



FCC 47 CFR PART 15 SUBPART C

TEST REPORT

For

Product Name: Touchstone Wireless Telephony Gateway

Brand Name: ARRIS

Model No.: TG2472G

Series Model: N/A

FCC ID: UIDTG2472

**Test Report Number:
C141031R01-RPW**

Issued for

ARRIS Group, Inc.

3871 Lakefield Drive Suite 300 Suwanee, GA 30024, U.S.A

Issued by

Compliance Certification Services Inc.

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Revision History

| Rev. | Issue Date | Report NO. | Effect Page | Contents |
|------|----------------------|----------------|-------------|--------------------------------|
| 00 | November 14, 2014 | C141031R01-RPW | ALL | N/A |
| 01 | November 25, 2014 | C141031R01-RPW | P45 | Update test data and test plot |



TABLE OF CONTENTS

| | | |
|-----------|---|-----------|
| 1. | TEST RESULT CERTIFICATION..... | 4 |
| 2. | EUT DESCRIPTION..... | 5 |
| 3. | TEST METHODOLOGY | 6 |
| 3.1. | EUT CONFIGURATION | 6 |
| 3.2. | EUT EXERCISE | 6 |
| 3.3. | GENERAL TEST PROCEDURES..... | 6 |
| 3.4. | FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS..... | 7 |
| 3.5. | DESCRIPTION OF TEST MODES..... | 8 |
| 3.6. | ANTENNA DESCRIPTION | 9 |
| 4. | INSTRUMENT CALIBRATION..... | 9 |
| 4.1. | MEASURING INSTRUMENT CALIBRATION | 9 |
| 5. | FACILITIES AND ACCREDITATIONS | 11 |
| 5.1. | FACILITIES | 11 |
| 5.2. | EQUIPMENT..... | 11 |
| 5.3. | LABORATORY ACCREDITATIONS AND LISTING | 11 |
| 5.4. | TABLE OF ACCREDITATIONS AND LISTINGS | 12 |
| 6. | SETUP OF EQUIPMENT UNDER TEST..... | 13 |
| 6.1. | SETUP CONFIGURATION OF EUT..... | 13 |
| 6.2. | SUPPORT EQUIPMENT..... | 13 |
| 4. | FCC PART 15.247 REQUIREMENTS..... | 14 |
| 4.1. | 6DB BANDWIDTH | 14 |
| 4.2. | PEAK POWER | 35 |
| 4.3. | PEAK POWER SPECTRAL DENSITY | 55 |
| 4.4. | SPURIOUS EMISSIONS | 75 |
| 4.5. | RADIATED EMISSIONS | 148 |
| 4.6. | POWERLINE CONDUCTED EMISSIONS | 174 |



1. TEST RESULT CERTIFICATION

| | |
|-------------------------------|--|
| Product Name: | Touchstone Wireless Telephony Gateway |
| Trade Name: | ARRIS |
| Model Name: | TG2472G |
| Series Model: | N/A |
| Applicant Discrepancy: | Initial |
| Device Category: | Mobile Device |
| Date of Test: | December 2, 2013~December,29 2013 and March 20, 2014~ March 26, 2014 September 26,2014~October 23, 2014 & November 25, 2014 |
| Applicant: | ARRIS Group, Inc. 3871 Lakefield Drive Suite 300 Suwanee, GA 30024, U.S.A |
| Manufacturer: | ARRIS Group, Inc. 3871 Lakefield Drive Suite 300 Suwanee, GA 30024, U.S.A |
| Application Type: | Certification |

APPLICABLE STANDARDS

| STANDARD | TEST RESULT |
|------------------------------|-------------------------|
| FCC 47 CFR Part 15 Subpart C | No non-compliance noted |

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2009 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247.

The test results of this report relate only to the tested sample EUT identified in this report.

Approved by:

Tested by:

Jeff.Fang
RF Manager
Compliance Certification Service Inc.

James.Yan
Test Engineer
Compliance Certification Service Inc.



2. EUT DESCRIPTION

| | |
|-------------------------------------|---|
| Product Name: | Touchstone Wireless Telephony Gateway |
| Brand Name: | ARRIS |
| Model Name: | TG2472G |
| Series Model: | N/A |
| Model Discrepancy: | N/A |
| Power Adapter Power Rating : | Input: AC ~115V 60Hz 0.7A |
| Frequency Range: | 2.4G:2412MHz-2462MHz |
| Transmit Power: | IEEE 802.11b mode: 29.87 dBm IEEE 802.11g mode: 29.82 dBm draft 802.11n Standard-20 MHz Channel mode: 28.83 dBm draft 802.11n Wide-40 MHz Channel mode: 28.19 dBm |
| Modulation Technique: | 802.11b mode: DSSS (1,2,5.5 and 11 Mbps) 802.11g mode: DSSS /OFDM (6,9,12,18,24,36,48 and 54 Mbps) 802.11n Standard-20 MHz Channel mode: OFDM (6.5,13,19.5,26,39,52,58.5 and 65 Mbps) 802.11n Wide-40 MHz Channel mode: OFDM (13.5,27,40.5,54,81,108,121.5 and 135 Mbps) |
| Number of Channels: | IEEE 802.11b/g/n HT20 mode: 11 Channels IEEE 802.11n HT40 mode: 7 Channels |
| Antenna Specification: | Dipole antennas for 2.4GHz Gain 5.40 dBi and Dipole antennas for 5 GHz Gain 3.50 dBi |
| | Dipole antennas for 2.4GHz Gain 3.20 dBi and Dipole antennas for 5 GHz Gain 5.20 dBi |

Remark:

- 1.The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.
- 2.This submittal(s) (test report) is intended for **FCC ID: UIDTG2472** filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.



3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4 2009 and FCC CFR 47 15.207, 15.209 and 15.247.

3.1. EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2. EUT EXERCISE

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

3.3. GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4 2009 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4 2009.



3.4.FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

| MHz | MHz | MHz | GHz |
|----------------------------|-----------------------|-----------------|------------------|
| 0.090 - 0.110 | 16.42 - 16.423 | 399.9 - 410 | 4.5 - 5.15 |
| ¹ 0.495 - 0.505 | 16.69475 - 16.69525 | 608 - 614 | 5.35 - 5.46 |
| 2.1735 - 2.1905 | 16.80425 - 16.80475 | 960 - 1240 | 7.25 - 7.75 |
| 4.125 - 4.128 | 25.5 - 25.67 | 1300 - 1427 | 8.025 - 8.5 |
| 4.17725 - 4.17775 | 37.5 - 38.25 | 1435 - 1626.5 | 9.0 - 9.2 |
| 4.20725 - 4.20775 | 73 - 74.6 | 1645.5 - 1646.5 | 9.3 - 9.5 |
| 6.215 - 6.218 | 74.8 - 75.2 | 1660 - 1710 | 10.6 - 12.7 |
| 6.26775 - 6.26825 | 108 - 121.94 | 1718.8 - 1722.2 | 13.25 - 13.4 |
| 6.31175 - 6.31225 | 123 - 138 | 2200 - 2300 | 14.47 - 14.5 |
| 8.291 - 8.294 | 149.9 - 150.05 | 2310 - 2390 | 15.35 - 16.2 |
| 8.362 - 8.366 | 156.52475 - 156.52525 | 2483.5 - 2500 | 17.7 - 21.4 |
| 8.37625 - 8.38675 | 156.7 - 156.9 | 2655 - 2900 | 22.01 - 23.12 |
| 8.41425 - 8.41475 | 162.0125 - 167.17 | 3260 - 3267 | 23.6 - 24.0 |
| 12.29 - 12.293 | 167.72 - 173.2 | 3332 - 3339 | 31.2 - 31.8 |
| 12.51975 - 12.52025 | 240 - 285 | 3345.8 - 3358 | 36.43 - 36.5 |
| 12.57675 - 12.57725 | 322 - 335.4 | 3600 - 4400 | (²) |
| 13.36 - 13.41 | | | |

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

² Above 38.6

Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.



3.5.DESCRPTION OF TEST MODES

The EUT transmitting and receiving with three antennas simultaneously working at a/b/g/n/c mode, so 3x3 configuration was used for all testing in this report.

The worst-case data rates are determined to be as follows for each mode based on investigation by measuring the average power, peak power and PPSD across all data rates, bandwidths, and modulations.

The worst-case data rates:

IEEE802.11b mode:

Channel Low (2412MHz)

Channel Mid (2437MHz)

Channel High (2462MHz) with 11Mbps data rate was chosen for full testing.

IEEE802.11g mode:

Channel Low (2412MHz)

Channel Mid (2437MHz)

Channel High (2462MHz) with 54Mbps data rate was chosen for full testing.

Draft 802.11gn Standard-20 MHz Channel mode:

Channel Low (2412MHz)

Channel Mid (2437MHz)

Channel High (2462MHz) with 65Mbps data rate was chosen for full testing.

Draft 802.11gn Wide-40 MHz Channel mode:

Channel Low (2422MHz)

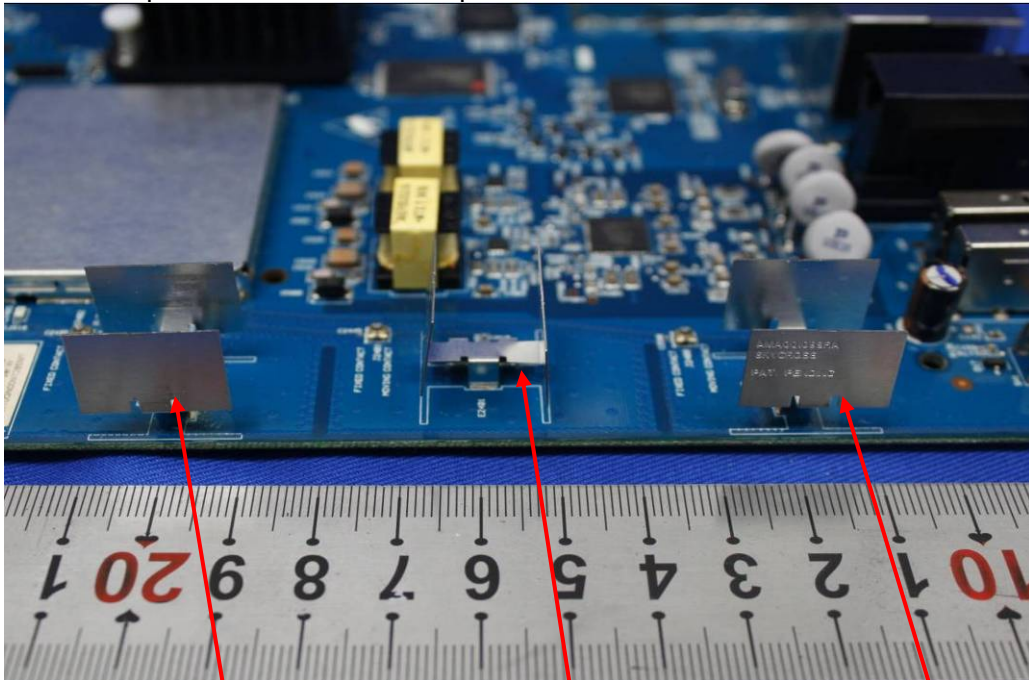
Channel Mid (2437MHz)

Channel High (2452MHz) with 135Mbps data rate was chosen for full testing.



3.6. ANTENNA DESCRIPTION

Antenna specifications meet the requirements of 15.203



Antenna 2

Antenna 1

Antenna 0

4. INSTRUMENT CALIBRATION

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

Equipment Used for Emissions Measurement

| Conducted Emissions Test Site | | | | |
|-------------------------------|---------------|-----------|---------------|-----------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| Spectrum Analyzer | Agilent | E4446A | MY44020154 | 2015-4-9 |
| Detector negative | Agilent | 8473B | MY42240176 | 2015-8-11 |
| OSCILLOSCOPE | Agilent | DSO6104A | MY44002585 | 2015-3-16 |
| Peak and Avg Power Sensor | Agilent | E9327A | US40441788 | 2015-3-17 |
| EPM-P Series Power Meter | Agilent | E4416A | GB41292714 | 2015-3-17 |
| Power SPLITTER | Mini-Circuits | ZN2PD-9G | SF078500430 | N.C.R |
| DC POWER SUPPLY | GW instek | GPS-3303C | E903131 | N.C.R |
| Temp. / Humidity Chamber | Kingson | THS-M1 | 242 | 2015-1-22 |
| Test Software | EZ-EMC | | | |



| 977 Chamber | | | | |
|-------------------|--------------|----------------------|---------------|-----------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| Spectrum Analyzer | Agilent | E4446A | MY44020154 | 2014-11-13 |
| EMI Test Receiver | R&S | ESCI | 101378 | 2015-1-22 |
| Pre-Amplifier | MINI | ZFL-1000VH2 | d041703 | 2015-1-22 |
| Pre-Amplifier | Miteq | JS41-00101800-32-10P | 1675713 | 2015-1-22 |
| Bilog Antenna | Sunol | JB1 | A062604 | 2015-3-6 |
| Horn-antenna | SCHWARZBECK | BBHA9120D | D:266 | 2015-3-7 |
| Turn Table | CT | CT123 | 4165 | N.C.R |
| Antenna Tower | CT | CTERG23 | 3256 | N.C.R |
| Controller | CT | CT100 | 95637 | N.C.R |
| Test Software | EZ-EMC | | | |

| Conducted Emission | | | | |
|--------------------|--------------|-------------------------|---------------|-----------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| EMI TEST RECEIVER | R&S | ESCI | 100781 | 2015-3-16 |
| V (V-LISN) | SCHWARZBECK | NNLK 8129 | 8129-143 | N.C.R |
| LISN (EUT) | FCC | FCC-LISN-50/250-50-2-02 | 05012 | 2015-3-16 |
| Pulse LIMITER | R&S | ESH3-Z2 | 100524 | 2015-9-24 |
| Test Software | EZ-EMC | | | |

Remark: The measurement uncertainty is less than +/- 2.81dB, which is evaluated as per the NAMAS NIS 81 and CISPR/A/291/CDV.

Expanded Uncertainty (95% CONFIDENCE INTERVAL): K=2



5. FACILITIES AND ACCREDITATIONS

5.1.FACILITIES

All measurement facilities used to collect the measurement data are located at CCS China Kunshan Lab at 10#Weiye Rd, Innovation Park Eco. & Tec. Development Zone

Kunshan city JiangSu, (215300), CHINA.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 2009 and CISPR Publication 22.

5.2.EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

5.3.LABORATORY ACCREDITATIONS AND LISTING

The test facilities used to perform radiated and conducted emissions tests are accredited by American Association for Laboratory Accreditation Program for the specific scope accreditation under Lab Code: 200581-0 to perform Electromagnetic Interference tests according to FCC Part 15 and CISPR 22 requirements. In addition, the test facilities are listed with Industry Canada, Certification and Engineering Bureau, IC5743 for 10m chamber 10m, IC5743 for 10m chamber 3m.



5.4. TABLE OF ACCREDITATIONS AND LISTINGS

| Country | Agency | Scope of Accreditation | Logo |
|---------|--------|--|------|
| USA | A2LA | 47 CFR FCC Part 15/18 (using ANSI C63.4 :2009); VCCI V3; CNS 13438; CNS 13439; CNS 13803; CISPR 11; EN 55011; CISPR 13; EN 55013; CISPR 22:2005; CISPR 22:1997 +A1 :2000+A2 :2002; EN 55022:2006; EN55022 :1998 +A1 :2001+A2 :2003; EN 61000-6-3 (excluding discontinuous interference); EN 61000-6-4; AS/NZS CISPR 22; CAN/CSA-CEI/IEC CISPR 22; EN 61000-3-2; EN 61000-3-3; EN550024; EN 61000-4-2; EN 61000-4-3; EN61000-4-4; EN 61000-4-5; EN 61000-4-6; IEC 61000-4-8; EN 61000-4-11; IEC61000-3-2; IEC61000-3-3; IEC 61000-4-2; IEC 61000-4-3; IEC 61000-4-4; IEC 61000-4-5; IEC 61000-4-6; IEC 61000-4-8; IEC 61000-4-11; EN 300 220-3; EN 300 328; EN 300 330-2; EN 300 440-1; EN 300-440-2; EN 300 893; EN 301 489-01; EN 301 489-3; EN 301 489-07; EN 301 489-17; 47 CFR FCC Part 15, 22, 24 | |
| USA | FCC | 3/10 meter Sites to perform FCC Part 15/18 measurements | |
| Japan | VCCI | 3/10 meter Sites and conducted test sites to perform radiated/conducted measurements | |

* No part of this report may be used to claim or imply product endorsement by A2LA or any agency of the US Government.



6. SETUP OF EQUIPMENT UNDER TEST

6.1.SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

6.2.SUPPORT EQUIPMENT

| No. | Device Type | Brand | Model | Series No. | FCC ID |
|-----|-------------|-------|-------|------------|--------|
| 1. | Notebook | DELL | E5430 | CN8YYW1 | N/A |

Remark:

2. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
3. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.



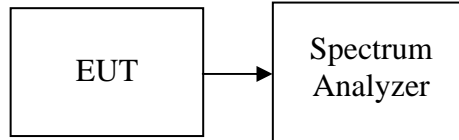
4. FCC PART 15.247 REQUIREMENTS

4.1.6DB BANDWIDTH

LIMIT

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 6dB bandwidth shall be at least 500 kHz.

Test Configuration



TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the selected span. The VBW is set to 3 times the RBW. The sweep time is occupied.

TEST RESULTS

No non-compliance noted

Test Data

IEEE 802.11b mode /Chain 0

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2412 | 10.146 | >500 | PASS |
| Mid | 2437 | 10.108 | | PASS |
| High | 2462 | 10.097 | | PASS |

IEEE 802.11b mode /Chain 1

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2412 | 9.638 | >500 | PASS |
| Mid | 2437 | 10.199 | | PASS |
| High | 2462 | 10.100 | | PASS |

IEEE 802.11b mode /Chain 2

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2412 | 10.086 | >500 | PASS |
| Mid | 2437 | 10.114 | | PASS |
| High | 2462 | 10.094 | | PASS |

IEEE 802.11g mode /Chain 0

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2412 | 16.398 | >500 | PASS |
| Mid | 2437 | 16.429 | | PASS |
| High | 2462 | 16.404 | | PASS |

**IEEE 802.11g mode /Chain 1**

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2412 | 16.466 | >500 | PASS |
| Mid | 2437 | 16.383 | | PASS |
| High | 2462 | 16.405 | | PASS |

IEEE 802.11g mode /Chain 2

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2412 | 16.438 | >500 | PASS |
| Mid | 2437 | 16.386 | | PASS |
| High | 2462 | 16.399 | | PASS |

draft 802.11n Standard-20 MHz Channel mode / Chain 0

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2412 | 16.415 | >500 | PASS |
| Mid | 2437 | 17.623 | | PASS |
| High | 2462 | 17.616 | | PASS |

draft 802.11n Standard-20 MHz Channel mode / Chain 1

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2412 | 17.351 | >500 | PASS |
| Mid | 2437 | 17.620 | | PASS |
| High | 2462 | 17.222 | | PASS |

draft 802.11n Standard-20 MHz Channel mode / Chain 2

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2412 | 17.603 | >500 | PASS |
| Mid | 2437 | 17.620 | | PASS |
| High | 2462 | 17.609 | | PASS |

draft 802.11n wide-40 MHz Channel mode / Chain 0

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2422 | 35.754 | >500 | PASS |
| Mid | 2437 | 36.119 | | PASS |
| High | 2452 | 35.792 | | PASS |

**draft 802.11n wide-40 MHz Channel mode / Chain 1**

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2422 | 36.305 | >500 | PASS |
| Mid | 2437 | 35.843 | | PASS |
| High | 2452 | 35.799 | | PASS |

draft 802.11n wide-40 MHz Channel mode / Chain 2

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit (kHz) | Result |
|---------|-----------------|-----------------|-------------|--------|
| Low | 2422 | 35.949 | >500 | PASS |
| Mid | 2437 | 36.423 | | PASS |
| High | 2452 | 36.397 | | PASS |



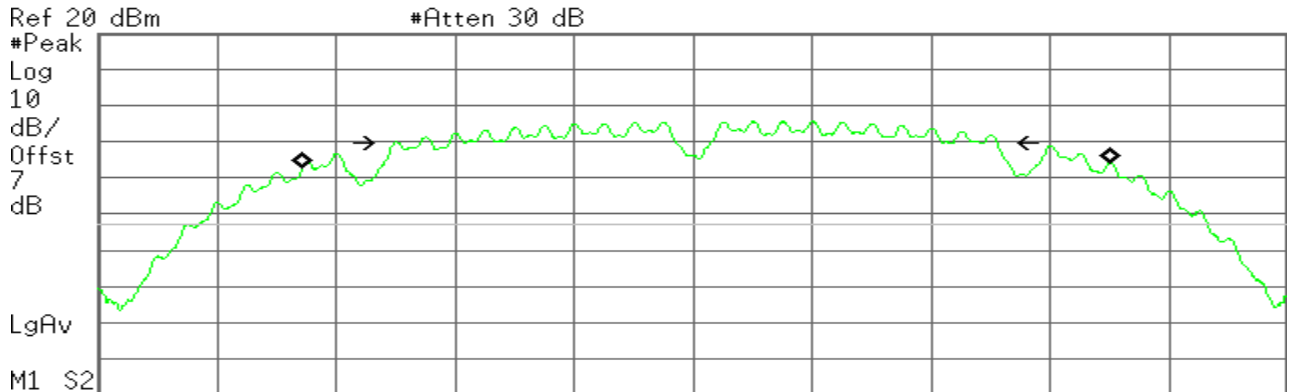
Test Plot

IEEE 802.11b MODE /Chain 0

6dB Bandwidth (CH Low)

Agilent

R T



Center 2.412 00 GHz Span 20 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 1.933 ms (1001 pts)

Occupied Bandwidth
 13.6007 MHz

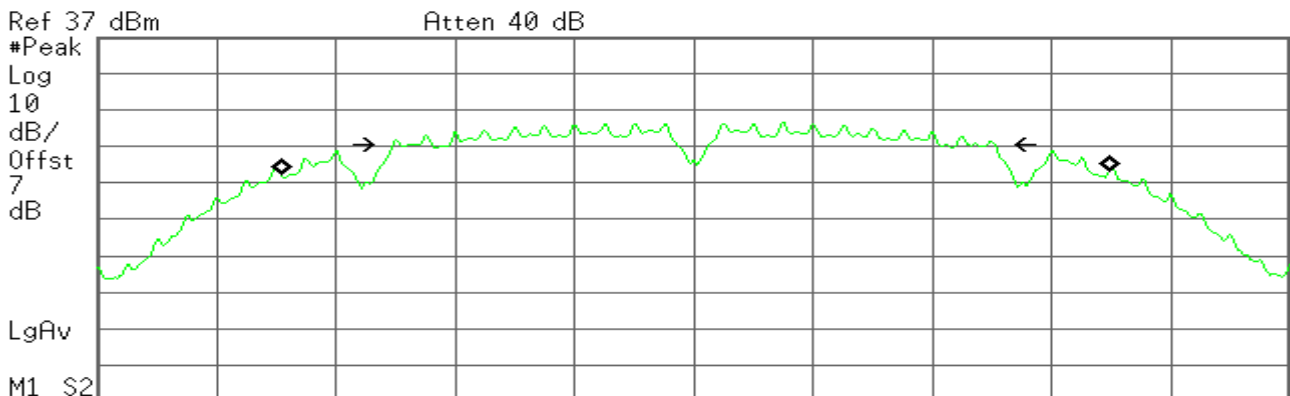
Occ BW % Pwr 99.00 %
 x dB -6.00 dB

Transmit Freq Error 228.016 kHz
 x dB Bandwidth 10.146 MHz

6dB Bandwidth (CH Mid)

Agilent

R T



Center 2.437 00 GHz Span 20 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 1.92 ms (601 pts)

Occupied Bandwidth
 13.8821 MHz

Occ BW % Pwr 99.00 %
 x dB -6.00 dB

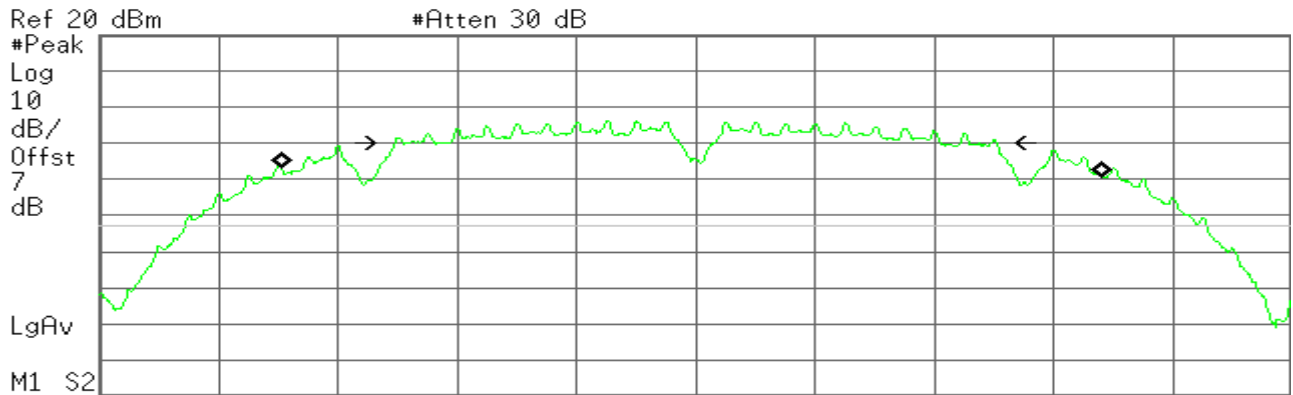
Transmit Freq Error 28.839 kHz
 x dB Bandwidth 10.108 MHz



