

# MAXIMUM POWER SPECTRAL DENSITY

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures Section E was followed. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. The data rate(s) listed in the datasheet were tested. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring peak power spectral density, the transmission pulse duration (T) was measured. The transmission pulse duration and the associated data are found elsewhere in this test report.

The spectrum analyzer settings were as follows:

- The span was set to encompass entire emission bandwidth (B), centered on the transmit channel.
- RBW = 1 MHz, VBW  $\geq$  3 MHz
- Sample detector was used because Method SA-1 Alternate was used to measure the Maximum Conducted Output Power.
- Trace average 100 traces in power averaging mode (not video averaging).

The peak power spectral density (PPSD) was determined to be the highest level found across the emission in any 1 MHz band after 100 sweeps of power averaging (not video averaging).

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	7/23/2015	7/23/2016
Block - DC	Fairview Microwave	SD3379	AMM	2/27/2015	2/27/2016
Attenuator	Fairview Microwave	SA4018-20	TQY	2/27/2015	2/27/2016
Generator - Signal	Agilent	N5173B	TIW	7/15/2014	7/15/2017

# MAXIMUM POWER SPECTRAL DENSITY



EUT:	Firebox T50-W (BS5AE7W)	Work Order:	VDEI0009
Serial Number:	70AF02717-B385	Date:	09/10/15
Customer:	WatchGuard Technologies, Inc.	Temperature:	25.1°C
Attendees:	None	Relative Humidity:	45%
Customer Project:	None	Bar. Pressure:	1015 mbar
Tested By:	Jonathan Kiefer	Job Site:	TX09
Power:	110VAC/60Hz	Configuration:	5

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.407:2015	ANSI C63.10:2013

## COMMENTS

2x2 MIMO mode, Chain AC (Chains 0 and 2).

## DEVIATIONS FROM TEST STANDARD

None

## RESULTS

	Value (dBm / MHz)	Limit (dBm / Ref BW)	Result s
<b>Chain A</b>			
802.11(n) HT, MCS0			
80 MHz			
Low Channel 5210 MHz	-1.398	11	Pass
Low Channel 5775 MHz	-6.05	30	Pass
802.11(n) HT, MCS8			
20 MHz			
Low Channel 5180 MHz	2.157	11	Pass
High Channel 5240 MHz	2.819	11	Pass
Low Channel 5745 MHz	3.324	30	Pass
Mid Channel 5785 MHz	3.27	30	Pass
High Channel 5825 MHz	3.037	30	Pass
40 MHz			
Low Channel 5190 MHz	1.337	11	Pass
High Channel 5230 MHz	1.564	11	Pass
Low Channel 5755 MHz	-1.067	30	Pass
High Channel 5795 MHz	-0.305	30	Pass
802.11(ac) VHT, MCS8 (256-QAM)			
20 MHz			
Low Channel 5180 MHz	1.638	11	Pass

# MAXIMUM POWER SPECTRAL DENSITY



	Value (dBm / MHz)	Limit (dBm / Ref BW)	Results
High Channel 5240 MHz	1.609	11	Pass
Low Channel 5745 MHz	-1.728	30	Pass
Mid Channel 5785 MHz	-1.147	30	Pass
High Channel 5825 MHz	-0.288	30	Pass
<b>802.11(ac) VHT, MCS9 (256-QAM)</b>			
<b>80 MHz</b>			
Low Channel 5210 MHz	-5.544	11	Pass
Low Channel 5775 MHz	-9.464	30	Pass
<b>40 MHz</b>			
Low Channel 5190 MHz	-2.514	11	Pass
High Channel 5230 MHz	-2.347	11	Pass
Low Channel 5755 MHz	-4.53	30	Pass
High Channel 5795 MHz	-3.733	30	Pass
<b>802.11(n) HT, MCS15</b>			
<b>20 MHz</b>			
Low Channel 5180 MHz	1.202	11	Pass
High Channel 5240 MHz	1.745	11	Pass
Low Channel 5745 MHz	-2.32	30	Pass
Mid Channel 5785 MHz	-2.002	30	Pass
High Channel 5825 MHz	-0.431	30	Pass
<b>40 MHz</b>			
Low Channel 5190 MHz	-2.861	11	Pass
High Channel 5230 MHz	-2.641	11	Pass
Low Channel 5755 MHz	-4.881	30	Pass
High Channel 5795 MHz	-3.961	30	Pass
<b>Chain C</b>			
<b>802.11(n) HT, MCS0</b>			
<b>80 MHz</b>			
Low Channel 5210 MHz	-1.388	11	Pass

# MAXIMUM POWER SPECTRAL DENSITY



		Value (dBm / MHz)	Limit (dBm / Ref BW)	Result s
	Low Channel 5775 MHz	-4.091	30	Pass
802.11(n) HT, MCS8	20 MHz			
	Low Channel 5180 MHz	5.992	11	Pass
	High Channel 5240 MHz	6.359	11	Pass
	Low Channel 5745 MHz	2.655	30	Pass
	Mid Channel 5785 MHz	2.762	30	Pass
	High Channel 5825 MHz	2.886	30	Pass
	40 MHz			
	Low Channel 5190 MHz	1.611	11	Pass
	High Channel 5230 MHz	2.414	11	Pass
	Low Channel 5755 MHz	-1.165	30	Pass
	High Channel 5795 MHz	-0.24	30	Pass
802.11(ac) VHT, MCS8 (256-QAM)	20 MHz			
	Low Channel 5180 MHz	2.269	11	Pass
	High Channel 5240 MHz	3.05	11	Pass
	Low Channel 5745 MHz	-0.363	30	Pass
	Mid Channel 5785 MHz	0.44	30	Pass
	High Channel 5825 MHz	0.613	30	Pass
802.11(ac) VHT, MCS9 (256-QAM)	80 MHz			
	Low Channel 5210 MHz	-4.441	11	Pass
	Low Channel 5775 MHz	-7.252	30	Pass
	40 MHz			
	Low Channel 5190 MHz	-2.021	11	Pass
	High Channel 5230 MHz	-1.241	11	Pass
	Low Channel 5755 MHz	-3.944	30	Pass
	High Channel 5795 MHz	-3.713	30	Pass

# MAXIMUM POWER SPECTRAL DENSITY



		Value (dBm / MHz)	Limit (dBm / Ref BW)	Result		
802.11(n) HT, MCS15						
20 MHz						
	Low Channel 5180 MHz	1.281	11	Pass		
	High Channel 5240 MHz	1.913	11	Pass		
	Low Channel 5745 MHz	-0.369	30	Pass		
	Mid Channel 5785 MHz	0.509	30	Pass		
	High Channel 5825 MHz	0.335	30	Pass		
40 MHz						
	Low Channel 5190 MHz	-2.129	11	Pass		
	High Channel 5230 MHz	-1.853	11	Pass		
	Low Channel 5755 MHz	-4.462	30	Pass		
	High Channel 5795 MHz	-4.045	30	Pass		
<b>Power Summing Chain A</b>						
802.11(n) HT, MCS0						
80 MHz						
	Low Channel 5210 MHz	-1.398	3.0	1.612	11	Pass
	Low Channel 5775 MHz	-6.05	3.0	-3.040	30	Pass
802.11(n) HT, MCS8						
20 MHz						
	Low Channel 5180 MHz	2.157	3.0	5.167	11	Pass
	High Channel 5240 MHz	2.819	3.0	5.829	11	Pass
	Low Channel 5745 MHz	3.324	3.0	6.334	30	Pass
	Mid Channel 5785 MHz	3.27	3.0	6.280	30	Pass
	High Channel 5825 MHz	3.037	3.0	6.047	30	Pass
40 MHz						
	Low Channel 5190 MHz	1.337	3.0	4.347	11	Pass
	High Channel 5230 MHz	1.564	3.0	4.574	11	Pass
	Low Channel 5755 MHz	-1.067	3.0	1.943	30	Pass

# MAXIMUM POWER SPECTRAL DENSITY



				Value (dBm / MHz)	Limit (dBm / Ref BW)	Result s
	MHz					
	High Channel 5795					
	MHz	-0.305	3.0	2.705	30	Pass
802.11(ac) VHT, MCS8 (256-QAM)						
20 MHz						
	Low Channel 5180					
	MHz	1.638	3.0	4.648	11	Pass
	High Channel 5240					
	MHz	1.609	3.0	4.619	11	Pass
	Low Channel 5745					
	MHz	-1.728	3.0	1.282	30	Pass
	Mid Channel 5785					
	MHz	-1.147	3.0	1.863	30	Pass
	High Channel 5825					
	MHz	-0.288	3.0	2.722	30	Pass
802.11(ac) VHT, MCS9 (256-QAM)						
80 MHz						
	Low Channel 5210					
	MHz	-5.544	3.0	-2.534	11	Pass
	Low Channel 5775					
	MHz	-9.464	3.0	-6.454	30	Pass
40 MHz						
	Low Channel 5190					
	MHz	-2.514	3.0	0.496	11	Pass
	High Channel 5230					
	MHz	-2.347	3.0	0.663	11	Pass
	Low Channel 5755					
	MHz	-4.53	3.0	-1.520	30	Pass
	High Channel 5795					
	MHz	-3.733	3.0	-0.723	30	Pass
802.11(n) HT, MCS15						
20 MHz						
	Low Channel 5180					
	MHz	1.202	3.0	4.212	11	Pass
	High Channel 5240					
	MHz	1.745	3.0	4.755	11	Pass
	Low Channel 5745					
	MHz	-2.32	3.0	0.690	30	Pass
	Mid Channel 5785					
	MHz	-2.002	3.0	1.008	30	Pass
	High Channel 5825					
	MHz	-0.431	3.0	2.579	30	Pass
40 MHz						
	Low Channel 5190					
	MHz	-2.861	3.0	0.149	11	Pass
	High Channel 5230					
	MHz	-2.641	3.0	0.369	11	Pass
	Low Channel 5755					
	MHz	-4.881	3.0	-1.871	30	Pass

# MAXIMUM POWER SPECTRAL DENSITY



				Value	Limit	Result		
				(dBm / MHz)	(dBm / Ref BW)	s		
High Channel 5795 MHz				-3.961	3.0	-0.951	30	Pass
<b>Power Summing Chain C</b>								
802.11(n) HT, MCS0		80 MHz		<b>Value (dBm/MHz)</b>	<b>Summing Factor (dBm)</b>	<b>Summed Value (dBm/MHz)</b>	<b>Limit (dBm/Ref BW)</b>	<b>Result</b>
Low Channel 5210 MHz				-1.388	3.0	1.622	11	Pass
Low Channel 5775 MHz				-4.091	3.0	-1.081	30	Pass
802.11(n) HT, MCS8		20 MHz						
Low Channel 5180 MHz				5.992	3.0	9.002	11	Pass
High Channel 5240 MHz				6.359	3.0	9.369	11	Pass
Low Channel 5745 MHz				2.655	3.0	5.665	30	Pass
Mid Channel 5785 MHz				2.762	3.0	5.772	30	Pass
High Channel 5825 MHz				2.886	3.0	5.896	30	Pass
		40 MHz						
Low Channel 5190 MHz				1.611	3.0	4.621	11	Pass
High Channel 5230 MHz				2.414	3.0	5.424	11	Pass
Low Channel 5755 MHz				-1.165	3.0	1.845	30	Pass
High Channel 5795 MHz				-0.24	3.0	2.770	30	Pass
802.11(ac) VHT, MCS8 (256-QAM)		20 MHz						
Low Channel 5180 MHz				2.269	3.0	5.279	11	Pass
High Channel 5240 MHz				3.05	3.0	6.060	11	Pass
Low Channel 5745 MHz				-0.363	3.0	2.647	30	Pass
Mid Channel 5785 MHz				0.44	3.0	3.450	30	Pass
High Channel 5825 MHz				0.613	3.0	3.623	30	Pass
802.11(ac) VHT, MCS9 (256-QAM)		80 MHz						
Low Channel 5210 MHz				-4.441	3.0	-1.431	11	Pass
Low Channel 5775 MHz				-7.252	3.0	-4.242	30	Pass

# MAXIMUM POWER SPECTRAL DENSITY



				Value (dBm / MHz)	Limit (dBm / Ref BW)	Result s
	MHz					
	40 MHz					
	Low Channel 5190 MHz	-2.021	3.0	0.989	11	Pass
	High Channel 5230 MHz	-1.241	3.0	1.769	11	Pass
	Low Channel 5755 MHz	-3.944	3.0	-0.934	30	Pass
	High Channel 5795 MHz	-3.713	3.0	-0.703	30	Pass
802.11(n) HT, MCS15	20 MHz					
	Low Channel 5180 MHz	1.281	3.0	4.291	11	Pass
	High Channel 5240 MHz	1.913	3.0	4.923	11	Pass
	Low Channel 5745 MHz	-0.369	3.0	2.641	30	Pass
	Mid Channel 5785 MHz	0.509	3.0	3.519	30	Pass
	High Channel 5825 MHz	0.335	3.0	3.345	30	Pass
	40 MHz					
	Low Channel 5190 MHz	-2.129	3.0	0.881	11	Pass
	High Channel 5230 MHz	-1.853	3.0	1.157	11	Pass
	Low Channel 5755 MHz	-4.462	3.0	-1.452	30	Pass
	High Channel 5795 MHz	-4.045	3.0	-1.035	30	Pass

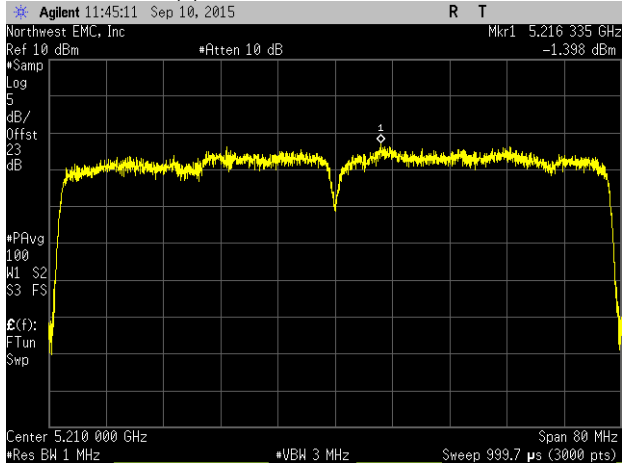
*Jonathan Kiefer*

Tested By



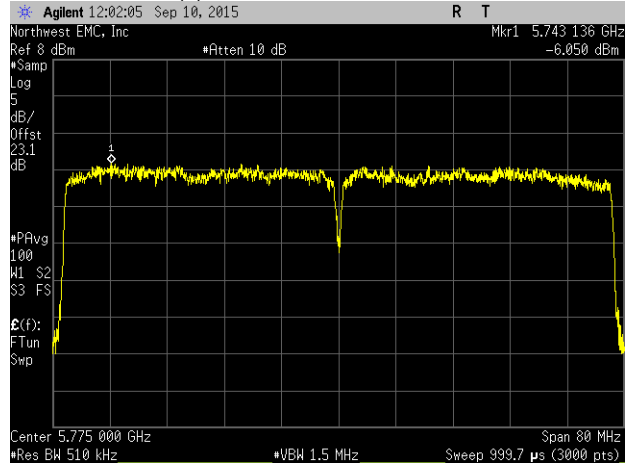
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5210 MHz



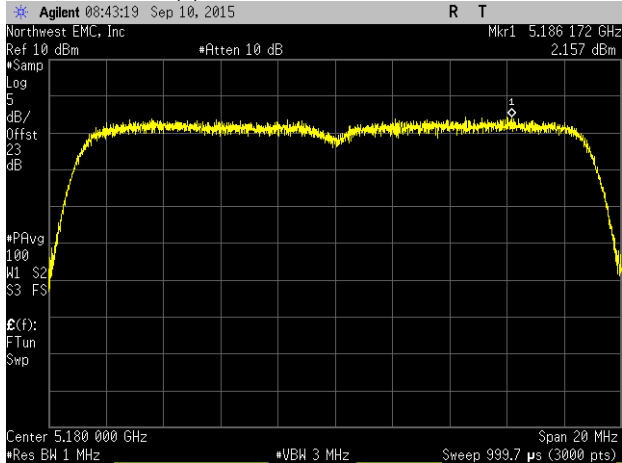
Value (dBm / MHz)	-1.398
Limit (dBm / Ref BW)	11
Results	Pass

Chain A, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5775 MHz



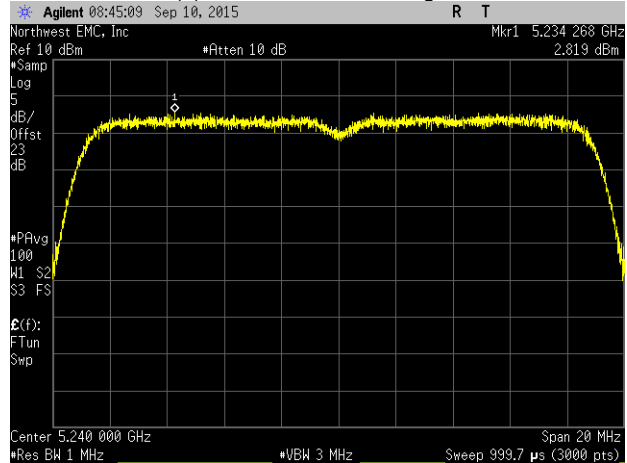
Value (dBm / MHz)	-6.05
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS8, 20 MHz, Low Channel 5180 MHz



Value (dBm / MHz)	2.157
Limit (dBm / Ref BW)	11
Results	Pass

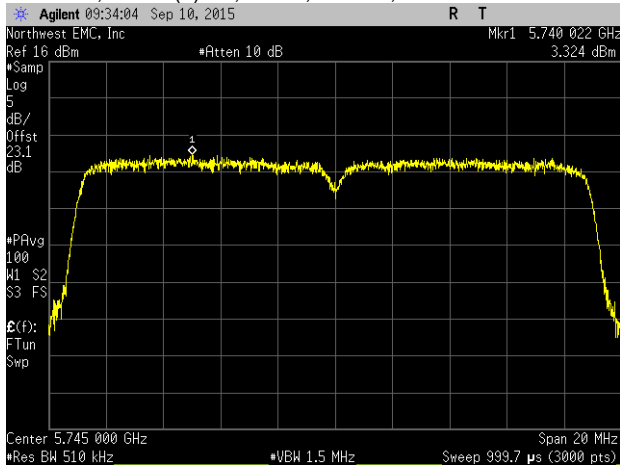
Chain A, 802.11(n) HT, MCS8, 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	2.819
Limit (dBm / Ref BW)	11
Results	Pass

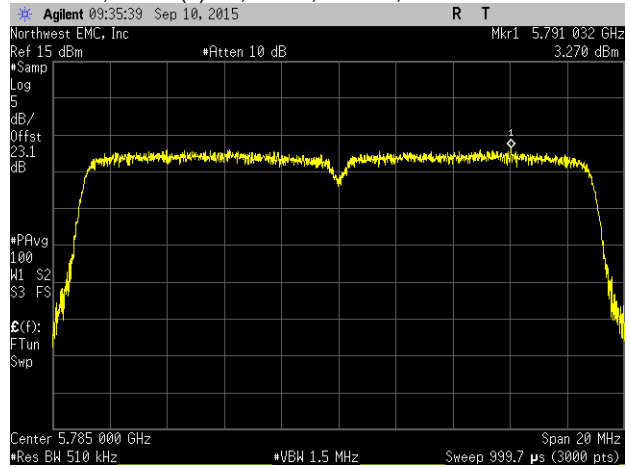
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(n) HT, MCS8, 20 MHz, Low Channel 5745 MHz



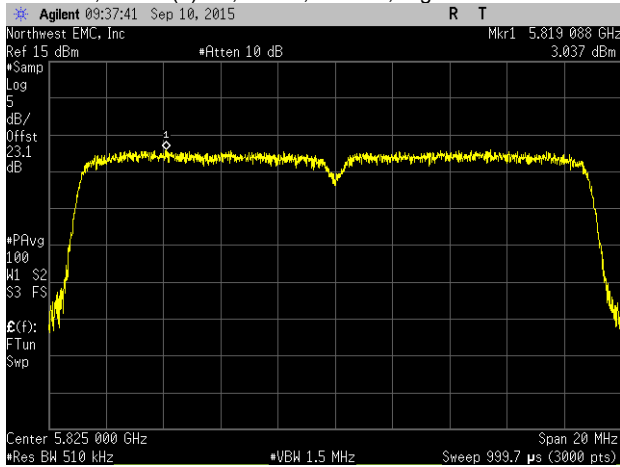
Value (dBm / MHz)	3.324
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS8, 20 MHz, Mid Channel 5785 MHz



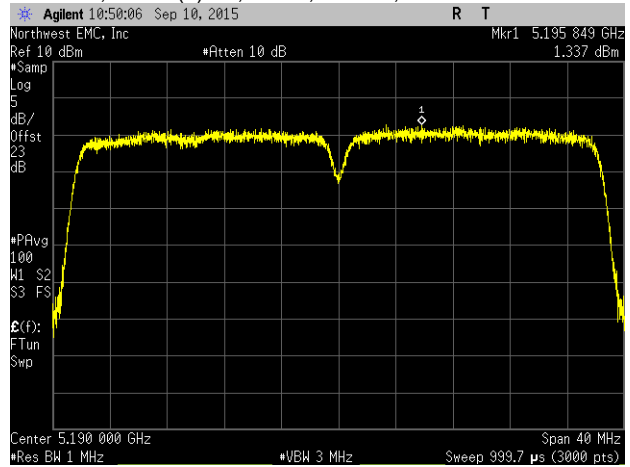
Value (dBm / MHz)	3.27
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS8, 20 MHz, High Channel 5825 MHz



Value (dBm / MHz)	3.037
Limit (dBm / Ref BW)	30
Results	Pass

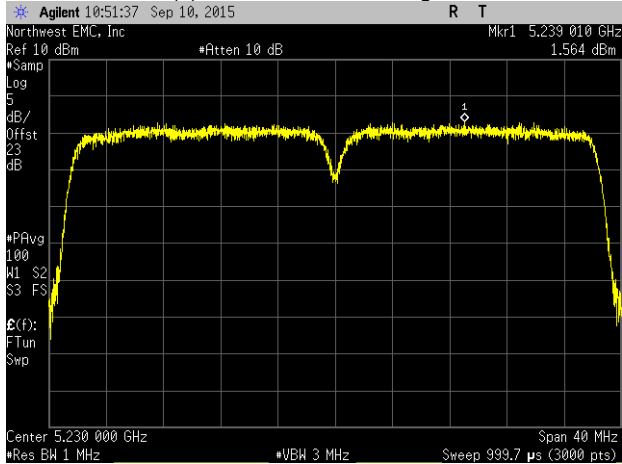
Chain A, 802.11(n) HT, MCS8, 40 MHz, Low Channel 5190 MHz



Value (dBm / MHz)	1.337
Limit (dBm / Ref BW)	11
Results	Pass

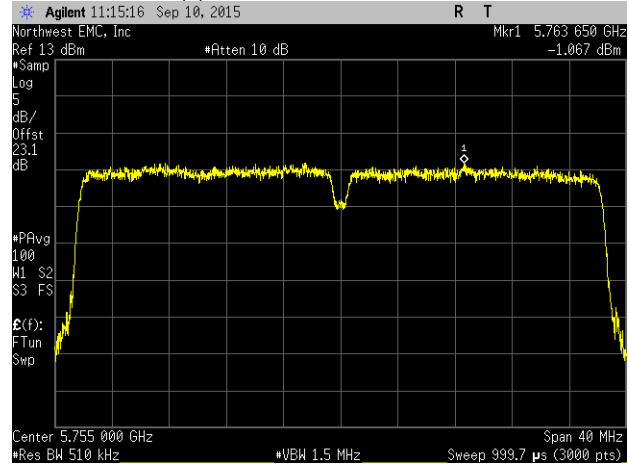
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(n) HT, MCS8, 40 MHz, High Channel 5230 MHz



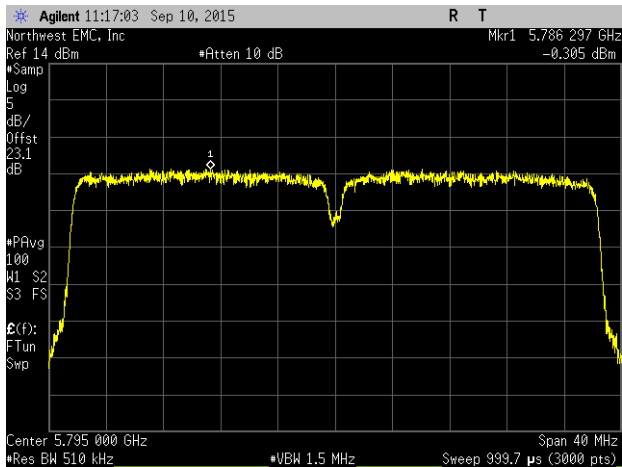
Value (dBm / MHz)	1.564
Limit (dBm / Ref BW)	11
Results	Pass

Chain A, 802.11(n) HT, MCS8, 40 MHz, Low Channel 5755 MHz



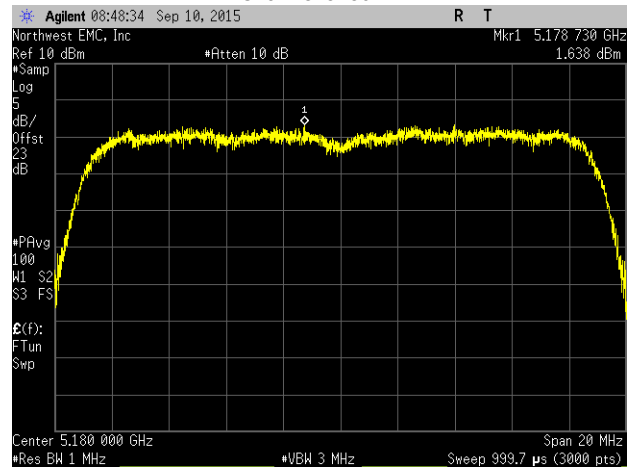
Value (dBm / MHz)	-1.067
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS8, 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-0.305
Limit (dBm / Ref BW)	30
Results	Pass

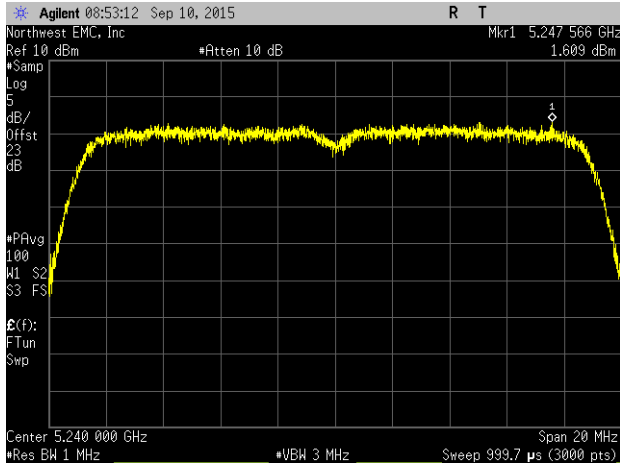
Chain A, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low Channel 5180 MHz



Value (dBm / MHz)	1.638
Limit (dBm / Ref BW)	11
Results	Pass

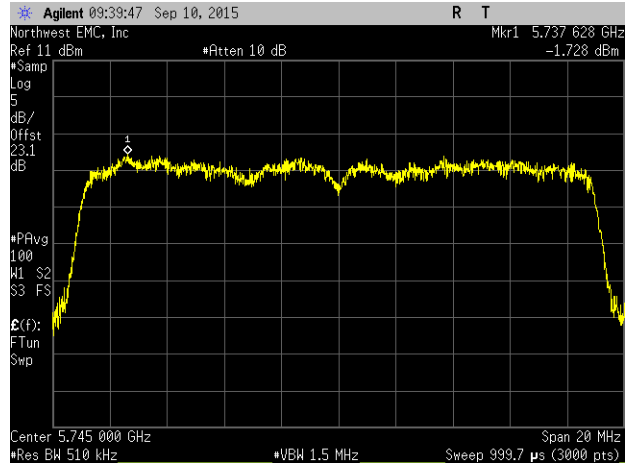
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High Channel 5240 MHz



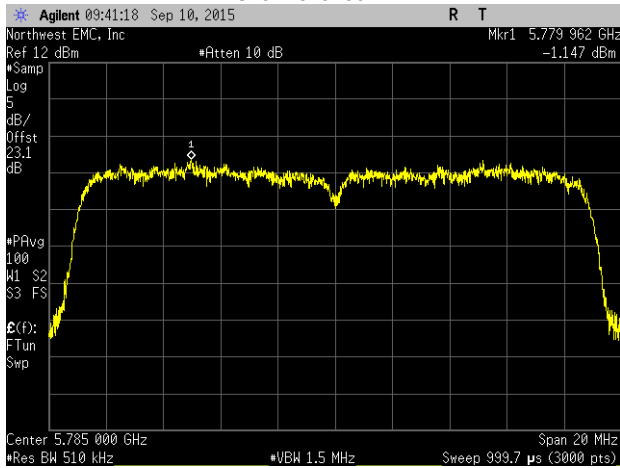
<b>Value (dBm / MHz)</b>	1.609
<b>Limit (dBm / Ref BW)</b>	11
<b>Results</b>	Pass

Chain A, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low Channel 5745 MHz



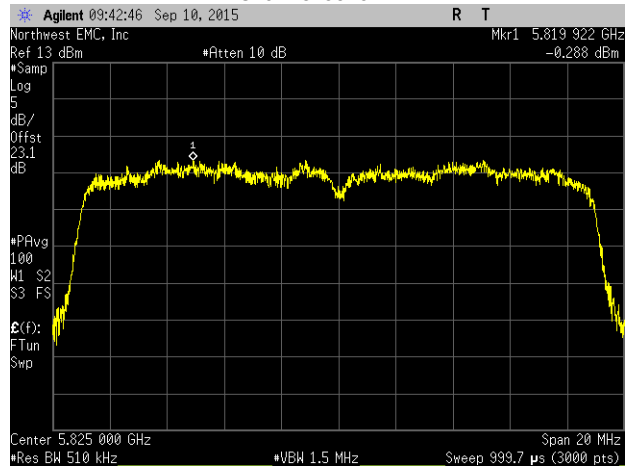
<b>Value (dBm / MHz)</b>	-1.728
<b>Limit (dBm / Ref BW)</b>	30
<b>Results</b>	Pass

Chain A, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Mid Channel 5785 MHz



<b>Value (dBm / MHz)</b>	-1.147
<b>Limit (dBm / Ref BW)</b>	30
<b>Results</b>	Pass

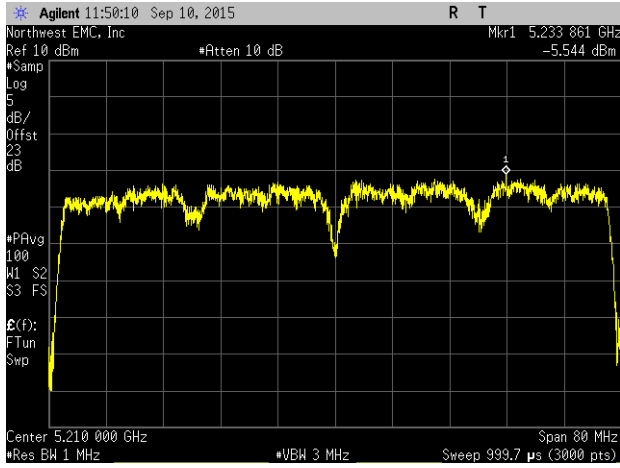
Chain A, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High Channel 5825 MHz



<b>Value (dBm / MHz)</b>	-0.288
<b>Limit (dBm / Ref BW)</b>	30
<b>Results</b>	Pass

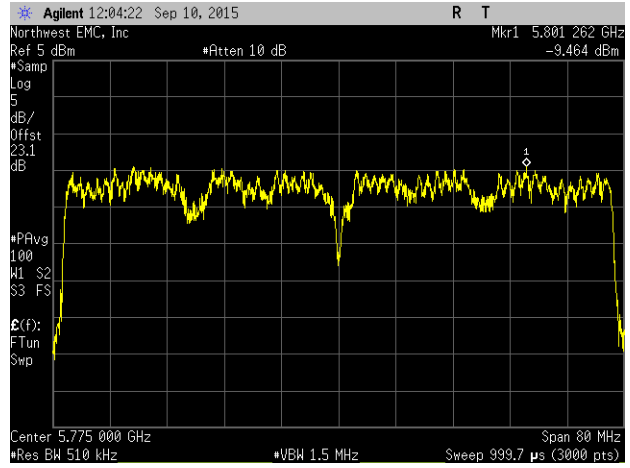
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5210 MHz



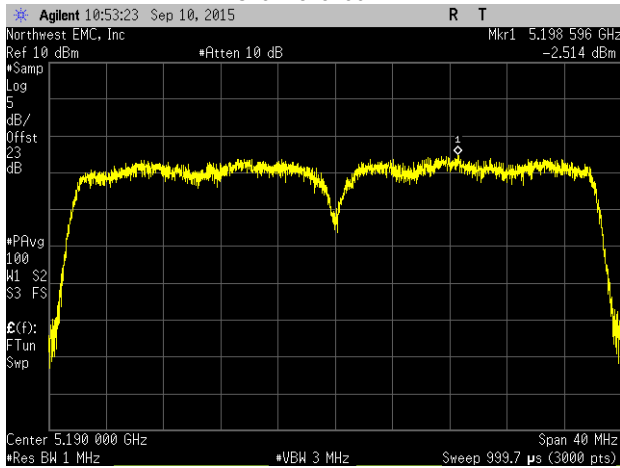
Value (dBm / MHz)	-5.544
Limit (dBm / Ref BW)	11
Results	Pass

Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5775 MHz



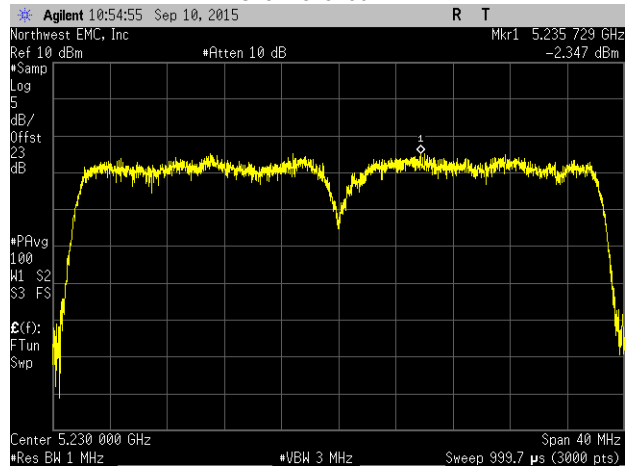
Value (dBm / MHz)	-9.464
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low  
Channel 5190 MHz



