

OUTPUT 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 (mos)
Attenuator	Fairview Microwave	SA4018-20	TQY	2/27/2015	12
Block - DC	Fairview Microwave	SD3379	AMM	2/27/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	7/23/2015	12
Generator - Signal	Agilent	N5173B	TIW	7/15/2014	36

TEST DESCRIPTION

The transmit frequency was set to the required channels in each band. 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. Both are required to determine the method of measuring Maximum Conducted Output Power. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

The channel power integration method found in KDB 558074 DTS D01 Measurement Section 9.1.2 was used because the DTS Bandwidth of the radio was greater than the RBW on the analyzer.

De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36 dBm.

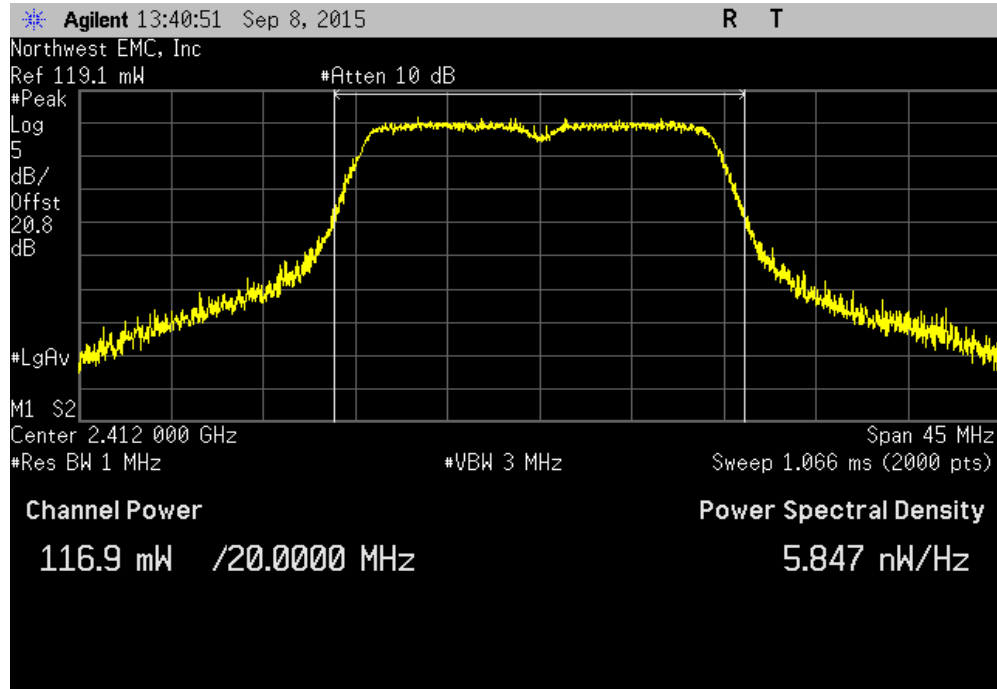
OUTPUT POWER

EUT: Firebox T50-W (BS5AE7W)		Work Order: VDEI0009	
Serial Number: 70AF02717-B385		Date: 09/08/15	
Customer: WatchGuard Technologies, Inc.		Temperature: 24.2°C	
Attendees: None		Humidity: 44%	
Project: None		Barometric Pres.: 1015 mbar	
Tested by: Jonathan Kiefer		Power: 110VAC/60Hz	Job Site: TX09
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2015		ANSI C63.10:2013	
COMMENTS			
2x2 MIMO mode, Chain BC (Chains 1 and 2).			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	5	Signature <i>Jonathan Kiefer</i>	
		Value	Limit (<)
			Result
Chain B			
20 MHz			
2400 MHz - 2483.5 MHz Band			
802.11(n) MCS8			
Low Channel 1, 2412 MHz		116.941 mW	1 W
Mid Channel 6, 2437 MHz		106.459 mW	1 W
High Channel 11, 2462 MHz		86.474 mW	1 W
802.11(n) MCS15			
Low Channel 1, 2412 MHz		44.414 mW	1 W
Mid Channel 6, 2437 MHz		36.318 mW	1 W
High Channel 11, 2462 MHz		32.57 mW	1 W
Chain C			
20 MHz			
2400 MHz - 2483.5 MHz Band			
802.11(n) MCS8			
Low Channel 1, 2412 MHz		107.96 mW	1 W
Mid Channel 6, 2437 MHz		102.908 mW	1 W
High Channel 11, 2462 MHz		96.793 mW	1 W
802.11(n) MCS15			
Low Channel 1, 2412 MHz		35.919 mW	1 W
Mid Channel 6, 2437 MHz		38.903 mW	1 W
High Channel 11, 2462 MHz		32.309 mW	1 W
Power Summing, Chain BC			
20 MHz			
2400 MHz - 2483.5 MHz Band			
802.11(n) MCS8		Chain B (mW)	Chain C (mW)
Low Channel 1, 2412 MHz		116.941	107.96
Mid Channel 6, 2437 MHz		106.459	102.908
High Channel 11, 2462 MHz		86.474	96.793
802.11(n) MCS15			
Low Channel 1, 2412 MHz		44.414	35.919
Mid Channel 6, 2437 MHz		36.318	38.903
High Channel 11, 2462 MHz		32.57	32.309
		Summed Power (dBm)	Limit (dBm)
		23.51991386	30
		23.2090823	30
		22.63084271	30
		19.04893986	30
		18.76339103	30
		18.12104147	30
			Result
			Pass
			Pass
			Pass

OUTPUT POWER

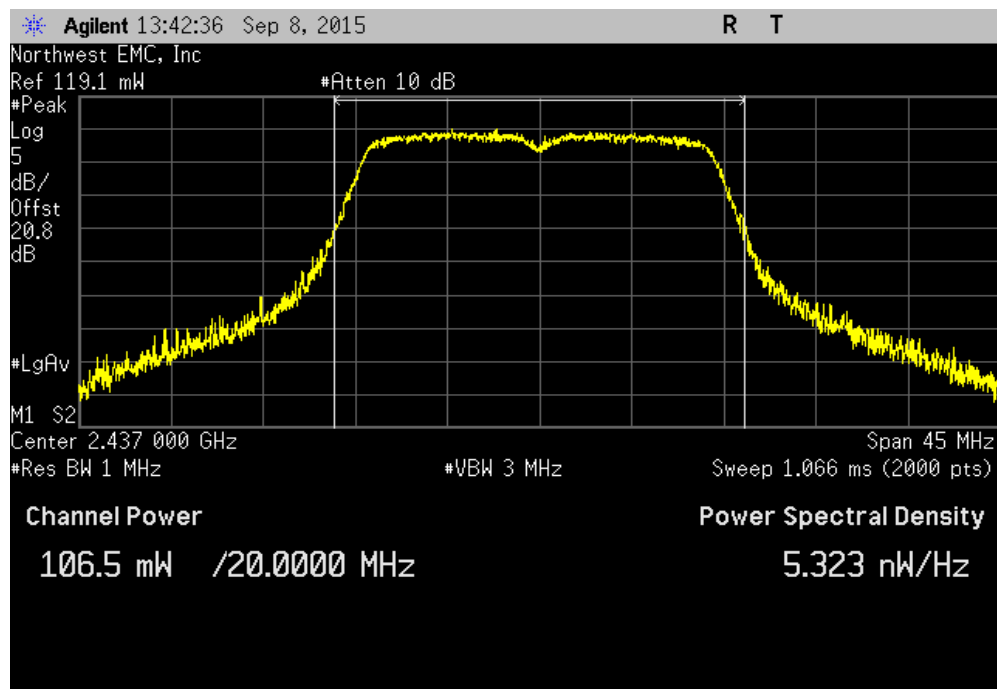
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz

	Value	Limit (<)	Result
	116.941 mW	1 W	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz

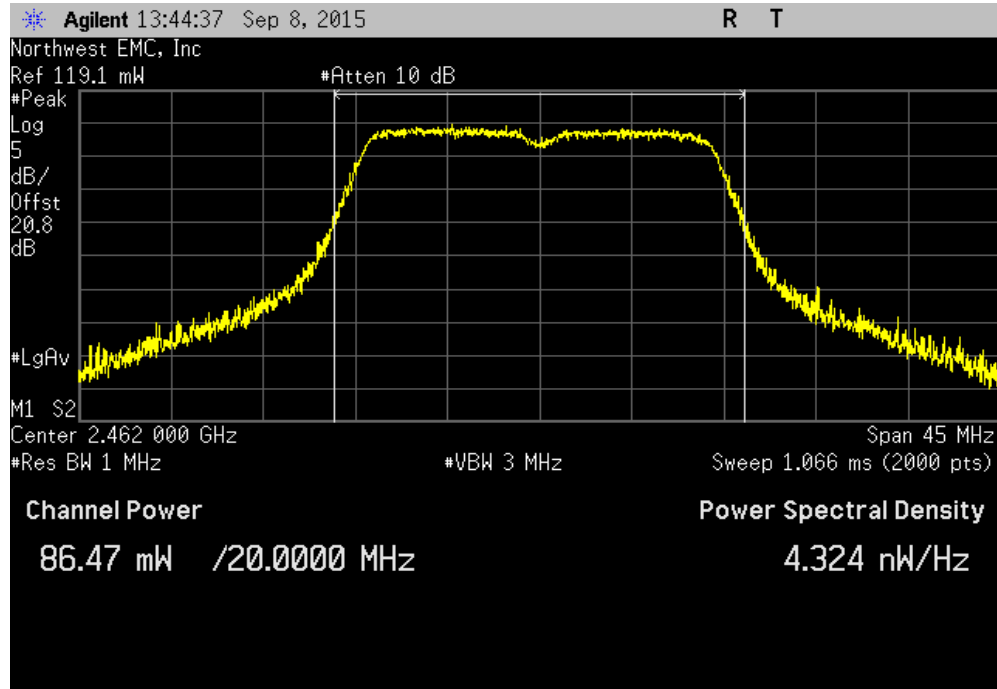
	Value	Limit (<)	Result
	106.459 mW	1 W	Pass



OUTPUT POWER

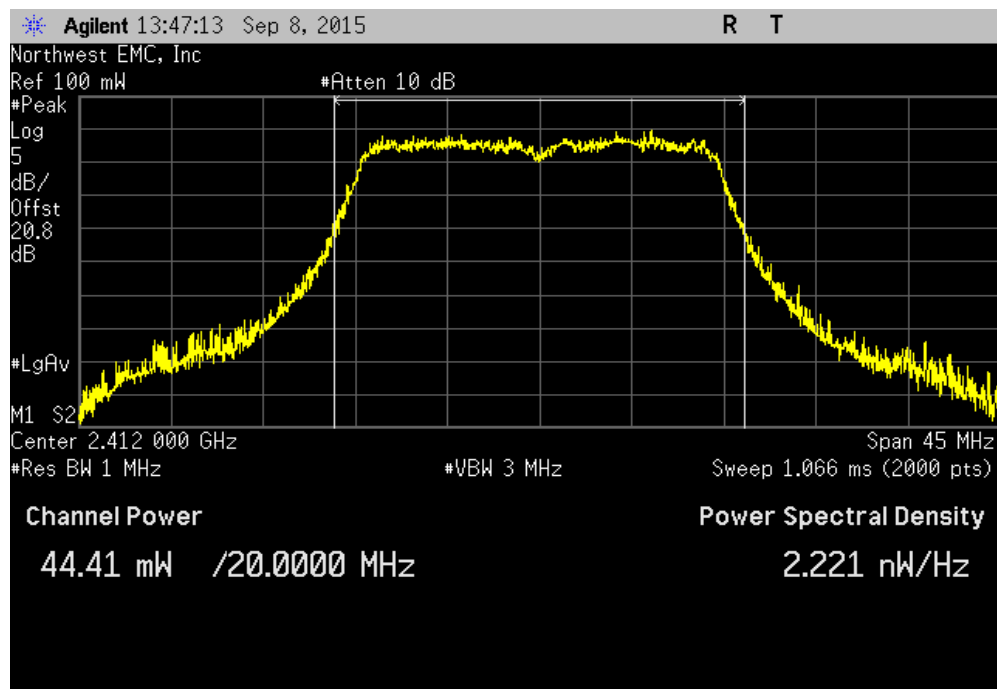
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz

	Value	Limit	Result
	86.474 mW	1 W	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz

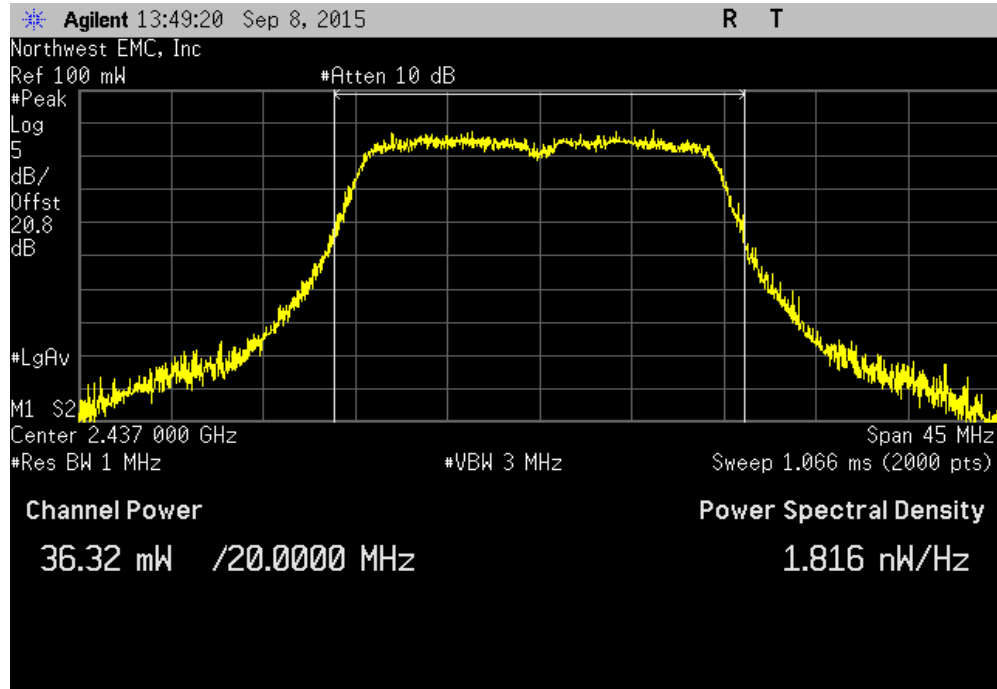
	Value	Limit	Result
	44.414 mW	1 W	Pass



OUTPUT POWER

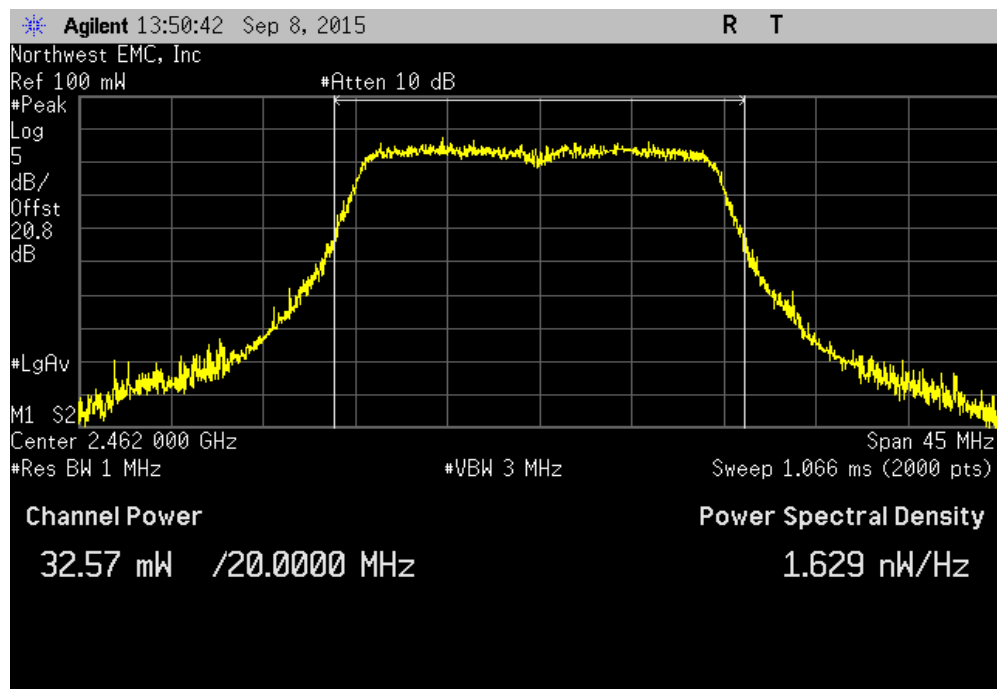
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz

	Value	Limit (<)	Result
	36.318 mW	1 W	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz

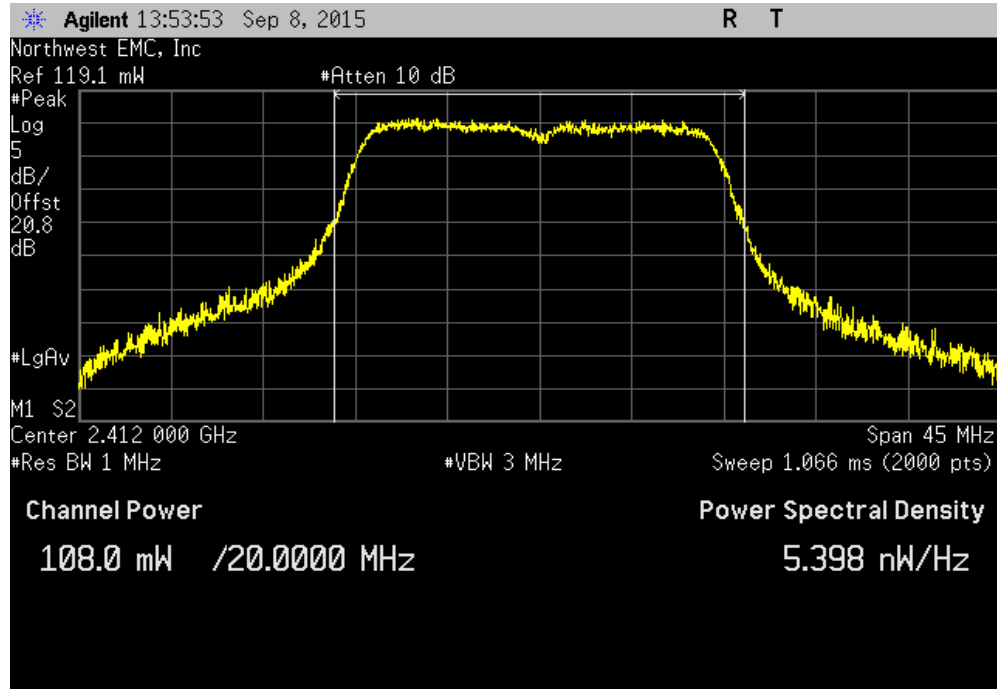
	Value	Limit (<)	Result
	32.57 mW	1 W	Pass



OUTPUT POWER

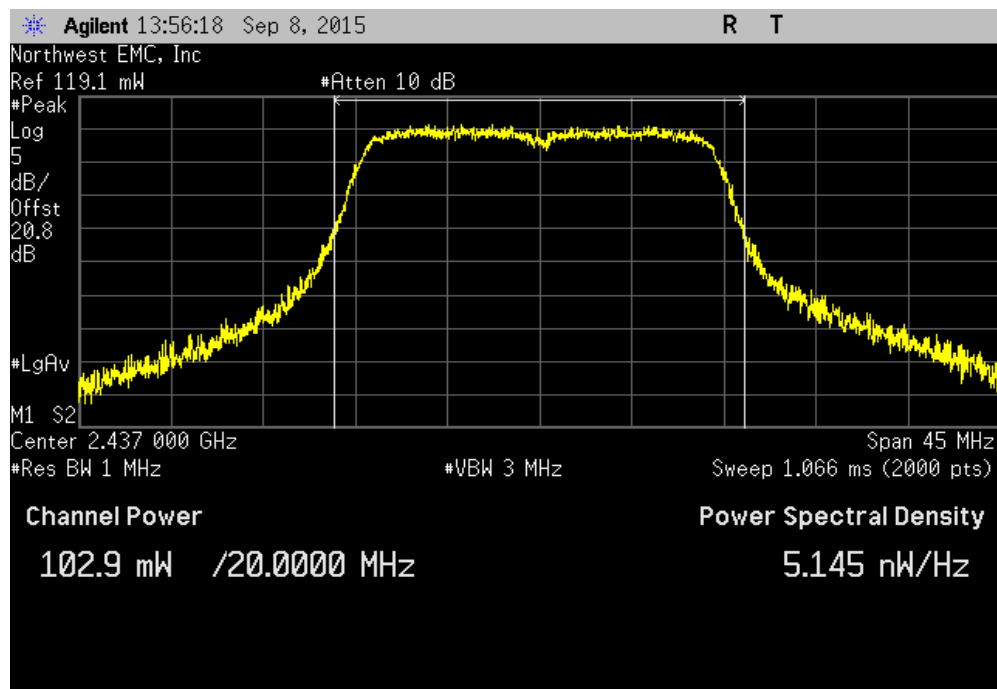
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz

Value	Limit ($\leq$)	Result
107.96 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz

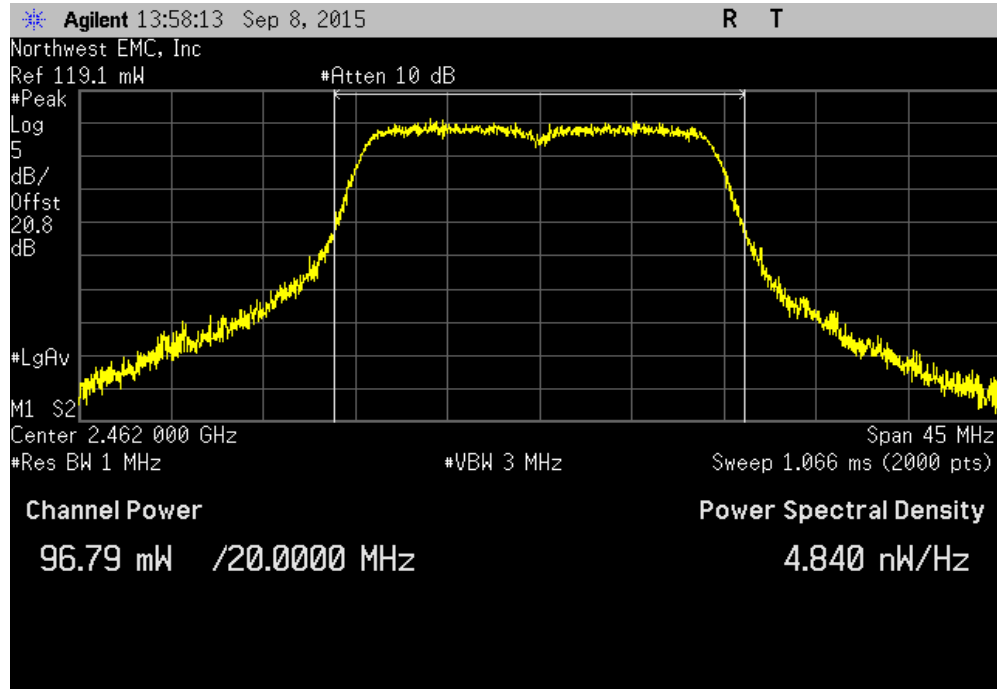
Value	Limit ($\leq$)	Result
102.908 mW	1 W	Pass



OUTPUT POWER

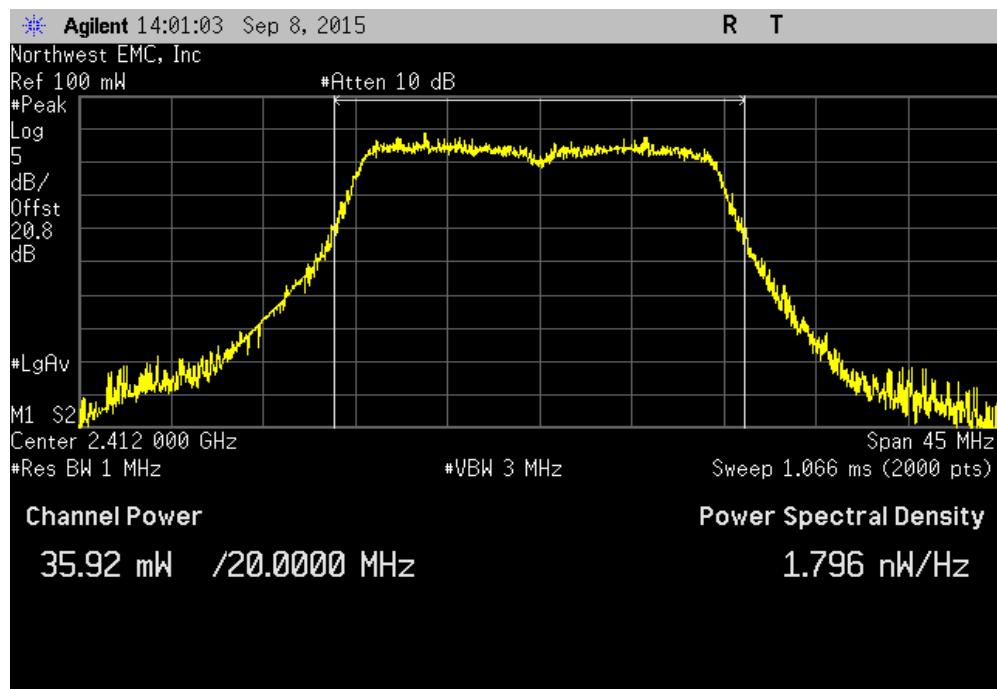
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz

	Value	Limit	Result
	96.793 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz

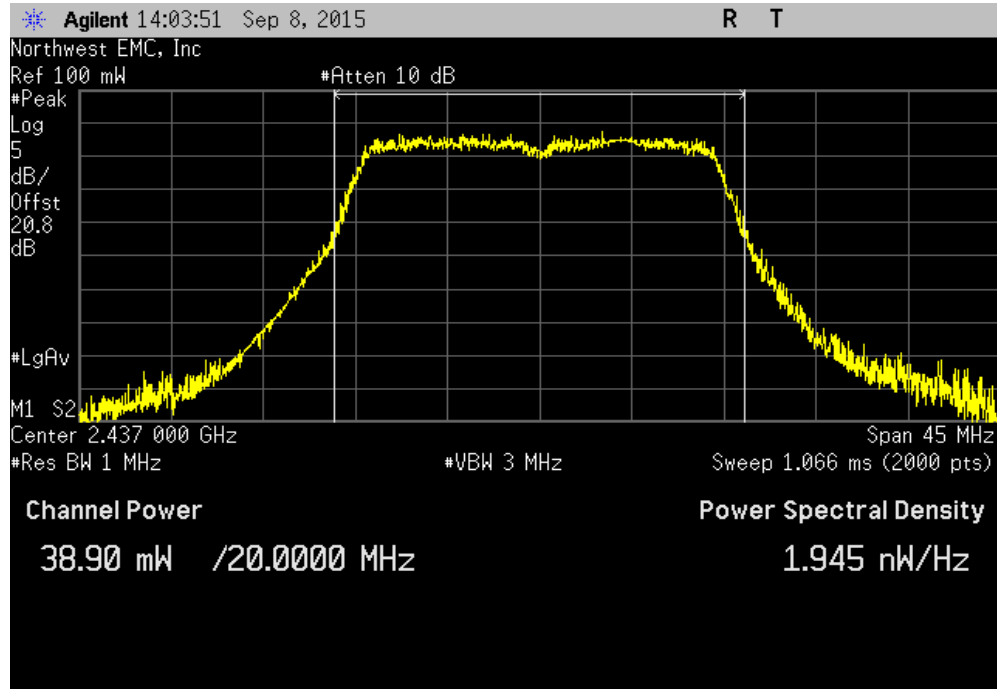
	Value	Limit	Result
	35.919 mW	1 W	Pass



OUTPUT POWER

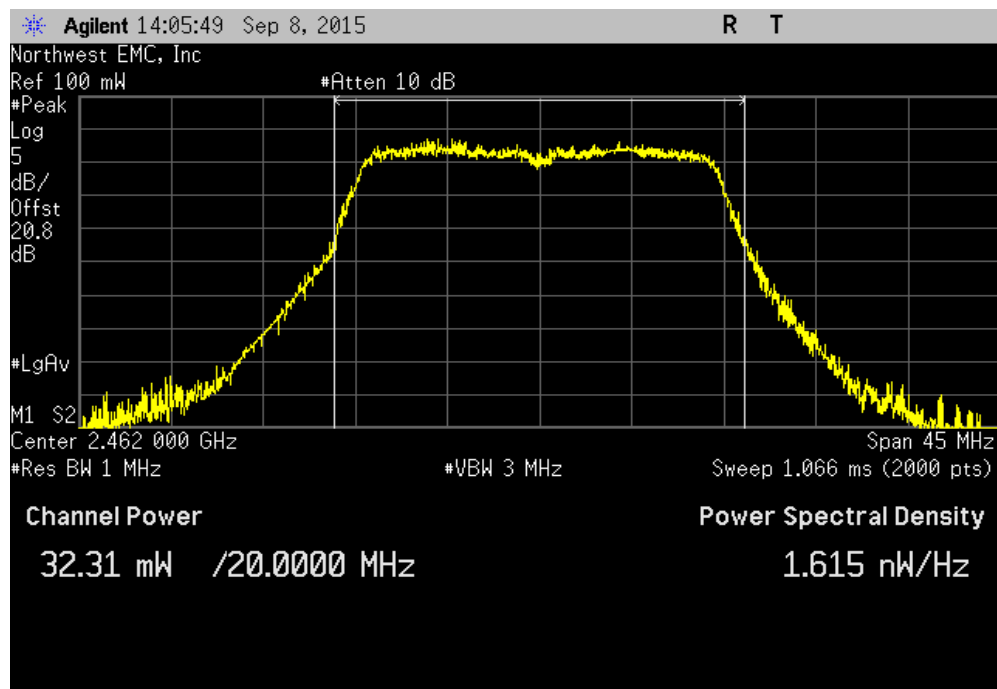
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz

Value	Limit (<)	Result
38.903 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz

Value	Limit (<)	Result
32.309 mW	1 W	Pass



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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 (mos)
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	7/23/2015	12
Block - DC	Fairview Microwave	SD3379	AMM	2/27/2015	12
Attenuator	Fairview Microwave	SA4018-20	TQY	2/27/2015	12
Generator - Signal	Agilent	N5173B	TIW	7/15/2014	36

TEST DESCRIPTION

The transmit frequency was set to the required channels in each band. 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. Both are required to determine the method of measuring Maximum Conducted Output Power. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

The channel power integration method found in KDB 558074 DTS D01 Measurement Section 9.1.2 was used because the DTS Bandwidth of the radio was greater than the RBW on the analyzer.

De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36 dBm.

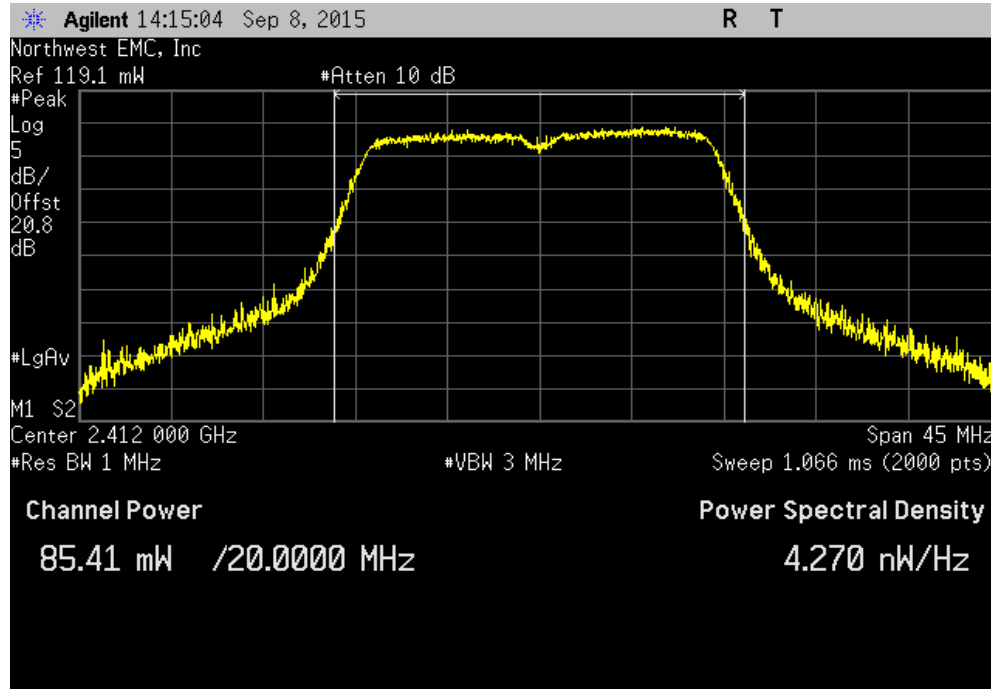
OUTPUT POWER

EUT:	Firebox T50-W (BS5AE7W)		Work Order:		VDEI0009			
Serial Number:	70AF02717-B385		Date:		09/08/15			
Customer:	WatchGuard Technologies, Inc.		Temperature:		24.2°C			
Attendees:	None		Humidity:		44%			
Project:	None		Barometric Pres.:		1015 mbar			
Tested by:	Jonathan Kiefer	Power:	110VAC/60Hz		Job Site:	TX09		
TEST SPECIFICATIONS			Test Method					
FCC 15.247:2015			ANSI C63.10:2013					
COMMENTS								
3x3 MIMO mode, Chain ABC (Chains 0, 1, and 2).								
DEVIATIONS FROM TEST STANDARD								
None								
Configuration #	5	Signature <i>Jonathan Kiefer</i>						
			Value	Limit (<)	Result			
Chain A								
20 MHz								
2400 MHz - 2483.5 MHz Band								
802.11(n) MCS16								
Low Channel 1, 2412 MHz			85.406 mW	1 W	Pass			
Mid Channel 6, 2437 MHz			83.04 mW	1 W	Pass			
High Channel 11, 2462 MHz			86.485 mW	1 W	Pass			
802.11(n) MCS23								
Low Channel 1, 2412 MHz			24.86 mW	1 W	Pass			
Mid Channel 6, 2437 MHz			27.416 mW	1 W	Pass			
High Channel 11, 2462 MHz			29.131 mW	1 W	Pass			
Chain B								
20 MHz								
2400 MHz - 2483.5 MHz Band								
802.11(n) MCS16								
Low Channel 1, 2412 MHz			130.82 mW	1 W	Pass			
Mid Channel 6, 2437 MHz			96.045 mW	1 W	Pass			
High Channel 11, 2462 MHz			98.419 mW	1 W	Pass			
802.11(n) MCS23								
Low Channel 1, 2412 MHz			38.474 mW	1 W	Pass			
Mid Channel 6, 2437 MHz			35.914 mW	1 W	Pass			
High Channel 11, 2462 MHz			29.451 mW	1 W	Pass			
Chain C								
20 MHz								
2400 MHz - 2483.5 MHz Band								
802.11(n) MCS16								
Low Channel 1, 2412 MHz			105.991 mW	1 W	Pass			
Mid Channel 6, 2437 MHz			90.617 mW	1 W	Pass			
High Channel 11, 2462 MHz			100.997 mW	1 W	Pass			
802.11(n) MCS23								
Low Channel 1, 2412 MHz			27.973 mW	1 W	Pass			
Mid Channel 6, 2437 MHz			30.734 mW	1 W	Pass			
High Channel 11, 2462 MHz			31.053 mW	1 W	Pass			
Power Summing, Chain ABC								
20 MHz								
2400 MHz - 2483.5 MHz Band								
802.11(n) MCS16			Chain A (mW)	Chain B (mW)	Chain C (mW)	Summed Power (dBm)	Limit (dBm)	Result
			85.406	130.82	105.991	25.0814845	30	Pass
			93.04	96.045	90.617	24.46695572	30	Pass
			86.485	98.419	100.997	24.56215674	30	Pass
802.11(n) MCS23								
Low Channel 1, 2412 MHz			24.86	38.474	27.973	19.60504074	30	Pass
Mid Channel 6, 2437 MHz			27.416	35.914	30.734	19.73423443	30	Pass
High Channel 11, 2462 MHz			29.131	29.451	31.053	19.52477623	30	Pass

OUTPUT POWER

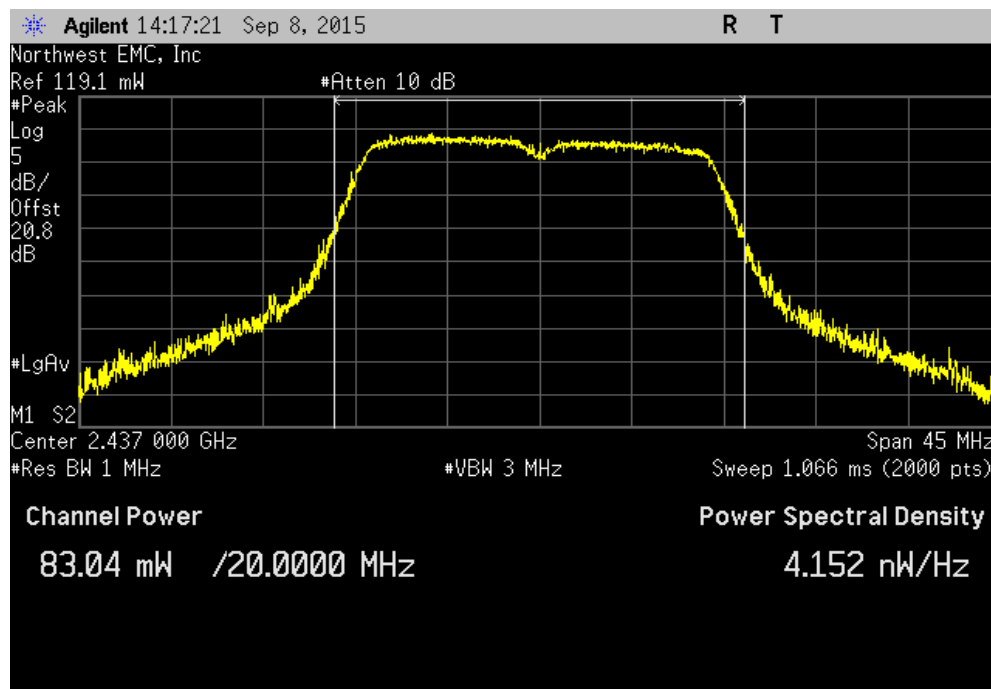
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Low Channel 1, 2412 MHz

	Value	Limit (<)	Result
	85.406 mW	1 W	Pass



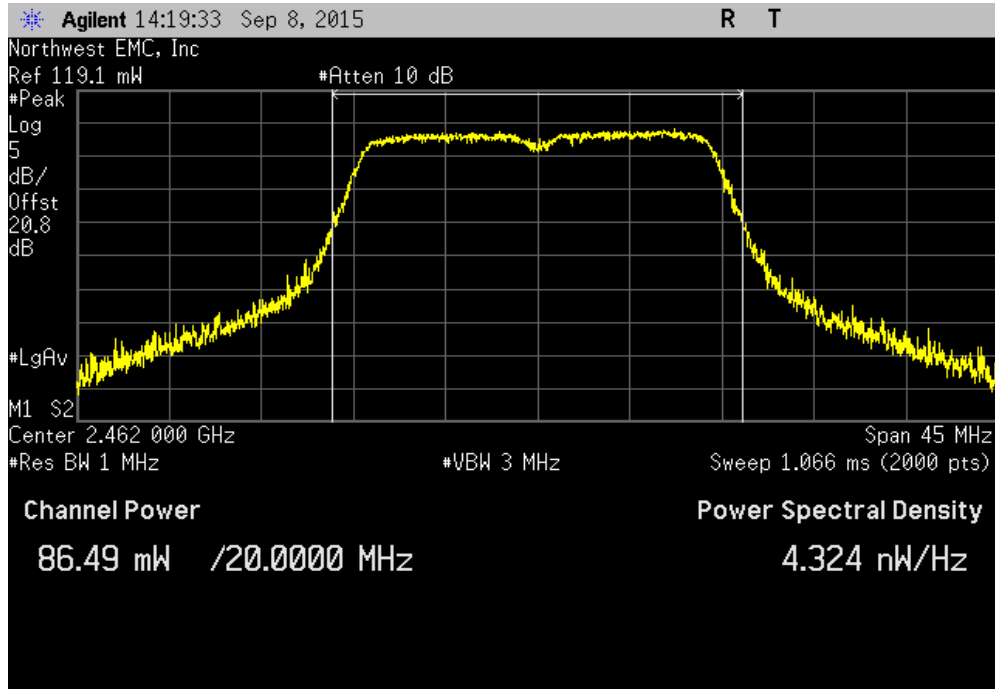
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Mid Channel 6, 2437 MHz

	Value	Limit (<)	Result
	83.04 mW	1 W	Pass

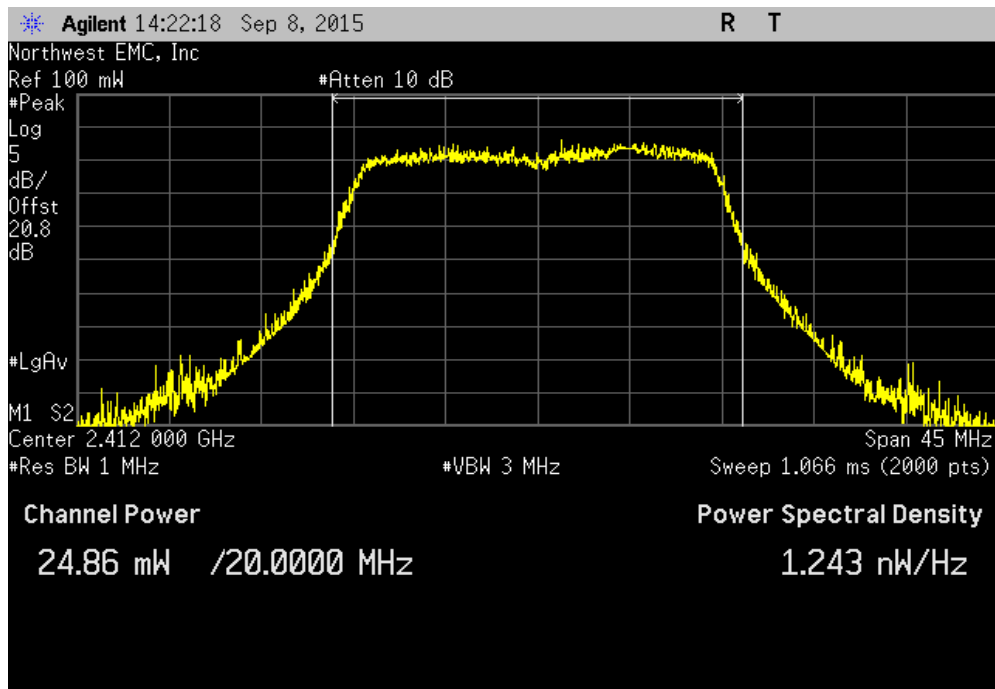


OUTPUT POWER

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, High Channel 11, 2462 MHz						
				Value	Limit	Result
				86.485 mW	1 W	Pass



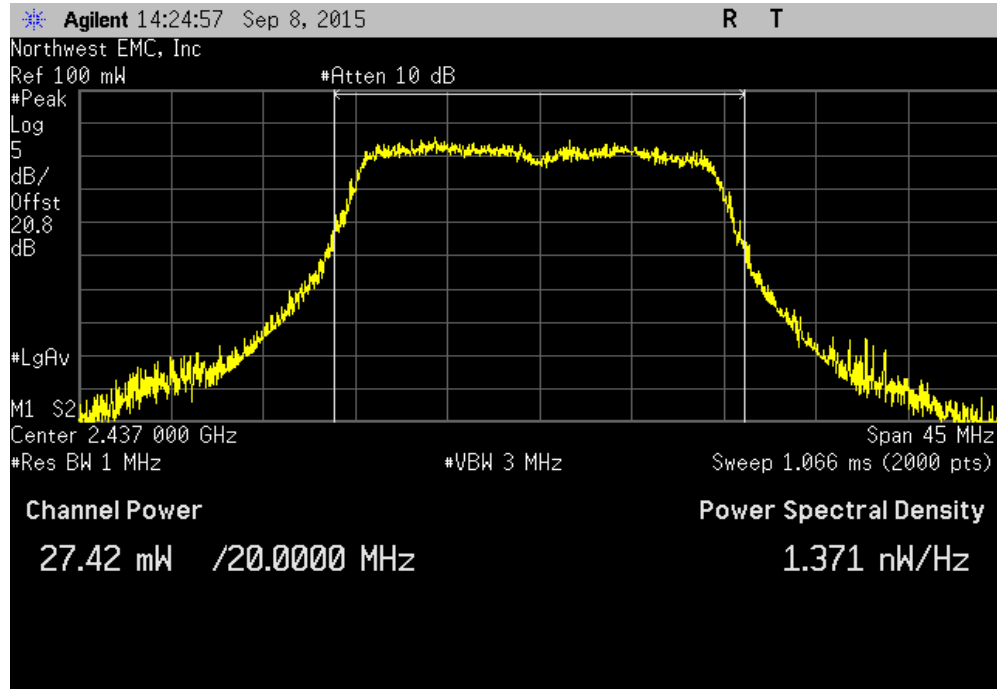
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Low Channel 1, 2412 MHz						
				Value	Limit	Result
				24.86 mW	1 W	Pass



OUTPUT POWER

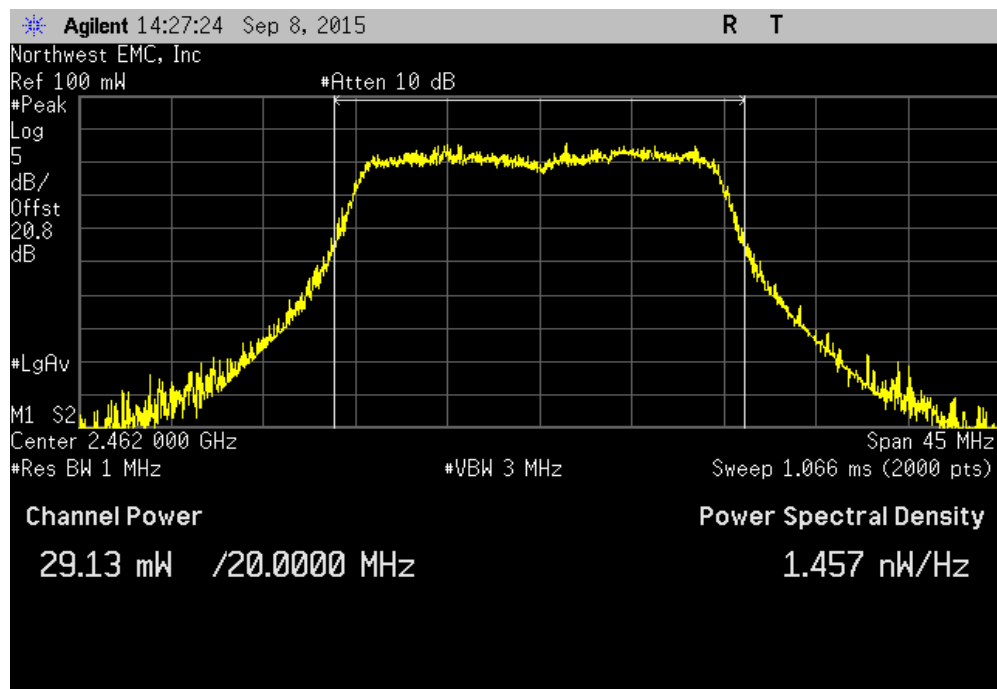
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Mid Channel 6, 2437 MHz

Value	Limit (<)	Result
27.416 mW	1 W	Pass



Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, High Channel 11, 2462 MHz

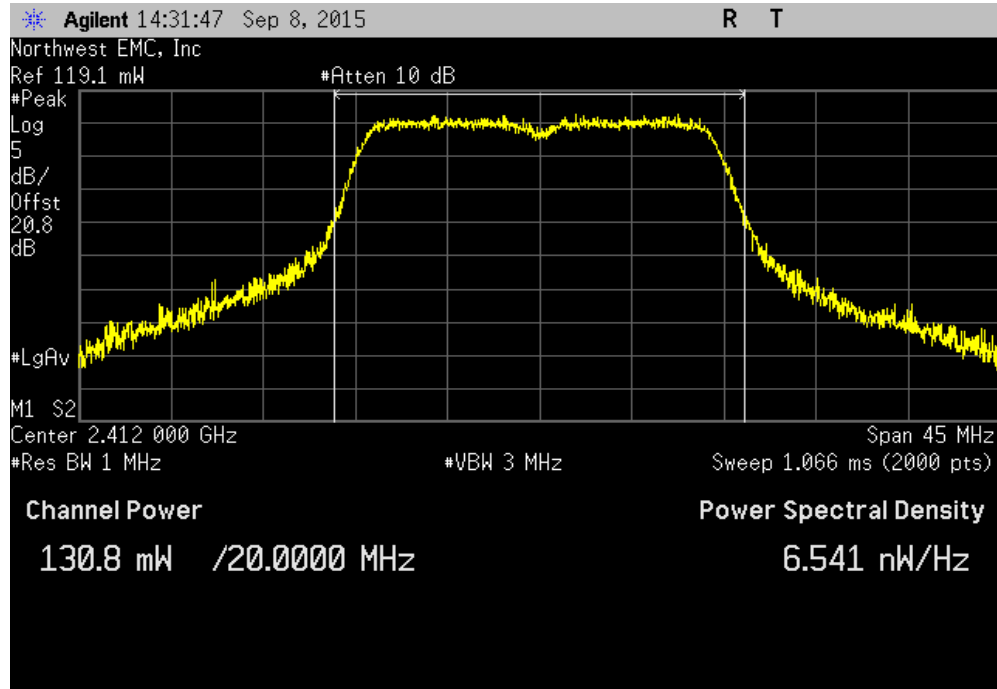
Value	Limit (<)	Result
29.131 mW	1 W	Pass



OUTPUT POWER

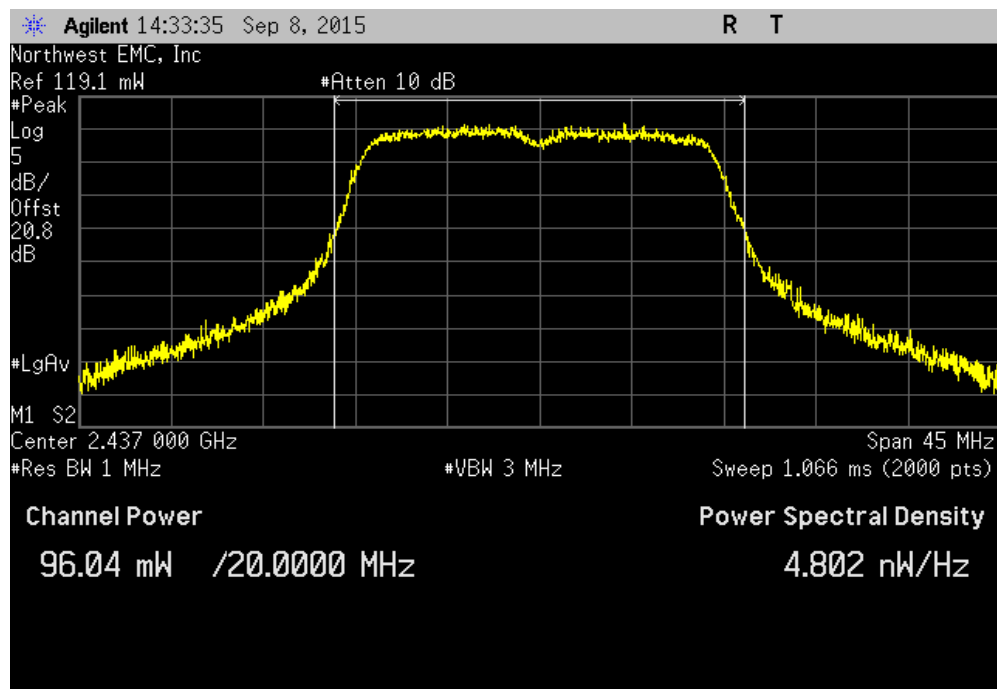
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Low Channel 1, 2412 MHz

	Value	Limit ($\leq$)	Result
	130.82 mW	1 W	Pass



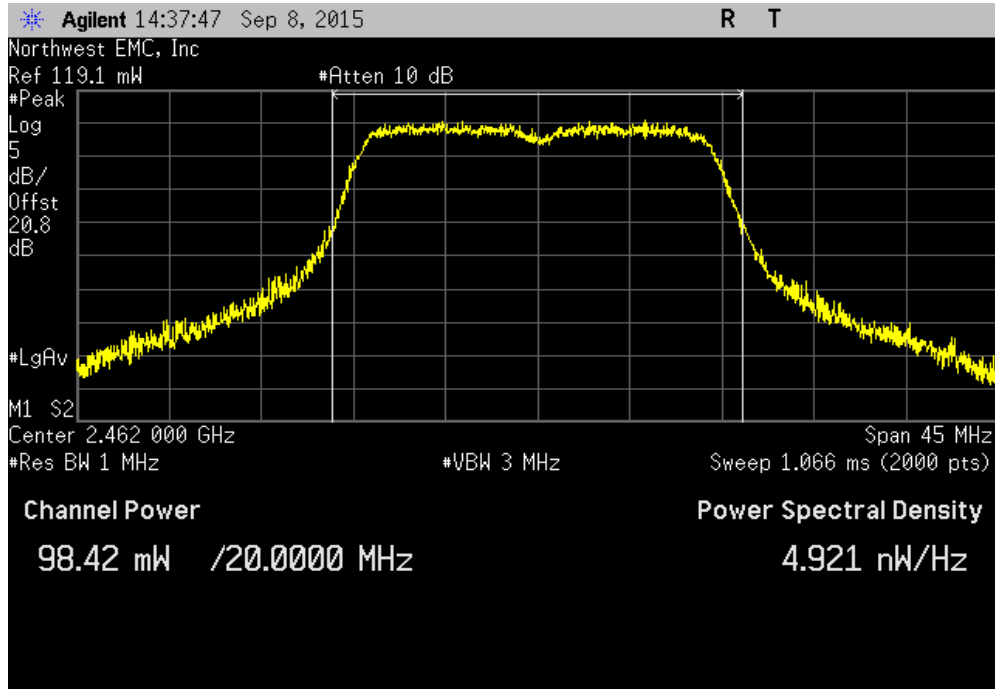
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Mid Channel 6, 2437 MHz

	Value	Limit ($\leq$)	Result
	96.045 mW	1 W	Pass

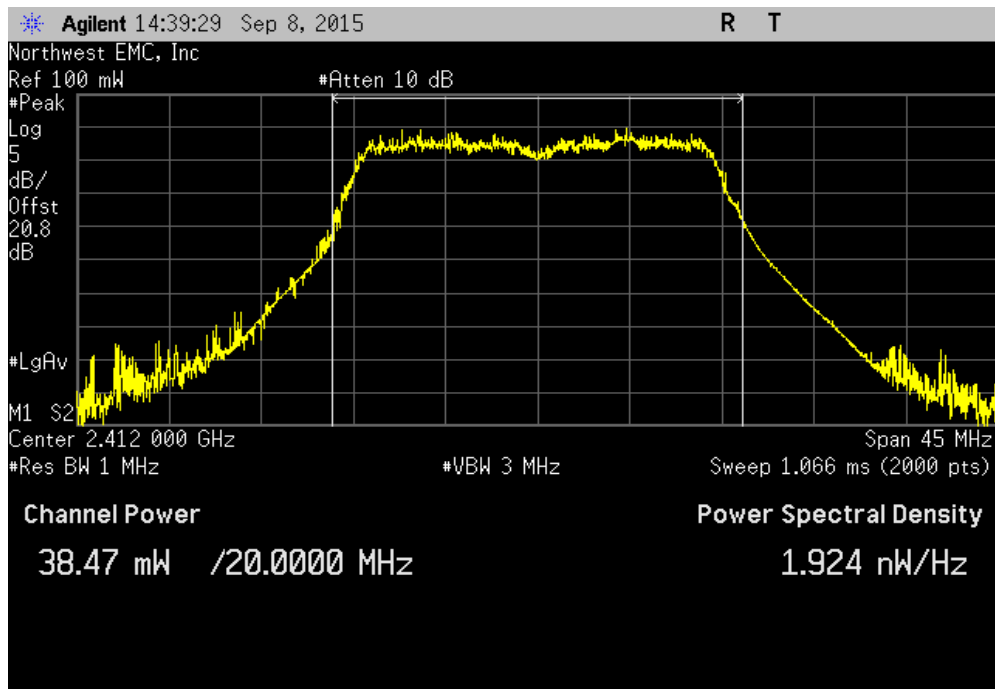


OUTPUT POWER

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, High Channel 11, 2462 MHz						
				Value	Limit (<)	Result
				98.419 mW	1 W	Pass



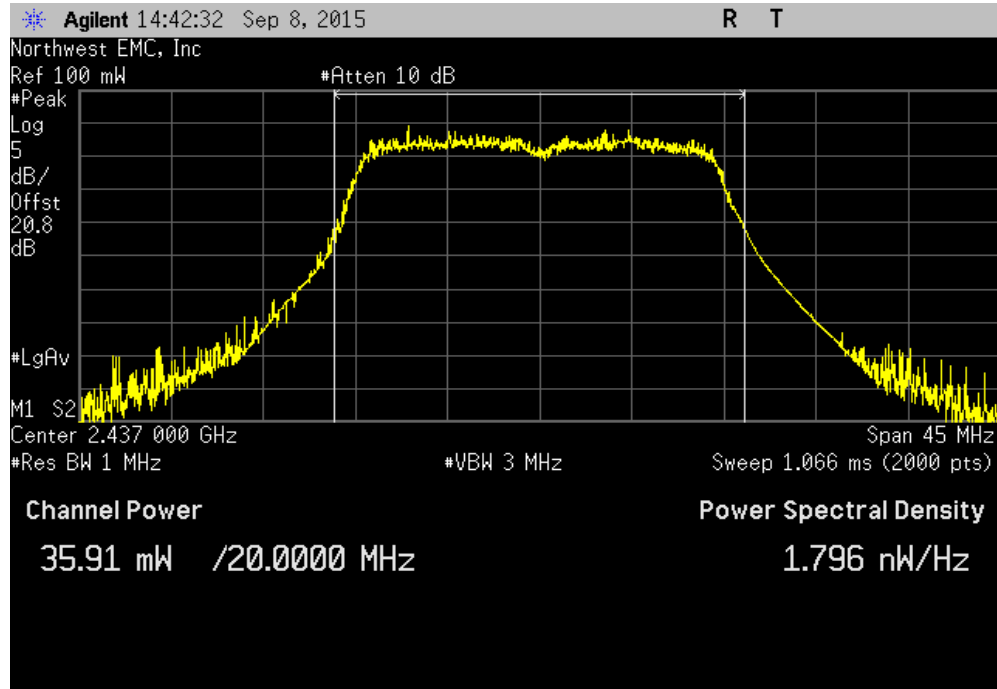
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Low Channel 1, 2412 MHz						
				Value	Limit (<)	Result
				38.474 mW	1 W	Pass



OUTPUT POWER

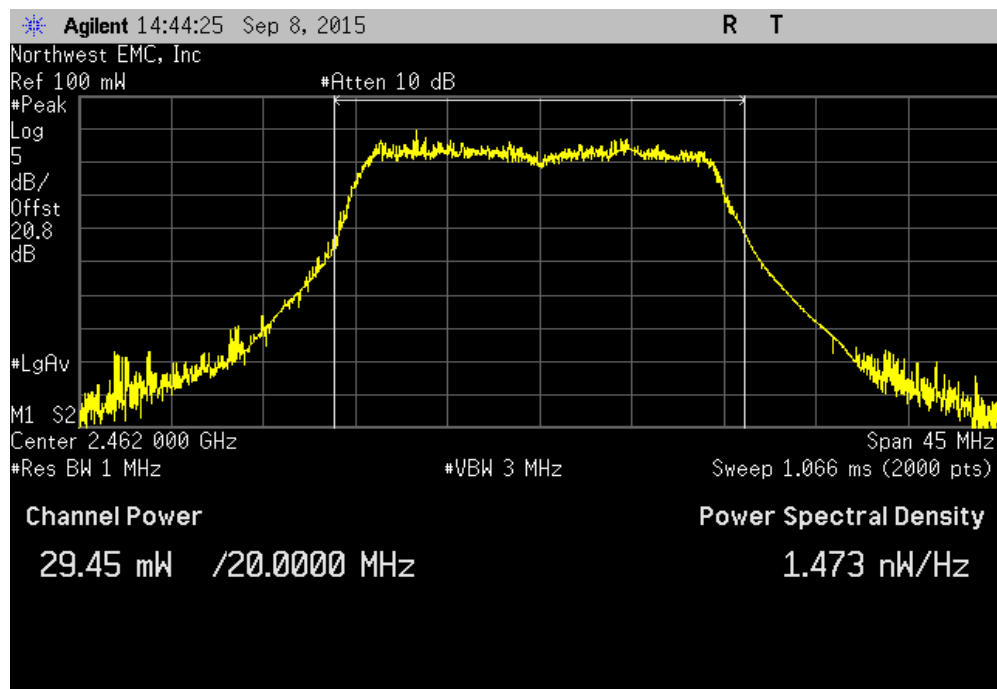
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Mid Channel 6, 2437 MHz

				Value	Limit	Result
				(<)		
				35.914 mW	1 W	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, High Channel 11, 2462 MHz

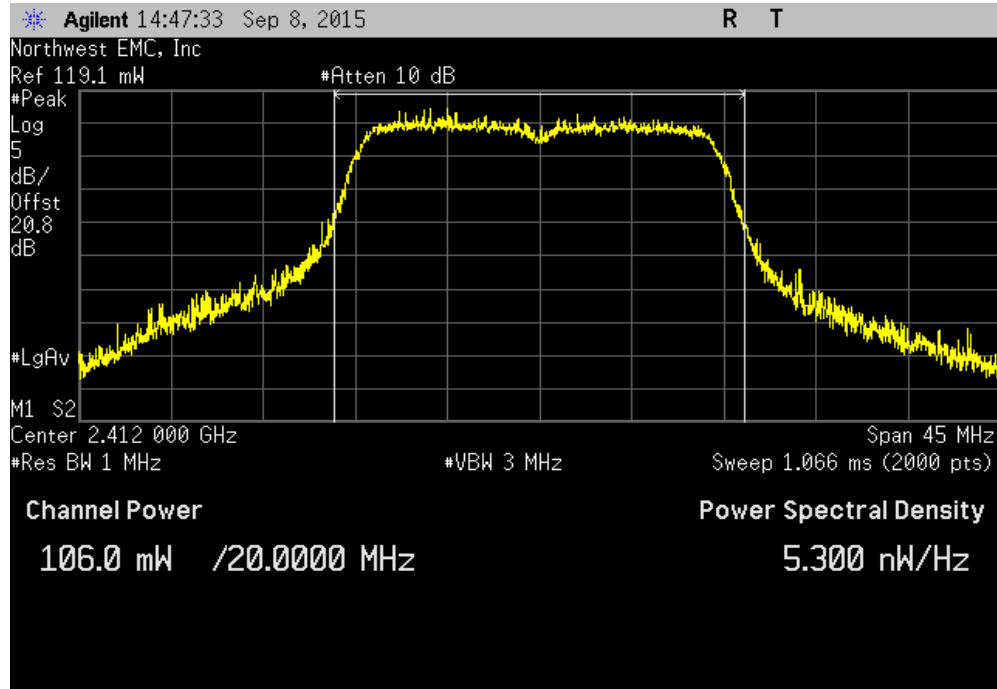
				Value	Limit	Result
				(<)		
				29.451 mW	1 W	Pass



OUTPUT POWER

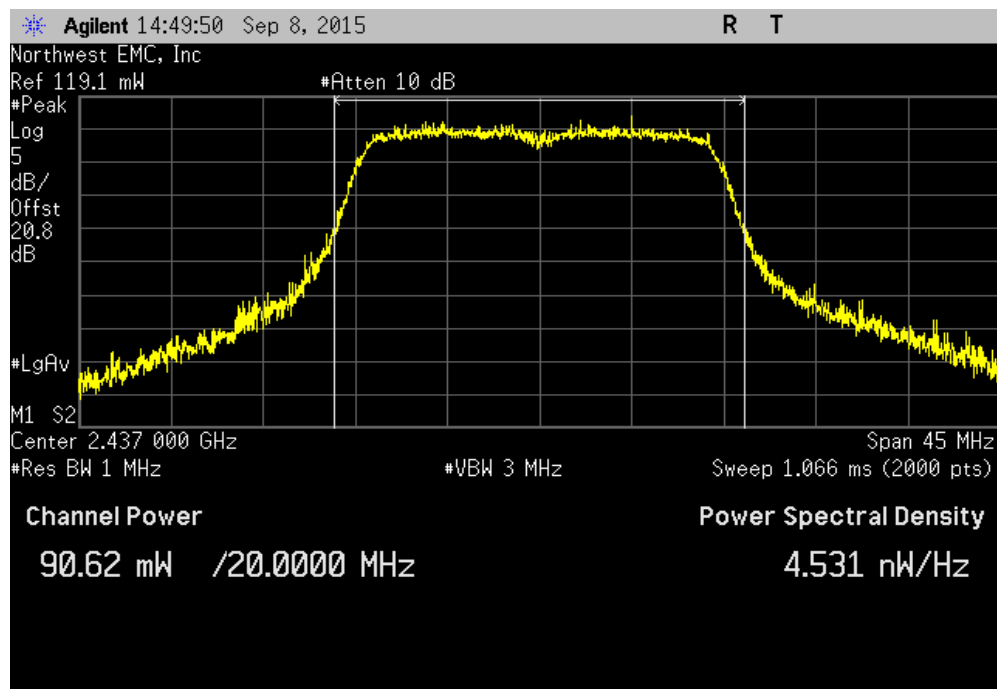
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Low Channel 1, 2412 MHz

	Value	Limit (<)	Result
	105.991 mW	1 W	Pass



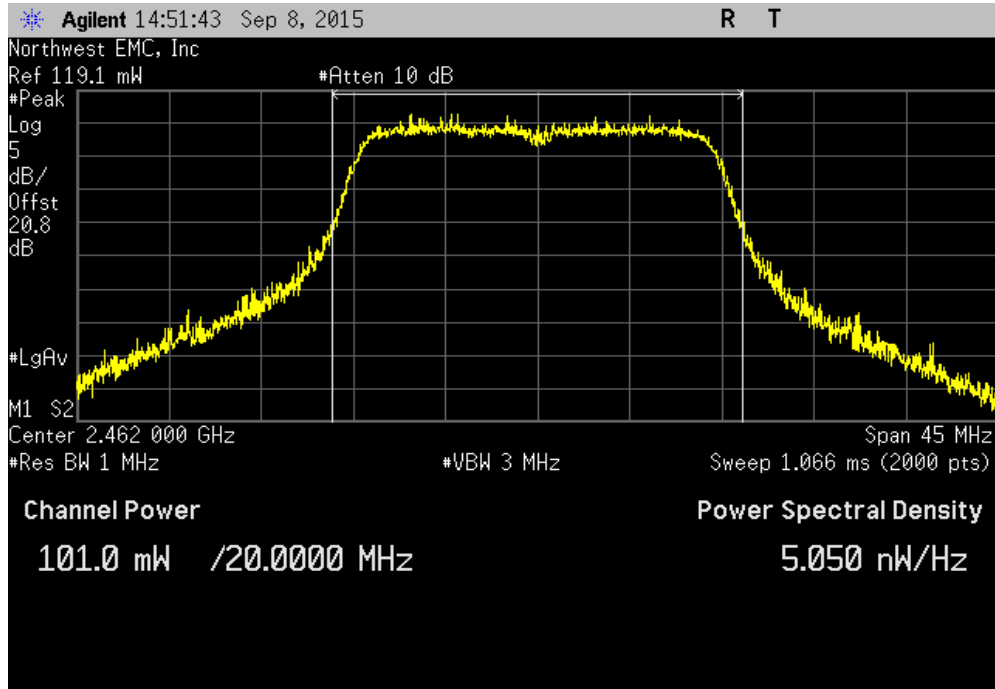
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Mid Channel 6, 2437 MHz

	Value	Limit (<)	Result
	90.617 mW	1 W	Pass

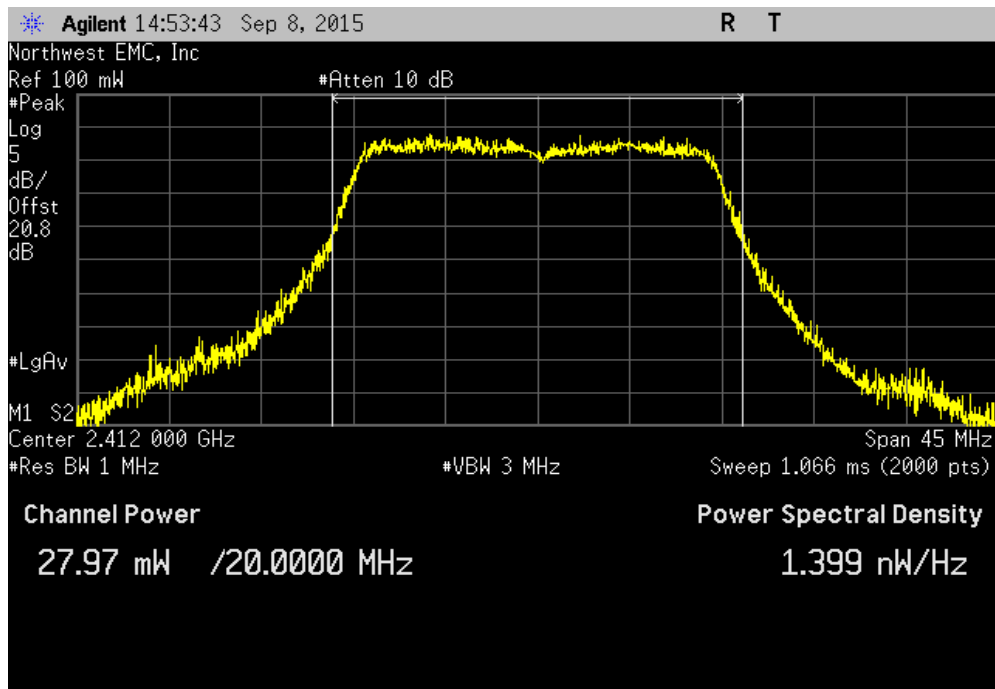


OUTPUT POWER

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, High Channel 11, 2462 MHz						
				Value	Limit	Result
				100.997 mW	1 W	Pass



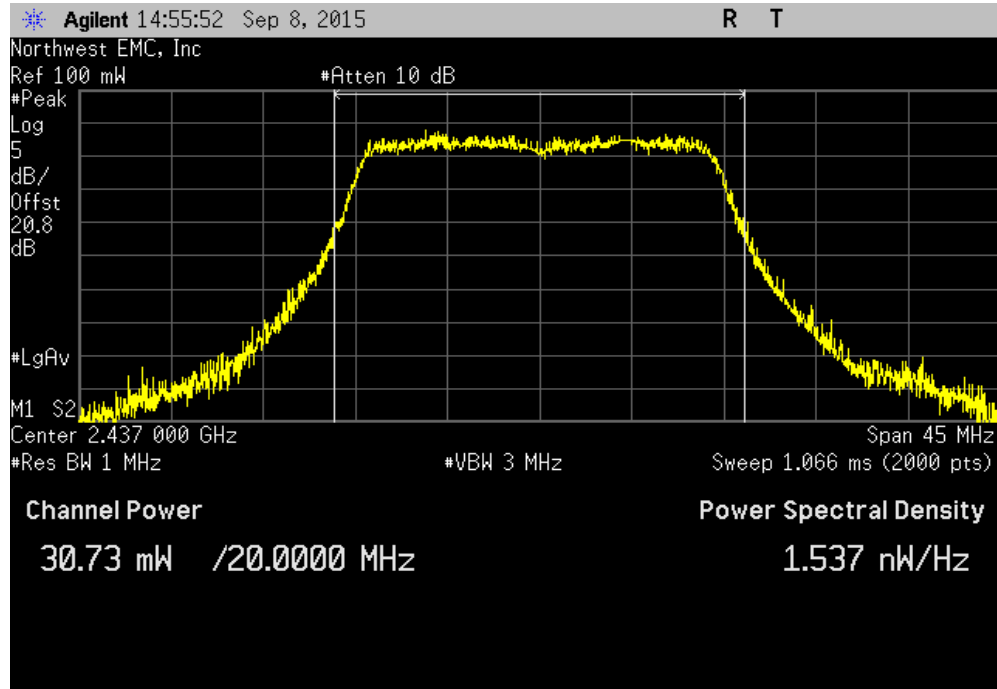
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Low Channel 1, 2412 MHz						
				Value	Limit	Result
				27.973 mW	1 W	Pass



OUTPUT POWER

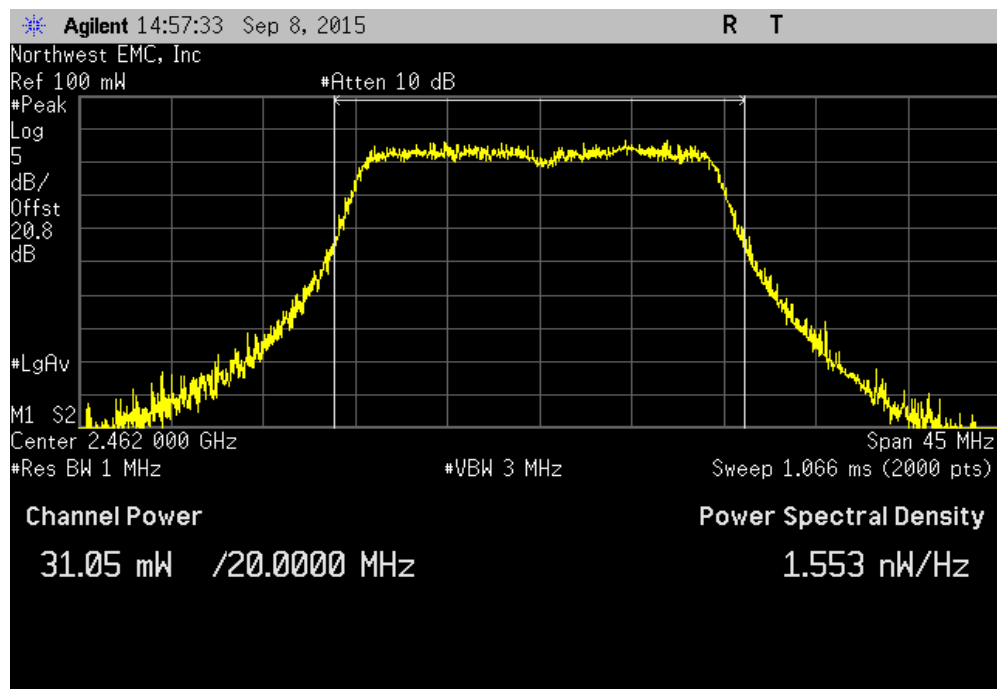
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Mid Channel 6, 2437 MHz

	Value	Limit (<)	Result
	30.734 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, High Channel 11, 2462 MHz

	Value	Limit (<)	Result
	31.053 mW	1 W	Pass



OUTPUT 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 (mos)
Block - DC	Fairview Microwave	SD3379	AMM	2/27/2015	12
Attenuator	Fairview Microwave	SA4018-20	TQY	2/27/2015	12
Generator - Signal	Agilent	N5173B	TIW	7/15/2014	36
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	7/23/2015	12

TEST DESCRIPTION

The transmit frequency was set to the required channels in each band. The transmit power was set to a value specified in the RF power table. 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. Both are required to determine the method of measuring Maximum Conducted Output Power. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

The channel power integration method found in KDB 558074 DTS D01 Measurement Section 9.1.2 was used because the DTS Bandwidth of the radio was greater than the RBW on the analyzer.

