

# FCC Part 15C Measurement and Test Report

For

**NSV TRADING LLC**

**#8-16 Street, Al Quoz, Dubai. UAE**

**FCC ID: 2AHRMUSA08**

<b>FCC Rule(s):</b>	<u>FCC Part 15C</u>
<b>Product Description:</b>	<u>Rear Seat Entertainment System</u> <u>8 " Main Screen (Part No.: RSETY- USA08-IV &amp;</u> <u>RSETY-USA08-BK)</u>
<b>Tested Model:</b>	<u>RSETY-USA08-BK)</u>
<b>Report No.:</b>	<u>STR16048114I-1</u>
<b>Tested Date:</b>	<u>2016-04-13 to 2016-04-22</u>
<b>Issued Date:</b>	<u>2016-04-22</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 permitted by Shenzhen SEM.Test Technology Co., Ltd.

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## 1. GENERAL INFORMATION

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

#### Client Information

Applicant: NSV TRADING LLC  
Address of applicant: #8-16 Street, Al Quoz, Dubai. UAE

Manufacturer: HANHWA HIGHTECH CO.,LTD  
Address of manufacturer: (Samsan-dong,5th Floor)14 Cheyukgwan-ro, Bupyeong-gu, Incheon,403-866,Korea

General Description of EUT	
Product Name:	Rear Seat Entertainment System
Trade Name:	
Model No.:	8 " Main Screen (Part No.: RSETY- USA08-IV & RSETY-USA08-BK)
Adding Model(s):	/
Rated Voltage:	DC 12V
Power Adapter Model:	/
<i>Note: The test data is gathered from a production sample provided by the manufacturer. The appearance of others models listed in the report is different from main-test model 8 " Main Screen (Part No.: RSETY-USA08-IV &amp; RSETY-USA08-BK), but the circuit and the electronic construction do not change, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Support Standards:	802.11b, 802.11g, 802.11n
Frequency Range:	2412-2462MHz for 802.11b/g/n(HT20) 2422-2452MHz for 802.11n(HT40)
RF Output Power:	9.77 dBm (Conducted)
Type of Modulation:	CCK, OFDM, QPSK, BPSK, 16QAM, 64QAM
Data Rate:	1-11Mbps, 6-54Mbps, up to 150Mbps
Quantity of Channels:	11 for 802.11b/g/n(HT20); 7 for 802.11n(HT40)
Channel Separation:	5MHz
Type of Antenna:	Integral antenna
Antenna Gain:	0dBi
Lowest Internal Frequency	32.768kHz

## 1.2 Test Standards

The following report is prepared on behalf of the NSV TRADING LLC 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 C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices, and ANSI C63.4-2014, 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 v03r05 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:

Test Mode List		
Test Mode	Description	Remark
TM1	802.11b	2412MHz, 2437MHz, 2462MHz
TM2	802.11g	2412MHz, 2437MHz, 2462MHz
TM3	802.11n-HT20	2412MHz, 2437MHz, 2462MHz
TM4	802.11n-HT40	2422MHz, 2437MHz, 2452MHz

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

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

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Remark
DC power	/	/	/
Earphone	Sony	/	/
HDMI cable	/	/	/

## 1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	$\pm 0.42\text{dB}$
Occupied Bandwidth	Conducted	$\pm 1.5\%$
Power Spectral Density	Conducted	$\pm 1.8\text{dB}$
Conducted Spurious Emission	Conducted	$\pm 2.17\text{dB}$
Conducted Emissions	Conducted	$\pm 2.88\text{dB}$
Transmitter Spurious Emissions	Radiated	$\pm 5.1\text{dB}$

## 1.7 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Spectrum Analyzer	Agilent	E4407B	MY41440400	2015-06-17	2016-06-16
Spectrum Analyzer	Rohde & Schwarz	FSP	836079/035	2015-06-17	2016-06-16
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2015-06-17	2016-06-16
Amplifier	Agilent	8447F	3113A06717	2015-06-17	2016-06-16
Amplifier	C&D	PAP-1G18	2002	2015-06-17	2016-06-16
Broadband Antenna	Schwarz beck	VULB9163	9163-333	2015-06-17	2016-06-16
Horn Antenna	ETS	3117	00086197	2015-06-17	2016-06-16
Horn Antenna	ETS	3116B	00088203	2015-06-17	2016-06-16
Loop Antenna	Schwarz beck	FMZB 1516	9773	2015-06-17	2016-06-16
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2015-06-17	2016-06-16
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2015-06-17	2016-06-16
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2015-06-17	2016-06-16

## 2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 2.1093	RF Exposure	Compliant
§ 15.203; § 15.247(b)(4)(i)	Antenna Requirement	Compliant
§15.205	Restricted Band of Operation	Compliant
§ 15.207(a)	Conducted Emission	N/A
§ 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 an integral antenna, fulfill the requirement of this section.

## 5. Power Spectral Density

### 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 Procedure

According to the KDB 558074 D01 v03r05, such specifications require that the same method as used to determine the conducted output power shall also be used to determine the power spectral density. The test method of power spectral density as below:

- a) Set instrument center frequency to DTS channel center frequency.
- b) Set span to at least 1.5 times the OBW.
- c) Set RBW to:  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
- d) Set VBW  $\geq 3 \times \text{RBW}$ .
- e) Detector = power averaging (RMS) or sample detector (when RMS not available).
- f) Ensure that the number of measurement points in the sweep  $\geq 2 \times \text{span/RBW}$ .
- g) Sweep time = auto couple.
- h) Employ trace averaging (RMS) mode over a minimum of 100 traces.
- i) Use the peak marker function to determine the maximum amplitude level.
- j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span in order to meet the minimum measurement point requirement as the RBW is reduced).

### 5.3 Environmental Conditions

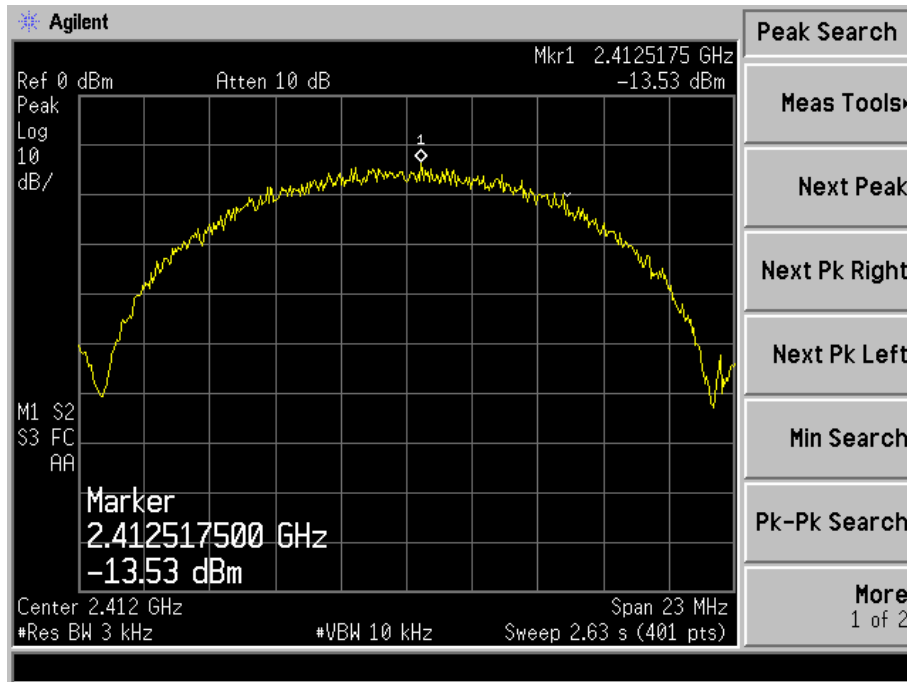
Temperature:	26° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

## 5.4 Summary of Test Results/Plots

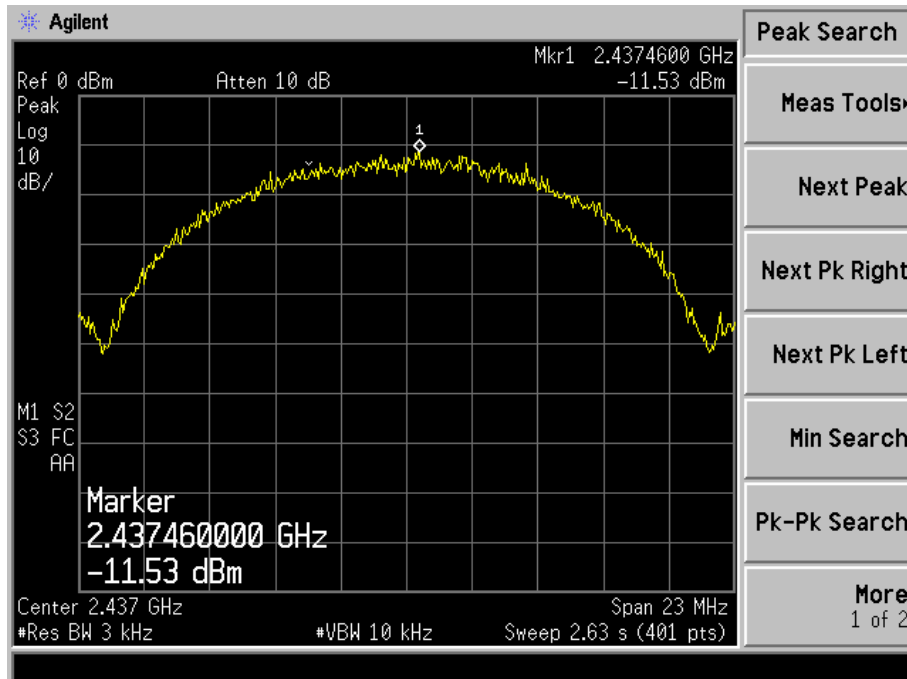
Test Mode	Test Channel MHz	Power Spectral Density dBm/3kHz	Limit dBm/3kHz
802.11b	2412	-13.53	8
	2437	-11.53	8
	2462	-11.90	8
802.11g	2412	-15.83	8
	2437	-14.17	8
	2462	-15.03	8
802.11n HT20	2412	-16.95	8
	2437	-16.61	8
	2462	-15.26	8
802.11n HT40	2422	-21.24	8
	2437	-20.87	8
	2452	-20.20	8

Please refer to the following test plots:

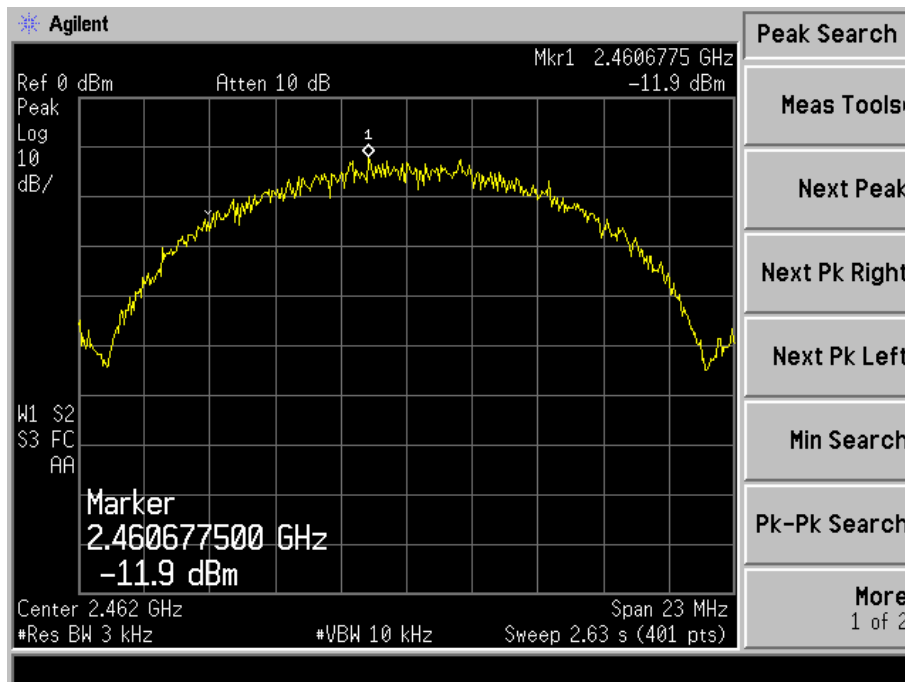
## 802.11b-Low Channel



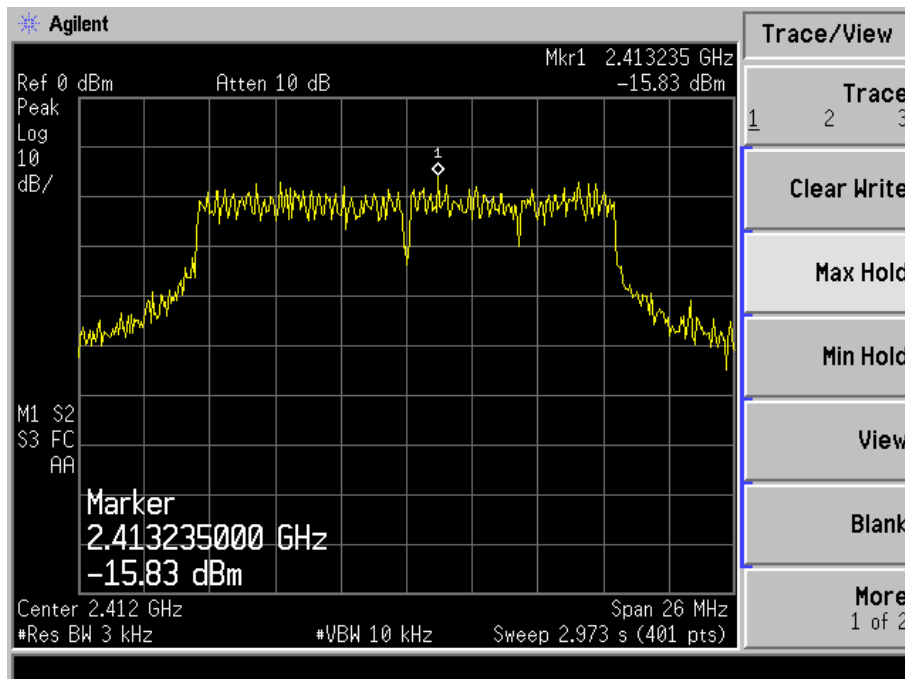
## 802.11b-Middle Channel



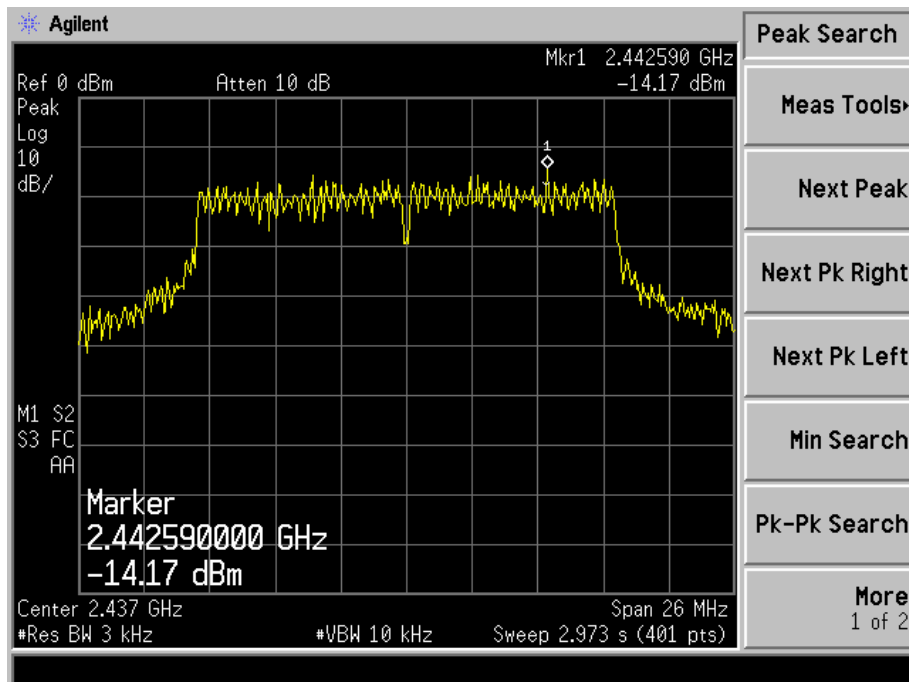
### 802.11b-High Channel



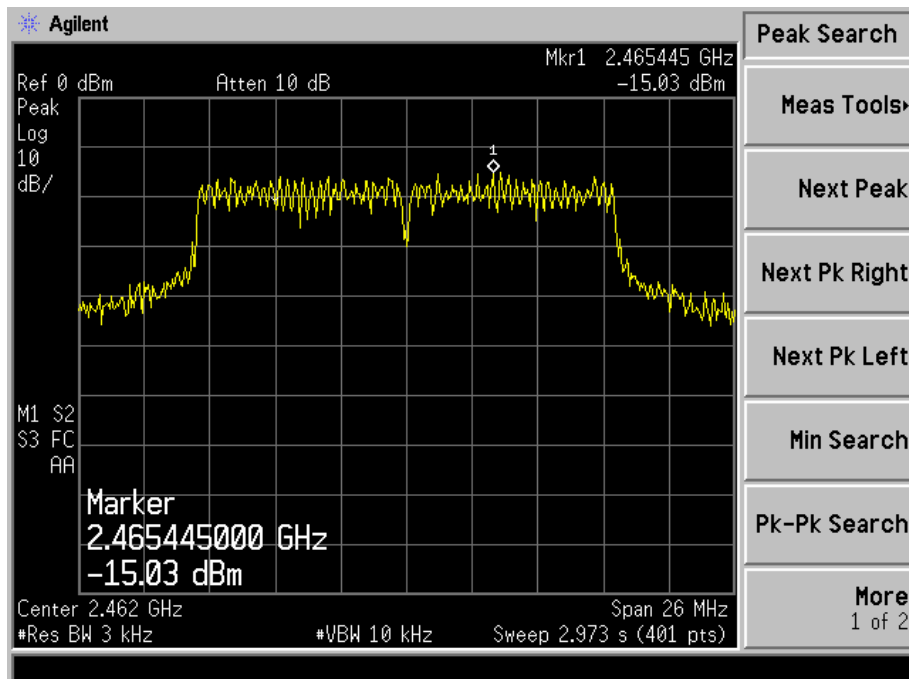
### 802.11g-Low Channel



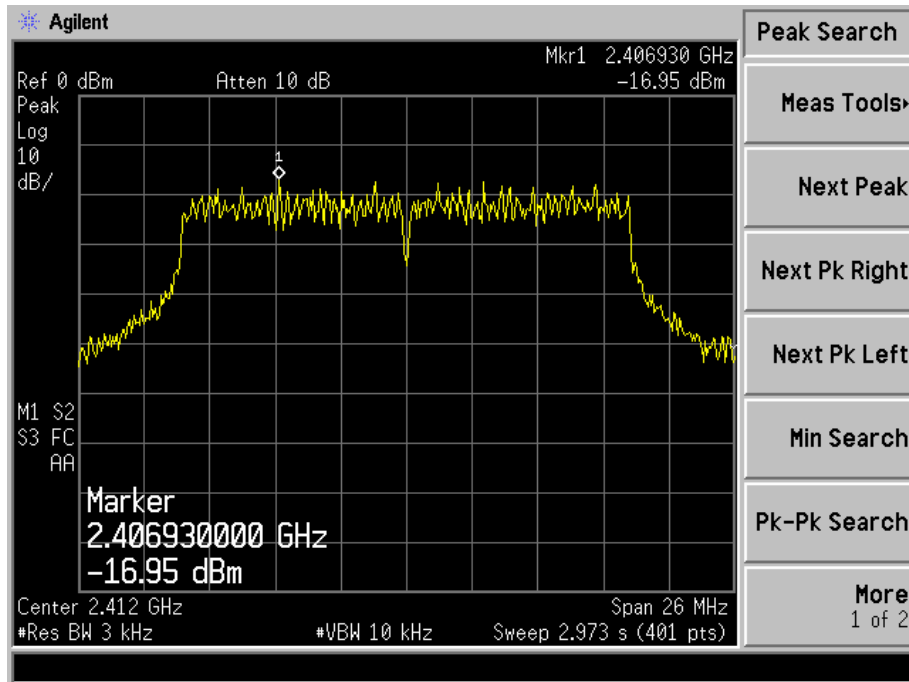
## 802.11g-Middle Channel



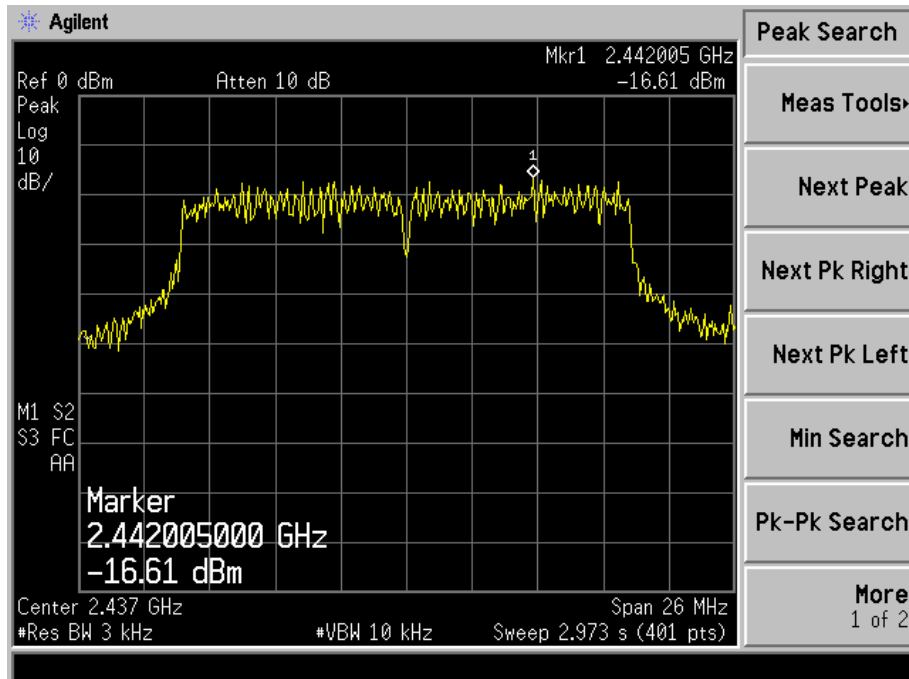
## 802.11g-High Channel



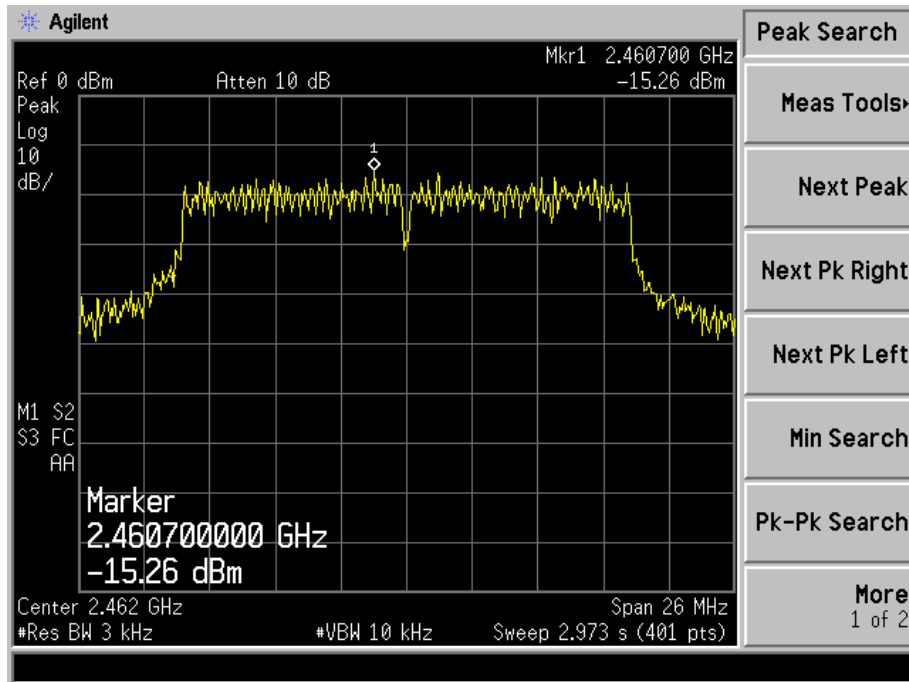
## 802.11n-HT20-Low Channel



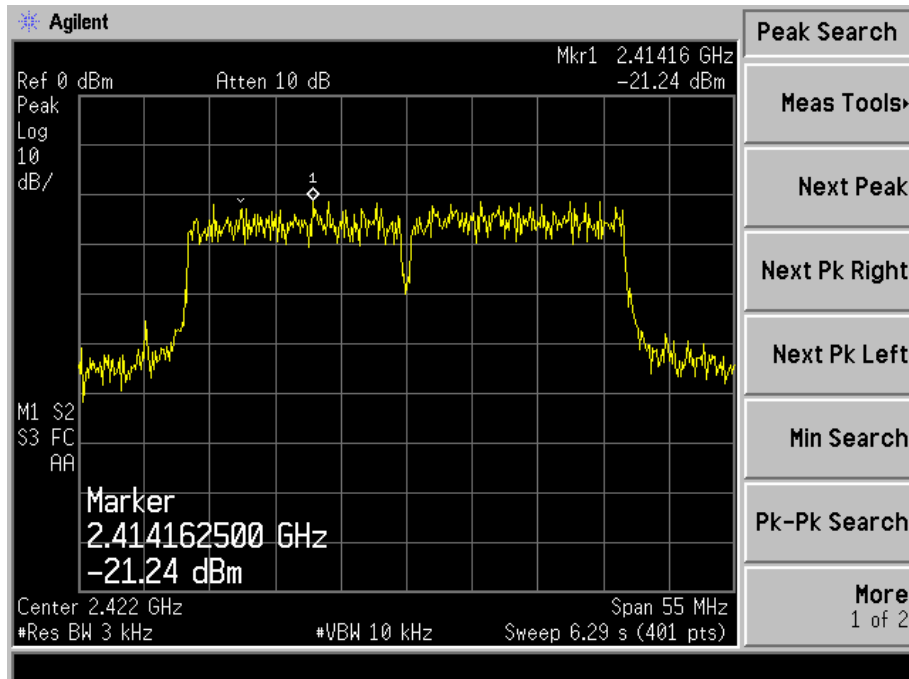
## 802.11n-HT20-Middle Channel



## 802.11n-HT20-High Channel

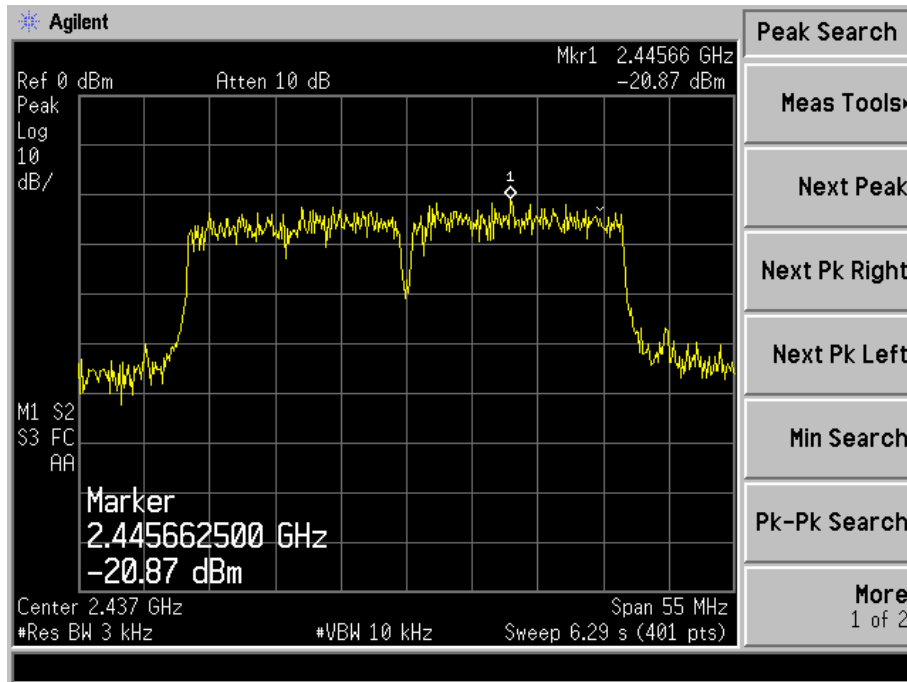


## 802.11n-HT40-Low Channel

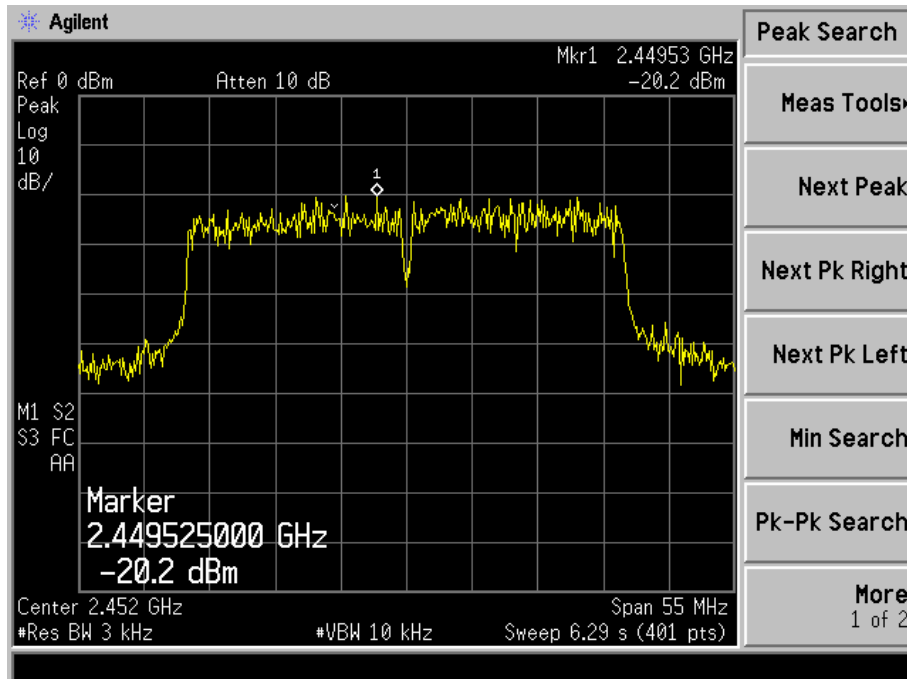




## 802.11n-HT40-Middle Channel



## 802.11n-HT40-High Channel



## 6. 6dB Bandwidth

### 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 Procedure

- Set RBW = 100 kHz.
- Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 6.3 Environmental Conditions

