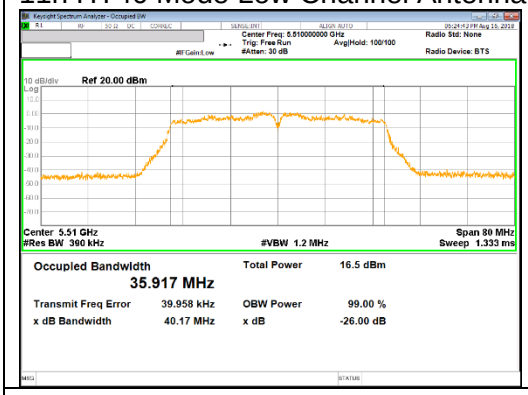
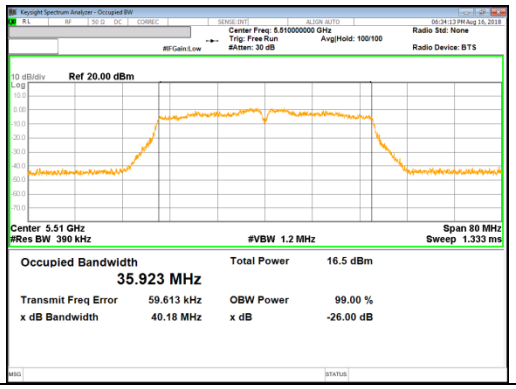
UNII 5.5 GHz IEEE 802.11n HT40 mode

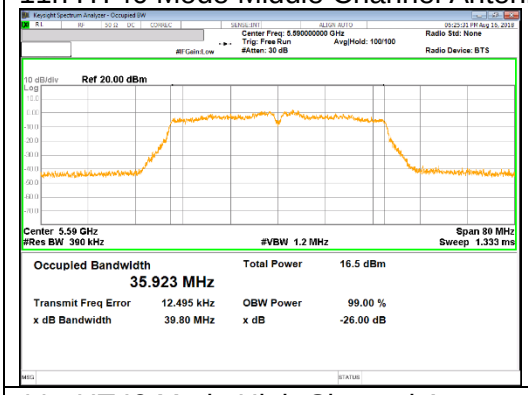
11n HT40 Mode Low Channel Antenna 1



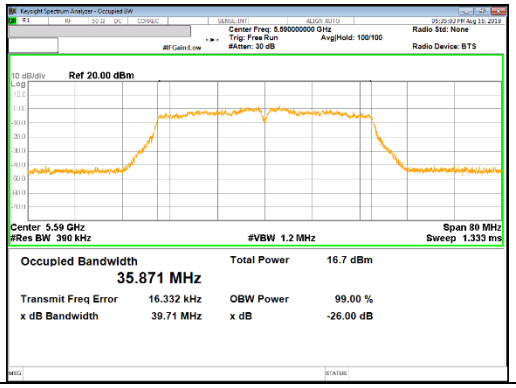
11n HT40 Mode Low Channel Antenna 2



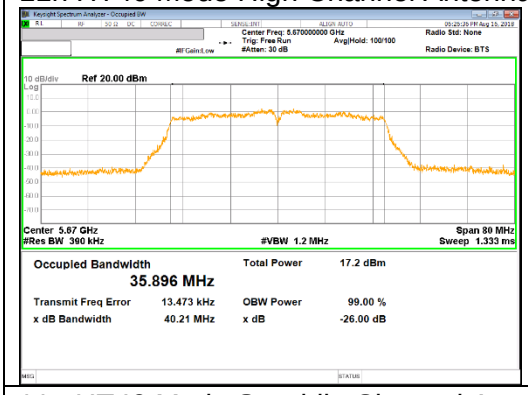
11n HT40 Mode Middle Channel Antenna 1



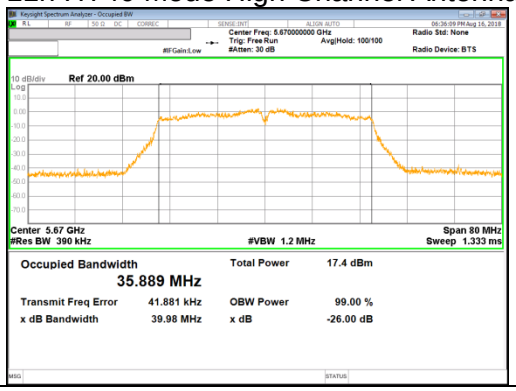
11n HT40 Mode Middle Channel Antenna 2



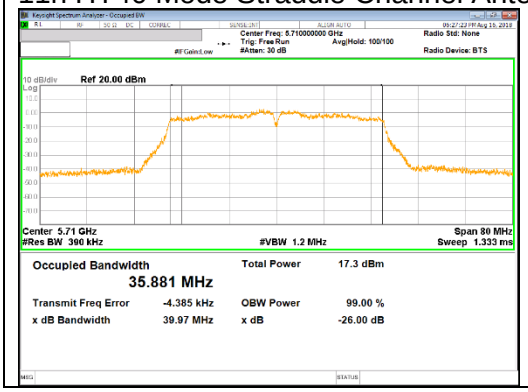
11n HT40 Mode High Channel Antenna 1



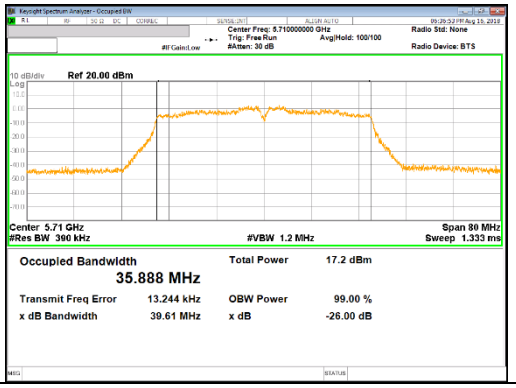
11n HT40 Mode High Channel Antenna 2



11n HT40 Mode Straddle Channel Antenna 1



11n HT40 Mode Straddle Channel Antenna 2



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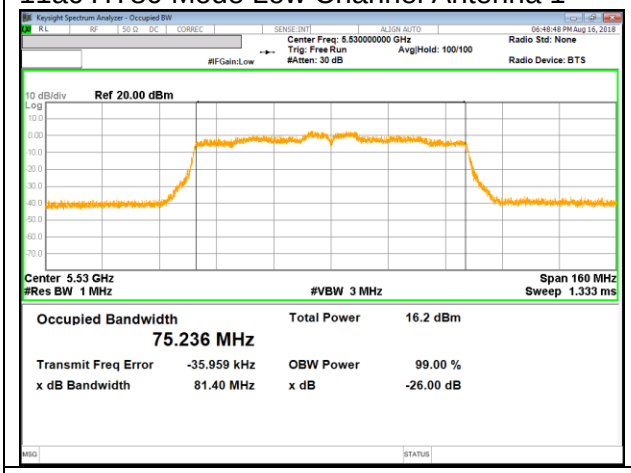
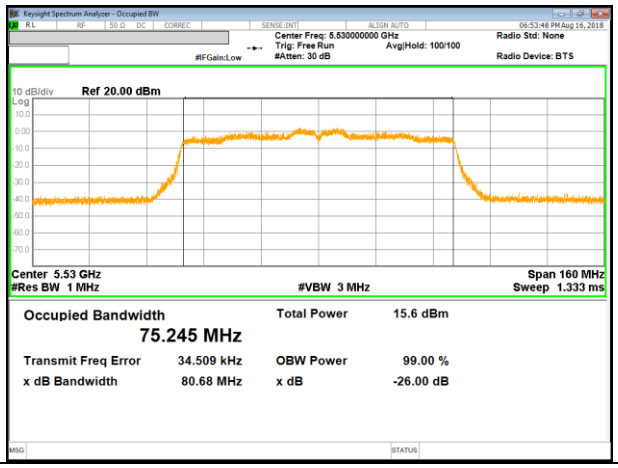
UNII 5.5 GHz IEEE 802.11ac VHT80 mode

