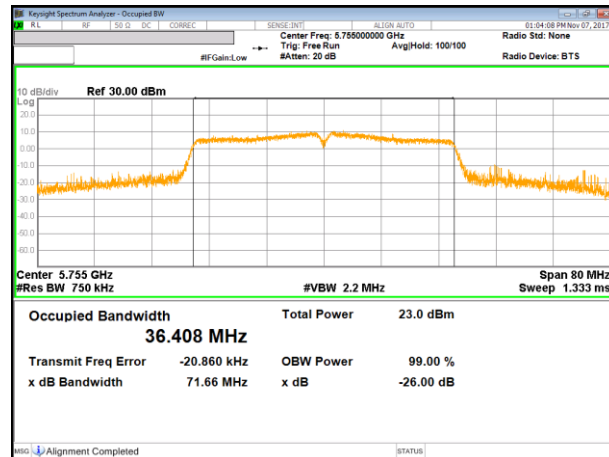
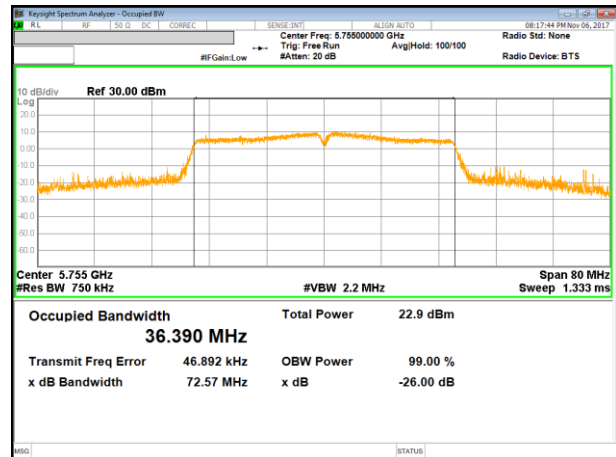


UNII 5.8 GHz IEEE 802.11n HT40 mode

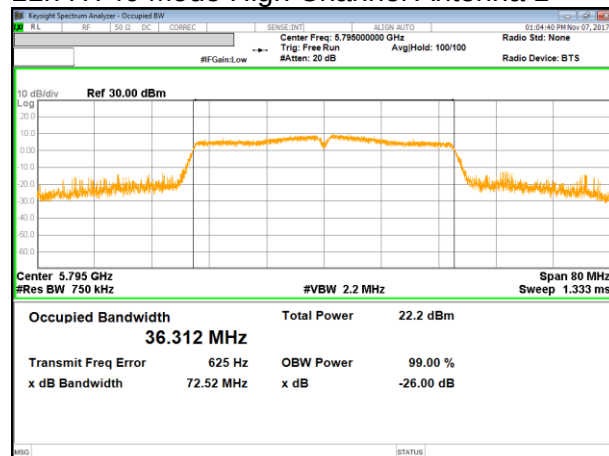
11n HT40 Mode Low Channel Antenna 1



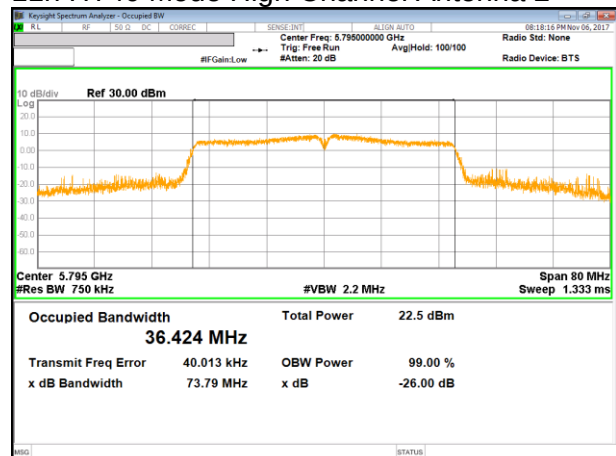
11n HT40 Mode Low Channel Antenna 2



11n HT40 Mode High Channel Antenna 1

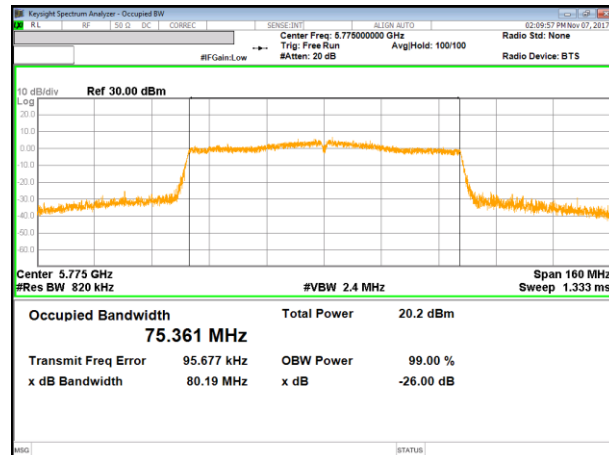


11n HT40 Mode High Channel Antenna 2

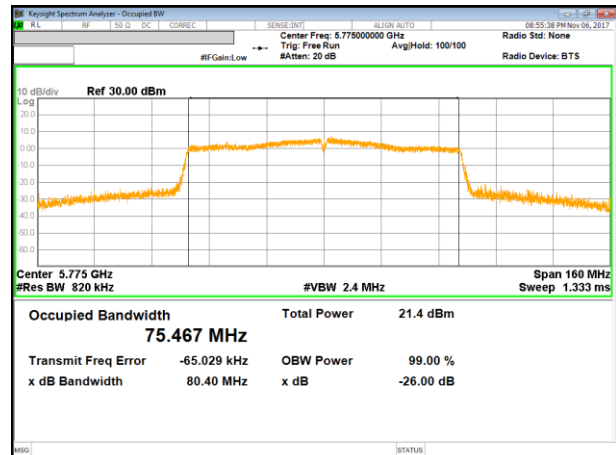


UNII 5.8 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Middle Channel Antenna 1



11ac HT80 Mode Middle Channel Antenna 2



8.4. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Reference to 789033 D02 General UNII Test Procedures New Rules v01r04: The transmitter output is connected to a spectrum analyzer with the RBW set to approximately 1% to 5% of OBW, the VBW $\geq 3 \times$ RBW, single sweep.

NOTE

- Calculation for 99% Bandwidth of UNII-2C and UNII-3 Straddle Channel

ex) Fundamental frequency : 5720MHz

- 99% BW : 21.00MHz
- Turning Frequency : 5725MHz
- 99% Bandwidth of UNII-2C band Portion
 $= (5725 - (5720 + (21.00 / 2))) = 15.50 \text{ MHz}$
- 99% Bandwidth of UNII-3 band Portion
 $= (5720 + (21.00 / 2) - 5725) = 5.50 \text{ MHz}$

RESULTS

8.4.1.802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5180	16.460	16.475
Mid	5200	16.443	16.448
High	5240	16.443	16.445
Worst		16.475	

8.4.2.802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5180	17.648	17.657
Mid	5200	17.641	17.659
High	5240	17.650	17.658
Worst		17.659	

8.4.3.802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5190	36.152	36.123
High	5230	36.066	36.143
Worst		36.152	

8.4.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Middle	5210	75.414	75.796
Worst		75.796	

8.4.5.802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5260	16.446	16.457
Mid	5300	16.466	16.418
High	5320	16.460	16.479
Worst		16.479	

8.4.6.802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5260	17.635	17.661
Mid	5300	17.651	17.663
High	5320	17.661	17.651
Worst		17.663	

8.4.7.802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5270	36.132	36.060
High	5310	36.151	36.184
Worst		36.184	

8.4.8. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Middle	5290	75.370	75.319
Worst		75.370	

