

FCC Part 15C

Measurement and Test Report

For

Amelia World Corporation

11601 Biscayne Blvd Unit 200A, Miami, Florida USA

FCC ID: ZNY-LINSAY

| | |
|--------------------------------------|---------------------------------|
| FCC Rules: | <u>FCC Part 15.247</u> |
| Product Description: | <u>Tablet PC</u> |
| Tested Model: | <u>COSMOS F-10HD</u> |
| Report No.: | <u>STR12048090I-1</u> |
| Tested Date: | <u>2012-04-11 to 2012-05-07</u> |
| Issued Date: | <u>2012-05-08</u> |
| Tested By: | <u>Vigoss Xiong / Engineer</u> |
| Reviewed By: | <u>Lahm Peng / EMC Manager</u> |
| Approved & Authorized By: | <u>Jandy so / PSQ Manager</u> |
| Prepared By: | |

SEM.Test Compliance Service Co., Ltd

3/F, Jinbao Commerce Building, Xin'an Fanshen Road,
Bao'an District, Shenzhen, P.R.C. (518101)

Tel.: +86-755-33663308 Fax.: +86-755-33663309 Website: www.semtest.com.cn

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 SEM.Test Compliance Service Co., Ltd

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Amelia World Corporation
Address of applicant: 11601 Biscayne Blvd Unit 200A, Miami, Florida USA

Manufacturer: EKEN (HK) Electronics Co., LTD
Address of manufacturer: Building 2F-2B Huafeng Science Park, Gonghe Road, Xixiang, Baoan District, Shenzhen, China

| General Description of EUT | |
|---|---|
| Product Name: | Tablet PC |
| Trade Name: | LINSAY |
| Model No.: | COSMOS F-10HD |
| Adding Model(s): | COSMOS F-7HD |
| Rated Voltage: | DC 3.7V |
| Power Adapter Model: | K-A70502000U (Input: AC 100-240V, Output: DC 5V) |
| <i>Note: The test data is gathered from a production sample, provided by the manufacturer. The other model listed in the report has different appearance only of COSMOS F-10HD without circuit and electronic construction changed, declared by the manufacturer.</i> | |

| Technical Characteristics of EUT | |
|----------------------------------|-----------------------------------|
| Support Standards: | 802.11b/g/n |
| Frequency Range: | 2412-2462MHz, 2422-2452MHz |
| RF Output Power: | 11.5 dBm (Conducted) |
| Data Rate: | 1-11Mbps, 6-54Mbps, up to 150Mbps |
| Modulation: | CCK, BPSK, QPSK, 16QAM, 64QAM |
| Quantity of Channels: | 11/7 |
| Channel Separation: | 5MHz |
| Antenna Type: | Integral Antenna |
| Antenna Gain: | 2 dBi |
| Lowest Internal Frequency: | 32.768 kHz (Crystal Y2) |
| Device Category: | Portable Device |

1.2 Test Standards

The following report is prepared on behalf of the Amelia World Corporation 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 public notice KDB 558074 for digital transmission systems shall be performed also.

1.4 Test Facility

- **FCC – Registration No.: 994117**

SEM.Test Compliance Services 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 994117.

- **Industry Canada (IC) Registration No.: 7673A**

The 3m Semi-anechoic chamber of SEM.Test Compliance Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 7673A.

- **CNAS Registration No.: L4062**

Shenzhen SEM.Test Electronics Service 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 3/F, Jinbao Commerce Building, Xin'an Fanshen 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 |

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

| Auxiliary Equipment List and Details | | | |
|--------------------------------------|--------------|-------|---------------|
| Description | Manufacturer | Model | Serial Number |
| / | / | / | / |

2. SUMMARY OF TEST RESULTS

| FCC Rules | Description of Test Item | Result |
|-----------------------------|-----------------------------------|-----------|
| § 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)(d) | Radiated Emission | Compliant |
| § 15.247(d) | Band Edge (Out of Band Emissions) | Compliant |

N/A: not applicable

3. ANTENNA REQUIREMENT

3.1 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.

3.2 Test Result

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

4. POWER SPECTRAL DENSITY

4.1 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.

4.2 Test Equipment List and Details

| Description | Manufacturer | Model | Serial Number | Cal. Date | Due. Date |
|-------------------|--------------|-------------|---------------|------------|------------|
| Spectrum Analyzer | Agilent | E4402B | US41192821 | 2012-03-28 | 2013-03-27 |
| Attenuator | ATTEN | ATS100-4-20 | / | 2012-03-28 | 2013-03-27 |

4.3 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 center frequency of spectrum analyzer = operating frequency.
3. Set the spectrum analyzer as RBW, VBW=3KHz, Span = 20MHz.
4. Repeat above procedures until all frequency measured was complete.

4.4 Environmental Conditions

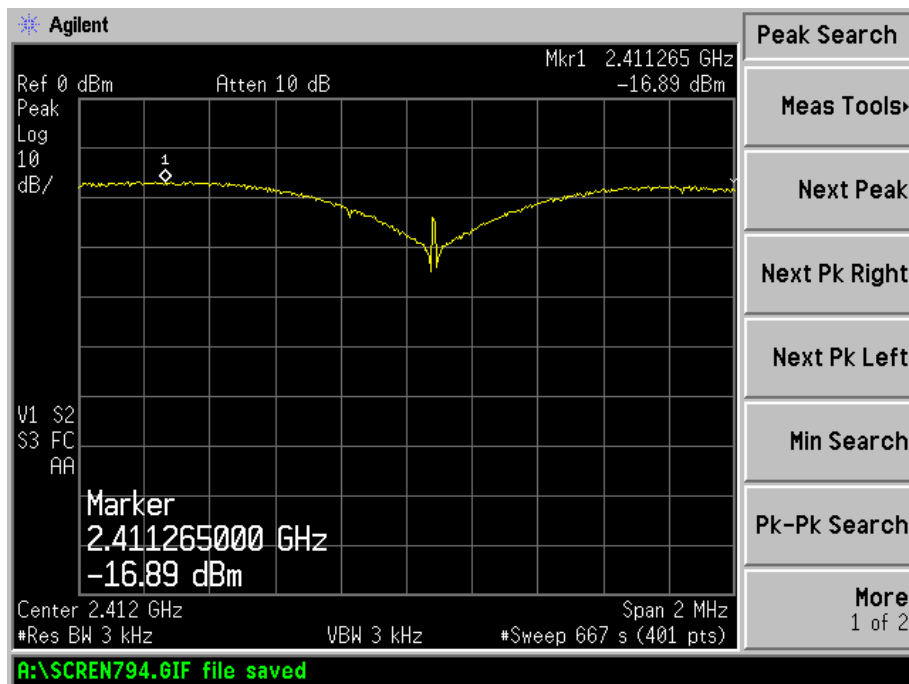
| | |
|--------------------|-----------|
| Temperature: | 20° C |
| Relative Humidity: | 54% |
| ATM Pressure: | 1011 mbar |

4.5 Summary of Test Results/Plots

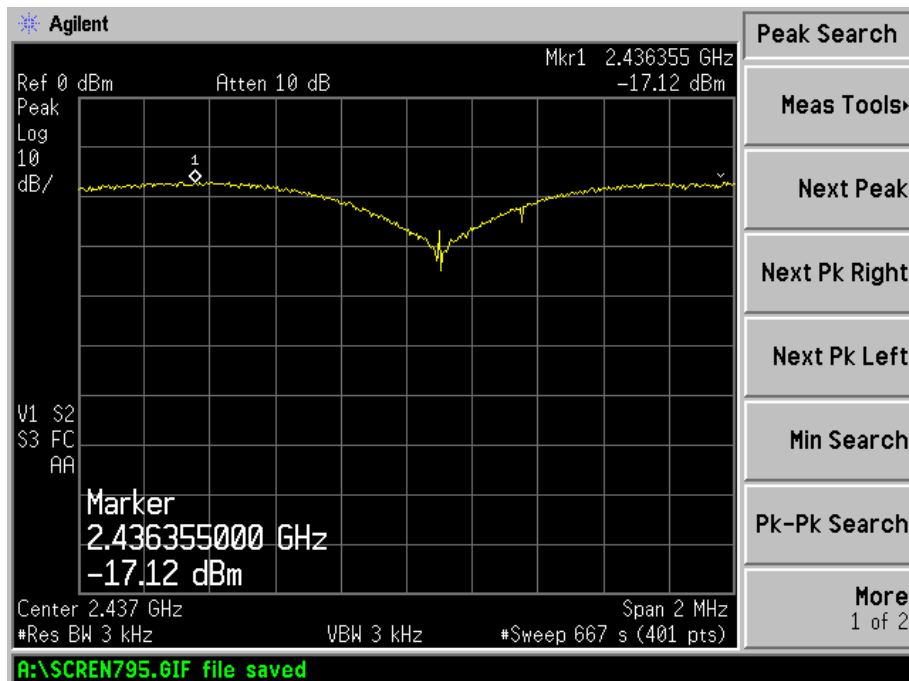
| Test mode | Test channel | Reading dBm/3kHz | Limit dBm/3kHz |
|--------------|-----------------------------|---------------------|-------------------|
| 802.11b | Low channel (2412MHz) | -16.89 | 8 |
| | Middle channel (2437MHz) | -17.12 | 8 |
| | High channel (2462MHz) | -16.39 | 8 |
| 802.11g | Low channel (2412MHz) | -15.23 | 8 |
| | Middle channel (2437MHz) | -15.25 | 8 |
| | High channel (2462MHz) | -15.79 | 8 |
| 802.11n HT20 | Low channel (2412MHz) | -17.70 | 8 |
| | Middle channel (2437MHz) | -16.88 | 8 |
| | High channel (2462MHz) | -17.98 | 8 |
| 802.11n HT40 | Low channel (2412MHz) | -20.72 | 8 |
| | Middle channel (2437MHz) | -20.98 | 8 |
| | High channel (2452MHz) | -20.40 | 8 |

For 802.11b

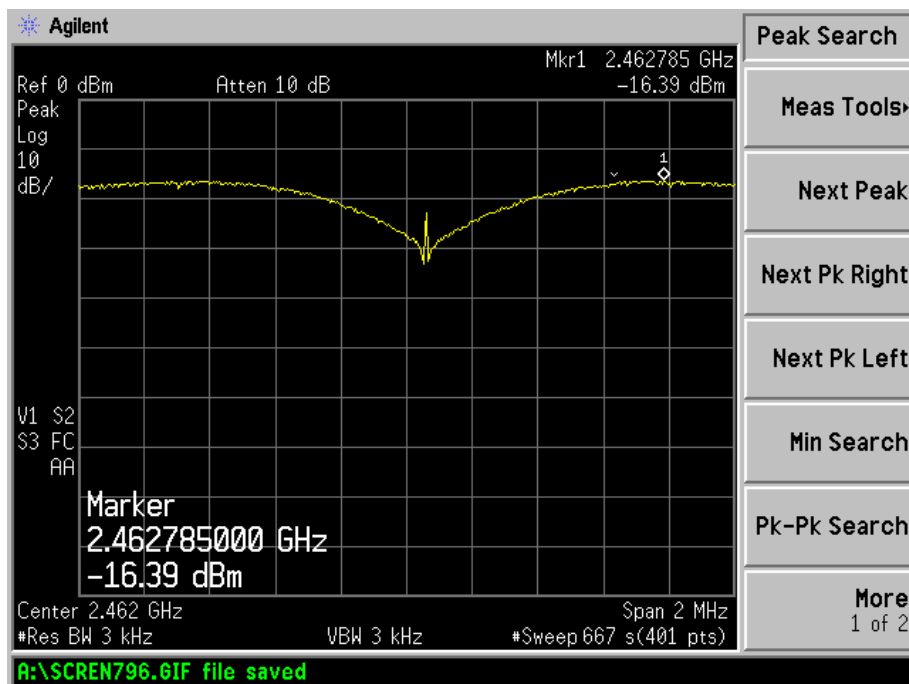
Low Channel:



Middle Channel:

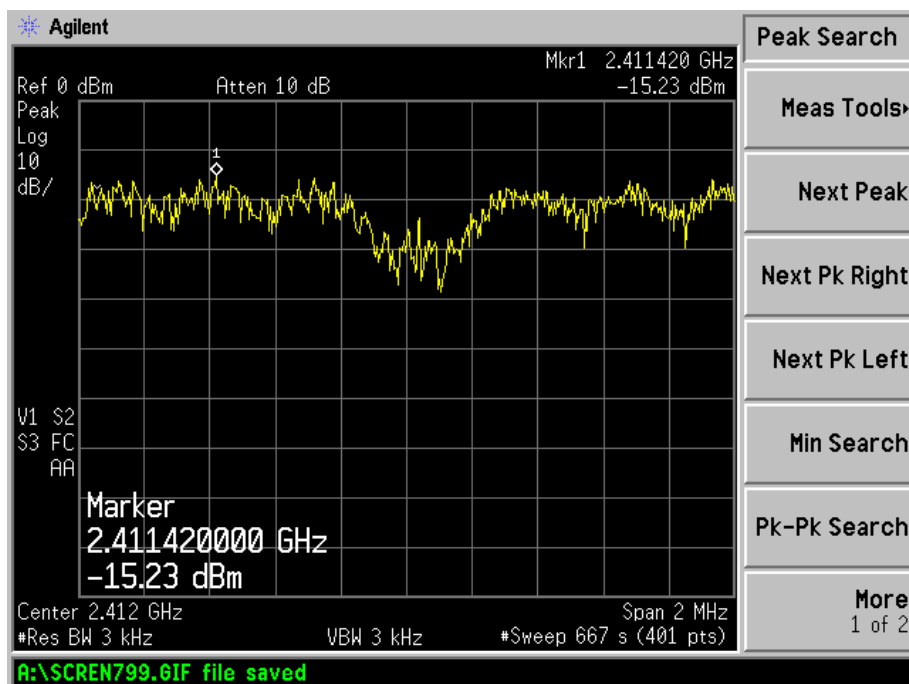


High Channel:

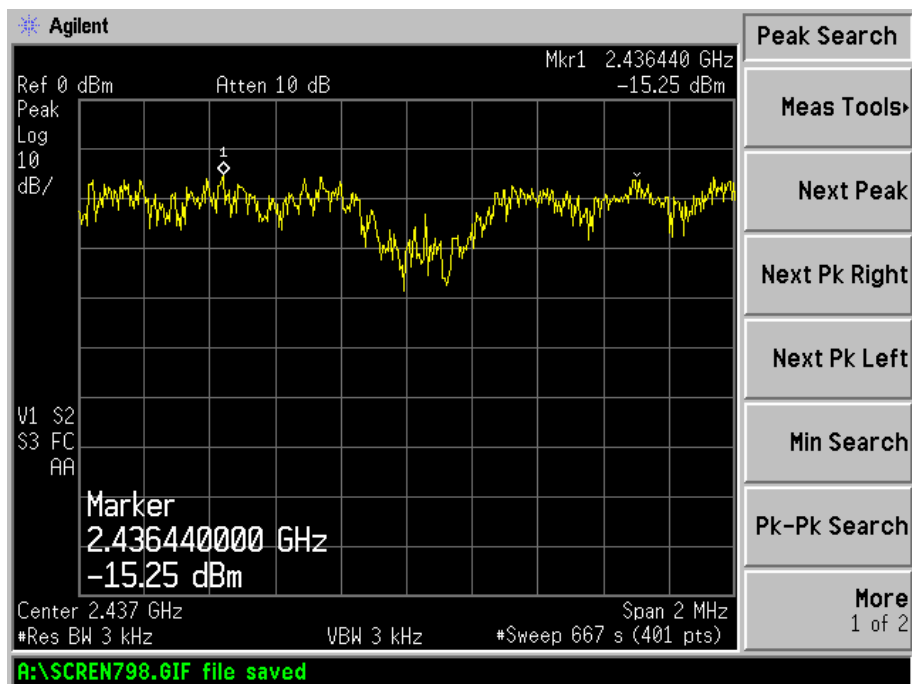


For 802.11g

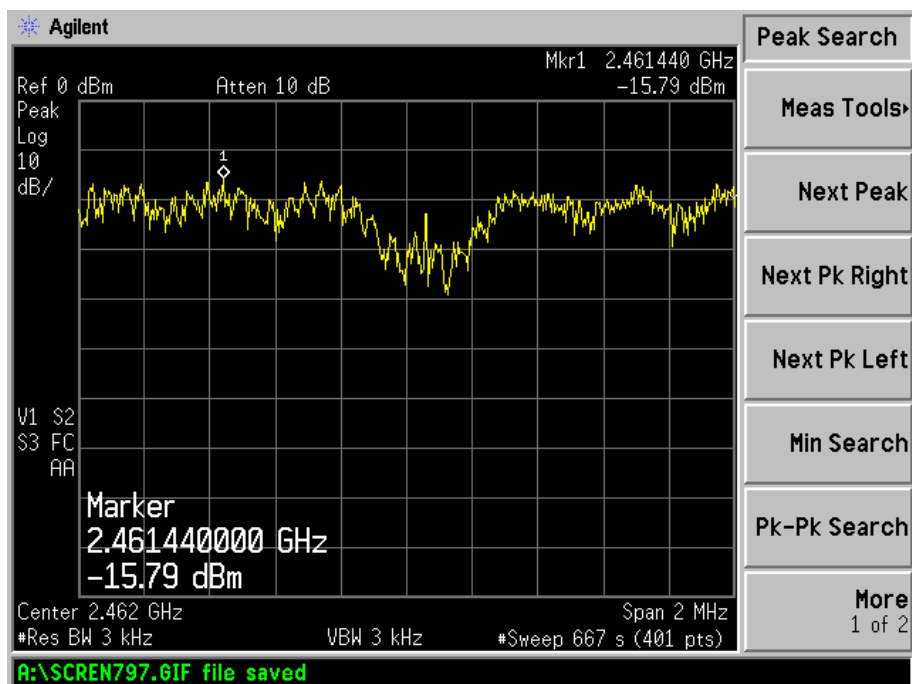
Low Channel:



Middle Channel:

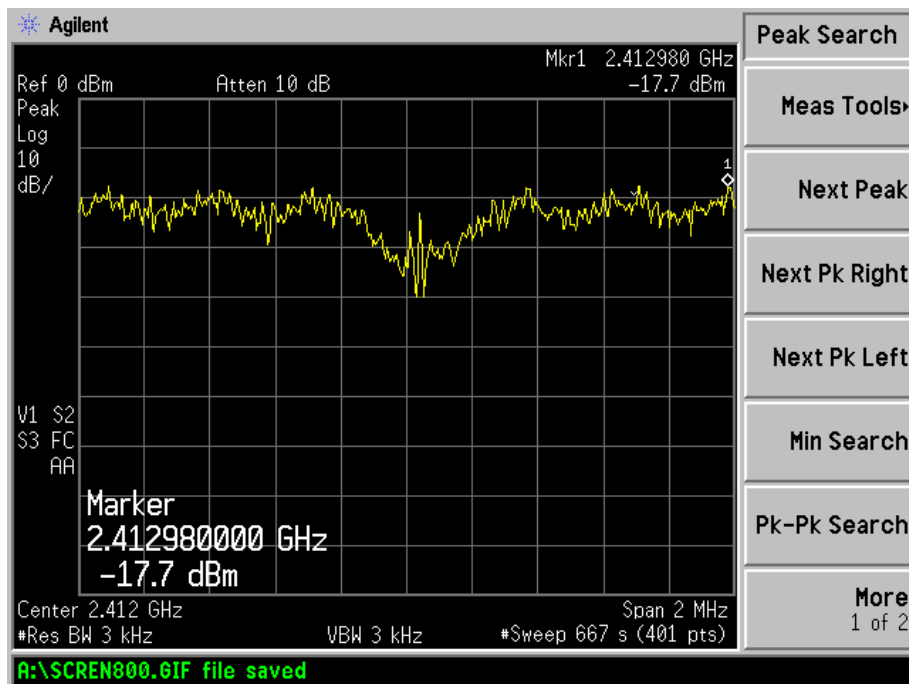


High Channel:

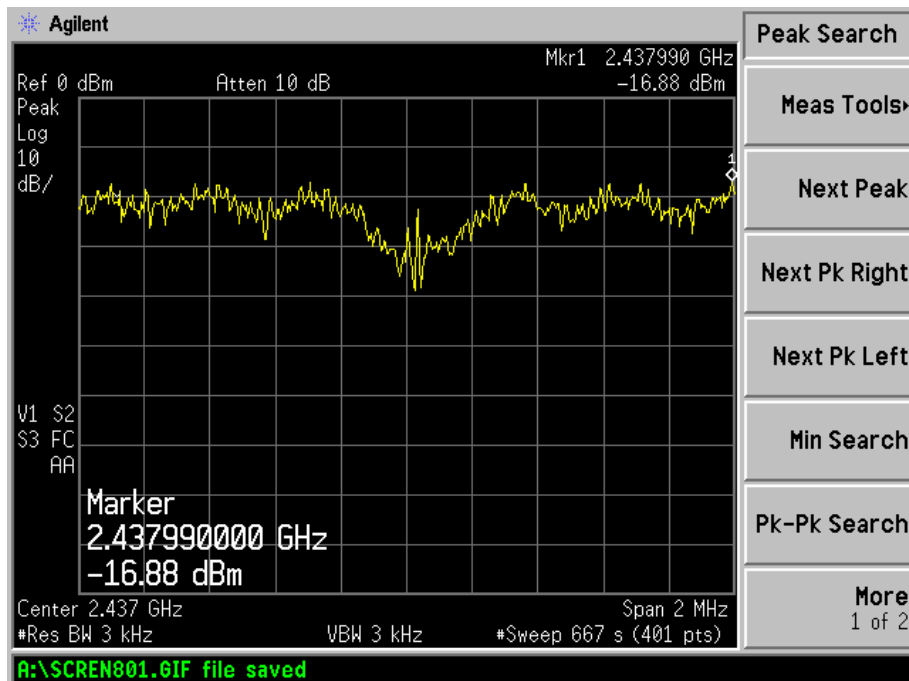


For 802.11n HT20

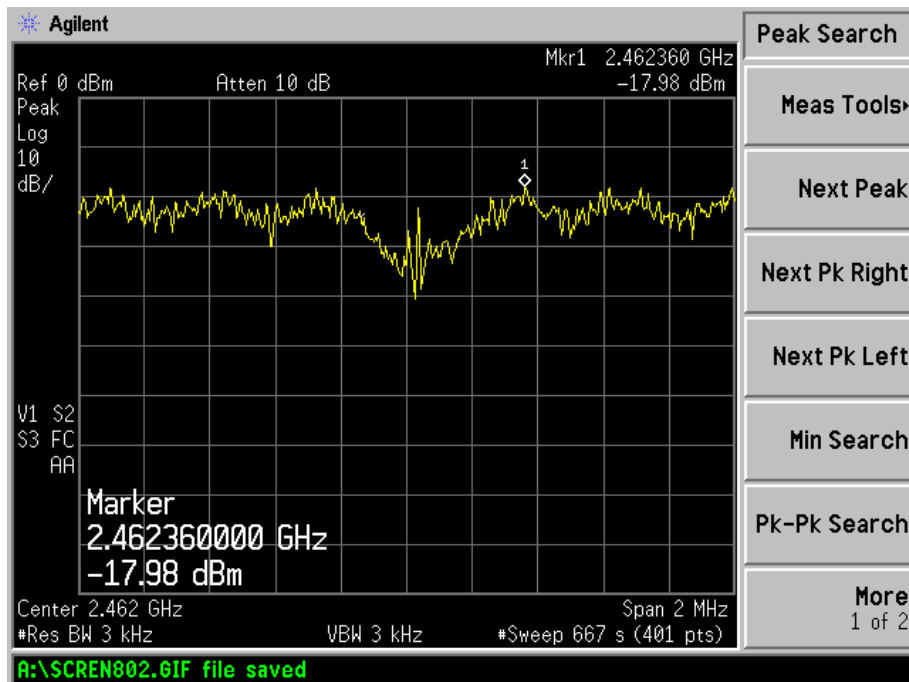
Low Channel:



Middle Channel:

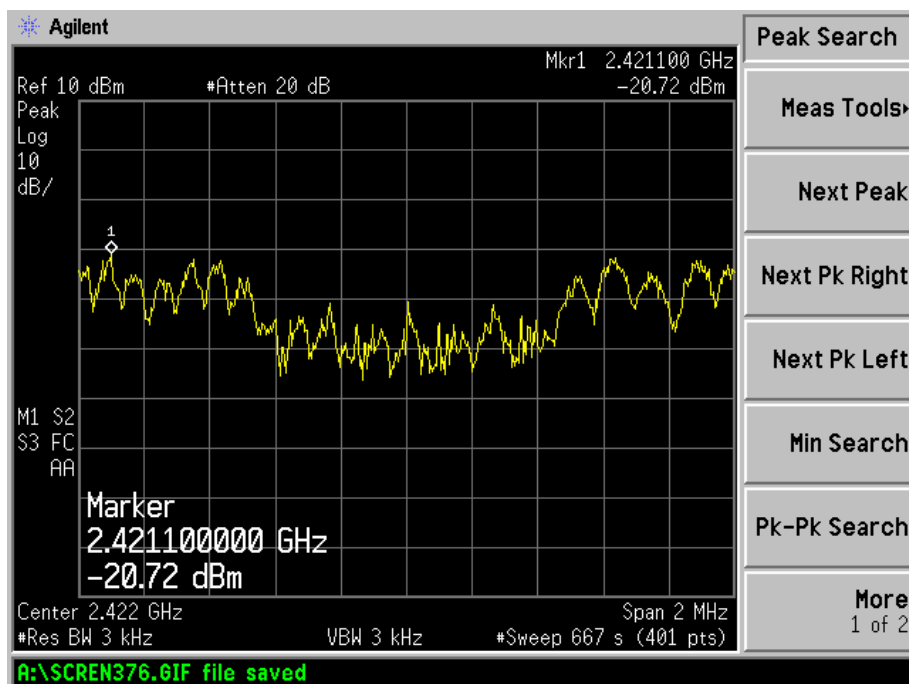


High Channel:

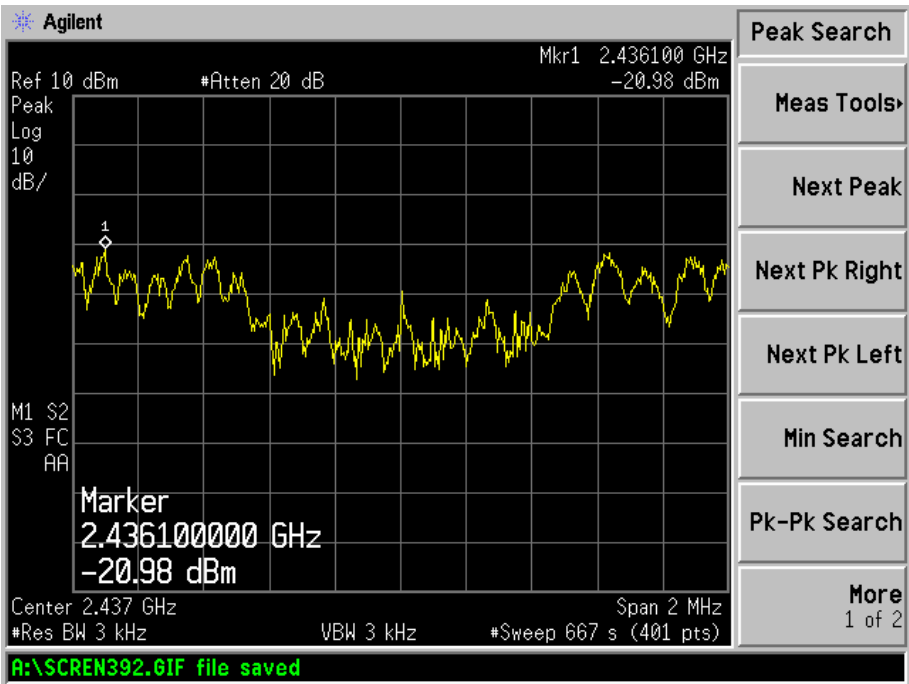


For 802.11n HT40

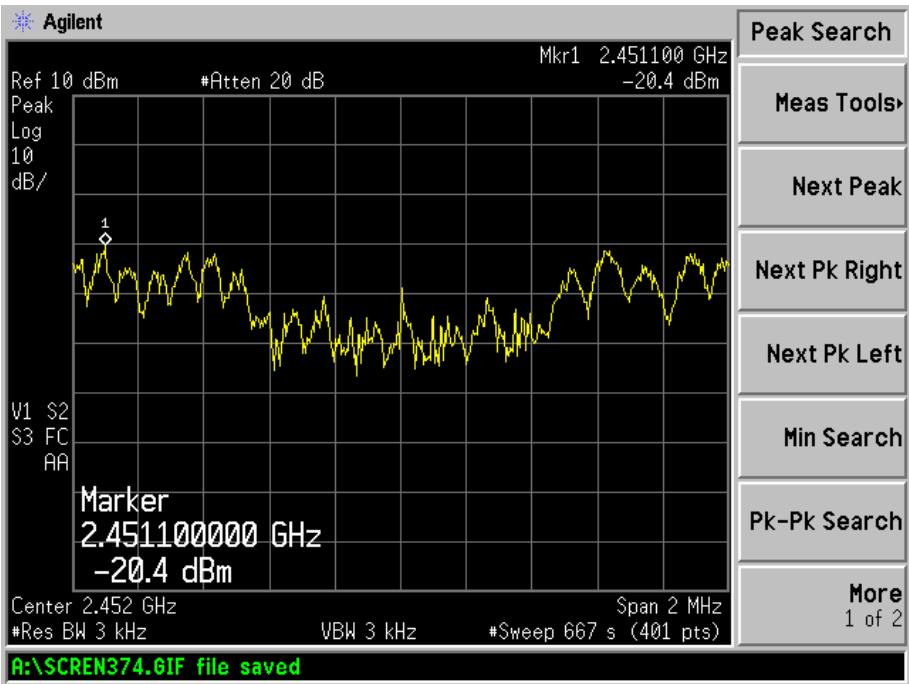
Low Channel:



Middle Channel:



High Channel:



5. 6dB BANDWIDTH

5.1 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.

5.2 Test Equipment List and Details

| Description | Manufacturer | Model | Serial Number | Cal. Date | Due. Date |
|-------------------|--------------|-------------|---------------|------------|------------|
| Spectrum Analyzer | Agilent | E4402B | US41192821 | 2012-03-28 | 2013-03-27 |
| Attenuator | ATTEN | ATS100-4-20 | / | 2012-03-28 | 2013-03-27 |

5.3 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 center frequency of spectrum analyzer = operating frequency.
3. The spectrum analyzer as RBW=300KHz (1 % of Bandwidth.), Sweep=auto
4. Mark the peak frequency and –6dB (upper and lower) frequency.

