

# FCC Part 15C

## Measurement and Test Report

For

**Amelia World Corporation dba LINSAY**

**16340 West Dixie Highway, North Miami Beach, Florida**

**FCC ID: 2AAC3F-10XHD**

<b>FCC Rule(s):</b>	<u>FCC Part 15C</u>
<b>Product Description:</b>	<u>Tablet PC</u>
<b>Tested Model:</b>	<u>F-10XHD</u>
<b>Report No.:</b>	<u>STR14098042I-1</u>
<b>Tested Date:</b>	<u>2014-09-08 to 2014-09-25</u>
<b>Issued Date:</b>	<u>2014-09-25</u>
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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permission by Shenzhen SEM.Test Technology Co., Ltd.

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## 1. GENERAL INFORMATION

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### 1.1 Product Description for Equipment Under Test (EUT)

#### Client Information

Applicant: Amelia World Corporation dba LINSAY  
Address of applicant: 16340 West Dixie Highway, North Miami Beach,  
Florida  
Manufacturer: Amelia World Corporation dba LINSAY  
Address of manufacturer: 16340 West Dixie Highway, North Miami Beach,  
Florida

<b>General Description of EUT</b>	
Product Name:	Tablet PC
Trade Name:	LINSAY
Model No.:	F-10XHD
Adding Model(s):	/
Rated Voltage:	AC 230V Adapter:DC5V
Power Adapter Model:	JK050200-S04USA
<i>Note: The test data is gathered from a production sample provided by the manufacturer.</i>	

<b>Technical Characteristics of EUT</b>	
Support Standards:	802.11b, 802.11g, 802.11n(HT20;HT40)
Frequency Range:	2412-2472MHz for 802.11b/b/n(HT20) 2422-2462MHz for 802.11n(HT40)
RF Output Power:	7.49dBm (Conducted)
Type of Modulation:	CCK, OFDM, QPSK, BPSK, 16QAM, 64QAM
Data Rate:	1-11Mbps, 6-54Mbps, up to 150Mbps
Quantity of Channels:	13 for 802.11b/b/n(HT20); 9 for 802.11n(HT40)
Channel Separation:	5MHz
Type of Antenna:	Integral
Antenna Gain:	1.56 dBi
Lowest Internal Frequency	32.768kHz

## 1.2 Test Standards

The following report is prepared on behalf of the Amelia World Corporation dba LINSAY in accordance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

**Maintenance of compliance** is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

## 1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz. The measurement guide KDB 558074 D01 V03r02 for digital transmission systems shall be performed also.

## 1.4 Test Facility

### FCC – Registration No.: 934118

Shenzhen SEM.Test Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 934118.

### Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

### CNAS Registration No.: L4062

Shenzhen SEM.Test Technology Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 1/F, Building A, Hongwei Industrial Park, Liuxian 2<sup>nd</sup> Road, Bao'an District, Shenzhen, P.R.C (518101).

## 1.5 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, and to measure its highest possible emissions level, more detailed description as follows:

<b>Test Mode List</b>			
Test Mode	Description	Remark	
TM1	802.11b	2412MHz, 2442MHz, 2472MHz	
TM2	802.11g	2412MHz, 2442MHz, 2472MHz	
TM3	802.11n-HT20	2412MHz, 2442MHz, 2472MHz	
TM4	802.11n-HT40	2422MHz, 2442MHz, 2462MHz	

<b>EUT Cable List and Details</b>			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
USB Cable	0.8	Unshielded	Without Ferrite
OTG Cable	0.11	Unshielded	Without Ferrite
DC Cable	1.15	Unshielded	With Ferrite

<b>Special Cable List and Details</b>			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

<b>Auxiliary Equipment List and Details</b>			
Description	Manufacturer	Model	Serial Number
Adapter	/	JK050200-S04US A	/
Notebook	Lenovo	E10	LR-63C8R
Headset	/	/	/
USB flash disk	SONY	8G	/

## 2. SUMMARY OF TEST RESULTS

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FCC Rules	Description of Test Item	Result
§ 2.1093	RF Exposure	Compliant
§ 15.203; § 15.247(b)(4)(i)	Antenna Requirement	Compliant
§ 15.207(a)	Conducted Emission	Compliant
§ 15.247(e)	Power Spectral Density	Compliant
§ 15.247(a)(2)	6 dB Bandwidth	Compliant
§ 15.247(b)(3)	RF Output Power	Compliant
§ 15.209(a)	Radiated Emission	Compliant
§ 15.247(d)	Band Edge (Out of Band Emissions)	Compliant

N/A: not applicable

### **3. RF Exposure**

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#### **3.1 Standard Applicable**

According to § 1.1307 and § 2.1093, the portable transmitter must comply the RF exposure requirements.

#### **3.2 Test Result**

This product complied with the requirement of the RF exposure, please see the RF Exposure Report.

## 4. Antenna Requirement

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### 4.1 Standard Applicable

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

### 4.2 Evaluation Information

This product has a integral antenna, fulfill the requirement of this section.

## 5. Power Spectral Density

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### 5.1 Standard Applicable

According to 15.247(a)(1)(iii), 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.

### 5.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2014-05-28	2015-05-27
Attenuator	ATTEN	ATS100-4-20	/	2014-05-28	2015-05-27

### 5.3 Test Procedure

According to the KDB 558074 D01 V03r02, the test method of power spectral density as below:

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1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set analyzer center frequency to DTS channel center frequency.
3. Set the span to 1.5 times the DTS channel bandwidth.
4. Set the RBW  $\geq$  3 kHz.
5. Set the VBW  $\geq$  3 x RBW.
6. Detector = peak.
7. Sweep time = auto couple.
8. Trace mode = max hold.
9. Allow trace to fully stabilize.
10. Use the peak marker function to determine the maximum amplitude level.
11. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

### 5.4 Environmental Conditions

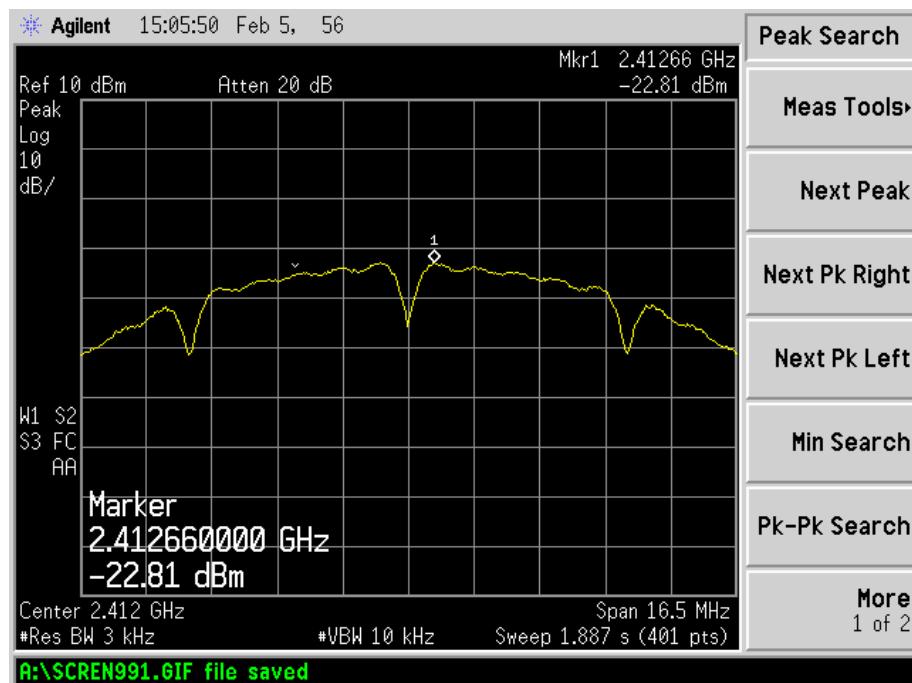
Temperature:	26° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

**5.5 Summary of Test Results/Plots**

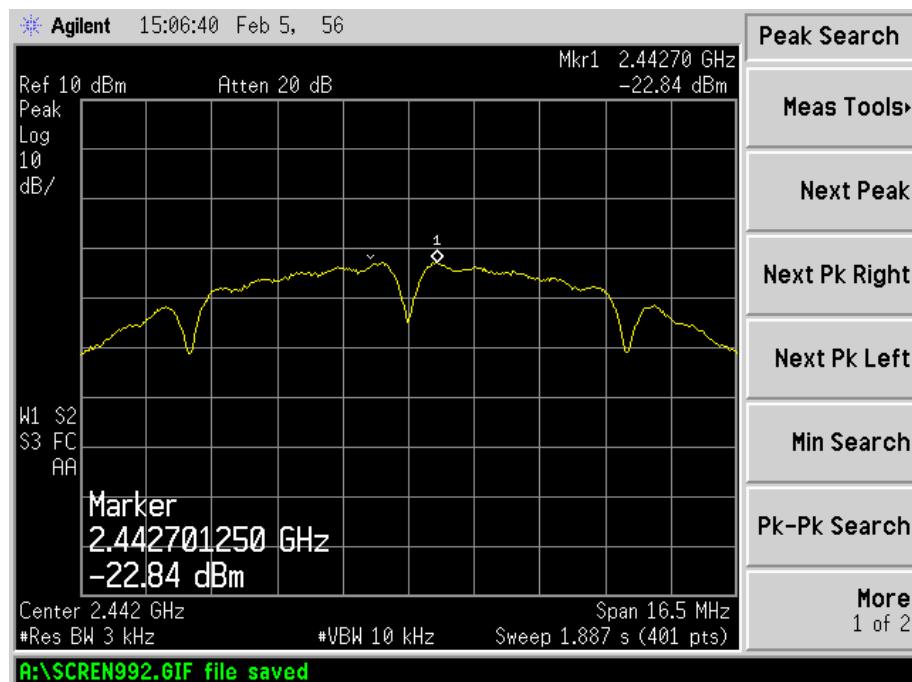
<b>Test Mode</b>	<b>Test Channel MHz</b>	<b>Power Spectral Density dBm/3kHz</b>	<b>Limit dBm/3kHz</b>
802.11b	2412	-22.81	8
	2442	-22.84	8
	2472	-22.46	8
802.11g	2412	-25.63	8
	2442	-25.68	8
	2472	-24.65	8
802.11n HT20	2412	-25.11	8
	2442	-23.97	8
	2472	-24.07	8
802.11n HT40	2422	-25.97	8
	2442	-25.46	8
	2462	-25.26	8

Please refer to the following test plots:

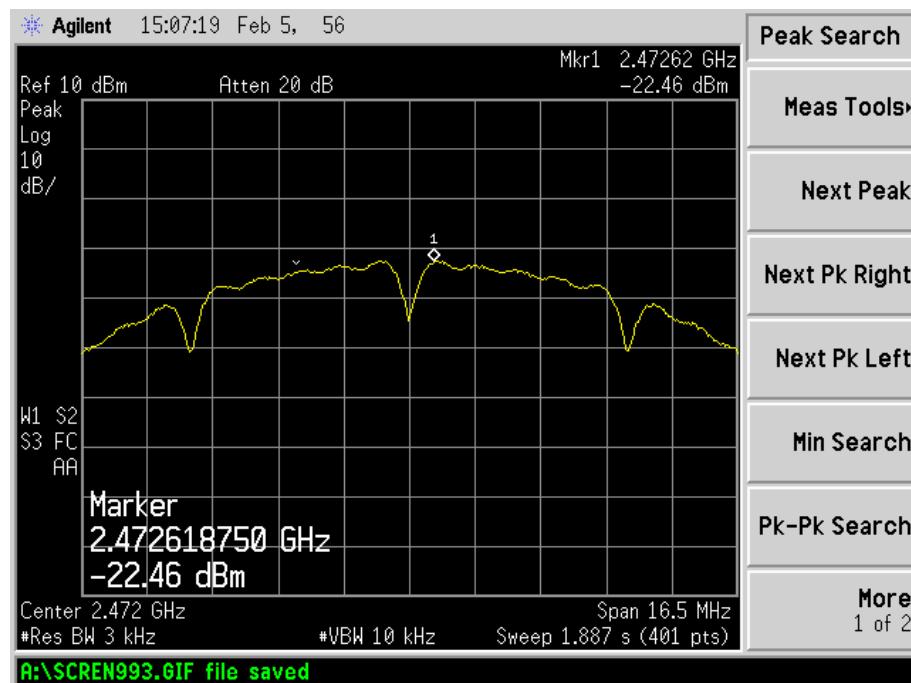
## 802.11b-Low Channel



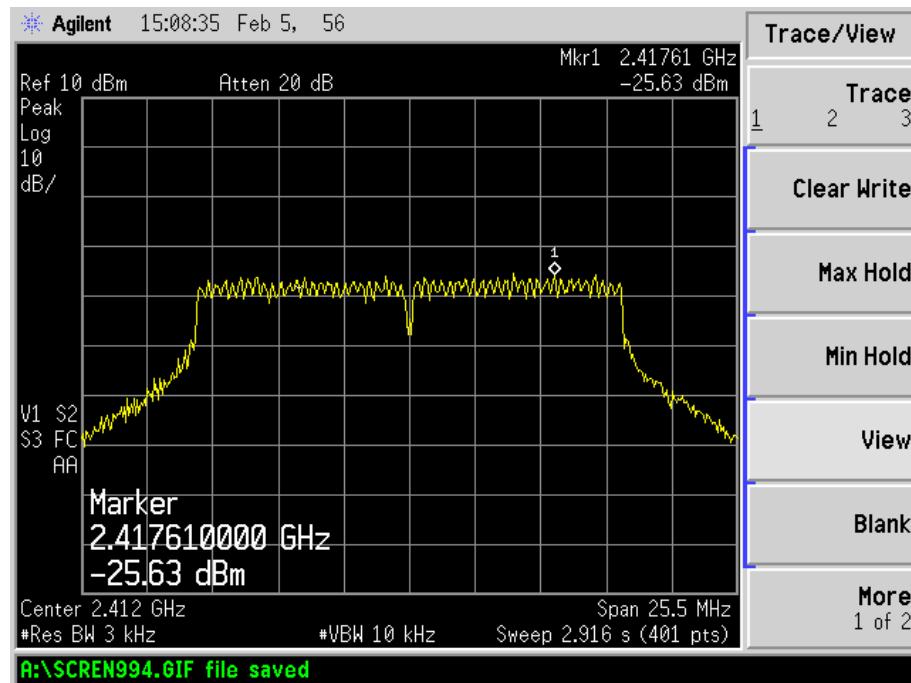
## 802.11b-Middle Channel



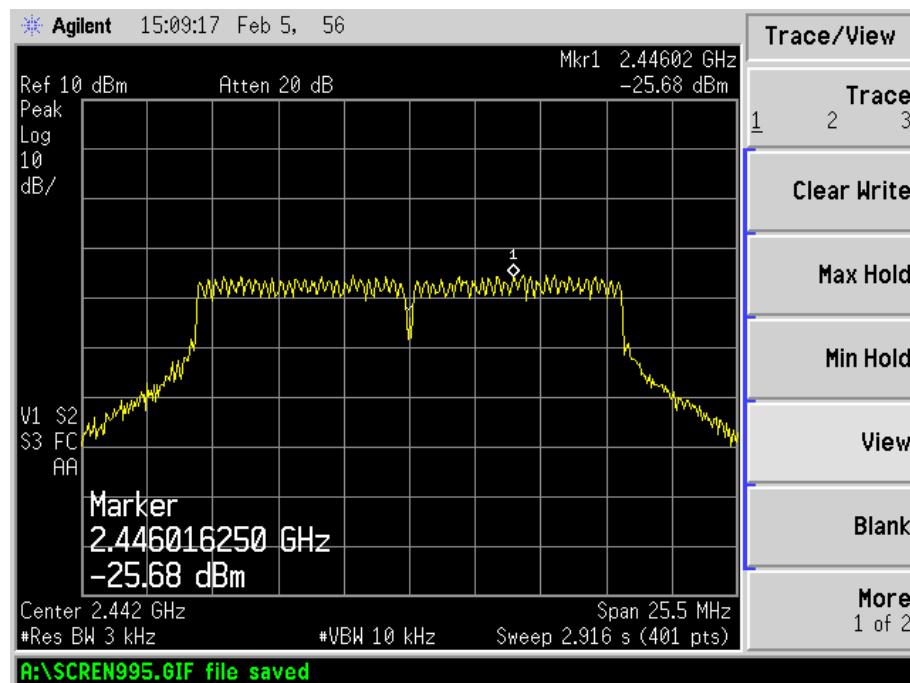
## 802.11b-High Channel



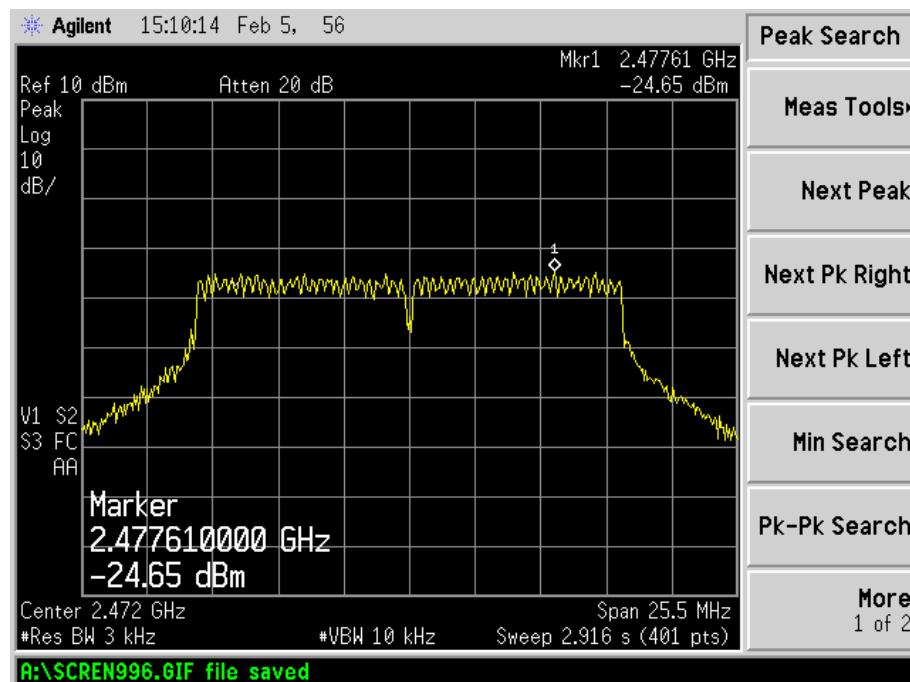
## 802.11g-Low Channel



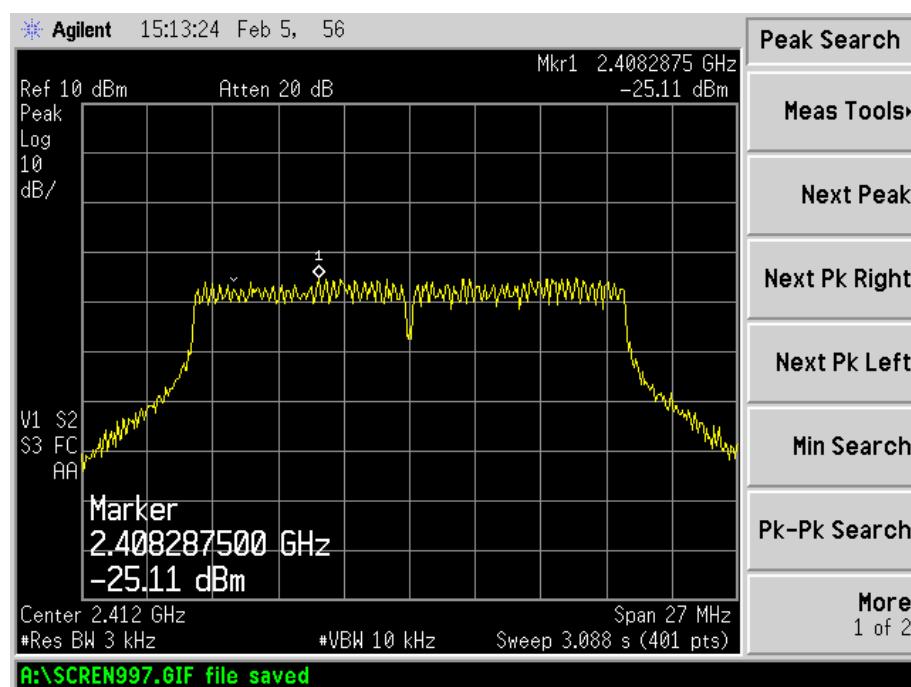
## 802.11g-Middle Channel



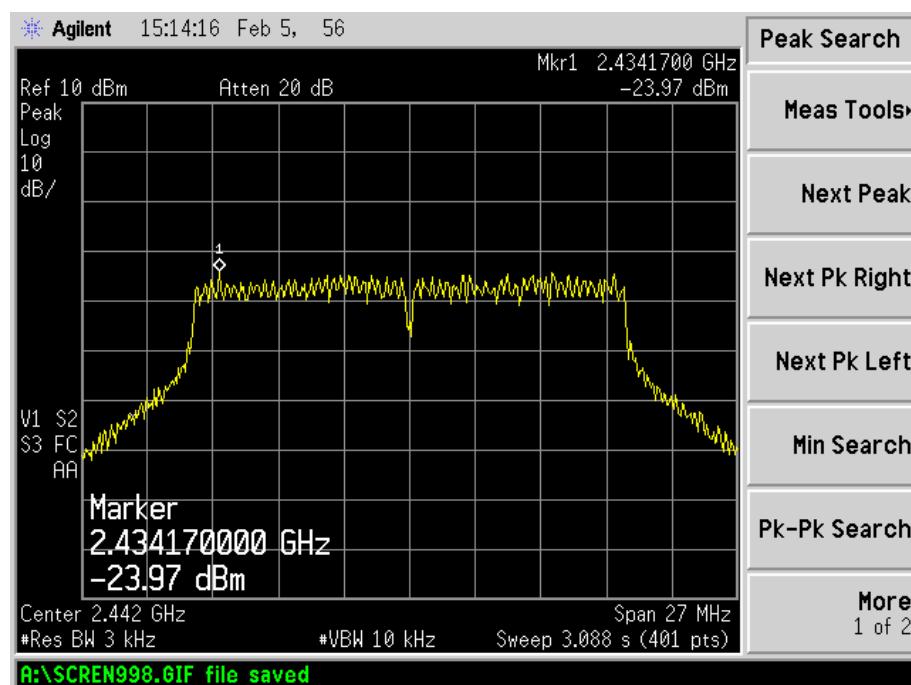
## 802.11g-High Channel



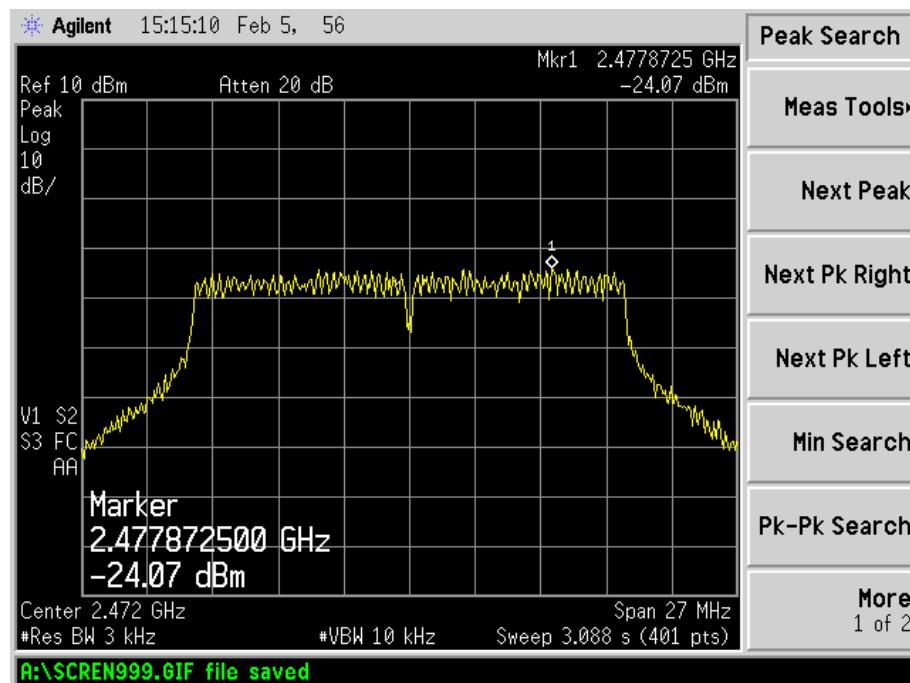
## 802.11n-HT20-Low Channel



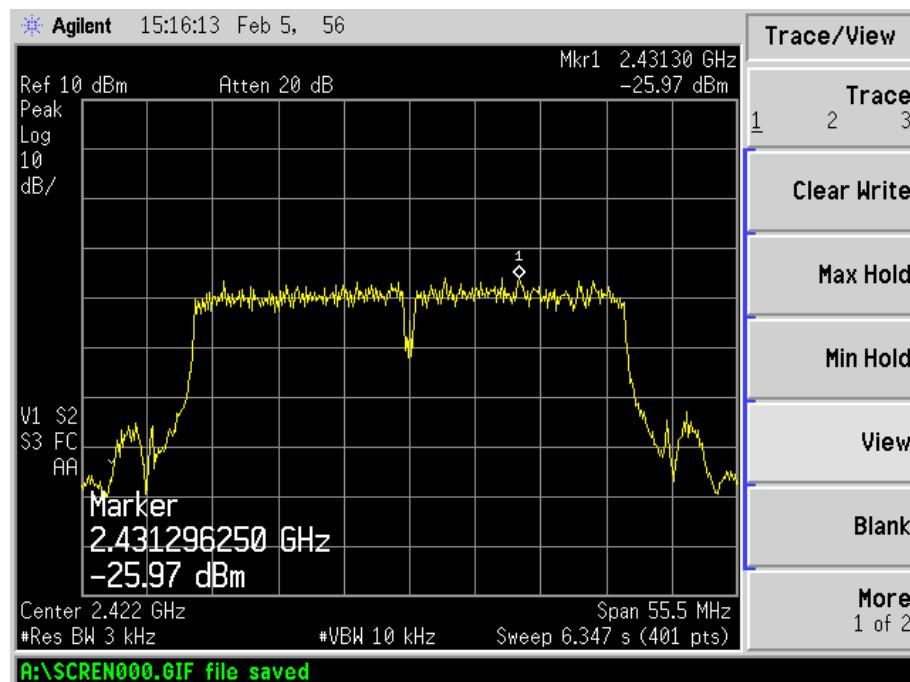
## 802.11n-HT20-Middle Channel



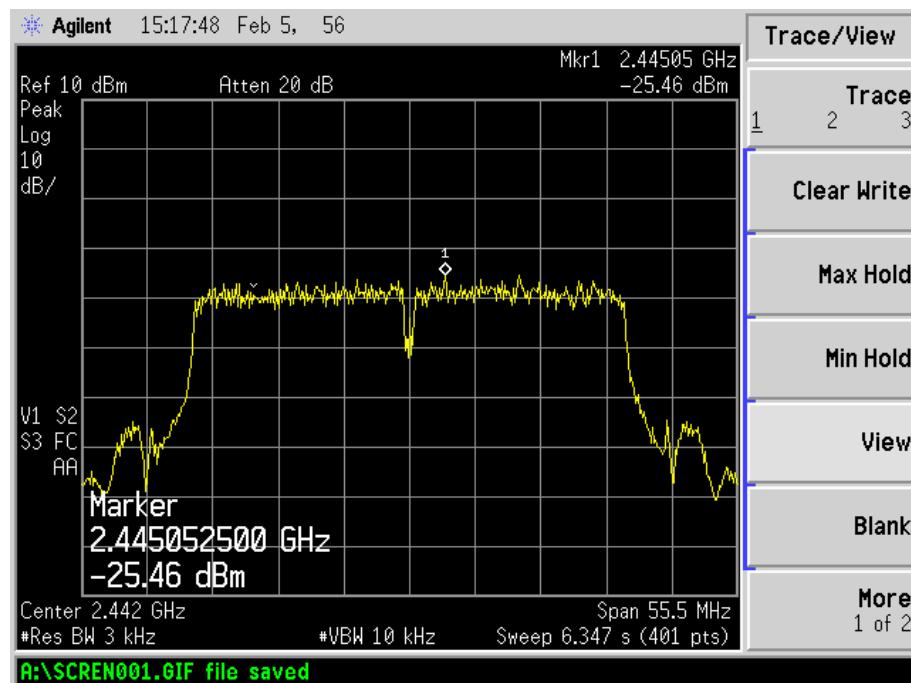
## 802.11n-HT20-High Channel



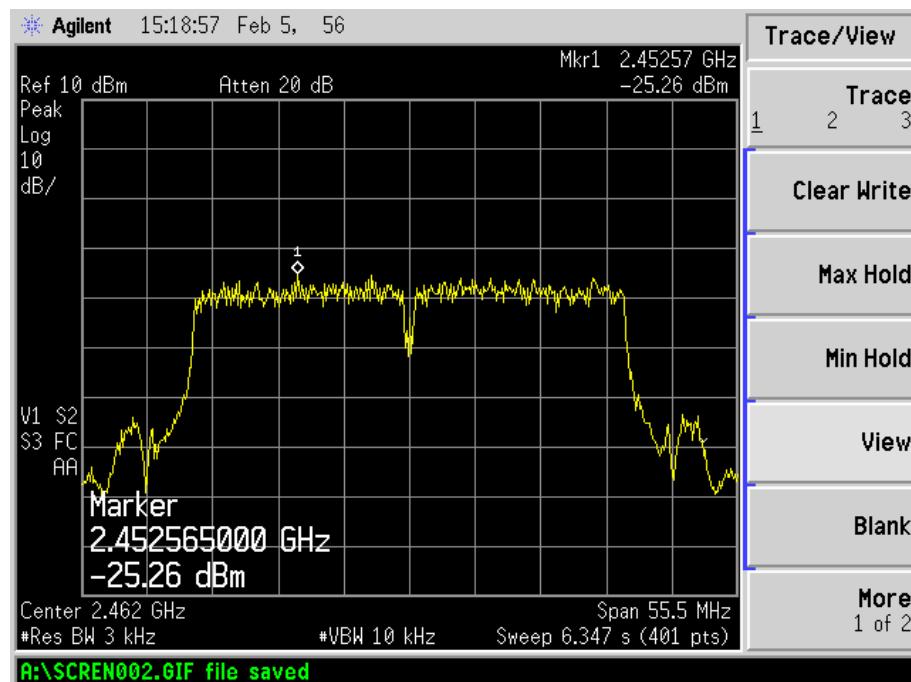
## 802.11n-HT40-Low Channel



## 802.11n-HT40-Middle Channel



## 802.11n-HT40-High Channel



## 6. 6dB Bandwidth

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### 6.1 Standard Applicable

According to 15.247(a)(2). Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

### 6.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2014-05-28	2015-05-27
Attenuator	ATTEN	ATS100-4-20	/	2014-05-28	2015-05-27

### 6.3 Test Procedure

1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set resolution bandwidth (RBW) = 1-5% or DTS BW, not to exceed 100 kHz.
3. Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission..