8.4.9. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5500	16.470	16.441
Mid	5580	16.438	16.448
High	5700	16.447	16.462
Straddle	5720	13.231	13.221
Worst		16.470	

8.4.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5500	17.627	17.662
Mid	5580	17.674	17.642
High	5700	17.645	17.644
Straddle	5720	13.831	13.826
Worst		17.674	

8.4.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5510	36.133	36.152
Mid	5550	36.174	36.073
High	5670	36.111	36.104
Straddle	5710	33.066	33.063
Worst		36.174	

8.4.12. 802.11ac VHT80 MODE IN THE 5.5 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5530	75.304	75.308
High	5610	75.513	75.260
Straddle	5690	72.695	72.714
Worst		75.513	

8.4.13. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Straddle	5720	3.230	3.221
Low	5745	16.466	16.478
Mid	5785	16.402	16.478
High	5825	16.413	16.420
Worst		16.478	

8.4.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Straddle	5720	3.381	3.826
Low	5745	17.653	17.719
Mid	5785	17.679	17.703
High	5825	17.674	17.683
Worst		17.719	

8.4.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

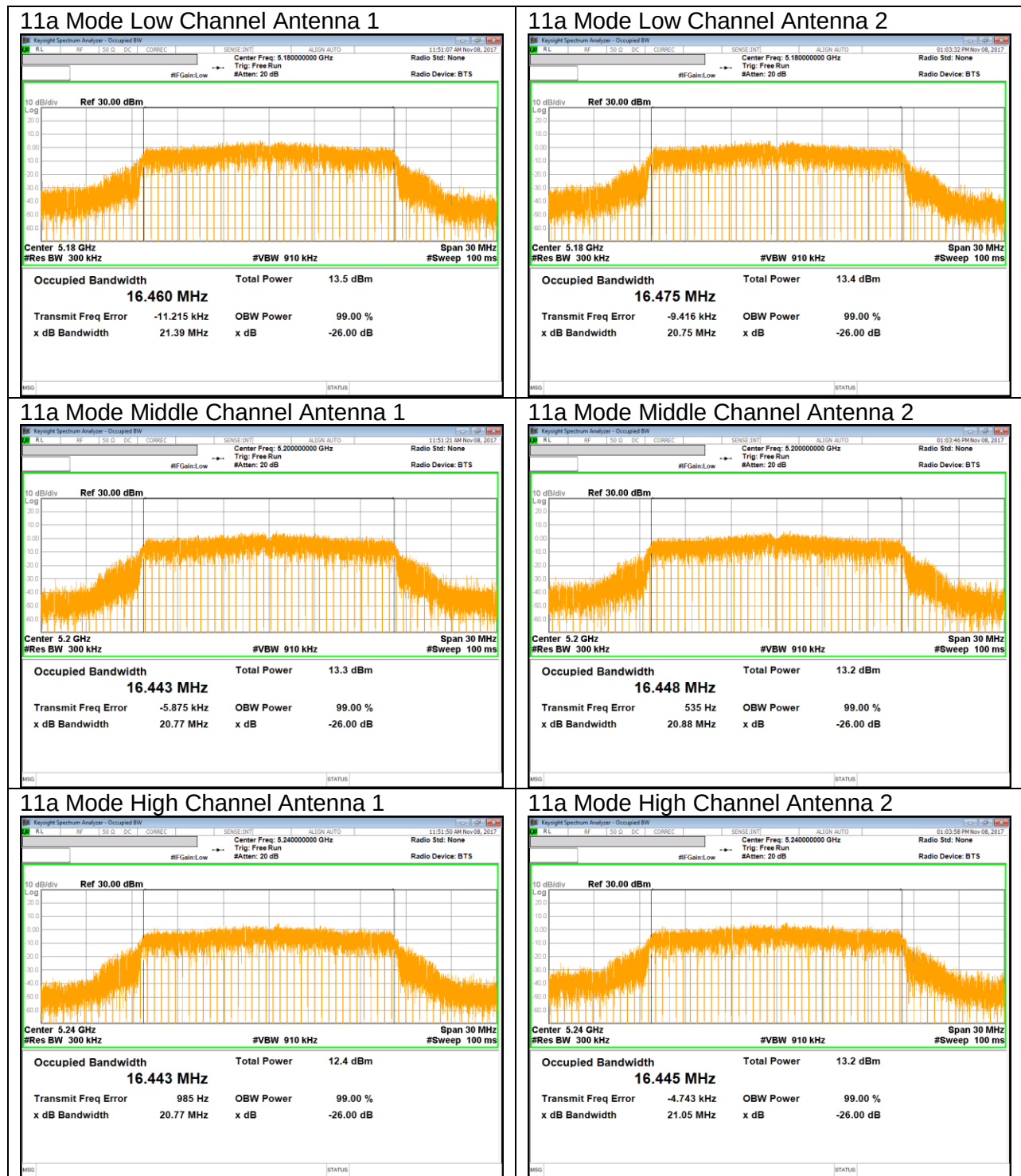
Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Straddle	5710	3.066	3.064
Low	5755	36.147	36.192
High	5795	36.140	36.192
Worst		36.192	

8.4.16. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

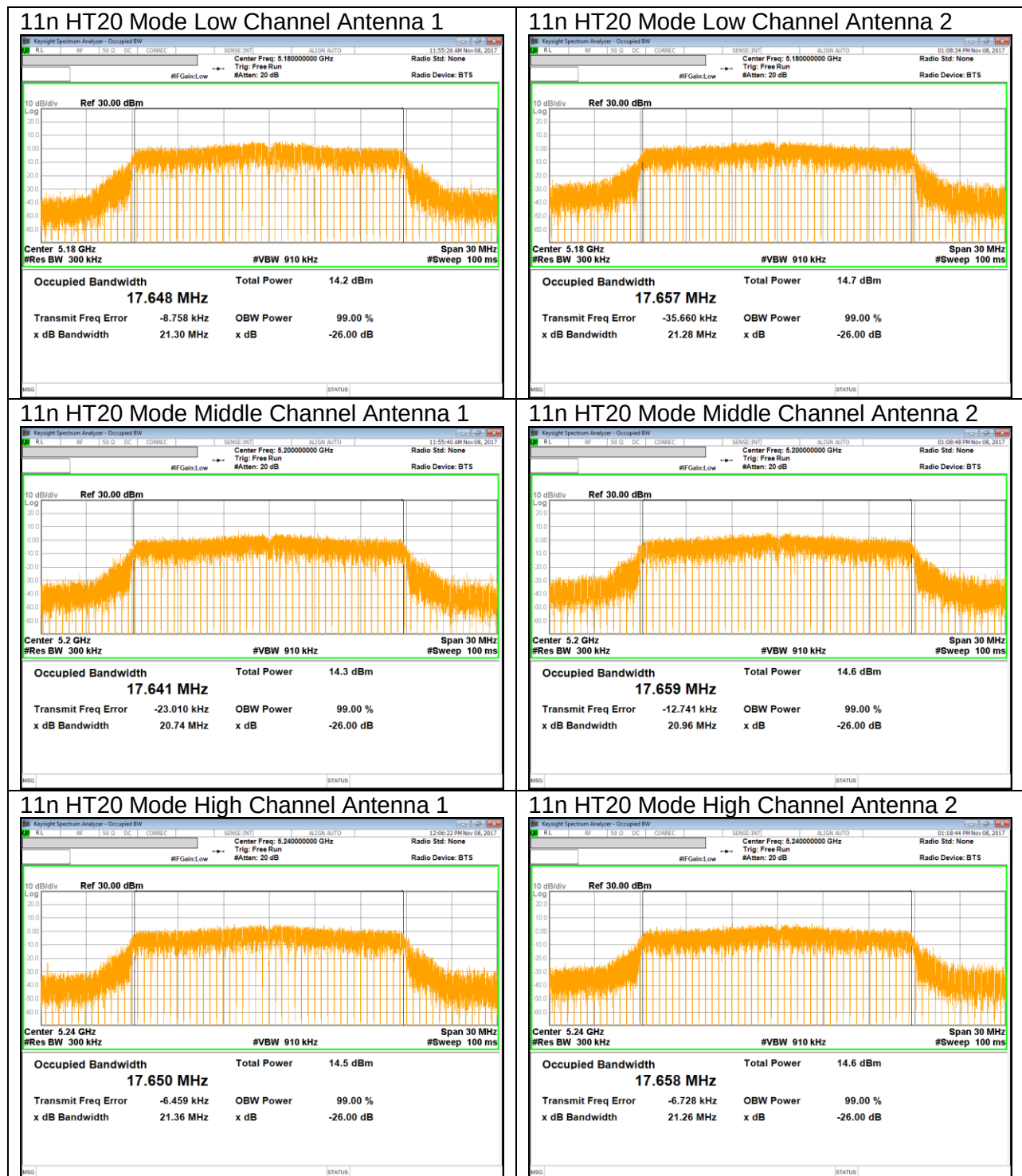
Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Straddle	5690	2.695	2.714
Middle	5775	75.400	75.352
Worst		75.400	