Value (dBm / MHz)	-2.514
Limit (dBm / Ref BW)	11
Results	Pass

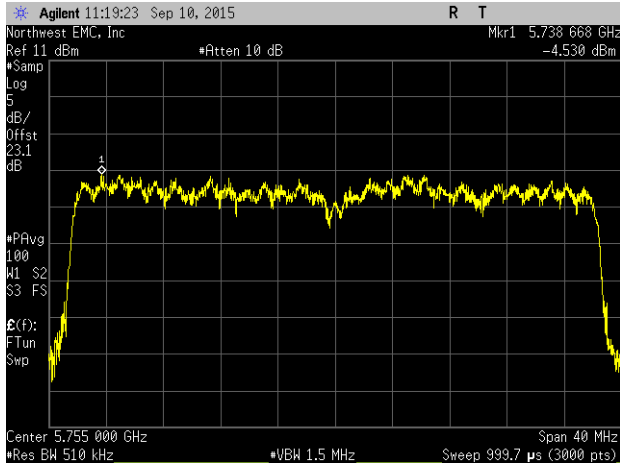
Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High  
Channel 5230 MHz



Value (dBm / MHz)	-2.347
Limit (dBm / Ref BW)	11
Results	Pass

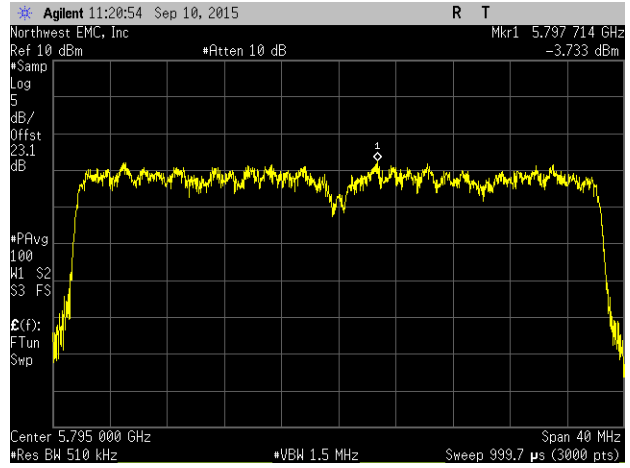
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low Channel 5755 MHz



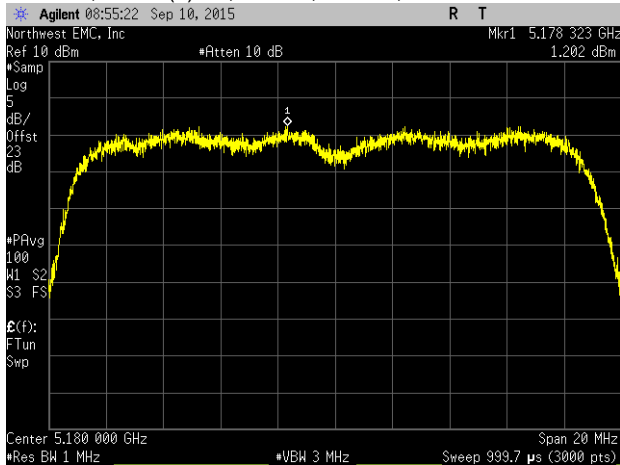
Value (dBm / MHz)	-4.53
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-3.733
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS15, 20 MHz, Low Channel 5180 MHz



Value (dBm / MHz)	1.202
Limit (dBm / Ref BW)	11
Results	Pass

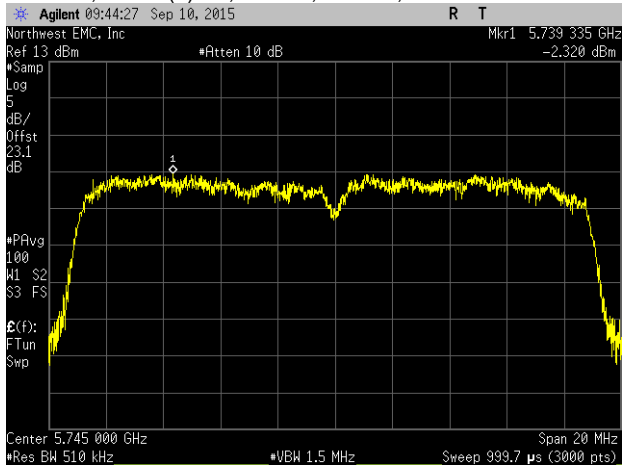
Chain A, 802.11(n) HT, MCS15, 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	1.745
Limit (dBm / Ref BW)	11
Results	Pass

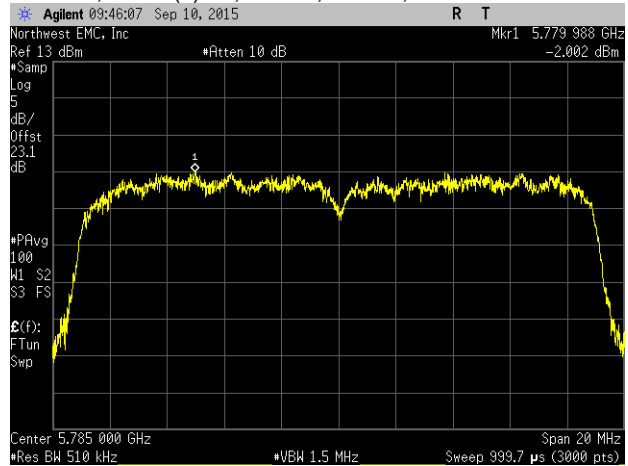
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(n) HT, MCS15, 20 MHz, Low Channel 5745 MHz



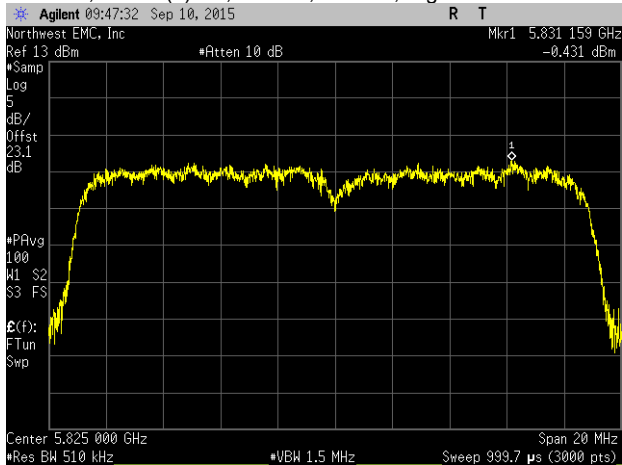
Value (dBm / MHz)	-2.32
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS15, 20 MHz, Mid Channel 5785 MHz



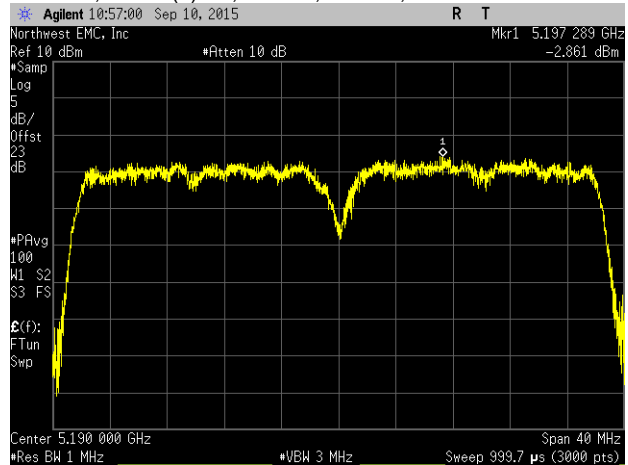
Value (dBm / MHz)	-2.002
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS15, 20 MHz, High Channel 5825 MHz



Value (dBm / MHz)	-0.431
Limit (dBm / Ref BW)	30
Results	Pass

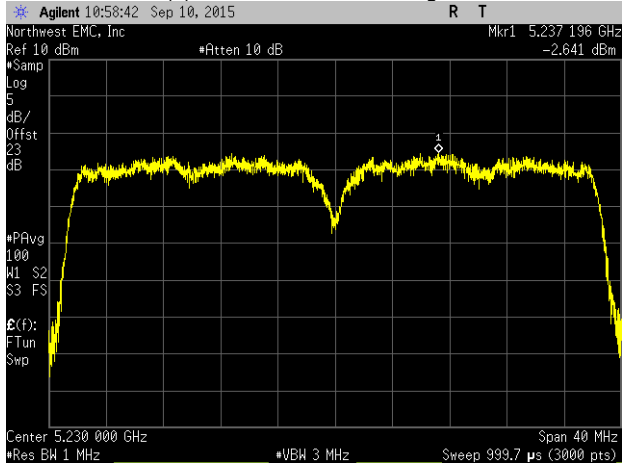
Chain A, 802.11(n) HT, MCS15, 40 MHz, Low Channel 5190 MHz



Value (dBm / MHz)	-2.861
Limit (dBm / Ref BW)	11
Results	Pass

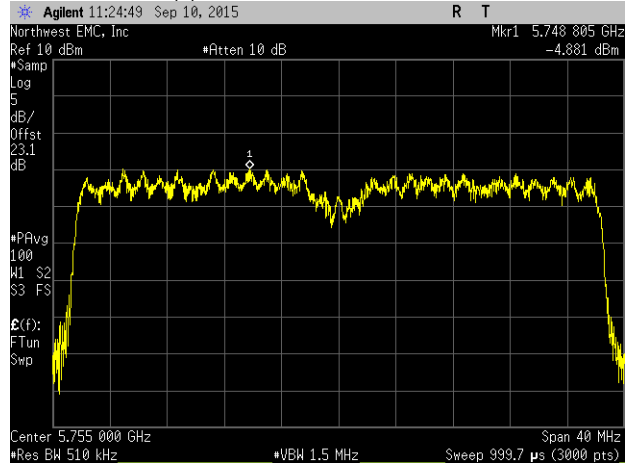
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(n) HT, MCS15, 40 MHz, High Channel 5230 MHz



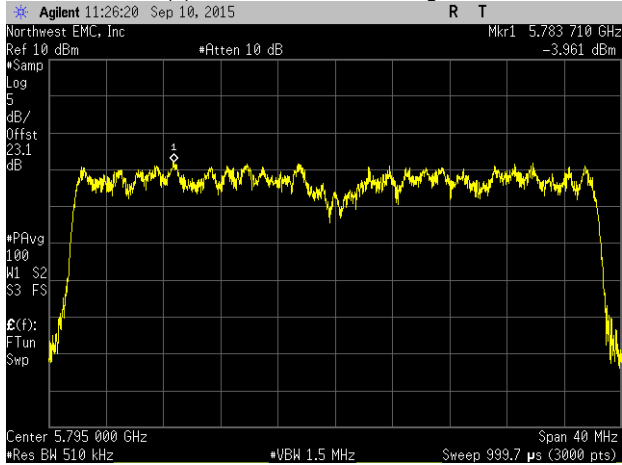
Value (dBm / MHz)	-2.641
Limit (dBm / Ref BW)	11
Results	Pass

Chain A, 802.11(n) HT, MCS15, 40 MHz, Low Channel 5755 MHz



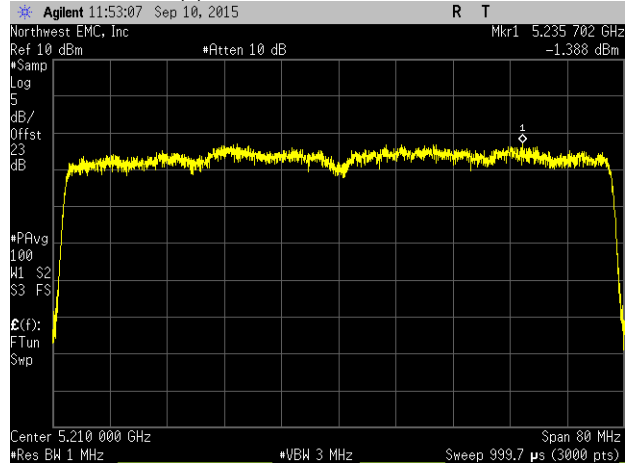
Value (dBm / MHz)	-4.881
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS15, 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-3.961
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5210 MHz

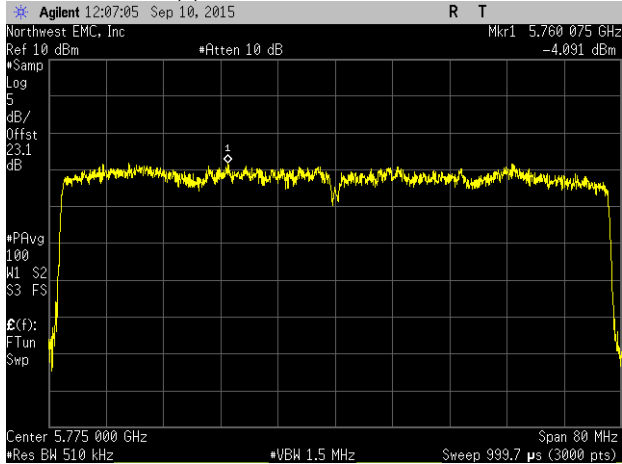


Value (dBm / MHz)	-1.388
Limit (dBm / Ref BW)	11
Results	Pass



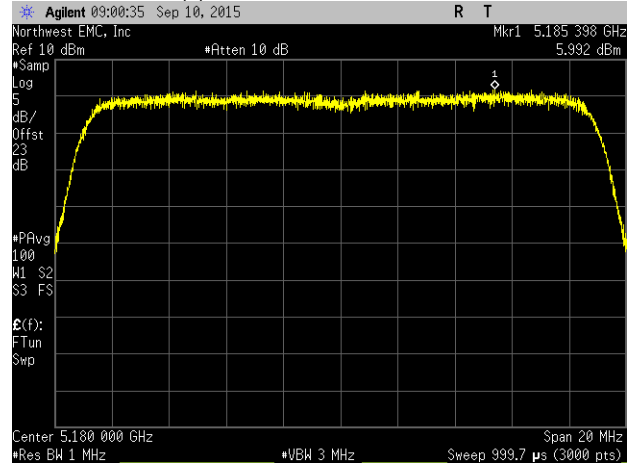
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5775 MHz



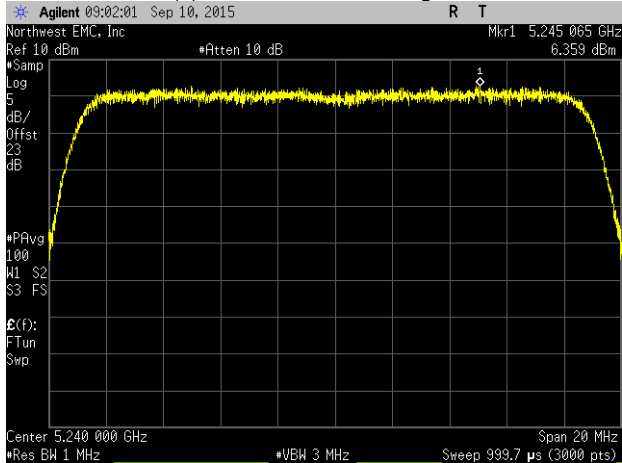
Value (dBm / MHz)	-4.091
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS8, 20 MHz, Low Channel 5180 MHz



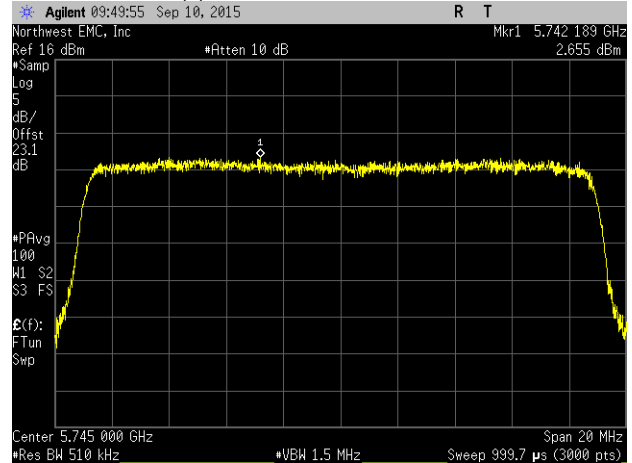
Value (dBm / MHz)	5.992
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(n) HT, MCS8, 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	6.359
Limit (dBm / Ref BW)	11
Results	Pass

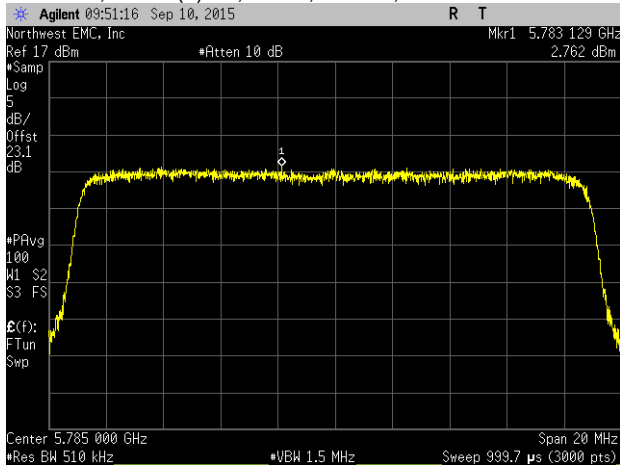
Chain C, 802.11(n) HT, MCS8, 20 MHz, Low Channel 5745 MHz



Value (dBm / MHz)	2.655
Limit (dBm / Ref BW)	30
Results	Pass

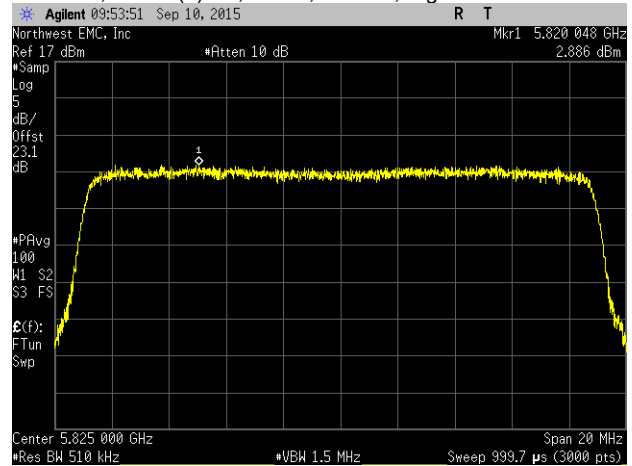
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS8, 20 MHz, Mid Channel 5785 MHz



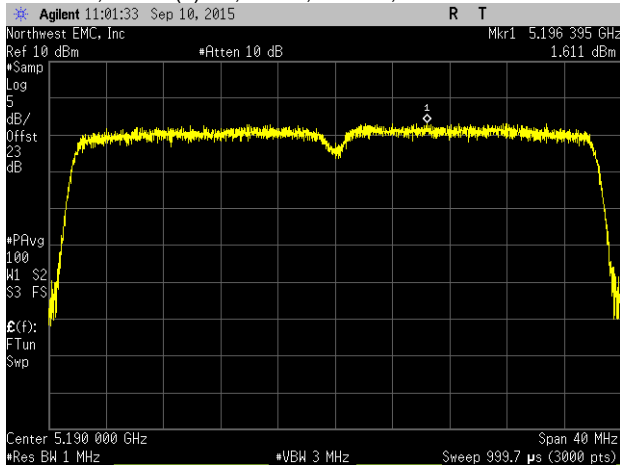
Value (dBm / MHz)	2.762
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS8, 20 MHz, High Channel 5825 MHz



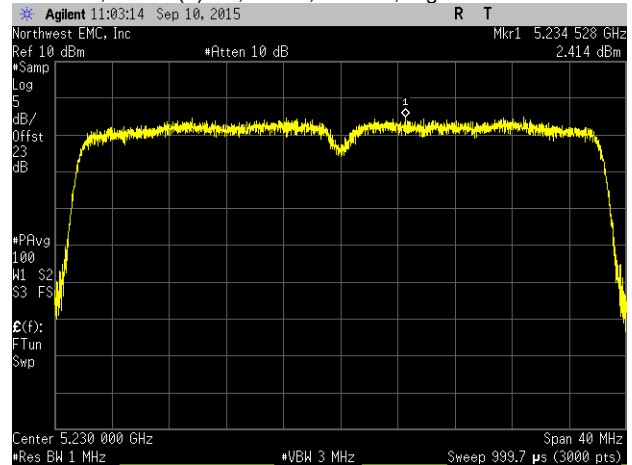
Value (dBm / MHz)	2.886
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS8, 40 MHz, Low Channel 5190 MHz



Value (dBm / MHz)	1.611
Limit (dBm / Ref BW)	11
Results	Pass

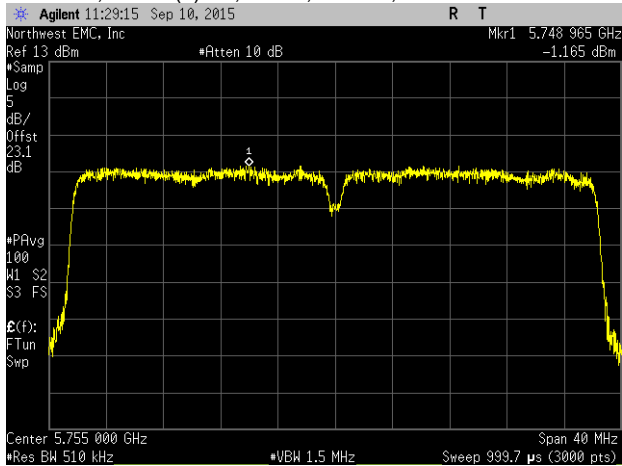
Chain C, 802.11(n) HT, MCS8, 40 MHz, High Channel 5230 MHz



Value (dBm / MHz)	2.414
Limit (dBm / Ref BW)	11
Results	Pass

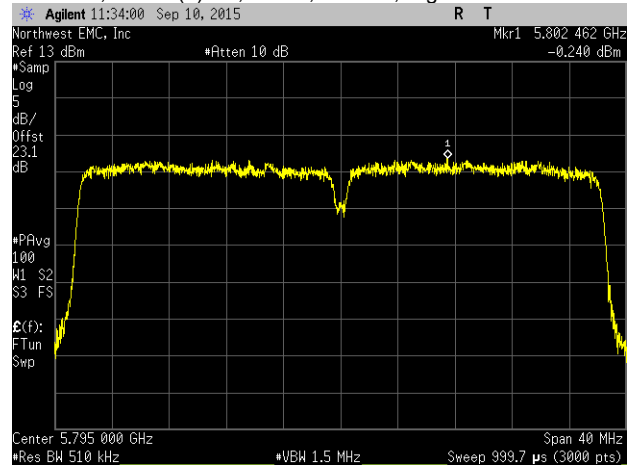
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS8, 40 MHz, Low Channel 5755 MHz



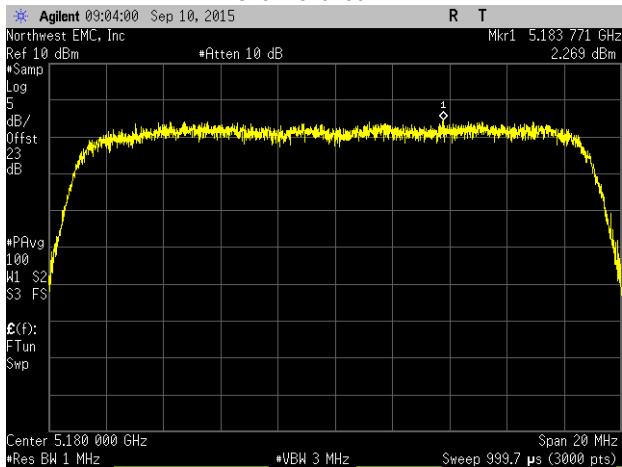
Value (dBm / MHz)	-1.165
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS8, 40 MHz, High Channel 5795 MHz



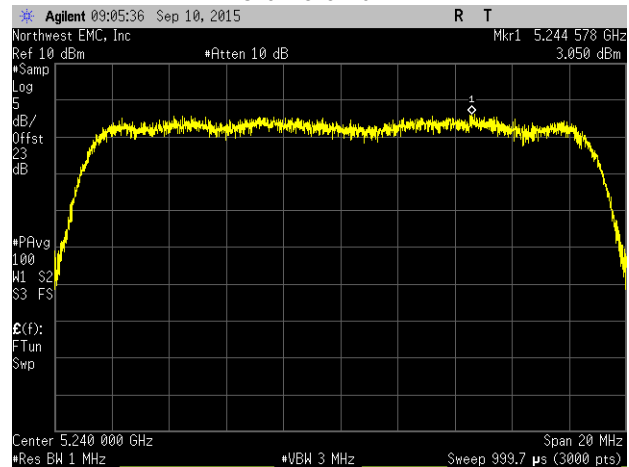
Value (dBm / MHz)	-0.24
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low Channel 5180 MHz



Value (dBm / MHz)	2.269
Limit (dBm / Ref BW)	11
Results	Pass

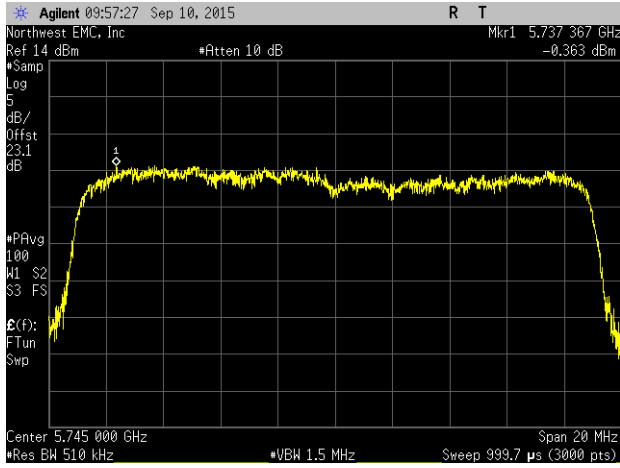
Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	3.05
Limit (dBm / Ref BW)	11
Results	Pass

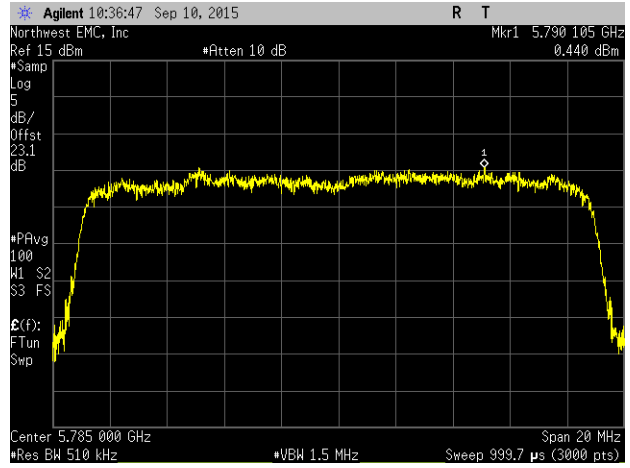
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low  
Channel 5745 MHz



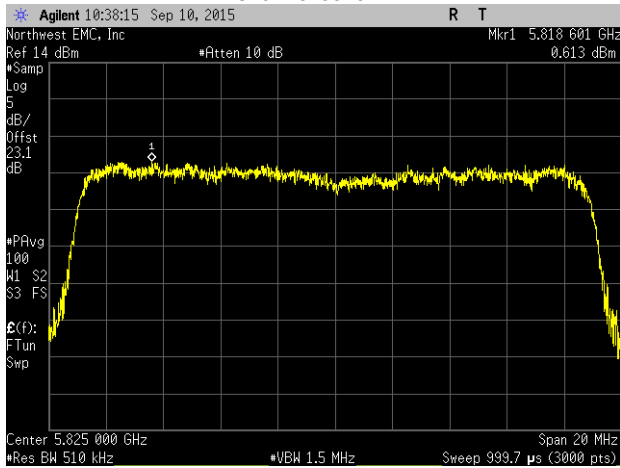
Value (dBm / MHz)	-0.363
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Mid  
Channel 5785 MHz



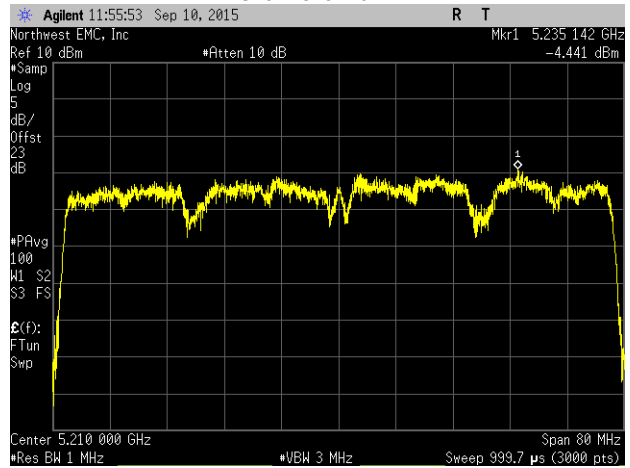
Value (dBm / MHz)	0.44
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High  
Channel 5825 MHz



Value (dBm / MHz)	0.613
Limit (dBm / Ref BW)	30
Results	Pass

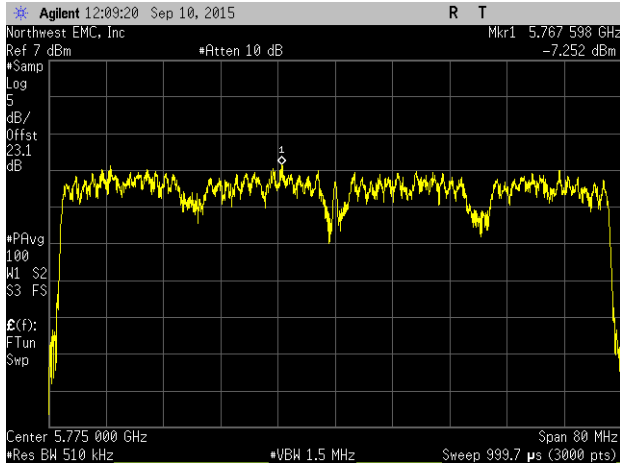
Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5210 MHz



Value (dBm / MHz)	-4.441
Limit (dBm / Ref BW)	11
Results	Pass

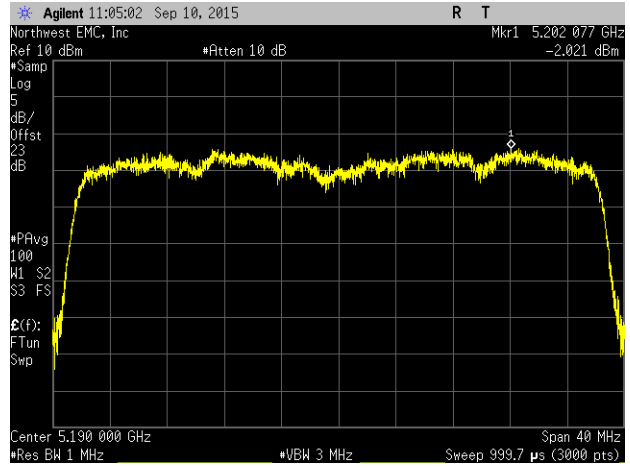
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5775 MHz



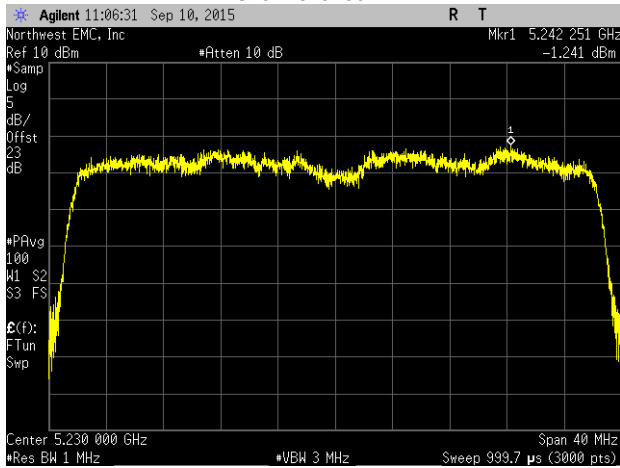
<b>Value (dBm / MHz)</b>	-7.252
<b>Limit (dBm / Ref BW)</b>	30
<b>Results</b>	Pass

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low  
Channel 5190 MHz



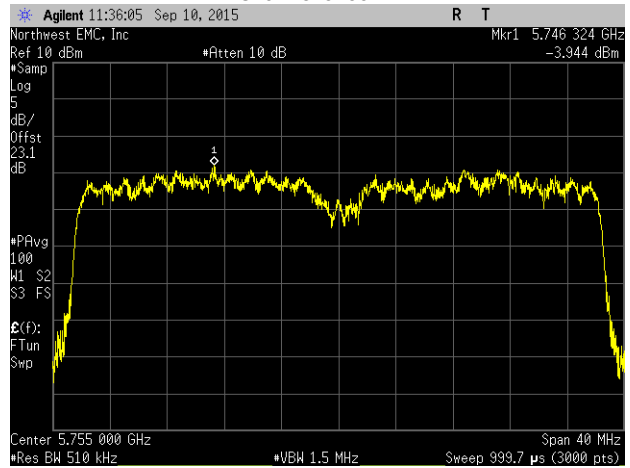
<b>Value (dBm / MHz)</b>	-2.021
<b>Limit (dBm / Ref BW)</b>	11
<b>Results</b>	Pass

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High  
Channel 5230 MHz



<b>Value (dBm / MHz)</b>	-1.241
<b>Limit (dBm / Ref BW)</b>	11
<b>Results</b>	Pass

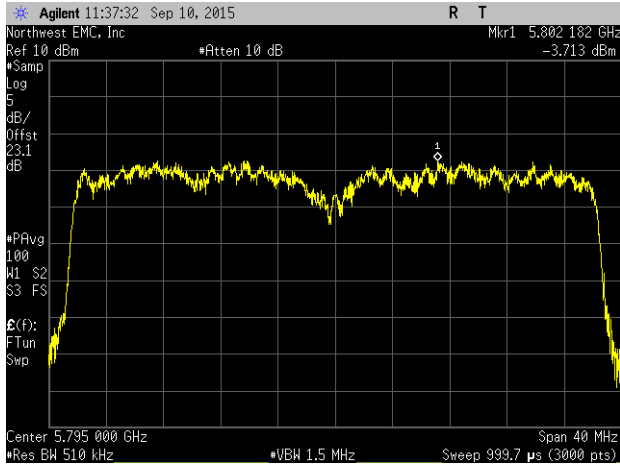
Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low  
Channel 5755 MHz