De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36 dBm.

**NORTHWEST
EMC**

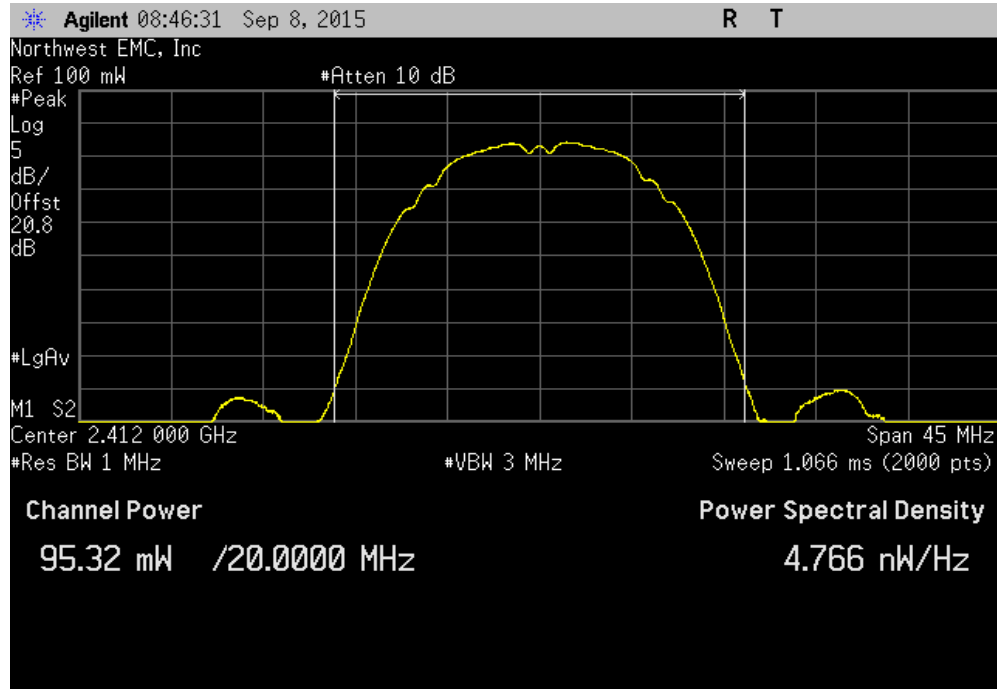
EUT: Firebox T50-W (BS5AE7W)		Work Order: VDEI0009	
Serial Number: 70AF02717-B385		Date: 09/08/15	
Customer: WatchGuard Technologies, Inc.		Temperature: 24.2°C	
Attendees: None		Humidity: 44%	
Project: None		Barometric Pres.: 1015 mbar	
Tested by: Jonathan Kiefer		Power: 110VAC/60Hz	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2015		ANSI C63.10:2013	
COMMENTS			
Reference RF power table for channel power setting. Chains A, B, and C correspond to Chain 0, 1, and 2 respectively.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	5	Signature <i>Jonathan Kiefer</i>	
Value		Limit ($<$)	Result

Report No. VDEI0009

OUTPUT POWER

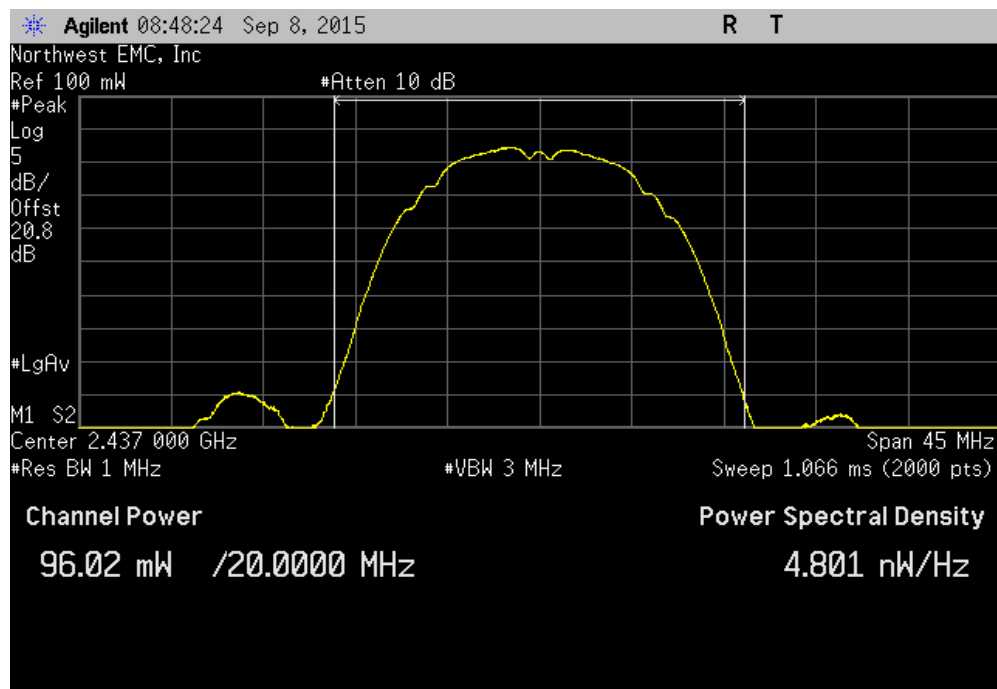
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

	Value	Limit	Result
	95.317 mW	1 W	Pass



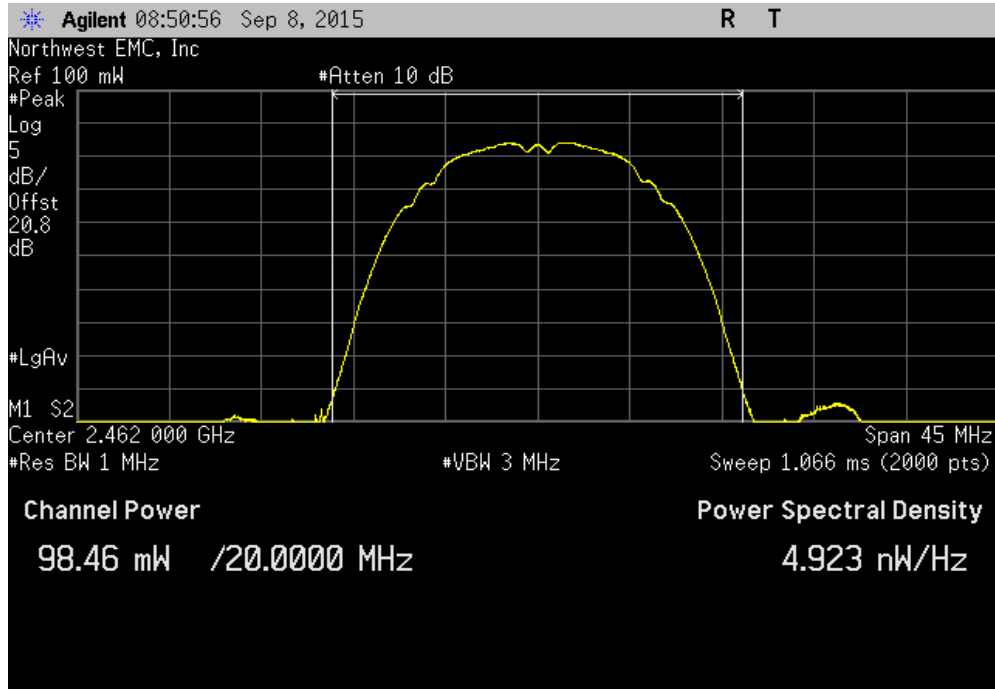
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz

	Value	Limit	Result
	96.019 mW	1 W	Pass

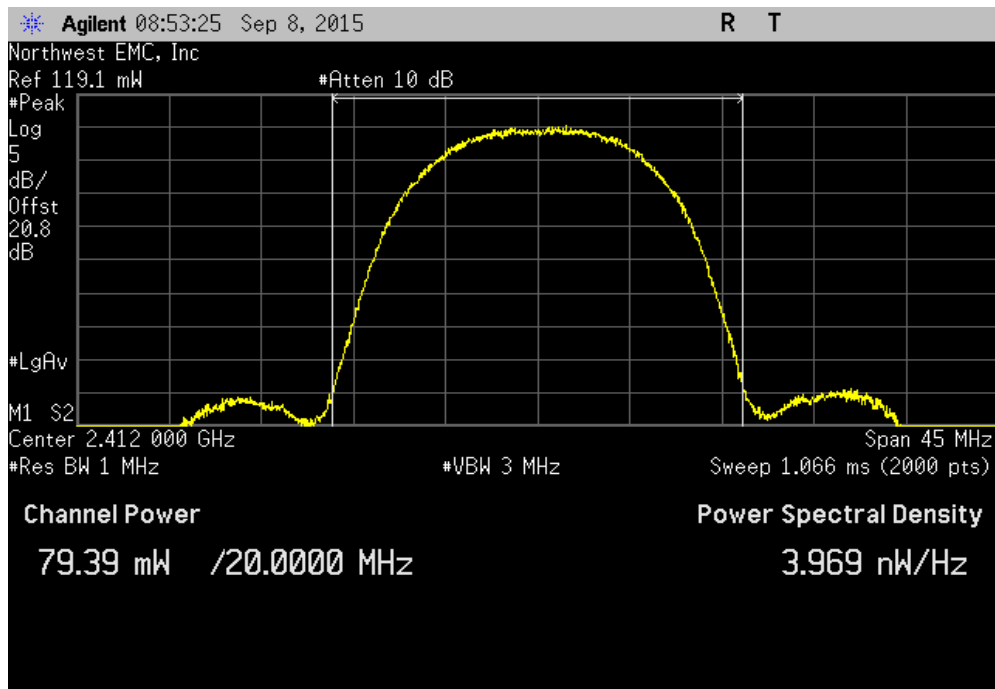


OUTPUT POWER

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
				Value	Limit	Result
				98.456 mW	1 W	Pass

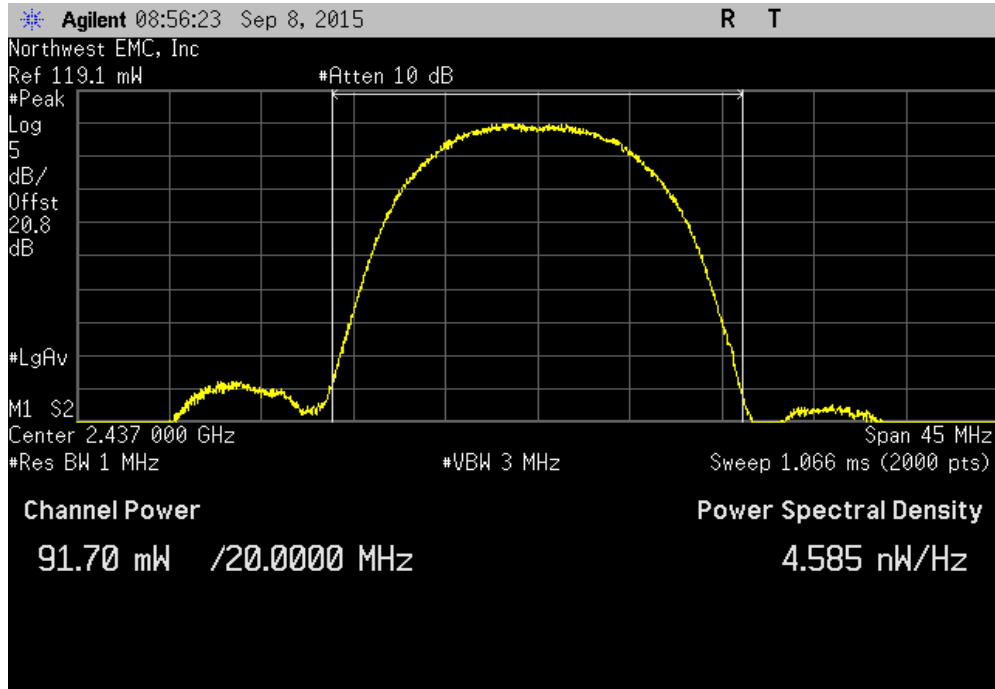


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit	Result
				79.388 mW	1 W	Pass

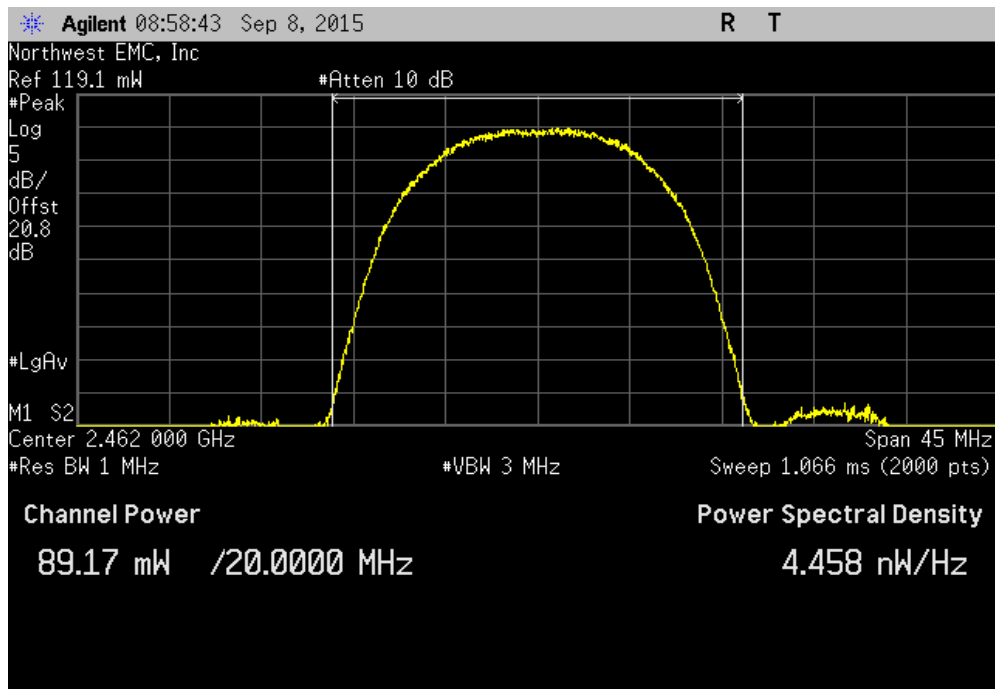


OUTPUT POWER

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit	Result
				91.698 mW	1 W	Pass



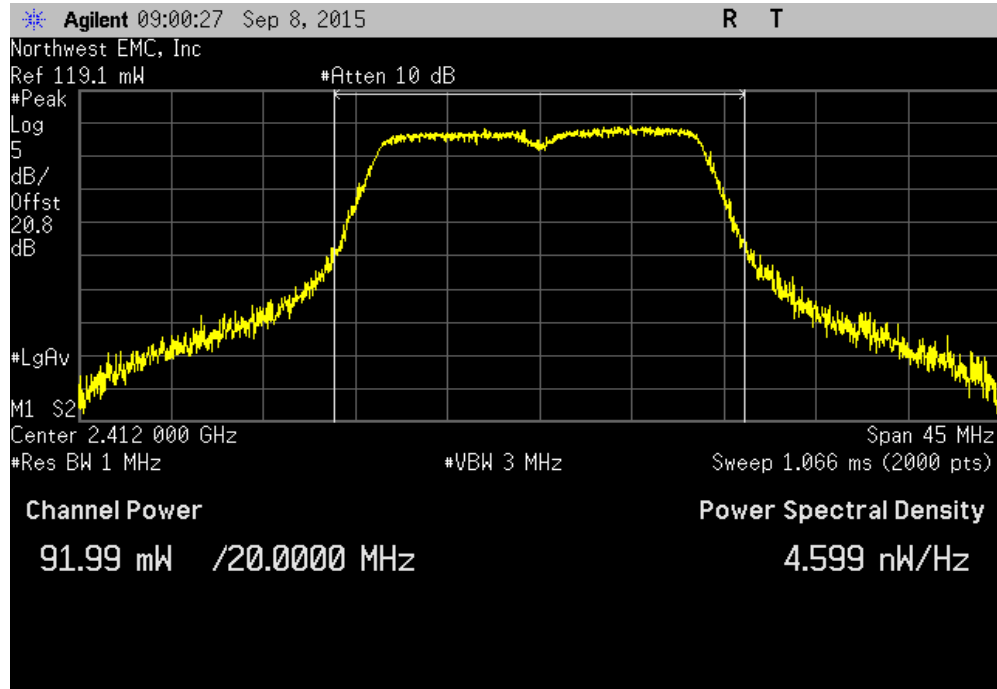
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
				Value	Limit	Result
				89.169 mW	1 W	Pass



OUTPUT POWER

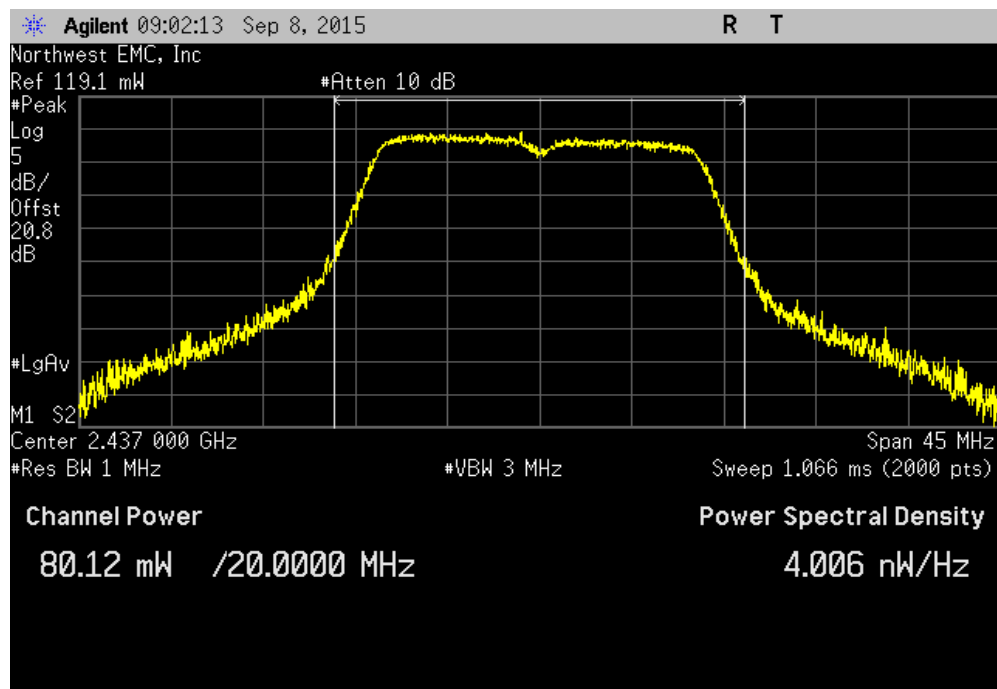
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

	Value	Limit	Result
	91.989 mW	1 W	Pass



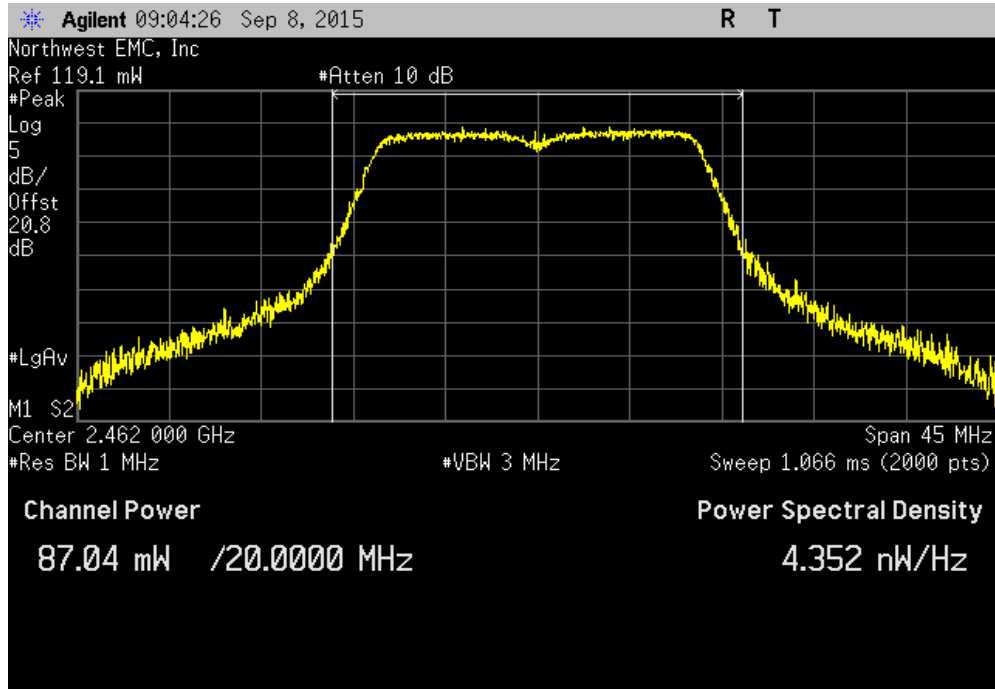
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz

	Value	Limit	Result
	80.118 mW	1 W	Pass

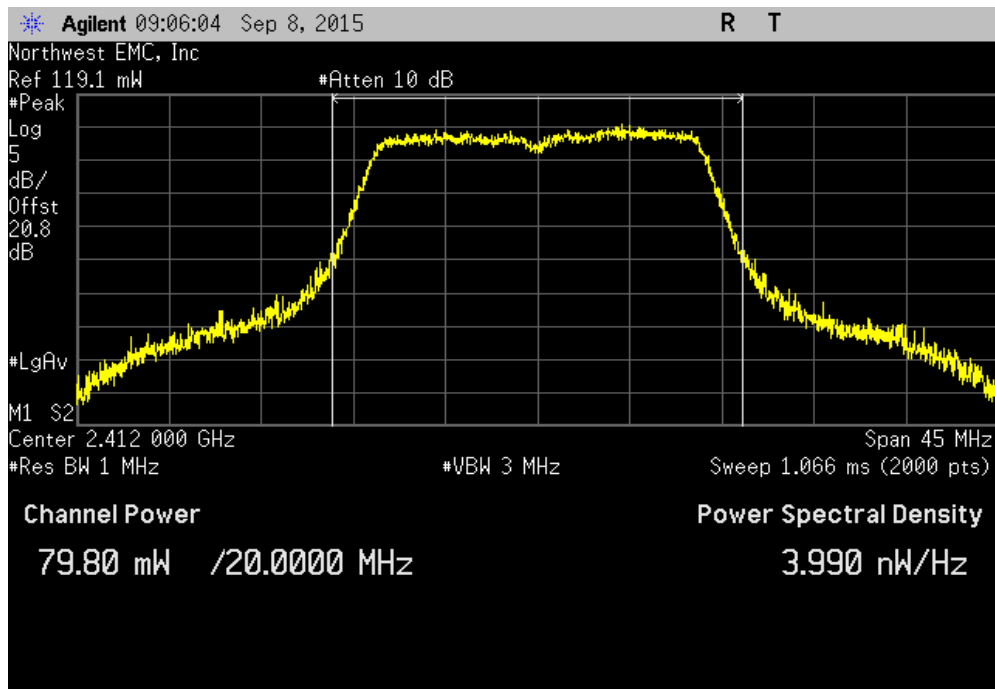


OUTPUT POWER

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
				Value	Limit	Result
				87.044 mW	1 W	Pass



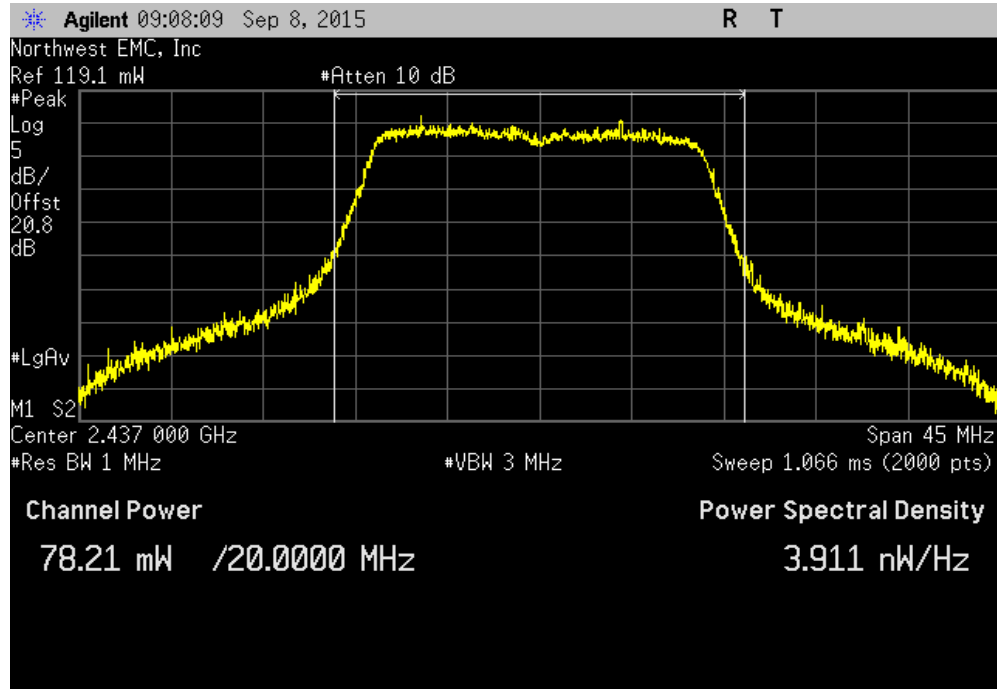
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit	Result
				79.796 mW	1 W	Pass



OUTPUT POWER

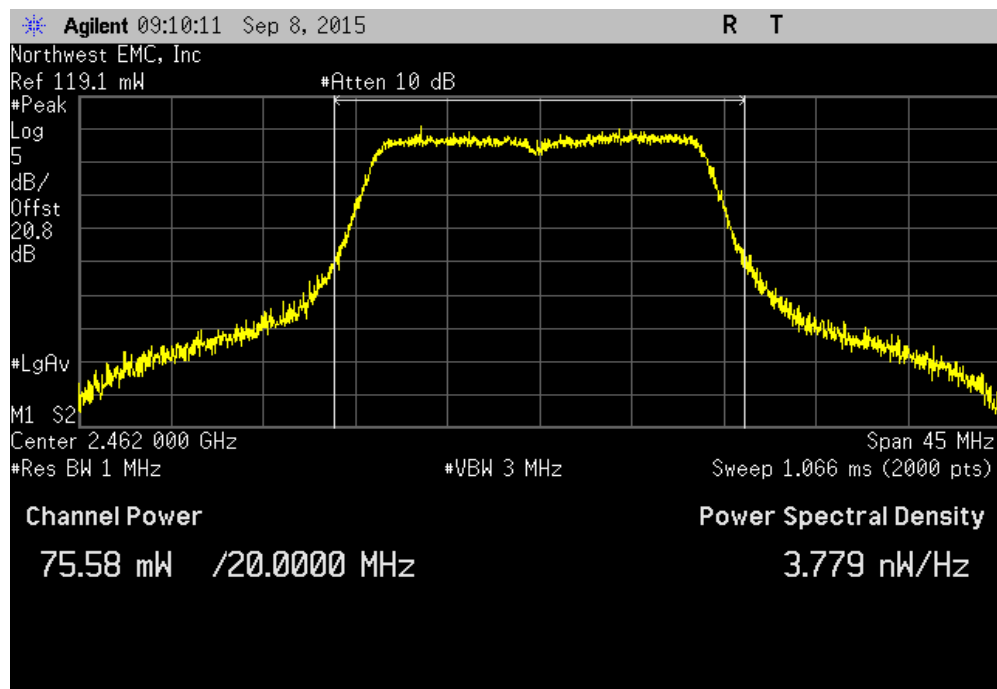
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz

	Value	Limit	Result
	78.215 mW	1 W	Pass



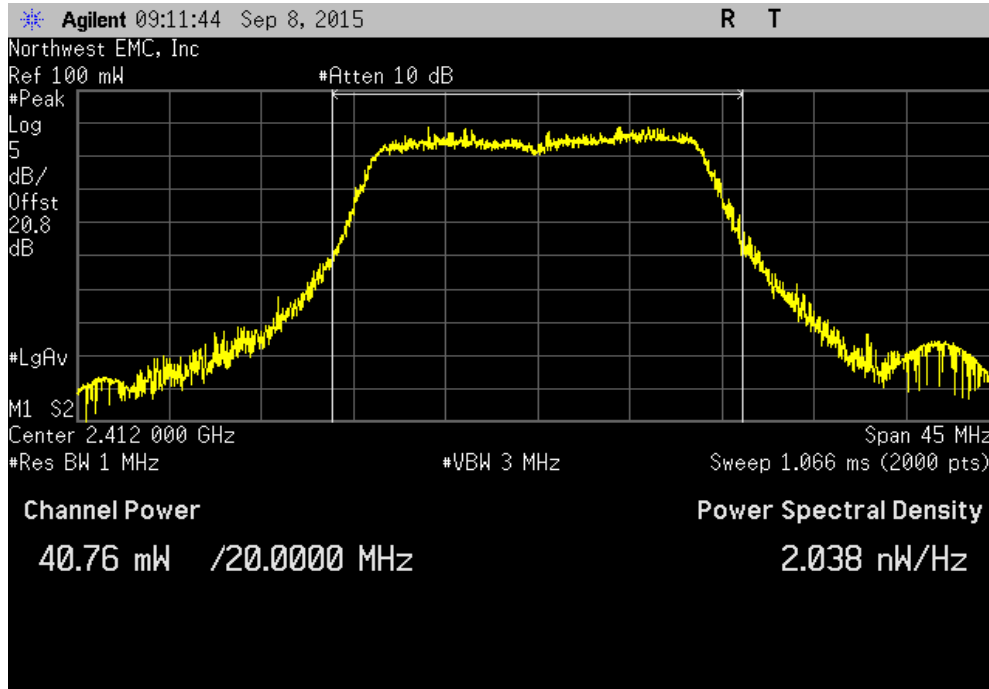
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

	Value	Limit	Result
	75.581 mW	1 W	Pass

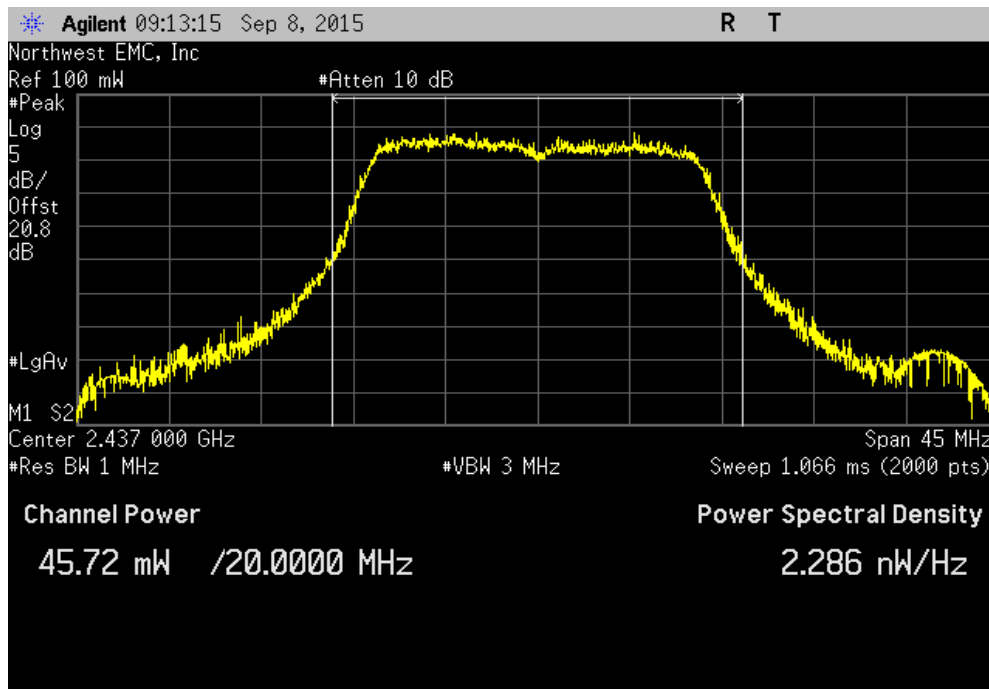


OUTPUT POWER

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit	Result
				40.755 mW	1 W	Pass



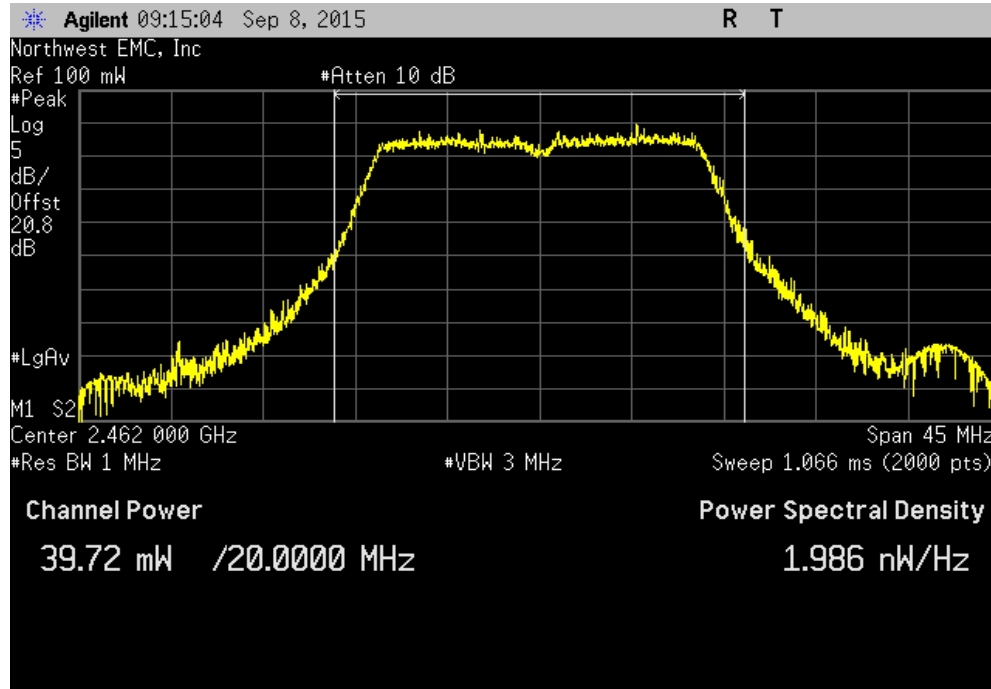
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit	Result
				45.718 mW	1 W	Pass



OUTPUT POWER

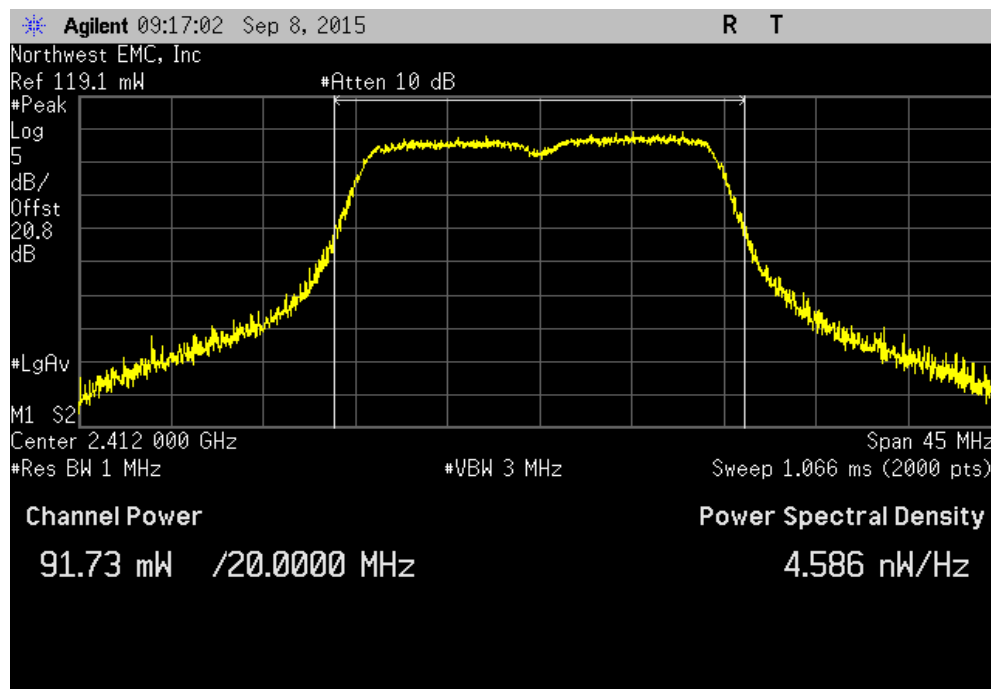
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

				Value	Limit	Result
				(<)		
				39.716 mW	1 W	Pass



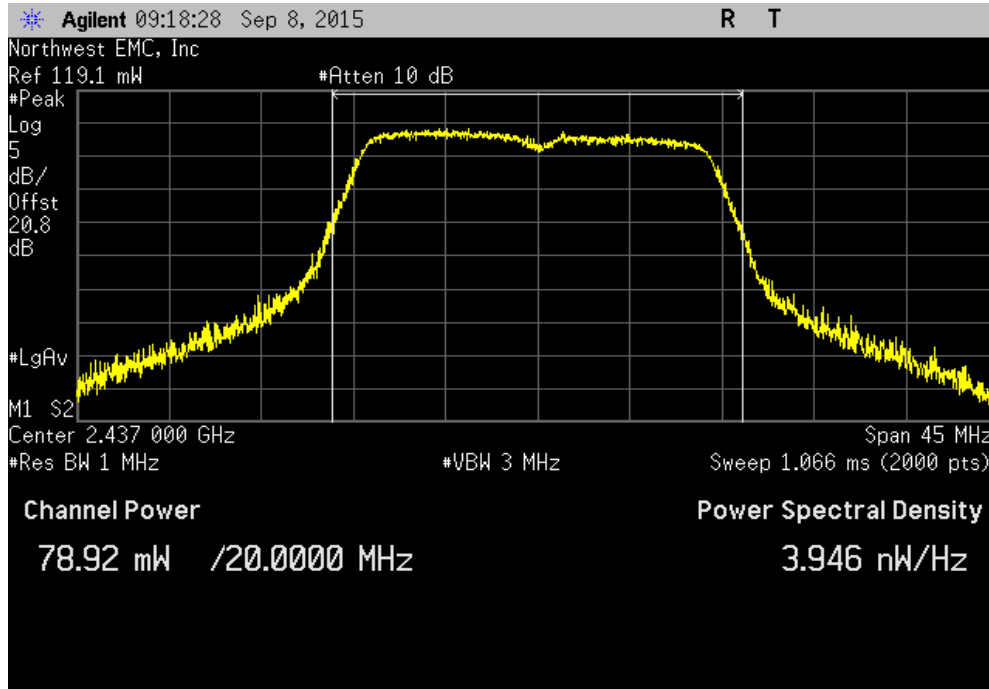
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz

				Value	Limit	Result
				(<)		
				91.729 mW	1 W	Pass

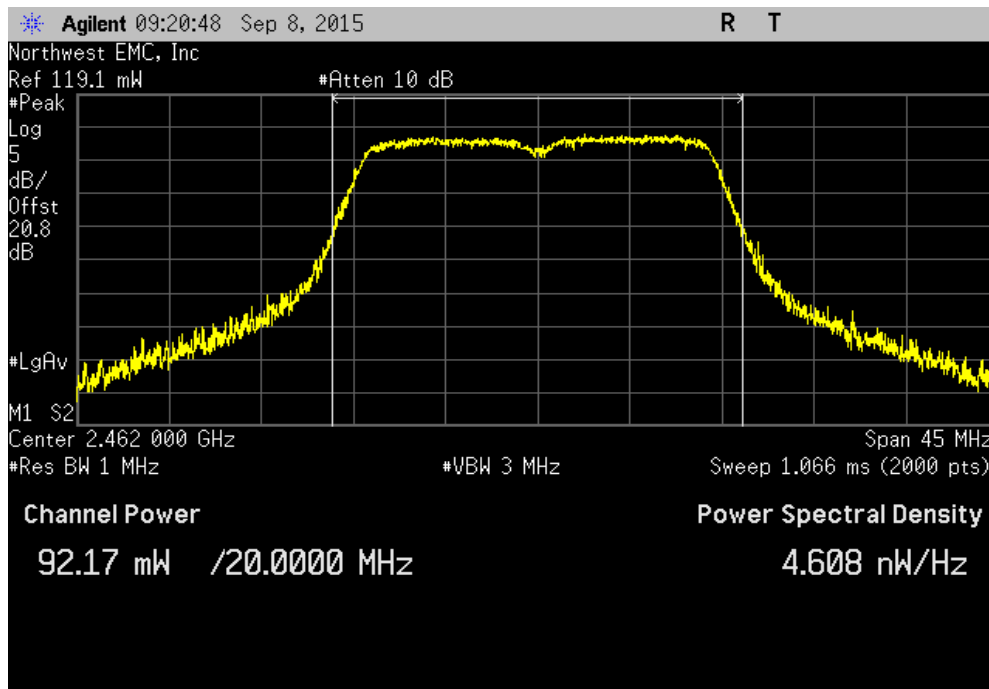


OUTPUT POWER

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
				Value	Limit ($\leq$)	Result
				78.918 mW	1 W	Pass



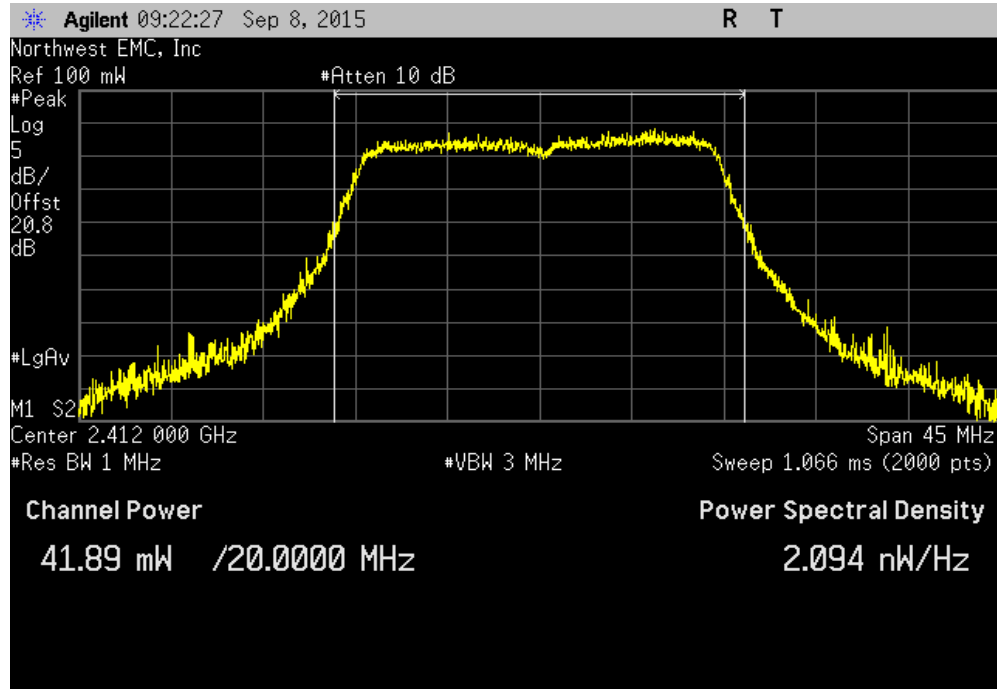
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz						
				Value	Limit ($\leq$)	Result
				92.166 mW	1 W	Pass



OUTPUT POWER

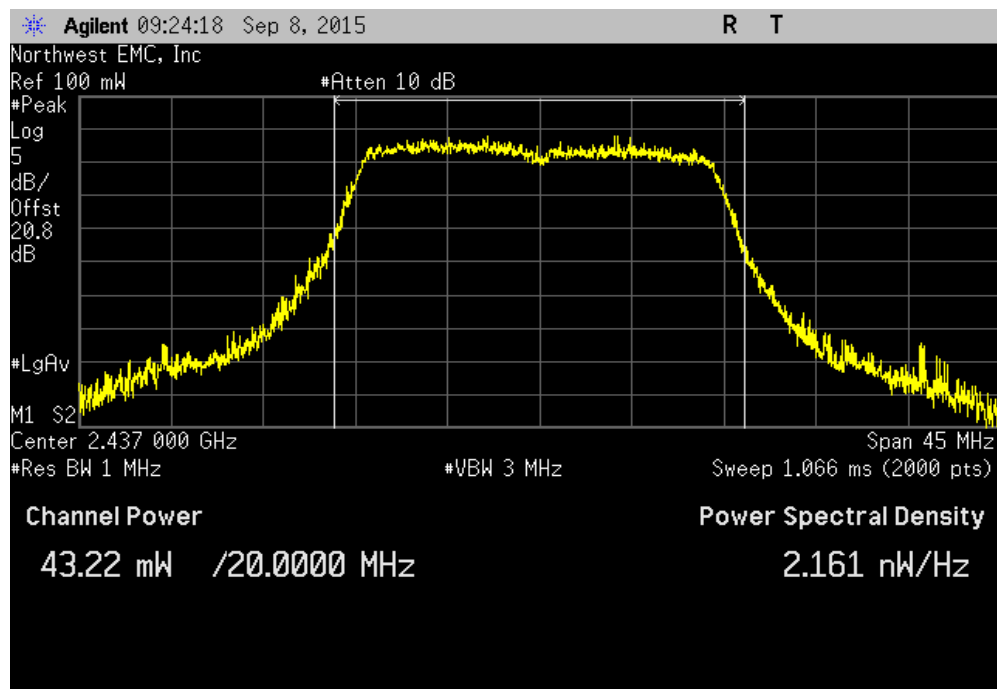
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz

	Value	Limit (<)	Result
	41.89 mW	1 W	Pass



Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz

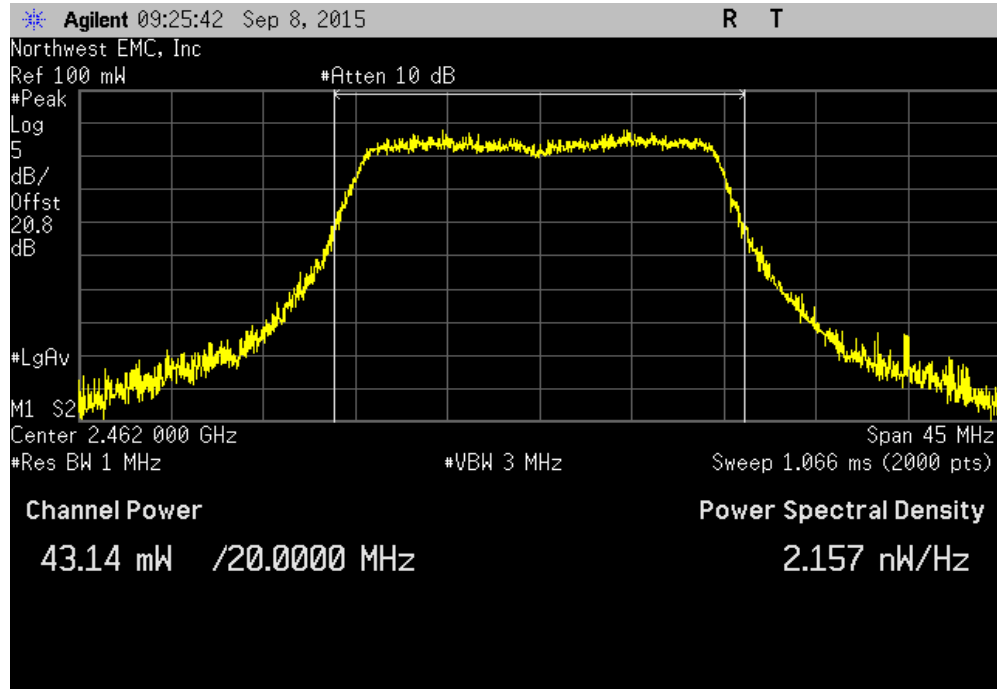
	Value	Limit (<)	Result
	43.217 mW	1 W	Pass



OUTPUT POWER

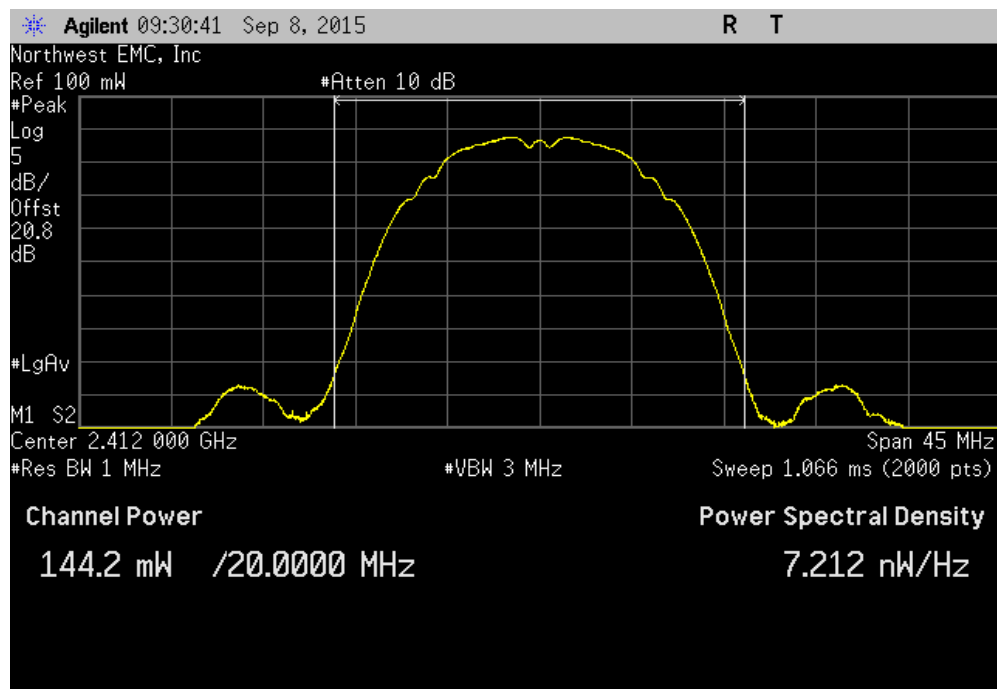
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz

	Value	Limit	Result
	43.143 mW	1 W	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

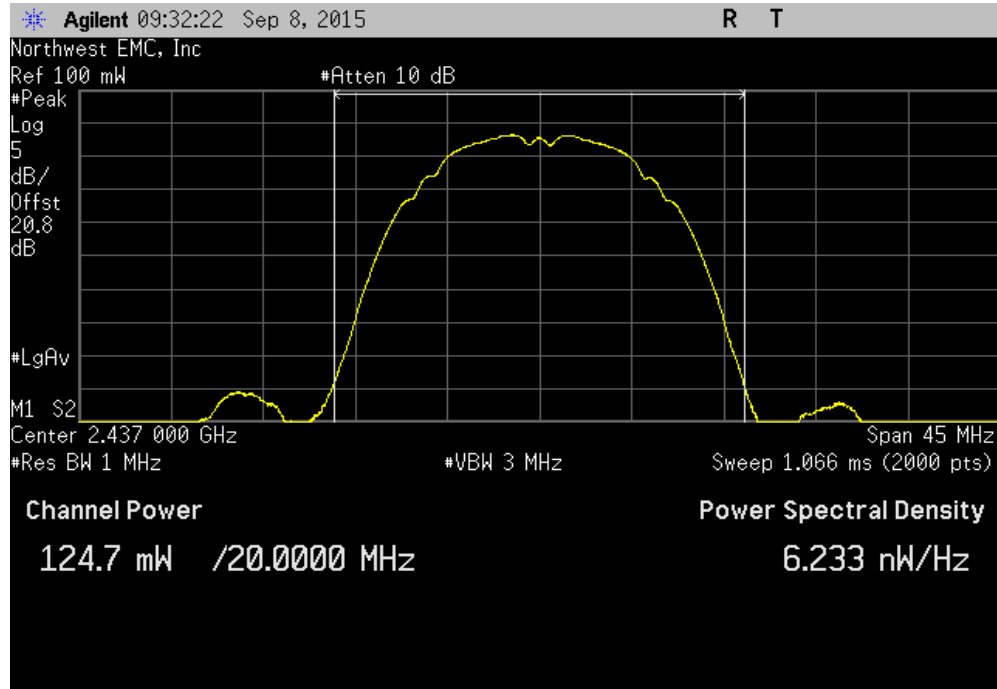
	Value	Limit	Result
	144.249 mW	1 W	Pass



OUTPUT POWER

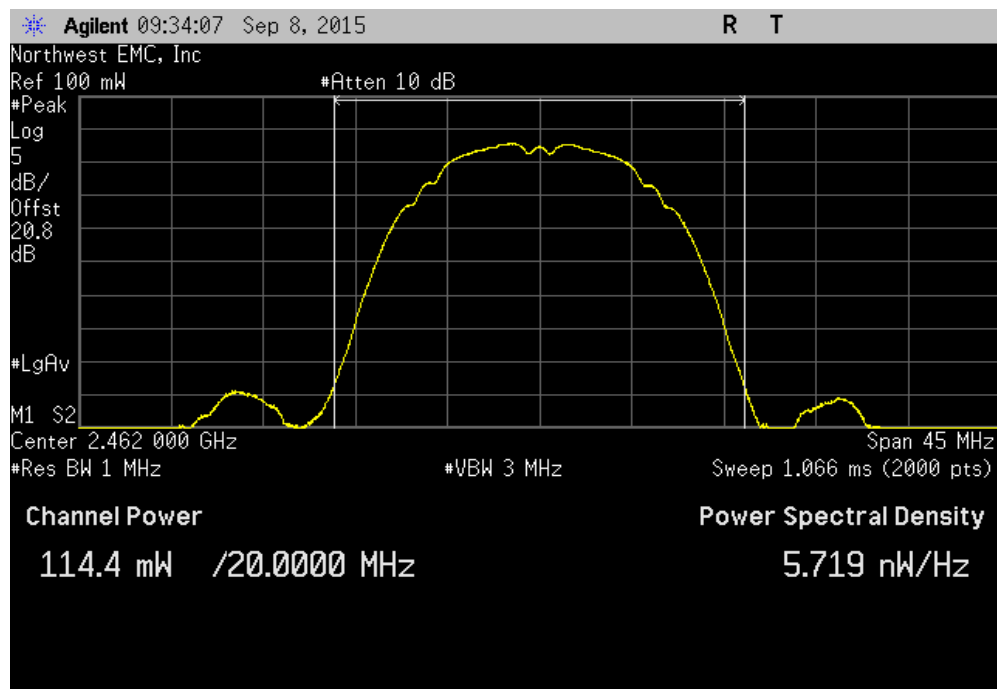
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz

Value	Limit (<)	Result
124.659 mW	1 W	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz

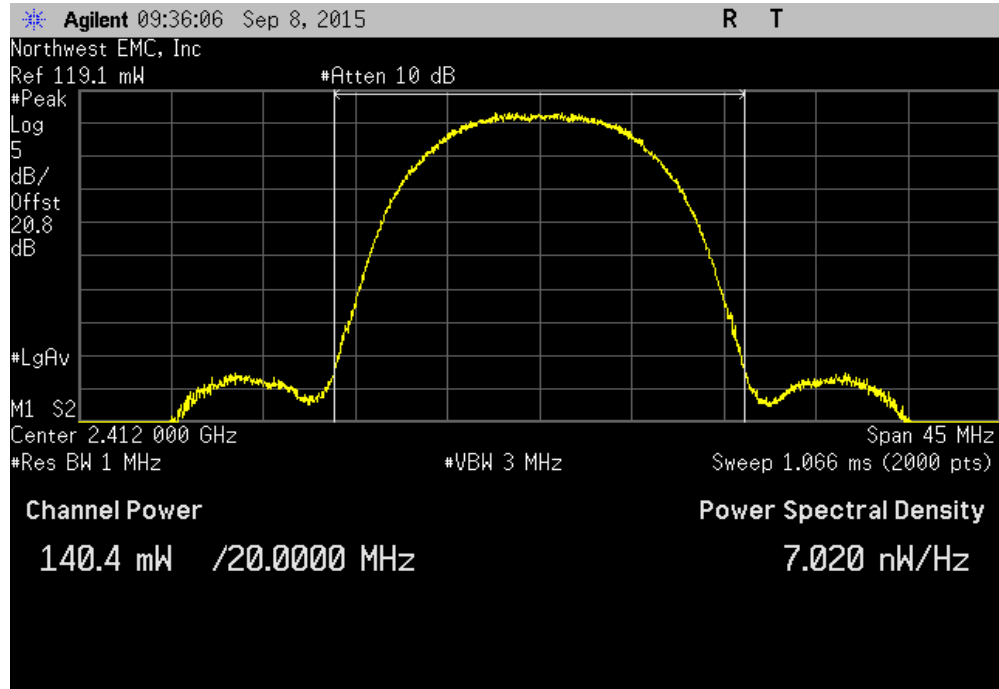
Value	Limit (<)	Result
114.381 mW	1 W	Pass



OUTPUT POWER

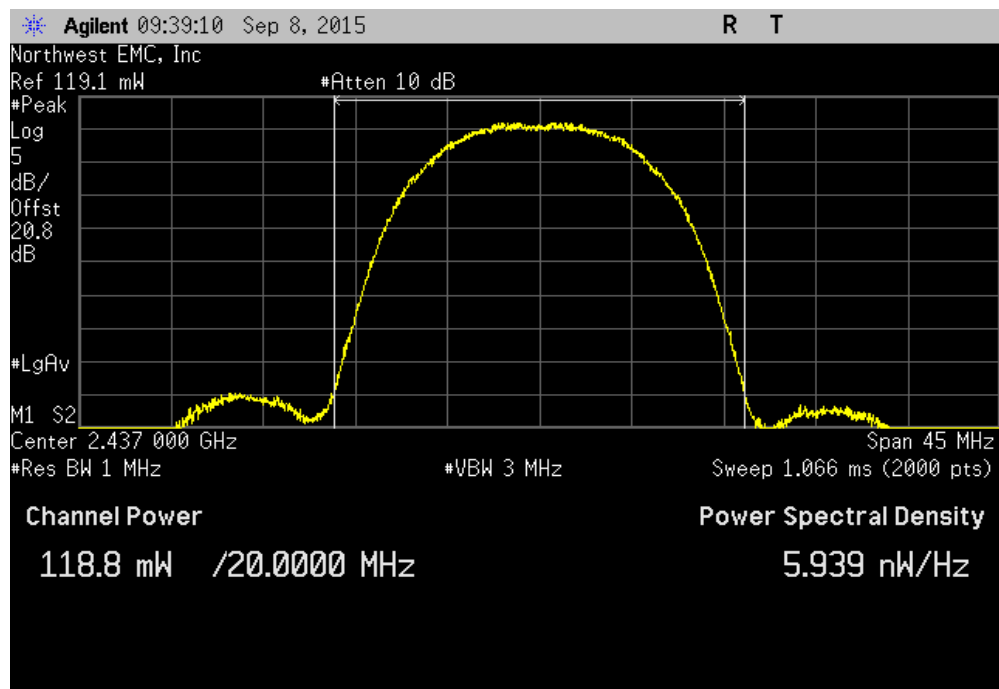
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz

	Value	Limit	Result
	140.409 mW	1 W	Pass



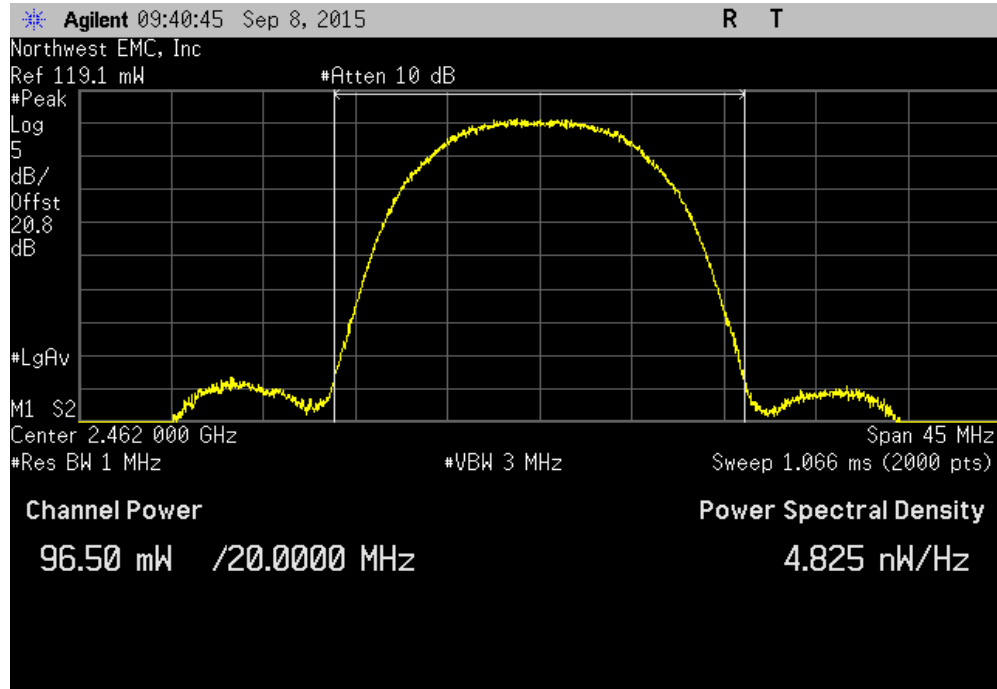
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz

	Value	Limit	Result
	118.789 mW	1 W	Pass

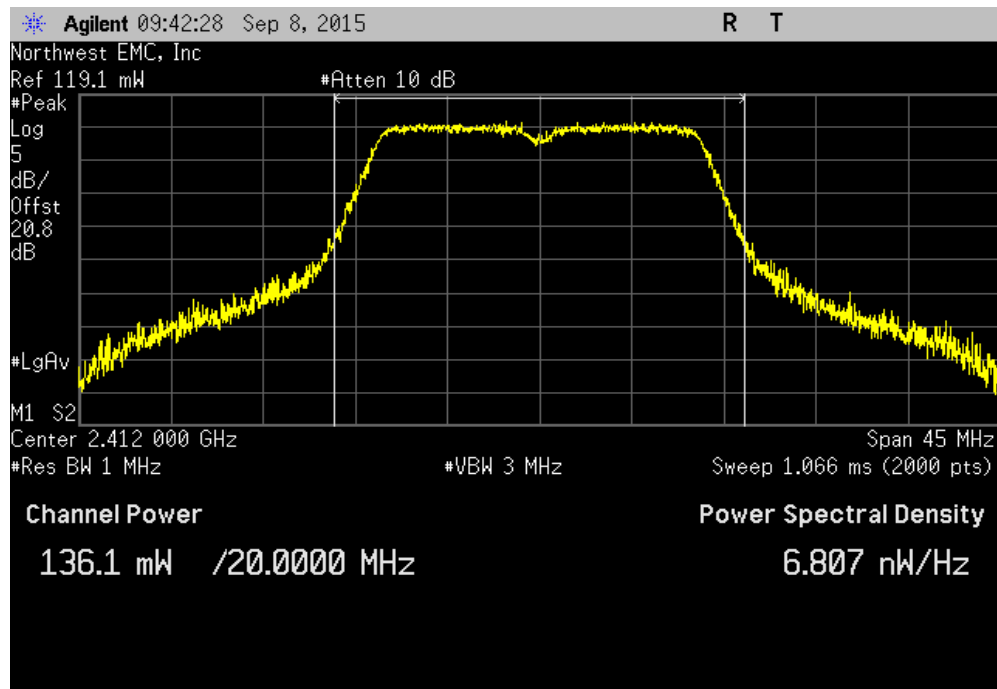


OUTPUT POWER

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
				Value	Limit	Result
				96.502 mW	1 W	Pass



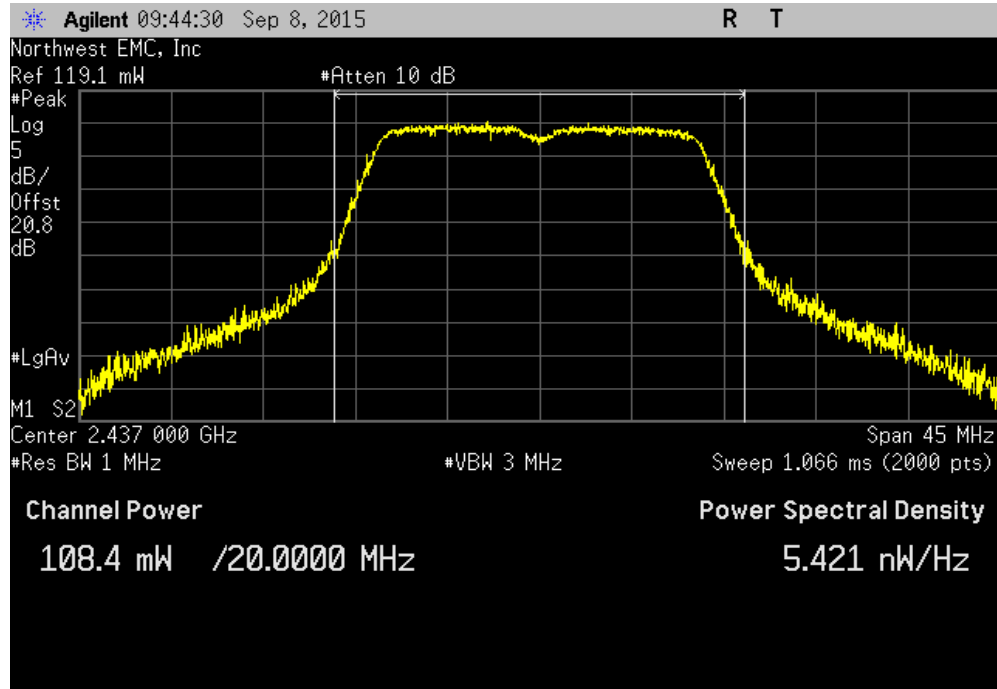
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit	Result
				136.14 mW	1 W	Pass



OUTPUT POWER

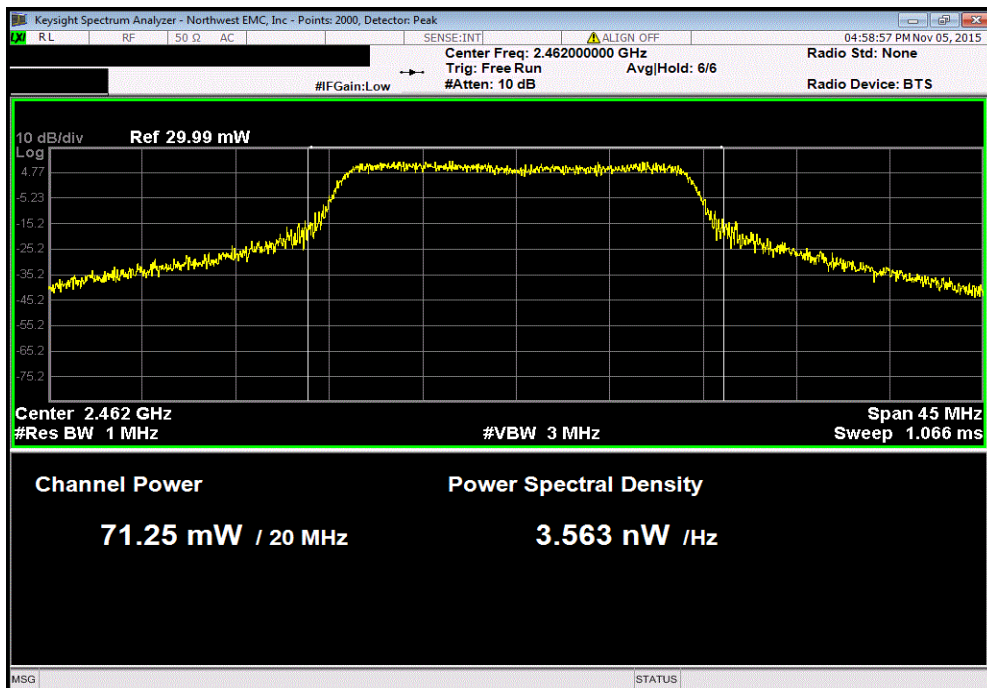
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz

Value	Limit	Result
108.428 mW	1 W	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz

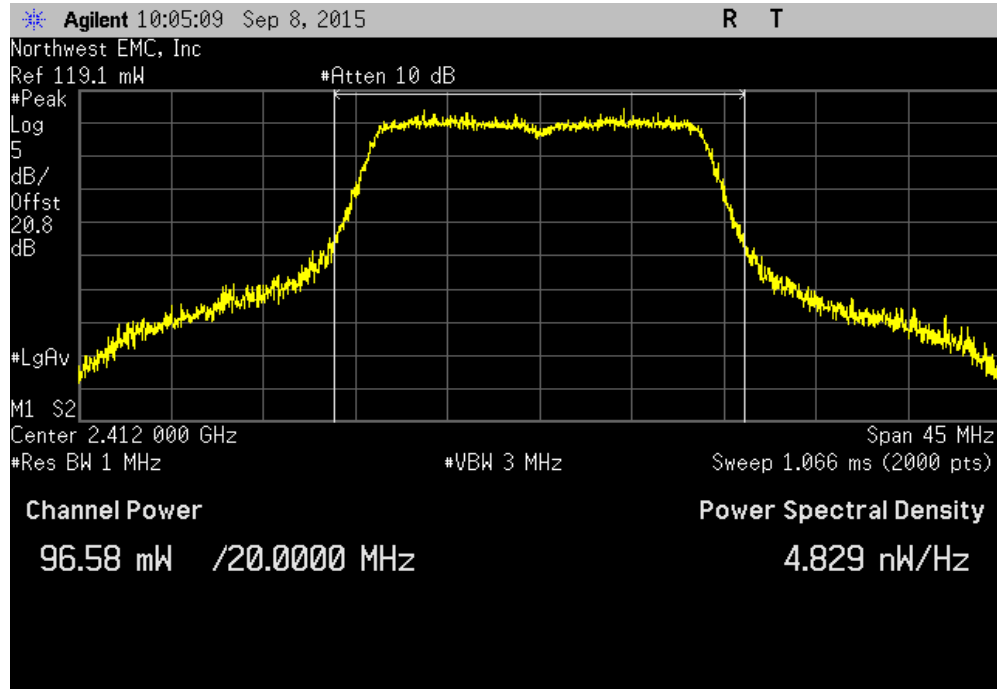
Value	Limit	Result
71.25 mW	1 W	Pass



OUTPUT POWER

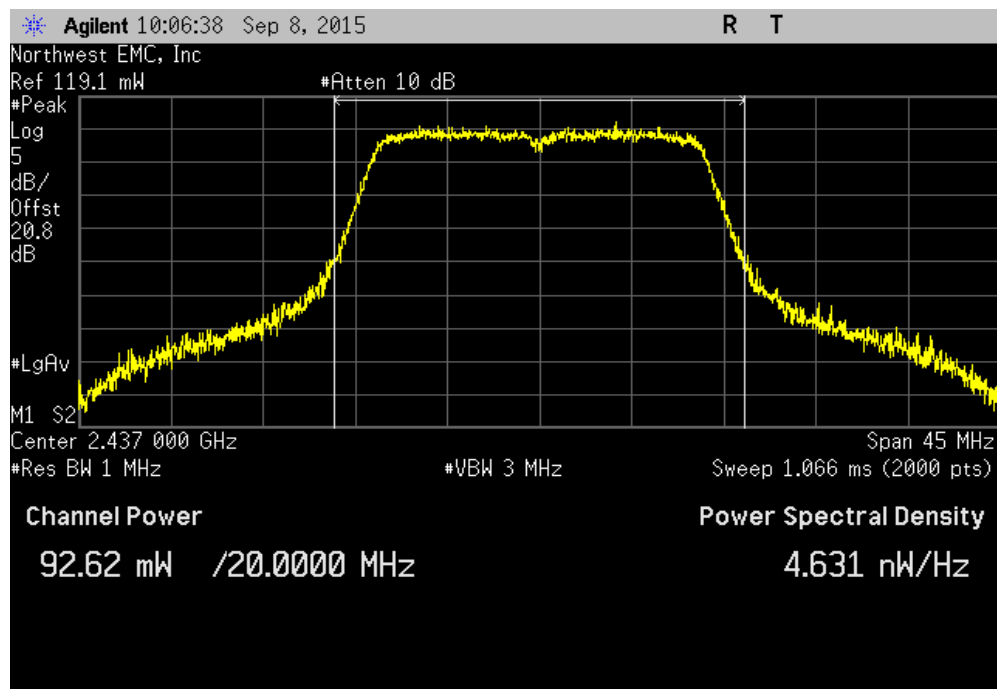
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz

	Value	Limit	Result
	96.58 mW	1 W	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz

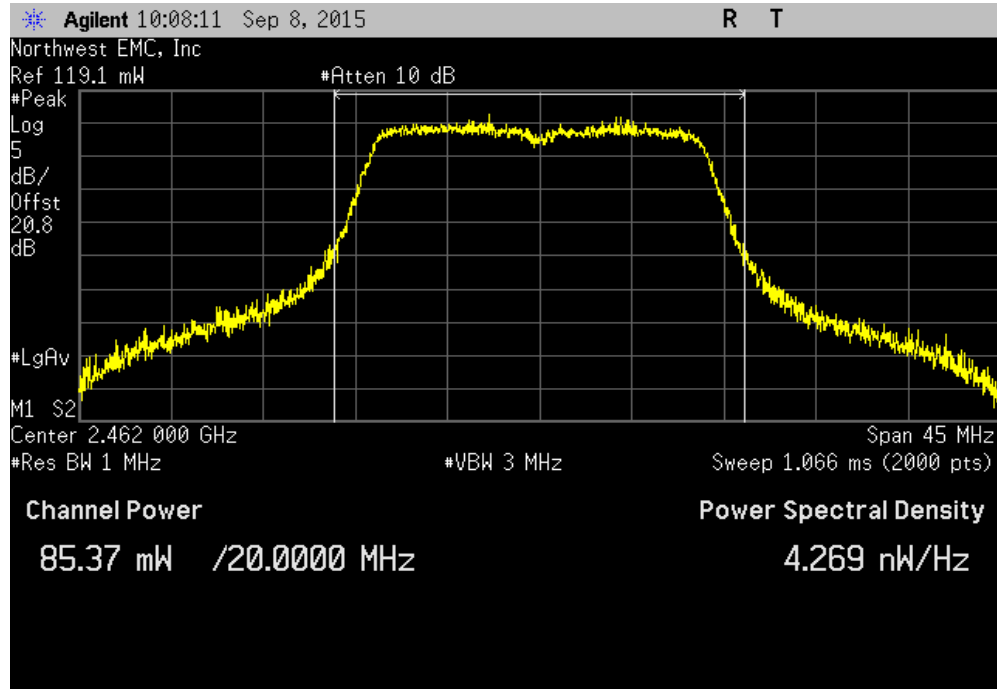
	Value	Limit	Result
	92.617 mW	1 W	Pass



OUTPUT POWER

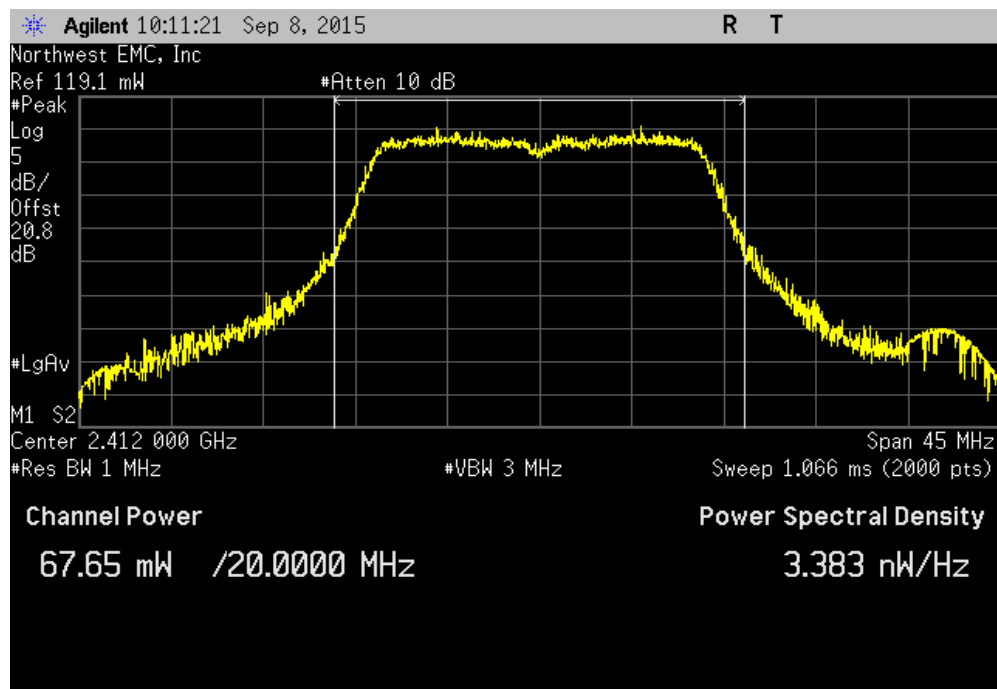
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

				Value	Limit	Result
				(<)		
				85.372 mW	1 W	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

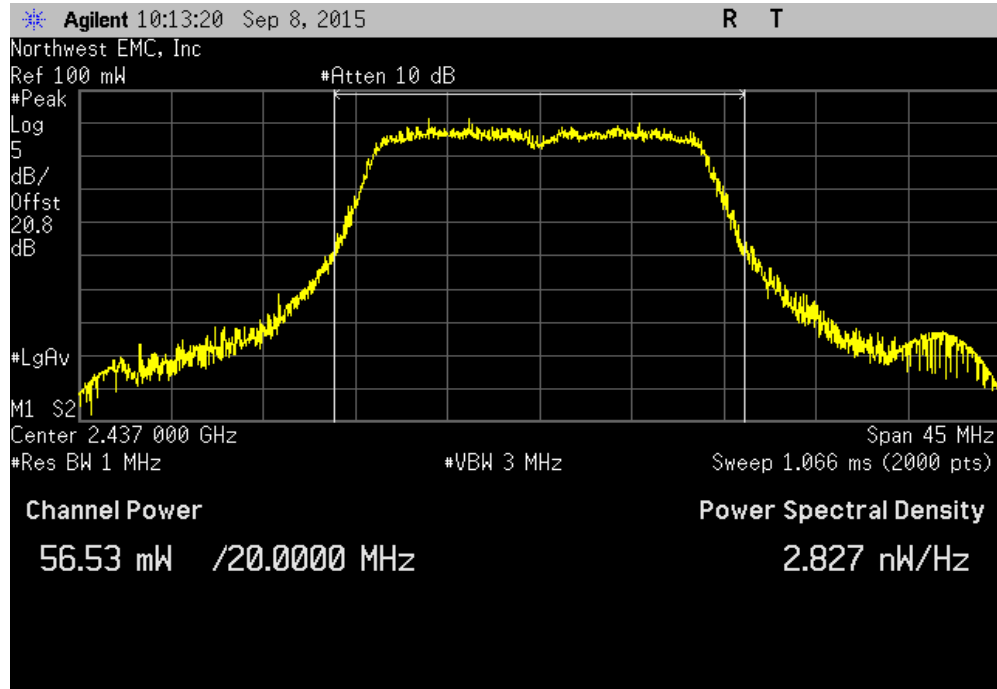
				Value	Limit	Result
				(<)		
				67.651 mW	1 W	Pass



OUTPUT POWER

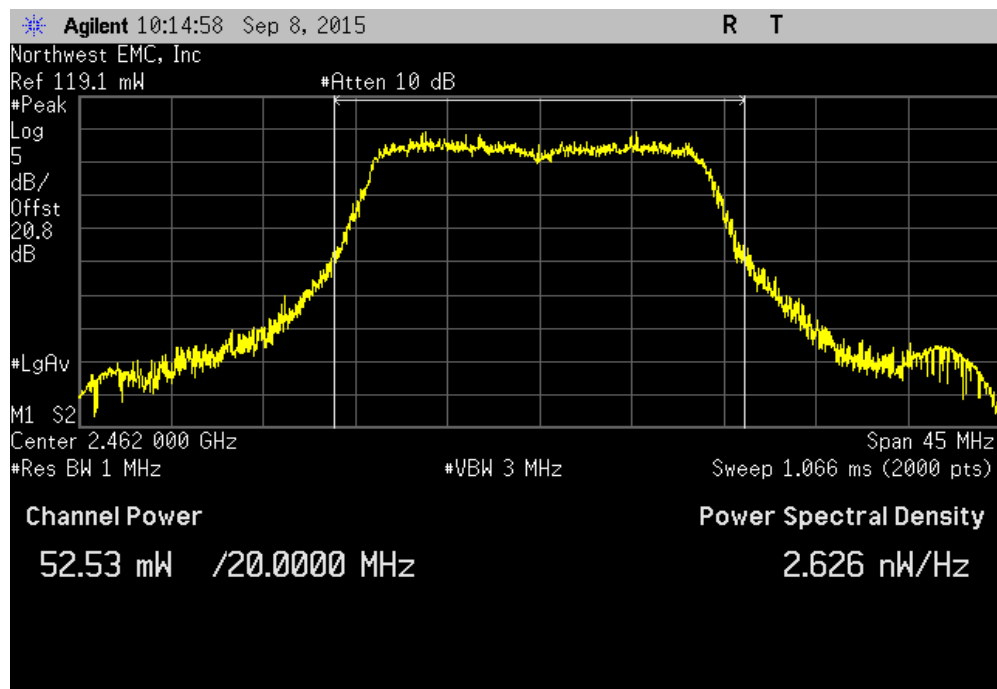
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz

	Value	Limit	Result
	56.533 mW	1 W	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

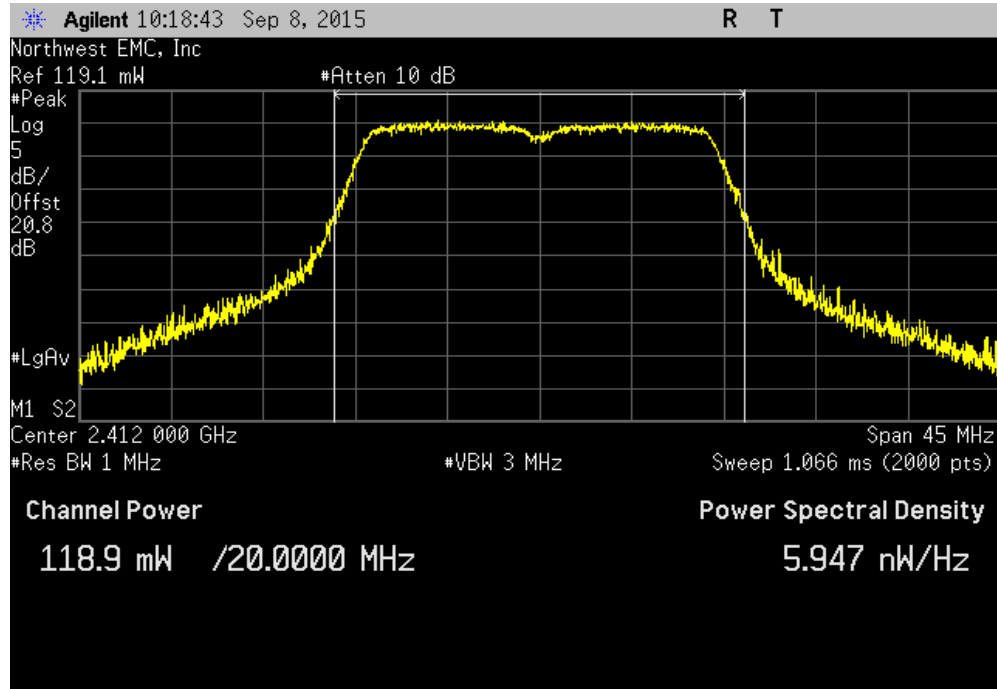
	Value	Limit	Result
	52.528 mW	1 W	Pass



OUTPUT POWER

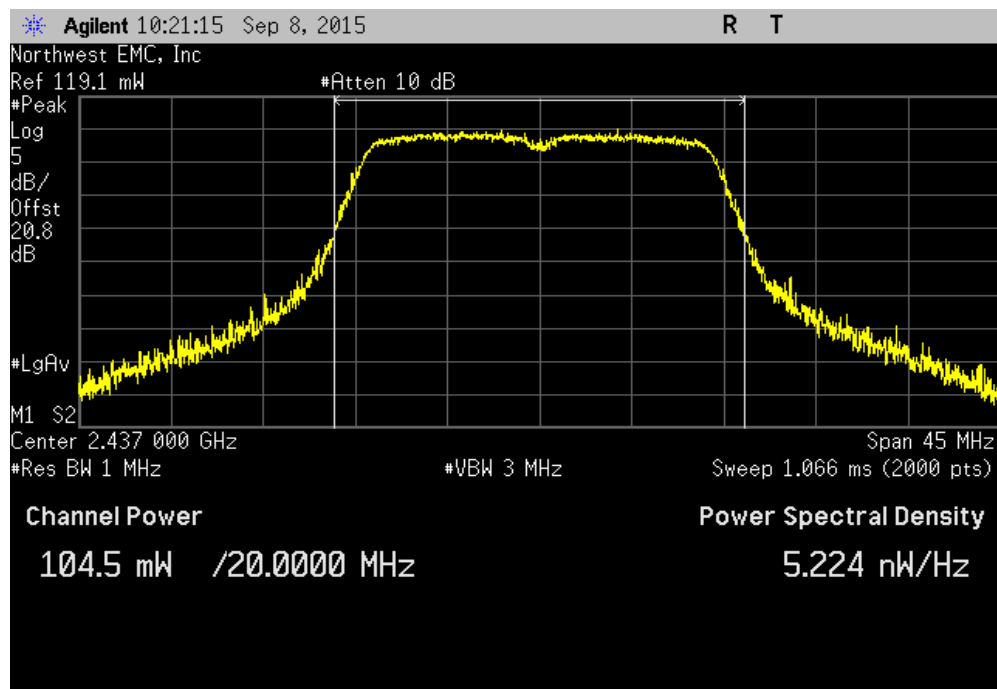
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz

	Value	Limit ($\leq$)	Result
	118.936 mW	1 W	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz

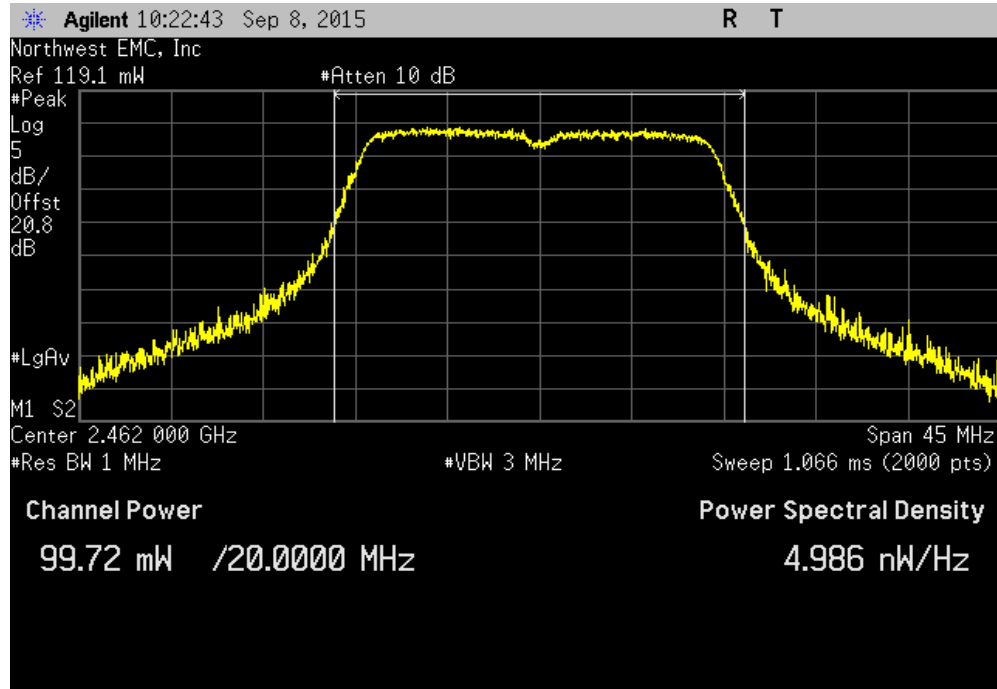
	Value	Limit ($\leq$)	Result
	104.49 mW	1 W	Pass



OUTPUT POWER

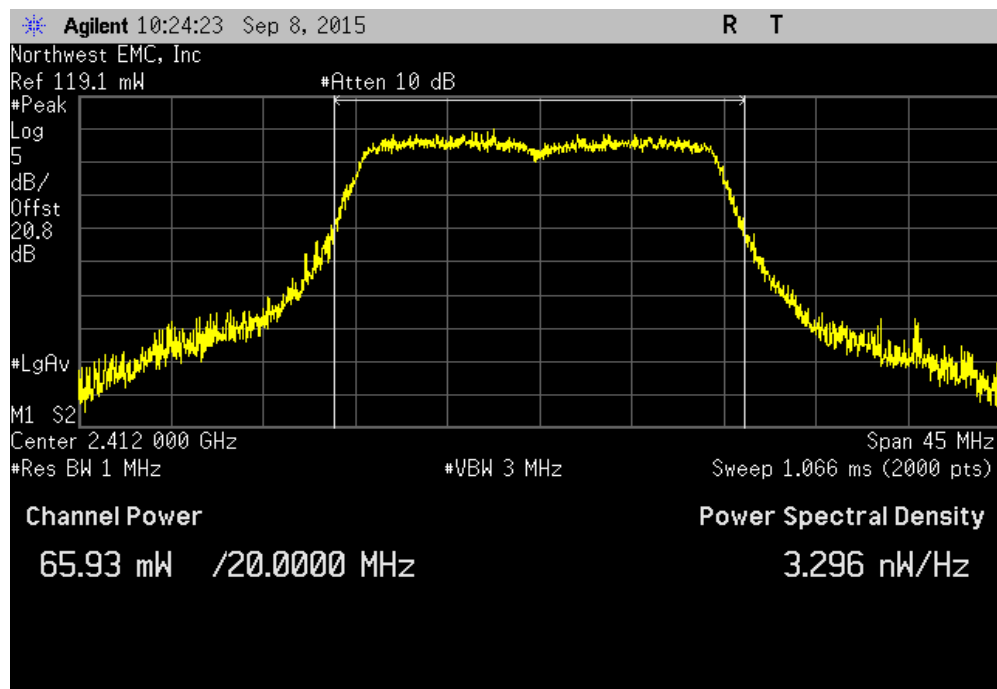
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz

	Value	Limit	Result
	99.717 mW	1 W	Pass



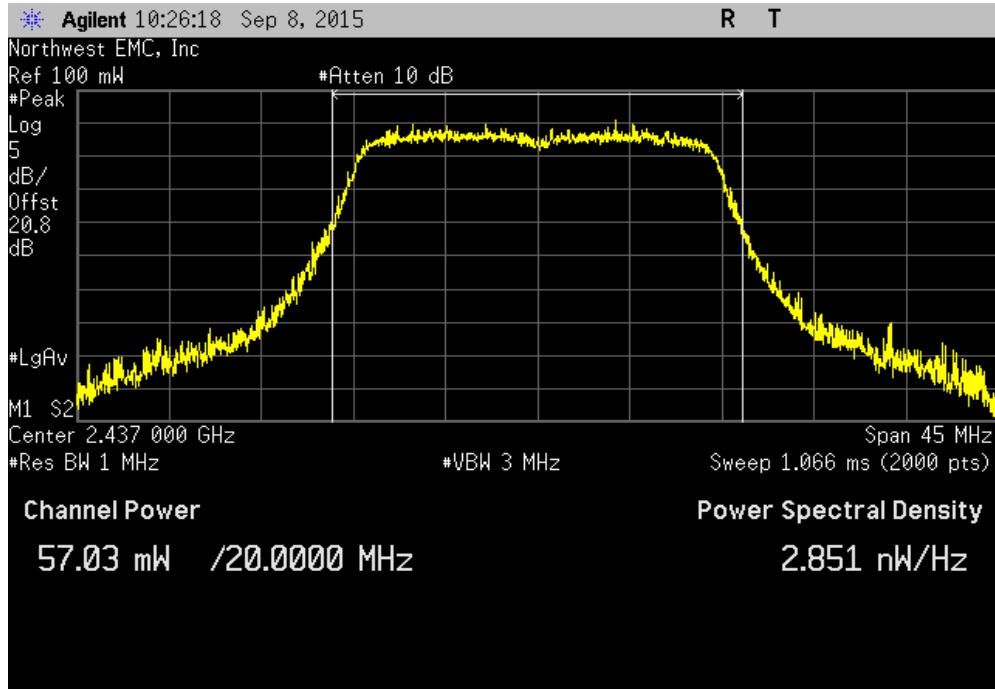
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz

	Value	Limit	Result
	65.925 mW	1 W	Pass

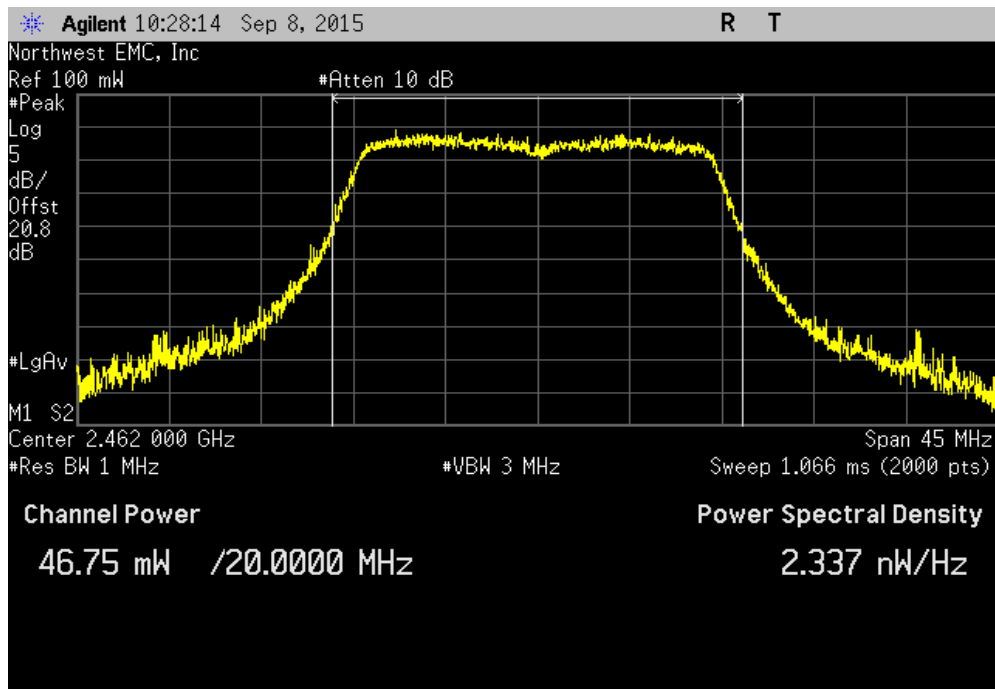


OUTPUT POWER

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
				Value	Limit	Result
				(<)		
				57.027 mW	1 W	Pass



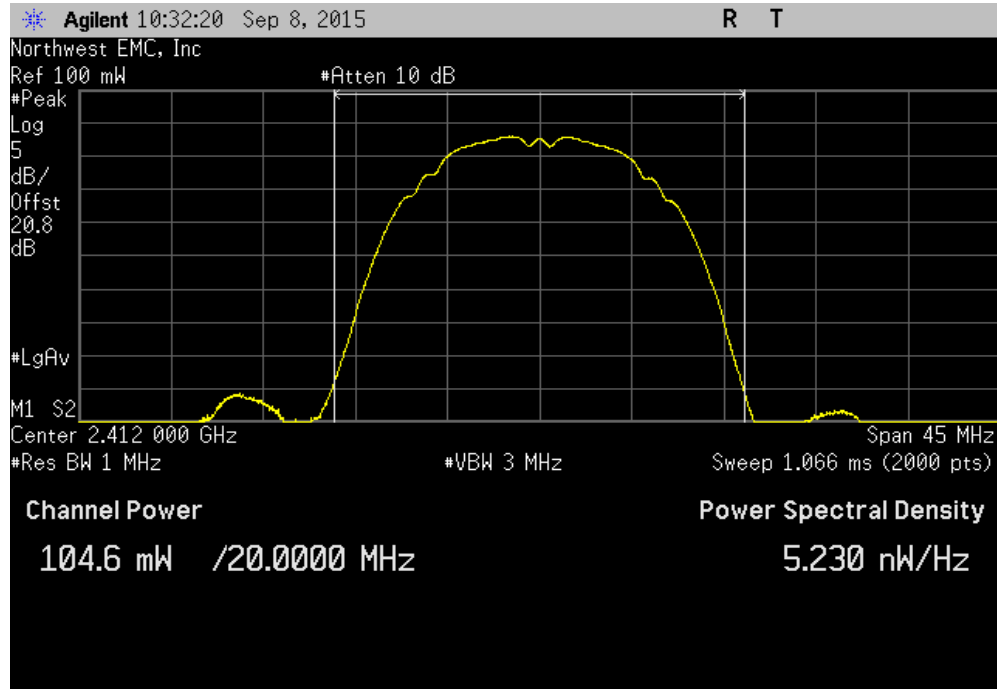
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz						
				Value	Limit	Result
				(<)		
				46.748 mW	1 W	Pass



OUTPUT POWER

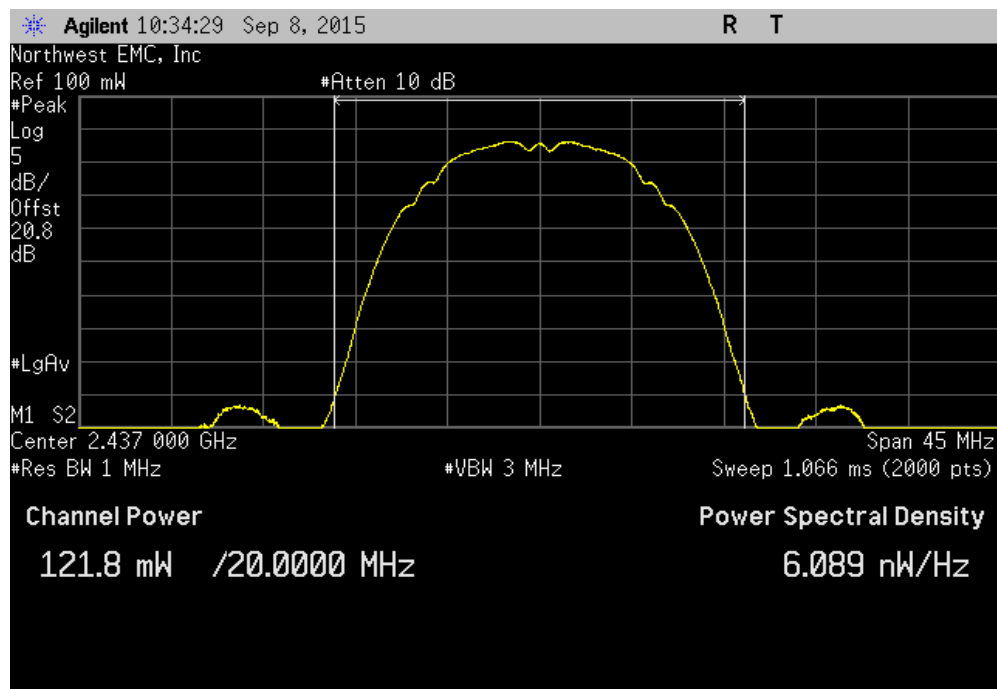
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

	Value	Limit (<)	Result
	104.598 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz

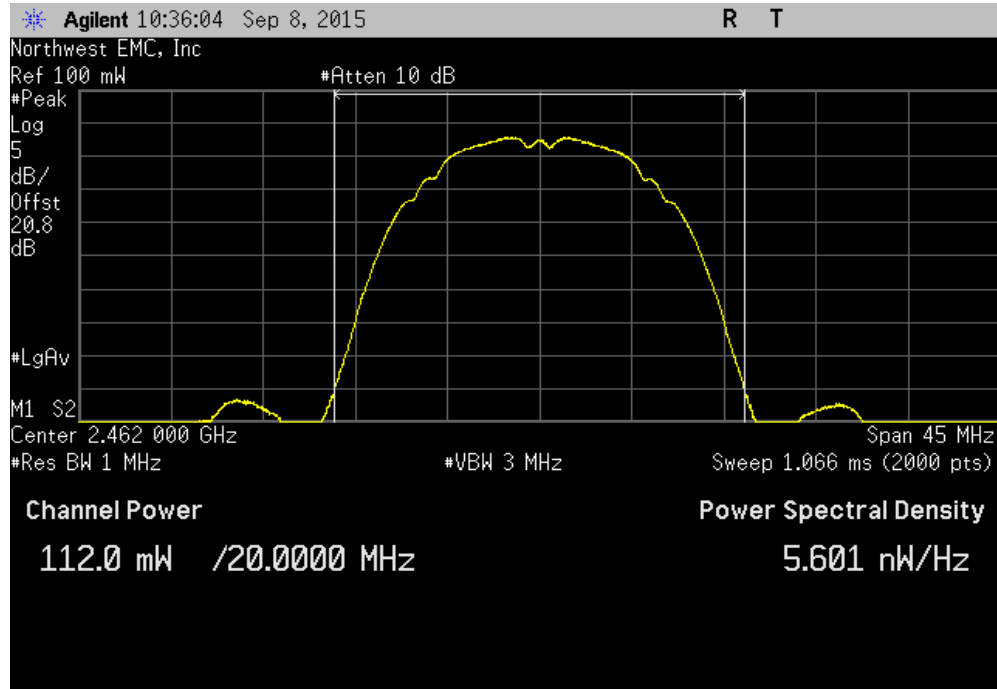
	Value	Limit (<)	Result
	121.775 mW	1 W	Pass



OUTPUT POWER

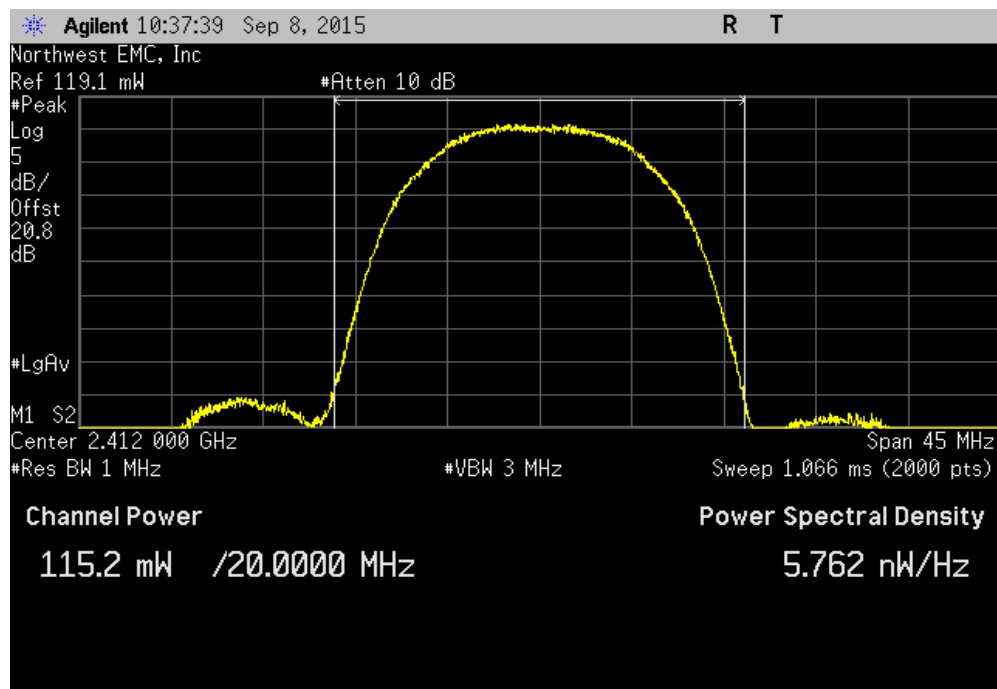
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz

	Value	Limit	Result
	112.018 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz

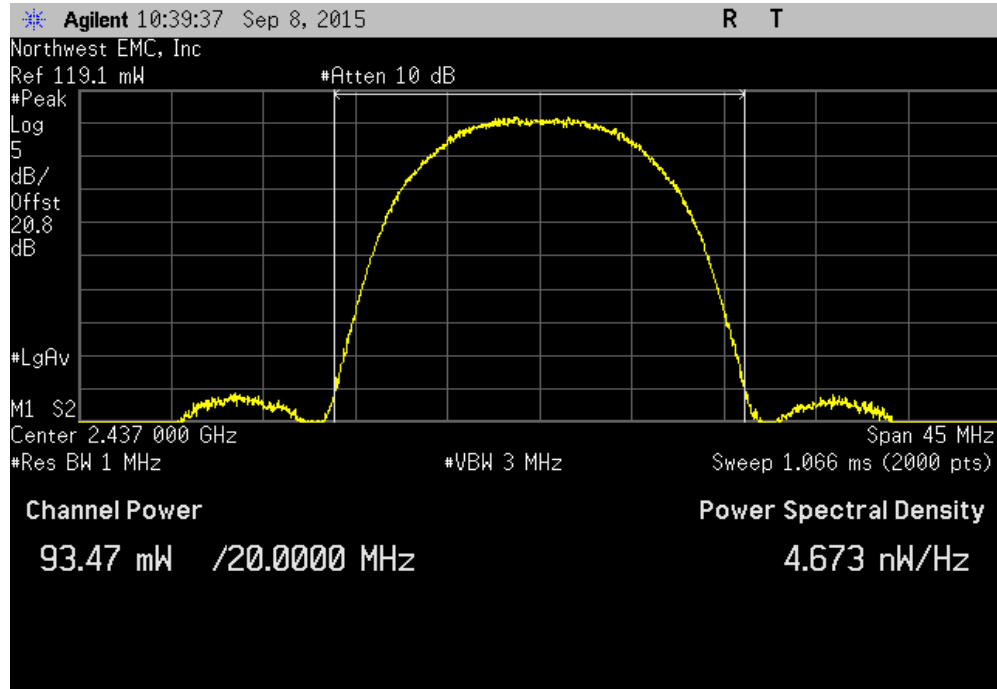
	Value	Limit	Result
	115.24 mW	1 W	Pass



OUTPUT POWER

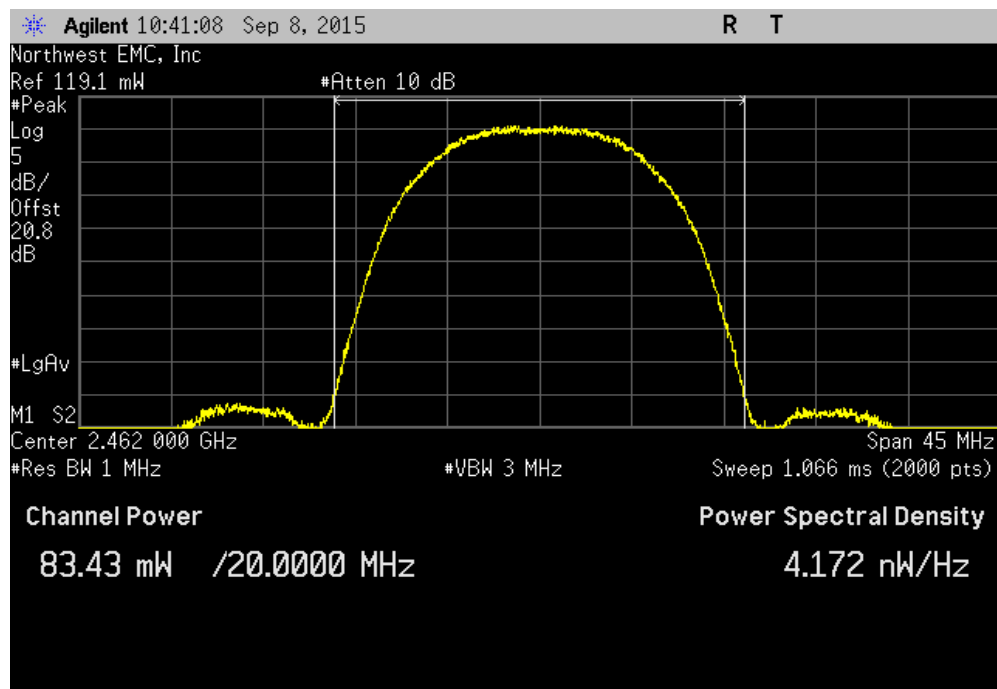
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz

	Value	Limit	Result
	93.465 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

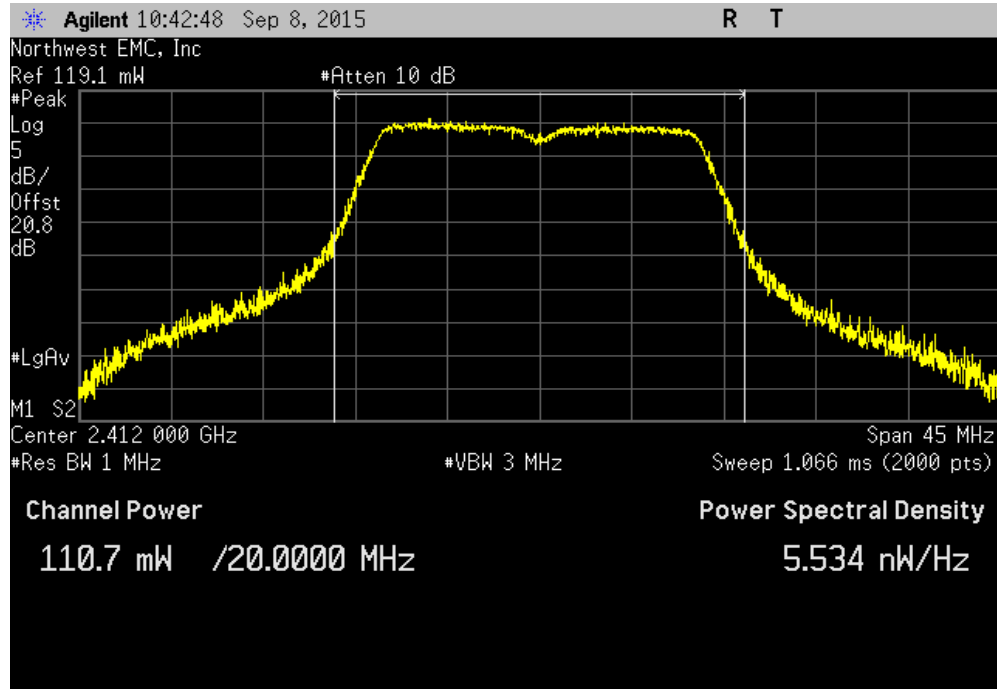
	Value	Limit	Result
	83.43 mW	1 W	Pass



OUTPUT POWER

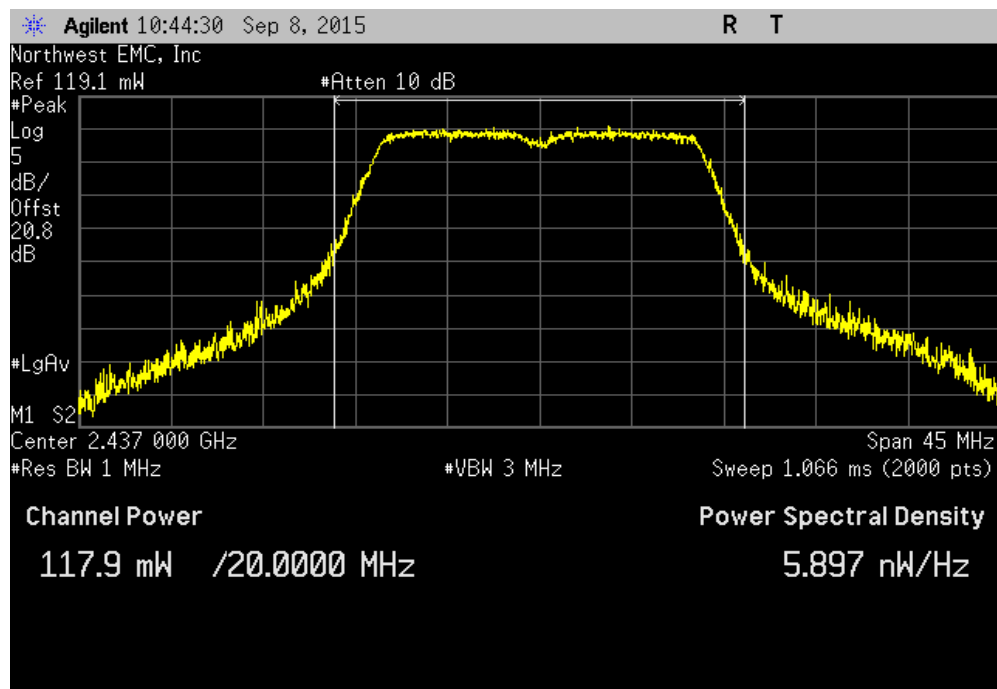
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

	Value	Limit (<)	Result
	110.678 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz

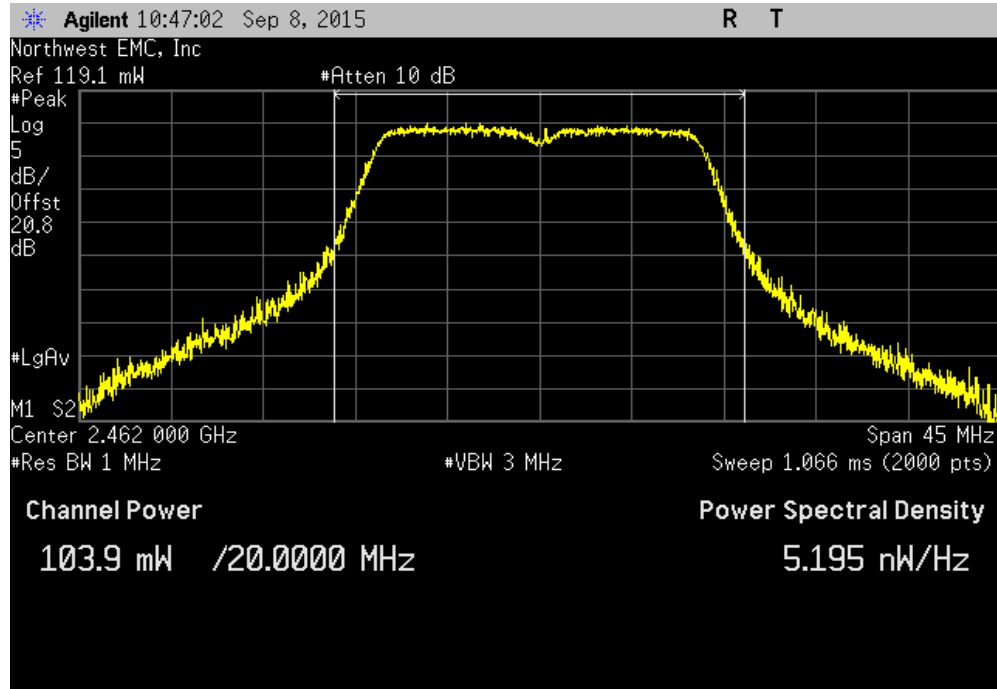
	Value	Limit (<)	Result
	117.94 mW	1 W	Pass



OUTPUT POWER

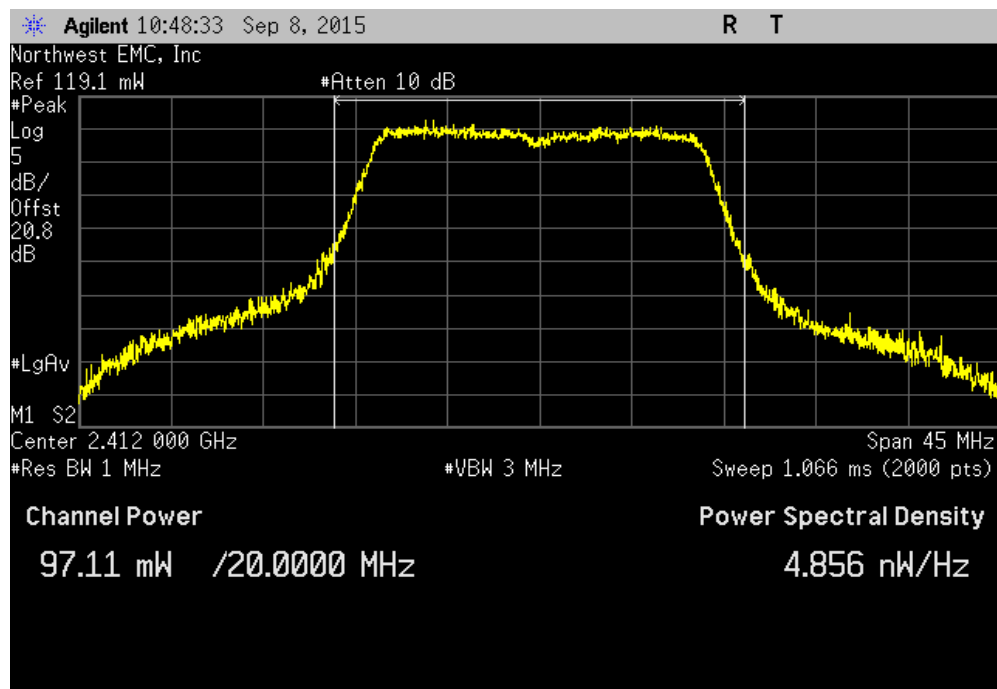
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz

	Value	Limit (<)	Result
	103.908 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz

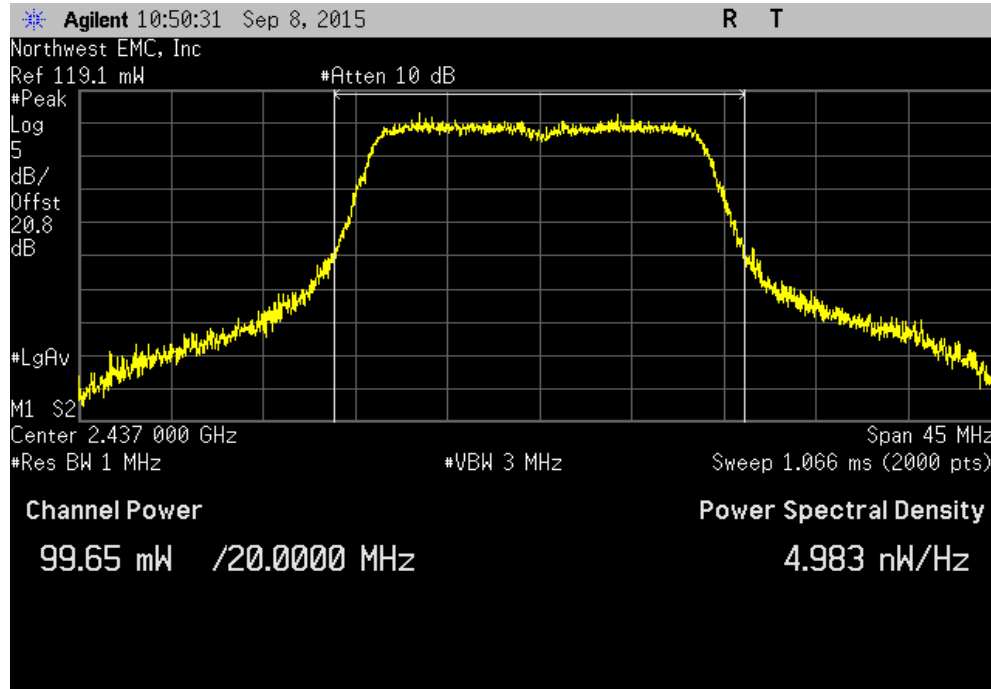
	Value	Limit (<)	Result
	97.115 mW	1 W	Pass



OUTPUT POWER

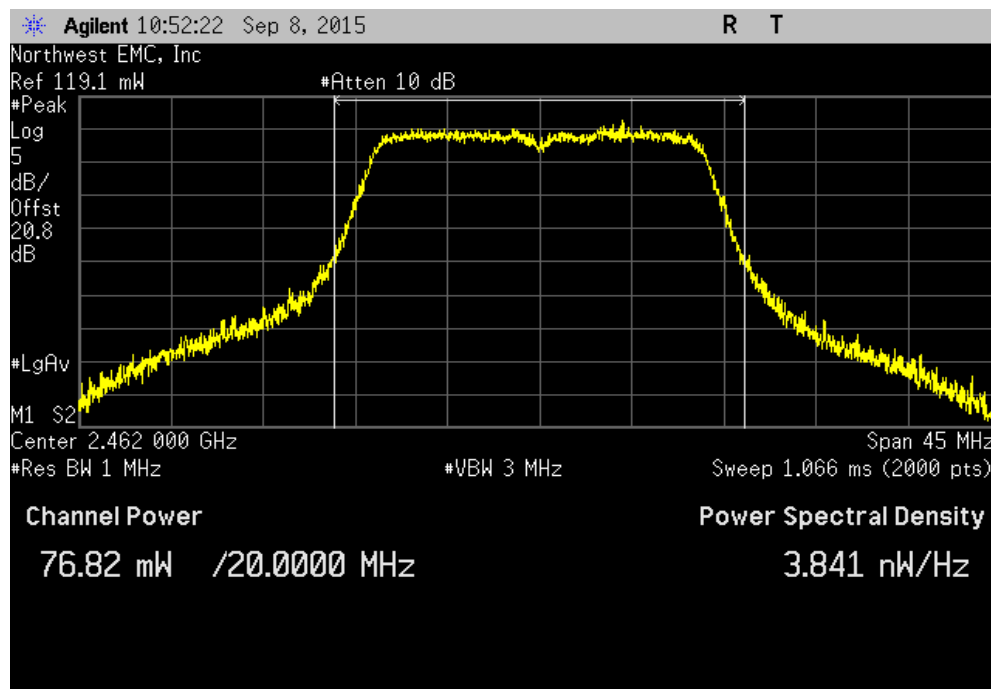
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz

	Value	Limit	Result
	99.655 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

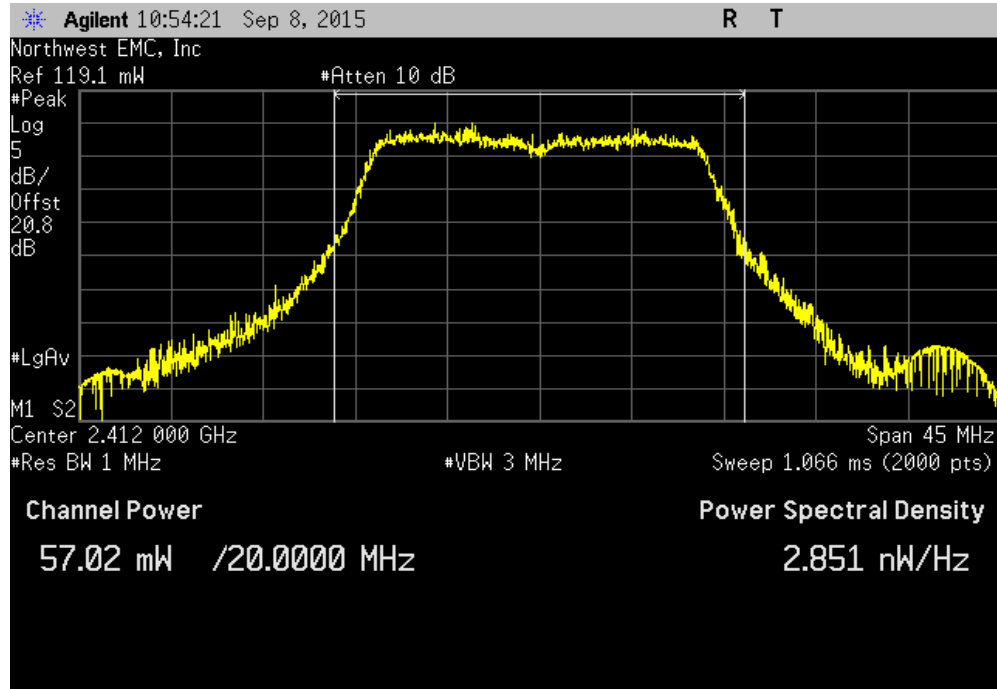
	Value	Limit	Result
	76.816 mW	1 W	Pass



OUTPUT POWER

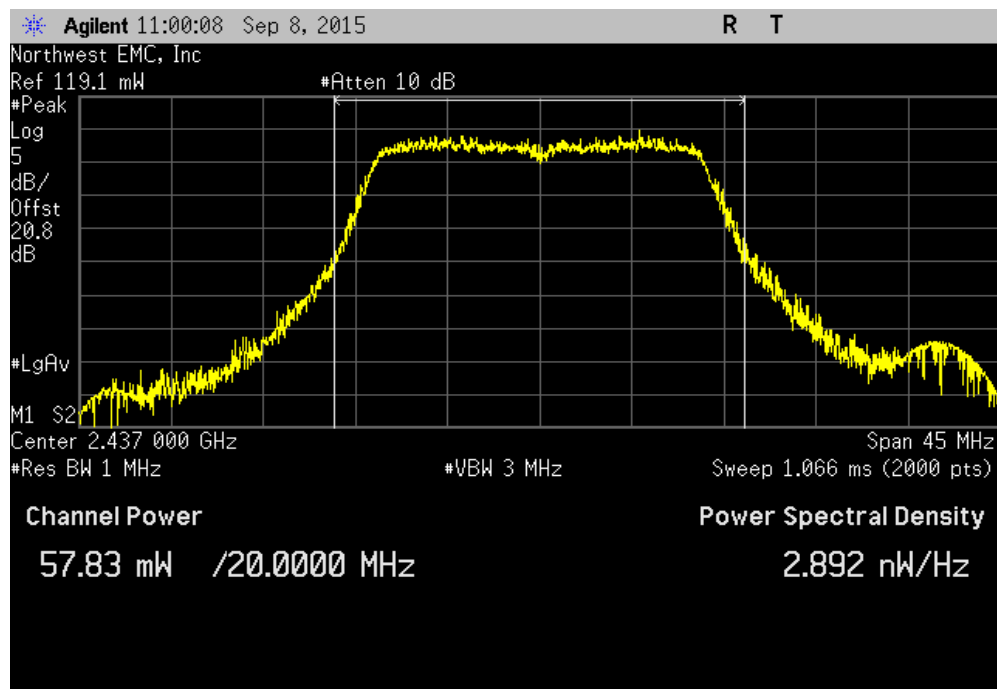
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

	Value	Limit	Result
	57.019 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz

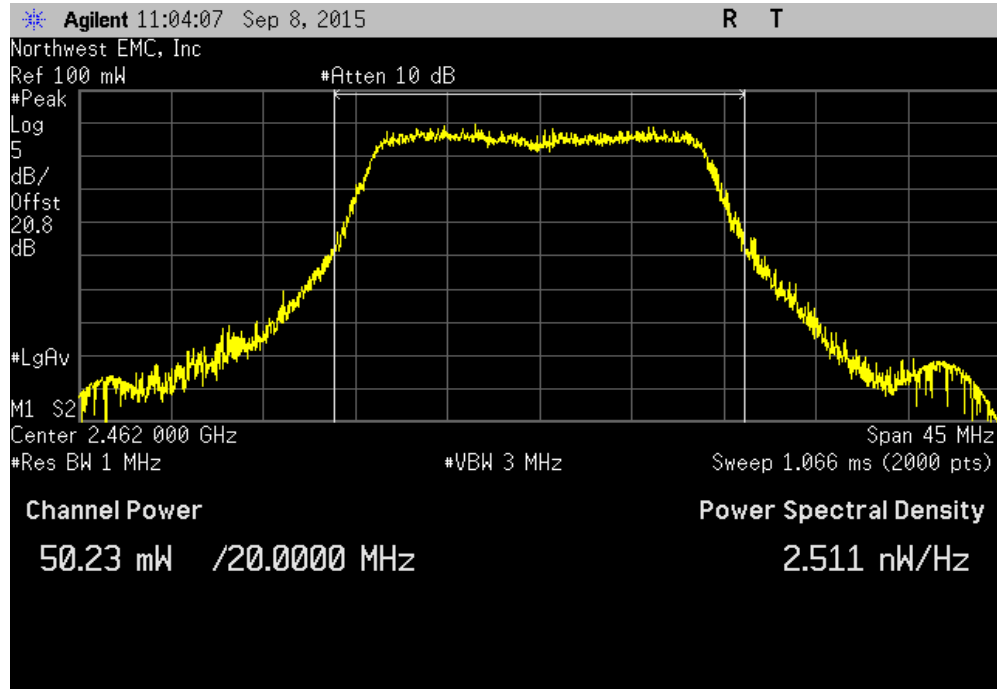
	Value	Limit	Result
	57.832 mW	1 W	Pass



OUTPUT POWER

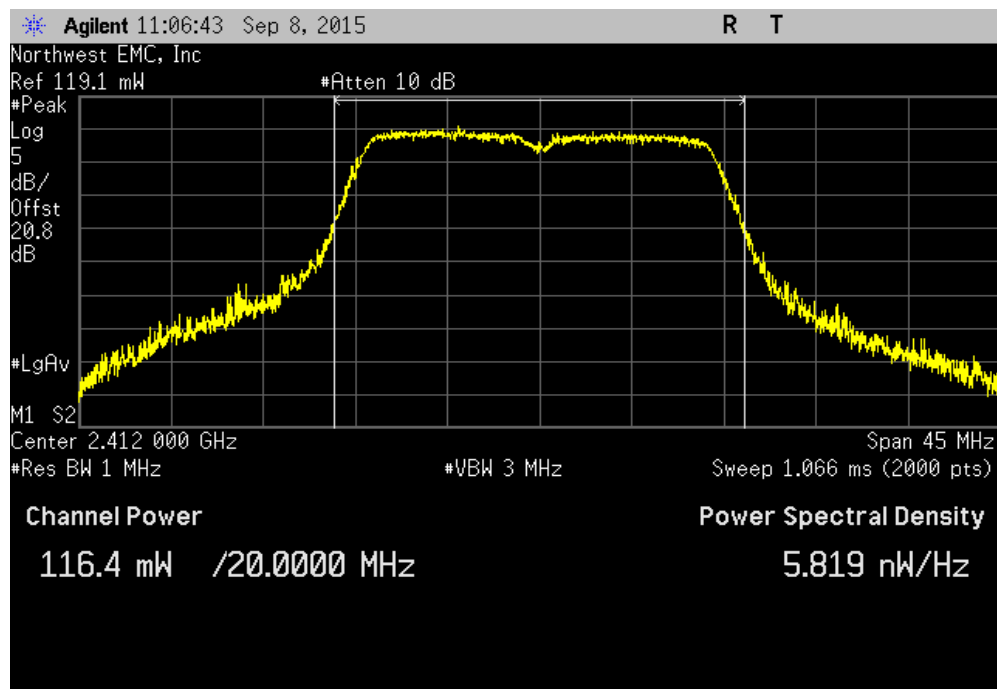
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

	Value	Limit ($\leq$)	Result
	50.227 mW	1 W	Pass



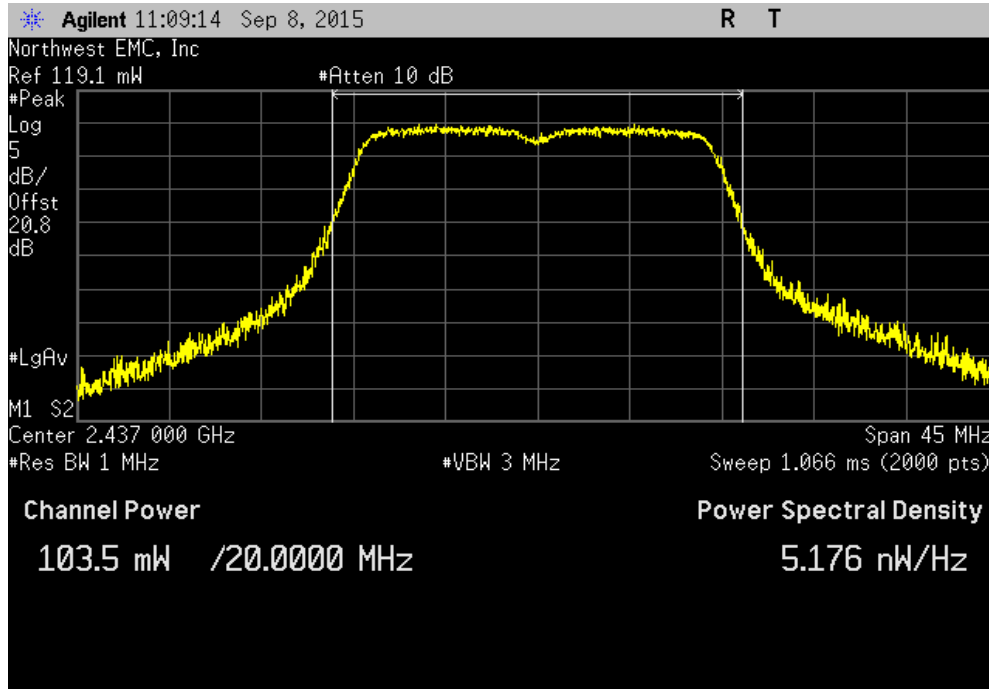
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz

	Value	Limit ($\leq$)	Result
	116.377 mW	1 W	Pass

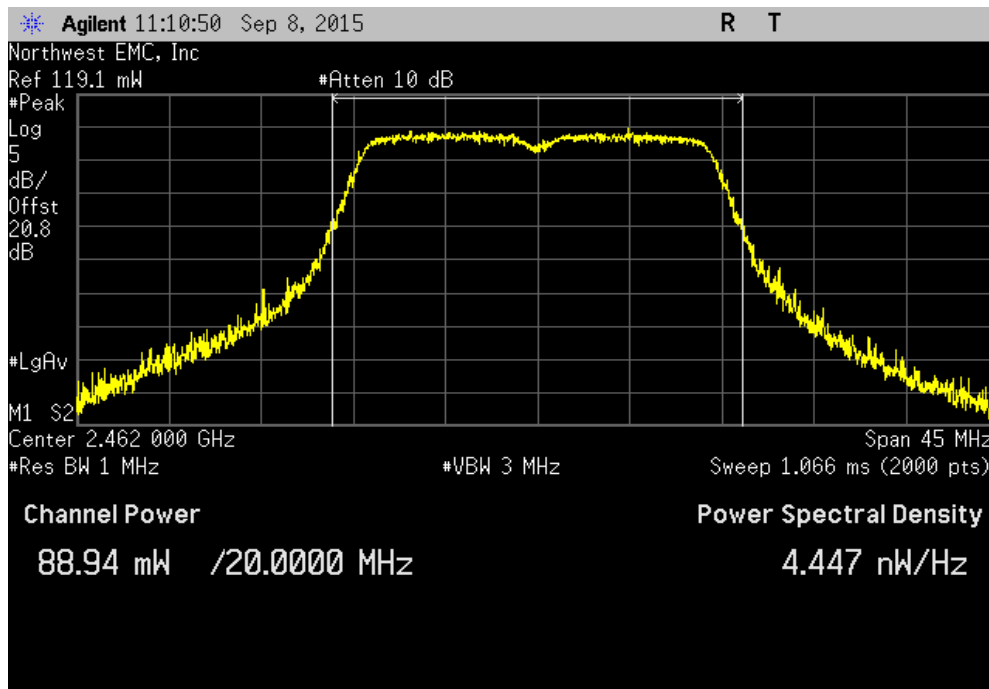


OUTPUT POWER

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
				Value	Limit (<)	Result
				103.516 mW	1 W	Pass



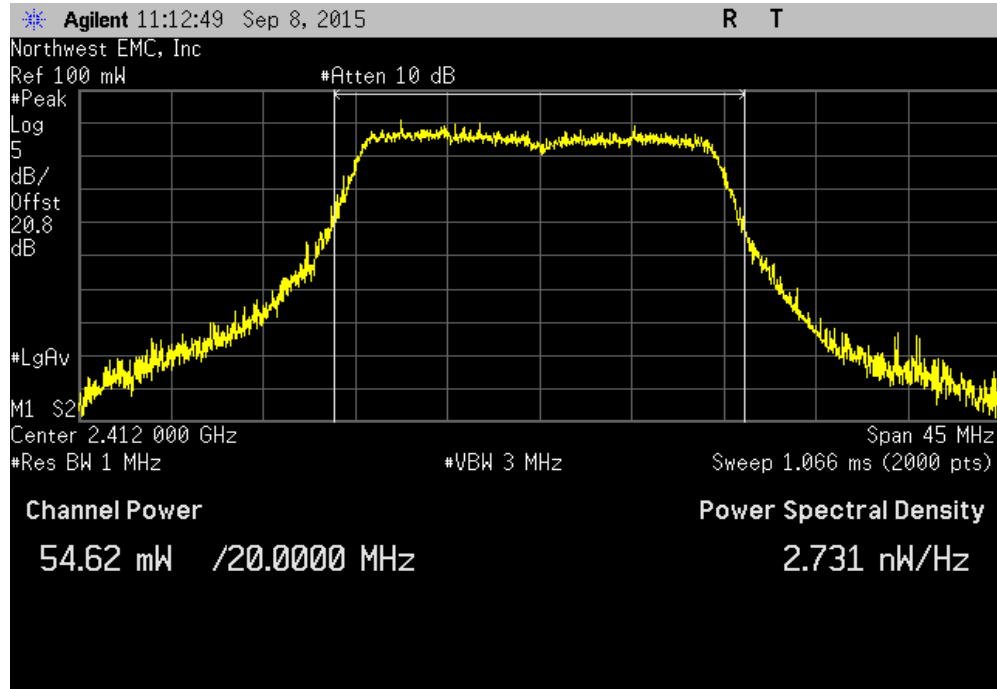
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz						
				Value	Limit (<)	Result
				88.94 mW	1 W	Pass



OUTPUT POWER

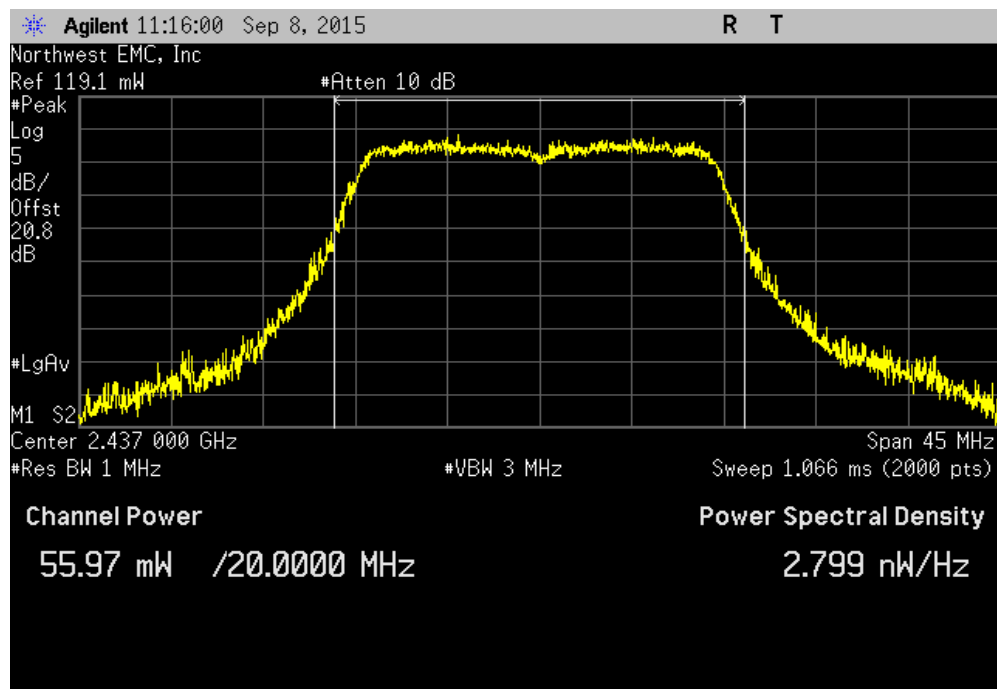
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz

	Value	Limit (<)	Result
	54.615 mW	1 W	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz

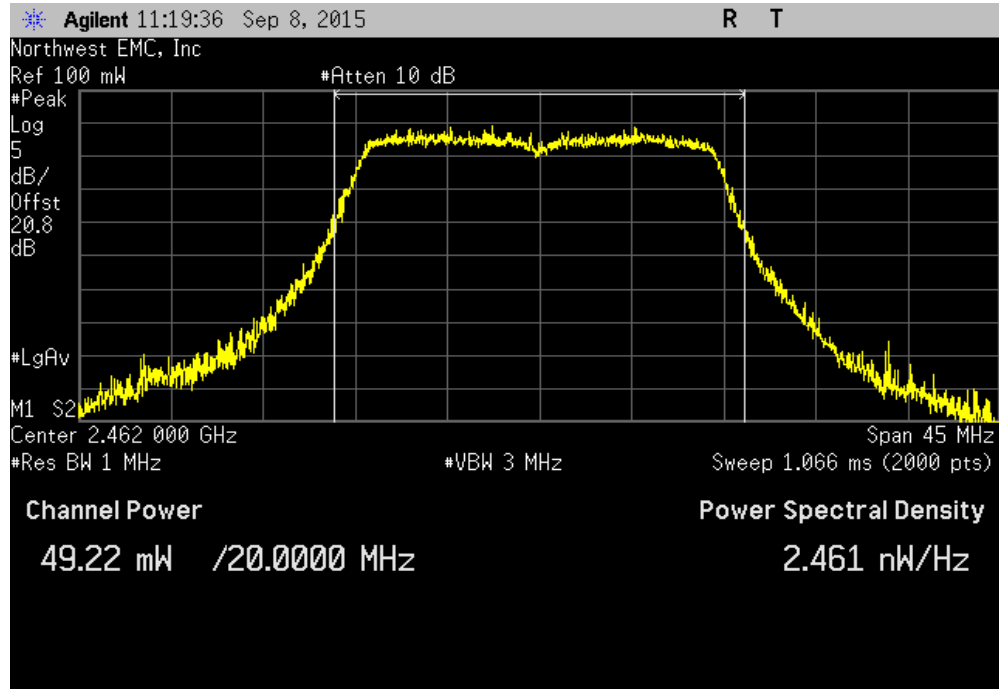
	Value	Limit (<)	Result
	55.973 mW	1 W	Pass



OUTPUT POWER

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz

			Value	Limit	Result
			(<)		
			49.218 mW	1 W	Pass



POWER SPECTRAL DENSITY

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Attenuator	Fairview Microwave	SA4018-20	TQY	2/27/2015	12
Block - DC	Fairview Microwave	SD3379	AMM	2/27/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	7/23/2015	12
Generator - Signal	Agilent	N5173B	TIW	7/15/2014	36

TEST DESCRIPTION

The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. External 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.

Per the procedure outlined in ANSI C63.10:2013 Section 11.10.2, the peak power spectral density was measured in a 100 kHz RBW.