8.4.17. 99% BANDWIDTH PLOTS

UNII 5.2 GHz IEEE 802.11a mode

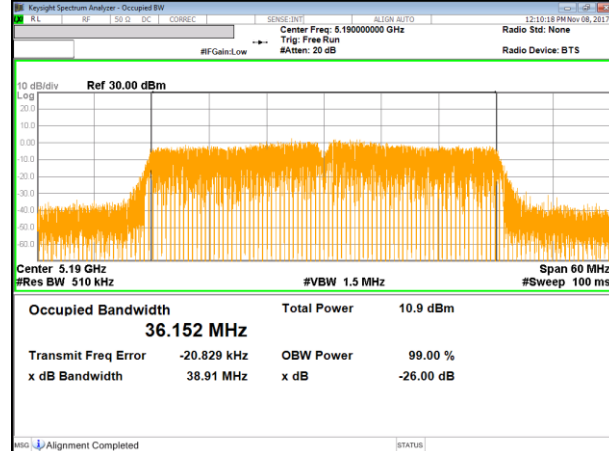


UNII 5.2 GHz IEEE 802.11n HT20 mode

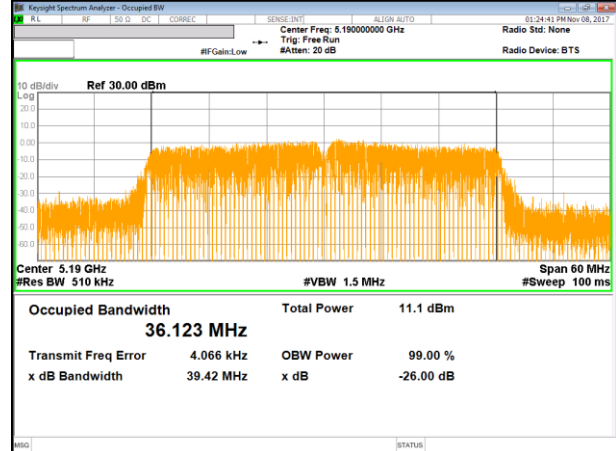


UNII 5.2 GHz IEEE 802.11n HT40 mode

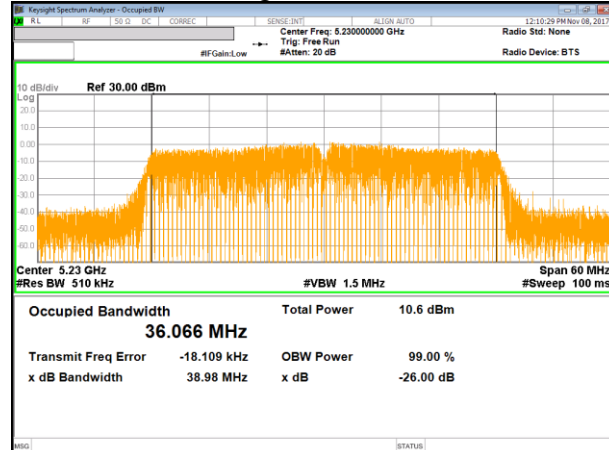
11n HT40 Mode Low Channel Antenna 1



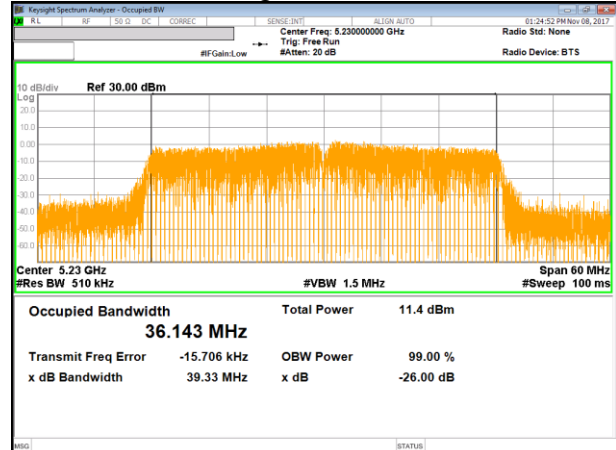
11n HT40 Mode Low Channel Antenna 2



11n HT40 Mode High Channel Antenna 1

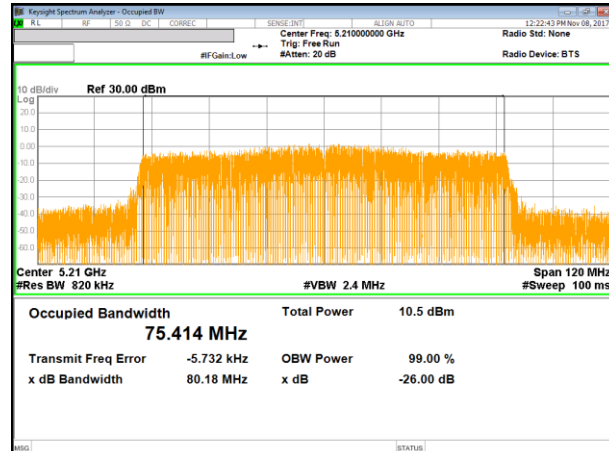


11n HT40 Mode High Channel Antenna 2

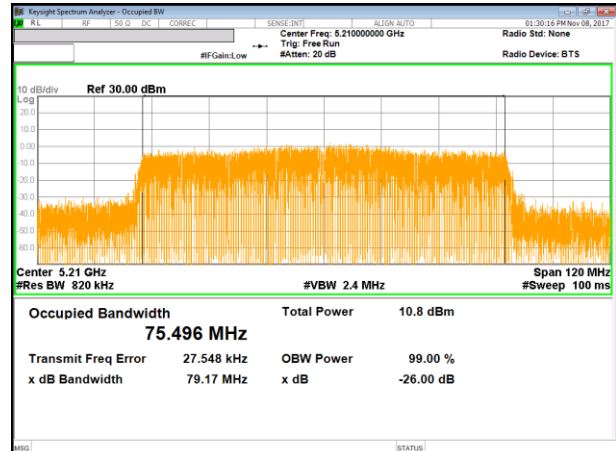


UNII 5.2 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Middle Channel Antenna 1