6dB Bandwidth (CH High)

Agilent

R L



Center 2.462 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.933 ms (1001 pts)

Occupied Bandwidth
13.7641 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

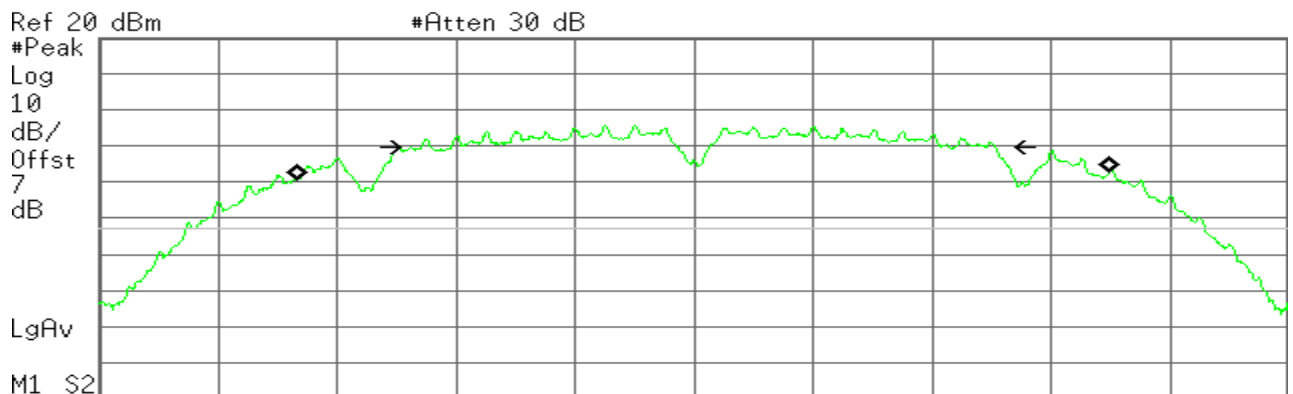
Transmit Freq Error -62.237 kHz
x dB Bandwidth 10.097 MHz

IEEE 802.11b MODE /Chain 1

6dB Bandwidth (CH Low)

Agilent

R L



Center 2.412 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.933 ms (1001 pts)

Occupied Bandwidth
13.6733 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

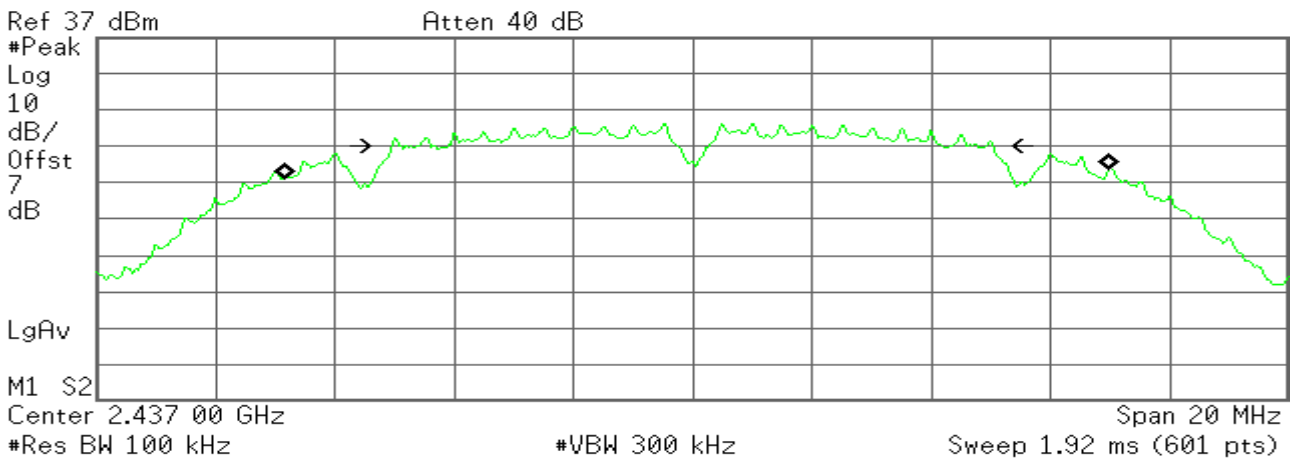
Transmit Freq Error 146.251 kHz
x dB Bandwidth 9.638 MHz



6dB Bandwidth (CH Mid)

Agilent

R T



Occupied Bandwidth
13.8031 MHz

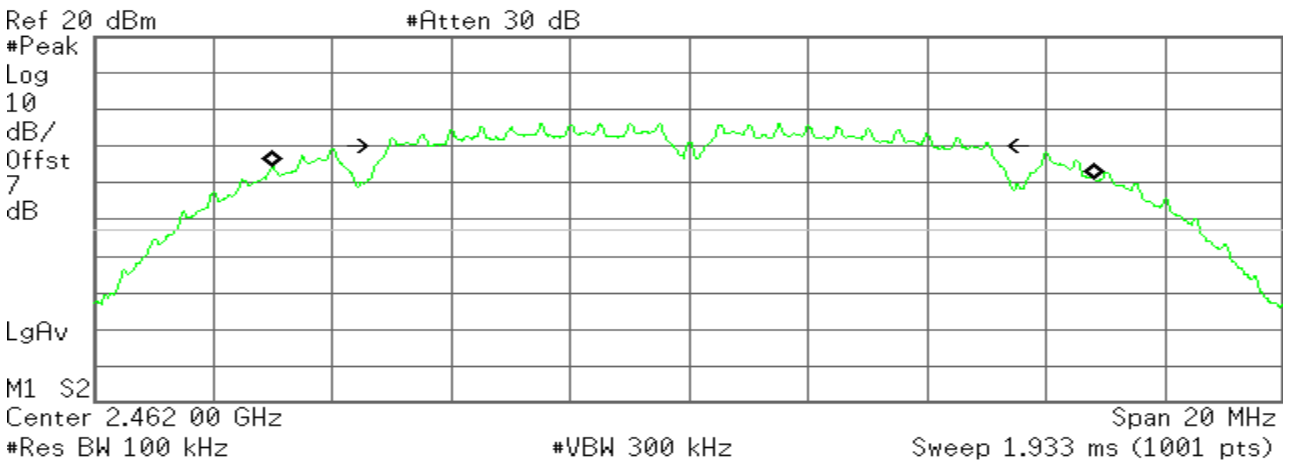
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 64.584 kHz
x dB Bandwidth 10.099 MHz

6dB Bandwidth (CH High)

Agilent

R L



Occupied Bandwidth
13.8169 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -92.927 kHz
x dB Bandwidth 10.100 MHz

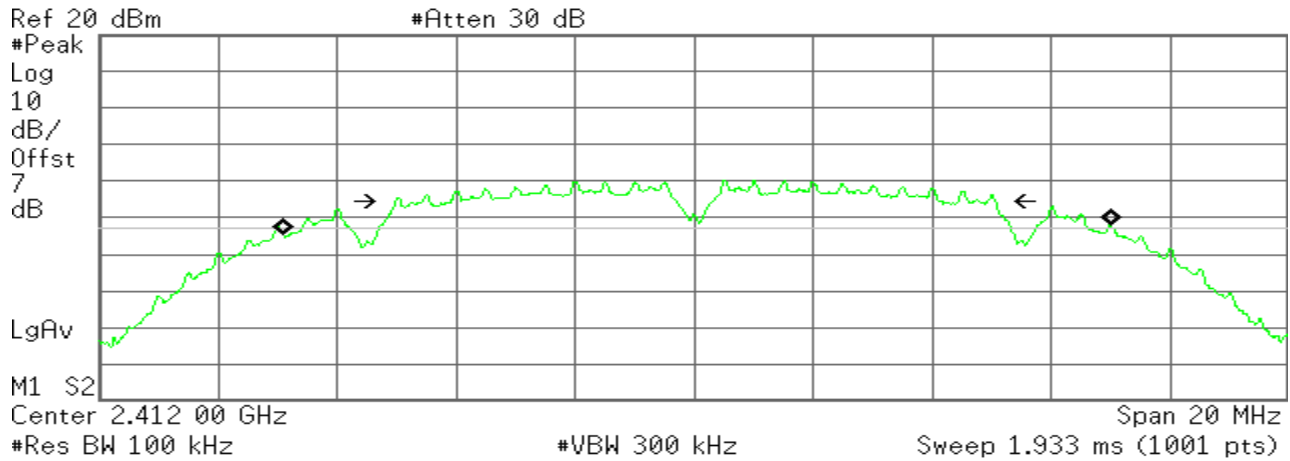


IEEE 802.11b MODE /Chain 2

6dB Bandwidth (CH Low)

Agilent

R L



Occupied Bandwidth
13.9065 MHz

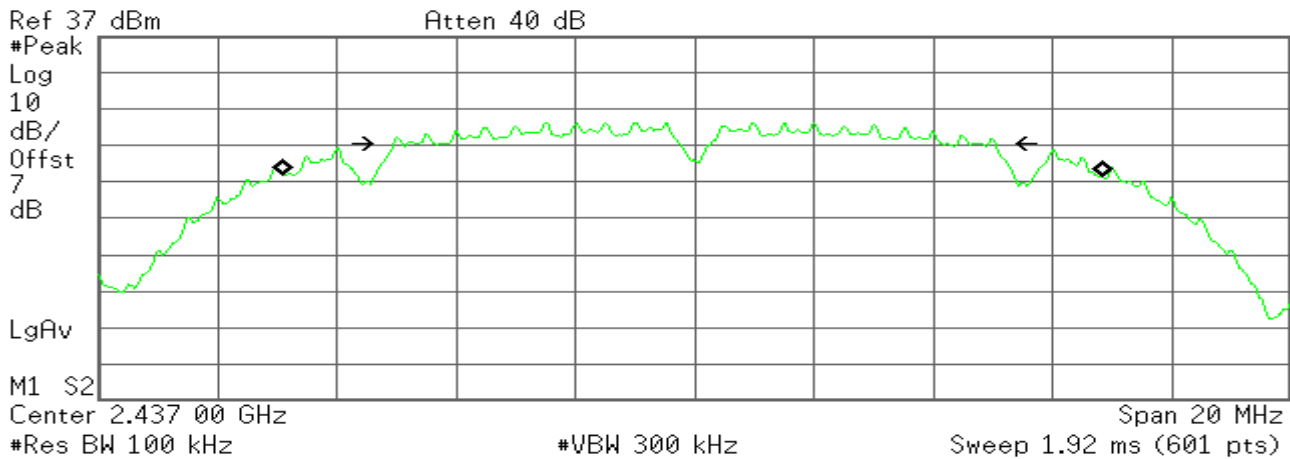
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 61.402 kHz
x dB Bandwidth 10.086 MHz

6dB Bandwidth (CH Mid)

Agilent

R T



Occupied Bandwidth
13.7209 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

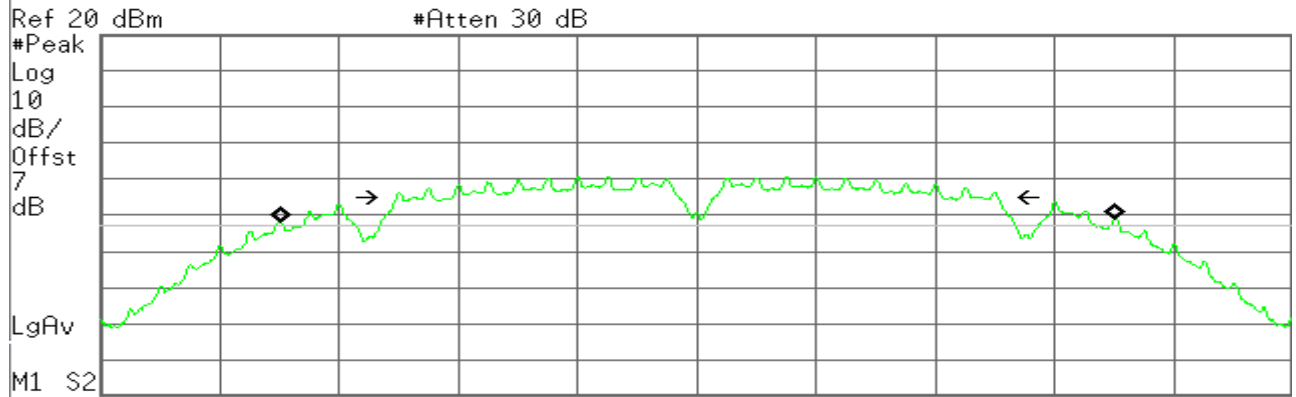
Transmit Freq Error -23.526 kHz
x dB Bandwidth 10.114 MHz



6dB Bandwidth (CH High)

Agilent

R L



Ref 20 dBm #Atten 30 dB
 #Peak Log 10 dB/Offst 7 dB
 LgAv
 M1 S2
 Center 2.462 00 GHz Span 20 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 1.933 ms (1001 pts)

Occupied Bandwidth
13.9809 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

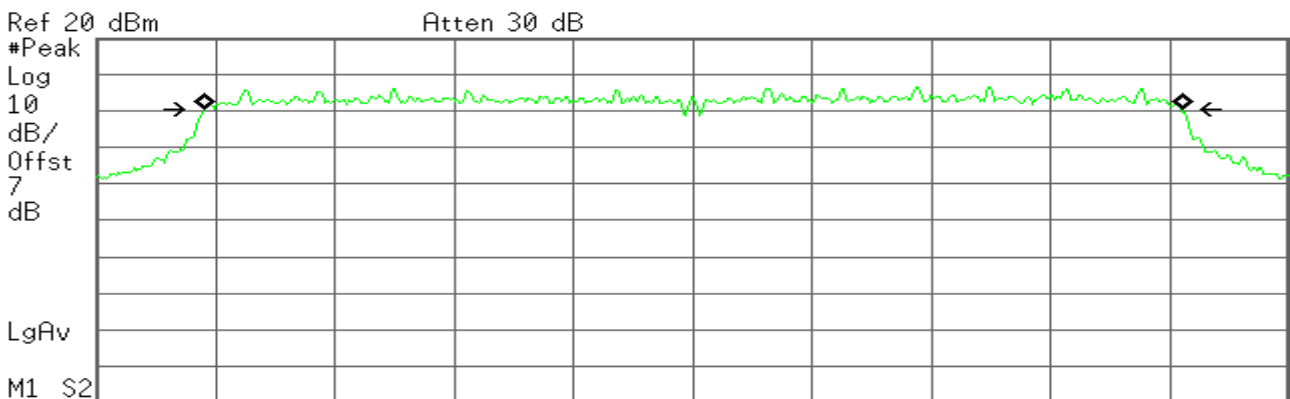
Transmit Freq Error 29.183 kHz
x dB Bandwidth 10.094 MHz

IEEE 802.11g MODE /Chain 0

6dB Bandwidth (CH Low)

Agilent

R T



Ref 20 dBm Atten 30 dB
 #Peak Log 10 dB/Offst 7 dB
 LgAv
 M1 S2
 Center 2.412 00 GHz Span 20 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 1.92 ms (601 pts)

Occupied Bandwidth
16.4198 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

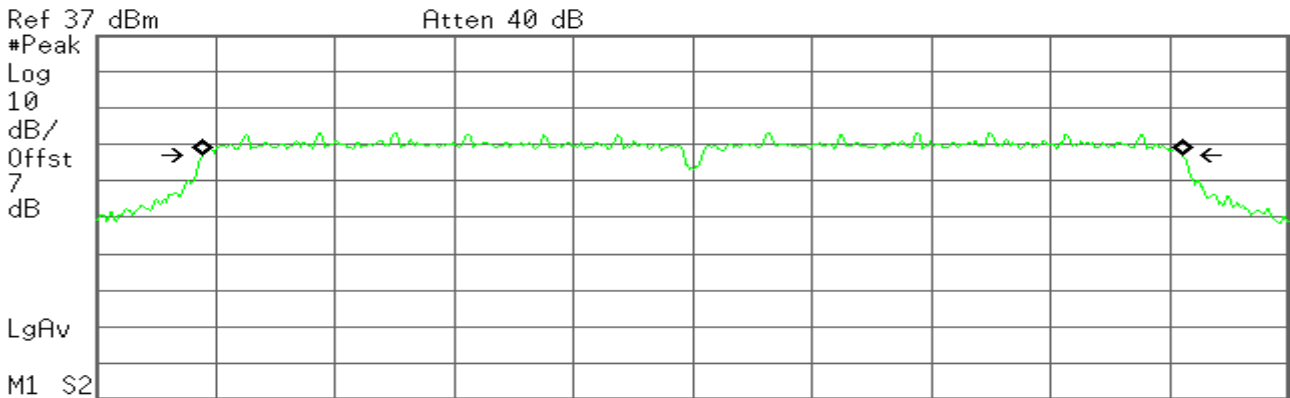
Transmit Freq Error 8.123 kHz
x dB Bandwidth 16.398 MHz



6dB Bandwidth (CH Mid)

Agilent

R T



Center 2.437 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.92 ms (601 pts)

Occupied Bandwidth
16.4587 MHz

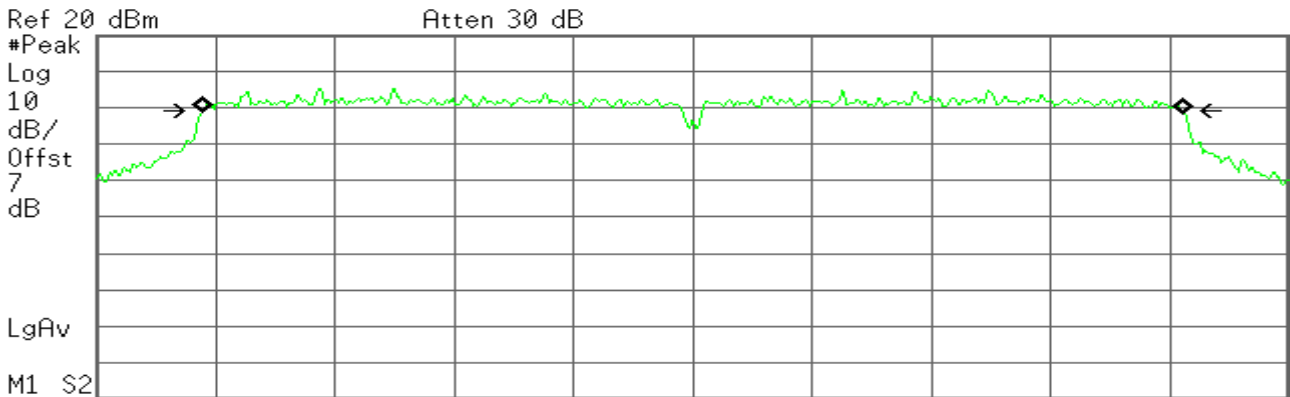
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 2.077 kHz
x dB Bandwidth 16.429 MHz

6dB Bandwidth (CH High)

Agilent

R T



Center 2.462 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.92 ms (601 pts)

Occupied Bandwidth
16.4525 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -1.734 kHz
x dB Bandwidth 16.404 MHz

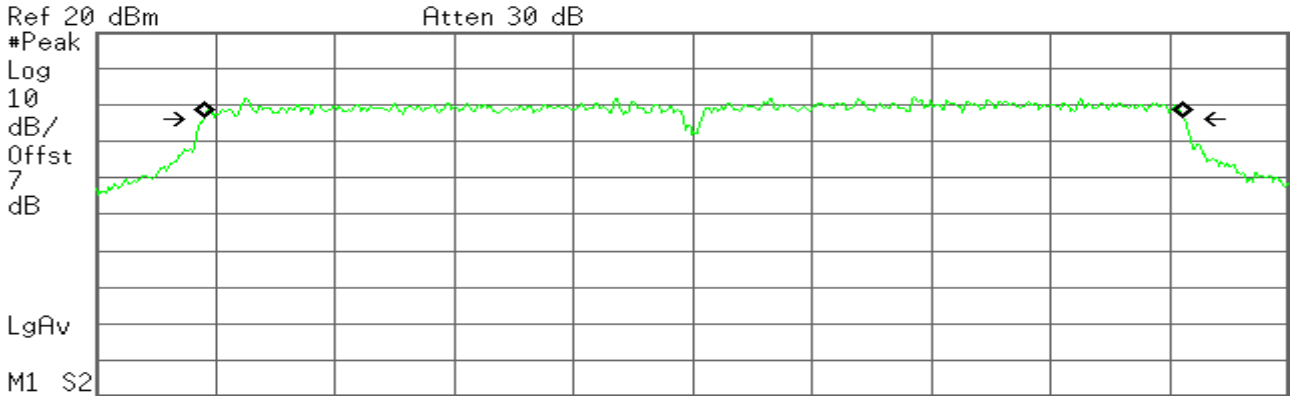


IEEE 802.11g MODE /Chain 1

6dB Bandwidth (CH Low)

Agilent

R T



Center 2.412 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.92 ms (601 pts)

Occupied Bandwidth
16.4251 MHz

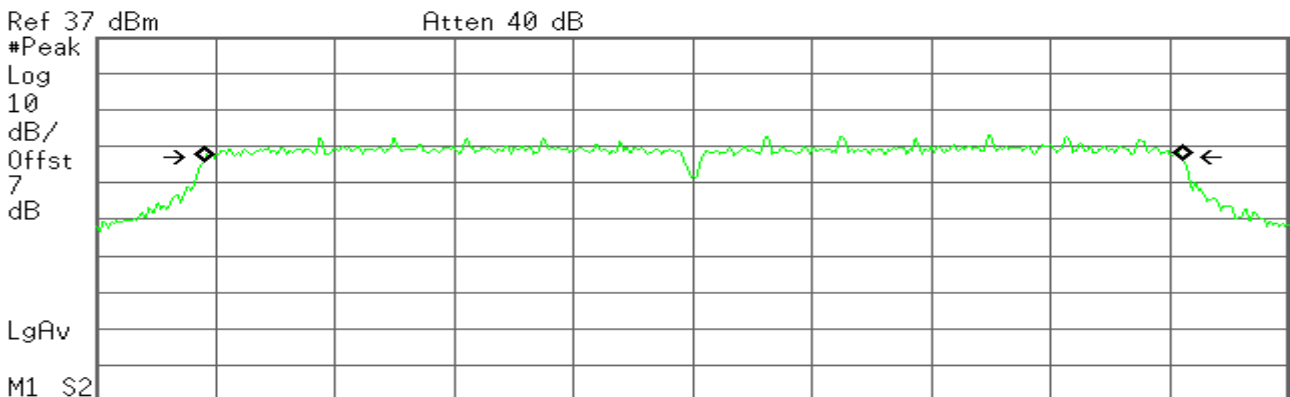
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 18.971 kHz
x dB Bandwidth 16.466 MHz

6dB Bandwidth (CH Mid)

Agilent

R T



Center 2.437 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.92 ms (601 pts)

Occupied Bandwidth
16.4391 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

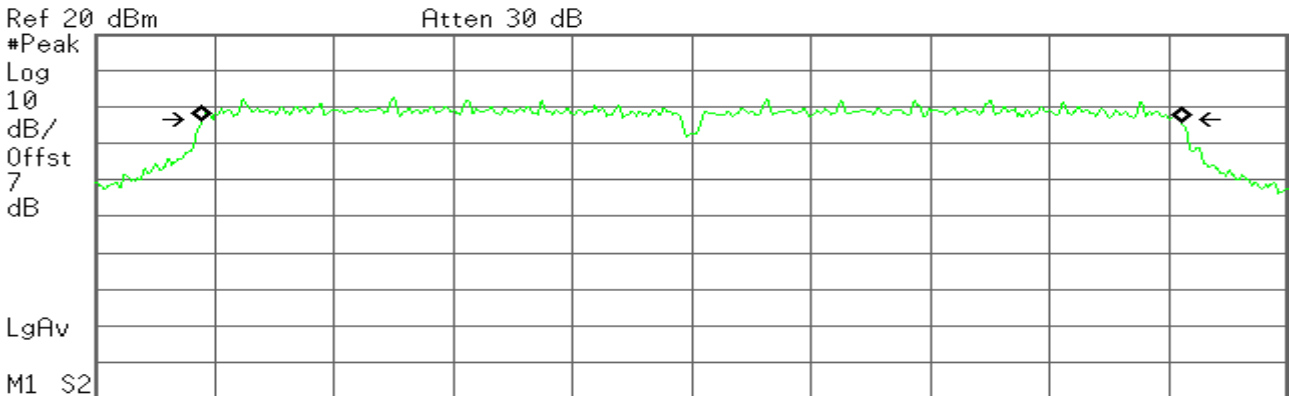
Transmit Freq Error 7.386 kHz
x dB Bandwidth 16.383 MHz



6dB Bandwidth (CH High)

Agilent

R T



Center 2.462 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.92 ms (601 pts)