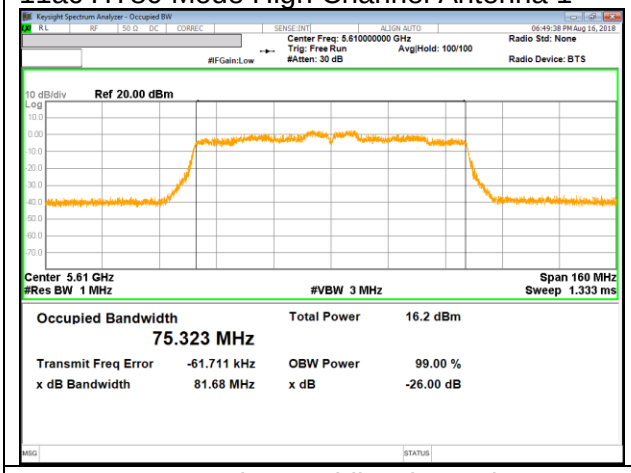
11ac HT80 Mode Low Channel Antenna 1



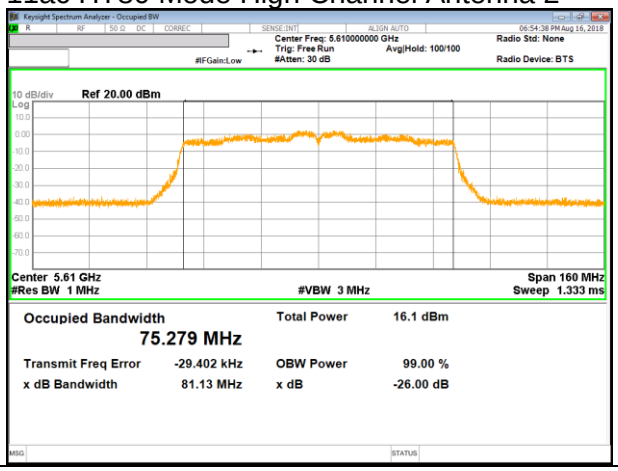
11ac HT80 Mode Low Channel Antenna 2



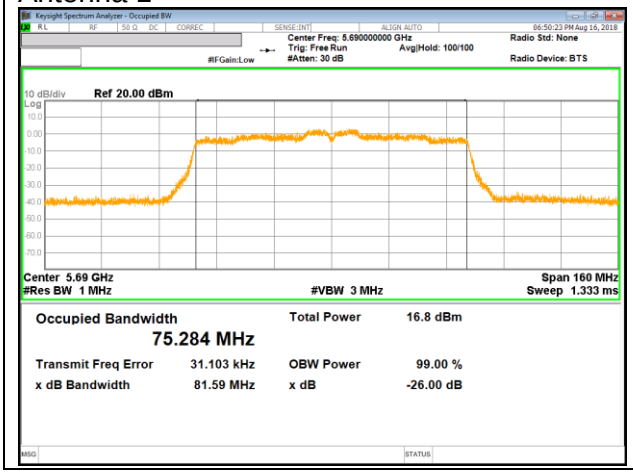
11ac HT80 Mode High Channel Antenna 1



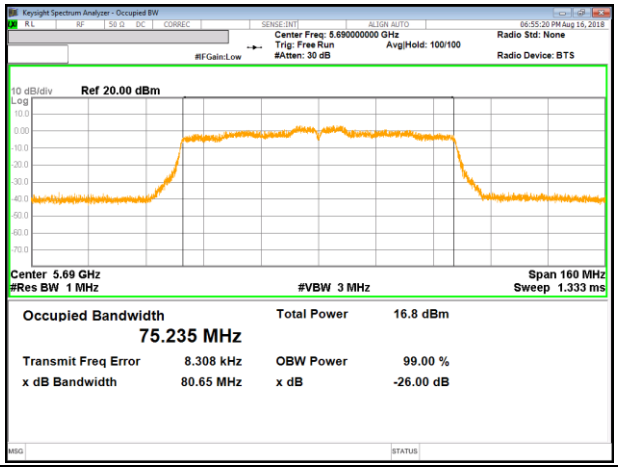
11ac HT80 Mode High Channel Antenna 2



11ac VHT80 Mode Straddle Channel Antenna 1



11ac VHT80 Mode Straddle Channel Antenna 2



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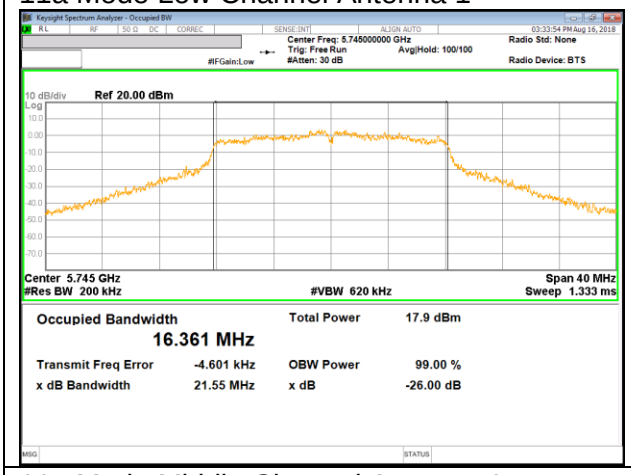
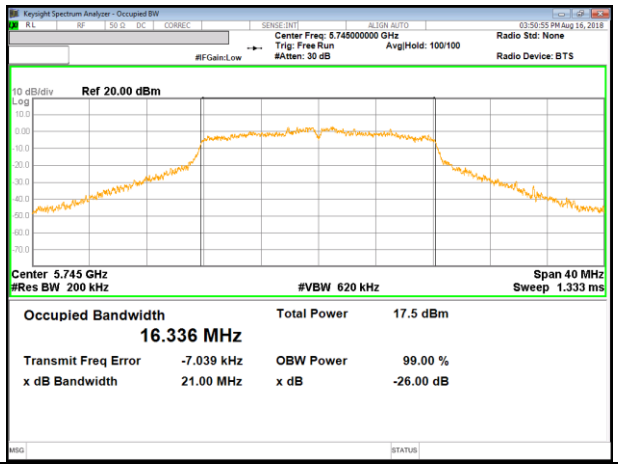
UNII 5.8 GHz IEEE 802.11a mode

