Produkte
Products

Prüfbericht - Nr.: *Test Report No.:*	**01200051 001**		**Seite 1 von 52** *Page 1 of 52*
Auftraggeber: *Client:*	**Matsunichi, Inc.** **47745 Fremont Blvd** **Fremont, California 94538** **United States**		
Gegenstand der Prüfung: *Test item:*	**Android Tablet PC**		
Bezeichnung: *Identification:*	**MP977**	**Serien-Nr.:** *Serial No.*	**Engineering Sample**
Wareneingangs-Nr.: *Receipt No.:*	**1403019767**	**Eingangsdatum:** *Date of receipt:*	**14.05.2012**
Prüfort: *Testing location:*	**Refer Page 4 of 52 for test facilities**		
Prüfgrundlage: *Test specification:*	**FCC Part 15: Subpart C Section 15.247** **ANSI C63.4-2003**		
Prüfergebnis: *Test Result:*	**Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n).** *The test items passed the test specification(s).*		
Prüflaboratorium: *Testing Laboratory:*	**TÜV Rheinland (India) Pvt. Ltd.** 82/A, 3rd Main, West Wing, Electronic City Phase 1 Hosur Road, Bangalore – 560 100. India **FCC Registration No.: 176555**		

geprüft / *tested by:*

14.06.2012	Vinay N Test Engineer	Vinay. N
Datum *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*

kontrolliert / *reviewed by:*

15.06.2012	Raghavendra Kulkarni Manager	Rkulkarni
Datum *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*

Sonstiges /*Other Aspects:* **FCC ID : OC5-FTC97700**

This ID also contains Bluetooth Transmitter with test report number 01200038 001 by TUV Rheinland

Abkürzungen:				***Abbreviations:***			
P(ass)	=	***entspricht Prüfgrundlage***		***P(ass)***	=	***passed***
F(ail)	=	***entspricht nicht Prüfgrundlage***		***F(ail)***	=	***failed***
N/A	=	***nicht anwendbar***		***N/A***	=	***not applicable***
N/T	=	***nicht getestet***		***N/T***	=	***not tested***

Test Result Summary

Clause	Test Item	Result
FCC 15.247(b) (3)	Maximum Conducted Output Power	Pass
FCC 15.247(a) (2)	6dB Bandwidth	Pass
FCC 15.247(e)	Power Spectral Density	Pass
FCC 15.247(d)	Band-edge compliance	Pass
FCC 15.209	Spurious Radiated Emissions	Pass
FCC 15.205	Restricted Bands of Operation	Pass
FCC 15.207	AC Power Line Conducted Emissions	Pass

Content

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List of Test and Measurement Instruments

TUV Rheinland (India) Pvt. Ltd. , Bangalore

List of Test and Measurement Instruments

Equipment	Manufacturer	Type	S/N	Calibration Due Date
EMI Test Receiver	Rohde &Schwarz	ESU 40	100288	21.07.2012
Hybrid Log Periodic antenna	ETS Lindgren	3142D	00081354	26.07.2013
Hybrid Log Periodic antenna	Frankonia	ALX-4000	ALX4000-806	07.04.2013
Broadband Horn Antenna	Frankonia	HAX-18	HAX18-802	23.03.2013
Double-Ridged Waveguide Horn Antenna	ETS Lindgren	116794	00133356	01-09-2013
Emission Horn Antenna	ETS Lindgren	116706	00107323	24-08-2013
Active Loop Antenna	Frankonia	LAX-10	LAX-10-800	11-04-2013
Spectrum Analyser	Agilent Technologies	E4407B	US41192772	17.03.2013

Testing Facilities:

1) TUV Rheinland (India) Private Limited
No. 108, West Wing
Electronic city Phase I
Bangalore – 560100

General Product Information

Product Function and Intended Use

Tablet PC is a handheld multimedia entertainment unit used for below functions

1. Browsing the web
2. Audio/Video Playback
3. Personal Digital assistant
4. Playing 2D/3D games
5. Teleconferencing
6. GPS Navigation

Ratings and System Details

Operating Frequency	2400MHz – 2483.50MHz	
No. of channel	Please refer Table of Carrier Frequencies	
Channel Spacing	5MHz	
Transmitted Power	802.11b	17.67 dBm
	802.11g	17.65 dBm
Data Rate	802.11b: 1,2, 5.5,11 Mbps 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps	
Antenna Type	Multilayer Chip Antenna	
Number of antenna	One	
Antenna Gain	1.5 dBi	
Supply Voltage to Module	3.3V and +1.8V for Digital Interface	
Dimensions of Product	241.3mm x 190.5mm x 12.446mm	
Environmental	Environmental (Storage):-40°C to 85°C Operational conditions: -30ºC to 75º C	

Test Conditions:

Supply Voltage: 110V AC, 60Hz

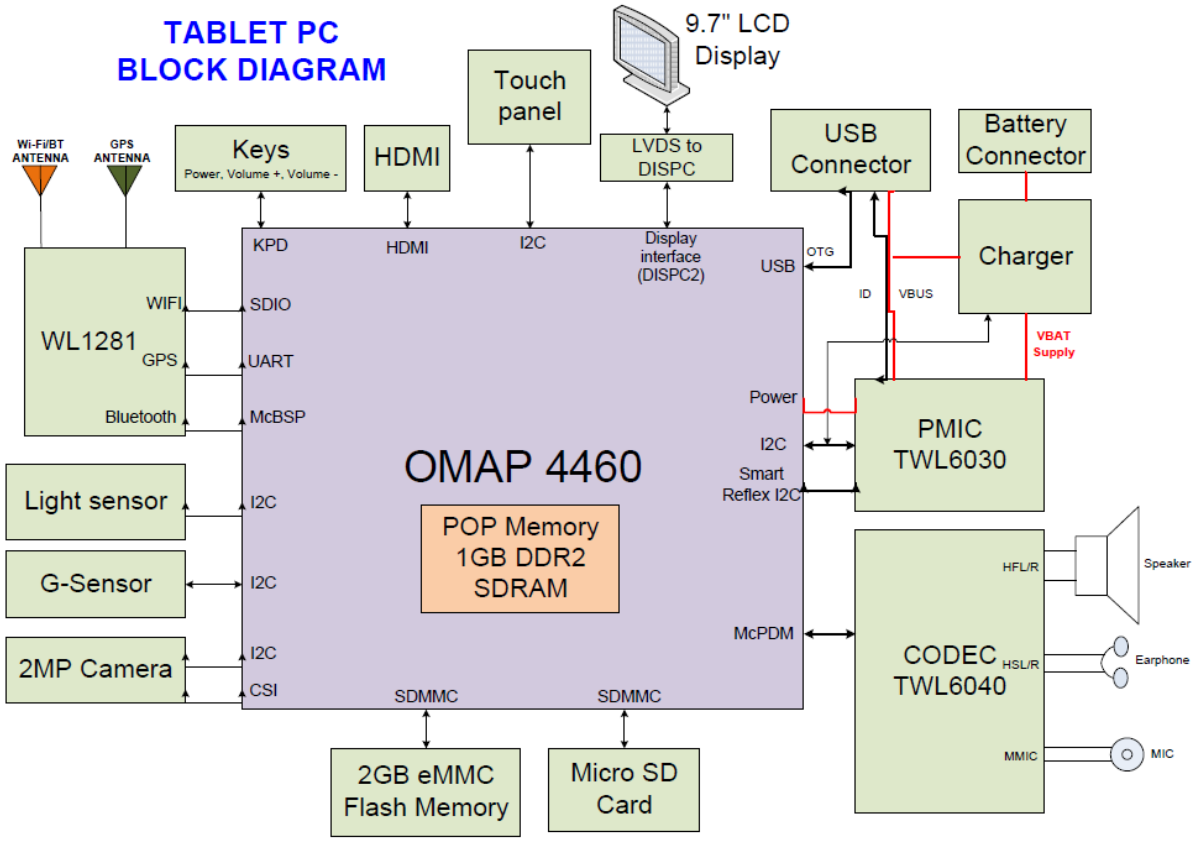
Environmental conditions:

Temperature: +23 º C RH: 62%

Operation Descriptions

Tablet PC runs on Android 4.0.3 operating system(Ice cream sandwich),It has a 9.7 inch LED backlit LCD display and primarily operated by Touch screen interface which has Multi-touch capabilities for recognizing multiple simultaneous finger touches. In addition to this, dedicated hardware keys are provided for Power On/Off and Volume Increase/Decrease functionality; the device has Wifi and Bluetooth capabilities that allow it to connect wirelessly to the internet and transfer data to other compatible devices. The Device also has a GPS receiver that can be used for personal navigation when used with appropriate software. The Tablet is powered by a Li-Polymer rechargeable battery. The Battery can be charged using the provided Wall mount charger.

Block Diagram



Test Set-up and Operation Mode

Principle of Configuration Selection

Emission: The test was performed under continuous transmission to obtain the maximum emissions.

Test Operation and Test Software

Continuous transmission was enabled through test software and Channel / data rate selection was done with the software

Special Accessories and Auxiliary Equipment

- None

Countermeasures to achieve EMC Compliance

- None

Test Modes – Data Rates and Modulations

For Radiated spurious emissions, the tests were performed for all data rates and only worst results are reported in this report.

Table of carrier frequencies

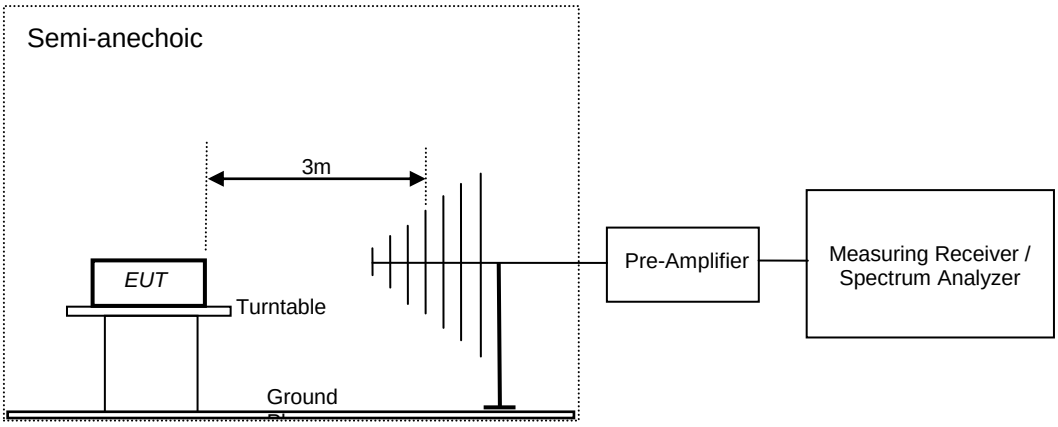
Frequency Band	Channel No.	Frequency (MHz)
2400 – 2483.5 MHz	1	2412
	2	2417
	3	2422
	4	2427
	5	2432
	6	2437
	7	2442
	8	2447
	9	2452
	10	2457
	11	2462

Test Methodology

Radiated Emission Test

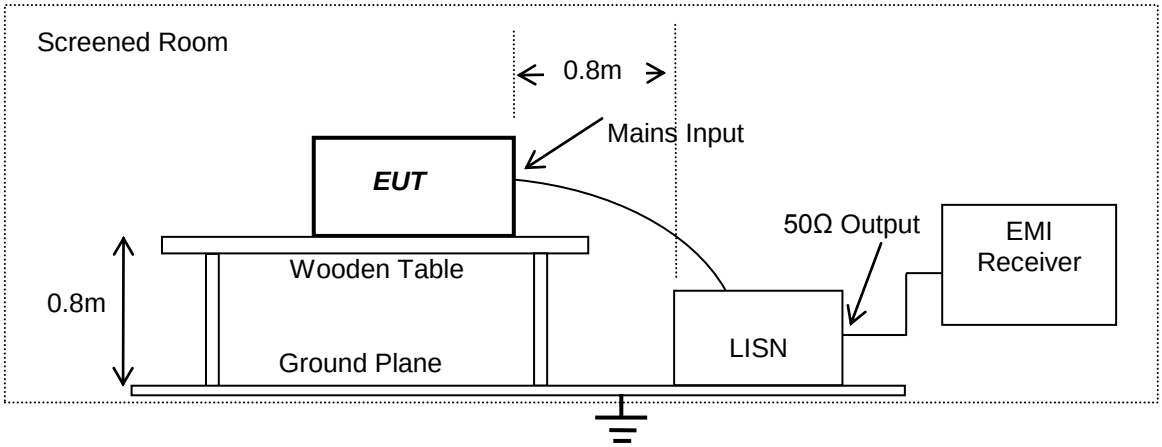
The radiated emission measurement was performed according to the procedures in ANSI C63.4-2003. The equipment under test (EUT) was placed at the middle of the 80 cm high turntable, and the EUT is 3 meters far from the measuring antenna. The turntable was rotated 360˚ for obtaining the maximum emission. The height of the measuring antennas was scanned between 1m and 4m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained. The measurement above 1000MHz was performed by horn antenna. The measurement below 30MHz was performed by loop antenna.

The EUT was rotated around the X-, Y-, and Z-Axis and the results from worst case axis are recorded.



Conducted Emission Test on a.c. mains line

The equipment under test (EUT) was placed on a wooden table 80cm above the ground plane, the LISN was place 80cm away from the EUT. The test was performed in accordance with ANSI C63.4: 2003, with the following: an initial measurement was performed in peak and average detection mode on the live and neutral lines. The pre-scan was performed by peak detection on both live and neutral conductors. Any emissions recorded within 20dB of the relevant limit line were re-measured using quasi-peak and average detections, the 6 worst cases was recorded in the table of results.



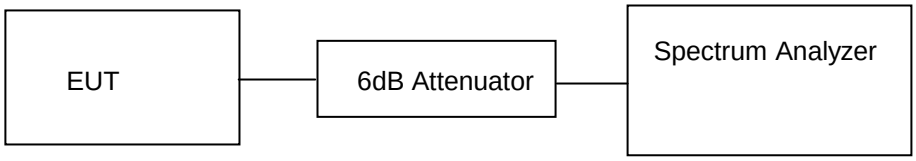
Test Results

Maximum Conducted Output Power **Section 15.247(b) (3)**

Result **Pass**

Test Specification	FCC Part 15 Subpart C
Measurement Bandwidth (RBW)	1 MHz
Requirement	<1 watt (30dBm).

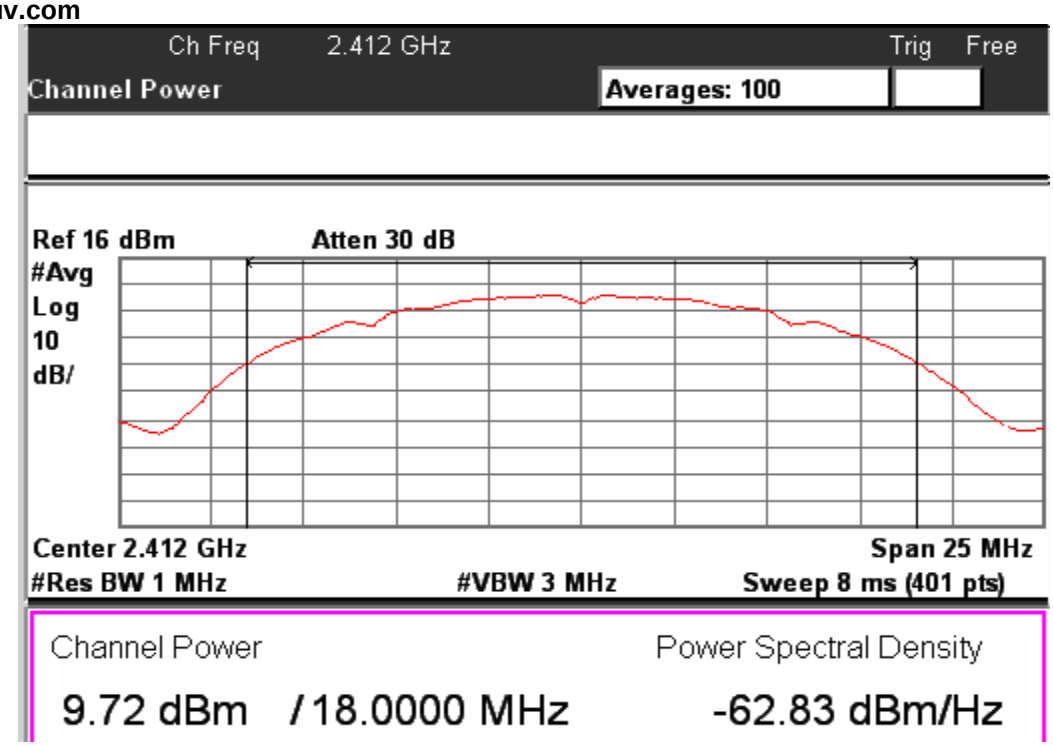
Test Method:



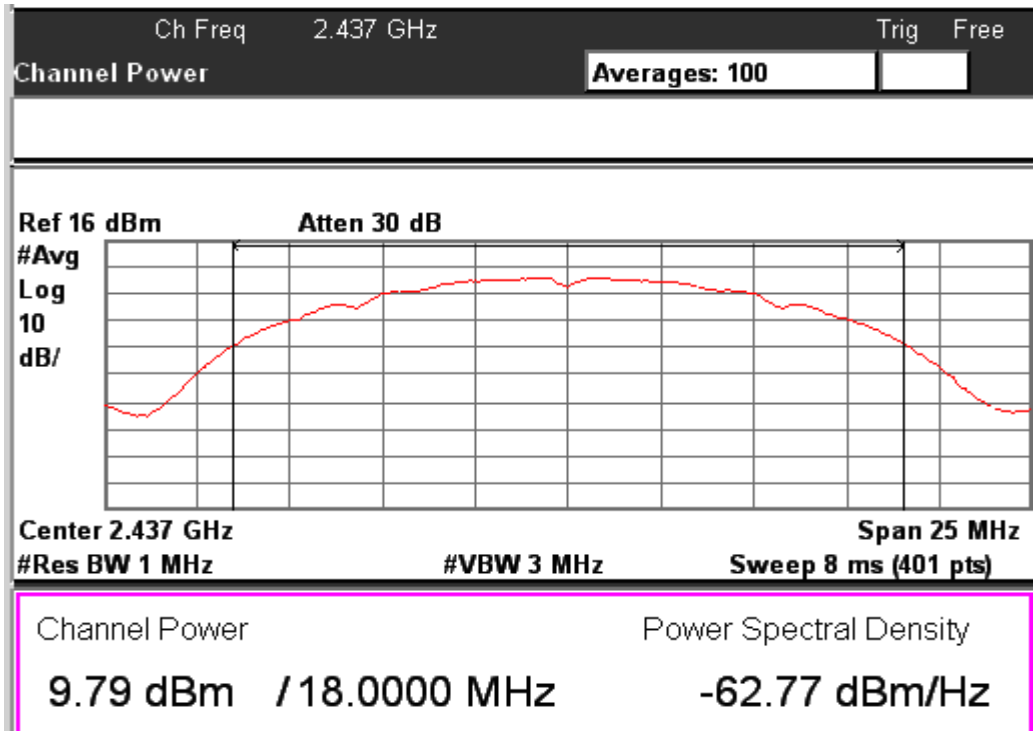
Test Result:

Cable Loss: 0.68 dB + 1.2dB

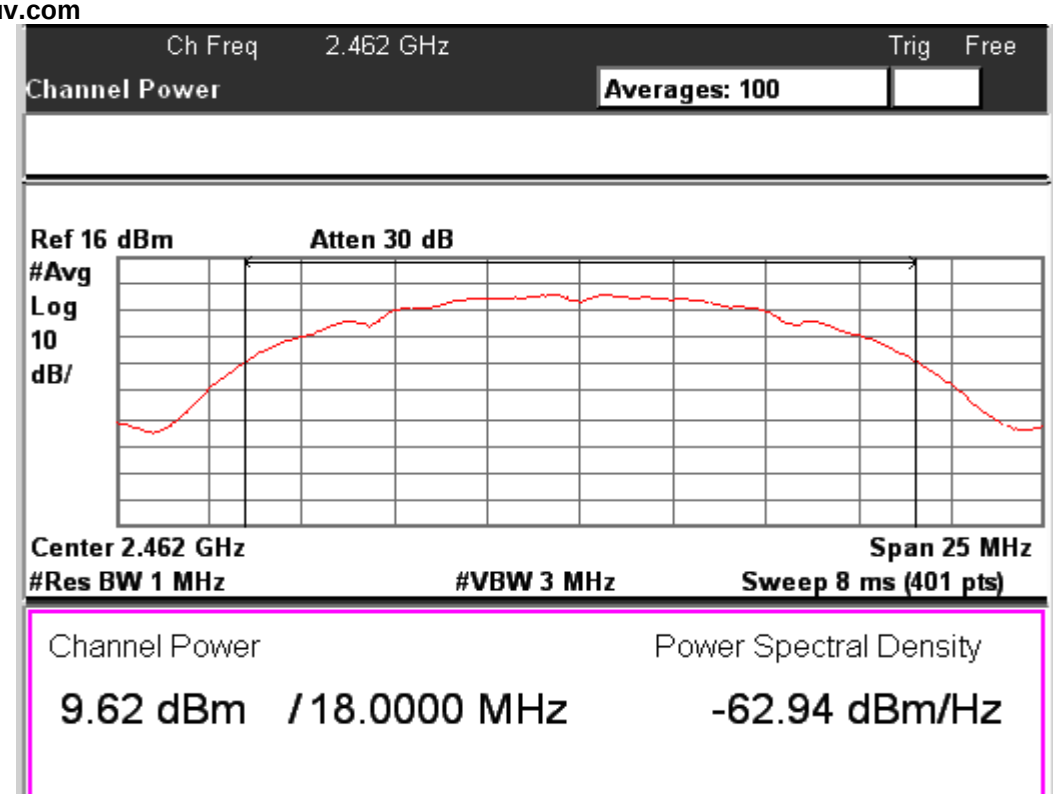
802.11 Protocol	Data Rate (Mbps)	Frequency (MHz)	Measured Power (dBm)	Attenuator + Cable Loss (dB)	Total Power (dBm)	Limit (dBm)	Margin (dB)
b	1	2412	09.72	07.88	17.60	30.00	-12.40
		2437	09.79	07.88	17.67	30.00	-12.33
		2462	09.62	07.88	17.50	30.00	-12.50
	11	2412	09.77	07.88	17.65	30.00	-12.35
		2437	09.74	07.88	17.62	30.00	-12.38
		2462	09.57	07.88	17.45	30.00	-12.55