Occupied Bandwidth
16.4436 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

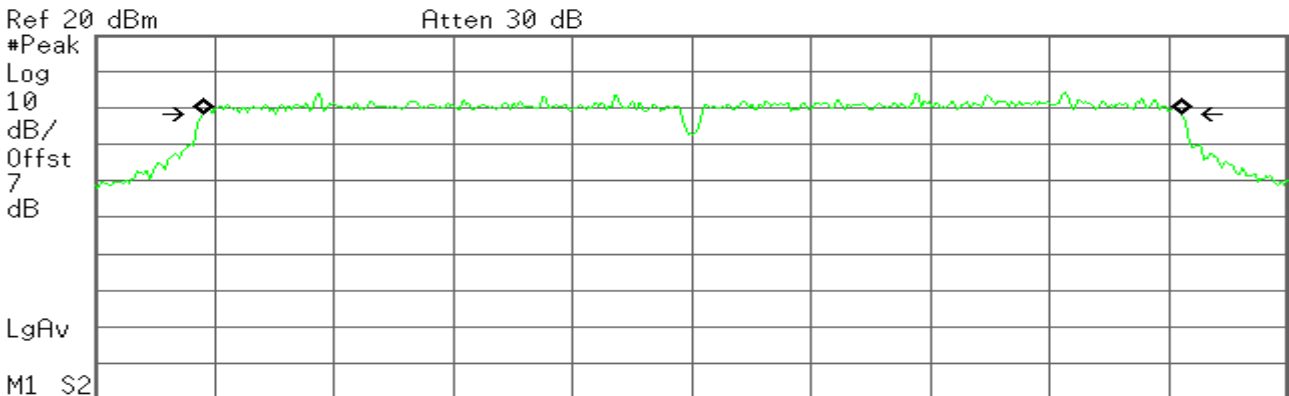
Transmit Freq Error -4.790 kHz
x dB Bandwidth 16.405 MHz

IEEE 802.11g MODE /Chain 2

6dB Bandwidth (CH Low)

Agilent

R T



Center 2.412 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.92 ms (601 pts)

Occupied Bandwidth
16.4357 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

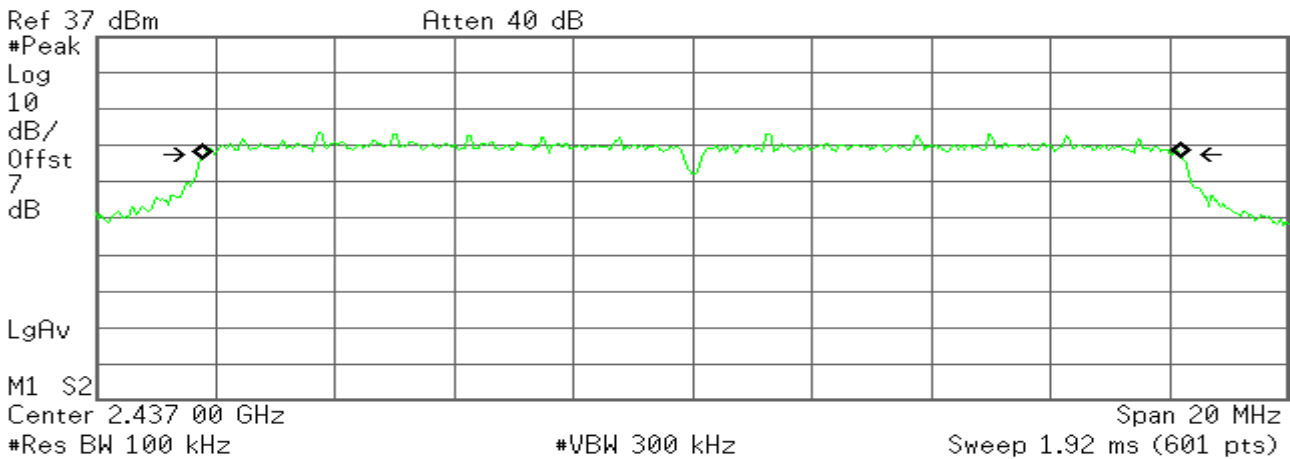
Transmit Freq Error 8.498 kHz
x dB Bandwidth 16.438 MHz



6dB Bandwidth (CH Mid)

* Agilent

R T



Occupied Bandwidth
16.4438 MHz

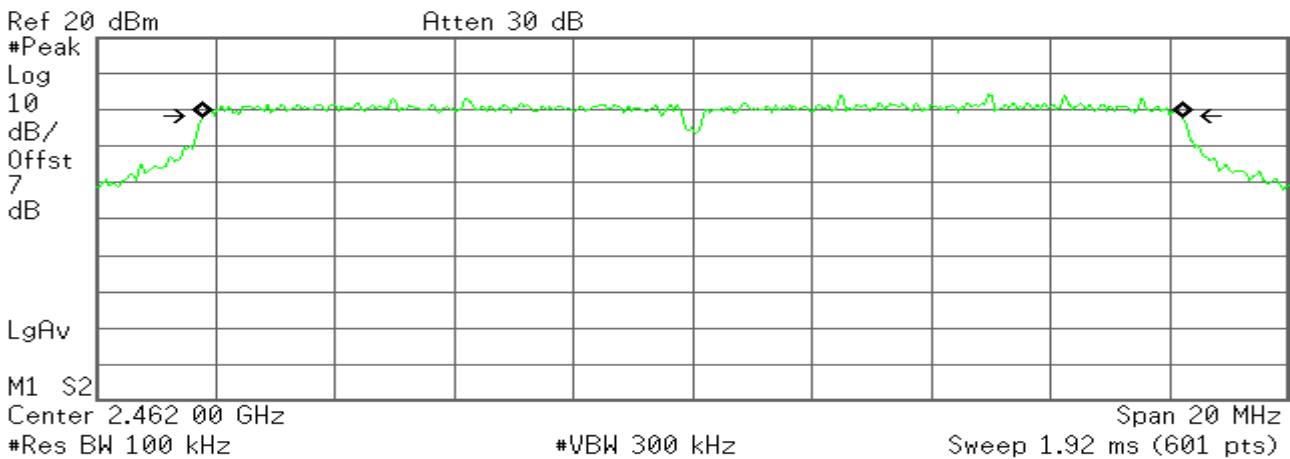
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -16.110 kHz
x dB Bandwidth 16.386 MHz

6dB Bandwidth (CH High)

* Agilent

R T



Occupied Bandwidth
16.4496 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -479.895 Hz
x dB Bandwidth 16.399 MHz

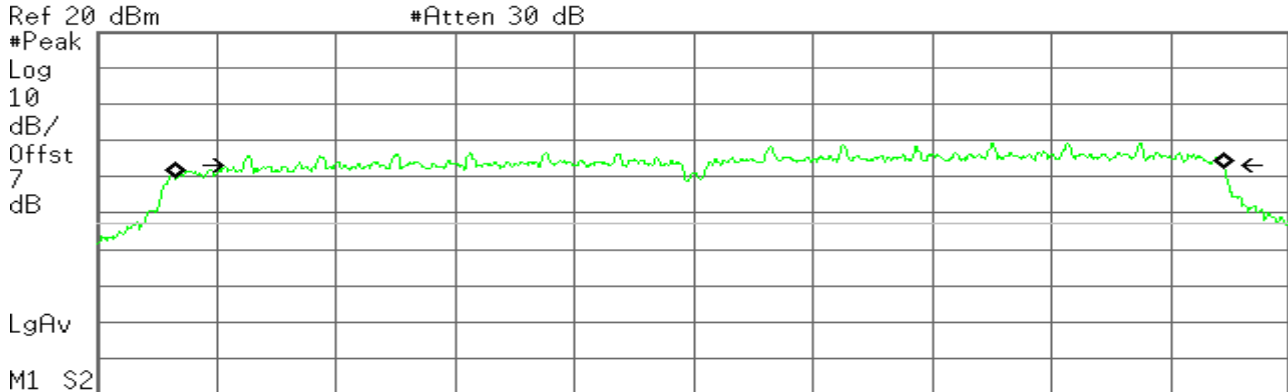


draft 802.11n Standard-20 MHz Channel mode / Chain 0

6dB Bandwidth (CH Low)

Agilent

R L



Center 2.412 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.933 ms (1001 pts)

Occupied Bandwidth
17.5670 MHz

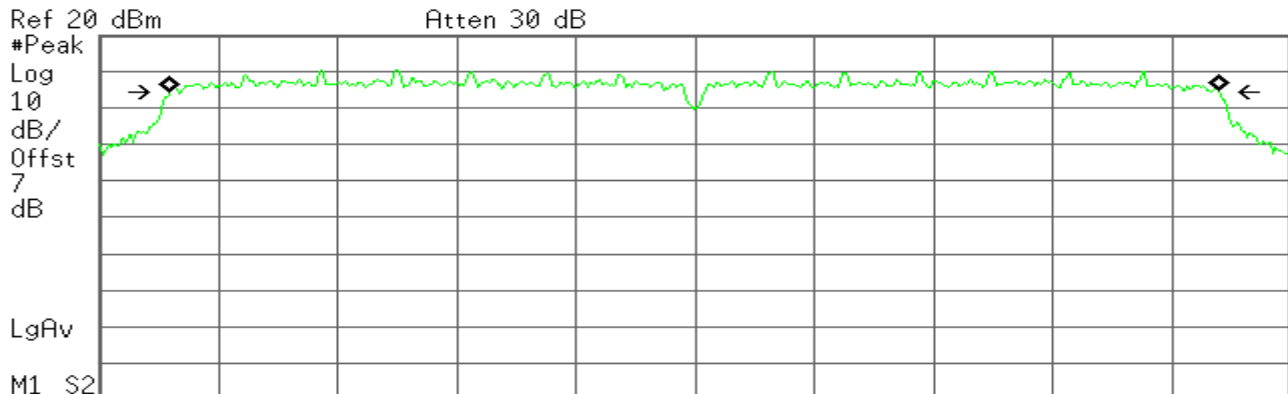
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 94.008 kHz
x dB Bandwidth 16.415 MHz

6dB Bandwidth (CH Mid)

Agilent

R T



Center 2.437 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.92 ms (601 pts)

Occupied Bandwidth
17.6220 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

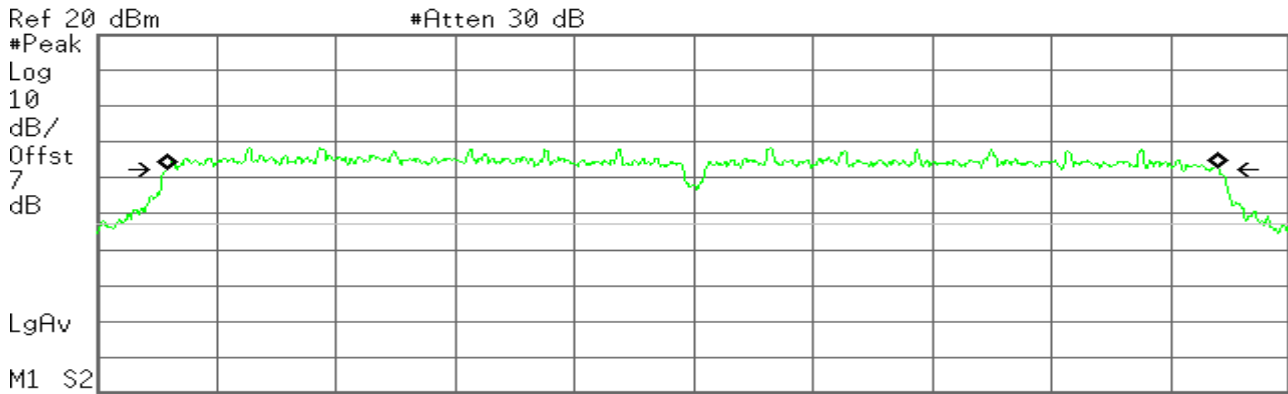
Transmit Freq Error -17.421 kHz
x dB Bandwidth 17.623 MHz



6dB Bandwidth (CH High)

Agilent

R L



Ref 20 dBm #Atten 30 dB
 Center 2.462 00 GHz Span 20 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 1.933 ms (1001 pts)

Occupied Bandwidth
17.6360 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

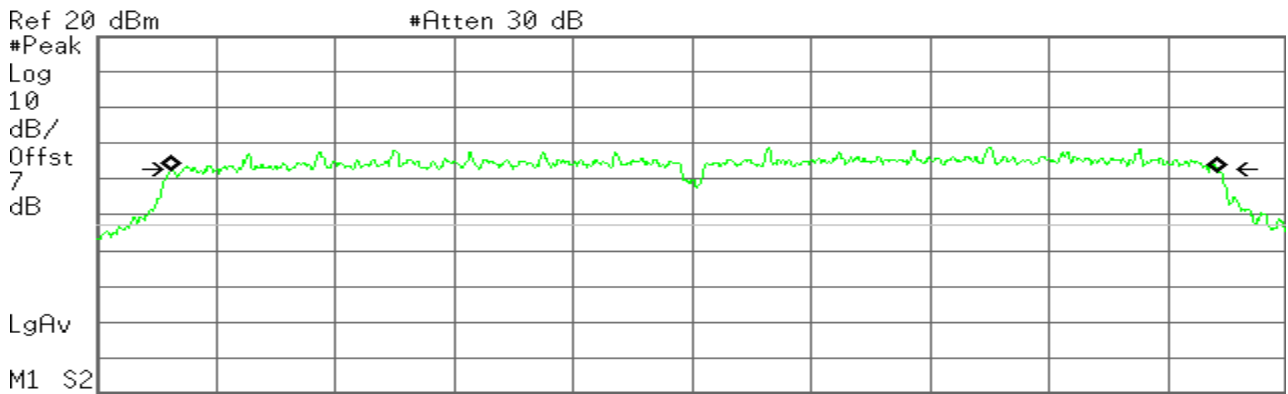
Transmit Freq Error -13.166 kHz
x dB Bandwidth 17.616 MHz

draft 802.11n Standard-20 MHz Channel mode / Chain 1

6dB Bandwidth (CH Low)

Agilent

R L



Ref 20 dBm #Atten 30 dB
 Center 2.412 00 GHz Span 20 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 1.933 ms (1001 pts)

Occupied Bandwidth
17.6012 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

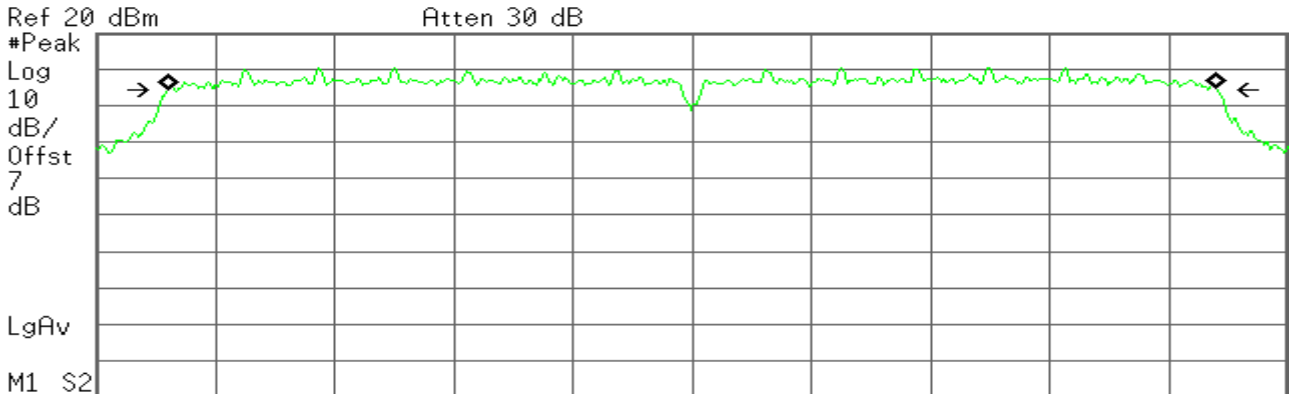
Transmit Freq Error 49.413 kHz
x dB Bandwidth 17.351 MHz



6dB Bandwidth (CH Mid)

Agilent

R T



Ref 20 dBm Atten 30 dB
 #Peak
 Log 10
 dB/
 Offst 7
 dB
 LgAv
 M1 S2
 Center 2.437 00 GHz Span 20 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 1.92 ms (601 pts)

Occupied Bandwidth
17.6106 MHz

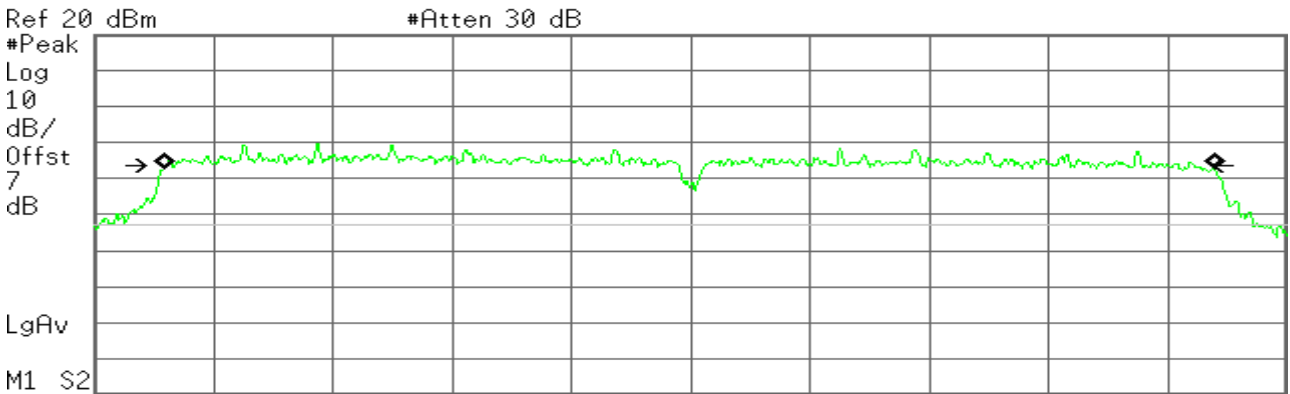
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 5.044 kHz
x dB Bandwidth 17.620 MHz

6dB Bandwidth (CH High)

Agilent

R L



Ref 20 dBm #Atten 30 dB
 #Peak
 Log
 dB/
 Offst 7
 dB
 LgAv
 M1 S2
 Center 2.462 00 GHz Span 20 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 1.933 ms (1001 pts)

Occupied Bandwidth
17.6214 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -27.992 kHz
x dB Bandwidth 17.222 MHz

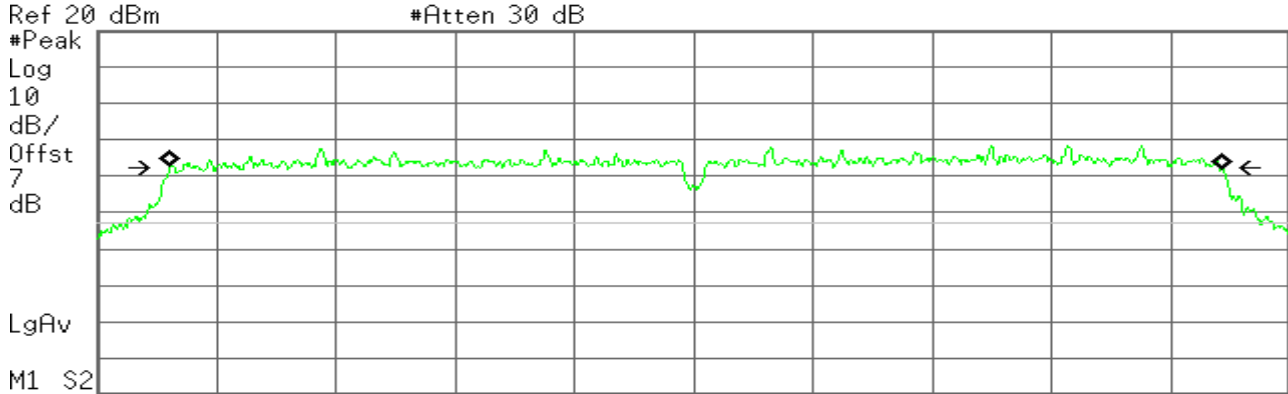


draft 802.11n Standard-20 MHz Channel mode / Chain 2

6dB Bandwidth (CH Low)

Agilent

R T



Center 2.412 00 GHz Span 20 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 1.933 ms (1001 pts)

Occupied Bandwidth
17.6276 MHz

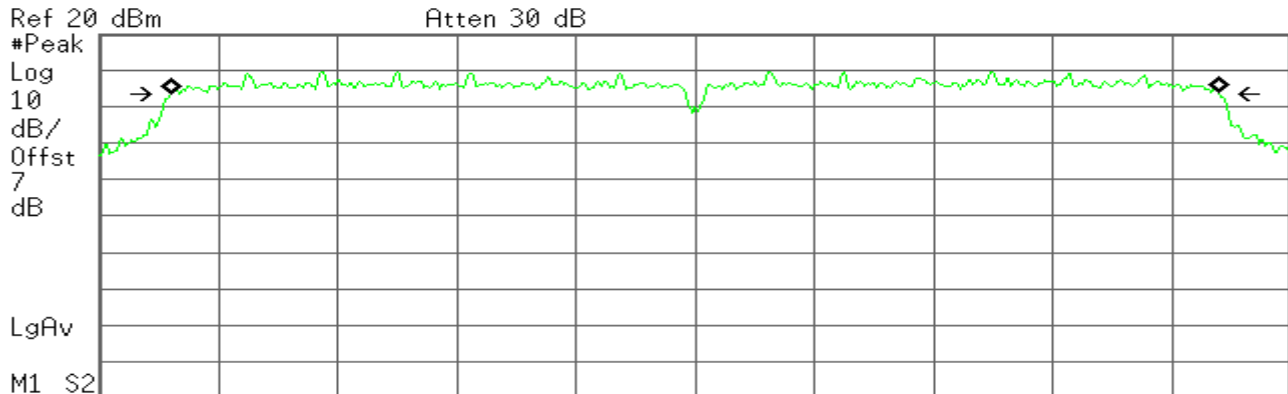
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 42.758 kHz
x dB Bandwidth 17.603 MHz

6dB Bandwidth (CH Mid)

Agilent

R T



Center 2.437 00 GHz Span 20 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 1.92 ms (601 pts)

Occupied Bandwidth
17.6125 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

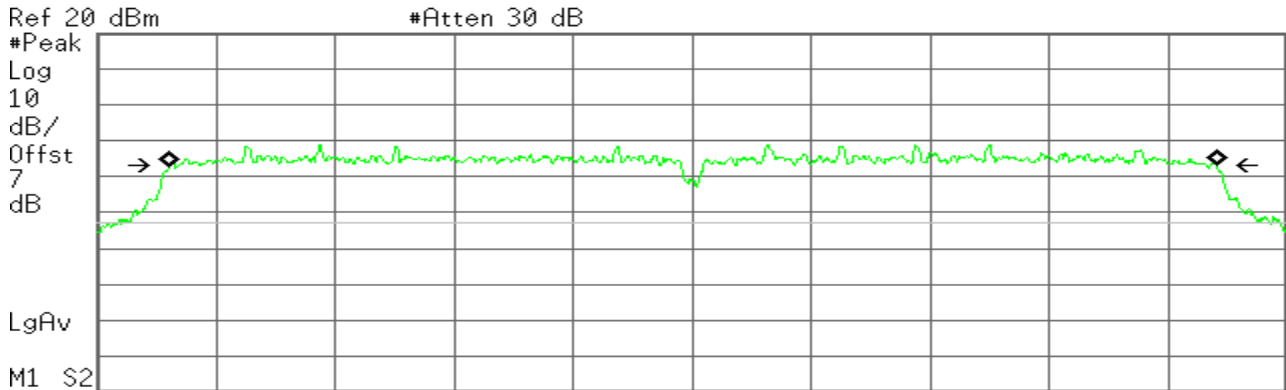
Transmit Freq Error -3.189 kHz
x dB Bandwidth 17.620 MHz



6dB Bandwidth (CH High)

Agilent

R L



Center 2.462 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.933 ms (1001 pts)

Occupied Bandwidth
17.6148 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

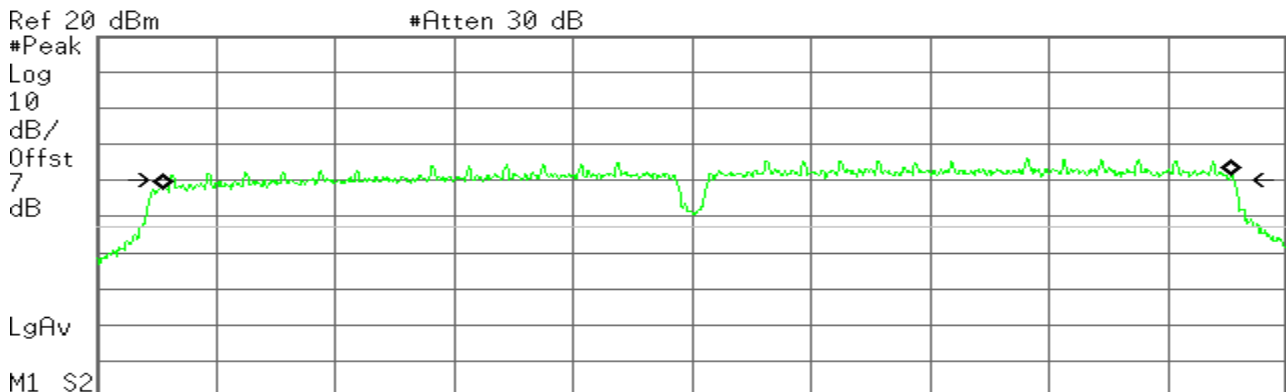
Transmit Freq Error 14.775 kHz
x dB Bandwidth 17.609 MHz

draft 802.11n Standard-40 MHz Channel mode / Chain 0

6dB Bandwidth (CH Low)

