

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 (mo)
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFE	6/22/2015	12
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFO	6/23/2015	12
Cable	ESM Cable Corp.	TTBJ-141 KMKM-72	NC5	6/6/2015	12
Attenuator	Fairview Microwave	SA4014-20	TKE	1/16/2015	12
Block - DC	Fairview Microwave	SD3379	AMJ	6/6/2015	12
Generator - Signal	Keysight	N5182B	TFY	4/16/2015	36

TEST DESCRIPTION

The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

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

Prior to measuring output 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 method AVGSA-2 in section 11.9.2.2.4 of ANSI C63.10:2013 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding $[10 \log (1 / D)]$, where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

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

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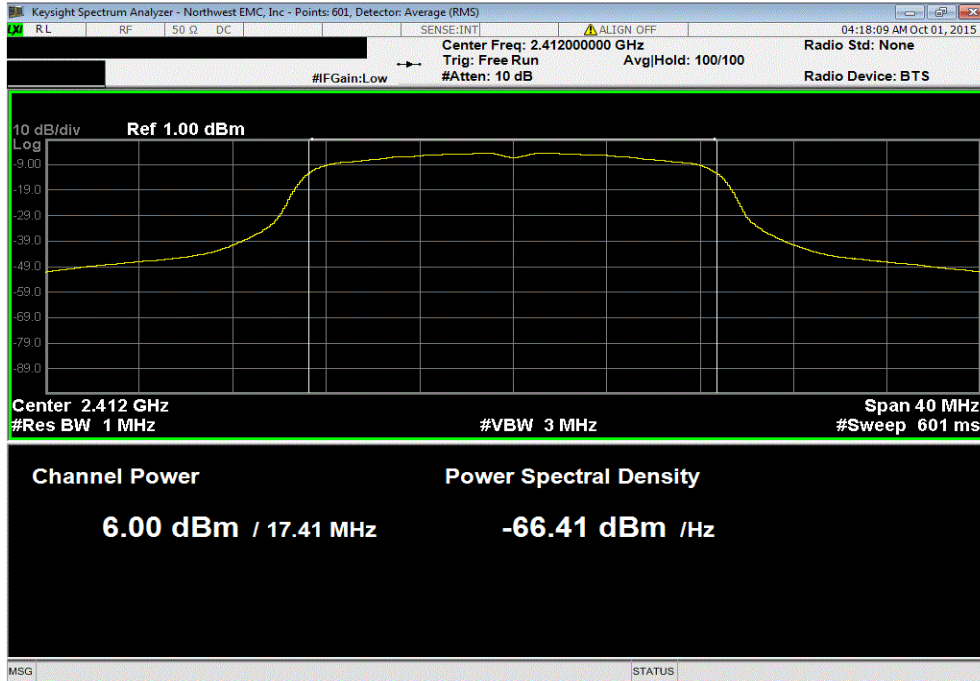


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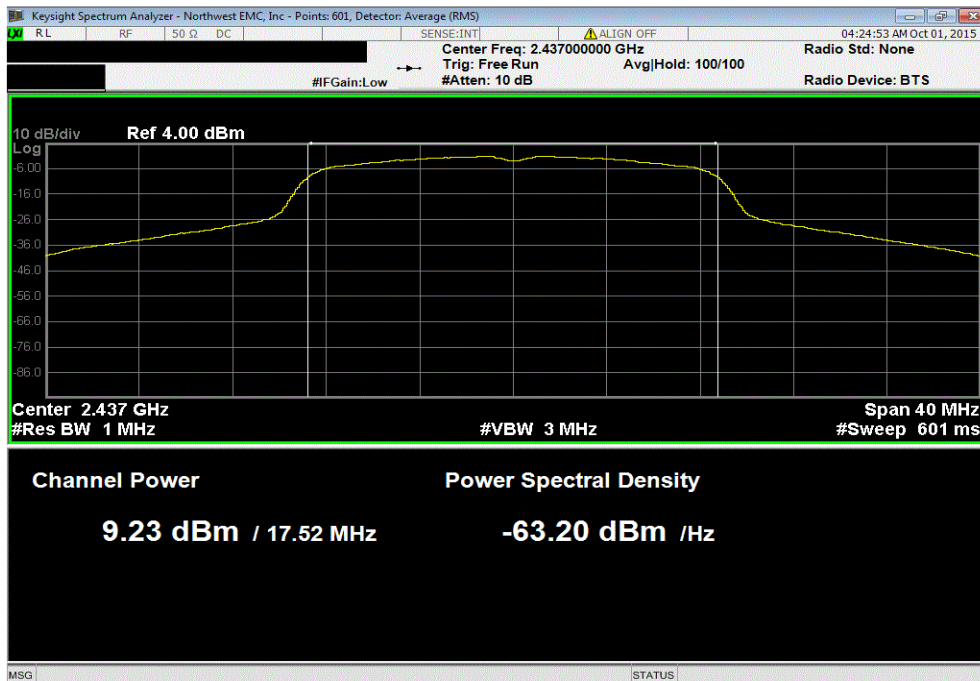
EUT: Precor Wi-Fi / Bluetooth Module Model 303346		Work Order: PRCR0230	
Serial Number: None		Date: 10/01/15	
Customer: Precor, Inc.		Temperature: 23°C	
Attendees: Rich Whitbeck		Humidity: 44%	
Project: None		Barometric Pres.: 1017mb	
Tested by: Richard Mellroth		Power: 110VAC/60Hz	
		Job Site: NC01 / NC02	
TEST SPECIFICATIONS			
FCC 15.247:2015		Test Method: ANSI C63.10:2013	
COMMENTS			
Power settings at Maximum.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature	
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)
		Value (dBm)	Limit (dBm)
			Results
Ant 1 (2x2 MIMO)			
20 MHz			
2.4 GHz Band			
802.11(n) MCS12			
	Low Channel 1, 2412 MHz	5.998	6.2
	Mid Channel 6, 2437 MHz	9.235	6.2
	High Channel 11, 2462 MHz	5.982	6.1
	802.11(n) MCS15		
	Low Channel 1, 2412 MHz	2.571	7.4
	Mid Channel 6, 2437 MHz	2.702	7.4
	High Channel 11, 2462 MHz	2.75	7.4
Ant 2 (2x2 MIMO)			
20 MHz			
2.4 GHz Band			
802.11(n) MCS12			
	Low Channel 1, 2412 MHz	4.368	6.1
	Mid Channel 6, 2437 MHz	6.907	6.1
	High Channel 11, 2462 MHz	3.441	6.1
	802.11(n) MCS15		
	Low Channel 1, 2412 MHz	0.785	7.3
	Mid Channel 6, 2437 MHz	0.323	7.3
	High Channel 11, 2462 MHz	0.001	7.3
Power Summing (2x2 MIMO)			
20 MHz			
2.4 GHz Band			
	802.11(n) MCS12	Ant 1 (mW)	Ant 2 (mW)
		Summed Power (mW)	Summed Power (dBm)
		Limit (dBm)	Results
	Low Channel 1, 2412 MHz	16.596	11.220
	Mid Channel 6, 2437 MHz	34.674	19.953
	High Channel 11, 2462 MHz	16.218	8.913
	802.11(n) MCS15		
	Low Channel 1, 2412 MHz	9.772	6.310
	Mid Channel 6, 2437 MHz	10.233	5.888
	High Channel 11, 2462 MHz	10.233	5.370

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Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
5.998	6.2	12.2	30	Pass		

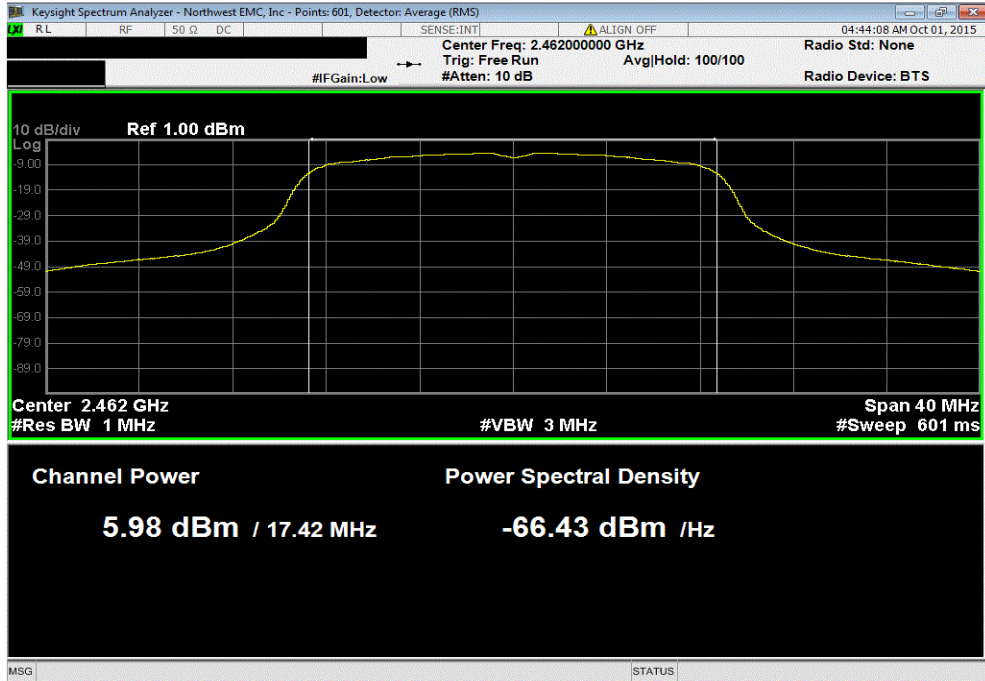


Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
9.235	6.2	15.4	30	Pass		

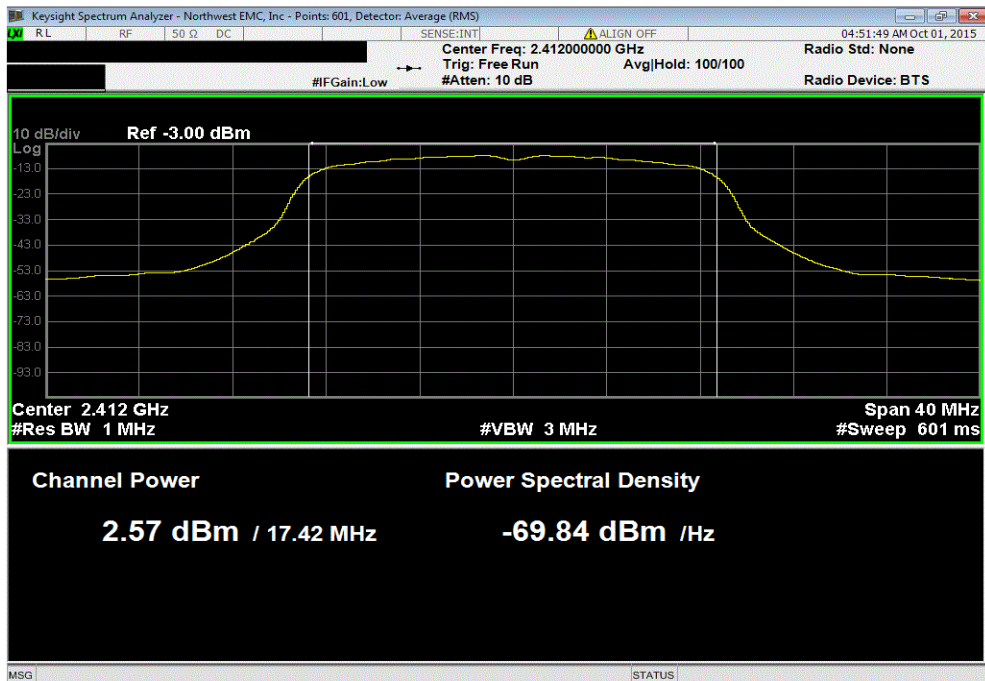


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Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
5.982	6.1	12.1	30	Pass		

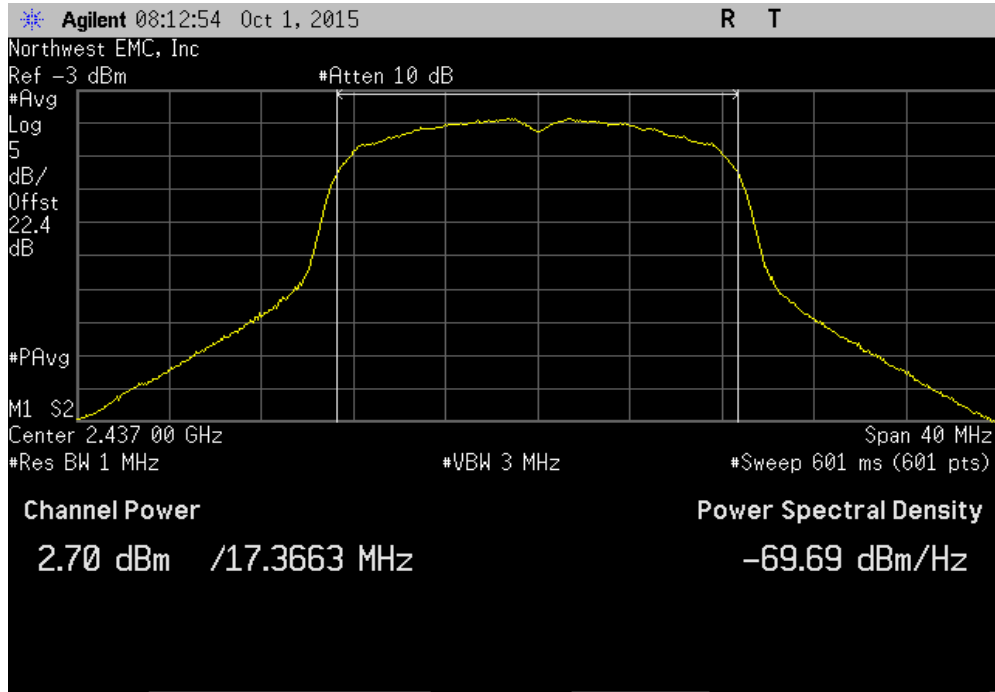


Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
2.571	7.4	9.9	30	Pass		

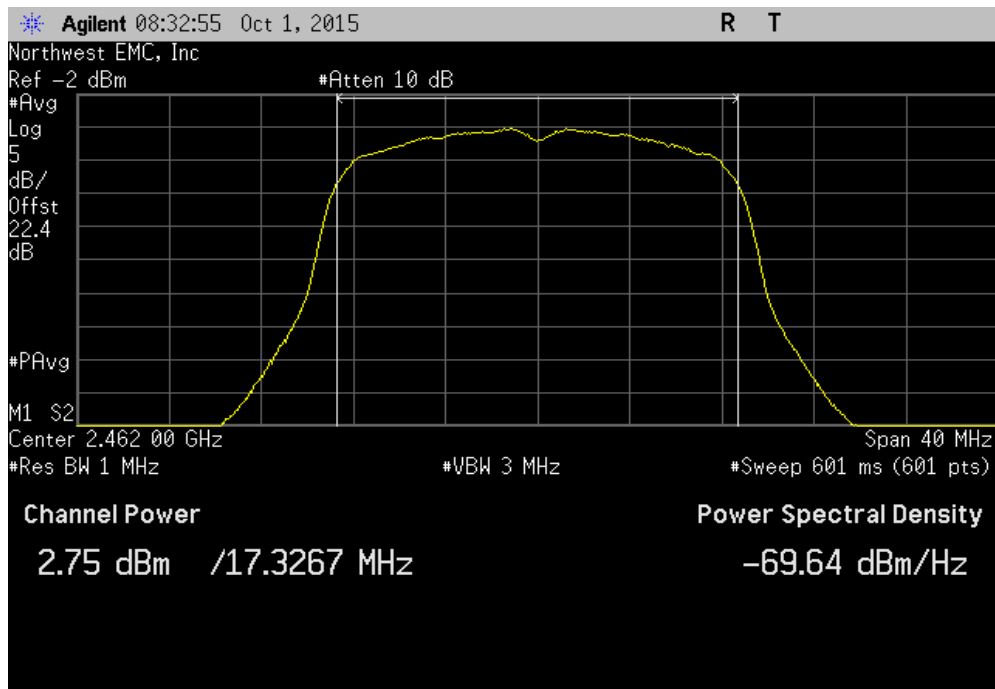


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Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
2.702	7.4	10.1	30	Pass		

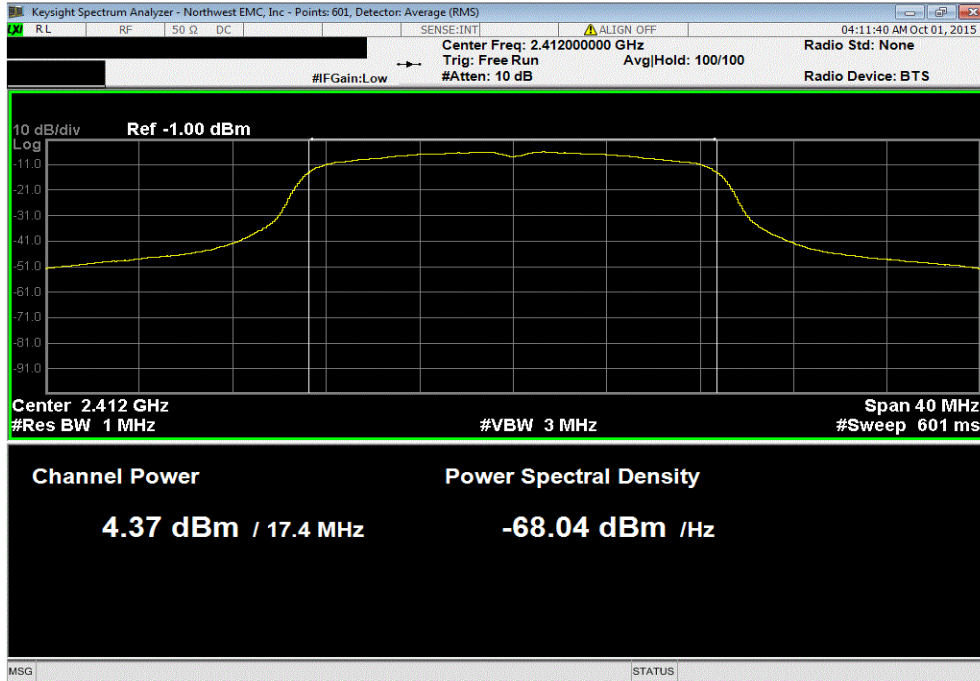


Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
2.75	7.4	10.1	30	Pass		

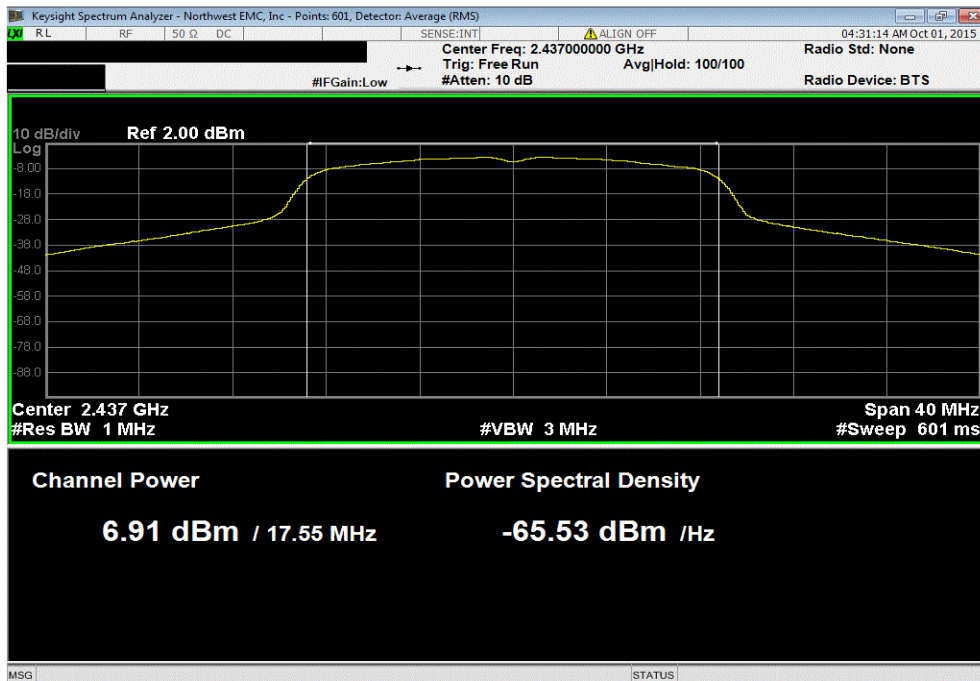


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Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
4.368	6.1	10.5	30	Pass		