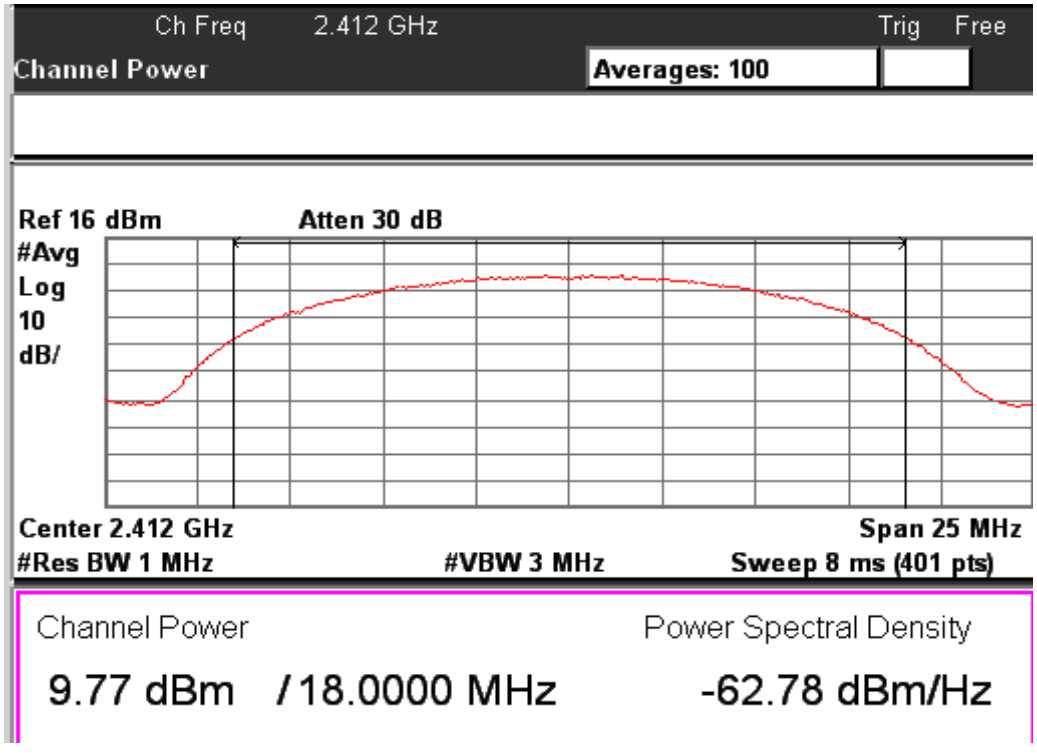
Data rate: 1 Mbps **Channel Frequency: 2412 MHz**



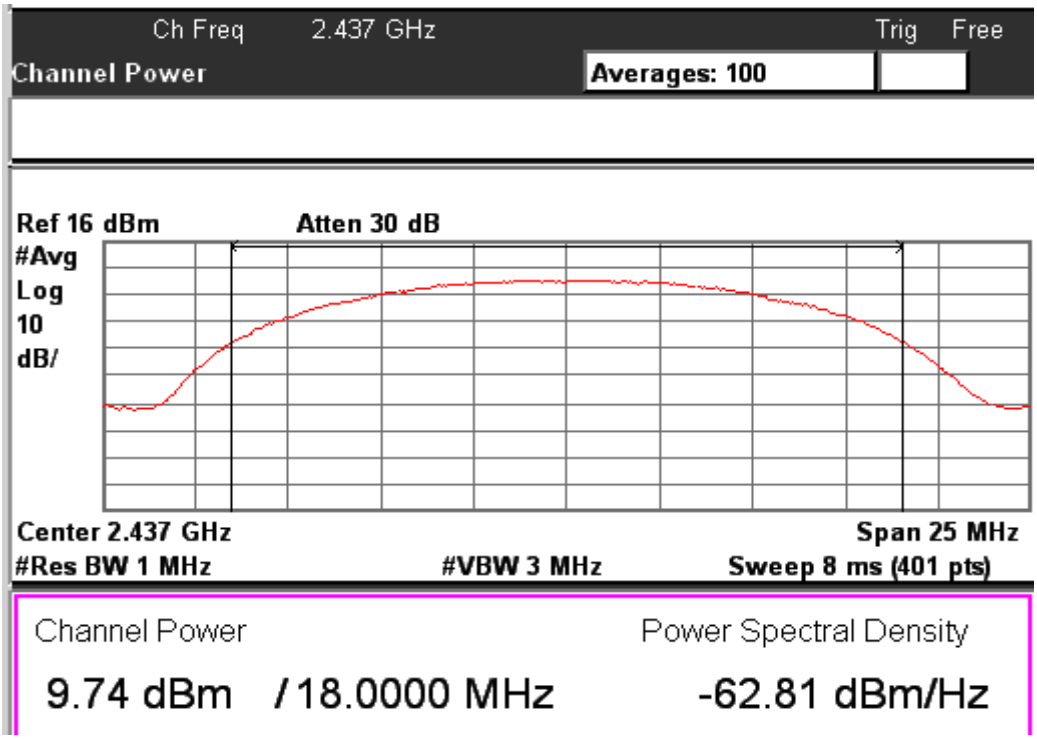
Data rate: 1 Mbps **Channel Frequency: 2437 MHz**



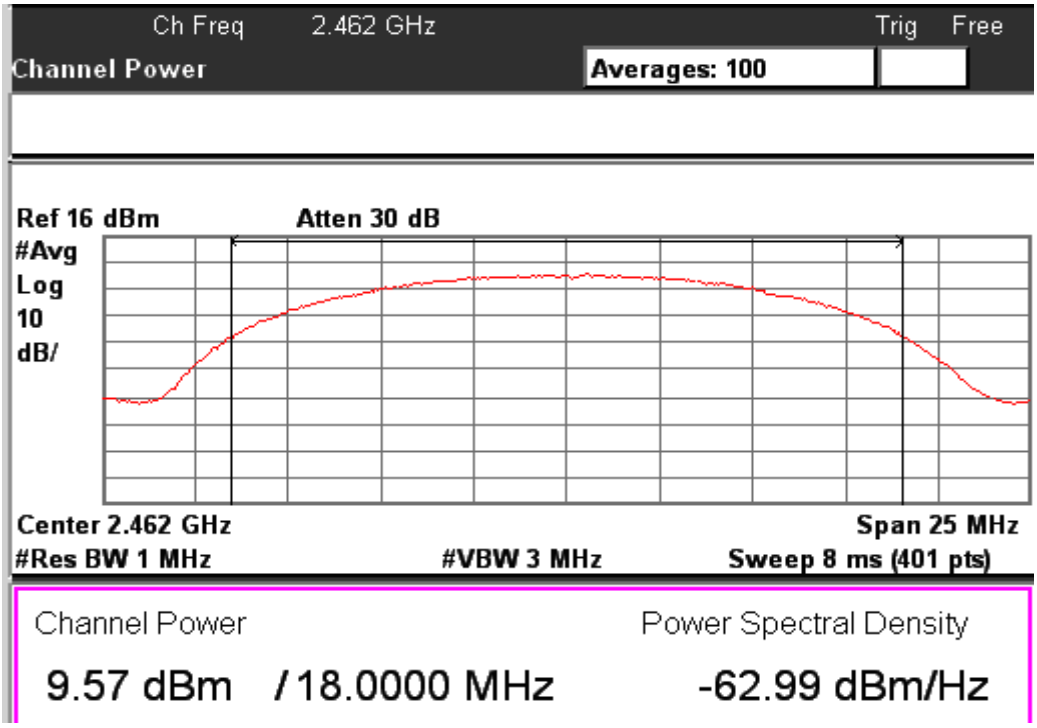
Data rate: 1 Mbps **Channel Frequency: 2462 MHz**



Data rate: 11 Mbps **Channel Frequency: 2412 MHz**



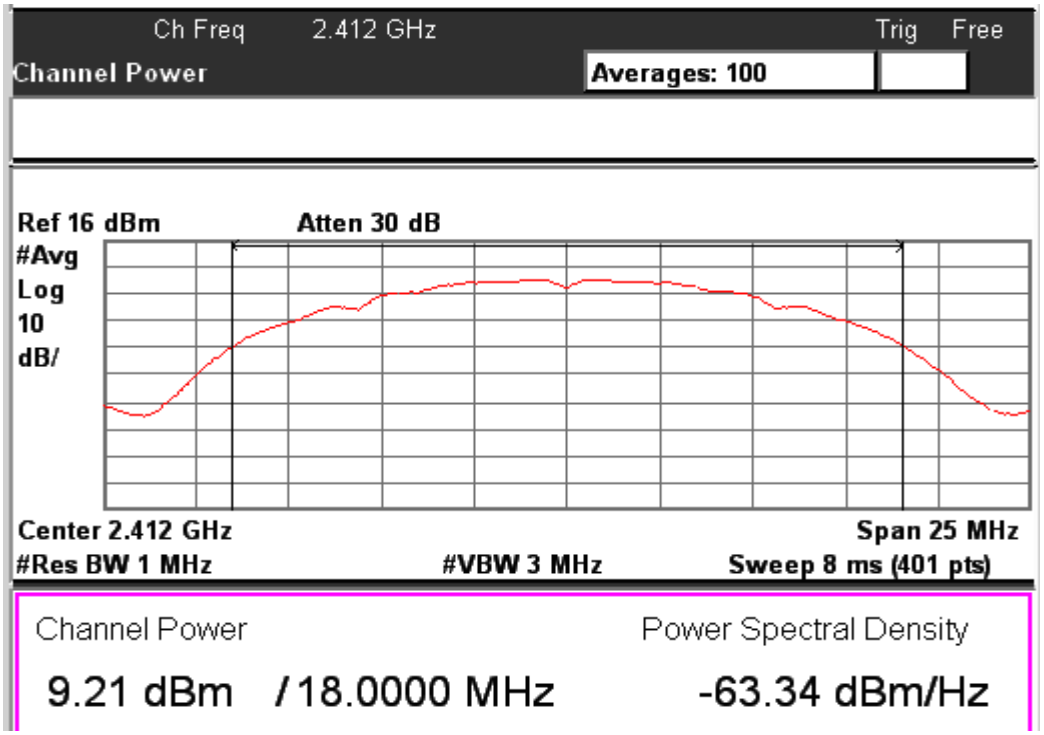
Data rate: 11 Mbps **Channel Frequency: 2437 MHz**



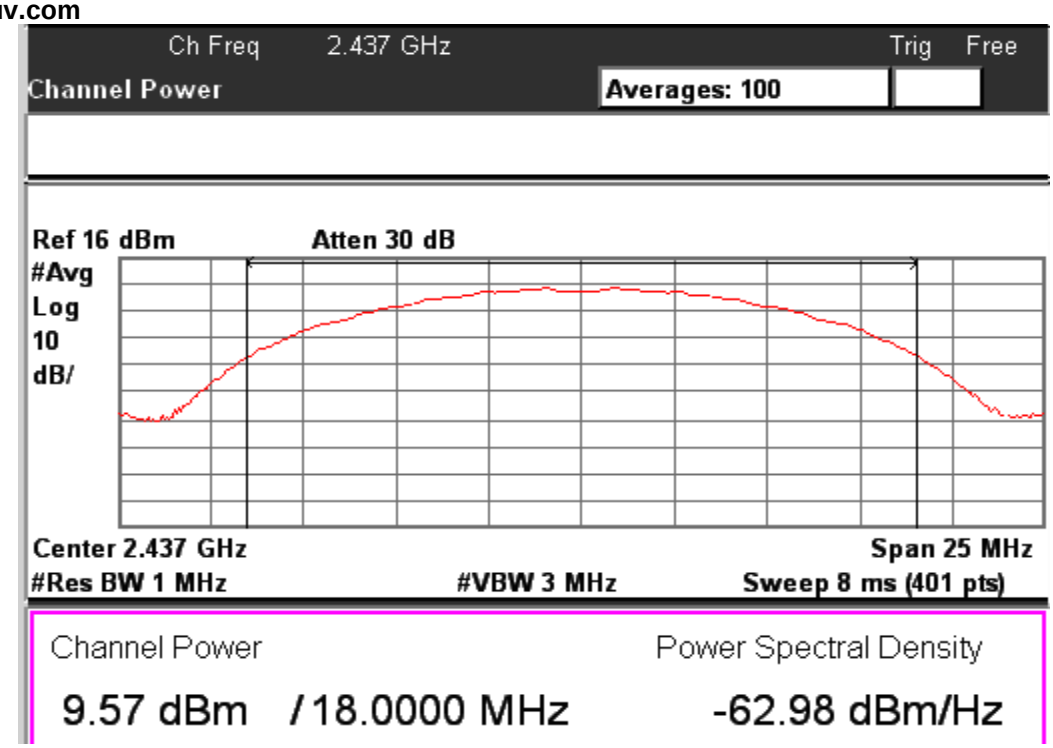
Data rate: 11 Mbps **Channel Frequency: 2462 MHz**

Cable Loss: 0.68 dB + 1.2dB

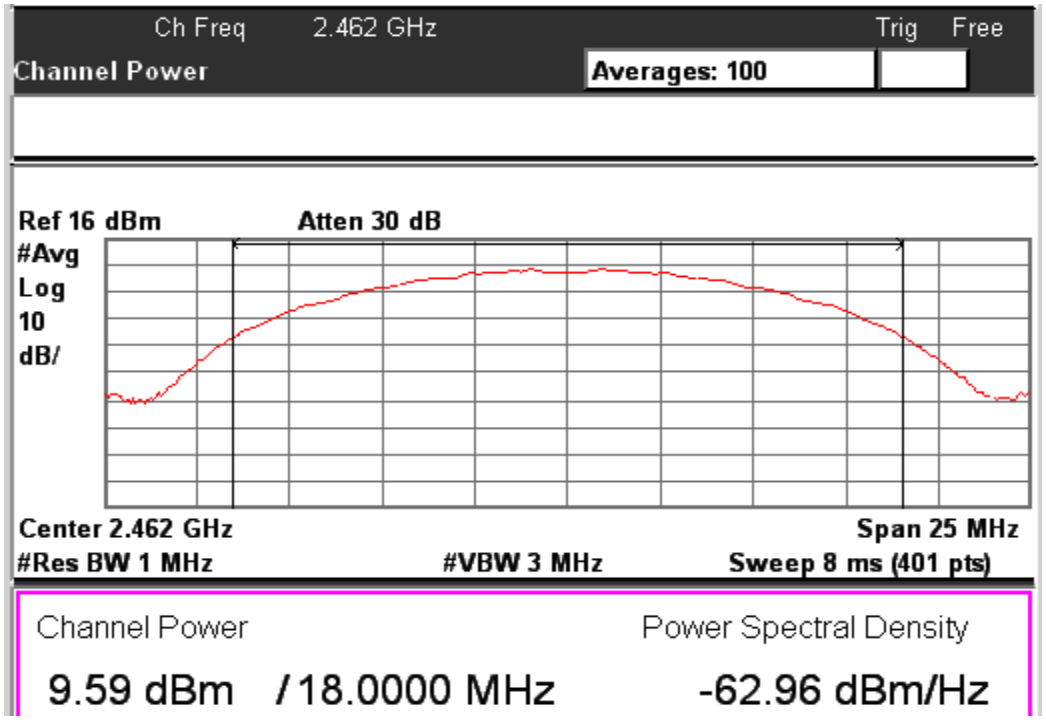
802.11 Protocol	Data Rate (Mbps)	Frequency (MHz)	Measured Power (dBm)	Attenuator + Cable Loss (dB)	Total Power (dBm)	Limit (dBm)	Margin (dB)
g	6	2412	09.21	07.88	17.09	30.00	-12.91
		2437	09.57	07.88	17.45	30.00	-12.55
		2462	09.59	07.88	17.47	30.00	-12.53
	54	2412	09.70	07.88	17.58	30.00	-12.42
		2437	08.89	07.88	16.77	30.00	-13.23
		2462	09.52	07.88	17.40	30.00	-12.60



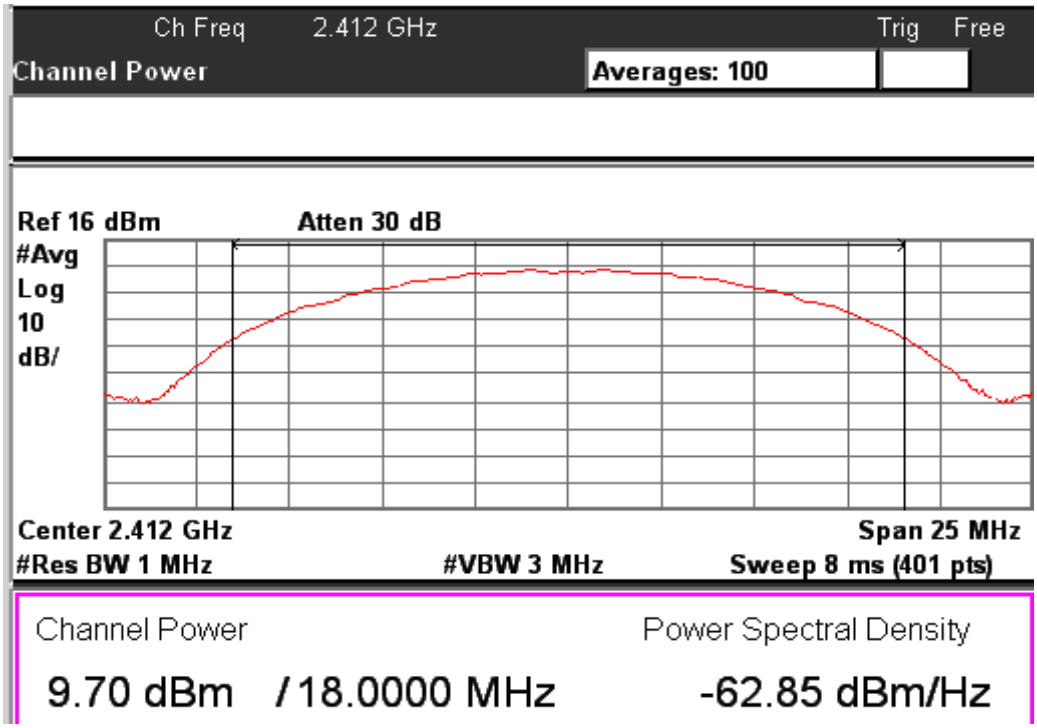
Data rate: 6 Mbps **Channel Frequency: 2412 MHz**



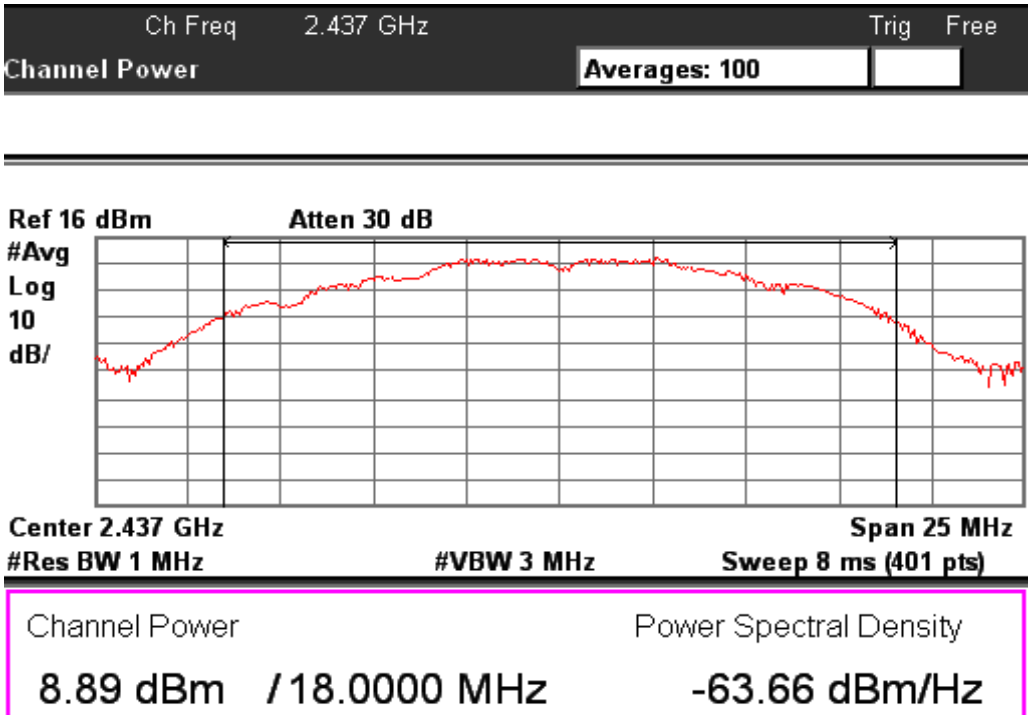
Data rate: 6 Mbps **Channel Frequency: 2437 MHz**



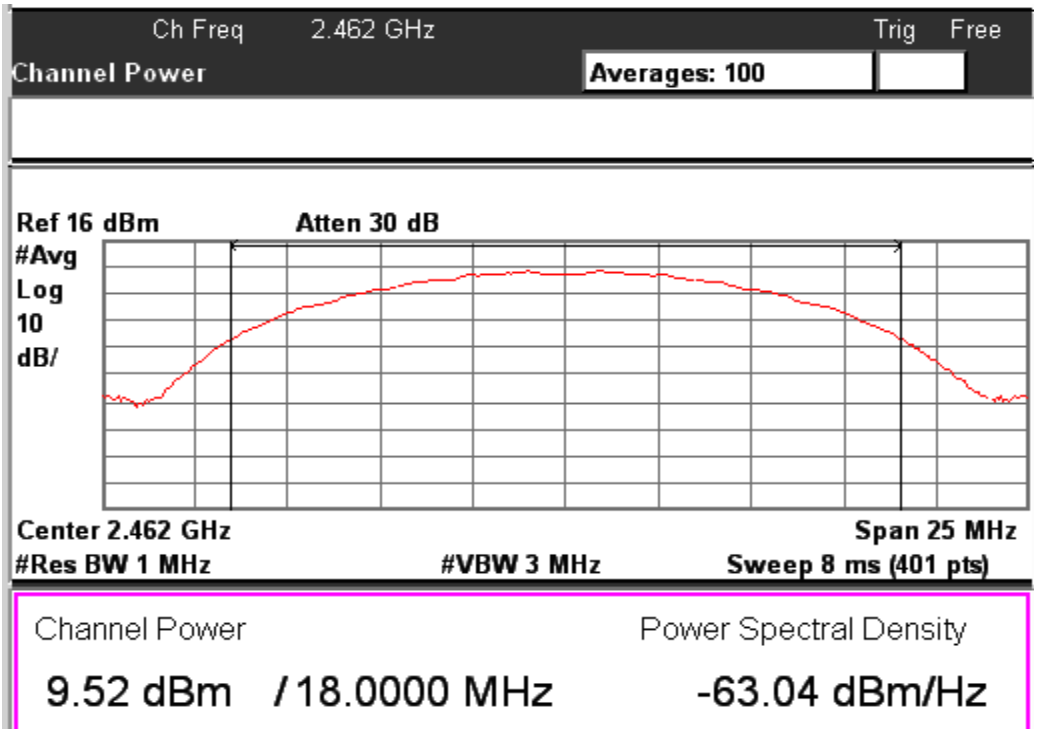
Data rate: 6 Mbps **Channel Frequency: 2462 MHz**