The observed power level is then scaled to an equivalent value in 3 kHz by adding a Bandwidth Correction Factor (BWCF) where:

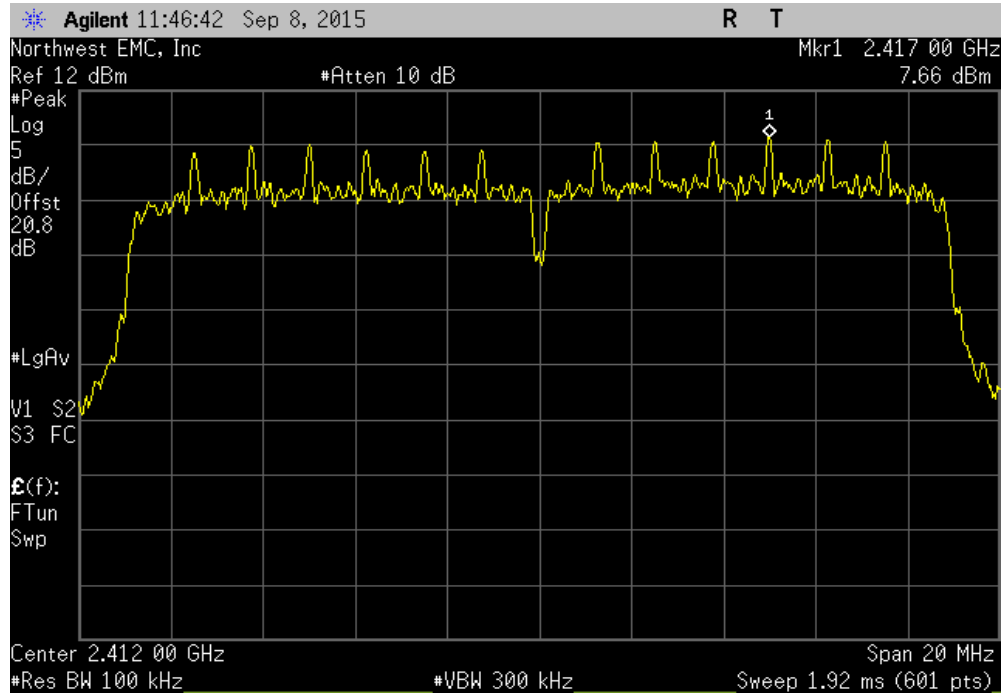
$$\text{BWCF} = 10 \cdot \log(3 \text{ kHz} / 100 \text{ kHz}) = -15.2 \text{ dB}$$

POWER SPECTRAL DENSITY

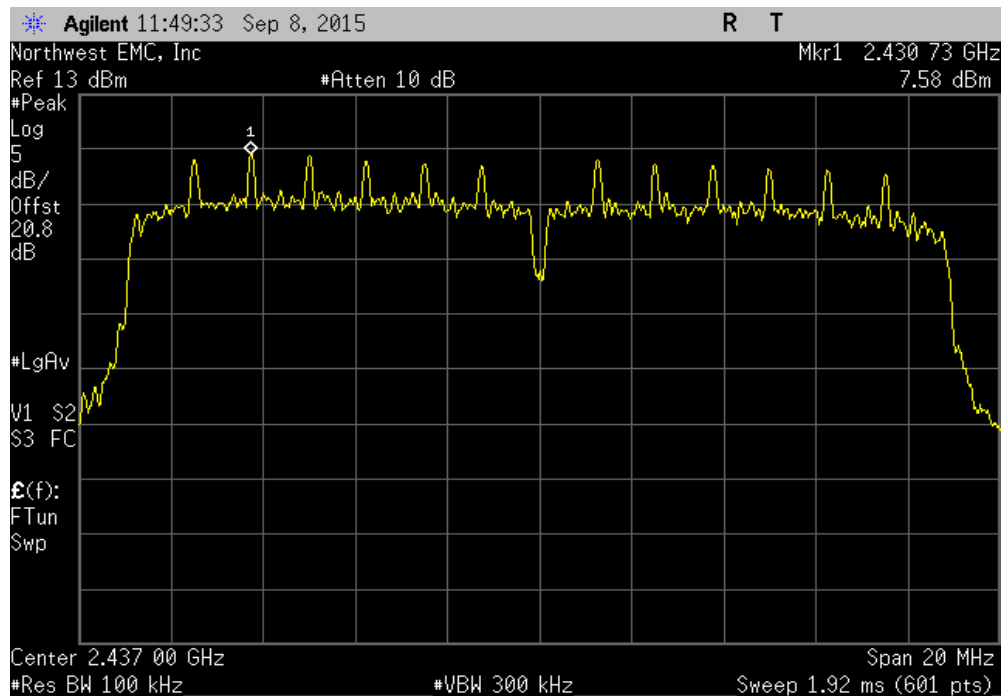
EUT: Firebox T50-W (BS5AE7W)		Work Order: VDEI0009				
Serial Number: 70AF02717-B385		Date: 09/08/15				
Customer: WatchGuard Technologies, Inc.		Temperature: 24.2°C				
Attendees: None		Humidity: 44%				
Project: None		Barometric Pres.: 1015 mbar				
Tested by: Jonathan Kiefer		Power: 110VAC/60Hz				
Job Site: TX09						
TEST SPECIFICATIONS		Test Method				
FCC 15.247:2015		ANSI C63.10:2013				
COMMENTS						
2x2 MIMO mode, Chain AB (Chains 0 and 1).						
DEVIATIONS FROM TEST STANDARD						
None						
Configuration #	5	Signature <i>Jonathan Kiefer</i>				
		Value	dBm/100kHz	Value	Limit	
			To dBm/3kHz			Results
Chain A						
	20 MHz					
	2400 MHz - 2483.5 MHz Band					
	802.11(n) MCS8					
	Low Channel 1, 2412 MHz	7.657	-15.2	-7.543	8	Pass
	Mid Channel 6, 2437 MHz	7.581	-15.2	-7.619	8	Pass
	High Channel 11, 2462 MHz	7.483	-15.2	-7.717	8	Pass
	802.11(n) MCS15					
	Low Channel 1, 2412 MHz	4.321	-15.2	-10.879	8	Pass
	Mid Channel 6, 2437 MHz	4.177	-15.2	-11.023	8	Pass
	High Channel 11, 2462 MHz	4.091	-15.2	-11.109	8	Pass
Chain B						
	20 MHz					
	2400 MHz - 2483.5 MHz Band					
	802.11(n) MCS8					
	Low Channel 1, 2412 MHz	9.293	-15.2	-5.907	8	Pass
	Mid Channel 6, 2437 MHz	8.325	-15.2	-6.875	8	Pass
	High Channel 11, 2462 MHz	8.267	-15.2	-6.933	8	Pass
	802.11(n) MCS15					
	Low Channel 1, 2412 MHz	6.151	-15.2	-9.049	8	Pass
	Mid Channel 6, 2437 MHz	5.054	-15.2	-10.146	8	Pass
	High Channel 11, 2462 MHz	5.066	-15.2	-10.134	8	Pass
Chain A						
	20 MHz					
	2400 MHz - 2483.5 MHz Band	Value	Summing Factor	Summed Value	Limit	
	802.11(n) MCS8	(dBm/3kHz)	(dBm)	(dBm/3kHz)	(dBm/3kHz)	Result
	Low Channel 1, 2412 MHz	-7.543	3	-4.543	8	Pass
	Mid Channel 6, 2437 MHz	-7.619	3	-4.619	8	Pass
	High Channel 11, 2462 MHz	-7.717	3	-4.717	8	Pass
	802.11(n) MCS15					
	Low Channel 1, 2412 MHz	-10.879	3	-7.879	8	Pass
	Mid Channel 6, 2437 MHz	-11.023	3	-8.023	8	Pass
	High Channel 11, 2462 MHz	-11.109	3	-8.109	8	Pass
Chain B						
	20 MHz					
	2400 MHz - 2483.5 MHz Band					
	802.11(n) MCS8					
	Low Channel 1, 2412 MHz	-5.907	3	-2.907	8	Pass
	Mid Channel 6, 2437 MHz	-6.875	3	-3.875	8	Pass
	High Channel 11, 2462 MHz	-6.933	3	-3.933	8	Pass
	802.11(n) MCS15					
	Low Channel 1, 2412 MHz	-9.049	3	-6.049	8	Pass
	Mid Channel 6, 2437 MHz	-10.146	3	-7.146	8	Pass
	High Channel 11, 2462 MHz	-10.134	3	-7.134	8	Pass

POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	7.657	-15.2	-7.543	8	Pass	

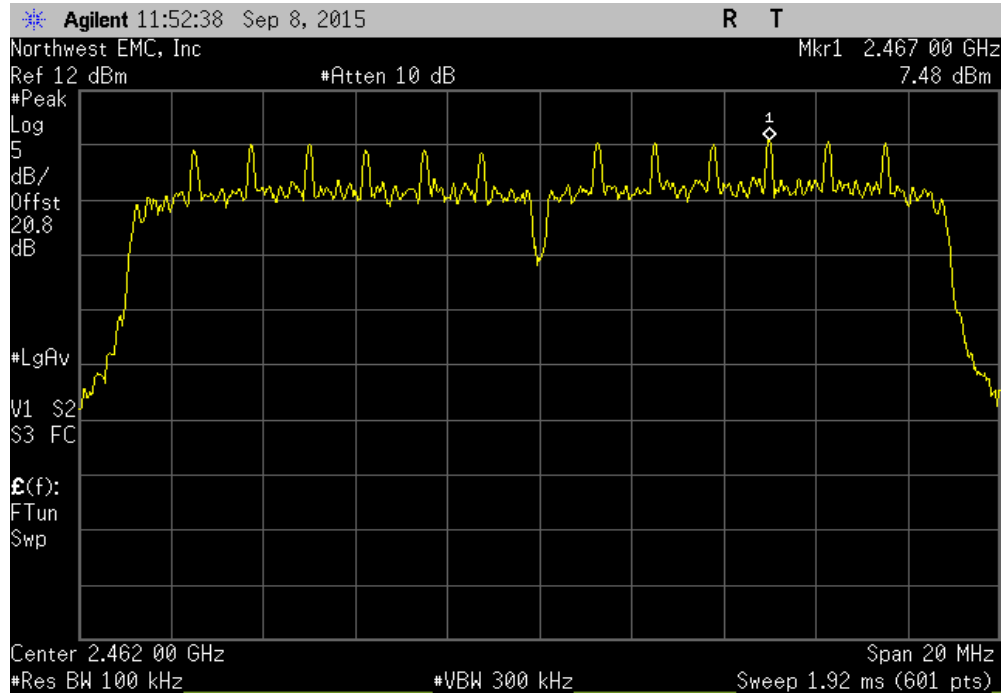


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	7.581	-15.2	-7.619	8	Pass	

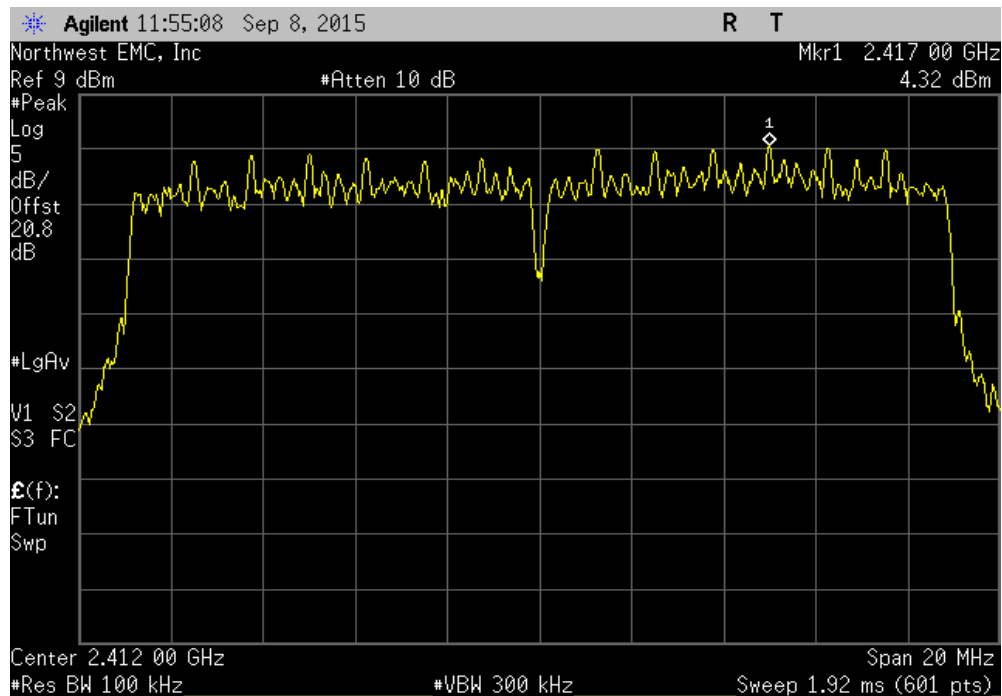


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.483	-15.2	-7.717	8	Pass	

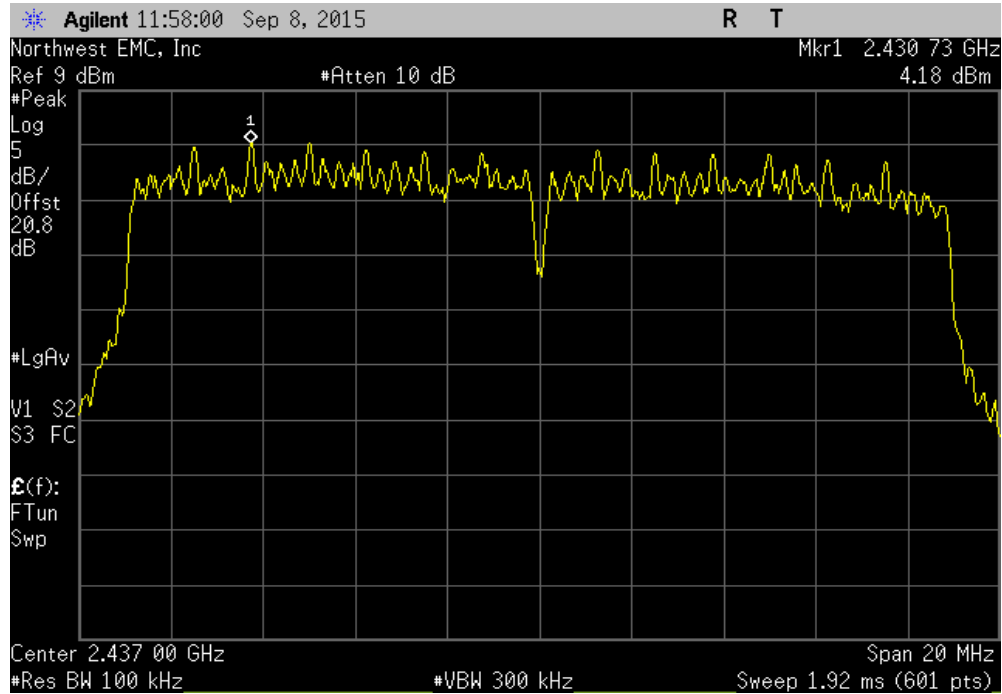


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	4.321	-15.2	-10.879	8	Pass	

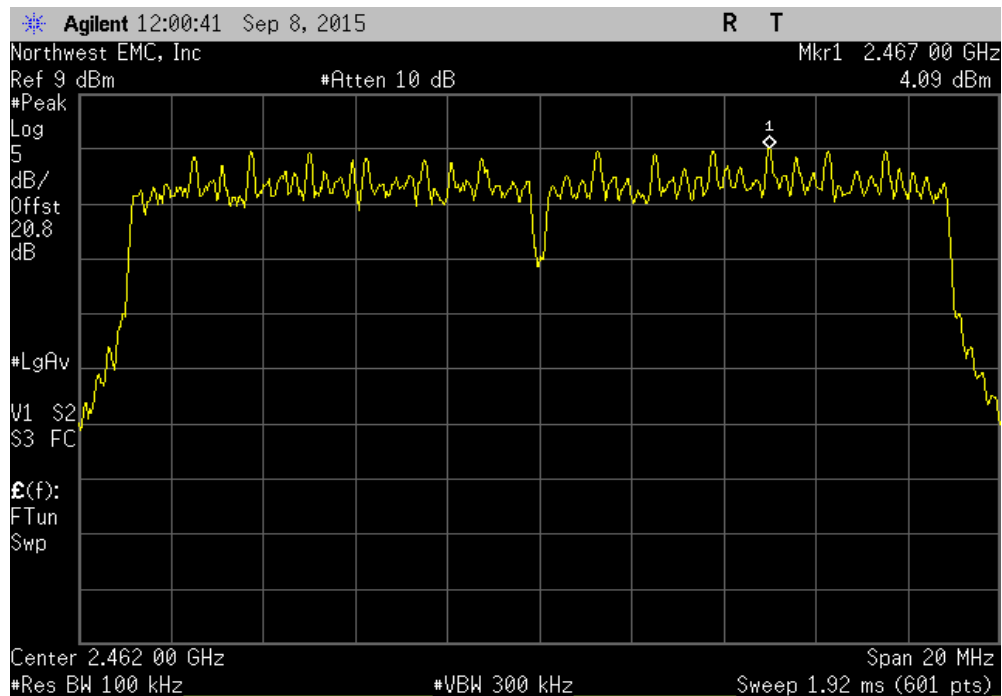


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	4.177	-15.2	-11.023	8	Pass	

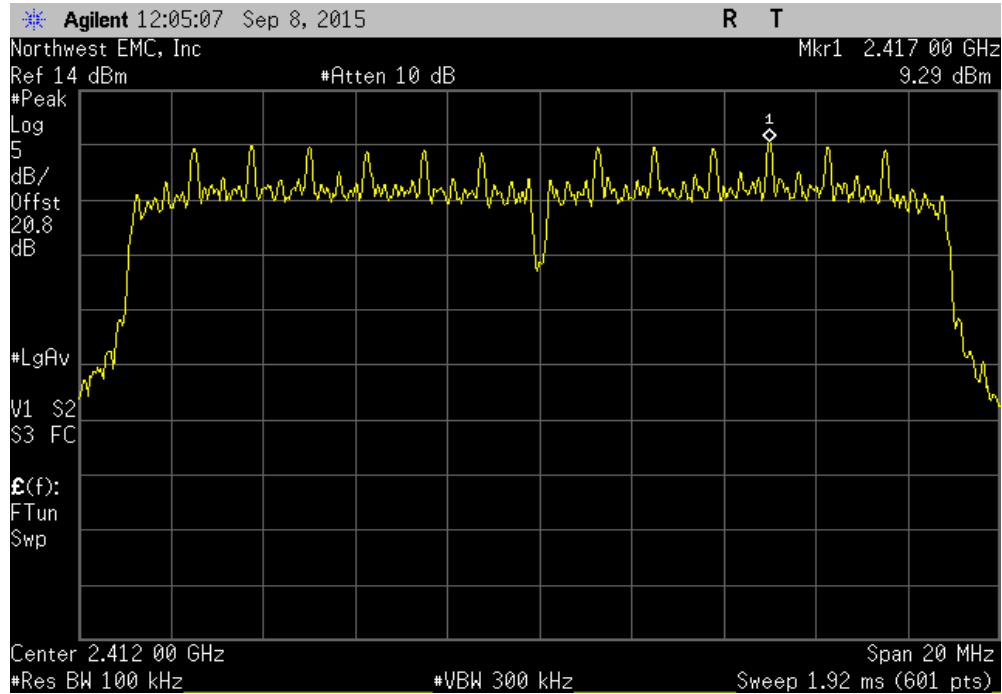


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	4.091	-15.2	-11.109	8	Pass	

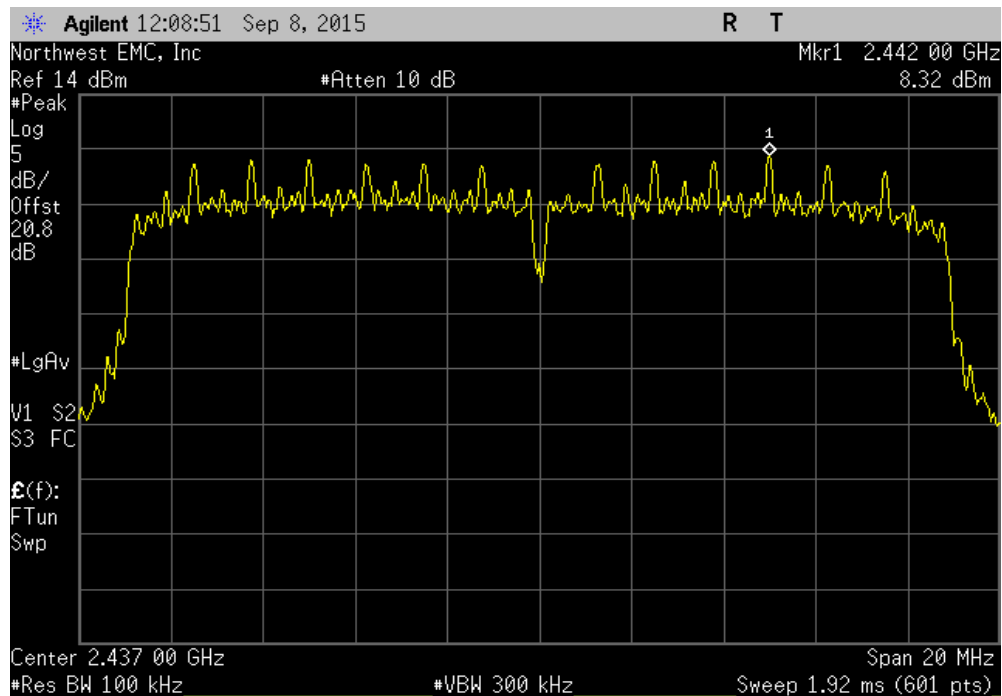


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	9.293	-15.2	-5.907	8	Pass	

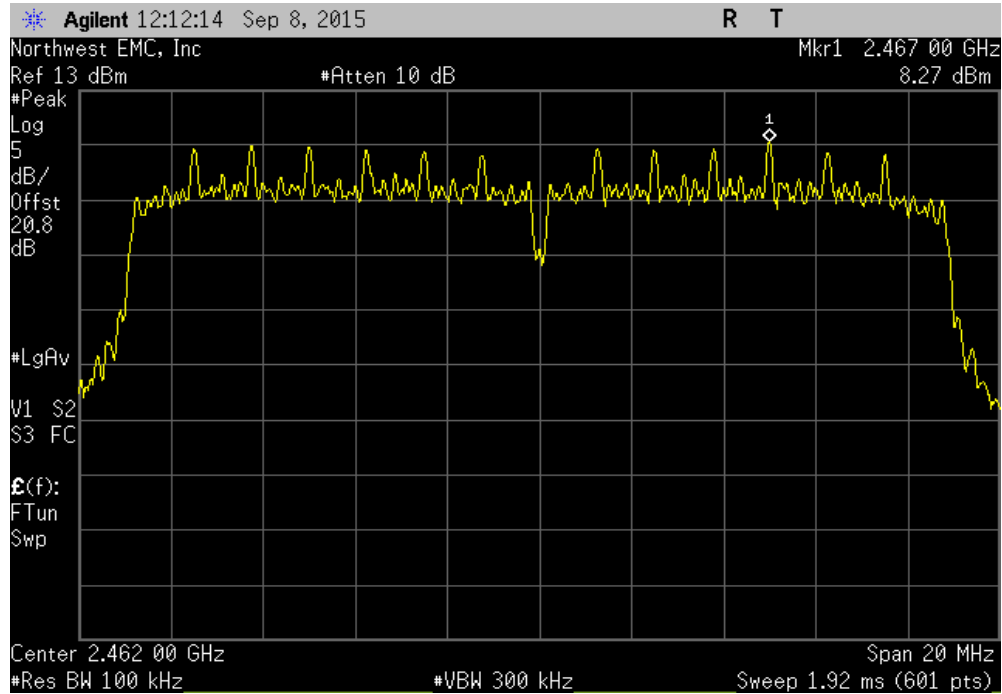


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	8.325	-15.2	-6.875	8	Pass	

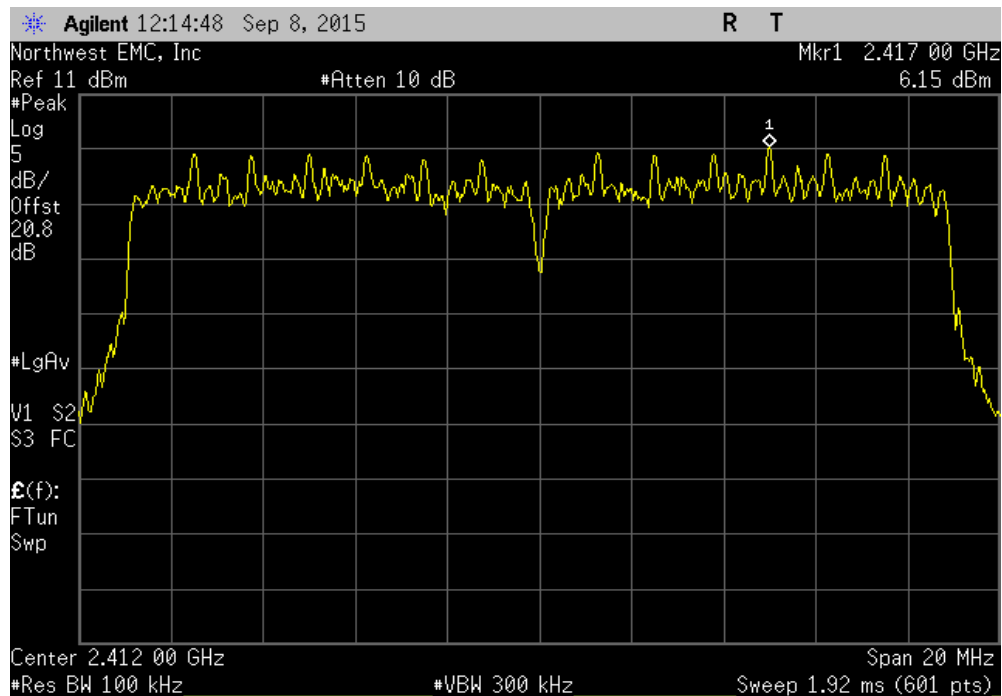


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	8.267	-15.2	-6.933	8	Pass

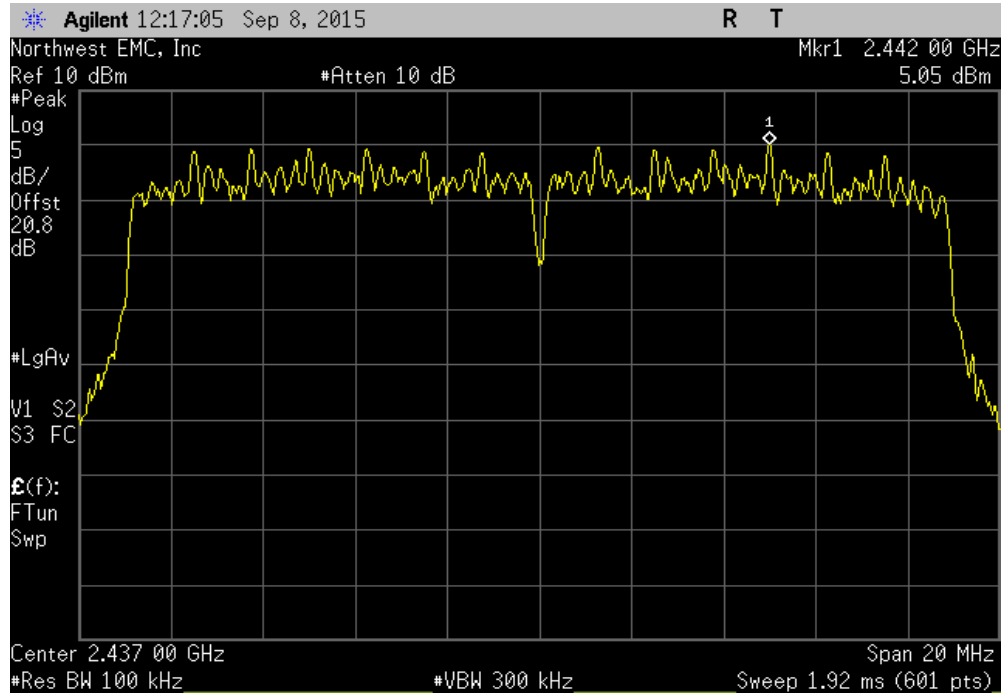


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	6.151	-15.2	-9.049	8	Pass

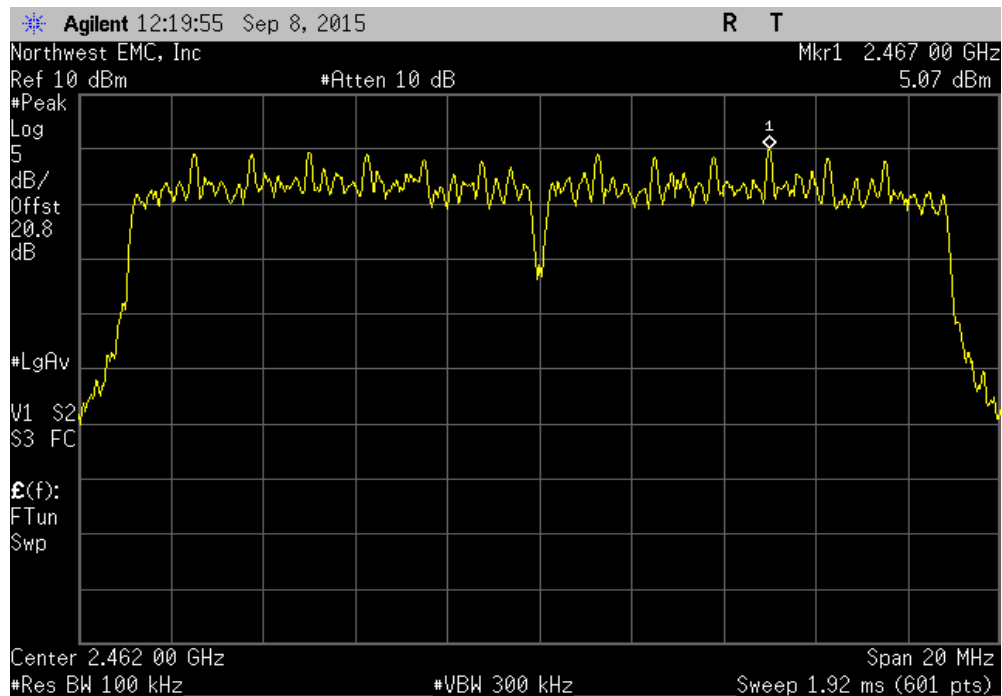


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	5.054	-15.2	-10.146	8	Pass



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	5.066	-15.2	-10.134	8	Pass



POWER SPECTRAL DENSITY

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Attenuator	Fairview Microwave	SA4018-20	TQY	2/27/2015	12
Block - DC	Fairview Microwave	SD3379	AMM	2/27/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	7/23/2015	12
Generator - Signal	Agilent	N5173B	TIW	7/15/2014	36

TEST DESCRIPTION

The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. External 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.

Per the procedure outlined in ANSI C63.10:2013 Section 11.10.2, the peak power spectral density was measured in a 100 kHz RBW.

The observed power level is then scaled to an equivalent value in 3 kHz by adding a Bandwidth Correction Factor (BWCF) where:

$$\text{BWCF} = 10 \cdot \text{LOG} (3 \text{ kHz} / 100 \text{ kHz}) = -15.2 \text{ dB}$$

POWER SPECTRAL DENSITY

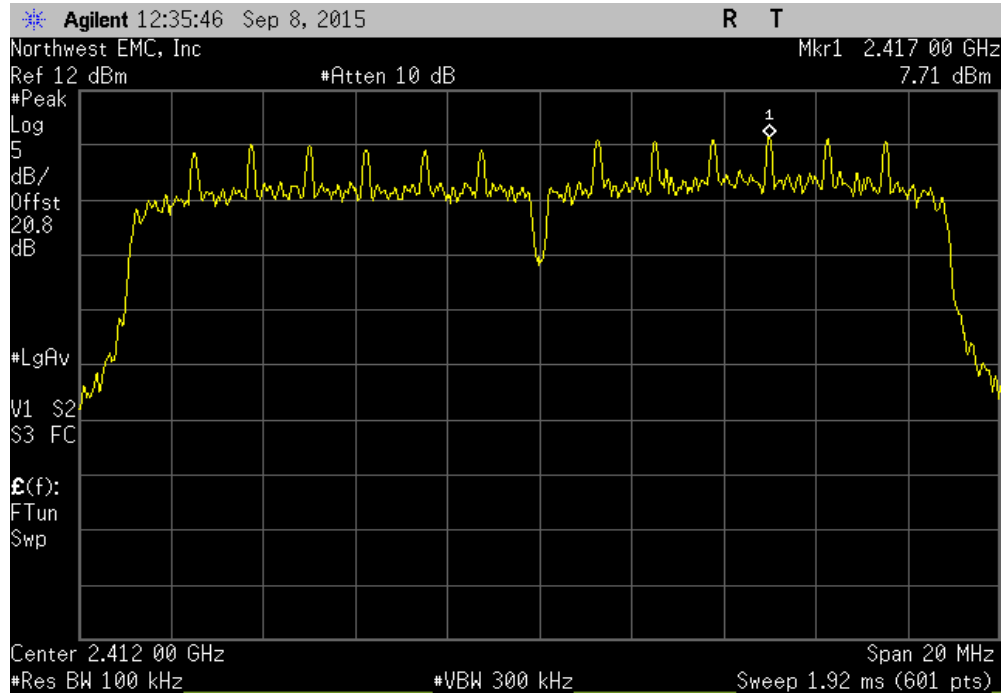


XMit 2015.01.14

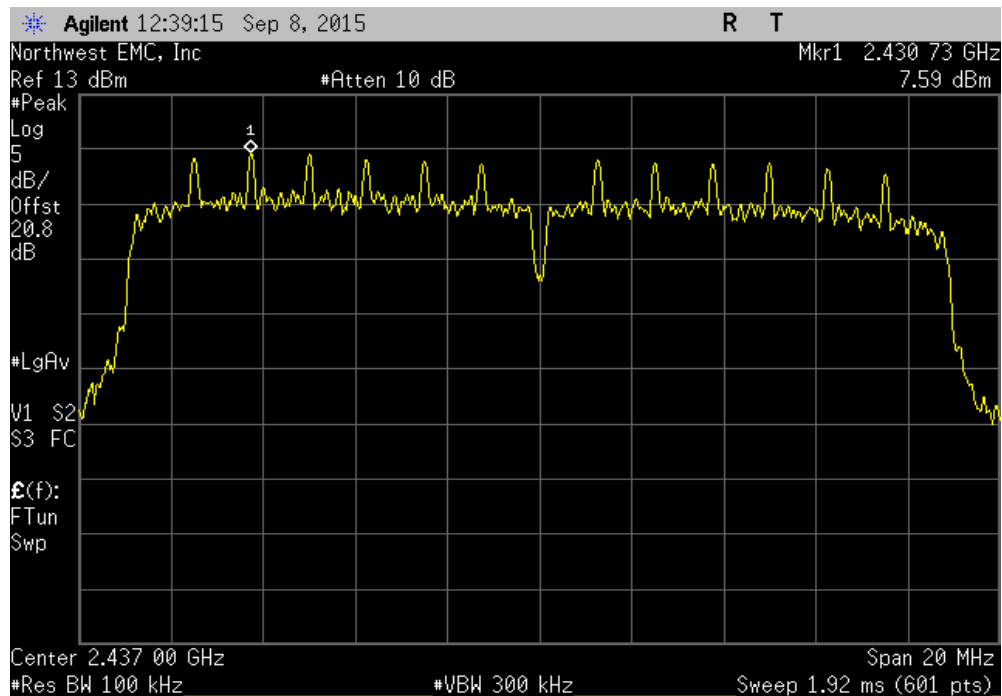
EUT: Firebox T50-W (BS5AE7W)		Work Order: VDEI0009	
Serial Number: 70AF02717-B385		Date: 09/08/15	
Customer: WatchGuard Technologies, Inc.		Temperature: 24.2°C	
Attendees: None		Humidity: 44%	
Project: None		Barometric Pres.: 1015 mbar	
Tested by: Jonathan Kiefer		Power: 110VAC/60Hz	
		Job Site: TX09	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2015		ANSI C63.10:2013	
COMMENTS			
2x2 MIMO mode, Chain AC (Chains 0 and 2).			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	5	Signature <i>Jonathan Kiefer</i>	
		Value dBm/100kHz	Limit dBm/3kHz
Chain A			
20 MHz			
2400 MHz - 2483.5 MHz Band			
802.11(n) MCS8			
	Low Channel 1, 2412 MHz	7.711	8
	Mid Channel 6, 2437 MHz	7.586	8
	High Channel 11, 2462 MHz	7.638	8
802.11(n) MCS15			
	Low Channel 1, 2412 MHz	4.375	8
	Mid Channel 6, 2437 MHz	4.268	8
	High Channel 11, 2462 MHz	4.114	8
Chain C			
20 MHz			
2400 MHz - 2483.5 MHz Band			
802.11(n) MCS8			
	Low Channel 1, 2412 MHz	8.544	8
	Mid Channel 6, 2437 MHz	8.744	8
	High Channel 11, 2462 MHz	8.365	8
802.11(n) MCS15			
	Low Channel 1, 2412 MHz	5.238	8
	Mid Channel 6, 2437 MHz	5.306	8
	High Channel 11, 2462 MHz	4.86	8
Chain A			
20 MHz			
2400 MHz - 2483.5 MHz Band			
	802.11(n) MCS8	Value (dBm/3kHz)	Summing Factor (dBm)
	Low Channel 1, 2412 MHz	-7.489	3
	Mid Channel 6, 2437 MHz	-7.614	3
	High Channel 11, 2462 MHz	-7.562	3
802.11(n) MCS15			
	Low Channel 1, 2412 MHz	-10.825	3
	Mid Channel 6, 2437 MHz	-10.932	3
	High Channel 11, 2462 MHz	-11.086	3
Chain C			
20 MHz			
2400 MHz - 2483.5 MHz Band			
	802.11(n) MCS8	Summed Value (dBm/3kHz)	Limit (dBm/3kHz)
	Low Channel 1, 2412 MHz	-3.656	8
	Mid Channel 6, 2437 MHz	-3.456	8
	High Channel 11, 2462 MHz	-3.835	8
802.11(n) MCS15			
	Low Channel 1, 2412 MHz	-9.962	8
	Mid Channel 6, 2437 MHz	-9.894	8
	High Channel 11, 2462 MHz	-10.34	8

POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	7.711	-15.2	-7.489	8	Pass	

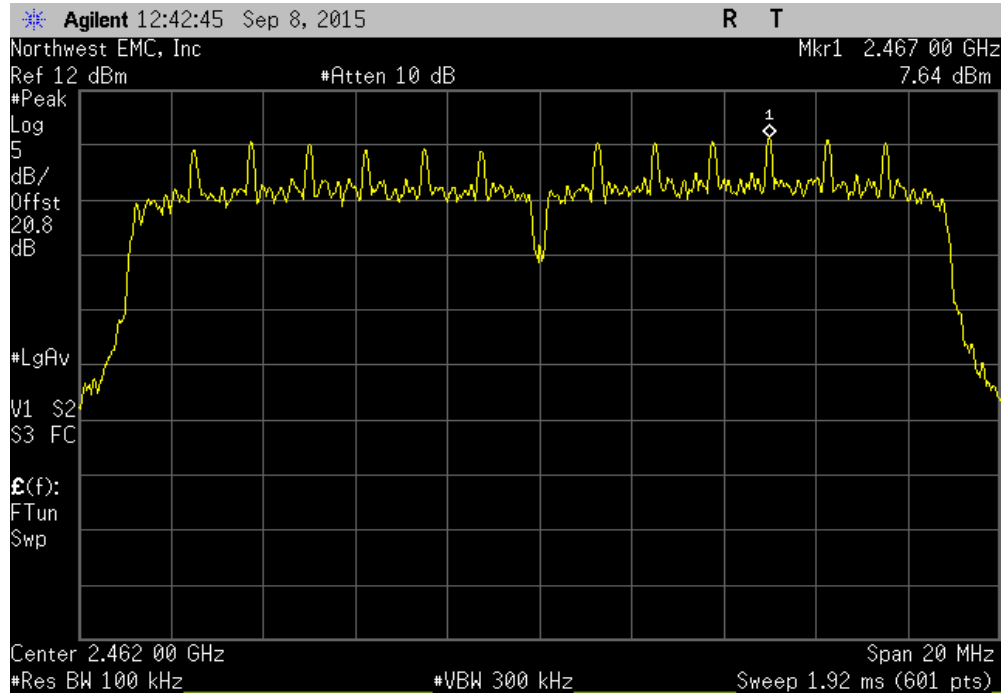


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	7.586	-15.2	-7.614	8	Pass	

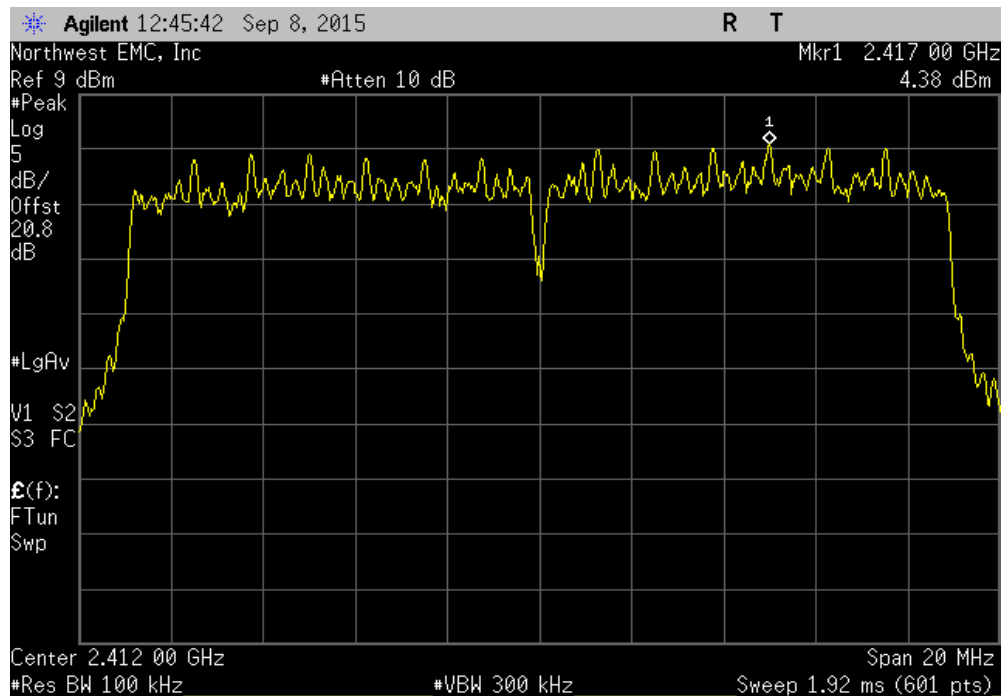


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.638	-15.2	-7.562	8	Pass	

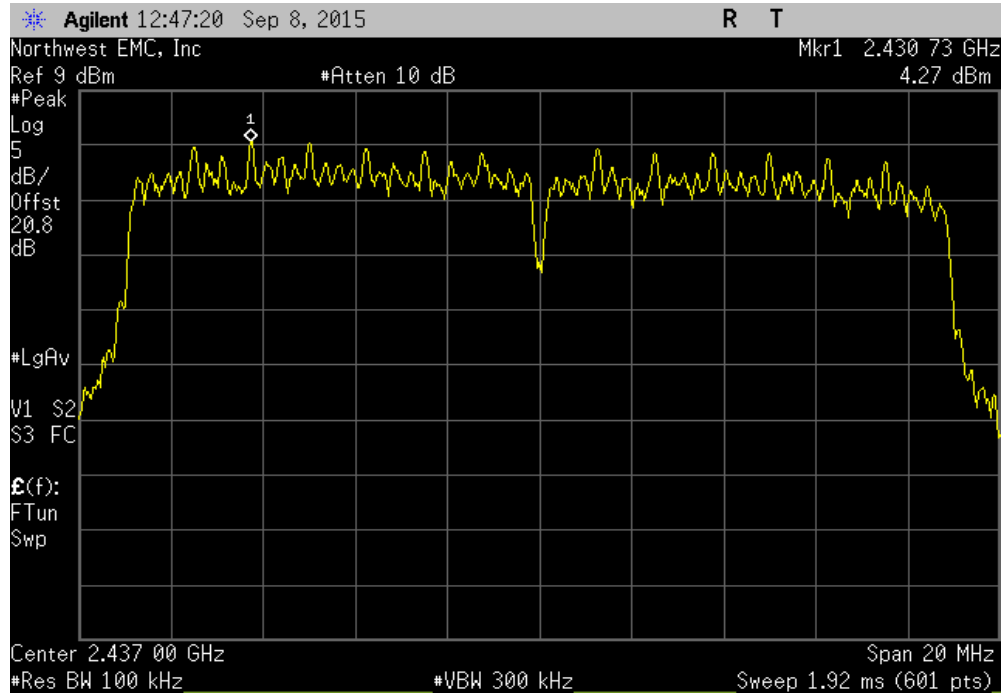


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	4.375	-15.2	-10.825	8	Pass	

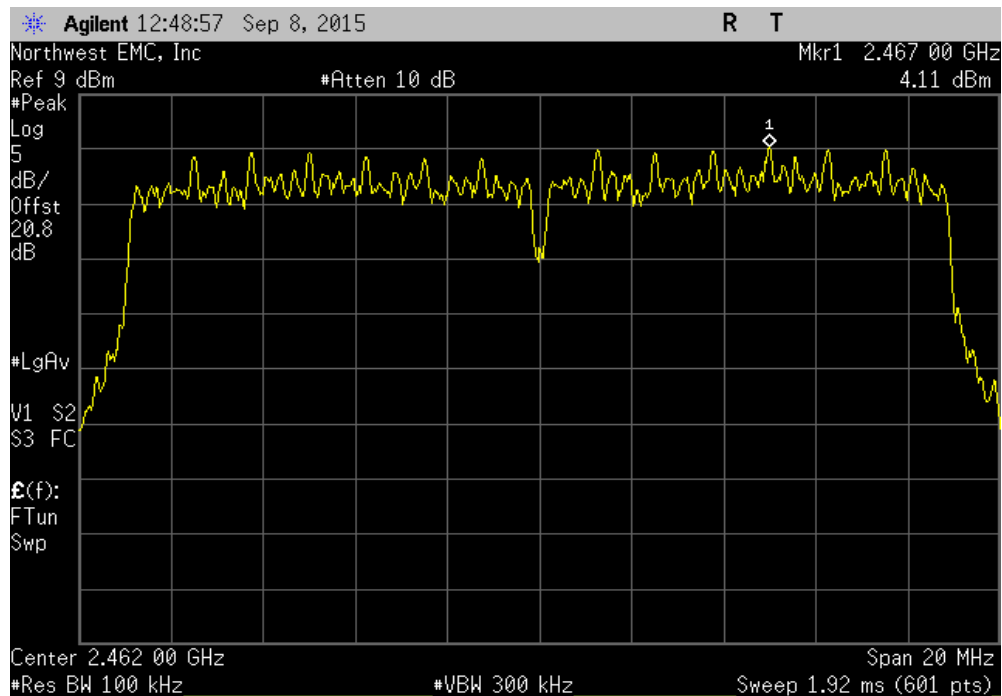


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	4.268	-15.2	-10.932	8	Pass	



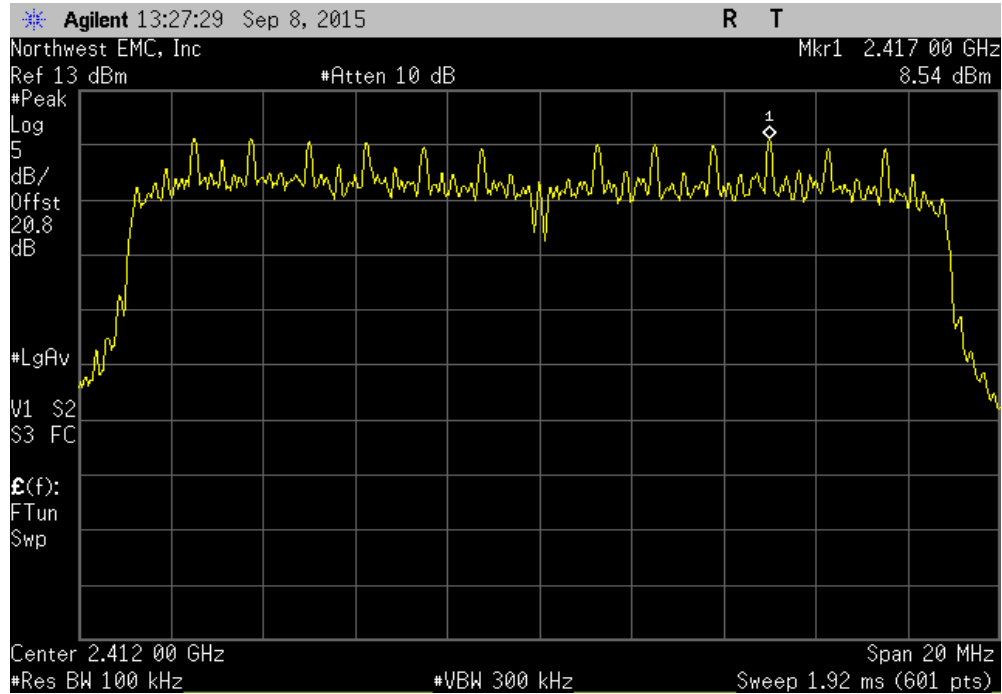
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	4.114	-15.2	-11.086	8	Pass	



POWER SPECTRAL DENSITY

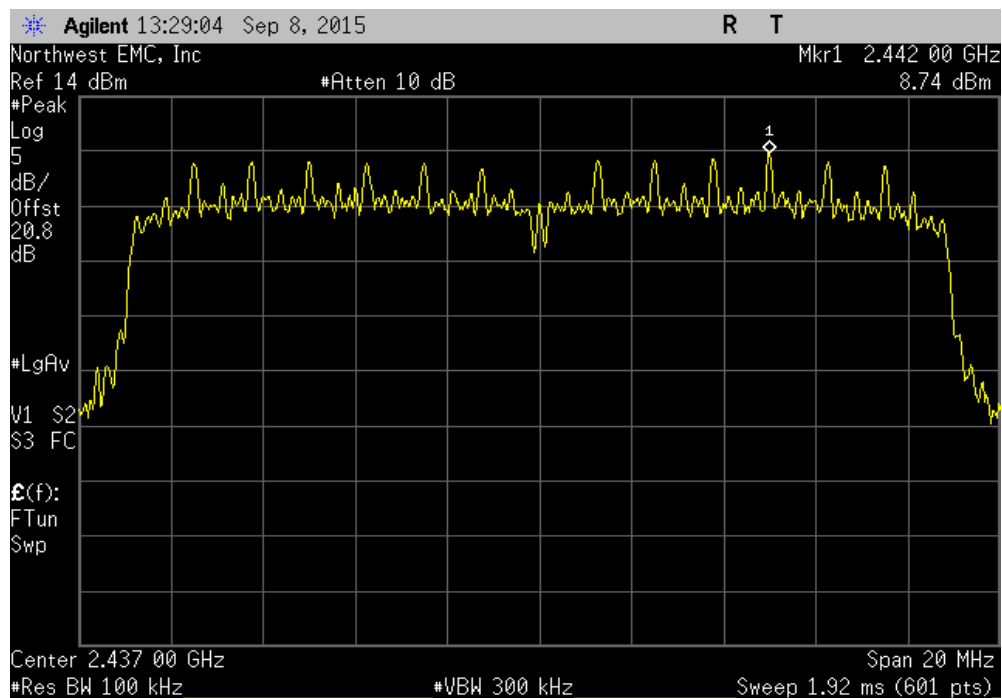
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
8.544	-15.2	-6.656	8	Pass



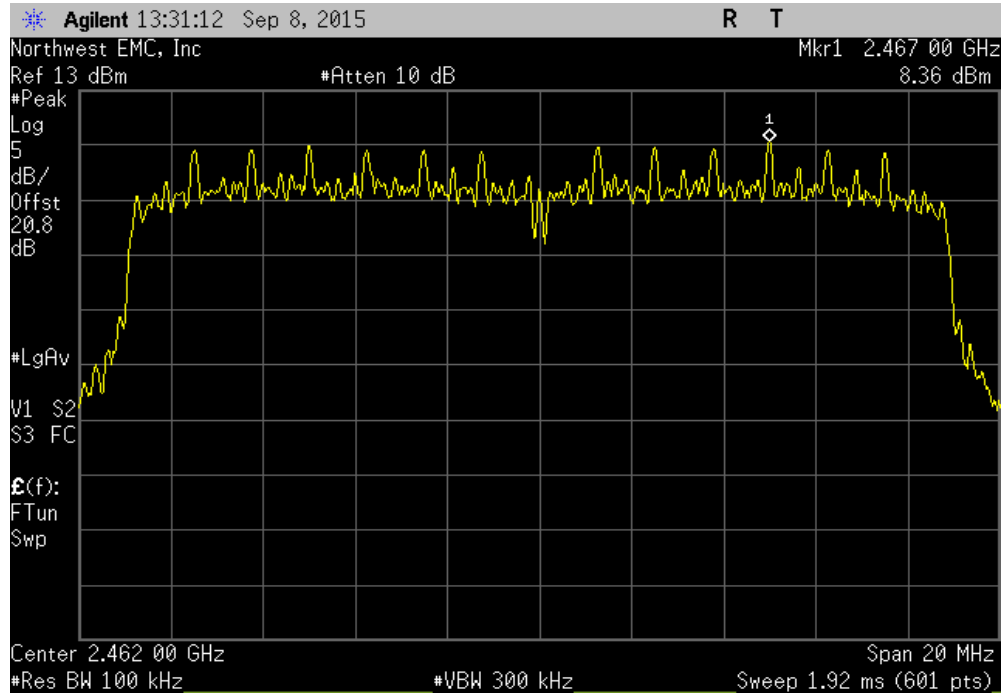
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
8.744	-15.2	-6.456	8	Pass

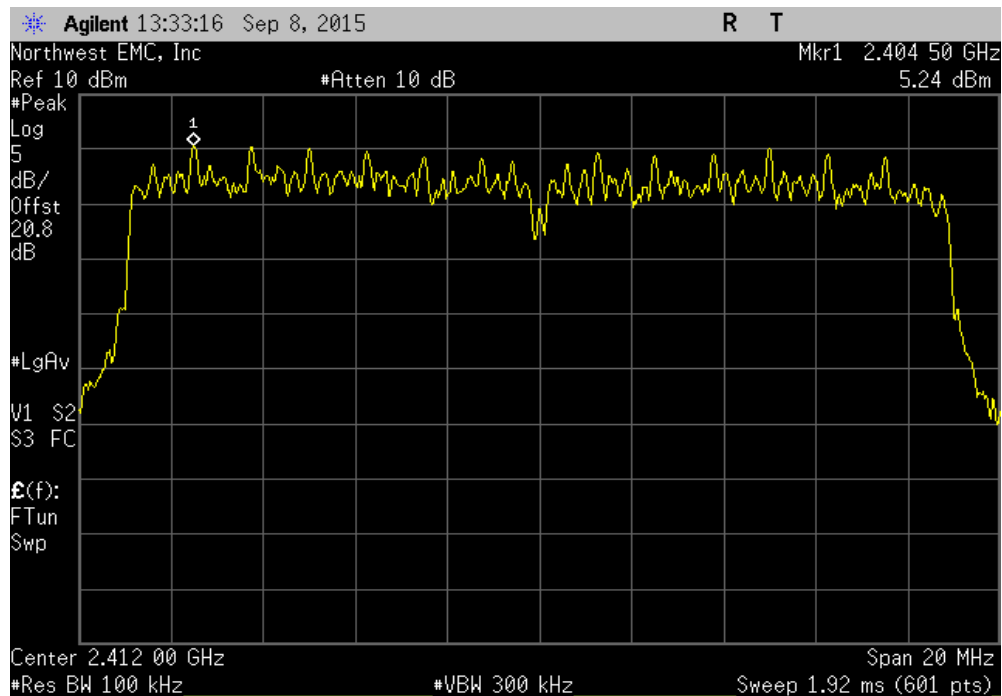


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	8.365	-15.2	-6.835	8	Pass	



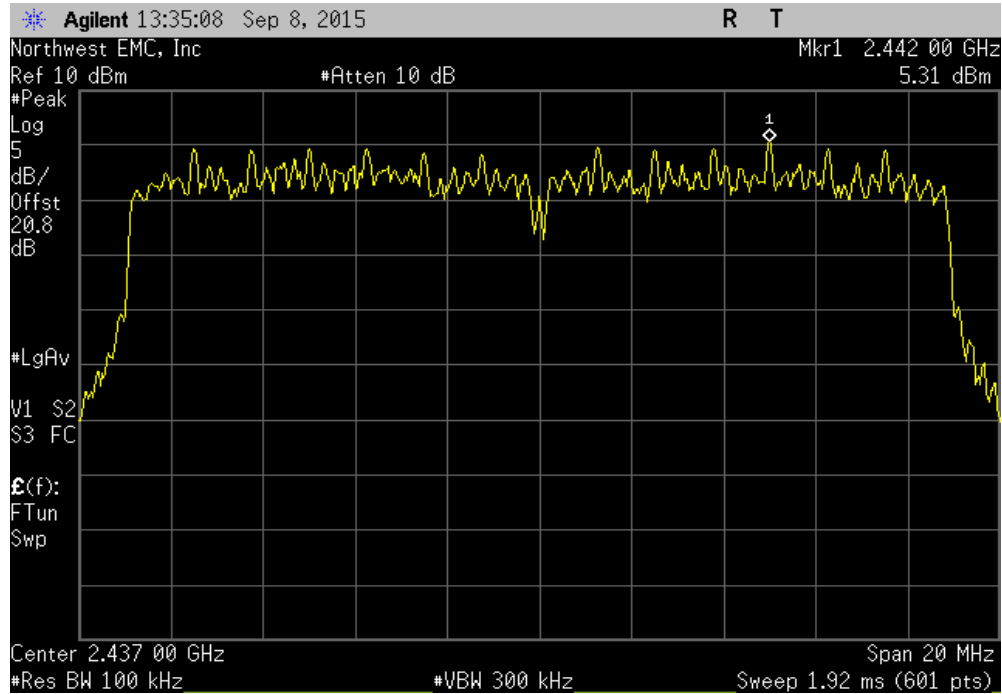
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	5.238	-15.2	-9.962	8	Pass	



POWER SPECTRAL DENSITY

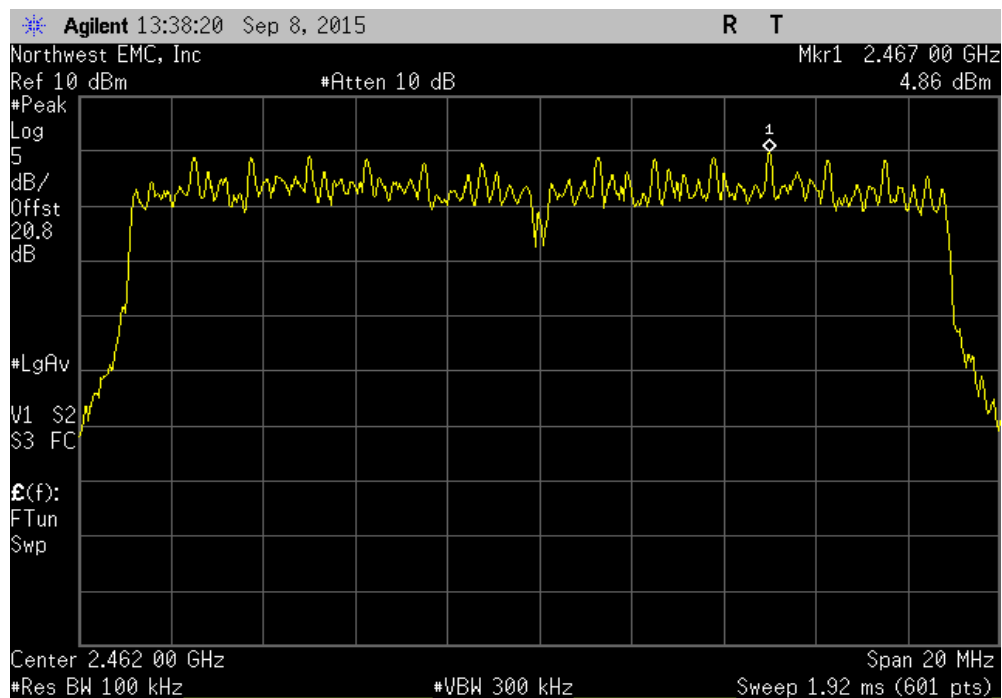
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz

	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	5.306	-15.2	-9.894	8	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz

	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	4.86	-15.2	-10.34	8	Pass



POWER SPECTRAL DENSITY

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Generator - Signal	Agilent	N5173B	TIW	7/15/2014	36
Attenuator	Fairview Microwave	SA4018-20	TQY	2/27/2015	12
Block - DC	Fairview Microwave	SD3379	AMM	2/27/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	7/23/2015	12

TEST DESCRIPTION

The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. External 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.

Per the procedure outlined in ANSI C63.10:2013 Section 11.10.2, the peak power spectral density was measured in a 100 kHz RBW.

The observed power level is then scaled to an equivalent value in 3 kHz by adding a Bandwidth Correction Factor (BWCF) where:

$$\text{BWCF} = 10 \cdot \text{LOG} (3 \text{ kHz} / 100 \text{ kHz}) = -15.2 \text{ dB}$$

POWER SPECTRAL DENSITY

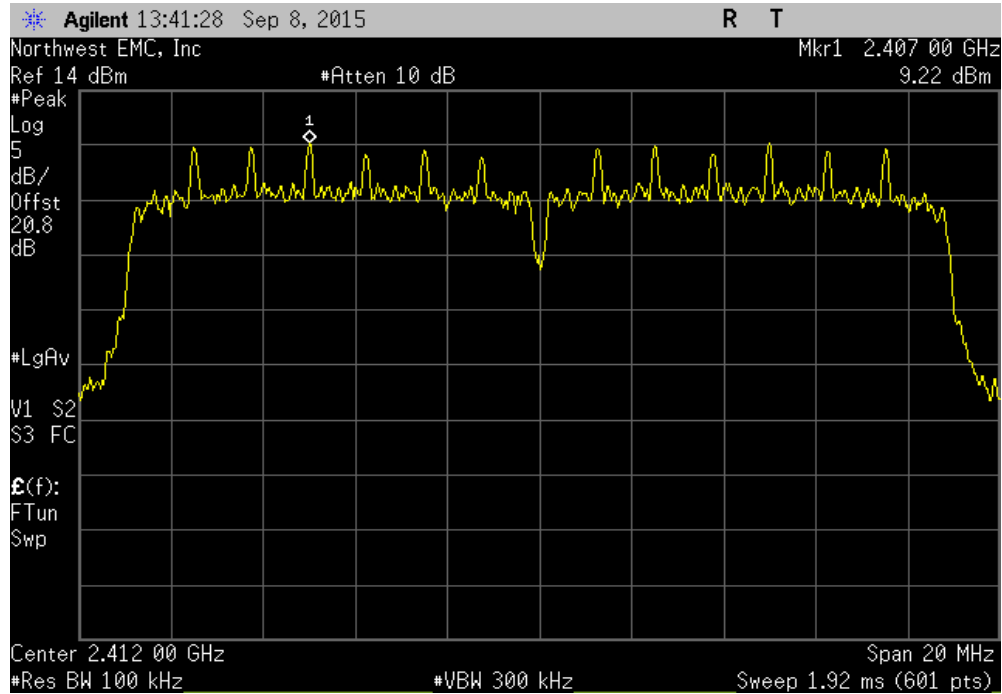


XMit 2015.01.14

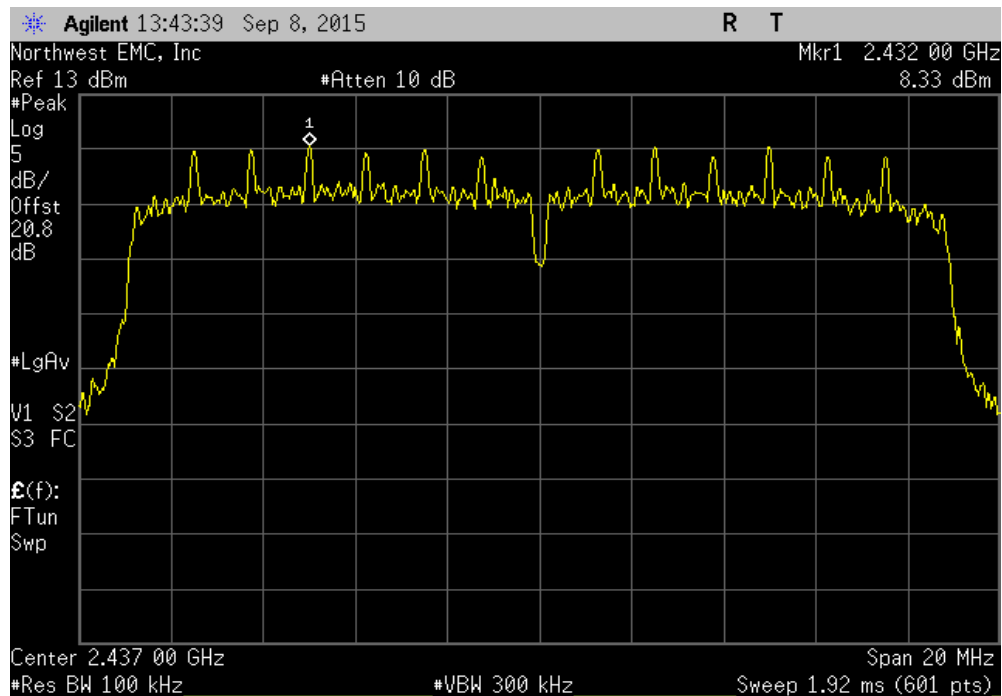
EUT: Firebox T50-W (BSSAE7W)		Work Order: VDEI0009								
Serial Number: 70AF02717-B385		Date: 09/08/15								
Customer: WatchGuard Technologies, Inc.		Temperature: 24.2°C								
Attendees: None		Humidity: 44%								
Project: None		Barometric Pres.: 1015 mbar								
Tested by: Jonathan Kiefer		Power: 110VAC/60Hz								
Job Site: TX09		Test Method								
TEST SPECIFICATIONS		FCC 15.247:2015								
ANSI C63.10:2013		COMMENTS								
2x2 MIMO mode, Chain BC (Chains 1 and 2).										
DEVIATIONS FROM TEST STANDARD										
None										
Configuration #	5	Signature <i>Jonathan Kiefer</i>								
		Value	dBm/100kHz	dBm/100kHz	To dBm/3kHz	Value	dBm/3kHz	Limit	dBm/3kHz	Results
Chain B										
20 MHz										
2400 MHz - 2483.5 MHz Band										
802.11(n) MCS8										
Low Channel 1, 2412 MHz										
9.218										
-15.2										
-5.982										
8										
Pass										
Mid Channel 6, 2437 MHz										
8.326										
-15.2										
-6.874										
8										
Pass										
High Channel 11, 2462 MHz										
8.153										
-15.2										
-7.047										
8										
Pass										
802.11(n) MCS15										
Low Channel 1, 2412 MHz										
6.018										
-15.2										
-9.182										
8										
Pass										
Mid Channel 6, 2437 MHz										
5.187										
-15.2										
-10.013										
8										
Pass										
High Channel 11, 2462 MHz										
5.152										
-15.2										
-10.048										
8										
Pass										
Chain C										
20 MHz										
2400 MHz - 2483.5 MHz Band										
802.11(n) MCS8										
Low Channel 1, 2412 MHz										
8.718										
-15.2										
-6.482										
8										
Pass										
Mid Channel 6, 2437 MHz										
8.718										
-15.2										
-6.482										
8										
Pass										
High Channel 11, 2462 MHz										
8.174										
-15.2										
-7.026										
8										
Pass										
802.11(n) MCS15										
Low Channel 1, 2412 MHz										
5.354										
-15.2										
-9.846										
8										
Pass										
Mid Channel 6, 2437 MHz										
5.289										
-15.2										
-9.911										
8										
Pass										
High Channel 11, 2462 MHz										
4.957										
-15.2										
-10.243										
8										
Pass										
Chain B										
20 MHz										
2400 MHz - 2483.5 MHz Band										
802.11(n) MCS8										
Value										
(dBm/3kHz)										
Summing Factor										
(dBm)										
Summed Value										
(dBm/3kHz)										
Limit										
(dBm/3kHz)										
Result										
Low Channel 1, 2412 MHz										
-5.982										
3										
-2.982										
8										
Pass										
Mid Channel 6, 2437 MHz										
-6.874										
3										
-3.874										
8										
Pass										
High Channel 11, 2462 MHz										
-7.047										
3										
-4.047										
8										
Pass										
802.11(n) MCS15										
Low Channel 1, 2412 MHz										
-9.182										
3										
-6.182										
8										
Pass										
Mid Channel 6, 2437 MHz										
-10.013										
3										
-7.013										
8										
Pass										
High Channel 11, 2462 MHz										
-10.048										
3										
-7.048										
8										
Pass										
Chain C										
20 MHz										
2400 MHz - 2483.5 MHz Band										
802.11(n) MCS8										
Low Channel 1, 2412 MHz										
-6.482										
3										
-3.482										
8										
Pass										
Mid Channel 6, 2437 MHz										
-6.482										
3										
-3.482										
8										
Pass										
High Channel 11, 2462 MHz										
-7.026										
3										
-4.026										
8										
Pass										
802.11(n) MCS15										
Low Channel 1, 2412 MHz										
-9.846										
3										
-6.846										
8										
Pass										
Mid Channel 6, 2437 MHz										
-9.911										
3										
-6.911										
8										
Pass										
High Channel 11, 2462 MHz										
-10.243										
3										
-7.243										
8										
Pass										

POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	9.218	-15.2	-5.982	8	Pass	