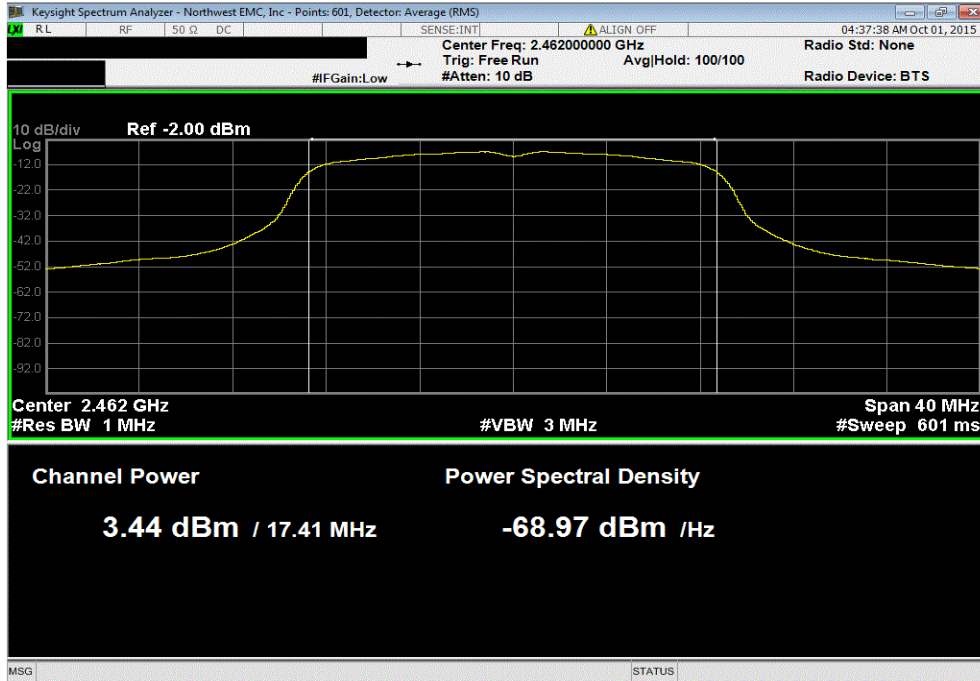


Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
6.907	6.1	13	30	Pass		

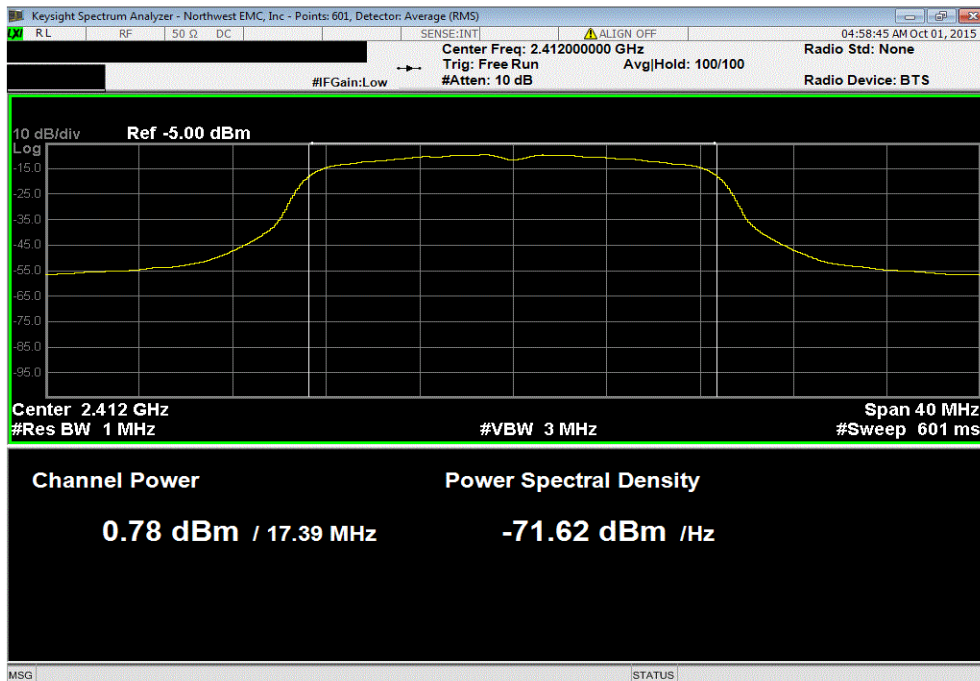


OUTPUT POWER

Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
3.441	6.1	9.5	30	Pass		

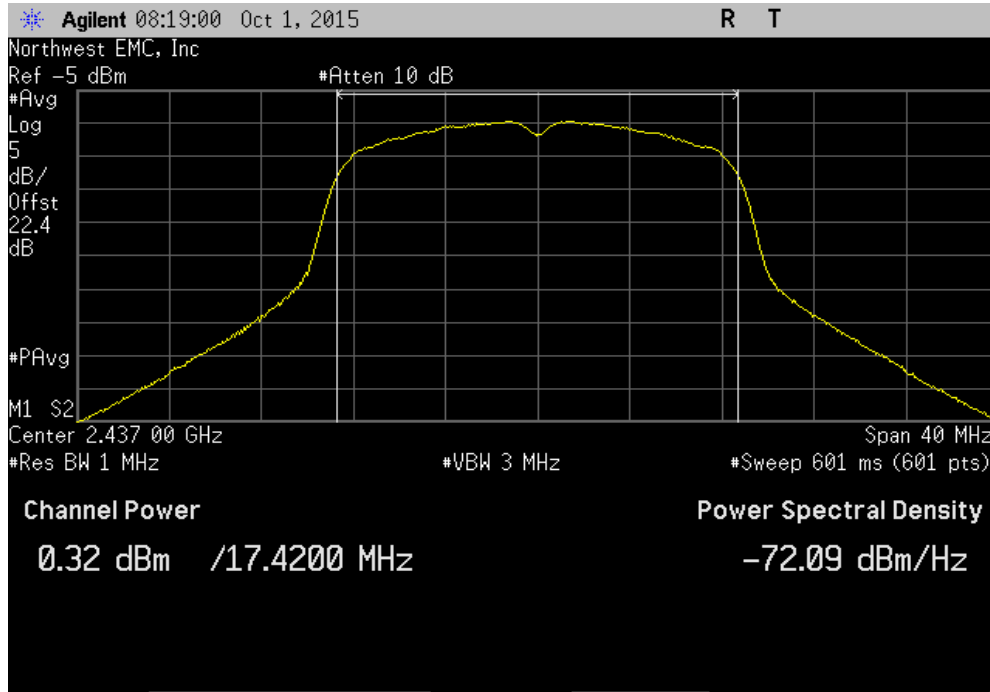


Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
0.785	7.3	8	30	Pass		

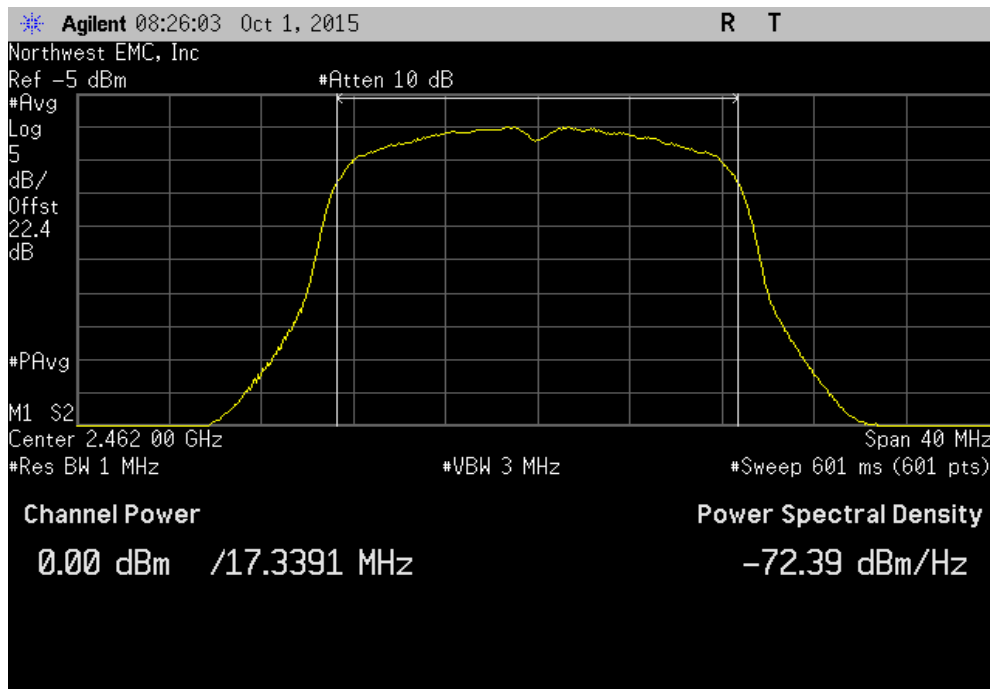


OUTPUT POWER

Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz					
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Value (dBm)	Limit (dBm)	Results	
0.323	7.3	7.7	30	Pass	



Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz					
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Value (dBm)	Limit (dBm)	Results	
0.001	7.3	7.3	30	Pass	



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TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFO	6/23/2015	12
Cable	ESM Cable Corp.	TTBJ-141 KMKM-72	NC5	6/6/2015	12
Attenuator	Fairview Microwave	SA4014-20	TKE	1/16/2015	12
Block - DC	Fairview Microwave	SD3379	AMJ	6/6/2015	12
Generator - Signal	Keysight	N5182B	TFY	4/16/2015	36

TEST DESCRIPTION

The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

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

Prior to measuring output 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 method AVGSA-2 in section 11.9.2.2.4 of ANSI C63.10:2013 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding $[10 \log (1 / D)]$, where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

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

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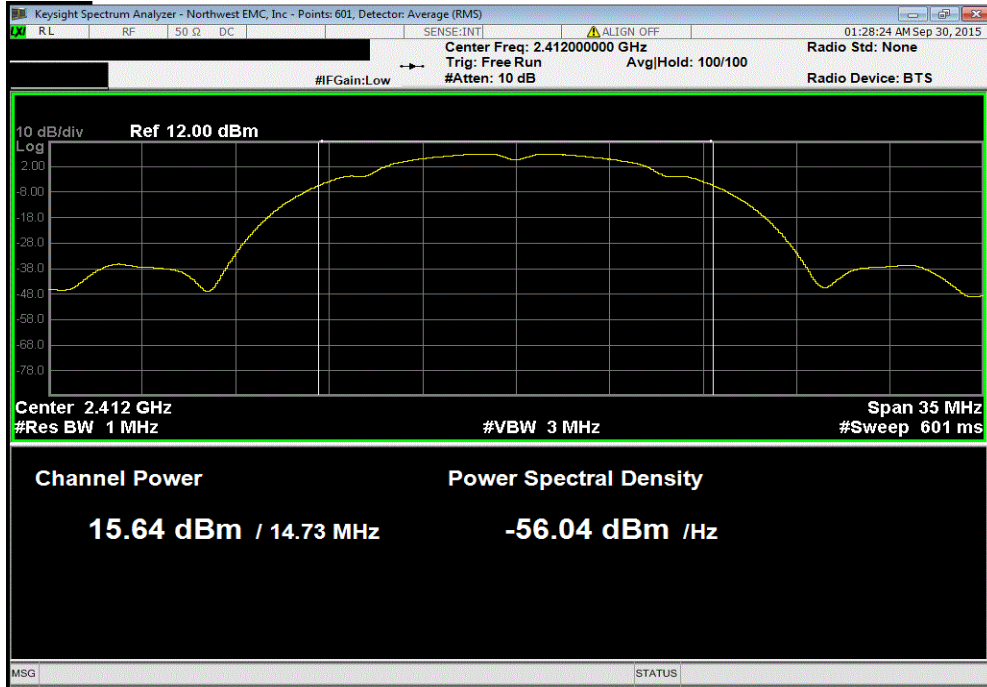
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EUT: Precor Wi-Fi / Bluetooth Module Model 303346		Work Order: PRCR0230	
Serial Number: None		Date: 10/01/15	
Customer: Precor, Inc.		Temperature: 23°C	
Attendees: Rich Whitbeck		Humidity: 44%	
Project: None		Barometric Pres.: 1017 mbar	
Tested by: Richard Melloth		Power: 110VAC/60Hz	
		Job Site: NC01	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2015		ANSI C63.10:2013	
COMMENTS			
All Power Settings at the Default Maximum, with the following exceptions: 40MHz BW Channel 5, MCS0, Antenna 1 = Power Level 15. 40MHz BW Channel 5, MCS0, Antenna 2 = Power Level 12.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature	
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)
		Value (dBm)	Limit (dBm)
			Results

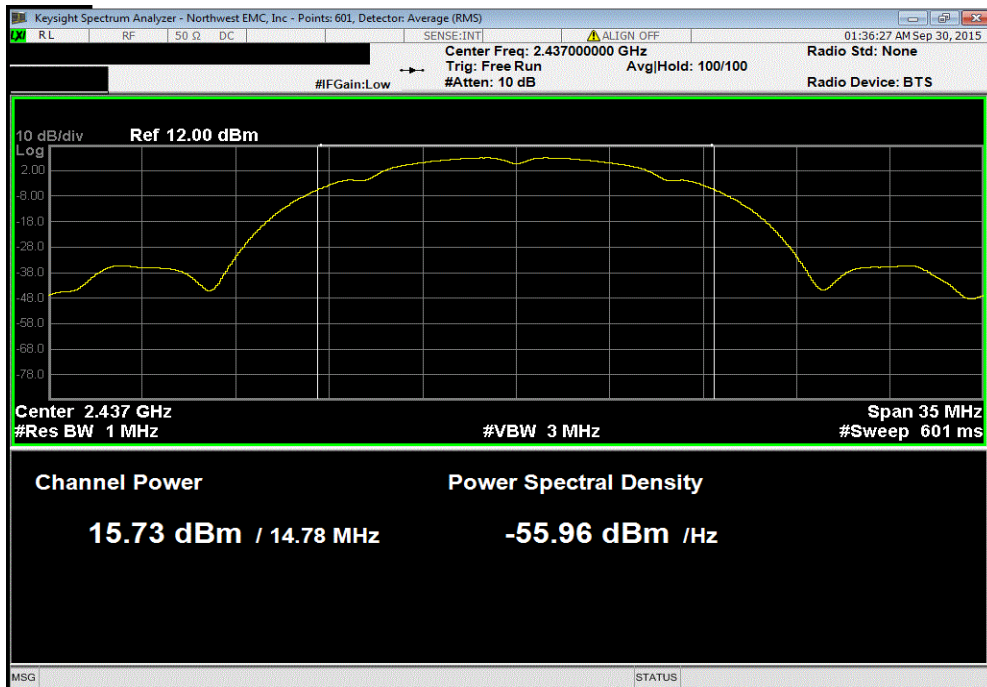
Ant	Bandwidth	Band	Mode	Channel	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Value (dBm)	Limit (dBm)	Results						
Ant 1	20 MHz	2.4 GHz Band	802.11(b) 1Mbps	Low Channel 1, 2412 MHz	15.643	0.2	15.8	30	Pass						
				Mid Channel 6, 2437 MHz	15.735	0.2	15.9	30	Pass						
				High Channel 11, 2462 MHz	15.693	0.2	15.9	30	Pass						
			802.11(b) 11Mbps	Low Channel 1, 2412 MHz	14.863	1.5	16.4	30	Pass						
				Mid Channel 6, 2437 MHz	14.692	1.5	16.2	30	Pass						
				High Channel 11, 2462 MHz	14.725	1.5	16.2	30	Pass						
			802.11(g) 6Mbps	Low Channel 1, 2412 MHz	10.339	1.1	11.4	30	Pass						
				Mid Channel 6, 2437 MHz	14.833	1.1	16	30	Pass						
				High Channel 11, 2462 MHz	10.108	1.1	11.2	30	Pass						
			802.11(g) 36Mbps	Low Channel 1, 2412 MHz	7.482	4.2	11.7	30	Pass						
				Mid Channel 6, 2437 MHz	10.417	4.2	14.6	30	Pass						
				High Channel 11, 2462 MHz	7.499	4.2	11.7	30	Pass						
			802.11(g) 54Mbps	Low Channel 1, 2412 MHz	6.593	5.2	11.8	30	Pass						
				Mid Channel 6, 2437 MHz	8.032	5.3	13.3	30	Pass						
				High Channel 11, 2462 MHz	6.491	5.3	11.8	30	Pass						
			802.11(n) MCS0	Low Channel 1, 2412 MHz	10.301	1.3	11.6	30	Pass						
				Mid Channel 6, 2437 MHz	13.86	1.3	15.1	30	Pass						
				High Channel 11, 2462 MHz	10.097	1.3	11.4	30	Pass						
			802.11(n) MCS7	Low Channel 1, 2412 MHz	6.186	5.8	12	30	Pass						
				Mid Channel 6, 2437 MHz	6.66	5.8	12.5	30	Pass						
				High Channel 11, 2462 MHz	6.277	5.7	12	30	Pass						
			Ant 2	40 MHz	2.4 GHz Band	802.11(n) MCS0	Low Channel 5, 2432 MHz	10.639	2.5	13.1	30	Pass			
							High Channel 9, 2452 MHz	7.195	2.5	9.7	30	Pass			
						802.11(n) MCS7	Low Channel 5, 2432 MHz	4.422	9	13.4	30	Pass			
							High Channel 9, 2452 MHz	2.784	8.9	11.7	30	Pass			
						Ant 2	20 MHz	2.4 GHz Band	802.11(b) 1Mbps	Low Channel 1, 2412 MHz	14.173	0.2	14.4	30	Pass
										Mid Channel 6, 2437 MHz	13.792	0.2	14	30	Pass
High Channel 11, 2462 MHz	13.398	0.2	13.6	30	Pass										
802.11(b) 11Mbps	Low Channel 1, 2412 MHz	13.248	1.5	14.7	30				Pass						
	Mid Channel 6, 2437 MHz	12.748	1.5	14.3	30				Pass						
	High Channel 11, 2462 MHz	12.263	1.5	13.8	30				Pass						
802.11(g) 6Mbps	Low Channel 1, 2412 MHz	8.692	1.1	9.8	30				Pass						
	Mid Channel 6, 2437 MHz	12.859	1.1	14	30				Pass						
	High Channel 11, 2462 MHz	7.555	1.1	8.7	30				Pass						
802.11(g) 36Mbps	Low Channel 1, 2412 MHz	5.878	4.2	10.1	30				Pass						
	Mid Channel 6, 2437 MHz	8.382	4.2	12.6	30				Pass						
	High Channel 11, 2462 MHz	4.874	4.2	9.1	30				Pass						
802.11(g) 54Mbps	Low Channel 1, 2412 MHz	4.876	5.3	10.2	30				Pass						
	Mid Channel 6, 2437 MHz	5.884	5.3	11.2	30				Pass						
	High Channel 11, 2462 MHz	3.883	5.2	9.1	30				Pass						
802.11(n) MCS0	Low Channel 1, 2412 MHz	8.718	1.3	10	30				Pass						
	Mid Channel 6, 2437 MHz	11.955	1.3	13.3	30				Pass						
	High Channel 11, 2462 MHz	7.569	1.3	8.8	30				Pass						
802.11(n) MCS7	Low Channel 1, 2412 MHz	4.421	5.7	10.1	30				Pass						
	Mid Channel 6, 2437 MHz	4.552	5.7	10.3	30				Pass						
	High Channel 11, 2462 MHz	3.639	5.8	9.4	30				Pass						
Ant 2	40 MHz	2.4 GHz Band	802.11(n) MCS0	Low Channel 5, 2432 MHz	7.812				2.5	10.3	30	Pass			
				High Channel 9, 2452 MHz	4.647				2.5	7.1	30	Pass			
			802.11(n) MCS7	Low Channel 5, 2432 MHz	2.077				8.9	11	30	Pass			
				High Channel 9, 2452 MHz	0.141				8.9	9	30	Pass			

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Ant 1, 20 MHz, 2.4 GHz Band, 802.11(b) 1Mbps, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
15.643	0.2	15.8	30	Pass		

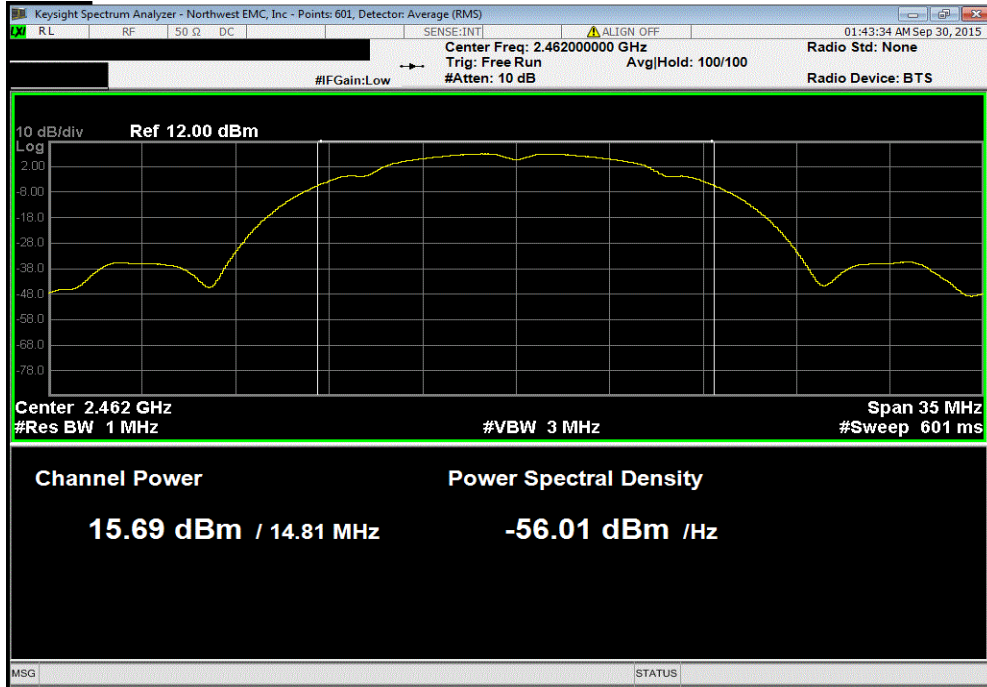


Ant 1, 20 MHz, 2.4 GHz Band, 802.11(b) 1Mbps, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
15.735	0.2	15.9	30	Pass		

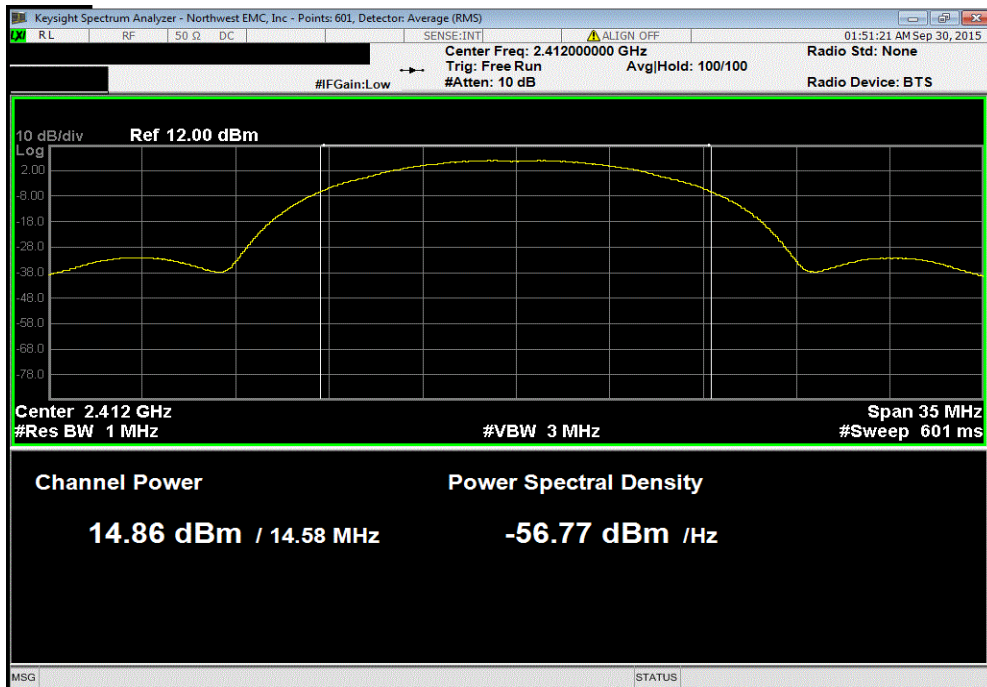


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Ant 1, 20 MHz, 2.4 GHz Band, 802.11(b) 1Mbps, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
15.693	0.2	15.9	30	Pass		