Data rate: 54 Mbps **Channel Frequency: 2412 MHz**



Data rate: 54 Mbps **Channel Frequency: 2437 MHz**



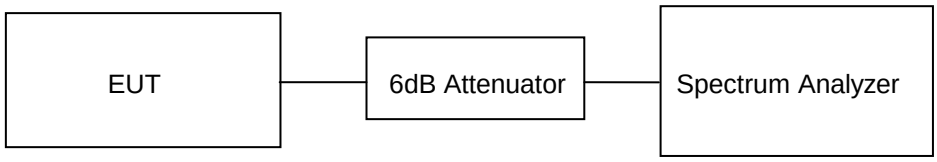
Data rate: 54 Mbps **Channel Frequency: 2462 MHz**

Power Spectral Density **Section 15.247(e)**

Result **Pass**

Test Specification	FCC Part 15 Section 15.247 (e)
Detector Function	Peak
Requirement	For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

Test Method:

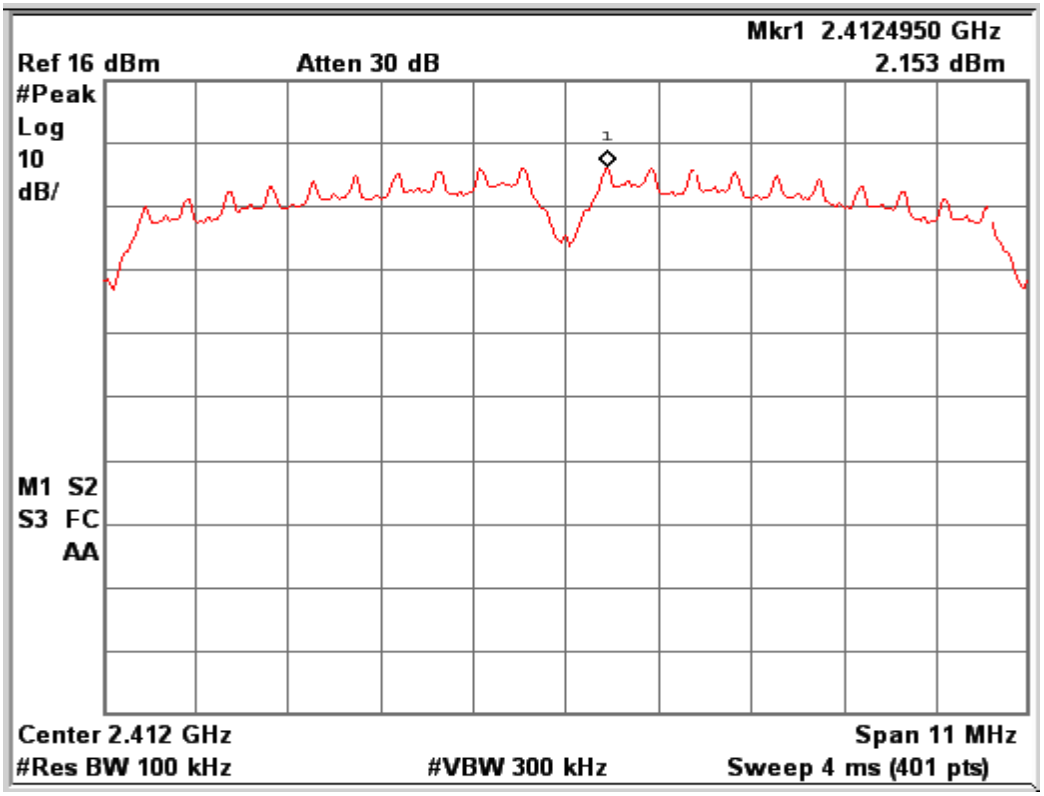


Test Result:

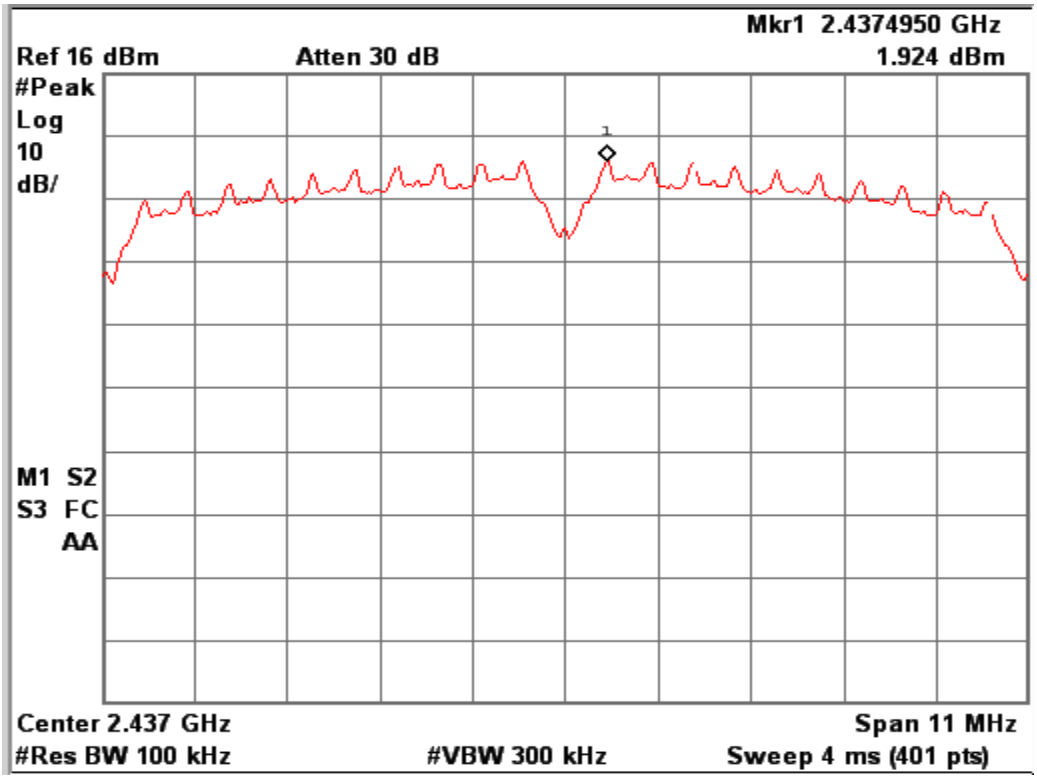
Cable Loss: 0.6 dB +1.2dB

802.11 Protocol	Data Rate (Mbps)	Frequency (MHz)	Measured PSD (dBm)	Cable Loss (dB)	BWCF * (dB)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
b	1	2412	02.15	07.88	-15.20	-5.17	8.00	-13.17
		2437	01.92	07.88	-15.20	-5.40	8.00	-13.40
		2462	01.80	07.88	-15.20	-5.52	8.00	-13.52
	11	2412	02.28	07.88	-15.20	-5.04	8.00	-13.04
		2437	02.38	07.88	-15.20	-4.94	8.00	-12.94
		2462	02.35	07.88	-15.20	-4.97	8.00	-12.97

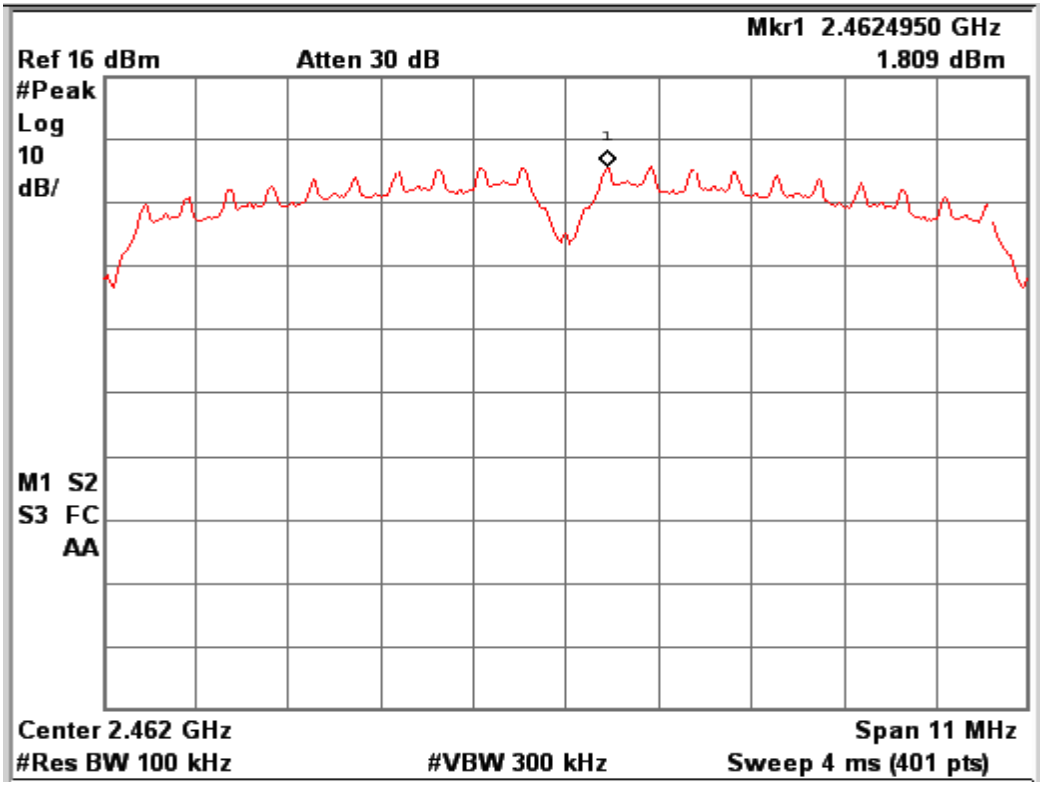
* →BWCF = Bandwidth Correction Factor



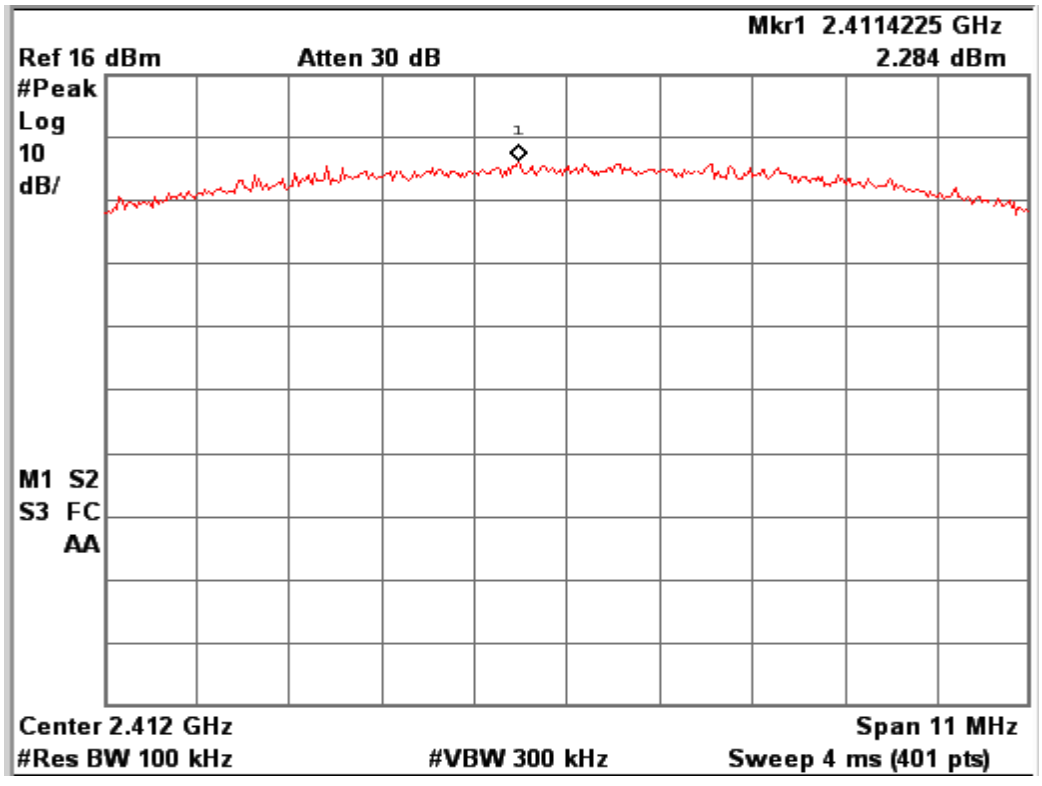
Data rate: 1 Mbps **Channel Frequency: 2412 MHz**



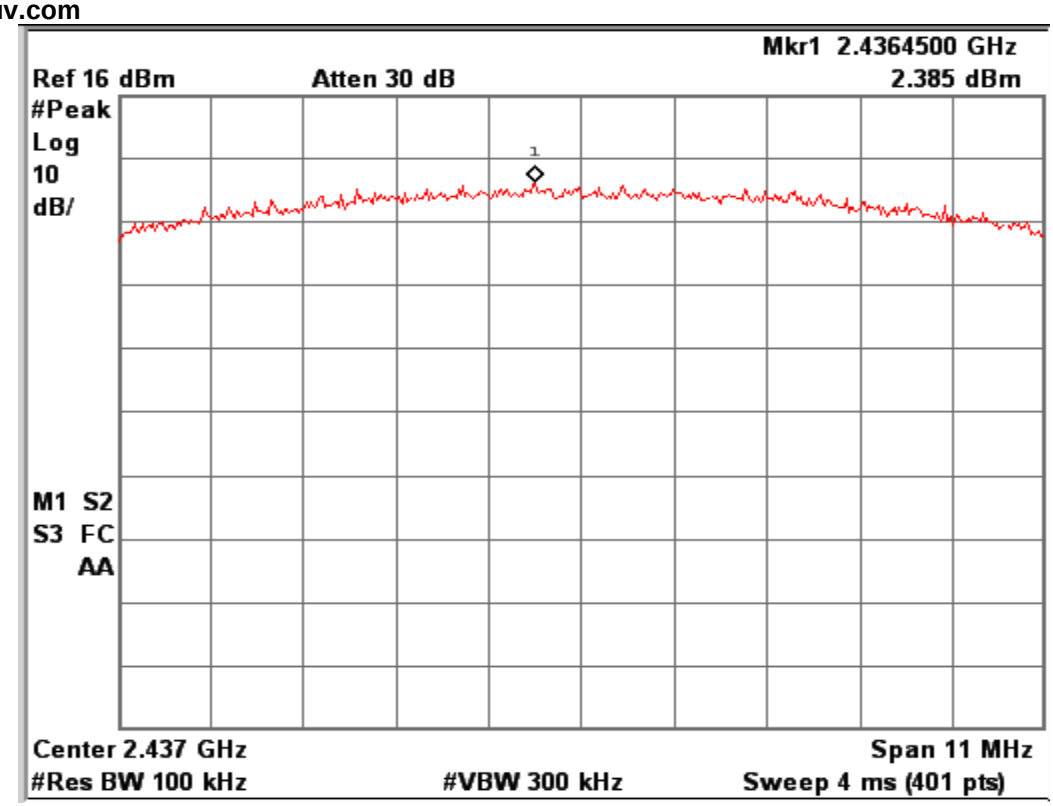
Data rate: 1 Mbps **Channel Frequency: 2442 MHz**



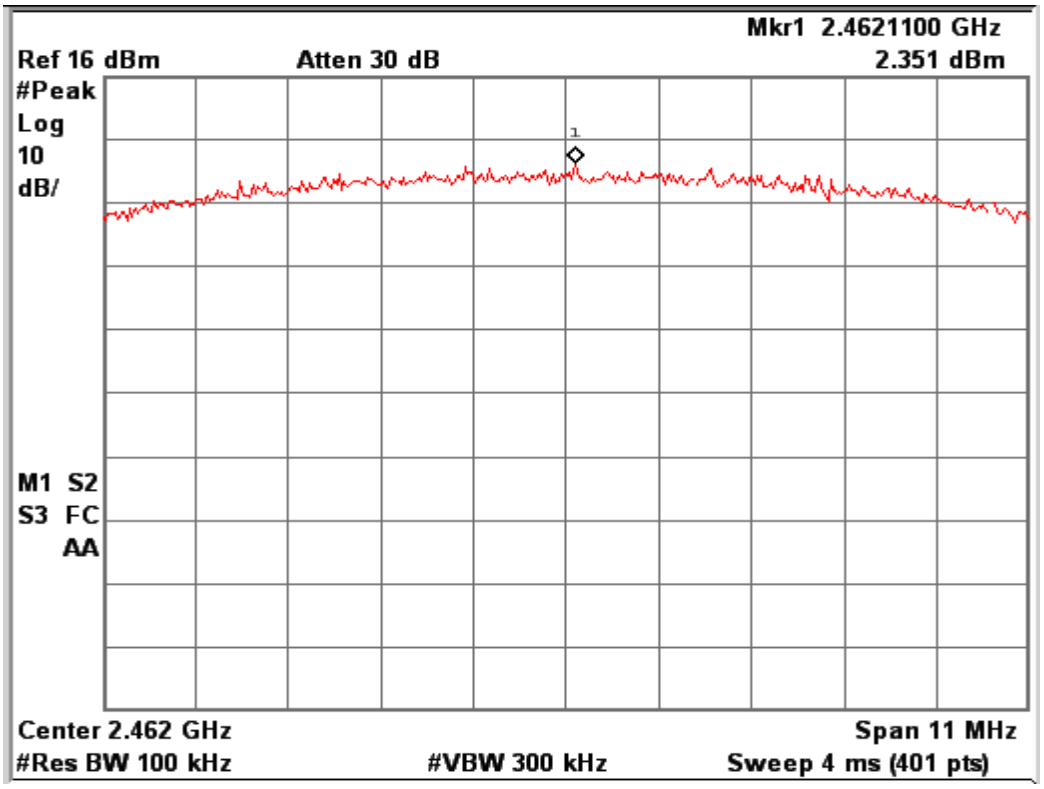
Data rate: 1 Mbps **Channel Frequency: 2472 MHz**



Data rate: 11 Mbps **Channel Frequency: 2412 MHz**



Data rate: 11 Mbps **Channel Frequency: 2442 MHz**

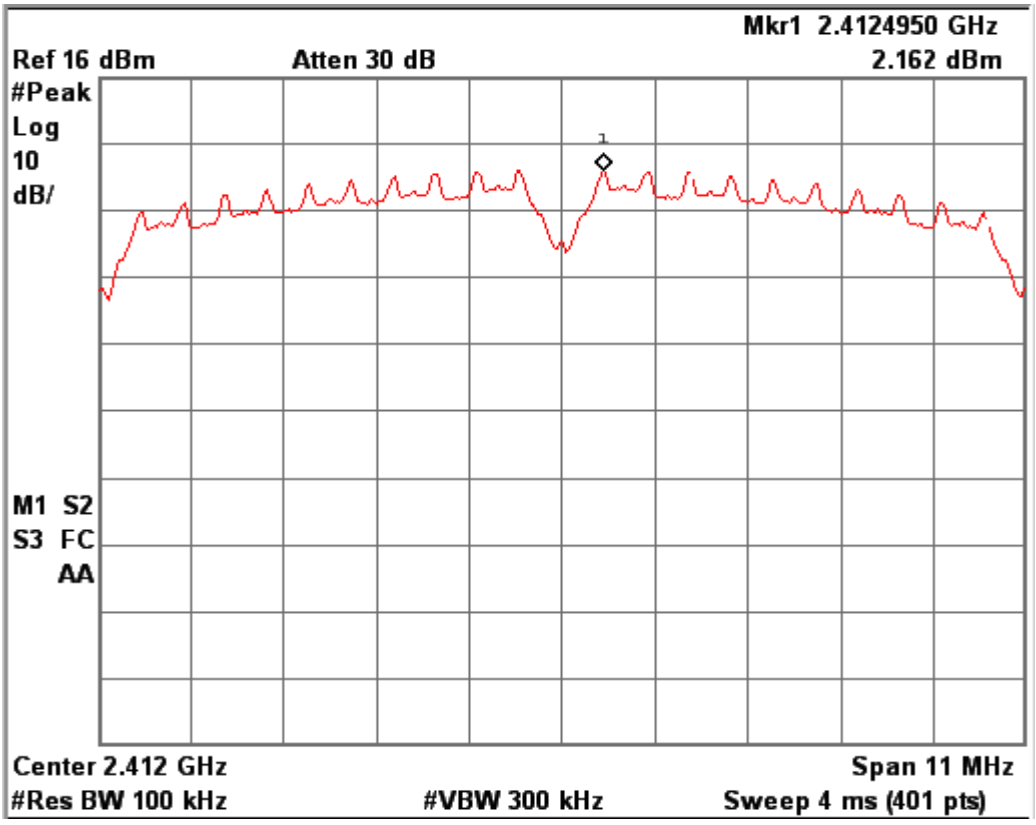


Data rate: 11 Mbps **Channel Frequency: 2472 MHz**

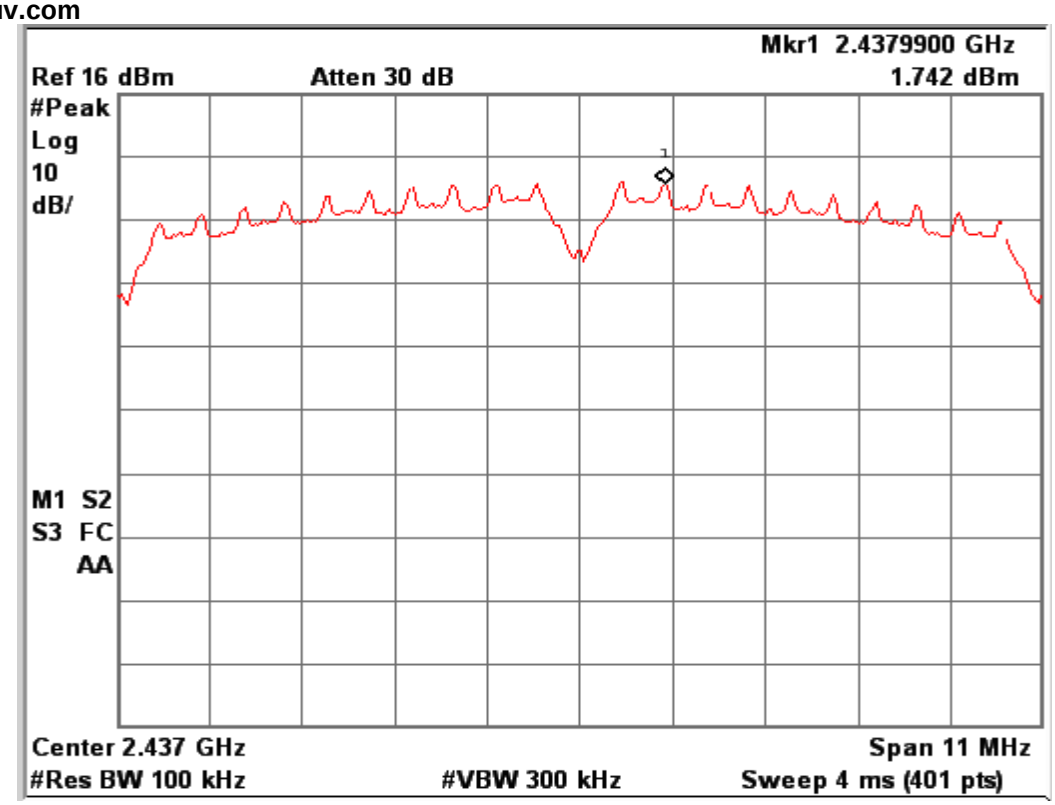
Test Result:

Cable Loss: 0.68dB +1.2dB

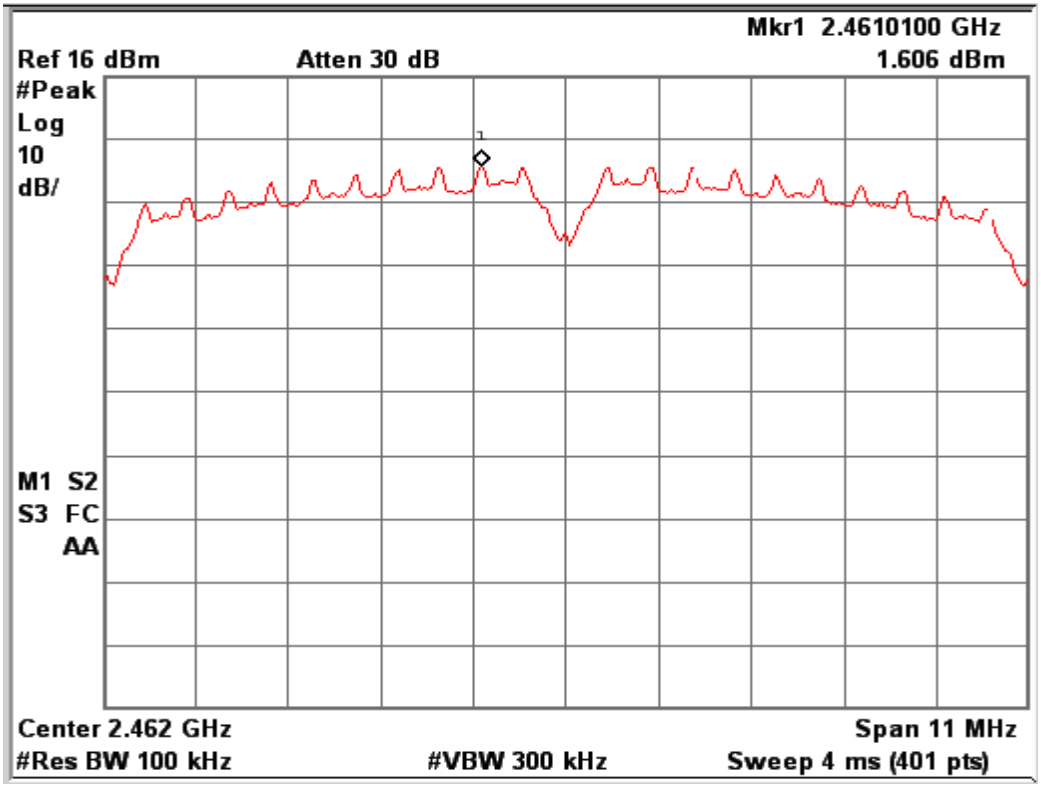
802.11 Protocol	Data Rate (Mbps)	Frequency (MHz)	Measured PSD (dBm)	Cable Loss (dB)	BWCF (dB)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
g	6	2412	02.16	07.88	-15.20	-5.16	8.00	-13.16
		2437	01.74	07.88	-15.20	-5.58	8.00	-13.58
		2462	01.60	07.88	-15.20	-5.72	8.00	-13.72
	54	2412	02.10	07.88	-15.20	-5.22	8.00	-13.22
		2437	01.97	07.88	-15.20	-5.35	8.00	-13.35
		2462	01.72	07.88	-15.20	-5.60	8.00	-13.60



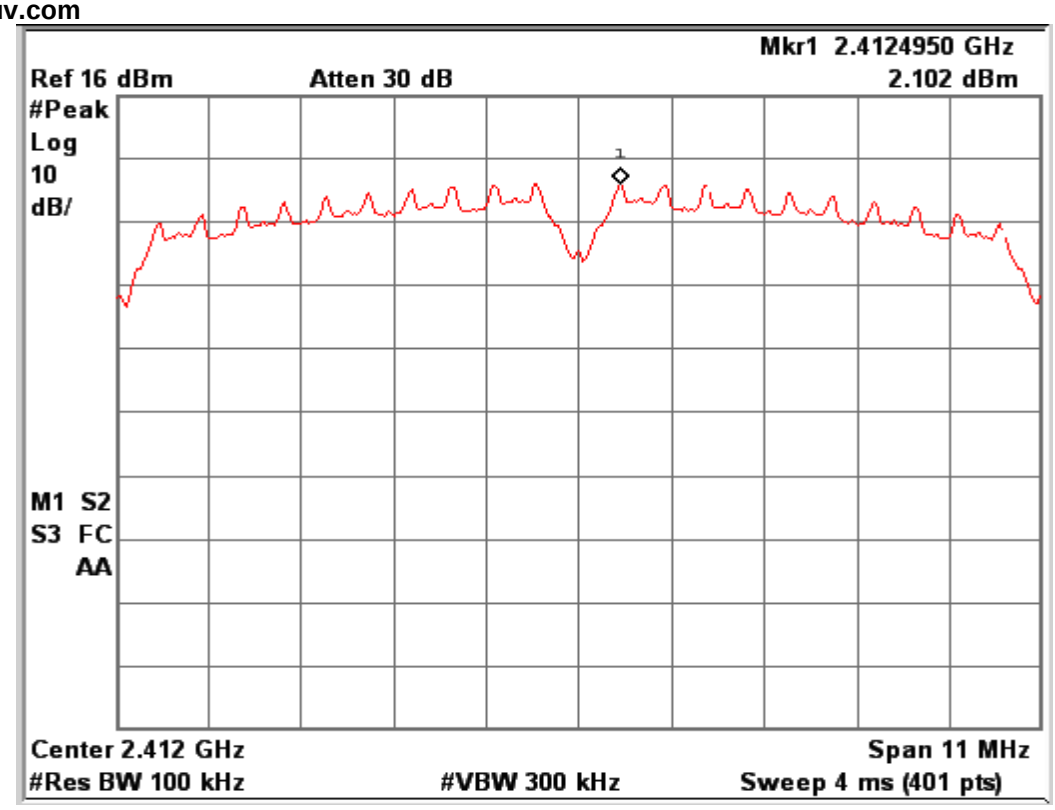
Data rate: 6 Mbps **Channel Frequency: 2412 MHz**



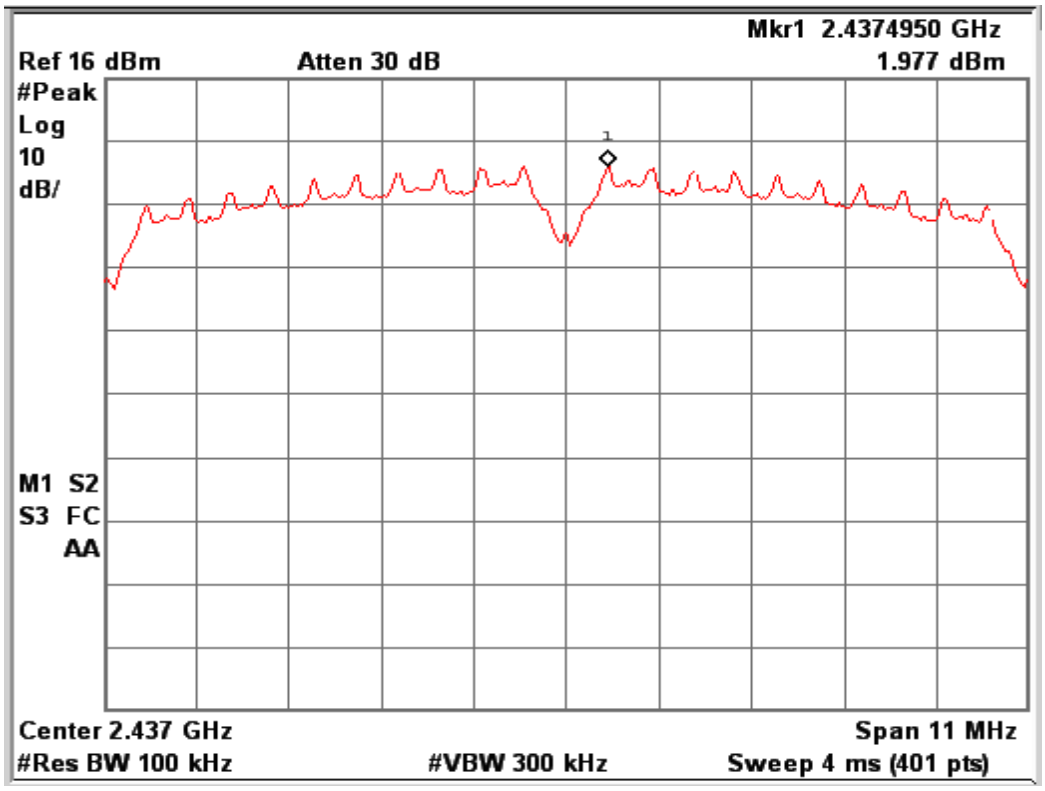
Data rate: 6 Mbps **Channel Frequency: 2437 MHz**



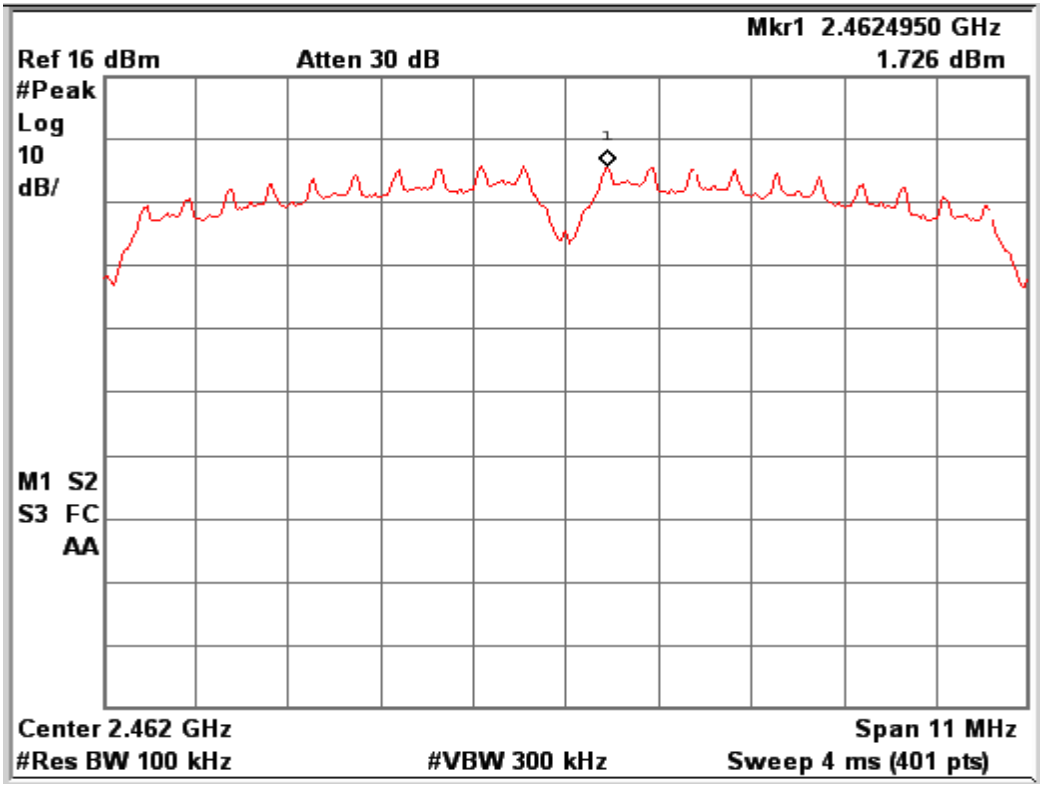
Data rate: 6 Mbps **Channel Frequency: 2462 MHz**



Data rate: 54 Mbps **Channel Frequency: 2412 MHz**



Data rate: 54 Mbps **Channel Frequency: 2437 MHz**



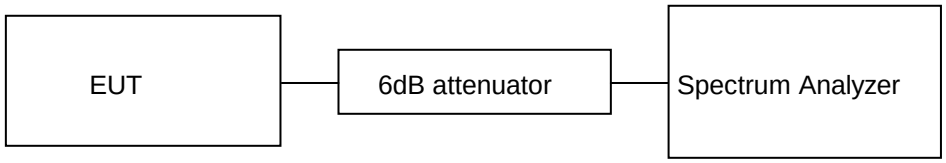
Data rate: 54 Mbps **Channel Frequency: 2462 MHz**

6 dB Bandwidth **Section 15.247(a) (2)**

Result **Pass**

Test Specification FCC Part 15 Section 15.247 (a) (2)
Requirement The minimum 6 dB bandwidth shall be at least 500 kHz.

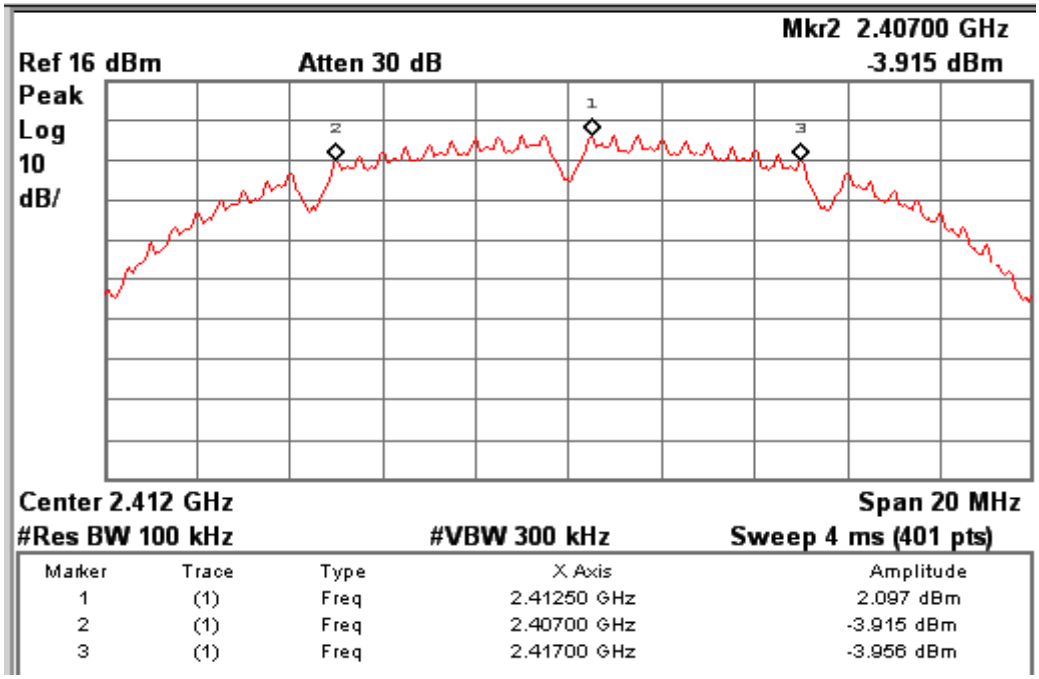
Test Method:



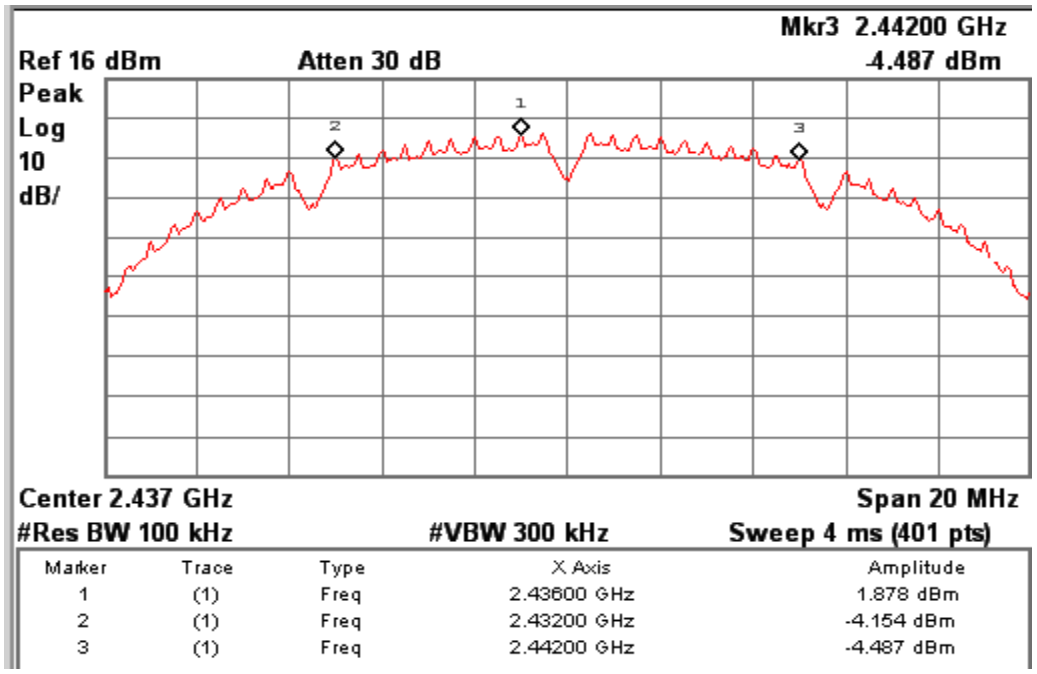
Test Result:

Cable Loss: 0.68dB +1.2dB

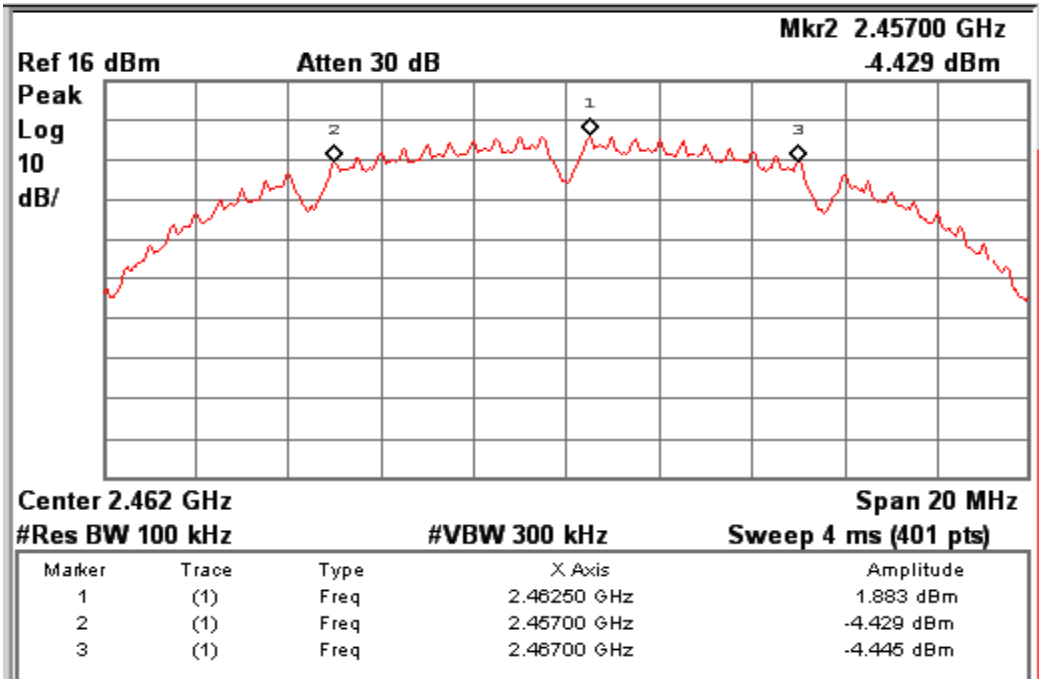
802.11 Protocol	Data Rate (Mbps)	Frequency (MHz)	Lower Frequency (MHz)	Upper Frequency (MHz)	6 dB Bandwidth (MHz)	99% OBW (MHz)	26 dB Bandwidth
b	1	2412	2407.00	2417.00	10.00	14.05	16.60
		2437	2432.00	2442.00	10.00	14.13	16.94
		2462	2457.00	2467.00	10.00	14.13	16.91
	11	2412	2431.75	2442.65	10.90	13.96	17.17
		2437	2431.75	2442.65	10.90	14.34	17.86
		2462	2457.10	2467.05	09.95	14.81	18.01