### 6.4 Environmental Conditions

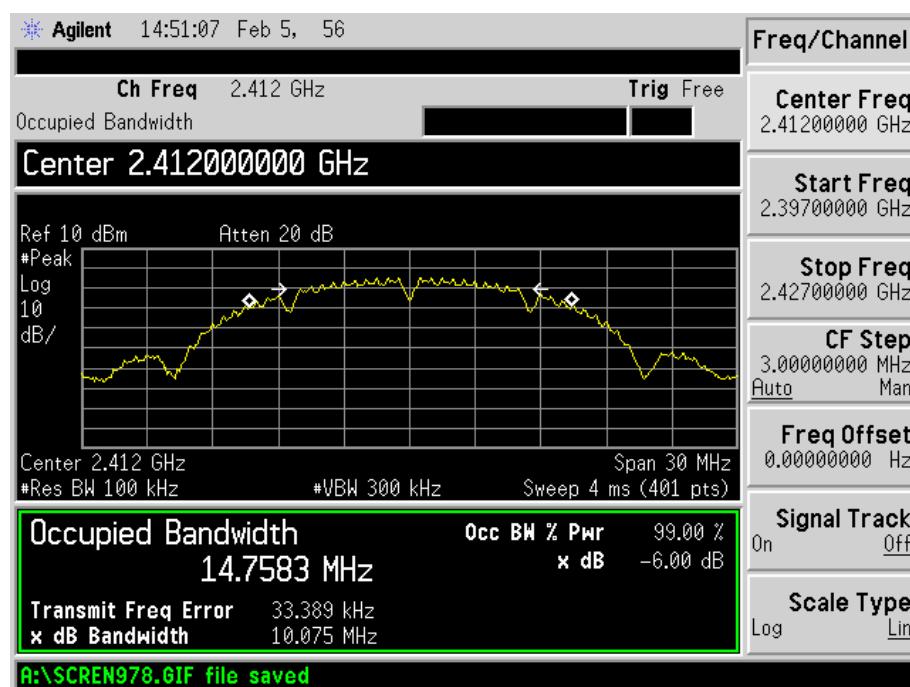
Temperature:	25° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

## 6.5 Summary of Test Results/Plots

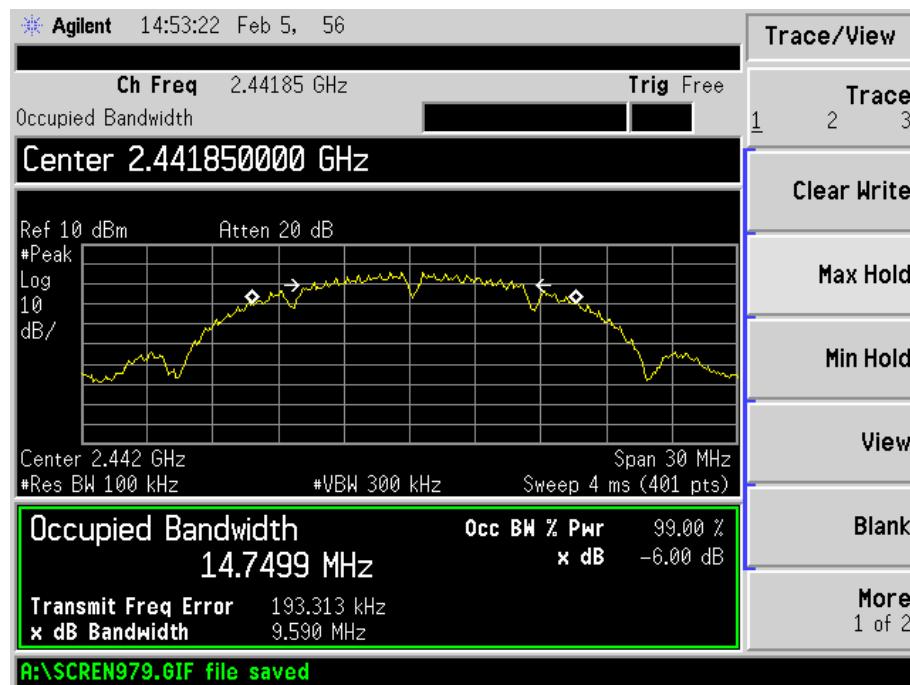
Test Mode	Test Channel MHz	6 dB Bandwidth kHz	99% Bandwidth kHz	Limit kHz
802.11b	2412	10075	14758.3	500
	2442	9590	14749.9	500
	2472	9586	14778.0	500
802.11g	2412	16573	16518.3	500
	2442	16579	16534.8	500
	2472	16541	16502.6	500
802.11n-HT20	2412	17832	17700.4	500
	2442	17827	17706.4	500
	2472	17823	17708.7	500
802.11n-HT40	2422	36496	36009.0	500
	2442	36527	36045.8	500
	2462	36438	36011.0	500

Please refer to the following test plots:

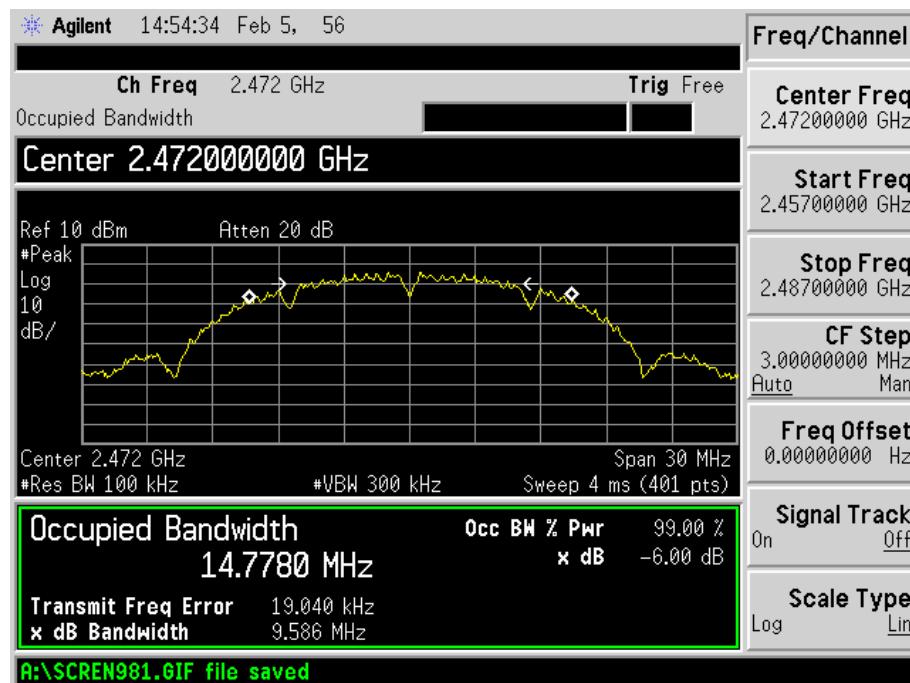
## 802.11b-Low Channel



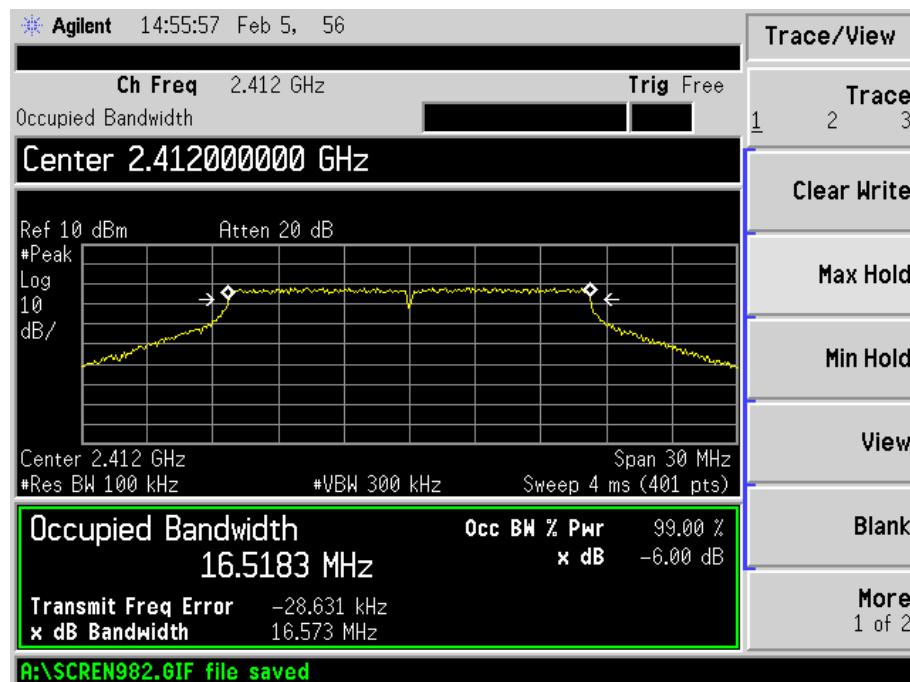
802.11b-Middle Channel



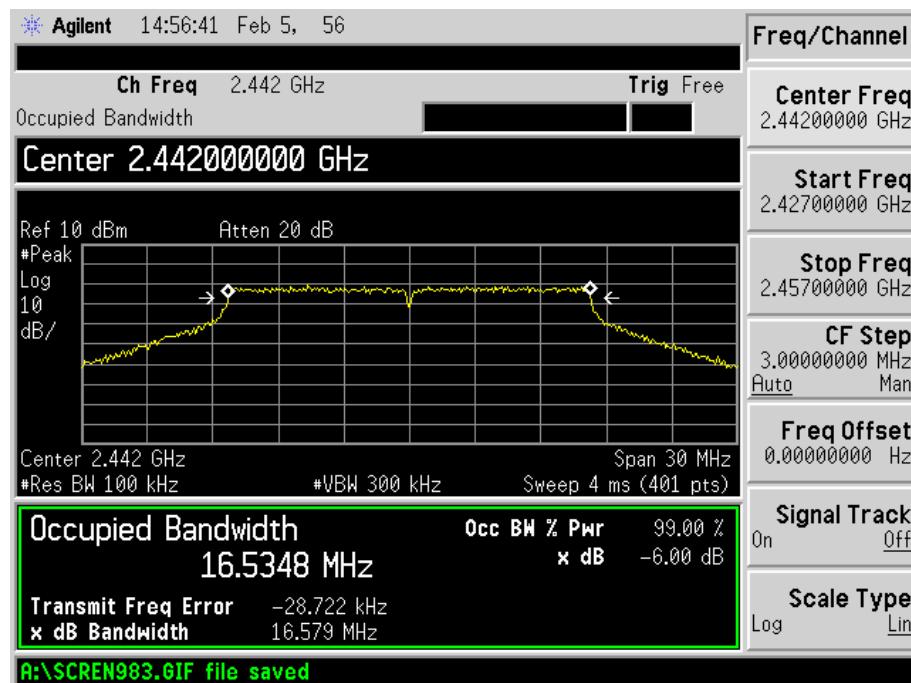
## 802.11b-High Channel



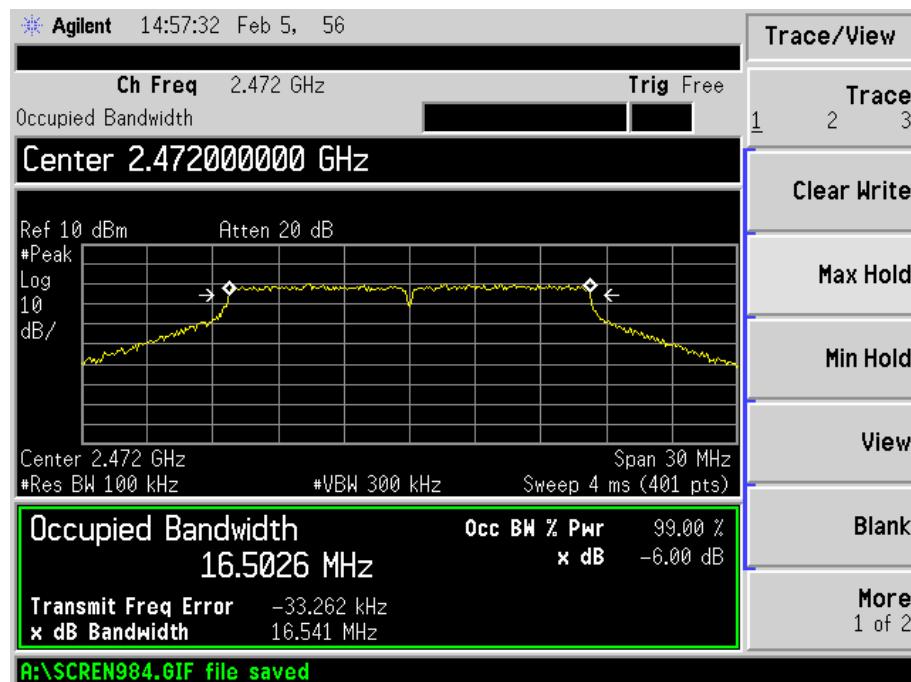
## 802.11g-Low Channel



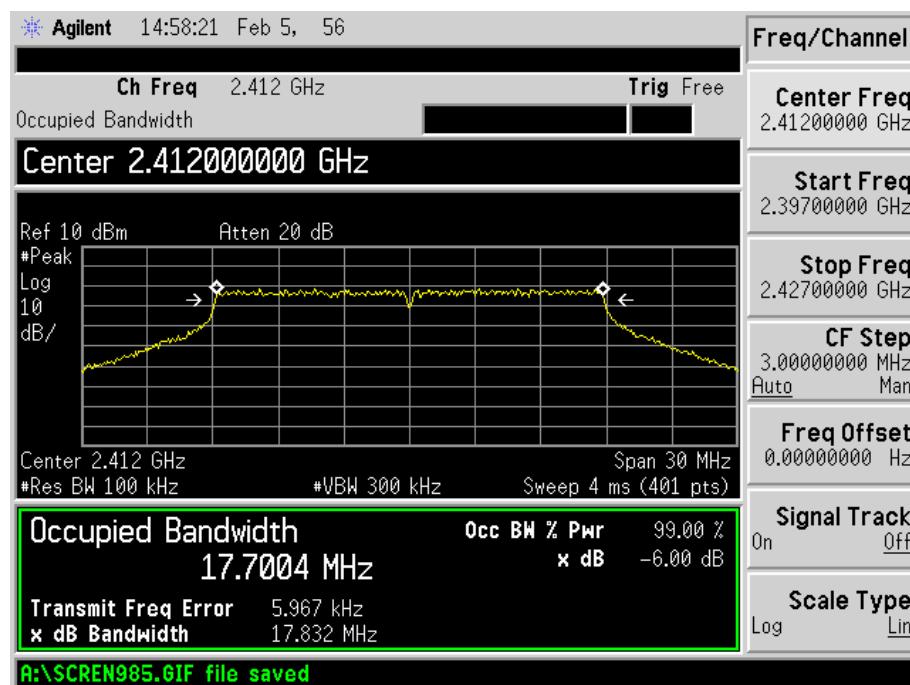
## 802.11g-Middle Channel



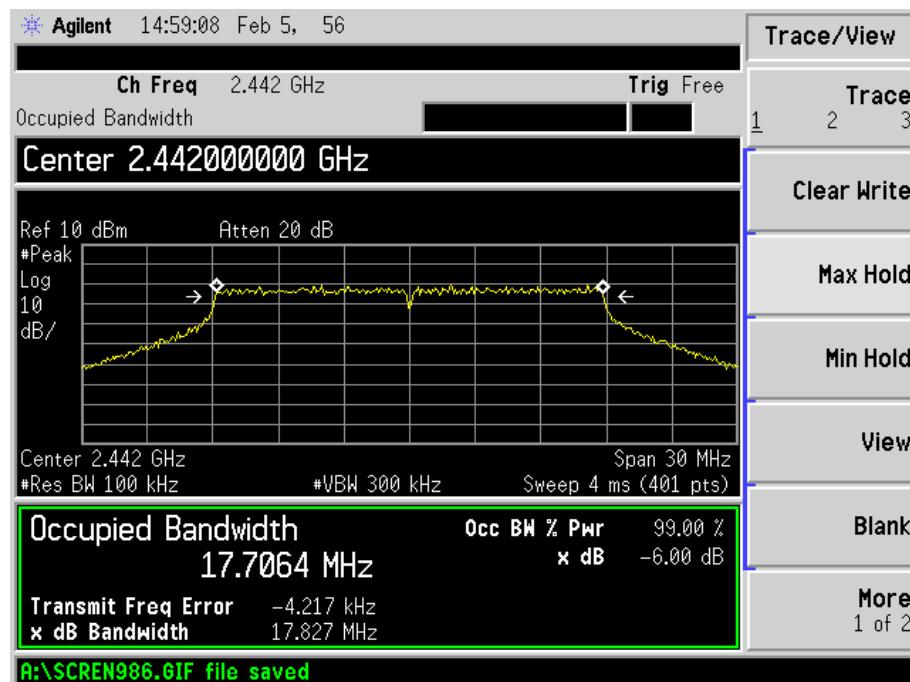
## 802.11g-High Channel



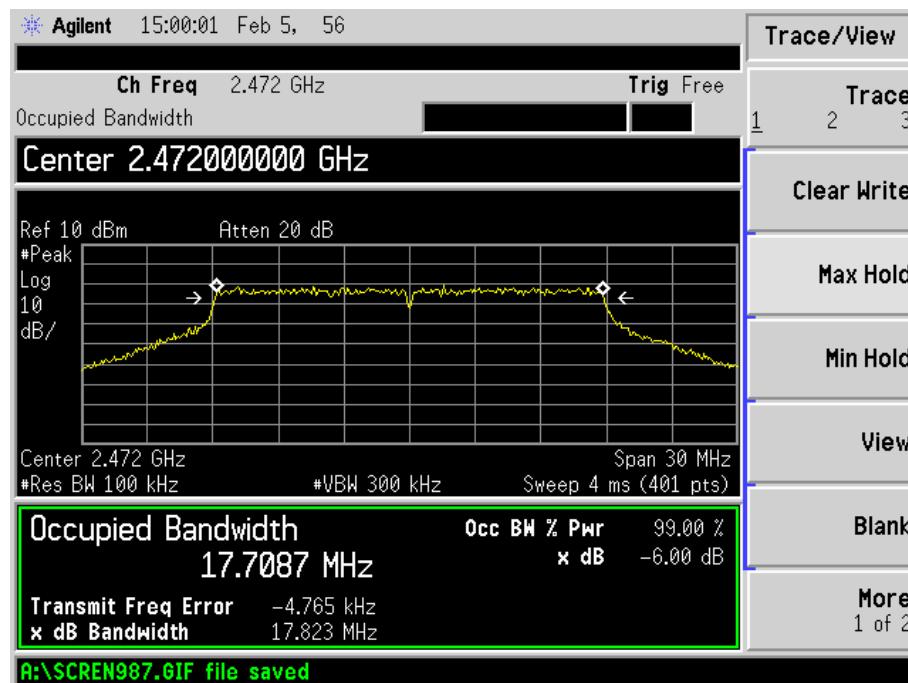
## 802.11n-HT20-Low Channel



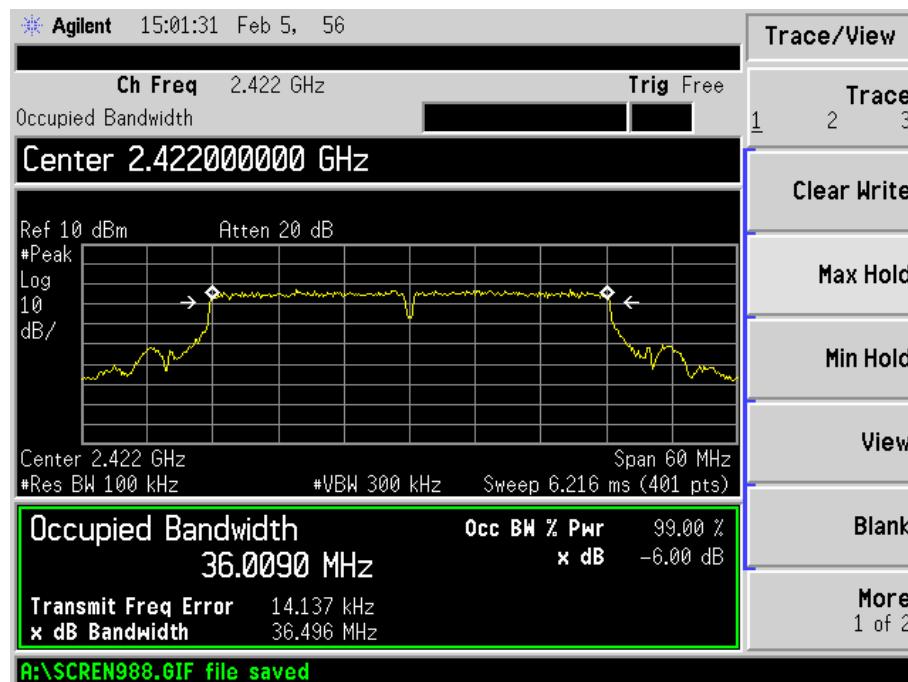
## 802.11n-HT20-Middle Channel



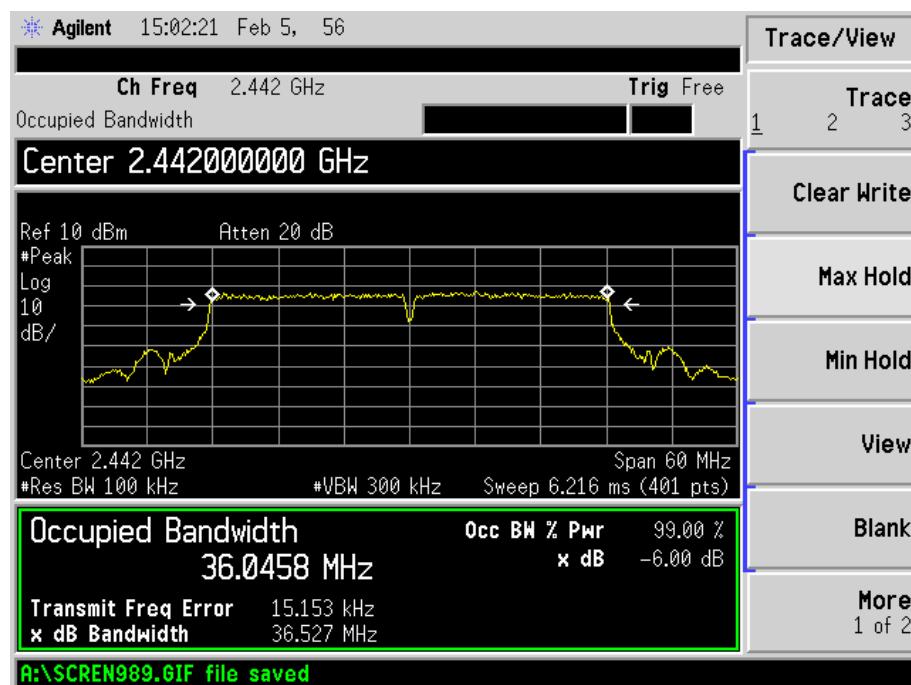
## 802.11n-HT20-High Channel



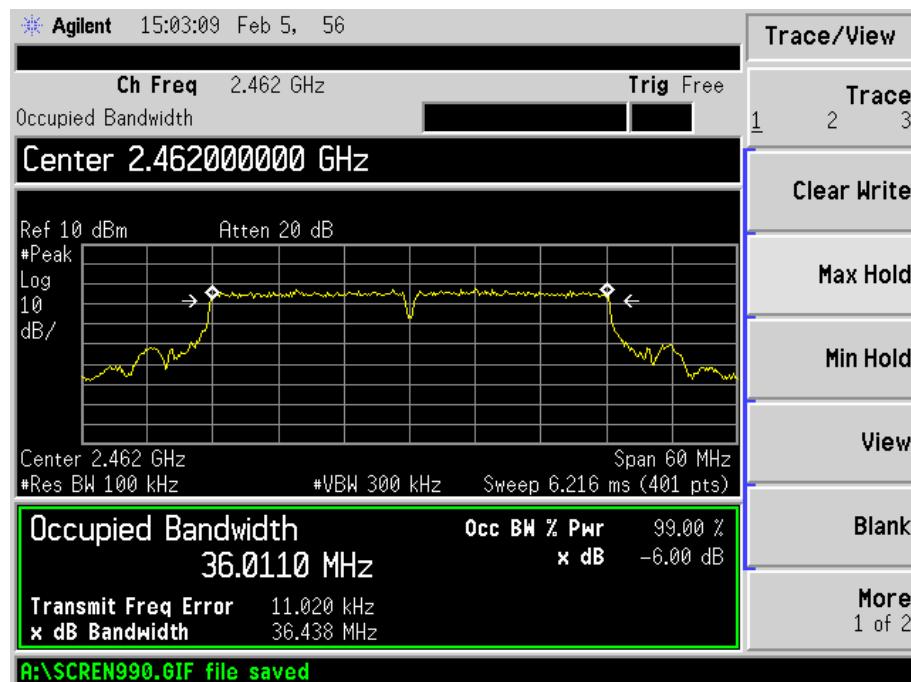
## 802.11n-HT40-Low Channel



## 802.11n-HT40-Middle Channel



## 802.11n-HT40-High Channel



## 7. RF Output Power

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### 7.1 Standard Applicable

According to 15.247(b)(3). For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

### 7.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2014-05-28	2015-05-27
Attenuator	ATTEN	ATS100-4-20	/	2014-05-28	2015-05-27

### 7.3 Test Procedure

According to section 15.247(b)-power output of the KDB-558074 D01 V03r02, 8.1.2 Option 2 (channel integration method) this procedure should only be used when the maximum available RBW of the spectrum/signal analyzer is less than the DTS bandwidth.