Agilent

R L



Center 2.422 00 GHz

Span 40 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.867 ms (1001 pts)

Occupied Bandwidth
35.9393 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

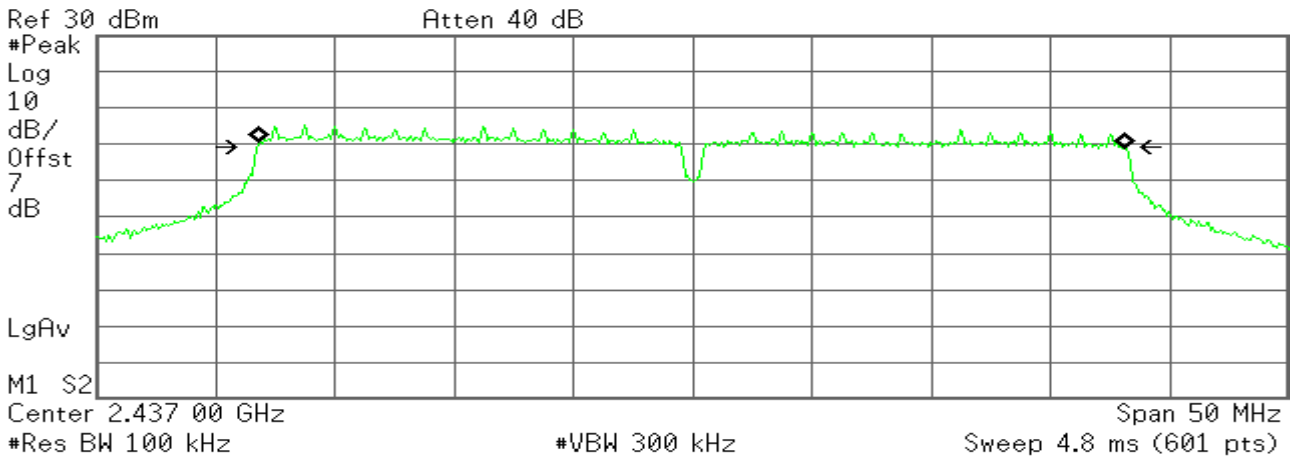
Transmit Freq Error 160.884 kHz
x dB Bandwidth 35.754 MHz



6dB Bandwidth (CH Mid)

* Agilent

R T



Occupied Bandwidth
36.2201 MHz

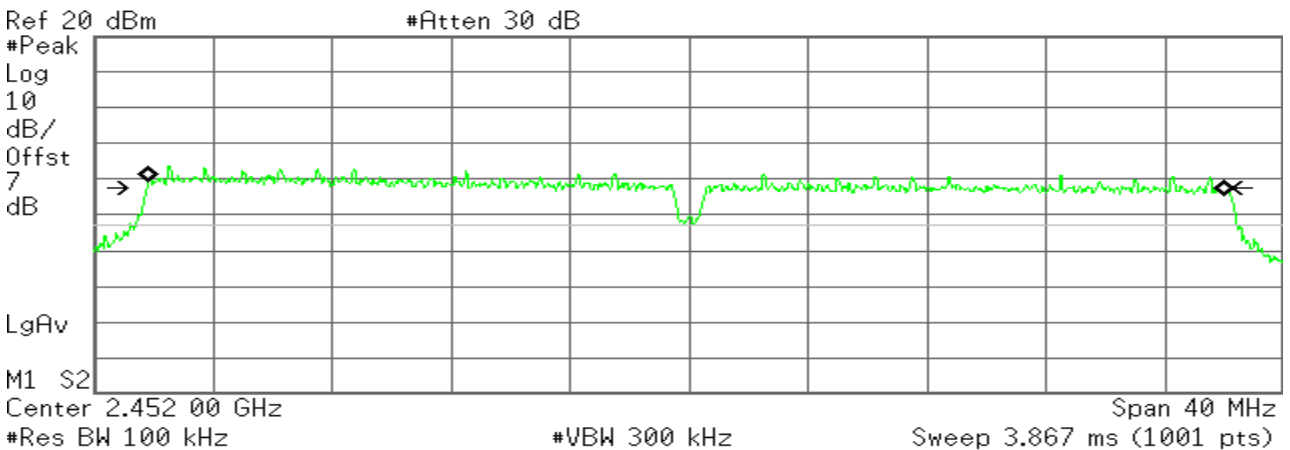
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -50.513 kHz
x dB Bandwidth 36.119 MHz

6dB Bandwidth (CH High)

* Agilent

R L



Occupied Bandwidth
36.1838 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -72.497 kHz
x dB Bandwidth 35.792 MHz

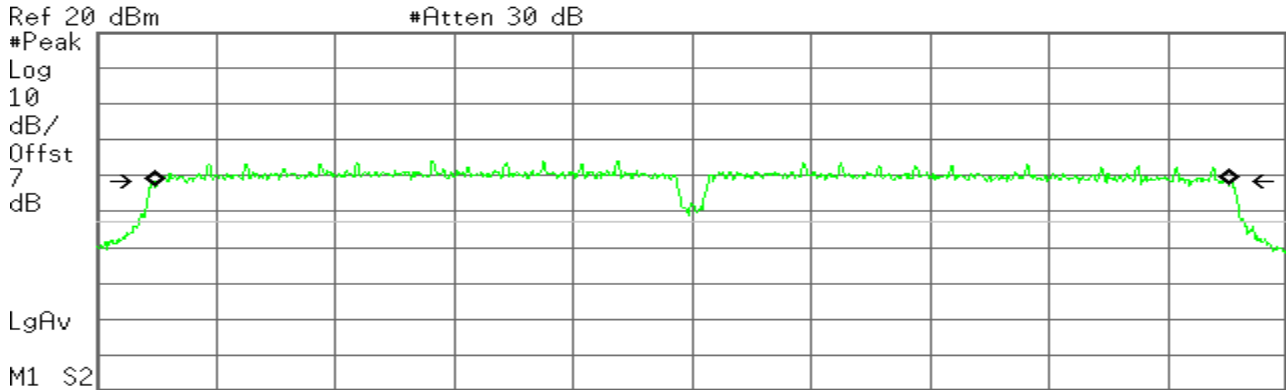


draft 802.11n Standard-40 MHz Channel mode / Chain 1

6dB Bandwidth (CH Low)

Agilent

R L



Center 2.422 00 GHz

Span 40 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.867 ms (1001 pts)

Occupied Bandwidth
36.0602 MHz

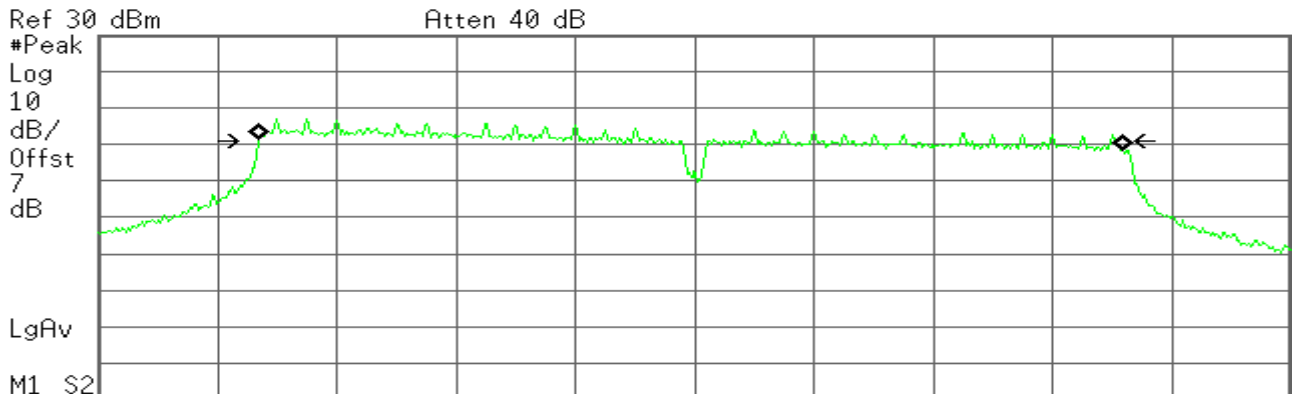
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -4.952 kHz
x dB Bandwidth 36.305 MHz

6dB Bandwidth (CH Mid)

Agilent

R T



Center 2.437 00 GHz

Span 50 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 4.8 ms (601 pts)

Occupied Bandwidth
36.1713 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

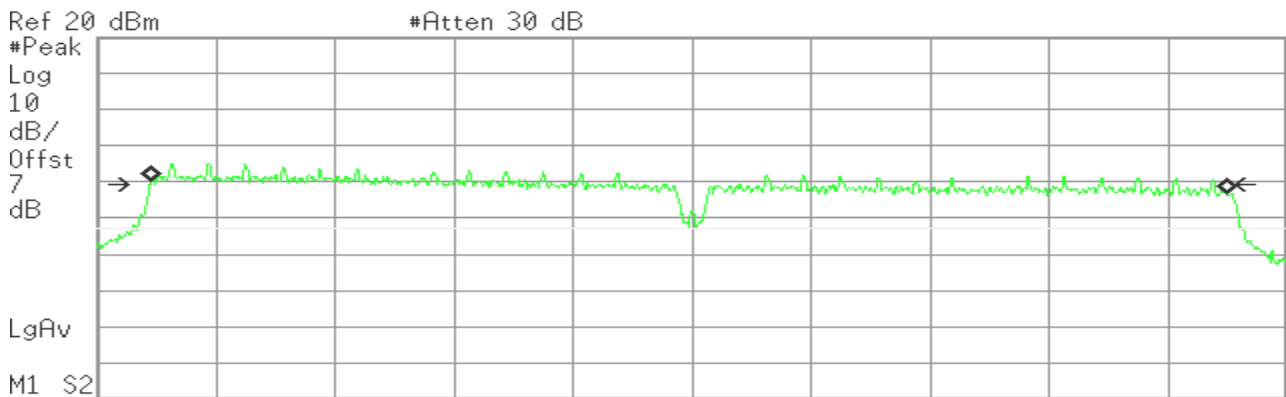
Transmit Freq Error -138.804 kHz
x dB Bandwidth 35.843 MHz



6dB Bandwidth (CH High)

Agilent

R L



Center 2.452 00 GHz

Span 40 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.867 ms (1001 pts)

Occupied Bandwidth
36.1505 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

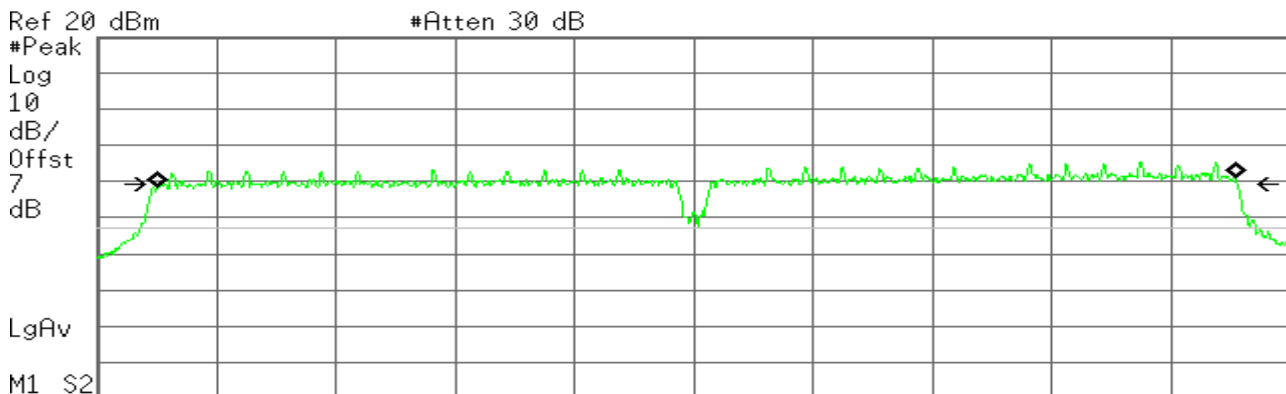
Transmit Freq Error -106.001 kHz
x dB Bandwidth 35.799 MHz

draft 802.11n Standard-40 MHz Channel mode / Chain 2

6dB Bandwidth (CH Low)

Agilent

R L



Center 2.422 00 GHz

Span 40 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.867 ms (1001 pts)

Occupied Bandwidth
36.1451 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

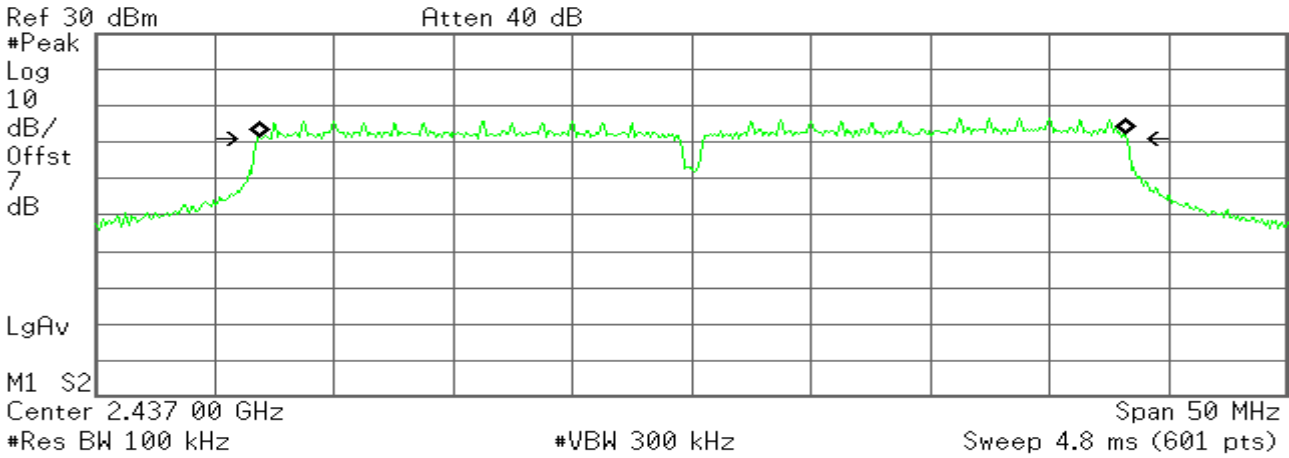
Transmit Freq Error 87.885 kHz
x dB Bandwidth 35.949 MHz



6dB Bandwidth (CH Mid)

Agilent

R T



Occupied Bandwidth
36.2418 MHz

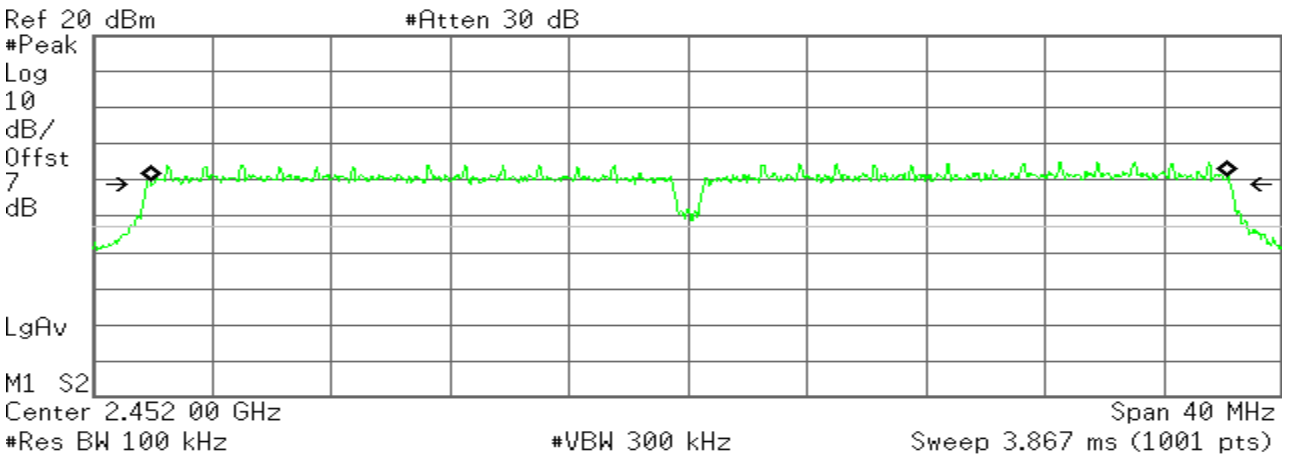
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 27.791 kHz
x dB Bandwidth 36.423 MHz

6dB Bandwidth (CH High)

Agilent

R L



Occupied Bandwidth
36.1872 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 32.861 kHz
x dB Bandwidth 36.397 MHz



4.2. PEAK POWER

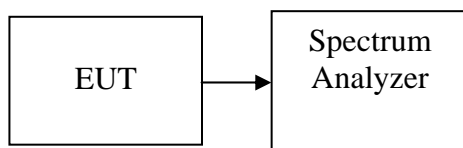
LIMIT

The maximum peak output power of the intentional radiator shall not exceed the following:

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

2. According to §15.247(b)(4), the conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Configuration



TEST PROCEDURE

This procedure may be used when the maximum available RBW of the measurement instrument is less than the DTS bandwidth.

1. Set the RBW = 1 MHz.
2. Set the VBW \geq 3 RBW
3. Set the span \geq 1.5 x DTS bandwidth.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select peak detector). If the instrument does not have a band power function, sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the DTS bandwidth.

TEST RESULTS

No non-compliance noted



Test Data

Test mode: 802.11b mode

| Channel | Frequency (MHz) | Chain 0 Output Power (dBm) | Chain 1 Output Power (dBm) | Chain 2 Output Power (dBm) | Total Maximum Conducted Output Power (dBm) | Limit (dBm) |
|---------|-----------------|----------------------------|----------------------------|----------------------------|--|-------------|
| Low | 2412 | 22.60 | 22.90 | 22.13 | 27.33 | 30.00 |
| Mid | 2437 | 25.36 | 25.12 | 24.80 | 29.87 | 30.00 |
| High | 2462 | 22.62 | 23.18 | 22.45 | 27.53 | 30.00 |

Test mode: 802.11g mode

| Channel | Frequency (MHz) | Chain 0 Output Power (dBm) | Chain 1 Output Power (dBm) | Chain 2 Output Power (dBm) | Total Maximum Conducted Output Power (dBm) | Limit (dBm) |
|---------|-----------------|----------------------------|----------------------------|----------------------------|--|-------------|
| Low | 2412 | 21.84 | 19.44 | 19.74 | 25.25 | 30.00 |
| Mid | 2437 | 25.12 | 24.82 | 25.20 | 29.82 | 30.00 |
| High | 2462 | 20.65 | 19.29 | 19.13 | 24.52 | 30.00 |

Test mode: draft 802.11n Standard-20 MHz Channel mode

| Channel | Frequency (MHz) | Chain 0 Output Power (dBm) | Chain 1 Output Power (dBm) | Chain 2 Output Power (dBm) | Total Maximum Conducted Output Power (dBm) | Limit (dBm) |
|---------|-----------------|----------------------------|----------------------------|----------------------------|--|-------------|
| Low | 2412 | 18.07 | 17.87 | 16.95 | 22.43 | 30.00 |
| Mid | 2437 | 24.40 | 23.35 | 24.34 | 28.83 | 30.00 |
| High | 2462 | 17.92 | 17.67 | 17.33 | 22.42 | 30.00 |

Test mode: draft 802.11n Wide-40 MHz Channel mode

| Channel | Frequency (MHz) | Chain 0 Output Power (dBm) | Chain 1 Output Power (dBm) | Chain 2 Output Power (dBm) | Total Maximum Conducted Output Power (dBm) | Limit (dBm) |
|---------|-----------------|----------------------------|----------------------------|----------------------------|--|-------------|
| Low | 2422 | 16.8 | 15.54 | 16.23 | 20.99 | 30.00 |
| Mid | 2437 | 23.75 | 23.64 | 22.81 | 28.19 | 30.00 |
| High | 2452 | 14.65 | 14.72 | 16.46 | 20.13 | 30.00 |

Remark: Total Output Power (dBm) = $10 * \text{LOG}(10^{(\text{Chain 0 Output Power} / 10)} + 10^{(\text{Chain 1 Output Power} / 10)} + 10^{(\text{Chain 2 Output Power} / 10)})$



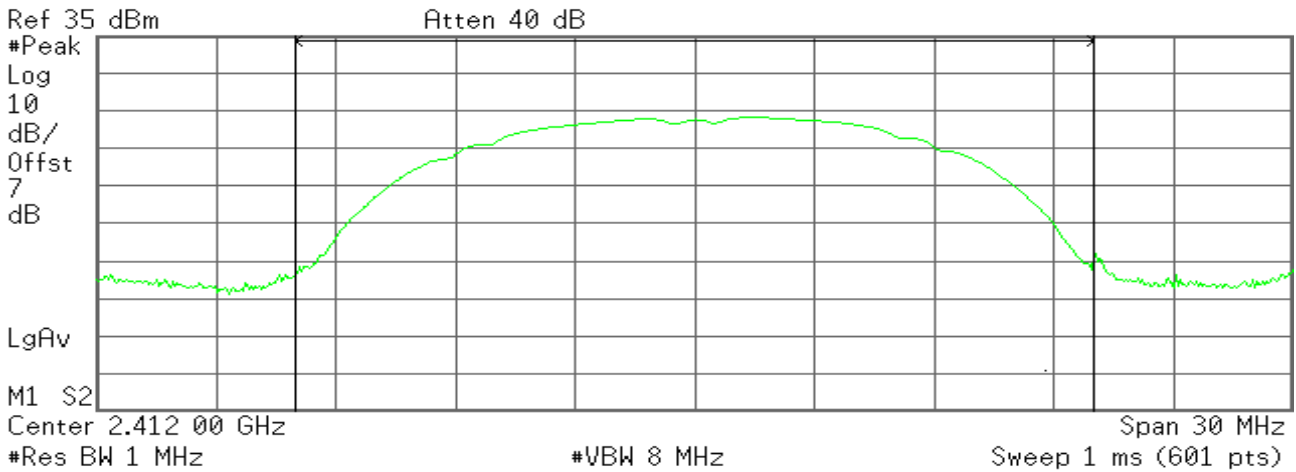
Test Plot

IEEE 802.11b mode/ Chain 0

Peak Power (CH Low)

Agilent

R L



Channel Power

22.60 dBm /20.0000 MHz

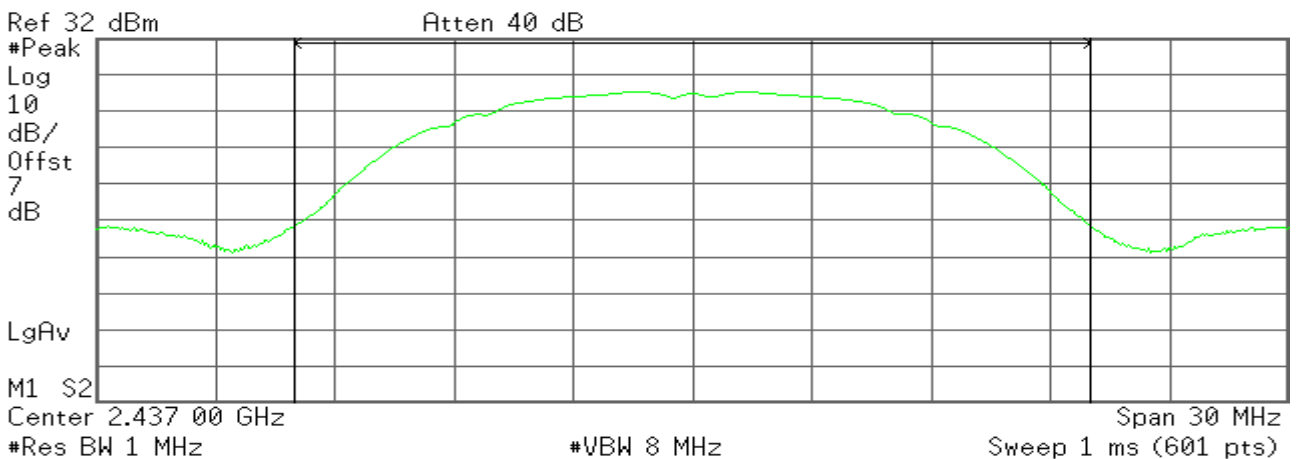
Power Spectral Density

8.59 dBm/MHz

Peak Power (CH Mid)