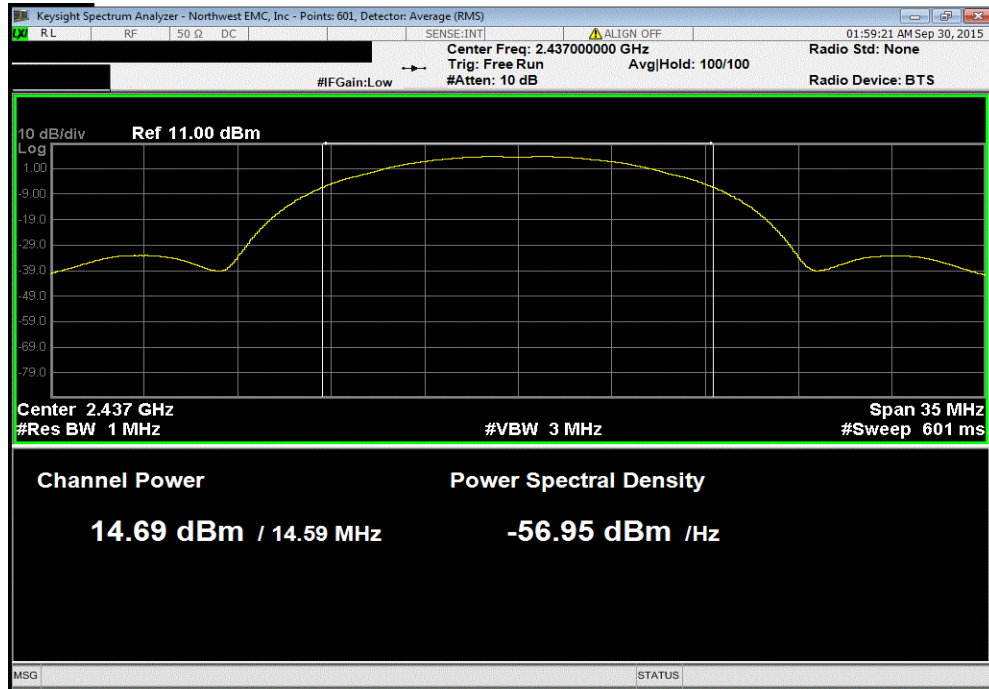


Ant 1, 20 MHz, 2.4 GHz Band, 802.11(b) 11Mbps, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
14.863	1.5	16.4	30	Pass		

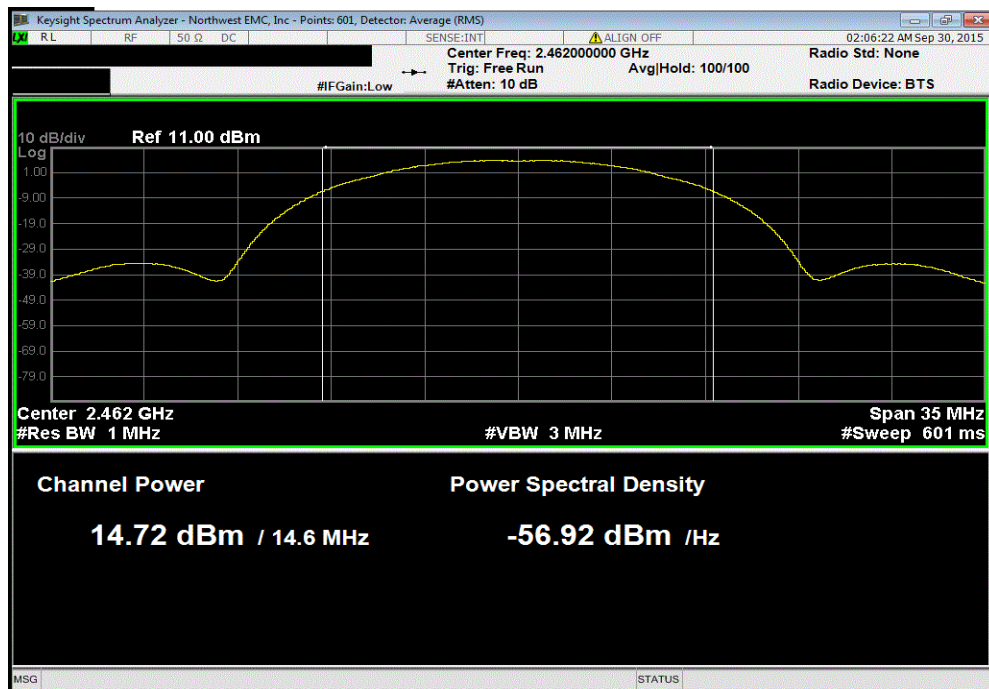


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Ant 1, 20 MHz, 2.4 GHz Band, 802.11(b) 11Mbps, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
14.692	1.5	16.2	30	Pass		

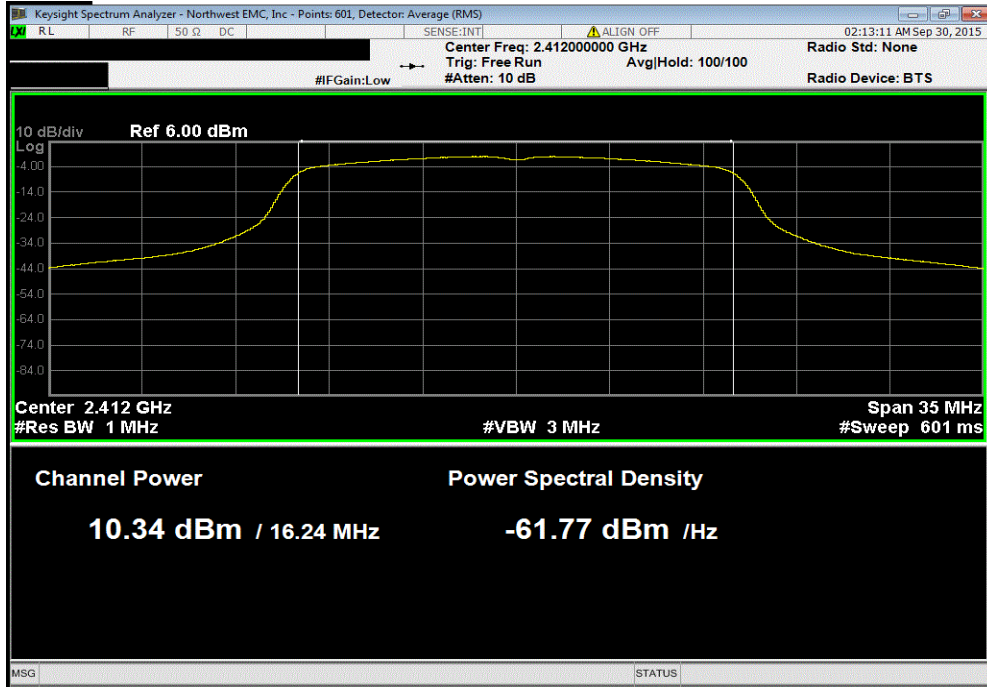


Ant 1, 20 MHz, 2.4 GHz Band, 802.11(b) 11Mbps, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
14.725	1.5	16.2	30	Pass		

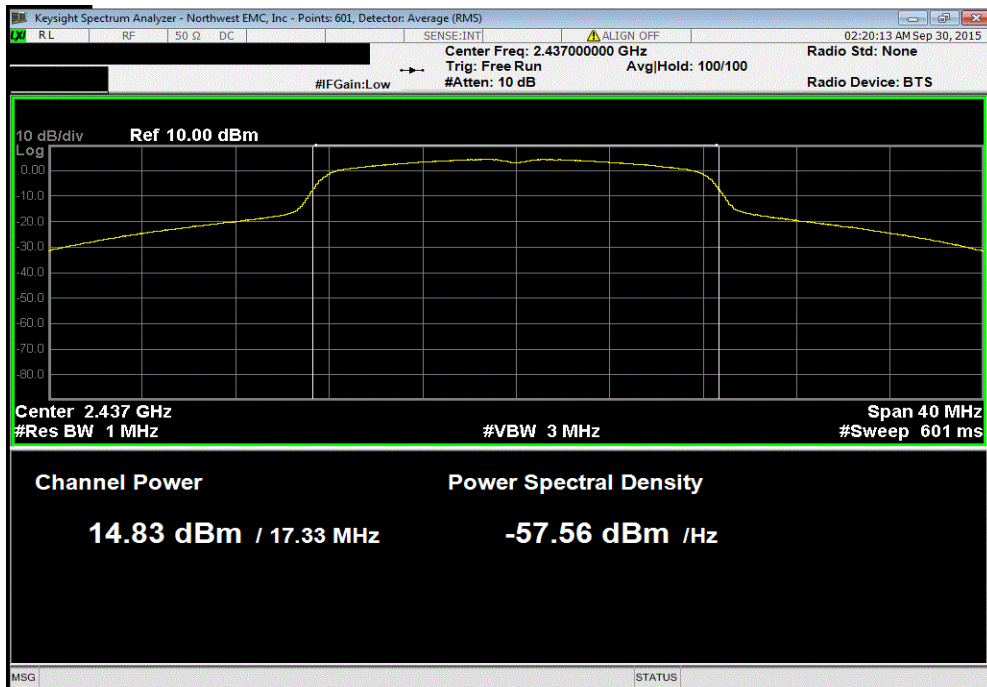


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Ant 1, 20 MHz, 2.4 GHz Band, 802.11(g) 6Mbps, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
10.339	1.1	11.4	30	Pass		

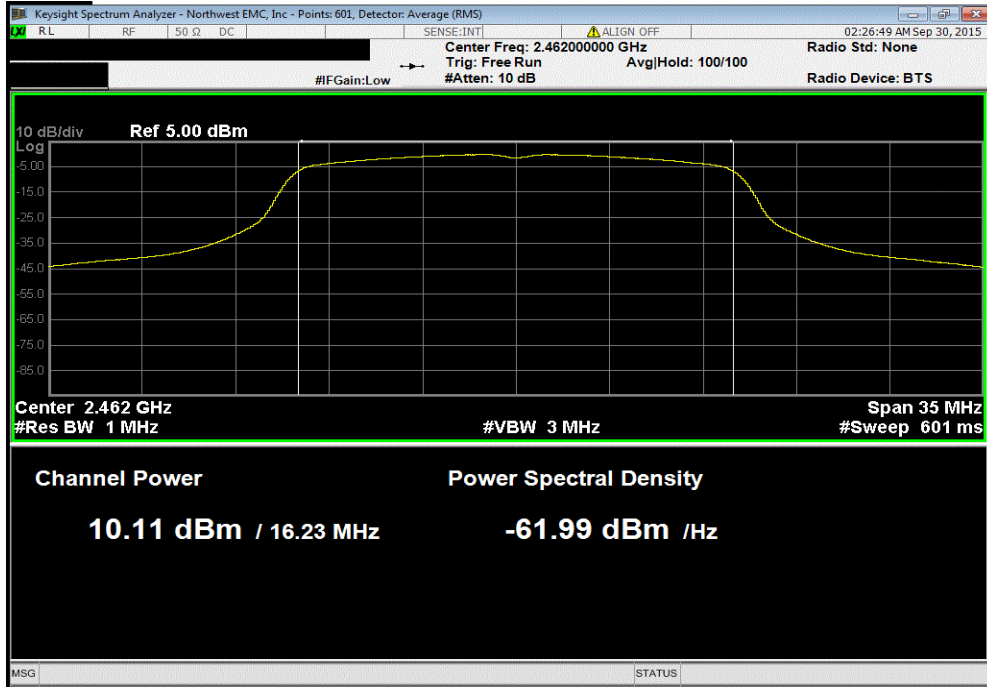


Ant 1, 20 MHz, 2.4 GHz Band, 802.11(g) 6Mbps, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
14.833	1.1	16	30	Pass		

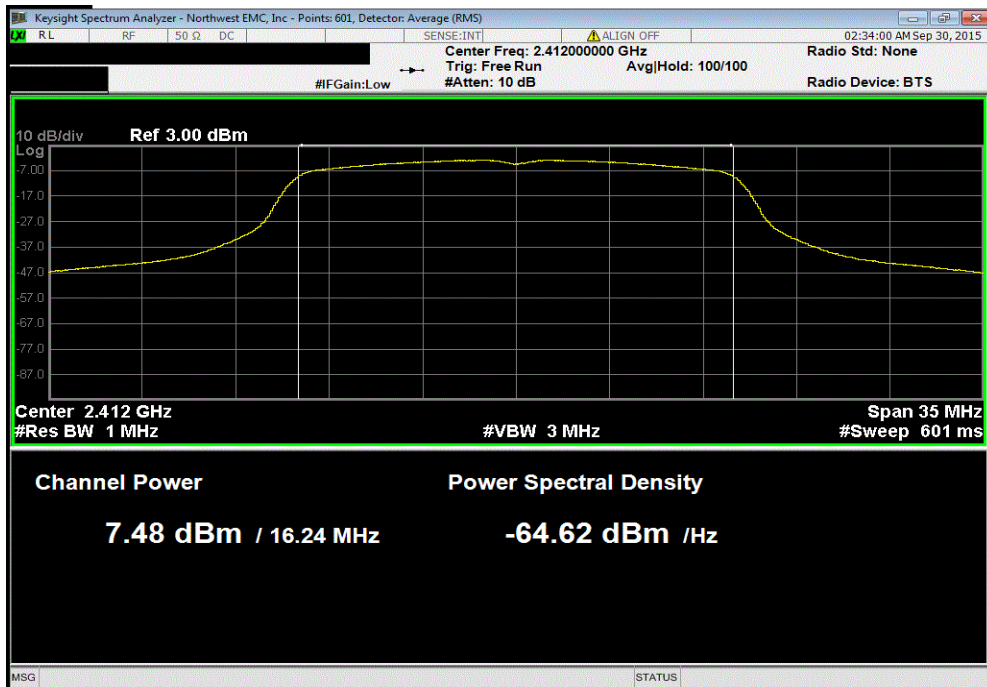


OUTPUT POWER

Ant 1, 20 MHz, 2.4 GHz Band, 802.11(g) 6Mbps, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
10.108	1.1	11.2	30	Pass		

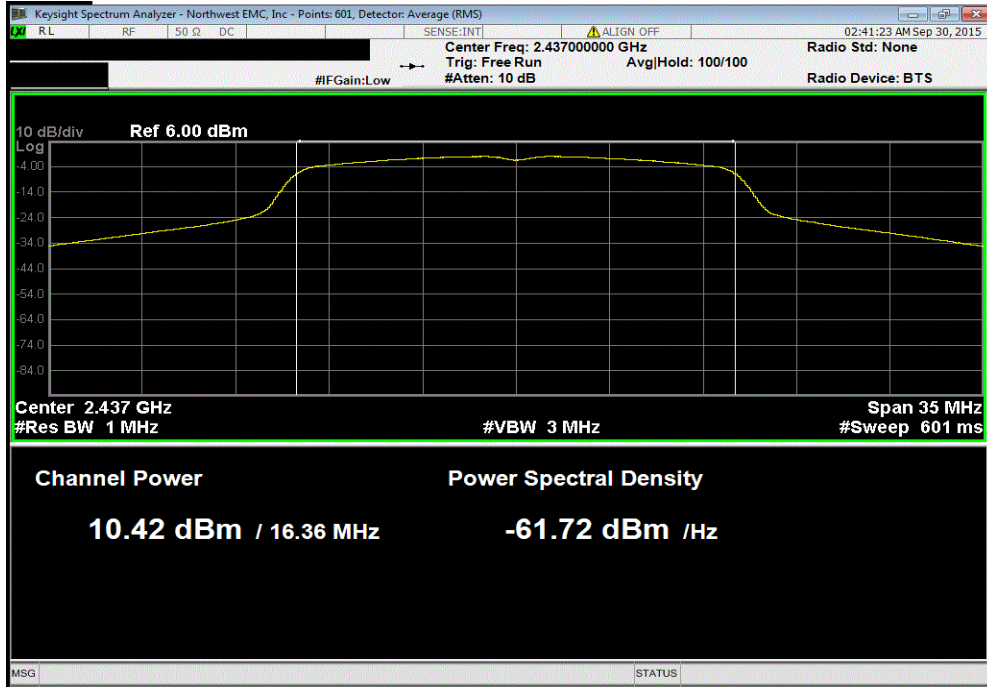


Ant 1, 20 MHz, 2.4 GHz Band, 802.11(g) 36Mbps, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
7.482	4.2	11.7	30	Pass		

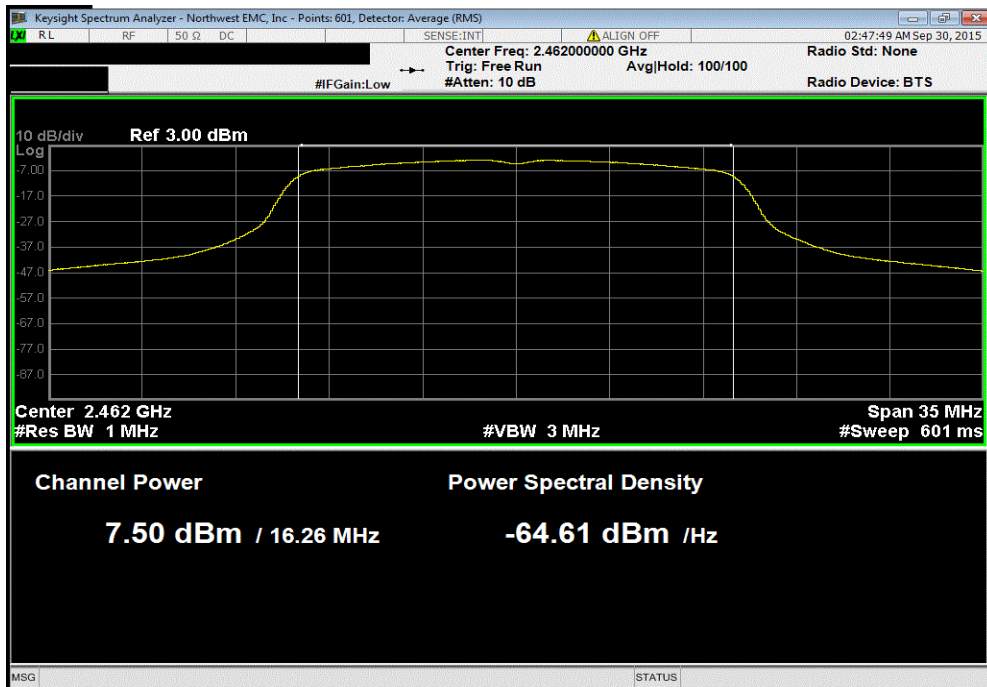


OUTPUT POWER

Ant 1, 20 MHz, 2.4 GHz Band, 802.11(g) 36Mbps, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
10.417	4.2	14.6	30	Pass		

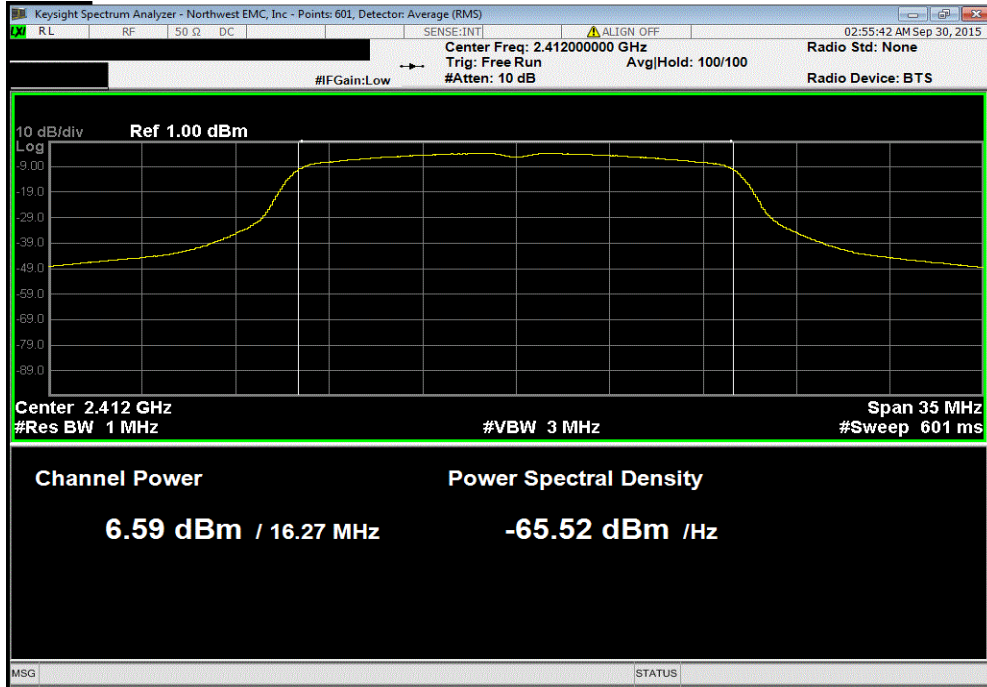


Ant 1, 20 MHz, 2.4 GHz Band, 802.11(g) 36Mbps, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
7.499	4.2	11.7	30	Pass		

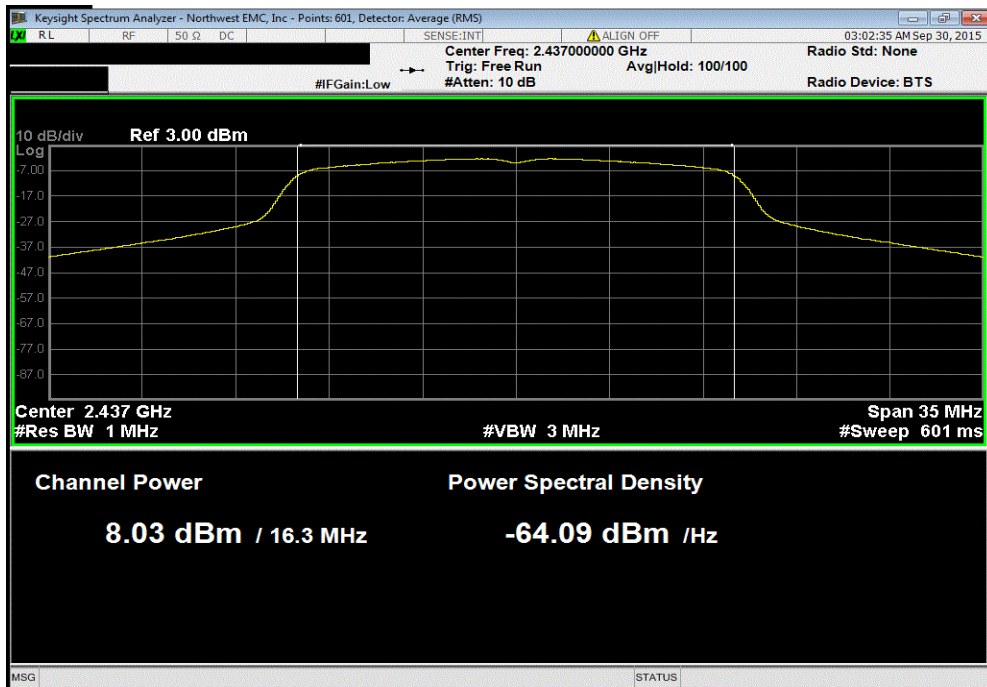


OUTPUT POWER

Ant 1, 20 MHz, 2.4 GHz Band, 802.11(g) 54Mbps, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
6.593	5.2	11.8	30	Pass		

