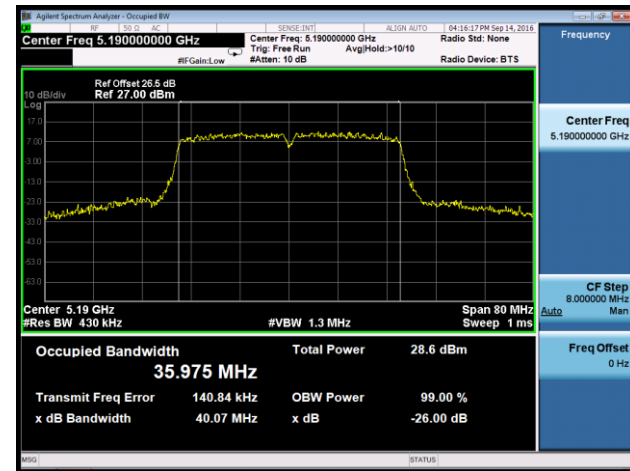


Channel 165 (5825MHz)

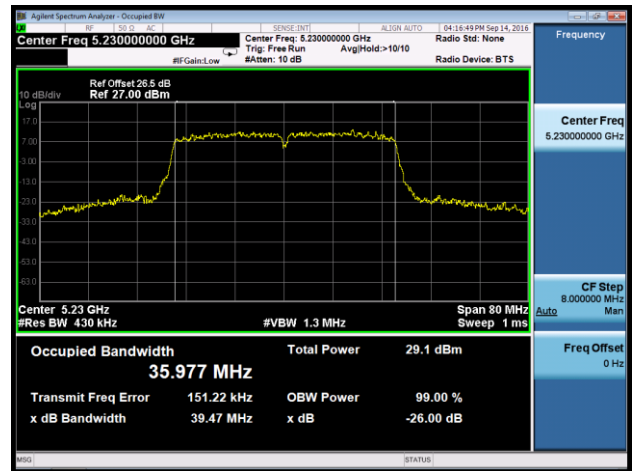


802.11ac-VHT40 26dB Bandwidth & 99% Bandwidth - Ant 3

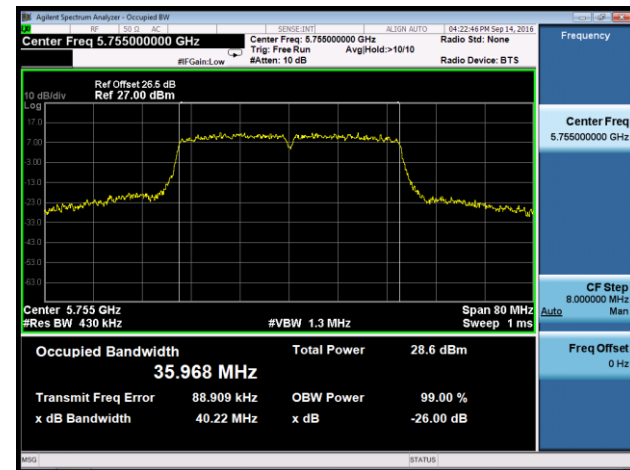
Channel 38 (5190MHz)



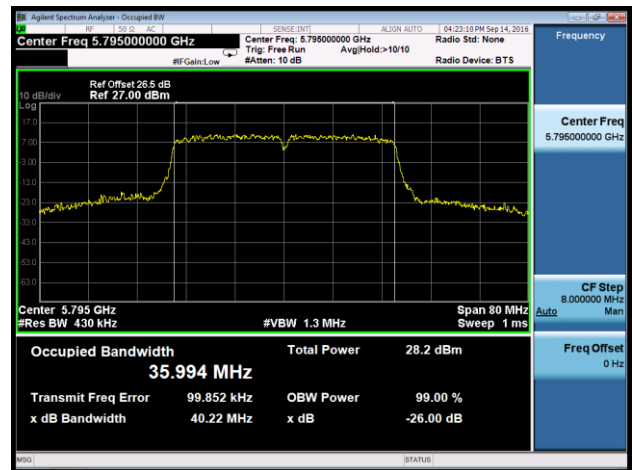
Channel 46 (5230MHz)