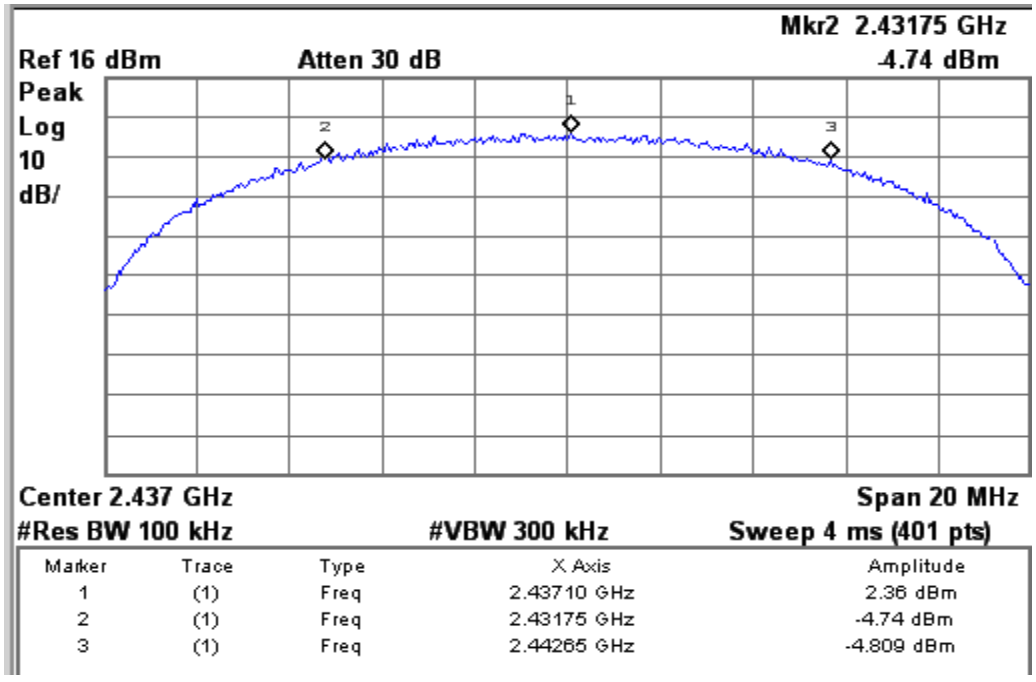
Data Rate: 1 Mbps **Channel frequency: 2412 MHz**



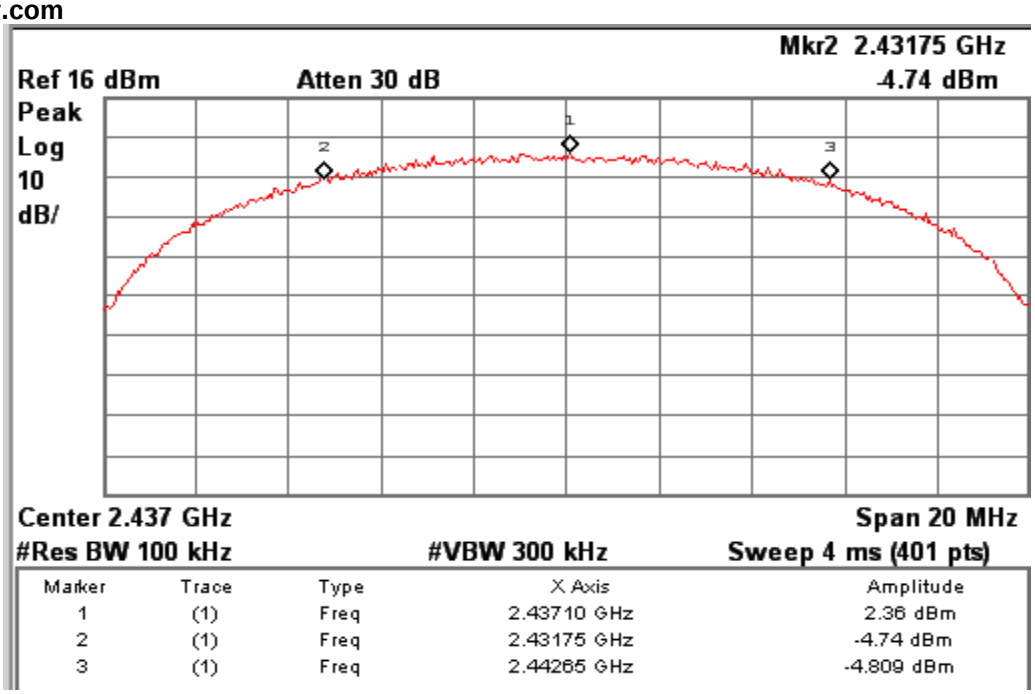
Data Rate: 1 Mbps **Channel frequency: 2442 MHz**



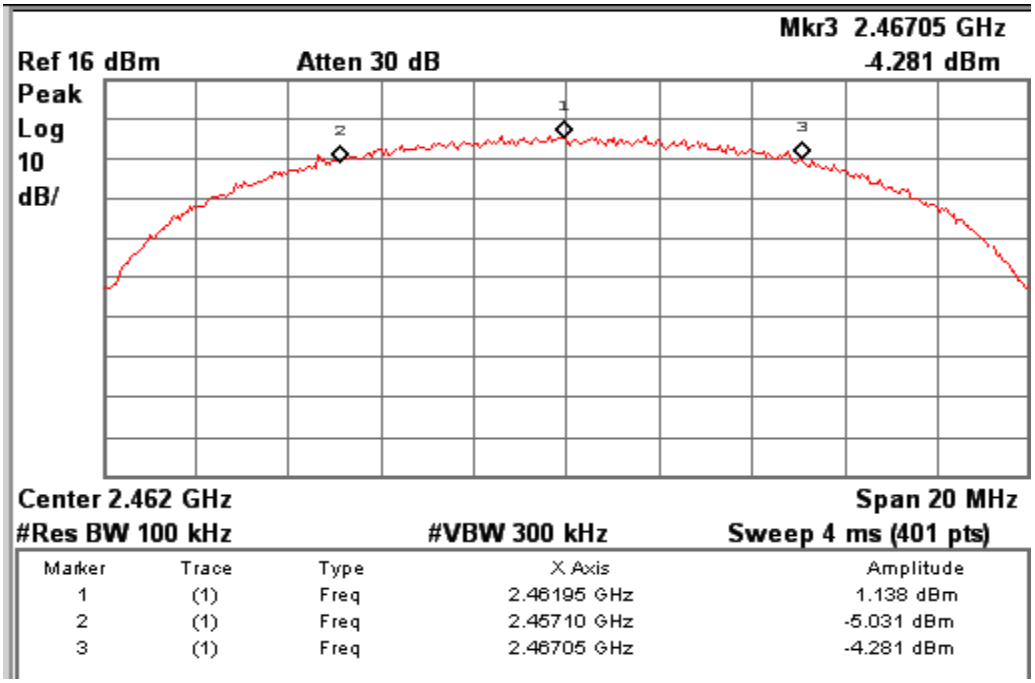
Data Rate: 1 Mbps **Channel frequency: 2472 MHz**



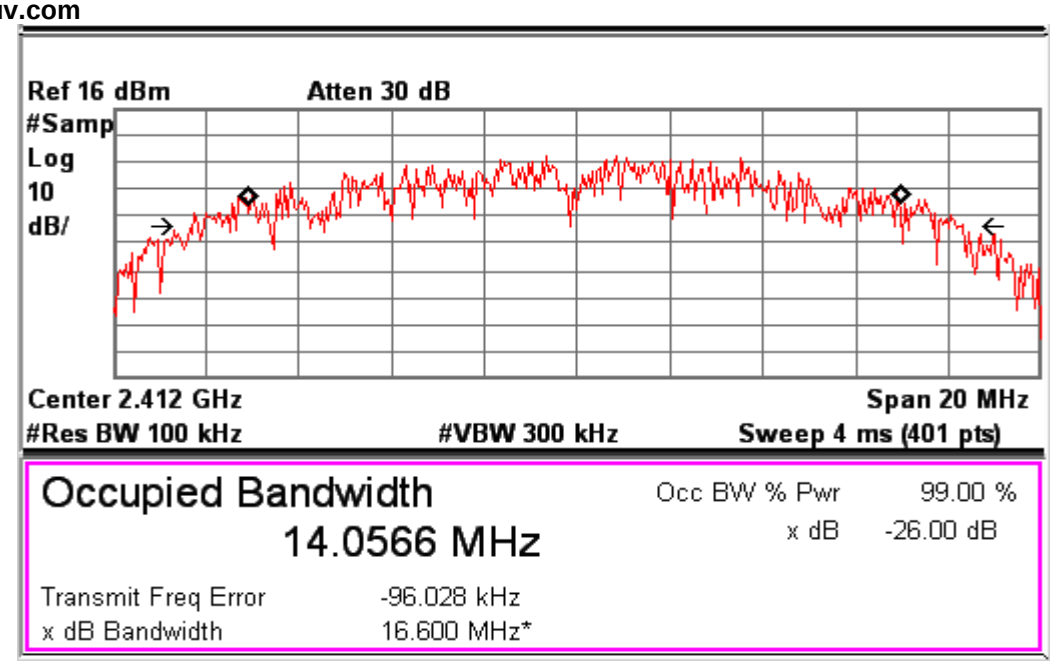
Data Rate: 11 Mbps **Channel frequencies: 2412 MHz**



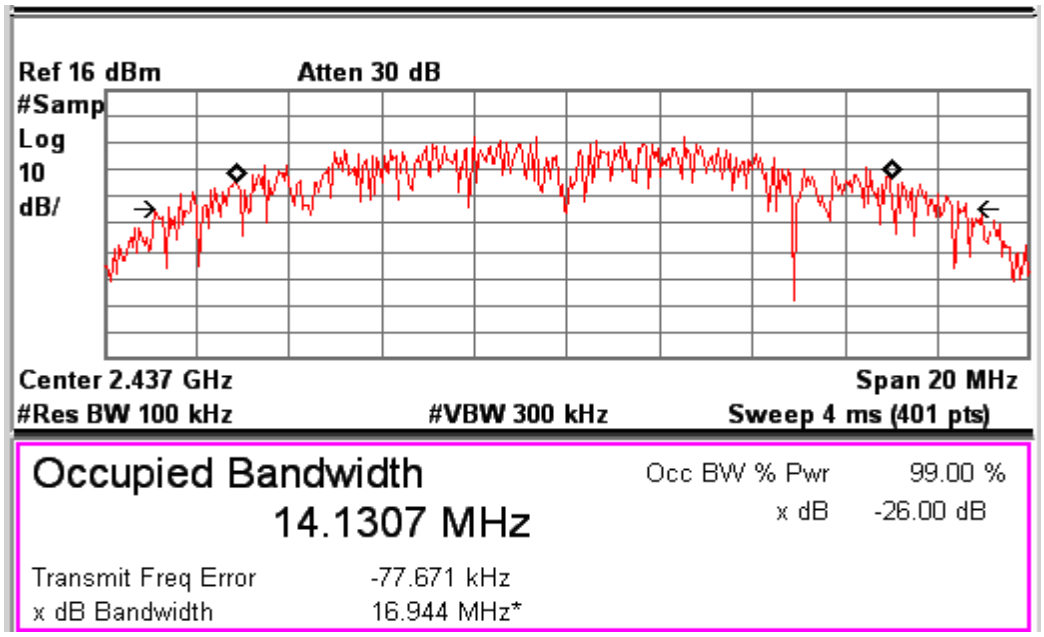
Data Rate: 11 Mbps **Channel frequency: 2437 MHz**



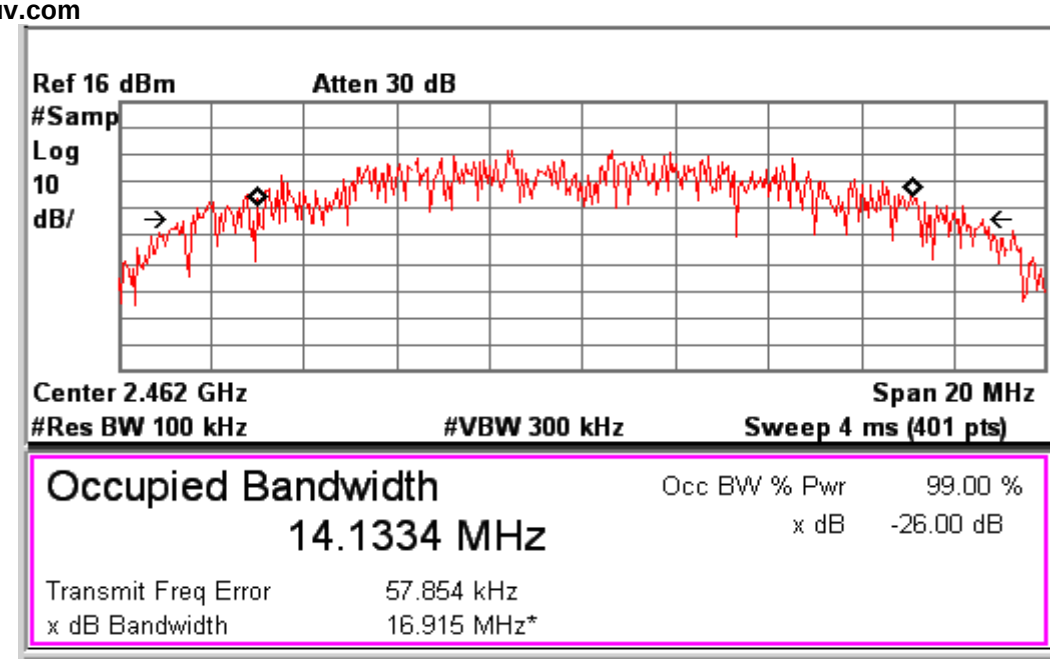
Data Rate: 11 Mbps **Channel frequency: 2462 MHz**



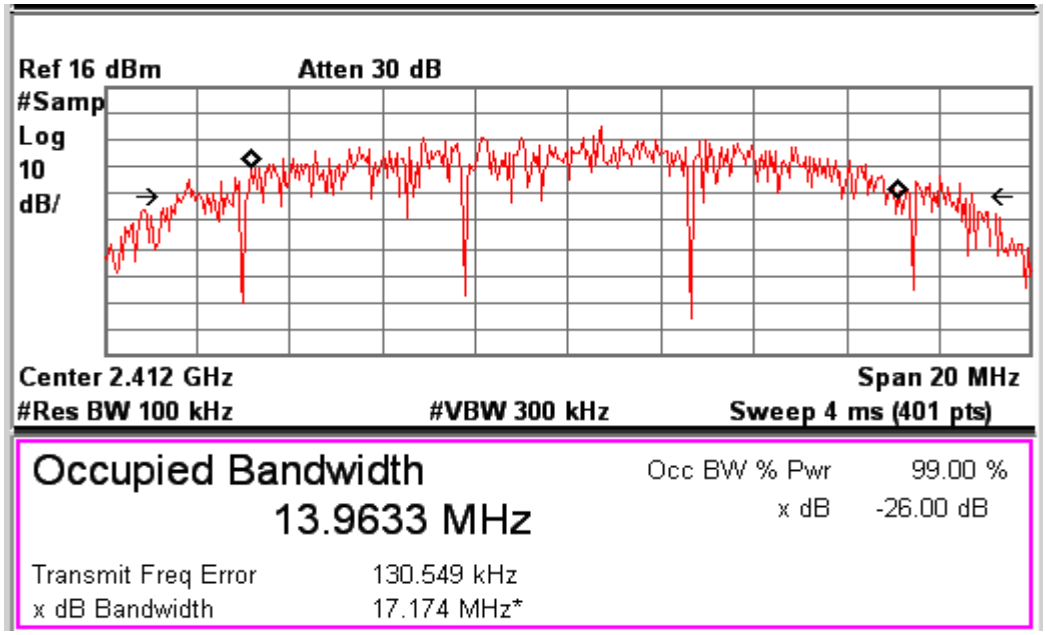
Data rate: 1 Mbps **99% Occupied Bandwidth: Channel 2412MHz**



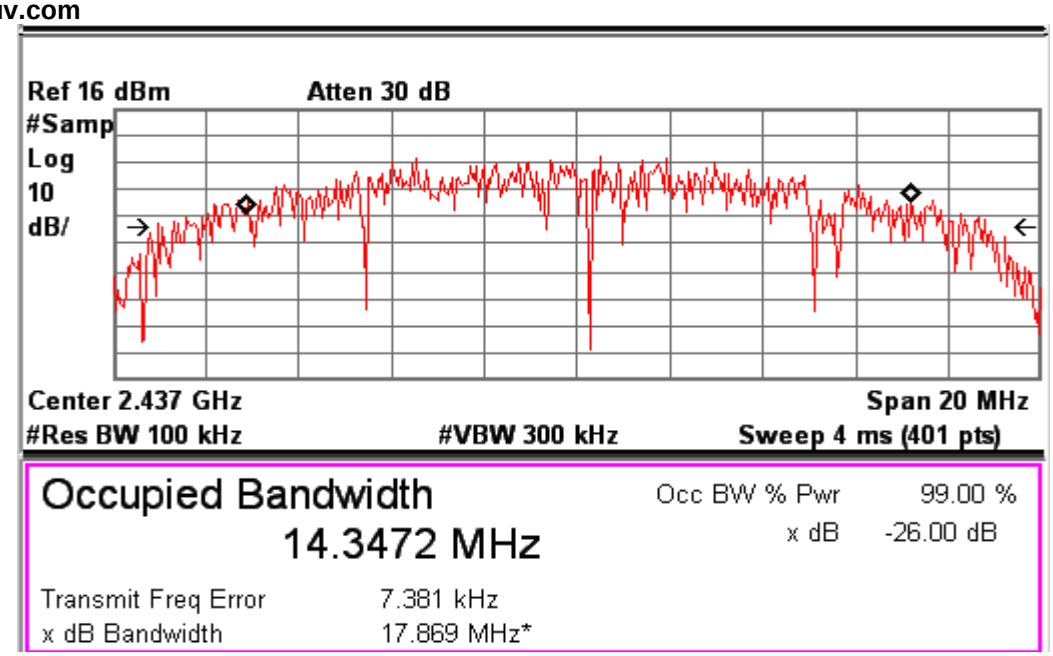
Data rate: 1 Mbps **99% Occupied Bandwidth: Channel 2442MHz**



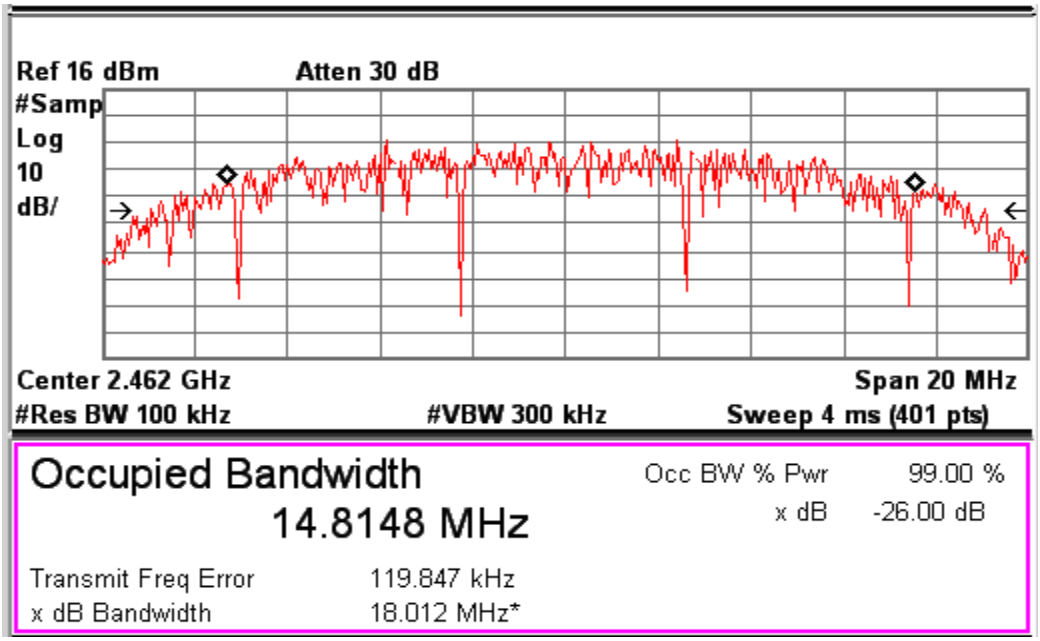
Data rate: 1 Mbps **99% Occupied Bandwidth: Channel 2462MHz**



Data rate: 11 Mbps **99% Occupied Bandwidth: Channel 2412MHz**



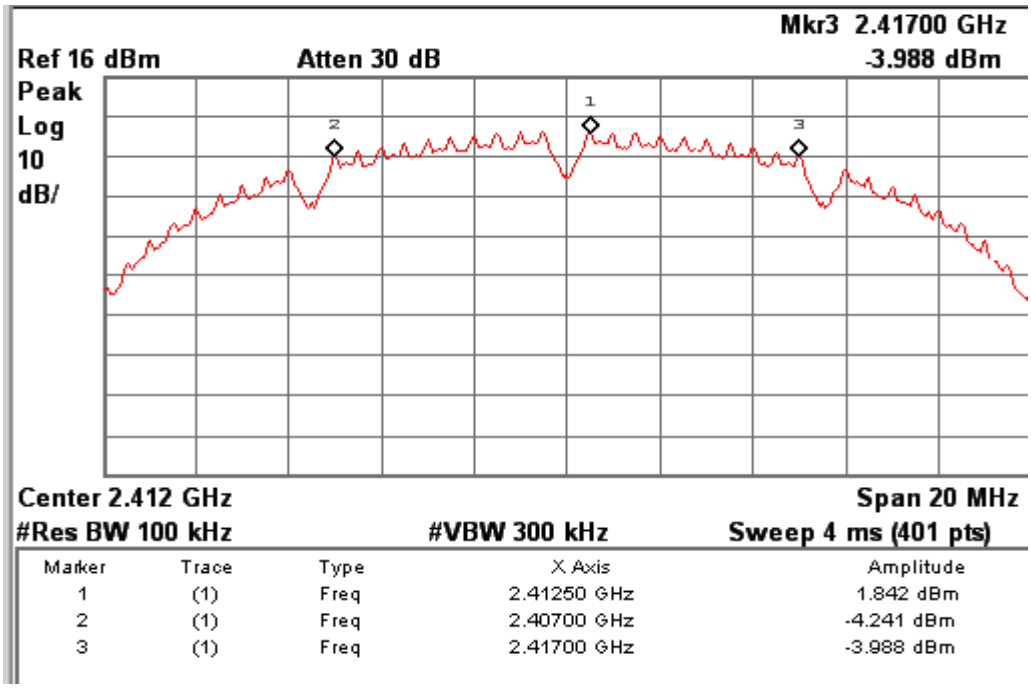
Data rate: 11 Mbps **99% Occupied Bandwidth: Channel 2437MHz**