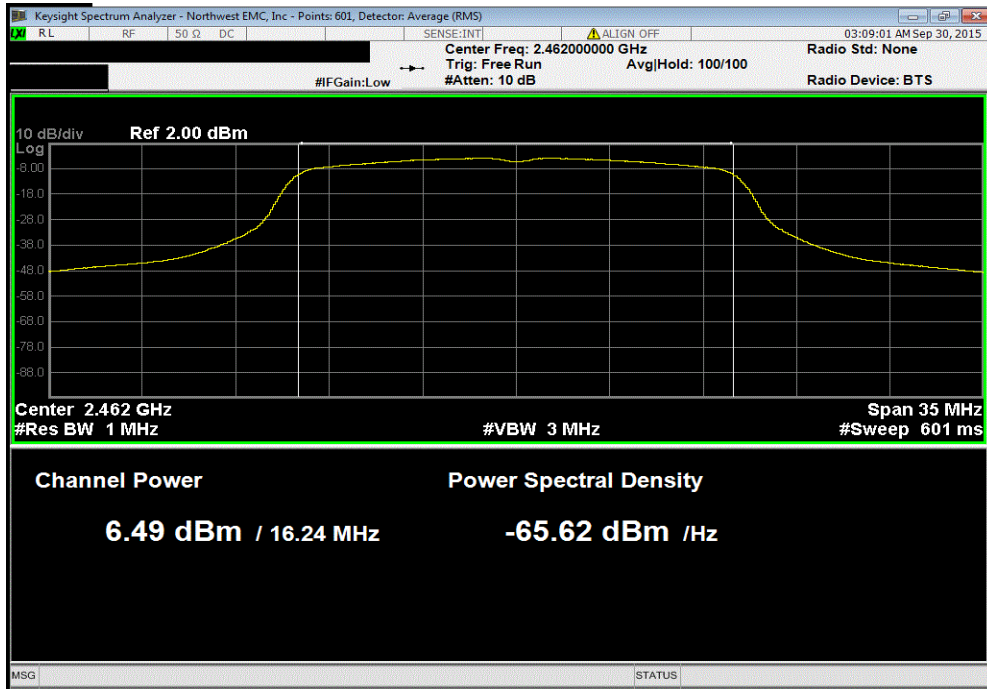


Ant 1, 20 MHz, 2.4 GHz Band, 802.11(g) 54Mbps, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
8.032	5.3	13.3	30	Pass		

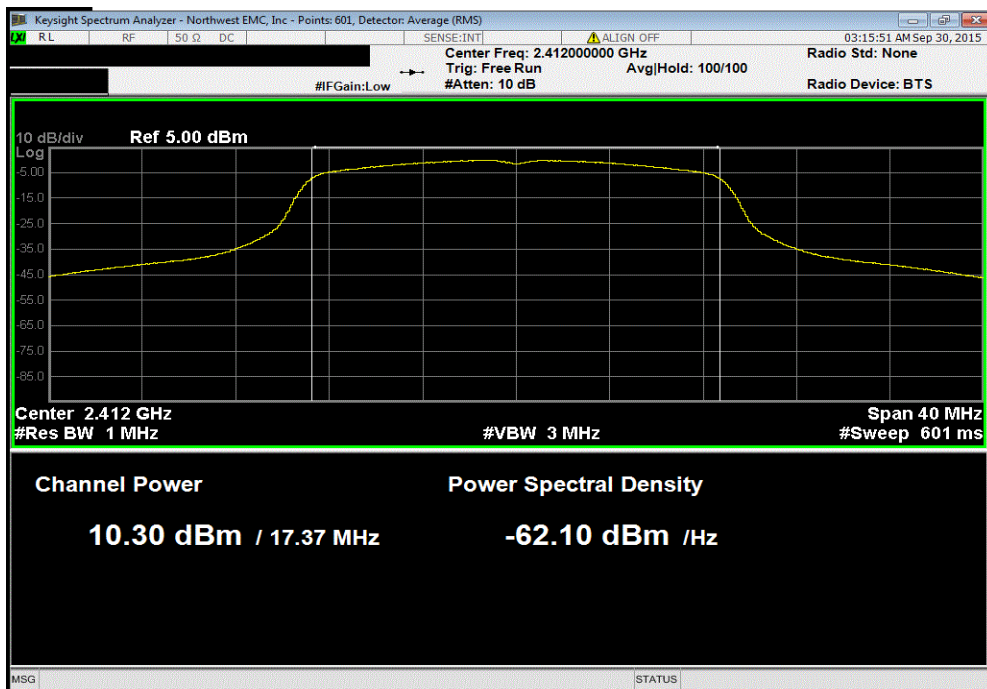


OUTPUT POWER

Ant 1, 20 MHz, 2.4 GHz Band, 802.11(g) 54Mbps, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
6.491	5.3	11.8	30	Pass		

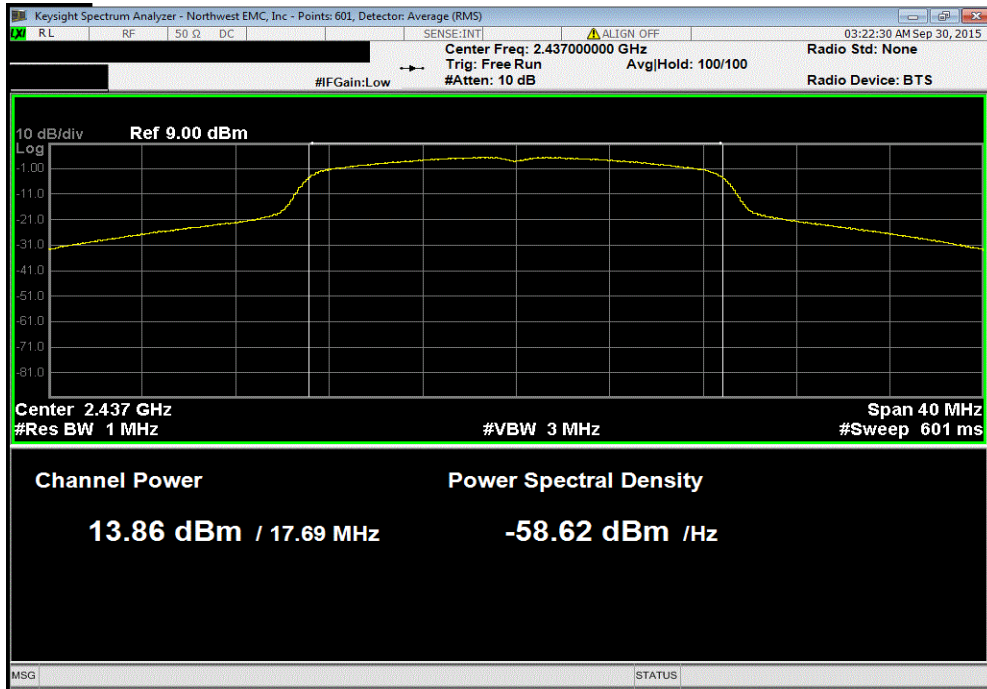


Ant 1, 20 MHz, 2.4 GHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
10.301	1.3	11.6	30	Pass		

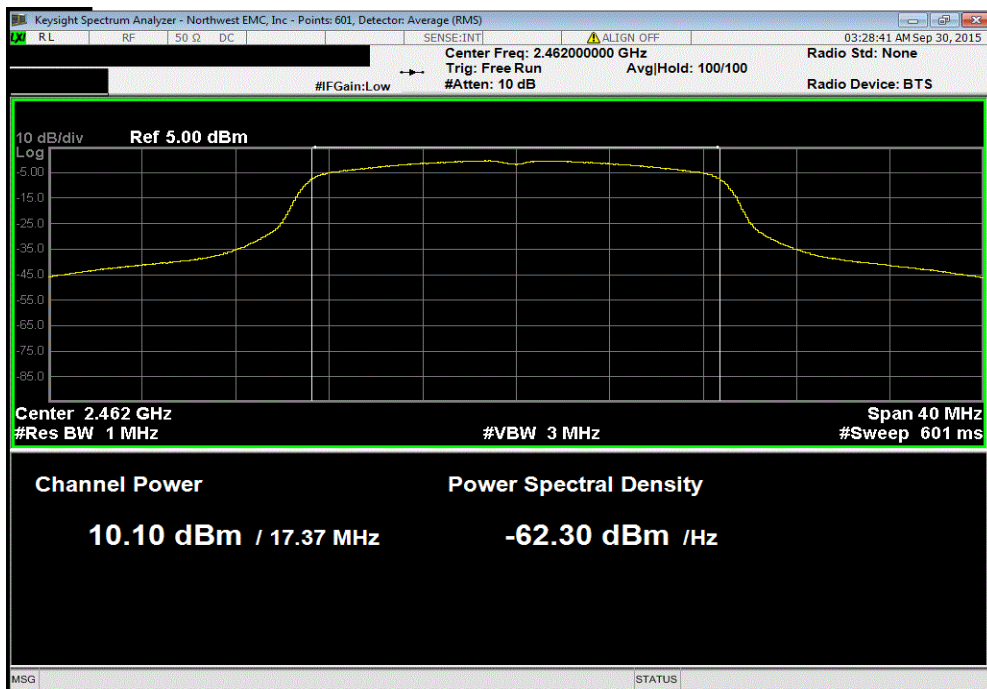


OUTPUT POWER

Ant 1, 20 MHz, 2.4 GHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
13.86	1.3	15.1	30	Pass		

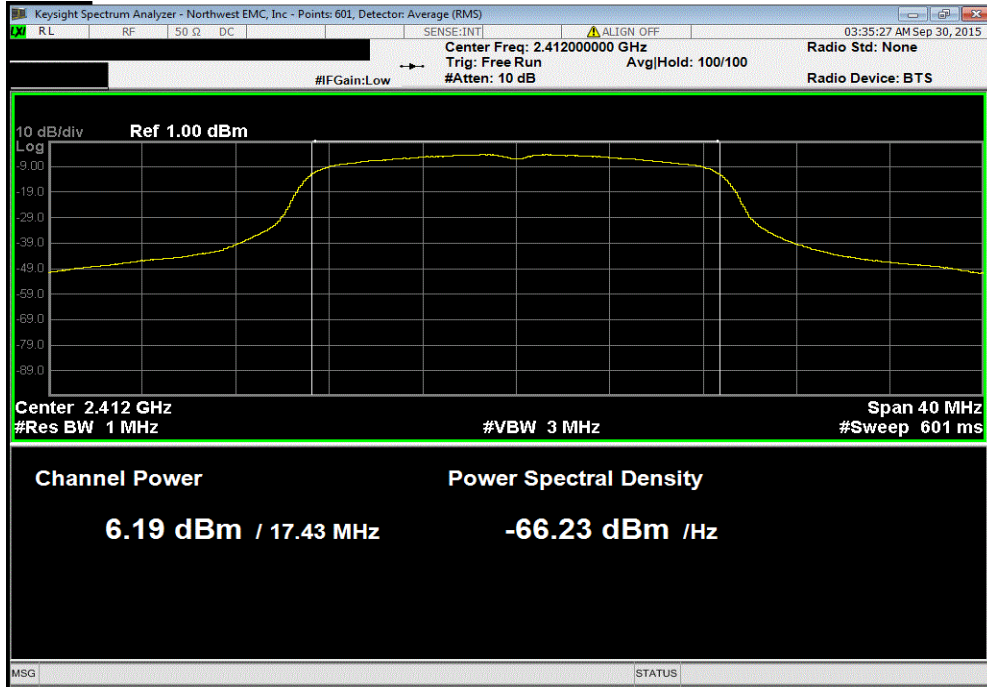


Ant 1, 20 MHz, 2.4 GHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
10.097	1.3	11.4	30	Pass		

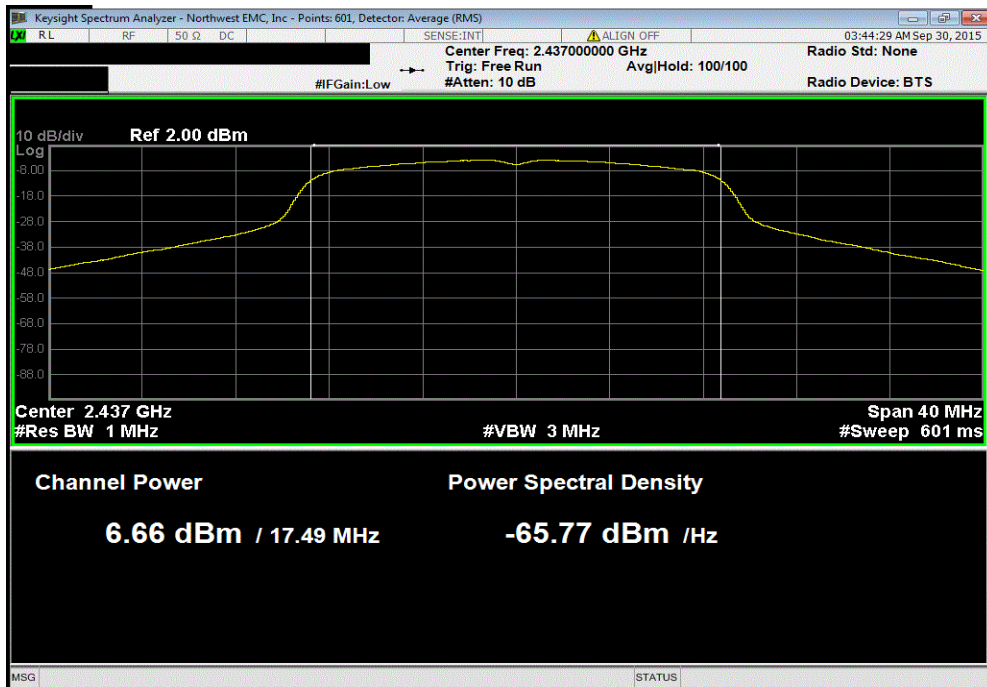


OUTPUT POWER

Ant 1, 20 MHz, 2.4 GHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
6.186	5.8	12	30	Pass		

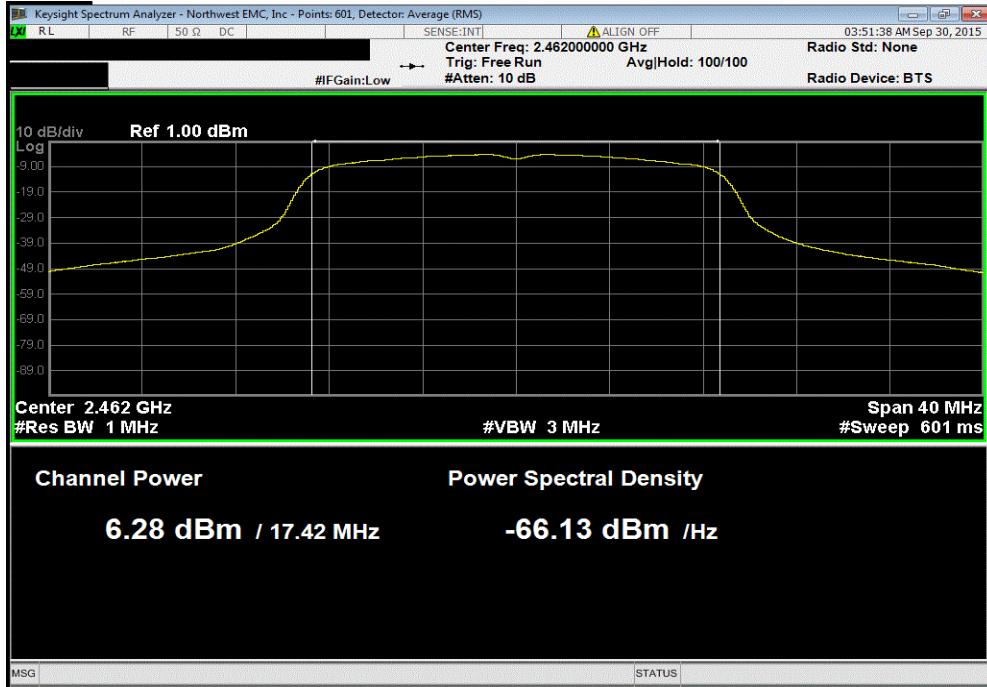


Ant 1, 20 MHz, 2.4 GHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
6.66	5.8	12.5	30	Pass		

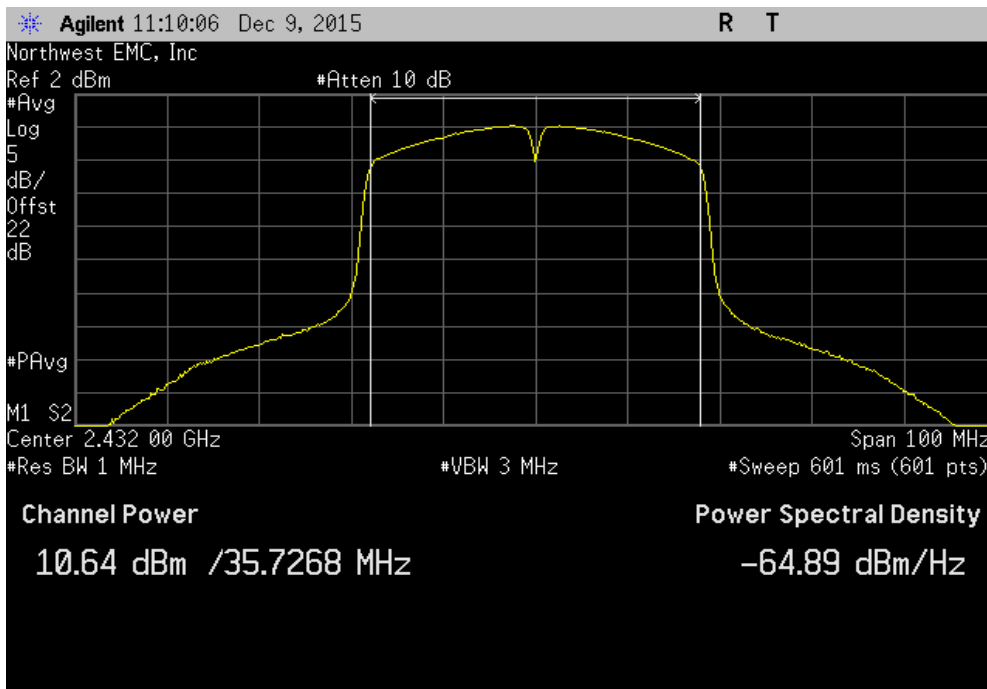


OUTPUT POWER

Ant 1, 20 MHz, 2.4 GHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
6.277	5.7	12	30	Pass		

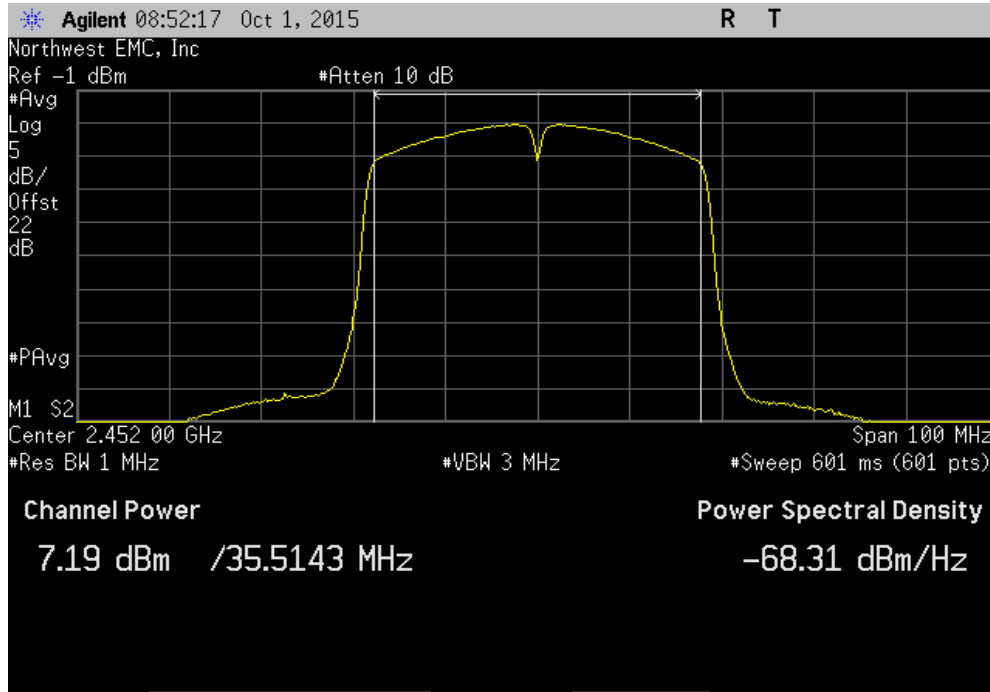


Ant 1, 40 MHz, 2.4 GHz Band, 802.11(n) MCS0, Low Channel 5, 2432 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
10.639	2.5	13.1	30	Pass		

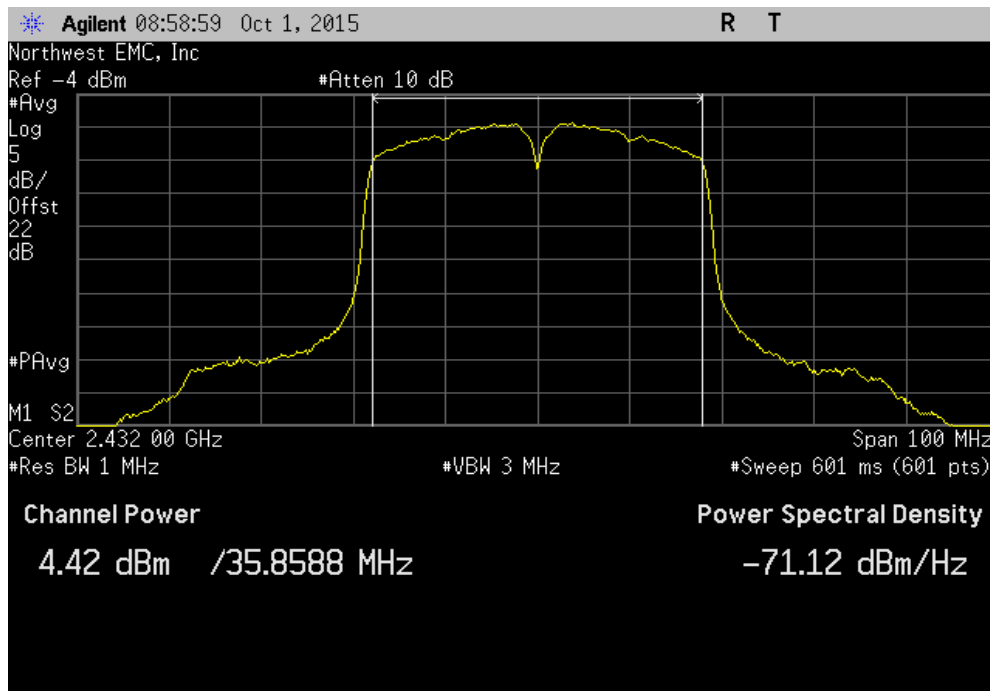


OUTPUT POWER

Ant 1, 40 MHz, 2.4 GHz Band, 802.11(n) MCS0, High Channel 9, 2452 MHz					
Avg Cond	Duty Cycle	Value	Limit	Results	
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)		
7.195	2.5	9.7	30	Pass	