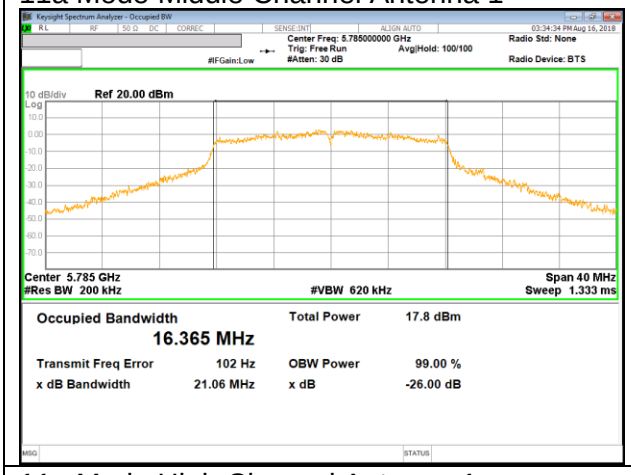
11a Mode Low Channel Antenna 1



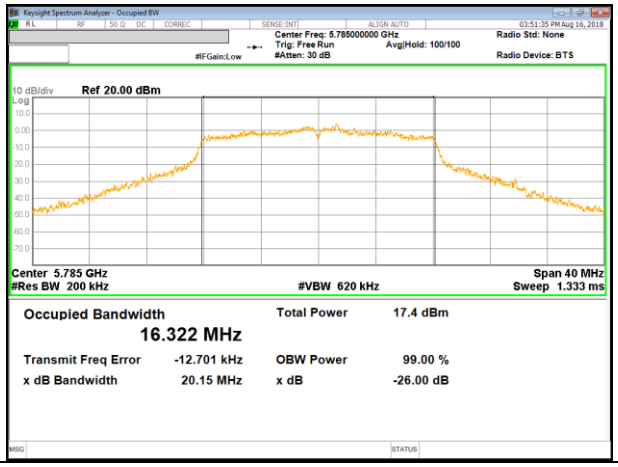
11a Mode Low Channel Antenna 2



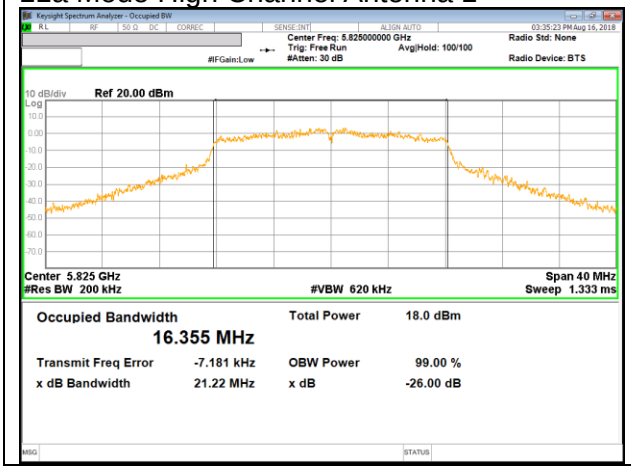
11a Mode Middle Channel Antenna 1



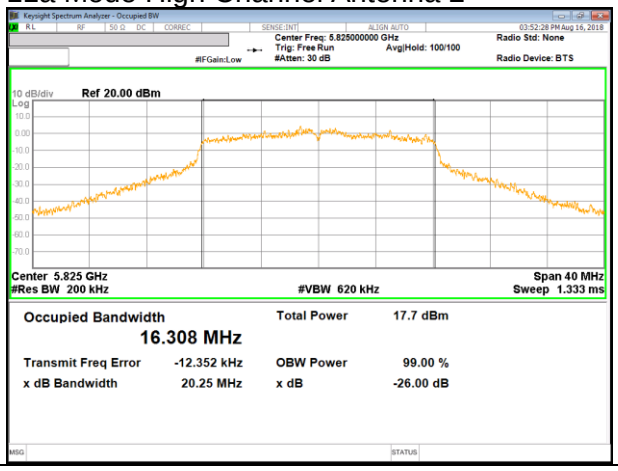
11a Mode Middle Channel Antenna 2



11a Mode High Channel Antenna 1



11a Mode High Channel Antenna 2



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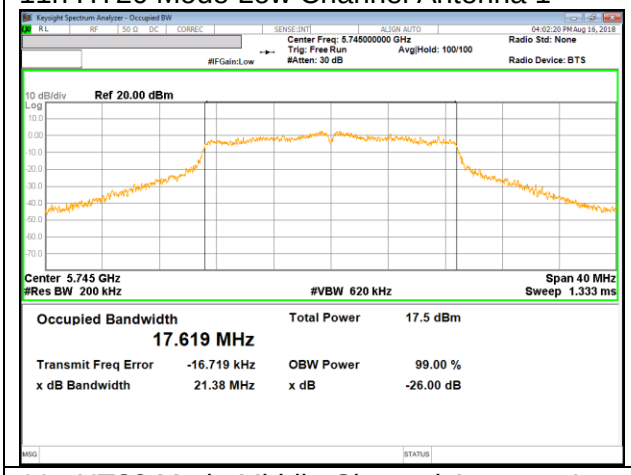
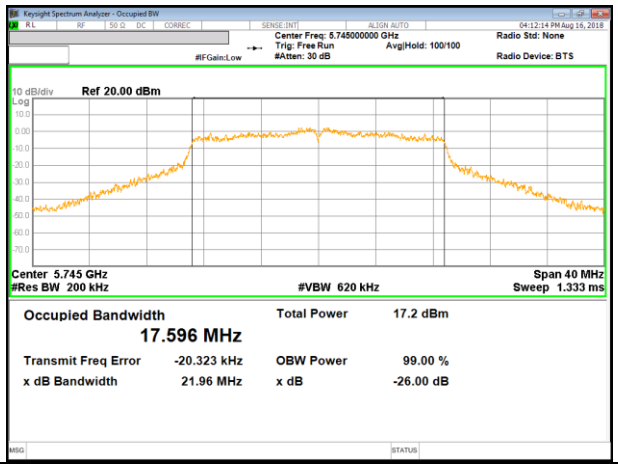
UNII 5.8 GHz IEEE 802.11n HT20 mode

