



Microsoft Corporation

Model 1631

FCC 15.407:2014

FCC 15.207:2014

Report #: MCSO1698.2 PART 2 OF 4



Report Prepared By Northwest EMC Inc.

NORTHWEST EMC – (888) 364-2378 – www.nwemc.com

California – Minnesota – Oregon – New York – Washington

EMISSION BANDWIDTH

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 EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo.)
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24

TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures were followed.

The transmit frequencies and data rates listed in the datasheet were measured in each band utilized by the radio. The transmit power was set to its default maximum.

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.

The spectrum analyzer settings were as follows:

- RBW = Approx. 1% of the emission bandwidth (B). This was an iterative process to determine the RBW based on the emissions bandwidth (B).
- VBW= > RBW
- A peak detector was used
- Trace max hold.

The spectrum analyzer occupied bandwidth measurement function was then used to measure 26 dB emission bandwidth.

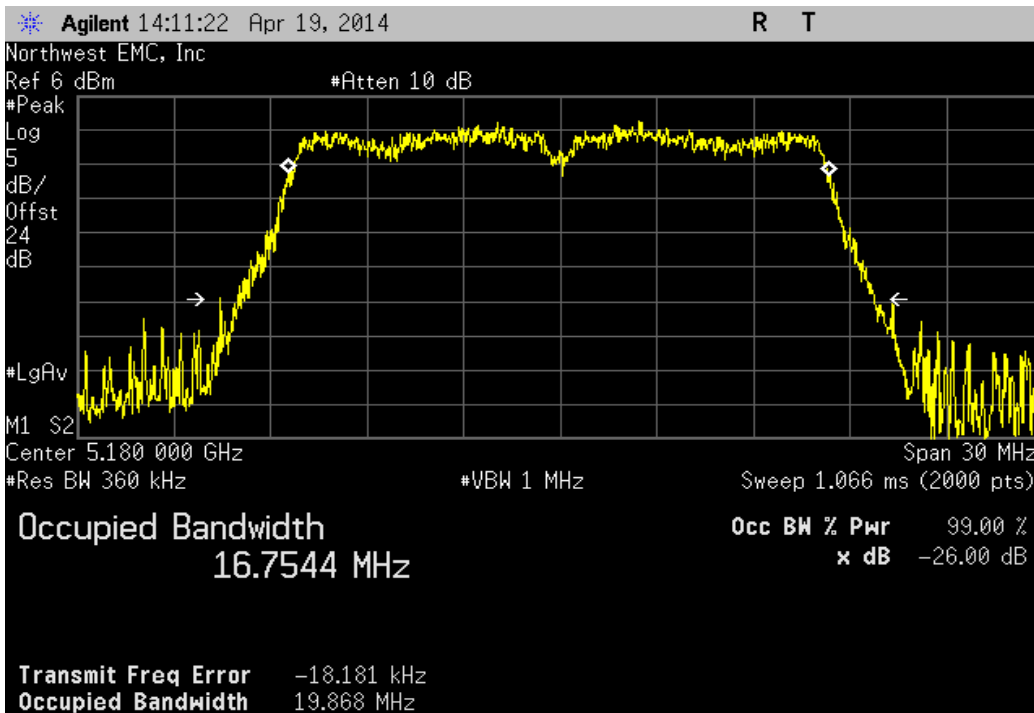
There is no required limit to be met in the rule part for this test. The purpose of the test is to both report the results as required by

EUT: Model 1631		Work Order: MCSO1698
Serial Number: 006840341053		Date: 04/23/14
Customer: Microsoft Corporation		Temperature: 22.3°C
Attendees: None		Humidity: 32%
Project: None		Barometric Pres.: 1014
Tested by: Jared Ison	Power: 110VAC/60Hz	Job Site: EV06
TEST SPECIFICATIONS		Test Method
FCC 15.407:2014		ANSI C63.10:2009
COMMENTS		
Modes of operation tested were client provided.		
DEVIATIONS FROM TEST STANDARD		
None		
Configuration #	6	Signature 
		Value Limit Result
IEEE 802.11(a)		
20 MHz		
6 Mbps		
Ch. 36, Low Channel 5180MHz	19.868 MHz	> 500 kHz Pass
Ch. 48, High Channel 5240 MHz	20.289 MHz	> 500 kHz Pass
Ch. 52, Low Channel 5260 MHz	20.137 MHz	> 500 kHz Pass
Ch. 64, High Channel 5320 MHz	19.664 MHz	> 500 kHz Pass
Ch. 100, Low Channel 5500 MHz	19.659 MHz	> 500 kHz Pass
Ch. 116, Mid Channel 5580 MHz	20.052 MHz	> 500 kHz Pass
Ch. 140, High Channel 5700 MHz	19.939 MHz	> 500 kHz Pass
36 Mbps		
Ch. 36, Low Channel 5180MHz	20.186 MHz	> 500 kHz Pass
Ch. 48, High Channel 5240 MHz	19.803 MHz	> 500 kHz Pass
Ch. 52, Low Channel 5260 MHz	21.088 MHz	> 500 kHz Pass
Ch. 64, High Channel 5320 MHz	20.601 MHz	> 500 kHz Pass
Ch. 100, Low Channel 5500 MHz	19.909 MHz	> 500 kHz Pass
Ch. 116, Mid Channel 5580 MHz	20.008 MHz	> 500 kHz Pass
Ch. 140, High Channel 5700 MHz	19.869 MHz	> 500 kHz Pass
54 Mbps		
Ch. 36, Low Channel 5180MHz	19.703 MHz	> 500 kHz Pass
Ch. 48, High Channel 5240 MHz	19.918 MHz	> 500 kHz Pass
Ch. 52, Low Channel 5260 MHz	20.086 MHz	> 500 kHz Pass
Ch. 64, High Channel 5320 MHz	19.851 MHz	> 500 kHz Pass
Ch. 100, Low Channel 5500 MHz	19.78 MHz	> 500 kHz Pass
Ch. 116, Mid Channel 5580 MHz	20.543 MHz	> 500 kHz Pass
Ch. 140, High Channel 5700 MHz	19.962 MHz	> 500 kHz Pass
IEEE 802.11(n)		
20 MHz		
HT, MCS7		
Ch. 36, Low Channel 5180MHz	19.86 MHz	> 500 kHz Pass
Ch. 48, High Channel 5240 MHz	19.748 MHz	> 500 kHz Pass
Ch. 52, Low Channel 5260 MHz	19.613 MHz	> 500 kHz Pass
Ch. 64, High Channel 5320 MHz	19.872 MHz	> 500 kHz Pass
Ch. 100, Low Channel 5500 MHz	19.876 MHz	> 500 kHz Pass
Ch. 116, Mid Channel 5580 MHz	19.61 MHz	> 500 kHz Pass
Ch. 140, High Channel 5700 MHz	19.718 MHz	> 500 kHz Pass
40 MHz		
HT, MCS7		
Ch. 36/40, Low Channel 5190 MHz	40.948 MHz	> 500 kHz Pass
Ch. 44/48, High Channel 5230 MHz	40.66 MHz	> 500 kHz Pass
Ch. 52/56, Low Channel 5270 MHz	40.588 MHz	> 500 kHz Pass
Ch. 60/64, High Channel 5310 MHz	40.652 MHz	> 500 kHz Pass
Ch. 100/104, Low Channel 5510 MHz	40.842 MHz	> 500 kHz Pass
Ch. 132/136, High Channel 5670 MHz	40.752 MHz	> 500 kHz Pass
IEEE 802.11(ac)		
20 MHz		
VHT, MCS0		
Ch. 36, Low Channel 5180MHz	20.033 MHz	> 500 kHz Pass
Ch. 48, High Channel 5240 MHz	20.083 MHz	> 500 kHz Pass
Ch. 52, Low Channel 5260 MHz	20.192 MHz	> 500 kHz Pass
Ch. 64, High Channel 5320 MHz	20.188 MHz	> 500 kHz Pass
Ch. 100, Low Channel 5500 MHz	20.059 MHz	> 500 kHz Pass
Ch. 116, Mid Channel 5580 MHz	20.184 MHz	> 500 kHz Pass
Ch. 140, High Channel 5700 MHz	20.109 MHz	> 500 kHz Pass
VHT, MCS8		
Ch. 36, Low Channel 5180MHz	19.811 MHz	> 500 kHz Pass
Ch. 48, High Channel 5240 MHz	19.828 MHz	> 500 kHz Pass
Ch. 52, Low Channel 5260 MHz	19.831 MHz	> 500 kHz Pass
Ch. 64, High Channel 5320 MHz	19.94 MHz	> 500 kHz Pass
Ch. 100, Low Channel 5500 MHz	19.788 MHz	> 500 kHz Pass
Ch. 116, Mid Channel 5580 MHz	19.852 MHz	> 500 kHz Pass
Ch. 140, High Channel 5700 MHz	19.747 MHz	> 500 kHz Pass
40 MHz		
VHT, MCS0		
Ch. 36/40, Low Channel 5190 MHz	40.748 MHz	> 500 kHz Pass
Ch. 44/48, High Channel 5230 MHz	40.694 MHz	> 500 kHz Pass
Ch. 52/56, Low Channel 5270 MHz	40.804 MHz	> 500 kHz Pass
Ch. 60/64, High Channel 5310 MHz	40.628 MHz	> 500 kHz Pass
Ch. 100/104, Low Channel 5510 MHz	40.969 MHz	> 500 kHz Pass
Ch. 132/136, High Channel 5670 MHz	40.713 MHz	> 500 kHz Pass
VHT, MCS9		
Ch. 36/40, Low Channel 5190 MHz	40.582 MHz	> 500 kHz Pass
Ch. 44/48, High Channel 5230 MHz	40.842 MHz	> 500 kHz Pass
Ch. 52/56, Low Channel 5270 MHz	40.772 MHz	> 500 kHz Pass
Ch. 60/64, High Channel 5310 MHz	40.952 MHz	> 500 kHz Pass
Ch. 100/104, Low Channel 5510 MHz	41.059 MHz	> 500 kHz Pass
Ch. 132/136, High Channel 5670 MHz	40.633 MHz	> 500 kHz Pass
80 MHz		
VHT, MCS0		

	Ch. 42, Low Channel 5210 MHz	82.073 MHz	> 500 kHz	Pass
	Ch. 58, High Channel 5290 MHz	82.204 MHz	> 500 kHz	Pass
	Ch. 106, Low Channel 5530 MHz	82.667 MHz	> 500 kHz	Pass
VHT, MCS9				
	Ch. 42, Low Channel 5210 MHz	81.847 MHz	> 500 kHz	Pass
	Ch. 58, High Channel 5290 MHz	82.278 MHz	> 500 kHz	Pass
	Ch. 106, Low Channel 5530 MHz	81.52 MHz	> 500 kHz	Pass

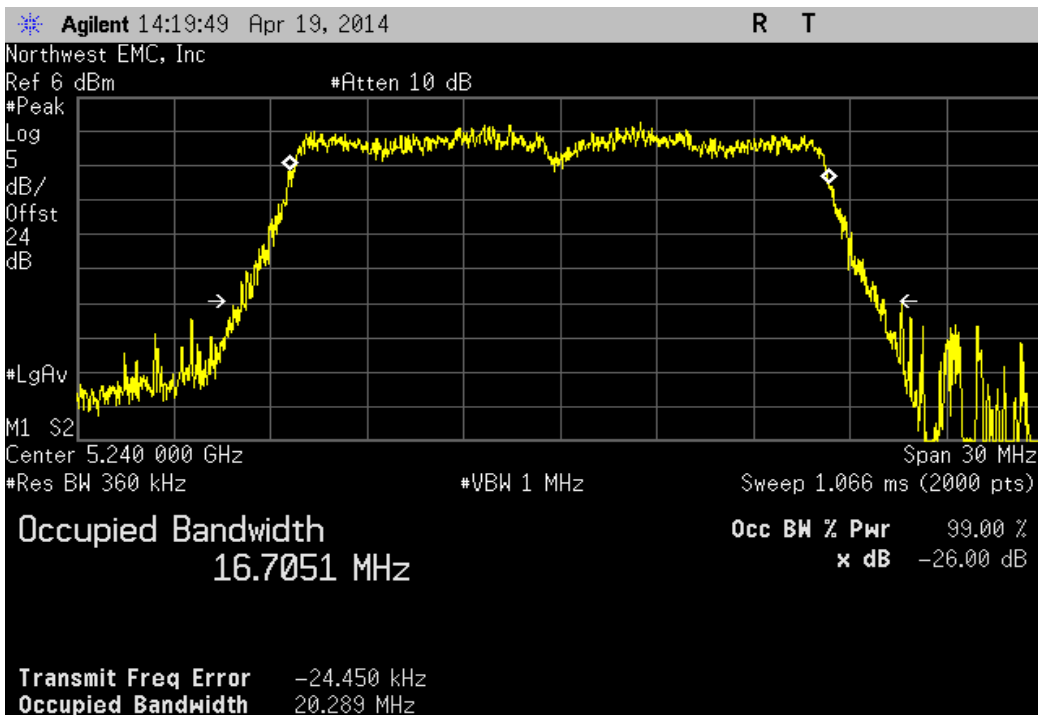
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
19.868 MHz	> 500 kHz	Pass



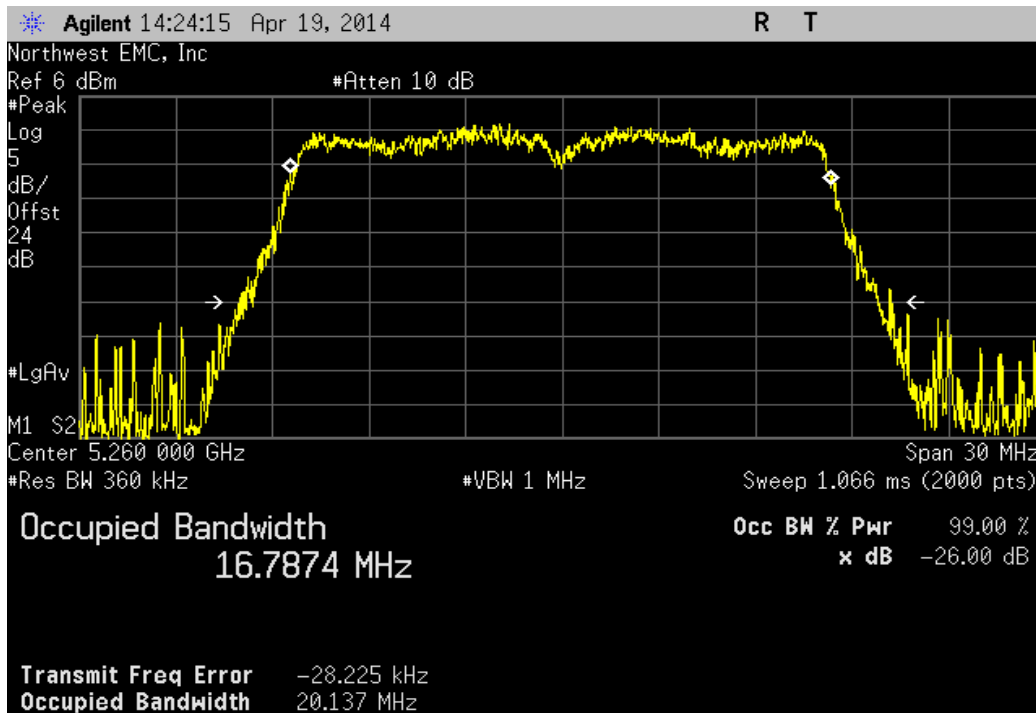
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
20.289 MHz	> 500 kHz	Pass



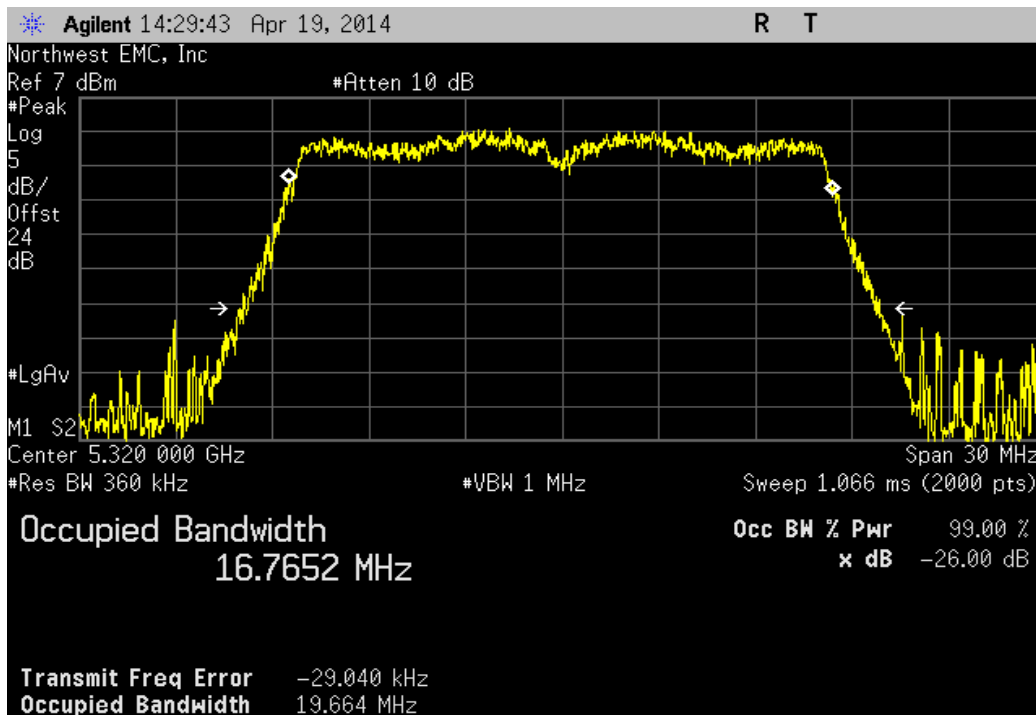
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 52, Low Channel 5260 MHz

				Value	Limit	Result
				20.137 MHz	> 500 kHz	Pass



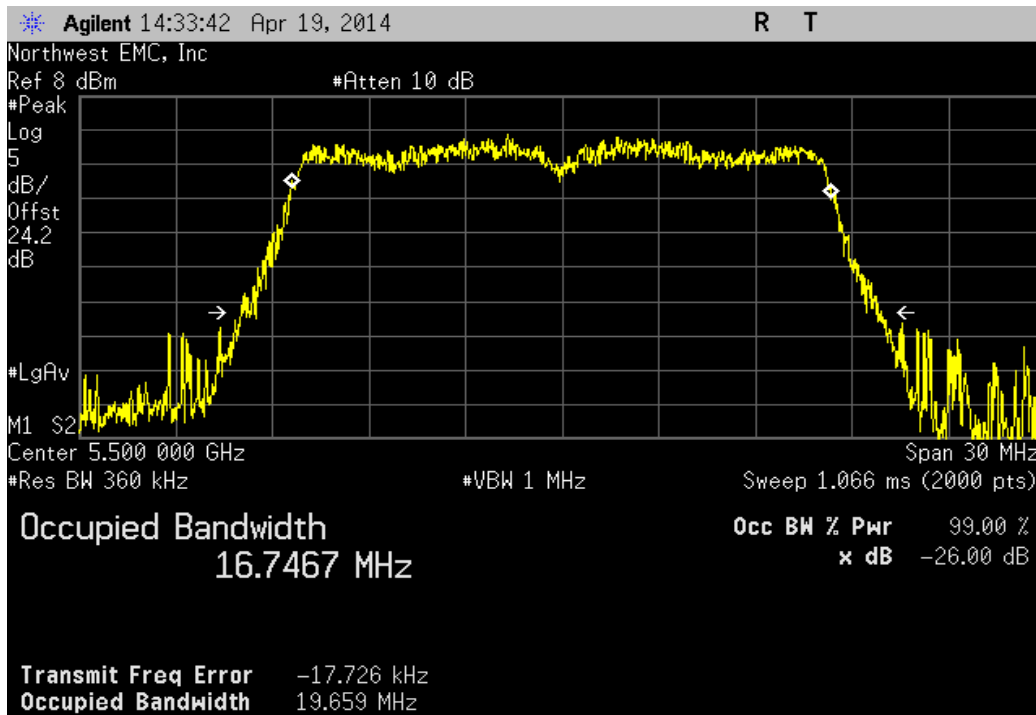
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 64, High Channel 5320 MHz

				Value	Limit	Result
				19.664 MHz	> 500 kHz	Pass



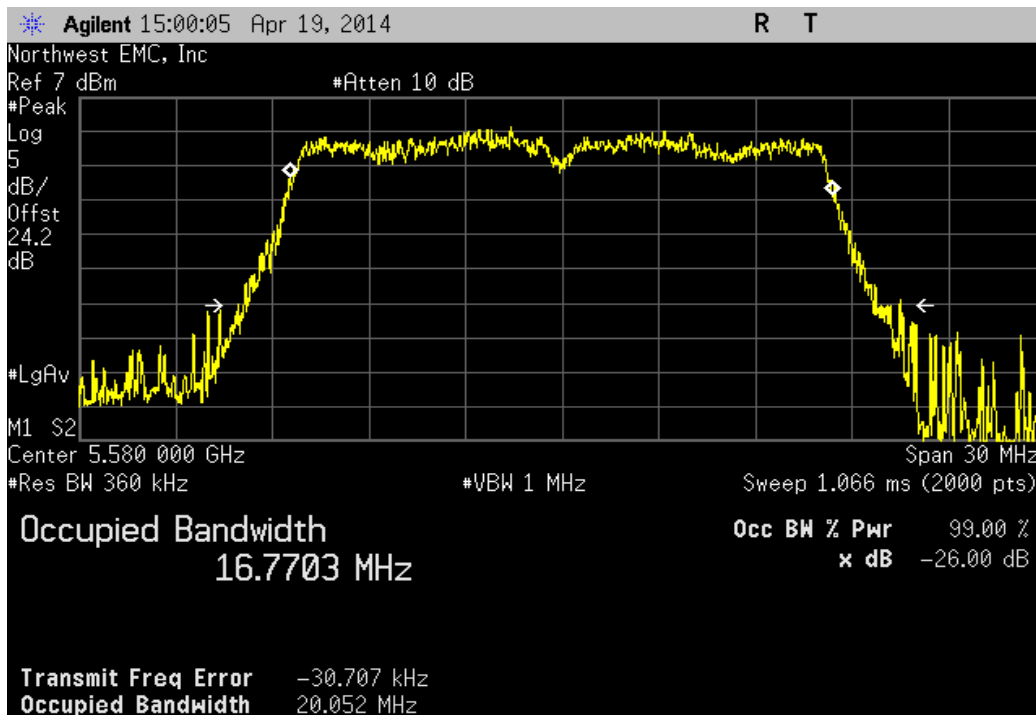
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
19.659 MHz	> 500 kHz	Pass



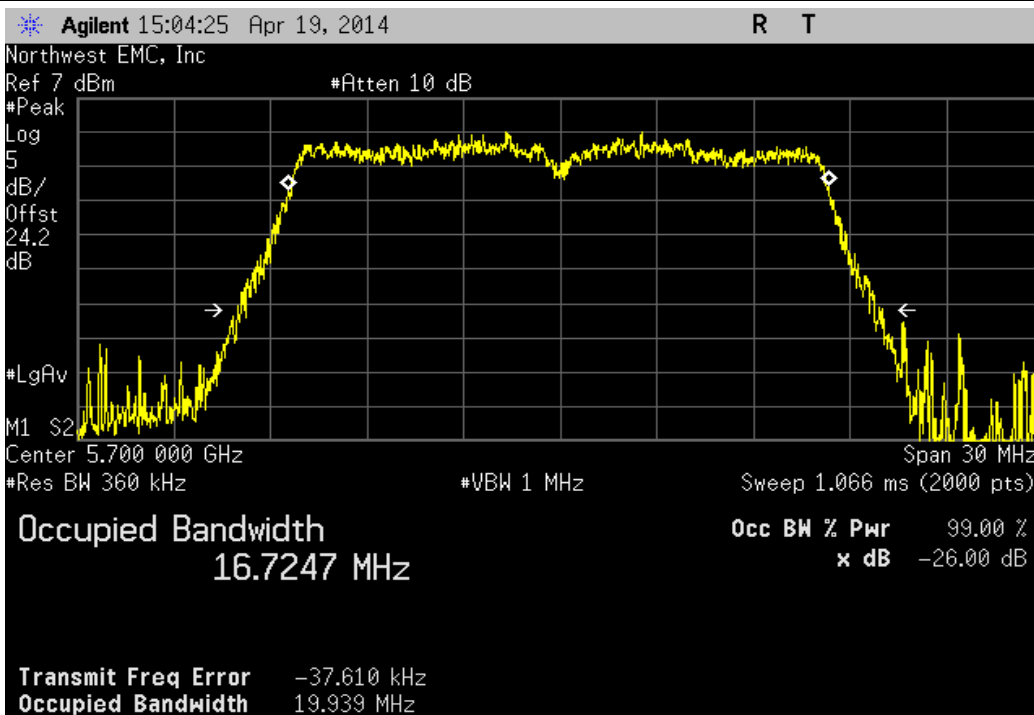
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
20.052 MHz	> 500 kHz	Pass



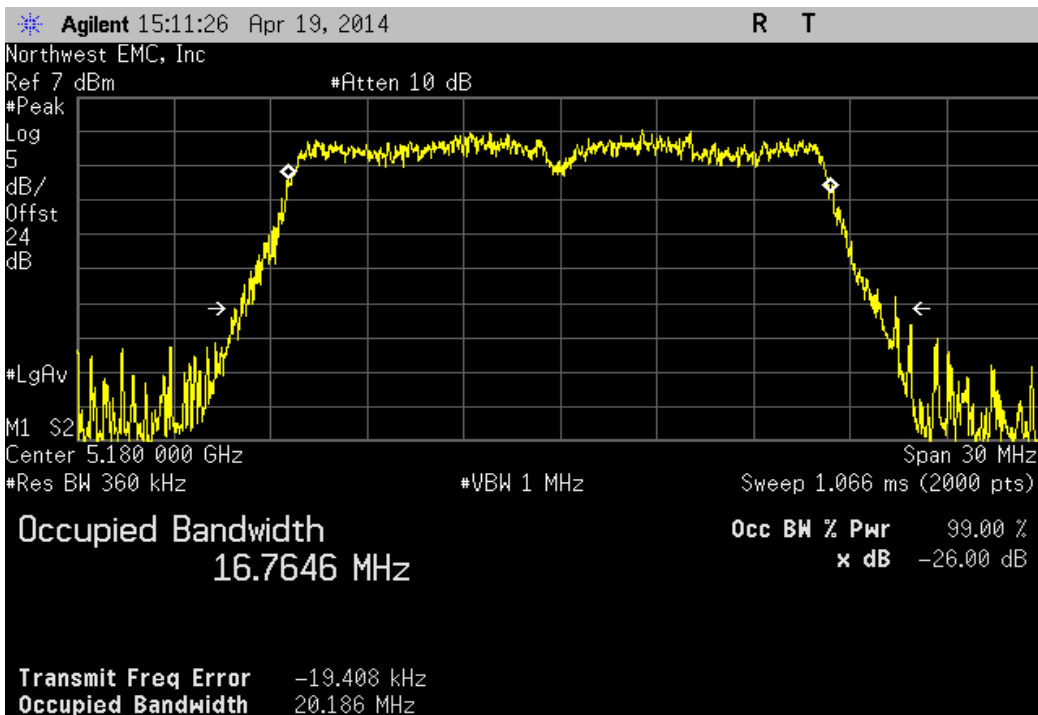
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
19.939 MHz	> 500 kHz	Pass



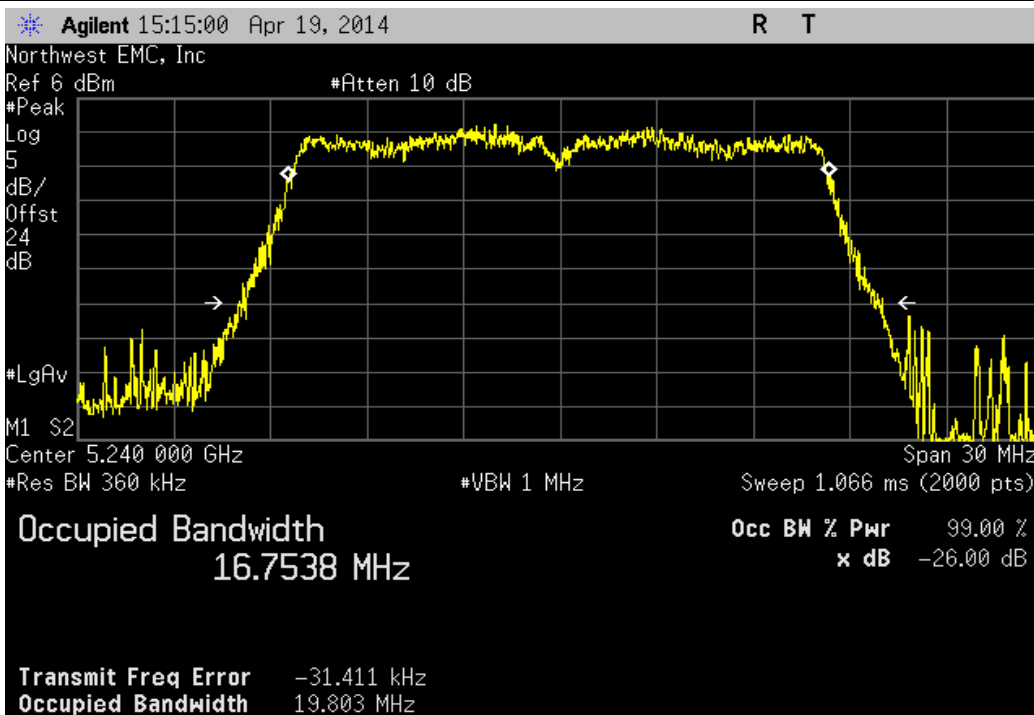
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
20.186 MHz	> 500 kHz	Pass



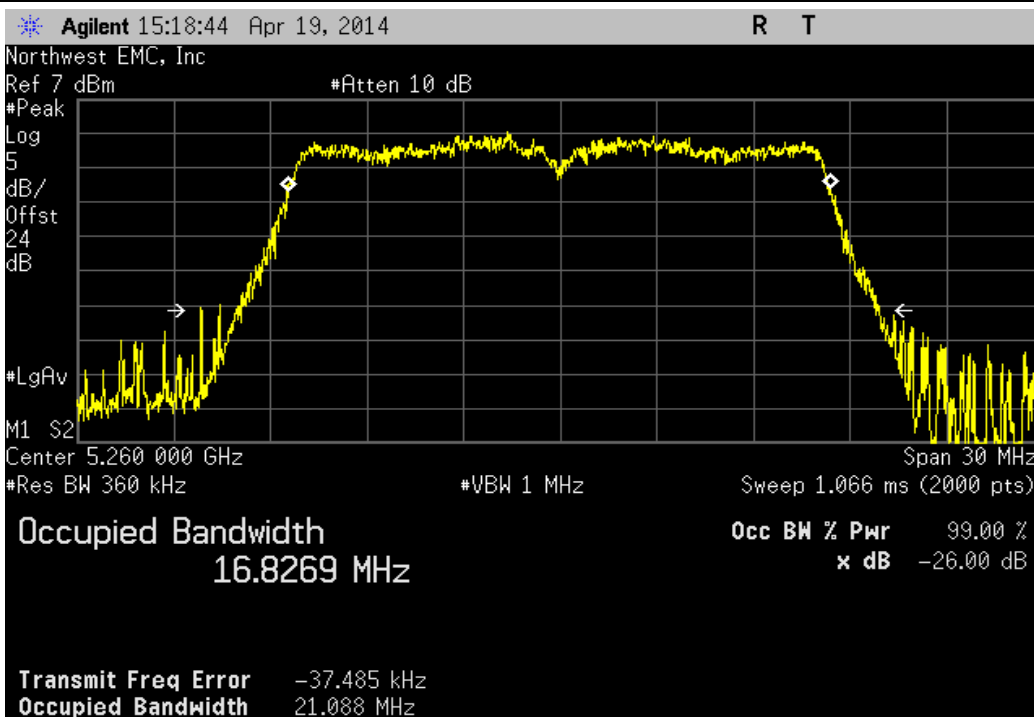
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.803 MHz	> 500 kHz	Pass



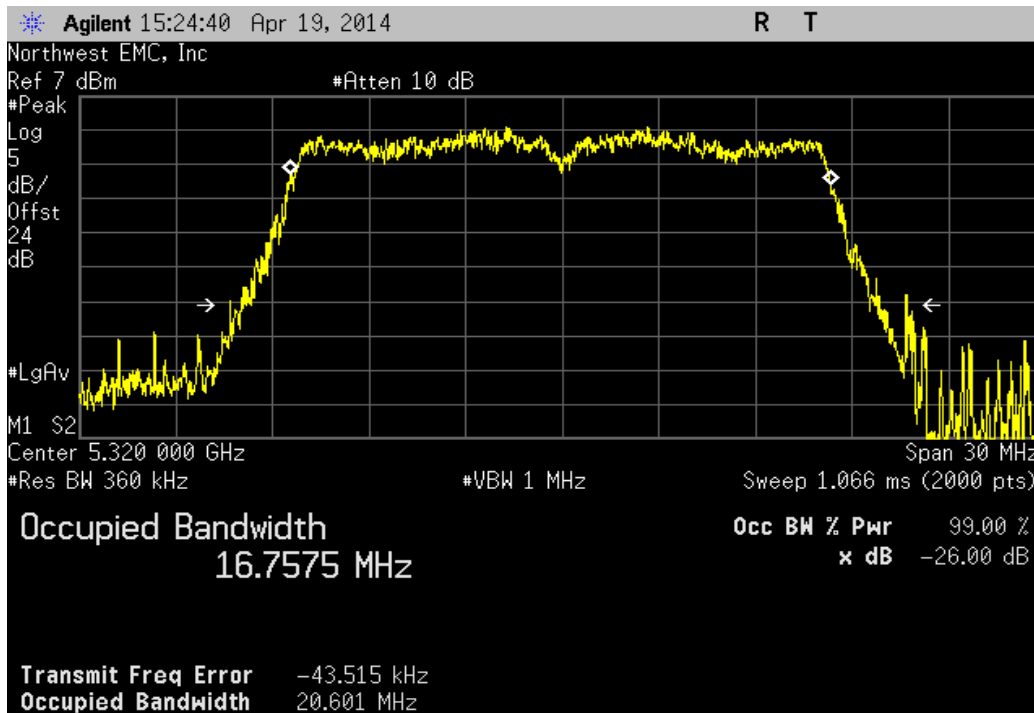
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
21.088 MHz	> 500 kHz	Pass



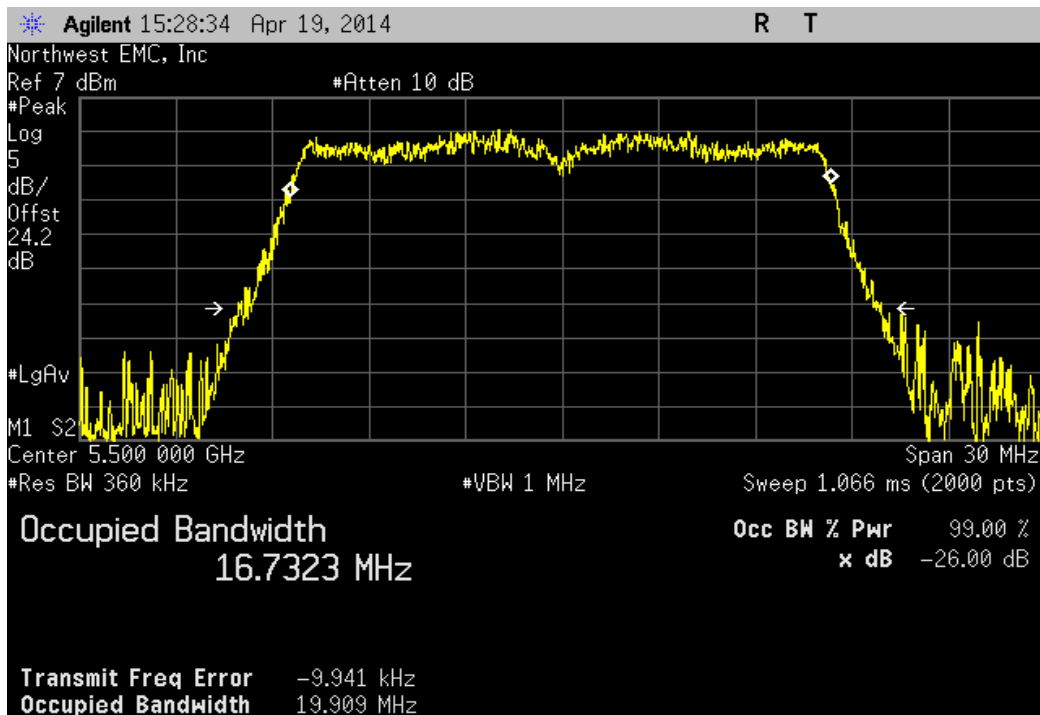
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 64, High Channel 5320 MHz

				Value	Limit	Result
				20.601 MHz	> 500 kHz	Pass



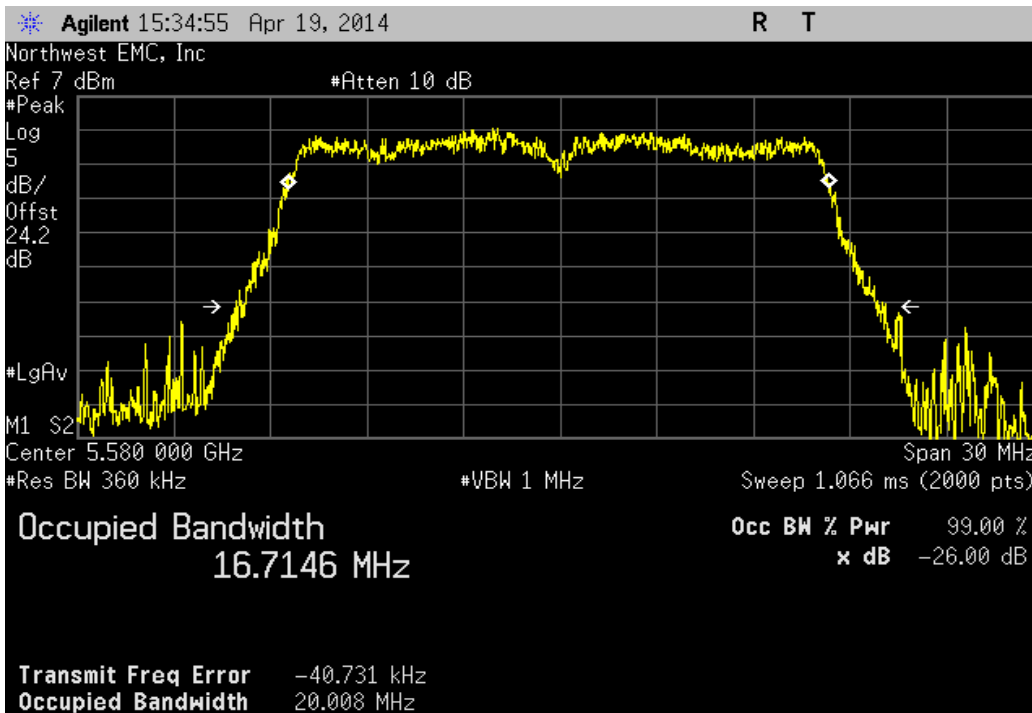
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 100, Low Channel 5500 MHz

				Value	Limit	Result
				19.909 MHz	> 500 kHz	Pass



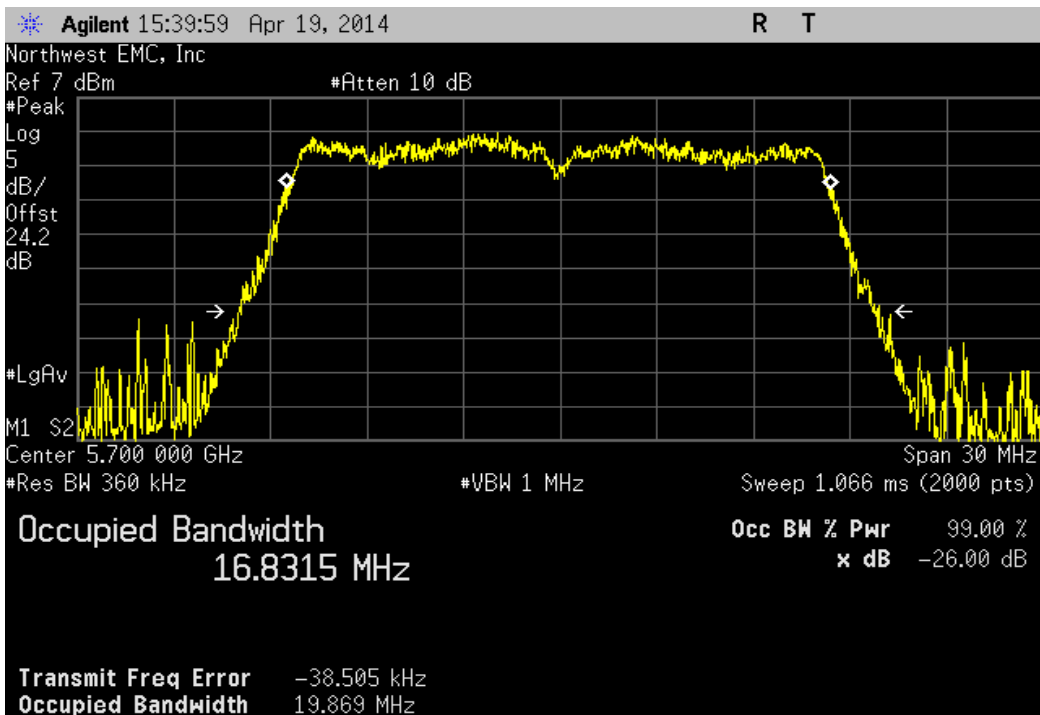
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 116, Mid Channel 5580 MHz

	Value	Limit	Result
	20.008 MHz	> 500 kHz	Pass



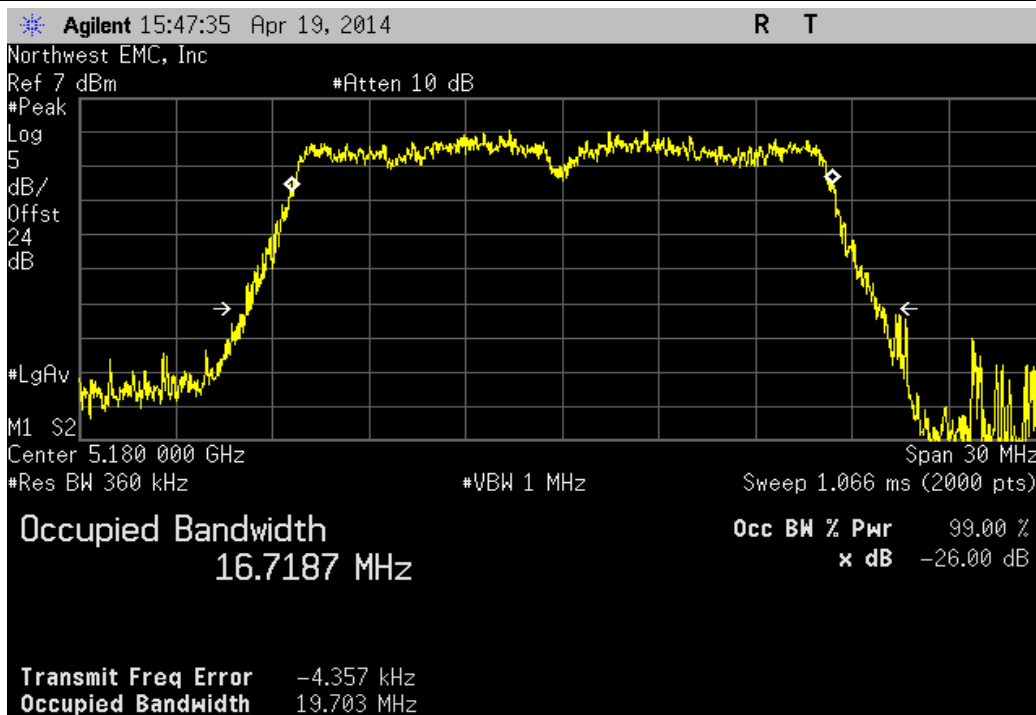
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 140, High Channel 5700 MHz

	Value	Limit	Result
	19.869 MHz	> 500 kHz	Pass



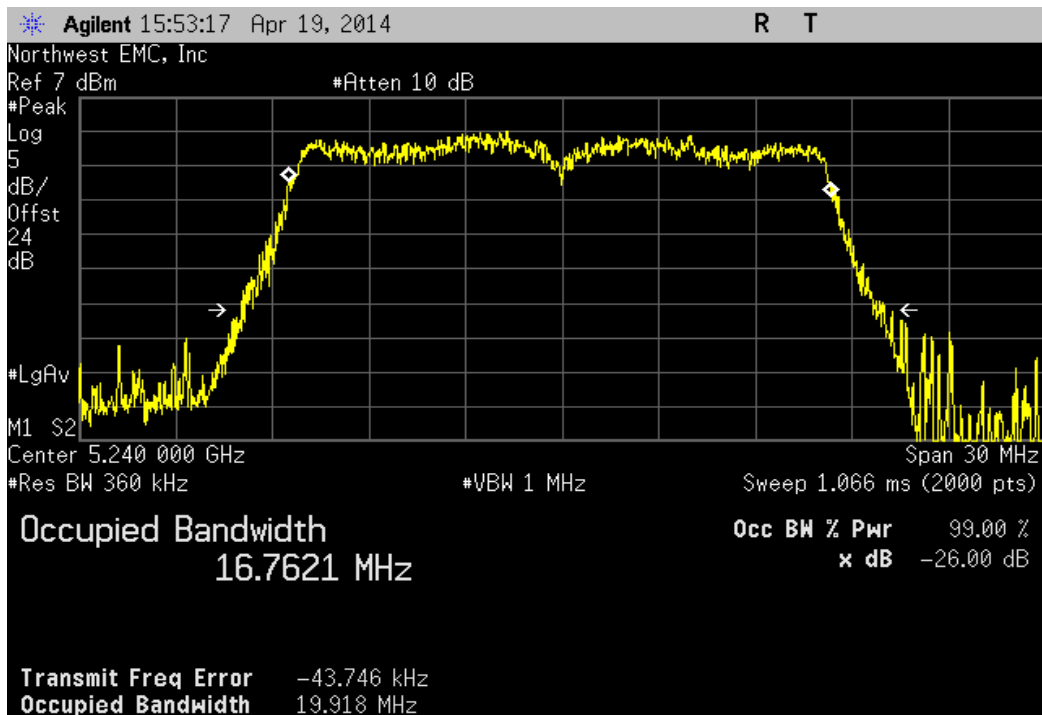
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
19.703 MHz	> 500 kHz	Pass



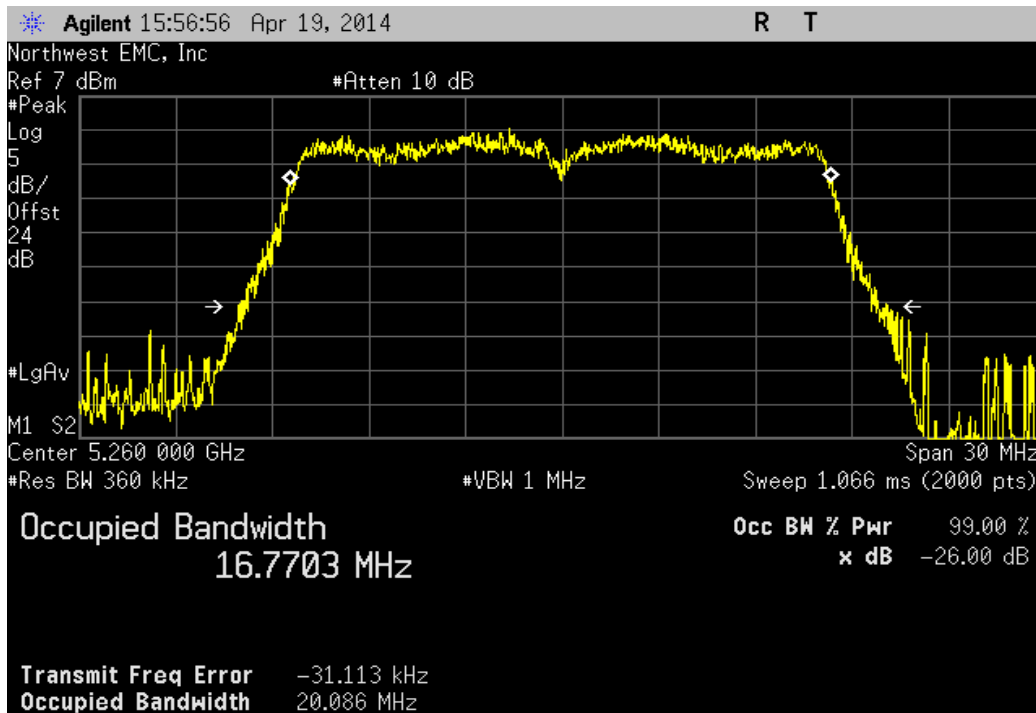
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.918 MHz	> 500 kHz	Pass



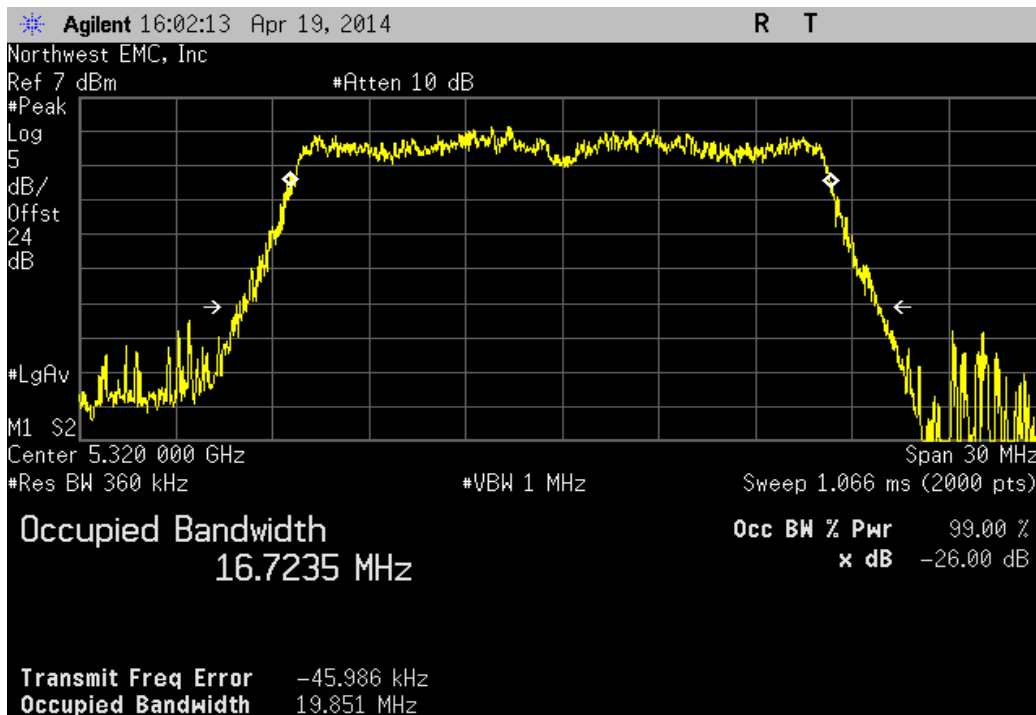
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 52, Low Channel 5260 MHz

				Value	Limit	Result
				20.086 MHz	> 500 kHz	Pass



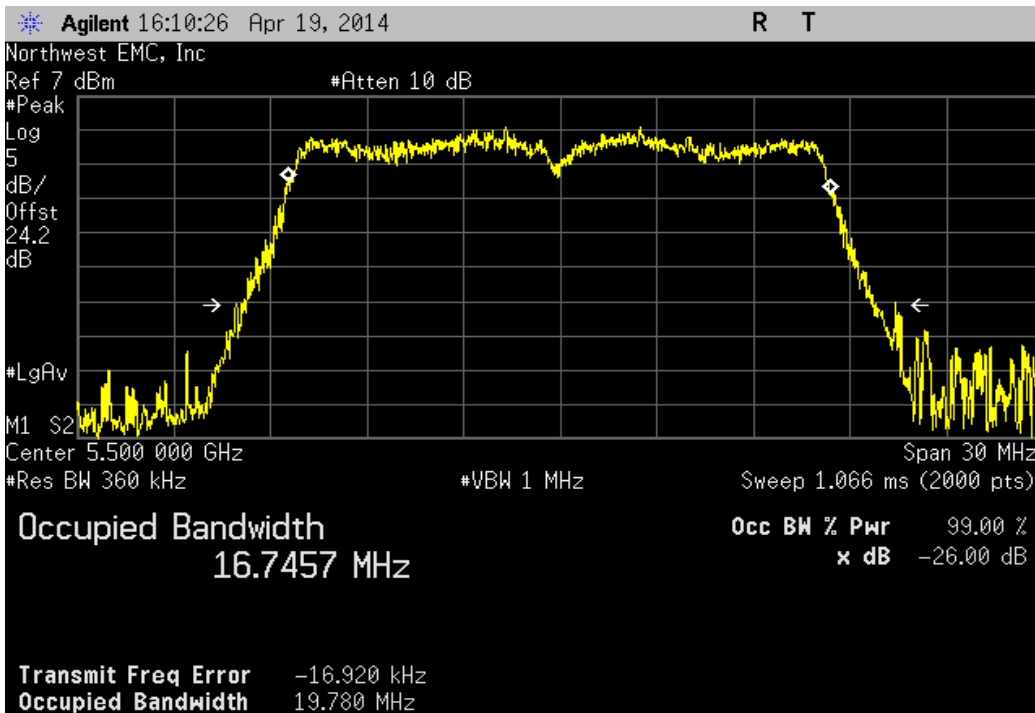
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 64, High Channel 5320 MHz

				Value	Limit	Result
				19.851 MHz	> 500 kHz	Pass



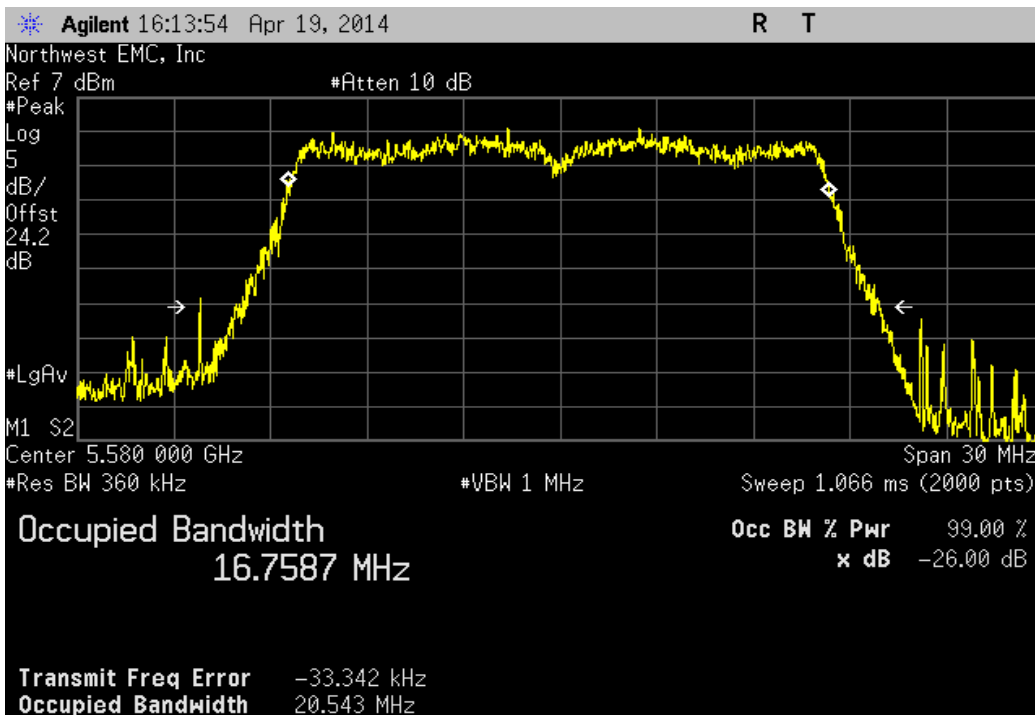
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 100, Low Channel 5500 MHz

				Value	Limit	Result
				19.78 MHz	> 500 kHz	Pass



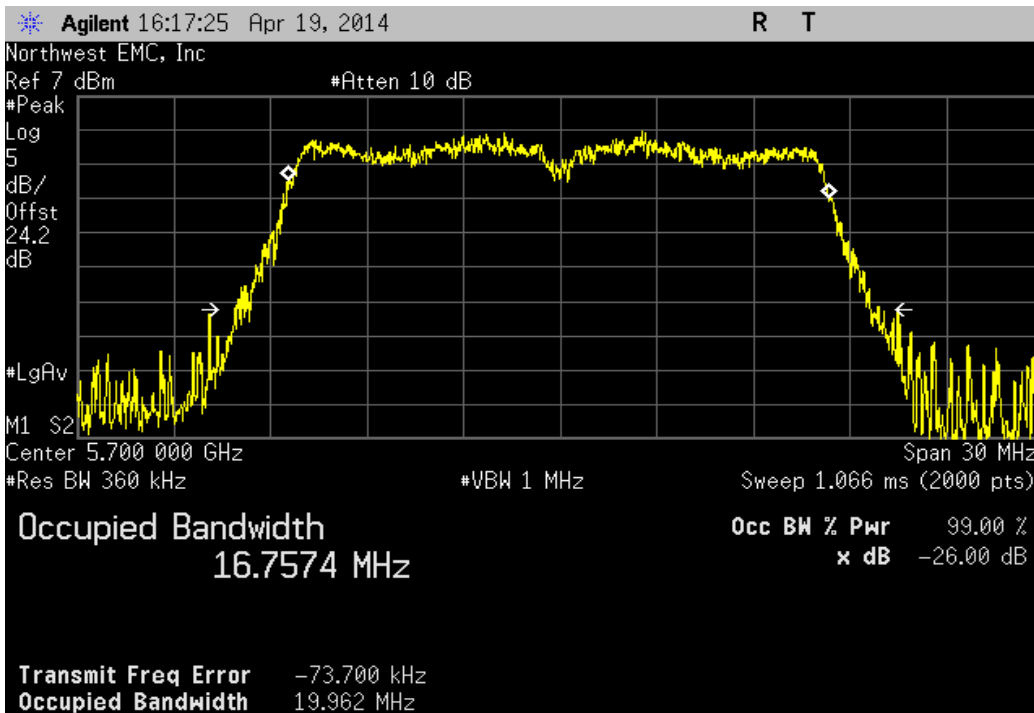
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 116, Mid Channel 5580 MHz

				Value	Limit	Result
				20.543 MHz	> 500 kHz	Pass



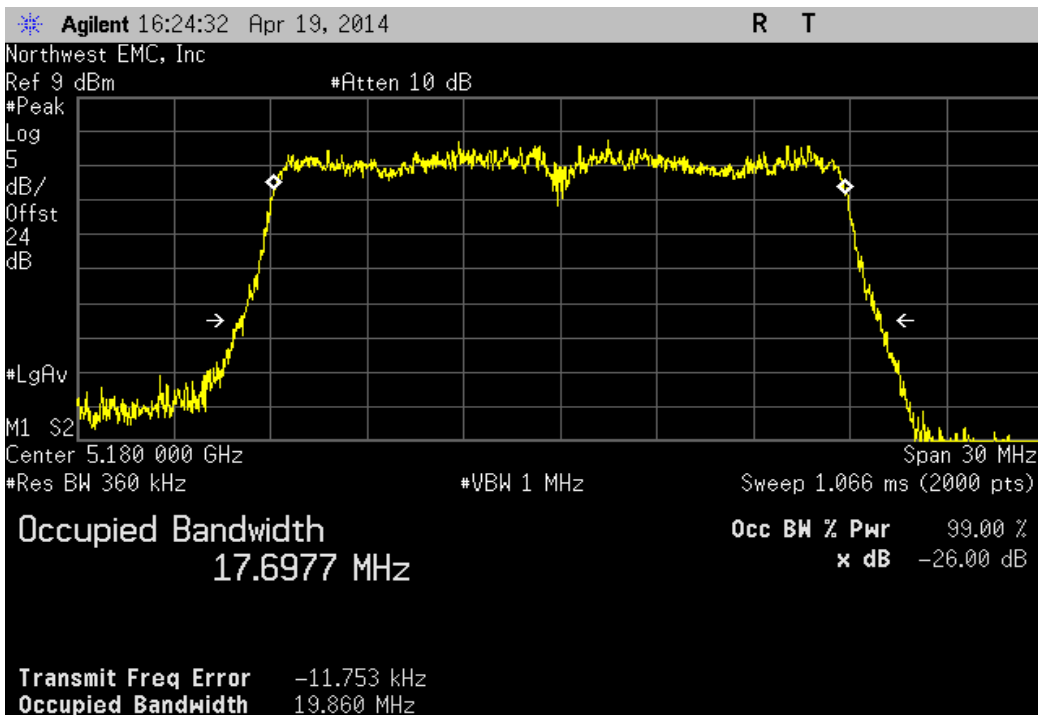
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
19.962 MHz	> 500 kHz	Pass



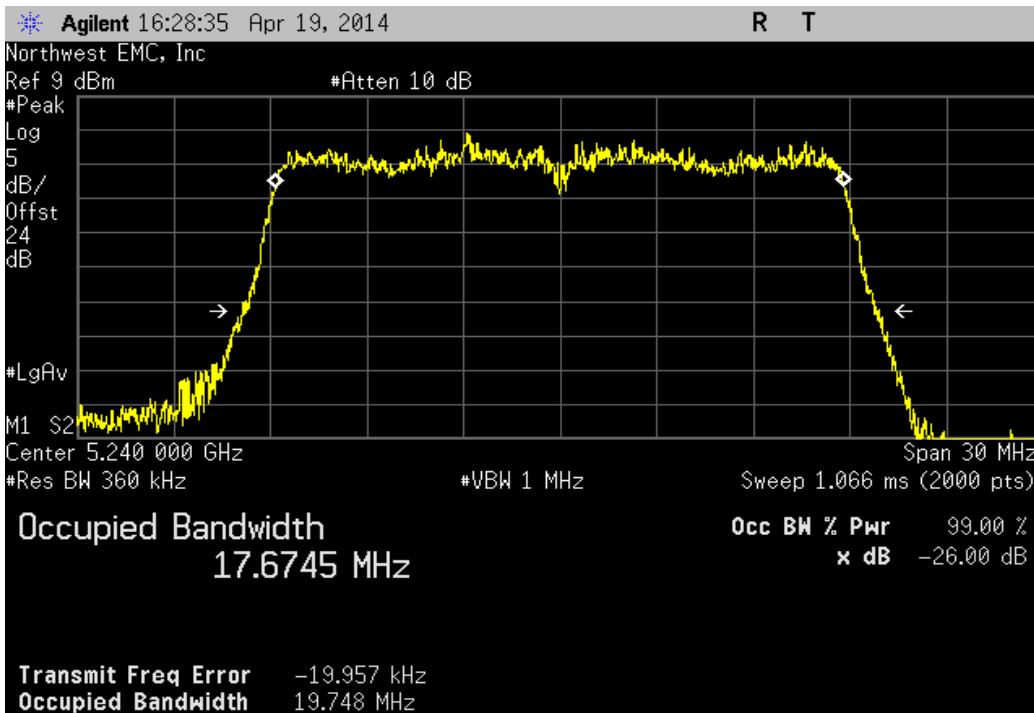
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
19.86 MHz	> 500 kHz	Pass



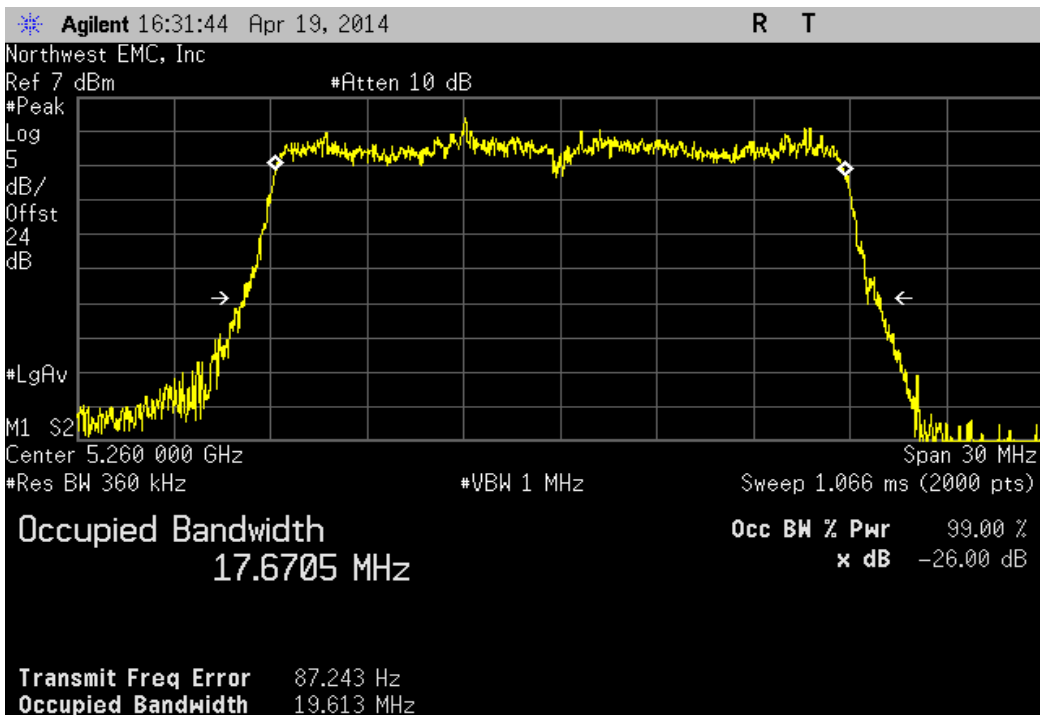
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.748 MHz	> 500 kHz	Pass



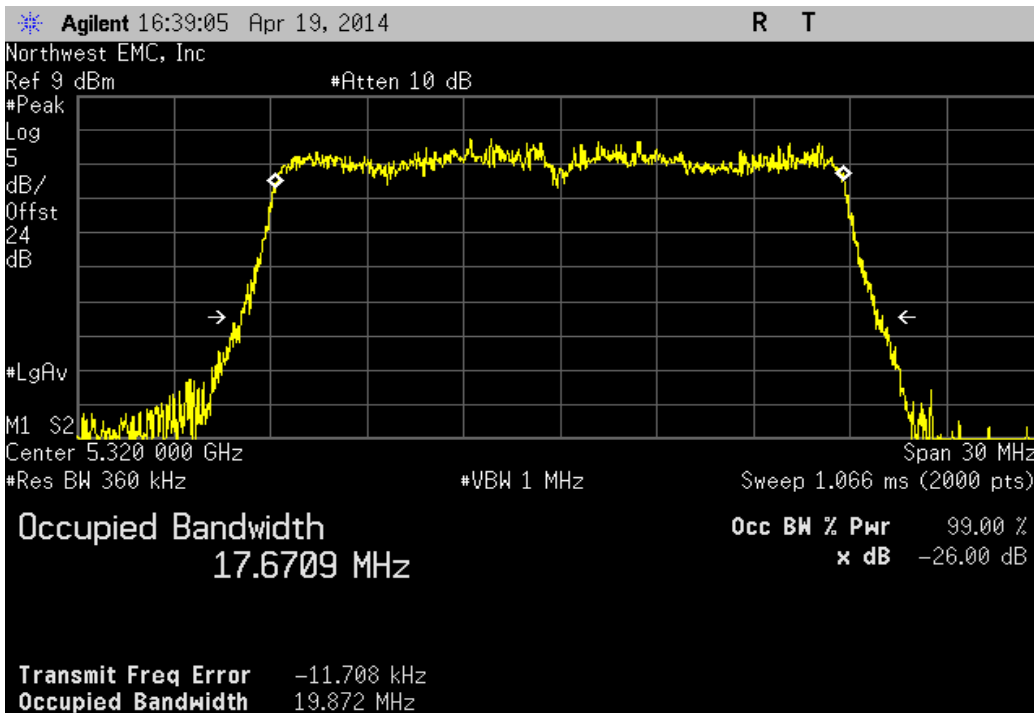
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
19.613 MHz	> 500 kHz	Pass



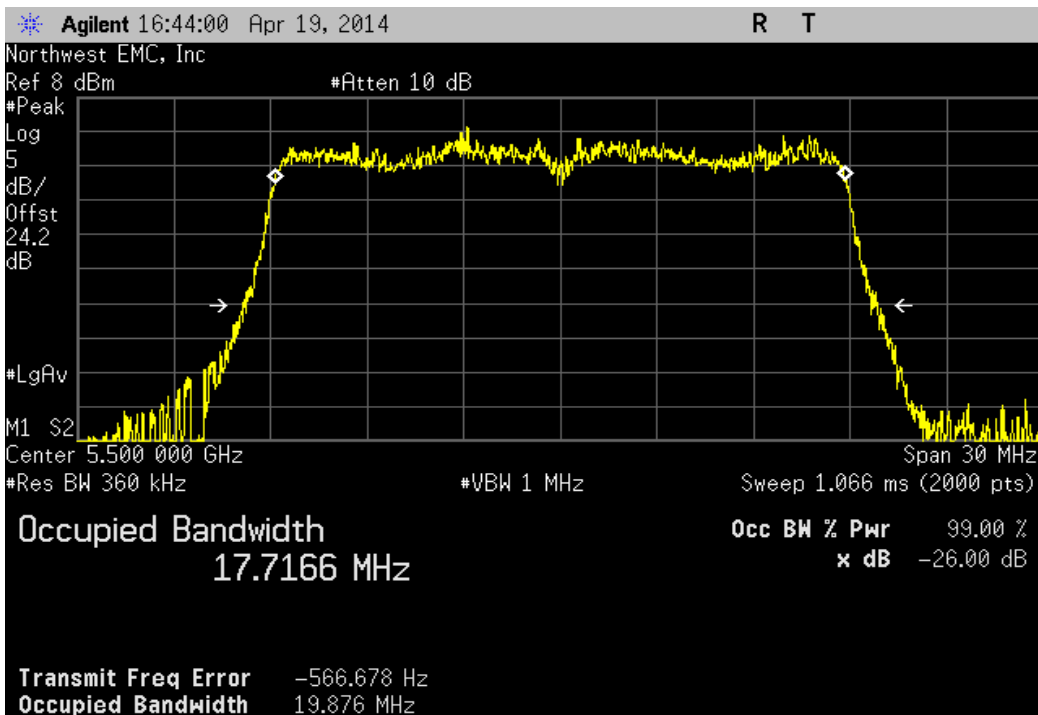
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
19.872 MHz	> 500 kHz	Pass



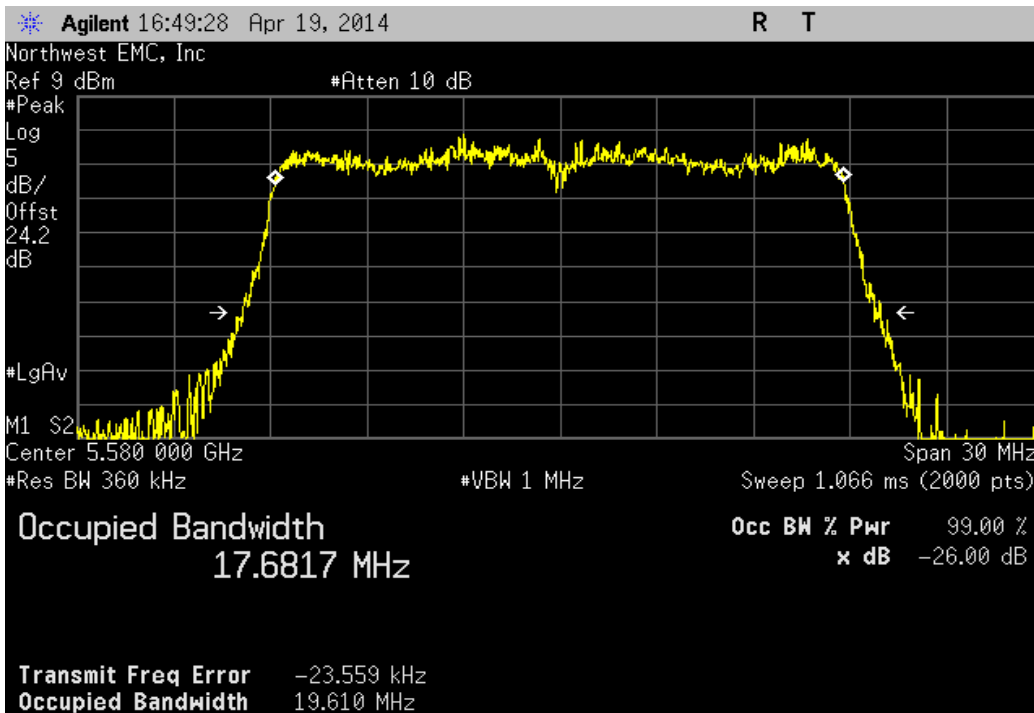
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
19.876 MHz	> 500 kHz	Pass



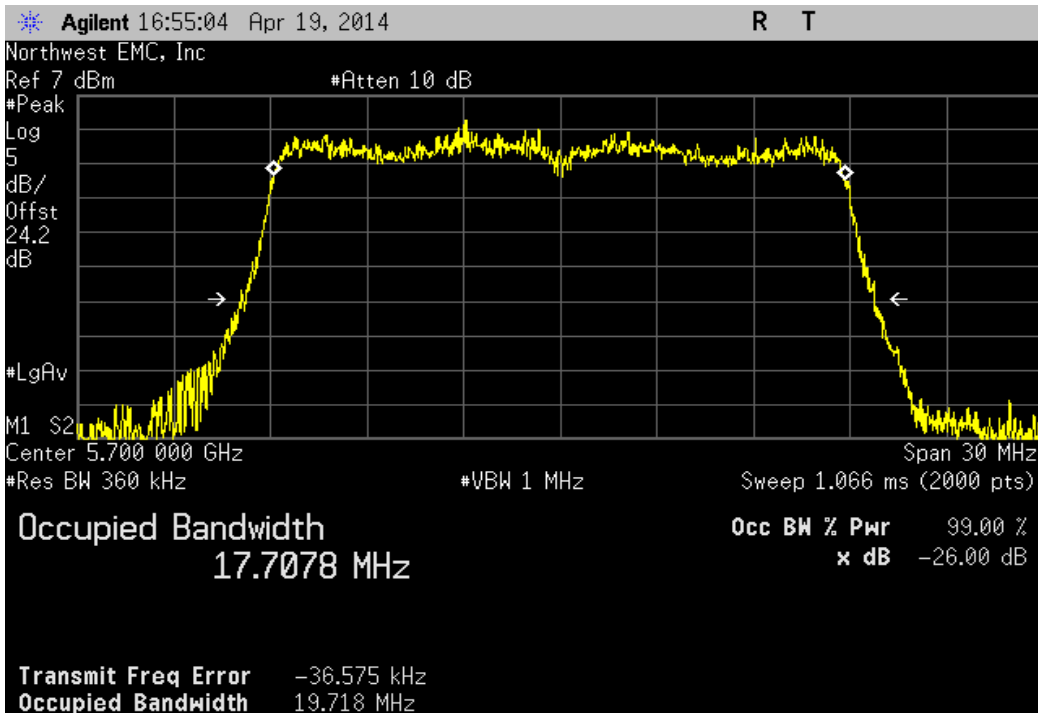
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
19.61 MHz	> 500 kHz	Pass



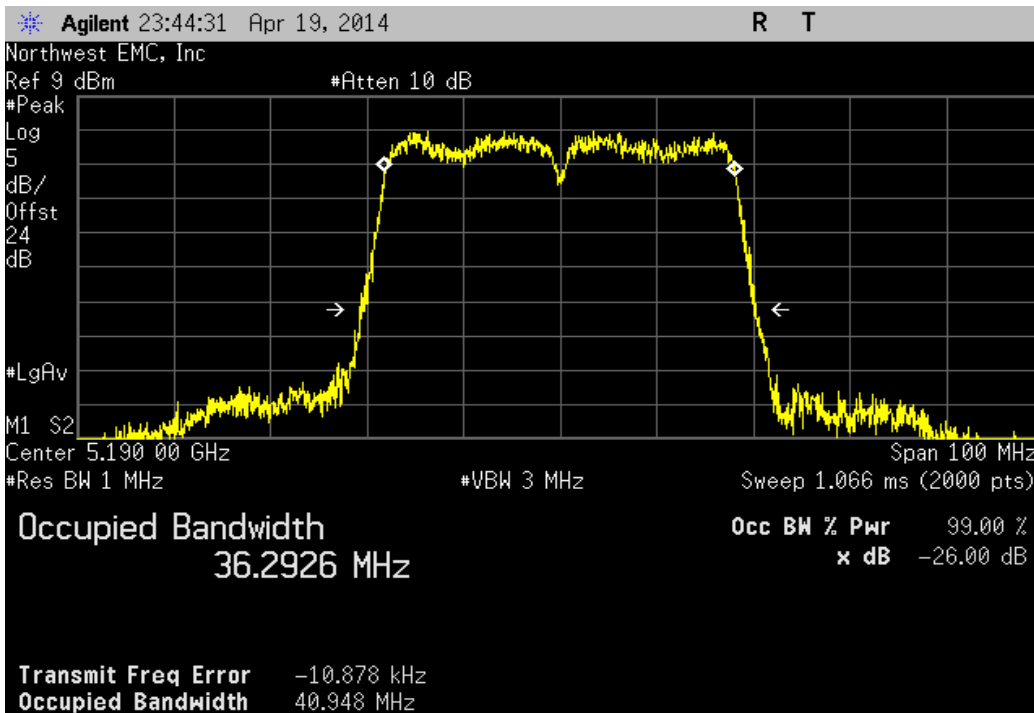
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
19.718 MHz	> 500 kHz	Pass



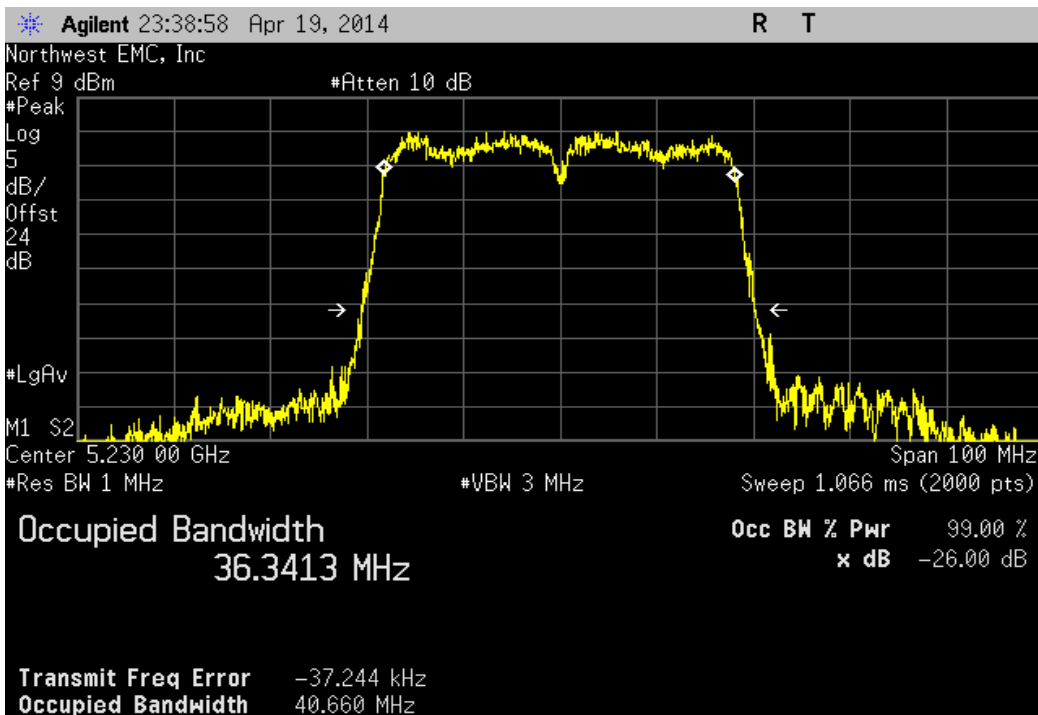
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
40.948 MHz	> 500 kHz	Pass



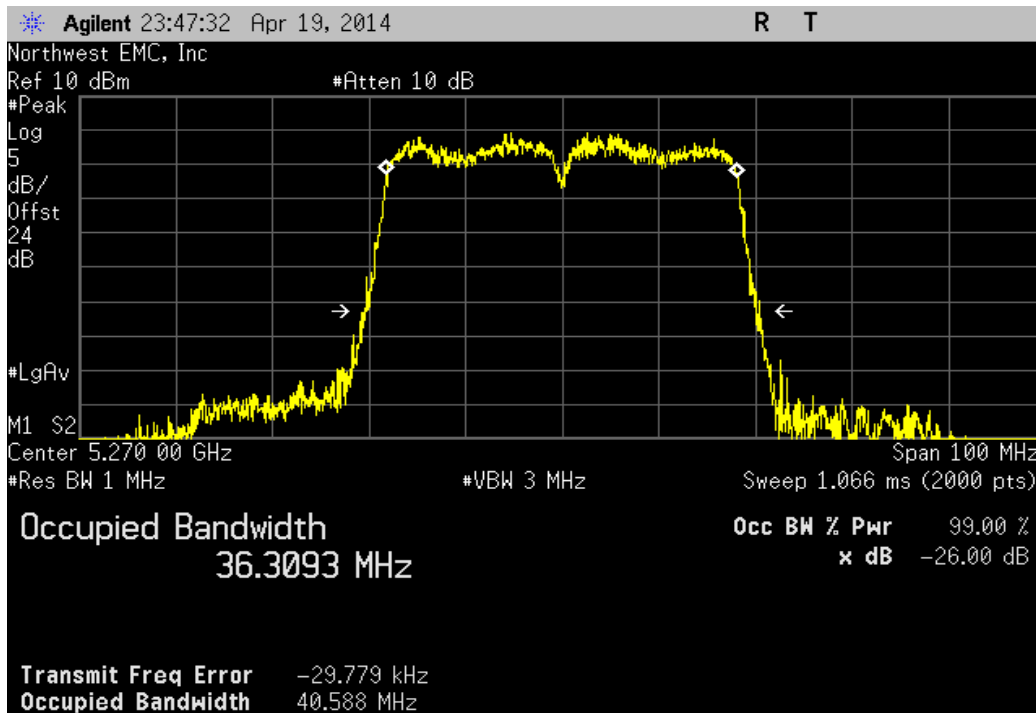
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.66 MHz	> 500 kHz	Pass



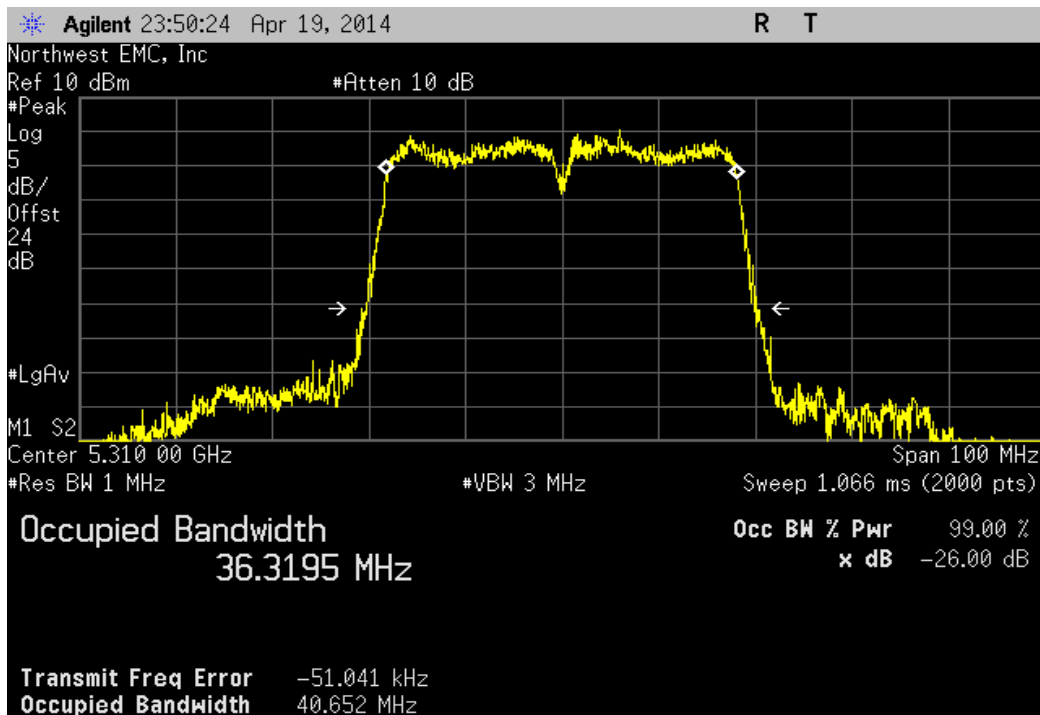
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.588 MHz	> 500 kHz	Pass



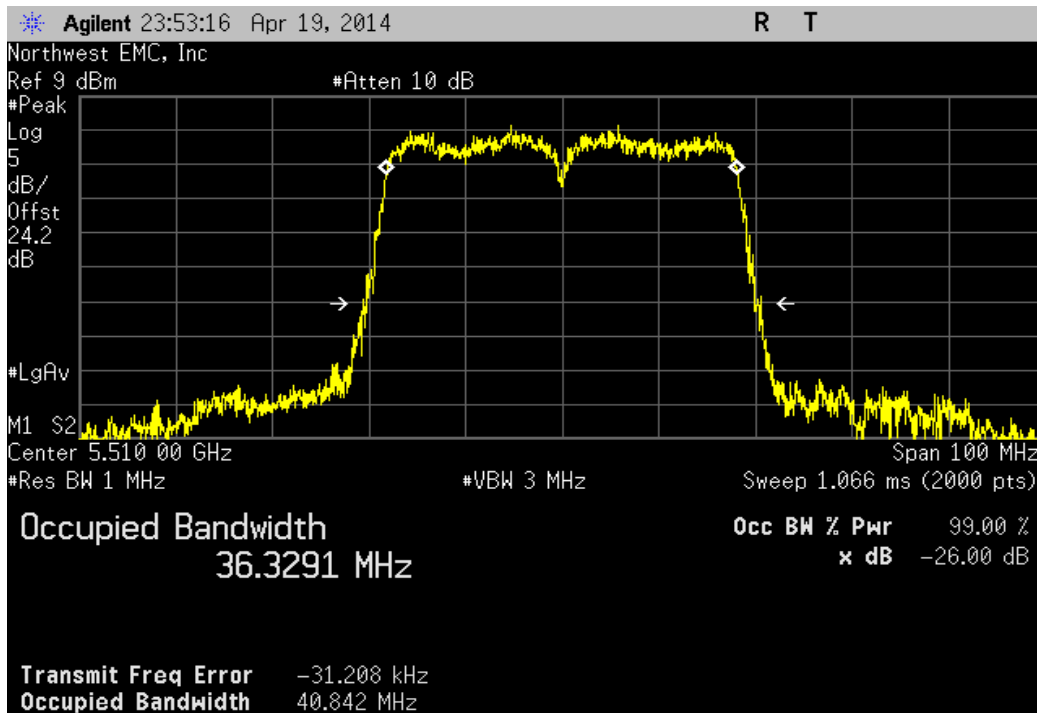
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.652 MHz	> 500 kHz	Pass



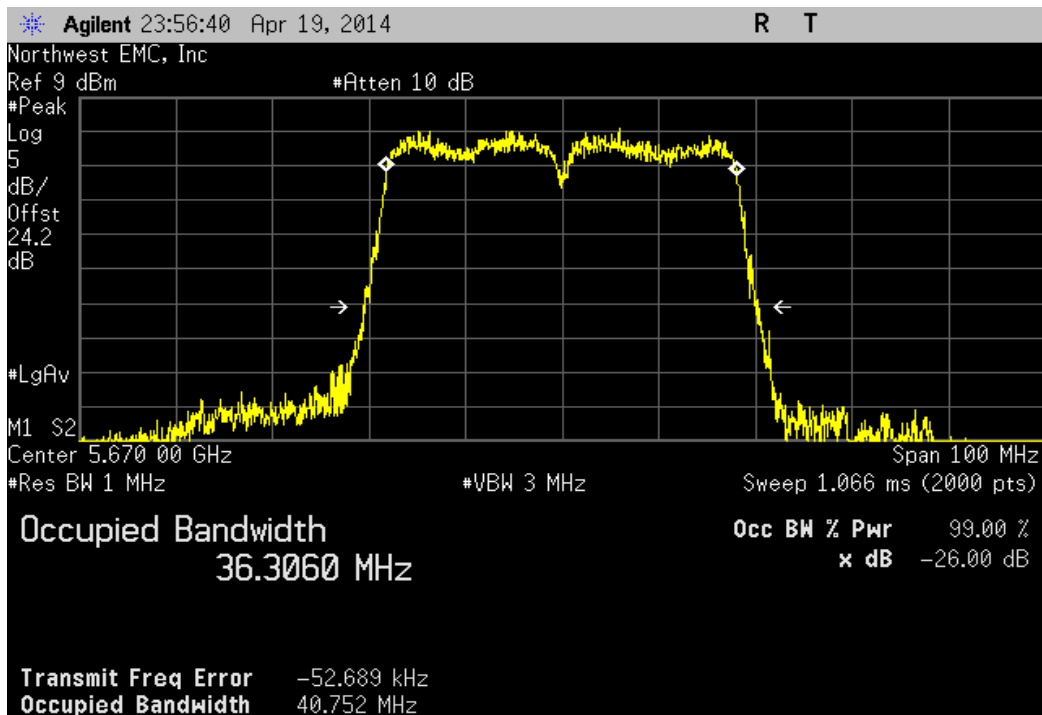
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 100/104, Low Channel 5510 MHz

				Value	Limit	Result
				40.842 MHz	> 500 kHz	Pass



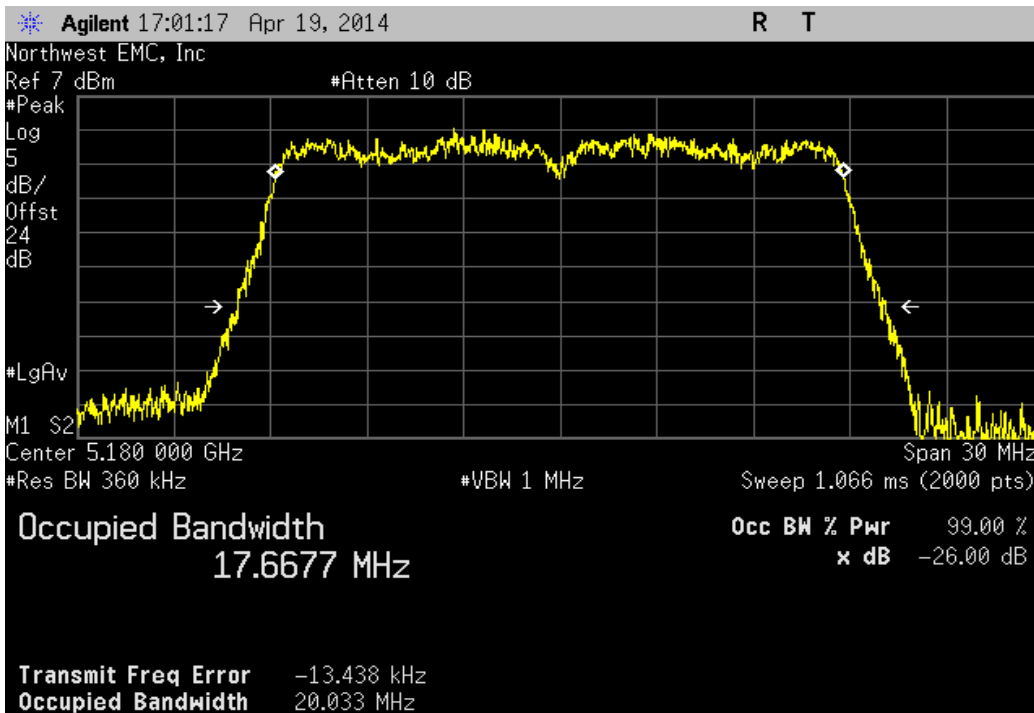
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 132/136, High Channel 5670 MHz

				Value	Limit	Result
				40.752 MHz	> 500 kHz	Pass



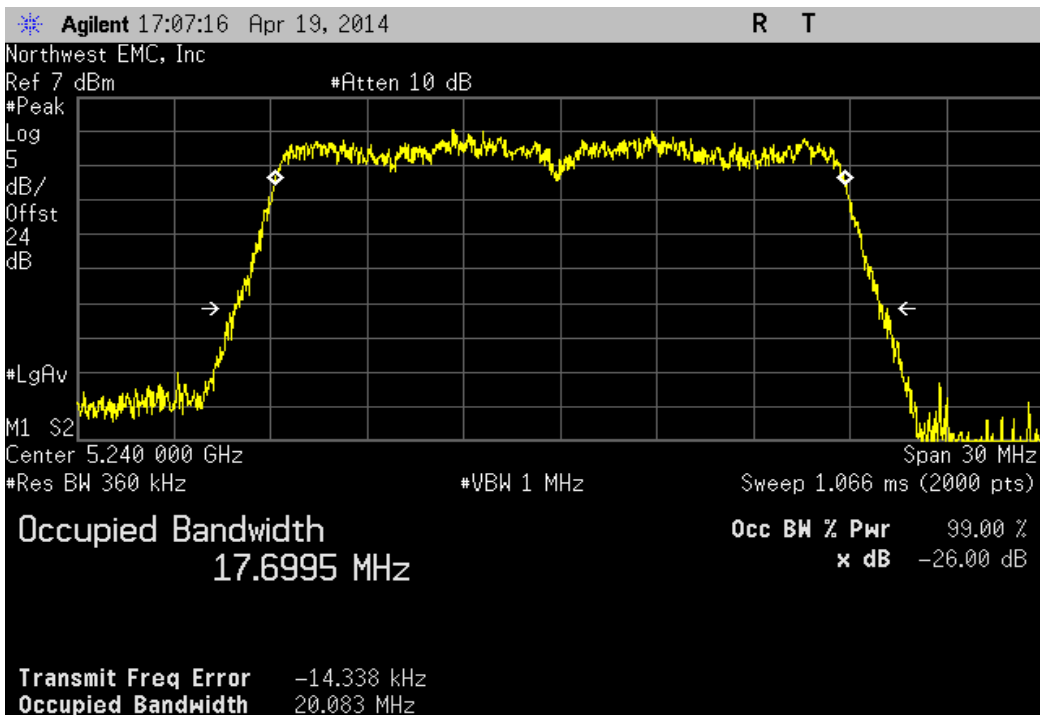
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 36, Low Channel 5180MHz

	Value	Limit	Result
	20.033 MHz	> 500 kHz	Pass



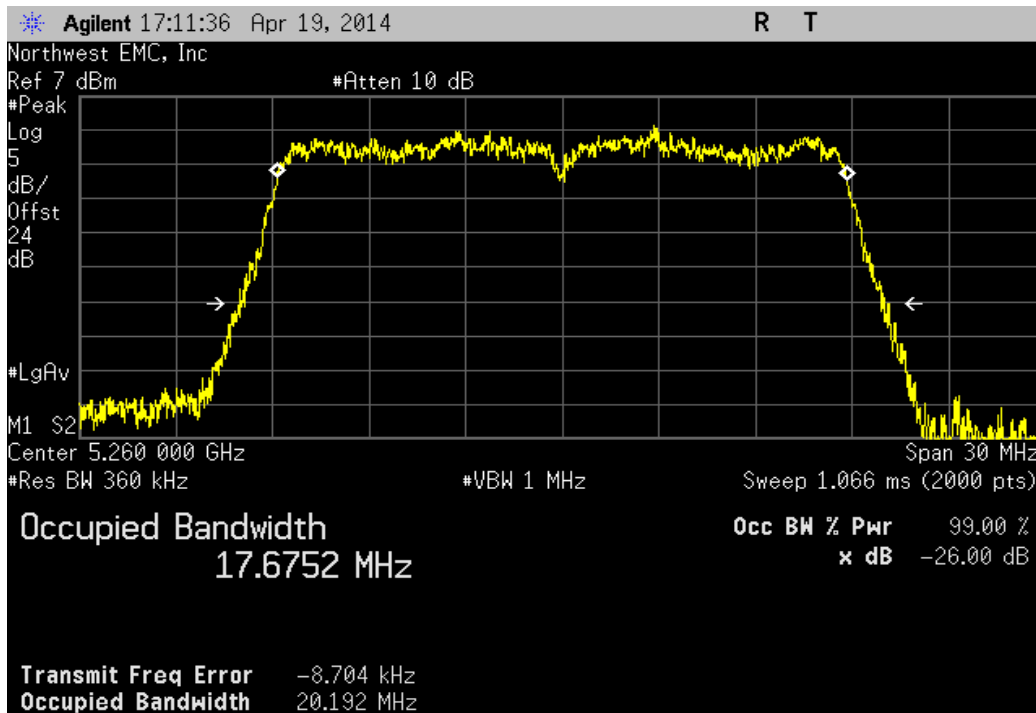
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 48, High Channel 5240 MHz

	Value	Limit	Result
	20.083 MHz	> 500 kHz	Pass



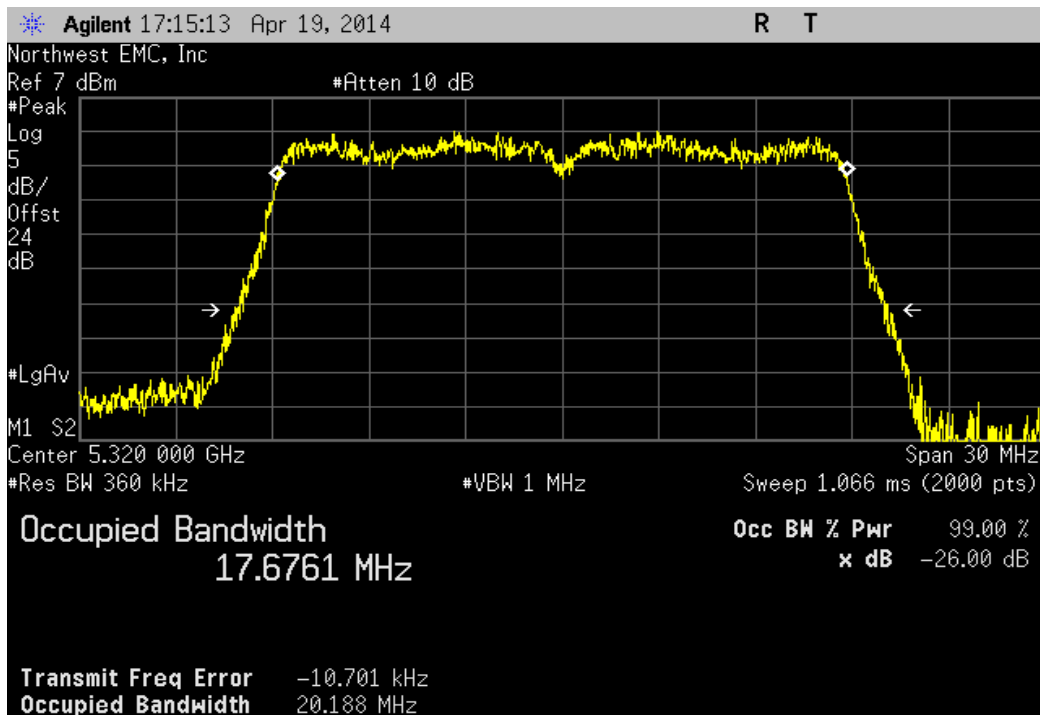
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 52, Low Channel 5260 MHz

	Value	Limit	Result
	20.192 MHz	> 500 kHz	Pass



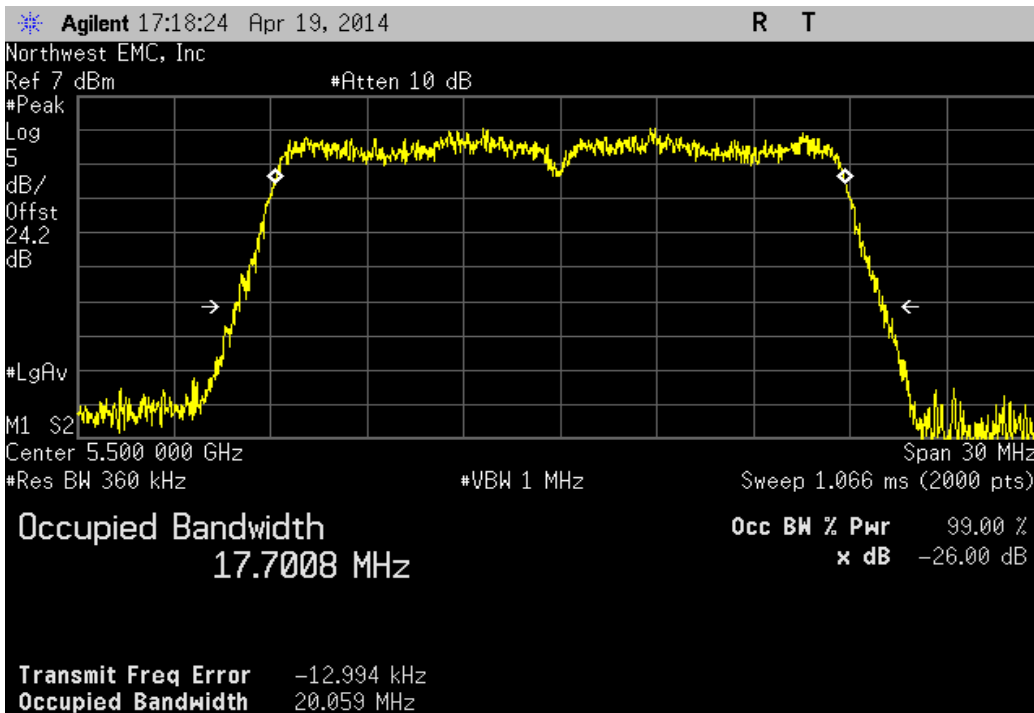
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 64, High Channel 5320 MHz

	Value	Limit	Result
	20.188 MHz	> 500 kHz	Pass



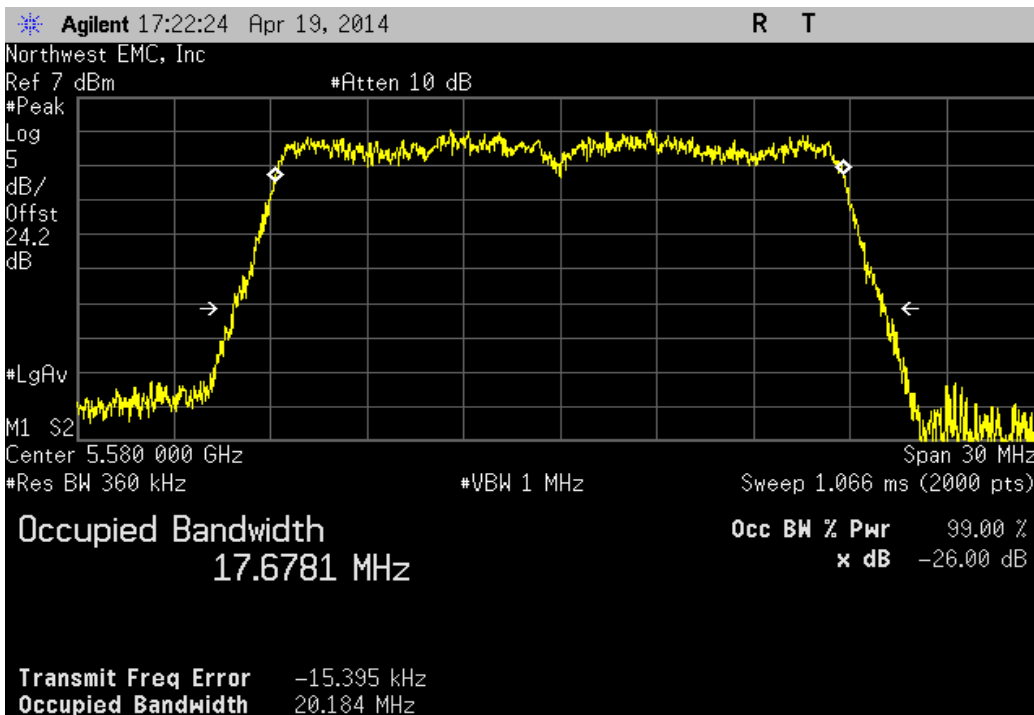
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 100, Low Channel 5500 MHz

	Value	Limit	Result
	20.059 MHz	> 500 kHz	Pass



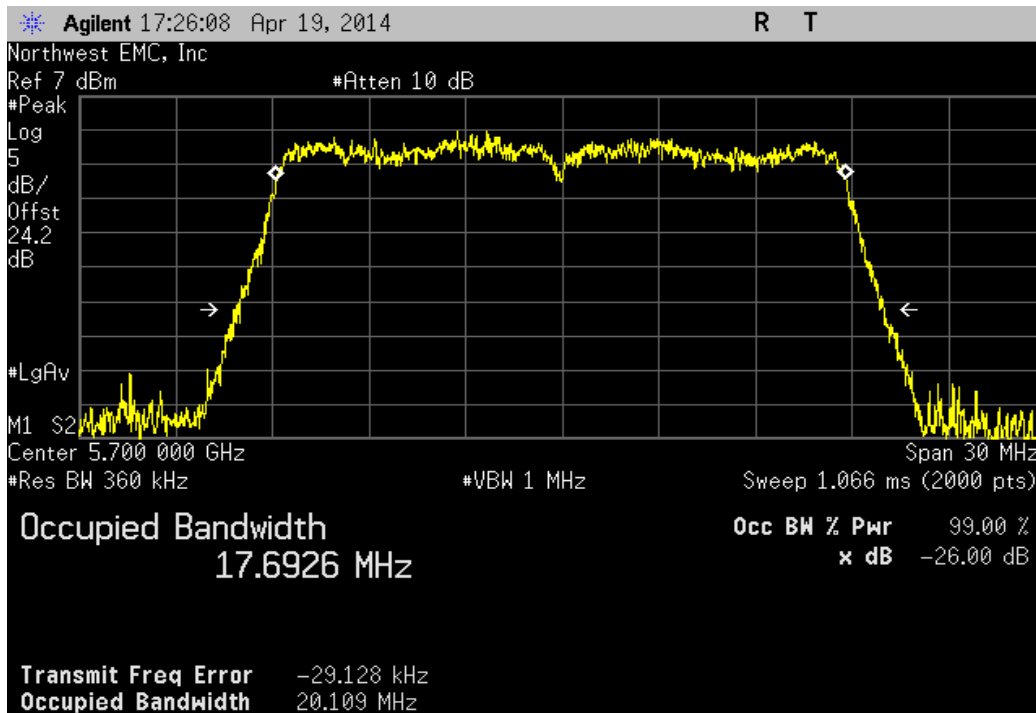
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 116, Mid Channel 5580 MHz

	Value	Limit	Result
	20.184 MHz	> 500 kHz	Pass



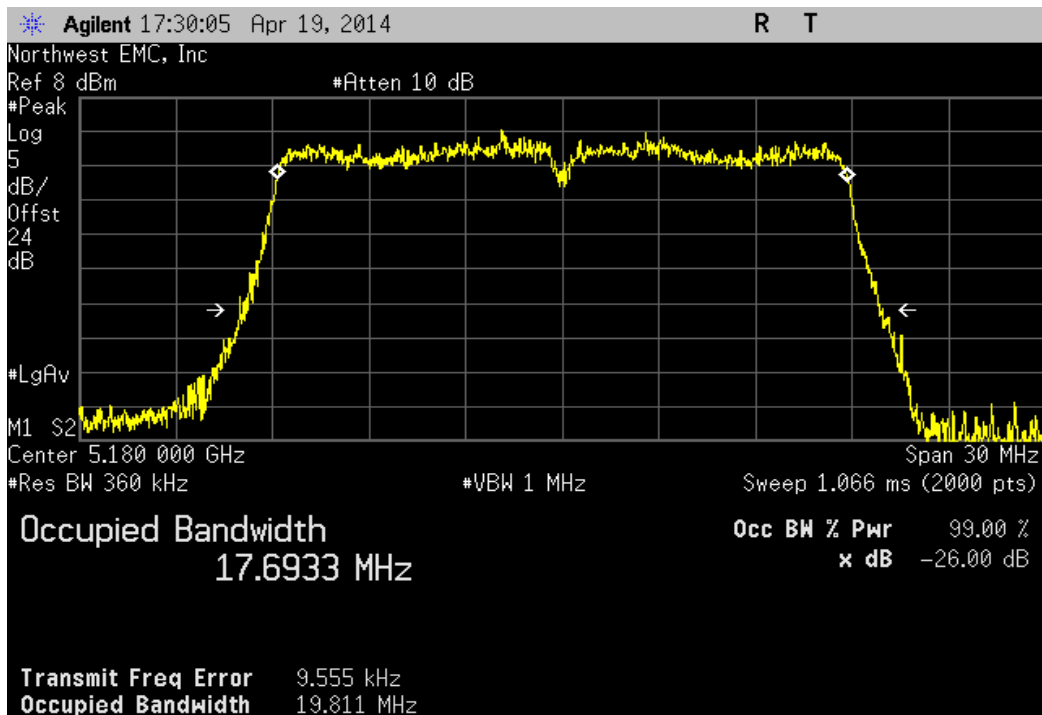
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 140, High Channel 5700 MHz

				Value	Limit	Result
				20.109 MHz	> 500 kHz	Pass



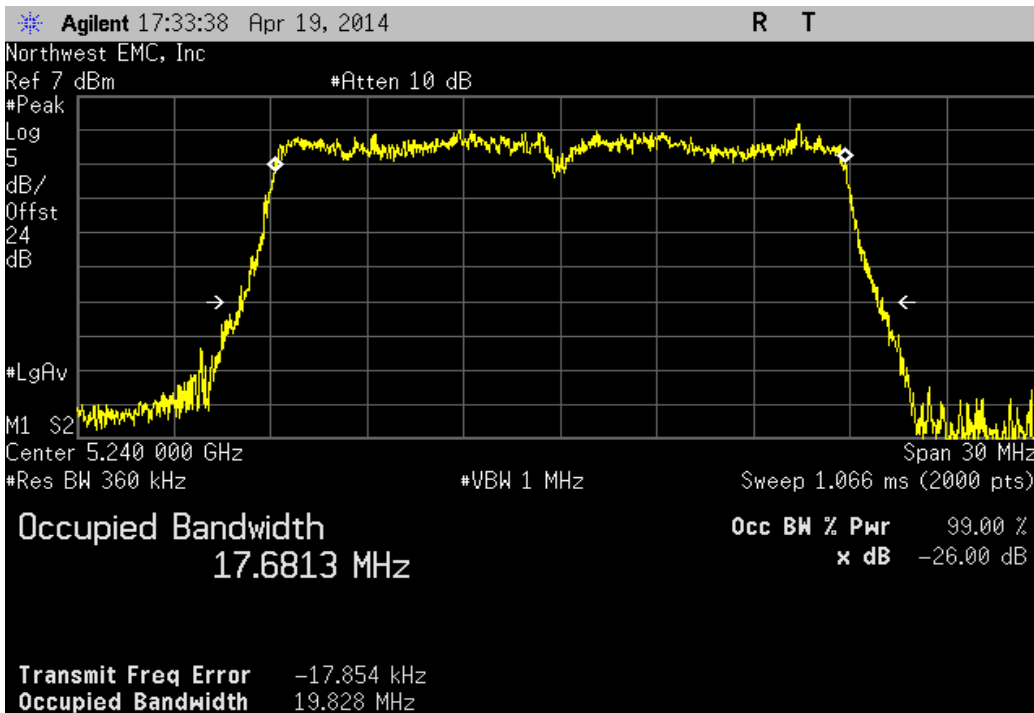
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 36, Low Channel 5180MHz

				Value	Limit	Result
				19.811 MHz	> 500 kHz	Pass



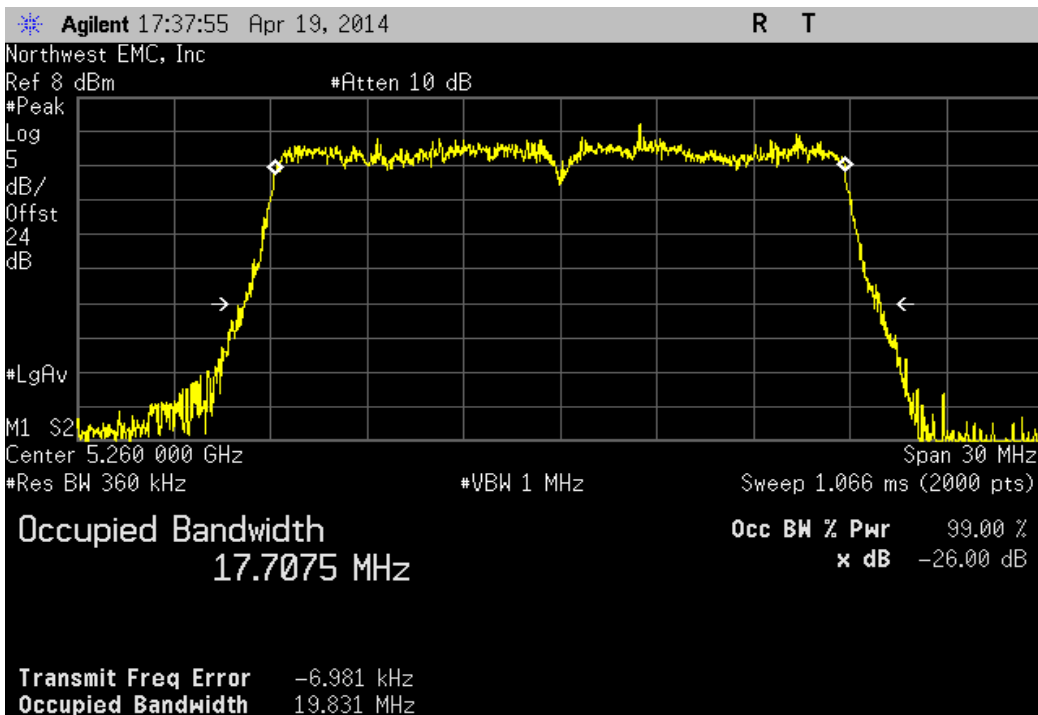
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.828 MHz	> 500 kHz	Pass



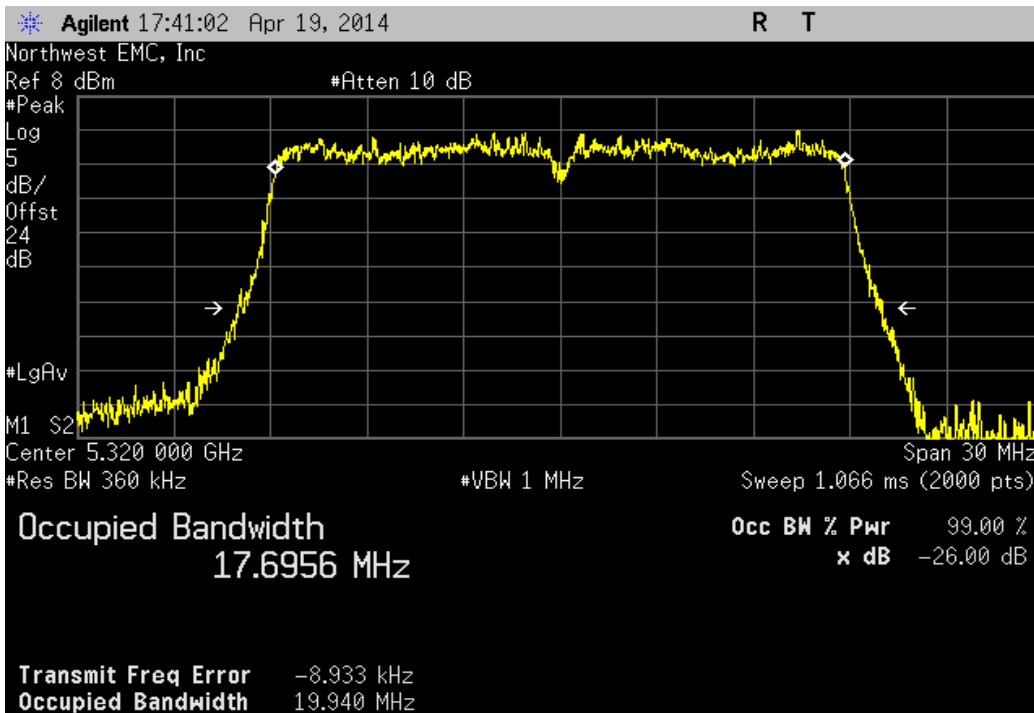
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
19.831 MHz	> 500 kHz	Pass



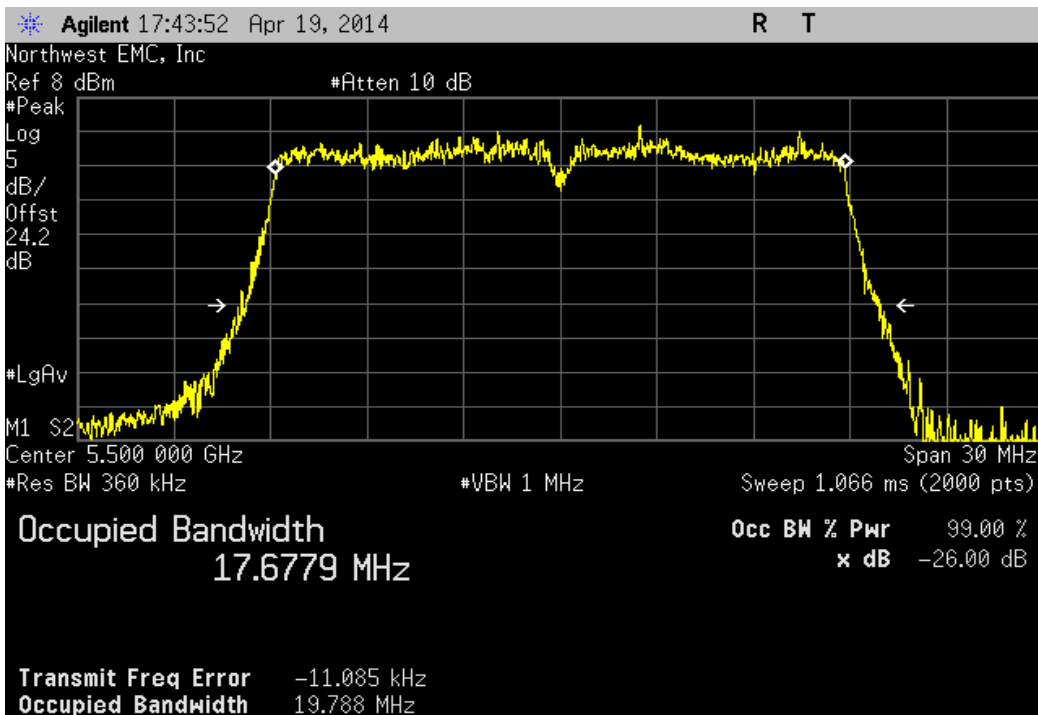
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
19.94 MHz	> 500 kHz	Pass



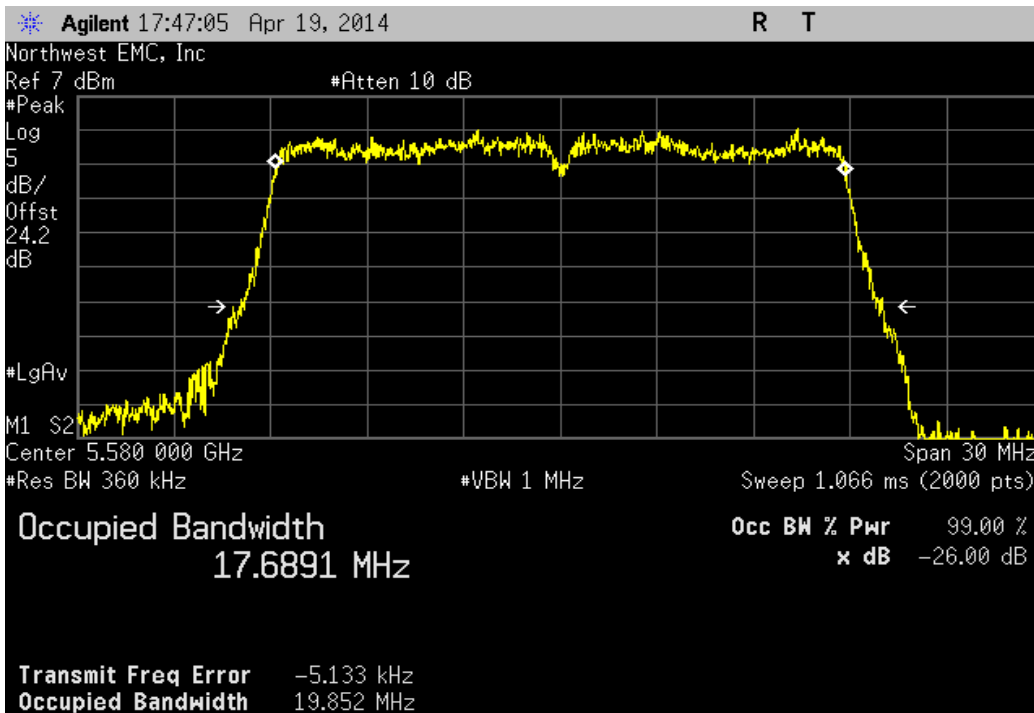
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
19.788 MHz	> 500 kHz	Pass



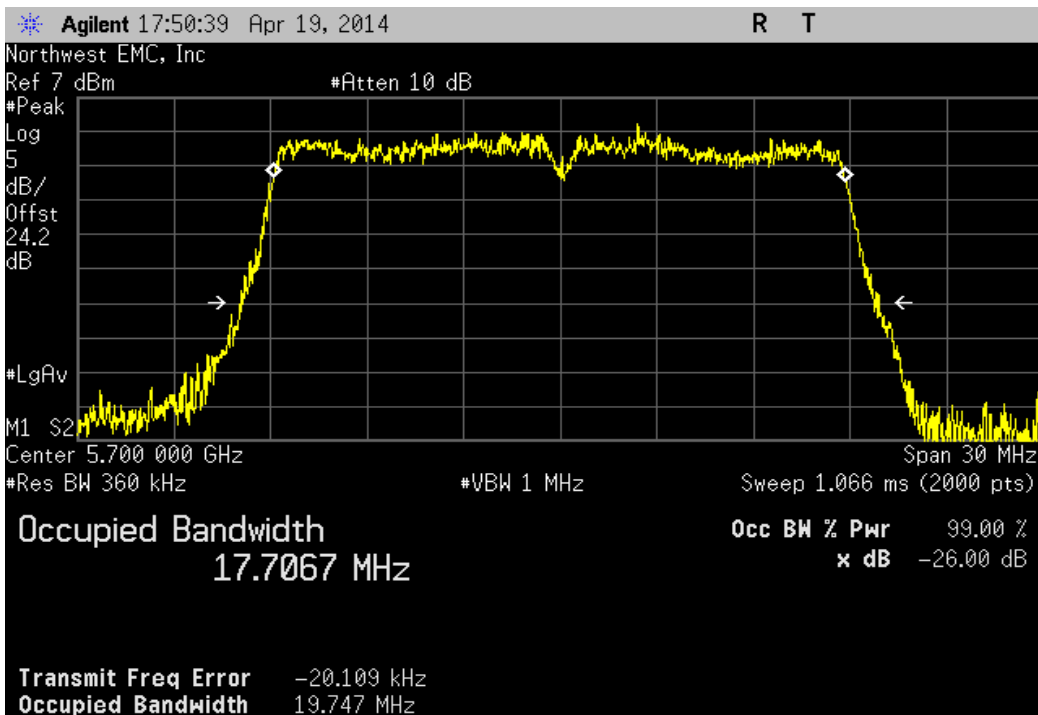
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
19.852 MHz	> 500 kHz	Pass



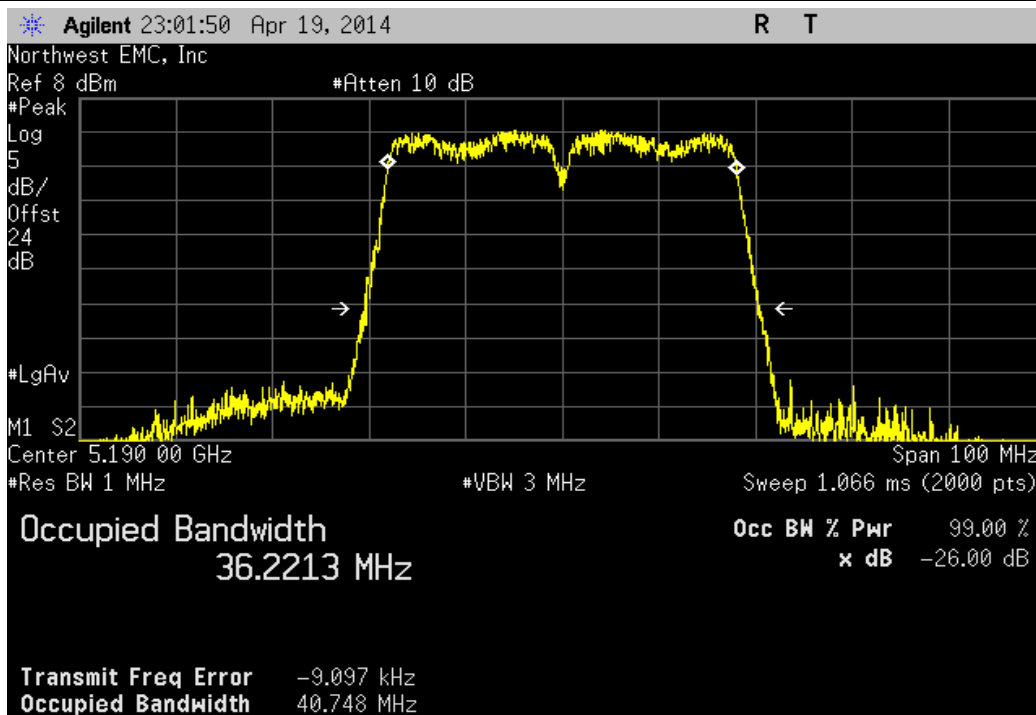
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
19.747 MHz	> 500 kHz	Pass



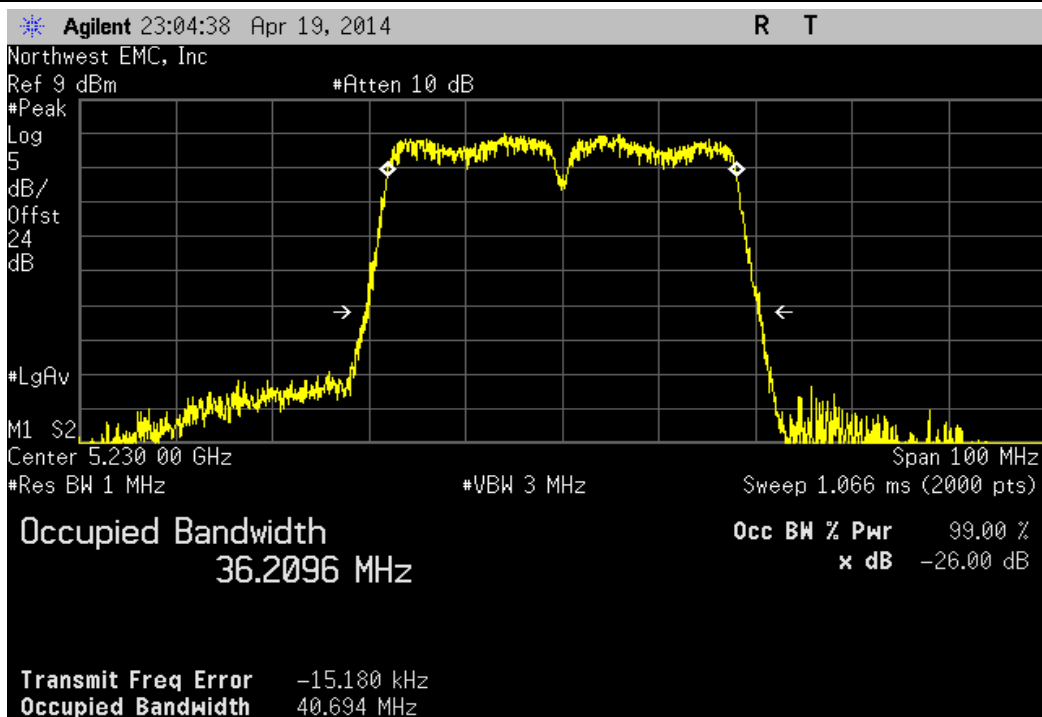
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
40.748 MHz	> 500 kHz	Pass



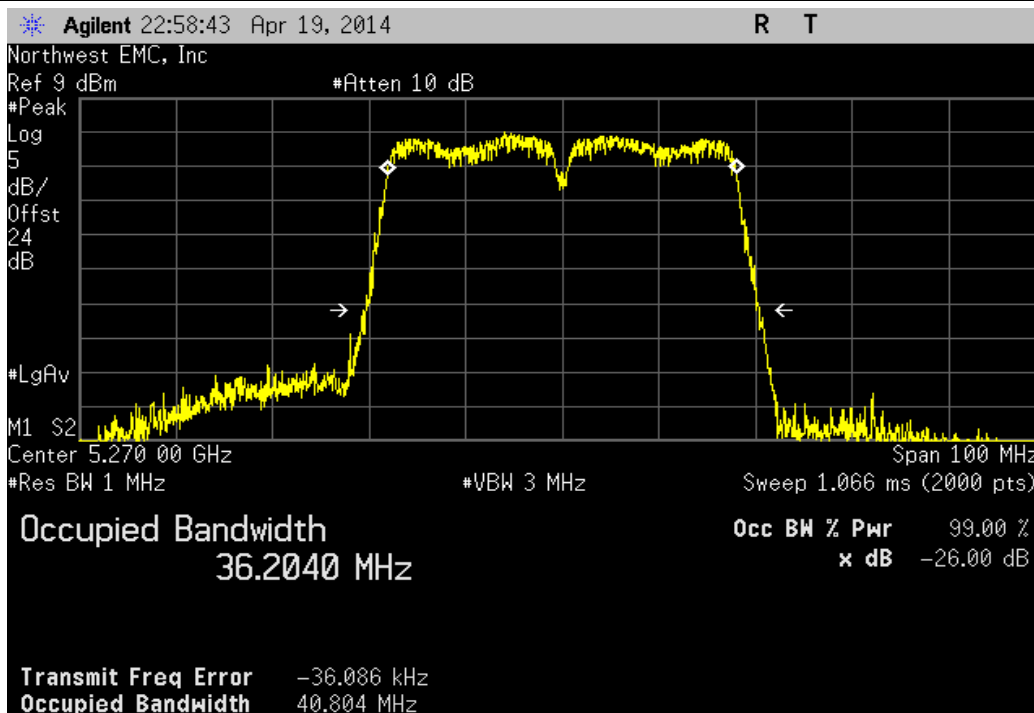
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.694 MHz	> 500 kHz	Pass



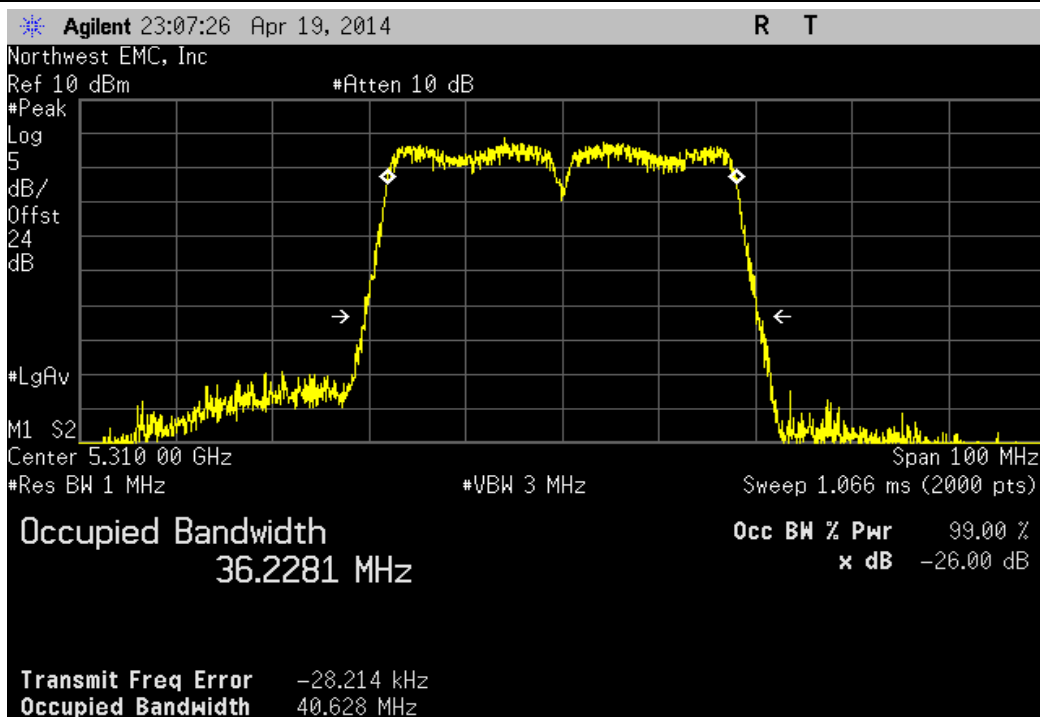
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.804 MHz	> 500 kHz	Pass



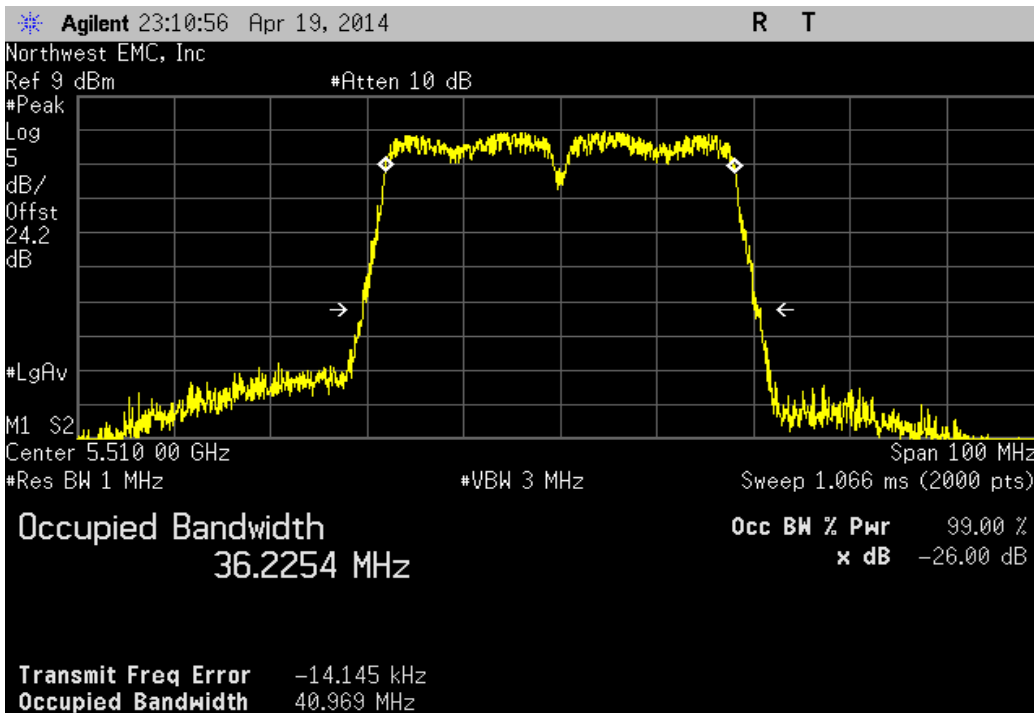
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.628 MHz	> 500 kHz	Pass



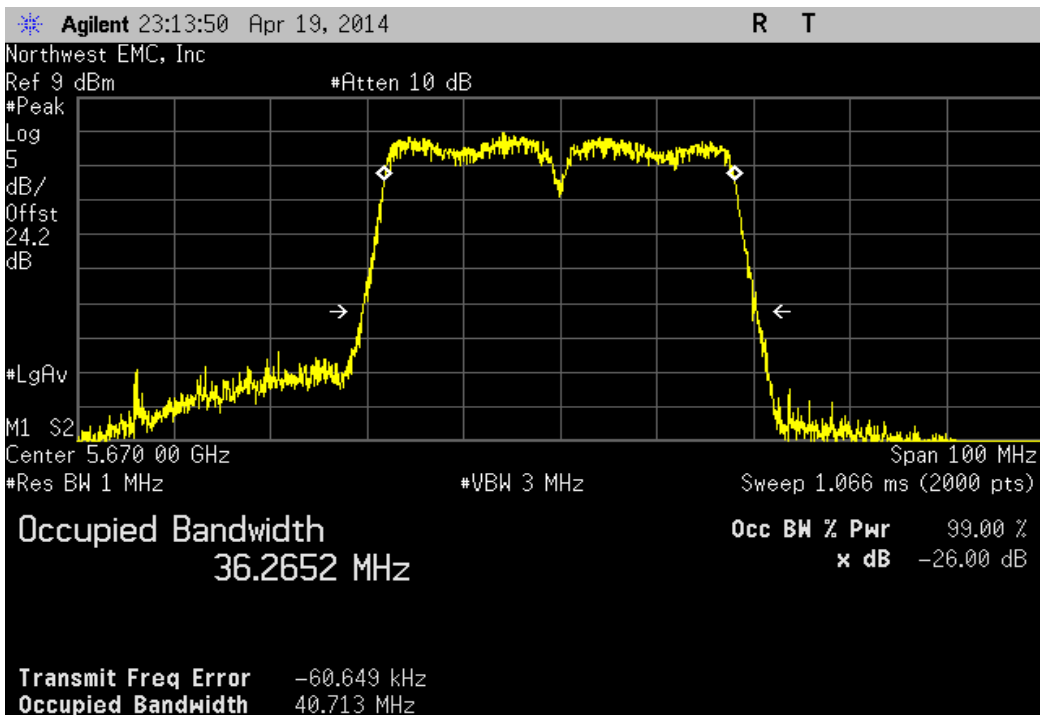
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
40.969 MHz	> 500 kHz	Pass



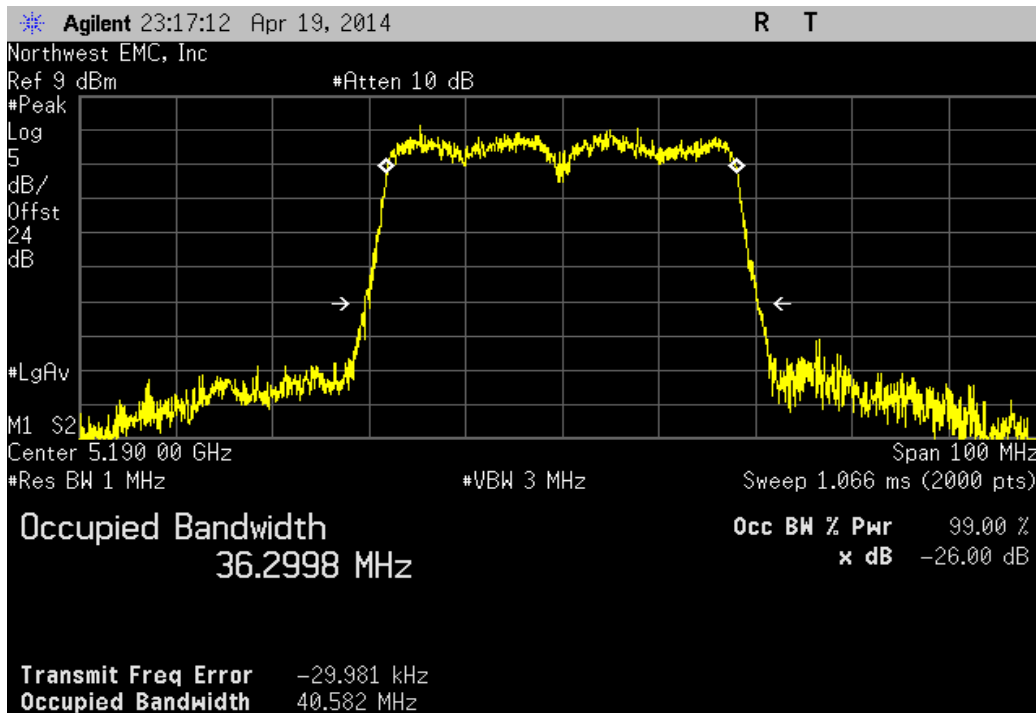
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
40.713 MHz	> 500 kHz	Pass



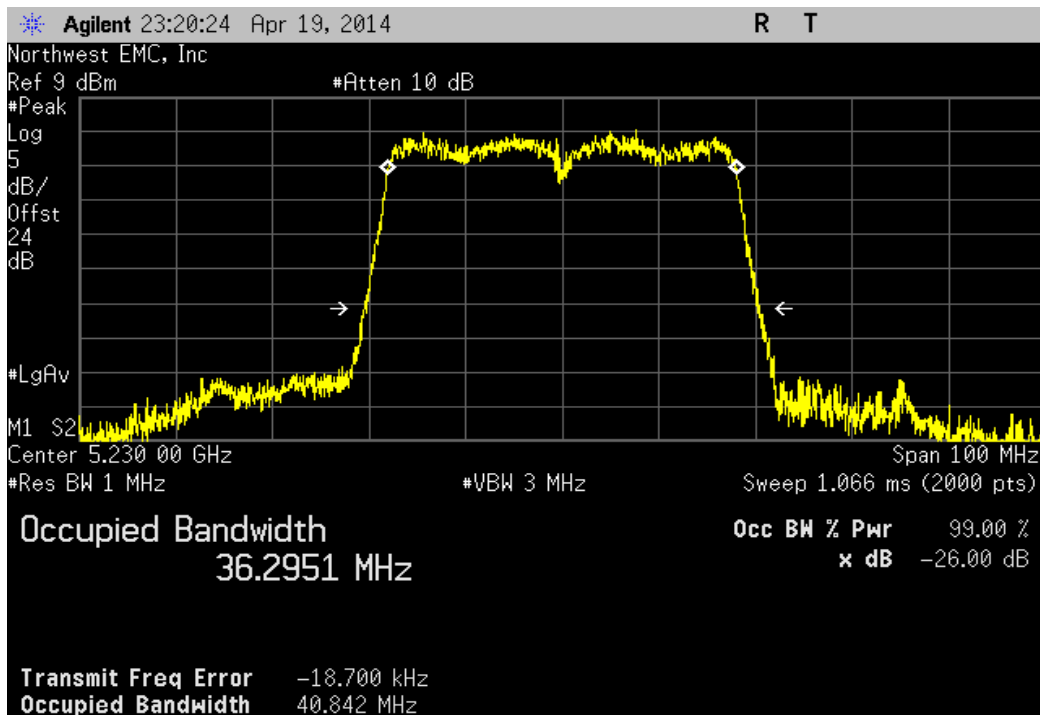
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
40.582 MHz	> 500 kHz	Pass



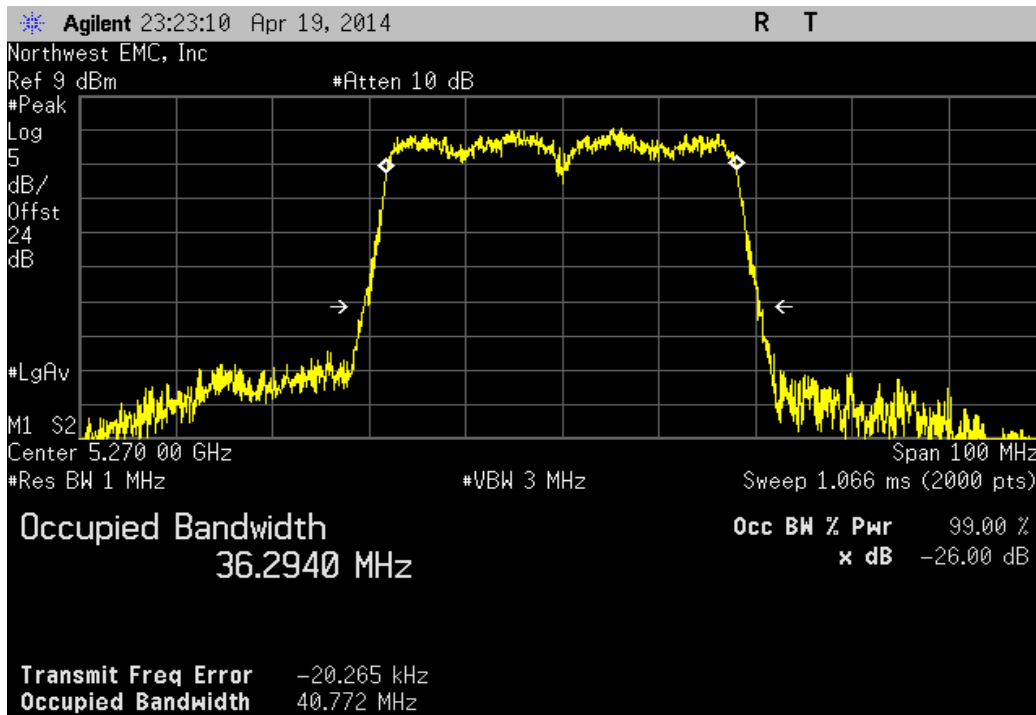
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.842 MHz	> 500 kHz	Pass



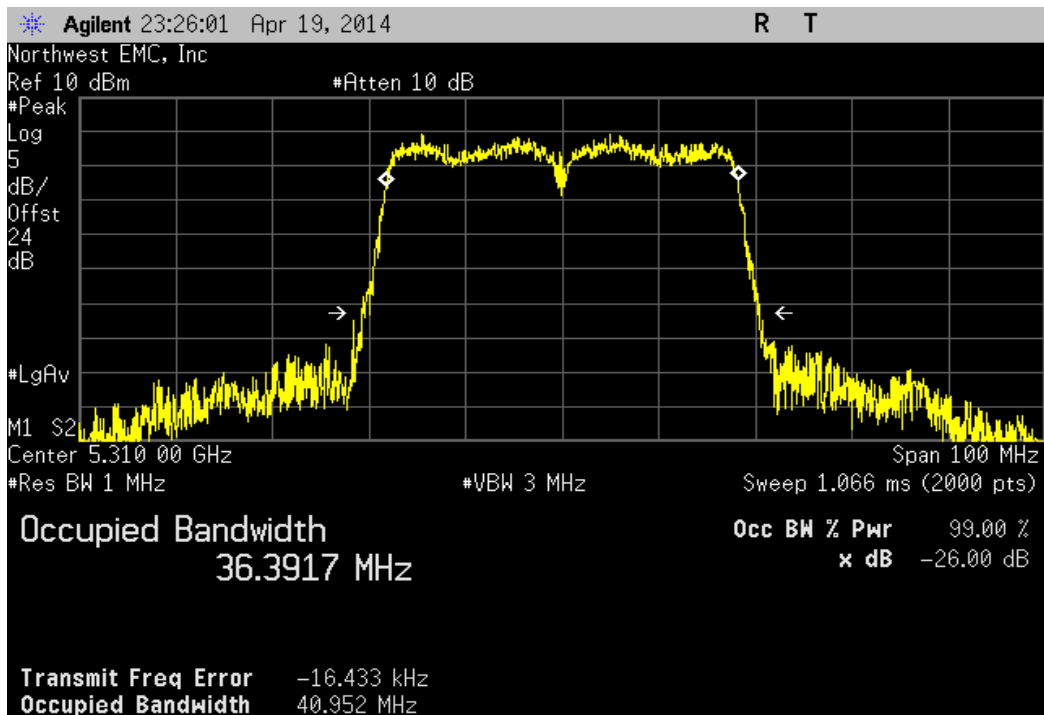
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.772 MHz	> 500 kHz	Pass



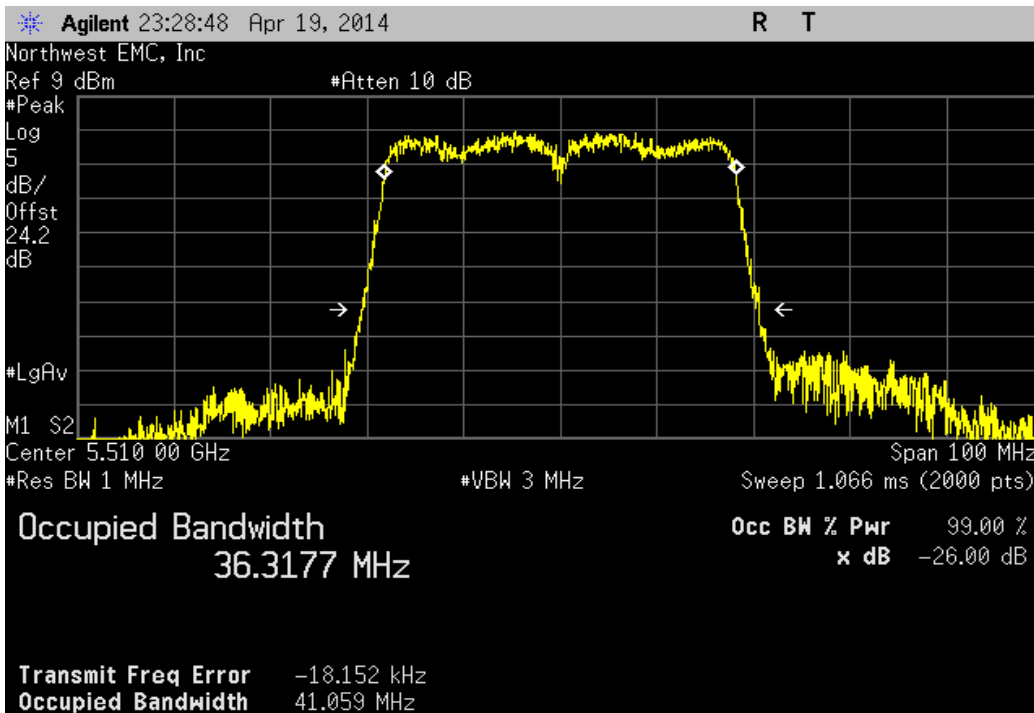
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.952 MHz	> 500 kHz	Pass



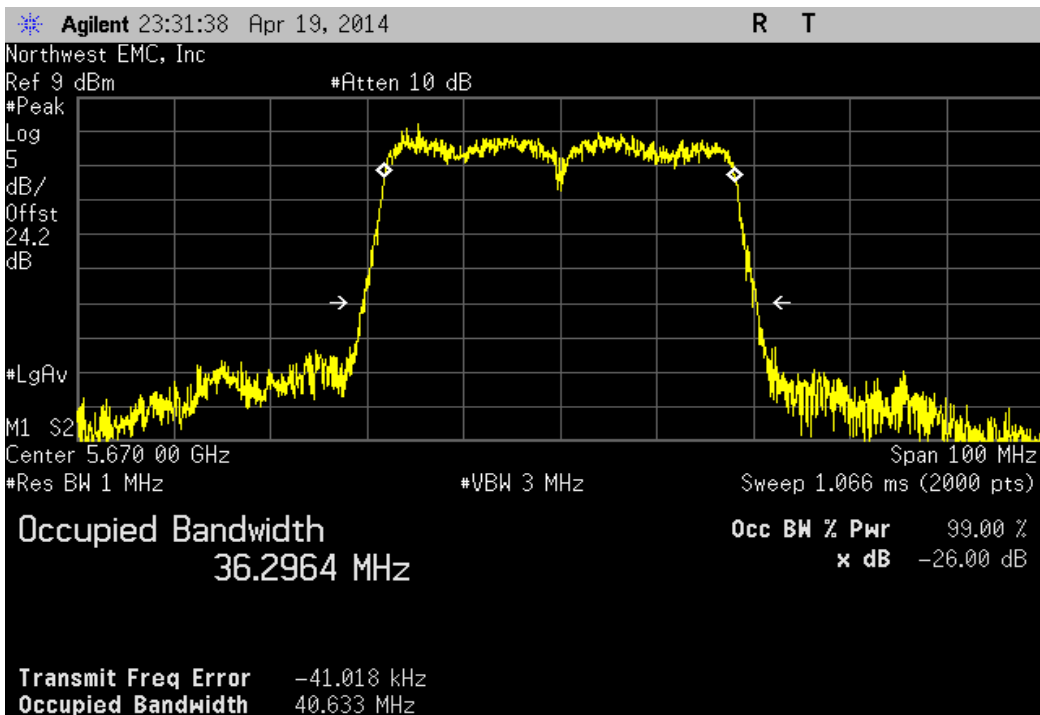
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 100/104, Low Channel 5510 MHz

				Value	Limit	Result
				41.059 MHz	> 500 kHz	Pass



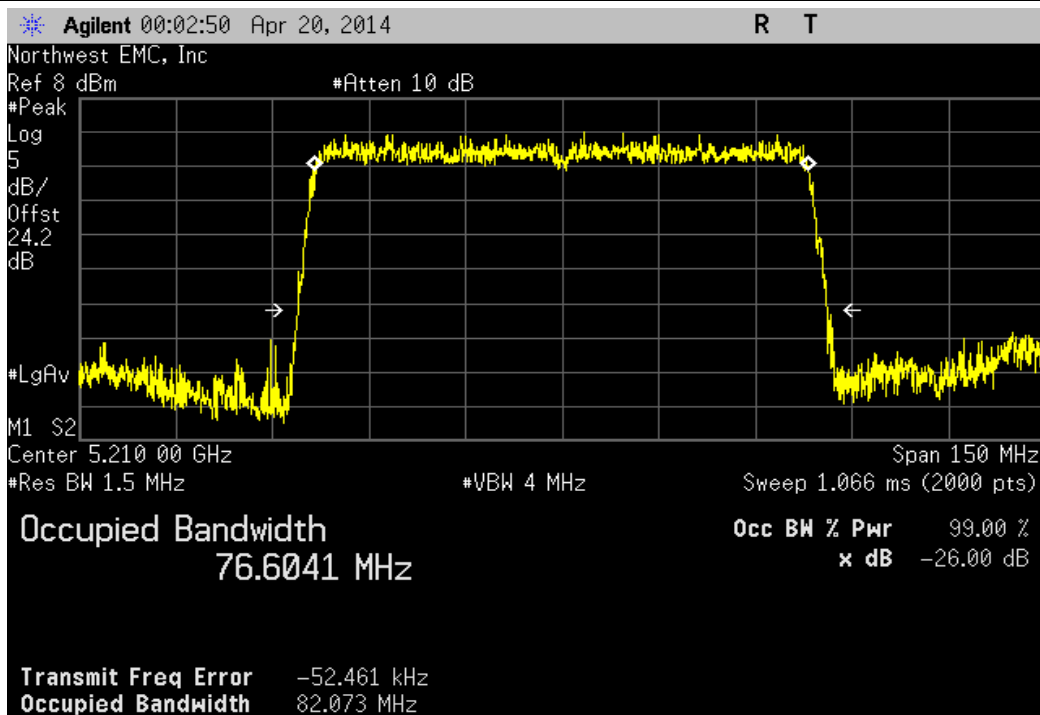
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 132/136, High Channel 5670 MHz

				Value	Limit	Result
				40.633 MHz	> 500 kHz	Pass



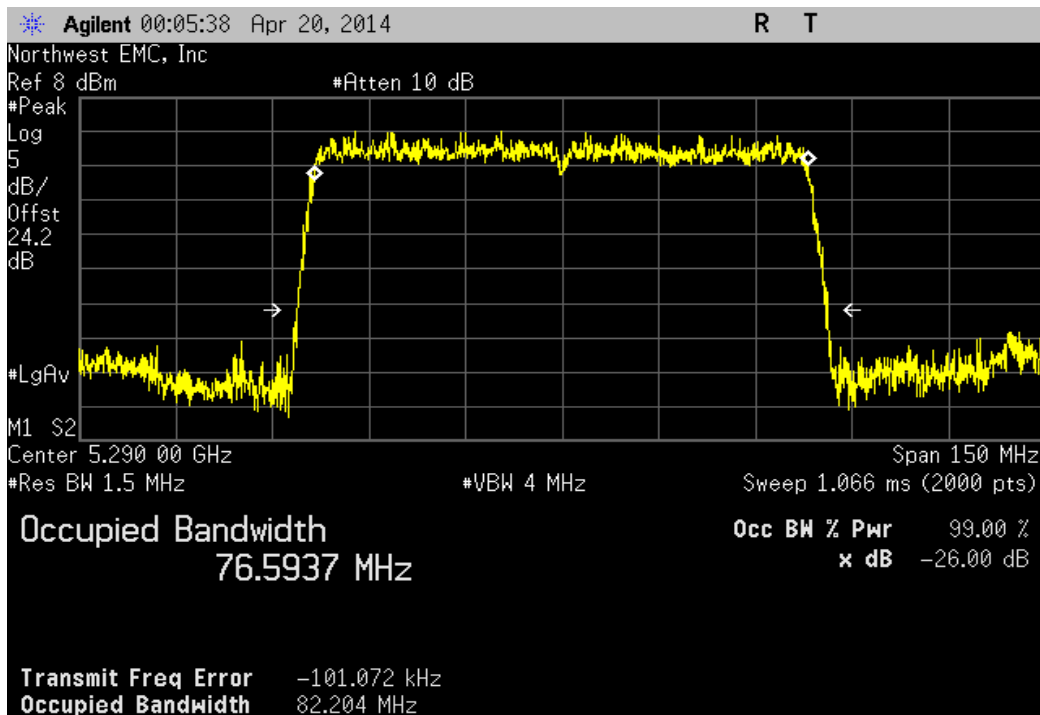
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
82.073 MHz	> 500 kHz	Pass



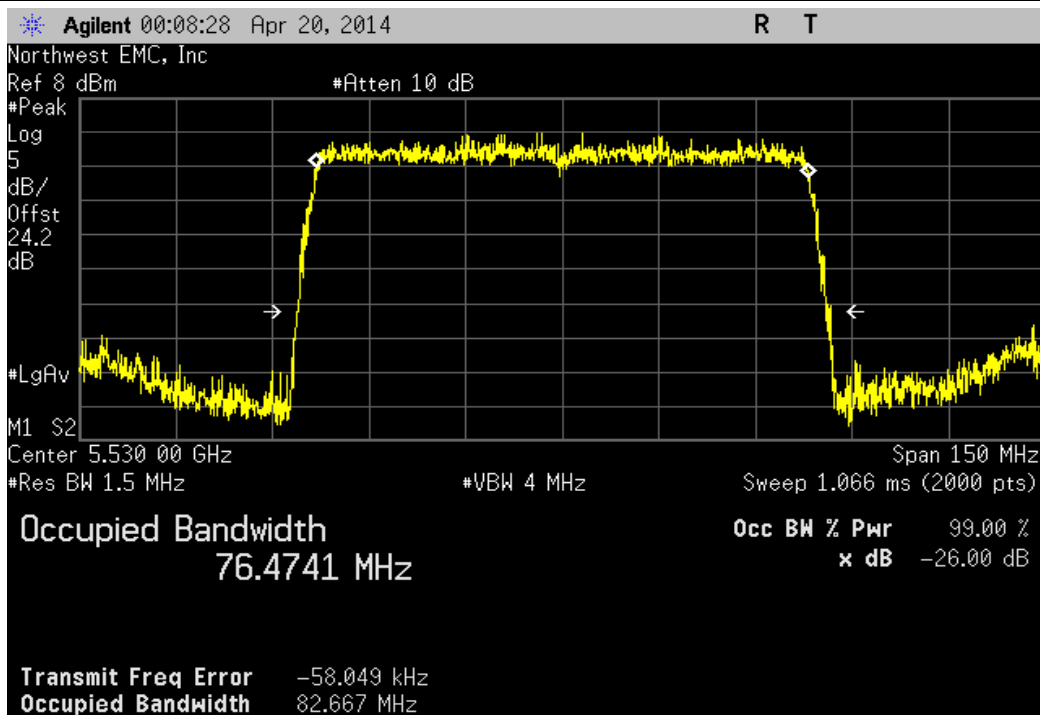
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
82.204 MHz	> 500 kHz	Pass



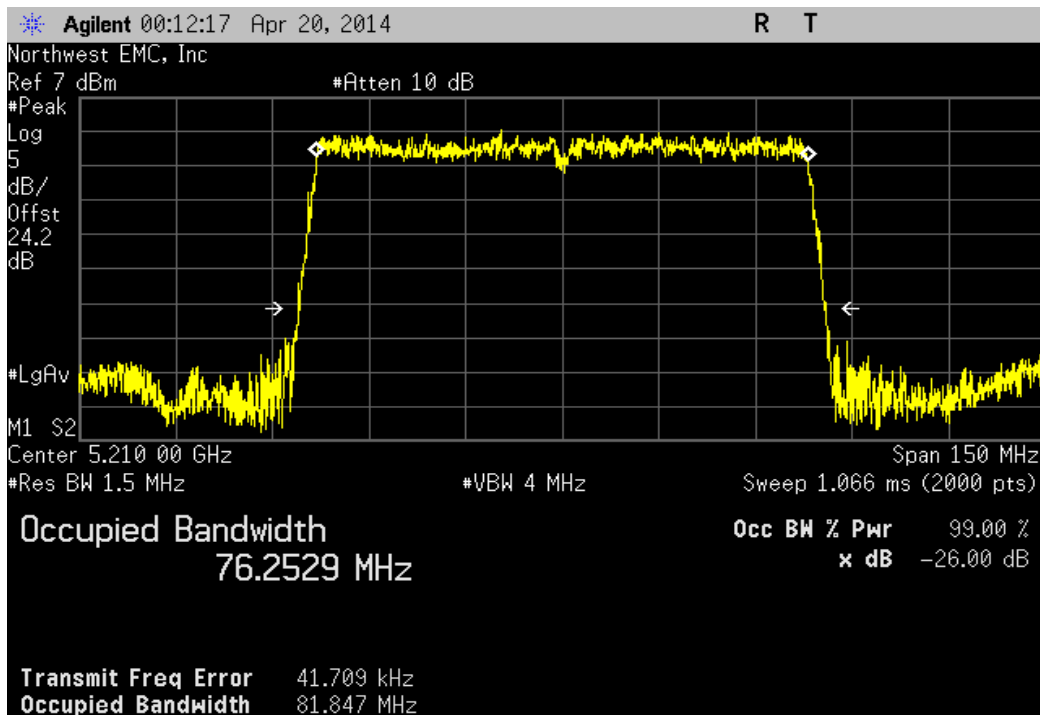
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
82.667 MHz	> 500 kHz	Pass



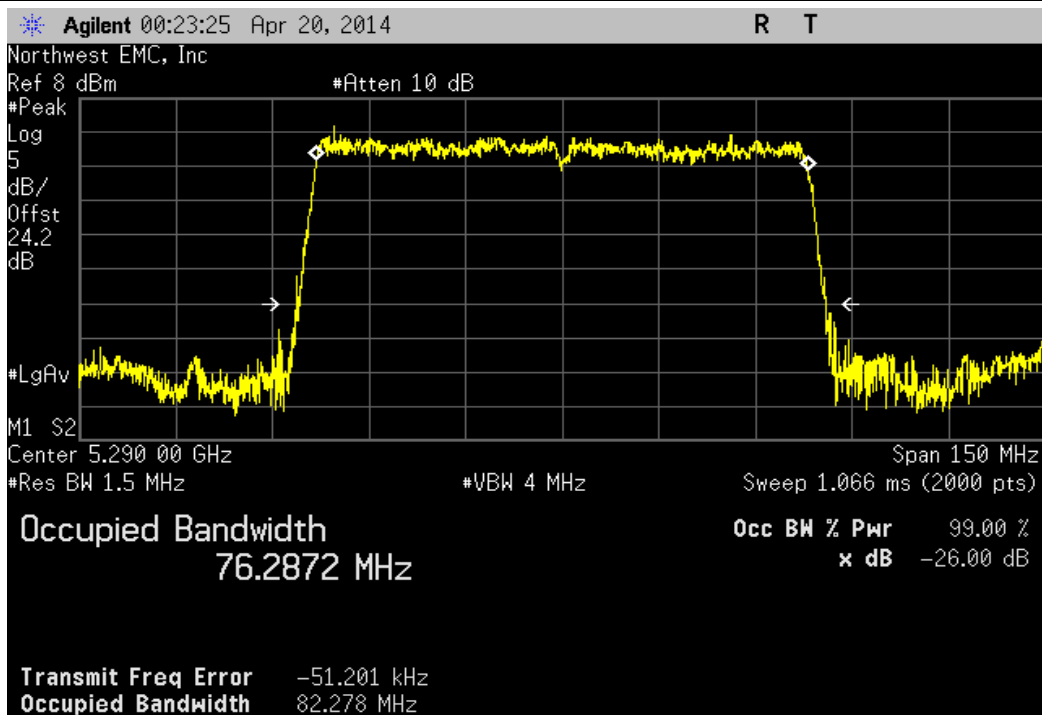
IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
81.847 MHz	> 500 kHz	Pass



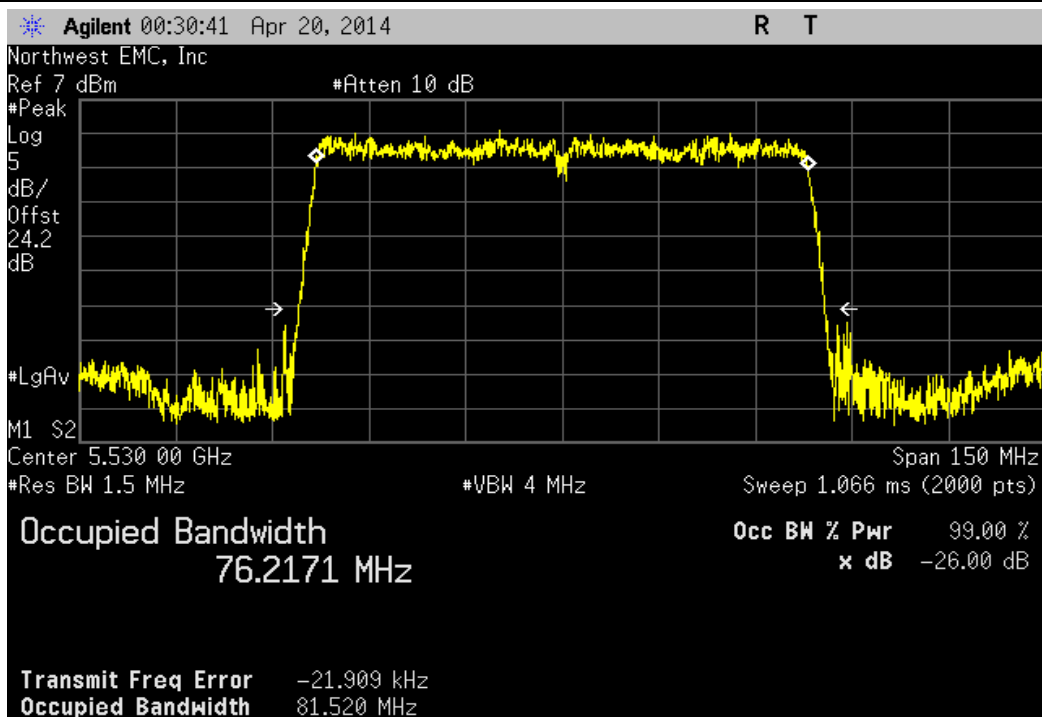
IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
82.278 MHz	> 500 kHz	Pass



IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
81.52 MHz	> 500 kHz	Pass



EMISSION BANDWIDTH

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 EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo.)
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24

TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures were followed.