Agilent

R T



Channel Power

25.36 dBm /20.0000 MHz

Power Spectral Density

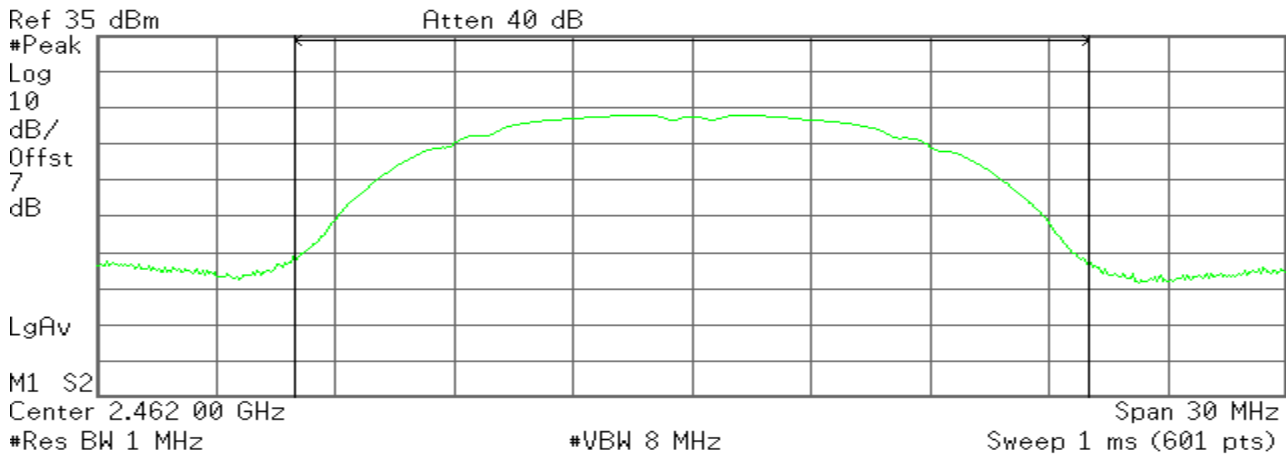
12.51 dBm/MHz



Peak Power (CH High)

Agilent

R L



Channel Power

22.62 dBm /20.0000 MHz

Power Spectral Density

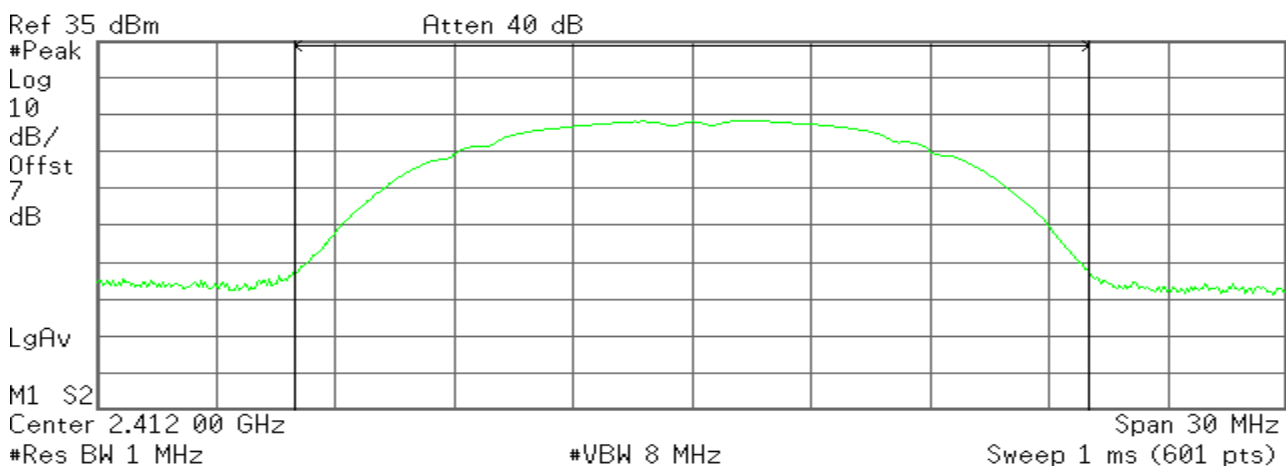
8.61 dBm/MHz

IEEE 802.11b mode/ Chain 1

Peak Power (CH Low)

Agilent

R L



Channel Power

22.90 dBm /20.0000 MHz

Power Spectral Density

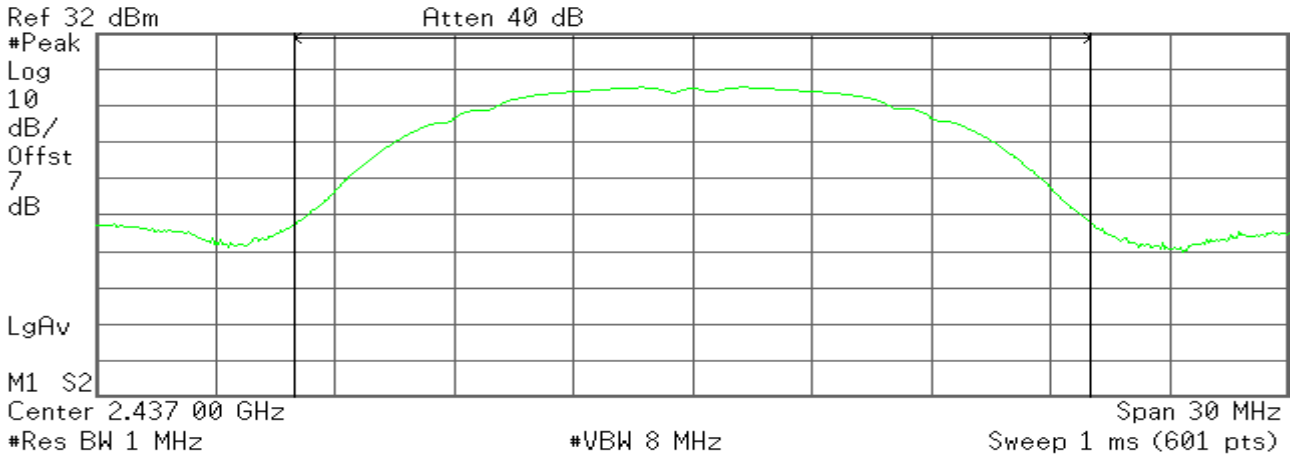
8.89 dBm/MHz



Peak Power (CH Mid)

Agilent

R T



Channel Power

25.12 dBm /20.0000 MHz

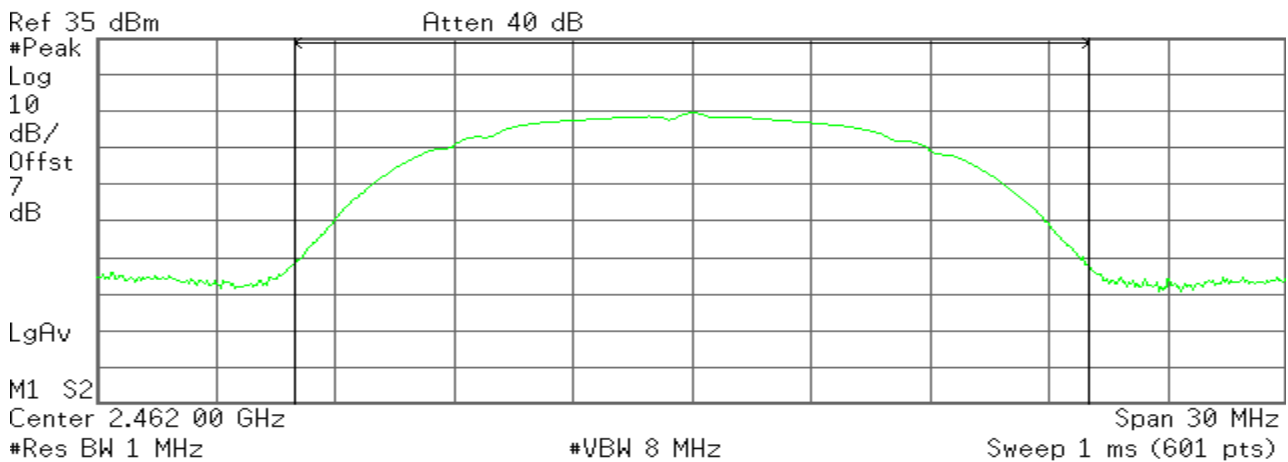
Power Spectral Density

12.22 dBm/MHz

Peak Power (CH High)

Agilent

R T



Channel Power

23.18 dBm /20.0000 MHz

Power Spectral Density

9.17 dBm/MHz

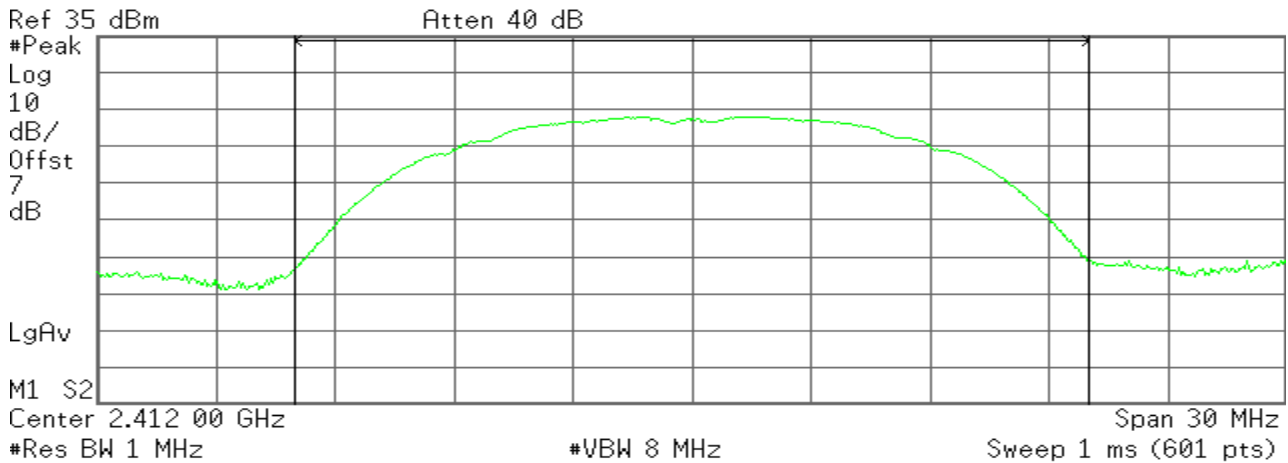


IEEE 802.11b mode/ Chain 2

Peak Power (CH Low)

Agilent

R L



Channel Power

22.13 dBm /20.0000 MHz

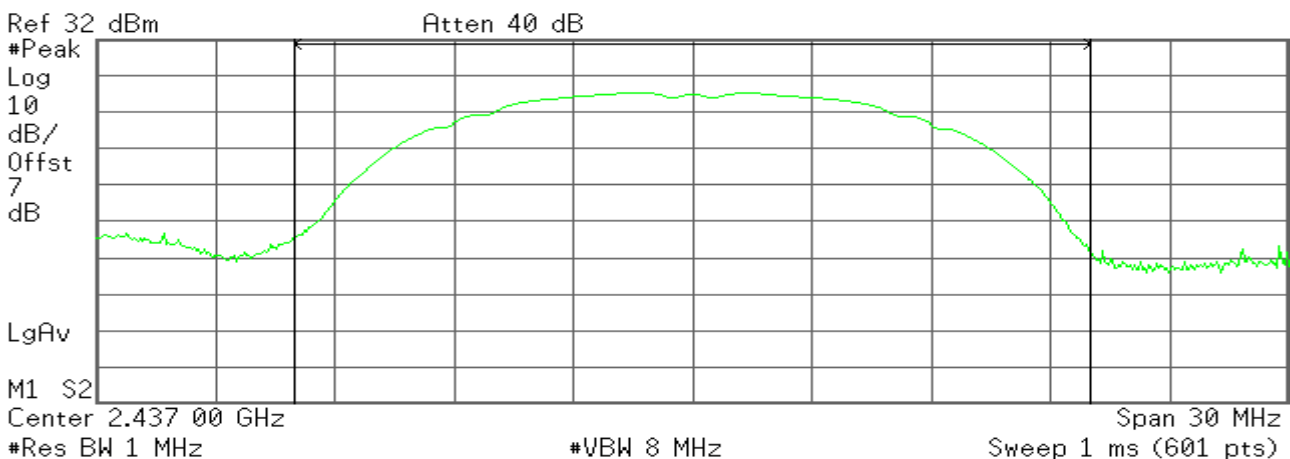
Power Spectral Density

8.12 dBm/MHz

Peak Power (CH Mid)

Agilent

R T



Channel Power

24.80 dBm /20.0000 MHz

Power Spectral Density

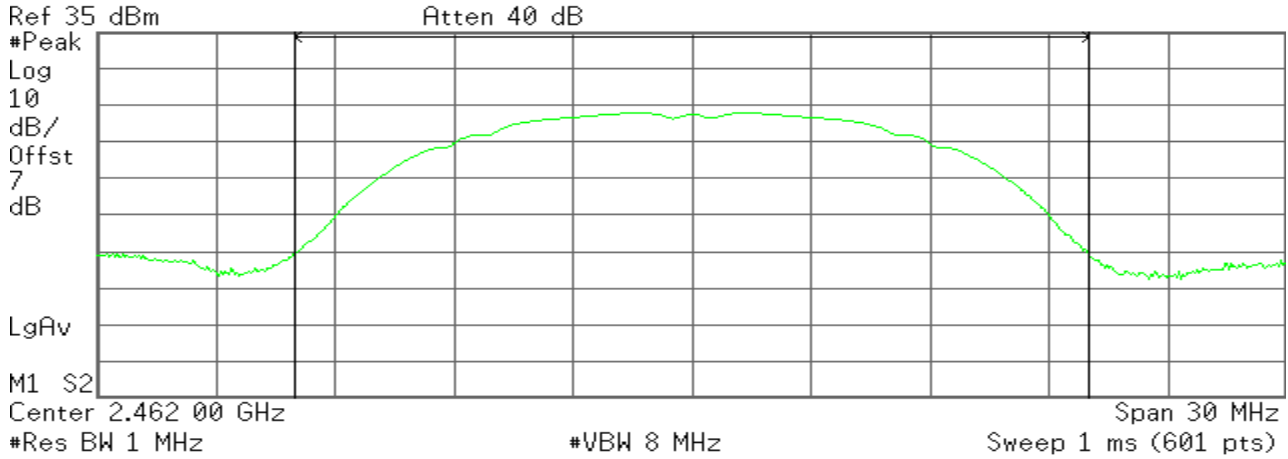
12.01 dBm/MHz



Peak Power (CH High)

Agilent

R L



Channel Power

22.45 dBm /20.0000 MHz

Power Spectral Density

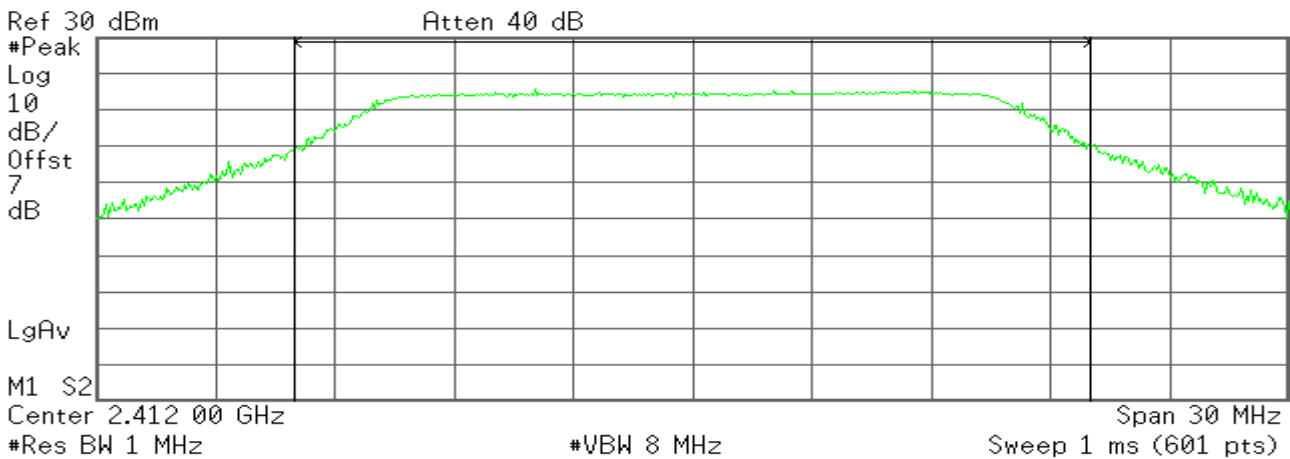
8.44 dBm/MHz

IEEE 802.11g mode /Chain 0

Peak Power (CH Low)

Agilent

R T



Channel Power

21.84 dBm /20.0000 MHz

Power Spectral Density

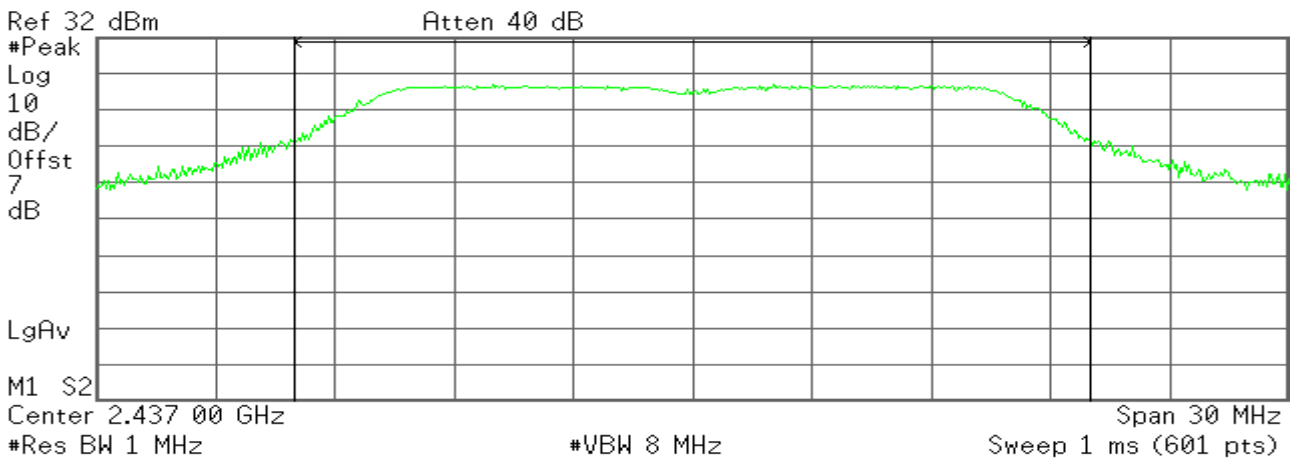
-51.17 dBm/Hz



Peak Power (CH Mid)

Agilent

R T



Channel Power

25.12 dBm /20.0000 MHz

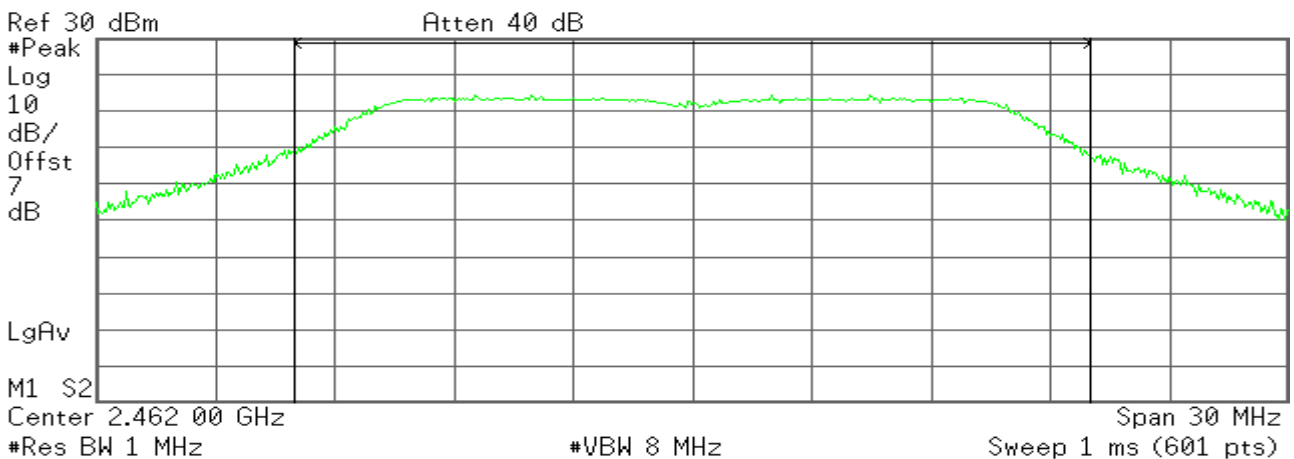
Power Spectral Density

12.12 dBm/MHz

Peak Power (CH High)

Agilent

R T



Channel Power

20.65 dBm /20.0000 MHz

Power Spectral Density

-52.36 dBm/Hz

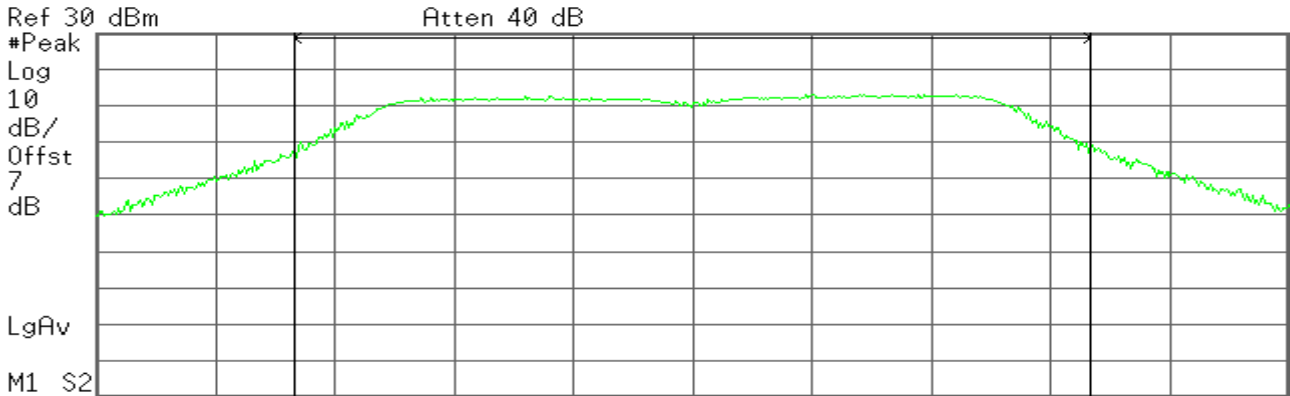


IEEE 802.11g mode /Chain 1

Peak Power (CH Low)

Agilent

R T



Channel Power

19.44 dBm /20.0000 MHz

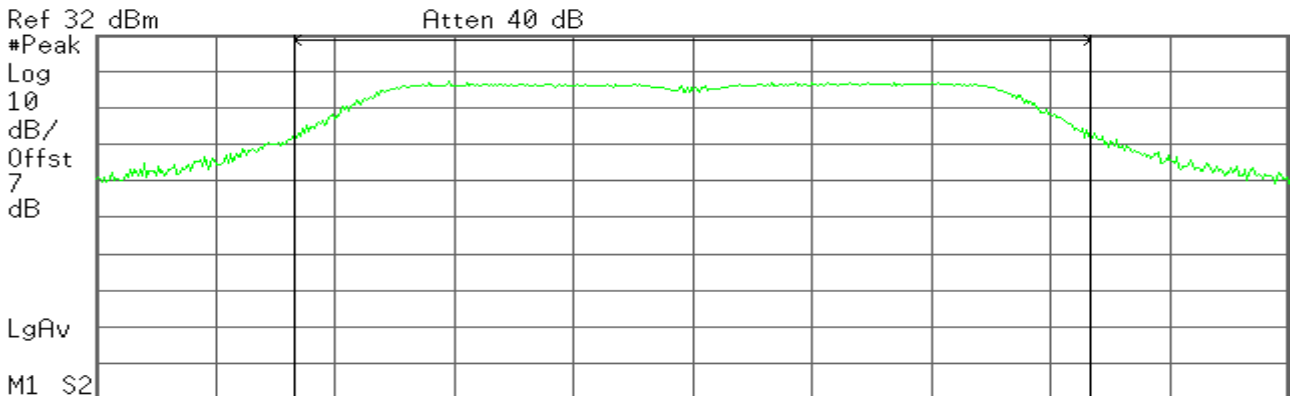
Power Spectral Density

-53.57 dBm/Hz

Peak Power (CH Mid)

Agilent

R T



Channel Power

24.82 dBm /20.0000 MHz

Power Spectral Density

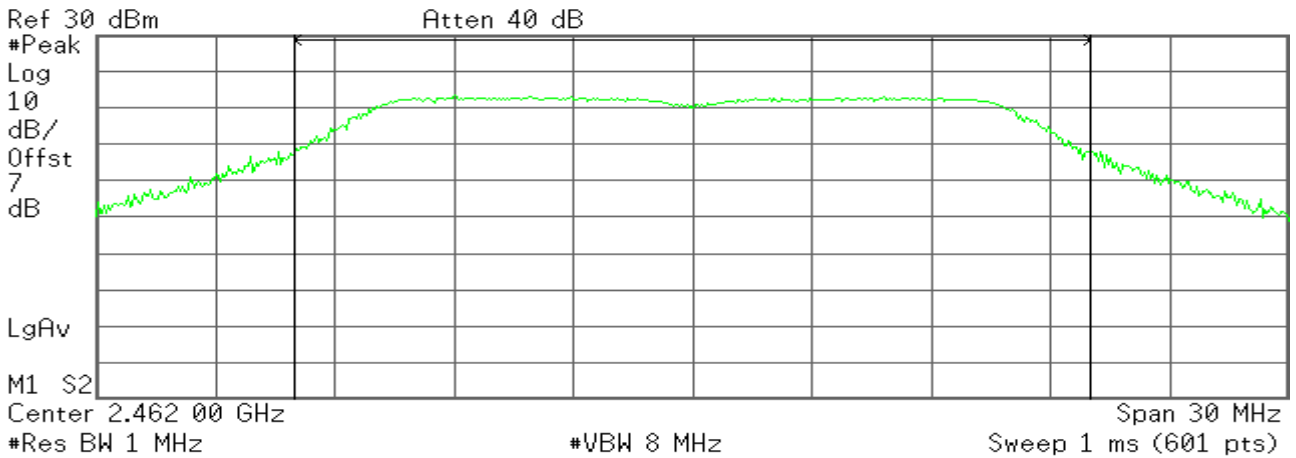
12.16 dBm/MHz



Peak Power (CH High)