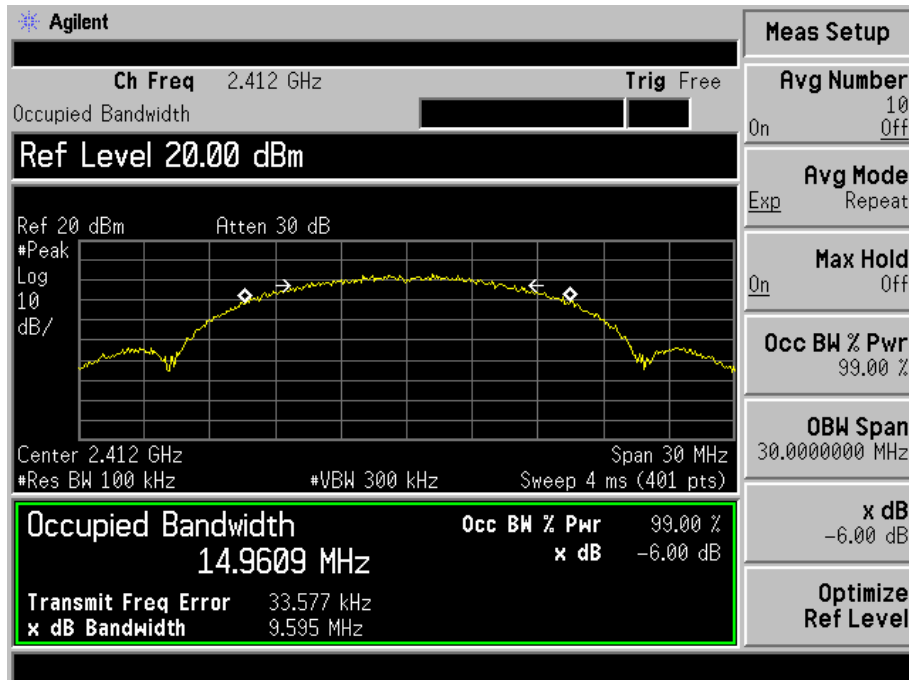
Temperature:	25° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

### 6.4 Summary of Test Results/Plots

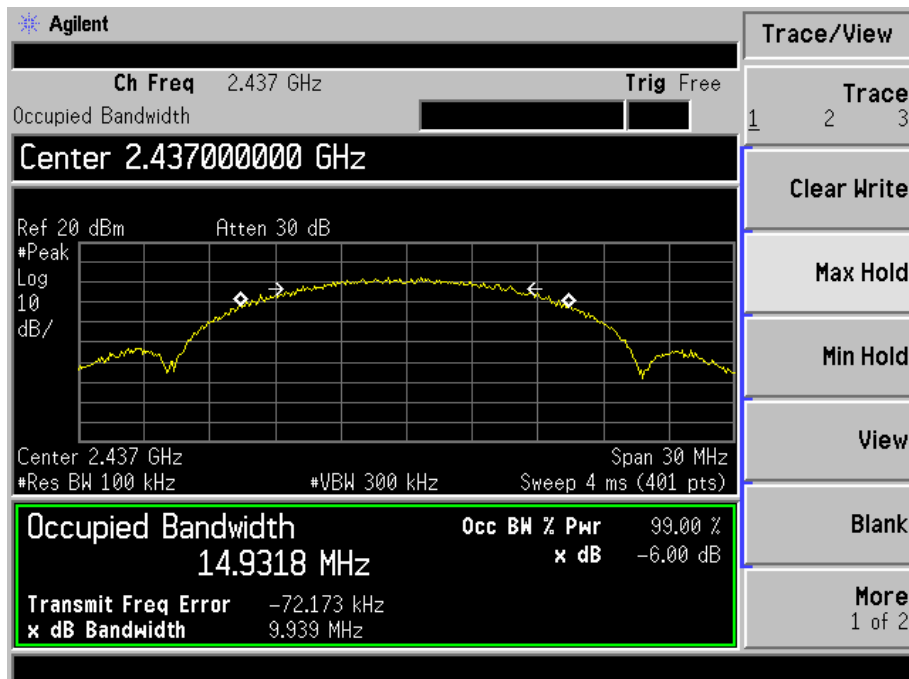
Test Mode	Test Channel MHz	6 dB Bandwidth kHz	99% Bandwidth kHz	Limit kHz
802.11b	2412	9595	14960.9	$\geq 500$
	2437	9939	14931.8	$\geq 500$
	2462	10102	14987.9	$\geq 500$
802.11g	2412	16347	16443.4	$\geq 500$
	2437	16561	16481.3	$\geq 500$
	2462	16454	16408.5	$\geq 500$
802.11n-HT20	2412	17725	17638.4	$\geq 500$
	2437	17567	17591.3	$\geq 500$
	2462	17613	17605.2	$\geq 500$
802.11n-HT40	2422	35884	35873.4	$\geq 500$
	2437	35802	35934.4	$\geq 500$
	2452	35595	35846.0	$\geq 500$

Please refer to the following test plots:

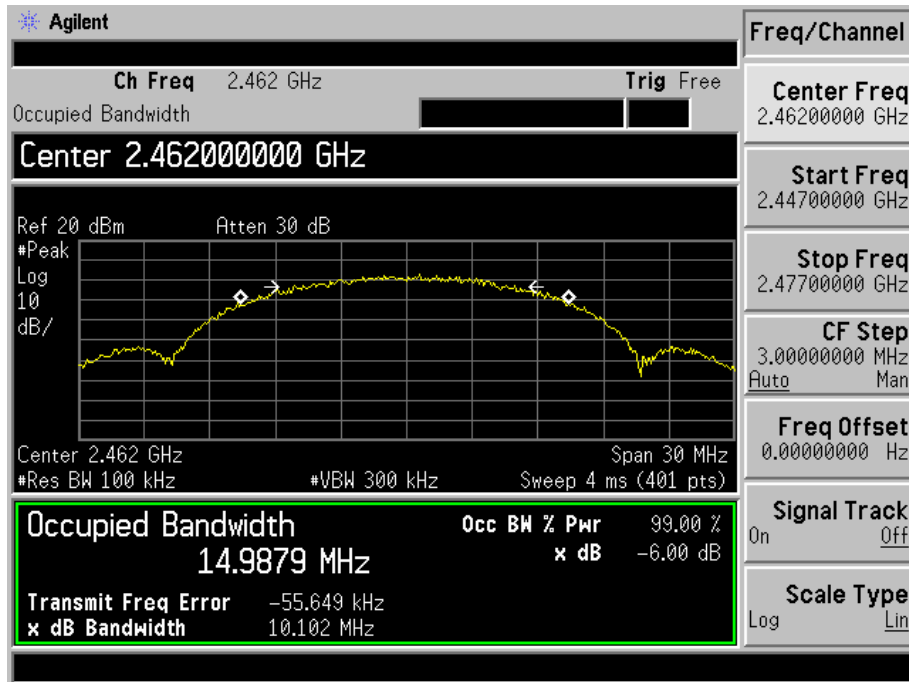
## 802.11b-Low Channel



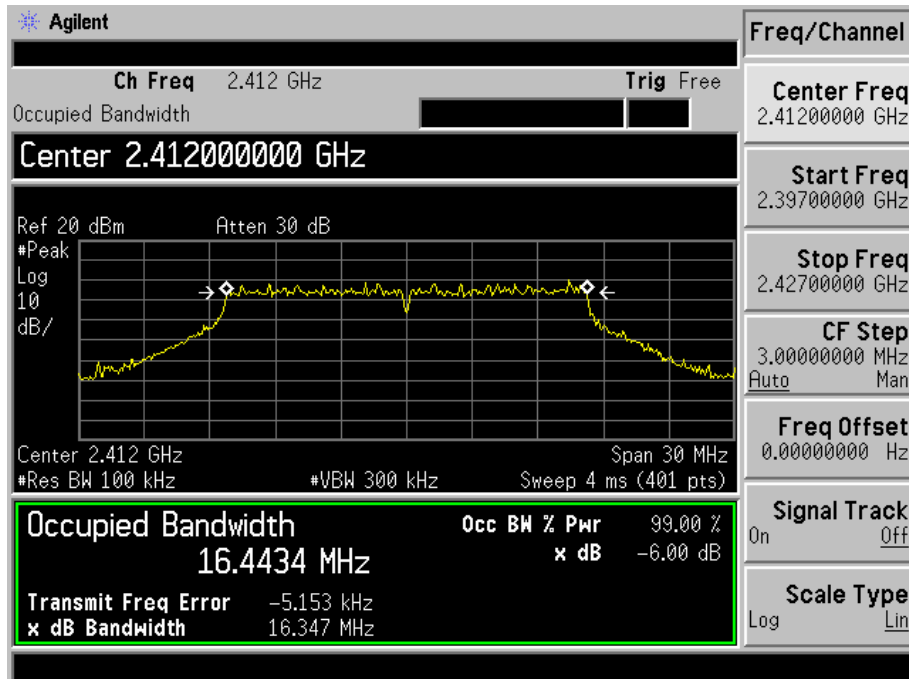
## 802.11b-Middle Channel



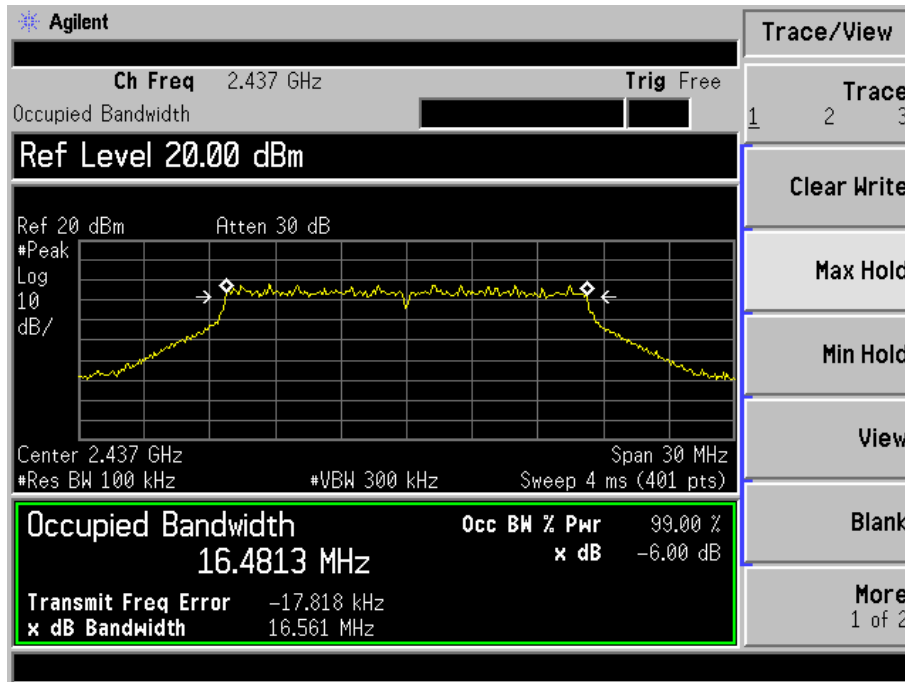
## 802.11b-High Channel



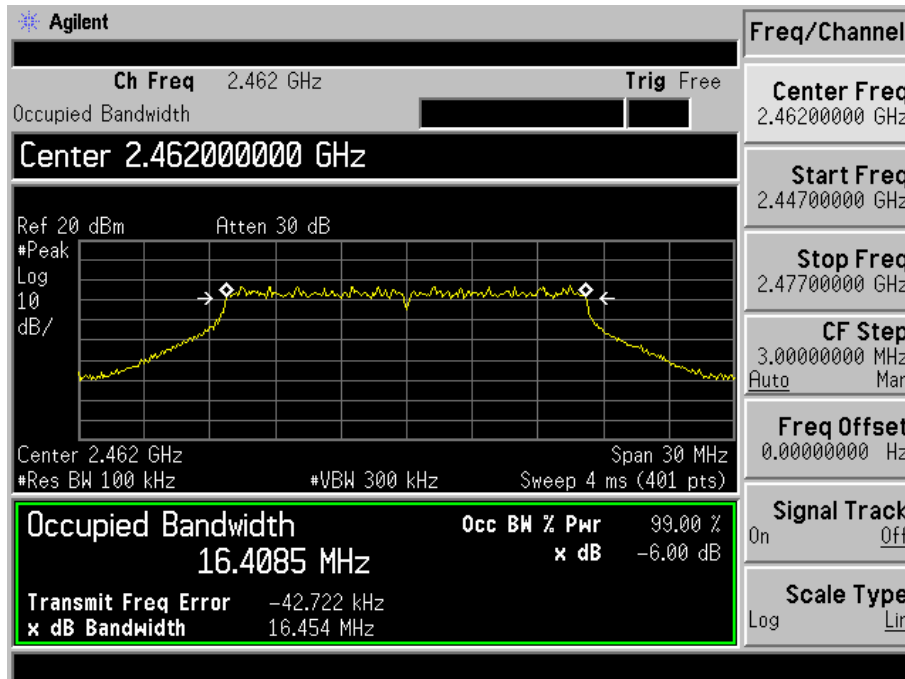
## 802.11g-Low Channel



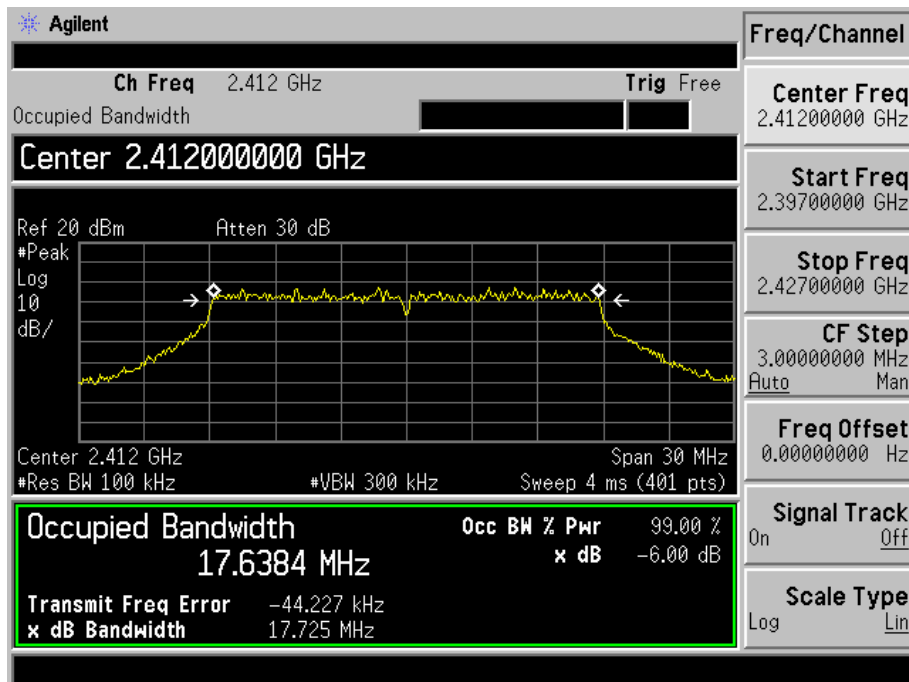
## 802.11g-Middle Channel



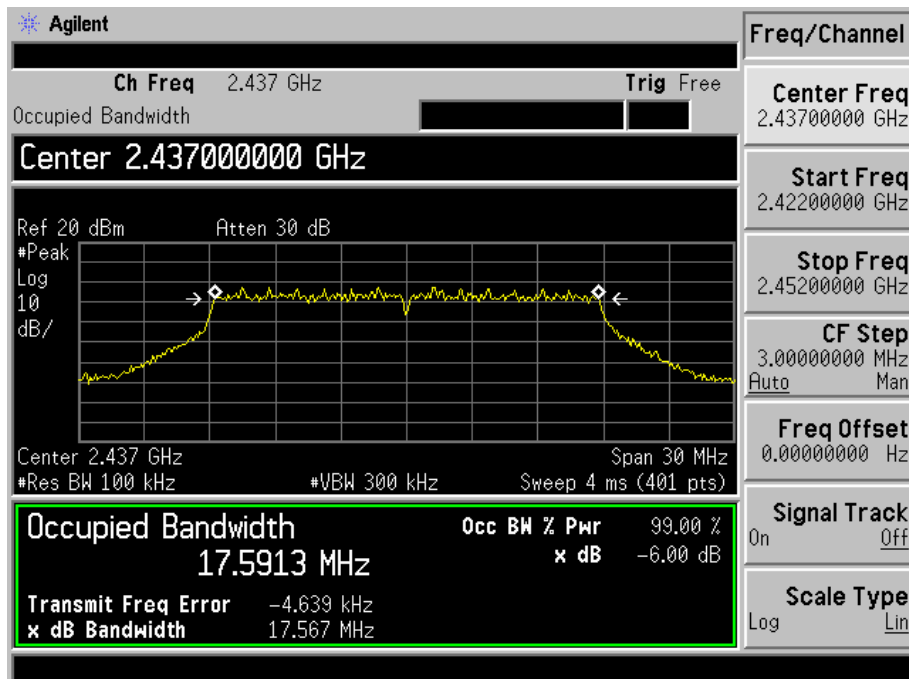
## 802.11g-High Channel



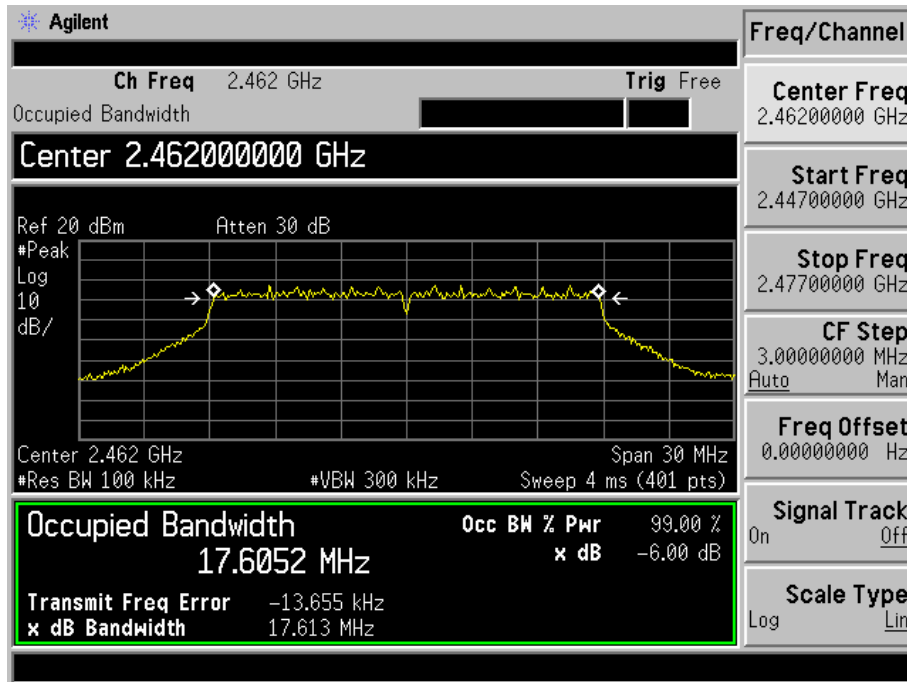
## 802.11n-HT20-Low Channel



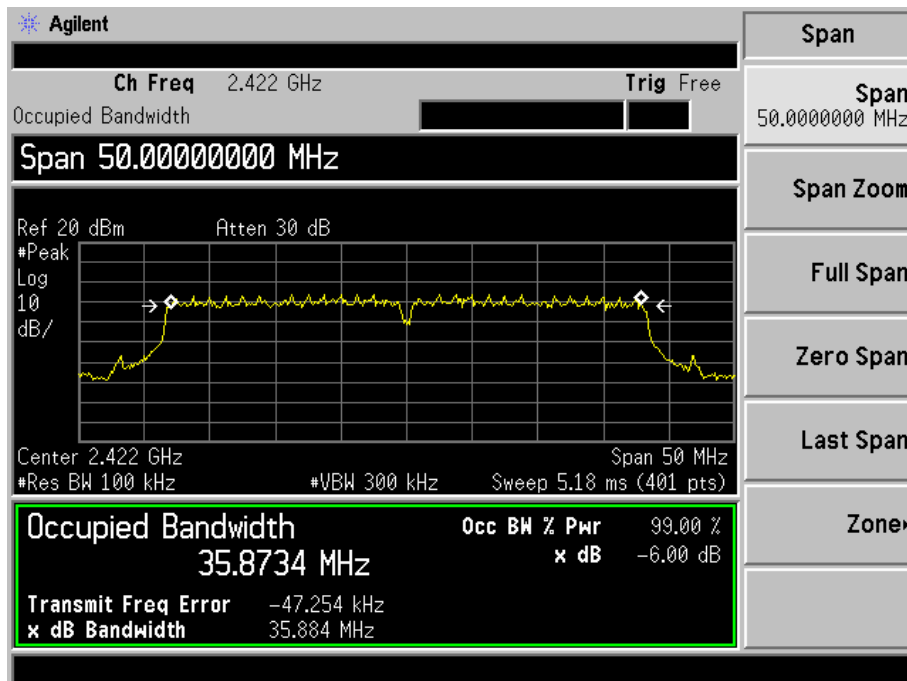
## 802.11n-HT20-Middle Channel



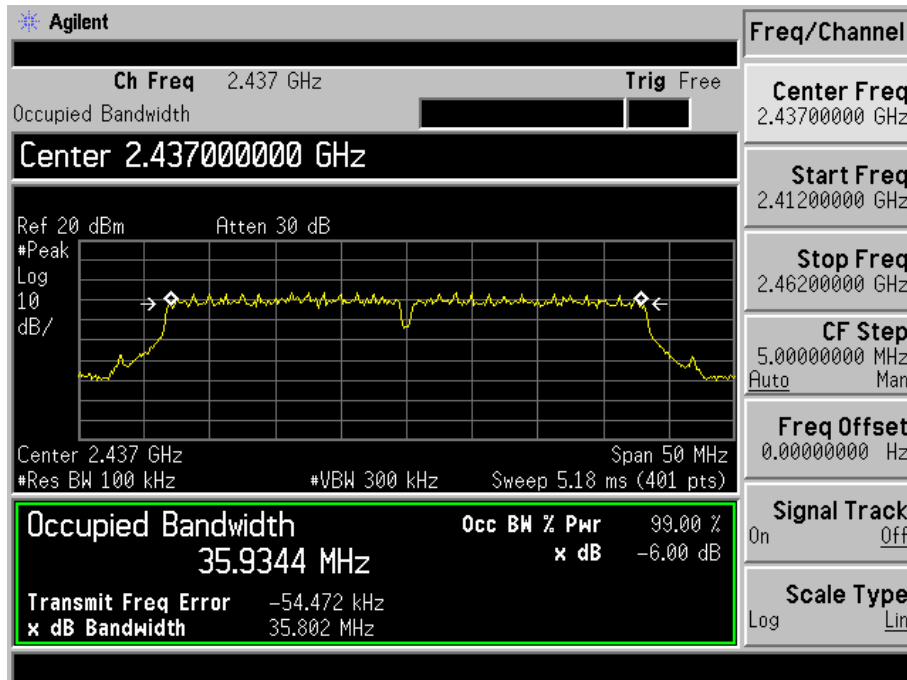
## 802.11n-HT20-High Channel



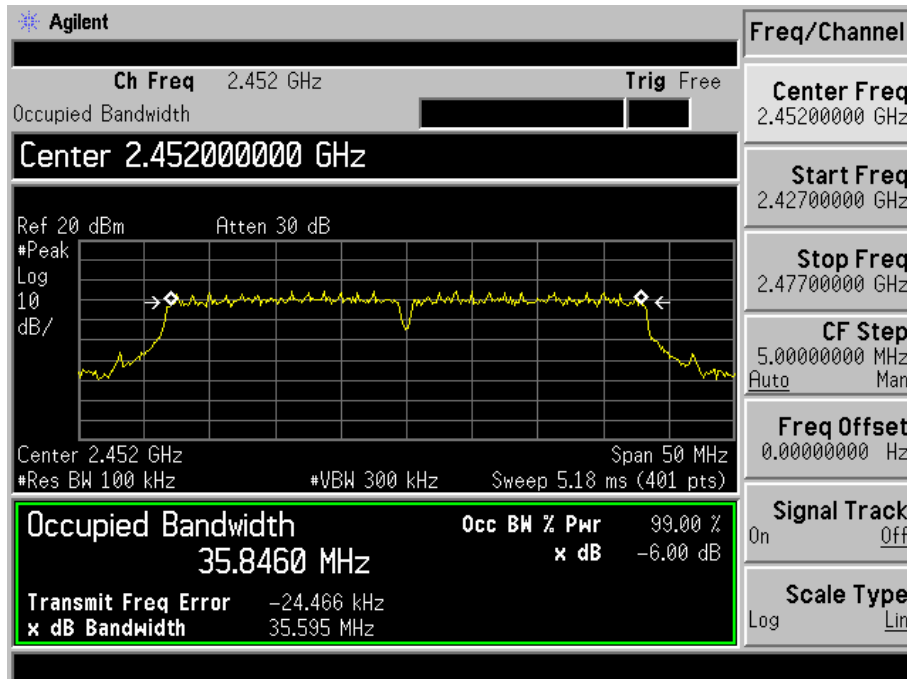
## 802.11n-HT40-Low Channel



## 802.11n-HT40-Middle Channel



## 802.11n-HT40-High Channel





## 7. RF Output Power

### 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 Procedure

According to the KDB-558074 D01 v03r05, 9.2.2.2, when this option is exercised, the measured power is to be referenced to the OBW rather than the DTS bandwidth