The transmit frequencies and data rates listed in the datasheet were measured in each band utilized by the radio. The transmit power was set to its default maximum.

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.

The spectrum analyzer settings were as follows:

- RBW = Approx. 1% of the emission bandwidth (B). This was an iterative process to determine the RBW based on the emissions bandwidth (B).
- VBW = > RBW
- A peak detector was used
- Trace max hold.

The spectrum analyzer occupied bandwidth measurement function was then used to measure 26 dB emission bandwidth.

There is no required limit to be met in the rule part for this test. The purpose of the test is to both report the results as required by



EMISSION BANDWIDTH

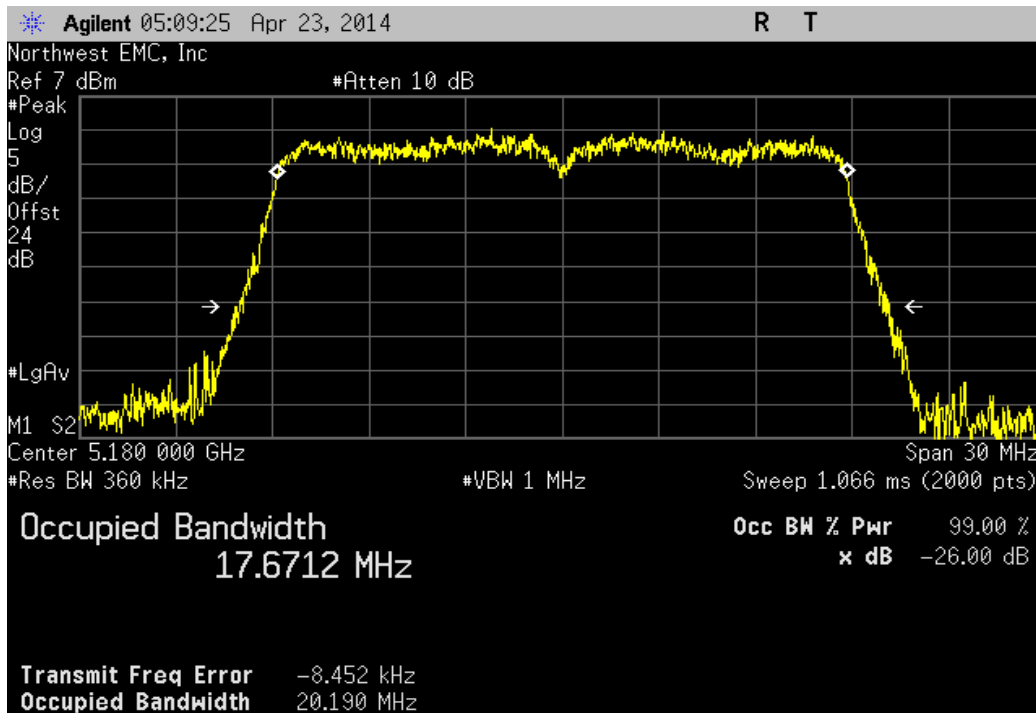
XMIT 2013.08.15
PsaTx 2013.10.23

EUT: Model 1631		Work Order: MCSO1698	
Serial Number: 006840341053		Date: 04/23/14	
Customer: Microsoft Corporation		Temperature: 22.3°C	
Attendees: None		Humidity: 32%	
Project: None		Barometric Pres.: 1014	
Tested by: Jared Ison		Power: 110VAC/60Hz	
Job Site: EV06			
TEST SPECIFICATIONS		Test Method	
FCC 15.407:2014		ANSI C63.10:2009	
COMMENTS			
Modes of operation tested were client provided.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	6	Signature 	
		Value	Limit Result
Chain A			
IEEE 802.11(n)			
20 MHz			
HT, MCS8			
Ch. 36, Low Channel 5180MHz		20.19 MHz	> 500 kHz Pass
Ch. 48, High Channel 5240 MHz		19.977 MHz	> 500 kHz Pass
Ch. 52, Low Channel 5260 MHz		20.112 MHz	> 500 kHz Pass
Ch. 64, High Channel 5320 MHz		20.136 MHz	> 500 kHz Pass
Ch. 100, Low Channel 5500 MHz		20.13 MHz	> 500 kHz Pass
Ch. 116, Mid Channel 5580 MHz		20.163 MHz	> 500 kHz Pass
Ch. 140, High Channel 5700 MHz		20.117 MHz	> 500 kHz Pass
HT, MCS15			
Ch. 36, Low Channel 5180MHz		19.869 MHz	> 500 kHz Pass
Ch. 48, High Channel 5240 MHz		20.026 MHz	> 500 kHz Pass
Ch. 52, Low Channel 5260 MHz		20.016 MHz	> 500 kHz Pass
Ch. 64, High Channel 5320 MHz		20.139 MHz	> 500 kHz Pass
Ch. 100, Low Channel 5500 MHz		19.902 MHz	> 500 kHz Pass
Ch. 116, Mid Channel 5580 MHz		20.352 MHz	> 500 kHz Pass
Ch. 140, High Channel 5700 MHz		20.031 MHz	> 500 kHz Pass
40 MHz			
HT, MCS8			
Ch. 36/40, Low Channel 5190 MHz		41.591 MHz	> 500 kHz Pass
Ch. 44/48, High Channel 5230 MHz		40.92 MHz	> 500 kHz Pass
Ch. 52/56, Low Channel 5270 MHz		40.816 MHz	> 500 kHz Pass
Ch. 60/64, High Channel 5310 MHz		40.879 MHz	> 500 kHz Pass
Ch. 100/104, Low Channel 5510 MHz		40.545 MHz	> 500 kHz Pass
Ch. 132/136, High Channel 5670 MHz		40.985 MHz	> 500 kHz Pass
HT, MCS15			
Ch. 36/40, Low Channel 5190 MHz		40.364 MHz	> 500 kHz Pass
Ch. 44/48, High Channel 5230 MHz		40.508 MHz	> 500 kHz Pass
Ch. 52/56, Low Channel 5270 MHz		40.38 MHz	> 500 kHz Pass
Ch. 60/64, High Channel 5310 MHz		40.882 MHz	> 500 kHz Pass
Ch. 100/104, Low Channel 5510 MHz		40.537 MHz	> 500 kHz Pass
Ch. 132/136, High Channel 5670 MHz		40.644 MHz	> 500 kHz Pass
IEEE 802.11(ac)			
20 MHz			
VHT, MCS0			
Ch. 36, Low Channel 5180MHz		20.226 MHz	> 500 kHz Pass
Ch. 48, High Channel 5240 MHz		20.041 MHz	> 500 kHz Pass
Ch. 52, Low Channel 5260 MHz		20.133 MHz	> 500 kHz Pass
Ch. 64, High Channel 5320 MHz		20.114 MHz	> 500 kHz Pass
Ch. 100, Low Channel 5500 MHz		20.099 MHz	> 500 kHz Pass
Ch. 116, Mid Channel 5580 MHz		20.283 MHz	> 500 kHz Pass
Ch. 140, High Channel 5700 MHz		20.129 MHz	> 500 kHz Pass
VHT, MCS8			
Ch. 36, Low Channel 5180MHz		19.925 MHz	> 500 kHz Pass
Ch. 48, High Channel 5240 MHz		19.717 MHz	> 500 kHz Pass
Ch. 52, Low Channel 5260 MHz		19.93 MHz	> 500 kHz Pass
Ch. 64, High Channel 5320 MHz		19.902 MHz	> 500 kHz Pass
Ch. 100, Low Channel 5500 MHz		19.957 MHz	> 500 kHz Pass
Ch. 116, Mid Channel 5580 MHz		20.114 MHz	> 500 kHz Pass
Ch. 140, High Channel 5700 MHz		19.921 MHz	> 500 kHz Pass
40 MHz			
VHT, MCS0			
Ch. 36/40, Low Channel 5190 MHz		40.683 MHz	> 500 kHz Pass
Ch. 44/48, High Channel 5230 MHz		41.074 MHz	> 500 kHz Pass
Ch. 52/56, Low Channel 5270 MHz		40.463 MHz	> 500 kHz Pass
Ch. 60/64, High Channel 5310 MHz		40.975 MHz	> 500 kHz Pass
Ch. 100/104, Low Channel 5510 MHz		40.622 MHz	> 500 kHz Pass
Ch. 132/136, High Channel 5670 MHz		41.381 MHz	> 500 kHz Pass
VHT, MCS9			
Ch. 36/40, Low Channel 5190 MHz		40.55 MHz	> 500 kHz Pass
Ch. 44/48, High Channel 5230 MHz		40.855 MHz	> 500 kHz Pass
Ch. 52/56, Low Channel 5270 MHz		40.938 MHz	> 500 kHz Pass
Ch. 60/64, High Channel 5310 MHz		40.889 MHz	> 500 kHz Pass
Ch. 100/104, Low Channel 5510 MHz		40.679 MHz	> 500 kHz Pass
Ch. 132/136, High Channel 5670 MHz		41.215 MHz	> 500 kHz Pass
80 MHz			
VHT, MCS0			
Ch. 42, Low Channel 5210 MHz		82.117 MHz	> 500 kHz Pass
Ch. 58, High Channel 5290 MHz		82.628 MHz	> 500 kHz Pass
Ch. 106, Low Channel 5530 MHz		82.301 MHz	> 500 kHz Pass
VHT, MCS9			
Ch. 42, Low Channel 5210 MHz		81.735 MHz	> 500 kHz Pass
Ch. 58, High Channel 5290 MHz		82.4 MHz	> 500 kHz Pass
Ch. 106, Low Channel 5530 MHz		82.568 MHz	> 500 kHz Pass
Chain B			
IEEE 802.11(n)			
20 MHz			
HT, MCS8			
Ch. 36, Low Channel 5180MHz		19.836 MHz	> 500 kHz Pass
Ch. 48, High Channel 5240 MHz		19.975 MHz	> 500 kHz Pass
Ch. 52, Low Channel 5260 MHz		19.884 MHz	> 500 kHz Pass
Ch. 64, High Channel 5320 MHz		19.961 MHz	> 500 kHz Pass
Ch. 100, Low Channel 5500 MHz		19.888 MHz	> 500 kHz Pass
Ch. 116, Mid Channel 5580 MHz		20.076 MHz	> 500 kHz Pass

IEEE 802.11(ac)	40 MHz	HT, MCS15	Ch. 140, High Channel 5700 MHz	19.874 MHz	> 500 kHz	Pass
			Ch. 36, Low Channel 5180MHz	19.975 MHz	> 500 kHz	Pass
			Ch. 48, High Channel 5240 MHz	19.927 MHz	> 500 kHz	Pass
			Ch. 52, Low Channel 5260 MHz	20.001 MHz	> 500 kHz	Pass
			Ch. 64, High Channel 5320 MHz	20.081 MHz	> 500 kHz	Pass
			Ch. 100, Low Channel 5500 MHz	19.792 MHz	> 500 kHz	Pass
			Ch. 116, Mid Channel 5580 MHz	20.131 MHz	> 500 kHz	Pass
			Ch. 140, High Channel 5700 MHz	20.025 MHz	> 500 kHz	Pass
IEEE 802.11(ac)	40 MHz	HT, MCS8	Ch. 36/40, Low Channel 5190 MHz	40.738 MHz	> 500 kHz	Pass
			Ch. 44/48, High Channel 5230 MHz	40.829 MHz	> 500 kHz	Pass
			Ch. 52/56, Low Channel 5270 MHz	40.936 MHz	> 500 kHz	Pass
			Ch. 60/64, High Channel 5310 MHz	41.108 MHz	> 500 kHz	Pass
			Ch. 100/104, Low Channel 5510 MHz	40.769 MHz	> 500 kHz	Pass
			Ch. 132/136, High Channel 5670 MHz	41.969 MHz	> 500 kHz	Pass
IEEE 802.11(ac)	40 MHz	HT, MCS15	Ch. 36/40, Low Channel 5190 MHz	41.308 MHz	> 500 kHz	Pass
			Ch. 44/48, High Channel 5230 MHz	40.476 MHz	> 500 kHz	Pass
			Ch. 52/56, Low Channel 5270 MHz	40.747 MHz	> 500 kHz	Pass
			Ch. 60/64, High Channel 5310 MHz	40.273 MHz	> 500 kHz	Pass
			Ch. 100/104, Low Channel 5510 MHz	40.548 MHz	> 500 kHz	Pass
			Ch. 132/136, High Channel 5670 MHz	40.504 MHz	> 500 kHz	Pass
IEEE 802.11(ac)	20 MHz	VHT, MCS0	Ch. 36, Low Channel 5180MHz	19.867 MHz	> 500 kHz	Pass
			Ch. 48, High Channel 5240 MHz	19.829 MHz	> 500 kHz	Pass
			Ch. 52, Low Channel 5260 MHz	19.809 MHz	> 500 kHz	Pass
			Ch. 64, High Channel 5320 MHz	19.779 MHz	> 500 kHz	Pass
			Ch. 100, Low Channel 5500 MHz	19.892 MHz	> 500 kHz	Pass
			Ch. 116, Mid Channel 5580 MHz	19.875 MHz	> 500 kHz	Pass
			Ch. 140, High Channel 5700 MHz	19.903 MHz	> 500 kHz	Pass
IEEE 802.11(ac)	20 MHz	VHT, MCS8	Ch. 36, Low Channel 5180MHz	20.083 MHz	> 500 kHz	Pass
			Ch. 48, High Channel 5240 MHz	19.807 MHz	> 500 kHz	Pass
			Ch. 52, Low Channel 5260 MHz	19.984 MHz	> 500 kHz	Pass
			Ch. 64, High Channel 5320 MHz	19.999 MHz	> 500 kHz	Pass
			Ch. 100, Low Channel 5500 MHz	20.01 MHz	> 500 kHz	Pass
			Ch. 116, Mid Channel 5580 MHz	20.128 MHz	> 500 kHz	Pass
			Ch. 140, High Channel 5700 MHz	19.947 MHz	> 500 kHz	Pass
IEEE 802.11(ac)	40 MHz	VHT, MCS0	Ch. 36/40, Low Channel 5190 MHz	40.441 MHz	> 500 kHz	Pass
			Ch. 44/48, High Channel 5230 MHz	40.376 MHz	> 500 kHz	Pass
			Ch. 52/56, Low Channel 5270 MHz	41.229 MHz	> 500 kHz	Pass
			Ch. 60/64, High Channel 5310 MHz	40.669 MHz	> 500 kHz	Pass
			Ch. 100/104, Low Channel 5510 MHz	40.316 MHz	> 500 kHz	Pass
			Ch. 132/136, High Channel 5670 MHz	40.904 MHz	> 500 kHz	Pass
IEEE 802.11(ac)	40 MHz	VHT, MCS9	Ch. 36/40, Low Channel 5190 MHz	41.187 MHz	> 500 kHz	Pass
			Ch. 44/48, High Channel 5230 MHz	40.484 MHz	> 500 kHz	Pass
			Ch. 52/56, Low Channel 5270 MHz	40.398 MHz	> 500 kHz	Pass
			Ch. 60/64, High Channel 5310 MHz	41.102 MHz	> 500 kHz	Pass
			Ch. 100/104, Low Channel 5510 MHz	40.648 MHz	> 500 kHz	Pass
			Ch. 132/136, High Channel 5670 MHz	40.508 MHz	> 500 kHz	Pass
IEEE 802.11(ac)	80 MHz	VHT, MCS0	Ch. 42, Low Channel 5210 MHz	81.559 MHz	> 500 kHz	Pass
			Ch. 58, High Channel 5290 MHz	81.596 MHz	> 500 kHz	Pass
			Ch. 106, Low Channel 5530 MHz	81.907 MHz	> 500 kHz	Pass
IEEE 802.11(ac)	80 MHz	VHT, MCS9	Ch. 42, Low Channel 5210 MHz	81.601 MHz	> 500 kHz	Pass
			Ch. 58, High Channel 5290 MHz	81.607 MHz	> 500 kHz	Pass
			Ch. 106, Low Channel 5530 MHz	81.619 MHz	> 500 kHz	Pass

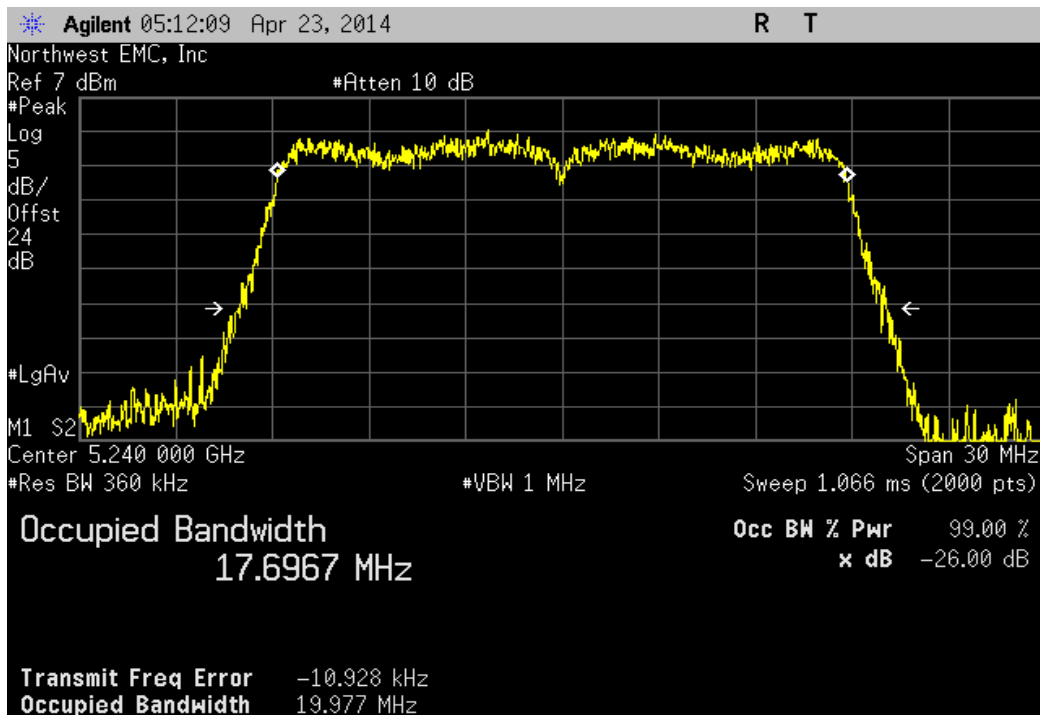
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 36, Low Channel 5180MHz

				Value	Limit	Result
				20.19 MHz	> 500 kHz	Pass



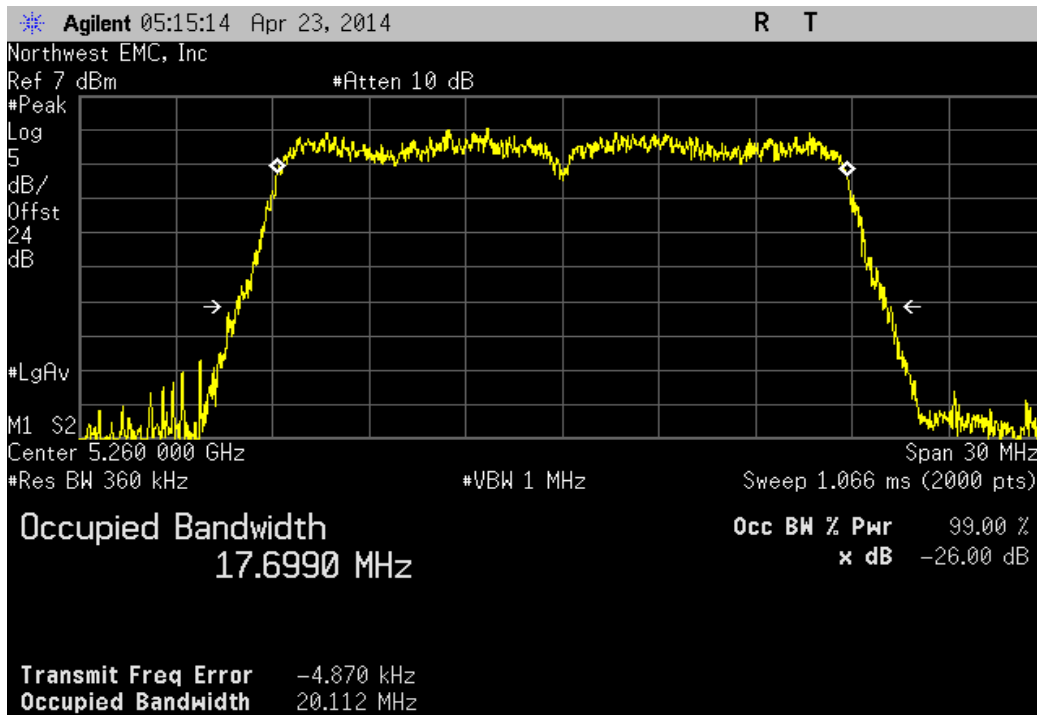
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 48, High Channel 5240 MHz

				Value	Limit	Result
				19.977 MHz	> 500 kHz	Pass



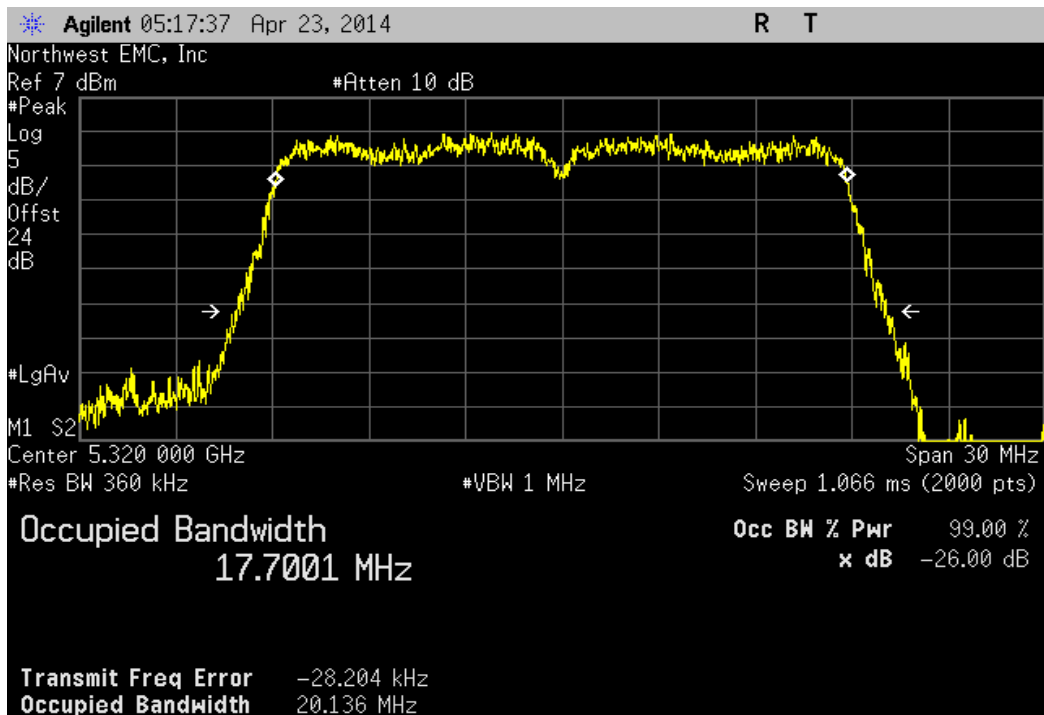
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
20.112 MHz	> 500 kHz	Pass



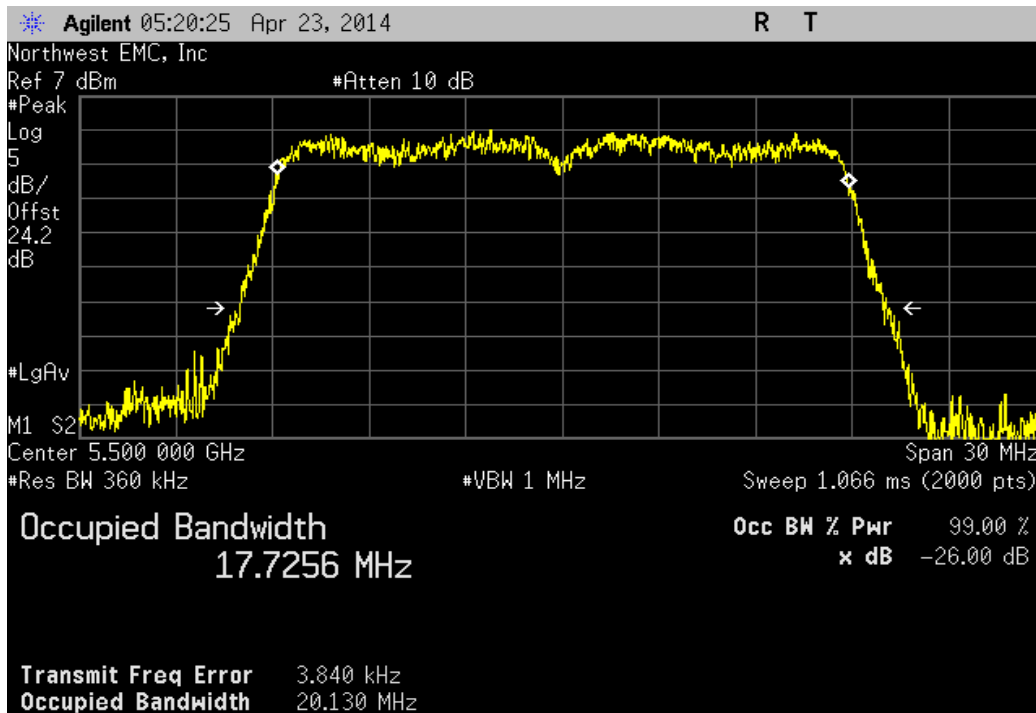
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
20.136 MHz	> 500 kHz	Pass



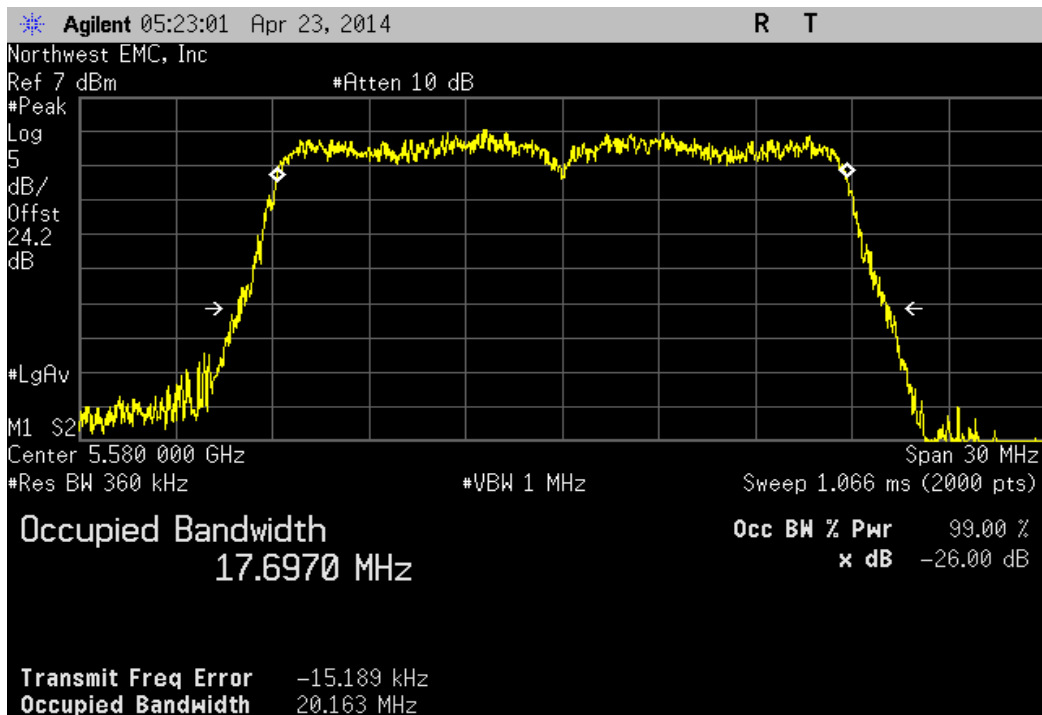
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 100, Low Channel 5500 MHz

				Value	Limit	Result
				20.13 MHz	> 500 kHz	Pass



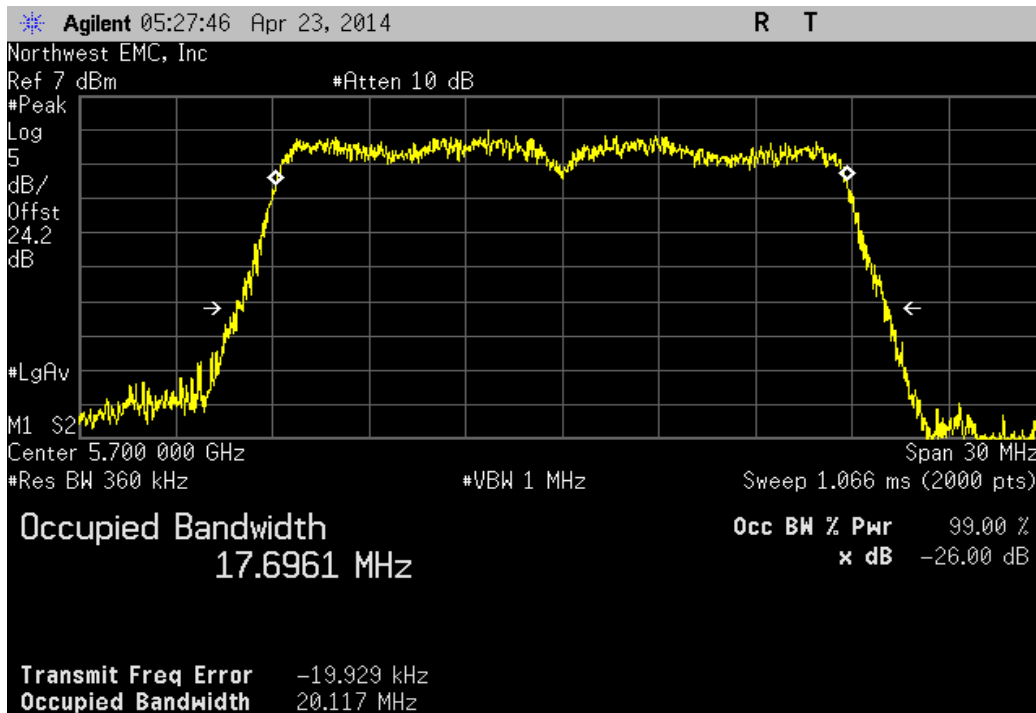
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 116, Mid Channel 5580 MHz

				Value	Limit	Result
				20.163 MHz	> 500 kHz	Pass



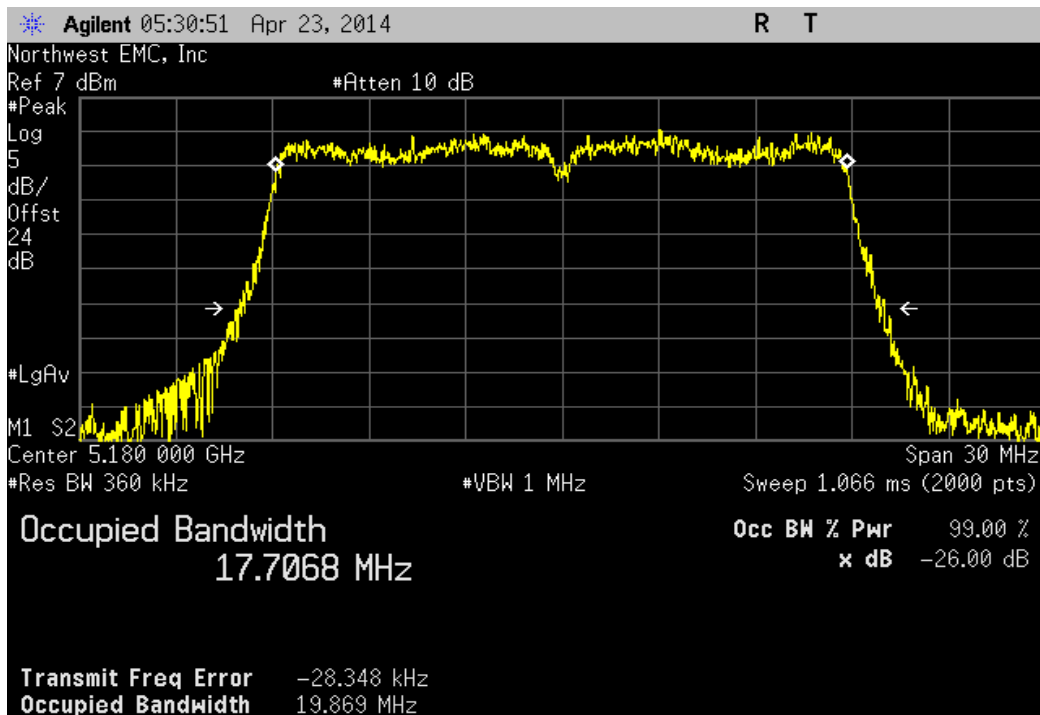
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 140, High Channel 5700 MHz

				Value	Limit	Result
				20.117 MHz	> 500 kHz	Pass



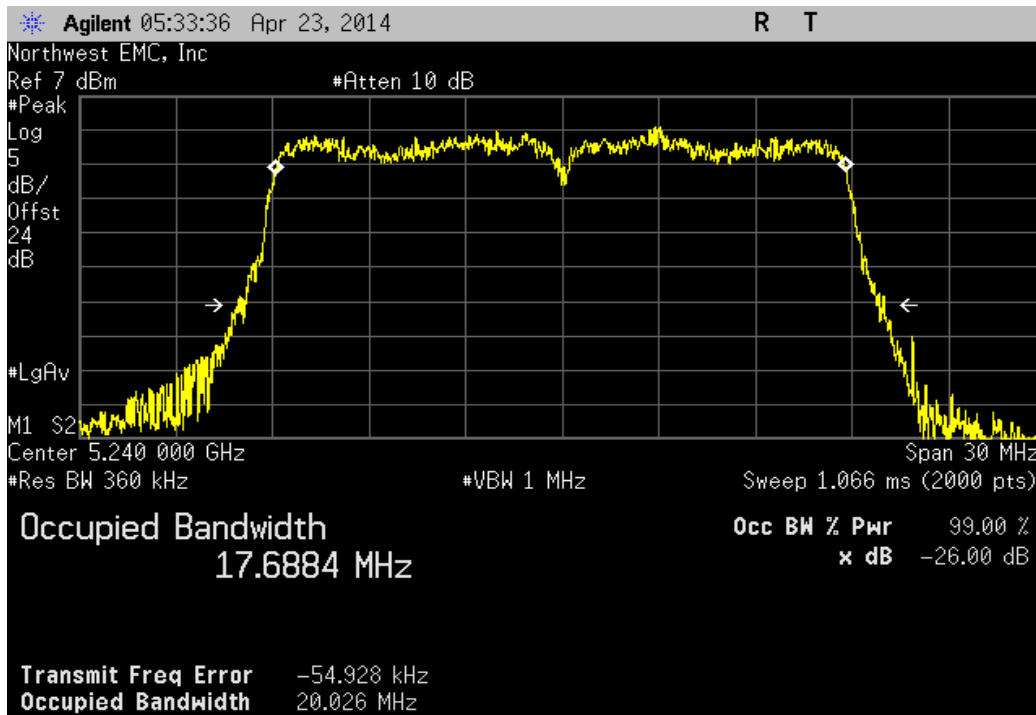
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 36, Low Channel 5180MHz

				Value	Limit	Result
				19.869 MHz	> 500 kHz	Pass



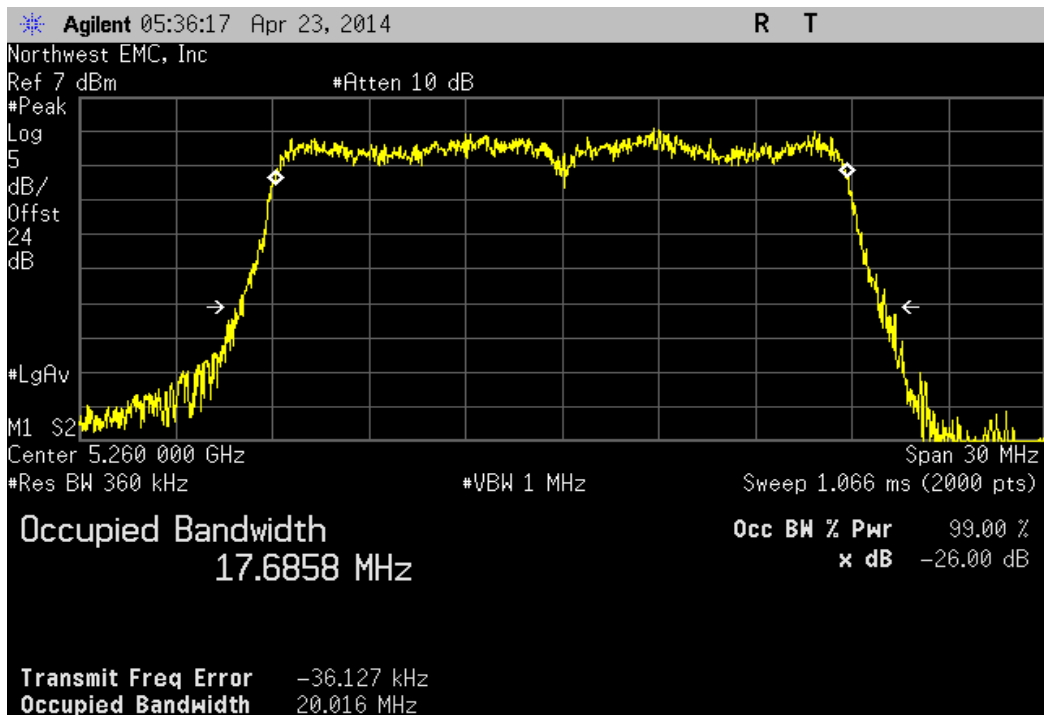
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
20.026 MHz	> 500 kHz	Pass



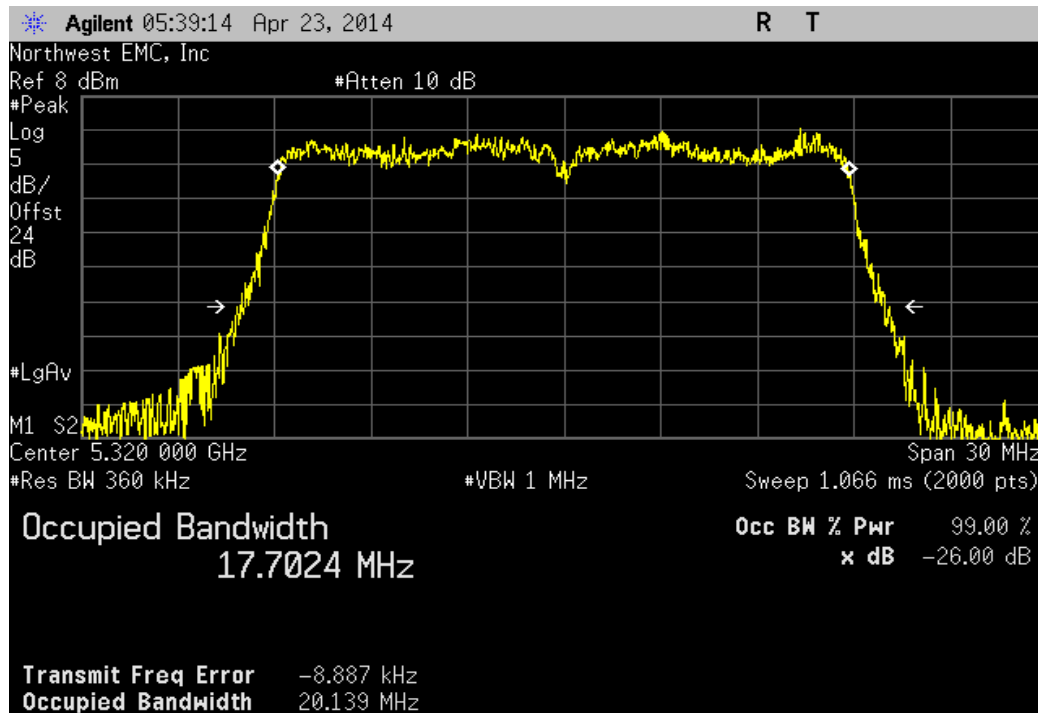
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
20.016 MHz	> 500 kHz	Pass



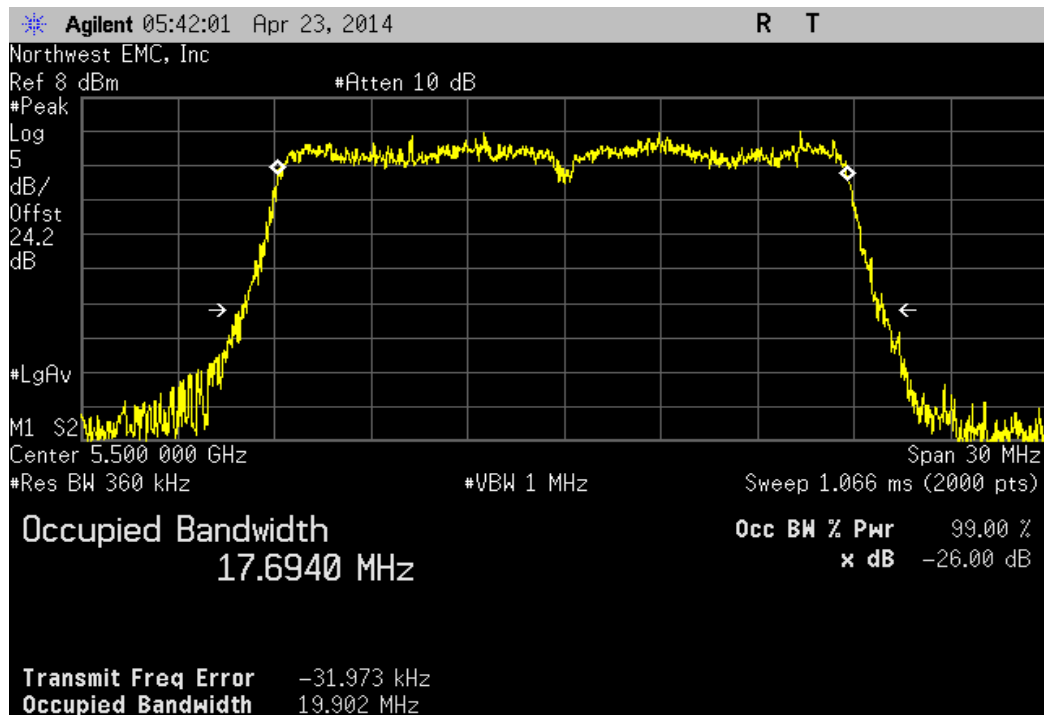
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 64, High Channel 5320 MHz

				Value	Limit	Result
				20.139 MHz	> 500 kHz	Pass



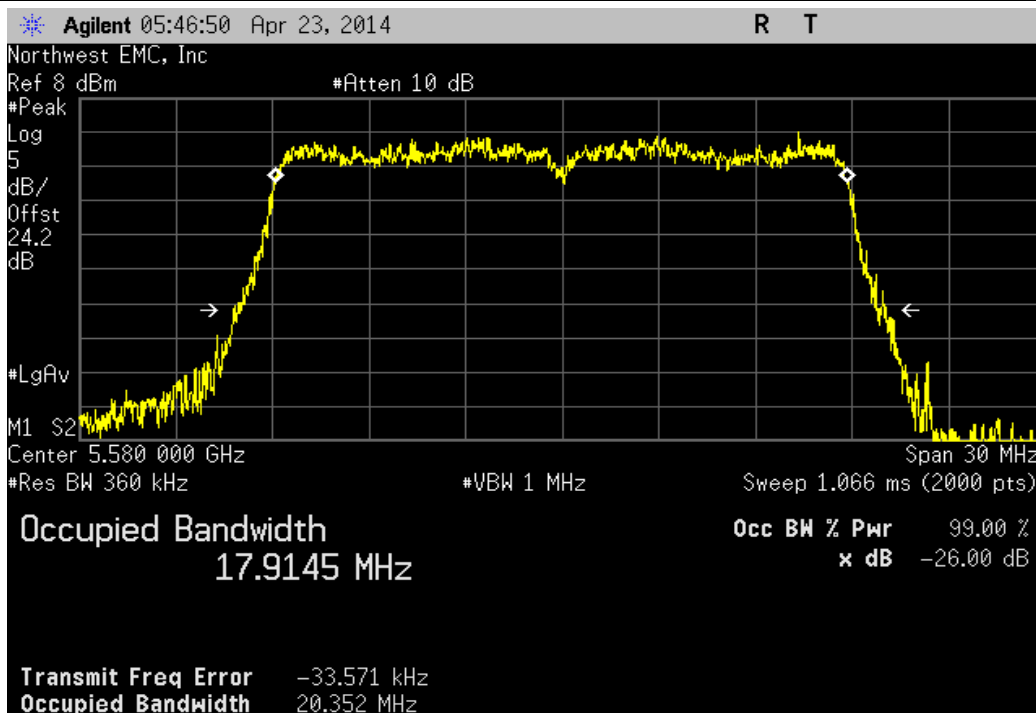
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 100, Low Channel 5500 MHz

				Value	Limit	Result
				19.902 MHz	> 500 kHz	Pass



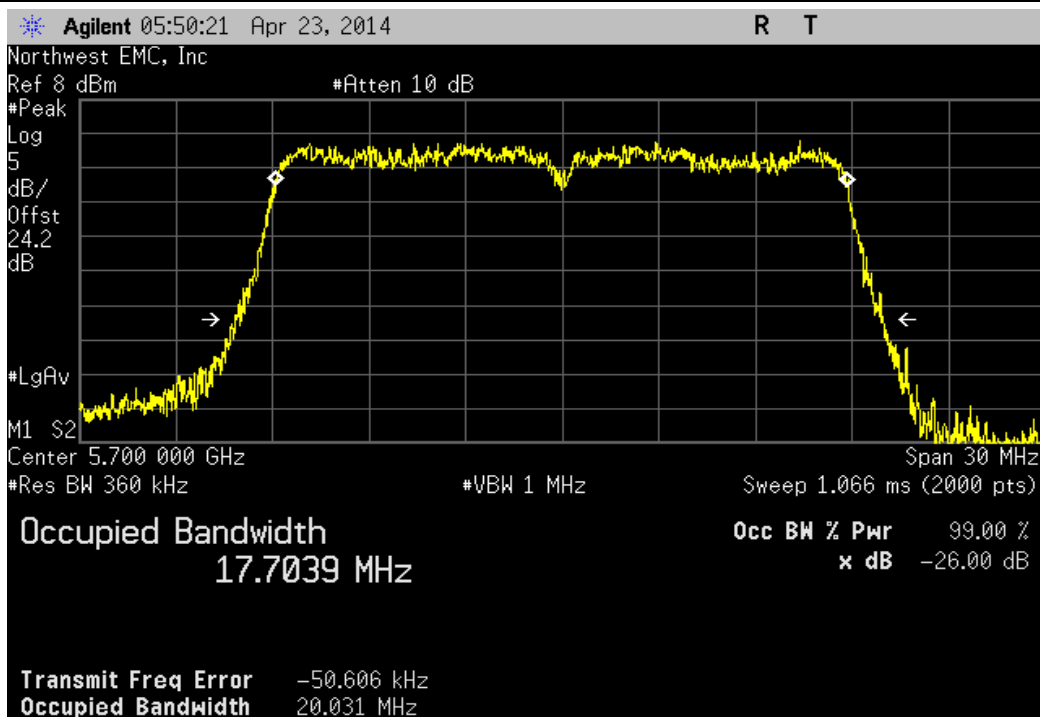
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 116, Mid Channel 5580 MHz

				Value	Limit	Result
				20.352 MHz	> 500 kHz	Pass



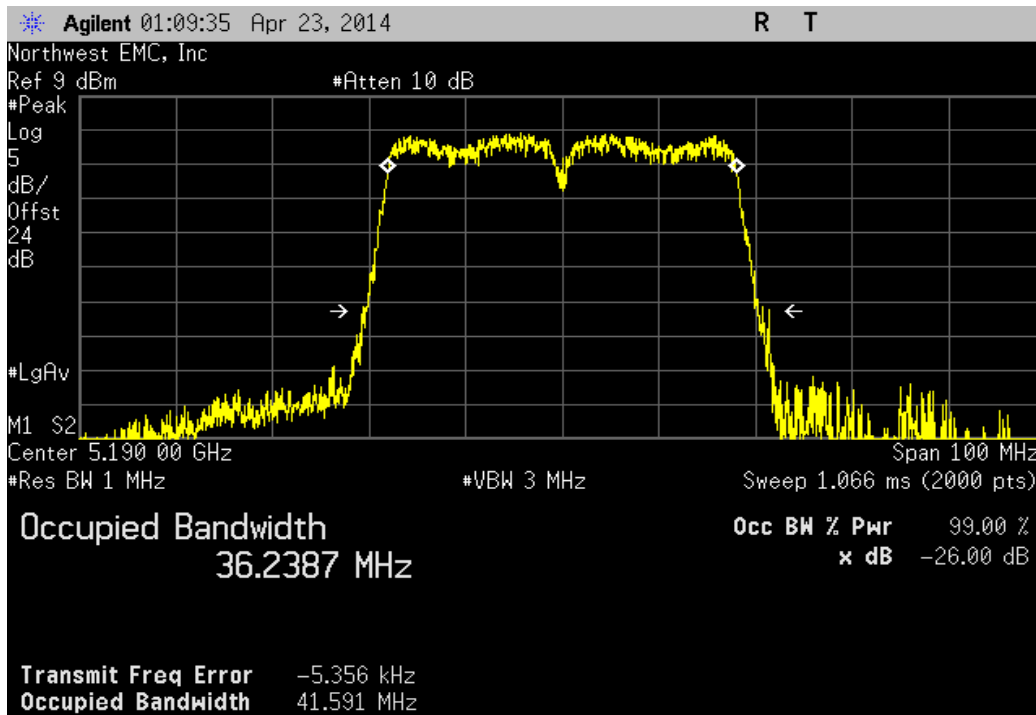
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 140, High Channel 5700 MHz

				Value	Limit	Result
				20.031 MHz	> 500 kHz	Pass



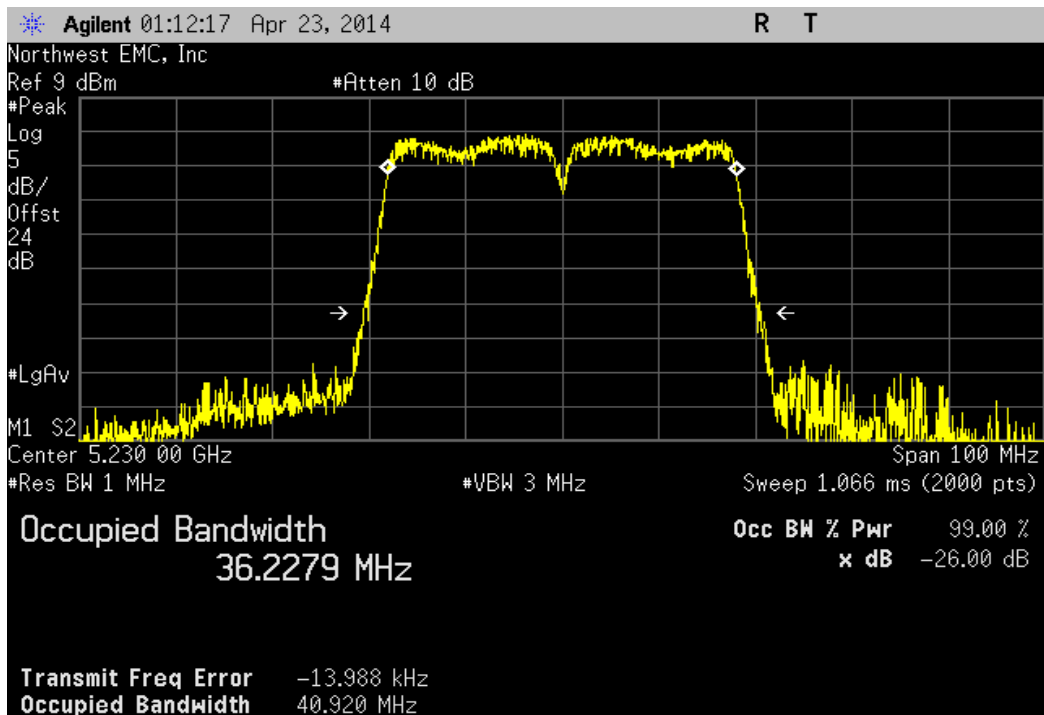
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
41.591 MHz	> 500 kHz	Pass



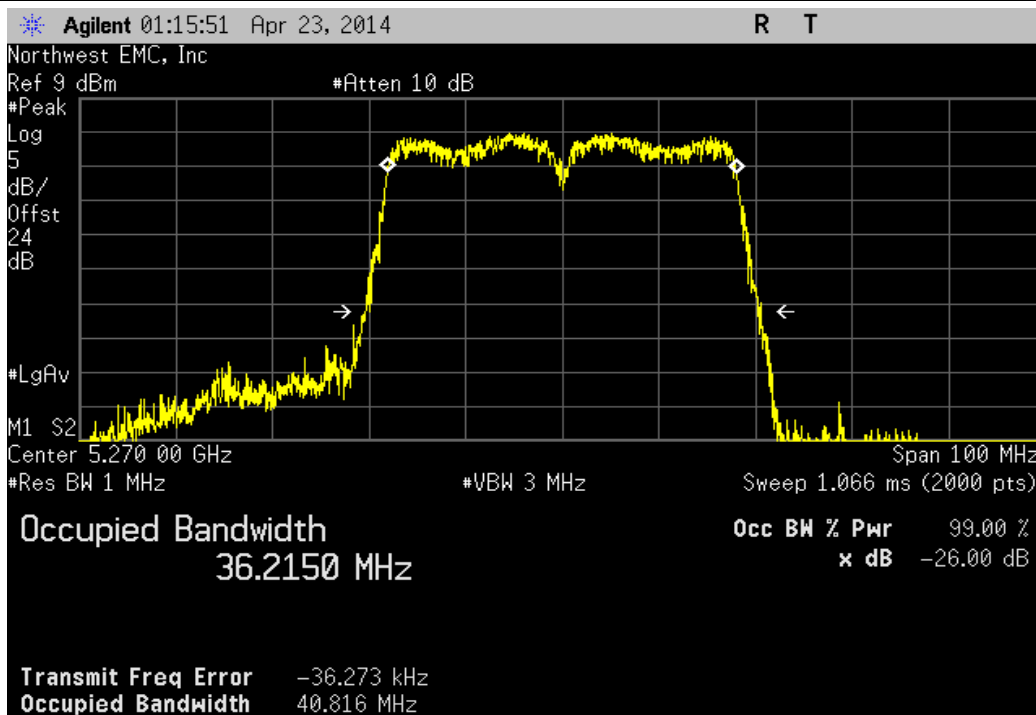
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.92 MHz	> 500 kHz	Pass



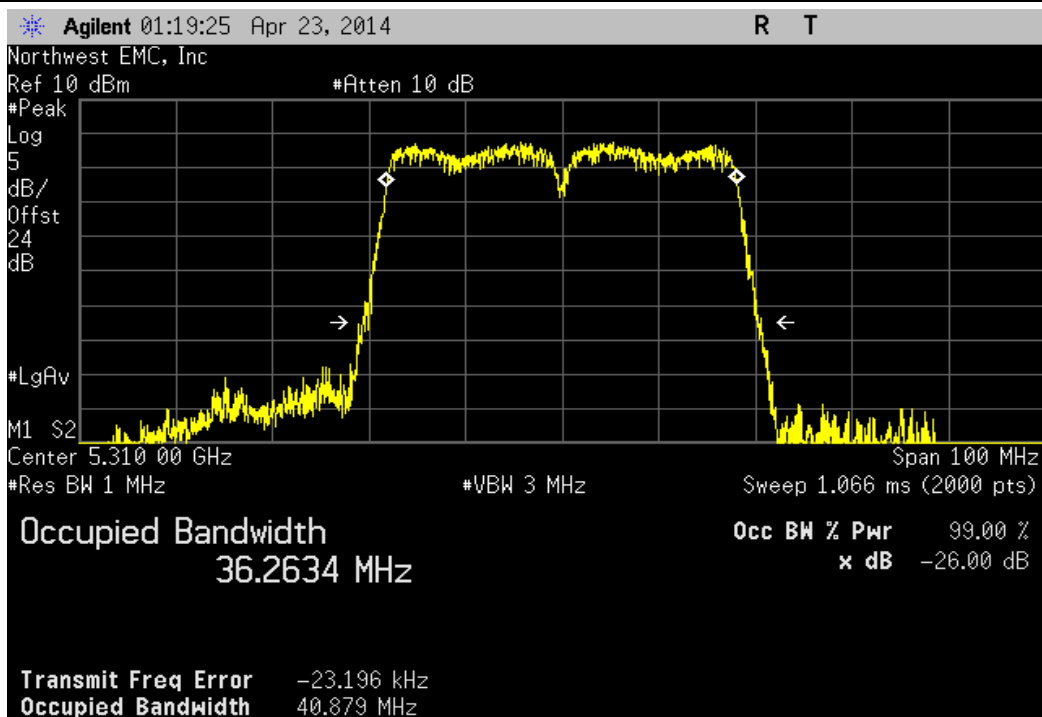
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.816 MHz	> 500 kHz	Pass



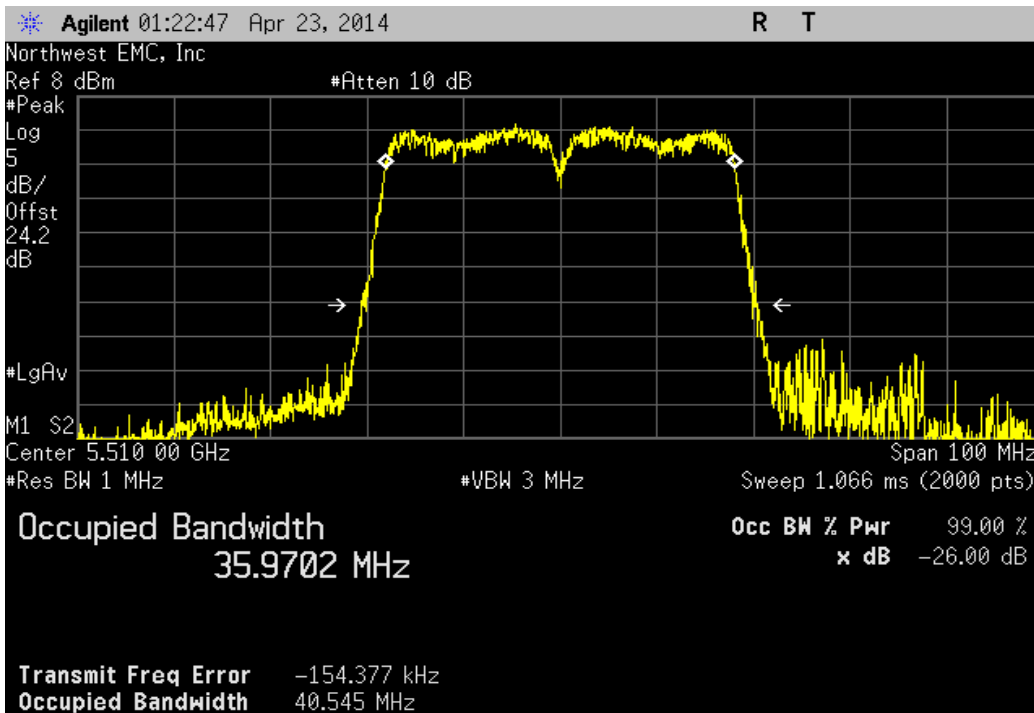
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.879 MHz	> 500 kHz	Pass



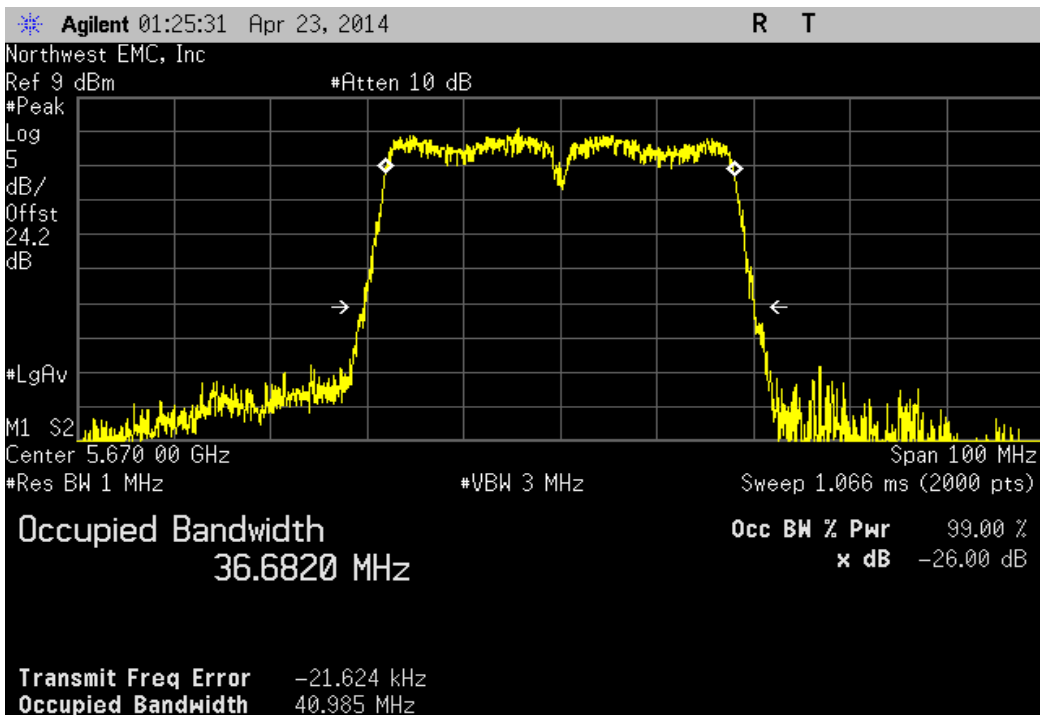
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 100/104, Low Channel 5510 MHz

				Value	Limit	Result
				40.545 MHz	> 500 kHz	Pass



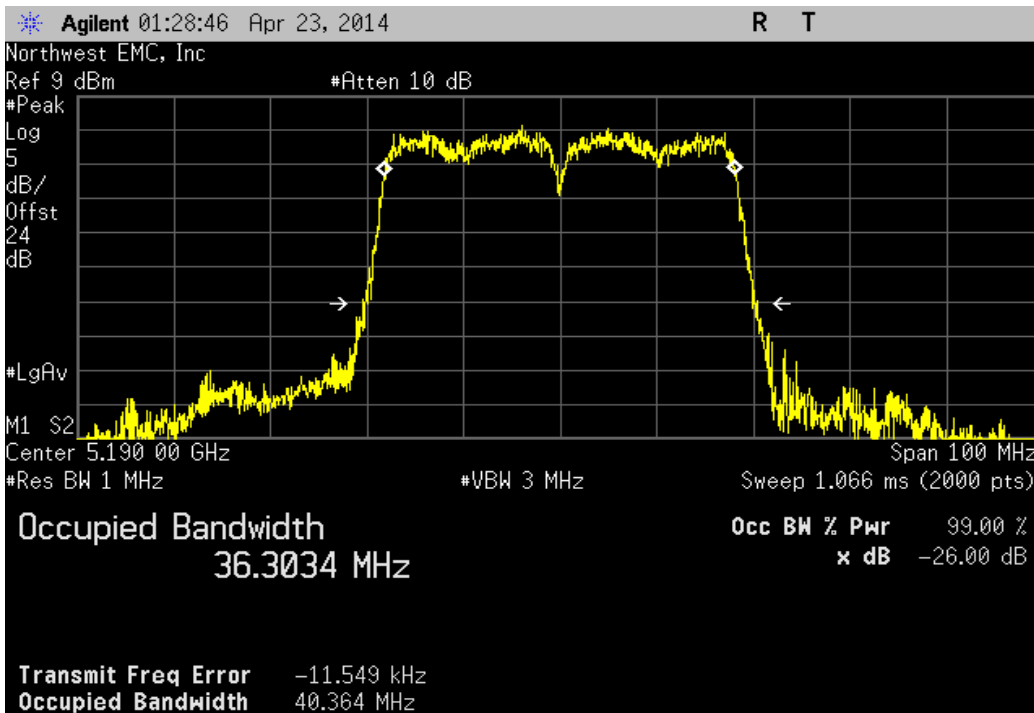
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 132/136, High Channel 5670 MHz

				Value	Limit	Result
				40.985 MHz	> 500 kHz	Pass



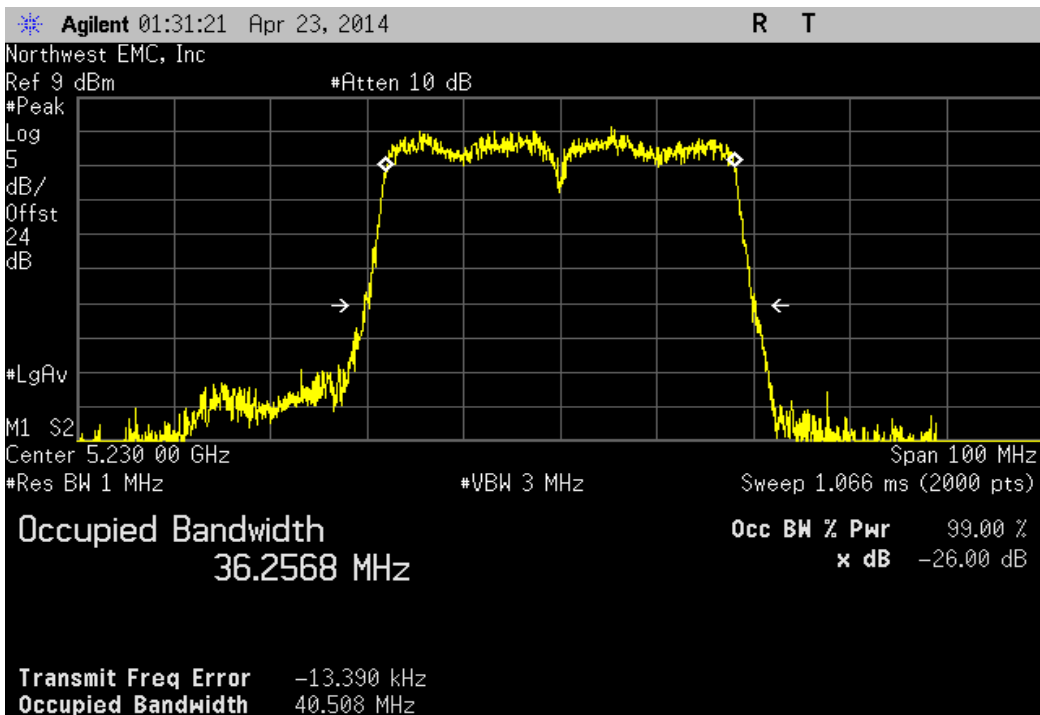
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
40.364 MHz	> 500 kHz	Pass



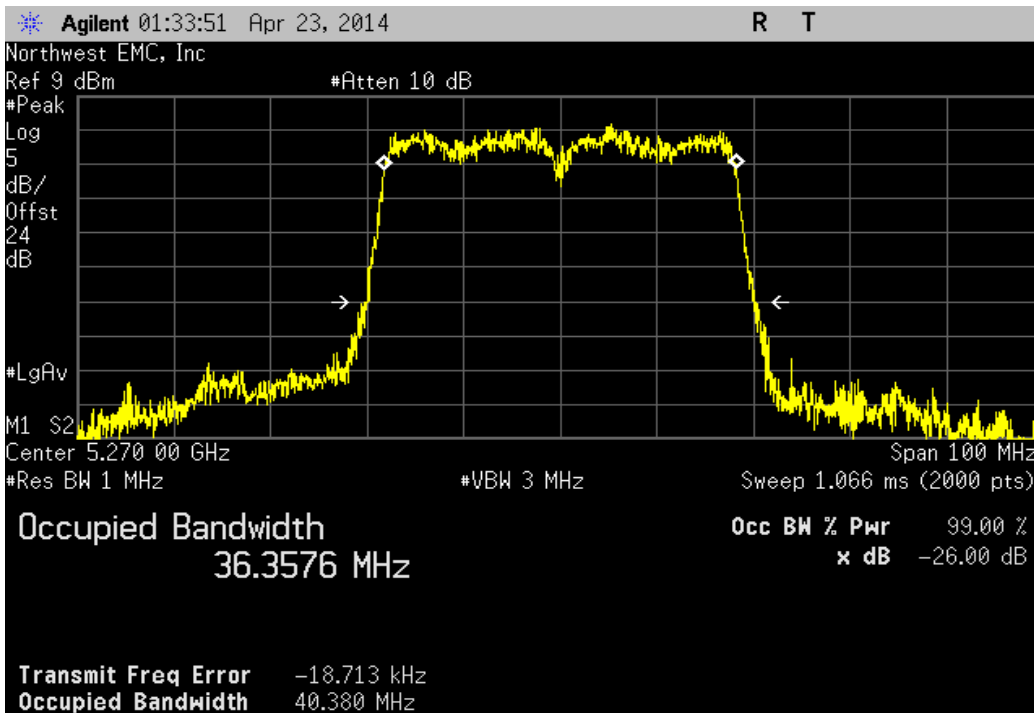
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.508 MHz	> 500 kHz	Pass



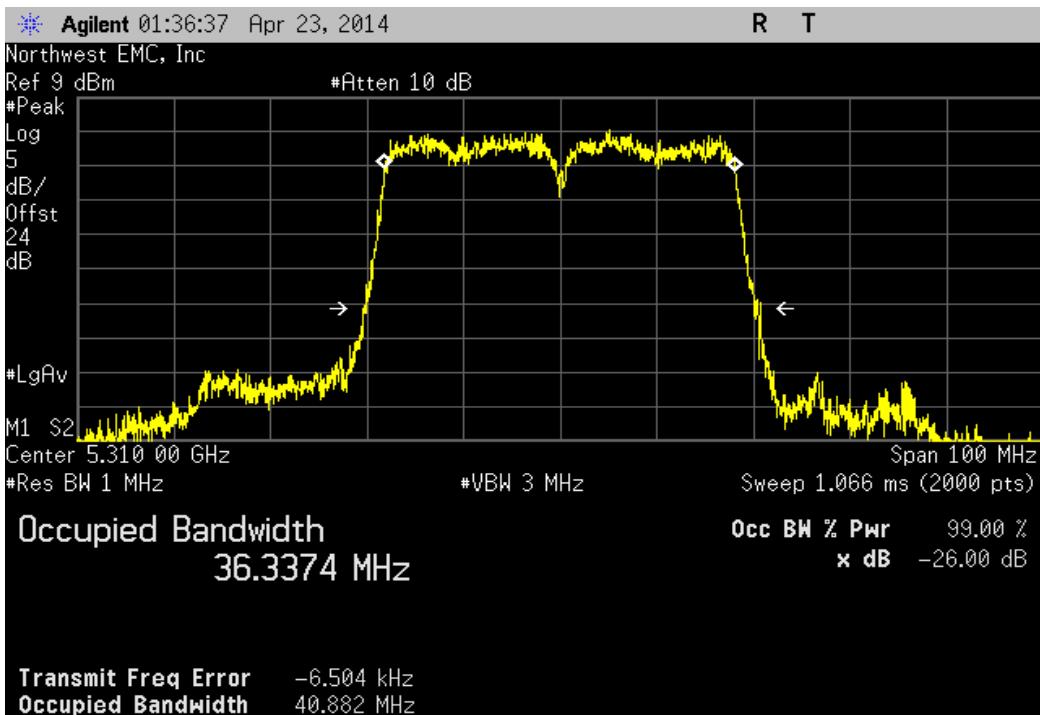
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.38 MHz	> 500 kHz	Pass



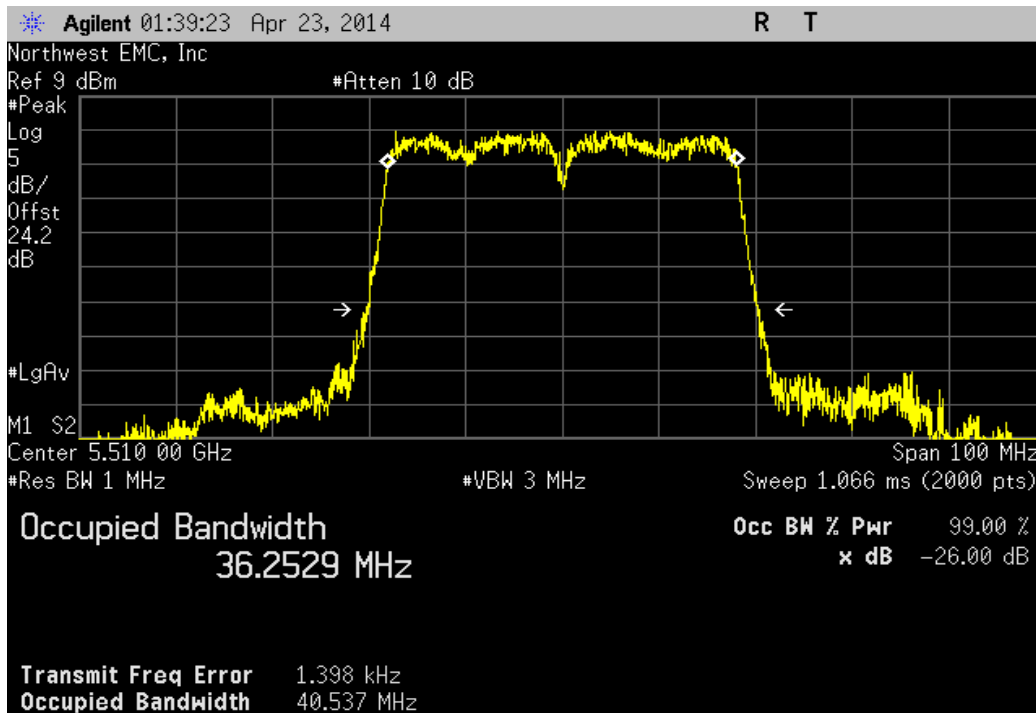
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.882 MHz	> 500 kHz	Pass



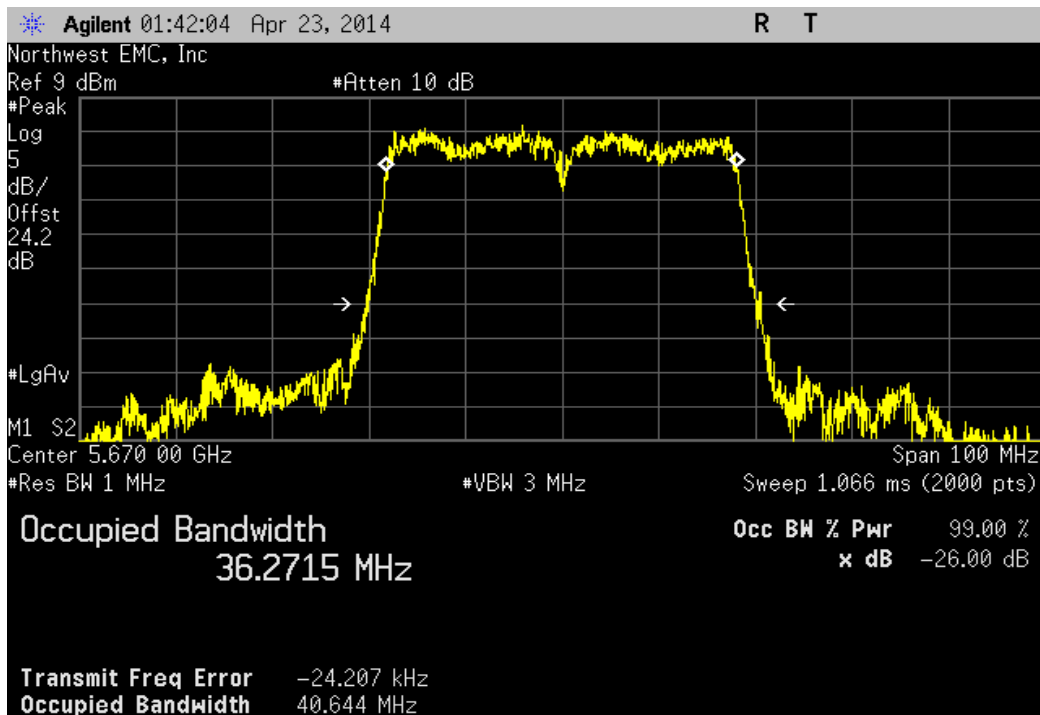
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 100/104, Low Channel 5510 MHz

				Value	Limit	Result
				40.537 MHz	> 500 kHz	Pass



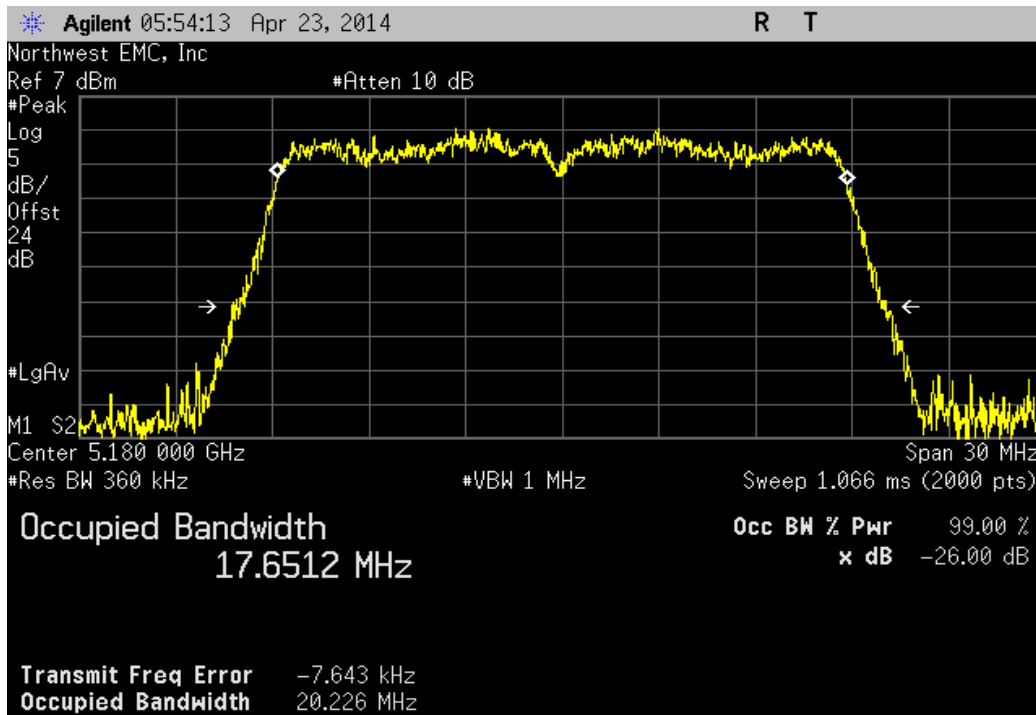
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 132/136, High Channel 5670 MHz

				Value	Limit	Result
				40.644 MHz	> 500 kHz	Pass



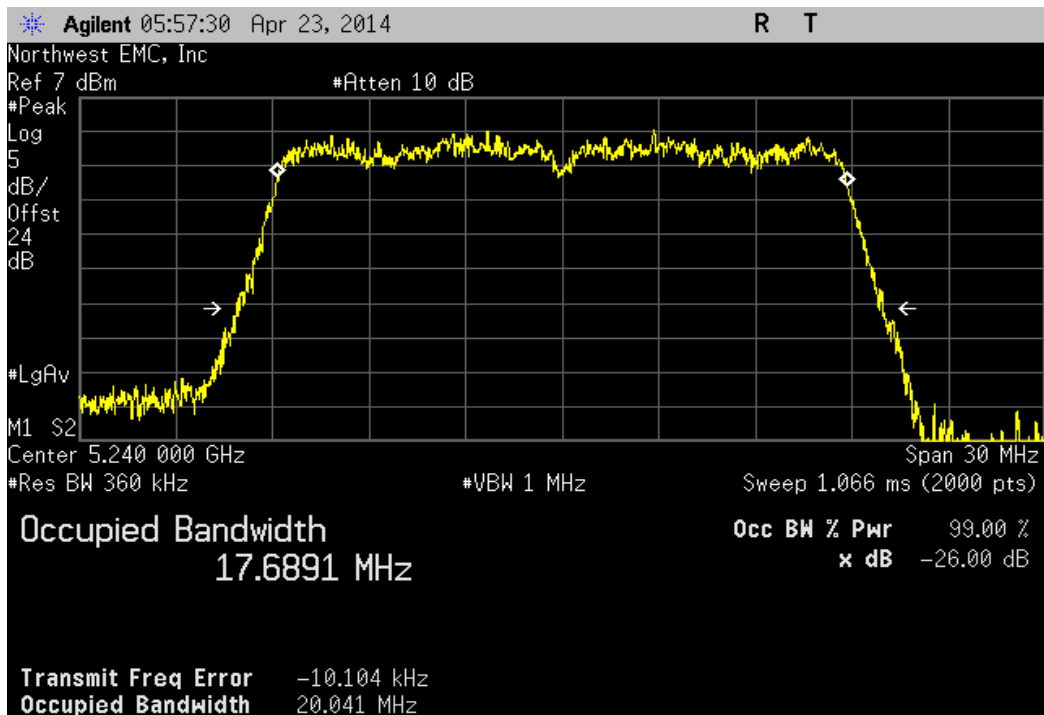
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
20.226 MHz	> 500 kHz	Pass



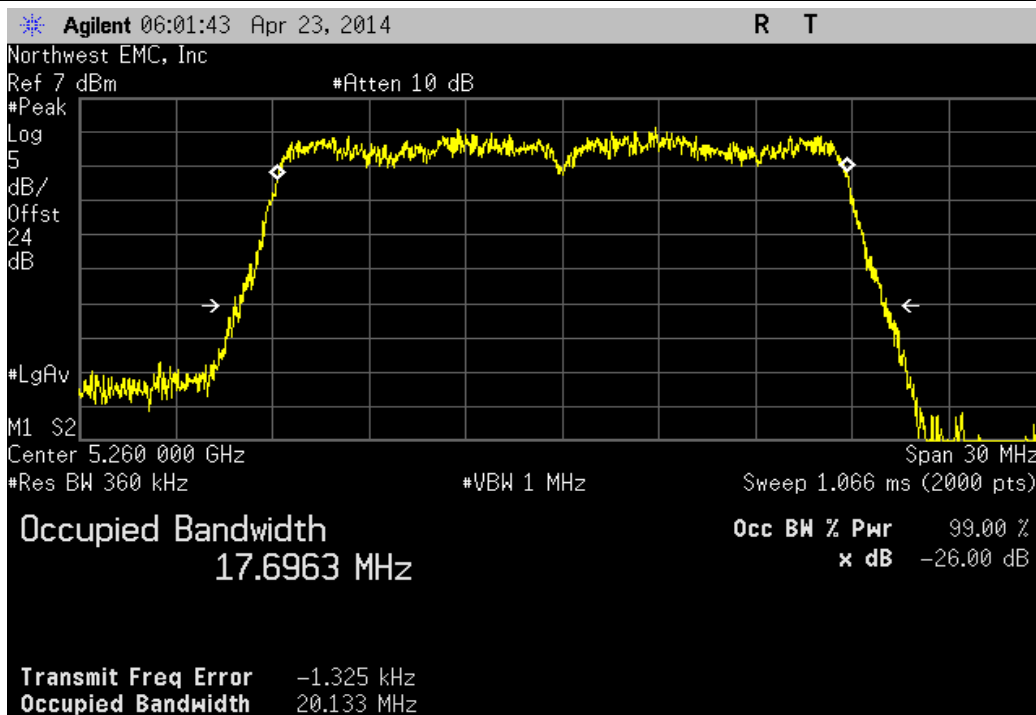
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
20.041 MHz	> 500 kHz	Pass



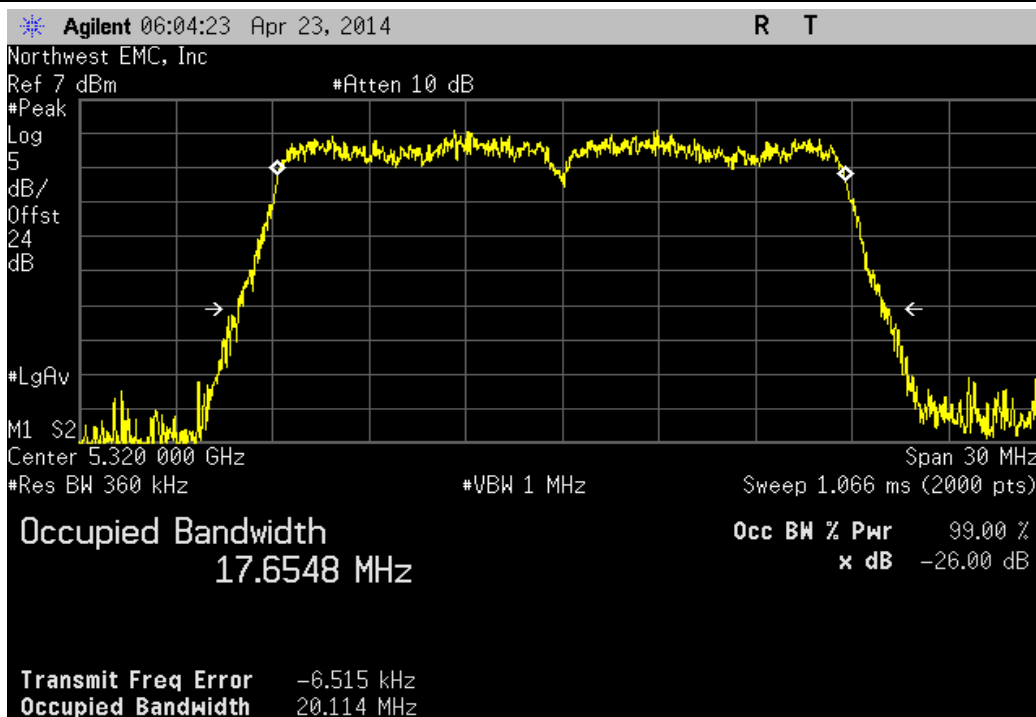
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 52, Low Channel 5260 MHz

	Value	Limit	Result
	20.133 MHz	> 500 kHz	Pass



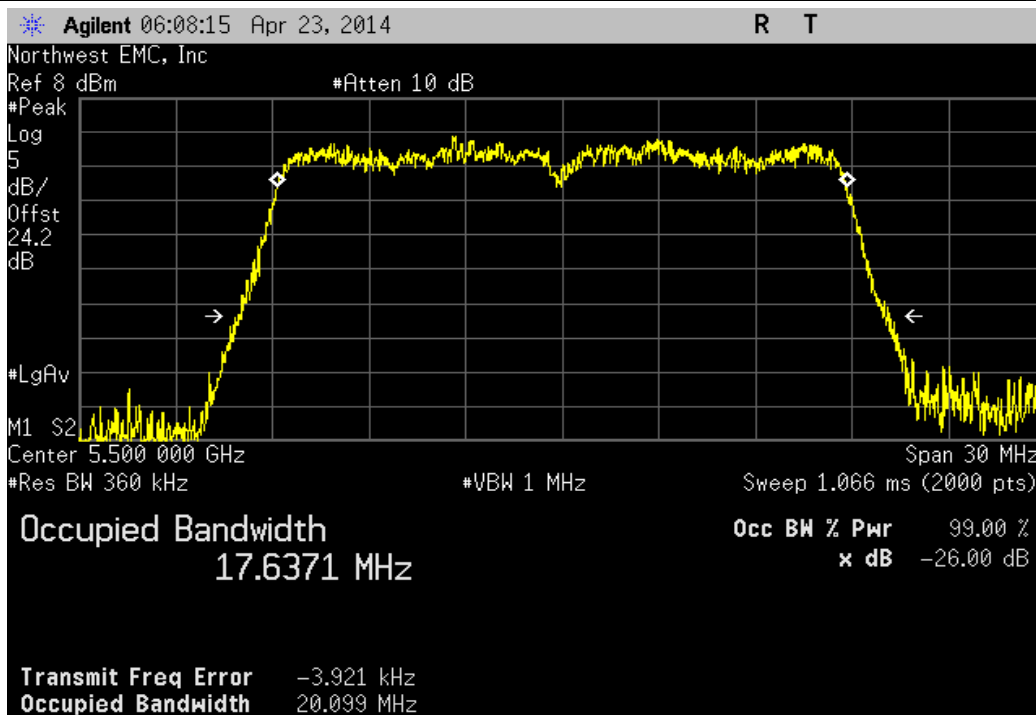
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 64, High Channel 5320 MHz

	Value	Limit	Result
	20.114 MHz	> 500 kHz	Pass



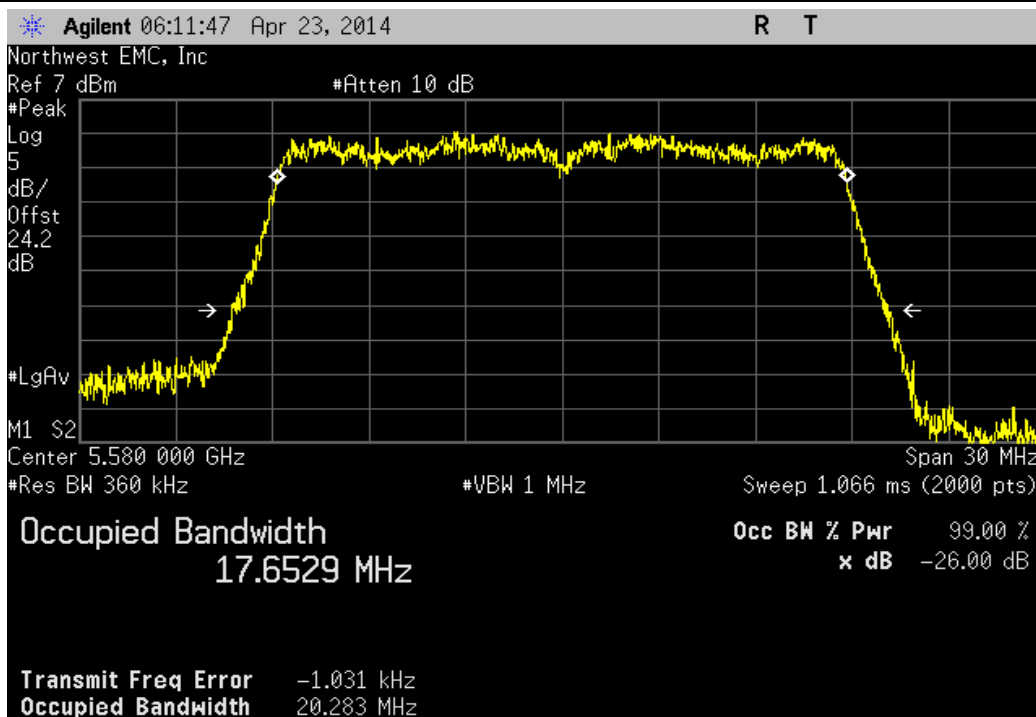
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
20.099 MHz	> 500 kHz	Pass



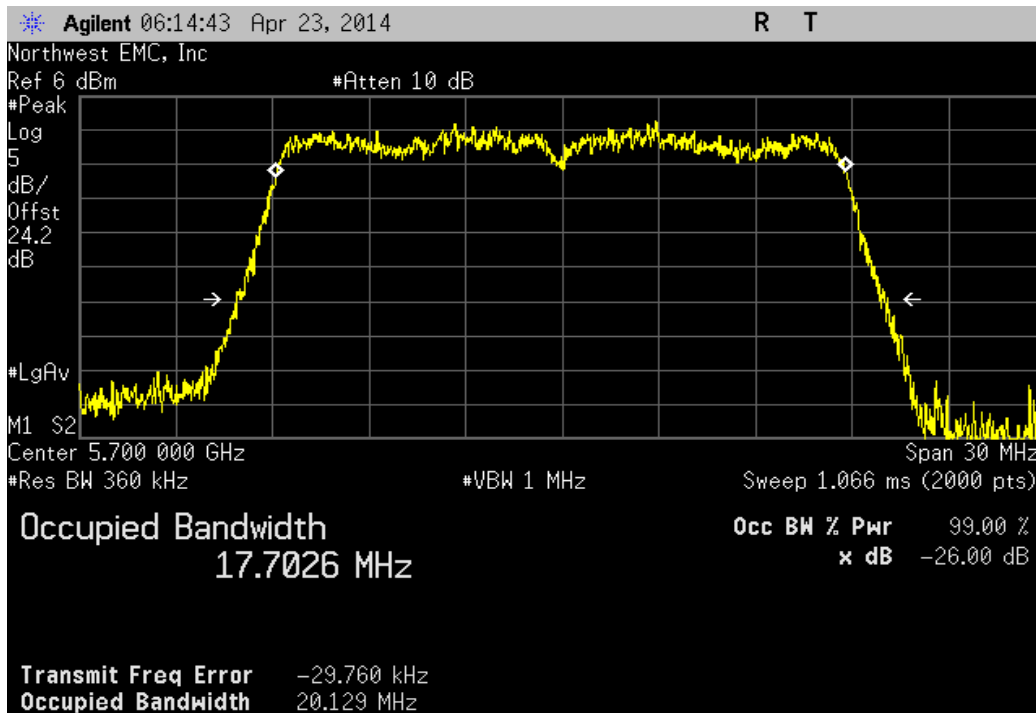
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
20.283 MHz	> 500 kHz	Pass



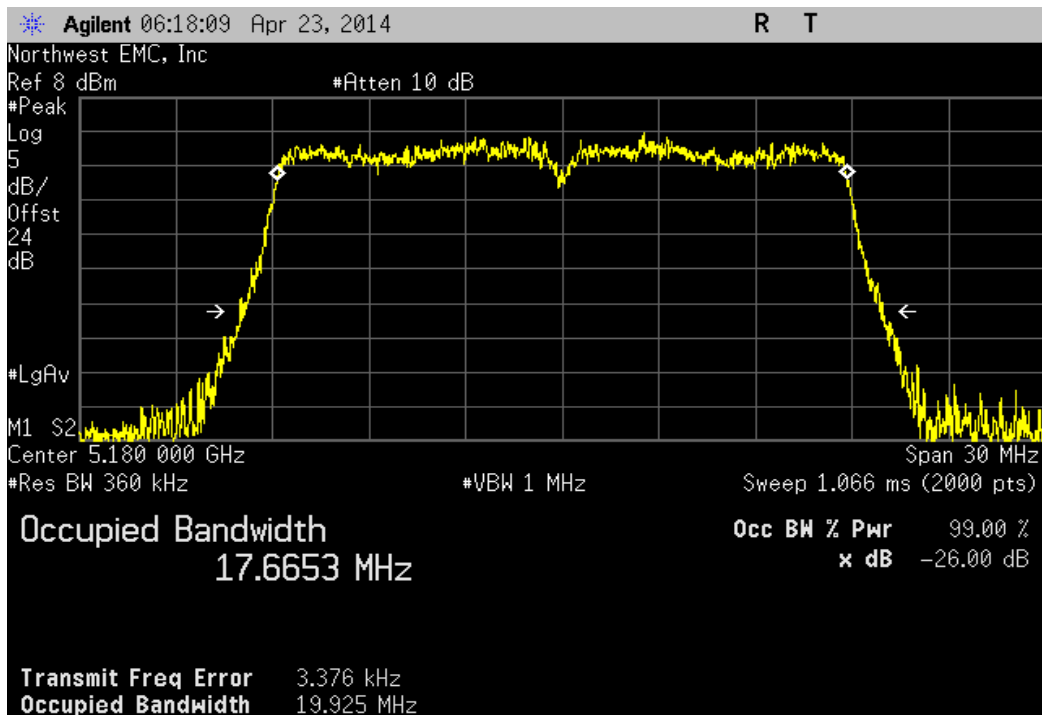
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 140, High Channel 5700 MHz

				Value	Limit	Result
				20.129 MHz	> 500 kHz	Pass



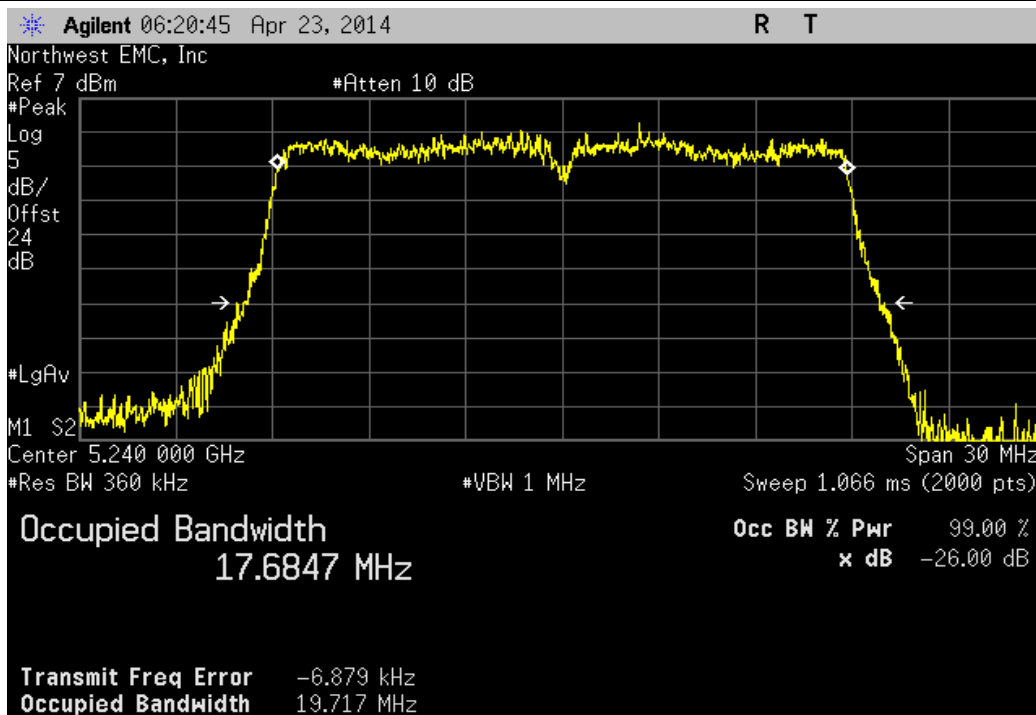
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 36, Low Channel 5180MHz

				Value	Limit	Result
				19.925 MHz	> 500 kHz	Pass



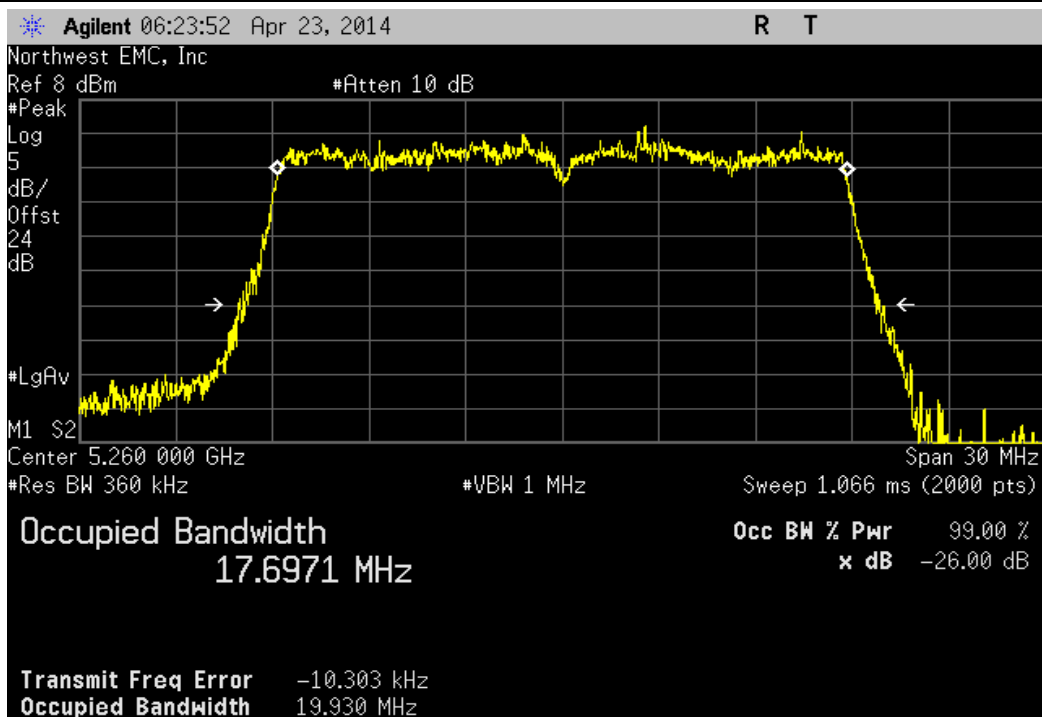
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.717 MHz	> 500 kHz	Pass



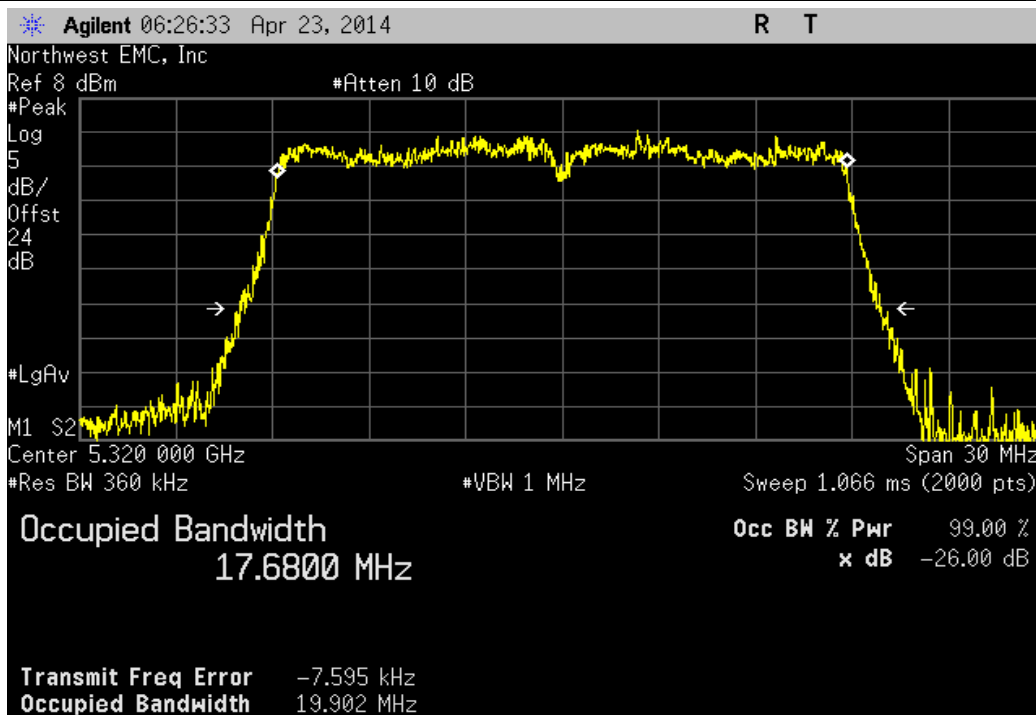
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
19.93 MHz	> 500 kHz	Pass



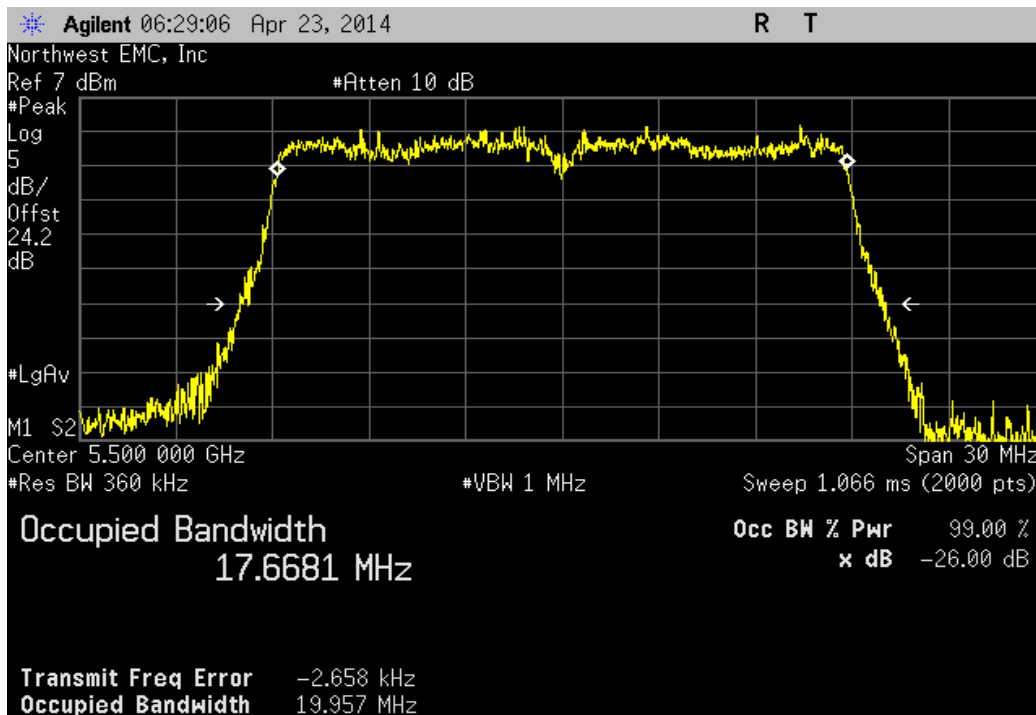
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
19.902 MHz	> 500 kHz	Pass



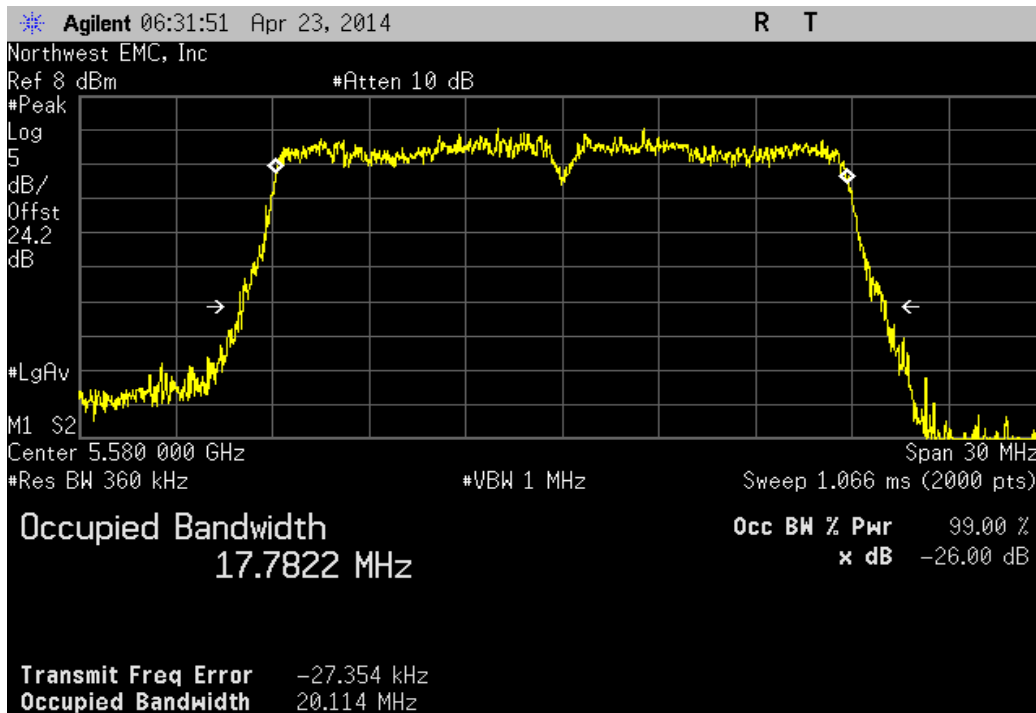
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
19.957 MHz	> 500 kHz	Pass



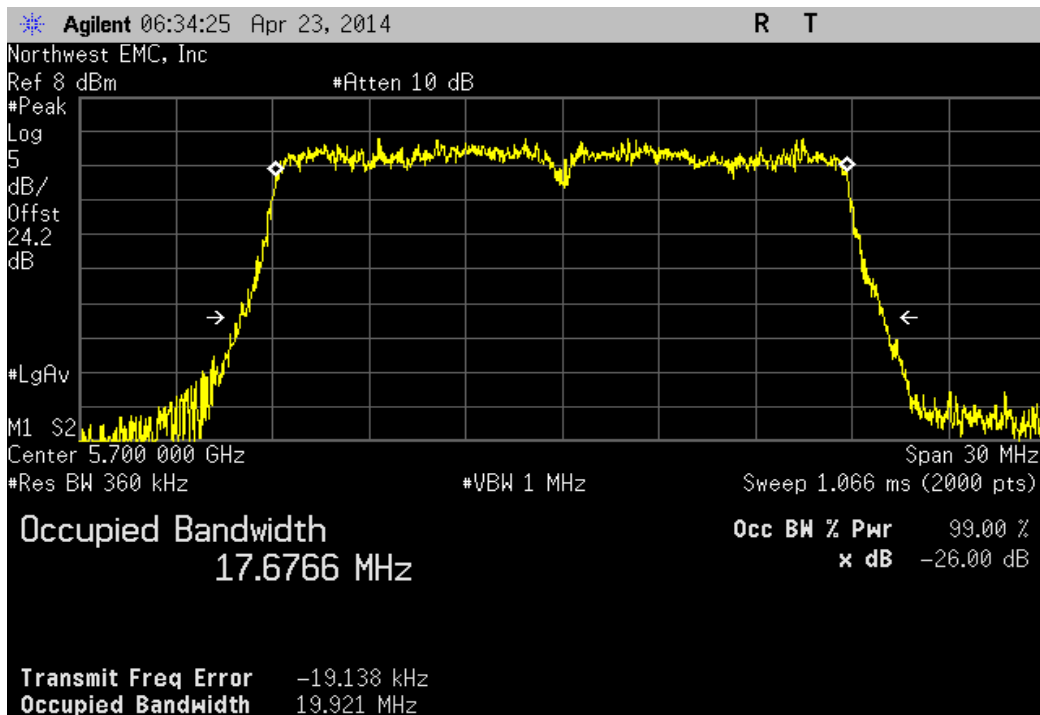
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 116, Mid Channel 5580 MHz

				Value	Limit	Result
				20.114 MHz	> 500 kHz	Pass



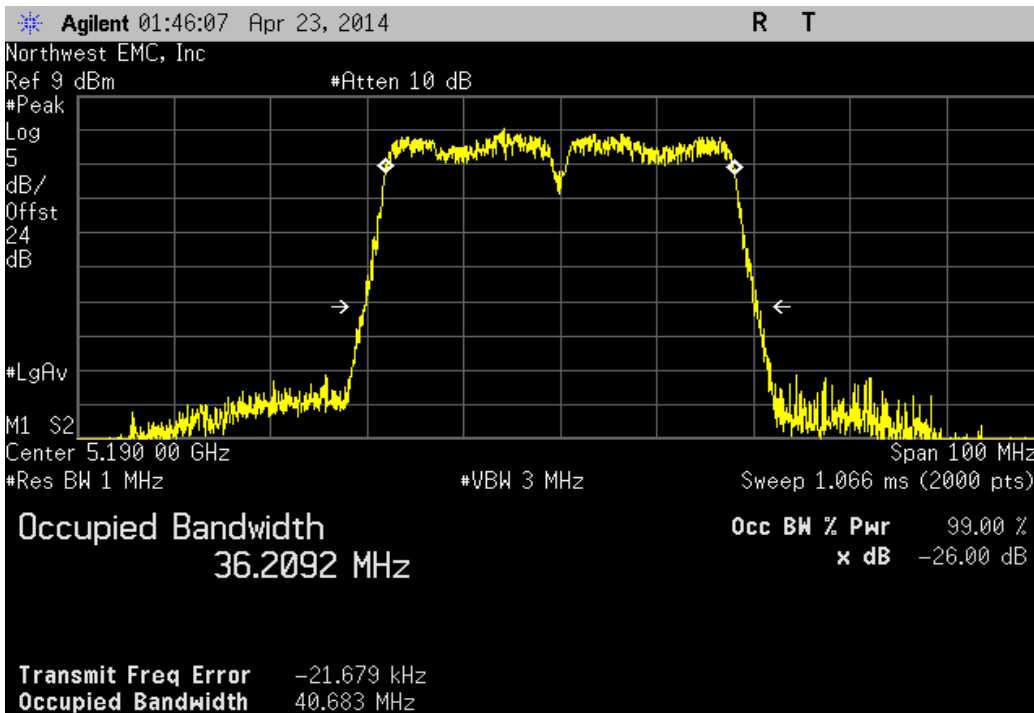
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 140, High Channel 5700 MHz

				Value	Limit	Result
				19.921 MHz	> 500 kHz	Pass



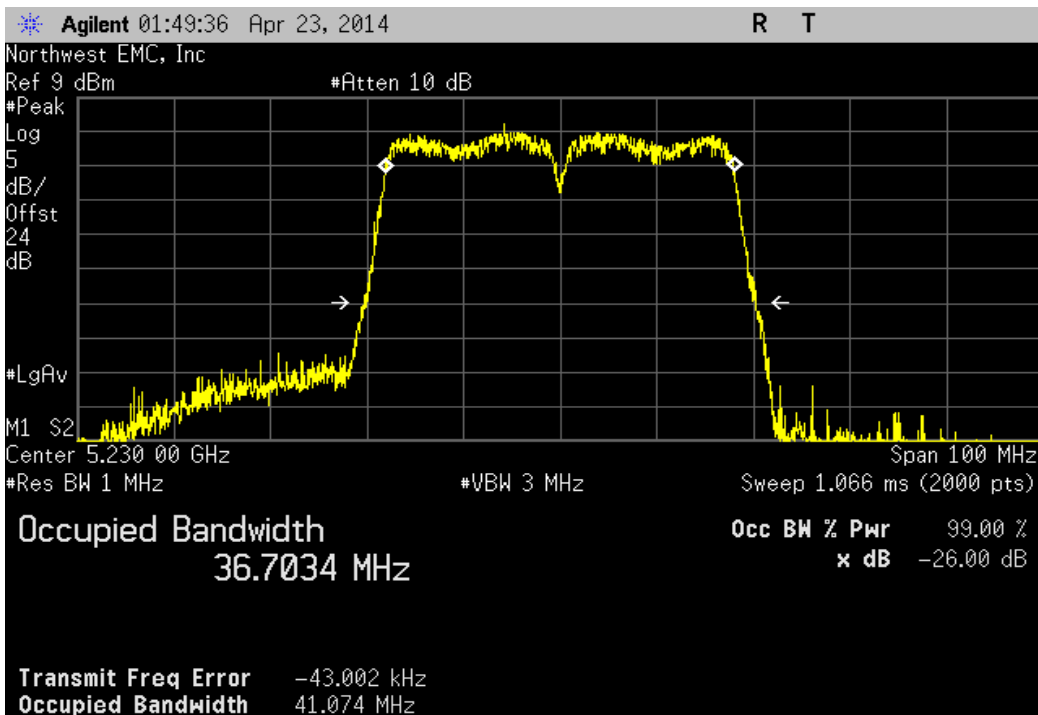
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
40.683 MHz	> 500 kHz	Pass



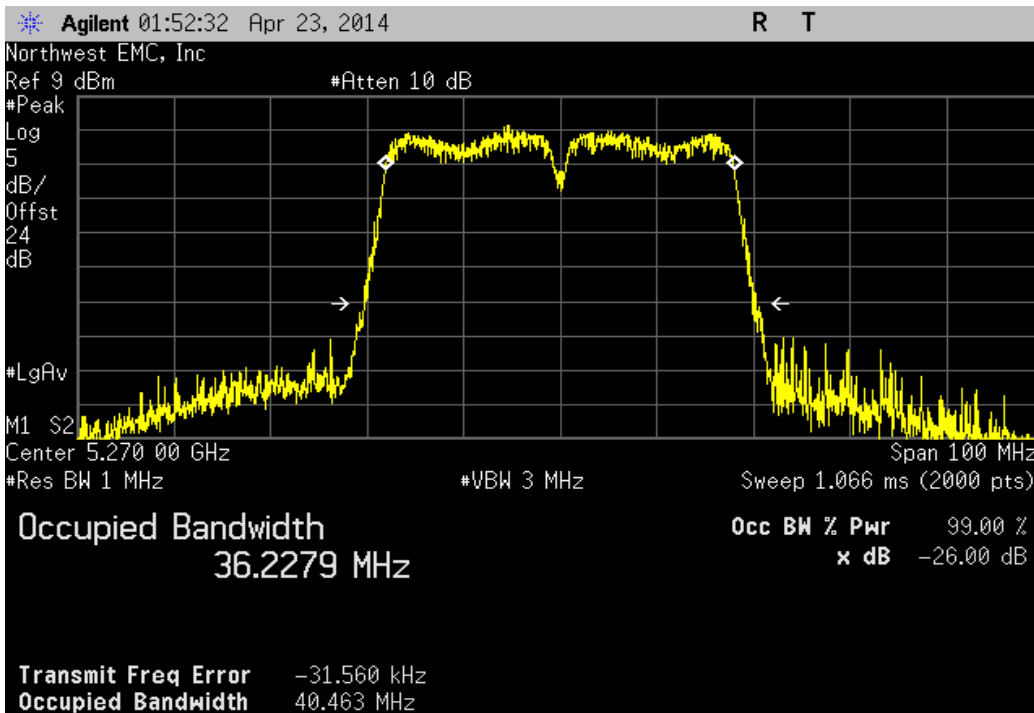
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
41.074 MHz	> 500 kHz	Pass



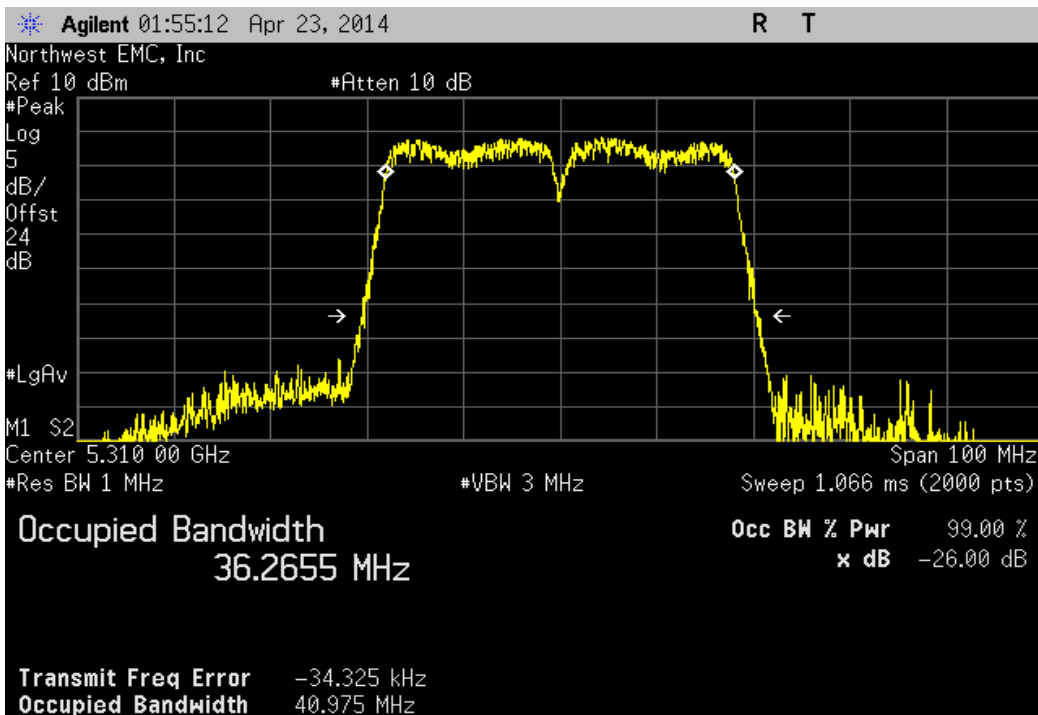
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.463 MHz	> 500 kHz	Pass



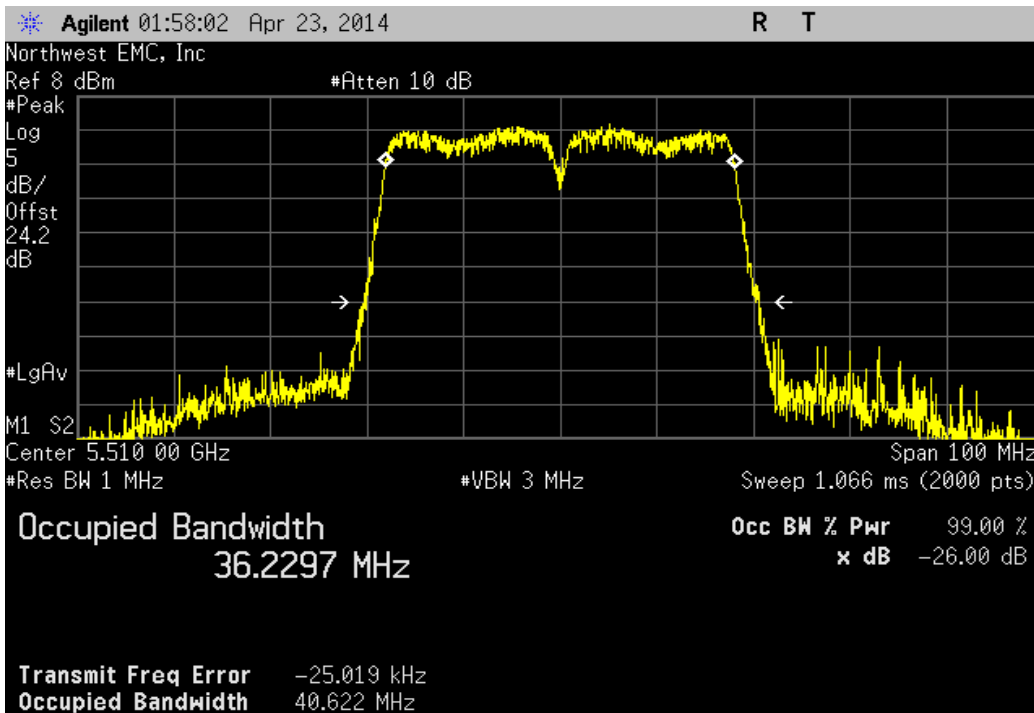
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.975 MHz	> 500 kHz	Pass



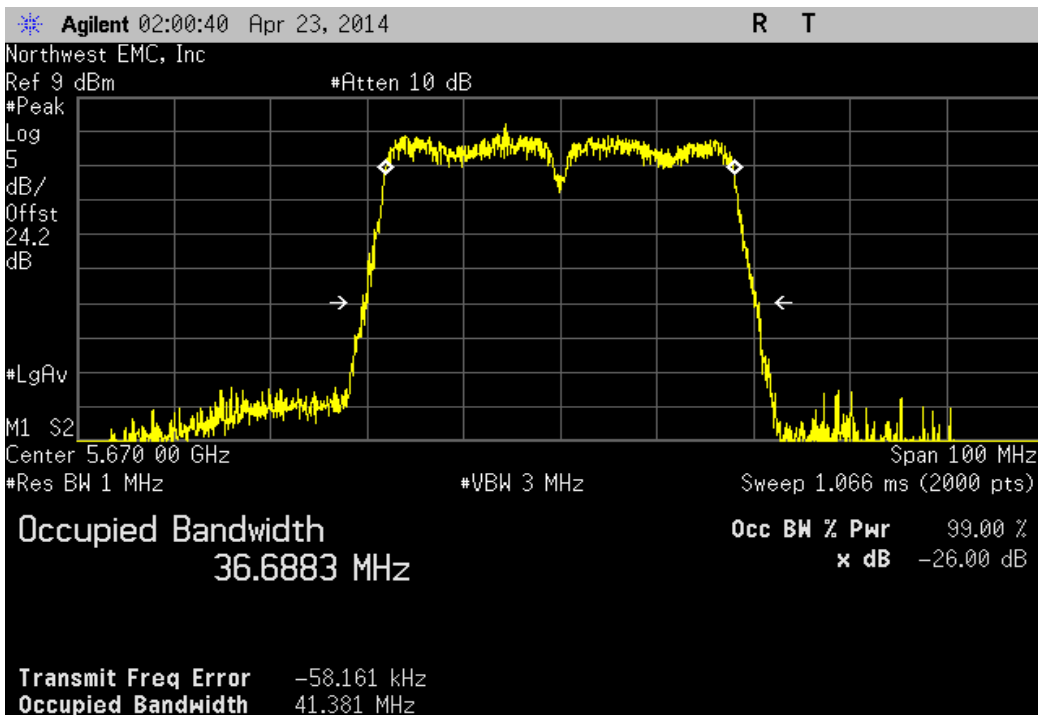
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
40.622 MHz	> 500 kHz	Pass



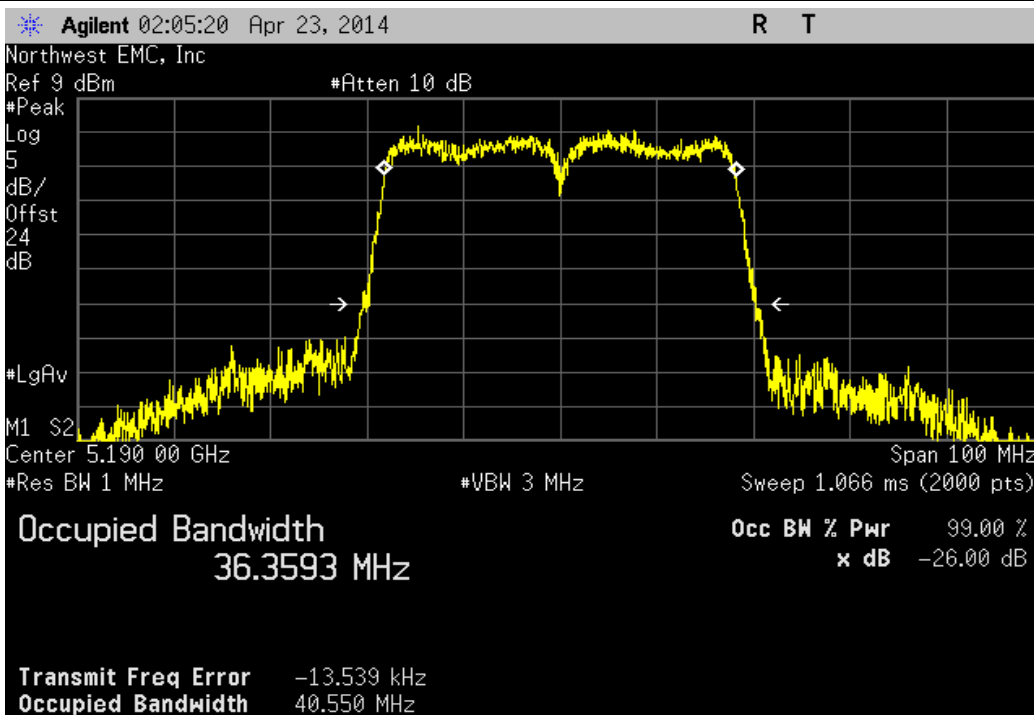
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
41.381 MHz	> 500 kHz	Pass



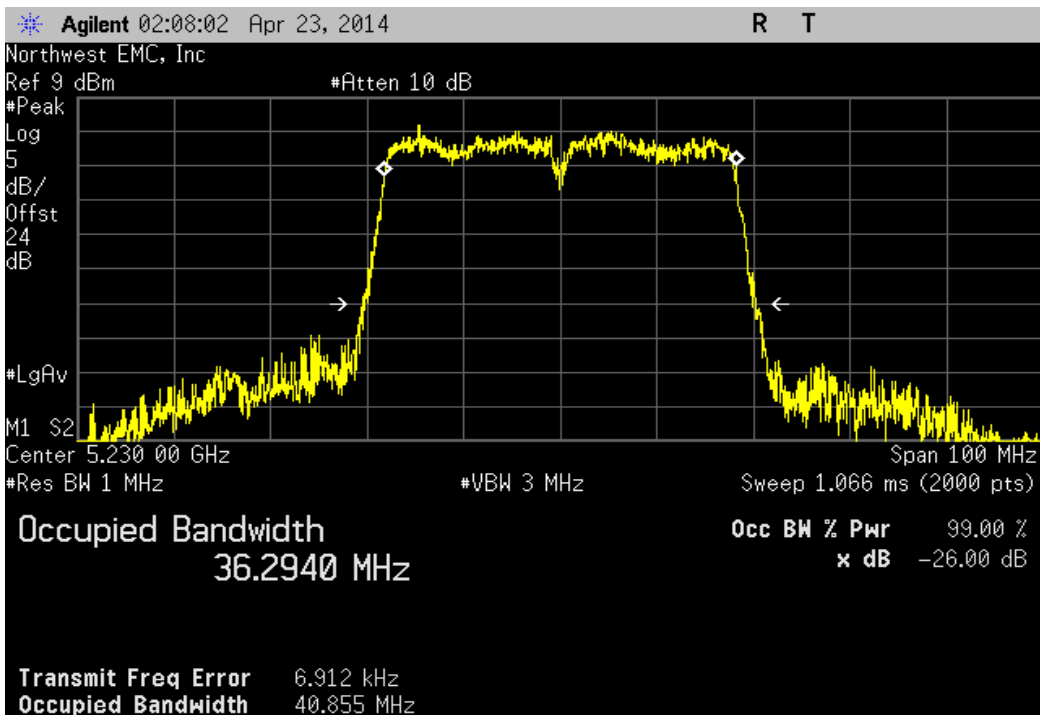
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
40.55 MHz	> 500 kHz	Pass



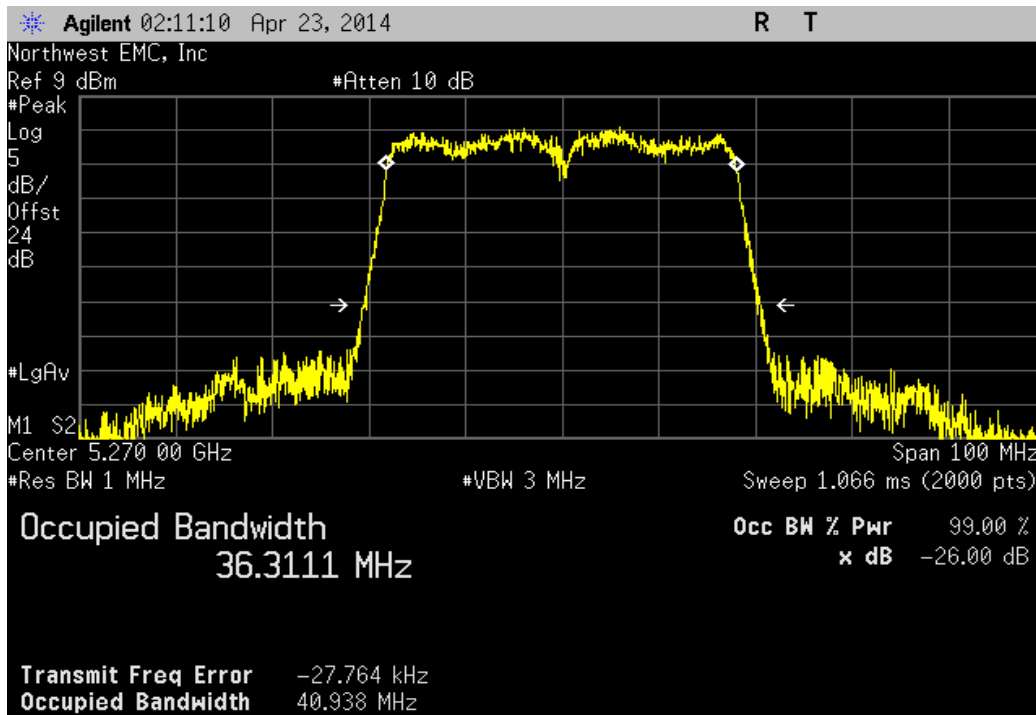
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.855 MHz	> 500 kHz	Pass



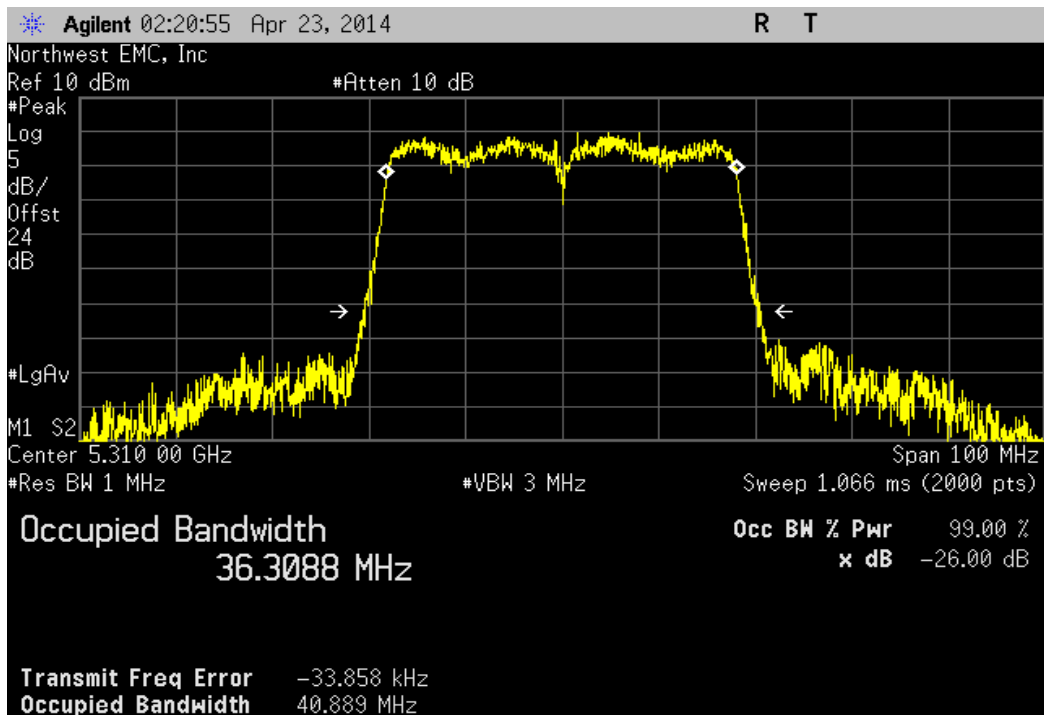
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.938 MHz	> 500 kHz	Pass



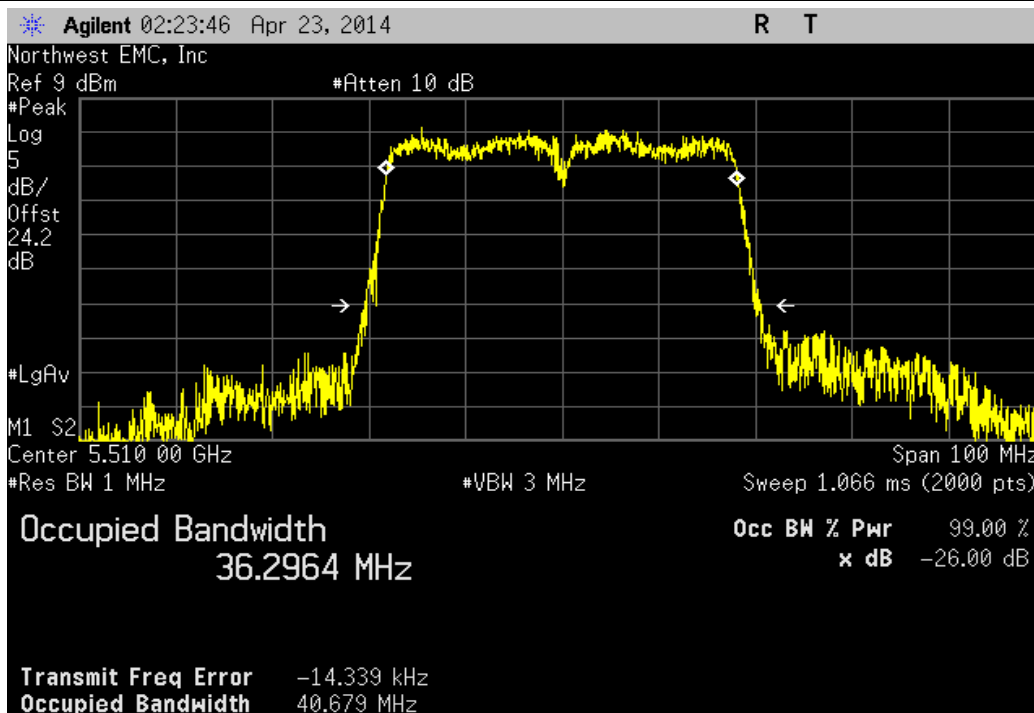
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.889 MHz	> 500 kHz	Pass



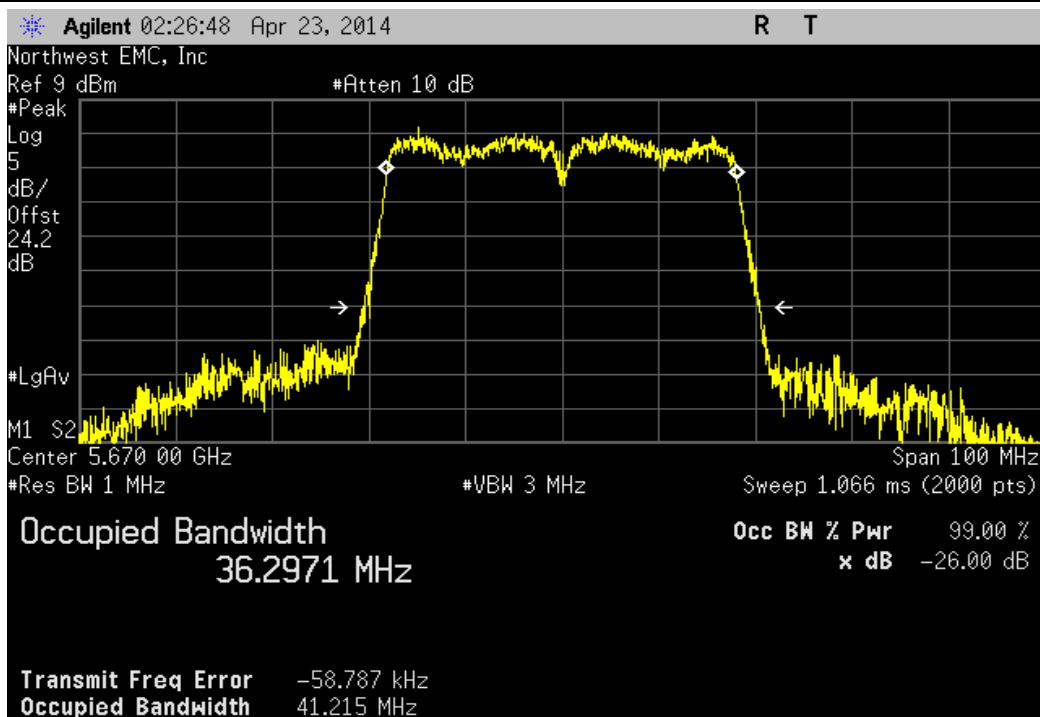
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
40.679 MHz	> 500 kHz	Pass



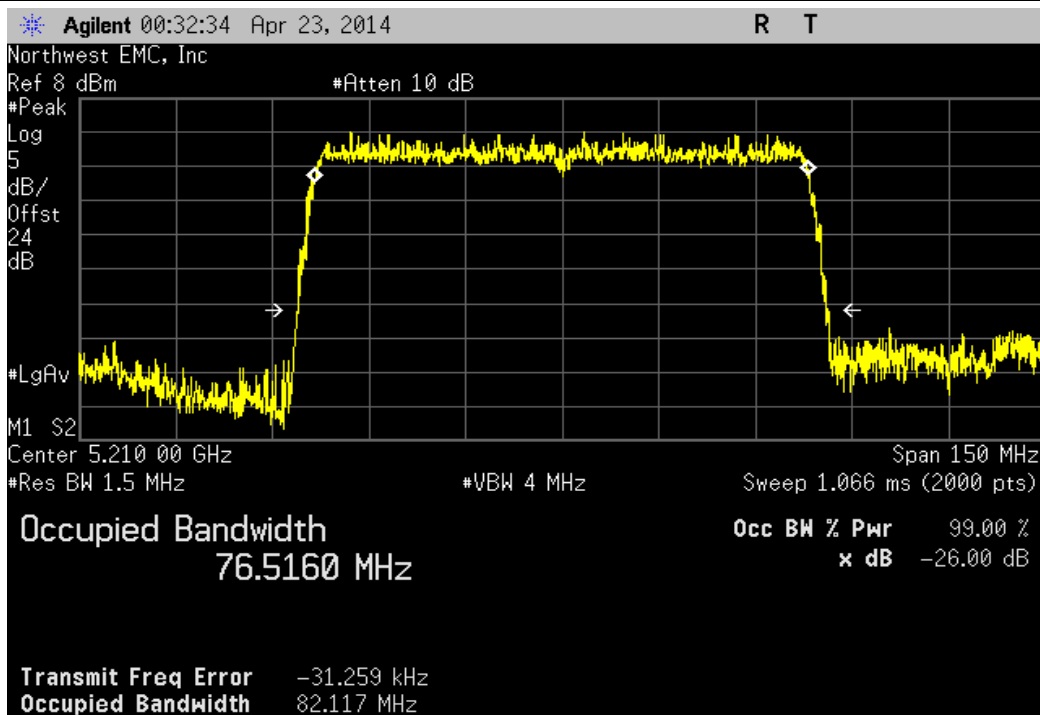
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
41.215 MHz	> 500 kHz	Pass



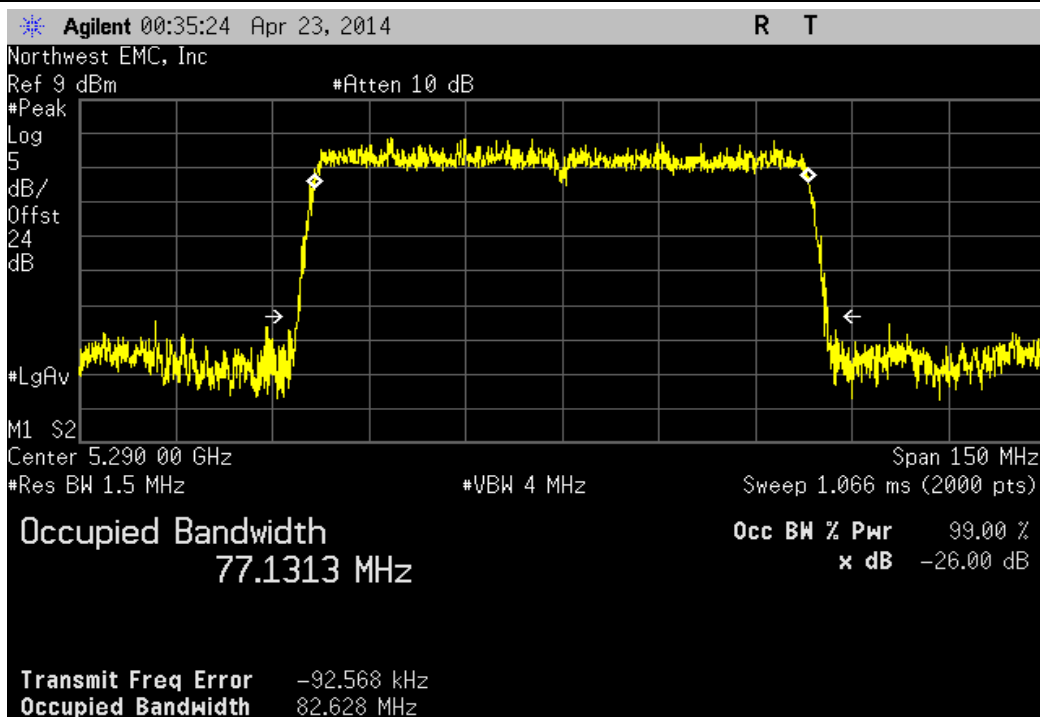
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
82.117 MHz	> 500 kHz	Pass