5.4 Environmental Conditions

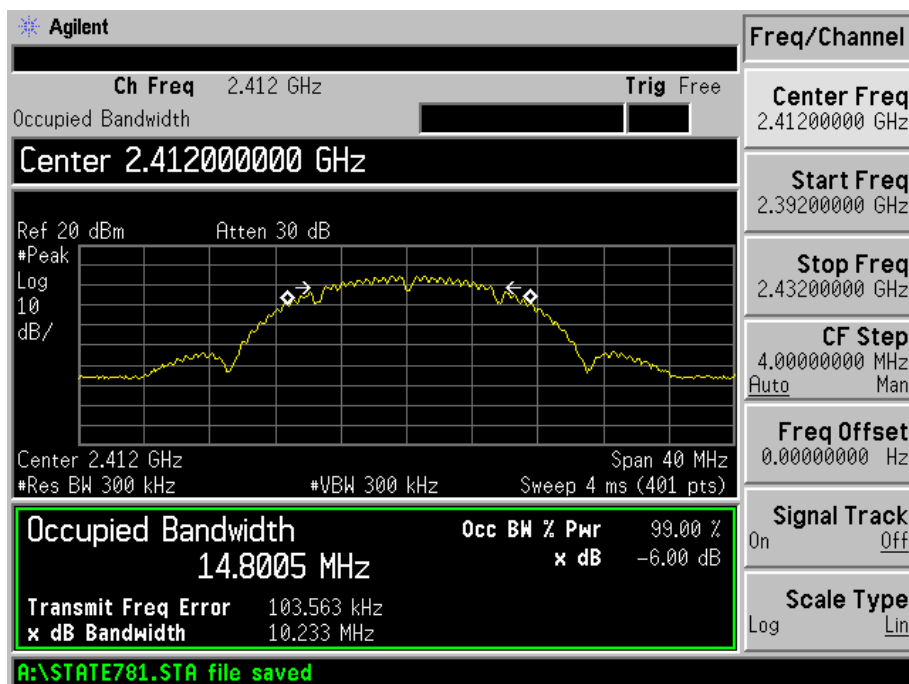
| | |
|--------------------|-----------|
| Temperature: | 24° C |
| Relative Humidity: | 53% |
| ATM Pressure: | 1018 mbar |

5.5 Summary of Test Results/Plots

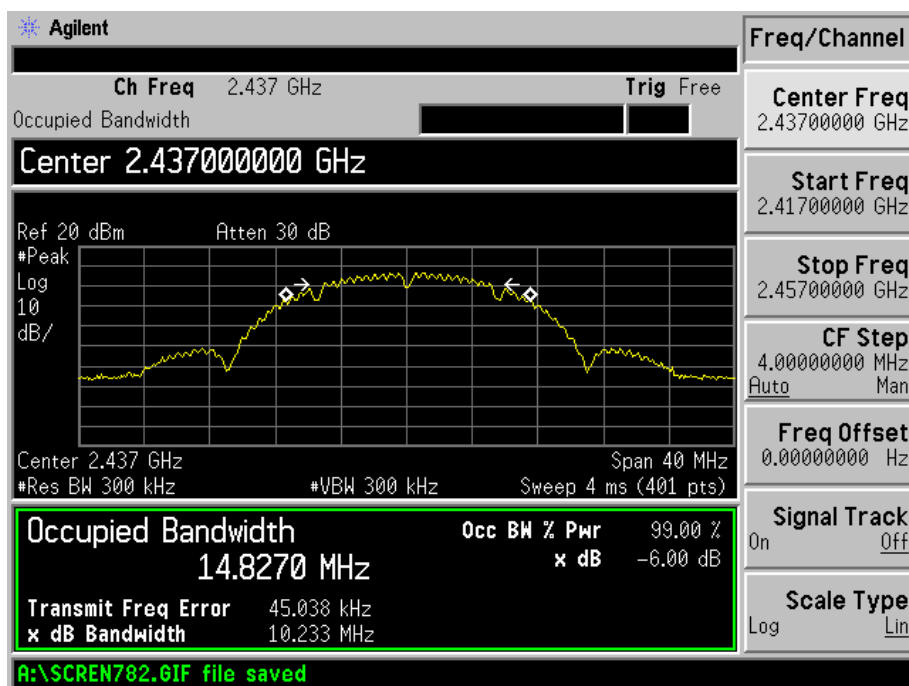
| Test mode | Frequency MHz | 6 dB Bandwidth kHz | Limit kHz |
|--------------|------------------|-----------------------|--------------|
| 802.11b | 2412 | 10233 | 500 |
| | 2437 | 10233 | 500 |
| | 2462 | 10195 | 500 |
| 802.11g | 2412 | 16566 | 500 |
| | 2437 | 16527 | 500 |
| | 2462 | 16542 | 500 |
| 802.11n-HT20 | 2412 | 17632 | 500 |
| | 2437 | 17600 | 500 |
| | 2462 | 17658 | 500 |
| 802.11n-HT40 | 2422 | 36586 | 500 |
| | 2437 | 36357 | 500 |
| | 2452 | 36678 | 500 |

For 802.11b

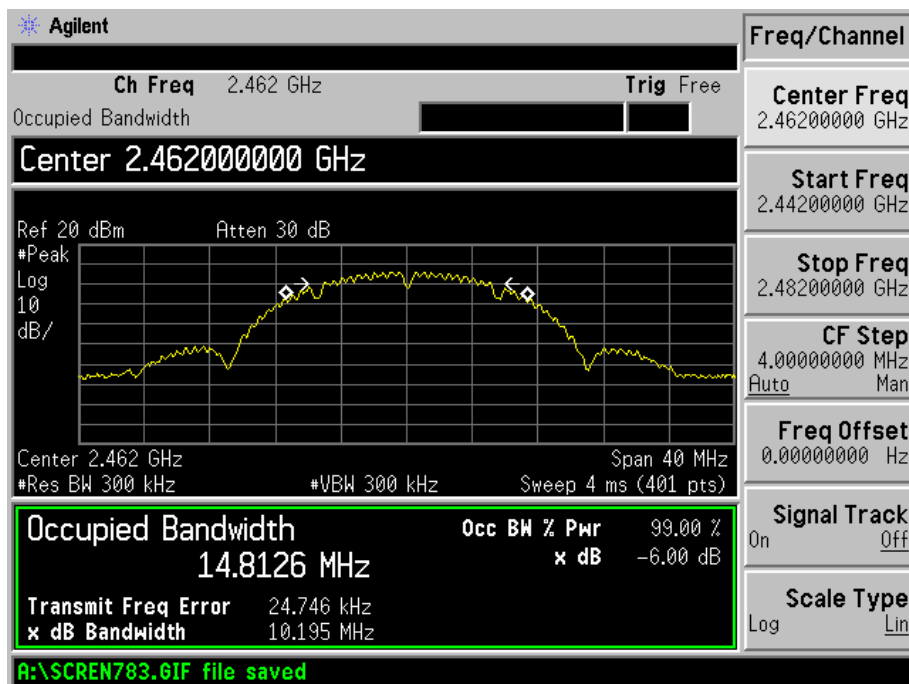
Low Channel:



Mid Channel:

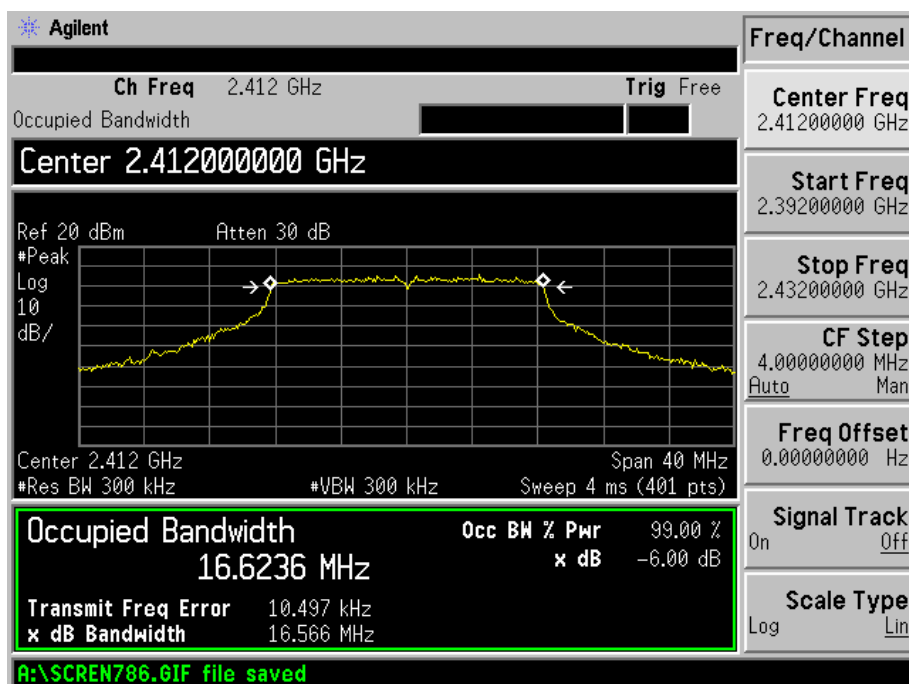


High Channel:

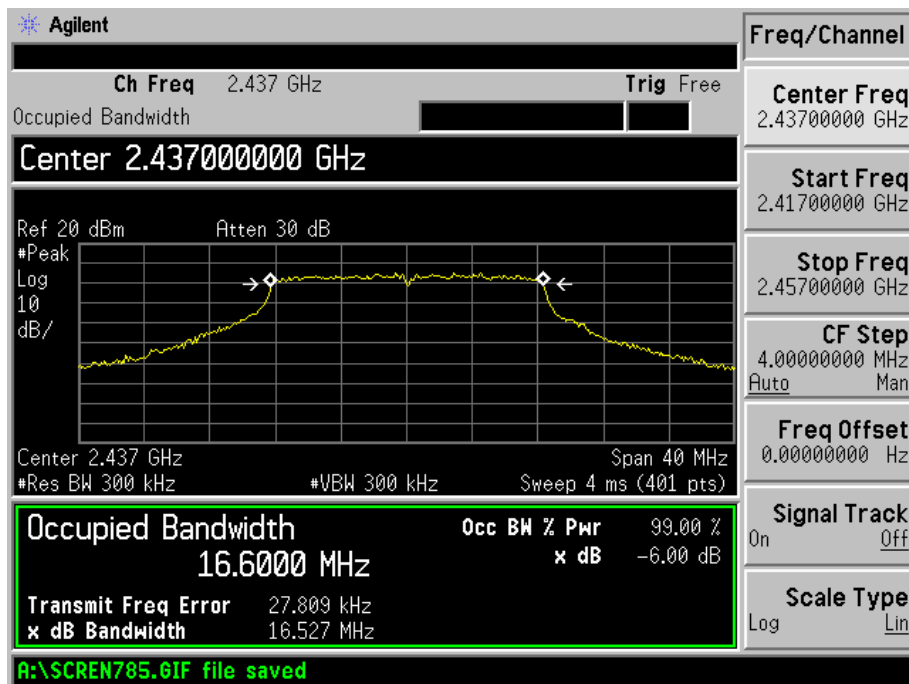


For 802.11g

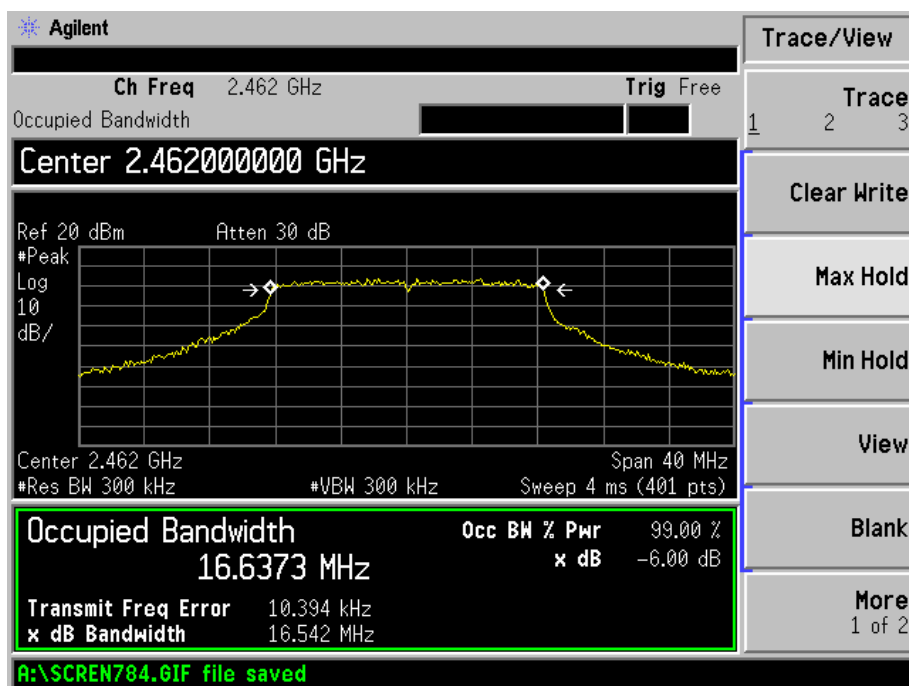
Low Channel:



Mid Channel:

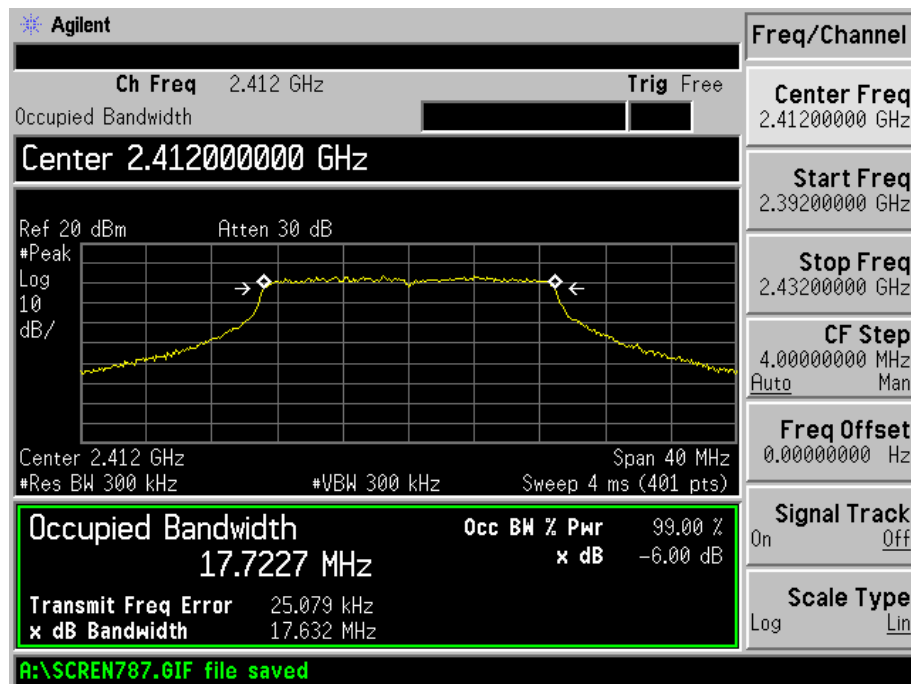


High Channel:

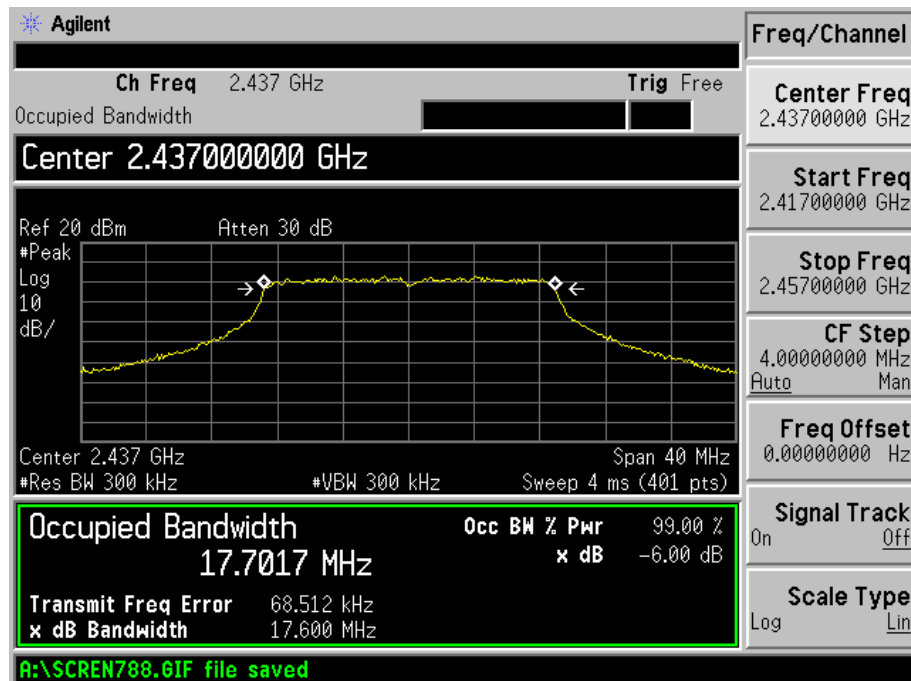


For 802.11n HT20

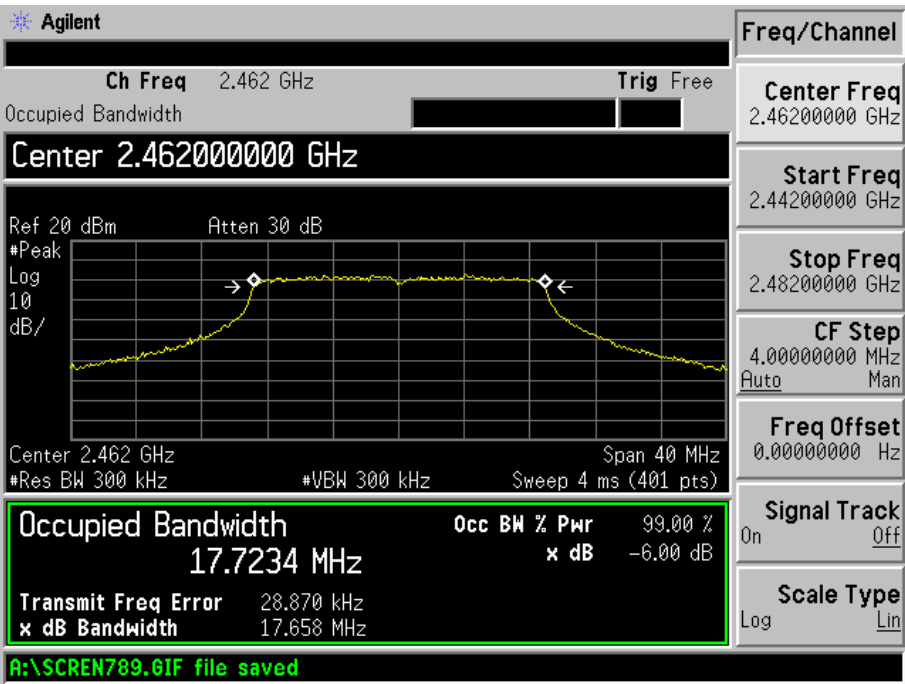
Low Channel:



Mid Channel:

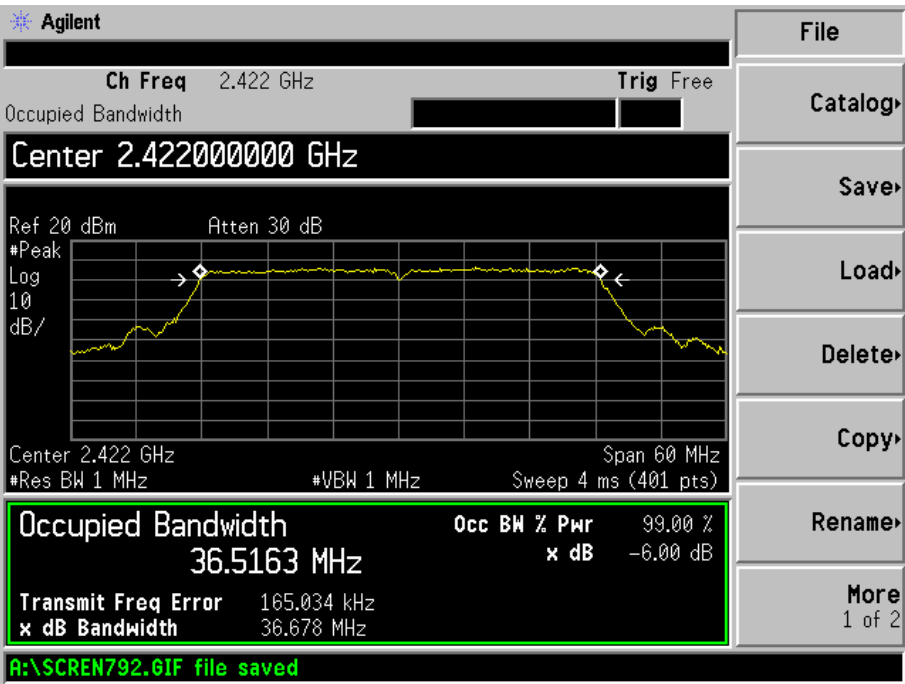


High Channel:

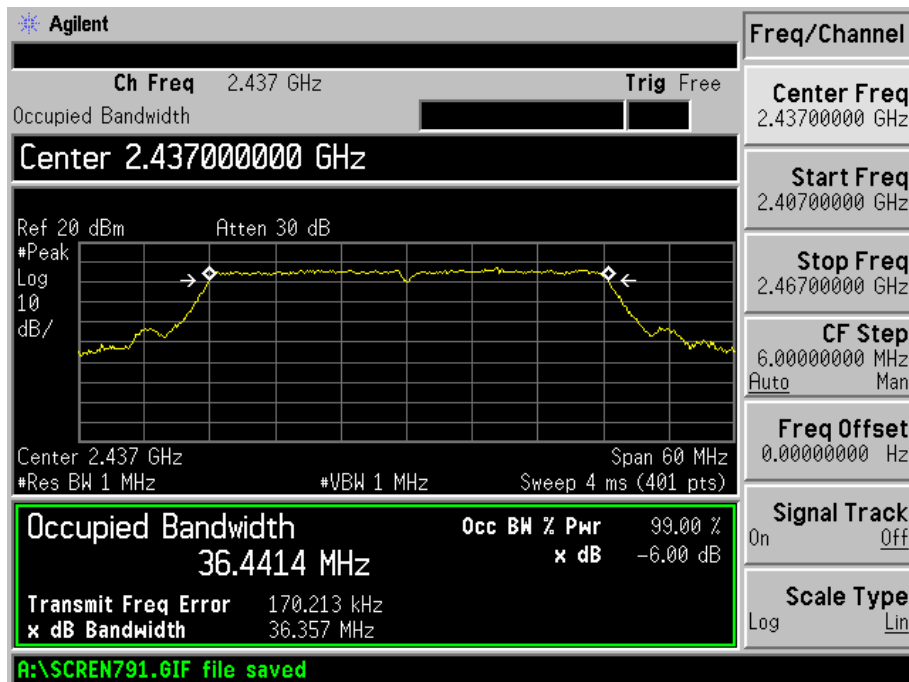


For 802.11n HT40

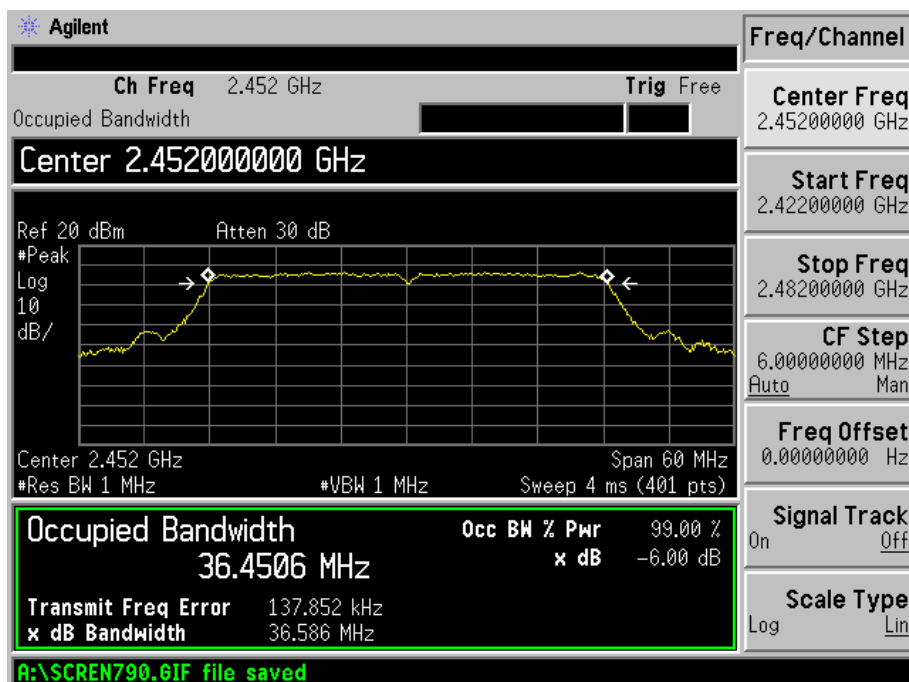
Low Channel:



Mid Channel:



High Channel:



6. RF OUTPUT POWER

6.1 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.

6.2 Test Equipment List and Details

| Description | Manufacturer | Model | Serial Number | Cal. Date | Due. Date |
|-------------------|--------------|-------------|---------------|------------|------------|
| Spectrum Analyzer | Agilent | E4402B | US41192821 | 2012-03-28 | 2013-03-27 |
| Attenuator | ATTEN | ATS100-4-20 | / | 2012-03-28 | 2013-03-27 |

6.3 Test Procedure

According to section 15.247(b)-power output of the KDB-558074 (2005), the method #1 of the power output option2 was used, the following is the measurement procedure.

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW \geq 3 MHz.
4. Use sample detector mode if bin width (i.e., span/number of points in spectrum display) < 0.5 RBW. Otherwise use peak detector mode.
5. Use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at full control power for entire sweep of every sweep. If the device transmits continuously, with no off intervals or reduced power intervals, the trigger may be set to “free run”.
6. Trace average 100 traces in power averaging mode.
7. Compute power by integrating the spectrum across the 26 dB EBW of the signal. The integration can be performed using the spectrum analyzer’s band power measurement function with band limits set equal to the EBW band edges.

6.4 Environmental Conditions

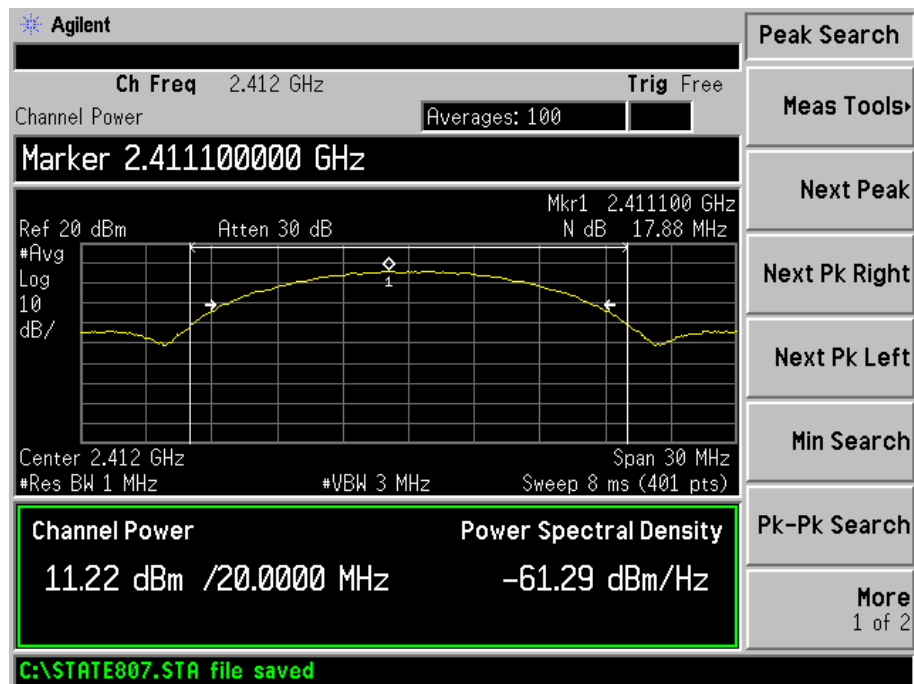
| | |
|--------------------|-----------|
| Temperature: | 21° C |
| Relative Humidity: | 55% |
| ATM Pressure: | 1011 mbar |

6.5 Summary of Test Results/Plots

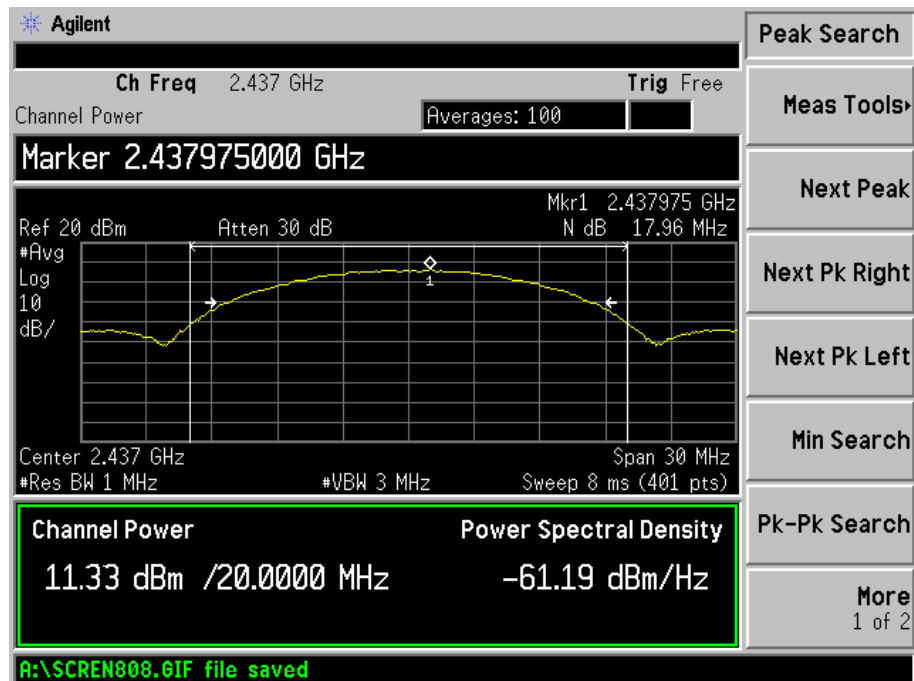
| Test mode | Frequency MHz | Reading dBm | Output power W | Limit W |
|---------------------|------------------|----------------|-------------------|------------|
| 802.11b short (1M) | 2412 | 11.22 | 0.01324 | 1 |
| | 2437 | 11.33 | 0.01358 | 1 |
| | 2462 | 11.29 | 0.01346 | 1 |
| 802.11b short (11M) | 2412 | 11.50 | 0.01413 | 1 |
| | 2437 | 11.26 | 0.01337 | 1 |
| | 2462 | 11.49 | 0.01409 | 1 |
| 802.11b long (1M) | 2412 | 11.47 | 0.01403 | 1 |
| | 2437 | 11.32 | 0.01355 | 1 |
| | 2462 | 11.25 | 0.01334 | 1 |
| 802.11b long (11M) | 2412 | 11.22 | 0.01324 | 1 |
| | 2437 | 11.32 | 0.01355 | 1 |
| | 2462 | 11.10 | 0.01288 | 1 |
| 802.11g (6M) | 2412 | 10.98 | 0.01253 | 1 |
| | 2437 | 11.25 | 0.01334 | 1 |
| | 2462 | 11.20 | 0.01318 | 1 |
| 802.11g (54M) | 2412 | 10.87 | 0.01222 | 1 |
| | 2437 | 10.85 | 0.01216 | 1 |
| | 2462 | 11.04 | 0.01271 | 1 |
| 802.11n-HT20(MCS0) | 2412 | 10.53 | 0.01130 | 1 |
| | 2437 | 10.76 | 0.01191 | 1 |
| | 2462 | 10.72 | 0.01180 | 1 |
| 802.11n-HT20(MCS7) | 2412 | 8.63 | 0.00729 | 1 |
| | 2437 | 9.38 | 0.00867 | 1 |
| | 2462 | 10.04 | 0.01009 | 1 |
| 802.11n-HT40(MCS0) | 2422 | 9.80 | 0.00955 | 1 |
| | 2437 | 10.26 | 0.01062 | 1 |
| | 2452 | 10.20 | 0.01047 | 1 |
| 802.11n-HT40(MCS7) | 2422 | 9.79 | 0.00953 | 1 |
| | 2437 | 10.09 | 0.01021 | 1 |
| | 2452 | 10.17 | 0.01040 | 1 |

For 802.11b_1M short rate

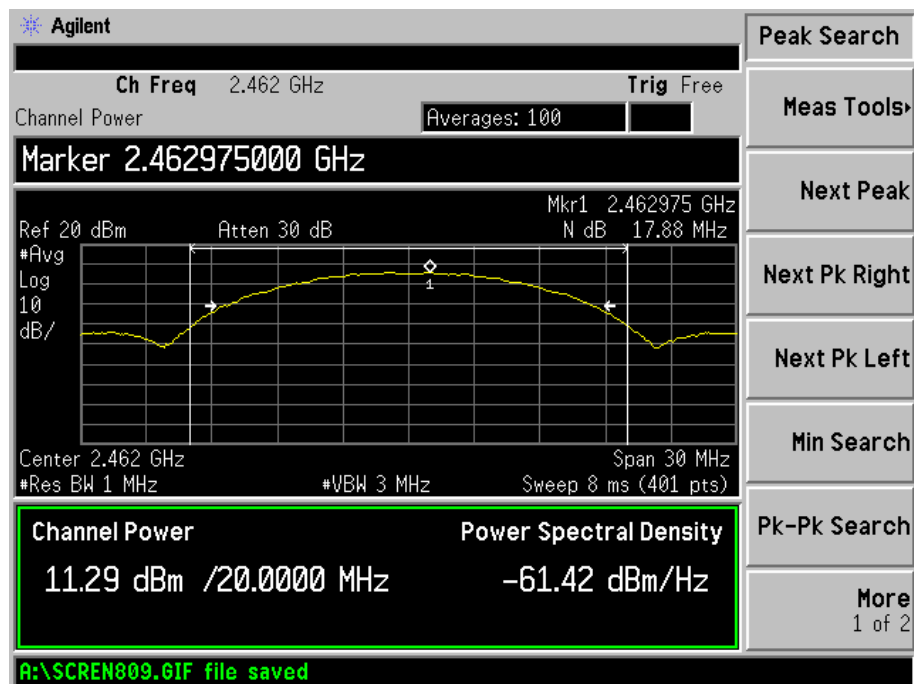
Low Channel:



Middle Channel:

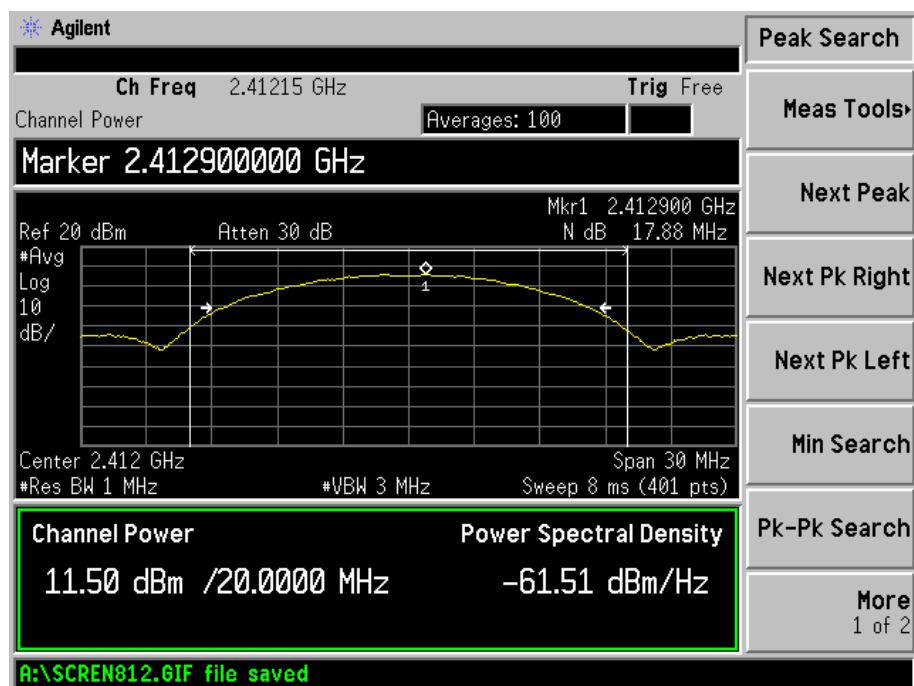


High Channel:

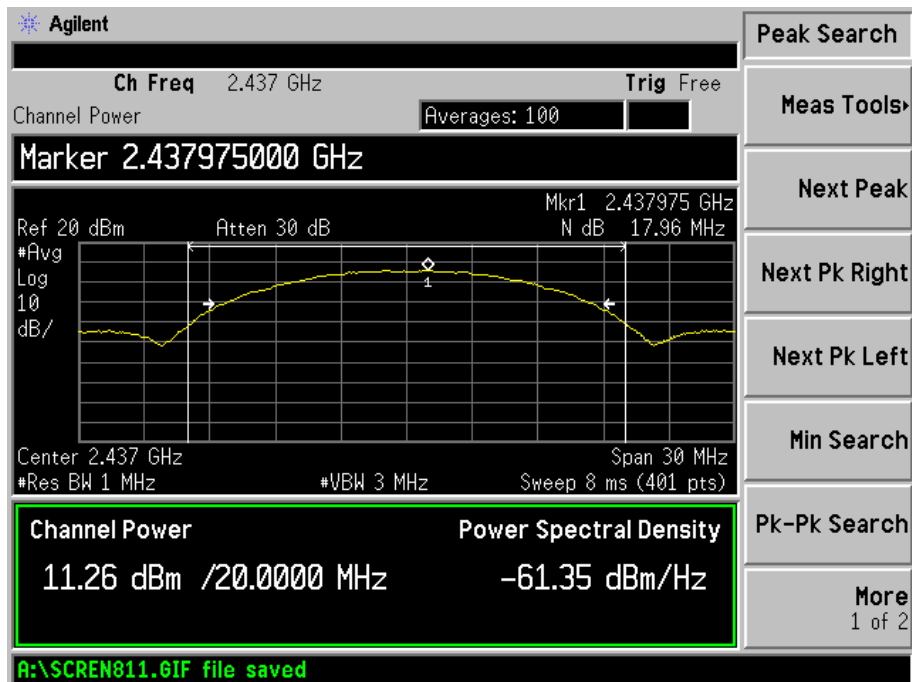


For 802.11b_11M short rate

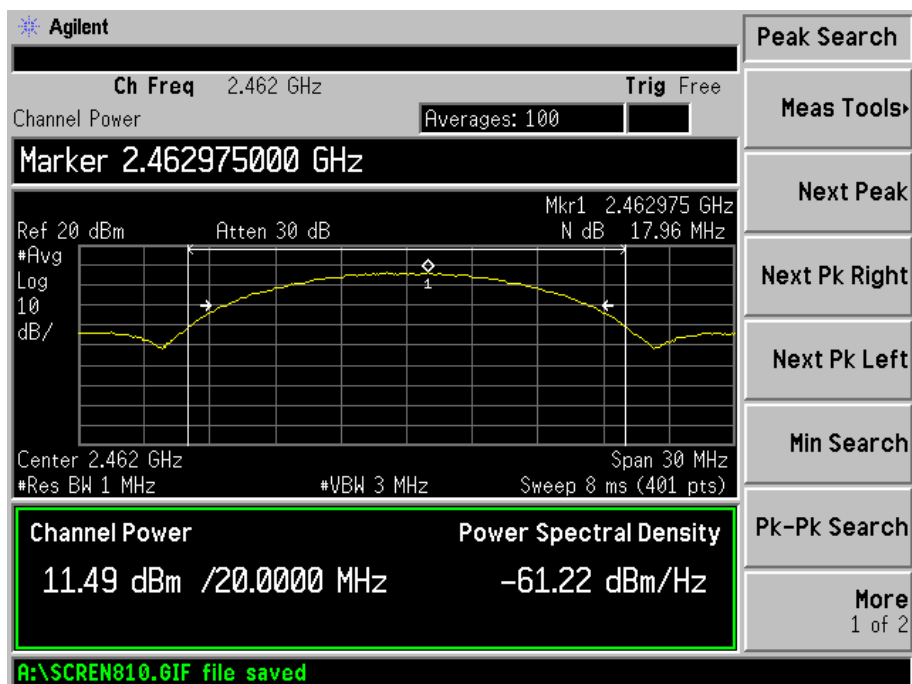
Low Channel:



Middle Channel:

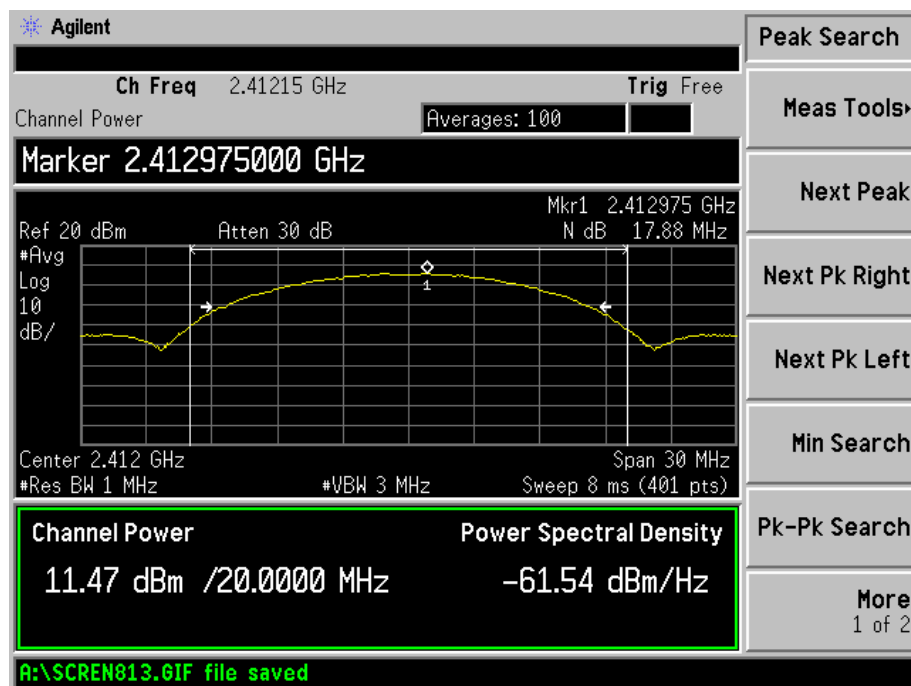


High Channel:

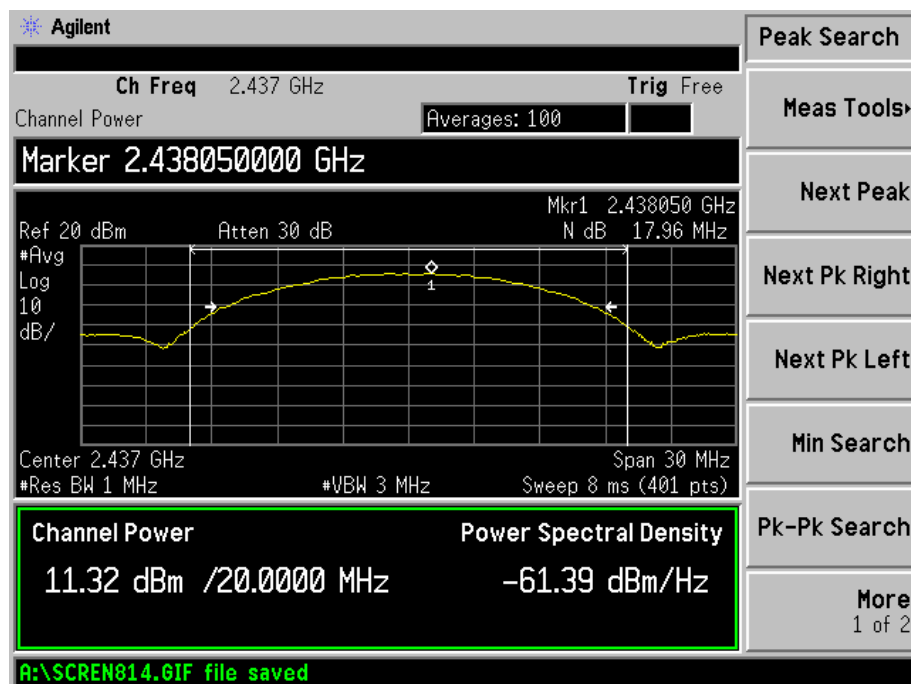


For 802.11b_1M Long rate

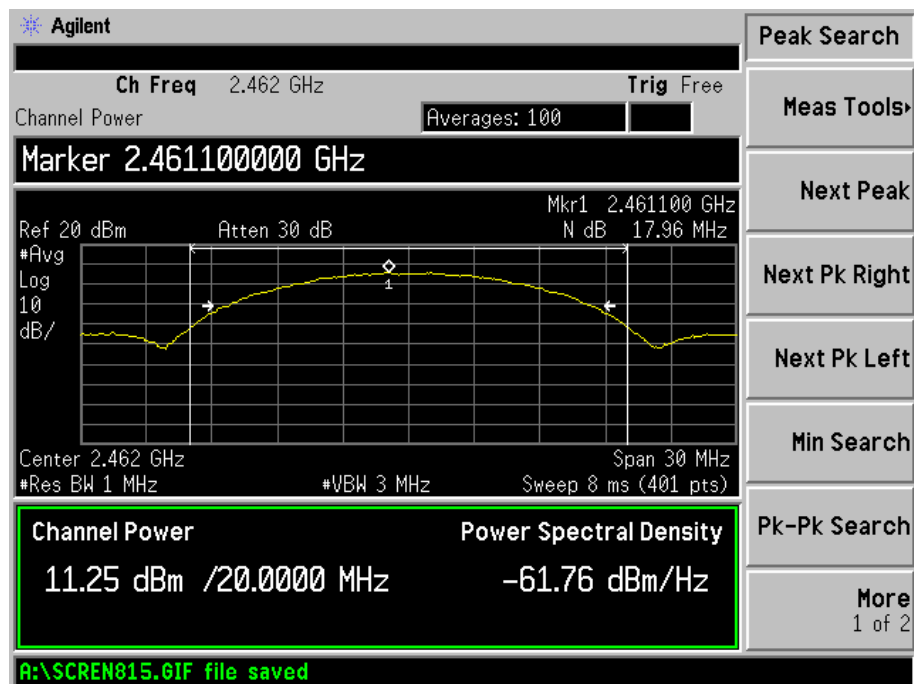
Low Channel:



Middle Channel:

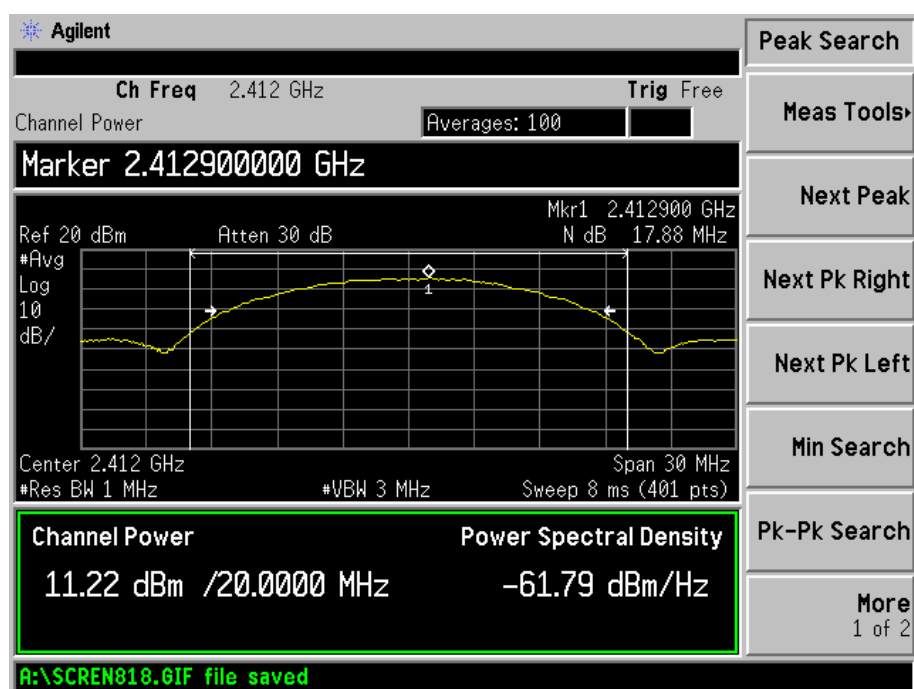


High Channel:

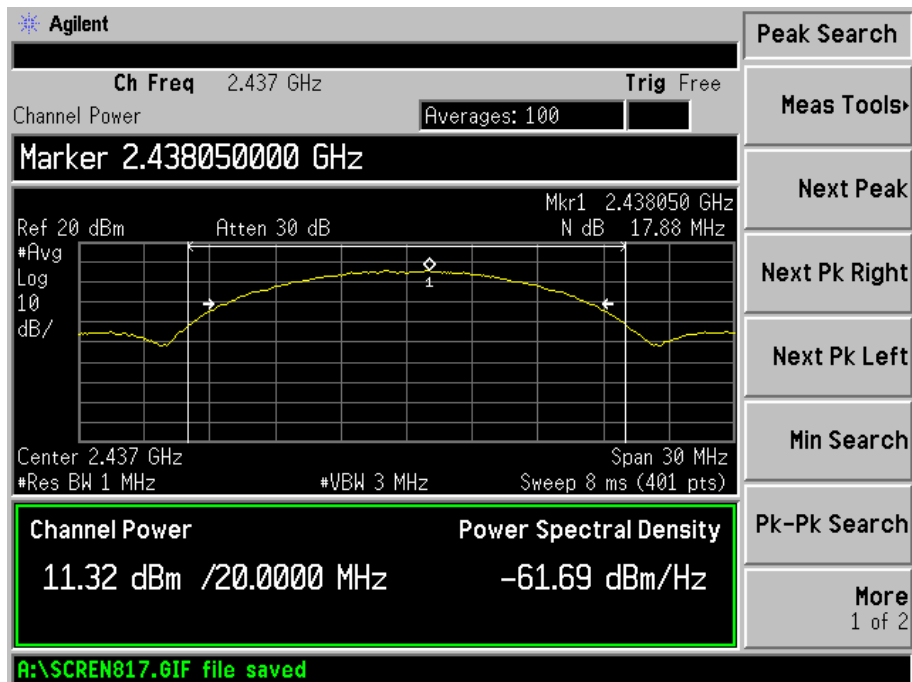


For 802.11b_11M Long rate

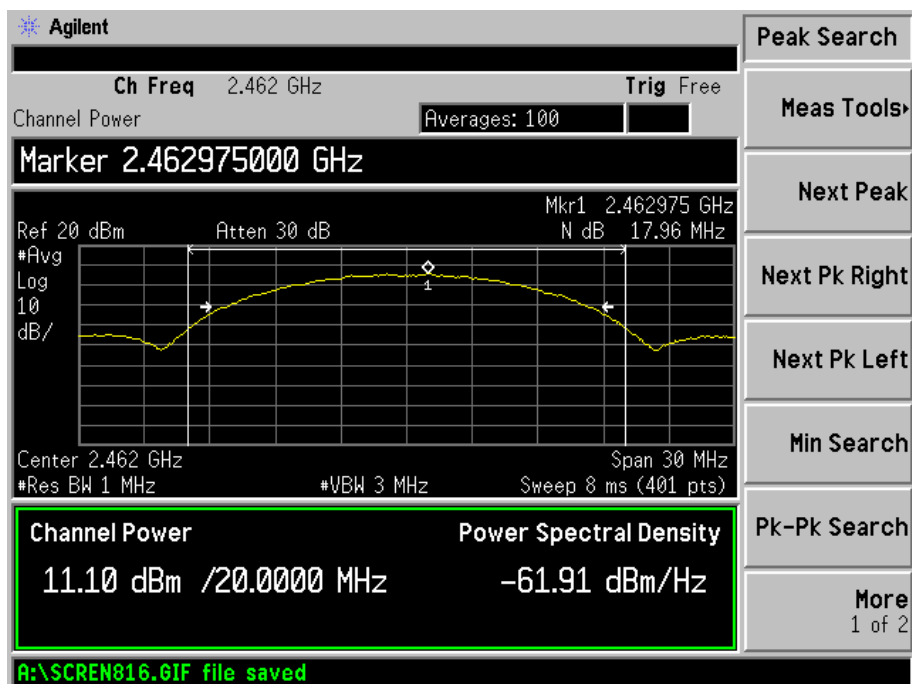
Low Channel:



Middle Channel:

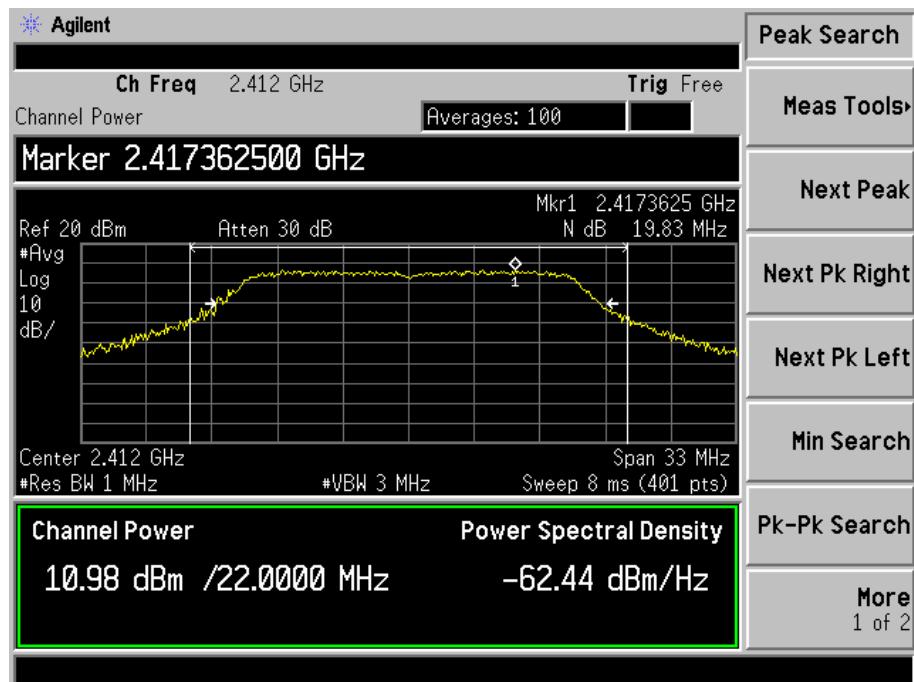


High Channel:

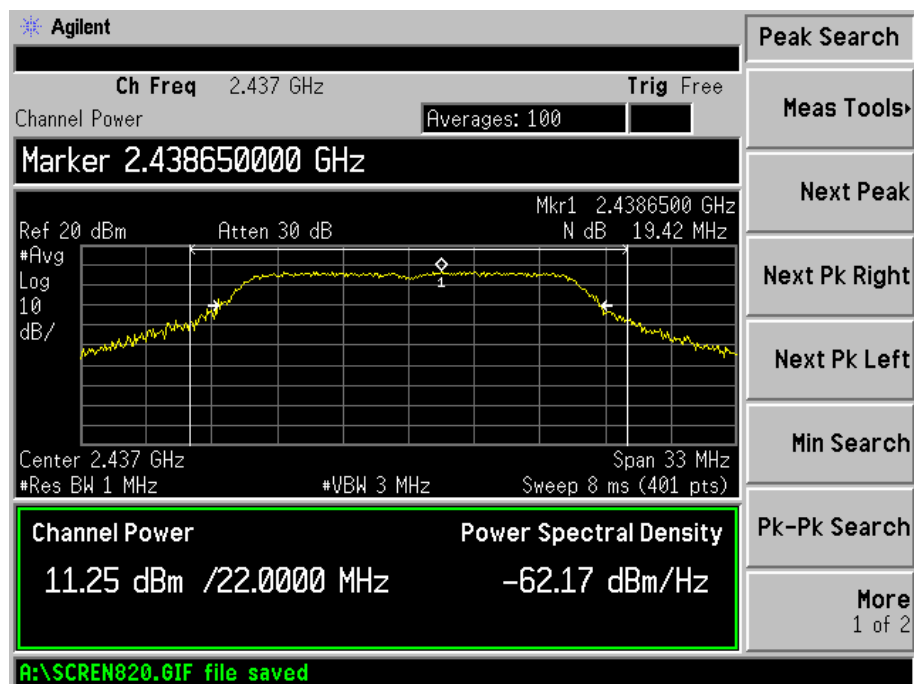


For 802.11g_6M rate

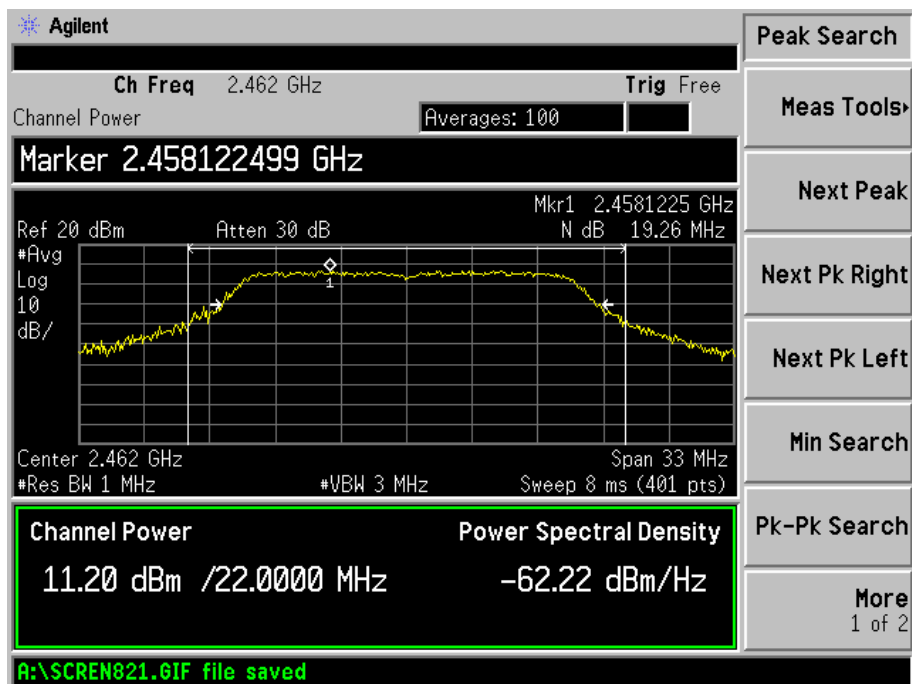
Low Channel:



Middle Channel:

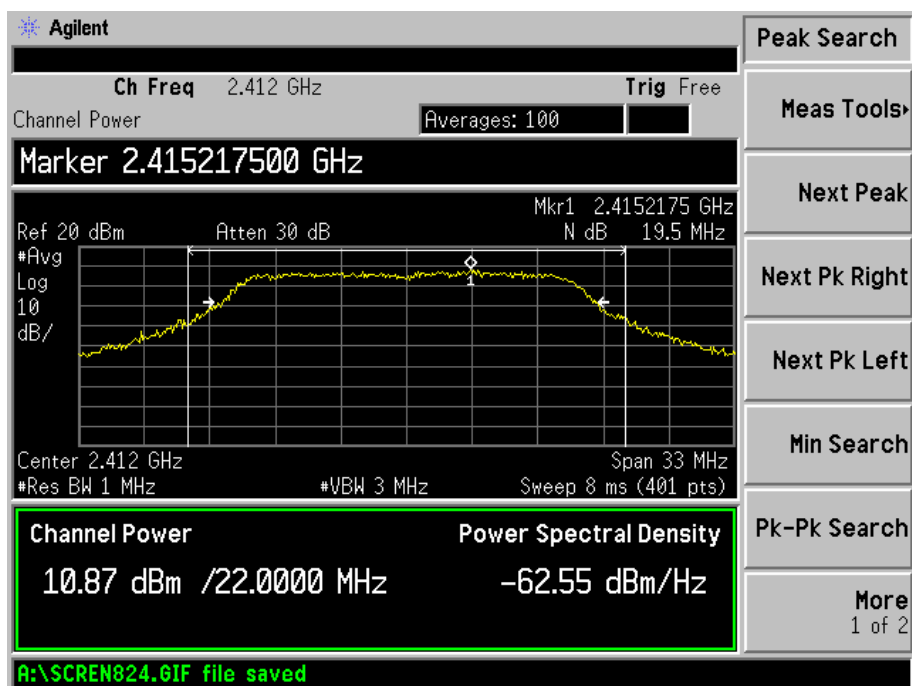


High Channel:

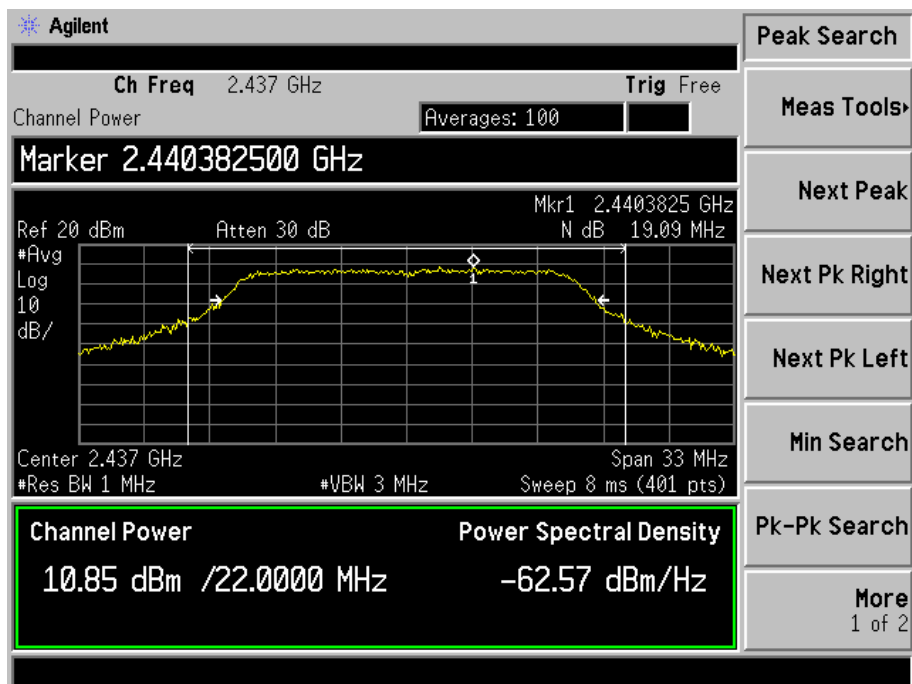


For 802.11g_54M rate

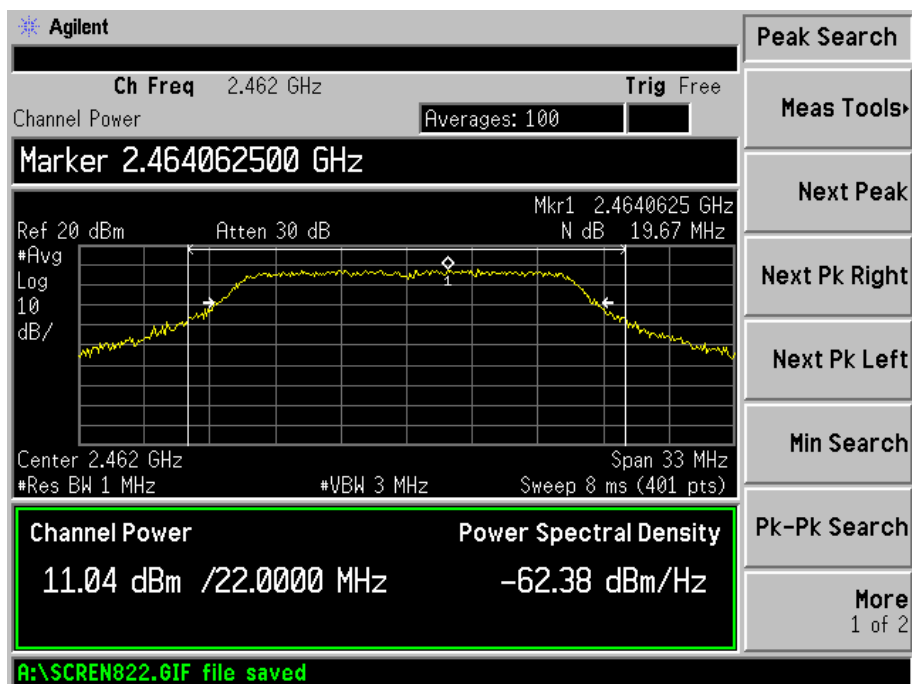
Low Channel:



Middle Channel:

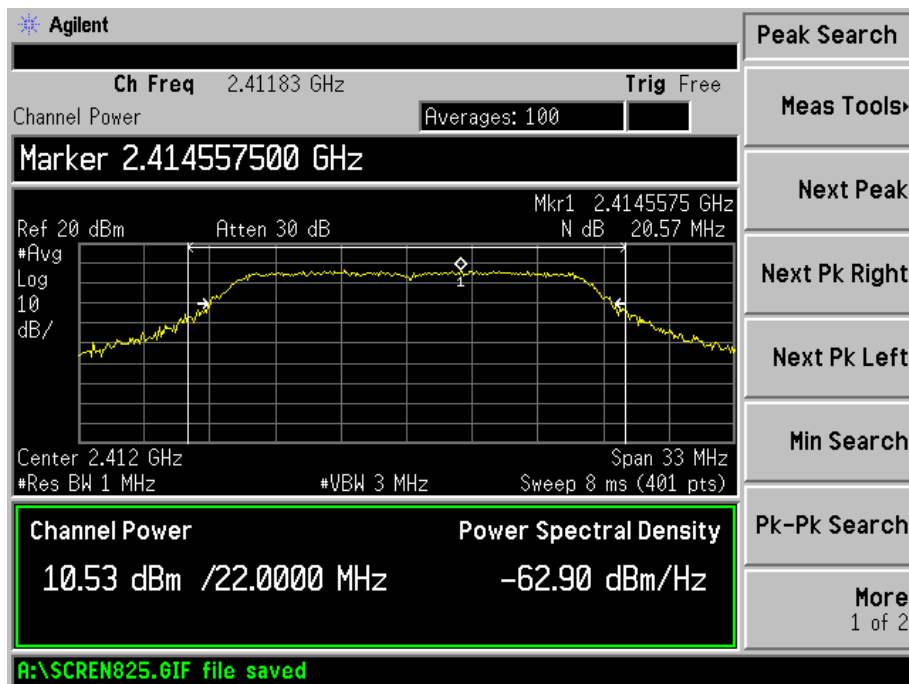


High Channel:

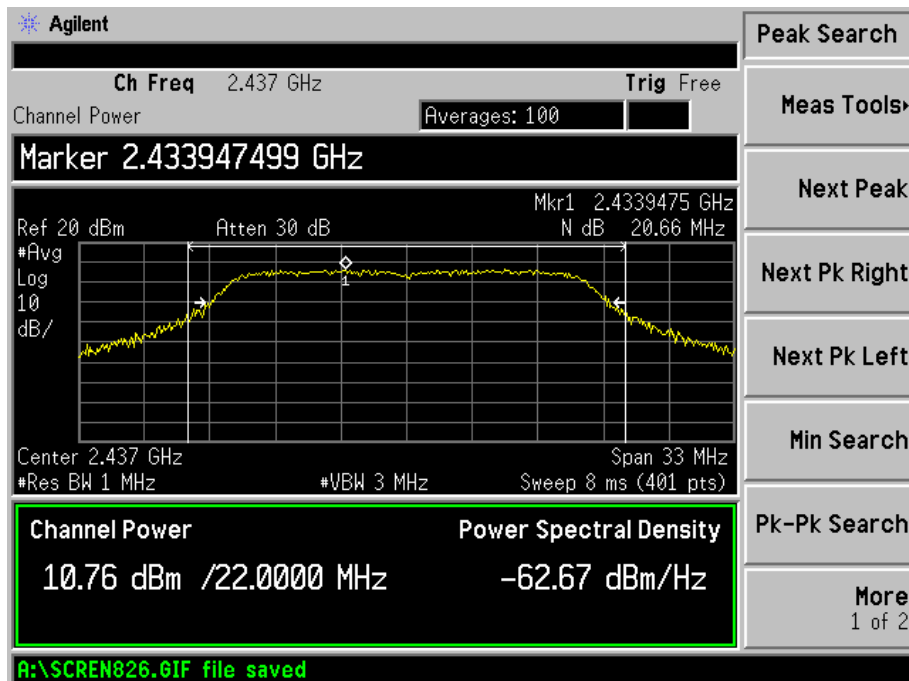


For 802.11n HT20_0M rate

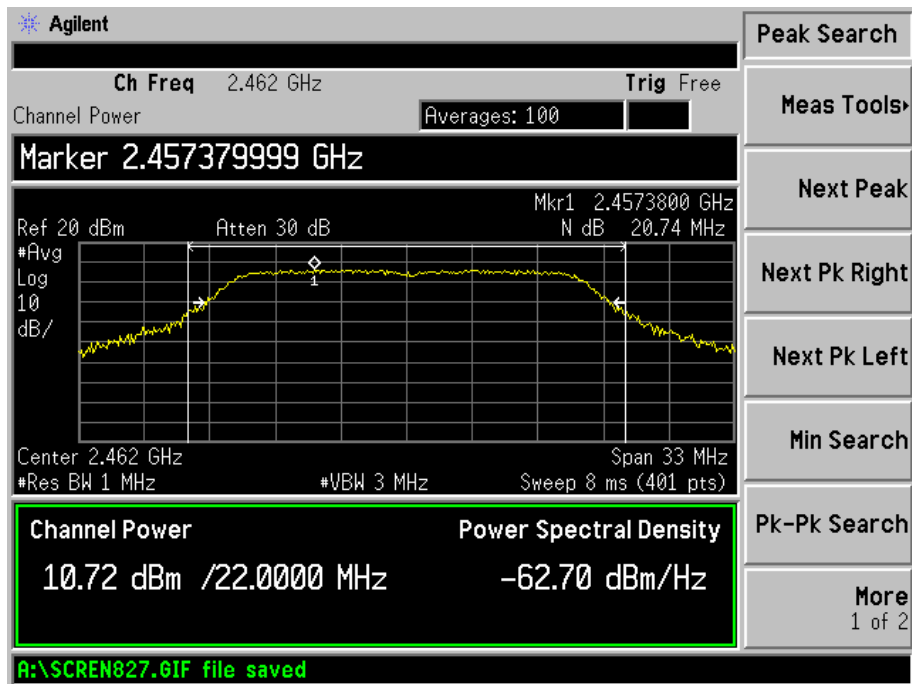
Low Channel:



Middle Channel:

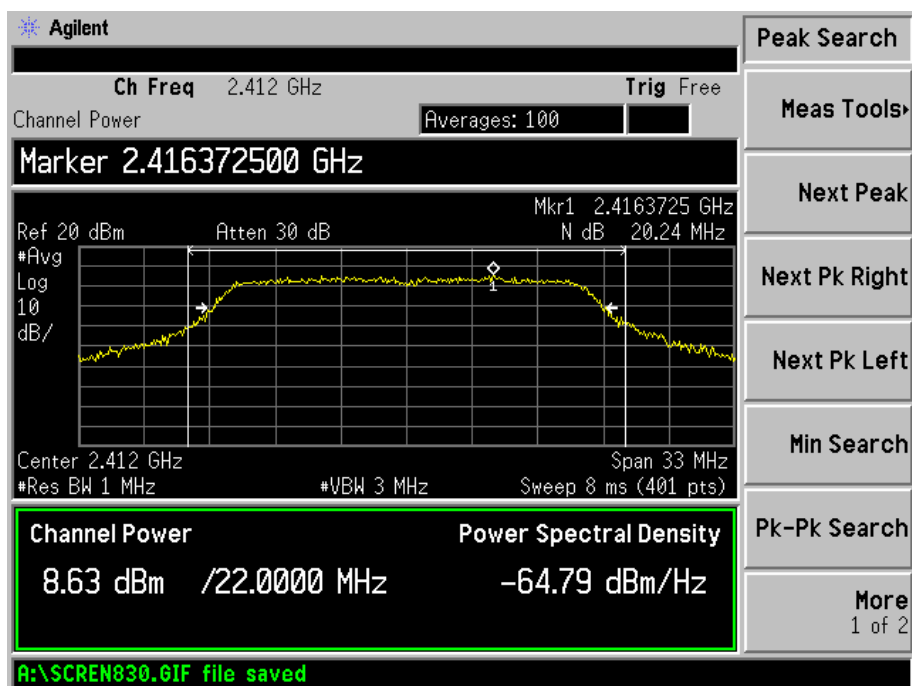


High Channel:

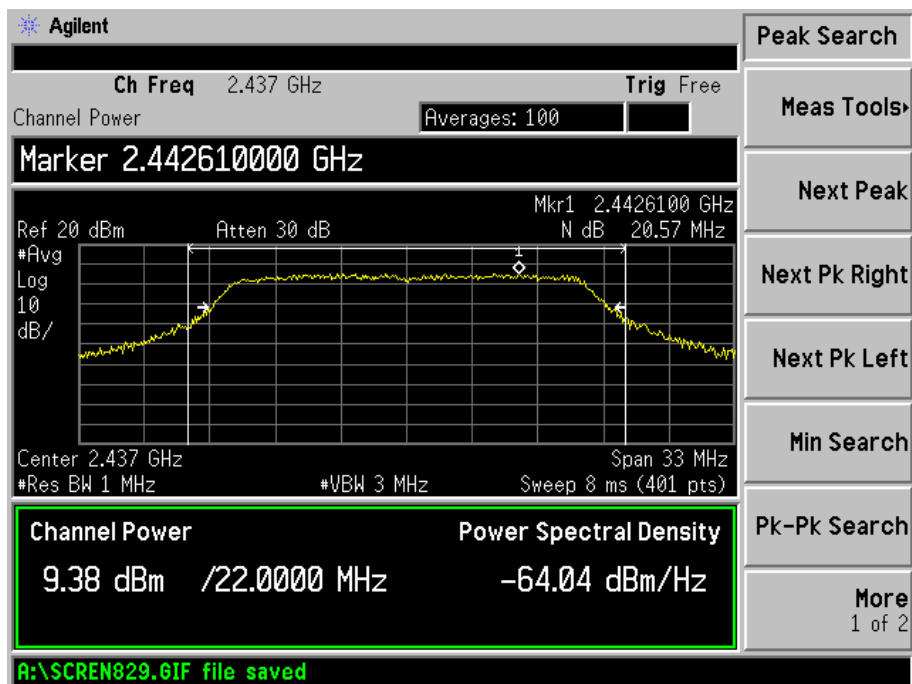


For 802.11n HT20_7M rate

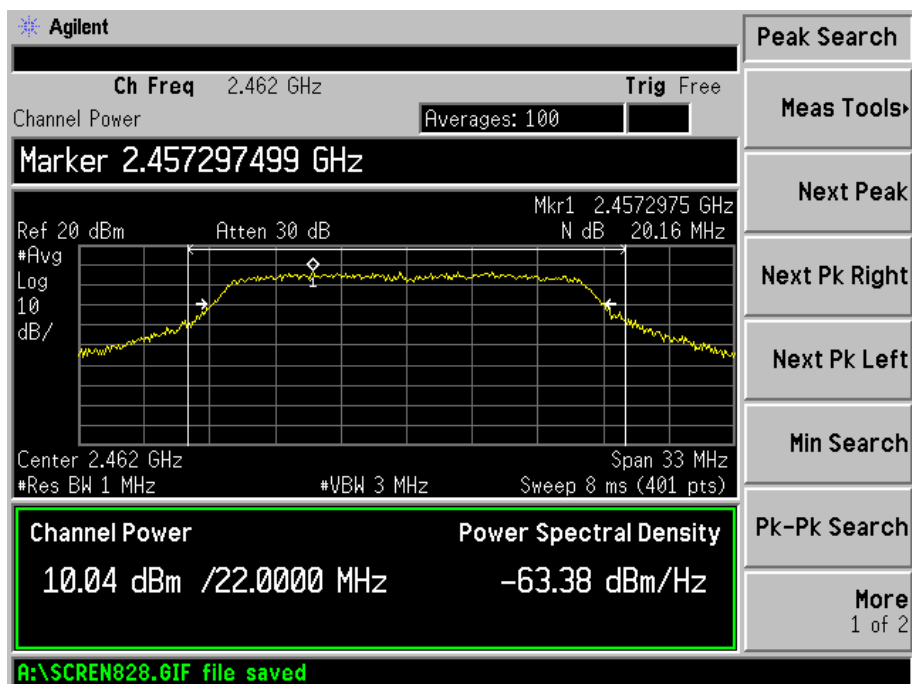
Low Channel:



Middle Channel:

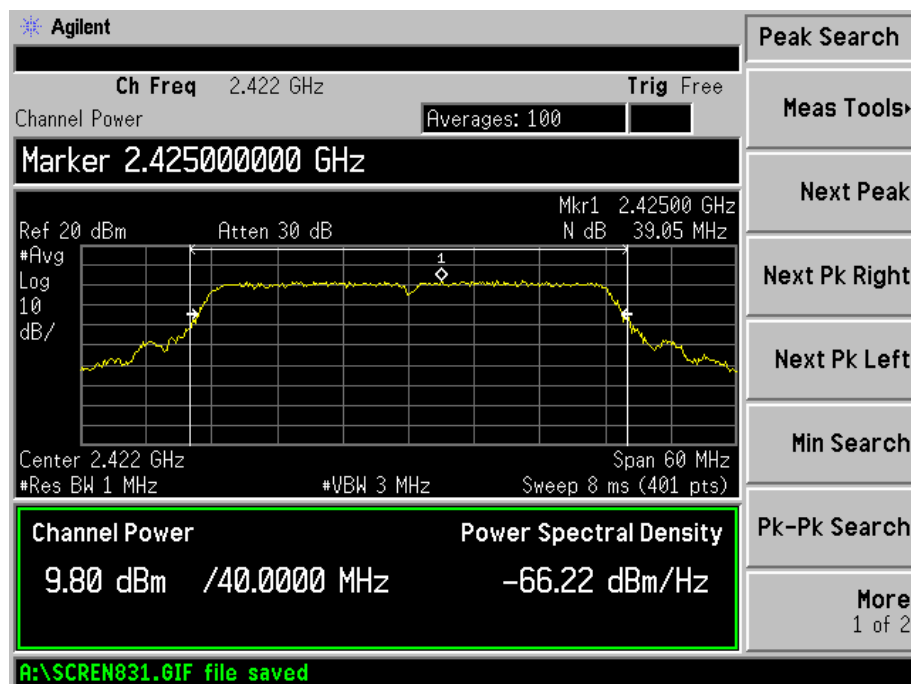


High Channel:

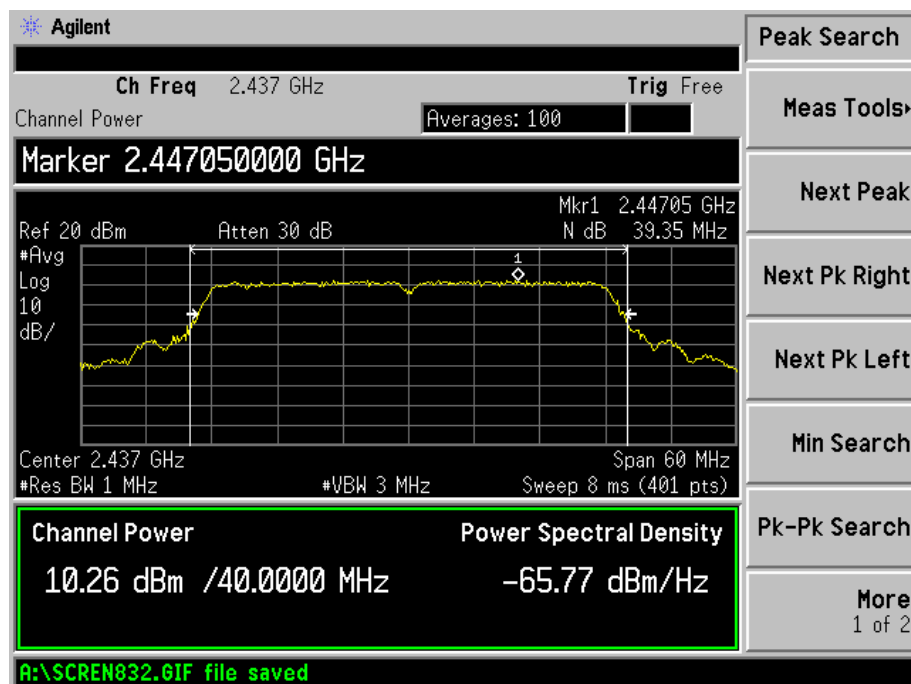


For 802.11n HT40_0M rate

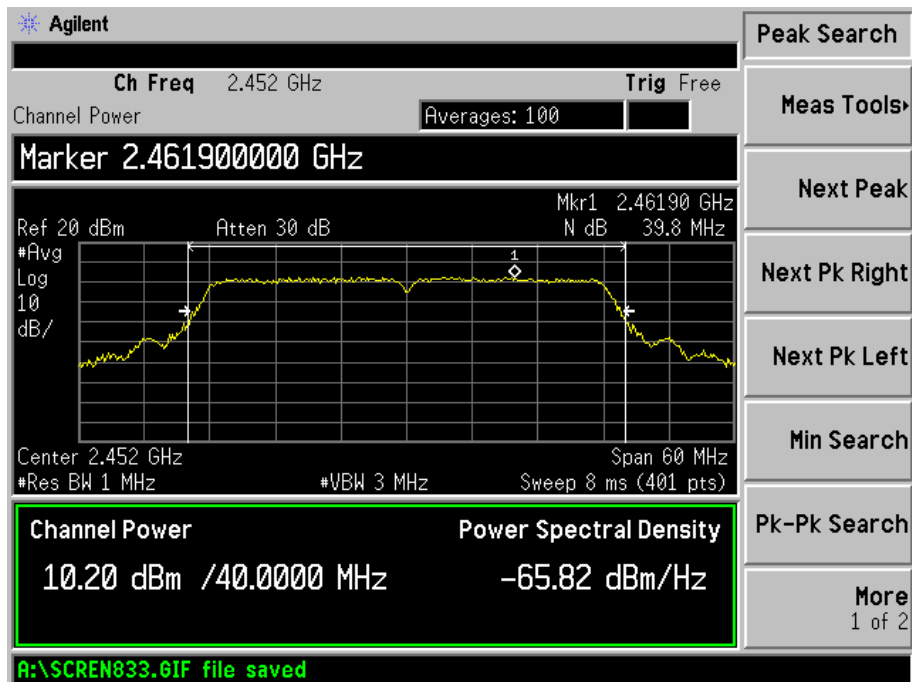
Low Channel:



Middle Channel:

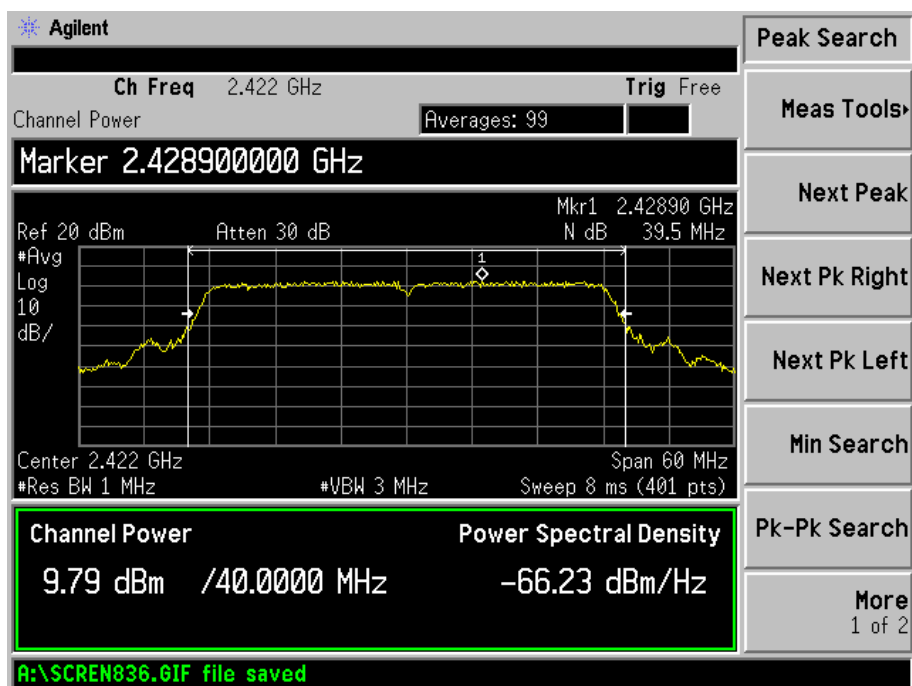


High Channel:

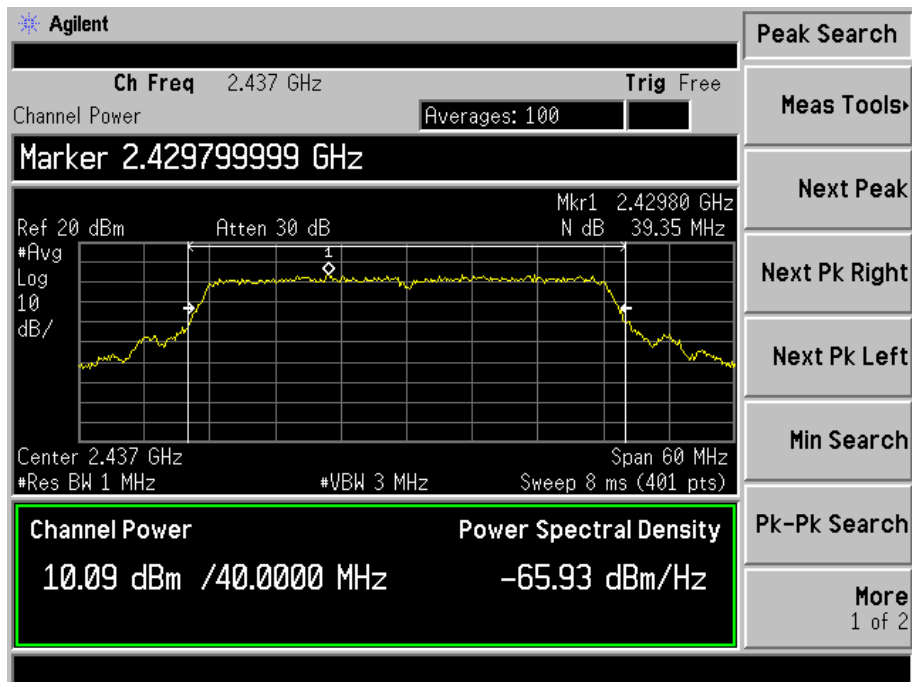


For 802.11n HT40_7M rate

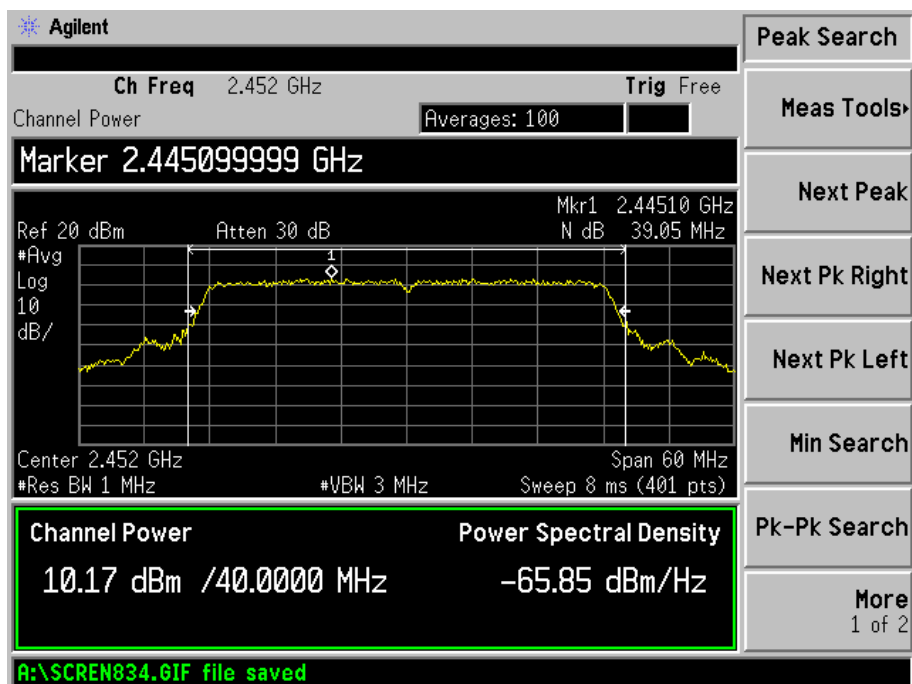
Low Channel:



Middle Channel:



High Channel:



7. FIELD STRENGTH OF SPURIOUS EMISSIONS

7.1 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 ± 5.10 dB.

7.2 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.

7.3 Test Equipment List and Details

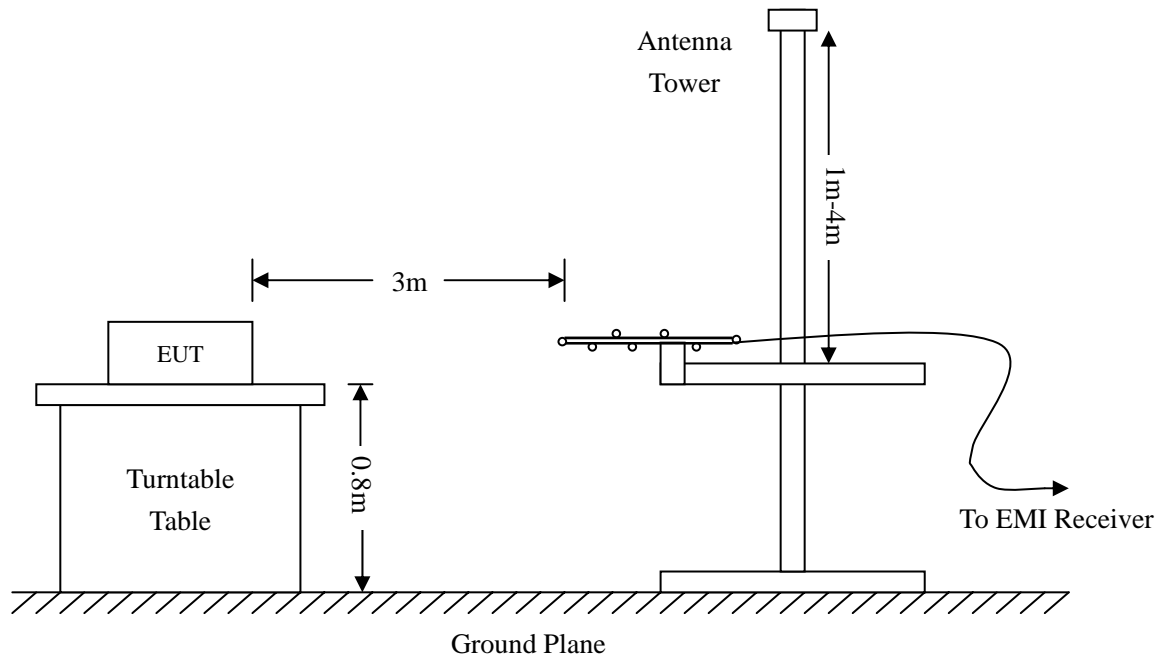
| Description | Manufacturer | Model | Serial Number | Cal. Date | Due. Date |
|--------------------------|----------------------|-----------|---------------|------------|------------|
| Spectrum Analyzer | R&S | FSP | 836079/035 | 2012-03-28 | 2013-03-27 |
| EMI Test Receiver | R&S | ESVB | 825471/005 | 2012-03-28 | 2013-03-27 |
| Pre-amplifier | Agilent | 8447F | 3113A06717 | 2012-03-28 | 2013-03-27 |
| Pre-amplifier | Compliance Direction | PAP-0118 | 24002 | 2012-03-28 | 2013-03-27 |
| Trilog Broadband Antenna | SCHWARZBECK | VULB9163 | 9163-333 | 2012-02-25 | 2013-02-24 |
| Horn Antenna | ETS | 3117 | 00086197 | 2012-02-25 | 2013-02-24 |
| Horn Antenna | ETS | 3116B | 00088203 | 2012-02-25 | 2013-02-24 |
| Loop Antenna | SCHWARZECK | HFRA 5165 | 9365 | 2012-02-25 | 2013-02-24 |

7.4 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.



7.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated 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 for Class B. The equation for margin calculation is as follows:

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

7.6 Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 22° C |
| Relative Humidity: | 52% |
| ATM Pressure: | 1012 mbar |

7.7 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 margin of:

-3.82dB μ V at 724.2611MHz in the Horizontal polarization, Transmitting 802.11B Middle Channel test mode with, 9 kHz to 25 GHz, 3Meters

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

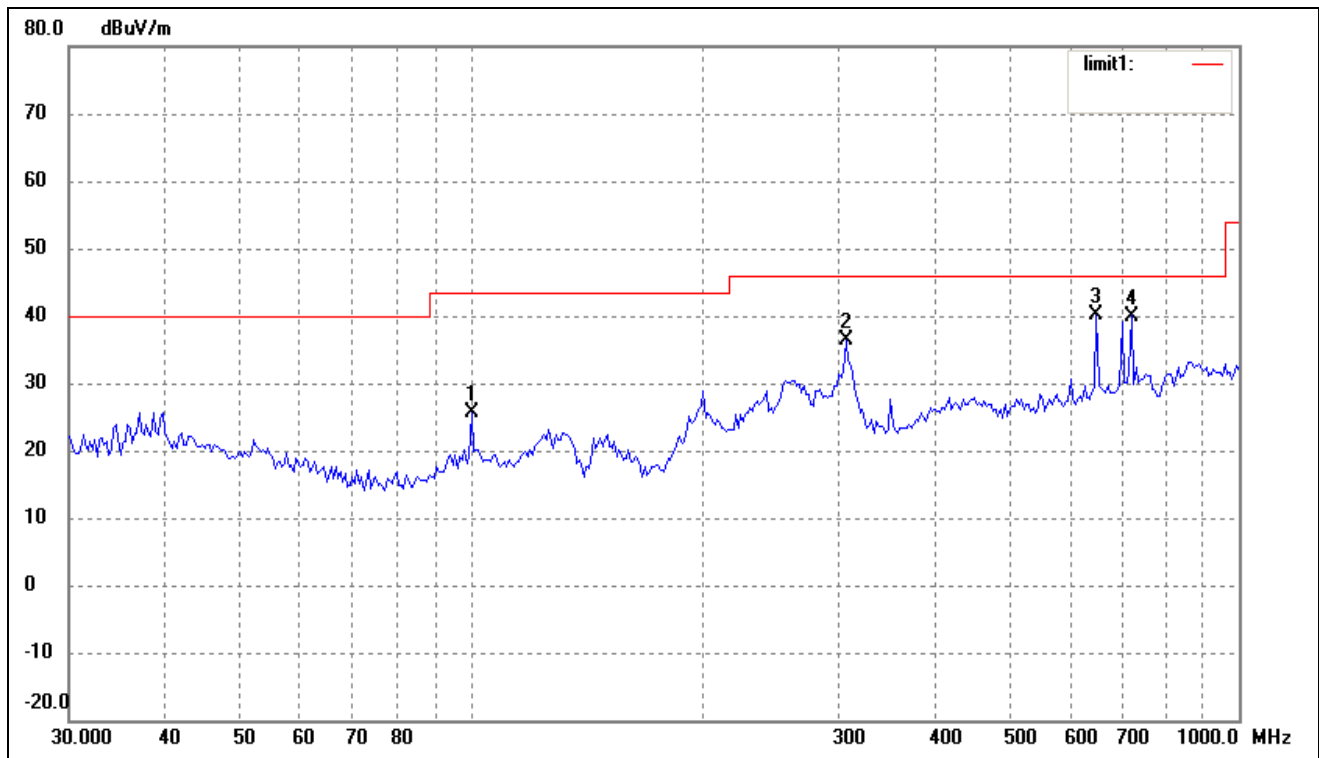
Test Result/Plots:

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11b) Low Channel

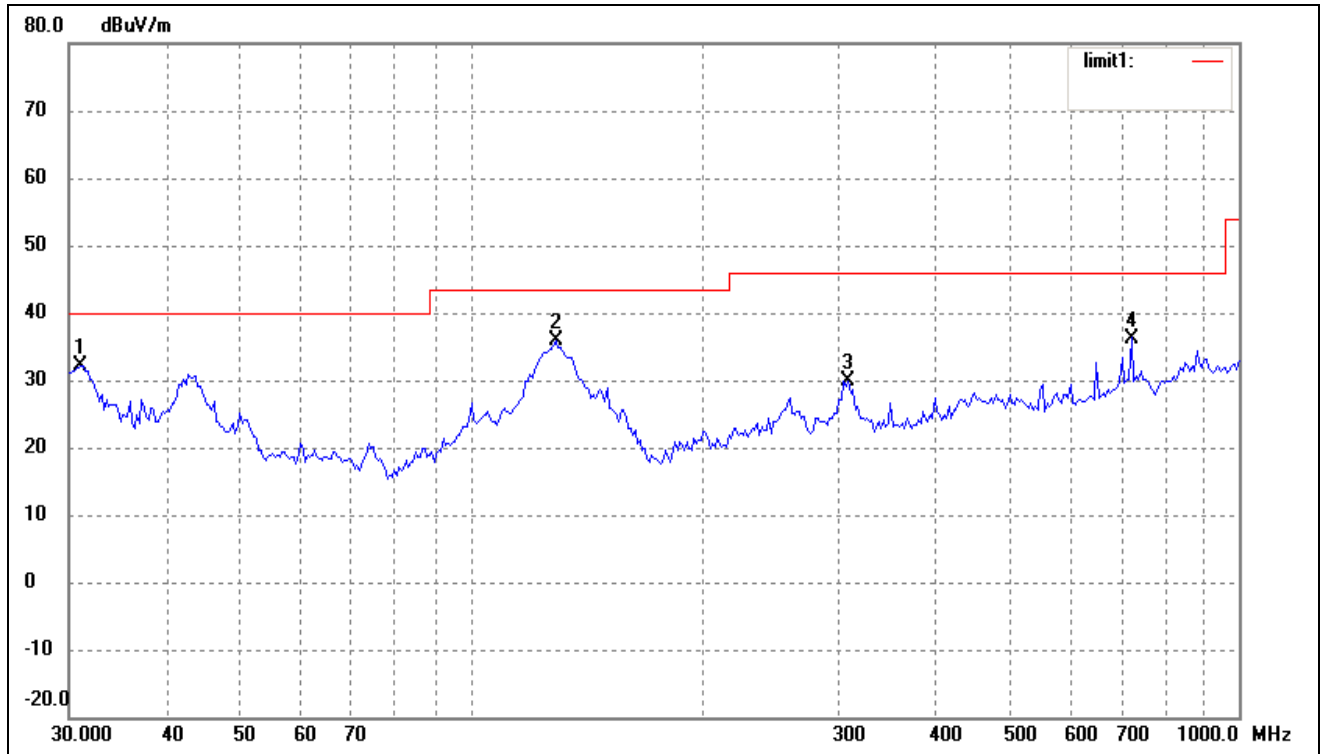
Comment:

Horizontal



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct dB/m | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|----------------|----------------|--------|
| 1 | 100.2286 | 19.61 | 6.12 | 25.73 | 43.50 | -17.77 | 360 | 100 | peak |
| 2 | 307.8313 | 27.07 | 9.20 | 36.27 | 46.00 | -9.73 | 360 | 100 | peak |
| 3 | 651.9417 | 27.92 | 12.25 | 40.17 | 46.00 | -5.83 | 360 | 100 | peak |
| 4 | 724.2611 | 25.44 | 14.56 | 40.00 | 46.00 | -6.00 | 360 | 100 | peak |

Vertical



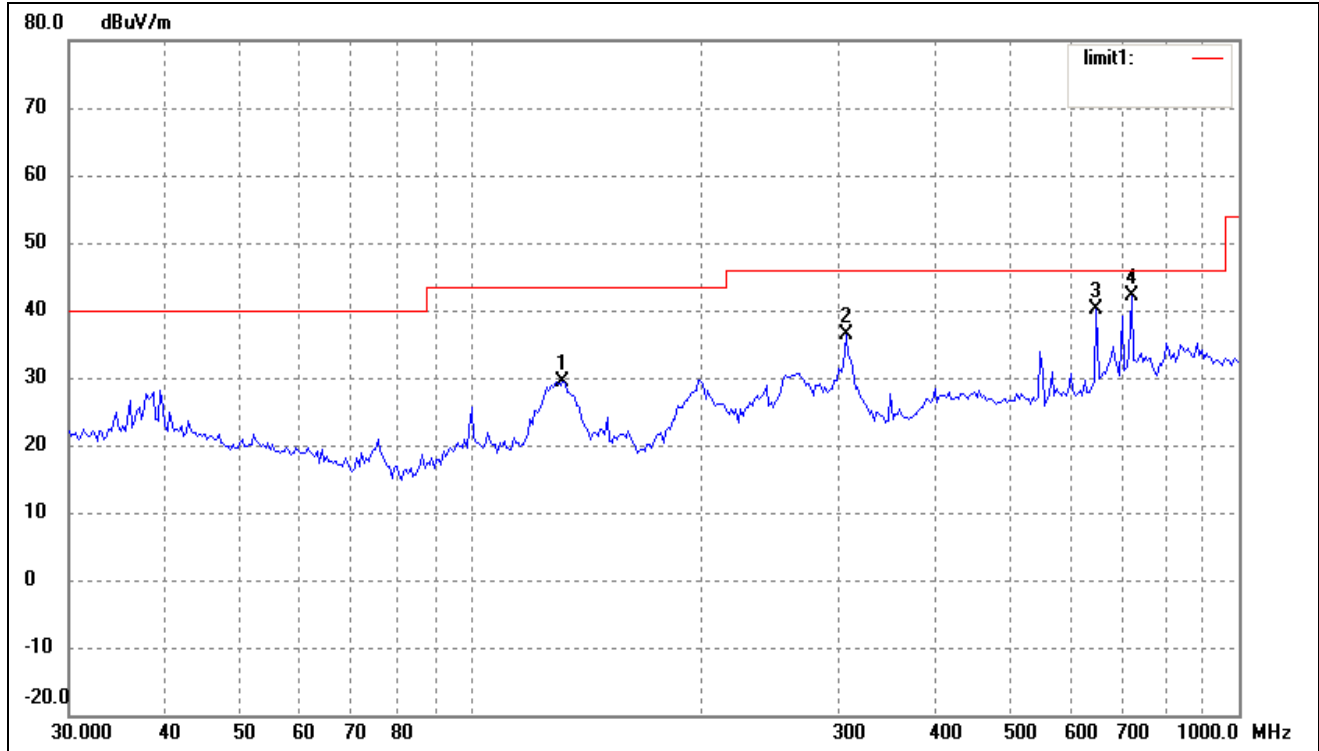
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Degree | Height | Remark |
|-----|-----------|----------|---------|----------|----------|--------|--------|--------|--------|
| | (MHz) | (dBuV/m) | dB/m | (dBuV/m) | (dBuV/m) | (dB) | (°) | (cm) | |
| 1 | 31.0706 | 24.76 | 7.45 | 32.21 | 40.00 | -7.79 | 360 | 100 | peak |
| 2 | 129.0146 | 32.43 | 3.34 | 35.77 | 43.50 | -7.73 | 360 | 100 | peak |
| 3 | 309.9977 | 20.56 | 9.21 | 29.77 | 46.00 | -16.23 | 360 | 100 | peak |
| 4 | 724.2611 | 21.69 | 14.56 | 36.25 | 46.00 | -9.75 | 360 | 100 | peak |

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11b) Middle Channel

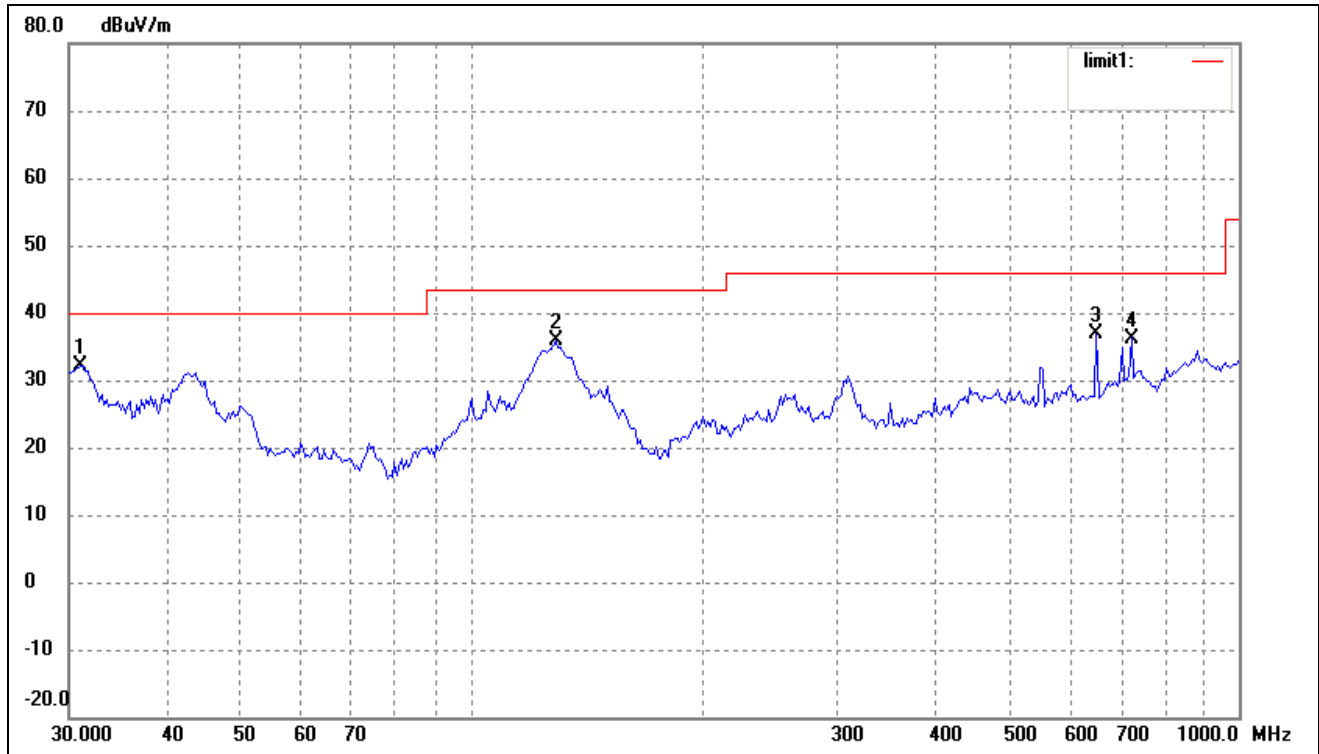
Comment:

Horizontal



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct dB/m | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|----------------|----------------|--------|
| 1 | 131.7577 | 26.37 | 3.13 | 29.50 | 43.50 | -14.00 | 360 | 100 | peak |
| 2 | 307.8313 | 27.07 | 9.20 | 36.27 | 46.00 | -9.73 | 360 | 100 | peak |
| 3 | 651.9417 | 27.92 | 12.25 | 40.17 | 46.00 | -5.83 | 360 | 100 | peak |
| 4 | 724.2611 | 27.62 | 14.56 | 42.18 | 46.00 | -3.82 | 360 | 100 | peak |

Vertical



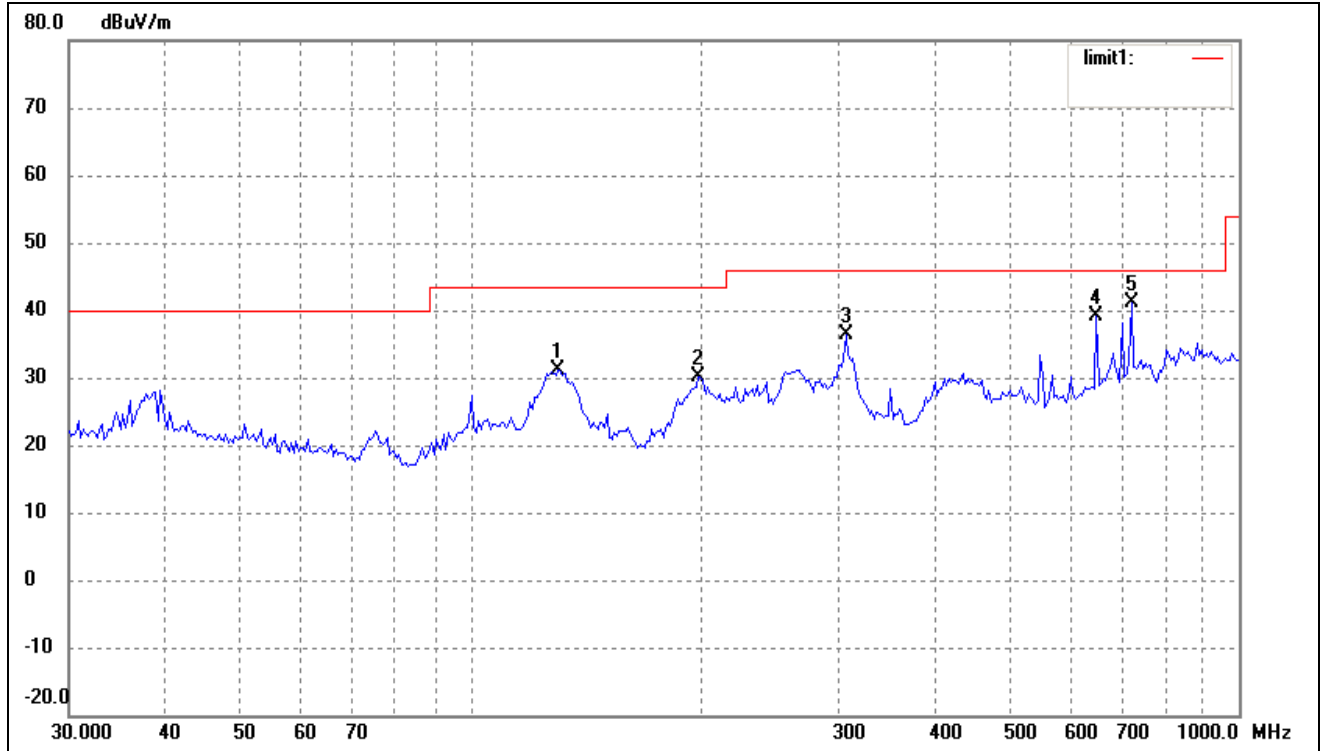
| No. | Frequency (MHz) | Reading (dBuV/m) | Correct dB/m | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|----------------|----------------|--------|
| 1 | 31.0706 | 24.76 | 7.45 | 32.21 | 40.00 | -7.79 | 360 | 100 | peak |
| 2 | 129.0146 | 32.43 | 3.34 | 35.77 | 43.50 | -7.73 | 360 | 100 | peak |
| 3 | 651.9417 | 24.72 | 12.25 | 36.97 | 46.00 | -9.03 | 360 | 100 | peak |
| 4 | 724.2611 | 21.69 | 14.56 | 36.25 | 46.00 | -9.75 | 360 | 100 | peak |

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11b) High Channel

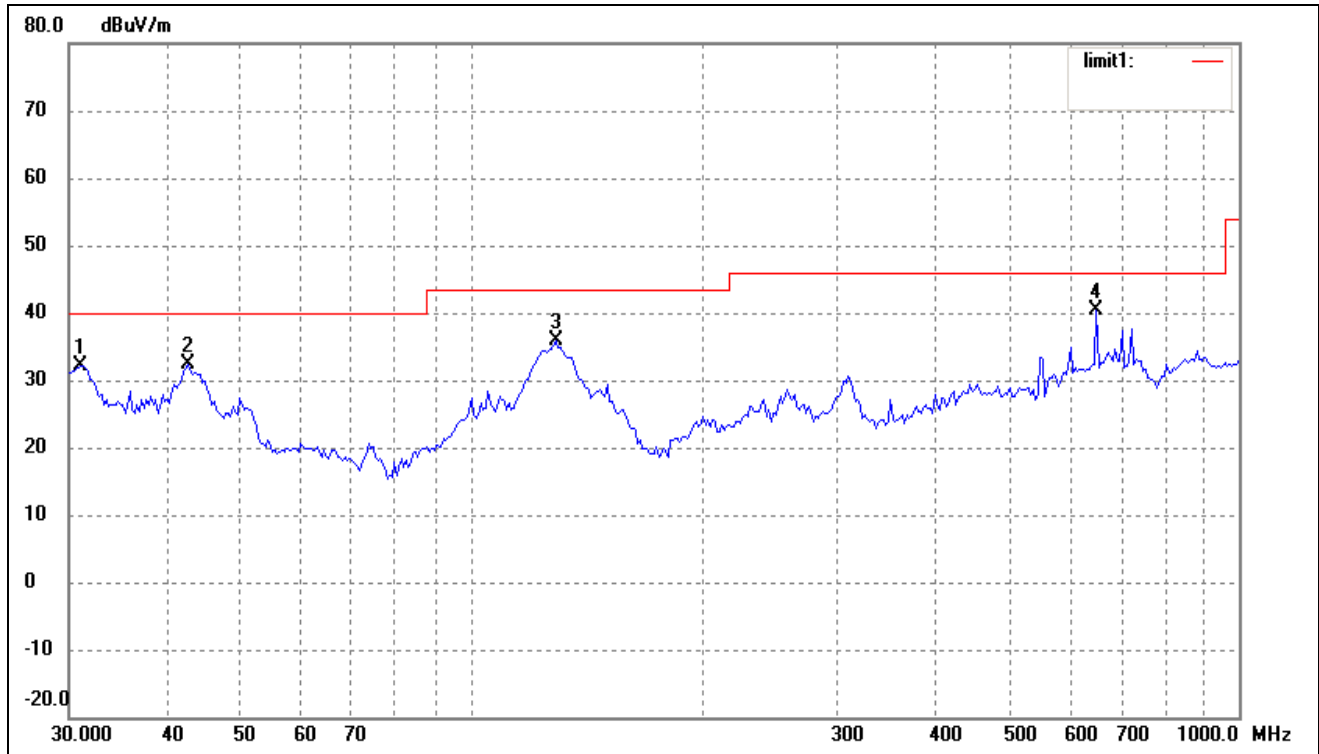
Comment:

Horizontal



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct dB/m | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|----------------|----------------|--------|
| 1 | 129.9226 | 27.84 | 3.27 | 31.11 | 43.50 | -12.39 | 360 | 100 | peak |
| 2 | 197.8928 | 26.54 | 3.59 | 30.13 | 43.50 | -13.37 | 360 | 100 | peak |
| 3 | 307.8313 | 27.07 | 9.20 | 36.27 | 46.00 | -9.73 | 360 | 100 | peak |
| 4 | 651.9417 | 26.92 | 12.25 | 39.17 | 46.00 | -6.83 | 360 | 100 | peak |
| 5 | 724.2611 | 26.62 | 14.56 | 41.18 | 46.00 | -4.82 | 360 | 100 | peak |

Vertical



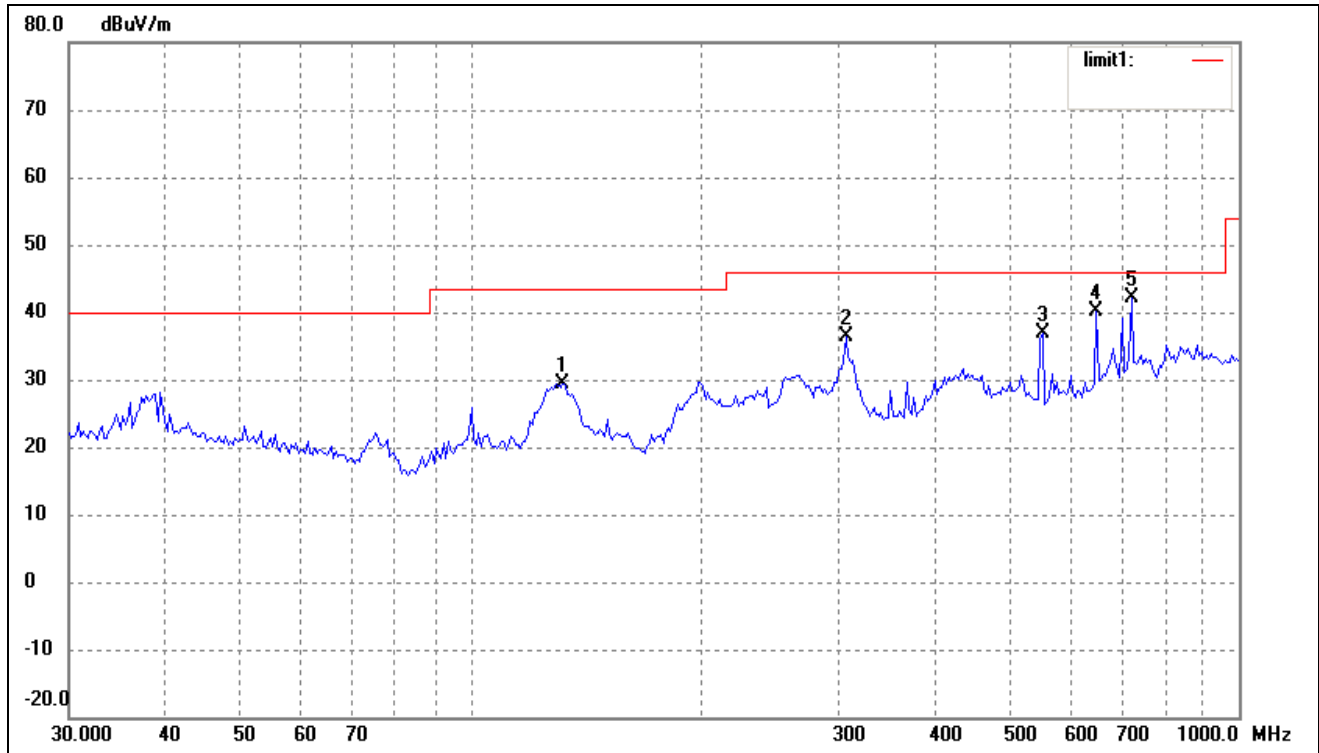
| No. | Frequency (MHz) | Reading (dBuV/m) | Correct dB/m | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|----------------|----------------|--------|
| 1 | 31.0706 | 24.76 | 7.45 | 32.21 | 40.00 | -7.79 | 360 | 100 | peak |
| 2 | 42.8998 | 24.36 | 8.01 | 32.37 | 40.00 | -7.63 | 360 | 100 | peak |
| 3 | 129.0146 | 32.43 | 3.34 | 35.77 | 43.50 | -7.73 | 360 | 100 | peak |
| 4 | 651.9417 | 28.22 | 12.25 | 40.47 | 46.00 | -5.53 | 360 | 100 | peak |

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11g) Low Channel

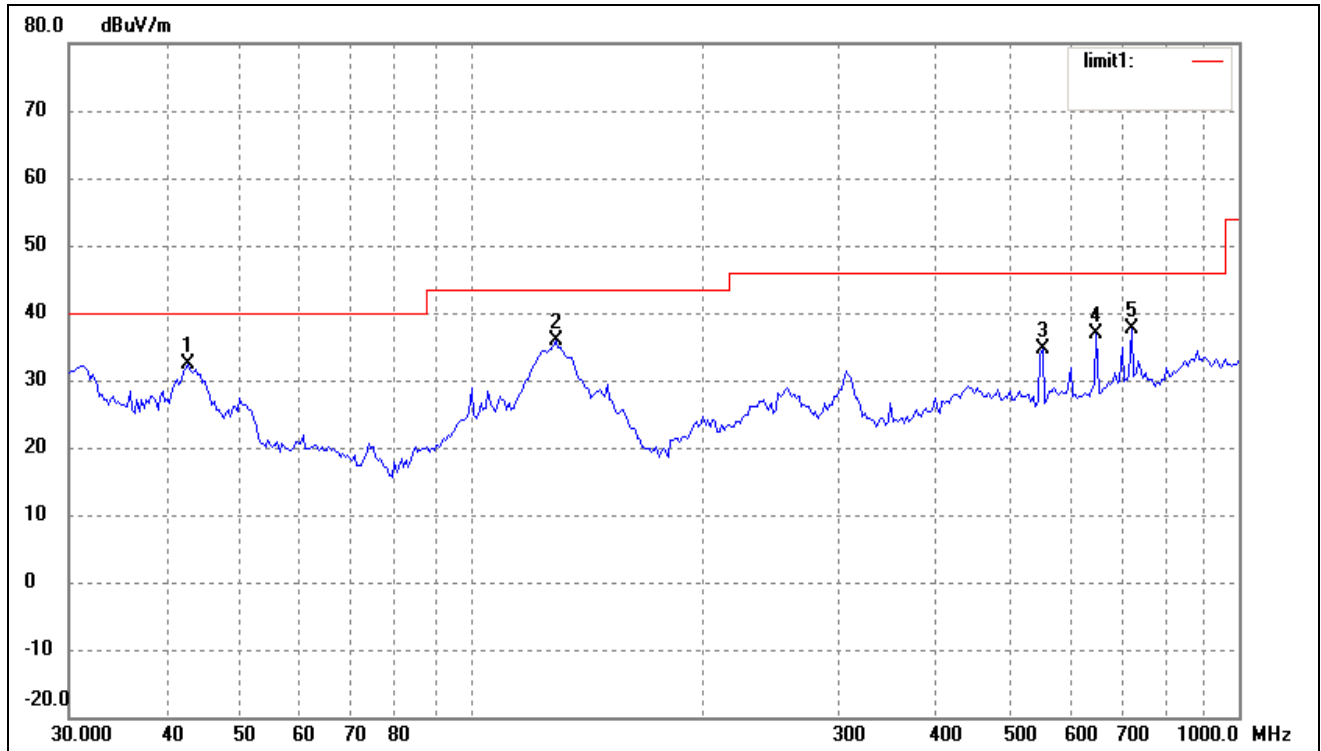
Comment:

Horizontal



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 131.7577 | 26.37 | 3.13 | 29.50 | 43.50 | -14.00 | 360 | 100 | peak |
| 2 | 307.8313 | 27.07 | 9.20 | 36.27 | 46.00 | -9.73 | 110 | 124 | QP |
| 3 | 554.8254 | 25.34 | 11.42 | 36.76 | 46.00 | -9.24 | 208 | 104 | QP |
| 4 | 651.9417 | 27.92 | 12.25 | 40.17 | 46.00 | -5.83 | 359 | 100 | peak |
| 5 | 724.2611 | 27.62 | 14.56 | 42.18 | 46.00 | -3.82 | 359 | 100 | peak |

Vertical



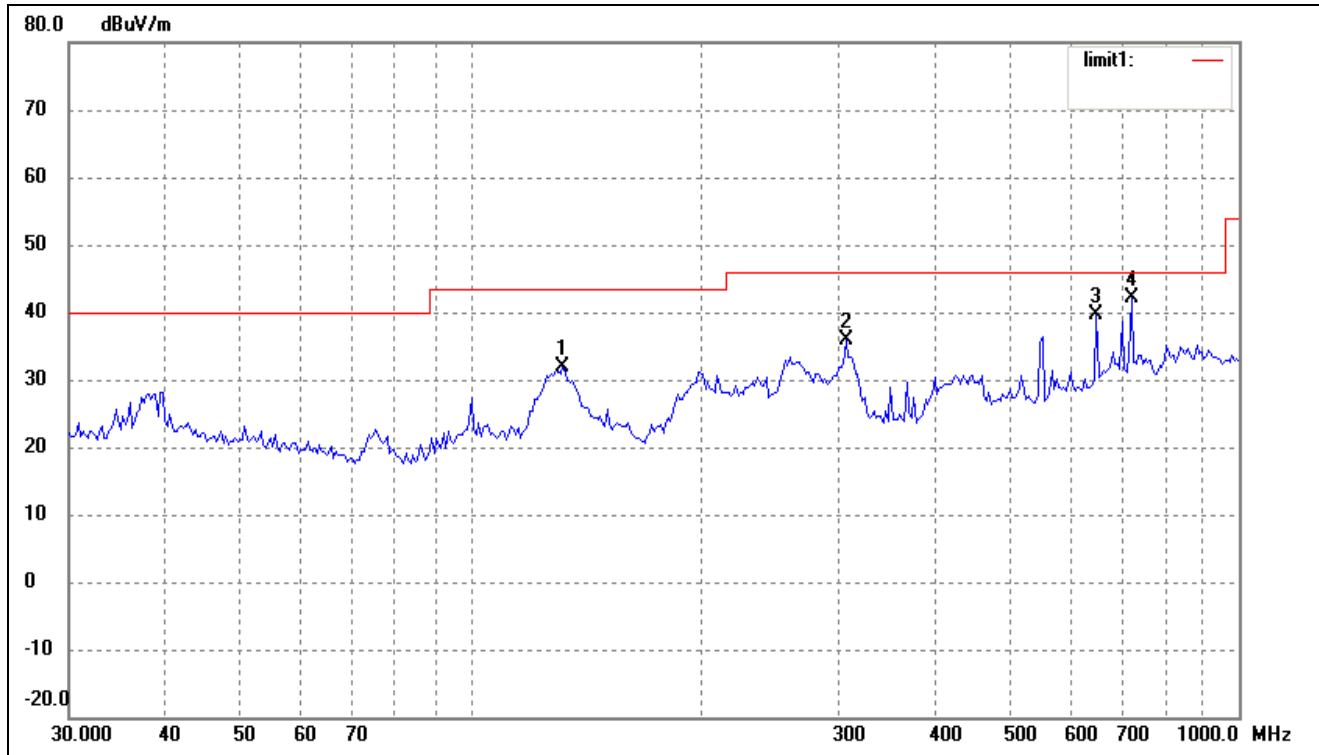
| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 42.8998 | 24.36 | 8.01 | 32.37 | 40.00 | -7.63 | 201 | 204 | QP |
| 2 | 129.0146 | 32.43 | 3.34 | 35.77 | 43.50 | -7.73 | 360 | 100 | peak |
| 3 | 554.8254 | 23.24 | 11.42 | 34.66 | 46.00 | -11.34 | 118 | 100 | QP |
| 4 | 651.9417 | 24.72 | 12.25 | 36.97 | 46.00 | -9.03 | 359 | 100 | peak |
| 5 | 724.2611 | 23.05 | 14.56 | 37.61 | 46.00 | -8.39 | 359 | 100 | peak |

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11g) Middle Channel

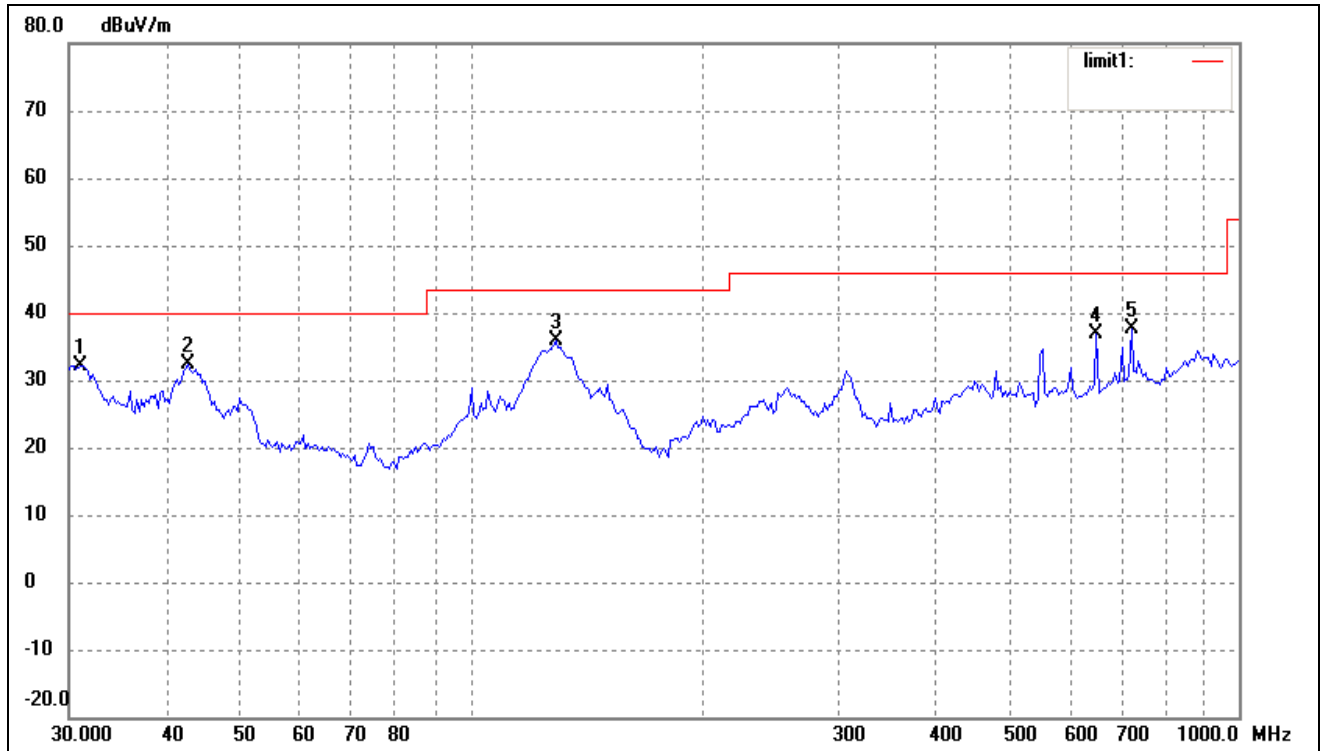
Comment:

Horizontal



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 131.7577 | 28.87 | 3.13 | 32.00 | 43.50 | -11.50 | 360 | 100 | peak |
| 2 | 307.8313 | 26.57 | 9.20 | 35.77 | 46.00 | -10.23 | 0 | 100 | peak |
| 3 | 651.9417 | 27.42 | 12.25 | 39.67 | 46.00 | -6.33 | 203 | 105 | QP |
| 4 | 724.2611 | 27.62 | 14.56 | 42.18 | 46.00 | -3.82 | 221 | 114 | QP |

Vertical



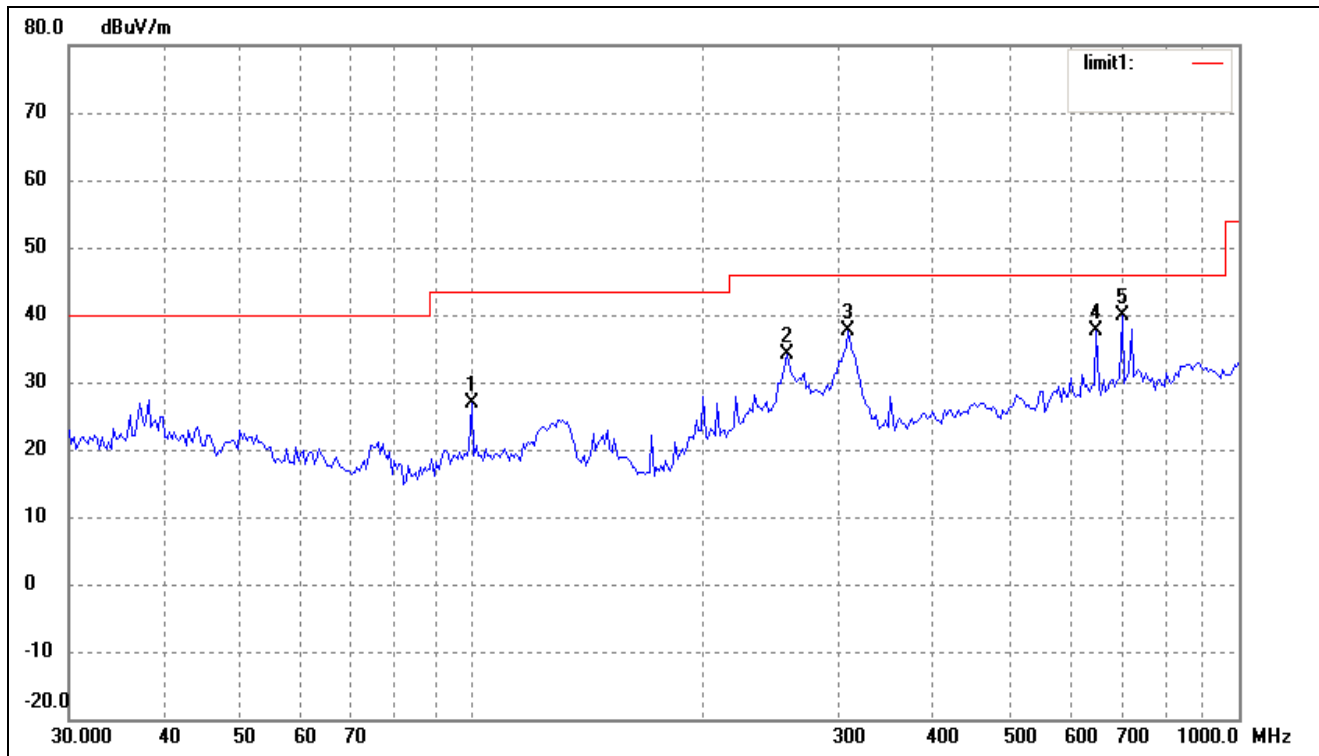
| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 31.0706 | 24.76 | 7.45 | 32.21 | 40.00 | -7.79 | 204 | 164 | QP |
| 2 | 42.8998 | 24.36 | 8.01 | 32.37 | 40.00 | -7.63 | 360 | 200 | peak |
| 3 | 129.0146 | 32.43 | 3.34 | 35.77 | 43.50 | -7.73 | 221 | 107 | QP |
| 4 | 651.9417 | 24.72 | 12.25 | 36.97 | 46.00 | -9.03 | 360 | 200 | peak |
| 5 | 724.2611 | 23.05 | 14.56 | 37.61 | 46.00 | -8.39 | 360 | 200 | peak |

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11g) High Channel

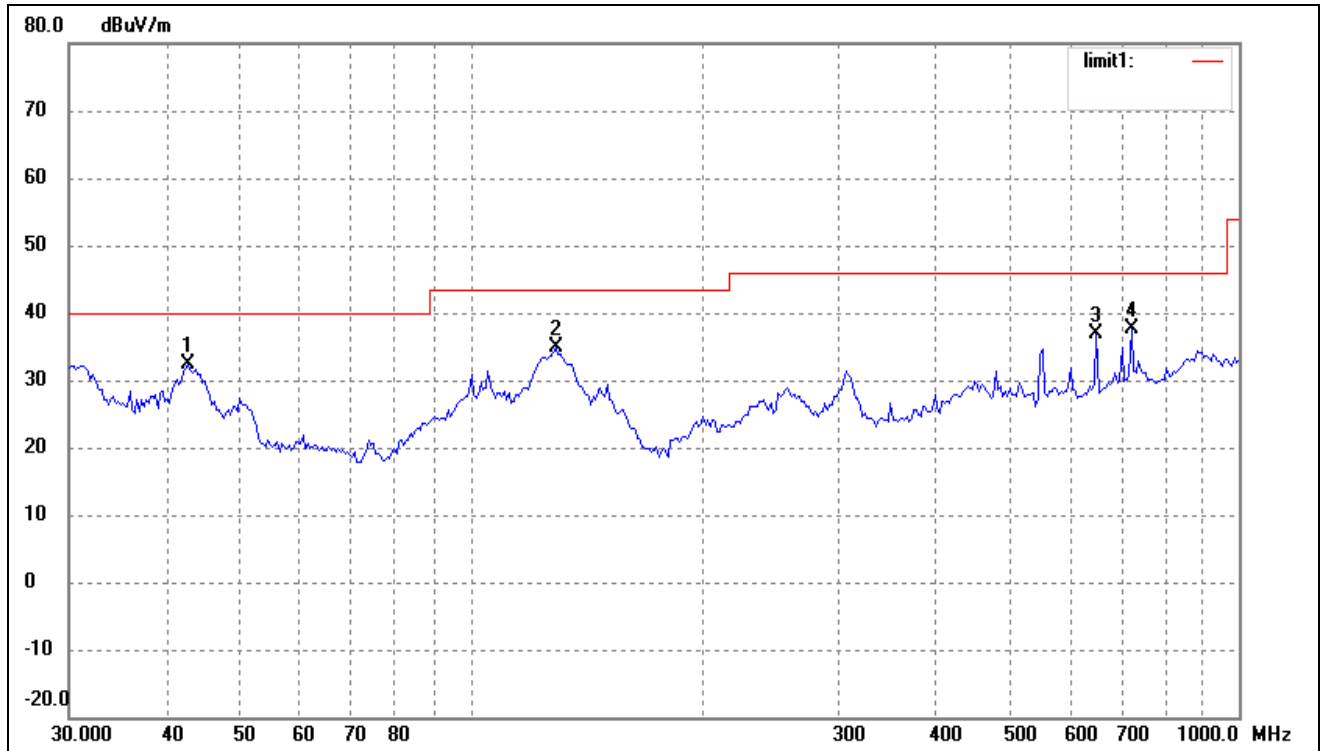
Comment:

Horizontal

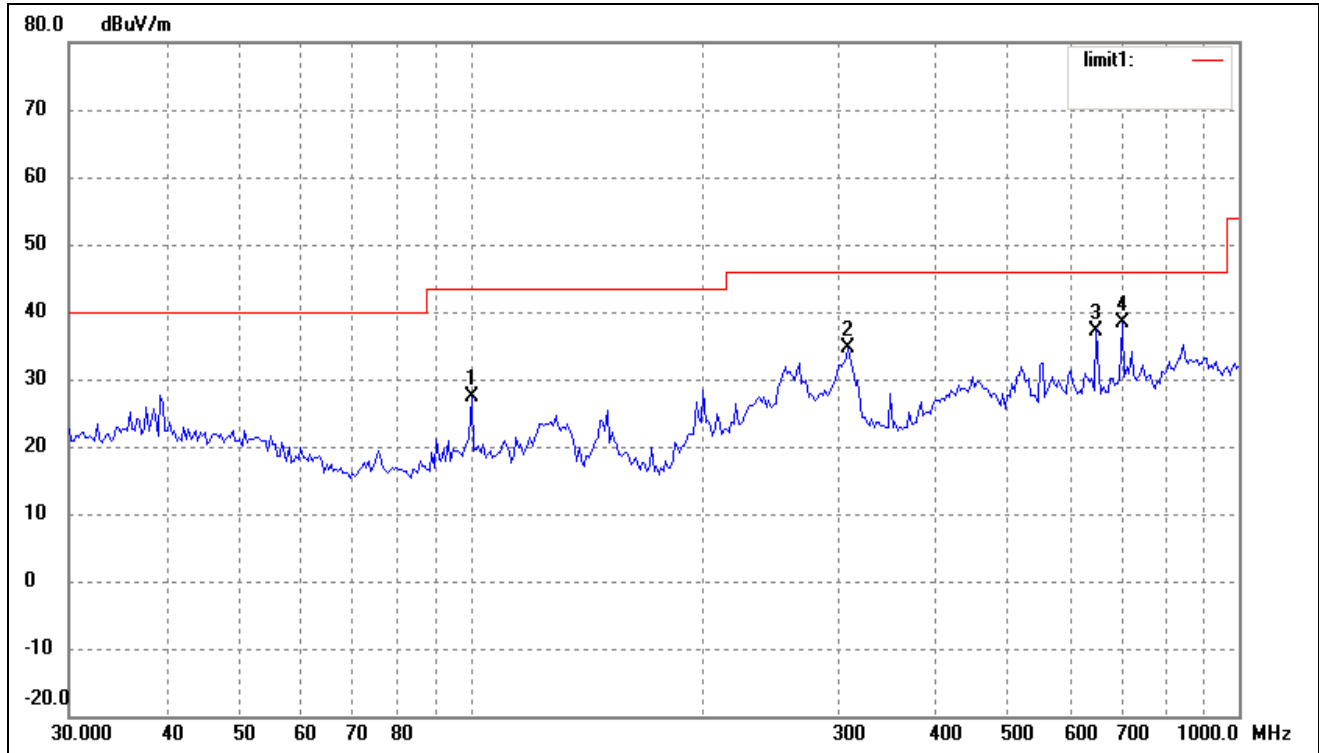


| No. | Frequency | Reading | Correct | Result | Limit | Margin | Degree | Height | Remark |
|-----|-----------|----------|------------|----------|----------|--------|--------|--------|--------|
| | (MHz) | (dBuV/m) | Factor(dB) | (dBuV/m) | (dBuV/m) | (dB) | (°) | (cm) | |
| 1 | 100.2286 | 20.84 | 6.12 | 26.96 | 43.50 | -16.54 | 216 | 206 | QP |
| 2 | 258.3264 | 27.13 | 6.90 | 34.03 | 46.00 | -11.97 | 360 | 100 | peak |
| 3 | 309.9977 | 28.36 | 9.21 | 37.57 | 46.00 | -8.43 | 208 | 106 | QP |
| 4 | 651.9417 | 25.31 | 12.25 | 37.56 | 46.00 | -8.44 | 127 | 119 | QP |
| 5 | 704.2261 | 25.95 | 13.82 | 39.77 | 46.00 | -6.23 | 359 | 100 | peak |