- a) Set span to at least 1.5 times the OBW.
- b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
- c) Set VBW  $\geq 3 \times$  RBW.
- d) Number of points in sweep  $\geq 2 \times \text{span} / \text{RBW}$ . (This gives bin-to-bin spacing  $\leq \text{RBW}/2$ , so that narrowband signals are not lost between frequency bins.)
- e) Sweep time = auto.
- f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- g) If transmit duty cycle  $< 98\%$ , use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle  $\geq 98\%$ , and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run”.
- h) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- i) Compute power by integrating the spectrum across the OBW of the signal using the instrument’s band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

### 7.3 Environmental Conditions

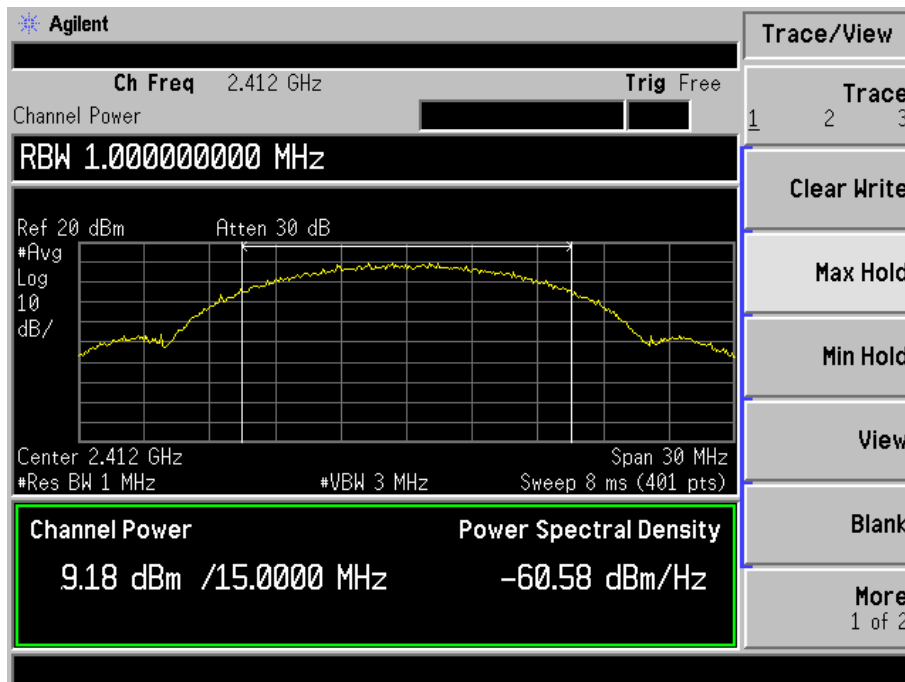
Temperature:	26° C
Relative Humidity:	57%
ATM Pressure:	1011 mbar

#### 7.4 Summary of Test Results/Plots

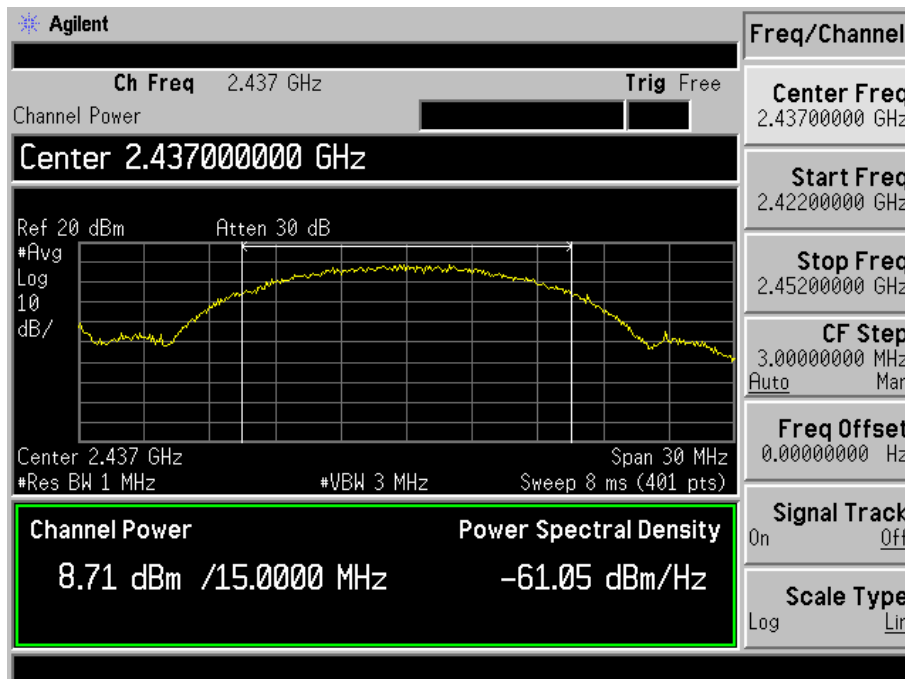
Test Mode	Frequency MHz	Reading dBm	Output Power mW	Limit mW
802.11b_11Mbps	2412	9.18	8.28	1000
	2437	8.71	7.43	1000
	2462	9.77	9.48	1000
802.11g_54Mbps	2412	6.71	4.69	1000
	2437	6.91	4.91	1000
	2462	7.65	5.82	1000
802.11n HT20_MCS7	2412	7.05	5.07	1000
	2437	6.20	4.17	1000
	2462	5.45	3.51	1000
802.11n HT40_MCS7	2422	6.18	4.15	1000
	2437	4.17	2.61	1000
	2452	6.07	4.05	1000

Please refer to the following test plots:

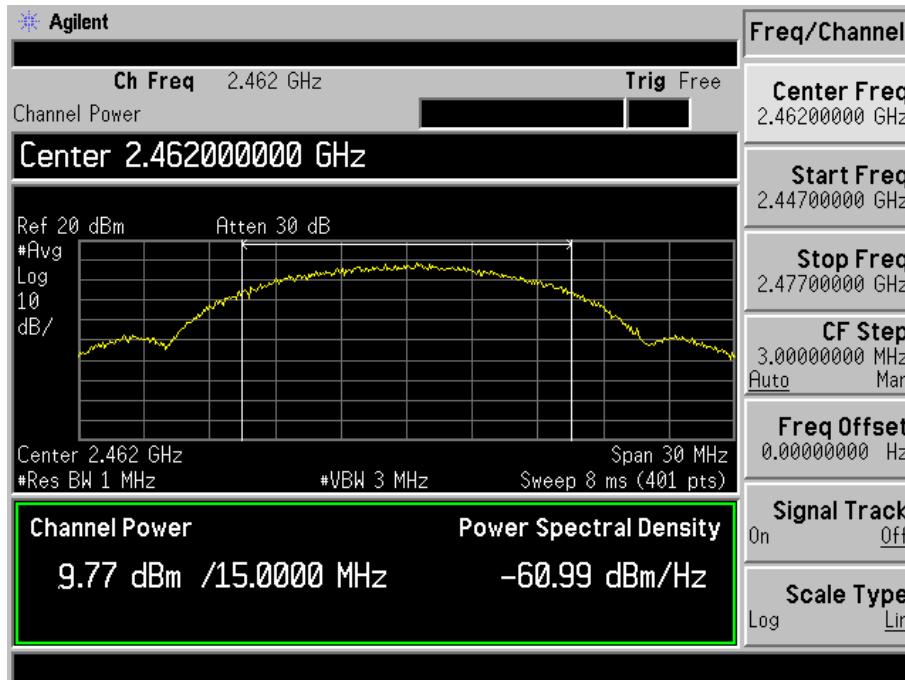
## 802.11b-11Mbps-Low Channel



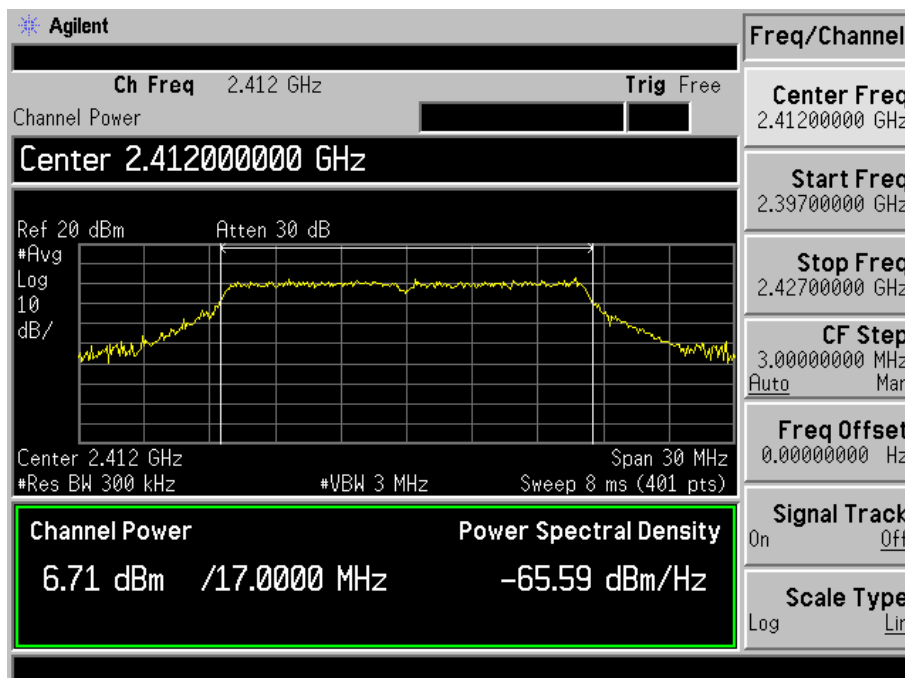
## 802.11b -11Mbps-Middle Channel



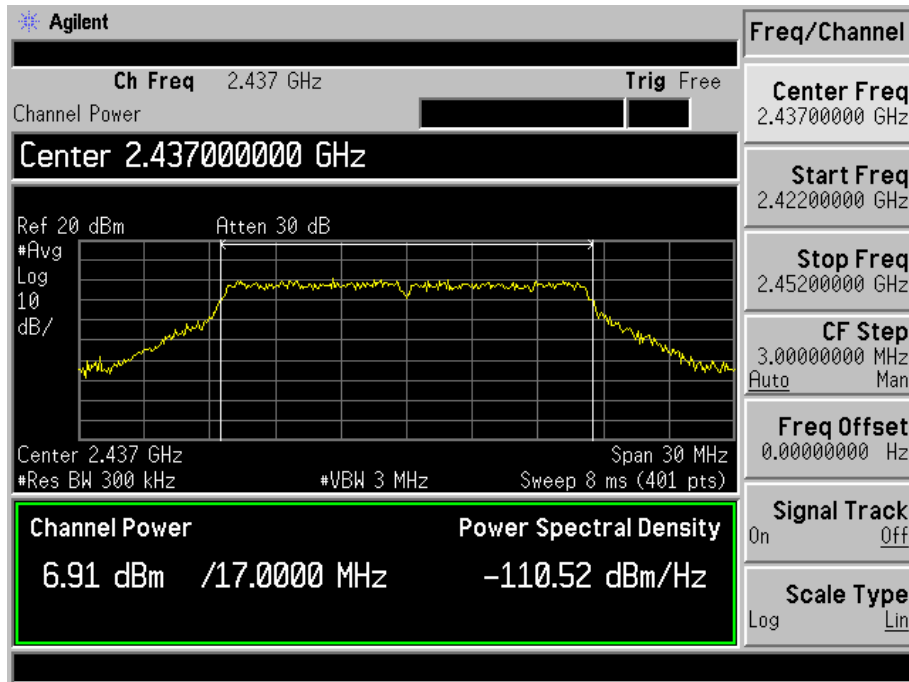
## 802.11b -11Mbps-High Channel



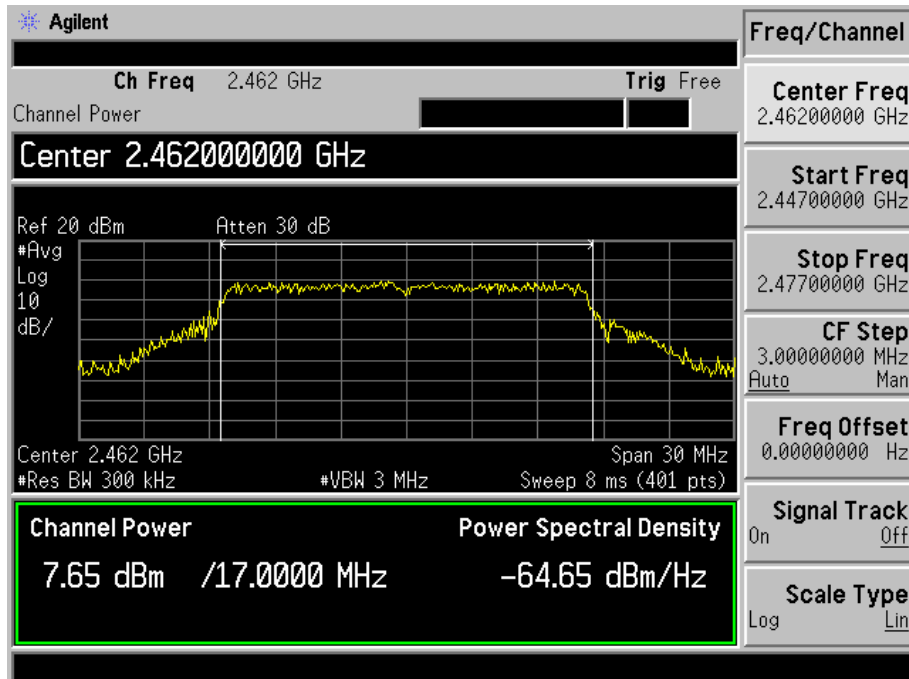
## 802.11g-54Mbps-Low Channel



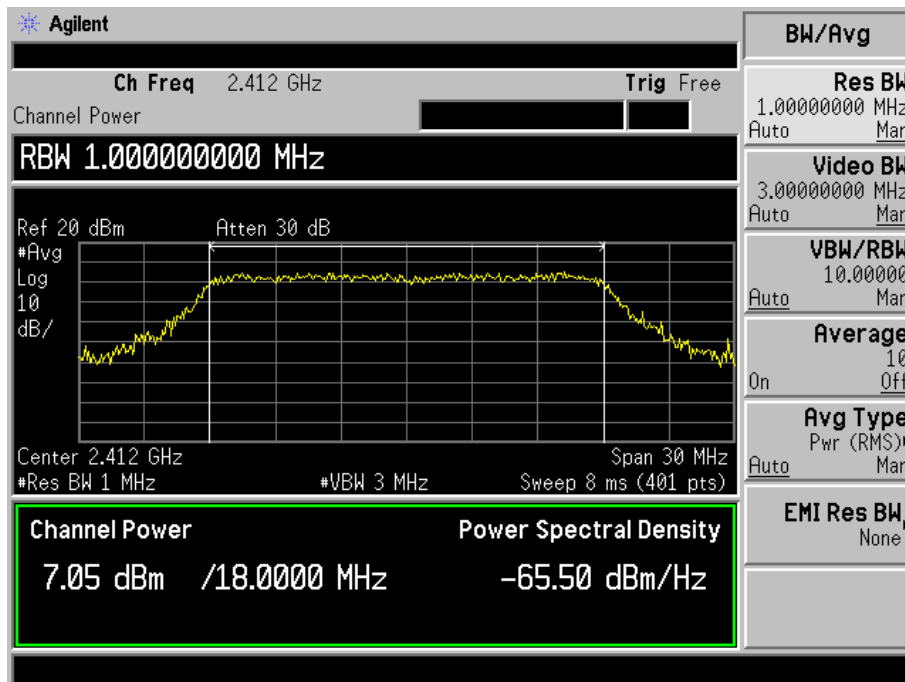
## 802.11g-54Mbps-Middle Channel



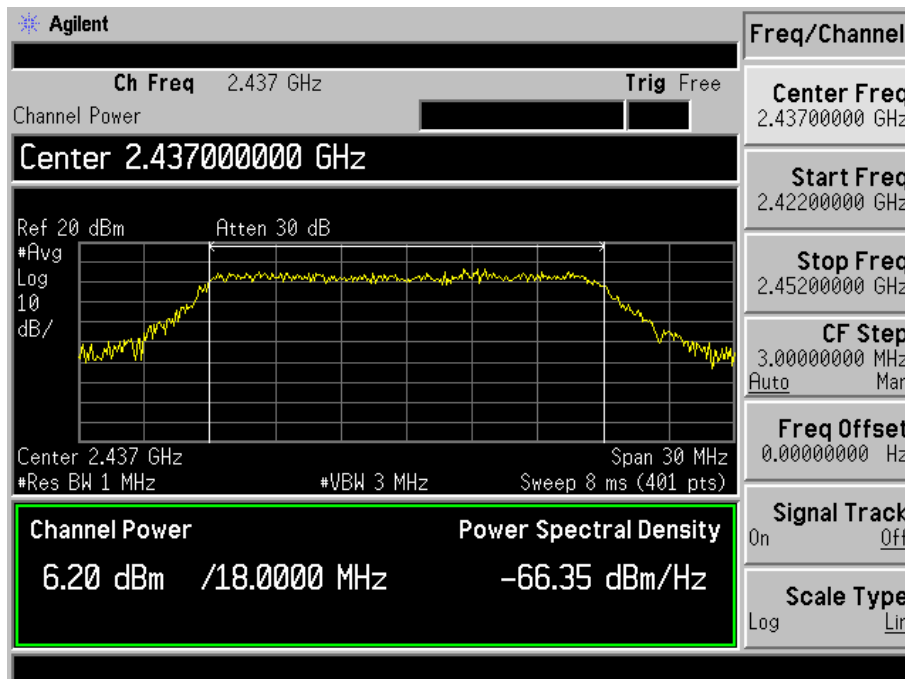
## 802.11g-54Mbps-High Channel



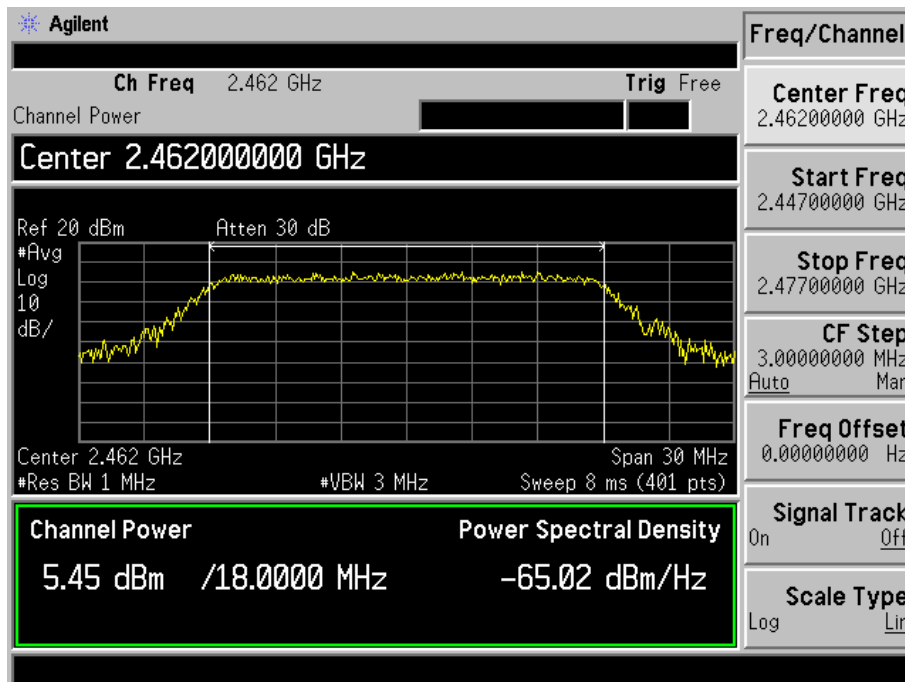
## 802.11n-HT20-MCS7-Low Channel



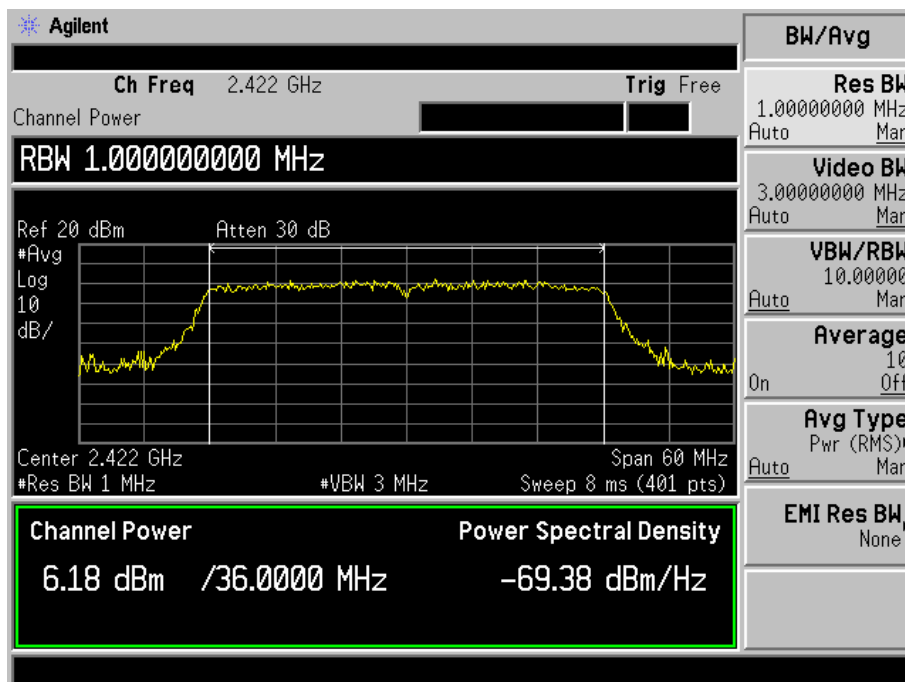
## 802.11n-HT20-MCS7-Middle Channel



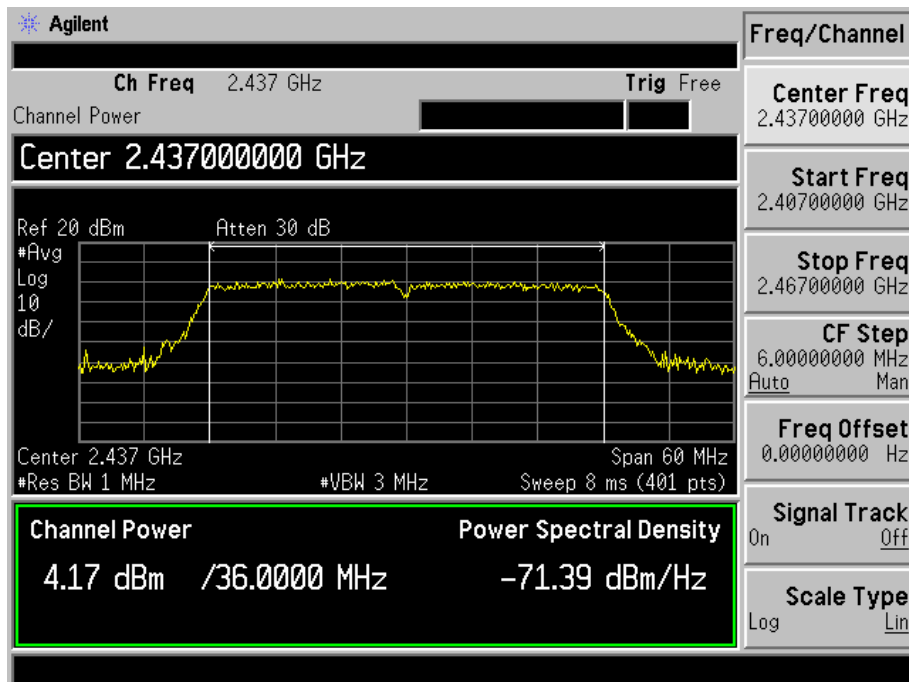
## 802.11n-HT20-MCS7-High Channel



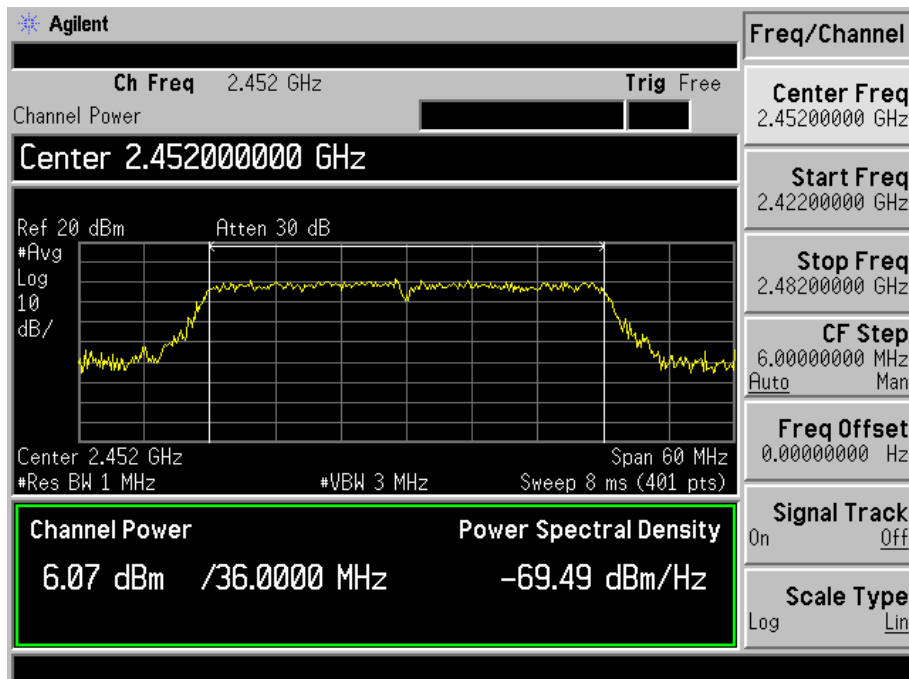
## 802.11n-HT40-MCS7-Low Channel



## 802.11n-HT40-MCS7-Middle Channel



## 802.11n-HT40-MCS7-High Channel





## 8. Field Strength of Spurious Emissions

### 8.1 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).

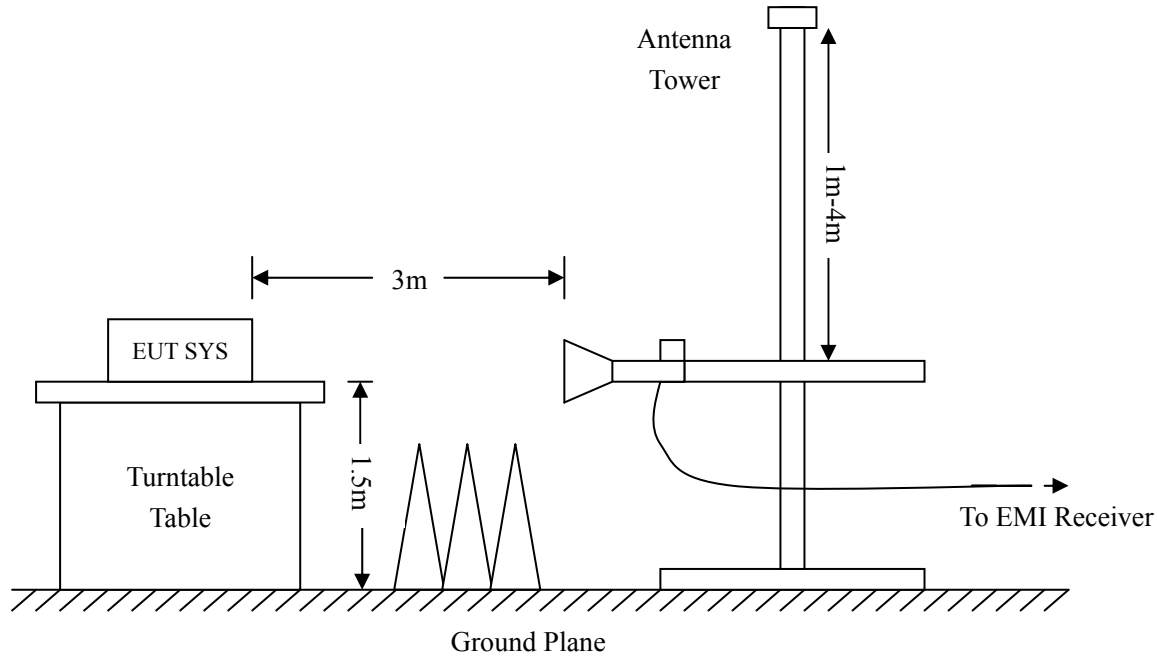
The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