1. Set the RBW = maximum available (at least 1 MHz).
2. Set the VBW =  $3 \times$  RBW or maximum available setting (must be  $\geq$  RBW).
3. Set the span to fully encompass the DTS bandwidth.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the spectrum analyzer's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some analyzers, this may require a manual override to ensure use of peak detector).

### 7.4 Environmental Conditions

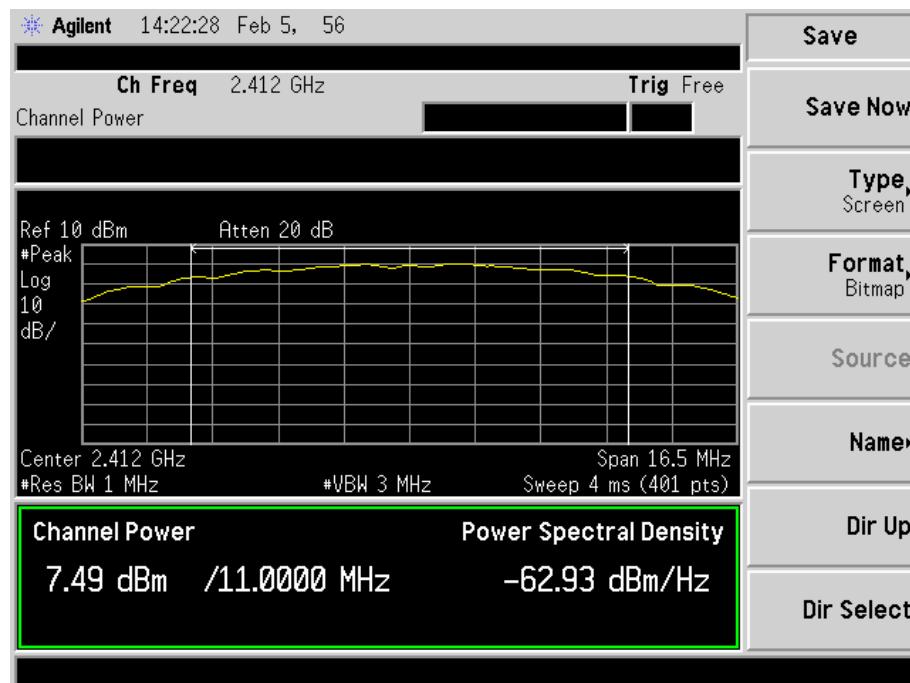
Temperature:	26° C
Relative Humidity:	57%
ATM Pressure:	1011 mbar

## 7.5 Summary of Test Results/Plots

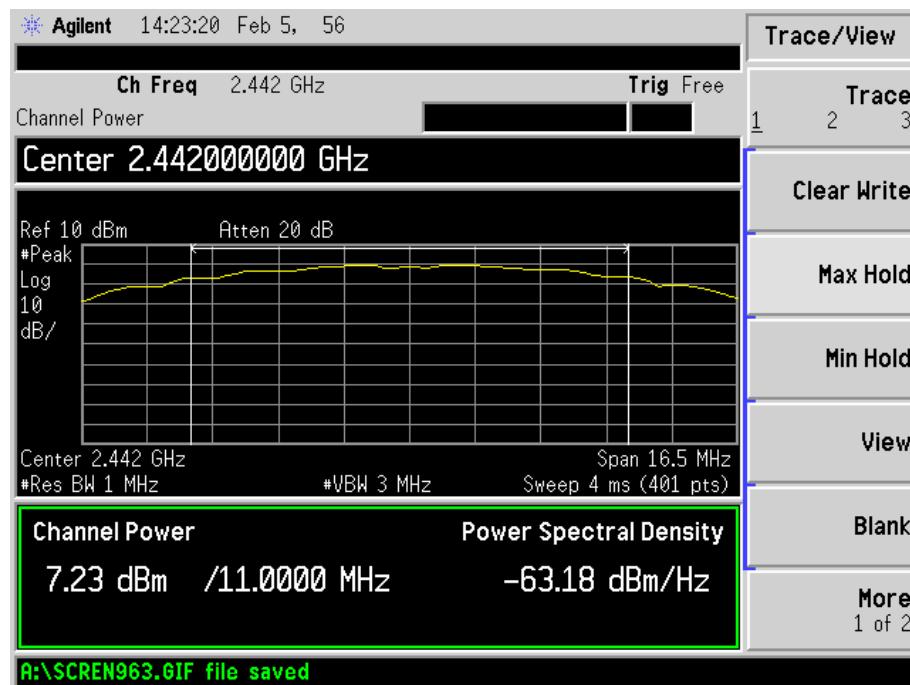
Test Mode	Frequency MHz	Reading dBm	Output Power mW	Limit mW
802.11b_11Mbps	2412	7.49	5.611	1000
	2442	7.23	5.285	1000
	2472	7.57	5.715	1000
802.11g_54Mbps	2412	6.92	4.920	1000
	2442	7.14	5.176	1000
	2472	7.09	5.117	1000
802.11n HT20_MCS7	2412	6.77	4.753	1000
	2442	6.86	4.853	1000
	2472	6.69	4.667	1000
802.11n HT40_MCS7	2422	6.92	4.920	1000
	2442	6.74	4.721	1000
	2462	6.88	4.875	1000

Please refer to the following test plots:

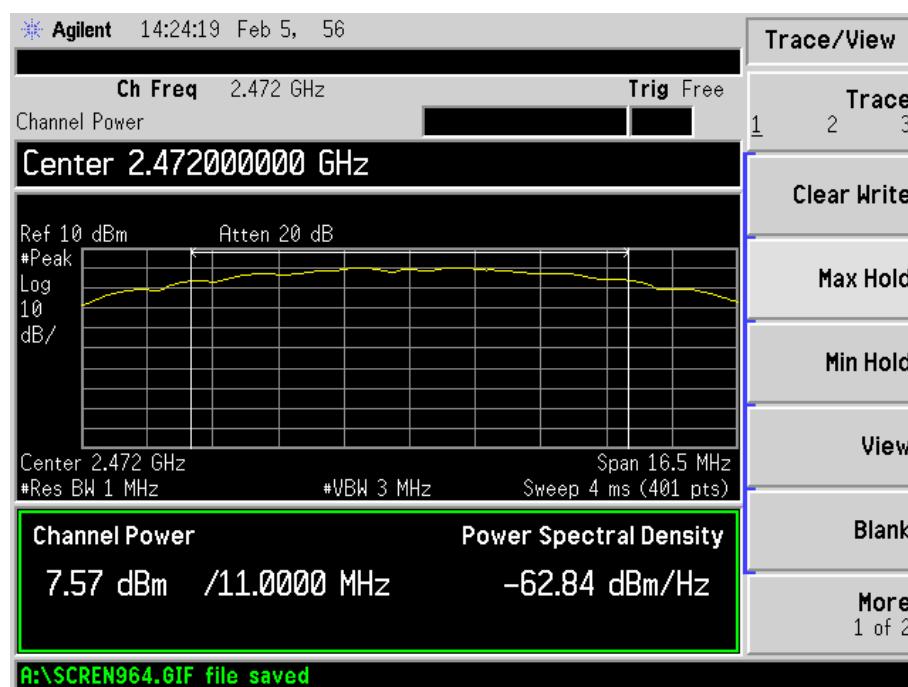
## 802.11b-Low Channel



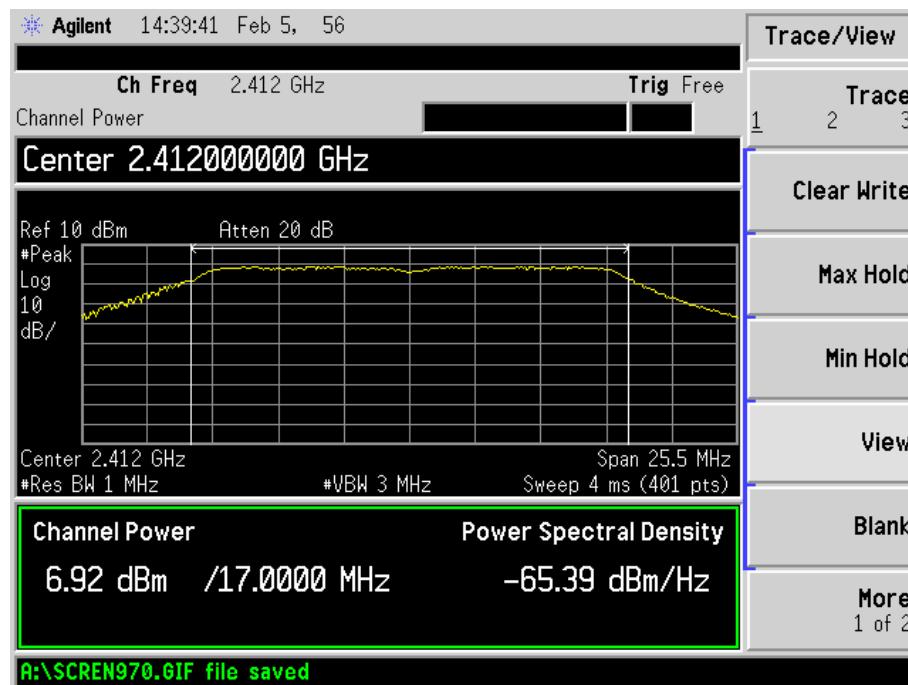
## 802.11b-Middle Channel



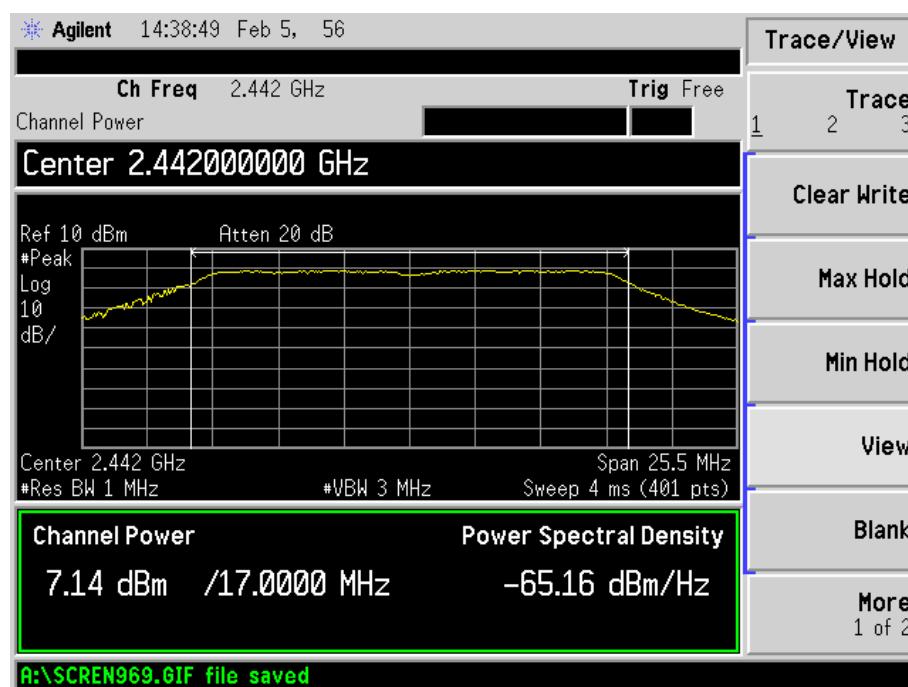
## 802.11b-High Channel



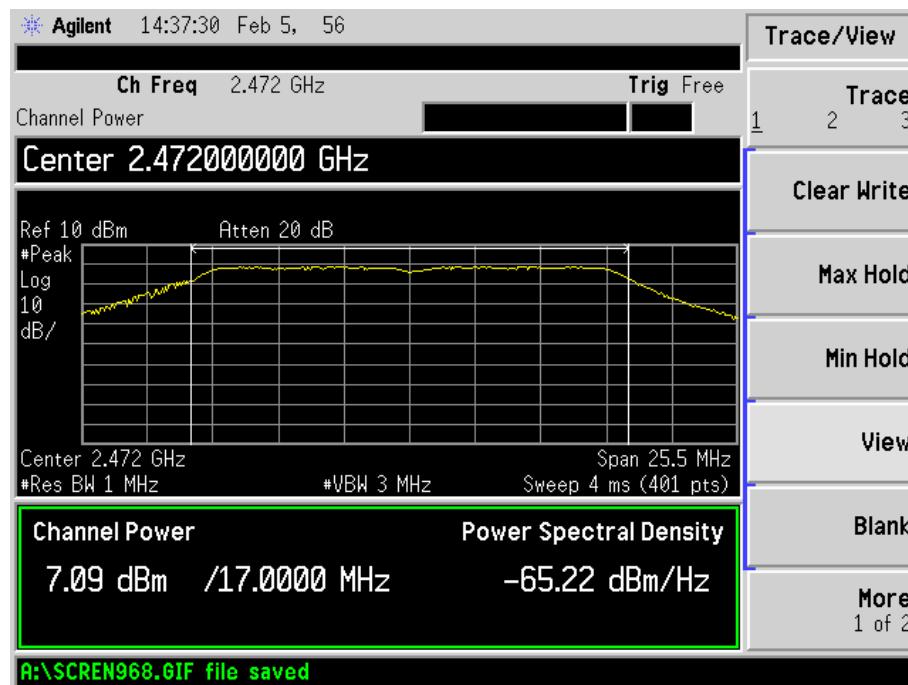
## 802.11g-Low Channel



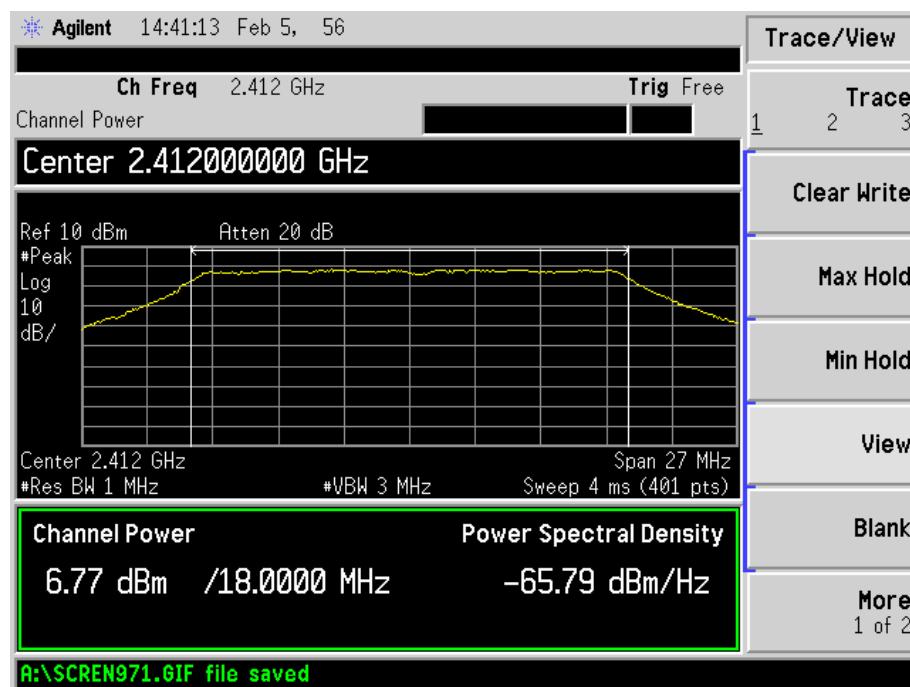
## 802.11g-Middle Channel



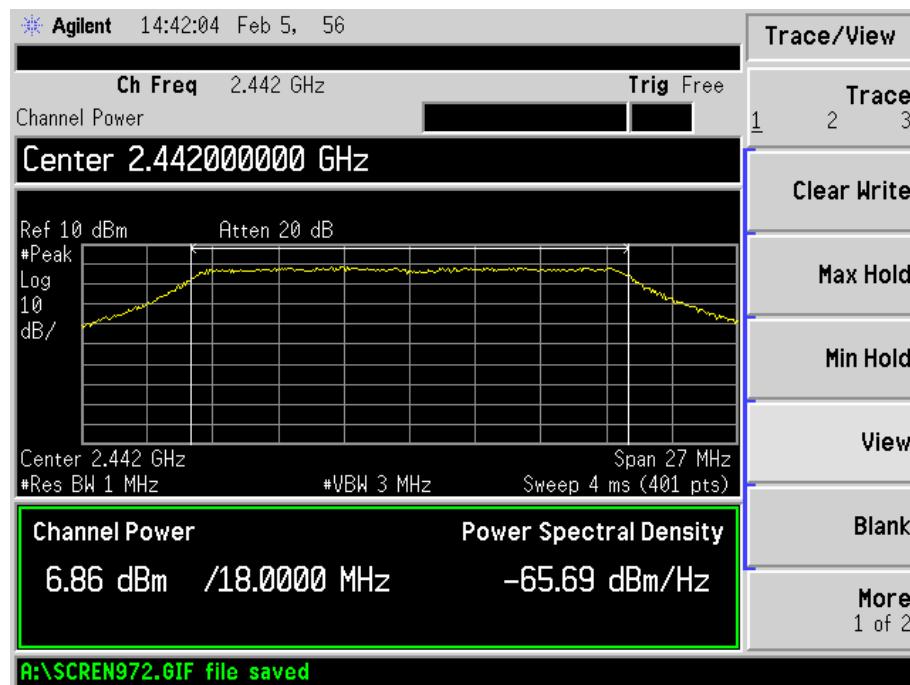
## 802.11g-High Channel



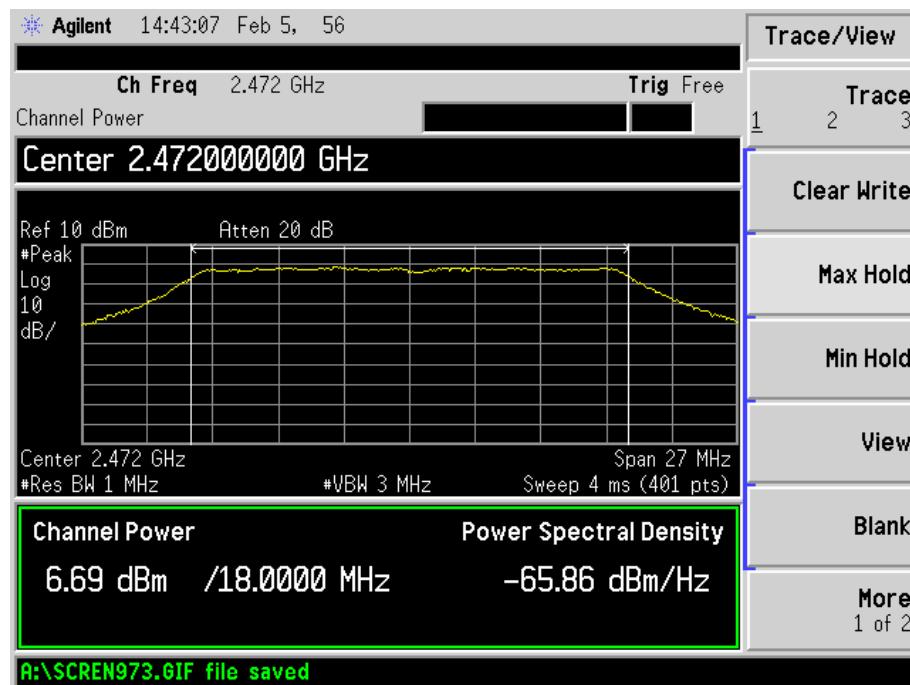
## 802.11n-HT20-Low Channel



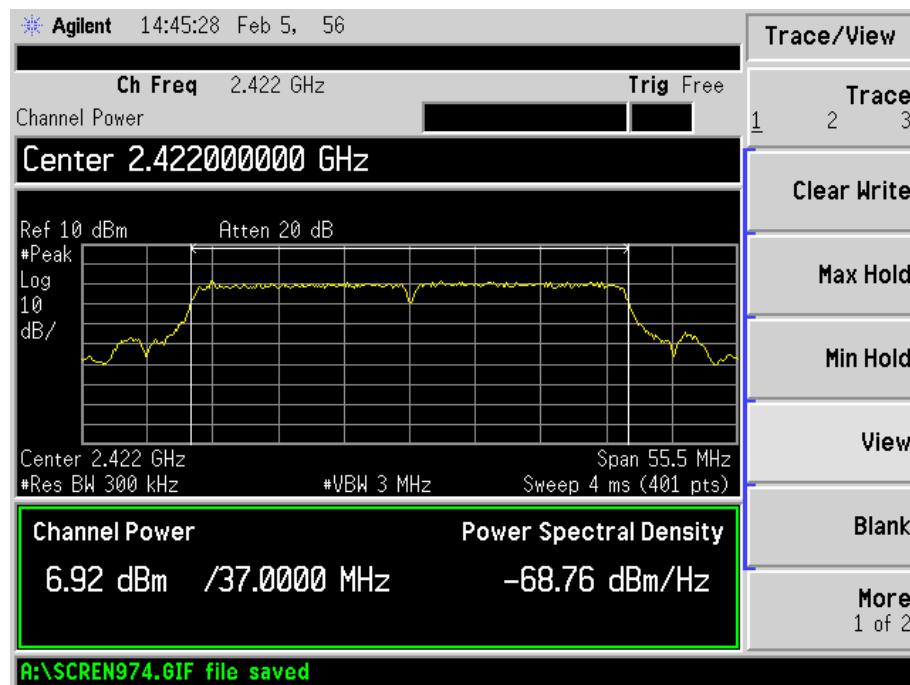
## 802.11n-HT20-Middle Channel



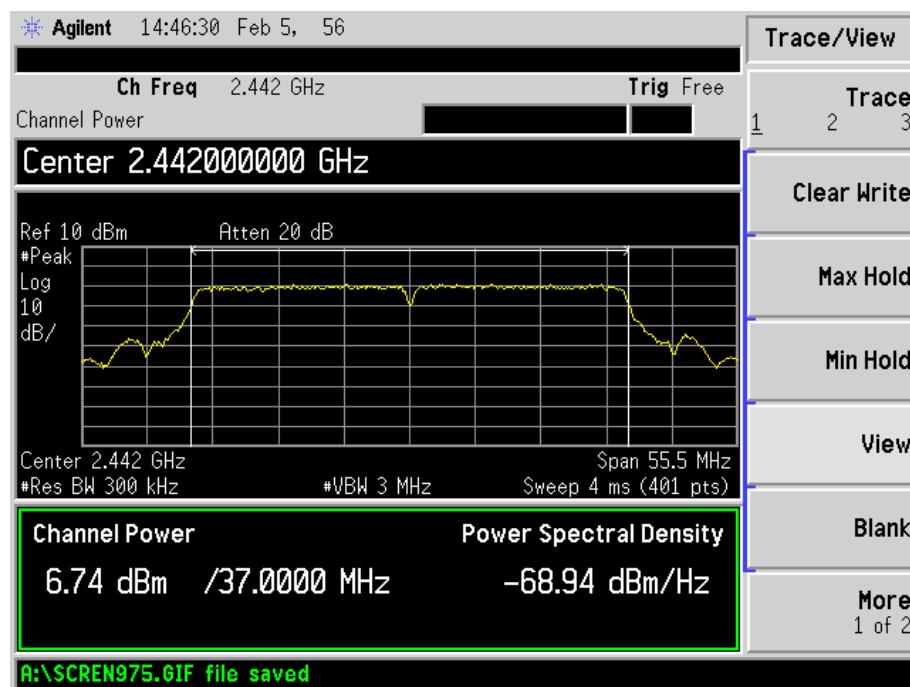
## 802.11n-HT20-High Channel



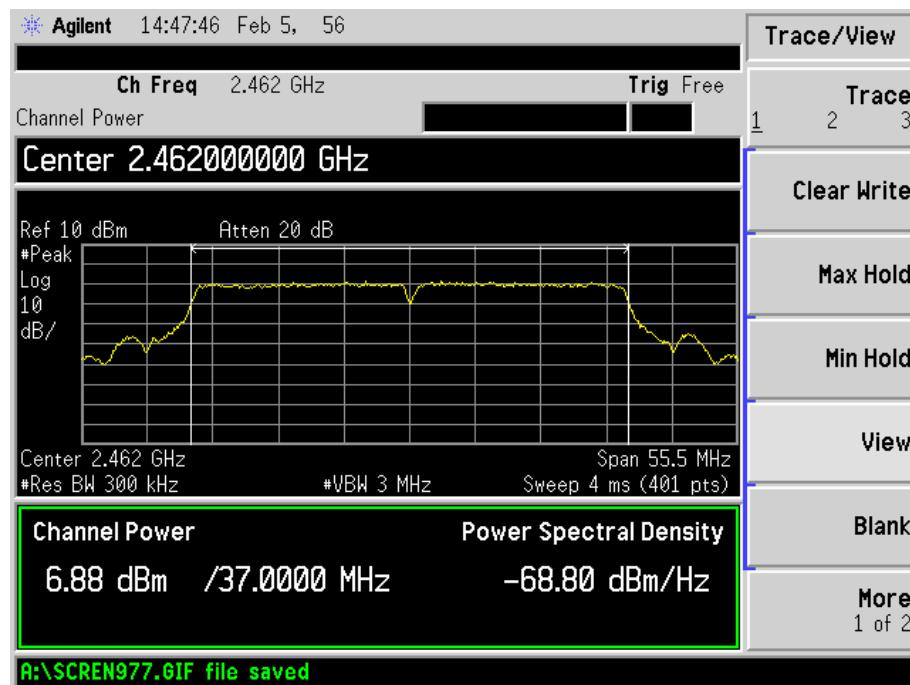
## 802.11n-HT40-Low Channel



## 802.11n-HT40-Middle Channel



## 802.11n-HT40-High Channel



## 8. Field Strength of Spurious Emissions

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### 8.1 Measurement Uncertainty

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement is  $\pm 5.10$  dB.