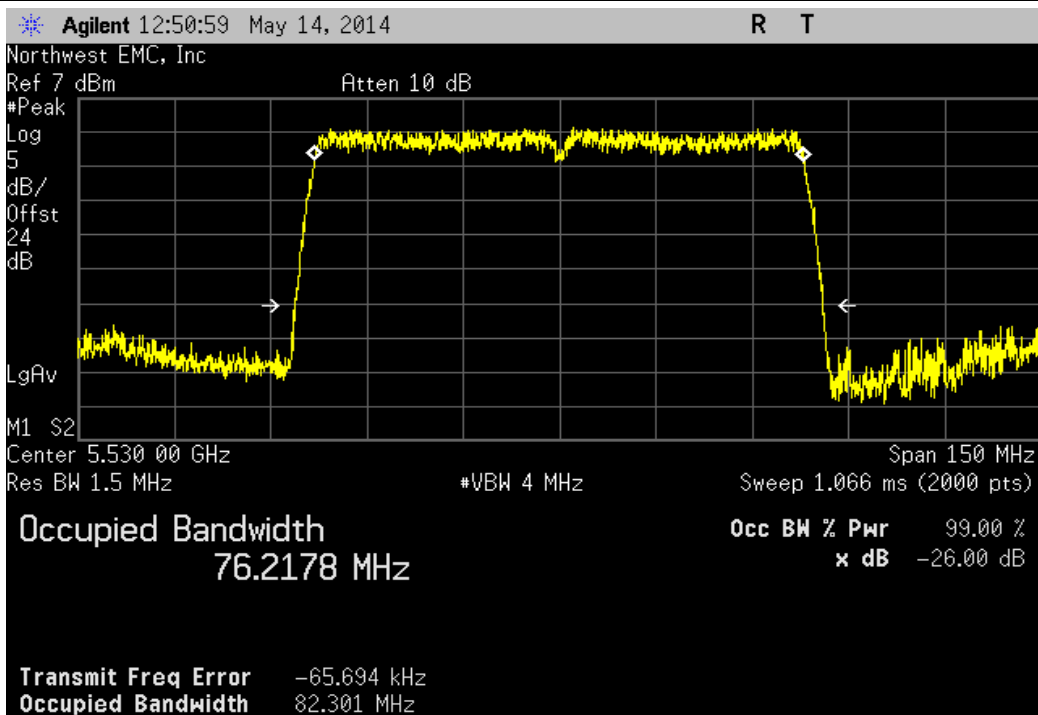
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
82.628 MHz	> 500 kHz	Pass



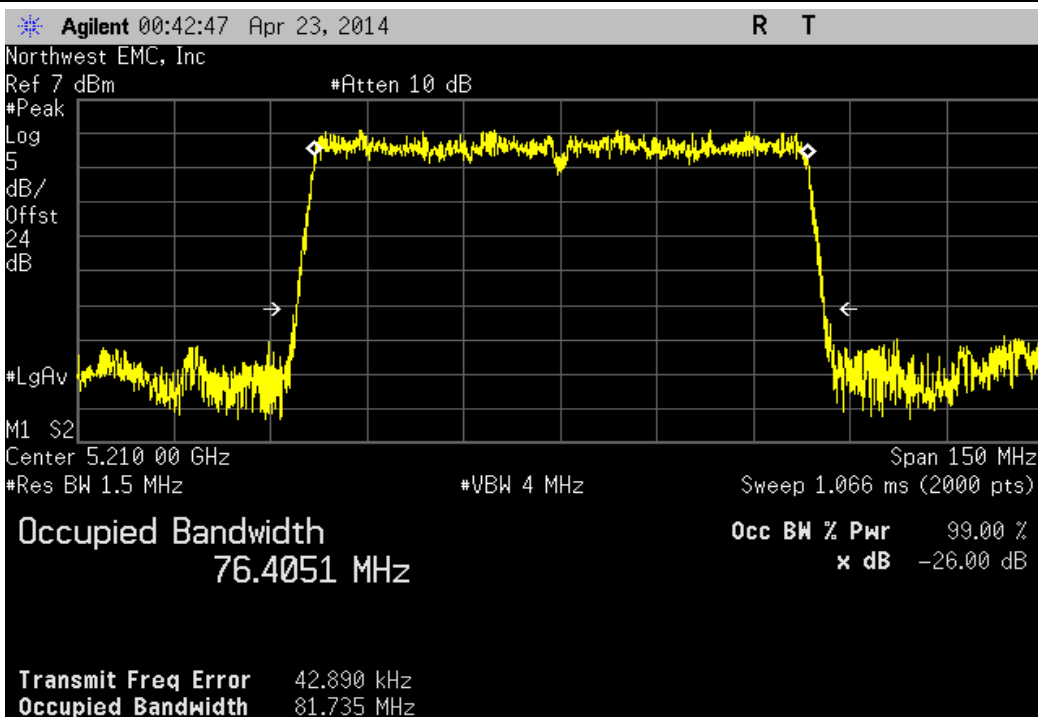
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
82.301 MHz	> 500 kHz	Pass



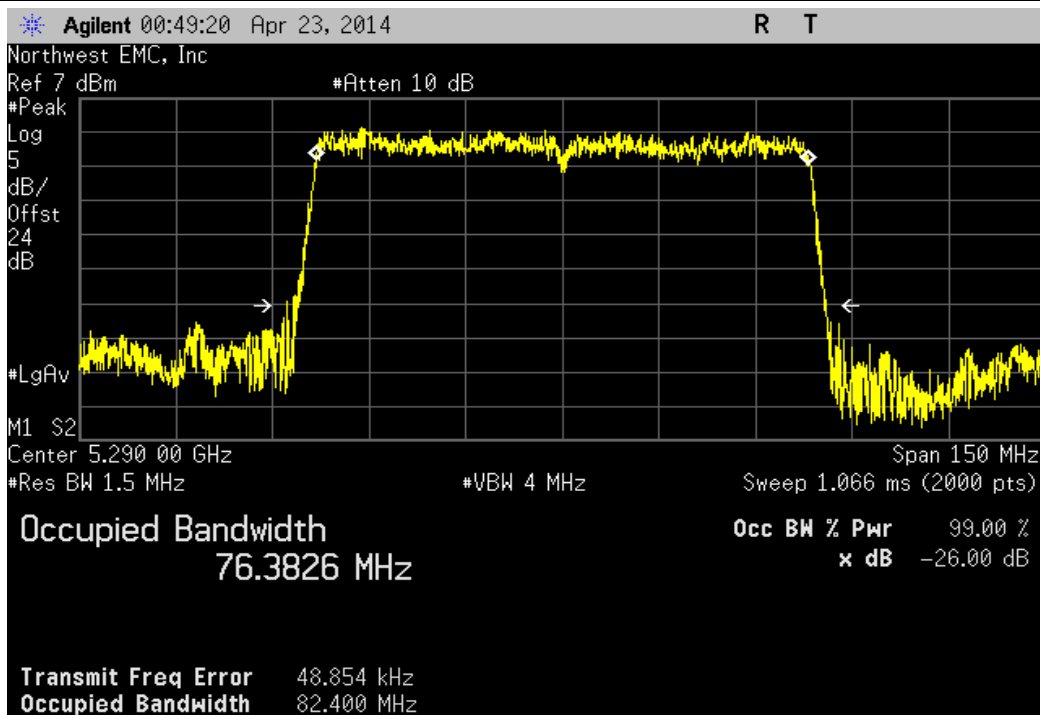
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
81.735 MHz	> 500 kHz	Pass



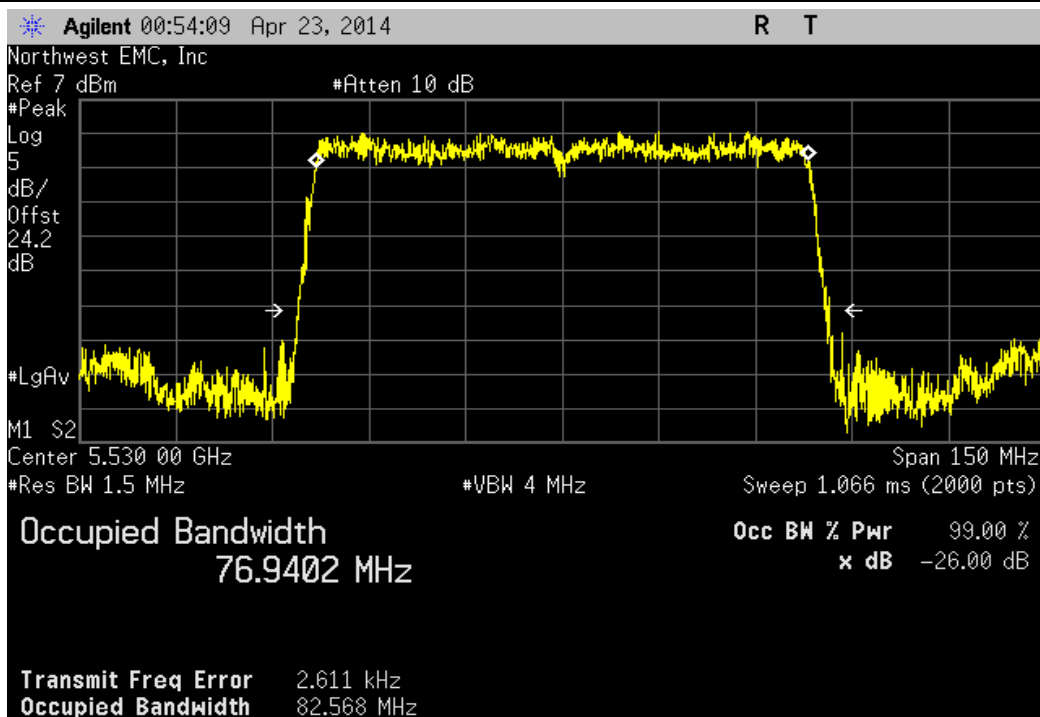
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
82.4 MHz	> 500 kHz	Pass



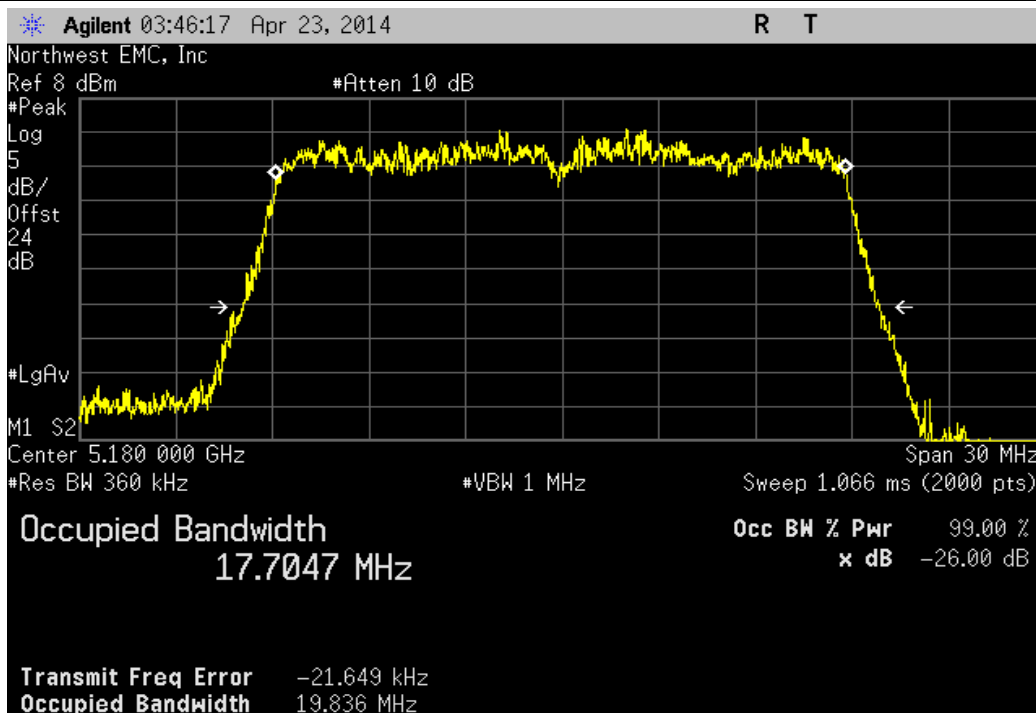
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
82.568 MHz	> 500 kHz	Pass



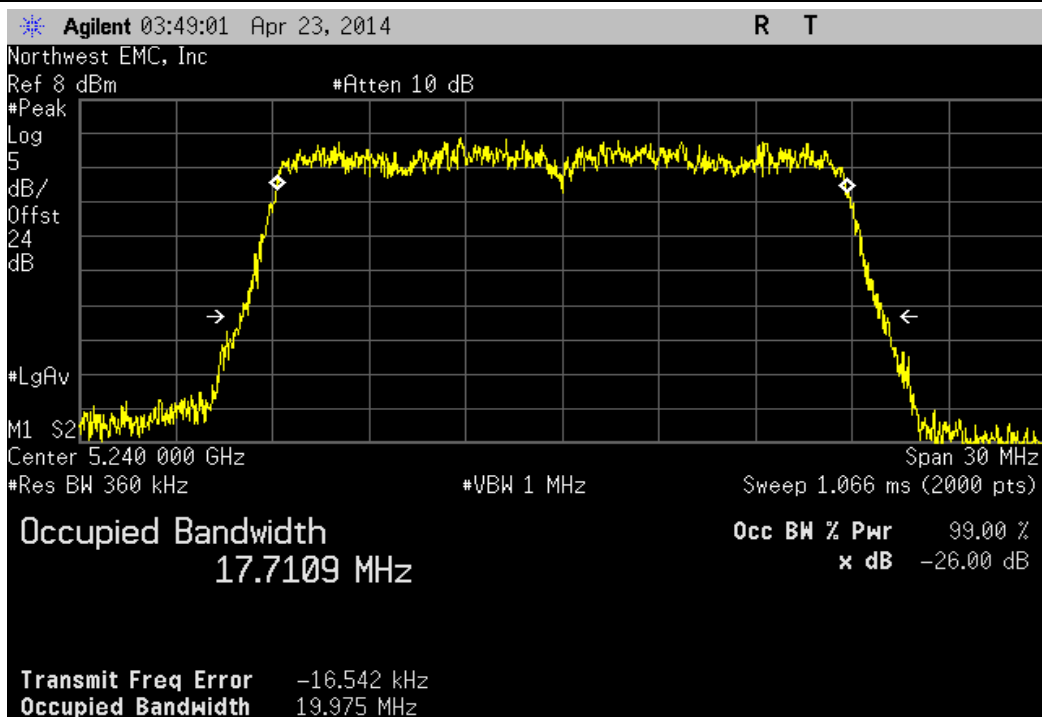
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
19.836 MHz	> 500 kHz	Pass



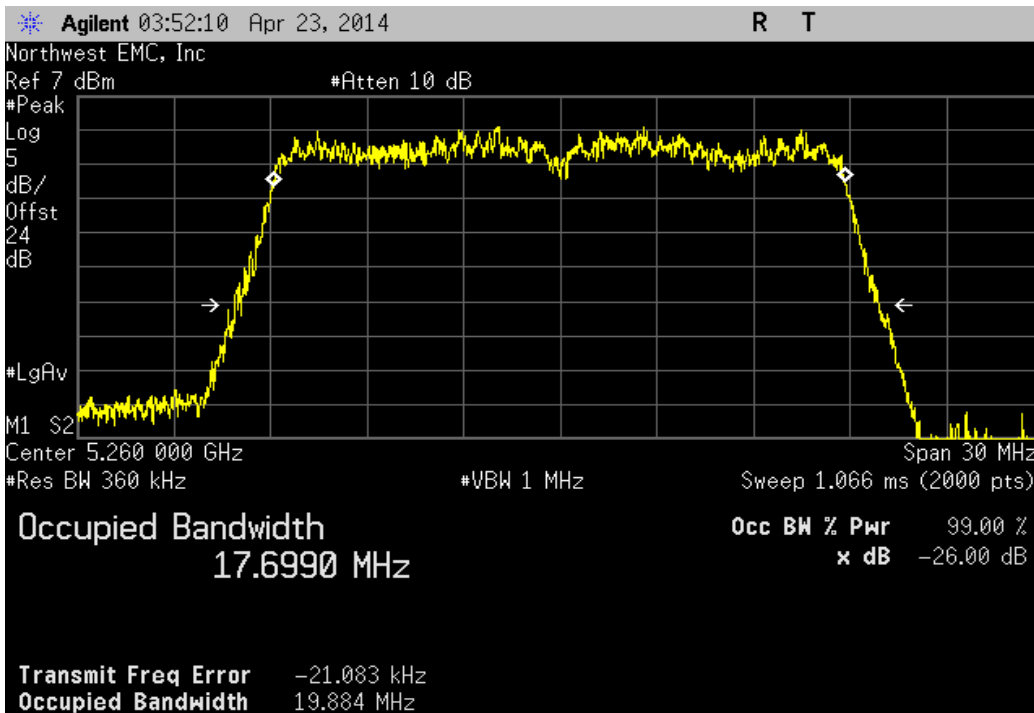
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.975 MHz	> 500 kHz	Pass



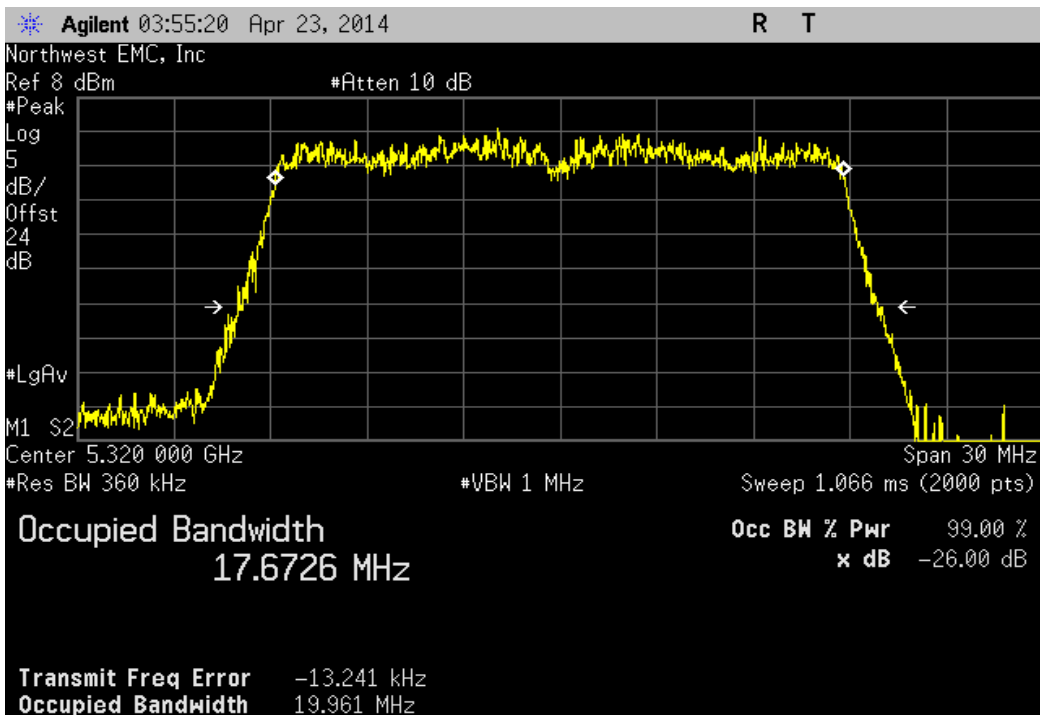
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
19.884 MHz	> 500 kHz	Pass



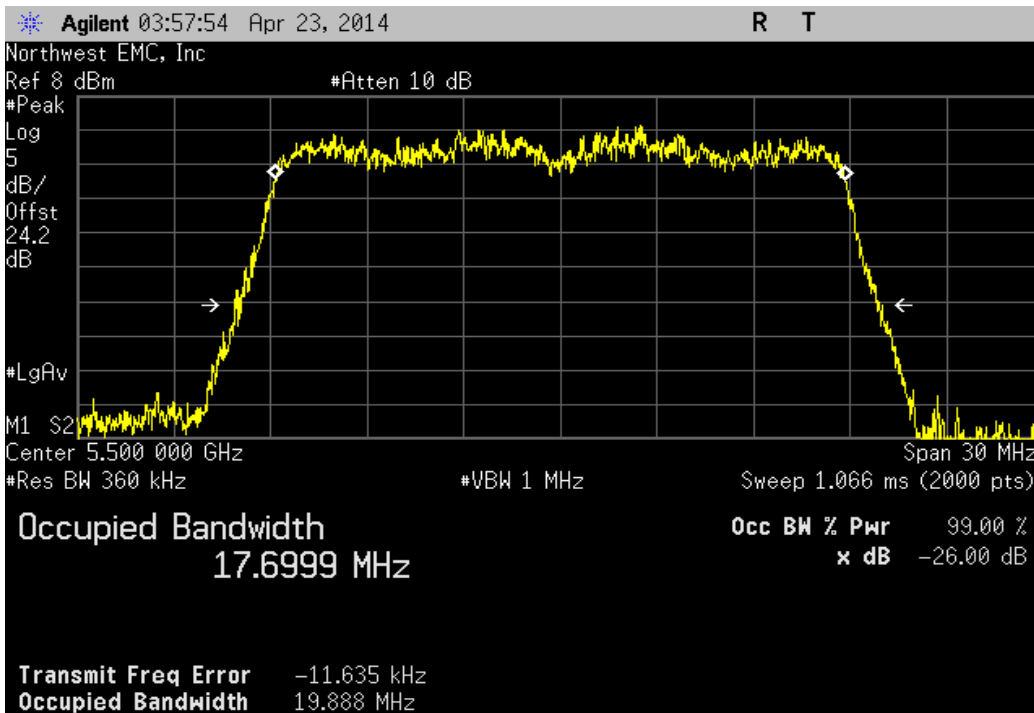
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
19.961 MHz	> 500 kHz	Pass



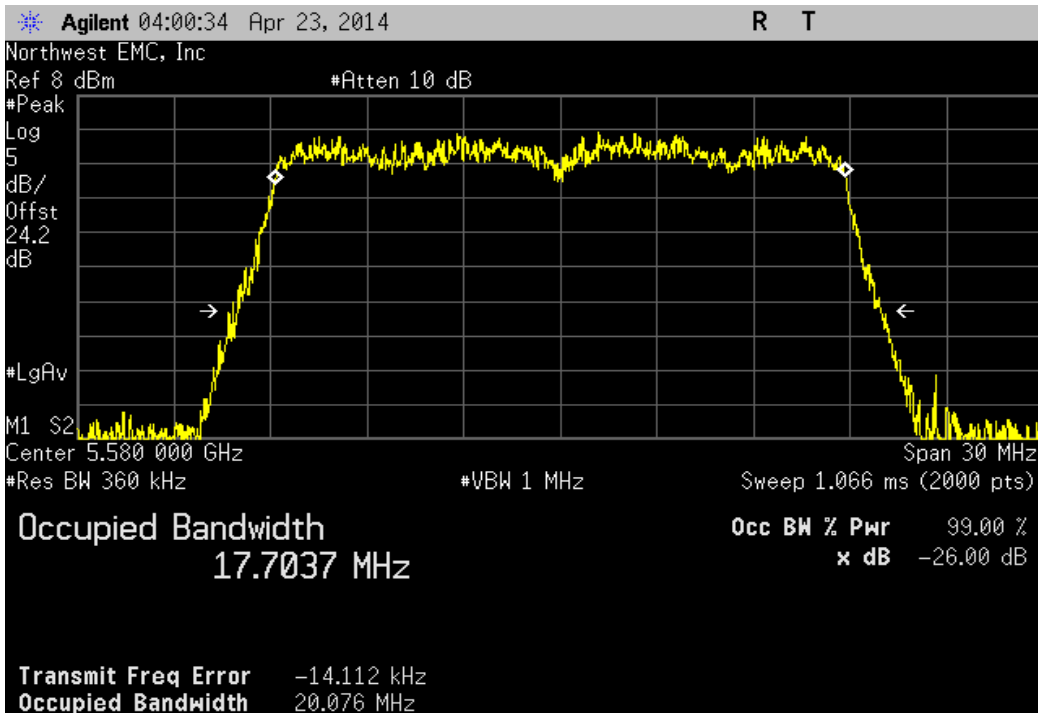
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
19.888 MHz	> 500 kHz	Pass



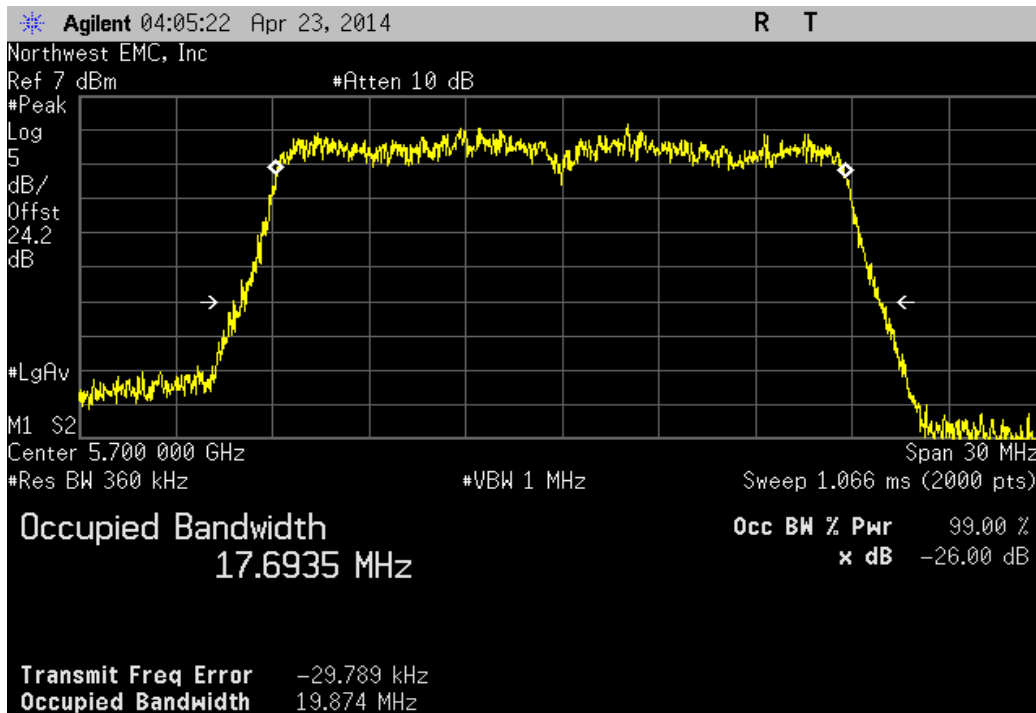
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
20.076 MHz	> 500 kHz	Pass



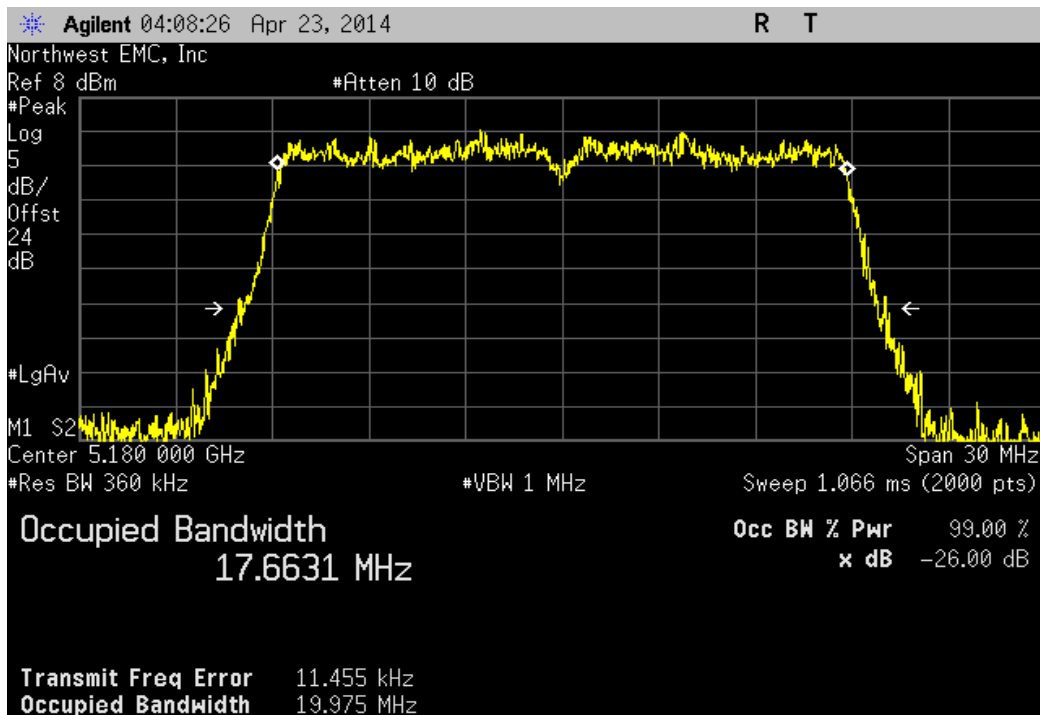
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
19.874 MHz	> 500 kHz	Pass



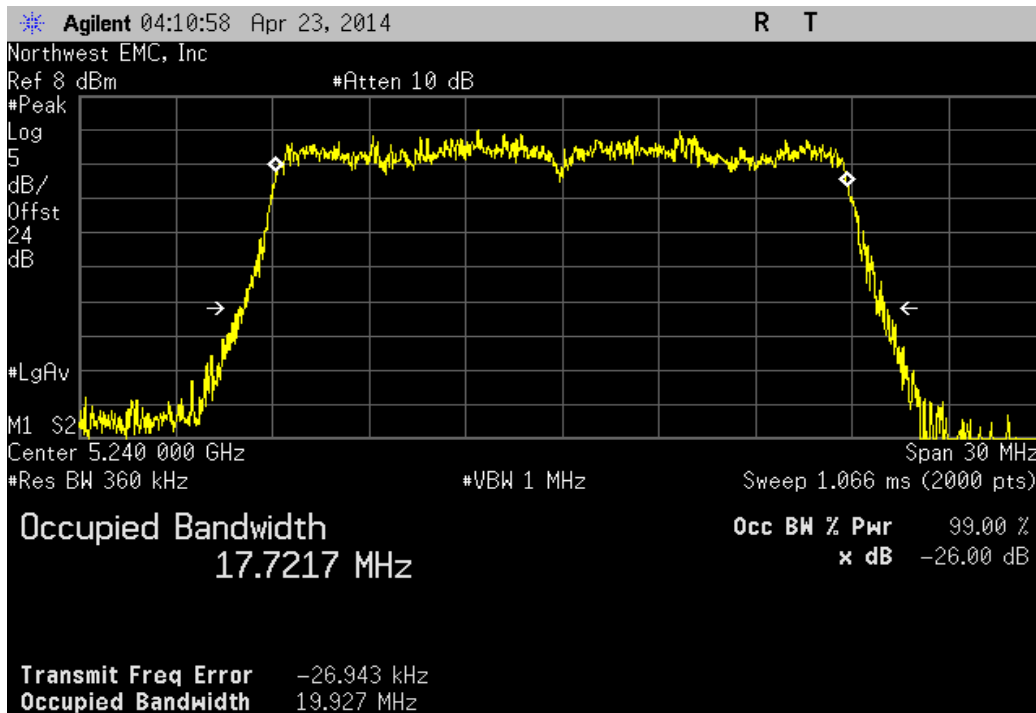
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
19.975 MHz	> 500 kHz	Pass



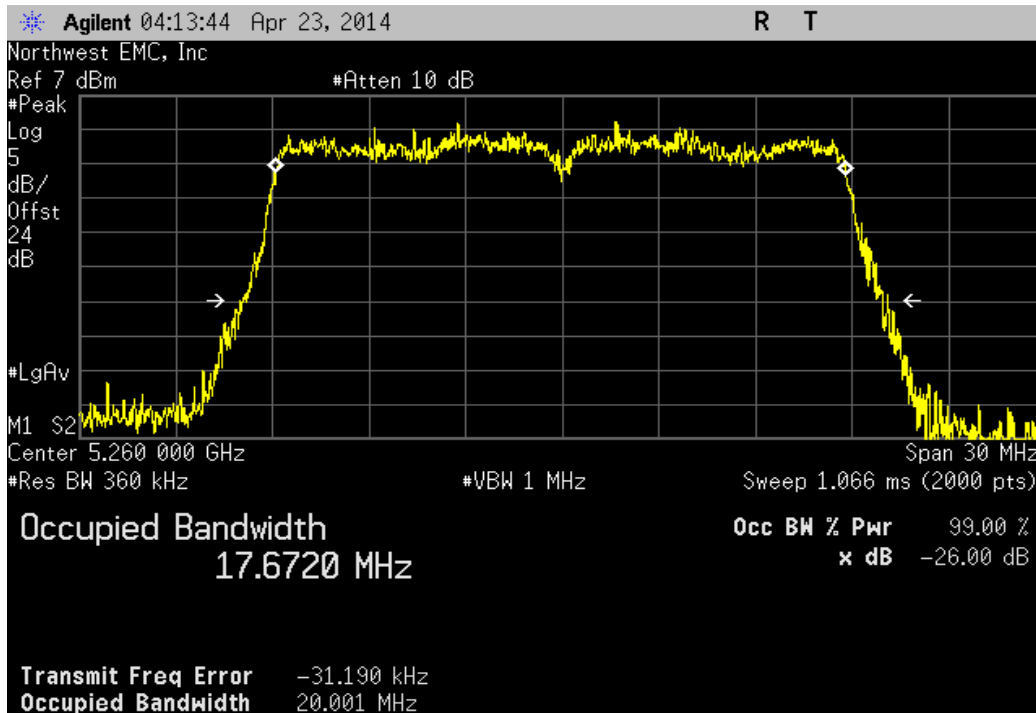
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.927 MHz	> 500 kHz	Pass



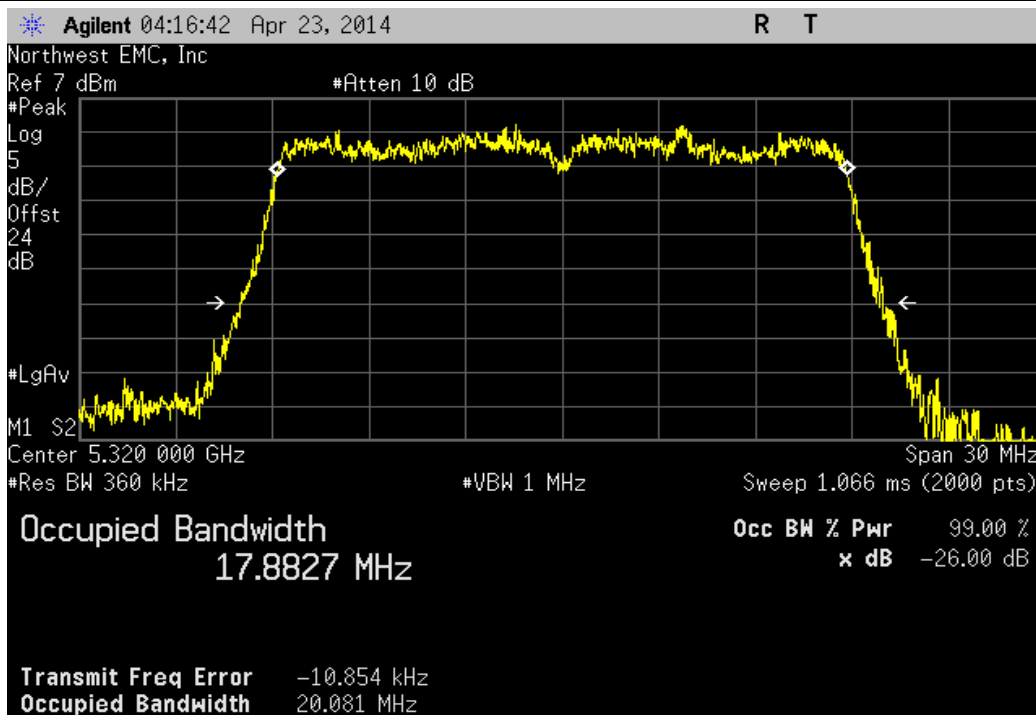
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
20.001 MHz	> 500 kHz	Pass



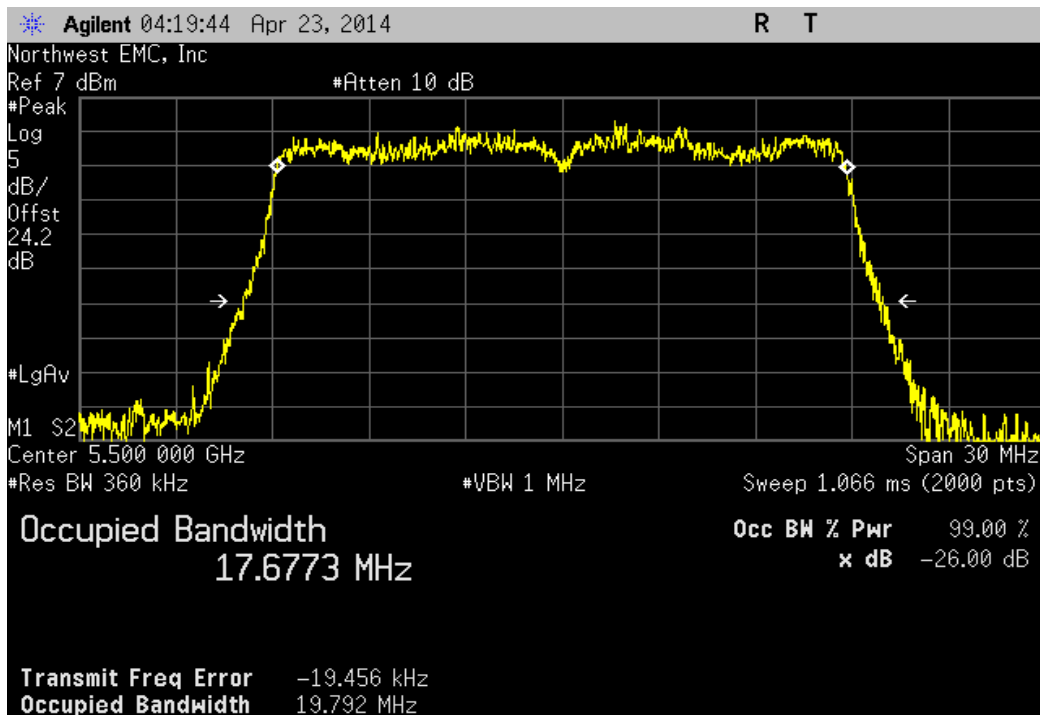
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 64, High Channel 5320 MHz

				Value	Limit	Result
				20.081 MHz	> 500 kHz	Pass



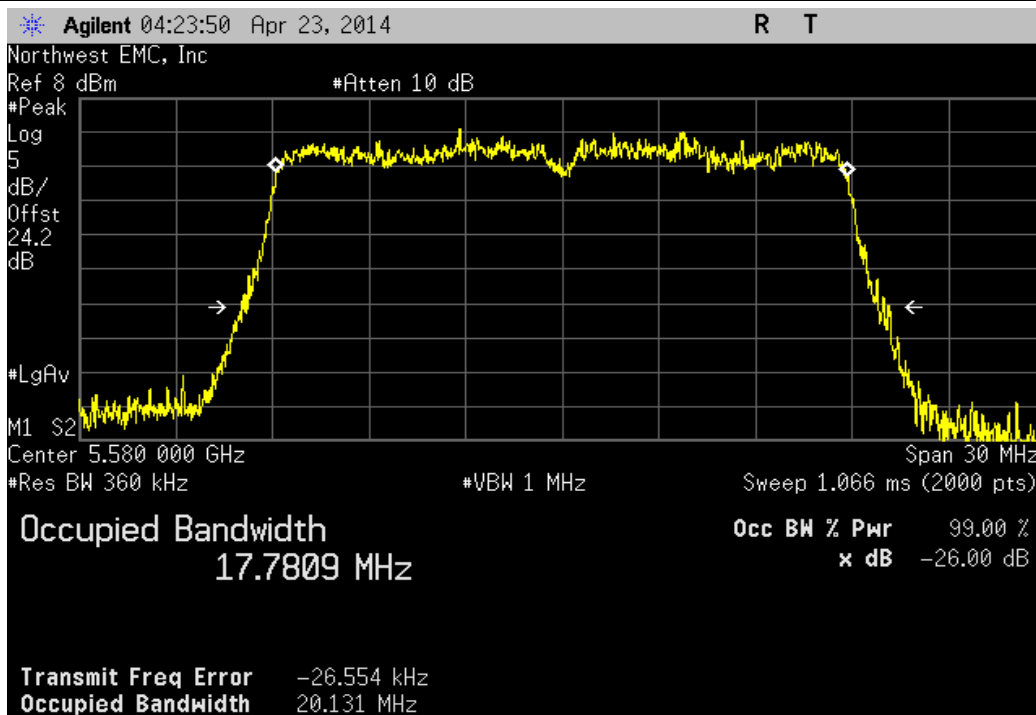
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 100, Low Channel 5500 MHz

				Value	Limit	Result
				19.792 MHz	> 500 kHz	Pass



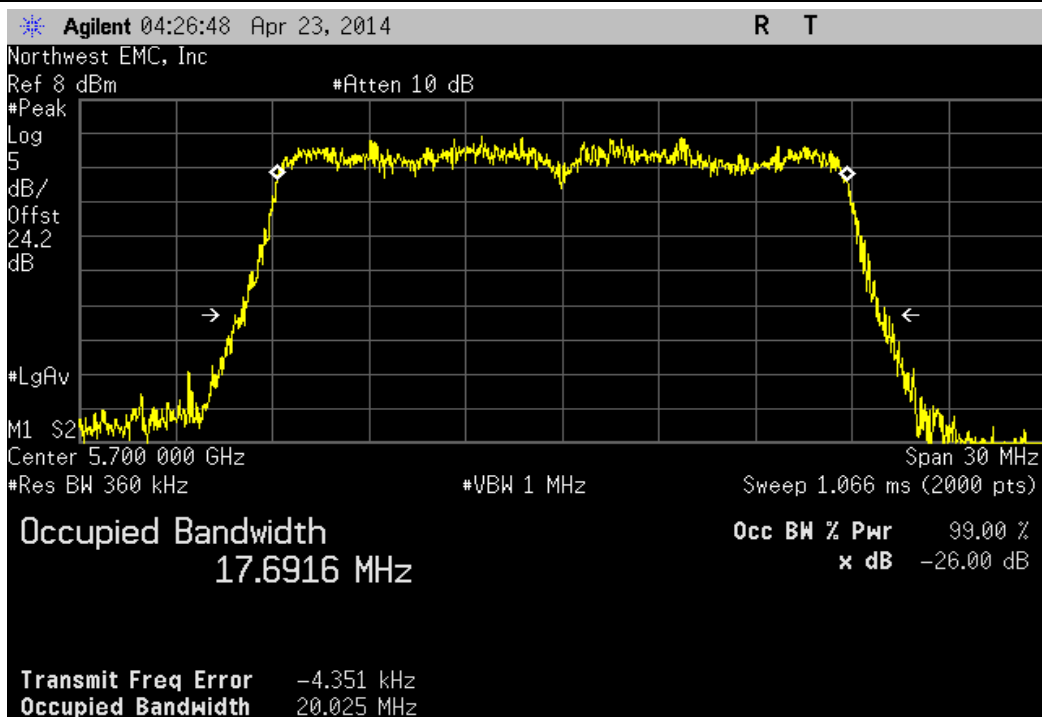
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
20.131 MHz	> 500 kHz	Pass



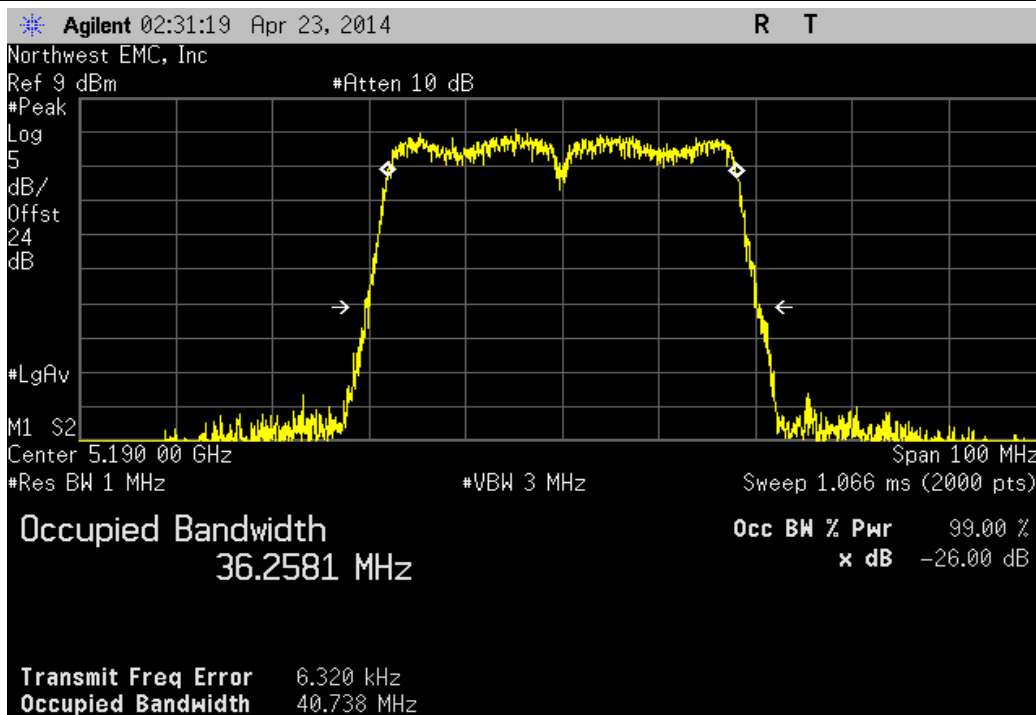
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
20.025 MHz	> 500 kHz	Pass



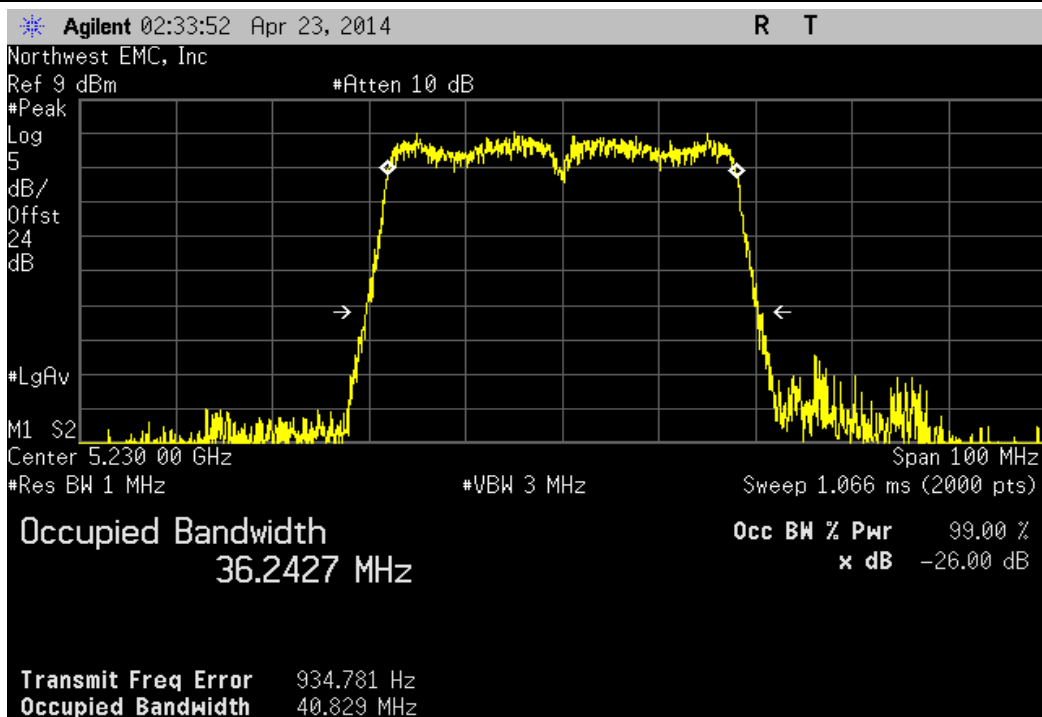
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
40.738 MHz	> 500 kHz	Pass



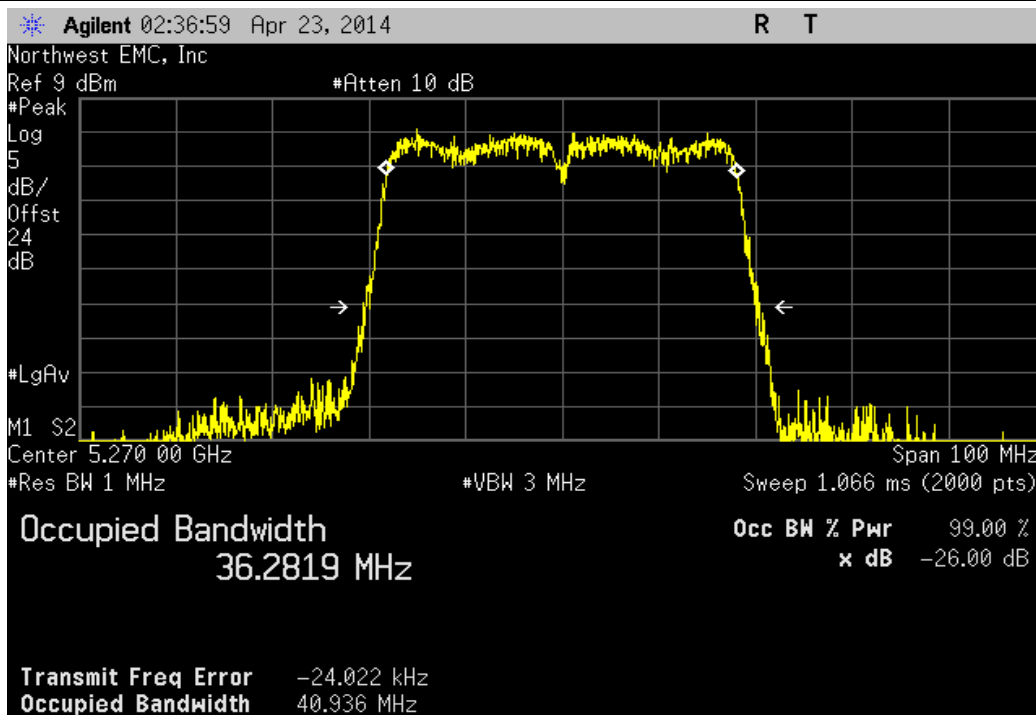
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.829 MHz	> 500 kHz	Pass



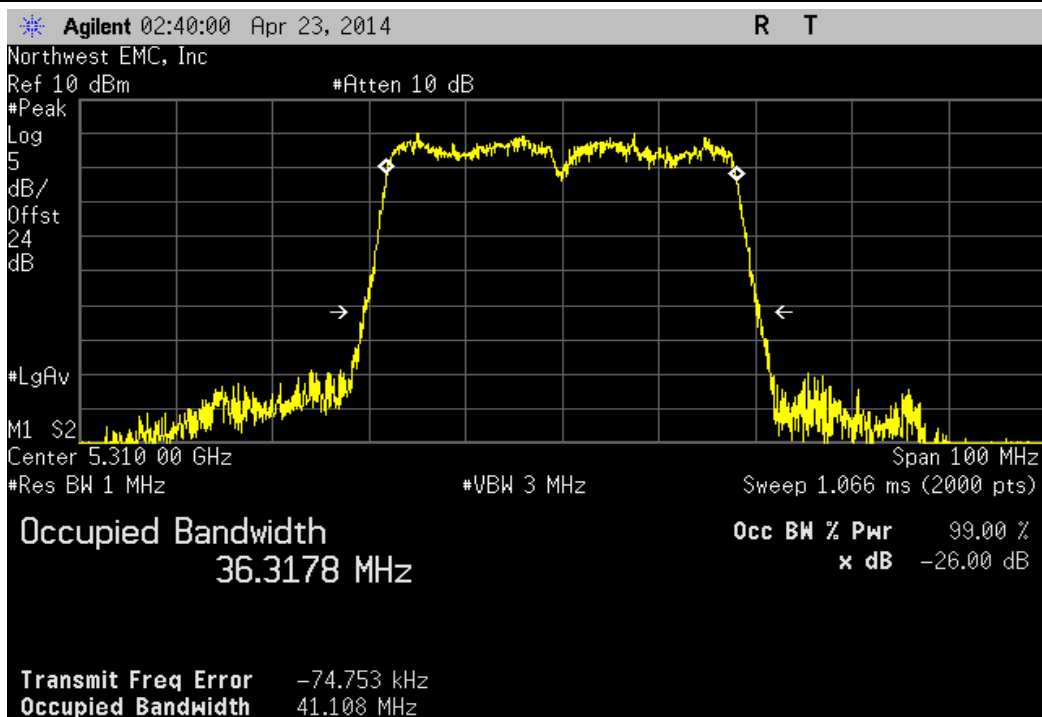
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.936 MHz	> 500 kHz	Pass



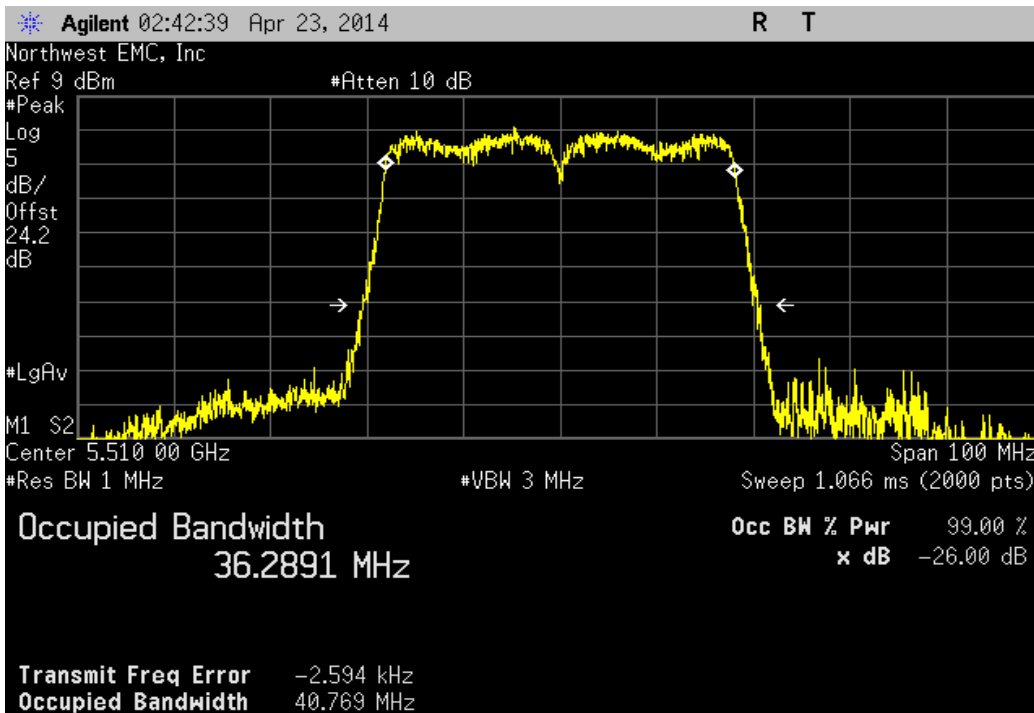
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
41.108 MHz	> 500 kHz	Pass



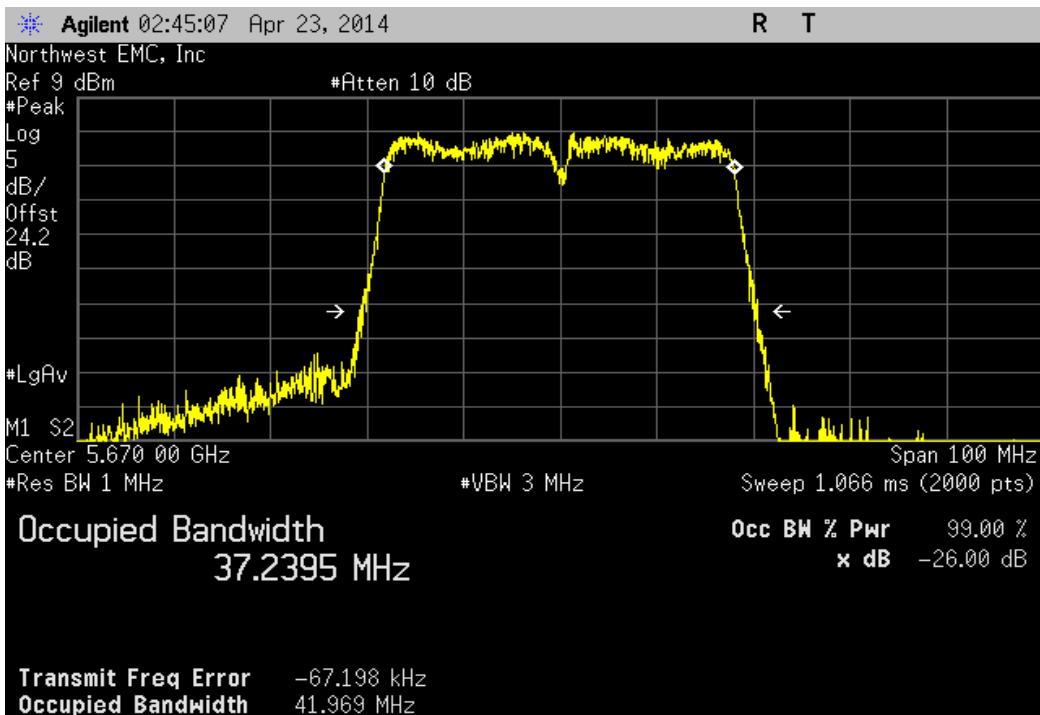
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
40.769 MHz	> 500 kHz	Pass



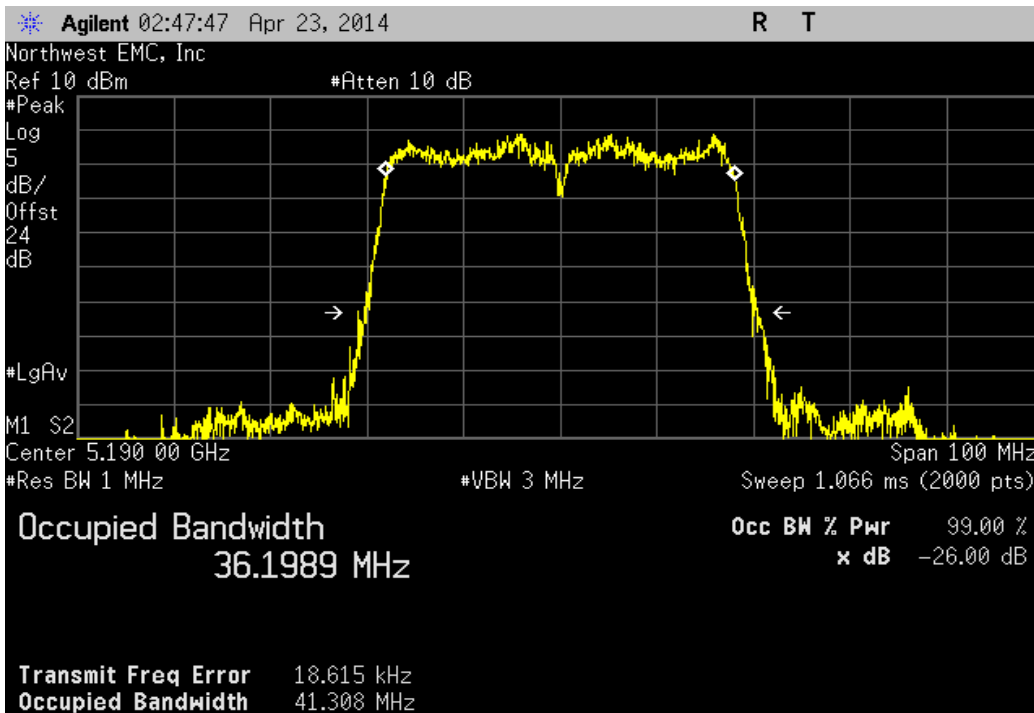
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
41.969 MHz	> 500 kHz	Pass



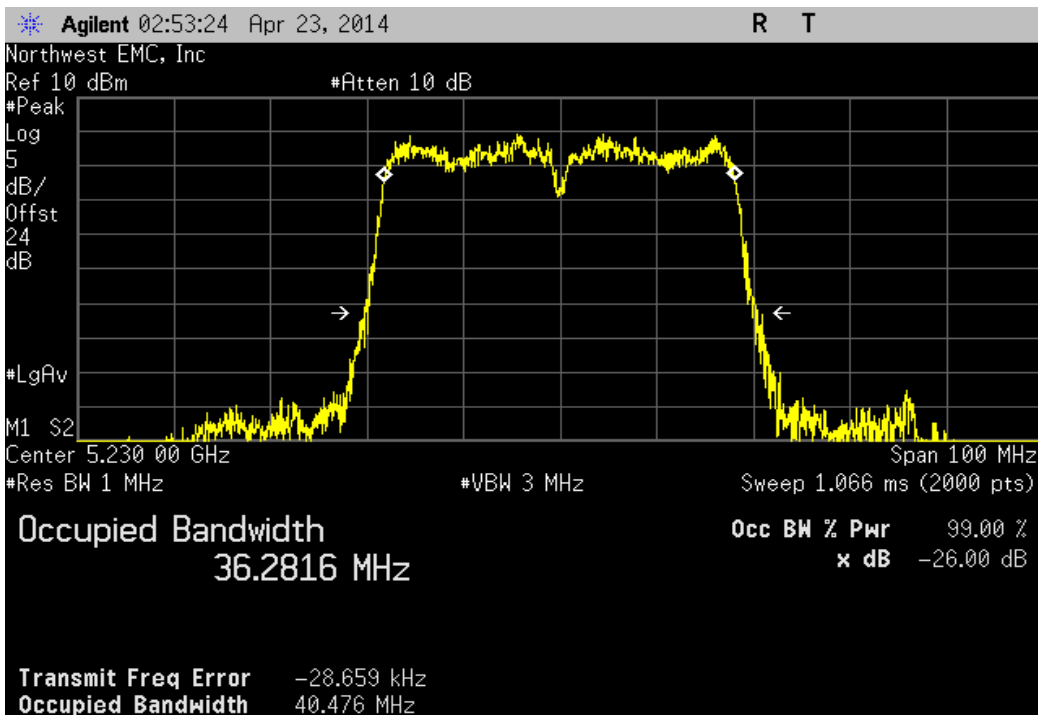
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
41.308 MHz	> 500 kHz	Pass



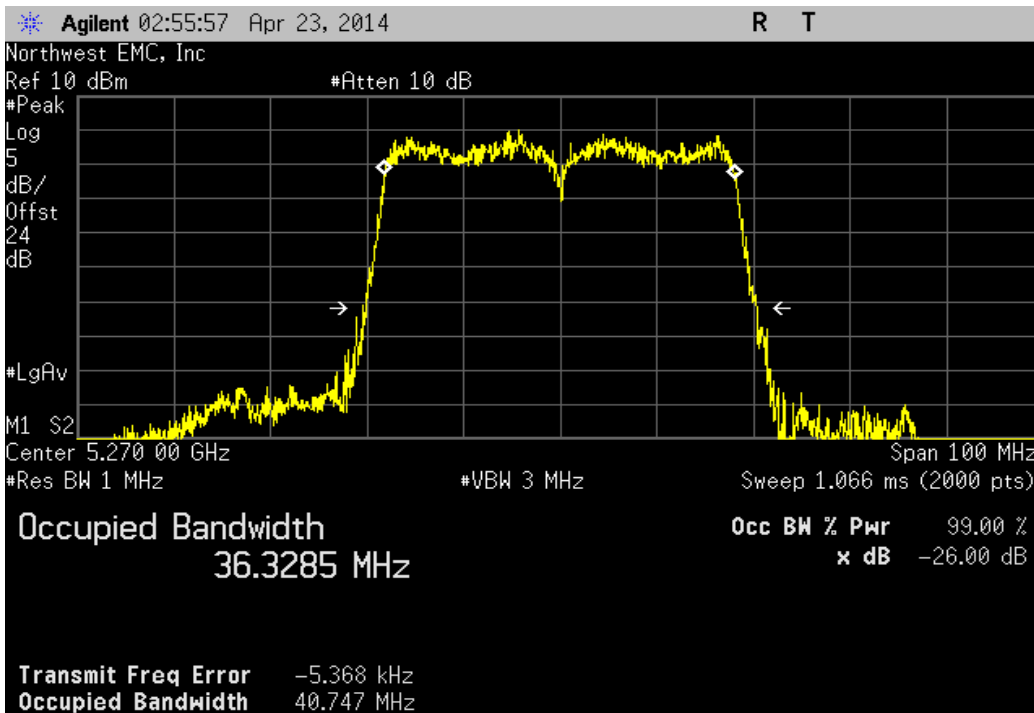
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.476 MHz	> 500 kHz	Pass



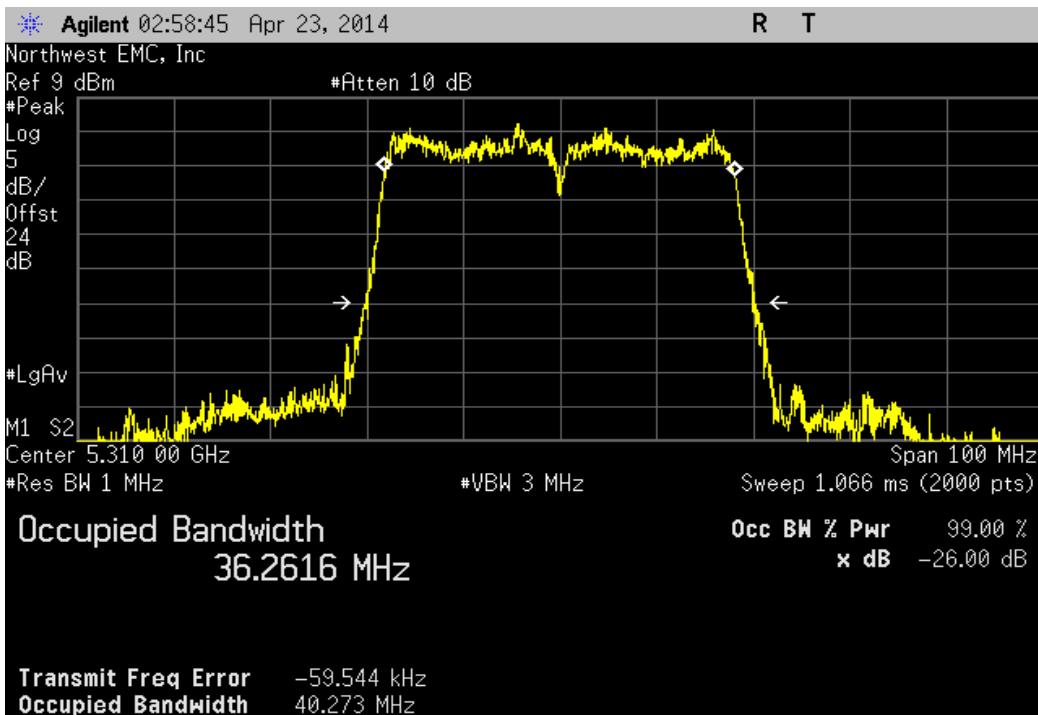
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.747 MHz	> 500 kHz	Pass



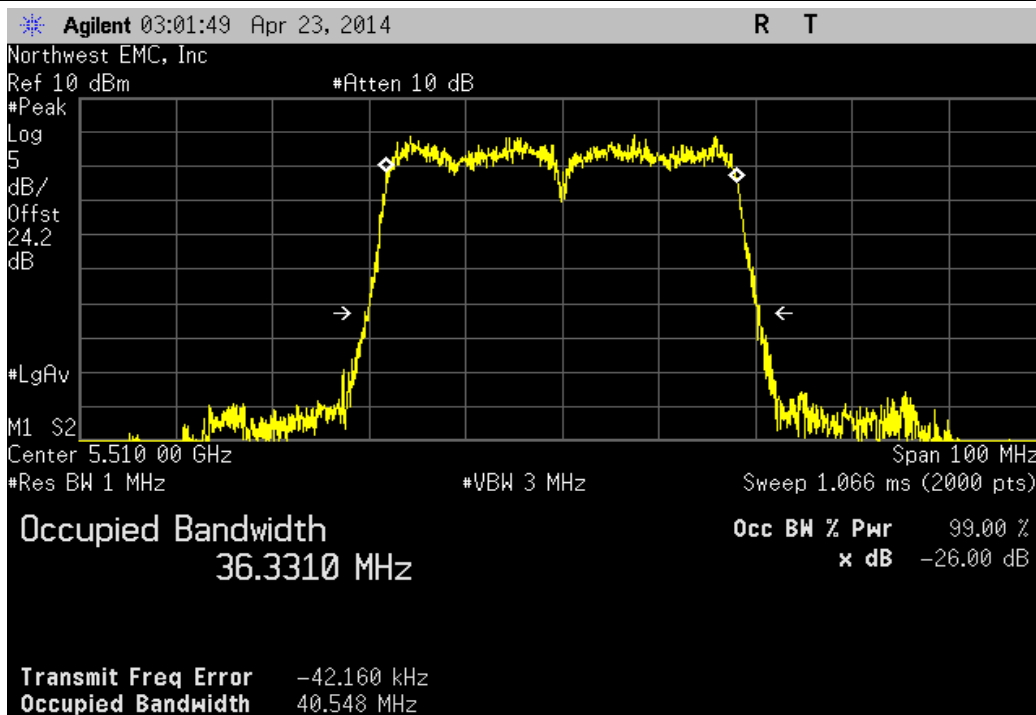
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.273 MHz	> 500 kHz	Pass



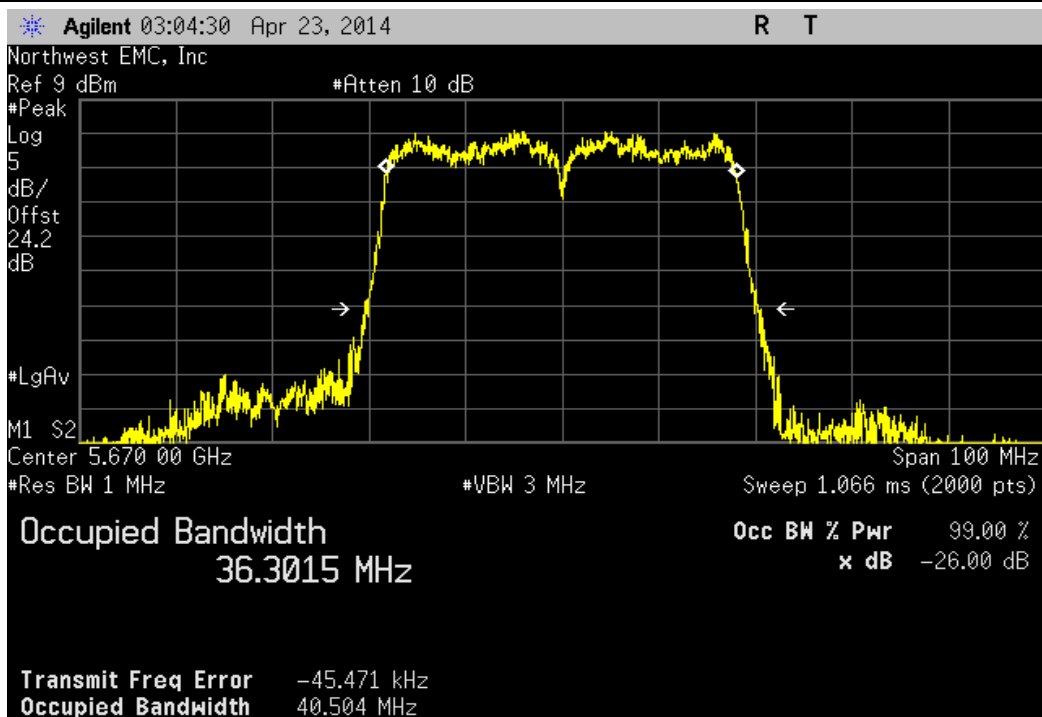
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 100/104, Low Channel 5510 MHz

				Value	Limit	Result
				40.548 MHz	> 500 kHz	Pass



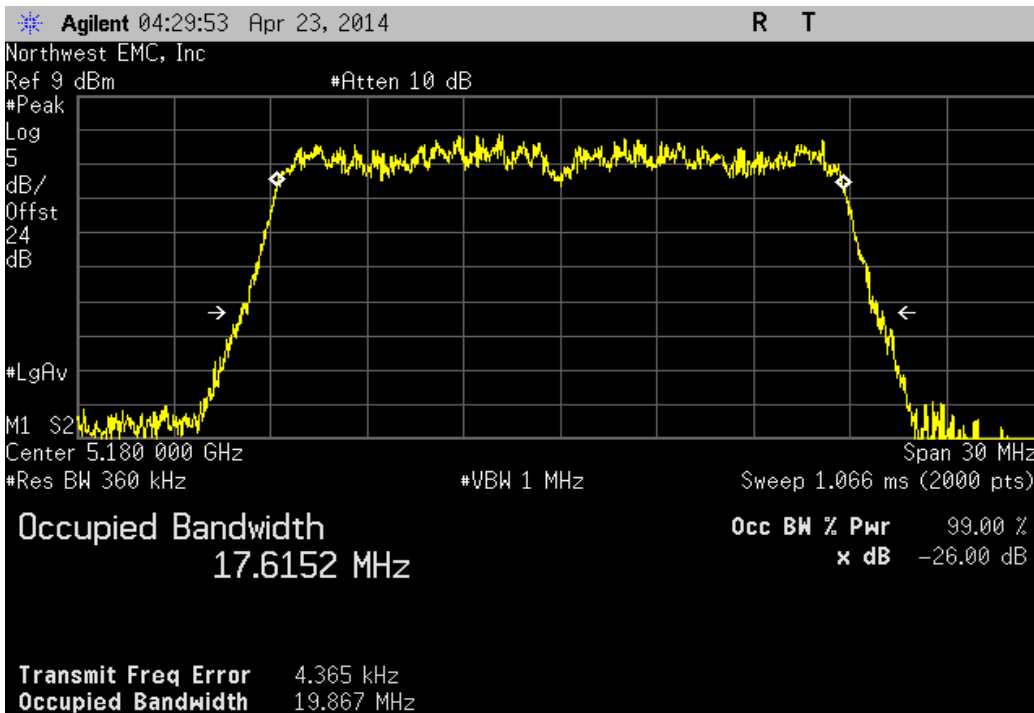
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 132/136, High Channel 5670 MHz

				Value	Limit	Result
				40.504 MHz	> 500 kHz	Pass



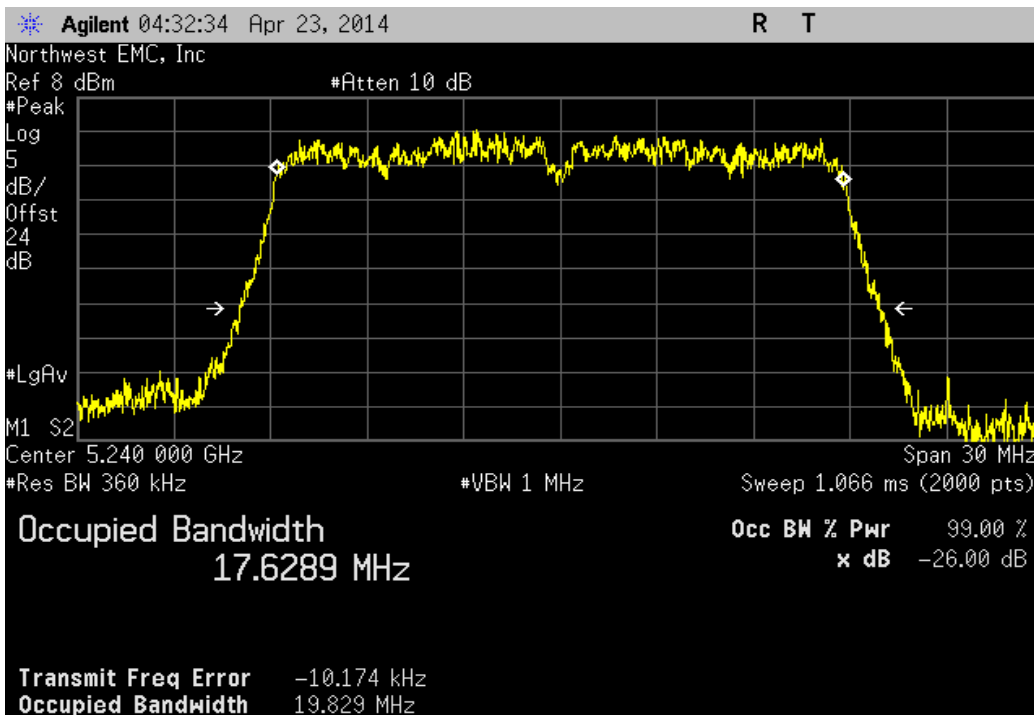
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
19.867 MHz	> 500 kHz	Pass



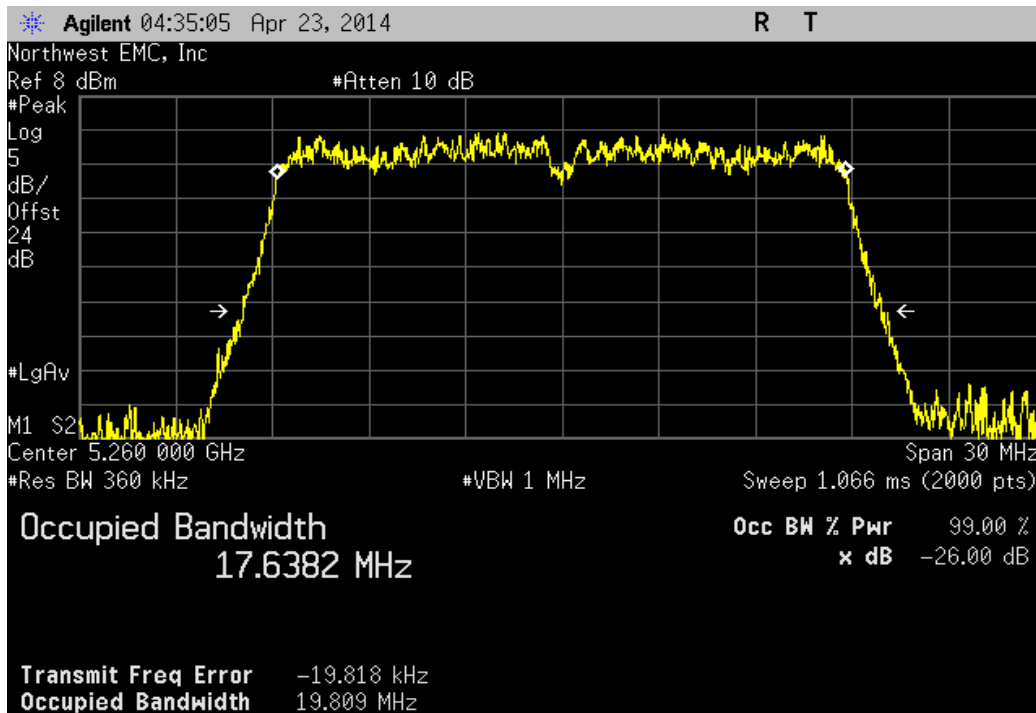
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.829 MHz	> 500 kHz	Pass



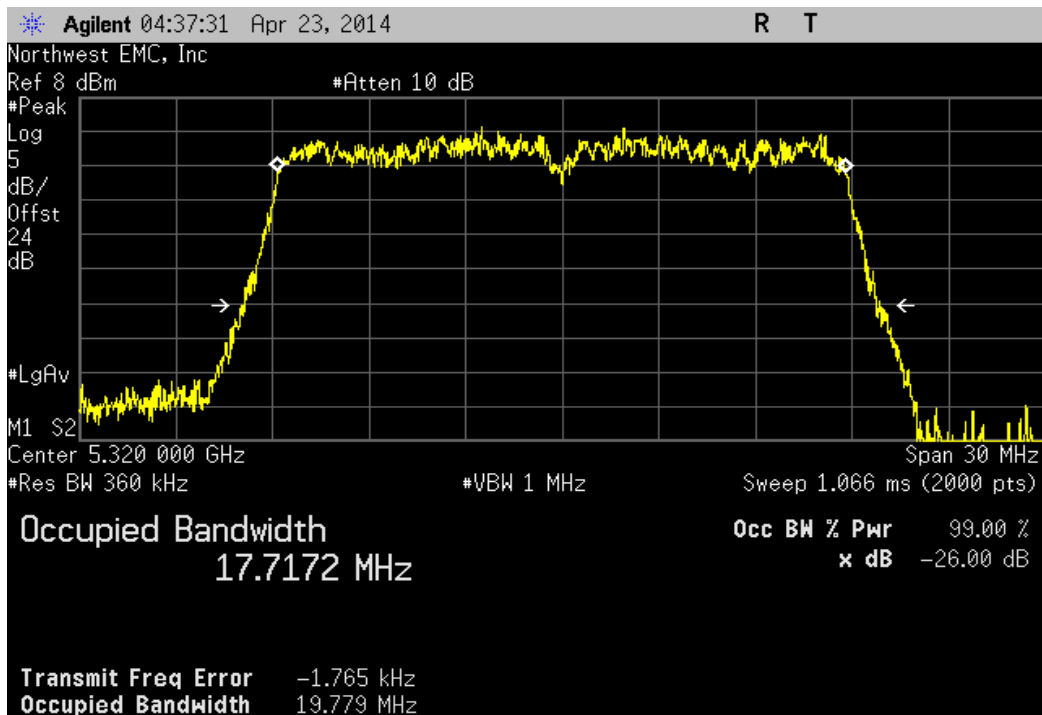
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
19.809 MHz	> 500 kHz	Pass



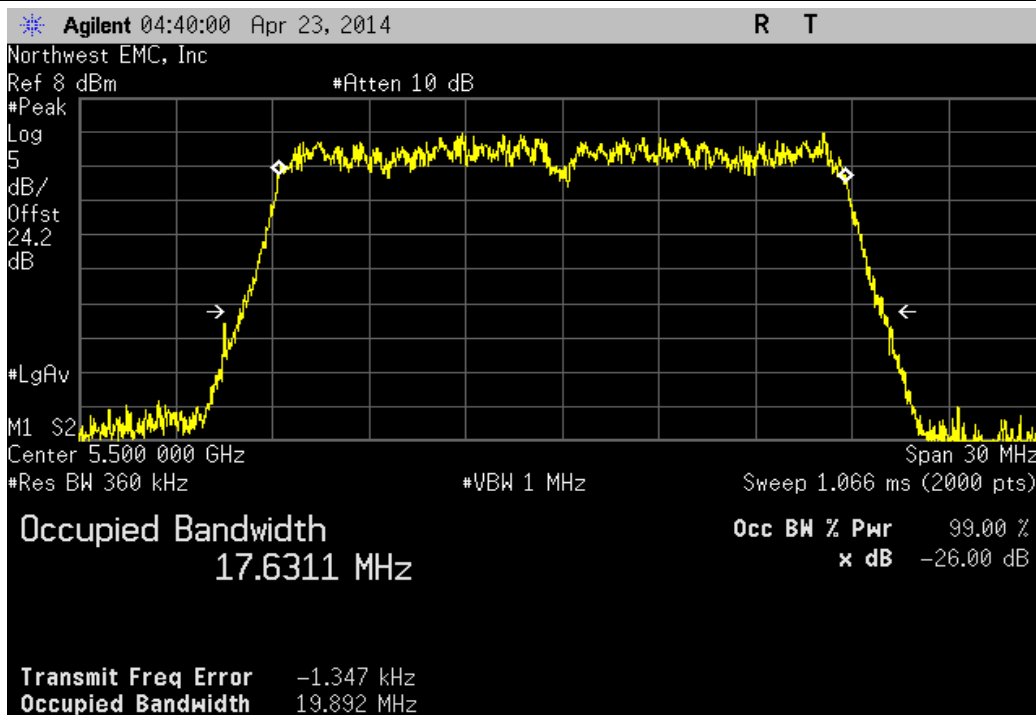
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
19.779 MHz	> 500 kHz	Pass



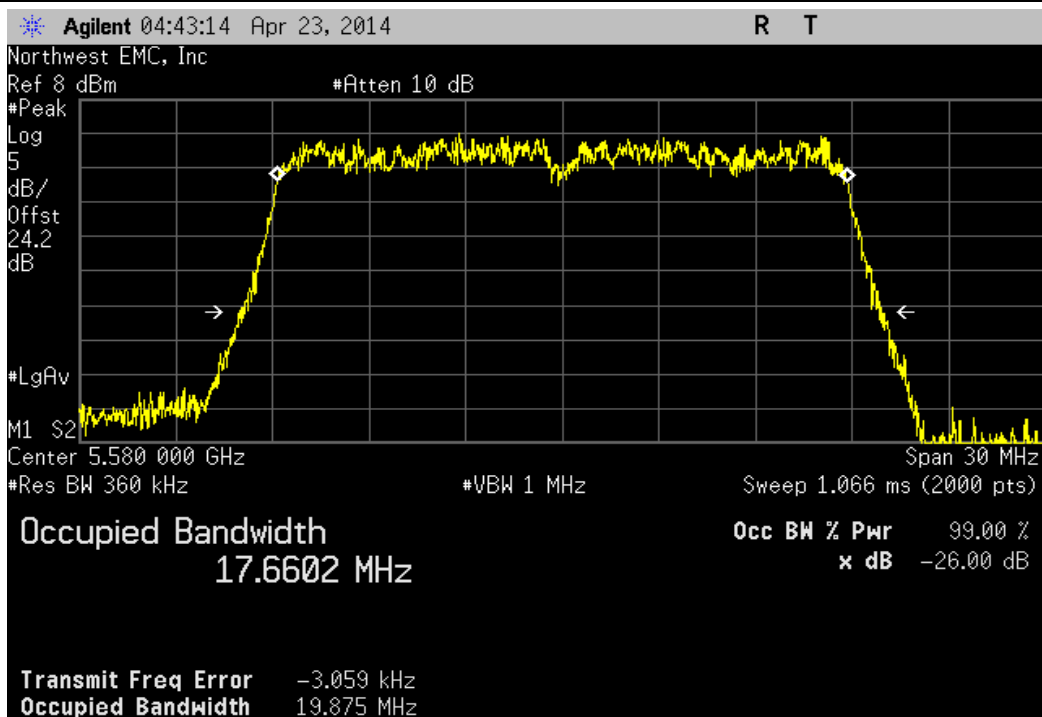
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
19.892 MHz	> 500 kHz	Pass



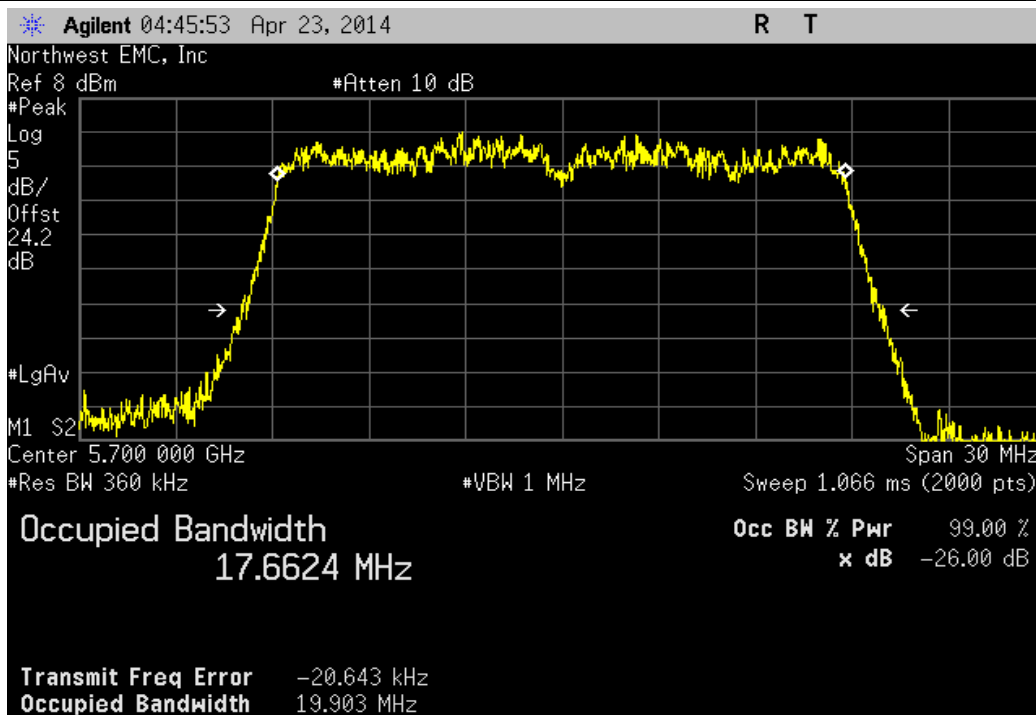
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
19.875 MHz	> 500 kHz	Pass



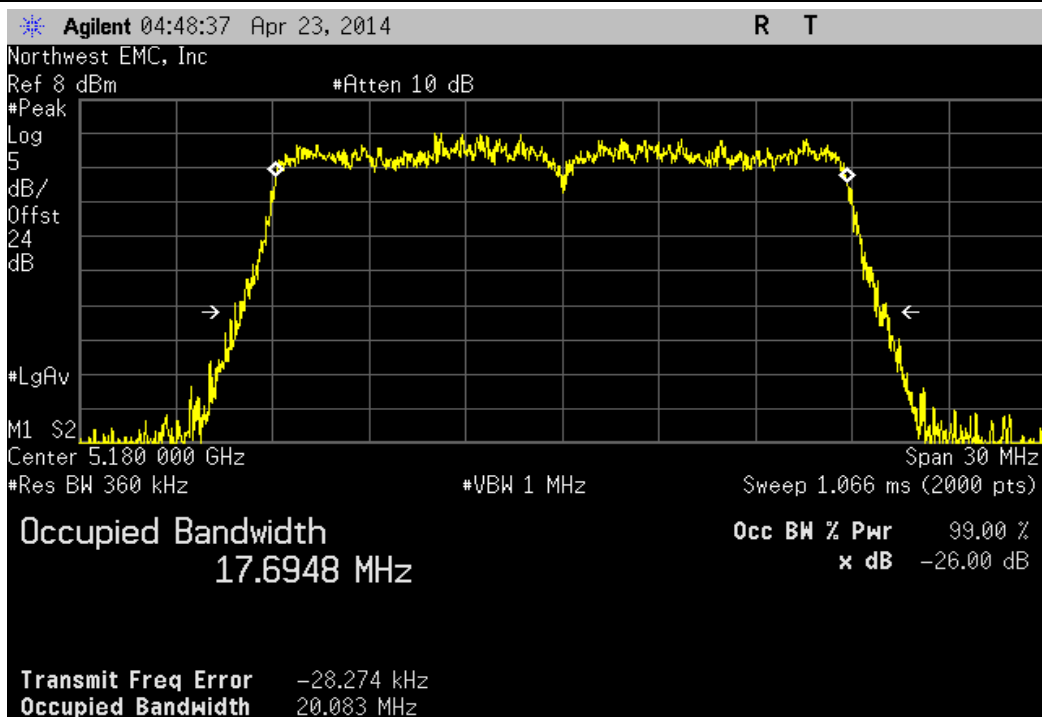
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
19.903 MHz	> 500 kHz	Pass



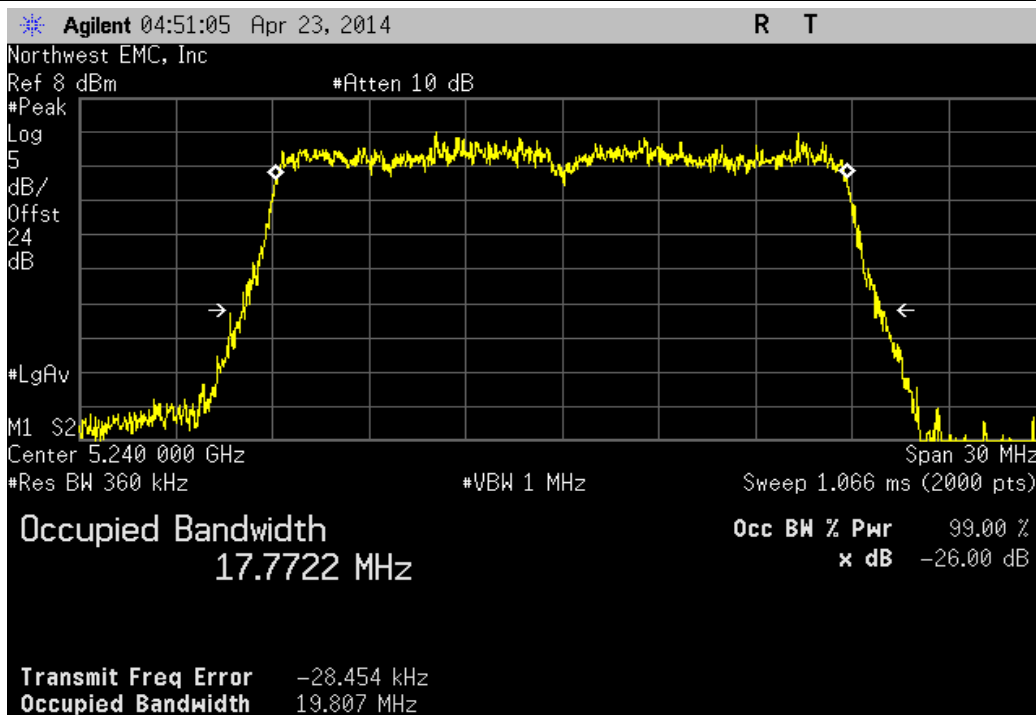
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
20.083 MHz	> 500 kHz	Pass



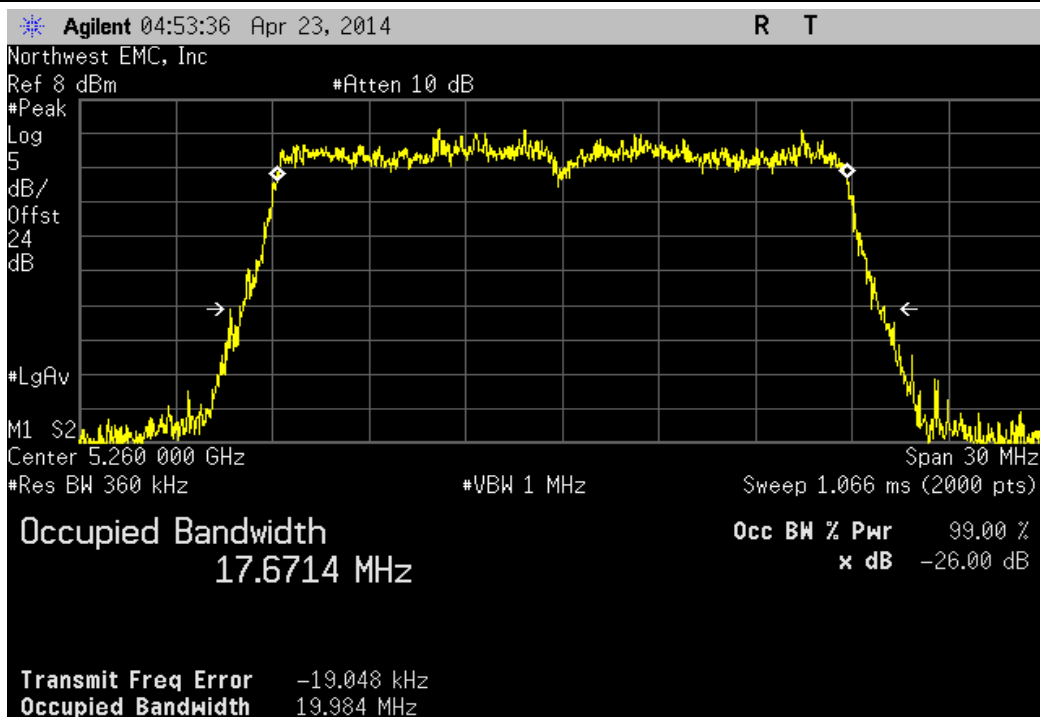
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.807 MHz	> 500 kHz	Pass



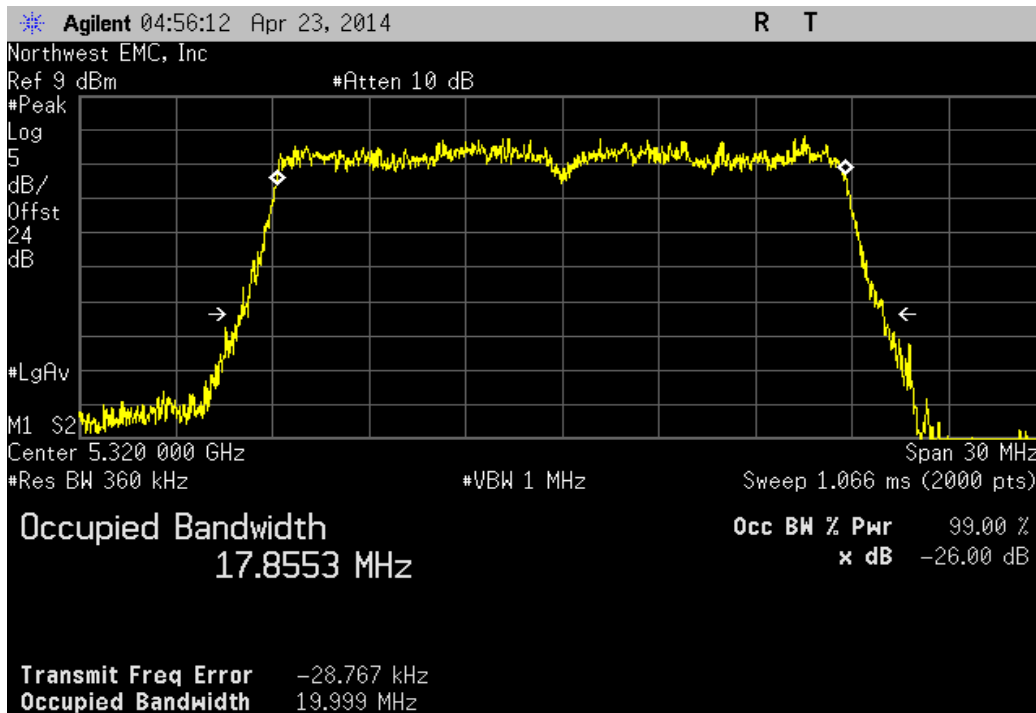
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
19.984 MHz	> 500 kHz	Pass



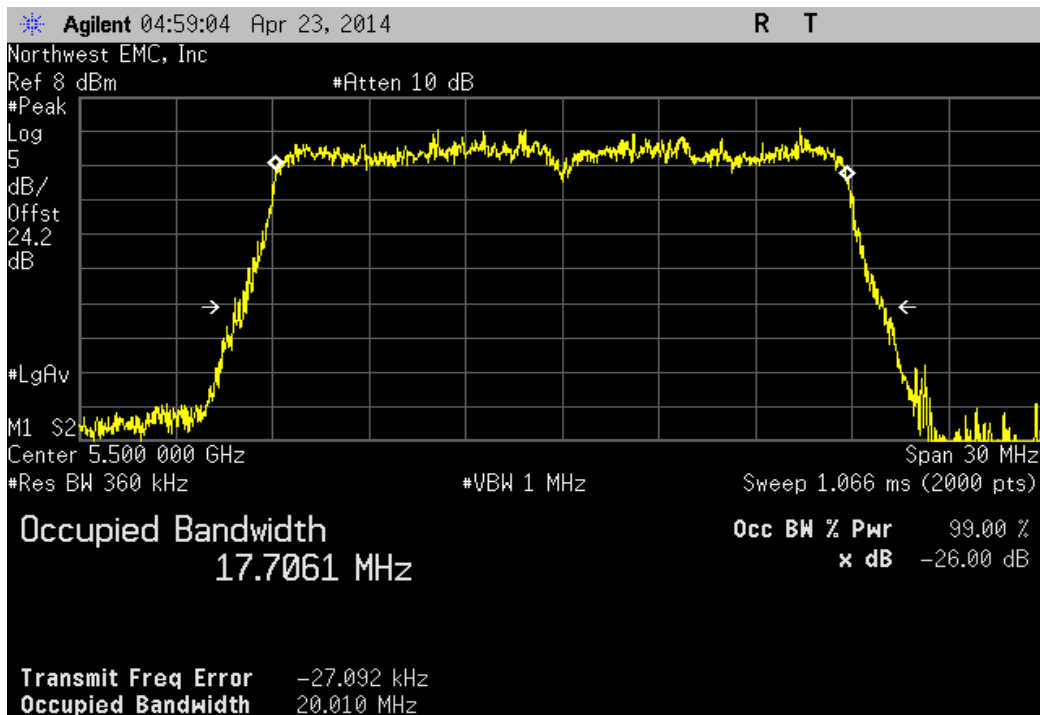
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
19.999 MHz	> 500 kHz	Pass



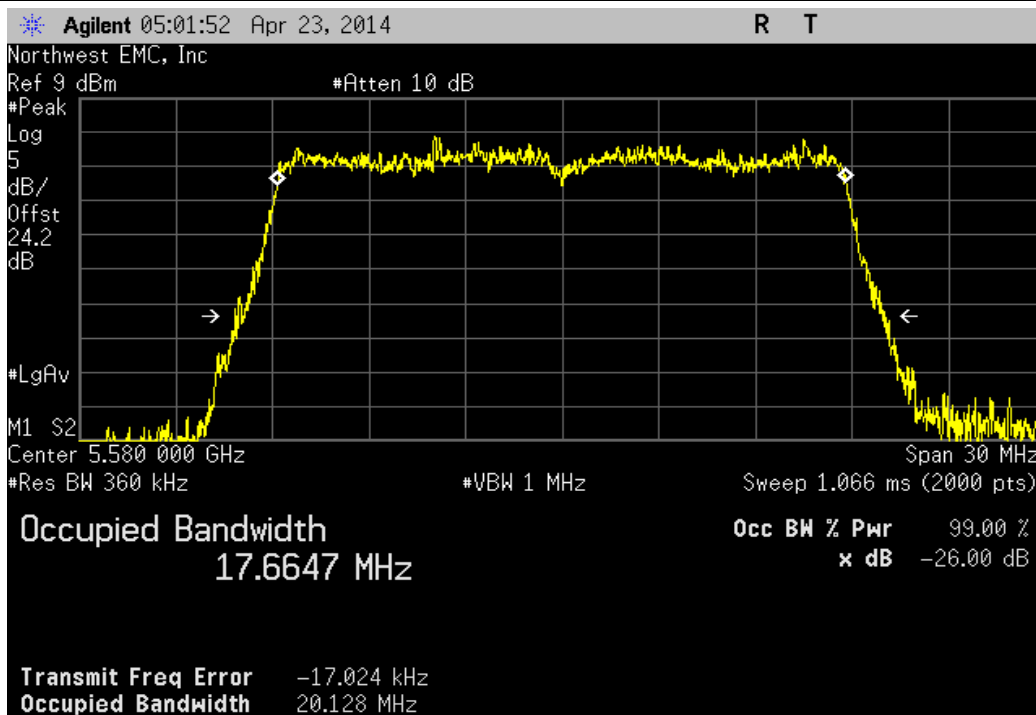
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
20.01 MHz	> 500 kHz	Pass



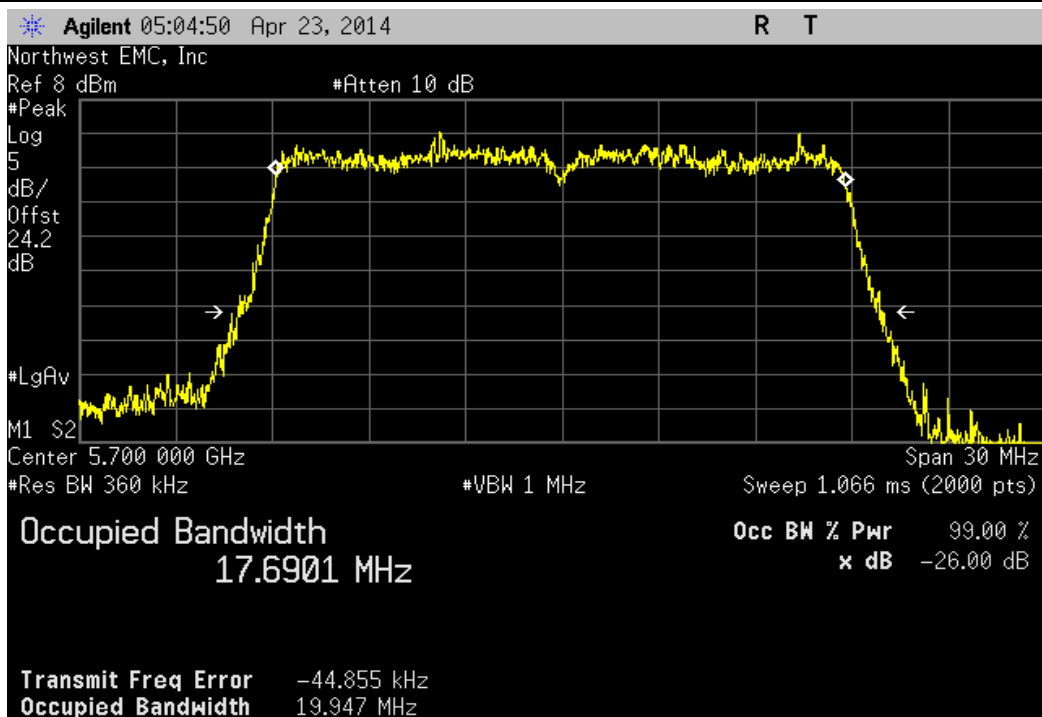
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
20.128 MHz	> 500 kHz	Pass



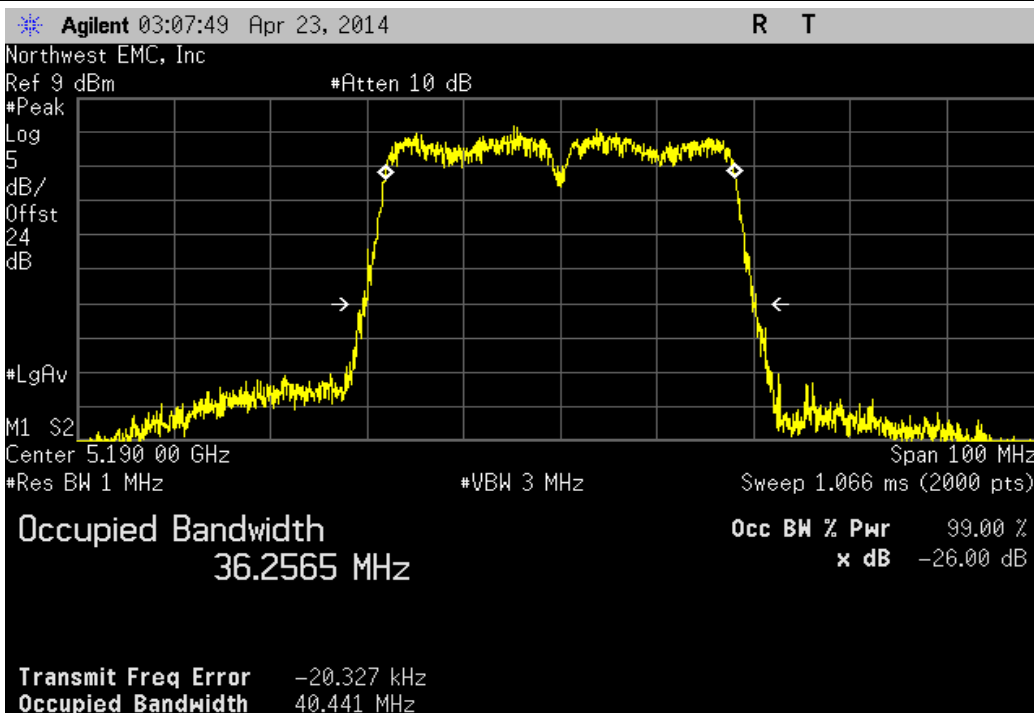
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
19.947 MHz	> 500 kHz	Pass



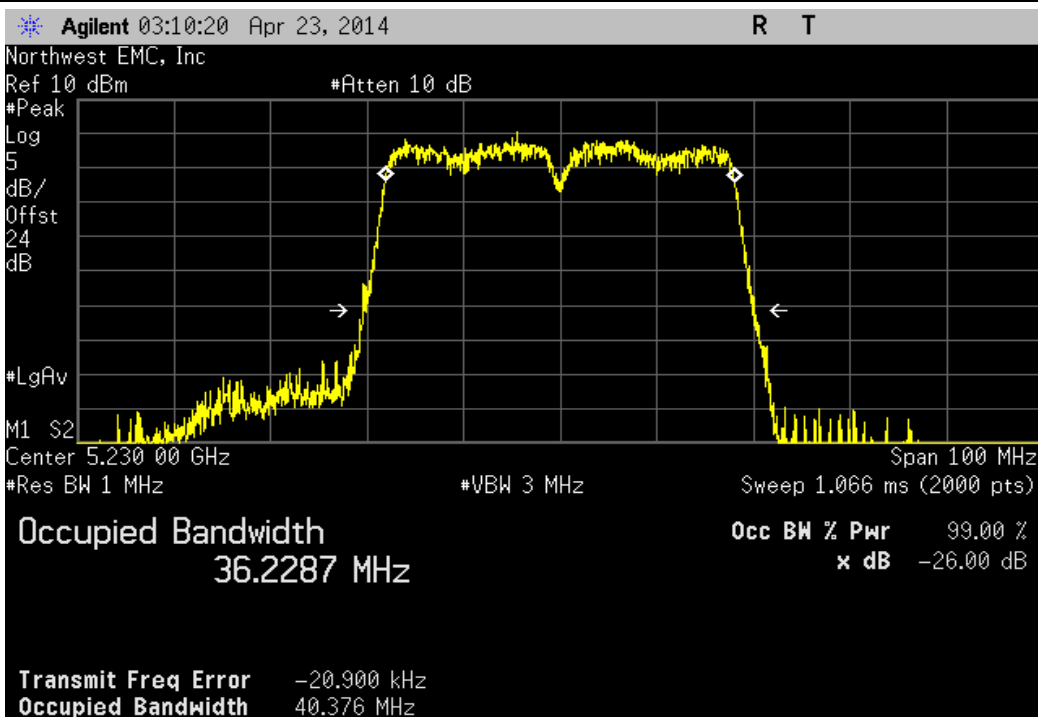
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
40.441 MHz	> 500 kHz	Pass



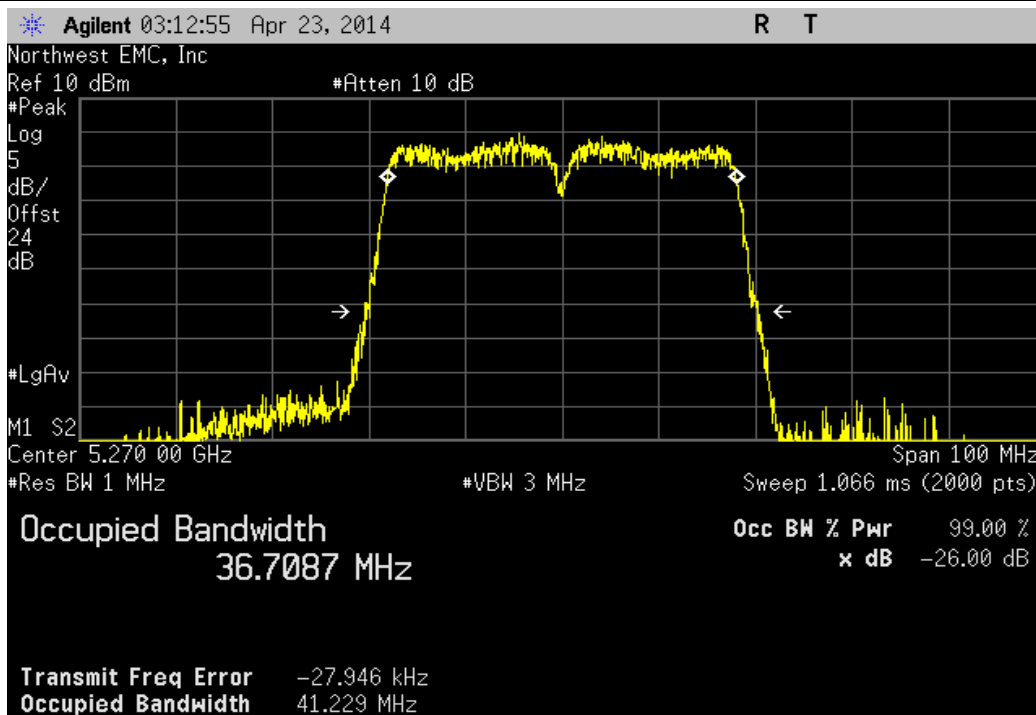
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.376 MHz	> 500 kHz	Pass



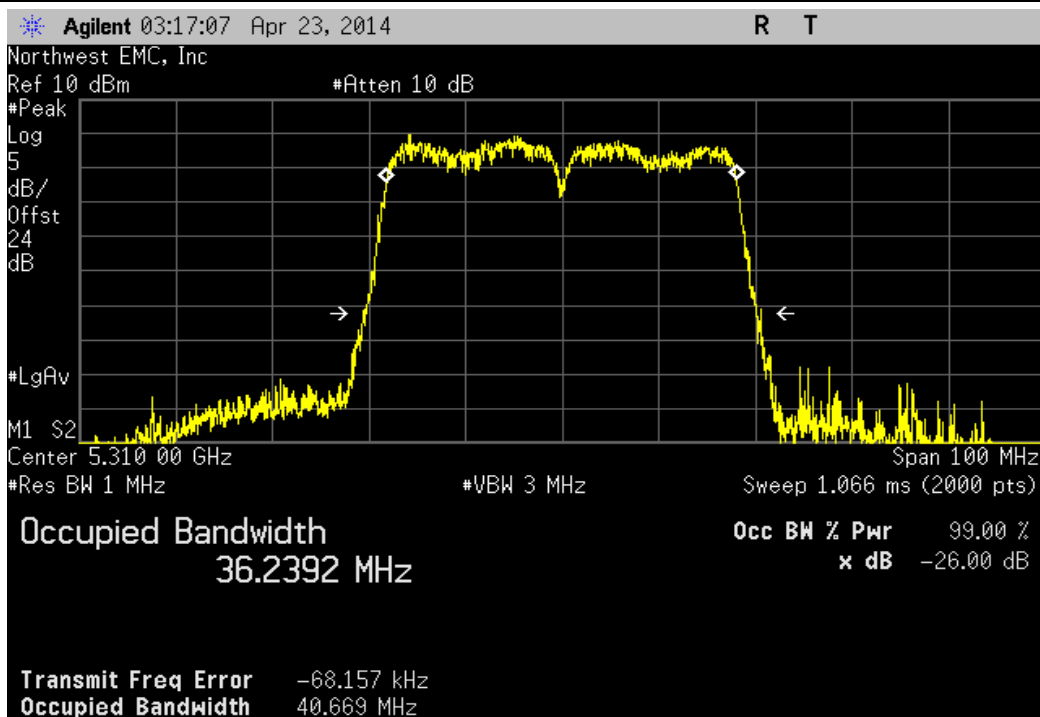
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
41.229 MHz	> 500 kHz	Pass



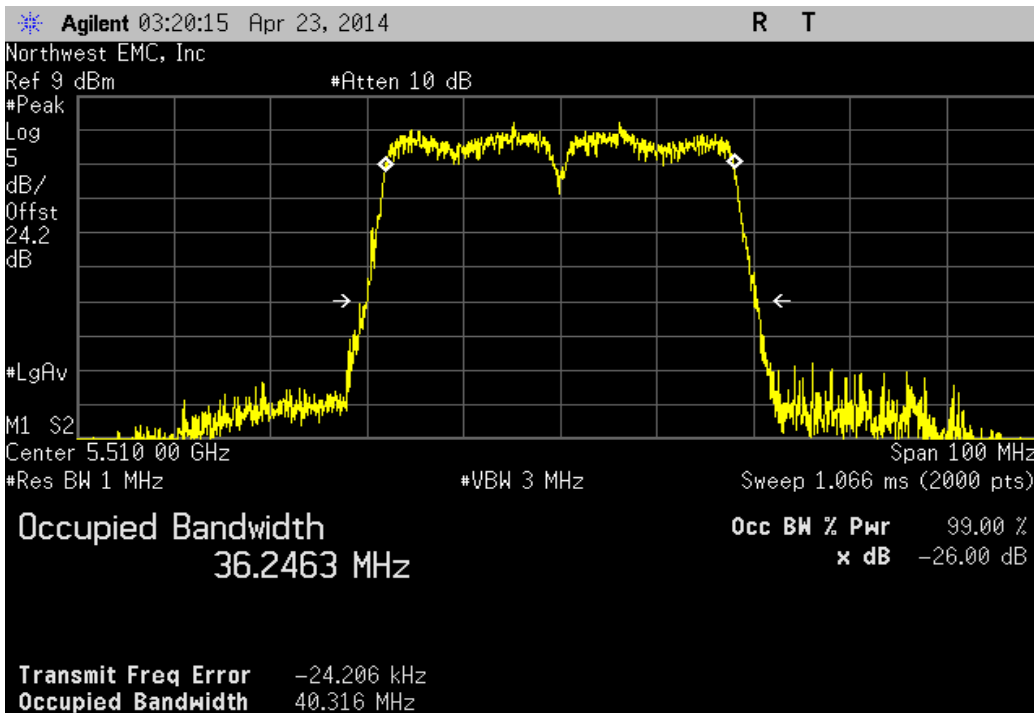
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.669 MHz	> 500 kHz	Pass



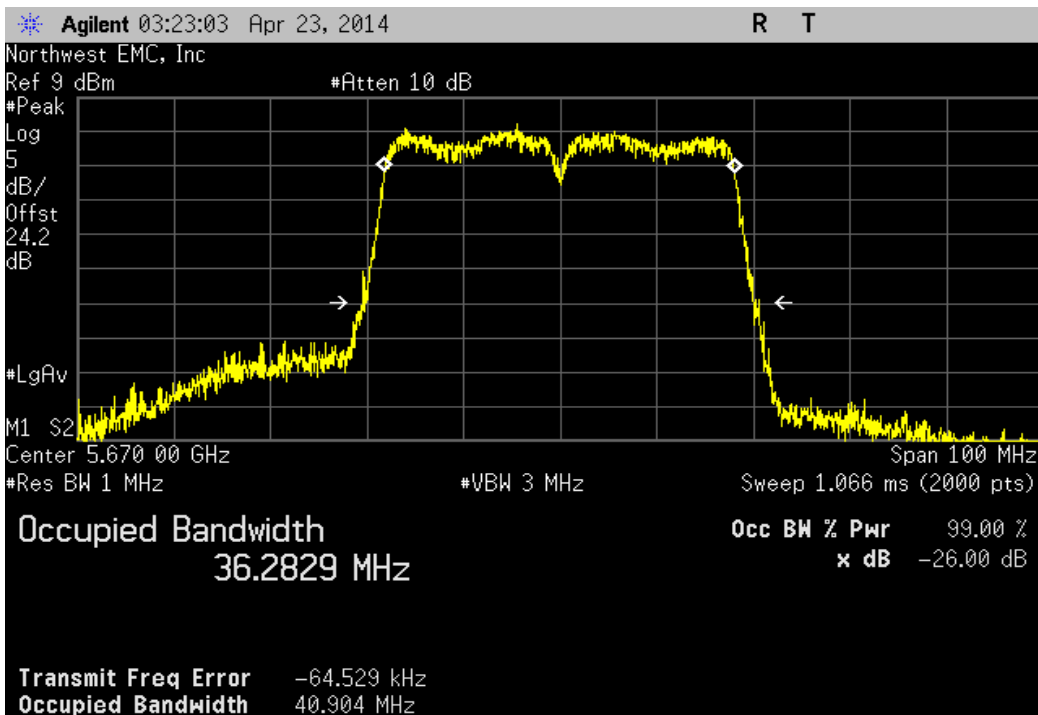
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
40.316 MHz	> 500 kHz	Pass



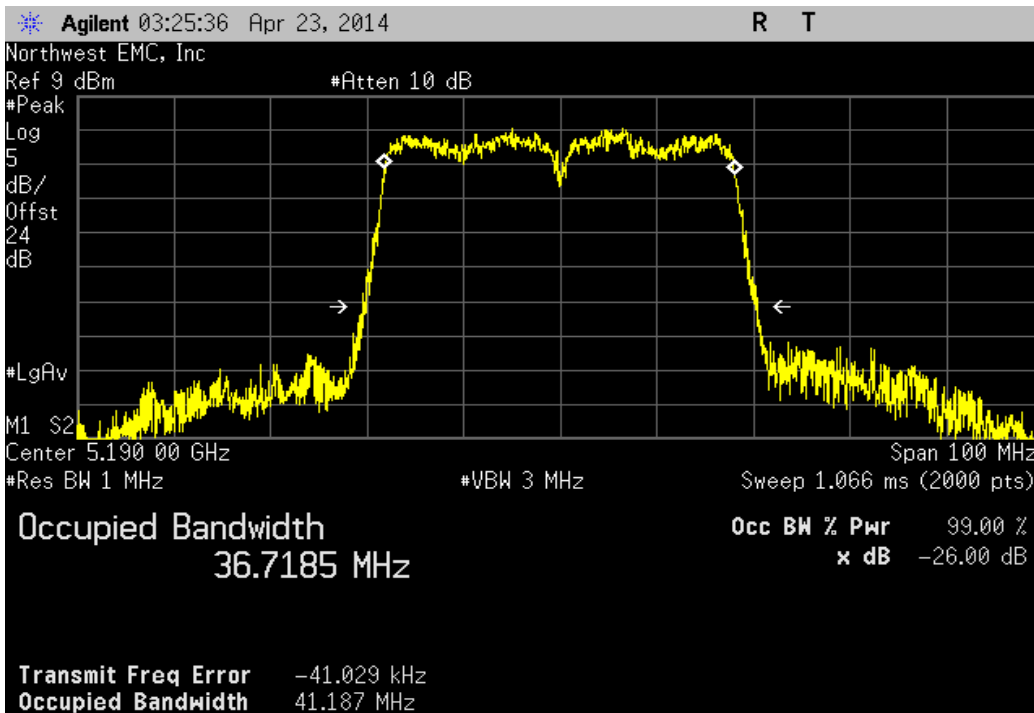
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
40.904 MHz	> 500 kHz	Pass



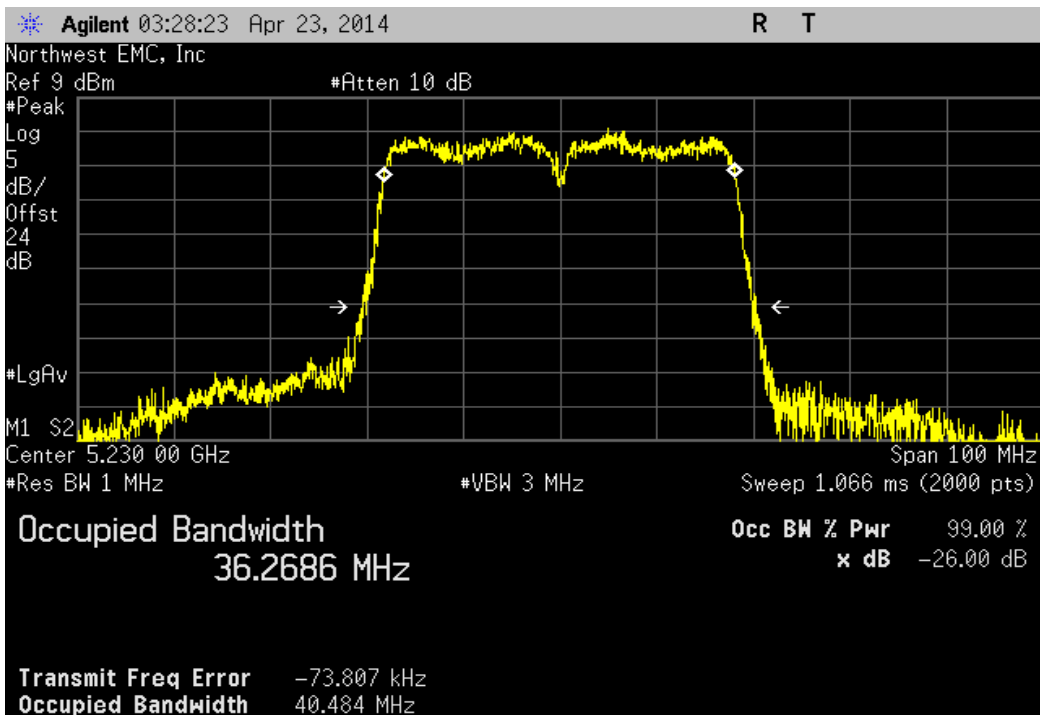
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
41.187 MHz	> 500 kHz	Pass



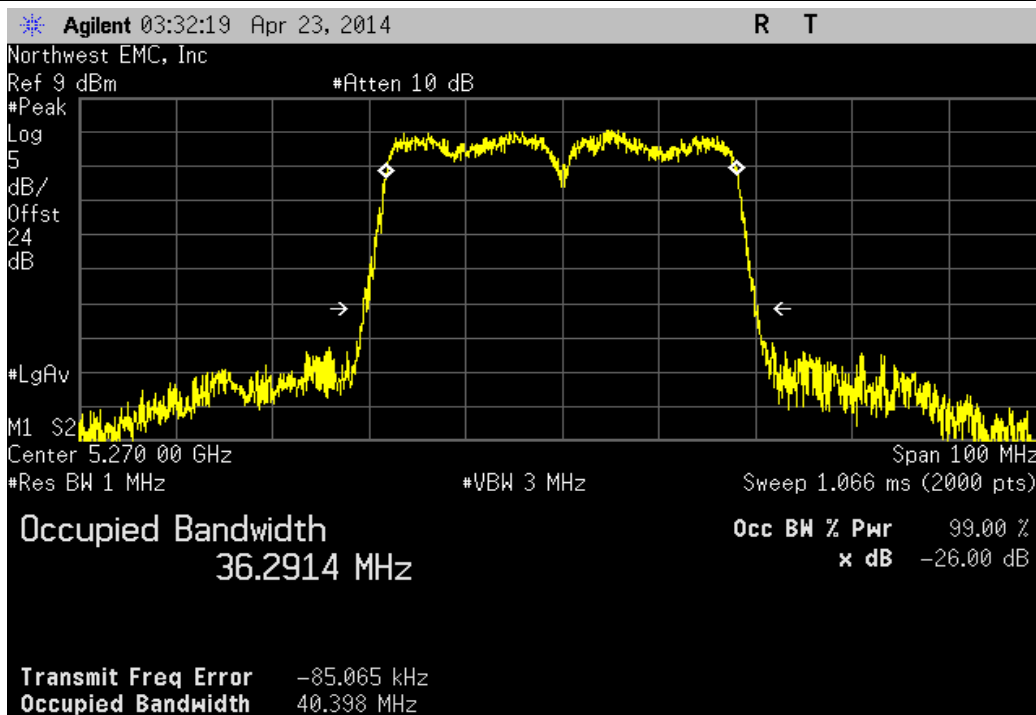
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.484 MHz	> 500 kHz	Pass



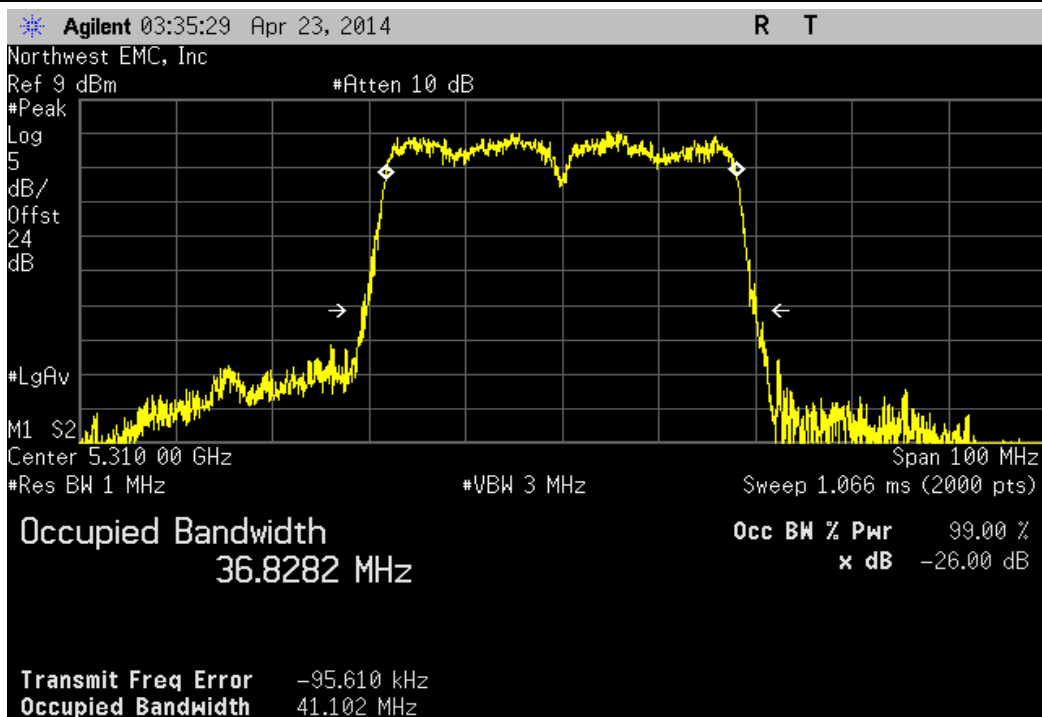
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.398 MHz	> 500 kHz	Pass



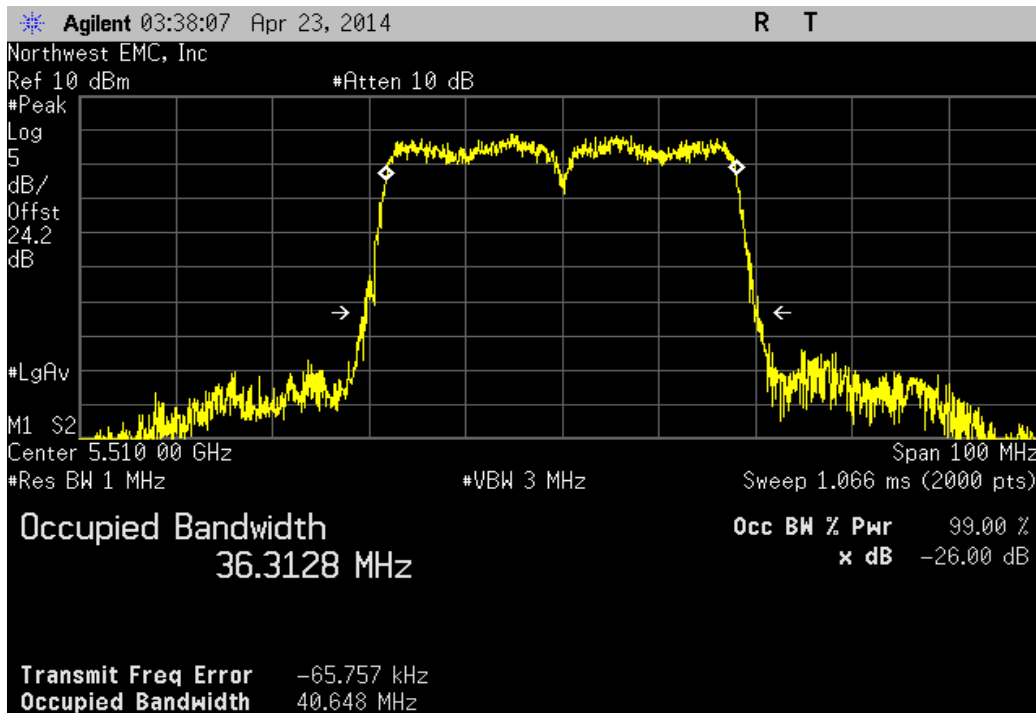
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
41.102 MHz	> 500 kHz	Pass



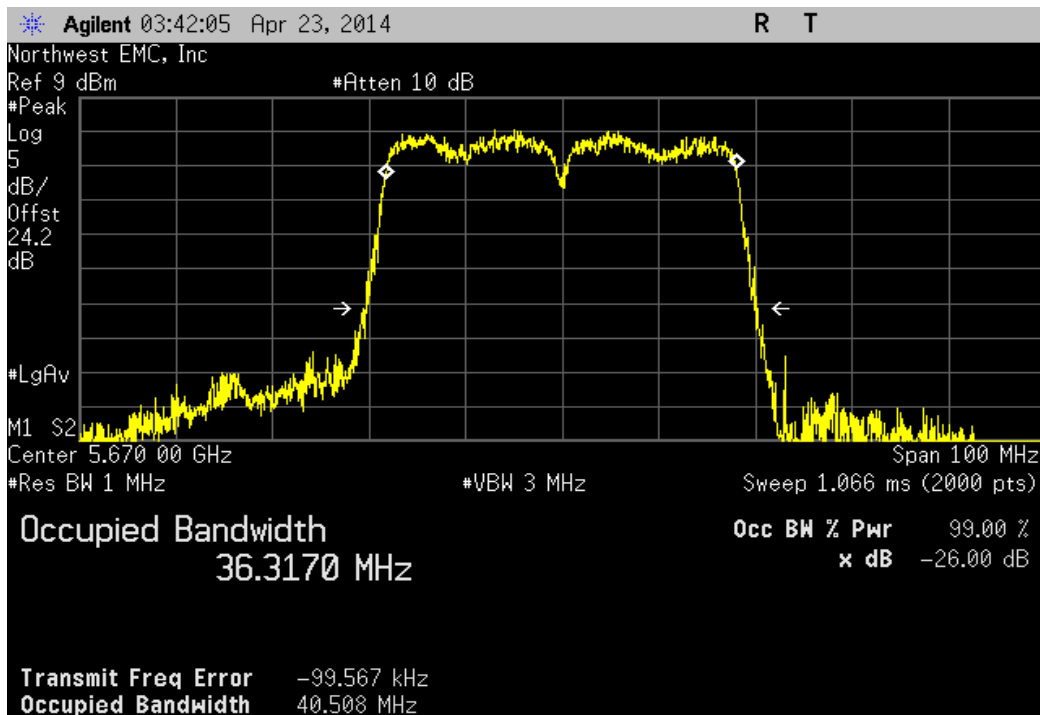
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
40.648 MHz	> 500 kHz	Pass



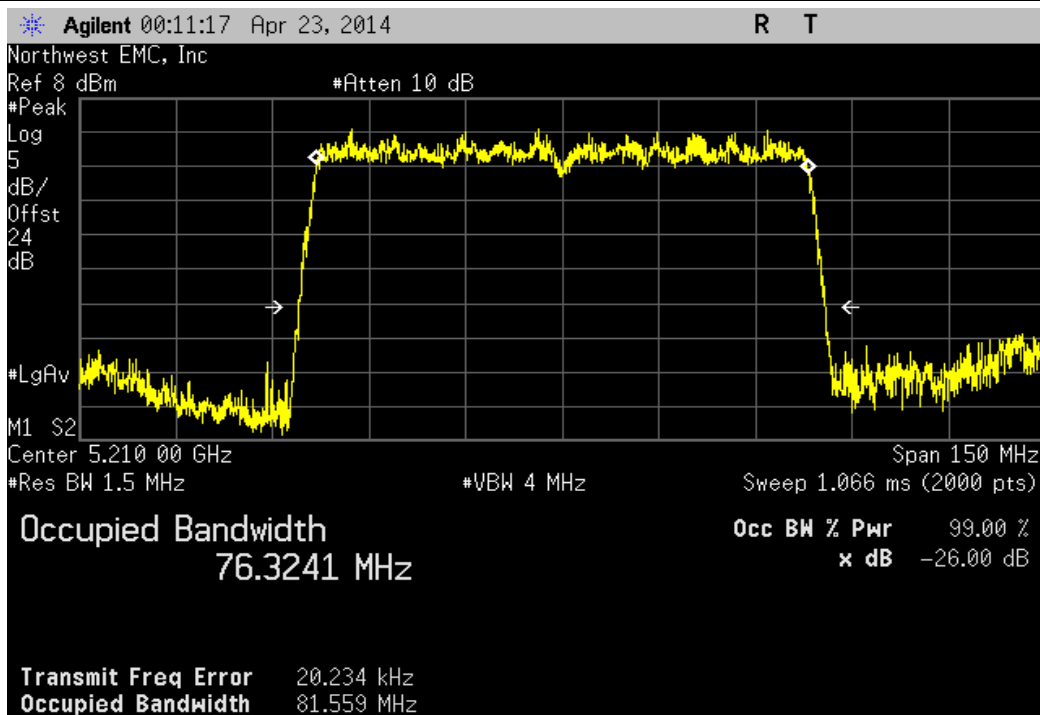
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
40.508 MHz	> 500 kHz	Pass



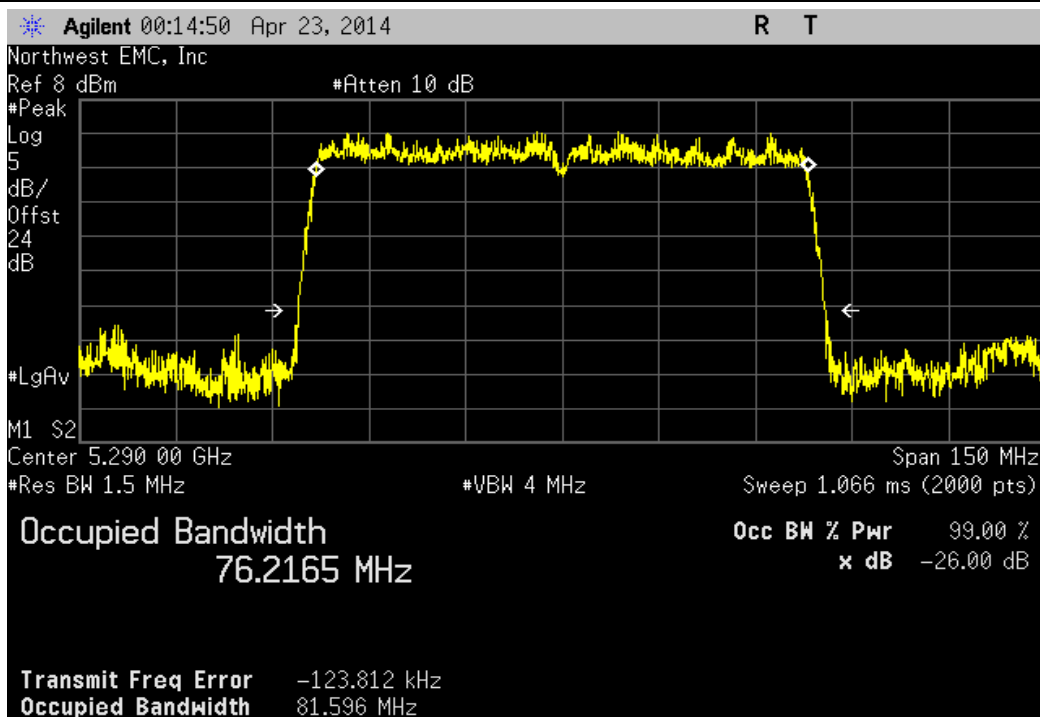
Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
81.559 MHz	> 500 kHz	Pass



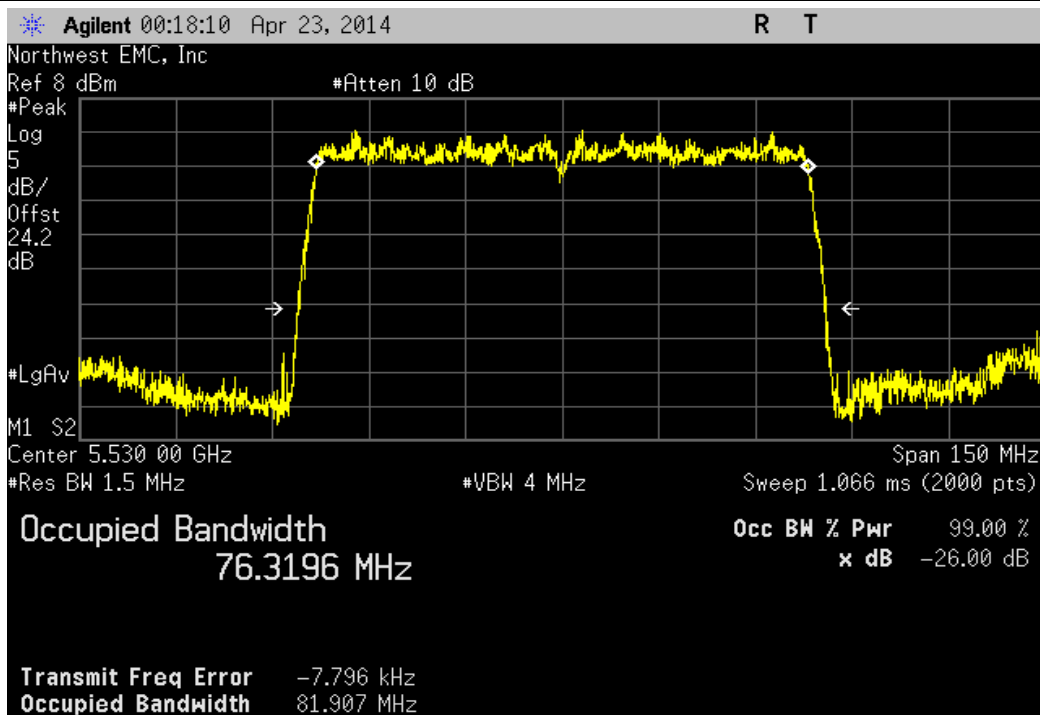
Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
81.596 MHz	> 500 kHz	Pass



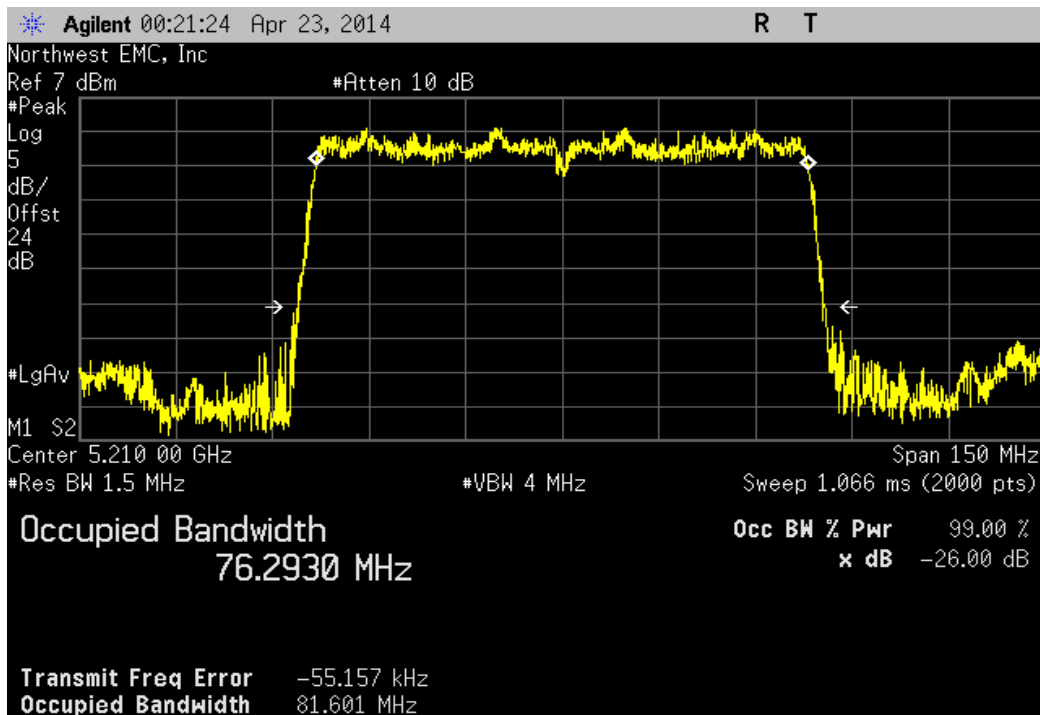
Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
81.907 MHz	> 500 kHz	Pass



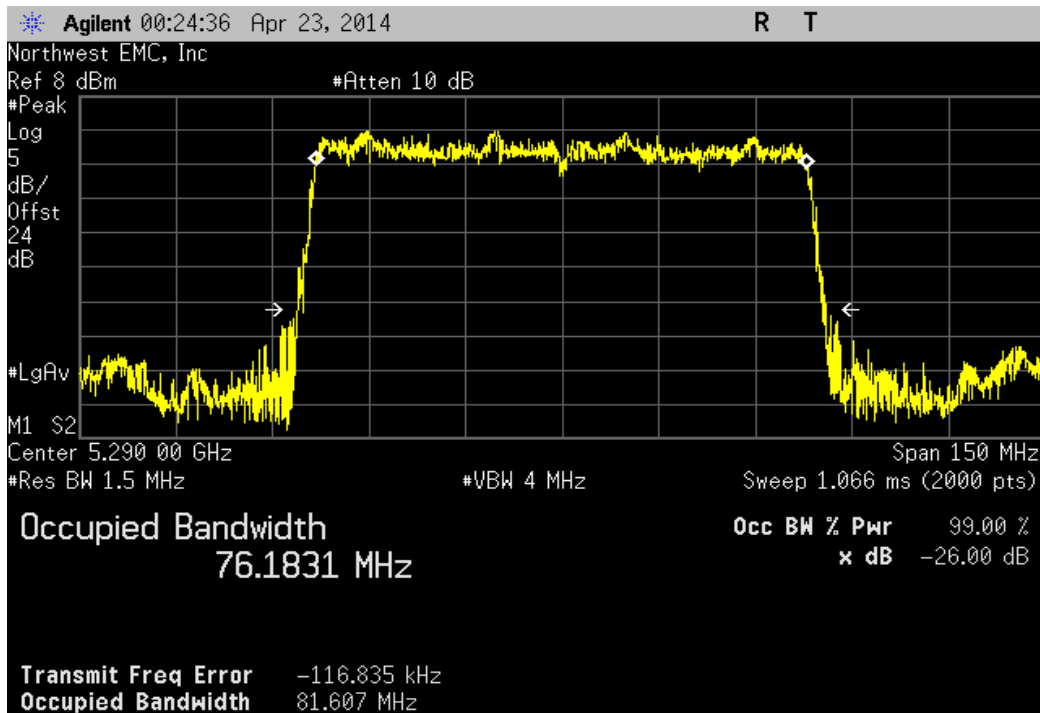
Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
81.601 MHz	> 500 kHz	Pass



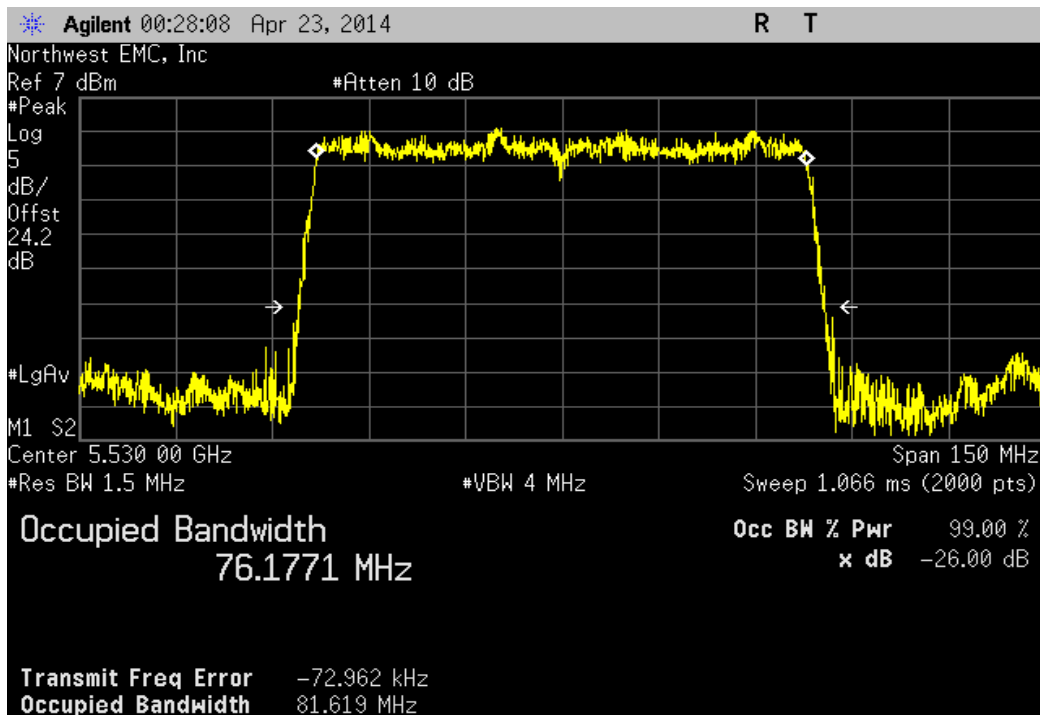
Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
81.607 MHz	> 500 kHz	Pass



Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
81.619 MHz	> 500 kHz	Pass



EMISSION BANDWIDTH

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 EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo.)
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24

TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures were followed.

The transmit frequencies and data rates listed in the datasheet were measured in each band utilized by the radio. The transmit power was set to its default maximum.

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.

The spectrum analyzer settings were as follows:

- RBW = Approx. 1% of the emission bandwidth (B). This was an iterative process to determine the RBW based on the emissions bandwidth (B).
- VBW= > RBW
- A peak detector was used
- Trace max hold.

The spectrum analyzer occupied bandwidth measurement function was then used to measure 26 dB emission bandwidth.