### 8.2 Test Procedure

The setup of EUT is according with per ANSI C63.4-2014 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

### 8.3 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 -6dBμV means the emission is 6dBμV below the maximum limit. The equation for margin calculation is as follows:

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

### 8.4 Environmental Conditions

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

## 8.5 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)

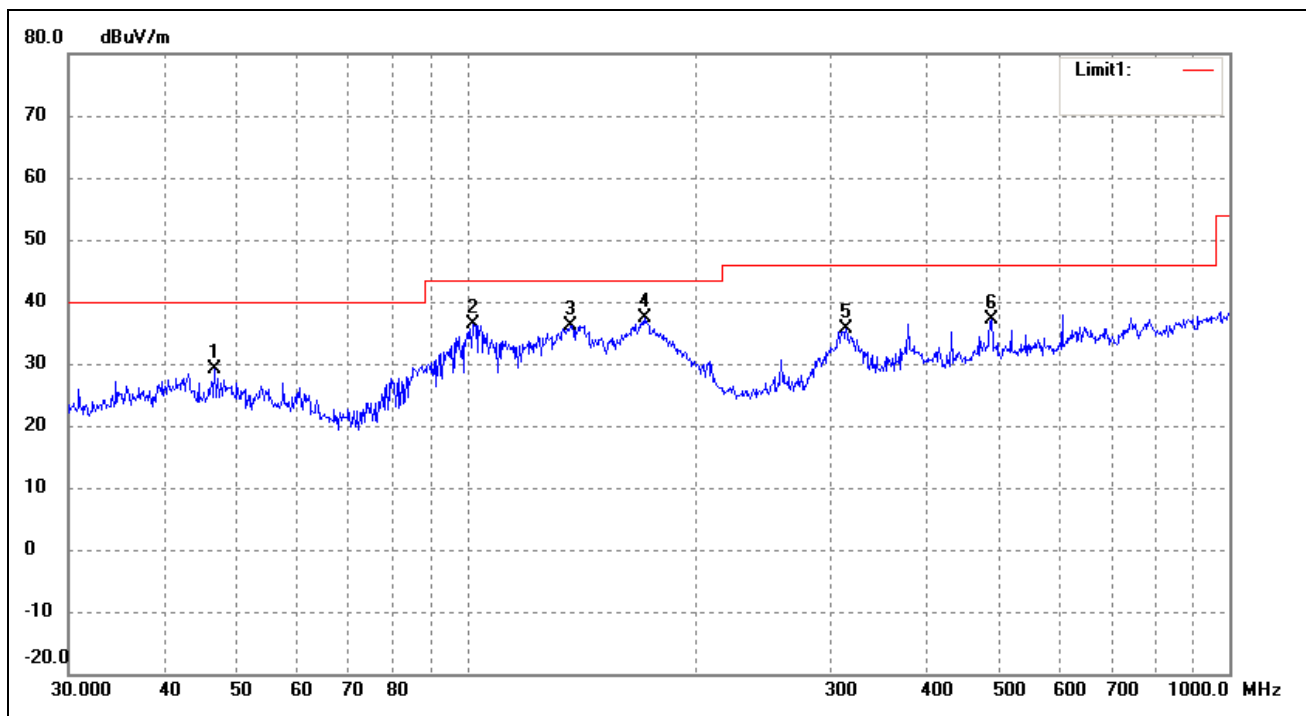
EUT: Rear Seat Entertainment System

Tested Model: 8" Main Screen (Part NO.: RSETY-USA08-IV & RSETY-USA08-BK)

Operating Condition: 802.11b Transmitting Low Channel-2412MHz

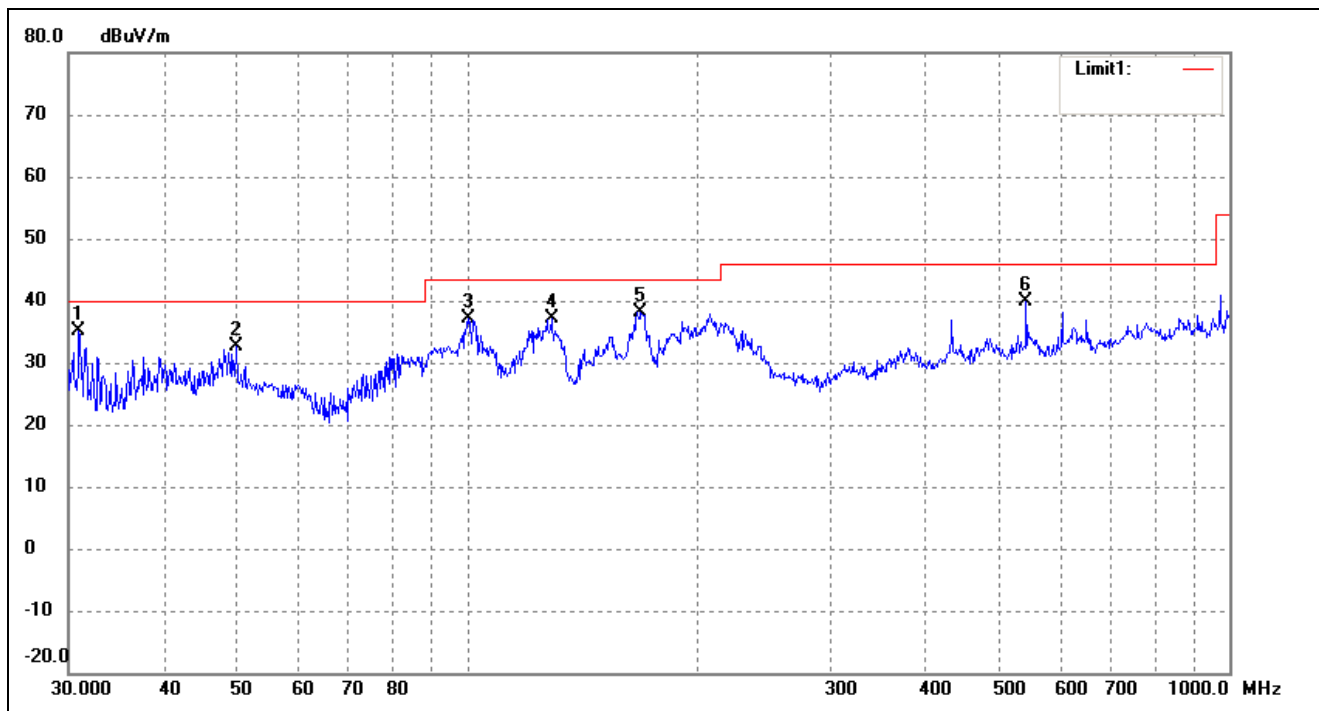
Comment: DC 12V

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	46.6664	37.16	-8.10	29.06	40.00	-10.94	254	100	peak
2	101.6443	47.32	-10.94	36.38	43.50	-7.12	113	100	peak
3	136.4598	48.59	-12.37	36.22	43.50	-7.28	284	100	peak
4	170.7923	49.22	-11.78	37.44	43.50	-6.06	254	100	peak
5	314.3765	40.43	-4.92	35.51	46.00	-10.49	113	100	peak
6	487.3149	38.56	-1.47	37.09	46.00	-8.91	284	100	peak

Test Specification: Vertical

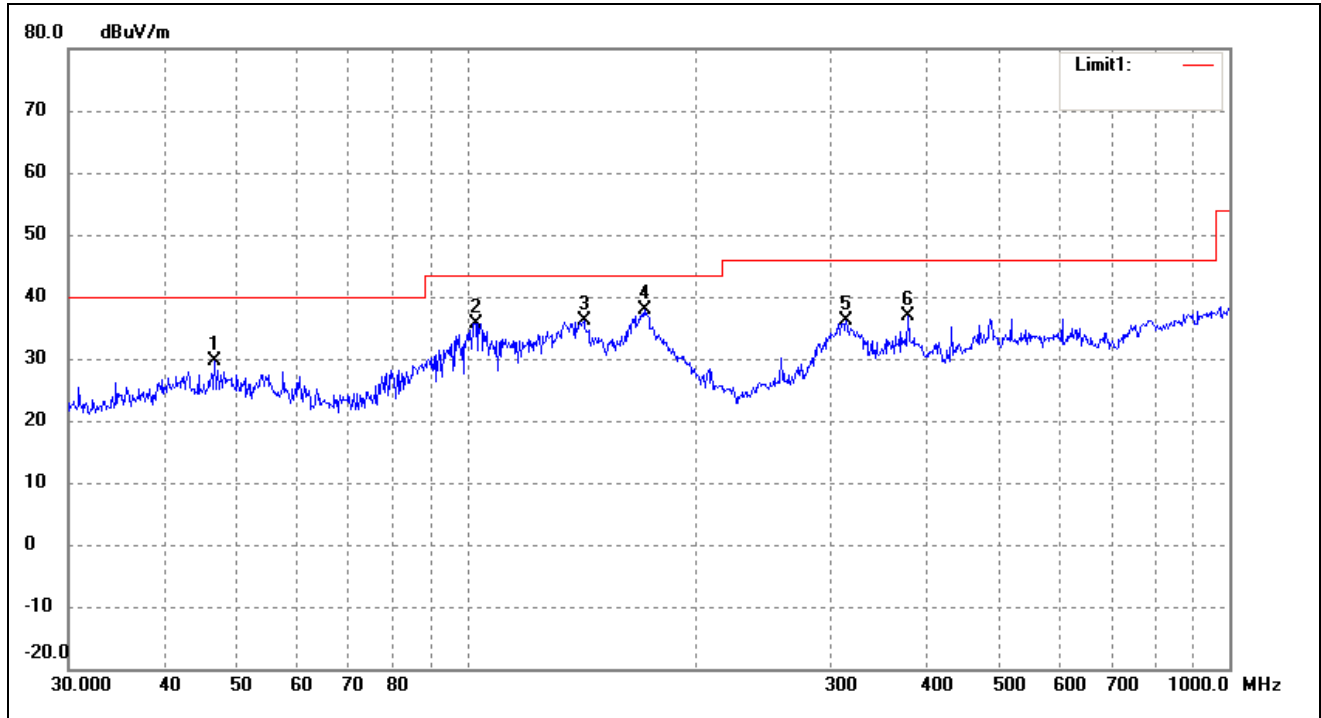


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	30.9618	45.26	-10.07	35.19	40.00	-4.81	114	100	peak
2	49.8813	40.97	-8.31	32.66	40.00	-7.34	270	100	peak
3	100.2286	47.97	-10.91	37.06	43.50	-6.44	360	100	peak
4	129.0146	49.17	-11.94	37.23	43.50	-6.27	114	100	peak
5	169.0054	50.03	-11.86	38.17	43.50	-5.33	270	100	peak
6	541.3722	41.61	-1.76	39.85	46.00	-6.15	360	100	peak

Operating Condition: 802.11b Transmitting Middle Channel-2437MHz

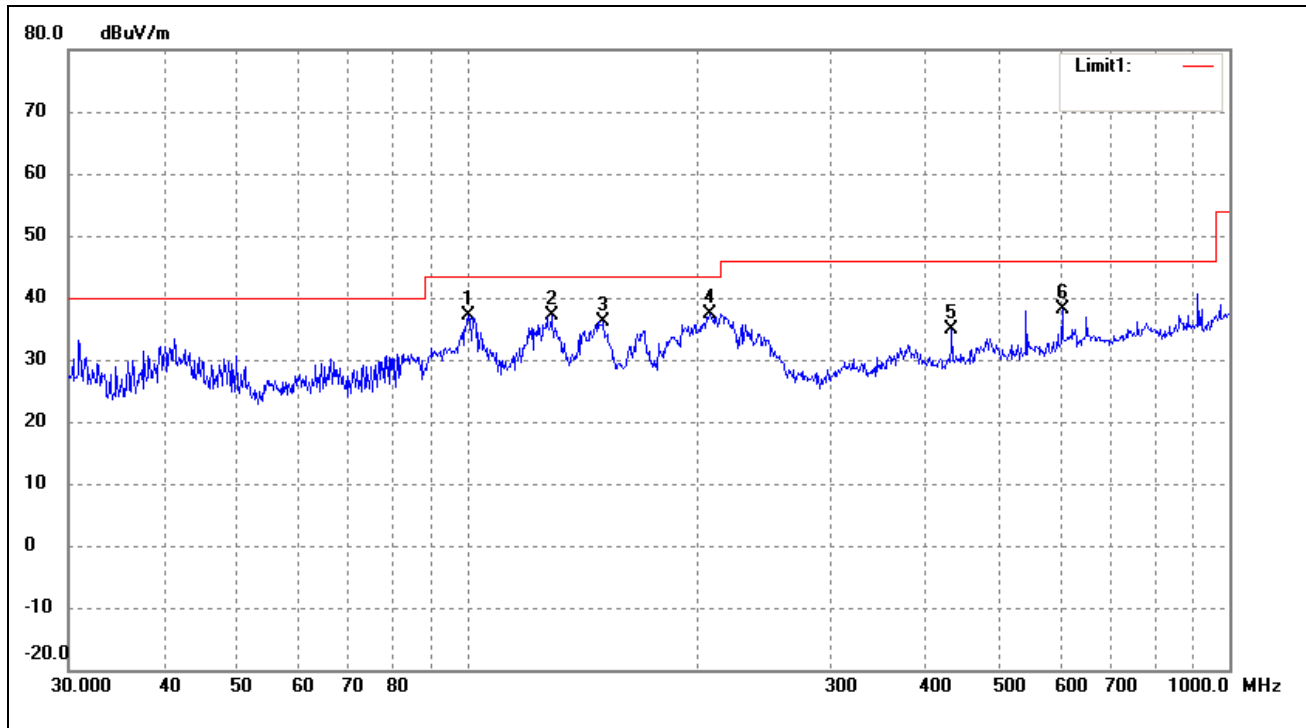
Comment: DC 12V

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	46.6664	37.66	-8.10	29.56	40.00	-10.44	178	100	peak
2	102.7192	46.70	-10.97	35.73	43.50	-7.77	224	100	peak
3	142.3240	48.63	-12.53	36.10	43.50	-7.40	160	100	peak
4	170.7923	49.72	-11.78	37.94	43.50	-5.56	178	100	peak
5	314.3765	40.93	-4.92	36.01	46.00	-9.99	224	100	peak
6	378.5842	39.06	-2.17	36.89	46.00	-9.11	160	100	peak

Test Specification: Vertical

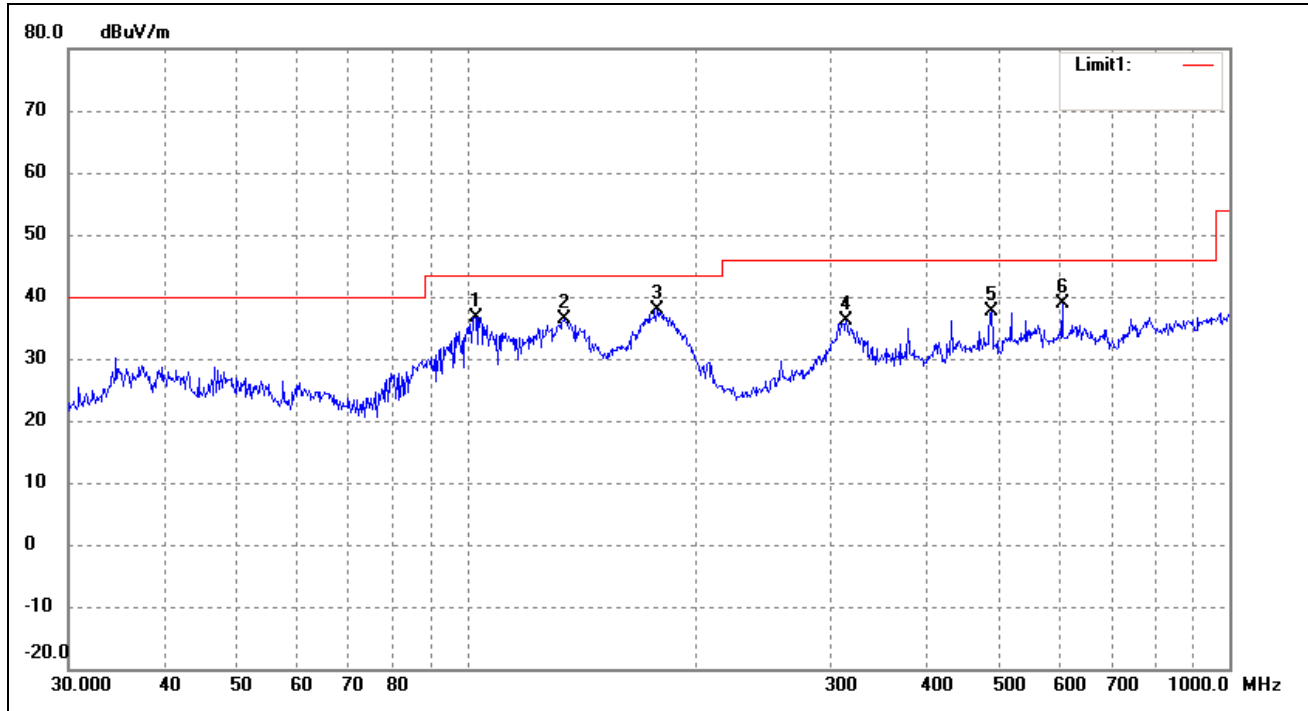


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	100.2286	47.97	-10.91	37.06	43.50	-6.44	256	100	peak
2	129.0146	49.17	-11.94	37.23	43.50	-6.27	360	100	peak
3	151.0663	48.65	-12.41	36.24	43.50	-7.26	360	100	peak
4	208.5800	46.18	-8.74	37.44	43.50	-6.06	256	100	peak
5	432.5457	38.05	-3.15	34.90	46.00	-11.10	360	100	peak
6	603.5392	37.93	0.10	38.03	46.00	-7.97	360	100	peak

Operating Condition: 802.11b Transmitting High Channel-2462MHz

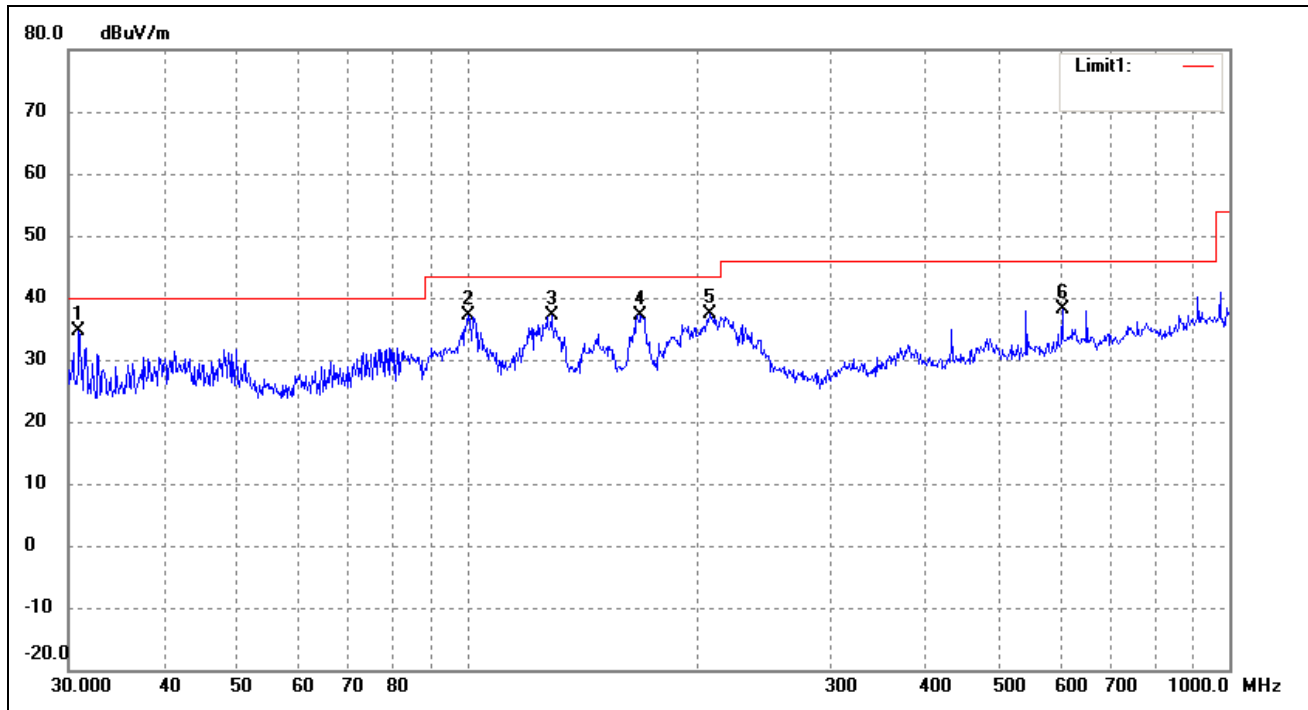
Comment: DC 12V

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	102.7192	47.70	-10.97	36.73	43.50	-6.77	176	100	peak
2	134.0882	48.63	-12.23	36.40	43.50	-7.10	255	100	peak
3	177.5089	49.36	-11.47	37.89	43.50	-5.61	360	100	peak
4	314.3765	40.93	-4.92	36.01	46.00	-9.99	176	100	peak
5	487.3149	39.06	-1.47	37.59	46.00	-8.41	255	100	peak
6	603.5392	38.73	0.10	38.83	46.00	-7.17	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	30.9618	44.76	-10.07	34.69	40.00	-5.31	360	100	peak
2	100.2286	47.97	-10.91	37.06	43.50	-6.44	225	100	peak
3	129.0146	49.17	-11.94	37.23	43.50	-6.27	160	100	peak
4	169.0054	49.03	-11.86	37.17	43.50	-6.33	360	100	peak
5	208.5800	46.18	-8.74	37.44	43.50	-6.06	225	100	peak
6	603.5392	37.93	0.10	38.03	46.00	-7.97	160	100	peak



### Plot of Radiated Emissions Test Data (30MHz to 1GHz)

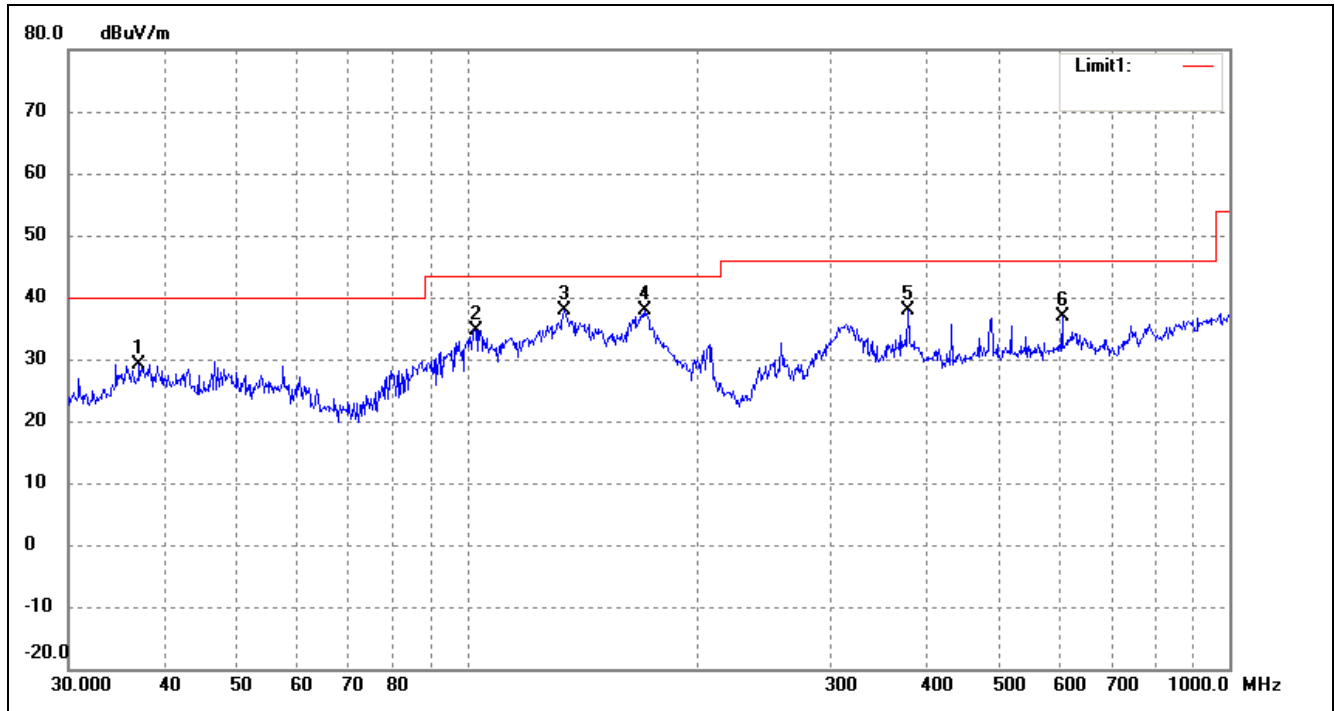
EUT: Rear Seat Entertainment System

Tested Model: 8" Main Screen (Part NO.: RSETY-USA08-IV & RSETY-USA08-BK)

Operating Condition: 802.11g Transmitting Low Channel-2412MHz

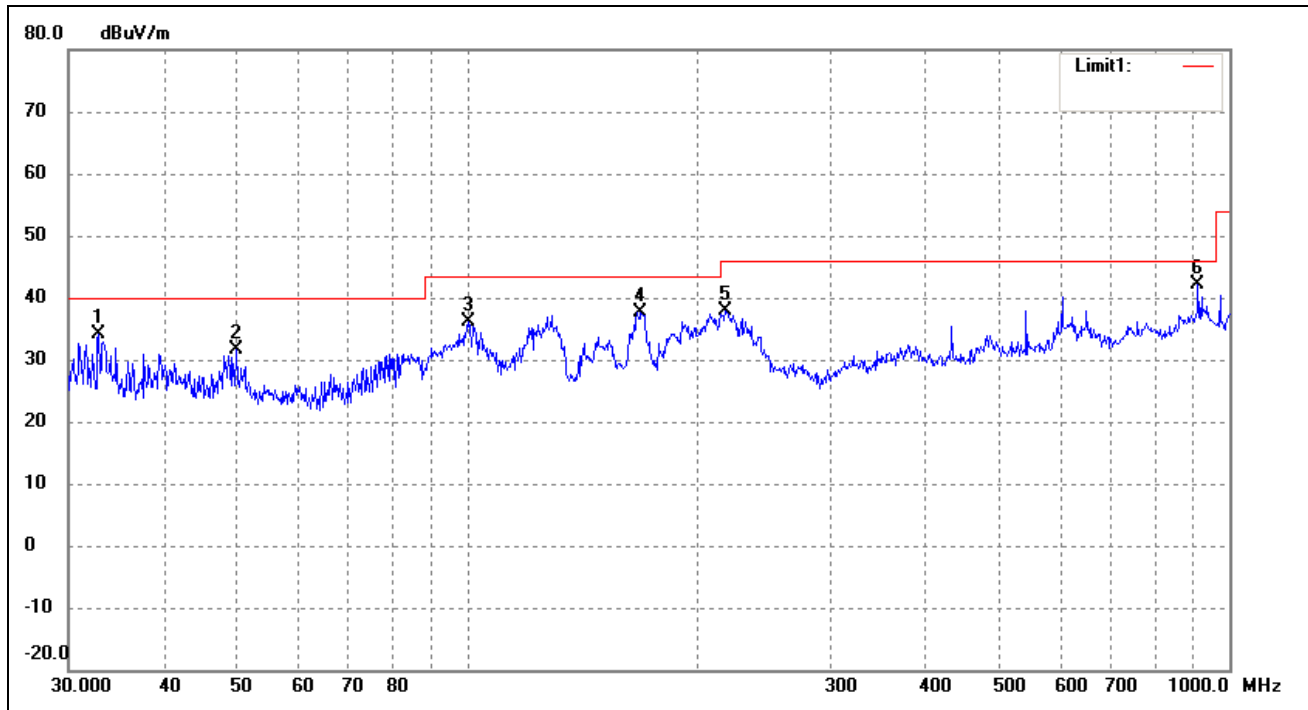
Comment: DC 12V

Test Specification: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( ° )	(cm)	
1	37.1550	37.54	-8.45	29.09	40.00	-10.91	174	100	peak
2	102.7192	45.70	-10.97	34.73	43.50	-8.77	160	100	peak
3	134.0882	50.13	-12.23	37.90	43.50	-5.60	320	100	peak
4	170.7923	49.72	-11.78	37.94	43.50	-5.56	174	100	peak
5	378.5842	40.06	-2.17	37.89	46.00	-8.11	160	100	peak
6	603.5392	36.73	0.10	36.83	46.00	-9.17	320	100	peak