<b>Value (dBm / MHz)</b>	-3.944
<b>Limit (dBm / Ref BW)</b>	30
<b>Results</b>	Pass

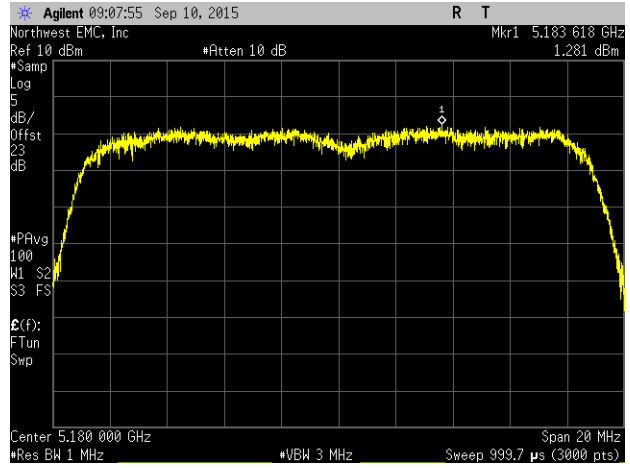
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High Channel 5795 MHz



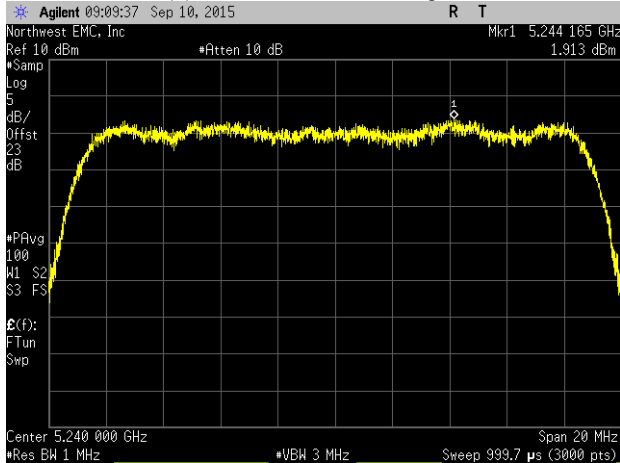
Value (dBm / MHz)	-3.713
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS15, 20 MHz, Low Channel 5180 MHz



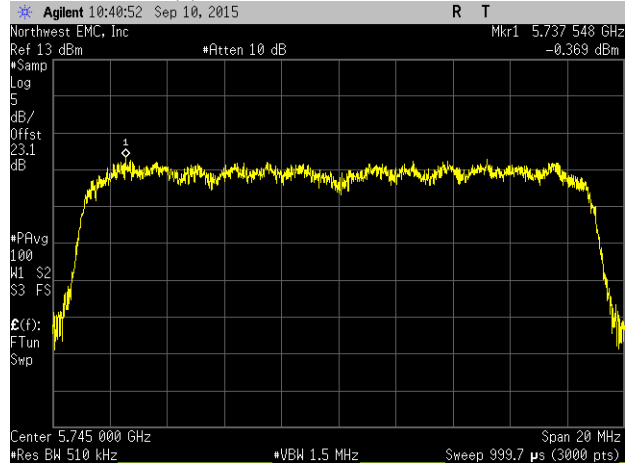
Value (dBm / MHz)	1.281
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(n) HT, MCS15, 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	1.913
Limit (dBm / Ref BW)	11
Results	Pass

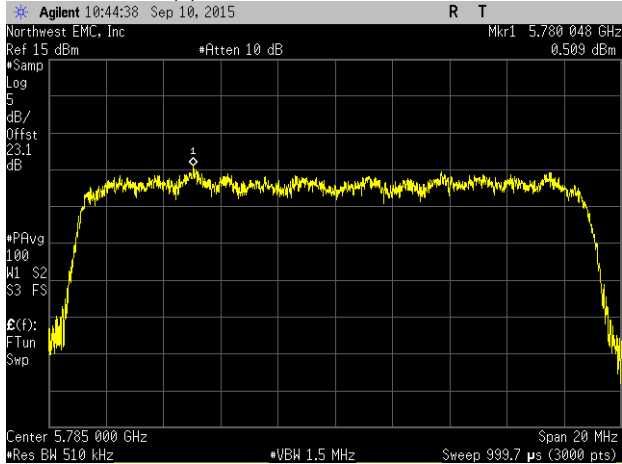
Chain C, 802.11(n) HT, MCS15, 20 MHz, Low Channel 5745 MHz



Value (dBm / MHz)	-0.369
Limit (dBm / Ref BW)	30
Results	Pass

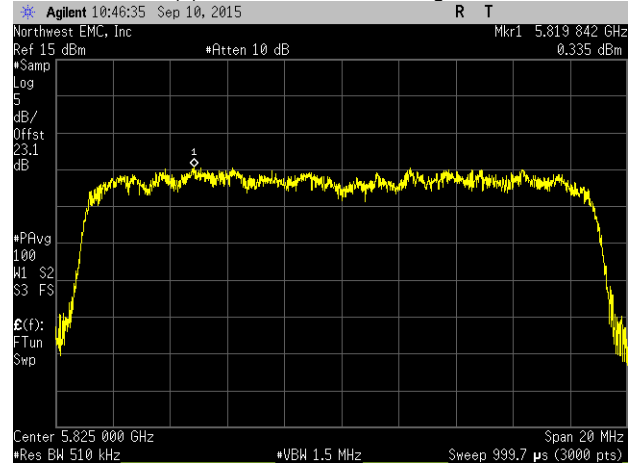
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS15, 20 MHz, Mid Channel 5785 MHz



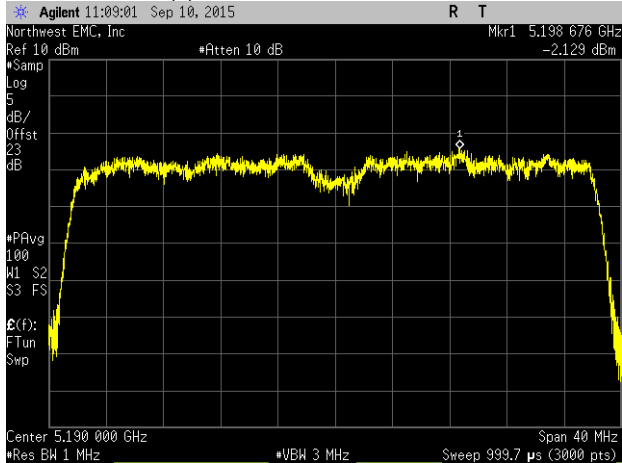
Value (dBm / MHz)	0.509
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS15, 20 MHz, High Channel 5825 MHz



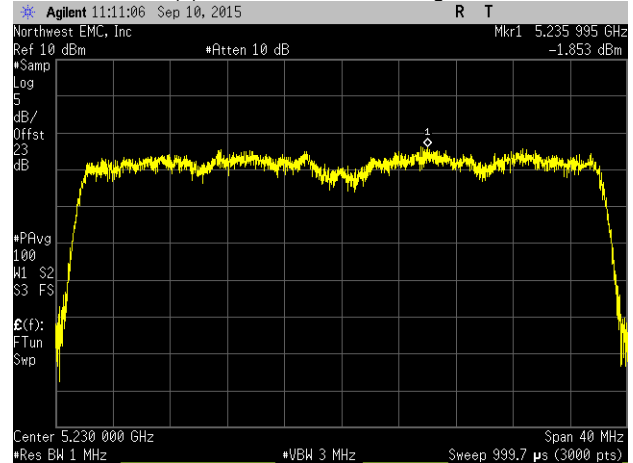
Value (dBm / MHz)	0.335
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS15, 40 MHz, Low Channel 5190 MHz



Value (dBm / MHz)	-2.129
Limit (dBm / Ref BW)	11
Results	Pass

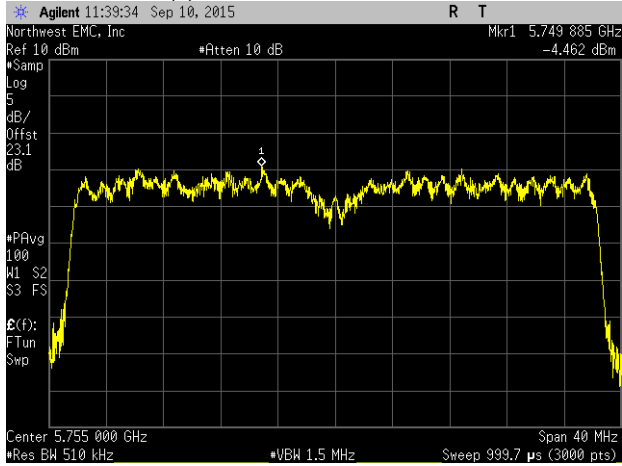
Chain C, 802.11(n) HT, MCS15, 40 MHz, High Channel 5230 MHz



Value (dBm / MHz)	-1.853
Limit (dBm / Ref BW)	11
Results	Pass

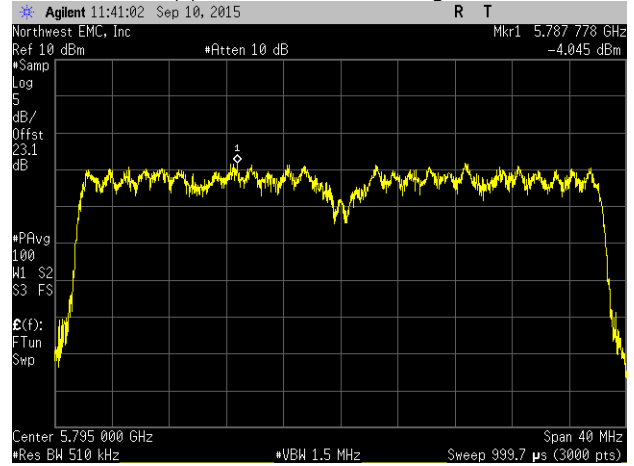
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS15, 40 MHz, Low Channel 5755 MHz



Value (dBm / MHz)	-4.462
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS15, 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-4.045
Limit (dBm / Ref BW)	30
Results	Pass



# MAXIMUM POWER SPECTRAL DENSITY



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures Section E was followed. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. The data rate(s) listed in the datasheet were tested. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring peak power spectral density, the transmission pulse duration (T) was measured. The transmission pulse duration and the associated data are found elsewhere in this test report.

The spectrum analyzer settings were as follows:

- The span was set to encompass entire emission bandwidth (B), centered on the transmit channel.
- RBW = 1 MHz, VBW  $\geq$  3 MHz
- Sample detector was used because Method SA-1 Alternate was used to measure the Maximum Conducted Output Power.
- Trace average 100 traces in power averaging mode (not video averaging).

The peak power spectral density (PPSD) was determined to be the highest level found across the emission in any 1 MHz band after 100 sweeps of power averaging (not video averaging).

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	7/23/2015	7/23/2016
Block - DC	Fairview Microwave	SD3379	AMM	2/27/2015	2/27/2016
Attenuator	Fairview Microwave	SA4018-20	TQY	2/27/2015	2/27/2016
Generator - Signal	Agilent	N5173B	TIW	7/15/2014	7/15/2017

# MAXIMUM POWER SPECTRAL DENSITY



EUT:	Firebox T50-W (BS5AE7W)	Work Order:	VDEI0009
Serial Number:	70AF02717-B385	Date:	09/10/15
Customer:	WatchGuard Technologies, Inc.	Temperature:	25.1°C
Attendees:	None	Relative Humidity:	45%
Customer Project:	None	Bar. Pressure:	1015 mbar
Tested By:	Jonathan Kiefer	Job Site:	TX09
Power:	110VAC/60Hz	Configuration:	5

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.407:2015	ANSI C63.10:2013

## COMMENTS

2x2 MIMO mode, Chain BC (Chains 1 and 2).

## DEVIATIONS FROM TEST STANDARD

None

## RESULTS

		Value (dBm / MHz)	Limit (dBm / Ref BW)	Result s
Chain B				
	802.11(n) HT, MCS0			
	80 MHz			
	Low Channel 5210 MHz	-0.565	11	Pass
	Low Channel 5775 MHz	-4.053	30	Pass
	802.11(n) HT, MCS8			
	20 MHz			
	Low Channel 5180 MHz	7.046	11	Pass
	High Channel 5240 MHz	7.66	11	Pass
	Low Channel 5745 MHz	4.407	30	Pass
	Mid Channel 5785 MHz	4.838	30	Pass
	High Channel 5825 MHz	4.877	30	Pass
	40 MHz			
	Low Channel 5190 MHz	2.705	11	Pass
	High Channel 5230 MHz	3.051	11	Pass
	Low Channel 5755 MHz	0.23	30	Pass
	High Channel 5795 MHz	-0.162	30	Pass
	802.11(ac) VHT, MCS8 (256-QAM)			
	20 MHz			

# MAXIMUM POWER SPECTRAL DENSITY



	Value (dBm / MHz)	Limit (dBm / Ref BW)	Results
Low Channel 5180 MHz	3.187	11	Pass
High Channel 5240 MHz	3.702	11	Pass
Low Channel 5745 MHz	1.233	30	Pass
Mid Channel 5785 MHz	1.283	30	Pass
High Channel 5825 MHz	1.154	30	Pass
<b>802.11(ac) VHT, MCS9 (256-QAM)</b>			
<b>80 MHz</b>			
Low Channel 5210 MHz	-3.892	11	Pass
Low Channel 5775 MHz	-7.674	30	Pass
<b>40 MHz</b>			
Low Channel 5190 MHz	-1.264	11	Pass
High Channel 5230 MHz	-0.659	11	Pass
Low Channel 5755 MHz	-3.042	30	Pass
High Channel 5795 MHz	-3.917	30	Pass
<b>802.11(n) HT, MCS15</b>			
<b>20 MHz</b>			
Low Channel 5180 MHz	3.04	11	Pass
High Channel 5240 MHz	3.541	11	Pass
Low Channel 5745 MHz	0.802	30	Pass
Mid Channel 5785 MHz	0.889	30	Pass
High Channel 5825 MHz	0.707	30	Pass
<b>40 MHz</b>			
Low Channel 5190 MHz	-1.248	11	Pass
High Channel 5230 MHz	-0.989	11	Pass
Low Channel 5755 MHz	-3.056	30	Pass
High Channel 5795 MHz	-4.219	30	Pass
<b>Chain C</b>			
<b>802.11(n) HT,</b>			

# MAXIMUM POWER SPECTRAL DENSITY



		Value (dBm / MHz)	Limit (dBm / Ref BW)	Results
<b>MCS0</b>				
<b>80 MHz</b>				
	Low Channel 5210 MHz	-1.134	11	Pass
	Low Channel 5775 MHz	-3.877	30	Pass
<b>802.11(n) HT, MCS8</b>				
<b>20 MHz</b>				
	Low Channel 5180 MHz	6.013	11	Pass
	High Channel 5240 MHz	6.378	11	Pass
	Low Channel 5745 MHz	3.069	30	Pass
	Mid Channel 5785 MHz	3.041	30	Pass
	High Channel 5825 MHz	3.264	30	Pass
<b>40 MHz</b>				
	Low Channel 5190 MHz	2.008	11	Pass
	High Channel 5230 MHz	2.572	11	Pass
	Low Channel 5755 MHz	-0.928	30	Pass
	High Channel 5795 MHz	0.027	30	Pass
<b>802.11(ac) VHT, MCS8 (256-QAM)</b>				
<b>20 MHz</b>				
	Low Channel 5180 MHz	2.408	11	Pass
	High Channel 5240 MHz	3.28	11	Pass
	Low Channel 5745 MHz	-0.256	30	Pass
	Mid Channel 5785 MHz	0.713	30	Pass
	High Channel 5825 MHz	0.865	30	Pass
<b>802.11(ac) VHT, MCS9 (256-QAM)</b>				
<b>80 MHz</b>				
	Low Channel 5210 MHz	-4.801	11	Pass
	Low Channel 5775 MHz	-7.224	30	Pass
<b>40 MHz</b>				
	Low Channel 5190	-1.285	11	Pass

# MAXIMUM POWER SPECTRAL DENSITY



		Value (dBm / MHz)	Limit (dBm / Ref BW)	Results		
	MHz					
	High Channel 5230					
	MHz	-1.533	11	Pass		
	Low Channel 5755					
	MHz	-3.918	30	Pass		
	High Channel 5795					
	MHz	-3.621	30	Pass		
<b>802.11(n) HT, MCS15</b>						
	20 MHz					
	Low Channel 5180					
	MHz	3.022	11	Pass		
	High Channel 5240					
	MHz	3.208	11	Pass		
	Low Channel 5745					
	MHz	-0.419	30	Pass		
	Mid Channel 5785					
	MHz	0.641	30	Pass		
	High Channel 5825					
	MHz	0.776	30	Pass		
	40 MHz					
	Low Channel 5190					
	MHz	-2.02	11	Pass		
	High Channel 5230					
	MHz	-1.602	11	Pass		
	Low Channel 5755					
	MHz	-4.714	30	Pass		
	High Channel 5795					
	MHz	-3.422	30	Pass		
<b>Power Summing Chain B</b>						
	802.11(n) HT, MCS0					
	80 MHz					
	Low Channel 5210					
	MHz	-0.565	3.0	2.445	11	Pass
	Low Channel 5775					
	MHz	-4.053	3.0	-1.043	30	Pass
<b>802.11(n) HT, MCS8</b>						
	20 MHz					
	Low Channel 5180					
	MHz	7.046	3.0	10.056	11	Pass
	High Channel 5240					
	MHz	7.66	3.0	10.670	11	Pass
	Low Channel 5745					
	MHz	4.407	3.0	7.417	30	Pass
	Mid Channel 5785					
	MHz	4.838	3.0	7.848	30	Pass

# MAXIMUM POWER SPECTRAL DENSITY



				Value (dBm / MHz)	Limit (dBm / Ref BW)	Results
	MHz					
	High Channel 5825					
	MHz	4.877	3.0	7.887	30	Pass
<b>40 MHz</b>						
	Low Channel 5190					
	MHz	2.705	3.0	5.715	11	Pass
	High Channel 5230					
	MHz	3.051	3.0	6.061	11	Pass
	Low Channel 5755					
	MHz	0.23	3.0	3.240	30	Pass
	High Channel 5795					
	MHz	-0.162	3.0	2.848	30	Pass
<b>802.11(ac) VHT, MCS8 (256-QAM)</b>						
<b>20 MHz</b>						
	Low Channel 5180					
	MHz	3.187	3.0	6.197	11	Pass
	High Channel 5240					
	MHz	3.702	3.0	6.712	11	Pass
	Low Channel 5745					
	MHz	1.233	3.0	4.243	30	Pass
	Mid Channel 5785					
	MHz	1.283	3.0	4.293	30	Pass
	High Channel 5825					
	MHz	1.154	3.0	4.164	30	Pass
<b>802.11(ac) VHT, MCS9 (256-QAM)</b>						
<b>80 MHz</b>						
	Low Channel 5210					
	MHz	-3.892	3.0	-0.882	11	Pass
	Low Channel 5775					
	MHz	-7.674	3.0	-4.664	30	Pass
<b>40 MHz</b>						
	Low Channel 5190					
	MHz	-1.264	3.0	1.746	11	Pass
	High Channel 5230					
	MHz	-0.659	3.0	2.351	11	Pass
	Low Channel 5755					
	MHz	-3.042	3.0	-0.032	30	Pass
	High Channel 5795					
	MHz	-3.917	3.0	-0.907	30	Pass
<b>802.11(n) HT, MCS15</b>						
<b>20 MHz</b>						
	Low Channel 5180					
	MHz	3.04	3.0	6.050	11	Pass
	High Channel 5240					
	MHz	3.541	3.0	6.551	11	Pass
	Low Channel 5745					
	MHz	0.802	3.0	3.812	30	Pass

# MAXIMUM POWER SPECTRAL DENSITY



				Value	Limit	Results
				(dBm / MHz)	(dBm / Ref BW)	
	Mid Channel 5785 MHz	0.889	3.0	3.899	30	Pass
	High Channel 5825 MHz	0.707	3.0	3.717	30	Pass
<b>40 MHz</b>						
	Low Channel 5190 MHz	-1.248	3.0	1.762	11	Pass
	High Channel 5230 MHz	-0.989	3.0	2.021	11	Pass
	Low Channel 5755 MHz	-3.056	3.0	-0.046	30	Pass
	High Channel 5795 MHz	-4.219	3.0	-1.209	30	Pass
<b>Power Summing Chain C</b>						
802.11(n) HT, MCS0						
	80 MHz					
	Low Channel 5210 MHz	-1.134	3.0	1.876	11	Pass
	Low Channel 5775 MHz	-3.877	3.0	-0.867	30	Pass
802.11(n) HT, MCS8						
	20 MHz					
	Low Channel 5180 MHz	6.013	3.0	9.023	11	Pass
	High Channel 5240 MHz	6.378	3.0	9.388	11	Pass
	Low Channel 5745 MHz	3.069	3.0	6.079	30	Pass
	Mid Channel 5785 MHz	3.041	3.0	6.051	30	Pass
	High Channel 5825 MHz	3.264	3.0	6.274	30	Pass
<b>40 MHz</b>						
	Low Channel 5190 MHz	2.008	3.0	5.018	11	Pass
	High Channel 5230 MHz	2.572	3.0	5.582	11	Pass
	Low Channel 5755 MHz	-0.928	3.0	2.082	30	Pass
	High Channel 5795 MHz	0.027	3.0	3.037	30	Pass
802.11(ac) VHT, MCS8 (256-QAM)						
	20 MHz					
	Low Channel 5180 MHz	2.408	3.0	5.418	11	Pass

# MAXIMUM POWER SPECTRAL DENSITY



			Value (dBm / MHz)	Limit (dBm / Ref BW)	Results	
	High Channel 5240 MHz	3.28	3.0	6.290	11	Pass
	Low Channel 5745 MHz	-0.256	3.0	2.754	30	Pass
	Mid Channel 5785 MHz	0.713	3.0	3.723	30	Pass
	High Channel 5825 MHz	0.865	3.0	3.875	30	Pass
<b>802.11(ac) VHT, MCS9 (256-QAM)</b>						
<b>80 MHz</b>						
	Low Channel 5210 MHz	-4.801	3.0	-1.791	11	Pass
	Low Channel 5775 MHz	-7.224	3.0	-4.214	30	Pass
<b>40 MHz</b>						
	Low Channel 5190 MHz	-1.285	3.0	1.725	11	Pass
	High Channel 5230 MHz	-1.533	3.0	1.477	11	Pass
	Low Channel 5755 MHz	-3.918	3.0	-0.908	30	Pass
	High Channel 5795 MHz	-3.621	3.0	-0.611	30	Pass
<b>802.11(n) HT, MCS15</b>						
<b>20 MHz</b>						
	Low Channel 5180 MHz	3.022	3.0	6.032	11	Pass
	High Channel 5240 MHz	3.208	3.0	6.218	11	Pass
	Low Channel 5745 MHz	-0.419	3.0	2.591	30	Pass
	Mid Channel 5785 MHz	0.641	3.0	3.651	30	Pass
	High Channel 5825 MHz	0.776	3.0	3.786	30	Pass
<b>40 MHz</b>						
	Low Channel 5190 MHz	-2.02	3.0	0.990	11	Pass
	High Channel 5230 MHz	-1.602	3.0	1.408	11	Pass
	Low Channel 5755 MHz	-4.714	3.0	-1.704	30	Pass
	High Channel 5795 MHz	-3.422	3.0	-0.412	30	Pass



# MAXIMUM POWER SPECTRAL DENSITY

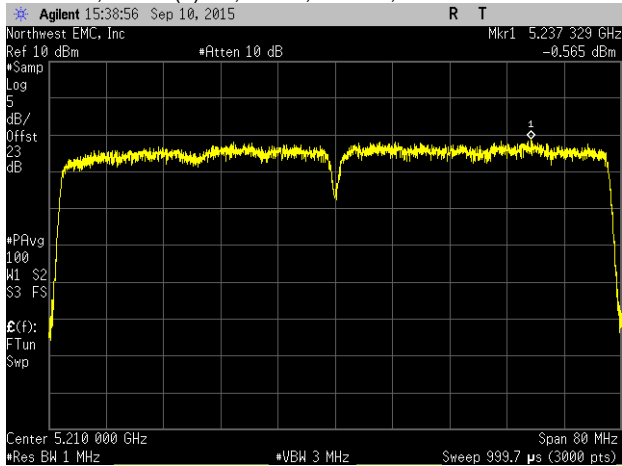


*Jonathan Kiefer*

Tested By

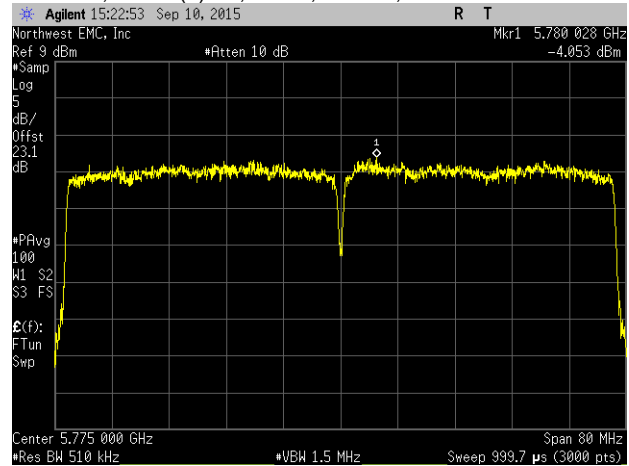
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5210 MHz



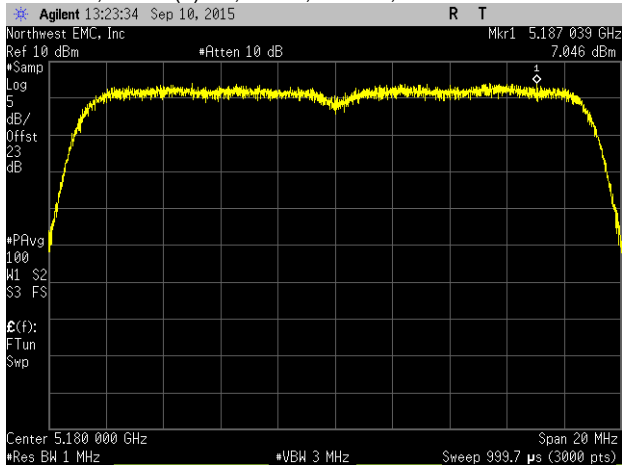
Value (dBm / MHz)	-0.565
Limit (dBm / Ref BW)	11
Results	Pass

Chain B, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5775 MHz



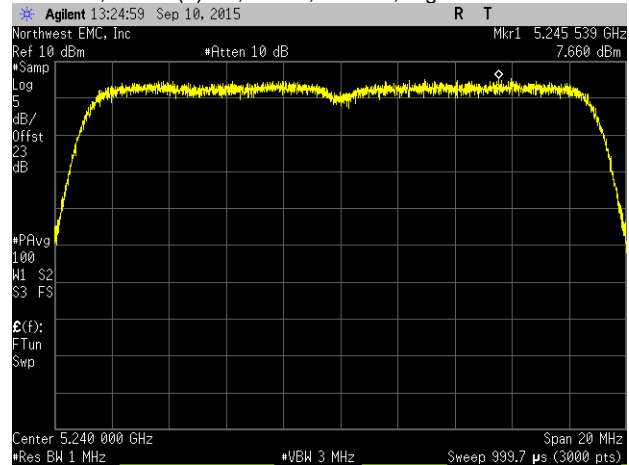
Value (dBm / MHz)	-4.053
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS8, 20 MHz, Low Channel 5180 MHz



Value (dBm / MHz)	7.046
Limit (dBm / Ref BW)	11
Results	Pass

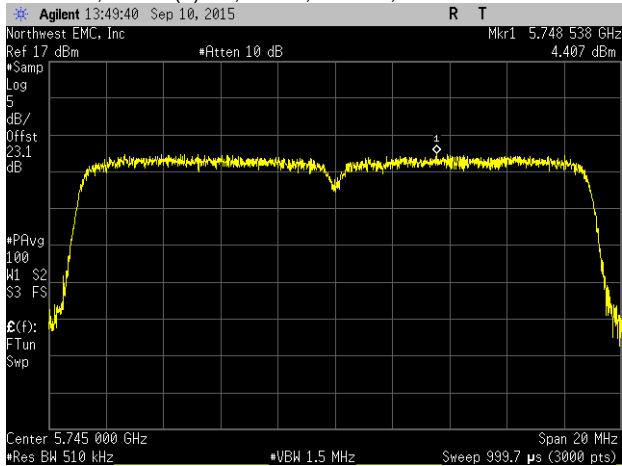
Chain B, 802.11(n) HT, MCS8, 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	7.66
Limit (dBm / Ref BW)	11
Results	Pass

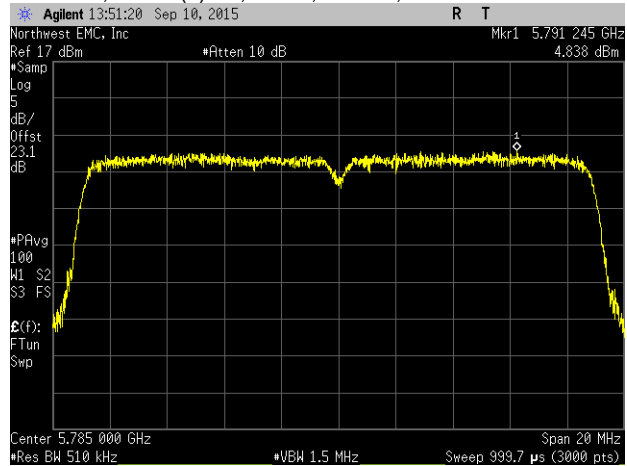
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(n) HT, MCS8, 20 MHz, Low Channel 5745 MHz



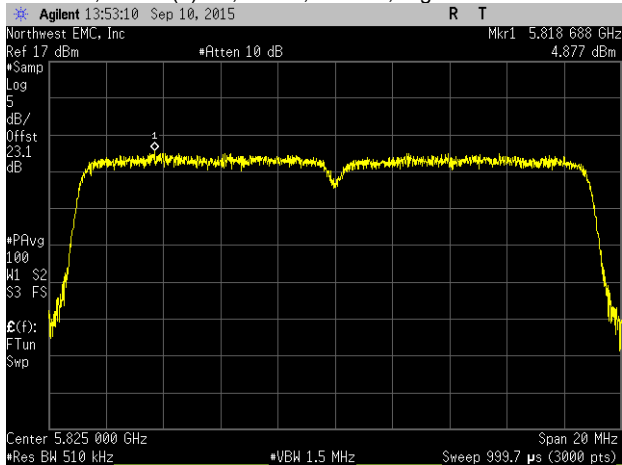
Value (dBm / MHz)	4.407
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS8, 20 MHz, Mid Channel 5785 MHz



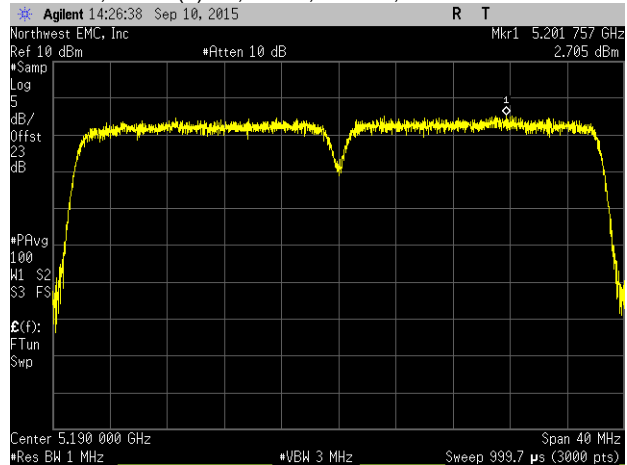
Value (dBm / MHz)	4.838
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS8, 20 MHz, High Channel 5825 MHz



Value (dBm / MHz)	4.877
Limit (dBm / Ref BW)	30
Results	Pass

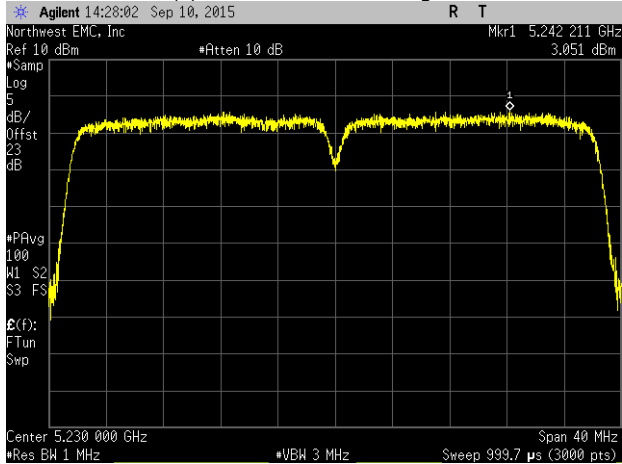
Chain B, 802.11(n) HT, MCS8, 40 MHz, Low Channel 5190 MHz



Value (dBm / MHz)	2.705
Limit (dBm / Ref BW)	11
Results	Pass

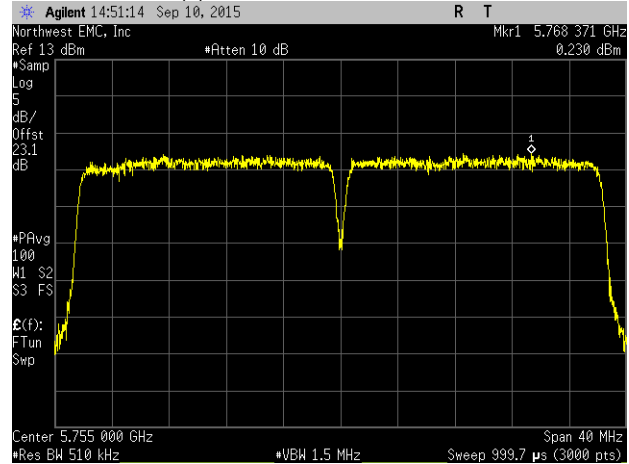
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(n) HT, MCS8, 40 MHz, High Channel 5230 MHz