There is no required limit to be met in the rule part for this test. The purpose of the test is to both report the results as required by



EMISSION BANDWIDTH

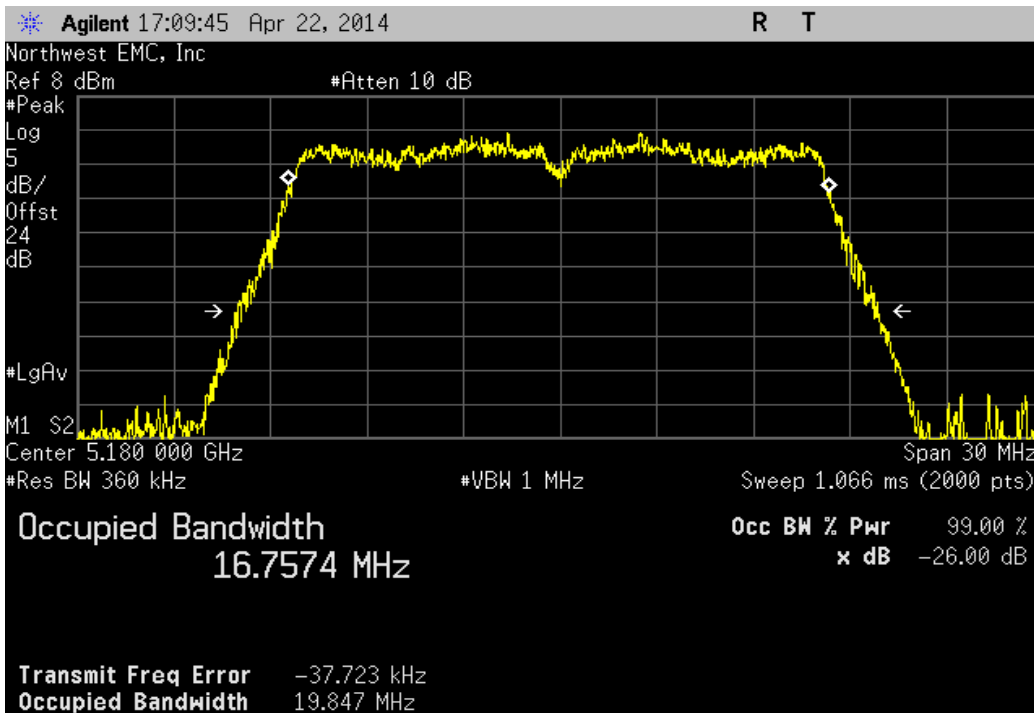
XMit 2013.08.15
PsaTx 2013.10.23

EUT: Model 1631		Work Order: MCSO1698		
Serial Number: 006840341053		Date: 04/23/14		
Customer: Microsoft Corporation		Temperature: 22.3°C		
Attendees: None		Humidity: 32%		
Project: None		Barometric Pres.: 1014		
Tested by: Jared Ison		Power: 110VAC/60Hz		
Job Site: EV06		Test Method		
FCC 15.407:2014		ANSI C63.10:2009		
COMMENTS				
Modes of operation tested were client provided.				
DEVIATIONS FROM TEST STANDARD				
None				
Configuration #	6	Signature 		
		Value	Limit	Result
IEEE 802.11(a)				
20 MHz				
6 Mbps				
Ch. 36, Low Channel 5180MHz		19.847 MHz	> 500 kHz	Pass
Ch. 48, High Channel 5240 MHz		19.78 MHz	> 500 kHz	Pass
Ch. 52, Low Channel 5260 MHz		19.869 MHz	> 500 kHz	Pass
Ch. 64, High Channel 5320 MHz		19.899 MHz	> 500 kHz	Pass
Ch. 100, Low Channel 5500 MHz		19.844 MHz	> 500 kHz	Pass
Ch. 116, Mid Channel 5580 MHz		19.795 MHz	> 500 kHz	Pass
Ch. 140, High Channel 5700 MHz		19.755 MHz	> 500 kHz	Pass
36 Mbps				
Ch. 36, Low Channel 5180MHz		19.438 MHz	> 500 kHz	Pass
Ch. 48, High Channel 5240 MHz		19.77 MHz	> 500 kHz	Pass
Ch. 52, Low Channel 5260 MHz		19.559 MHz	> 500 kHz	Pass
Ch. 64, High Channel 5320 MHz		19.368 MHz	> 500 kHz	Pass
Ch. 100, Low Channel 5500 MHz		19.46 MHz	> 500 kHz	Pass
Ch. 116, Mid Channel 5580 MHz		19.46 MHz	> 500 kHz	Pass
Ch. 140, High Channel 5700 MHz		19.683 MHz	> 500 kHz	Pass
54 Mbps				
Ch. 36, Low Channel 5180MHz		19.705 MHz	> 500 kHz	Pass
Ch. 48, High Channel 5240 MHz		19.37 MHz	> 500 kHz	Pass
Ch. 52, Low Channel 5260 MHz		19.528 MHz	> 500 kHz	Pass
Ch. 64, High Channel 5320 MHz		19.529 MHz	> 500 kHz	Pass
Ch. 100, Low Channel 5500 MHz		19.514 MHz	> 500 kHz	Pass
Ch. 116, Mid Channel 5580 MHz		19.807 MHz	> 500 kHz	Pass
Ch. 140, High Channel 5700 MHz		19.781 MHz	> 500 kHz	Pass
IEEE 802.11(n)				
20 MHz				
HT, MCS7				
Ch. 36, Low Channel 5180MHz		19.843 MHz	> 500 kHz	Pass
Ch. 48, High Channel 5240 MHz		19.814 MHz	> 500 kHz	Pass
Ch. 52, Low Channel 5260 MHz		19.693 MHz	> 500 kHz	Pass
Ch. 64, High Channel 5320 MHz		19.78 MHz	> 500 kHz	Pass
Ch. 100, Low Channel 5500 MHz		19.773 MHz	> 500 kHz	Pass
Ch. 116, Mid Channel 5580 MHz		19.844 MHz	> 500 kHz	Pass
Ch. 140, High Channel 5700 MHz		19.579 MHz	> 500 kHz	Pass
40 MHz				
HT, MCS7				
Ch. 36/40, Low Channel 5190 MHz		40.925 MHz	> 500 kHz	Pass
Ch. 44/48, High Channel 5230 MHz		40.429 MHz	> 500 kHz	Pass
Ch. 52/56, Low Channel 5270 MHz		41.045 MHz	> 500 kHz	Pass
Ch. 60/64, High Channel 5310 MHz		40.931 MHz	> 500 kHz	Pass
Ch. 100/104, Low Channel 5510 MHz		40.459 MHz	> 500 kHz	Pass
Ch. 132/136, High Channel 5670 MHz		40.256 MHz	> 500 kHz	Pass
IEEE 802.11(ac)				
20 MHz				
VHT, MCS0				
Ch. 36, Low Channel 5180MHz		20.06 MHz	> 500 kHz	Pass
Ch. 48, High Channel 5240 MHz		20.258 MHz	> 500 kHz	Pass
Ch. 52, Low Channel 5260 MHz		20.113 MHz	> 500 kHz	Pass
Ch. 64, High Channel 5320 MHz		20.07 MHz	> 500 kHz	Pass
Ch. 100, Low Channel 5500 MHz		20.082 MHz	> 500 kHz	Pass
Ch. 116, Mid Channel 5580 MHz		20.138 MHz	> 500 kHz	Pass
Ch. 140, High Channel 5700 MHz		20.244 MHz	> 500 kHz	Pass
VHT, MCS8				
Ch. 36, Low Channel 5180MHz		19.852 MHz	> 500 kHz	Pass
Ch. 48, High Channel 5240 MHz		19.947 MHz	> 500 kHz	Pass
Ch. 52, Low Channel 5260 MHz		20.051 MHz	> 500 kHz	Pass
Ch. 64, High Channel 5320 MHz		19.913 MHz	> 500 kHz	Pass
Ch. 100, Low Channel 5500 MHz		19.927 MHz	> 500 kHz	Pass
Ch. 116, Mid Channel 5580 MHz		19.963 MHz	> 500 kHz	Pass
Ch. 140, High Channel 5700 MHz		20.057 MHz	> 500 kHz	Pass
40 MHz				
VHT, MCS0				
Ch. 36/40, Low Channel 5190 MHz		40.77 MHz	> 500 kHz	Pass
Ch. 44/48, High Channel 5230 MHz		40.574 MHz	> 500 kHz	Pass
Ch. 52/56, Low Channel 5270 MHz		40.778 MHz	> 500 kHz	Pass
Ch. 60/64, High Channel 5310 MHz		40.8 MHz	> 500 kHz	Pass
Ch. 100/104, Low Channel 5510 MHz		40.552 MHz	> 500 kHz	Pass
Ch. 132/136, High Channel 5670 MHz		40.719 MHz	> 500 kHz	Pass
VHT, MCS9				
Ch. 36/40, Low Channel 5190 MHz		41.017 MHz	> 500 kHz	Pass
Ch. 44/48, High Channel 5230 MHz		40.775 MHz	> 500 kHz	Pass
Ch. 52/56, Low Channel 5270 MHz		40.806 MHz	> 500 kHz	Pass
Ch. 60/64, High Channel 5310 MHz		40.761 MHz	> 500 kHz	Pass
Ch. 100/104, Low Channel 5510 MHz		40.644 MHz	> 500 kHz	Pass
Ch. 132/136, High Channel 5670 MHz		40.631 MHz	> 500 kHz	Pass
80 MHz				
VHT, MCS0				

	Ch. 42, Low Channel 5210 MHz	82.056 MHz	> 500 kHz	Pass
	Ch. 58, High Channel 5290 MHz	82.111 MHz	> 500 kHz	Pass
	Ch. 106, Low Channel 5530 MHz	81.704 MHz	> 500 kHz	Pass
VHT, MCS9				
	Ch. 42, Low Channel 5210 MHz	82.019 MHz	> 500 kHz	Pass
	Ch. 58, High Channel 5290 MHz	81.835 MHz	> 500 kHz	Pass
	Ch. 106, Low Channel 5530 MHz	82.861 MHz	> 500 kHz	Pass

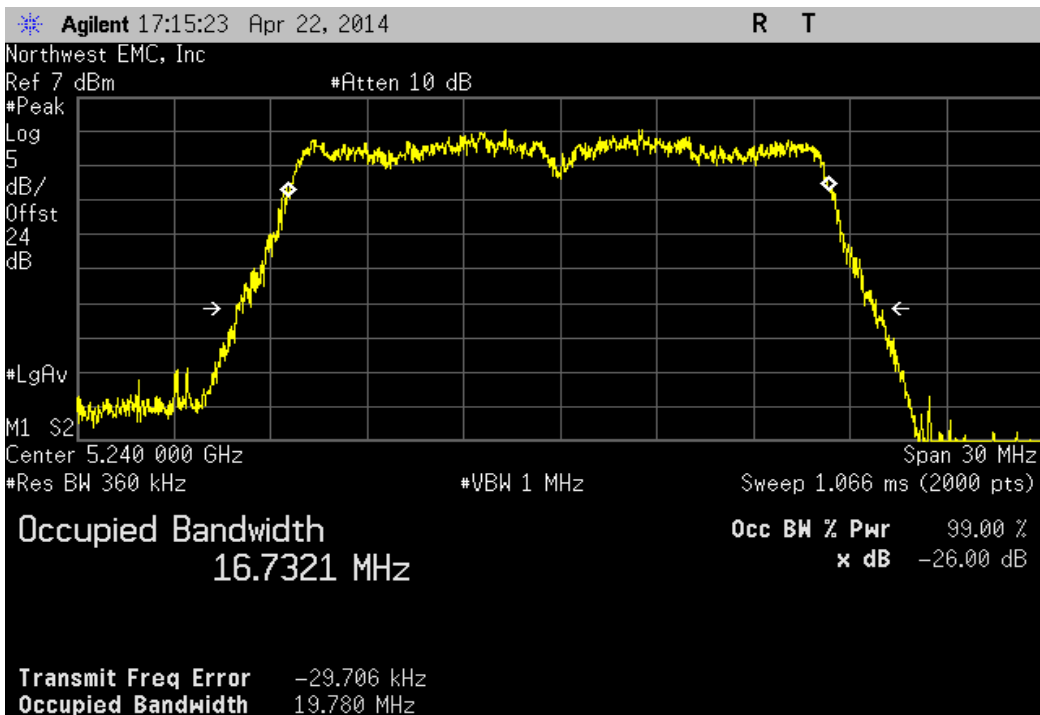
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
19.847 MHz	> 500 kHz	Pass



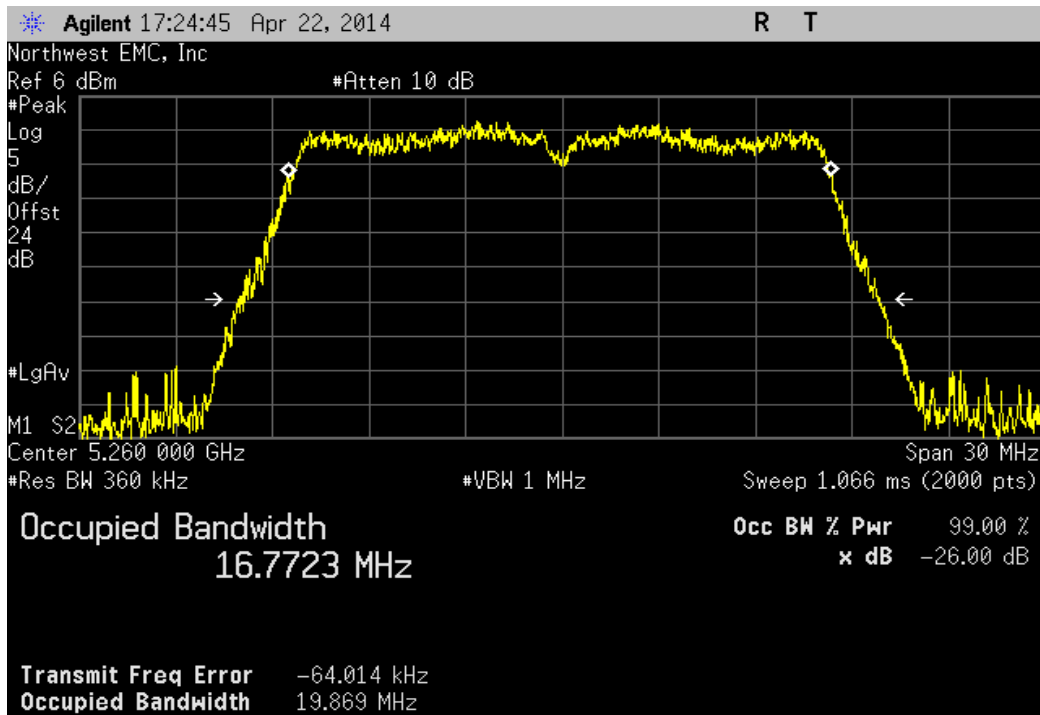
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.78 MHz	> 500 kHz	Pass



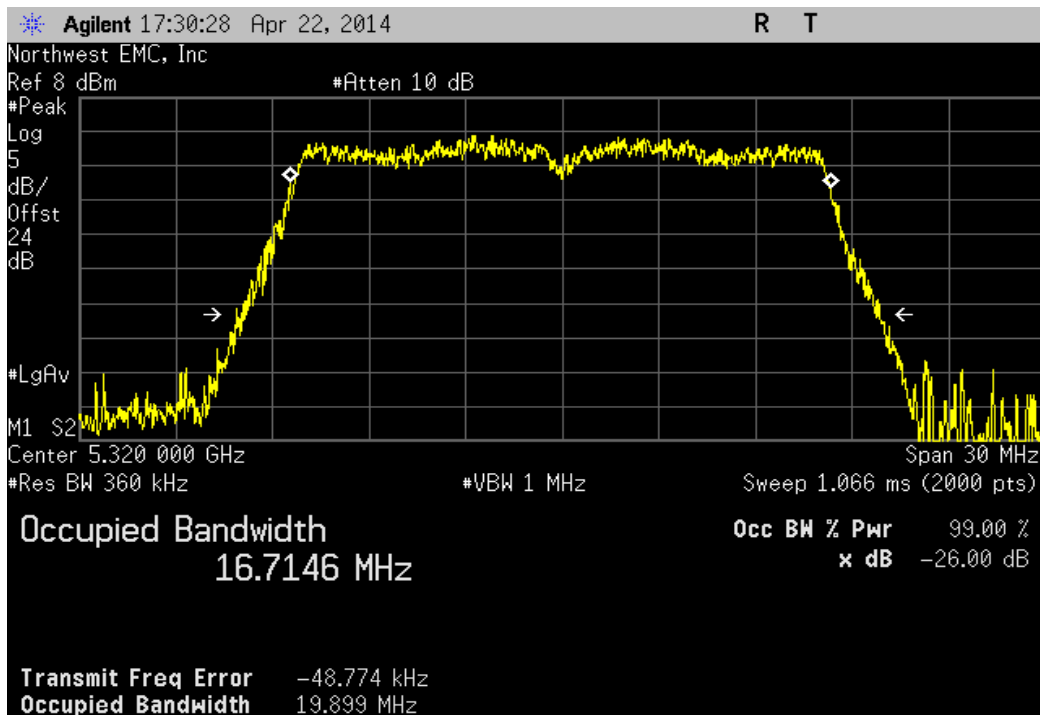
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
19.869 MHz	> 500 kHz	Pass



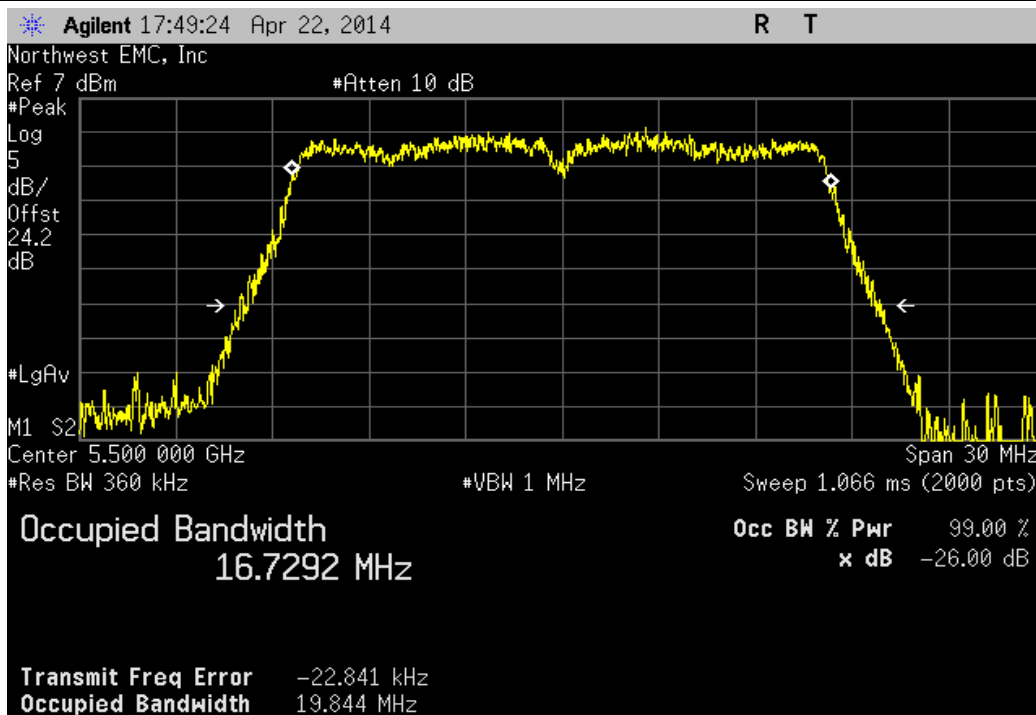
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
19.899 MHz	> 500 kHz	Pass



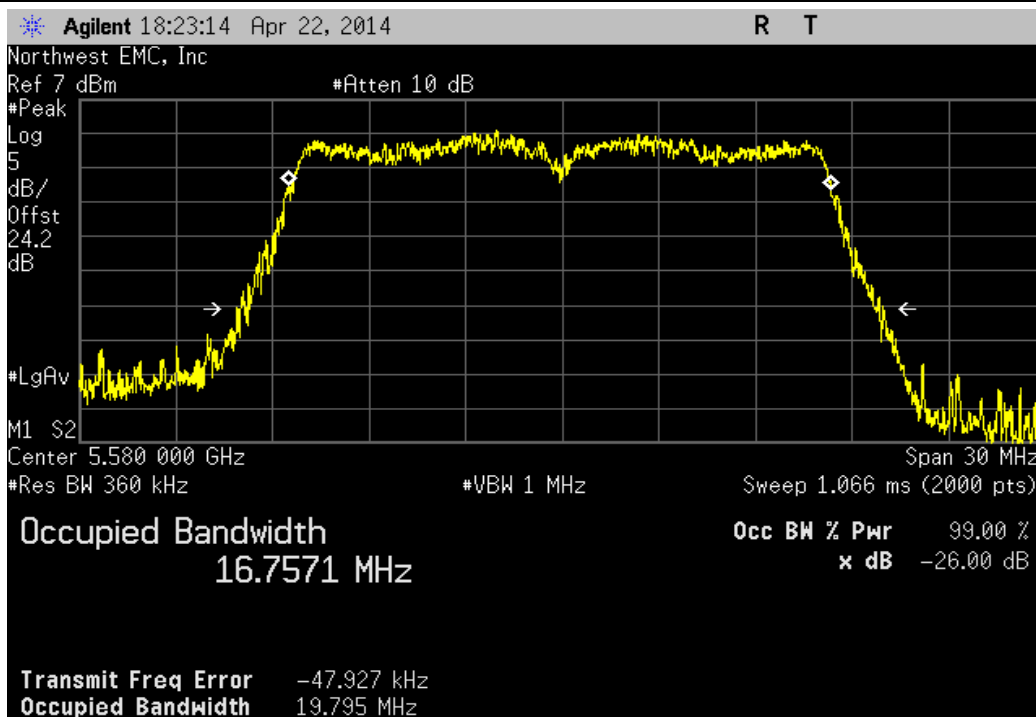
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
19.844 MHz	> 500 kHz	Pass



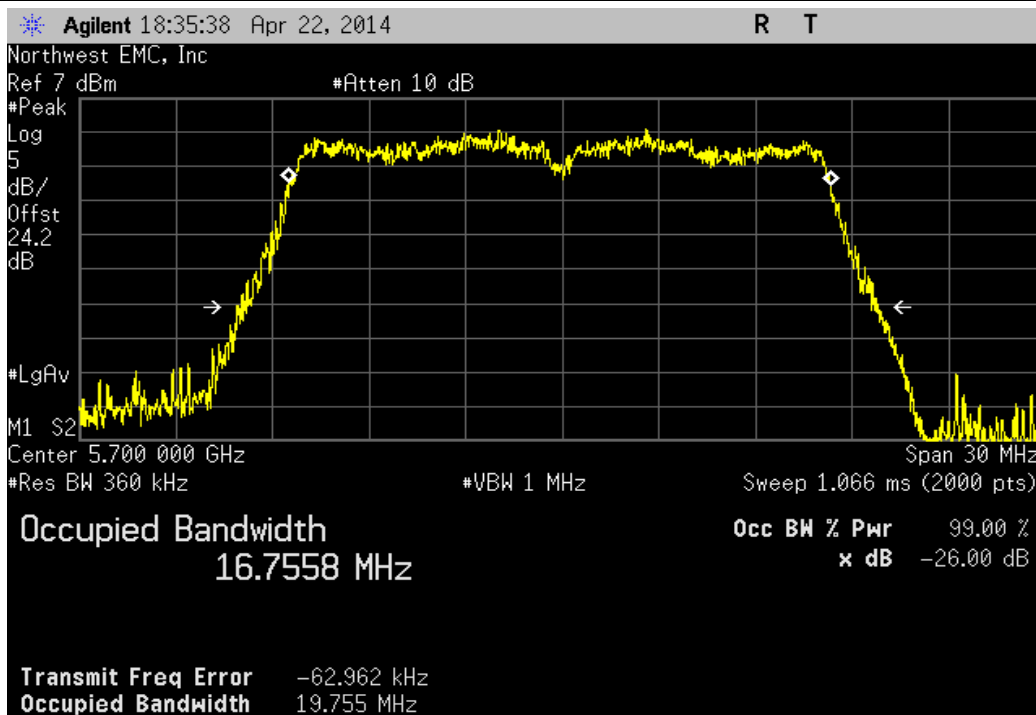
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
19.795 MHz	> 500 kHz	Pass



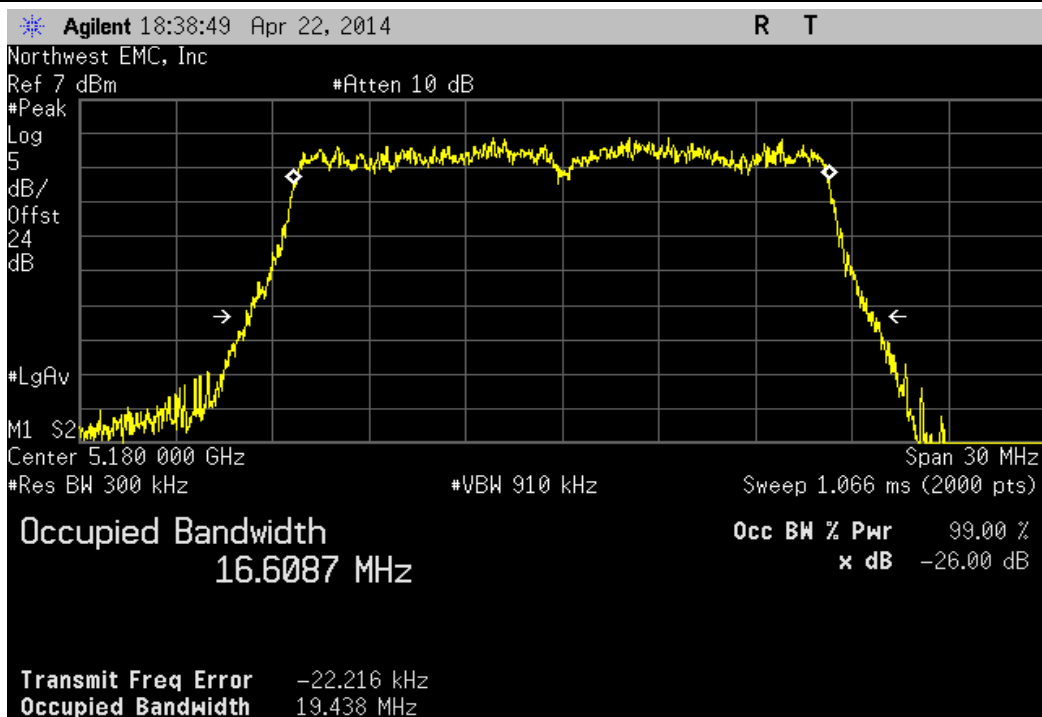
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
19.755 MHz	> 500 kHz	Pass



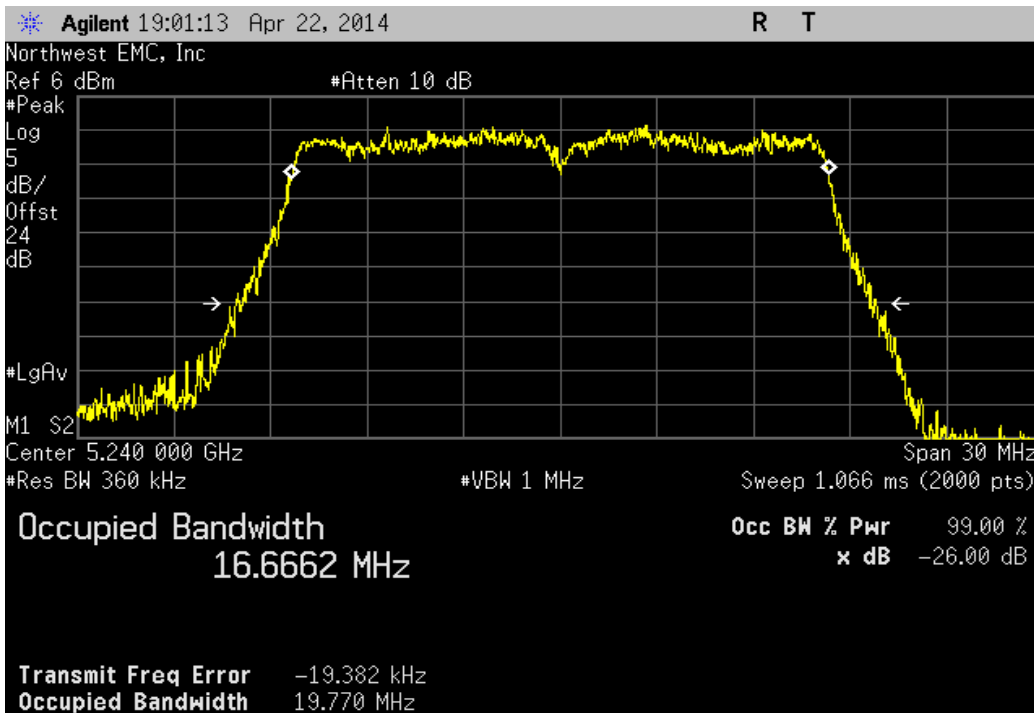
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
19.438 MHz	> 500 kHz	Pass



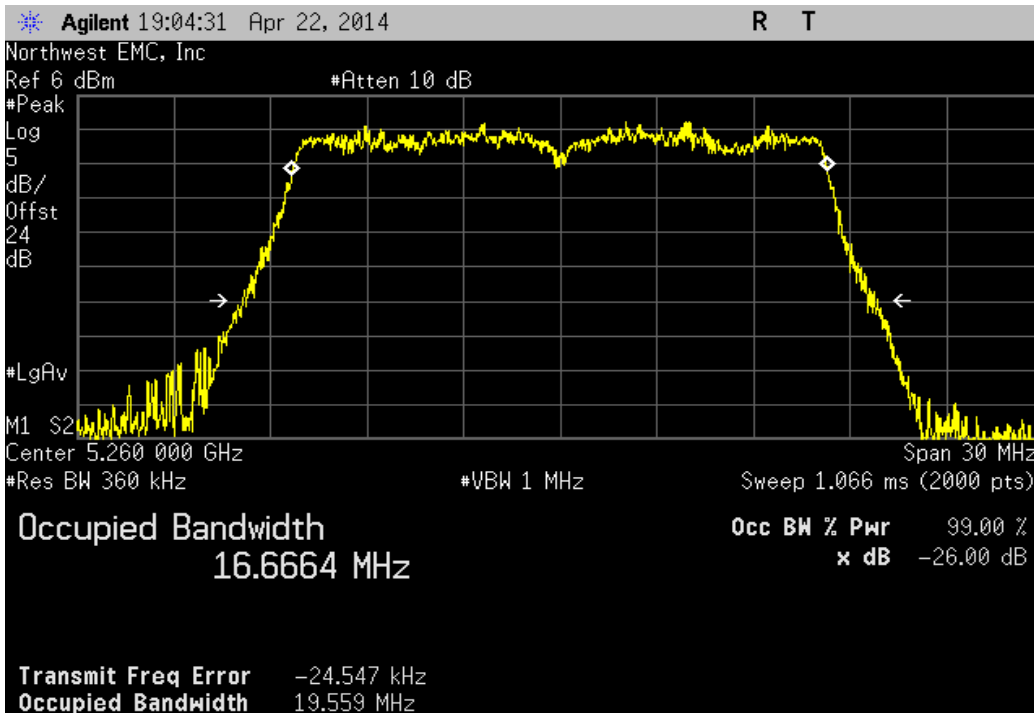
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.77 MHz	> 500 kHz	Pass



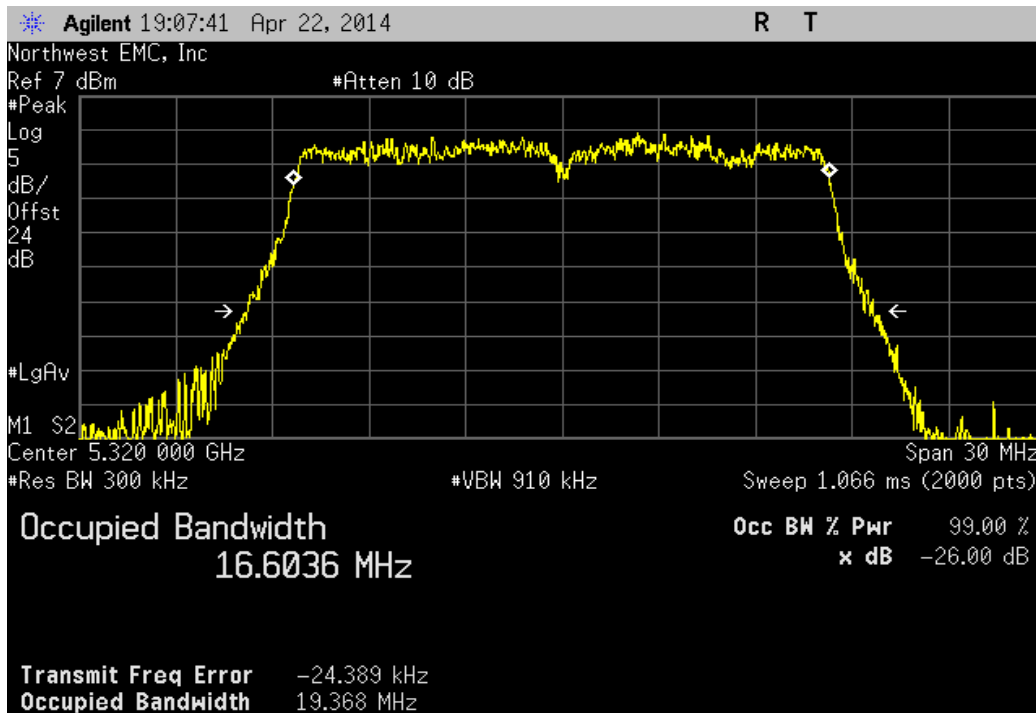
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
19.559 MHz	> 500 kHz	Pass



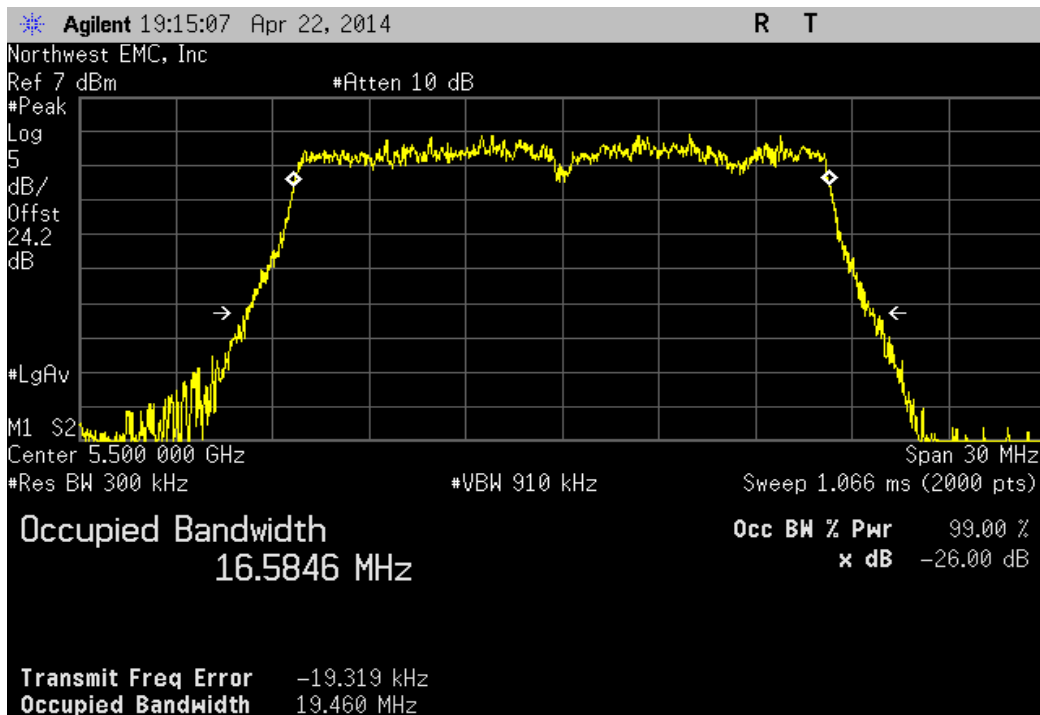
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
19.368 MHz	> 500 kHz	Pass



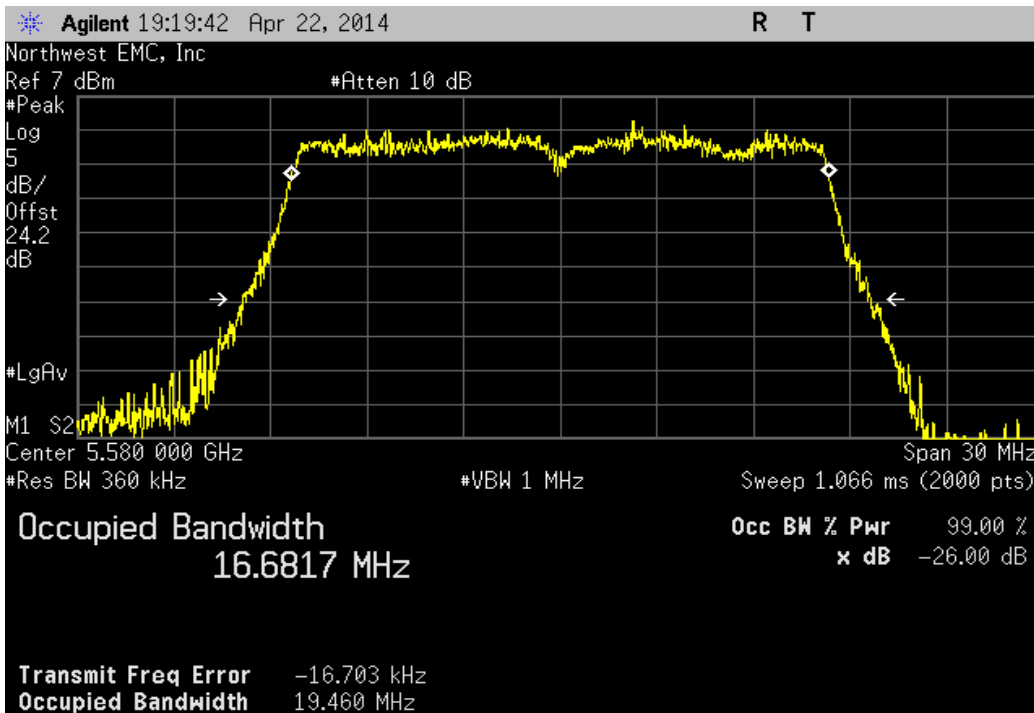
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
19.46 MHz	> 500 kHz	Pass



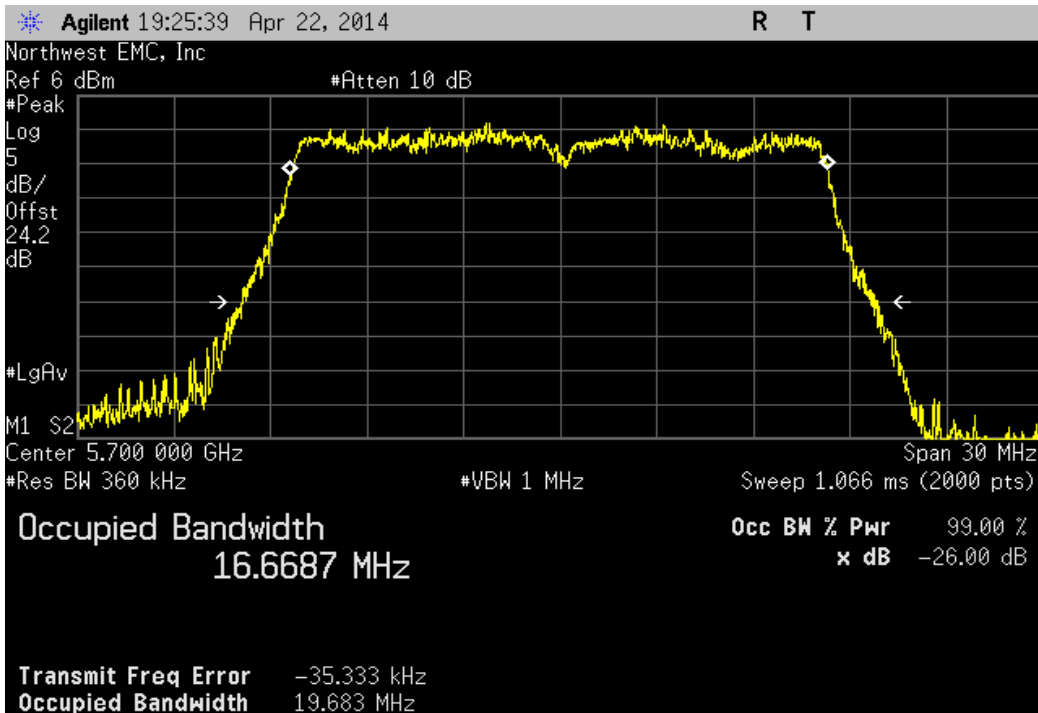
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
19.46 MHz	> 500 kHz	Pass



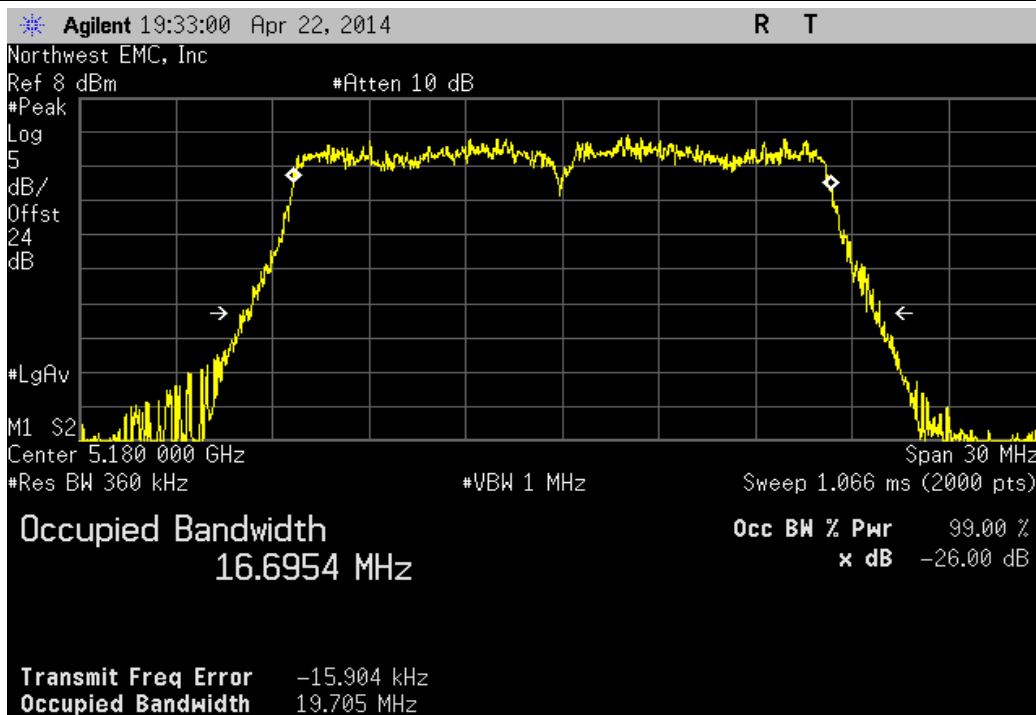
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
19.683 MHz	> 500 kHz	Pass



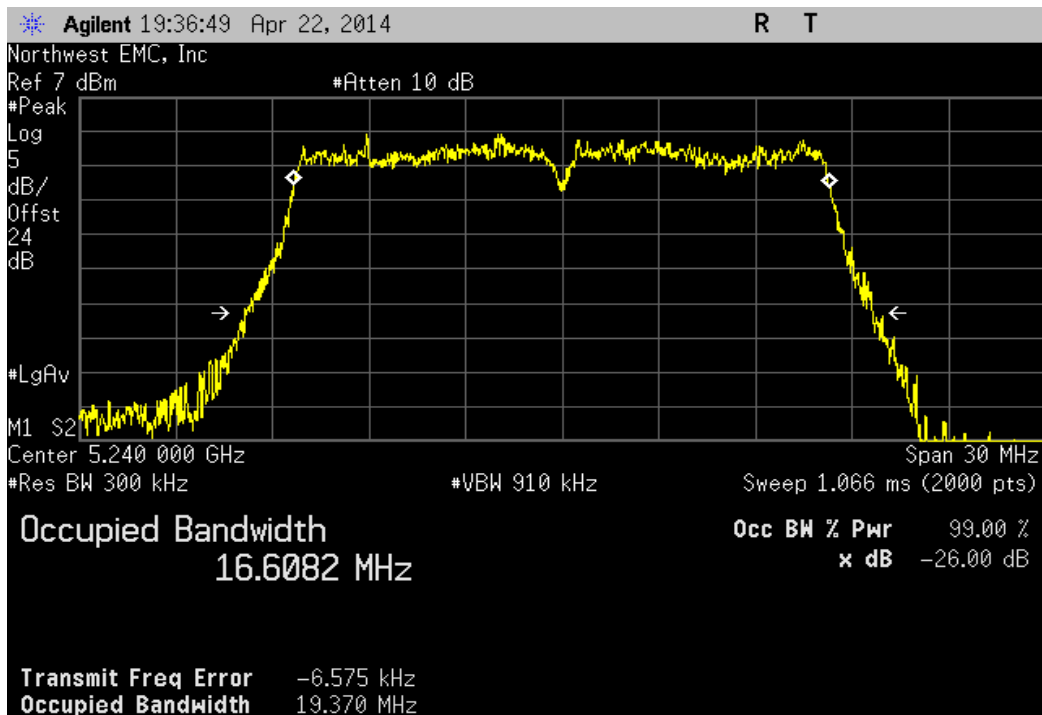
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
19.705 MHz	> 500 kHz	Pass



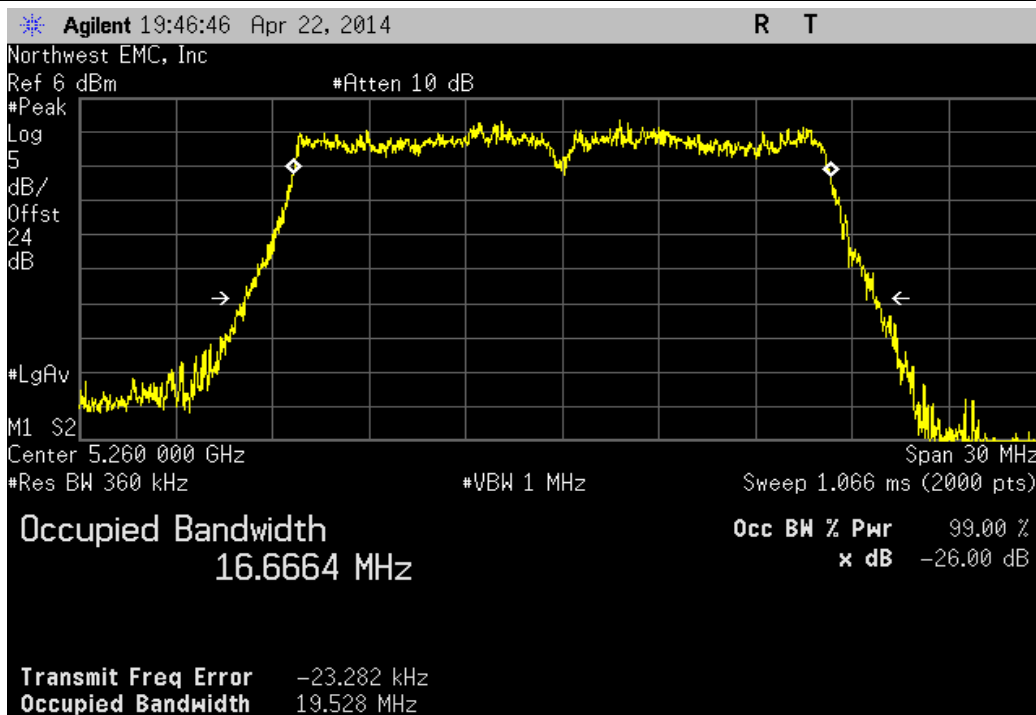
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.37 MHz	> 500 kHz	Pass



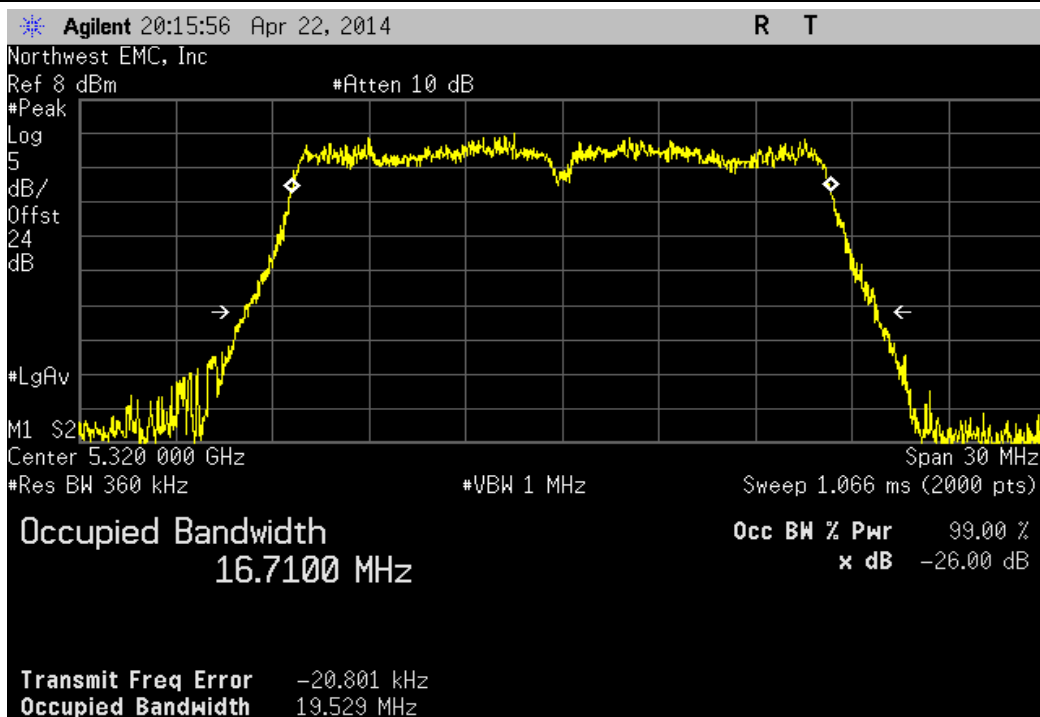
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
19.528 MHz	> 500 kHz	Pass



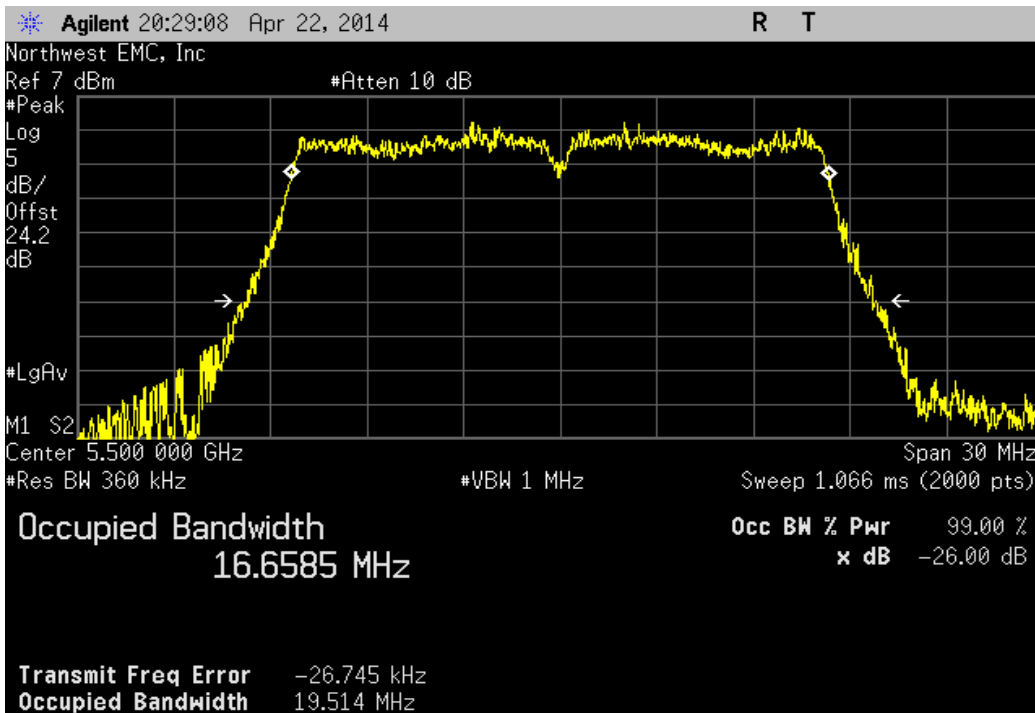
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
19.529 MHz	> 500 kHz	Pass



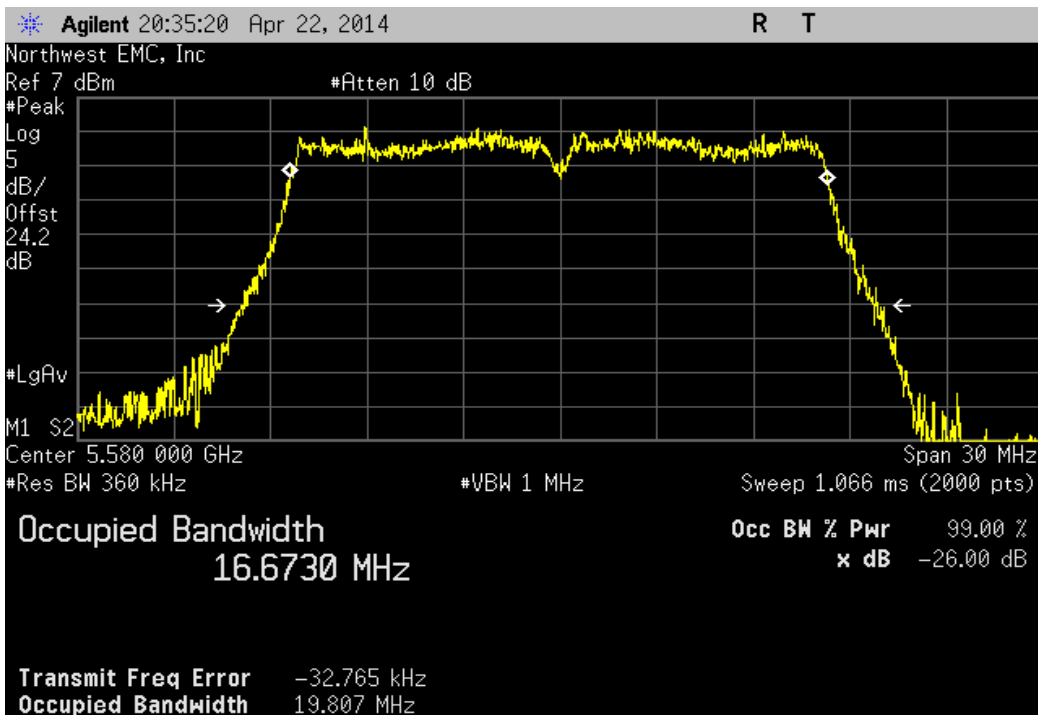
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
19.514 MHz	> 500 kHz	Pass



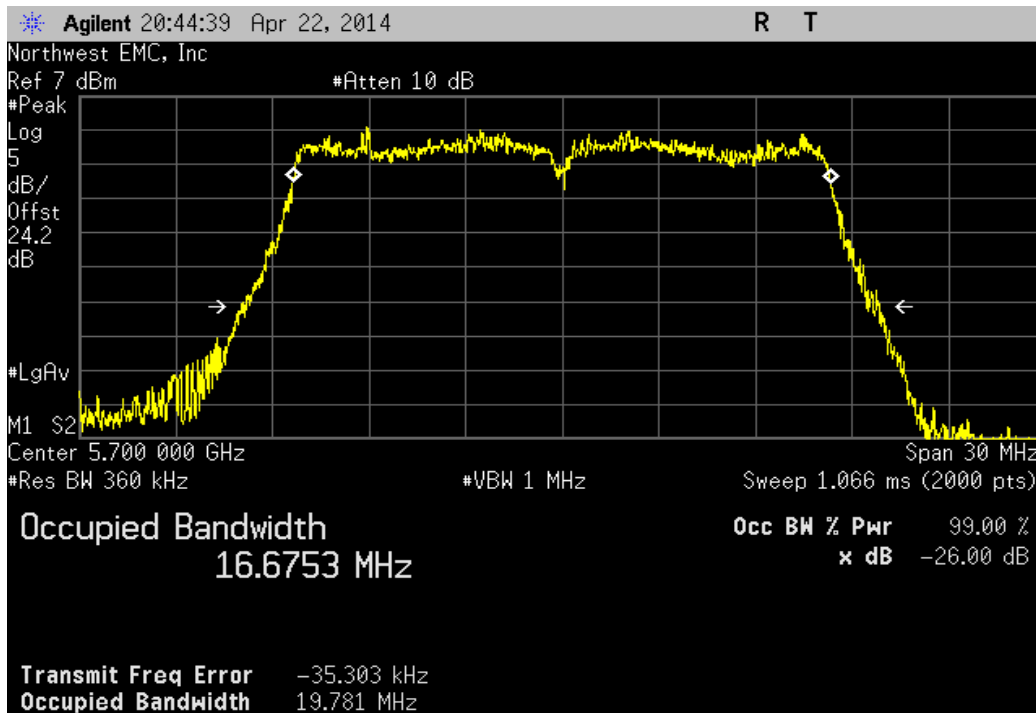
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
19.807 MHz	> 500 kHz	Pass



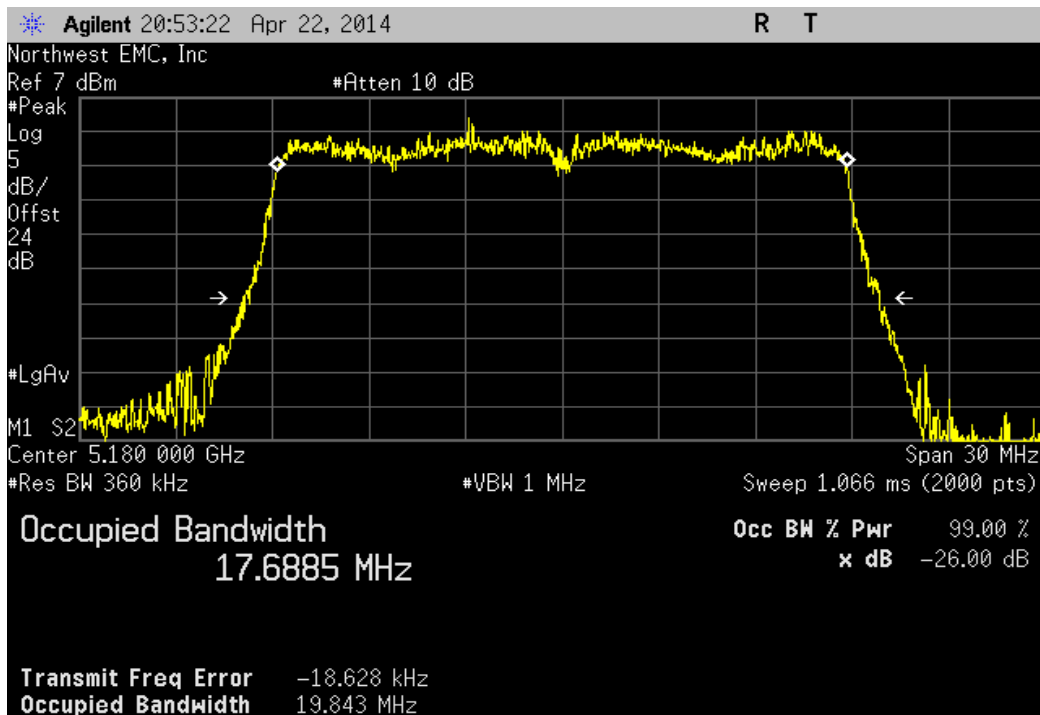
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
19.781 MHz	> 500 kHz	Pass



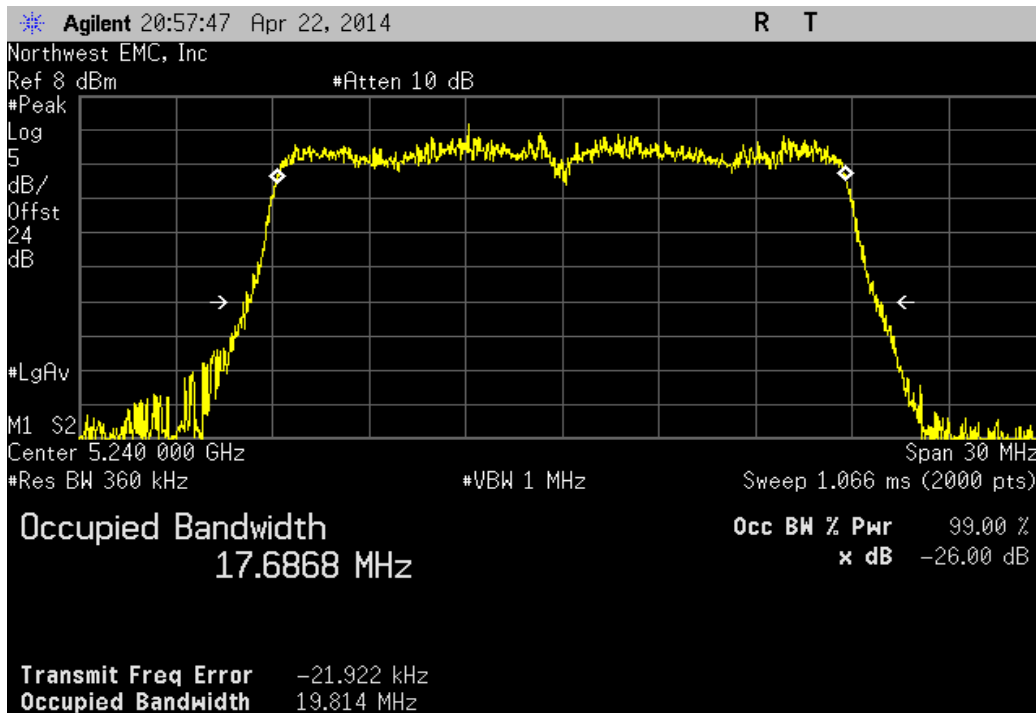
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
19.843 MHz	> 500 kHz	Pass



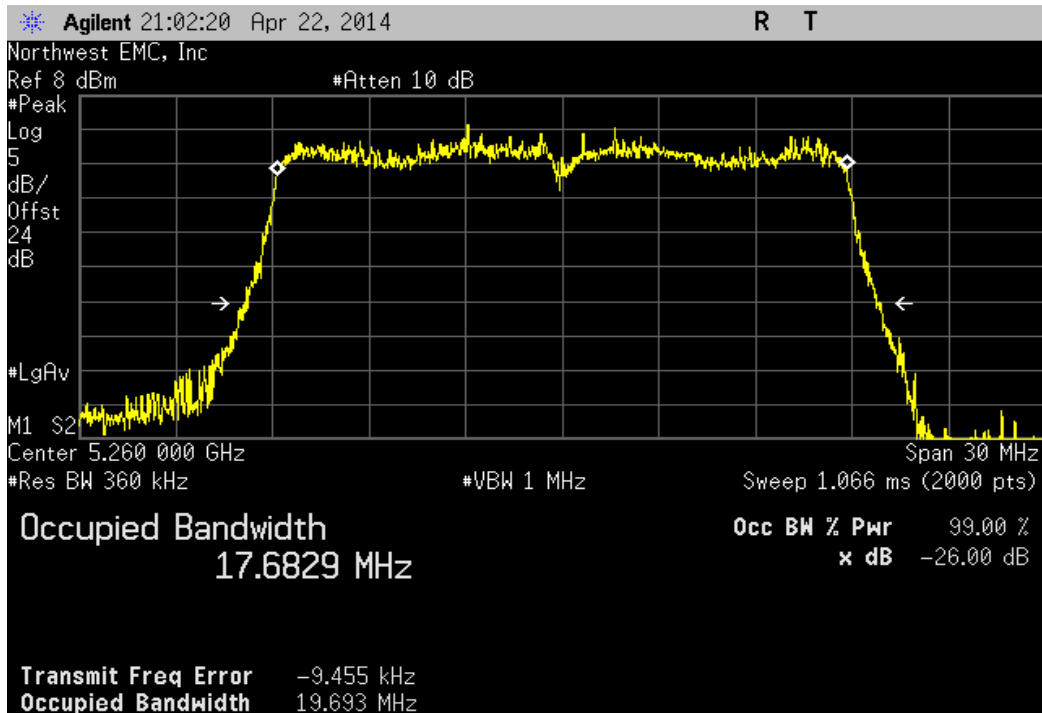
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.814 MHz	> 500 kHz	Pass



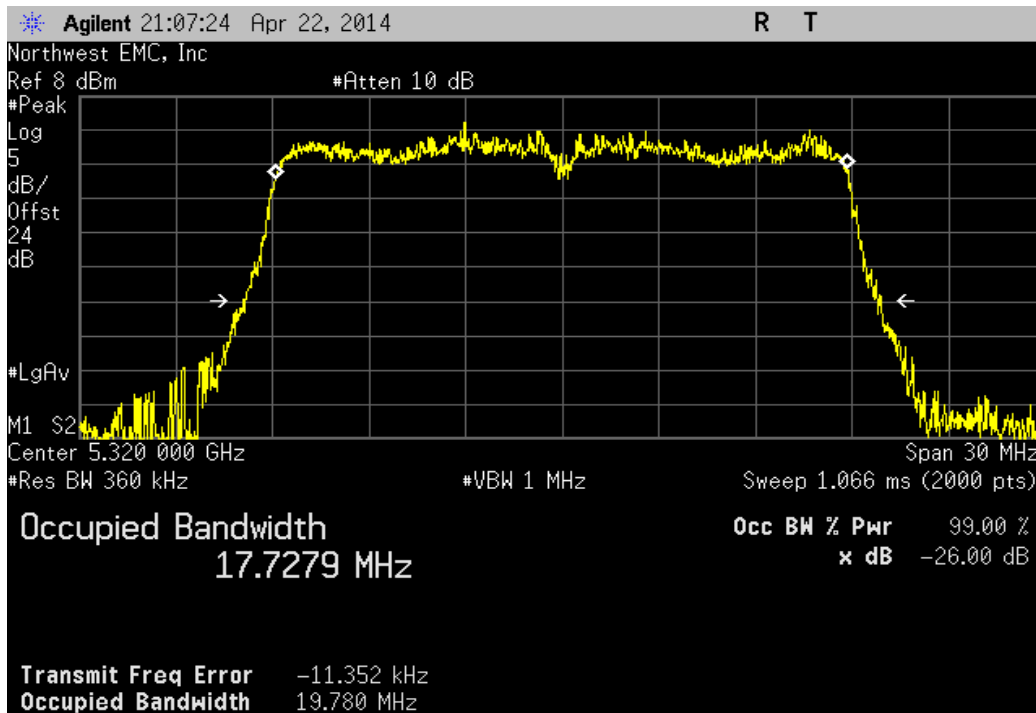
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
19.693 MHz	> 500 kHz	Pass



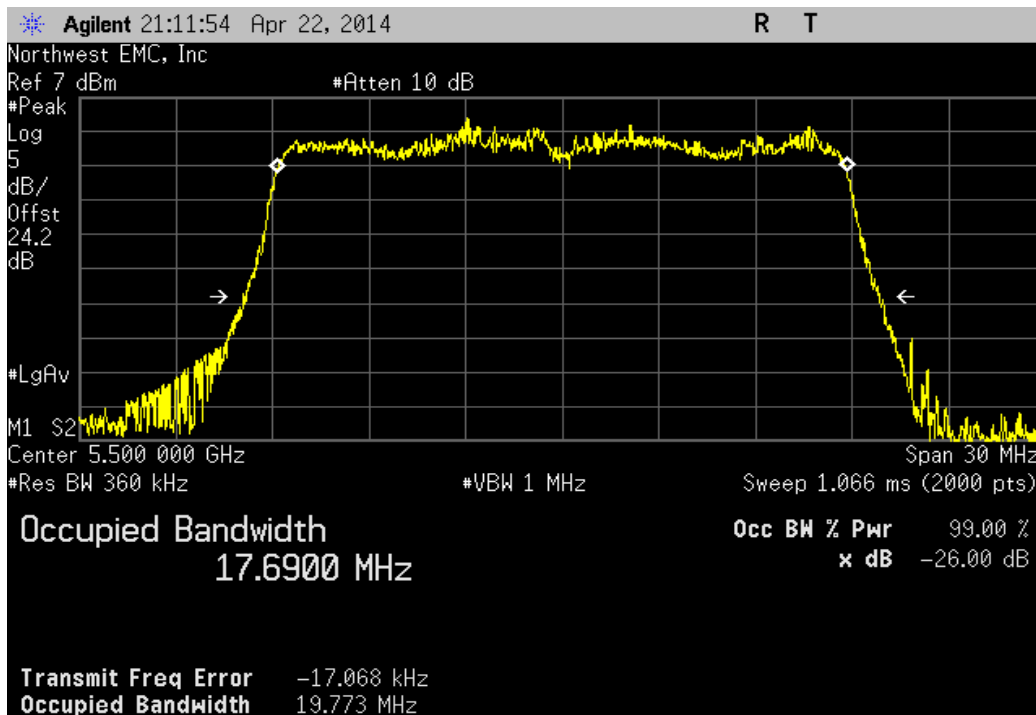
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
19.78 MHz	> 500 kHz	Pass



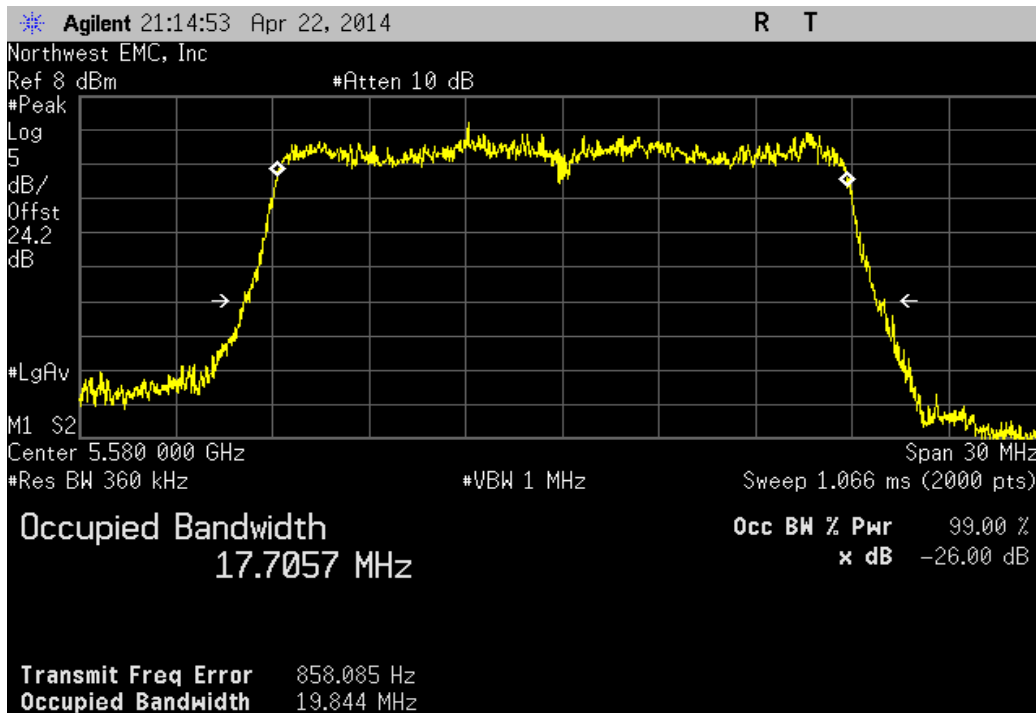
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
19.773 MHz	> 500 kHz	Pass



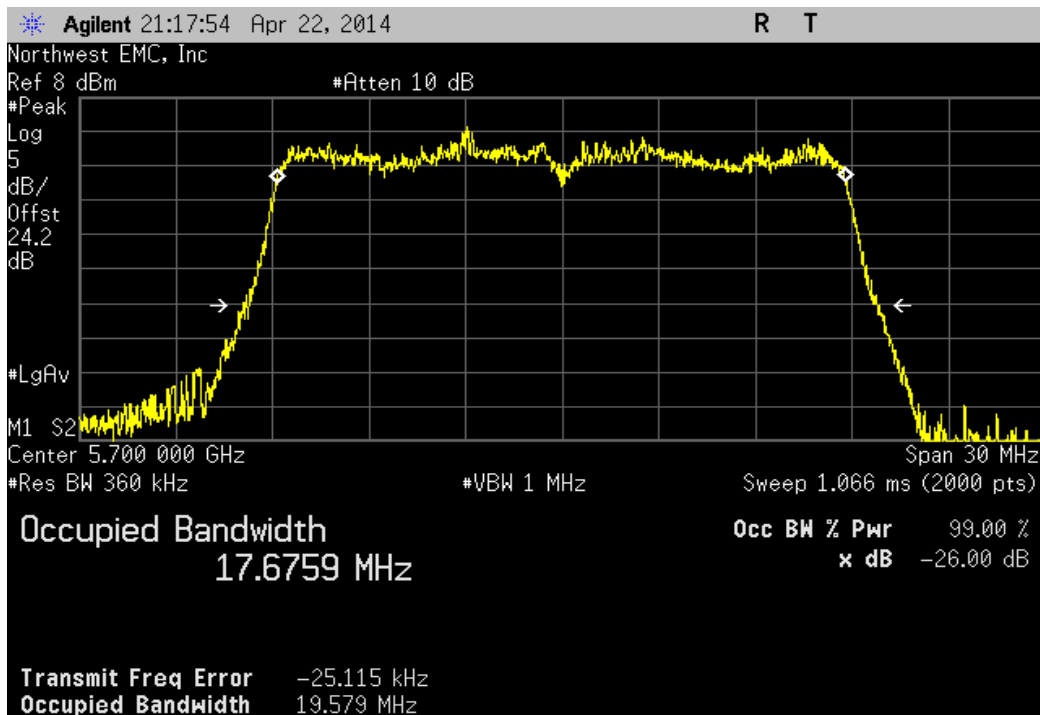
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
19.844 MHz	> 500 kHz	Pass



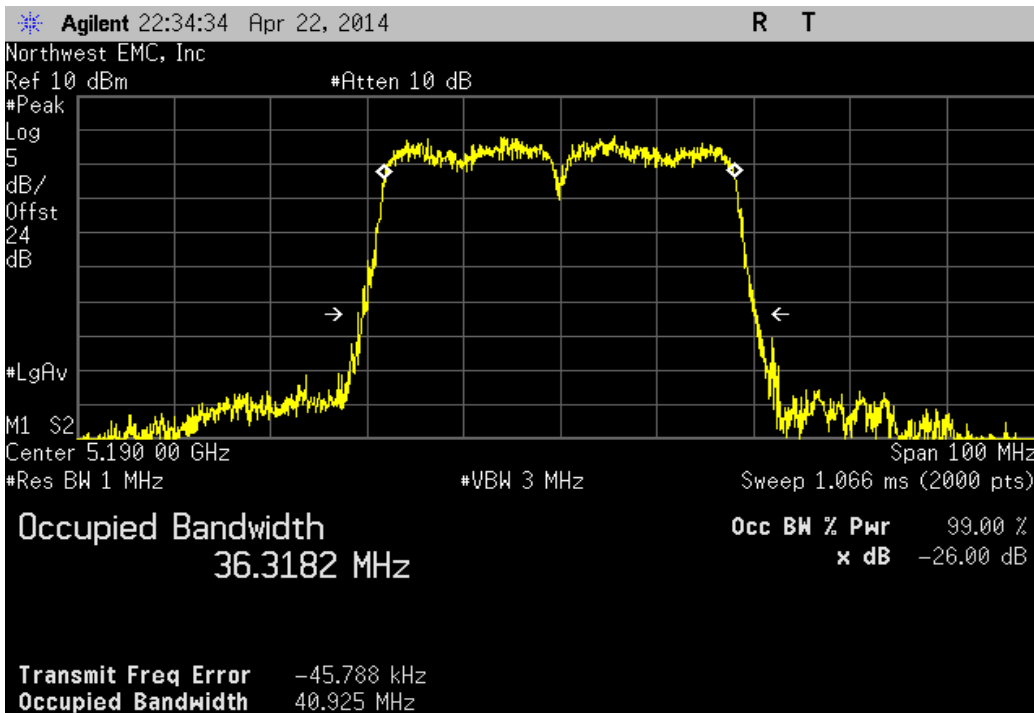
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
19.579 MHz	> 500 kHz	Pass



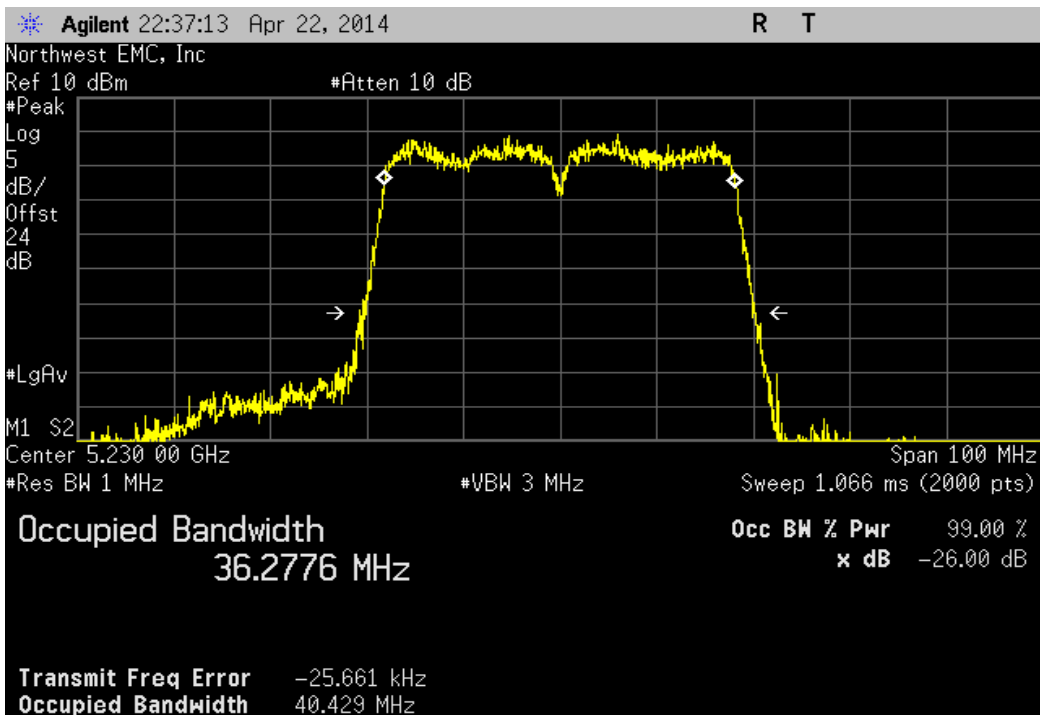
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
40.925 MHz	> 500 kHz	Pass



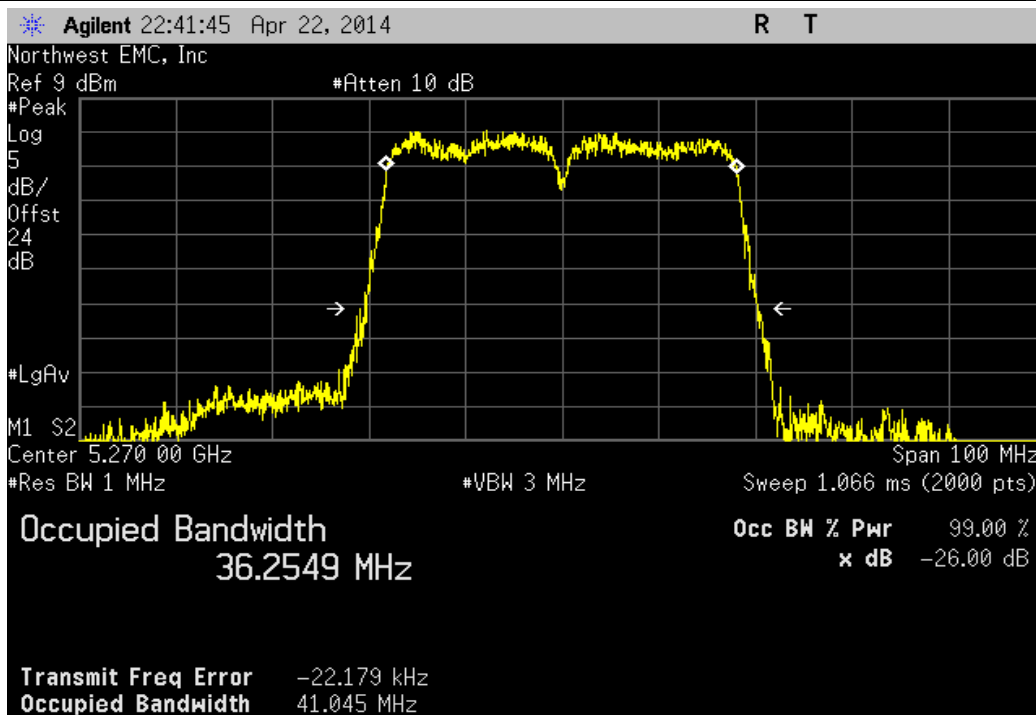
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.429 MHz	> 500 kHz	Pass



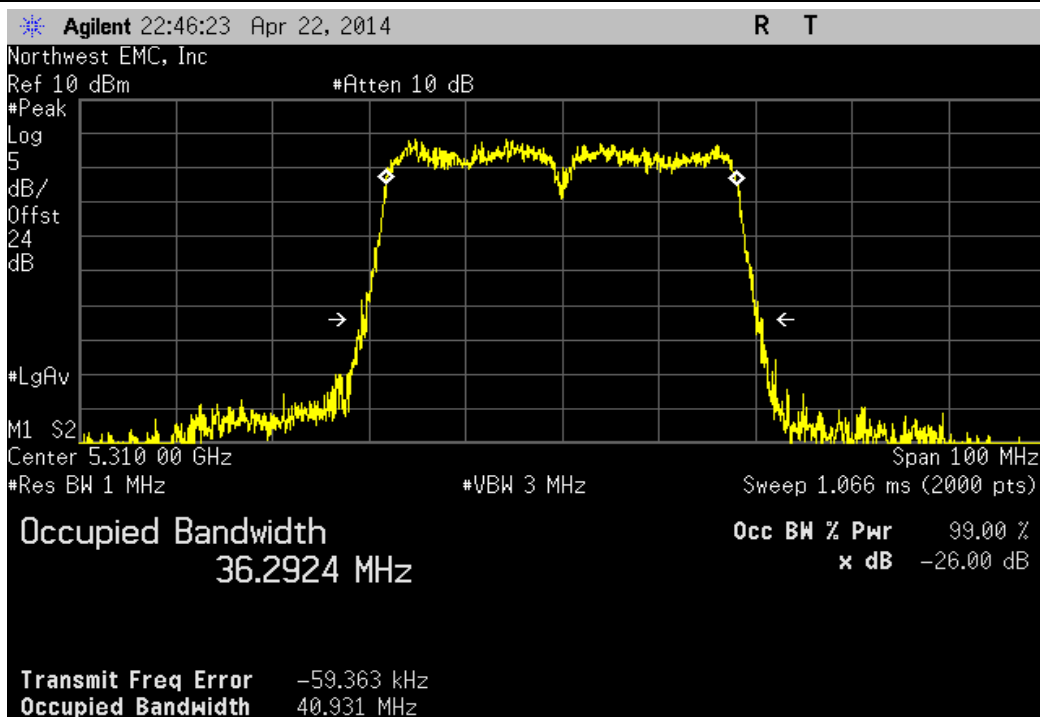
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
41.045 MHz	> 500 kHz	Pass



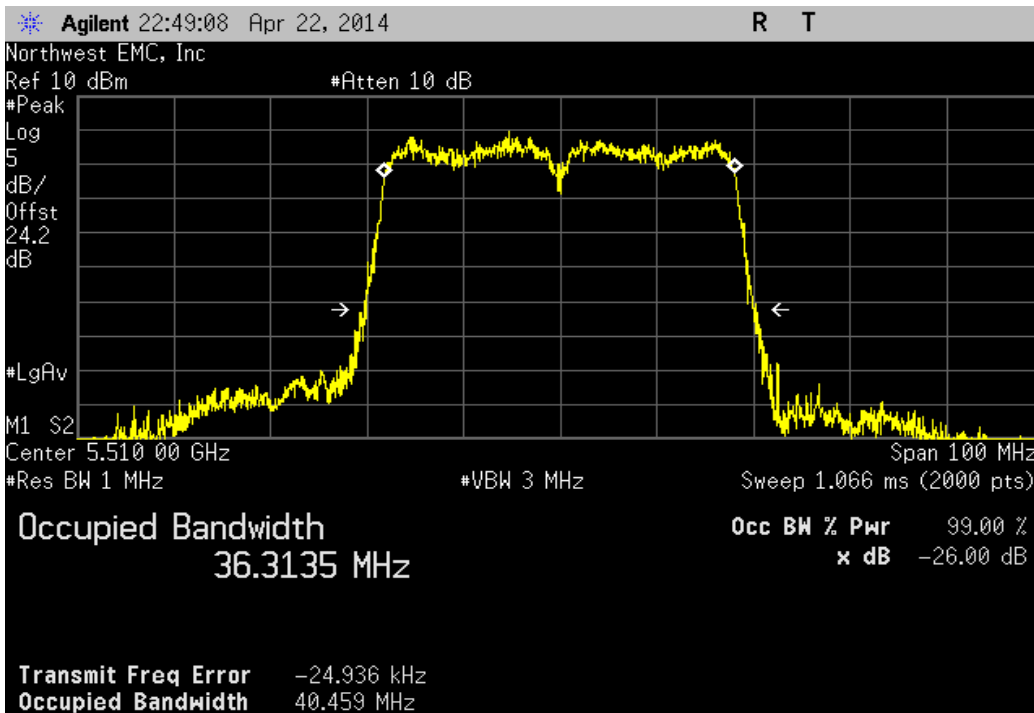
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.931 MHz	> 500 kHz	Pass



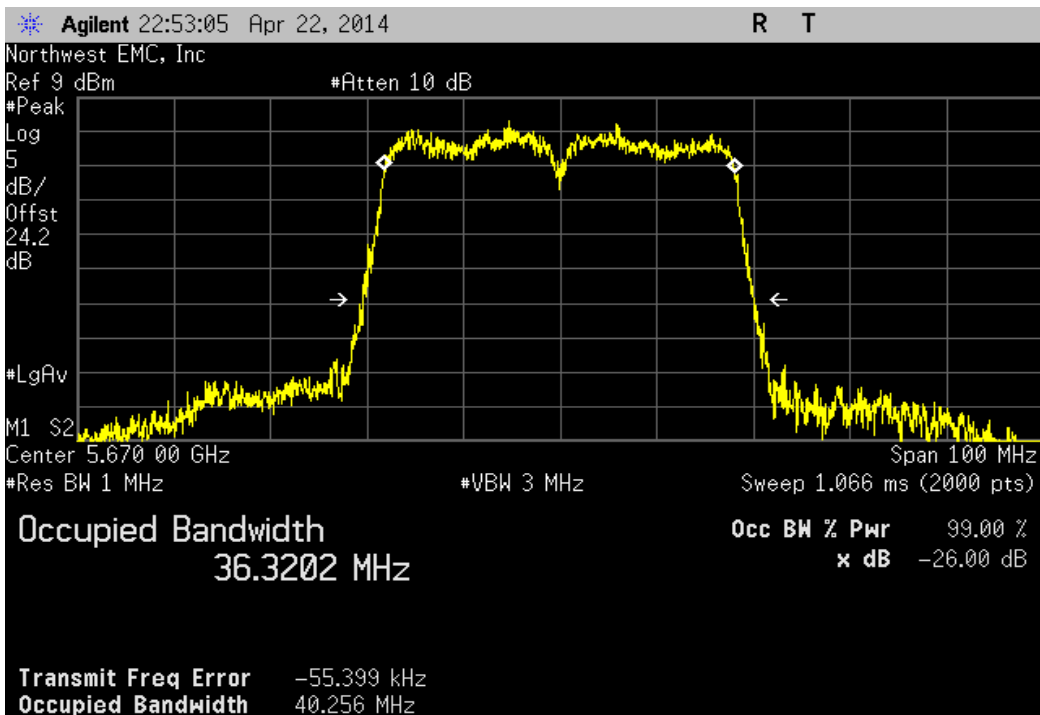
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 100/104, Low Channel 5510 MHz

				Value	Limit	Result
				40.459 MHz	> 500 kHz	Pass



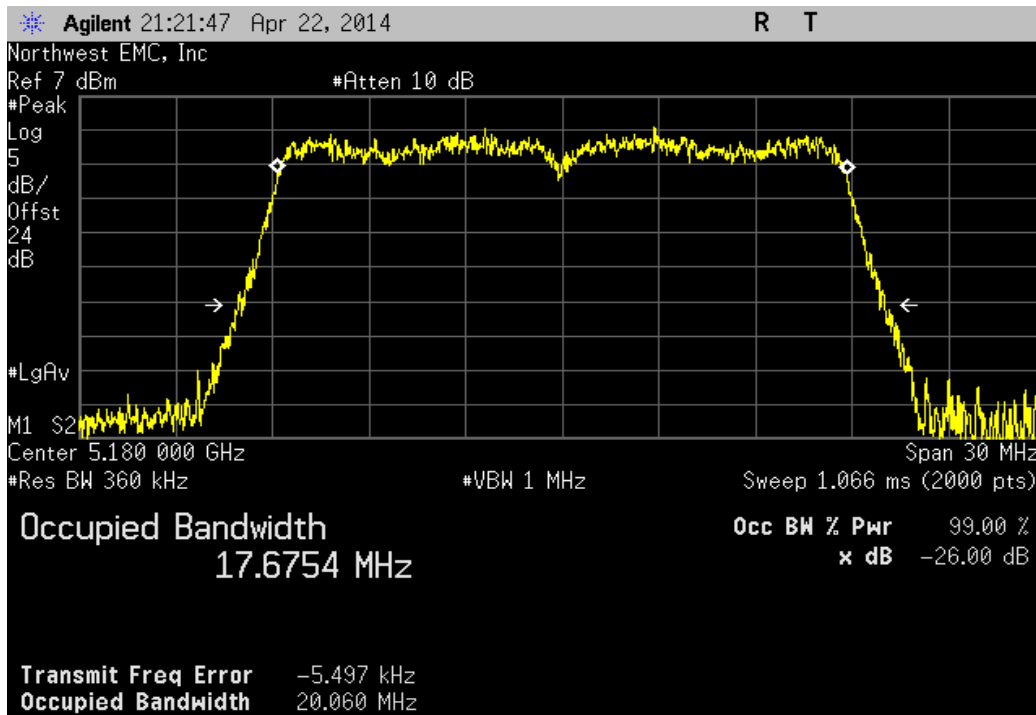
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 132/136, High Channel 5670 MHz

				Value	Limit	Result
				40.256 MHz	> 500 kHz	Pass



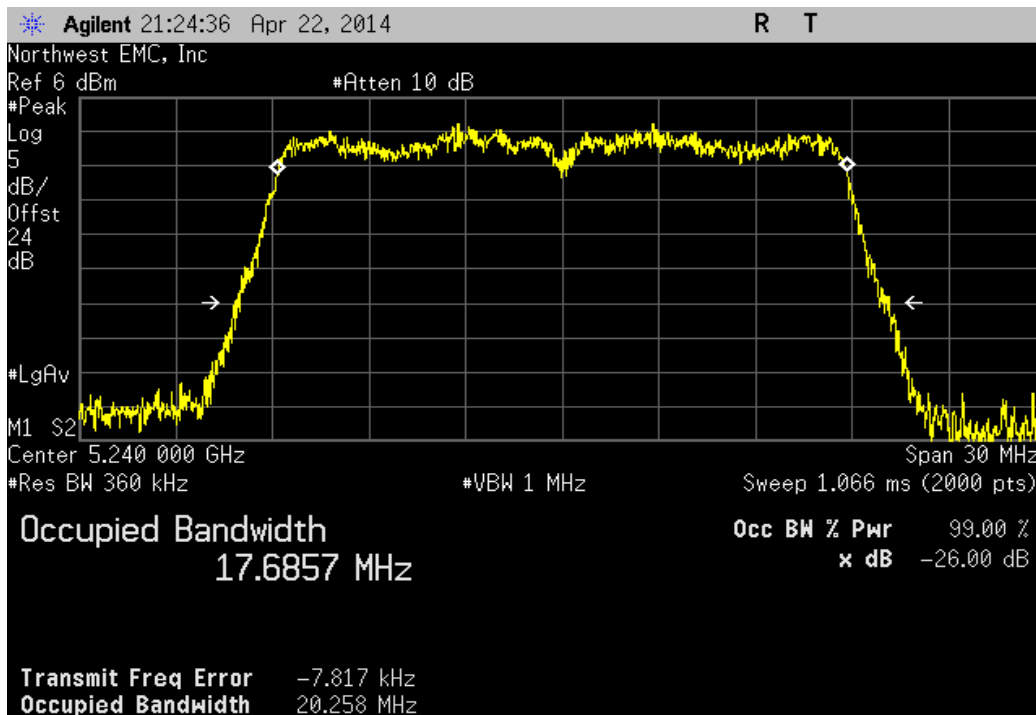
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
20.06 MHz	> 500 kHz	Pass



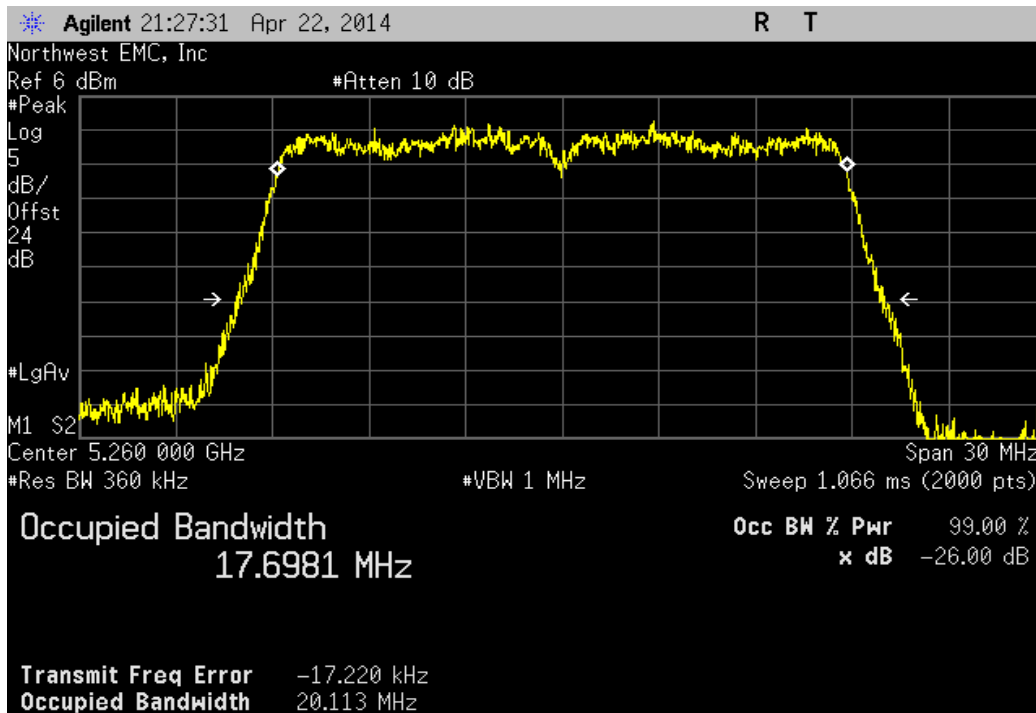
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
20.258 MHz	> 500 kHz	Pass



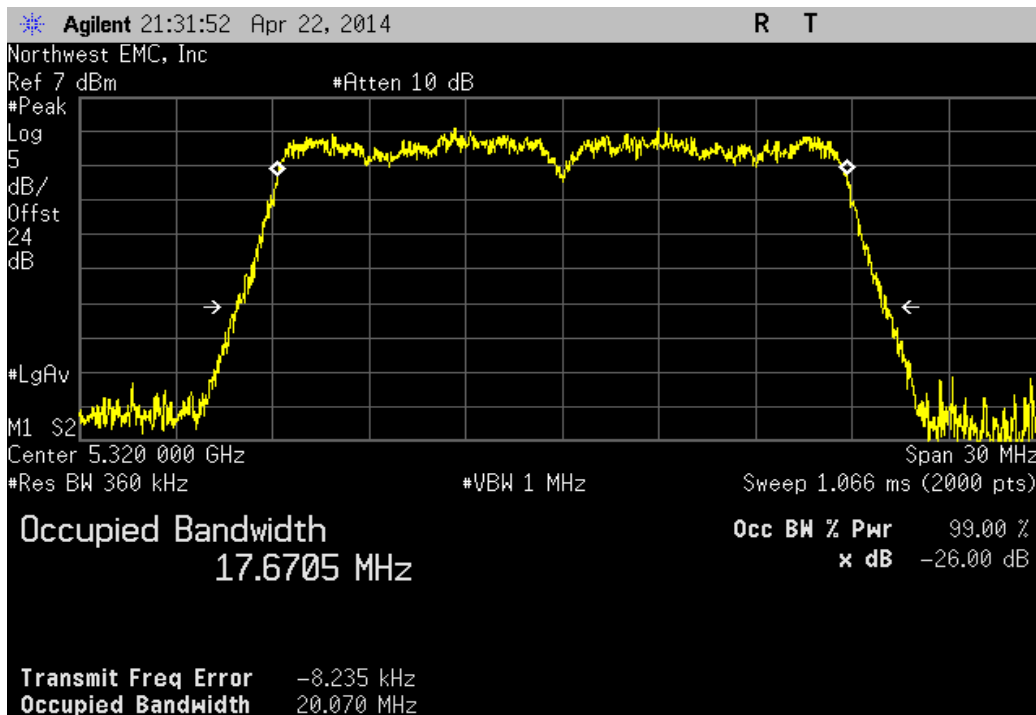
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 52, Low Channel 5260 MHz

				Value	Limit	Result
				20.113 MHz	> 500 kHz	Pass



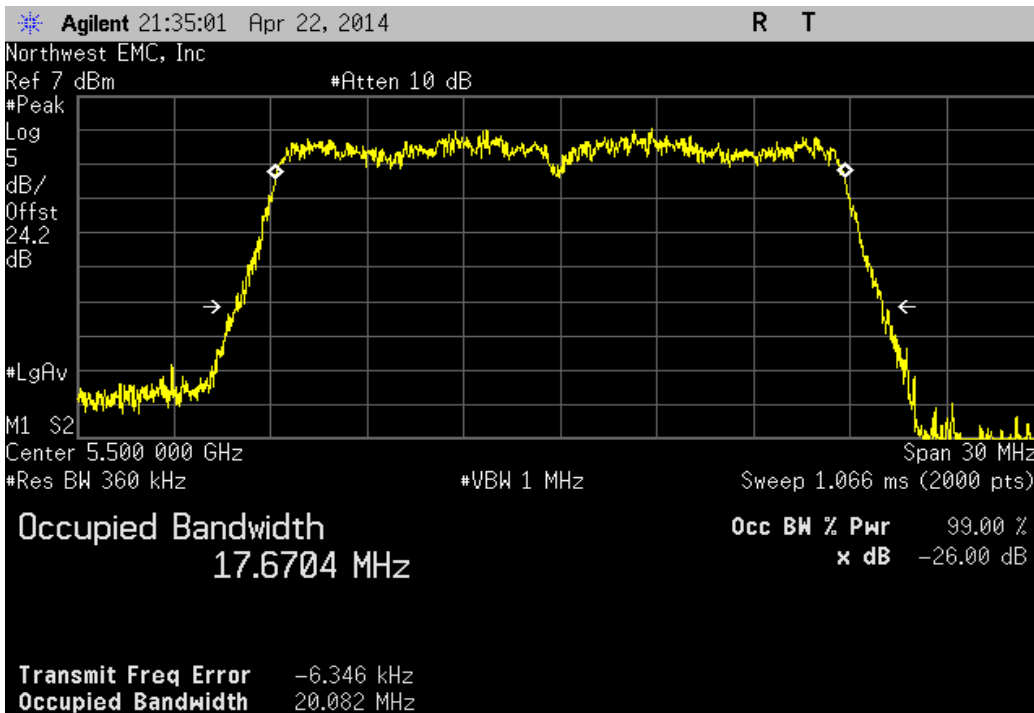
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 64, High Channel 5320 MHz

				Value	Limit	Result
				20.07 MHz	> 500 kHz	Pass



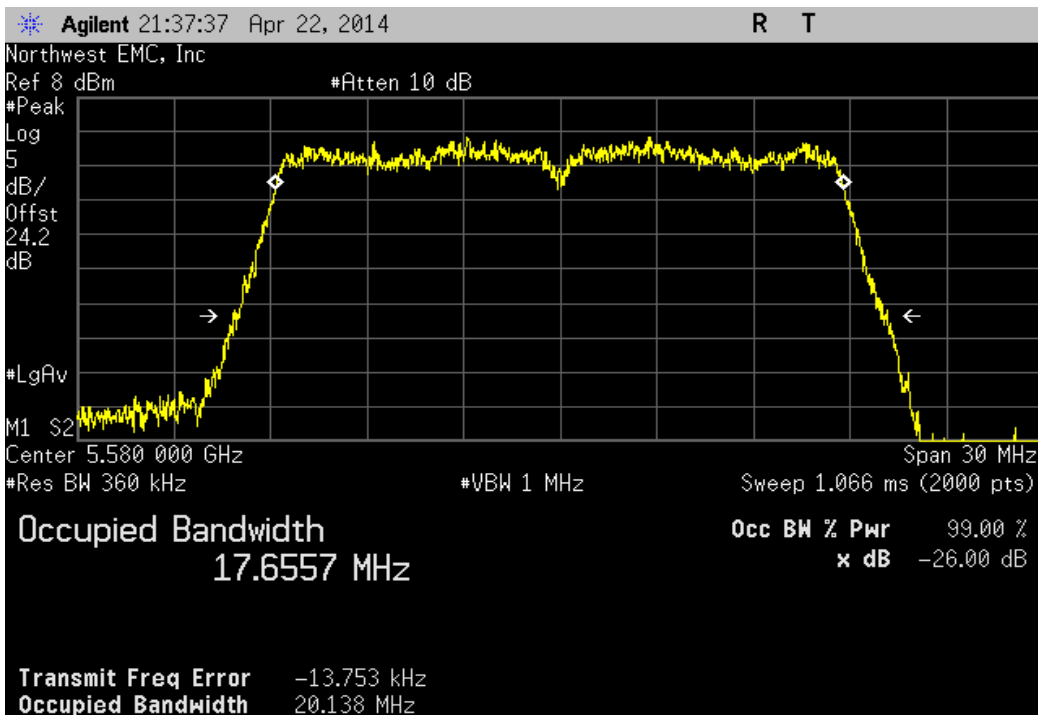
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 100, Low Channel 5500 MHz

				Value	Limit	Result
				20.082 MHz	> 500 kHz	Pass



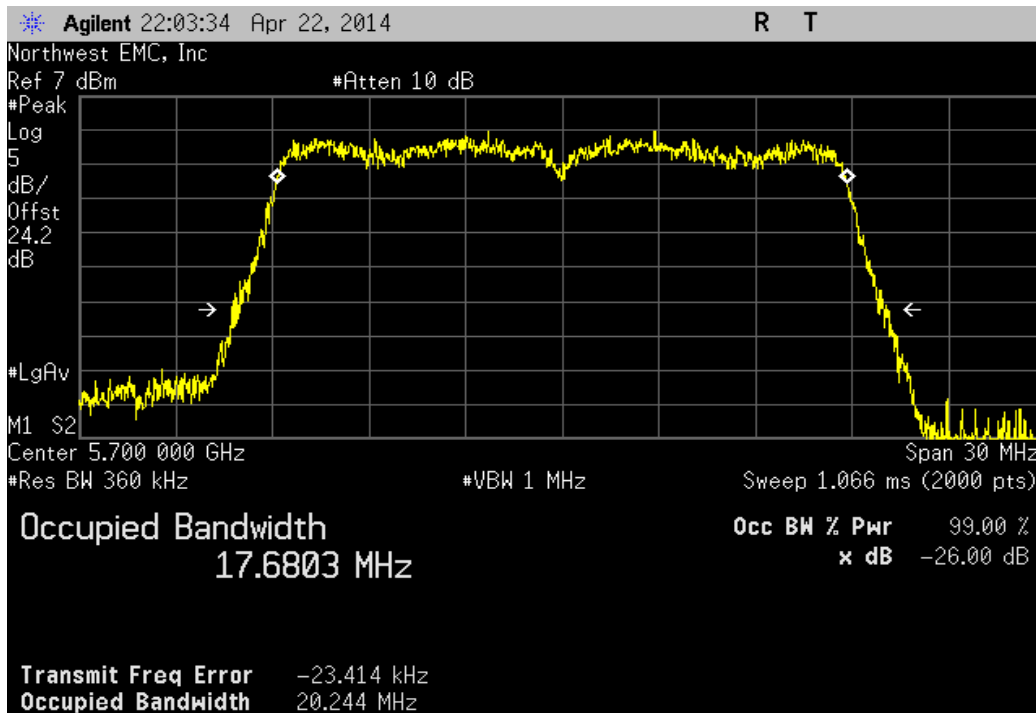
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 116, Mid Channel 5580 MHz

				Value	Limit	Result
				20.138 MHz	> 500 kHz	Pass



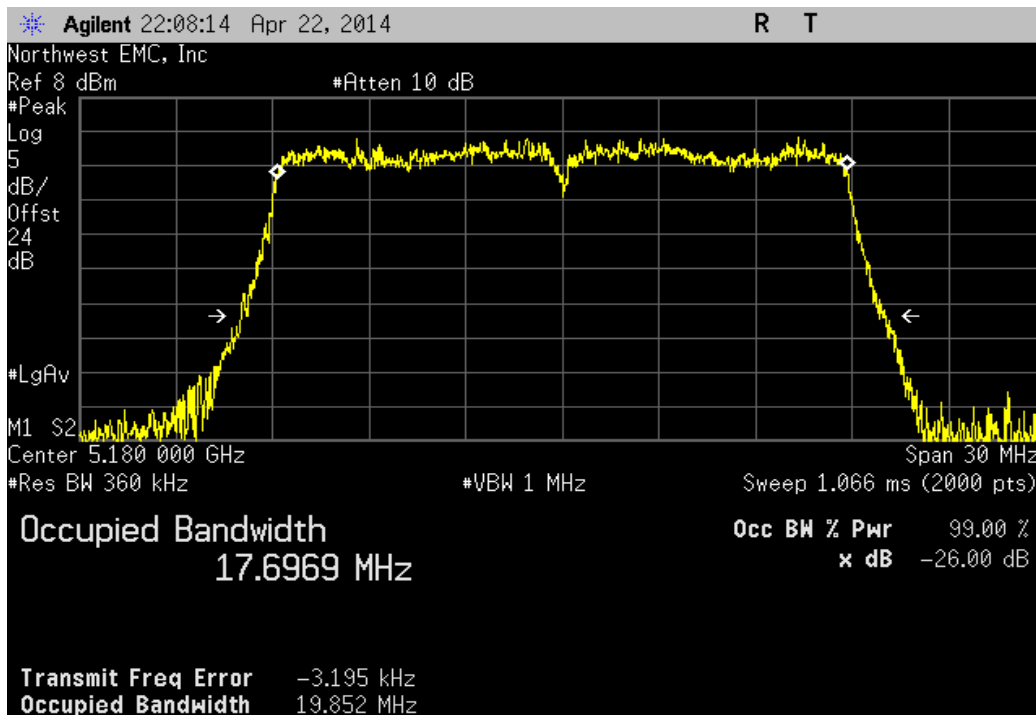
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
20.244 MHz	> 500 kHz	Pass



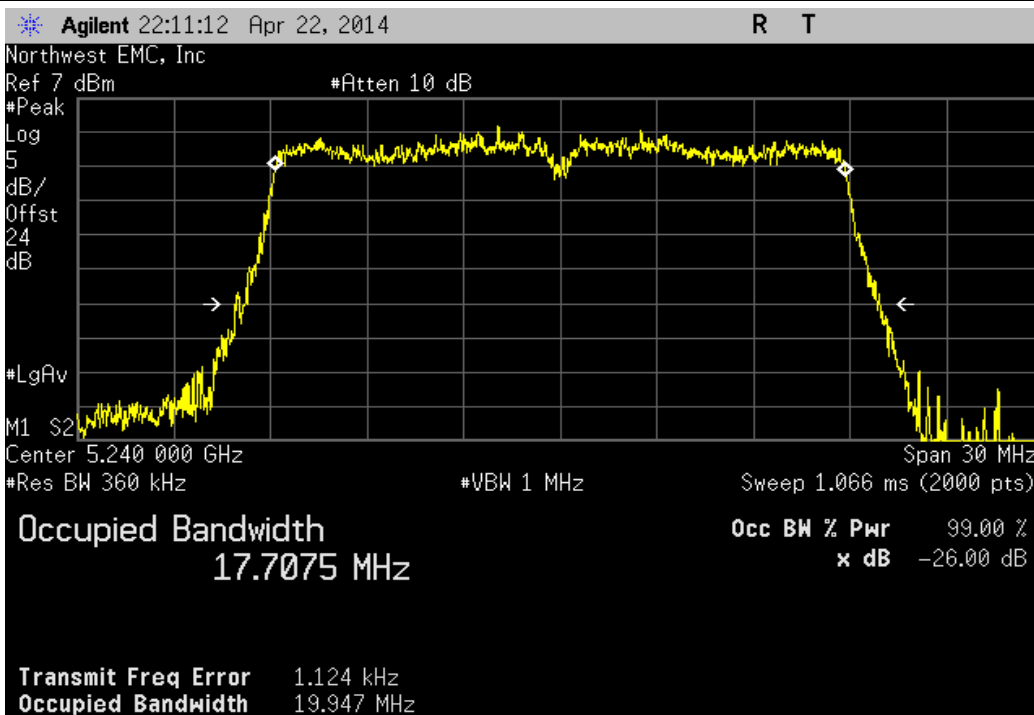
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
19.852 MHz	> 500 kHz	Pass



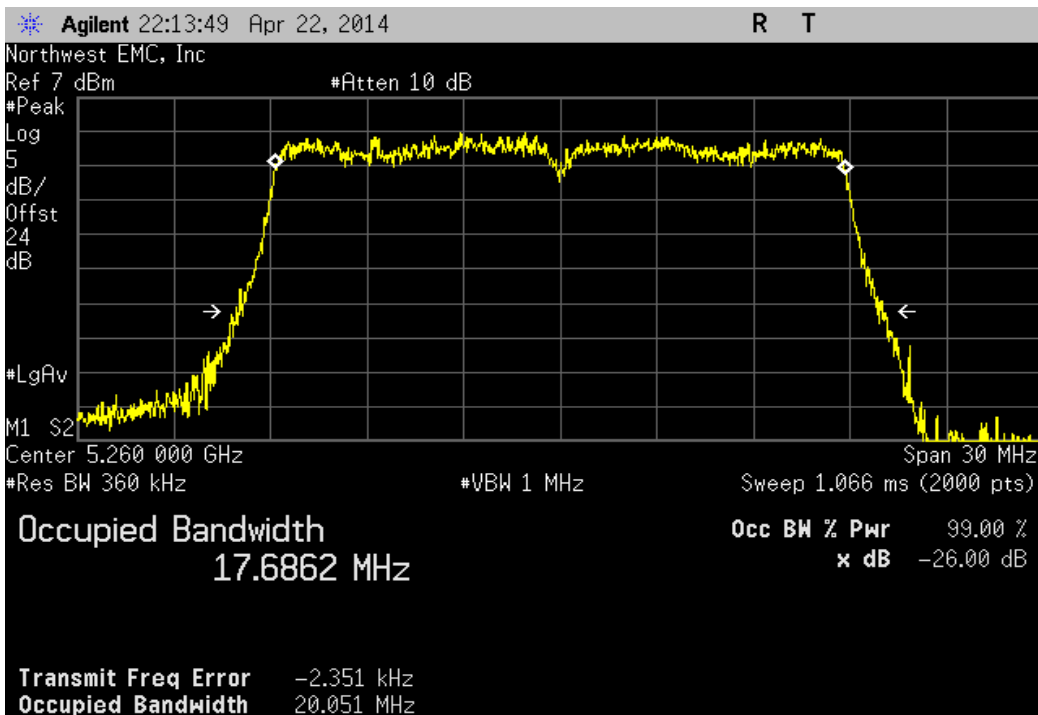
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
19.947 MHz	> 500 kHz	Pass



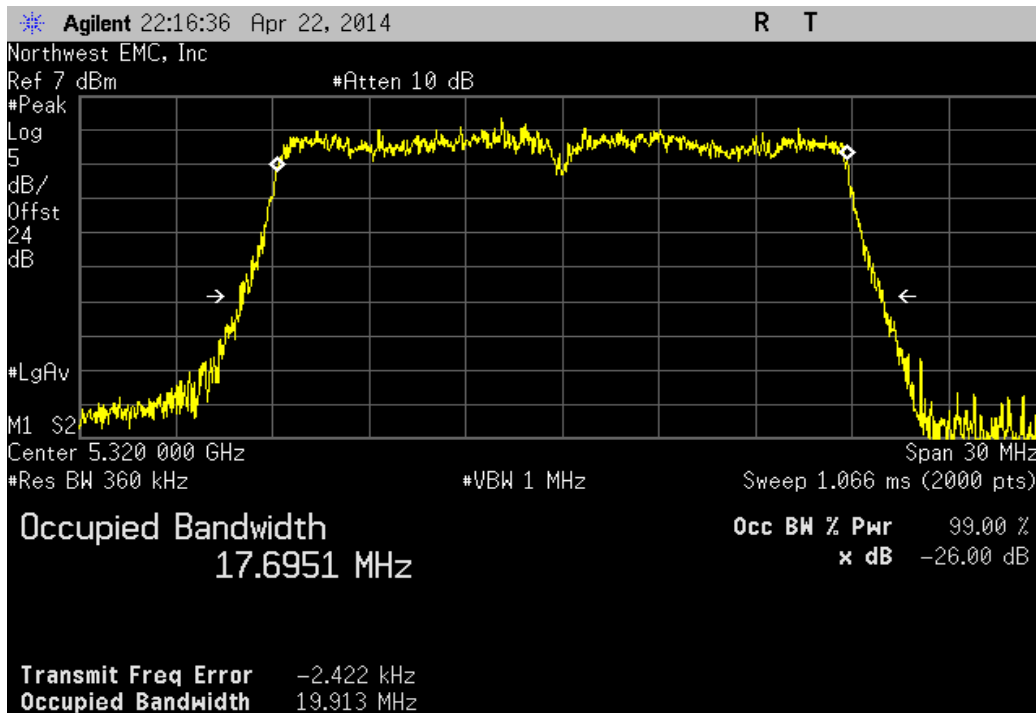
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
20.051 MHz	> 500 kHz	Pass



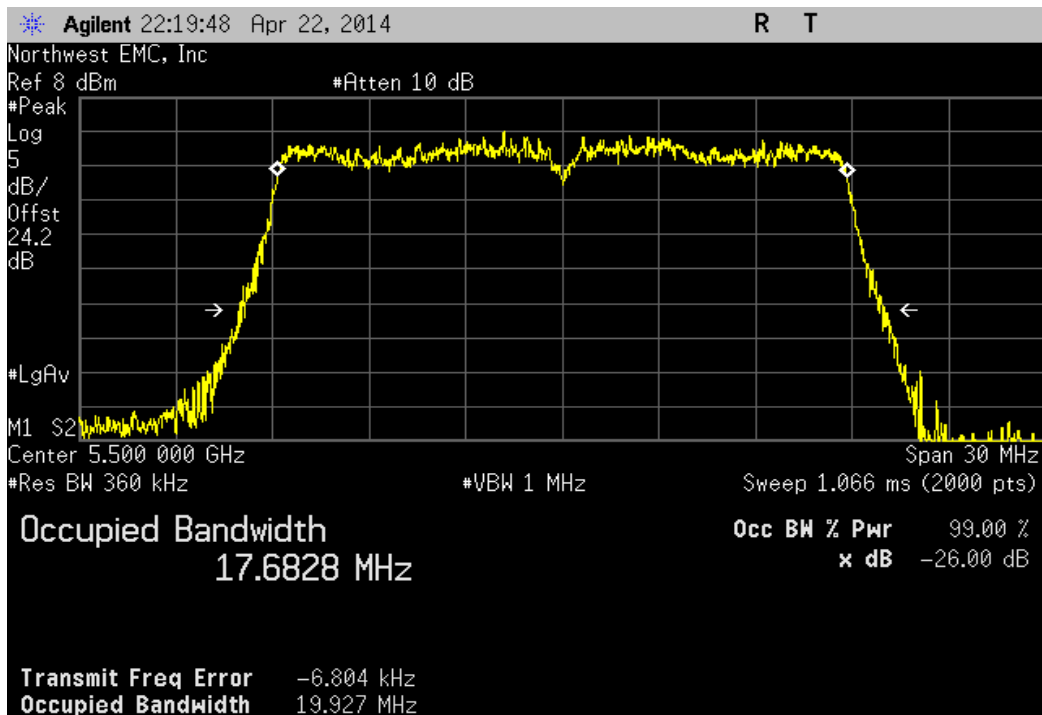
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
19.913 MHz	> 500 kHz	Pass



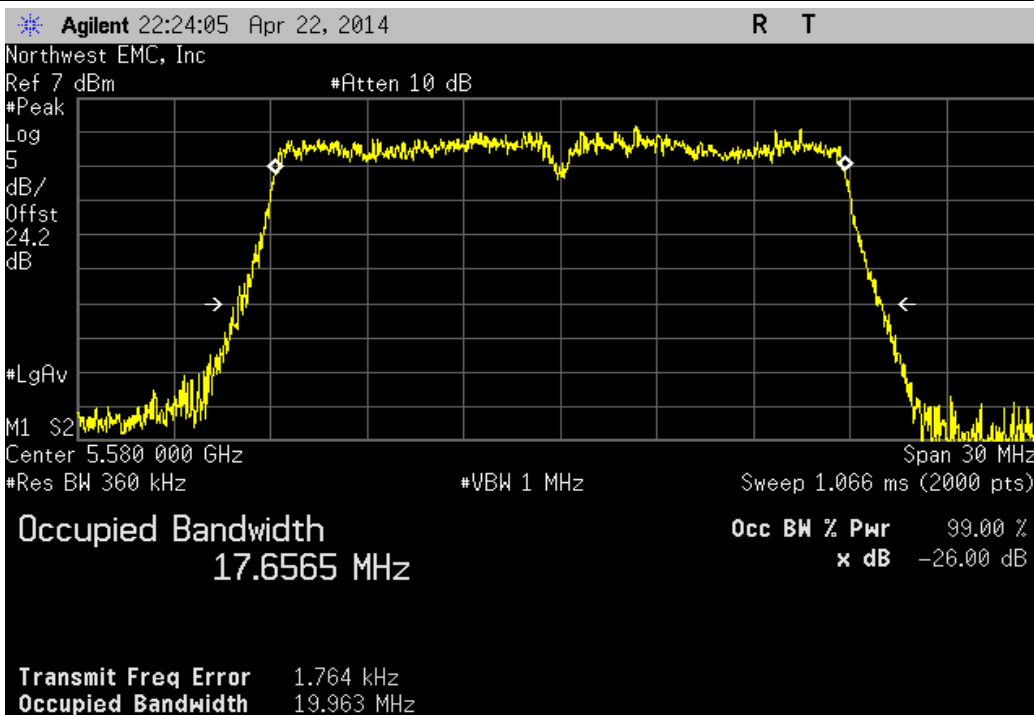
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
19.927 MHz	> 500 kHz	Pass



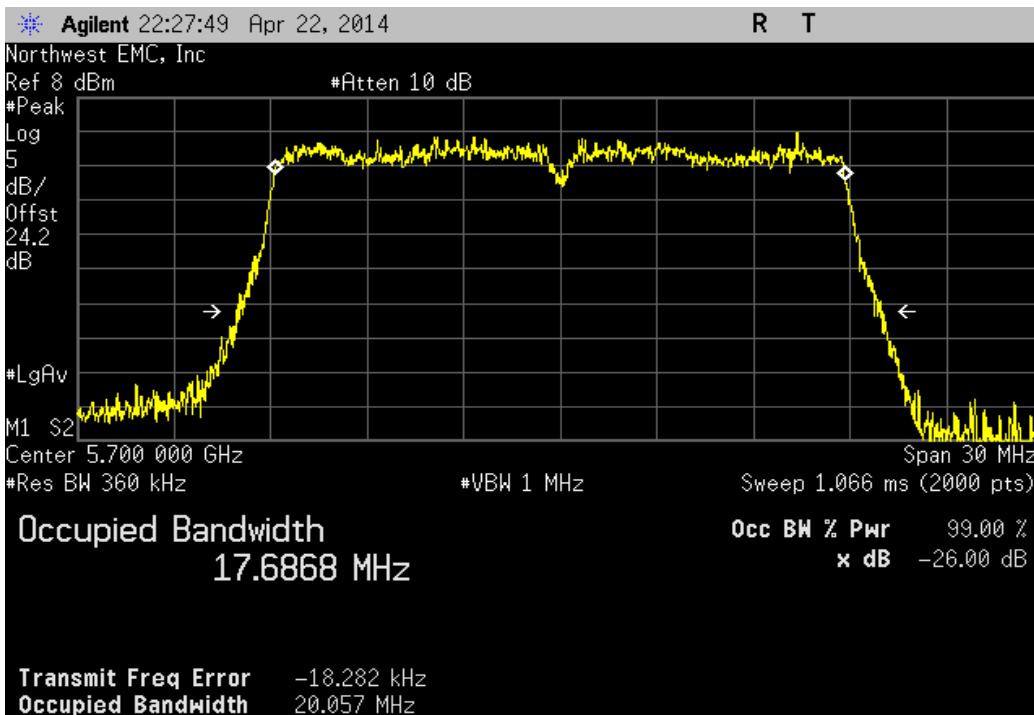
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
19.963 MHz	> 500 kHz	Pass



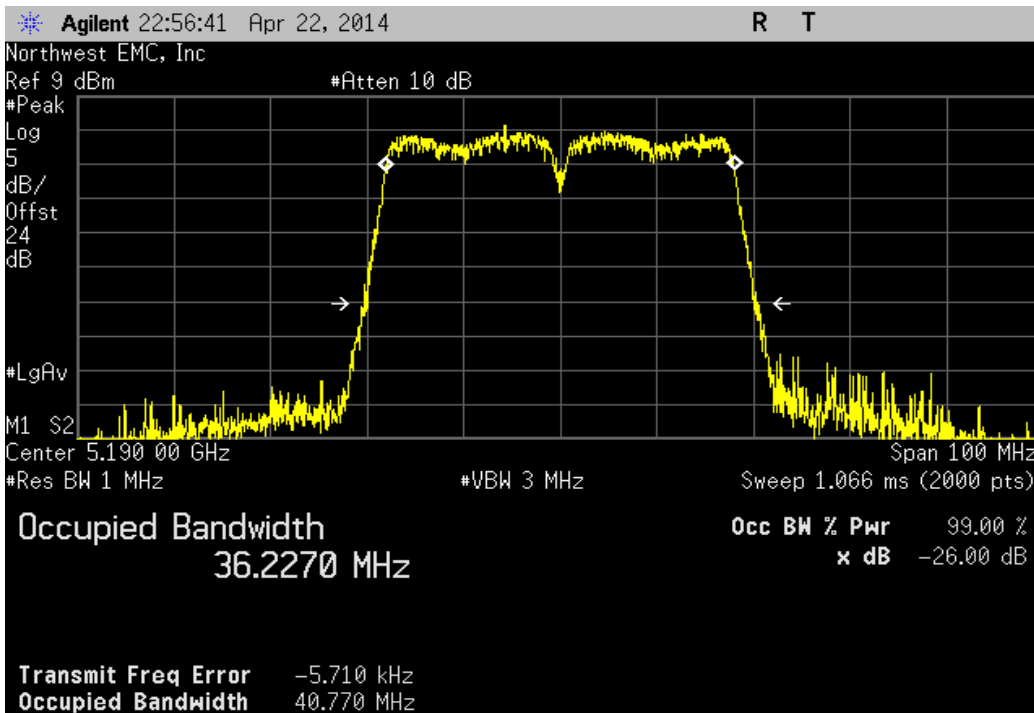
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
20.057 MHz	> 500 kHz	Pass



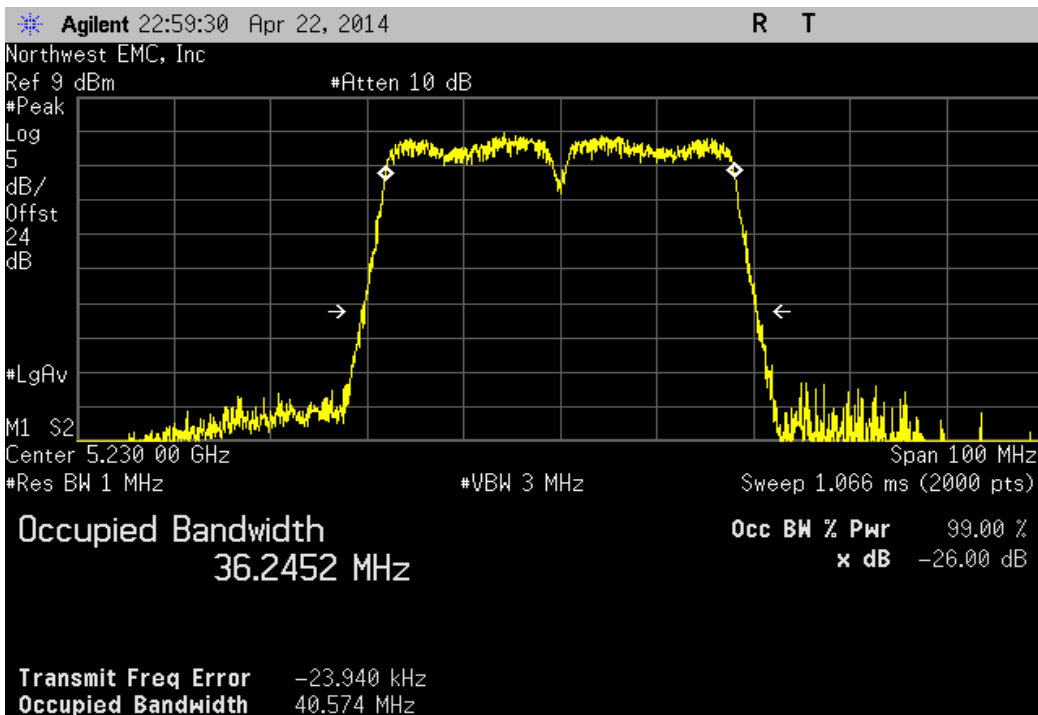
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
40.77 MHz	> 500 kHz	Pass



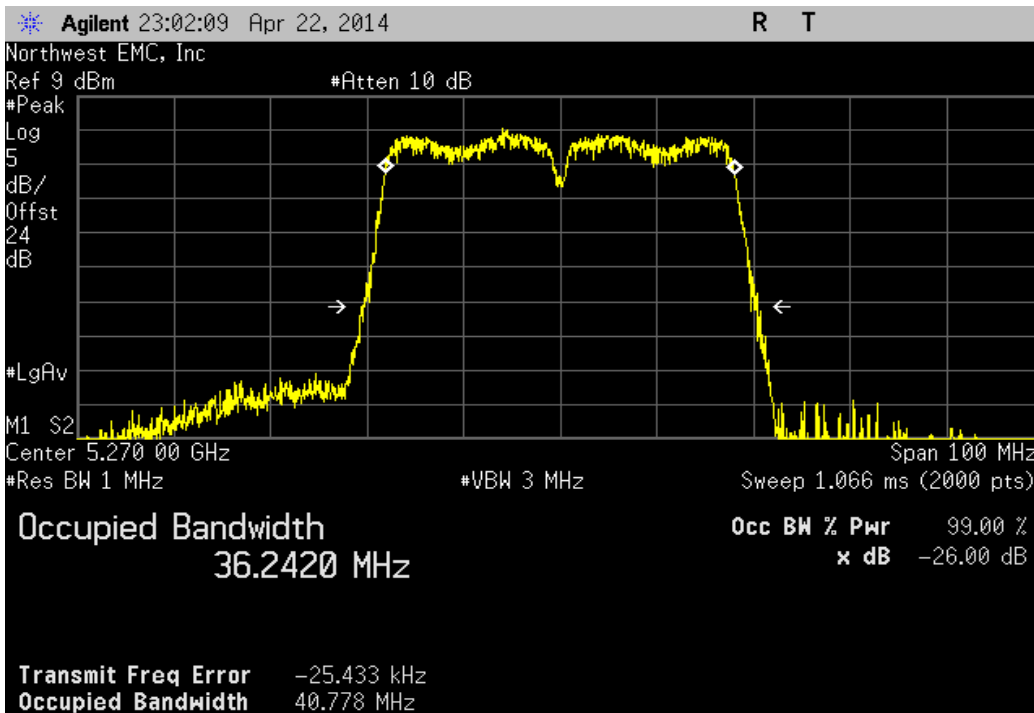
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.574 MHz	> 500 kHz	Pass



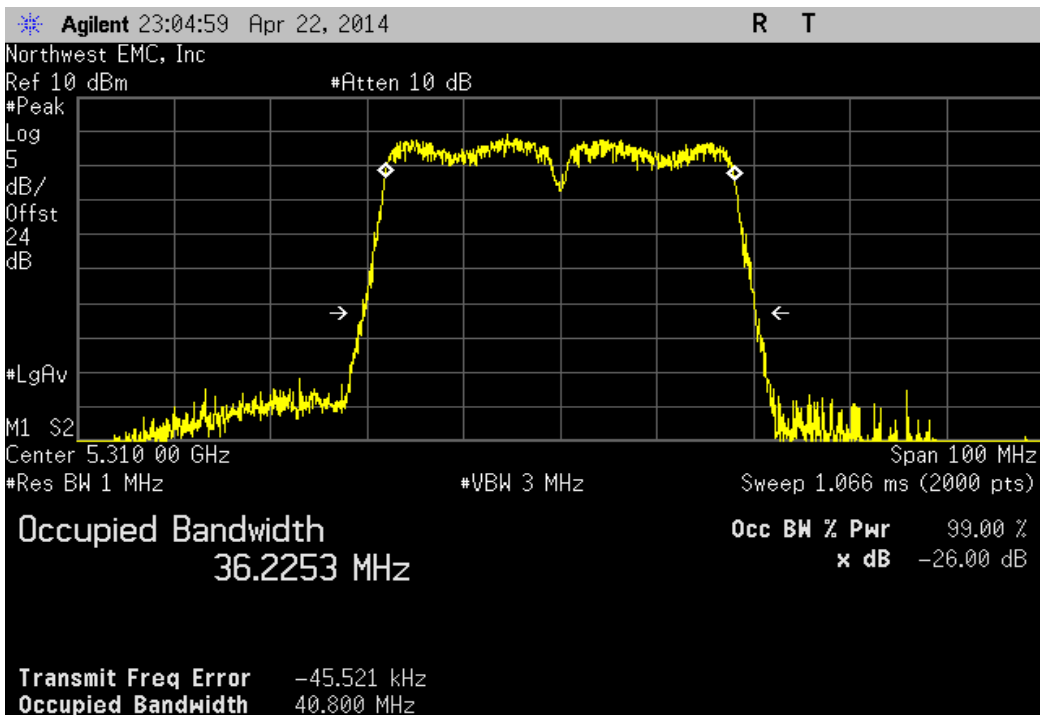
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.778 MHz	> 500 kHz	Pass



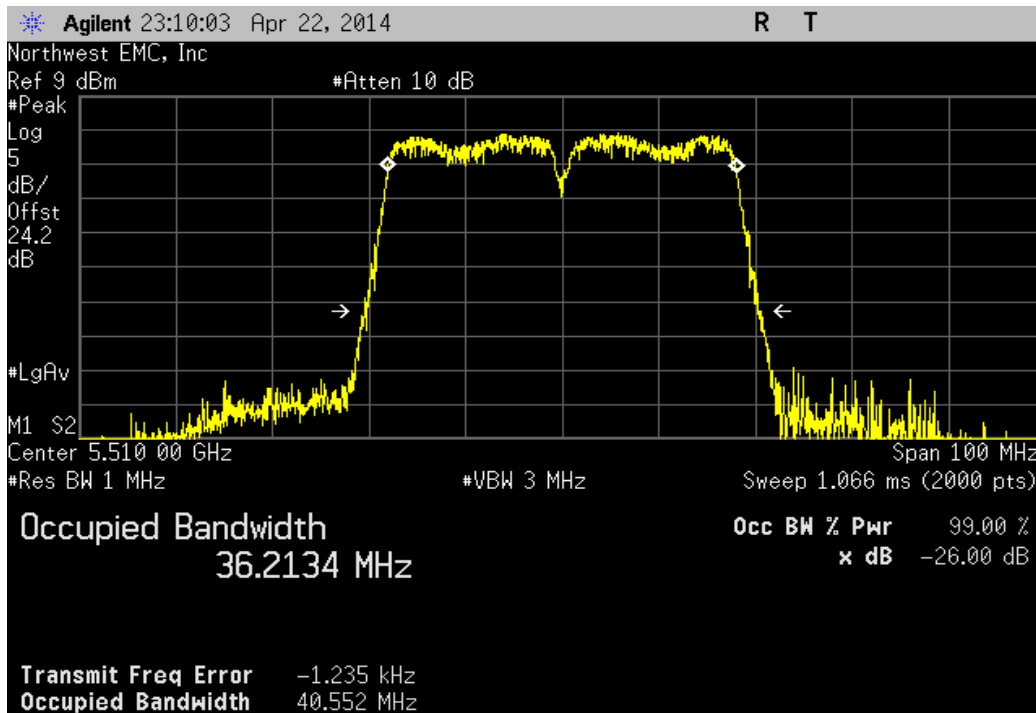
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.8 MHz	> 500 kHz	Pass



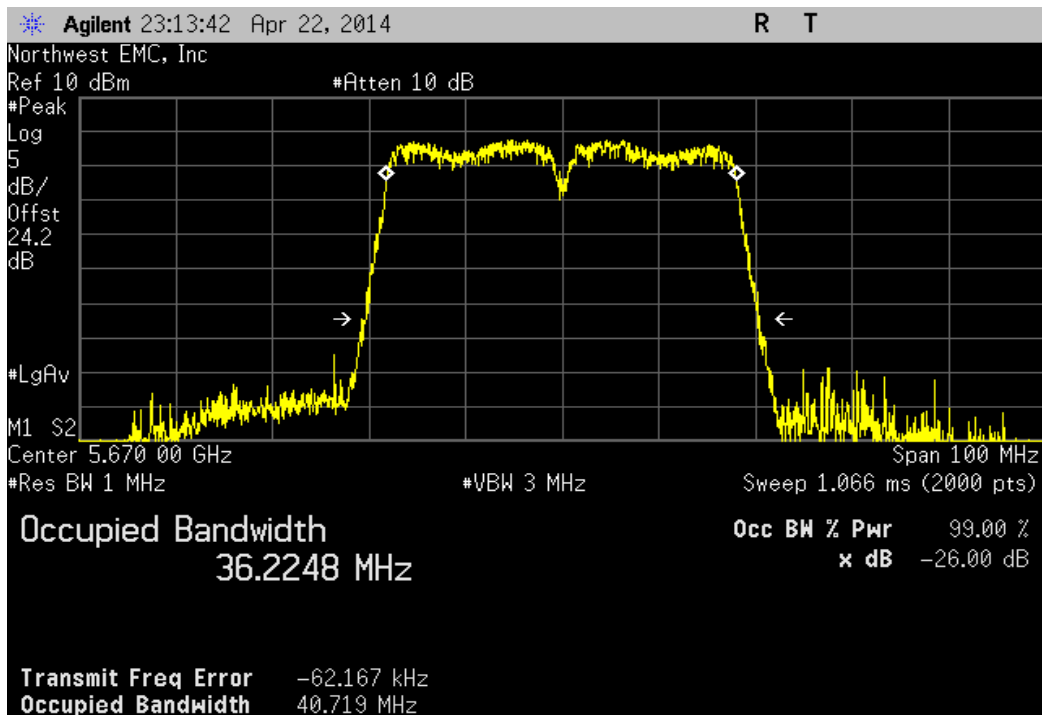
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 100/104, Low Channel 5510 MHz

				Value	Limit	Result
				40.552 MHz	> 500 kHz	Pass



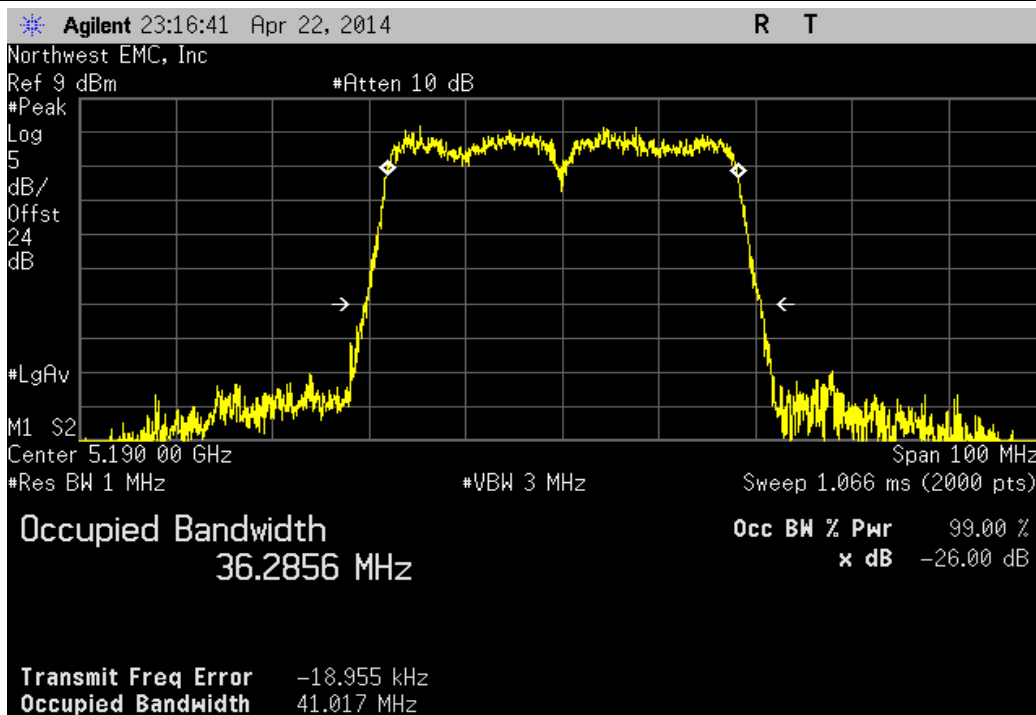
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 132/136, High Channel 5670 MHz

				Value	Limit	Result
				40.719 MHz	> 500 kHz	Pass



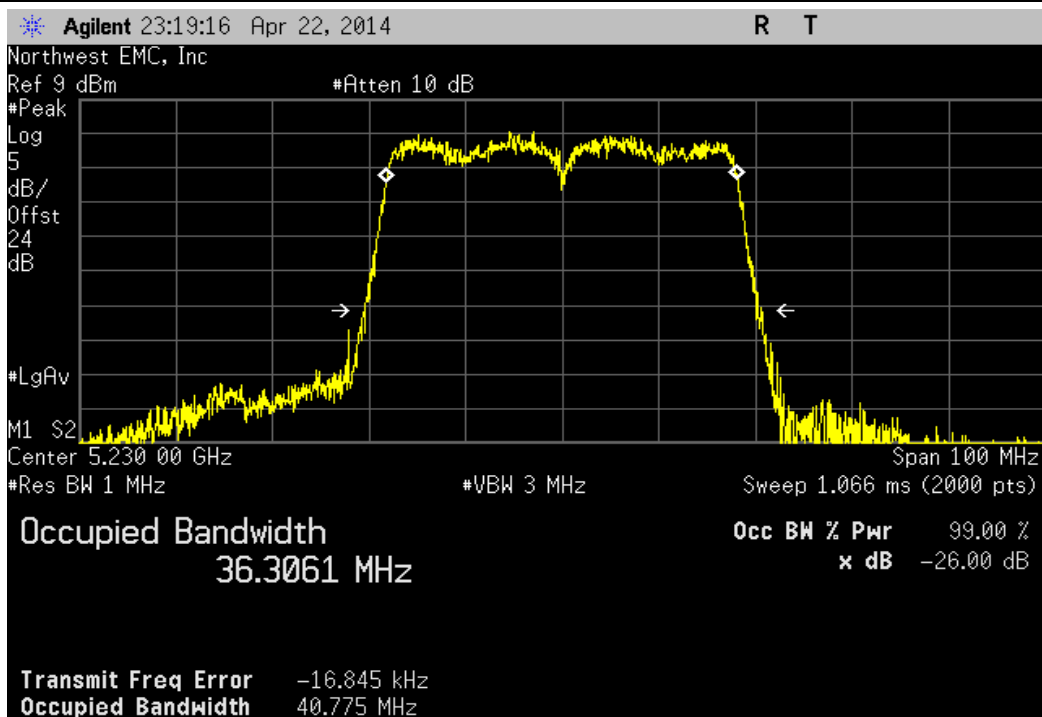
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
41.017 MHz	> 500 kHz	Pass



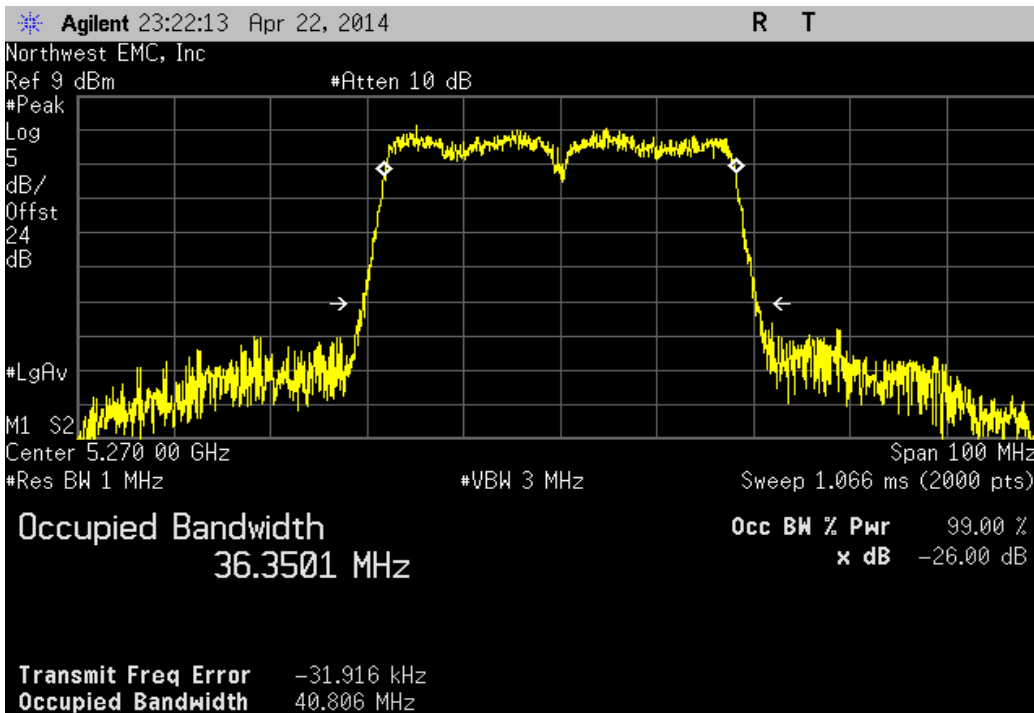
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
40.775 MHz	> 500 kHz	Pass



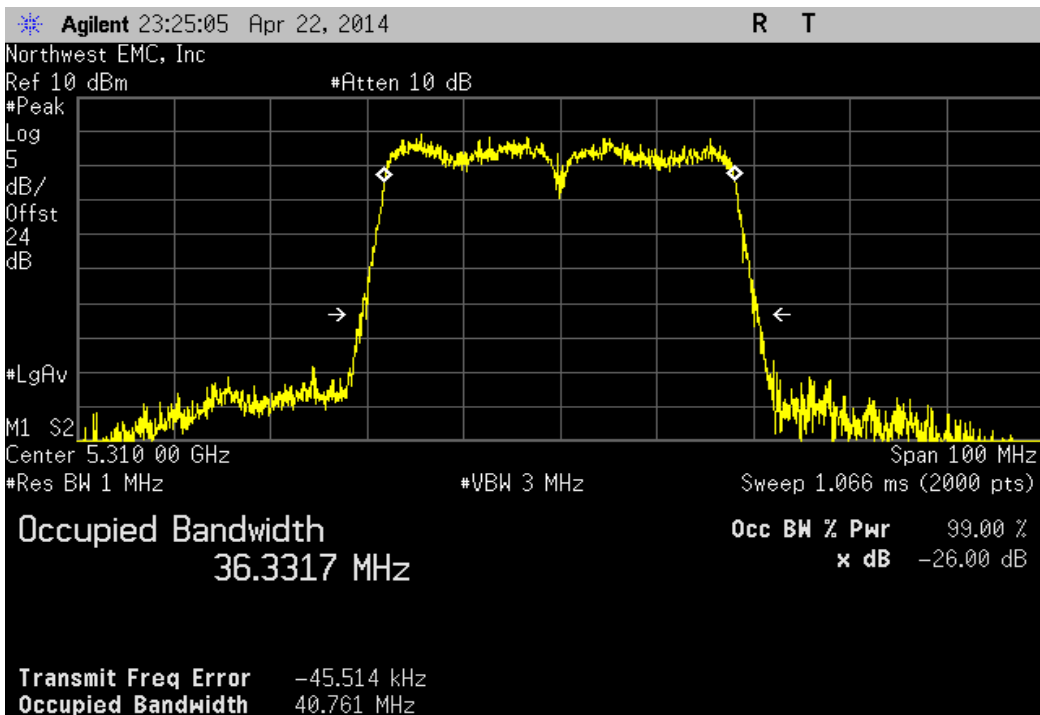
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
40.806 MHz	> 500 kHz	Pass



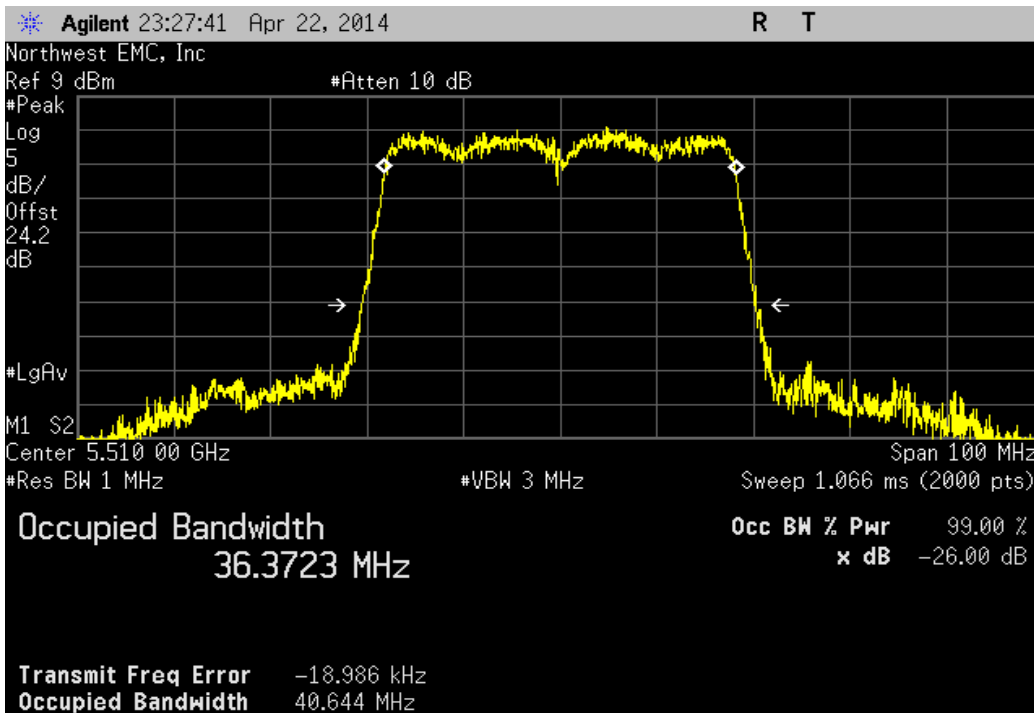
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
40.761 MHz	> 500 kHz	Pass



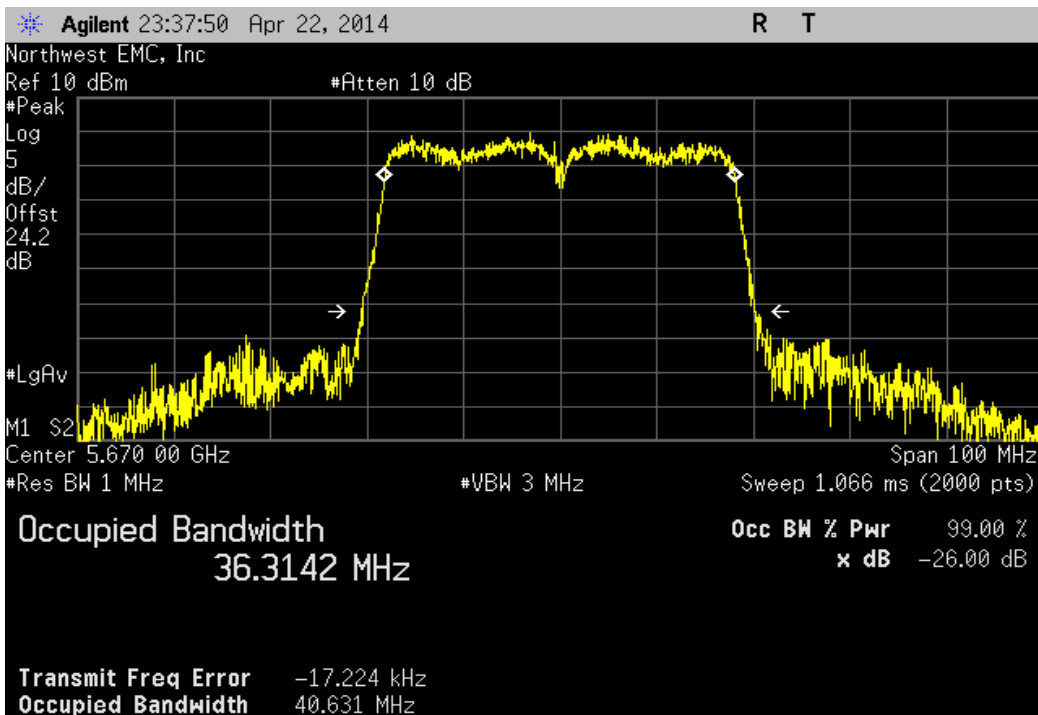
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
40.644 MHz	> 500 kHz	Pass



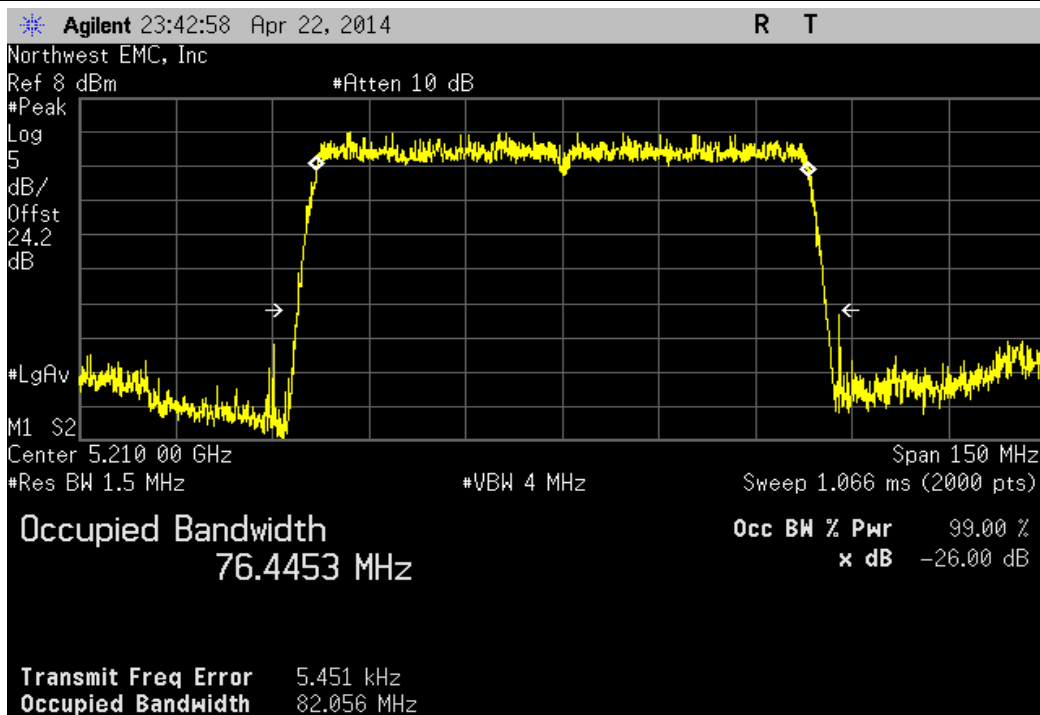
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
40.631 MHz	> 500 kHz	Pass



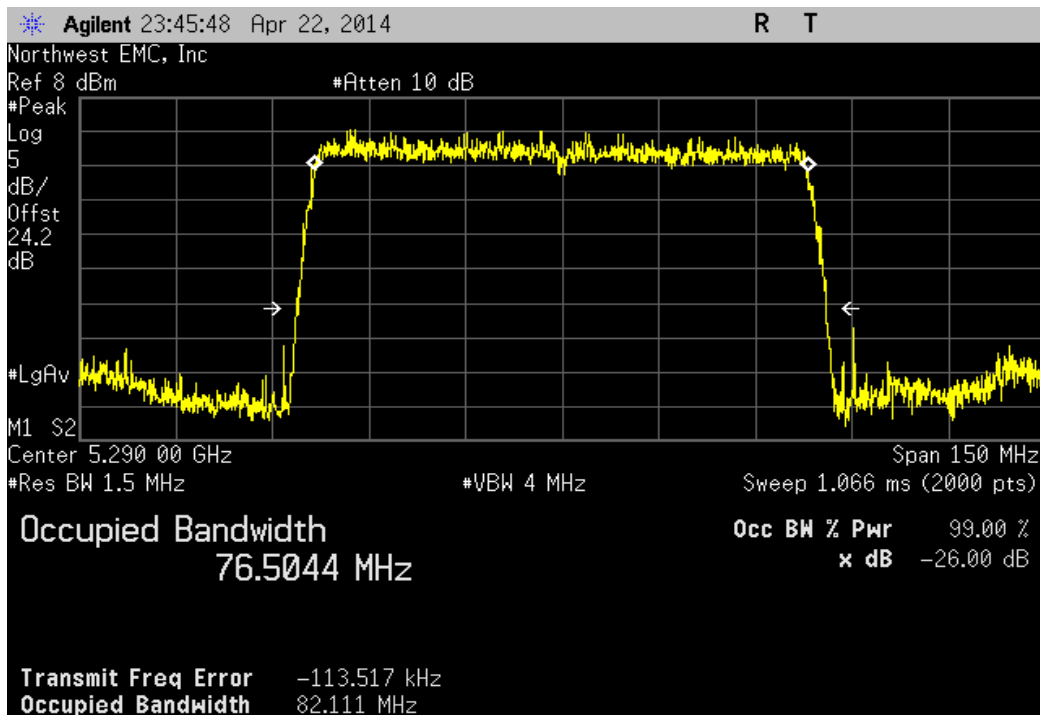
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
82.056 MHz	> 500 kHz	Pass



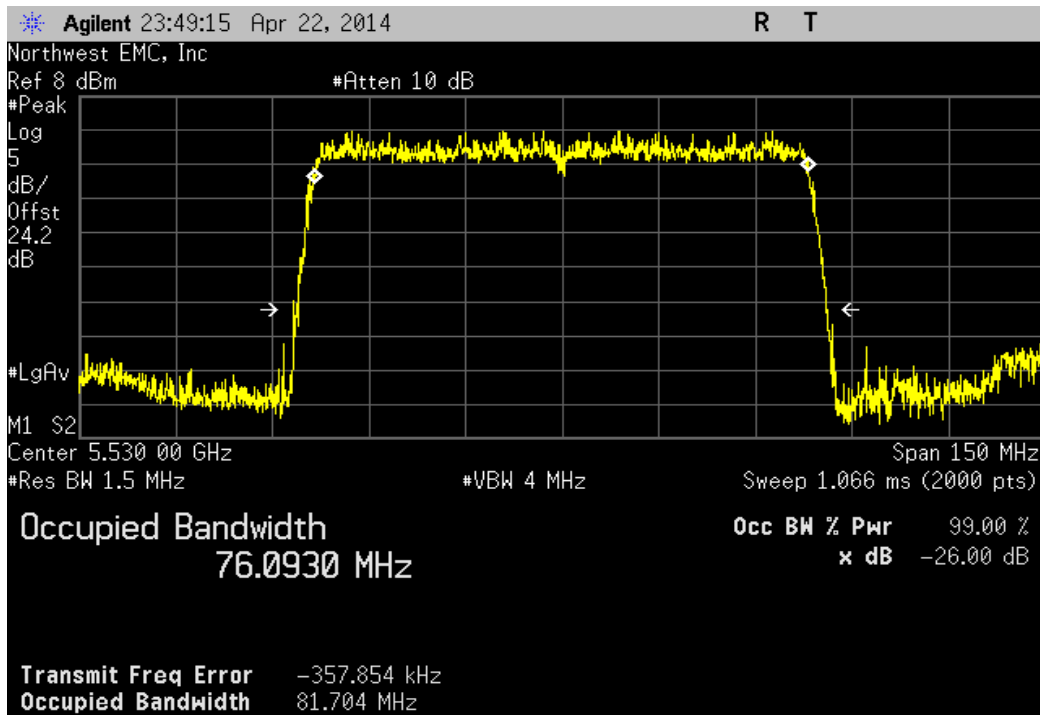
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
82.111 MHz	> 500 kHz	Pass



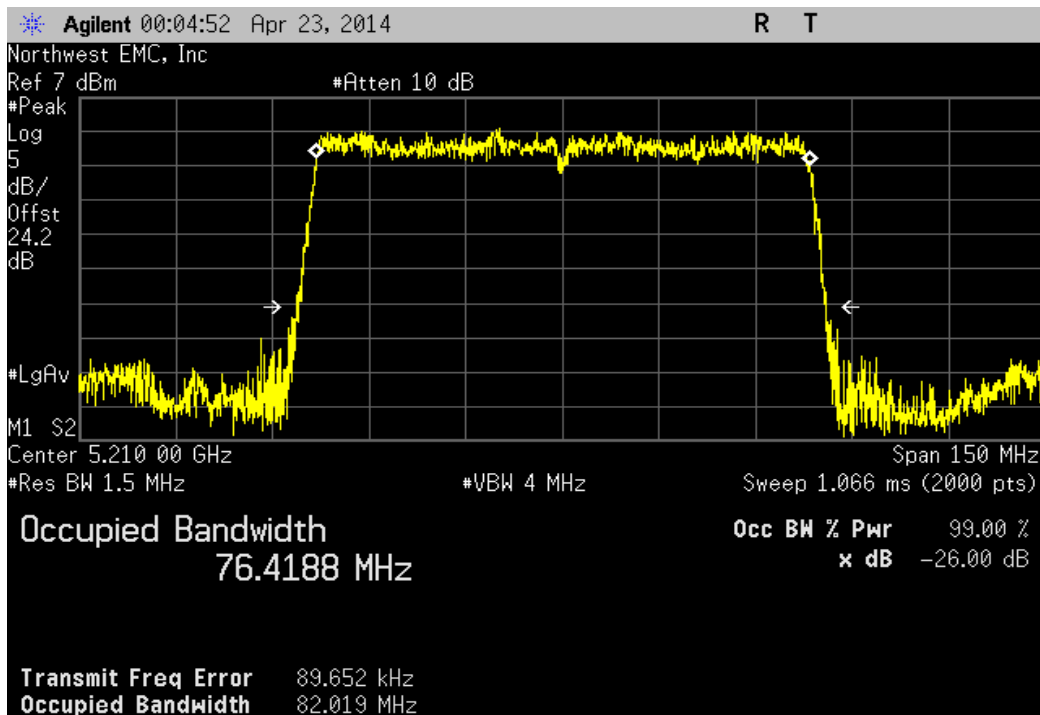
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
81.704 MHz	> 500 kHz	Pass



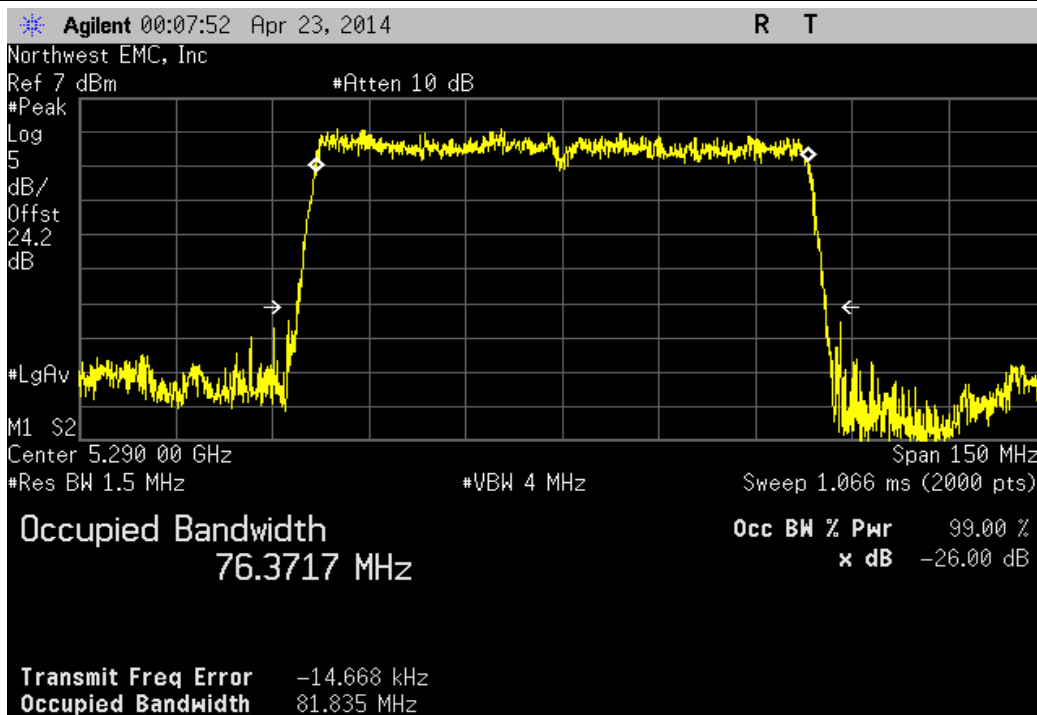
IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
82.019 MHz	> 500 kHz	Pass



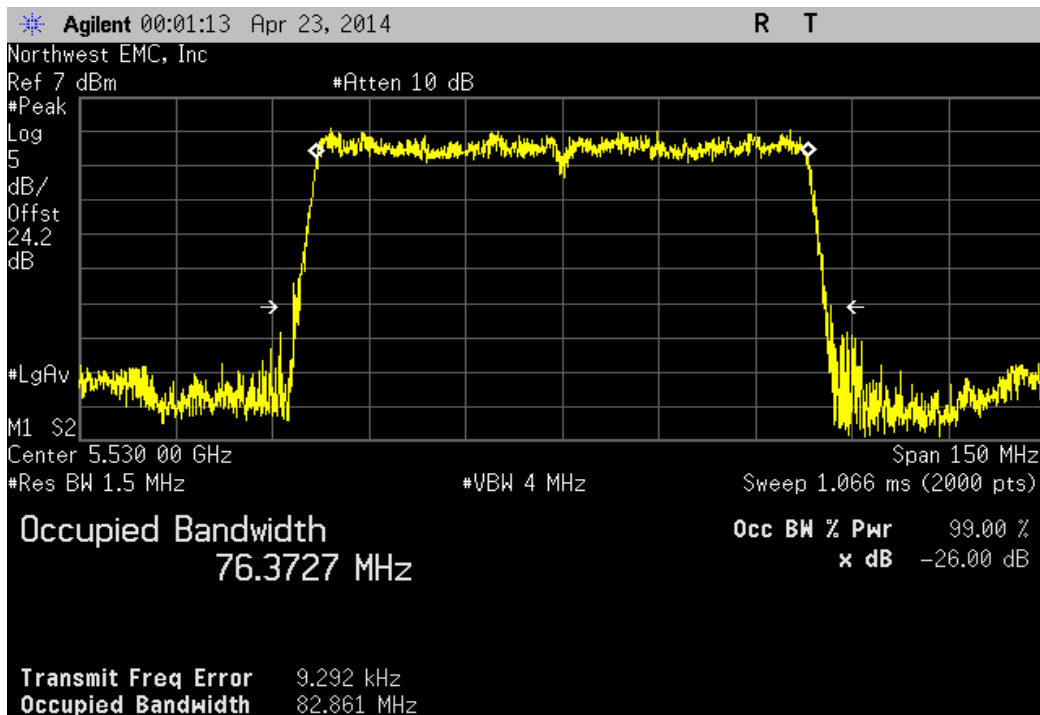
IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
81.835 MHz	> 500 kHz	Pass



IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
82.861 MHz	> 500 kHz	Pass



PEAK TRANSMIT POWER

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 EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo.)
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24

TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures Section C was followed. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. 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 transmit power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. The method of measuring the emission bandwidth and the associated data are found elsewhere in this test report. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep) was used for this test.