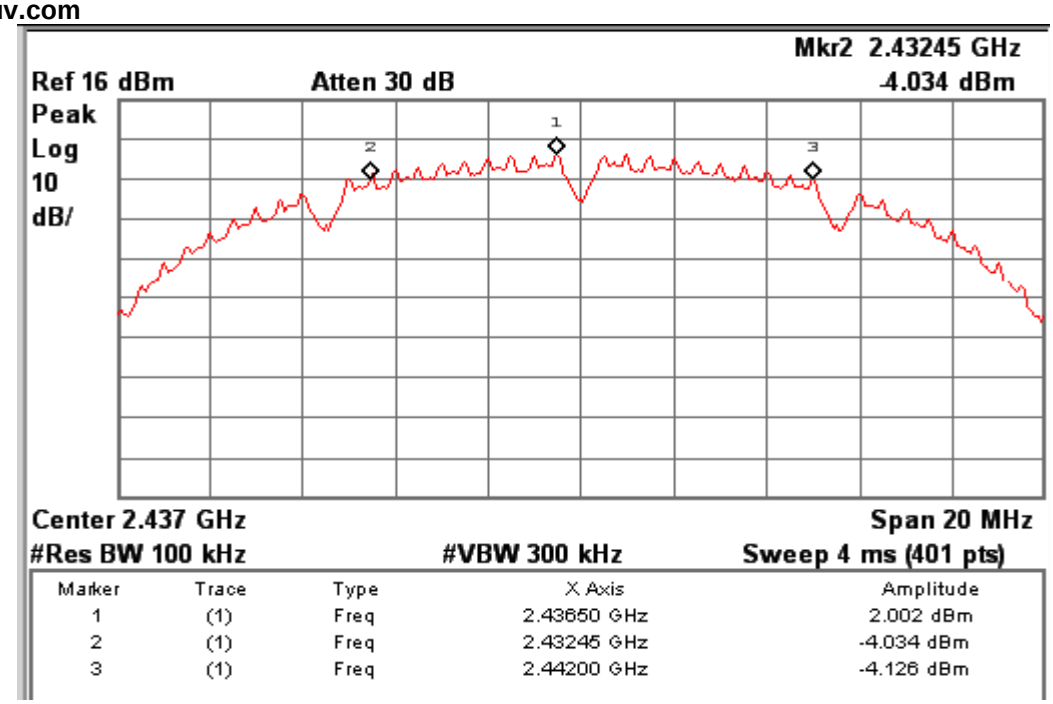
Data rate: 11 Mbps **99% Occupied Bandwidth: Channel 2472MHz**

Cable Loss: 0.68dB +1.2dB

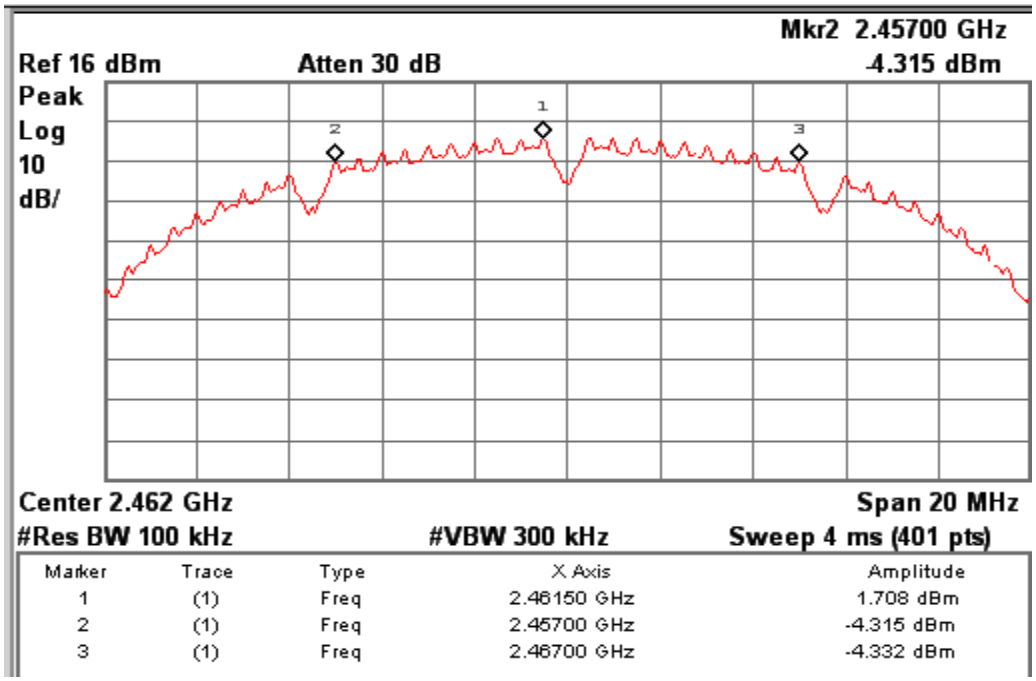
802.11 Protocol	Data Rate (Mbps)	Frequency (MHz)	Lower Frequency (MHz)	Upper Frequency (MHz)	6 dB Bandwidth (MHz)	99% OBW (MHz)	26 dB Bandwidth
g	6	2412	2407.00	2417.00	10.00	13.98	16.96
		2437	2432.45	2442.00	09.55	14.15	16.87
		2462	2457.00	2467.00	10.00	14.15	17.35
	54	2412	2407.00	2417.00	10.00	13.85	16.72
		2437	2432.00	2442.00	10.00	14.02	16.58
		2462	2457.00	2467.00	10.00	13.95	16.98



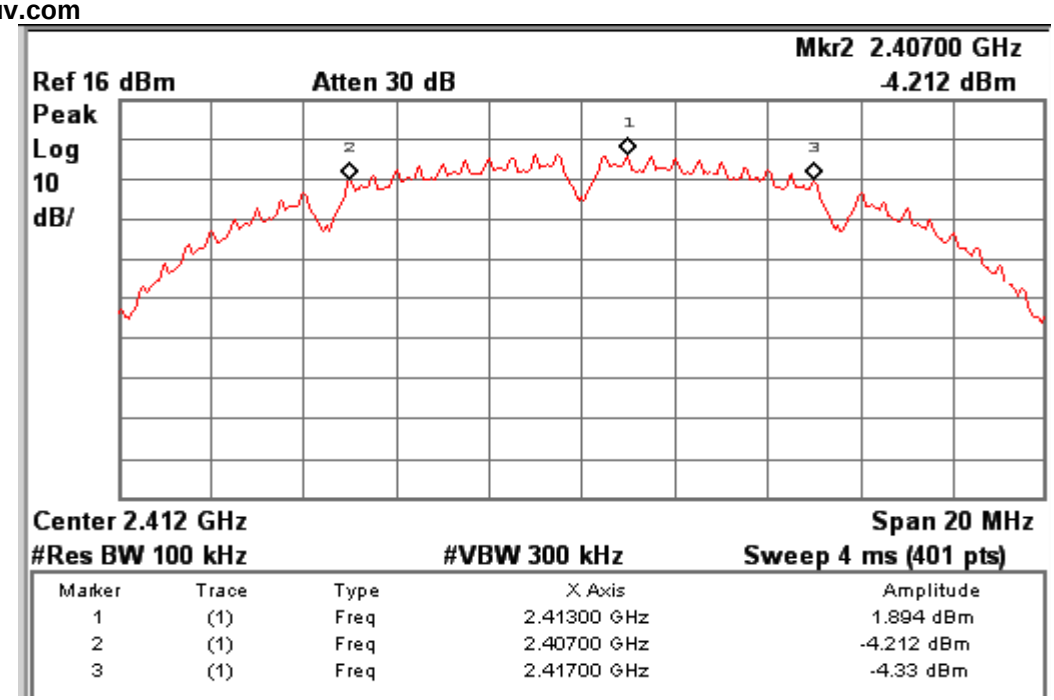
Data Rate: 6 Mbps **Channel frequencies: 2412 MHz**



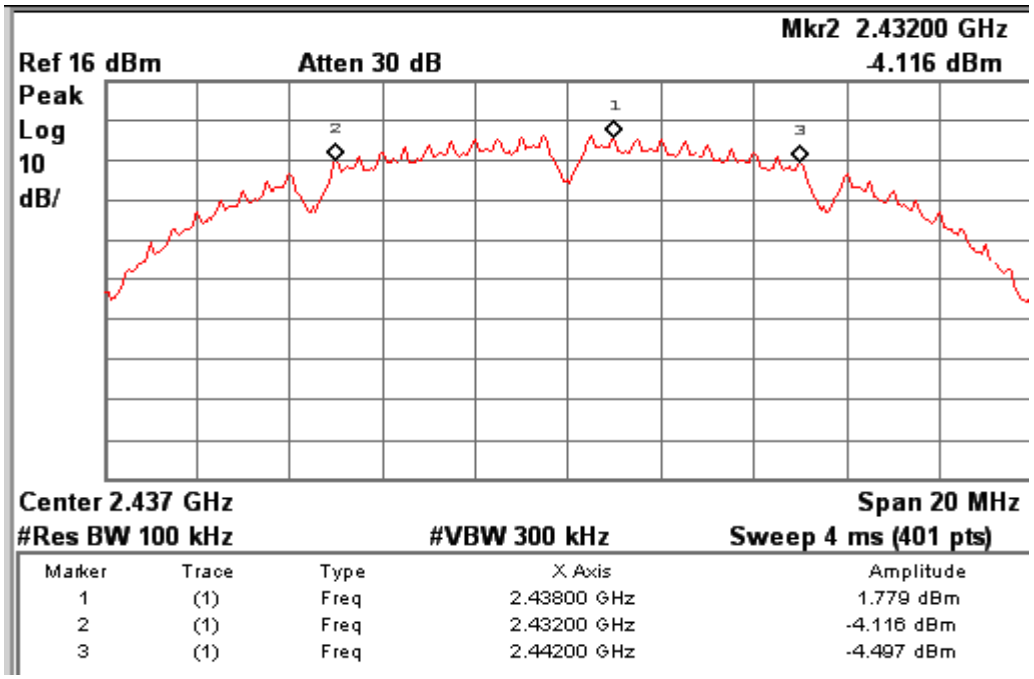
Data Rate: 6 Mbps **Channel frequencies: 2437 MHz**



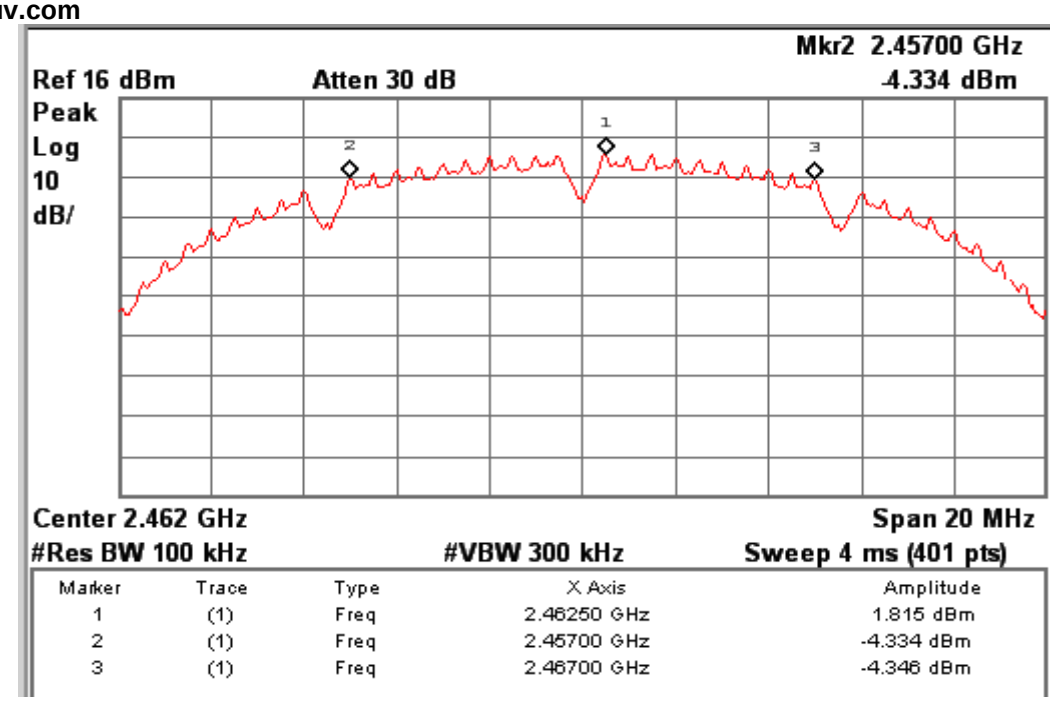
Data Rate: 6 Mbps **Channel frequencies: 2462 MHz**



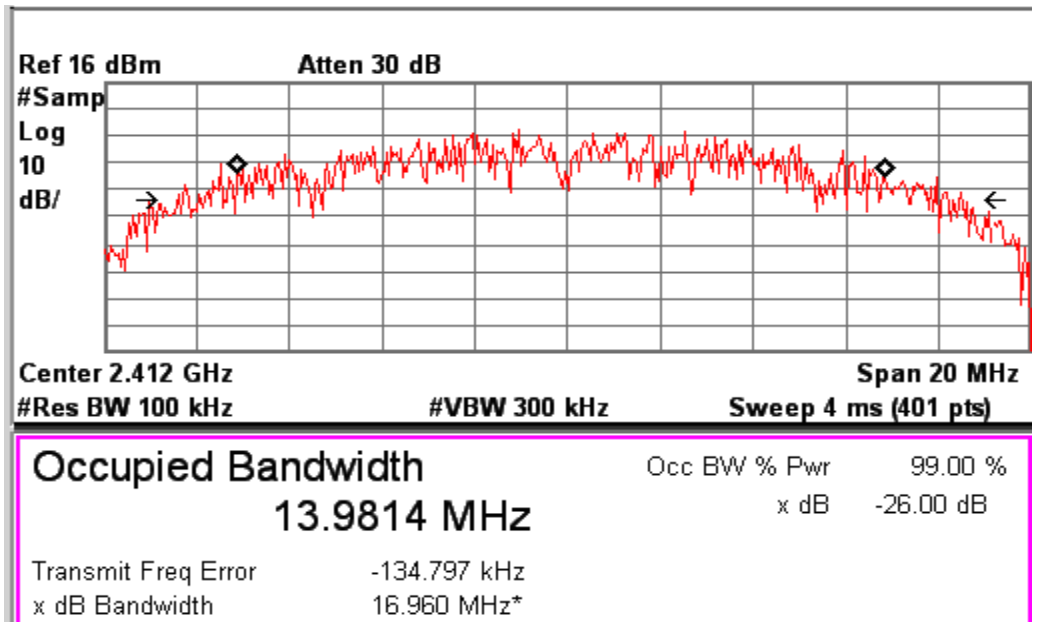
Data Rate: 54 Mbps **Channel frequencies: 2412 MHz**



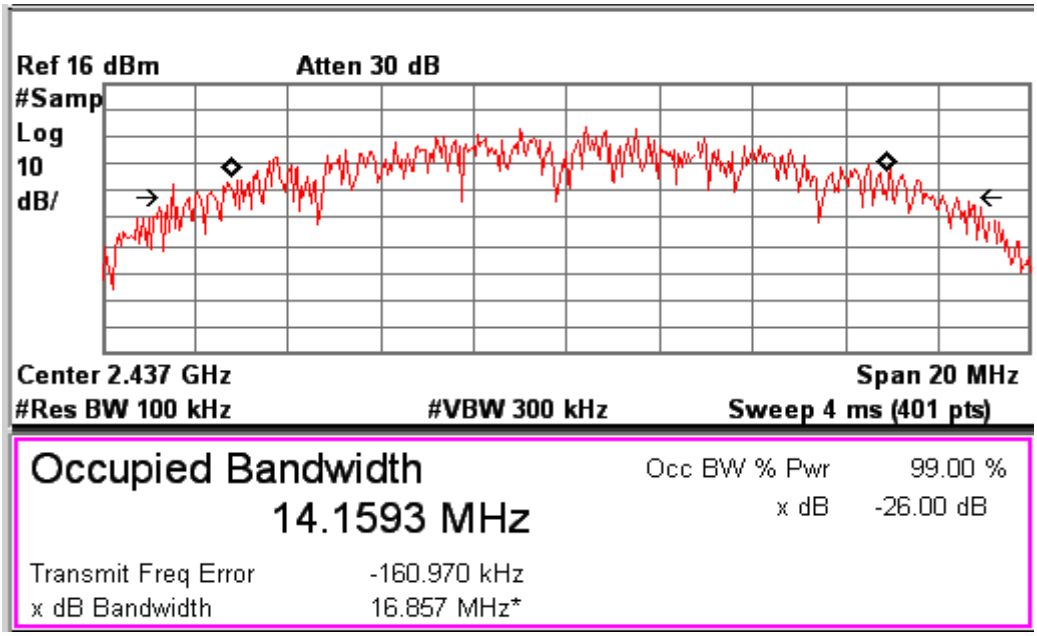
Data Rate: 54 Mbps **Channel frequencies: 2437MHz**



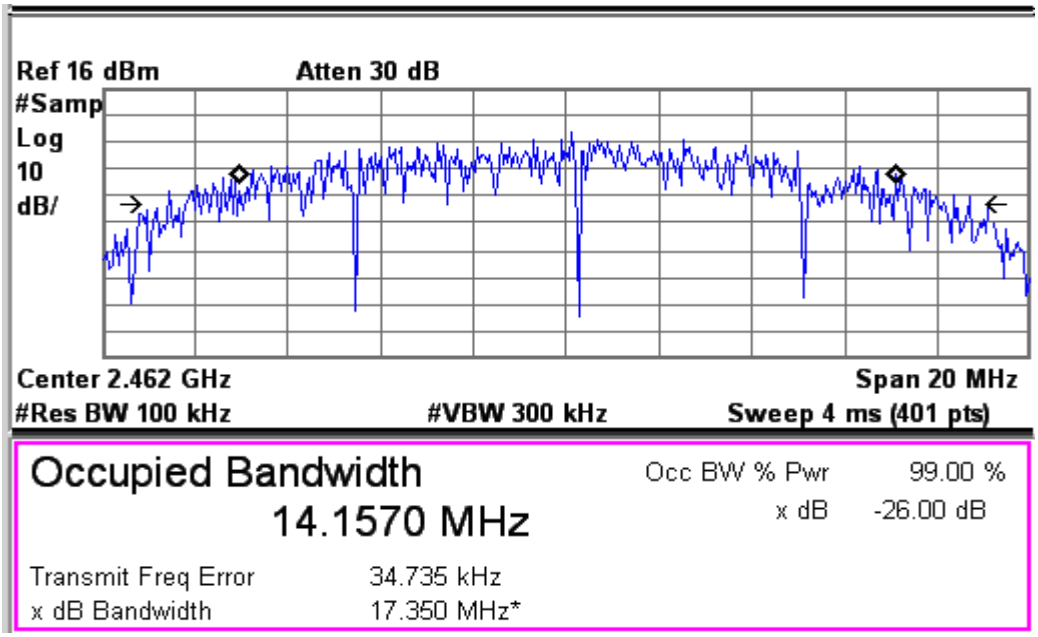
Data Rate: 54 Mbps **Channel frequencies: 2462 MHz**



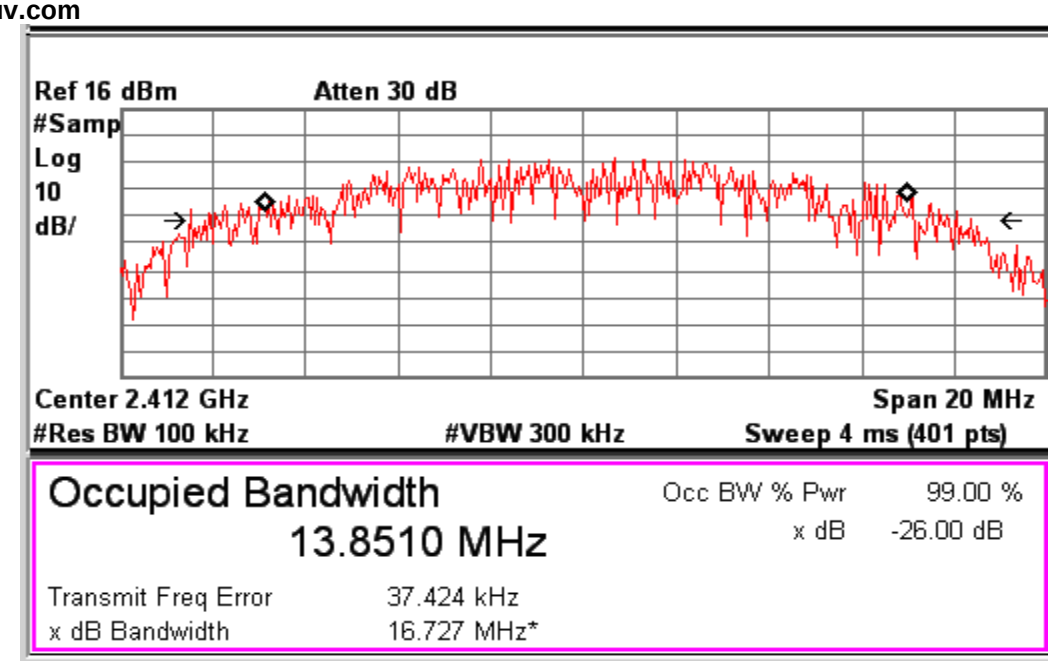
Data Rate: 6 Mbps **99% Occupied Bandwidth: Channel 2412MHz**



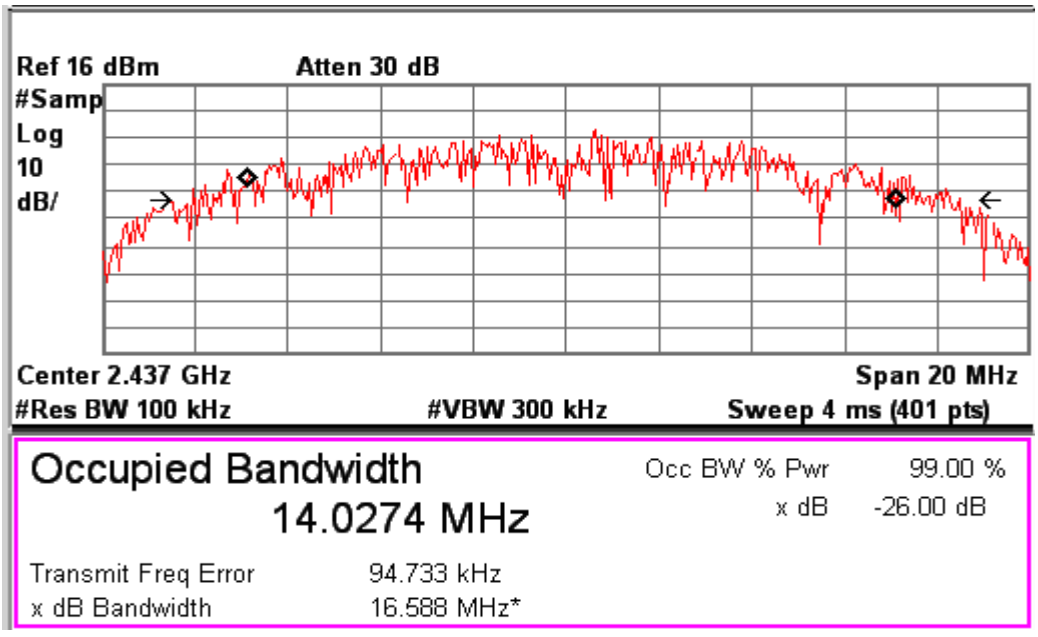
Data Rate: 6 Mbps **99% Occupied Bandwidth: Channel 2437MHz**