Agilent

R T



Channel Power

19.29 dBm /20.0000 MHz

Power Spectral Density

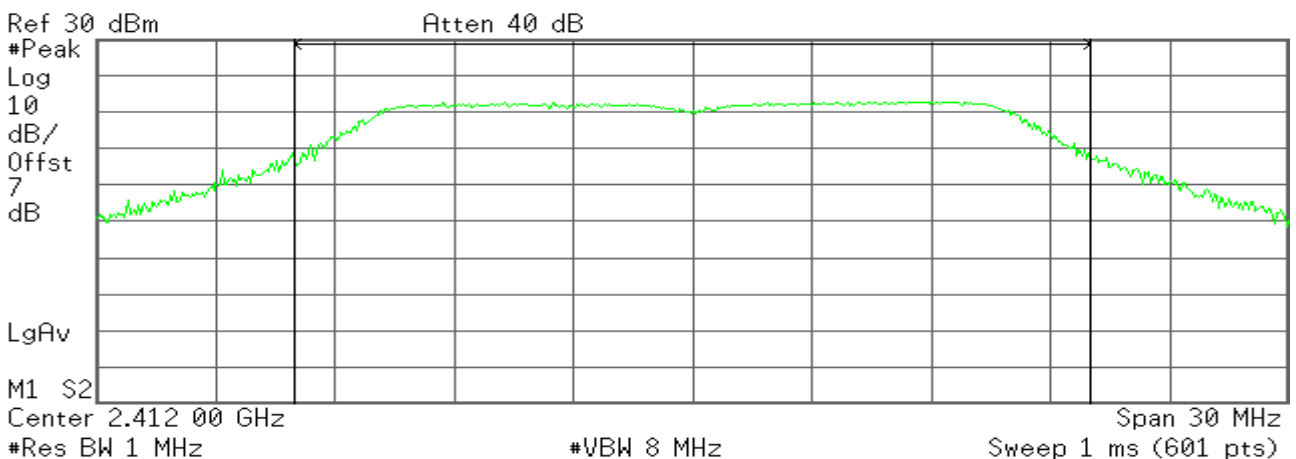
-53.72 dBm/Hz

IEEE 802.11g mode /Chain 2

Peak Power (CH Low)

Agilent

R T



Channel Power

19.74 dBm /20.0000 MHz

Power Spectral Density

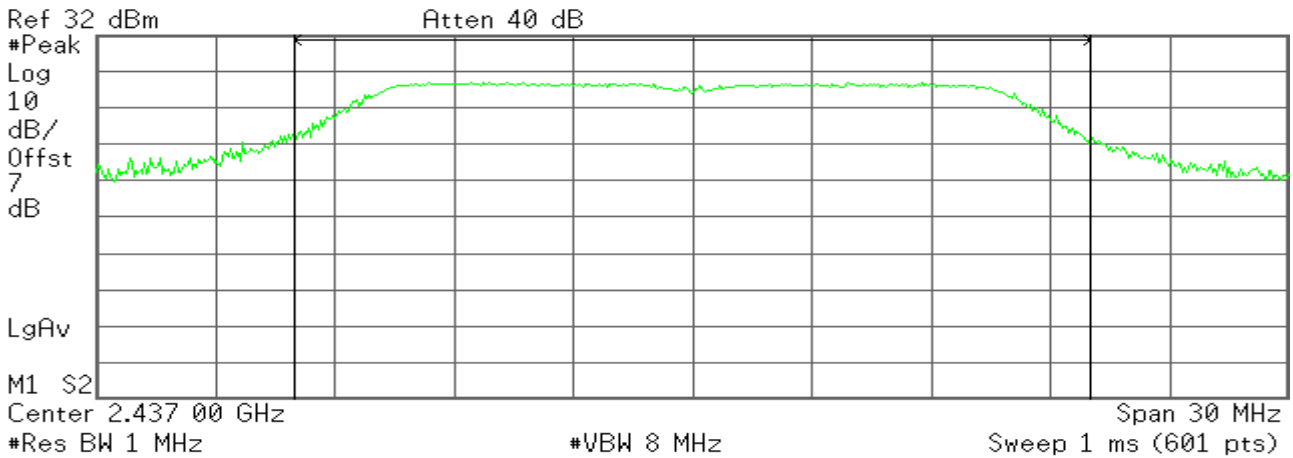
-53.27 dBm/Hz



Peak Power (CH Mid)

Agilent

R T



Channel Power

25.20 dBm /20.0000 MHz

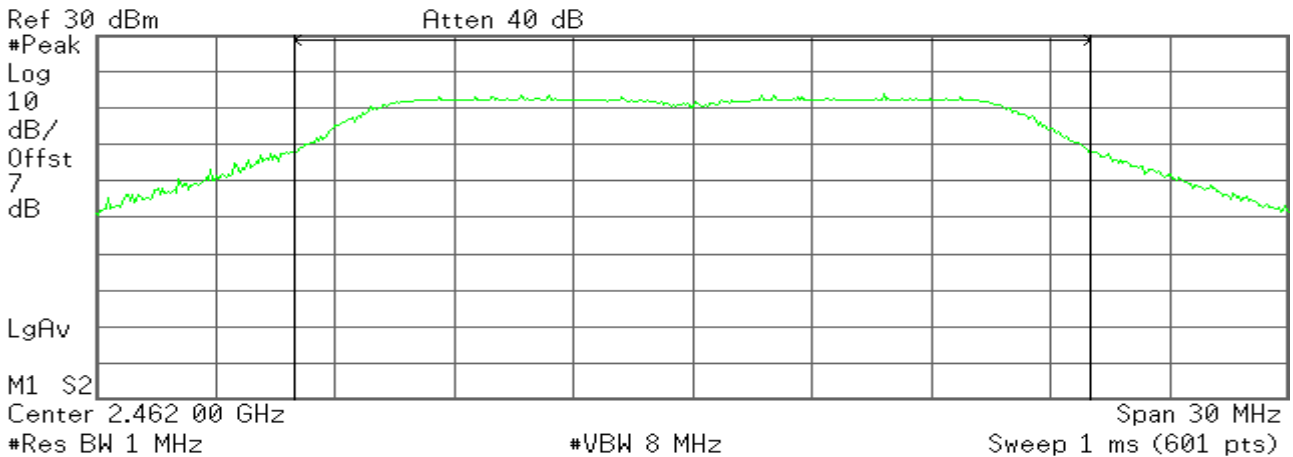
Power Spectral Density

12.24 dBm/MHz

Peak Power (CH High)

Agilent

R T



Channel Power

19.13 dBm /20.0000 MHz

Power Spectral Density

-53.88 dBm/Hz

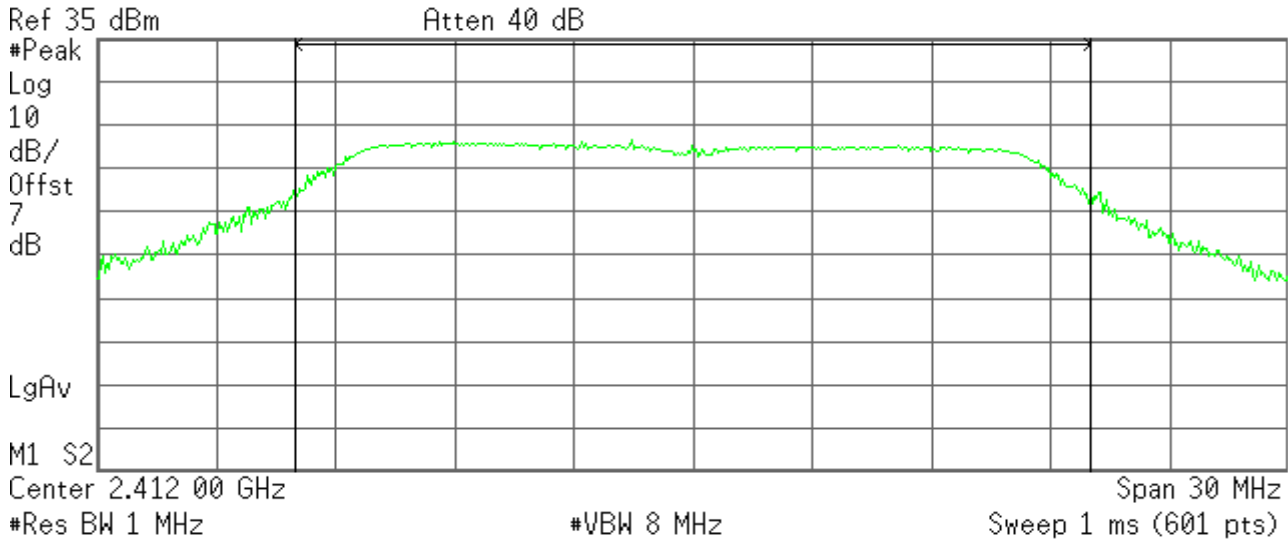


draft 802.11n Standard-20 MHz Channel mode / Chain 0

Peak Power (CH Low)

Agilent

R L



Channel Power

18.07 dBm /20.0000 MHz

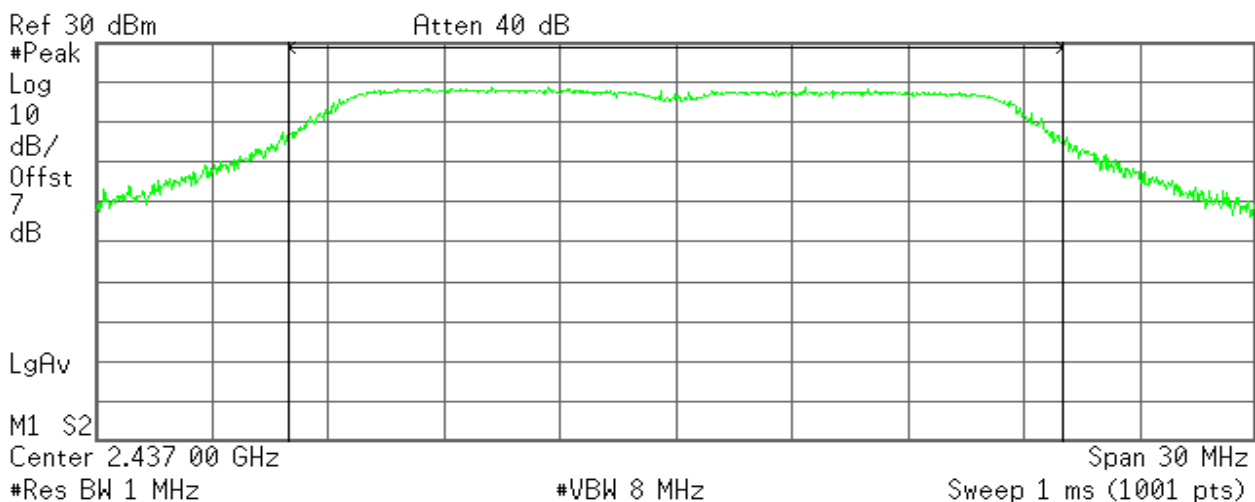
Power Spectral Density

5.06 dBm/MHz

Peak Power (CH Mid)

Agilent

R T



Channel Power

24.40 dBm /20.0000 MHz

Power Spectral Density

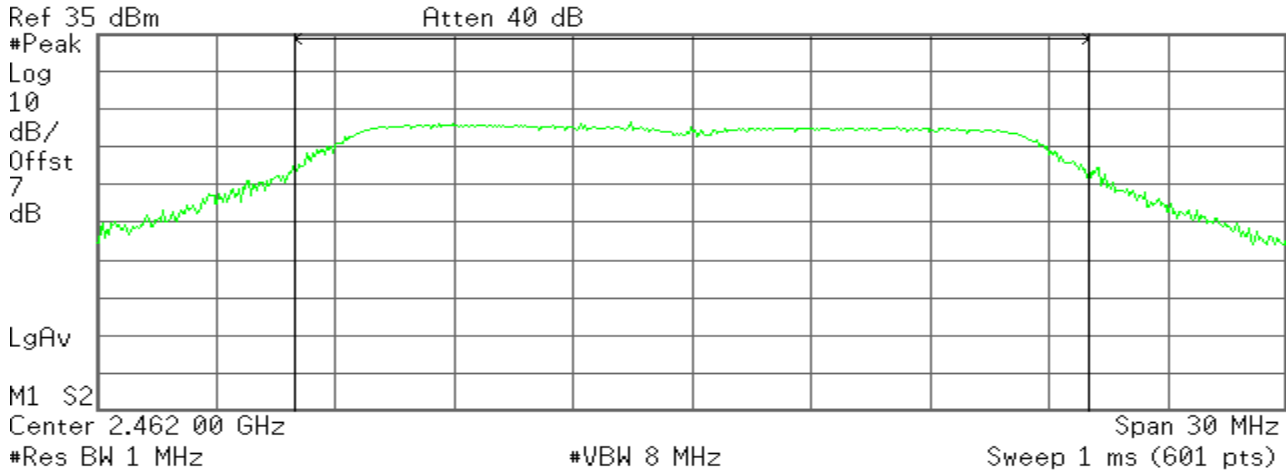
11.39 dBm/MHz



Peak Power (CH High)

Agilent

R L



Channel Power

17.92 dBm /20.0000 MHz

Power Spectral Density

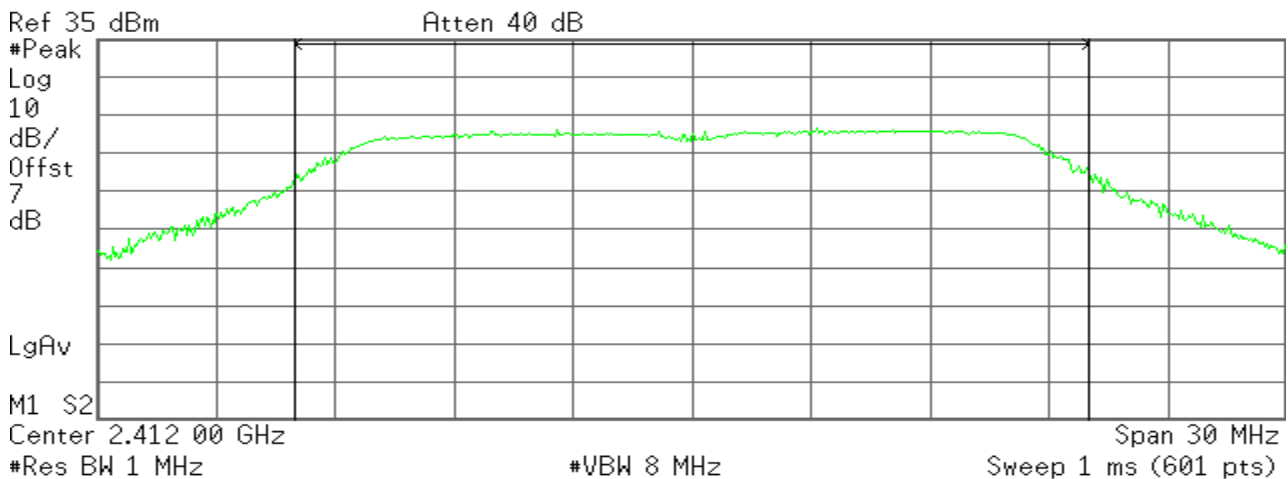
4.91 dBm/MHz

draft 802.11n Standard-20 MHz Channel mode / Chain 1

Peak Power (CH Low)

Agilent

R L



Channel Power

17.87 dBm /20.0000 MHz

Power Spectral Density

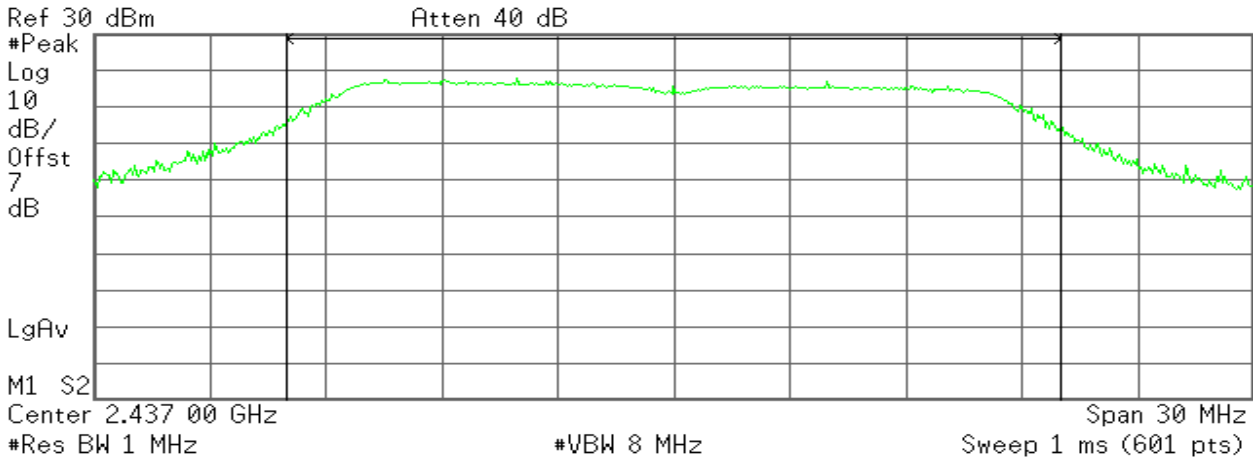
4.86 dBm/MHz



Peak Power (CH Mid)

Agilent

R T



Channel Power

23.35 dBm /20.0000 MHz

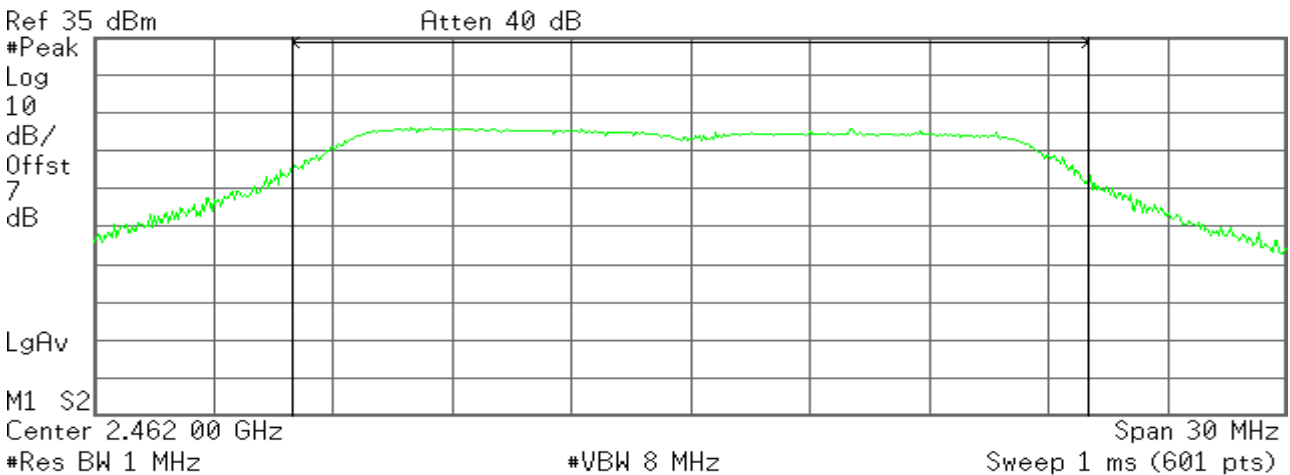
Power Spectral Density

10.34 dBm/MHz

Peak Power (CH High)

Agilent

R L



Channel Power

17.67 dBm /20.0000 MHz

Power Spectral Density

4.66 dBm/MHz

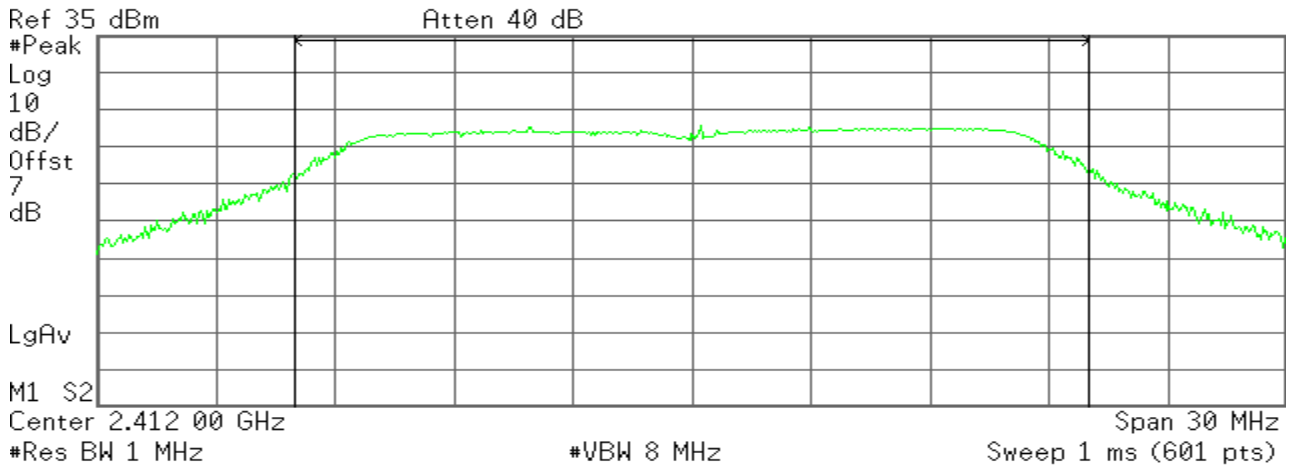


draft 802.11n Standard-20 MHz Channel mode / Chain 2

Peak Power (CH Low)

Agilent

R L



Channel Power

16.95 dBm /20.0000 MHz

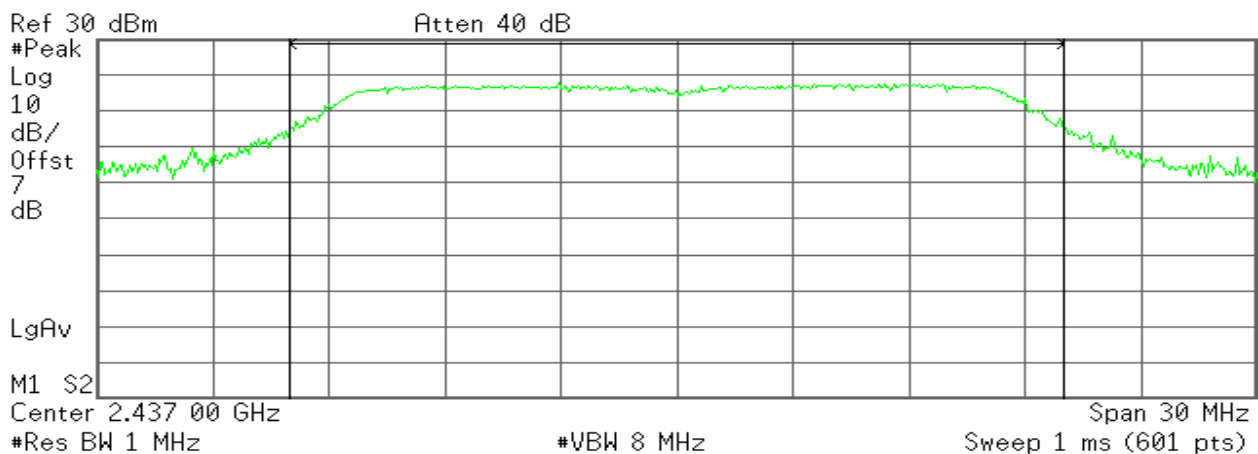
Power Spectral Density

3.94 dBm/MHz

Peak Power (CH Mid)

Agilent

R T



Channel Power

24.34 dBm /20.0000 MHz

Power Spectral Density

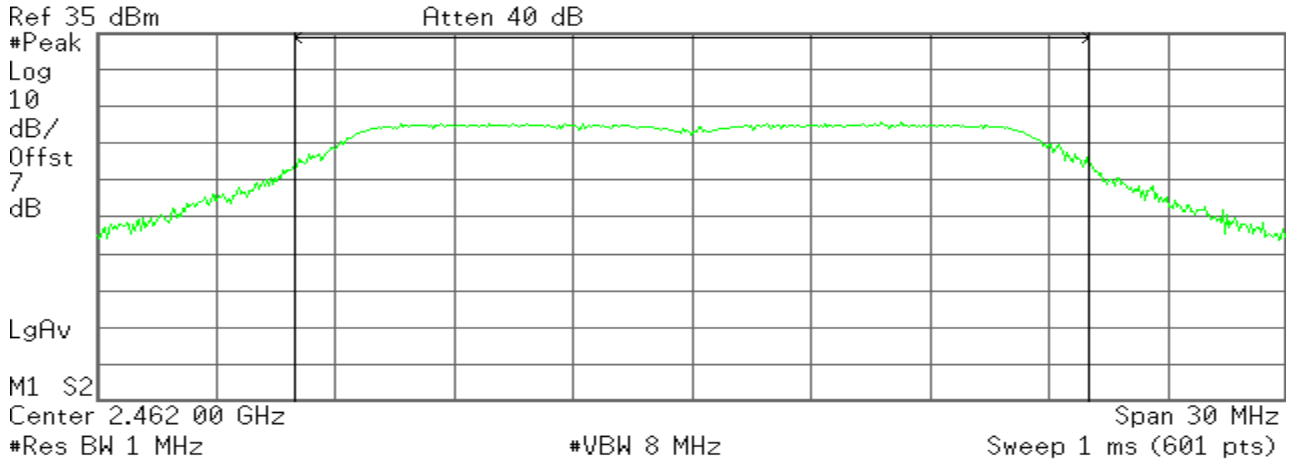
11.33 dBm/MHz



Peak Power (CH High)