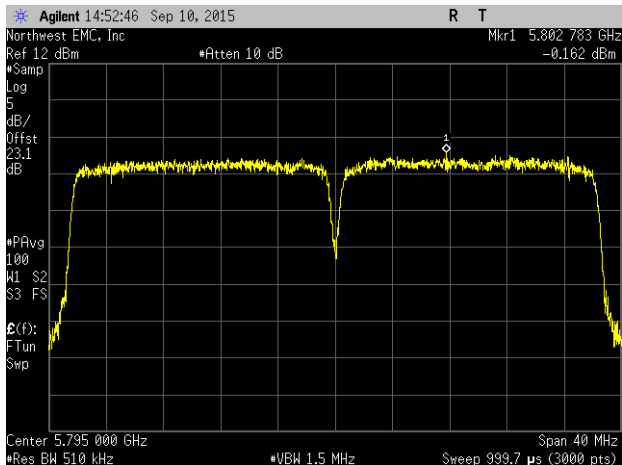
Value (dBm / MHz)	3.051
Limit (dBm / Ref BW)	11
Results	Pass

Chain B, 802.11(n) HT, MCS8, 40 MHz, Low Channel 5755 MHz



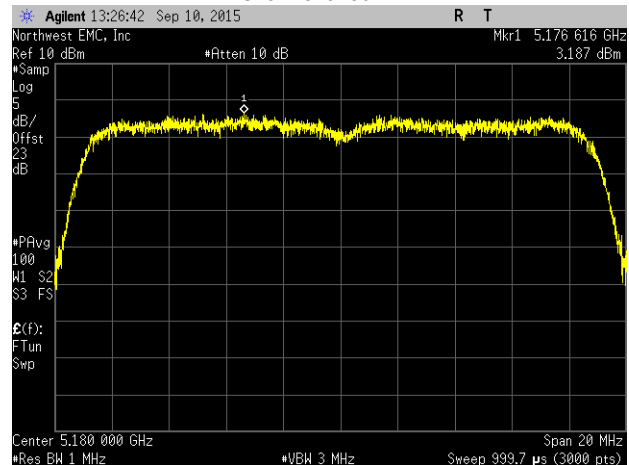
Value (dBm / MHz)	0.23
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS8, 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-0.162
Limit (dBm / Ref BW)	30
Results	Pass

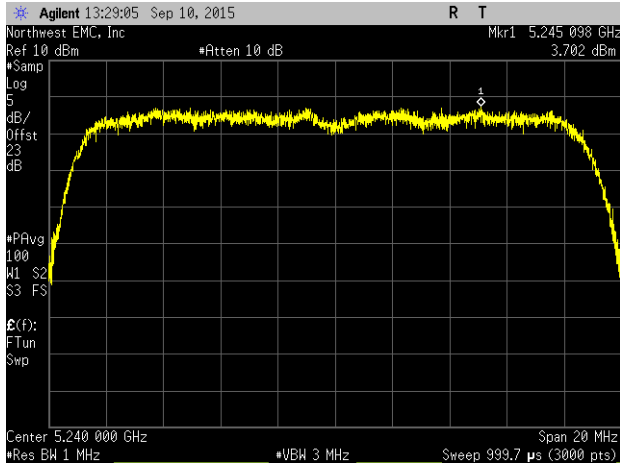
Chain B, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low Channel 5180 MHz



Value (dBm / MHz)	3.187
Limit (dBm / Ref BW)	11
Results	Pass

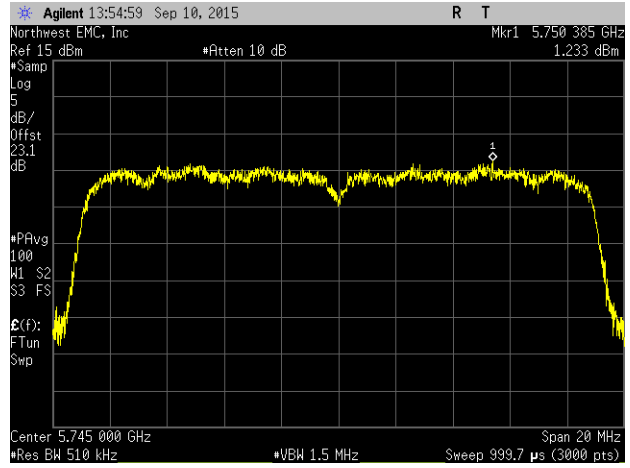
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High Channel 5240 MHz



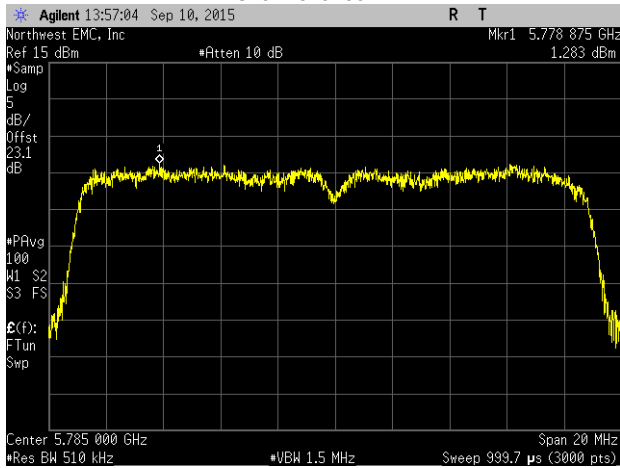
Value (dBm / MHz)	3.702
Limit (dBm / Ref BW)	11
Results	Pass

Chain B, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low Channel 5745 MHz



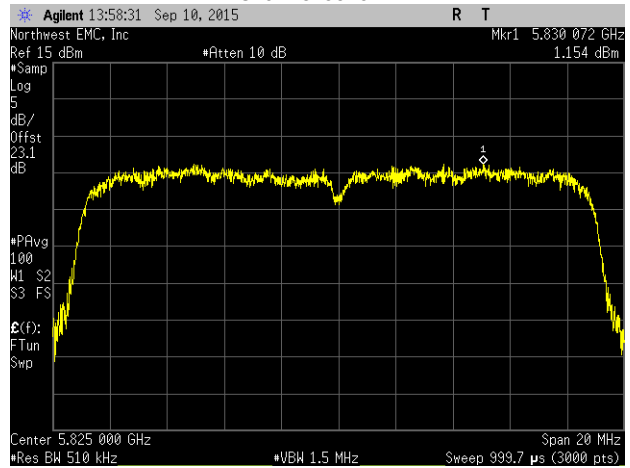
Value (dBm / MHz)	1.233
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Mid Channel 5785 MHz



Value (dBm / MHz)	1.283
Limit (dBm / Ref BW)	30
Results	Pass

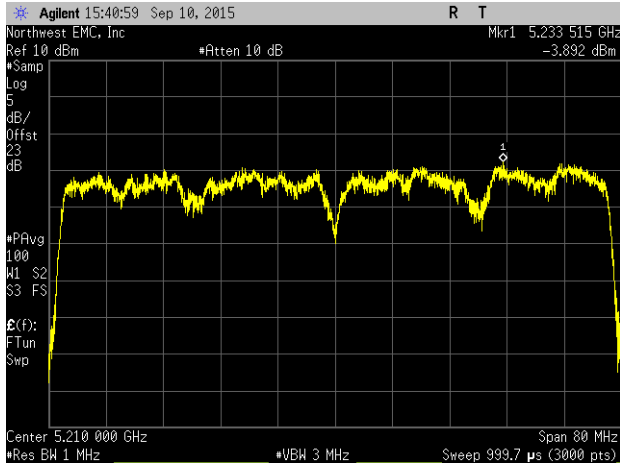
Chain B, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High Channel 5825 MHz



Value (dBm / MHz)	1.154
Limit (dBm / Ref BW)	30
Results	Pass

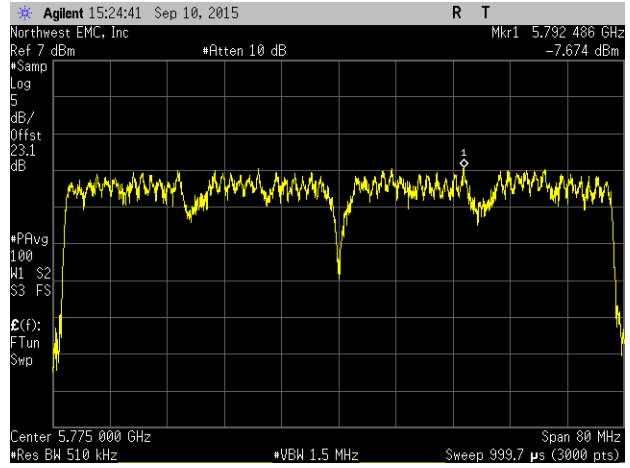
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5210 MHz



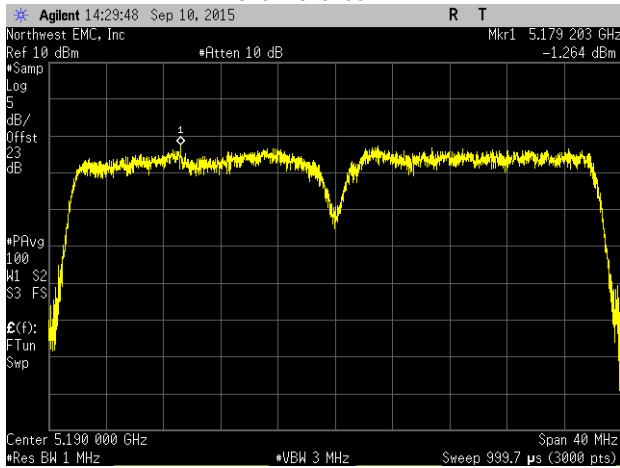
Value (dBm / MHz)	-3.892
Limit (dBm / Ref BW)	11
Results	Pass

Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5775 MHz



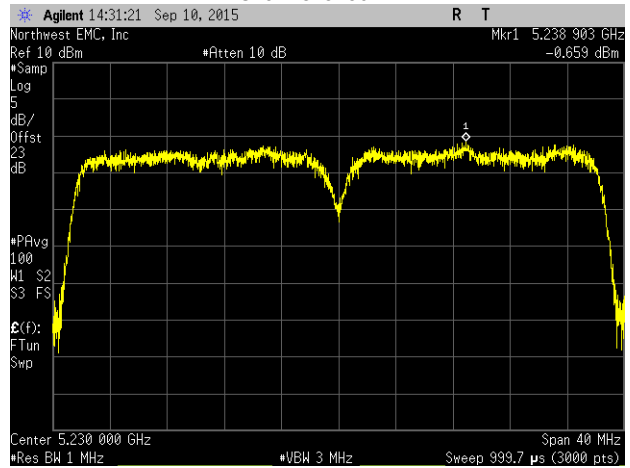
Value (dBm / MHz)	-7.674
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low  
Channel 5190 MHz



Value (dBm / MHz)	-1.264
Limit (dBm / Ref BW)	11
Results	Pass

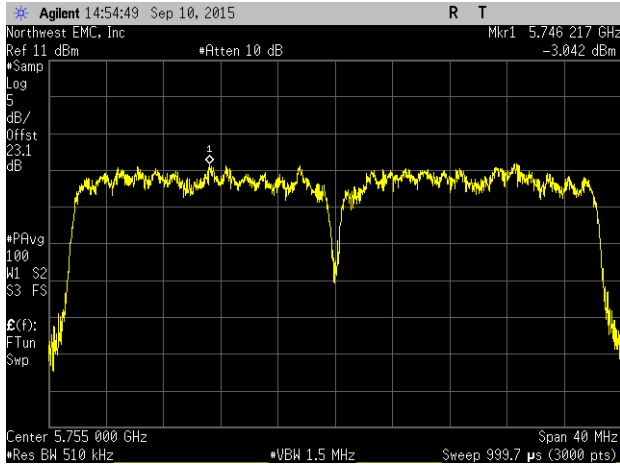
Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High  
Channel 5230 MHz



Value (dBm / MHz)	-0.659
Limit (dBm / Ref BW)	11
Results	Pass

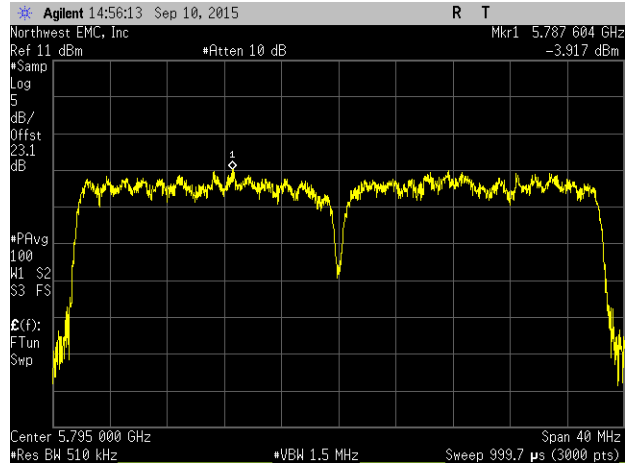
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low Channel 5755 MHz



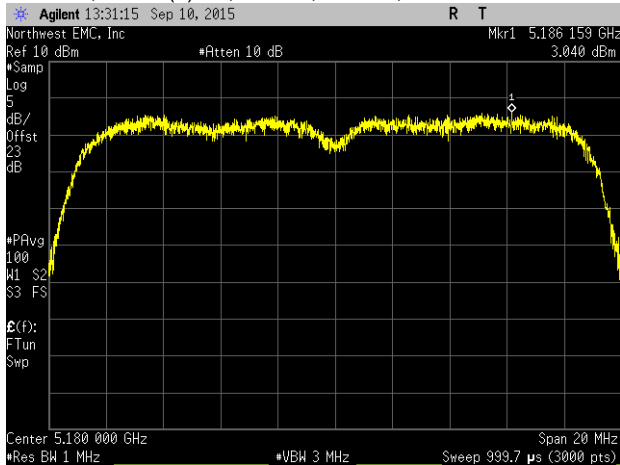
Value (dBm / MHz)	-3.042
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High Channel 5795 MHz



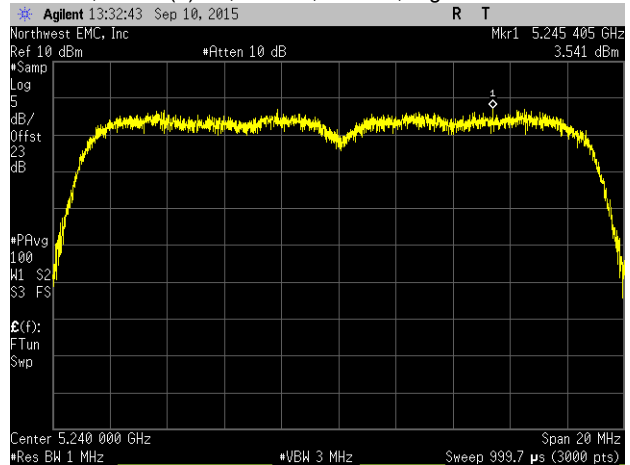
Value (dBm / MHz)	-3.917
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS15, 20 MHz, Low Channel 5180 MHz



Value (dBm / MHz)	3.04
Limit (dBm / Ref BW)	11
Results	Pass

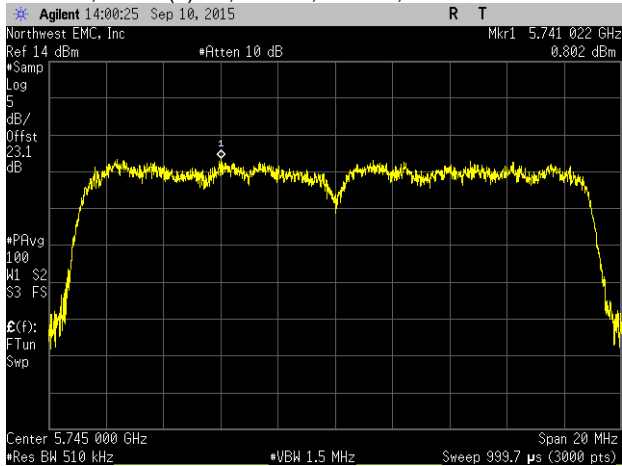
Chain B, 802.11(n) HT, MCS15, 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	3.541
Limit (dBm / Ref BW)	11
Results	Pass

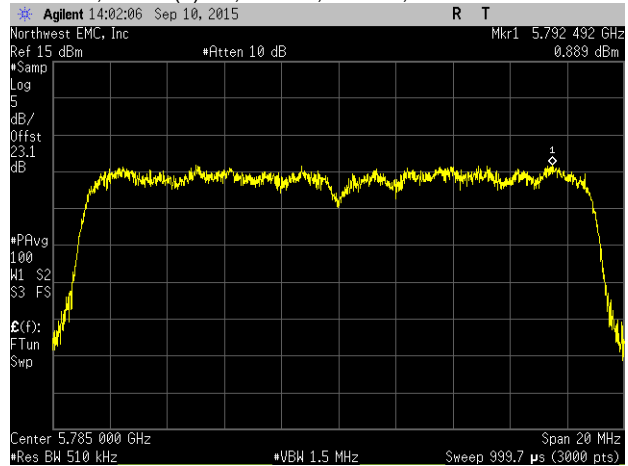
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(n) HT, MCS15, 20 MHz, Low Channel 5745 MHz



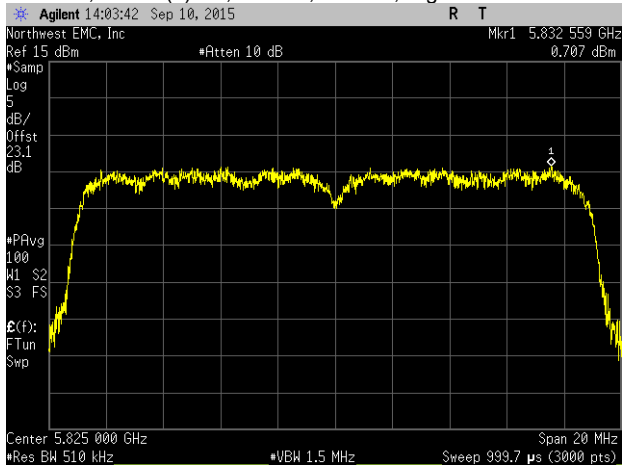
Value (dBm / MHz)	0.802
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS15, 20 MHz, Mid Channel 5785 MHz



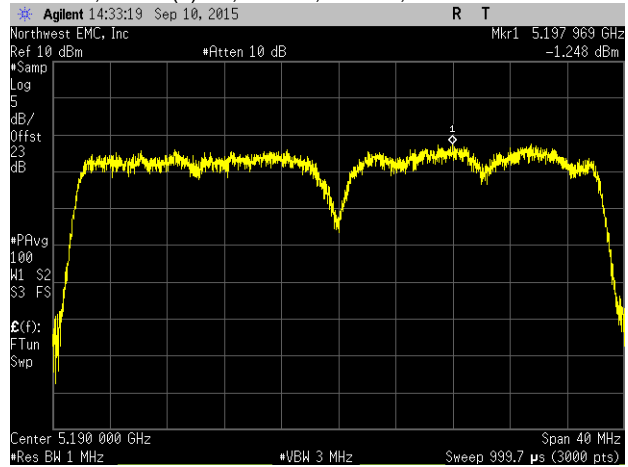
Value (dBm / MHz)	0.889
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS15, 20 MHz, High Channel 5825 MHz



Value (dBm / MHz)	0.707
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS15, 40 MHz, Low Channel 5190 MHz

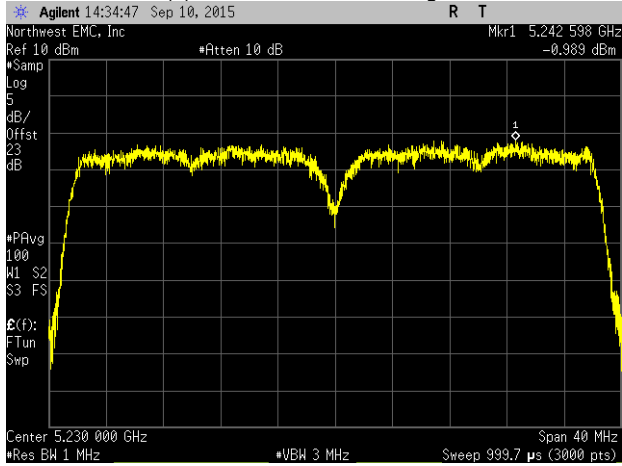


Value (dBm / MHz)	-1.248
Limit (dBm / Ref BW)	11
Results	Pass



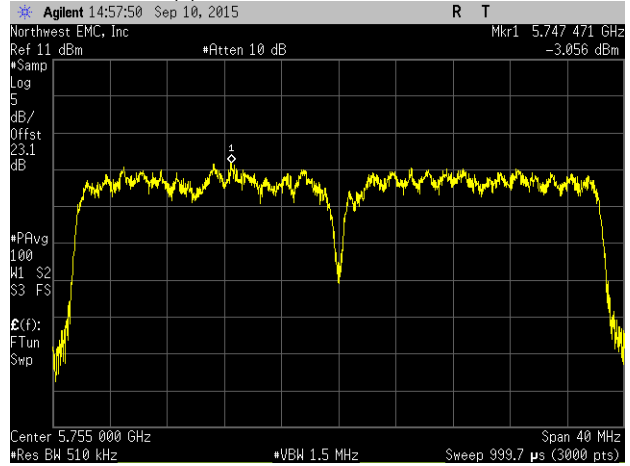
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(n) HT, MCS15, 40 MHz, High Channel 5230 MHz



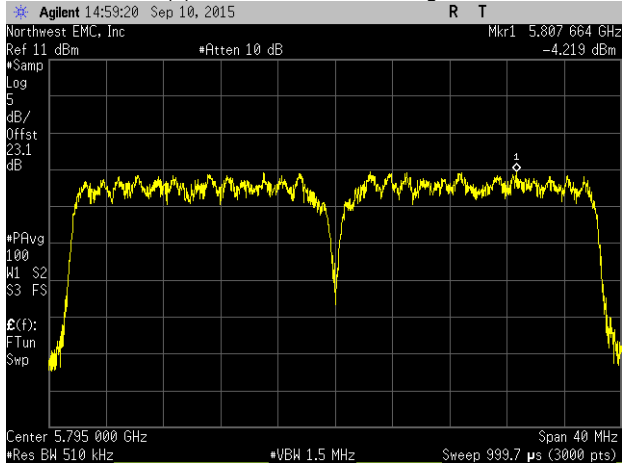
Value (dBm / MHz)	-0.989
Limit (dBm / Ref BW)	11
Results	Pass

Chain B, 802.11(n) HT, MCS15, 40 MHz, Low Channel 5755 MHz



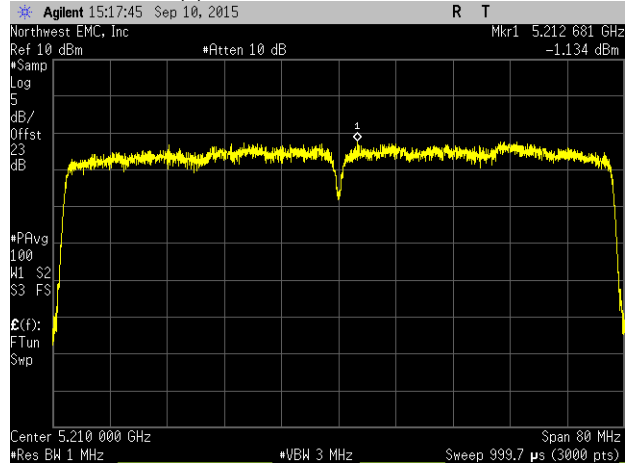
Value (dBm / MHz)	-3.056
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS15, 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-4.219
Limit (dBm / Ref BW)	30
Results	Pass

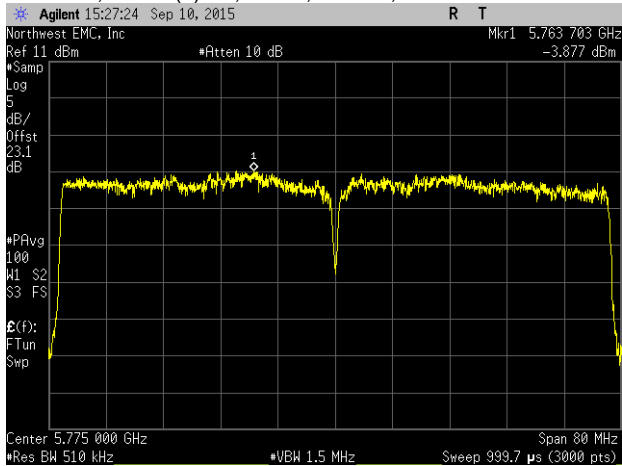
Chain C, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5210 MHz



Value (dBm / MHz)	-1.134
Limit (dBm / Ref BW)	11
Results	Pass

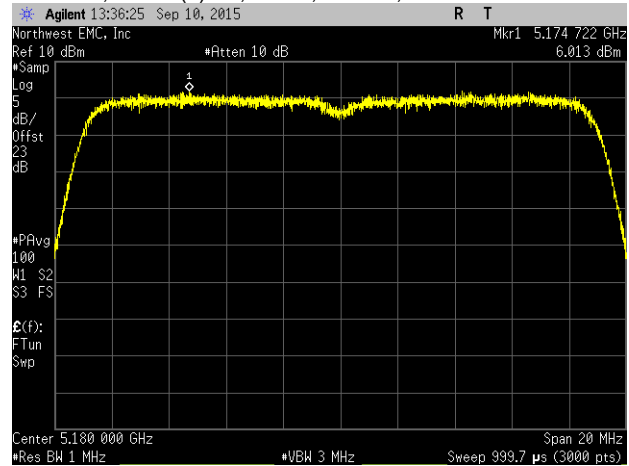
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5775 MHz



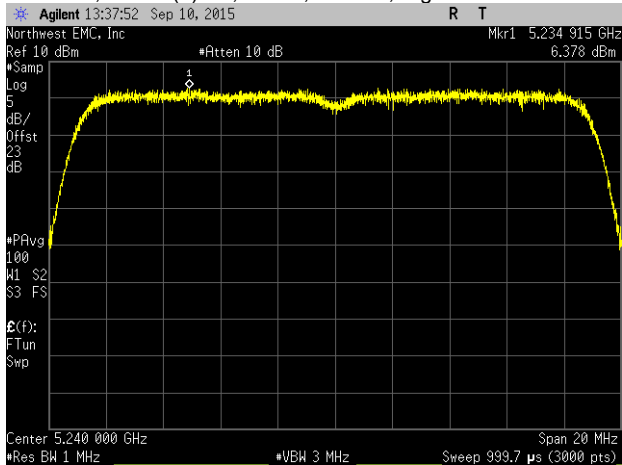
Value (dBm / MHz)	-3.877
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS8, 20 MHz, Low Channel 5180 MHz



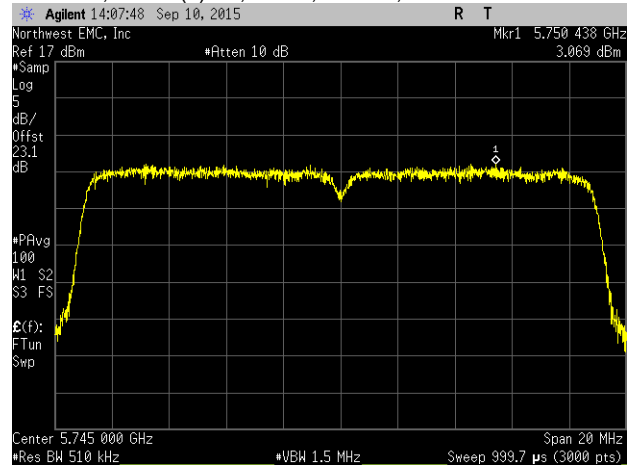
Value (dBm / MHz)	6.013
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(n) HT, MCS8, 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	6.378
Limit (dBm / Ref BW)	11
Results	Pass

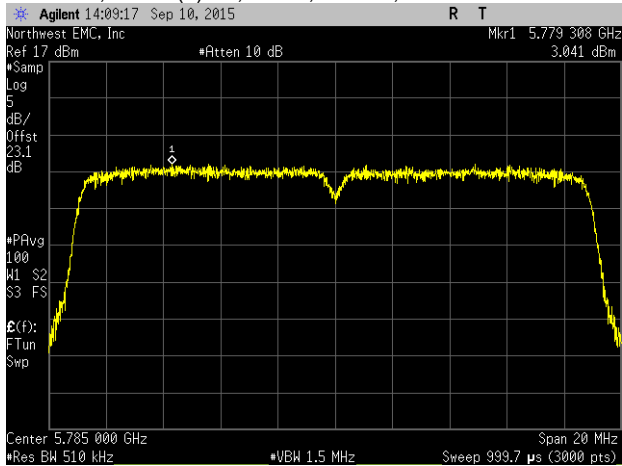
Chain C, 802.11(n) HT, MCS8, 20 MHz, Low Channel 5745 MHz



Value (dBm / MHz)	3.069
Limit (dBm / Ref BW)	30
Results	Pass

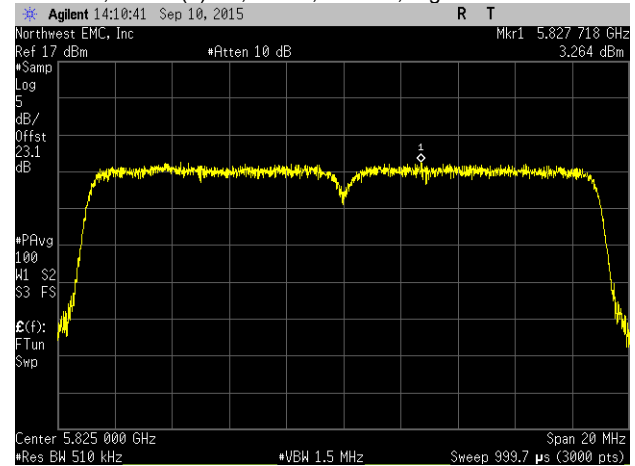
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS8, 20 MHz, Mid Channel 5785 MHz



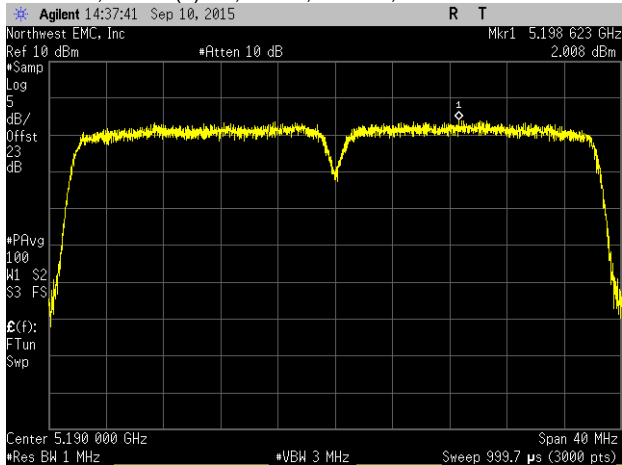
Value (dBm / MHz)	3.041
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS8, 20 MHz, High Channel 5825 MHz



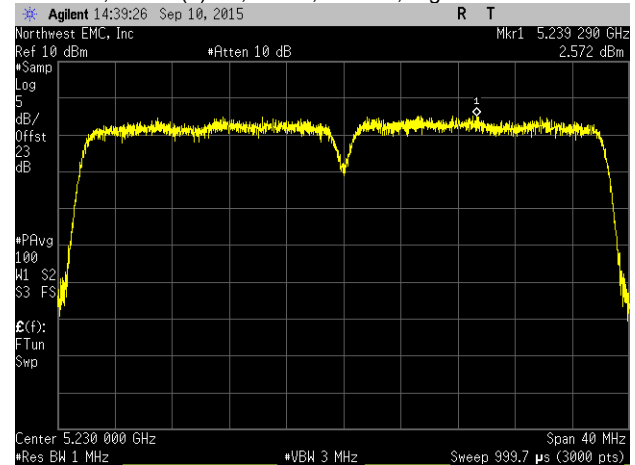
Value (dBm / MHz)	3.264
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS8, 40 MHz, Low Channel 5190 MHz



Value (dBm / MHz)	2.008
Limit (dBm / Ref BW)	11
Results	Pass

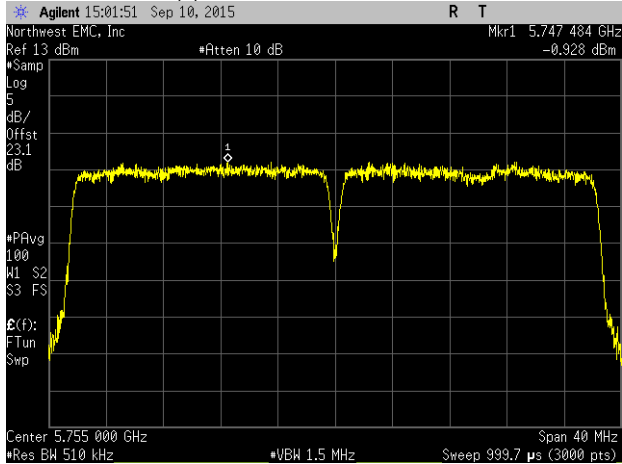
Chain C, 802.11(n) HT, MCS8, 40 MHz, High Channel 5230 MHz



Value (dBm / MHz)	2.572
Limit (dBm / Ref BW)	11
Results	Pass

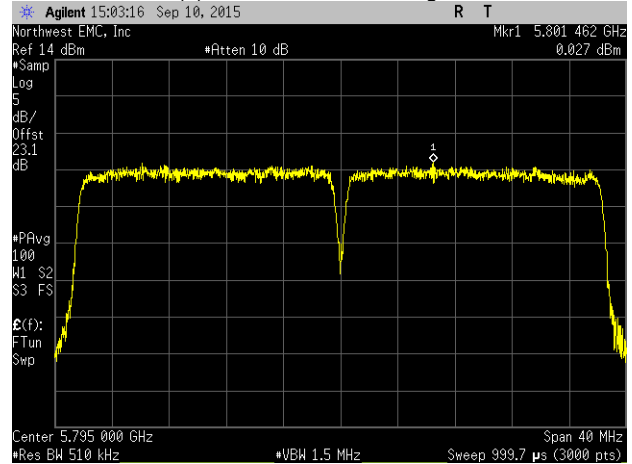
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS8, 40 MHz, Low Channel 5755 MHz