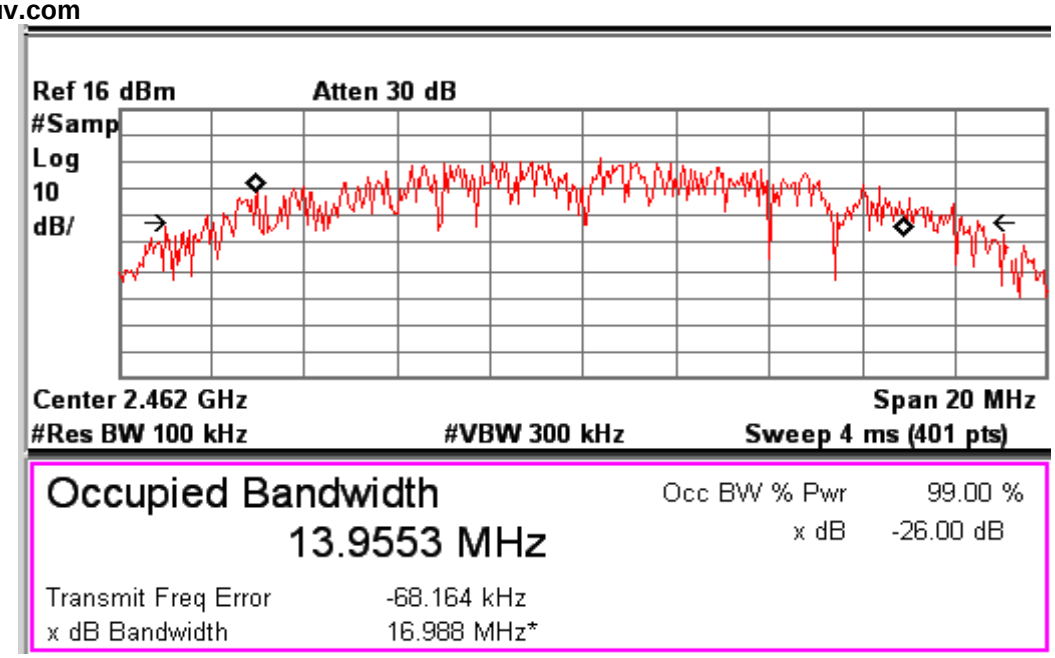
Data Rate: 6 Mbps **99% Occupied Bandwidth: Channel 2462MHz**



Data Rate: 54 Mbps **99% Occupied Bandwidth: Channel 2412MHz**



Data Rate: 54 Mbps **99% Occupied Bandwidth: Channel 2437MHz**



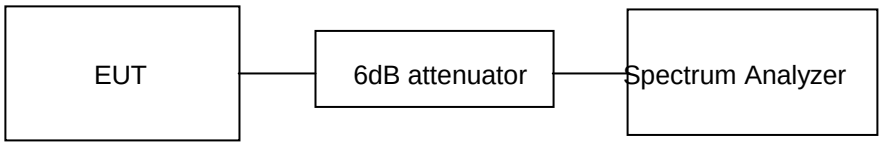
Data Rate: 54 Mbps **99% Occupied Bandwidth: Channel 2462MHz**

Band-edge Compliance **Section 15.247(d)**

Result **Pass**

Test Specification FCC Part 15 Section 15.247(d)
Detector Function Peak
Requirement In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that Contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, and provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph Shall be 30 dB instead of 20 dB.

Test Method:

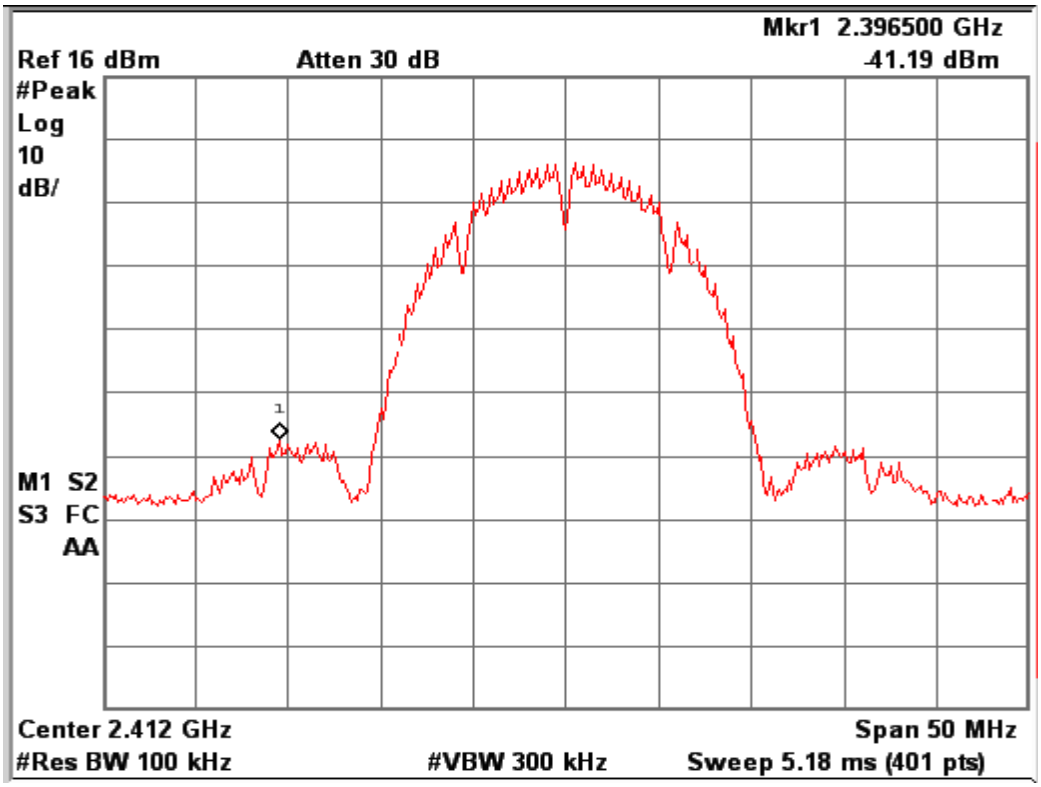


Test Result:

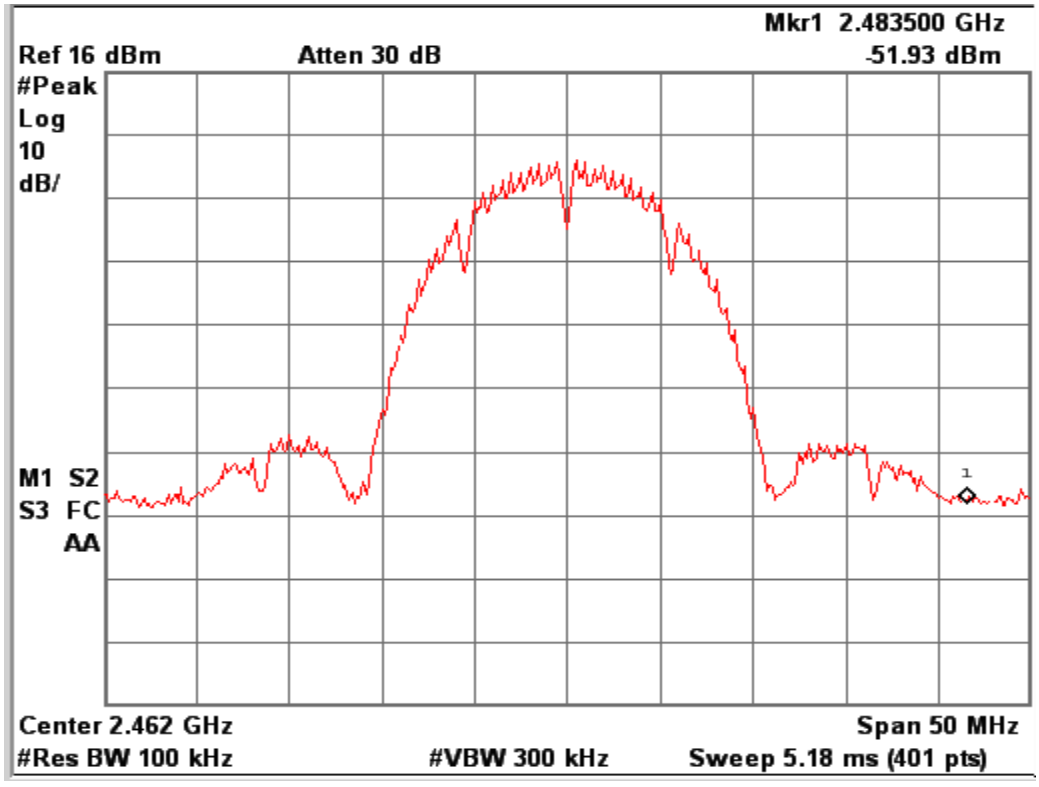
Cable Loss: 0.68dB +1.2dB

802.11 Protocol	Data Rate (Mbps)	Frequency (MHz)	Value at Band Edge			Limit (dB)
			Frequency (MHz)	Reference Level*	Value (dBc)	
b	1	2412	2396.50	02.15	-43.34	-30.00
		2437	2483.50	01.80	-53.73	-30.00
	11	2412	2396.00	02.28	-43.66	-30.00
		2437	2483.50	02.35	-53.52	-30.00

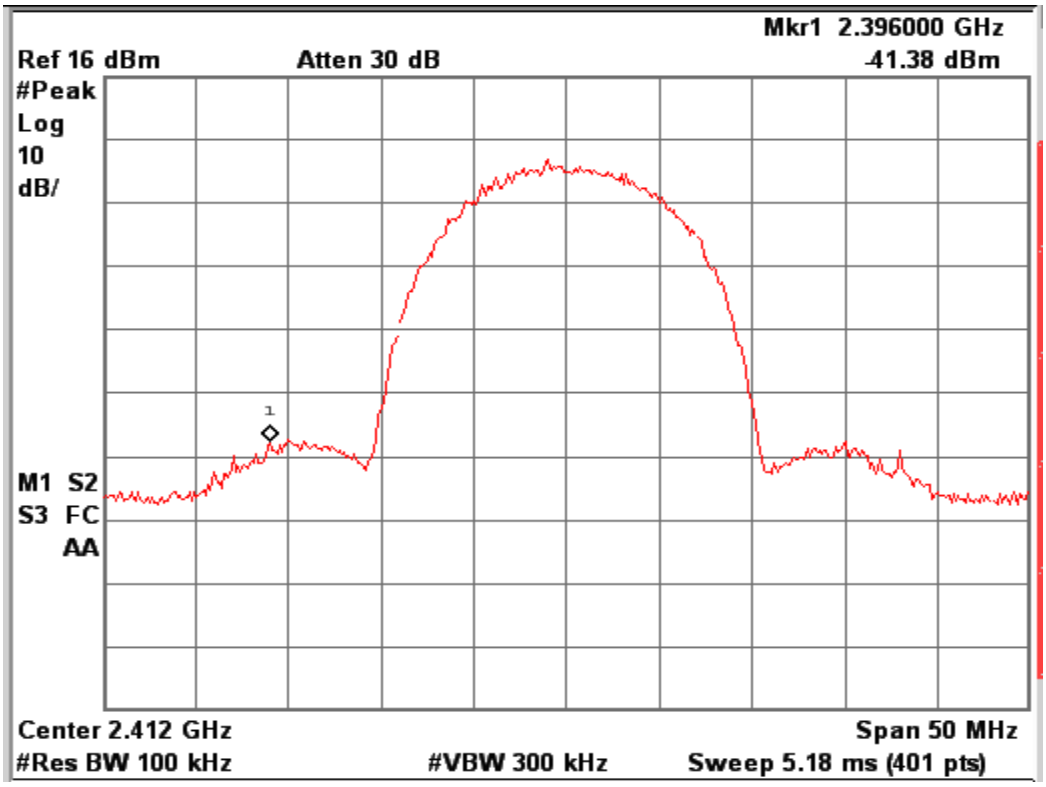
Note: The reference values are taken from the plots reported under the Power spectral Density **Section 15.247(e).**



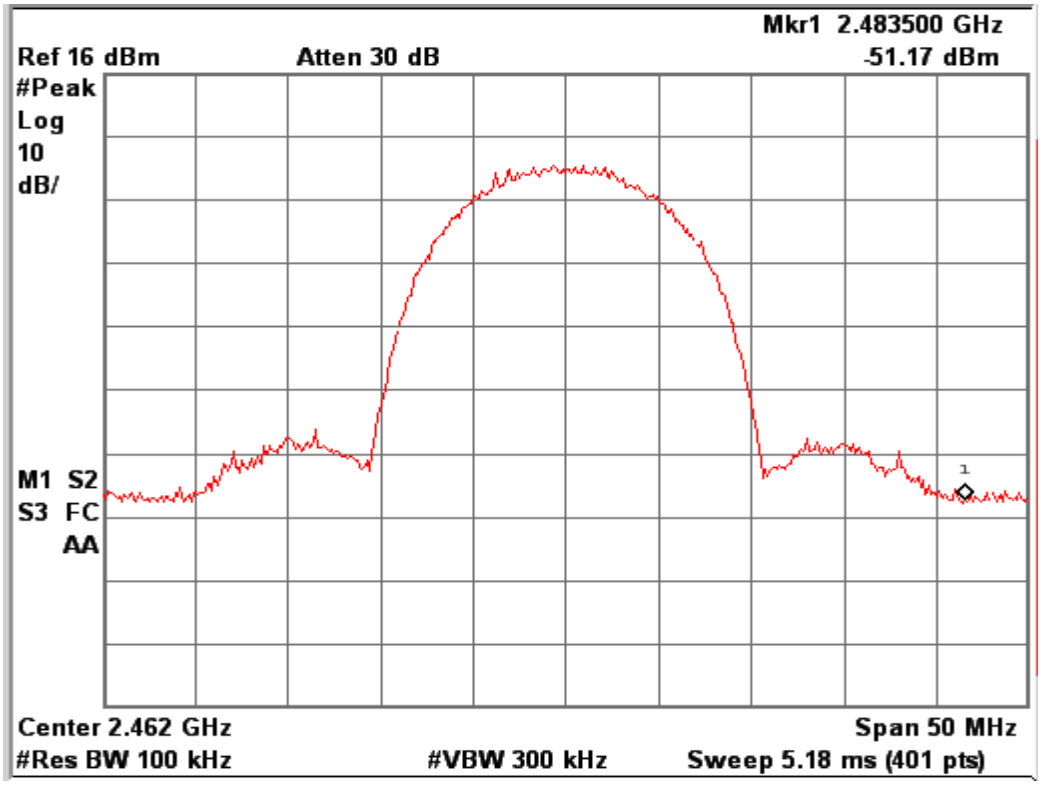
Data Rate: 1 Mbps **Channel frequency: 2412 MHz**



Data Rate: 1 Mbps **Channel frequency: 2472 MHz**



Data Rate: 11 Mbps **Channel frequency: 2412 MHz**

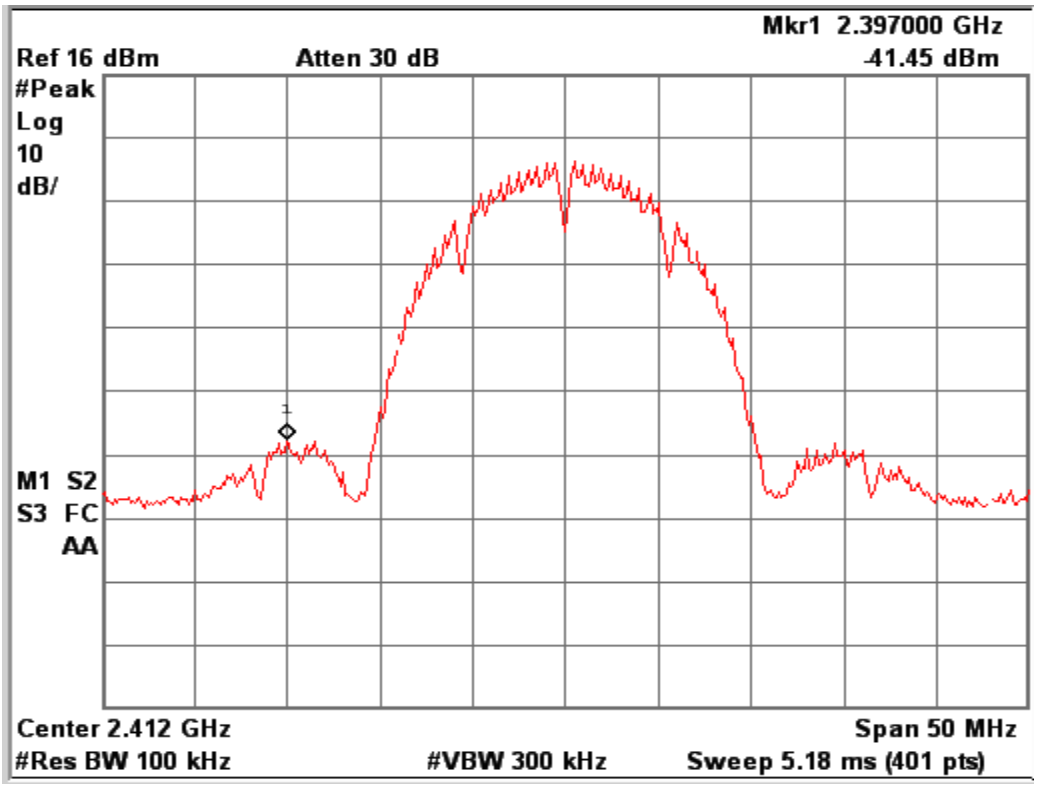


Data Rate: 11 Mbps **Channel frequency: 2472 MHz**

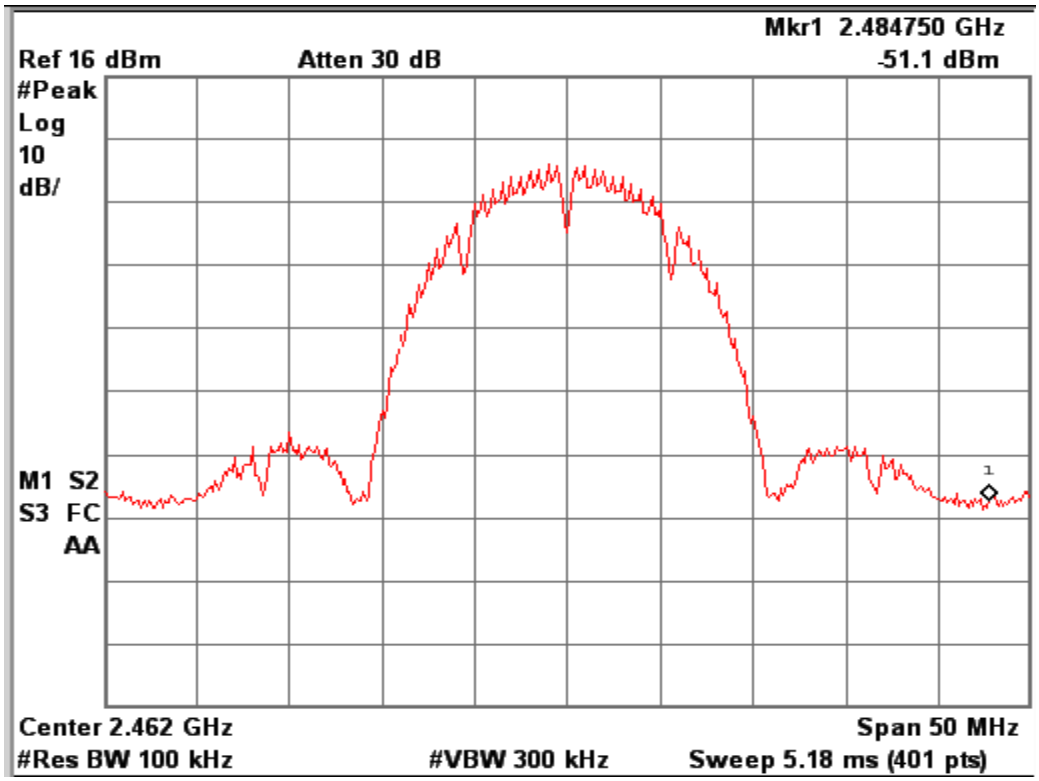
Test Results:

Cable Loss: 0.68dB +1.2dB

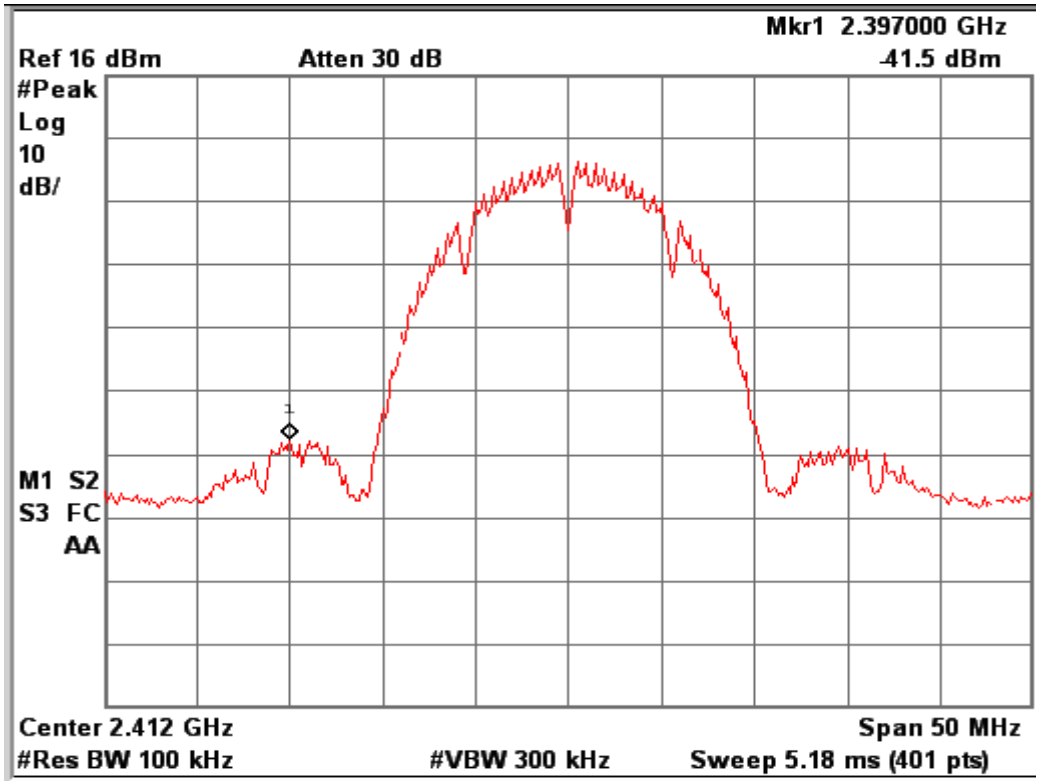
802.11 Protocol	Data Rate (Mbps)	Frequency (MHz)	Value at Bande Edge			Limit (dB)
			Frequency (MHz)	PSD Reference level	Value (dBc)	
g	6	2412	2397.00	02.16	-43.61	-30.00
		2437	2484.75	01.60	-52.70	-30.00
	54	2412	2379.00	02.10	-43.60	-30.00
		2437	2483.50	01.72	-52.23	-30.00