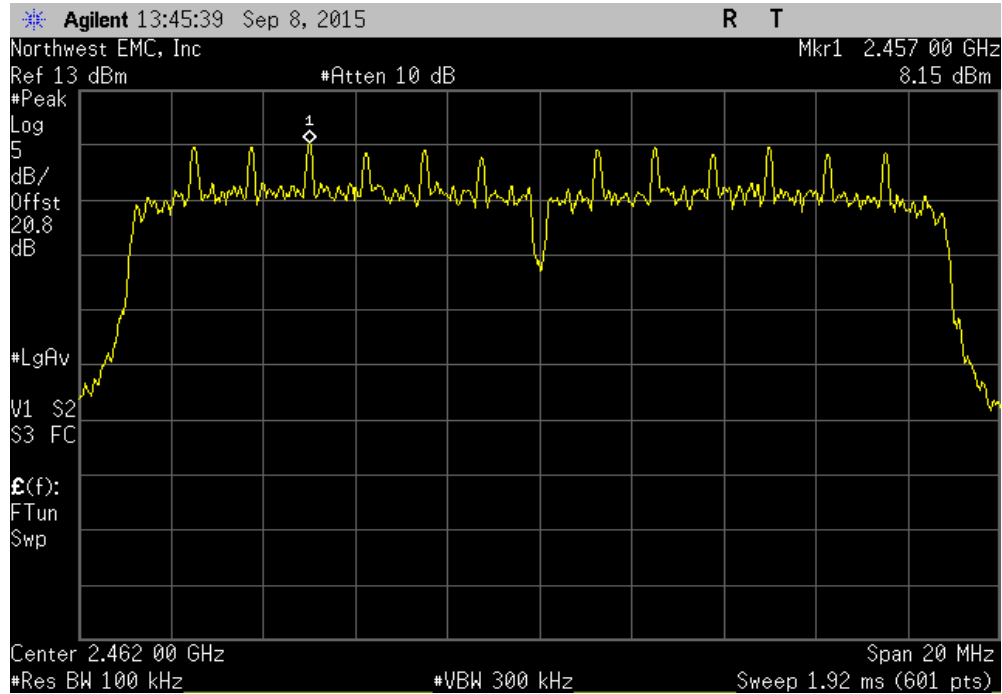


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	8.326	-15.2	-6.874	8	Pass	

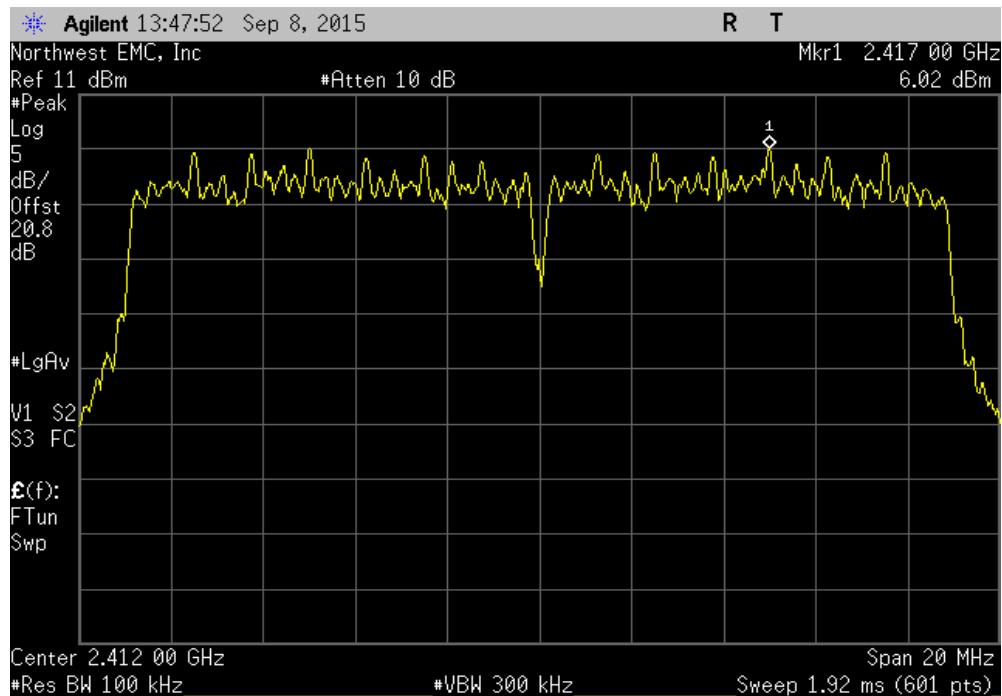


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	8.153	-15.2	-7.047	8	Pass	

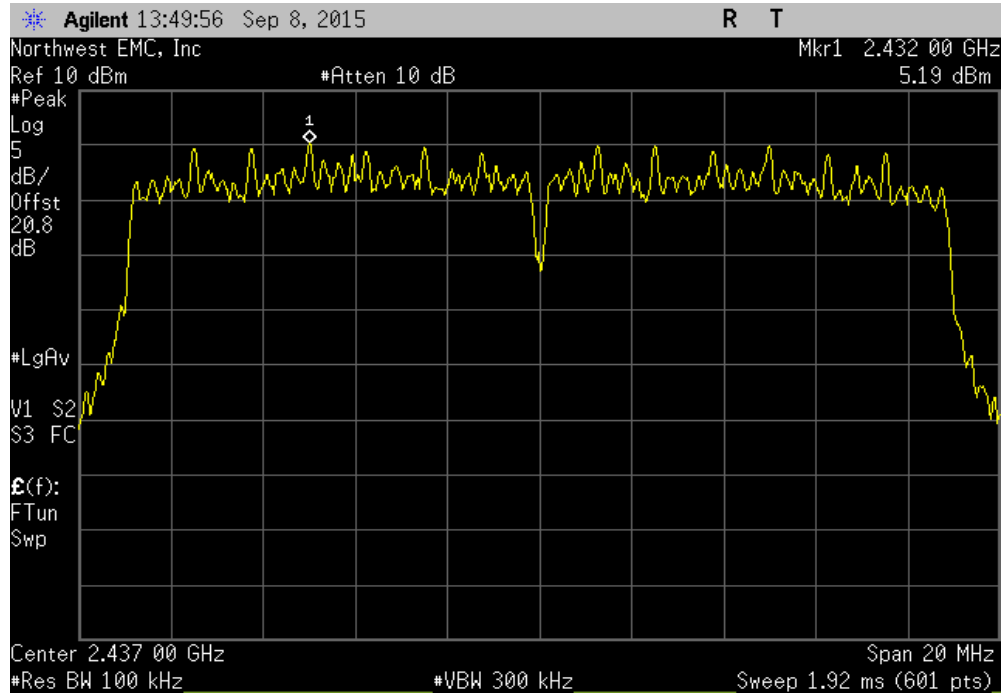


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	6.018	-15.2	-9.182	8	Pass	

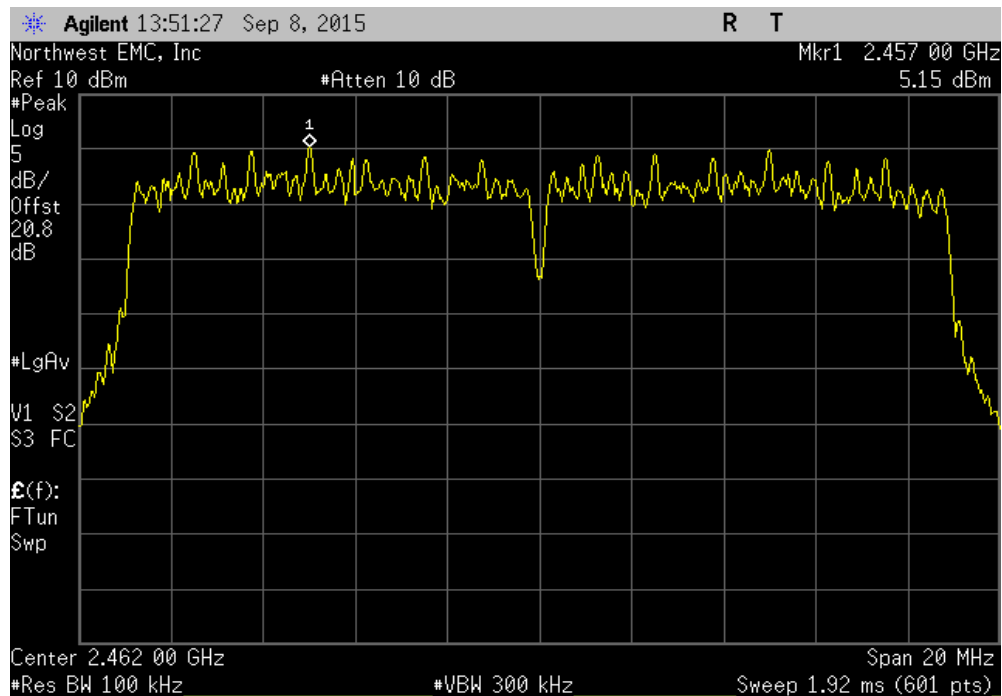


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	5.187	-15.2	-10.013	8	Pass	

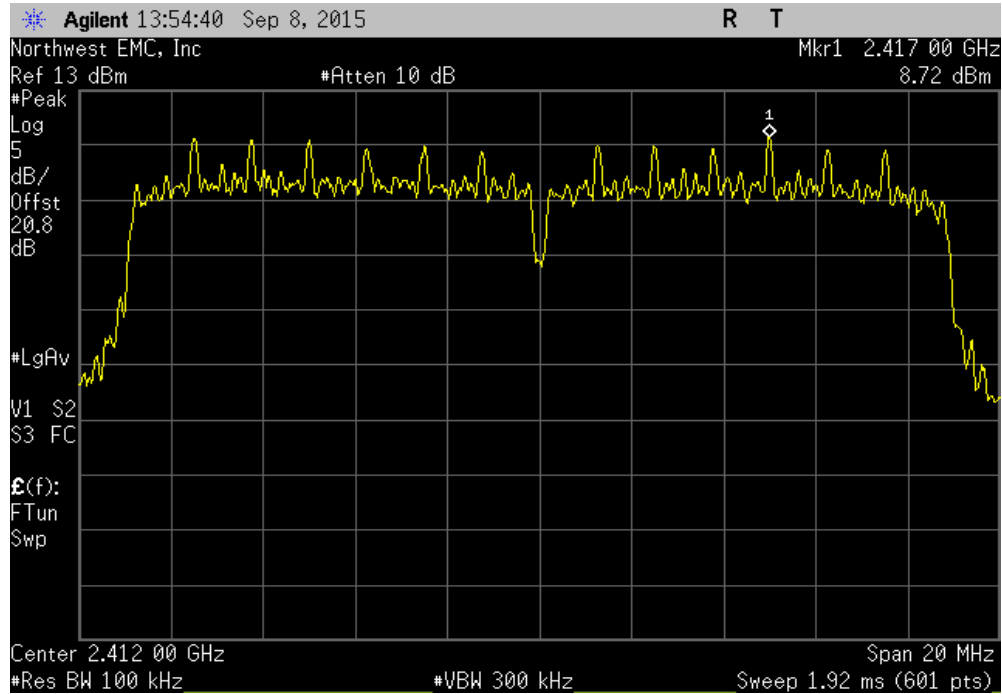


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	5.152	-15.2	-10.048	8	Pass	

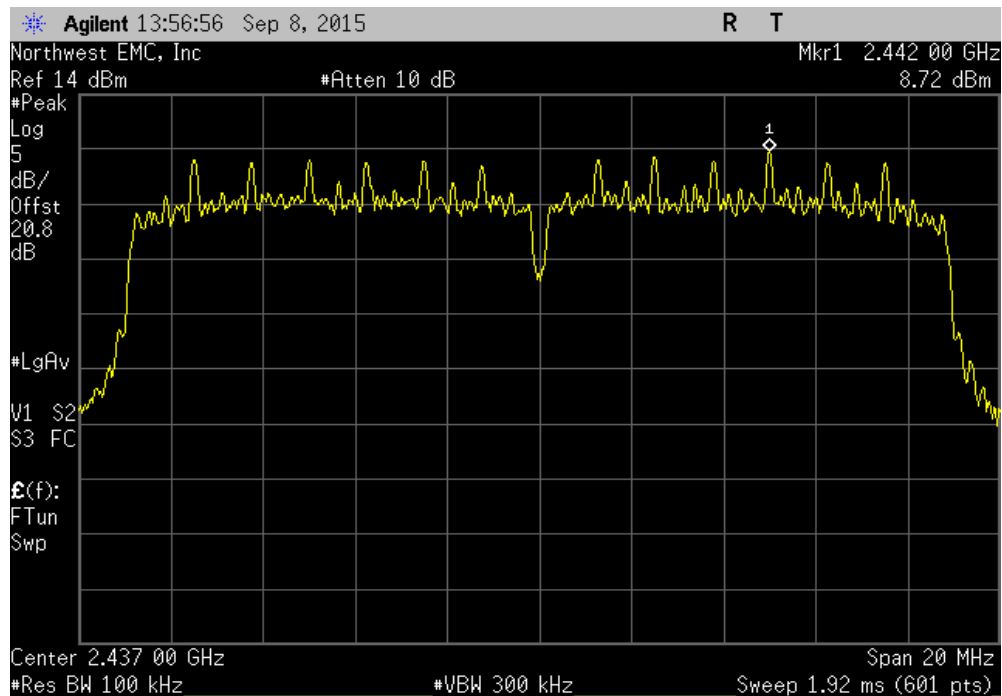


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	8.718	-15.2	-6.482	8	Pass	

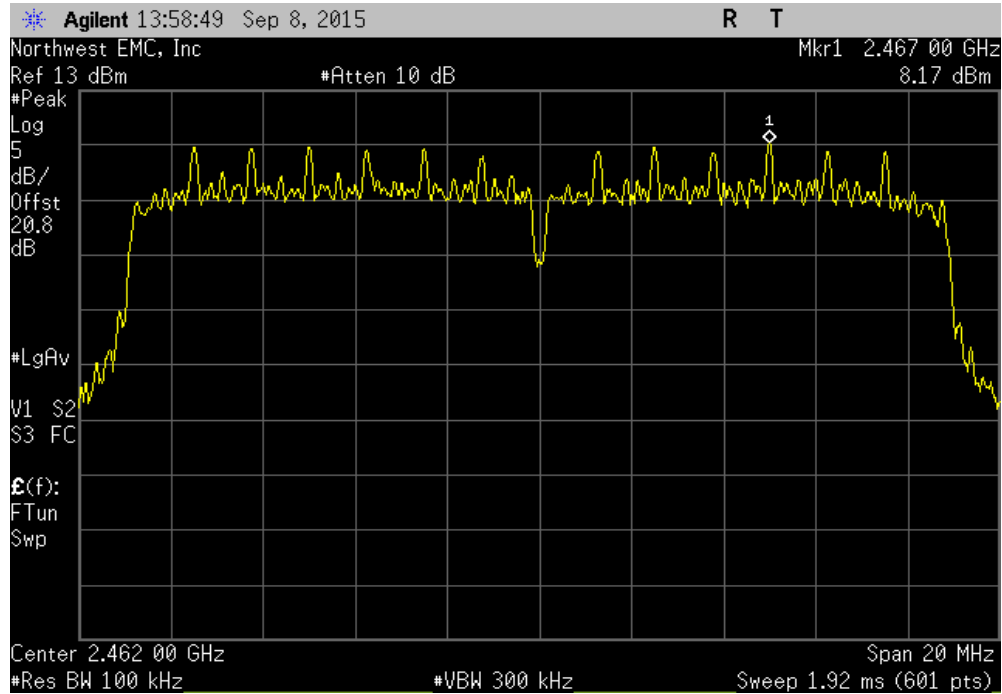


Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	8.718	-15.2	-6.482	8	Pass	

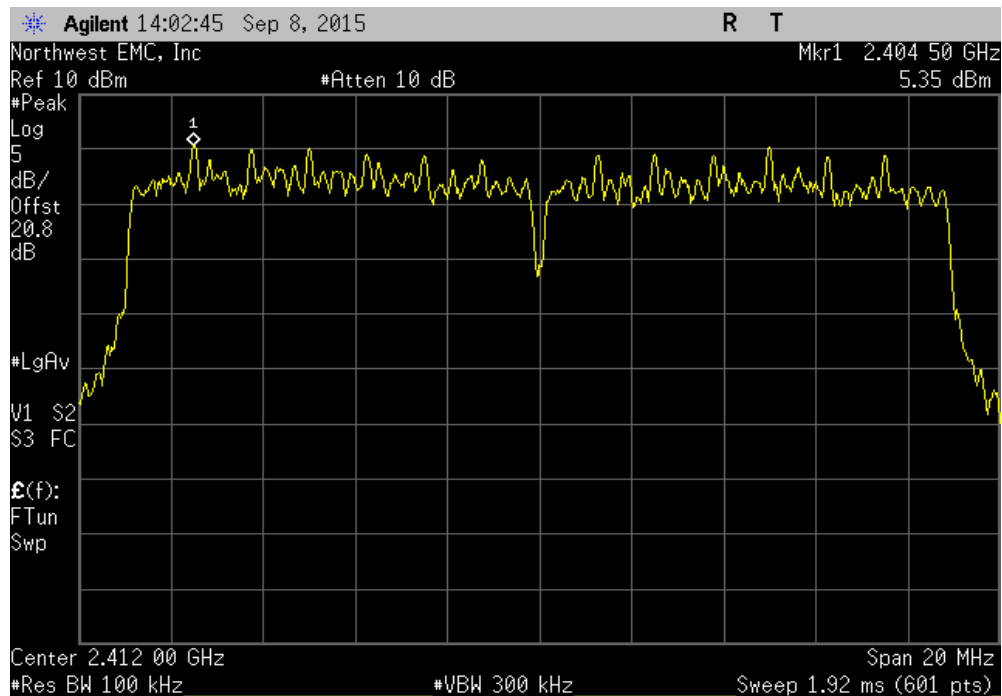


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	8.174	-15.2	-7.026	8	Pass



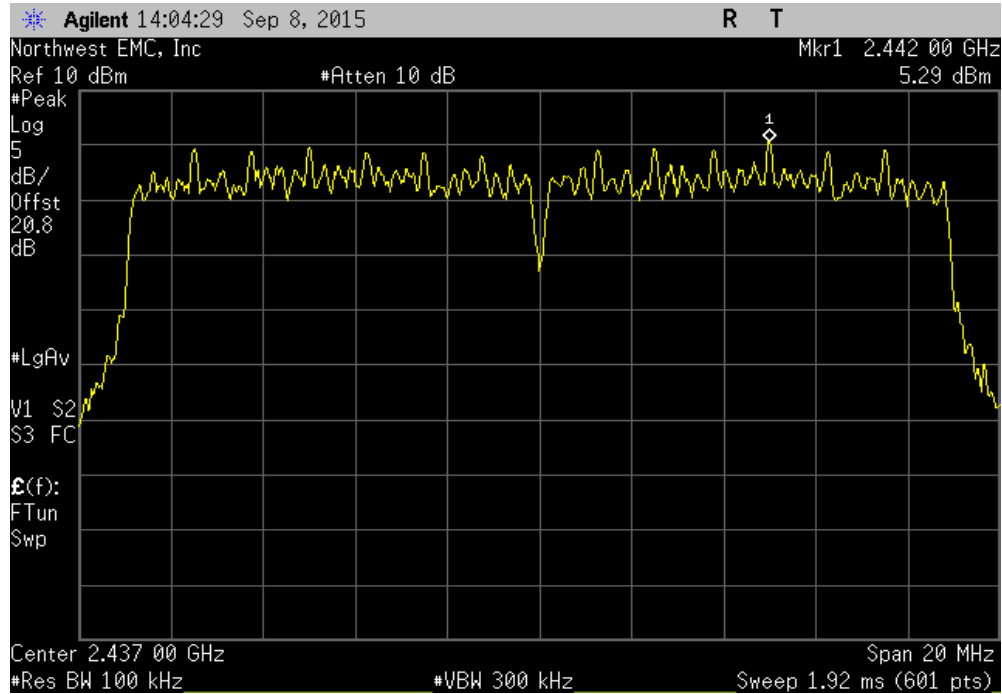
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	5.354	-15.2	-9.846	8	Pass



POWER SPECTRAL DENSITY

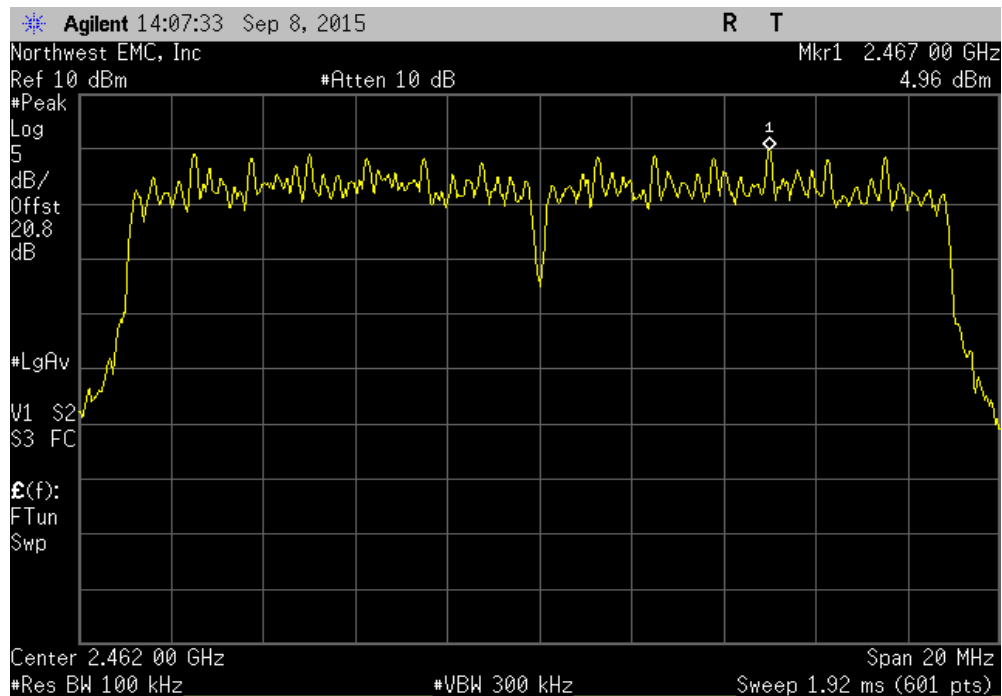
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz

	Value dBm/100kHz	dBm/100kHz To dBm/3kHz	Value dBm/3kHz	Limit dBm/3kHz	Results
	5.289	-15.2	-9.911	8	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz

	Value dBm/100kHz	dBm/100kHz To dBm/3kHz	Value dBm/3kHz	Limit dBm/3kHz	Results
	4.957	-15.2	-10.243	8	Pass



POWER SPECTRAL DENSITY

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	7/23/2015	12
Block - DC	Fairview Microwave	SD3379	AMM	2/27/2015	12
Attenuator	Fairview Microwave	SA4018-20	TQY	2/27/2015	12
Generator - Signal	Agilent	N5173B	TIW	7/15/2014	36

TEST DESCRIPTION

The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. External 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.

Per the procedure outlined in ANSI C63.10:2013 Section 11.10.2, the peak power spectral density was measured in a 100 kHz RBW.

The observed power level is then scaled to an equivalent value in 3 kHz by adding a Bandwidth Correction Factor (BWCF) where:

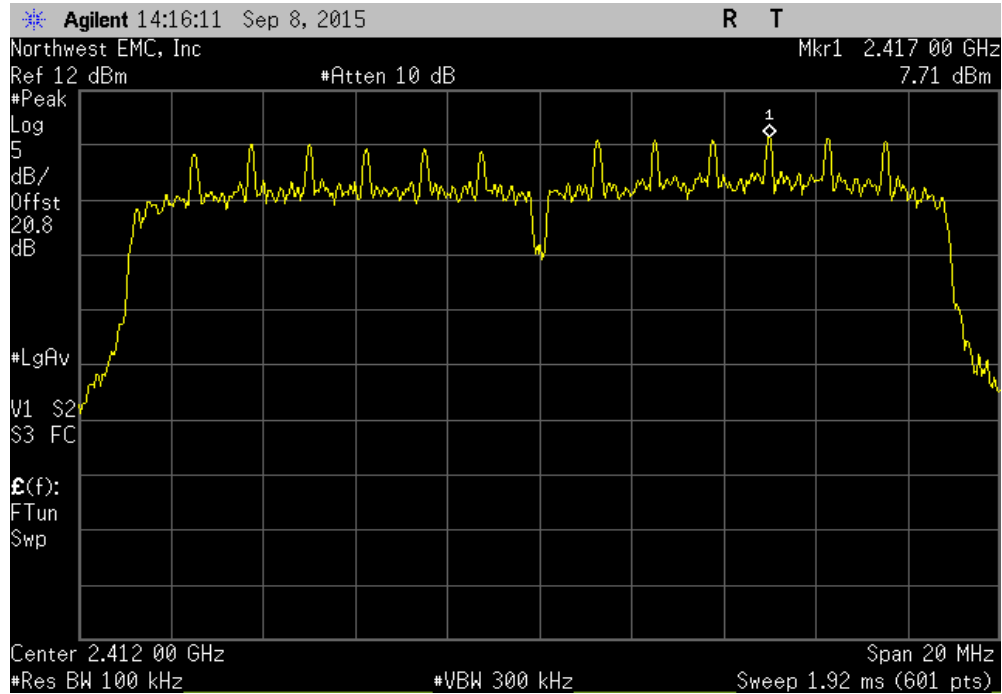
$$\text{BWCF} = 10 \cdot \text{LOG} (3 \text{ kHz} / 100 \text{ kHz}) = -15.2 \text{ dB}$$

POWER SPECTRAL DENSITY

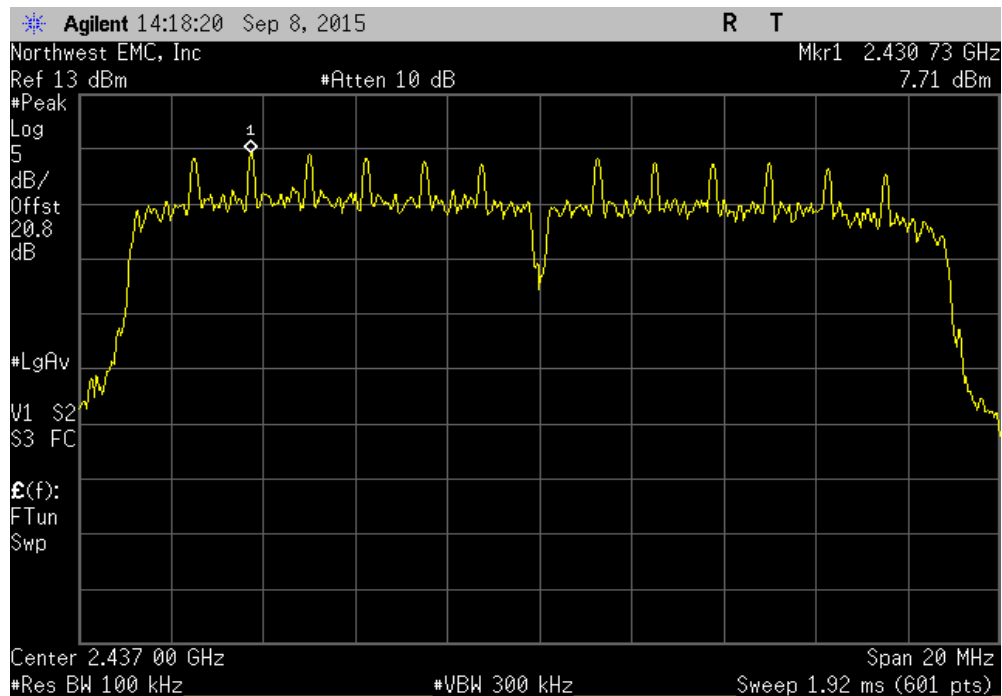
EUT: Firebox T50-W (BS5AE7W)		Work Order: VDEI0009				
Serial Number: 70AF02717-B385		Date: 09/08/15				
Customer: WatchGuard Technologies, Inc.		Temperature: 24.2°C				
Attendees: None		Humidity: 44%				
Project: None		Barometric Pres.: 1015 mbar				
Tested by: Jonathan Kiefer		Power: 110VAC/60Hz	Job Site: TX09			
TEST SPECIFICATIONS		Test Method				
FCC 15.247:2015		ANSI C63.10:2013				
COMMENTS						
3x3 MIMO mode, Chain ABC (Chains 0, 1, and 2).						
DEVIATIONS FROM TEST STANDARD						
None						
Configuration #	5	Signature <i>Jonathan Kiefer</i>				
		Value	dBm/100kHz	Value	Limit	
		dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results
Chain A						
	20 MHz					
	2400 MHz - 2483.5 MHz Band					
	802.11(n) MCS16					
	Low Channel 1, 2412 MHz	7.711	-15.2	-7.489	8	Pass
	Mid Channel 6, 2437 MHz	7.712	-15.2	-7.488	8	Pass
	High Channel 11, 2462 MHz	7.696	-15.2	-7.504	8	Pass
	802.11(n) MCS23					
	Low Channel 1, 2412 MHz	4.443	-15.2	-10.757	8	Pass
	Mid Channel 6, 2437 MHz	4.34	-15.2	-10.86	8	Pass
	High Channel 11, 2462 MHz	4.092	-15.2	-11.108	8	Pass
Chain B						
	20 MHz					
	2400 MHz - 2483.5 MHz Band					
	802.11(n) MCS16					
	Low Channel 1, 2412 MHz	9.24	-15.2	-5.96	8	Pass
	Mid Channel 6, 2437 MHz	8.162	-15.2	-7.038	8	Pass
	High Channel 11, 2462 MHz	7.952	-15.2	-7.248	8	Pass
	802.11(n) MCS23					
	Low Channel 1, 2412 MHz	5.82	-15.2	-9.38	8	Pass
	Mid Channel 6, 2437 MHz	4.974	-15.2	-10.226	8	Pass
	High Channel 11, 2462 MHz	4.792	-15.2	-10.408	8	Pass
Chain C						
	20 MHz					
	2400 MHz - 2483.5 MHz Band					
	802.11(n) MCS16					
	Low Channel 1, 2412 MHz	8.773	-15.2	-6.427	8	Pass
	Mid Channel 6, 2437 MHz	8.737	-15.2	-6.463	8	Pass
	High Channel 11, 2462 MHz	8.481	-15.2	-6.719	8	Pass
	802.11(n) MCS23					
	Low Channel 1, 2412 MHz	5.316	-15.2	-9.884	8	Pass
	Mid Channel 6, 2437 MHz	5.314	-15.2	-9.886	8	Pass
	High Channel 11, 2462 MHz	5.012	-15.2	-10.188	8	Pass
Power Summing Chain A						
	20 MHz					
	2400 MHz - 2483.5 MHz Band					
	802.11(n) MCS16	Value	Summing Factor	Summed Value	Limit	
		(dBm/3kHz)	(dBm)	(dBm/3kHz)	(dBm/3kHz)	Result
	Low Channel 1, 2412 MHz	-7.489	4.77	-2.719	8	Pass
	Mid Channel 6, 2437 MHz	-7.488	4.77	-2.718	8	Pass
	High Channel 11, 2462 MHz	-7.504	4.77	-2.734	8	Pass
	802.11(n) MCS23					
	Low Channel 1, 2412 MHz	-10.757	4.77	-5.987	8	Pass
	Mid Channel 6, 2437 MHz	-10.86	4.77	-6.09	8	Pass
	High Channel 11, 2462 MHz	-11.108	4.77	-6.338	8	Pass
Power Summing Chain B						
	20 MHz					
	2400 MHz - 2483.5 MHz Band					
	802.11(n) MCS16					
	Low Channel 1, 2412 MHz	-5.96	4.77	-1.19	8	Pass
	Mid Channel 6, 2437 MHz	-7.038	4.77	-2.268	8	Pass
	High Channel 11, 2462 MHz	-7.248	4.77	-2.478	8	Pass
	802.11(n) MCS23					
	Low Channel 1, 2412 MHz	-9.38	4.77	-4.61	8	Pass
	Mid Channel 6, 2437 MHz	-10.226	4.77	-5.456	8	Pass
	High Channel 11, 2462 MHz	-10.408	4.77	-5.638	8	Pass
Power Summing Chain C						
	20 MHz					
	2400 MHz - 2483.5 MHz Band					
	802.11(n) MCS16					
	Low Channel 1, 2412 MHz	-6.427	4.77	-1.657	8	Pass
	Mid Channel 6, 2437 MHz	-6.463	4.77	-1.693	8	Pass
	High Channel 11, 2462 MHz	-6.719	4.77	-1.949	8	Pass
	802.11(n) MCS23					
	Low Channel 1, 2412 MHz	-9.884	4.77	-5.114	8	Pass
	Mid Channel 6, 2437 MHz	-9.886	4.77	-5.116	8	Pass
	High Channel 11, 2462 MHz	-10.188	4.77	-5.418	8	Pass

POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	7.711	-15.2	-7.489	8	Pass

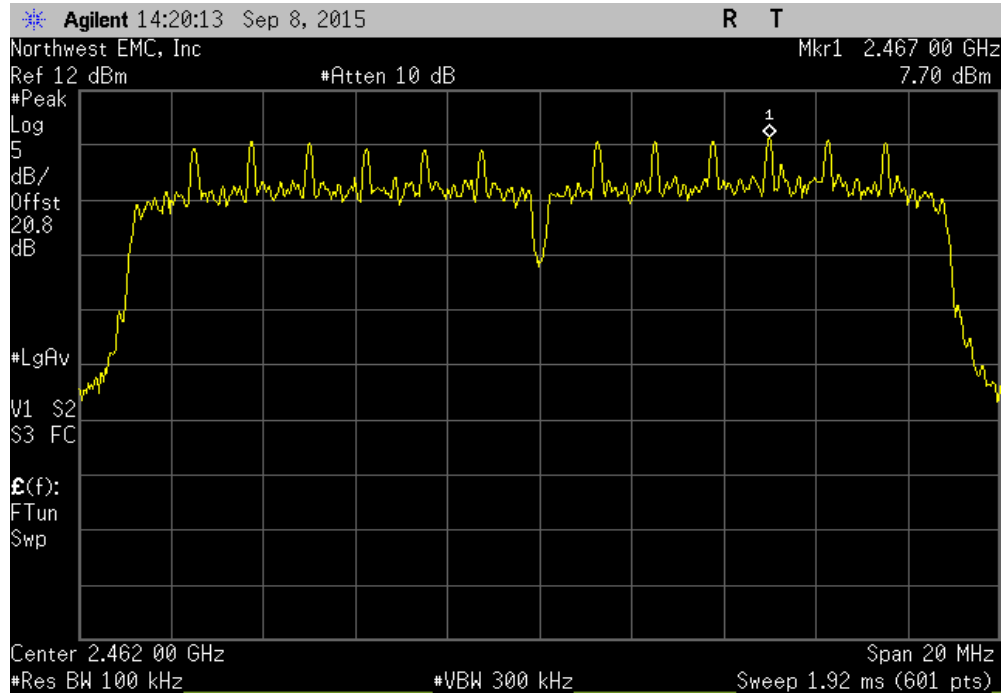


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Mid Channel 6, 2437 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	7.712	-15.2	-7.488	8	Pass

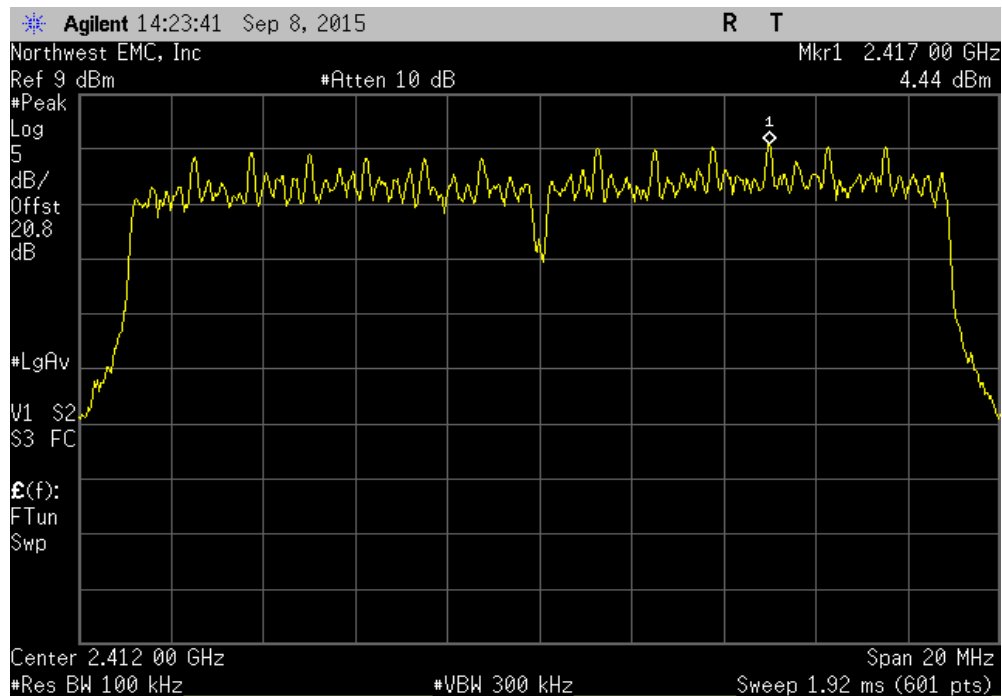


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	7.696	-15.2	-7.504	8	Pass

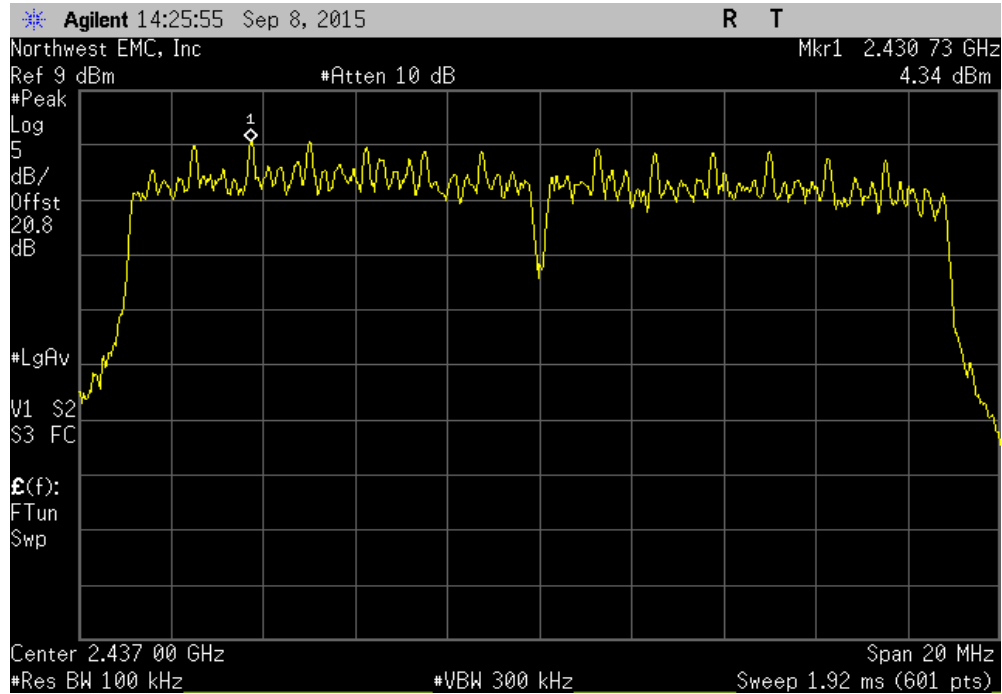


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	4.443	-15.2	-10.757	8	Pass

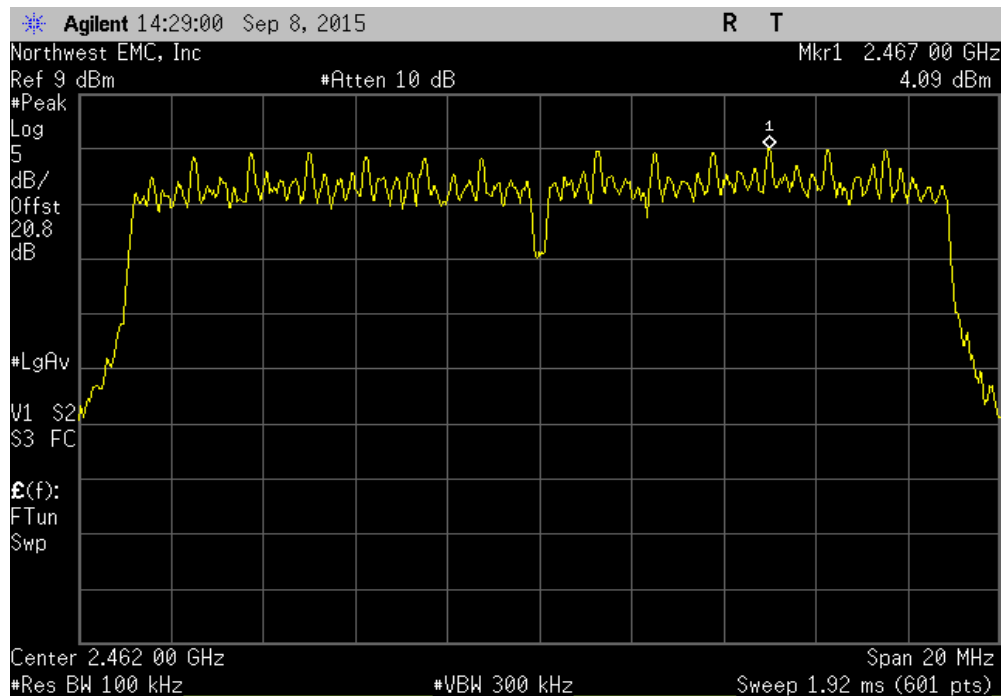


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	4.34	-15.2	-10.86	8	Pass	

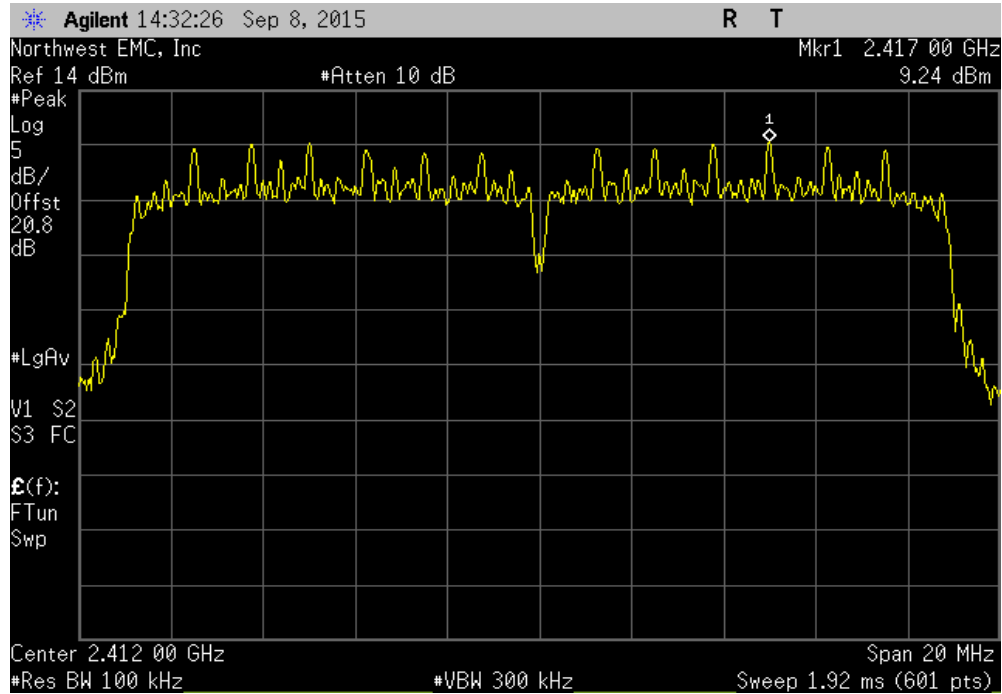


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	4.092	-15.2	-11.108	8	Pass	

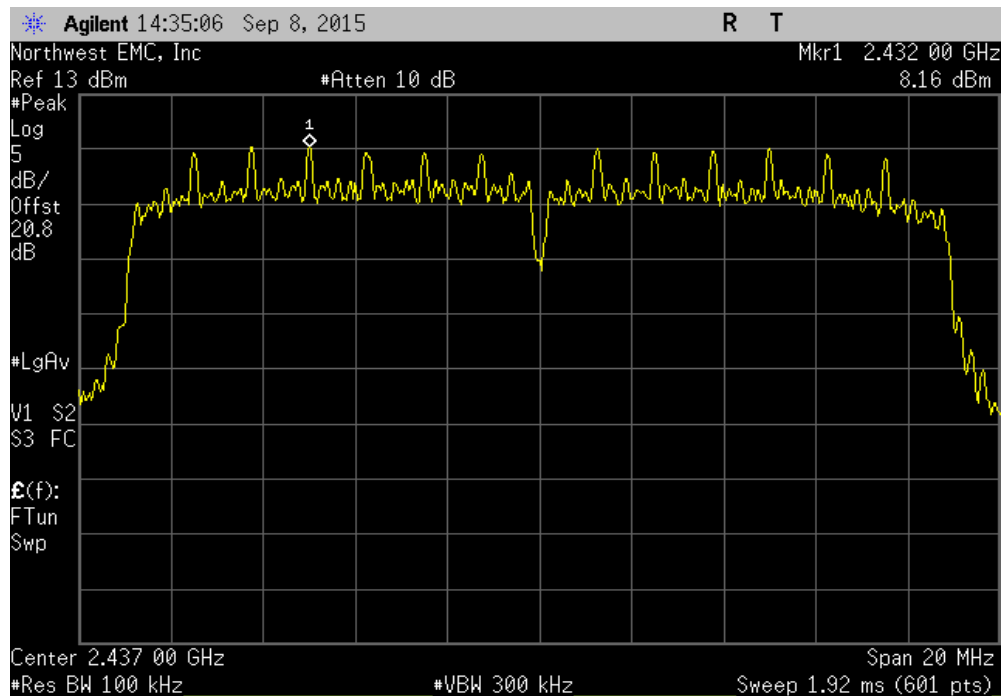


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	9.24	-15.2	-5.96	8	Pass	

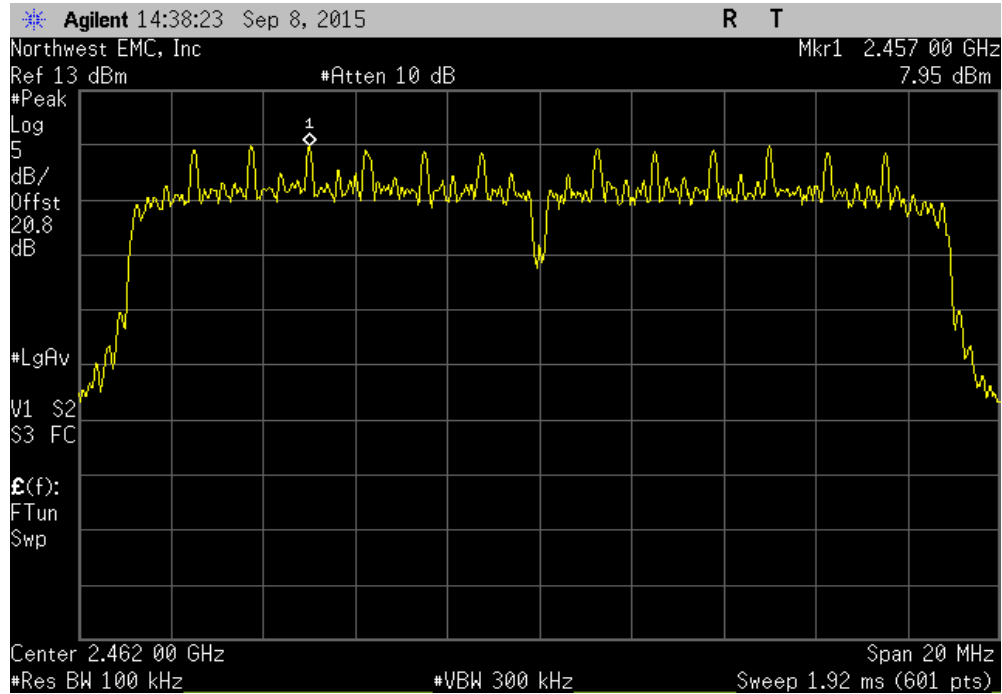


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	8.162	-15.2	-7.038	8	Pass	

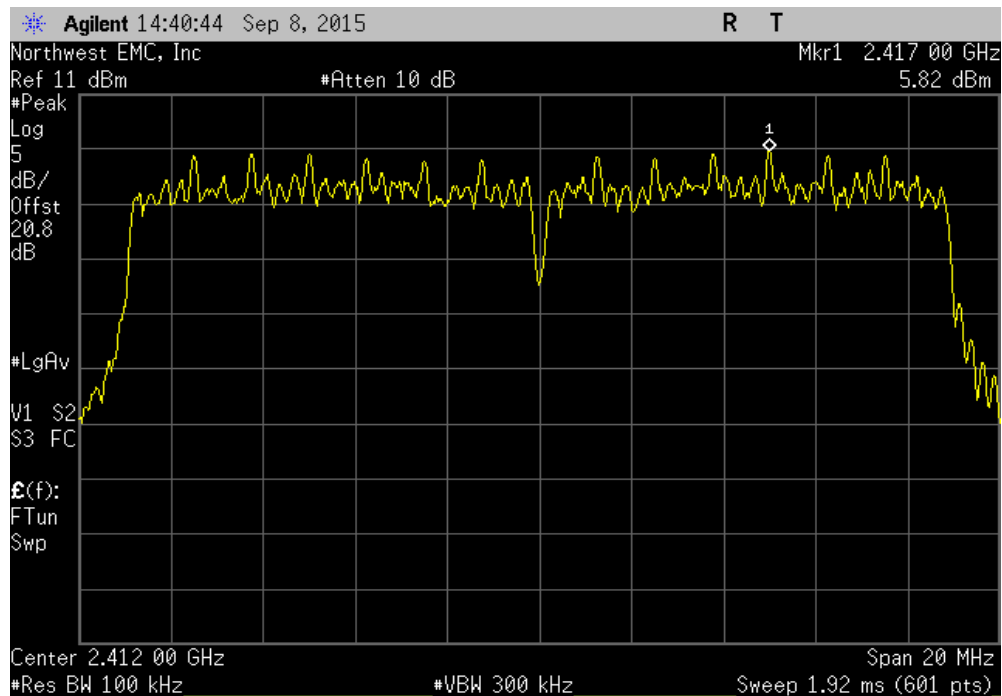


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	7.952	-15.2	-7.248	8	Pass	

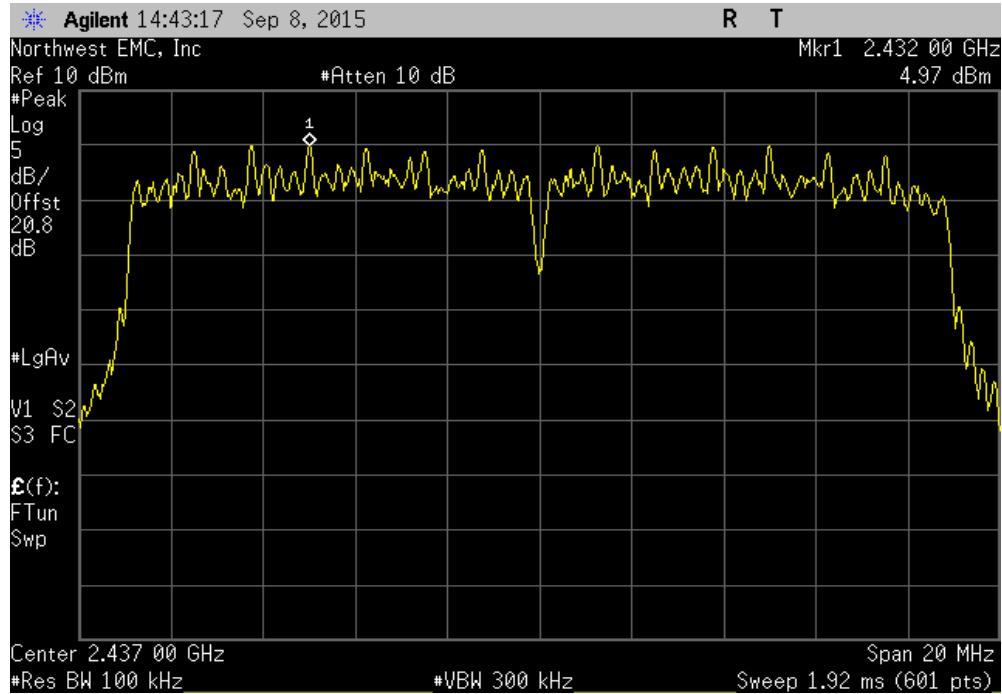


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	5.82	-15.2	-9.38	8	Pass	

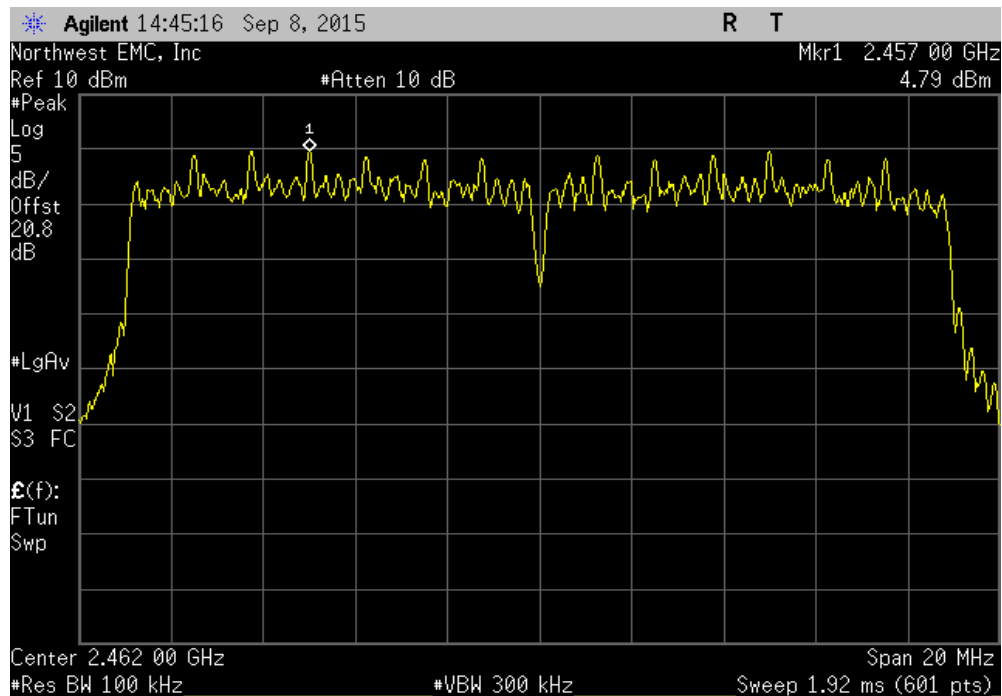


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	4.974	-15.2	-10.226	8	Pass	

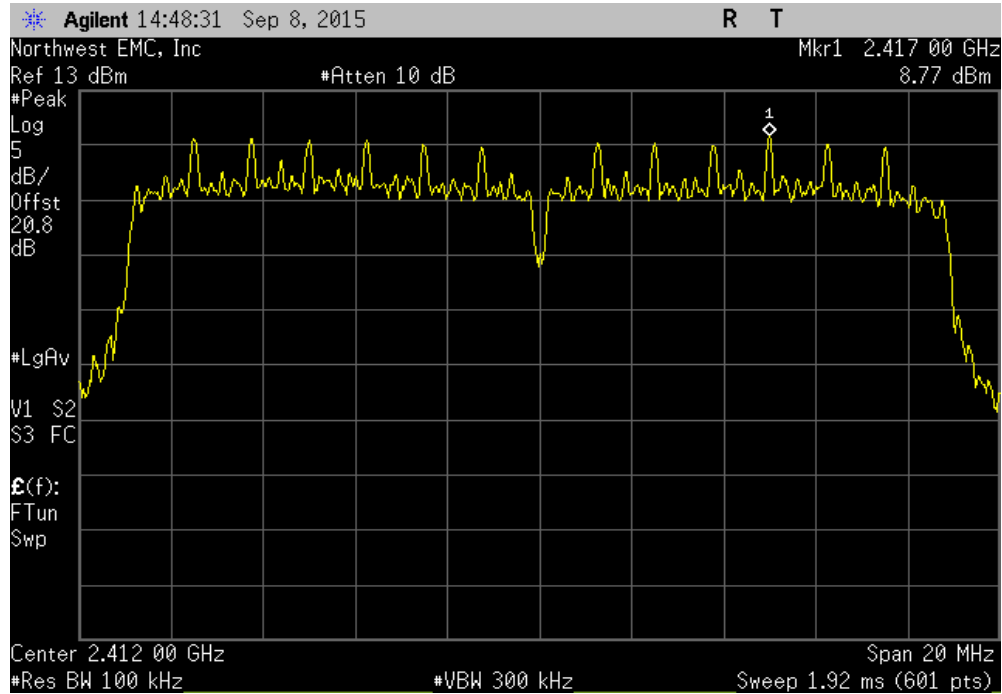


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	4.792	-15.2	-10.408	8	Pass	

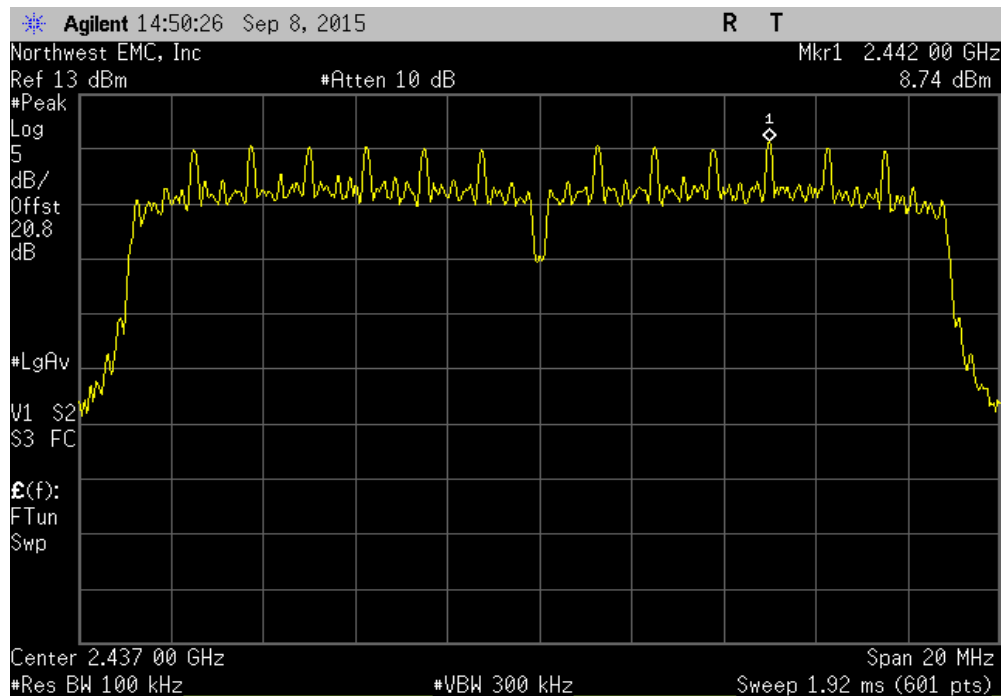


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	8.773	-15.2	-6.427	8	Pass

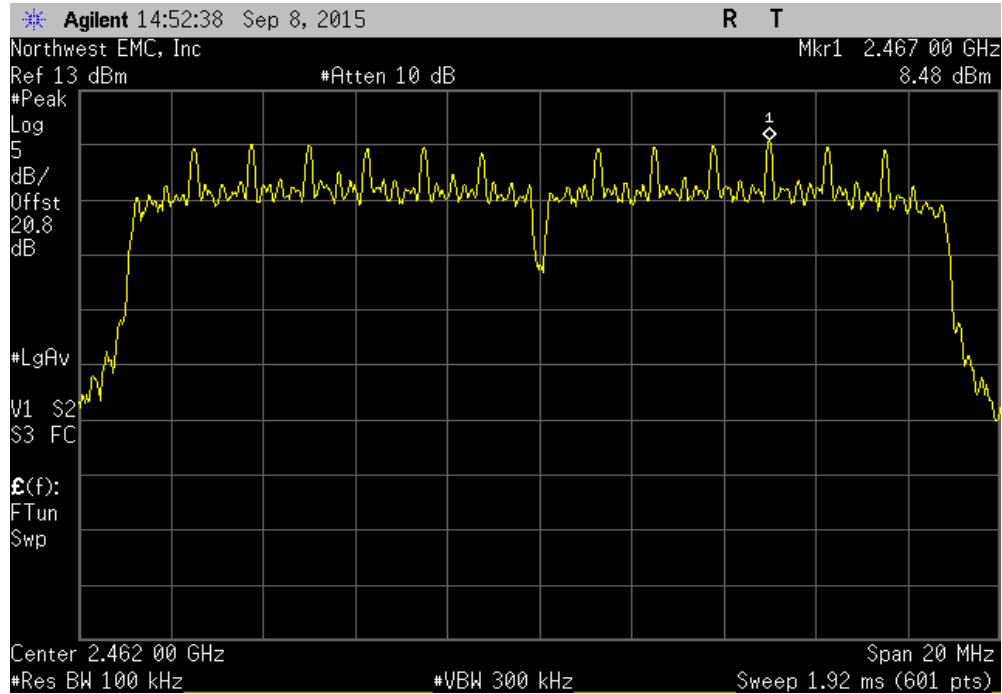


Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, Mid Channel 6, 2437 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	8.737	-15.2	-6.463	8	Pass

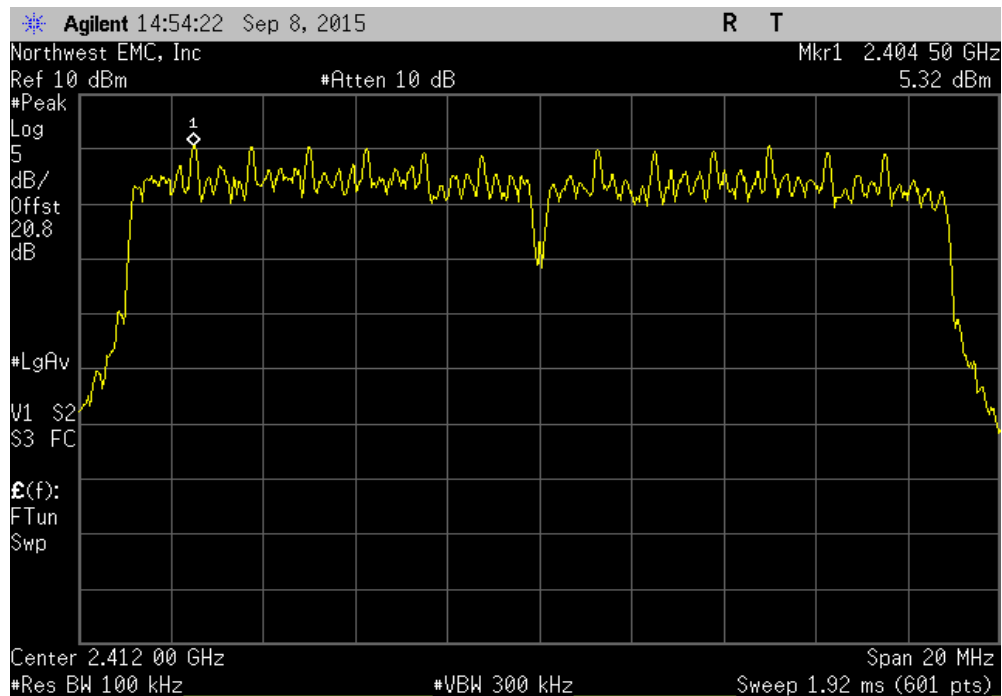


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS16, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	8.481	-15.2	-6.719	8	Pass	



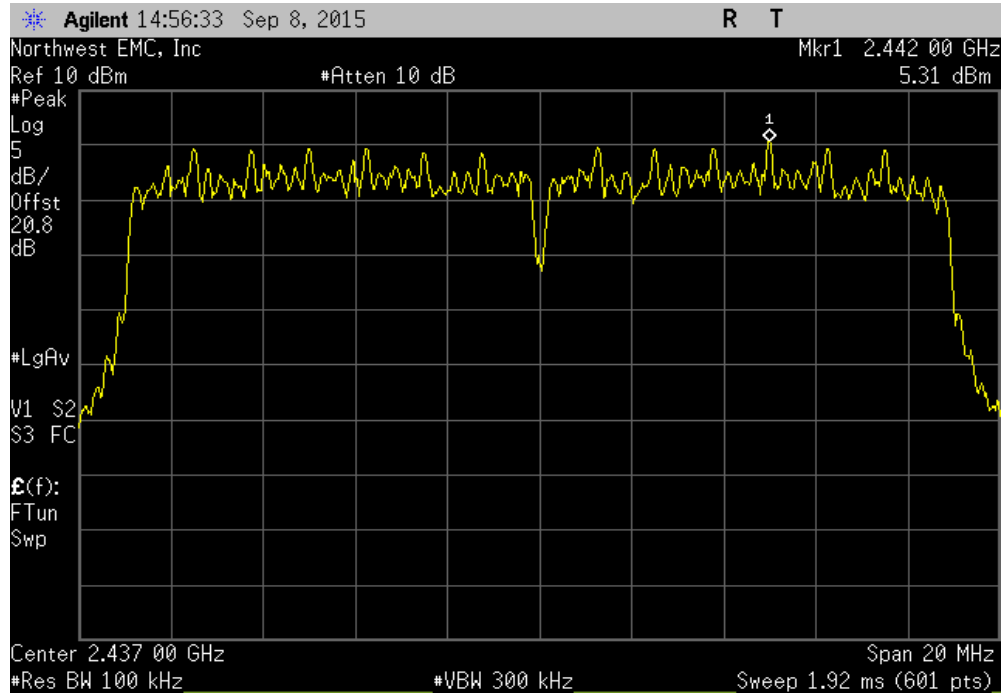
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	5.316	-15.2	-9.884	8	Pass	



POWER SPECTRAL DENSITY

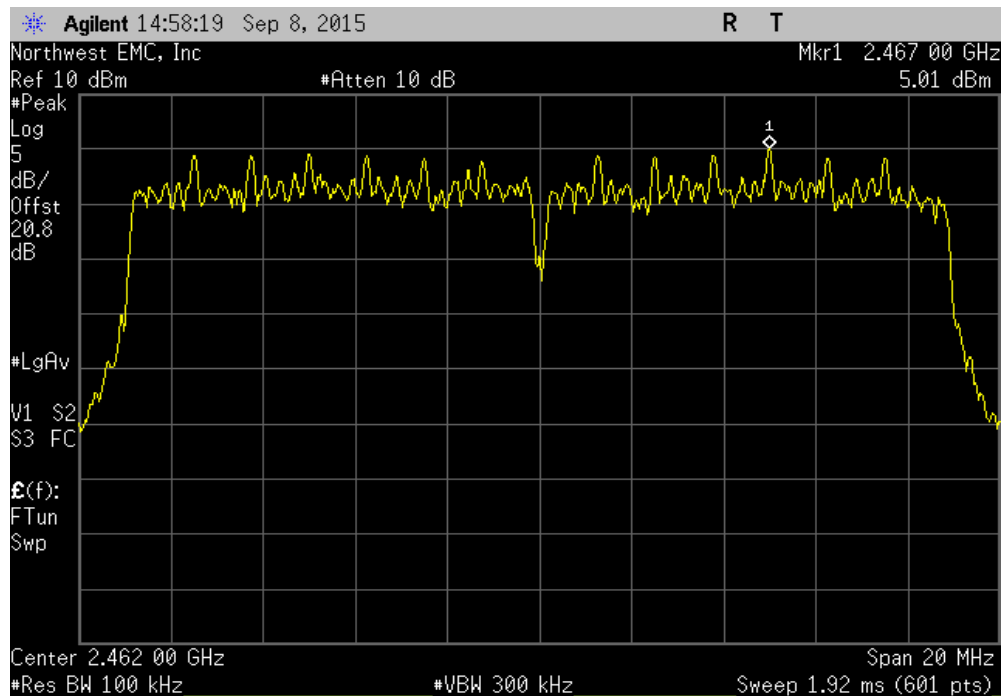
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, Mid Channel 6, 2437 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
5.314	-15.2	-9.886	8	Pass



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS23, High Channel 11, 2462 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
5.012	-15.2	-10.188	8	Pass



POWER SPECTRAL DENSITY

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Block - DC	Fairview Microwave	SD3379	AMM	2/27/2015	12
Attenuator	Fairview Microwave	SA4018-20	TQY	2/27/2015	12
Generator - Signal	Agilent	N5173B	TIW	7/15/2014	36
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	7/23/2015	12

TEST DESCRIPTION

The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. External 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.

Per the procedure outlined in ANSI C63.10:2013 Section 11.10.2, the peak power spectral density was measured in a 100 kHz RBW.