Test Specification: Vertical

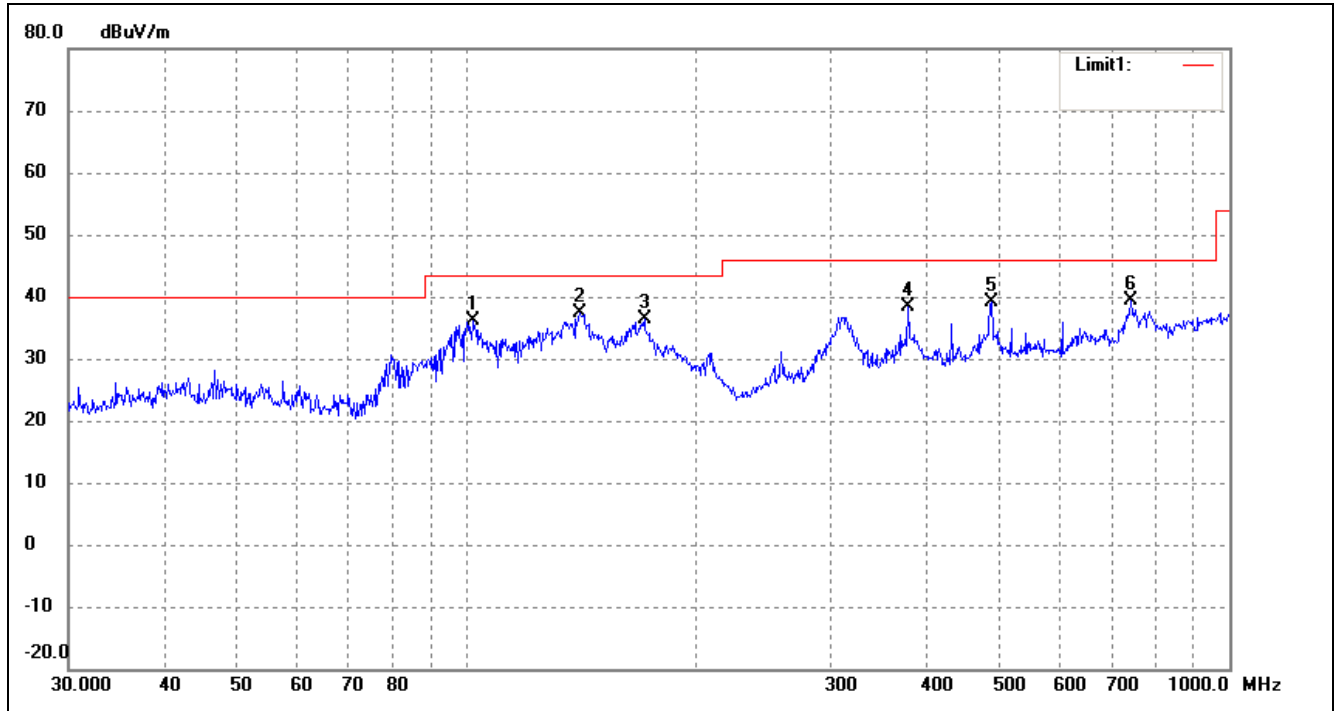


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	32.8637	43.77	-9.59	34.18	40.00	-5.82	177	100	peak
2	49.8813	39.97	-8.31	31.66	40.00	-8.34	90	100	peak
3	100.2286	46.97	-10.91	36.06	43.50	-7.44	336	100	peak
4	169.0054	49.53	-11.86	37.67	43.50	-5.83	177	100	peak
5	218.3085	46.80	-8.83	37.97	46.00	-8.03	90	100	peak
6	909.6666	38.79	3.39	42.18	46.00	-3.82	336	100	peak

Operating Condition: 802.11g Transmitting Middle Channel-2437MHz

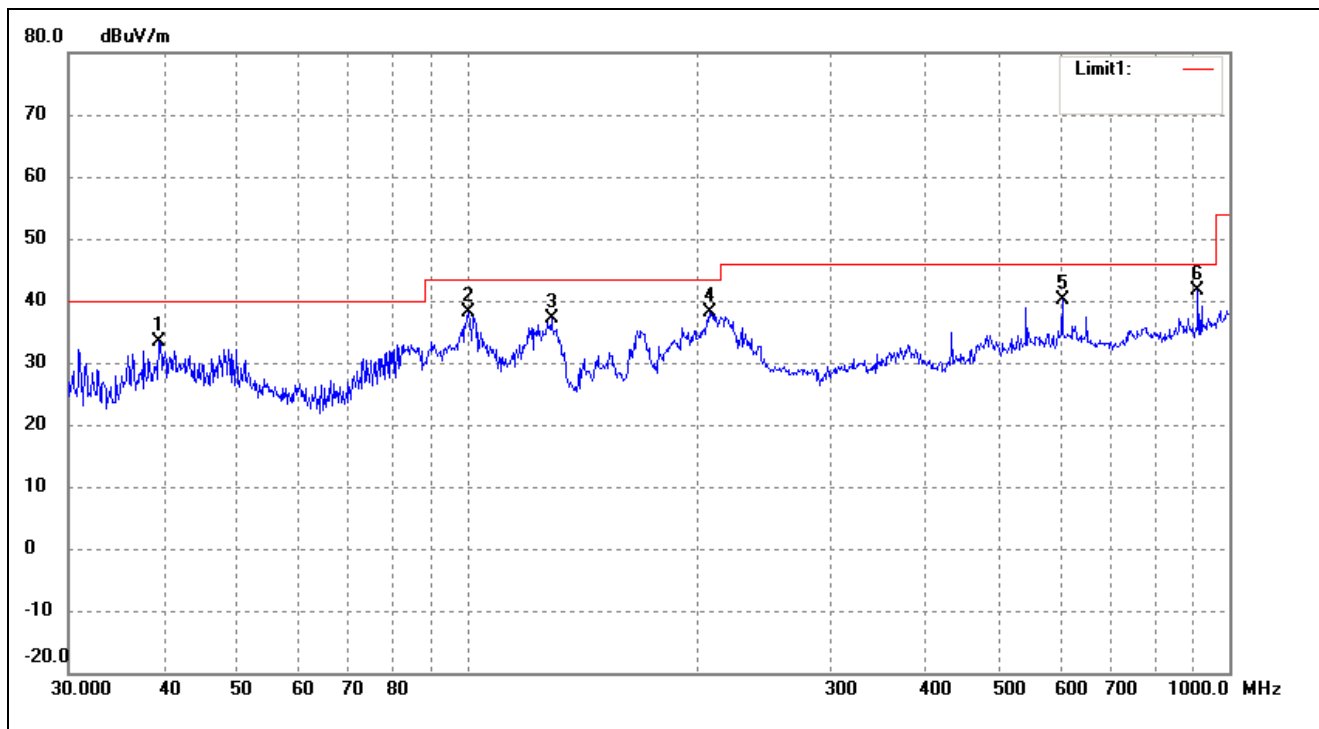
Comment: DC 12V

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	102.0014	47.17	-10.96	36.21	43.50	-7.29	270	100	peak
2	140.8351	49.81	-12.55	37.26	43.50	-6.24	164	100	peak
3	170.7923	48.22	-11.78	36.44	43.50	-7.06	228	200	peak
4	378.5842	40.56	-2.17	38.39	46.00	-7.61	270	100	peak
5	487.3149	40.56	-1.47	39.09	46.00	-6.91	164	100	peak
6	742.2586	37.19	2.09	39.28	46.00	-6.72	228	100	peak

Test Specification: Vertical

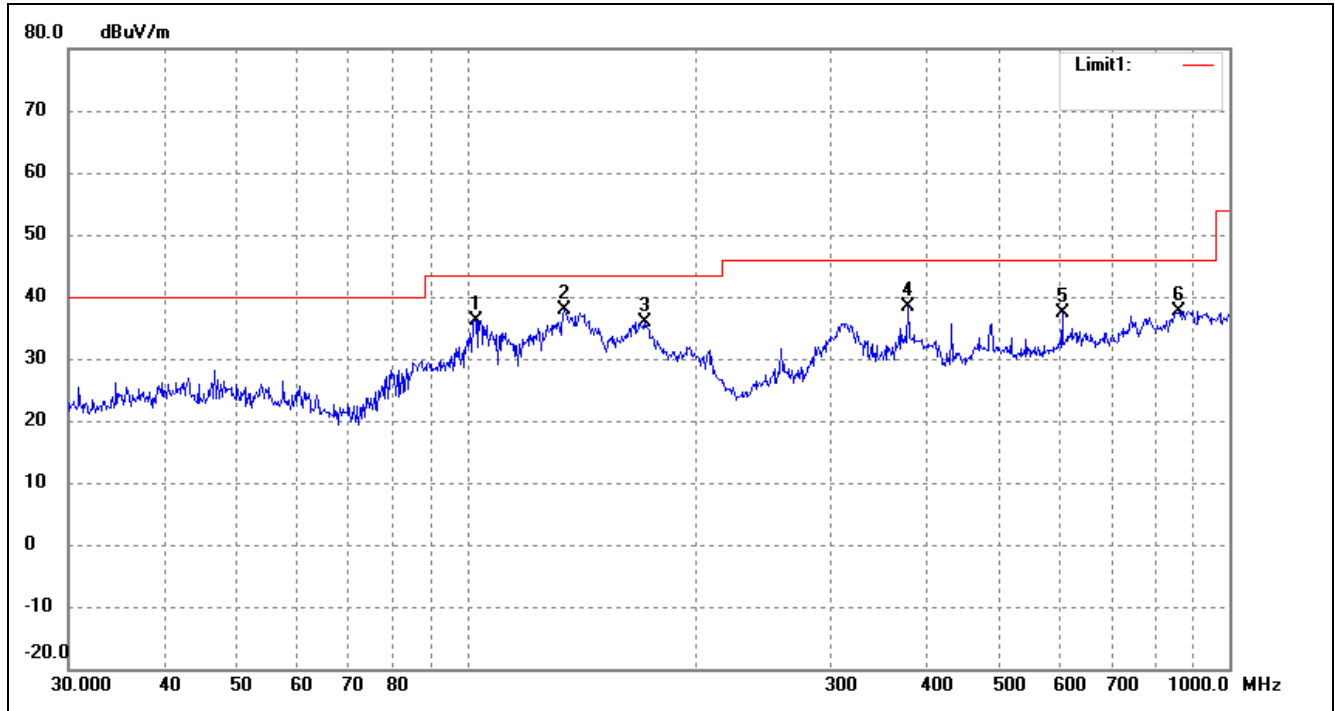


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	39.4371	41.18	-7.82	33.36	40.00	-6.64	360	100	peak
2	100.2286	48.97	-10.91	38.06	43.50	-5.44	255	100	peak
3	129.0146	49.17	-11.94	37.23	43.50	-6.27	270	100	peak
4	207.8497	46.82	-8.72	38.10	43.50	-5.40	360	100	peak
5	603.5392	39.93	0.10	40.03	46.00	-5.97	255	100	peak
6	909.6666	38.29	3.39	41.68	46.00	-4.32	270	100	peak

Operating Condition: 802.11g Transmitting High Channel-2462MHz

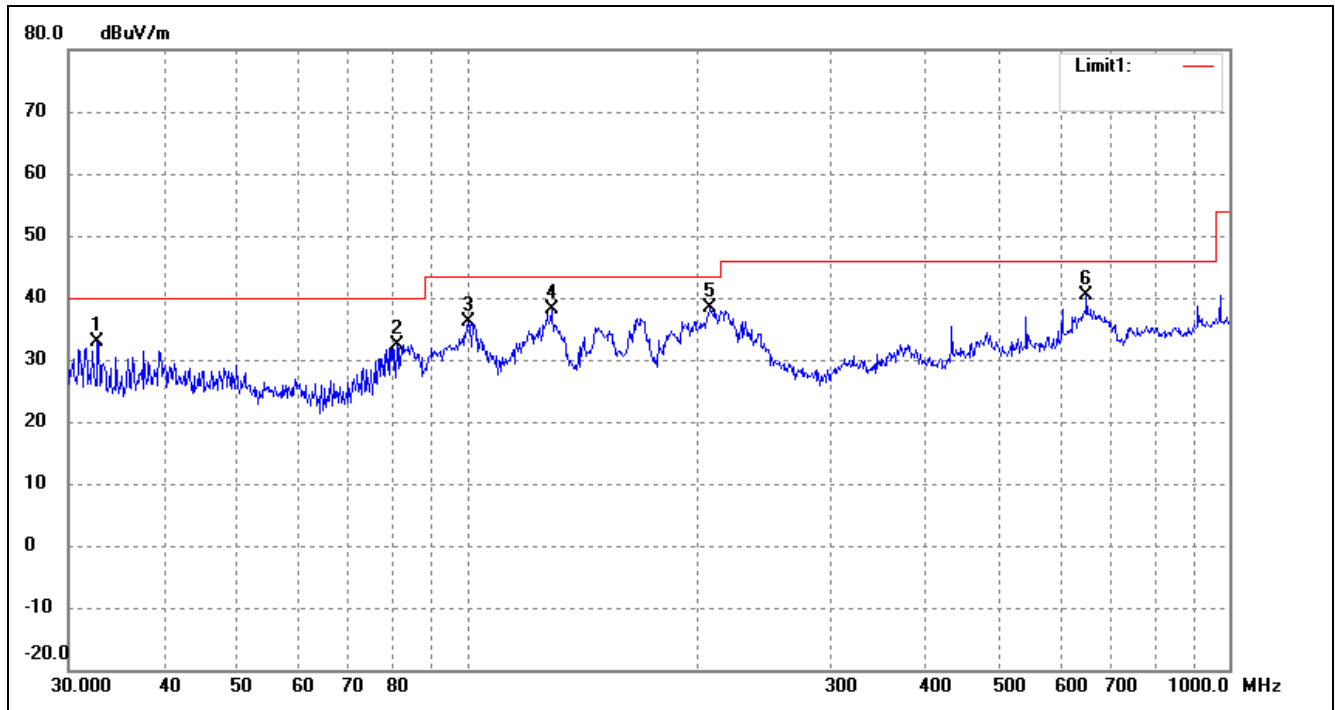
Comment: DC 12V

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	102.7192	47.20	-10.97	36.23	43.50	-7.27	270	100	peak
2	134.0882	50.13	-12.23	37.90	43.50	-5.60	51	200	peak
3	170.7923	47.72	-11.78	35.94	43.50	-7.56	360	200	peak
4	378.5842	40.56	-2.17	38.39	46.00	-7.61	270	100	peak
5	603.5392	37.23	0.10	37.33	46.00	-8.67	51	100	peak
6	860.0352	34.77	2.93	37.70	46.00	-8.30	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	32.7486	42.39	-9.62	32.77	40.00	-7.23	360	100	peak
2	80.9274	44.45	-12.07	32.38	40.00	-7.62	180	100	peak
3	100.2286	46.97	-10.91	36.06	43.50	-7.44	225	100	peak
4	129.0146	50.17	-11.94	38.23	43.50	-5.27	360	100	peak
5	208.5800	47.18	-8.74	38.44	43.50	-5.06	180	100	peak
6	649.6597	39.75	0.52	40.27	46.00	-5.73	225	100	peak

### Plot of Radiated Emissions Test Data (30MHz to 1GHz)

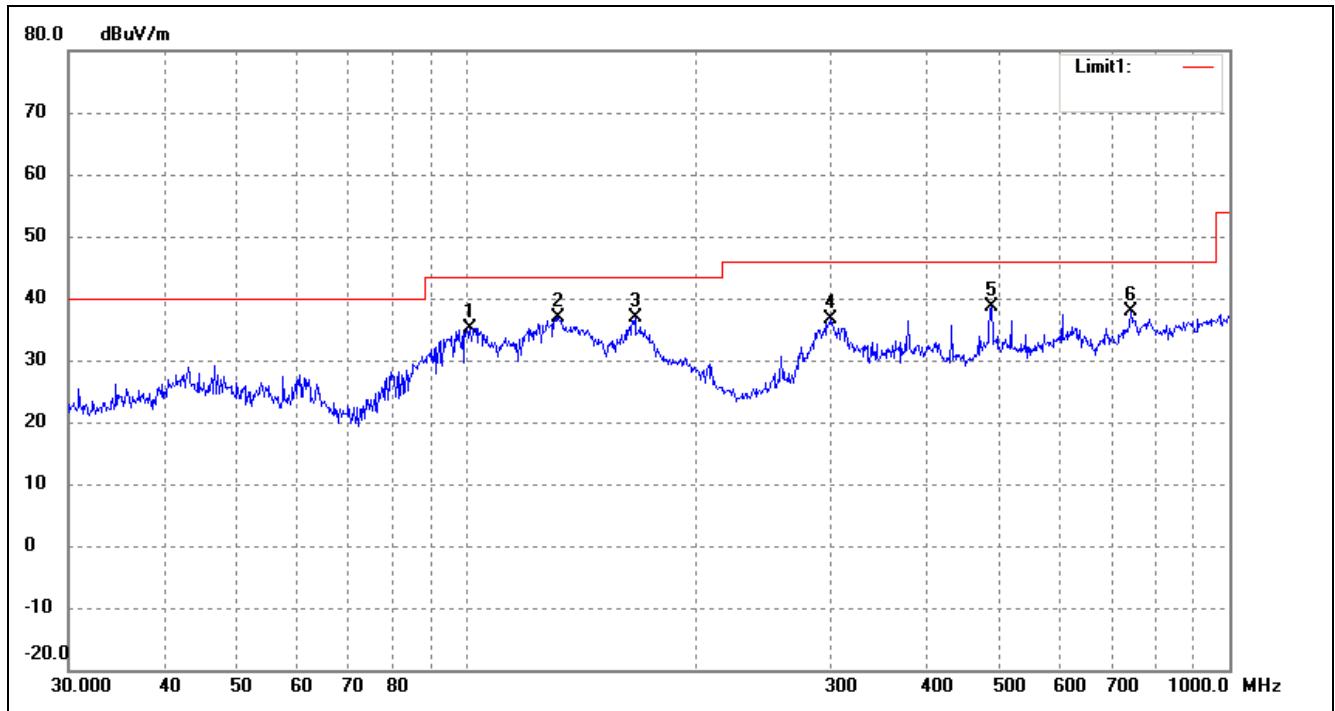
EUT: Rear Seat Entertainment System

Tested Model: 8" Main Screen (Part NO.: RSETY-USA08-IV & RSETY-USA08-BK)

Operating Condition: 802.11n-HT20 Transmitting Low Channel-2412MHz

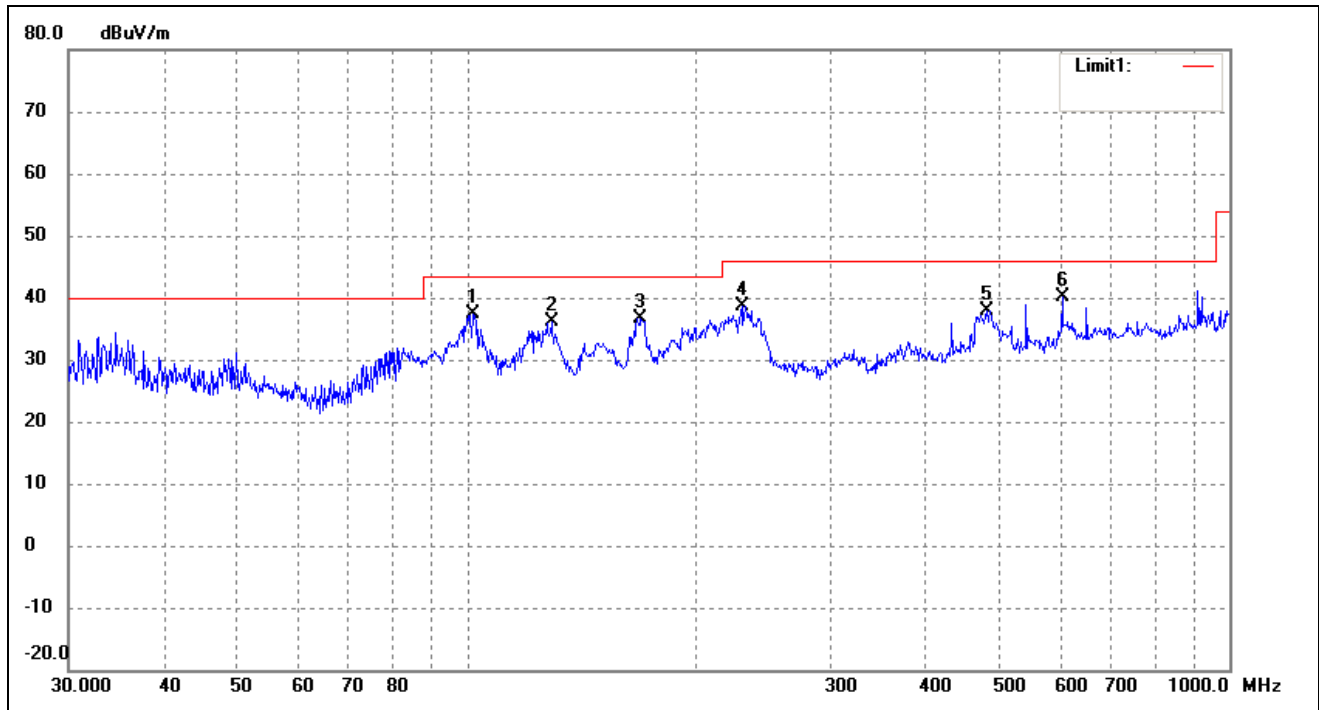
Comment: DC 12V

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	100.9338	46.17	-10.93	35.24	43.50	-8.26	260	100	peak
2	131.7572	49.00	-12.10	36.90	43.50	-6.60	131	200	peak
3	166.0680	48.78	-12.00	36.78	43.50	-6.72	285	200	peak
4	300.3673	42.20	-5.63	36.57	46.00	-9.43	260	100	peak
5	487.3149	40.06	-1.47	38.59	46.00	-7.41	131	200	peak
6	742.2586	35.69	2.09	37.78	46.00	-8.22	285	200	peak

Test Specification: Vertical



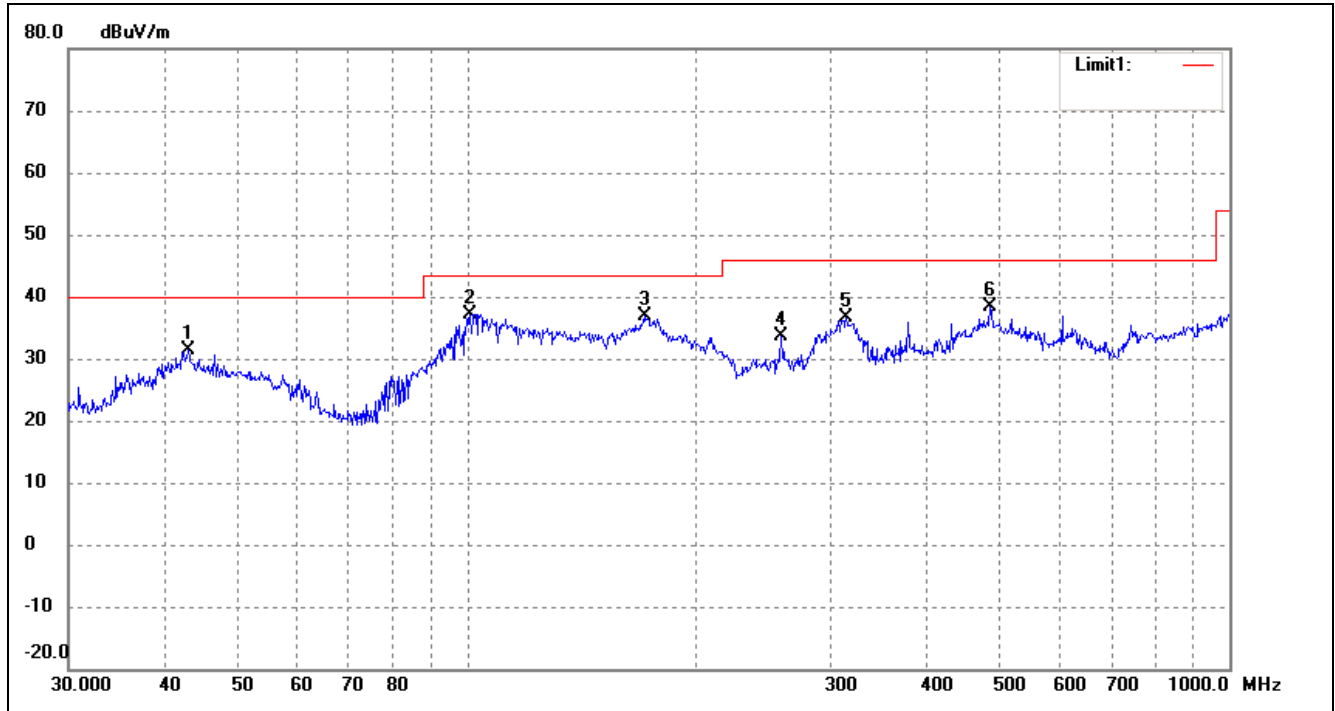
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	101.6443	48.42	-10.94	37.48	43.50	-6.02	155	100	peak
2	129.0146	48.17	-11.94	36.23	43.50	-7.27	197	100	peak
3	169.0054	48.53	-11.86	36.67	43.50	-6.83	310	100	peak
4	229.2931	47.31	-8.60	38.71	46.00	-7.29	155	100	peak
5	480.5276	38.91	-1.08	37.83	46.00	-8.17	197	100	peak
6	603.5392	39.93	0.10	40.03	46.00	-5.97	310	100	peak