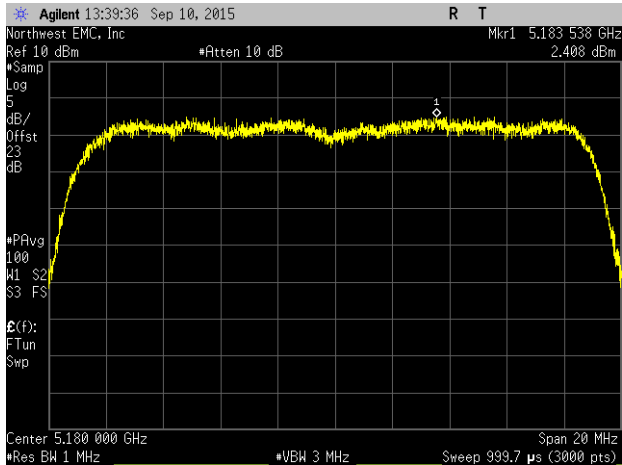
Value (dBm / MHz)	-0.928
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS8, 40 MHz, High Channel 5795 MHz



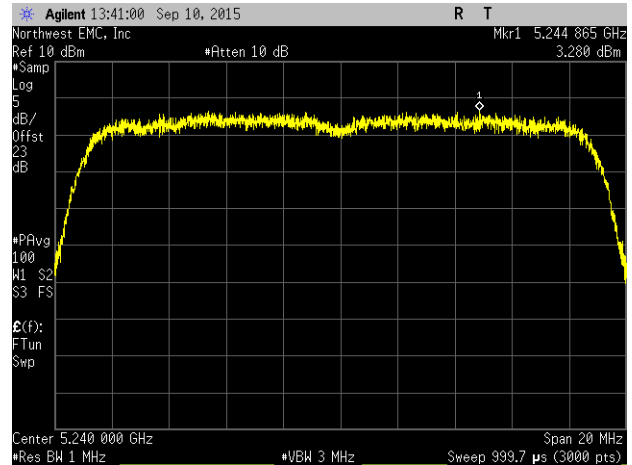
Value (dBm / MHz)	0.027
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low Channel 5180 MHz



Value (dBm / MHz)	2.408
Limit (dBm / Ref BW)	11
Results	Pass

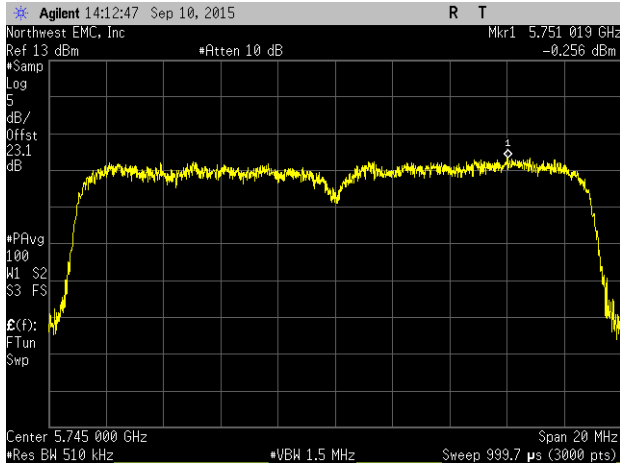
Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	3.28
Limit (dBm / Ref BW)	11
Results	Pass

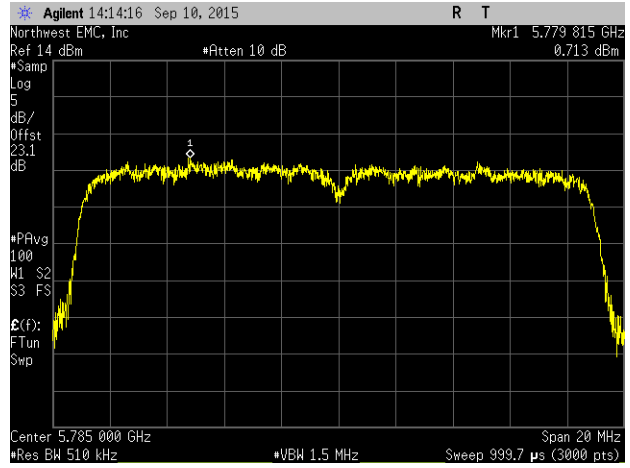
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low  
Channel 5745 MHz



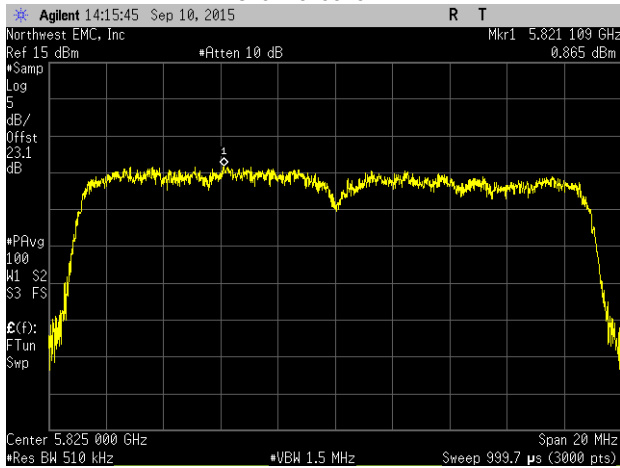
Value (dBm / MHz)	-0.256
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Mid  
Channel 5785 MHz



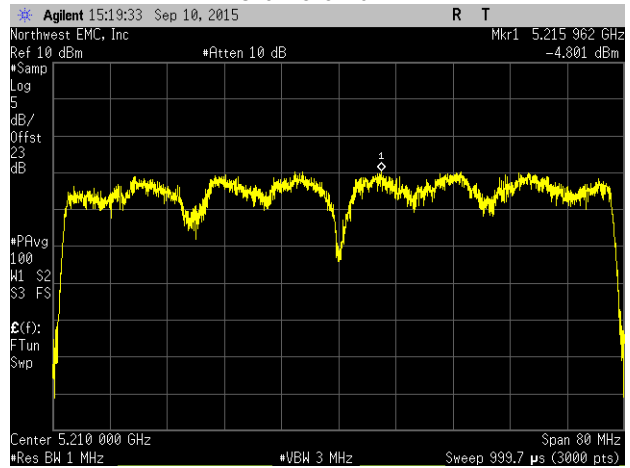
Value (dBm / MHz)	0.713
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High  
Channel 5825 MHz



Value (dBm / MHz)	0.865
Limit (dBm / Ref BW)	30
Results	Pass

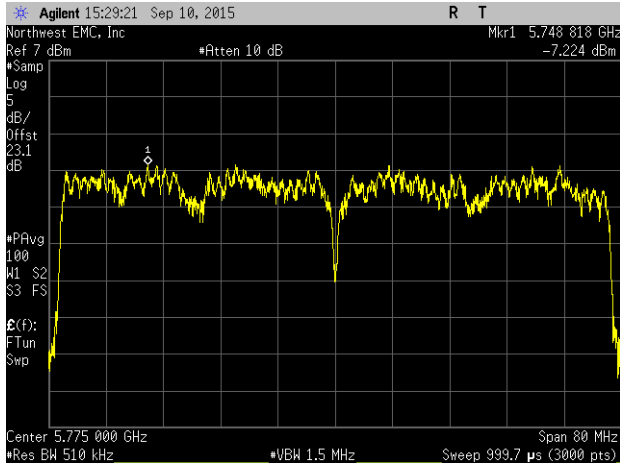
Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5210 MHz



Value (dBm / MHz)	-4.801
Limit (dBm / Ref BW)	11
Results	Pass

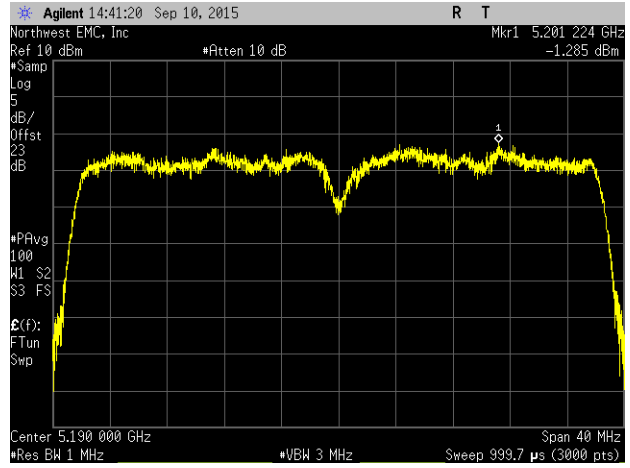
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5775 MHz



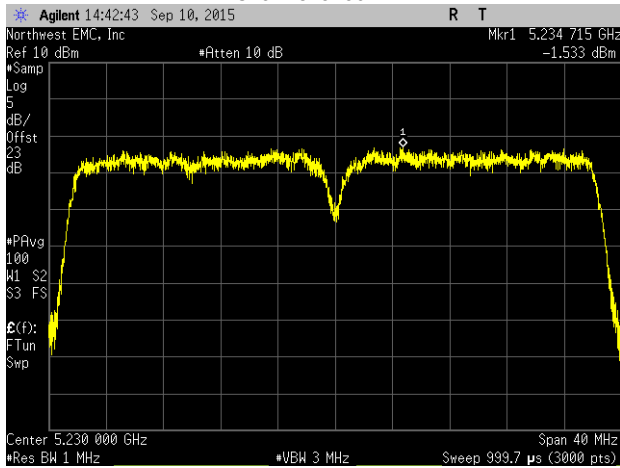
Value (dBm / MHz)	-7.224
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low  
Channel 5190 MHz



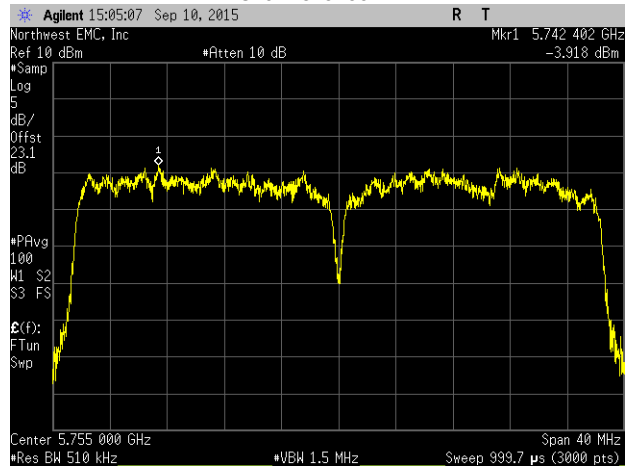
Value (dBm / MHz)	-1.285
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High  
Channel 5230 MHz



Value (dBm / MHz)	-1.533
Limit (dBm / Ref BW)	11
Results	Pass

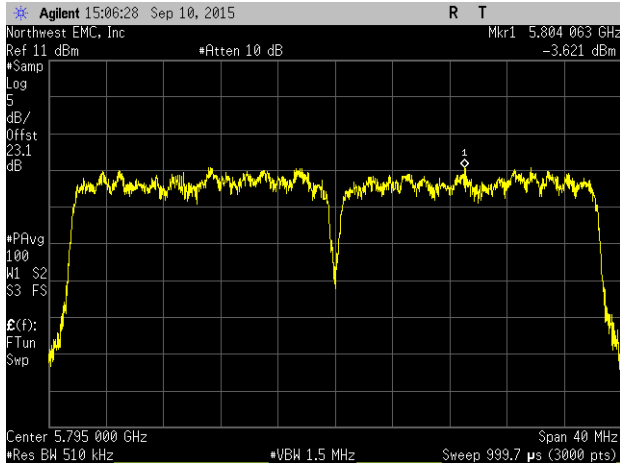
Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low  
Channel 5755 MHz



Value (dBm / MHz)	-3.918
Limit (dBm / Ref BW)	30
Results	Pass

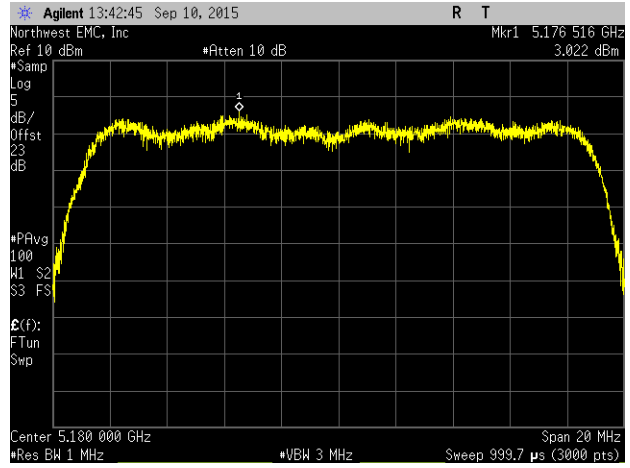
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High Channel 5795 MHz



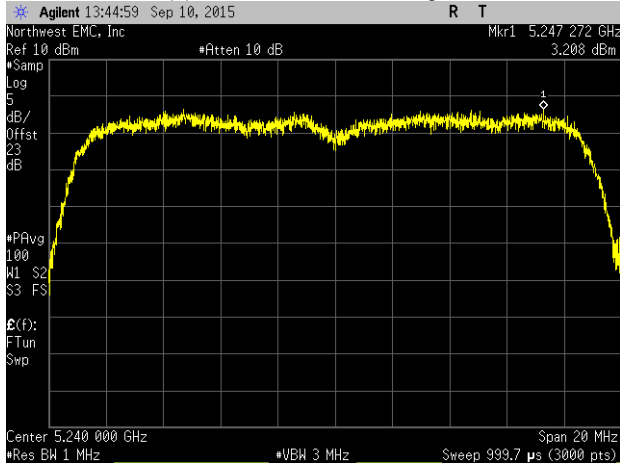
Value (dBm / MHz)	-3.621
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS15, 20 MHz, Low Channel 5180 MHz



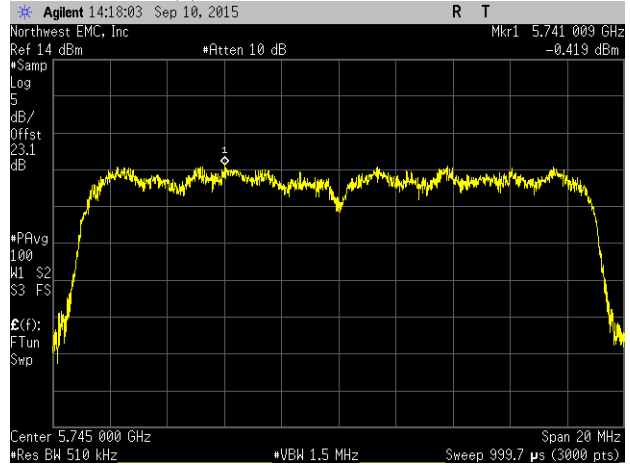
Value (dBm / MHz)	3.022
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(n) HT, MCS15, 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	3.208
Limit (dBm / Ref BW)	11
Results	Pass

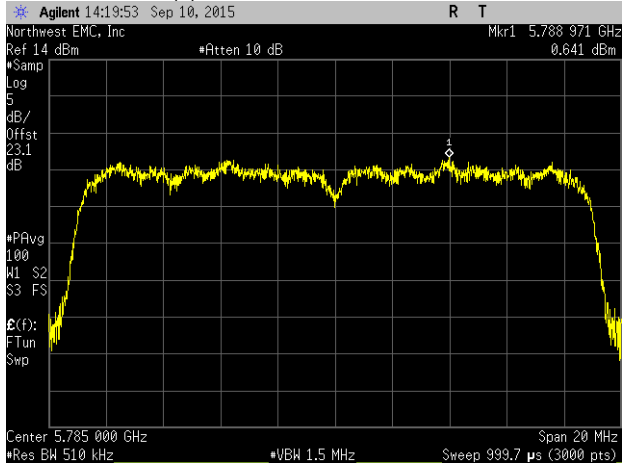
Chain C, 802.11(n) HT, MCS15, 20 MHz, Low Channel 5745 MHz



Value (dBm / MHz)	-0.419
Limit (dBm / Ref BW)	30
Results	Pass

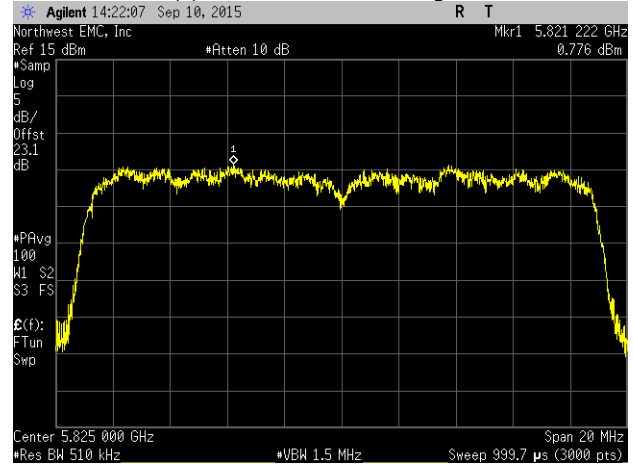
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS15, 20 MHz, Mid Channel 5785 MHz



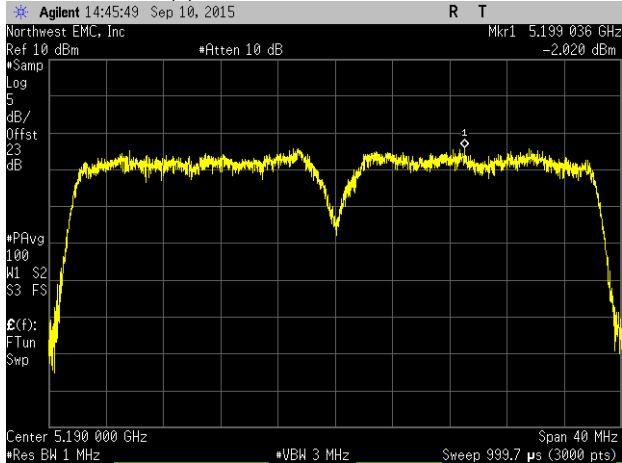
Value (dBm / MHz)	0.641
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS15, 20 MHz, High Channel 5825 MHz



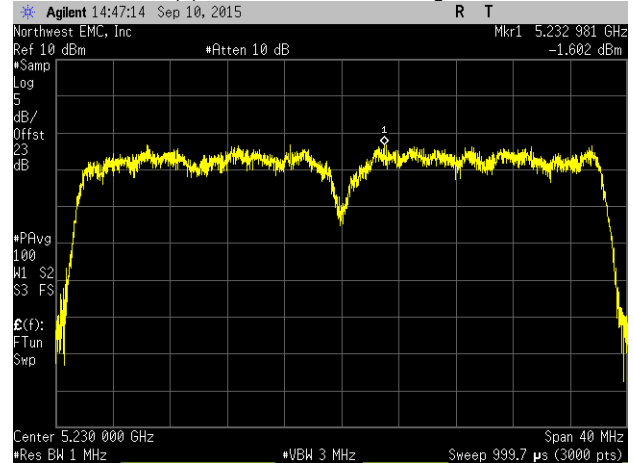
Value (dBm / MHz)	0.776
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS15, 40 MHz, Low Channel 5190 MHz



Value (dBm / MHz)	-2.02
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(n) HT, MCS15, 40 MHz, High Channel 5230 MHz

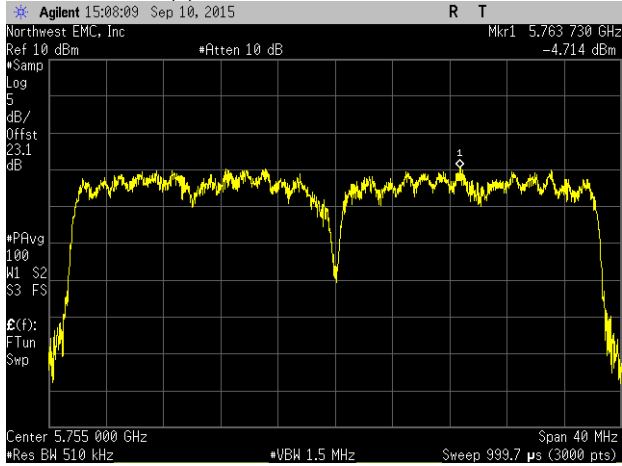


Value (dBm / MHz)	-1.602
Limit (dBm / Ref BW)	11
Results	Pass



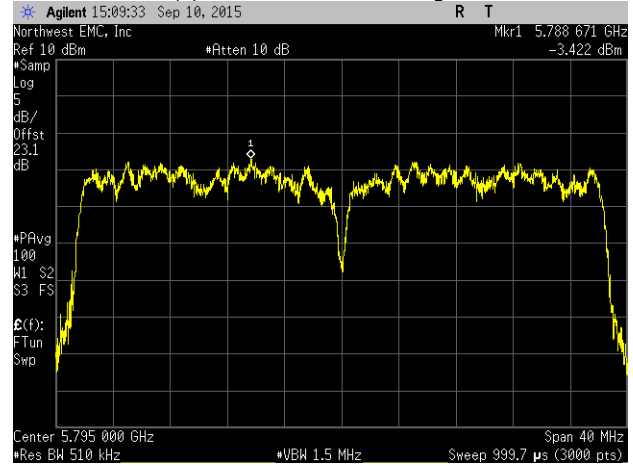
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS15, 40 MHz, Low Channel 5755 MHz



Value (dBm / MHz)	-4.714
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS15, 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-3.422
Limit (dBm / Ref BW)	30
Results	Pass

# MAXIMUM POWER SPECTRAL DENSITY



# MAXIMUM POWER SPECTRAL DENSITY



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures Section E was followed. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. The data rate(s) listed in the datasheet were tested. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring peak power spectral density, the transmission pulse duration (T) was measured. The transmission pulse duration and the associated data are found elsewhere in this test report.

The spectrum analyzer settings were as follows:

- The span was set to encompass entire emission bandwidth (B), centered on the transmit channel.
- RBW = 1 MHz, VBW  $\geq$  3 MHz
- Sample detector was used because Method SA-1 Alternate was used to measure the Maximum Conducted Output Power.
- Trace average 100 traces in power averaging mode (not video averaging).

The peak power spectral density (PPSD) was determined to be the highest level found across the emission in any 1 MHz band after 100 sweeps of power averaging (not video averaging).

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	7/23/2015	7/23/2016
Block - DC	Fairview Microwave	SD3379	AMM	2/27/2015	2/27/2016
Attenuator	Fairview Microwave	SA4018-20	TQY	2/27/2015	2/27/2016
Generator - Signal	Agilent	N5173B	TIW	7/15/2014	7/15/2017

# MAXIMUM POWER SPECTRAL DENSITY



EUT:	Firebox T50-W (BS5AE7W)	Work Order:	VDEI0009
Serial Number:	70AF02717-B385	Date:	09/11/15
Customer:	WatchGuard Technologies, Inc.	Temperature:	24.5°C
Attendees:	None	Relative Humidity:	45%
Customer Project:	None	Bar. Pressure:	1014 mbar
Tested By:	Jonathan Kiefer	Job Site:	TX09
Power:	110VAC/60Hz	Configuration:	5

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.407:2015	ANSI C63.10:2013

## COMMENTS

3x3 MIMO mode, Chain ABC (Chains 0, 1, and 2). Had to decrease power level setting to 18.0 to get Power Summing to pass for the following measurements: Chain B, 802.11(n) HT, MCS16, 20 MHz, Low Channel 5180 MHz and High Channel 5240 MHz; Chain C, 802.11(n) HT, MCS16, 20 MHz, High Channel 5240 MHz.

## DEVIATIONS FROM TEST STANDARD

None

## RESULTS

	Value (dBm / MHz)	Limit (dBm / Ref BW)	Results
<b>Chain A</b>			
802.11(n) HT, MCS0			
80 MHz			
Low Channel 5210 MHz	-1.435	11	Pass
Low Channel 5775 MHz	-5.199	30	Pass
802.11(ac) VHT, MCS8 (256-QAM)			
20 MHz			
Low Channel 5180 MHz	1.999	11	Pass
High Channel 5240 MHz	2.156	11	Pass
Low Channel 5745 MHz	-1.364	30	Pass
Mid Channel 5785 MHz	-1.762	30	Pass
High Channel 5825 MHz	-0.49	30	Pass
802.11(ac) VHT, MCS9 (256-QAM)			
80 MHz			
Low Channel 5210 MHz	-2.823	11	Pass
Low Channel 5775 MHz	-2.154	11	Pass
40 MHz			
Low Channel 5190 MHz	-6.535	30	Pass
High Channel 5230 MHz	-5.484	30	Pass
Low Channel 5755 MHz	-6.029	11	Pass

# MAXIMUM POWER SPECTRAL DENSITY



		Value (dBm / MHz)	Limit (dBm / Ref BW)	Result s
	MHz			
	High Channel 5795			
	MHz	-9.015	30	Pass
802.11(n) HT, MCS16				
	20 MHz			
	Low Channel 5180			
	MHz	5.289	11	Pass
	High Channel 5240			
	MHz	5.56	11	Pass
	Low Channel 5745			
	MHz	2.911	30	Pass
	Mid Channel 5785			
	MHz	3.157	30	Pass
	High Channel 5825			
	MHz	2.474	30	Pass
	40 MHz			
	Low Channel 5190			
	MHz	1.166	11	Pass
	High Channel 5230			
	MHz	1.517	11	Pass
	Low Channel 5755			
	MHz	-2.902	30	Pass
	High Channel 5795			
	MHz	-1.894	30	Pass
802.11(n) HT, MCS23				
	20 MHz			
	Low Channel 5180			
	MHz	-0.027	11	Pass
	High Channel 5240			
	MHz	0.642	11	Pass
	Low Channel 5745			
	MHz	-1.121	30	Pass
	Mid Channel 5785			
	MHz	0.136	30	Pass
	High Channel 5825			
	MHz	0.13	30	Pass
	40 MHz			
	Low Channel 5190			
	MHz	-3.055	11	Pass
	High Channel 5230			
	MHz	-2.629	11	Pass
	Low Channel 5755			
	MHz	-6.831	30	Pass
	High Channel 5795			
	MHz	-5.892	30	Pass
Chain B				
	802.11(n) HT, MCS0			
	80 MHz			

# MAXIMUM POWER SPECTRAL DENSITY



	Value (dBm / MHz)	Limit (dBm / Ref BW)	Result s
Low Channel 5210 MHz	-0.11	11	Pass
Low Channel 5775 MHz	-19.693	30	Pass
<b>802.11(ac) VHT, MCS8 (256-QAM)</b>			
<b>20 MHz</b>			
Low Channel 5180 MHz	3.326	11	Pass
High Channel 5240 MHz	3.902	11	Pass
Low Channel 5745 MHz	-14.366	30	Pass
Mid Channel 5785 MHz	-13.754	30	Pass
High Channel 5825 MHz	-15.188	30	Pass
<b>802.11(ac) VHT, MCS9 (256-QAM)</b>			
<b>80 MHz</b>			
Low Channel 5210 MHz	-0.582	11	Pass
Low Channel 5775 MHz	-0.973	11	Pass
<b>40 MHz</b>			
Low Channel 5190 MHz	-18.841	30	Pass
High Channel 5230 MHz	-19.782	30	Pass
Low Channel 5755 MHz	-3.993	11	Pass
High Channel 5795 MHz	-23.75	30	Pass
<b>802.11(n) HT, MCS16</b>			
<b>20 MHz</b>			
Low Channel 5180 MHz	6.149	11	Pass
High Channel 5240 MHz	6.142	11	Pass
Low Channel 5745 MHz	-10.429	30	Pass
Mid Channel 5785 MHz	-10.64	30	Pass
High Channel 5825 MHz	-12.191	30	Pass
<b>40 MHz</b>			
Low Channel 5190 MHz	2.824	11	Pass
High Channel 5230 MHz	3.017	11	Pass
Low Channel 5755 MHz	-15.363	30	Pass

# MAXIMUM POWER SPECTRAL DENSITY



		Value (dBm / MHz)	Limit (dBm / Ref BW)	Results
	High Channel 5795 MHz	-16.133	30	Pass
802.11(n) HT, MCS23	20 MHz			
	Low Channel 5180 MHz	1.758	11	Pass
	High Channel 5240 MHz	2.188	11	Pass
	Low Channel 5745 MHz	-15.688	30	Pass
	Mid Channel 5785 MHz	-15.264	30	Pass
	High Channel 5825 MHz	-16.518	30	Pass
	40 MHz			
	Low Channel 5190 MHz	-1.708	11	Pass
	High Channel 5230 MHz	-1.249	11	Pass
	Low Channel 5755 MHz	-18.724	30	Pass
	High Channel 5795 MHz	-20.379	30	Pass
Chain C				
802.11(n) HT, MCS0	80 MHz			
	Low Channel 5210 MHz	-1.425	11	Pass
	Low Channel 5775 MHz	-3.534	30	Pass
802.11(ac) VHT, MCS8 (256-QAM)	20 MHz			
	Low Channel 5180 MHz	2.863	11	Pass
	High Channel 5240 MHz	3.282	11	Pass
	Low Channel 5745 MHz	-0.067	30	Pass
	Mid Channel 5785 MHz	0.576	30	Pass
	High Channel 5825 MHz	1.474	30	Pass
802.11(ac) VHT, MCS9 (256-QAM)	80 MHz			
	Low Channel 5210 MHz	-1.898	11	Pass
	Low Channel 5775 MHz	-1.004	11	Pass

# MAXIMUM POWER SPECTRAL DENSITY



		Value (dBm / MHz)	Limit (dBm / Ref BW)	Results
<b>40 MHz</b>				
	Low Channel 5190 MHz	-4.057	30	Pass
	High Channel 5230 MHz	-3.608	30	Pass
	Low Channel 5755 MHz	-5.171	11	Pass
	High Channel 5795 MHz	-7.168	30	Pass
<b>802.11(n) HT, MCS16</b>				
<b>20 MHz</b>				
	Low Channel 5180 MHz	5.674	11	Pass
	High Channel 5240 MHz	5.598	11	Pass
	Low Channel 5745 MHz	2.679	30	Pass
	Mid Channel 5785 MHz	2.618	30	Pass
	High Channel 5825 MHz	3.189	30	Pass
<b>40 MHz</b>				
	Low Channel 5190 MHz	1.798	11	Pass
	High Channel 5230 MHz	2.863	11	Pass
	Low Channel 5755 MHz	-0.788	30	Pass
	High Channel 5795 MHz	-0.921	30	Pass
<b>802.11(n) HT, MCS23</b>				
<b>20 MHz</b>				
	Low Channel 5180 MHz	0.895	11	Pass
	High Channel 5240 MHz	1.861	11	Pass
	Low Channel 5745 MHz	-1.283	30	Pass
	Mid Channel 5785 MHz	-0.379	30	Pass
	High Channel 5825 MHz	-1.5	30	Pass
<b>40 MHz</b>				
	Low Channel 5190 MHz	-2.295	11	Pass
	High Channel 5230 MHz	-1.608	11	Pass
	Low Channel 5755 MHz	-3.605	30	Pass



# MAXIMUM POWER SPECTRAL DENSITY



		Value (dBm / MHz)	Limit (dBm / Ref BW)	Result		
High Channel 5795 MHz		-3.935	30	Pass		
<b>Power Summing Chain A</b>						
802.11(n) HT, MCS0	80 MHz					
	Low Channel 5210 MHz	-1.435	4.77	3.336212547	11	Pass
	Low Channel 5775 MHz	-5.199	4.77	-0.427787453	30	Pass
802.11(ac) VHT, MCS8 (256-QAM)	20 MHz					
	Low Channel 5180 MHz	1.999	4.77	6.770212547	11	Pass
	High Channel 5240 MHz	2.156	4.77	6.927212547	11	Pass
	Low Channel 5745 MHz	-1.364	4.77	3.407212547	30	Pass
	Mid Channel 5785 MHz	-1.762	4.77	3.009212547	30	Pass
	High Channel 5825 MHz	-0.49	4.77	4.281212547	30	Pass
802.11(ac) VHT, MCS9 (256-QAM)	80 MHz					
	Low Channel 5210 MHz	-2.823	4.77	1.948212547	11	Pass
	Low Channel 5775 MHz	-2.154	4.77	2.617212547	11	Pass
	40 MHz					
	Low Channel 5190 MHz	-6.535	4.77	-1.763787453	30	Pass
	High Channel 5230 MHz	-5.484	4.77	-0.712787453	30	Pass
	Low Channel 5755 MHz	-6.029	4.77	-1.257787453	11	Pass
	High Channel 5795 MHz	-9.015	4.77	-4.243787453	30	Pass
802.11(n) HT, MCS16	20 MHz					
	Low Channel 5180 MHz	5.289	4.77	10.06021255	11	Pass
	High Channel 5240 MHz	5.56	4.77	10.33121255	11	Pass
	Low Channel 5745 MHz	2.911	4.77	7.682212547	30	Pass
	Mid Channel 5785 MHz	3.157	4.77	7.928212547	30	Pass
	High Channel 5825 MHz	2.474	4.77	7.245212547	30	Pass

# MAXIMUM POWER SPECTRAL DENSITY



				Value (dBm / MHz)	Limit (dBm / Ref BW)	Results
	MHz					
	40 MHz					
	Low Channel 5190 MHz	1.166	4.77	5.937212547	11	Pass
	High Channel 5230 MHz	1.517	4.77	6.288212547	11	Pass
	Low Channel 5755 MHz	-2.902	4.77	1.869212547	30	Pass
	High Channel 5795 MHz	-1.894	4.77	2.877212547	30	Pass
802.11(n) HT, MCS23	20 MHz					
	Low Channel 5180 MHz	-0.027	4.77	4.744212547	11	Pass
	High Channel 5240 MHz	0.642	4.77	5.413212547	11	Pass
	Low Channel 5745 MHz	-1.121	4.77	3.650212547	30	Pass
	Mid Channel 5785 MHz	0.136	4.77	4.907212547	30	Pass
	High Channel 5825 MHz	0.13	4.77	4.901212547	30	Pass
	40 MHz					
	Low Channel 5190 MHz	-3.055	4.77	1.716212547	11	Pass
	High Channel 5230 MHz	-2.629	4.77	2.142212547	11	Pass
	Low Channel 5755 MHz	-6.831	4.77	-2.059787453	30	Pass
	High Channel 5795 MHz	-5.892	4.77	-1.120787453	30	Pass
<b>Power Summing Chain B</b>	802.11(n) HT, MCS0					
		<b>Value (dBm/MHz)</b>	<b>Summing Factor (dBm)</b>	<b>Summed Value (dBm/MHz)</b>		
	80 MHz					
	Low Channel 5210 MHz	-0.11	4.77	4.661212547	11	Pass
	Low Channel 5775 MHz	-19.693	4.77	-14.92178745	30	Pass
802.11(ac) VHT, MCS8 (256-QAM)	20 MHz					
	Low Channel 5180 MHz	3.326	4.77	8.097212547	11	Pass
	High Channel 5240 MHz	3.902	4.77	8.673212547	11	Pass
	Low Channel 5745 MHz	-14.366	4.77	-9.594787453	30	Pass
	Mid Channel 5785 MHz	-13.754	4.77	-8.982787453	30	Pass