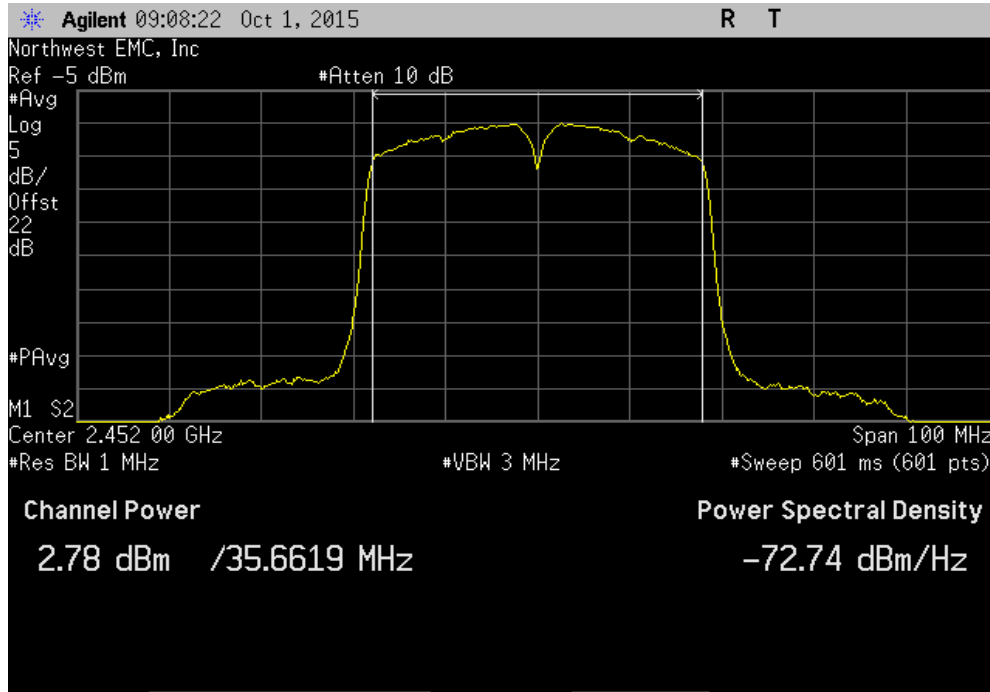


Ant 1, 40 MHz, 2.4 GHz Band, 802.11(n) MCS7, Low Channel 5, 2432 MHz					
Avg Cond	Duty Cycle	Value	Limit	Results	
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)		
4.422	9	13.4	30	Pass	

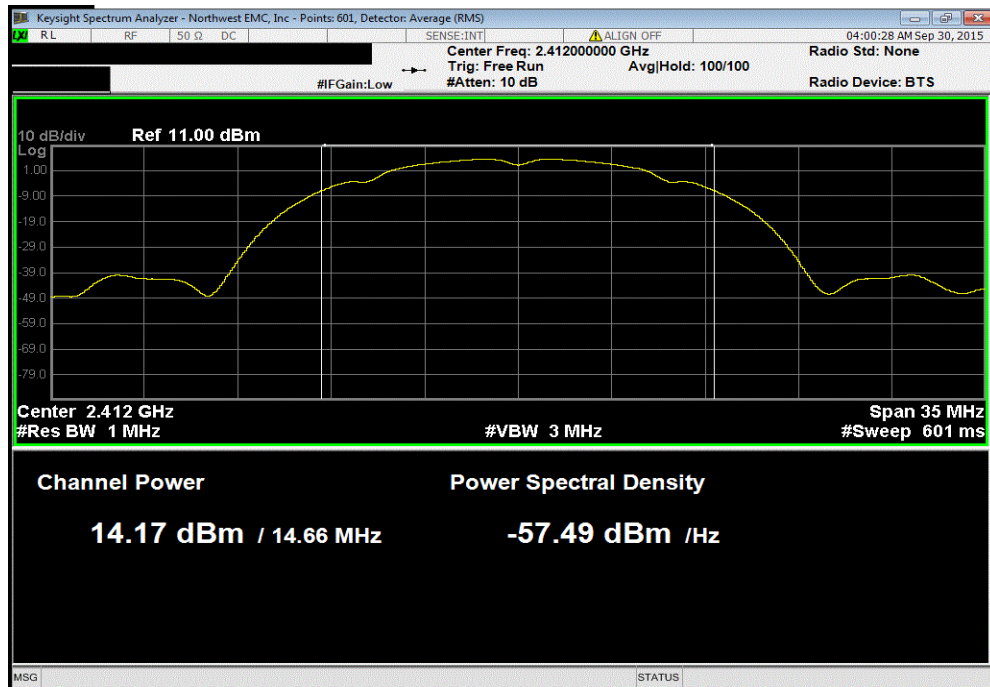


OUTPUT POWER

Ant 1, 40 MHz, 2.4 GHz Band, 802.11(n) MCS7, High Channel 9, 2452 MHz					
Avg Cond	Duty Cycle	Value	Limit	Results	
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)		
2.784	8.9	11.7	30	Pass	

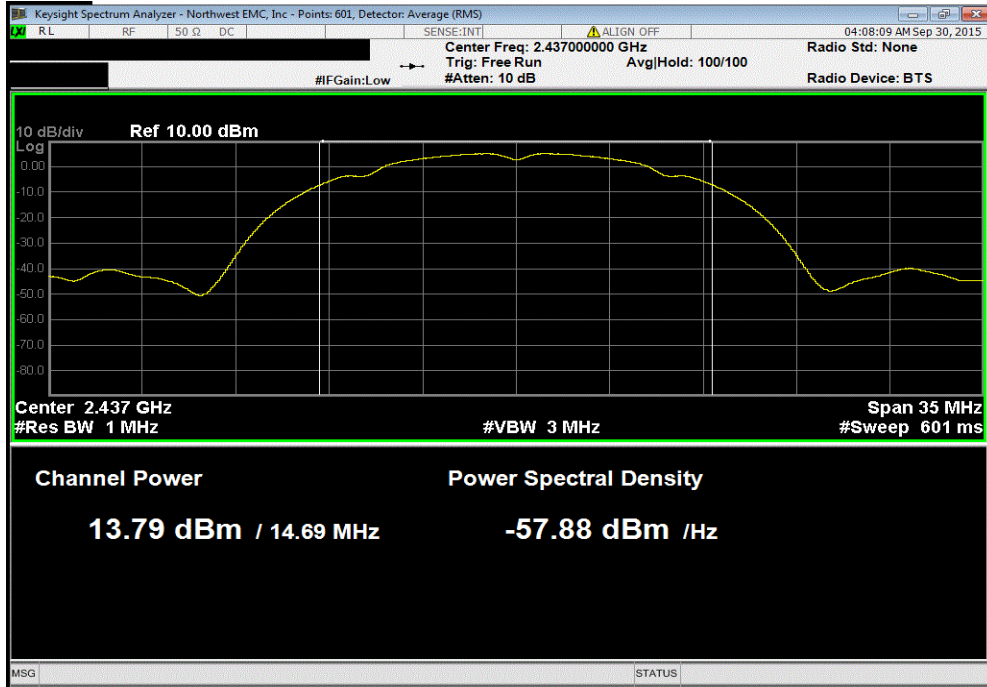


Ant 2, 20 MHz, 2.4 GHz Band, 802.11(b) 1Mbps, Low Channel 1, 2412 MHz					
Avg Cond	Duty Cycle	Value	Limit	Results	
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)		
14.173	0.2	14.4	30	Pass	

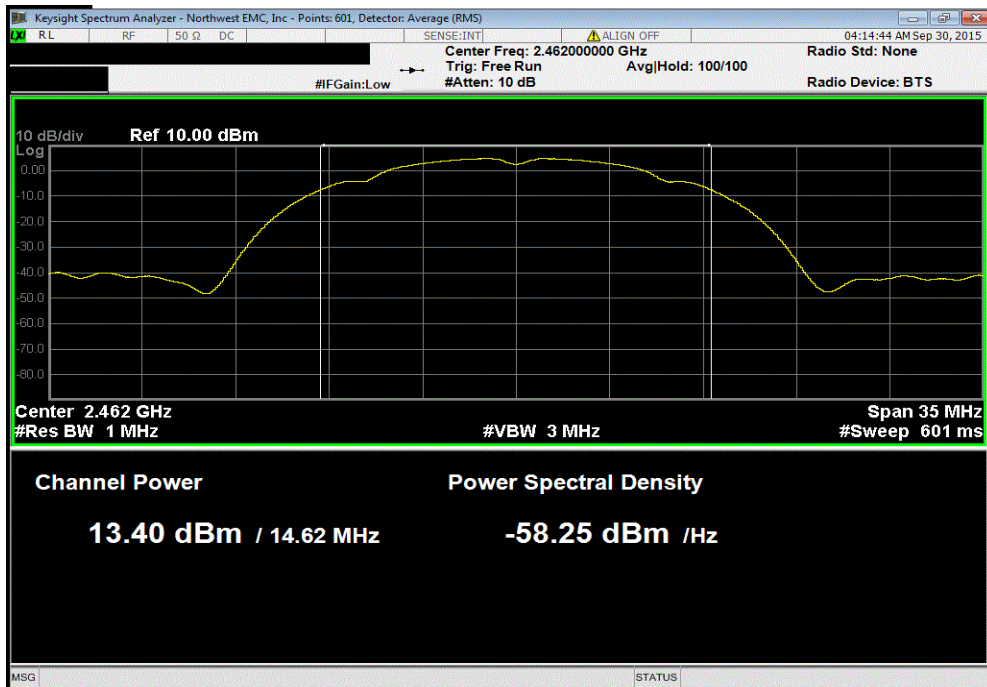


OUTPUT POWER

Ant 2, 20 MHz, 2.4 GHz Band, 802.11(b) 1Mbps, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
13.792	0.2	14	30	Pass		

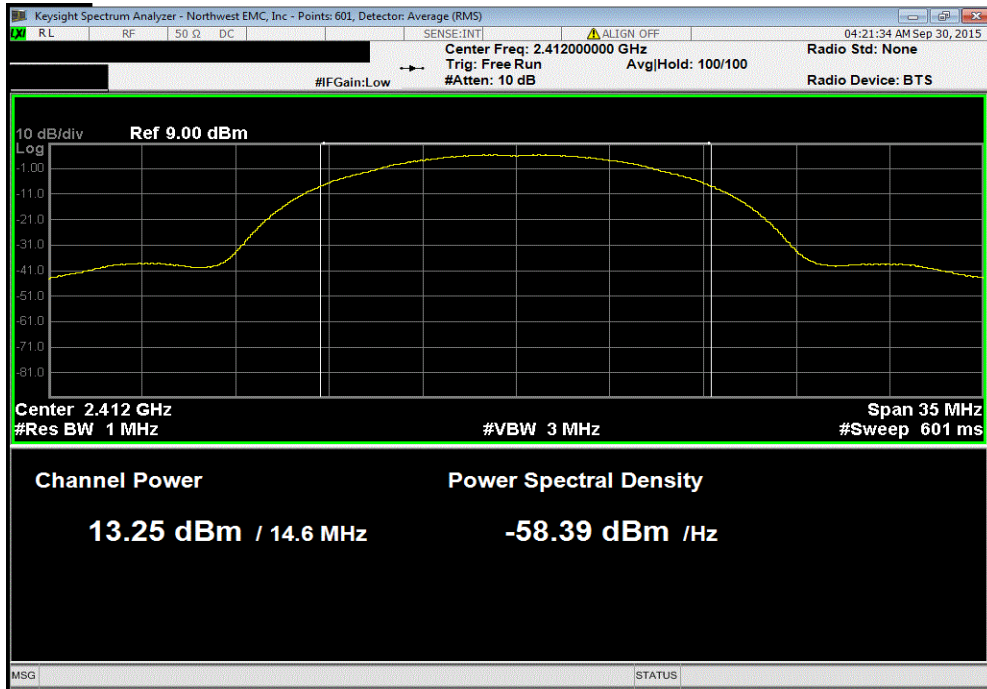


Ant 2, 20 MHz, 2.4 GHz Band, 802.11(b) 1Mbps, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
13.398	0.2	13.6	30	Pass		

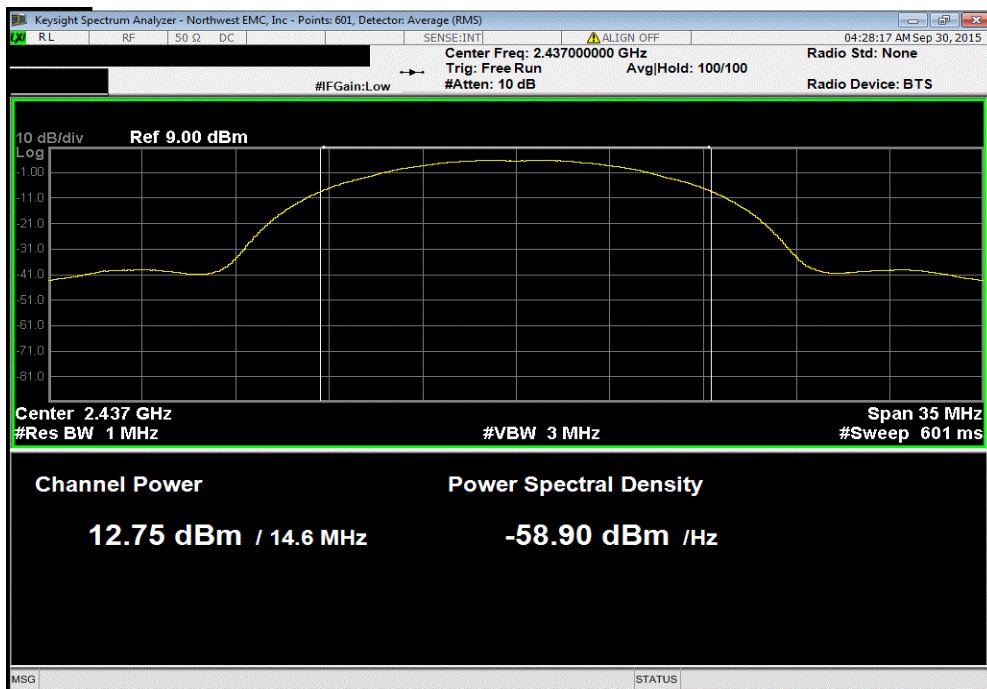


OUTPUT POWER

Ant 2, 20 MHz, 2.4 GHz Band, 802.11(b) 11Mbps, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
13.248	1.5	14.7	30	Pass		

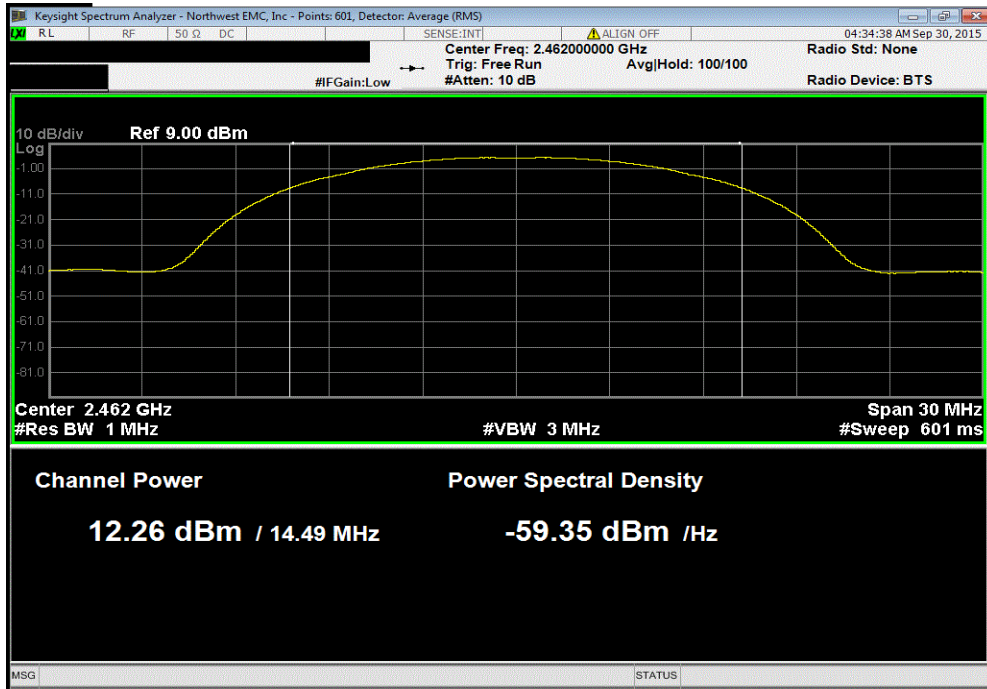


Ant 2, 20 MHz, 2.4 GHz Band, 802.11(b) 11Mbps, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
12.748	1.5	14.3	30	Pass		

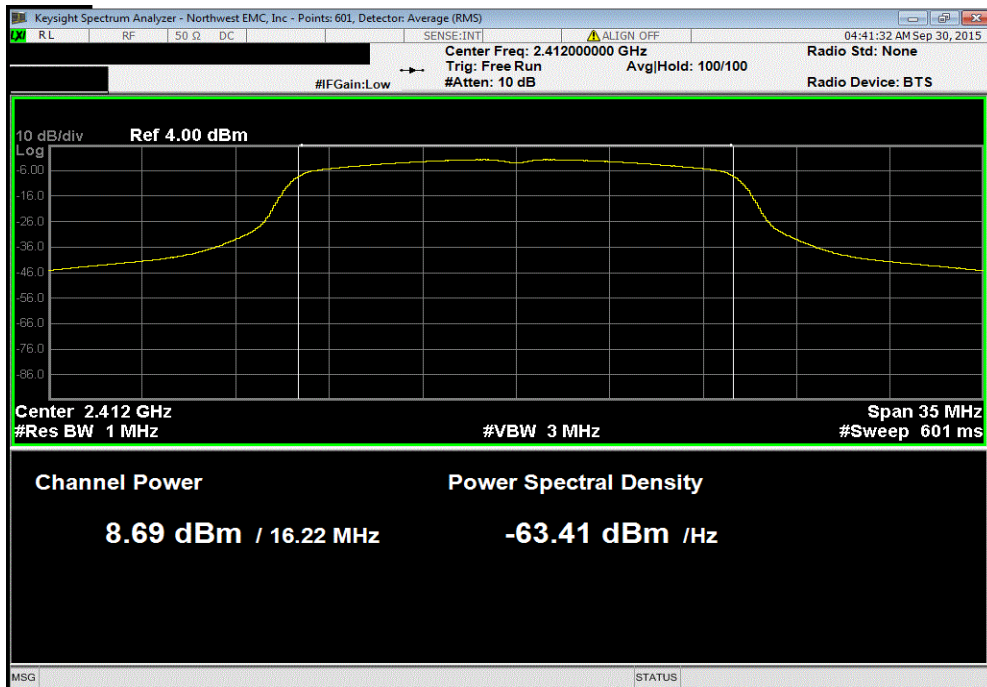


OUTPUT POWER

Ant 2, 20 MHz, 2.4 GHz Band, 802.11(b) 11Mbps, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
12.263	1.5	13.8	30	Pass		

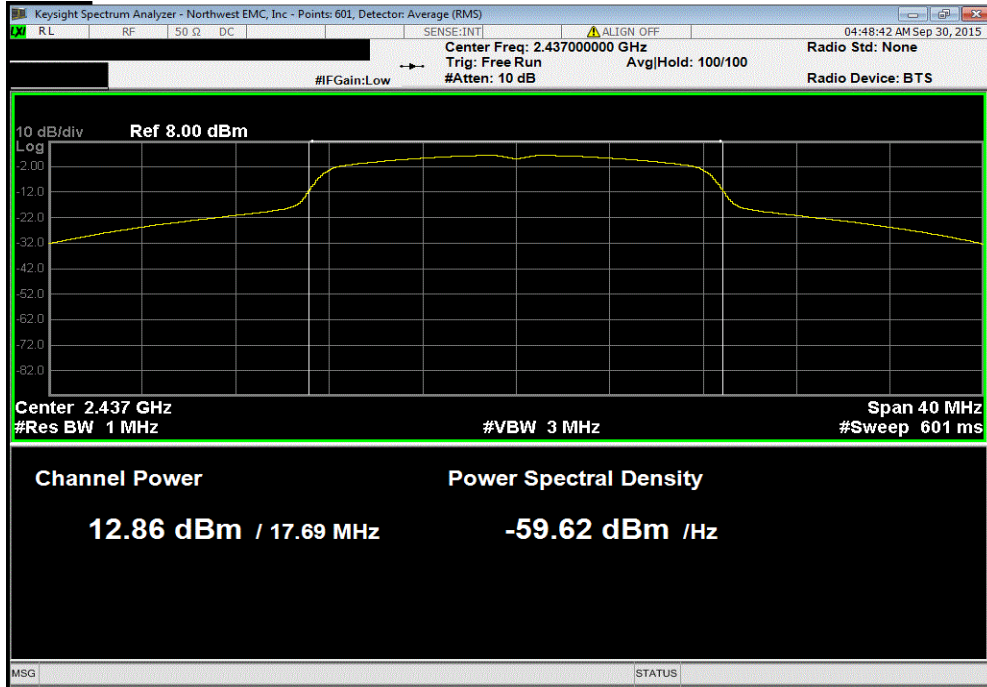


Ant 2, 20 MHz, 2.4 GHz Band, 802.11(g) 6Mbps, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
8.692	1.1	9.8	30	Pass		