### 8.2 Standard Applicable

According to §15.247(d), 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, 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. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

### 8.3 Test Equipment List and Details

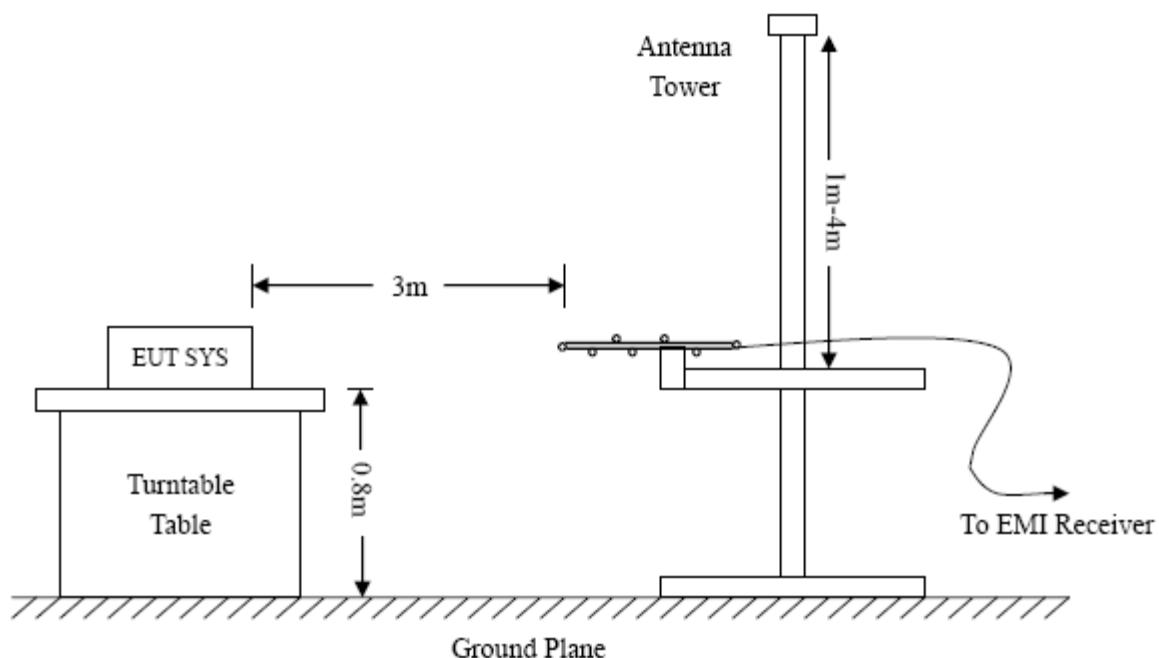
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2014-05-28	2015-05-27
EMI Test Receiver	R&S	ESVB	825471/005	2014-05-28	2015-05-27
Pre-amplifier	Agilent	8447F	3113A06717	2014-05-28	2015-05-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2014-05-28	2015-05-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2014-05-24	2015-05-23
Horn Antenna	ETS	3117	00086197	2014-05-24	2015-05-23
Horn Antenna	ETS	3116B	00088203	2014-05-24	2015-05-23
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2014-05-24	2015-05-23

## 8.4 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.



Frequency :9kHz-30MHz  
RBW=10KHz,  
VBW =30KHz  
Sweep time= Auto  
Trace = max hold  
Detector function = peak

Frequency :30MHz-1GHz  
RBW=120KHz,  
VBW=300KHz  
Sweep time= Auto  
Trace = max hold  
Detector function = peak, QP

Frequency :Above 1GHz  
RBW=1MHz,  
VBW=3MHz(Peak), 10Hz(AV)  
Sweep time= Auto  
Trace = max hold  
Detector function = peak, AV

## 8.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB $\mu$ V means the emission is 6dB $\mu$ V below the maximum limit for Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

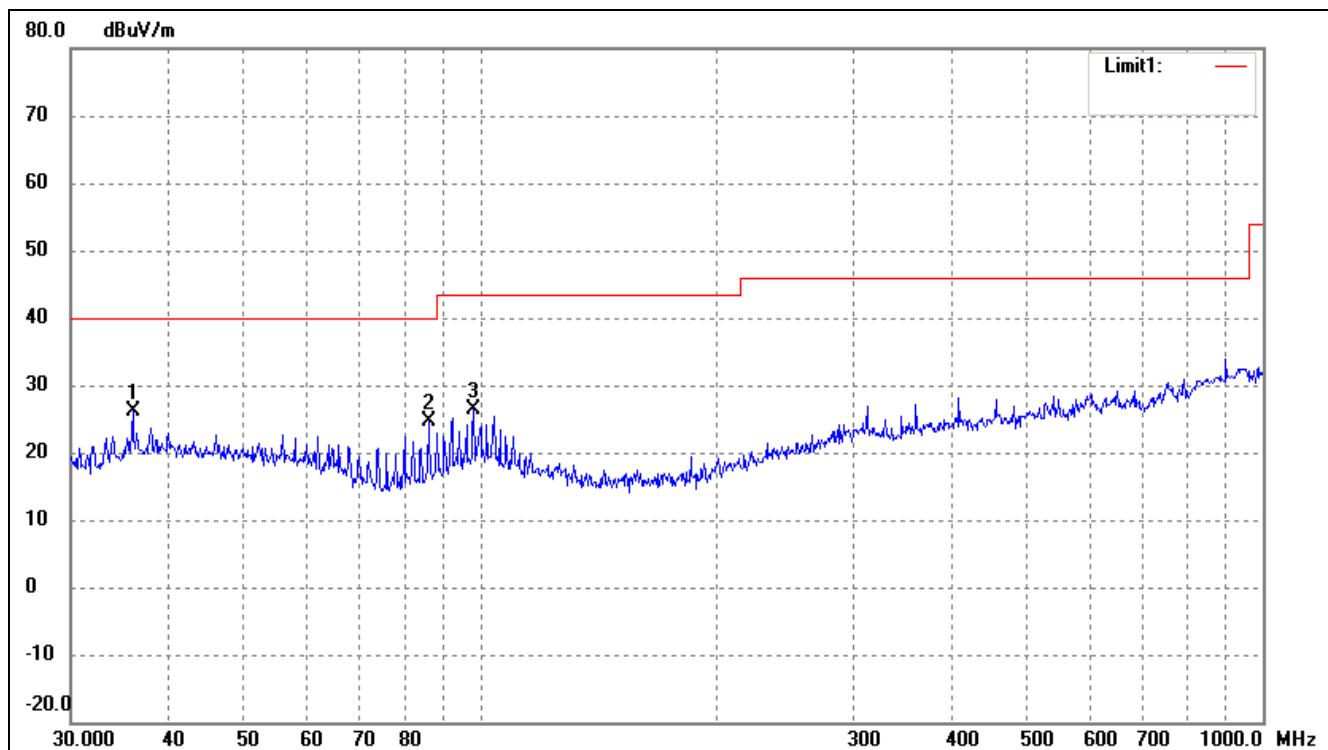
## 8.6 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

## 8.7 Summary of Test Results/Plots

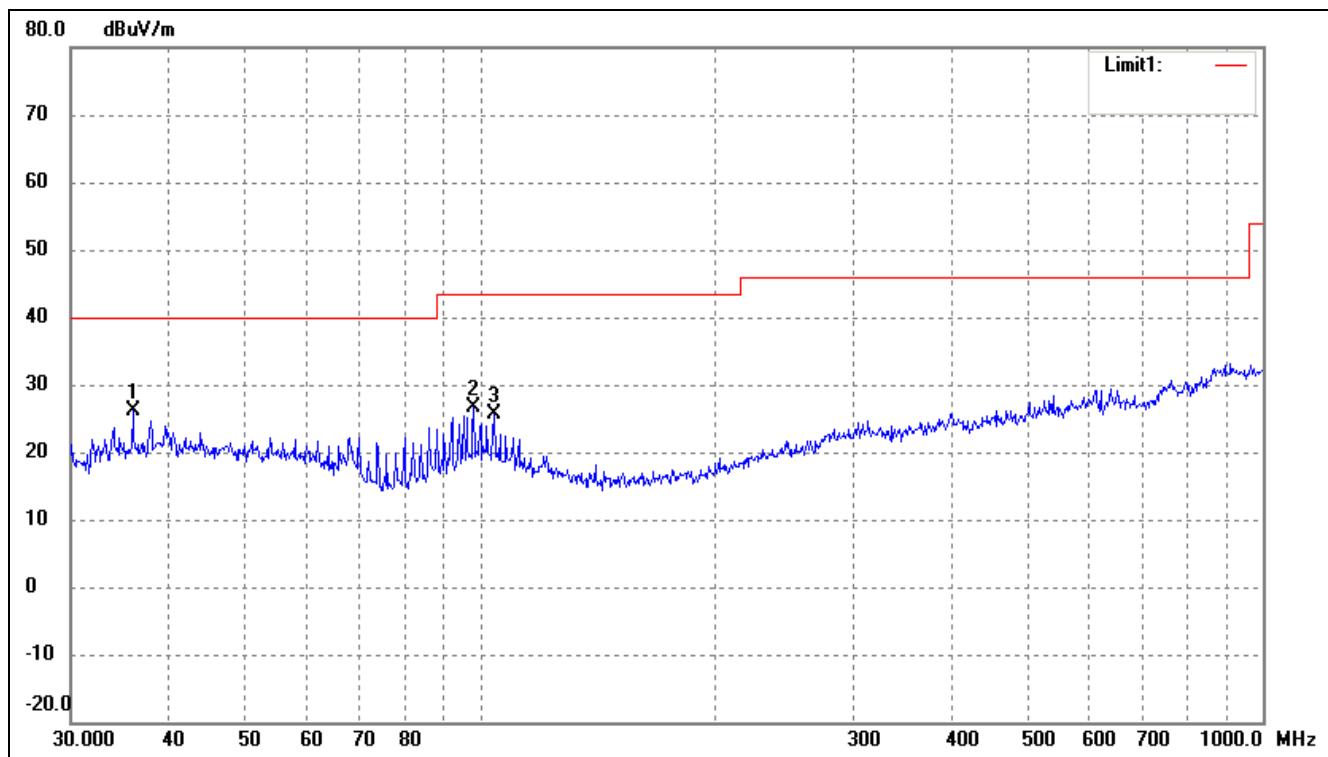
According to the data below, the FCC Part 15.205, 15.209 and 15.247 standards, and had the worst cases:

*Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.*

**Plot of Radiated Emissions Test Data (30MHz to 1GHz)**EUT: *Tablet PC*Tested Model: *F-10XHD*Operating Condition: *802.11b Transmitting Low Channel-2412MHz*Comment: *DC3.7V*Test Specification: *Horizontal*

No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	36.0007	20.07	6.16	26.23	40.00	-13.77	155	100	peak
2	85.8984	22.10	2.54	24.64	40.00	-15.36	135	100	peak
3	98.1419	20.80	5.67	26.47	43.50	-17.03	45	100	peak

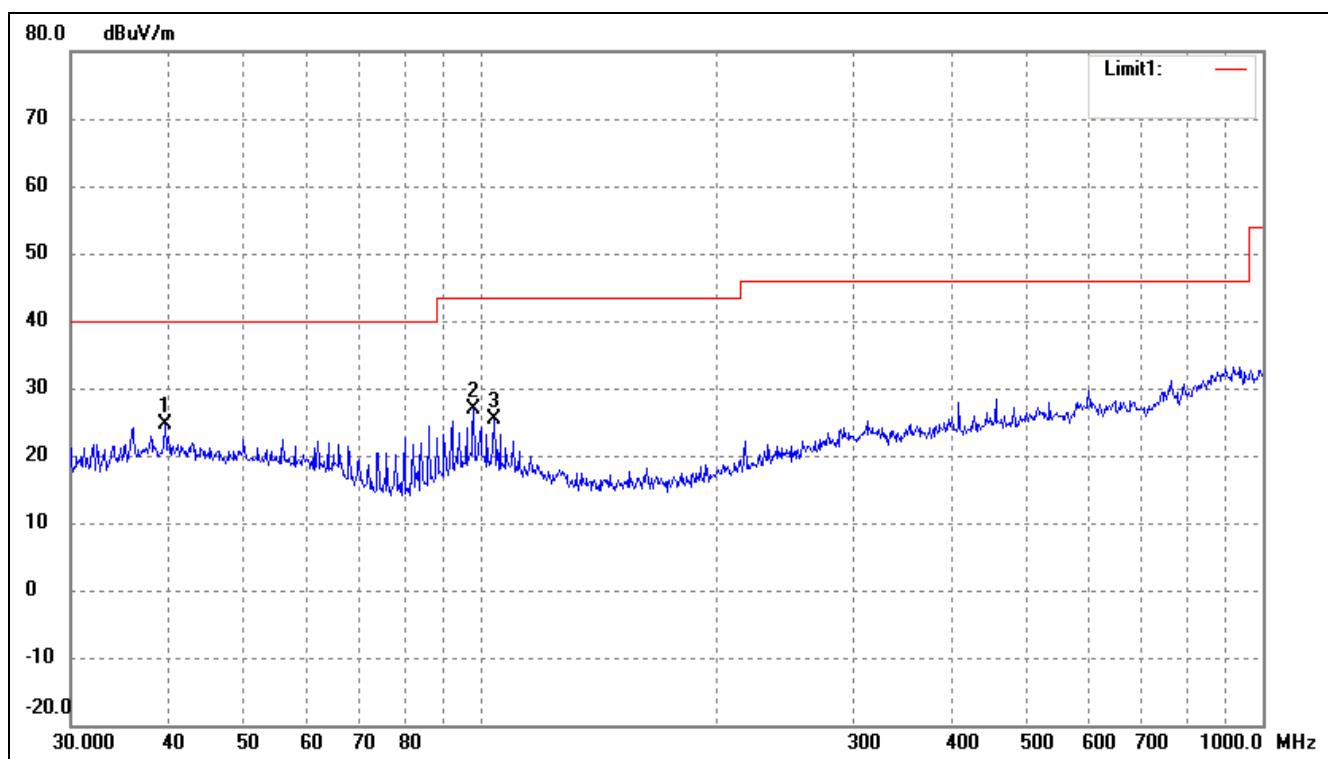
Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	36.0007	17.63	8.56	26.19	40.00	-13.81	114	100	peak
2	98.1419	21.04	5.67	26.71	43.50	-16.79	155	100	peak
3	104.1701	19.89	5.69	25.58	43.50	-17.92	78	100	peak

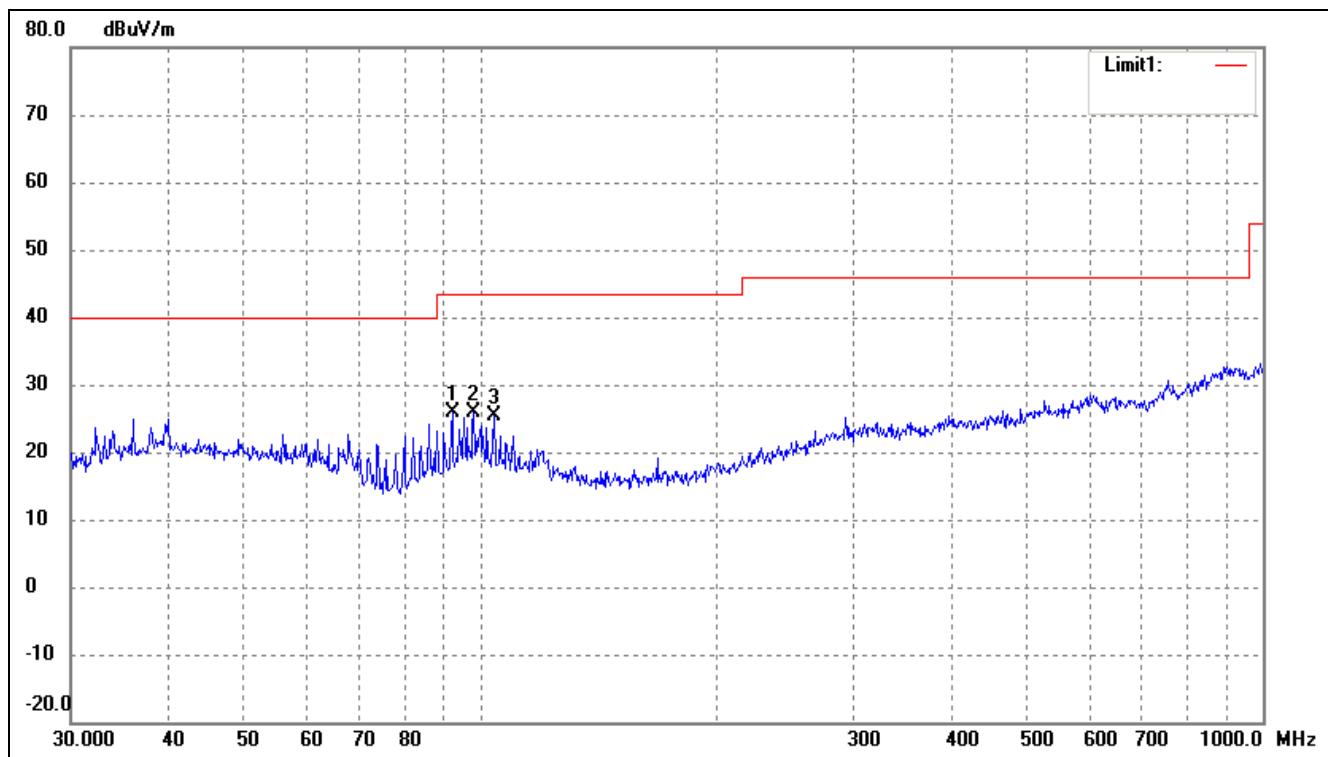
*Operating Condition:* 802.11b Transmitting Middle Channel-2442MHz  
*Comment:* DC3.7V

*Test Specification:* Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	39.5757	17.50	7.13	24.63	40.00	-15.37	178	100	peak
2	98.1419	21.09	5.67	26.76	43.50	-16.74	54	100	peak
3	104.1701	19.63	5.69	25.32	43.50	-18.18	257	100	peak

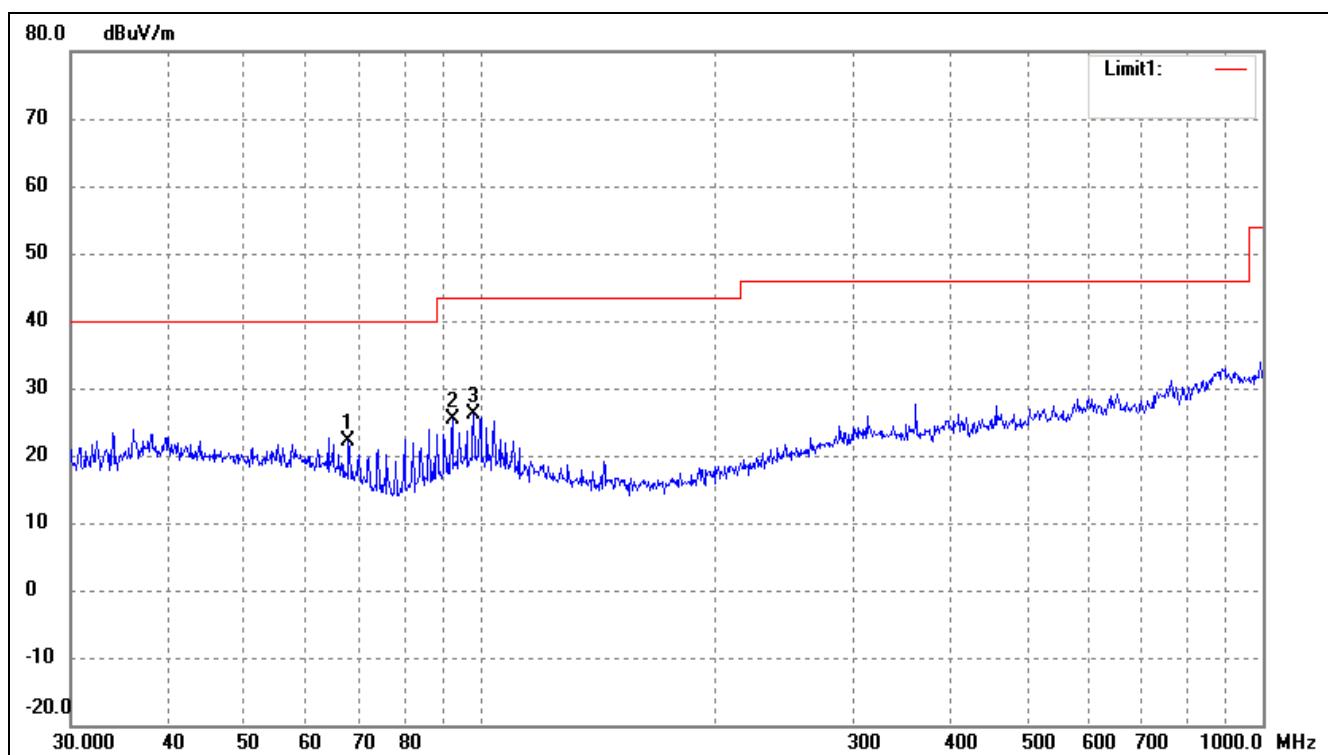
Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	92.1388	21.84	4.15	25.99	43.50	-17.51	256	100	peak
2	98.1419	20.25	5.67	25.92	43.50	-17.58	360	100	peak
3	104.1701	19.58	5.69	25.27	43.50	-18.23	360	100	peak

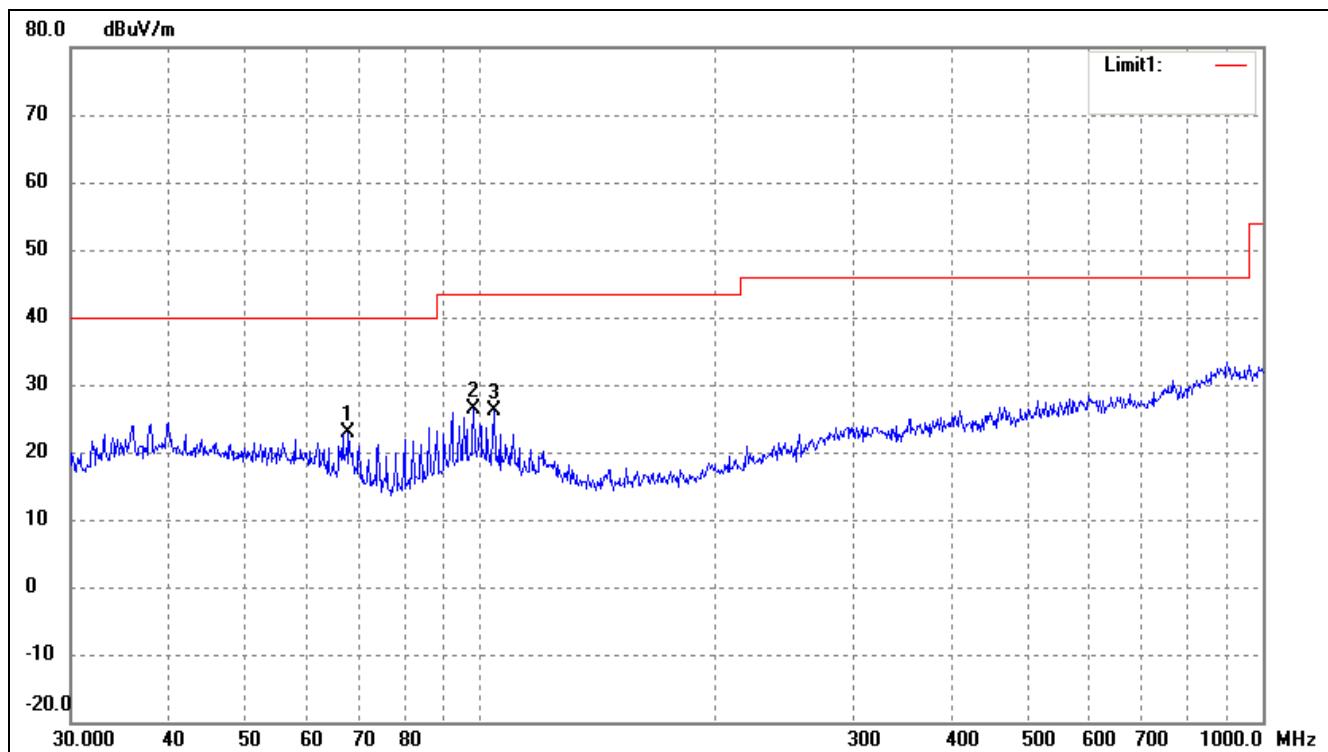
*Operating Condition:* 802.11b Transmitting High Channel-2472MHz  
*Comment:* DC3.7V

*Test Specification:* Horizontal

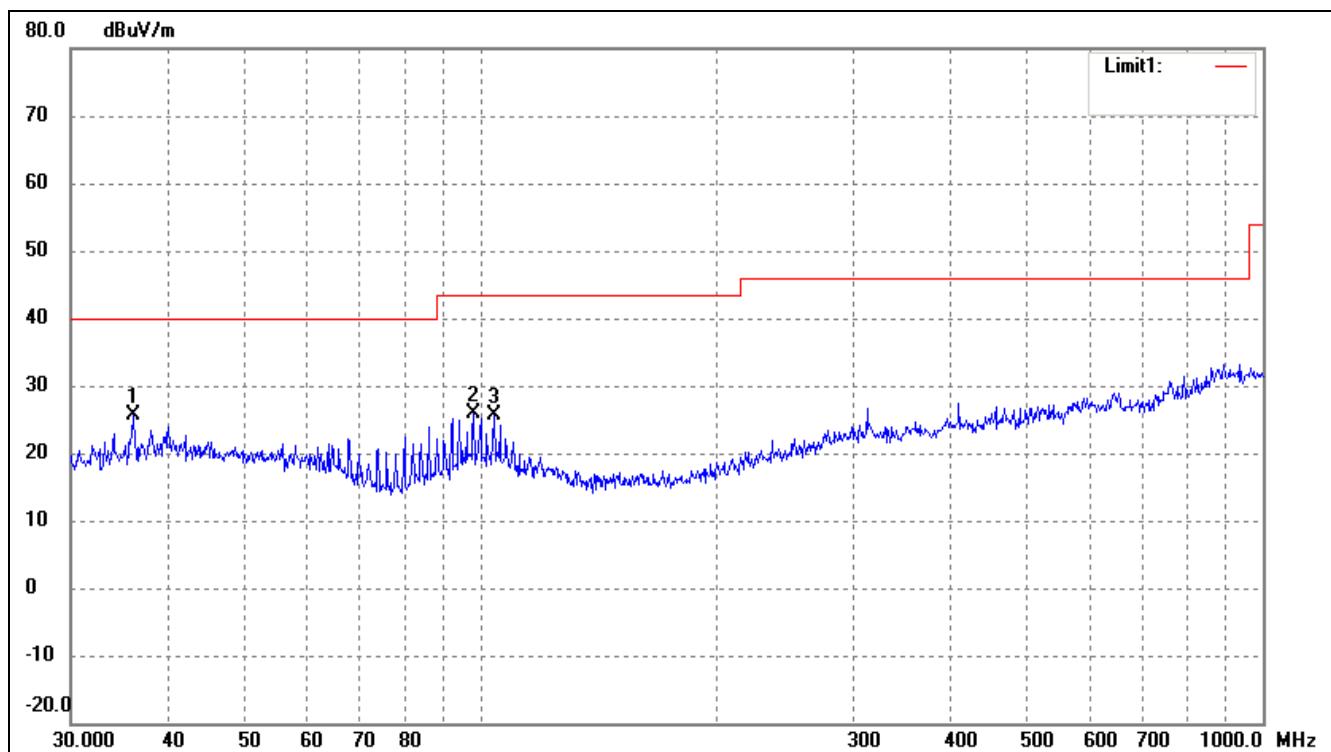


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	67.9129	19.25	2.86	22.11	40.00	-17.89	176	100	peak
2	92.1388	21.28	4.15	25.43	43.50	-18.07	255	100	peak
3	98.1419	20.47	5.67	26.14	43.50	-17.36	360	100	peak