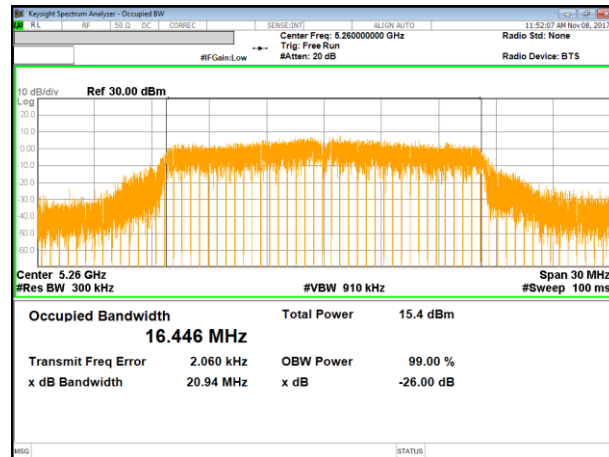


11ac HT80 Mode Middle Channel Antenna 2

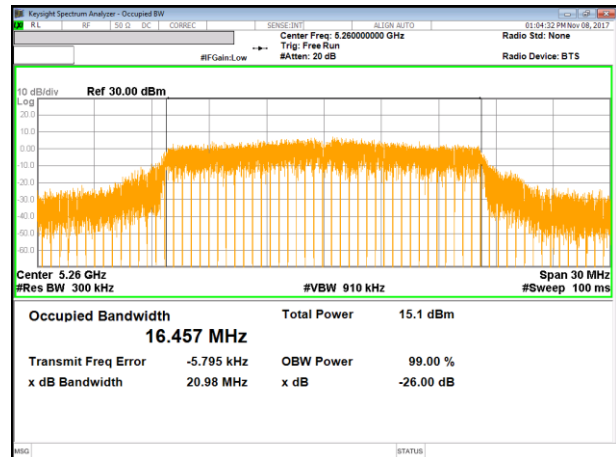


UNII 5.3 GHz IEEE 802.11a mode

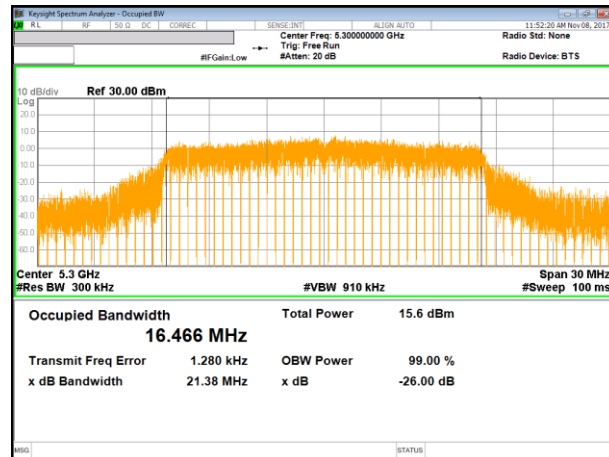
11a Mode Low Channel Antenna 1



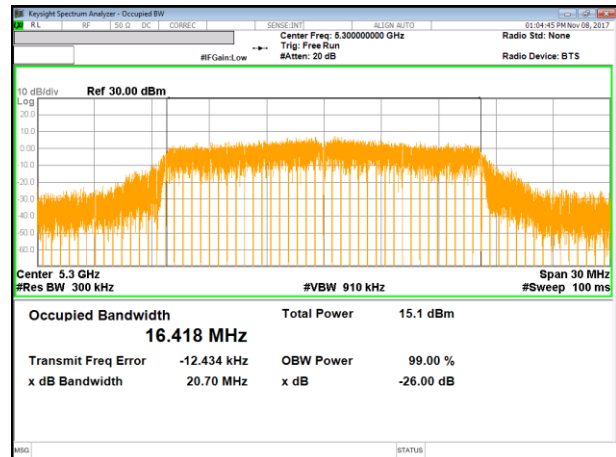
11a Mode Low Channel Antenna 2



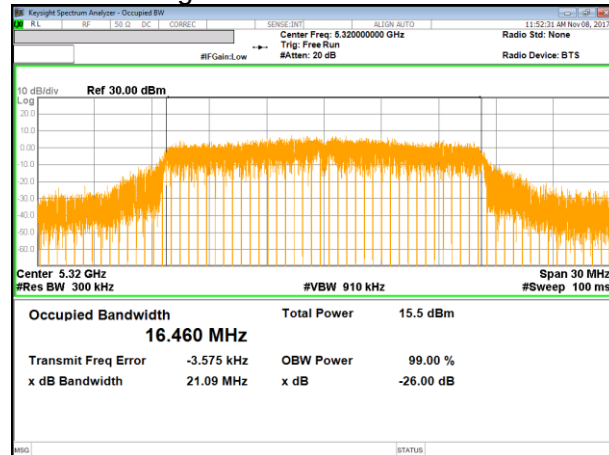
11a Mode Middle Channel Antenna 1



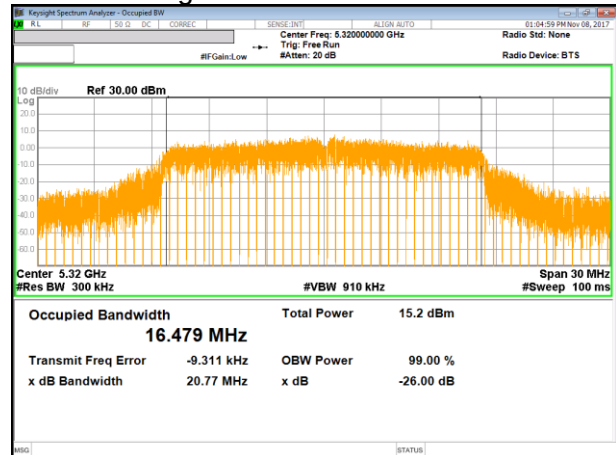
11a Mode Middle Channel Antenna 2