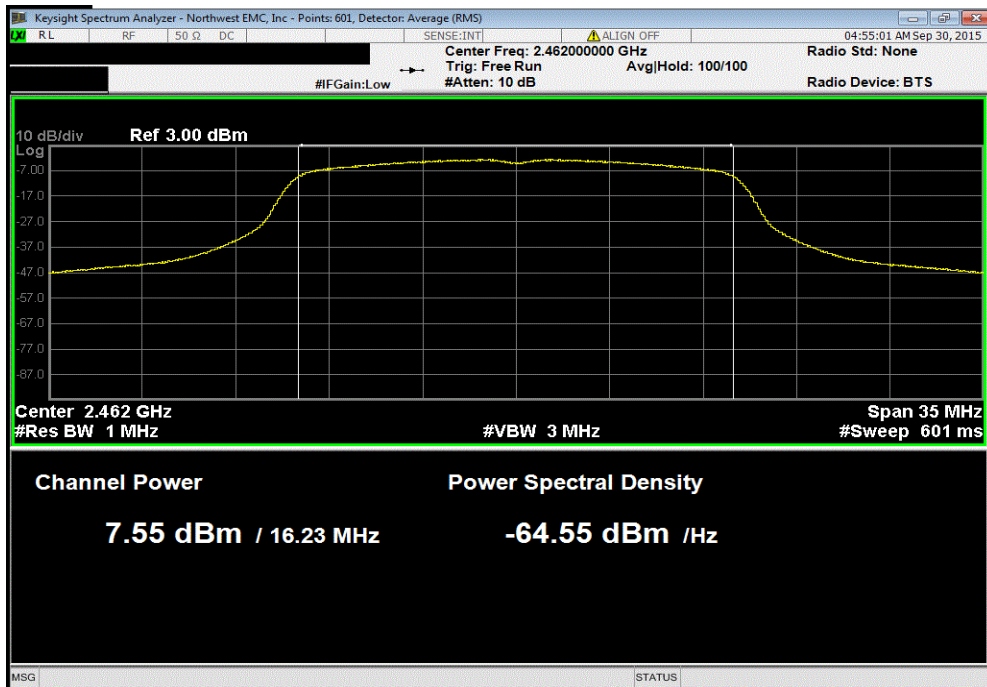


OUTPUT POWER

Ant 2, 20 MHz, 2.4 GHz Band, 802.11(g) 6Mbps, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
12.859	1.1	14	30	Pass		

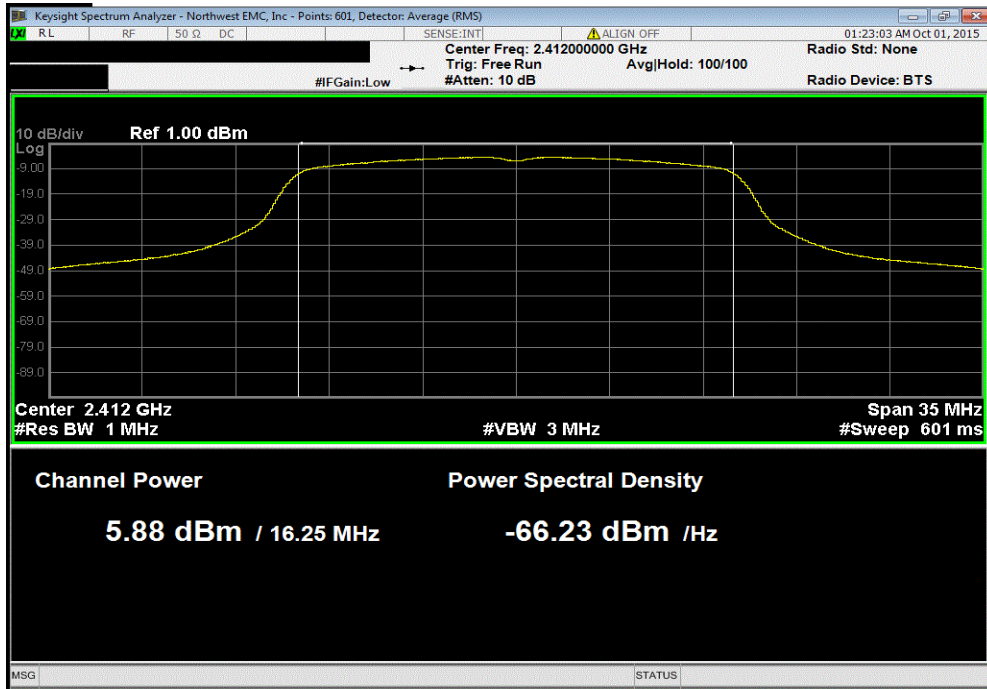


Ant 2, 20 MHz, 2.4 GHz Band, 802.11(g) 6Mbps, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
7.555	1.1	8.7	30	Pass		

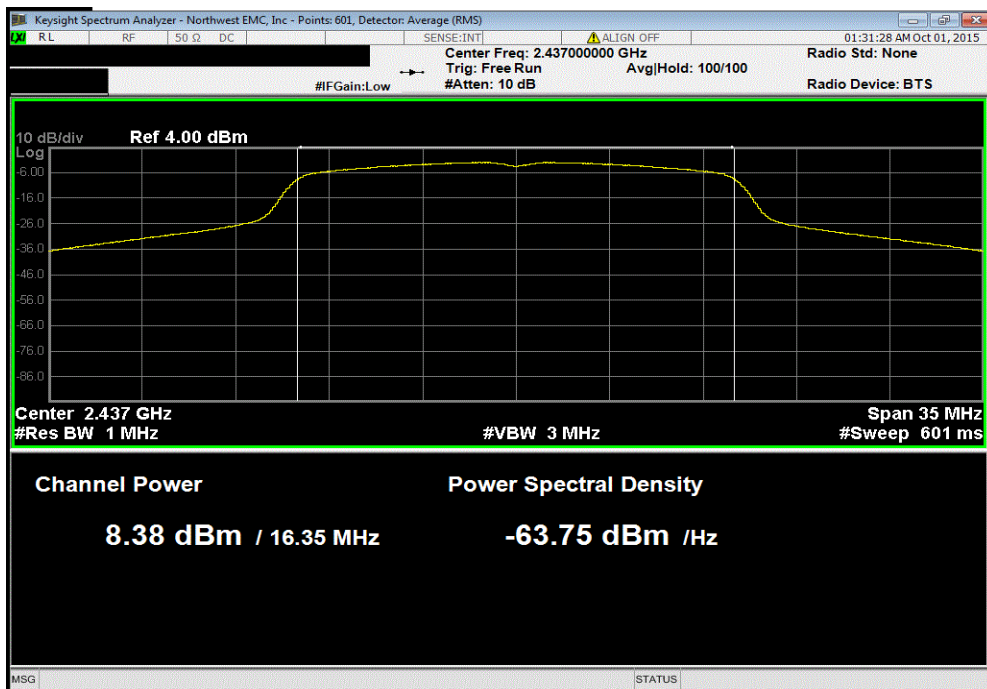


OUTPUT POWER

Ant 2, 20 MHz, 2.4 GHz Band, 802.11(g) 36Mbps, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
5.878	4.2	10.1	30	Pass		

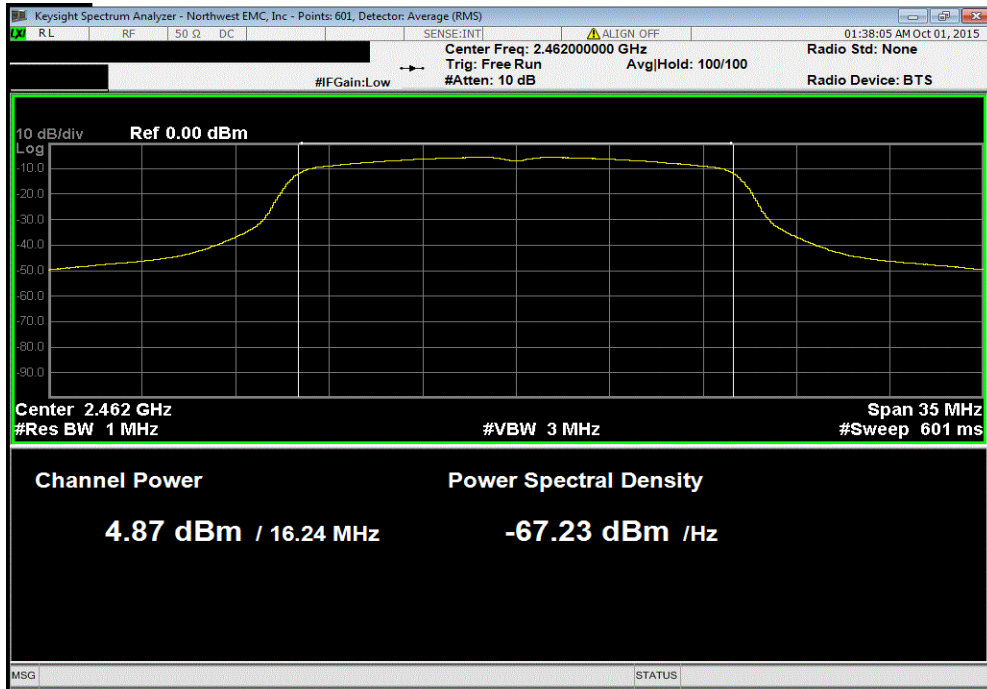


Ant 2, 20 MHz, 2.4 GHz Band, 802.11(g) 36Mbps, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
8.382	4.2	12.6	30	Pass		

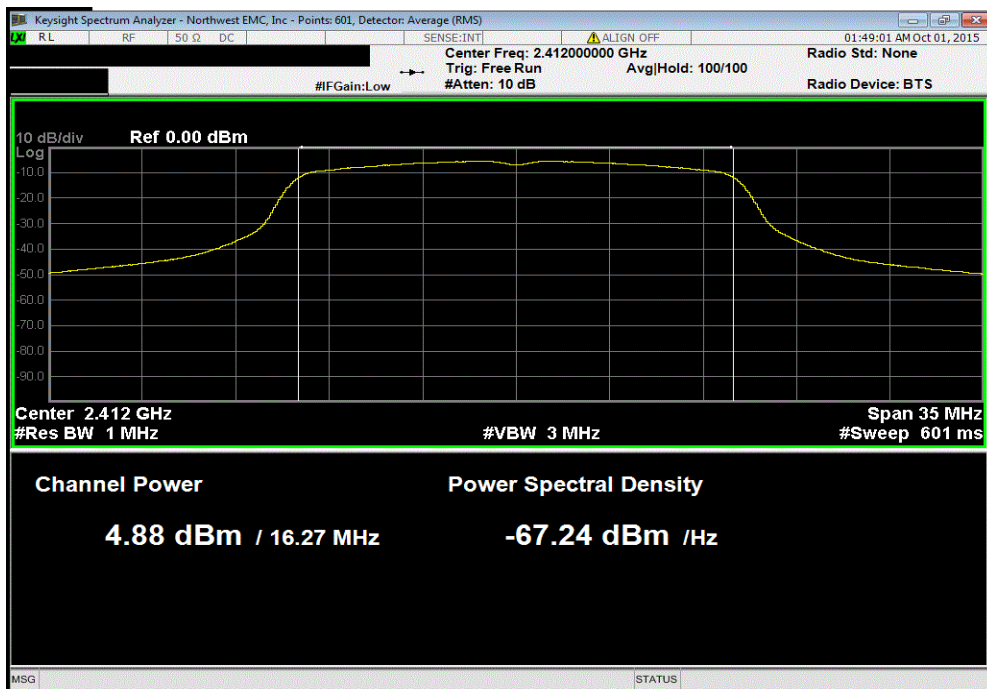


OUTPUT POWER

Ant 2, 20 MHz, 2.4 GHz Band, 802.11(g) 36Mbps, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
4.874	4.2	9.1	30	Pass		

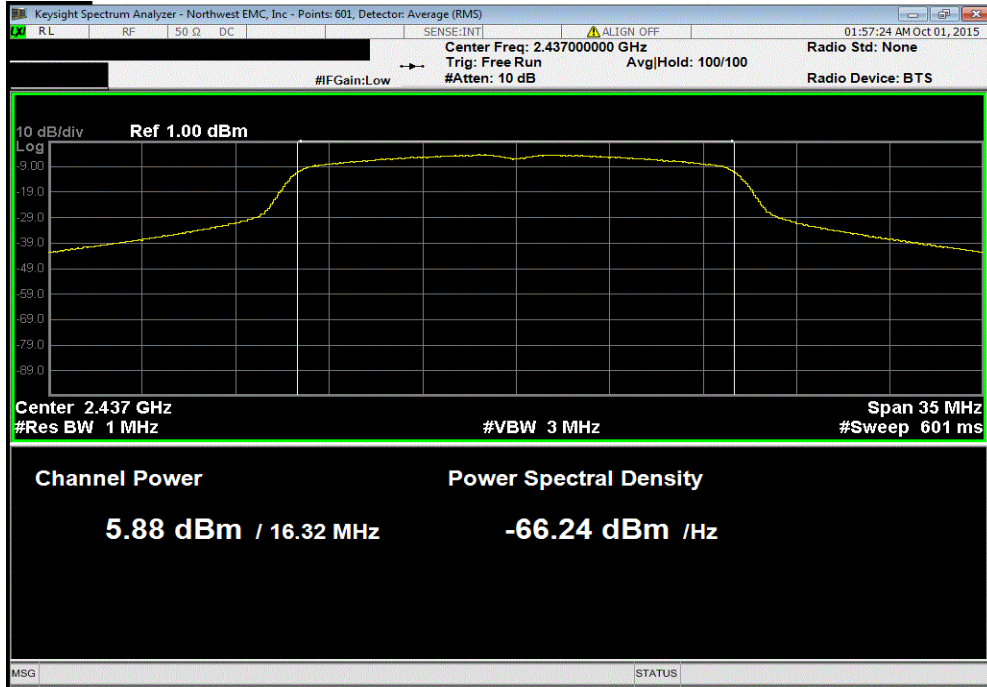


Ant 2, 20 MHz, 2.4 GHz Band, 802.11(g) 54Mbps, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
4.876	5.3	10.2	30	Pass		

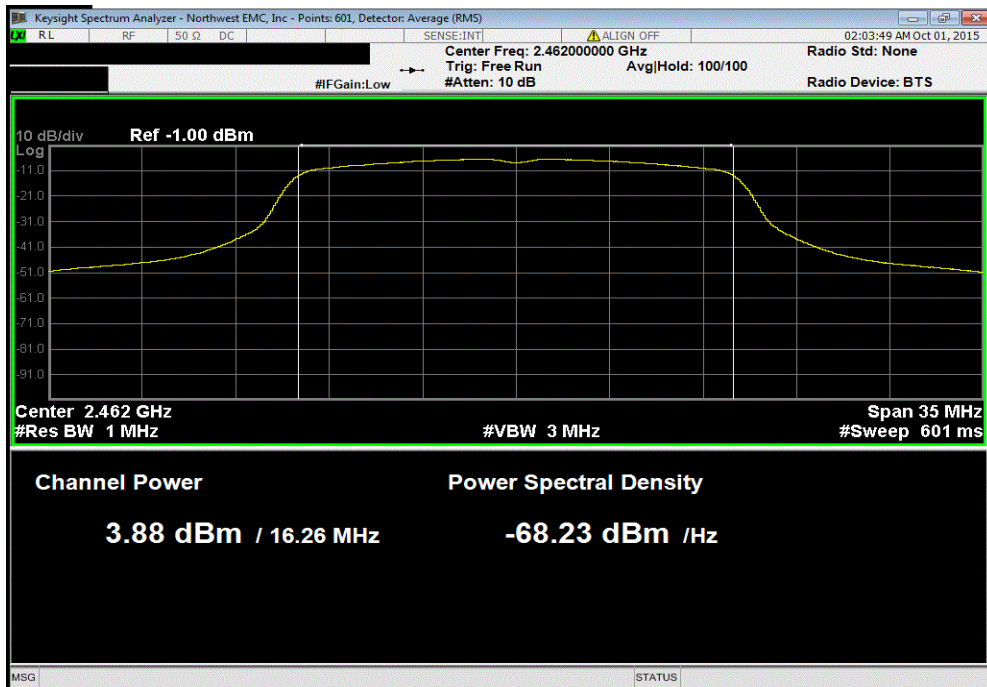


OUTPUT POWER

Ant 2, 20 MHz, 2.4 GHz Band, 802.11(g) 54Mbps, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
5.884	5.3	11.2	30	Pass		

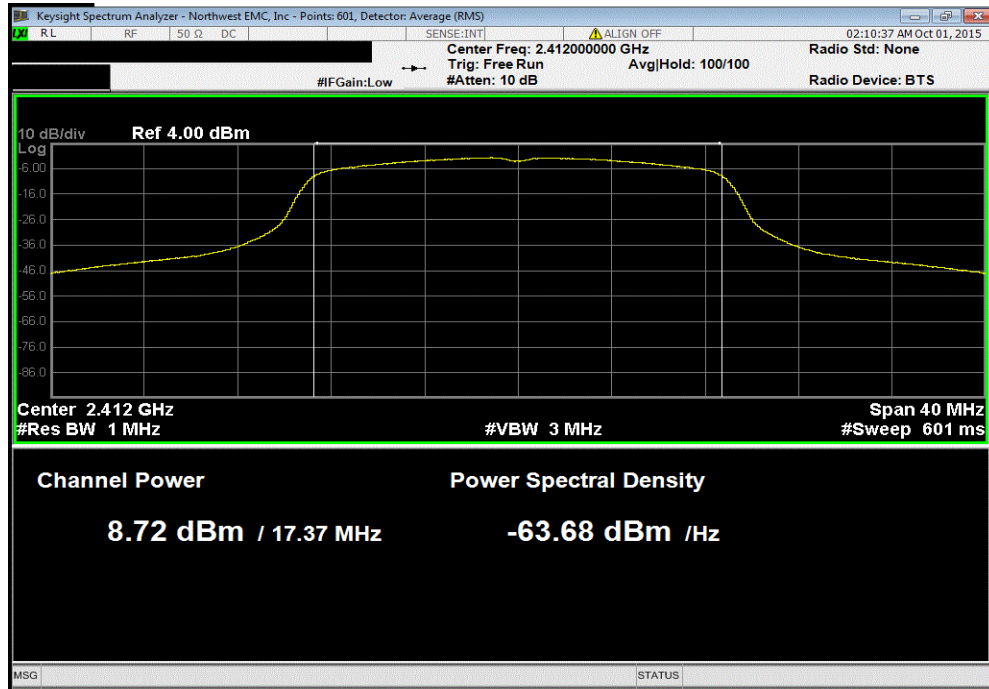


Ant 2, 20 MHz, 2.4 GHz Band, 802.11(g) 54Mbps, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
3.883	5.2	9.1	30	Pass		

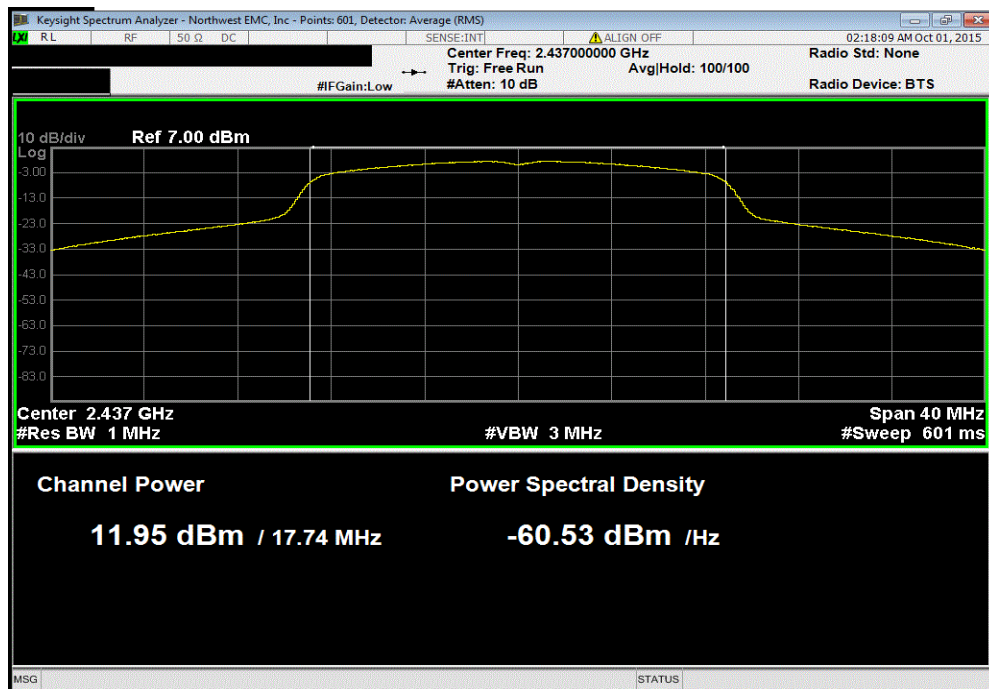


OUTPUT POWER

Ant 2, 20 MHz, 2.4 GHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
8.718	1.3	10	30	Pass		

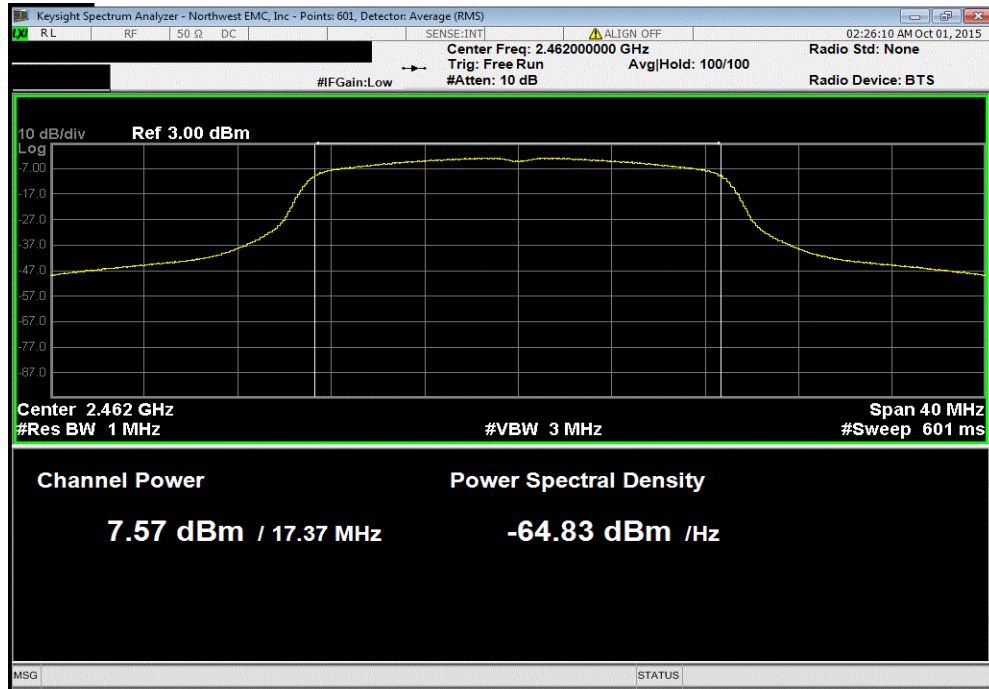


Ant 2, 20 MHz, 2.4 GHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
11.955	1.3	13.3	30	Pass		