Operating Condition: 802.11n-HT20 Transmitting Middle Channel-2437MHz

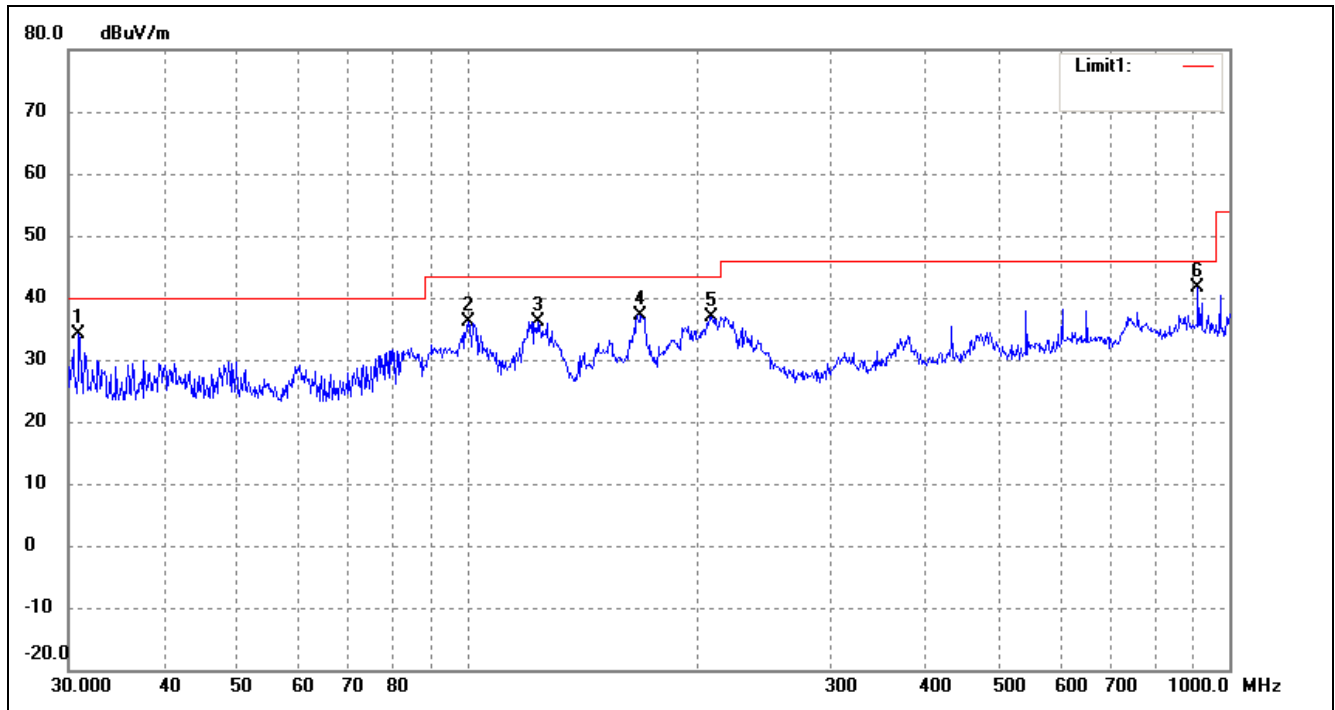
Comment: DC 12V

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	43.0504	39.15	-7.86	31.29	40.00	-8.71	274	100	peak
2	100.9338	48.17	-10.93	37.24	43.50	-6.26	116	100	peak
3	170.7923	48.72	-11.78	36.94	43.50	-6.56	82	100	peak
4	258.3263	40.72	-7.07	33.65	46.00	-12.35	274	100	peak
5	314.3765	41.43	-4.92	36.51	46.00	-9.49	116	100	peak
6	485.6093	39.78	-1.36	38.42	46.00	-7.58	82	100	peak

Test Specification: Vertical

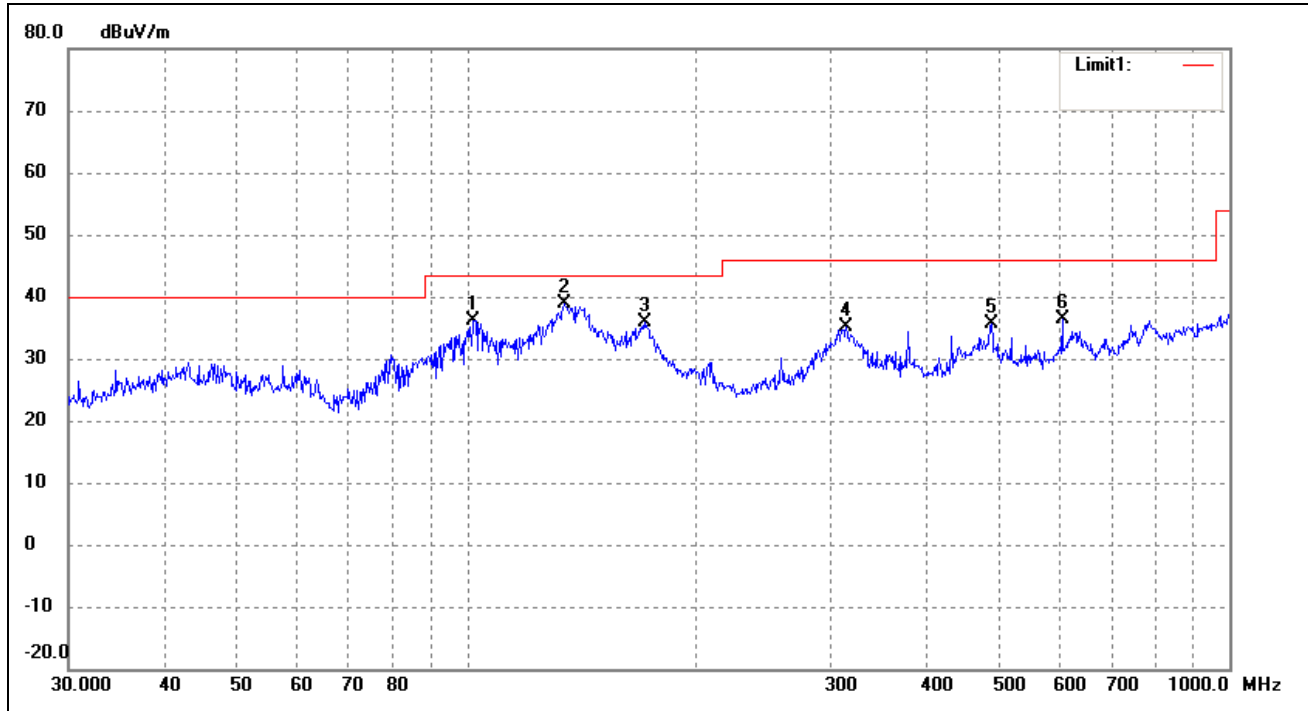


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	30.9618	44.26	-10.07	34.19	40.00	-5.81	264	100	peak
2	100.2286	46.97	-10.91	36.06	43.50	-7.44	110	100	peak
3	123.6984	47.84	-11.64	36.20	43.50	-7.30	136	100	peak
4	169.0054	49.03	-11.86	37.17	43.50	-6.33	264	100	peak
5	209.3129	45.74	-8.74	37.00	43.50	-6.50	110	100	peak
6	909.6666	38.29	3.39	41.68	46.00	-4.32	136	100	peak

Operating Condition: 802.11n-HT20 Transmitting High Channel-2462MHz

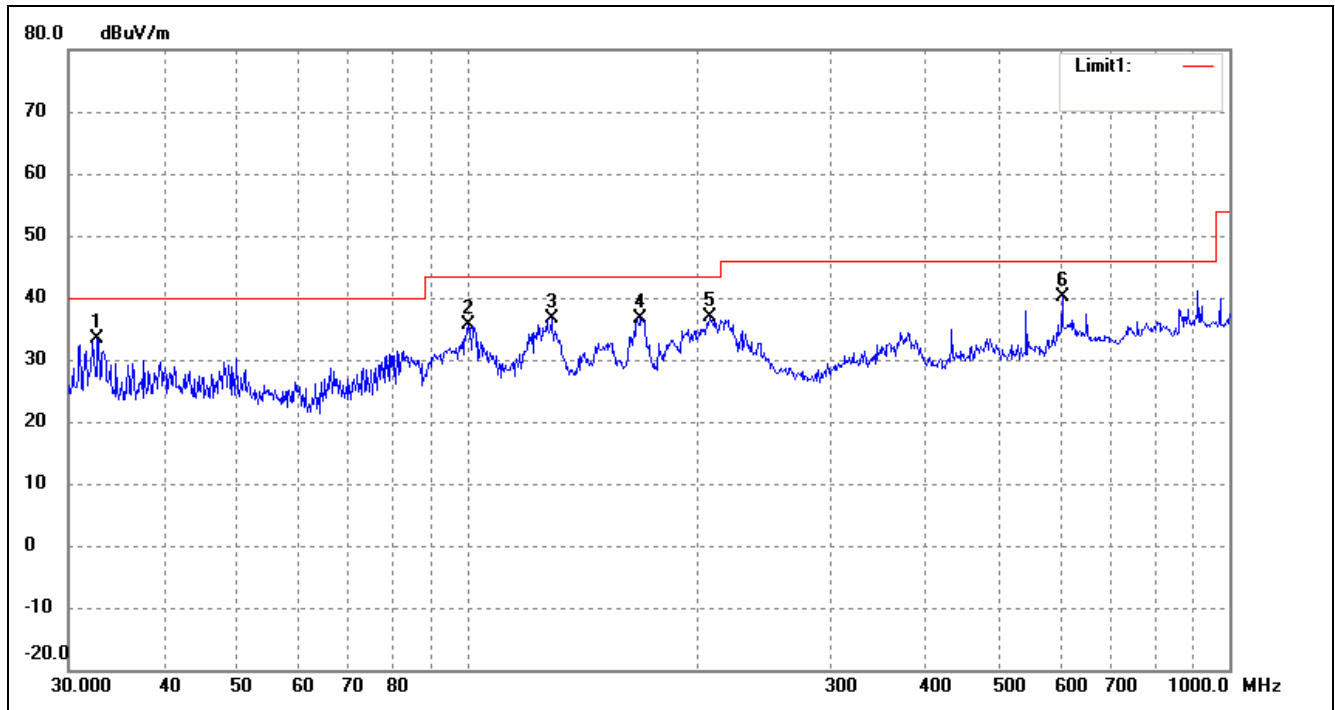
Comment: DC 12V

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	102.0014	47.17	-10.96	36.21	43.50	-7.29	360	100	peak
2	134.0882	51.13	-12.23	38.90	43.50	-4.60	112	100	peak
3	170.7923	47.72	-11.78	35.94	43.50	-7.56	180	200	peak
4	314.3765	39.93	-4.92	35.01	46.00	-10.99	360	100	peak
5	487.3149	37.06	-1.47	35.59	46.00	-10.41	112	100	peak
6	603.5392	36.23	0.10	36.33	46.00	-9.67	180	200	peak

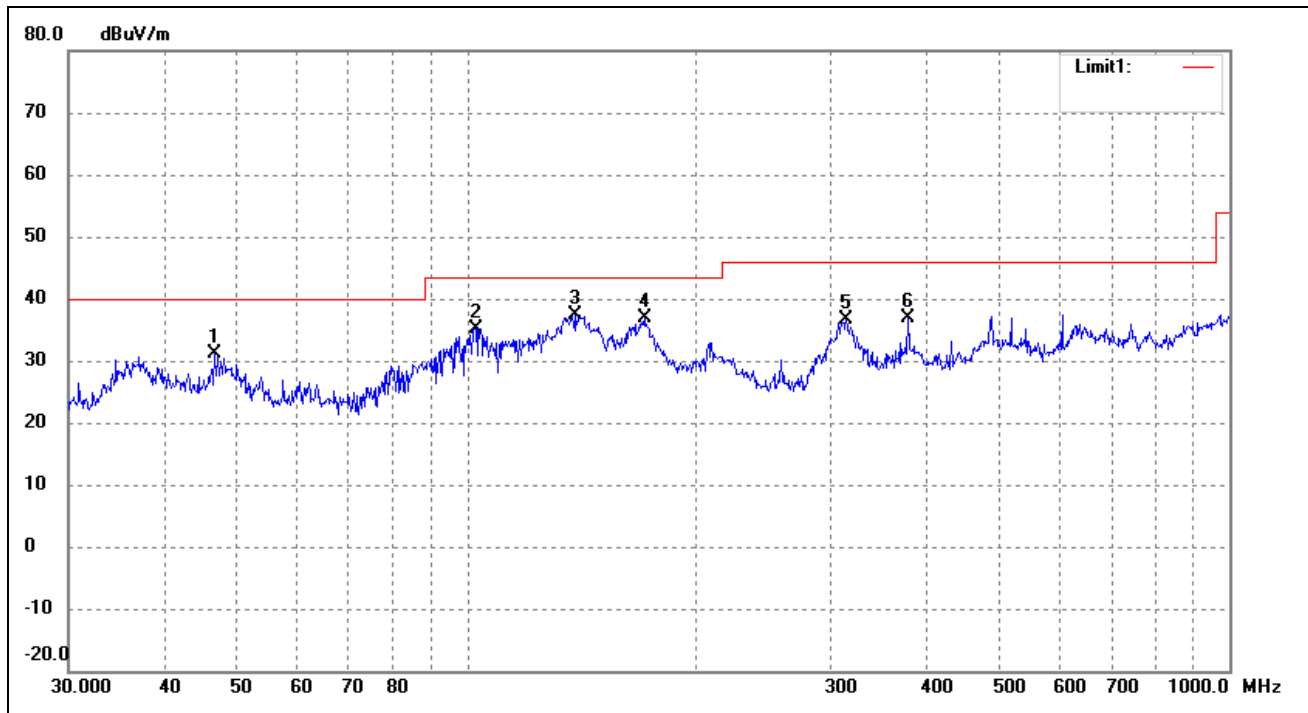
Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	32.7486	42.89	-9.62	33.27	40.00	-6.73	267	100	peak
2	100.2286	46.47	-10.91	35.56	43.50	-7.94	116	100	peak
3	129.0146	48.67	-11.94	36.73	43.50	-6.77	360	100	peak
4	169.0054	48.53	-11.86	36.67	43.50	-6.83	267	100	peak
5	208.5800	45.68	-8.74	36.94	43.50	-6.56	116	100	peak
6	603.5392	39.93	0.10	40.03	46.00	-5.97	360	100	peak

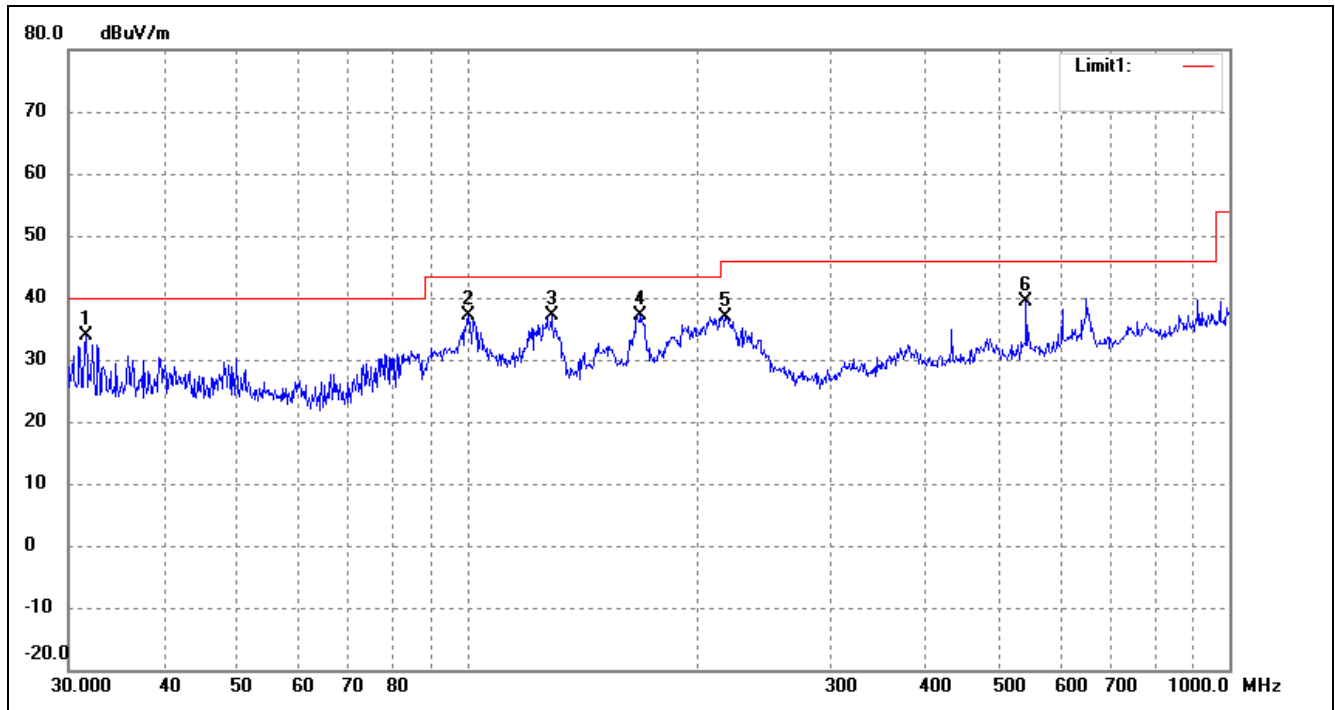
EUT: Rear Seat Entertainment System  
 Tested Model: 8" Main Screen (Part NO.: RSETY-USA08-IV & RSETY-USA08-BK)  
 Operating Condition: 802.11n-HT40 Transmitting Low Channel-2422MHz  
 Comment: DC 12V

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	46.6664	39.16	-8.10	31.06	40.00	-8.94	267	100	peak
2	102.7192	46.20	-10.97	35.23	43.50	-8.27	114	200	peak
3	138.8735	49.88	-12.49	37.39	43.50	-6.11	35	200	peak
4	170.7923	48.72	-11.78	36.94	43.50	-6.56	267	100	peak
5	314.3765	41.43	-4.92	36.51	46.00	-9.49	114	200	peak
6	378.5842	39.06	-2.17	36.89	46.00	-9.11	35	200	peak

Test Specification: Vertical

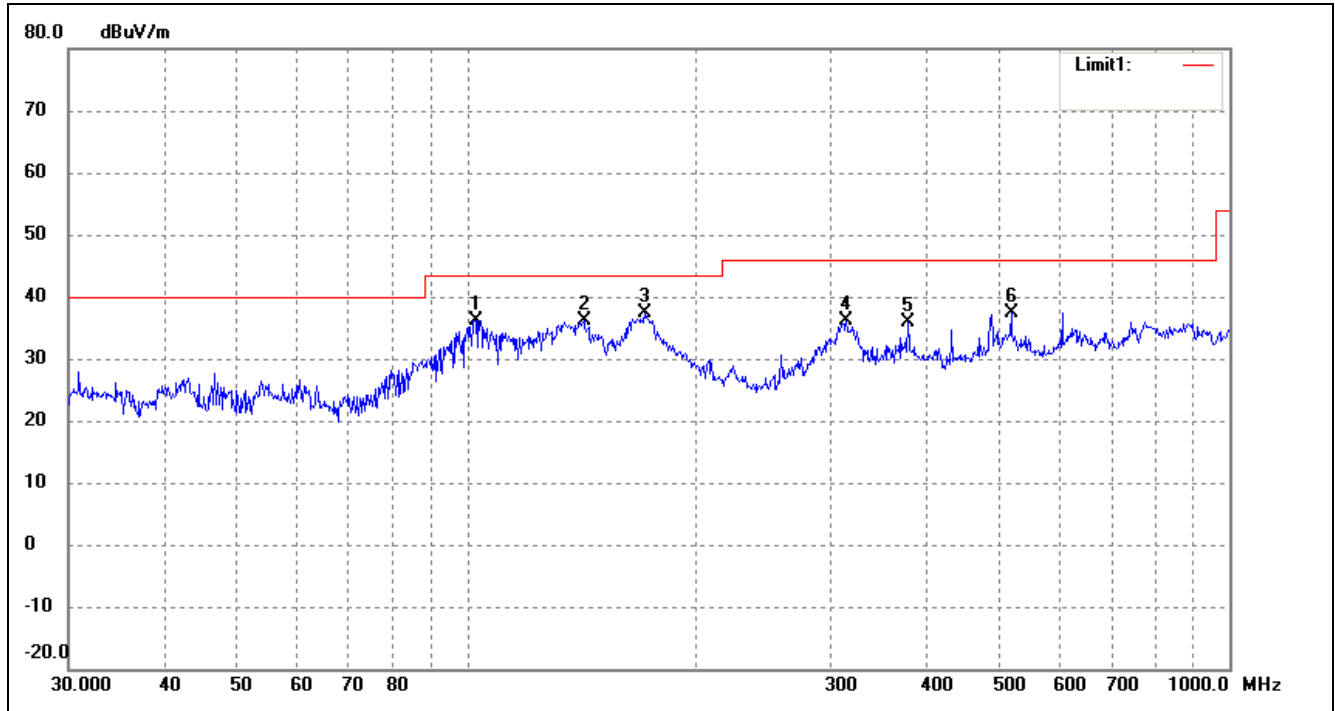


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	31.6202	43.72	-9.90	33.82	40.00	-6.18	360	100	peak
2	100.2286	47.97	-10.91	37.06	43.50	-6.44	258	100	peak
3	129.0146	49.17	-11.94	37.23	43.50	-6.27	347	100	peak
4	169.0054	49.03	-11.86	37.17	43.50	-6.33	360	100	peak
5	218.3085	45.80	-8.83	36.97	46.00	-9.03	258	100	peak
6	541.3722	41.11	-1.76	39.35	46.00	-6.65	347	100	peak

Operating Condition: 802.11n-HT40 Transmitting Middle Channel-2437MHz

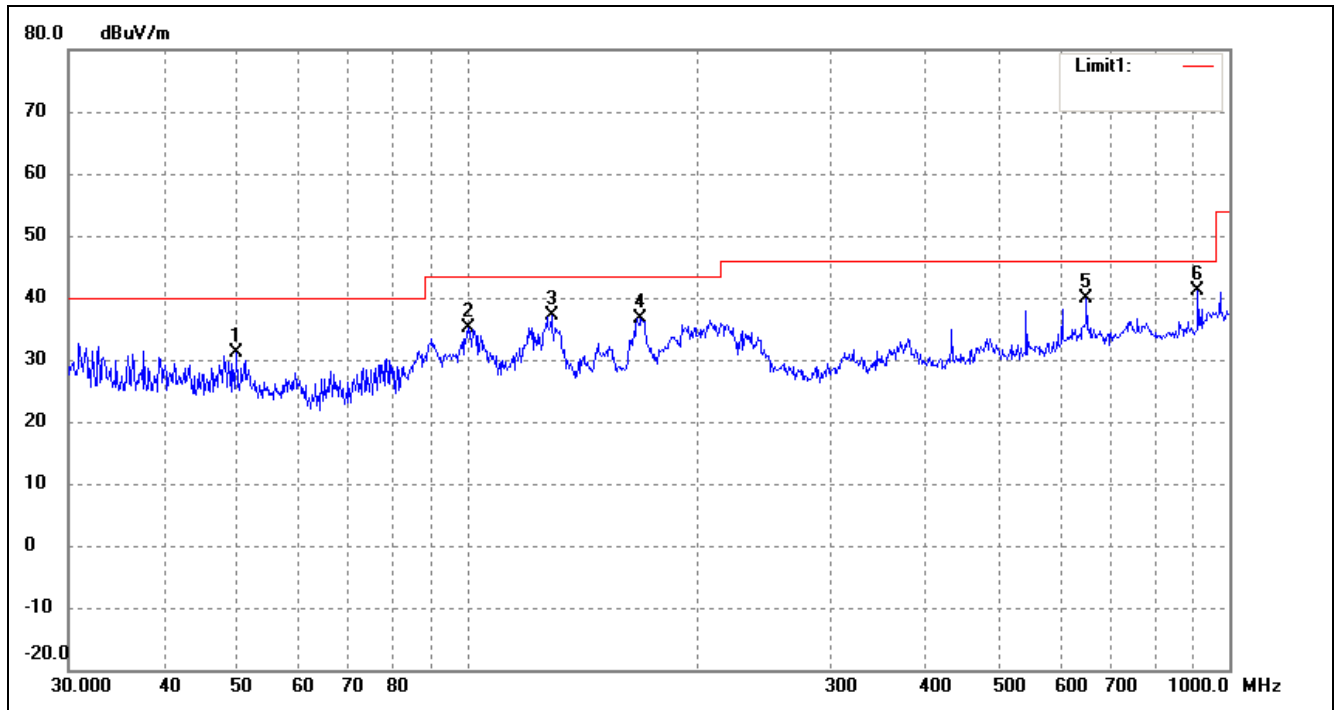
Comment: DC 12V

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	102.7192	47.20	-10.97	36.23	43.50	-7.27	251	100	peak
2	142.3240	48.63	-12.53	36.10	43.50	-7.40	167	100	peak
3	170.7923	49.22	-11.78	37.44	43.50	-6.06	44	100	peak
4	314.3765	40.93	-4.92	36.01	46.00	-9.99	251	100	peak
5	378.5842	38.06	-2.17	35.89	46.00	-10.11	167	100	peak
6	517.2480	39.37	-1.94	37.43	46.00	-8.57	44	100	peak

Test Specification: Vertical



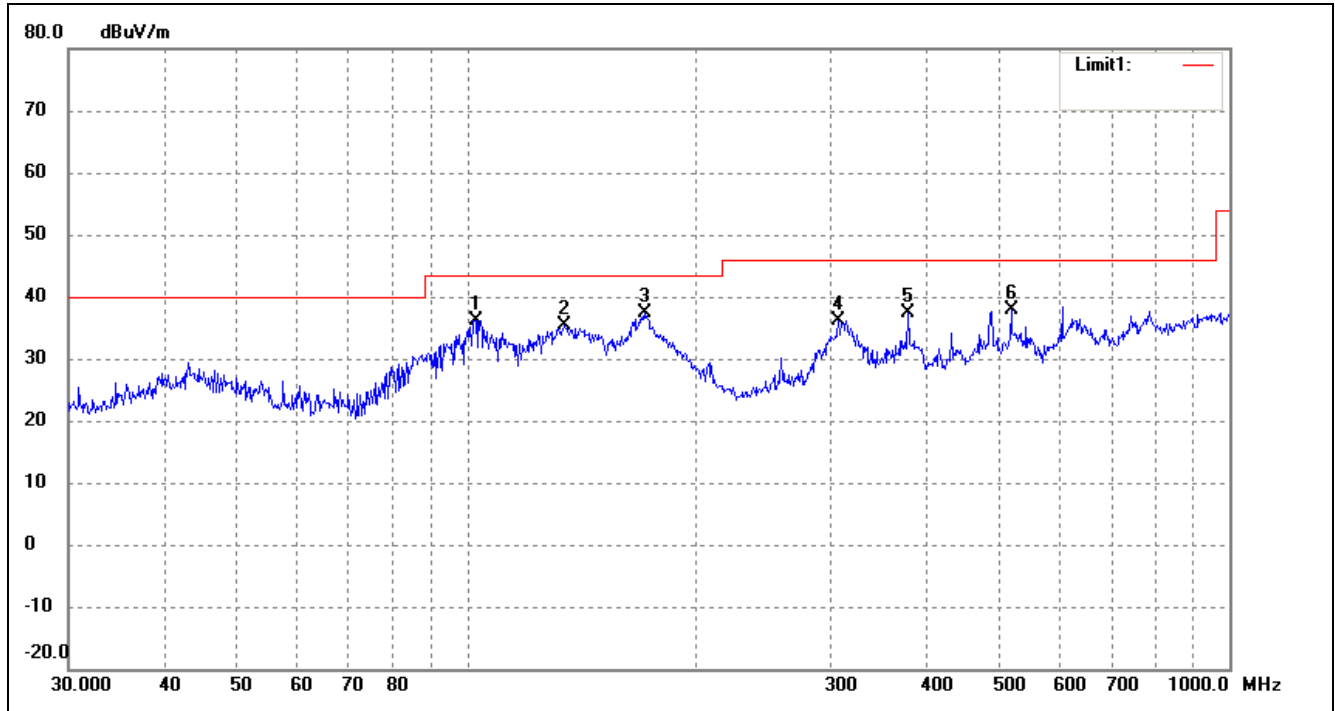
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( ° )	(cm)	
1	49.8813	39.47	-8.31	31.16	40.00	-8.84	47	100	peak
2	100.2286	45.97	-10.91	35.06	43.50	-8.44	264	100	peak
3	129.0146	49.17	-11.94	37.23	43.50	-6.27	225	100	peak
4	169.0054	48.53	-11.86	36.67	43.50	-6.83	47	100	peak
5	649.6597	39.25	0.52	39.77	46.00	-6.23	264	100	peak
6	909.6666	37.79	3.39	41.18	46.00	-4.82	225	100	peak