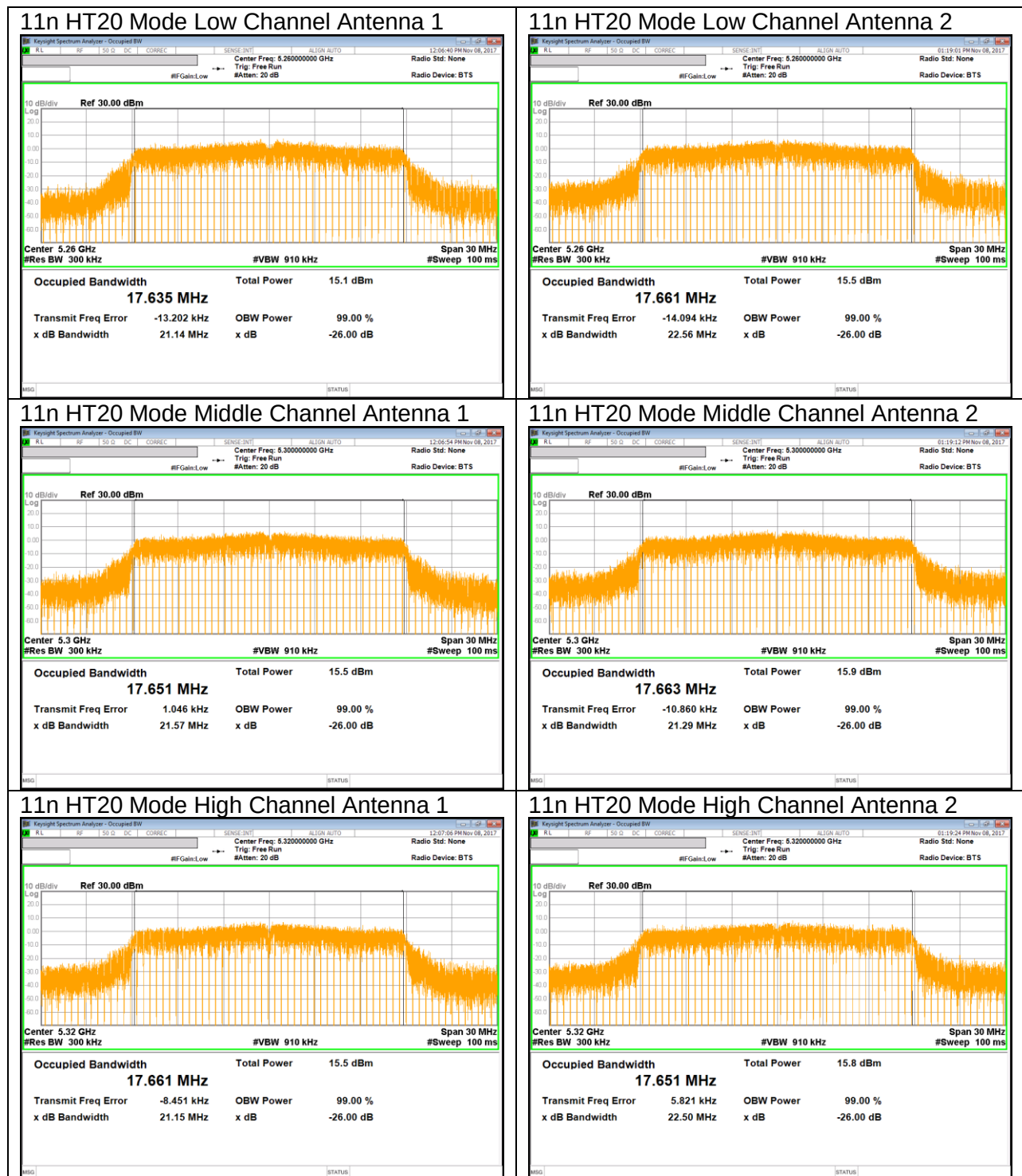
11a Mode High Channel Antenna 1



11a Mode High Channel Antenna 2

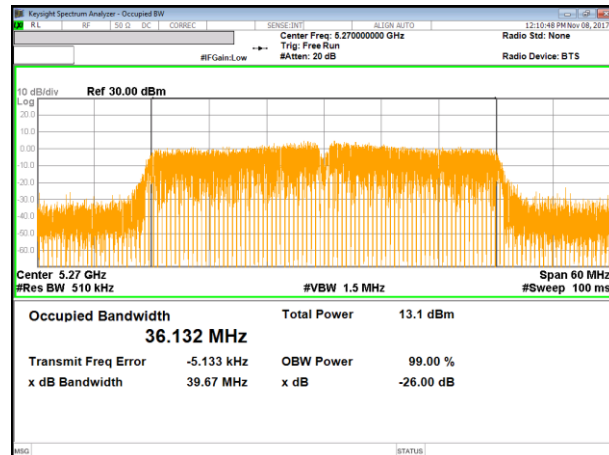


UNII 5.3 GHz IEEE 802.11n HT20 mode

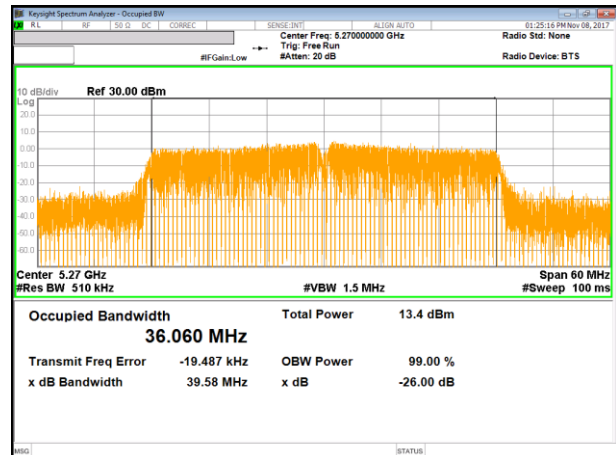


UNII 5.3 GHz IEEE 802.11n HT40 mode

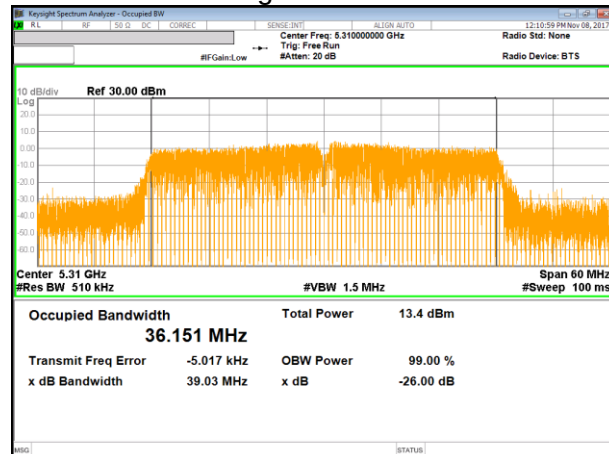
11n HT40 Mode Low Channel Antenna 1



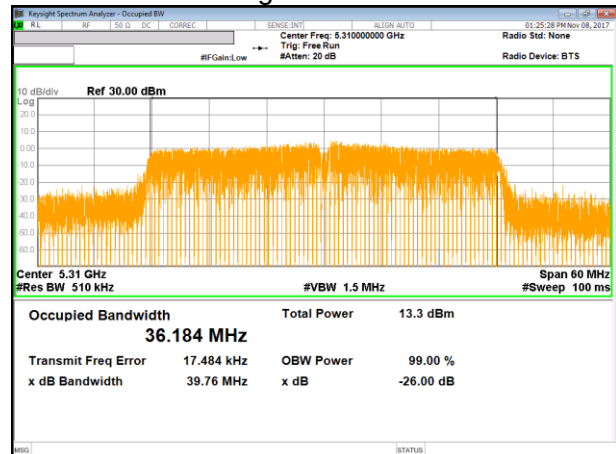
11n HT40 Mode Low Channel Antenna 2



11n HT40 Mode High Channel Antenna 1

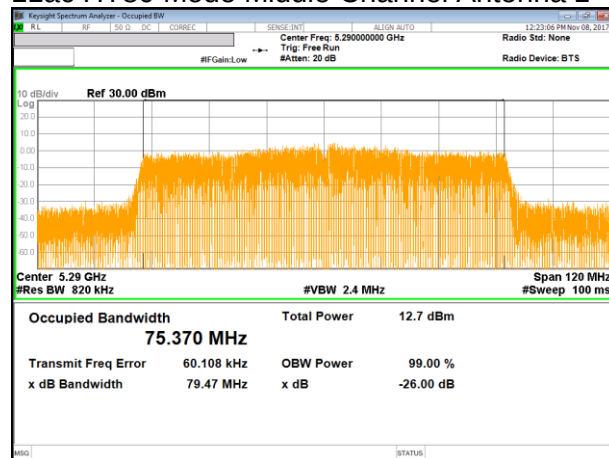