The observed power level is then scaled to an equivalent value in 3 kHz by adding a Bandwidth Correction Factor (BWCF) where:

$$\text{BWCF} = 10 \cdot \text{LOG} (3 \text{ kHz} / 100 \text{ kHz}) = -15.2 \text{ dB}$$

POWER SPECTRAL DENSITY

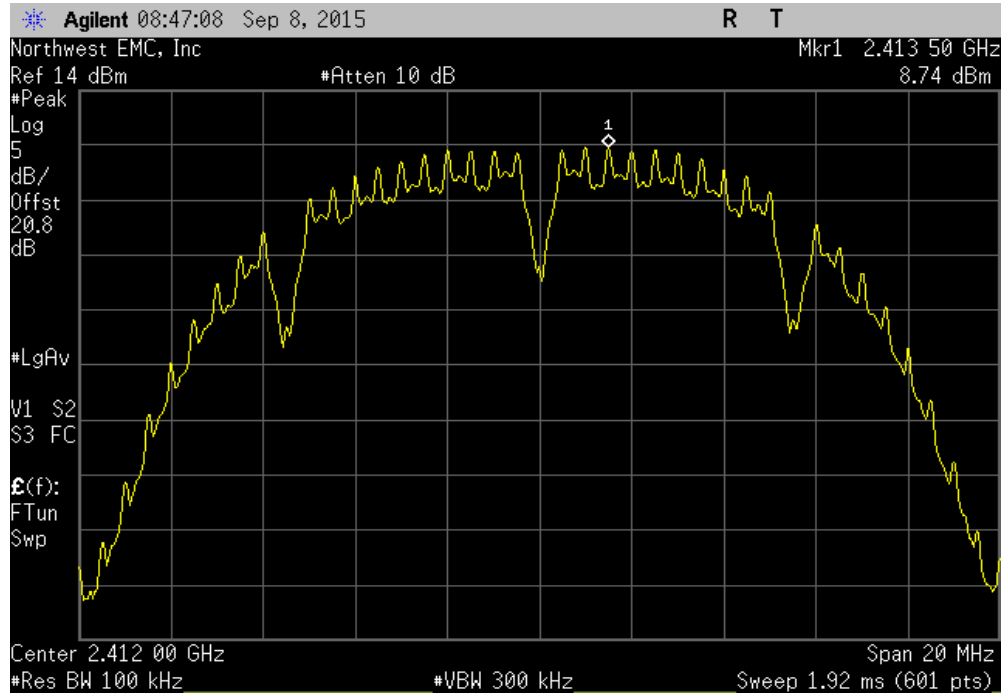


XMR 2015.01.14

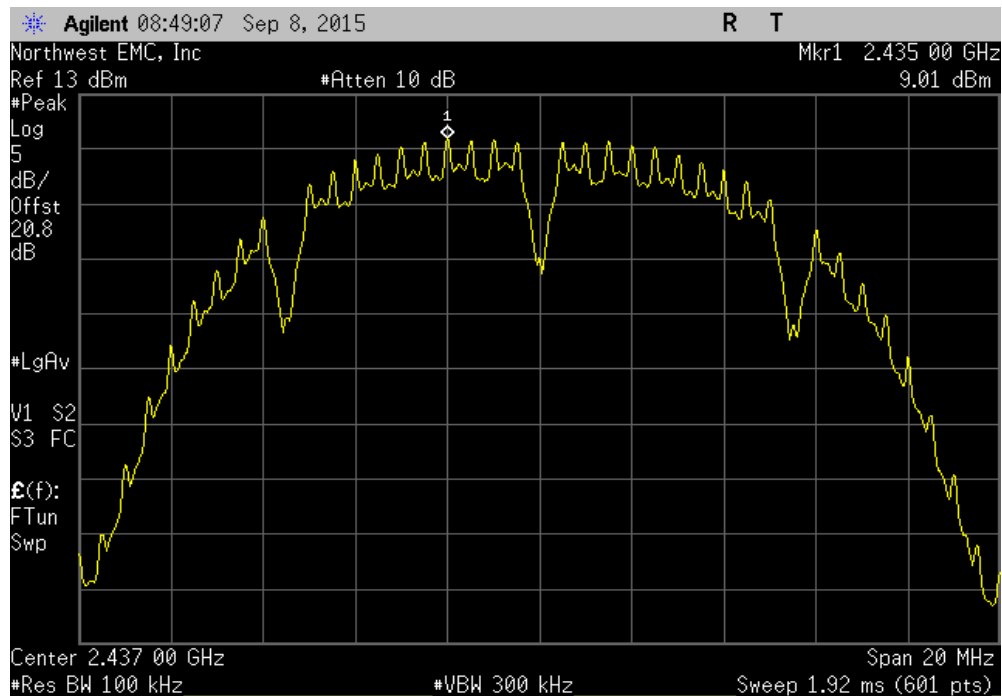
EUT:	Firebox T50-W (BS5AE7W)		Work Order:		VDEI0009	
Serial Number:	70AF02717-B3B5		Date:		09/08/15	
Customer:	WatchGuard Technologies, Inc.		Temperature:		24.2°C	
Attendees:	None		Humidity:		44%	
Project:	None		Barometric Pres.:		1015 mbar	
Tested by:	Jonathan Kiefer		Power:		110VAC/60Hz	
					Job Site: TX09	
TEST SPECIFICATIONS			Test Method			
FCC 15.247:2015			ANSI C63.10:2013			
COMMENTS						
Reference RF power table for channel power setting. Chains A, B, and C correspond to Chain 0, 1, and 2 respectively.						
DEVIATIONS FROM TEST STANDARD						
None						
Configuration #	5	Signature <i>Jonathan Kiefer</i>				
			Value	dBm/100kHz	Value	Limit
			dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz
			Results			
Chain A						
20 MHz			2400 MHz - 2483.5 MHz Band			
802.11(b) 1 Mbps						
Low Channel 1, 2412 MHz			8.74	-15.2	-6.46	8
Mid Channel 6, 2437 MHz			9.006	-15.2	-6.194	8
High Channel 11, 2462 MHz			8.884	-15.2	-6.316	8
802.11(b) 11 Mbps						
Low Channel 1, 2412 MHz			9.283	-15.2	-5.917	8
Mid Channel 6, 2437 MHz			9.18	-15.2	-6.02	8
High Channel 11, 2462 MHz			9.145	-15.2	-6.055	8
802.11(g) 6 Mbps						
Low Channel 1, 2412 MHz			7.564	-15.2	-7.636	8
Mid Channel 6, 2437 MHz			7.694	-15.2	-7.506	8
High Channel 11, 2462 MHz			7.424	-15.2	-7.776	8
802.11(g) 36 Mbps						
Low Channel 1, 2412 MHz			7.552	-15.2	-7.648	8
Mid Channel 6, 2437 MHz			7.498	-15.2	-7.702	8
High Channel 11, 2462 MHz			7.189	-15.2	-8.011	8
802.11(g) 54 Mbps						
Low Channel 1, 2412 MHz			5.253	-15.2	-9.947	8
Mid Channel 6, 2437 MHz			5.187	-15.2	-10.013	8
High Channel 11, 2462 MHz			5.007	-15.2	-10.193	8
802.11(n) MCS0						
Low Channel 1, 2412 MHz			7.501	-15.2	-7.699	8
Mid Channel 6, 2437 MHz			7.522	-15.2	-7.678	8
High Channel 11, 2462 MHz			7.409	-15.2	-7.791	8
802.11(n) MCS7						
Low Channel 1, 2412 MHz			5.278	-15.2	-9.922	8
Mid Channel 6, 2437 MHz			5.214	-15.2	-9.986	8
High Channel 11, 2462 MHz			5.001	-15.2	-10.199	8
Chain B						
20 MHz			2400 MHz - 2483.5 MHz Band			
802.11(b) 1 Mbps						
Low Channel 1, 2412 MHz			10.46	-15.2	-4.74	8
Mid Channel 6, 2437 MHz			10.007	-15.2	-5.193	8
High Channel 11, 2462 MHz			9.516	-15.2	-5.684	8
802.11(b) 11 Mbps						
Low Channel 1, 2412 MHz			10.524	-15.2	-4.676	8
Mid Channel 6, 2437 MHz			10.207	-15.2	-4.993	8
High Channel 11, 2462 MHz			9.839	-15.2	-5.361	8
802.11(g) 6 Mbps						
Low Channel 1, 2412 MHz			8.984	-15.2	-6.216	8
Mid Channel 6, 2437 MHz			7.944	-15.2	-7.256	8
High Channel 11, 2462 MHz			6.24	-15.2	-8.96	8
802.11(g) 36 Mbps						
Low Channel 1, 2412 MHz			8.812	-15.2	-6.388	8
Mid Channel 6, 2437 MHz			7.795	-15.2	-7.405	8
High Channel 11, 2462 MHz			7.978	-15.2	-7.222	8
802.11(g) 54 Mbps						
Low Channel 1, 2412 MHz			6.673	-15.2	-8.527	8
Mid Channel 6, 2437 MHz			5.93	-15.2	-9.27	8
High Channel 11, 2462 MHz			5.787	-15.2	-9.413	8
802.11(n) MCS0						
Low Channel 1, 2412 MHz			8.8	-15.2	-6.4	8
Mid Channel 6, 2437 MHz			7.903	-15.2	-7.297	8
High Channel 11, 2462 MHz			7.946	-15.2	-7.254	8
802.11(n) MCS7						
Low Channel 1, 2412 MHz			6.672	-15.2	-8.528	8
Mid Channel 6, 2437 MHz			5.908	-15.2	-9.292	8
High Channel 11, 2462 MHz			5.809	-15.2	-9.391	8
Chain C						
20 MHz			2400 MHz - 2483.5 MHz Band			
802.11(b) 1 Mbps						
Low Channel 1, 2412 MHz			9.8	-15.2	-5.4	8
Mid Channel 6, 2437 MHz			9.832	-15.2	-5.368	8
High Channel 11, 2462 MHz			9.439	-15.2	-5.761	8
802.11(b) 11 Mbps						
Low Channel 1, 2412 MHz			9.853	-15.2	-5.347	8
Mid Channel 6, 2437 MHz			9.737	-15.2	-5.463	8
High Channel 11, 2462 MHz			9.892	-15.2	-5.308	8
802.11(g) 6 Mbps						
Low Channel 1, 2412 MHz			8.568	-15.2	-6.632	8
Mid Channel 6, 2437 MHz			8.162	-15.2	-7.038	8
High Channel 11, 2462 MHz			7.951	-15.2	-7.249	8
802.11(g) 36 Mbps						
Low Channel 1, 2412 MHz			8.497	-15.2	-6.703	8
Mid Channel 6, 2437 MHz			8.008	-15.2	-7.192	8
High Channel 11, 2462 MHz			7.822	-15.2	-7.378	8
802.11(g) 54 Mbps						
Low Channel 1, 2412 MHz			6.172	-15.2	-9.028	8
Mid Channel 6, 2437 MHz			5.658	-15.2	-9.542	8
High Channel 11, 2462 MHz			5.486	-15.2	-9.714	8
802.11(n) MCS0						
Low Channel 1, 2412 MHz			8.517	-15.2	-6.683	8
Mid Channel 6, 2437 MHz			8.111	-15.2	-7.089	8
High Channel 11, 2462 MHz			7.888	-15.2	-7.312	8
802.11(n) MCS7						
Low Channel 1, 2412 MHz			6.121	-15.2	-9.079	8
Mid Channel 6, 2437 MHz			5.716	-15.2	-9.484	8
High Channel 11, 2462 MHz			5.579	-15.2	-9.621	8

POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	8.74	-15.2	-6.46	8	Pass

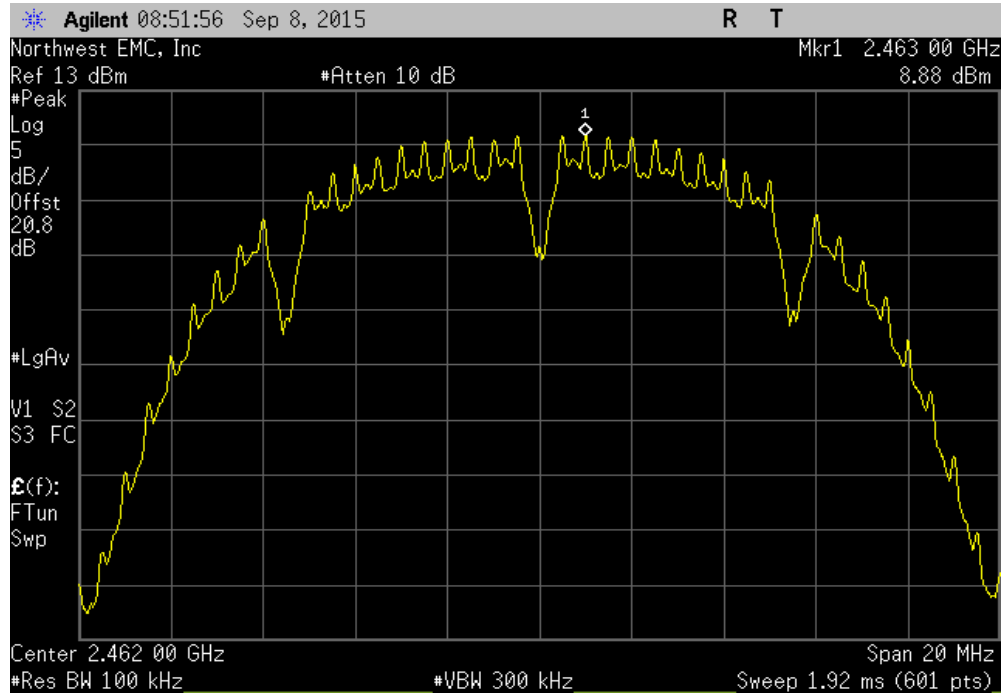


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	9.006	-15.2	-6.194	8	Pass

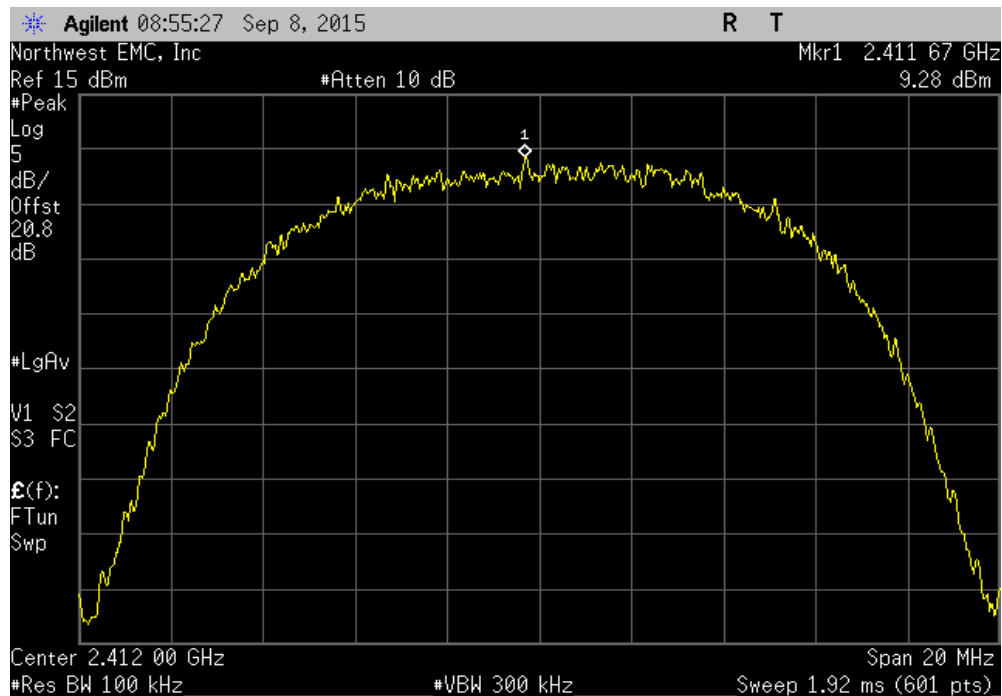


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	To dBm/3kHz	Value	Limit	Results
	8.884		-15.2	-6.316	8	Pass

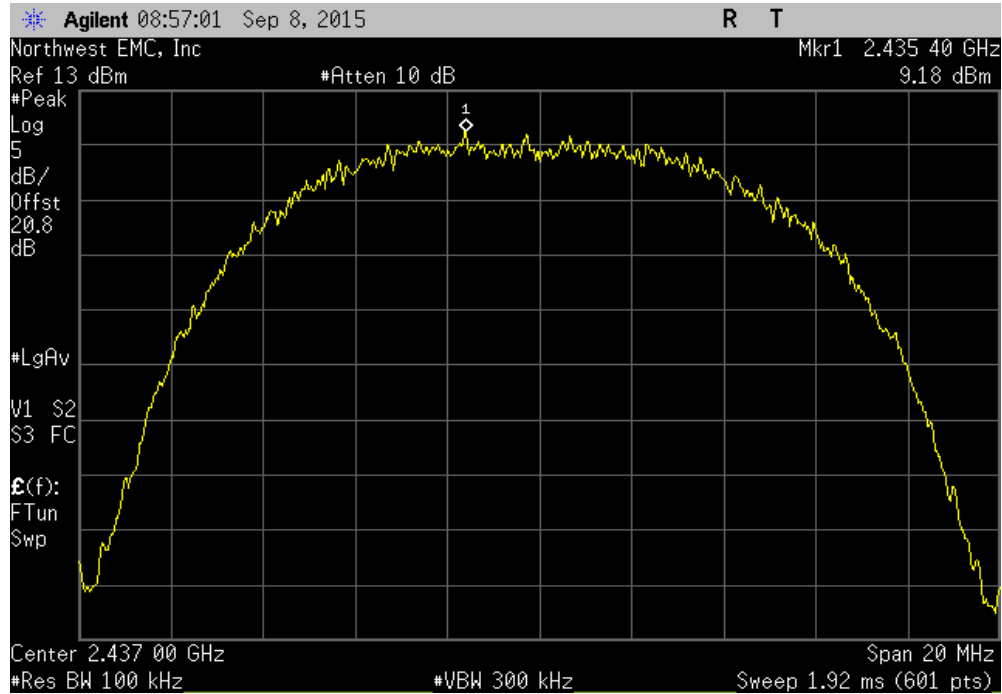


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	To dBm/3kHz	Value	Limit	Results
	9.283		-15.2	-5.917	8	Pass

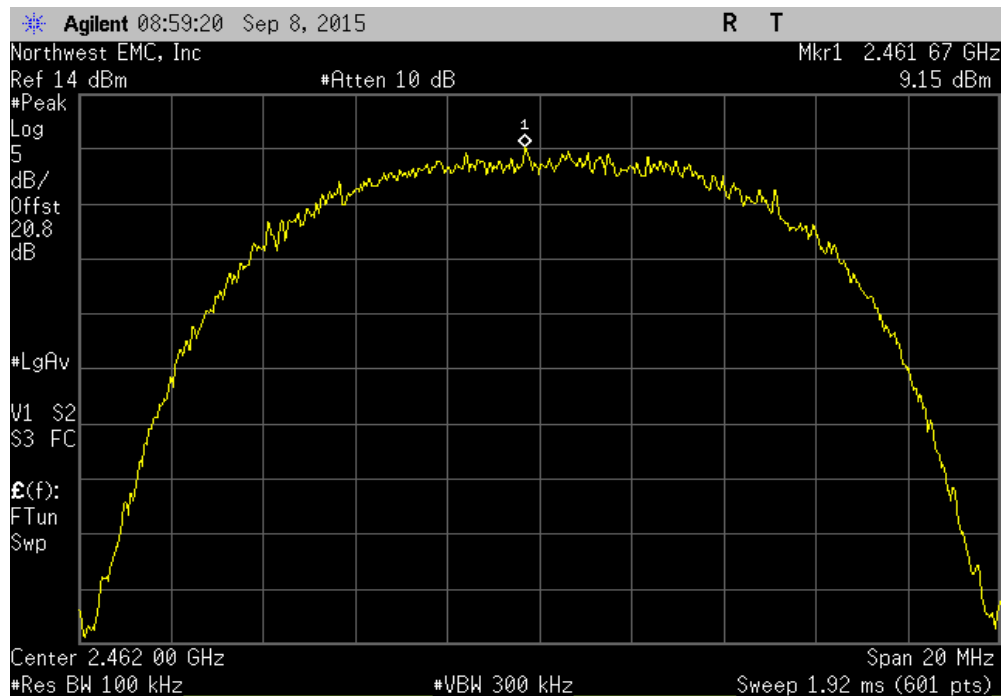


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	9.18	-15.2	-6.02	8	Pass



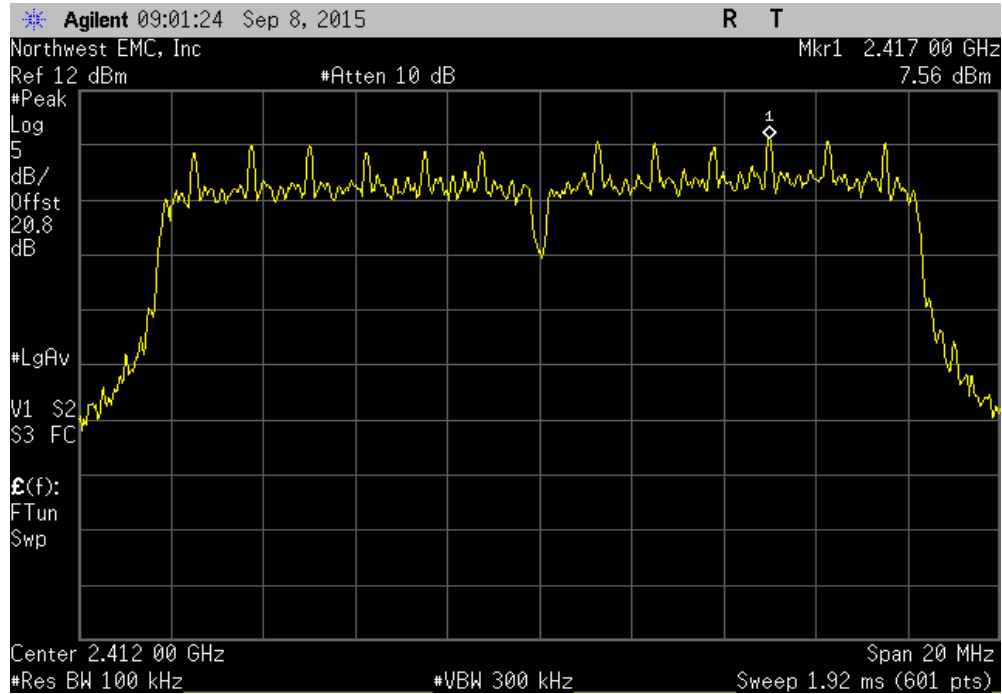
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	9.145	-15.2	-6.055	8	Pass



POWER SPECTRAL DENSITY

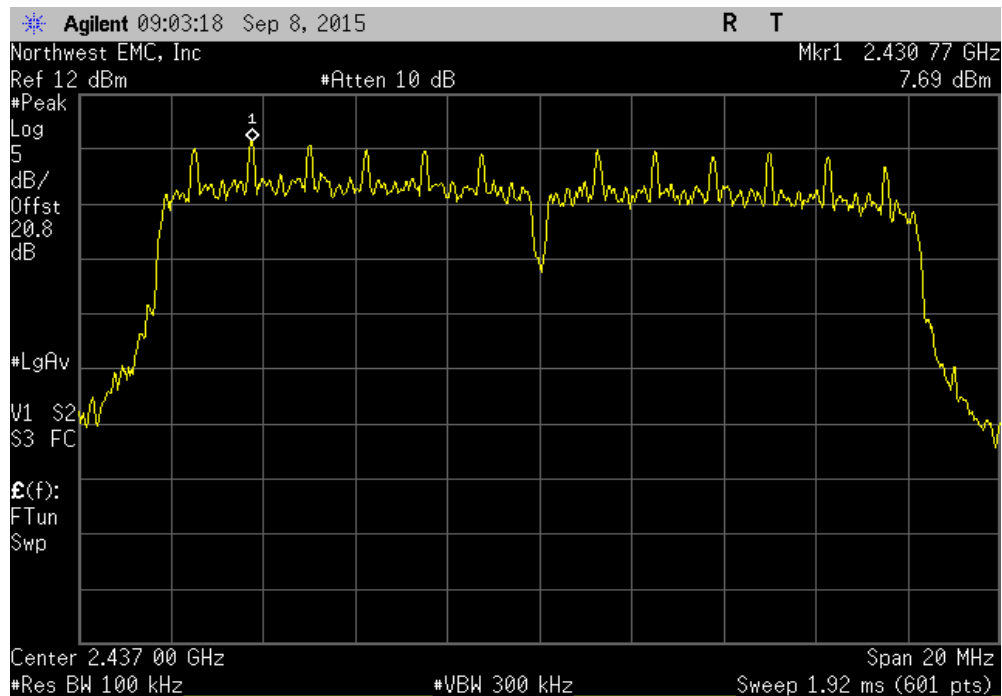
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
7.564	-15.2	-7.636	8	Pass



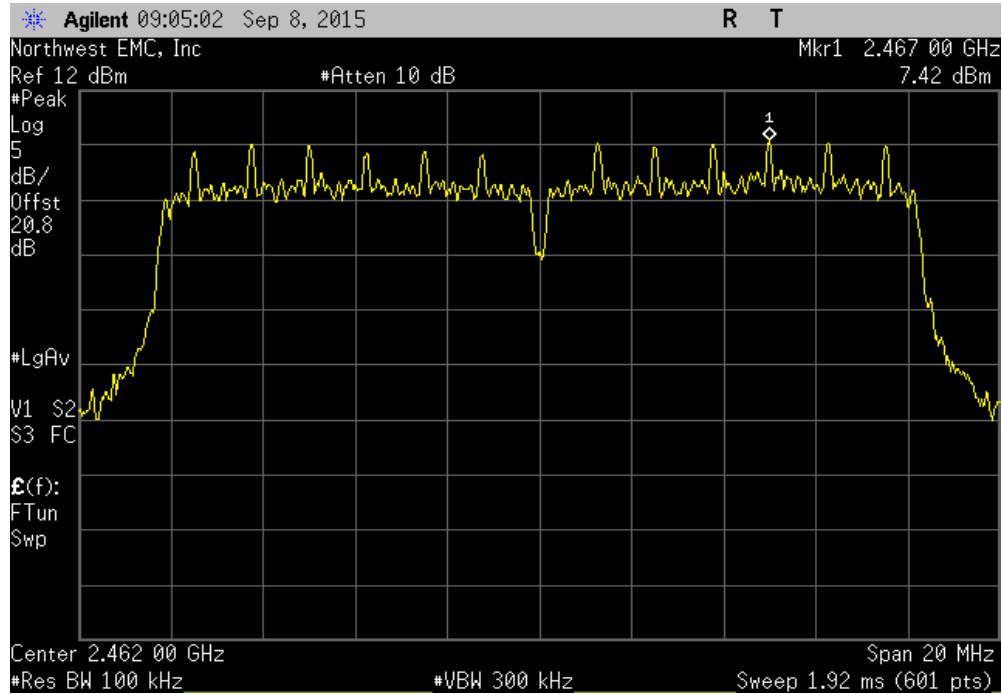
Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
7.694	-15.2	-7.506	8	Pass

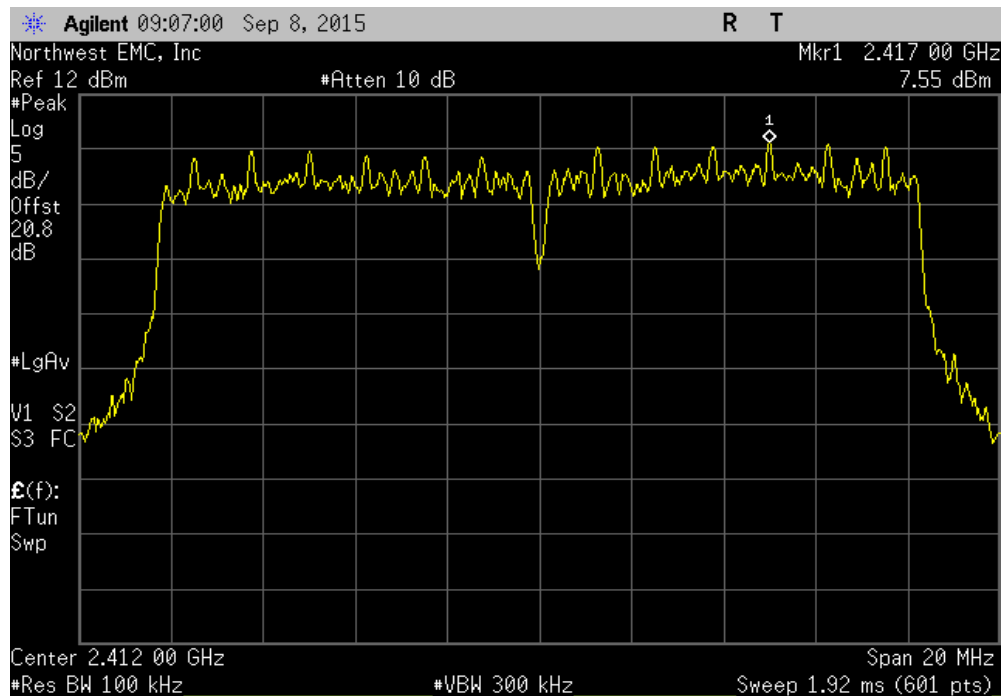


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	7.424	-15.2	-7.776	8	Pass

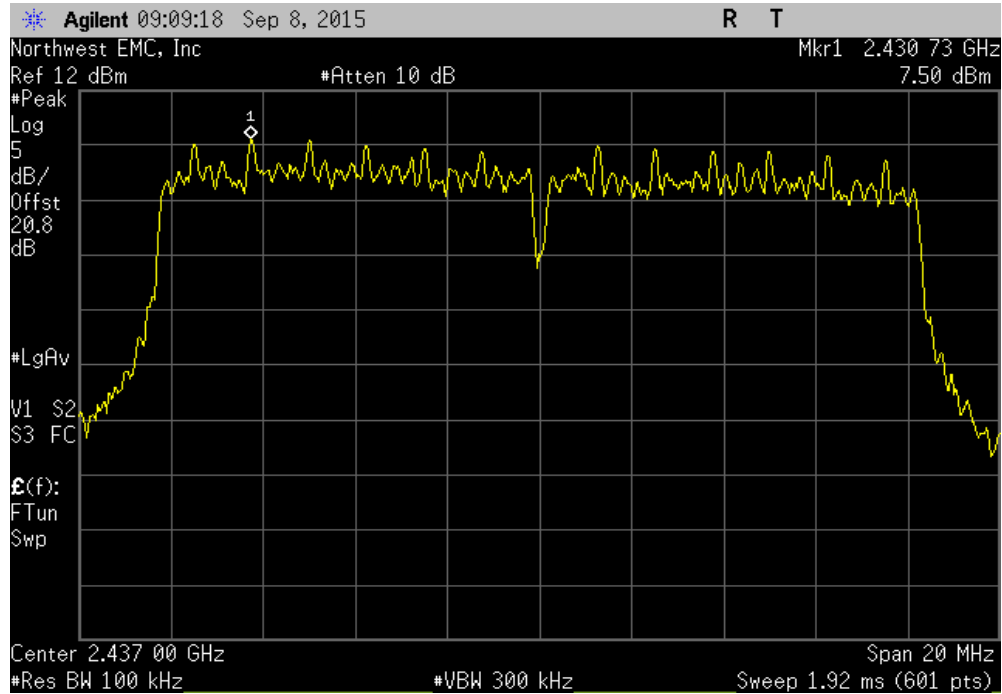


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	7.552	-15.2	-7.648	8	Pass

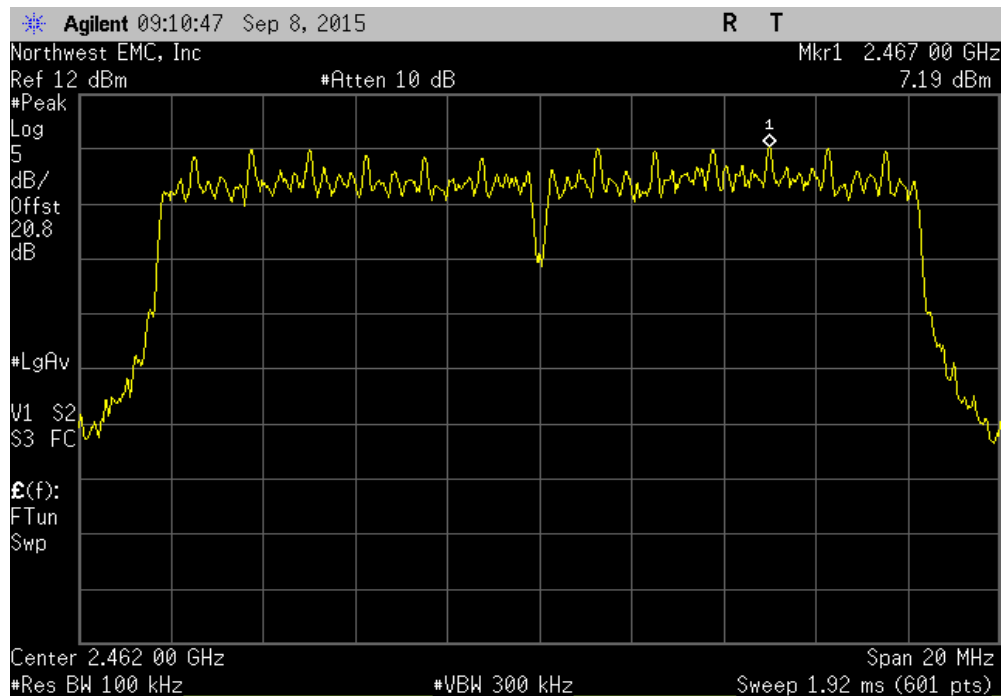


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.498	-15.2	-7.702	8	Pass	

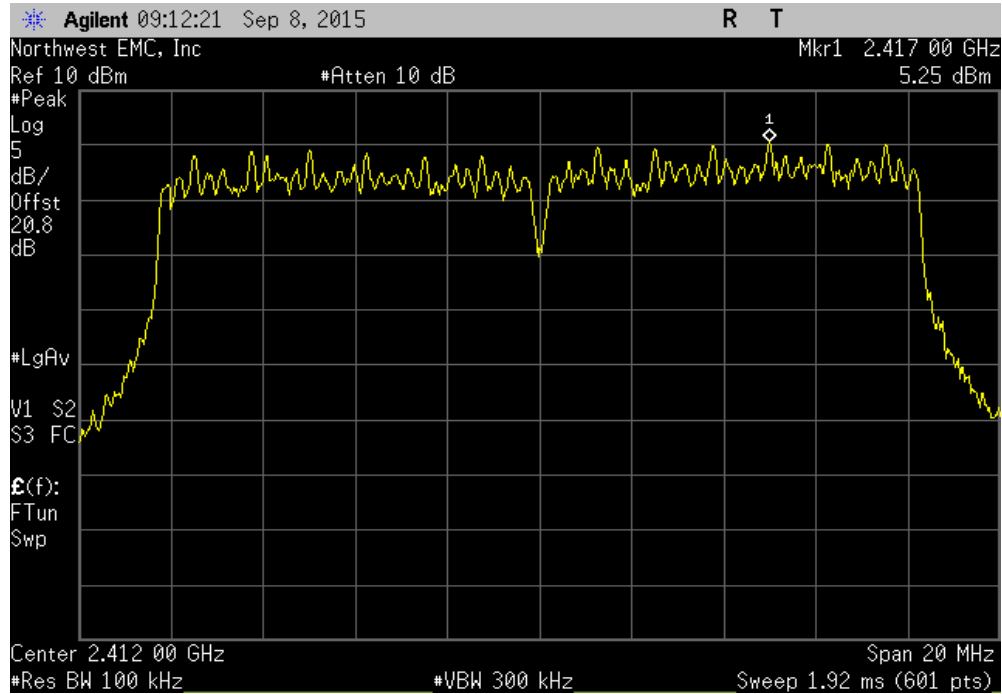


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.189	-15.2	-8.011	8	Pass	

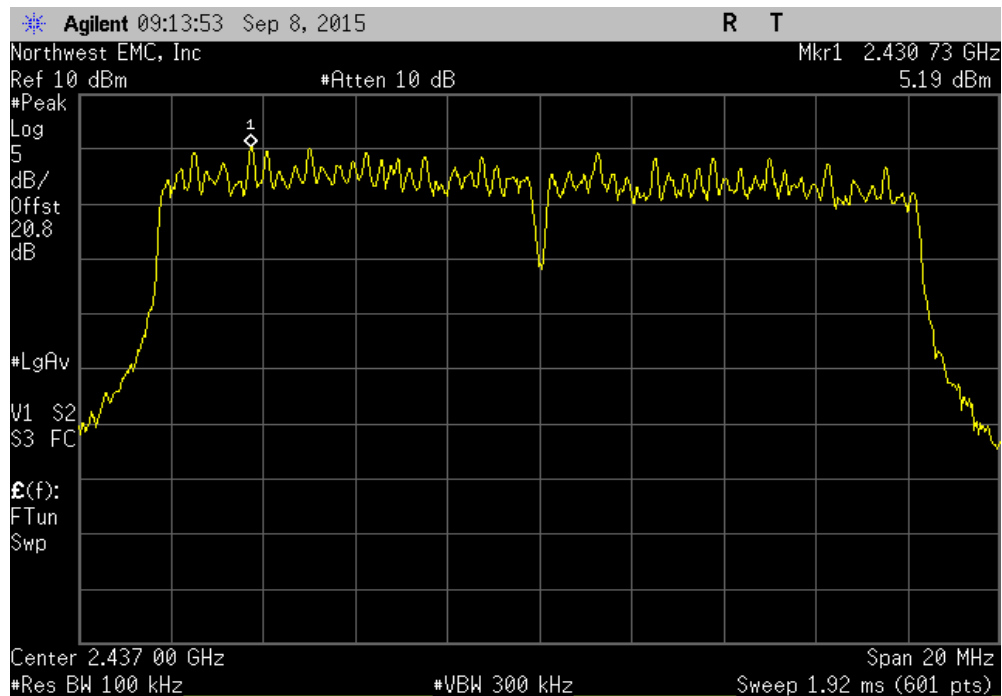


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	5.253	-15.2	-9.947	8	Pass

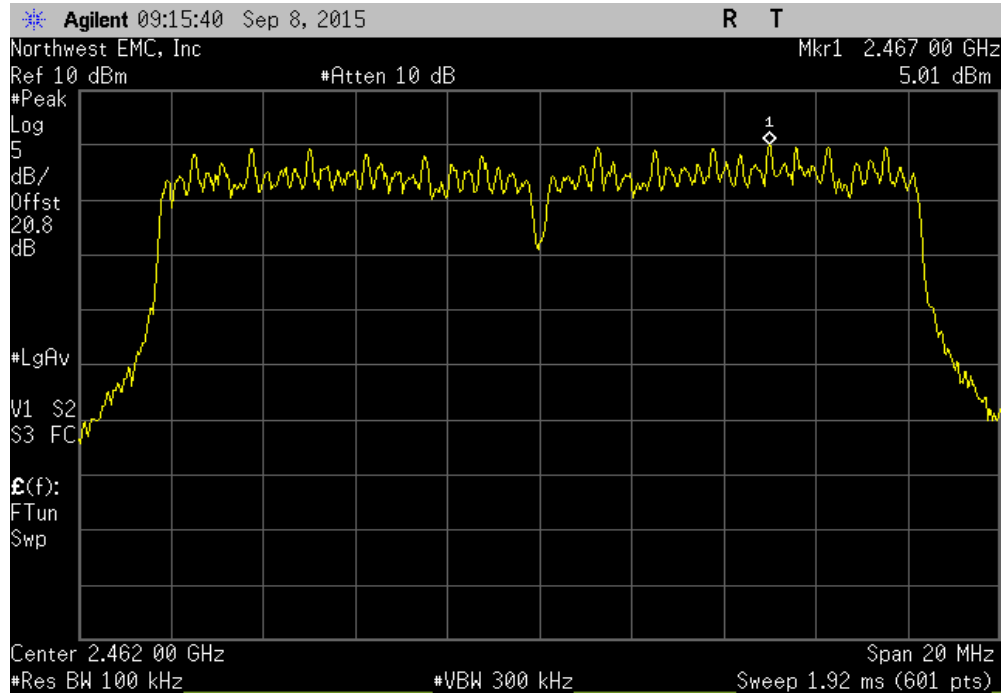


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	5.187	-15.2	-10.013	8	Pass

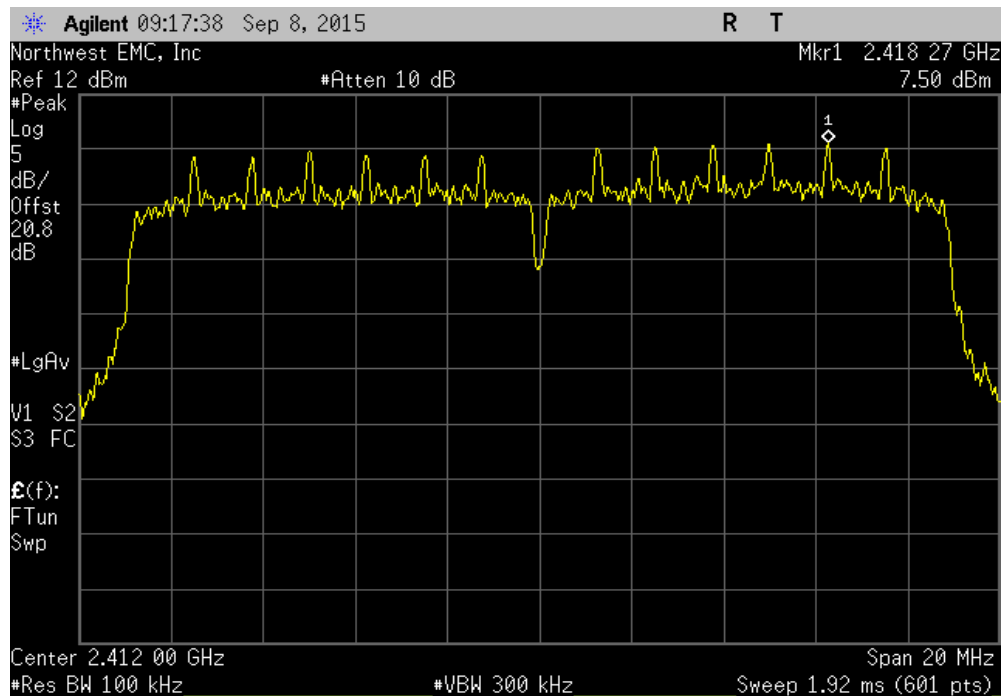


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	5.007	-15.2	-10.193	8	Pass	

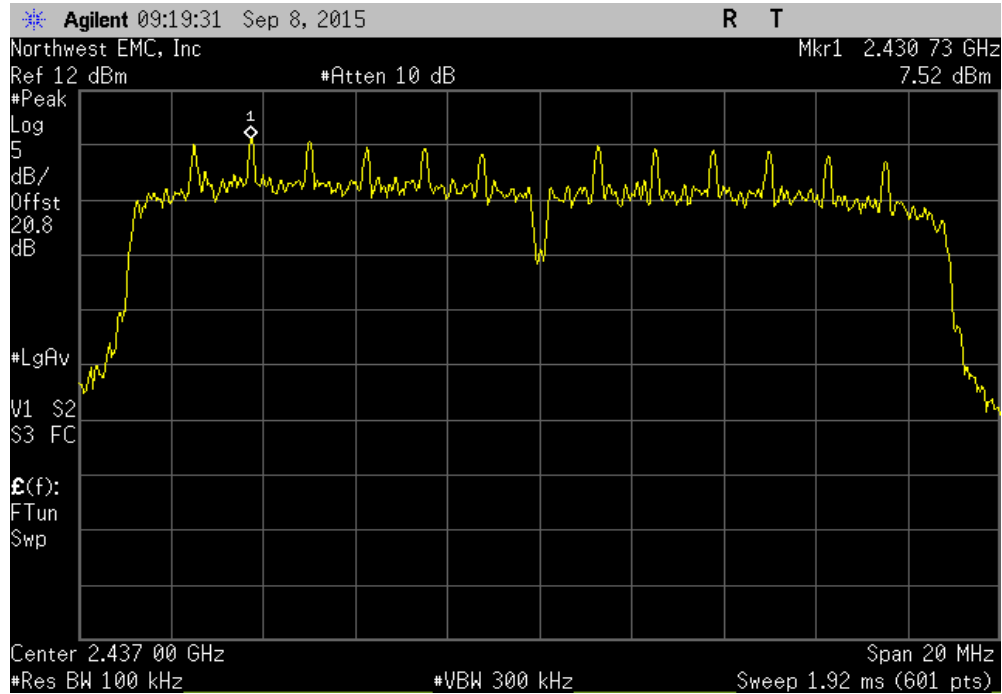


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.501	-15.2	-7.699	8	Pass	

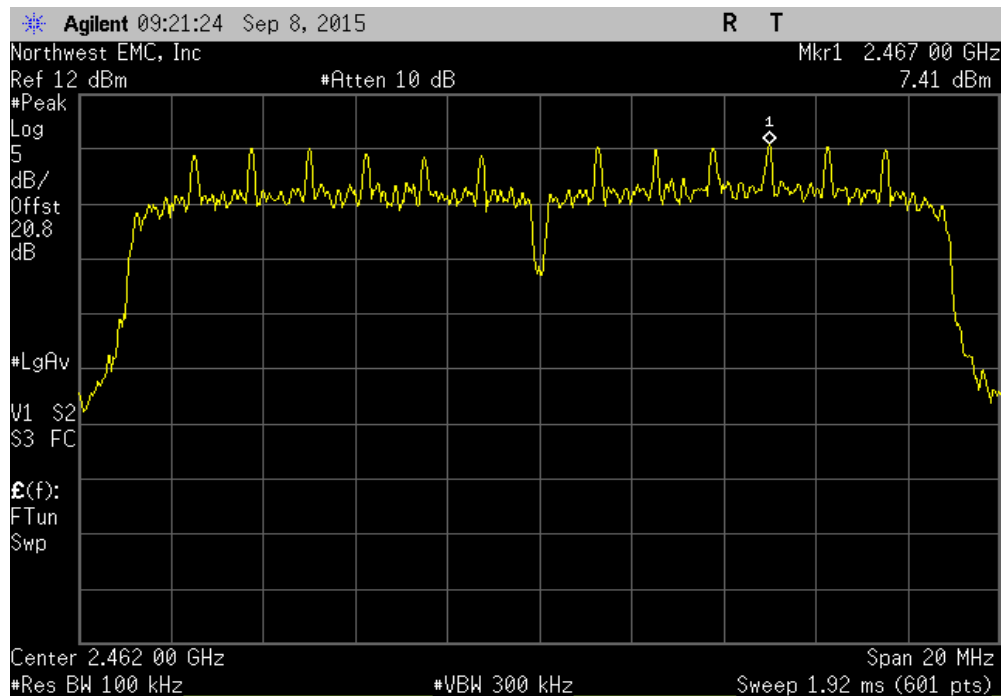


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.522	-15.2	-7.678	8	Pass	

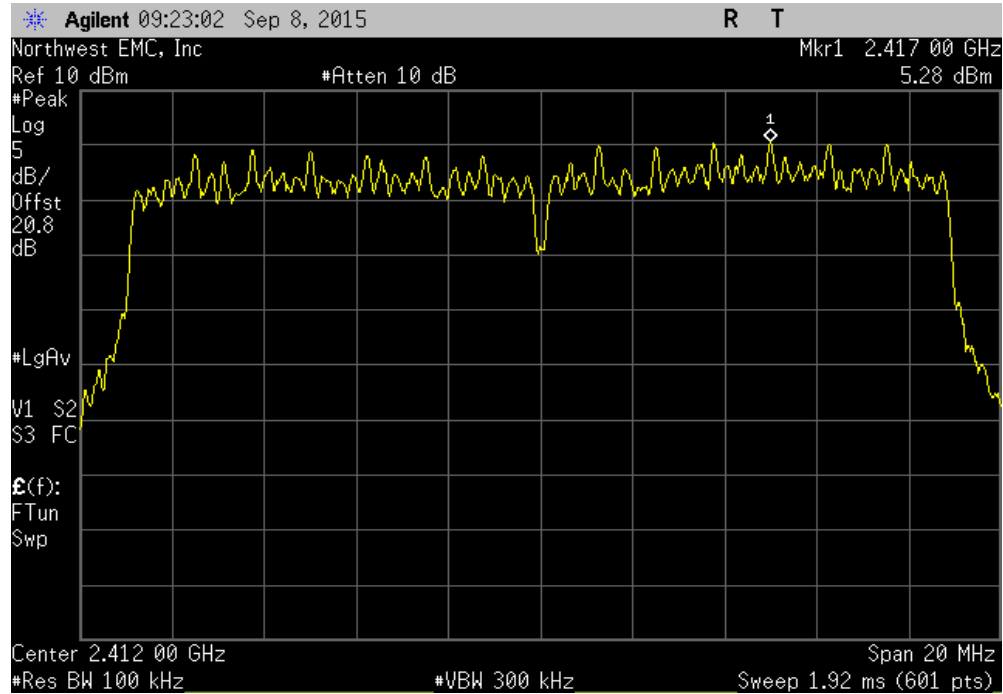


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.409	-15.2	-7.791	8	Pass	

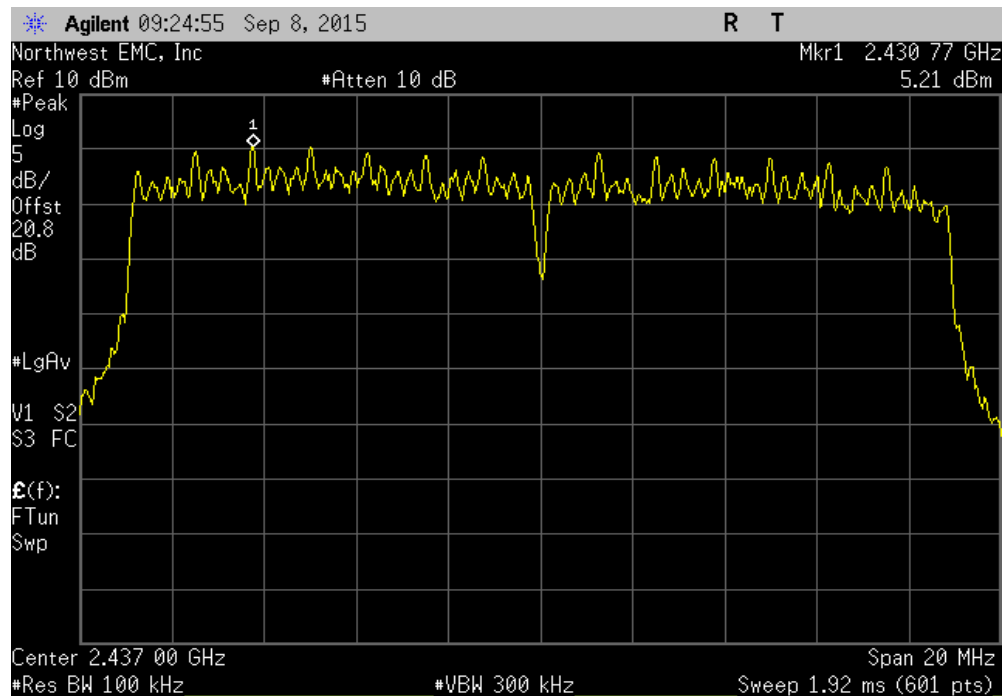


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	5.278	-15.2	-9.922	8	Pass	

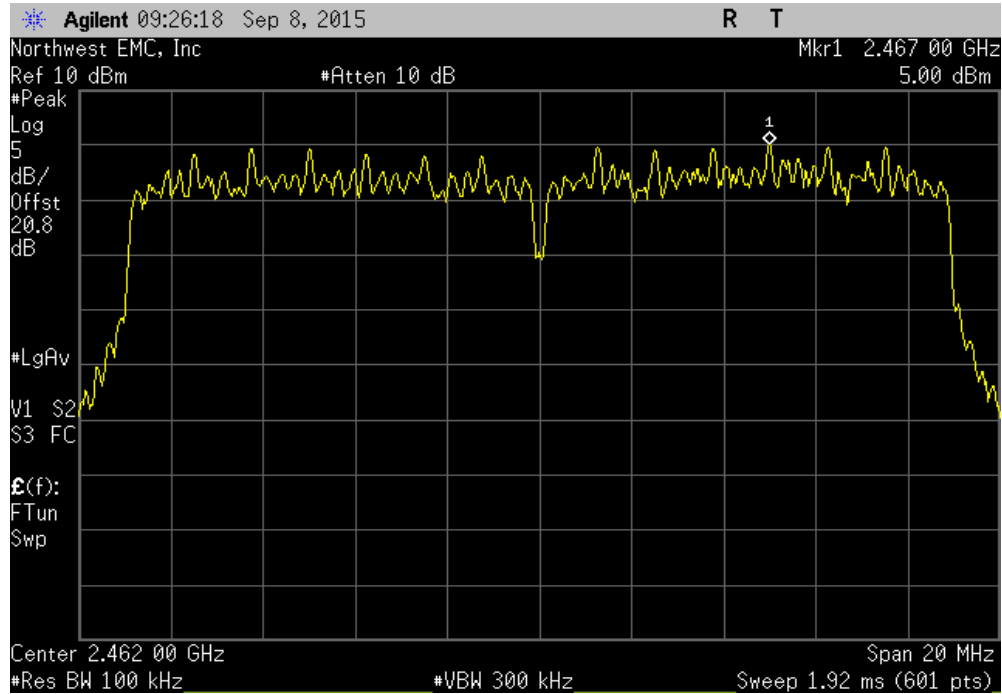


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	5.214	-15.2	-9.986	8	Pass	

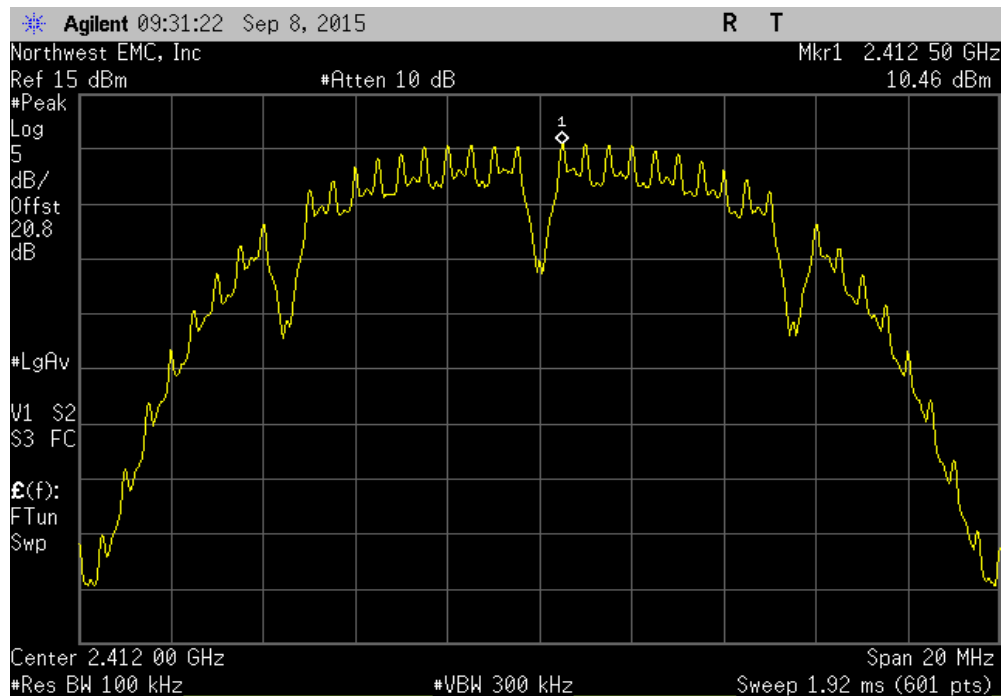


POWER SPECTRAL DENSITY

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	5.001	-15.2	-10.199	8	Pass	



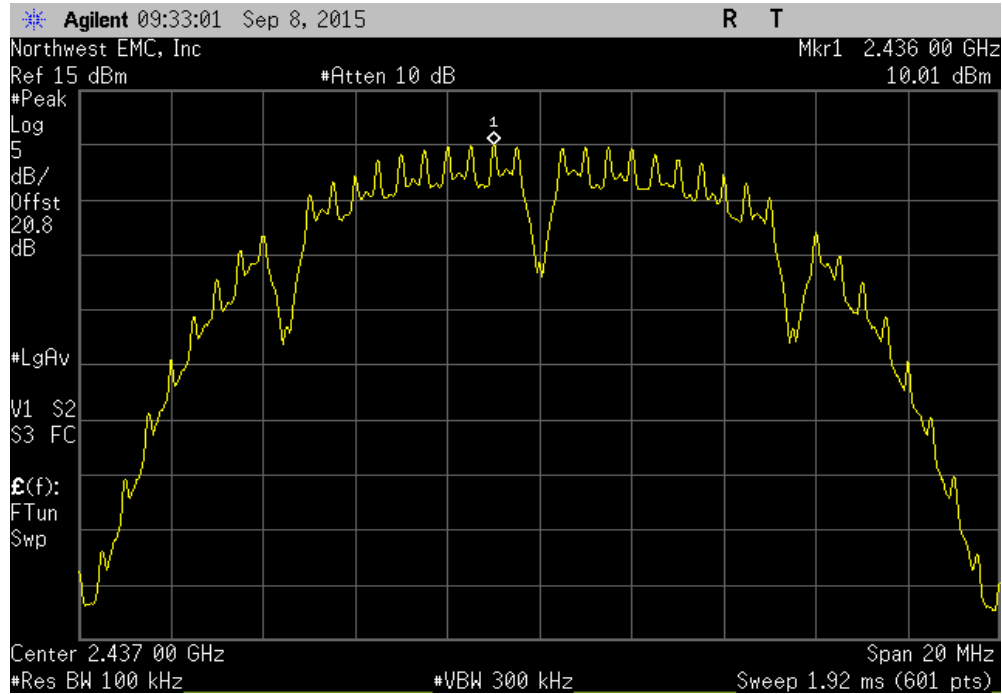
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	10.46	-15.2	-4.74	8	Pass	



POWER SPECTRAL DENSITY

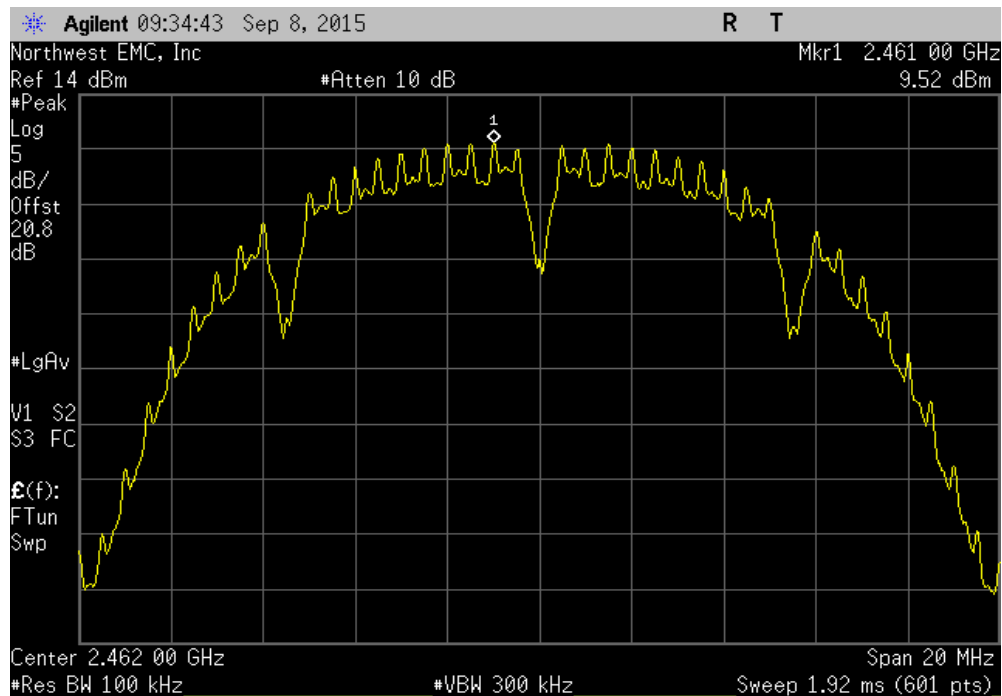
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz

	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	10.007	-15.2	-5.193	8	Pass



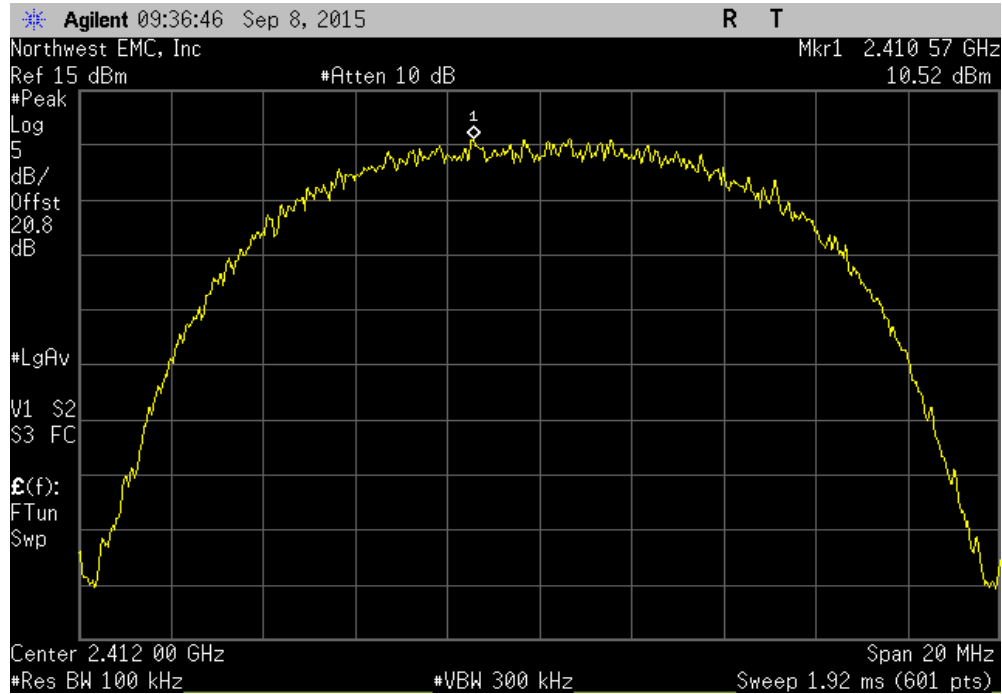
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz

	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	9.516	-15.2	-5.684	8	Pass

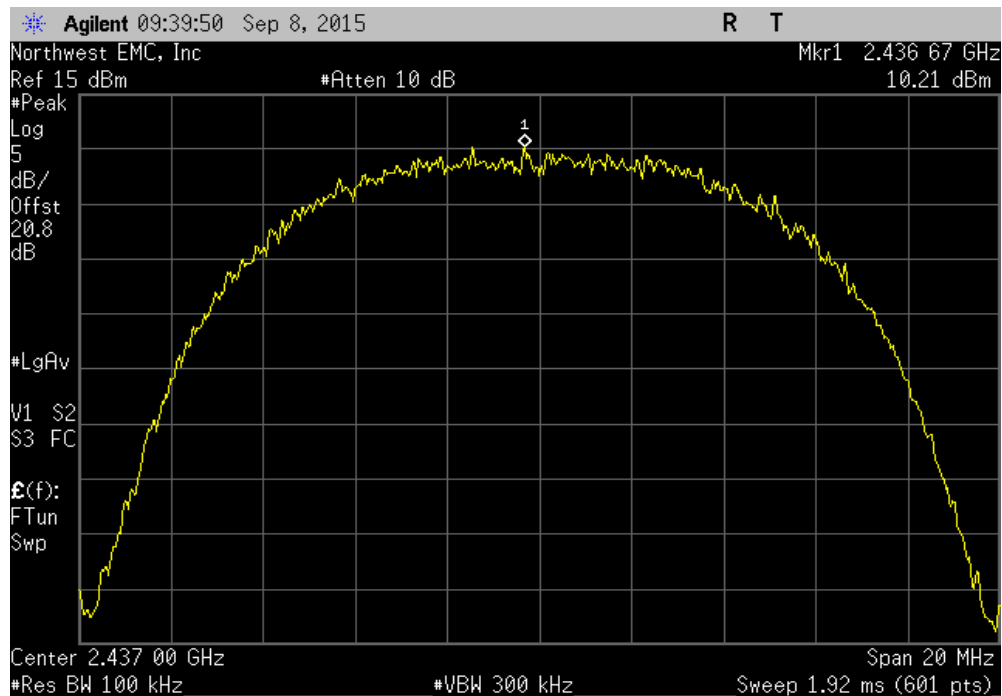


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	10.524	-15.2	-4.676	8	Pass	



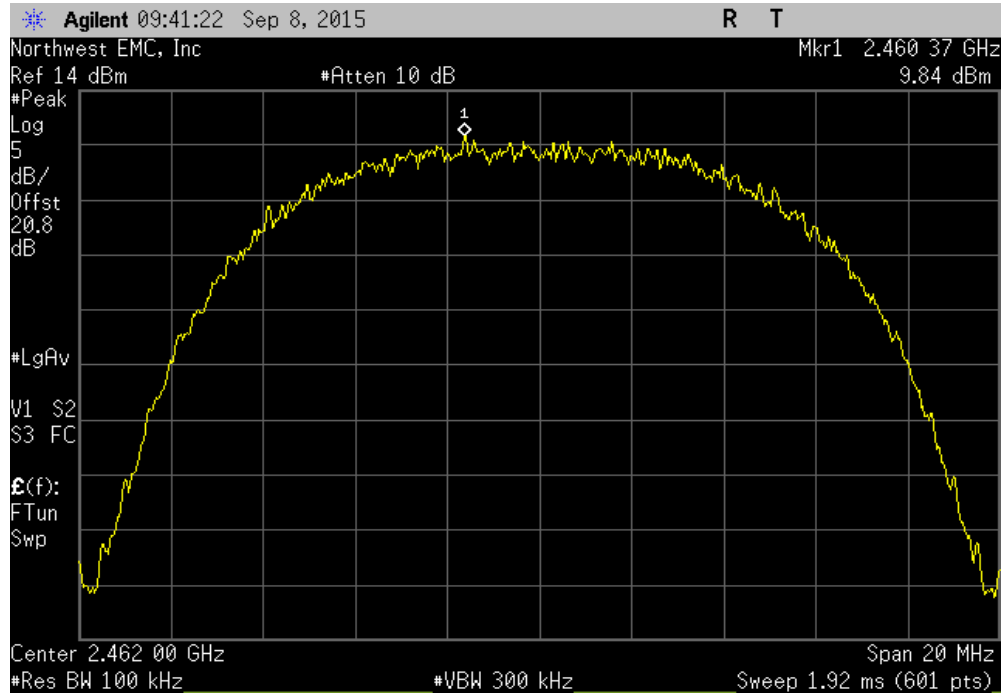
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	10.207	-15.2	-4.993	8	Pass	



POWER SPECTRAL DENSITY

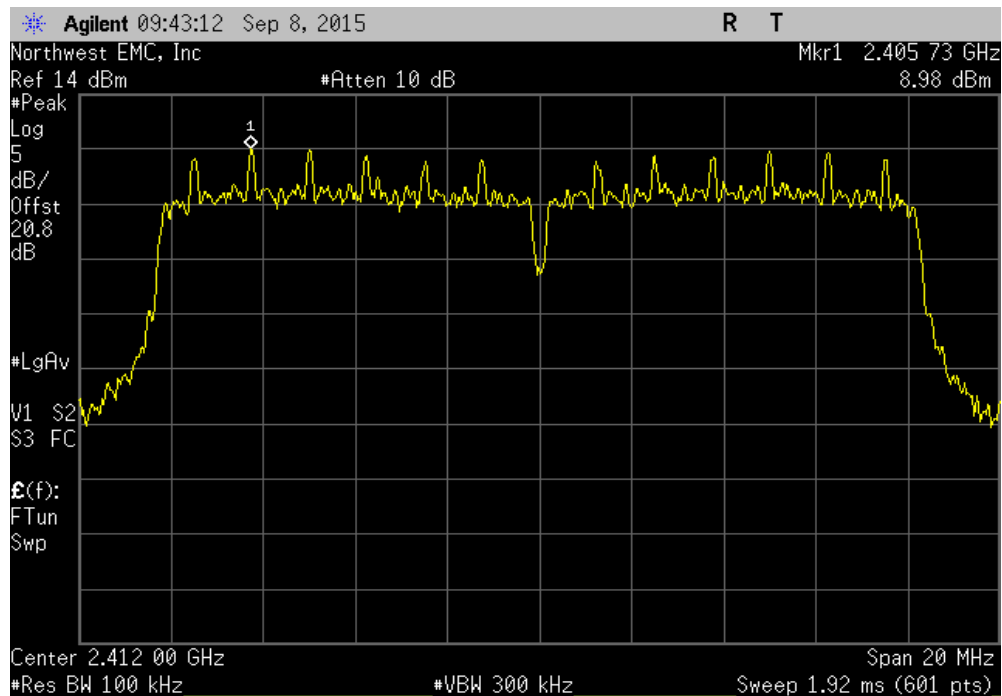
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
9.839	-15.2	-5.361	8	Pass



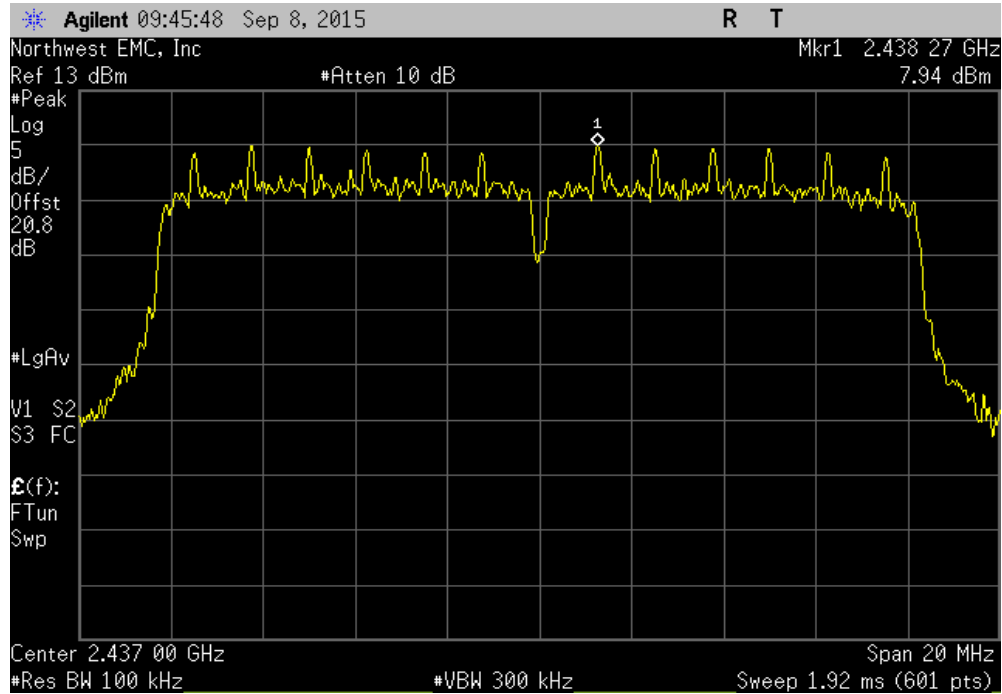
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
8.984	-15.2	-6.216	8	Pass