Test Specification: Vertical

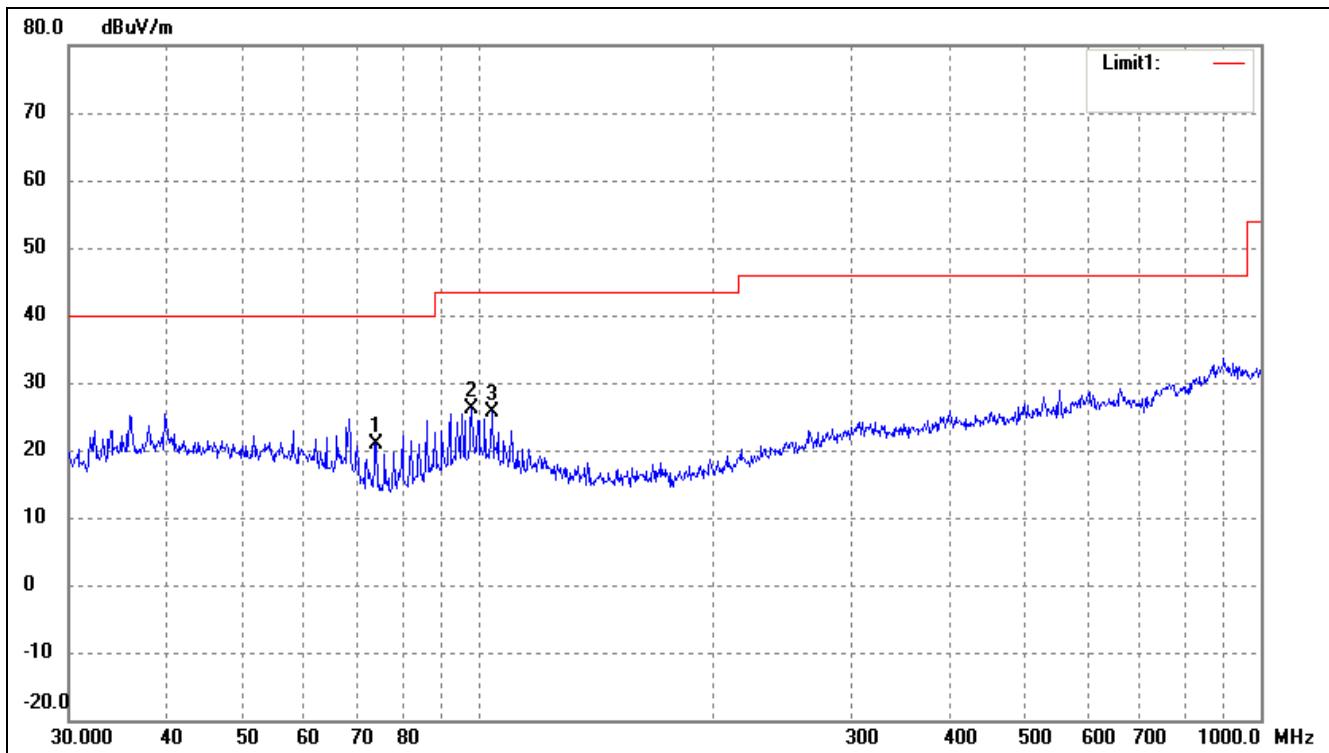


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	67.9129	19.99	2.86	22.85	40.00	-17.15	325	100	peak
2	98.1419	20.71	5.67	26.38	43.50	-17.12	54	100	peak
3	104.1701	20.53	5.69	26.22	43.50	-17.28	78	100	peak

**Plot of Radiated Emissions Test Data (30MHz to 1GHz)***EUT:* Tablet PC*Tested Model:* F-10XHD*Operating Condition:* 802.11g Transmitting Low Channel-2412MHz*Comment:* DC3.7V*Test Specification:* Horizontal

No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	36.0007	19.51	6.16	25.67	40.00	-14.33	184	100	peak
2	98.1419	20.22	5.67	25.89	43.50	-17.61	87	100	peak
3	104.1701	20.03	5.69	25.72	43.50	-17.78	215	100	peak

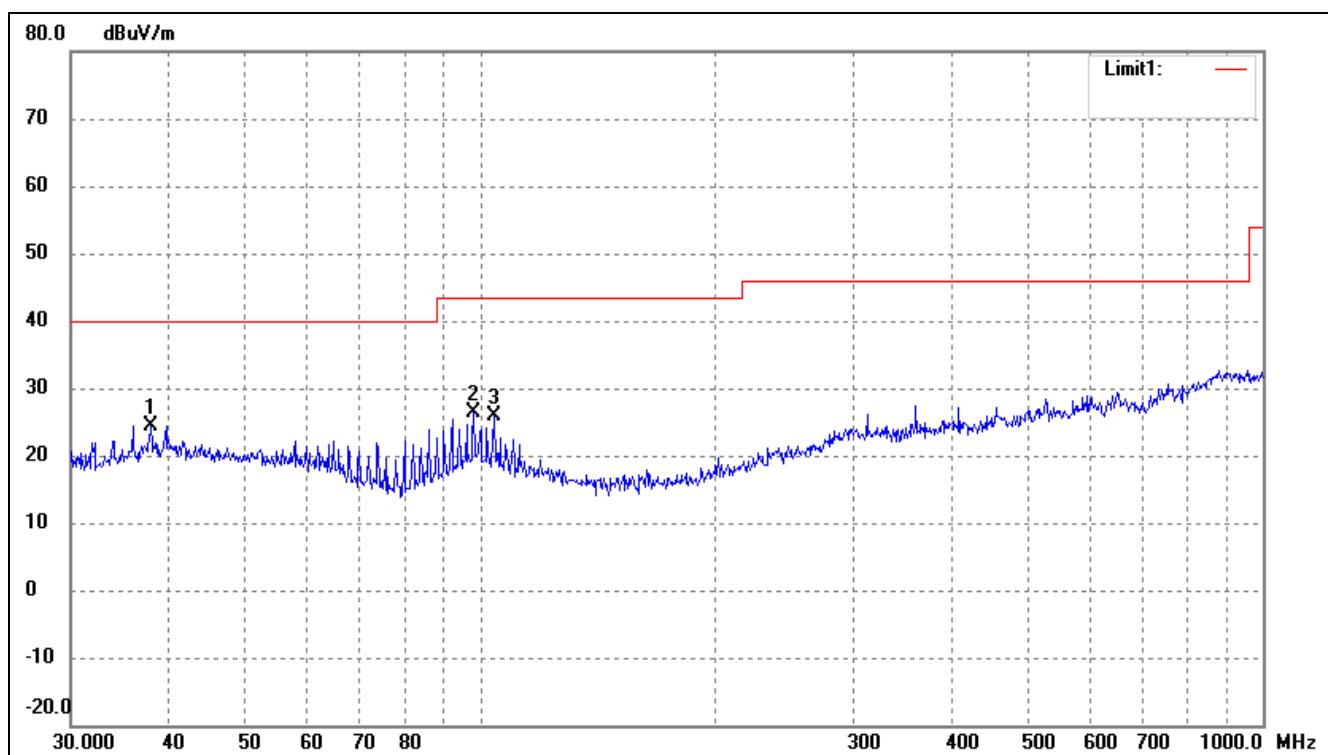
Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	74.1351	19.07	1.70	20.77	40.00	-19.23	177	100	peak
2	98.1419	20.47	5.67	26.14	43.50	-17.36	90	100	peak
3	104.1701	19.97	5.69	25.66	43.50	-17.84	336	100	peak

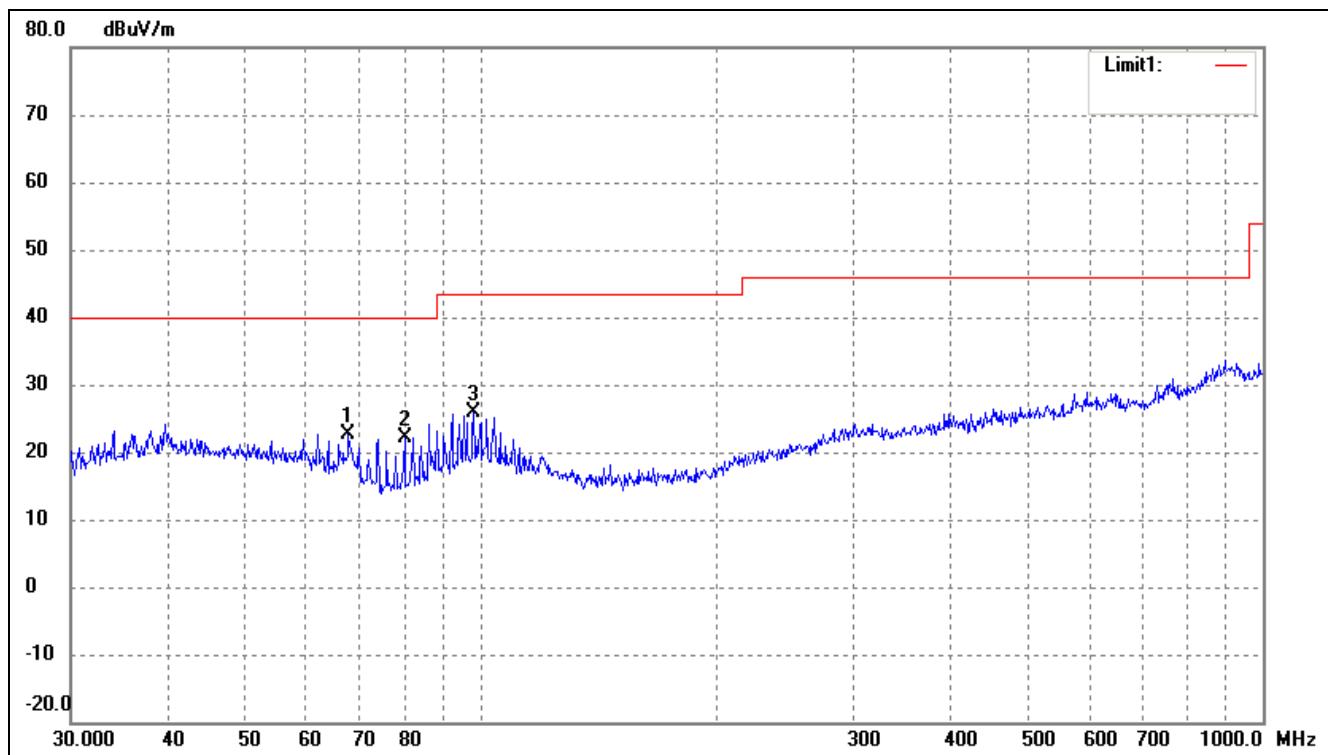
*Operating Condition:* 802.11g Transmitting Middle Channel-2442MHz  
*Comment:* DC3.7V

*Test Specification:* Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	37.9450	17.68	6.70	24.38	40.00	-15.62	45	100	peak
2	98.1419	20.71	5.67	26.38	43.50	-17.12	215	100	peak
3	104.1701	20.30	5.69	25.99	43.50	-17.51	45	200	peak

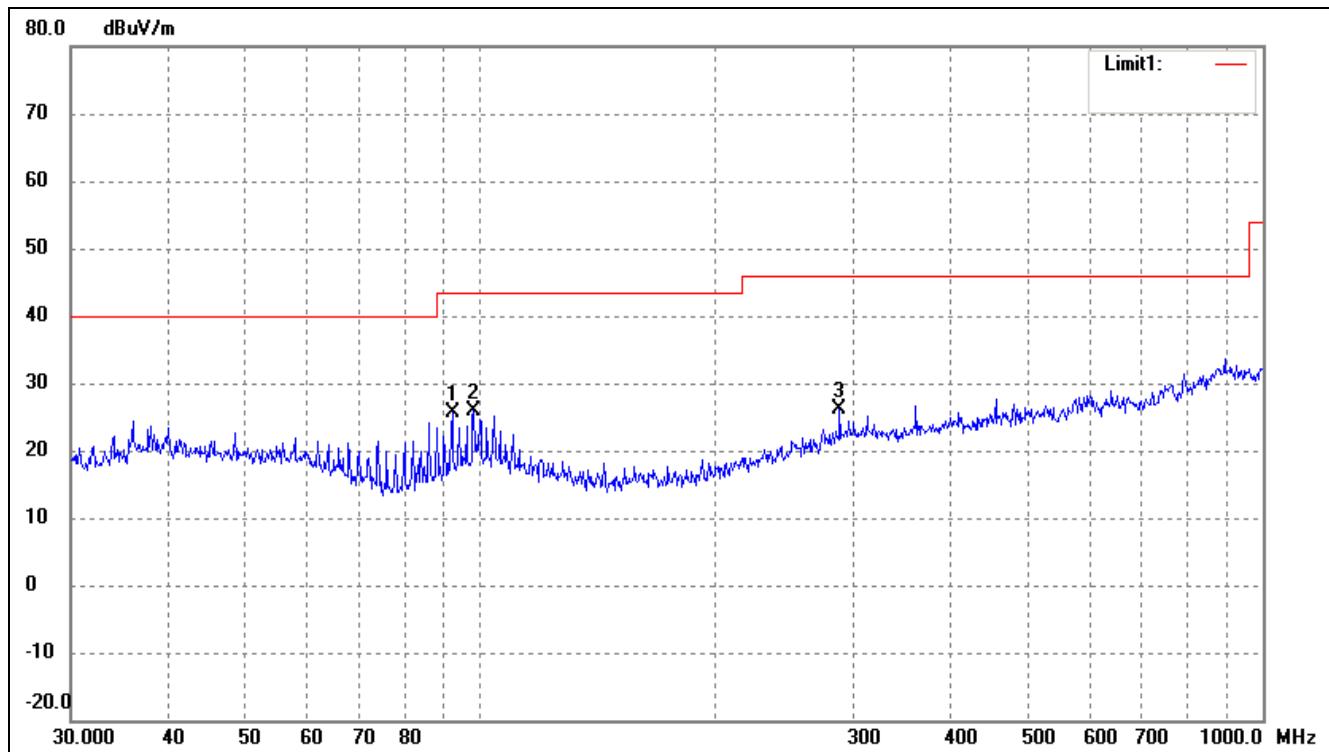
Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	67.9129	19.77	2.86	22.63	40.00	-17.37	324	100	peak
2	80.0806	21.18	1.02	22.20	40.00	-17.80	158	100	peak
3	98.1419	20.31	5.67	25.98	43.50	-17.52	51	100	peak

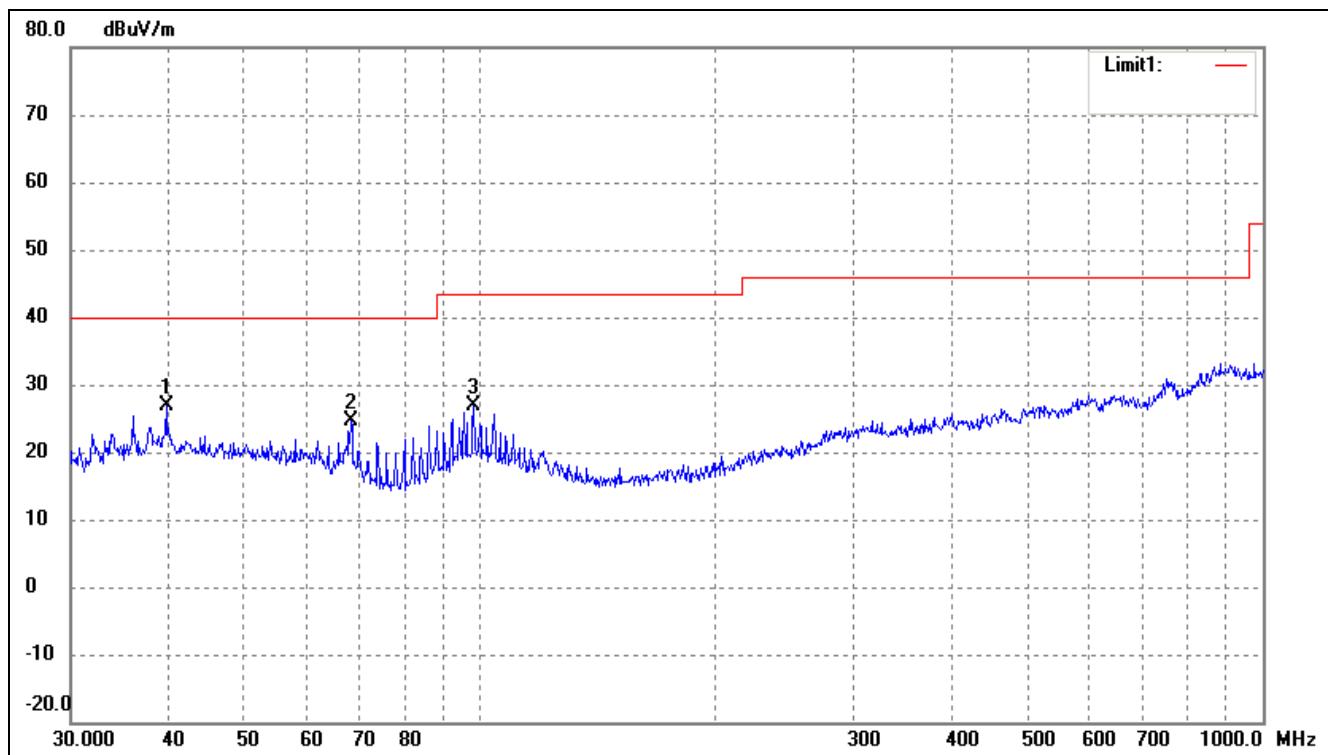
*Operating Condition:* 802.11g Transmitting High Channel-2472Hz  
*Comment:* DC3.7V

*Test Specification:* Horizontal

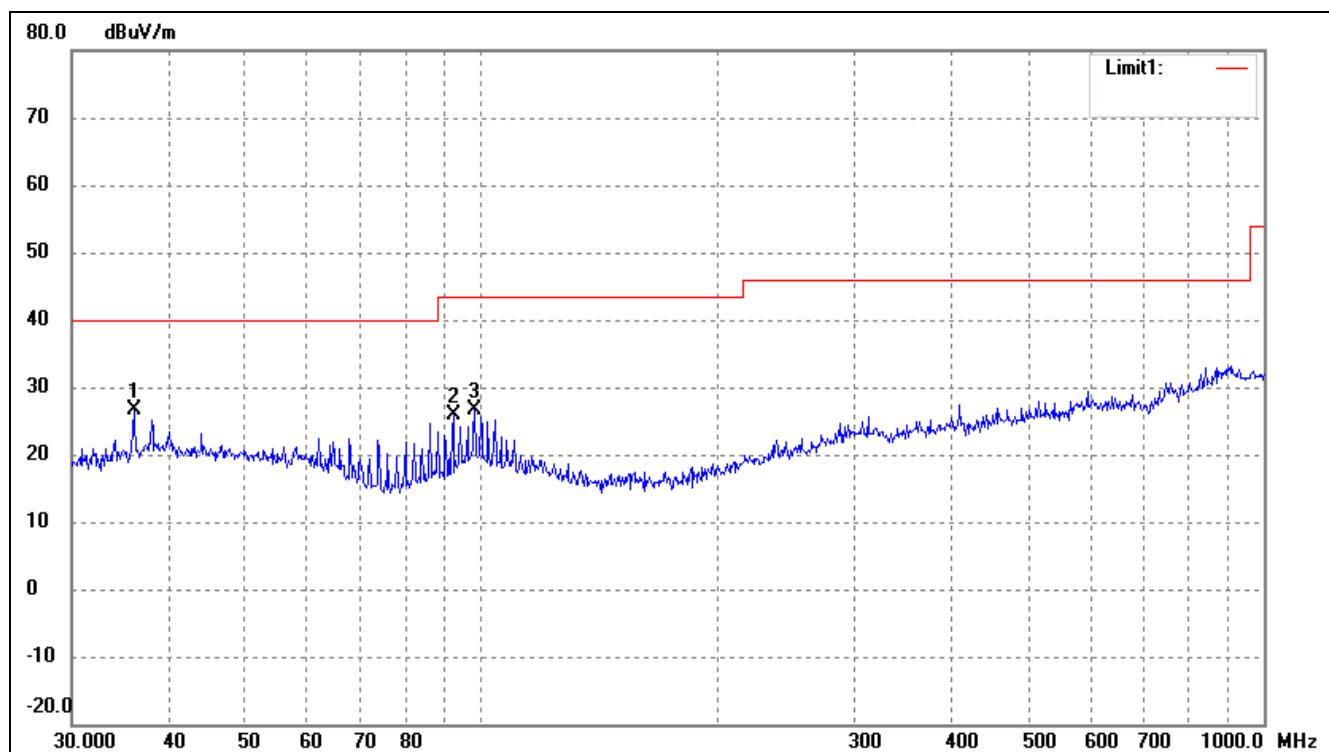


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	92.1388	21.39	4.15	25.54	43.50	-17.96	225	100	peak
2	98.1419	20.24	5.67	25.91	43.50	-17.59	98	100	peak
3	287.9904	17.30	8.71	26.01	46.00	-19.99	302	100	peak

Test Specification: Vertical

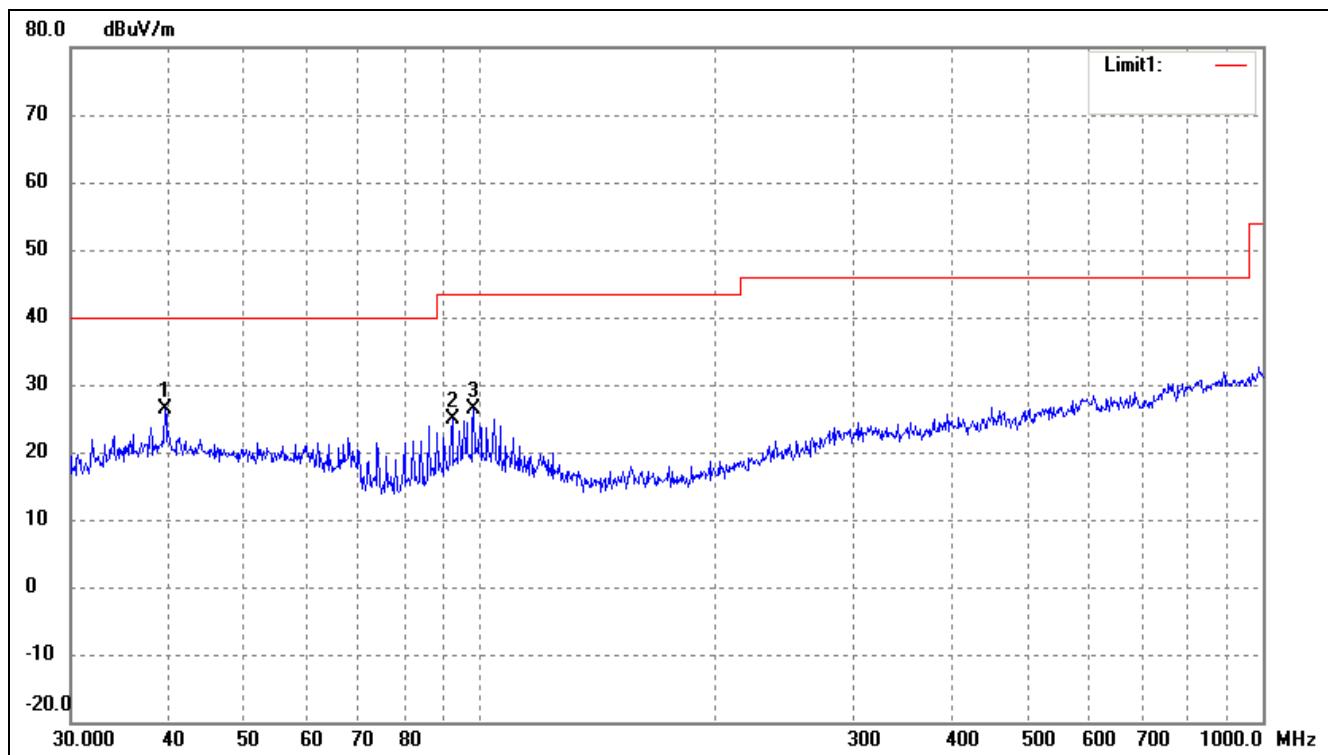


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	39.7147	17.59	9.20	26.79	40.00	-13.21	215	100	peak
2	68.3908	21.91	2.70	24.61	40.00	-15.39	321	100	peak
3	98.1419	21.16	5.67	26.83	43.50	-16.67	124	100	peak

**Plot of Radiated Emissions Test Data (30MHz to 1GHz)**EUT: *Tablet PC*Tested Model: *F-10XHD*Operating Condition: *802.11n-HT20 Transmitting Low Channel-2412MHz*Comment: *DC3.7V*Test Specification: *Horizontal*

No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	36.0007	20.37	6.16	26.53	40.00	-13.47	125	100	peak
2	92.1388	21.74	4.15	25.89	43.50	-17.61	35	100	peak
3	98.1419	20.86	5.67	26.53	43.50	-16.97	155	100	peak

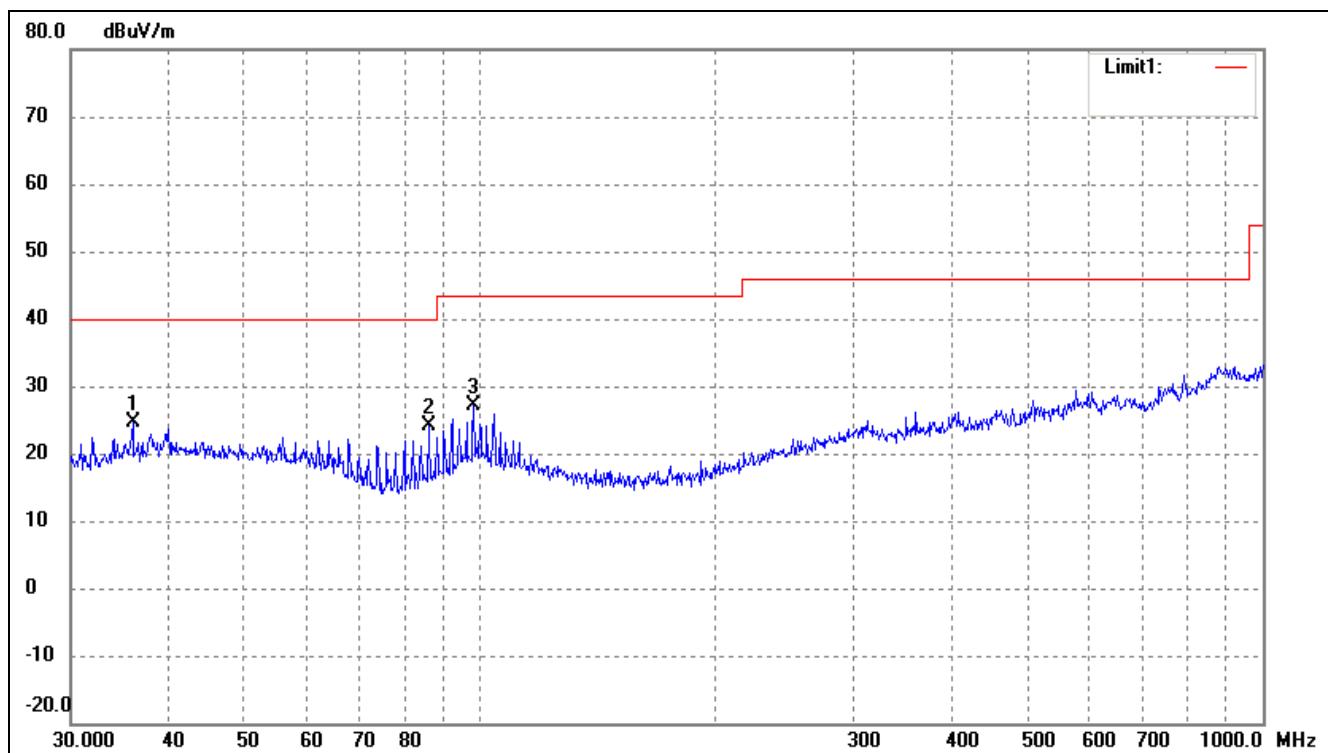
Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	39.5757	17.11	9.18	26.29	40.00	-13.71	212	100	peak
2	92.1388	20.82	4.15	24.97	43.50	-18.53	35	100	peak
3	98.1419	20.64	5.67	26.31	43.50	-17.19	158	100	peak