11n HT40 Mode High Channel Antenna 2

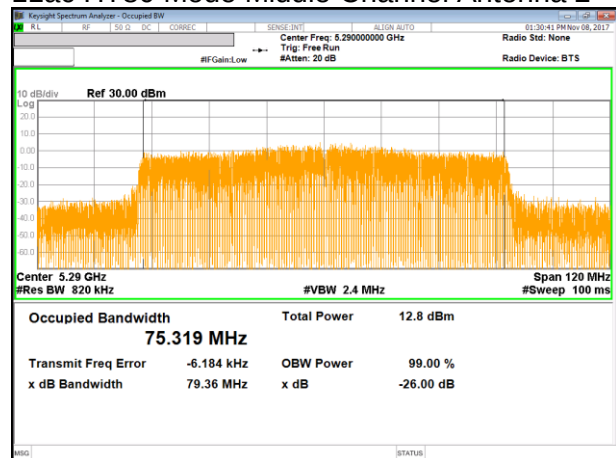


UNII 5.3 GHz IEEE 802.11ac VHT80 mode

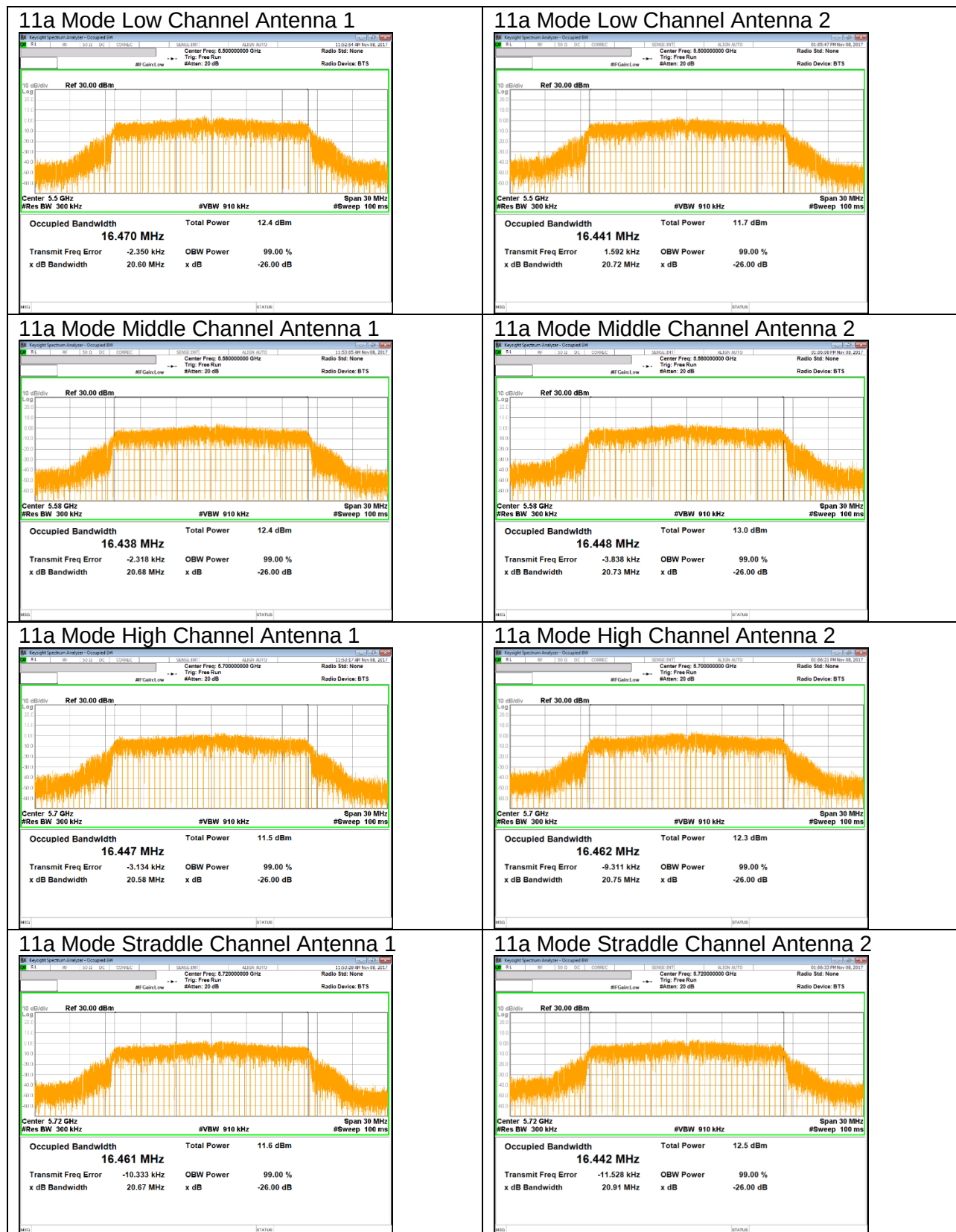
11ac HT80 Mode Middle Channel Antenna 1



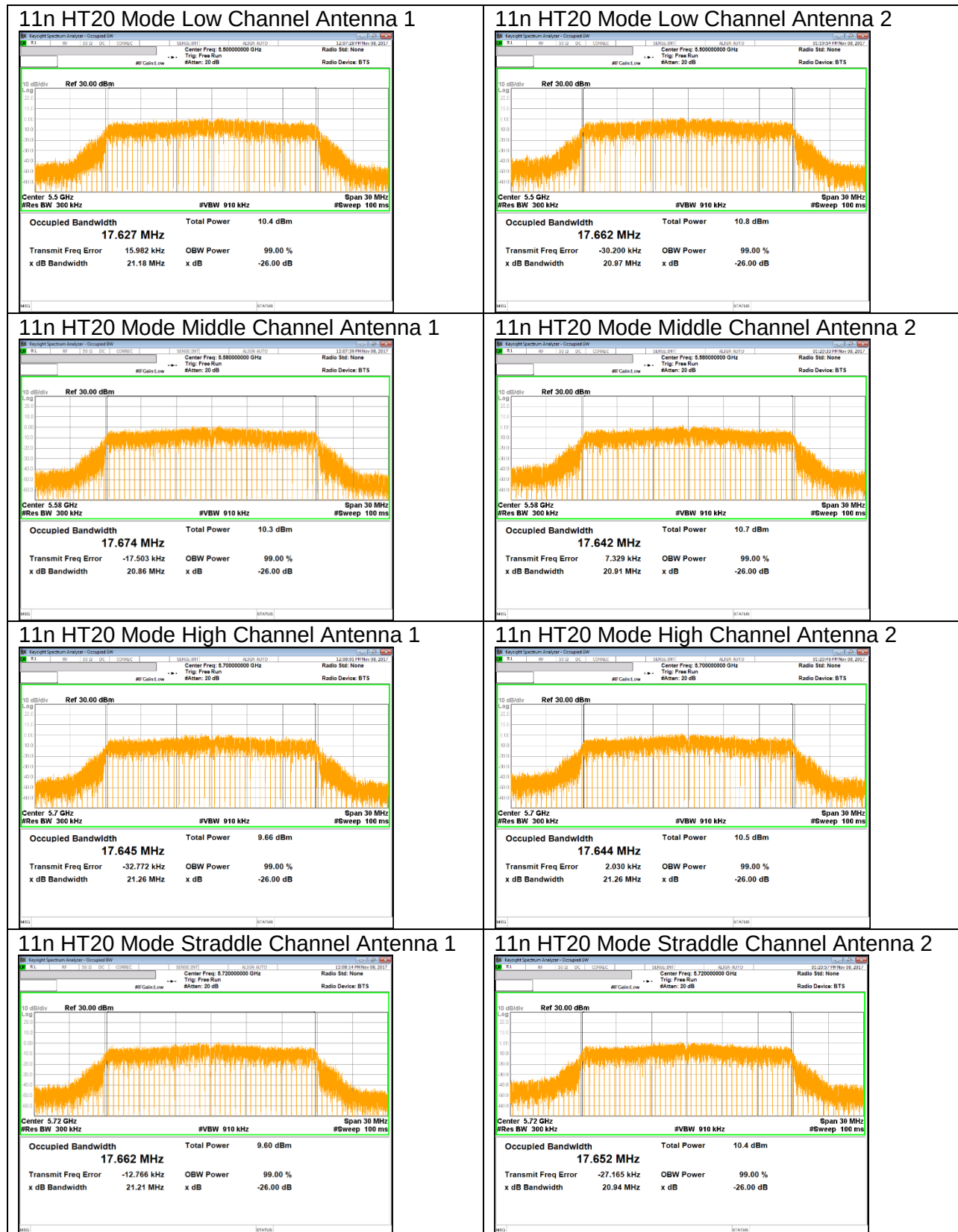
11ac HT80 Mode Middle Channel Antenna 2



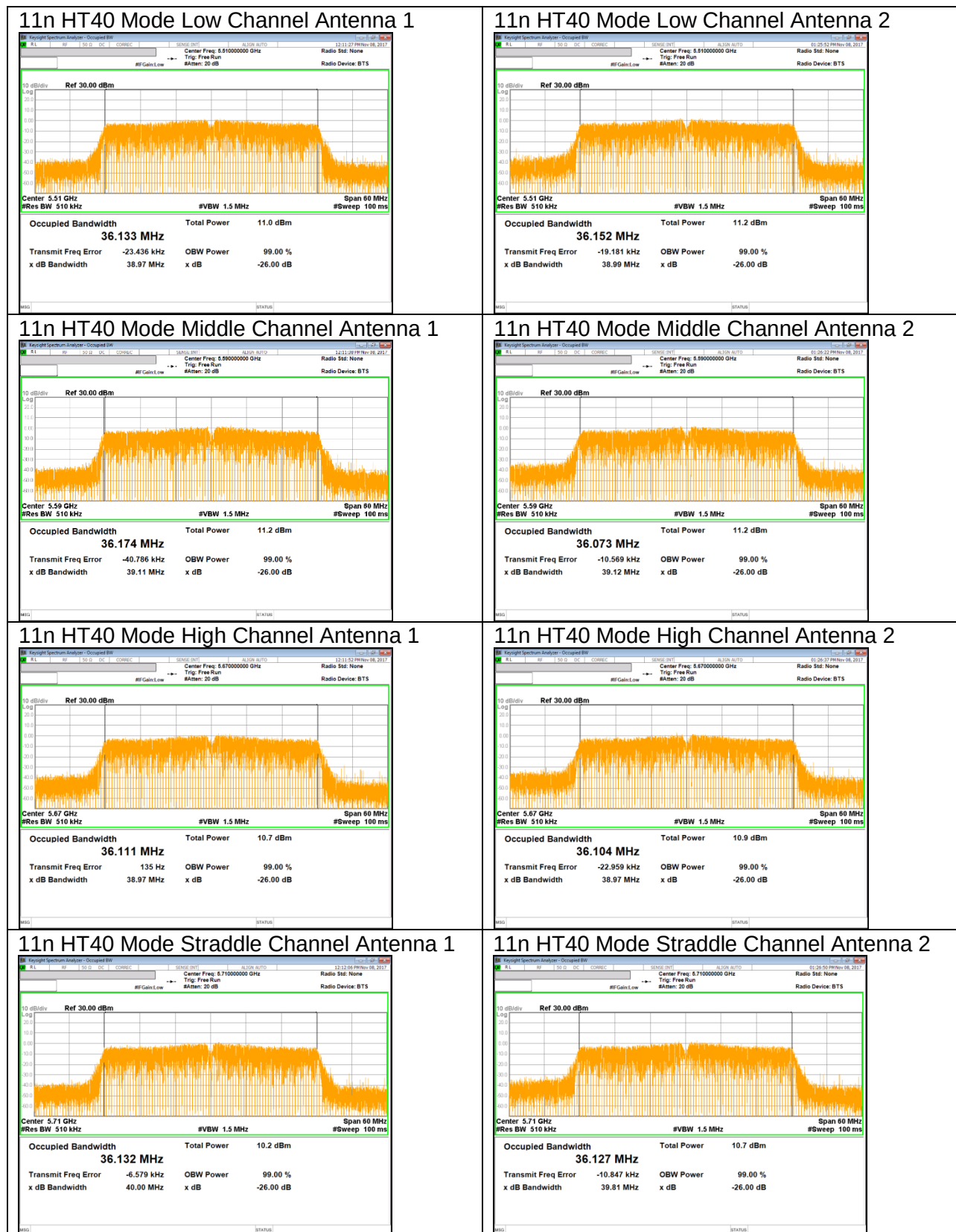
UNII 5.5 GHz IEEE 802.11a mode



UNII 5.5 GHz IEEE 802.11n HT20 mode

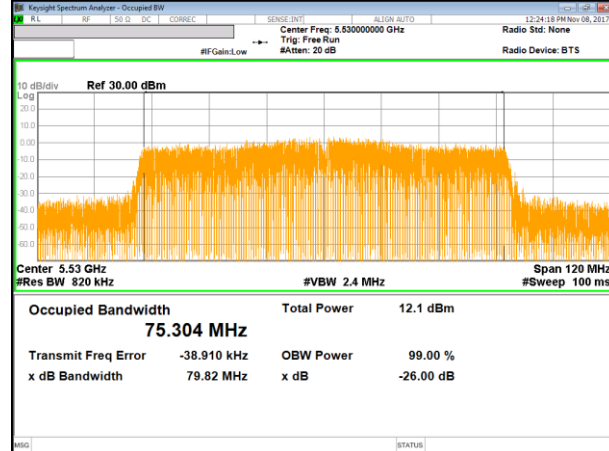


UNII 5.5 GHz IEEE 802.11n HT40 mode