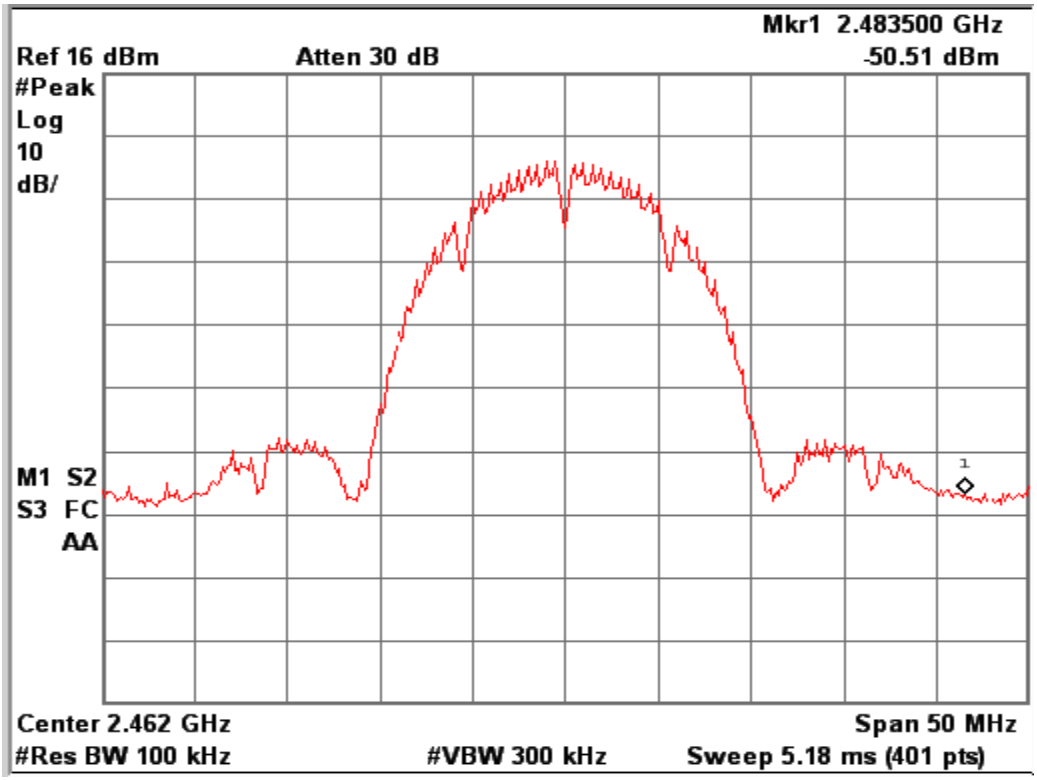
Data Rate: 6 Mbps **Channel frequency: 2412 MHz**



Data Rate: 6 Mbps **Channel frequency: 2462 MHz**



Data Rate: 54 Mbps **Channel frequency: 2412 MHz**



Data Rate: 54 Mbps **Channel frequency: 2462 MHz**

Note: There were no conducted spurious emission found above the noise floor level -38dBm and Hence those plot are not reported.

Spurious Radiated Emissions and Restricted Bands of Operation

Section 15.209 and 15.205

Result **Pass**

Test Specification	FCC Part 15 Section 15.209 &15.205
Test Method	ANSI C63.4-2003
Measurement Location	Semi Anechoic Chamber
Measuring Distance	3m
Detection	QP for frequency below 1GHz, Average for frequency above 1GHz
Requirement	As per the limits mentioned in the bellow table

Limit for Radiated Emission of Section 15.209:

Frequency (MHz)	Field strength (µV/m)	Field strength (dBµV/m)	Distance of Measurement (m)
0.009 – 0.490	2400/F(kHz)	48.50 – 13.80	300*
0.490 – 1.705	24000/F(kHz)	33.80 – 23.00	30*
1.705 -30	30	29.54	30*
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Remark: * The limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 30 meter range respectively, which corresponds to 88.50 – 53.80, 53.80 – 43.00 and 49.5dBµV/m at 3m range by extrapolation calculation and the measurement of loop antenna.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

Test result:

802.11b Protocol

Data Rate (Mbps)	Channel	Polarization	Frequency (MHz)	Measured Value (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)
1	Low	V	31.22	34.03	40	-05.97
			46.38	26.82	40	-13.18
			2390 Pk	49.71	74.00	-24.29
			2390 Av	40.59	54.00	-13.41
			2412 Pk	100.02	*	-
			2412 Av	97.64	*	-
			4824.62 Pk	59.04	74.00	-14.96
			4823.84 Av	49.43	54.00	-04.57
		H	99.98	23.50	43.50	-20.00
			2390 Pk	48.47	74.00	-25.53
			2390Av	40.63	54.00	-13.37
			2412 Pk	100.35	*	-
			2412 Av	97.93	*	-
			No Harmonics Found		74.00	-
					54.00	-
	Mid	V	31.22	33.12	40	-06.88
			46.38	25.25	40	-14.75
			2437 Pk	99.85	*	-
			2437 Av	97.62	*	-
			4874.25 Pk	59.81	74.00	-14.19
			4874.16 Av	49.27	54.00	-04.73
		H	99.98	23.31	43.50	-20.19
			2437 Pk	100.10	*	-
			2437 Av	96.85	*	-
			No Harmonics Found		74.00	-
					54.00	-
	High	V	31.22	33.46	40	-06.54
			46.38	25.61	40	-14.39
			2462 Pk	99.76	*	-
			2462 Av	97.31	*	-
			2483.5 Pk	48.48	74.00	-25.52
			2483.5 Av	39.89	54.00	-14.11
			4924.61 Pk	60.13	74.00	-13.87
			4924.92 Av	49.00	54.00	-05.00
		H	99.98	24.62	43.50	-18.88
			2462 Pk	100.03	*	-
			2462 Av	97.62	*	-
			2483.5 Pk	48.74	74.00	-25.26
			2483.5 Av	39.40	54.00	-14.60
			No Harmonics Found		74.00	-
					54.00	-

* - --> Fundamental Frequency

Pk--> Peak Detector
Av--> Average Detector

Data Rate (Mbps)	Channel	Polarization	Frequency (MHz)	Measured Value (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)
11	Low	V	31.22	34.03	40.00	-05.97
			46.38	26.82	40.00	-13.18
			2390 Pk	49.30	74.00	-24.70
			2390Av	38.18	54.00	-15.82
			2412 Pk	103.64	*	-
			2412 Av	96.08	*	-
			4824.26 Pk	59.00	74.00	-15.00
			4824.72 Av	46.74	54.00	-07.26
		H	99.98	23.50	43.50	-20.00
			2390 Pk	48.72	74.00	-25.28
			2390Av	38.47	54.00	-15.53
			2412 Pk	103.79	*	-
			2412 Av	96.28	*	-
			No Harmonics Found		74.00	-
					54.00	-
	Mid	V	31.22	33.12	40.00	-6.88
			46.38	25.25	40.00	-14.75
			2437 Pk	102.10	*	-
			2437 Av	96.35	*	-
			4874.61 Pk	59.42	74.00	-14.58
			4874.27 Av	47.49	54.00	-06.51
		H	99.98	23.31	43.50	-20.19
			2412 Pk	102.34	*	-
			2412 Av	95.40	*	-
			No Harmonics Found		74.00	-
					54.00	-
	High	V	31.22	33.46	40.00	-06.54
			46.38	25.61	40.00	-14.39
			2462 Pk	103.00	*	-
			2462 Av	95.41	*	-
			2483.5 Pk	48.63	74.00	-25.37
			2483.5 Av	37.19	54.00	-16.81
			4924.62 Pk	59.98	74.00	-14.02
			4924.81 Av	47.55	54.00	-06.45
		H	99.98	24.62	43.50	-18.88
			2462 Pk	104.86	*	-
			2462 Av	96.99	*	-
			2483.5 Pk	49.79	74.00	-24.21
			2483.5 Av	38.84	54.00	-15.16
			No Harmonics Found		74.00	-
					54.00	-

* - --> Fundamental Frequency

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Pk--> Peak Detector
Av--> Average Detector
802.11g Protocol

Data Rate (Mbps)	Channel	Polarization	Frequency (MHz)	Measured Value (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)
6	Low	V	31.22	34.03	40.00	-05.97
			46.38	26.82	40.00	-13.18
			2390 Pk	48.81	74.00	-25.19
			2390Av	39.96	54.00	-14.04
			2412 Pk	99.32	*	-
			2412 Av	97.29	*	-
			4824.26 Pk	59.54	74.00	-14.46
			4824.72 Av	48.52	54.00	-05.48
		H	99.98	23.50	43.50	-20.00
			2390 Pk	47.57	74.00	-26.43
			2390Av	39.36	54.00	-14.64
			2412 Pk	99.99	*	-
			2412 Av	97.51	*	-
			No Harmonics Found		74.00	-
					54.00	-
	Mid	V	31.22	33.12	40.00	-06.88
			46.38	25.25	40.00	-14.75
			2437 Pk		*	-
			2437 Av		*	-
			4874.61 Pk	59.36	74.00	-14.64
			4874.27 Av	48.99	54.00	-05.01
		H	99.98	23.31	43.50	-20.19
			2437 Pk		*	-
			2437 Av		*	-
			No Harmonics Found		74.00	-
					54.00	-
	High	V	31.22	33.46	40.00	-6.54
			46.38	25.61	40.00	-14.39
			2462 Pk	99.12	*	-
			2462 Av	96.83	*	-
			2483.5 Pk	48.82	74.00	-25.18
			2483.5 Av	39.90	54.00	-14.10
			4924.62 Pk	59.87	74.00	-14.13
			4924.81 Av	48.84	54.00	-05.16
		H	99.98	24.62	43.50	-18.88
			2462 Pk	100.53	*	-
			2462 Av	98.06	*	-
			2483.5 Pk	49.00	74.00	-25.00
			2483.5 Av	40.67	54.00	-13.33
			No Harmonics Found		74.00	-
					54.00	-

* - --> Fundamental Frequency

www.tuv.com
Pk--> Peak Detector
Av--> Average Detector

Data Rate (Mbps)	Channel	Polarization	Frequency (MHz)	Measured Value (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)
54	Low	V	30.00	36.29	40.00	-03.71
			31.22	34.03	40.00	-05.97
			46.38	26.82	40.00	-13.18
			2390 Pk	47.58	74.00	-26.42
			2390Av	39.35	54.00	-14.65
			2412 Pk	98.61	*	-
			2412 Av	96.18	*	-
			4824.43 Pk	58.52	74.00	-15.48
			4824.82 Av	48.79	54.00	-05.21
		H	99.98	23.50	43.50	-20.00
			2390 Pk	48.34	74.00	-25.66
			2390Av	38.76	54.00	-15.24
			2412 Pk	100.31	*	-
			2412 Av	97.75	*	-
			No Harmonics Found		74.00	-
					54.00	-
	Mid	V	30.00	36.29	40.00	-03.71
			31.22	33.12	40.00	-06.88
			46.38	25.25	40.00	-14.75
			2437 Pk	99.26	*	-
			2437 Av	96.80	*	-
			4874.61 Pk	58.61	74.00	-15.39
			4874.27 Av	47.84	54.00	-06.16
		H	99.98	23.31	43.50	-20.19
			2412 Pk	100.75	*	-
			2412 Av	98.26	*	-
			No Harmonics Found		74.00	-
					54.00	-
	High	V	30.00	36.29	40.00	-03.71
			31.22	33.46	40.00	-06.54
			46.38	25.61	40.00	-14.39
			2462 Pk	98.90	*	-
			2462 Av	96.45	*	-
			2483.5 Pk	47.82	74.00	-26.18
			2483.5 Av	38.17	54.00	-15.83
			4924.62 Pk	59.88	74.00	-14.12
			4924.81 Av	48.32	54.00	-05.68
		H	99.98	24.62	43.50	-18.88
			2462 Pk	100.62	*	-
			2462 Av	98.24	*	-
			2483.5 Pk	47.44	74.00	-26.56
			2483.5 Av	38.16	54.00	-15.84
			No Harmonics Found		74.00	-
					54.00	-

* - --> Fundamental Frequency
Pk--> Peak Detector

Av--> Average Detector

Note: All other emissions were found to be 20dB below the limits

Conducted Emission Test on a.c. Power Line **Section 15.207**

Result **Pass**

Test Specification	:	FCC Part 15 Section 15.207
Test Method	:	ANSI C63.4-2003
Testing Location	:	Screened room
Measurement Bandwidth	:	9kHz
Frequency Range	:	150kHz – 30MHz
Supply Voltage	:	110 Volt 60Hz AC

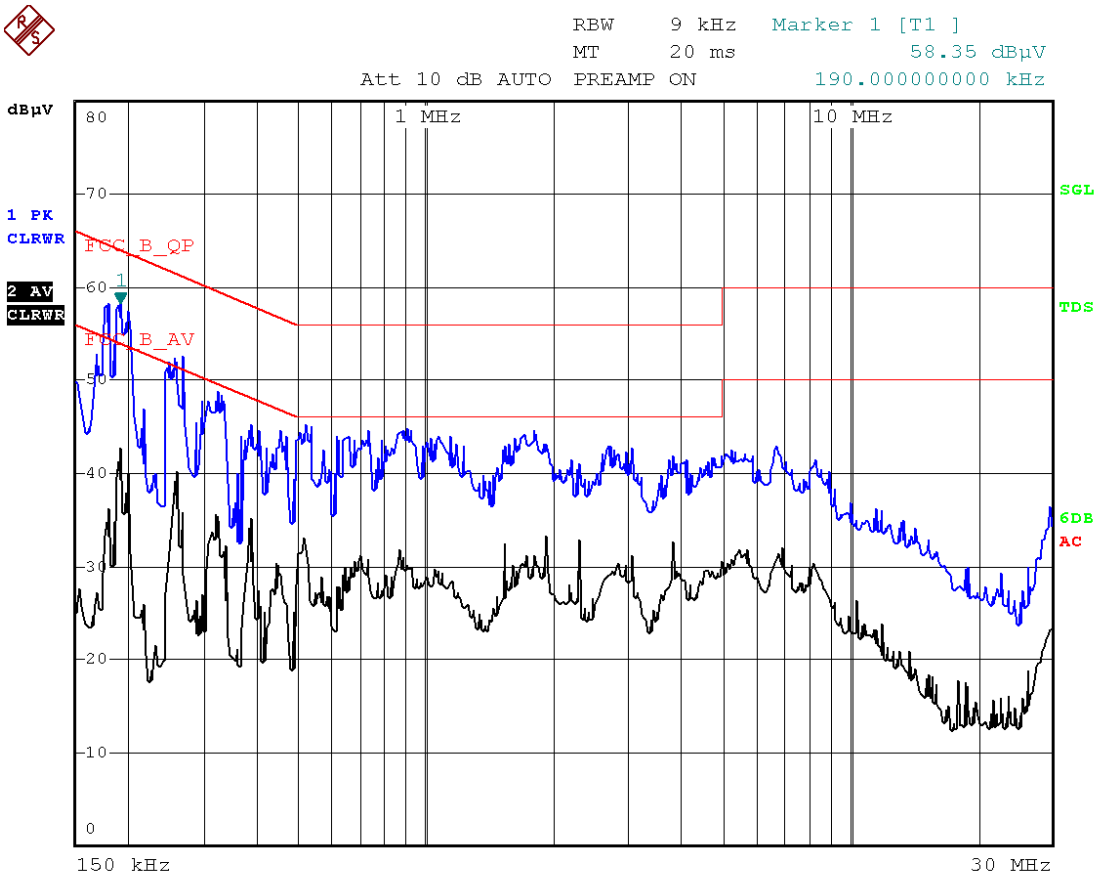
Note: The Product was tested with the Power adaptor with model No. WA-10L05RU by Asian Power Devices Inc.

Limit of section 15.207

Frequency of emission (MHz)	QP Limit (dBµV)	AV Limit (dBµV/m)
0.15 – 0.5	66 – 56*	56 – 46*
0.5 – 5	56	46
5 – 30	60	50

* Decreases with the logarithm of the frequency

Test Result:



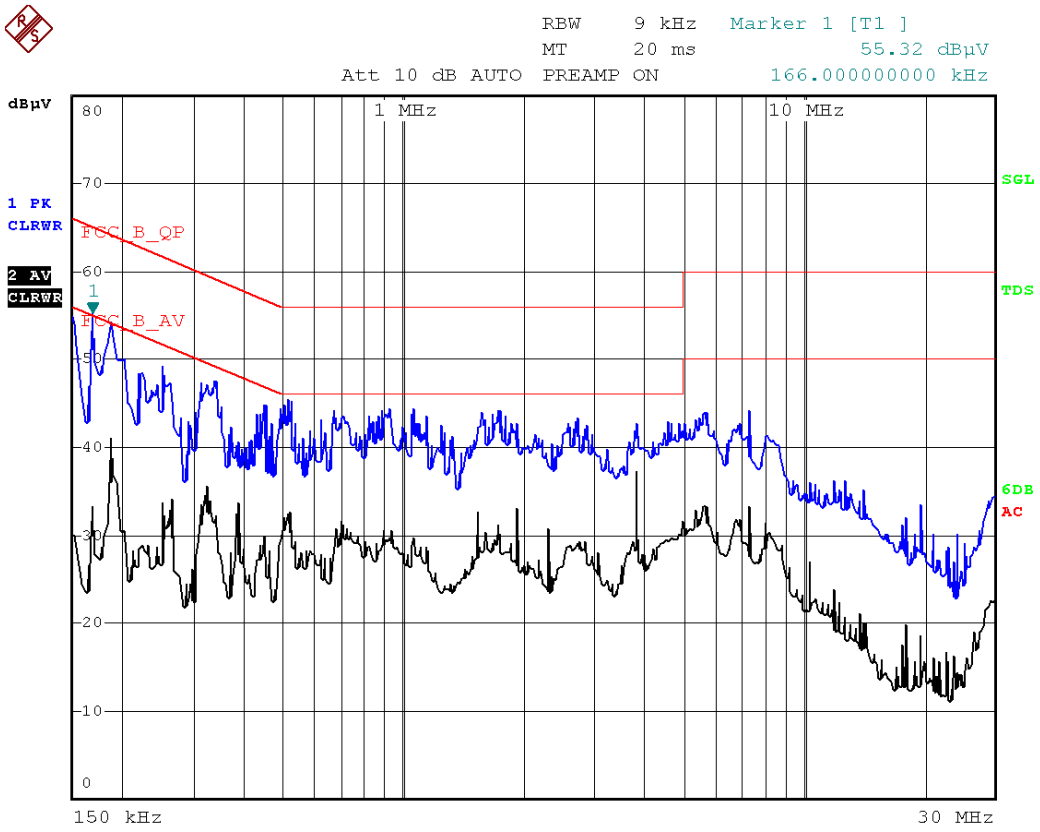
Plot: Neutral

EDIT PEAK LIST (Final Measurement Results)

Trace1:	FCC_B_QP
Trace2:	FCC_B_AV
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1 Quasi Peak	334 kHz	45.23	N	-14.11
1 Quasi Peak	426 kHz	41.99	N	-15.33
1 Quasi Peak	154 kHz	49.21	N	-16.56
1 Quasi Peak	274 kHz	44.33	N	-16.66
1 Quasi Peak	494 kHz	38.41	N	-17.69
1 Quasi Peak	706 kHz	35.85	N	-20.14
2 Average	326 kHz	28.79	N	-20.75
1 Quasi Peak	850 kHz	35.21	N	-20.78
2 Average	154 kHz	34.22	N	-21.55
2 Average	258 kHz	29.68	N	-21.81
2 Average	494 kHz	23.78	N	-22.31
2 Average	378 kHz	25.09	N	-23.23
2 Average	190 kHz	29.69	N	-24.34
1 Quasi Peak	1.642 MHz	29.96	N	-26.03
2 Average	226 kHz	25.68	N	-26.90
1 Quasi Peak	8.334 MHz	29.29	N	-30.70

Table: Neutral



Plot: Line

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	FCC_B_QP		
Trace2:	FCC_B_AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
2 Average	3.842 MHz	34.86 L1	-11.13
2 Average	1.922 MHz	32.02 L1	-13.97
1 Quasi Peak	514 kHz	41.50 L1	-14.49
2 Average	518 kHz	30.99 L1	-15.00
2 Average	386 kHz	32.87 L1	-15.27
1 Quasi Peak	338 kHz	42.84 L1	-16.41
1 Quasi Peak	450 kHz	40.21 L1	-16.65
1 Quasi Peak	250 kHz	44.88 L1	-16.87
1 Quasi Peak	186 kHz	47.02 L1	-17.18
2 Average	322 kHz	32.30 L1	-17.35
1 Quasi Peak	1.066 MHz	38.09 L1	-17.91
1 Quasi Peak	166 kHz	47.21 L1	-17.93
2 Average	5.614 MHz	30.94 L1	-19.05
1 Quasi Peak	1.758 MHz	36.56 L1	-19.43
2 Average	262 kHz	31.31 L1	-20.05
1 Quasi Peak	5.762 MHz	39.58 L1	-20.41
1 Quasi Peak	150 kHz	45.39 L1	-20.60
1 Quasi Peak	7.298 MHz	37.34 L1	-22.65
2 Average	186 kHz	31.21 L1	-23.00
2 Average	166 kHz	30.48 L1	-24.67

Table: Line