Channel 151 (5755MHz)

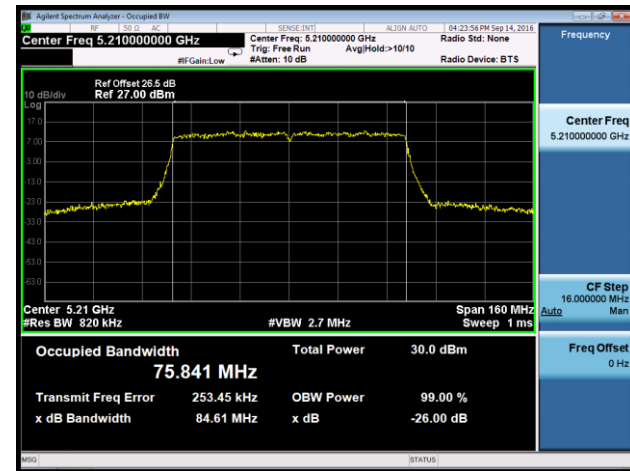


Channel 159 (5795MHz)

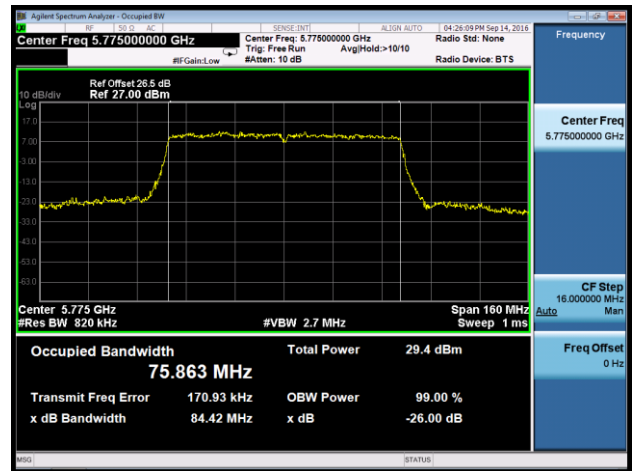


802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth - Ant 3

Channel 42 (5210MHz)

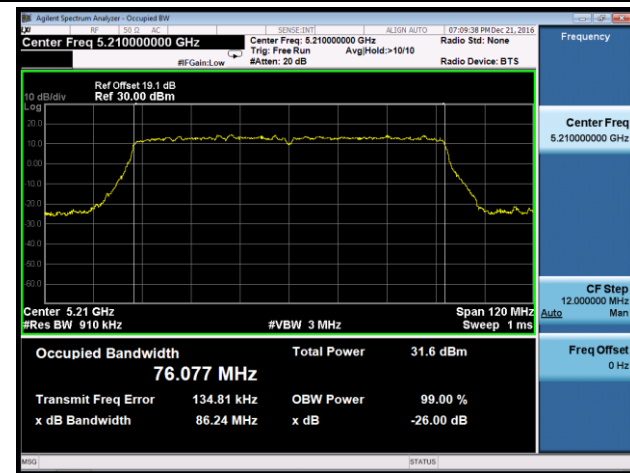


Channel 155 (5755MHz)

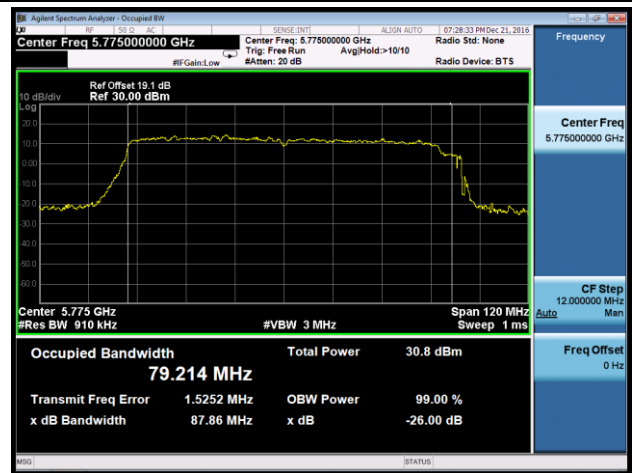


802.11ac-VHT80+80 26dB Bandwidth & 99% Bandwidth - Ant 0+1+2+3

Channel 42+155 - Ant 0 (5210MHz)