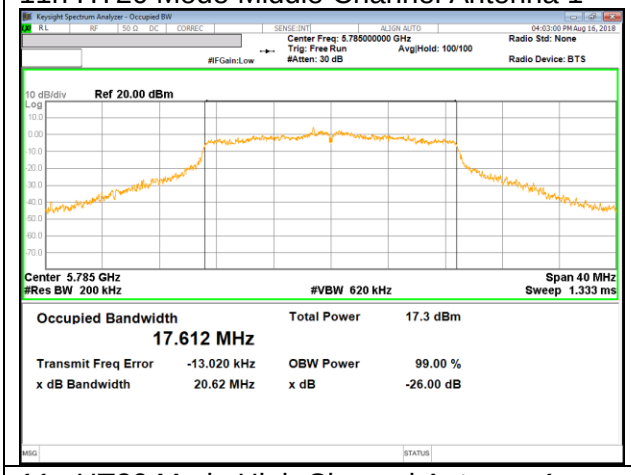
11n HT20 Mode Low Channel Antenna 1



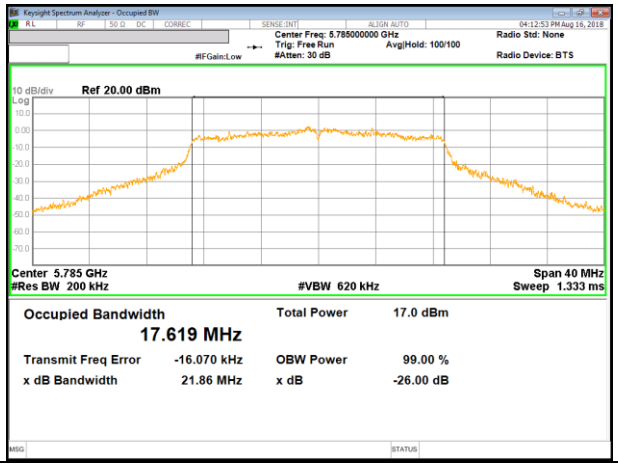
11n HT20 Mode Low Channel Antenna 2



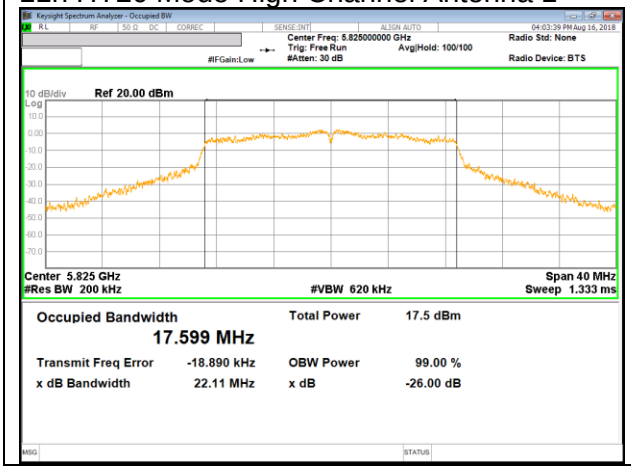
11n HT20 Mode Middle Channel Antenna 1



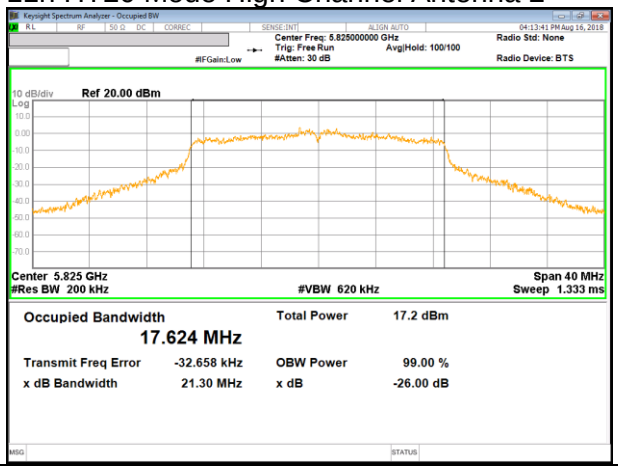
11n HT20 Mode Middle Channel Antenna 2



11n HT20 Mode High Channel Antenna 1



11n HT20 Mode High Channel Antenna 2



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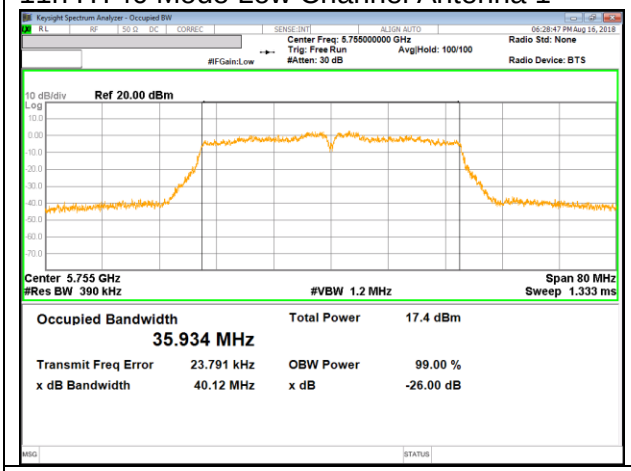
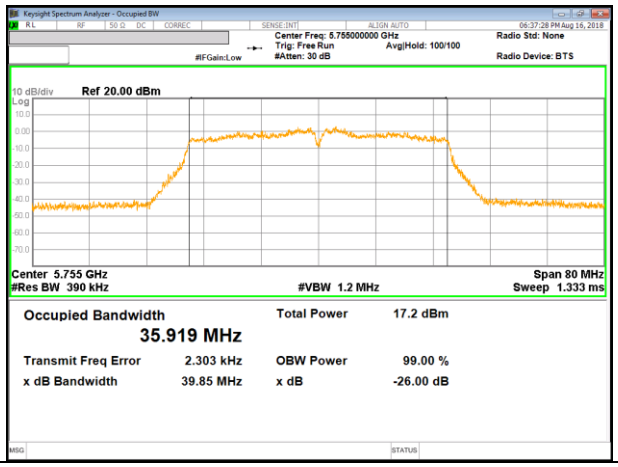
UNII 5.8 GHz IEEE 802.11n HT40 mode

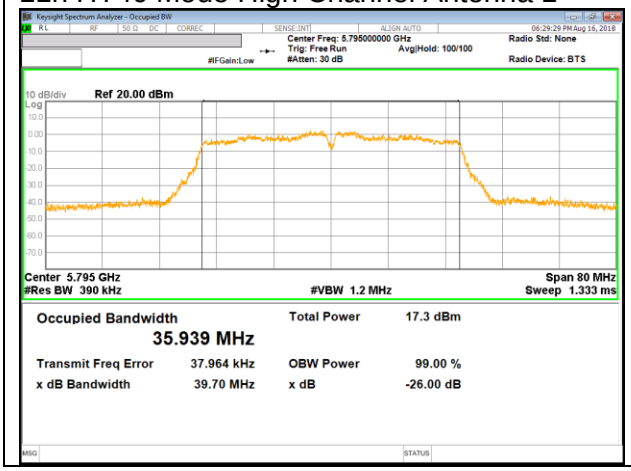
11n HT40 Mode Low Channel Antenna 1



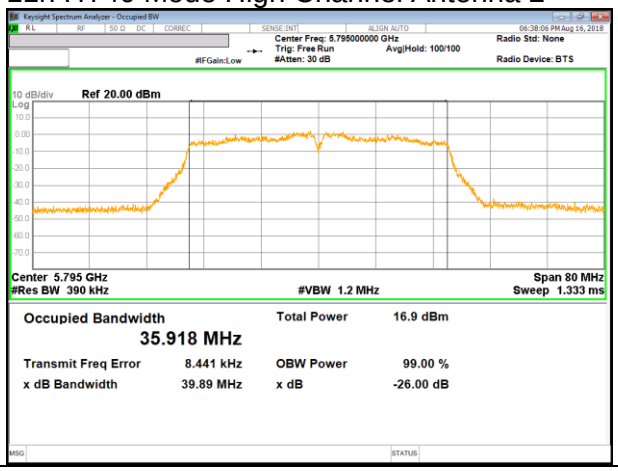
11n HT40 Mode Low Channel Antenna 2



11n HT40 Mode High Channel Antenna 1

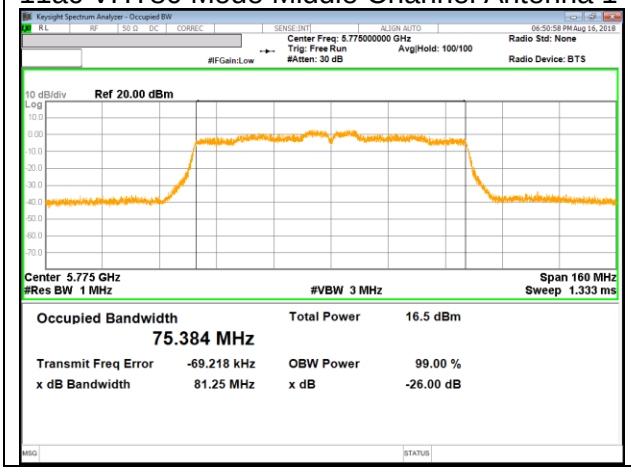


11n HT40 Mode High Channel Antenna 2

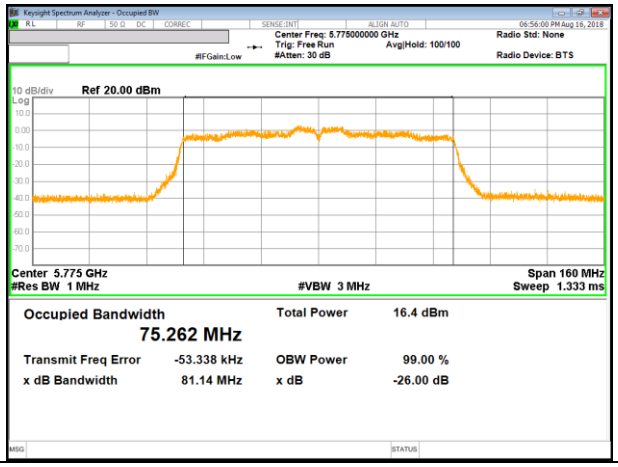


UNII 5.8 GHz IEEE 802.11ac VHT80 mode

11ac VHT80 Mode Middle Channel Antenna 1



11ac VHT80 Mode Middle Channel Antenna 2



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9.4. 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 >= 3 x 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 MHz
  - 99% Bandwidth of UNII-3 band Portion
    = (5720 + (21.00 / 2) -5725) = 5.50 MHz

RESULTS

9.4.1.802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5180	16.370	16.372
Mid	5200	16.374	16.363
High	5240	16.358	16.377
Worst		16.377	

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9.4.2.802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5180	17.595	17.587
Mid	5200	17.603	17.607
High	5240	17.615	17.604
Worst		17.615	

9.4.3.802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5190	36.005	35.999
High	5230	36.019	35.986
Worst		36.019	

9.4.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Middle	5210	75.189	75.244
Worst		75.244	

9.4.5.802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5260	16.348	16.343
Mid	5300	16.369	16.361
High	5320	16.378	16.357
Worst		16.378	