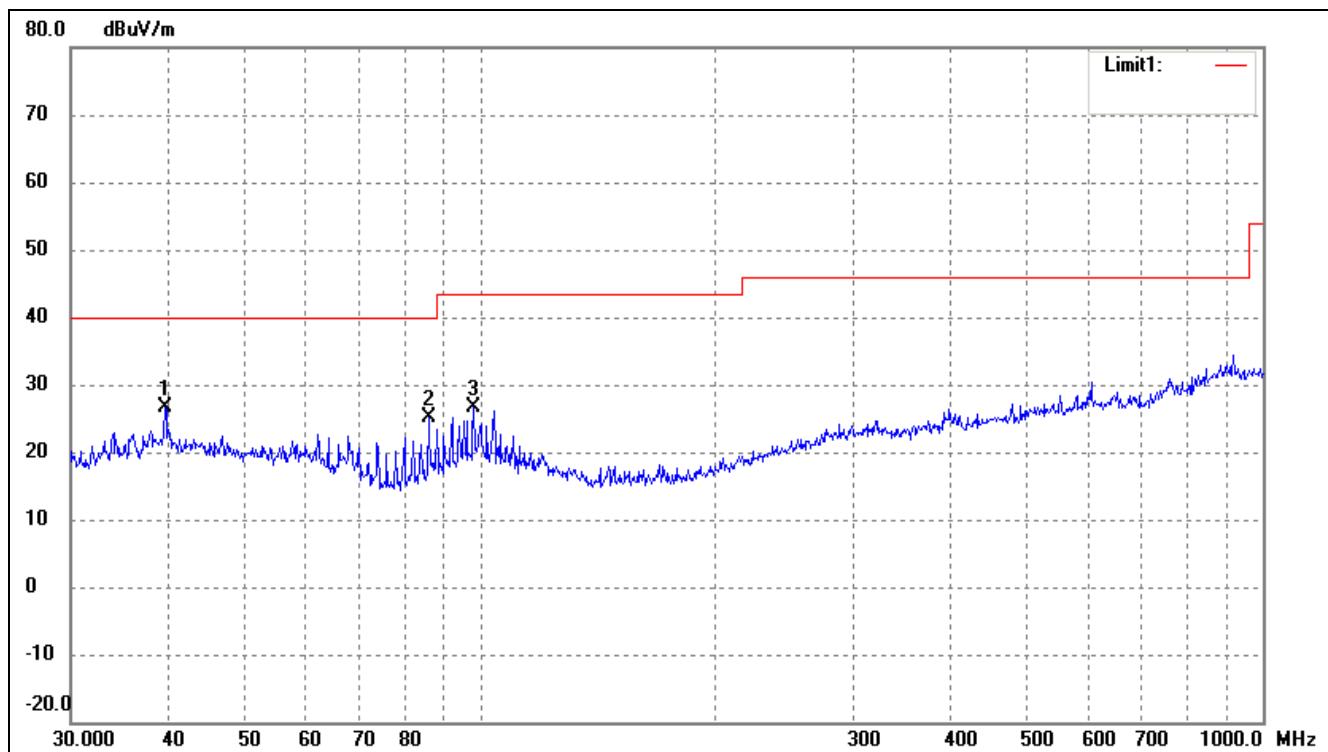
*Operating Condition:* 802.11n-HT20 Transmitting Middle Channel-2442 $\gamma$   
*Comment:* DC3.7V

*Test Specification:* Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	36.0007	18.52	6.16	24.68	40.00	-15.32	215	100	peak
2	85.8984	21.69	2.54	24.23	40.00	-15.77	321	100	peak
3	98.1419	21.41	5.67	27.08	43.50	-16.42	82	100	peak

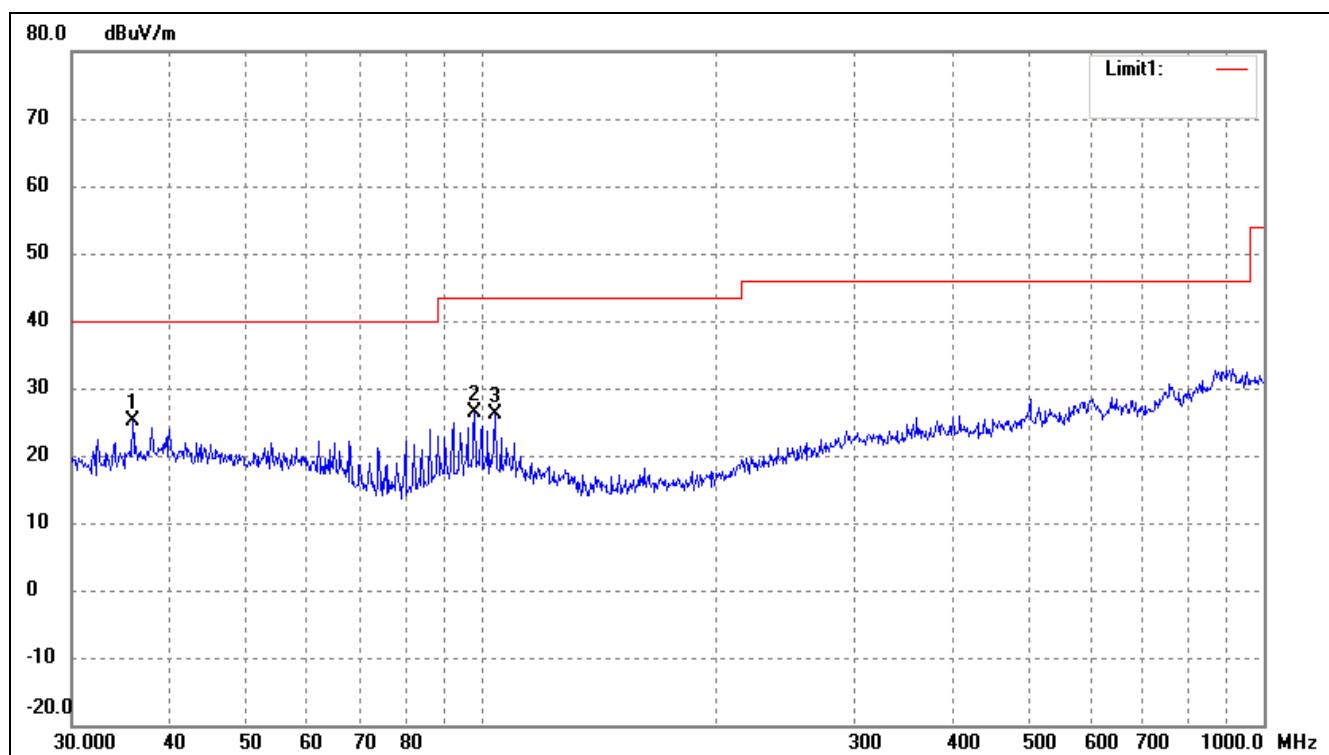
Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	39.5757	17.42	9.18	26.60	40.00	-13.40	215	100	peak
2	85.8984	22.69	2.54	25.23	40.00	-14.77	54	100	peak
3	98.1419	20.92	5.67	26.59	43.50	-16.91	89	100	peak

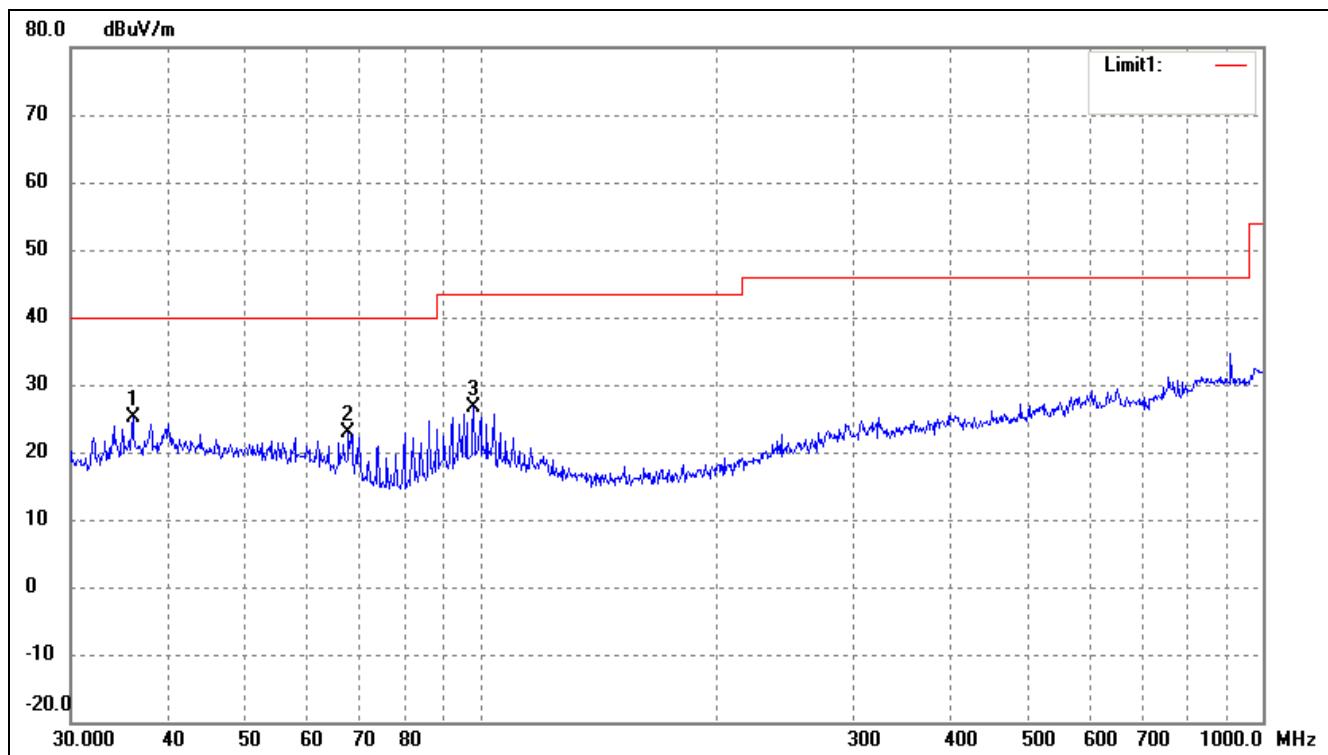
*Operating Condition:* 802.11n-HT20 Transmitting High Channel-2472MHz  
*Comment:* DC3.7V

*Test Specification:* Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	35.8747	18.90	6.13	25.03	40.00	-14.97	360	100	peak
2	98.1419	20.69	5.67	26.36	43.50	-17.14	112	100	peak
3	104.1701	20.55	5.69	26.24	43.50	-17.26	180	200	peak

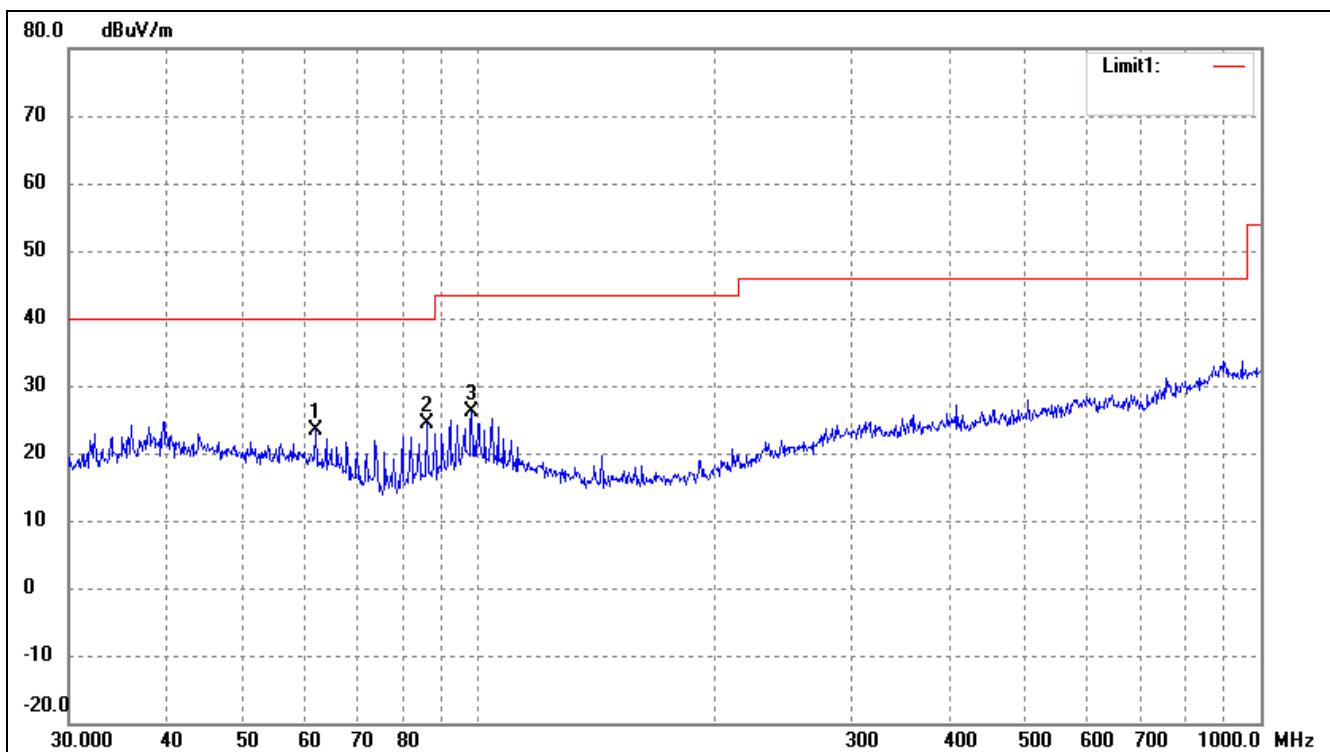
Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	36.0007	16.46	8.56	25.02	40.00	-14.98	157	100	peak
2	67.9129	20.06	2.86	22.92	40.00	-17.08	136	100	peak
3	98.1419	20.94	5.67	26.61	43.50	-16.89	258	100	peak

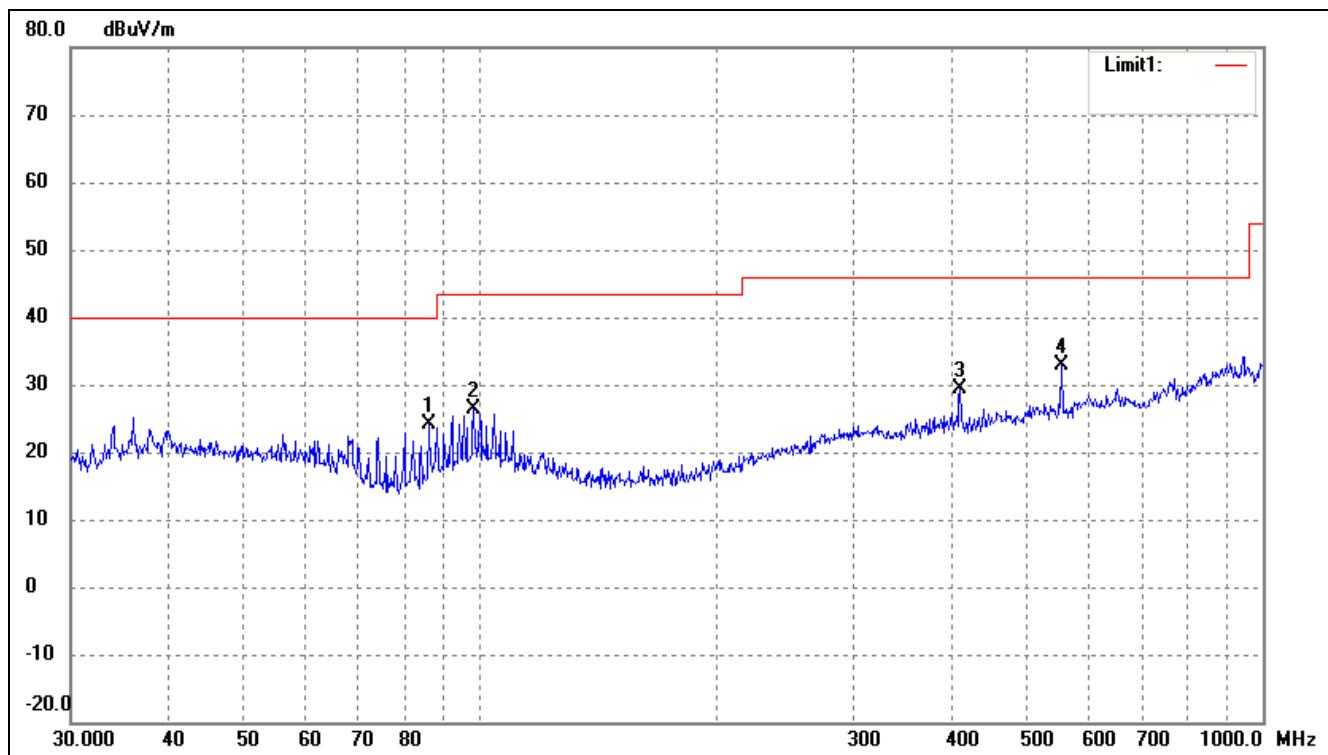
*EUT:* Tablet PC  
*Tested Model:* F-10XHD  
*Operating Condition:* 802.11n-HT40 Transmitting Low Channel-2422MHz  
*Comment:* DC3.7V

*Test Specification:* Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	61.9951	18.55	4.74	23.29	40.00	-16.71	267	100	peak
2	85.8984	21.86	2.54	24.40	40.00	-15.60	114	200	peak
3	98.1419	20.53	5.67	26.20	43.50	-17.30	35	200	peak

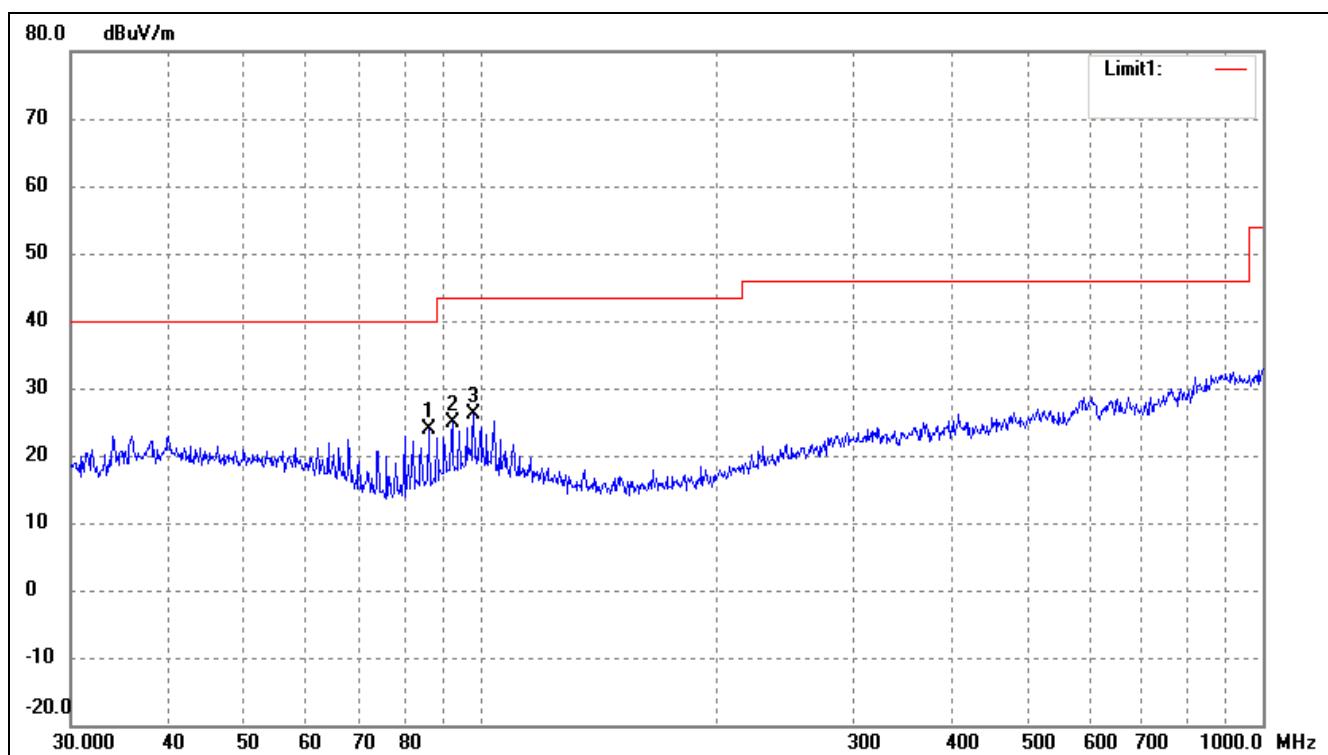
Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	85.8984	21.68	2.54	24.22	40.00	-15.78	360	100	peak
2	98.1419	20.75	5.67	26.42	43.50	-17.08	258	100	peak
3	410.3825	19.57	9.74	29.31	46.00	-16.69	347	100	peak
4	552.8833	21.43	11.45	32.88	46.00	-13.12	270	100	peak

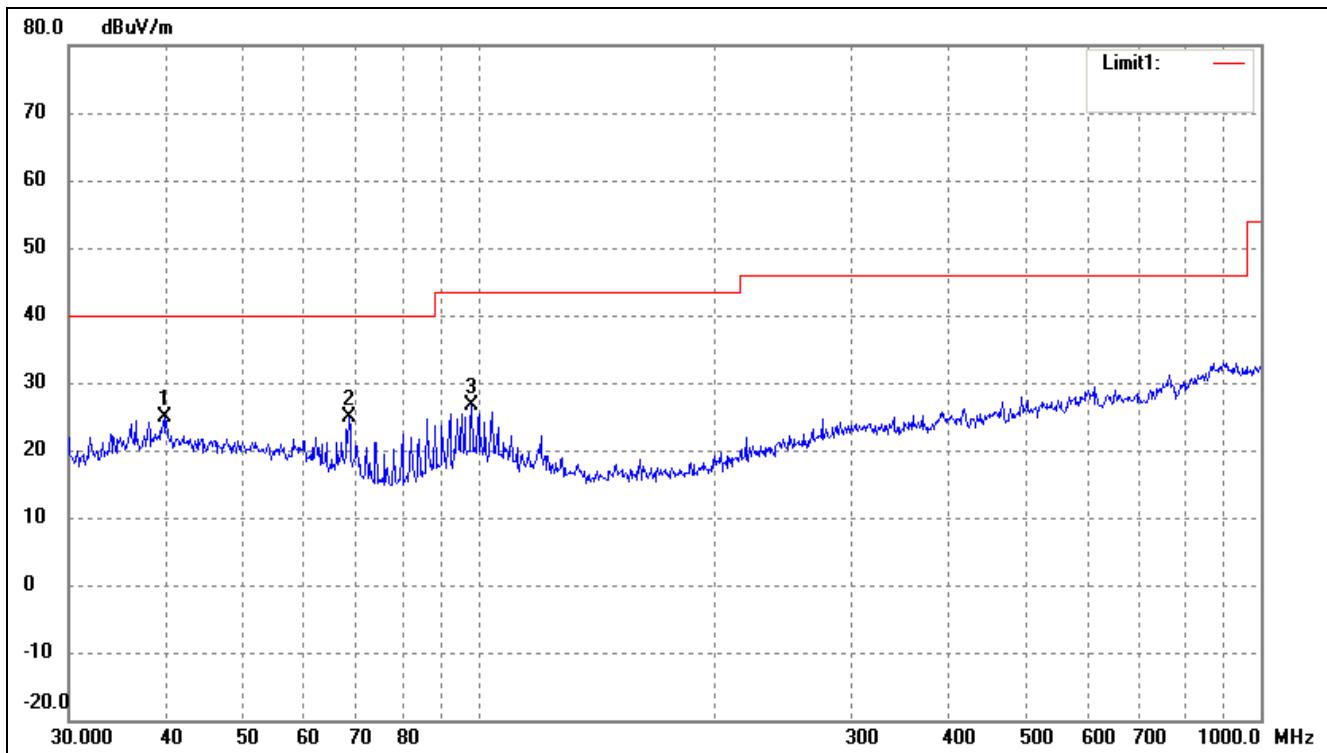
*Operating Condition:* 802.11n-HT40 Transmitting Middle Channel-2442MHz  
*Comment:* DC3.7V

*Test Specification:* Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	85.8984	21.46	2.54	24.00	40.00	-16.00	251	100	peak
2	92.1388	20.76	4.15	24.91	43.50	-18.59	167	100	peak
3	98.1419	20.38	5.67	26.05	43.50	-17.45	44	100	peak

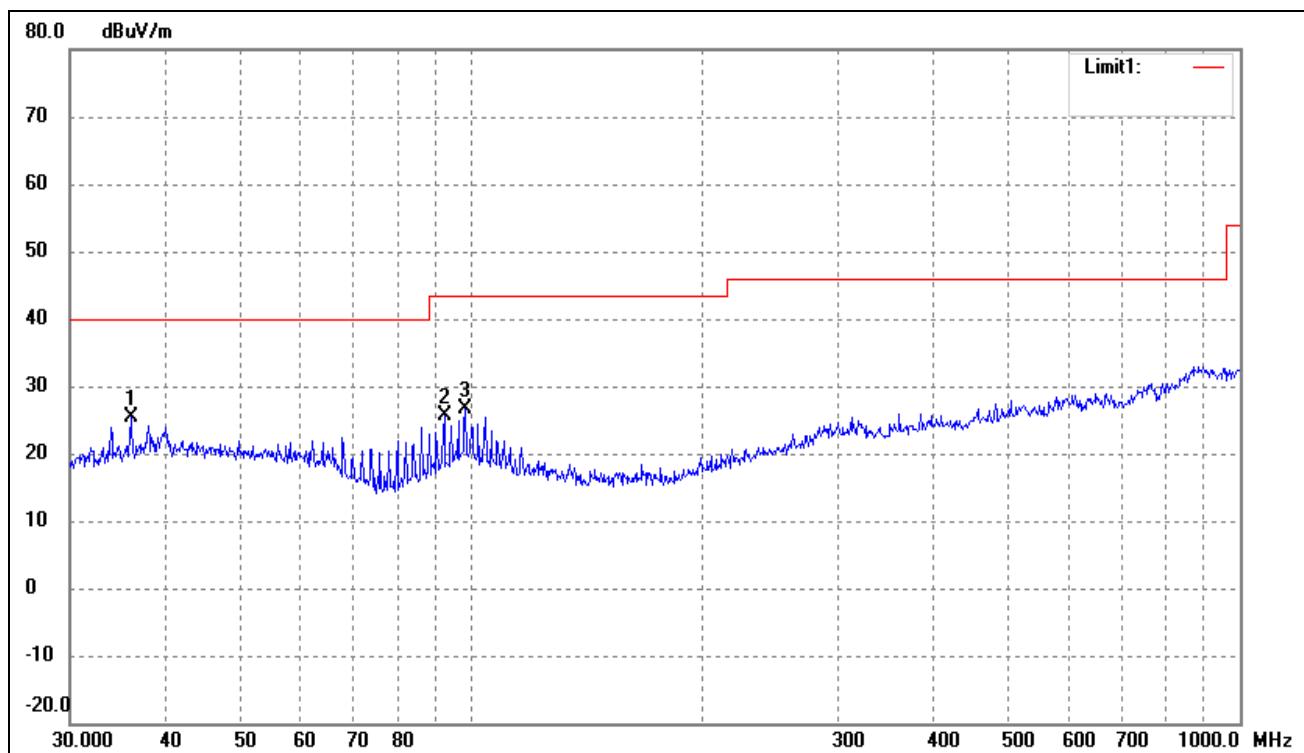
Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	39.7147	15.67	9.20	24.87	40.00	-15.13	47	100	peak
2	68.3908	22.21	2.70	24.91	40.00	-15.09	264	100	peak
3	98.1419	20.97	5.67	26.64	43.50	-16.86	225	100	peak