Channel 42+155 - Ant 2 (5755MHz)



7.3. 6dB Bandwidth Measurement

7.3.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

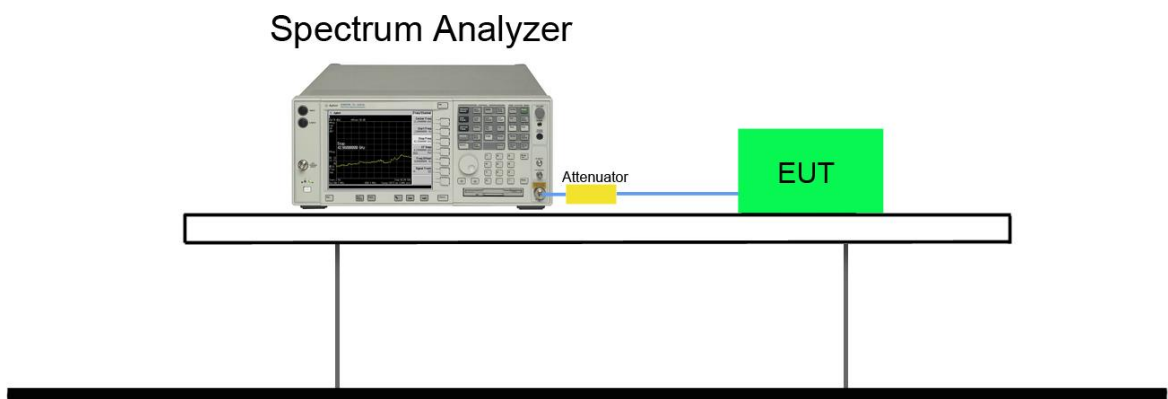
7.3.2. Test Procedure used

KDB 789033 D02v01r03 – Section C.2

7.3.3. Test Setting

6. Set center frequency to the nominal EUT channel center frequency.
7. RBW = 100 kHz.
8. VBW $\geq 3 \times$ RBW.
9. Detector = Peak.
10. Trace mode = max hold.
11. Sweep = auto couple.
12. Allow the trace to stabilize.
13. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.3.4. Test Setup



7.3.5. Test Result

Product	Wi-Fi AP 4x4 OD ext. antenna US	Temperature	25°C
Test Engineer	Johnson Liao	Relative Humidity	50 ~ 58%
Test Site	SR2	Test Date	2016/09/21
Test Item	6dB Bandwidth		