The spectrum analyzer settings were set per the guidance as well as the following specifics:

- RBW = 1 MHz, VBW = 3 MHz
- Sample Detector
- The number of points was set to 601. This satisfied the requirement of being $> 2 * \text{span} / \text{RBW}$
- Trace average 100 traces in power averaging mode.
- Power was integrated across "B", by using the channel power function of the analyzer.



PEAK TRANSMIT POWER

XMit 2013.08.15
PsaTx 2013.10.23

EUT: Model 1631		Work Order: MCSO1698
Serial Number: 006840341053		Date: 04/23/14
Customer: Microsoft Corporation		Temperature: 22.3°C
Attendees: None		Humidity: 32%
Project: None		Barometric Pres.: 1014
Tested by: Jared Ison	Power: 110VAC/60Hz	Job Site: EV06
TEST SPECIFICATIONS		Test Method
FCC 15.407:2014		ANSI C63.10:2009

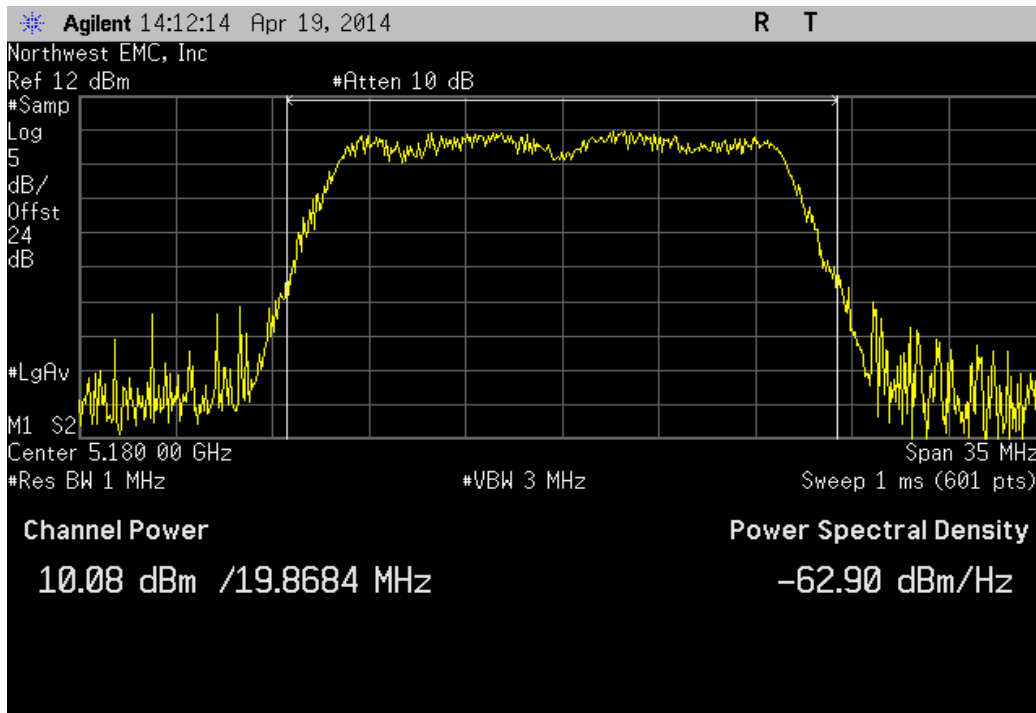
COMMENTS		
Modes of operation tested were client provided.		
DEVIATIONS FROM TEST STANDARD		
None		
Configuration #	6	Signature 

			Value	Limit	Result
IEEE 802.11(a)					
20 MHz					
6 Mbps					
	Ch. 36, Low Channel 5180MHz		10.084 dBm	< 17 dBm	Pass
	Ch. 48, High Channel 5240 MHz		10.085 dBm	< 17 dBm	Pass
	Ch. 52, Low Channel 5260 MHz		10.316 dBm	< 24 dBm	Pass
	Ch. 64, High Channel 5320 MHz		10.381 dBm	< 24 dBm	Pass
	Ch. 100, Low Channel 5500 MHz		10.272 dBm	< 24 dBm	Pass
	Ch. 116, Mid Channel 5580 MHz		10.48 dBm	< 24 dBm	Pass
	Ch. 140, High Channel 5700 MHz		9.623 dBm	< 24 dBm	Pass
36 Mbps					
	Ch. 36, Low Channel 5180MHz		10.052 dBm	< 17 dBm	Pass
	Ch. 48, High Channel 5240 MHz		9.971 dBm	< 17 dBm	Pass
	Ch. 52, Low Channel 5260 MHz		9.892 dBm	< 24 dBm	Pass
	Ch. 64, High Channel 5320 MHz		10.401 dBm	< 24 dBm	Pass
	Ch. 100, Low Channel 5500 MHz		10.321 dBm	< 24 dBm	Pass
	Ch. 116, Mid Channel 5580 MHz		10.37 dBm	< 24 dBm	Pass
	Ch. 140, High Channel 5700 MHz		9.767 dBm	< 24 dBm	Pass
54 Mbps					
	Ch. 36, Low Channel 5180MHz		9.935 dBm	< 17 dBm	Pass
	Ch. 48, High Channel 5240 MHz		10.141 dBm	< 17 dBm	Pass
	Ch. 52, Low Channel 5260 MHz		10.319 dBm	< 24 dBm	Pass
	Ch. 64, High Channel 5320 MHz		10.197 dBm	< 24 dBm	Pass
	Ch. 100, Low Channel 5500 MHz		10.152 dBm	< 24 dBm	Pass
	Ch. 116, Mid Channel 5580 MHz		10.072 dBm	< 24 dBm	Pass
	Ch. 140, High Channel 5700 MHz		9.564 dBm	< 24 dBm	Pass
IEEE 802.11(n)					
20 MHz					
HT, MCS7					
	Ch. 36, Low Channel 5180MHz		8.96 dBm	< 17 dBm	Pass
	Ch. 48, High Channel 5240 MHz		9.439 dBm	< 17 dBm	Pass
	Ch. 52, Low Channel 5260 MHz		9.537 dBm	< 24 dBm	Pass
	Ch. 64, High Channel 5320 MHz		9.59 dBm	< 24 dBm	Pass
	Ch. 100, Low Channel 5500 MHz		9.479 dBm	< 24 dBm	Pass
	Ch. 116, Mid Channel 5580 MHz		9.666 dBm	< 24 dBm	Pass
	Ch. 140, High Channel 5700 MHz		9.088 dBm	< 24 dBm	Pass
40 MHz					
HT, MCS7					
	Ch. 36/40, Low Channel 5190 MHz		8.999 dBm	< 17 dBm	Pass
	Ch. 44/48, High Channel 5230 MHz		9.212 dBm	< 17 dBm	Pass
	Ch. 52/56, Low Channel 5270 MHz		9.363 dBm	< 24 dBm	Pass
	Ch. 60/64, High Channel 5310 MHz		9.51 dBm	< 24 dBm	Pass
	Ch. 100/104, Low Channel 5510 MHz		9.11 dBm	< 24 dBm	Pass
	Ch. 132/136, High Channel 5670 MHz		9.056 dBm	< 24 dBm	Pass
IEEE 802.11(ac)					
20 MHz					
VHT, MCS0					
	Ch. 36, Low Channel 5180MHz		9.889 dBm	< 17 dBm	Pass
	Ch. 48, High Channel 5240 MHz		9.913 dBm	< 17 dBm	Pass
	Ch. 52, Low Channel 5260 MHz		9.845 dBm	< 24 dBm	Pass
	Ch. 64, High Channel 5320 MHz		10.14 dBm	< 24 dBm	Pass
	Ch. 100, Low Channel 5500 MHz		9.958 dBm	< 24 dBm	Pass
	Ch. 116, Mid Channel 5580 MHz		10.177 dBm	< 24 dBm	Pass
	Ch. 140, High Channel 5700 MHz		9.541 dBm	< 24 dBm	Pass
VHT, MCS8					
	Ch. 36, Low Channel 5180MHz		9.686 dBm	< 17 dBm	Pass
	Ch. 48, High Channel 5240 MHz		9.514 dBm	< 17 dBm	Pass
	Ch. 52, Low Channel 5260 MHz		9.798 dBm	< 24 dBm	Pass
	Ch. 64, High Channel 5320 MHz		9.951 dBm	< 24 dBm	Pass
	Ch. 100, Low Channel 5500 MHz		9.796 dBm	< 24 dBm	Pass
	Ch. 116, Mid Channel 5580 MHz		9.801 dBm	< 24 dBm	Pass
	Ch. 140, High Channel 5700 MHz		9.326 dBm	< 24 dBm	Pass
40 MHz					
VHT, MCS0					
	Ch. 36/40, Low Channel 5190 MHz		9.738 dBm	< 17 dBm	Pass
	Ch. 44/48, High Channel 5230 MHz		10.061 dBm	< 17 dBm	Pass
	Ch. 52/56, Low Channel 5270 MHz		9.974 dBm	< 24 dBm	Pass
	Ch. 60/64, High Channel 5310 MHz		10.079 dBm	< 24 dBm	Pass
	Ch. 100/104, Low Channel 5510 MHz		10.234 dBm	< 24 dBm	Pass
	Ch. 132/136, High Channel 5670 MHz		9.731 dBm	< 24 dBm	Pass
VHT, MCS9					
	Ch. 36/40, Low Channel 5190 MHz		9.165 dBm	< 17 dBm	Pass
	Ch. 44/48, High Channel 5230 MHz		9.459 dBm	< 17 dBm	Pass
	Ch. 52/56, Low Channel 5270 MHz		9.531 dBm	< 24 dBm	Pass
	Ch. 60/64, High Channel 5310 MHz		9.588 dBm	< 24 dBm	Pass
	Ch. 100/104, Low Channel 5510 MHz		9.293 dBm	< 24 dBm	Pass
	Ch. 132/136, High Channel 5670 MHz		9.159 dBm	< 24 dBm	Pass
80 MHz					
VHT, MCS0					

	Ch. 42, Low Channel 5210 MHz	9.362 dBm	< 17 dBm	Pass
	Ch. 58, High Channel 5290 MHz	9.456 dBm	< 24 dBm	Pass
	Ch. 106, Low Channel 5530 MHz	9.219 dBm	< 24 dBm	Pass
VHT, MCS9				
	Ch. 42, Low Channel 5210 MHz	8.294 dBm	< 17 dBm	Pass
	Ch. 58, High Channel 5290 MHz	8.669 dBm	< 24 dBm	Pass
	Ch. 106, Low Channel 5530 MHz	8.13 dBm	< 24 dBm	Pass

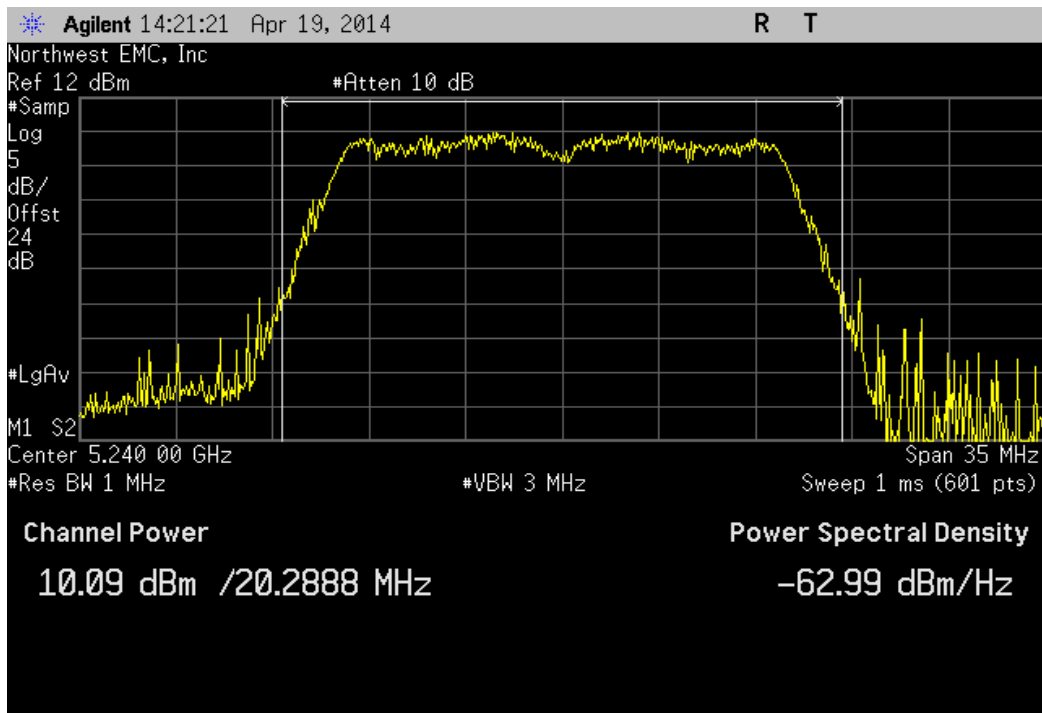
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
10.084 dBm	< 17 dBm	Pass



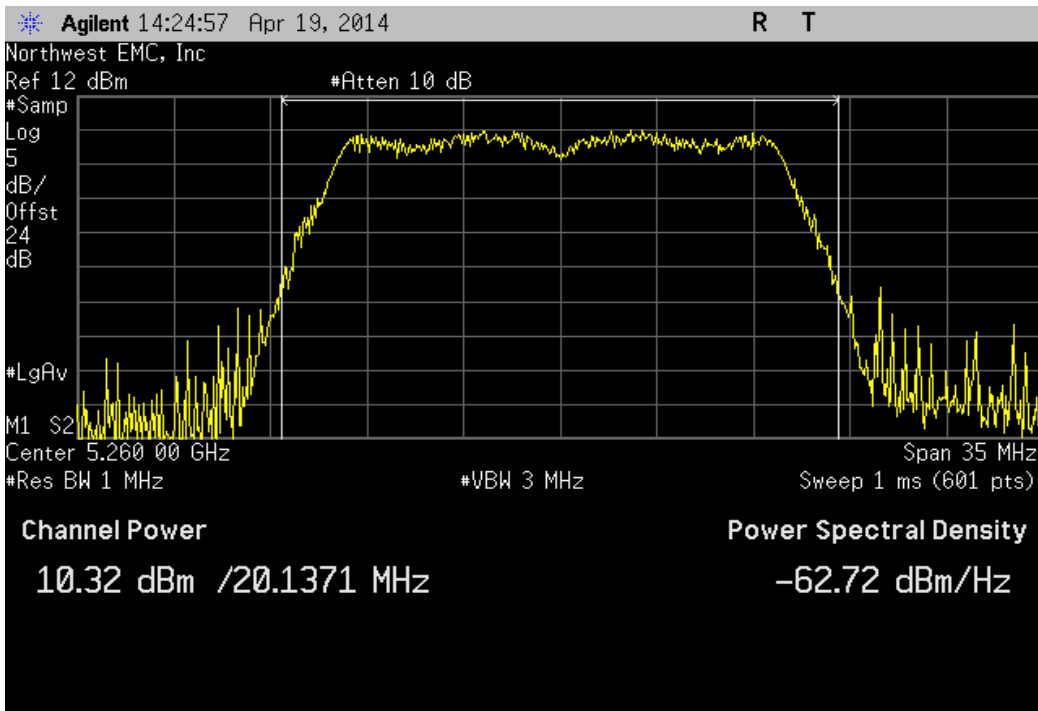
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
10.085 dBm	< 17 dBm	Pass



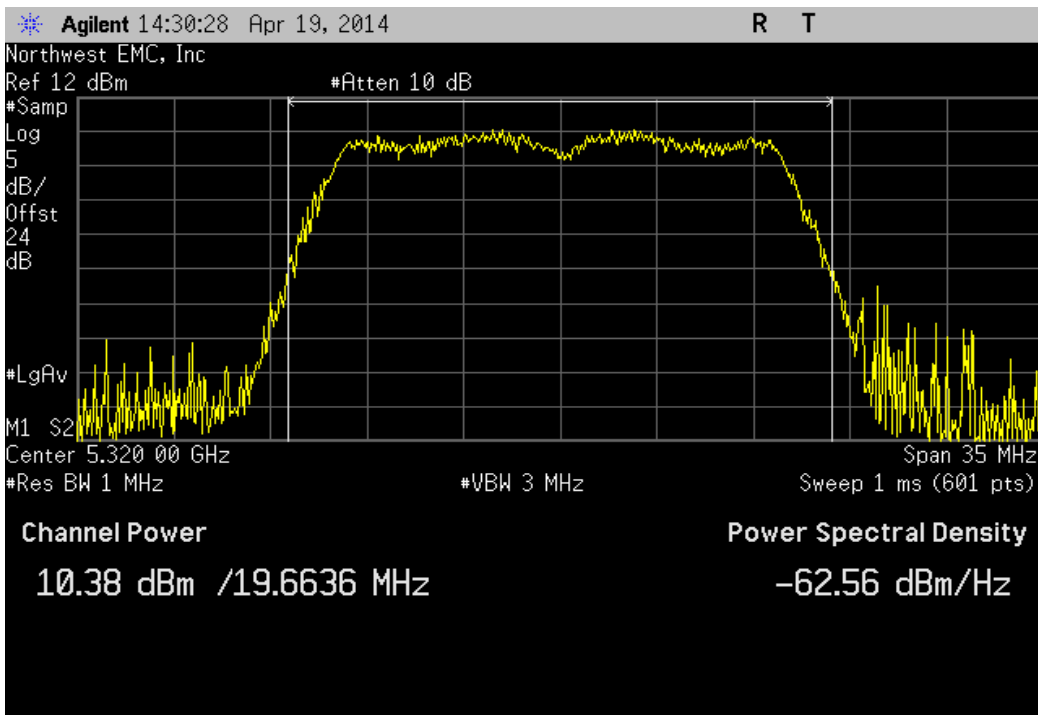
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
10.316 dBm	< 24 dBm	Pass



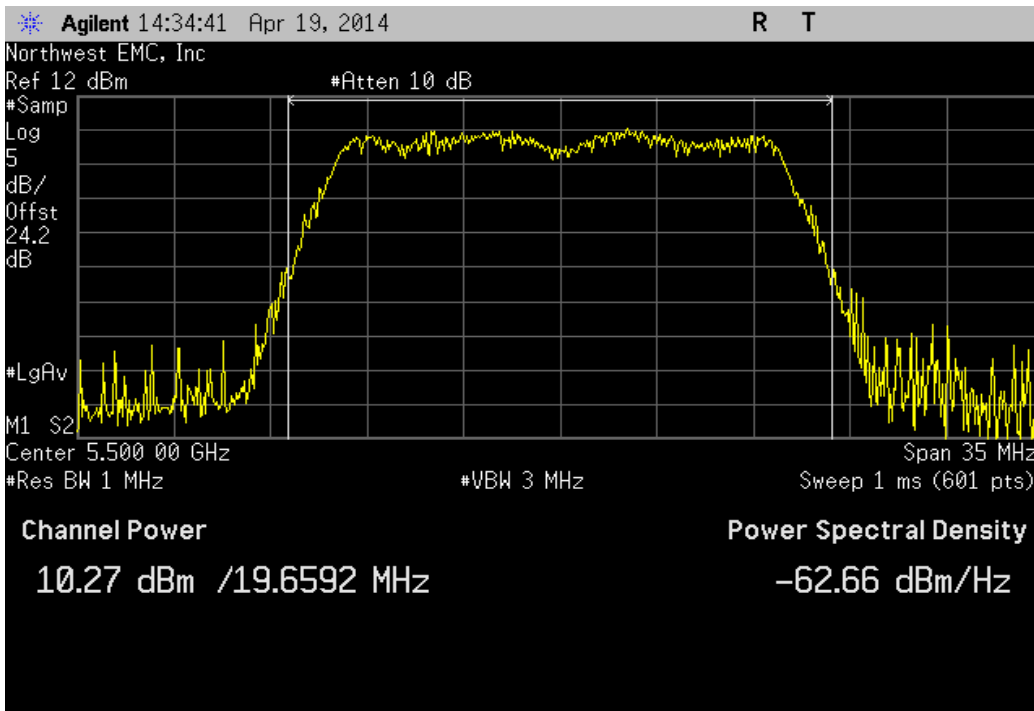
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.381 dBm	< 24 dBm	Pass



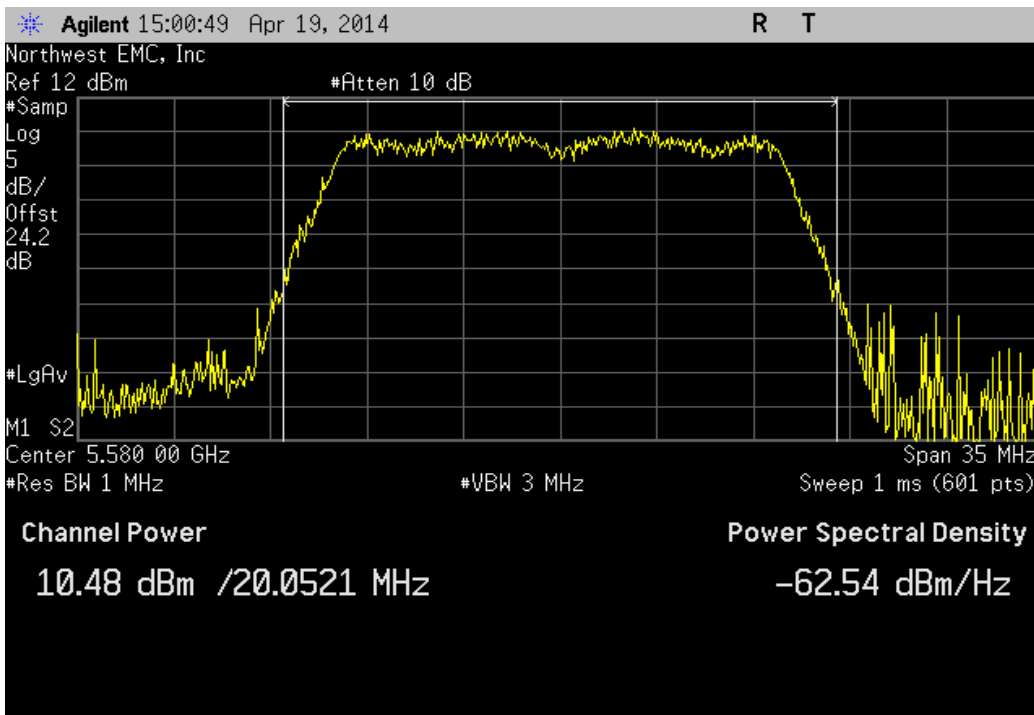
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
10.272 dBm	< 24 dBm	Pass



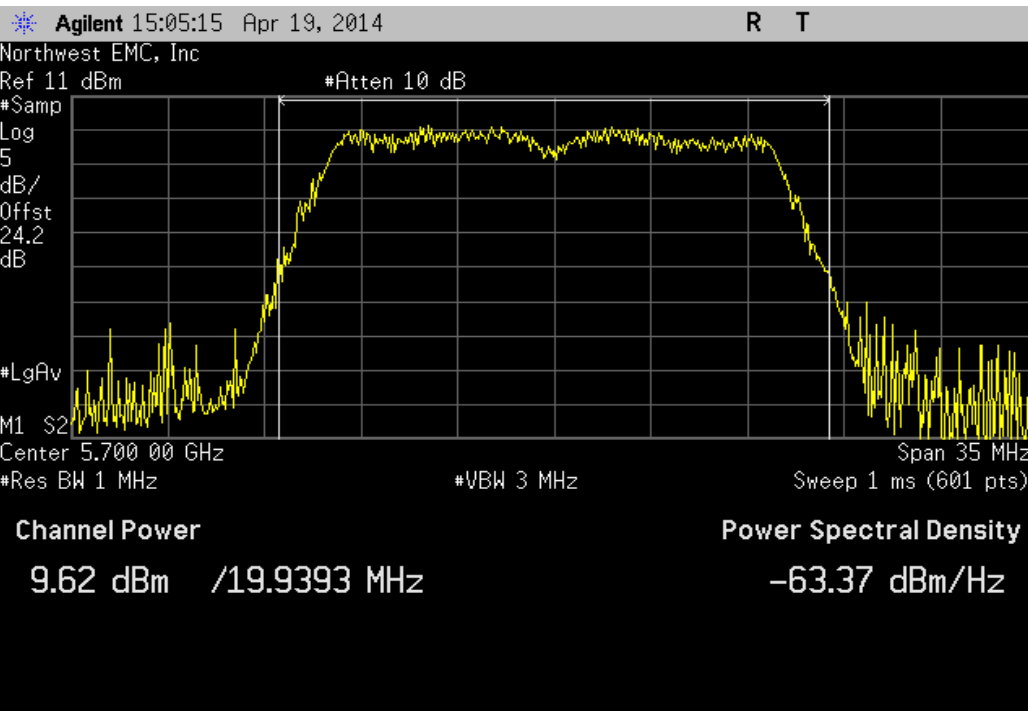
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
10.48 dBm	< 24 dBm	Pass



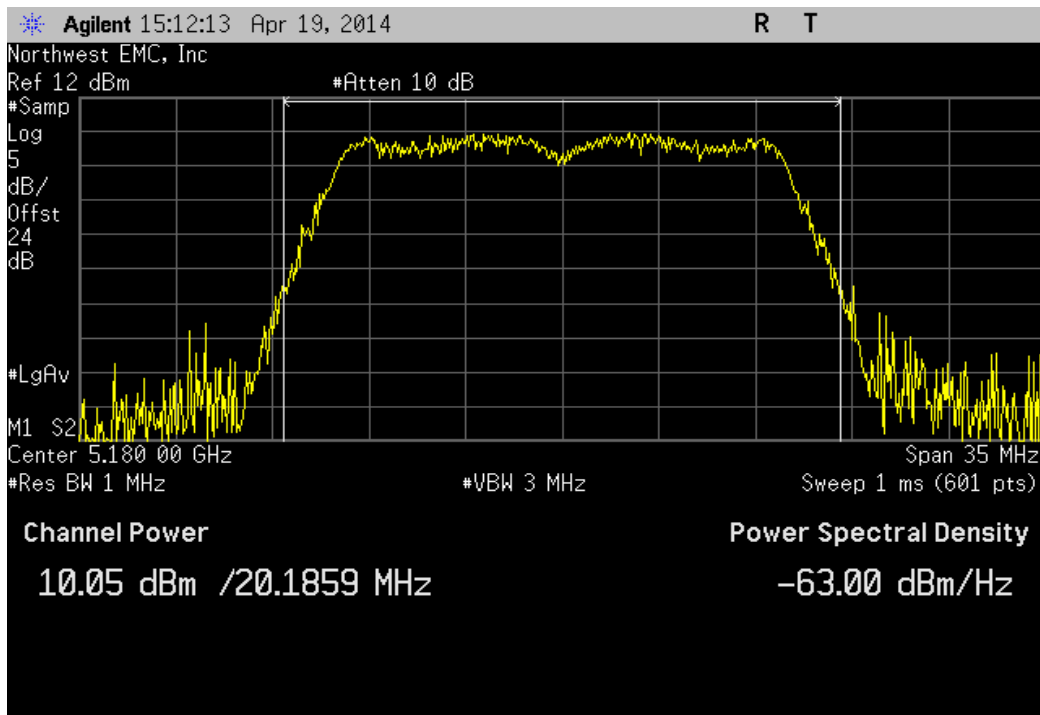
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.623 dBm	< 24 dBm	Pass



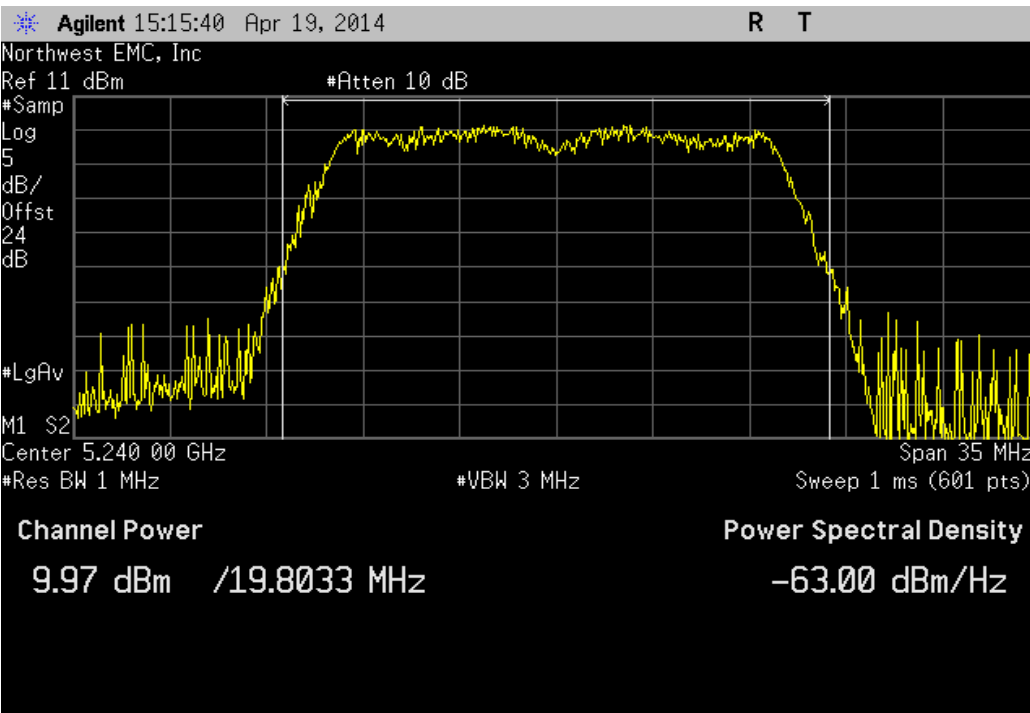
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
10.052 dBm	< 17 dBm	Pass



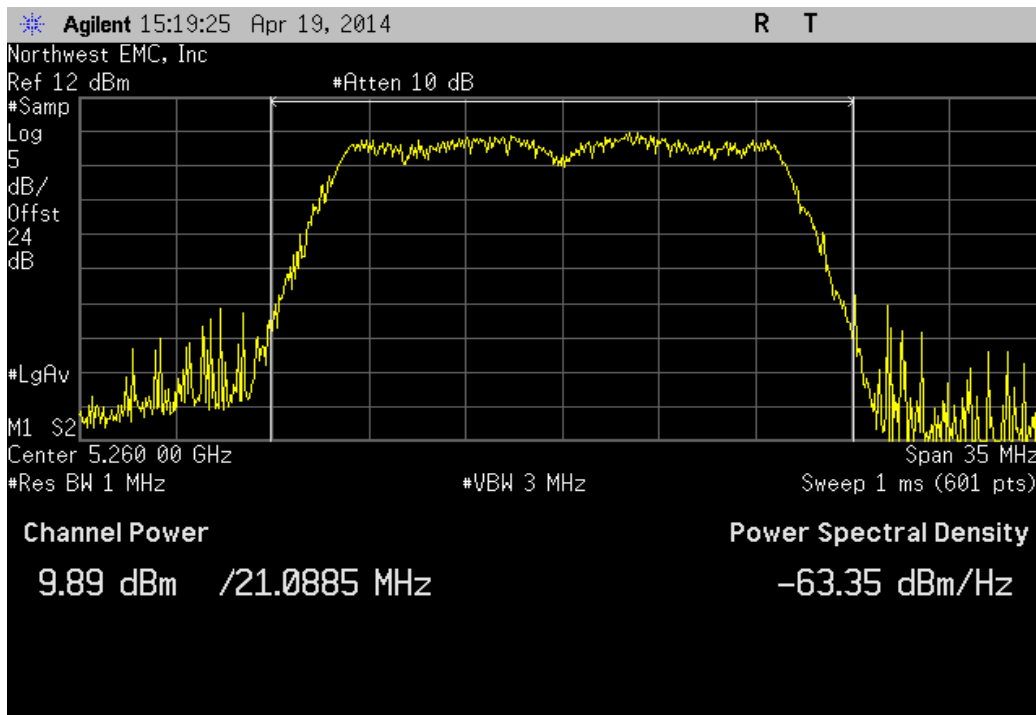
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.971 dBm	< 17 dBm	Pass



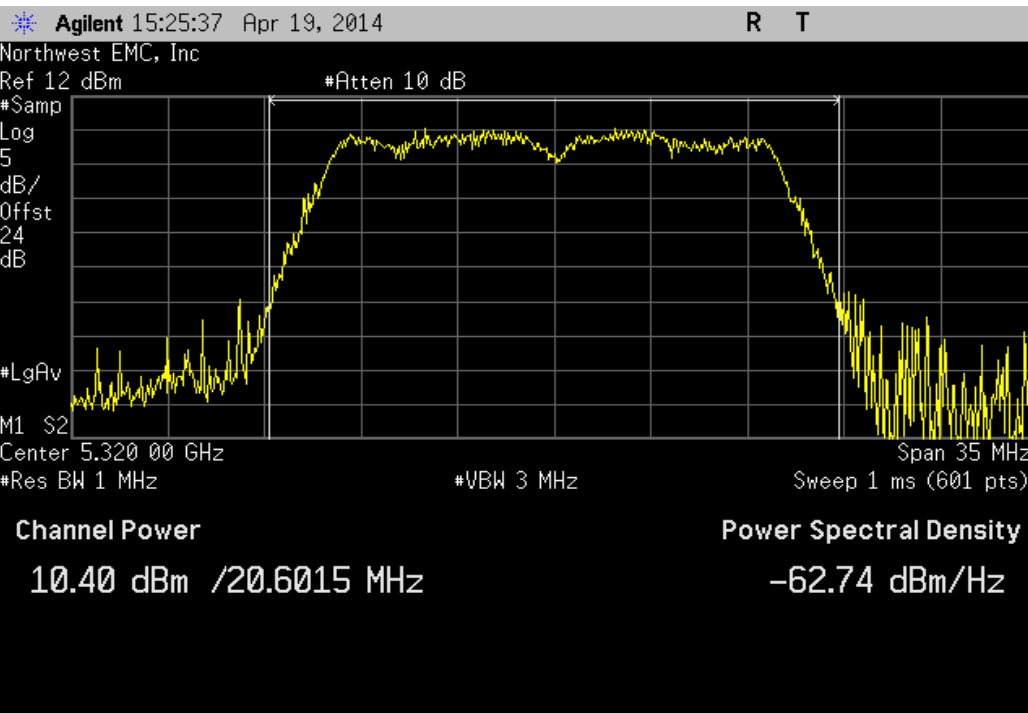
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.892 dBm	< 24 dBm	Pass



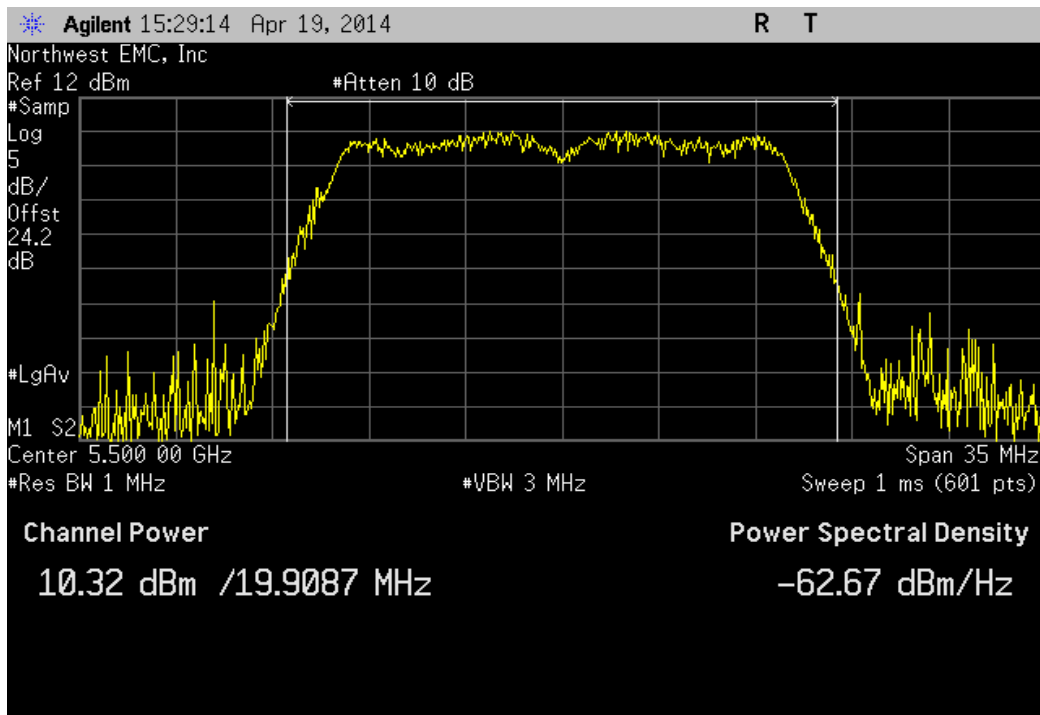
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.401 dBm	< 24 dBm	Pass



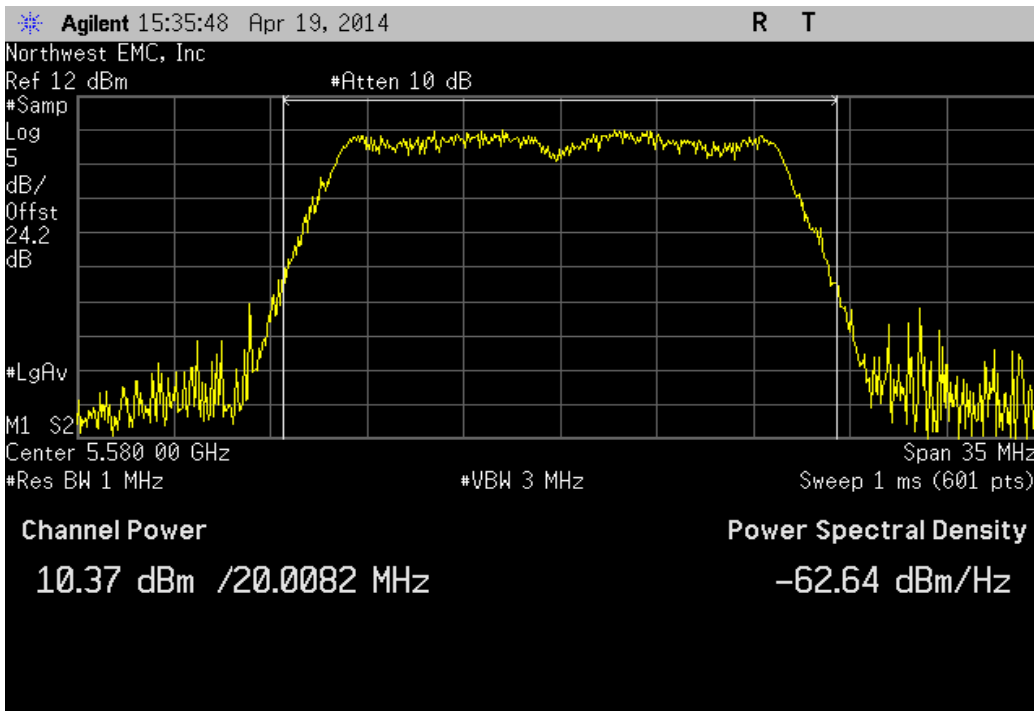
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
10.321 dBm	< 24 dBm	Pass



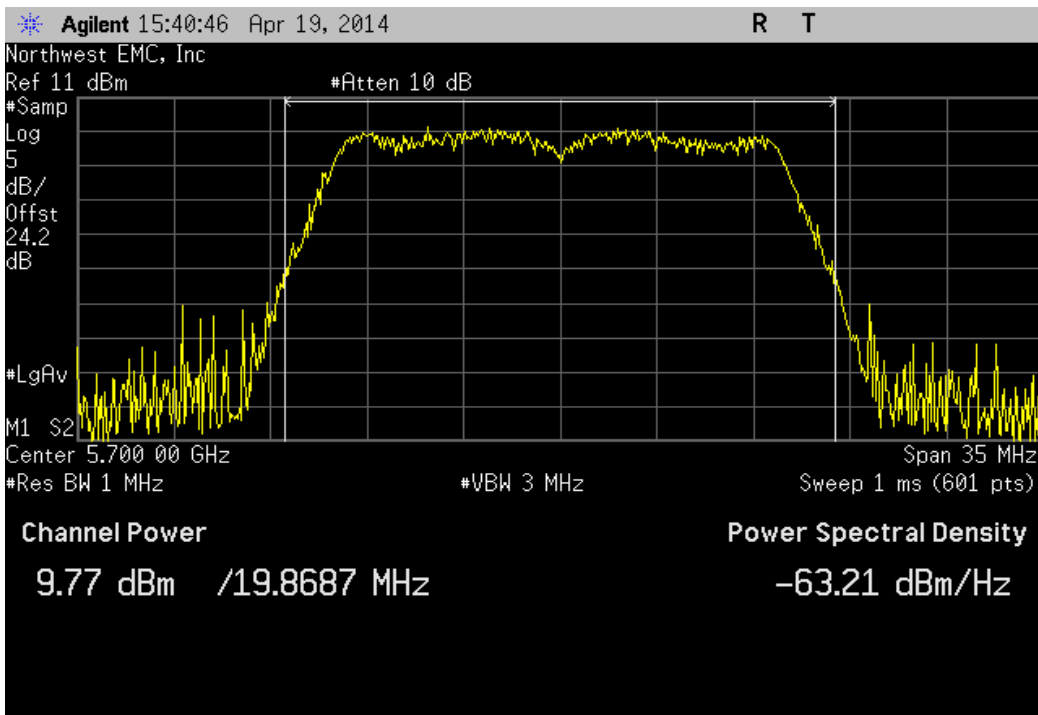
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
10.37 dBm	< 24 dBm	Pass



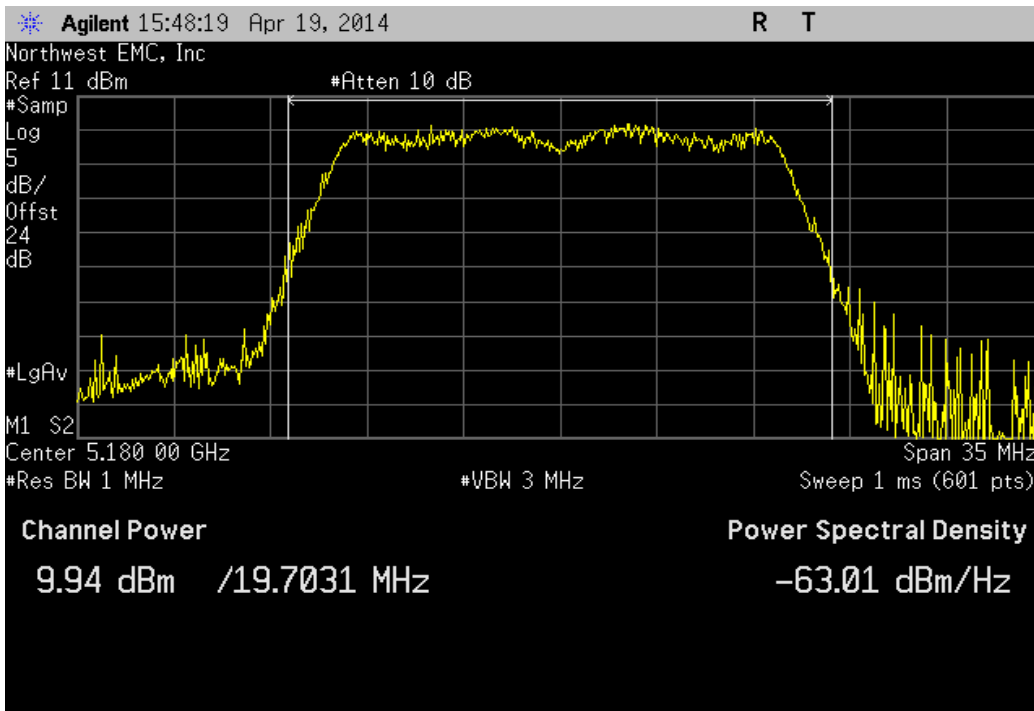
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.767 dBm	< 24 dBm	Pass



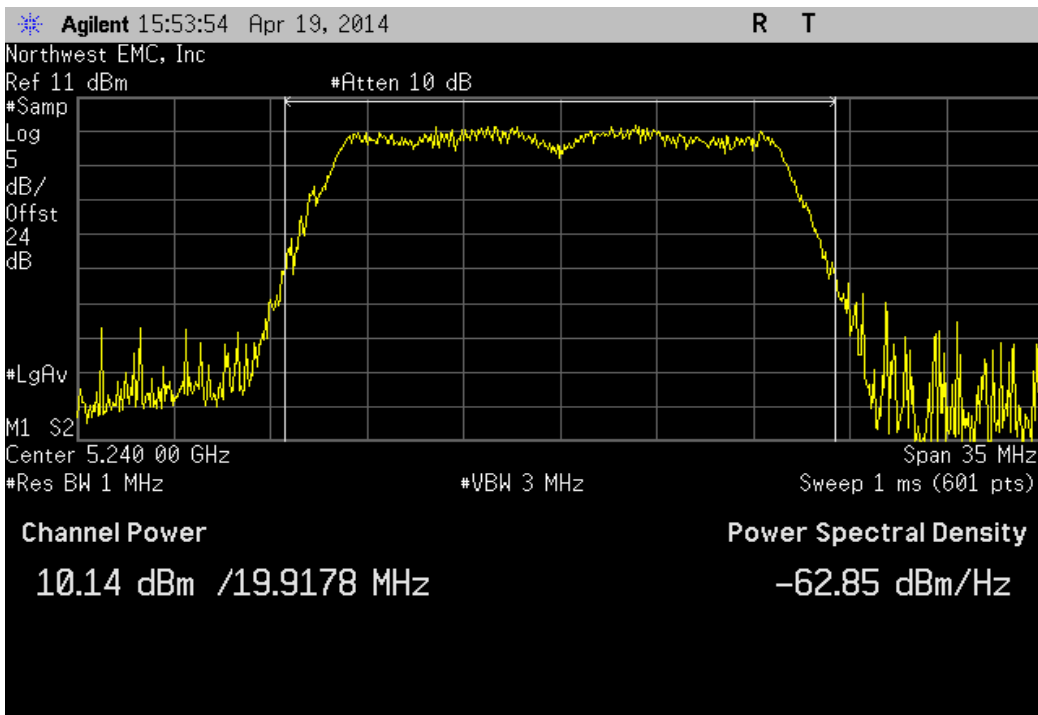
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.935 dBm	< 17 dBm	Pass



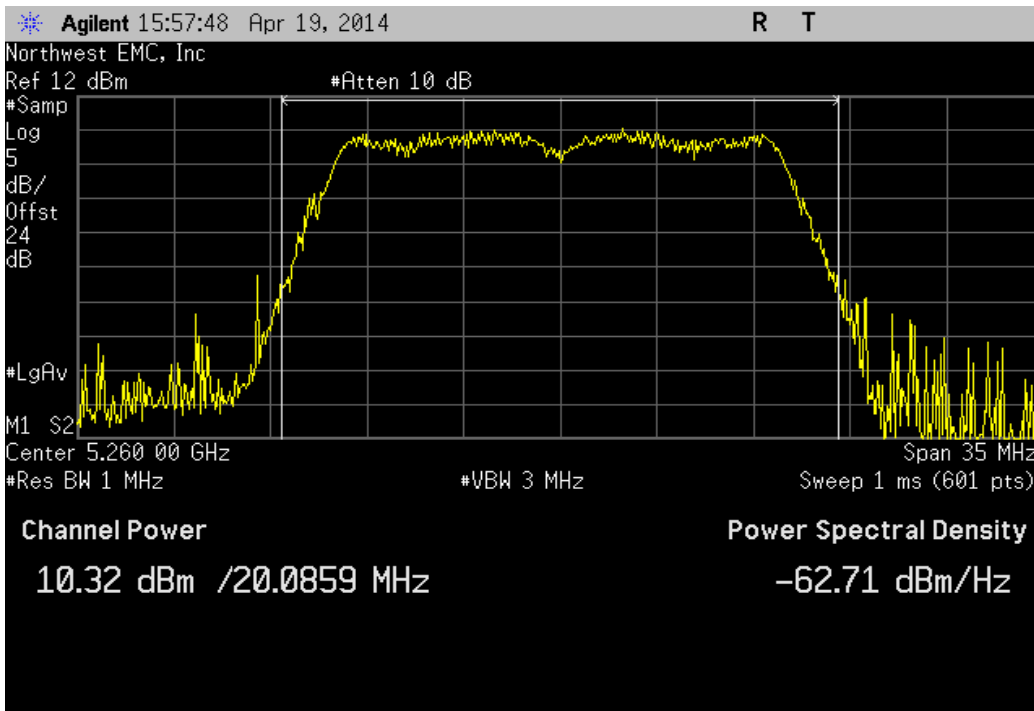
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
10.141 dBm	< 17 dBm	Pass



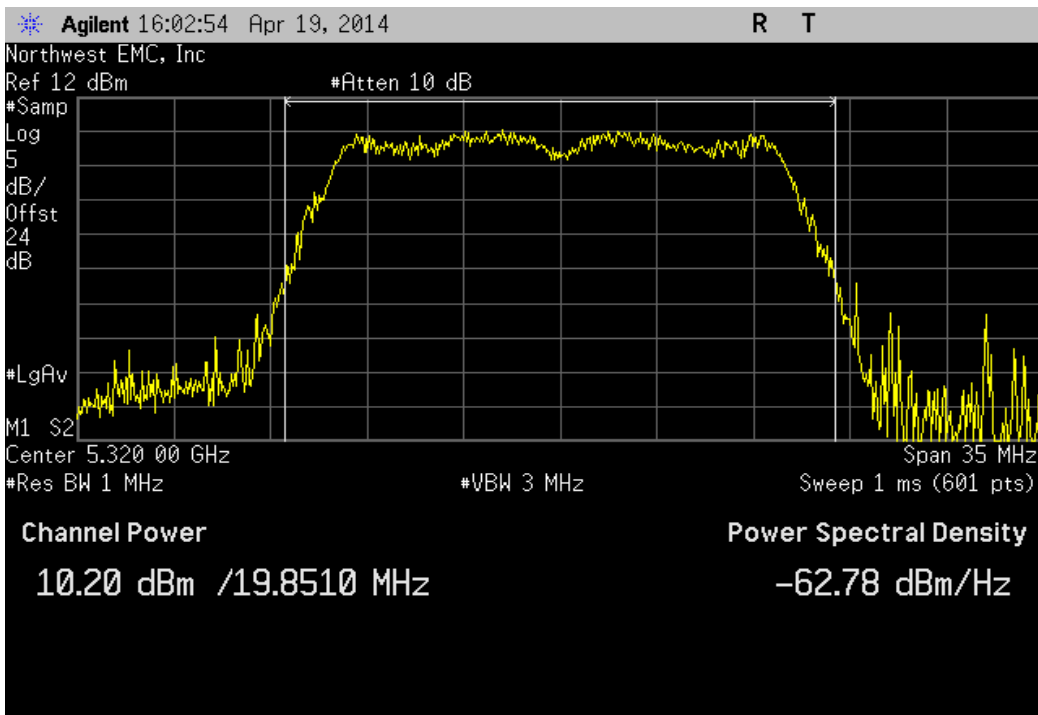
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
10.319 dBm	< 24 dBm	Pass



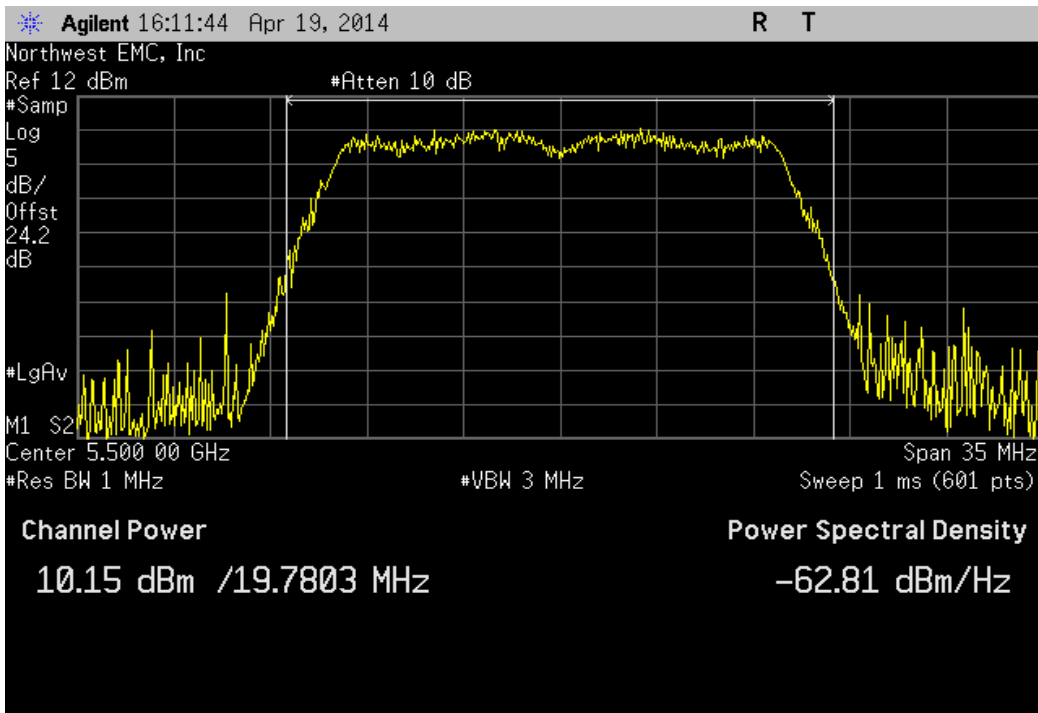
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.197 dBm	< 24 dBm	Pass



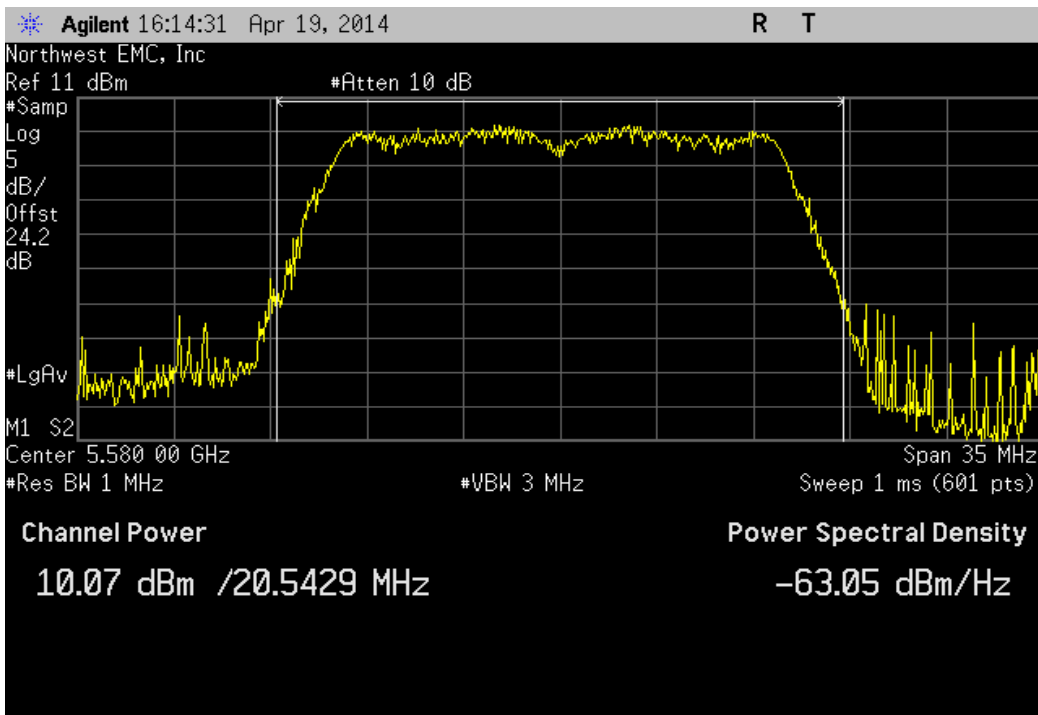
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
10.152 dBm	< 24 dBm	Pass



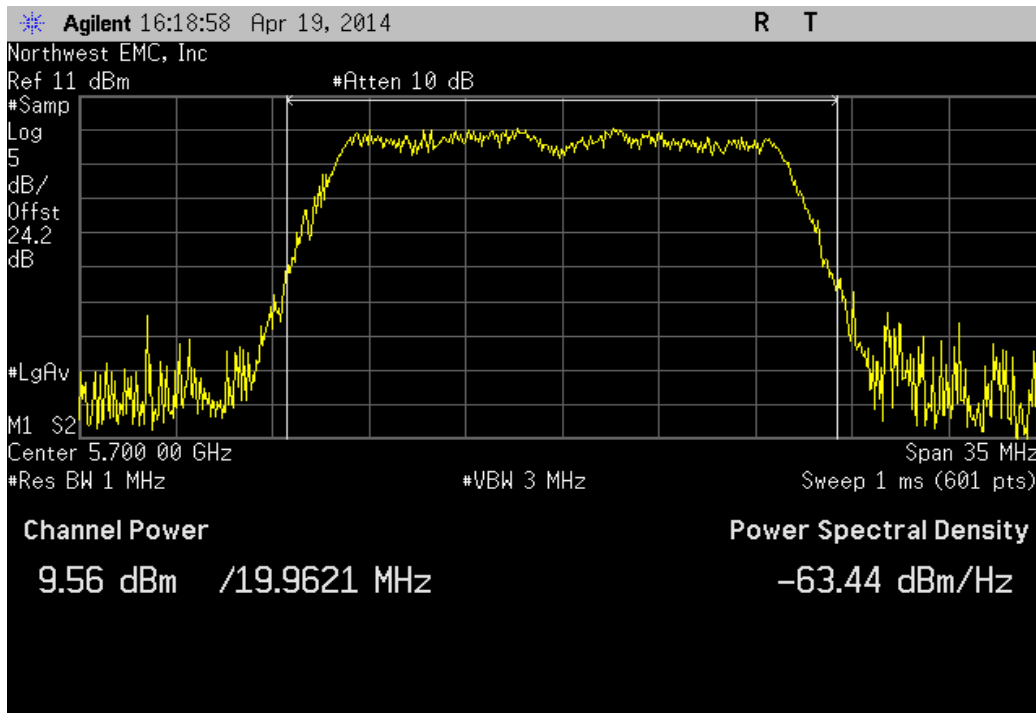
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
10.072 dBm	< 24 dBm	Pass



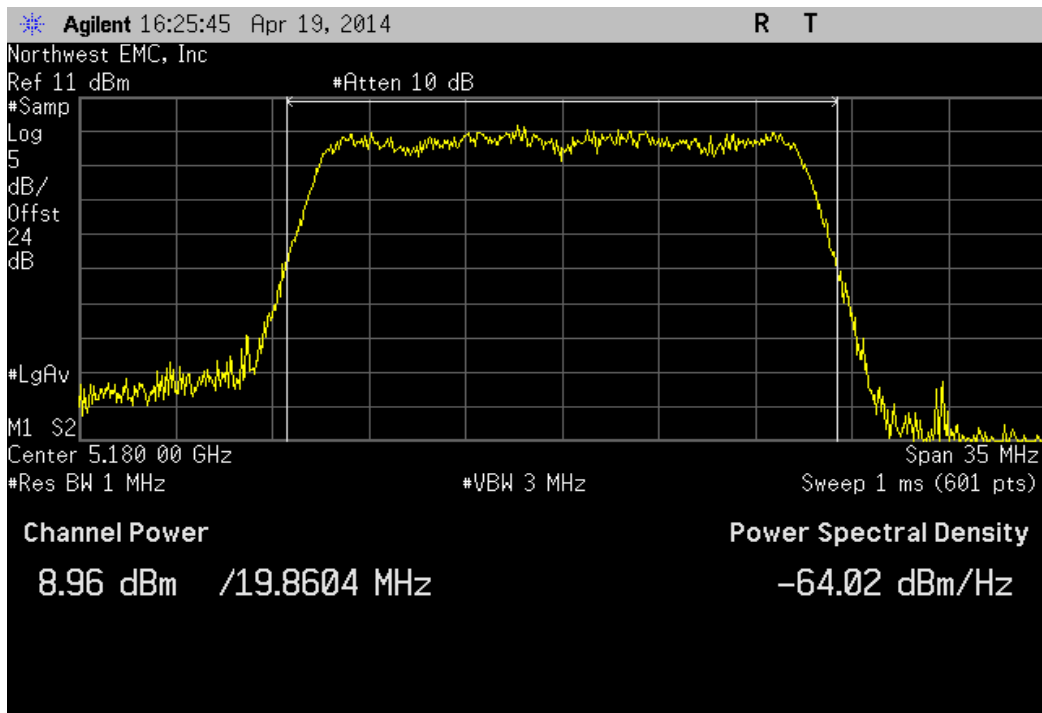
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.564 dBm	< 24 dBm	Pass



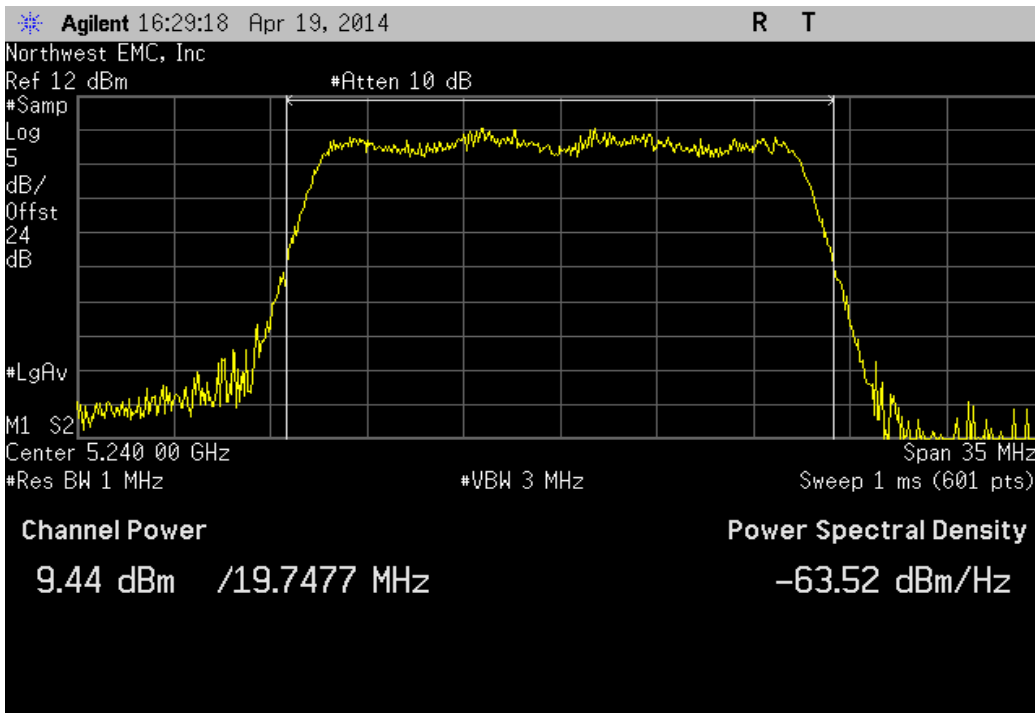
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
8.96 dBm	< 17 dBm	Pass



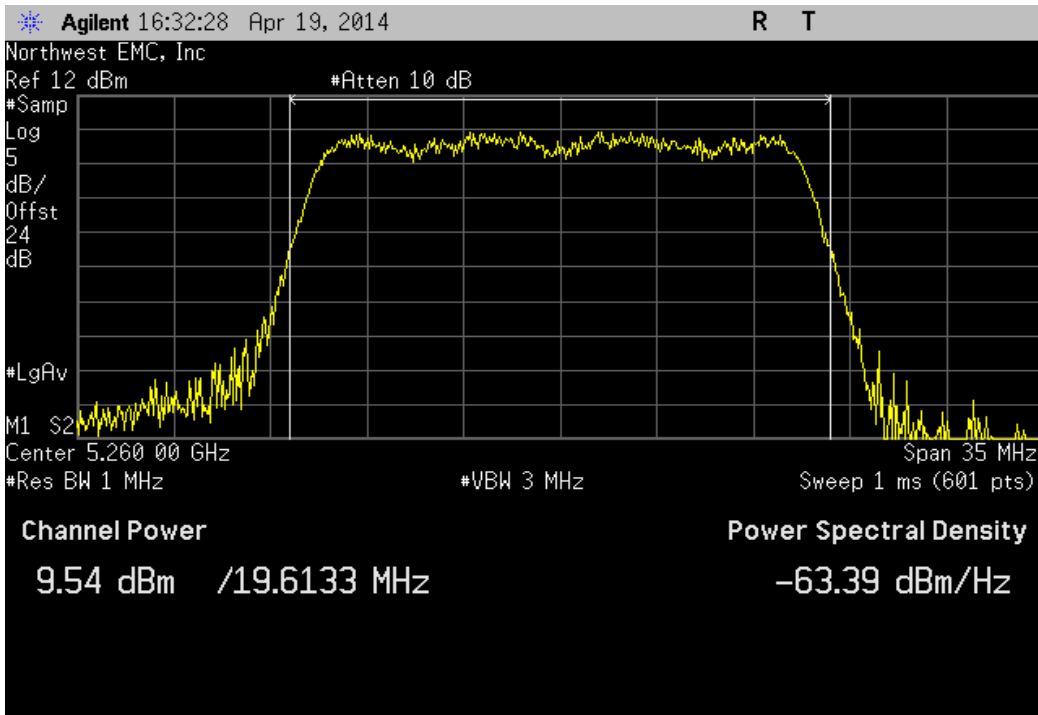
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.439 dBm	< 17 dBm	Pass



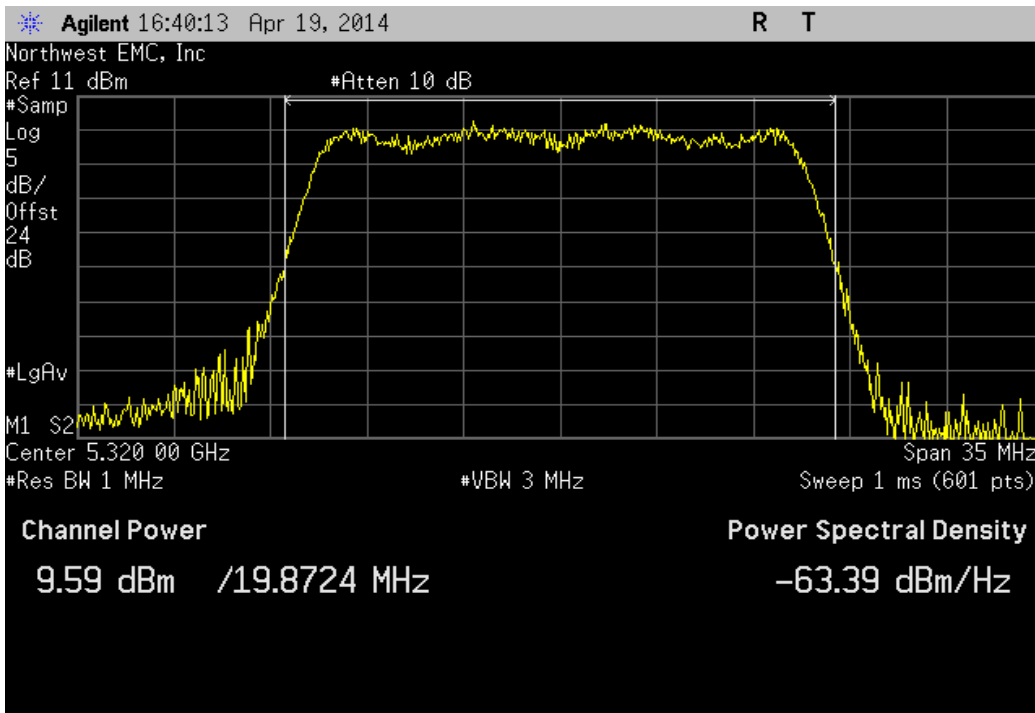
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.537 dBm	< 24 dBm	Pass



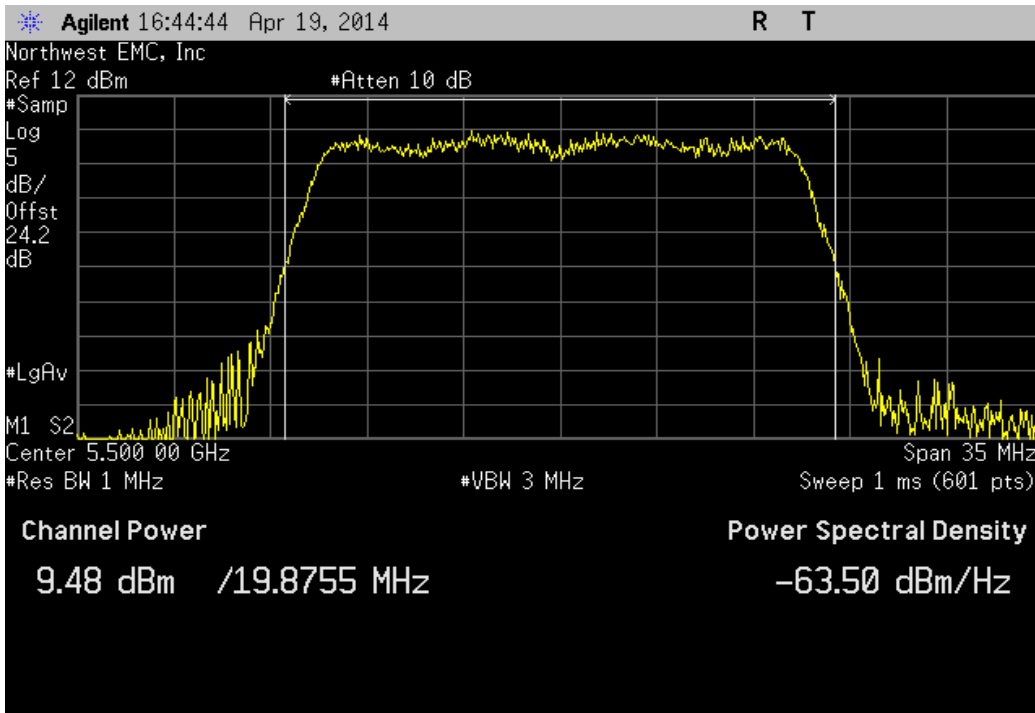
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
9.59 dBm	< 24 dBm	Pass



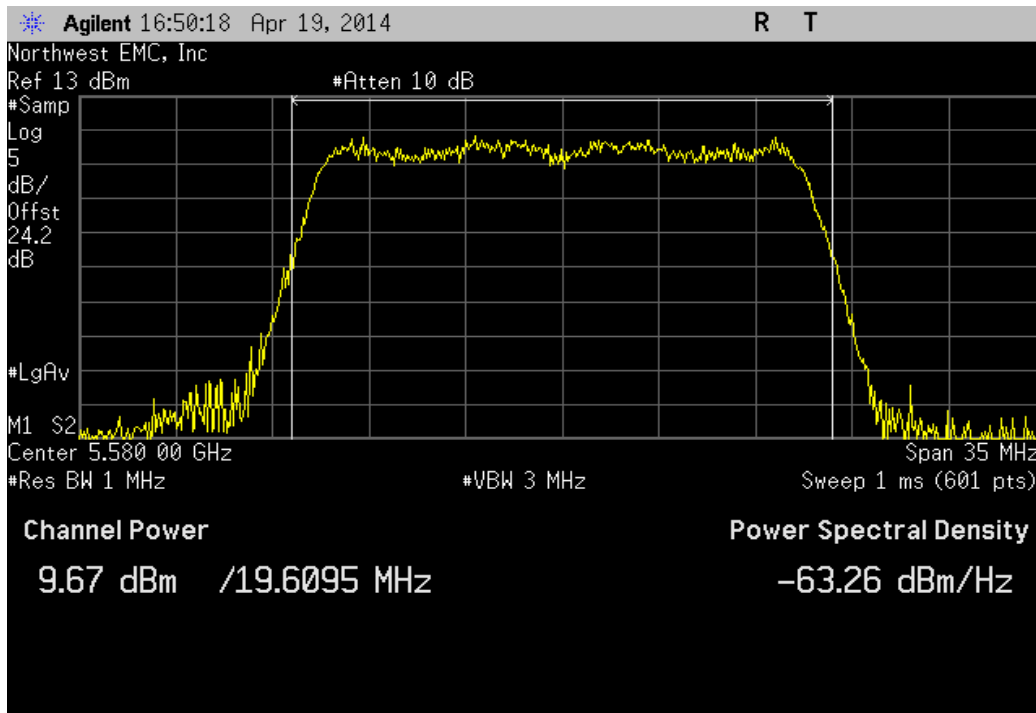
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.479 dBm	< 24 dBm	Pass



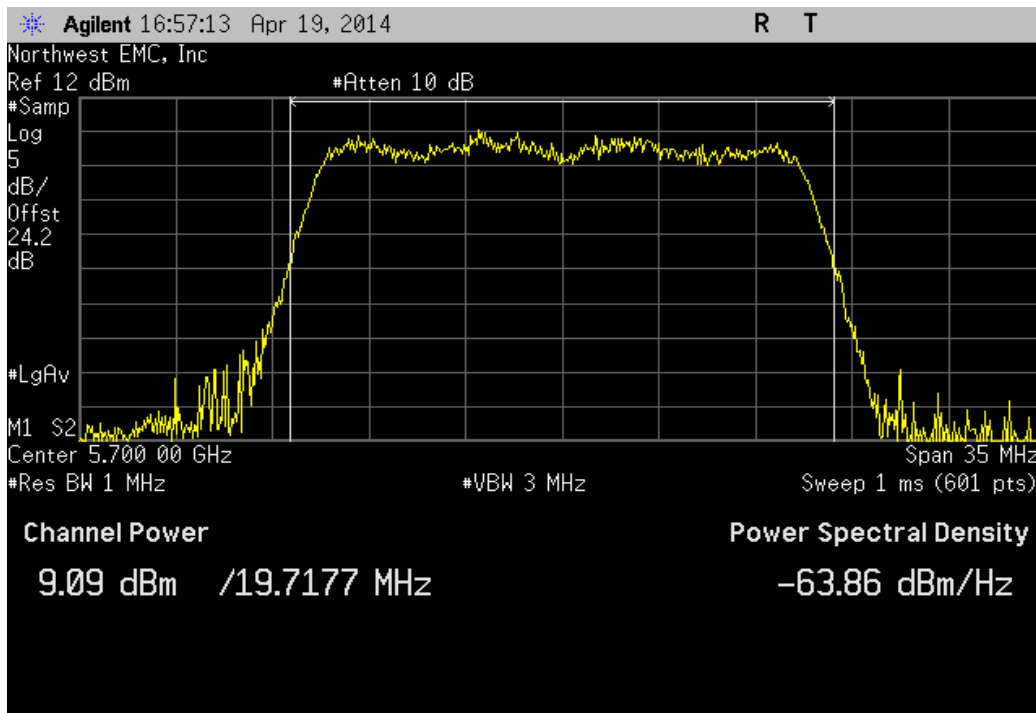
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
9.666 dBm	< 24 dBm	Pass



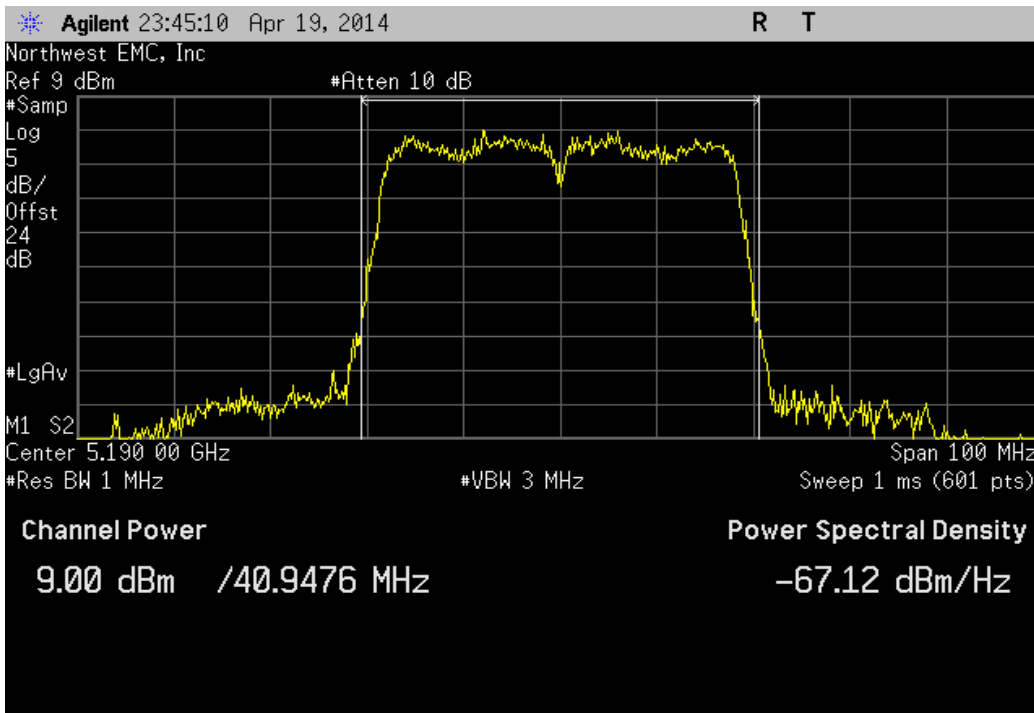
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.088 dBm	< 24 dBm	Pass



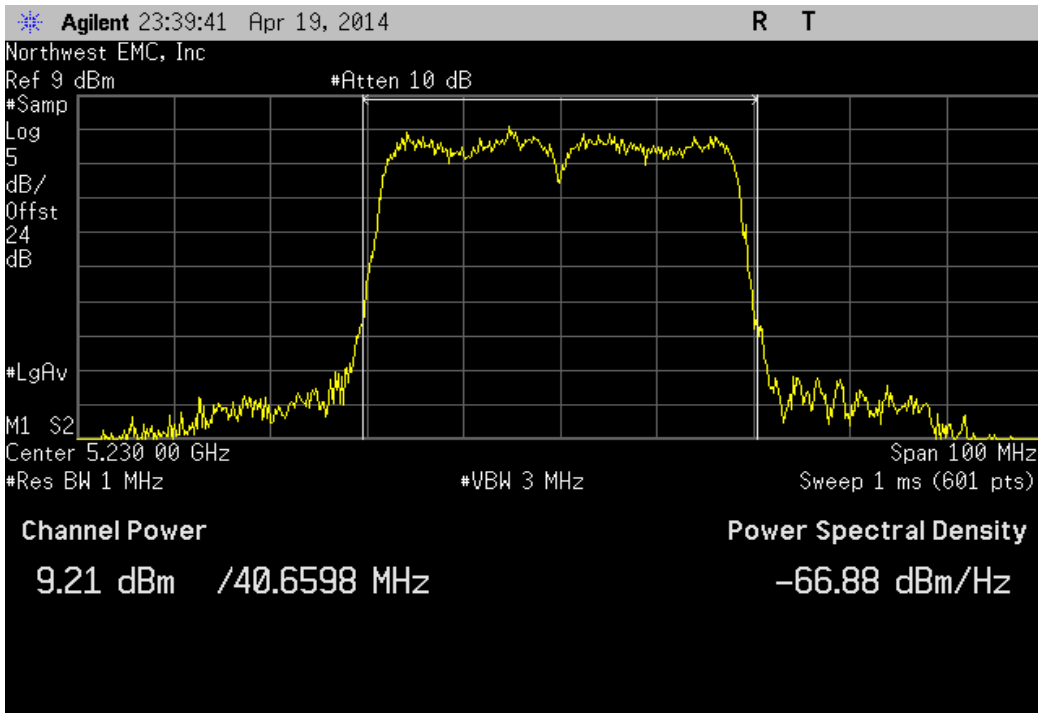
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
8.999 dBm	< 17 dBm	Pass



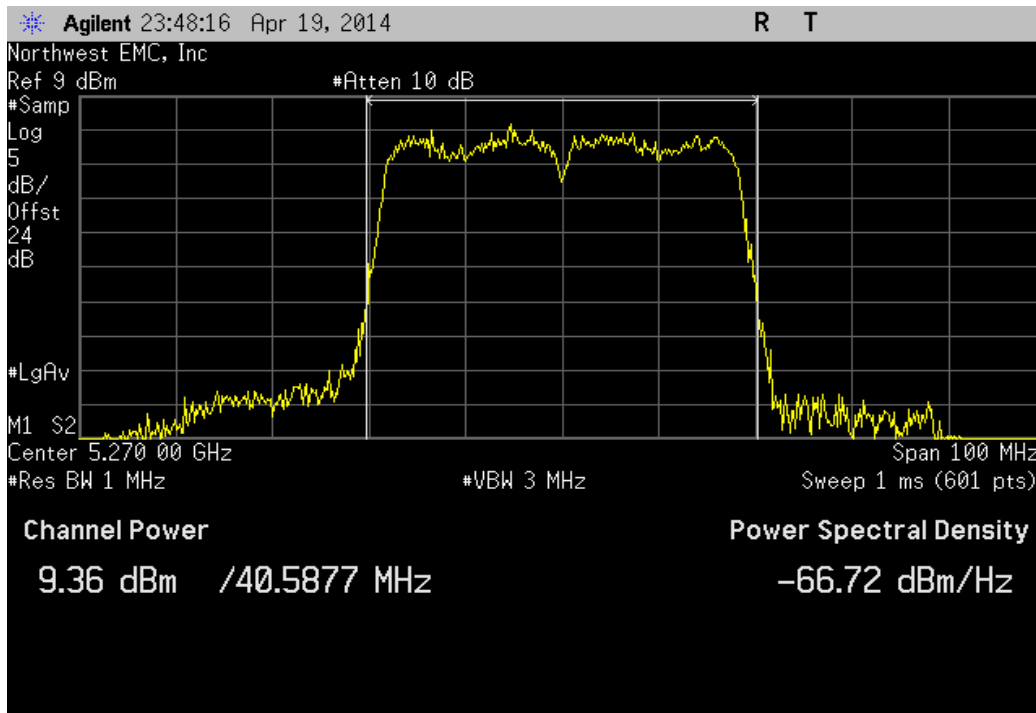
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
9.212 dBm	< 17 dBm	Pass



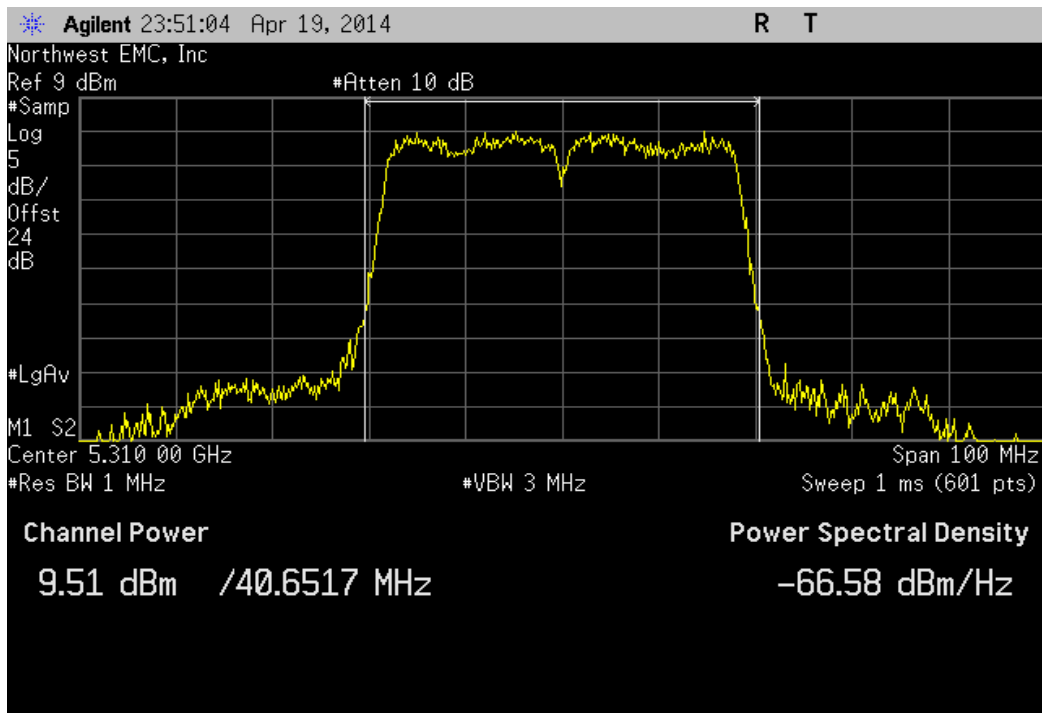
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
9.363 dBm	< 24 dBm	Pass



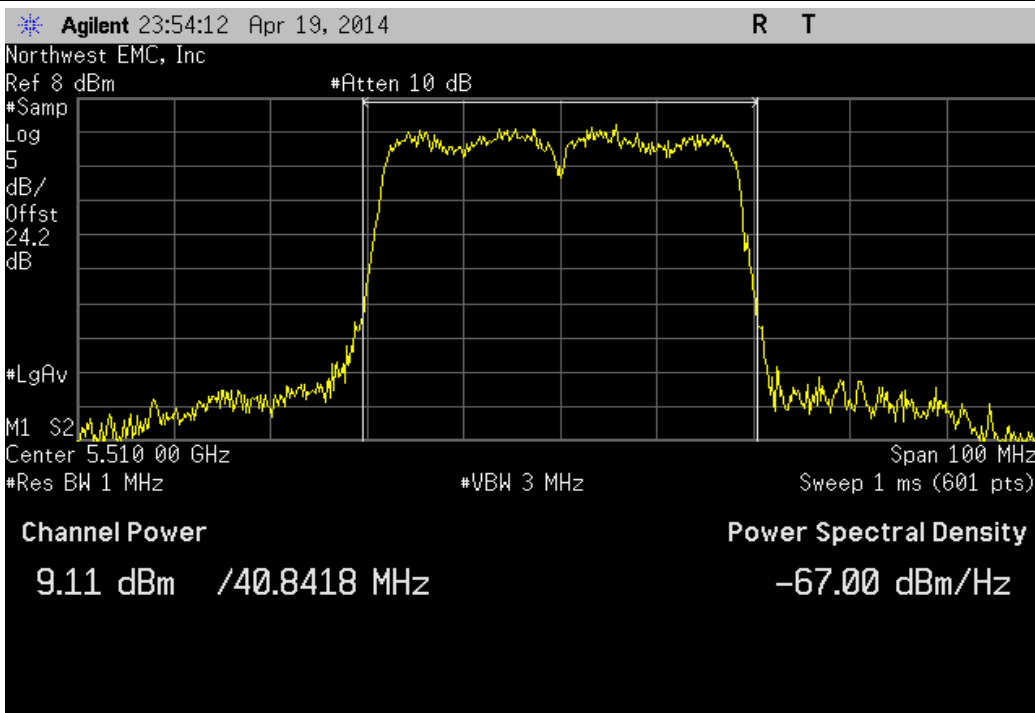
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
9.51 dBm	< 24 dBm	Pass



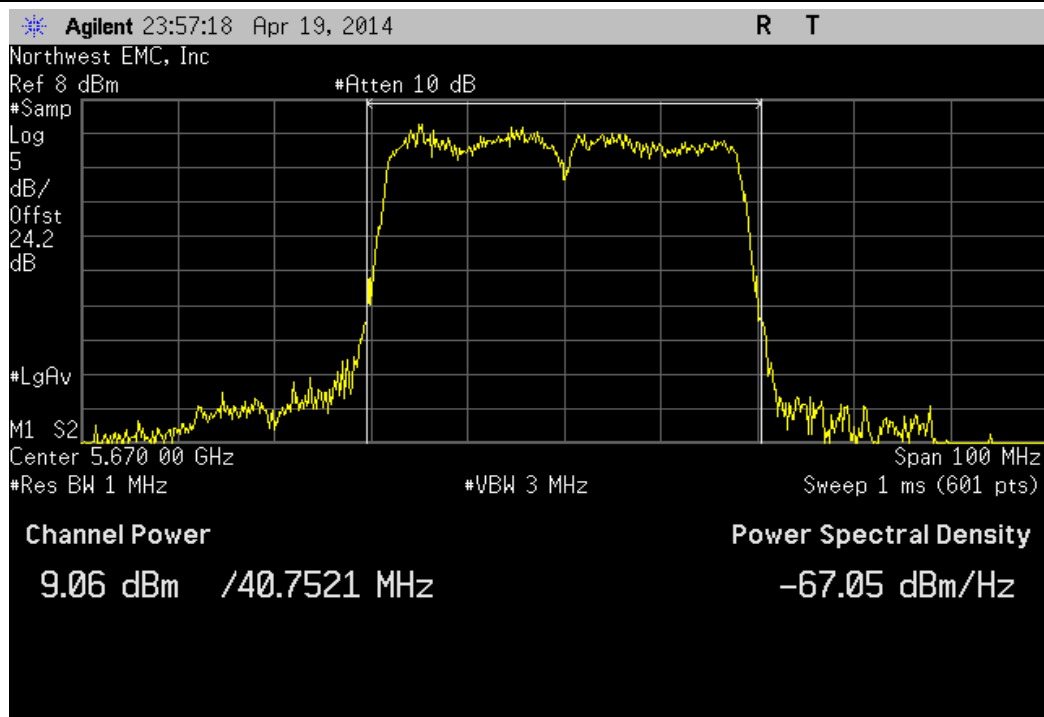
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
9.11 dBm	< 24 dBm	Pass



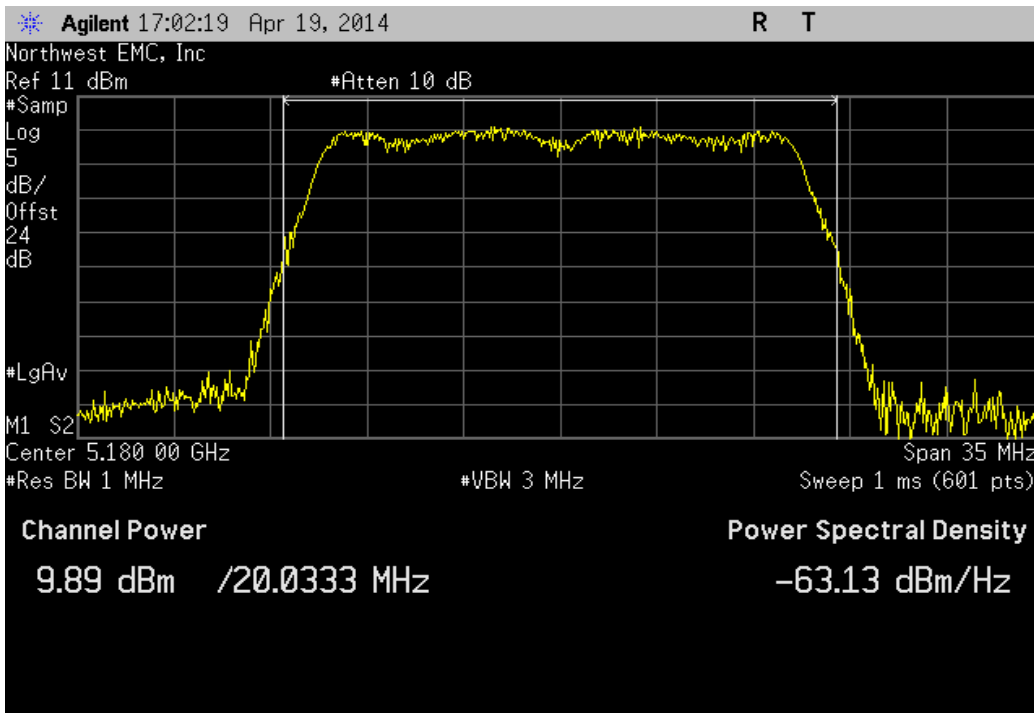
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
9.056 dBm	< 24 dBm	Pass



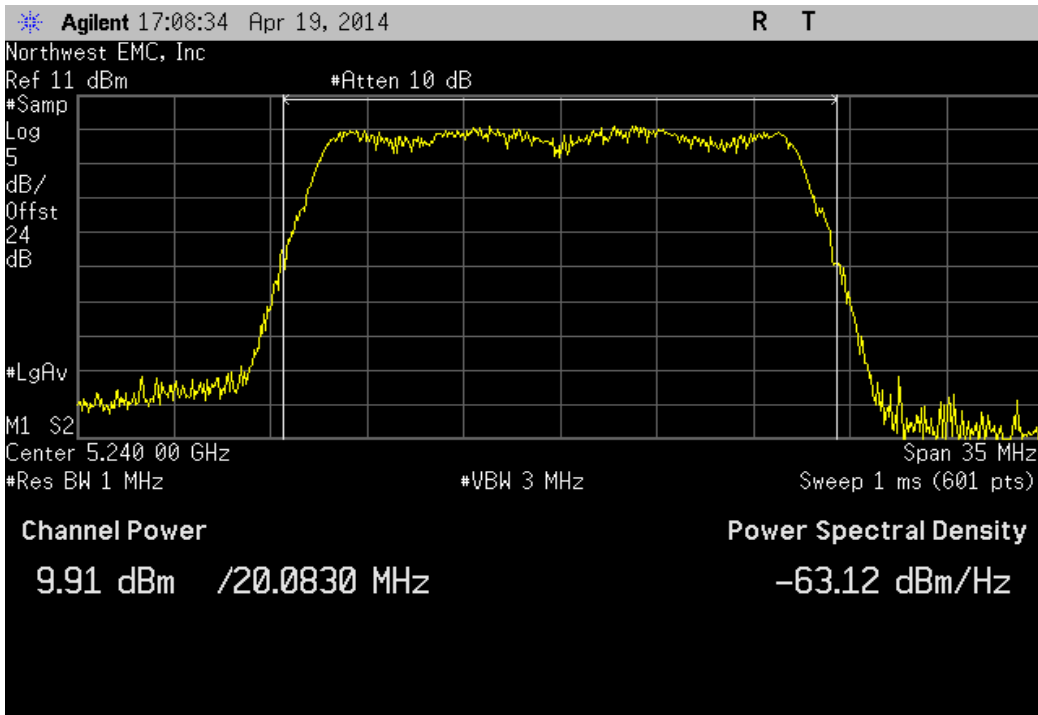
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.889 dBm	< 17 dBm	Pass



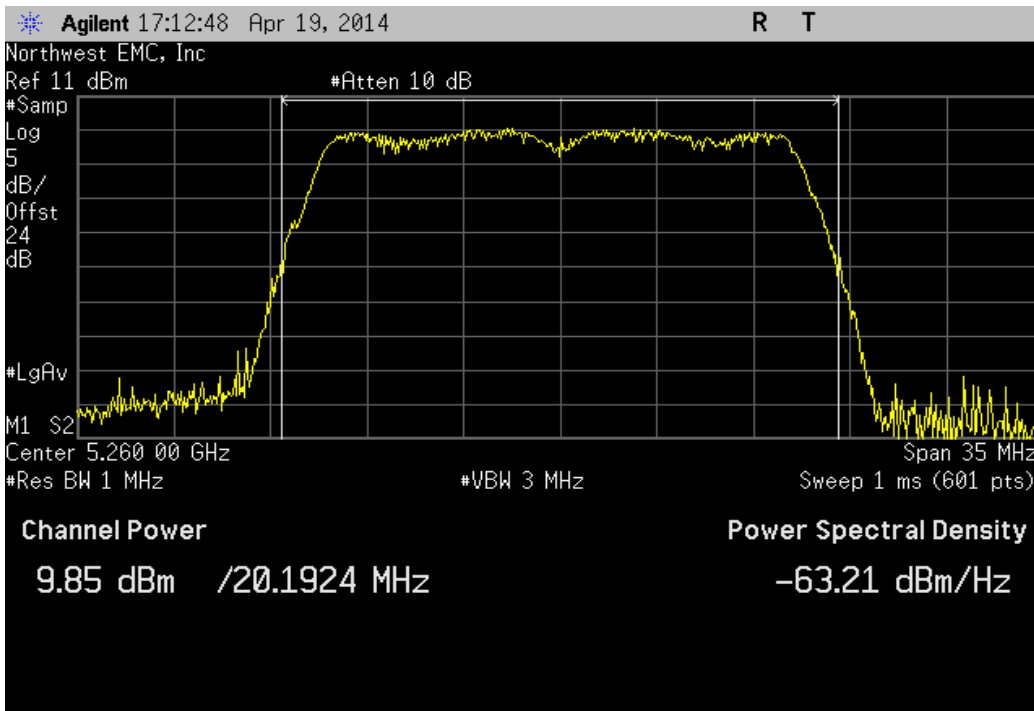
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.913 dBm	< 17 dBm	Pass



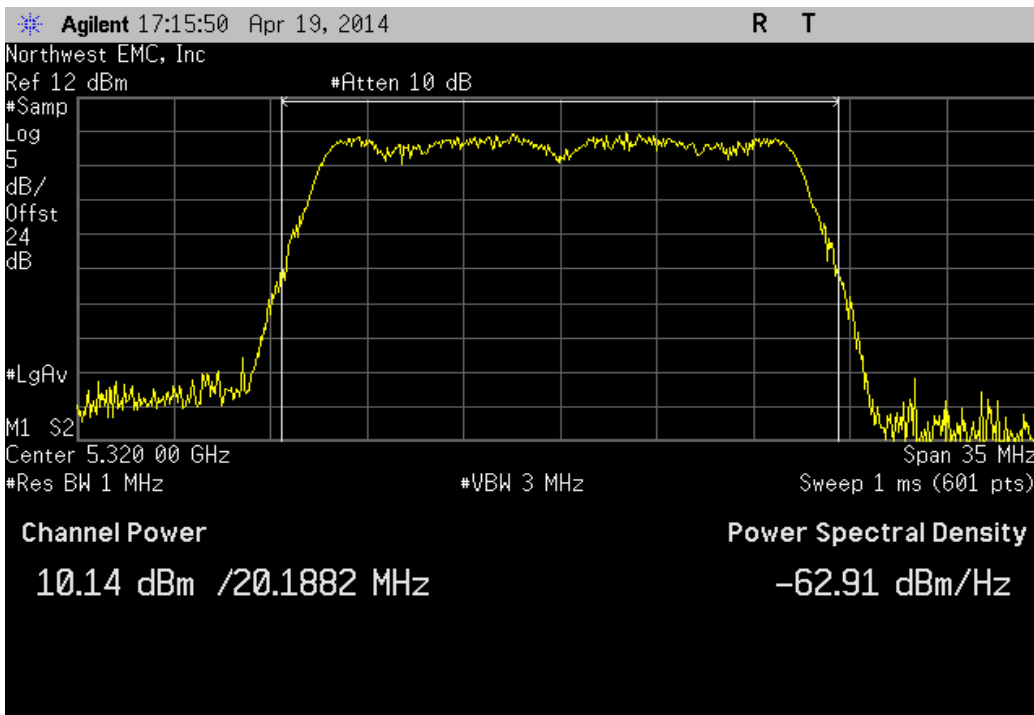
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.845 dBm	< 24 dBm	Pass



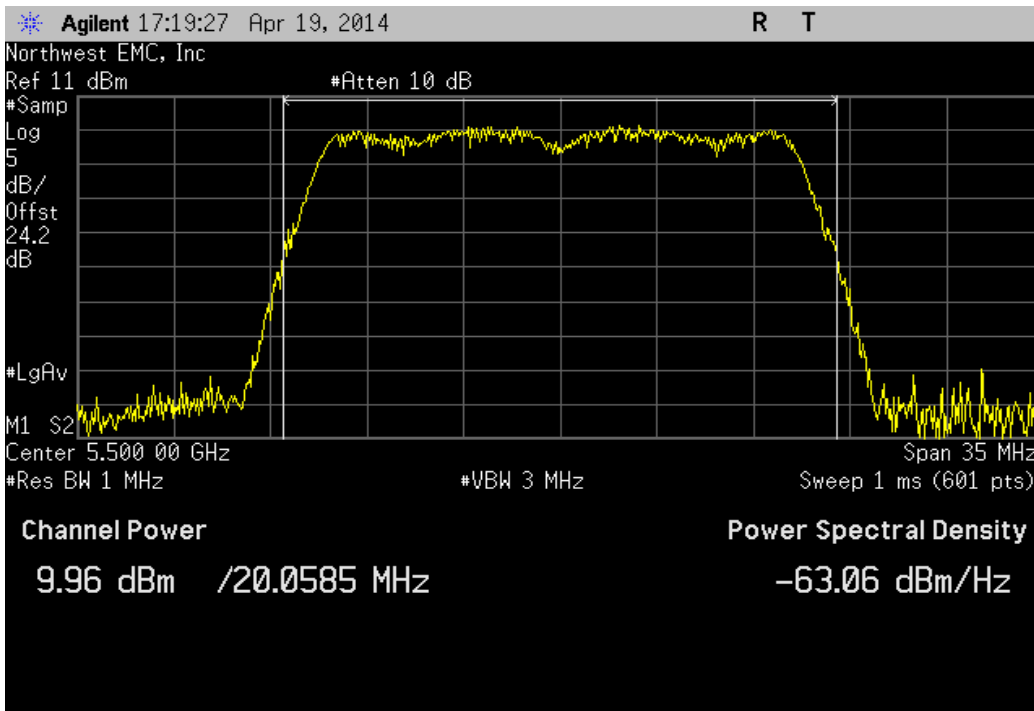
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.14 dBm	< 24 dBm	Pass



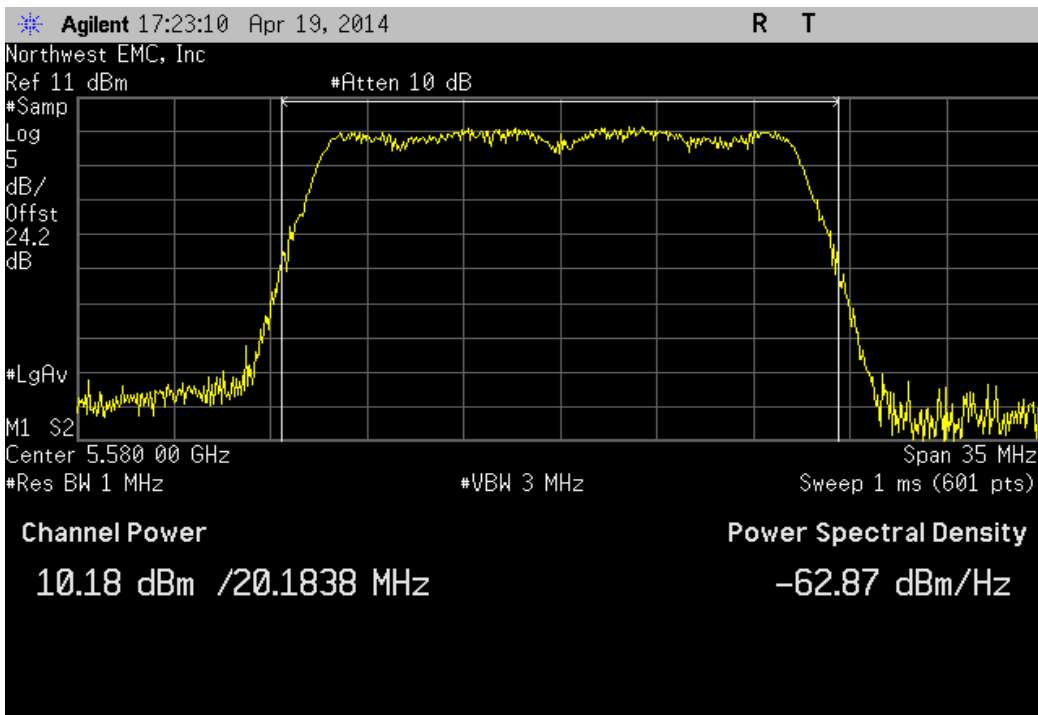
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.958 dBm	< 24 dBm	Pass



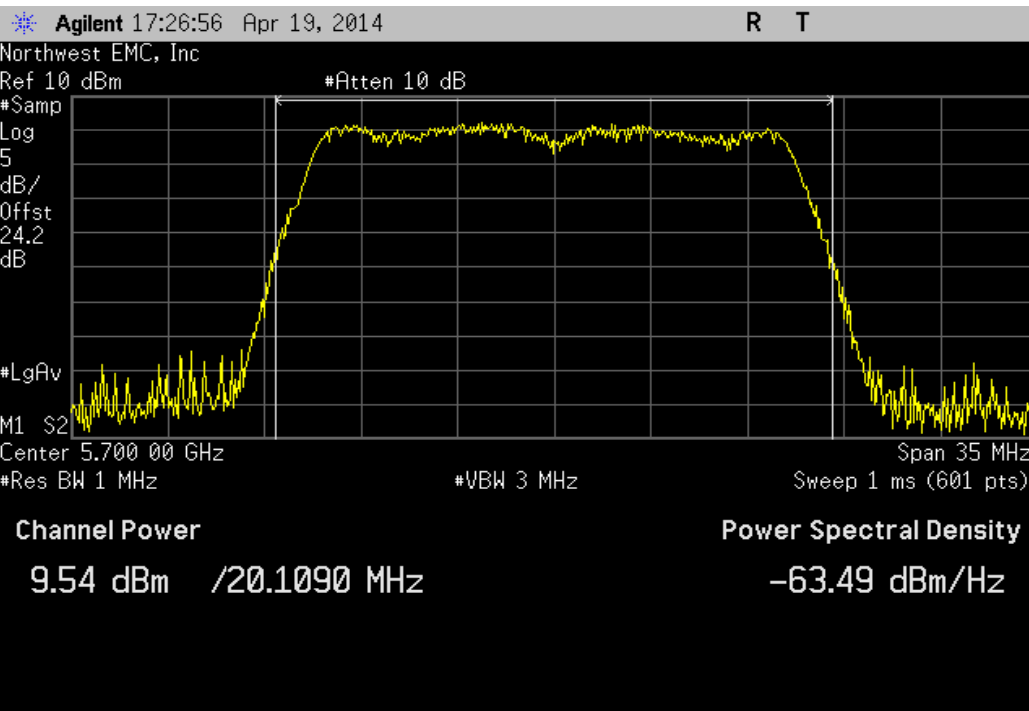
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
10.177 dBm	< 24 dBm	Pass



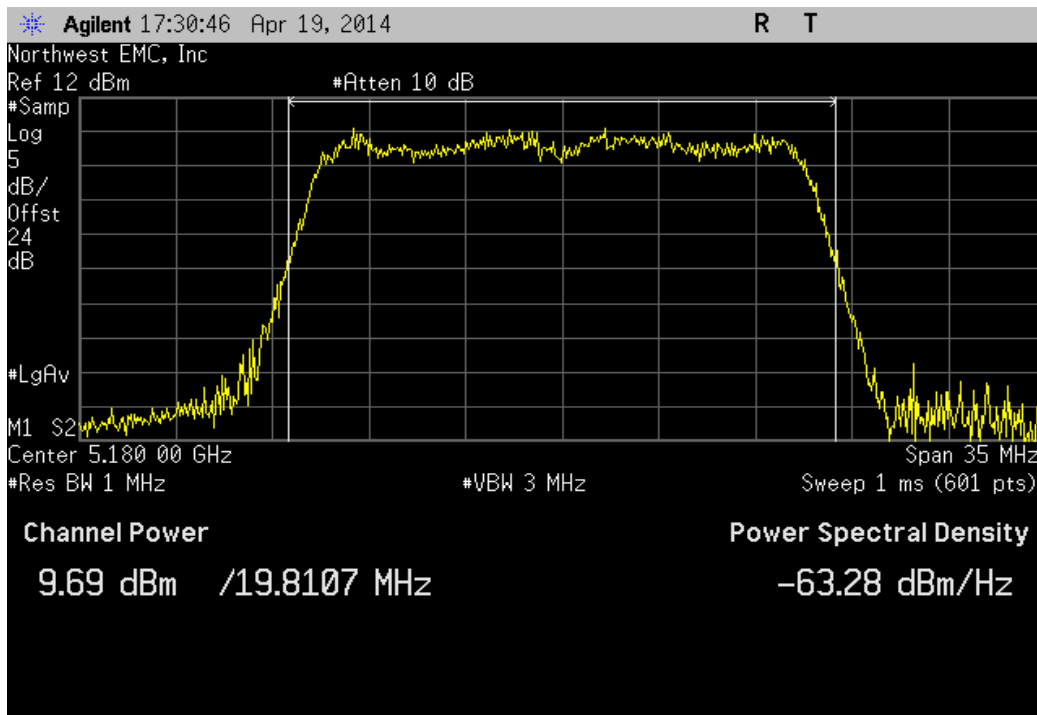
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.541 dBm	< 24 dBm	Pass



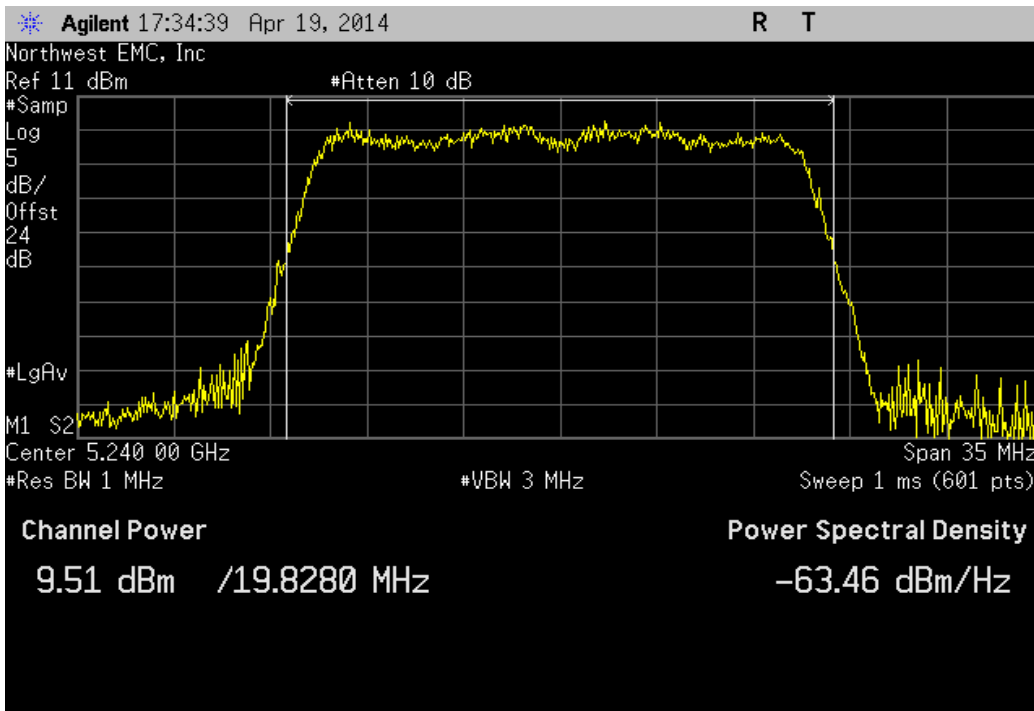
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.686 dBm	< 17 dBm	Pass



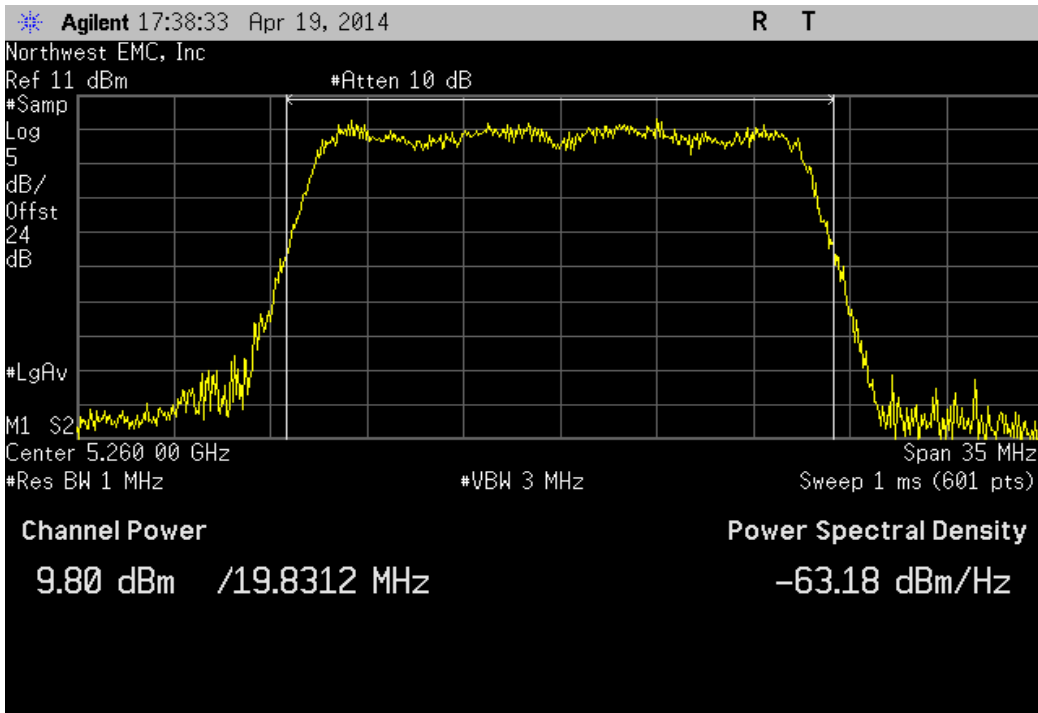
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.514 dBm	< 17 dBm	Pass



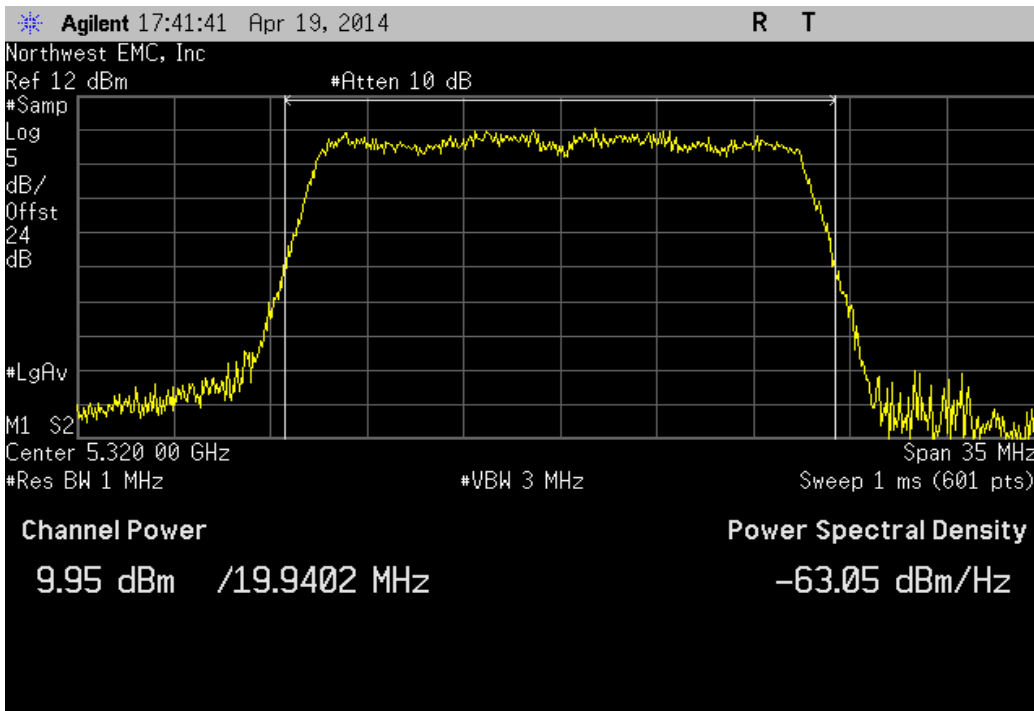
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.798 dBm	< 24 dBm	Pass



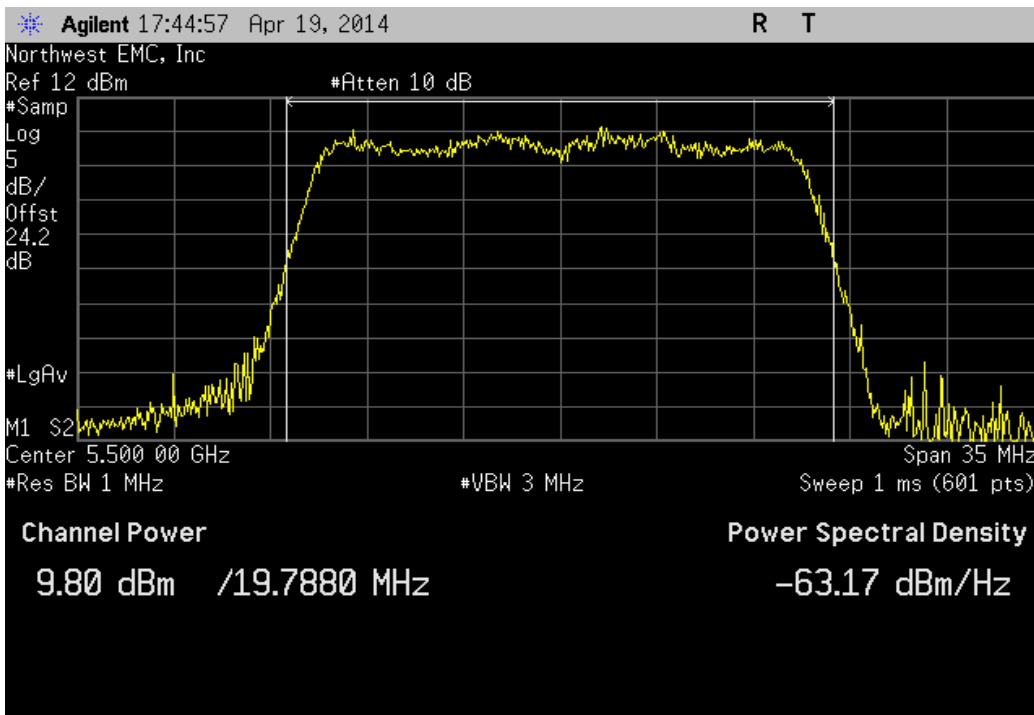
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
9.951 dBm	< 24 dBm	Pass



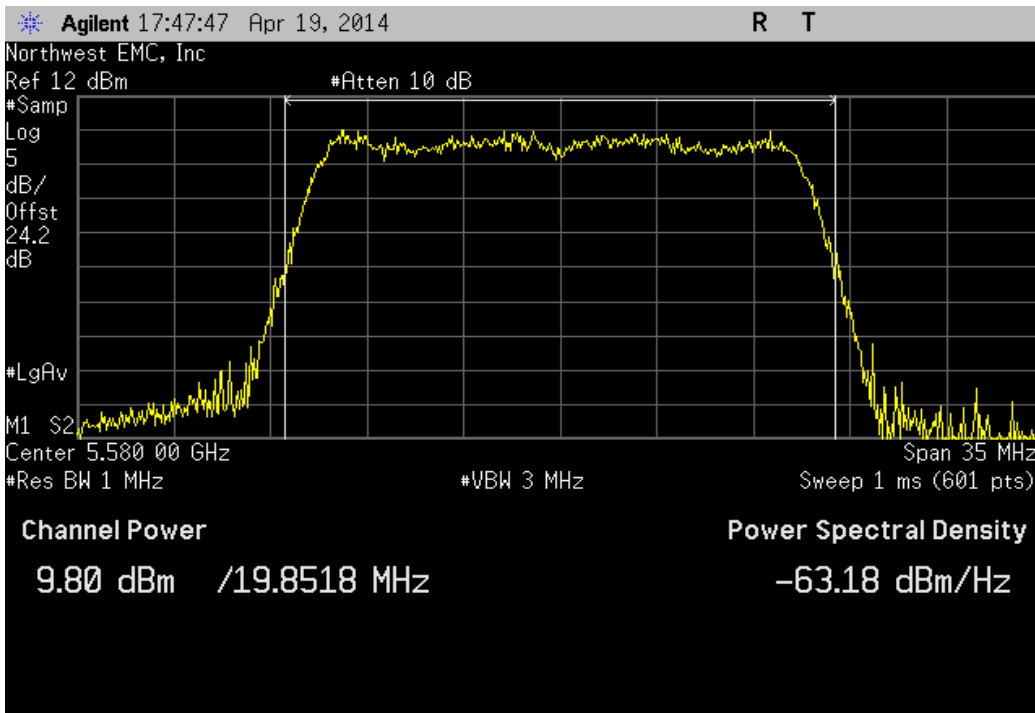
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.796 dBm	< 24 dBm	Pass



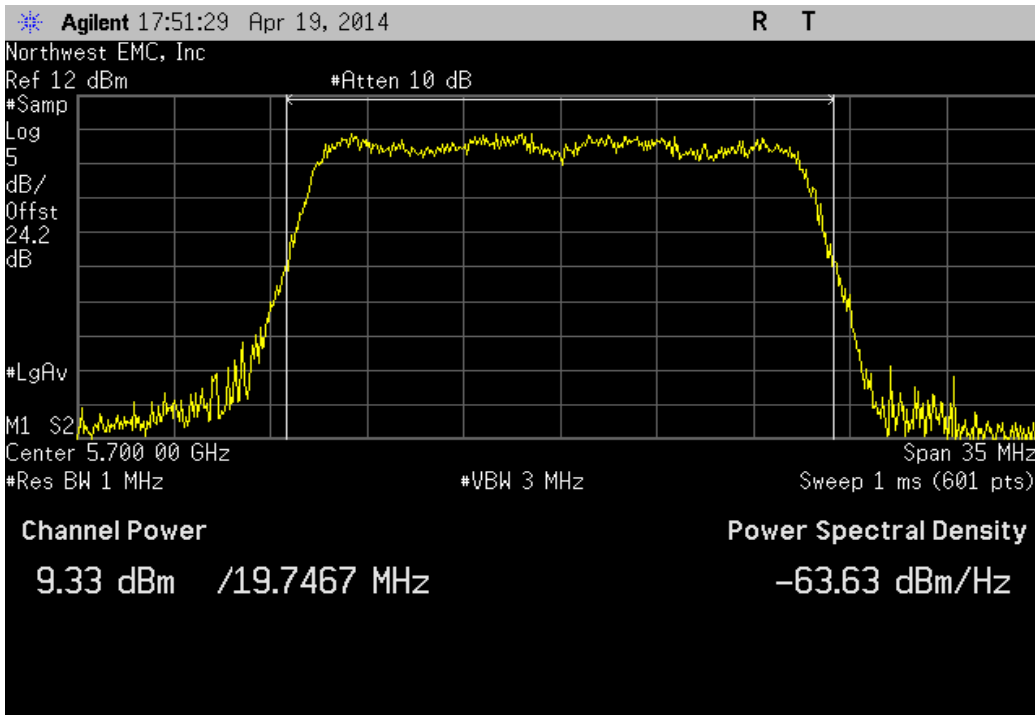
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
9.801 dBm	< 24 dBm	Pass



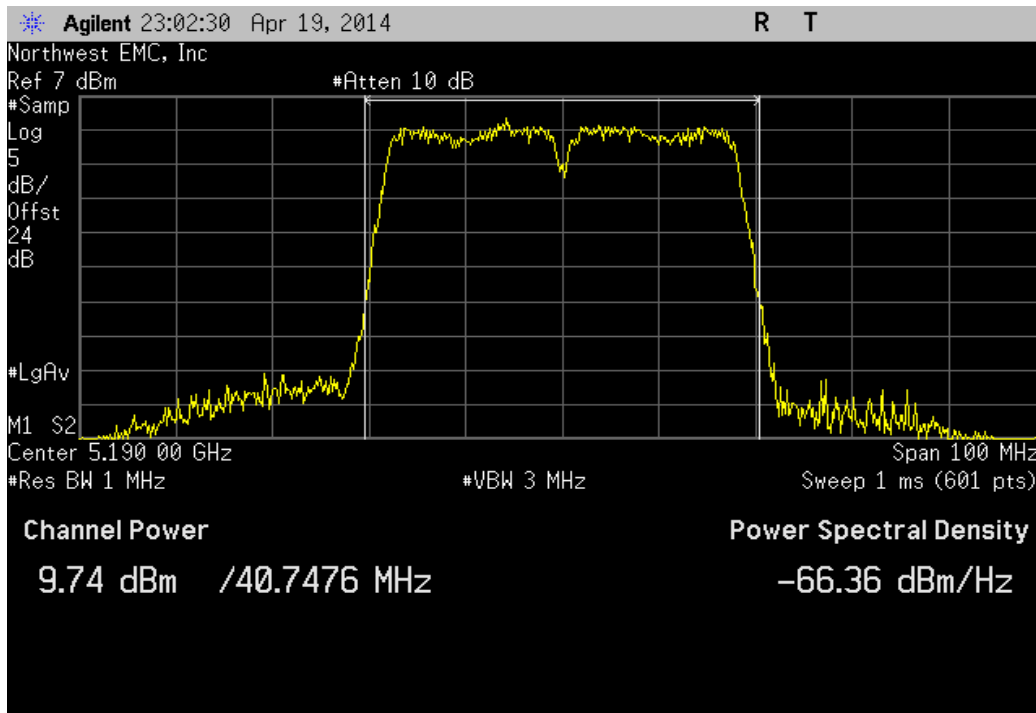
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.326 dBm	< 24 dBm	Pass



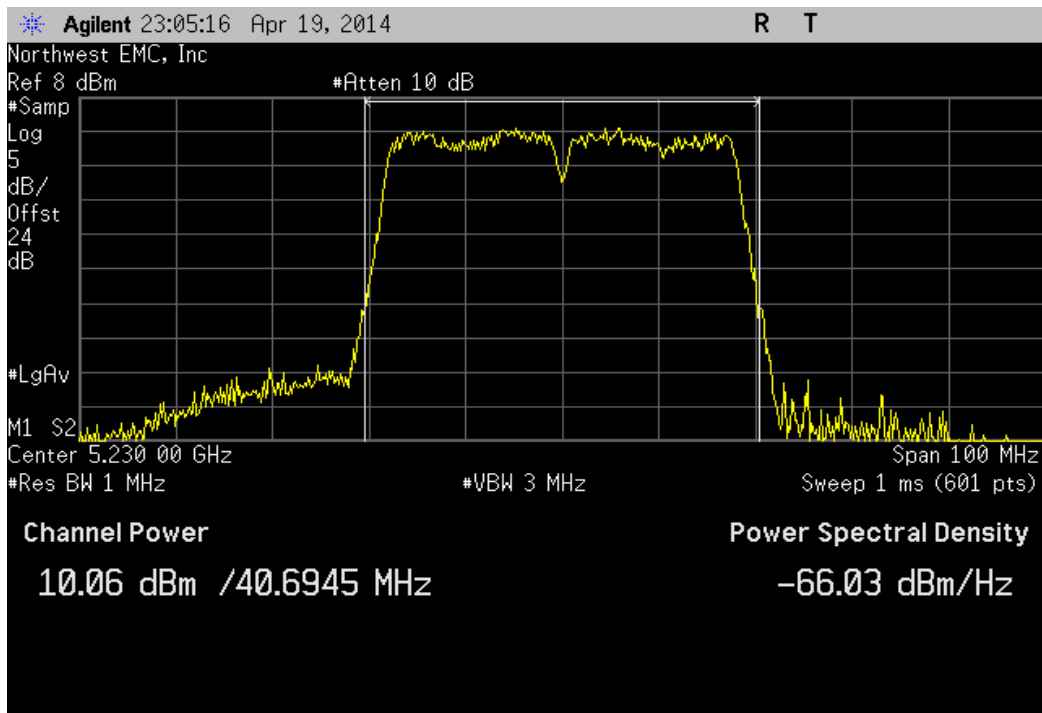
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
9.738 dBm	< 17 dBm	Pass



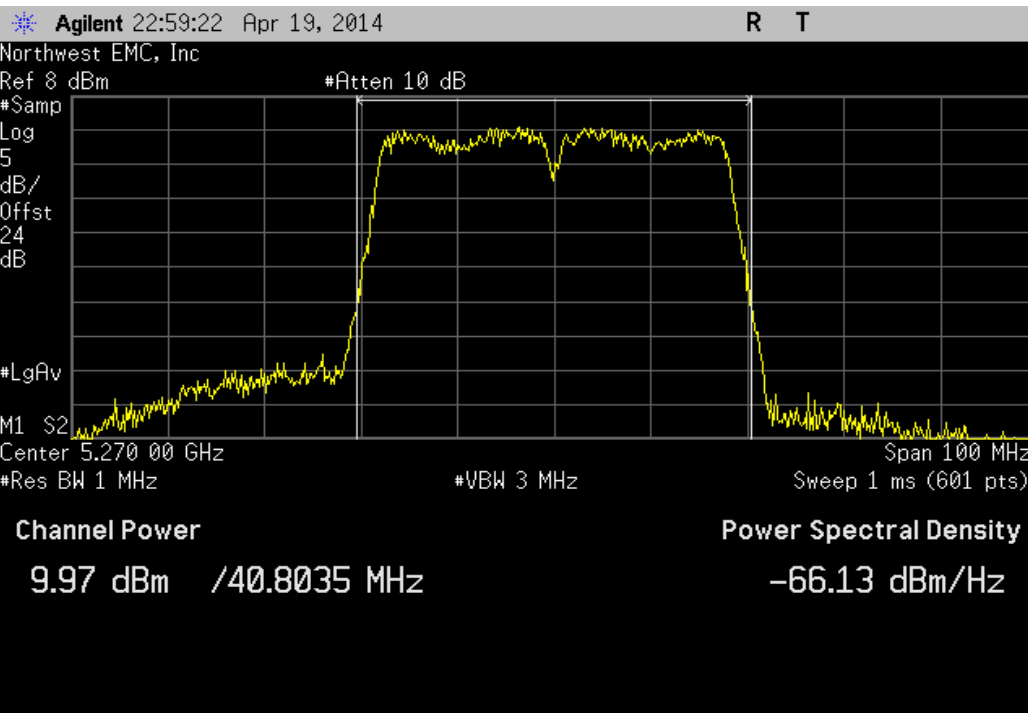
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
10.061 dBm	< 17 dBm	Pass



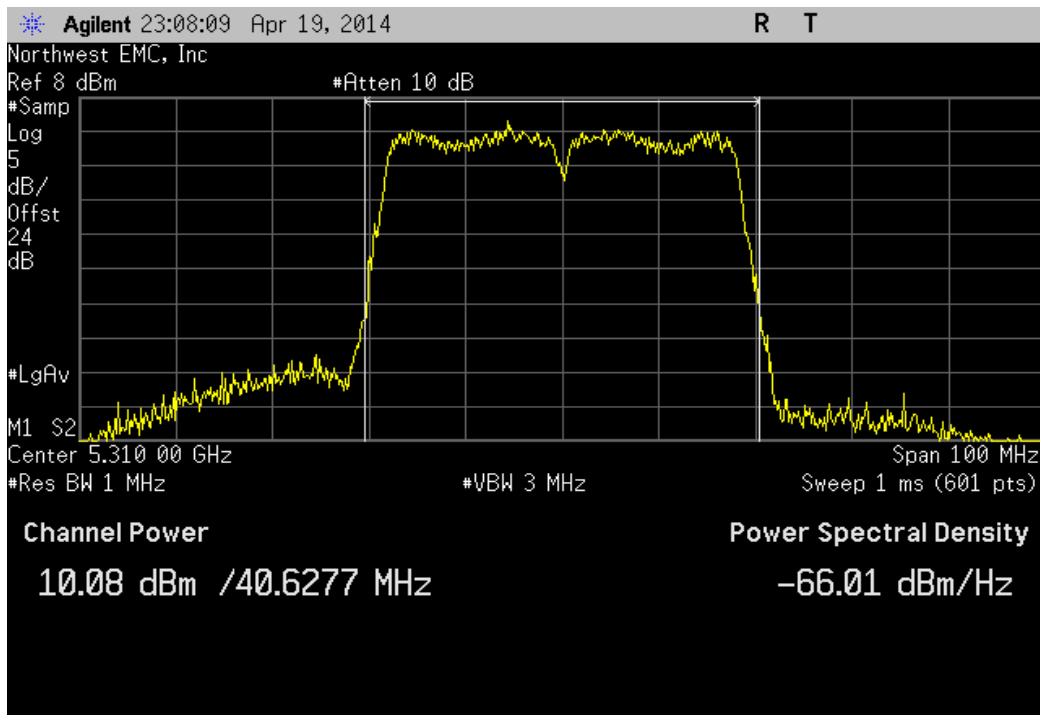
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
9.974 dBm	< 24 dBm	Pass



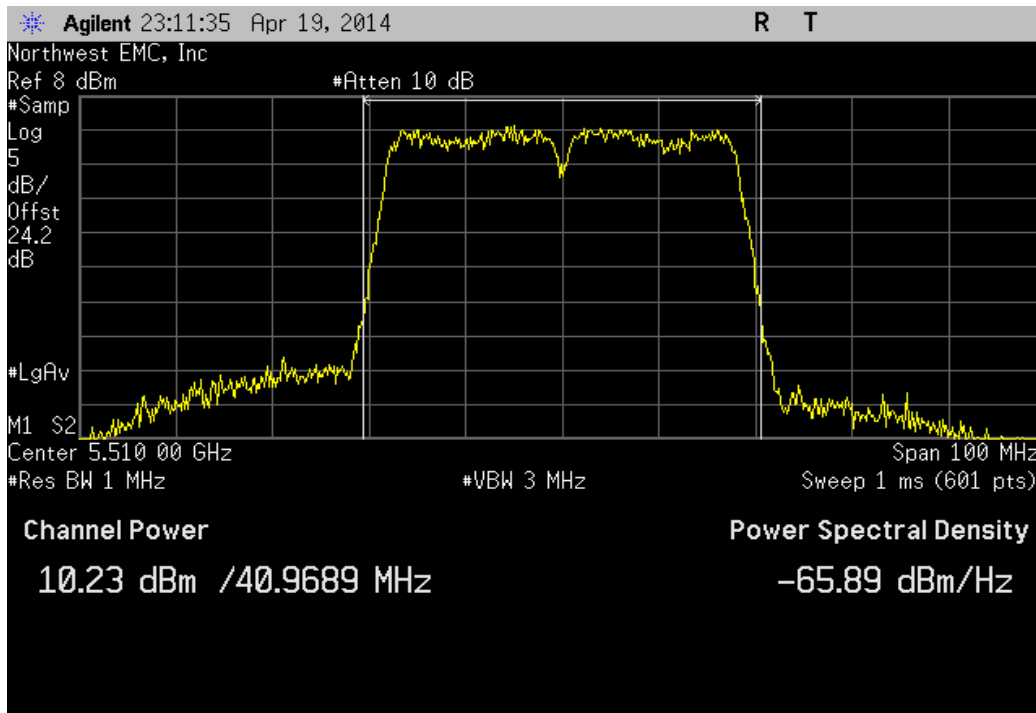
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
10.079 dBm	< 24 dBm	Pass



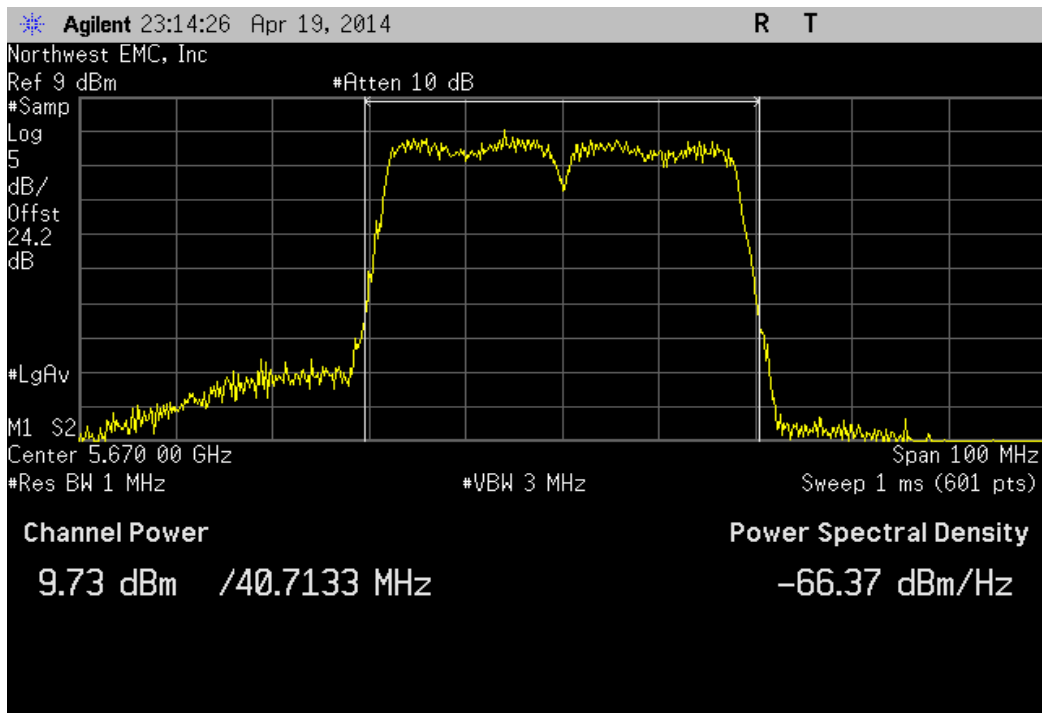
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
10.234 dBm	< 24 dBm	Pass



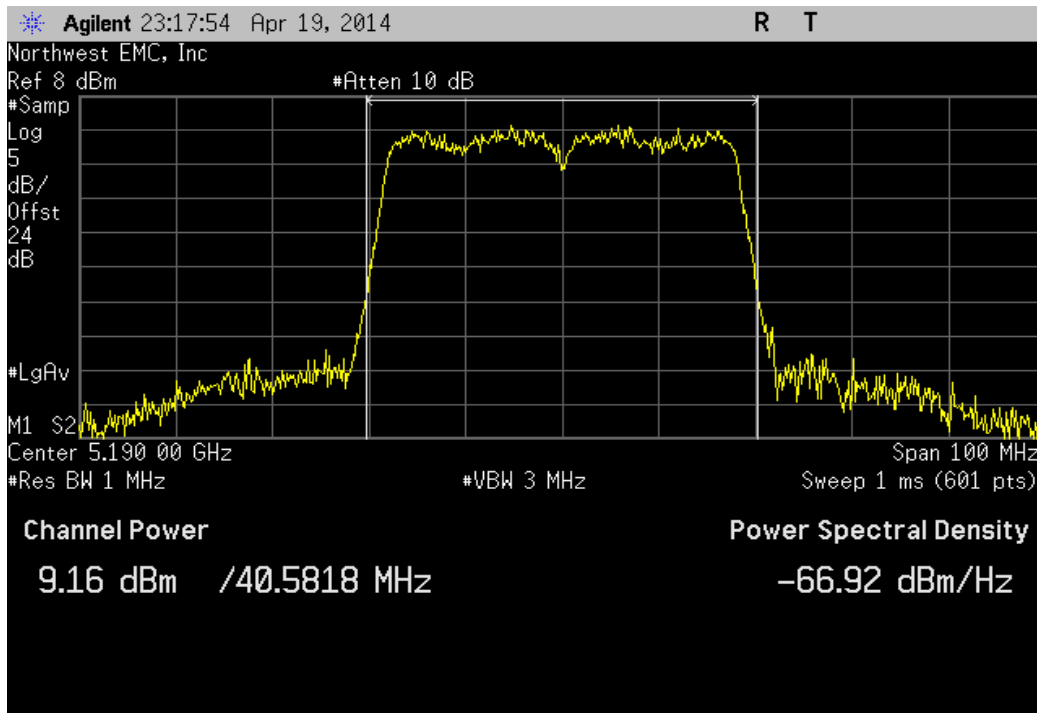
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
9.731 dBm	< 24 dBm	Pass



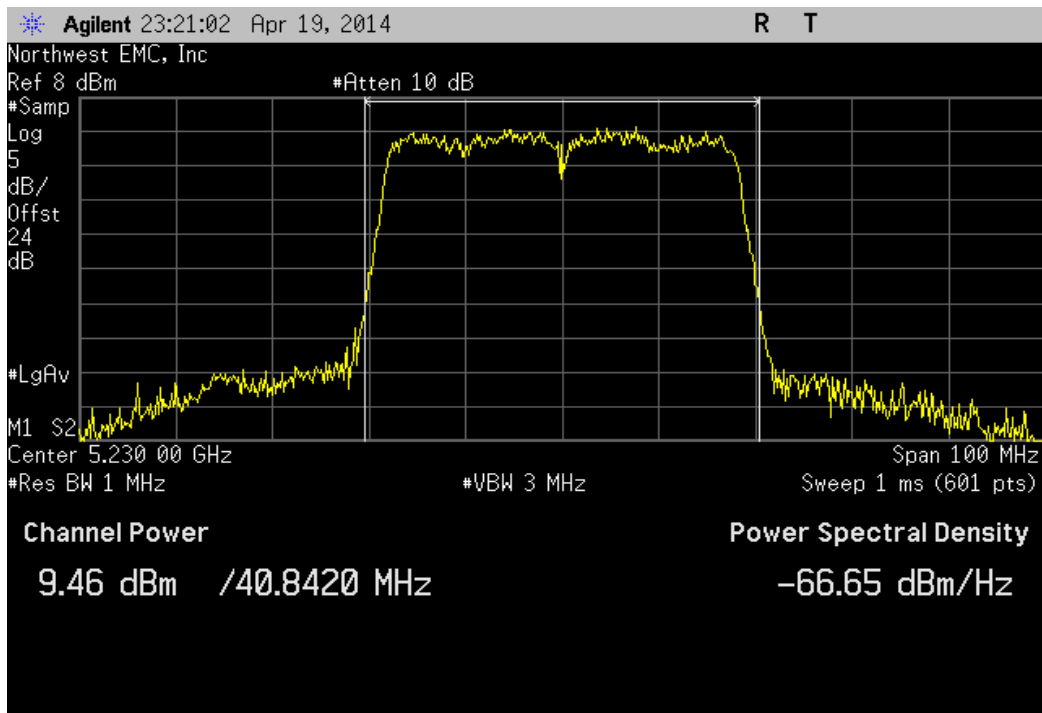
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
9.165 dBm	< 17 dBm	Pass



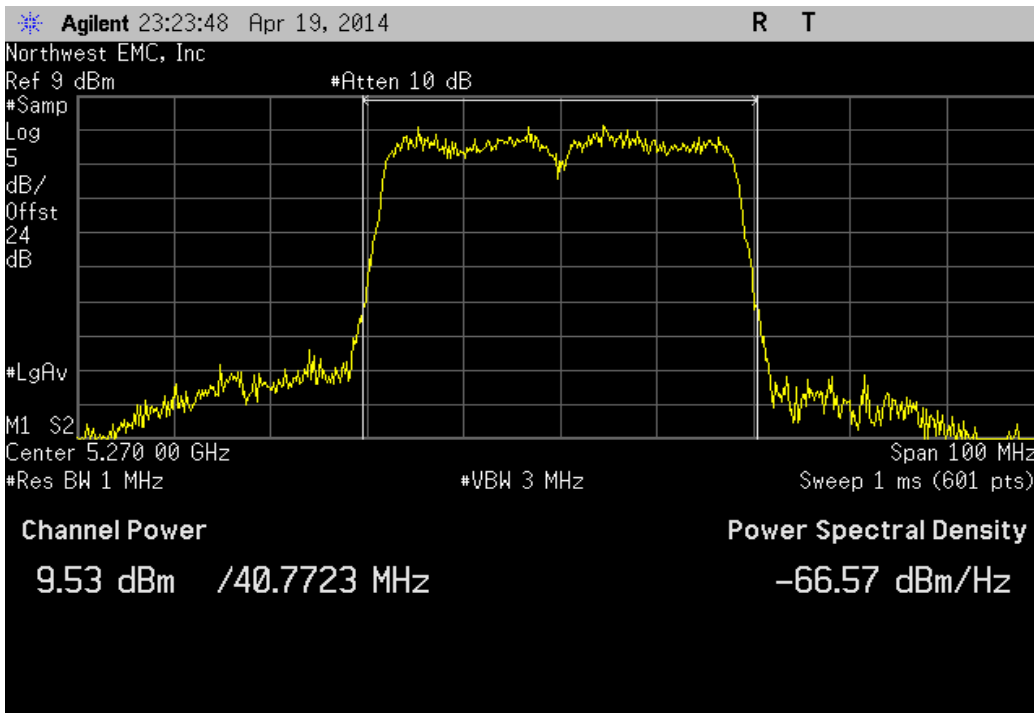
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
9.459 dBm	< 17 dBm	Pass



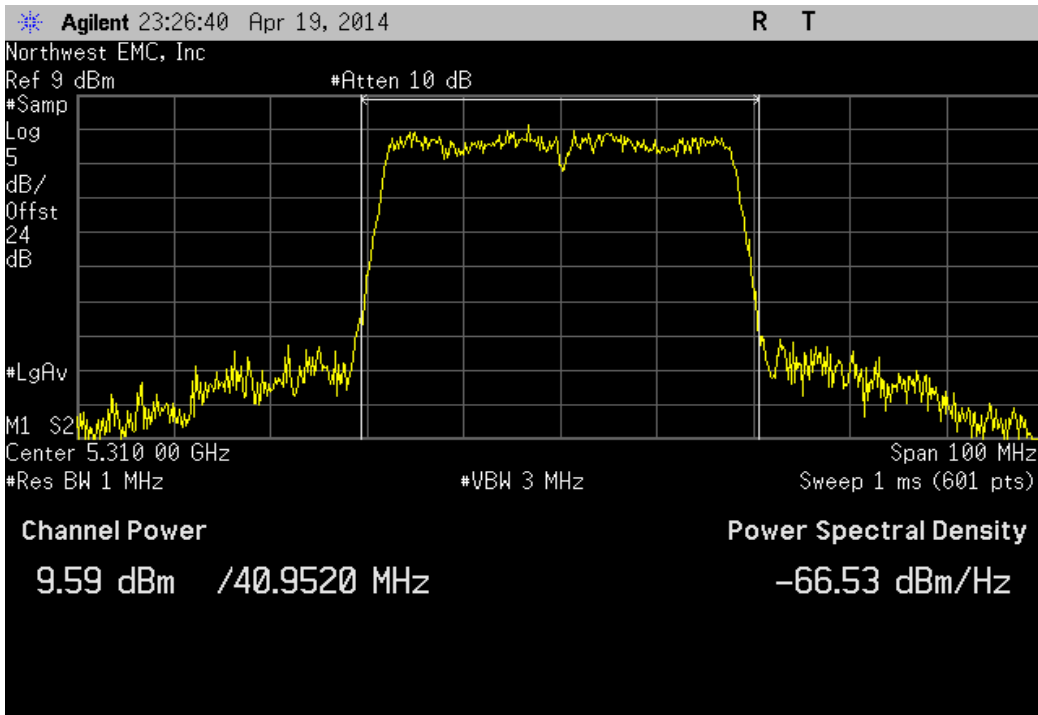
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
9.531 dBm	< 24 dBm	Pass



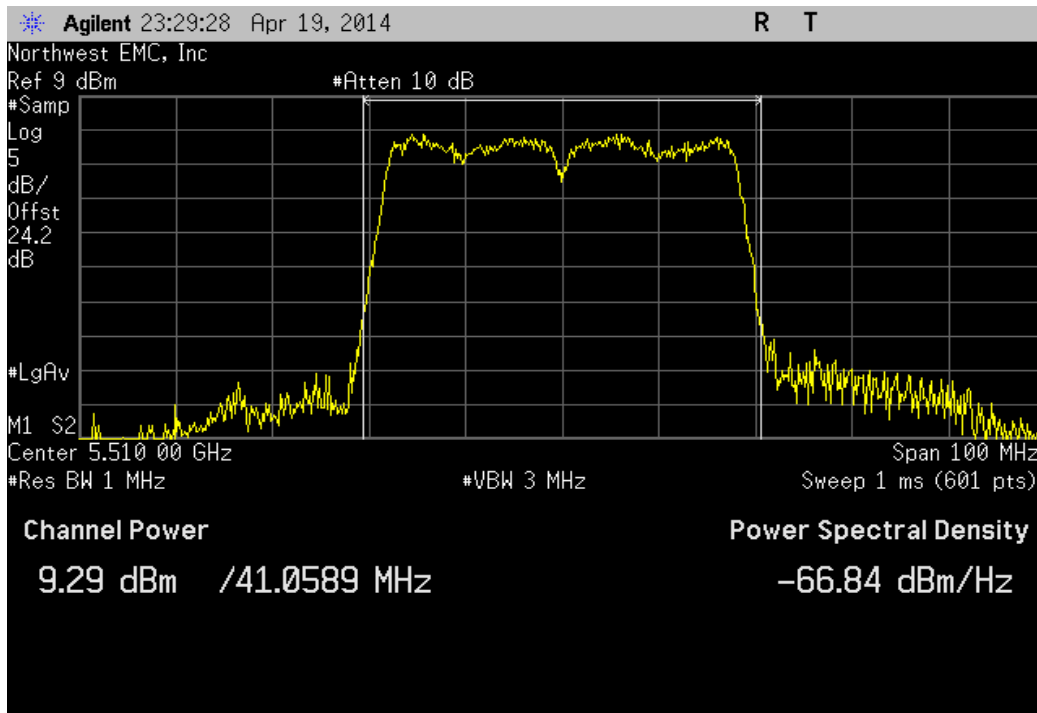
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
9.588 dBm	< 24 dBm	Pass



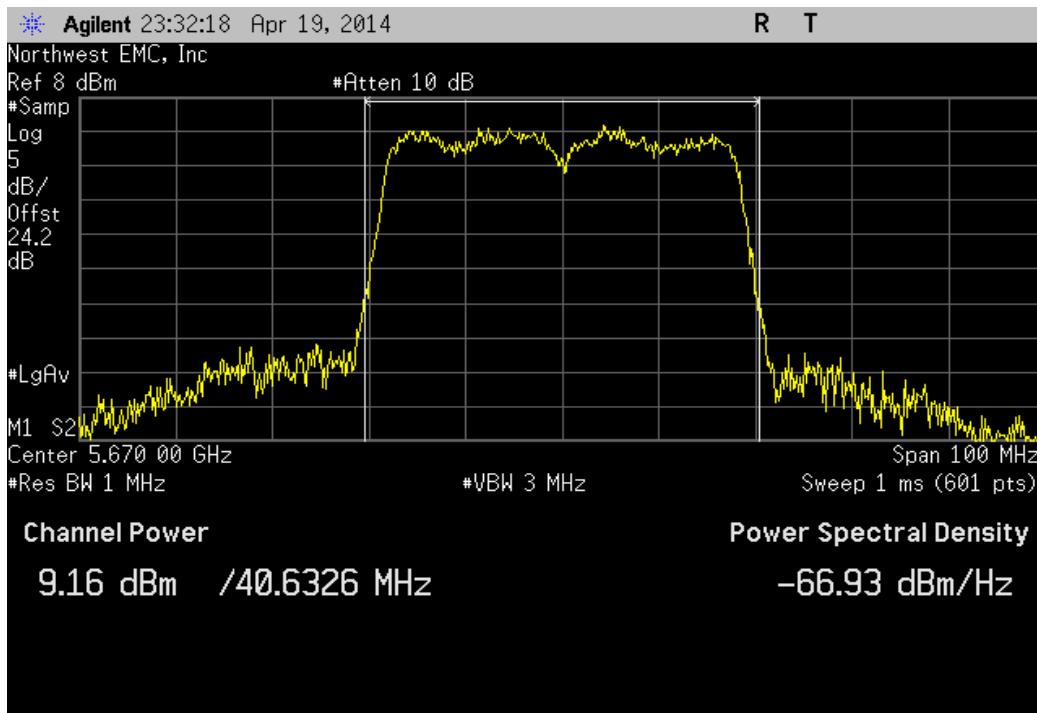
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
9.293 dBm	< 24 dBm	Pass



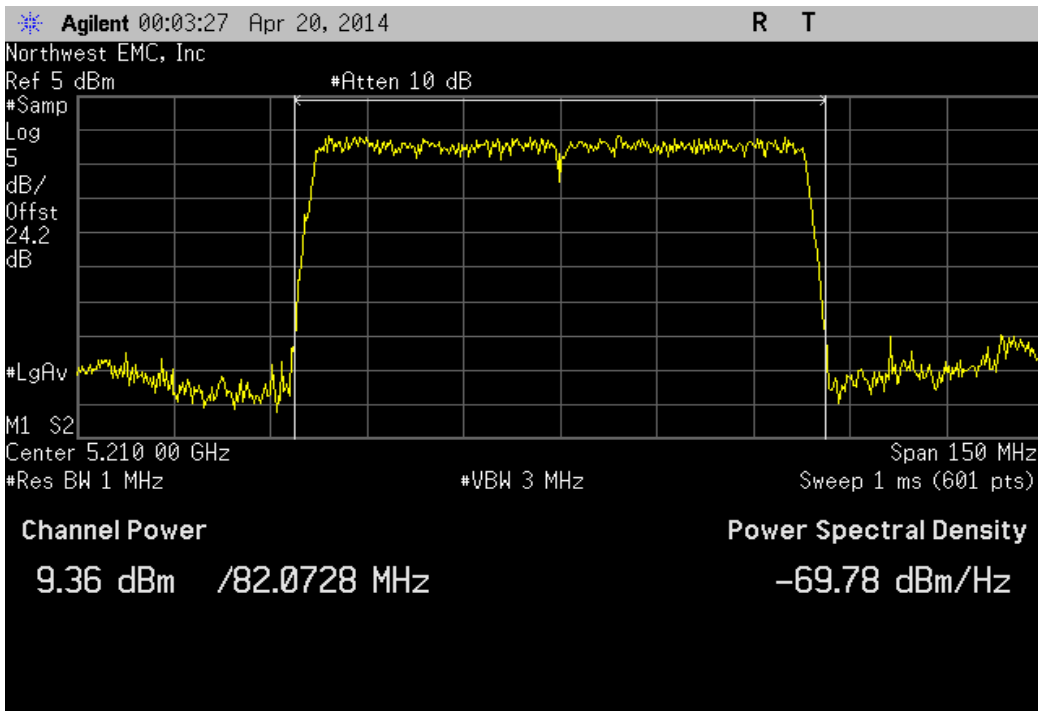
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
9.159 dBm	< 24 dBm	Pass



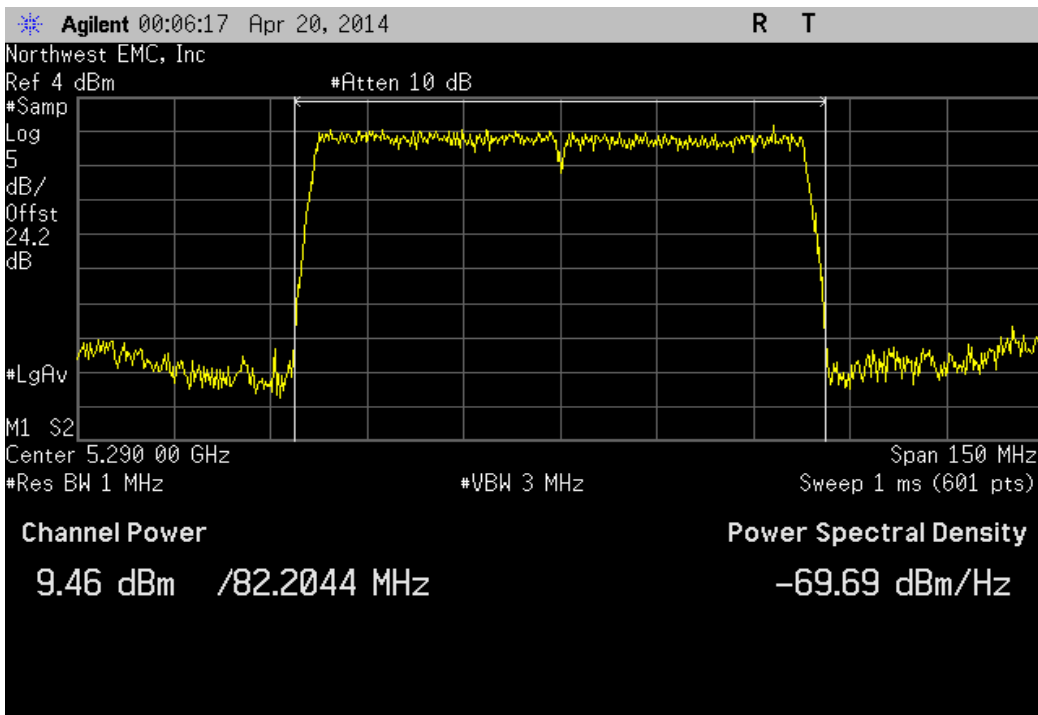
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
9.362 dBm	< 17 dBm	Pass



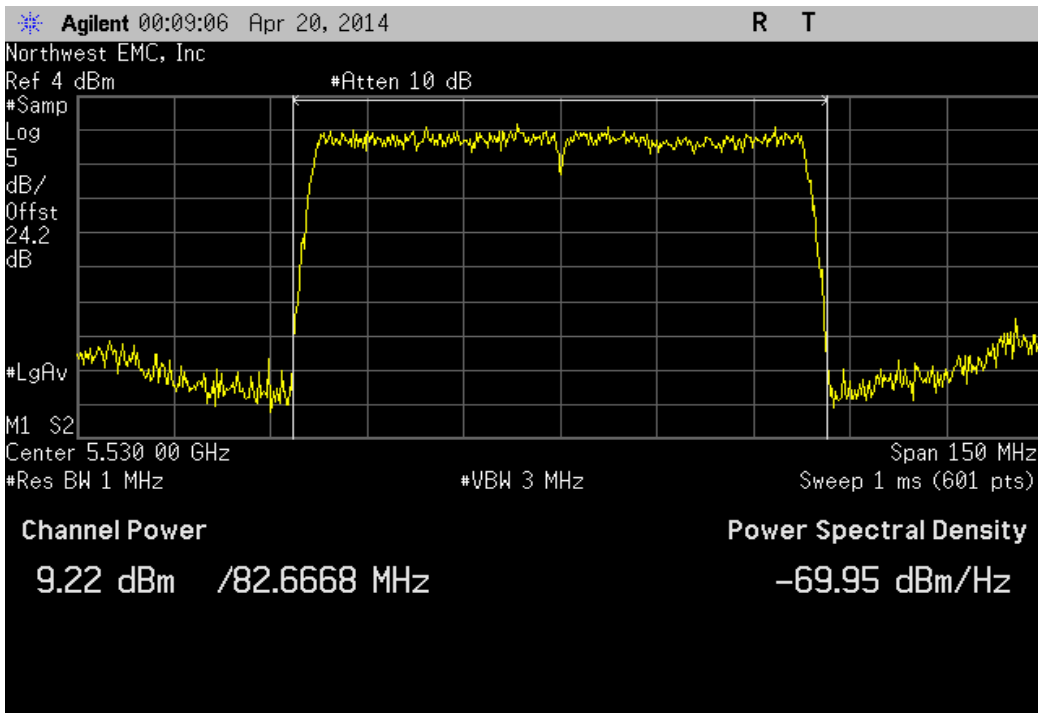
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
9.456 dBm	< 24 dBm	Pass



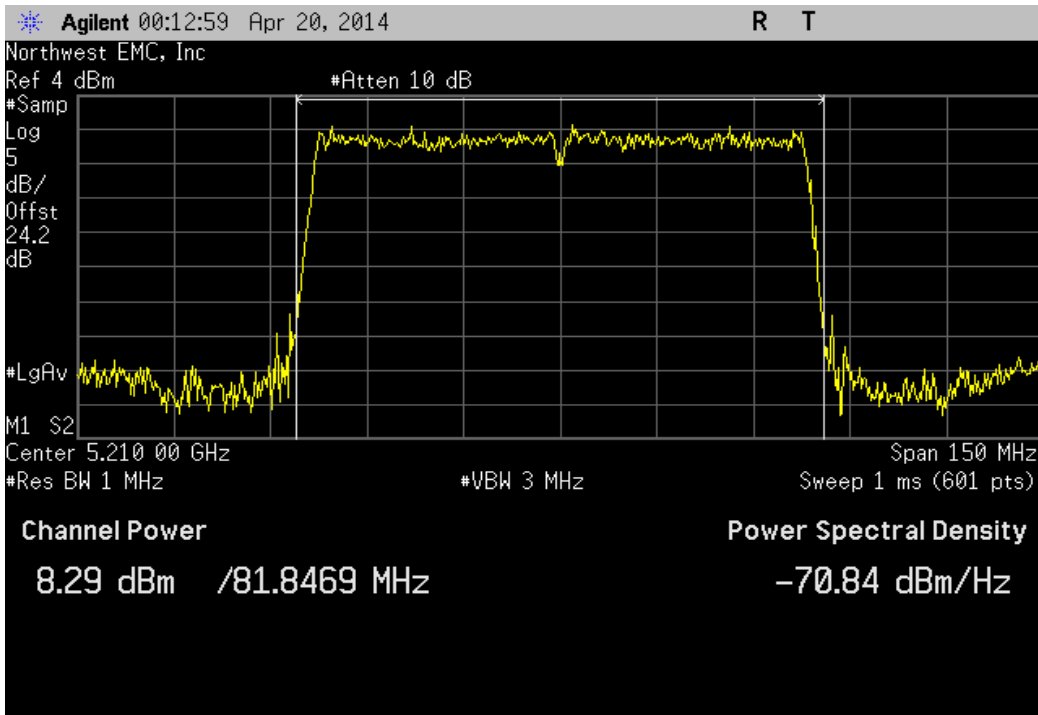
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
9.219 dBm	< 24 dBm	Pass



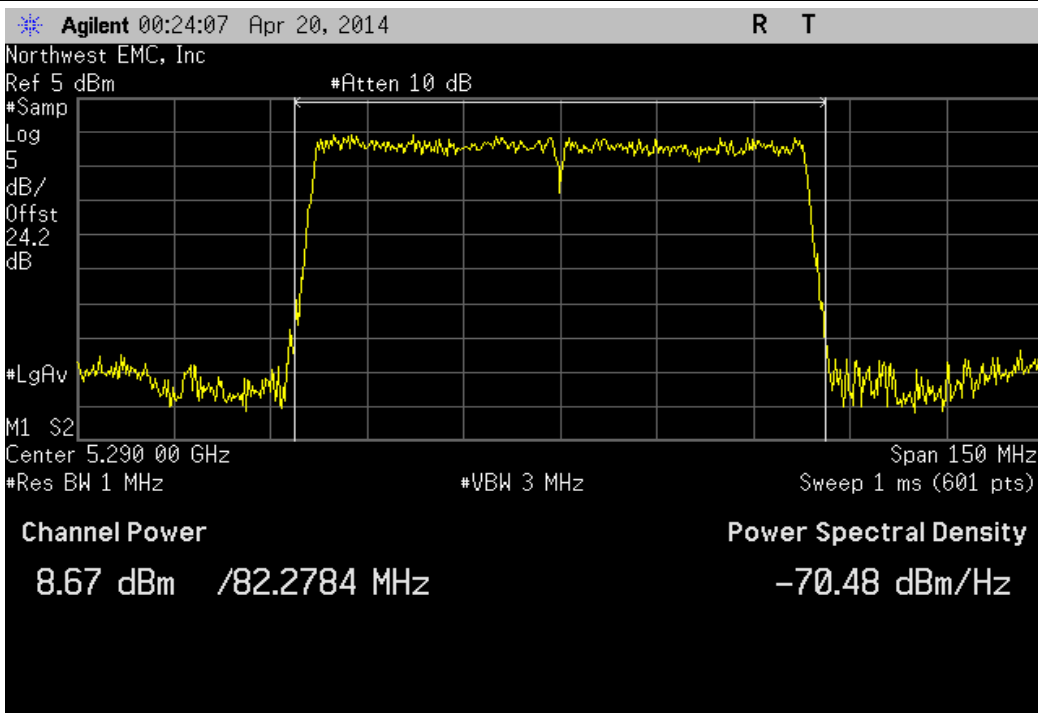
IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
8.294 dBm	< 17 dBm	Pass



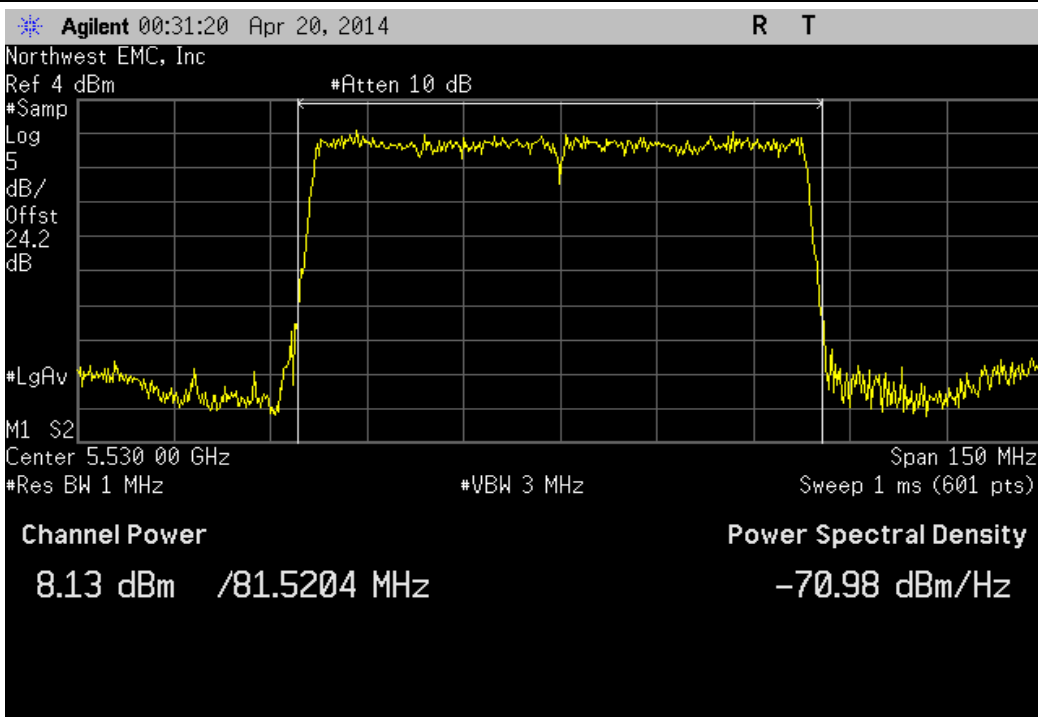
IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
8.669 dBm	< 24 dBm	Pass



IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
8.13 dBm	< 24 dBm	Pass



PEAK TRANSMIT POWER

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 EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo.)
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24

TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures Section C was followed. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. 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 transmit power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. The method of measuring the emission bandwidth and the associated data are found elsewhere in this test report. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep) was used for this test.