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9.4.6.802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5260	17.615	17.607
Mid	5300	17.604	17.610
High	5320	17.609	17.603
Worst		17.615	

9.4.7.802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5270	36.021	36.002
High	5310	35.990	35.990
Worst		36.021	

9.4.8. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Middle	5290	75.243	75.373
Worst		75.373	

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9.4.9. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5500	16.371	16.371
Mid	5580	16.368	16.367
High	5700	16.361	16.371
Straddle	5720	13.187	13.184
Worst		16.371	

9.4.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5500	17.592	17.598
Mid	5580	17.604	17.619
High	5700	17.606	17.609
Straddle	5720	13.807	13.810
Worst		17.619	

9.4.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5510	36.029	35.986
Mid	5550	36.022	36.031
High	5670	36.028	36.009
Straddle	5710	32.995	33.004
Worst		36.031	

9.4.12. 802.11ac VHT80 MODE IN THE 5.5 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Low	5530	75.288	75.199
High	5610	75.264	75.191
Straddle	5690	72.657	72.612
Worst		75.288	

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9.4.13. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Straddle	5720	3.187	3.185
Low	5745	16.394	16.367
Mid	5785	16.384	16.389
High	5825	16.395	16.383
Worst		16.395	

9.4.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Straddle	5720	3.807	3.810
Low	5745	17.615	17.588
Mid	5785	17.605	17.607
High	5825	17.618	17.609
Worst		17.618	

9.4.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Straddle	5710	2.994	3.003
Low	5755	36.031	35.996
High	5795	36.008	36.033
Worst		36.033	

9.4.16. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

Channel	Frequency [MHz]	99% Bandwidth [MHz]	
		Antenna 1	Antenna 2
Straddle	5690	2.657	2.612
Middle	5775	75.252	75.379
Worst		75.379	

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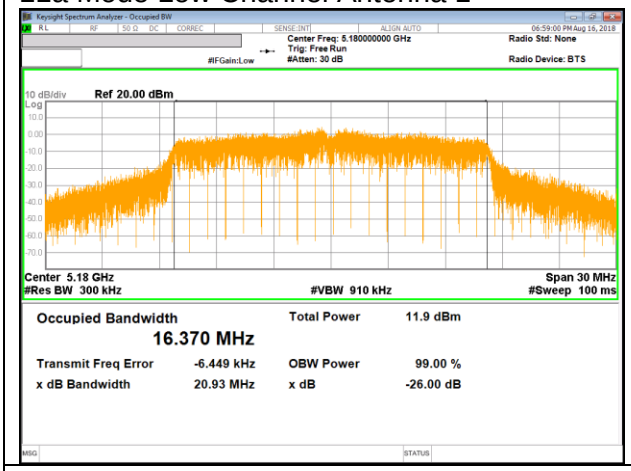
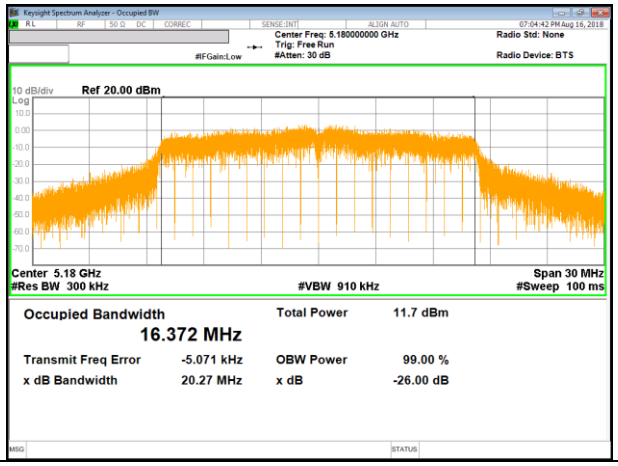
9.4.17. 99% BANDWIDTH PLOTS