# MAXIMUM POWER SPECTRAL DENSITY



				Value (dBm / MHz)	Limit (dBm / Ref BW)	Result s
	MHz					
	High Channel 5825					
	MHz	-15.188	4.77	-10.41678745	30	Pass
802.11(ac) VHT, MCS9 (256-QAM)						
	80 MHz					
	Low Channel 5210					
	MHz	-0.582	4.77	4.189212547	11	Pass
	Low Channel 5775					
	MHz	-0.973	4.77	3.798212547	11	Pass
	40 MHz					
	Low Channel 5190					
	MHz	-18.841	4.77	-14.06978745	30	Pass
	High Channel 5230					
	MHz	-19.782	4.77	-15.01078745	30	Pass
	Low Channel 5755					
	MHz	-3.993	4.77	0.778212547	11	Pass
	High Channel 5795					
	MHz	-23.75	4.77	-18.97878745	30	Pass
802.11(n) HT, MCS16						
	20 MHz					
	Low Channel 5180					
	MHz	6.149	4.77	10.92021255	11	Pass
	High Channel 5240					
	MHz	6.142	4.77	10.91321255	11	Pass
	Low Channel 5745					
	MHz	-10.429	4.77	-5.657787453	30	Pass
	Mid Channel 5785					
	MHz	-10.64	4.77	-5.868787453	30	Pass
	High Channel 5825					
	MHz	-12.191	4.77	-7.419787453	30	Pass
	40 MHz					
	Low Channel 5190					
	MHz	2.824	4.77	7.595212547	11	Pass
	High Channel 5230					
	MHz	3.017	4.77	7.788212547	11	Pass
	Low Channel 5755					
	MHz	-15.363	4.77	-10.59178745	30	Pass
	High Channel 5795					
	MHz	-16.133	4.77	-11.36178745	30	Pass
802.11(n) HT, MCS23						
	20 MHz					
	Low Channel 5180					
	MHz	1.758	4.77	6.529212547	11	Pass
	High Channel 5240					
	MHz	2.188	4.77	6.959212547	11	Pass
	Low Channel 5745					
	MHz	-15.688	4.77	-10.91678745	30	Pass
	Mid Channel 5785					
	MHz	-15.264	4.77	-10.49278745	30	Pass

# MAXIMUM POWER SPECTRAL DENSITY



				Value	Limit	Result	
				(dBm / MHz)	(dBm / Ref BW)	s	
		High Channel 5825 MHz	-16.518	4.77	-11.74678745	30	Pass
	40 MHz	Low Channel 5190 MHz	-1.708	4.77	3.063212547	11	Pass
		High Channel 5230 MHz	-1.249	4.77	3.522212547	11	Pass
		Low Channel 5755 MHz	-18.724	4.77	-13.95278745	30	Pass
		High Channel 5795 MHz	-20.379	4.77	-15.60778745	30	Pass
<b>Power Summing Chain C</b>							
	802.11(n) HT, MCS0			<b>Summing Factor</b>	<b>Summed Value</b>		
			<b>Value (dBm/MHz)</b>	<b>(dBm)</b>	<b>(dBm/MHz)</b>		
	80 MHz	Low Channel 5210 MHz	-1.425	4.77	3.346212547	11	Pass
		Low Channel 5775 MHz	-3.534	4.77	1.237212547	30	Pass
	802.11(ac) VHT, MCS8 (256-QAM)						
	20 MHz	Low Channel 5180 MHz	2.863	4.77	7.634212547	11	Pass
		High Channel 5240 MHz	3.282	4.77	8.053212547	11	Pass
		Low Channel 5745 MHz	-0.067	4.77	4.704212547	30	Pass
		Mid Channel 5785 MHz	0.576	4.77	5.347212547	30	Pass
		High Channel 5825 MHz	1.474	4.77	6.245212547	30	Pass
	802.11(ac) VHT, MCS9 (256-QAM)						
	80 MHz	Low Channel 5210 MHz	-1.898	4.77	2.873212547	11	Pass
		Low Channel 5775 MHz	-1.004	4.77	3.767212547	11	Pass
	40 MHz	Low Channel 5190 MHz	-4.057	4.77	0.714212547	30	Pass
		High Channel 5230 MHz	-3.608	4.77	1.163212547	30	Pass
		Low Channel 5755 MHz	-5.171	4.77	-0.399787453	11	Pass
		High Channel 5795 MHz	-7.168	4.77	-2.396787453	30	Pass
	802.11(n) HT, MCS16						
	20 MHz						

# MAXIMUM POWER SPECTRAL DENSITY



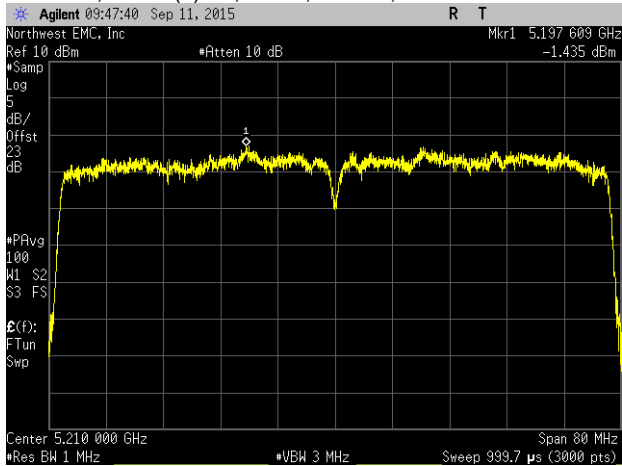
				Value (dBm / MHz)	Limit (dBm / Ref BW)	Results
	Low Channel 5180 MHz	5.674	4.77	10.44521255	11	Pass
	High Channel 5240 MHz	5.598	4.77	10.36921255	11	Pass
	Low Channel 5745 MHz	2.679	4.77	7.450212547	30	Pass
	Mid Channel 5785 MHz	2.618	4.77	7.389212547	30	Pass
	High Channel 5825 MHz	3.189	4.77	7.960212547	30	Pass
<b>40 MHz</b>						
	Low Channel 5190 MHz	1.798	4.77	6.569212547	11	Pass
	High Channel 5230 MHz	2.863	4.77	7.634212547	11	Pass
	Low Channel 5755 MHz	-0.788	4.77	3.983212547	30	Pass
	High Channel 5795 MHz	-0.921	4.77	3.850212547	30	Pass
<b>802.11(n) HT, MCS23</b>						
<b>20 MHz</b>						
	Low Channel 5180 MHz	0.895	4.77	5.666212547	11	Pass
	High Channel 5240 MHz	1.861	4.77	6.632212547	11	Pass
	Low Channel 5745 MHz	-1.283	4.77	3.488212547	30	Pass
	Mid Channel 5785 MHz	-0.379	4.77	4.392212547	30	Pass
	High Channel 5825 MHz	-1.5	4.77	3.271212547	30	Pass
<b>40 MHz</b>						
	Low Channel 5190 MHz	-2.295	4.77	2.476212547	11	Pass
	High Channel 5230 MHz	-1.608	4.77	3.163212547	11	Pass
	Low Channel 5755 MHz	-3.605	4.77	1.166212547	30	Pass
	High Channel 5795 MHz	-3.935	4.77	0.836212547	30	Pass

*Jonathan Kiefer*

Tested By

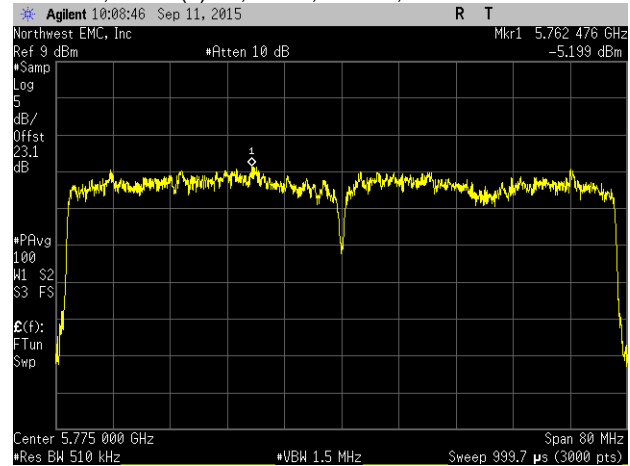
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5210 MHz



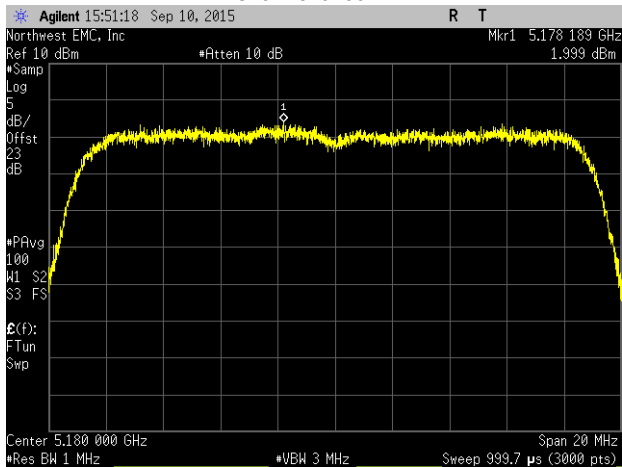
Value (dBm / MHz)	-1.435
Limit (dBm / Ref BW)	11
Results	Pass

Chain A, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5775 MHz



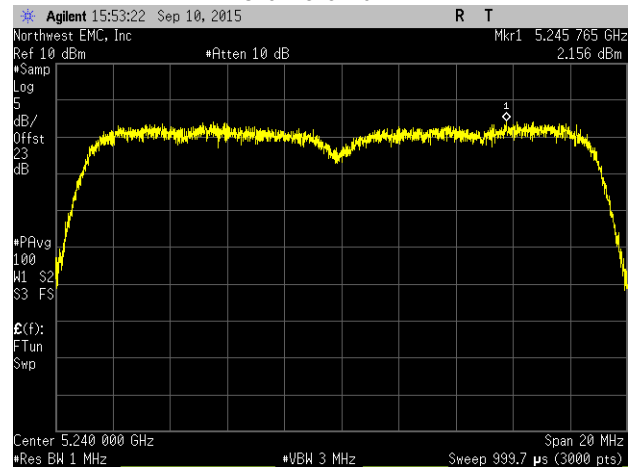
Value (dBm / MHz)	-5.199
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low Channel 5180 MHz



Value (dBm / MHz)	1.999
Limit (dBm / Ref BW)	11
Results	Pass

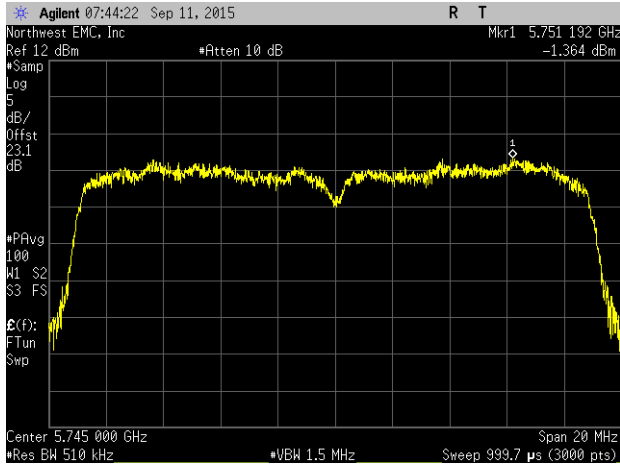
Chain A, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	2.156
Limit (dBm / Ref BW)	11
Results	Pass

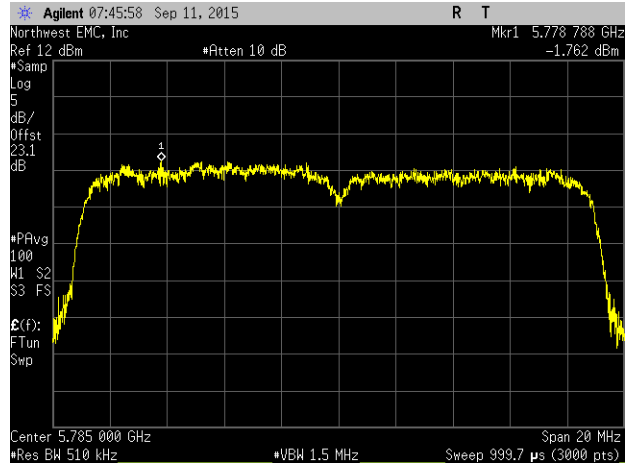
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low  
Channel 5745 MHz



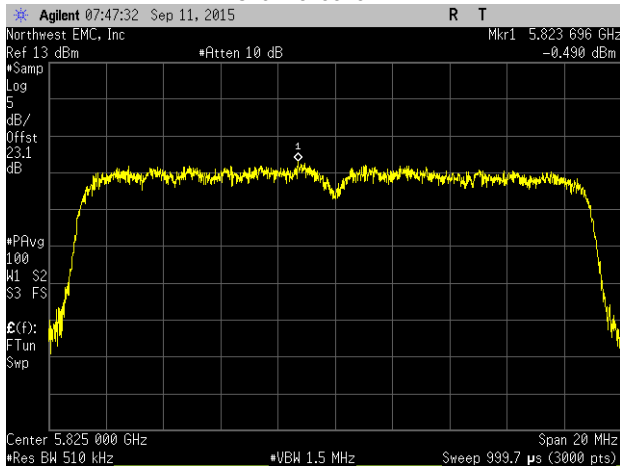
Value (dBm / MHz)	-1.364
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Mid  
Channel 5785 MHz



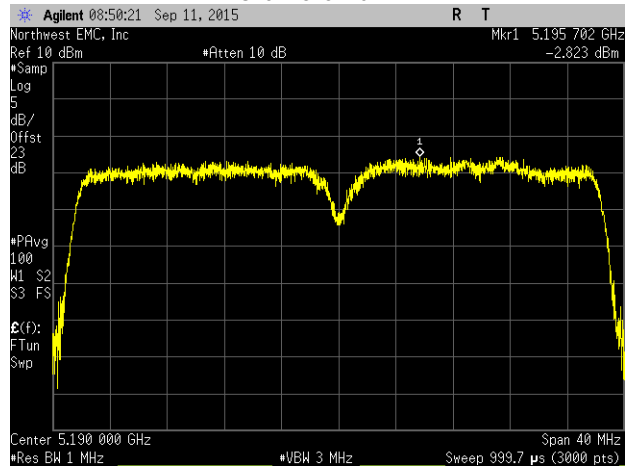
Value (dBm / MHz)	-1.762
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High  
Channel 5825 MHz



Value (dBm / MHz)	-0.49
Limit (dBm / Ref BW)	30
Results	Pass

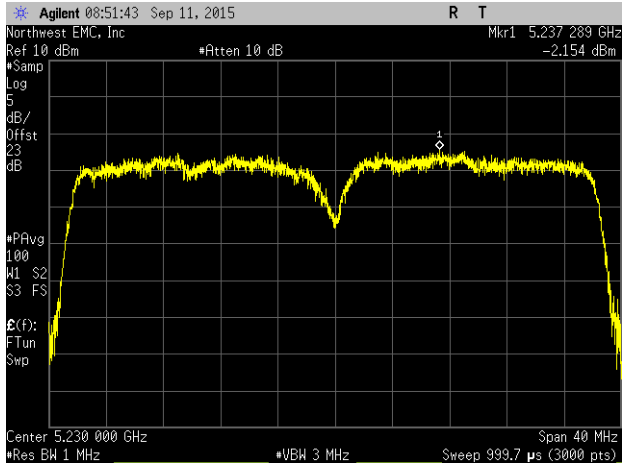
Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5210 MHz



Value (dBm / MHz)	-2.823
Limit (dBm / Ref BW)	11
Results	Pass

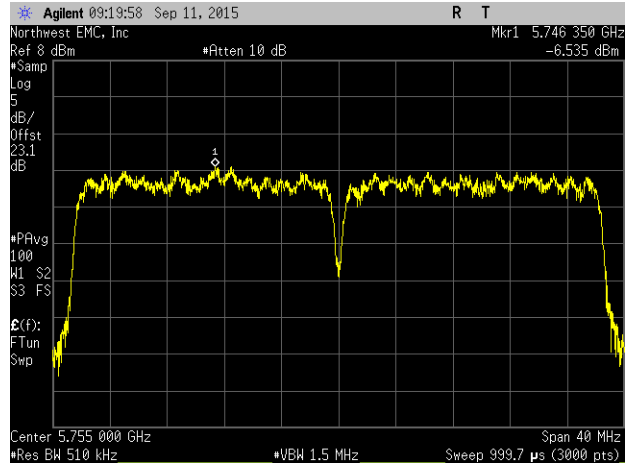
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5775 MHz



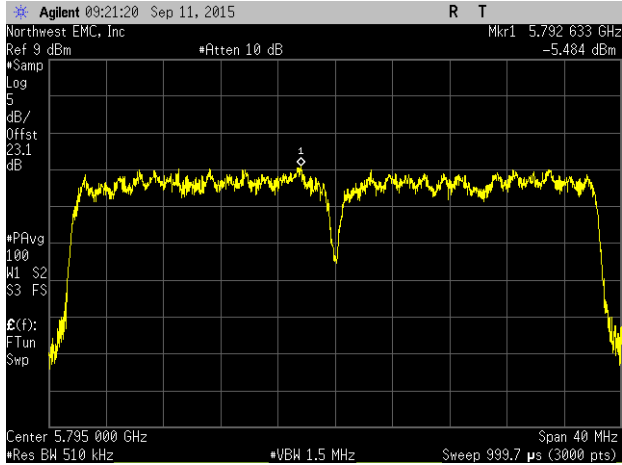
Value (dBm / MHz)	-2.154
Limit (dBm / Ref BW)	11
Results	Pass

Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low  
Channel 5190 MHz



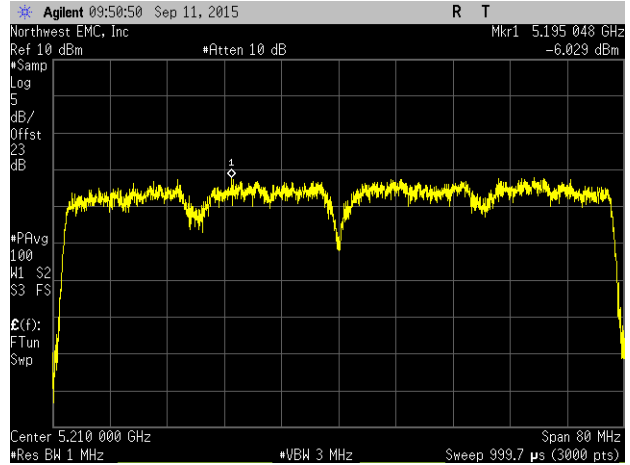
Value (dBm / MHz)	-6.535
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High  
Channel 5230 MHz



Value (dBm / MHz)	-5.484
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low  
Channel 5755 MHz

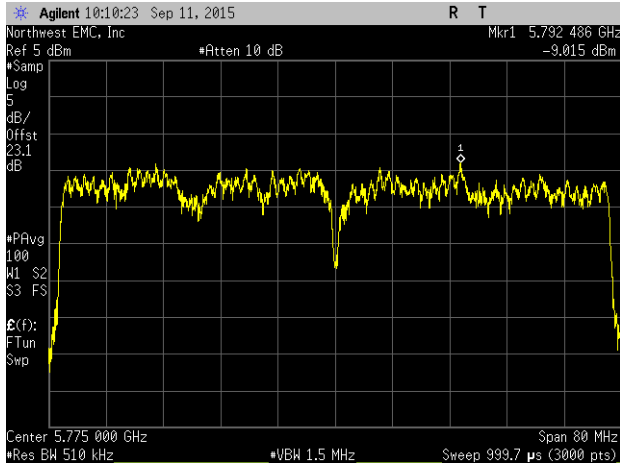


Value (dBm / MHz)	-6.029
Limit (dBm / Ref BW)	11
Results	Pass



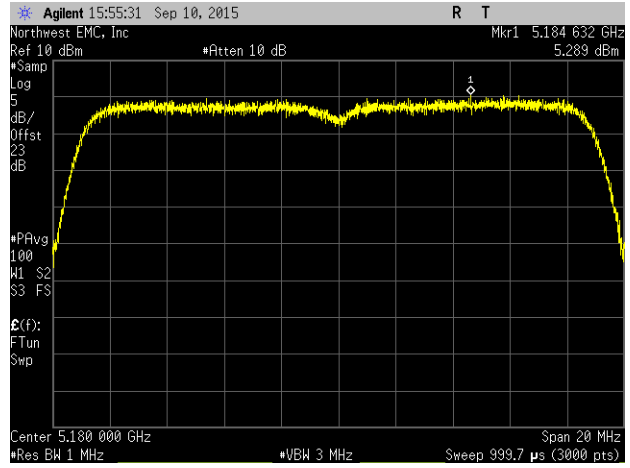
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High Channel 5795 MHz



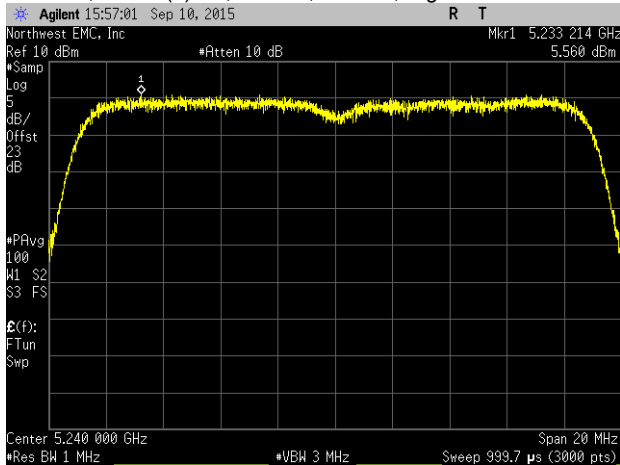
Value (dBm / MHz)	-9.015
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS16, 20 MHz, Low Channel 5180 MHz



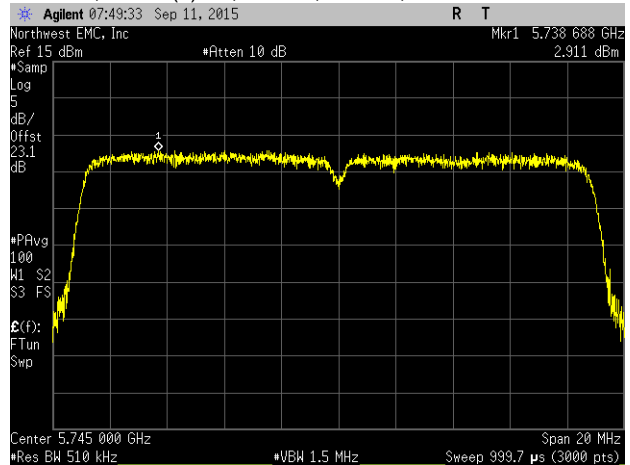
Value (dBm / MHz)	5.289
Limit (dBm / Ref BW)	11
Results	Pass

Chain A, 802.11(n) HT, MCS16, 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	5.56
Limit (dBm / Ref BW)	11
Results	Pass

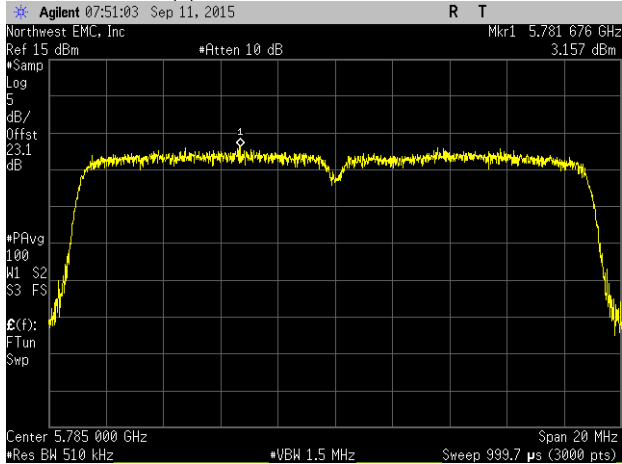
Chain A, 802.11(n) HT, MCS16, 20 MHz, Low Channel 5745 MHz



Value (dBm / MHz)	2.911
Limit (dBm / Ref BW)	30
Results	Pass

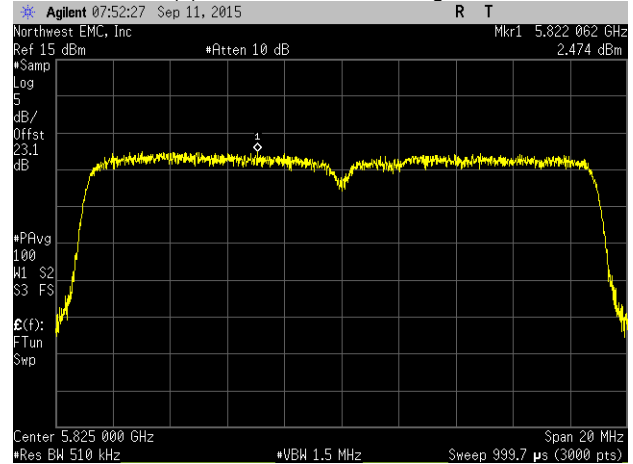
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(n) HT, MCS16, 20 MHz, Mid Channel 5785 MHz



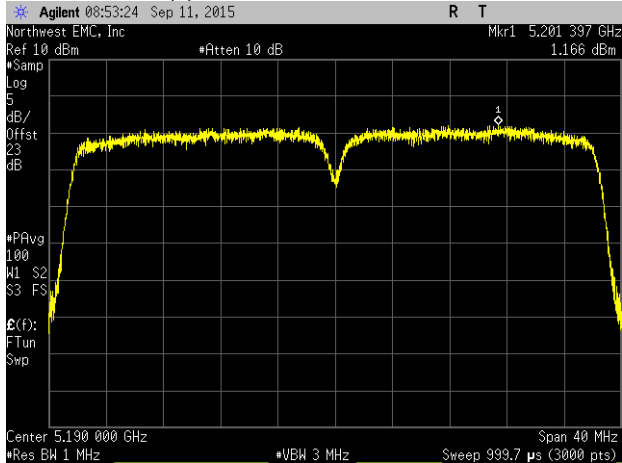
Value (dBm / MHz)	3.157
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS16, 20 MHz, High Channel 5825 MHz



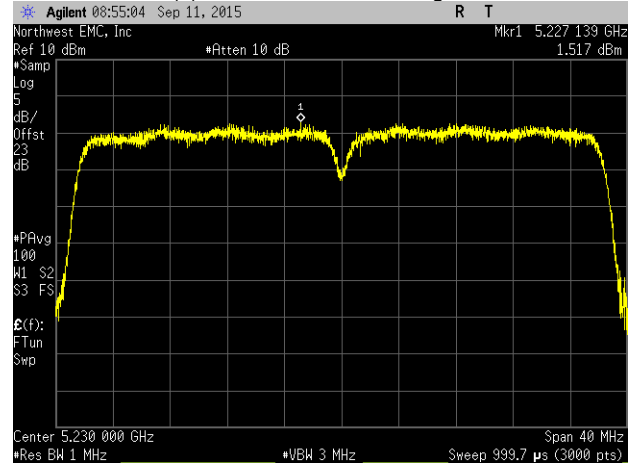
Value (dBm / MHz)	2.474
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS16, 40 MHz, Low Channel 5190 MHz



Value (dBm / MHz)	1.166
Limit (dBm / Ref BW)	11
Results	Pass

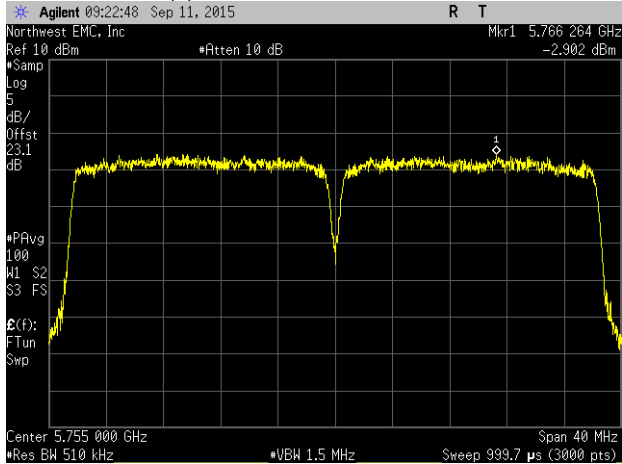
Chain A, 802.11(n) HT, MCS16, 40 MHz, High Channel 5230 MHz



Value (dBm / MHz)	1.517
Limit (dBm / Ref BW)	11
Results	Pass

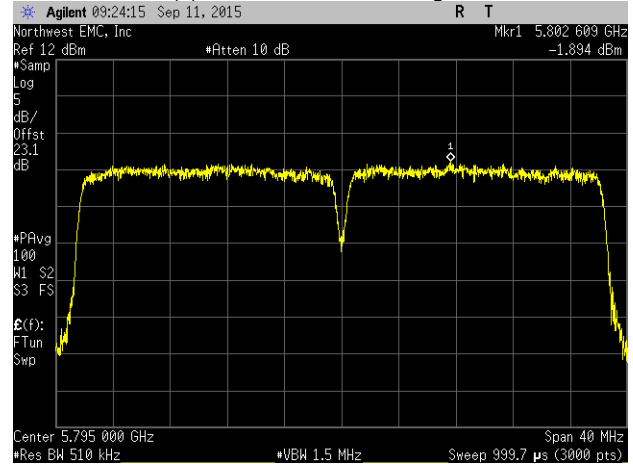
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(n) HT, MCS16, 40 MHz, Low Channel 5755 MHz



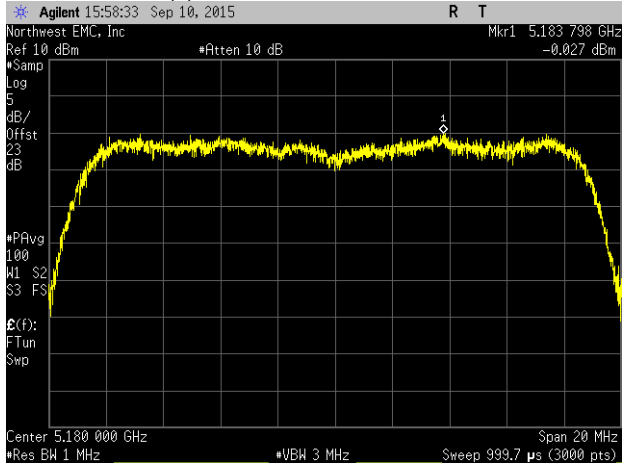
Value (dBm / MHz)	-2.902
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS16, 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-1.894
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS23, 20 MHz, Low Channel 5180 MHz



Value (dBm / MHz)	-0.027
Limit (dBm / Ref BW)	11
Results	Pass

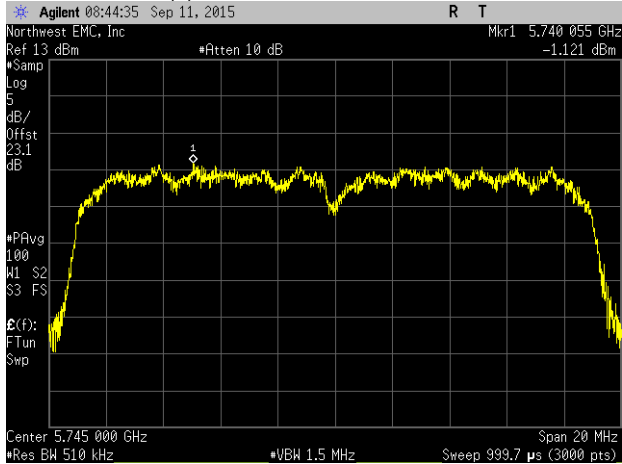
Chain A, 802.11(n) HT, MCS23, 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	0.642
Limit (dBm / Ref BW)	11
Results	Pass

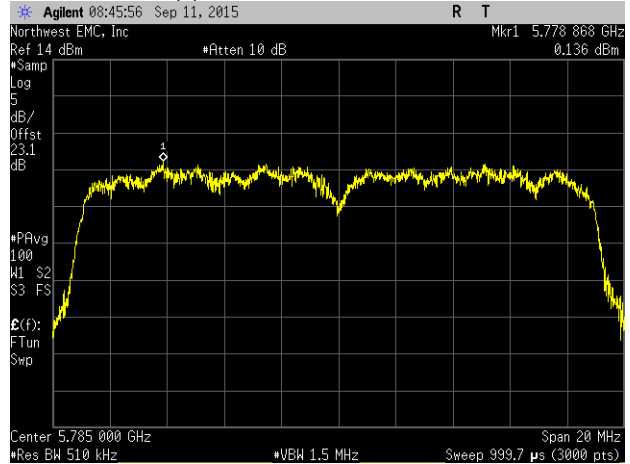
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(n) HT, MCS23, 20 MHz, Low Channel 5745 MHz



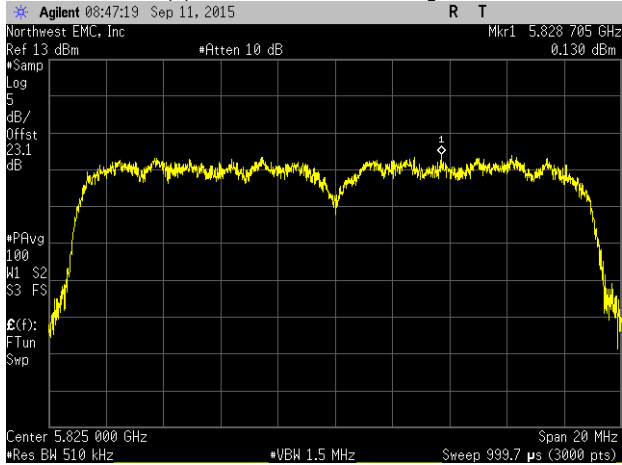
Value (dBm / MHz)	-1.121
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS23, 20 MHz, Mid Channel 5785 MHz