Vertical

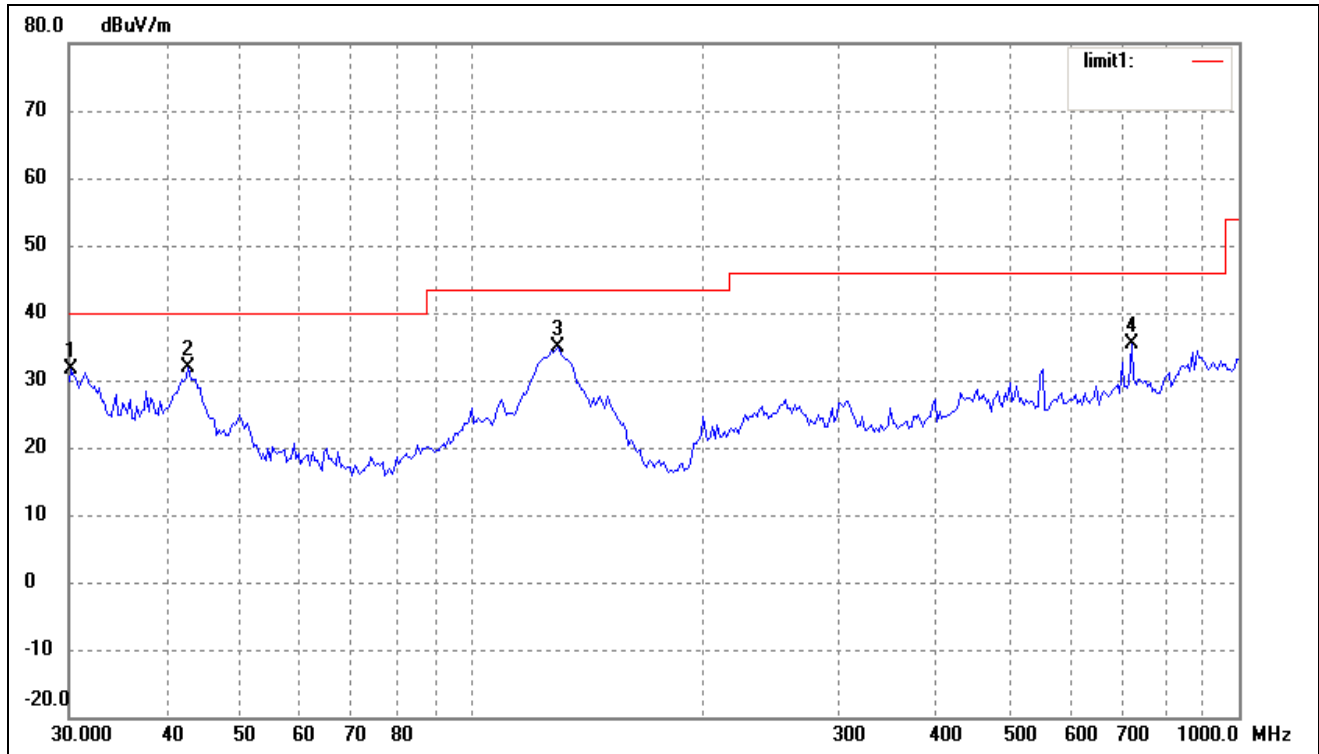


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 42.8998 | 24.36 | 8.01 | 32.37 | 40.00 | -7.63 | 204 | 124 | QP |
| 2 | 129.0146 | 31.43 | 3.34 | 34.77 | 43.50 | -8.73 | 360 | 100 | peak |
| 3 | 651.9417 | 24.72 | 12.25 | 36.97 | 46.00 | -9.03 | 225 | 106 | QP |
| 4 | 724.2611 | 23.05 | 14.56 | 37.61 | 46.00 | -8.39 | 359 | 100 | peak |

*Test Result/Plots:**Spurious Emission From 30 MHz to 1 GHz**Test mode: Transmitting (802.11n-HT20) Low Channel**Comment:**Horizontal*

| No. | Frequency (MHz) | Reading (dBuV/m) | Correct dB/m | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|----------------|----------------|--------|
| 1 | 100.2286 | 21.33 | 6.12 | 27.45 | 43.50 | -16.05 | 360 | 100 | peak |
| 2 | 309.9977 | 25.34 | 9.21 | 34.55 | 46.00 | -11.45 | 360 | 100 | peak |
| 3 | 651.9417 | 25.00 | 12.25 | 37.25 | 46.00 | -8.75 | 360 | 100 | peak |
| 4 | 704.2261 | 24.48 | 13.82 | 38.30 | 46.00 | -7.70 | 360 | 100 | peak |

Vertical



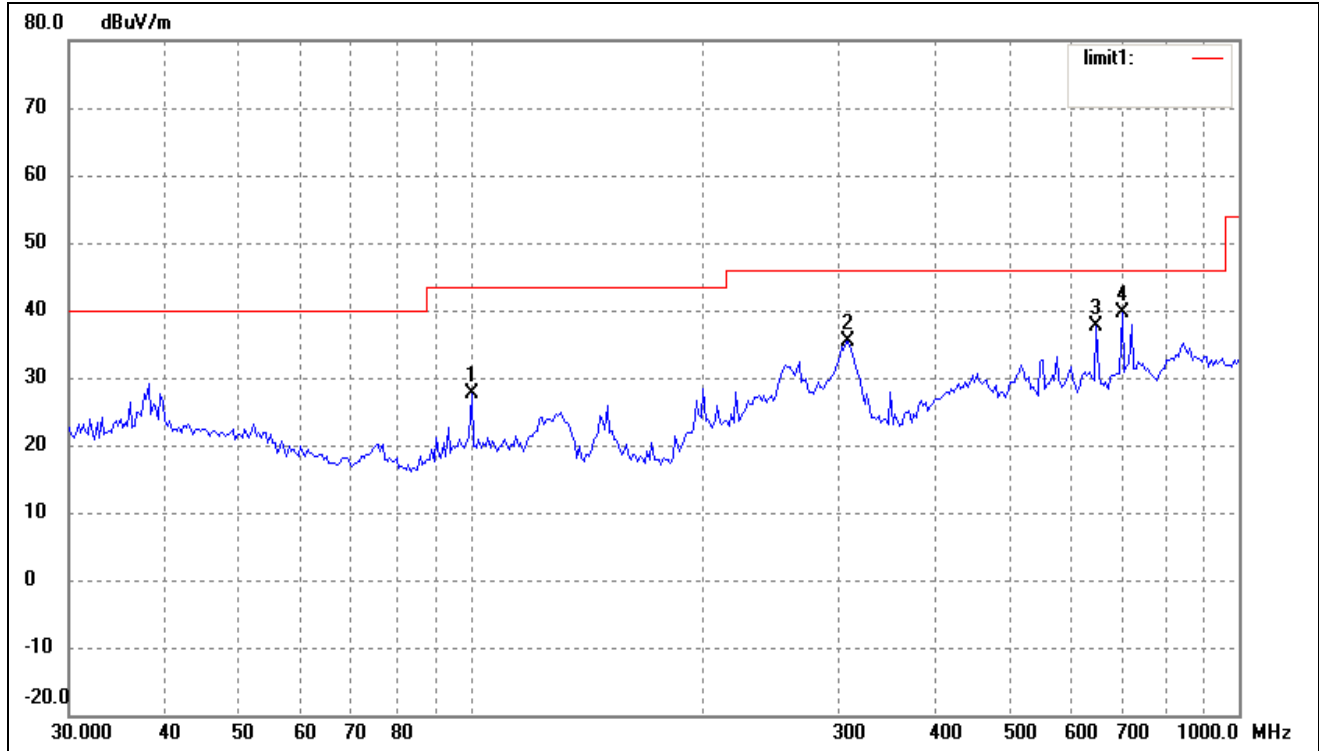
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Degree | Height | Remark |
|-----|-----------|----------|---------|----------|----------|--------|--------|--------|--------|
| | (MHz) | (dBuV/m) | dB/m | (dBuV/m) | (dBuV/m) | (dB) | (°) | (cm) | |
| 1 | 30.2111 | 24.34 | 7.31 | 31.65 | 40.00 | -8.35 | 360 | 100 | peak |
| 2 | 42.8998 | 23.98 | 8.01 | 31.99 | 40.00 | -8.01 | 360 | 100 | peak |
| 3 | 129.9226 | 31.58 | 3.27 | 34.85 | 43.50 | -8.65 | 360 | 100 | peak |
| 4 | 724.2611 | 20.80 | 14.56 | 35.36 | 46.00 | -10.64 | 360 | 100 | peak |

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11n-HT20) Middle Channel

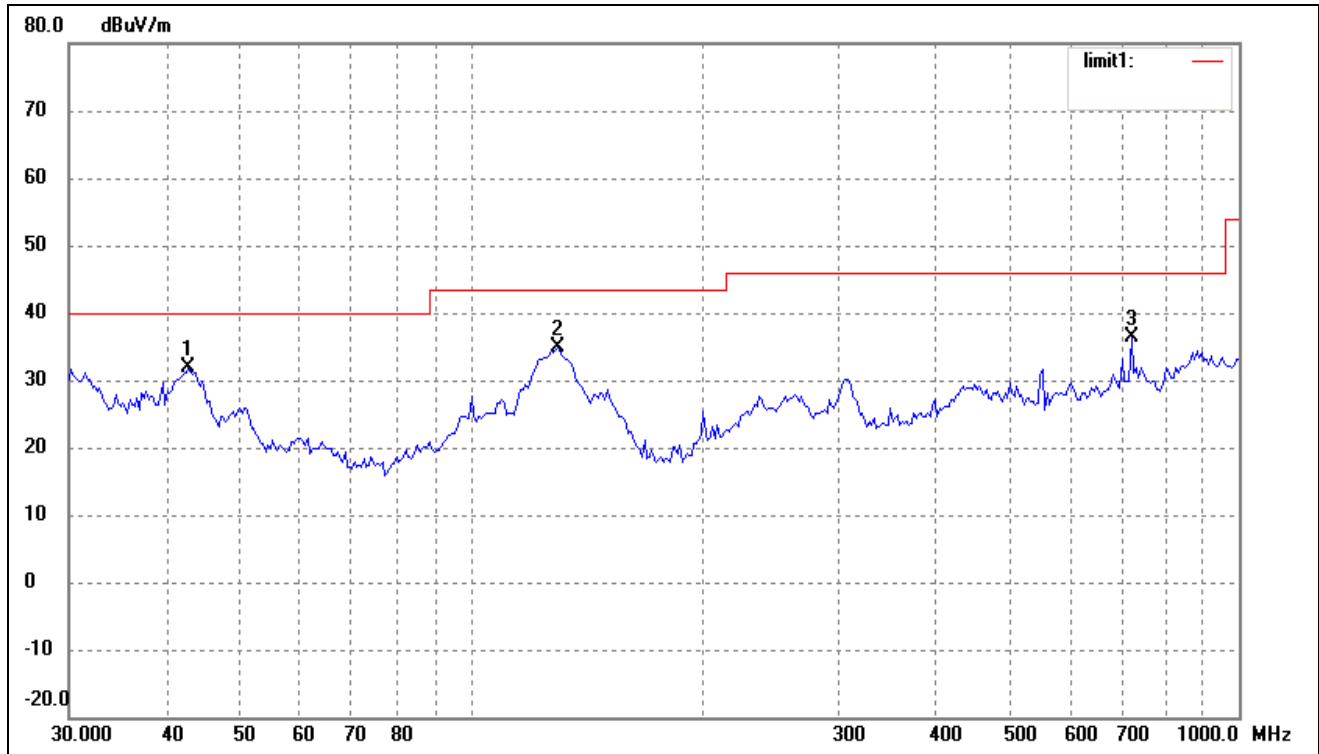
Comment:

Horizontal



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct dB/m | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|----------------|----------------|--------|
| 1 | 100.2286 | 21.57 | 6.12 | 27.69 | 43.50 | -15.81 | 360 | 100 | peak |
| 2 | 309.9977 | 26.26 | 9.21 | 35.47 | 46.00 | -10.53 | 360 | 100 | peak |
| 3 | 651.9417 | 25.44 | 12.25 | 37.69 | 46.00 | -8.31 | 360 | 100 | peak |
| 4 | 704.2261 | 25.79 | 13.82 | 39.61 | 46.00 | -6.39 | 360 | 100 | peak |

Vertical



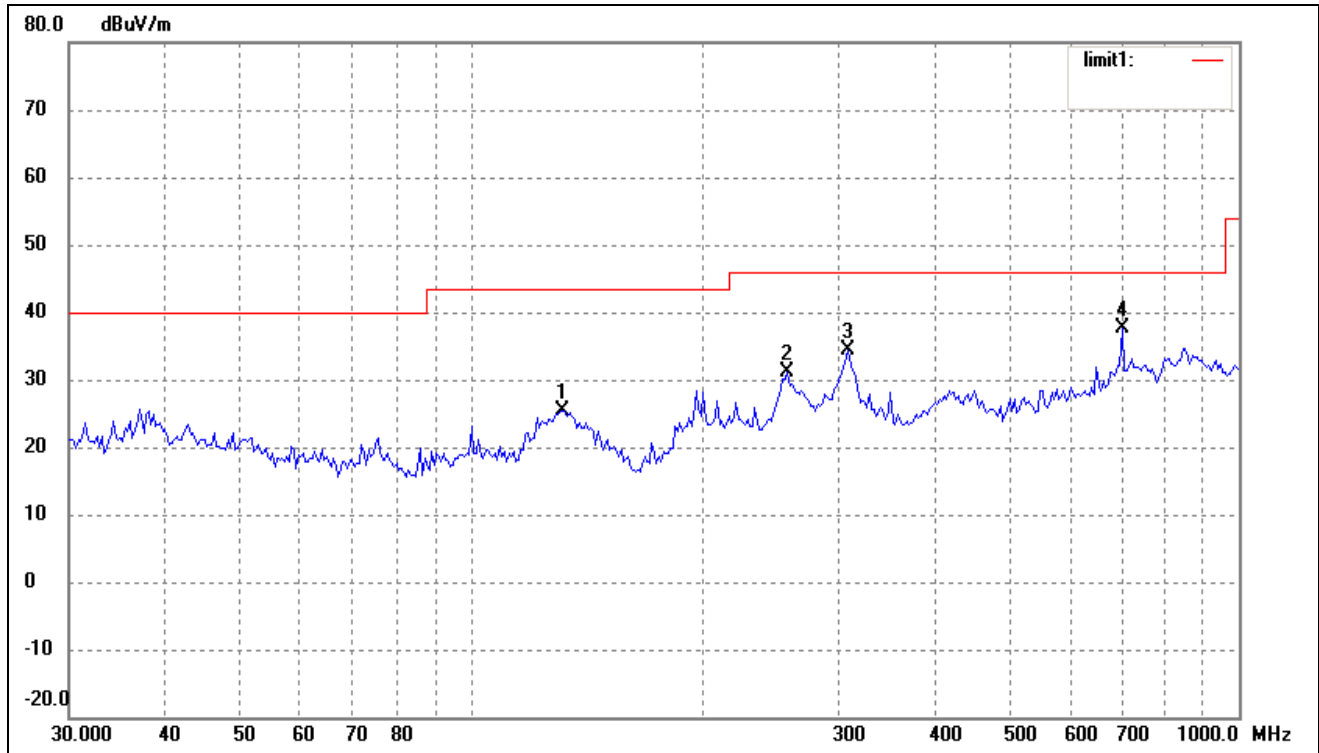
| No. | Frequency (MHz) | Reading (dBuV/m) | Correct dB/m | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|----------------|----------------|--------|
| 1 | 42.8998 | 23.98 | 8.01 | 31.99 | 40.00 | -8.01 | 360 | 100 | peak |
| 2 | 129.9226 | 31.58 | 3.27 | 34.85 | 43.50 | -8.65 | 360 | 100 | peak |
| 3 | 724.2611 | 21.83 | 14.56 | 36.39 | 46.00 | -9.61 | 360 | 100 | peak |

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11n-HT20) High Channel

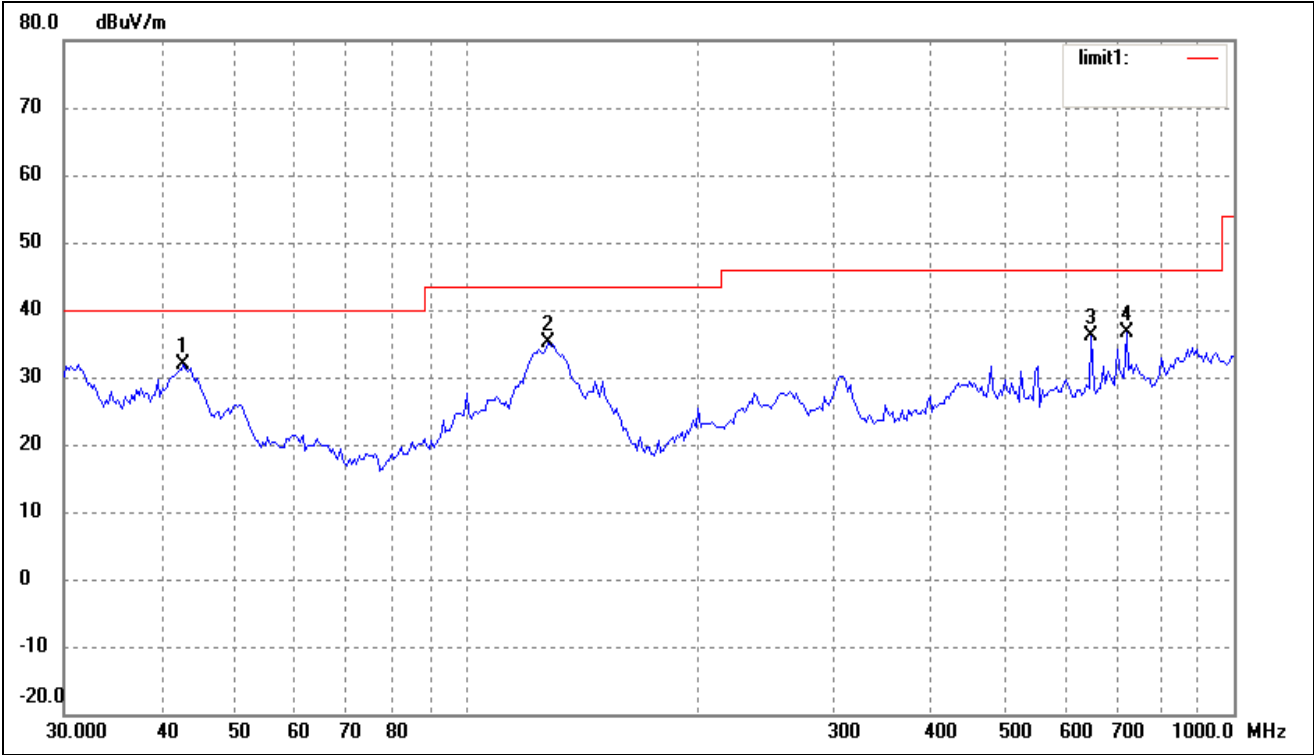
Comment:

Horizontal



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct dB/m | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|----------------|----------------|--------|
| 1 | 131.7577 | 22.30 | 3.13 | 25.43 | 43.50 | -18.07 | 360 | 100 | peak |
| 2 | 258.3264 | 24.30 | 6.90 | 31.20 | 46.00 | -14.80 | 360 | 100 | peak |
| 3 | 309.9977 | 25.16 | 9.21 | 34.37 | 46.00 | -11.63 | 360 | 100 | peak |
| 4 | 704.2261 | 23.70 | 13.82 | 37.52 | 46.00 | -8.48 | 360 | 100 | peak |

Vertical



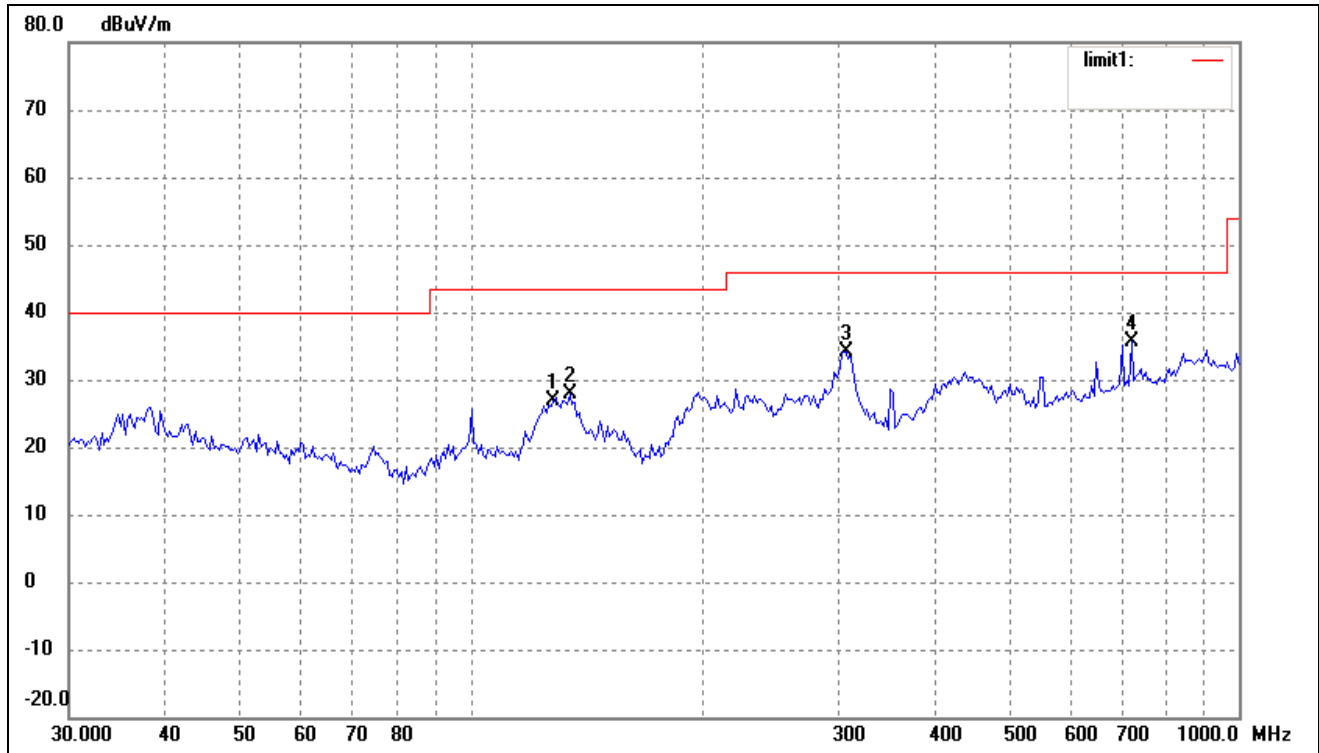
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Degree | Height | Remark |
|-----|-----------|----------|---------|----------|----------|--------|--------|--------|--------|
| | (MHz) | (dBuV/m) | dB/m | (dBuV/m) | (dBuV/m) | (dB) | (°) | (cm) | |
| 1 | 42.8998 | 23.98 | 8.01 | 31.99 | 40.00 | -8.01 | 360 | 100 | peak |
| 2 | 128.1130 | 31.62 | 3.41 | 35.03 | 43.50 | -8.47 | 360 | 100 | peak |
| 3 | 651.9417 | 23.88 | 12.25 | 36.13 | 46.00 | -9.87 | 360 | 100 | peak |
| 4 | 724.2611 | 21.98 | 14.56 | 36.54 | 46.00 | -9.46 | 360 | 100 | peak |

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11n-HT40) Low Channel

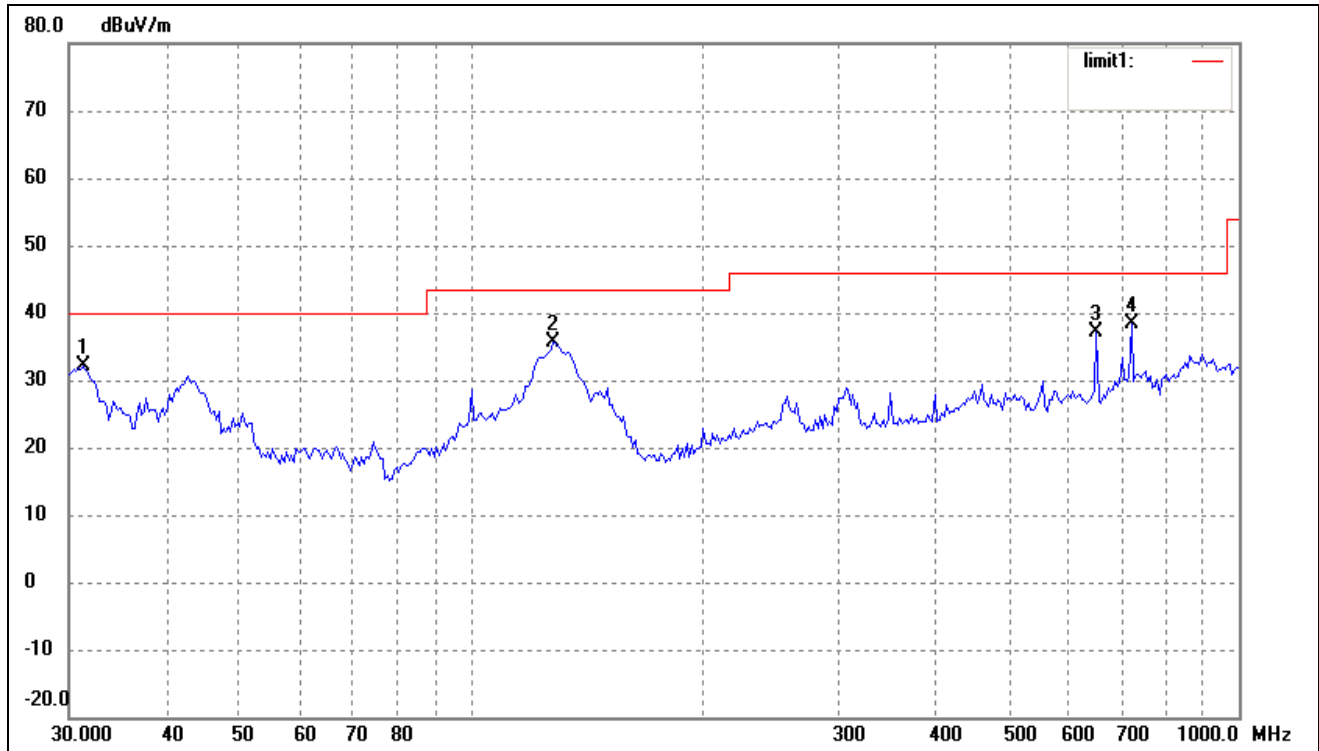
Comment:

Horizontal



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 128.1130 | 23.55 | 3.41 | 26.96 | 43.50 | -16.54 | 360 | 100 | peak |
| 2 | 134.5592 | 24.89 | 2.89 | 27.78 | 43.50 | -15.72 | 110 | 124 | QP |
| 3 | 307.8313 | 24.93 | 9.20 | 34.13 | 46.00 | -11.87 | 208 | 104 | QP |
| 4 | 724.2611 | 20.99 | 14.56 | 35.55 | 46.00 | -10.45 | 359 | 100 | peak |

Vertical



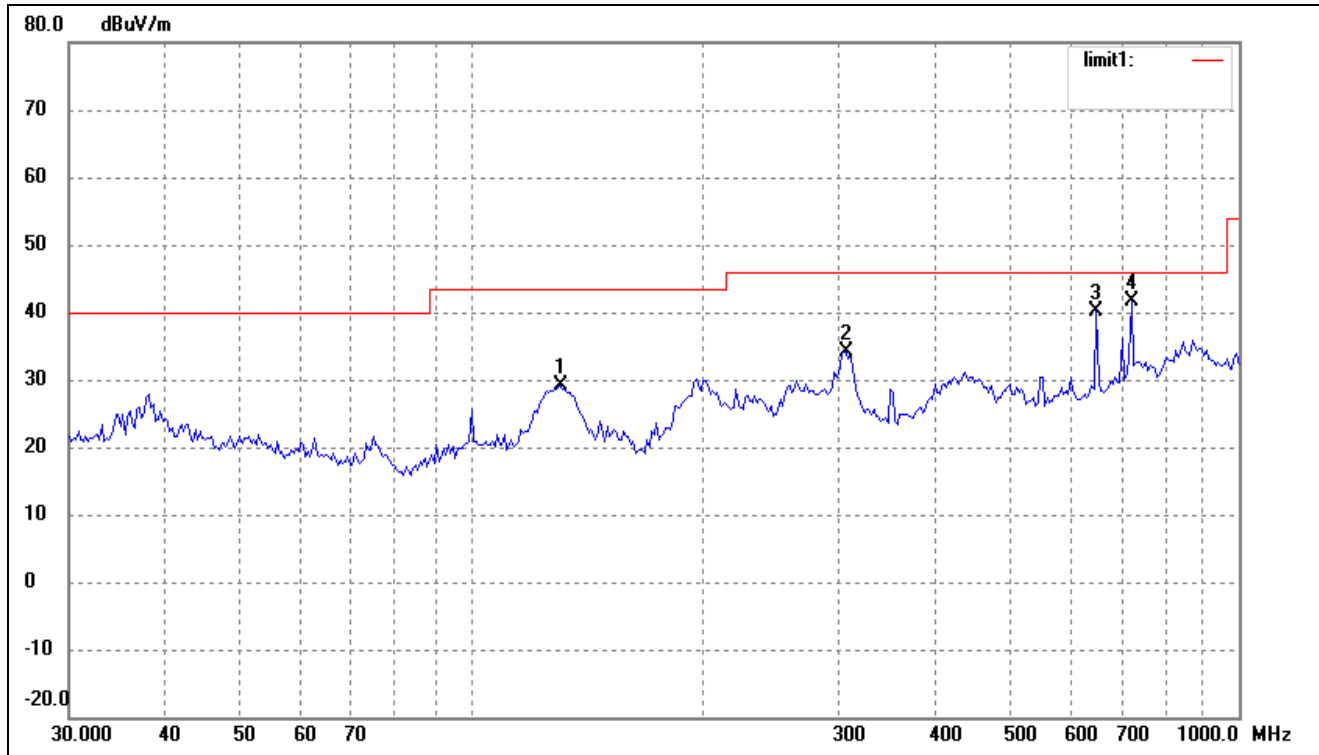
| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 31.2893 | 24.65 | 7.48 | 32.13 | 40.00 | -7.87 | 201 | 204 | QP |
| 2 | 128.1130 | 32.15 | 3.41 | 35.56 | 43.50 | -7.94 | 360 | 100 | peak |
| 3 | 651.9417 | 24.91 | 12.25 | 37.16 | 46.00 | -8.84 | 118 | 100 | QP |
| 4 | 724.2611 | 23.92 | 14.56 | 38.48 | 46.00 | -7.52 | 359 | 100 | peak |

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11n-HT40) Middle Channel

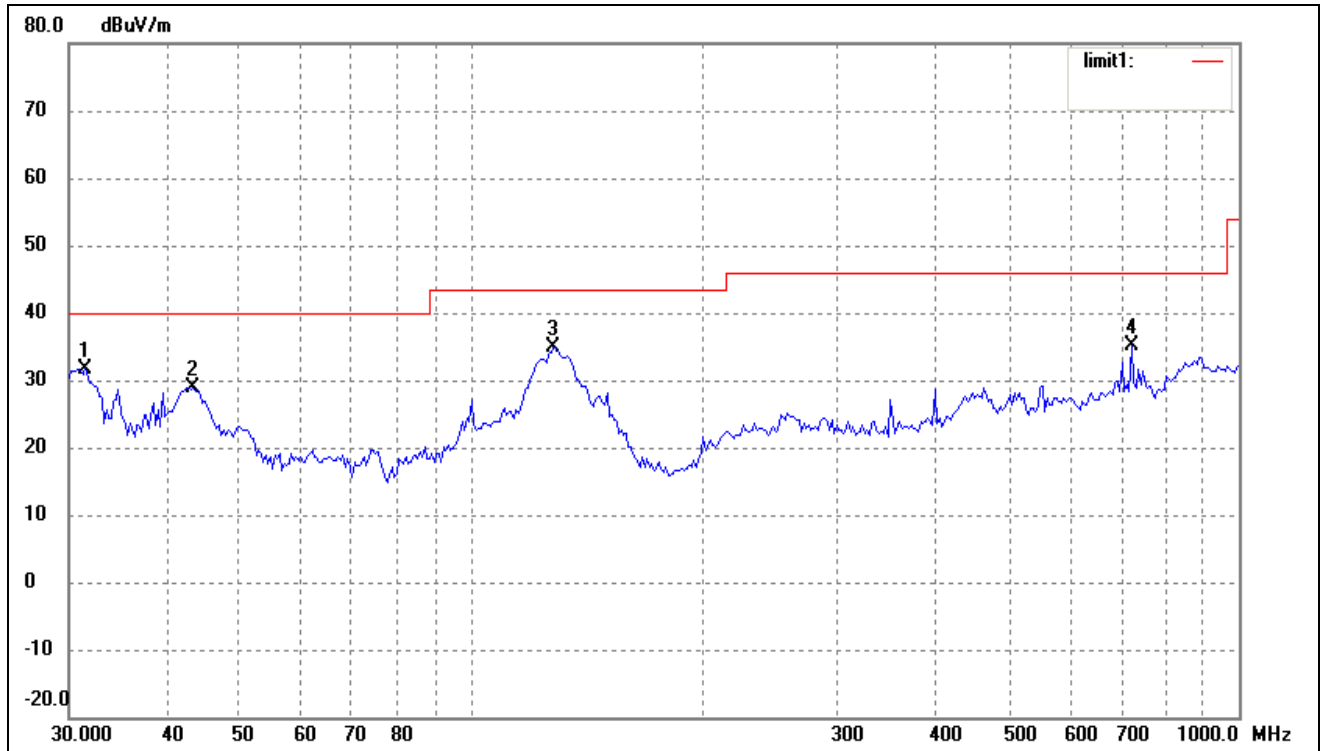
Comment:

Horizontal

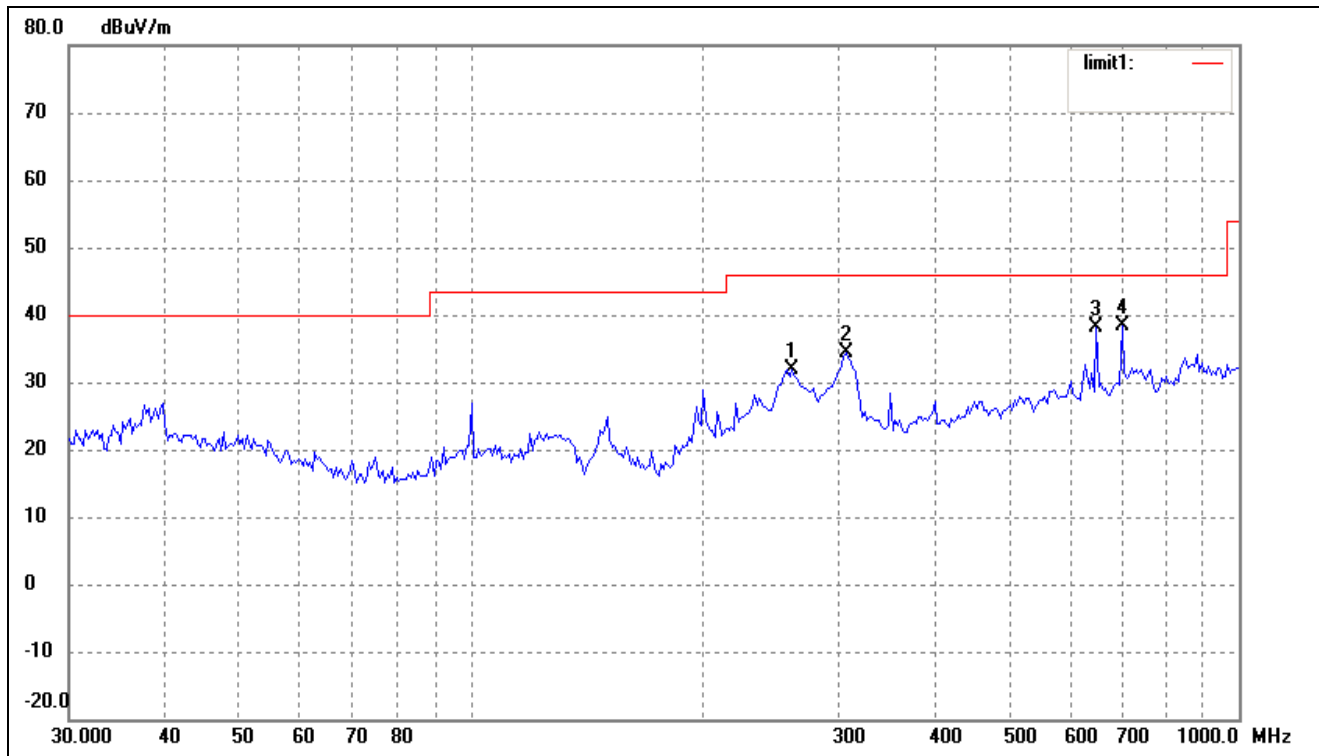


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 130.8369 | 25.85 | 3.20 | 29.05 | 43.50 | -14.45 | 360 | 100 | peak |
| 2 | 307.8313 | 24.93 | 9.20 | 34.13 | 46.00 | -11.87 | 0 | 100 | peak |
| 3 | 651.9417 | 27.90 | 12.25 | 40.15 | 46.00 | -5.85 | 203 | 105 | QP |
| 4 | 724.2611 | 27.02 | 14.56 | 41.58 | 46.00 | -4.42 | 221 | 114 | QP |

Vertical

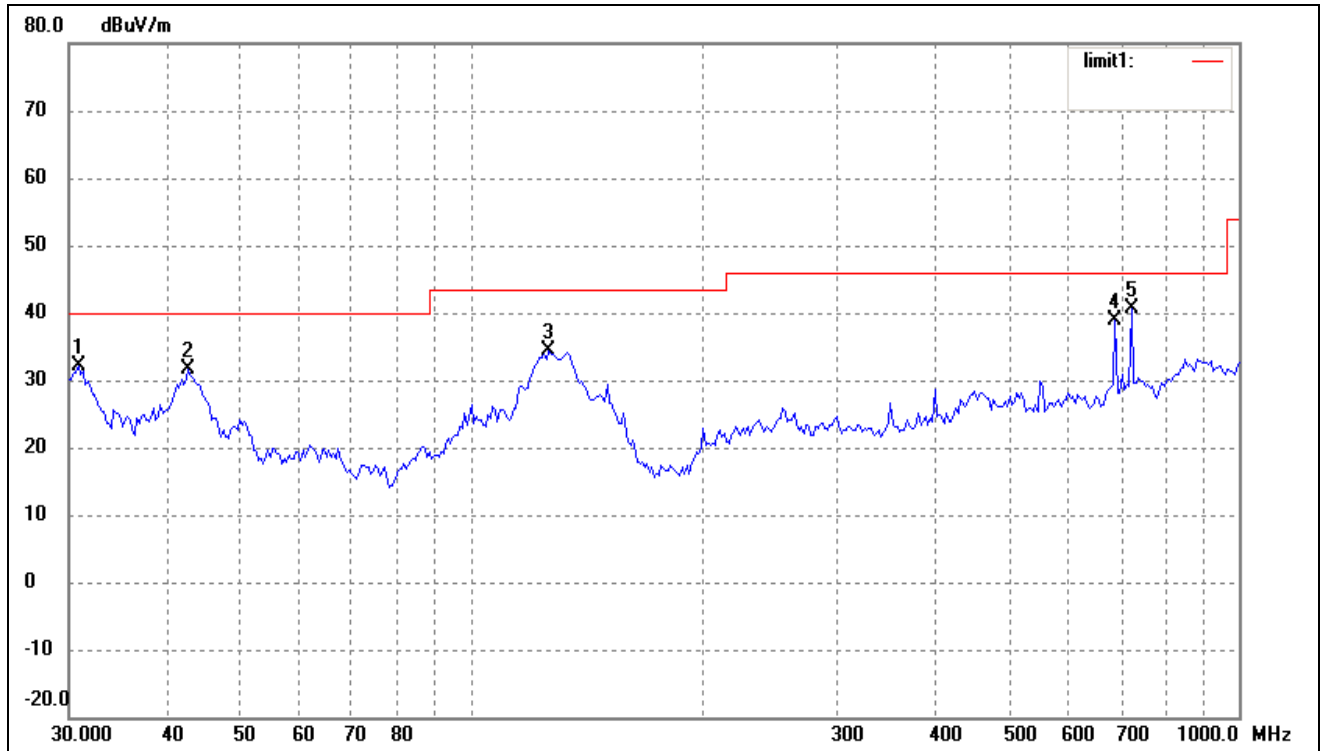


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 31.5095 | 24.23 | 7.52 | 31.75 | 40.00 | -8.25 | 204 | 164 | QP |
| 2 | 43.5057 | 21.13 | 7.83 | 28.96 | 40.00 | -11.04 | 360 | 200 | peak |
| 3 | 128.1130 | 31.46 | 3.41 | 34.87 | 43.50 | -8.63 | 221 | 107 | QP |
| 4 | 724.2611 | 20.57 | 14.56 | 35.13 | 46.00 | -10.87 | 360 | 200 | peak |

*Spurious Emission From 30 MHz to 1 GHz**Test mode: Transmitting (802.11n-HT40) High Channel**Comment:**Horizontal*

| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 261.9753 | 24.80 | 7.09 | 31.89 | 46.00 | -14.11 | 216 | 206 | QP |
| 2 | 307.8313 | 25.22 | 9.20 | 34.42 | 46.00 | -11.58 | 360 | 100 | peak |
| 3 | 651.9417 | 25.89 | 12.25 | 38.14 | 46.00 | -7.86 | 208 | 106 | QP |
| 4 | 704.2261 | 24.67 | 13.82 | 38.49 | 46.00 | -7.51 | 360 | 100 | peak |

Vertical



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 30.8535 | 24.66 | 7.42 | 32.08 | 40.00 | -7.92 | 204 | 124 | QP |
| 2 | 42.8998 | 23.59 | 8.01 | 31.60 | 40.00 | -8.40 | 360 | 100 | peak |
| 3 | 126.3286 | 30.74 | 3.55 | 34.29 | 43.50 | -9.21 | 225 | 106 | QP |
| 4 | 689.5644 | 25.56 | 13.41 | 38.97 | 46.00 | -7.03 | 359 | 100 | peak |
| 5 | 724.2611 | 26.08 | 14.56 | 40.64 | 46.00 | -5.36 | 359 | 100 | peak |

*Spurious Emission above 1GHz**Test Mode: Transmitting (802.11b)*

| Frequency MHz | Detector | Meter Reading dBuV | Direction Degree | Polar H / V | Antenna Loss dB | Cable loss dB | Amplifier dB | Correction Amplitude dBuV/m | Limit dBuV/m | Margin dB |
|--------------------------|----------|--------------------------|---------------------|----------------|-----------------------|------------------|-----------------|-----------------------------------|-----------------|--------------|
| Low Channel (2412MHz) | | | | | | | | | | |
| 4824.0 | PK | 46.95 | 90 | V | 34.1 | 5.2 | 33.0 | 53.25 | 74 | -20.75 |
| 4824.0 | PK | 43.73 | 270 | H | 34.1 | 5.2 | 33.0 | 50.03 | 74 | -23.97 |
| 7236.0 | PK | 41.27 | 180 | V | 37.4 | 6.1 | 33.5 | 51.27 | 74 | -22.73 |
| 7236.0 | PK | 36.48 | 45 | H | 37.4 | 6.1 | 33.5 | 46.48 | 74 | -27.52 |
| 4824.0 | AV | 29.84 | 270 | V | 34.1 | 5.2 | 33.0 | 36.14 | 54 | -17.86 |
| 4824.0 | AV | 27.61 | 90 | H | 34.1 | 5.2 | 33.0 | 33.91 | 54 | -20.09 |
| 7236.0 | AV | 22.85 | 45 | V | 37.4 | 6.1 | 33.5 | 32.85 | 54 | -21.15 |
| 7236.0 | AV | 23.33 | 60 | H | 37.4 | 6.1 | 33.5 | 33.33 | 54 | -20.67 |
| Middle Channel (2437MHz) | | | | | | | | | | |
| 4874.0 | PK | 46.72 | 45 | V | 34.1 | 5.2 | 33.0 | 53.02 | 74 | -20.98 |
| 4874.0 | PK | 40.99 | 270 | H | 34.1 | 5.2 | 33.0 | 47.29 | 74 | -26.71 |
| 7311.0 | PK | 34.49 | 45 | V | 37.4 | 6.1 | 33.5 | 44.49 | 74 | -29.51 |
| 7311.0 | PK | 35.30 | 180 | H | 37.4 | 6.1 | 33.5 | 45.30 | 74 | -28.70 |
| 4874.0 | AV | 30.14 | 270 | V | 34.1 | 5.2 | 33.0 | 36.44 | 54 | -17.56 |
| 4874.0 | AV | 24.55 | 90 | H | 34.1 | 5.2 | 33.0 | 30.85 | 54 | -23.15 |
| 7311.0 | AV | 22.37 | 60 | V | 37.4 | 6.1 | 33.5 | 32.37 | 54 | -21.63 |
| 7311.0 | AV | 21.96 | 45 | H | 37.4 | 6.1 | 33.5 | 31.96 | 54 | -22.04 |
| High Channel (2462MHz) | | | | | | | | | | |
| 4924.0 | PK | 43.31 | 270 | V | 34.1 | 5.2 | 33.0 | 49.61 | 74 | -24.39 |
| 4924.0 | PK | 37.99 | 45 | H | 34.1 | 5.2 | 33.0 | 44.29 | 74 | -29.71 |
| 7386.0 | PK | 34.34 | 180 | V | 37.4 | 6.1 | 33.5 | 44.34 | 74 | -29.66 |
| 7386.0 | PK | 40.17 | 45 | H | 37.4 | 6.1 | 33.5 | 50.17 | 74 | -23.83 |
| 4924.0 | AV | 25.99 | 90 | V | 34.1 | 5.2 | 33.0 | 32.29 | 54 | -21.71 |
| 4924.0 | AV | 23.39 | 270 | H | 34.1 | 5.2 | 33.0 | 29.69 | 54 | -24.31 |
| 7386.0 | AV | 21.39 | 60 | V | 37.4 | 6.1 | 33.5 | 31.39 | 54 | -22.61 |
| 7386.0 | AV | 21.75 | 60 | H | 37.4 | 6.1 | 33.5 | 31.75 | 54 | -22.25 |

*Spurious Emission Above 1GHz**Test Mode: Transmitting (802.11g)*

| Frequency MHz | Detector | Meter Reading dBuV | Direction Degree | Polar H / V | Antenna Loss dB | Cable loss dB | Amplifier dB | Correction Amplitude dBuV/m | Limit dBuV/m | Margin dB |
|--------------------------|----------|--------------------------|---------------------|----------------|-----------------------|------------------|-----------------|-----------------------------------|-----------------|--------------|
| Low Channel (2412MHz) | | | | | | | | | | |
| 4824.0 | PK | 44.80 | 90 | V | 34.1 | 5.2 | 33.0 | 51.10 | 74 | -22.90 |
| 4824.0 | PK | 51.01 | 270 | H | 34.1 | 5.2 | 33.0 | 57.31 | 74 | -16.69 |
| 7236.0 | PK | 35.60 | 180 | V | 37.4 | 6.1 | 33.5 | 45.60 | 74 | -28.40 |
| 7236.0 | PK | 37.62 | 45 | H | 37.4 | 6.1 | 33.5 | 47.62 | 74 | -26.38 |
| 4824.0 | AV | 30.97 | 270 | V | 34.1 | 5.2 | 33.0 | 37.27 | 54 | -16.73 |
| 4824.0 | AV | 33.16 | 90 | H | 34.1 | 5.2 | 33.0 | 39.46 | 54 | -14.54 |
| 7236.0 | AV | 22.94 | 45 | V | 37.4 | 6.1 | 33.5 | 32.94 | 54 | -21.06 |
| 7236.0 | AV | 23.91 | 60 | H | 37.4 | 6.1 | 33.5 | 33.91 | 54 | -20.09 |
| Middle Channel (2437MHz) | | | | | | | | | | |
| 4874.0 | PK | 45.08 | 45 | V | 34.1 | 5.2 | 33.0 | 51.38 | 74 | -22.62 |
| 4874.0 | PK | 50.07 | 270 | H | 34.1 | 5.2 | 33.0 | 56.37 | 74 | -17.63 |
| 7311.0 | PK | 36.19 | 45 | V | 37.4 | 6.1 | 33.5 | 46.19 | 74 | -27.81 |
| 7311.0 | PK | 37.64 | 180 | H | 37.4 | 6.1 | 33.5 | 47.64 | 74 | -26.36 |
| 4874.0 | AV | 31.35 | 270 | V | 34.1 | 5.2 | 33.0 | 37.65 | 54 | -16.35 |
| 4874.0 | AV | 36.25 | 90 | H | 34.1 | 5.2 | 33.0 | 42.55 | 54 | -11.45 |
| 7311.0 | AV | 23.34 | 60 | V | 37.4 | 6.1 | 33.5 | 33.34 | 54 | -20.66 |
| 7311.0 | AV | 24.15 | 45 | H | 37.4 | 6.1 | 33.5 | 34.15 | 54 | -19.85 |
| High Channel (2462MHz) | | | | | | | | | | |
| 4924.0 | PK | 43.09 | 270 | V | 34.1 | 5.2 | 33.0 | 49.39 | 74 | -24.61 |
| 4924.0 | PK | 48.14 | 45 | H | 34.1 | 5.2 | 33.0 | 54.44 | 74 | -19.56 |
| 7386.0 | PK | 35.48 | 180 | V | 37.4 | 6.1 | 33.5 | 45.48 | 74 | -28.52 |
| 7386.0 | PK | 35.72 | 45 | H | 37.4 | 6.1 | 33.5 | 45.72 | 74 | -28.28 |
| 4924.0 | AV | 31.22 | 90 | V | 34.1 | 5.2 | 33.0 | 37.52 | 54 | -16.48 |
| 4924.0 | AV | 34.81 | 270 | H | 34.1 | 5.2 | 33.0 | 41.11 | 54 | -12.89 |
| 7386.0 | AV | 23.44 | 60 | V | 37.4 | 6.1 | 33.5 | 33.44 | 54 | -20.56 |
| 7386.0 | AV | 23.52 | 60 | H | 37.4 | 6.1 | 33.5 | 33.52 | 54 | -20.48 |

*Spurious Emission above 1GHz**Test Mode: Transmitting (802.11n-HT20)*

| Frequency MHz | Detector | Meter Reading dBuV | Direction Degree | Polar H / V | Antenna Loss dB | Cable loss dB | Amplifier dB | Correction Amplitude dBuV/m | Limit dBuV/m | Margin dB |
|--------------------------|----------|--------------------------|---------------------|----------------|-----------------------|------------------|-----------------|-----------------------------------|-----------------|--------------|
| Low Channel (2412MHz) | | | | | | | | | | |
| 4824.0 | PK | 44.80 | 90 | V | 34.1 | 5.2 | 33.0 | 51.10 | 74 | -22.90 |
| 4824.0 | PK | 51.04 | 270 | H | 34.1 | 5.2 | 33.0 | 57.34 | 74 | -16.66 |
| 7236.0 | PK | 35.73 | 180 | V | 37.4 | 6.1 | 33.5 | 45.73 | 74 | -28.27 |
| 7236.0 | PK | 38.29 | 45 | H | 37.4 | 6.1 | 33.5 | 48.29 | 74 | -25.71 |
| 4824.0 | AV | 30.75 | 270 | V | 34.1 | 5.2 | 33.0 | 37.05 | 54 | -16.95 |
| 4824.0 | AV | 37.16 | 90 | H | 34.1 | 5.2 | 33.0 | 43.46 | 54 | -10.54 |
| 7236.0 | AV | 23.35 | 45 | V | 37.4 | 6.1 | 33.5 | 33.35 | 54 | -20.65 |
| 7236.0 | AV | 23.95 | 60 | H | 37.4 | 6.1 | 33.5 | 33.95 | 54 | -20.05 |
| Middle Channel (2437MHz) | | | | | | | | | | |
| 4874.0 | PK | 43.90 | 45 | V | 34.1 | 5.2 | 33.0 | 50.20 | 74 | -23.80 |
| 4874.0 | PK | 50.56 | 270 | H | 34.1 | 5.2 | 33.0 | 56.86 | 74 | -17.14 |
| 7311.0 | PK | 35.22 | 45 | V | 37.4 | 6.1 | 33.5 | 45.22 | 74 | -28.78 |
| 7311.0 | PK | 36.94 | 180 | H | 37.4 | 6.1 | 33.5 | 46.94 | 74 | -27.06 |
| 4874.0 | AV | 29.06 | 270 | V | 34.1 | 5.2 | 33.0 | 35.36 | 54 | -18.64 |
| 4874.0 | AV | 34.76 | 90 | H | 34.1 | 5.2 | 33.0 | 41.06 | 54 | -12.94 |
| 7311.0 | AV | 23.30 | 60 | V | 37.4 | 6.1 | 33.5 | 33.30 | 54 | -20.70 |
| 7311.0 | AV | 23.58 | 45 | H | 37.4 | 6.1 | 33.5 | 33.58 | 54 | -20.42 |
| High Channel (2462MHz) | | | | | | | | | | |
| 4924.0 | PK | 41.69 | 270 | V | 34.1 | 5.2 | 33.0 | 47.99 | 74 | -26.01 |
| 4924.0 | PK | 46.94 | 45 | H | 34.1 | 5.2 | 33.0 | 53.24 | 74 | -20.76 |
| 7386.0 | PK | 35.48 | 180 | V | 37.4 | 6.1 | 33.5 | 45.48 | 74 | -28.52 |
| 7386.0 | PK | 36.00 | 45 | H | 37.4 | 6.1 | 33.5 | 46.00 | 74 | -28.00 |
| 4924.0 | AV | 29.31 | 90 | V | 34.1 | 5.2 | 33.0 | 35.61 | 54 | -18.39 |
| 4924.0 | AV | 32.67 | 270 | H | 34.1 | 5.2 | 33.0 | 38.97 | 54 | -15.03 |
| 7386.0 | AV | 23.35 | 60 | V | 37.4 | 6.1 | 33.5 | 33.35 | 54 | -20.65 |
| 7386.0 | AV | 23.24 | 60 | H | 37.4 | 6.1 | 33.5 | 33.24 | 54 | -20.76 |

*Spurious Emission Above 1GHz**Test Mode: Transmitting (802.11n-HT40)*

| Frequency MHz | Detector | Meter Reading dBuV | Direction Degree | Polar H / V | Antenna Loss dB | Cable loss dB | Amplifier dB | Correction Amplitude dBuV/m | Limit dBuV/m | Margin dB |
|--------------------------|----------|--------------------|------------------|-------------|-----------------|---------------|--------------|-----------------------------|--------------|-----------|
| Low Channel (2422MHz) | | | | | | | | | | |
| 4824.0 | PK | 41.15 | 90 | V | 34.1 | 5.2 | 33.0 | 47.45 | 74 | -26.55 |
| 4824.0 | PK | 48.04 | 270 | H | 34.1 | 5.2 | 33.0 | 54.34 | 74 | -19.66 |
| 7236.0 | PK | 35.49 | 180 | V | 37.4 | 6.1 | 33.5 | 45.49 | 74 | -28.51 |
| 7236.0 | PK | 35.45 | 45 | H | 37.4 | 6.1 | 33.5 | 45.45 | 74 | -28.55 |
| 4824.0 | AV | 28.65 | 270 | V | 34.1 | 5.2 | 33.0 | 34.95 | 54 | -19.05 |
| 4824.0 | AV | 35.54 | 90 | H | 34.1 | 5.2 | 33.0 | 41.84 | 54 | -12.16 |
| 7236.0 | AV | 23.25 | 45 | V | 37.4 | 6.1 | 33.5 | 33.25 | 54 | -20.75 |
| 7236.0 | AV | 24.18 | 60 | H | 37.4 | 6.1 | 33.5 | 34.18 | 54 | -19.82 |
| Middle Channel (2437MHz) | | | | | | | | | | |
| 4874.0 | PK | 39.74 | 45 | V | 34.1 | 5.2 | 33.0 | 46.04 | 74 | -27.96 |
| 4874.0 | PK | 43.57 | 270 | H | 34.1 | 5.2 | 33.0 | 49.87 | 74 | -24.13 |
| 7311.0 | PK | 35.40 | 45 | V | 37.4 | 6.1 | 33.5 | 45.40 | 74 | -28.60 |
| 7311.0 | PK | 35.68 | 180 | H | 37.4 | 6.1 | 33.5 | 45.68 | 74 | -28.32 |
| 4874.0 | AV | 28.63 | 270 | V | 34.1 | 5.2 | 33.0 | 34.93 | 54 | -19.07 |
| 4874.0 | AV | 33.13 | 90 | H | 34.1 | 5.2 | 33.0 | 39.43 | 54 | -14.57 |
| 7311.0 | AV | 23.24 | 60 | V | 37.4 | 6.1 | 33.5 | 33.24 | 54 | -20.76 |
| 7311.0 | AV | 23.39 | 45 | H | 37.4 | 6.1 | 33.5 | 33.39 | 54 | -20.61 |
| High Channel (2452MHz) | | | | | | | | | | |
| 4924.0 | PK | 38.85 | 270 | V | 34.1 | 5.2 | 33.0 | 45.15 | 74 | -28.85 |
| 4924.0 | PK | 43.64 | 45 | H | 34.1 | 5.2 | 33.0 | 49.94 | 74 | -24.06 |
| 7386.0 | PK | 35.68 | 180 | V | 37.4 | 6.1 | 33.5 | 45.68 | 74 | -28.32 |
| 7386.0 | PK | 35.19 | 45 | H | 37.4 | 6.1 | 33.5 | 45.19 | 74 | -28.81 |
| 4924.0 | AV | 27.78 | 90 | V | 34.1 | 5.2 | 33.0 | 34.08 | 54 | -19.92 |
| 4924.0 | AV | 31.67 | 270 | H | 34.1 | 5.2 | 33.0 | 37.97 | 54 | -16.03 |
| 7386.0 | AV | 23.23 | 60 | V | 37.4 | 6.1 | 33.5 | 33.23 | 54 | -20.77 |
| 7386.0 | AV | 23.26 | 60 | H | 37.4 | 6.1 | 33.5 | 33.26 | 54 | -20.74 |

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above 5th 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..

8. OUT OF BAND 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).

8.2 Test Equipment List and Details

| Description | Manufacturer | Model | Serial Number | Cal. Date | Due. Date |
|--------------------------|----------------------|----------|---------------|------------|------------|
| Spectrum Analyzer | R&S | FSP | 836079/035 | 2012-03-28 | 2013-03-27 |
| EMI Test Receiver | R&S | ESVB | 825471/005 | 2012-03-28 | 2013-03-27 |
| Pre-amplifier | Agilent | 8447F | 3113A06717 | 2012-03-28 | 2013-03-27 |
| Pre-amplifier | Compliance Direction | PAP-0118 | 24002 | 2012-03-28 | 2013-03-27 |
| Trilog Broadband Antenna | SCHWARZBECK | VULB9163 | 9163-333 | 2012-02-25 | 2013-02-24 |
| Horn Antenna | ETS | 3117 | 00086197 | 2012-02-25 | 2013-02-24 |

8.3 Test Procedure

According to the KDB 558074, 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.

8.4 Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 21° C |
| Relative Humidity: | 54% |
| ATM Pressure: | 1011 mbar |

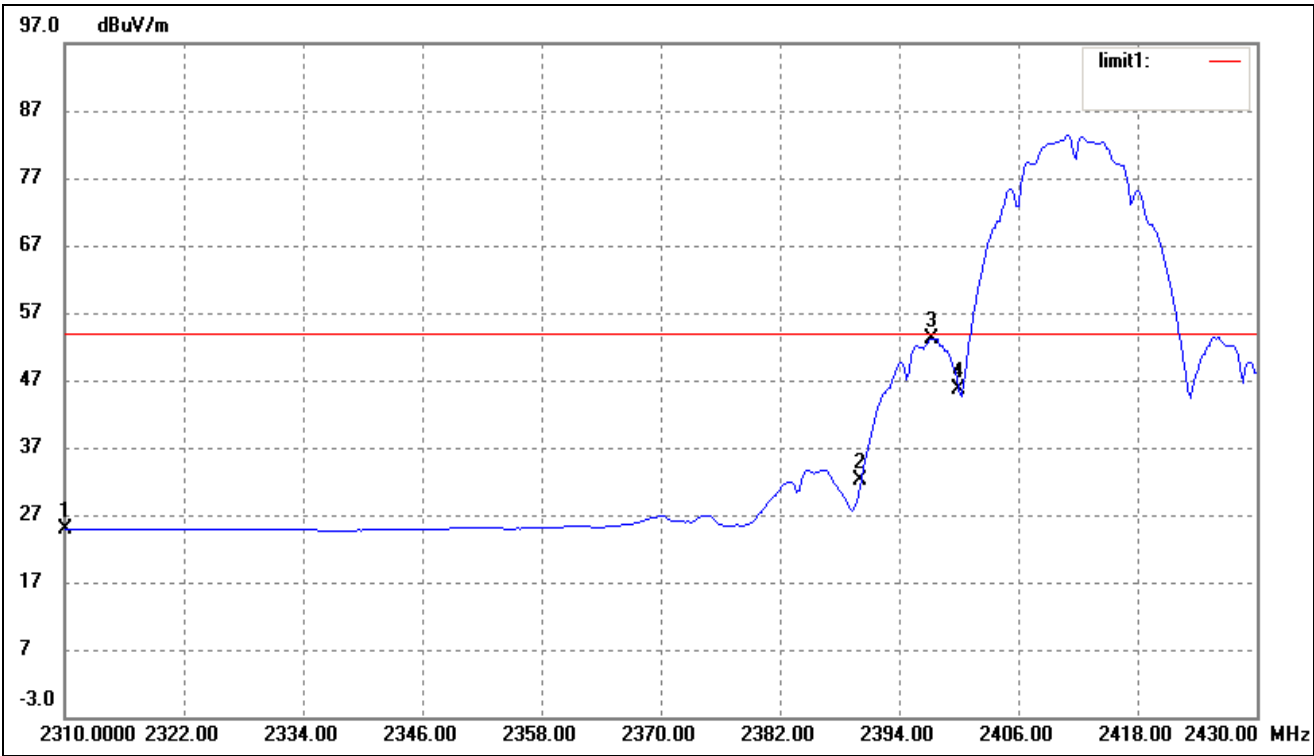
8.5 Summary of Test Results/Plots

| Test Mode | Test Frequency MHz | Limit dBuV / dBc | Result |
|--------------|-----------------------|---------------------|--------|
| 802.11b | 2390.00 | <54 dBuV | Pass |
| | 2400.00 | <54 dBuV | Pass |
| | 2483.50 | <54 dBuV | Pass |
| 802.11g | 2390.00 | <54 dBuV | Pass |
| | 2400.00 | <54 dBuV | Pass |
| | 2483.50 | <54 dBuV | Pass |
| 802.11n-HT20 | 2390.00 | <54 dBuV | Pass |
| | 2400.00 | <54 dBuV | Pass |
| | 2483.50 | <54 dBuV | Pass |
| 802.11n-HT40 | 2390.00 | <54 dBuV | Pass |
| | 2400.00 | <54 dBuV | Pass |
| | 2483.50 | <54 dBuV | Pass |

The edge emissions are below the FCC 15.209 Limits or complies with the 15.247(d) requirements.

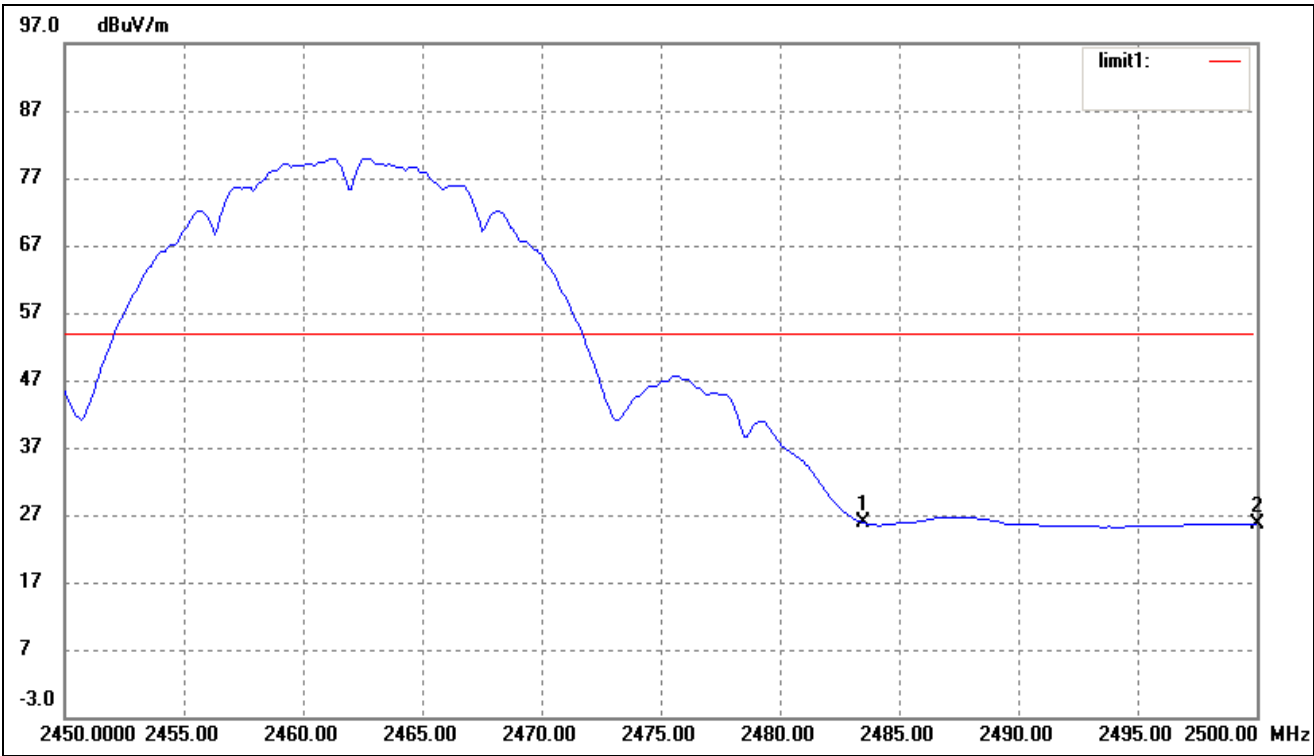
Please refer to the test plots as below.