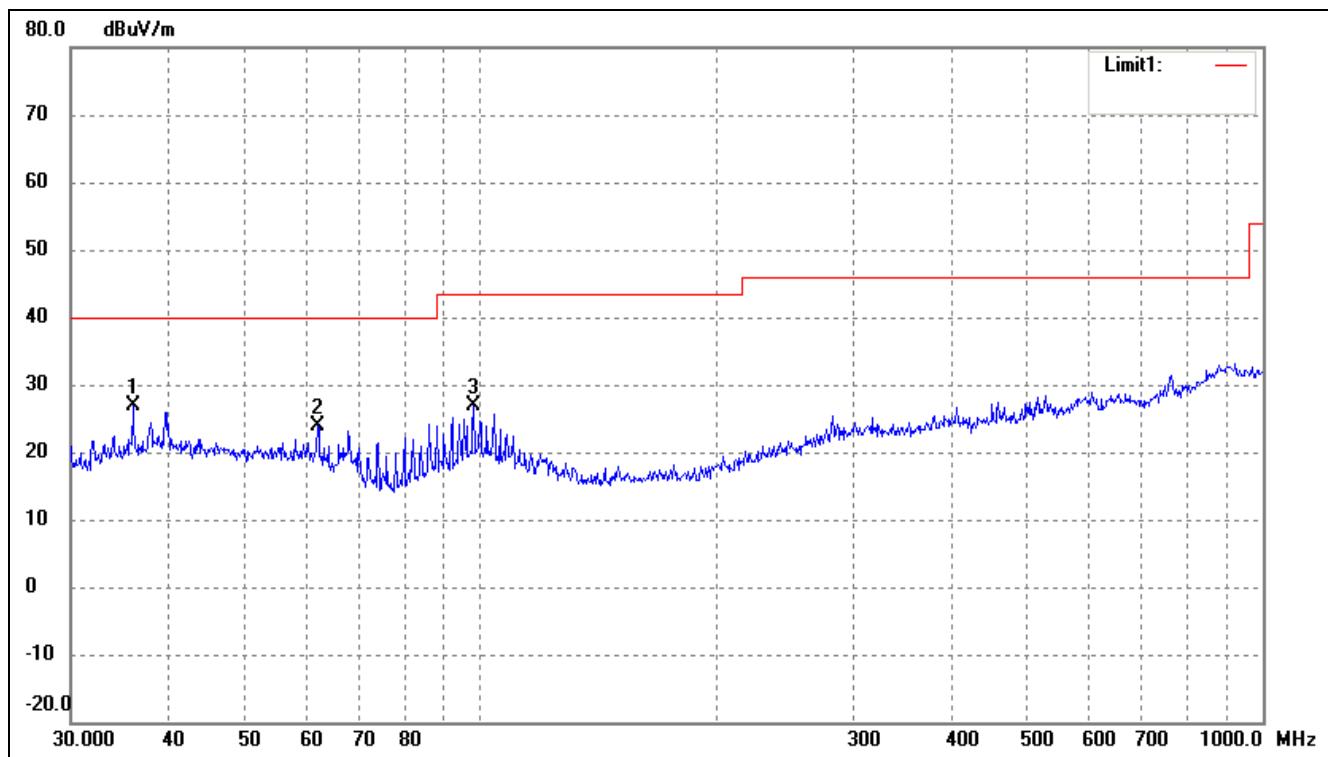
*Operating Condition:* 802.11n-HT40 Transmitting High Channel-2462MHz  
*Comment:* DC3.7V

*Test Specification:* Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	36.0007	19.17	6.16	25.33	40.00	-14.67	154	100	peak
2	92.1388	21.52	4.15	25.67	43.50	-17.83	254	100	peak
3	98.1419	20.97	5.67	26.64	43.50	-16.86	178	100	peak

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	36.0007	18.28	8.56	26.84	40.00	-13.16	135	100	peak
2	61.9951	19.21	4.74	23.95	40.00	-16.05	45	100	peak
3	98.1419	21.27	5.67	26.94	43.50	-16.56	210	100	peak

*Spurious Emissions Above 1GHz**Test Mode: 802.11b*

<b>Frequency</b> <b>(MHz)</b>	<b>Reading</b> <b>(dBuV/m)</b>	<b>Correct</b> <b>dB/m</b>	<b>Result</b> <b>(dBuV/m)</b>	<b>Limit</b> <b>(dBuV/m)</b>	<b>Margin</b> <b>(dB)</b>	<b>Polar</b> <b>H/V</b>	<b>Detector</b>
Low Channel-2412MHz							
4824.000	48.79	0.57	49.36	74.00	-24.64	H	PK
4824.000	35.93	0.57	36.50	54.00	-17.50	H	AV
7236.000	35.78	3.69	39.47	74.00	-34.53	H	PK
7236.000	23.90	3.69	27.59	54.00	-26.41	H	AV
4824.000	43.50	0.57	44.07	74.00	-29.93	V	PK
4824.000	32.01	0.57	32.58	54.00	-21.42	V	AV
7236.000	35.24	3.69	38.93	74.00	-35.07	V	PK
7236.000	23.86	3.69	27.55	54.00	-26.45	V	AV
Middle Channel-2442MHz							
4884.000	43.51	0.66	44.17	74.00	-29.83	H	PK
4884.000	32.09	0.66	32.75	54.00	-21.25	H	AV
7326.000	37.52	3.76	41.28	74.00	-32.72	H	PK
7326.000	27.39	3.83	31.22	54.00	-22.78	H	AV
4884.000	42.75	0.66	43.41	74.00	-30.59	V	PK
4884.000	31.71	0.66	32.37	54.00	-21.63	V	AV
7326.000	37.54	3.76	41.30	74.00	-32.70	V	PK
7326.000	25.83	3.76	29.59	54.00	-24.41	V	AV
High Channel-2472MHz							
4944.000	43.28	0.75	44.03	74.00	-29.97	H	PK
4944.000	31.35	0.75	32.10	54.00	-21.90	H	AV
7416.000	37.65	3.83	41.48	74.00	-32.52	H	PK
7416.000	27.09	3.83	30.92	54.00	-23.08	H	AV
4944.000	42.93	0.75	43.68	74.00	-30.32	V	PK
4944.000	31.54	0.75	32.29	54.00	-21.71	V	AV
7416.000	39.02	3.83	42.85	74.00	-31.15	V	PK
7416.000	27.14	3.83	30.97	54.00	-23.03	V	AV

*Test Mode: 802.11g*

Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel-2412MHz							
4824.000	42.86	2.14	45.00	74.00	-29.00	H	PK
4824.000	31.44	2.14	33.58	54.00	-20.42	H	AV
7236.000	38.98	-3.98	35.00	74.00	-39.00	H	PK
7236.000	27.48	-3.98	23.50	54.00	-30.50	H	AV
4824.000	43.13	2.14	45.27	74.00	-28.73	V	PK
4824.000	31.70	2.14	33.84	54.00	-20.16	V	AV
7236.000	39.05	-3.98	35.07	74.00	-38.93	V	PK
7236.000	26.73	-3.98	22.75	54.00	-31.25	V	AV
Middle Channel-2442MHz							
4884.000	43.56	2.30	45.86	74.00	-28.14	H	PK
4884.000	31.94	2.30	34.24	54.00	-19.76	H	AV
7326.000	41.13	-3.97	37.16	74.00	-36.84	H	PK
7326.000	31.17	-3.97	27.20	54.00	-26.80	H	AV
4884.000	43.49	2.30	45.79	74.00	-28.21	V	PK
4884.000	32.27	2.30	34.57	54.00	-19.43	V	AV
7326.000	41.85	-3.97	37.88	74.00	-36.12	V	PK
7326.000	30.43	-3.97	26.46	54.00	-27.54	V	AV
High Channel-2472MHz							
4944.000	43.76	2.46	46.22	74.00	-27.78	H	PK
4944.000	31.74	2.46	34.20	54.00	-19.80	H	AV
7416.000	42.09	-3.96	38.13	74.00	-35.87	H	PK
7416.000	31.28	-3.96	27.32	54.00	-26.68	H	AV
4944.000	43.83	2.46	46.29	74.00	-27.71	V	PK
4944.000	31.51	2.46	33.97	54.00	-20.03	V	AV
7416.000	42.48	-3.96	38.52	74.00	-35.48	V	PK
7416.000	31.42	-3.96	27.46	54.00	-26.54	V	AV

*Test Mode: 802.11n-HT20*

Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel-2412MHz							
4824.000	43.37	2.14	45.51	74.00	-28.49	H	PK
4824.000	31.85	2.14	33.99	54.00	-20.01	H	AV
7236.000	39.50	-3.98	35.52	74.00	-38.48	H	PK
7236.000	29.82	-3.98	25.84	54.00	-28.16	H	AV
4824.000	43.42	2.14	45.56	74.00	-28.44	V	PK
4824.000	32.11	2.14	34.25	54.00	-19.75	V	AV
7236.000	39.87	-3.98	35.89	74.00	-38.11	V	PK
7236.000	27.64	-3.98	23.66	54.00	-30.34	V	AV
Middle Channel-2442MHz							
4884.000	43.51	2.30	45.81	74.00	-28.19	H	PK
4884.000	31.71	2.30	34.01	54.00	-19.99	H	AV
7326.000	41.70	-3.97	37.73	74.00	-36.27	H	PK
7326.000	30.91	-3.97	26.94	54.00	-27.06	H	AV
4884.000	42.50	2.30	44.80	74.00	-29.20	V	PK
4884.000	32.04	2.30	34.34	54.00	-19.66	V	AV
7326.000	41.53	-3.97	37.56	74.00	-36.44	V	PK
7326.000	30.95	-3.97	26.98	54.00	-27.02	V	AV
High Channel-2472MHz							
4944.000	43.48	2.46	45.94	74.00	-28.06	H	PK
4944.000	31.77	2.46	34.23	54.00	-19.77	H	AV
7416.000	42.13	-3.96	38.17	74.00	-35.83	H	PK
7416.000	31.19	-3.96	27.23	54.00	-26.77	H	AV
4944.000	43.41	2.46	45.87	74.00	-28.13	V	PK
4944.000	31.57	2.46	34.03	54.00	-19.97	V	AV
7416.000	42.77	-3.96	38.81	74.00	-35.19	V	PK
7416.000	31.16	-3.96	27.20	54.00	-26.80	V	AV

*Test Mode: 802.11n-HT40*

Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel-2422MHz							
4844.000	44.15	2.20	46.35	74.00	-27.65	H	PK
4844.000	32.10	2.20	34.30	54.00	-19.70	H	AV
7266.000	39.68	-3.97	35.71	74.00	-38.29	H	PK
7266.000	30.45	-3.97	26.48	54.00	-27.52	H	AV
4844.000	43.53	2.20	45.73	74.00	-28.27	V	PK
4844.000	32.02	2.20	34.22	54.00	-19.78	V	AV
7266.000	39.84	-3.97	35.87	74.00	-38.13	V	PK
7266.000	29.04	-3.97	25.07	54.00	-28.93	V	AV
Middle Channel-2442MHz							
4884.000	42.50	2.30	44.80	74.00	-29.20	H	PK
4884.000	31.45	2.30	33.75	54.00	-20.25	H	AV
7326.000	42.15	-3.97	38.18	74.00	-35.82	H	PK
7326.000	29.73	-3.97	25.76	54.00	-28.24	H	AV
4884.000	43.08	2.30	45.38	74.00	-28.62	V	PK
4884.000	31.71	2.30	34.01	54.00	-19.99	V	AV
7326.000	42.69	-3.97	38.72	74.00	-35.28	V	PK
7326.000	31.20	-3.97	27.23	54.00	-26.77	V	AV
High Channel-2462MHz							
4924.000	42.69	2.40	45.09	74.00	-28.91	H	PK
4924.000	31.54	2.40	33.94	54.00	-20.06	H	AV
7386.000	42.24	-3.96	38.28	74.00	-35.72	H	PK
7386.000	31.23	-3.96	27.27	54.00	-26.73	H	AV
4924.000	44.08	2.40	46.48	74.00	-27.52	V	PK
4924.000	31.85	2.40	34.25	54.00	-19.75	V	AV
7386.000	42.79	-3.96	38.83	74.00	-35.17	V	PK
7386.000	31.22	-3.96	27.26	54.00	-26.74	V	AV

*Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above 3<sup>th</sup> Harmonics are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*

*The measurements greater than 20dB below the limit from 9kHz to 30MHz.*

## 9. Out of Band Emissions

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### 9.1 Standard Applicable

According to §15.247 (d) 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, 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. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

### 9.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2014-05-28	2015-05-27
EMI Test Receiver	R&S	ESVB	825471/005	2014-05-28	2015-05-27
Pre-amplifier	Agilent	8447F	3113A06717	2014-05-28	2015-05-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2014-05-28	2015-05-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2014-05-24	2015-05-23
Horn Antenna	ETS	3117	00086197	2014-05-24	2015-05-23

### 9.3 Test Procedure

According to the KDB 558074D01 v03r02, the band-edge radiated test method as follows:

Set span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation (2310MHz to 2420MHz for low bandedge, 2460MHz to 2500MHz for the high bandedge)

RBW = 1MHz, VBW = 1MHz for peak value measured

RBW = 1MHz, VBW = 10Hz for average value measured

Sweep = auto; Detector function = peak/average; Trace = max hold

All the trace to stabilize, set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. Those emission must comply with the 15.209 limit for fall in the restricted bands listed in section 15.205. Note that the method of measurement KDB publication number: 913591 may be used for the radiated bandedge measurements.

According to the KDB 558074 D01 V03r02, the conducted spurious emissions test method as follows:

1. Set start frequency to DTS channel edge frequency.
2. Set stop frequency so as to encompass the spectrum to be examined.
3. Set RBW = 100 kHz.
4. Set VBW  $\geq$  300 kHz.
5. Detector = peak.
6. Trace Mode = max hold.
7. Sweep = auto couple.
8. Allow the trace to stabilize (this may take some time, depending on the extent of the span).
9. Use peak marker function to determine maximum amplitude of all unwanted emissions within any 100 kHz bandwidth.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in section 8.1. Report the three highest emissions relative to the limit.

#### **9.4 Environmental Conditions**

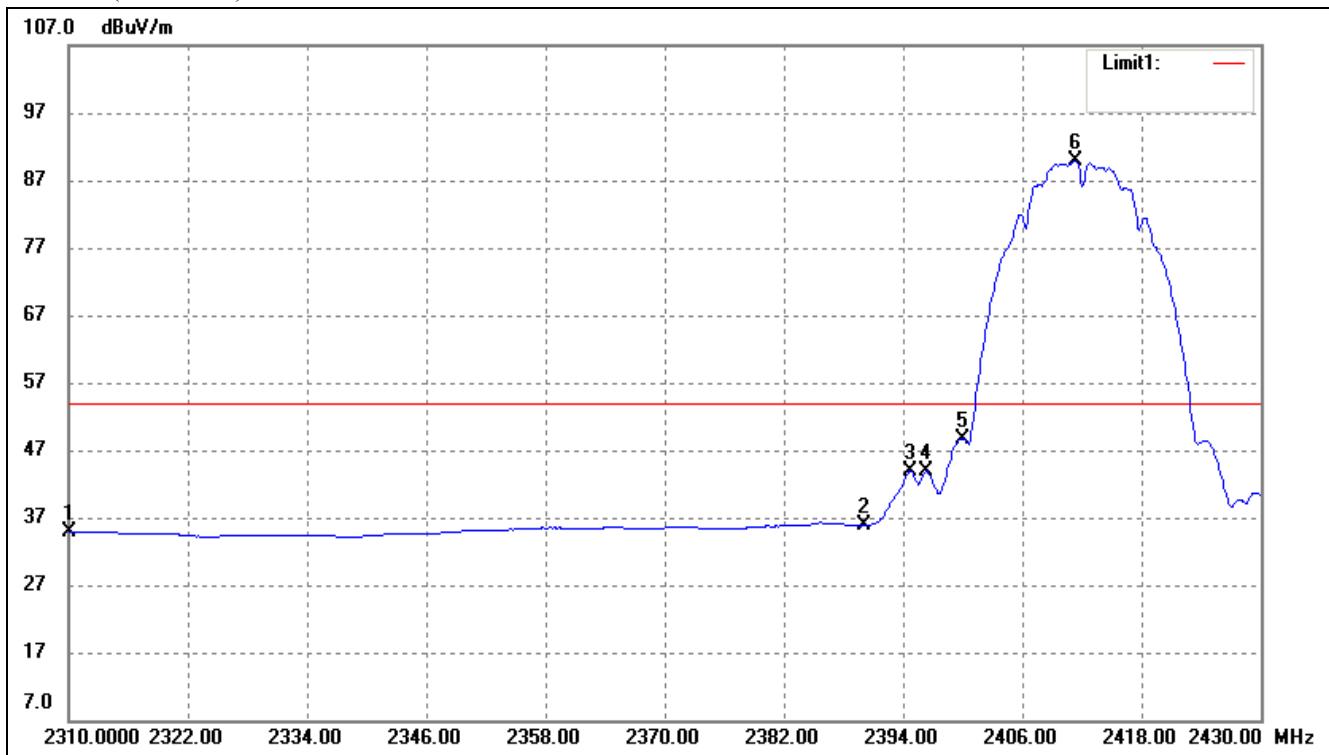
Temperature:	23°C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

#### **9.5 Summary of Test Results/Plots**

Please refer to the test plots as below.

## 802.11b-Lowest Bandedge

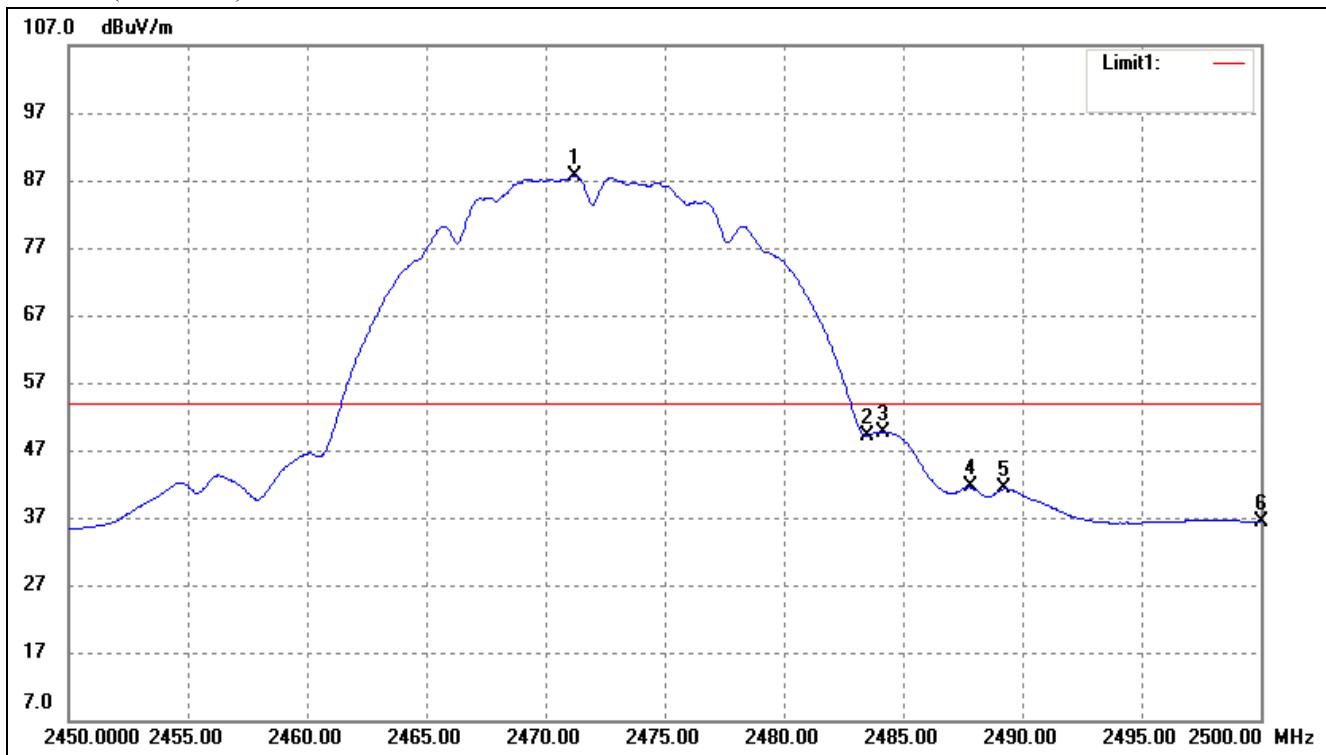
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	18.58	16.34	34.92	54.00	-19.08	Average Detector
	2310.000	32.81	16.34	49.15	74.00	-24.85	Peak Detector
2	2390.000	18.75	17.03	35.78	54.00	-18.22	Average Detector
	2390.000	30.98	17.03	48.01	74.00	-25.99	Peak Detector
3	2394.720	26.85	17.07	43.92	54.00	-10.08	Average Detector
4	2396.280	26.68	17.08	43.76	54.00	-10.24	Average Detector
5	2400.000	31.63	17.11	48.74	Delta = 41.25dBc	Average Detector	Average Detector
6	2411.280	72.80	17.19	89.99			Average Detector

## 802.11b-Highest Bandedge

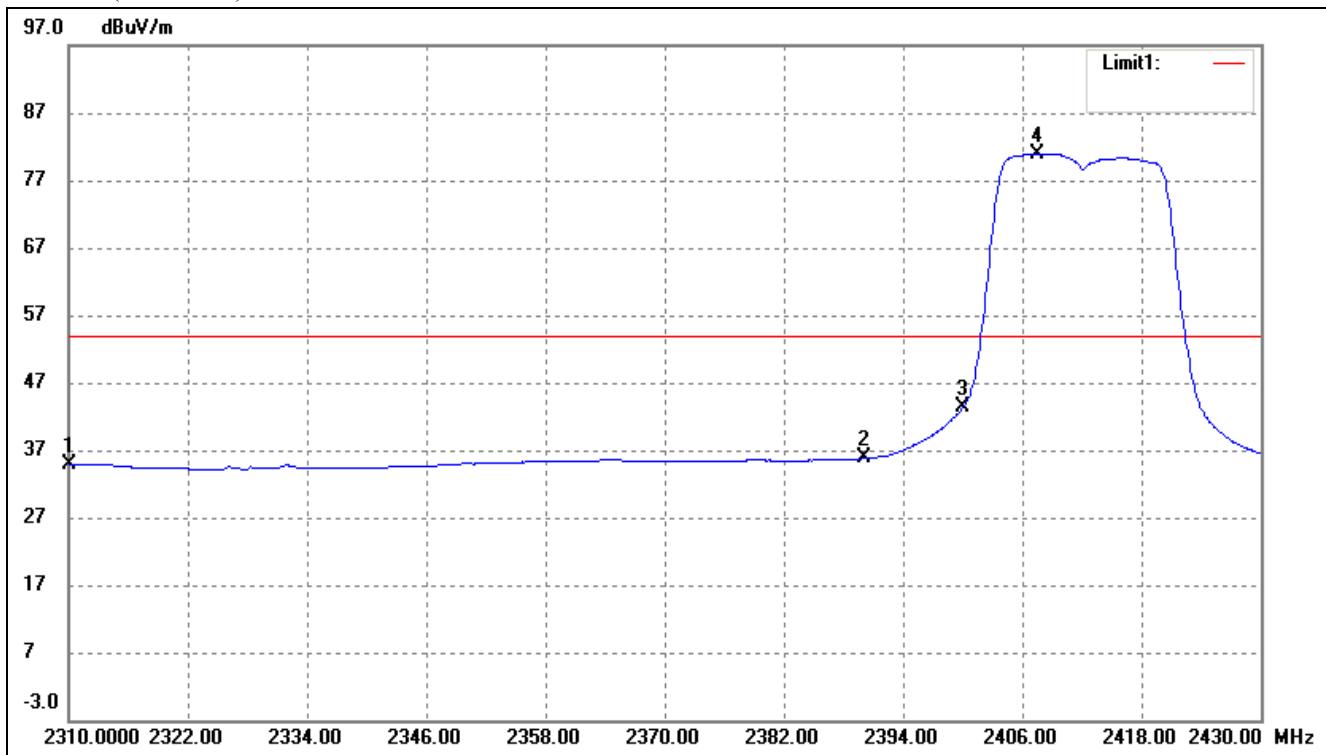
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2471.250	70.10	17.65	87.75	/	/	Average Detector
	2470.850	74.82	17.64	92.46	/	/	Peak Detector
2	2483.500	Delta = 42.27dBc	42.27dBc	45.48	54.00	-8.52	Average Detector
	2483.500			50.19	74.00	-23.81	Peak Detector
3	2484.150	32.00	17.73	49.73	54.00	-4.27	Average Detector
4	2487.800	23.76	17.76	41.52	54.00	-12.48	Average Detector
5	2489.250	23.52	17.77	41.29	54.00	-12.71	Average Detector
6	2500.000	18.55	17.86	36.41	54.00	-17.59	Average Detector
	2500.000	29.95	17.86	47.81	74.00	-26.19	Peak Detector

802.11g-Lowest Bandedge

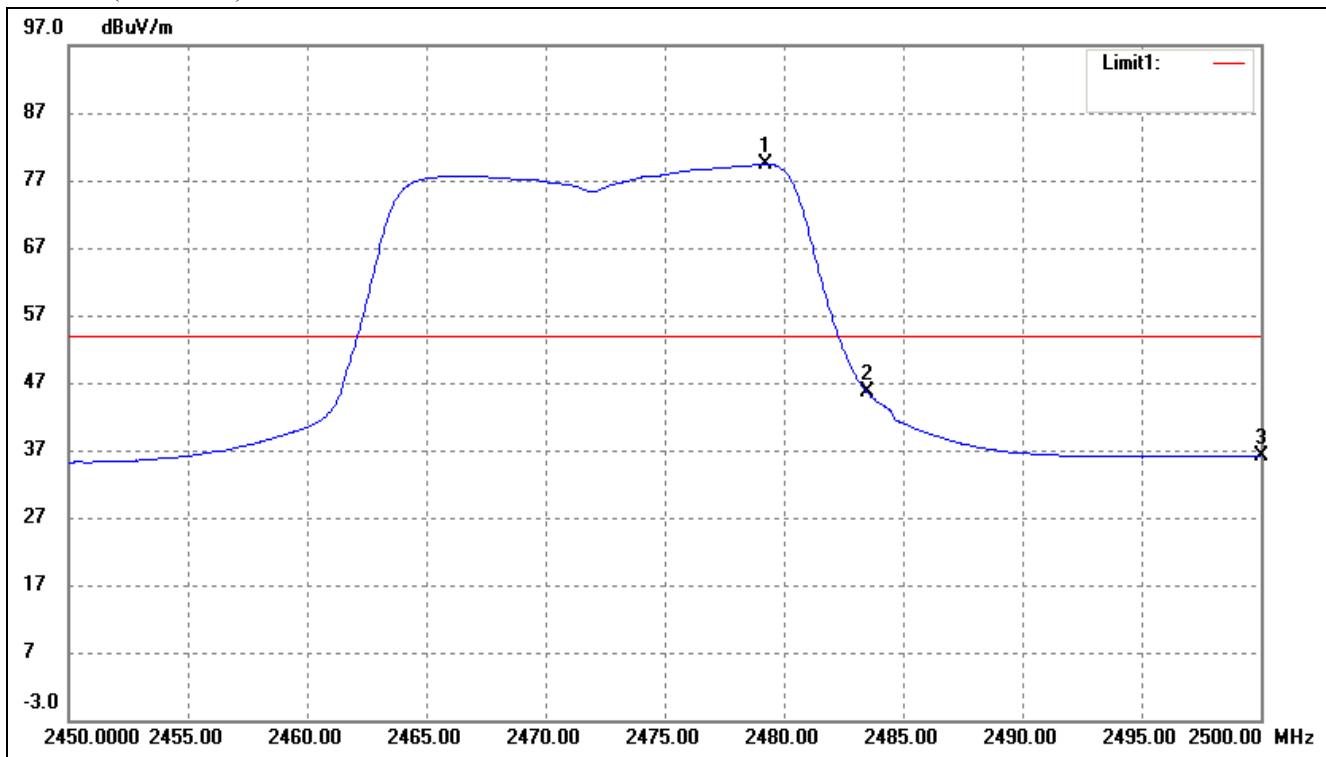
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	18.47	16.34	34.81	54.00	-19.19	Average Detector
	2310.000	29.46	16.34	45.80	74.00	-28.20	Peak Detector
2	2390.000	18.74	17.03	35.77	54.00	-18.23	Average Detector
	2390.000	30.24	17.03	47.27	74.00	-26.73	Peak Detector
3	2400.000	26.16	17.11	43.27	Delta = 37.67dBc		Average Detector
4	2407.560	63.78	17.16	80.94			Average Detector