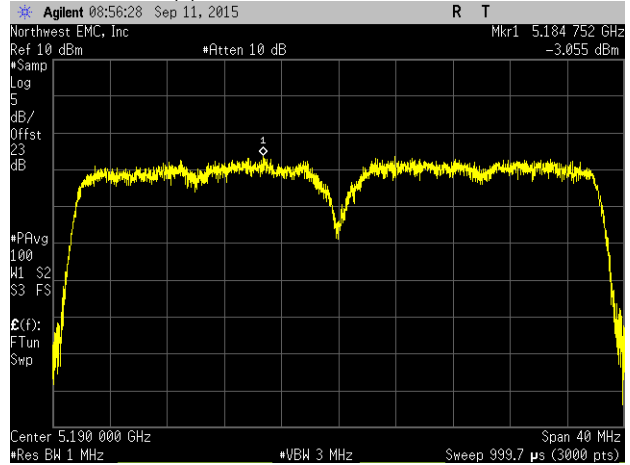
Value (dBm / MHz)	0.136
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS23, 20 MHz, High Channel 5825 MHz



Value (dBm / MHz)	0.13
Limit (dBm / Ref BW)	30
Results	Pass

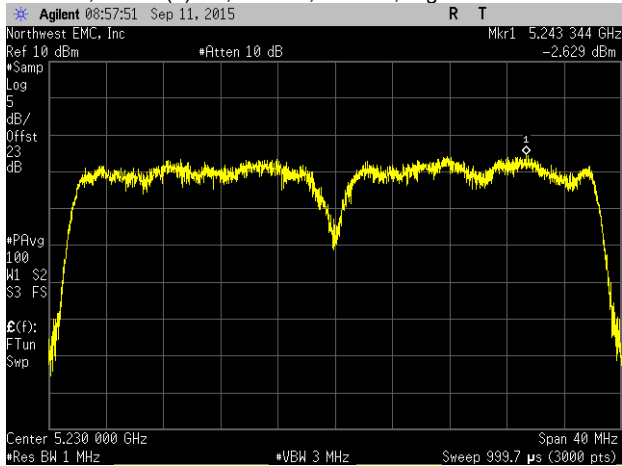
Chain A, 802.11(n) HT, MCS23, 40 MHz, Low Channel 5190 MHz



Value (dBm / MHz)	-3.055
Limit (dBm / Ref BW)	11
Results	Pass

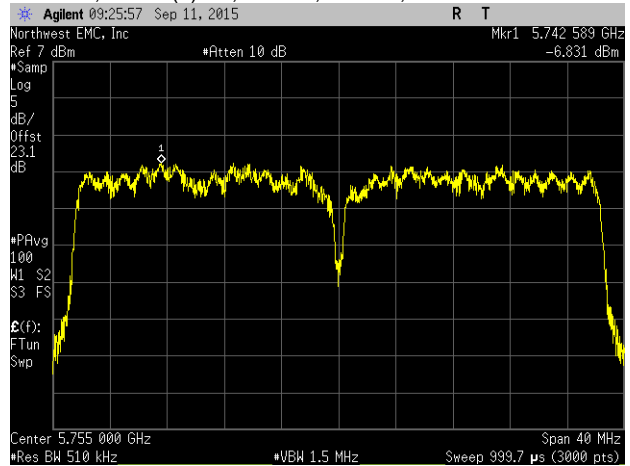
# MAXIMUM POWER SPECTRAL DENSITY

Chain A, 802.11(n) HT, MCS23, 40 MHz, High Channel 5230 MHz



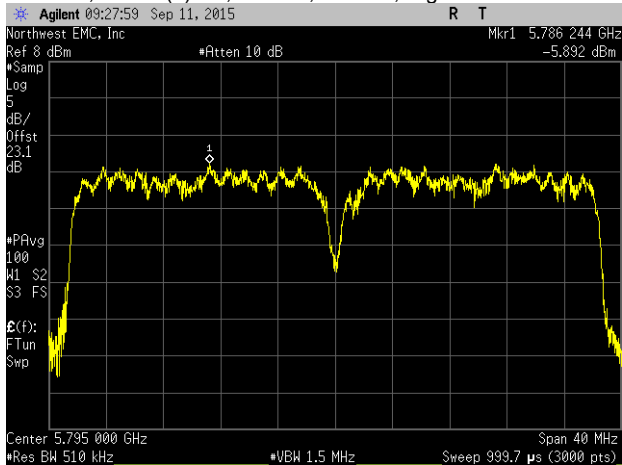
Value (dBm / MHz)	-2.629
Limit (dBm / Ref BW)	11
Results	Pass

Chain A, 802.11(n) HT, MCS23, 40 MHz, Low Channel 5755 MHz



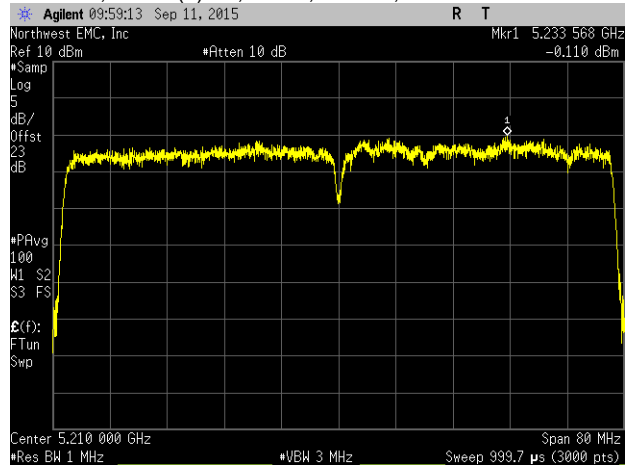
Value (dBm / MHz)	-6.831
Limit (dBm / Ref BW)	30
Results	Pass

Chain A, 802.11(n) HT, MCS23, 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-5.892
Limit (dBm / Ref BW)	30
Results	Pass

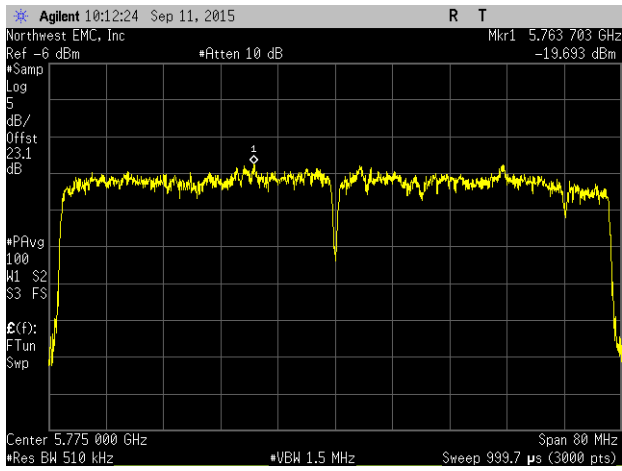
Chain B, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5210 MHz



Value (dBm / MHz)	-0.11
Limit (dBm / Ref BW)	11
Results	Pass

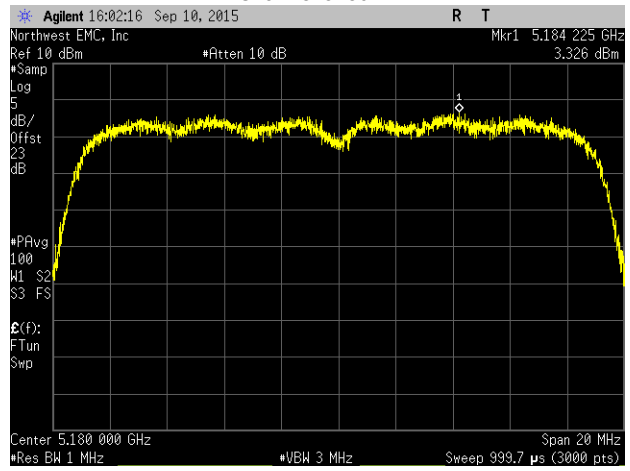
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5775 MHz



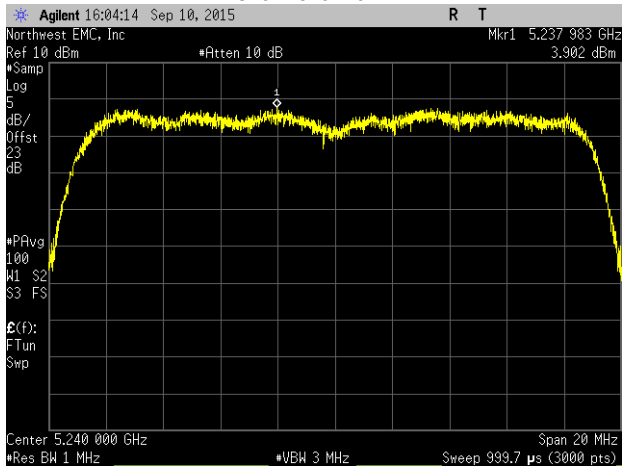
Value (dBm / MHz)	-19.693
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low Channel 5180 MHz



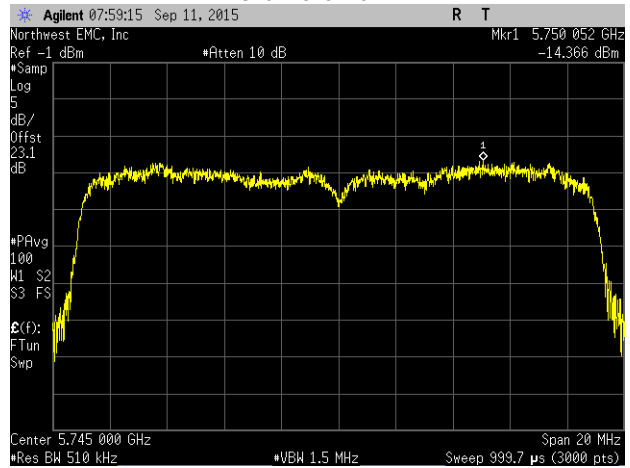
Value (dBm / MHz)	3.326
Limit (dBm / Ref BW)	11
Results	Pass

Chain B, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	3.902
Limit (dBm / Ref BW)	11
Results	Pass

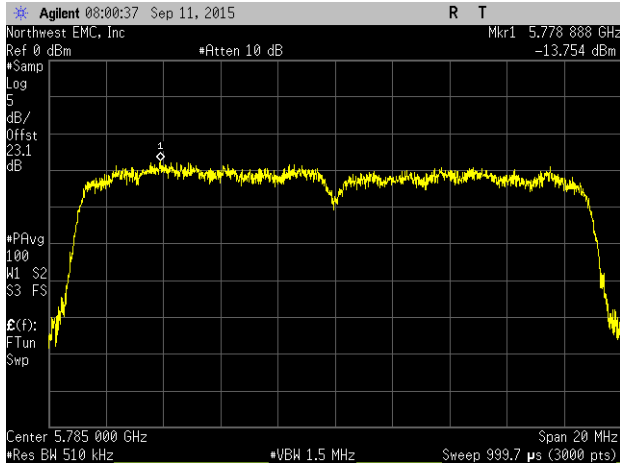
Chain B, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low Channel 5745 MHz



Value (dBm / MHz)	-14.366
Limit (dBm / Ref BW)	30
Results	Pass

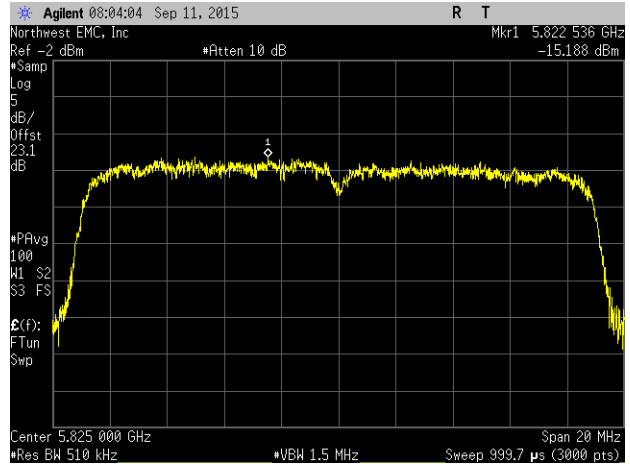
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Mid Channel 5785 MHz



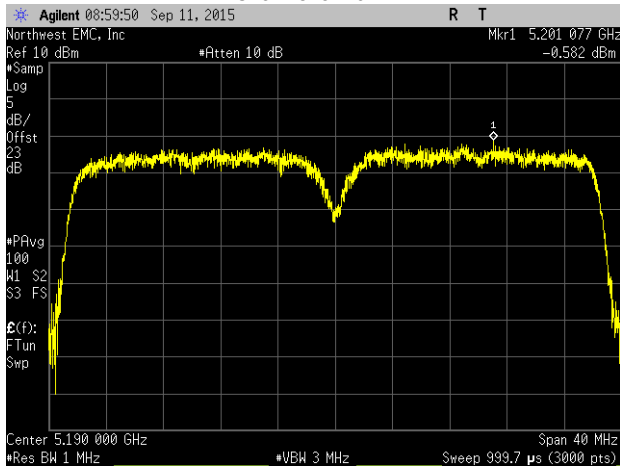
Value (dBm / MHz)	-13.754
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High Channel 5825 MHz



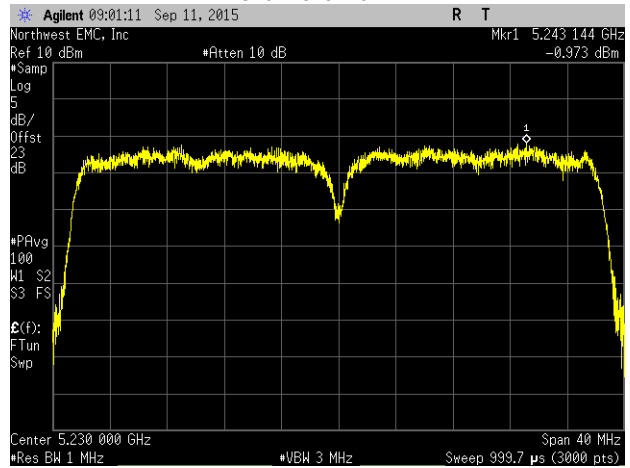
Value (dBm / MHz)	-15.188
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low Channel 5210 MHz



Value (dBm / MHz)	-0.582
Limit (dBm / Ref BW)	11
Results	Pass

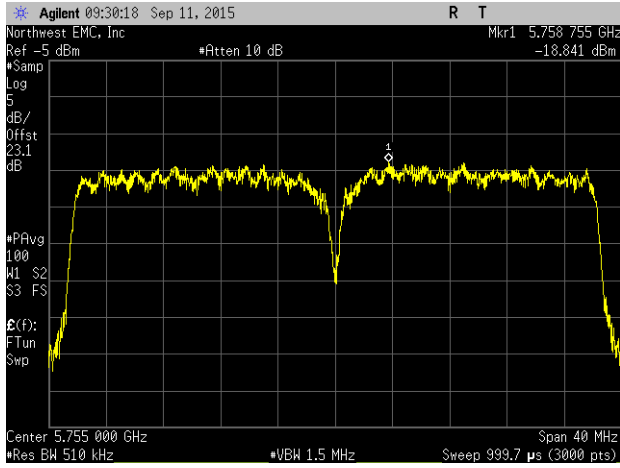
Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low Channel 5775 MHz



Value (dBm / MHz)	-0.973
Limit (dBm / Ref BW)	11
Results	Pass

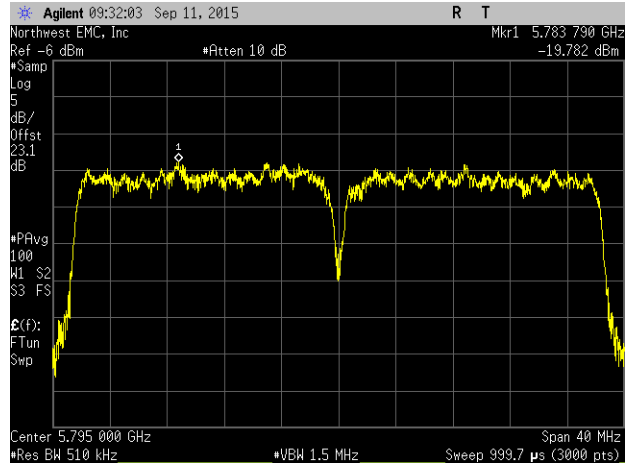
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low  
Channel 5190 MHz



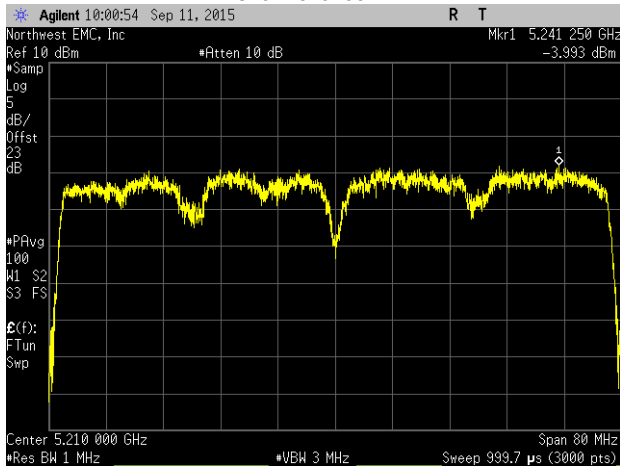
Value (dBm / MHz)	-18.841
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High  
Channel 5230 MHz



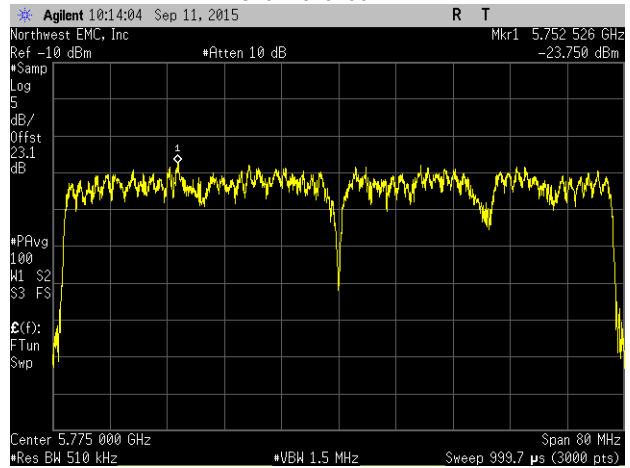
Value (dBm / MHz)	-19.782
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low  
Channel 5755 MHz



Value (dBm / MHz)	-3.993
Limit (dBm / Ref BW)	11
Results	Pass

Chain B, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High  
Channel 5795 MHz

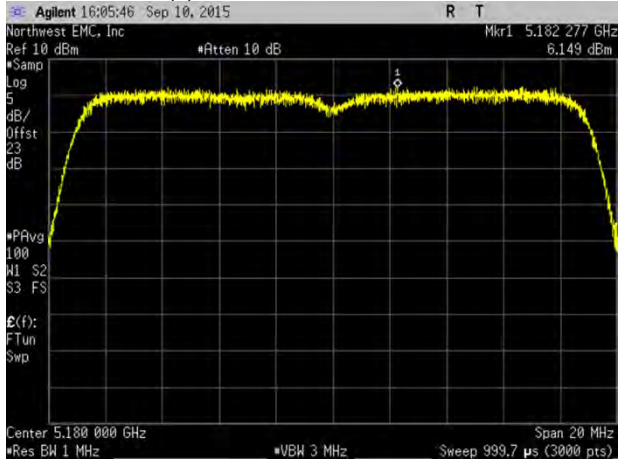


Value (dBm / MHz)	-23.75
Limit (dBm / Ref BW)	30
Results	Pass



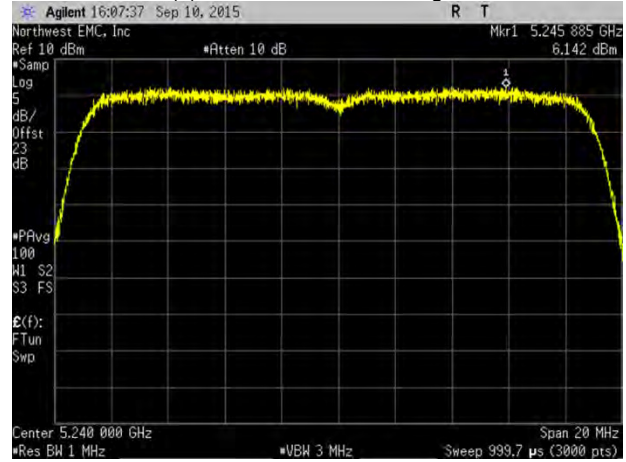
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(n) HT, MCS16, 20 MHz, Low Channel 5180 MHz



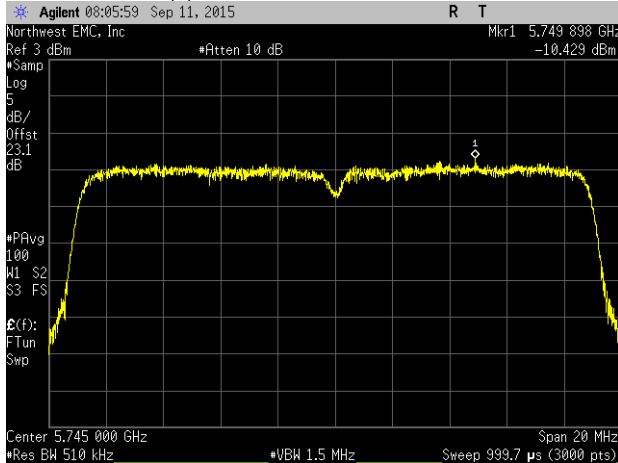
Value (dBm / MHz)	6.149
Limit (dBm / Ref BW)	11
Results	Pass

Chain B, 802.11(n) HT, MCS16, 20 MHz, High Channel 5240 MHz



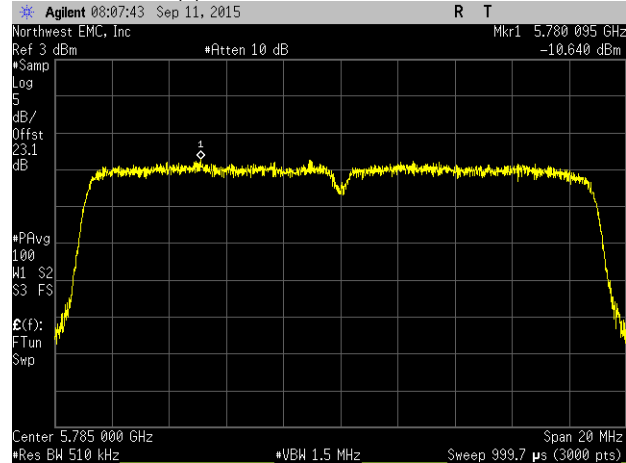
Value (dBm / MHz)	6.142
Limit (dBm / Ref BW)	11
Results	Pass

Chain B, 802.11(n) HT, MCS16, 20 MHz, Low Channel 5745 MHz



Value (dBm / MHz)	-10.429
Limit (dBm / Ref BW)	30
Results	Pass

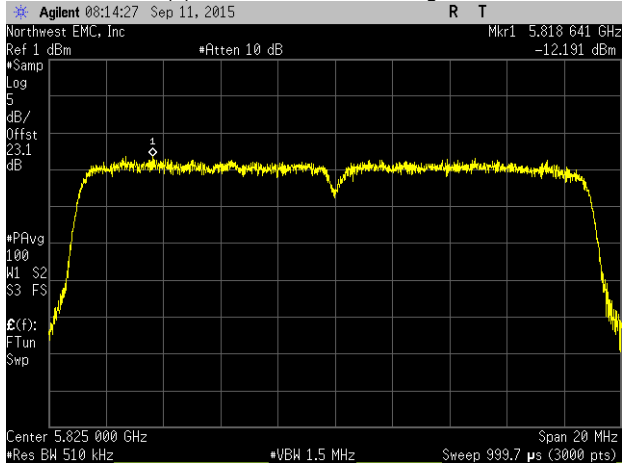
Chain B, 802.11(n) HT, MCS16, 20 MHz, Mid Channel 5785 MHz



Value (dBm / MHz)	-10.64
Limit (dBm / Ref BW)	30
Results	Pass

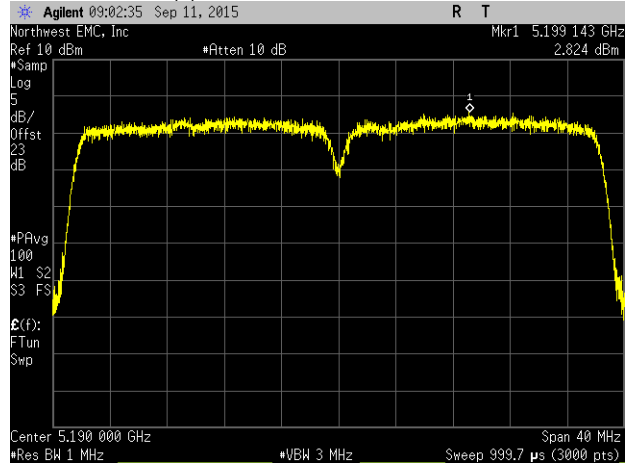
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(n) HT, MCS16, 20 MHz, High Channel 5825 MHz



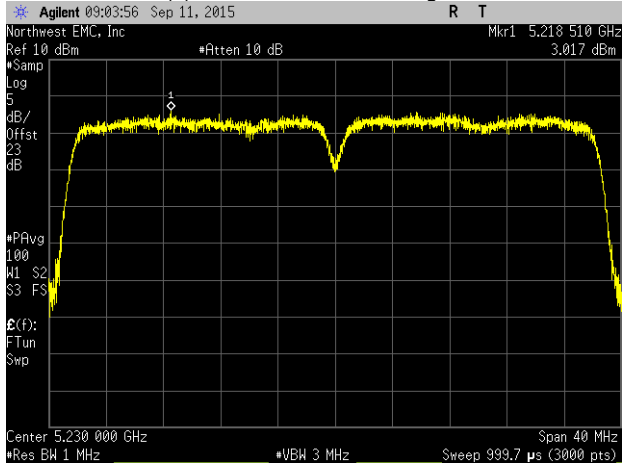
Value (dBm / MHz)	-12.191
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS16, 40 MHz, Low Channel 5190 MHz



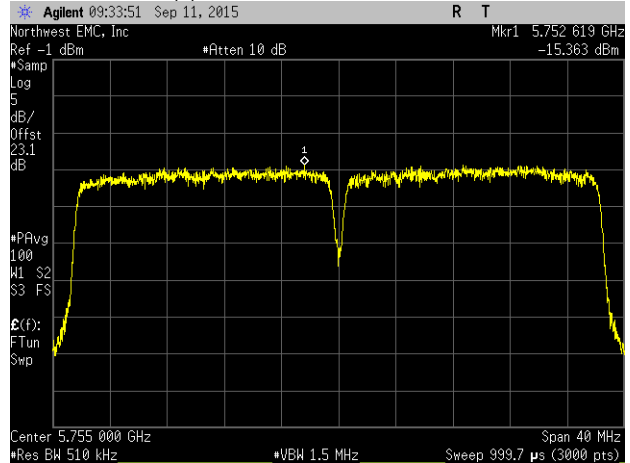
Value (dBm / MHz)	2.824
Limit (dBm / Ref BW)	11
Results	Pass

Chain B, 802.11(n) HT, MCS16, 40 MHz, High Channel 5230 MHz



Value (dBm / MHz)	3.017
Limit (dBm / Ref BW)	11
Results	Pass

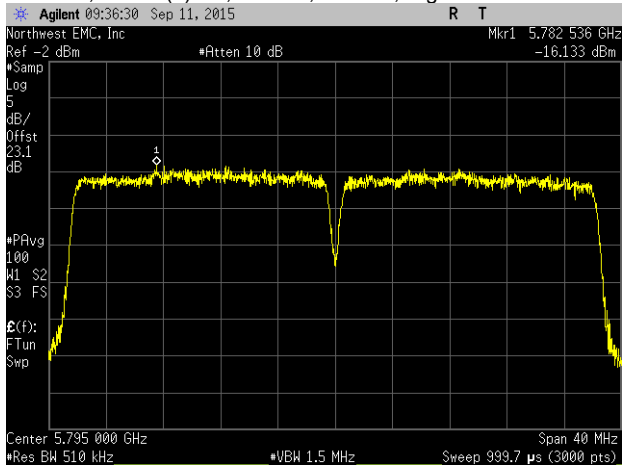
Chain B, 802.11(n) HT, MCS16, 40 MHz, Low Channel 5755 MHz



Value (dBm / MHz)	-15.363
Limit (dBm / Ref BW)	30
Results	Pass

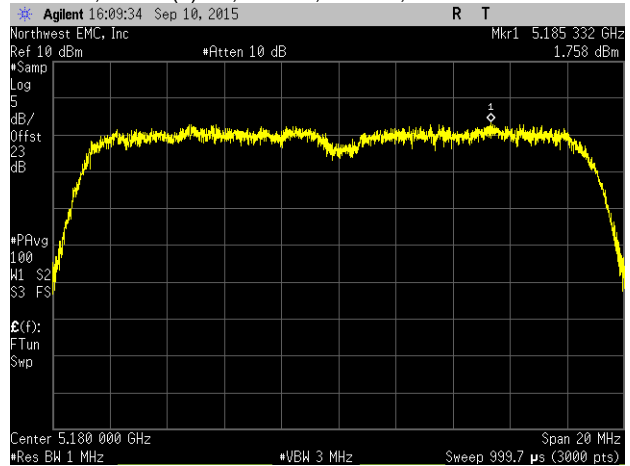
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(n) HT, MCS16, 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-16.133
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS23, 20 MHz, Low Channel 5180 MHz



Value (dBm / MHz)	1.758
Limit (dBm / Ref BW)	11
Results	Pass

Chain B, 802.11(n) HT, MCS23, 20 MHz, High Channel 5240 MHz



Value (dBm / MHz)	2.188
Limit (dBm / Ref BW)	11
Results	Pass

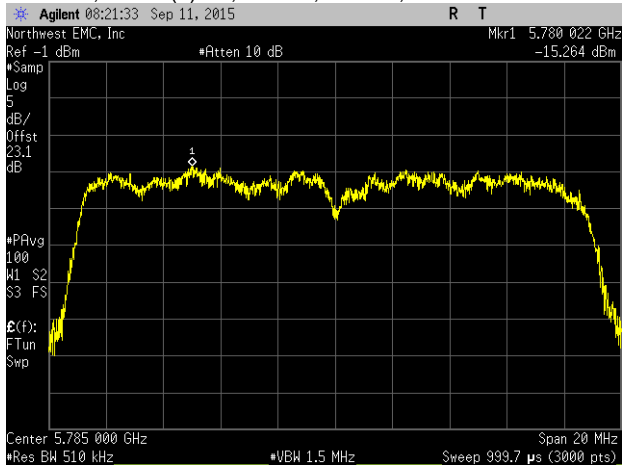
Chain B, 802.11(n) HT, MCS23, 20 MHz, Low Channel 5745 MHz



Value (dBm / MHz)	-15.688
Limit (dBm / Ref BW)	30
Results	Pass

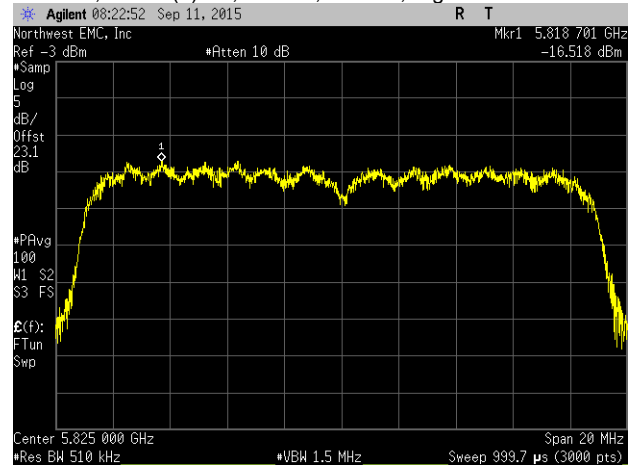
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(n) HT, MCS23, 20 MHz, Mid Channel 5785 MHz



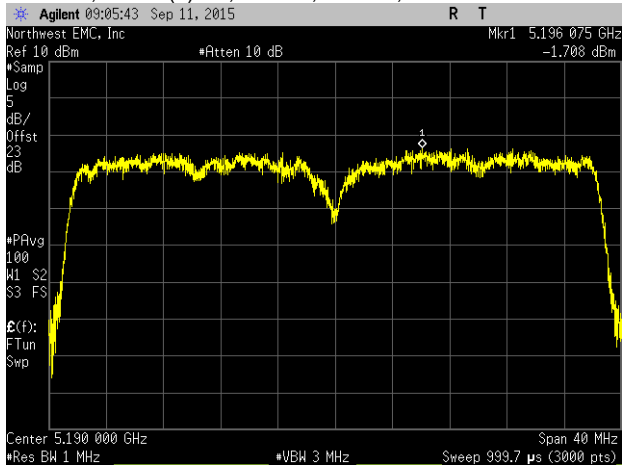
Value (dBm / MHz)	-15.264
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS23, 20 MHz, High Channel 5825 MHz



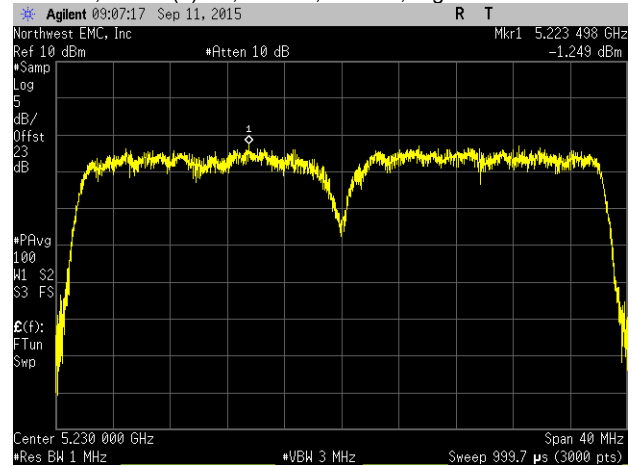
Value (dBm / MHz)	-16.518
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS23, 40 MHz, Low Channel 5190 MHz