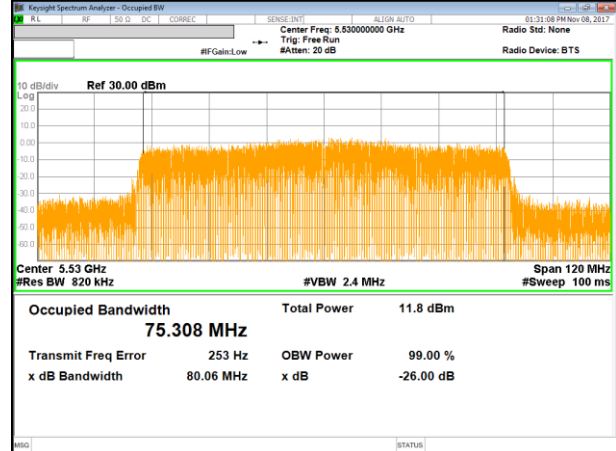


UNII 5.5 GHz IEEE 802.11ac VHT80 mode

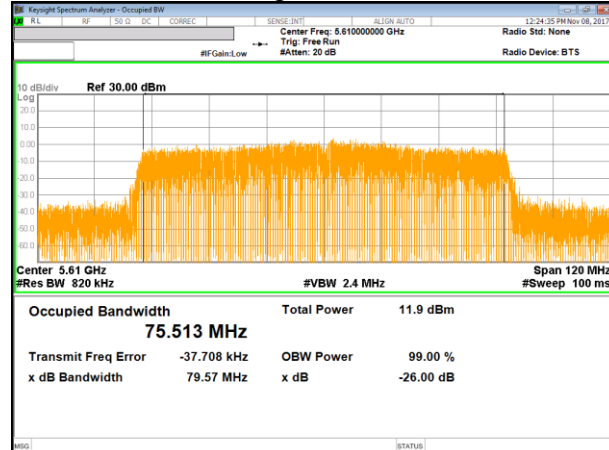
11ac HT80 Mode Low Channel Antenna 1



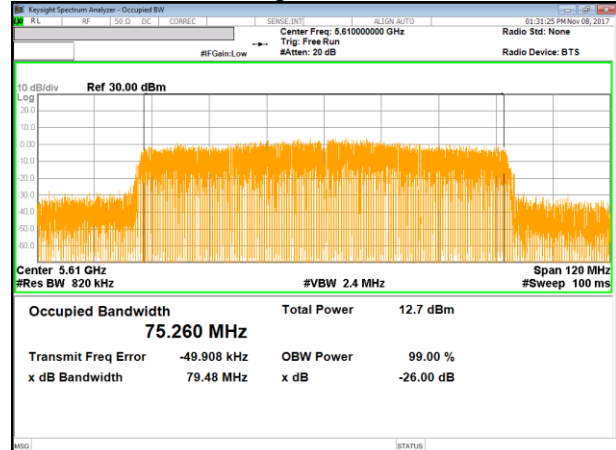
11ac HT80 Mode Low Channel Antenna 2



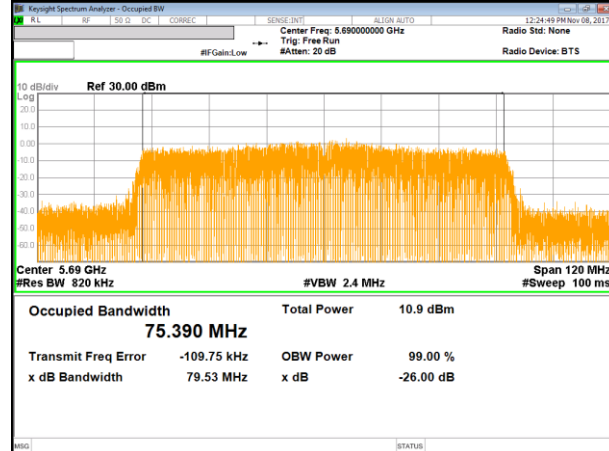
11ac HT80 Mode High Channel Antenna 1



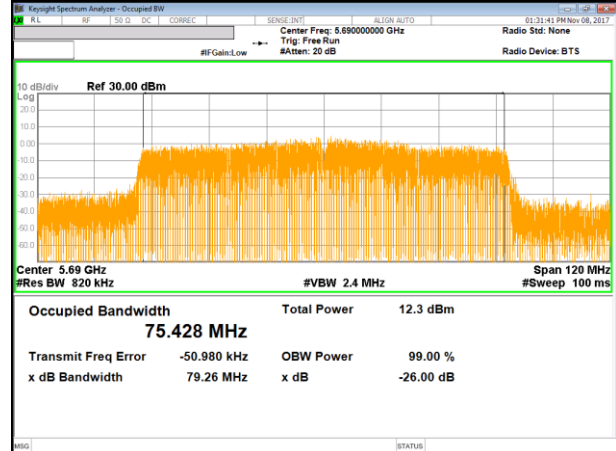
11ac HT80 Mode High Channel Antenna 2



11ac HT80 Mode Straddle Channel Antenna 1