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 0						
802.11a	6	149	5745	16.33	≥ 0.5	Pass
802.11a	6	157	5785	16.33	≥ 0.5	Pass
802.11a	6	165	5825	16.31	≥ 0.5	Pass
802.11n-HT20	6.5	149	5745	17.19	≥ 0.5	Pass
802.11n-HT20	6.5	157	5785	17.56	≥ 0.5	Pass
802.11n-HT20	6.5	165	5825	17.57	≥ 0.5	Pass
802.11n-HT40	13.5	151	5755	34.95	≥ 0.5	Pass
802.11n-HT40	13.5	159	5795	34.44	≥ 0.5	Pass
802.11ac-VHT20	6.5	149	5745	17.54	≥ 0.5	Pass
802.11ac-VHT20	6.5	157	5785	17.64	≥ 0.5	Pass
802.11ac-VHT20	6.5	165	5825	17.61	≥ 0.5	Pass
802.11ac-VHT40	13.5	151	5755	35.45	≥ 0.5	Pass
802.11ac-VHT40	13.5	159	5795	34.07	≥ 0.5	Pass
802.11ac-VHT80	29.3	155	5775	75.29	≥ 0.5	Pass
Ant 1						
802.11a	6	149	5745	16.32	≥ 0.5	Pass
802.11a	6	157	5785	16.33	≥ 0.5	Pass
802.11a	6	165	5825	16.34	≥ 0.5	Pass
802.11n-HT20	6.5	149	5745	17.21	≥ 0.5	Pass
802.11n-HT20	6.5	157	5785	17.17	≥ 0.5	Pass
802.11n-HT20	6.5	165	5825	17.54	≥ 0.5	Pass
802.11n-HT40	13.5	151	5755	35.10	≥ 0.5	Pass
802.11n-HT40	13.5	159	5795	34.45	≥ 0.5	Pass
802.11ac-VHT20	6.5	149	5745	17.33	≥ 0.5	Pass
802.11ac-VHT20	6.5	157	5785	17.19	≥ 0.5	Pass
802.11ac-VHT20	6.5	165	5825	17.19	≥ 0.5	Pass



Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 1						
802.11ac-VHT40	13.5	151	5755	35.17	≥ 0.5	Pass
802.11ac-VHT40	13.5	159	5795	35.15	≥ 0.5	Pass
802.11ac-VHT80	29.3	155	5775	75.46	≥ 0.5	Pass



Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 2						
802.11a	6	149	5745	16.33	≥ 0.5	Pass
802.11a	6	157	5785	16.33	≥ 0.5	Pass
802.11a	6	165	5825	16.34	≥ 0.5	Pass
802.11n-HT20	6.5	149	5745	17.18	≥ 0.5	Pass
802.11n-HT20	6.5	157	5785	17.20	≥ 0.5	Pass
802.11n-HT20	6.5	165	5825	16.84	≥ 0.5	Pass
802.11n-HT40	13.5	151	5755	35.15	≥ 0.5	Pass
802.11n-HT40	13.5	159	5795	35.10	≥ 0.5	Pass
802.11ac-VHT20	6.5	149	5745	17.30	≥ 0.5	Pass
802.11ac-VHT20	6.5	157	5785	17.35	≥ 0.5	Pass
802.11ac-VHT20	6.5	165	5825	17.57	≥ 0.5	Pass
802.11ac-VHT40	13.5	151	5755	35.14	≥ 0.5	Pass
802.11ac-VHT40	13.5	159	5795	35.16	≥ 0.5	Pass
802.11ac-VHT80	29.3	155	5775	75.18	≥ 0.5	Pass
Ant 3						
802.11a	6	149	5745	16.33	≥ 0.5	Pass
802.11a	6	157	5785	16.36	≥ 0.5	Pass
802.11a	6	165	5825	16.31	≥ 0.5	Pass
802.11n-HT20	6.5	149	5745	17.20	≥ 0.5	Pass
802.11n-HT20	6.5	157	5785	17.20	≥ 0.5	Pass
802.11n-HT20	6.5	165	5825	17.56	≥ 0.5	Pass
802.11n-HT40	13.5	151	5755	35.06	≥ 0.5	Pass
802.11n-HT40	13.5	159	5795	35.09	≥ 0.5	Pass
802.11ac-VHT20	6.5	149	5745	17.57	≥ 0.5	Pass
802.11ac-VHT20	6.5	157	5785	17.53	≥ 0.5	Pass
802.11ac-VHT20	6.5	165	5825	17.29	≥ 0.5	Pass
802.11ac-VHT40	13.5	151	5755	35.13	≥ 0.5	Pass
802.11ac-VHT40	13.5	159	5795	35.15	≥ 0.5	Pass
802.11ac-VHT80	29.3	155	5775	75.48	≥ 0.5	Pass



Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 2 / Ant 0+1+2+3						
802.11ac-VHT80+80	117.2	155	5775	74.22	≥ 0.5	Pass