Value (dBm / MHz)	-1.708
Limit (dBm / Ref BW)	11
Results	Pass

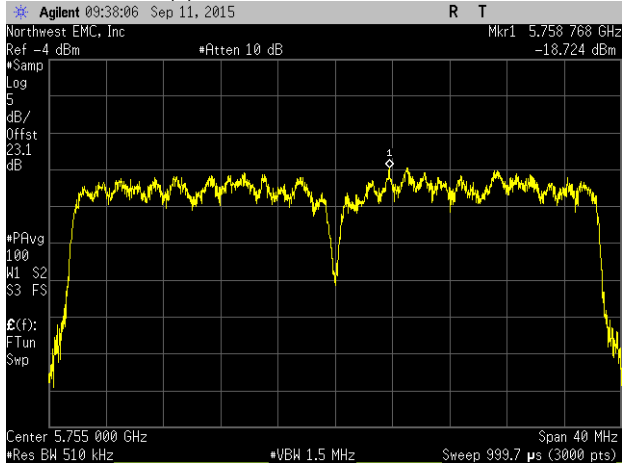
Chain B, 802.11(n) HT, MCS23, 40 MHz, High Channel 5230 MHz



Value (dBm / MHz)	-1.249
Limit (dBm / Ref BW)	11
Results	Pass

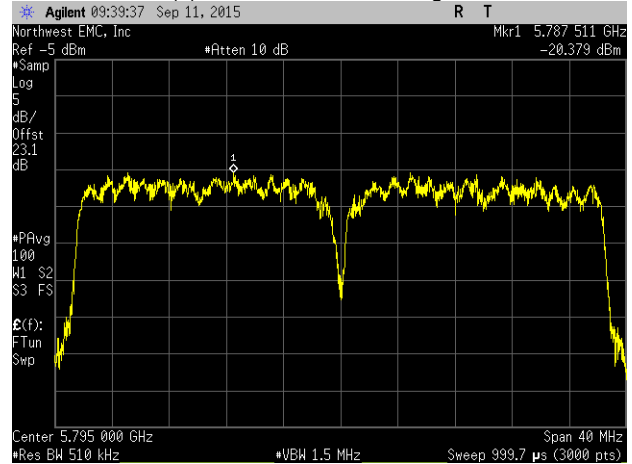
# MAXIMUM POWER SPECTRAL DENSITY

Chain B, 802.11(n) HT, MCS23, 40 MHz, Low Channel 5755 MHz



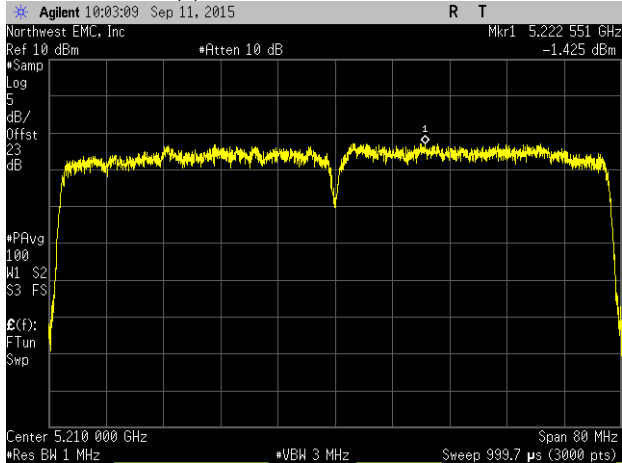
Value (dBm / MHz)	-18.724
Limit (dBm / Ref BW)	30
Results	Pass

Chain B, 802.11(n) HT, MCS23, 40 MHz, High Channel 5795 MHz



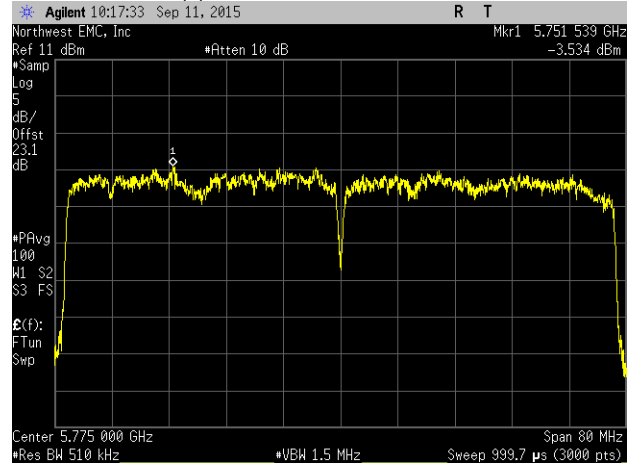
Value (dBm / MHz)	-20.379
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5210 MHz



Value (dBm / MHz)	-1.425
Limit (dBm / Ref BW)	11
Results	Pass

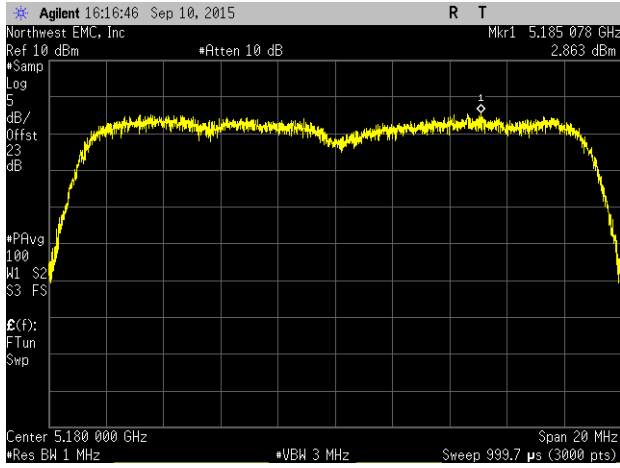
Chain C, 802.11(n) HT, MCS0, 80 MHz, Low Channel 5775 MHz



Value (dBm / MHz)	-3.534
Limit (dBm / Ref BW)	30
Results	Pass

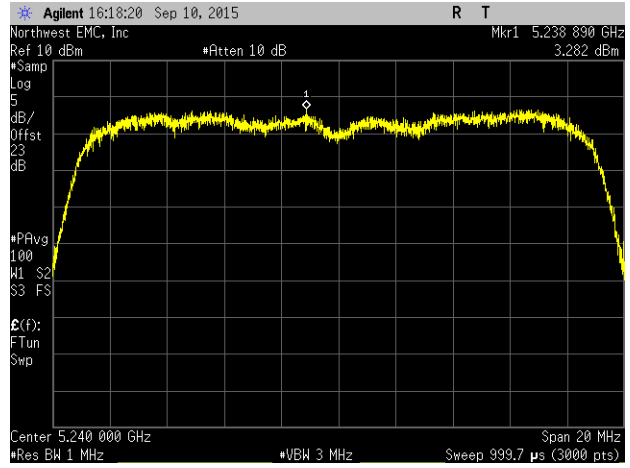
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low  
Channel 5180 MHz



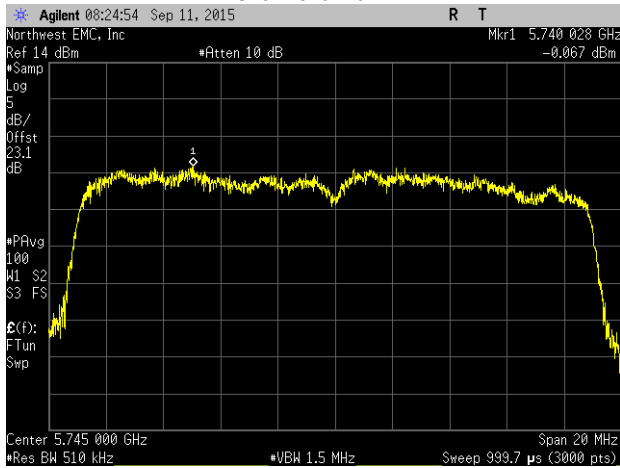
Value (dBm / MHz)	2.863
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High  
Channel 5240 MHz



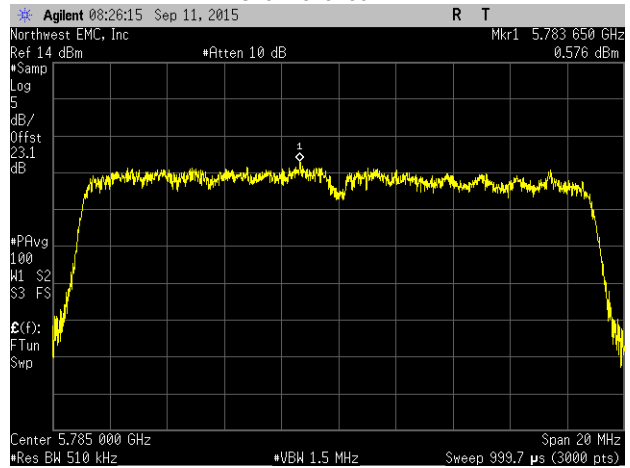
Value (dBm / MHz)	3.282
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Low  
Channel 5745 MHz



Value (dBm / MHz)	-0.067
Limit (dBm / Ref BW)	30
Results	Pass

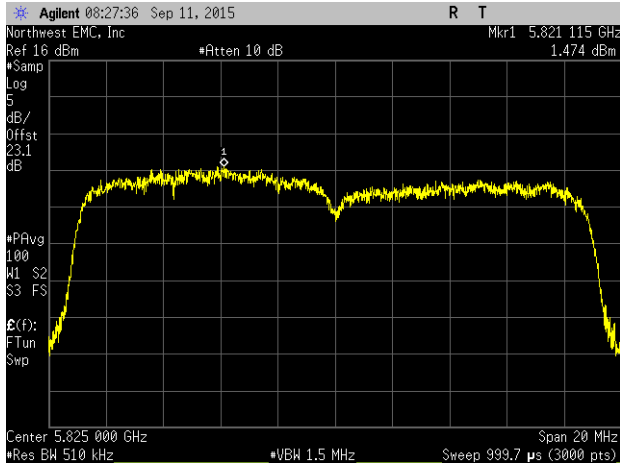
Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, Mid  
Channel 5785 MHz



Value (dBm / MHz)	0.576
Limit (dBm / Ref BW)	30
Results	Pass

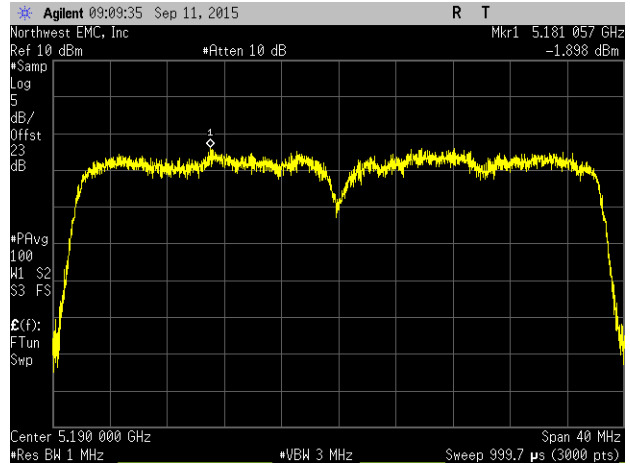
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(ac) VHT, MCS8 (256-QAM), 20 MHz, High  
Channel 5825 MHz



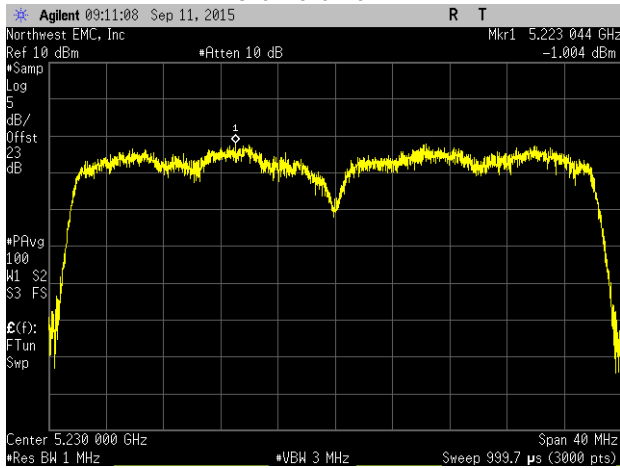
Value (dBm / MHz)	1.474
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5210 MHz



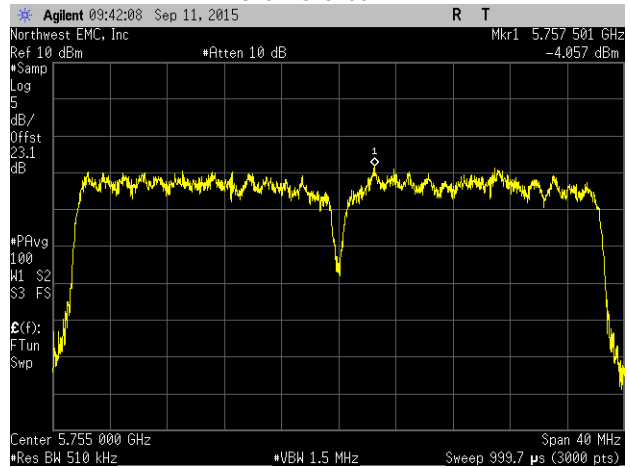
Value (dBm / MHz)	-1.898
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 80 MHz, Low  
Channel 5775 MHz



Value (dBm / MHz)	-1.004
Limit (dBm / Ref BW)	11
Results	Pass

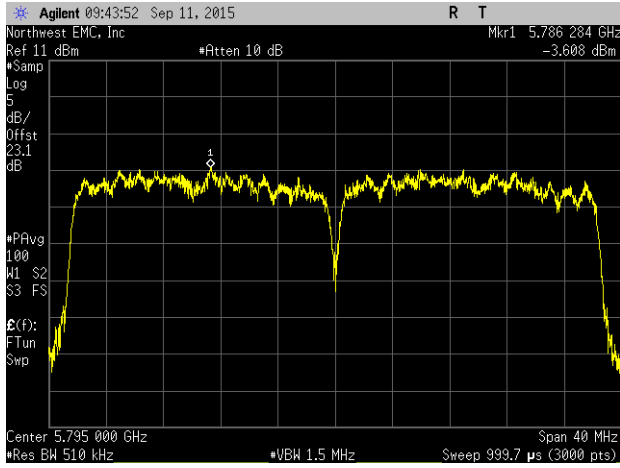
Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low  
Channel 5190 MHz



Value (dBm / MHz)	-4.057
Limit (dBm / Ref BW)	30
Results	Pass

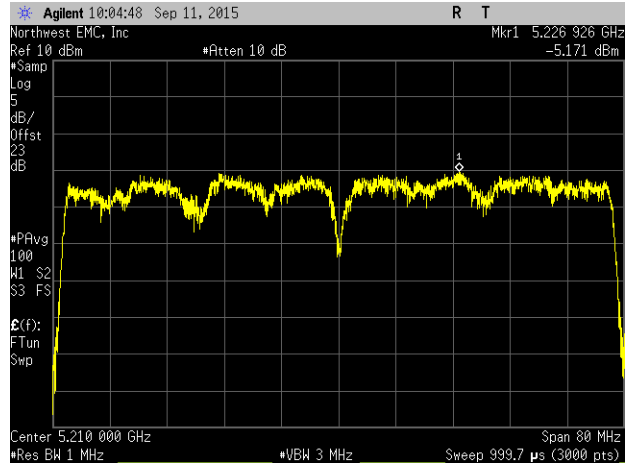
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High Channel 5230 MHz



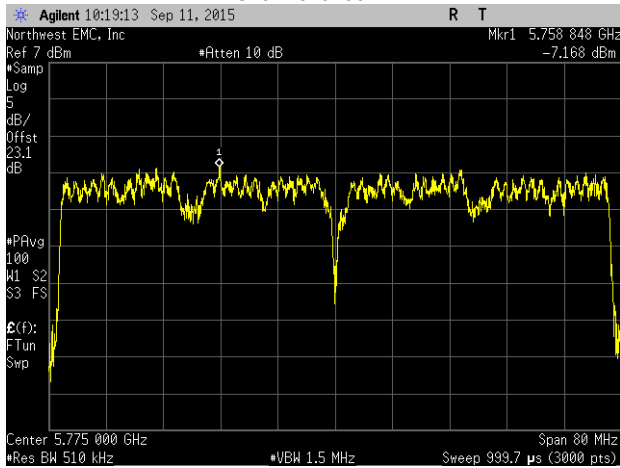
Value (dBm / MHz)	-3.608
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, Low Channel 5755 MHz



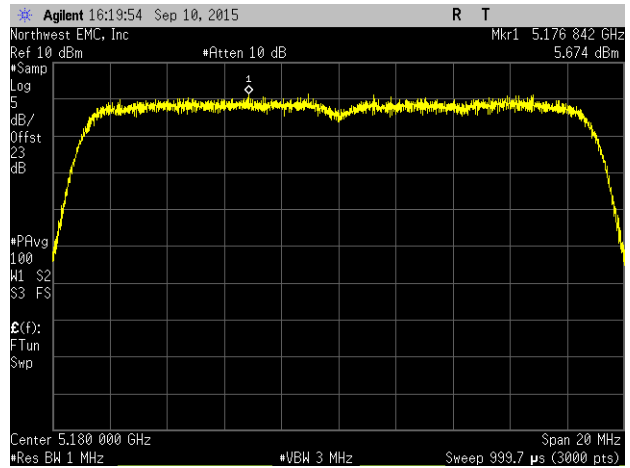
Value (dBm / MHz)	-5.171
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(ac) VHT, MCS9 (256-QAM), 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-7.168
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS16, 20 MHz, Low Channel 5180 MHz

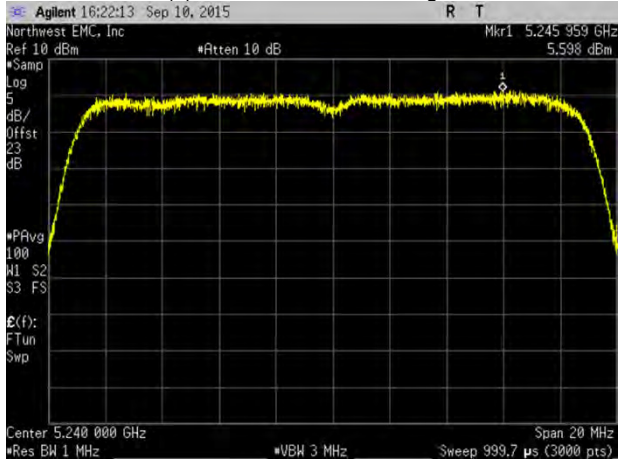


Value (dBm / MHz)	5.674
Limit (dBm / Ref BW)	11
Results	Pass



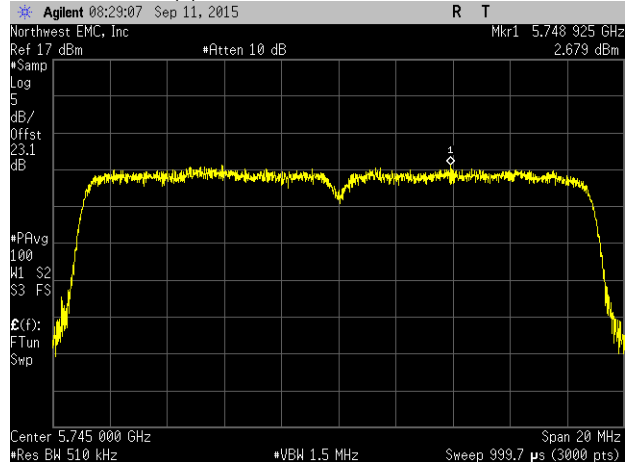
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS16, 20 MHz, High Channel 5240 MHz



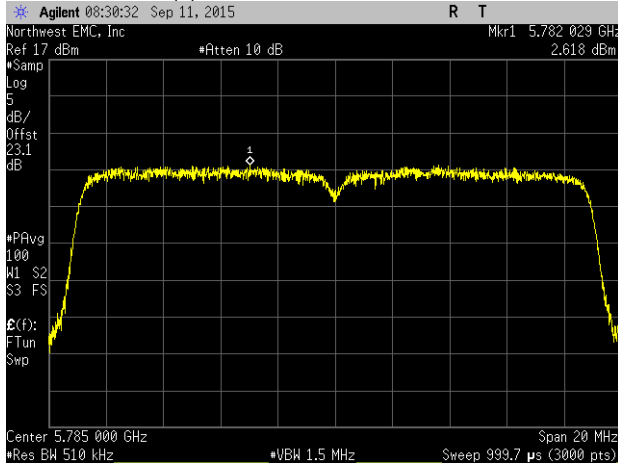
Value (dBm / MHz)	5.598
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(n) HT, MCS16, 20 MHz, Low Channel 5745 MHz



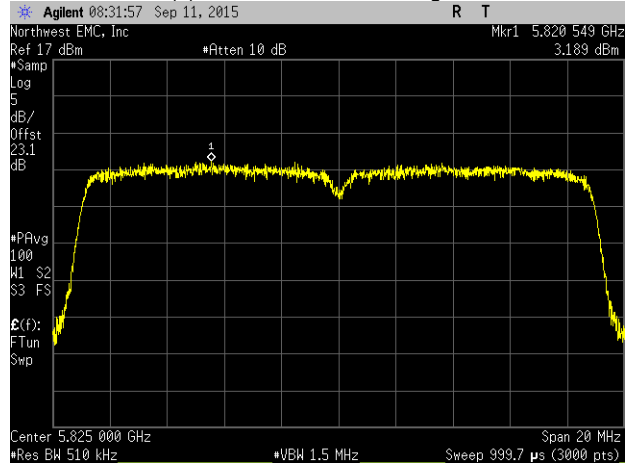
Value (dBm / MHz)	2.679
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS16, 20 MHz, Mid Channel 5785 MHz



Value (dBm / MHz)	2.618
Limit (dBm / Ref BW)	30
Results	Pass

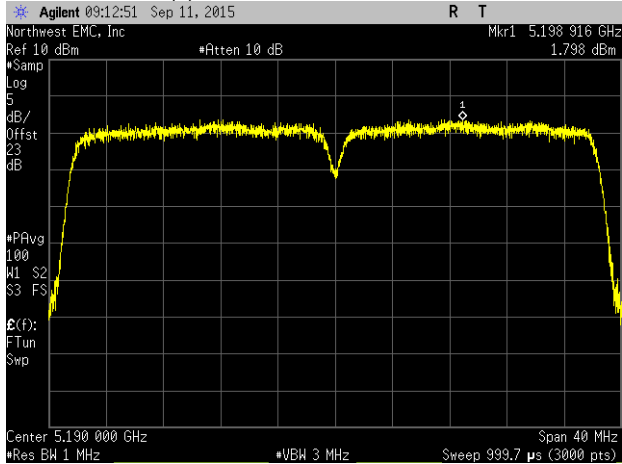
Chain C, 802.11(n) HT, MCS16, 20 MHz, High Channel 5825 MHz



Value (dBm / MHz)	3.189
Limit (dBm / Ref BW)	30
Results	Pass

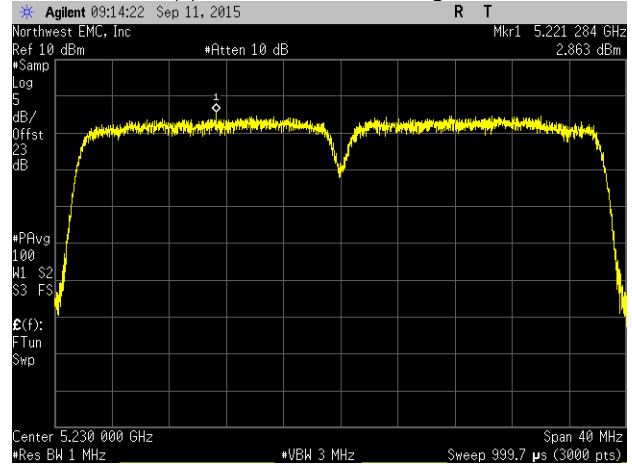
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS16, 40 MHz, Low Channel 5190 MHz



Value (dBm / MHz)	1.798
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(n) HT, MCS16, 40 MHz, High Channel 5230 MHz



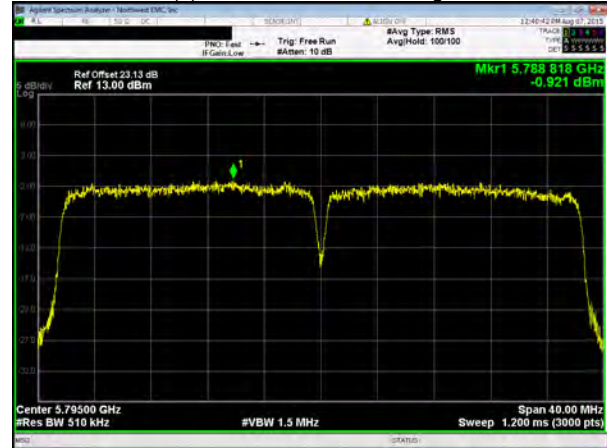
Value (dBm / MHz)	2.863
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(n) HT, MCS16, 40 MHz, Low Channel 5755 MHz



Value (dBm / MHz)	-0.788
Limit (dBm / Ref BW)	30
Results	Pass

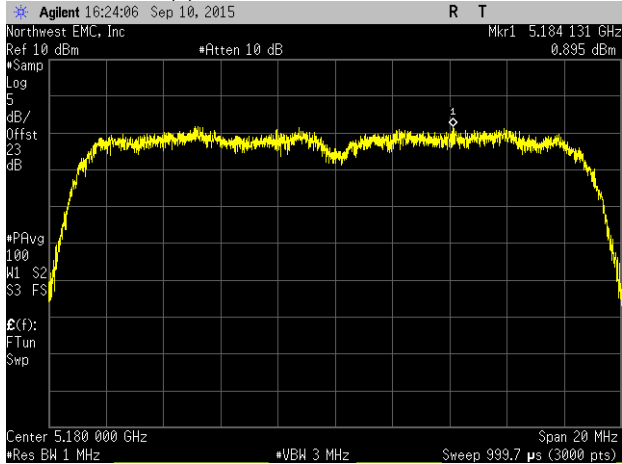
Chain C, 802.11(n) HT, MCS16, 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-0.921
Limit (dBm / Ref BW)	30
Results	Pass

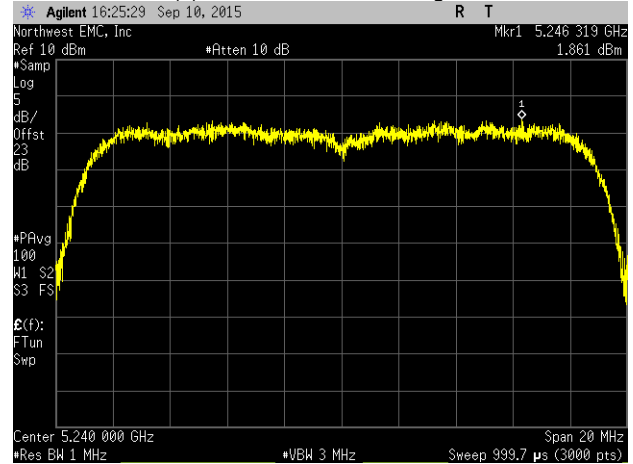
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS23, 20 MHz, Low Channel 5180 MHz



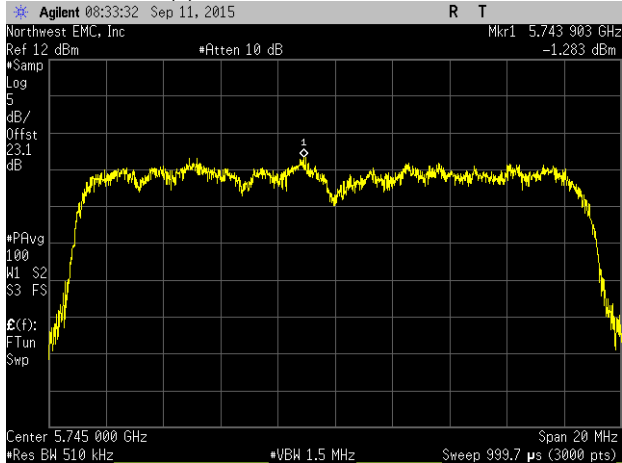
Value (dBm / MHz)	0.895
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(n) HT, MCS23, 20 MHz, High Channel 5240 MHz



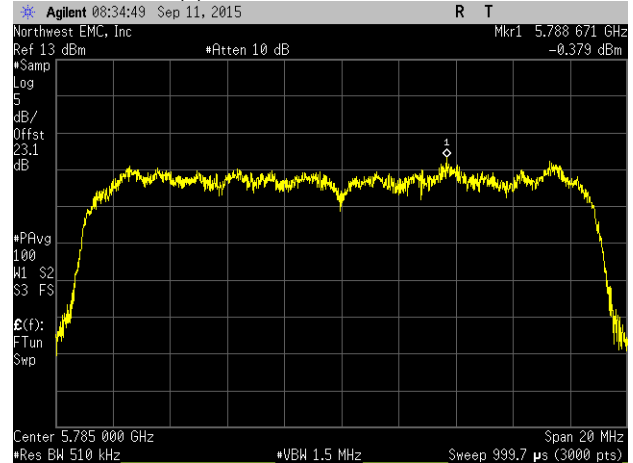
Value (dBm / MHz)	1.861
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(n) HT, MCS23, 20 MHz, Low Channel 5745 MHz



Value (dBm / MHz)	-1.283
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS23, 20 MHz, Mid Channel 5785 MHz



Value (dBm / MHz)	-0.379
Limit (dBm / Ref BW)	30
Results	Pass

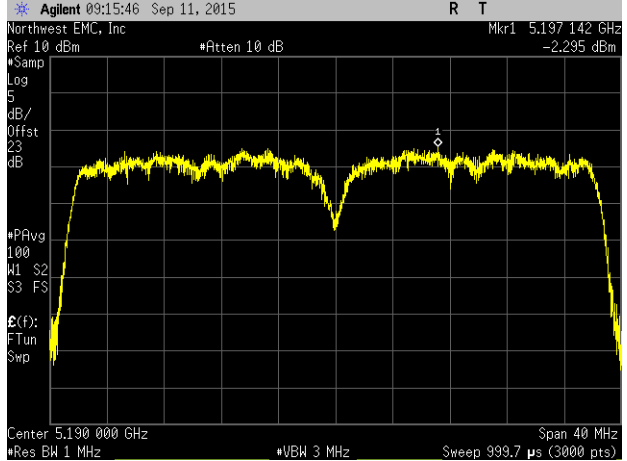
# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS23, 20 MHz, High Channel 5825 MHz



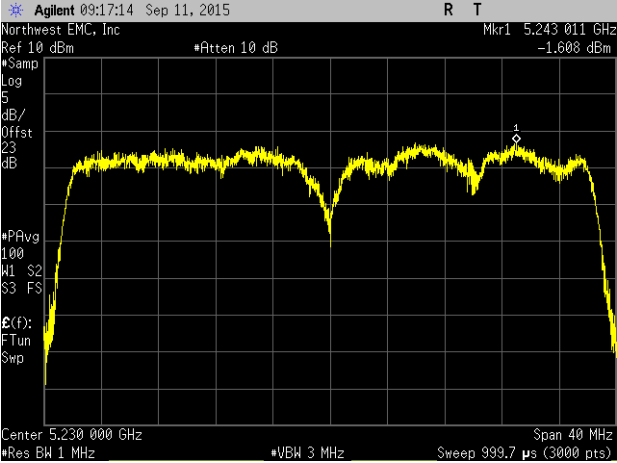
Value (dBm / MHz)	-1.5
Limit (dBm / Ref BW)	30
Results	Pass

Chain C, 802.11(n) HT, MCS23, 40 MHz, Low Channel 5190 MHz



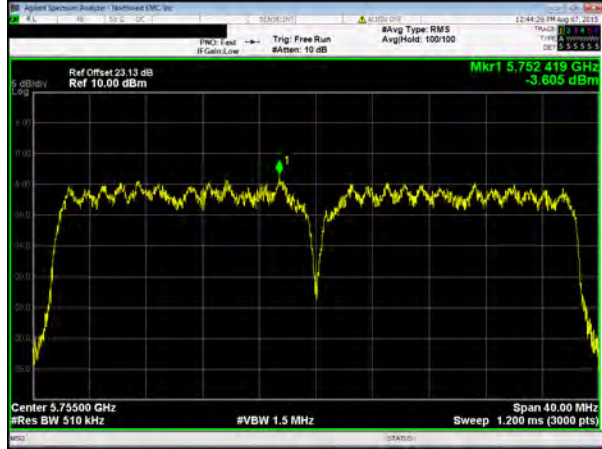
Value (dBm / MHz)	-2.295
Limit (dBm / Ref BW)	11
Results	Pass

Chain C, 802.11(n) HT, MCS23, 40 MHz, High Channel 5230 MHz



Value (dBm / MHz)	-1.608
Limit (dBm / Ref BW)	11
Results	Pass

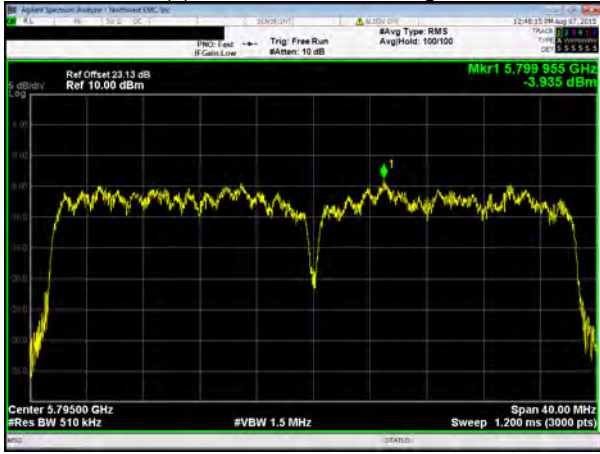
Chain C, 802.11(n) HT, MCS23, 40 MHz, Low Channel 5755 MHz



Value (dBm / MHz)	-3.605
Limit (dBm / Ref BW)	30
Results	Pass

# MAXIMUM POWER SPECTRAL DENSITY

Chain C, 802.11(n) HT, MCS23, 40 MHz, High Channel 5795 MHz



Value (dBm / MHz)	-3.935
Limit (dBm / Ref BW)	30
Results	Pass

# MAXIMUM POWER SPECTRAL DENSITY