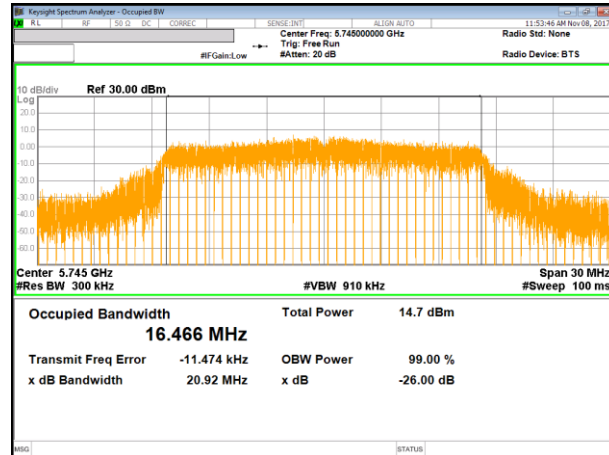


11ac HT80 Mode Straddle Channel Antenna 2

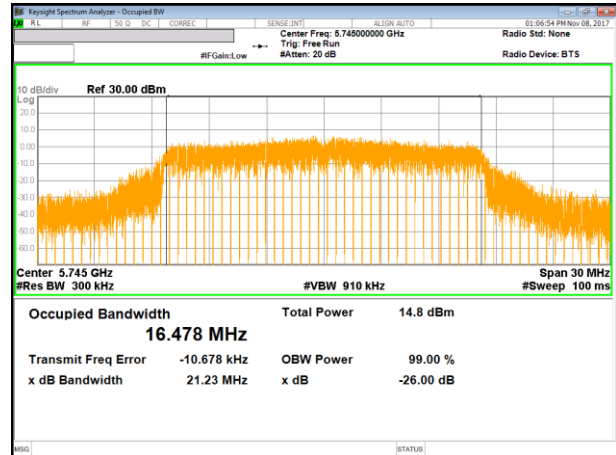


UNII 5.8 GHz IEEE 802.11a mode

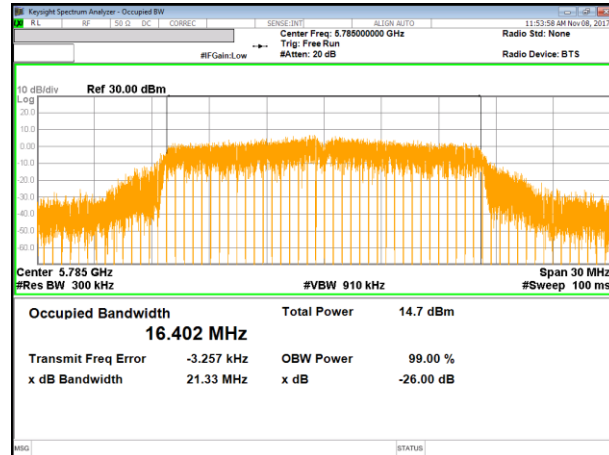
11a Mode Low Channel Antenna 1



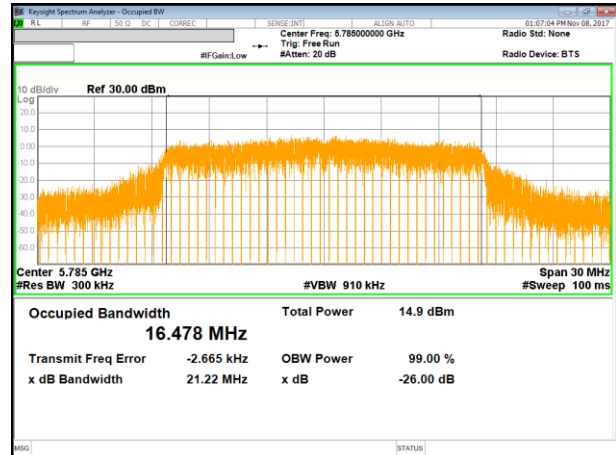
11a Mode Low Channel Antenna 2



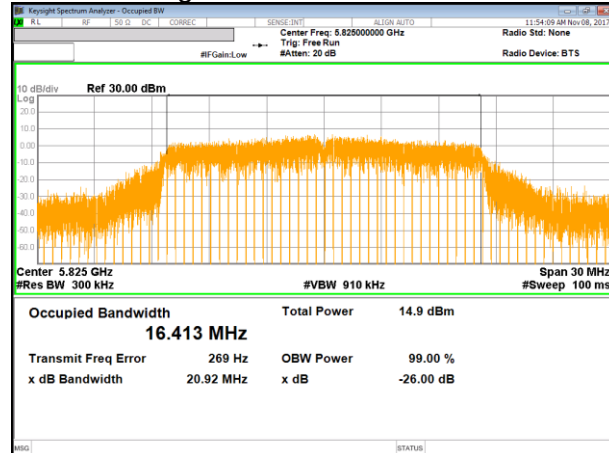
11a Mode Middle Channel Antenna 1



11a Mode Middle Channel Antenna 2



11a Mode High Channel Antenna 1



11a Mode High Channel Antenna 2