UNII 5.2 GHz IEEE 802.11a mode

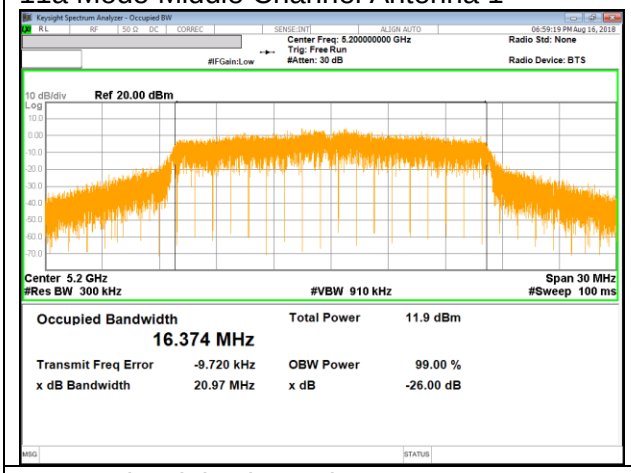
11a Mode Low Channel Antenna 1



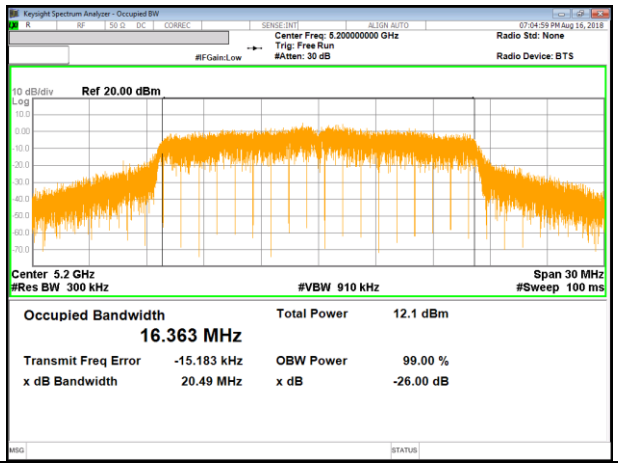
11a Mode Low Channel Antenna 2



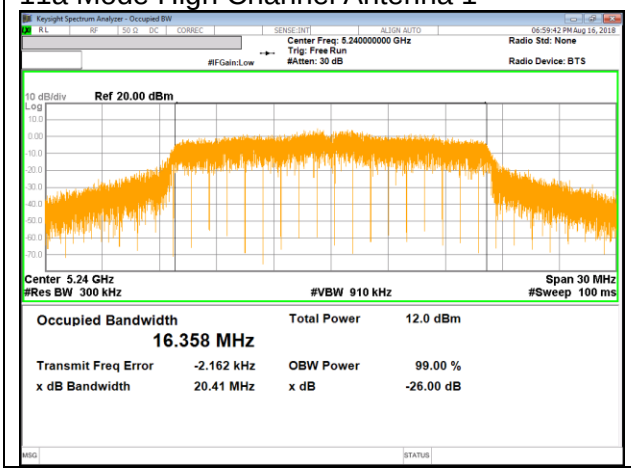
11a Mode Middle Channel Antenna 1



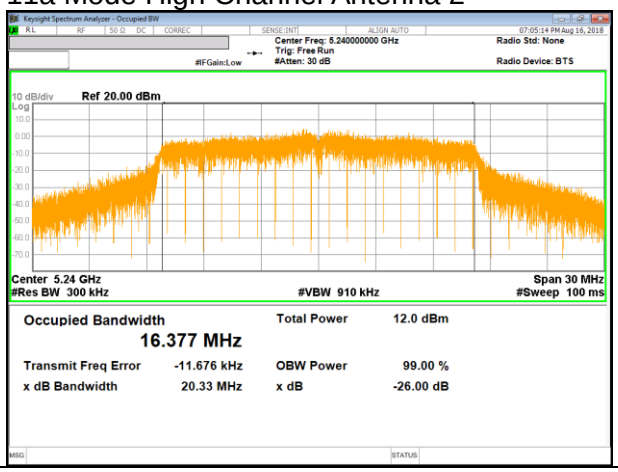
11a Mode Middle Channel Antenna 2



11a Mode High Channel Antenna 1



11a Mode High Channel Antenna 2



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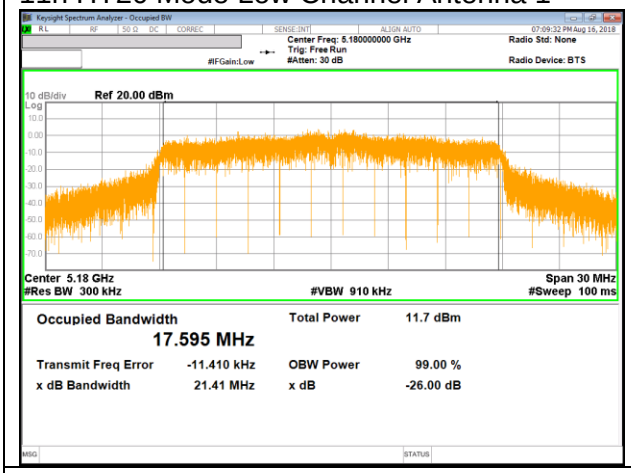
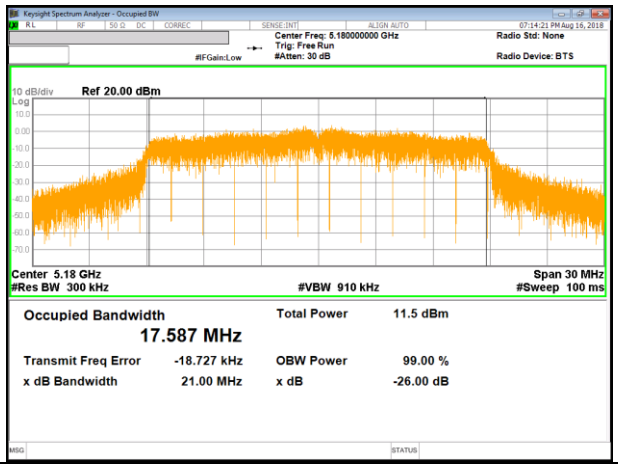
UNII 5.2 GHz IEEE 802.11n HT20 mode

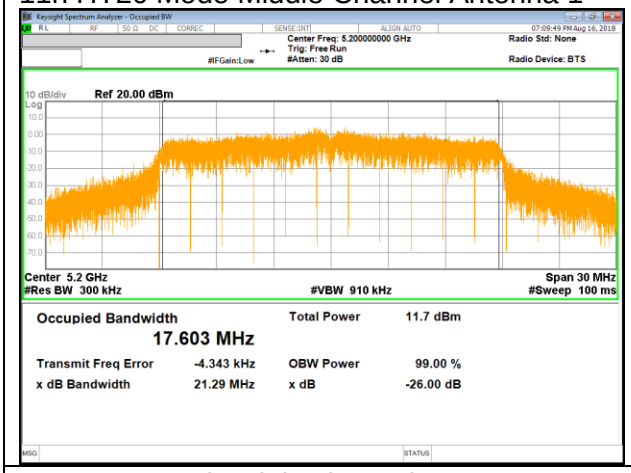
11n HT20 Mode Low Channel Antenna 1



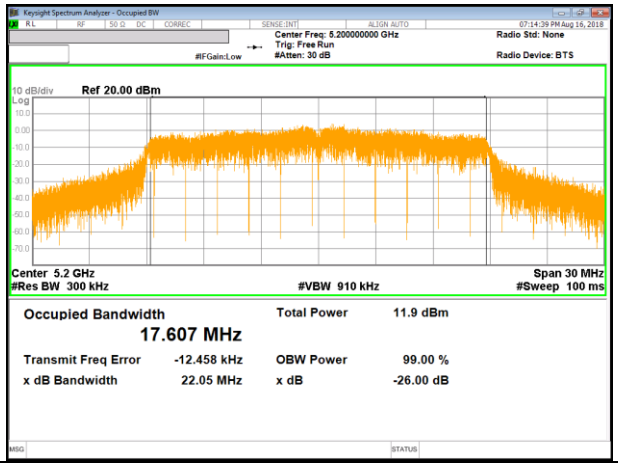
11n HT20 Mode Low Channel Antenna 2



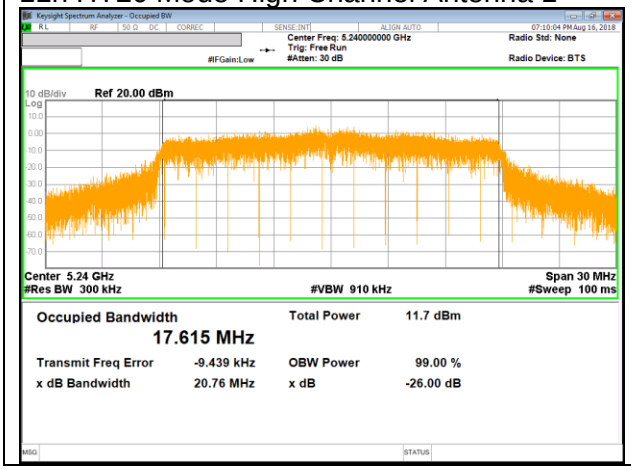
11n HT20 Mode Middle Channel Antenna 1



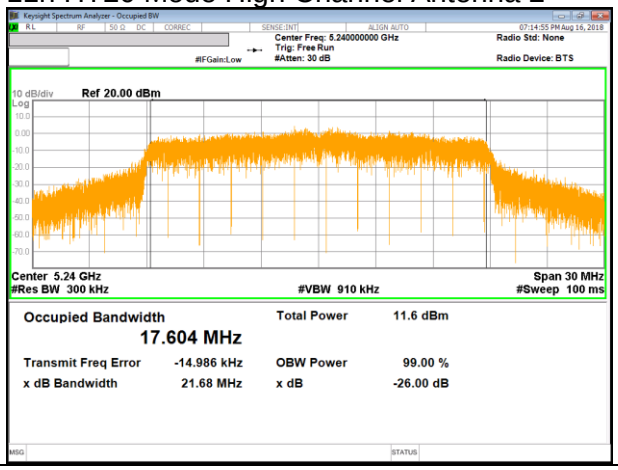
11n HT20 Mode Middle Channel Antenna 2



11n HT20 Mode High Channel Antenna 1



11n HT20 Mode High Channel Antenna 2



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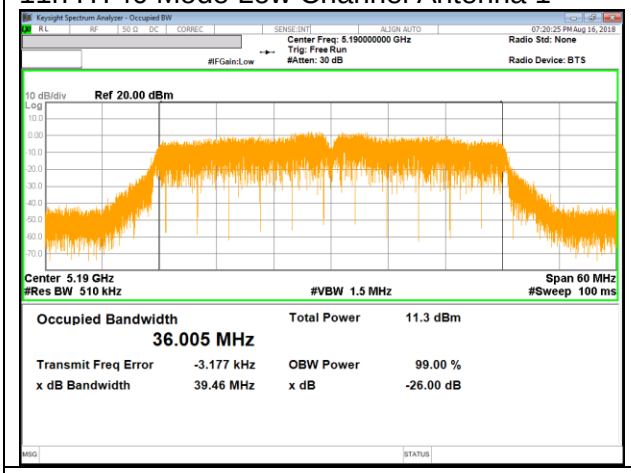
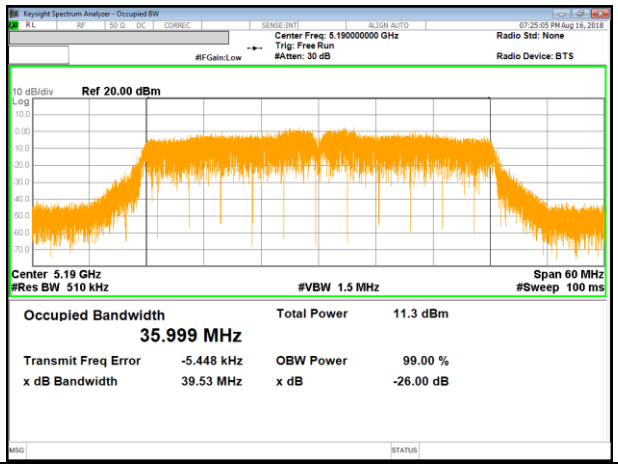
UNII 5.2 GHz IEEE 802.11n HT40 mode