The spectrum analyzer settings were set per the guidance as well as the following specifics:

- RBW = 1 MHz, VBW = 3 MHz
- Sample Detector
- The number of points was set to 601. This satisfied the requirement of being $> 2 * \text{span} / \text{RBW}$
- Trace average 100 traces in power averaging mode.
- Power was integrated across "B", by using the channel power function of the analyzer.



PEAK TRANSMIT POWER

XMIT 2013.08.15
PsaTx 2013.10.23

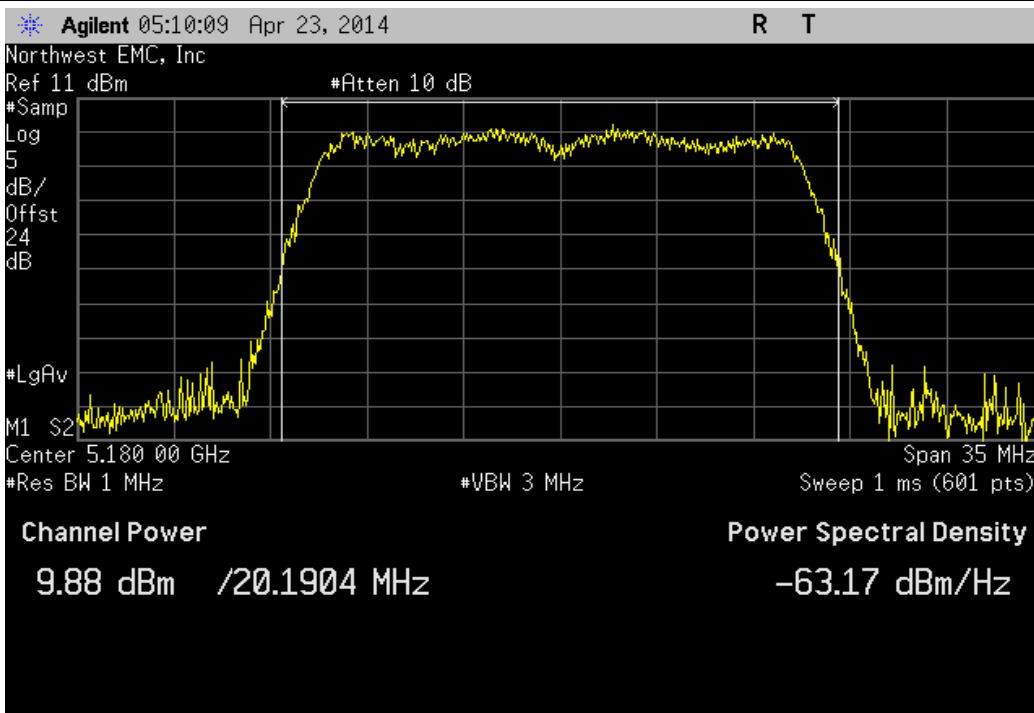
EUT: Model 1631		Work Order: MCSO1698
Serial Number: 006840341053		Date: 04/23/14
Customer: Microsoft Corporation		Temperature: 22.3°C
Attendees: None		Humidity: 32%
Project: None		Barometric Pres.: 1014
Tested by: Jared Ison		Power: 110VAC/60Hz
		Job Site: EV06
TEST SPECIFICATIONS		Test Method
FCC 15.407:2014		ANSI C63.10:2009
COMMENTS		
Modes of operation tested were client provided.		
DEVIATIONS FROM TEST STANDARD		
None		
Configuration #	6	Signature 
		Value Limit Result

Chain A		IEEE 802.11(n)			
	20 MHz	HT, MCS8			
		Ch. 36, Low Channel 5180MHz	9.88 dBm	< 17 dBm	N/A
		Ch. 48, High Channel 5240 MHz	9.72 dBm	< 17 dBm	N/A
		Ch. 52, Low Channel 5260 MHz	10.168 dBm	< 24 dBm	N/A
		Ch. 64, High Channel 5320 MHz	10.076 dBm	< 24 dBm	N/A
		Ch. 100, Low Channel 5500 MHz	10.123 dBm	< 24 dBm	N/A
		Ch. 116, Mid Channel 5580 MHz	10.174 dBm	< 24 dBm	N/A
		Ch. 140, High Channel 5700 MHz	9.642 dBm	< 24 dBm	N/A
		HT, MCS15			
		Ch. 36, Low Channel 5180MHz	9.04 dBm	< 17 dBm	N/A
		Ch. 48, High Channel 5240 MHz	9.148 dBm	< 17 dBm	N/A
		Ch. 52, Low Channel 5260 MHz	9.051 dBm	< 24 dBm	N/A
		Ch. 64, High Channel 5320 MHz	9.495 dBm	< 24 dBm	N/A
		Ch. 100, Low Channel 5500 MHz	9.301 dBm	< 24 dBm	N/A
		Ch. 116, Mid Channel 5580 MHz	9.673 dBm	< 24 dBm	N/A
		Ch. 140, High Channel 5700 MHz	9.003 dBm	< 24 dBm	N/A
	40 MHz	HT, MCS8			
		Ch. 36/40, Low Channel 5190 MHz	8.667 dBm	< 17 dBm	N/A
		Ch. 44/48, High Channel 5230 MHz	8.996 dBm	< 17 dBm	N/A
		Ch. 52/56, Low Channel 5270 MHz	9.301 dBm	< 24 dBm	N/A
		Ch. 60/64, High Channel 5310 MHz	9.346 dBm	< 24 dBm	N/A
		Ch. 100/104, Low Channel 5510 MHz	8.703 dBm	< 24 dBm	N/A
		Ch. 132/136, High Channel 5670 MHz	9.249 dBm	< 24 dBm	N/A
		HT, MCS15			
		Ch. 36/40, Low Channel 5190 MHz	8.549 dBm	< 17 dBm	N/A
		Ch. 44/48, High Channel 5230 MHz	8.737 dBm	< 17 dBm	N/A
		Ch. 52/56, Low Channel 5270 MHz	8.858 dBm	< 24 dBm	N/A
		Ch. 60/64, High Channel 5310 MHz	8.844 dBm	< 24 dBm	N/A
		Ch. 100/104, Low Channel 5510 MHz	8.648 dBm	< 24 dBm	N/A
		Ch. 132/136, High Channel 5670 MHz	9.017 dBm	< 24 dBm	N/A
		IEEE 802.11(ac)			
	20 MHz	VHT, MCS0			
		Ch. 36, Low Channel 5180MHz	9.754 dBm	< 17 dBm	N/A
		Ch. 48, High Channel 5240 MHz	9.526 dBm	< 17 dBm	N/A
		Ch. 52, Low Channel 5260 MHz	10.101 dBm	< 24 dBm	N/A
		Ch. 64, High Channel 5320 MHz	10.059 dBm	< 24 dBm	N/A
		Ch. 100, Low Channel 5500 MHz	9.93 dBm	< 24 dBm	N/A
		Ch. 116, Mid Channel 5580 MHz	10.182 dBm	< 24 dBm	N/A
		Ch. 140, High Channel 5700 MHz	9.379 dBm	< 24 dBm	N/A
		VHT, MCS8			
		Ch. 36, Low Channel 5180MHz	9.485 dBm	< 17 dBm	N/A
		Ch. 48, High Channel 5240 MHz	9.313 dBm	< 17 dBm	N/A
		Ch. 52, Low Channel 5260 MHz	9.474 dBm	< 24 dBm	N/A
		Ch. 64, High Channel 5320 MHz	9.659 dBm	< 24 dBm	N/A
		Ch. 100, Low Channel 5500 MHz	9.821 dBm	< 24 dBm	N/A
		Ch. 116, Mid Channel 5580 MHz	9.933 dBm	< 24 dBm	N/A
		Ch. 140, High Channel 5700 MHz	9.506 dBm	< 24 dBm	N/A
	40 MHz	VHT, MCS0			
		Ch. 36/40, Low Channel 5190 MHz	9.38 dBm	< 17 dBm	N/A
		Ch. 44/48, High Channel 5230 MHz	9.861 dBm	< 17 dBm	N/A
		Ch. 52/56, Low Channel 5270 MHz	9.712 dBm	< 24 dBm	N/A
		Ch. 60/64, High Channel 5310 MHz	10.186 dBm	< 24 dBm	N/A
		Ch. 100/104, Low Channel 5510 MHz	9.079 dBm	< 24 dBm	N/A
		Ch. 132/136, High Channel 5670 MHz	8.834 dBm	< 24 dBm	N/A
		VHT, MCS9			
		Ch. 36/40, Low Channel 5190 MHz	9.176 dBm	< 17 dBm	N/A
		Ch. 44/48, High Channel 5230 MHz	8.637 dBm	< 17 dBm	N/A
		Ch. 52/56, Low Channel 5270 MHz	9.126 dBm	< 24 dBm	N/A
		Ch. 60/64, High Channel 5310 MHz	8.776 dBm	< 24 dBm	N/A
		Ch. 100/104, Low Channel 5510 MHz	8.677 dBm	< 24 dBm	N/A
		Ch. 132/136, High Channel 5670 MHz	8.723 dBm	< 24 dBm	N/A
	80 MHz	VHT, MCS0			
		Ch. 42, Low Channel 5210 MHz	8.391 dBm	< 17 dBm	N/A
		Ch. 58, High Channel 5290 MHz	8.405 dBm	< 24 dBm	N/A
		Ch. 106, Low Channel 5530 MHz	8.637 dBm	< 24 dBm	N/A
		VHT, MCS9			
		Ch. 42, Low Channel 5210 MHz	7.666 dBm	< 17 dBm	N/A
		Ch. 58, High Channel 5290 MHz	7.716 dBm	< 24 dBm	N/A
		Ch. 106, Low Channel 5530 MHz	7.891 dBm	< 24 dBm	N/A
Chain B		IEEE 802.11(n)			
	20 MHz	HT, MCS8			
		Ch. 36, Low Channel 5180MHz	9.843 dBm	< 17 dBm	N/A
		Ch. 48, High Channel 5240 MHz	9.44 dBm	< 17 dBm	N/A
		Ch. 52, Low Channel 5260 MHz	9.787 dBm	< 24 dBm	N/A
		Ch. 64, High Channel 5320 MHz	10.017 dBm	< 24 dBm	N/A
		Ch. 100, Low Channel 5500 MHz	10.21 dBm	< 24 dBm	N/A
		Ch. 116, Mid Channel 5580 MHz	9.86 dBm	< 24 dBm	N/A

40 MHz	Ch. 48, High Channel 5240 MHz	9.313	8.536896183	9.037	8.01124475	12.18749211	Pass
	Ch. 52, Low Channel 5260 MHz	9.474	8.85931207	9.384	8.67760745	12.43953309	Pass
	Ch. 64, High Channel 5320 MHz	9.659	9.244852788	9.896	9.763375666	12.78941643	Pass
	Ch. 100, Low Channel 5500 MHz	9.821	9.596215671	9.465	8.840971692	12.65694669	Pass
	Ch. 116, Mid Channel 5580 MHz	9.933	9.846910714	9.79	9.52796164	12.8723885	Pass
	Ch. 140, High Channel 5700 MHz	9.506	8.924830978	9.659	9.244852788	12.59347369	Pass
IEEE 802.11(ac)VHT, MCS0							
	Ch. 36/40, Low Channel 5190 MHz	9.38	8.669618758	9.023	7.985461129	12.2154672	Pass
	Ch. 44/48, High Channel 5230 MHz	9.861	9.685008361	9.679	9.28752509	12.78125327	Pass
	Ch. 52/56, Low Channel 5270 MHz	9.712	9.358365436	9.083	8.096549959	12.41917748	Pass
	Ch. 60/64, High Channel 5310 MHz	10.186	10.43758439	9.802	9.554324776	13.0085427	Pass
	Ch. 100/104, Low Channel 5510 MHz	9.079	8.089096194	9.431	8.772027813	12.26886522	Pass
	Ch. 132/136, High Channel 5670 MHz	8.834	7.645396264	9.34	8.590135215	12.1046651	Pass
IEEE 802.11(ac)VHT, MCS9							
	Ch. 36/40, Low Channel 5190 MHz	9.176	8.271799519	8.899	7.760683997	12.05000802	Pass
	Ch. 44/48, High Channel 5230 MHz	8.637	7.306342049	8.538	7.141673641	11.59808205	Pass
	Ch. 52/56, Low Channel 5270 MHz	9.126	8.177113013	8.92	7.798301105	12.03452125	Pass
	Ch. 60/64, High Channel 5310 MHz	8.776	7.543970822	8.927	7.810880617	11.86245619	Pass
	Ch. 100/104, Low Channel 5510 MHz	8.677	7.3739468	9.102	8.132049247	11.90499669	Pass
	Ch. 132/136, High Channel 5670 MHz	8.723	7.452465943	9.09	8.109610579	11.92067546	Pass
80 MHz							
VHT, MCS0							
	Ch. 42, Low Channel 5210 MHz	8.391	6.903987557	8.197	6.602372147	11.30538312	Pass
	Ch. 58, High Channel 5290 MHz	8.405	6.926279294	8.753	7.504123969	11.59278468	Pass
	Ch. 106, Low Channel 5530 MHz	8.637	7.306342049	8.249	6.681900434	11.45763152	Pass
VHT, MCS9							
	Ch. 42, Low Channel 5210 MHz	7.666	5.842517205	7.331	5.408788506	10.51202925	Pass
	Ch. 58, High Channel 5290 MHz	7.716	5.910170366	7.979	6.279137597	10.8597905	Pass
	Ch. 106, Low Channel 5530 MHz	7.891	6.153185387	7.36	5.445026528	10.6439104	Pass

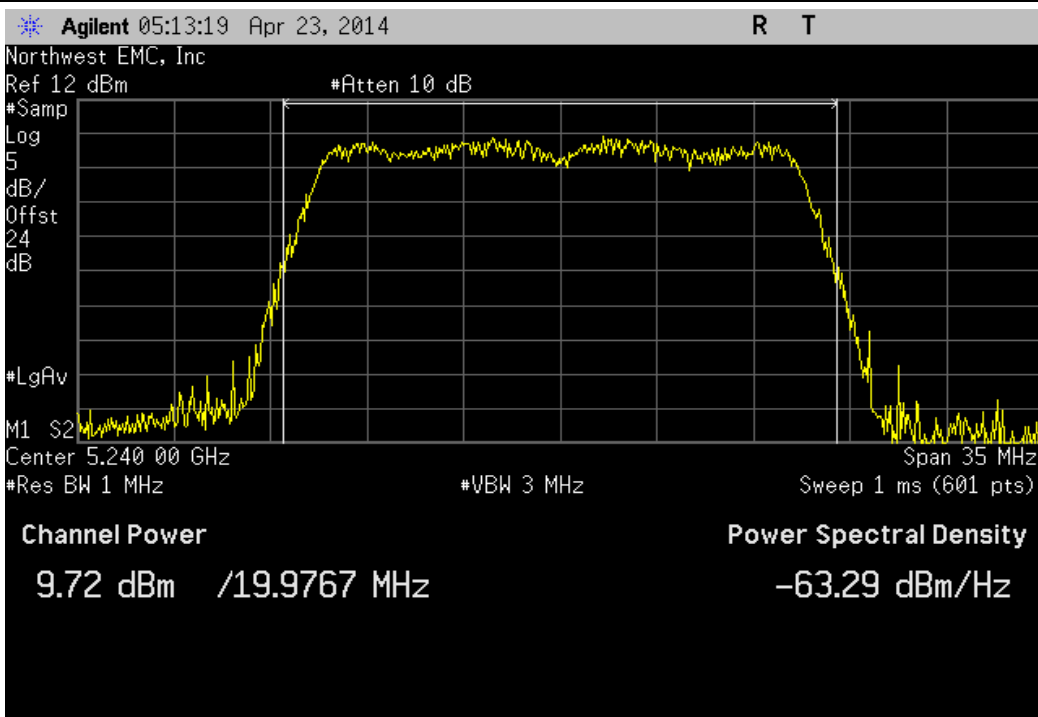
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.88 dBm	< 17 dBm	Pass



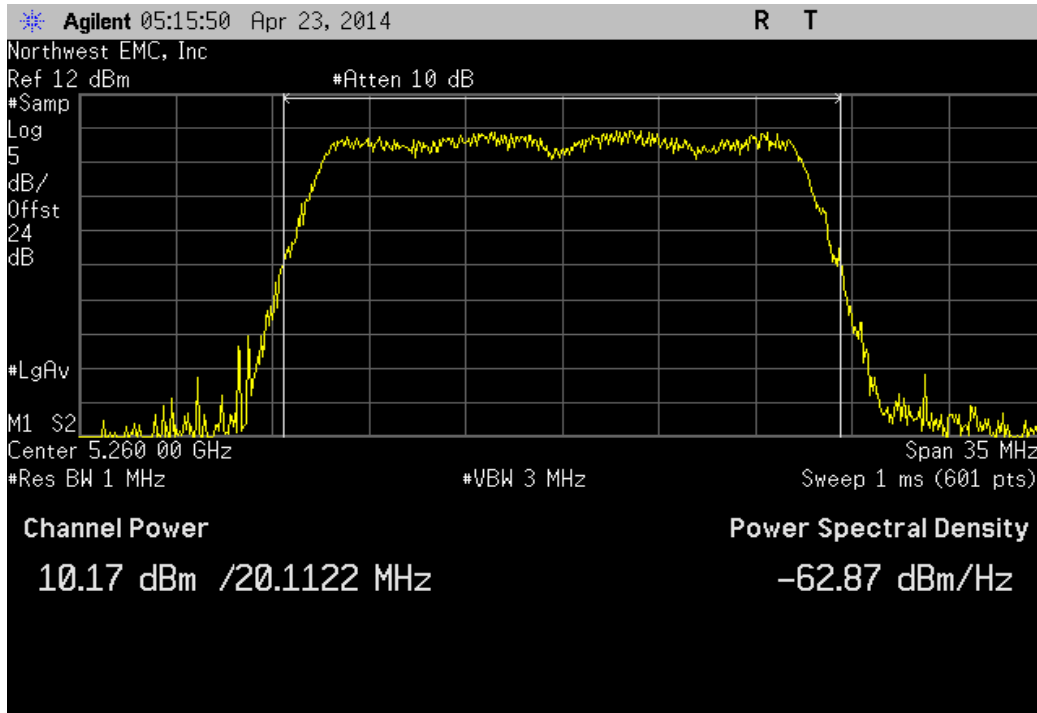
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.72 dBm	< 17 dBm	Pass



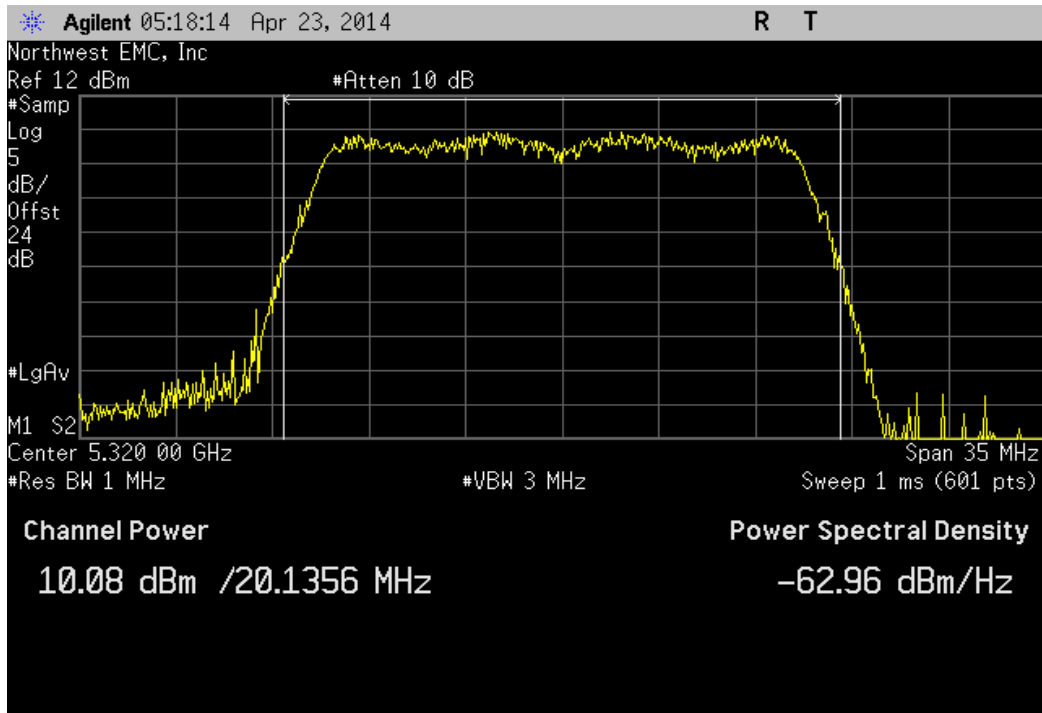
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
10.168 dBm	< 24 dBm	Pass



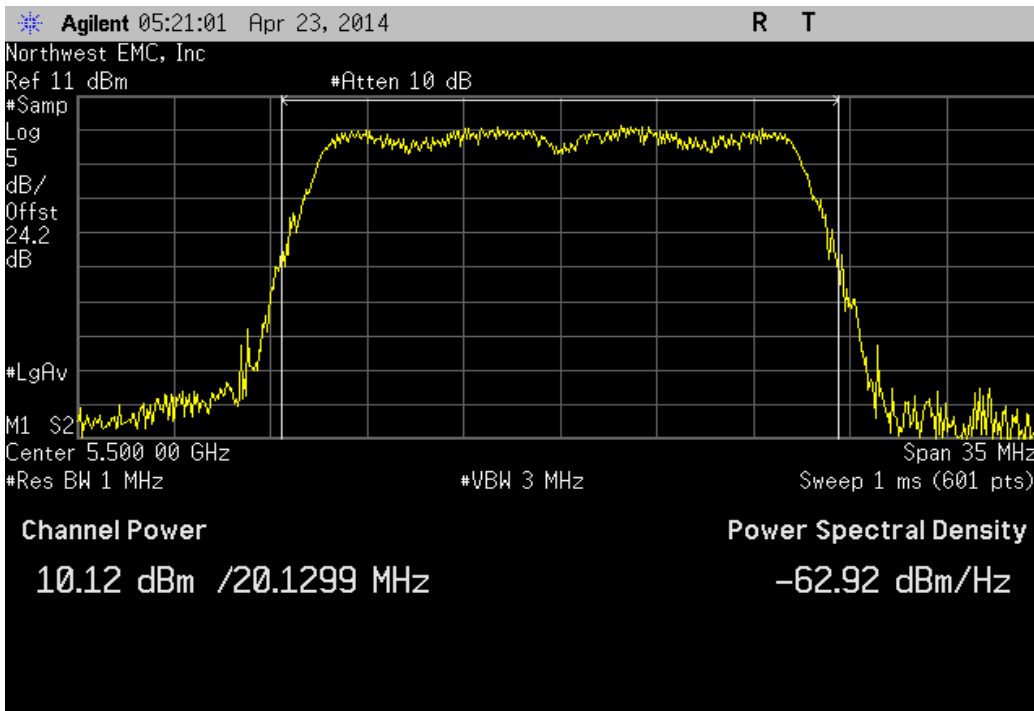
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.076 dBm	< 24 dBm	Pass



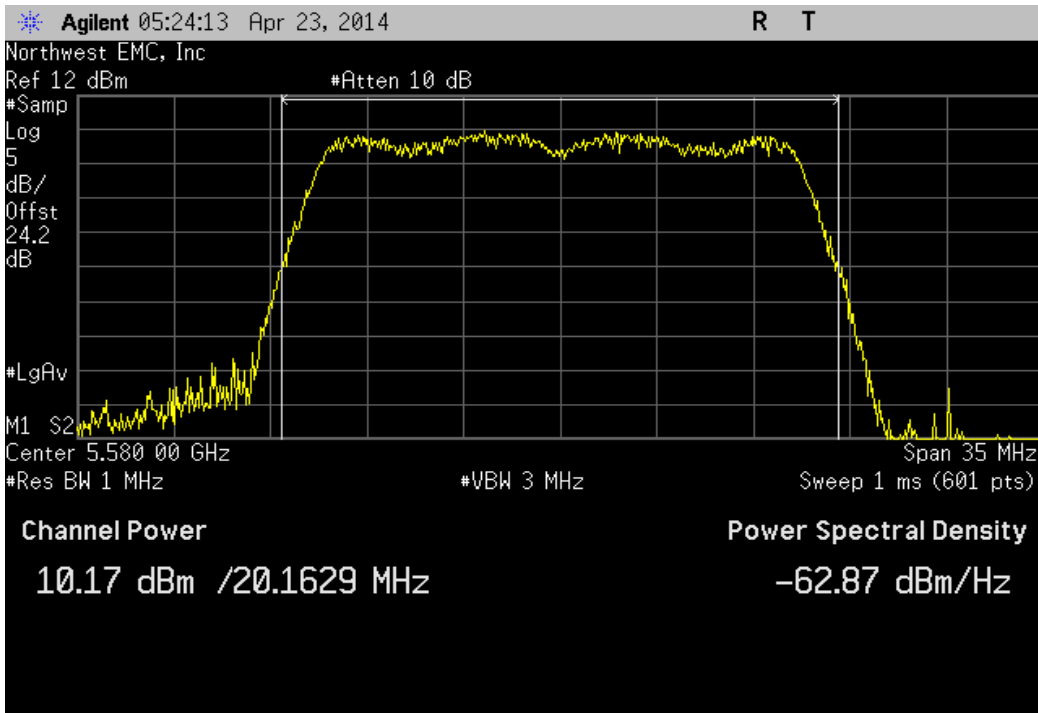
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
10.123 dBm	< 24 dBm	Pass



Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
10.174 dBm	< 24 dBm	Pass



Chain A, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.642 dBm	< 24 dBm	Pass

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R T

Northwest EMC, Inc

Ref 11 dBm

#Atten 10 dB

#Samp

Log

5

dB/

Offst

24.2

dB

#LgAv

M1 S2

Center 5.700 00 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 35 MHz

Sweep 1 ms (601 pts)

Channel Power

9.64 dBm /20.1169 MHz

Power Spectral Density

-63.39 dBm/Hz

Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.04 dBm	< 17 dBm	Pass

Agilent 05:31:28 Apr 23, 2014

R T

Northwest EMC, Inc

Ref 11 dBm

#Atten 10 dB

#Samp

Log

5

dB/

Offst

24

dB

#LgAv

M1 S2

Center 5.180 00 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 35 MHz

Sweep 1 ms (601 pts)

Channel Power

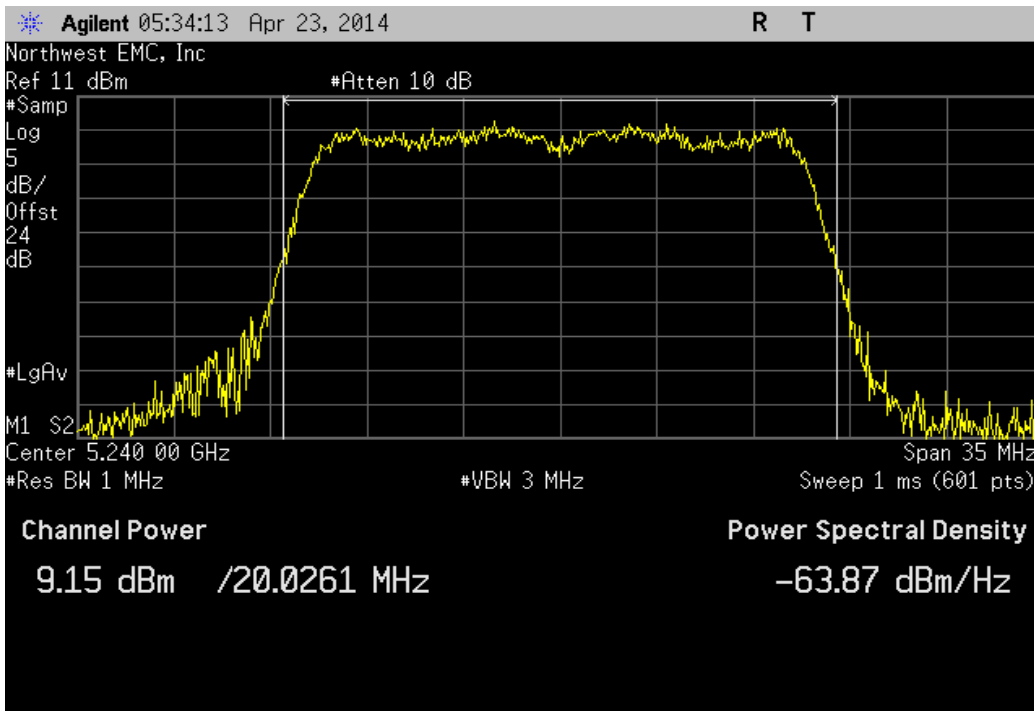
9.04 dBm /19.8686 MHz

Power Spectral Density

-63.94 dBm/Hz

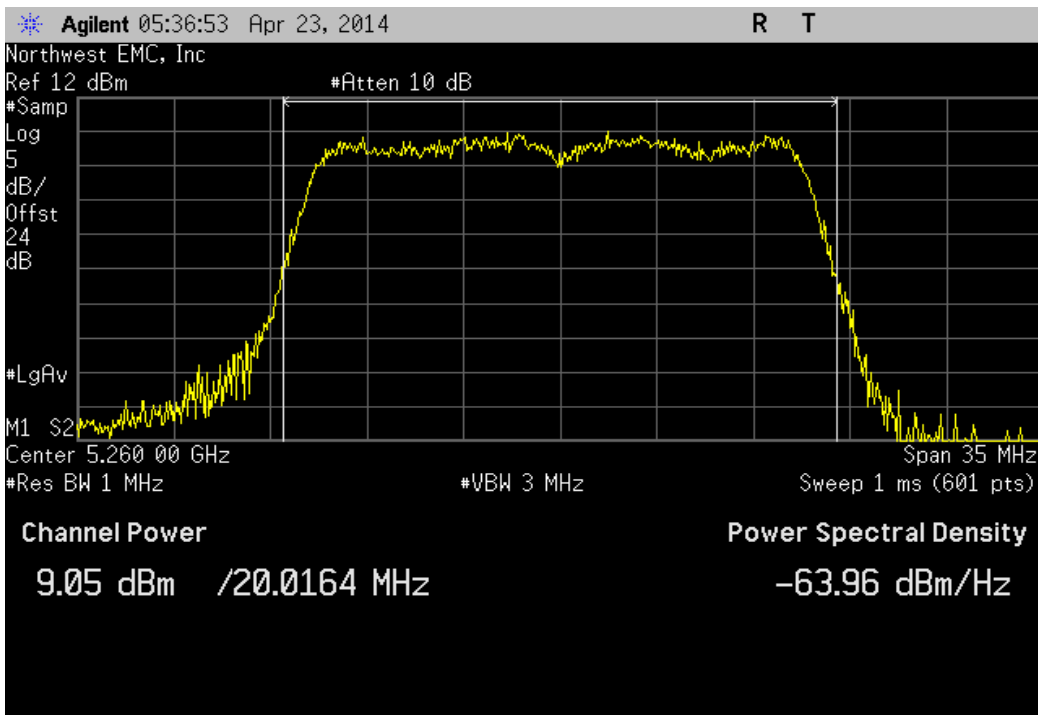
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.148 dBm	< 17 dBm	Pass



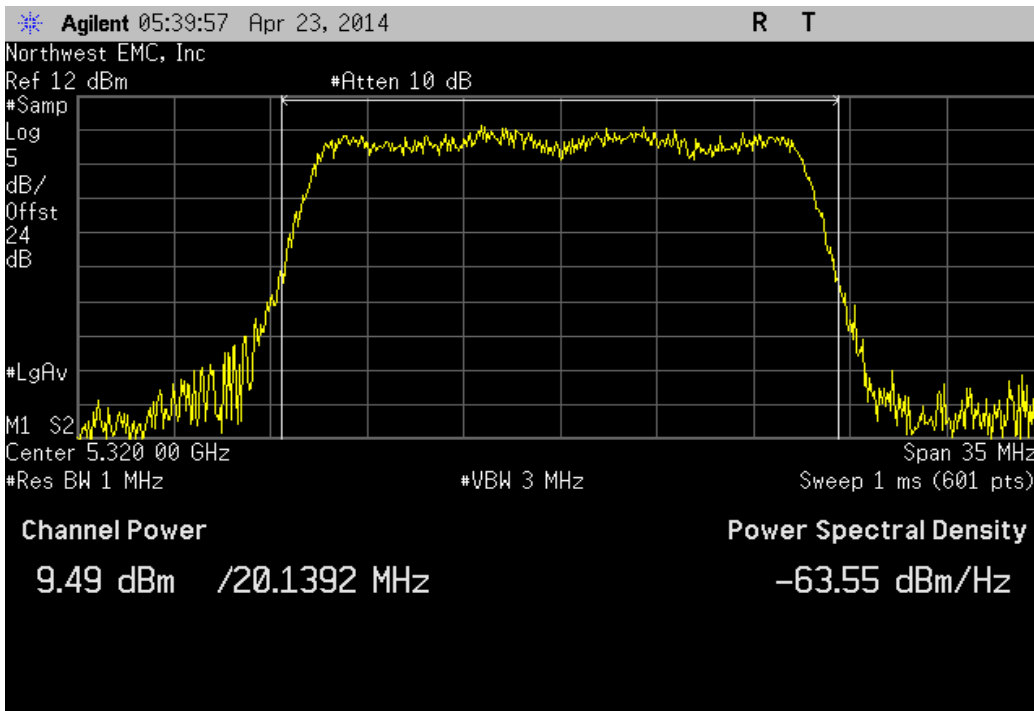
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.051 dBm	< 24 dBm	Pass



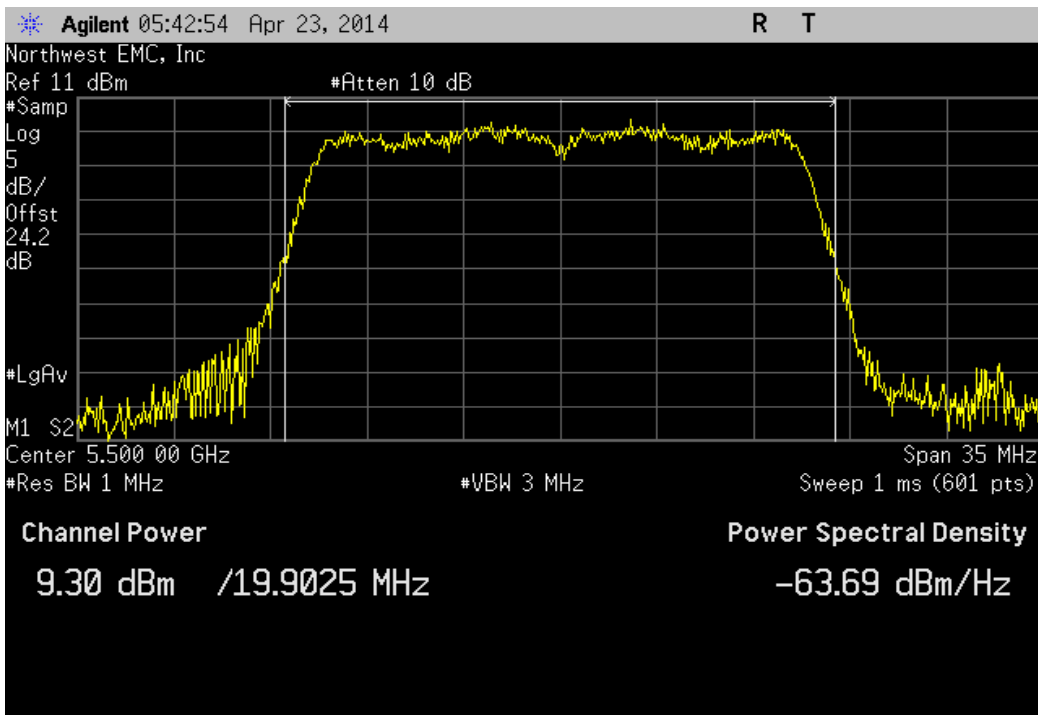
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
9.495 dBm	< 24 dBm	Pass



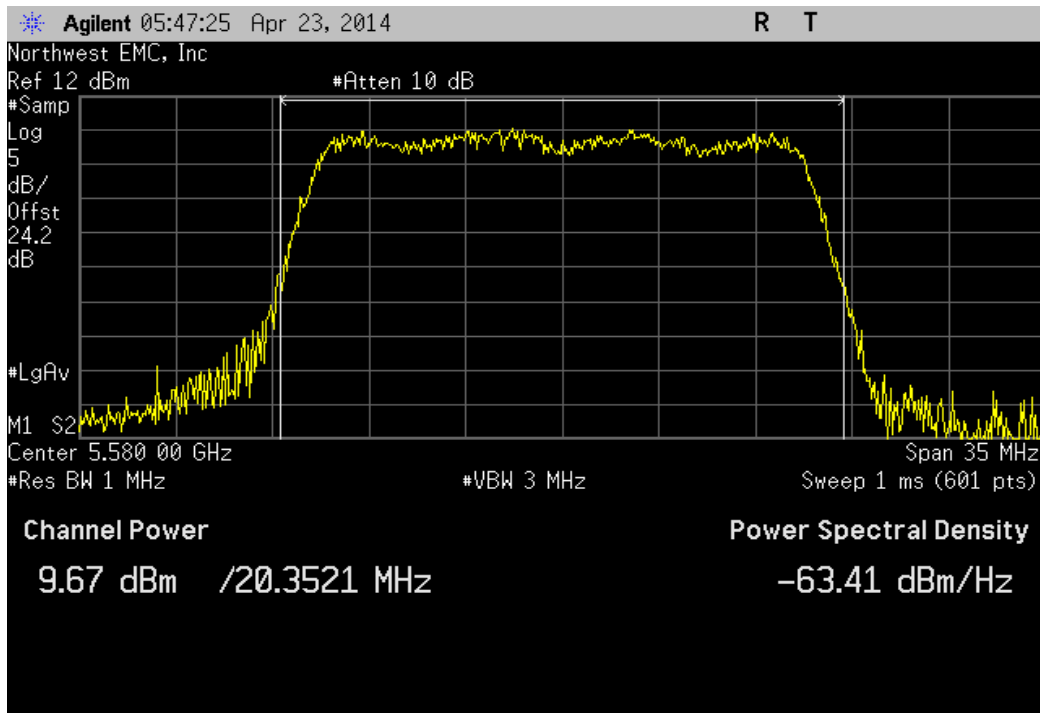
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.301 dBm	< 24 dBm	Pass



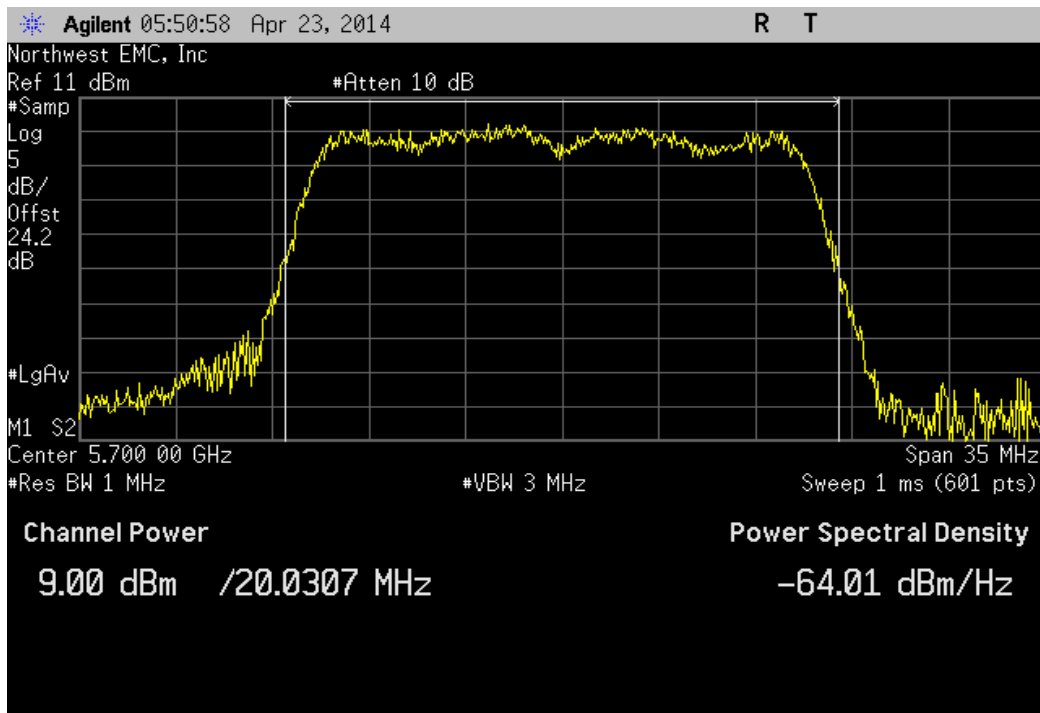
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
9.673 dBm	< 24 dBm	Pass



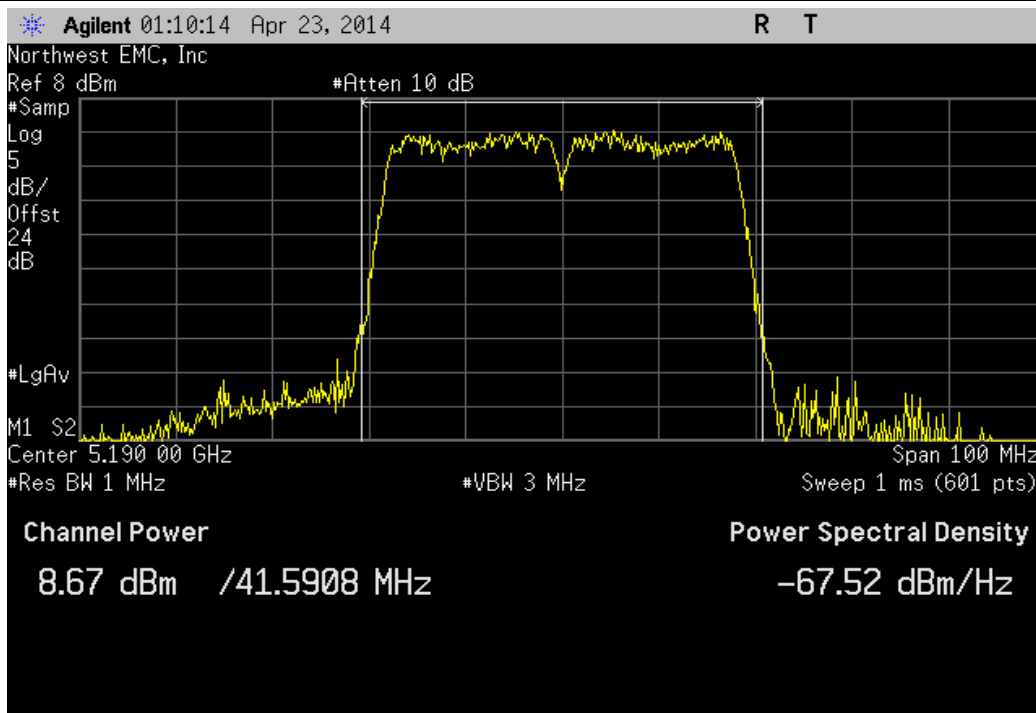
Chain A, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.003 dBm	< 24 dBm	Pass



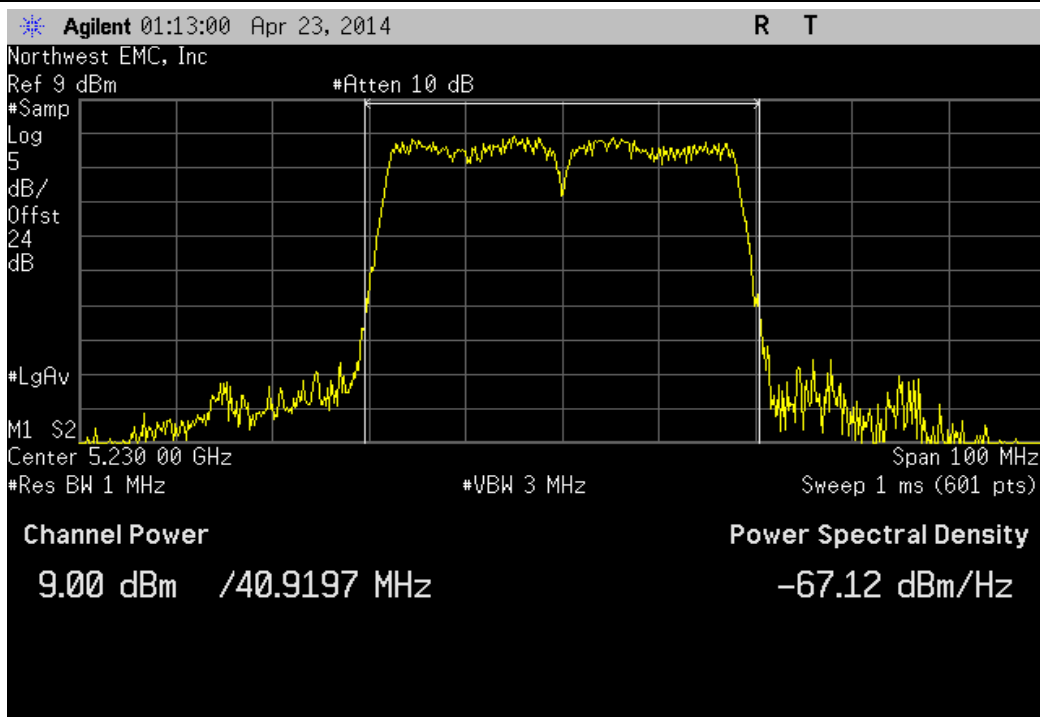
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
8.667 dBm	< 17 dBm	Pass



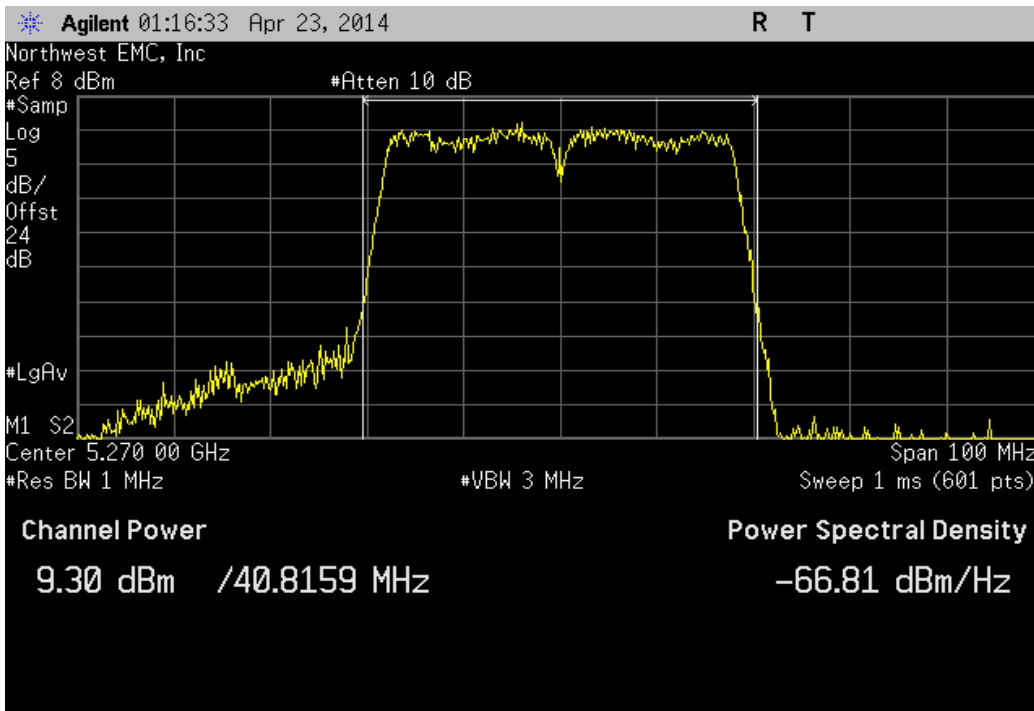
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
8.996 dBm	< 17 dBm	Pass



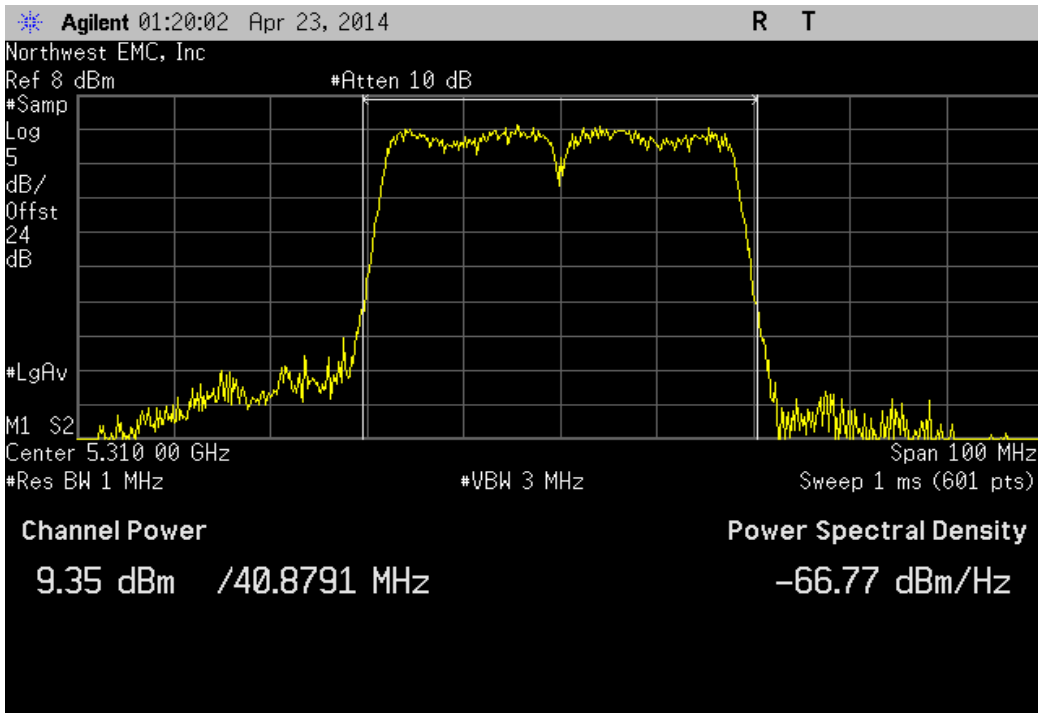
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
9.301 dBm	< 24 dBm	Pass



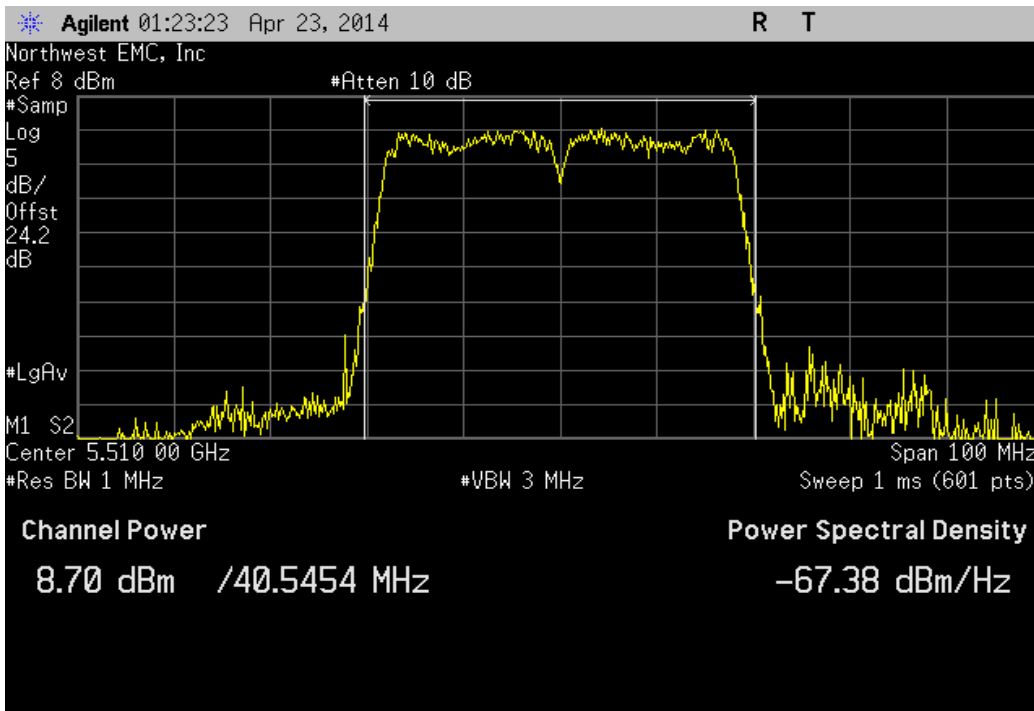
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
9.346 dBm	< 24 dBm	Pass



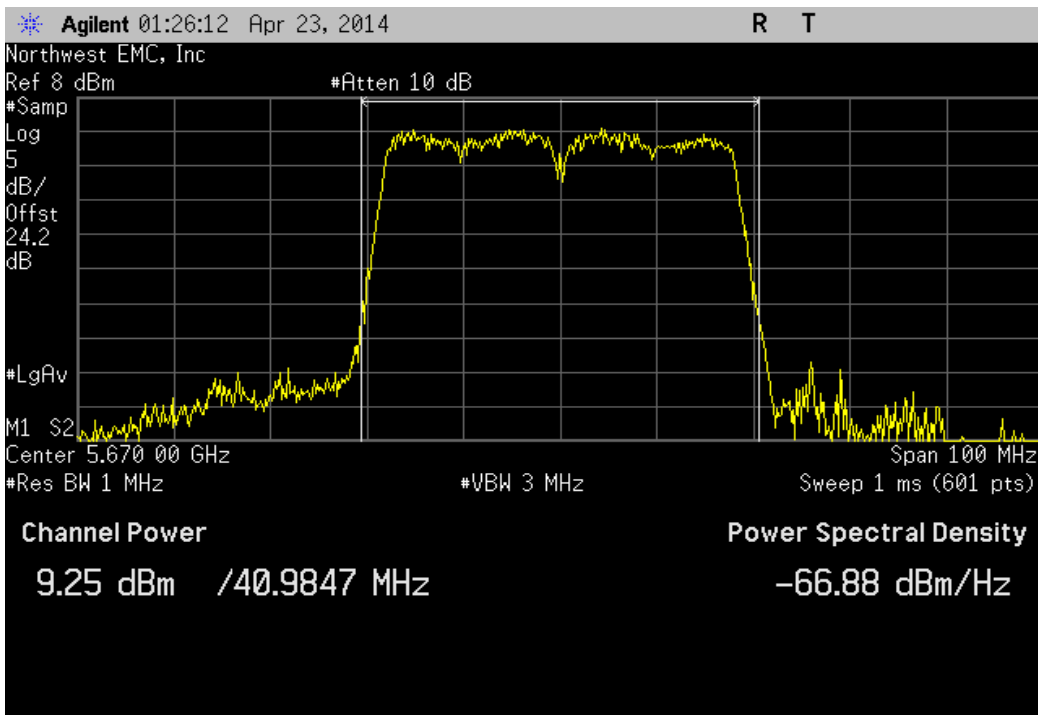
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 100/104, Low Channel 5510 MHz

				Value	Limit	Result
				8.703 dBm	< 24 dBm	Pass



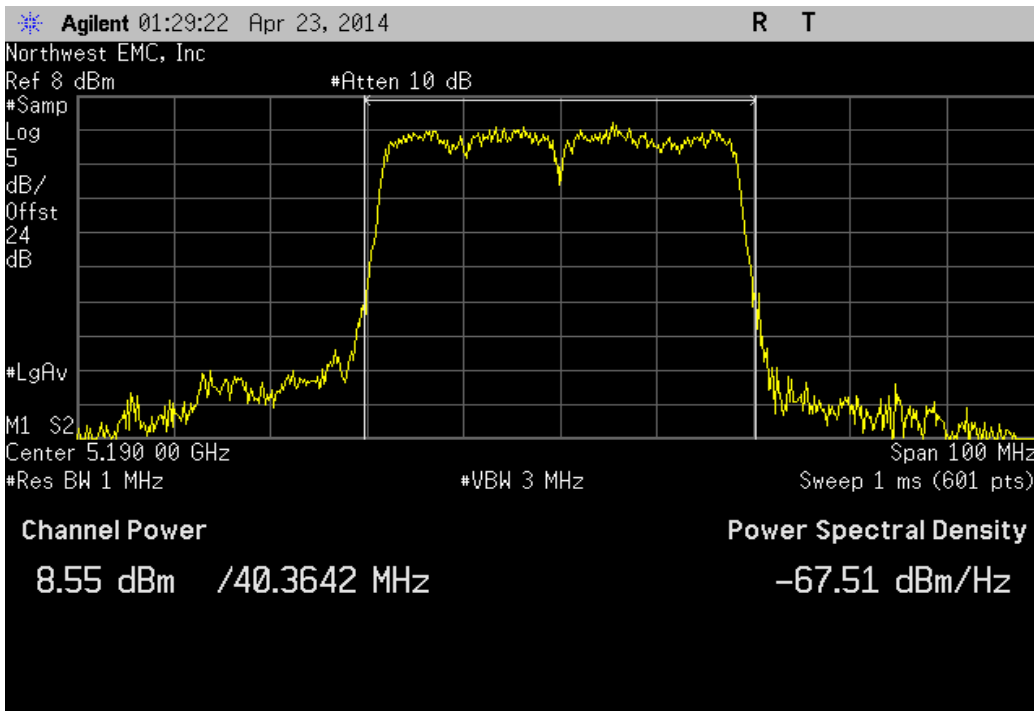
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 132/136, High Channel 5670 MHz

				Value	Limit	Result
				9.249 dBm	< 24 dBm	Pass



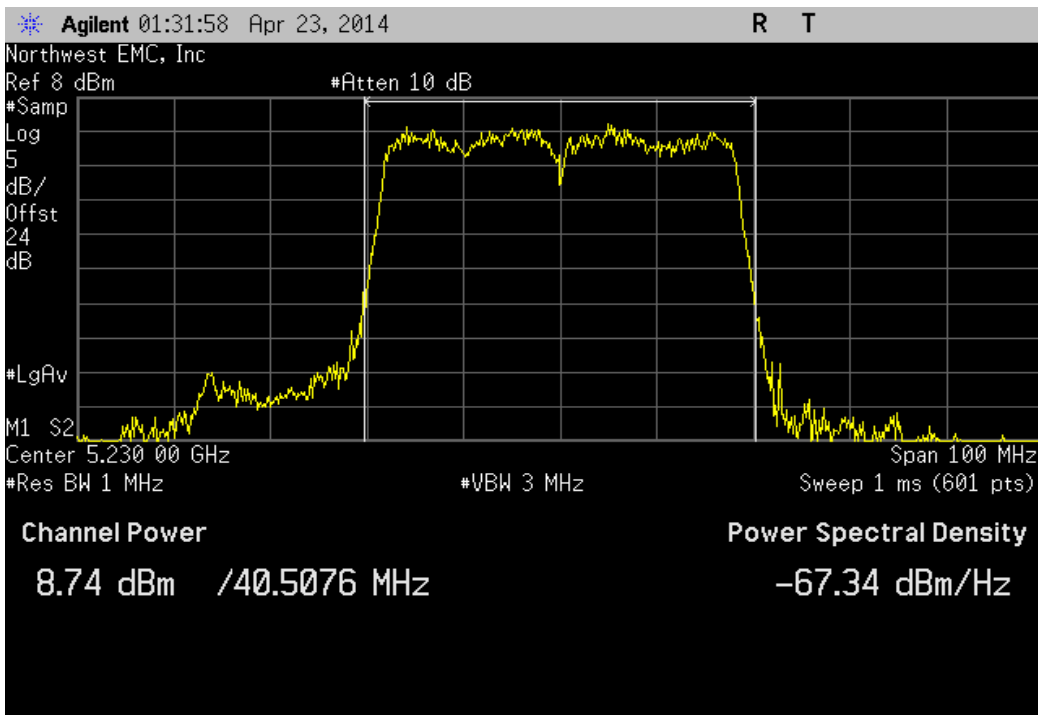
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
8.549 dBm	< 17 dBm	Pass



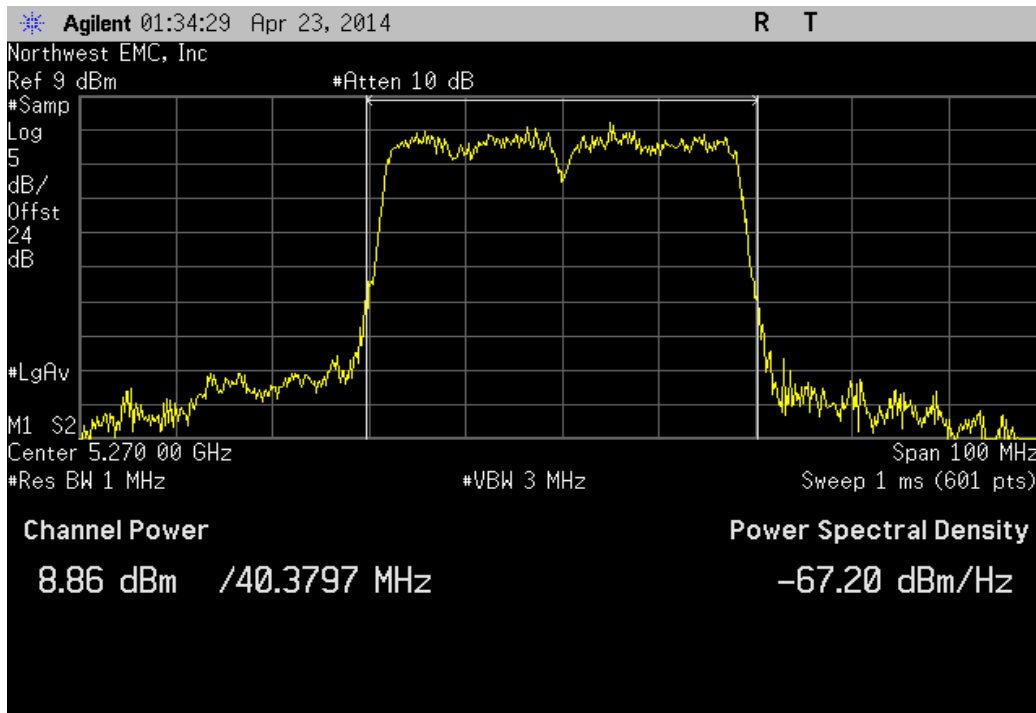
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
8.737 dBm	< 17 dBm	Pass



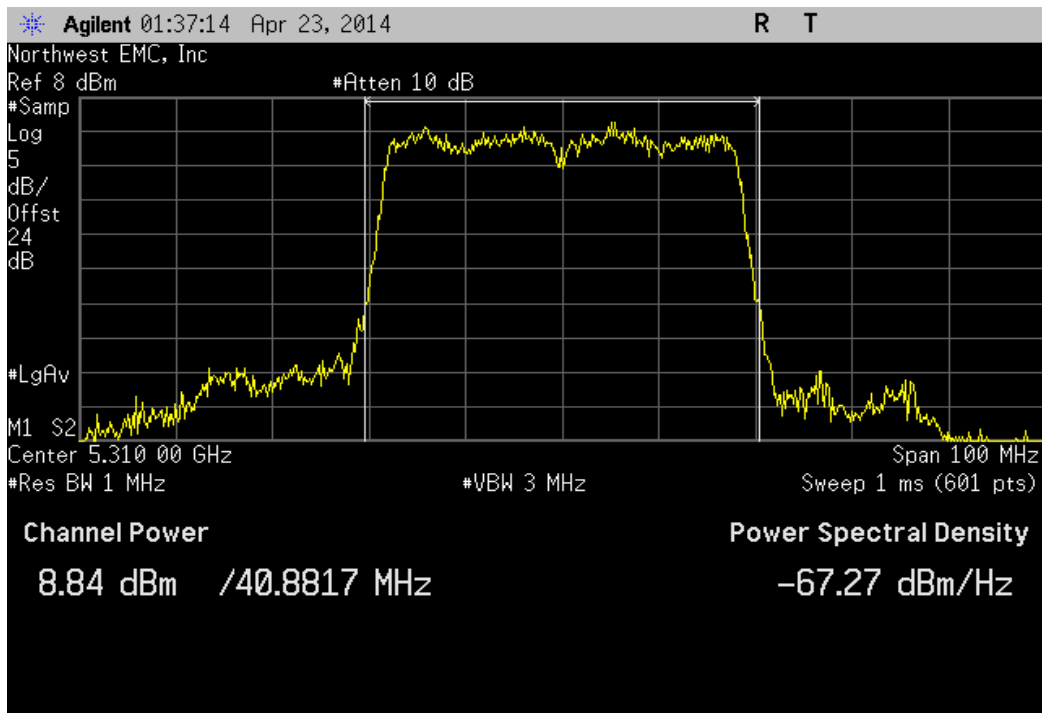
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
8.858 dBm	< 24 dBm	Pass



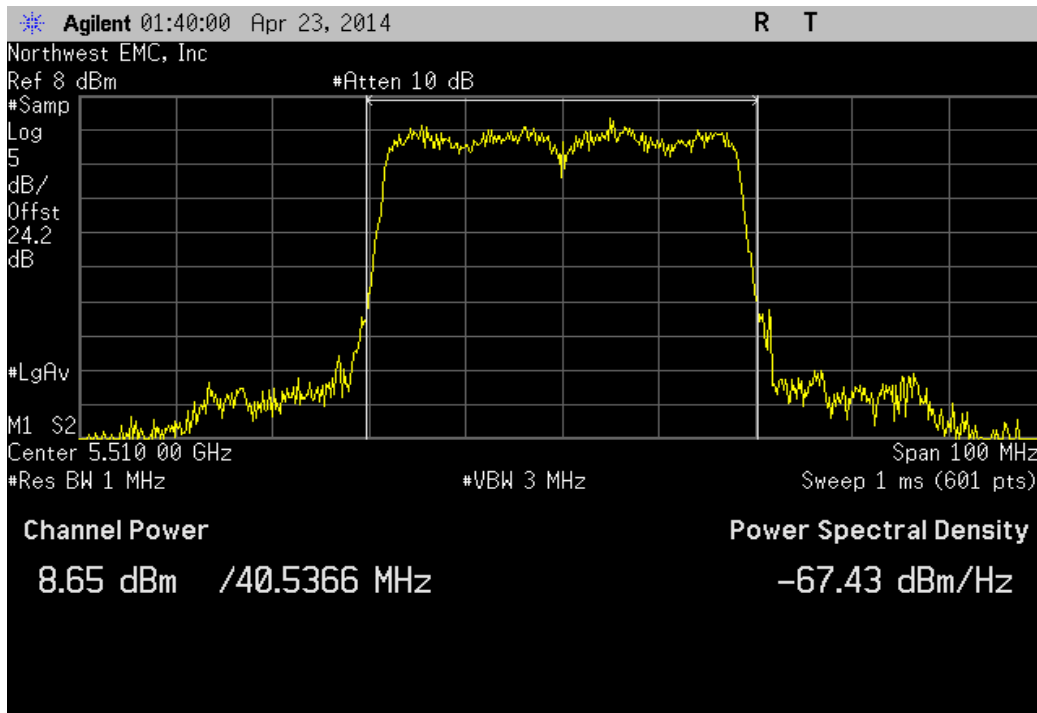
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
8.844 dBm	< 24 dBm	Pass



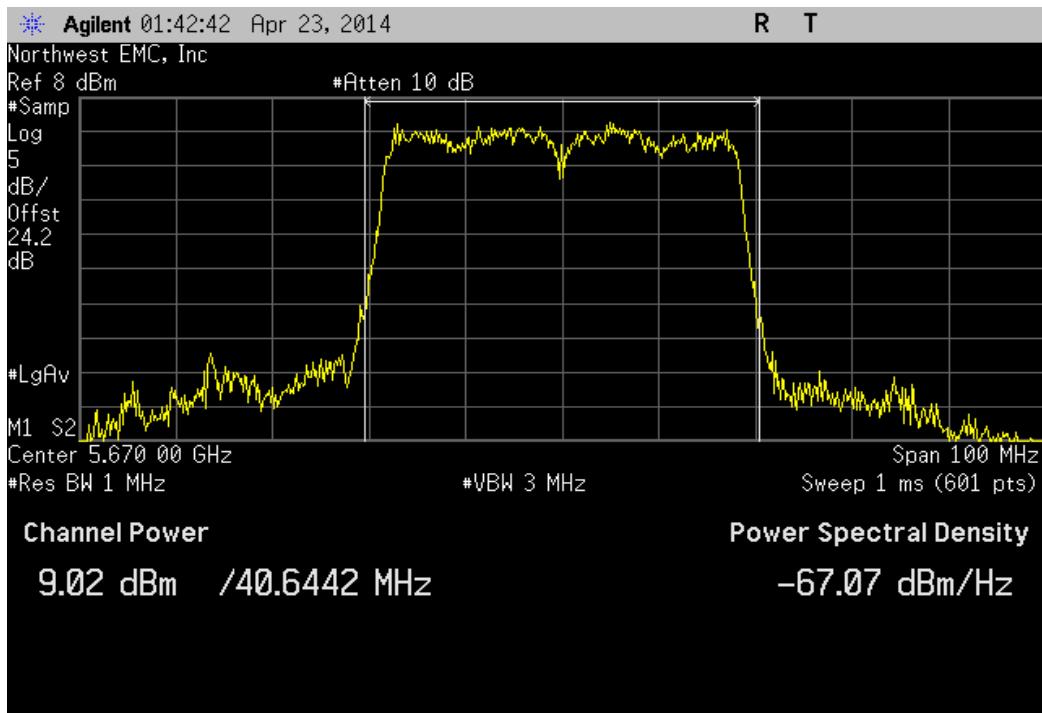
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
8.648 dBm	< 24 dBm	Pass



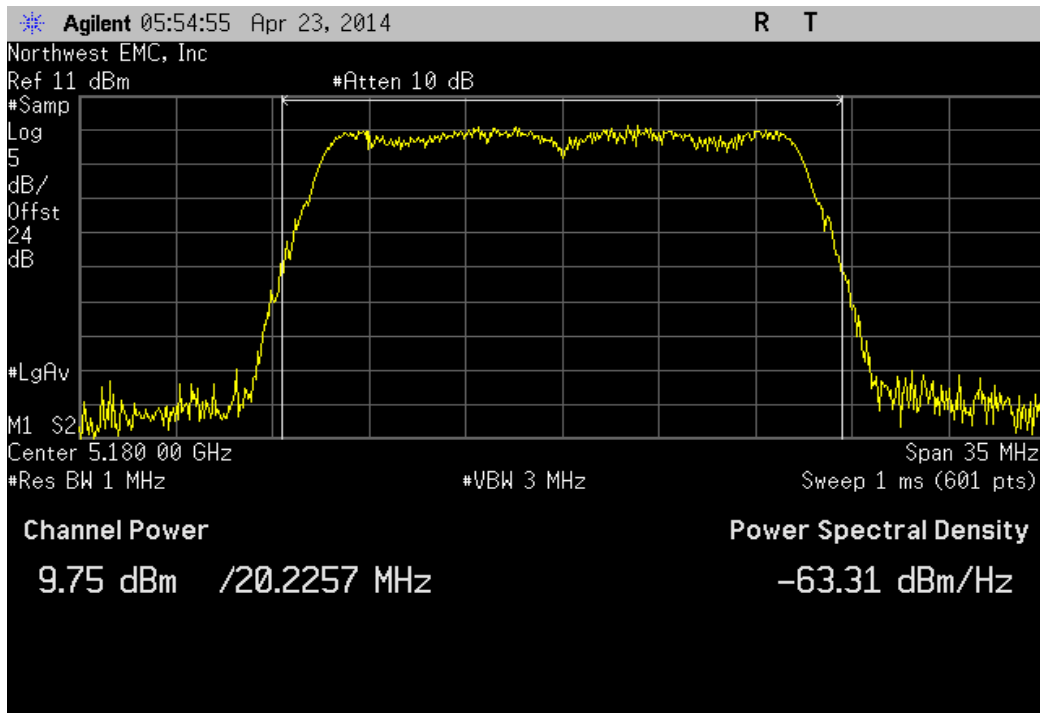
Chain A, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
9.017 dBm	< 24 dBm	Pass



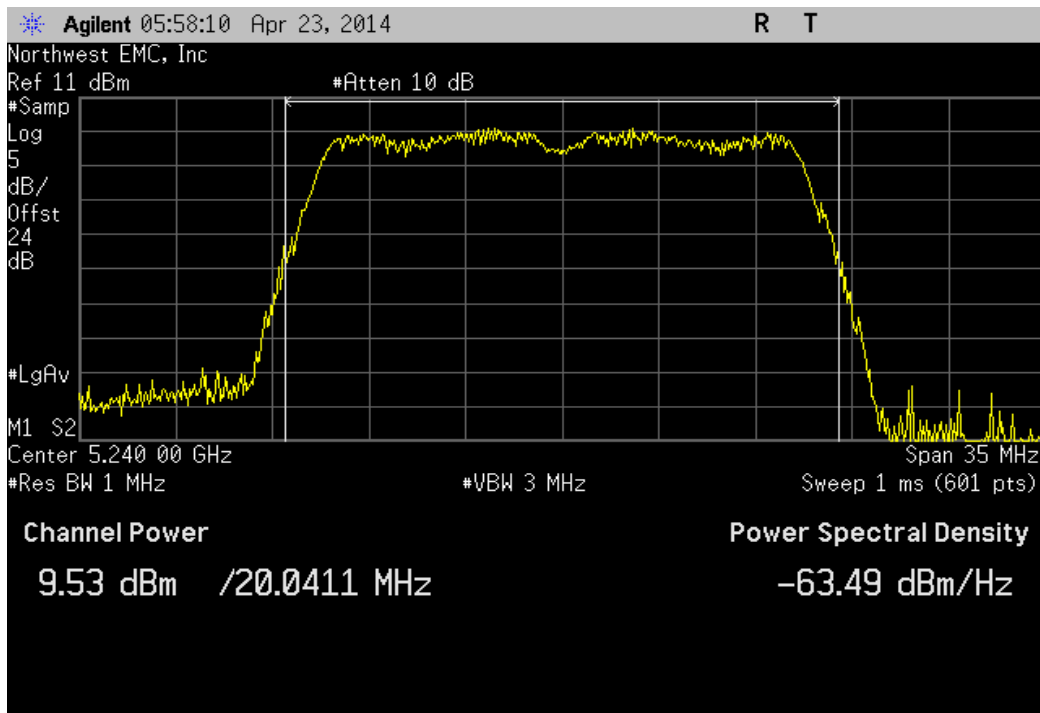
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.754 dBm	< 17 dBm	Pass



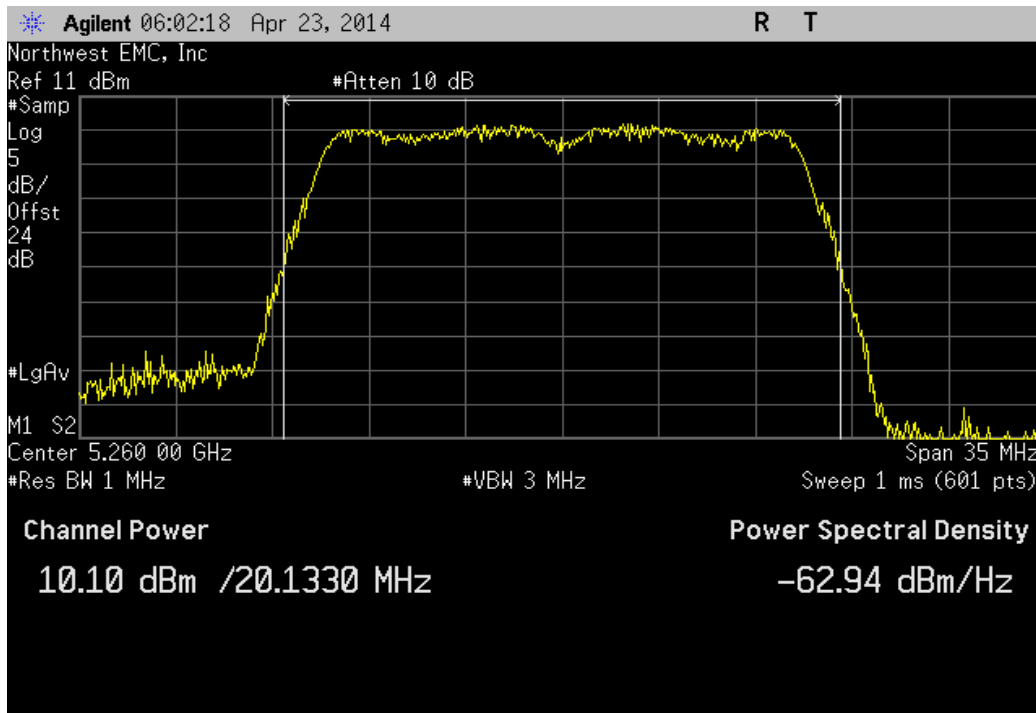
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.526 dBm	< 17 dBm	Pass



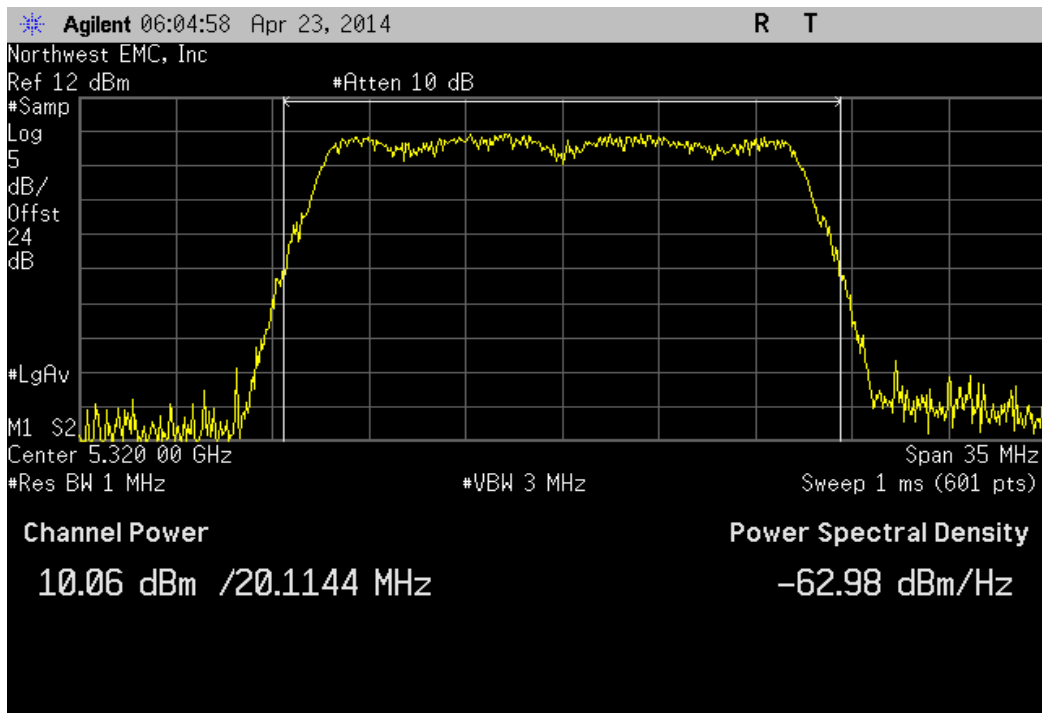
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
10.101 dBm	< 24 dBm	Pass



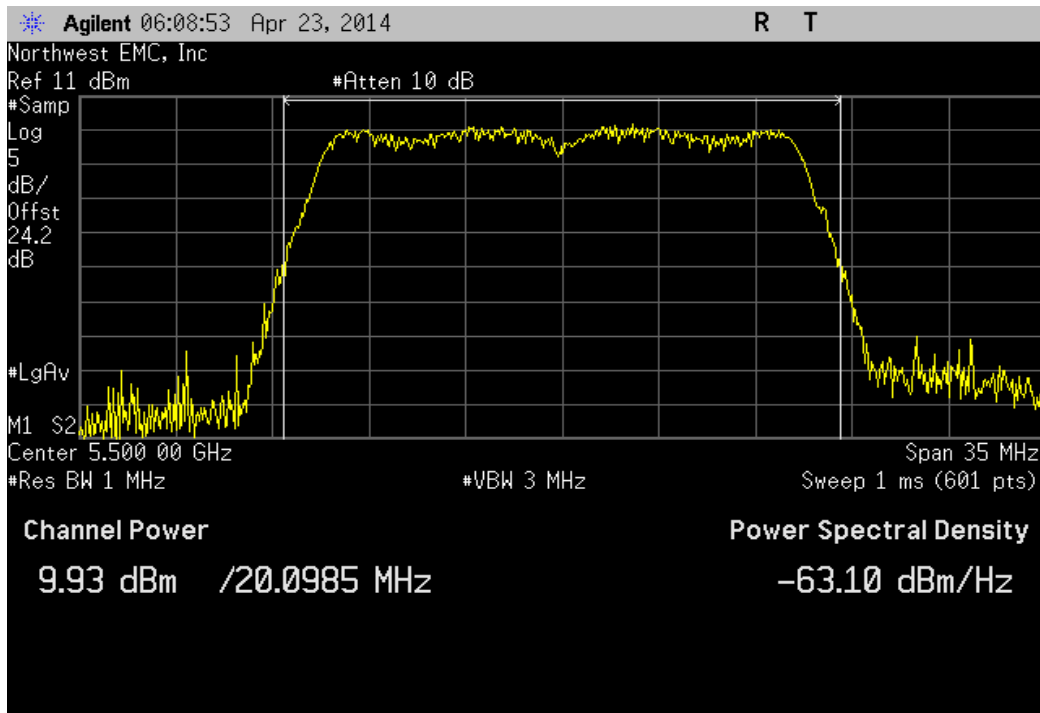
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.059 dBm	< 24 dBm	Pass



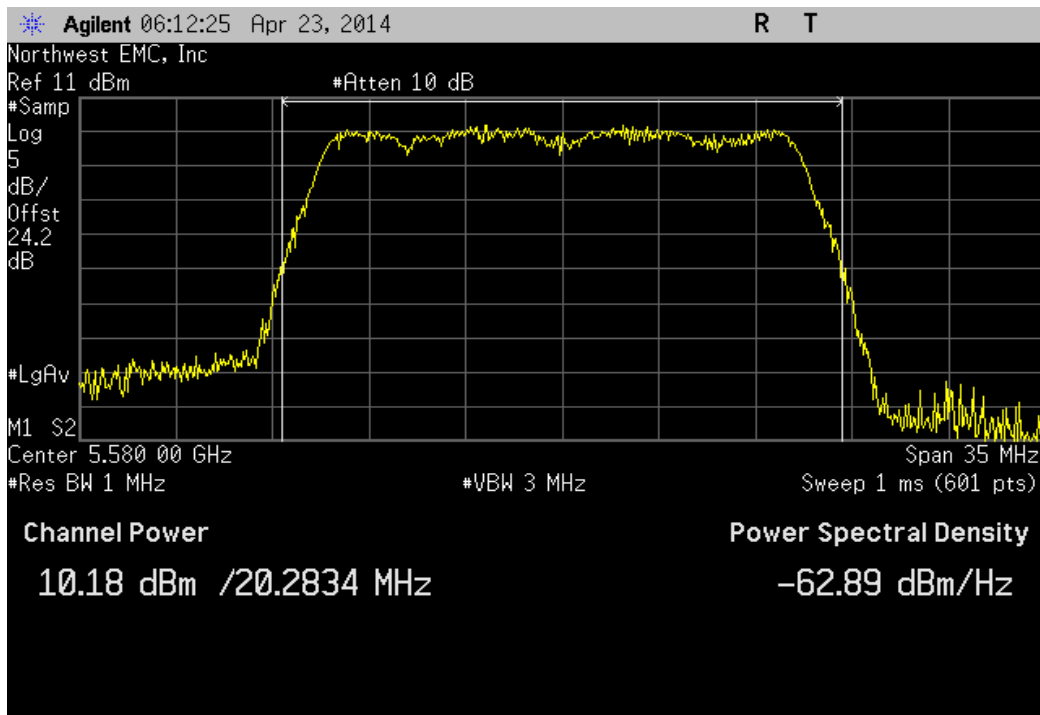
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.93 dBm	< 24 dBm	Pass



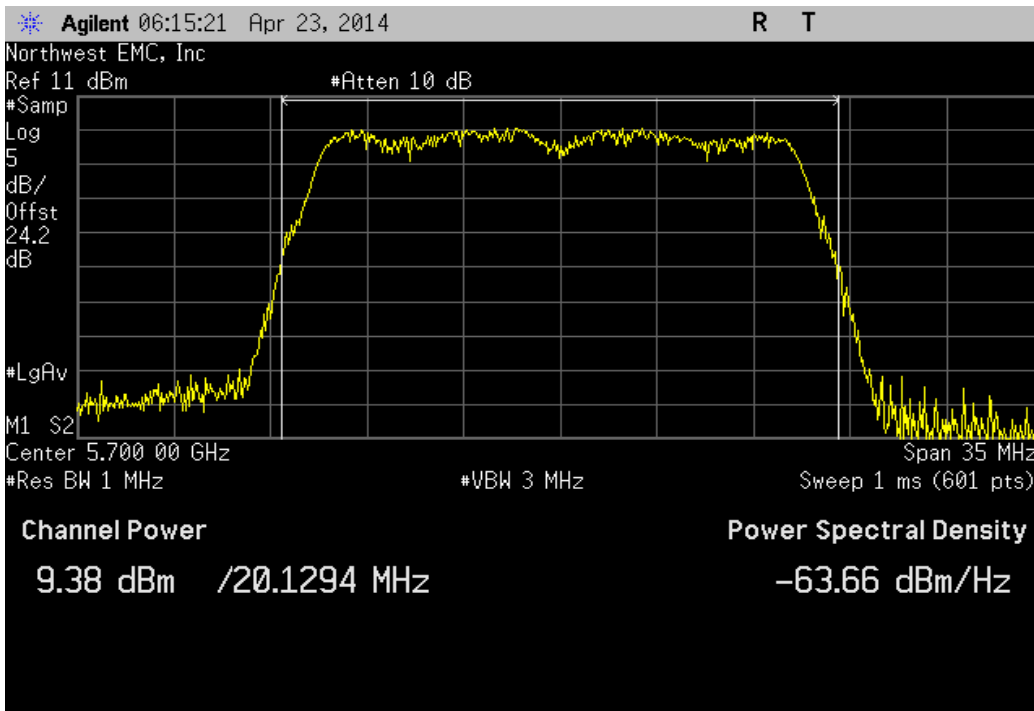
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
10.182 dBm	< 24 dBm	Pass



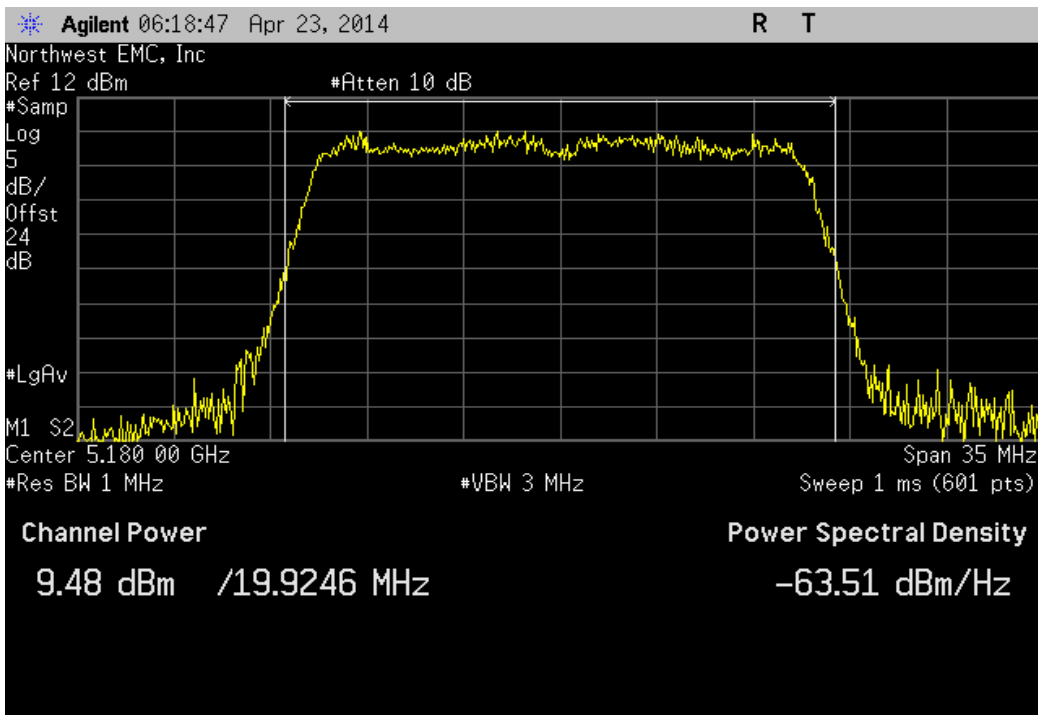
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.379 dBm	< 24 dBm	Pass



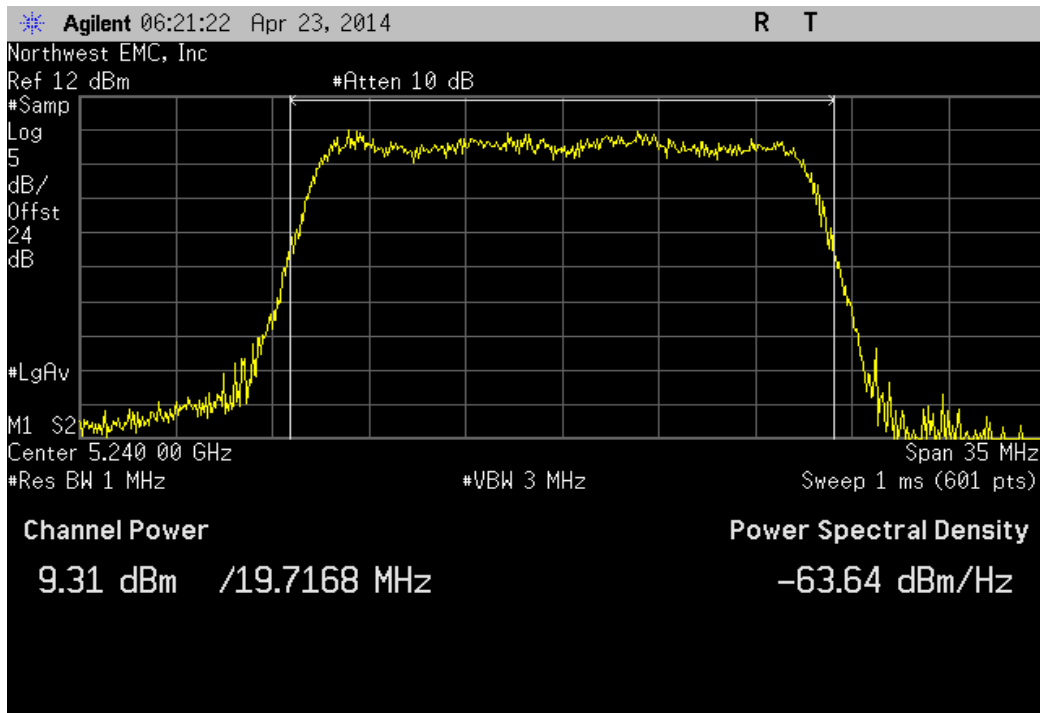
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.485 dBm	< 17 dBm	Pass



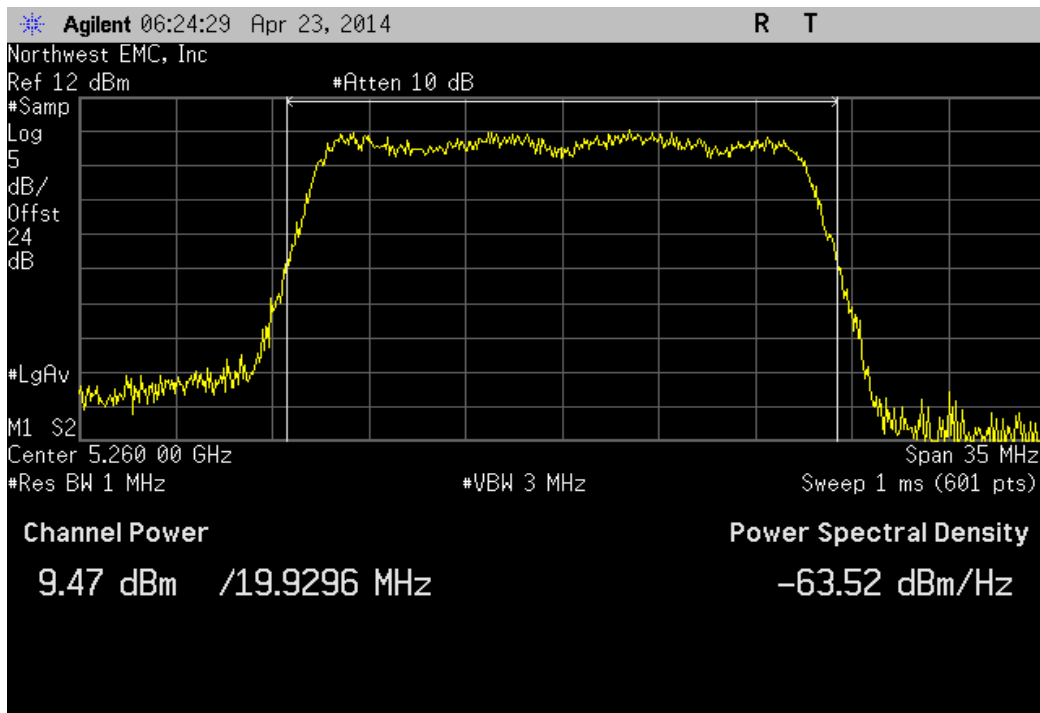
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.313 dBm	< 17 dBm	Pass



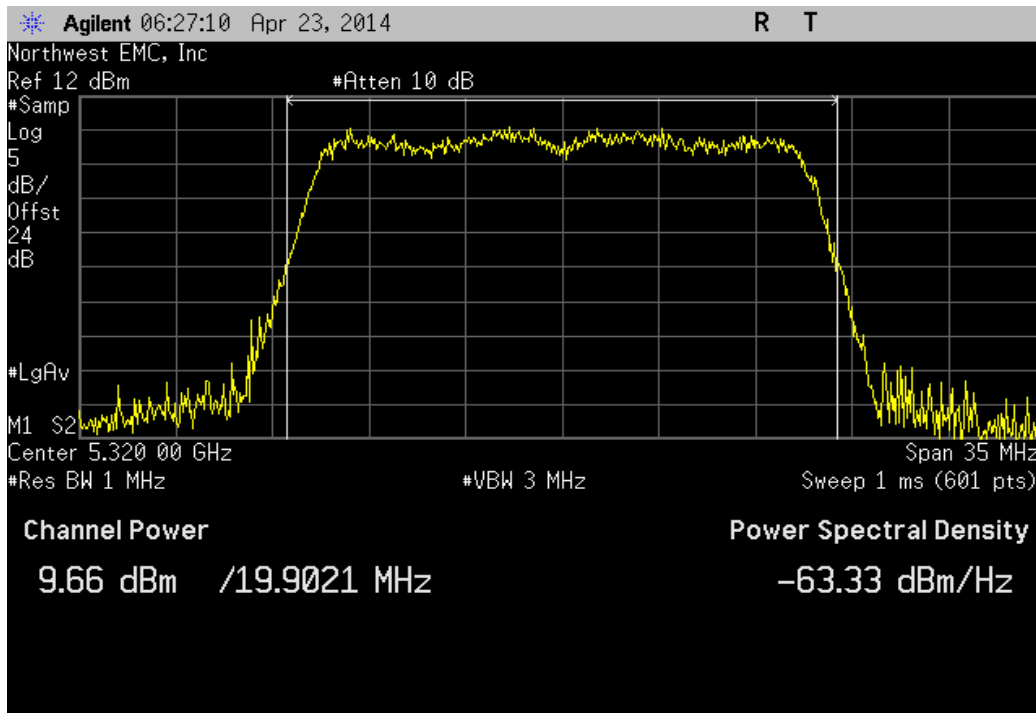
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.474 dBm	< 24 dBm	Pass



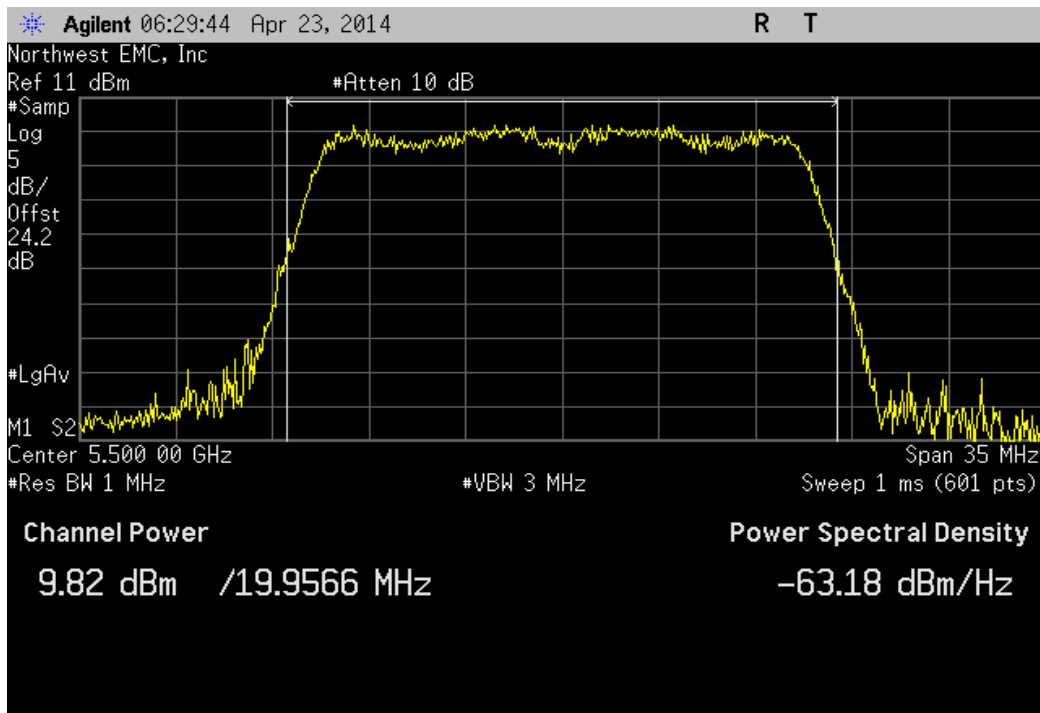
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
9.659 dBm	< 24 dBm	Pass



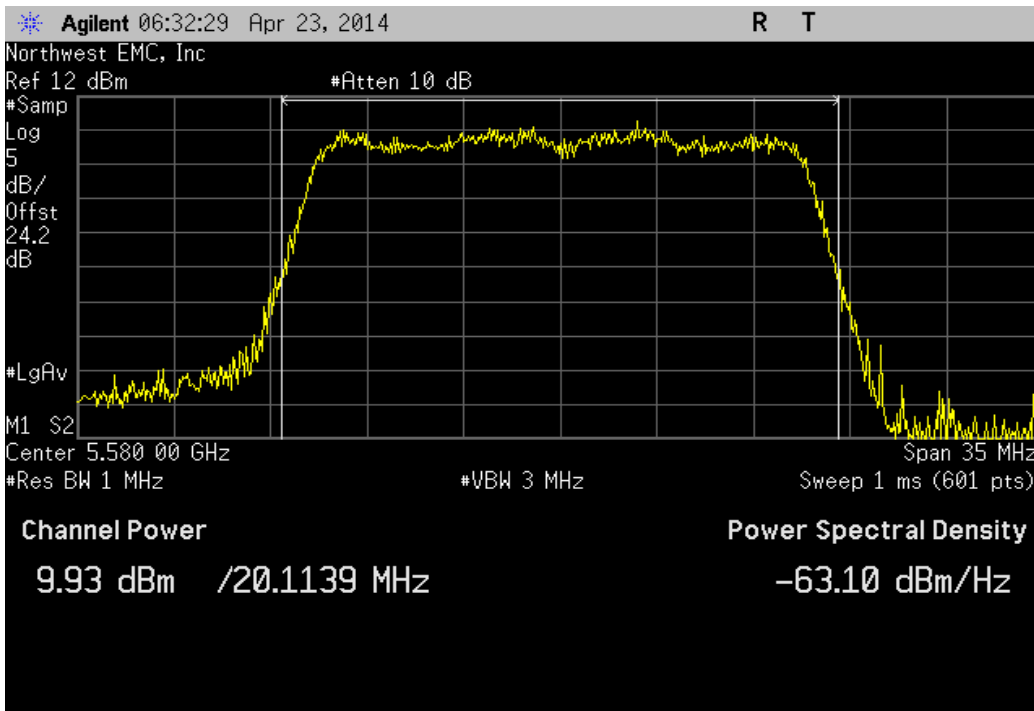
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.821 dBm	< 24 dBm	Pass



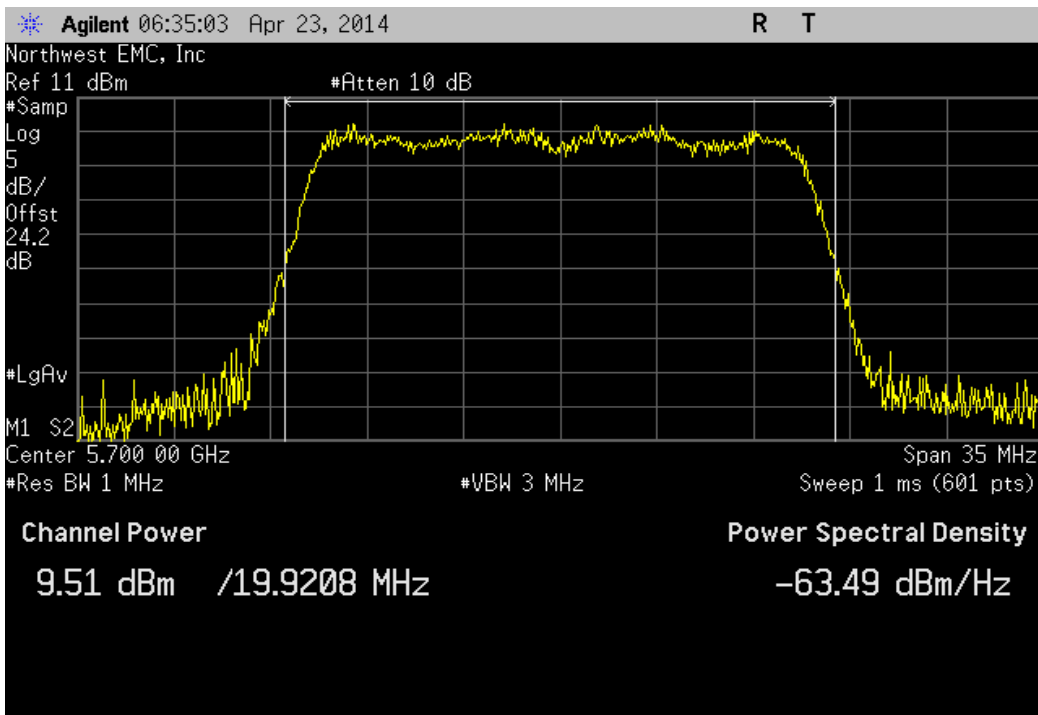
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
9.933 dBm	< 24 dBm	Pass



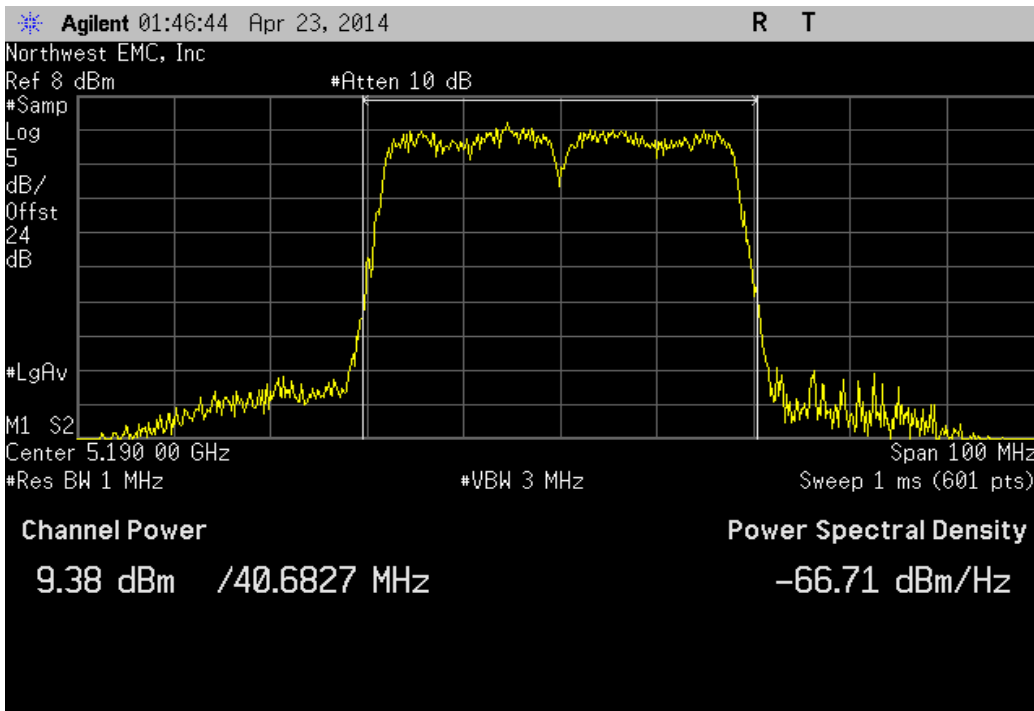
Chain A, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.506 dBm	< 24 dBm	Pass



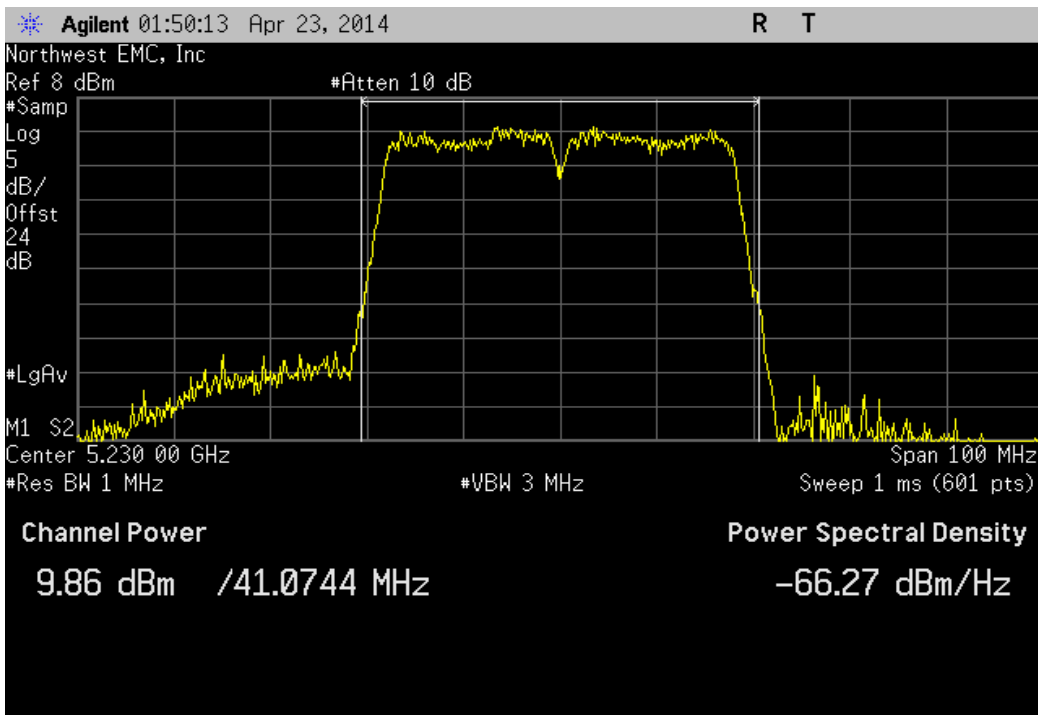
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
9.38 dBm	< 17 dBm	Pass



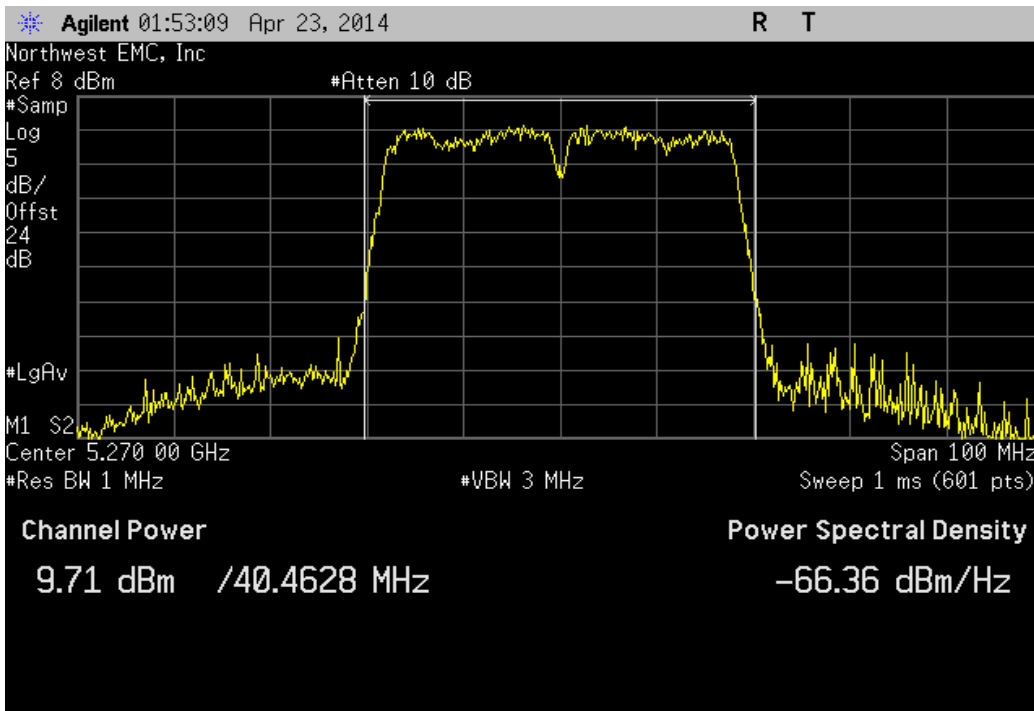
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
9.86 dBm	< 17 dBm	Pass



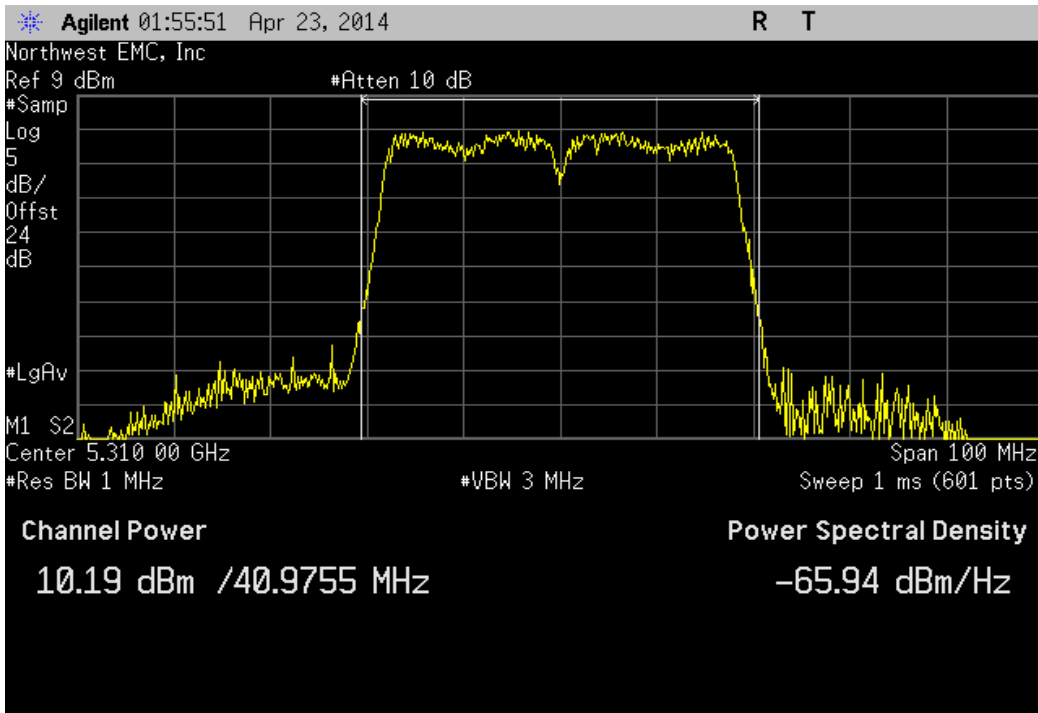
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
9.712 dBm	< 24 dBm	Pass



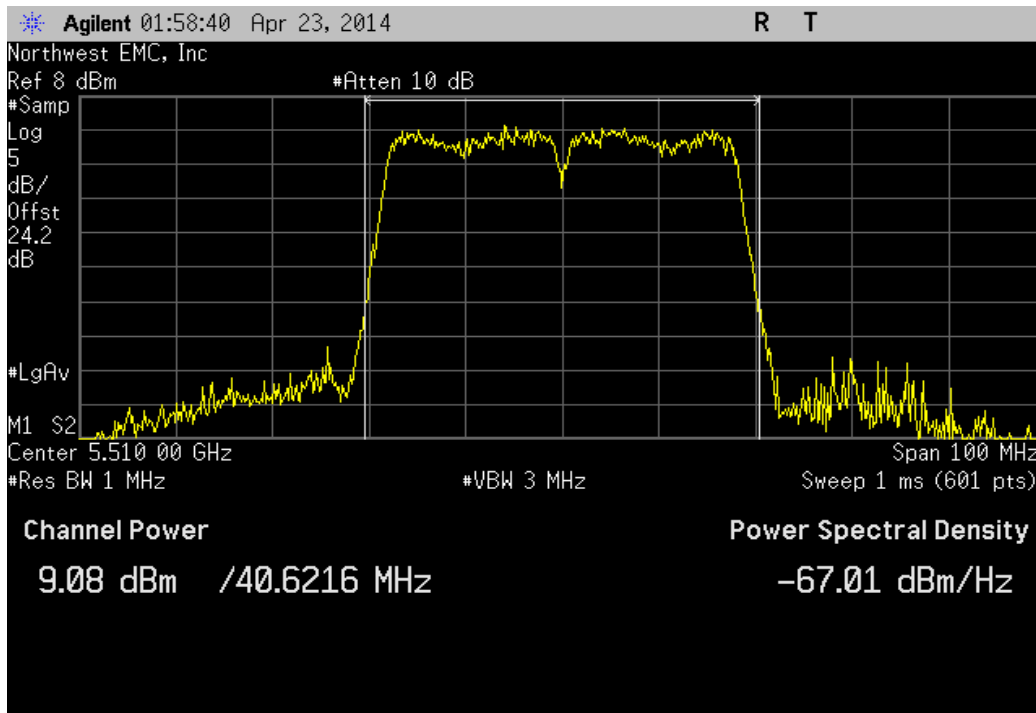
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
10.186 dBm	< 24 dBm	Pass



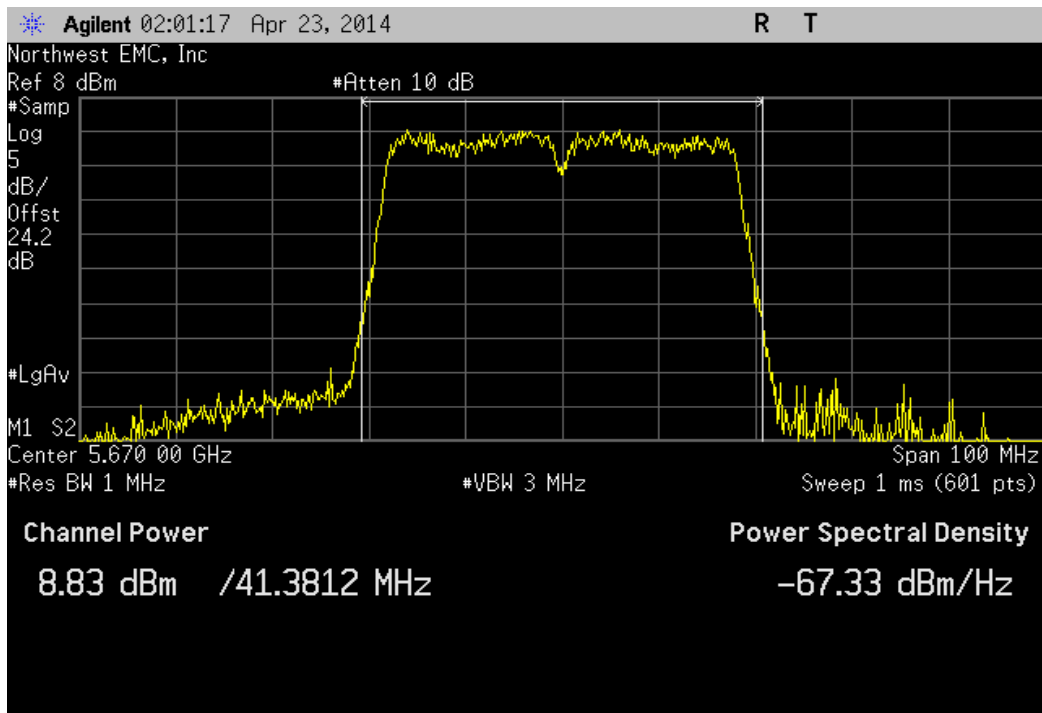
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
9.079 dBm	< 24 dBm	Pass



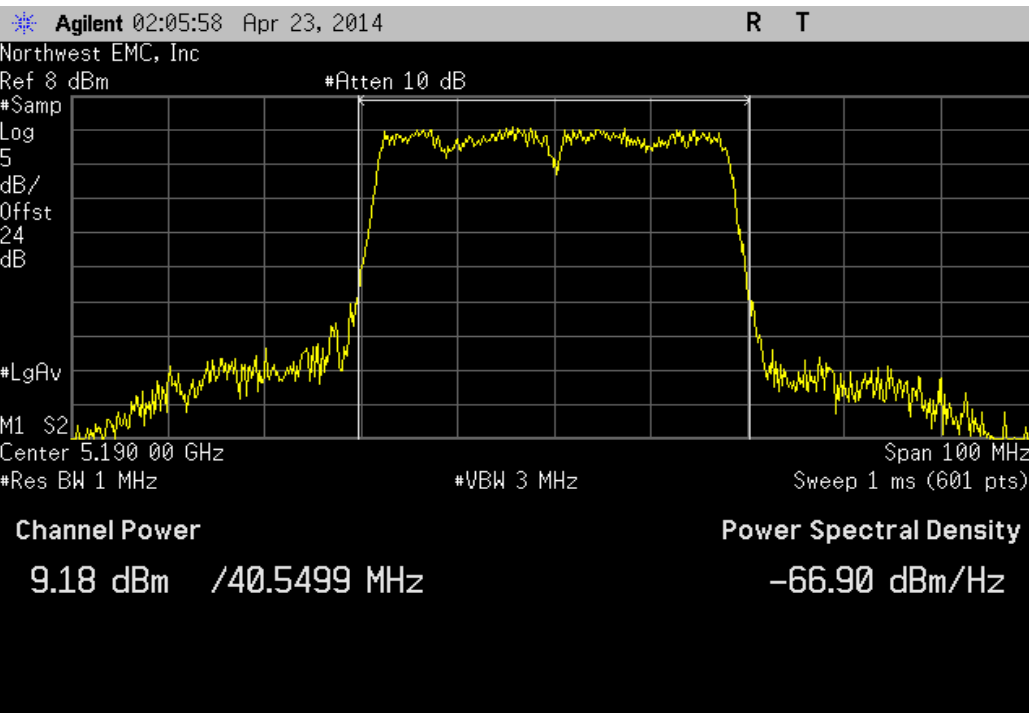
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
8.834 dBm	< 24 dBm	Pass



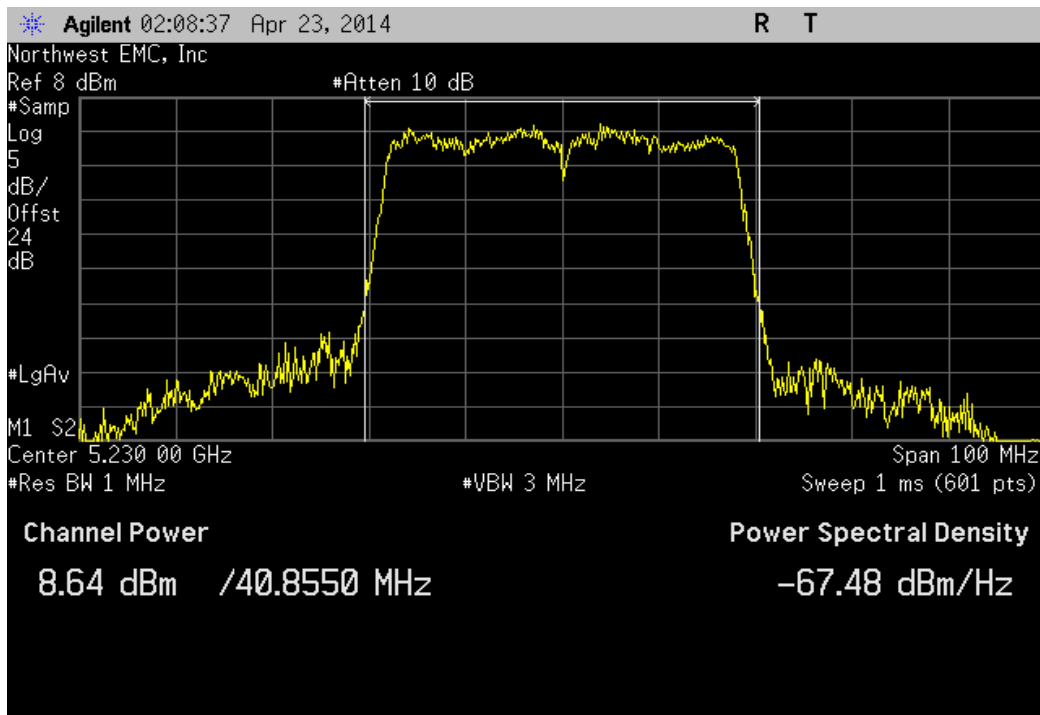
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
9.176 dBm	< 17 dBm	Pass



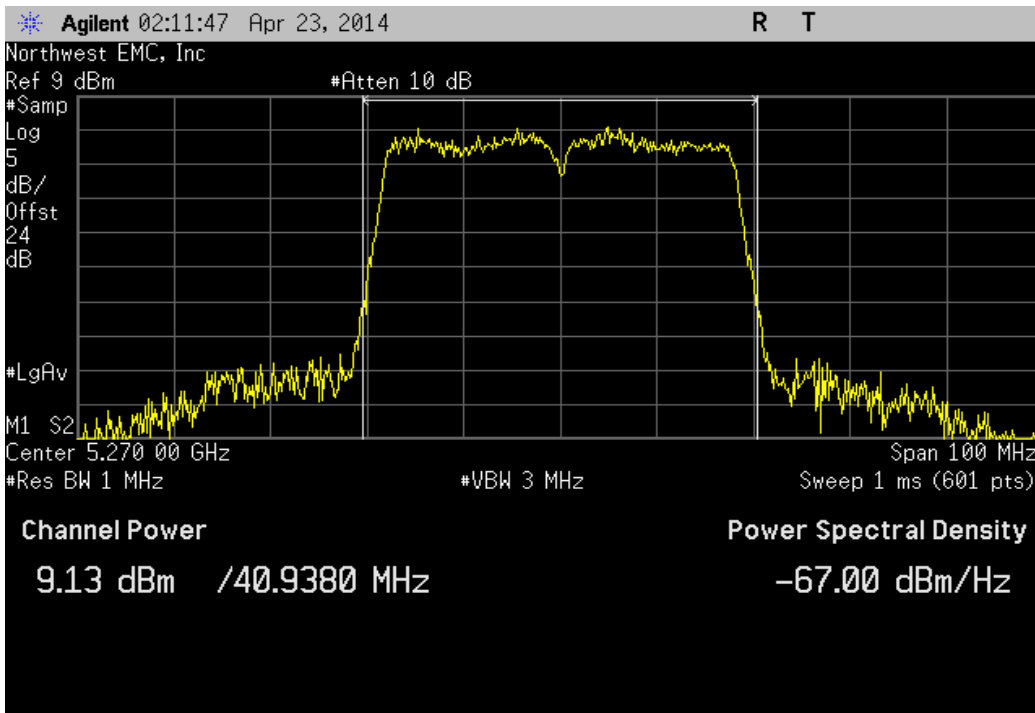
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
8.637 dBm	< 17 dBm	Pass



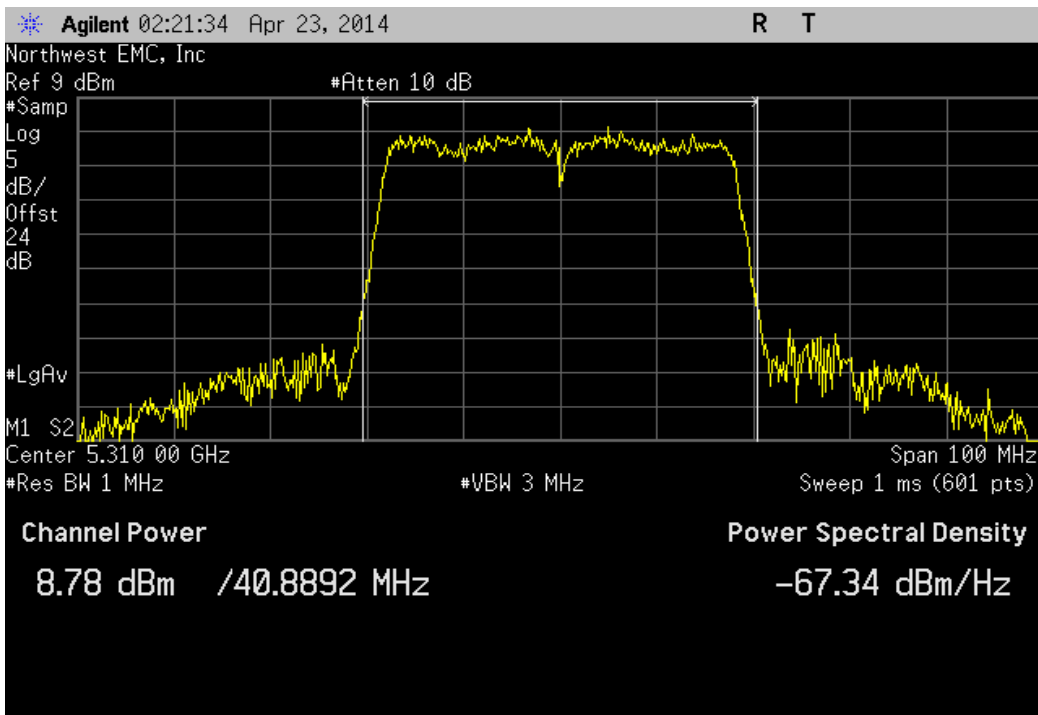
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
9.126 dBm	< 24 dBm	Pass



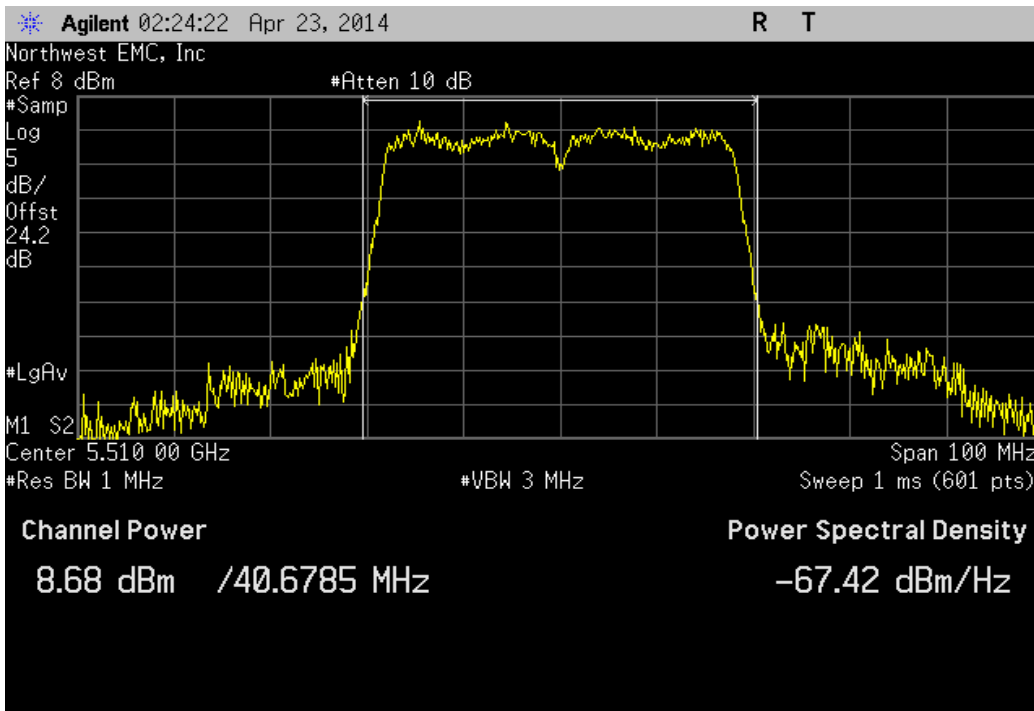
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
8.776 dBm	< 24 dBm	Pass



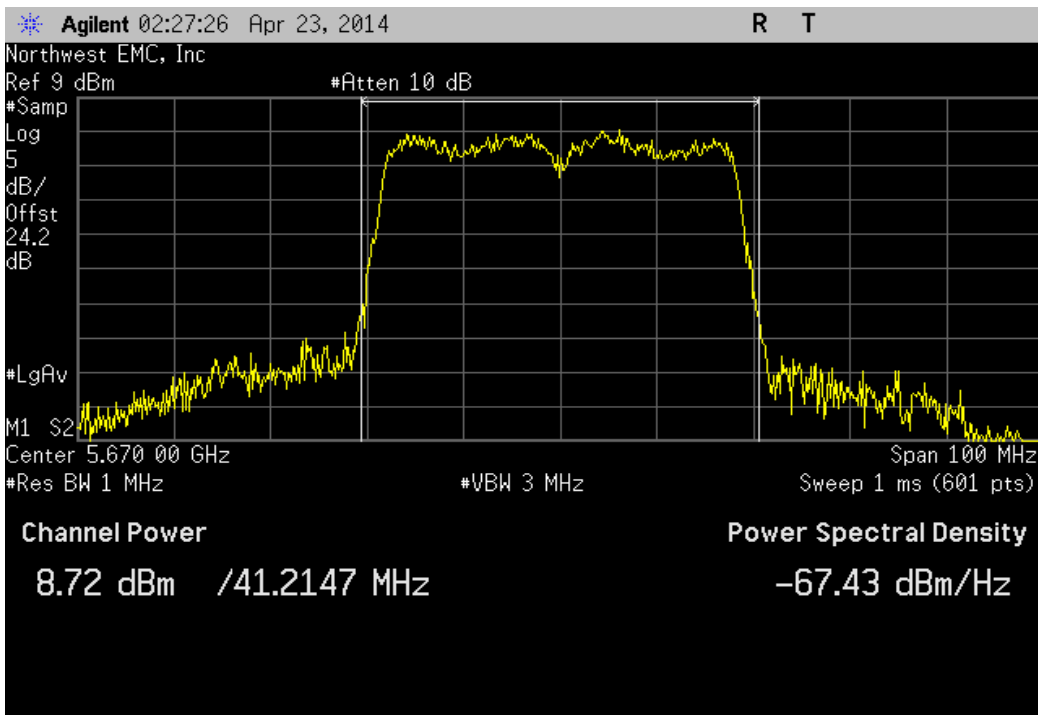
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
8.677 dBm	< 24 dBm	Pass



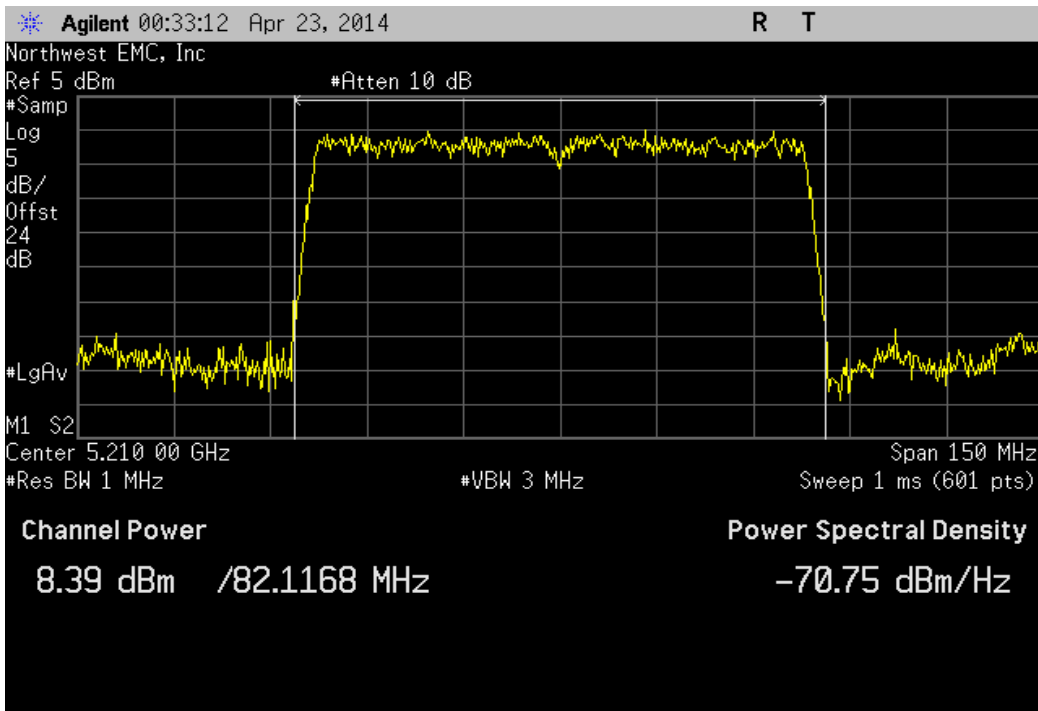
Chain A, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
8.723 dBm	< 24 dBm	Pass



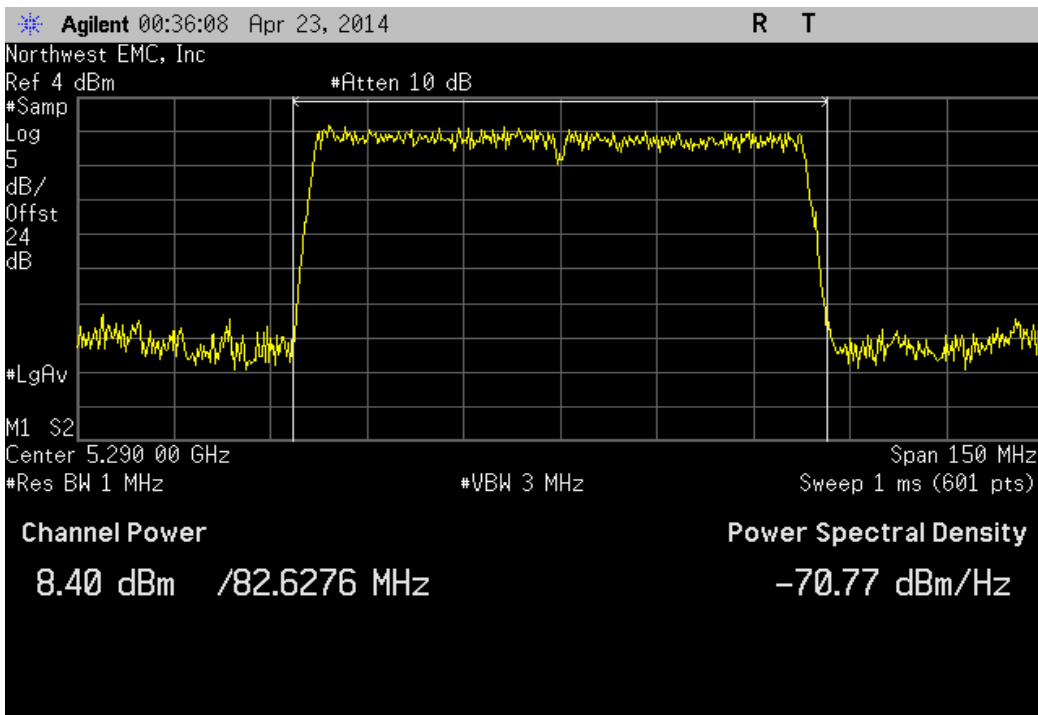
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
8.391 dBm	< 17 dBm	Pass



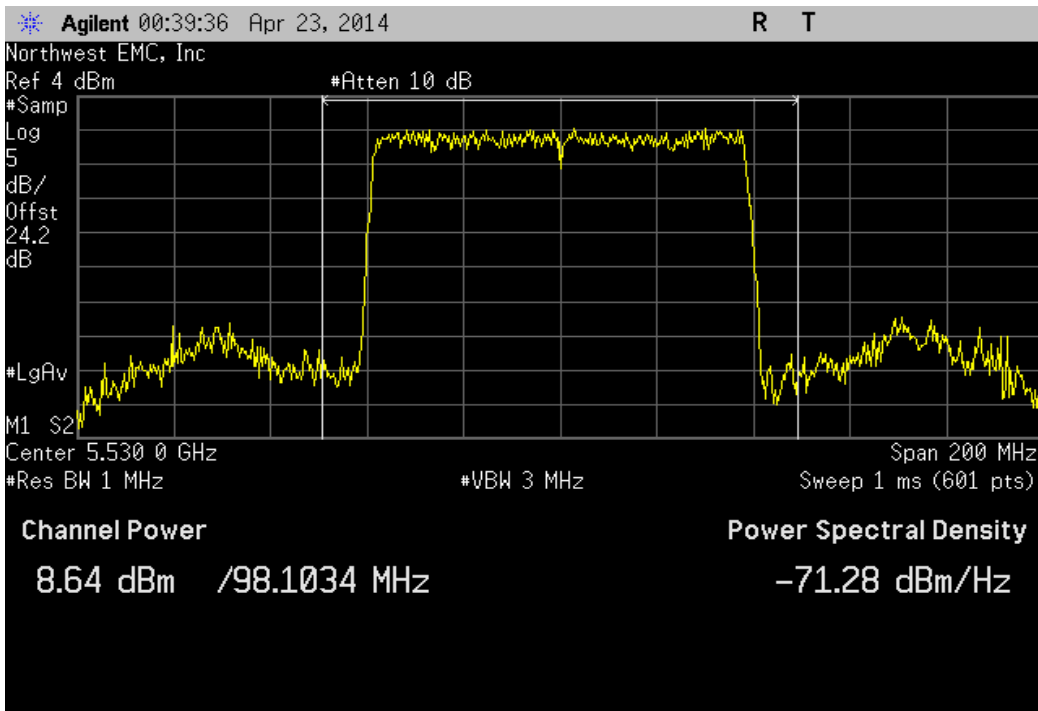
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
8.405 dBm	< 24 dBm	Pass