802.11g-Highest Bandedge

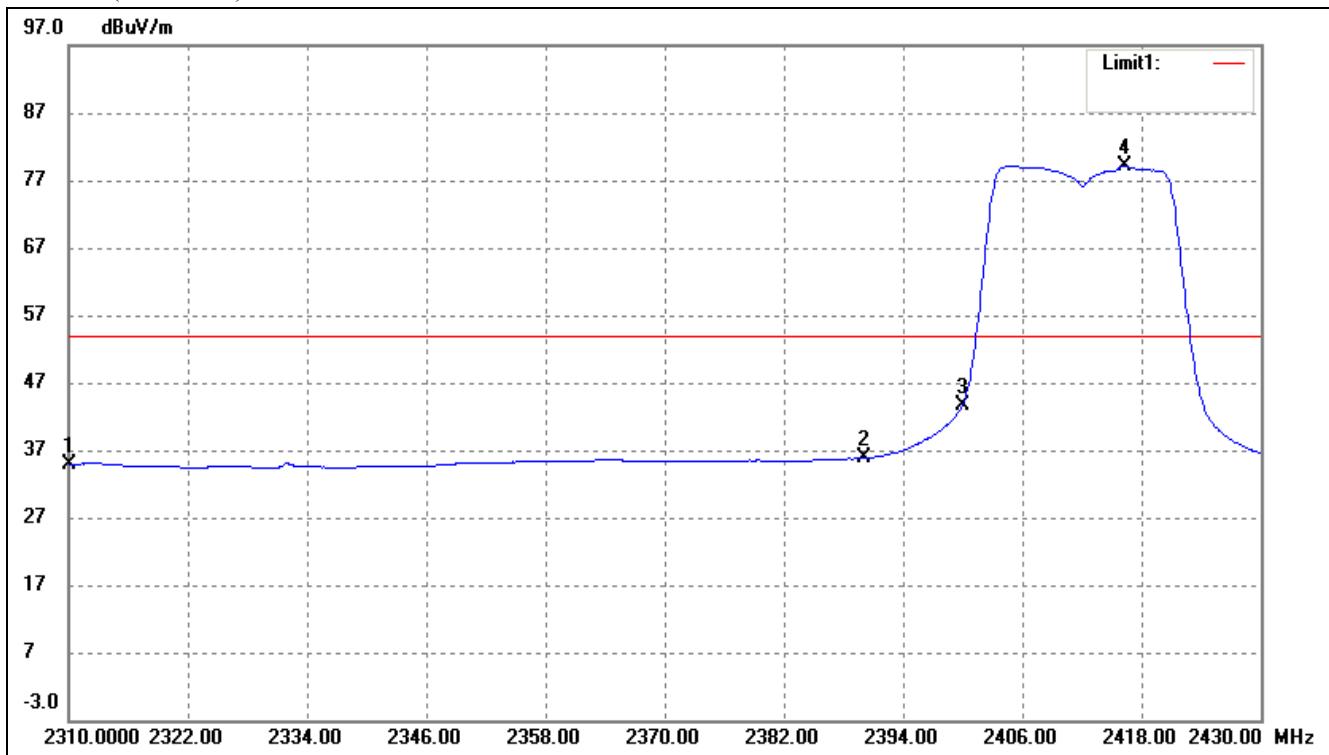
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2	2479.250	61.75	17.70	79.45	/	/	Average Detector
	2478.600	71.29	17.70	88.99	/	/	Peak Detector
1	2483.500	Delta = 40.46dBc	38.99	54.00	-15.01	Average Detector	
	2483.500			74.00	-25.47	Peak Detector	
3	2500.000	18.27	17.86	36.13	54.00	-17.87	Average Detector
	2500.000	29.37	17.86	47.23	74.00	-26.77	Peak Detector

## 802.11n-HT20-Lowest Bandedge

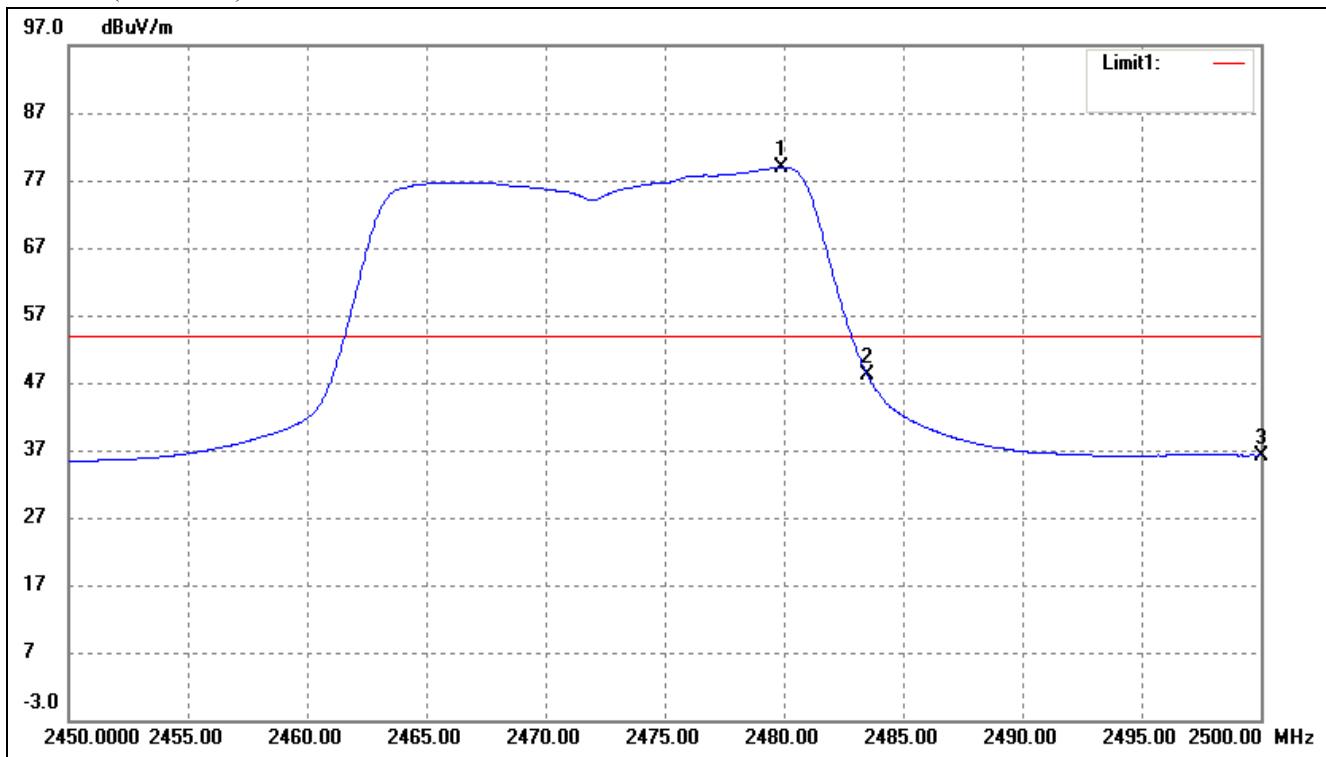
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	18.61	16.34	34.95	54.00	-19.05	Average Detector
	2310.000	30.90	16.34	47.24	74.00	-26.76	Peak Detector
2	2390.000	18.83	17.03	35.86	54.00	-18.14	Average Detector
	2390.000	31.60	17.03	48.63	74.00	-25.37	Peak Detector
3	2400.000	26.59	17.11	43.70	Delta = 35.40dBc		Average Detector
4	2416.320	61.86	17.24	79.10			Average Detector

## 802.11n-HT20-Highest Bandedge

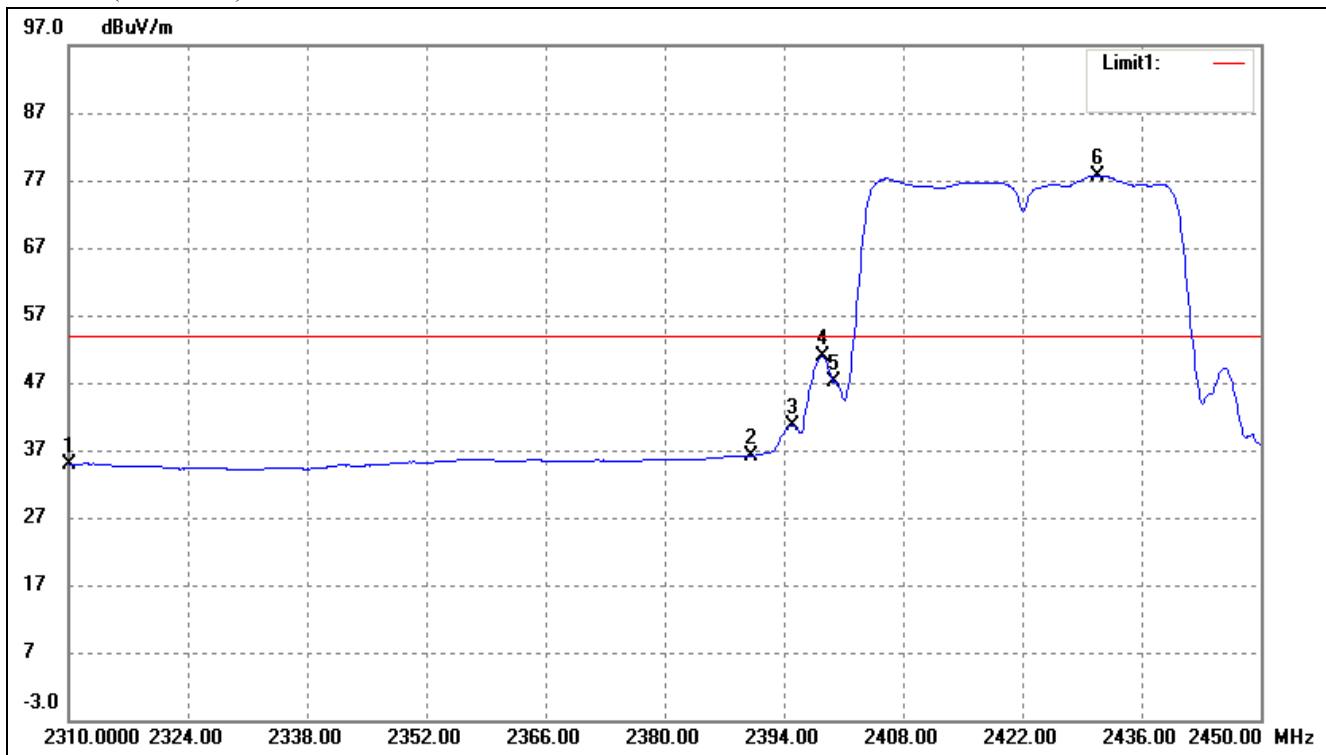
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2479.900	61.20	17.71	78.91	/	/	Average Detector
	2479.950	72.43	17.71	90.14	/	/	Peak Detector
2	2483.500	Delta = 39.91dBc	17.71	39.00	54.00	-15.00	Average Detector
	2483.500			50.23	74.00	-23.77	Peak Detector
3	2500.000	18.39	17.86	36.25	54.00	-17.75	Average Detector
	2500.000	30.28	17.86	48.14	74.00	-25.86	Peak Detector

## 802.11n-HT40-Lowest Bandedge

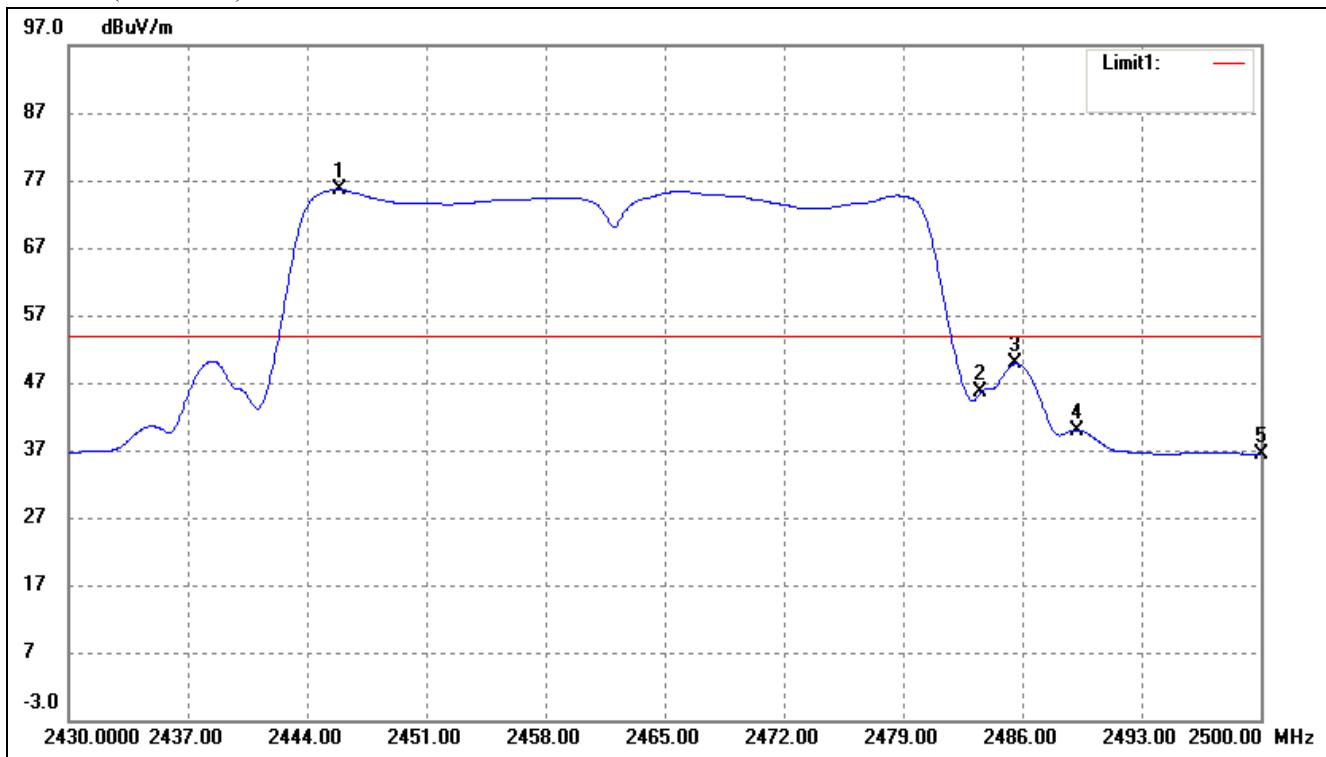
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	18.60	16.34	34.94	54.00	-19.06	Average Detector
	2310.000	30.52	16.34	46.86	74.00	-27.14	Peak Detector
2	2390.000	19.09	17.03	36.12	54.00	-17.88	Average Detector
	2390.000	31.15	17.03	48.18	74.00	-25.82	Peak Detector
3	2394.980	23.65	17.07	40.72	54.00	-13.28	Average Detector
4	2398.480	33.71	17.10	50.81	54.00	-3.19	Average Detector
5	2400.000	29.95	17.11	47.06	Delta = 30.68dBc		Average Detector
6	2430.820	60.40	17.34	77.74			Average Detector

## 802.11n-HT40-Highest Bandedge

Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2445.890	58.20	17.45	75.65	/	/	Average Detector
	2445.120	70.40	17.44	87.84	/	/	Peak Detector
2	2483.500	Delta = 38.34dBc		37.31	54.00	-16.69	Average Detector
	2483.500			49.50	74.00	-24.50	Peak Detector
3	2485.580	32.04	17.74	49.78	54.00	-4.22	Average Detector
4	2489.220	22.21	17.77	39.98	54.00	-14.02	Average Detector
5	2500.000	18.59	17.86	36.45	54.00	-17.55	Average Detector
	2500.000	29.48	17.86	47.34	74.00	-26.66	Peak Detector

## 10. Conducted Emissions

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### 10.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is  $\pm 2.88$  dB.

### 10.2 Test Equipment List and Details

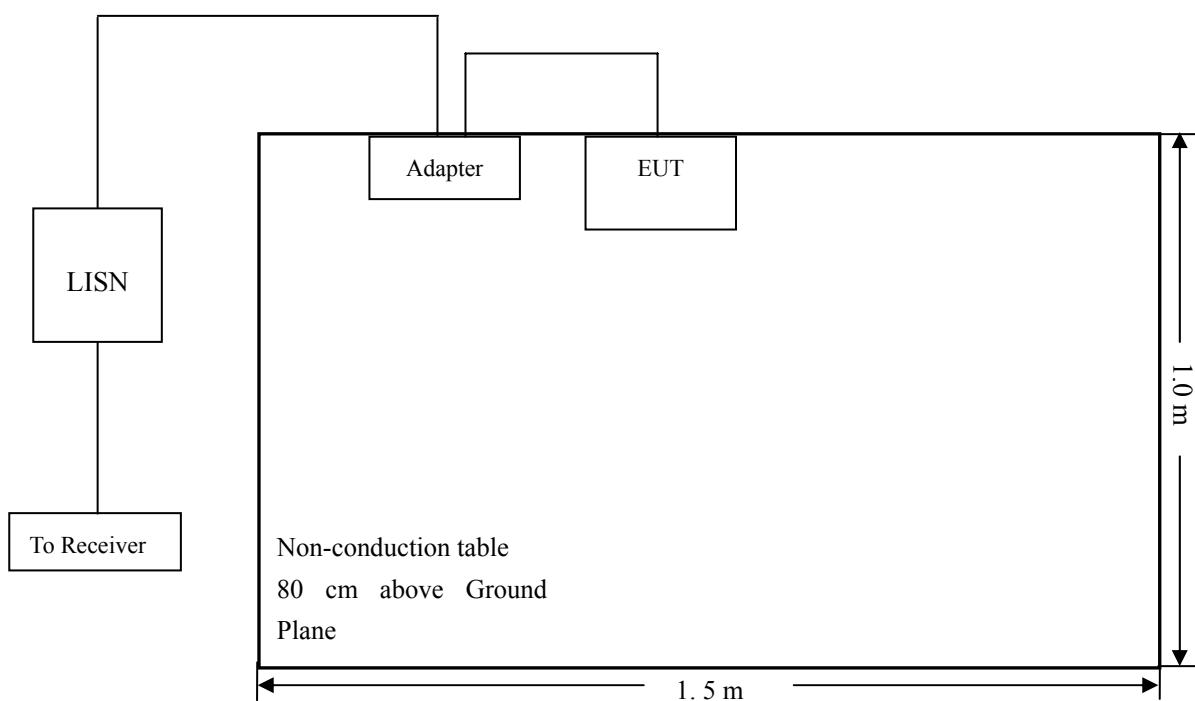
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2014-05-28	2015-05-27
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2014-05-28	2015-05-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2014-05-28	2015-05-27

### 10.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.207 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle. The spacing between the peripherals was 10 cm.

### 10.4 Basic Test Setup Block Diagram



## 10.5 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

## 10.6 Test Receiver Setup

During the conducted emission test, the test receiver was set with the following configurations:

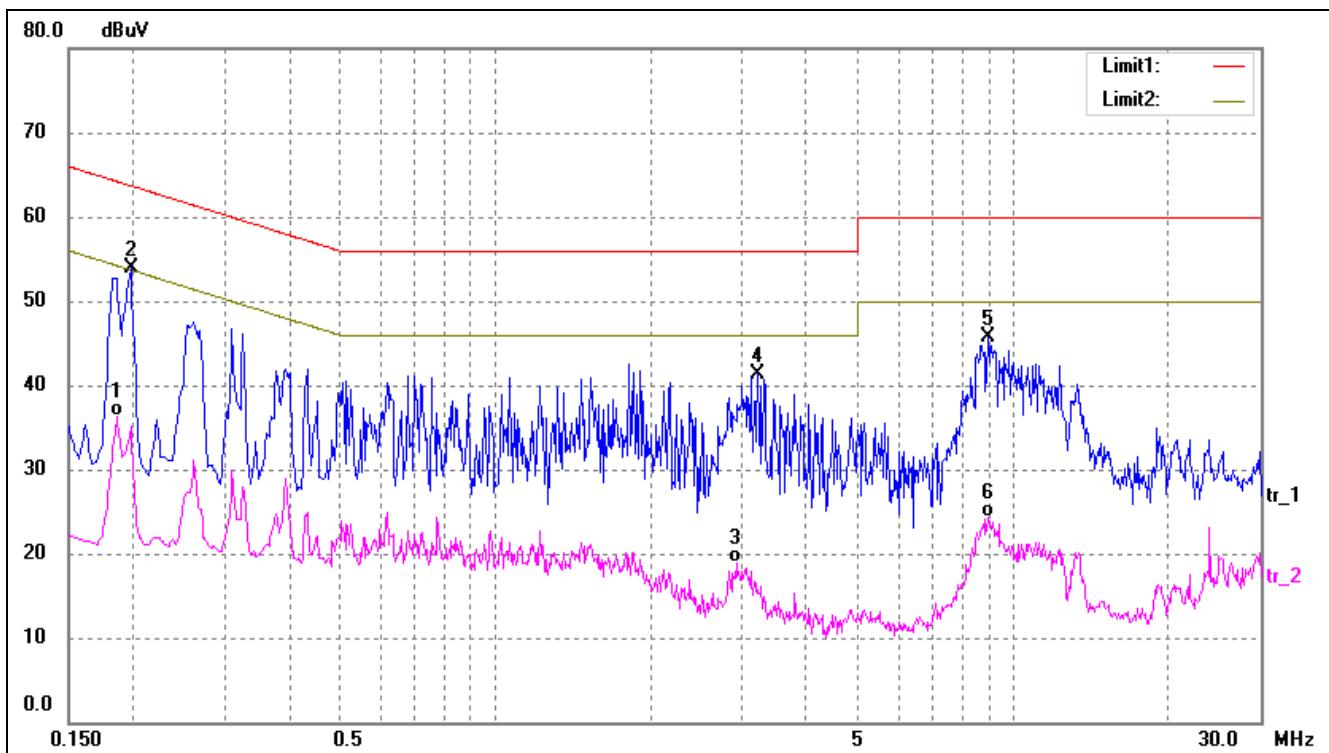
Start Frequency ..... 150 kHz  
Stop Frequency..... 30 MHz  
Sweep Speed ..... Auto  
IF Bandwidth..... 10 kHz  
Quasi-Peak Adapter Bandwidth ..... 9 kHz  
Quasi-Peak Adapter Mode ..... Normal

## 10.7 Summary of Test Results/Plots

According to the data in section 9.8, the EUT complied with the FCC Part 15.207 Conducted margin for a Class B device, with the *worst* margin reading of:

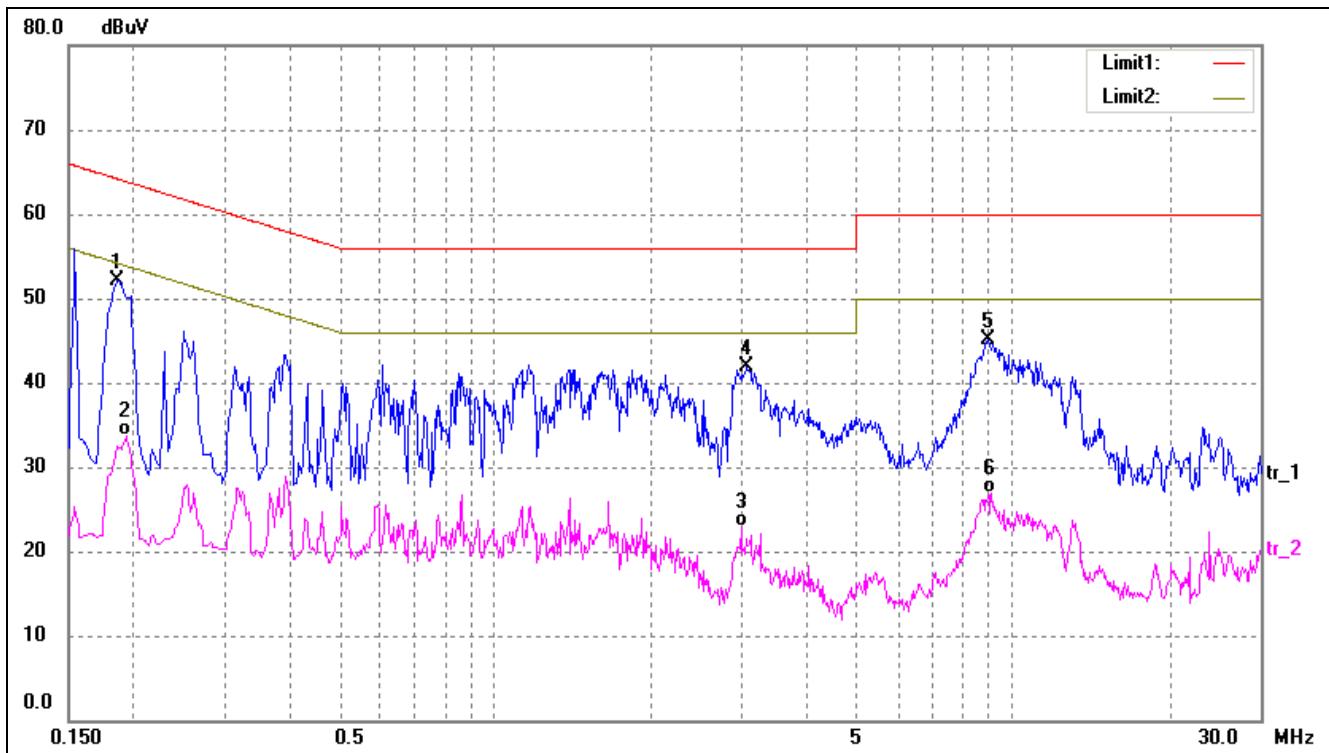
**-9.86 dB at 0.1980 MHz** in the *Neutral* mode, Peak detector, **0.15-30MHz**

## 10.8 Conducted Emissions Test Data

**Plot of Conducted Emissions Test Data**EUT: *Tablet PC*Tested Model: *F-10XHD*Operating Condition: *Transmitting(Wi-Fi)*Comment: *Adapter:DC5V*Test Specification: *Neutral*

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1860	26.74	9.50	36.24	54.21	-17.97	AVG
2	0.1980	44.33	9.50	53.83	63.69	-9.86	peak
3	2.9300	8.84	10.00	18.84	46.00	-27.16	AVG
4	3.2180	31.40	10.00	41.40	56.00	-14.60	peak
5	8.9540	35.74	10.00	45.74	60.00	-14.26	peak
6	8.9540	14.29	10.00	24.29	50.00	-25.71	AVG

Test Specification: Live



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1860	42.64	9.50	52.14	64.21	-12.07	peak
2	0.1940	24.14	9.50	33.64	53.86	-20.22	AVG
3	2.9860	13.00	10.00	23.00	46.00	-23.00	AVG
4	3.0620	31.85	10.00	41.85	56.00	-14.15	peak
5	8.9300	35.08	10.00	45.08	60.00	-14.92	peak
6	9.1060	16.88	10.00	26.88	50.00	-23.12	AVG

\*\*\*\*\* END OF REPORT \*\*\*\*\*