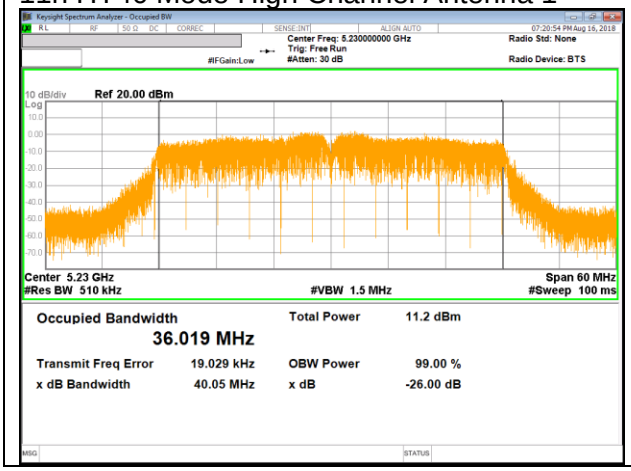
11n HT40 Mode Low Channel Antenna 1



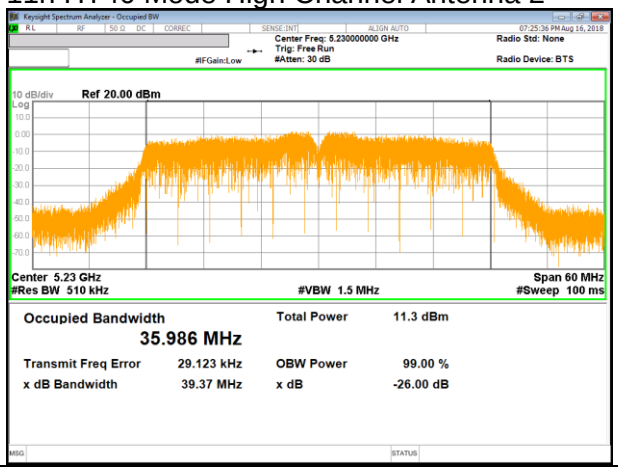
11n HT40 Mode Low Channel Antenna 2



11n HT40 Mode High Channel Antenna 1



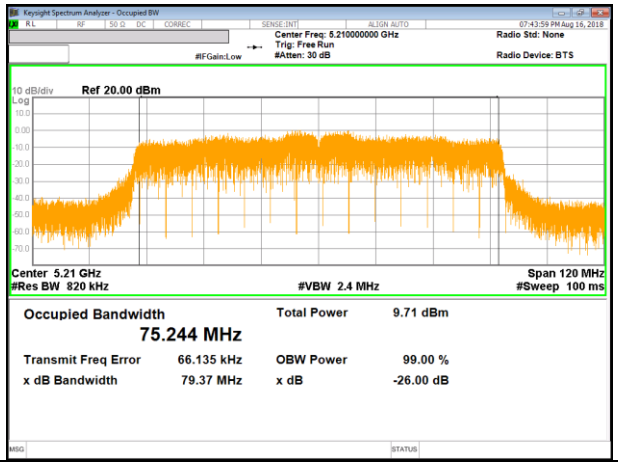
11n HT40 Mode High Channel Antenna 2



UNII 5.2 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Middle Channel Antenna 1

11ac HT80 Mode Middle Channel Antenna 2



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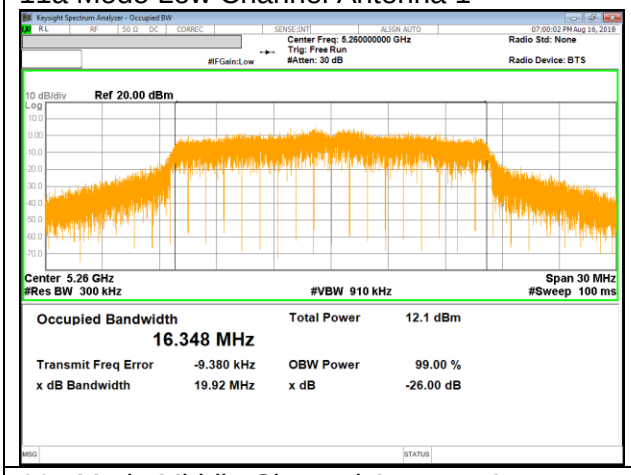
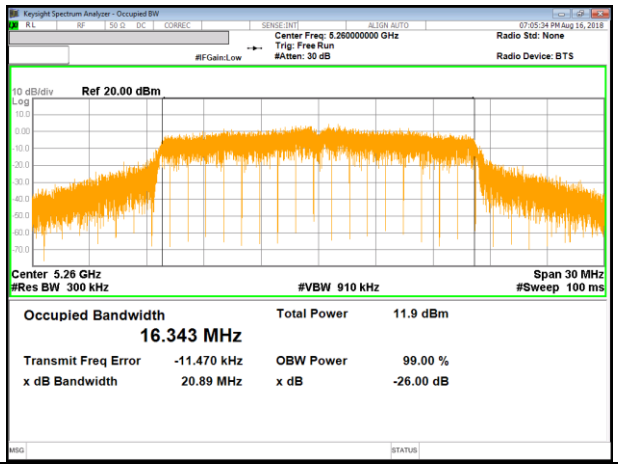
UNII 5.3 GHz IEEE 802.11a mode