Agilent

R L



Channel Power

17.33 dBm /20.0000 MHz

Power Spectral Density

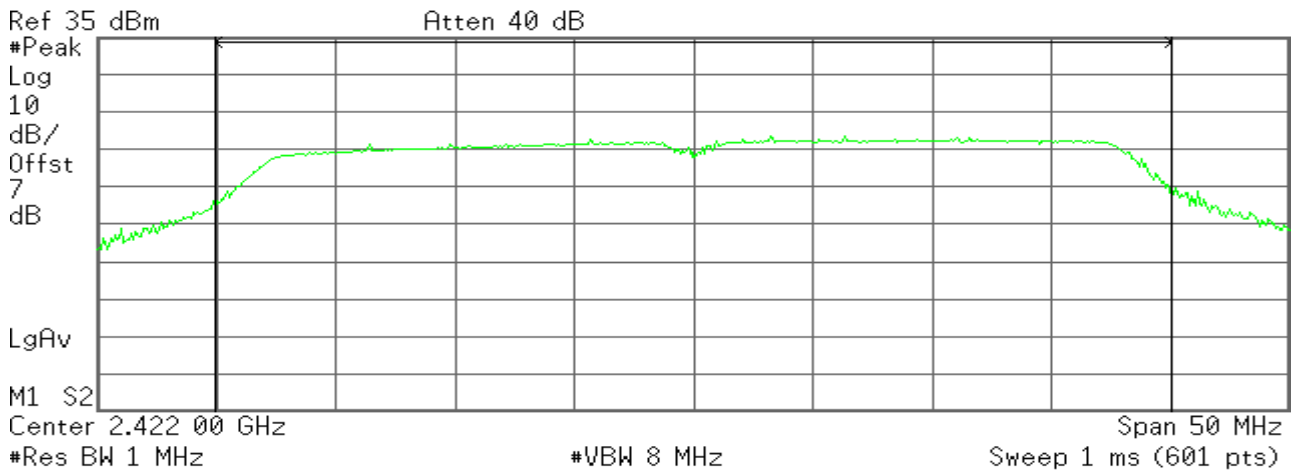
4.32 dBm/MHz

draft 802.11n wide-40 MHz Channel mode / Chain 0

Peak Power (CH Low)

Agilent

R L



Channel Power

16.80 dBm /40.0000 MHz

Power Spectral Density

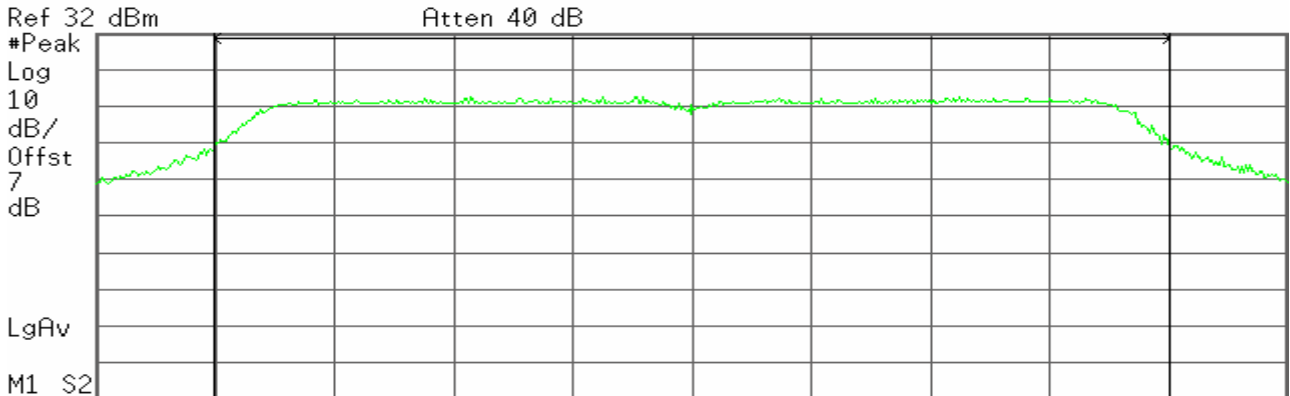
0.78 dBm/MHz



Peak Power (CH Mid)

Agilent

R T



Center 2.437 00 GHz

Span 50 MHz

#Res BW 1 MHz

#VBW 8 MHz

Sweep 1 ms (601 pts)

Channel Power

Power Spectral Density

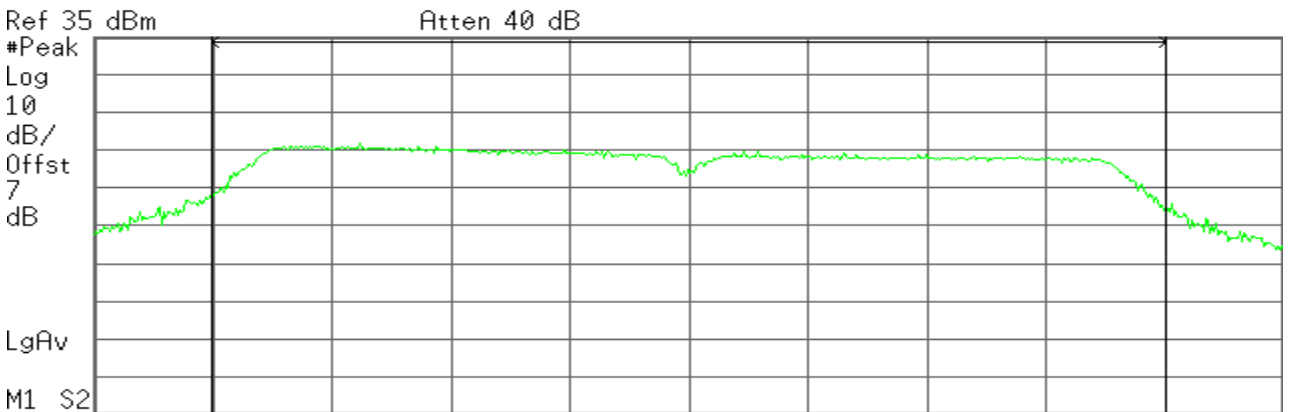
23.75 dBm /40.0000 MHz

7.73 dBm/MHz

Peak Power (CH High)

Agilent

R T



Center 2.452 00 GHz

Span 50 MHz

#Res BW 1 MHz

#VBW 8 MHz

Sweep 1 ms (601 pts)

Channel Power

Power Spectral Density

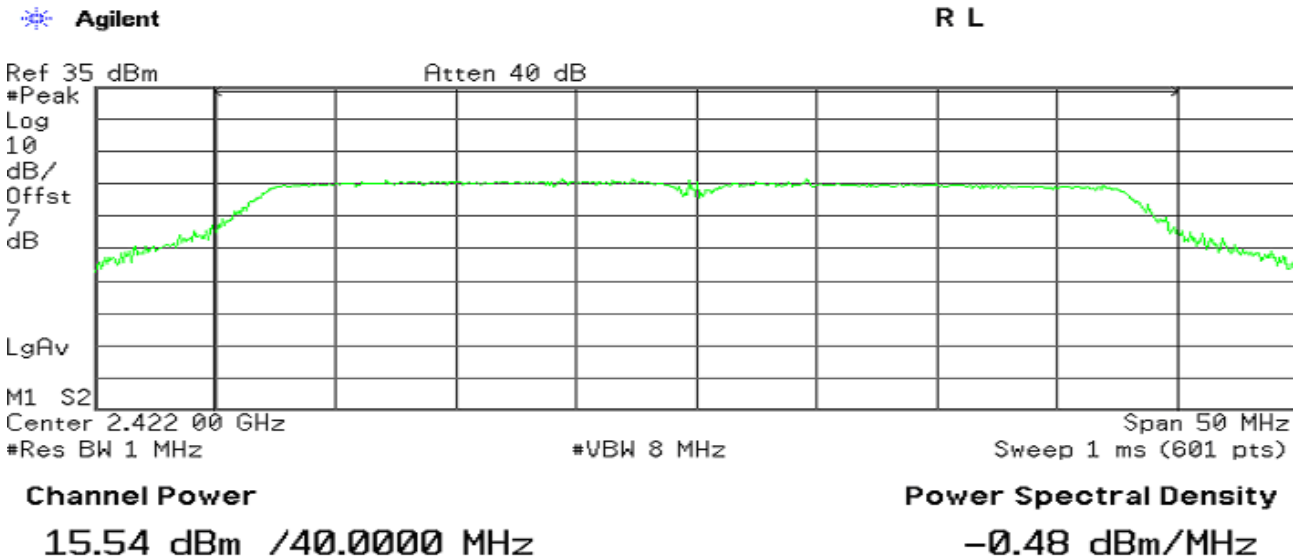
14.65 dBm /40.0000 MHz

-1.37 dBm/MHz

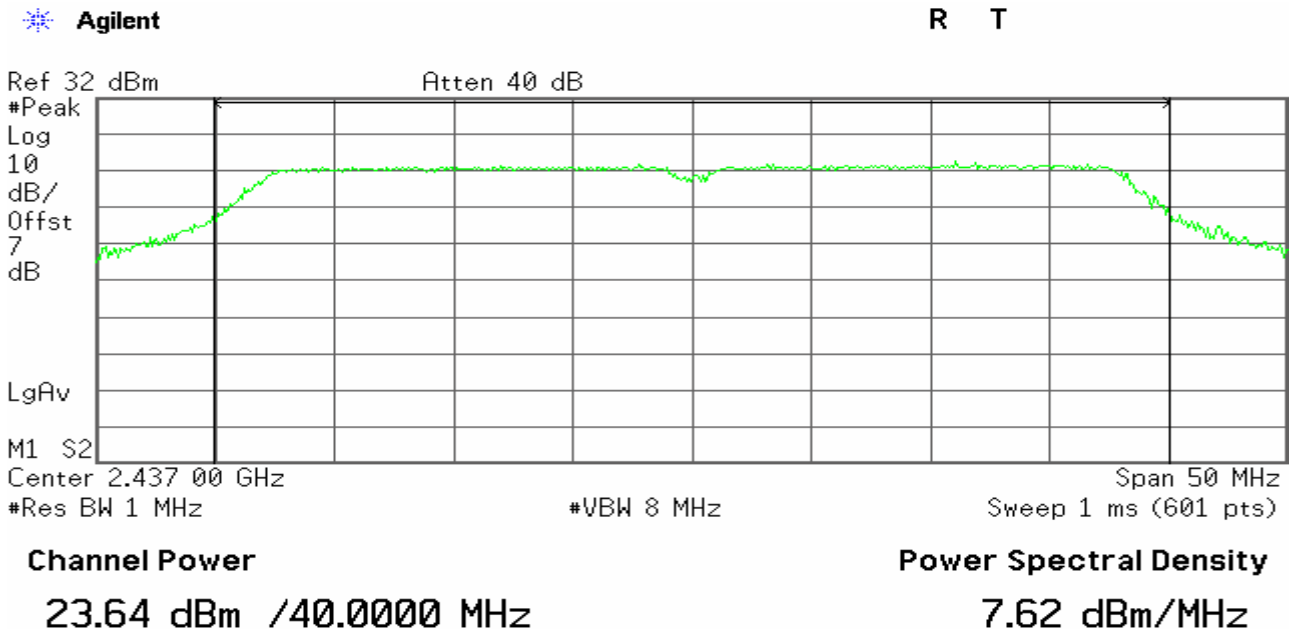


draft 802.11n wide-40 MHz Channel mode / Chain 1

Peak Power (CH Low)



Peak Power (CH Mid)

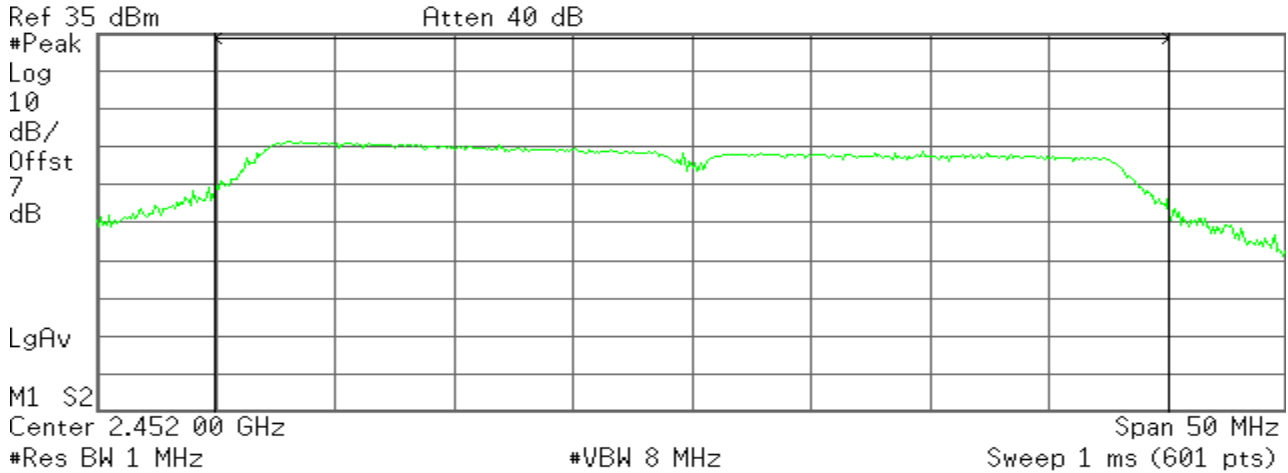




Peak Power (CH High)

Agilent

R L



Channel Power

14.72 dBm /40.0000 MHz

Power Spectral Density

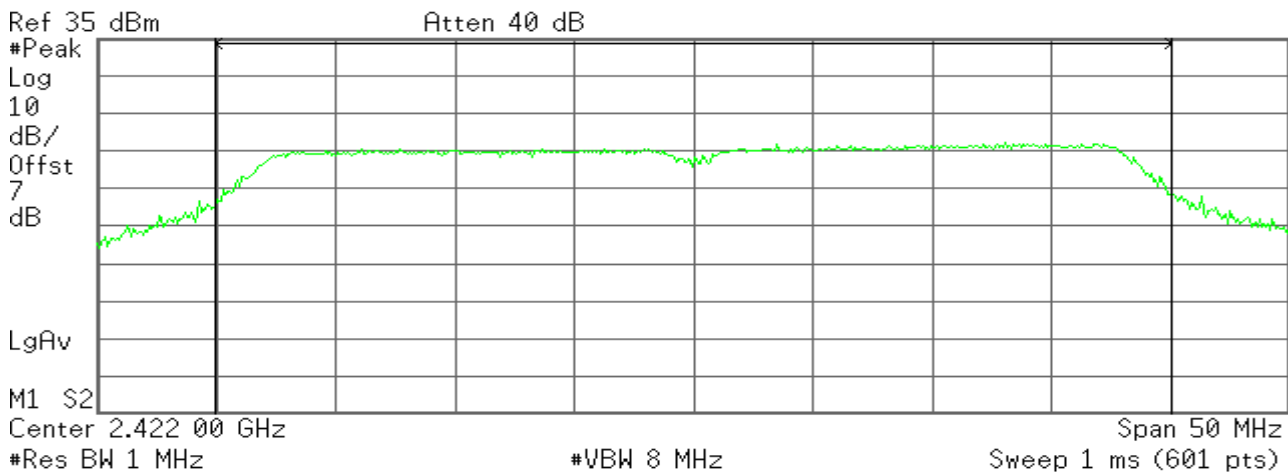
-1.30 dBm/MHz

draft 802.11n wide-40 MHz Channel mode / Chain 2

Peak Power (CH Low)

Agilent

R T



Channel Power

16.23 dBm /40.0000 MHz

Power Spectral Density

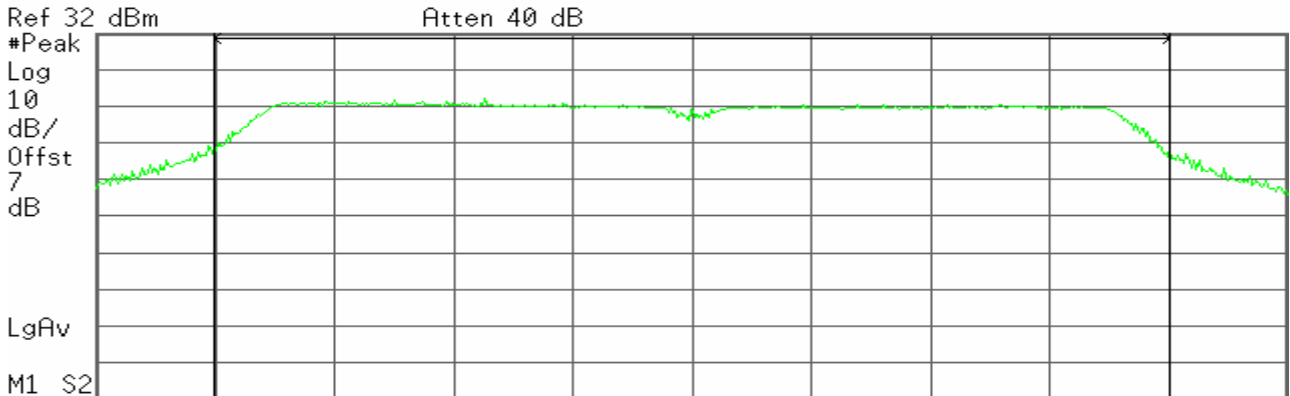
0.21 dBm/MHz



Peak Power (CH Mid)

Agilent

R T



Center 2.437 00 GHz

Span 50 MHz

#Res BW 1 MHz

#VBW 8 MHz

Sweep 1 ms (601 pts)

Channel Power

22.81 dBm /40.0000 MHz

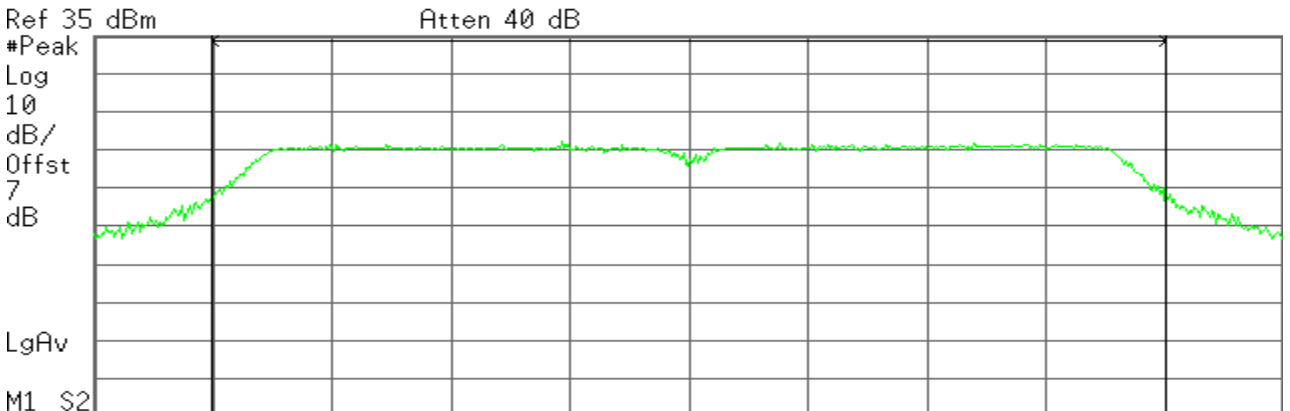
Power Spectral Density

6.70 dBm/MHz

Peak Power (CH High)

Agilent

R L



Center 2.452 00 GHz

Span 50 MHz

#Res BW 1 MHz

#VBW 8 MHz

Sweep 1 ms (601 pts)

Channel Power

16.46 dBm /40.0000 MHz

Power Spectral Density

0.44 dBm/MHz



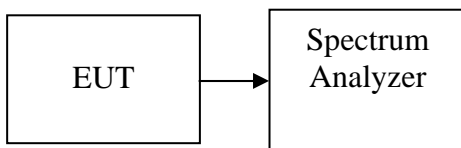
4.3. PEAK POWER SPECTRAL DENSITY

LIMIT

1. According to §15.247(e), 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.

2. According to §15.247(f), the digital modulation operation of the hybrid system, with the frequency hopping turned off, shall comply with the power density requirements of paragraph (d) of this section.

Test Configuration



TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

2. Set the spectrum analyzer as RBW = 3 kHz, VBW = 10 kHz, Span = 1.5 times the DTS bandwidth, Sweep = auto

3. Record the max reading.

4. Repeat the above procedure until the measurements for all frequencies are completed.

TEST RESULTS

No non-compliance noted



Test Data

Test mode: 802.11b mode

| Channel | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Chain2 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) | Result |
|---------|-----------------|--------------------|--------------------|-------------------|------------------|-------------|--------|
| Low | 2412 | -5.60 | -4.87 | -5.14 | -0.42 | 8.00 | PASS |
| Mid | 2437 | -0.52 | -1.68 | -0.32 | 3.97 | 8.00 | PASS |
| High | 2462 | -4.30 | -5.72 | -4.08 | 0.13 | 8.00 | PASS |

Test mode: 802.11g mode

| Channel | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Chain2 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) | Result |
|---------|-----------------|--------------------|--------------------|-------------------|------------------|-------------|--------|
| Low | 2412 | 1.16 | -9.45 | -9.51 | 1.85 | 8.00 | PASS |
| Mid | 2437 | -4.05 | -4.59 | -4.06 | 0.55 | 8.00 | PASS |
| High | 2462 | -7.06 | -8.83 | -9.89 | -3.66 | 8.00 | PASS |

Test mode: draft 802.11n Standard-20 MHz Channel mode

| Channel | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Chain2 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) | Result |
|---------|-----------------|--------------------|--------------------|-------------------|------------------|-------------|--------|
| Low | 2412 | -9.00 | -11.67 | -11.22 | -5.69 | 8.00 | PASS |
| Mid | 2437 | -2.34 | -3.30 | -3.33 | 1.81 | 8.00 | PASS |
| High | 2462 | -12.18 | -11.51 | -12.26 | -7.20 | 8.00 | PASS |

Test mode: draft 802.11n Wide-40 MHz Channel mode

| Channel | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Chain2 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) | Result |
|---------|-----------------|--------------------|--------------------|-------------------|------------------|-------------|--------|
| Low | 2422 | -14.39 | -16.41 | -15.76 | -10.67 | 8.00 | PASS |
| Mid | 2437 | -8.23 | -8.43 | -9.70 | -3.97 | 8.00 | PASS |
| High | 2452 | -15.91 | -15.41 | -15.64 | -10.88 | 8.00 | PASS |

Remark: Total PPSD (dBm) = $10 * \text{LOG}(10^{(\text{Chain 0 PPSD} / 10)} + 10^{(\text{Chain 1 PPSD} / 10)} + 10^{(\text{Chain 2 PPSD} / 10)})$



Test Plot

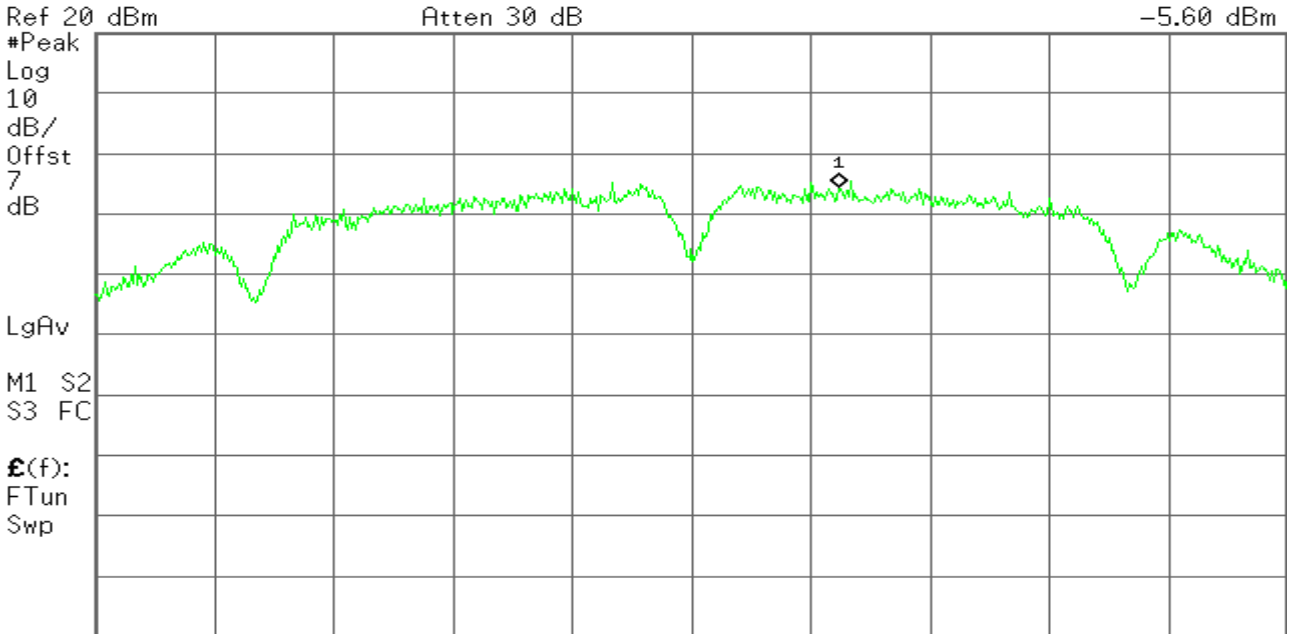
IEEE 802.11b mode/Chain 0

PPSD (CH Low)