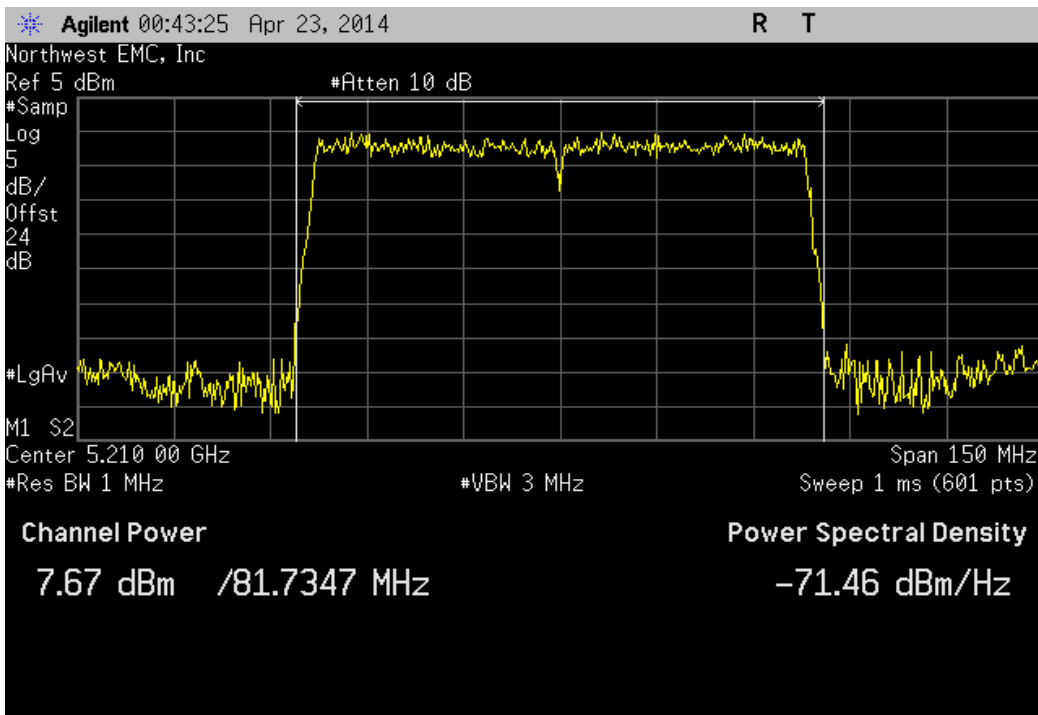
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
8.637 dBm	< 24 dBm	Pass



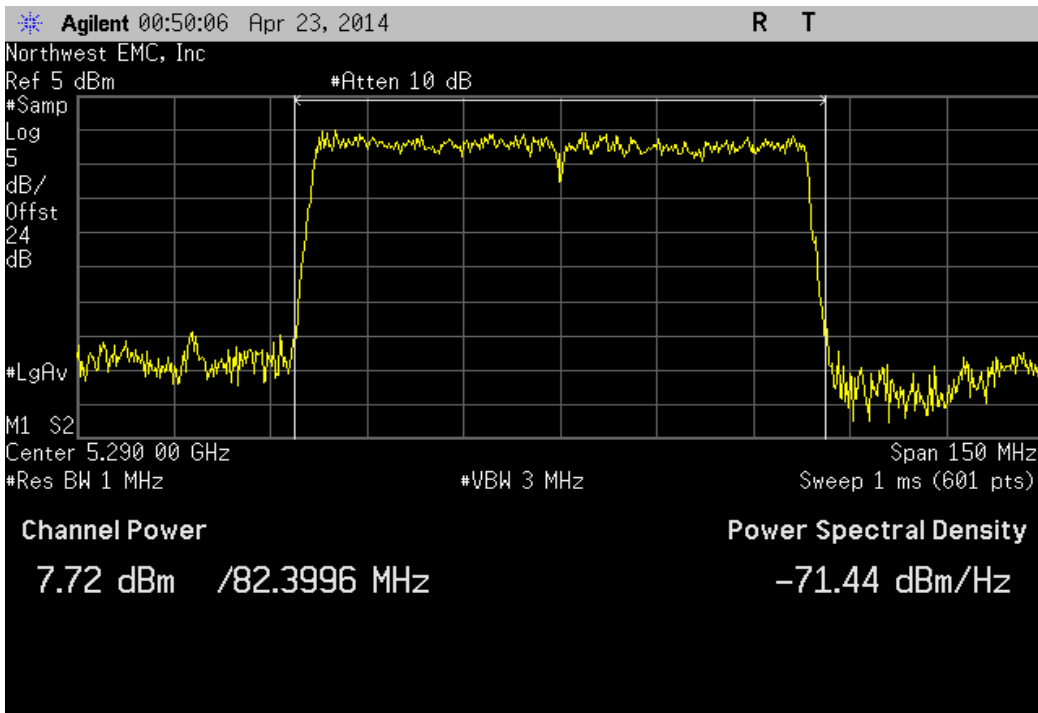
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
7.666 dBm	< 17 dBm	Pass



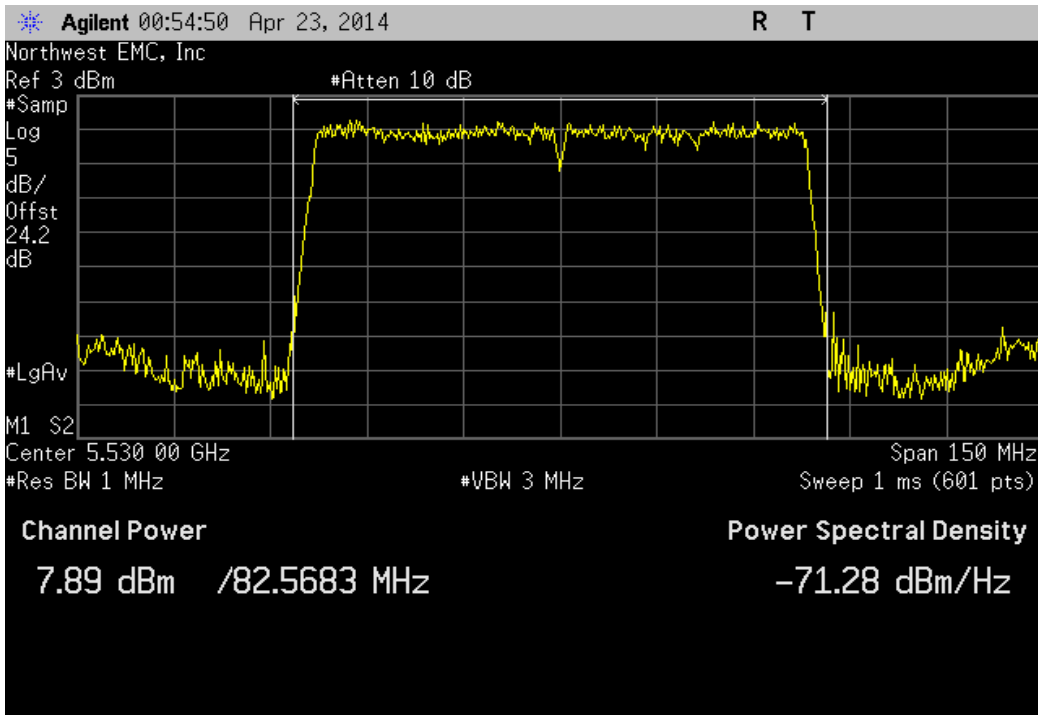
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
7.716 dBm	< 24 dBm	Pass



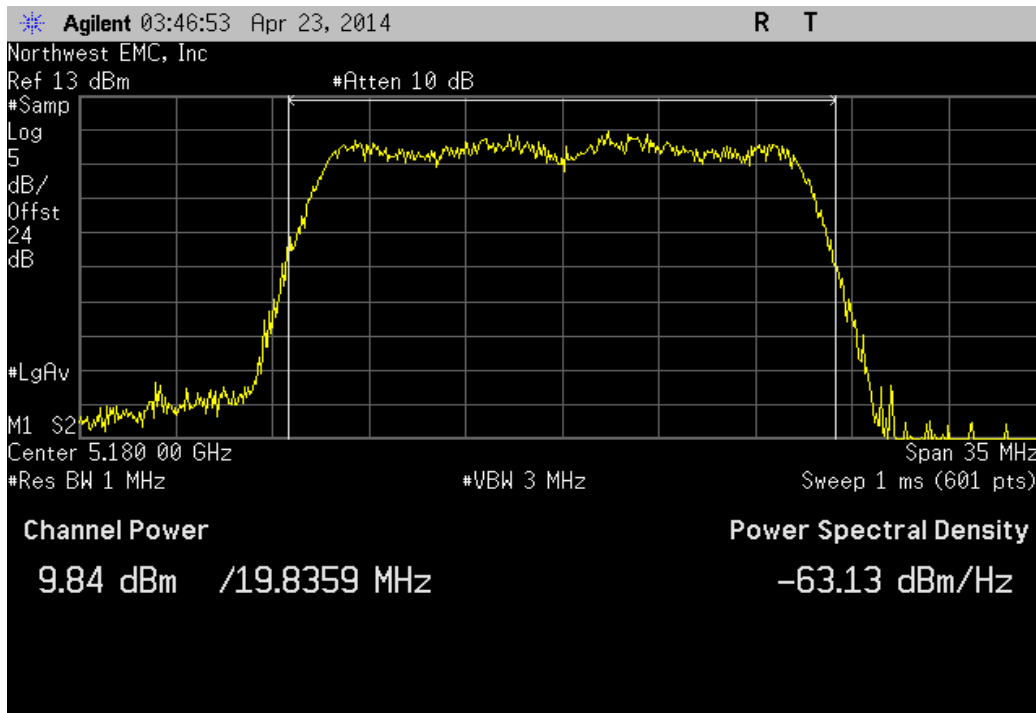
Chain A, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
7.891 dBm	< 24 dBm	Pass



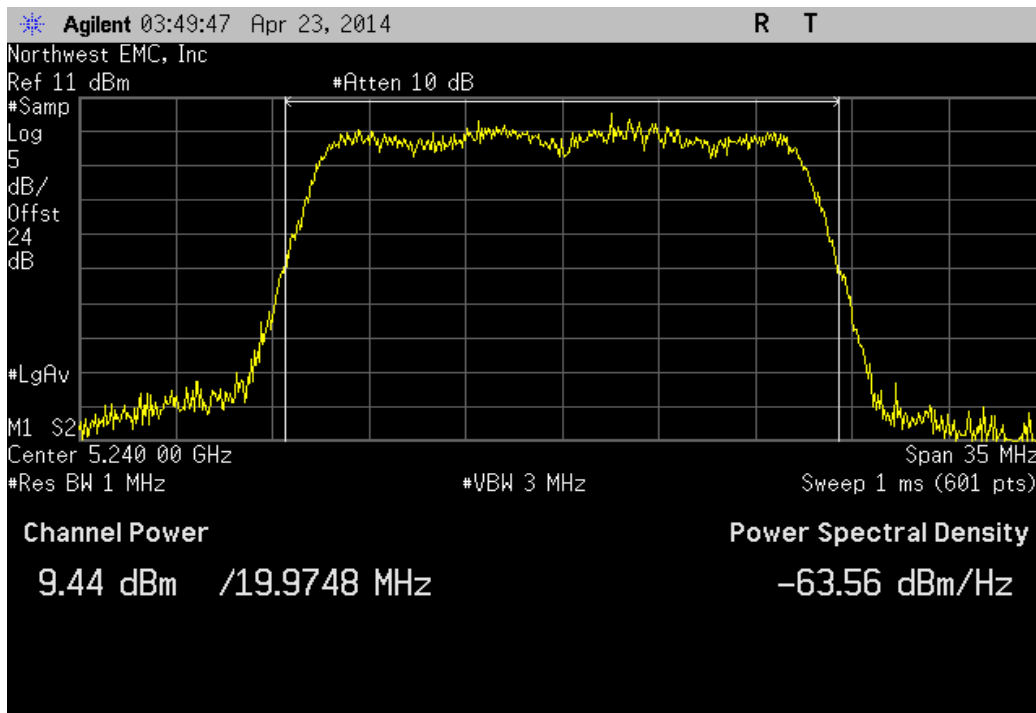
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.843 dBm	< 17 dBm	Pass



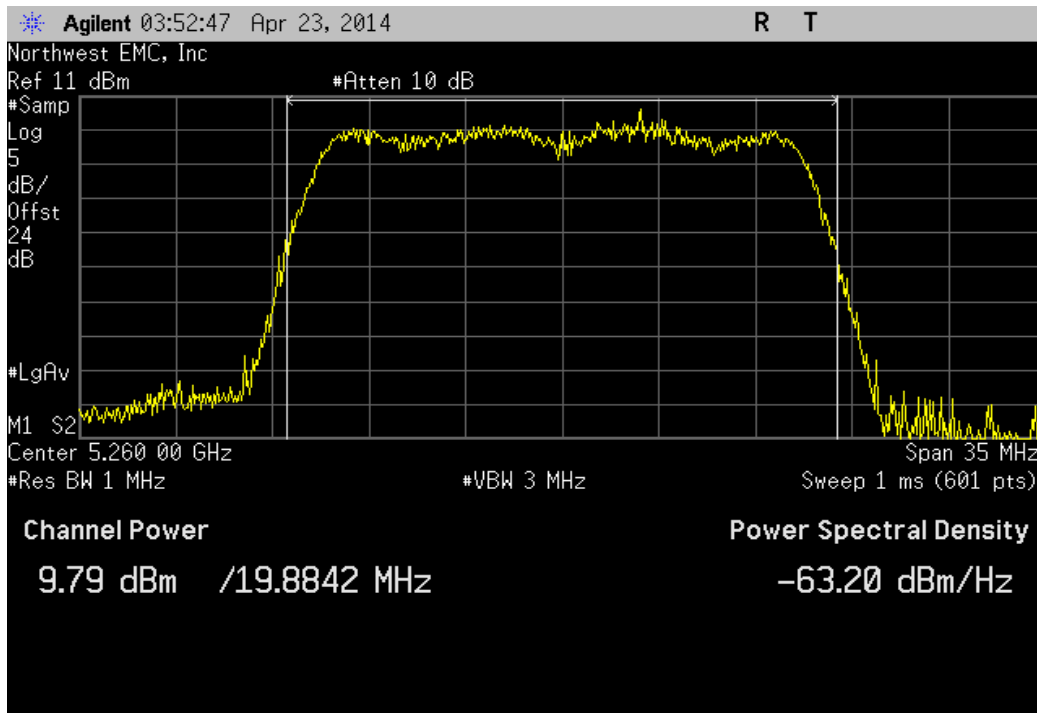
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.44 dBm	< 17 dBm	Pass



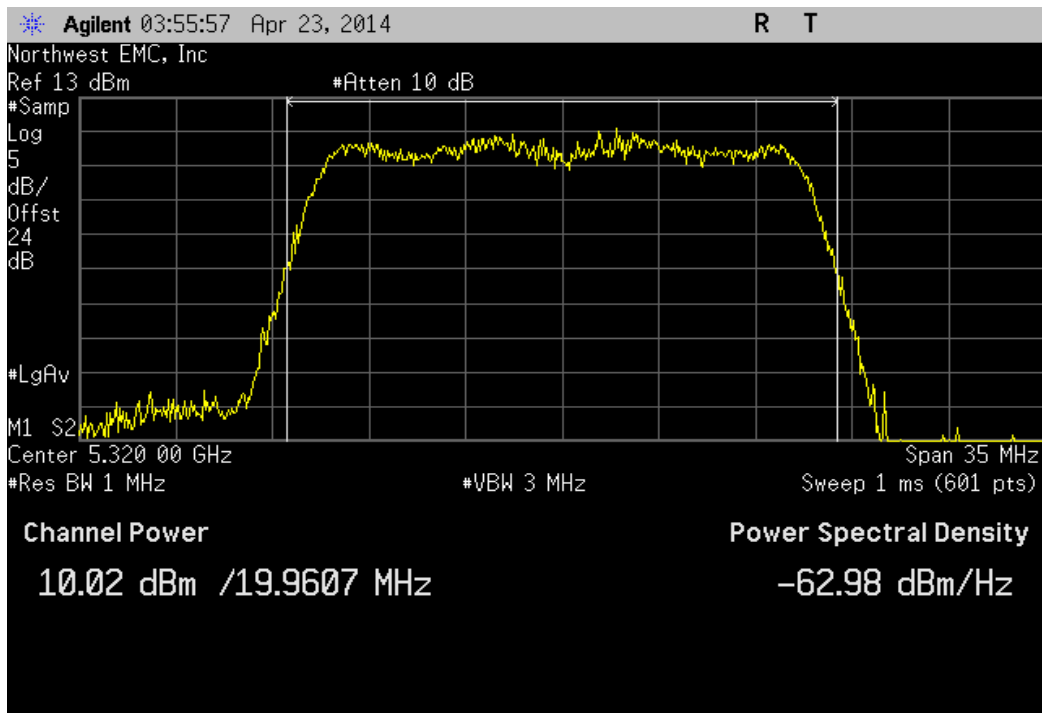
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.787 dBm	< 24 dBm	Pass



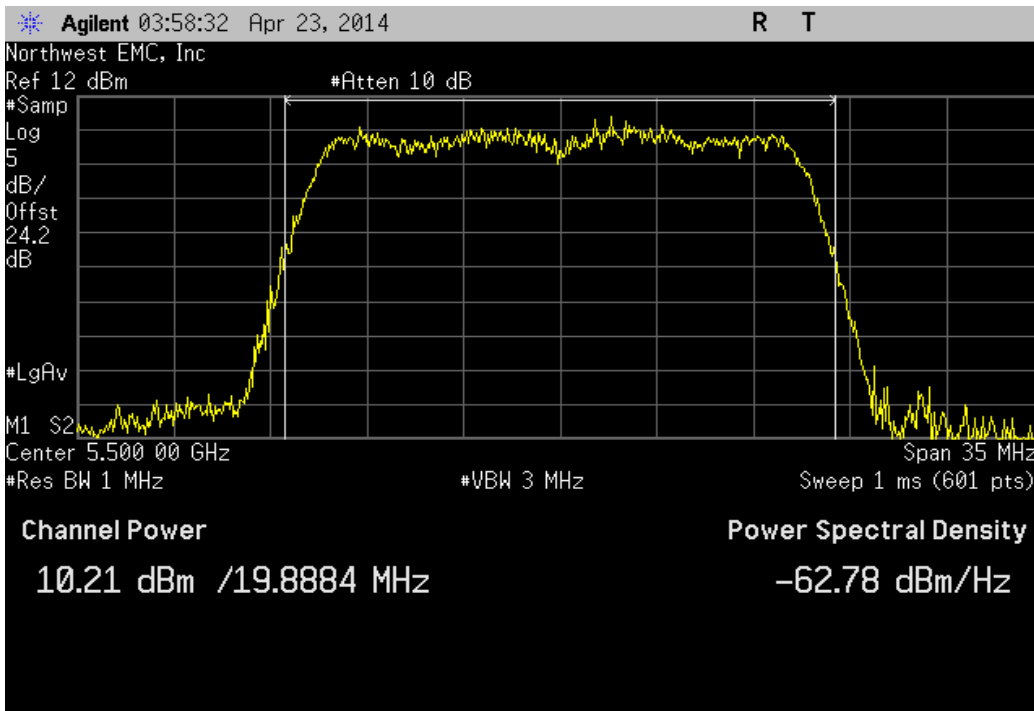
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.017 dBm	< 24 dBm	Pass



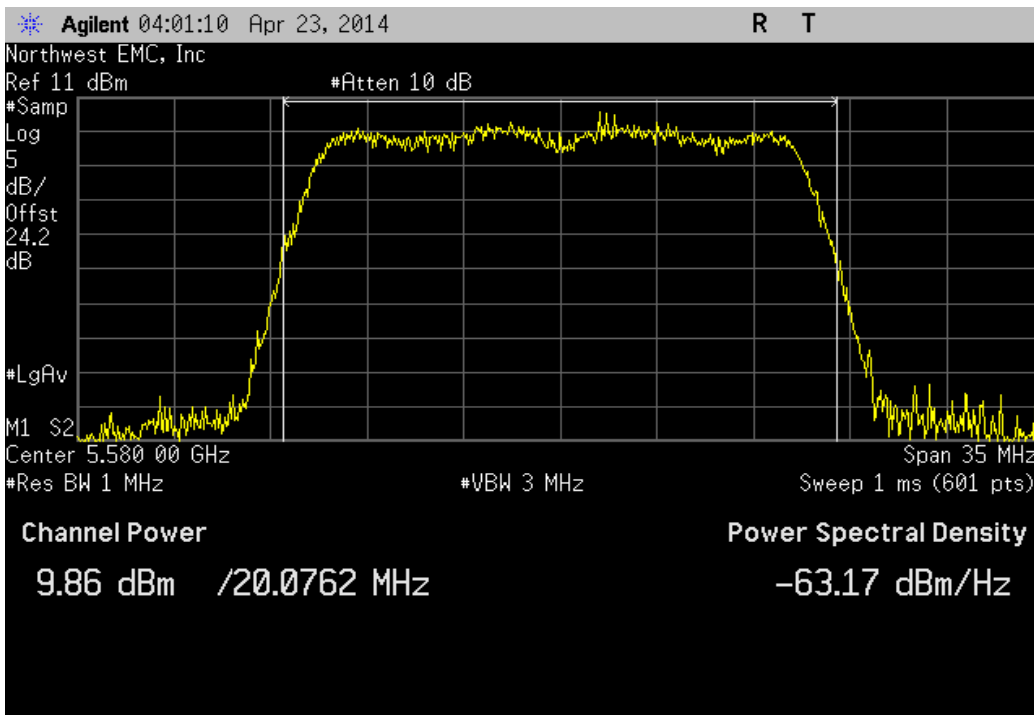
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
10.21 dBm	< 24 dBm	Pass



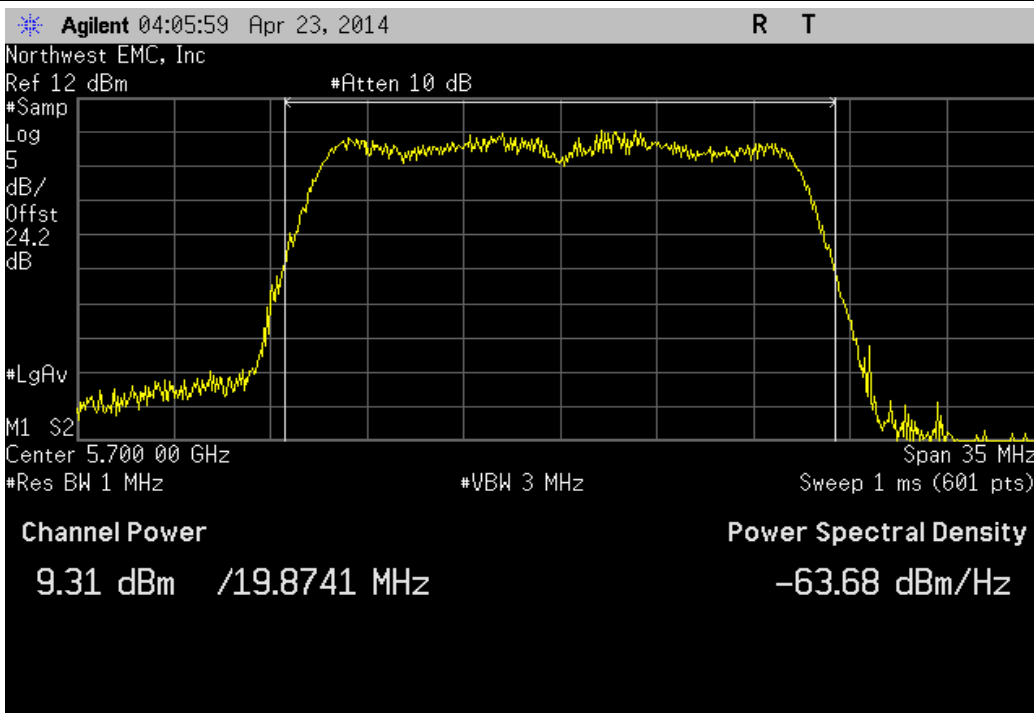
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
9.86 dBm	< 24 dBm	Pass



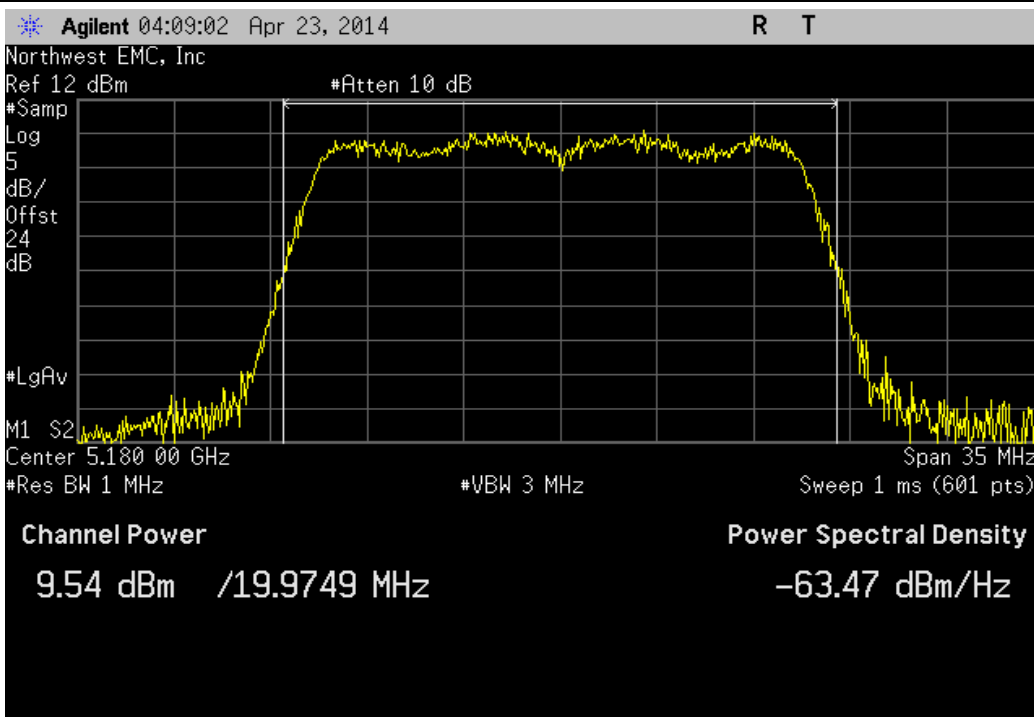
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS8, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.305 dBm	< 24 dBm	Pass



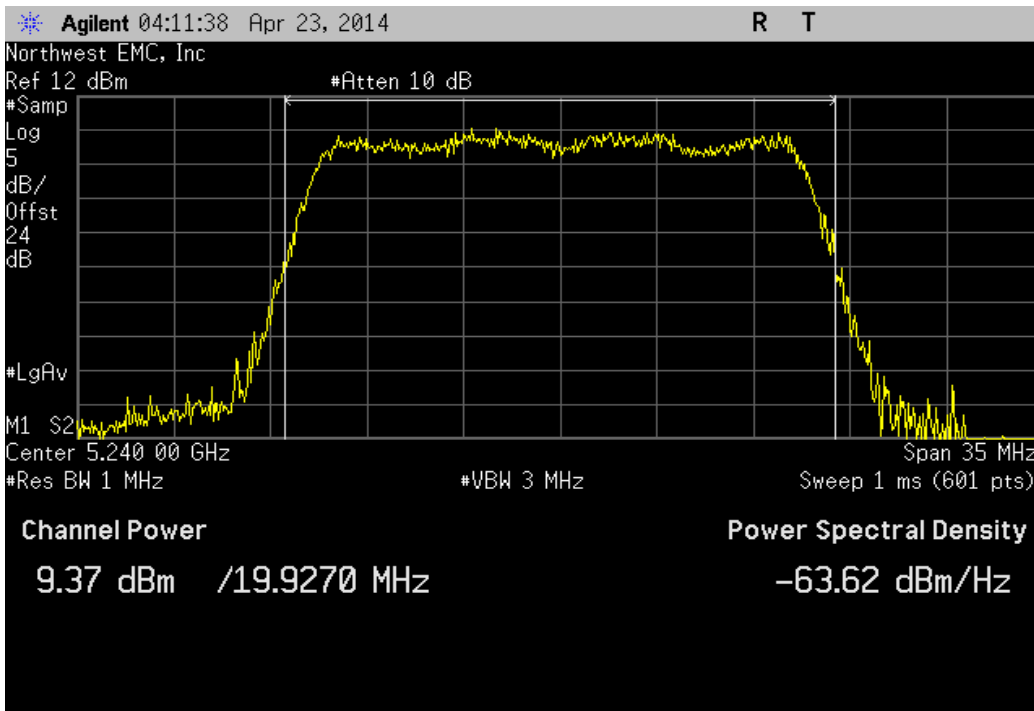
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.537 dBm	< 17 dBm	Pass



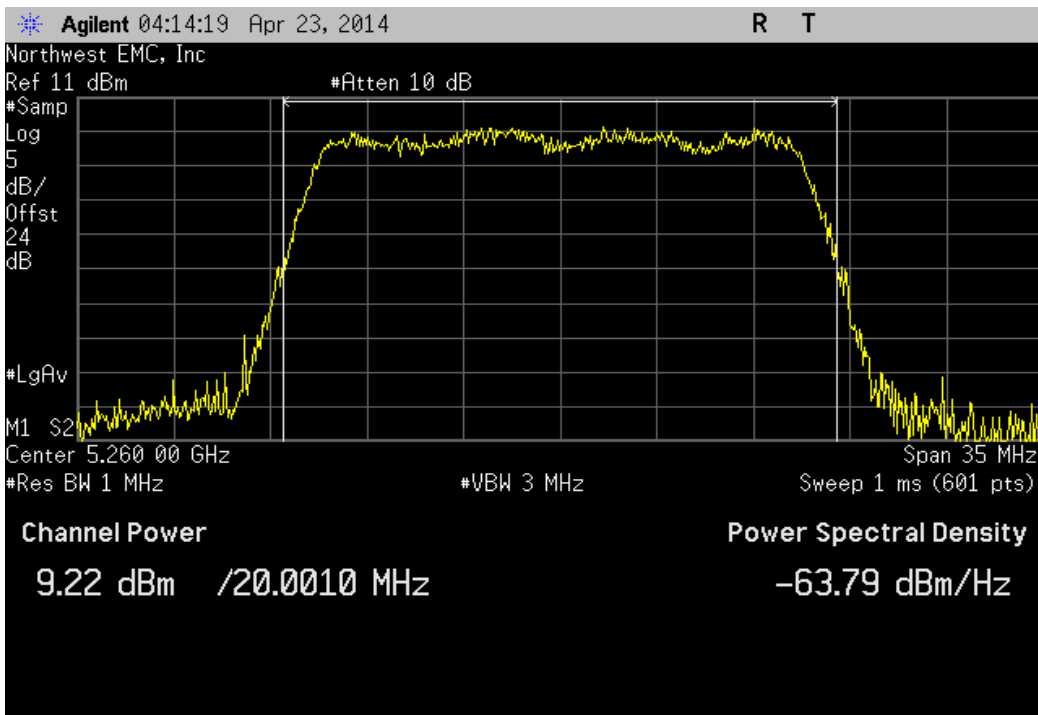
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.374 dBm	< 17 dBm	Pass



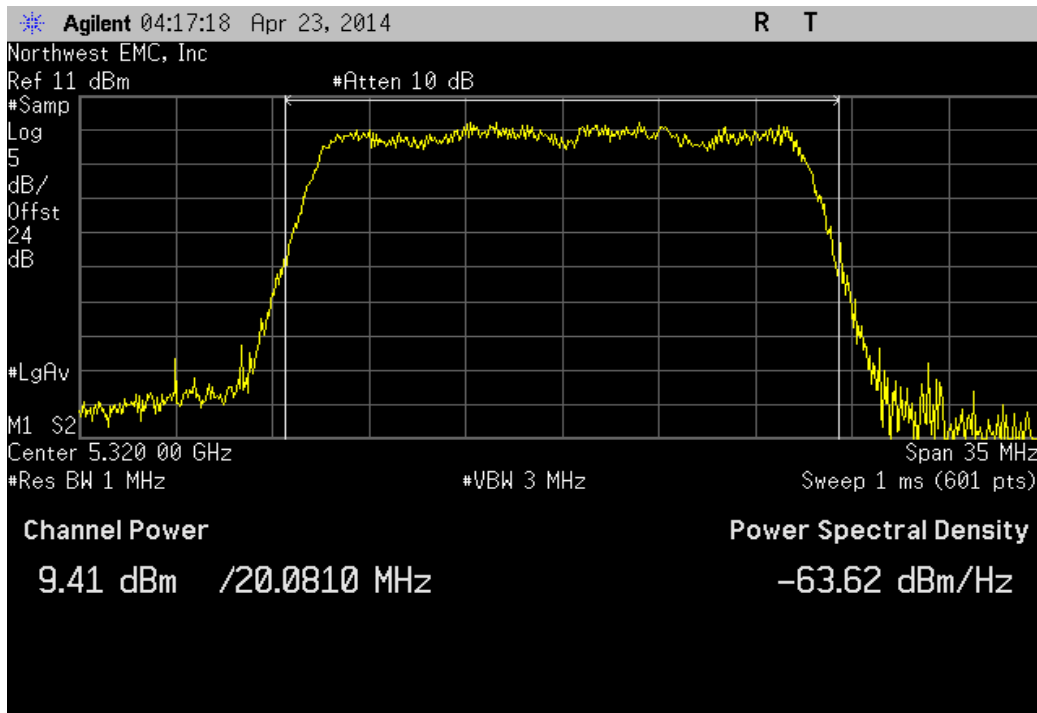
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.216 dBm	< 24 dBm	Pass



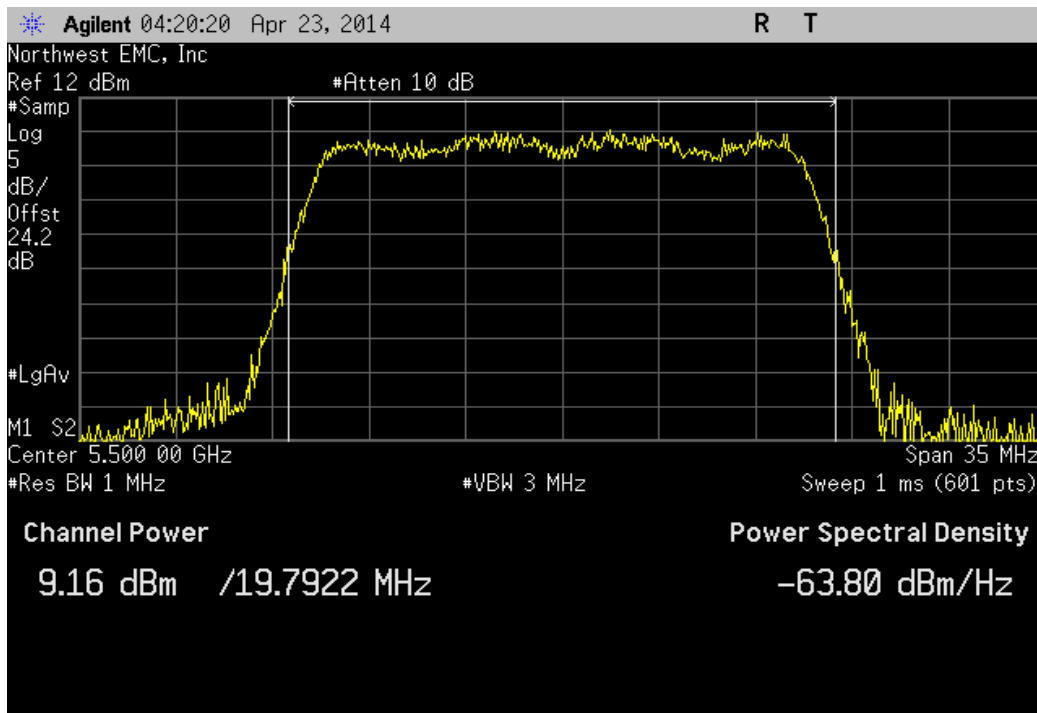
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
9.412 dBm	< 24 dBm	Pass



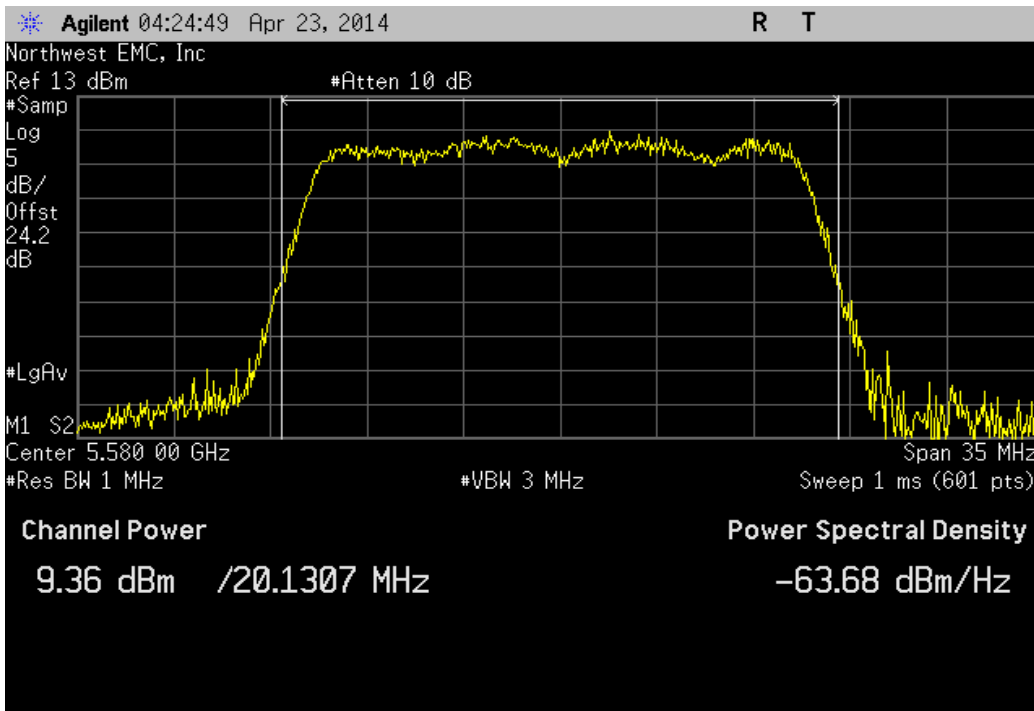
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.163 dBm	< 24 dBm	Pass



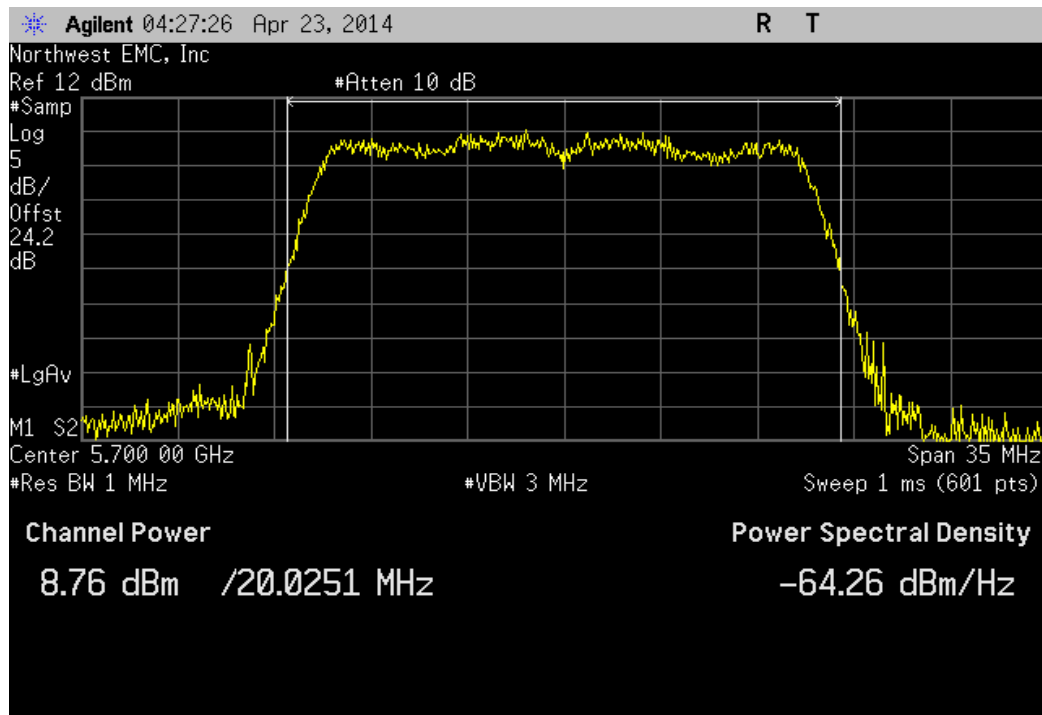
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
9.36 dBm	< 24 dBm	Pass



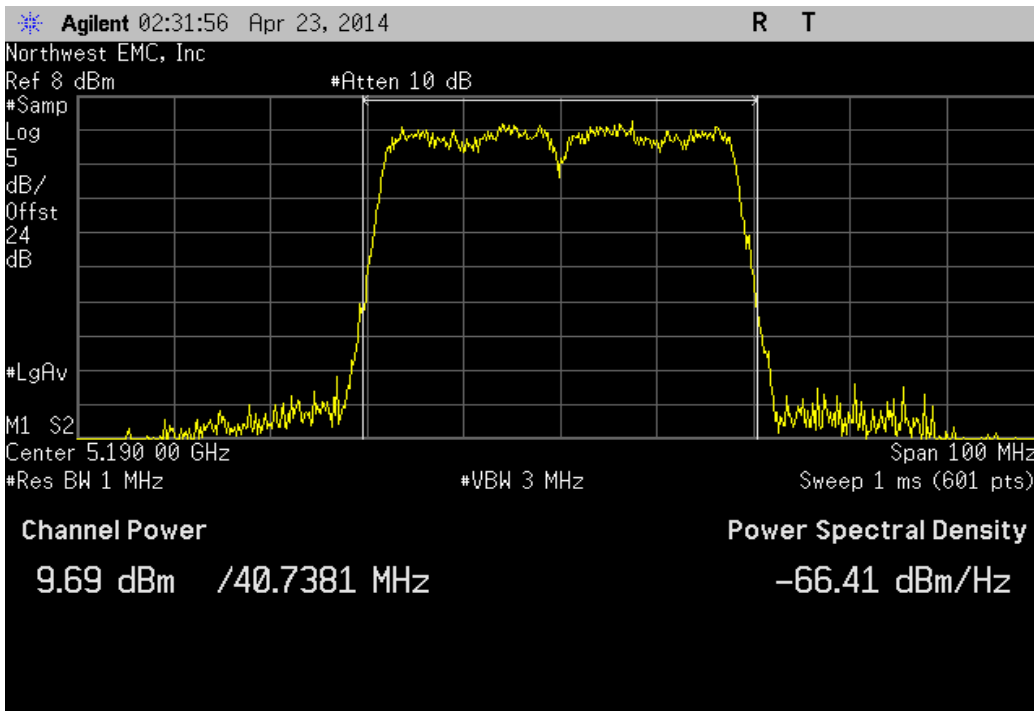
Chain B, IEEE 802.11(n), 20 MHz, HT, MCS15, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
8.757 dBm	< 24 dBm	Pass



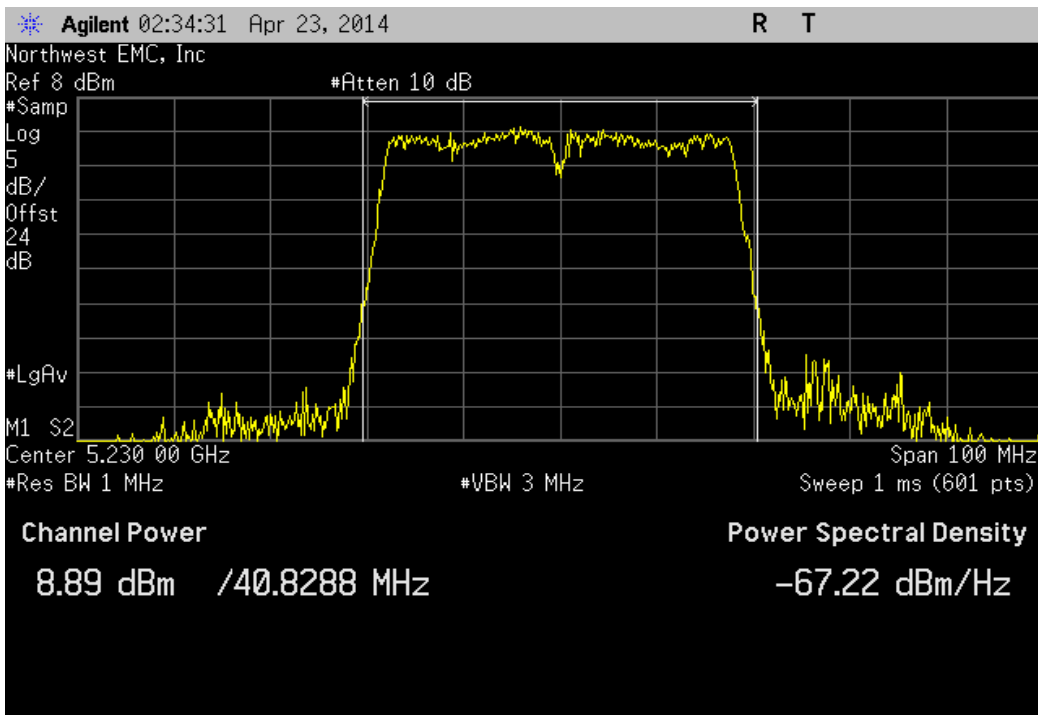
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
9.686 dBm	< 17 dBm	Pass



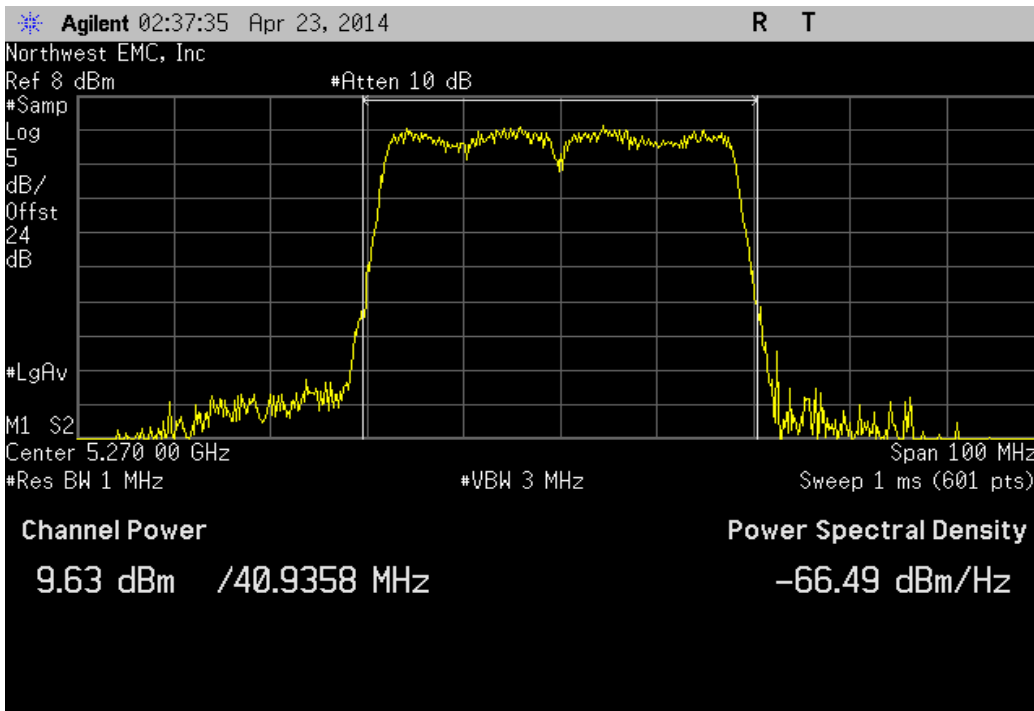
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
8.889 dBm	< 17 dBm	Pass



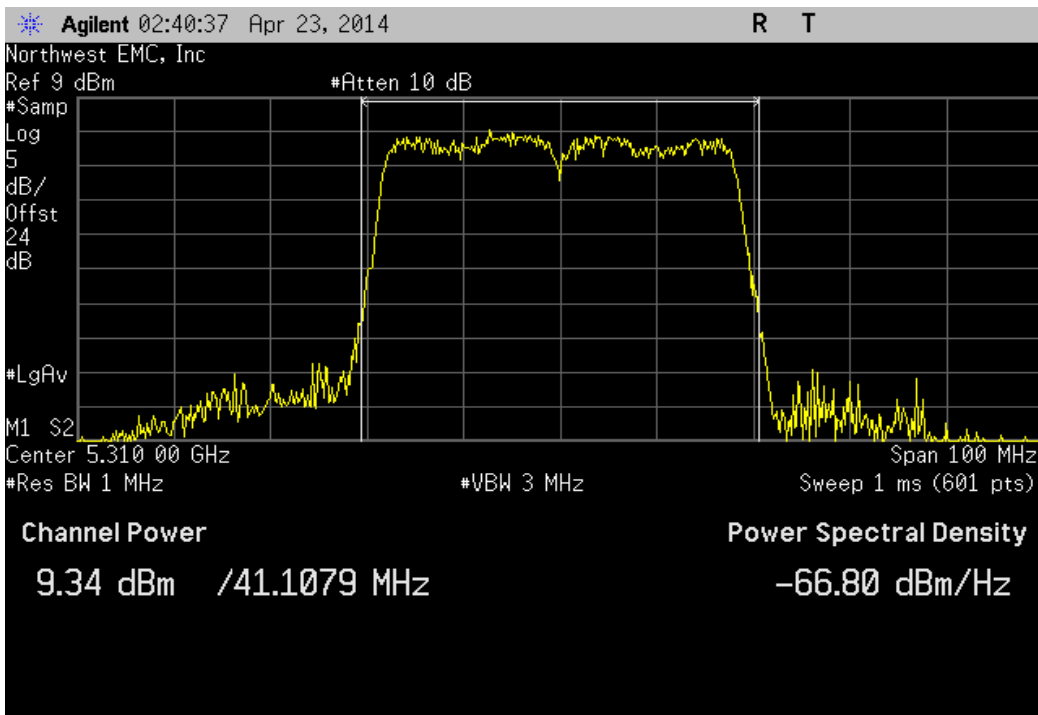
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 52/56, Low Channel 5270 MHz

	Value	Limit	Result
	9.63 dBm	< 24 dBm	Pass



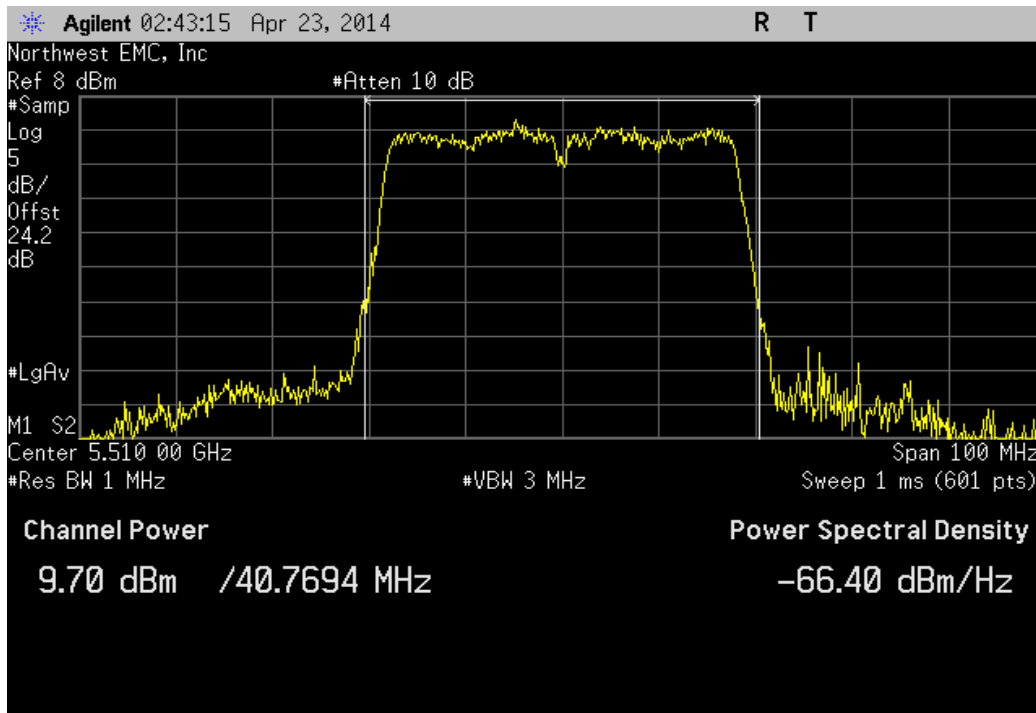
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 60/64, High Channel 5310 MHz

	Value	Limit	Result
	9.336 dBm	< 24 dBm	Pass



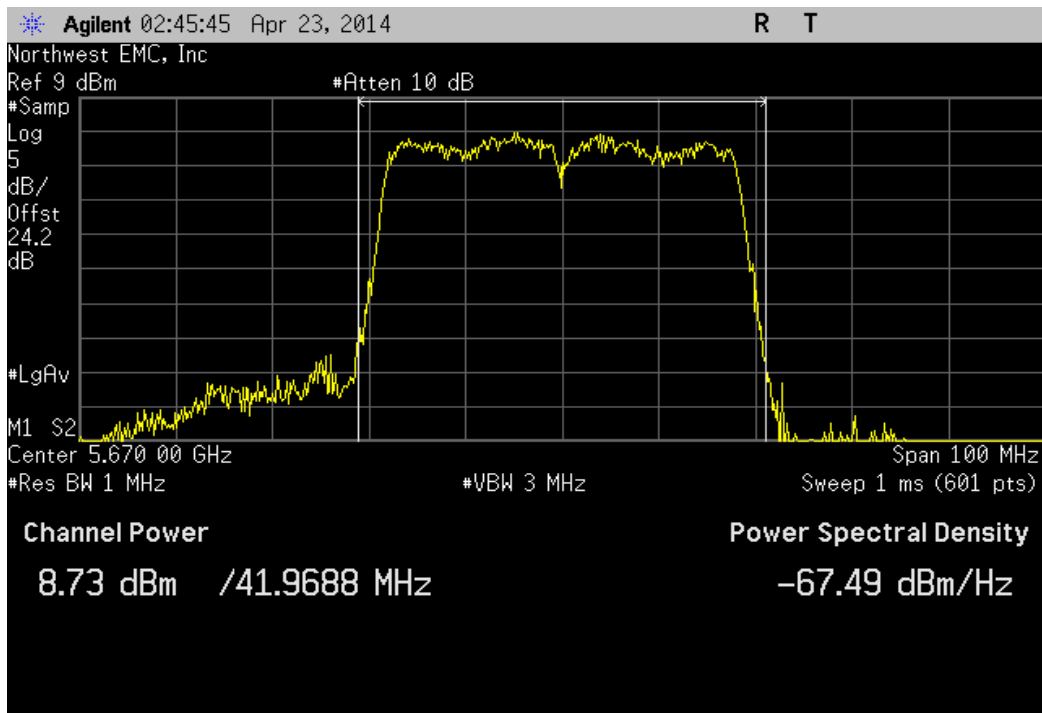
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
9.703 dBm	< 24 dBm	Pass



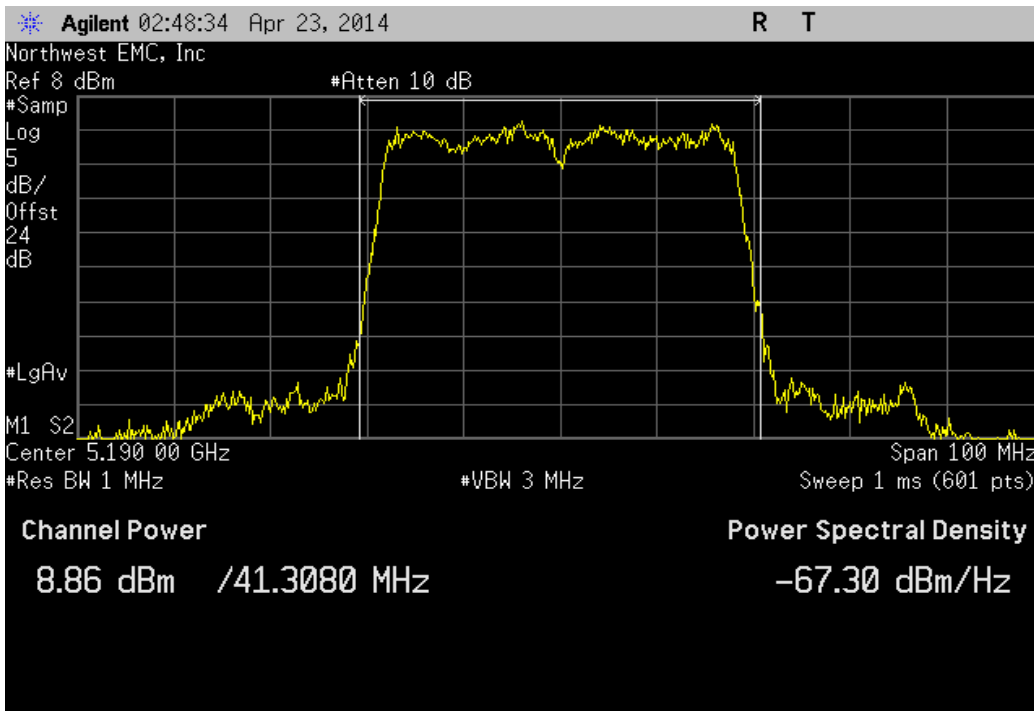
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS8, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
8.735 dBm	< 24 dBm	Pass



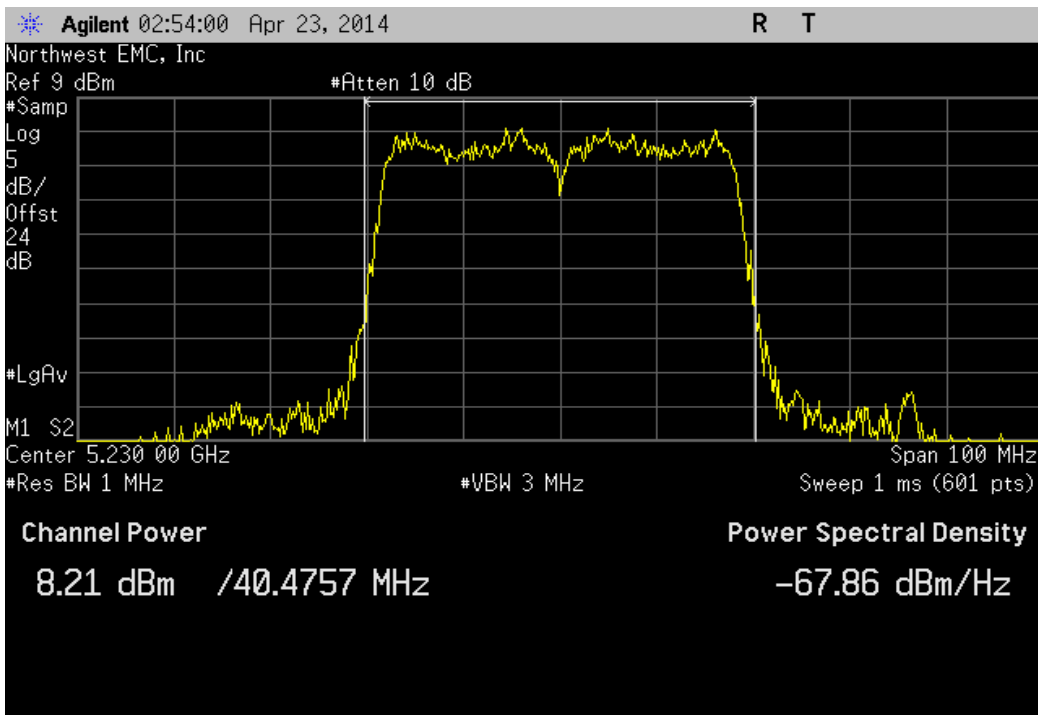
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
8.861 dBm	< 17 dBm	Pass



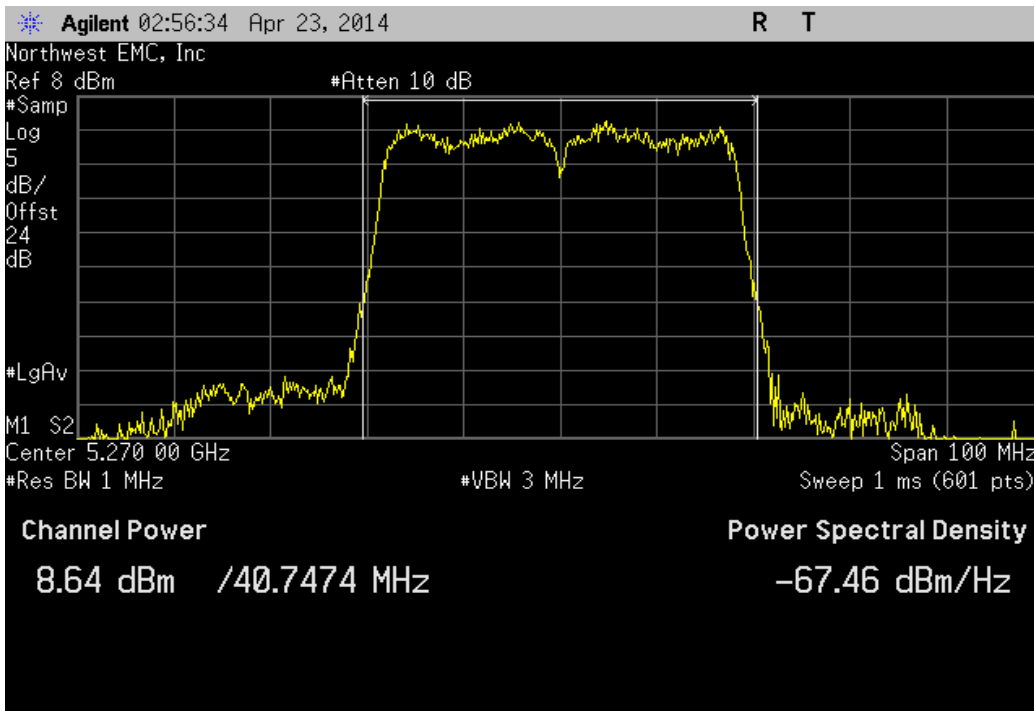
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
8.209 dBm	< 17 dBm	Pass



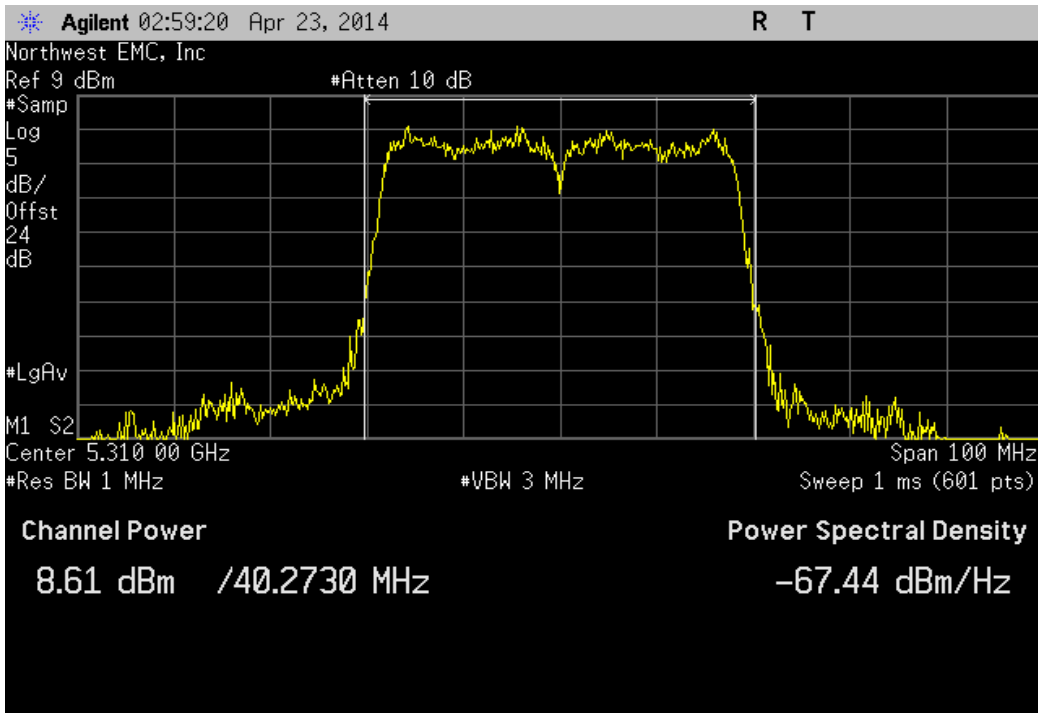
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
8.638 dBm	< 24 dBm	Pass



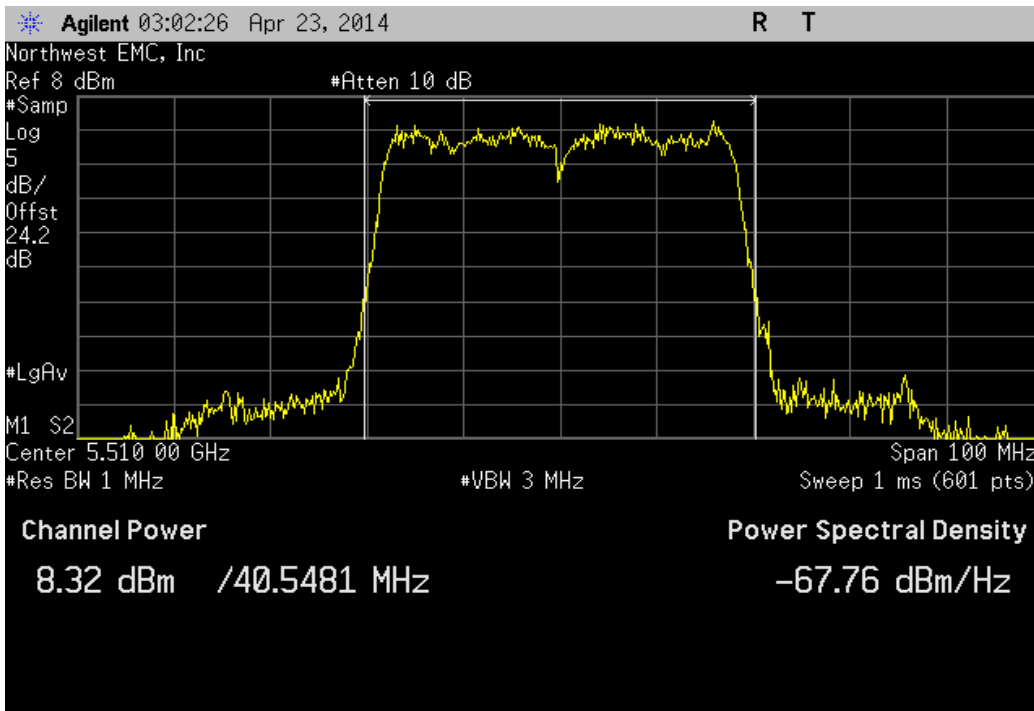
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
8.614 dBm	< 24 dBm	Pass



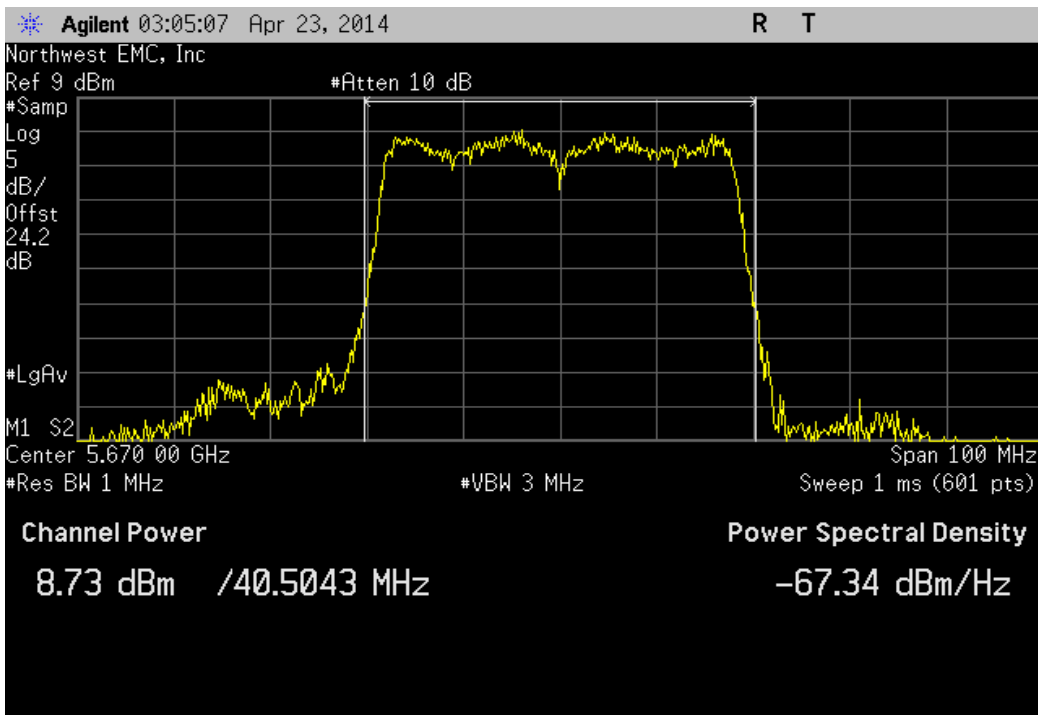
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
8.323 dBm	< 24 dBm	Pass



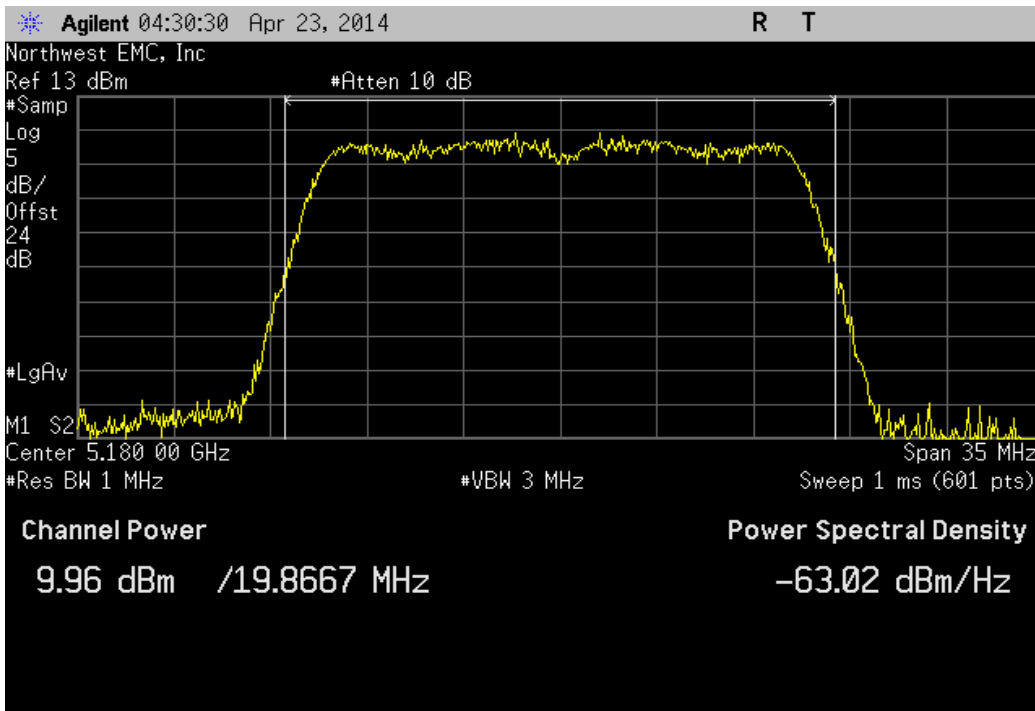
Chain B, IEEE 802.11(n), 40 MHz, HT, MCS15, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
8.735 dBm	< 24 dBm	Pass



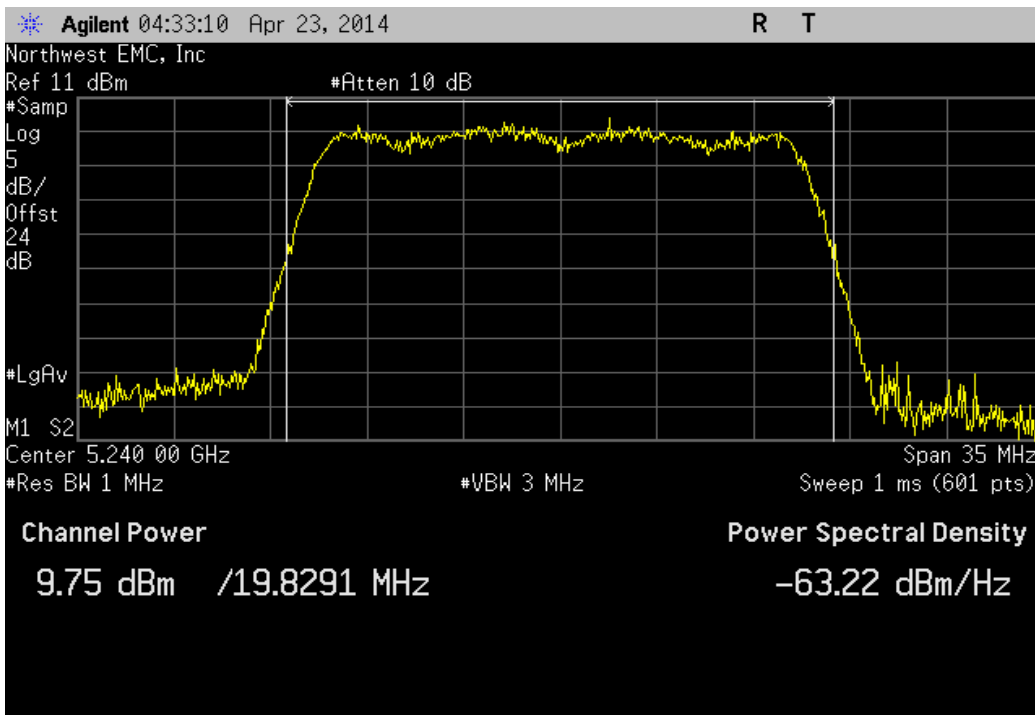
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.962 dBm	< 17 dBm	Pass



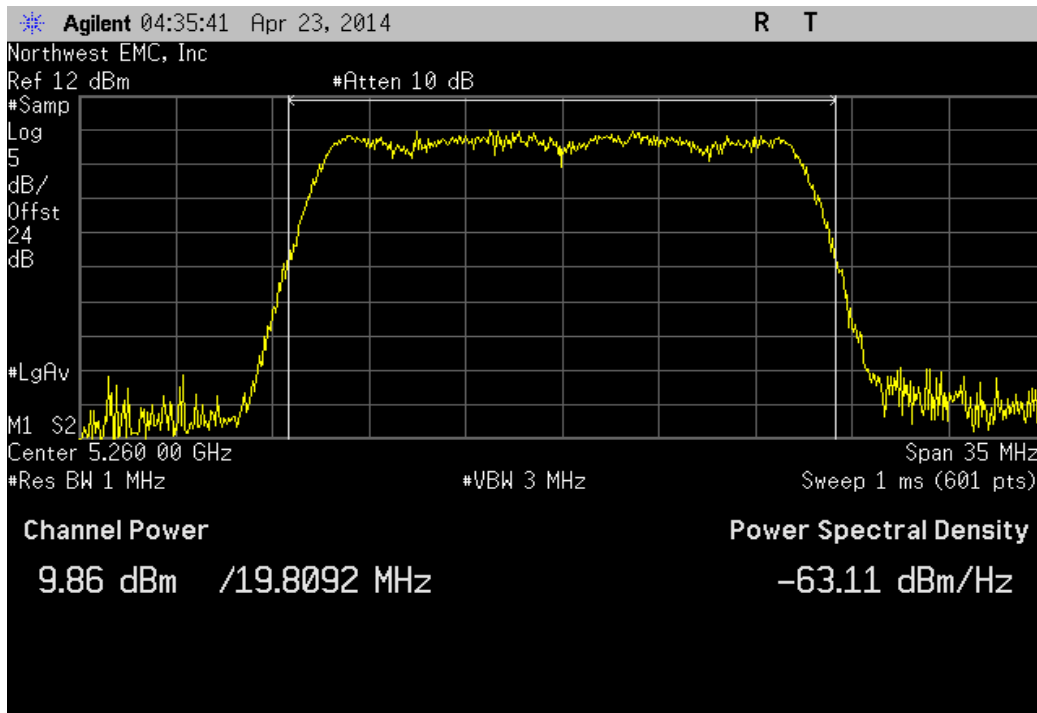
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.754 dBm	< 17 dBm	Pass



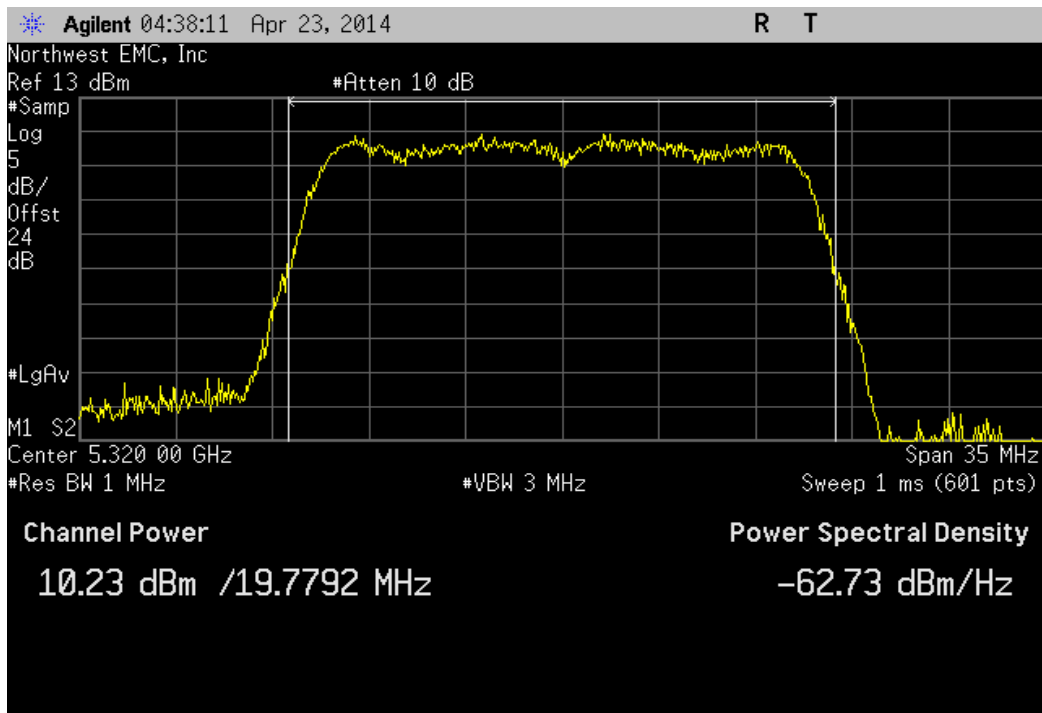
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.856 dBm	< 24 dBm	Pass



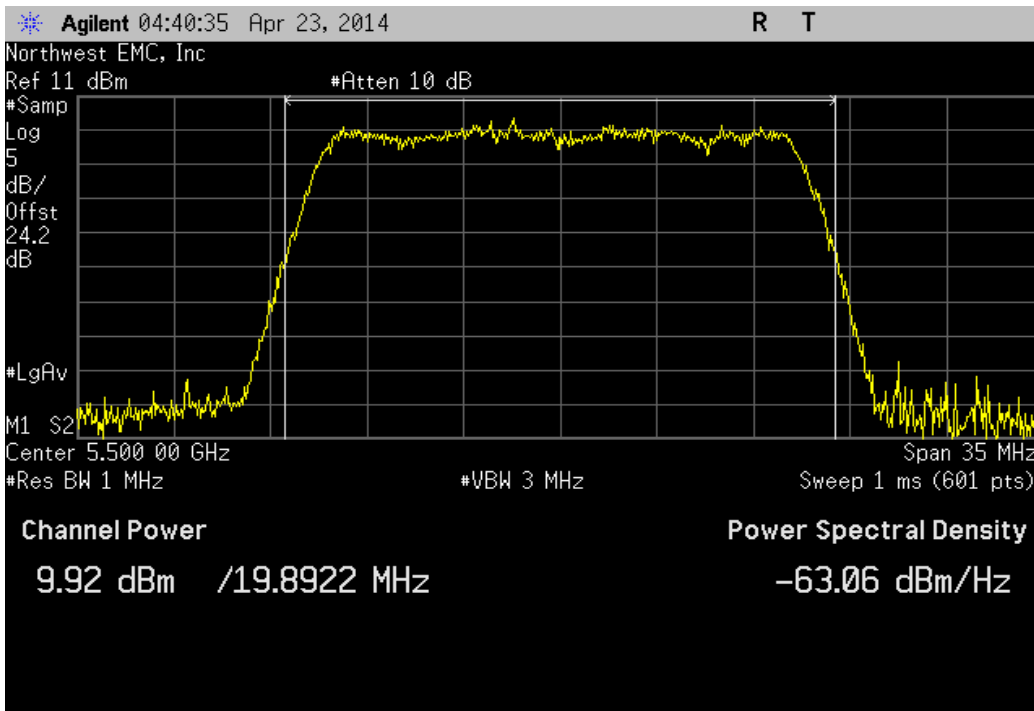
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.229 dBm	< 24 dBm	Pass



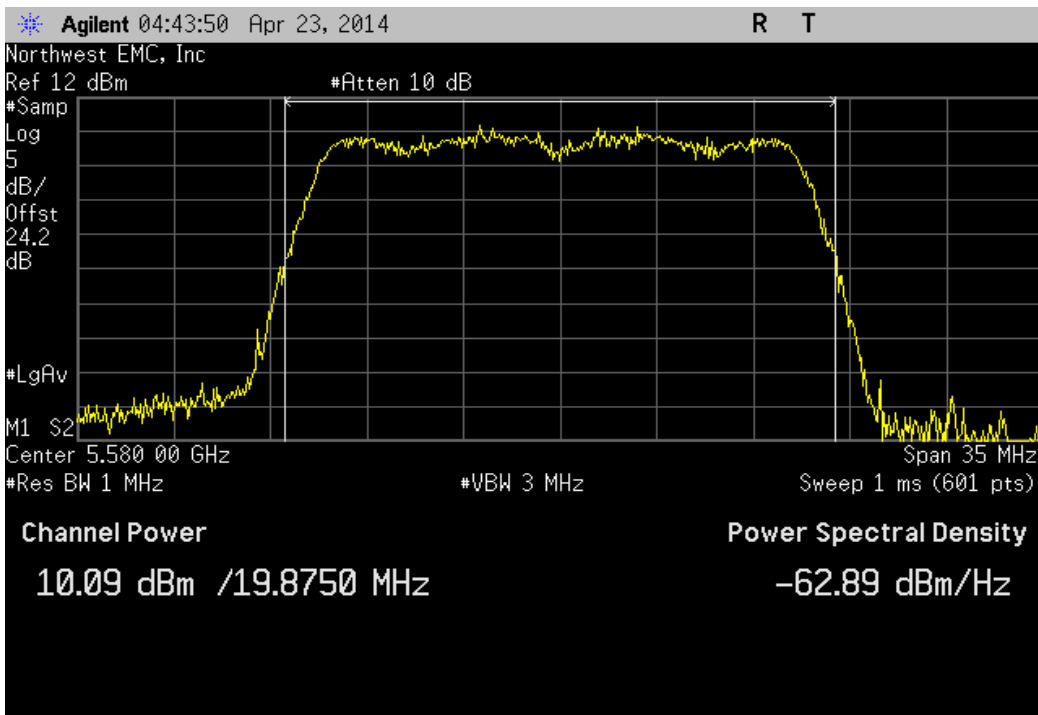
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.924 dBm	< 24 dBm	Pass



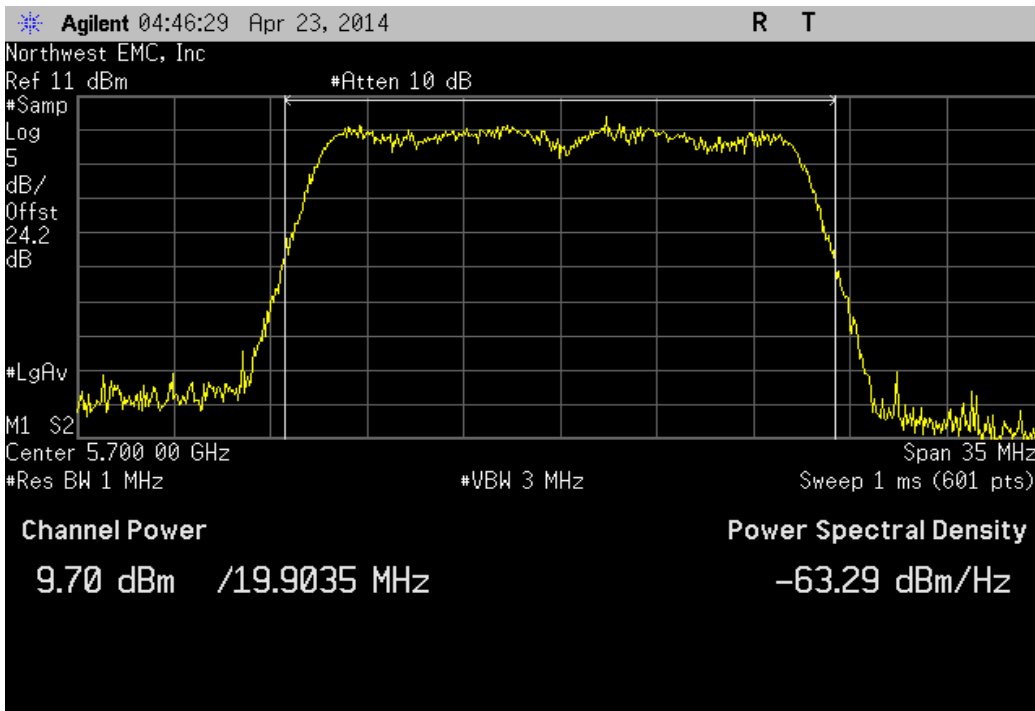
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
10.091 dBm	< 24 dBm	Pass



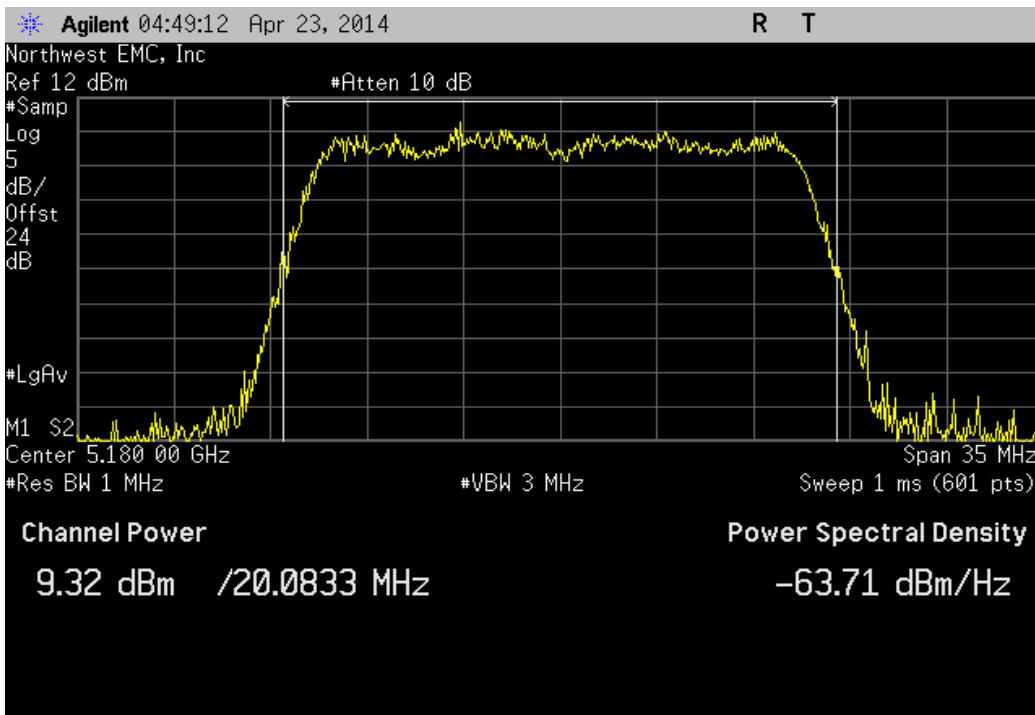
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.702 dBm	< 24 dBm	Pass



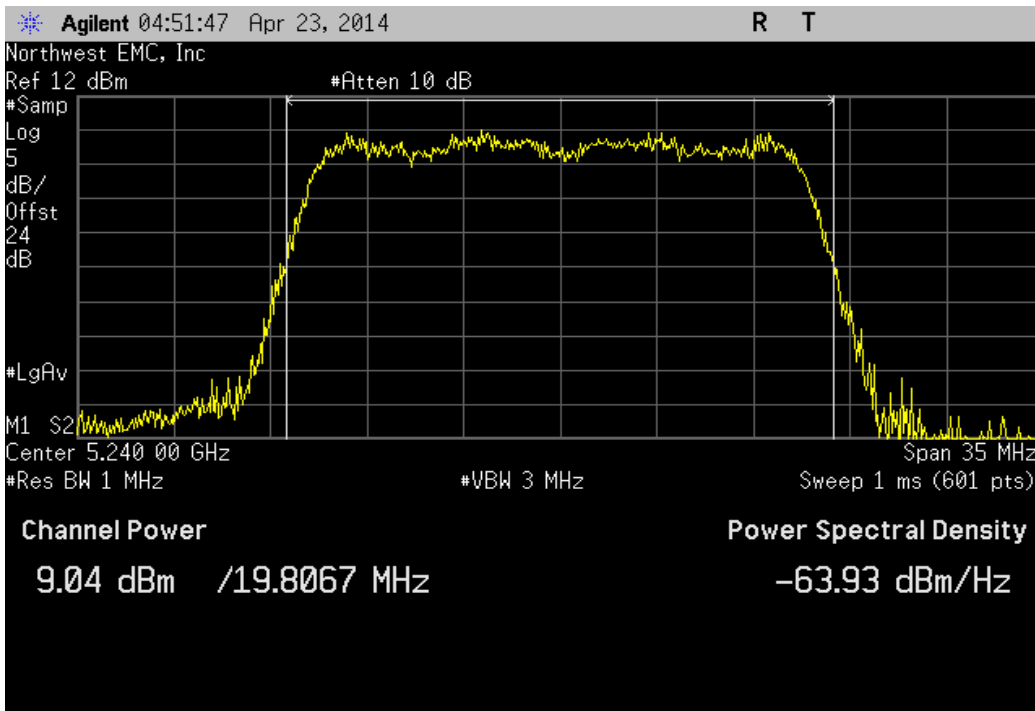
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.319 dBm	< 17 dBm	Pass



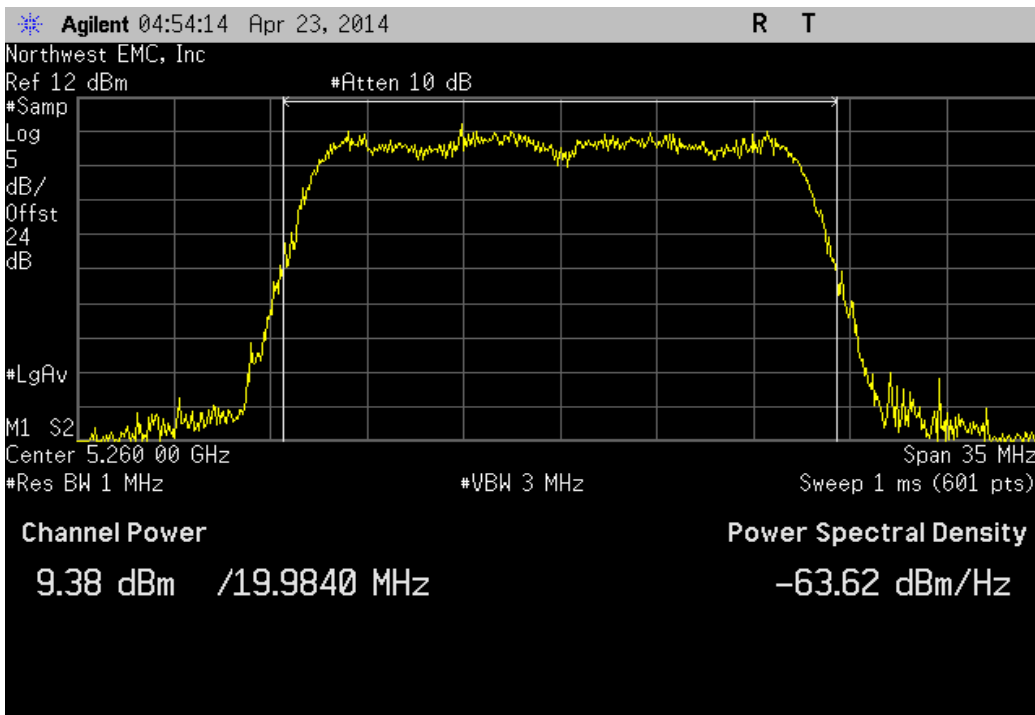
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.037 dBm	< 17 dBm	Pass



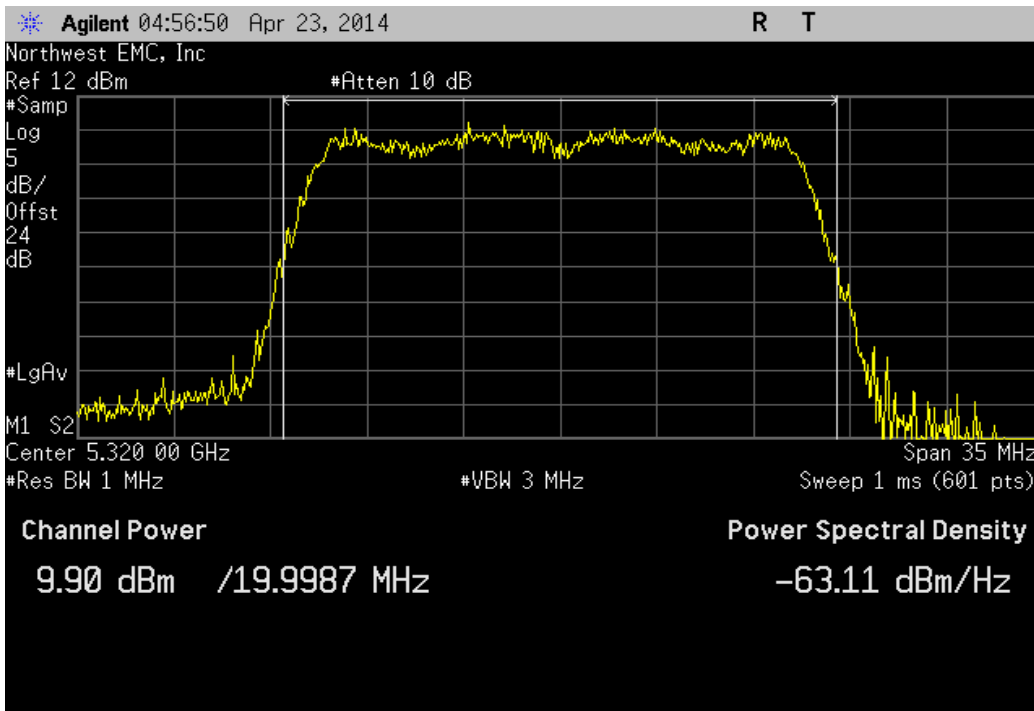
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.384 dBm	< 24 dBm	Pass



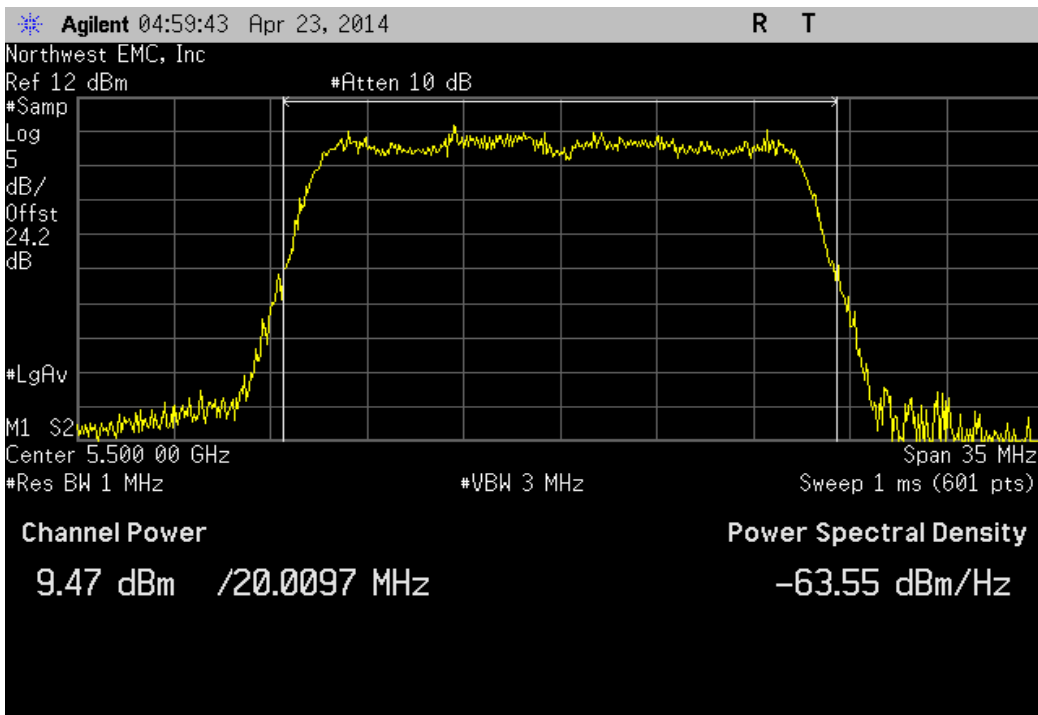
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
9.896 dBm	< 24 dBm	Pass



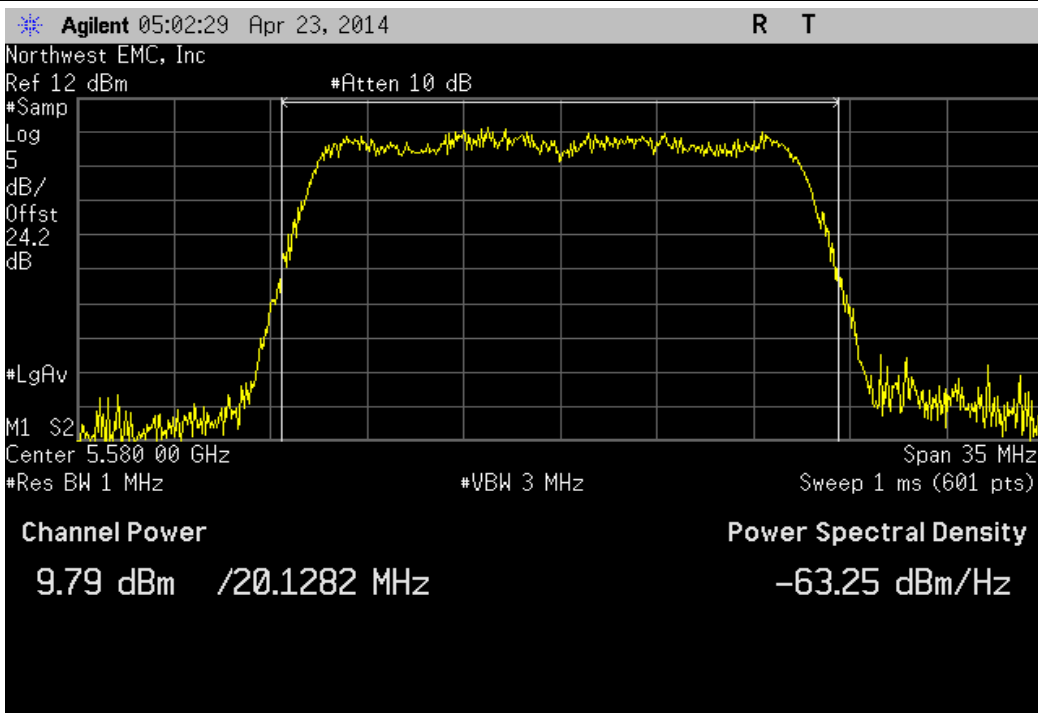
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.465 dBm	< 24 dBm	Pass



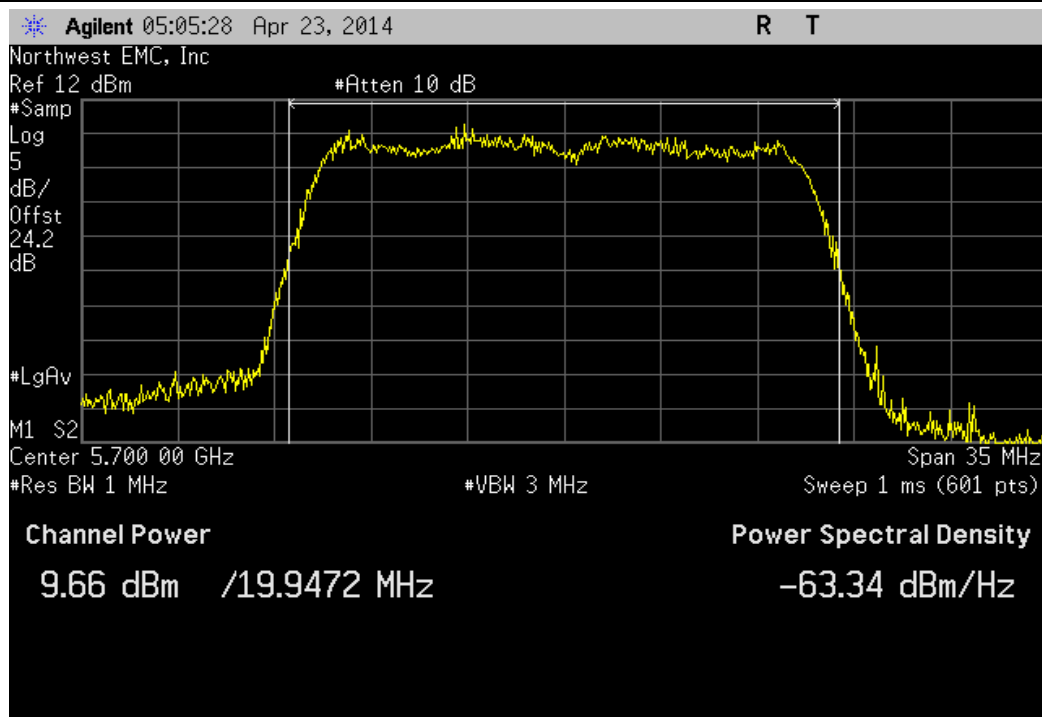
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
9.79 dBm	< 24 dBm	Pass



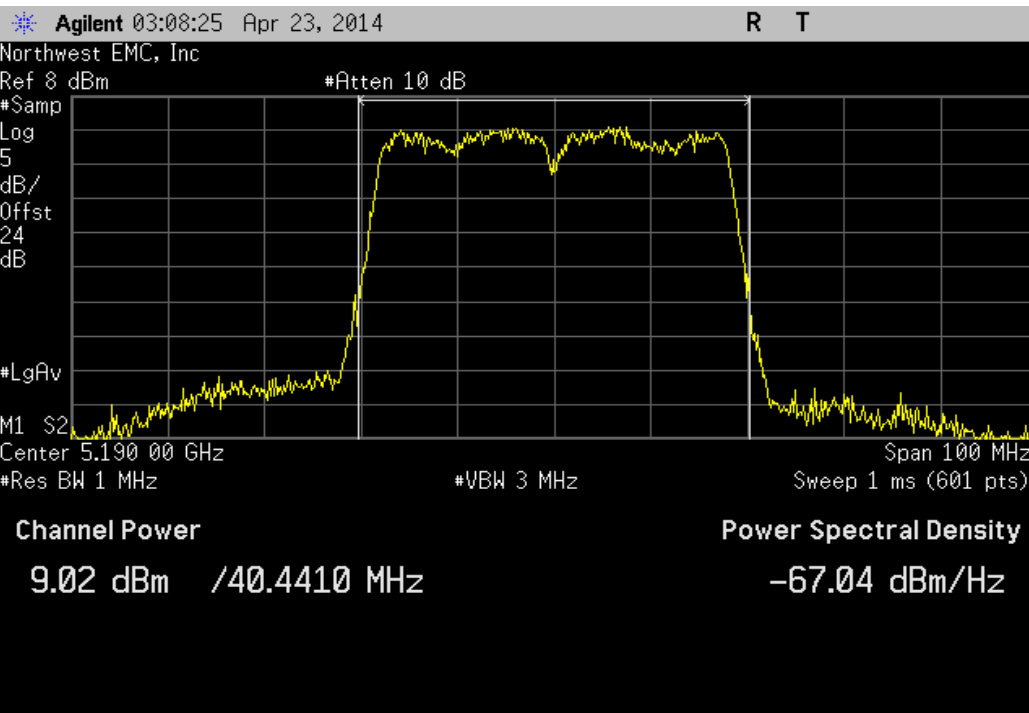
Chain B, IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.659 dBm	< 24 dBm	Pass



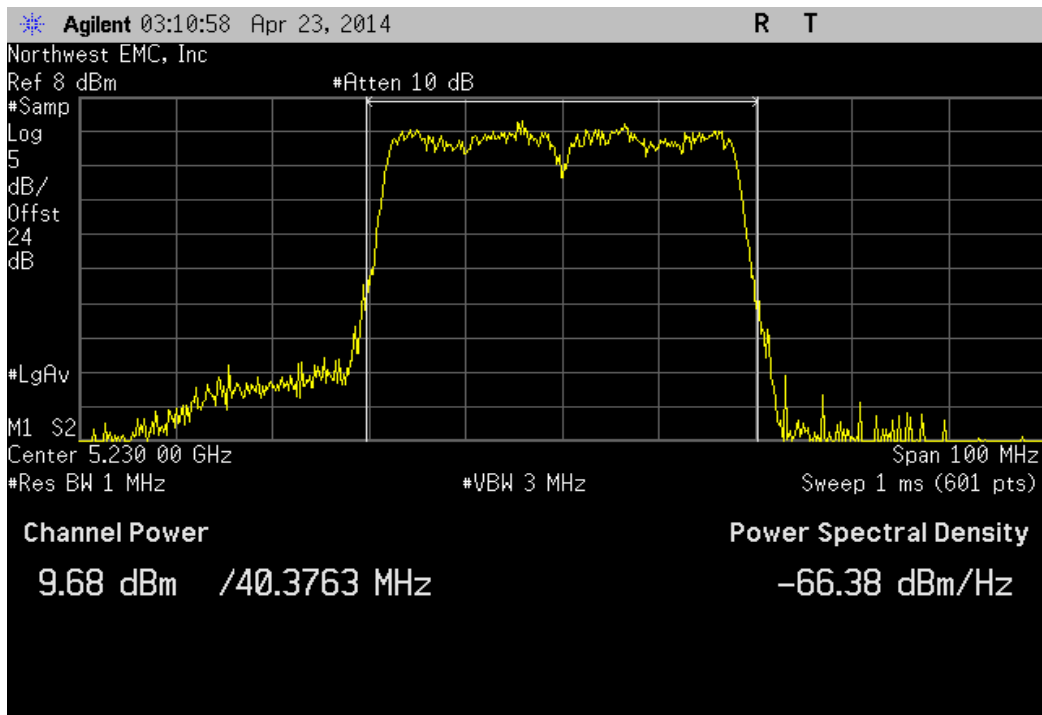
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
9.023 dBm	< 17 dBm	Pass



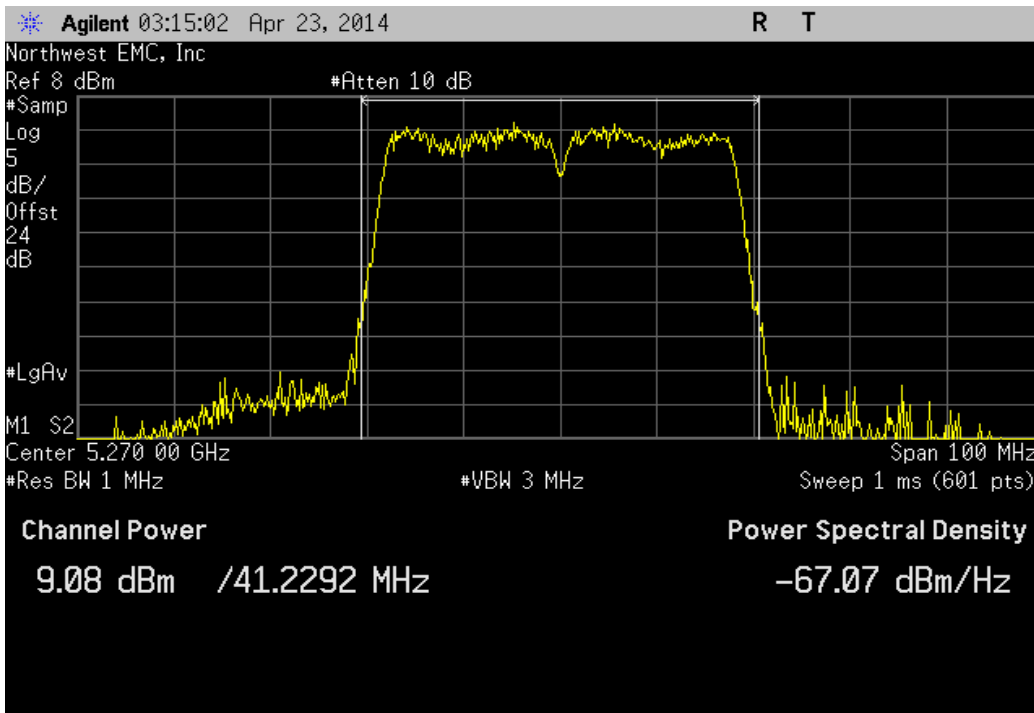
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
9.679 dBm	< 17 dBm	Pass



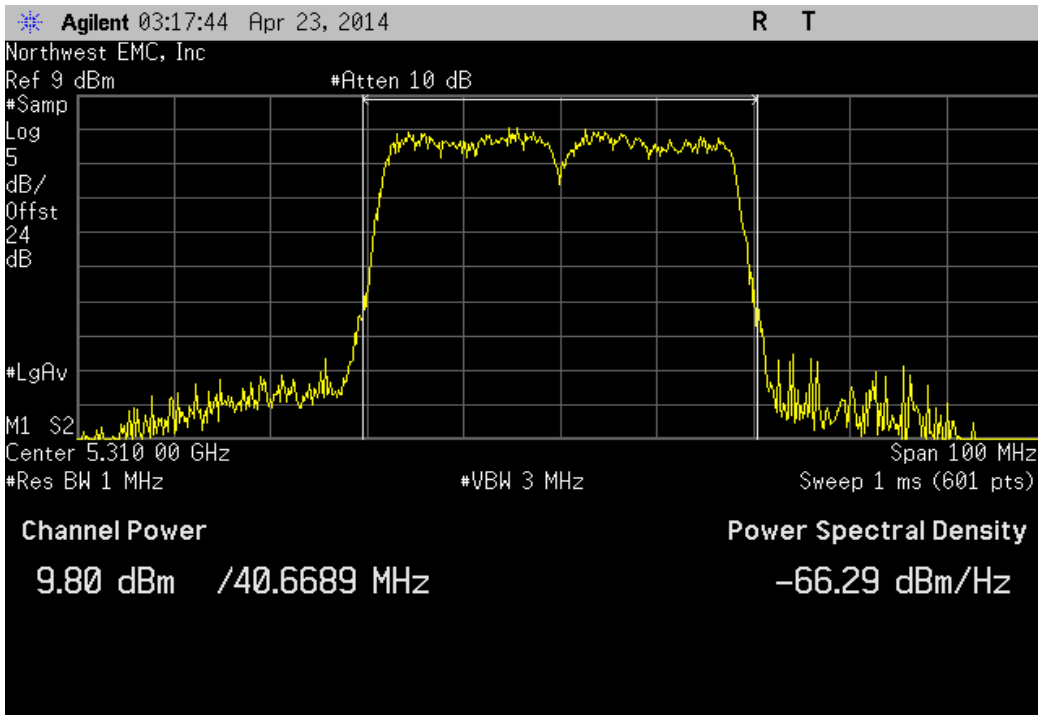
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
9.083 dBm	< 24 dBm	Pass



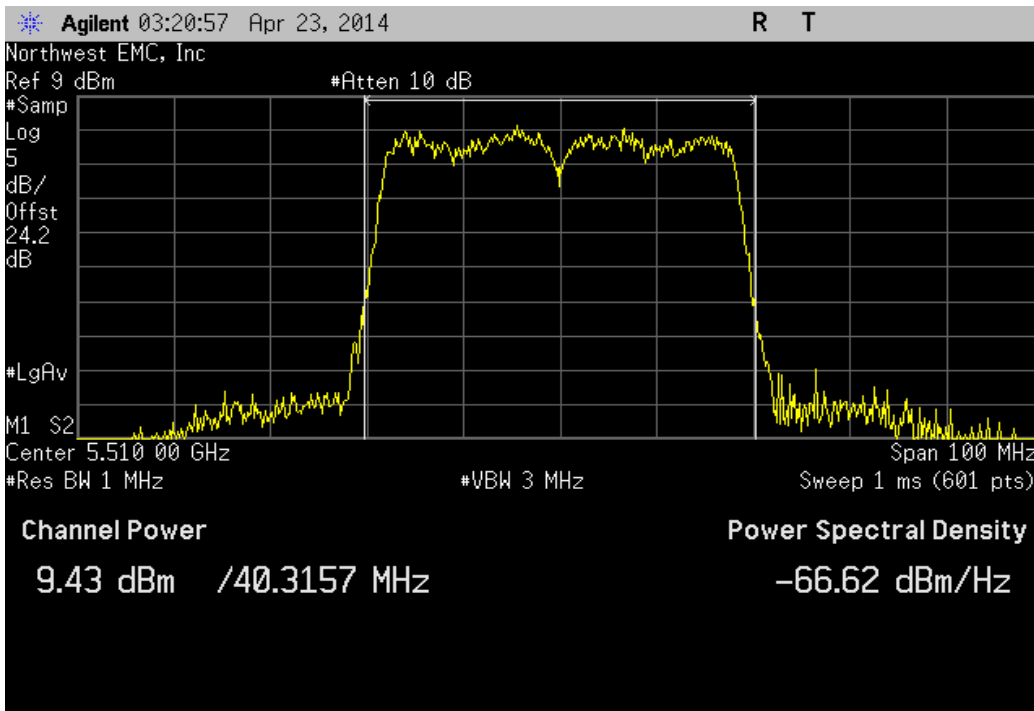
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
9.802 dBm	< 24 dBm	Pass



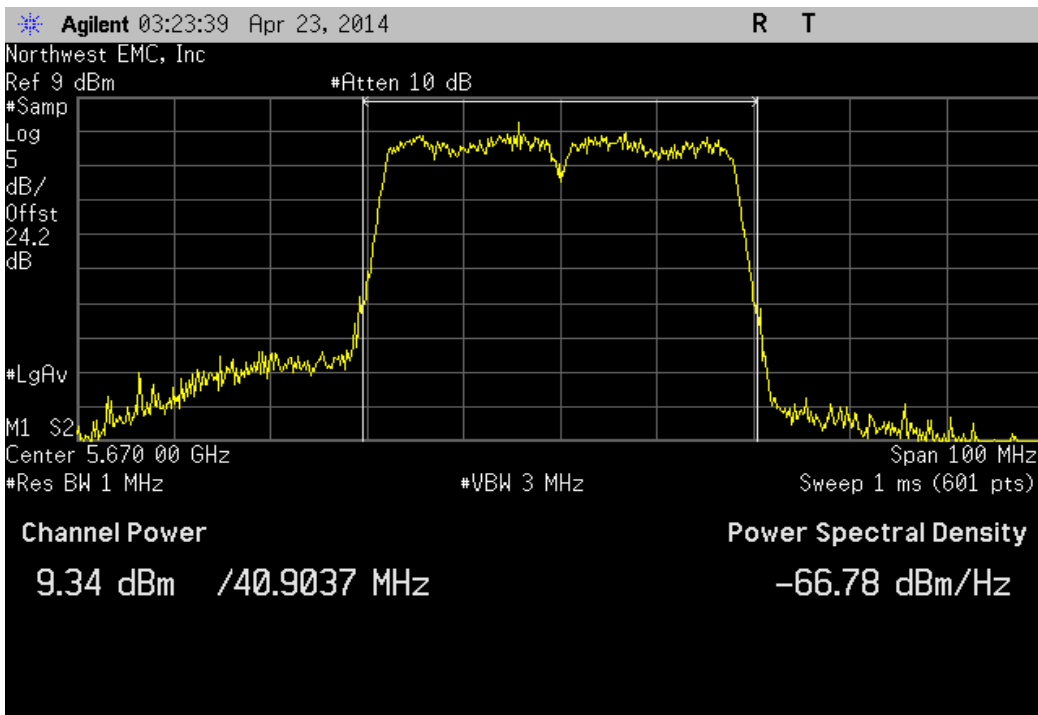
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
9.431 dBm	< 24 dBm	Pass



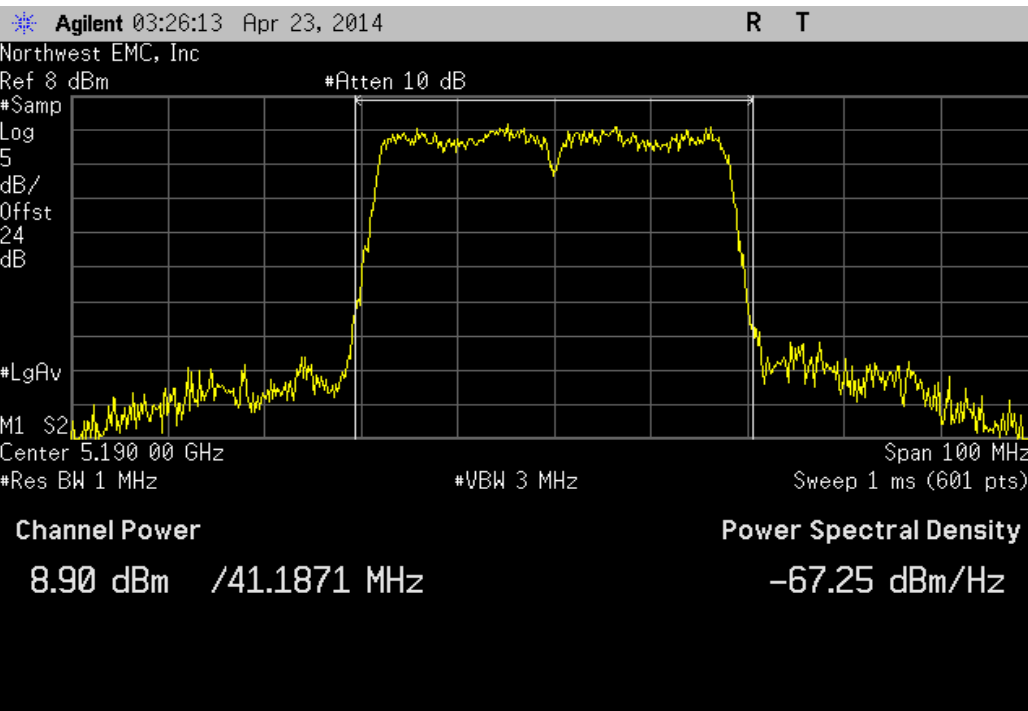
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
9.34 dBm	< 24 dBm	Pass



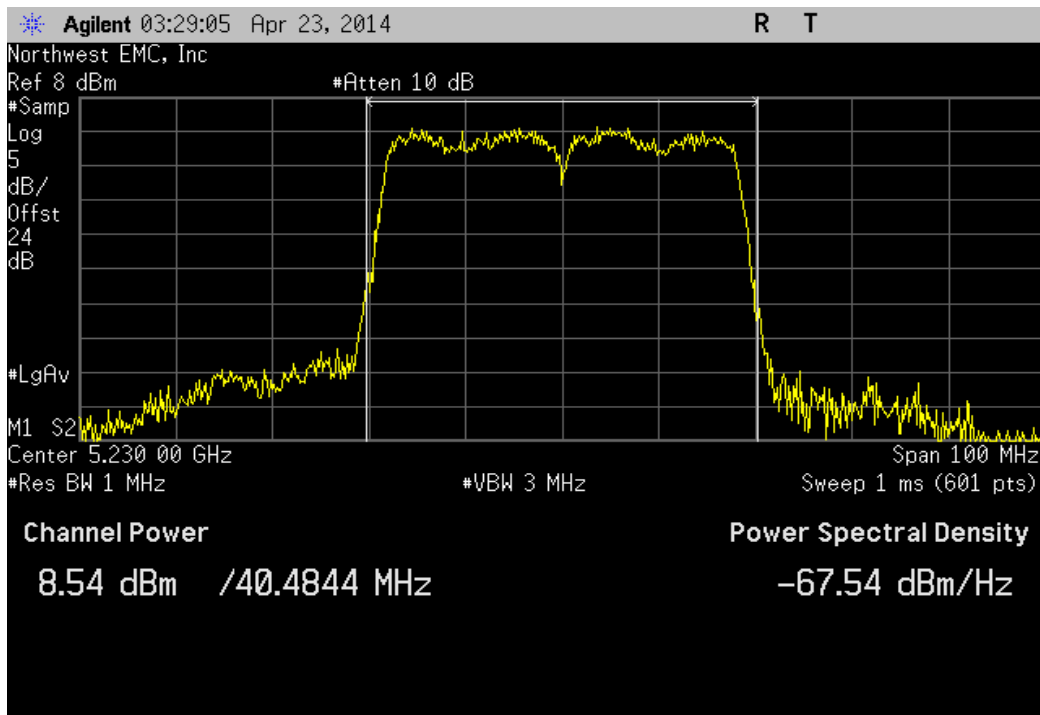
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
8.899 dBm	< 17 dBm	Pass



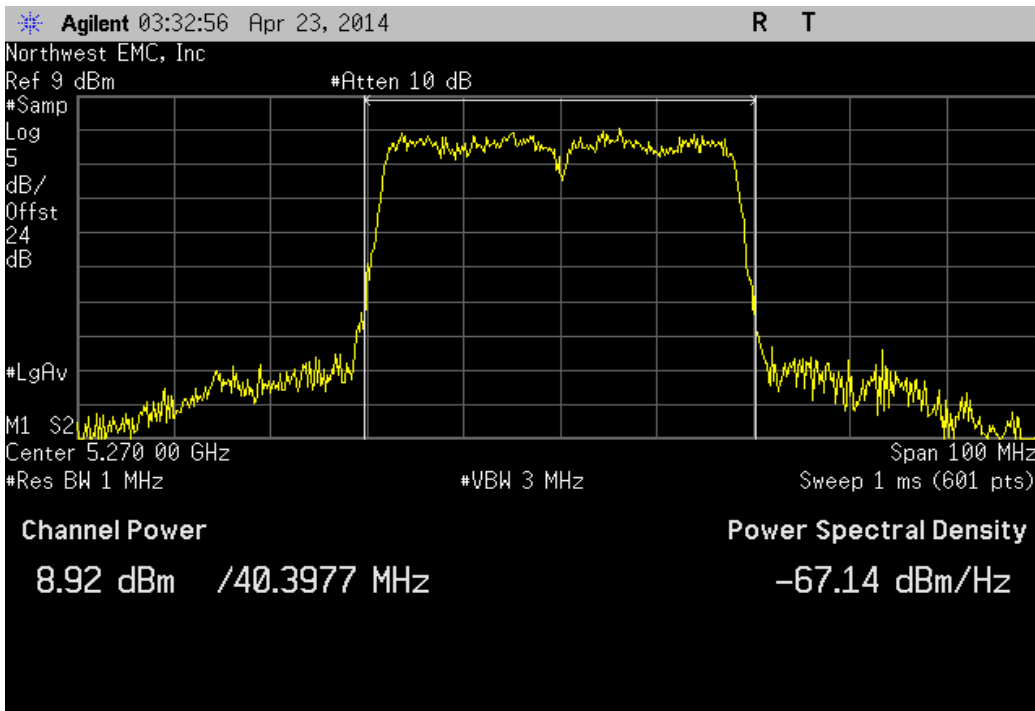
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
8.538 dBm	< 17 dBm	Pass



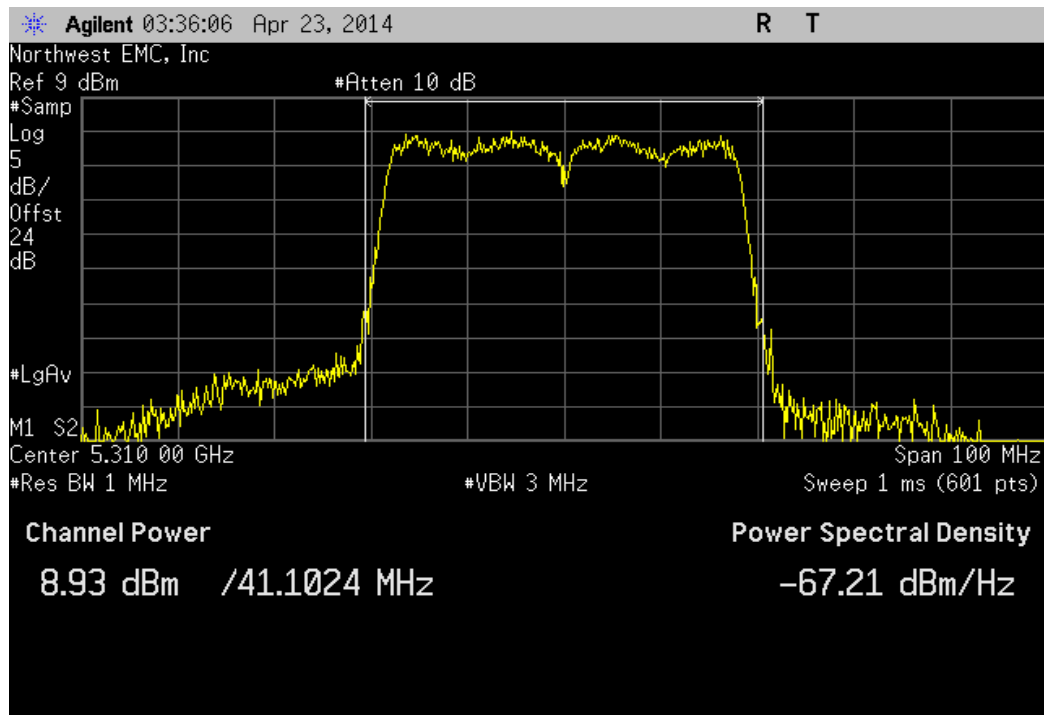
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
8.92 dBm	< 24 dBm	Pass



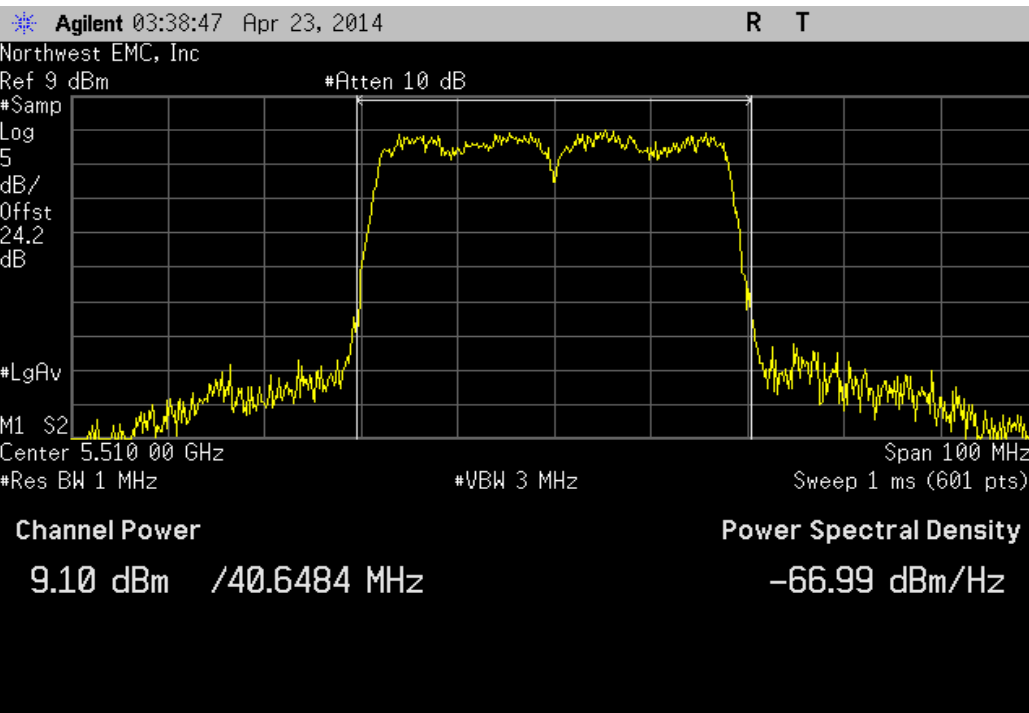
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
8.927 dBm	< 24 dBm	Pass



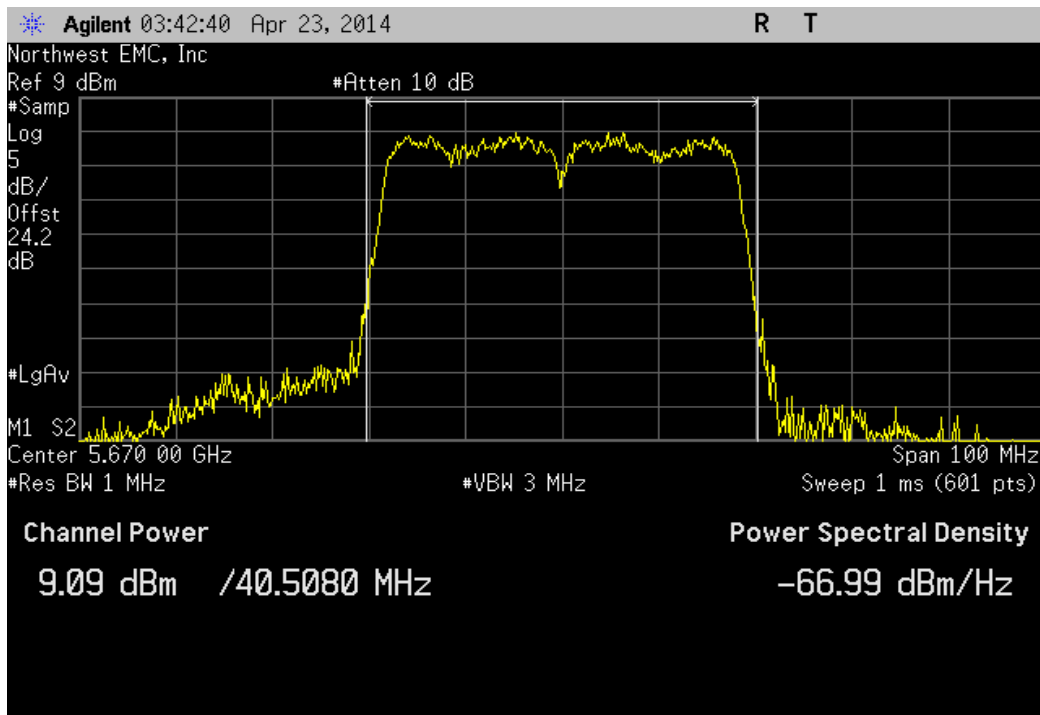
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
9.102 dBm	< 24 dBm	Pass



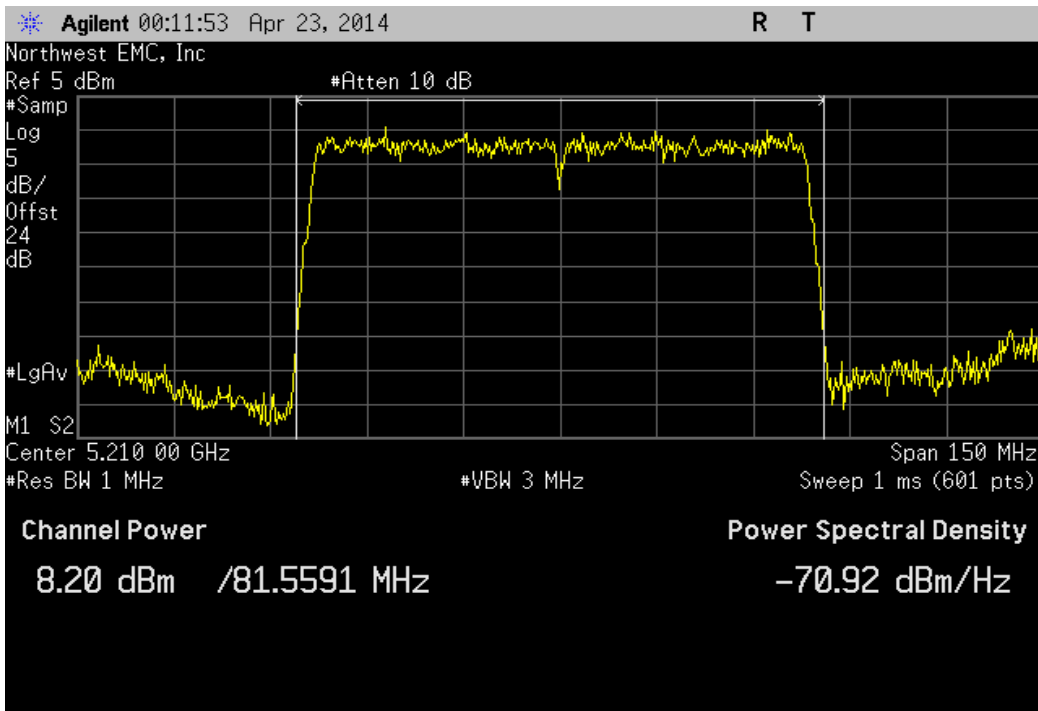
Chain B, IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
9.09 dBm	< 24 dBm	Pass



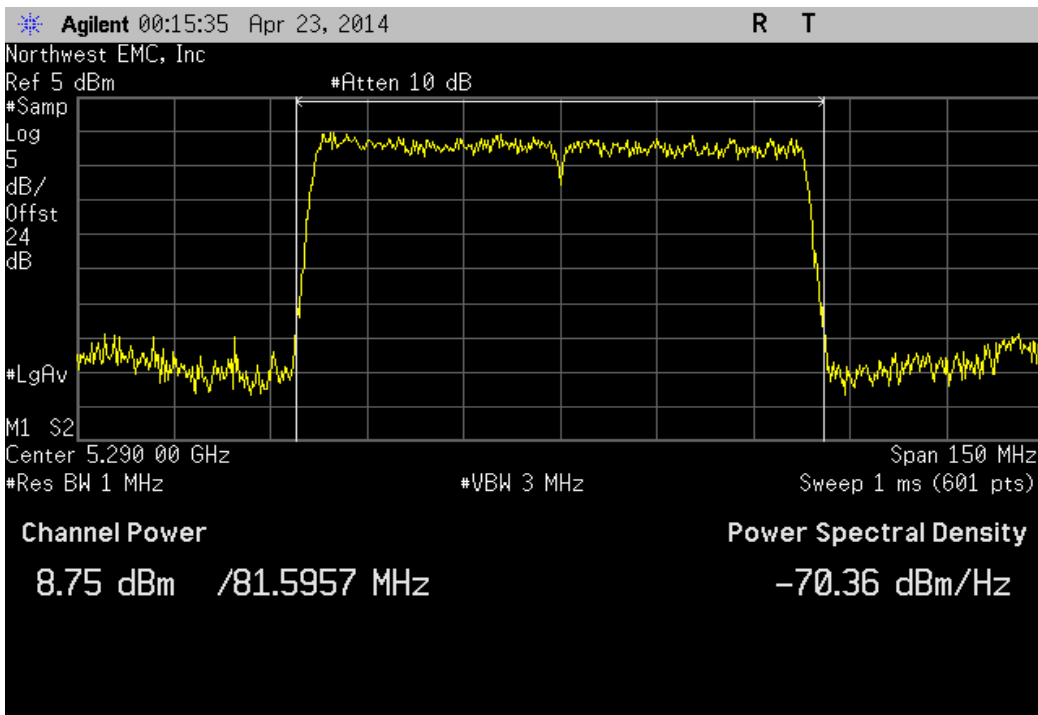
Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
8.197 dBm	< 17 dBm	Pass



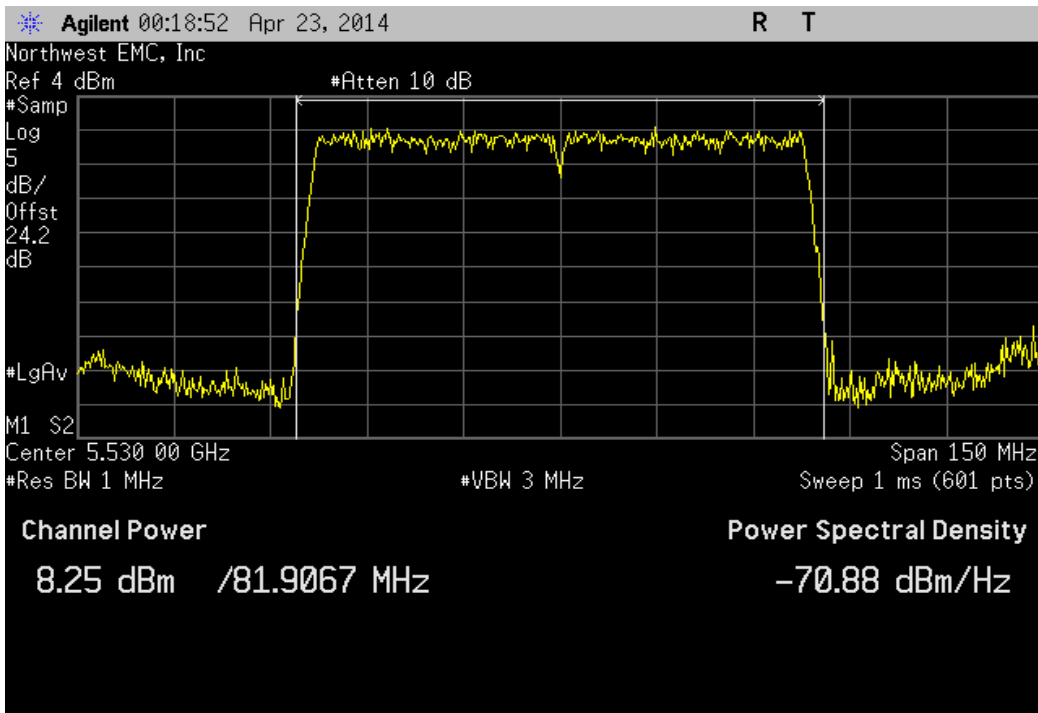
Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
8.753 dBm	< 24 dBm	Pass



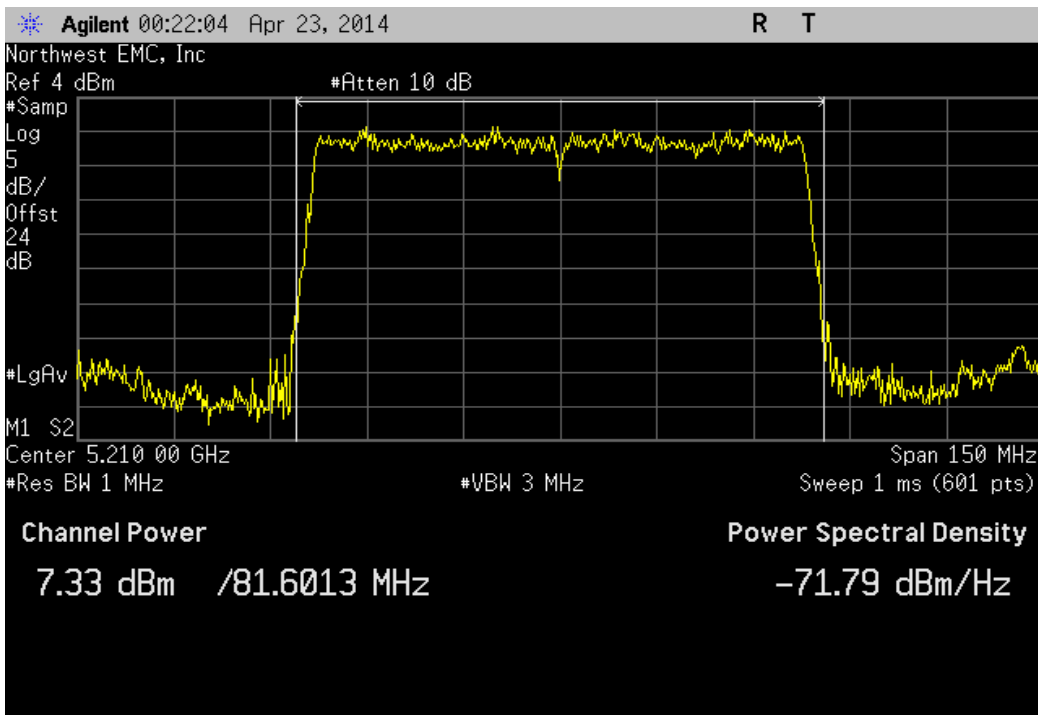
Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
8.249 dBm	< 24 dBm	Pass



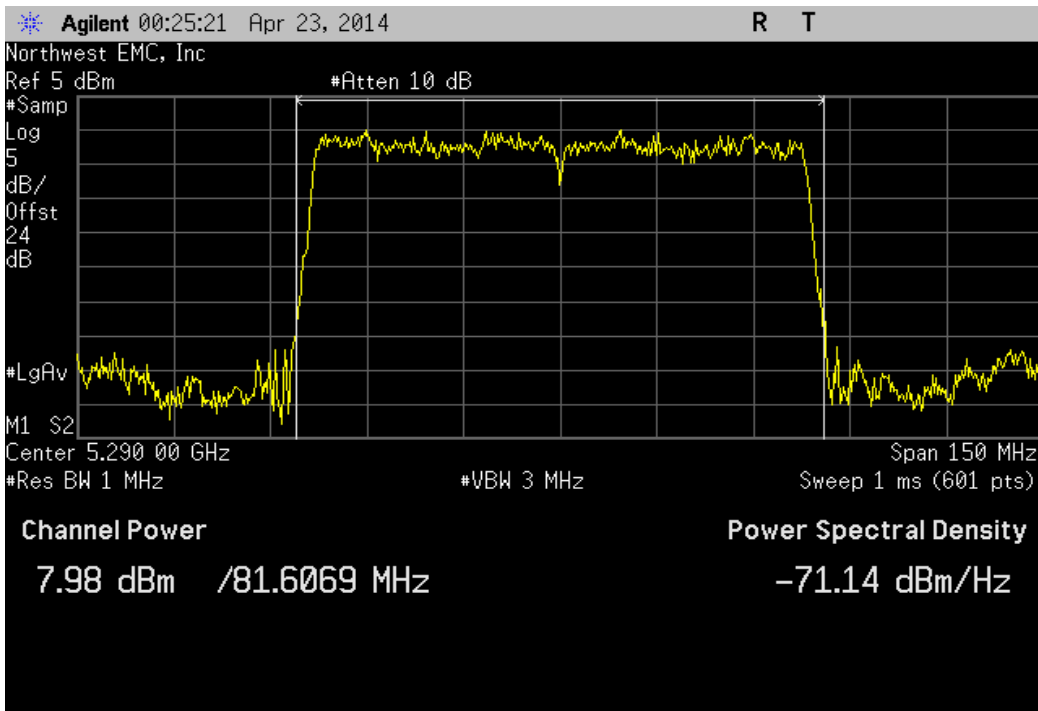
Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
7.331 dBm	< 17 dBm	Pass



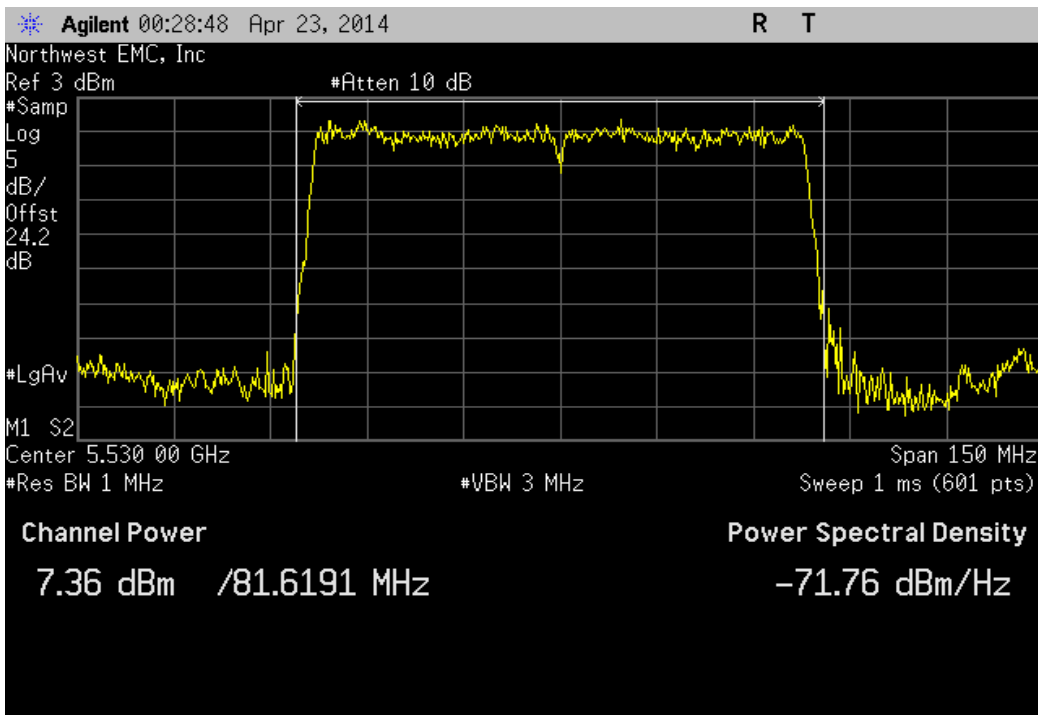
Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
7.979 dBm	< 24 dBm	Pass



Chain B, IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
7.36 dBm	< 24 dBm	Pass



PEAK TRANSMIT POWER

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 EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo.)
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24

TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures Section C was followed. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. 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 transmit power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. The method of measuring the emission bandwidth and the associated data are found elsewhere in this test report. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep) was used for this test.

The spectrum analyzer settings were set per the guidance as well as the following specifics:

- RBW = 1 MHz, VBW = 3 MHz
- Sample Detector
- The number of points was set to 601. This satisfied the requirement of being $> 2 * \text{span} / \text{RBW}$
- Trace average 100 traces in power averaging mode.
- Power was integrated across "B", by using the channel power function of the analyzer.