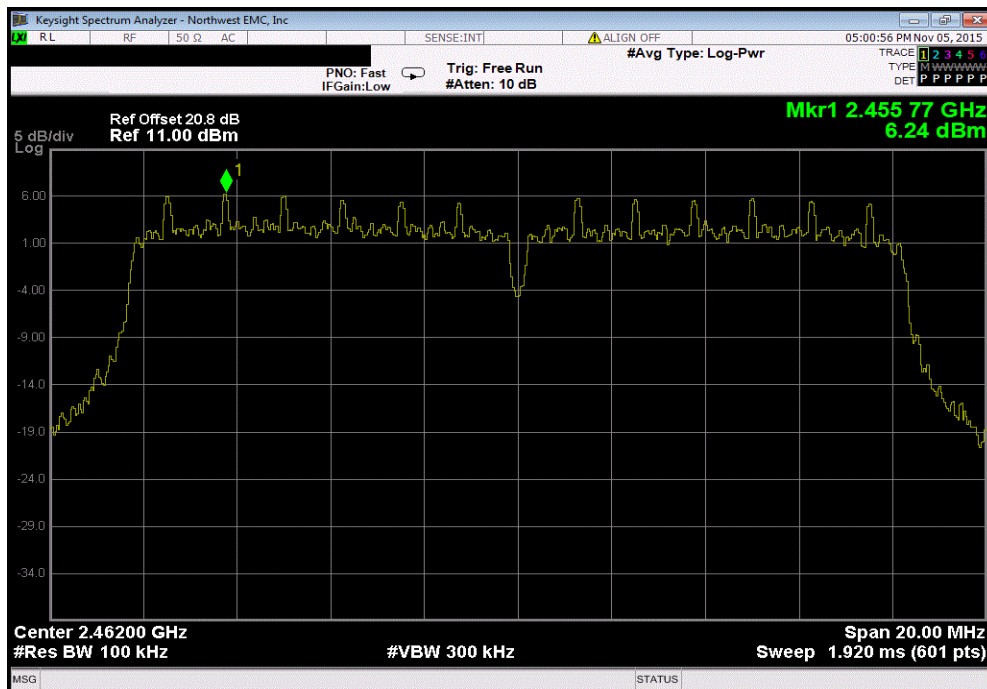


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	7.944	-15.2	-7.256	8	Pass	

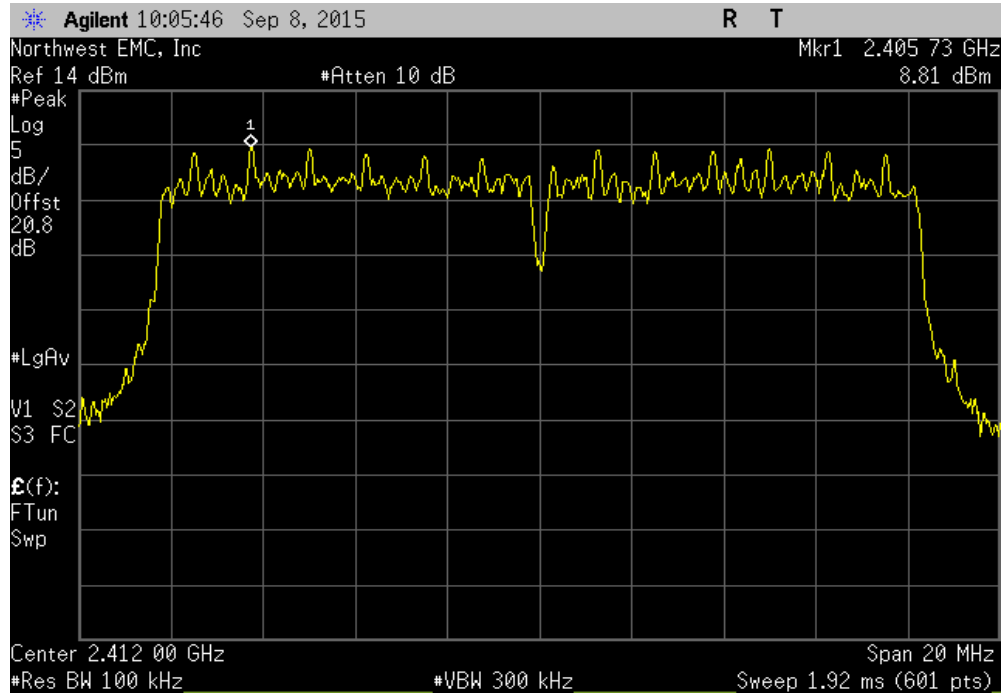


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	6.24	-15.2	-8.96	8	Pass	

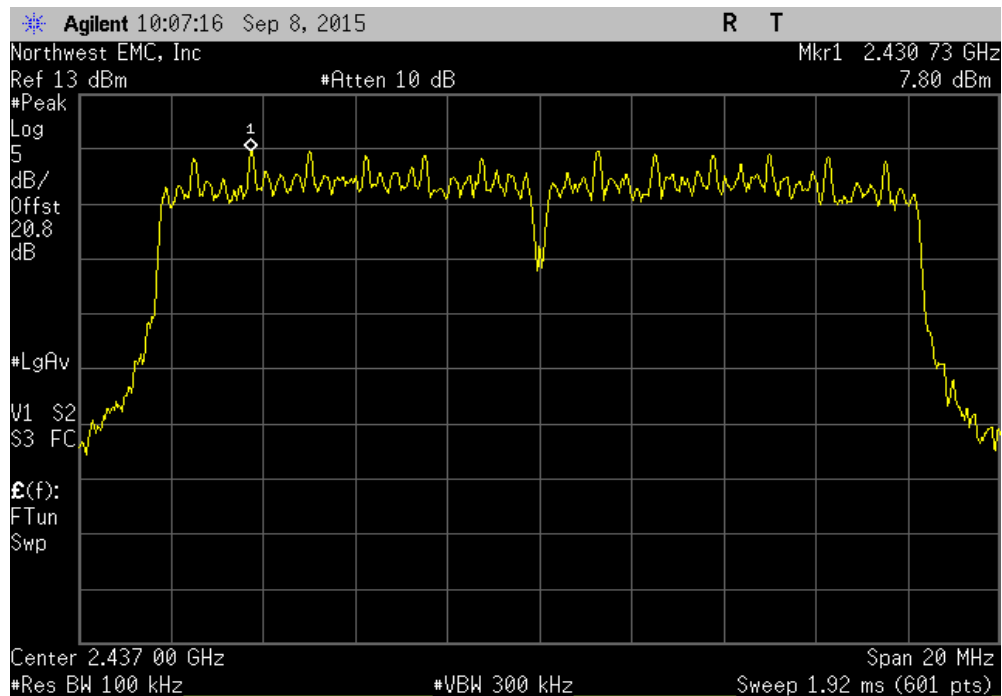


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	8.812	-15.2	-6.388	8	Pass	

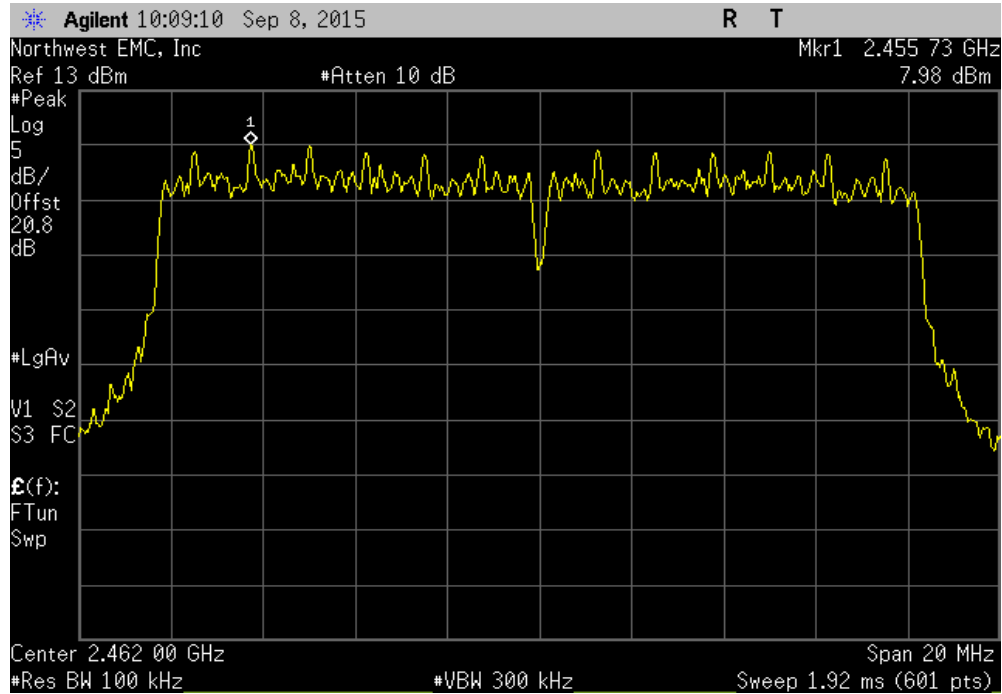


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.795	-15.2	-7.405	8	Pass	

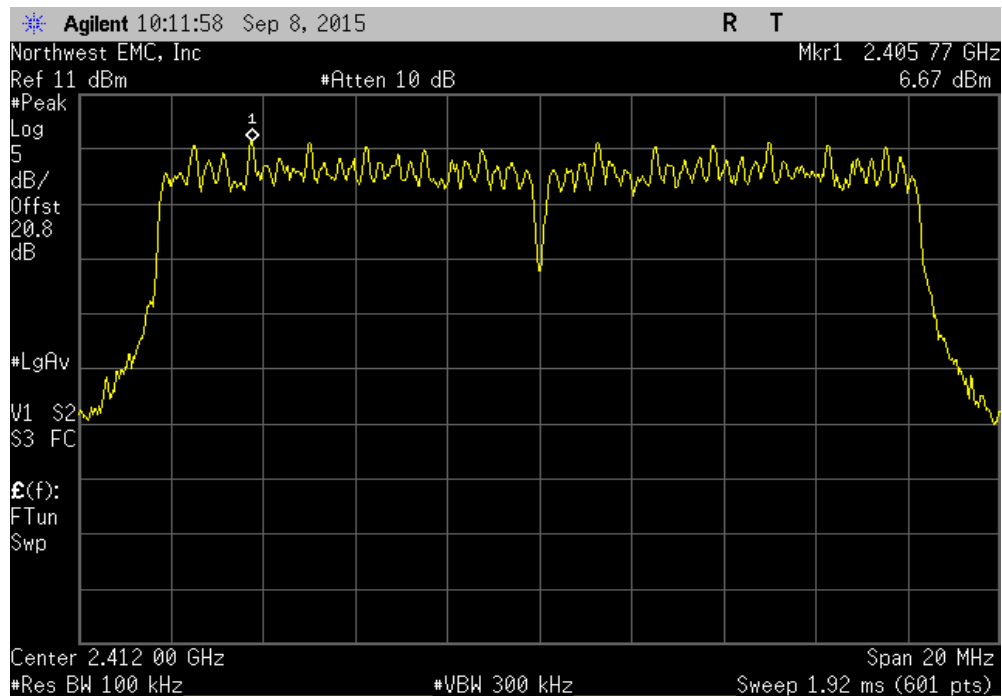


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.978	-15.2	-7.222	8	Pass	

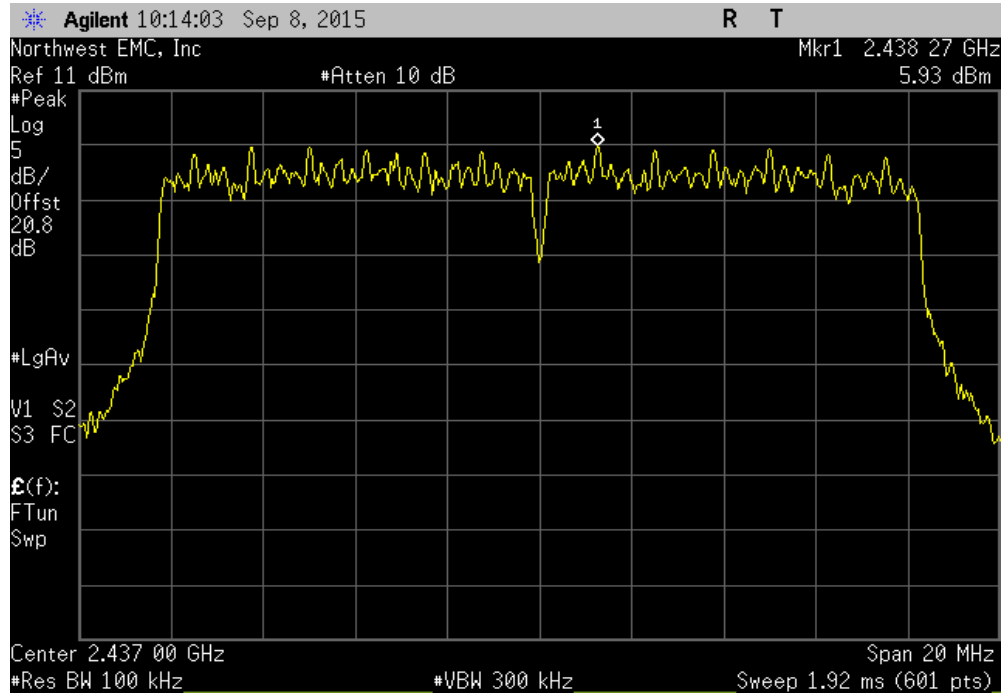


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	6.673	-15.2	-8.527	8	Pass	

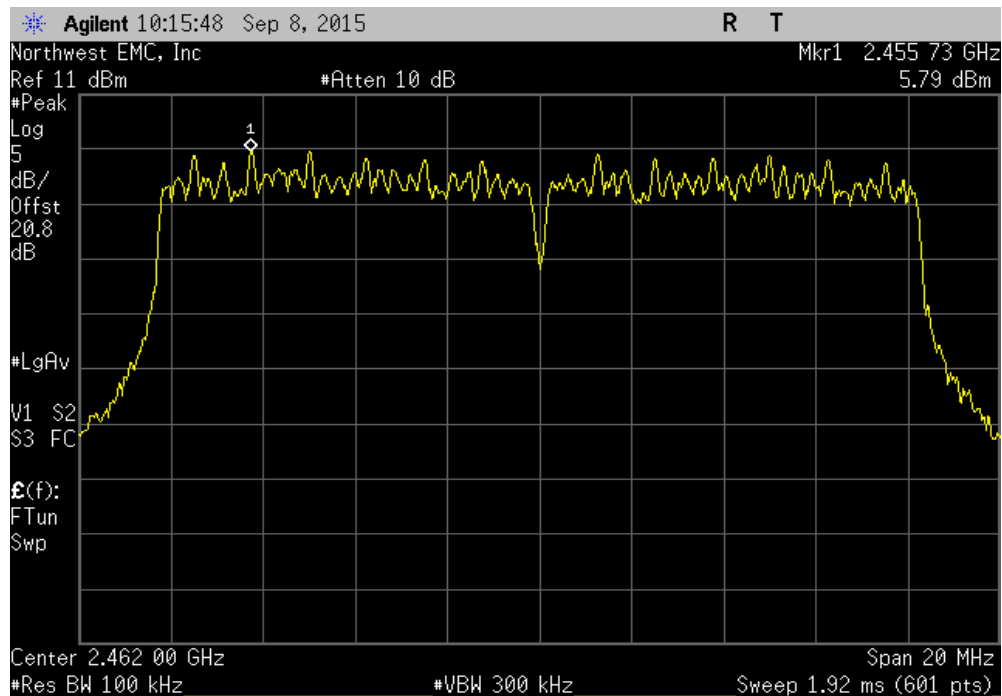


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	5.93	-15.2	-9.27	8	Pass	

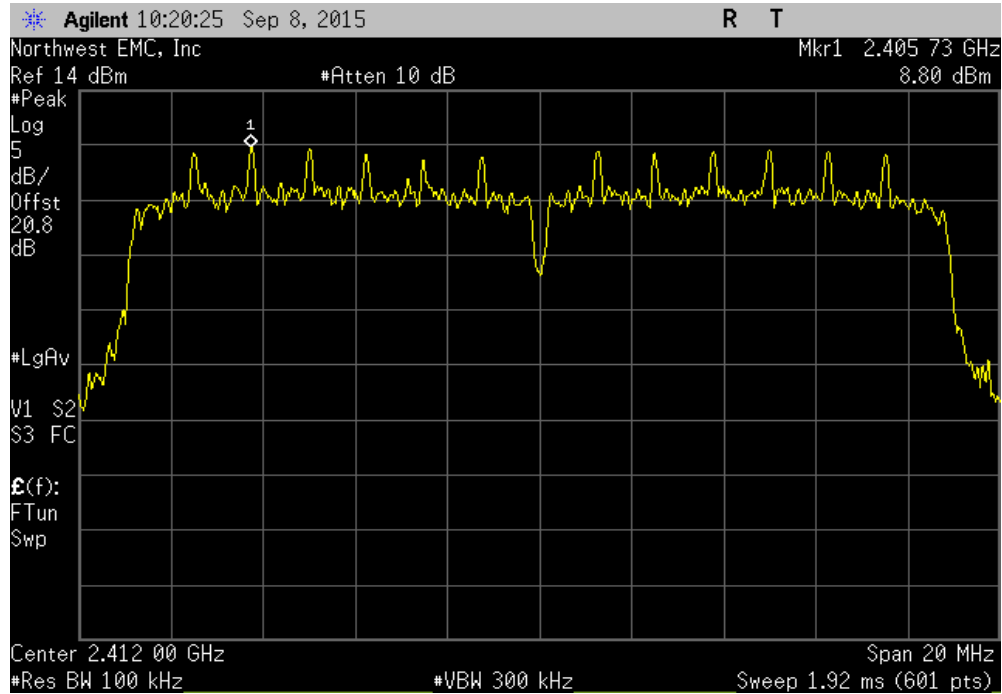


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	5.787	-15.2	-9.413	8	Pass	

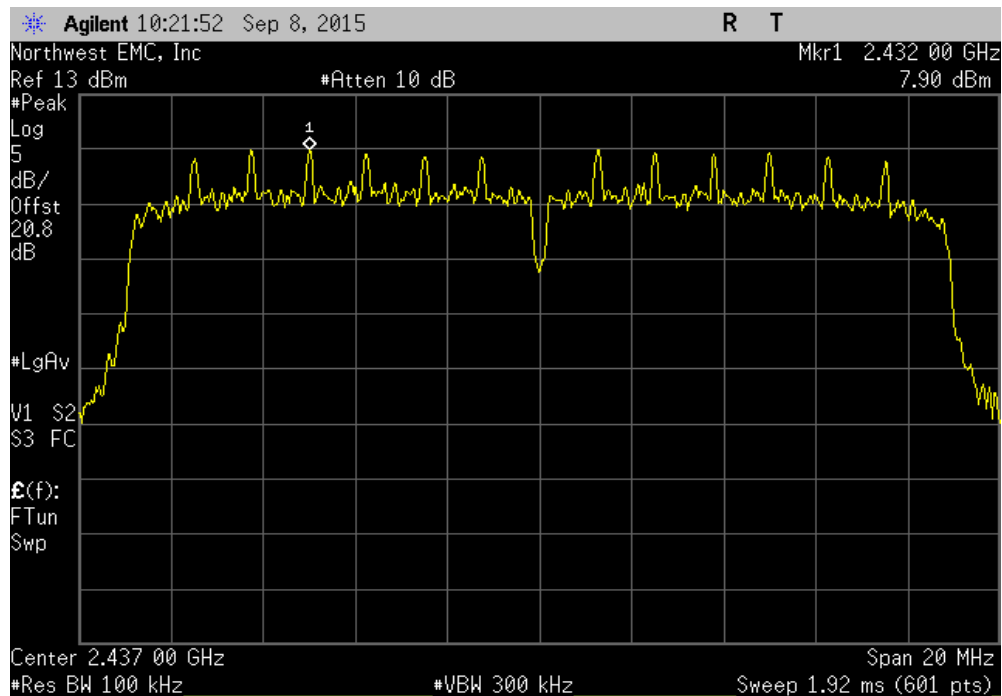


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	8.8	-15.2	-6.4	8	Pass	

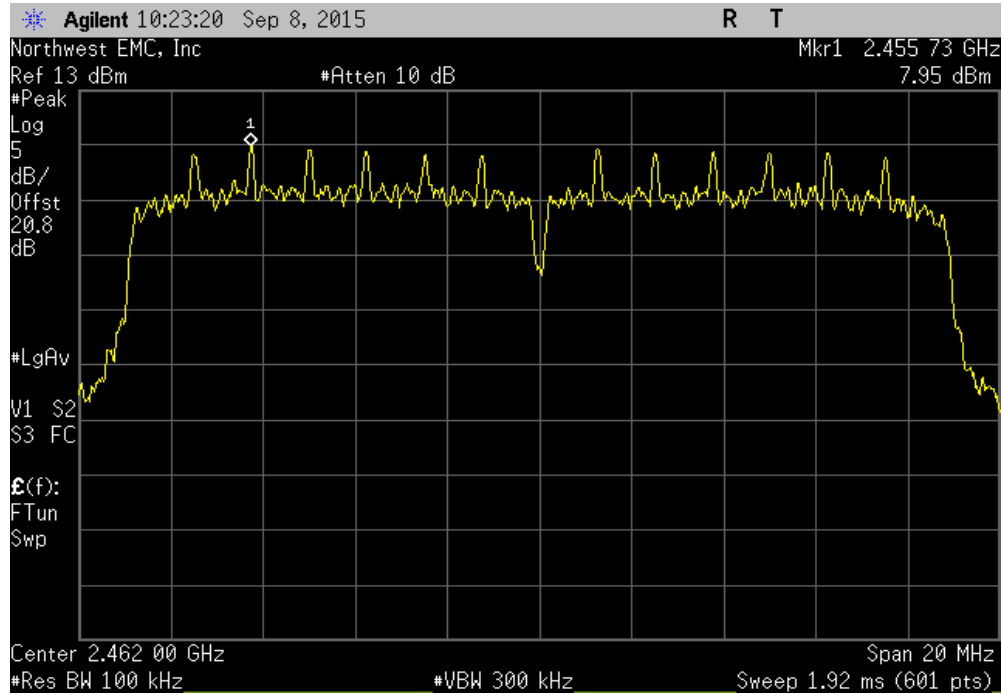


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.903	-15.2	-7.297	8	Pass	

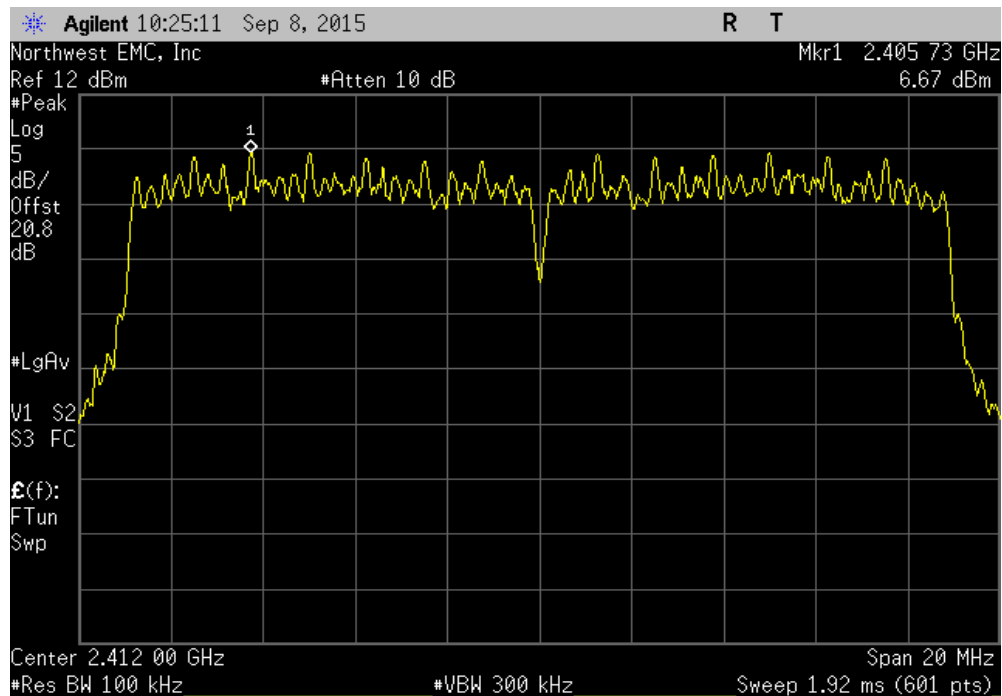


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	7.946	-15.2	-7.254	8	Pass

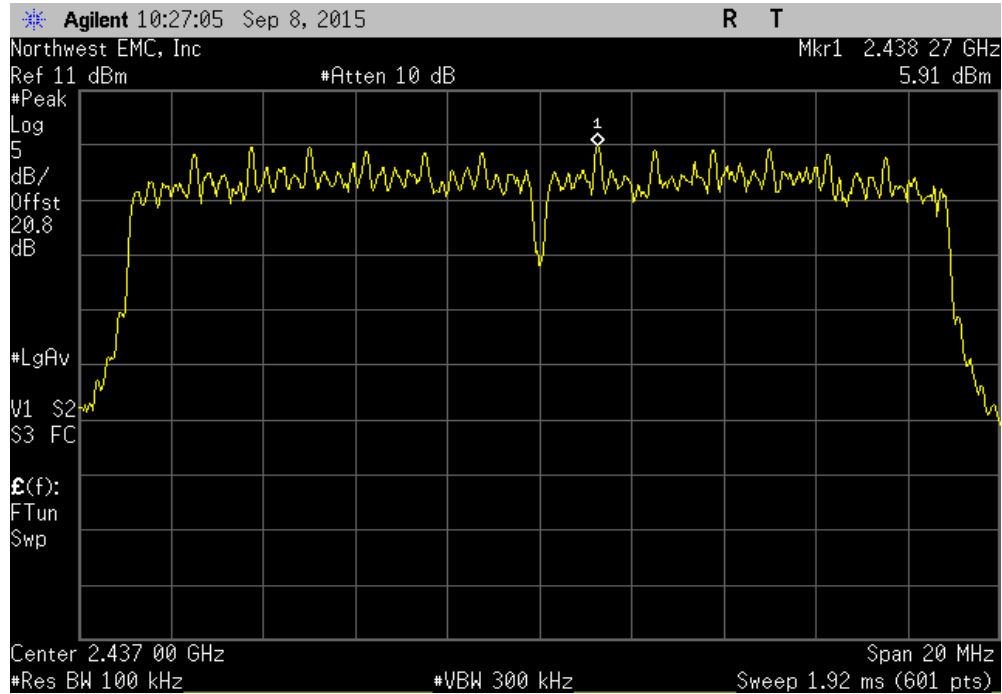


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	6.672	-15.2	-8.528	8	Pass

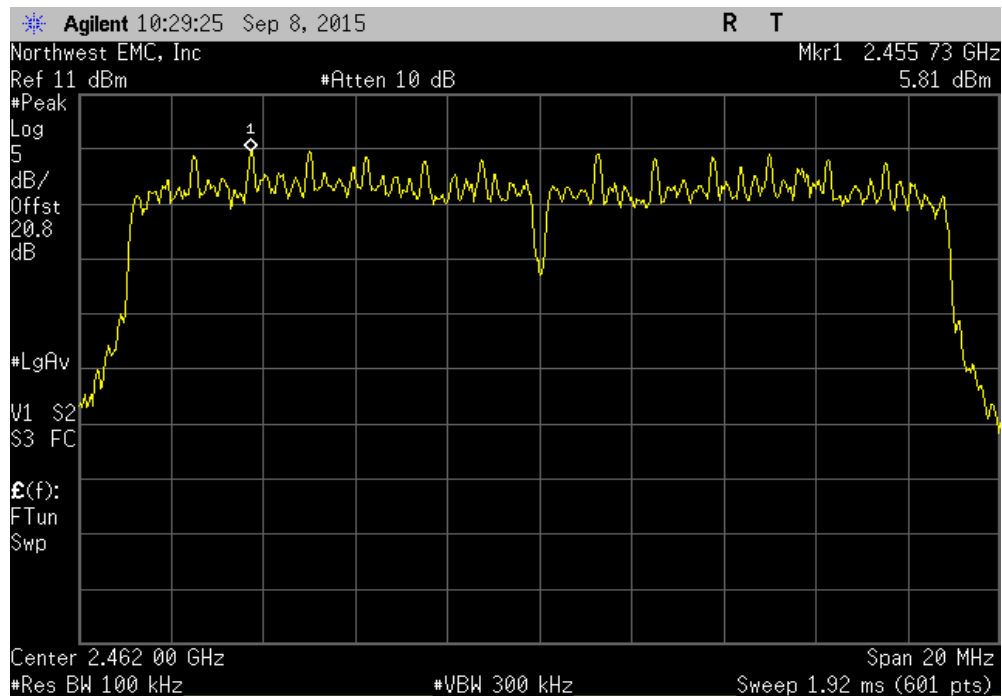


POWER SPECTRAL DENSITY

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	5.908	-15.2	-9.292	8	Pass	



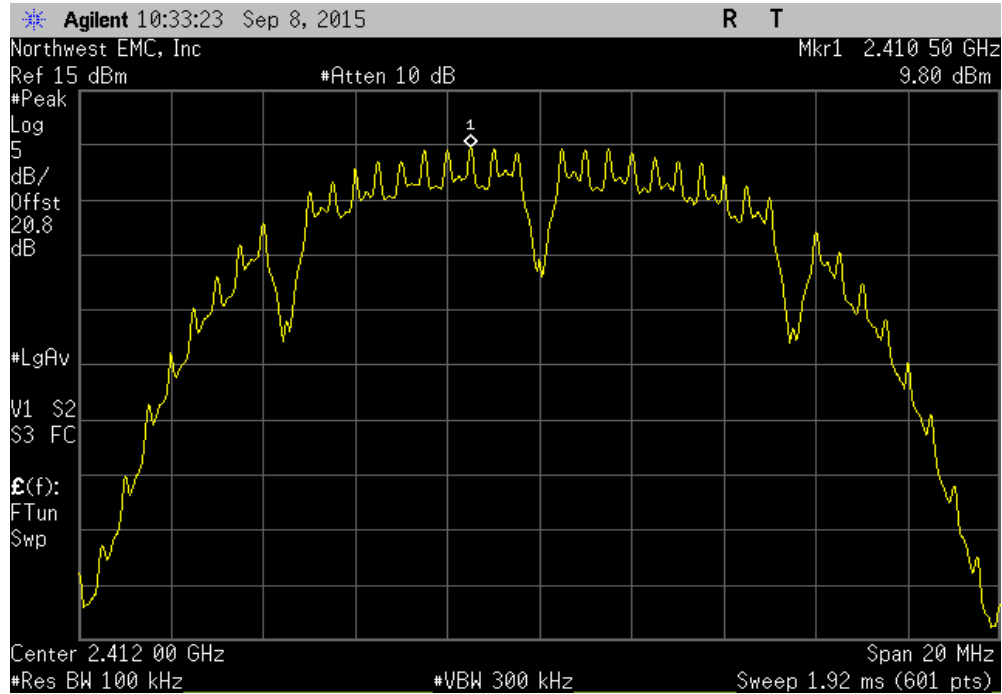
Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	5.809	-15.2	-9.391	8	Pass	



POWER SPECTRAL DENSITY

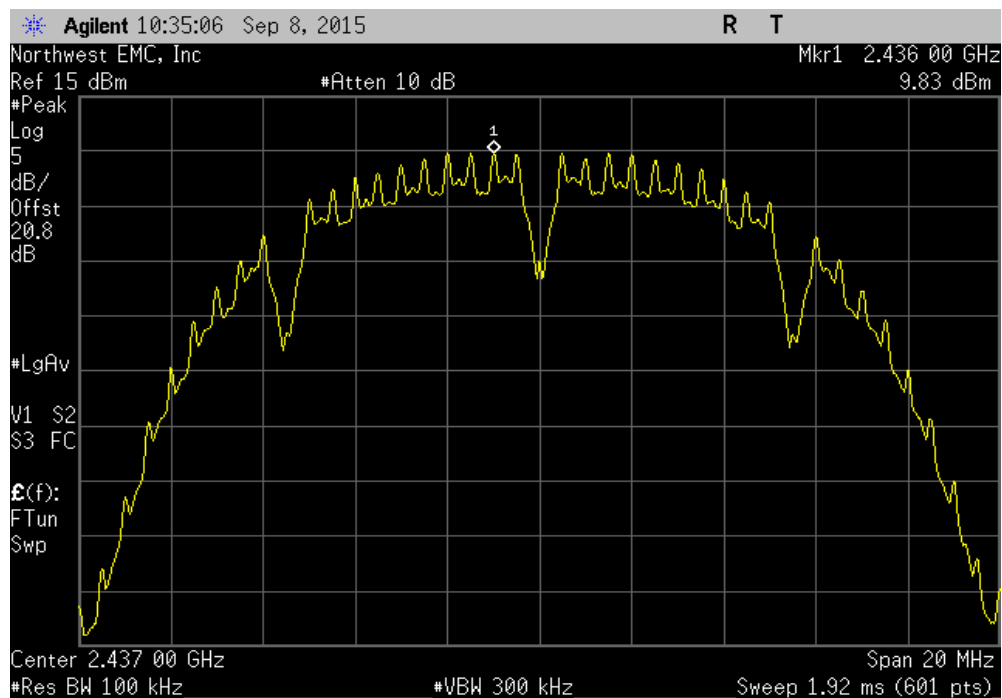
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
9.8	-15.2	-5.4	8	Pass



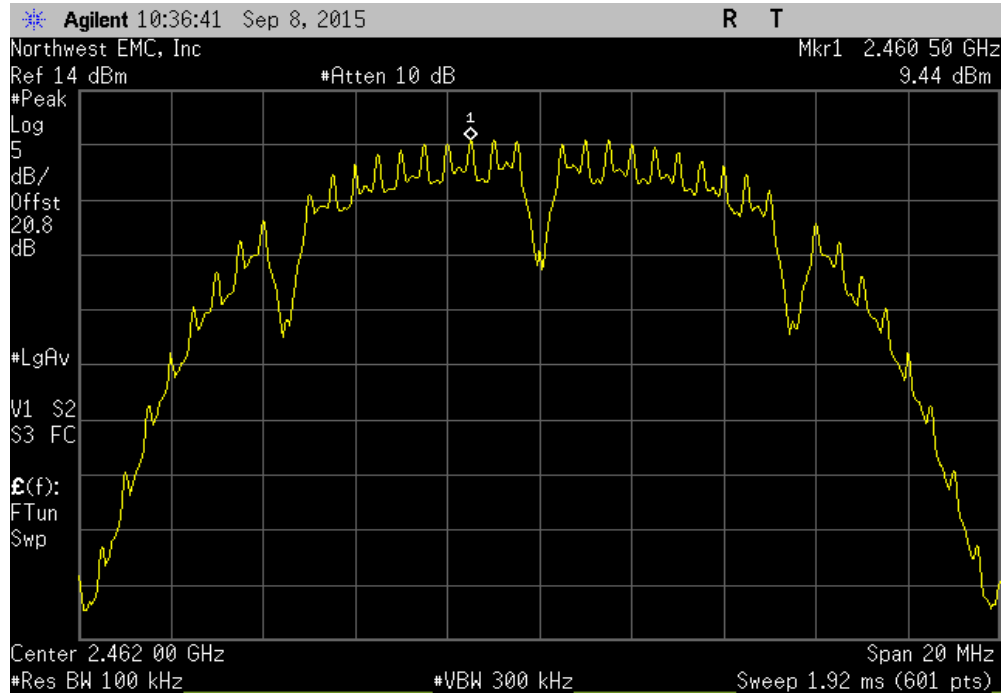
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
9.832	-15.2	-5.368	8	Pass

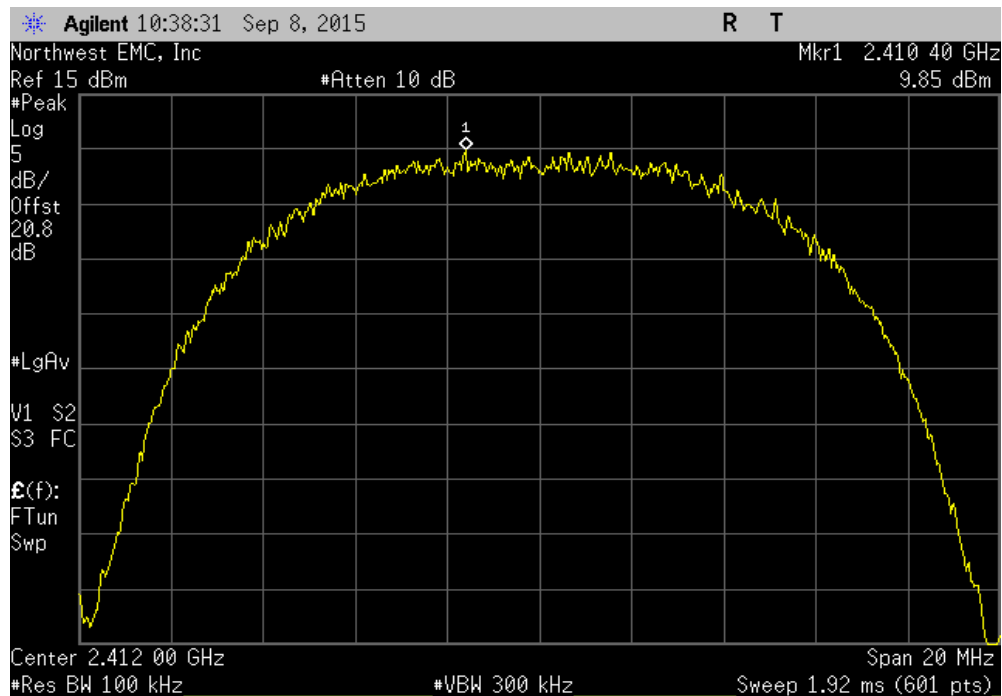


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	9.439	-15.2	-5.761	8	Pass	



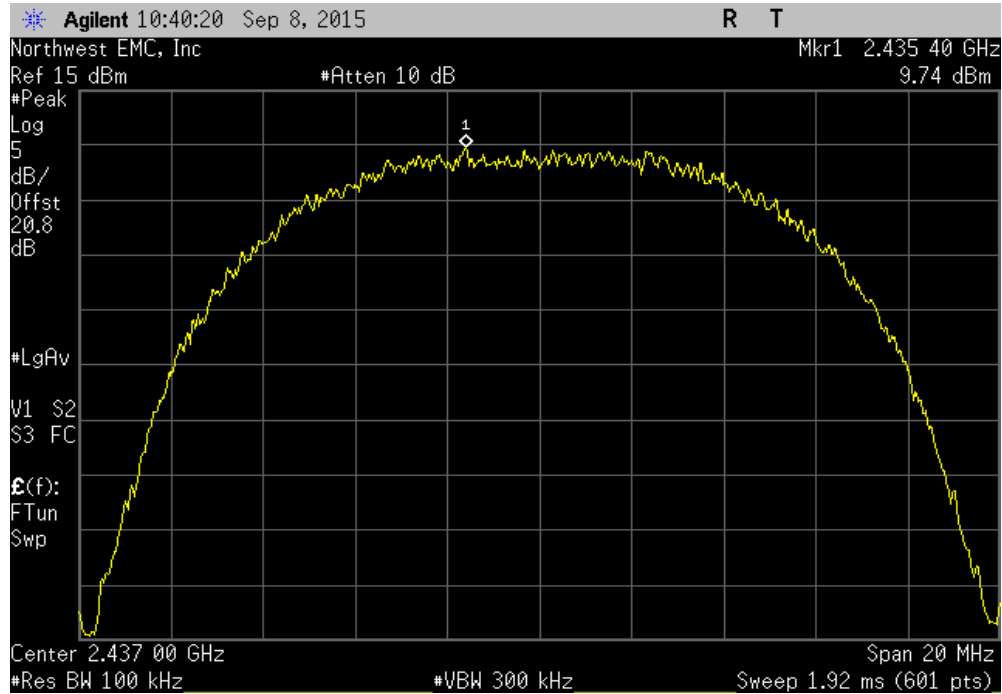
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	9.853	-15.2	-5.347	8	Pass	



POWER SPECTRAL DENSITY

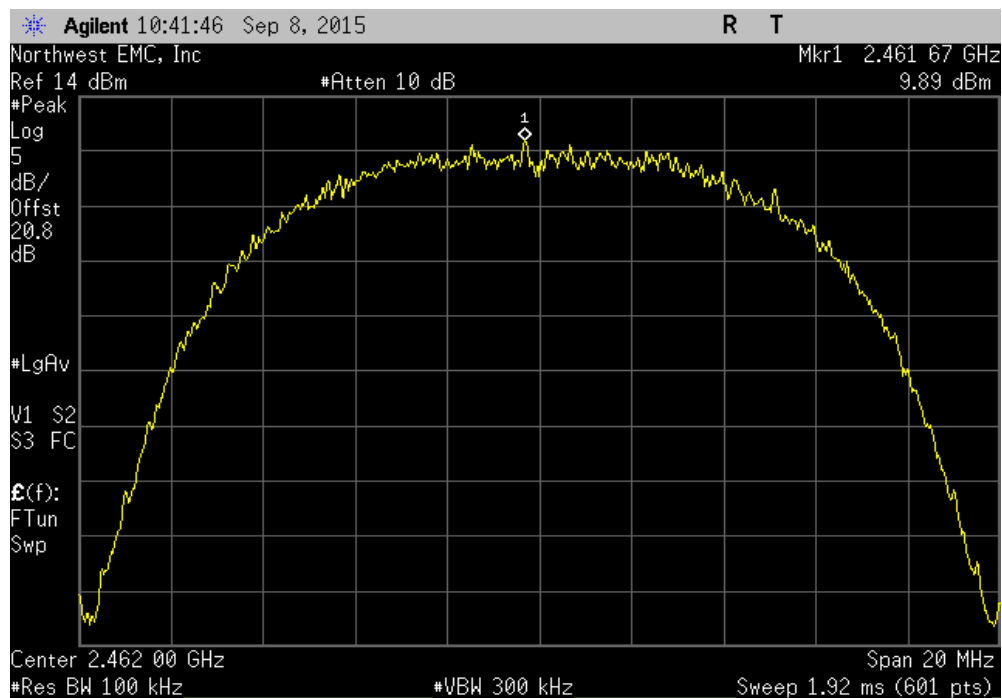
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz

Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	
9.737	-15.2	-5.463	8	Pass



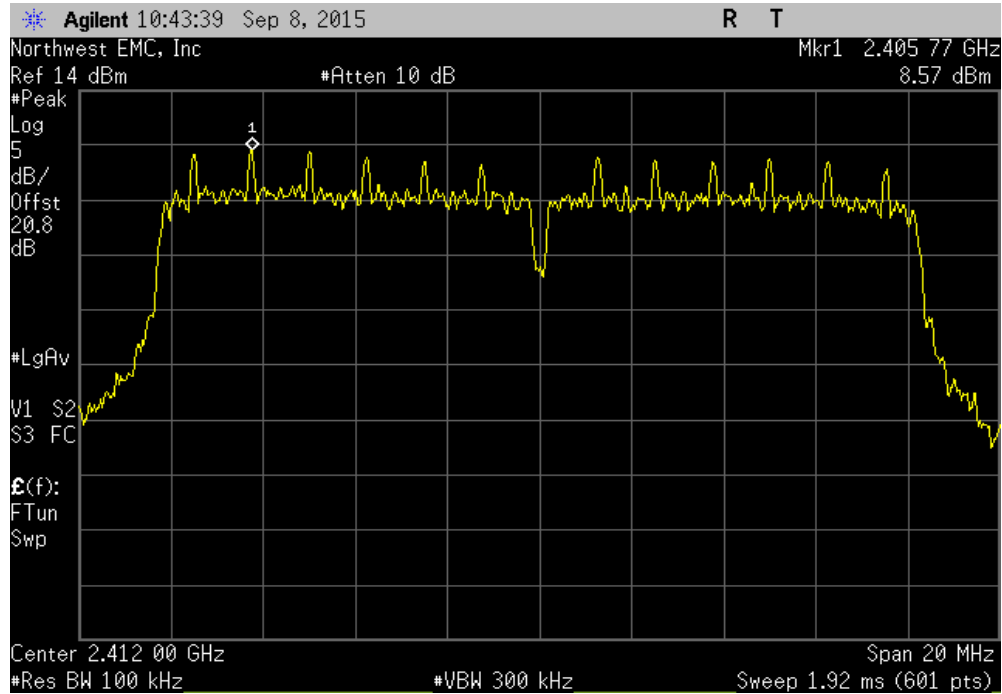
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	
9.892	-15.2	-5.308	8	Pass

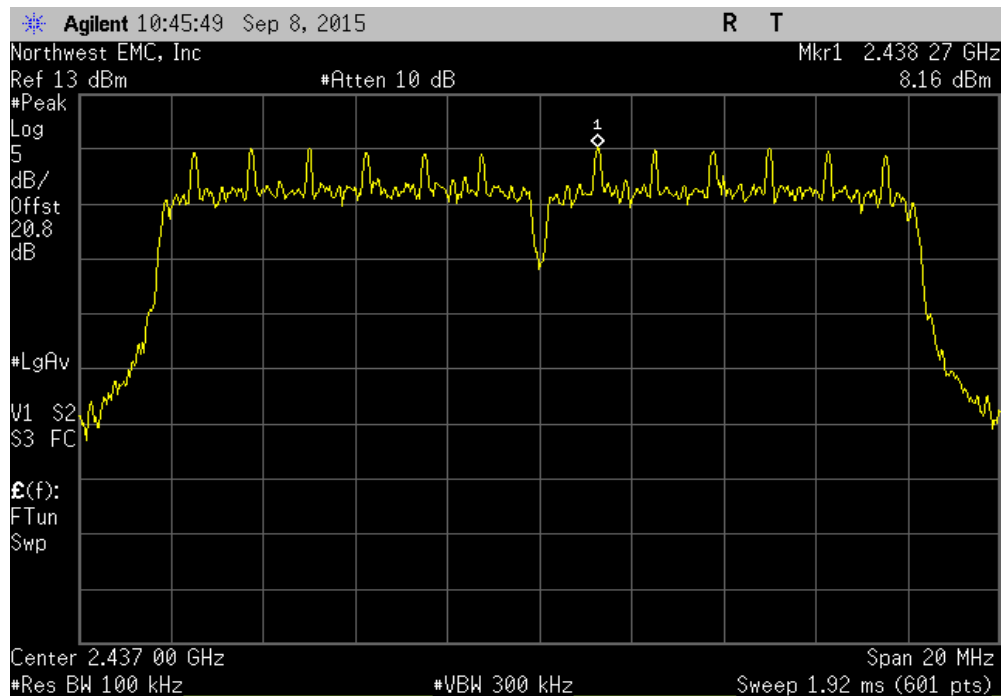


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	To dBm/3kHz	Value	Limit	Results
		dBm/100kHz		dBm/3kHz	dBm/3kHz	
		8.568	-15.2	-6.632	8	Pass

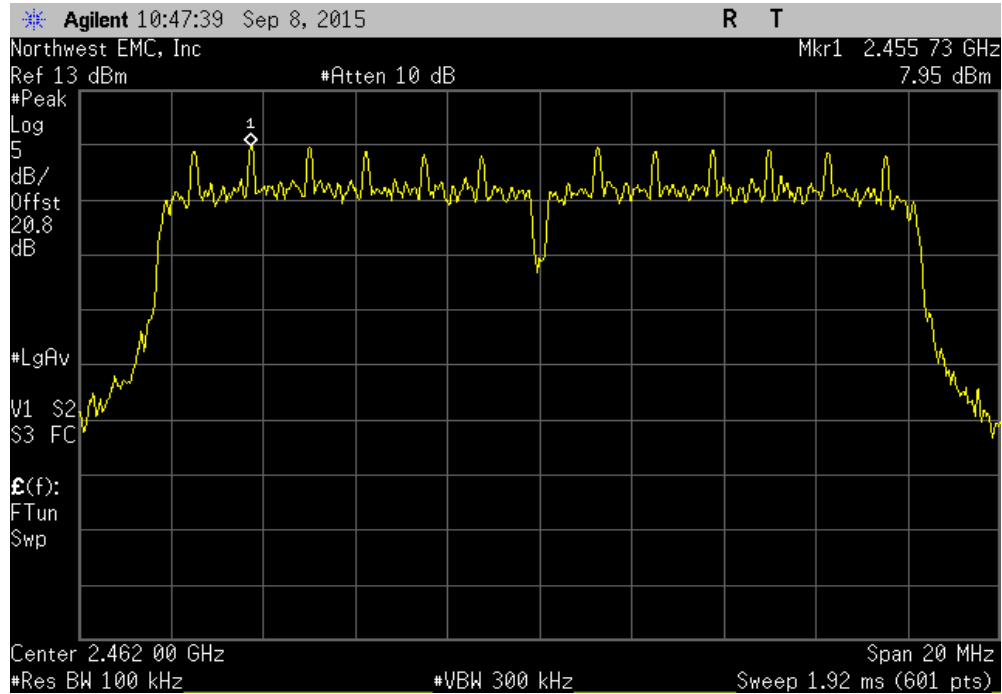


Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	To dBm/3kHz	Value	Limit	Results
		dBm/100kHz		dBm/3kHz	dBm/3kHz	
		8.162	-15.2	-7.038	8	Pass

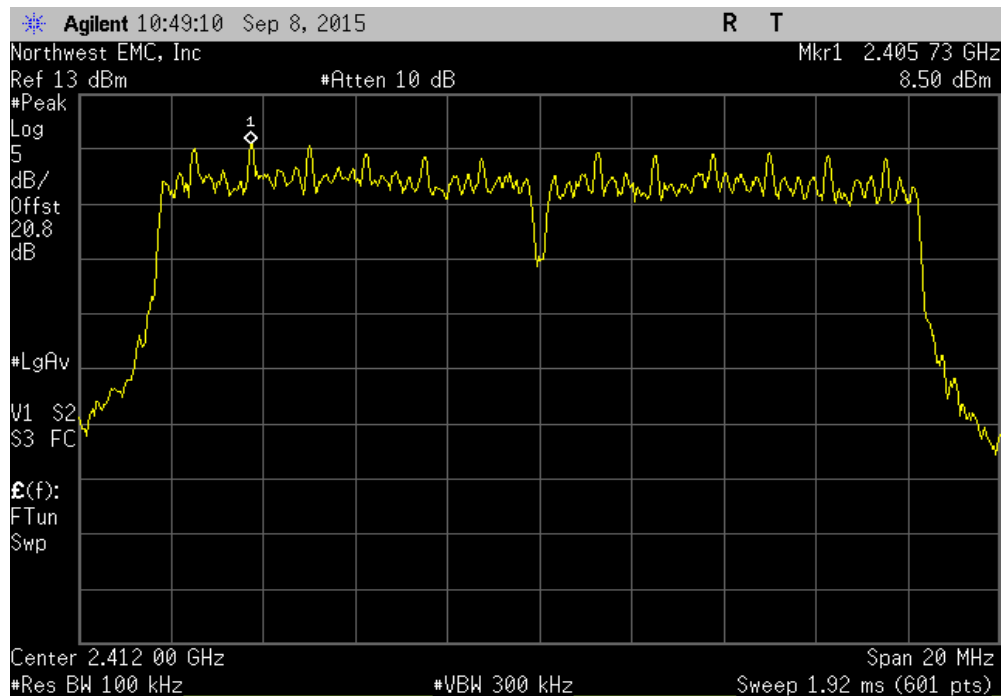


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.951	-15.2	-7.249	8	Pass	

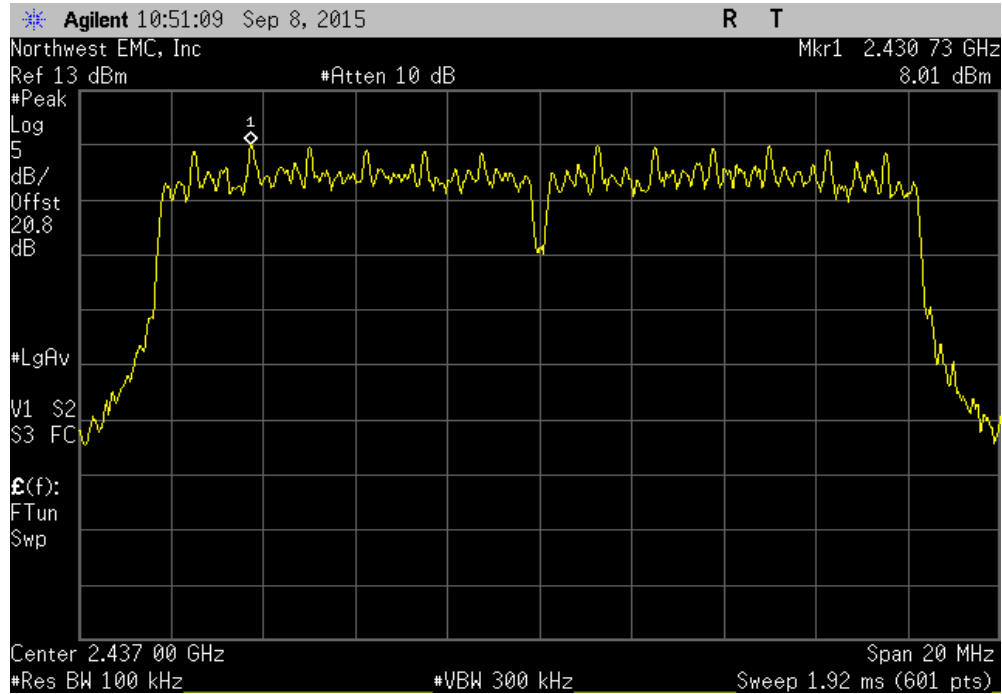


Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	8.497	-15.2	-6.703	8	Pass	

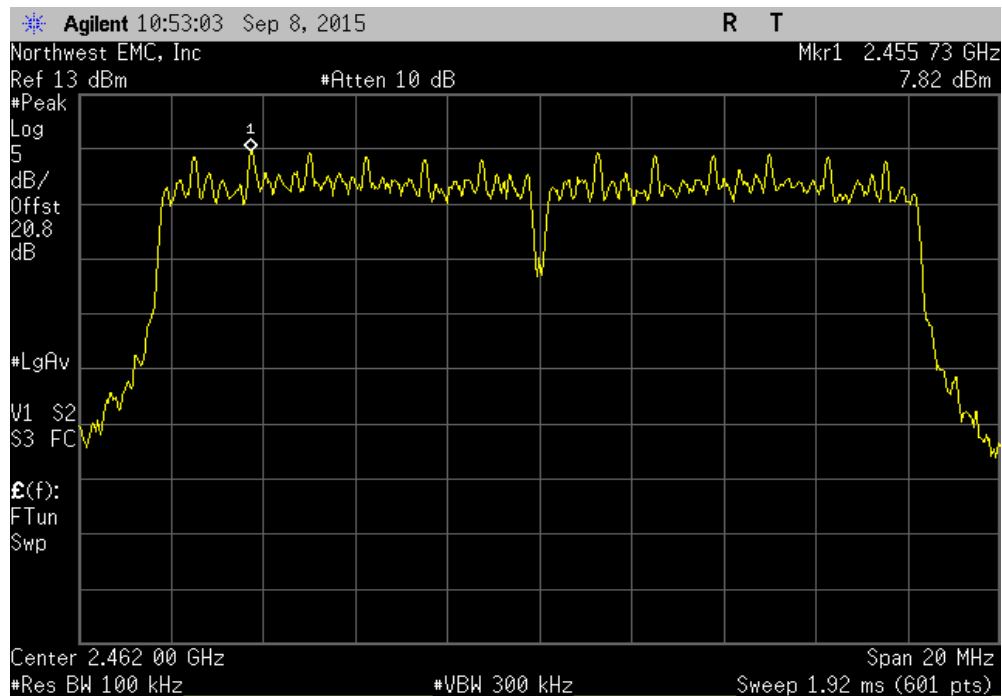


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	8.008	-15.2	-7.192	8	Pass	

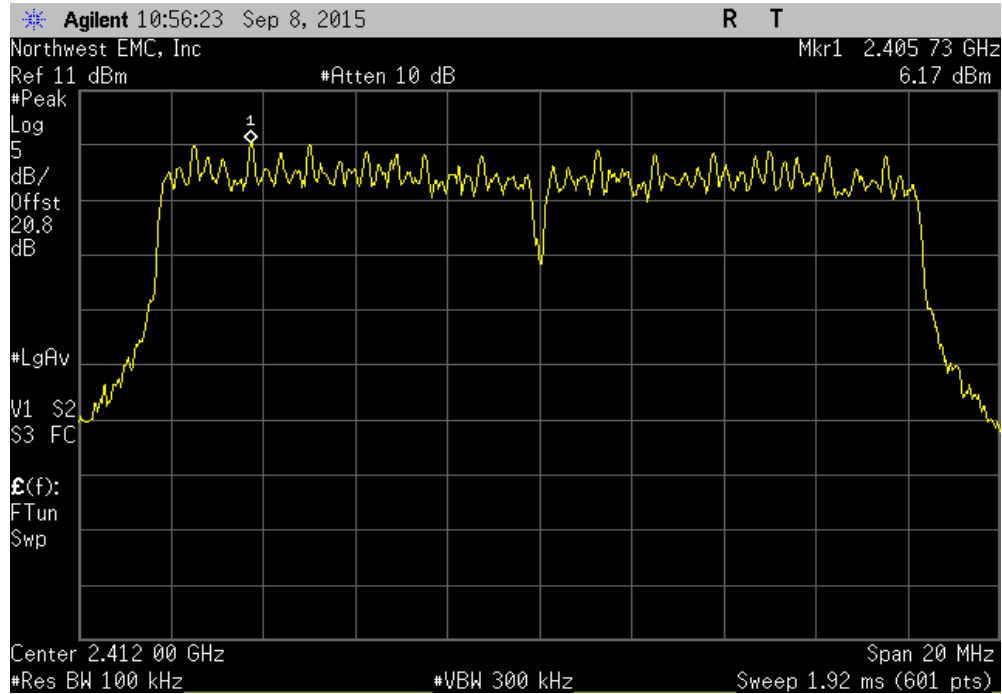


Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.822	-15.2	-7.378	8	Pass	

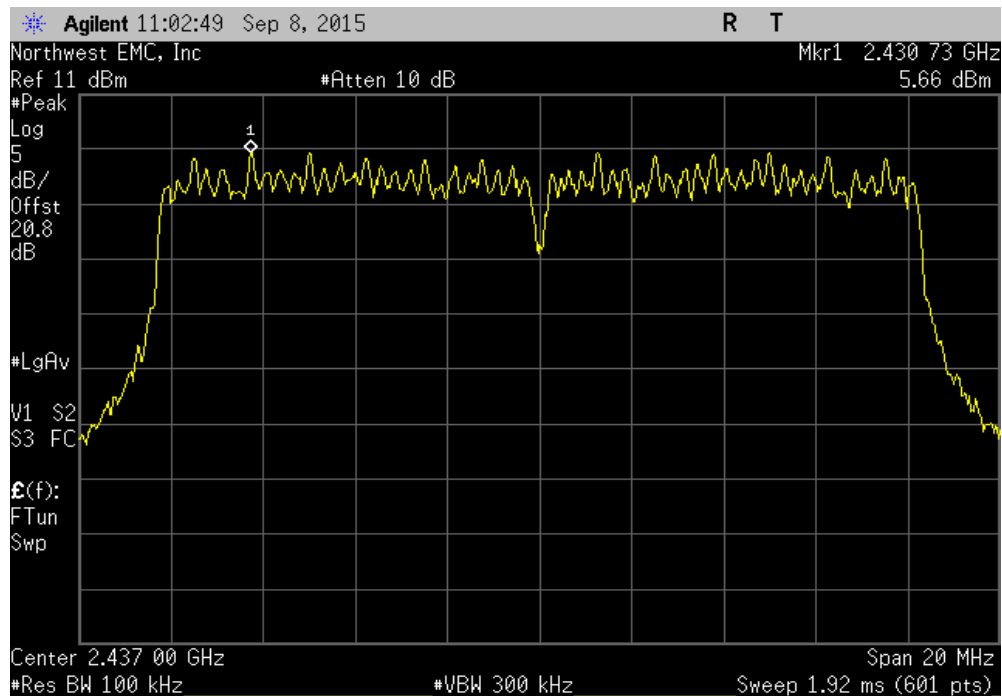


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	6.172	-15.2	-9.028	8	Pass	



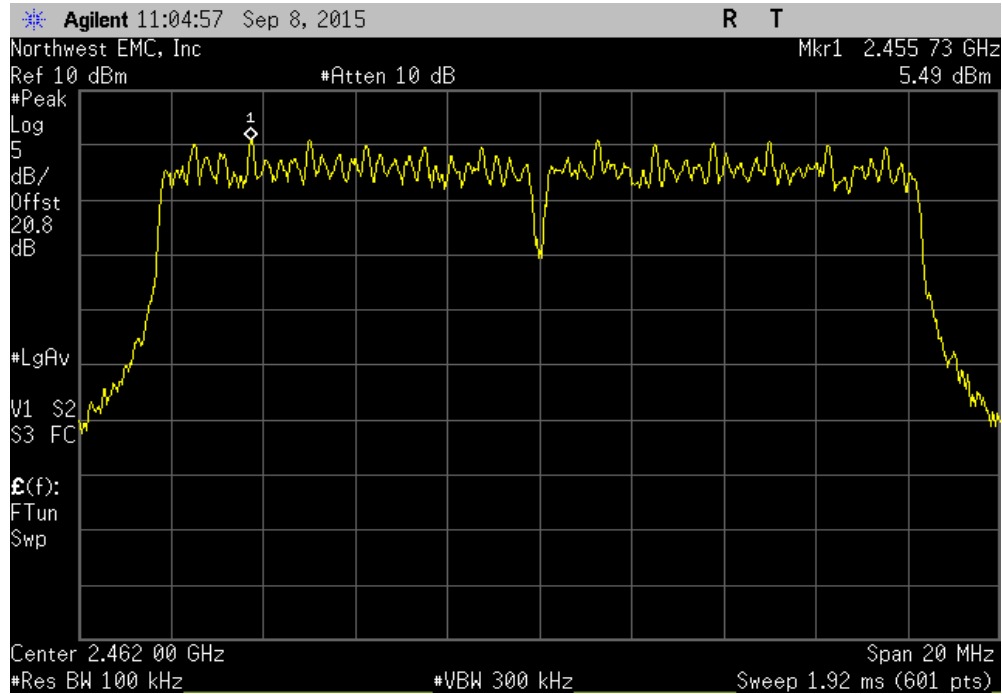
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	5.658	-15.2	-9.542	8	Pass	



POWER SPECTRAL DENSITY

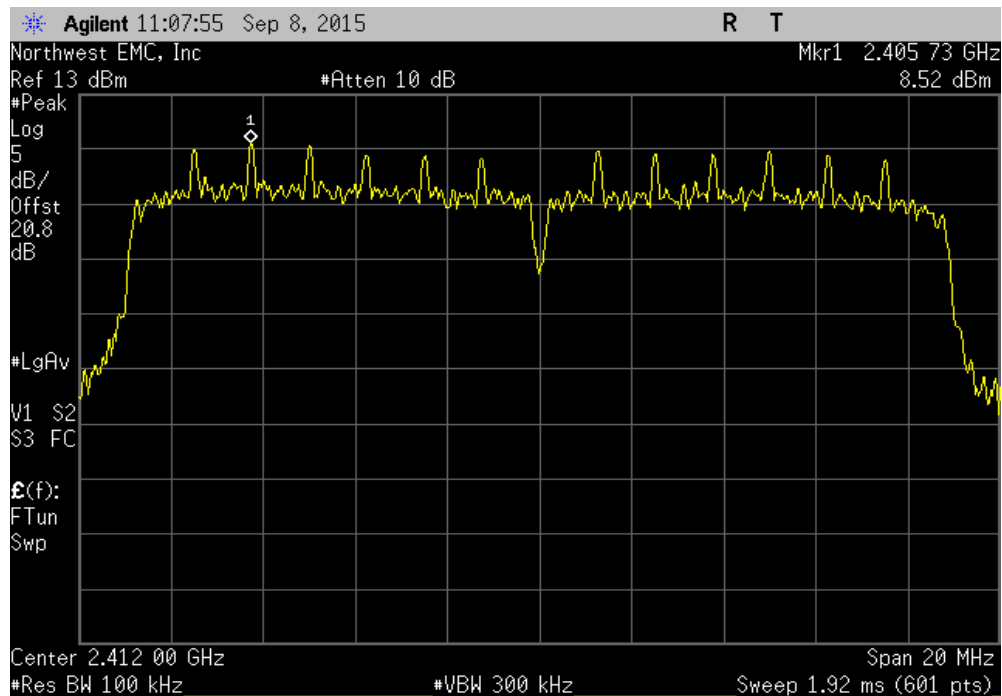
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
5.486	-15.2	-9.714	8	Pass



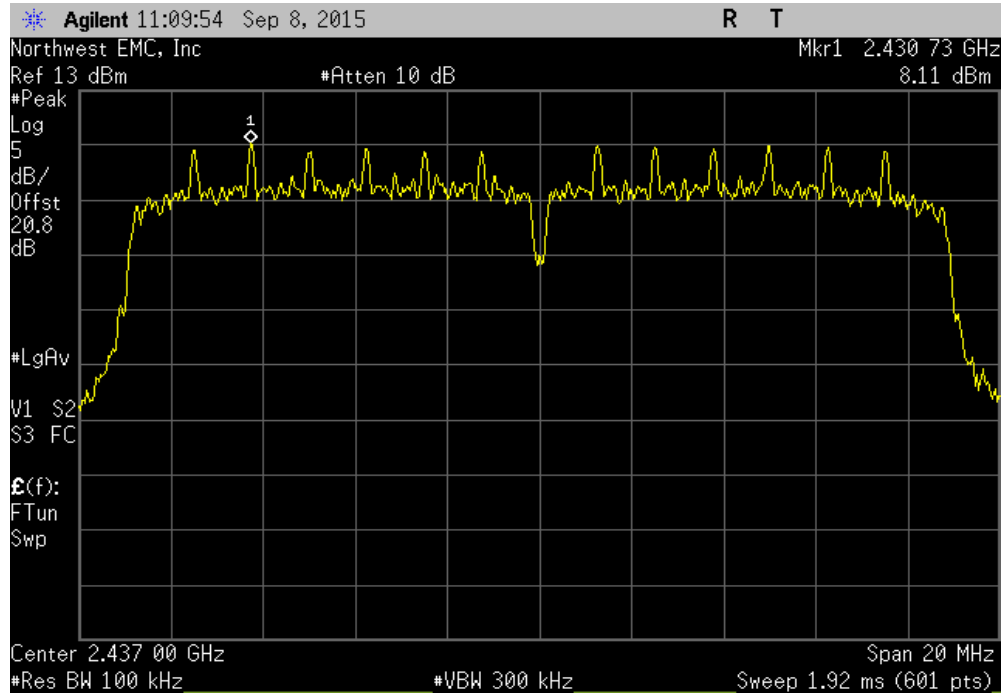
Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz

Value	dBm/100kHz	Value	Limit	Results
dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
8.517	-15.2	-6.683	8	Pass

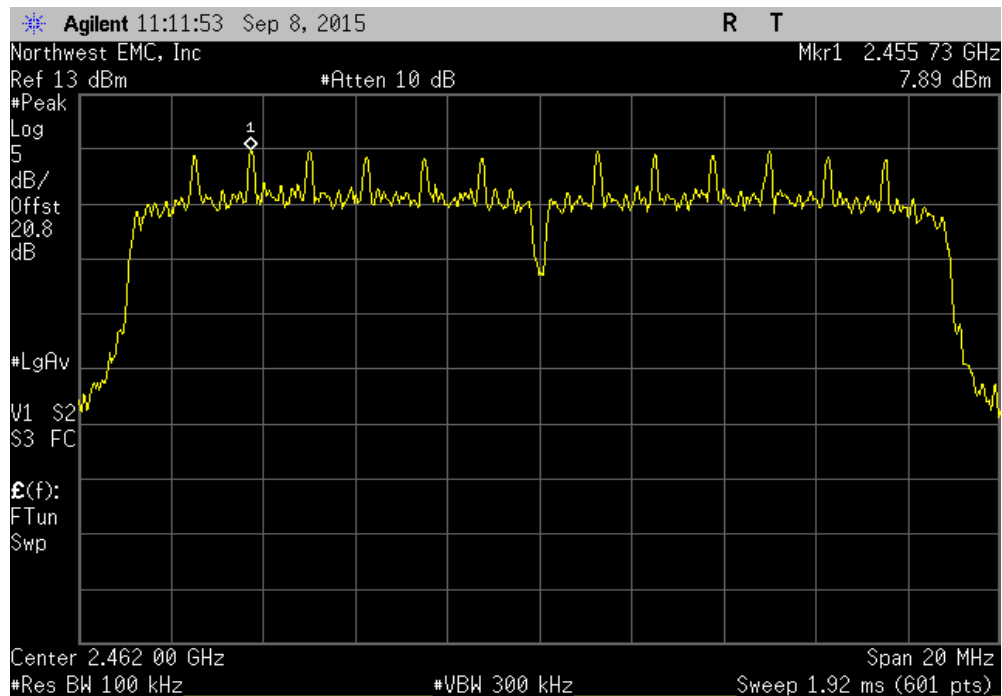


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	8.111	-15.2	-7.089	8	Pass	

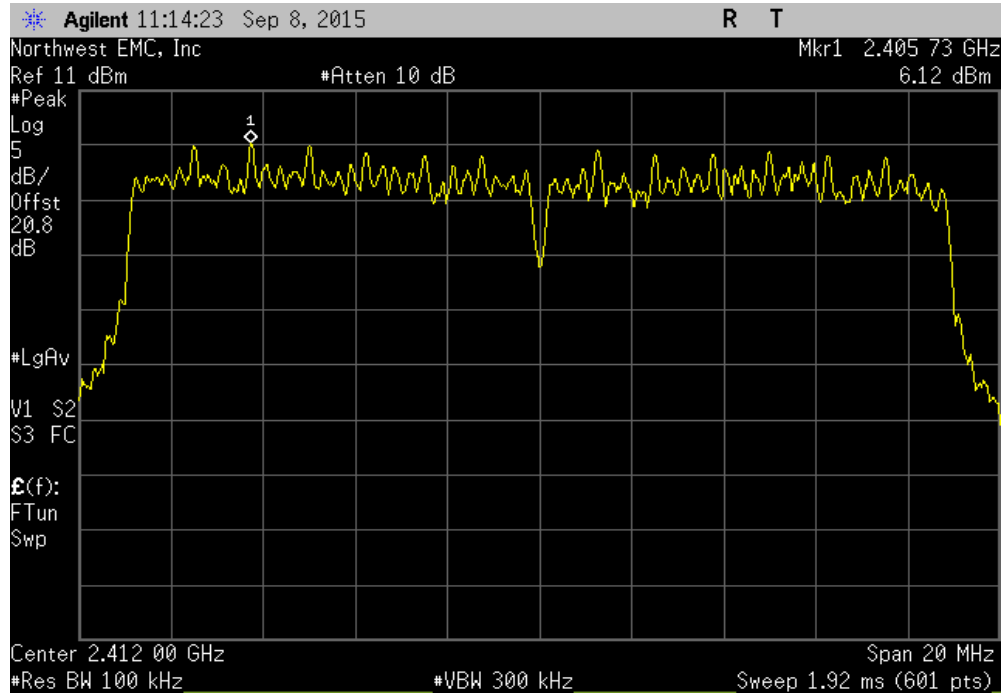


Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
		To dBm/3kHz				
	7.888	-15.2	-7.312	8	Pass	

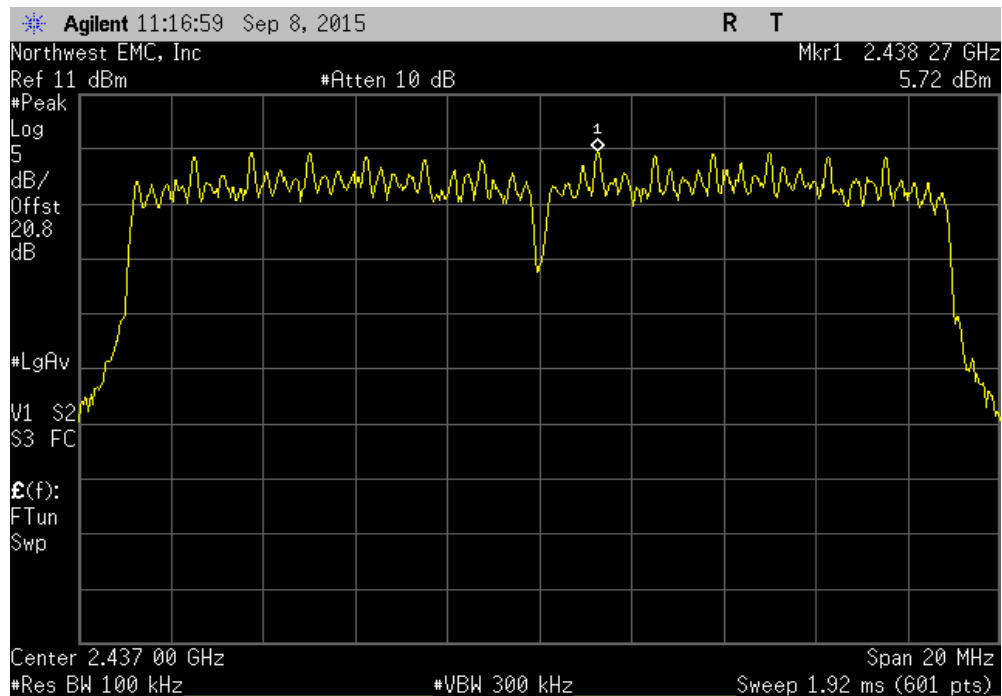


POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	6.121	-15.2	-9.079	8	Pass	

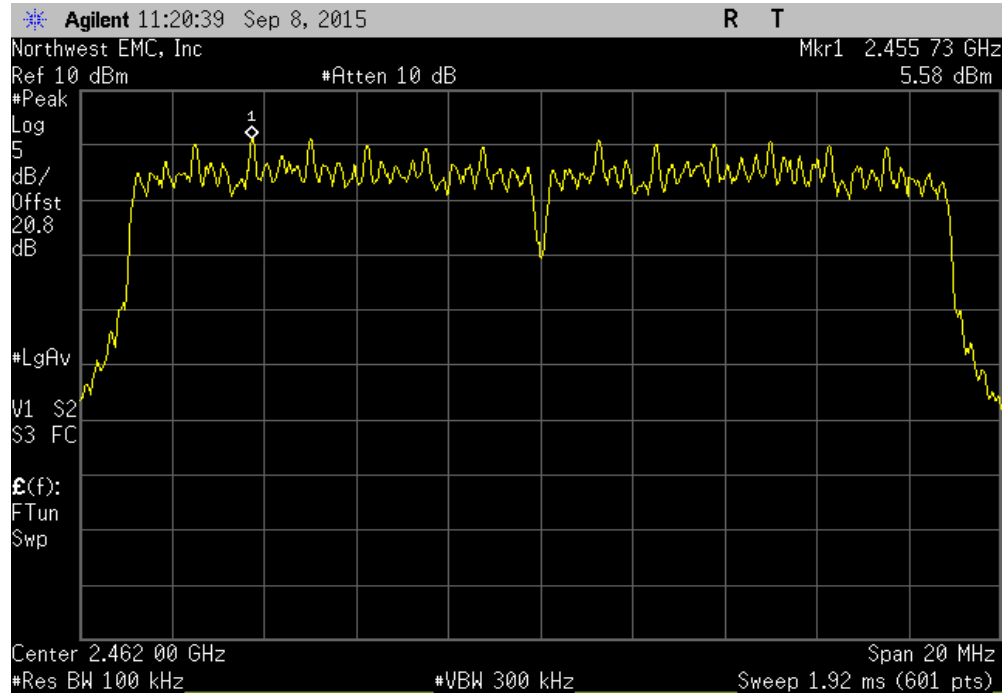


Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit	Results	
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz		
	5.716	-15.2	-9.484	8	Pass	



POWER SPECTRAL DENSITY

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
		To dBm/3kHz			
	5.579	-15.2	-9.621	8	Pass



SPURIOUS CONDUCTED EMISSIONS

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 (mos)
Spectrum Analyzer	Agilent	N9010A	AFL	9/20/2014	12
DC Block, 40 GHz	Fairview Microwave	SD3379	AMM	2/27/2015	12
Attenuator, 20dB, 40 GHz	Fairview Microwave	SA4018-20	TQY	2/27/2015	12
Signal Generator, 40 GHz	Agilent	N5173B	TIW	7/15/2014	36

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. 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.