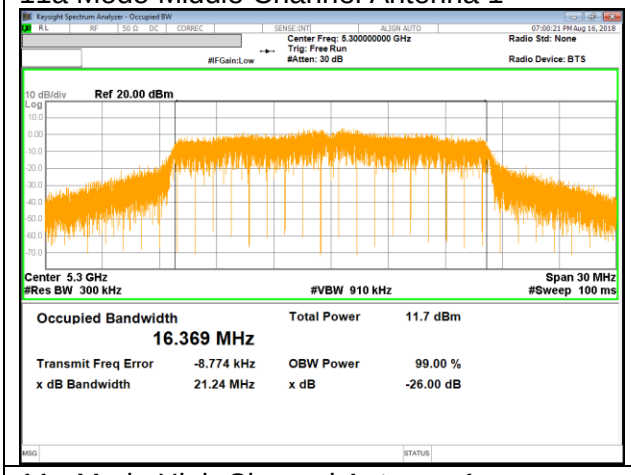
11a Mode Low Channel Antenna 1



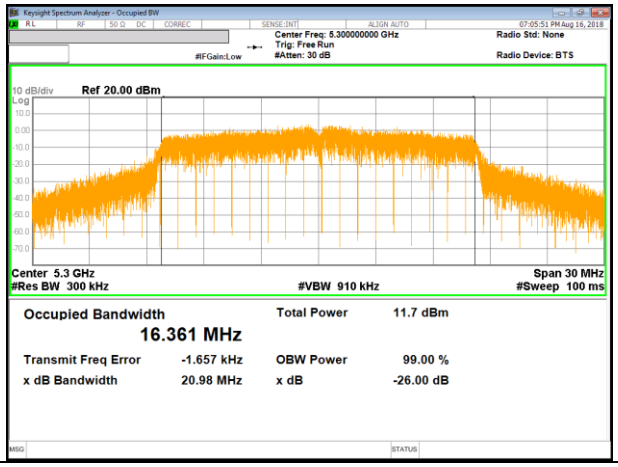
11a Mode Low Channel Antenna 2



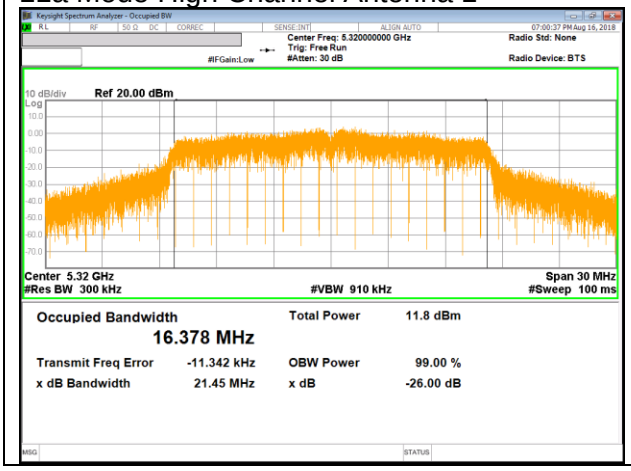
11a Mode Middle Channel Antenna 1



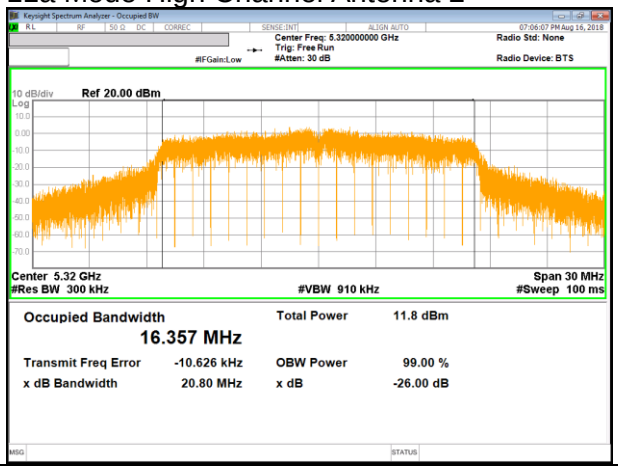
11a Mode Middle Channel Antenna 2



11a Mode High Channel Antenna 1



11a Mode High Channel Antenna 2



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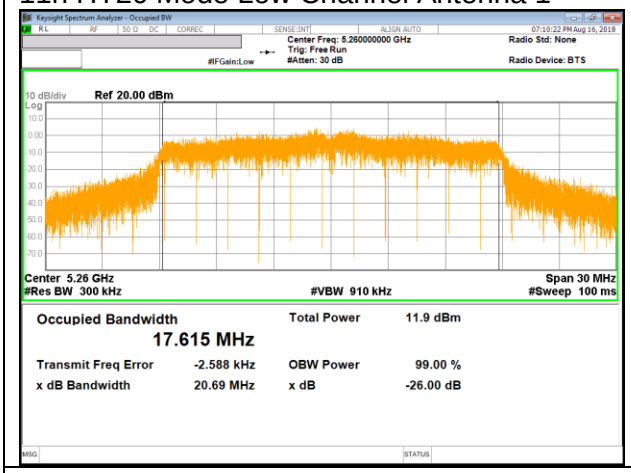
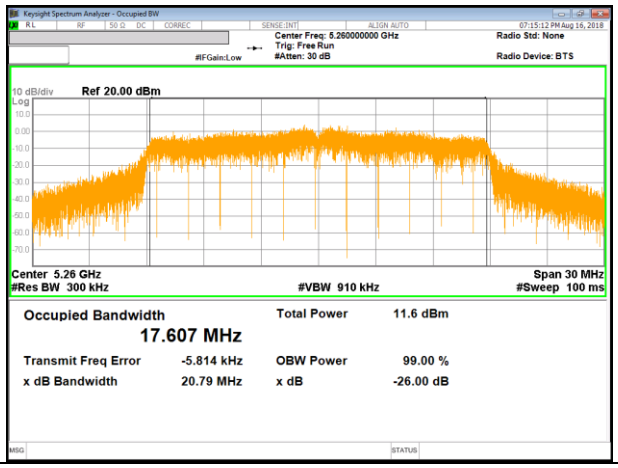
UNII 5.3 GHz IEEE 802.11n HT20 mode

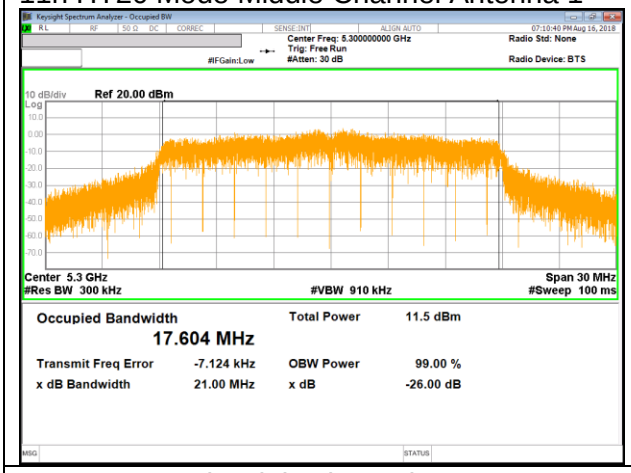
11n HT20 Mode Low Channel Antenna 1



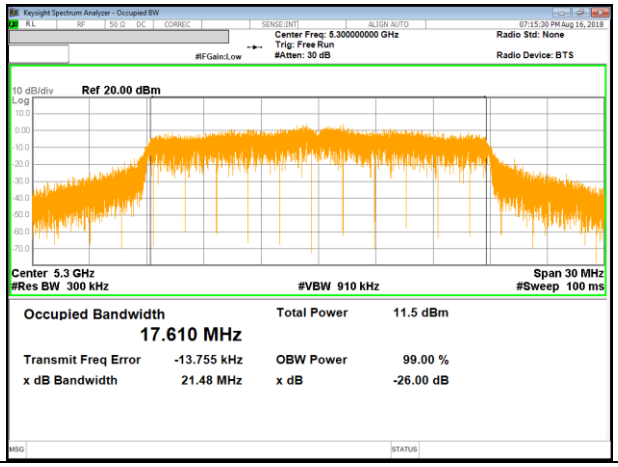
11n HT20 Mode Low Channel Antenna 2



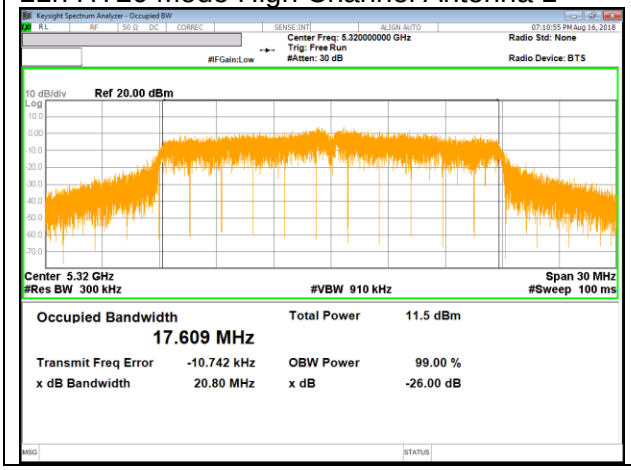
11n HT20 Mode Middle Channel Antenna 1



11n HT20 Mode Middle Channel Antenna 2



11n HT20 Mode High Channel Antenna 1



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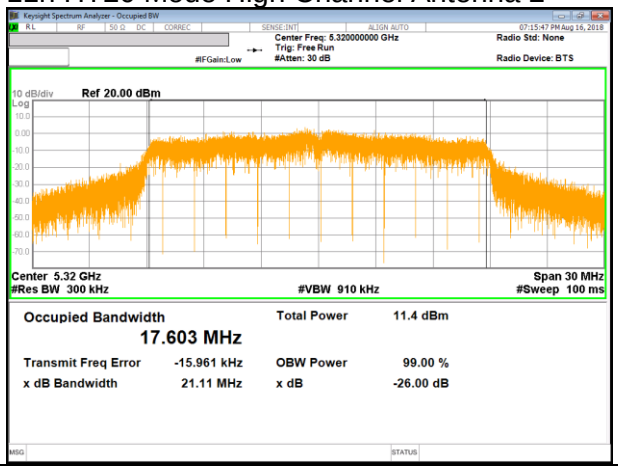

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