PEAK TRANSMIT POWER

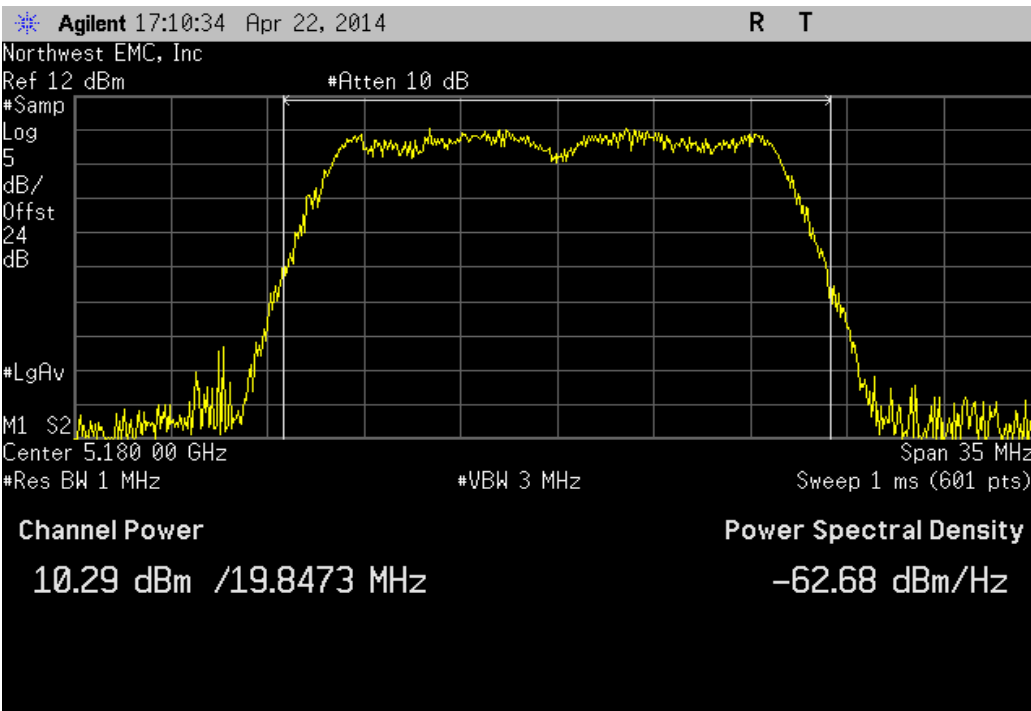
XMit 2013.08.15
PsaTx 2013.10.23

EUT: Model 1631		Work Order: MCSO1698		
Serial Number: 006840341053		Date: 04/23/14		
Customer: Microsoft Corporation		Temperature: 22.3°C		
Attendees: None		Humidity: 32%		
Project: None		Barometric Pres.: 1014		
Tested by: Jared Ison		Power: 110VAC/60Hz		
Job Site: EV06		Test Method		
FCC 15.407:2014		ANSI C63.10:2009		
COMMENTS				
Modes of operation tested were client provided.				
DEVIATIONS FROM TEST STANDARD				
None				
Configuration #	6	Signature 		
		Value	Limit	Result
IEEE 802.11(a)				
20 MHz				
6 Mbps				
Ch. 36, Low Channel 5180MHz		10.293 dBm	< 17 dBm	Pass
Ch. 48, High Channel 5240 MHz		10.062 dBm	< 17 dBm	Pass
Ch. 52, Low Channel 5260 MHz		9.759 dBm	< 24 dBm	Pass
Ch. 64, High Channel 5320 MHz		10.52 dBm	< 24 dBm	Pass
Ch. 100, Low Channel 5500 MHz		10.067 dBm	< 24 dBm	Pass
Ch. 116, Mid Channel 5580 MHz		10.261 dBm	< 24 dBm	Pass
Ch. 140, High Channel 5700 MHz		9.888 dBm	< 24 dBm	Pass
36 Mbps				
Ch. 36, Low Channel 5180MHz		9.479 dBm	< 17 dBm	Pass
Ch. 48, High Channel 5240 MHz		9.345 dBm	< 17 dBm	Pass
Ch. 52, Low Channel 5260 MHz		9.433 dBm	< 24 dBm	Pass
Ch. 64, High Channel 5320 MHz		9.729 dBm	< 24 dBm	Pass
Ch. 100, Low Channel 5500 MHz		9.63 dBm	< 24 dBm	Pass
Ch. 116, Mid Channel 5580 MHz		9.6 dBm	< 24 dBm	Pass
Ch. 140, High Channel 5700 MHz		9.151 dBm	< 24 dBm	Pass
54 Mbps				
Ch. 36, Low Channel 5180MHz		9.684 dBm	< 17 dBm	Pass
Ch. 48, High Channel 5240 MHz		9.158 dBm	< 17 dBm	Pass
Ch. 52, Low Channel 5260 MHz		9.285 dBm	< 24 dBm	Pass
Ch. 64, High Channel 5320 MHz		9.804 dBm	< 24 dBm	Pass
Ch. 100, Low Channel 5500 MHz		9.75 dBm	< 24 dBm	Pass
Ch. 116, Mid Channel 5580 MHz		9.682 dBm	< 24 dBm	Pass
Ch. 140, High Channel 5700 MHz		9.104 dBm	< 24 dBm	Pass
IEEE 802.11(n)				
20 MHz				
HT, MCS7				
Ch. 36, Low Channel 5180MHz		9.589 dBm	< 17 dBm	Pass
Ch. 48, High Channel 5240 MHz		9.591 dBm	< 17 dBm	Pass
Ch. 52, Low Channel 5260 MHz		9.582 dBm	< 24 dBm	Pass
Ch. 64, High Channel 5320 MHz		10.009 dBm	< 24 dBm	Pass
Ch. 100, Low Channel 5500 MHz		9.59 dBm	< 24 dBm	Pass
Ch. 116, Mid Channel 5580 MHz		9.839 dBm	< 24 dBm	Pass
Ch. 140, High Channel 5700 MHz		9.312 dBm	< 24 dBm	Pass
40 MHz				
HT, MCS7				
Ch. 36/40, Low Channel 5190 MHz		9.397 dBm	< 17 dBm	Pass
Ch. 44/48, High Channel 5230 MHz		9.26 dBm	< 17 dBm	Pass
Ch. 52/56, Low Channel 5270 MHz		9.475 dBm	< 24 dBm	Pass
Ch. 60/64, High Channel 5310 MHz		9.212 dBm	< 24 dBm	Pass
Ch. 100/104, Low Channel 5510 MHz		9.409 dBm	< 24 dBm	Pass
Ch. 132/136, High Channel 5670 MHz		9.609 dBm	< 24 dBm	Pass
IEEE 802.11(ac)				
20 MHz				
VHT, MCS0				
Ch. 36, Low Channel 5180MHz		10.074 dBm	< 17 dBm	Pass
Ch. 48, High Channel 5240 MHz		9.779 dBm	< 17 dBm	Pass
Ch. 52, Low Channel 5260 MHz		9.704 dBm	< 24 dBm	Pass
Ch. 64, High Channel 5320 MHz		10.318 dBm	< 24 dBm	Pass
Ch. 100, Low Channel 5500 MHz		9.838 dBm	< 24 dBm	Pass
Ch. 116, Mid Channel 5580 MHz		10.052 dBm	< 24 dBm	Pass
Ch. 140, High Channel 5700 MHz		9.642 dBm	< 24 dBm	Pass
VHT, MCS8				
Ch. 36, Low Channel 5180MHz		9.432 dBm	< 17 dBm	Pass
Ch. 48, High Channel 5240 MHz		9.447 dBm	< 17 dBm	Pass
Ch. 52, Low Channel 5260 MHz		9.486 dBm	< 24 dBm	Pass
Ch. 64, High Channel 5320 MHz		10.067 dBm	< 24 dBm	Pass
Ch. 100, Low Channel 5500 MHz		10.031 dBm	< 24 dBm	Pass
Ch. 116, Mid Channel 5580 MHz		9.851 dBm	< 24 dBm	Pass
Ch. 140, High Channel 5700 MHz		9.771 dBm	< 24 dBm	Pass
40 MHz				
VHT, MCS0				
Ch. 36/40, Low Channel 5190 MHz		10.305 dBm	< 17 dBm	Pass
Ch. 44/48, High Channel 5230 MHz		9.766 dBm	< 17 dBm	Pass
Ch. 52/56, Low Channel 5270 MHz		9.894 dBm	< 24 dBm	Pass
Ch. 60/64, High Channel 5310 MHz		10.326 dBm	< 24 dBm	Pass
Ch. 100/104, Low Channel 5510 MHz		9.98 dBm	< 24 dBm	Pass
Ch. 132/136, High Channel 5670 MHz		10.187 dBm	< 24 dBm	Pass
VHT, MCS9				
Ch. 36/40, Low Channel 5190 MHz		9.924 dBm	< 17 dBm	Pass
Ch. 44/48, High Channel 5230 MHz		9.304 dBm	< 17 dBm	Pass
Ch. 52/56, Low Channel 5270 MHz		9.553 dBm	< 24 dBm	Pass
Ch. 60/64, High Channel 5310 MHz		9.495 dBm	< 24 dBm	Pass
Ch. 100/104, Low Channel 5510 MHz		9.583 dBm	< 24 dBm	Pass
Ch. 132/136, High Channel 5670 MHz		9.717 dBm	< 24 dBm	Pass
80 MHz				
VHT, MCS0				

	Ch. 42, Low Channel 5210 MHz	9.47 dBm	< 17 dBm	Pass
	Ch. 58, High Channel 5290 MHz	9.353 dBm	< 24 dBm	Pass
	Ch. 106, Low Channel 5530 MHz	9.232 dBm	< 24 dBm	Pass
VHT, MCS9				
	Ch. 42, Low Channel 5210 MHz	8.308 dBm	< 17 dBm	Pass
	Ch. 58, High Channel 5290 MHz	8.428 dBm	< 24 dBm	Pass
	Ch. 106, Low Channel 5530 MHz	8.161 dBm	< 24 dBm	Pass

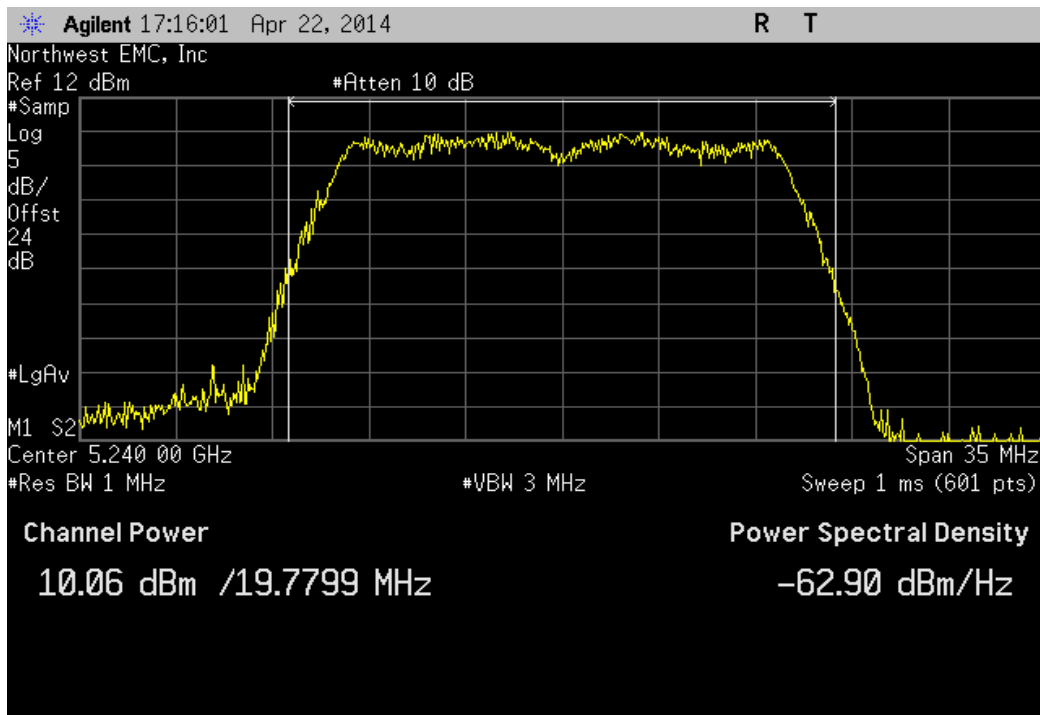
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
10.293 dBm	< 17 dBm	Pass



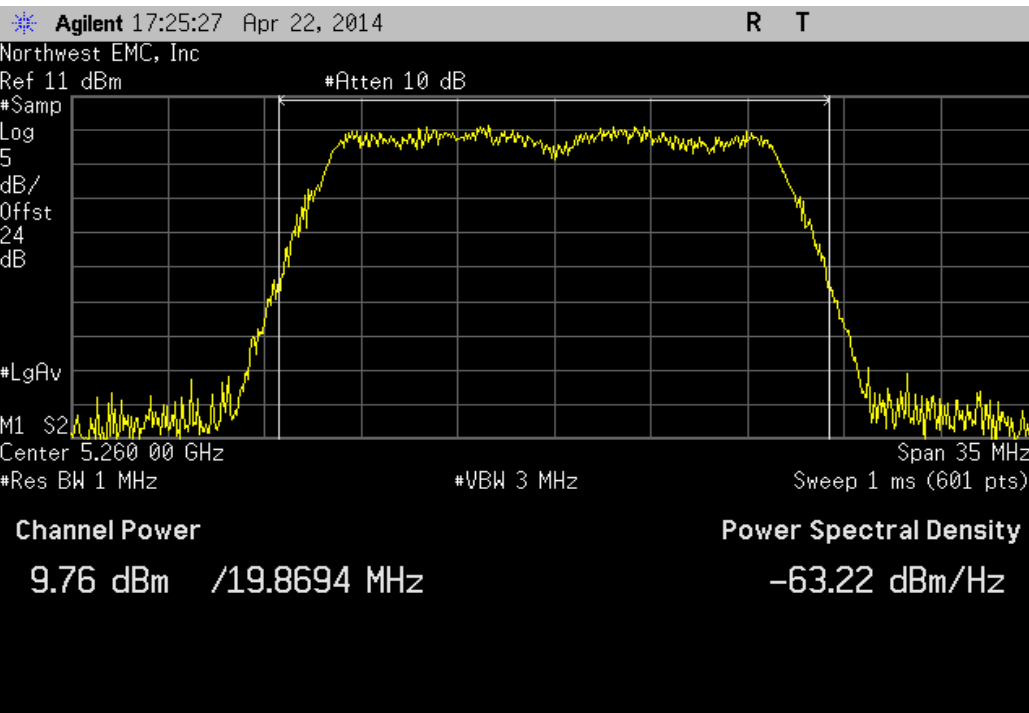
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
10.062 dBm	< 17 dBm	Pass



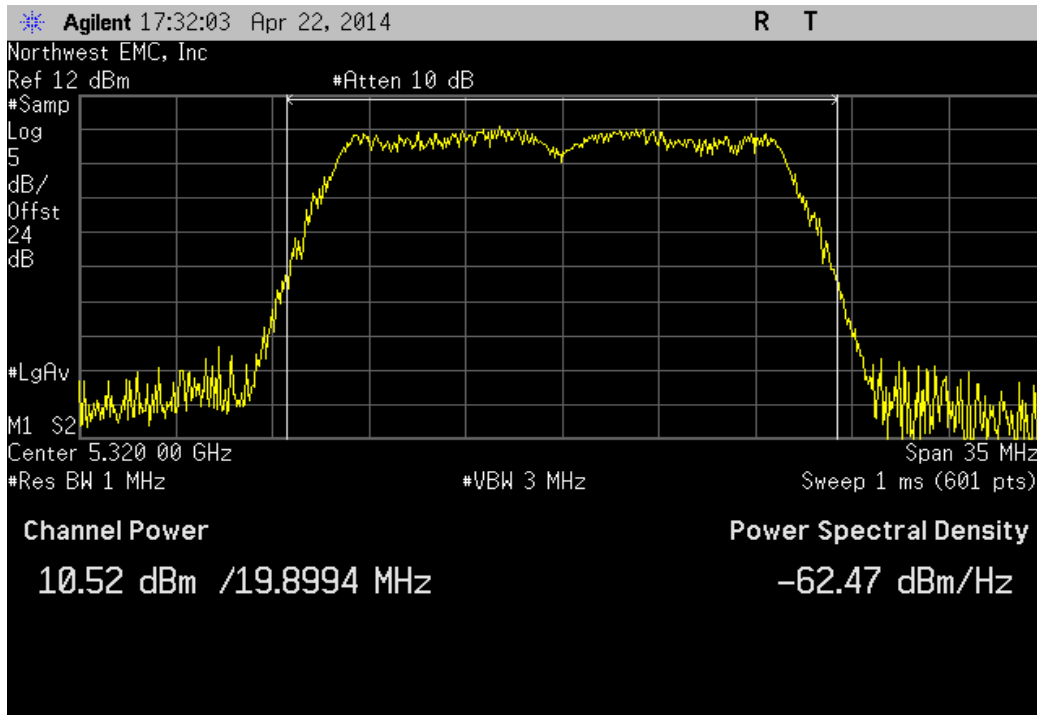
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.759 dBm	< 24 dBm	Pass



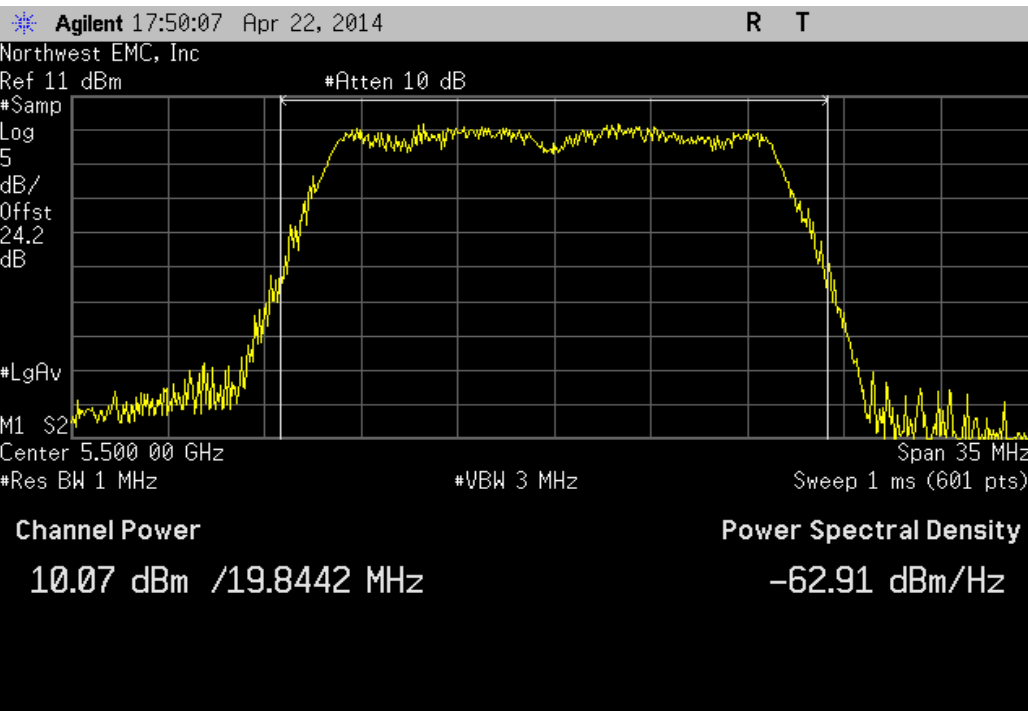
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.52 dBm	< 24 dBm	Pass



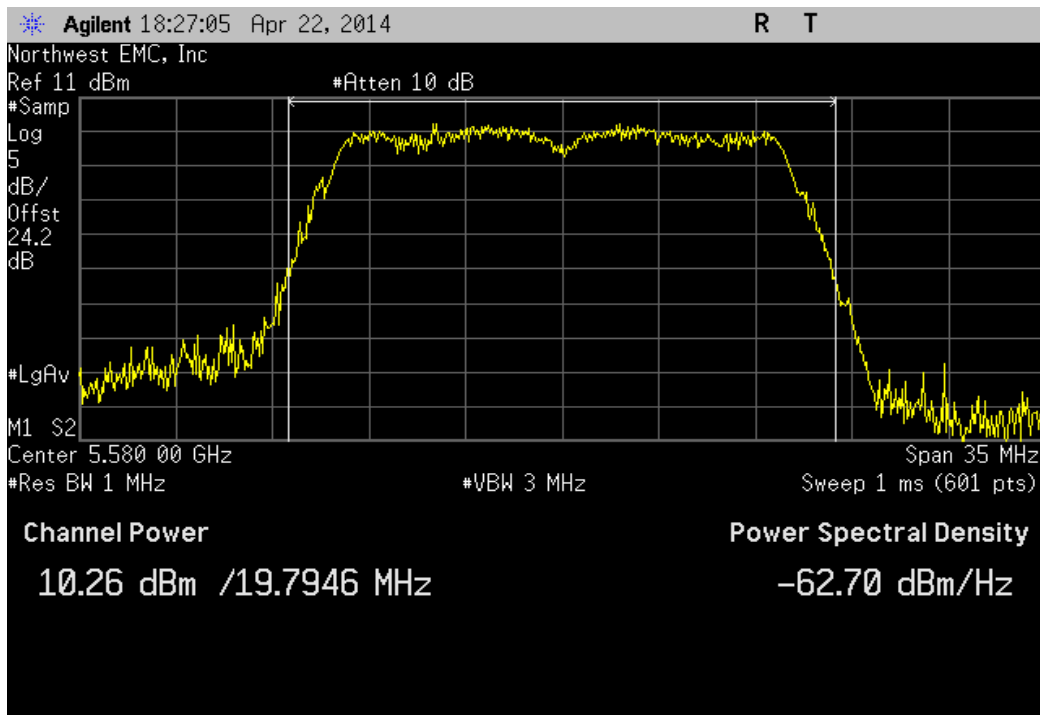
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
10.067 dBm	< 24 dBm	Pass



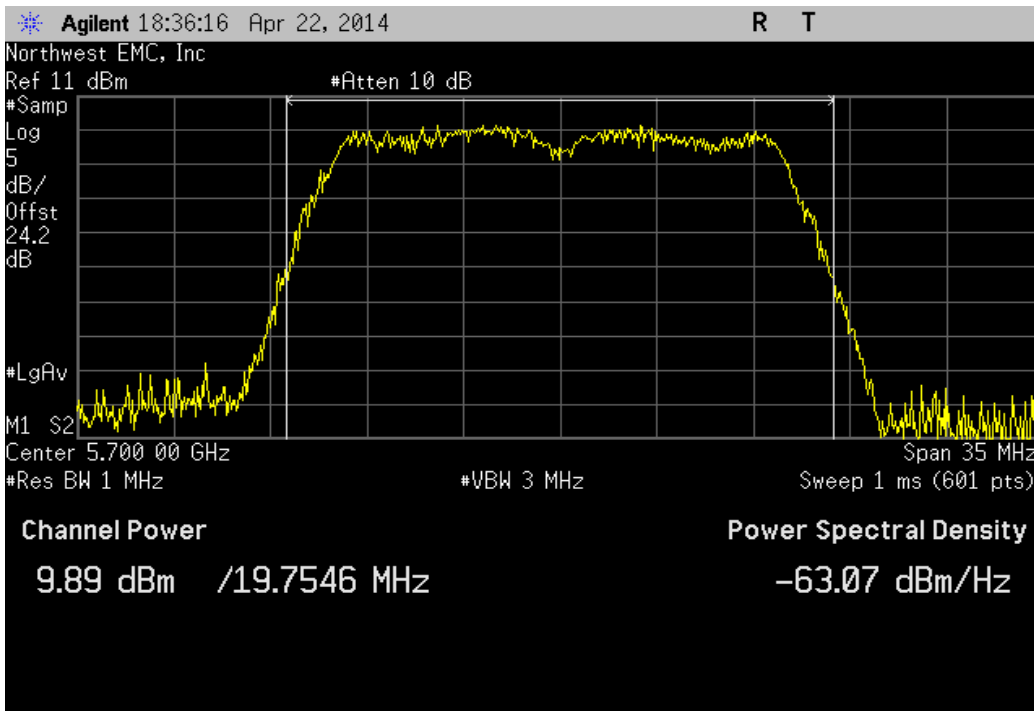
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
10.261 dBm	< 24 dBm	Pass



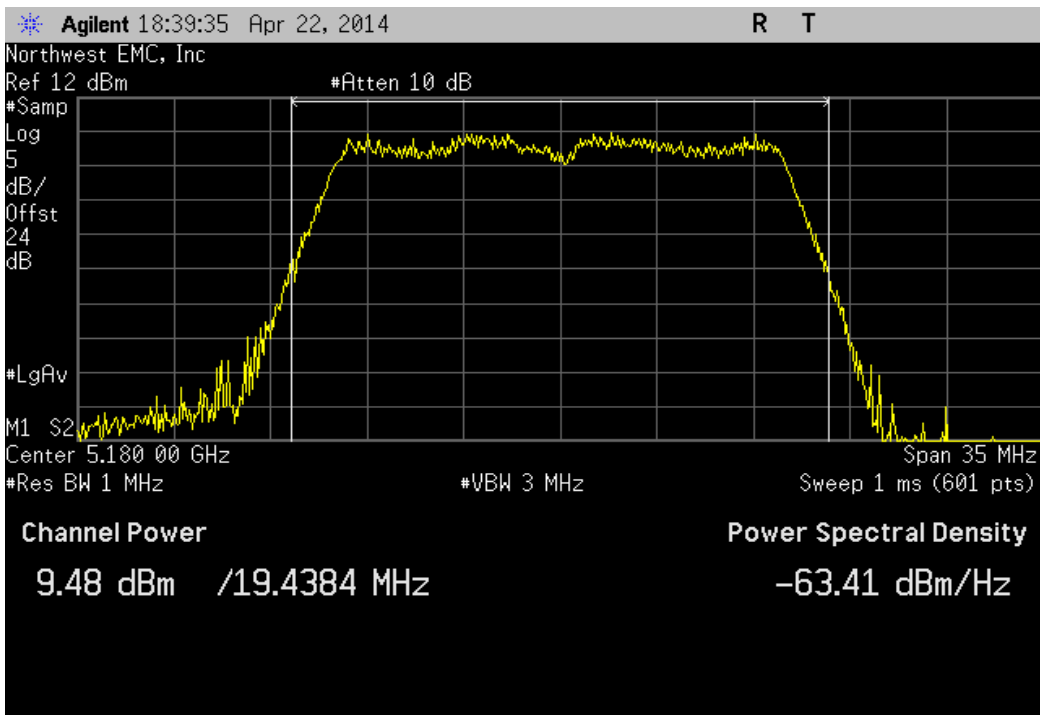
IEEE 802.11(a), 20 MHz, 6 Mbps, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.888 dBm	< 24 dBm	Pass



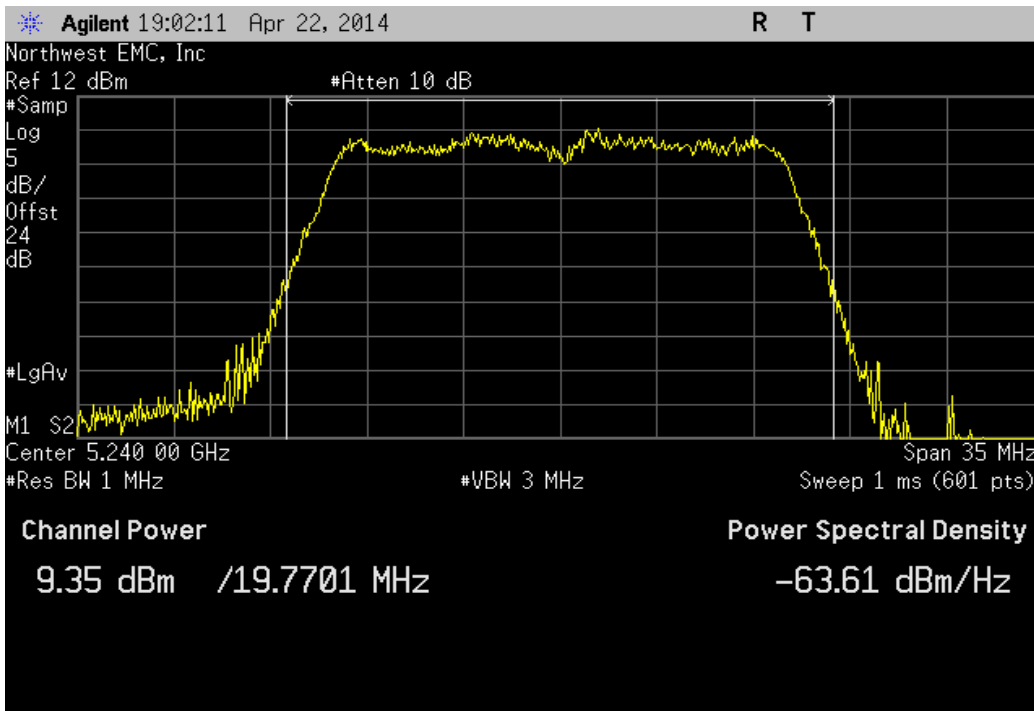
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.479 dBm	< 17 dBm	Pass



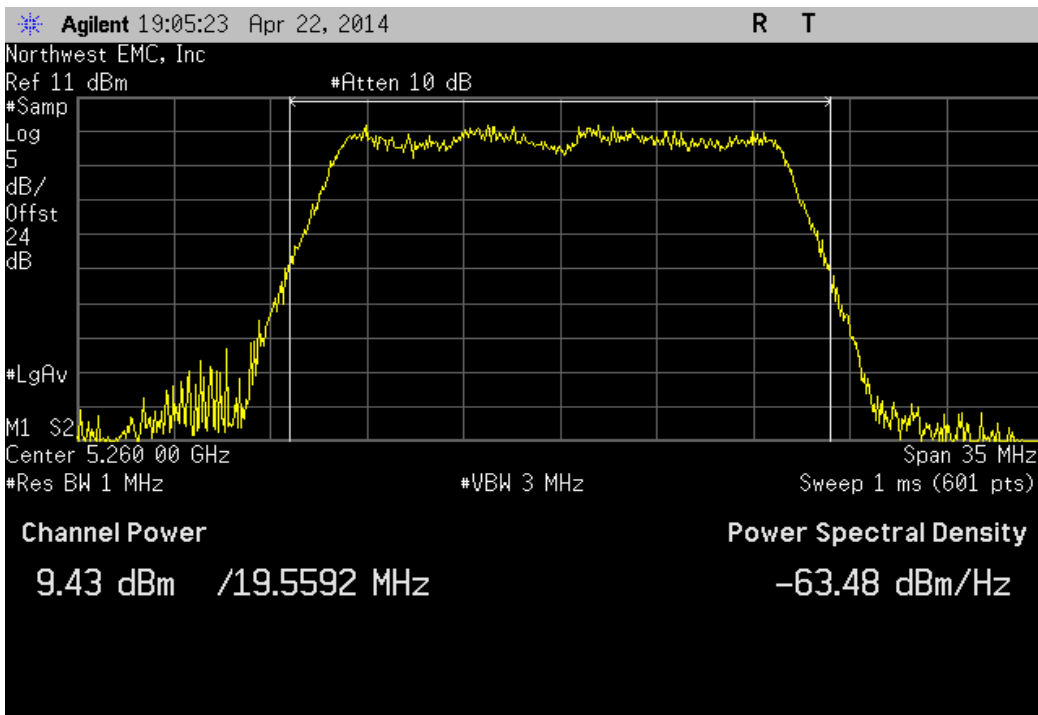
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.345 dBm	< 17 dBm	Pass



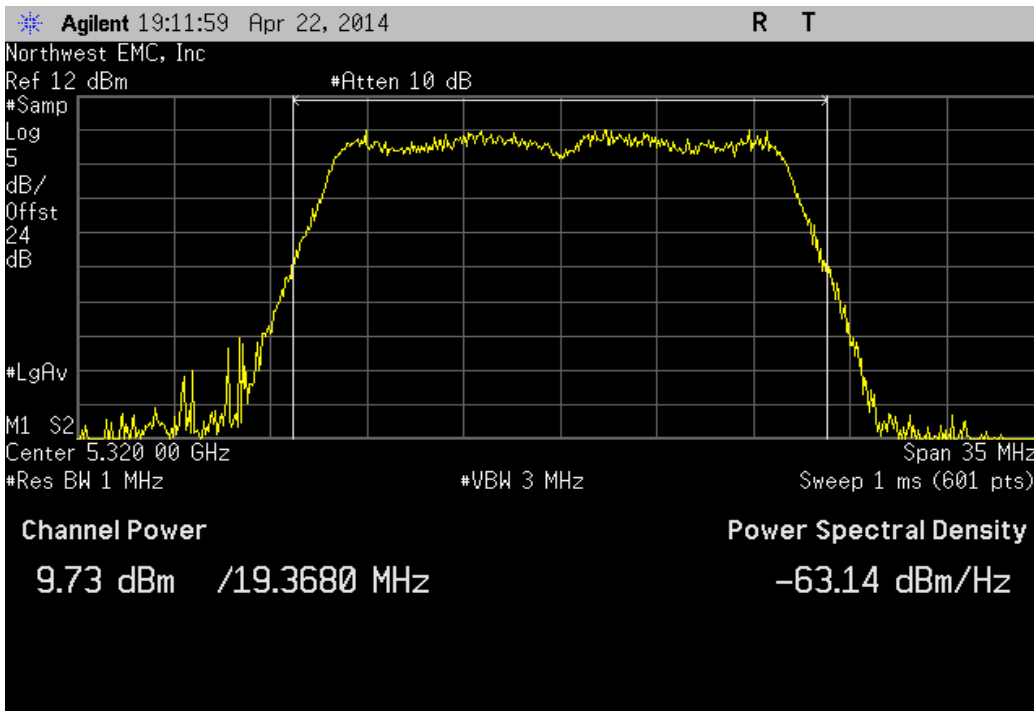
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.433 dBm	< 24 dBm	Pass



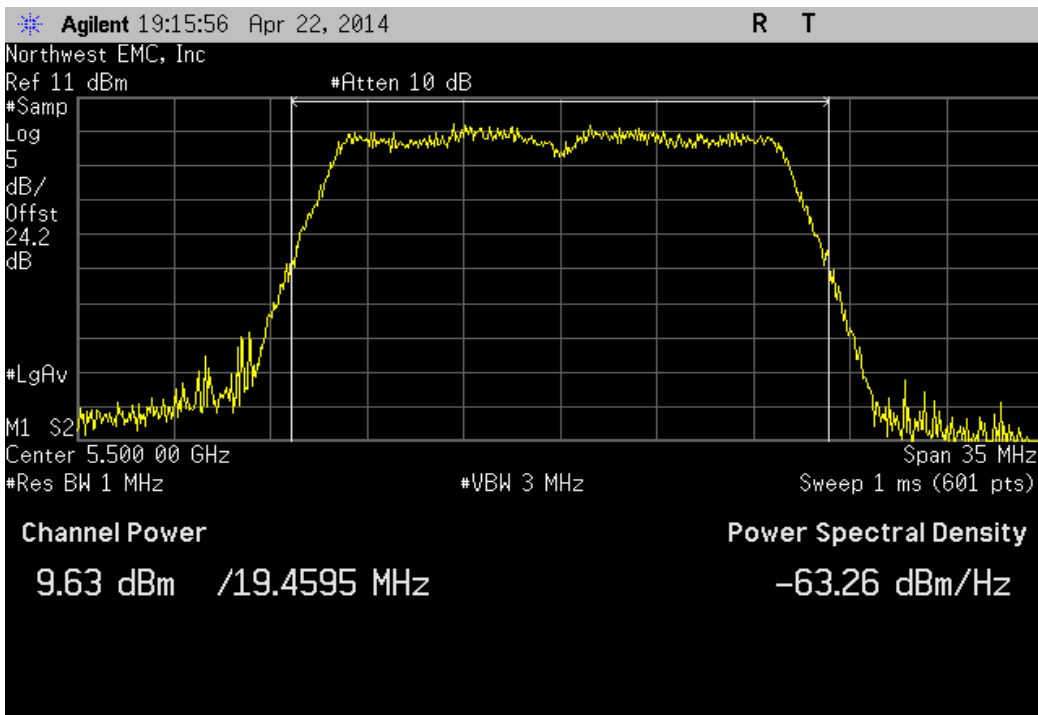
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
9.729 dBm	< 24 dBm	Pass



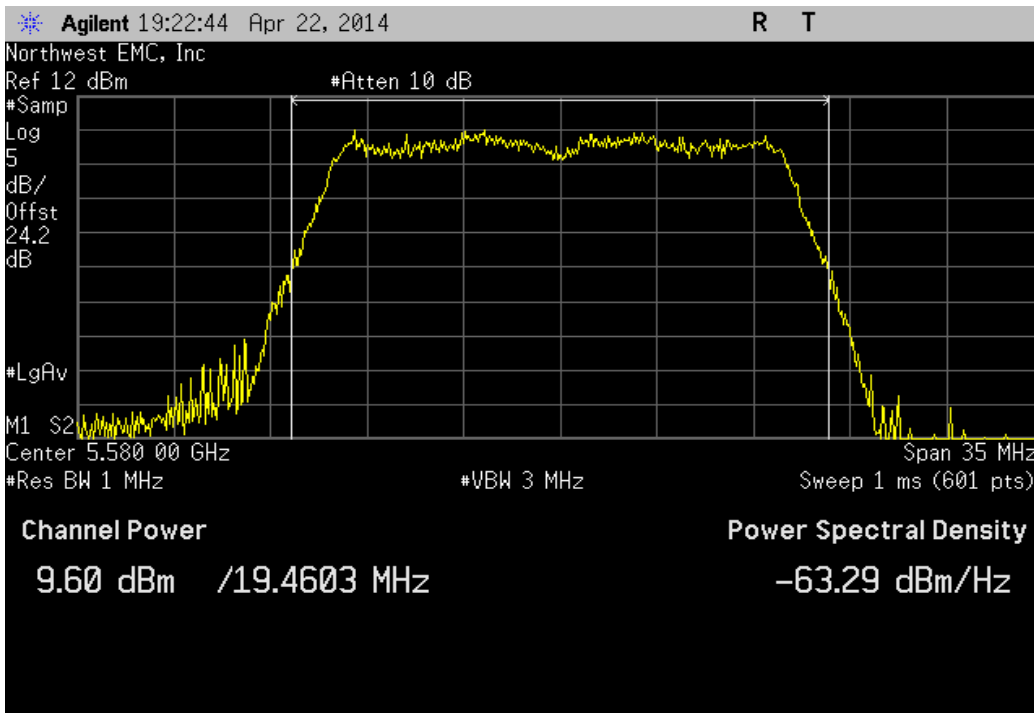
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.63 dBm	< 24 dBm	Pass



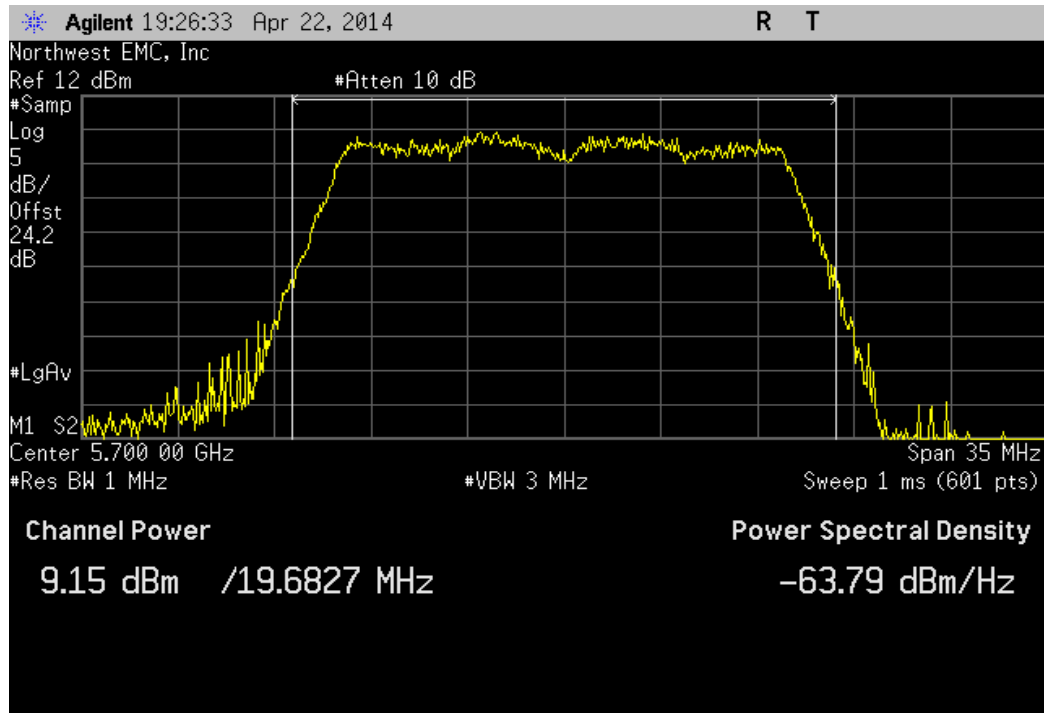
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
9.6 dBm	< 24 dBm	Pass



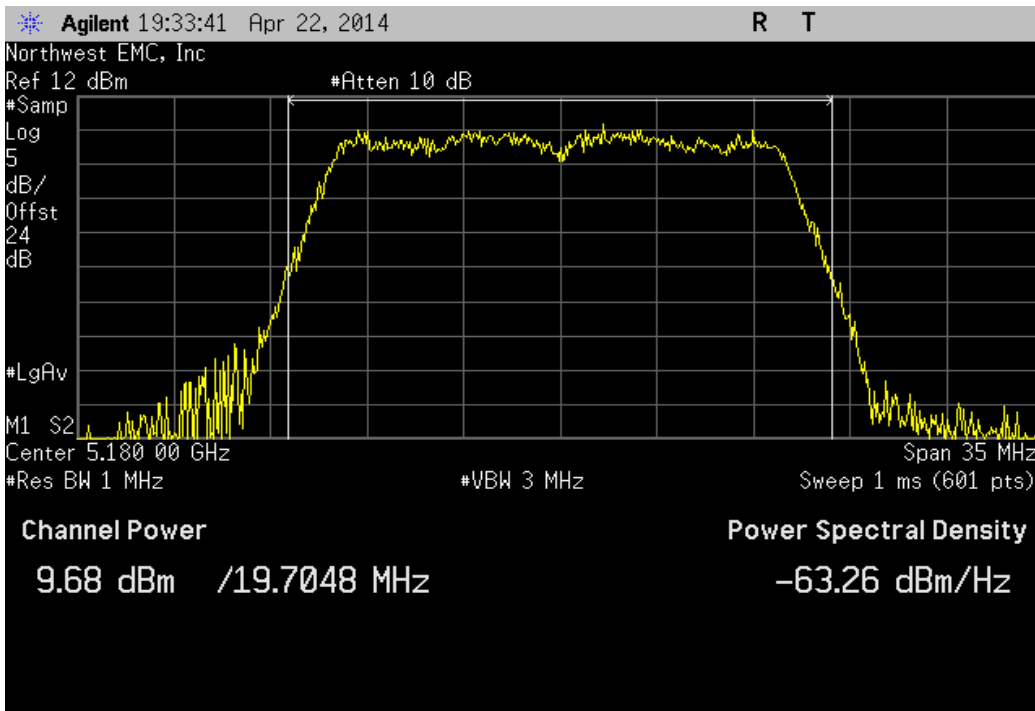
IEEE 802.11(a), 20 MHz, 36 Mbps, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.15 dBm	< 24 dBm	Pass



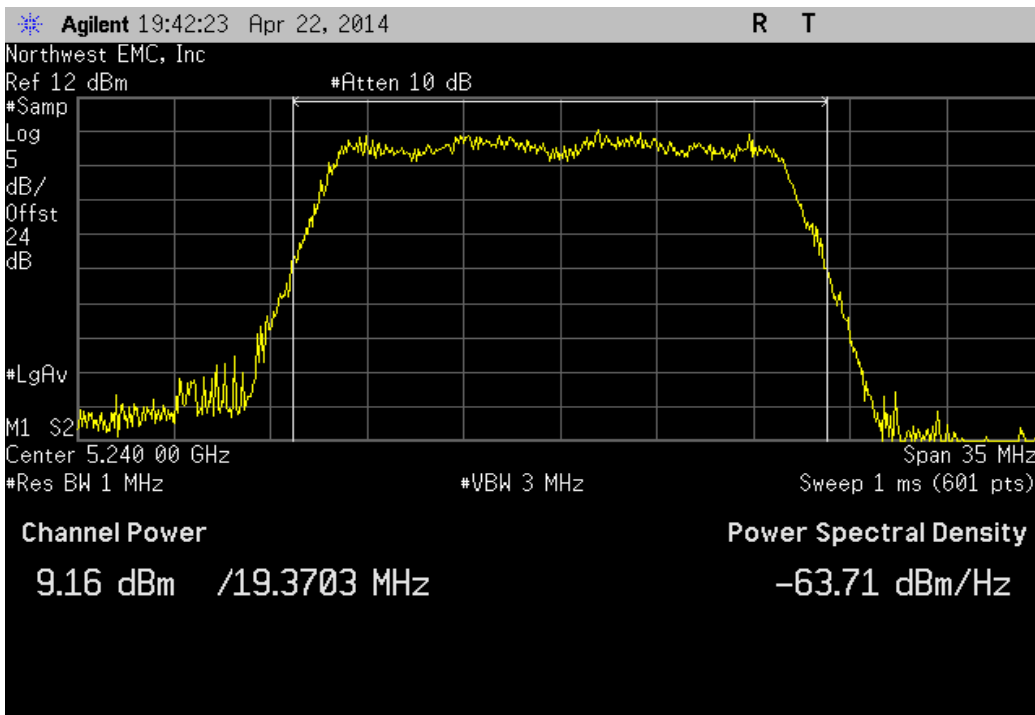
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.684 dBm	< 17 dBm	Pass



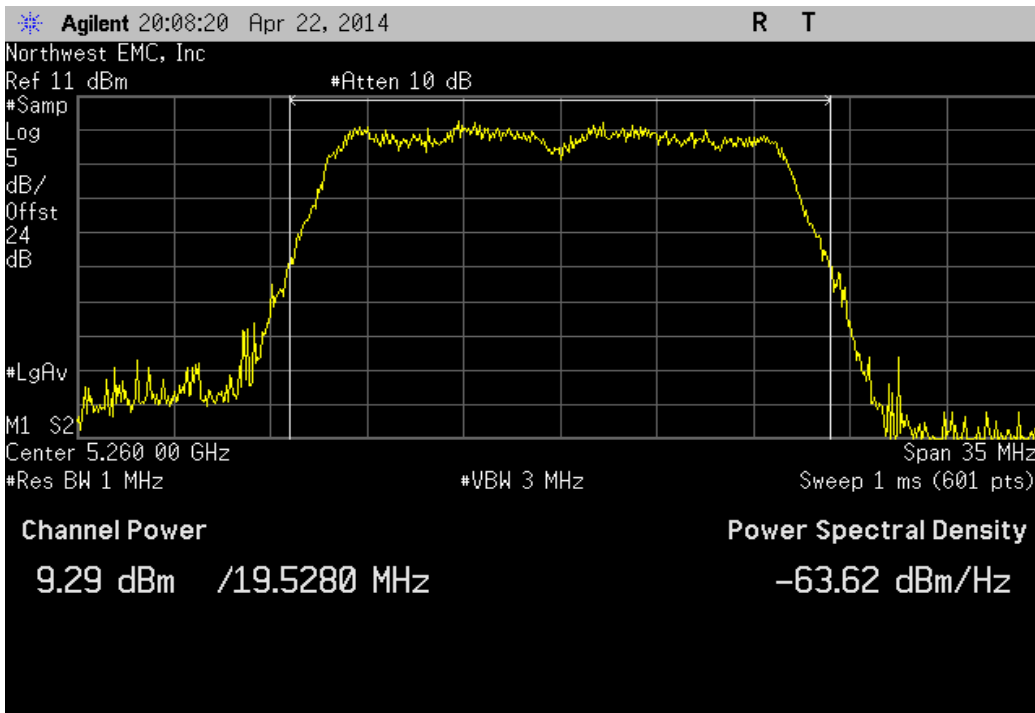
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.158 dBm	< 17 dBm	Pass



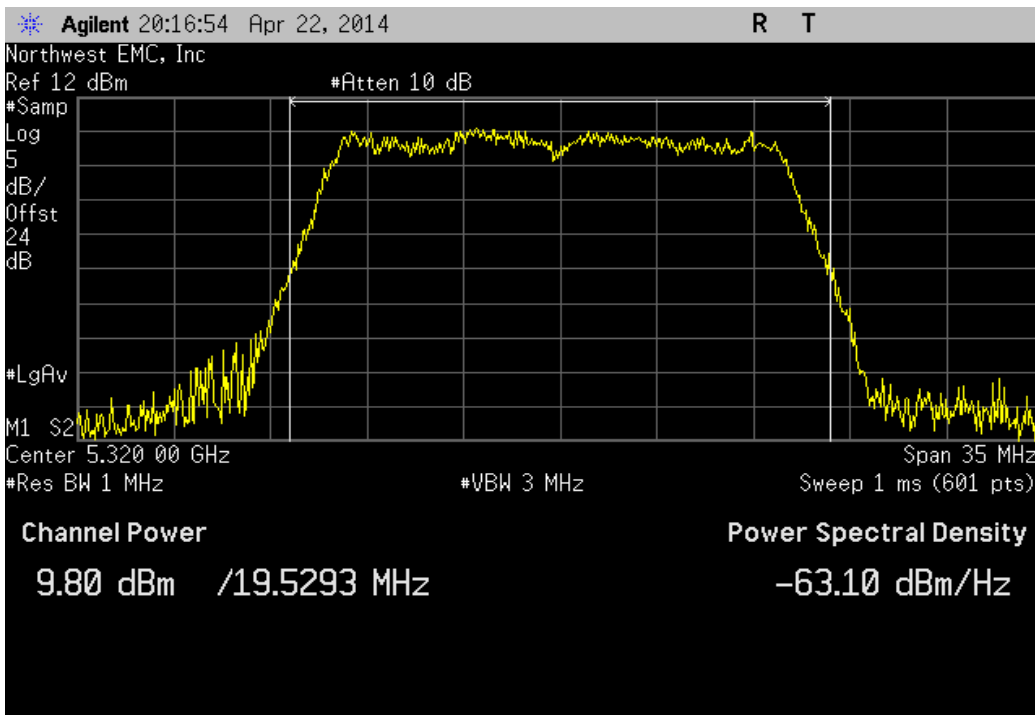
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.285 dBm	< 24 dBm	Pass



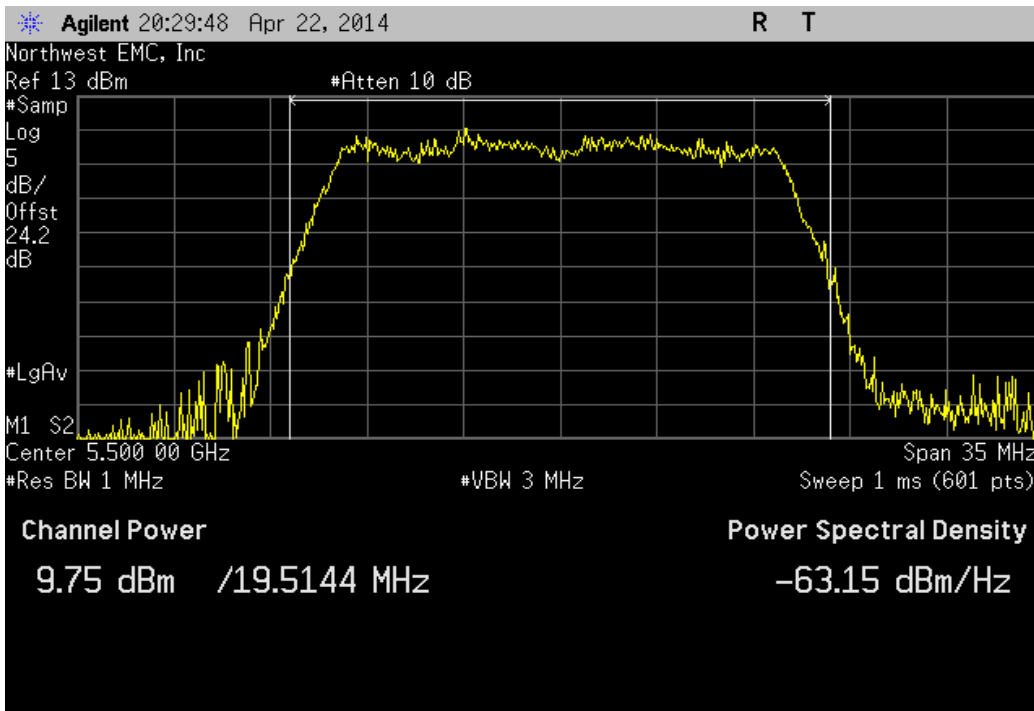
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
9.804 dBm	< 24 dBm	Pass



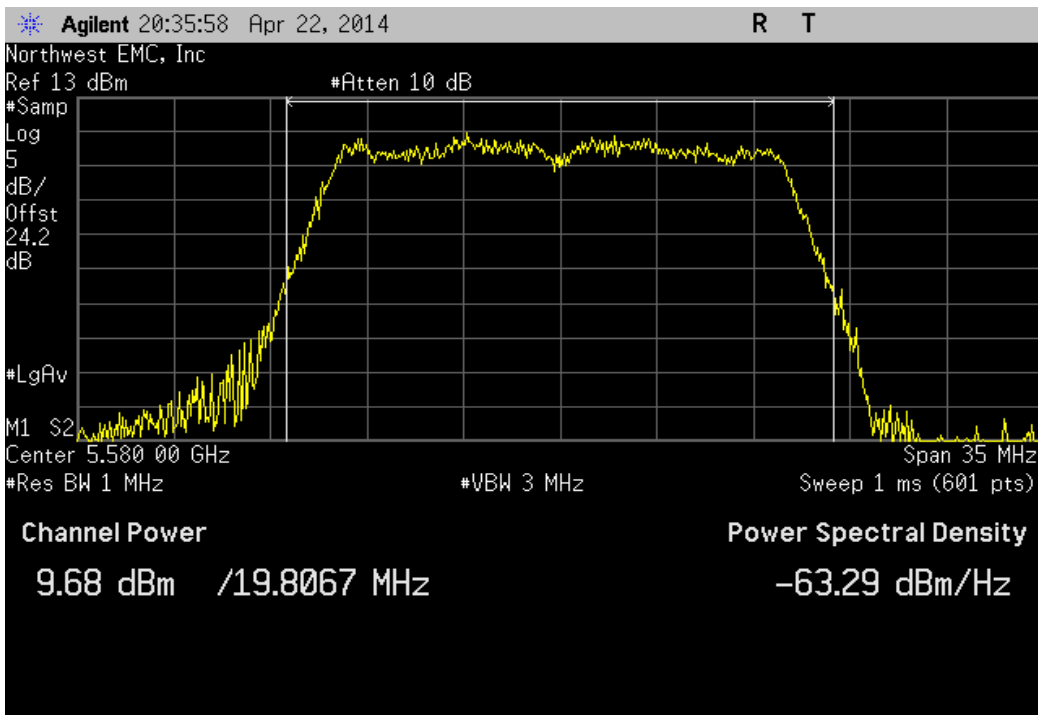
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.75 dBm	< 24 dBm	Pass



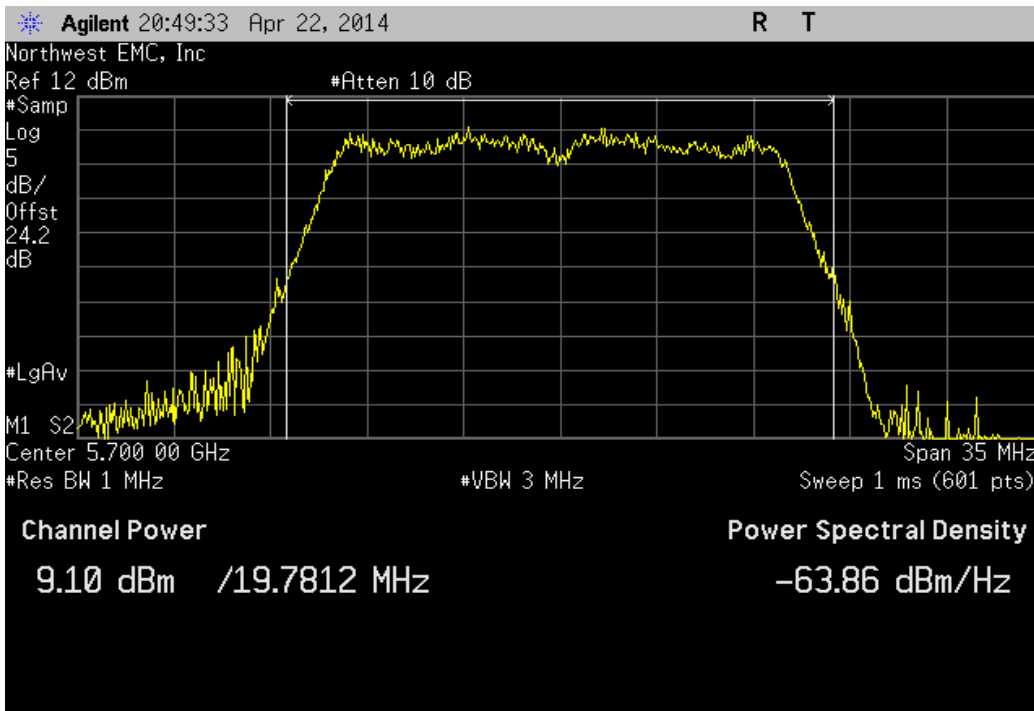
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
9.682 dBm	< 24 dBm	Pass



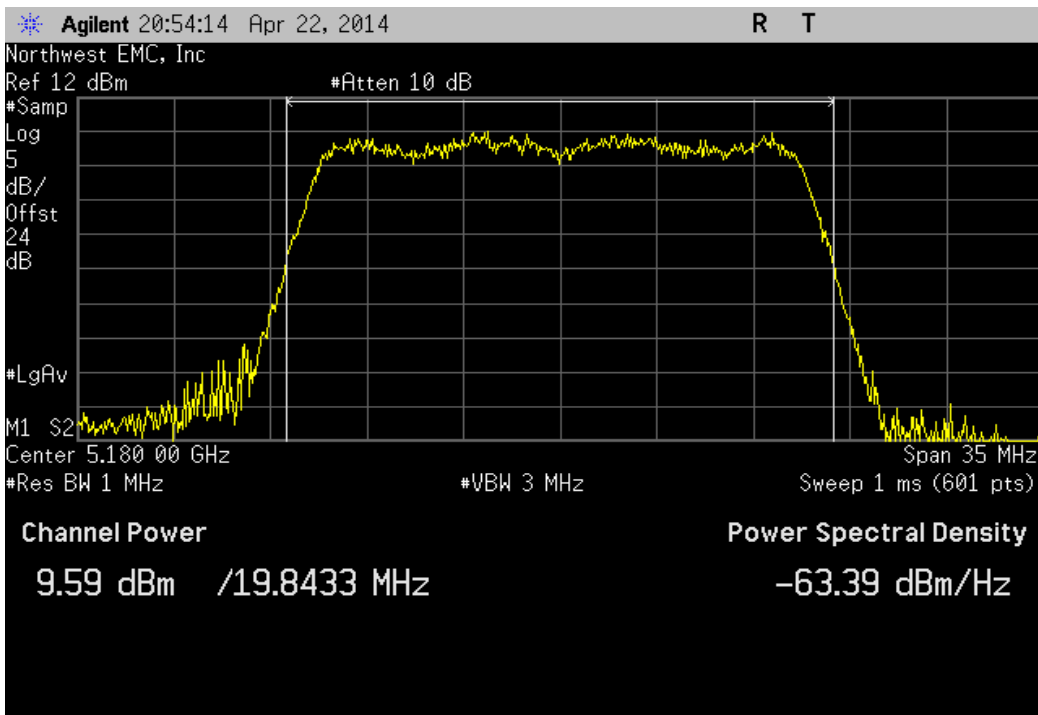
IEEE 802.11(a), 20 MHz, 54 Mbps, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.104 dBm	< 24 dBm	Pass



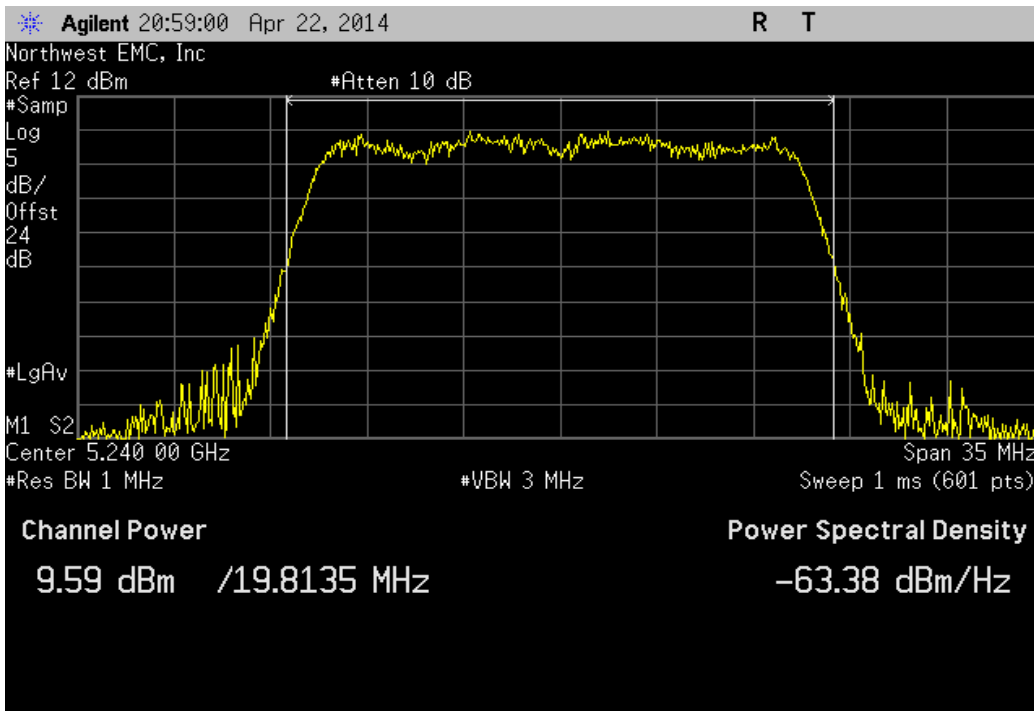
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.589 dBm	< 17 dBm	Pass



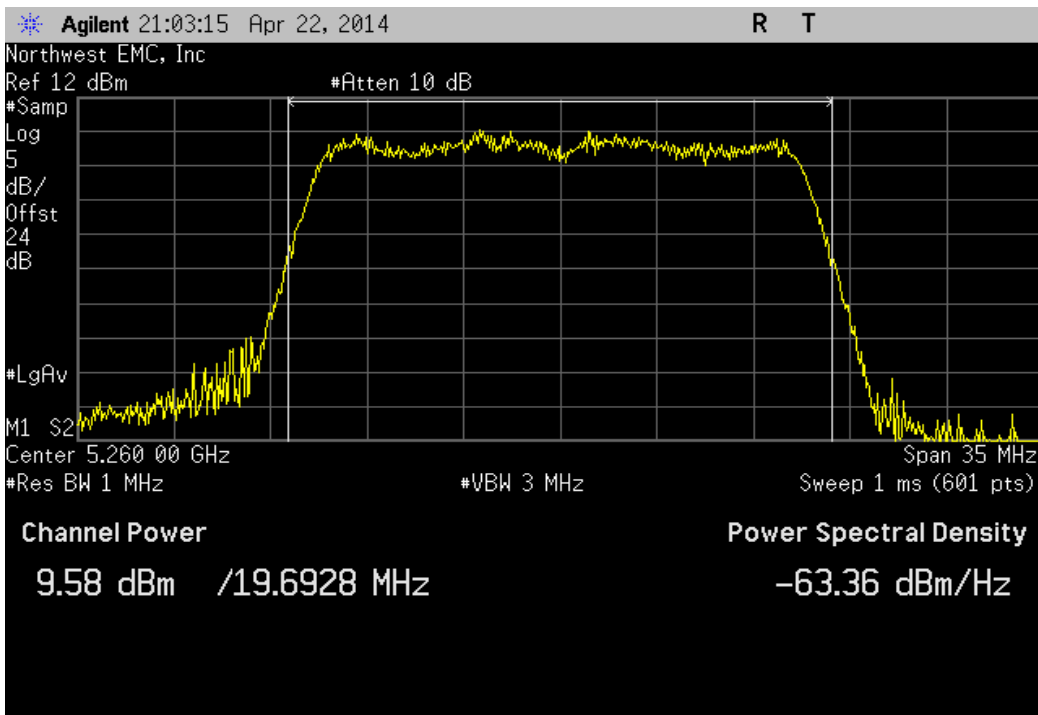
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.591 dBm	< 17 dBm	Pass



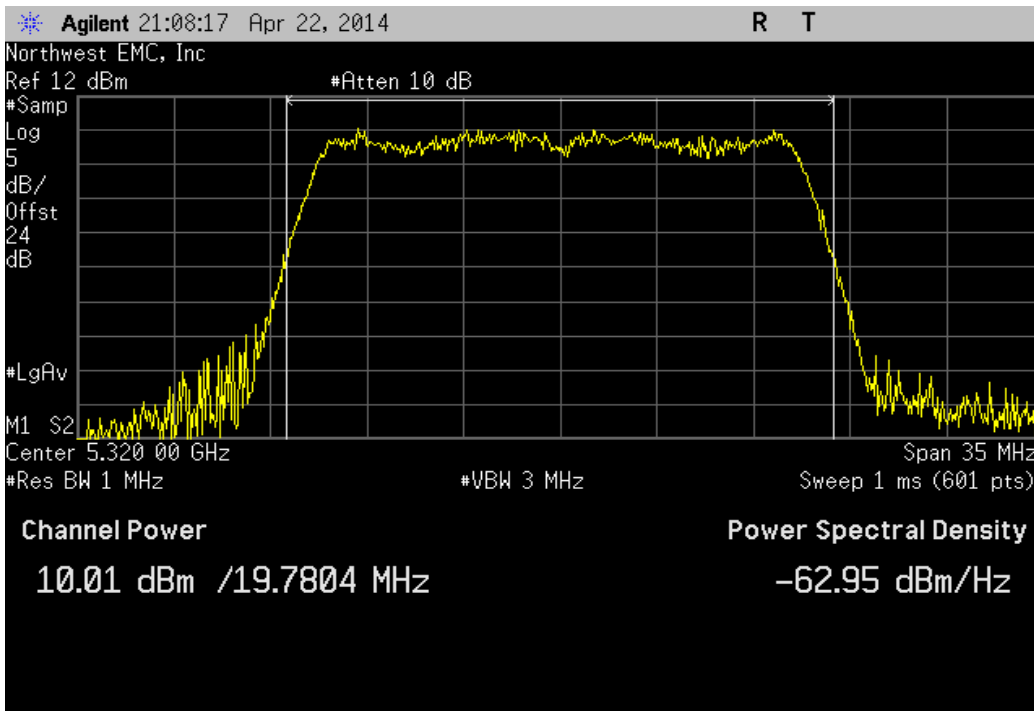
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.582 dBm	< 24 dBm	Pass



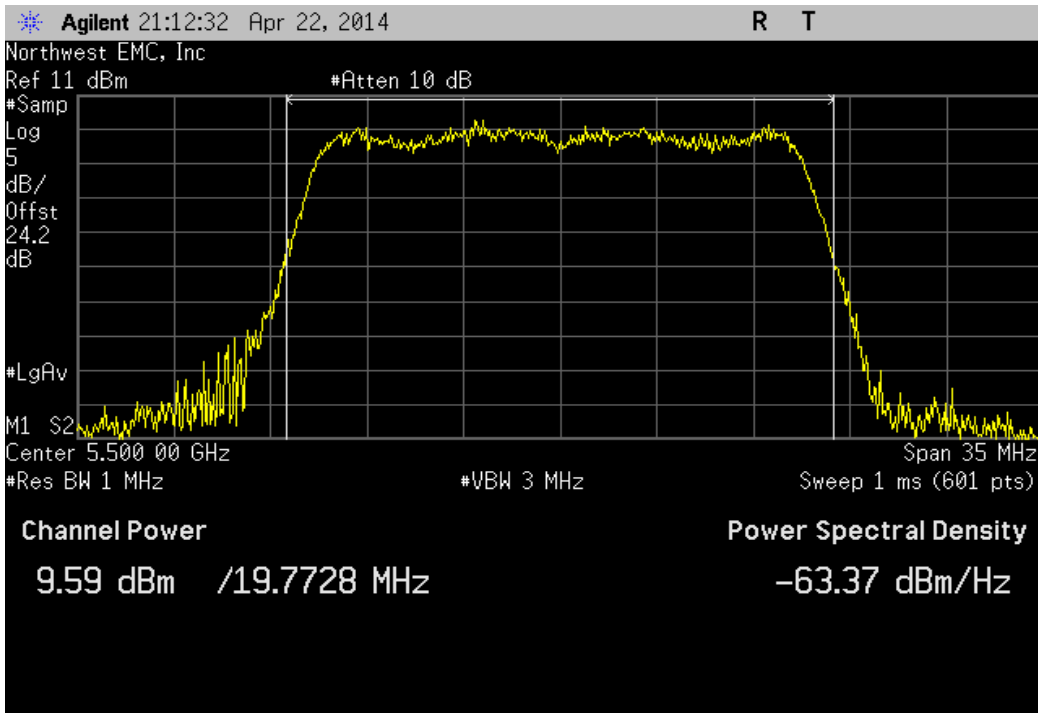
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.009 dBm	< 24 dBm	Pass



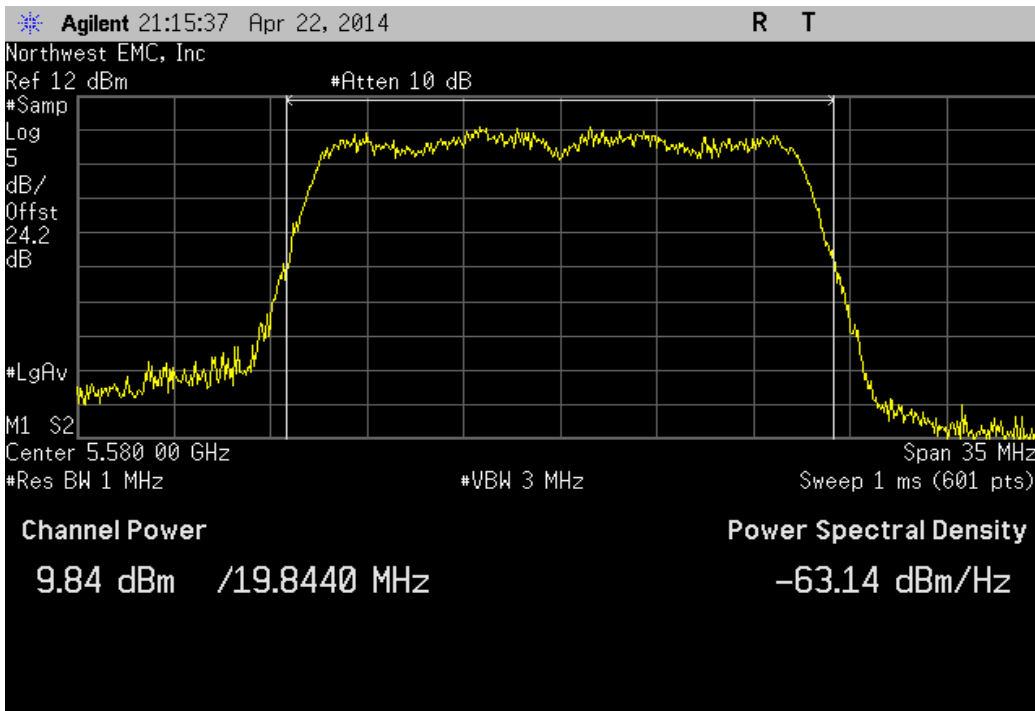
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.59 dBm	< 24 dBm	Pass



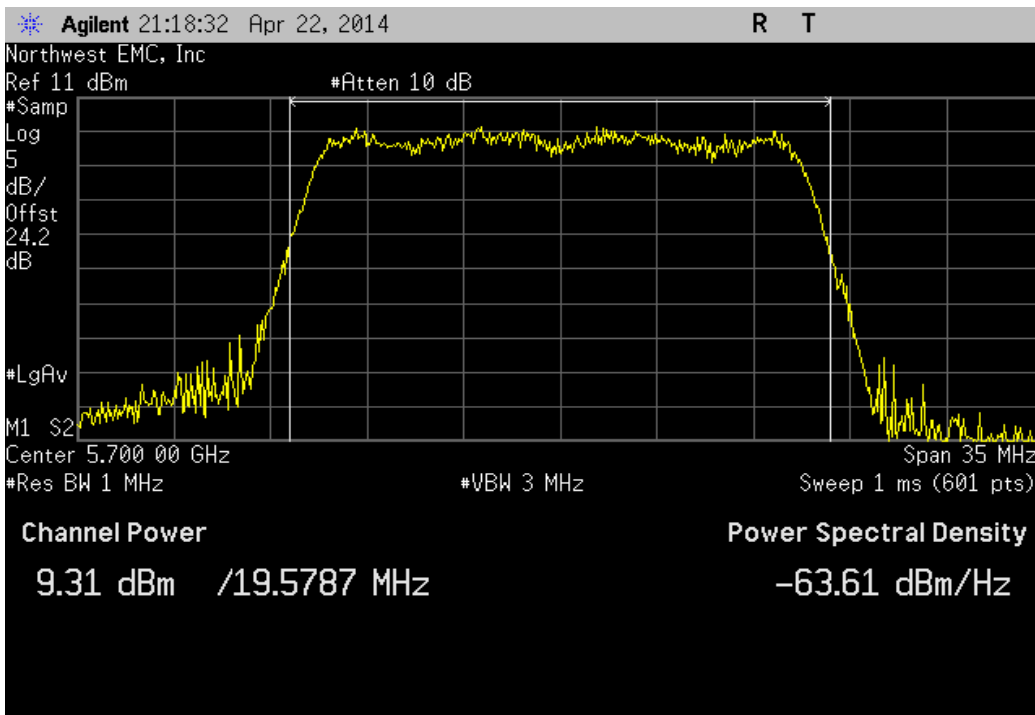
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
9.839 dBm	< 24 dBm	Pass



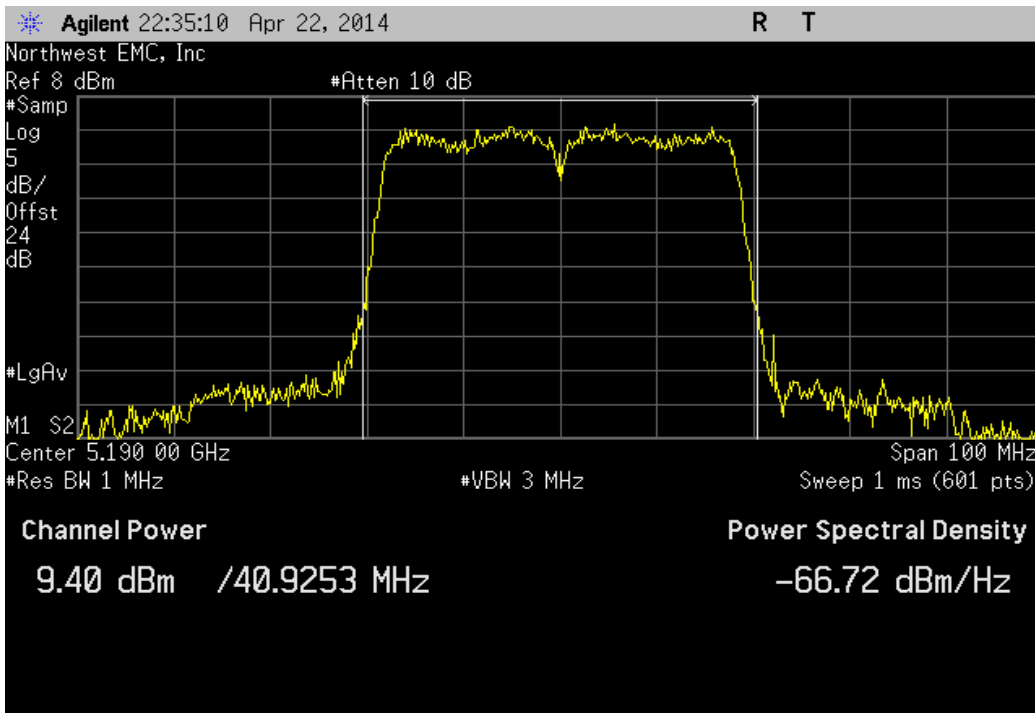
IEEE 802.11(n), 20 MHz, HT, MCS7, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.312 dBm	< 24 dBm	Pass



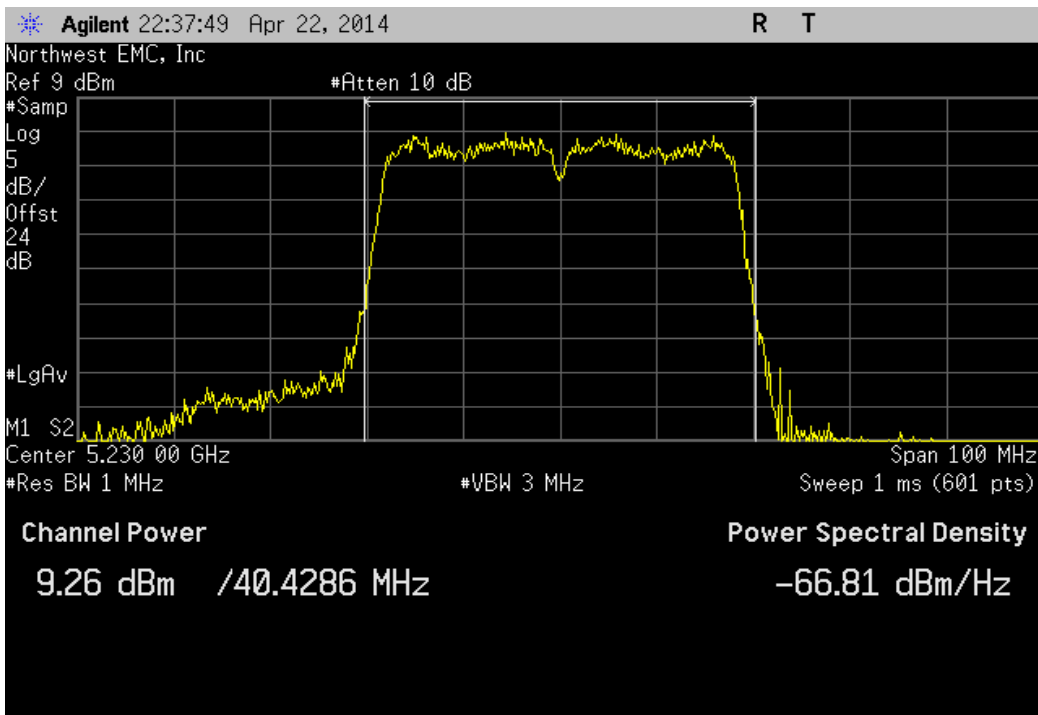
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
9.397 dBm	< 17 dBm	Pass



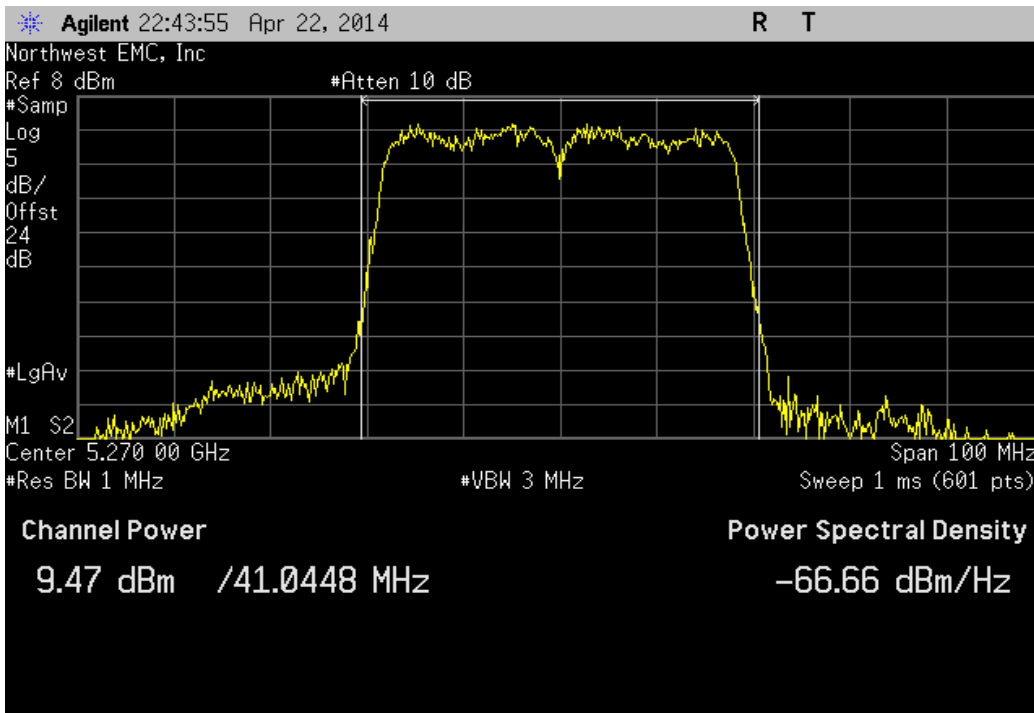
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
9.26 dBm	< 17 dBm	Pass



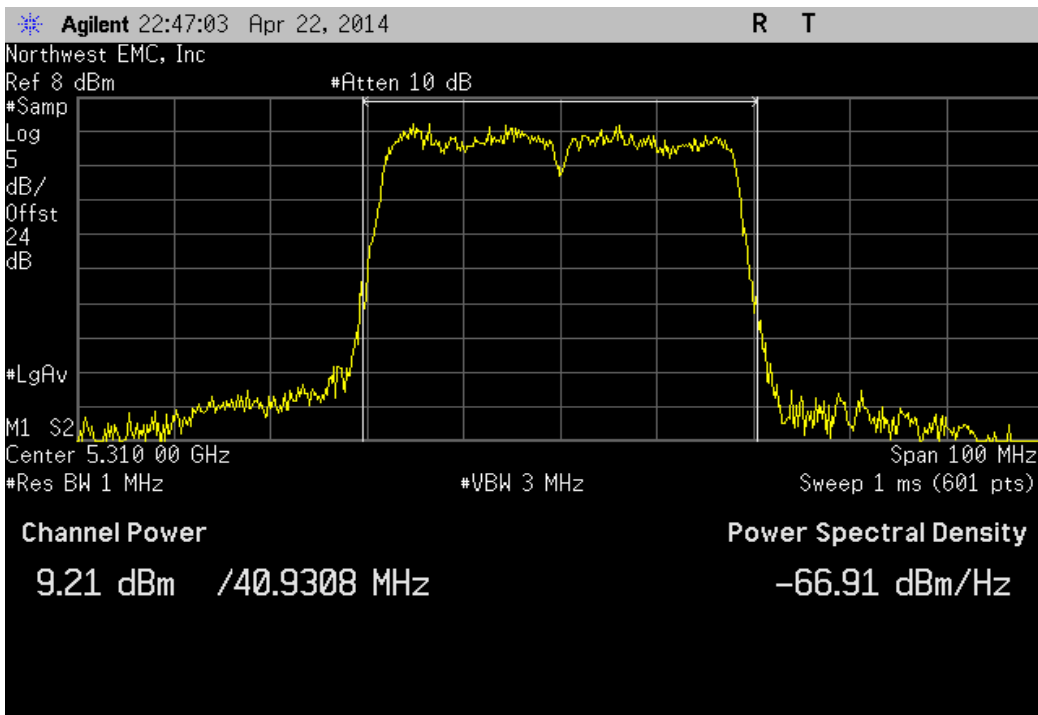
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
9.475 dBm	< 24 dBm	Pass



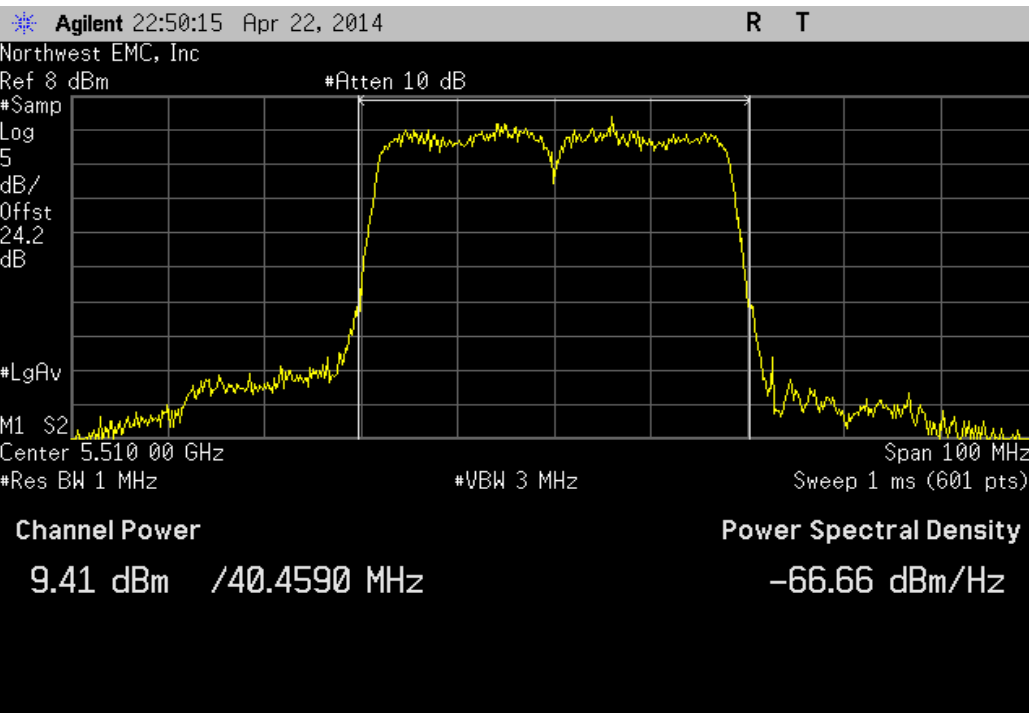
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
9.212 dBm	< 24 dBm	Pass



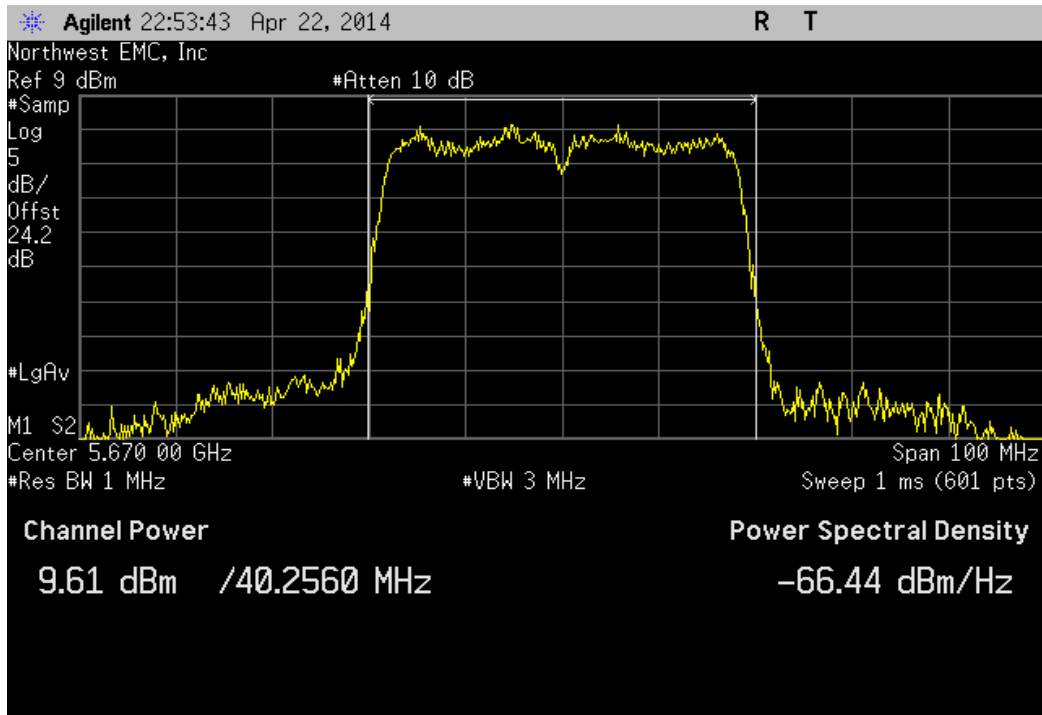
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
9.409 dBm	< 24 dBm	Pass



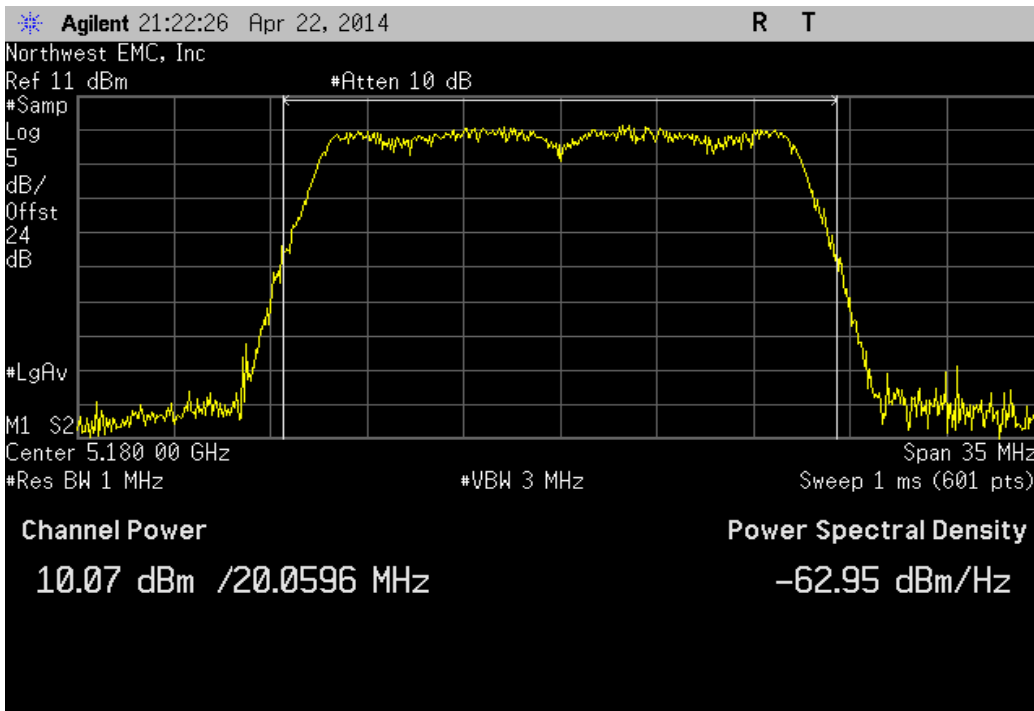
IEEE 802.11(n), 40 MHz, HT, MCS7, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
9.609 dBm	< 24 dBm	Pass



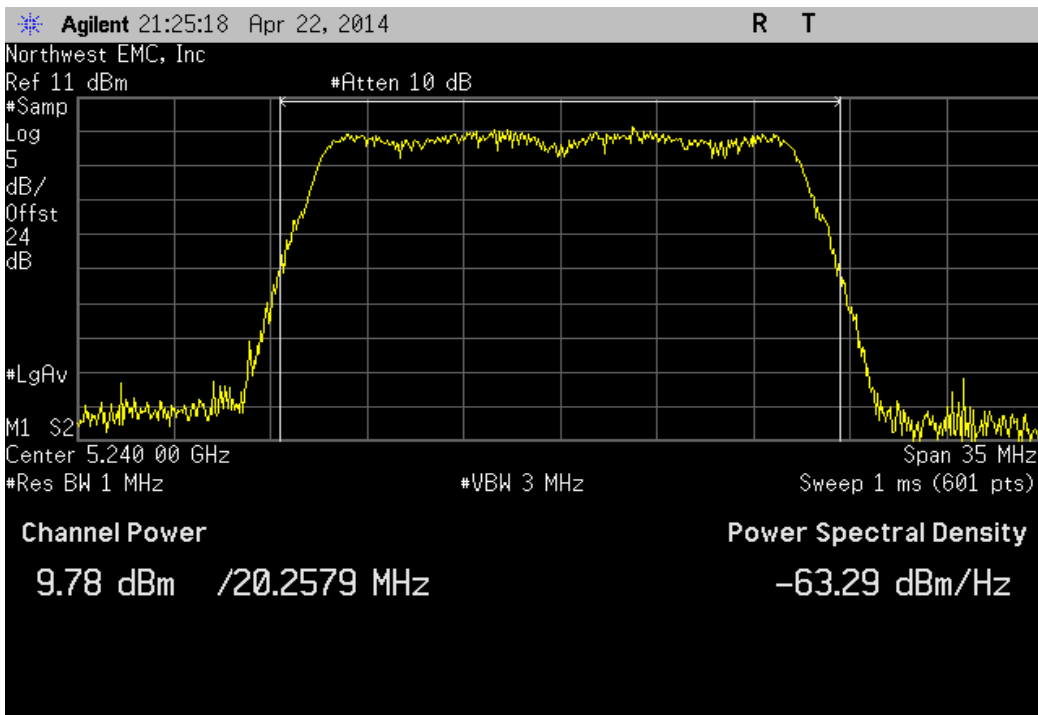
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
10.074 dBm	< 17 dBm	Pass



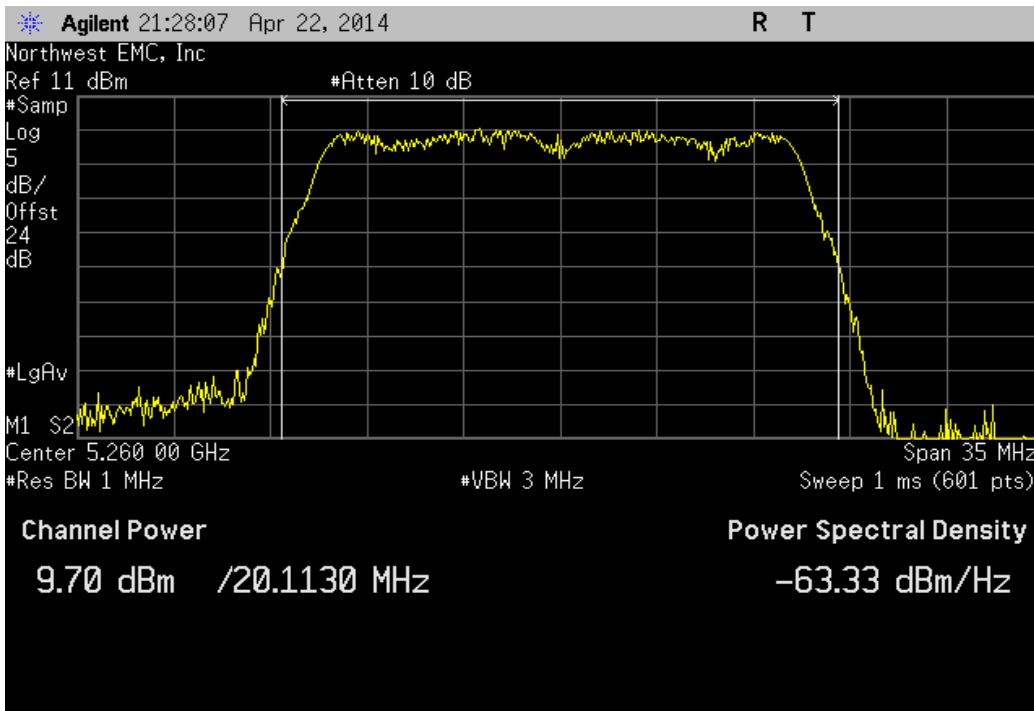
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.779 dBm	< 17 dBm	Pass



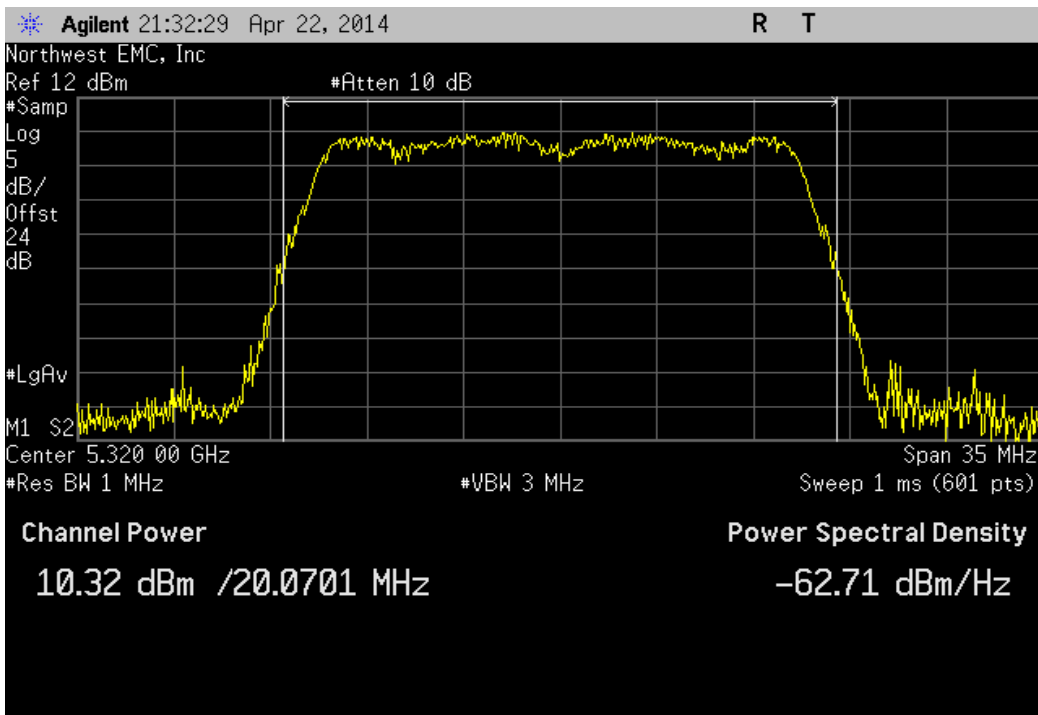
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.704 dBm	< 24 dBm	Pass



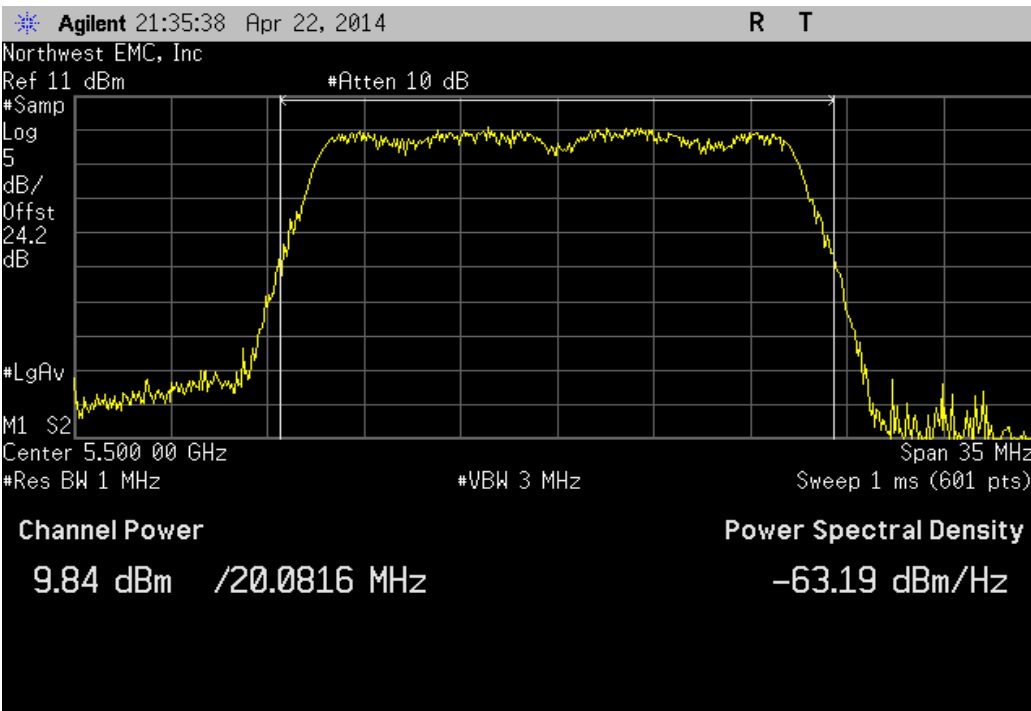
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.318 dBm	< 24 dBm	Pass



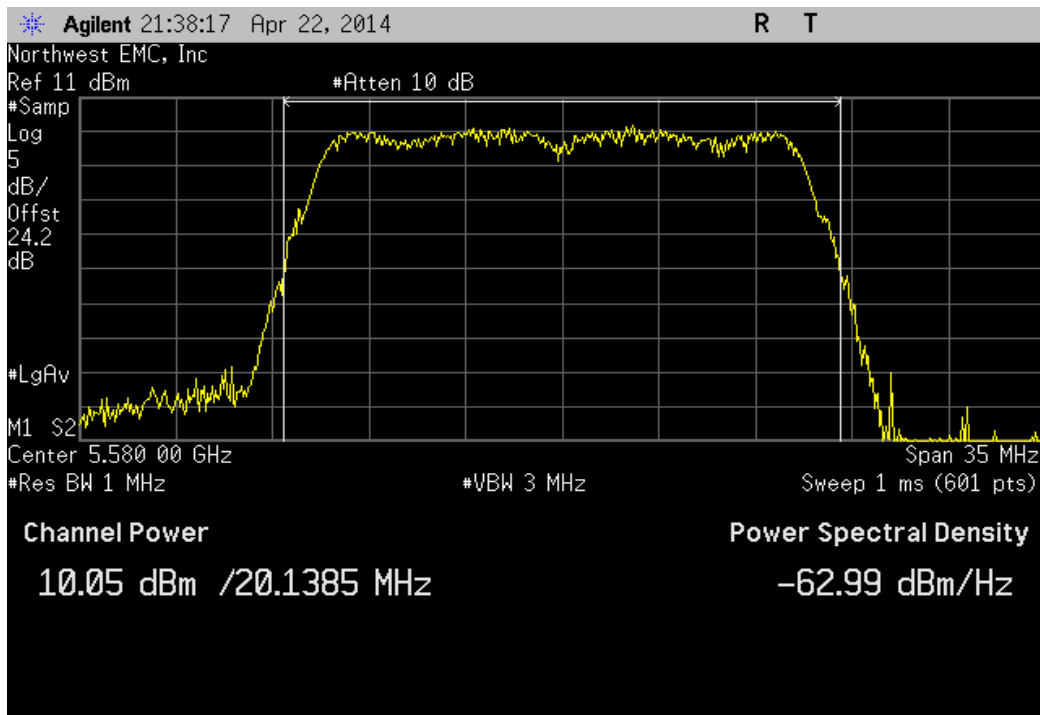
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
9.838 dBm	< 24 dBm	Pass



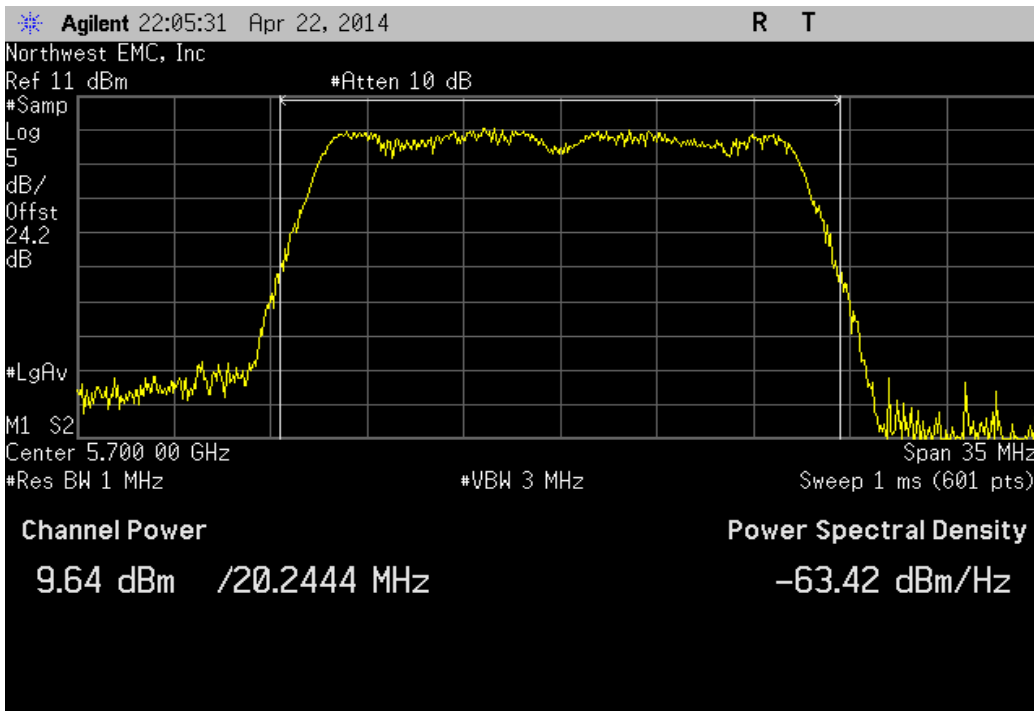
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
10.052 dBm	< 24 dBm	Pass



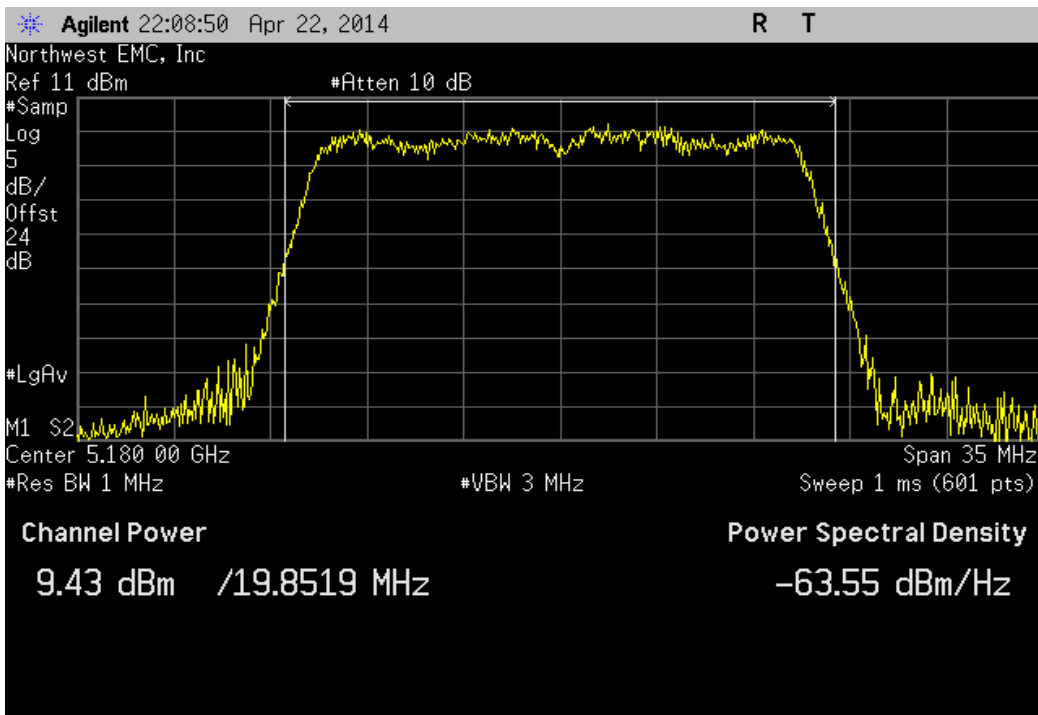
IEEE 802.11(ac), 20 MHz, VHT, MCS0, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.642 dBm	< 24 dBm	Pass



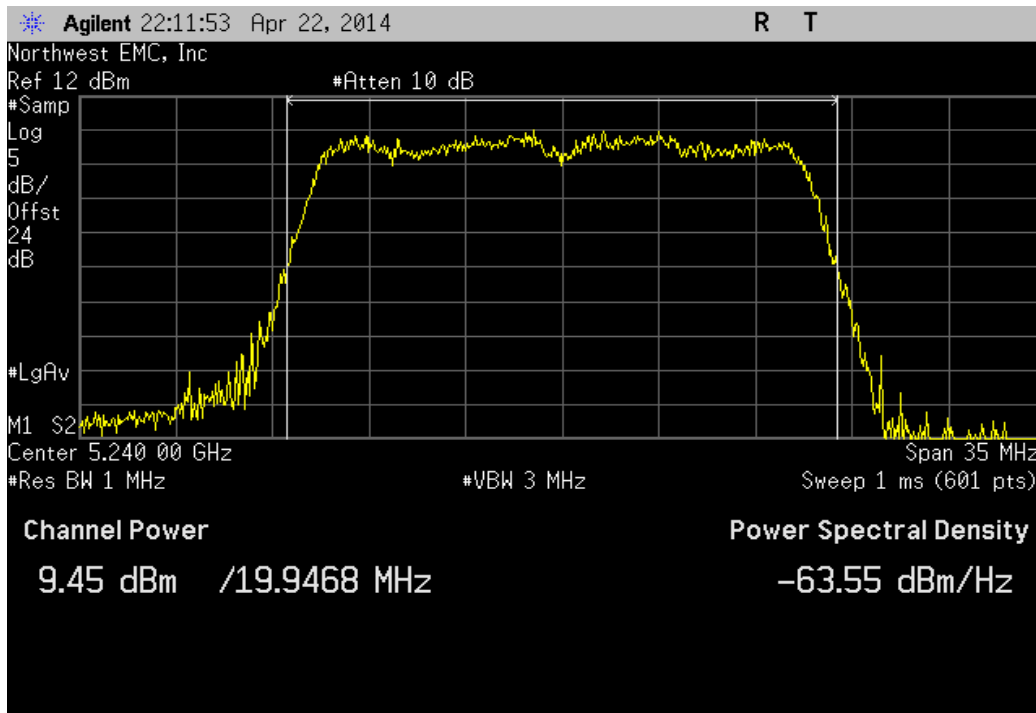
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 36, Low Channel 5180MHz

Value	Limit	Result
9.432 dBm	< 17 dBm	Pass



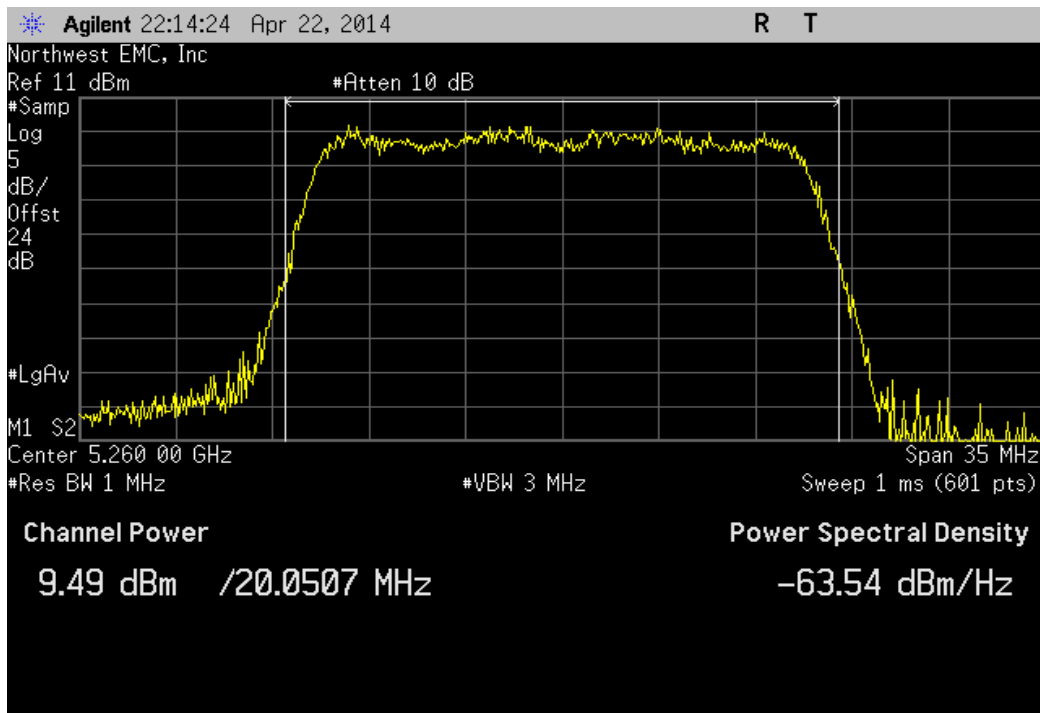
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 48, High Channel 5240 MHz

Value	Limit	Result
9.447 dBm	< 17 dBm	Pass



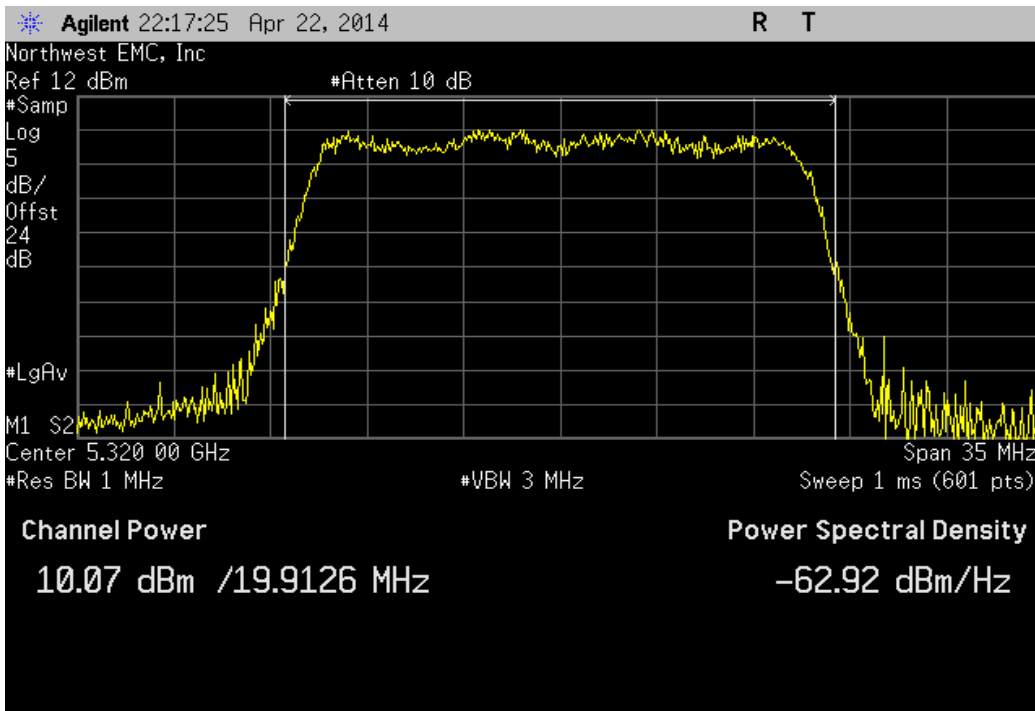
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 52, Low Channel 5260 MHz

Value	Limit	Result
9.486 dBm	< 24 dBm	Pass



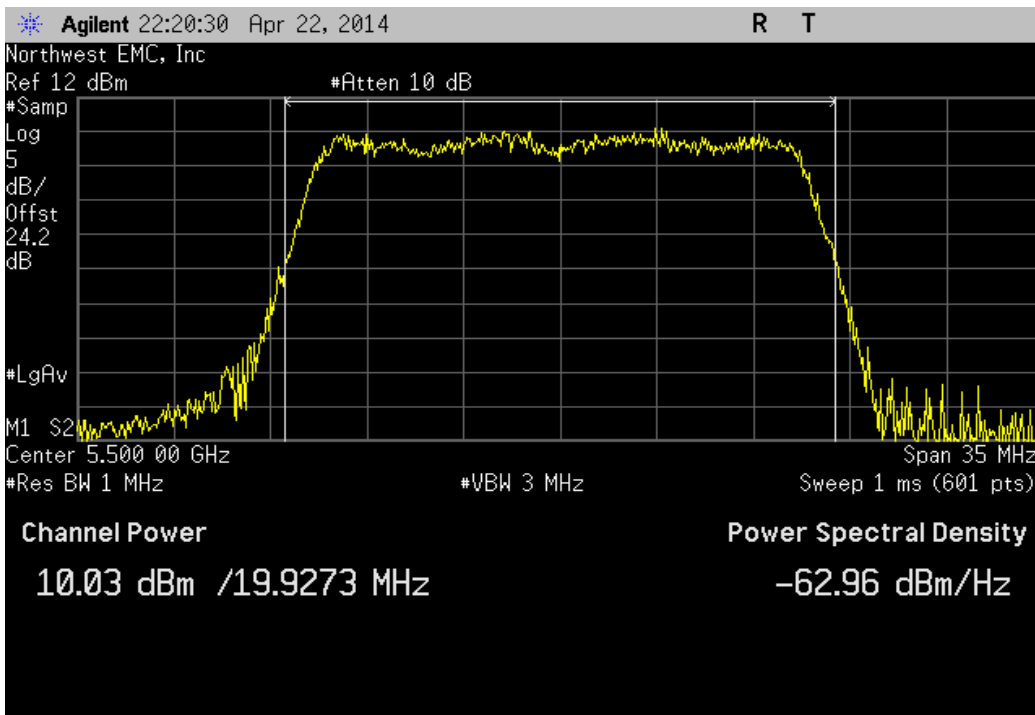
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 64, High Channel 5320 MHz

Value	Limit	Result
10.067 dBm	< 24 dBm	Pass



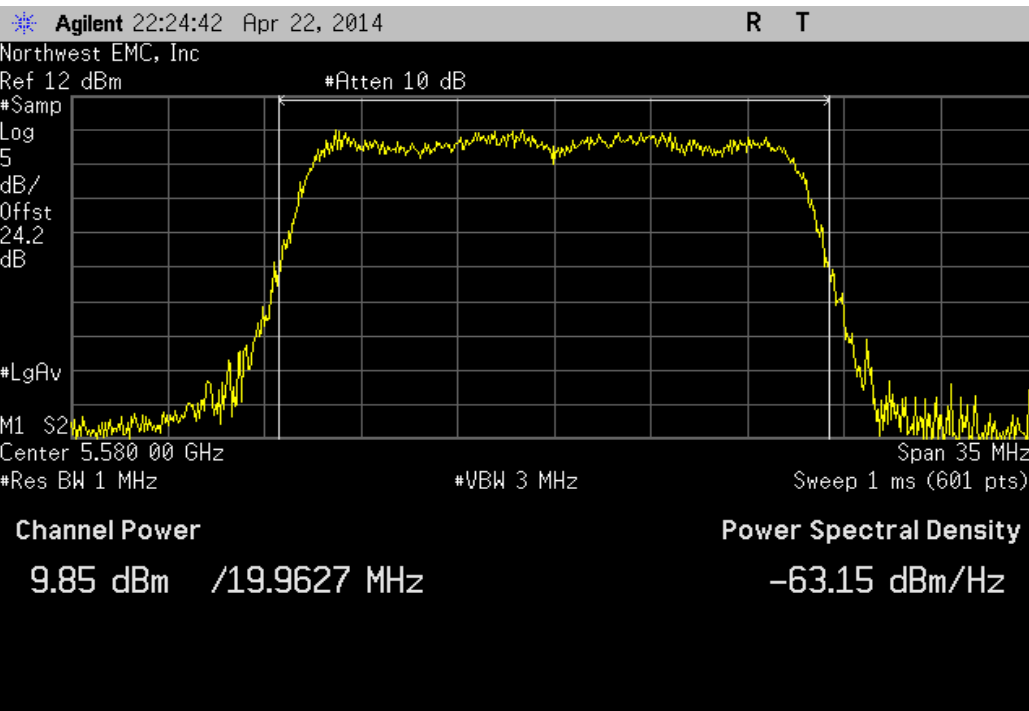
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 100, Low Channel 5500 MHz

Value	Limit	Result
10.031 dBm	< 24 dBm	Pass



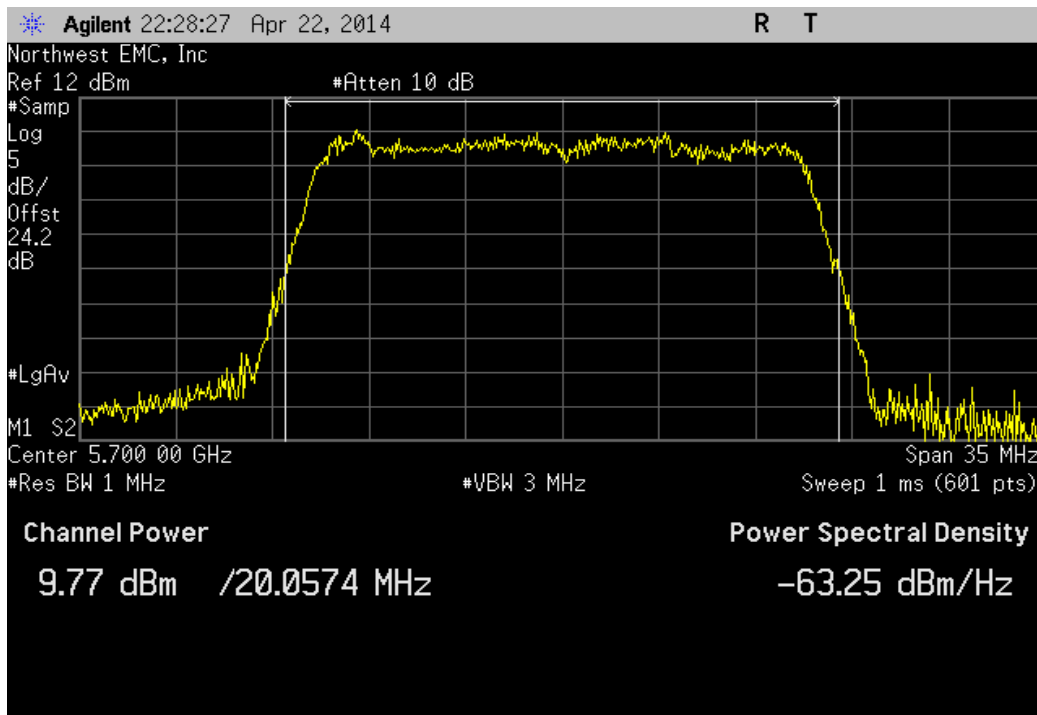
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 116, Mid Channel 5580 MHz

Value	Limit	Result
9.851 dBm	< 24 dBm	Pass



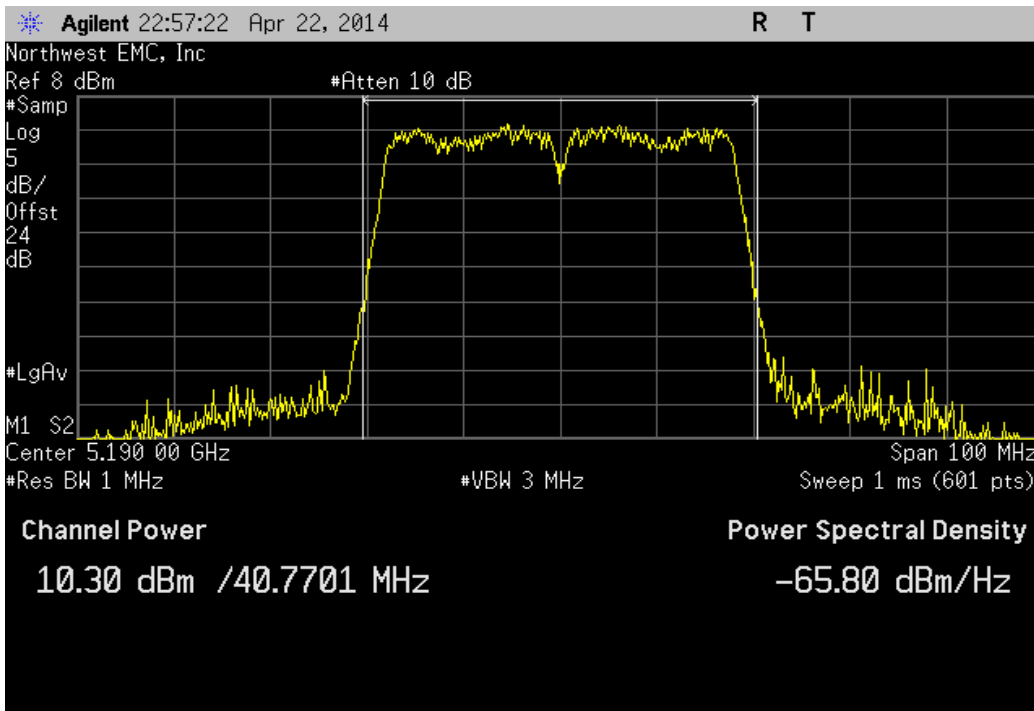
IEEE 802.11(ac), 20 MHz, VHT, MCS8, Ch. 140, High Channel 5700 MHz

Value	Limit	Result
9.771 dBm	< 24 dBm	Pass



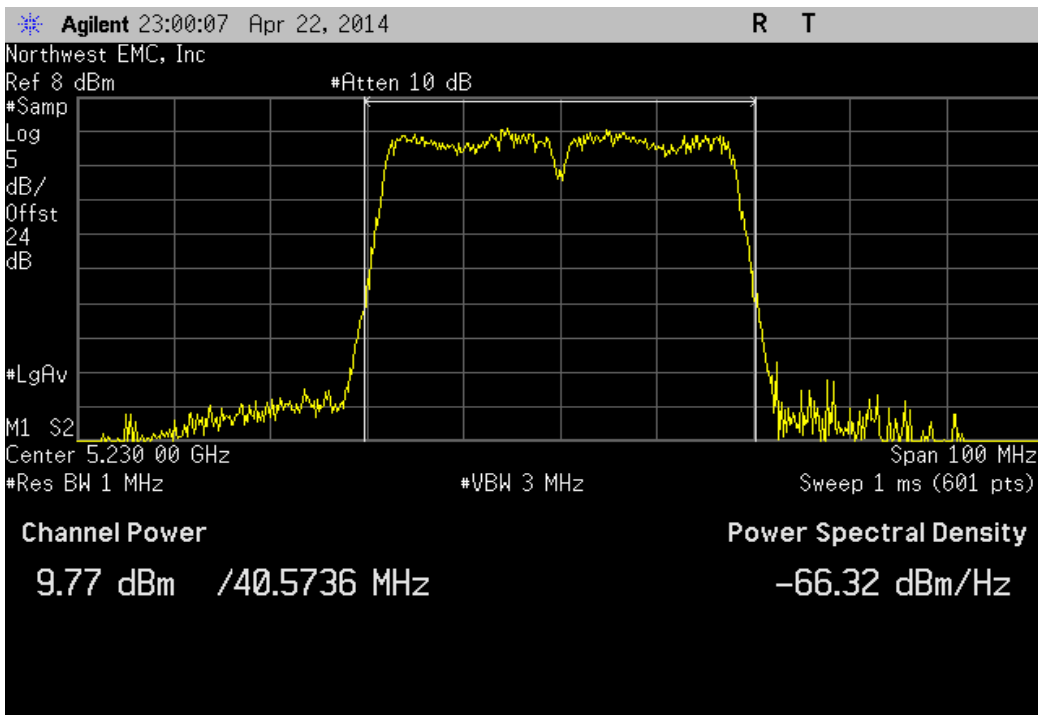
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
10.305 dBm	< 17 dBm	Pass



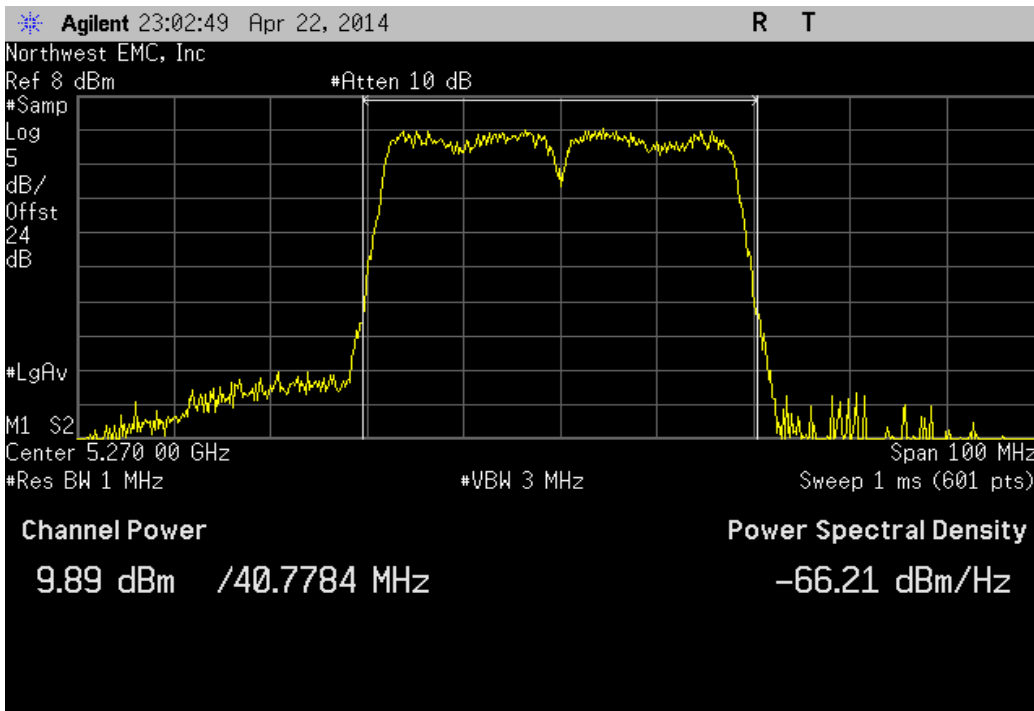
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
9.766 dBm	< 17 dBm	Pass



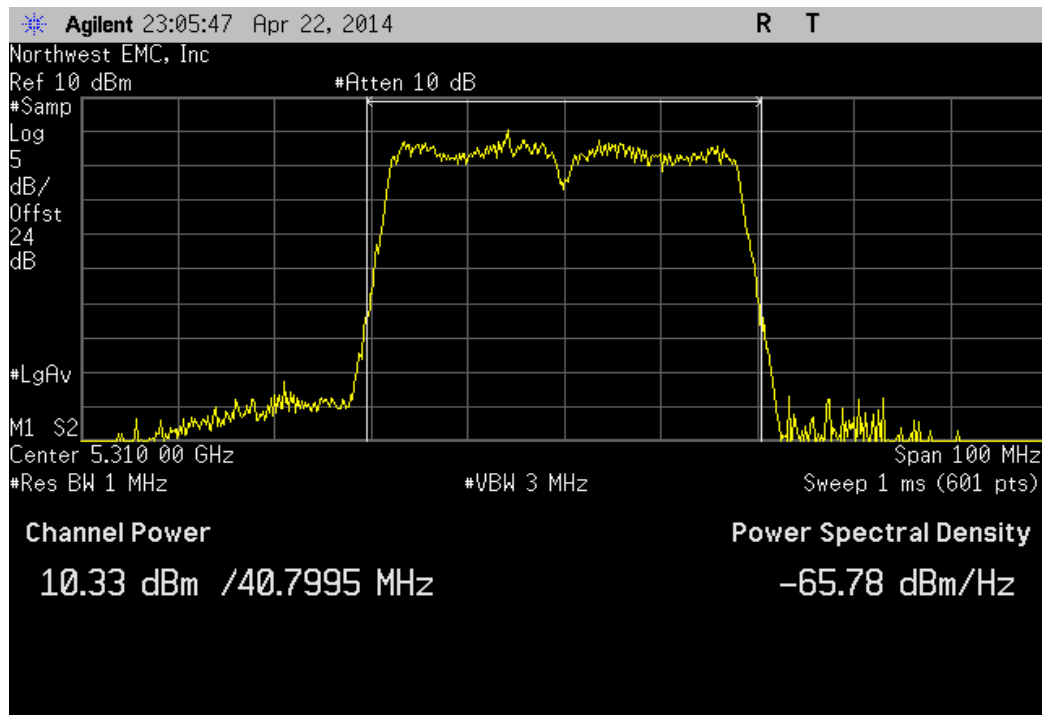
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
9.894 dBm	< 24 dBm	Pass



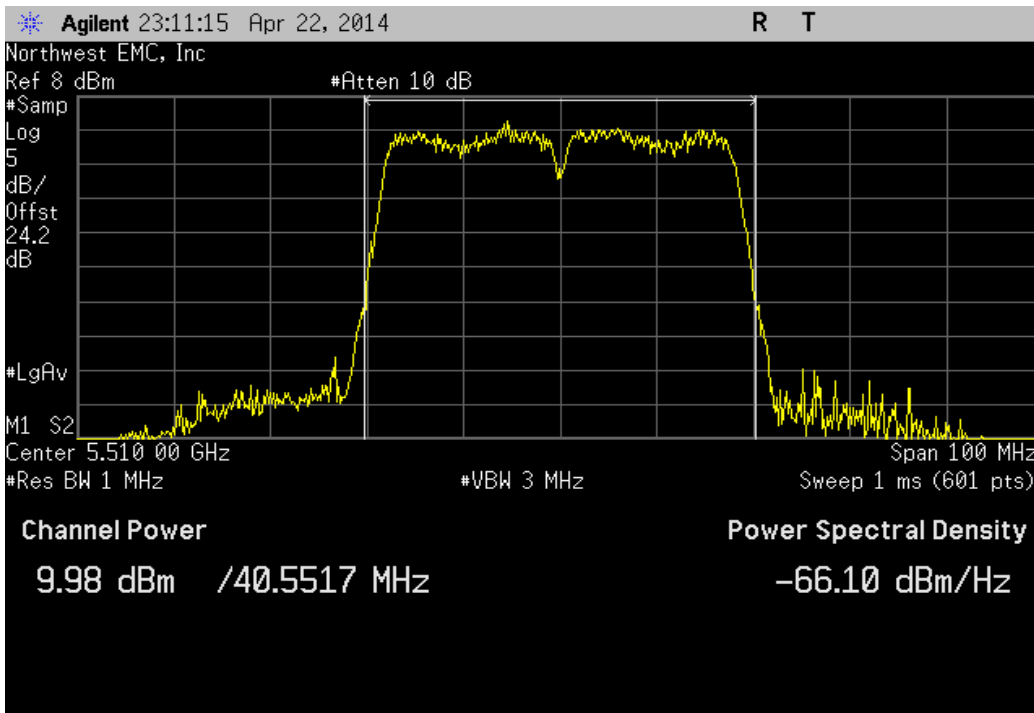
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
10.326 dBm	< 24 dBm	Pass



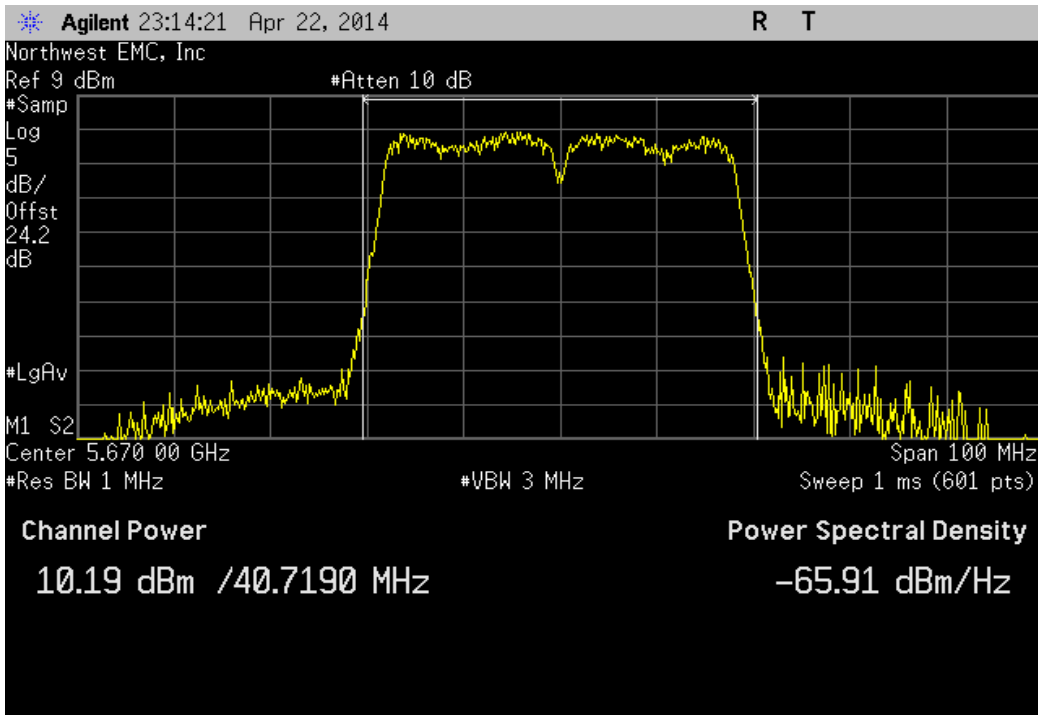
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
9.98 dBm	< 24 dBm	Pass



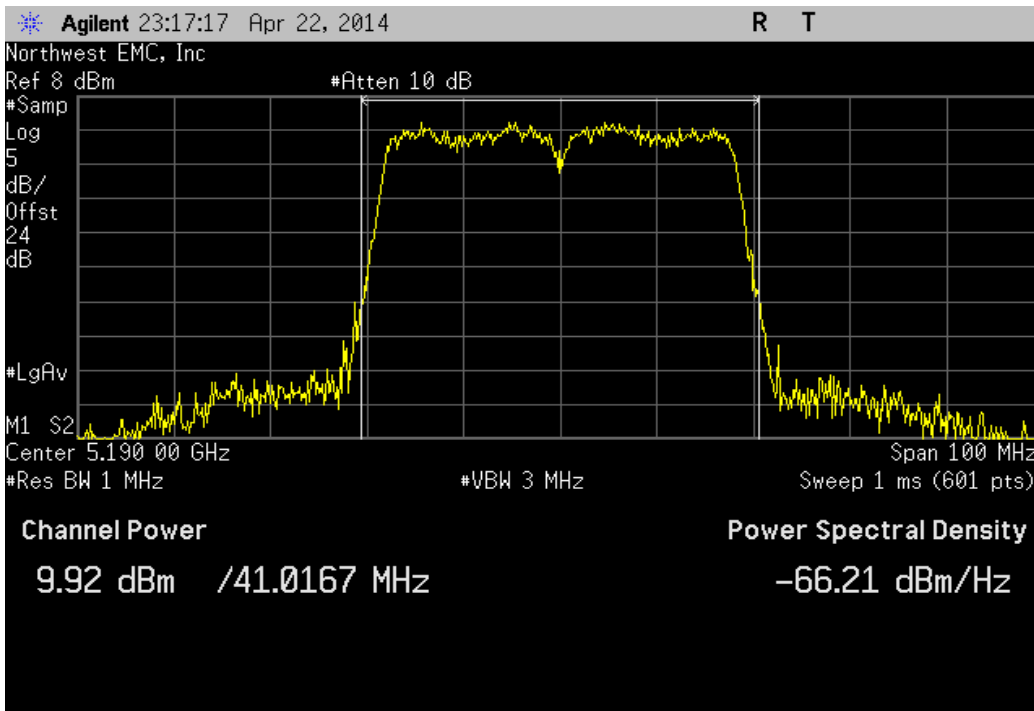
IEEE 802.11(ac), 40 MHz, VHT, MCS0, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
10.187 dBm	< 24 dBm	Pass



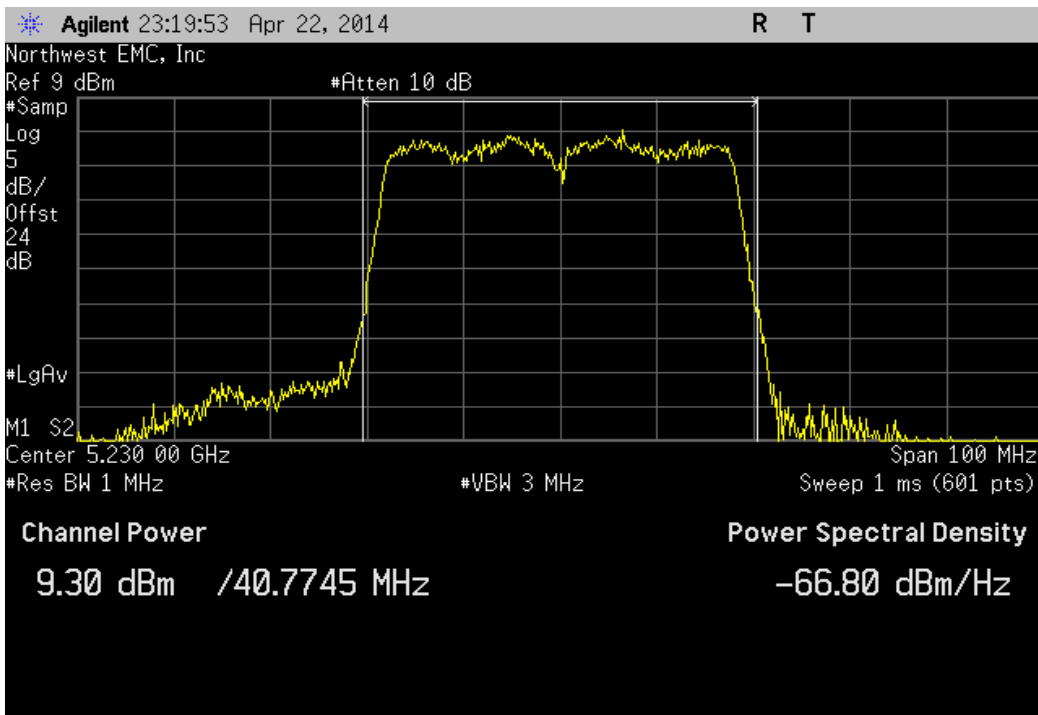
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 36/40, Low Channel 5190 MHz

Value	Limit	Result
9.924 dBm	< 17 dBm	Pass



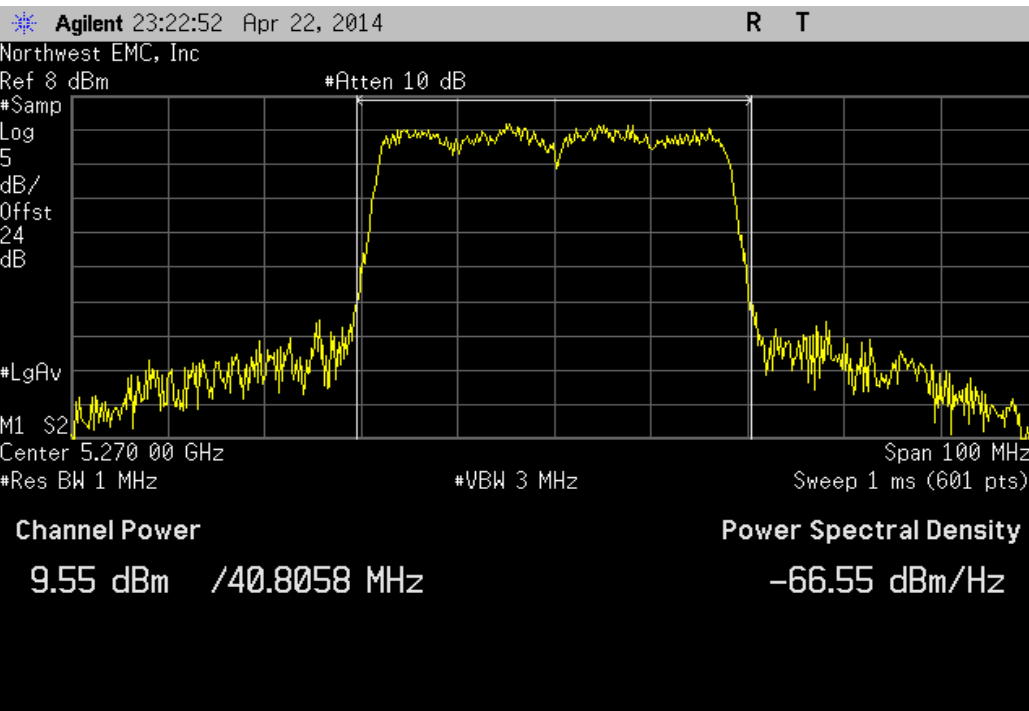
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 44/48, High Channel 5230 MHz

Value	Limit	Result
9.304 dBm	< 17 dBm	Pass



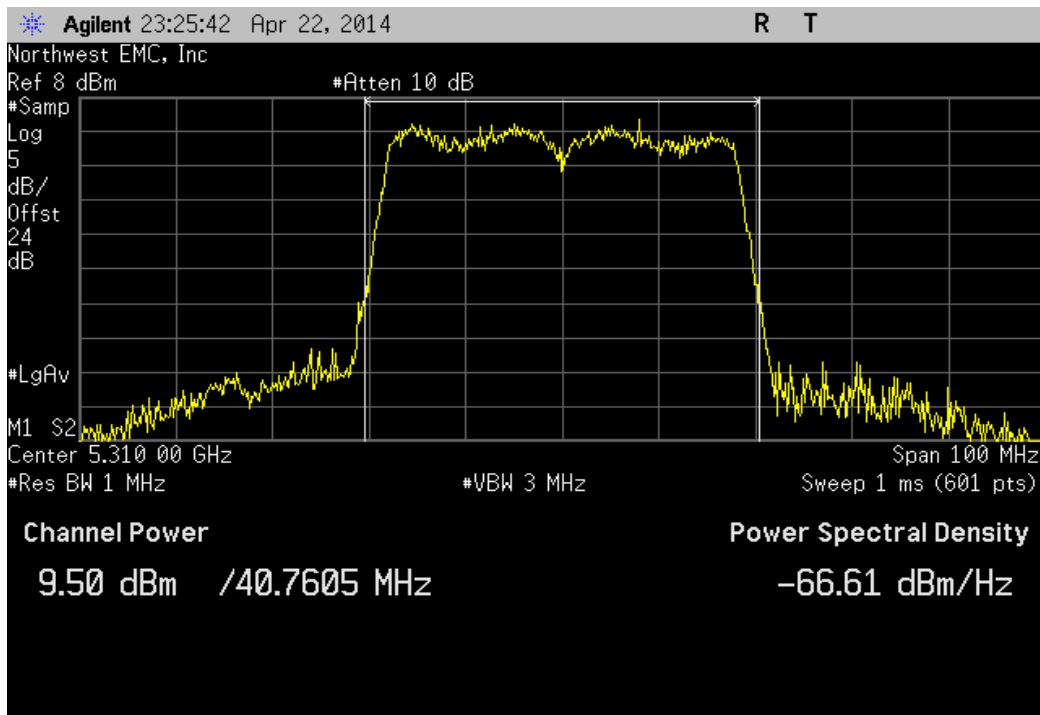
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 52/56, Low Channel 5270 MHz

Value	Limit	Result
9.553 dBm	< 24 dBm	Pass



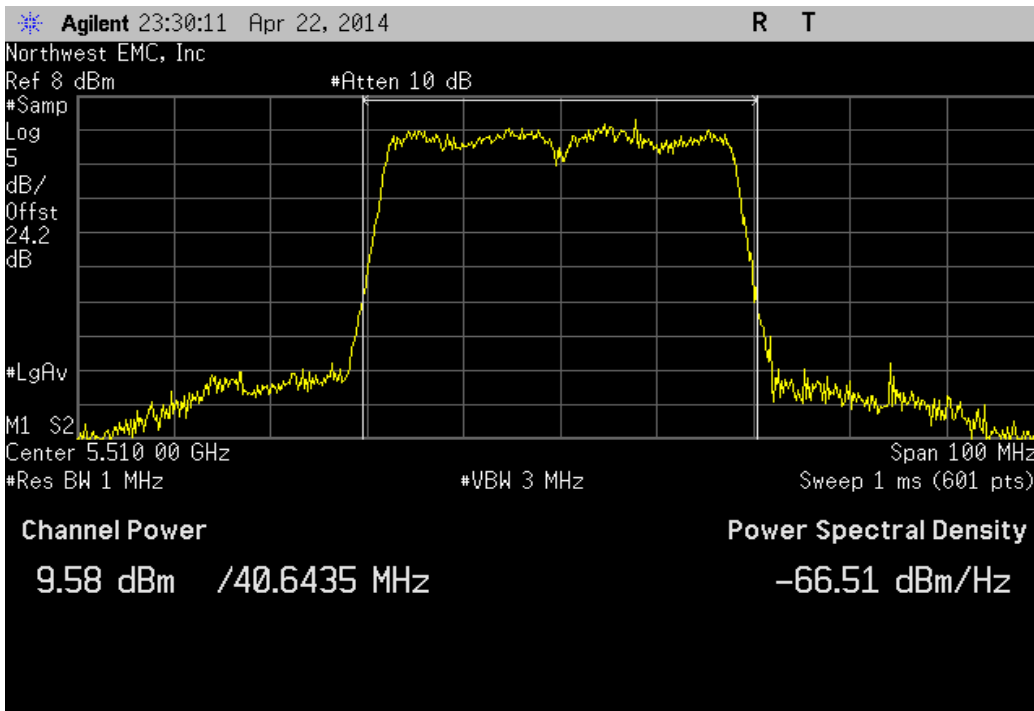
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 60/64, High Channel 5310 MHz

Value	Limit	Result
9.495 dBm	< 24 dBm	Pass



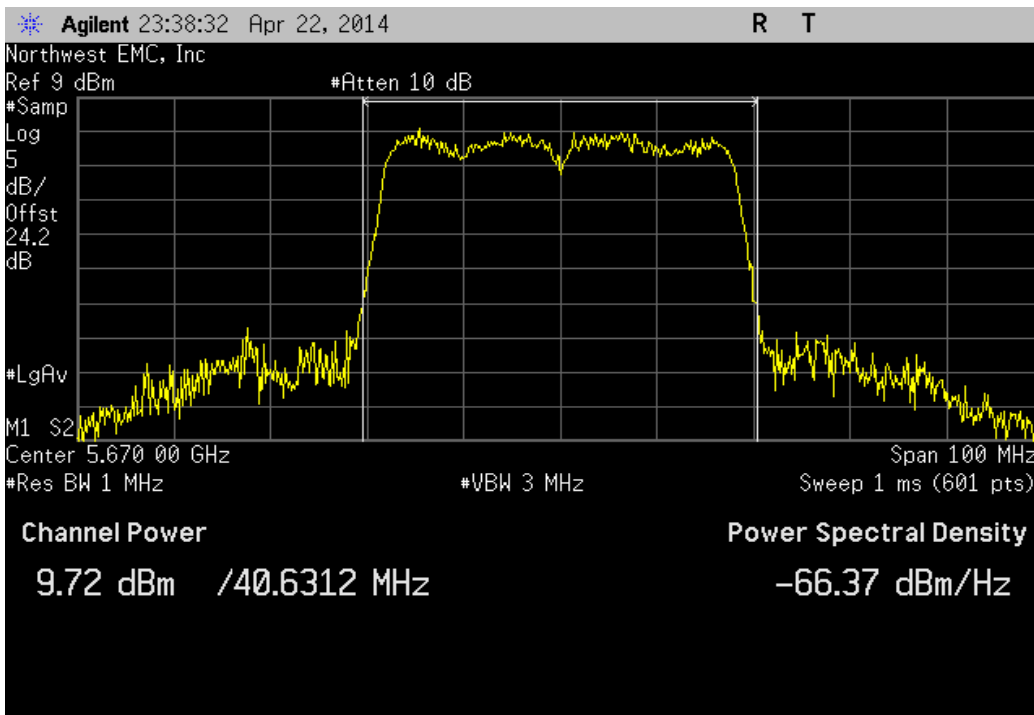
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 100/104, Low Channel 5510 MHz

Value	Limit	Result
9.583 dBm	< 24 dBm	Pass



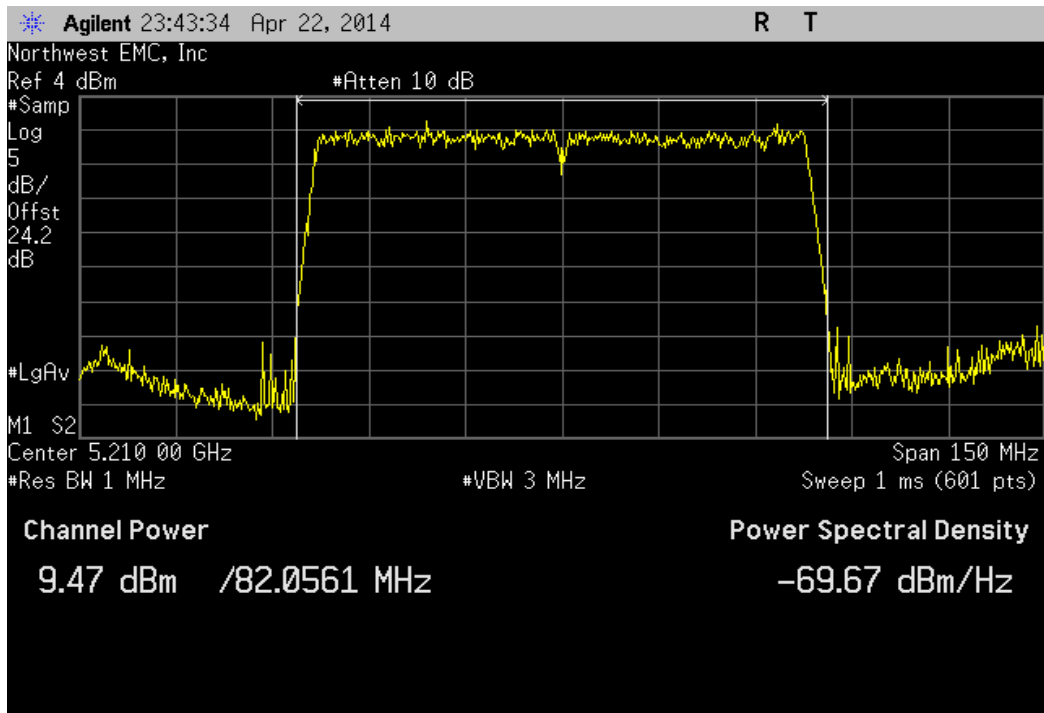
IEEE 802.11(ac), 40 MHz, VHT, MCS9, Ch. 132/136, High Channel 5670 MHz

Value	Limit	Result
9.717 dBm	< 24 dBm	Pass



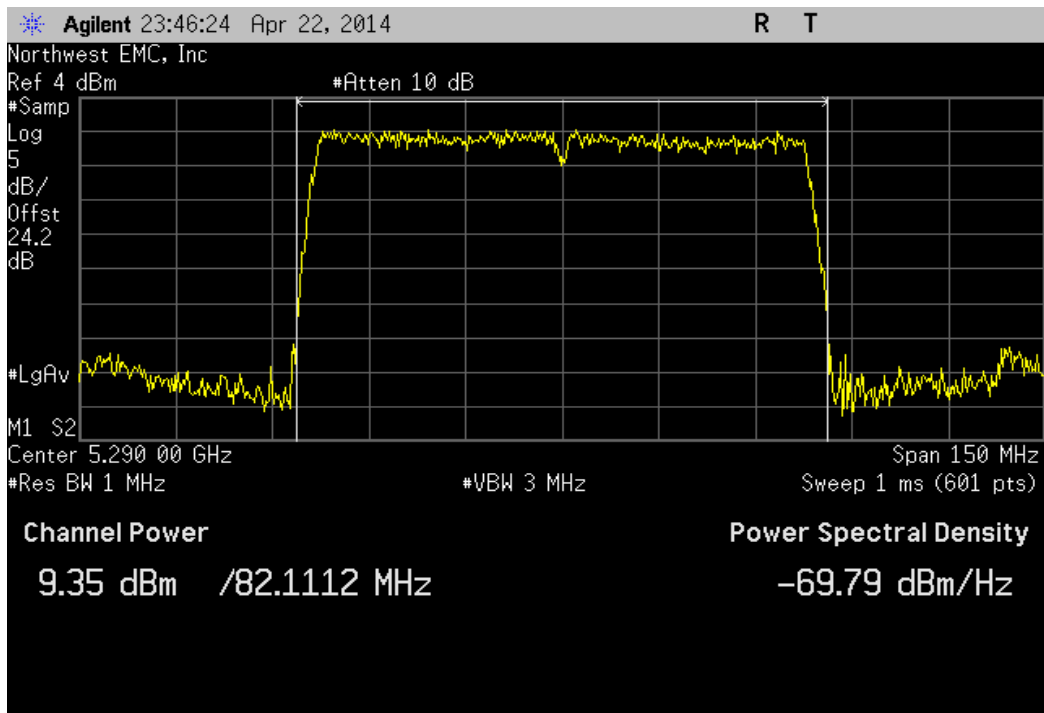
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
9.47 dBm	< 17 dBm	Pass



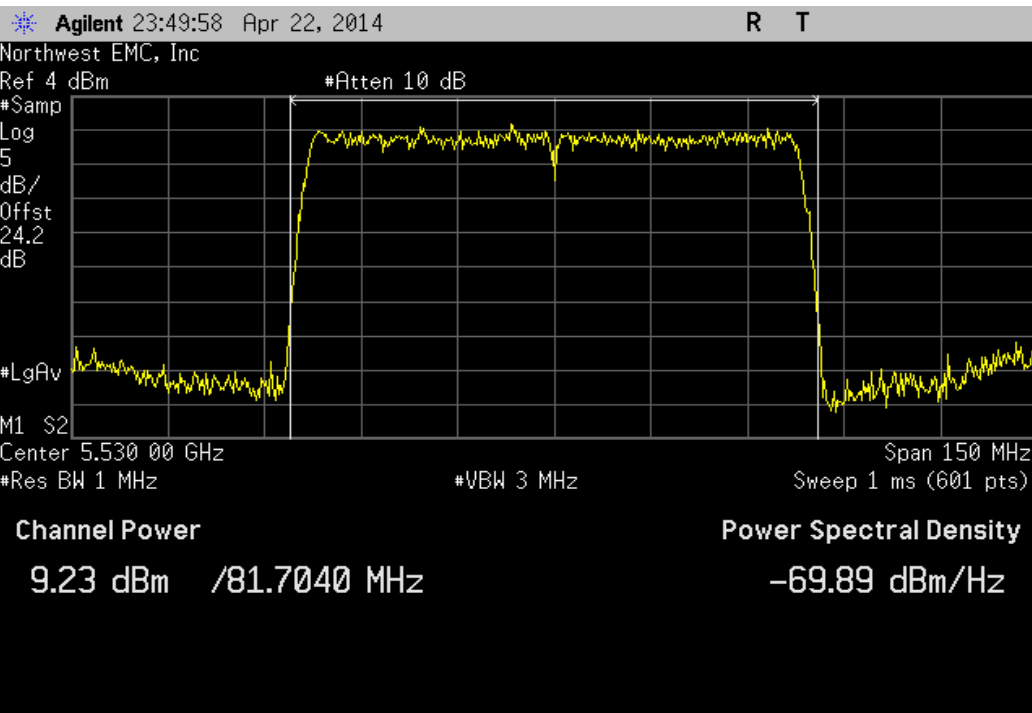
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
9.353 dBm	< 24 dBm	Pass



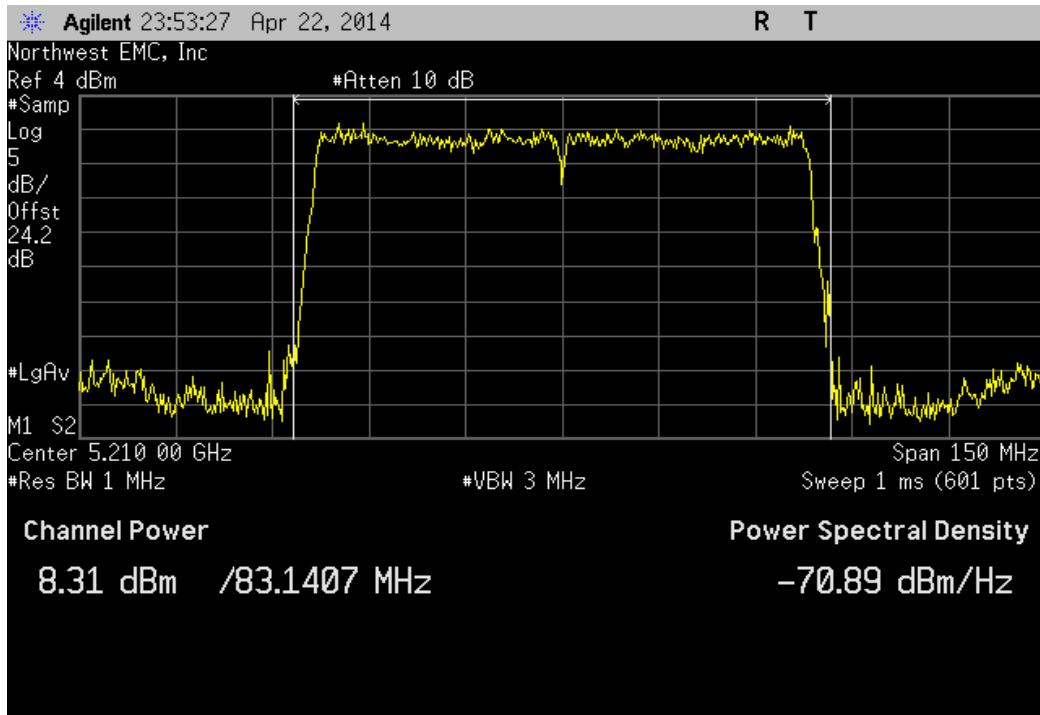
IEEE 802.11(ac), 80 MHz, VHT, MCS0, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
9.232 dBm	< 24 dBm	Pass



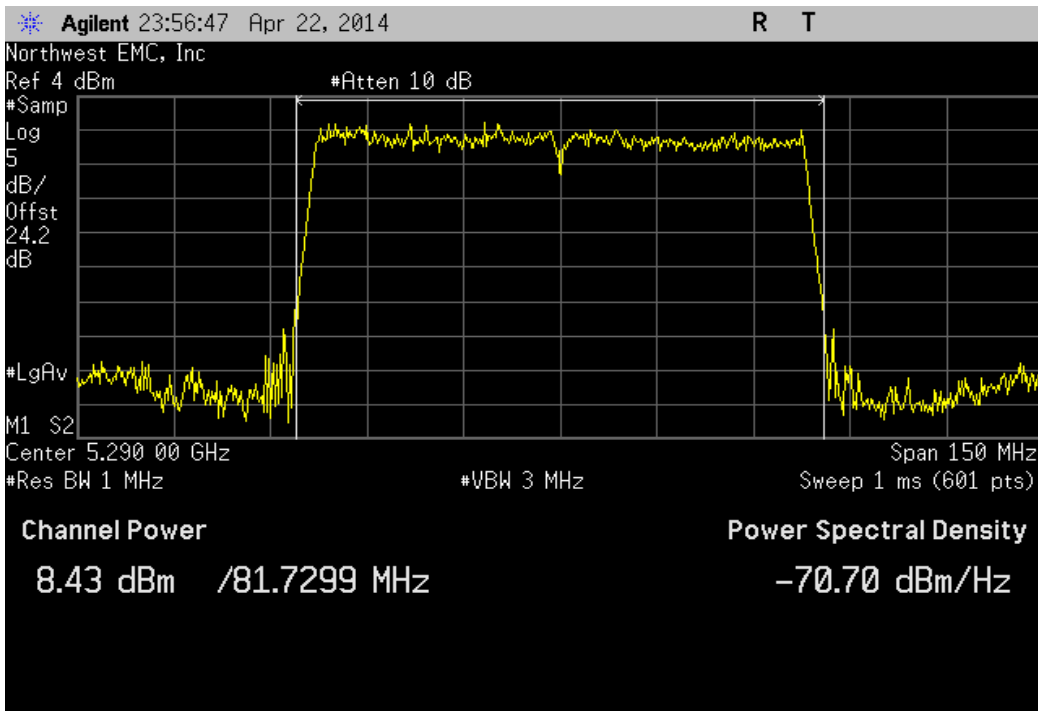
IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 42, Low Channel 5210 MHz

Value	Limit	Result
8.308 dBm	< 17 dBm	Pass



IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 58, High Channel 5290 MHz

Value	Limit	Result
8.428 dBm	< 24 dBm	Pass



IEEE 802.11(ac), 80 MHz, VHT, MCS9, Ch. 106, Low Channel 5530 MHz

Value	Limit	Result
8.161 dBm	< 24 dBm	Pass