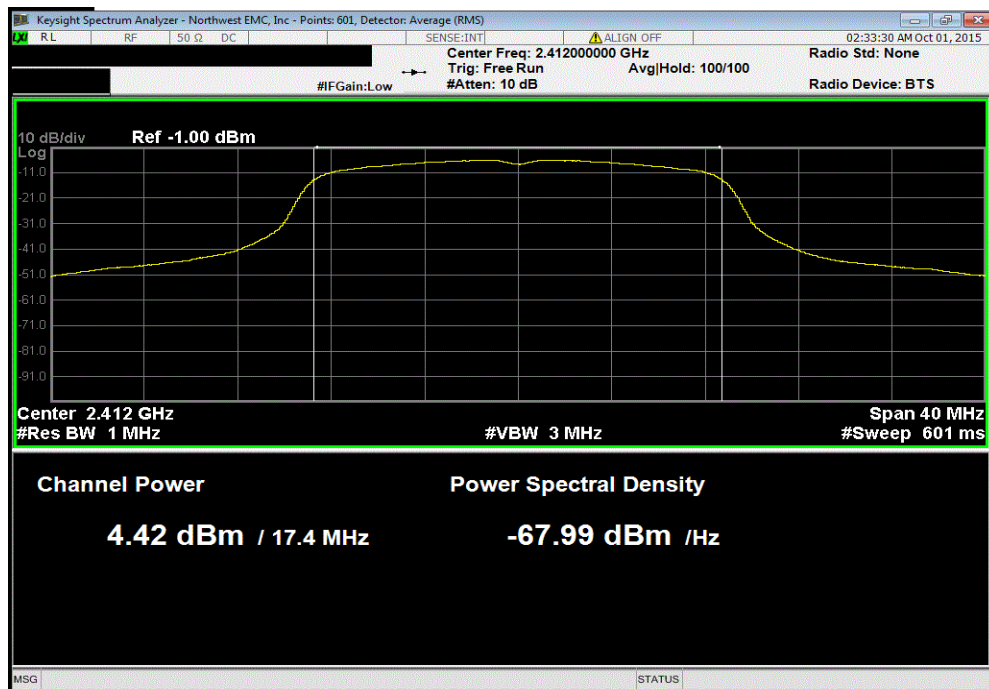


OUTPUT POWER

Ant 2, 20 MHz, 2.4 GHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
7.569	1.3	8.8	30	Pass		

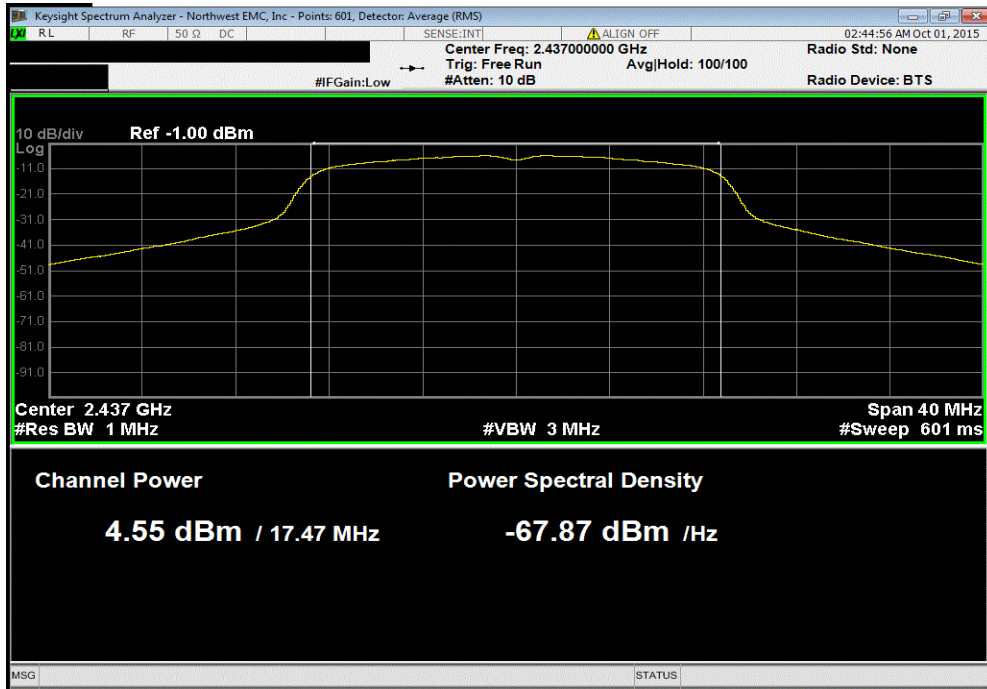


Ant 2, 20 MHz, 2.4 GHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
4.421	5.7	10.1	30	Pass		

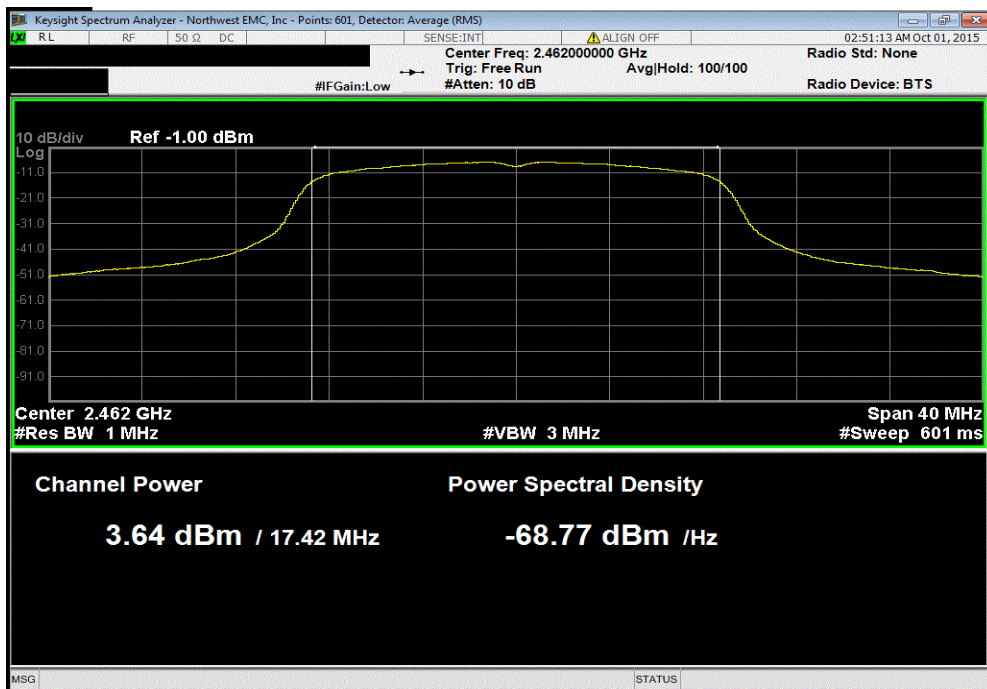


OUTPUT POWER

Ant 2, 20 MHz, 2.4 GHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
4.552	5.7	10.3	30	Pass		

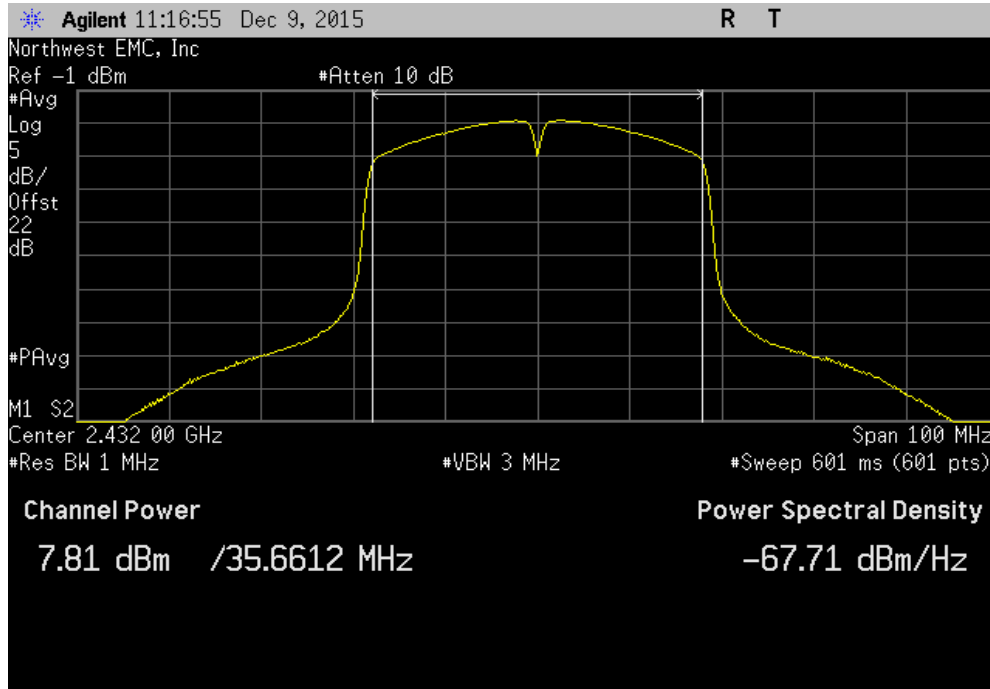


Ant 2, 20 MHz, 2.4 GHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
3.639	5.8	9.4	30	Pass		

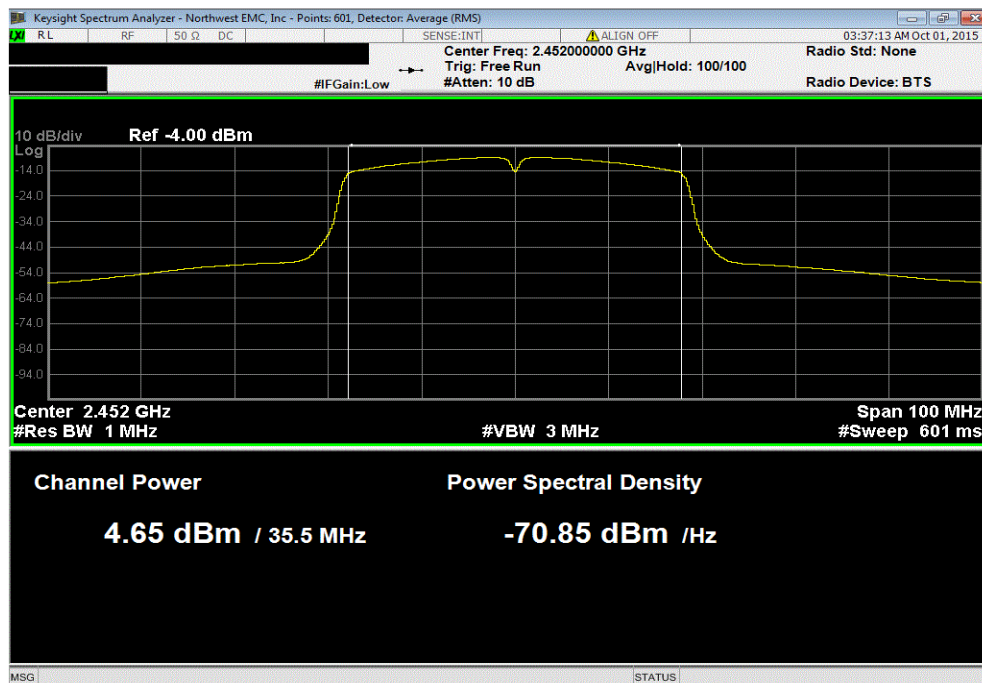


OUTPUT POWER

Ant 2, 40 MHz, 2.4 GHz Band, 802.11(n) MCS0, Low Channel 5, 2432 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
7.812	2.5	10.3	30	Pass		

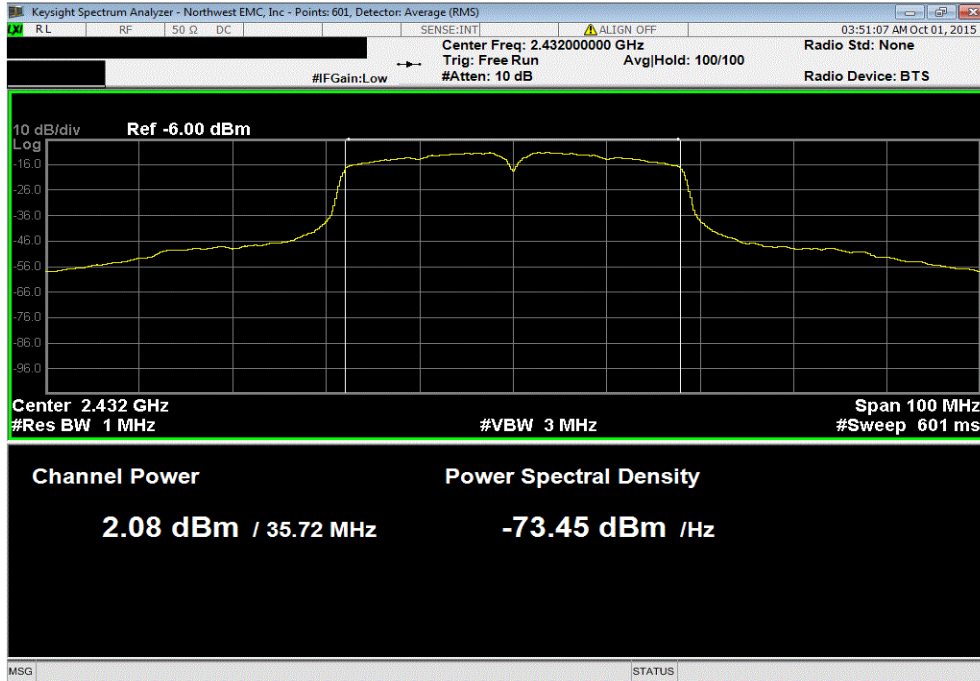


Ant 2, 40 MHz, 2.4 GHz Band, 802.11(n) MCS0, High Channel 9, 2452 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
4.647	2.5	7.1	30	Pass		

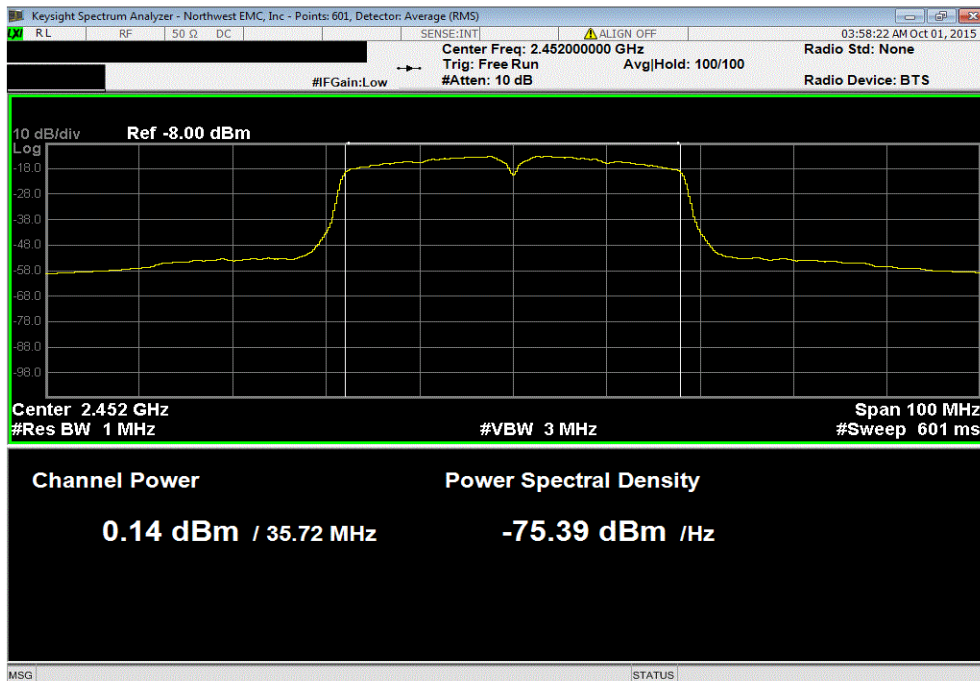


OUTPUT POWER

Ant 2, 40 MHz, 2.4 GHz Band, 802.11(n) MCS7, Low Channel 5, 2432 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
2.077	8.9	11	30	Pass		



Ant 2, 40 MHz, 2.4 GHz Band, 802.11(n) MCS7, High Channel 9, 2452 MHz						
Avg Cond	Duty Cycle	Value	Limit	Results		
Pwr (dBm)	Factor (dB)	(dBm)	(dBm)			
0.141	8.9	9	30	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 (mo)
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFO	6/23/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFE	6/22/2015	12
Cable	ESM Cable Corp.	TTBJ-141 KMKM-72	NC5	6/6/2015	12
Attenuator	Fairview Microwave	SA4014-20	TKE	1/16/2015	12
Block - DC	Fairview Microwave	SD3379	AMJ	6/6/2015	12
Generator - Signal	Keysight	N5182B	TFY	4/16/2015	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 the peak power spectral density was measured in a 3 kHz RBW.

POWER SPECTRAL DENSITY

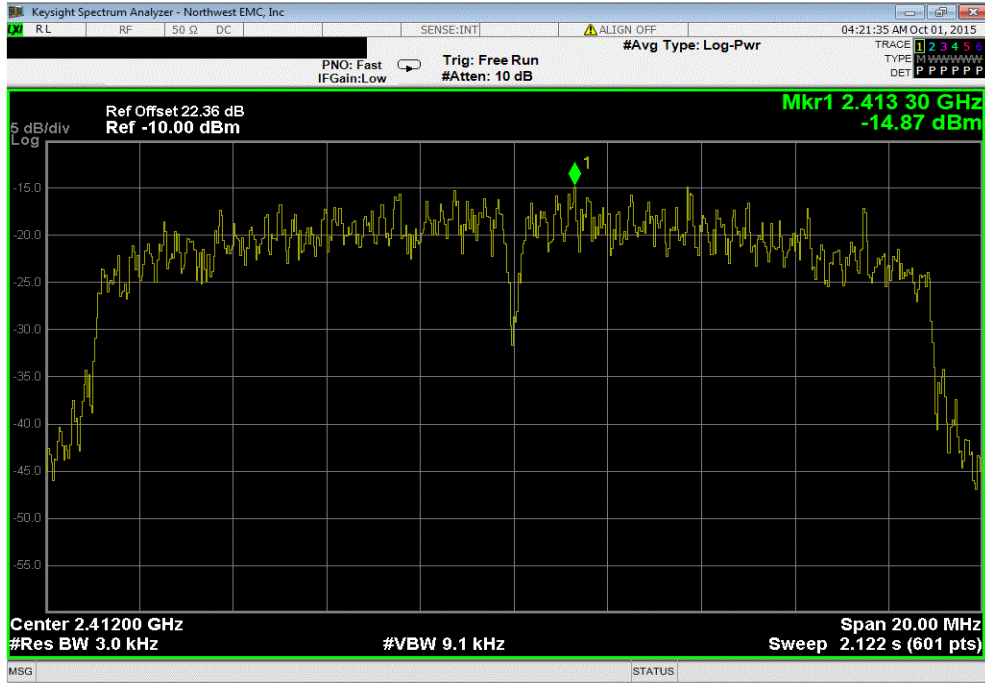


XMit 2015.01.14

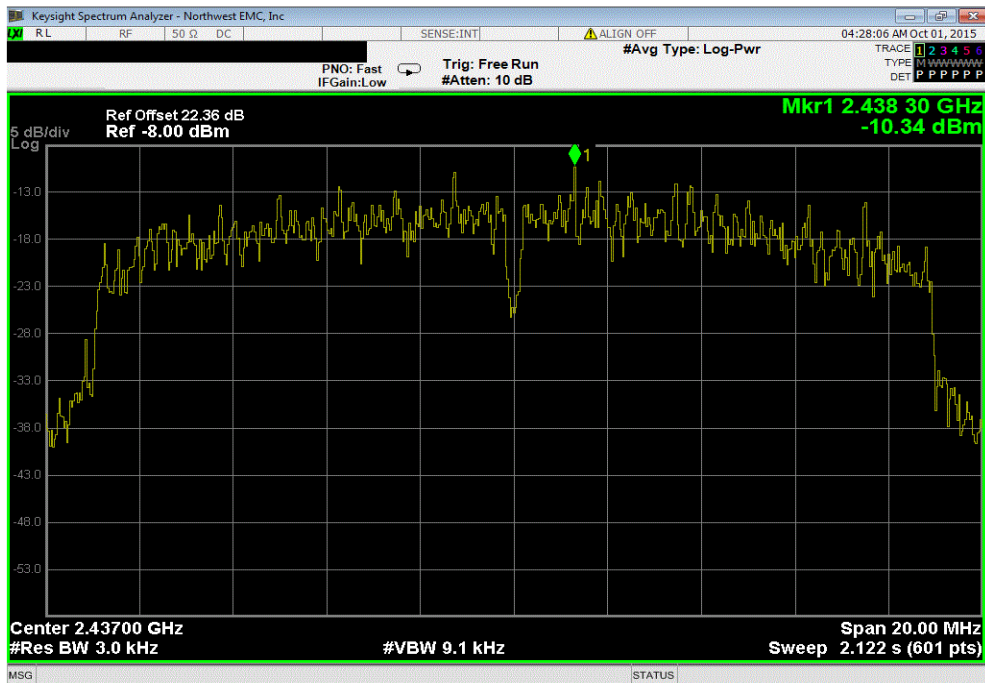
EUT: Precor Wi-Fi / Bluetooth Module Model 303346		Work Order: PRCR0230	
Serial Number: None		Date: 10/01/15	
Customer: Precor, Inc.		Temperature: 23°C	
Attendees: Rich Whitbeck		Humidity: 44%	
Project: None		Barometric Pres.: 1017mb	
Tested by: Richard Mellroth		Power: 110VAC/60Hz	
		Job Site: NC01 / NC02	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2015		ANSI C63.10:2013	
COMMENTS			
Power settings at Maximum.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature	
		Value dBm/3kHz	Summing Factor (dB)
		Summed Value dBm/3kHz	Limit < dBm/3kHz
			Results
Ant 1 (2x2 MIMO)			
20 MHz			
2.4 GHz Band			
802.11(n) MCS12			
	Low Channel 1, 2412 MHz	-14.874	3
	Mid Channel 6, 2437 MHz	-10.341	3
	High Channel 11, 2462 MHz	-15.005	3
	Summed Value	-11.874	8
			8
			8
			Pass
802.11(n) MCS15			
	Low Channel 1, 2412 MHz	-16.323	3
	Mid Channel 6, 2437 MHz	-17.781	3
	High Channel 11, 2462 MHz	-16.382	3
	Summed Value	-13.323	8
			8
			8
			Pass
Ant 2 (2x2 MIMO)			
20 MHz			
2.4 GHz Band			
802.11(n) MCS12			
	Low Channel 1, 2412 MHz	-16.28	3
	Mid Channel 6, 2437 MHz	-13.871	3
	High Channel 11, 2462 MHz	-16.773	3
	Summed Value	-13.28	8
			8
			8
			Pass
802.11(n) MCS15			
	Low Channel 1, 2412 MHz	-20.248	3
	Mid Channel 6, 2437 MHz	-20.028	3
	High Channel 11, 2462 MHz	-20.686	3
	Summed Value	-17.248	8
			8
			8
			Pass