Operating Condition: 802.11n-HT40 Transmitting High Channel-2452MHz

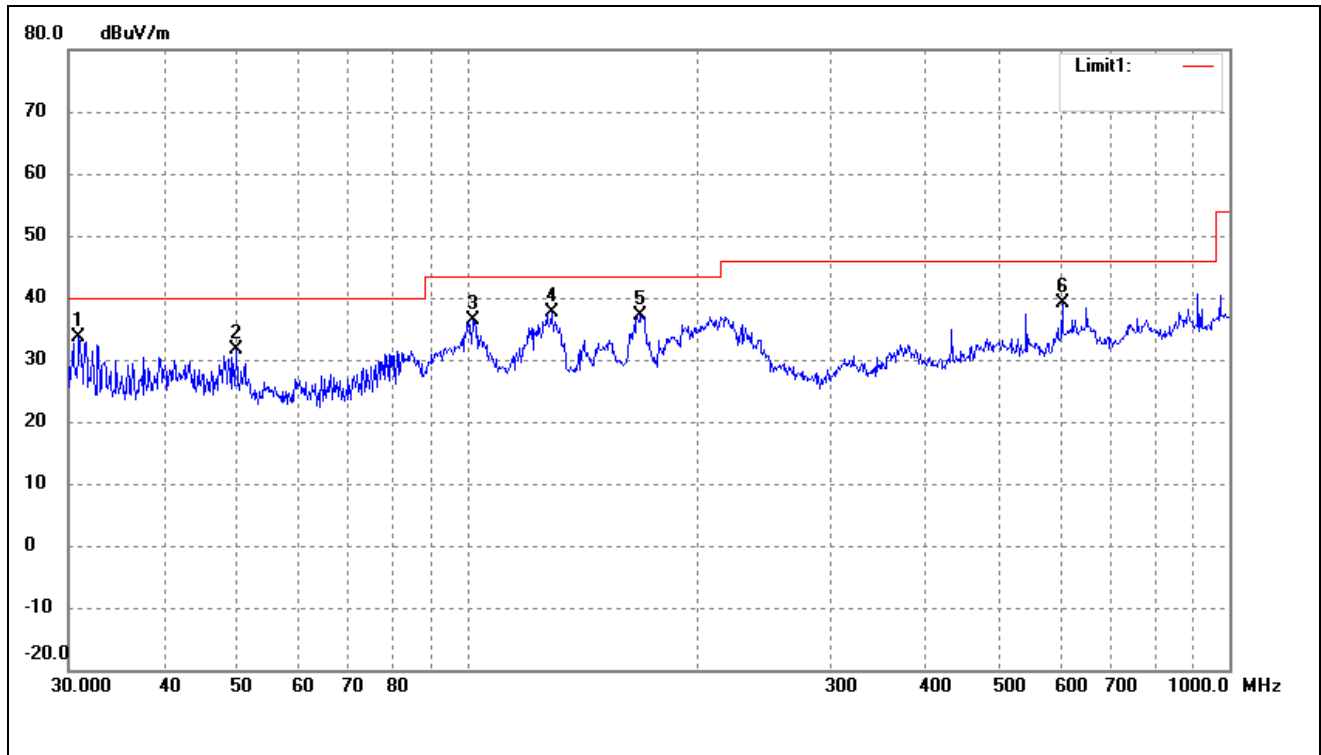
Comment: DC 12V

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	102.7192	47.20	-10.97	36.23	43.50	-7.27	360	100	peak
2	134.0882	47.63	-12.23	35.40	43.50	-8.10	287	100	peak
3	170.7923	49.22	-11.78	37.44	43.50	-6.06	168	100	peak
4	306.7536	41.43	-5.29	36.14	46.00	-9.86	360	100	peak
5	378.5842	39.56	-2.17	37.39	46.00	-8.61	287	100	peak
6	517.2480	39.87	-1.94	37.93	46.00	-8.07	168	100	peak

Test Specification: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( ° )	(cm)	
1	30.9618	43.76	-10.07	33.69	40.00	-6.31	78	100	peak
2	49.8813	39.97	-8.31	31.66	40.00	-8.34	136	100	peak
3	101.6443	47.42	-10.94	36.48	43.50	-7.02	284	100	peak
4	129.0146	49.67	-11.94	37.73	43.50	-5.77	78	100	peak
5	169.0054	49.03	-11.86	37.17	43.50	-6.33	136	100	peak
6	603.5392	38.93	0.10	39.03	46.00	-6.97	284	100	peak

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

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2412MHz							
4824.000	51.49	-3.74	47.75	74	-26.25	H	PK
4824.000	43.52	-3.74	39.78	54	-14.22	H	AV
7236.000	45.79	1.47	47.26	74	-26.74	H	PK
7236.000	33.67	1.47	35.14	54	-18.86	H	AV
4824.000	55.14	-3.74	51.4	74	-22.6	V	PK
4824.000	42.39	-3.74	38.65	54	-15.35	V	AV
7236.000	54.37	1.47	55.84	74	-18.16	V	PK
7236.000	32.56	1.47	34.03	54	-19.97	V	AV
Middle Channel-2437MHz							
4874.000	51.37	-3.87	47.5	74	-26.5	H	PK
4874.000	40.82	-3.87	36.95	54	-17.05	H	AV
7311.000	45.93	1.14	47.07	74	-26.93	H	PK
7311.000	31.85	1.19	33.04	54	-20.96	H	AV
4874.000	53.92	-3.86	50.06	74	-23.94	V	PK
4874.000	45.73	-3.86	41.87	54	-12.13	V	AV
7311.000	44.86	1.1	45.96	74	-28.04	V	PK
7311.000	41.57	1.1	42.67	54	-11.33	V	AV
High Channel-2462MHz							
4924.000	54.35	-3.59	50.76	74	-23.24	H	PK
4924.000	42.69	-3.59	39.1	54	-14.9	H	AV
7386.000	50.29	1.79	52.08	74	-21.92	H	PK
7386.000	37.86	1.79	39.65	54	-14.35	H	AV
4924.000	54.95	-3.59	51.36	74	-22.64	V	PK
4924.000	40.53	-3.59	36.94	54	-17.06	V	AV
7386.000	49.81	1.79	51.6	74	-22.4	V	PK
7386.000	36.42	1.79	38.21	54	-15.79	V	AV

Test Mode: 802.11g

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2412MHz							
4824.000	53.62	-3.74	49.88	74	-24.12	H	PK
4824.000	41.57	-3.74	37.83	54	-16.17	H	AV
7236.000	48.59	1.47	50.06	74	-23.94	H	PK
7236.000	36.54	1.47	38.01	54	-15.99	H	AV
4824.000	53.77	-3.74	50.03	74	-23.97	V	PK
4824.000	41.63	-3.74	37.89	54	-16.11	V	AV
7236.000	49.51	1.47	50.98	74	-23.02	V	PK
7236.000	38.79	1.47	40.26	54	-13.74	V	AV
Middle Channel-2437MHz							
4874.000	54.91	-3.87	51.04	74	-22.96	H	PK
4874.000	43.62	-3.87	39.75	54	-14.25	H	AV
7311.000	50.79	1.14	51.93	74	-22.07	H	PK
7311.000	36.83	1.19	38.02	54	-15.98	H	AV
4874.000	54.69	-3.86	50.83	74	-23.17	V	PK
4874.000	43.24	-3.86	39.38	54	-14.62	V	AV
7311.000	48.92	1.1	50.02	74	-23.98	V	PK
7311.000	37.91	1.1	39.01	54	-14.99	V	AV
High Channel-2462MHz							
4924.000	54.38	-3.59	50.79	74	-23.21	H	PK
4924.000	41.27	-3.59	37.68	54	-16.32	H	AV
7386.000	46.59	1.79	48.38	74	-25.62	H	PK
7386.000	33.96	1.79	35.75	54	-18.25	H	AV
4924.000	55.48	-3.59	51.89	74	-22.11	V	PK
4924.000	42.31	-3.59	38.72	54	-15.28	V	AV
7386.000	48.93	1.79	50.72	74	-23.28	V	PK
7386.000	36.57	1.79	38.36	54	-15.64	V	AV

Test Mode: 802.11n-HT20

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2412MHz							
4824.000	55.42	-3.74	51.68	74	-22.32	H	PK
4824.000	41.36	-3.74	37.62	54	-16.38	H	AV
7236.000	49.67	1.47	51.14	74	-22.86	H	PK
7236.000	34.59	1.47	36.06	54	-17.94	H	AV
4824.000	56.13	-3.74	52.39	74	-21.61	V	PK
4824.000	44.92	-3.74	41.18	54	-12.82	V	AV
7236.000	49.23	1.47	50.7	74	-23.3	V	PK
7236.000	36.78	1.47	38.25	54	-15.75	V	AV
Middle Channel-2437MHz							
4874.000	55.75	-3.87	51.88	74	-22.12	H	PK
4874.000	44.66	-3.87	40.79	54	-13.21	H	AV
7311.000	41.59	1.14	42.73	74	-31.27	H	PK
7311.000	35.72	1.19	36.91	54	-17.09	H	AV
4874.000	52.63	-3.86	48.77	74	-25.23	V	PK
4874.000	40.89	-3.86	37.03	54	-16.97	V	AV
7311.000	46.71	1.1	47.81	74	-26.19	V	PK
7311.000	39.54	1.1	40.64	54	-13.36	V	AV
High Channel-2462MHz							
4924.000	53.62	-3.59	50.03	74	-23.97	H	PK
4924.000	43.59	-3.59	40	54	-14	H	AV
7386.000	49.32	1.79	51.11	74	-22.89	H	PK
7386.000	34.57	1.79	36.36	54	-17.64	H	AV
4924.000	52.69	-3.59	49.1	74	-24.9	V	PK
4924.000	43.84	-3.59	40.25	54	-13.75	V	AV
7386.000	51.33	1.79	53.12	74	-20.88	V	PK
7386.000	36.59	1.79	38.38	54	-15.62	V	AV

Test Mode: 802.11n-HT40

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2422MHz							
4844	52.64	-3.9	48.74	74	-25.26	H	PK
4824	41.87	-3.9	37.97	54	-16.03	H	AV
7266	50.26	1.06	51.32	74	-22.68	H	PK
7266	41.33	1.06	42.39	54	-11.61	H	AV
4844	55.92	-3.9	52.02	74	-21.98	V	PK
4824	43.67	-3.9	39.77	54	-14.23	V	AV
7266	50.13	1.06	51.19	74	-22.81	V	PK
7266	42.89	1.06	43.95	54	-10.05	V	AV
Middle Channel-2437MHz							
4874.000	53.69	-3.74	49.95	74	-24.05	H	PK
4874.000	43.16	-3.74	39.42	54	-14.58	H	AV
7311.000	54.29	1.47	55.76	74	-18.24	H	PK
7311.000	42.73	1.47	44.2	54	-9.8	H	AV
4874.000	49.85	-3.74	46.11	74	-27.89	V	PK
4874.000	38.94	-3.74	35.2	54	-18.8	V	AV
7311.000	46.37	1.47	47.84	74	-26.16	V	PK
7311.000	36.59	1.47	38.06	54	-15.94	V	AV
High Channel-2452MHz							
4904.000	54.93	-3.63	51.3	74	-22.7	H	PK
4904.000	42.18	-3.63	38.55	54	-15.45	H	AV
7356.000	51.92	1.62	53.54	74	-20.46	H	PK
7356.000	43.89	1.62	45.51	54	-8.49	H	AV
4904.000	50.62	-3.63	46.99	74	-27.01	V	PK
4904.000	39.81	-3.63	36.18	54	-17.82	V	AV
7356.000	51.76	1.62	53.38	74	-20.62	V	PK
7356.000	40.29	1.62	41.91	54	-12.09	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 Procedure

According to the KDB 558074D01 v03r05, 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 v03r05, 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.

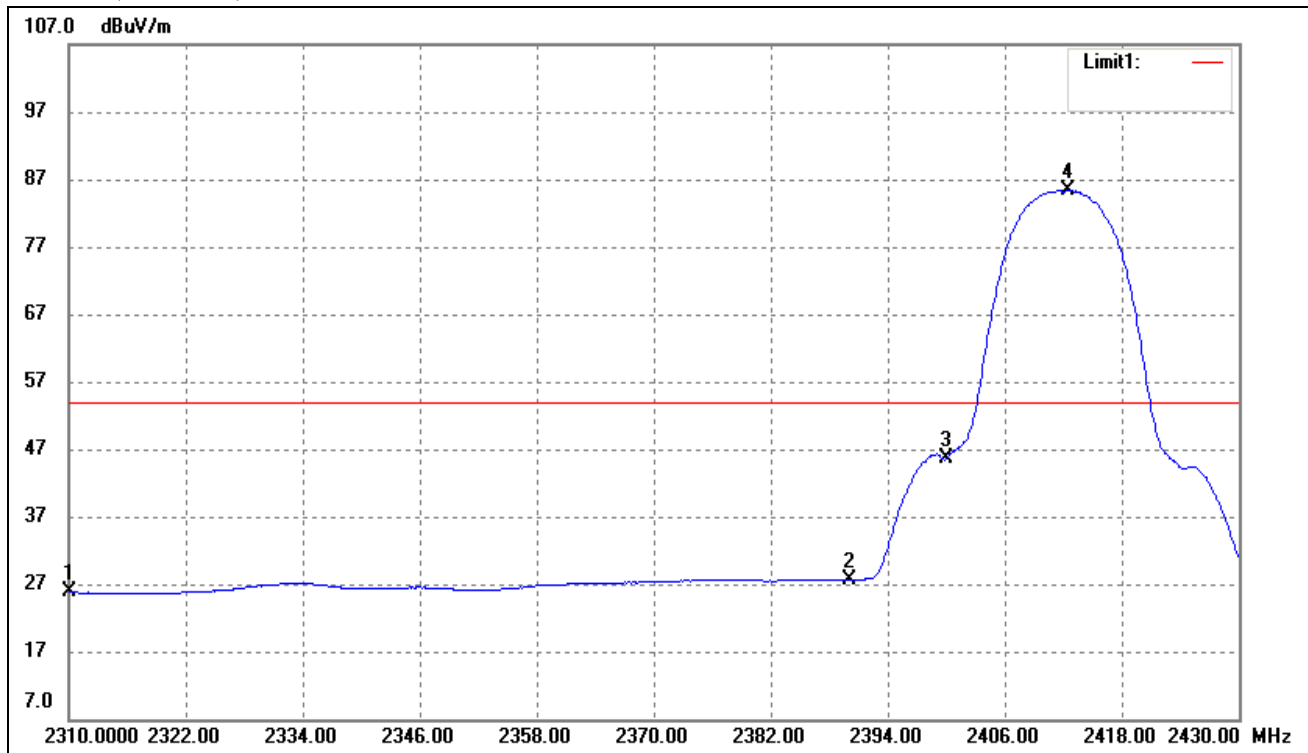
### 9.3 Environmental Conditions

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

### 9.4 Summary of Test Results/Plots

802.11b-Lowest Bandedge

Vertical (Worst case)

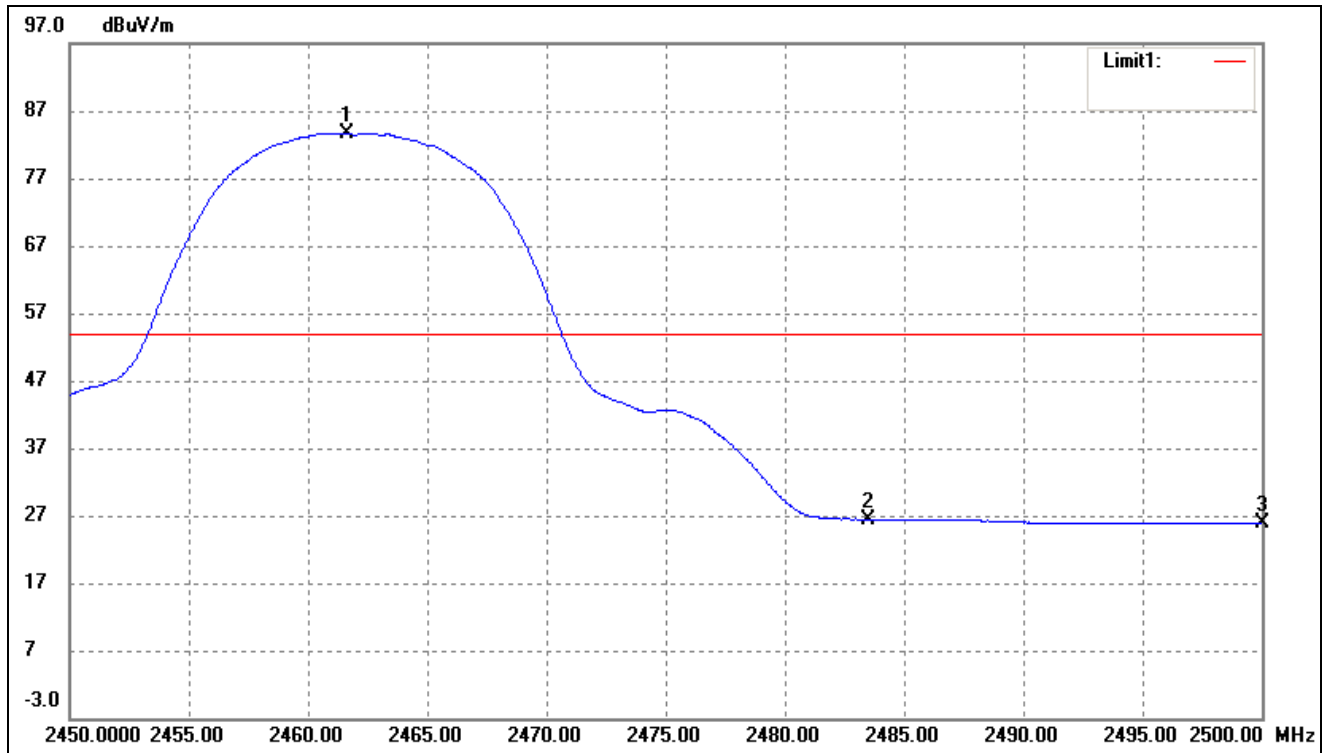


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	29.50	-3.71	25.79	54.00	-28.21	Average Detector
	2310.000	42.81	-3.71	39.10	74.00	-34.90	Peak Detector
2	2390.000	31.27	-3.54	27.73	54.00	-26.27	Average Detector
	2390.000	44.12	-3.54	40.58	74.00	-33.42	Peak Detector



## 802.11b-Highest Bandedge

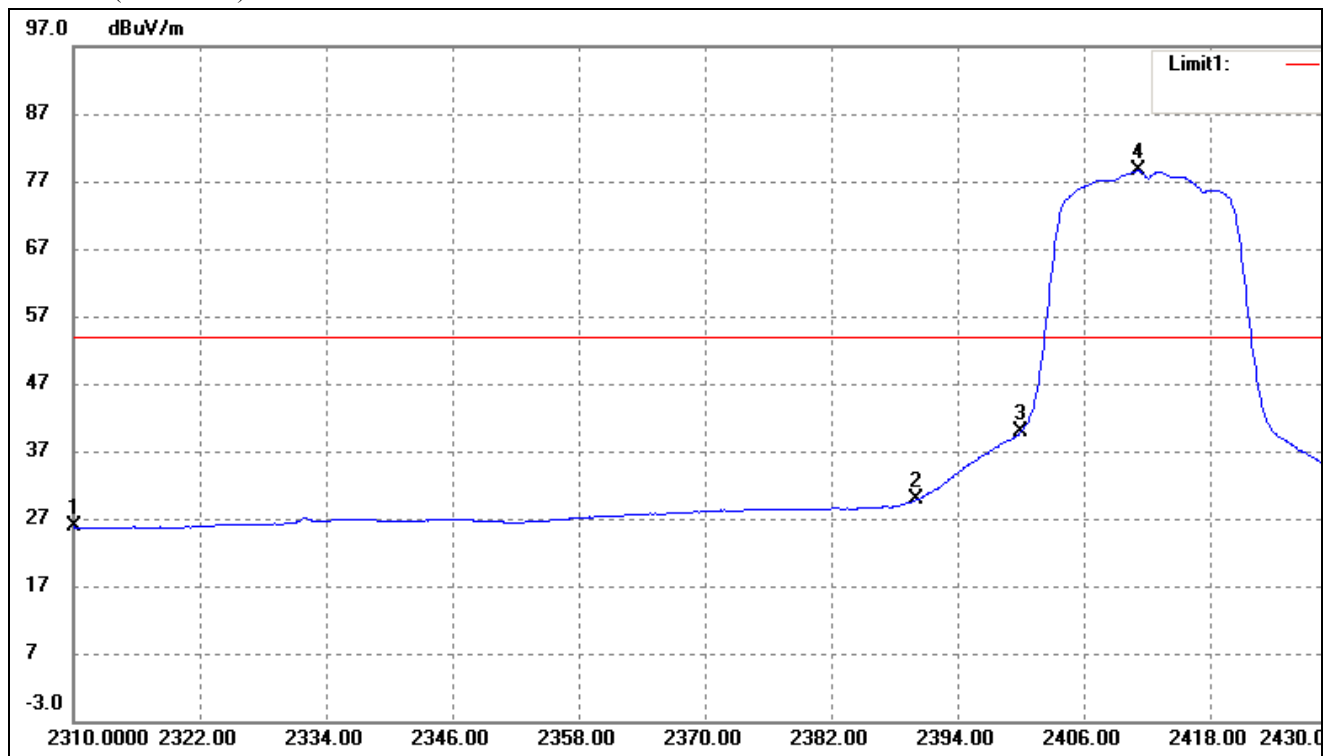
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2461.600	87.03	-3.37	83.66	/	/	Average Detector
	2462.300	96.01	-3.36	92.65	/	/	Peak Detector
2	2483.500	Delta = 56.75dBc		24.67	54.00	-29.33	Average Detector
	2483.500			33.67	74.00	-40.33	Peak Detector
3	2500.000	29.17	-3.28	25.89	54.00	-28.11	Average Detector
	2500.000	41.43	-3.28	38.15	74.00	-35.85	Peak Detector

802.11g-Lowest Bandedge

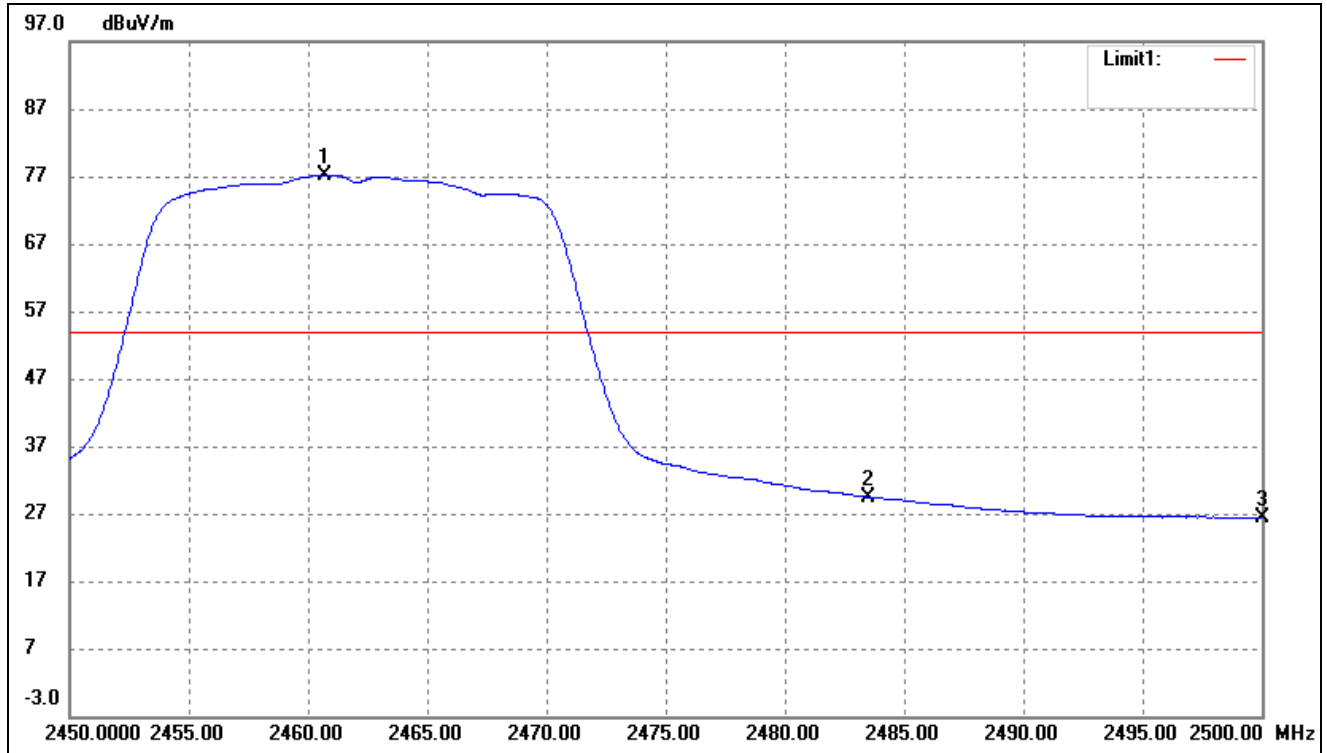
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	29.51	-3.71	25.80	54.00	-28.20	Average Detector
	2310.000	41.73	-3.71	38.02	74.00	-35.98	Peak Detector
2	2390.000	33.32	-3.54	29.78	54.00	-24.22	Average Detector
	2390.000	47.51	-3.54	43.97	74.00	-30.03	Peak Detector

802.11g-Highest Bandedge

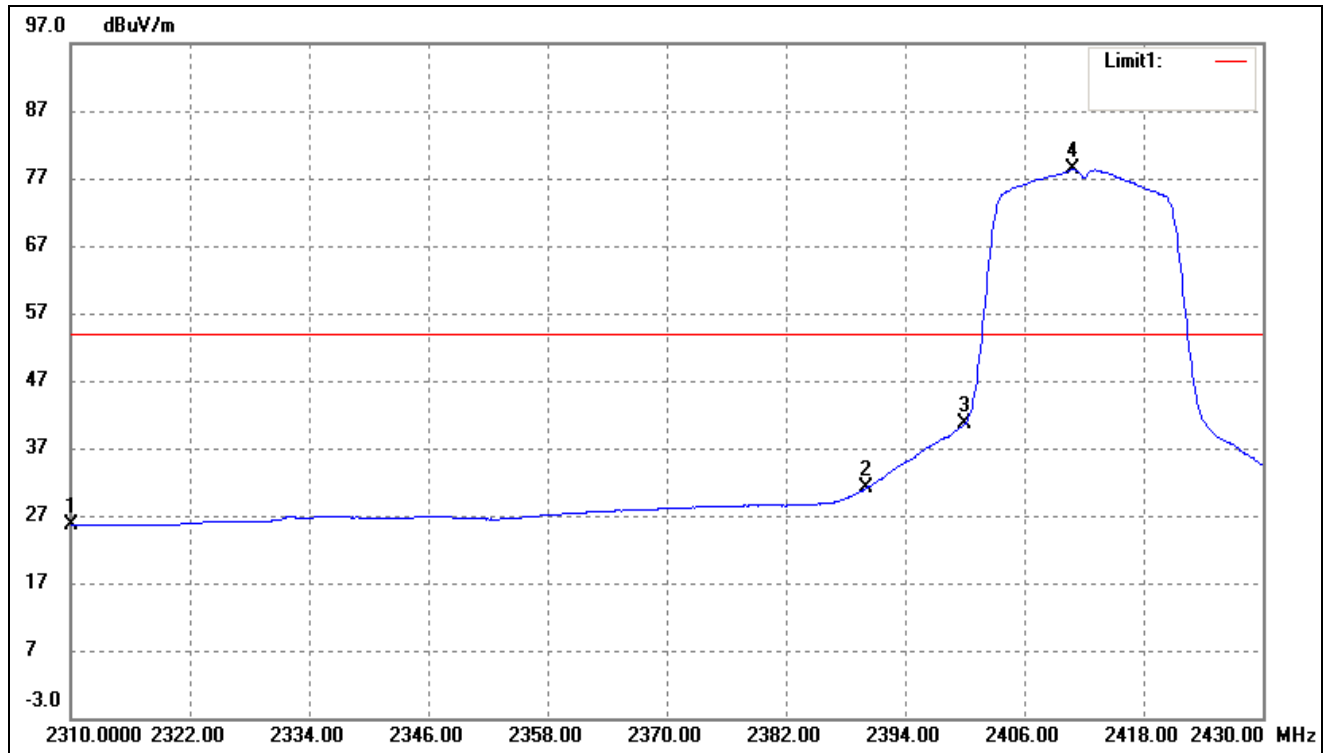
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2460.700	80.70	-3.37	77.33	/	/	Average Detector
	2461.650	91.88	-3.36	88.52	/	/	Peak Detector
1	2483.500	Delta = 44.82dBc		30.33	54.00	-23.69	Average Detector
	2483.500			41.59	74.00	-32.41	Peak Detector
3	2500.000	29.60	-3.28	26.32	54.00	-27.68	Average Detector
	2500.000	42.55	-3.28	39.27	74.00	-34.73	Peak Detector