For 802.11b
Lowest Bandedge



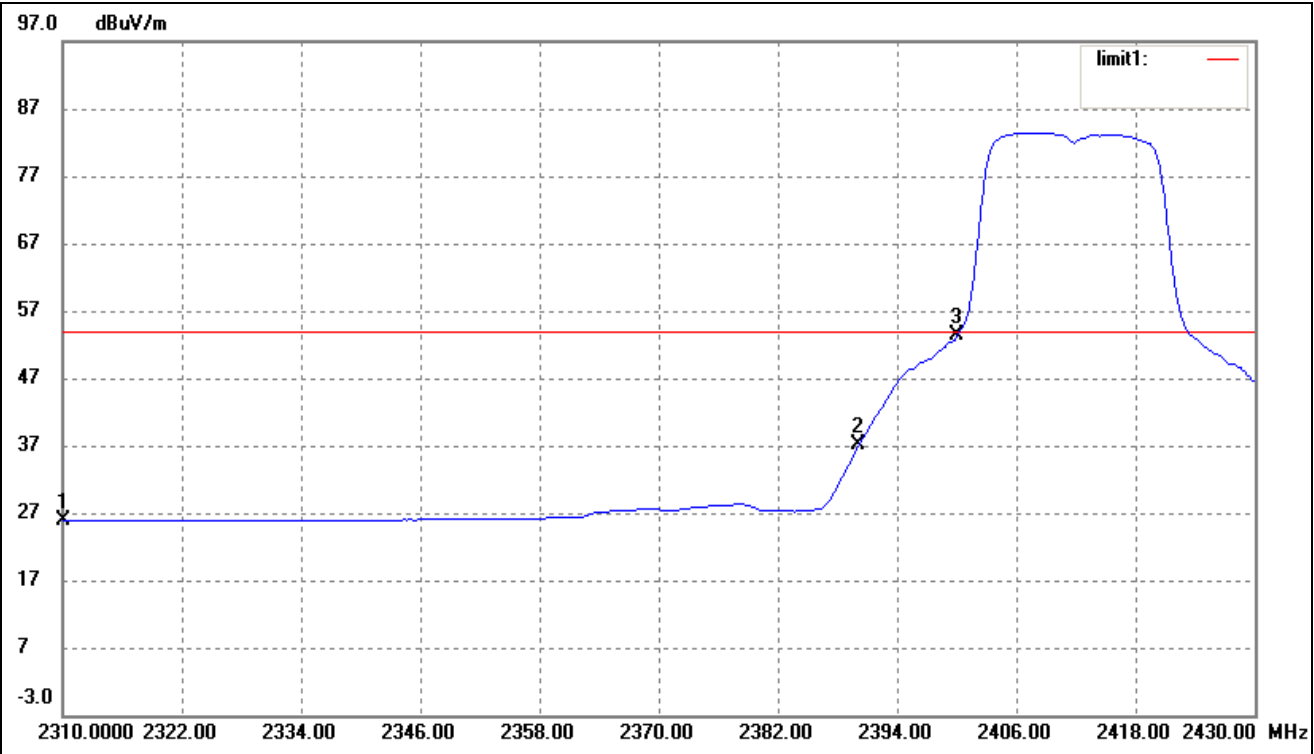
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Degree | Height | Remark |
|-----|-----------|----------|------------|----------|----------|--------|--------|--------|--------|
| | (MHz) | (dBuV/m) | Factor(dB) | (dBuV/m) | (dBuV/m) | (dB) | (°) | (cm) | |
| 1 | 2310.000 | 32.29 | -7.51 | 24.78 | 54.00 | -29.22 | 226 | 100 | Ave |
| | 2310.000 | 46.56 | -7.51 | 39.05 | 74.00 | -34.95 | 336 | 100 | peak |
| 2 | 2390.000 | 39.51 | -7.34 | 32.17 | 54.00 | -21.83 | 226 | 100 | Ave |
| | 2390.000 | 50.22 | -7.34 | 42.88 | 74.00 | -31.12 | 226 | 100 | peak |
| 3 | 2397.242 | 60.47 | -7.31 | 53.16 | 54.00 | -0.84 | 226 | 100 | Ave |
| | 2396.242 | 65.58 | -7.31 | 58.27 | 74.00 | -15.73 | 226 | 100 | peak |
| 4 | 2400.000 | 53.04 | -7.31 | 45.73 | 54.00 | -8.27 | 226 | 100 | Ave |
| | 2400.000 | 60.72 | -7.31 | 53.41 | 74.00 | -20.59 | 226 | 100 | peak |

For 802.11b
Highest Bandedge



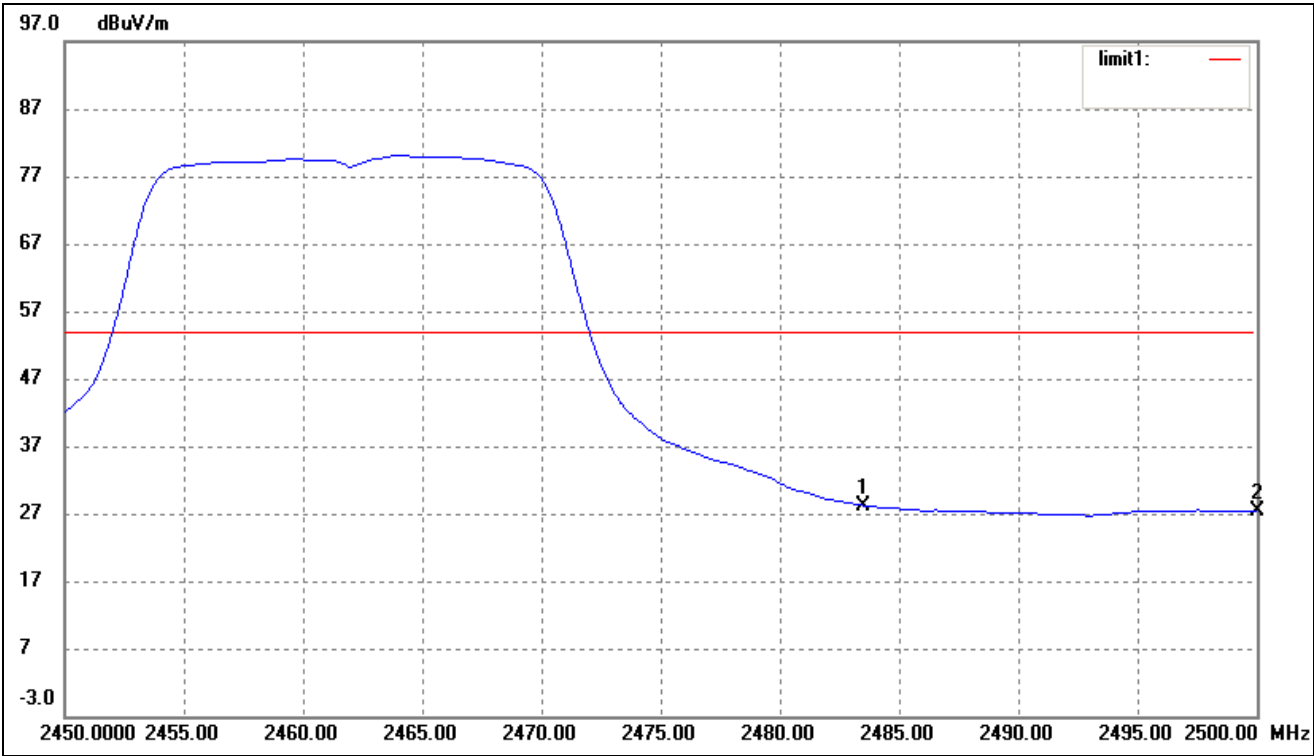
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Degree | Height | Remark |
|-----|-----------|----------|------------|----------|----------|--------|--------|--------|--------|
| | (MHz) | (dBuV/m) | Factor(dB) | (dBuV/m) | (dBuV/m) | (dB) | (°) | (cm) | |
| 1 | 2483.500 | 32.90 | -7.13 | 25.77 | 54.00 | -28.23 | 226 | 100 | Ave |
| | 2483.500 | 45.60 | -7.13 | 38.47 | 74.00 | -35.53 | 226 | 100 | peak |
| 2 | 2500.000 | 32.71 | -7.08 | 25.63 | 54.00 | -28.37 | 226 | 100 | Ave |
| | 2500.000 | 45.90 | -7.08 | 38.82 | 74.00 | -35.18 | 226 | 100 | peak |

For 802.11g
Lowest Bandedge



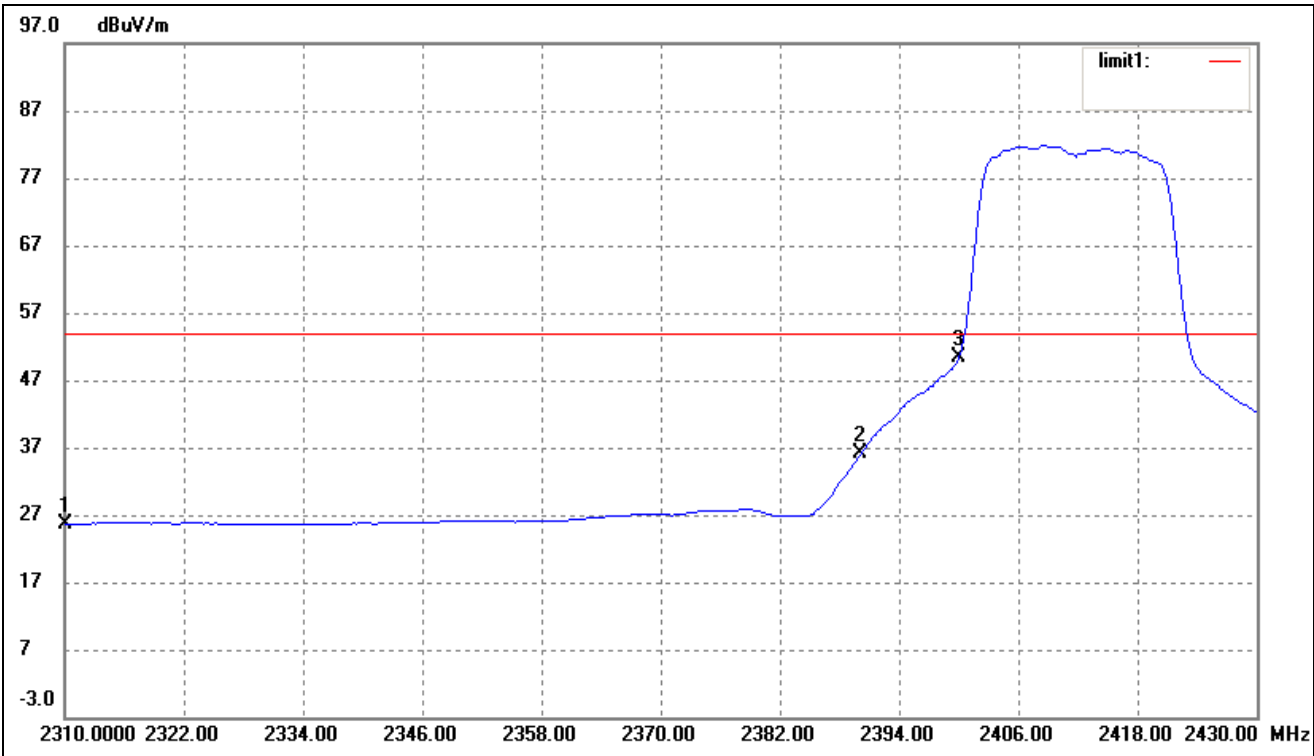
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Degree | Height | Remark |
|-----|-----------|---------|------------|--------|--------|--------|--------|--------|--------|
| | (MHz) | (dBuV) | Factor(dB) | (dBuV) | (dBuV) | (dB) | (°) | (cm) | |
| 1 | 2310.000 | 33.29 | -7.51 | 25.78 | 54.00 | -28.22 | 226 | 100 | Ave |
| | 2310.000 | 45.73 | -7.51 | 38.22 | 74.00 | -35.78 | 226 | 100 | peak |
| 2 | 2390.000 | 44.48 | -7.34 | 37.14 | 54.00 | -16.86 | 226 | 100 | Ave |
| | 2390.000 | 64.17 | -7.34 | 56.83 | 74.00 | -17.17 | 226 | 100 | peak |
| 3 | 2400.000 | 60.61 | -7.31 | 53.30 | 54.00 | -0.70 | 226 | 100 | Ave |
| | 2400.000 | 80.50 | -7.31 | 73.19 | 74.00 | -0.81 | 226 | 100 | peak |

Highest Bandedge



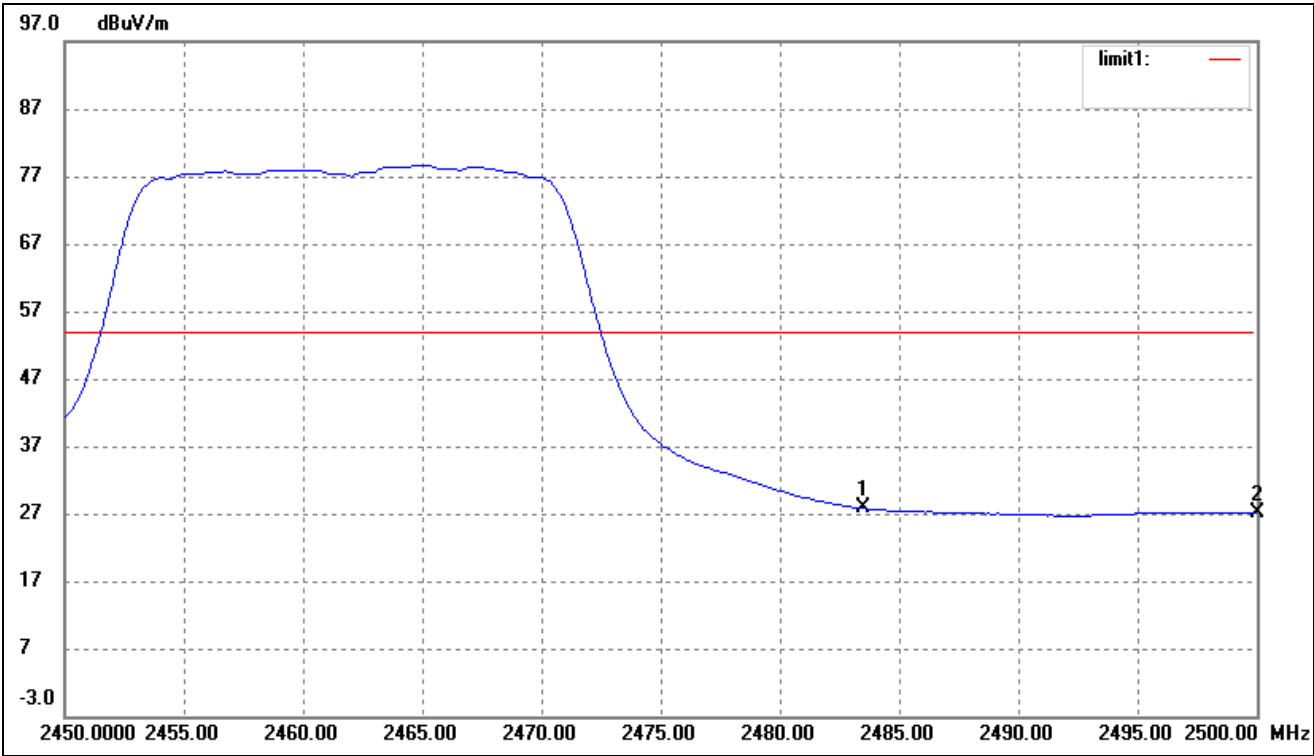
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Degree | Height | Remark |
|-----|-----------|---------|------------|--------|--------|--------|--------|--------|--------|
| | (MHz) | (dBuV) | Factor(dB) | (dBuV) | (dBuV) | (dB) | (°) | (cm) | |
| 1 | 2483.500 | 35.36 | -7.13 | 28.23 | 54.00 | -25.77 | 226 | 100 | Ave |
| | 2483.500 | 49.55 | -7.13 | 42.42 | 74.00 | -31.58 | 226 | 100 | peak |
| 2 | 2500.000 | 34.45 | -7.08 | 27.37 | 54.00 | -26.63 | 226 | 100 | Ave |
| | 2500.000 | 46.96 | -7.08 | 39.88 | 74.00 | -34.12 | 226 | 100 | peak |

For 802.11n-HT20
Lowest Bandedge



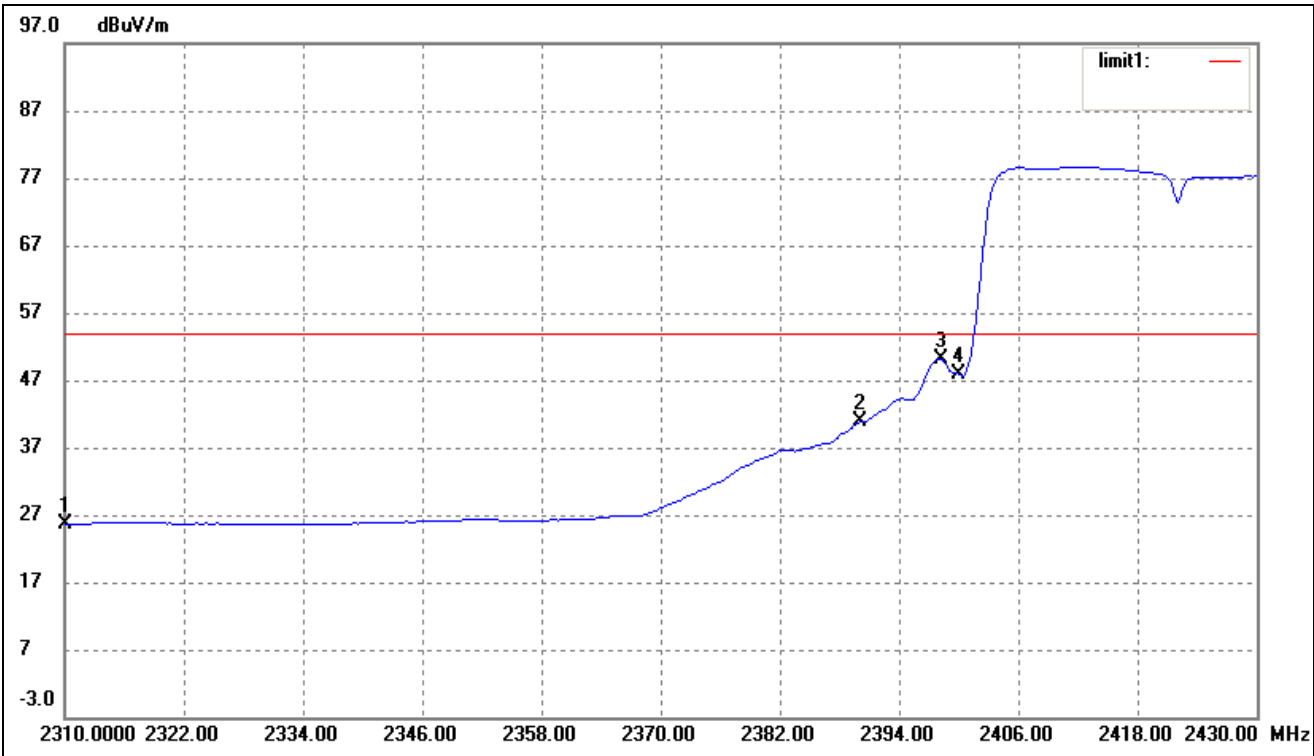
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Degree | Height | Remark |
|-----|-----------|---------|------------|--------|--------|--------|--------|--------|--------|
| | (MHz) | (dBuV) | Factor(dB) | (dBuV) | (dBuV) | (dB) | (°) | (cm) | |
| 1 | 2310.000 | 33.18 | -7.51 | 25.67 | 54.00 | -28.33 | 226 | 100 | Ave |
| | 2310.000 | 46.01 | -7.51 | 38.50 | 74.00 | -35.50 | 226 | 100 | peak |
| 2 | 2390.000 | 43.40 | -7.34 | 36.06 | 54.00 | -17.94 | 226 | 100 | Ave |
| | 2390.000 | 66.85 | -7.34 | 59.51 | 74.00 | -14.49 | 226 | 100 | peak |
| 3 | 2400.000 | 57.74 | -7.31 | 50.43 | 54.00 | -3.57 | 226 | 100 | Ave |
| | 2400.000 | 79.02 | -7.31 | 71.71 | 74.00 | -2.29 | 226 | 100 | peak |

Highest Bandedge



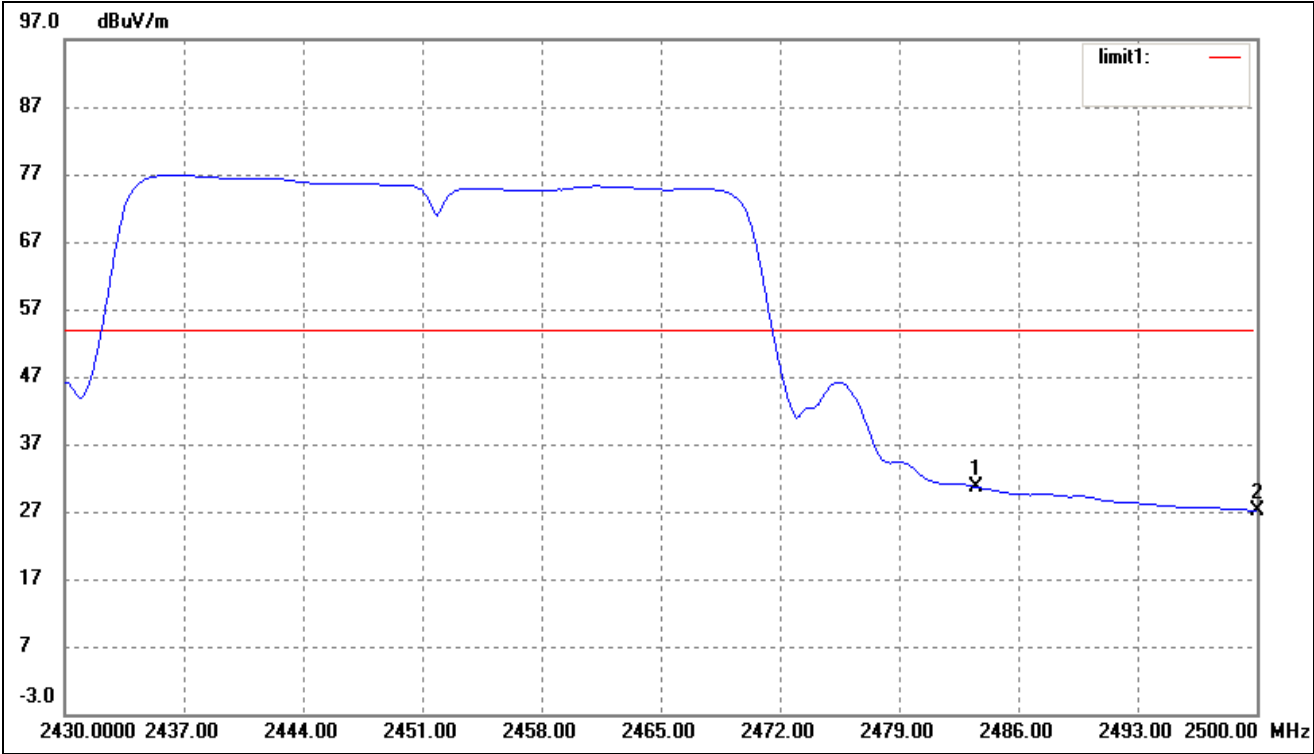
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Degree | Height | Remark |
|-----|-----------|---------|------------|--------|--------|--------|--------|--------|--------|
| | (MHz) | (dBuV) | Factor(dB) | (dBuV) | (dBuV) | (dB) | (°) | (cm) | |
| 1 | 2483.500 | 34.94 | -7.13 | 27.81 | 54.00 | -26.19 | 226 | 100 | Ave |
| | 2483.500 | 50.08 | -7.13 | 42.95 | 74.00 | -31.05 | 226 | 100 | peak |
| 2 | 2500.000 | 34.18 | -7.08 | 27.10 | 54.00 | -26.90 | 226 | 100 | Ave |
| | 2500.000 | 46.52 | -7.08 | 39.44 | 74.00 | -34.56 | 226 | 100 | peak |

For 802.11n-HT40
Lowest Bandedge



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Degree | Height | Remark |
|-----|-----------|---------|------------|--------|--------|--------|--------|--------|--------|
| | (MHz) | (dBuV) | Factor(dB) | (dBuV) | (dBuV) | (dB) | (°) | (cm) | |
| 1 | 2310.000 | 42.53 | -7.51 | 35.02 | 54.00 | -18.98 | 226 | 100 | Ave |
| | 2310.000 | 46.34 | -7.51 | 38.83 | 74.00 | -35.17 | 226 | 100 | peak |
| 2 | 2390.000 | 48.10 | -7.34 | 40.76 | 54.00 | -13.24 | 226 | 100 | Ave |
| | 2390.000 | 65.71 | -7.34 | 58.37 | 74.00 | -15.63 | 226 | 100 | peak |
| 3 | 2398.213 | 57.40 | -7.31 | 50.09 | 54.00 | -3.91 | 226 | 100 | Ave |
| | 2398.213 | 74.06 | -7.31 | 66.75 | 74.00 | -7.25 | 226 | 100 | peak |
| 4 | 2400.000 | 55.23 | -7.31 | 47.92 | 54.00 | -6.08 | 226 | 100 | Ave |
| | 2400.000 | 70.99 | -7.31 | 63.68 | 74.00 | -10.32 | 226 | 100 | peak |

Highest Bandedge



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|-------------------|-----------------------|------------------|-----------------|----------------|-----------------|----------------|--------|
| 1 | 2483.500 | 37.77 | -7.13 | 30.64 | 54.00 | -23.36 | 226 | 100 | Ave |
| | 2483.500 | 53.40 | -7.13 | 46.27 | 74.00 | -27.73 | 226 | 100 | peak |
| 2 | 2500.000 | 34.30 | -7.08 | 27.22 | 54.00 | -26.78 | 226 | 100 | Ave |
| | 2500.000 | 48.06 | -7.08 | 40.98 | 74.00 | -33.02 | 226 | 100 | peak |

9. CONDUCTED EMISSIONS

9.1 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 ± 2.88 dB.

9.2 Test Equipment List and Details

| Description | Manufacturer | Model | Serial Number | Cal. Date | Due. Date |
|-------------------|-----------------|----------|---------------|------------|------------|
| EMI Test Receiver | Rohde & Schwarz | ESPI | 101611 | 2012-03-28 | 2013-03-27 |
| L.I.S.N | Schwarz beck | NSLK8126 | 8126-224 | 2012-03-28 | 2013-03-27 |
| Pulse Limiter | Rohde & Schwarz | ESH3-Z2 | 100911 | 2012-03-28 | 2013-03-27 |

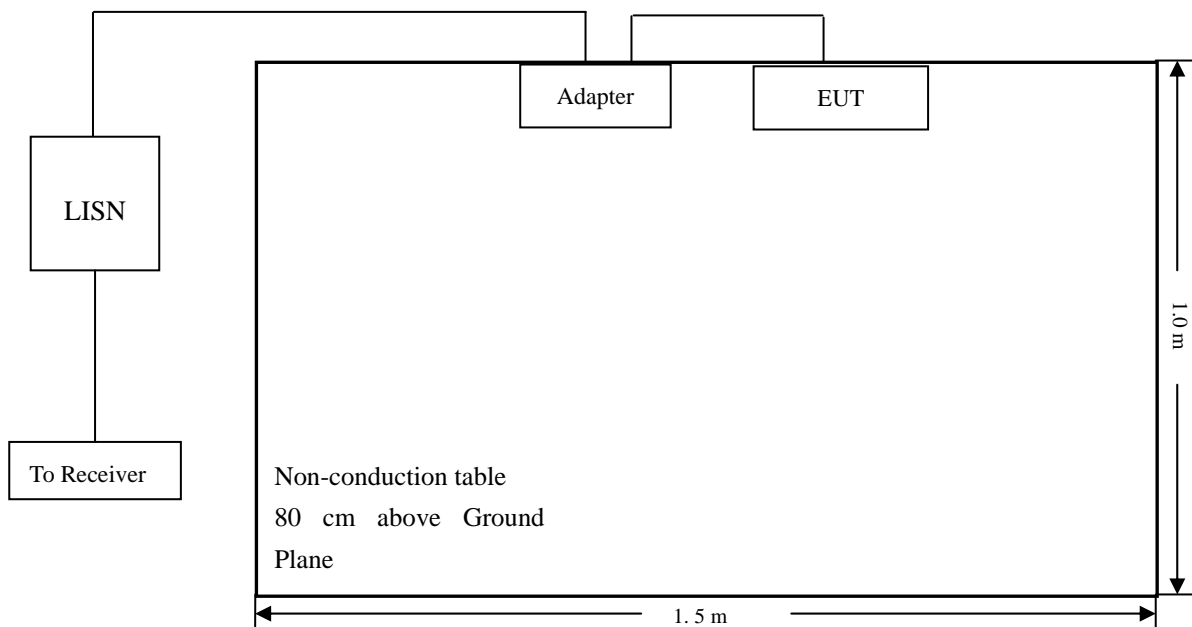
9.3 Test Procedure

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.

9.4 Basic Test Setup Block Diagram



9.5 Environmental Conditions

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

9.6 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

9.7 Summary of Test Results/Plots

According to the data in section 3.8, the EUT complied with the FCC Part 15.207 Conducted margin for a Class B device, with the *worst* margin reading of:

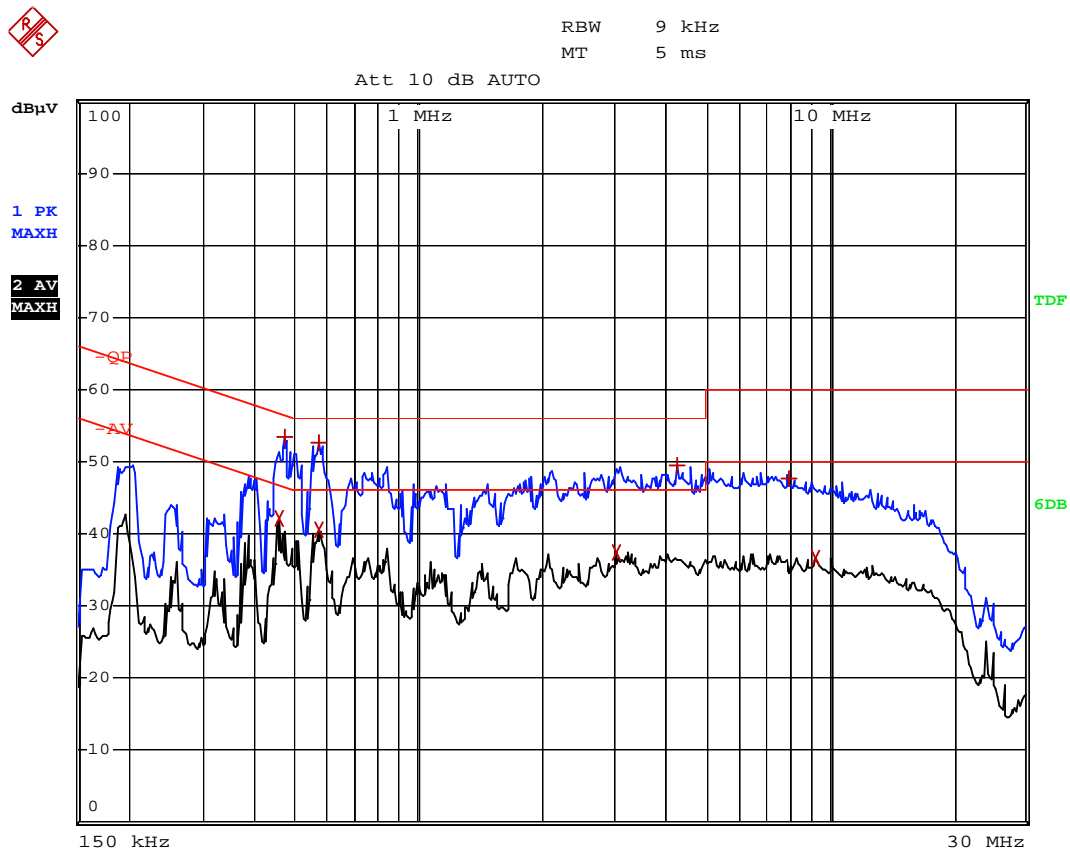
-1.15 dBµV at 0.514 MHz in the Line, Peak detector, 0.15-30MHz

9.8 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

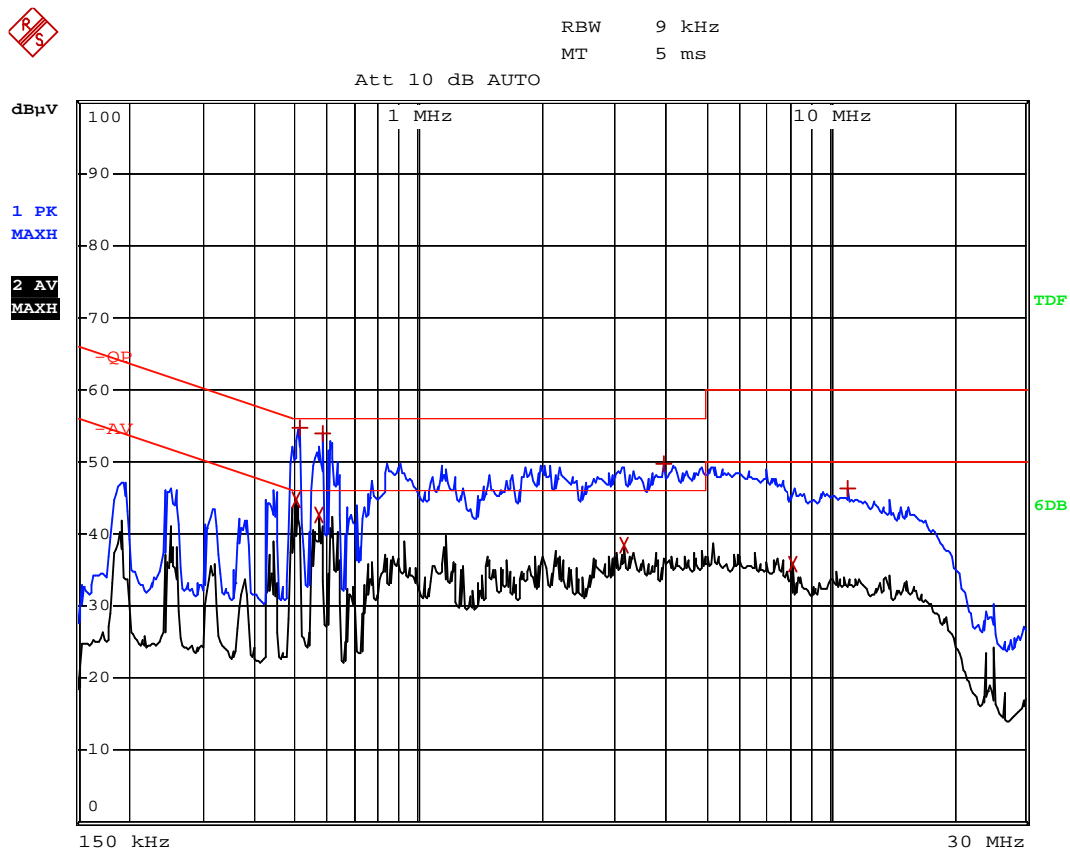
EUT: Tablet PC
Tested Model: COSMOS F-10HD
Operating Condiation: Charging and Operating
Comment:

Test Specification: Neutral



| EDIT PEAK LIST (Prescan Results) | | | |
|----------------------------------|-----------|------------|----------------|
| Trace1: | -QP | | |
| Trace2: | -AV | | |
| Trace3: | --- | | |
| TRACE | FREQUENCY | LEVEL dBµV | DELTA LIMIT dB |
| 2 Average | 458 kHz | 42.19 | -4.52 |
| 1 Max Peak | 474 kHz | 53.54 | -2.90 |
| 2 Average | 570 kHz | 40.50 | -5.49 |
| 1 Max Peak | 574 kHz | 52.63 | -3.36 |
| 2 Average | 3.034 MHz | 37.41 | -8.58 |
| 1 Max Peak | 4.282 MHz | 49.49 | -6.50 |
| 1 Max Peak | 8.01 MHz | 47.54 | -12.45 |
| 2 Average | 9.242 MHz | 36.71 | -13.28 |

Test Specification: Live



| EDIT PEAK LIST (Prescan Results) | | | |
|----------------------------------|------------|------------|----------------|
| Trace1: | -QP | | |
| Trace2: | -AV | | |
| Trace3: | --- | | |
| TRACE | FREQUENCY | LEVEL dBμV | DELTA LIMIT dB |
| 2 Average | 502 kHz | 44.72 | -1.27 |
| 1 Max Peak | 514 kHz | 54.84 | -1.15 |
| 2 Average | 574 kHz | 42.58 | -3.41 |
| 1 Max Peak | 582 kHz | 53.89 | -2.10 |
| 2 Average | 3.17 MHz | 38.46 | -7.53 |
| 1 Max Peak | 3.958 MHz | 49.65 | -6.34 |
| 2 Average | 8.142 MHz | 35.90 | -14.09 |
| 1 Max Peak | 11.102 MHz | 46.38 | -13.61 |

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