POWER SPECTRAL DENSITY

Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, Low Channel 1, 2412 MHz						
Value	Summing Factor	Summed Value	Limit	Results		
dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz			
-14.874	3	-11.874	8	Pass		

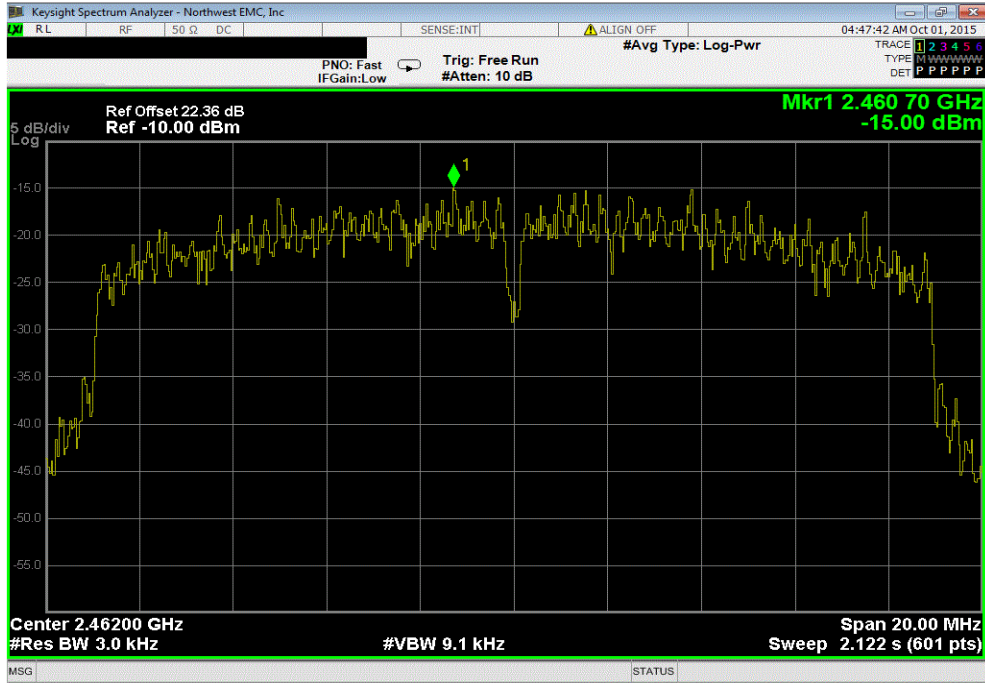


Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, Mid Channel 6, 2437 MHz						
Value	Summing Factor	Summed Value	Limit	Results		
dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz			
-10.341	3	-7.341	8	Pass		

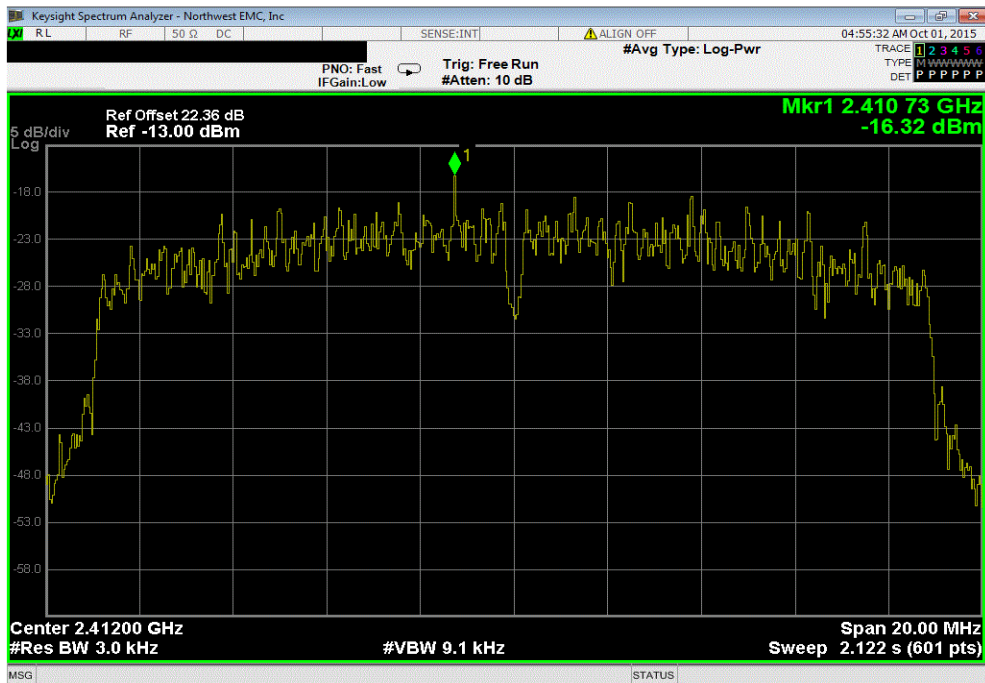


POWER SPECTRAL DENSITY

Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, High Channel 11, 2462 MHz						
Value	Summing Factor	Summed Value	Limit	Results		
dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz			
-15.005	3	-12.005	8	Pass		

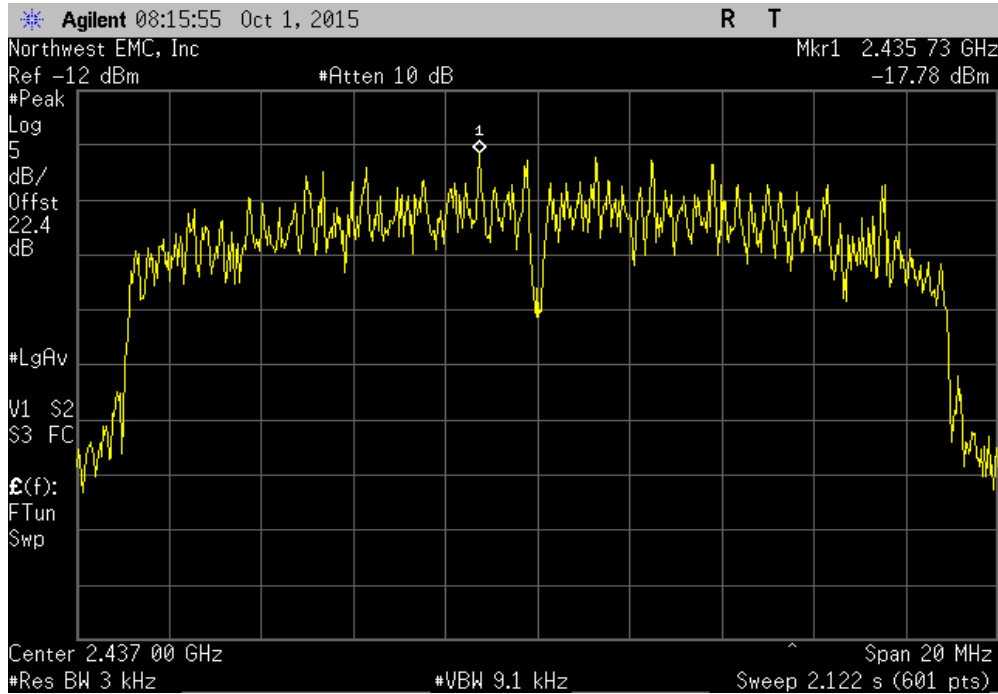


Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz						
Value	Summing Factor	Summed Value	Limit	Results		
dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz			
-16.323	3	-13.323	8	Pass		

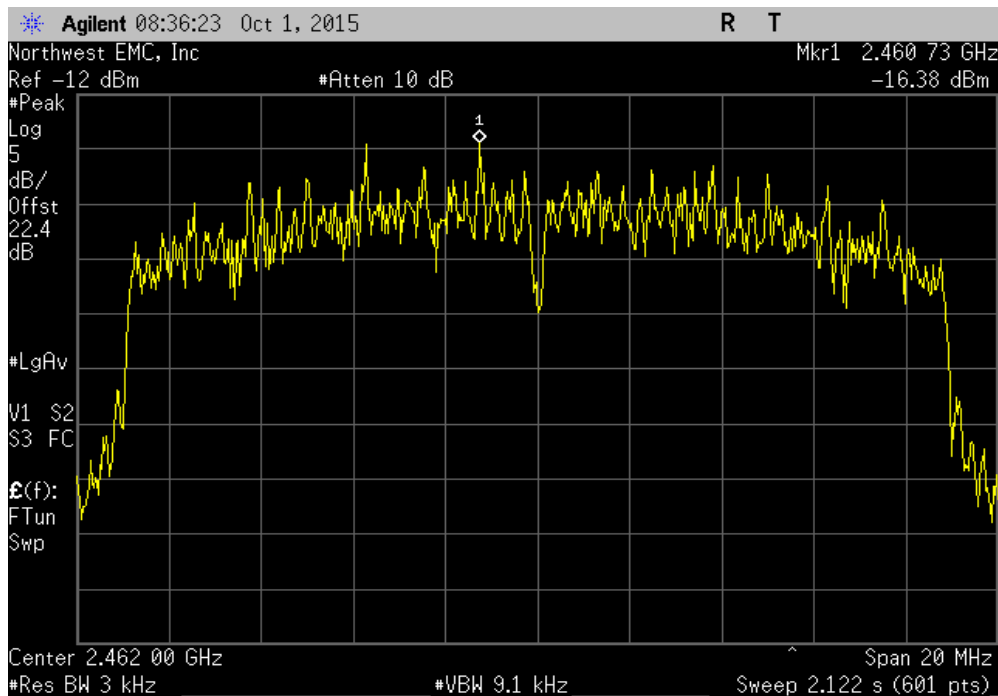


POWER SPECTRAL DENSITY

Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz						
	Value	Summing Factor	Summed Value	Limit	Results	
	dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz		
	-17.781	3	-14.781	8	Pass	

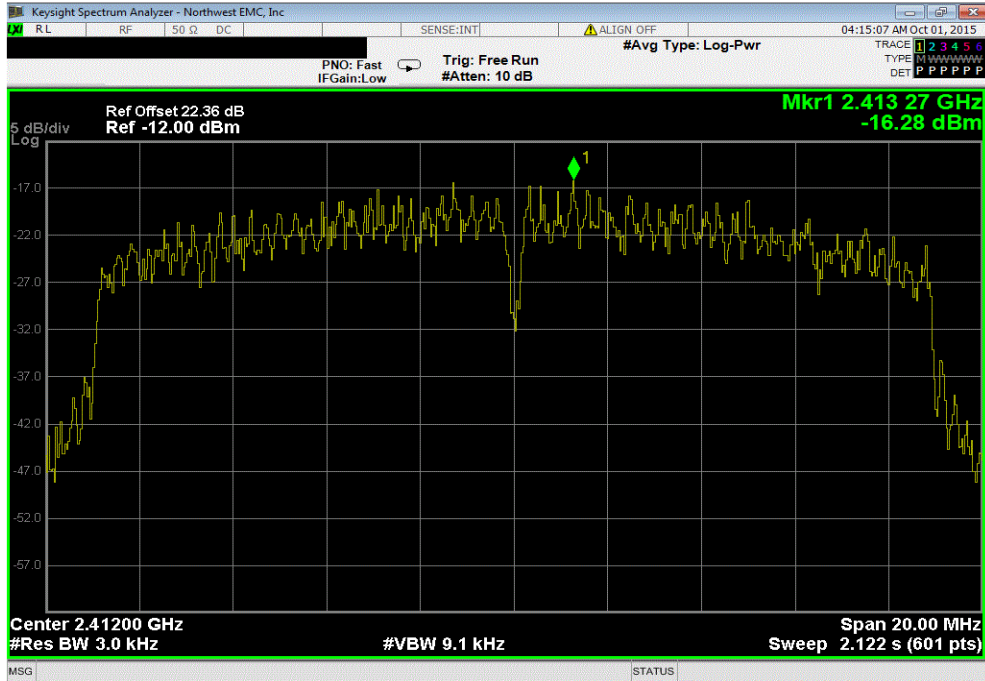


Ant 1 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz						
	Value	Summing Factor	Summed Value	Limit	Results	
	dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz		
	-16.382	3	-13.382	8	Pass	

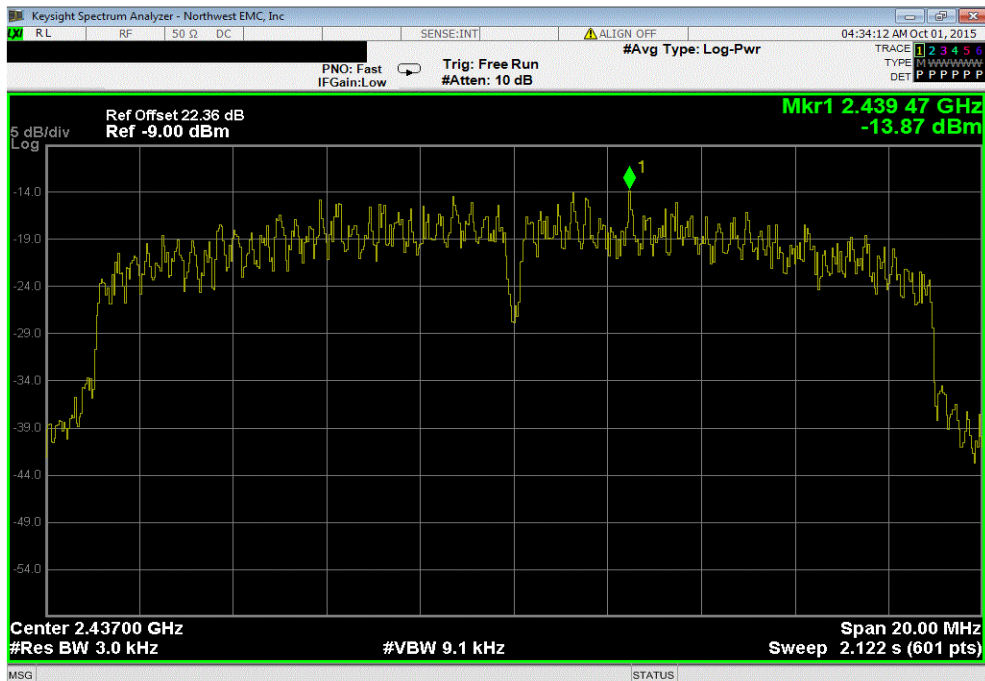


POWER SPECTRAL DENSITY

Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, Low Channel 1, 2412 MHz						
Value	Summing Factor	Summed Value	Limit	Results		
dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz			
-16.28	3	-13.28	8	Pass		

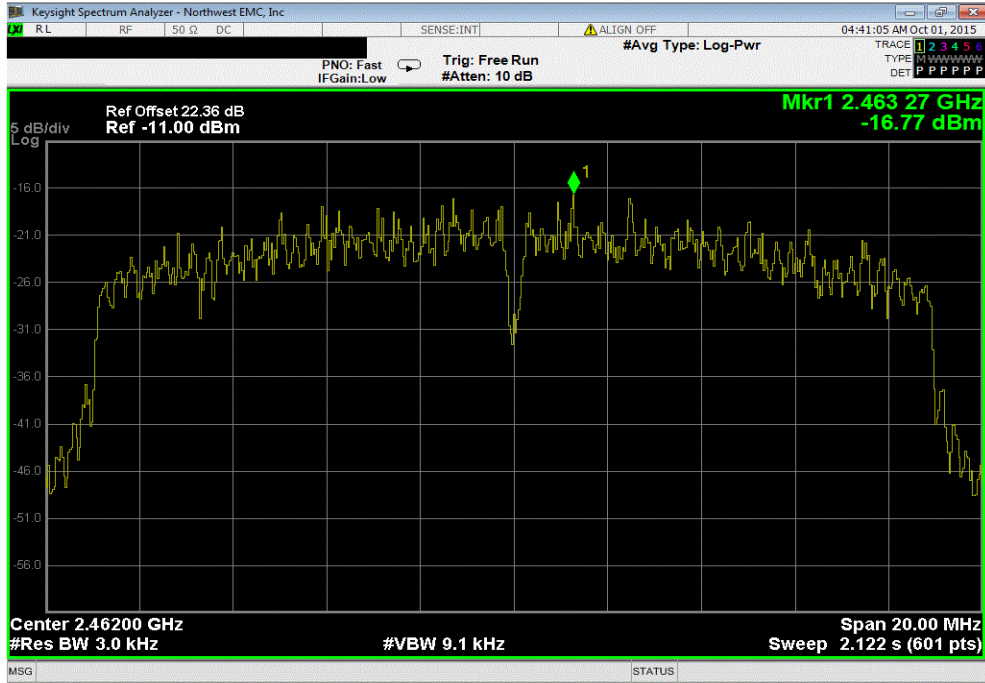


Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, Mid Channel 6, 2437 MHz						
Value	Summing Factor	Summed Value	Limit	Results		
dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz			
-13.871	3	-10.871	8	Pass		

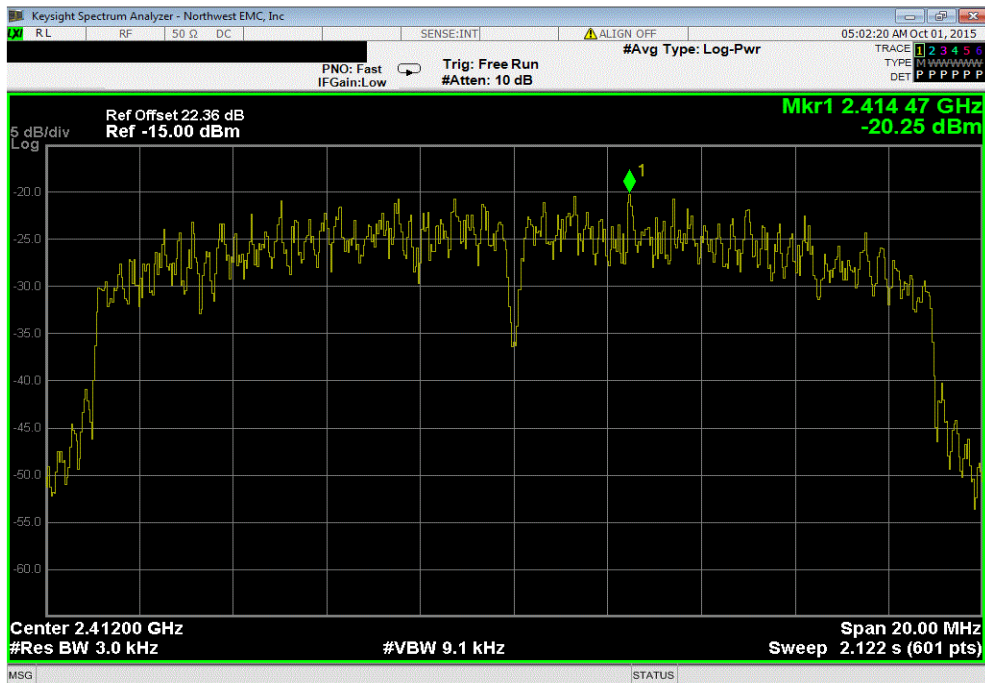


POWER SPECTRAL DENSITY

Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS12, High Channel 11, 2462 MHz						
Value	Summing Factor	Summed Value	Limit	Results		
dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz			
-16.773	3	-13.773	8	Pass		

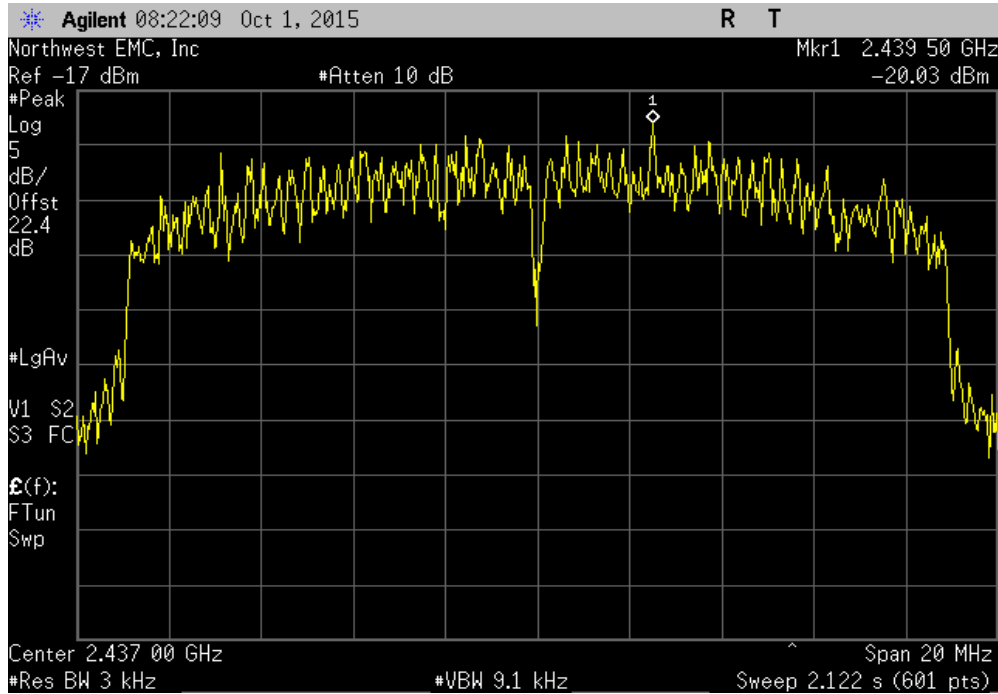


Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, Low Channel 1, 2412 MHz						
Value	Summing Factor	Summed Value	Limit	Results		
dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz			
-20.248	3	-17.248	8	Pass		



POWER SPECTRAL DENSITY

Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, Mid Channel 6, 2437 MHz						
	Value	Summing Factor	Summed Value	Limit	Results	
	dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz		
	-20.028	3	-17.028	8	Pass	



Ant 2 (2x2 MIMO), 20 MHz, 2.4 GHz Band, 802.11(n) MCS15, High Channel 11, 2462 MHz						
	Value	Summing Factor	Summed Value	Limit	Results	
	dBm/3kHz	(dB)	dBm/3kHz	< dBm/3kHz		
	-20.686	3	-17.686	8	Pass	