802.11n-HT20-Lowest Bandedge

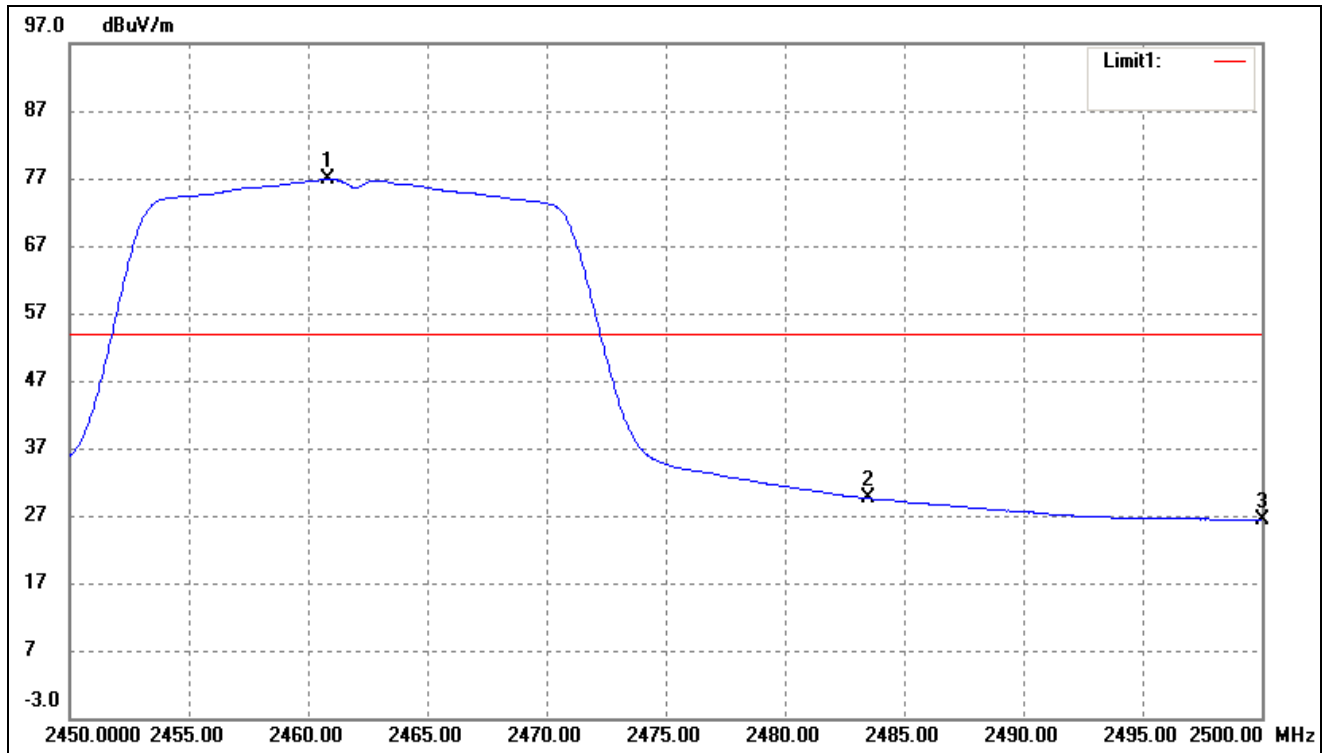
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	29.43	-3.71	25.72	54.00	-28.28	Average Detector
	2310.000	42.34	-3.71	38.63	74.00	-35.37	Peak Detector
2	2390.000	34.55	-3.54	31.01	54.00	-22.99	Average Detector
	2390.000	51.10	-3.54	47.56	74.00	-26.44	Peak Detector

## 802.11n-HT20-Highest Bandedge

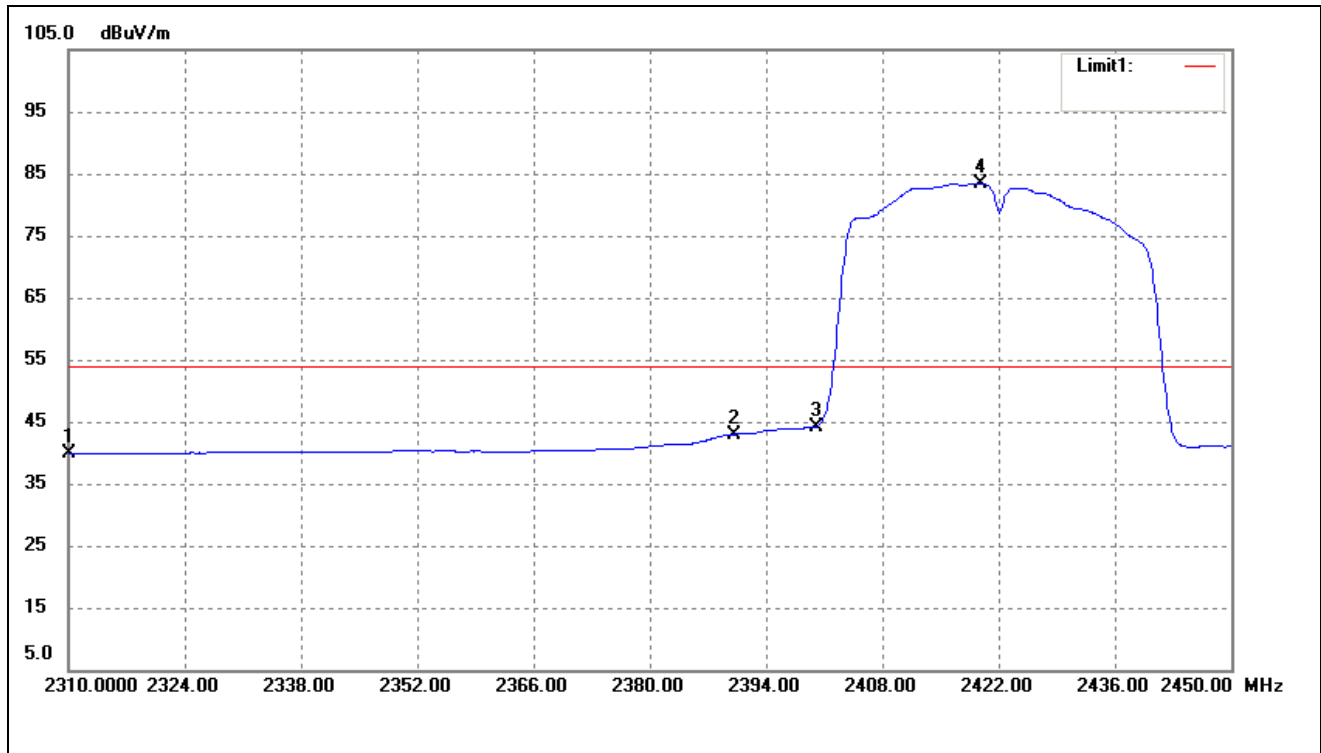
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2460.620	80.29	-3.37	76.92	/	/	Average Detector
	2462.370	91.78	-3.37	88.41	/	/	Peak Detector
2	2483.500	Delta = 46.52dBc		28.67	54.00	-25.33	Average Detector
	2483.500			40.16	74.00	-33.84	Peak Detector
3	2500.000	29.63	-3.28	26.35	54.00	-27.65	Average Detector
	2500.000	41.59	-3.28	38.31	74.00	-35.69	Peak Detector

## 802.11n-HT40-Lowest Bandedge

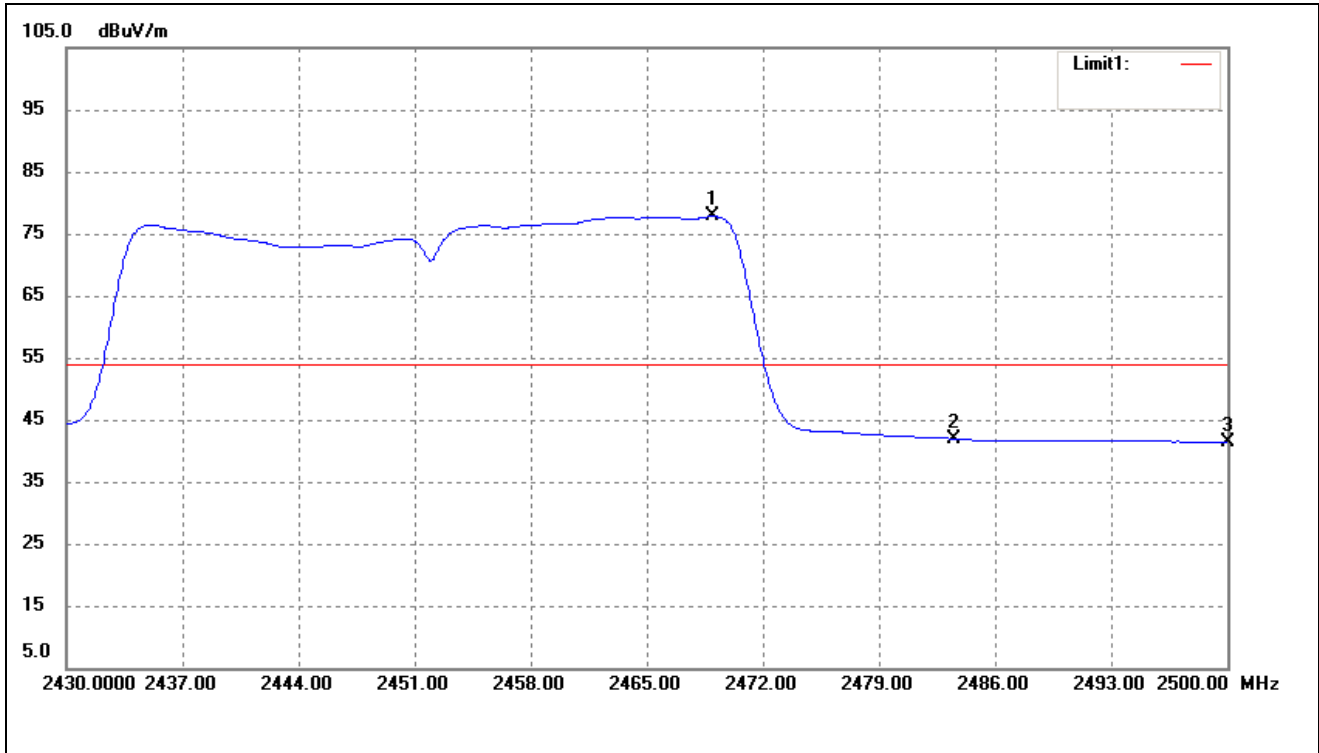
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	43.92	-3.71	40.21	54.00	-14.09	Average Detector
	2310.000	54.98	-3.71	51.27	74.00	-22.93	Peak Detector
2	2390.000	46.52	-3.54	42.98	54.00	-11.02	Average Detector
	2390.000	69.13	-3.54	65.59	74.00	-8.41	Peak Detector

802.11n-HT40-Highest Bandedge

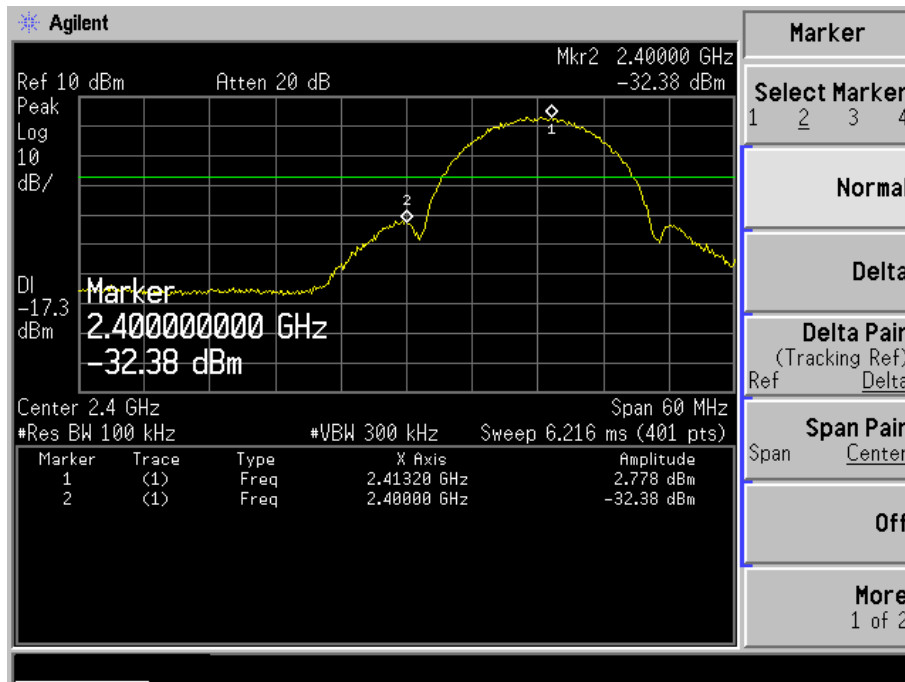
Vertical (Worst case)



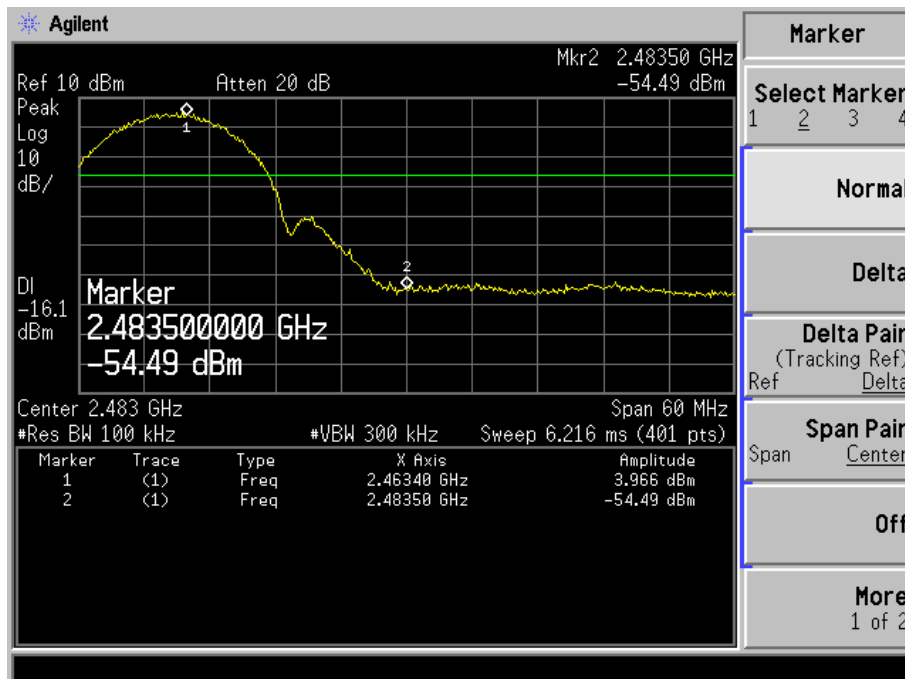
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2468.990	81.17	-3.37	77.80	/	/	Average Detector
	2467.660	92.12	-3.36	88.76	/	/	Peak Detector
2	2483.500	Delta = 37.53dBc		41.91	54.00	-12.09	Average Detector
	2483.500			52.87	74.00	-21.13	Peak Detector
3	2500.000	44.67	-3.20	41.47	54.00	-12.53	Average Detector
	2500.000	56.66	-3.20	53.46	74.00	-20.54	Peak Detector

## Conducted spurious emissions

### 11b- Lowest Bandedge

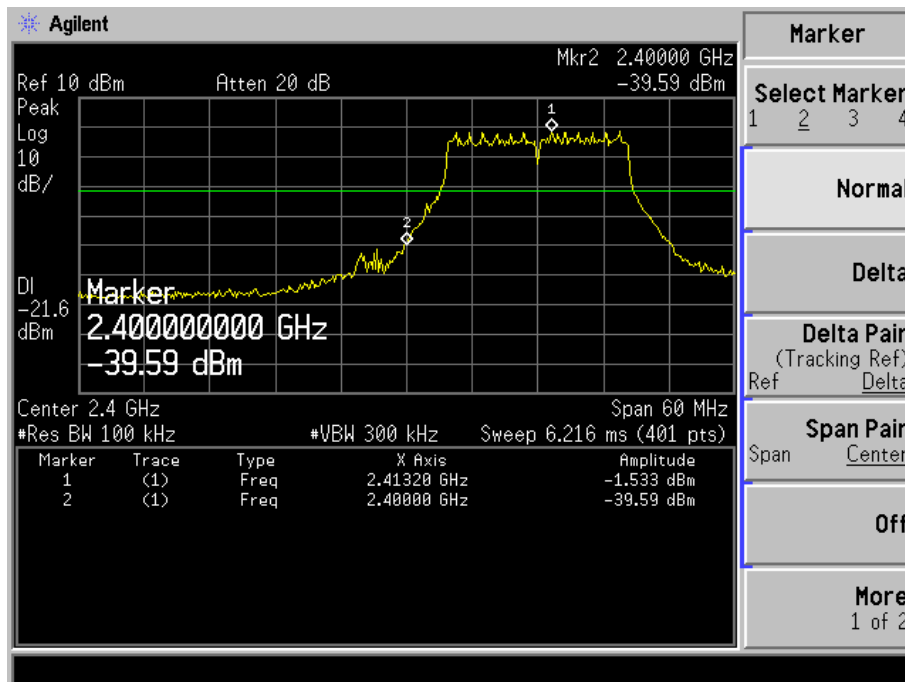


### 11b- Highest Bandedge

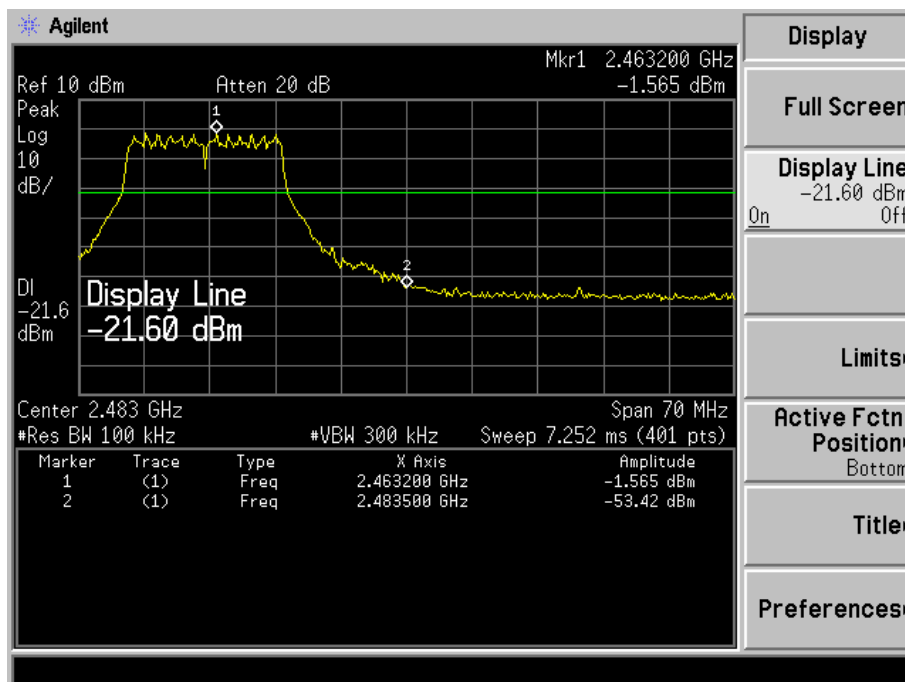




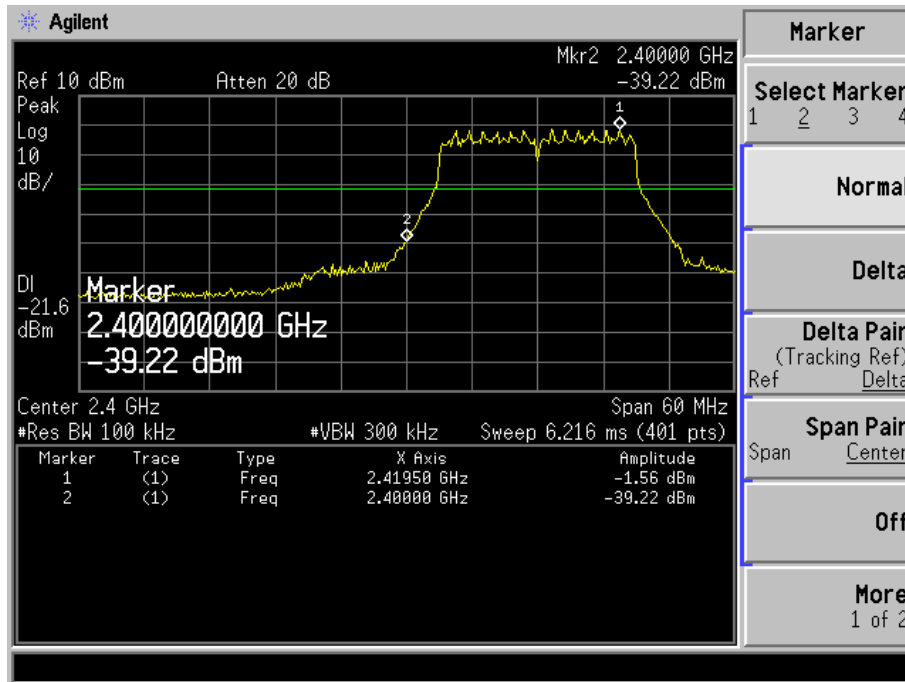
## 11g- Lowest Bandedge



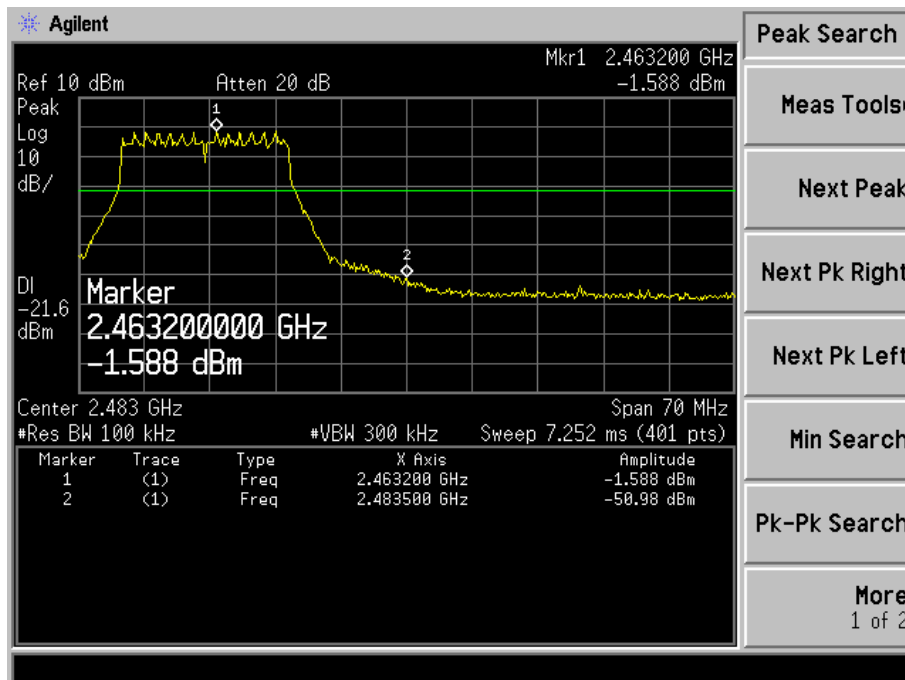
## 11g- Highest Bandedge



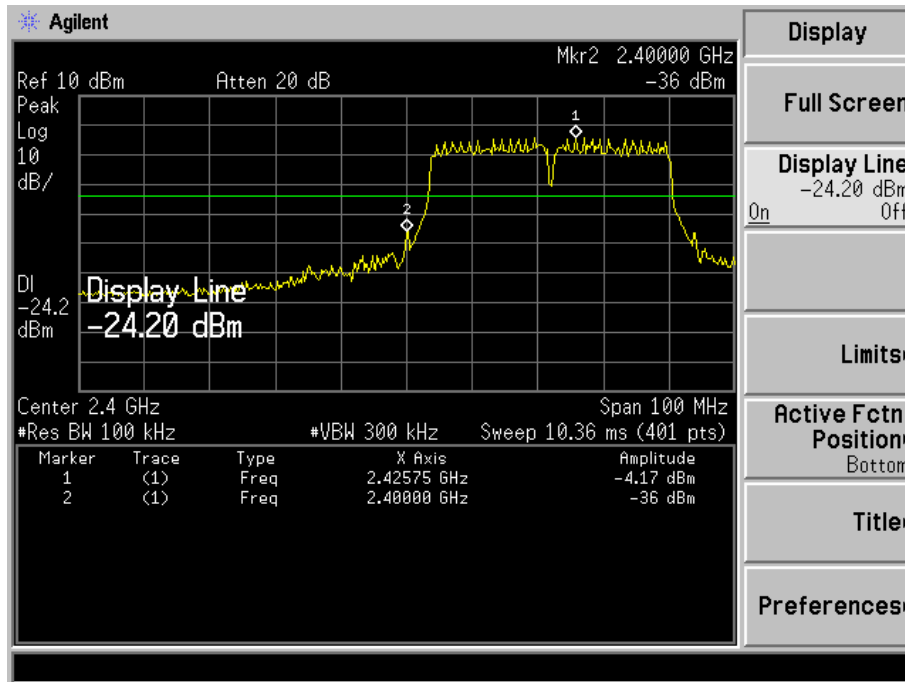
## 11n\_HT20- Lowest Bandedge



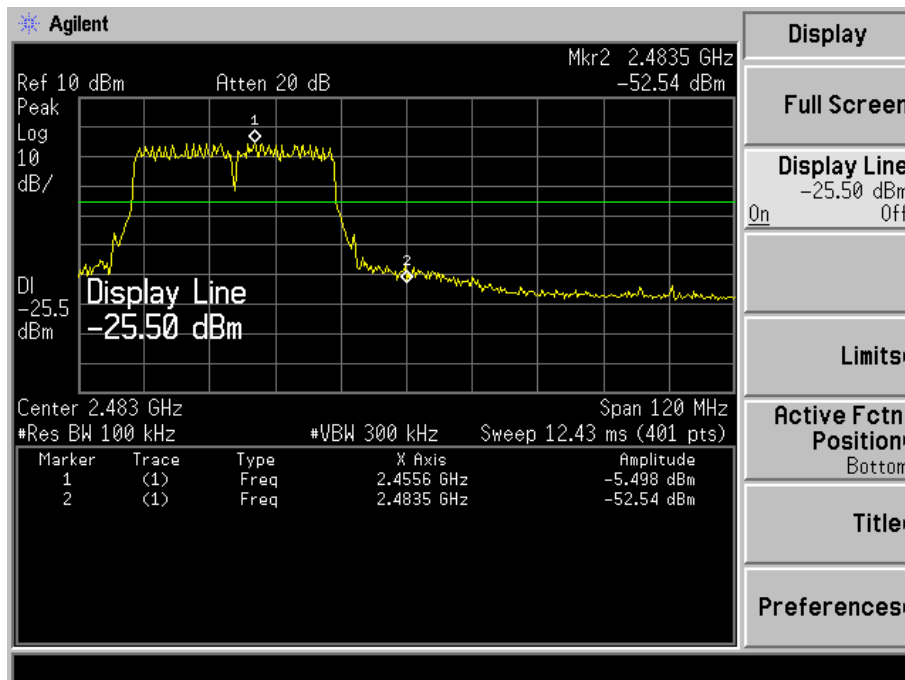
## 11n\_HT20- Highest Bandedge



## 11n\_HT40- Lowest Bandedge



## 11n\_HT40- Highest Bandedge



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