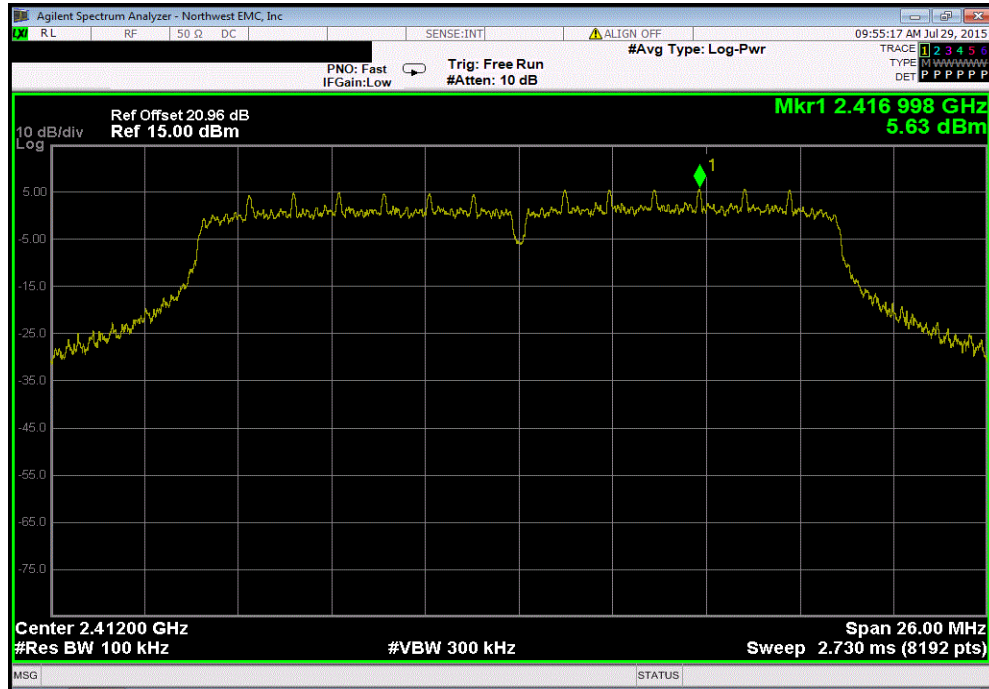
The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

SPURIOUS CONDUCTED EMISSIONS

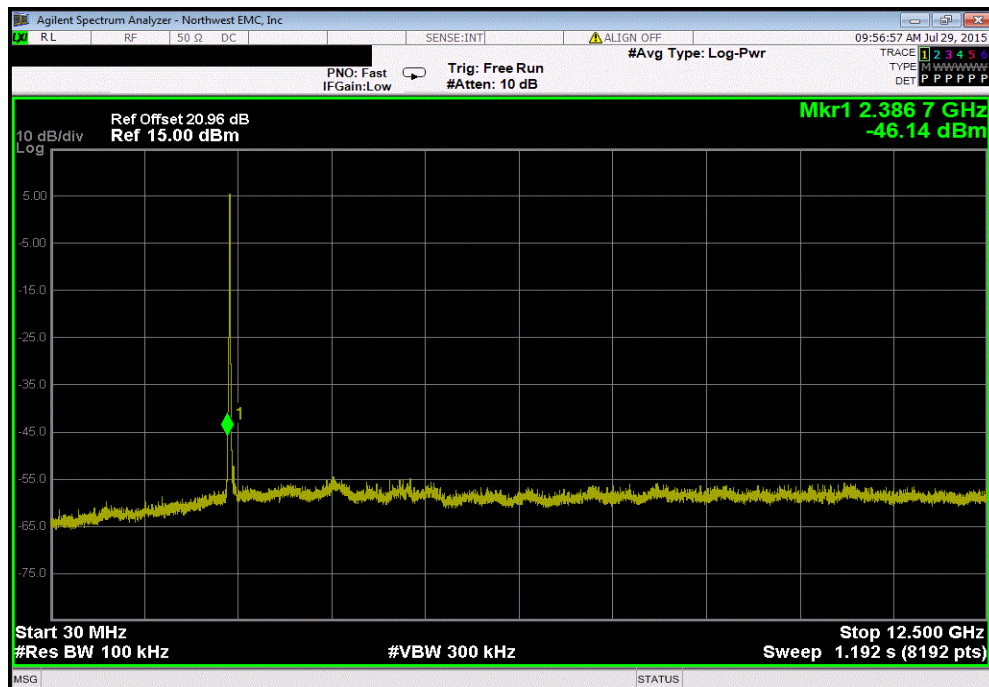
EUT: Firebox T50-W (BS5AE7W)		Work Order: VDEI0009	
Serial Number: 70AF00069-3EB6		Date: 07/29/15	
Customer: WatchGuard Technologies, Inc.		Temperature: 24.9°C	
Attendees: None		Humidity: 47%	
Project: None		Barometric Pres.: 1014 mbar	
Tested by: Jonathan Kiefer		Job Site: TX09	
Power: 110VAC/60Hz			
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2015		ANSI C63.10:2013	
COMMENTS			
2x2 MIMO mode, Chain AB (Chains 0 and 1). Tested the modulation that produced the highest conducted output power.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature <i>Jonathan Kiefer</i>	
		Frequency Range	Max Value (dBc) Limit ≤ (dBc) Result
Chain A			
20 MHz			
2400 MHz - 2483.5 MHz Band			
802.11(n) MCS8			
	Low Channel 1, 2412 MHz	Fundamental	N/A N/A N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-51.77 -20 Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-57.98 -20 Pass
	Mid Channel 6, 2437 MHz	Fundamental	N/A N/A N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-60.2 -20 Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-57.09 -20 Pass
	High Channel 11, 2462 MHz	Fundamental	N/A N/A N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-60.15 -20 Pass
	High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-56.4 -20 Pass
Chain B			
20 MHz			
2400 MHz - 2483.5 MHz Band			
802.11(n) MCS8			
	Low Channel 1, 2412 MHz	Fundamental	N/A N/A N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-52.65 -20 Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-57.82 -20 Pass
	Mid Channel 6, 2437 MHz	Fundamental	N/A N/A N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-59.45 -20 Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-57.38 -20 Pass
	High Channel 11, 2462 MHz	Fundamental	N/A N/A N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-59.22 -20 Pass
	High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-57.55 -20 Pass

SPURIOUS CONDUCTED EMISSIONS

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
Fundamental		N/A		N/A	N/A	

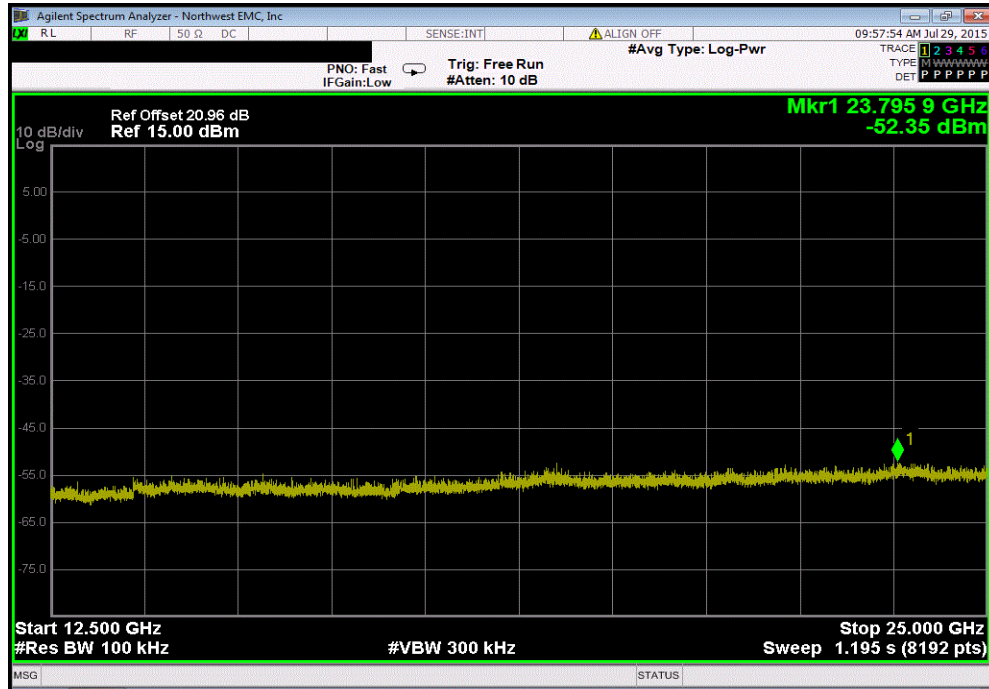


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz		-51.77		-20	Pass	

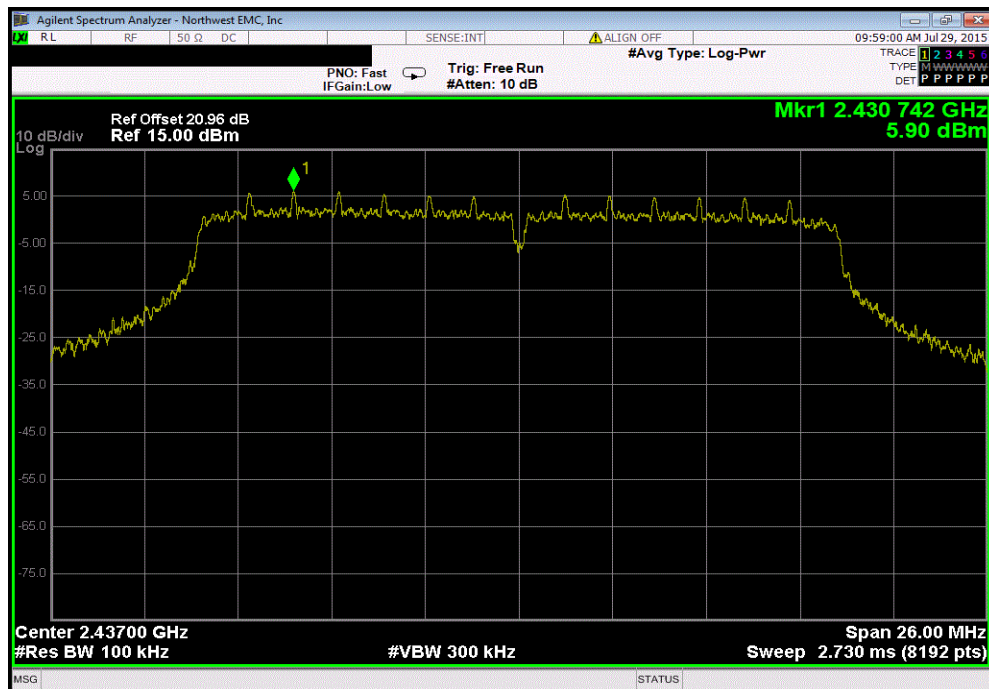


SPURIOUS CONDUCTED EMISSIONS

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-57.98	-20	Pass	

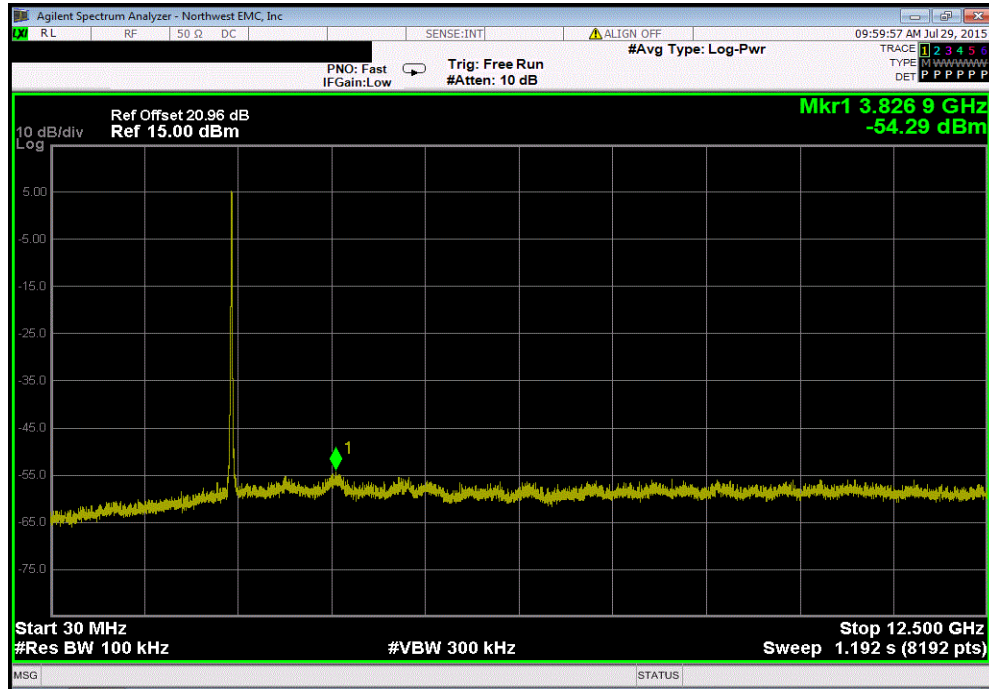


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	N/A	N/A	N/A	

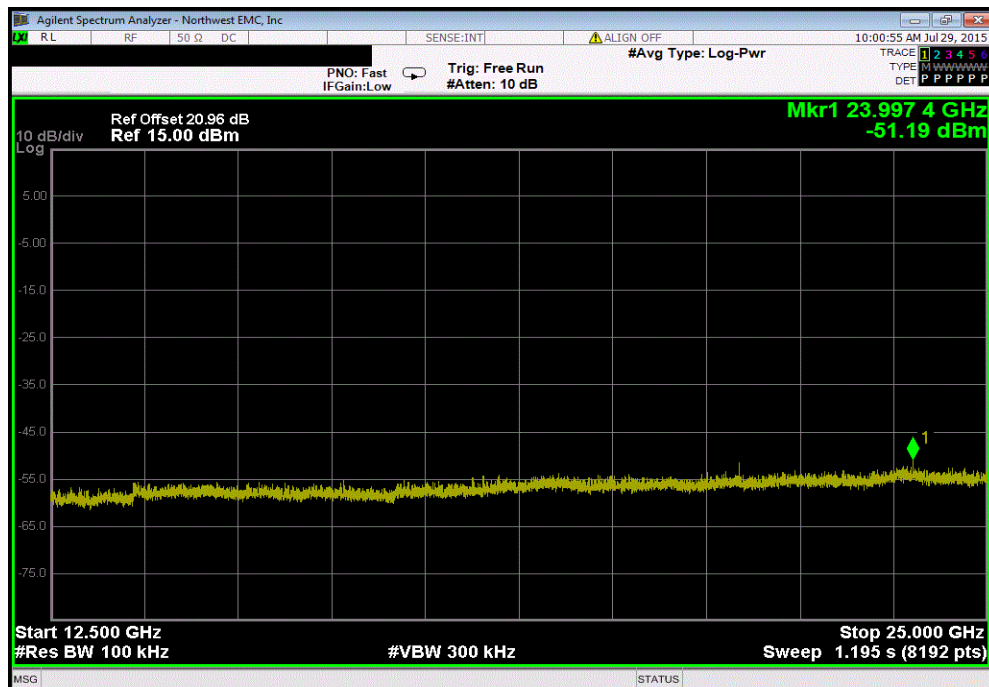


SPURIOUS CONDUCTED EMISSIONS

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-60.2	-20	Pass	

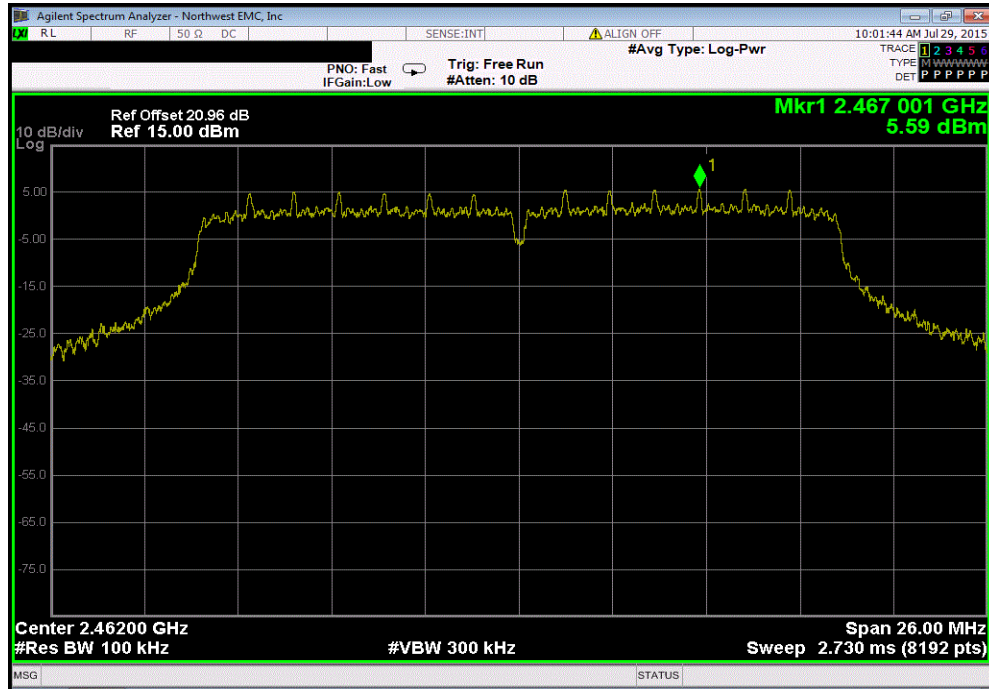


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-57.09	-20	Pass	

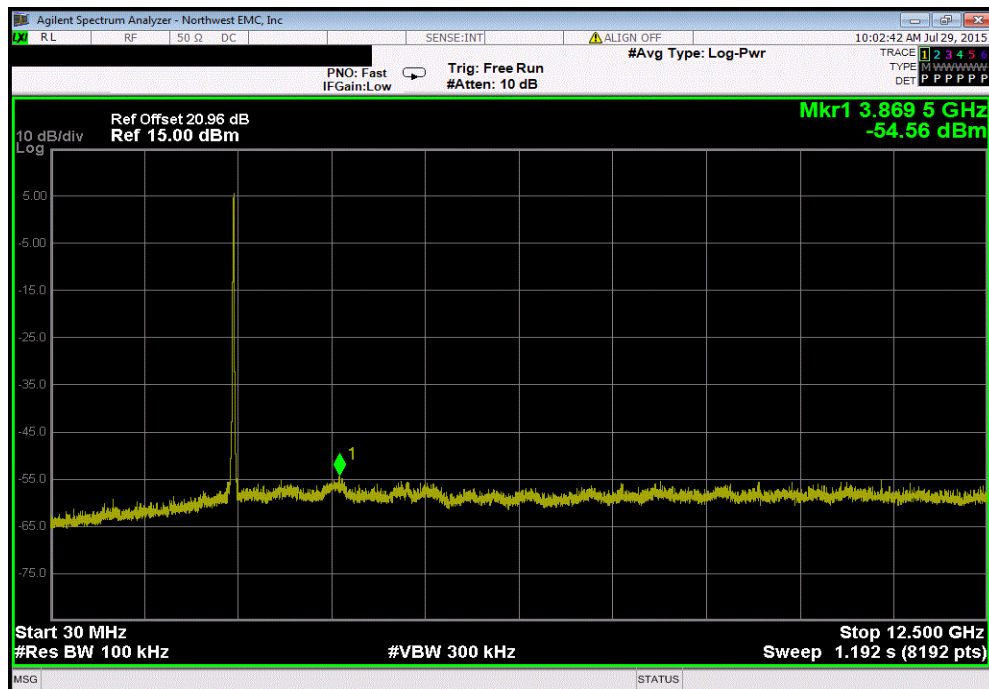


SPURIOUS CONDUCTED EMISSIONS

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)		Result
Fundamental		N/A		N/A		N/A

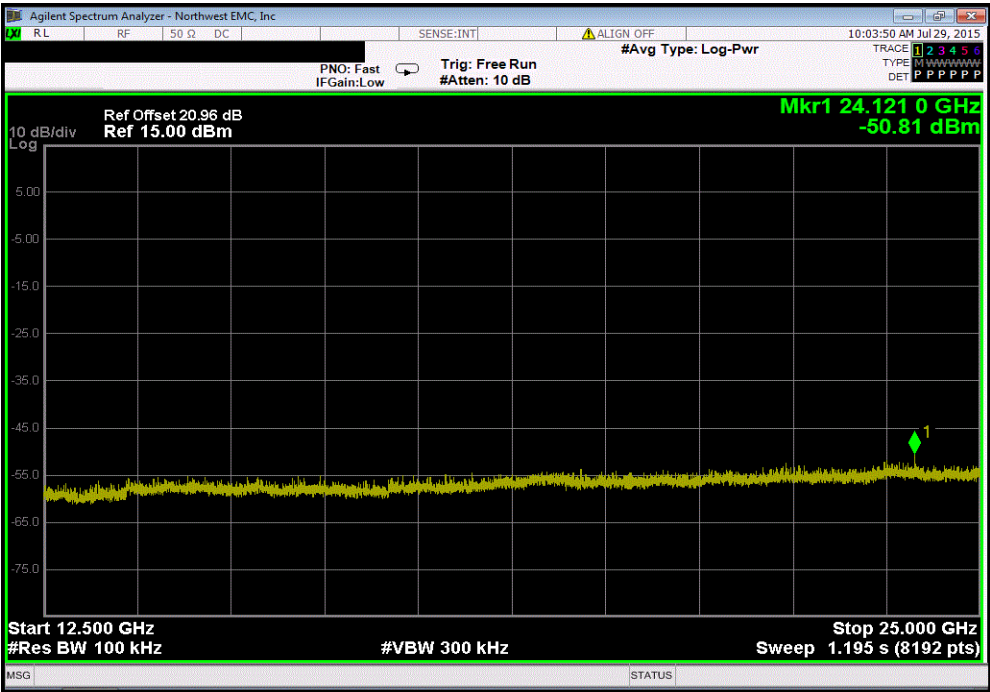


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)		Result
30 MHz - 12.5 GHz		-60.15		-20		Pass

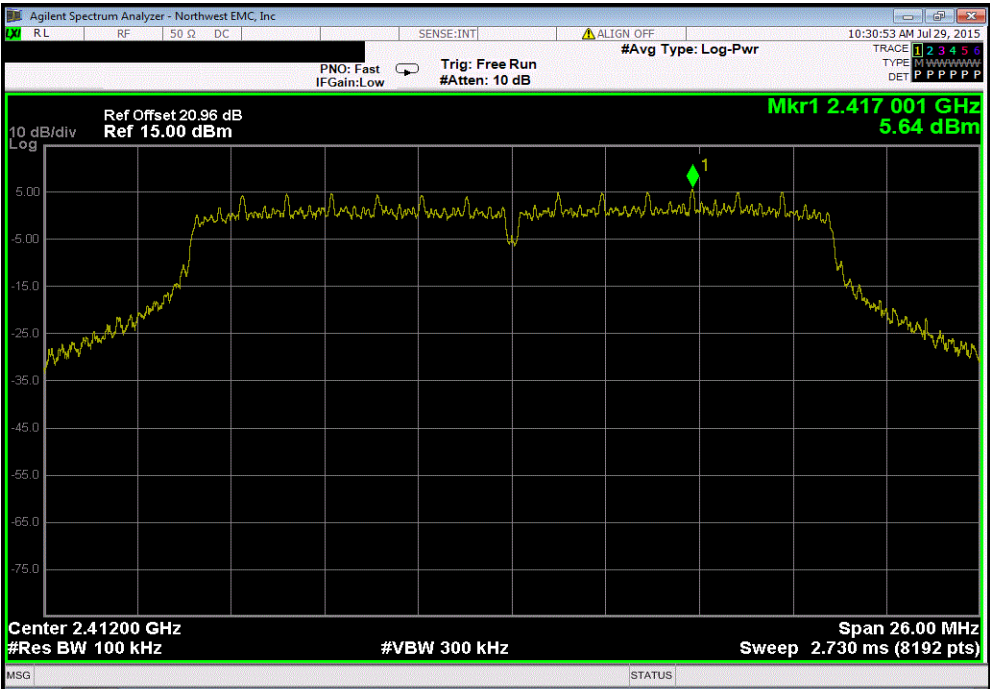


SPURIOUS CONDUCTED EMISSIONS

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-56.4	-20	Pass	

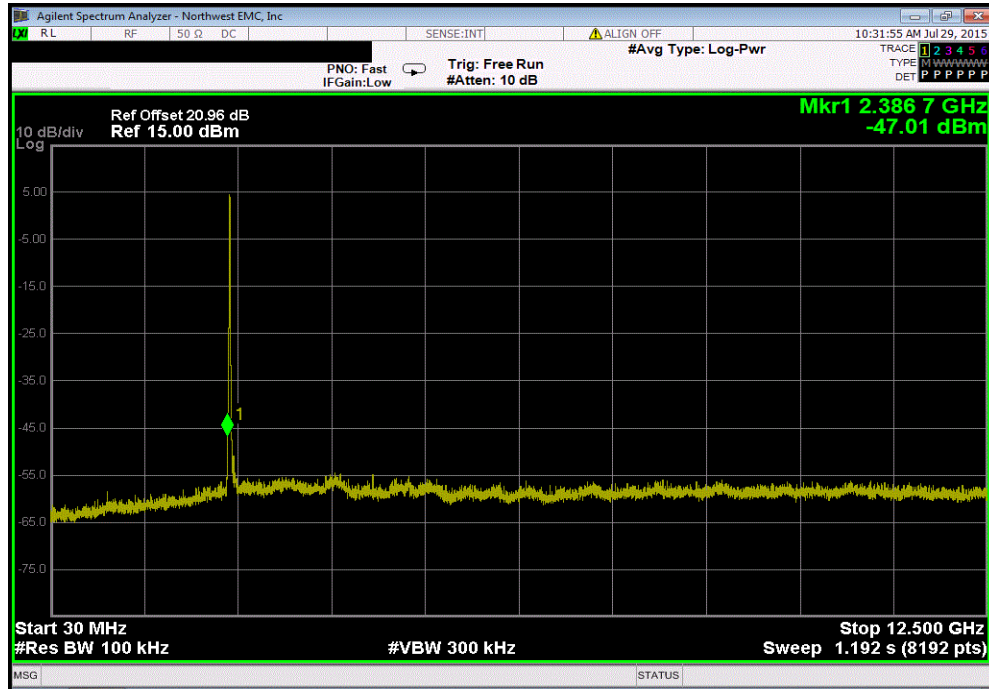


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	N/A	N/A	N/A	

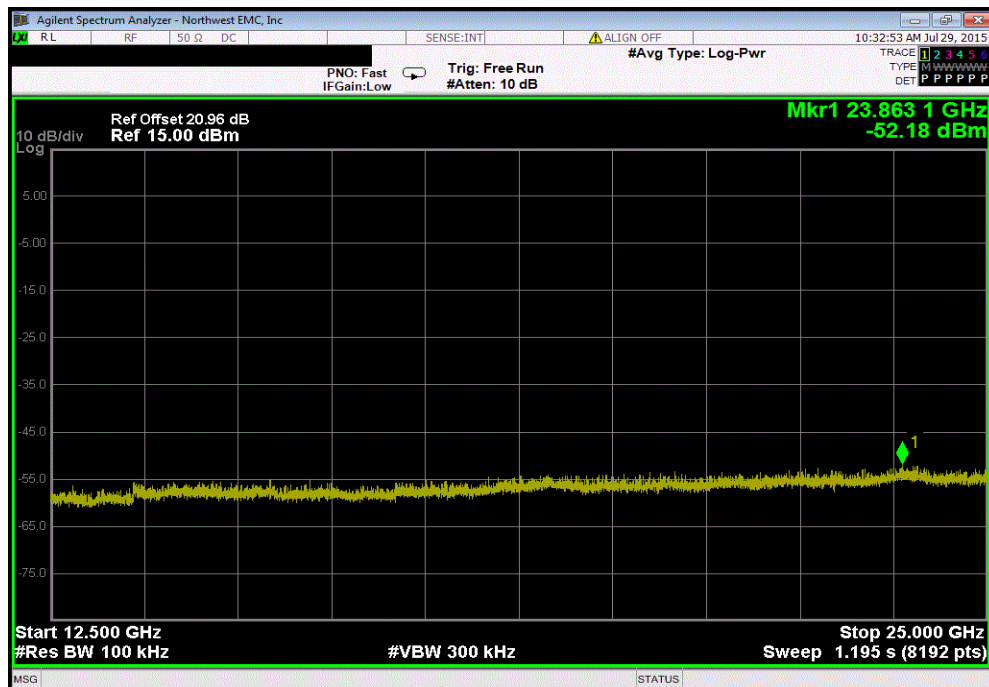


SPURIOUS CONDUCTED EMISSIONS

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-52.65	-20	Pass	

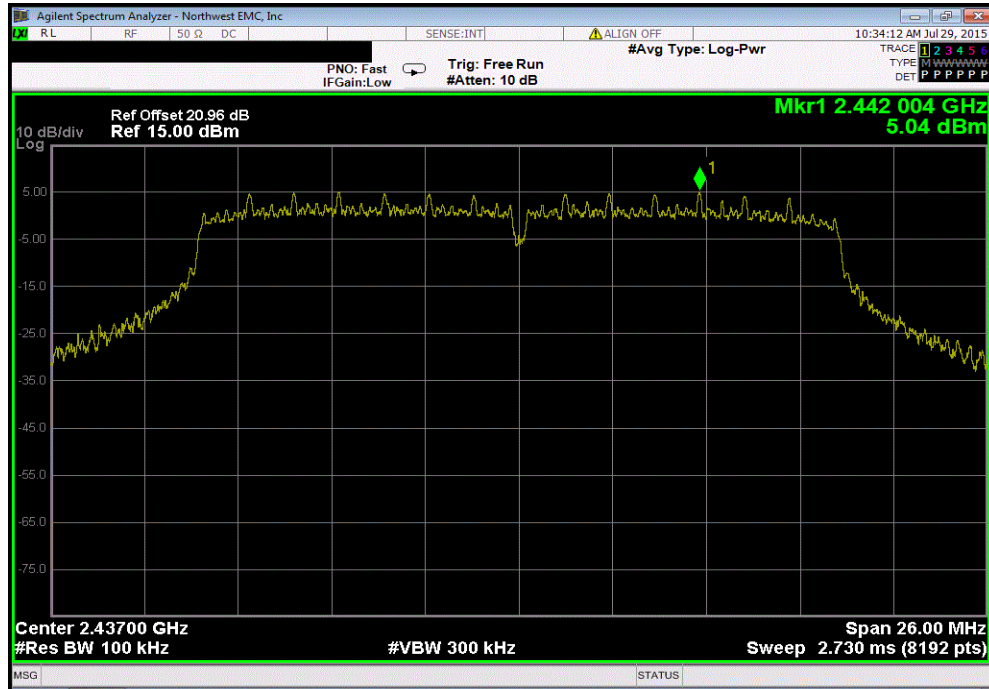


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-57.82	-20	Pass	

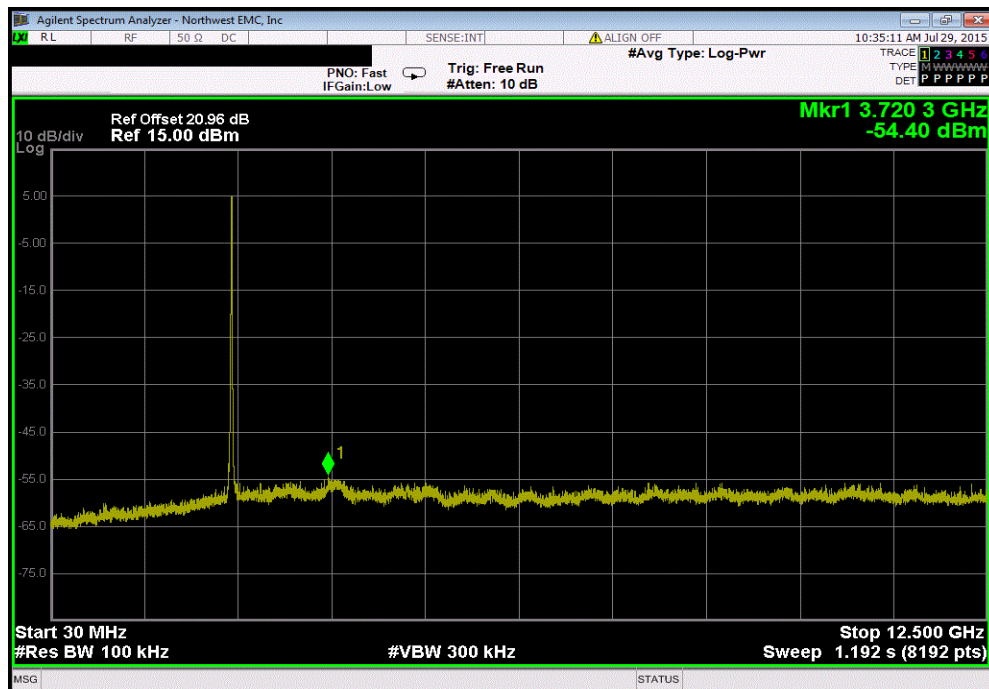


SPURIOUS CONDUCTED EMISSIONS

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
Fundamental		N/A		N/A	N/A	

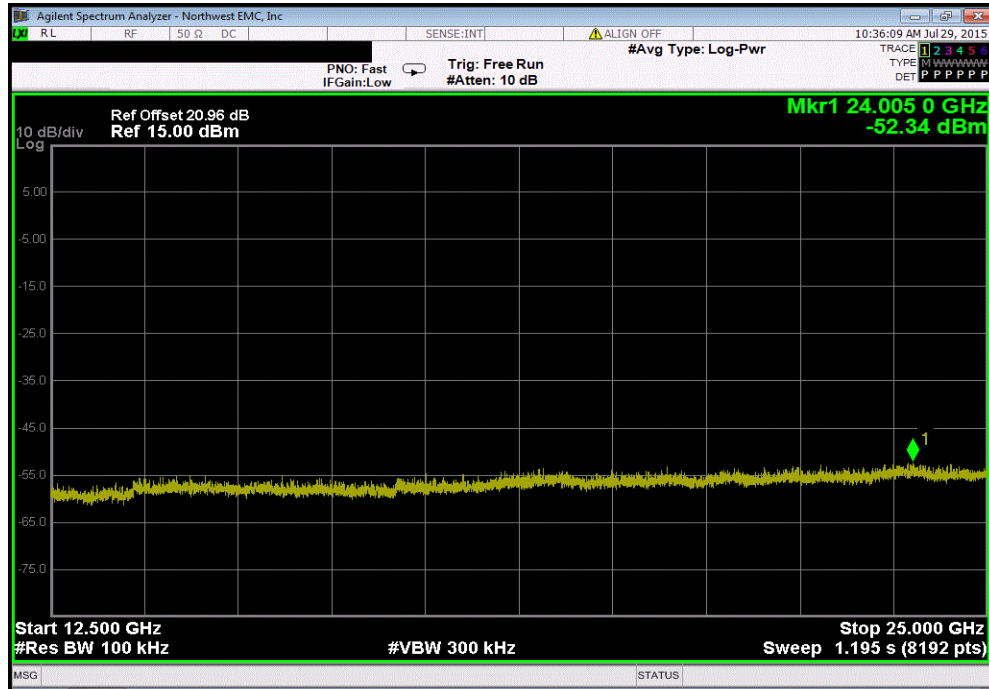


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz		-59.45		-20	Pass	

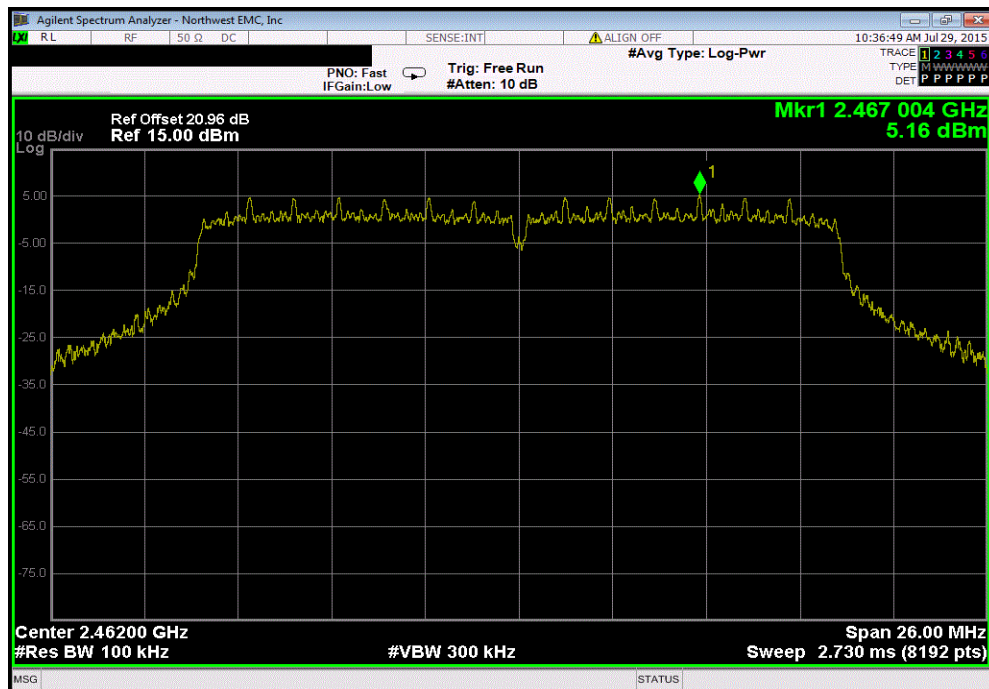


SPURIOUS CONDUCTED EMISSIONS

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-57.38	-20	Pass	

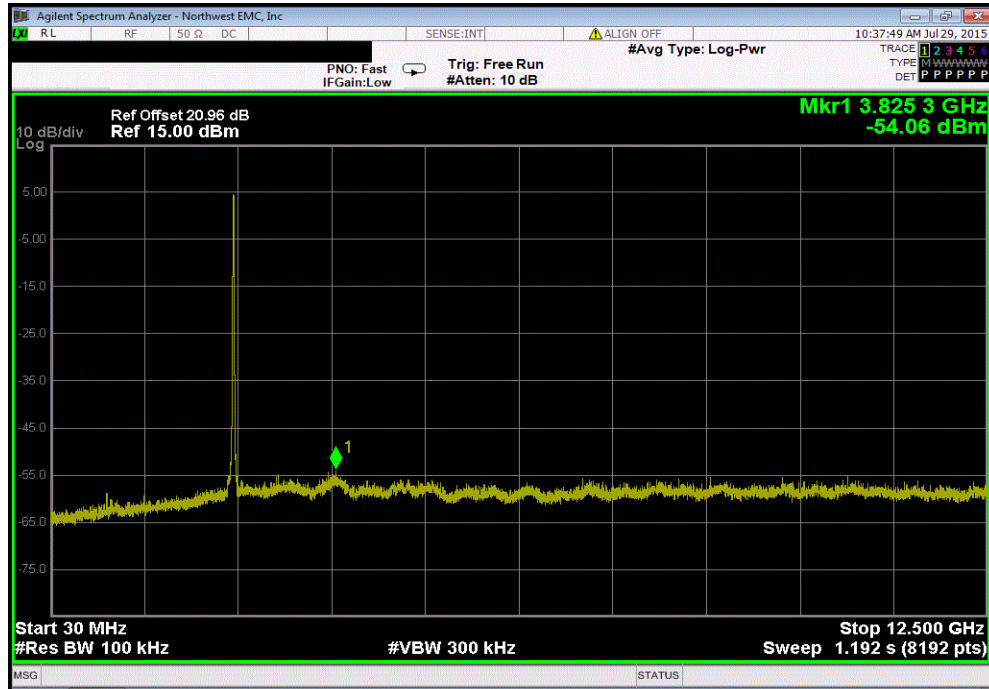


Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	N/A	N/A	N/A	

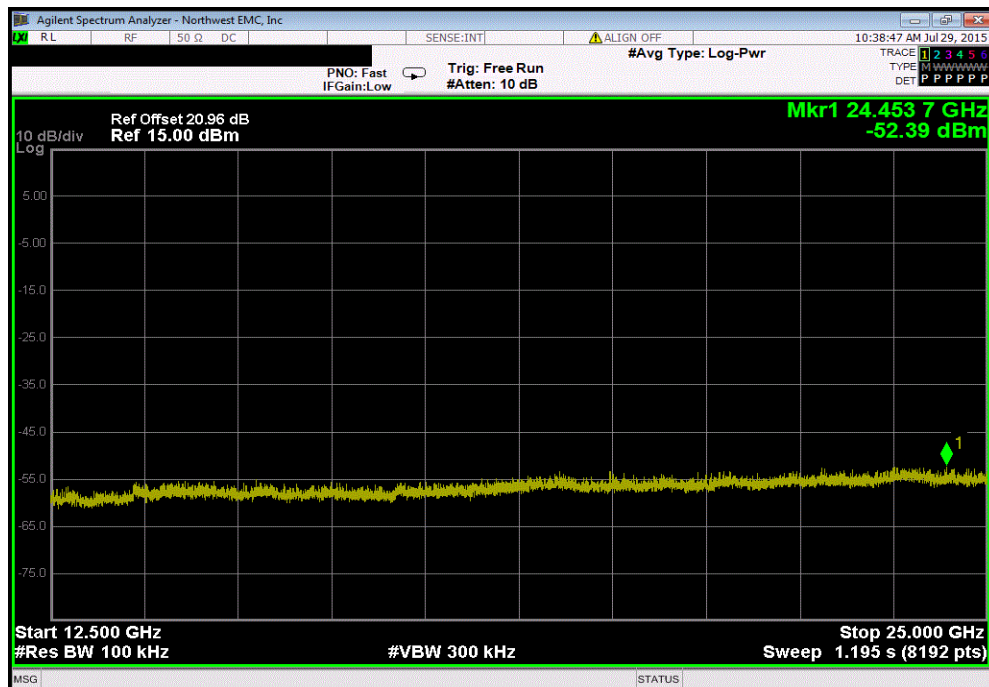


SPURIOUS CONDUCTED EMISSIONS

Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-59.22	-20	Pass	



Chain B, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-57.55	-20	Pass	



SPURIOUS CONDUCTED EMISSIONS

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 (mos)
Spectrum Analyzer	Agilent	N9010A	AFL	9/20/2014	12
DC Block, 40 GHz	Fairview Microwave	SD3379	AMM	2/27/2015	12
Attenuator, 20dB, 40 GHz	Fairview Microwave	SA4018-20	TQY	2/27/2015	12
Signal Generator, 40 GHz	Agilent	N5173B	TIW	7/15/2014	36

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. 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.

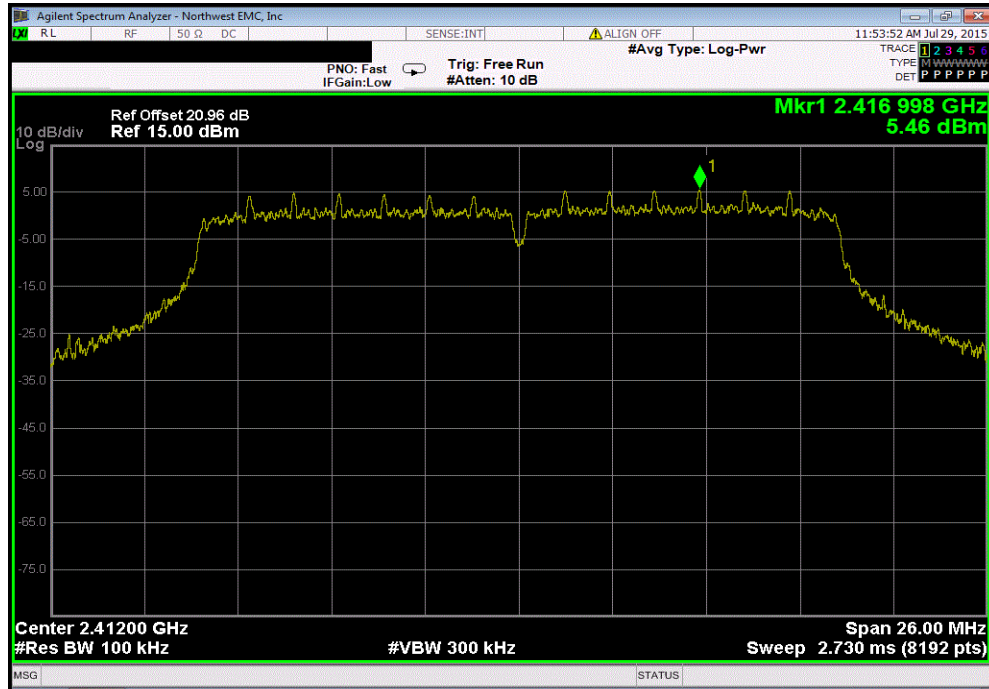
The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

SPURIOUS CONDUCTED EMISSIONS

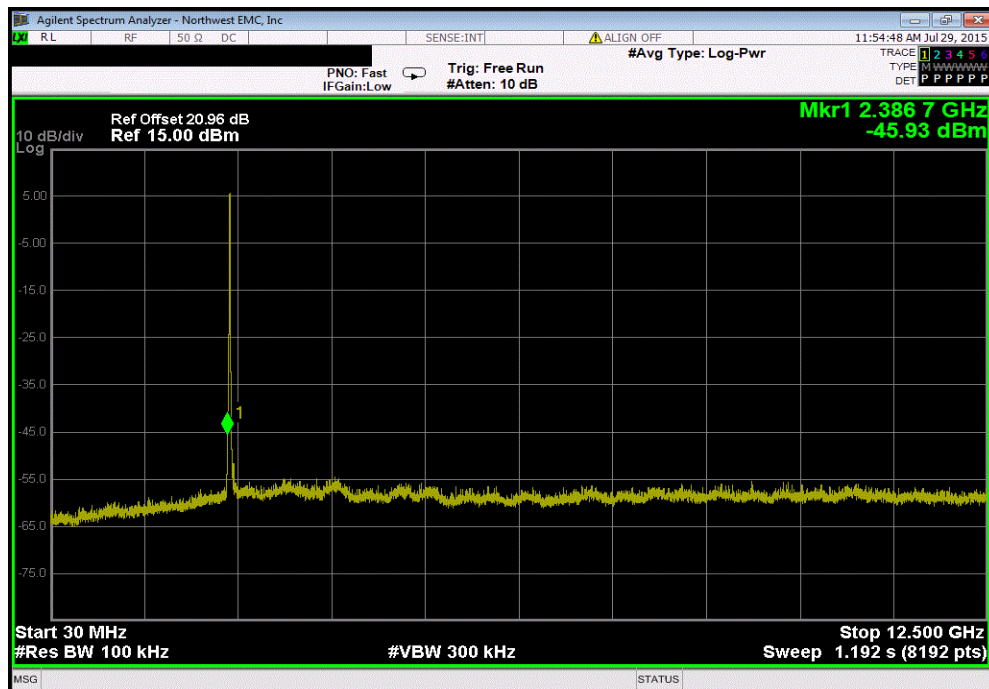
EUT: Firebox T50-W (BS5AE7W)		Work Order: VDEI0009	
Serial Number: 70AF00069-3EB6		Date: 07/29/15	
Customer: WatchGuard Technologies, Inc.		Temperature: 24.9°C	
Attendees: None		Humidity: 47%	
Project: None		Barometric Pres.: 1014 mbar	
Tested by: Jonathan Kiefer		Power: 110VAC/60Hz	Job Site: TX09
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2015		ANSI C63.10:2013	
COMMENTS			
2x2 MIMO mode, Chain AC (Chains 0 and 2). Tested the modulation that produced the highest conducted output power.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature <i>Jonathan Kiefer</i>	
		Frequency Range	Max Value (dBc) Limit ≤ (dBc) Result
Chain A			
20 MHz			
2400 MHz - 2483.5 MHz Band			
802.11(n) MCS8			
	Low Channel 1, 2412 MHz	Fundamental	N/A N/A N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-51.39 -20 Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-56.9 -20 Pass
	Mid Channel 6, 2437 MHz	Fundamental	N/A N/A N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-59.64 -20 Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-57.29 -20 Pass
	High Channel 11, 2462 MHz	Fundamental	N/A N/A N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-60.37 -20 Pass
	High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-57.43 -20 Pass
Chain C			
20 MHz			
2400 MHz - 2483.5 MHz Band			
802.11(n) MCS8			
	Low Channel 1, 2412 MHz	Fundamental	N/A N/A N/A
	Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-49.26 -20 Pass
	Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-57.18 -20 Pass
	Mid Channel 6, 2437 MHz	Fundamental	N/A N/A N/A
	Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-58.64 -20 Pass
	Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-55.81 -20 Pass
	High Channel 11, 2462 MHz	Fundamental	N/A N/A N/A
	High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-58.88 -20 Pass
	High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-56.65 -20 Pass

SPURIOUS CONDUCTED EMISSIONS

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
Fundamental		N/A		N/A	N/A	

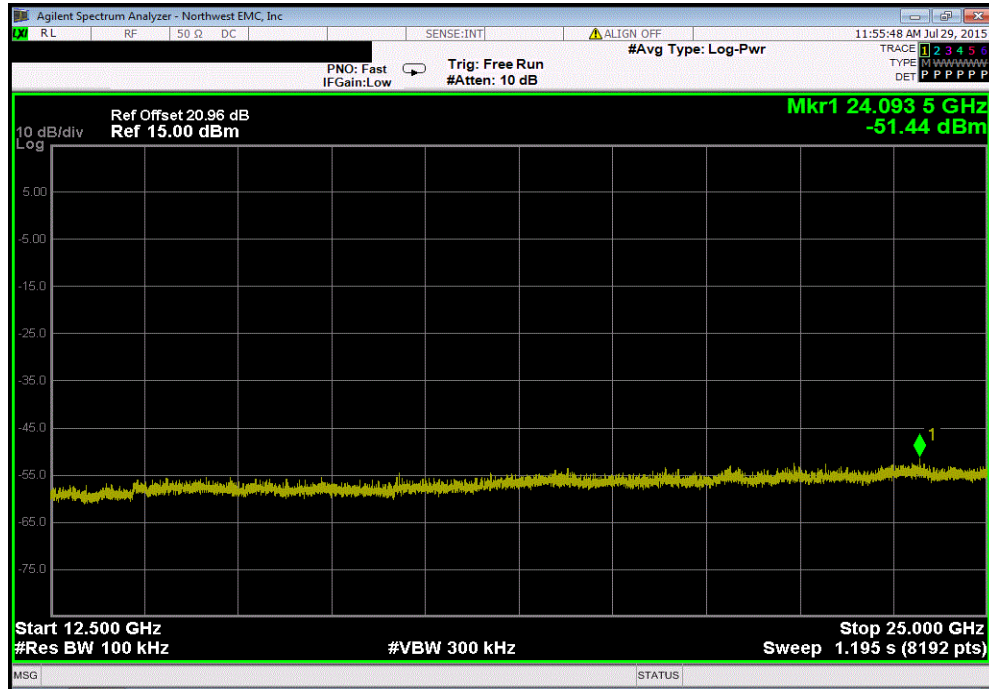


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz		-51.39		-20	Pass	

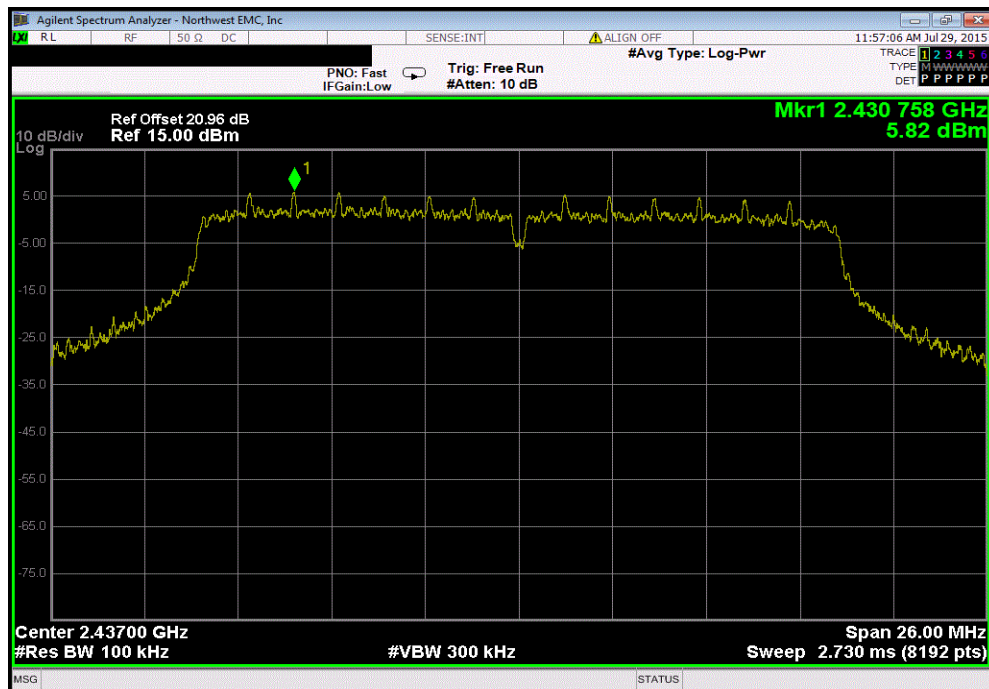


SPURIOUS CONDUCTED EMISSIONS

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-56.9	-20	Pass	

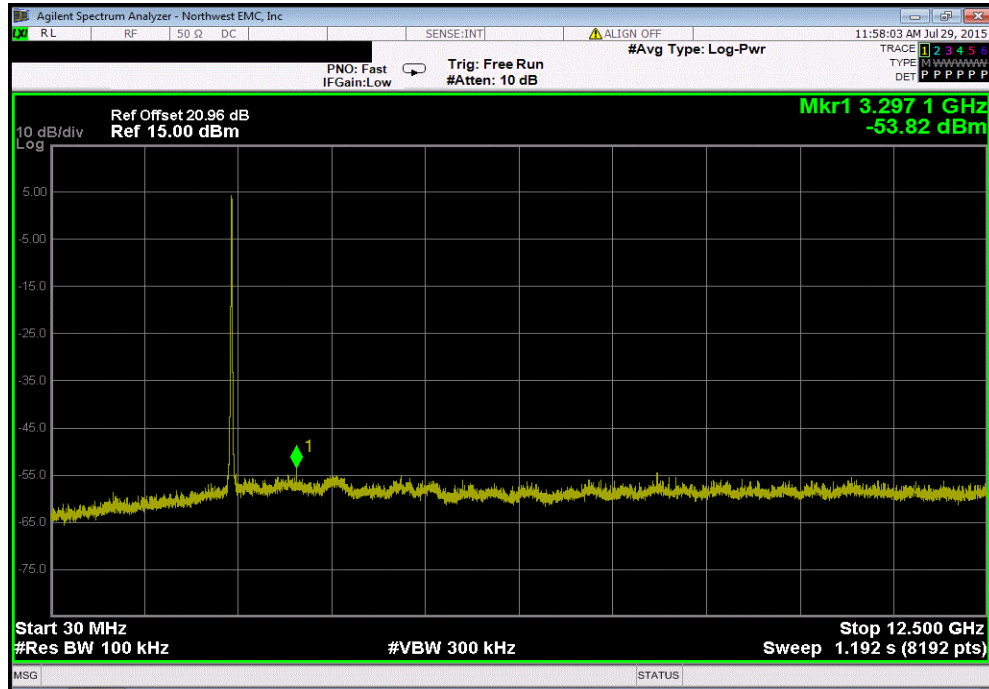


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	N/A	N/A	N/A	

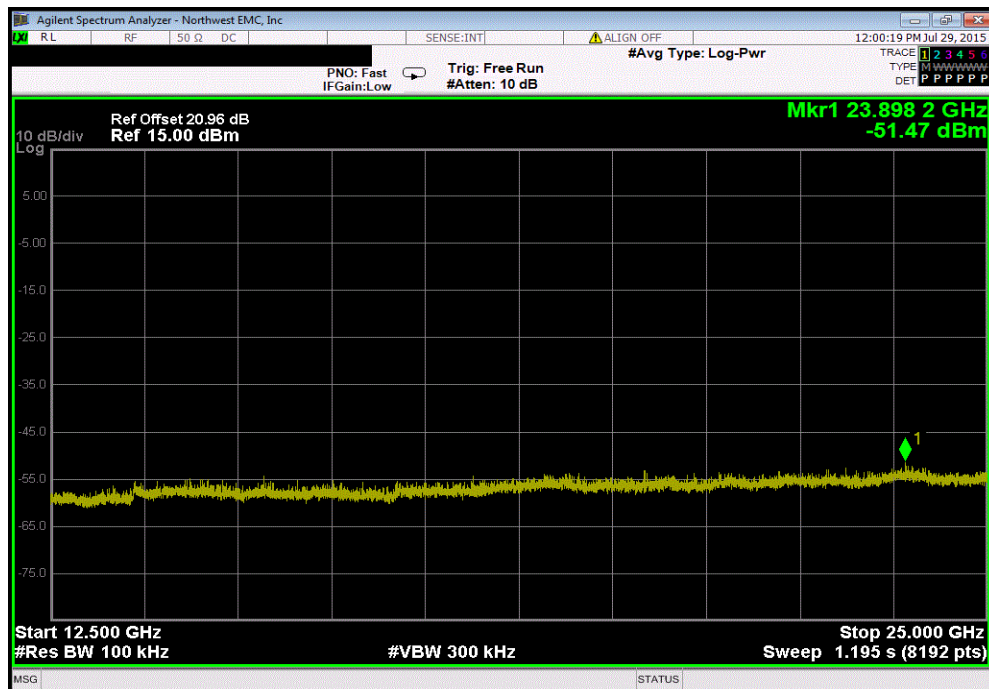


SPURIOUS CONDUCTED EMISSIONS

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-59.64	-20	Pass	

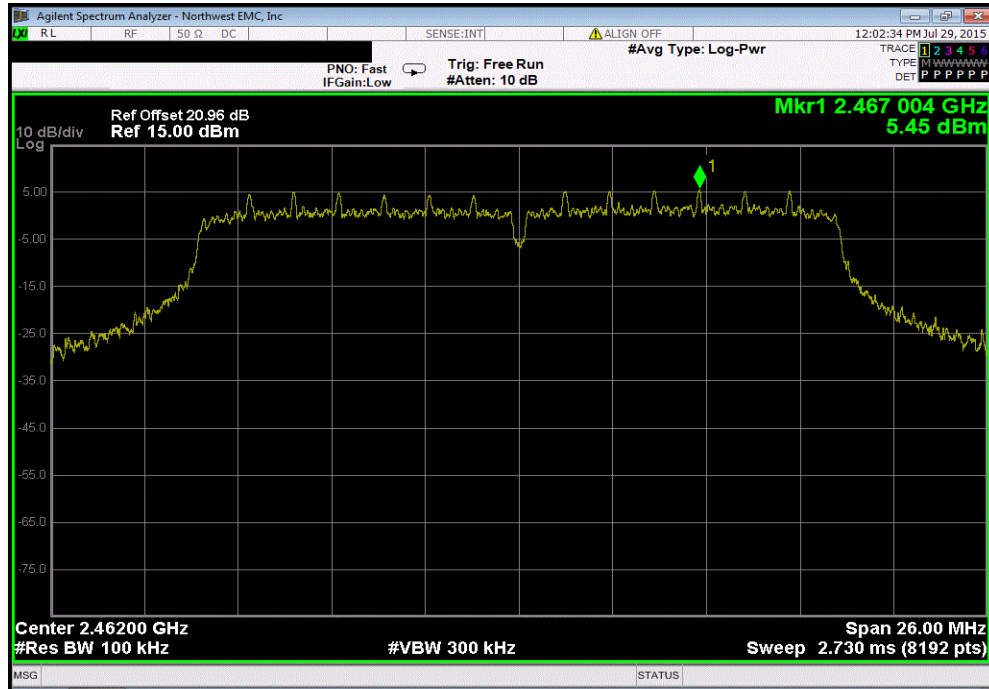


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-57.29	-20	Pass	

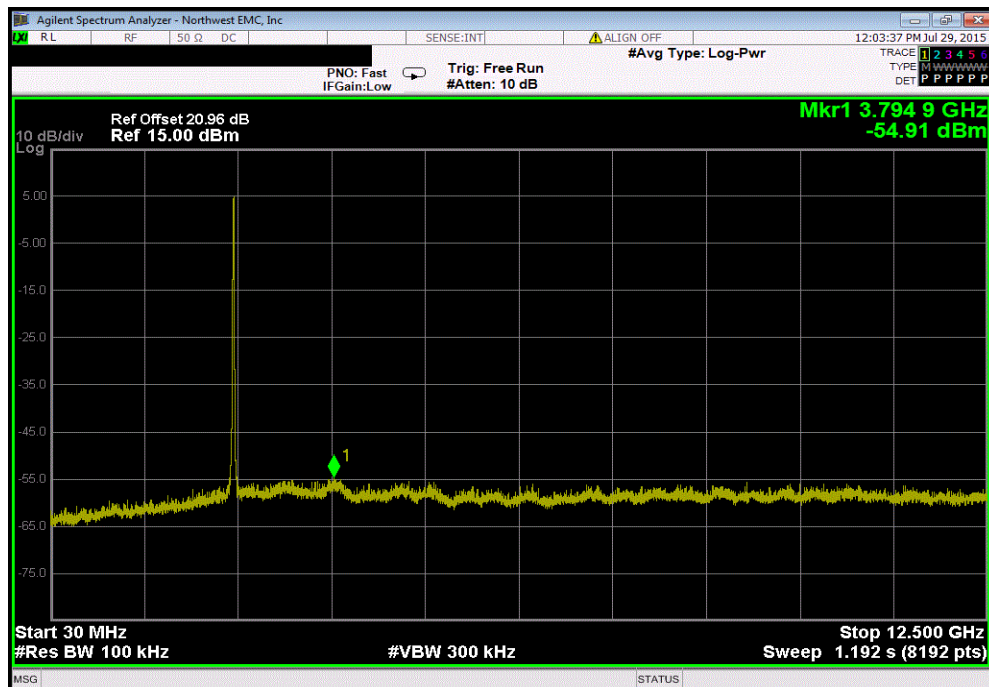


SPURIOUS CONDUCTED EMISSIONS

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)		Result
Fundamental		N/A		N/A		N/A

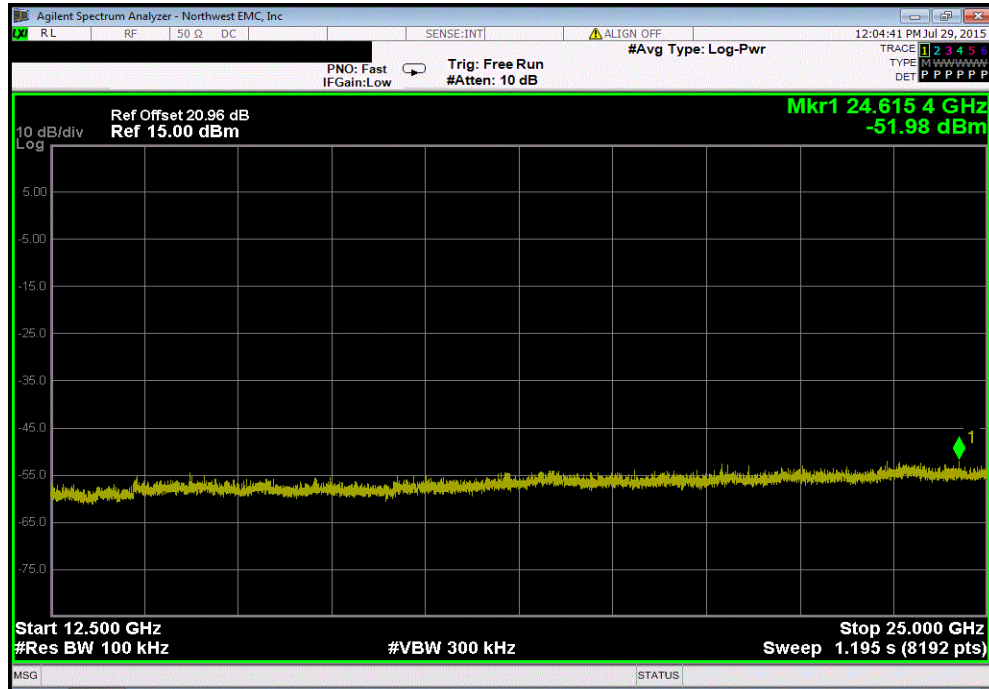


Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)		Result
30 MHz - 12.5 GHz		-60.37		-20		Pass

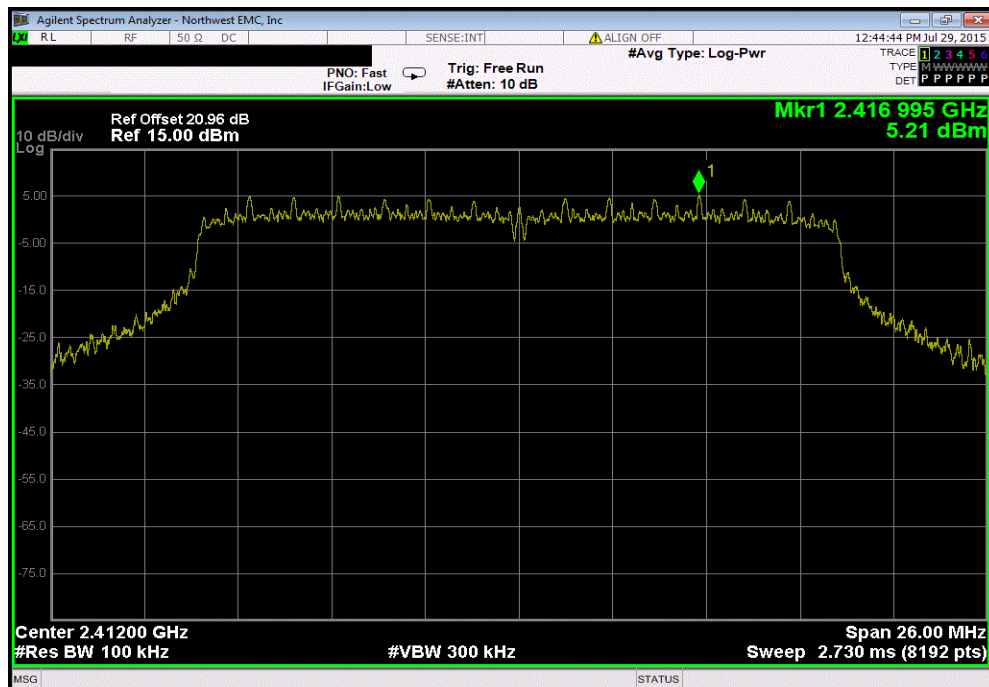


SPURIOUS CONDUCTED EMISSIONS

Chain A, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-57.43	-20	Pass	

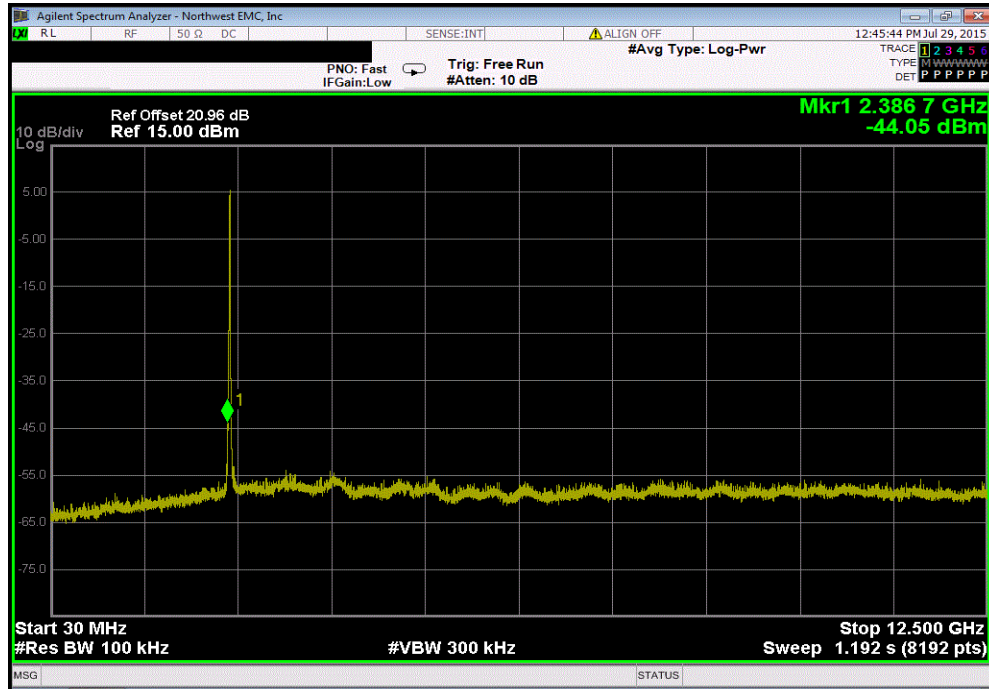


Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	N/A	N/A	N/A	

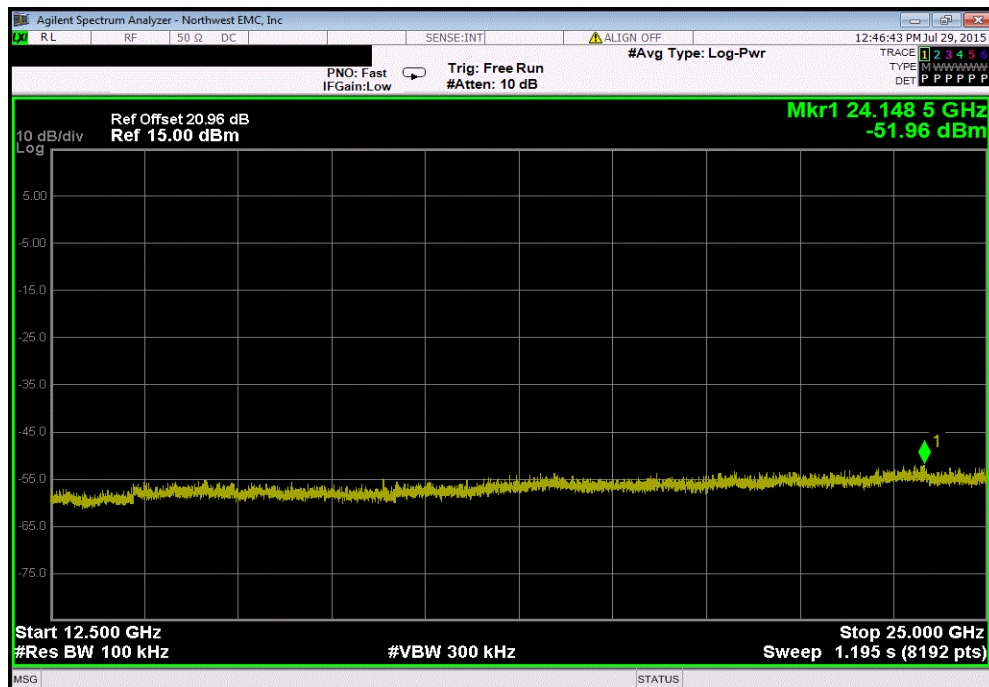


SPURIOUS CONDUCTED EMISSIONS

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-49.26	-20	Pass	

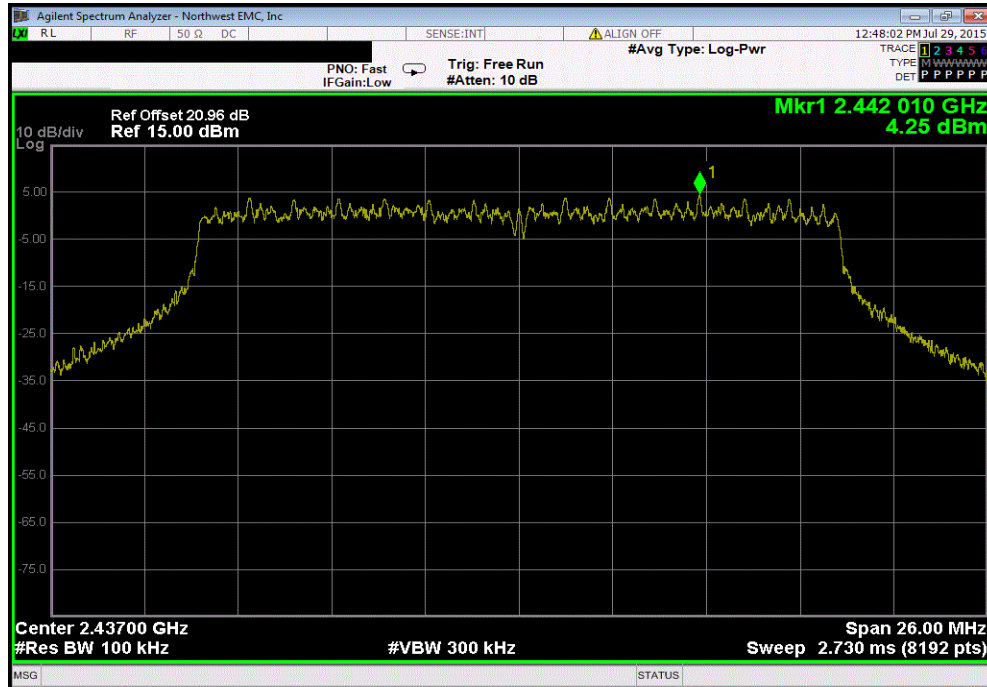


Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Low Channel 1, 2412 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-57.18	-20	Pass	

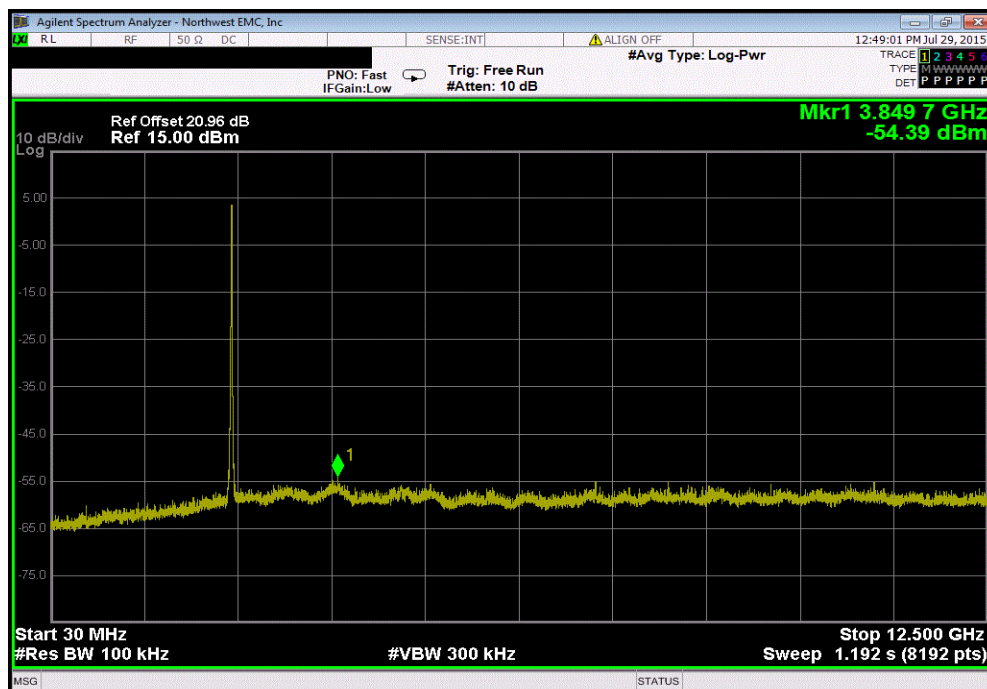


SPURIOUS CONDUCTED EMISSIONS

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)		Result
Fundamental		N/A		N/A		N/A

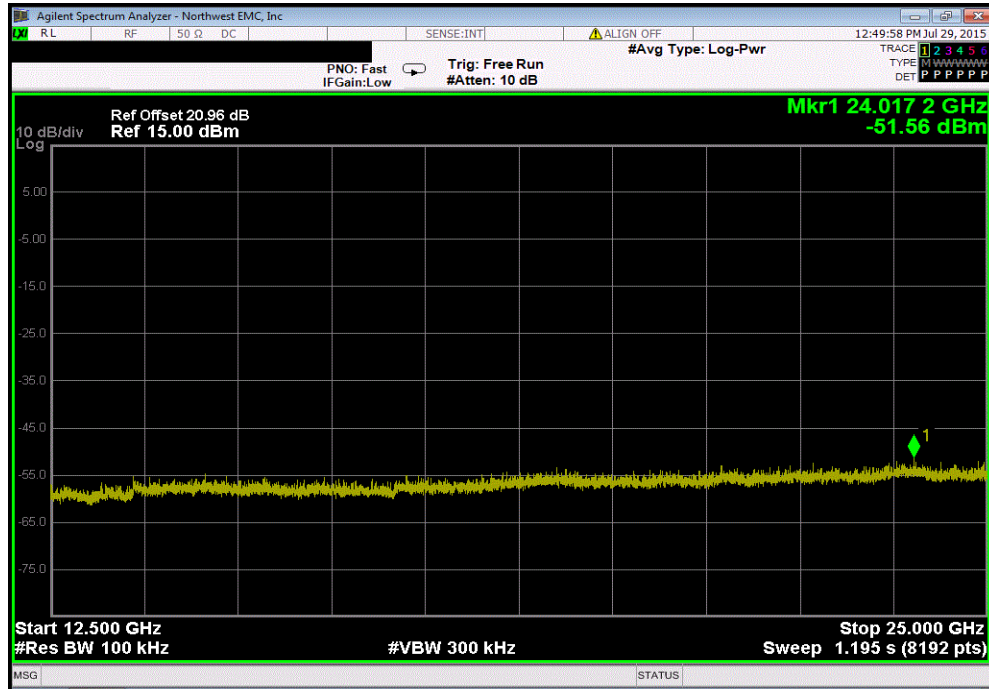


Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)		Result
30 MHz - 12.5 GHz		-58.64		-20		Pass

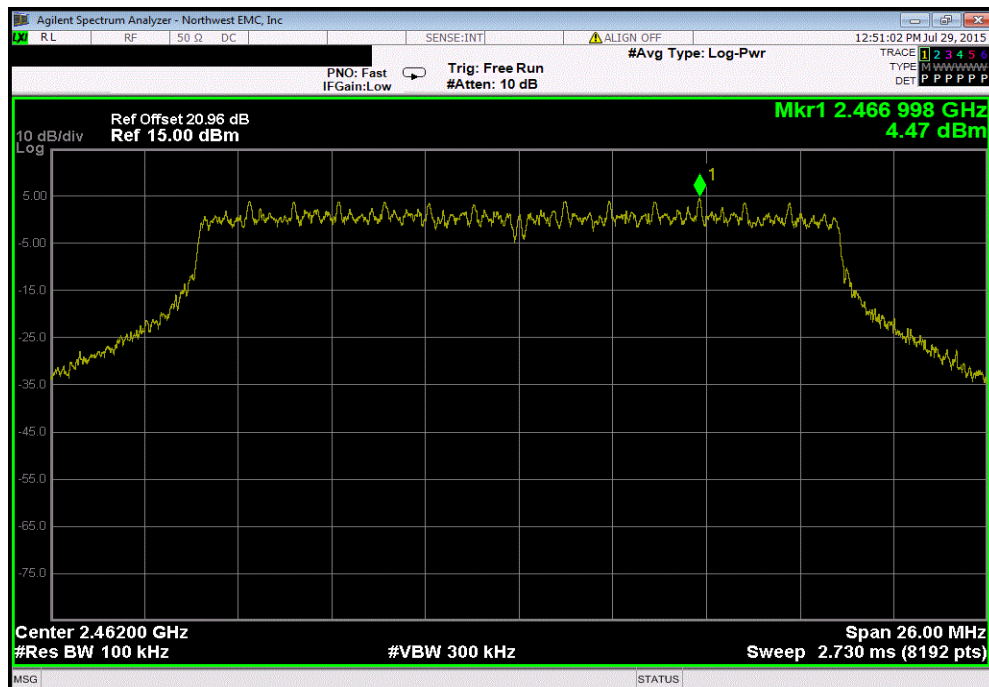


SPURIOUS CONDUCTED EMISSIONS

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, Mid Channel 6, 2437 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-55.81	-20	Pass	

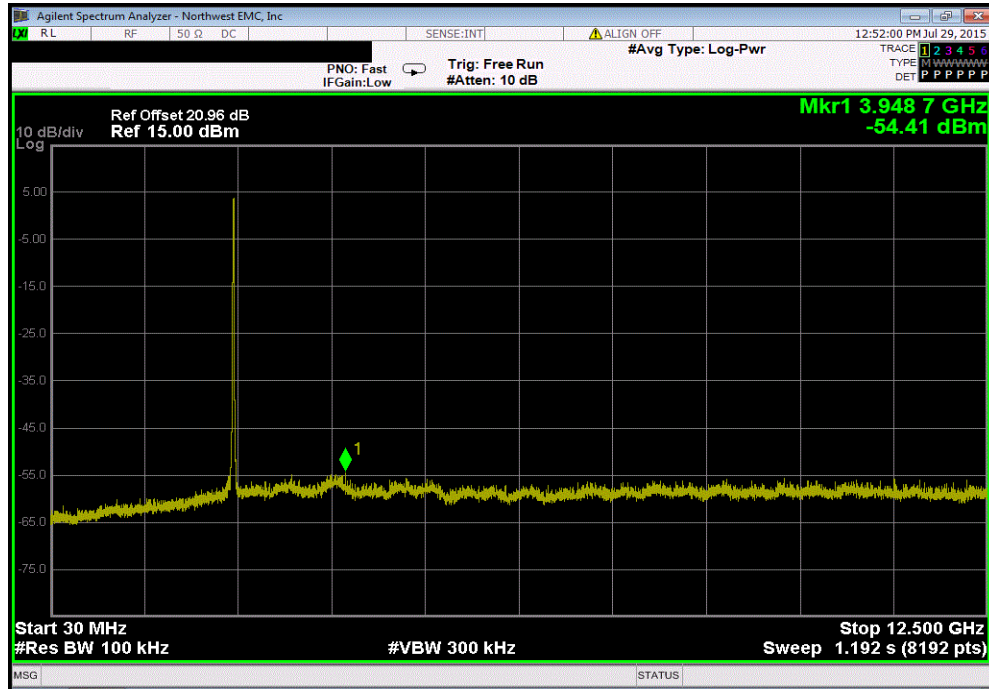


Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	N/A	N/A	N/A	



SPURIOUS CONDUCTED EMISSIONS

Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-58.88	-20	Pass	



Chain C, 20 MHz, 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS8, High Channel 11, 2462 MHz				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-56.65	-20	Pass	