Agilent

R L

Mkr1 2.413 850 GHz
-5.60 dBm



Center 2.412 000 GHz

Span 15 MHz

#Res BW 3 kHz

#VBW 10 kHz

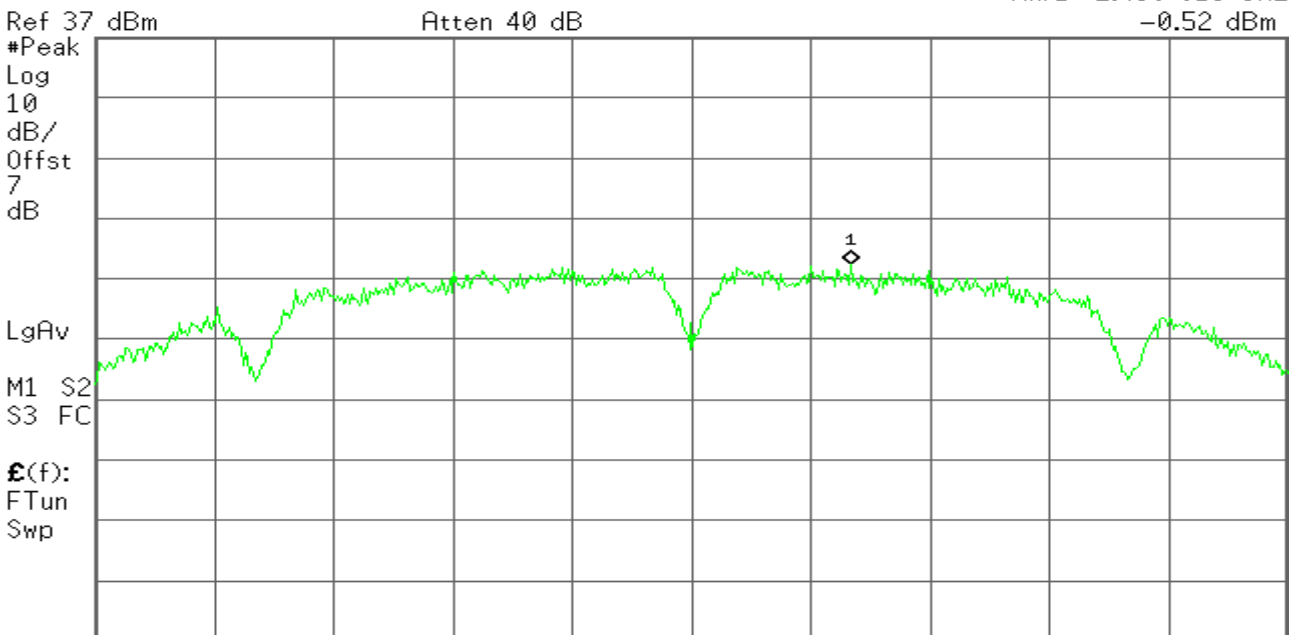
Sweep 1.582 s (601 pts)

PPSD (CH Mid)

Agilent

R T

Mkr1 2.439 013 GHz
-0.52 dBm



Center 2.437 000 GHz

Span 15.1 MHz

#Res BW 3 kHz

#VBW 10 kHz

Sweep 1.592 s (601 pts)



PPSD (CH High)

Agilent

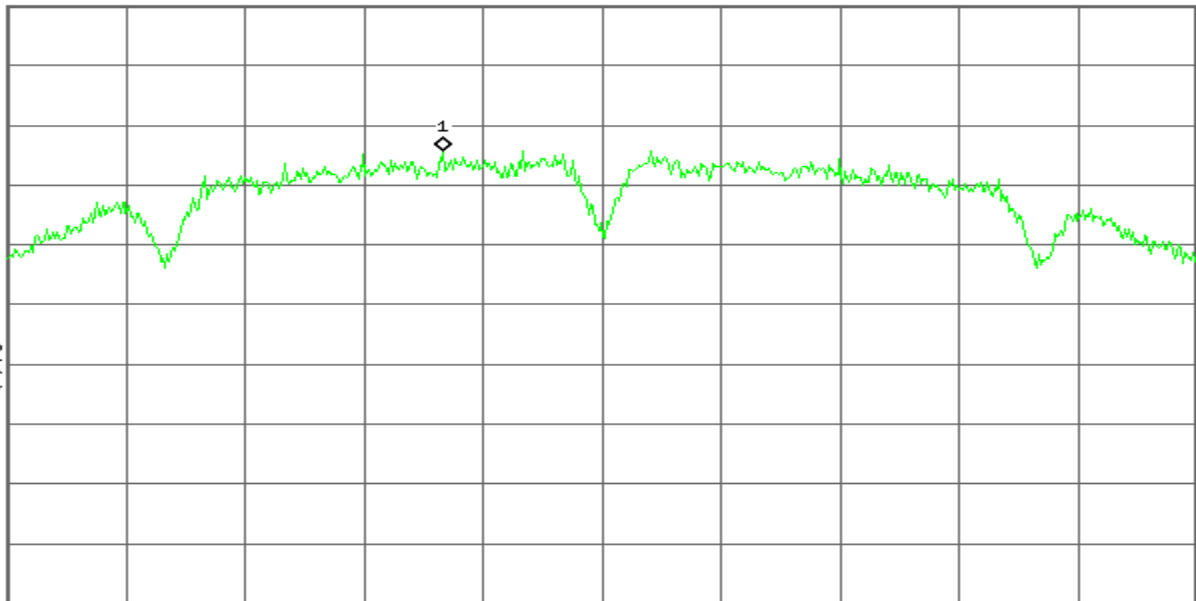
R L

Mkr1 2.460 000 GHz
-4.30 dBm

Ref 20 dBm

Atten 30 dB

#Peak
Log
10
dB/
Offst
7
dB



Center 2.462 000 GHz

Span 15 MHz

#Res BW 3 kHz

#VBW 10 kHz

Sweep 1.582 s (601 pts)

IEEE 802.11b mode/Chain 1

PPSD (CH Low)

Agilent

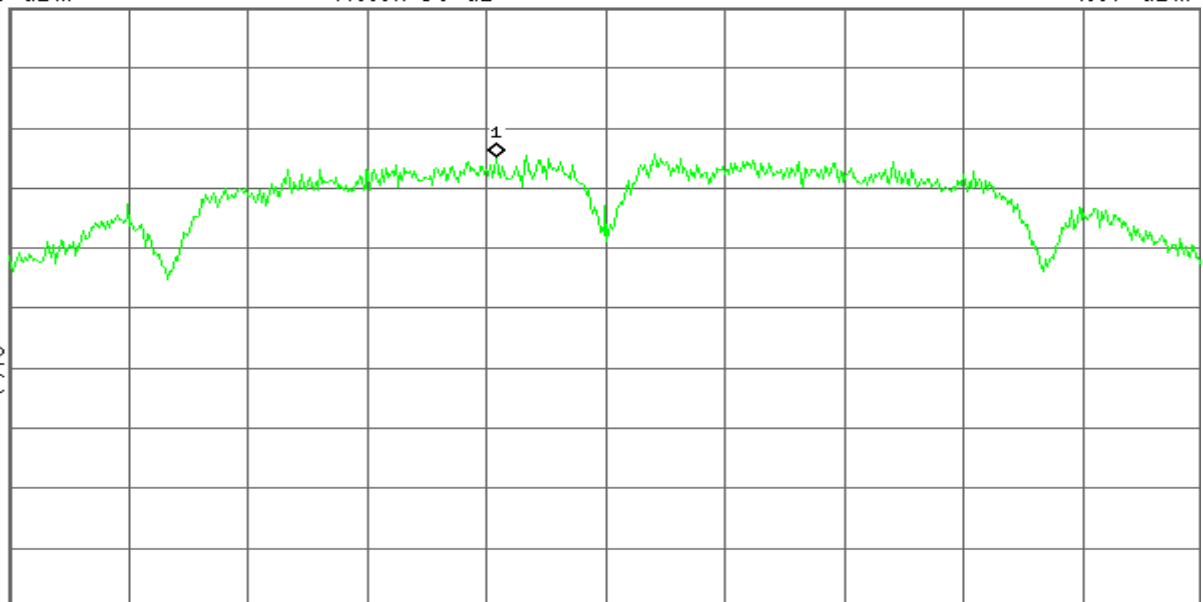
R L

Mkr1 2.410 625 GHz
-4.87 dBm

Ref 20 dBm

Atten 30 dB

#Peak
Log
10
dB/
Offst
7
dB



Center 2.412 000 GHz

Span 15 MHz

#Res BW 3 kHz

#VBW 10 kHz

Sweep 1.582 s (601 pts)



PPSD (CH Mid)

Agilent

R T

Mkr1 2.437 805 GHz
-1.68 dBm

Ref 37 dBm

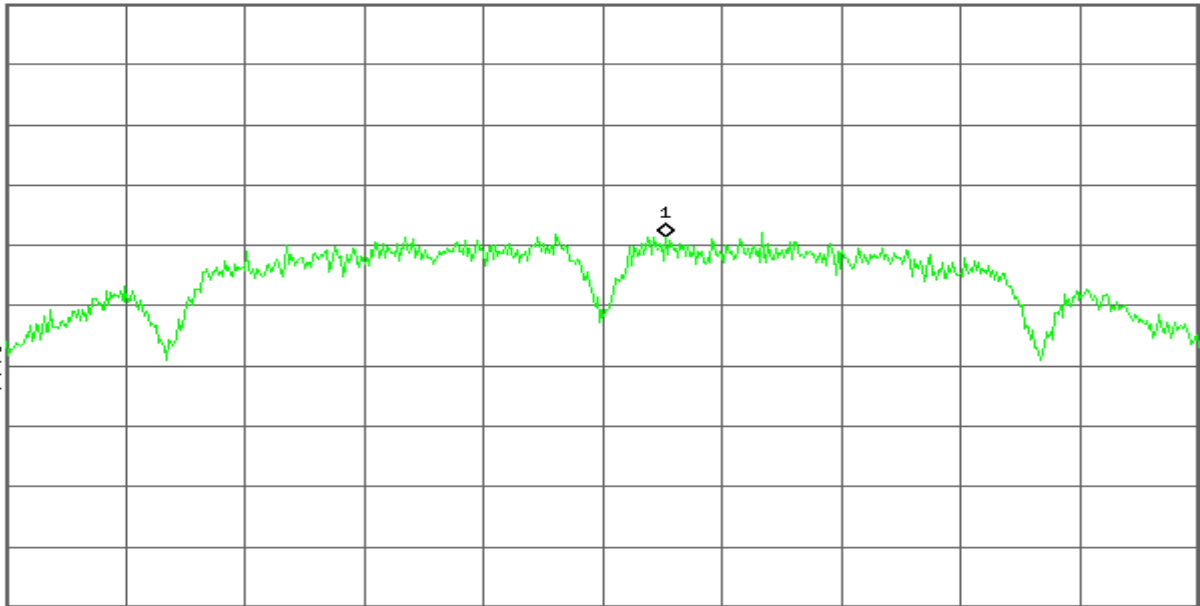
Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.437 000 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 15.1 MHz
Sweep 1.592 s (601 pts)

PPSD (CH High)

Agilent

R L

Mkr1 2.459 625 GHz
-5.72 dBm

Ref 20 dBm

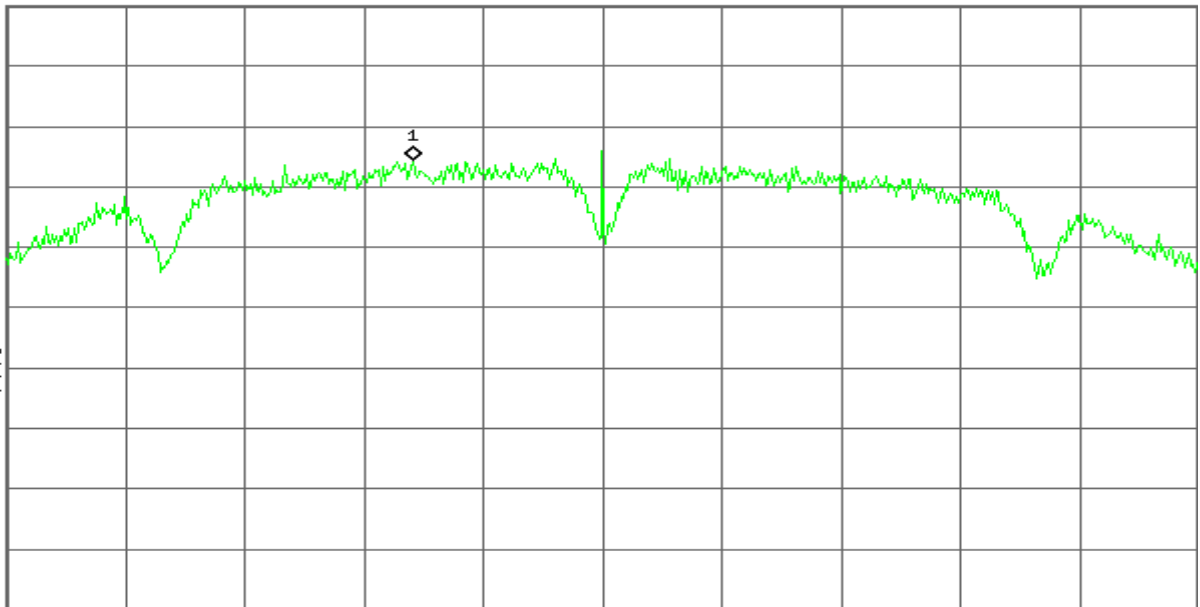
Atten 30 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.462 000 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 15 MHz
Sweep 1.582 s (601 pts)



IEEE 802.11b mode/Chain 2

PPSD (CH Low)

Agilent

R L

Mkr1 2.413 850 GHz
-5.14 dBm

Ref 20 dBm

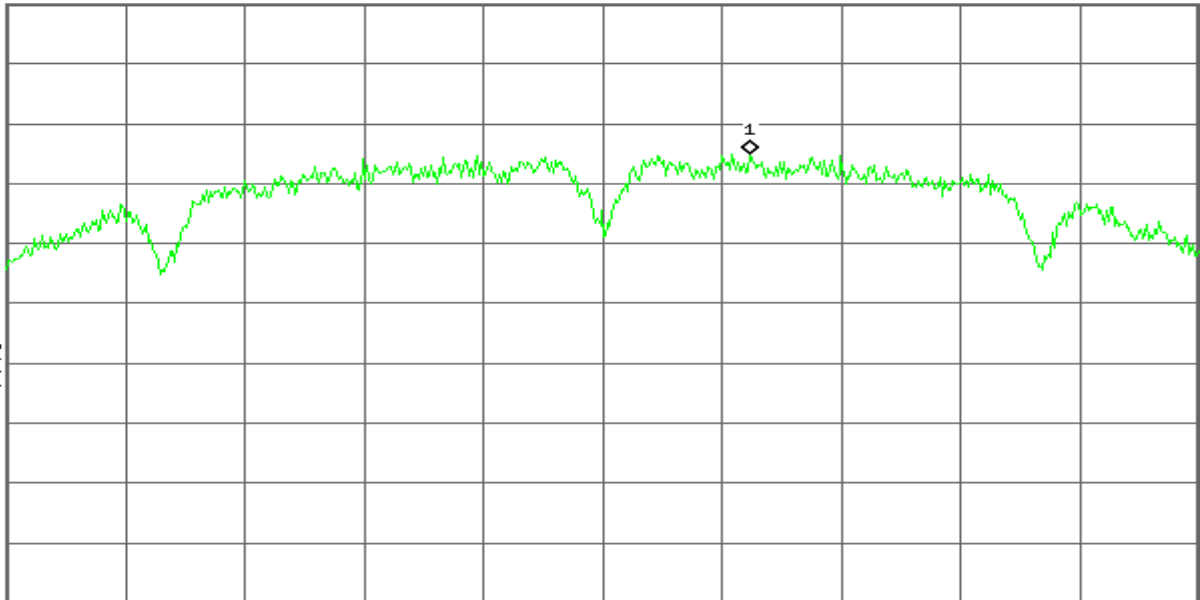
Atten 30 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.412 000 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 15 MHz
Sweep 1.582 s (601 pts)

PPSD (CH Mid)

Agilent

R T

Mkr1 2.439 013 GHz
-0.32 dBm

Ref 37 dBm

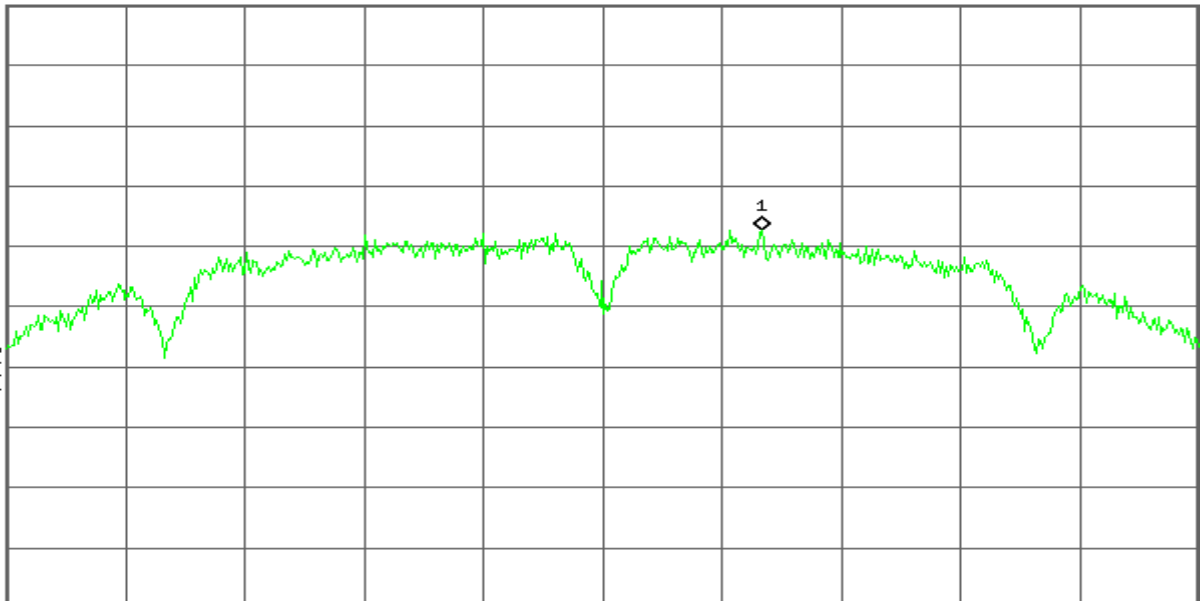
Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.437 000 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 15.1 MHz
Sweep 1.592 s (601 pts)

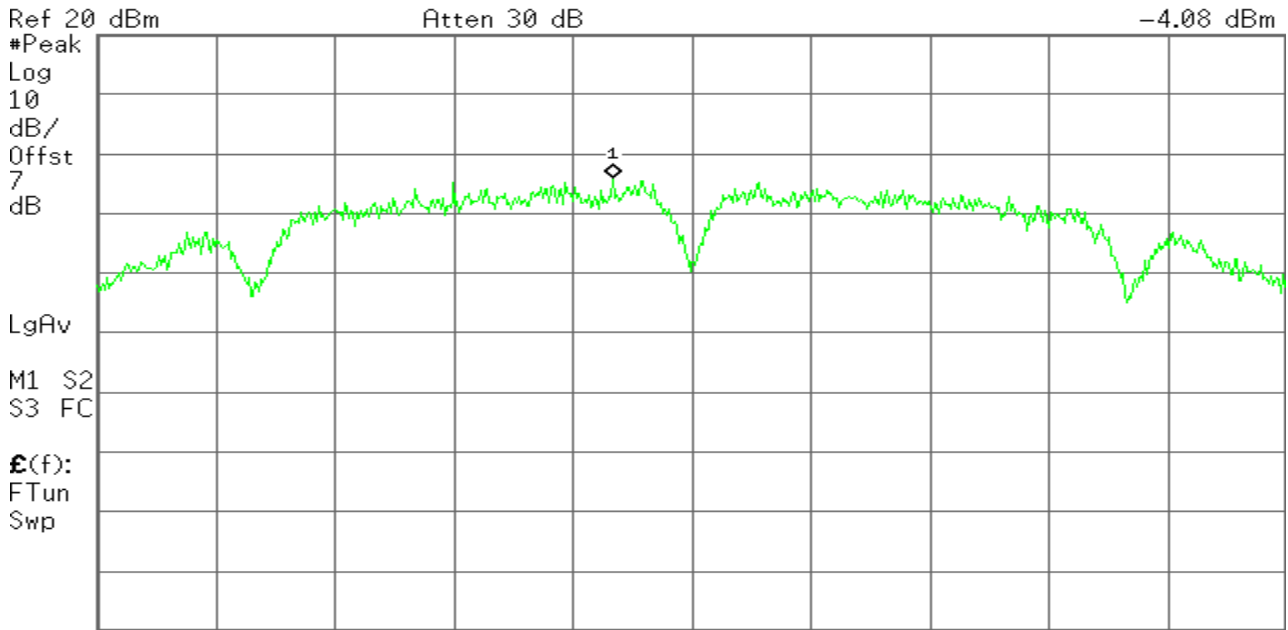


PPSD (CH High)

Agilent

R L

Mkr1 2.461 000 GHz
-4.08 dBm



Center 2.462 000 GHz

Span 15 MHz

#Res BW 3 kHz

#VBW 10 kHz

Sweep 1.582 s (601 pts)

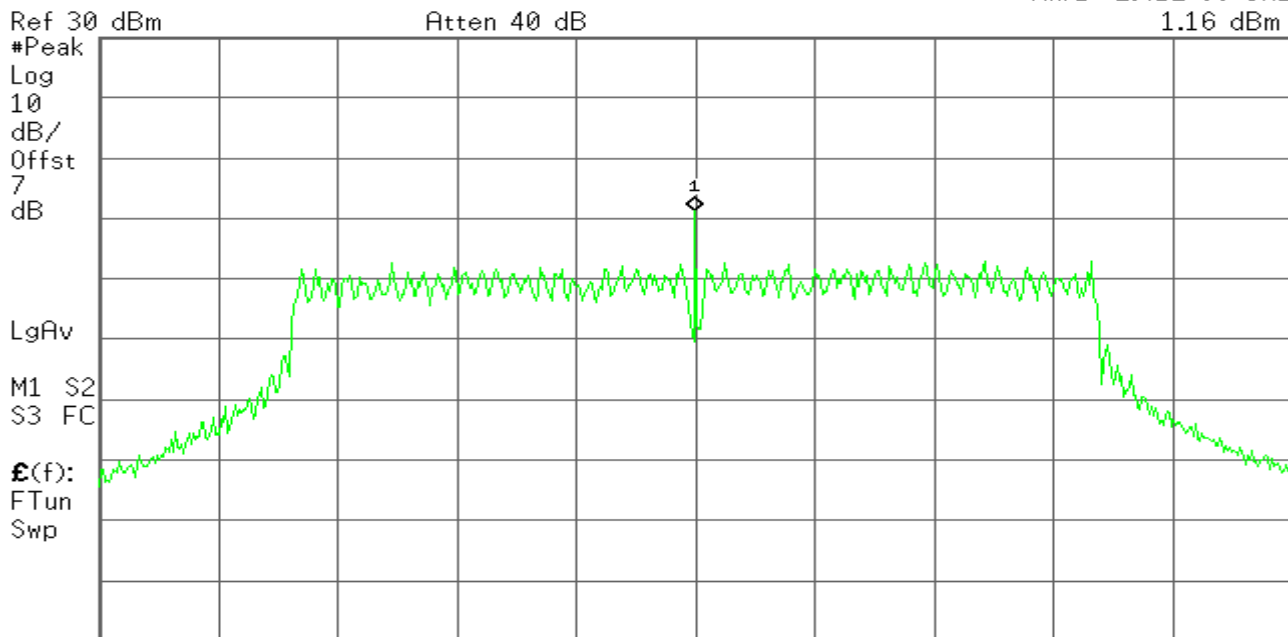
IEEE 802.11g mode/Chain 0

PPSD (CH Low)

Agilent

R T

Mkr1 2.412 00 GHz
1.16 dBm



Center 2.412 00 GHz

Span 24.6 MHz

#Res BW 3 kHz

#VBW 10 kHz

Sweep 2.594 s (601 pts)



PPSD (CH Mid)

Agilent

R T

Mkr1 2.430 73 GHz
-4.05 dBm

Ref 37 dBm

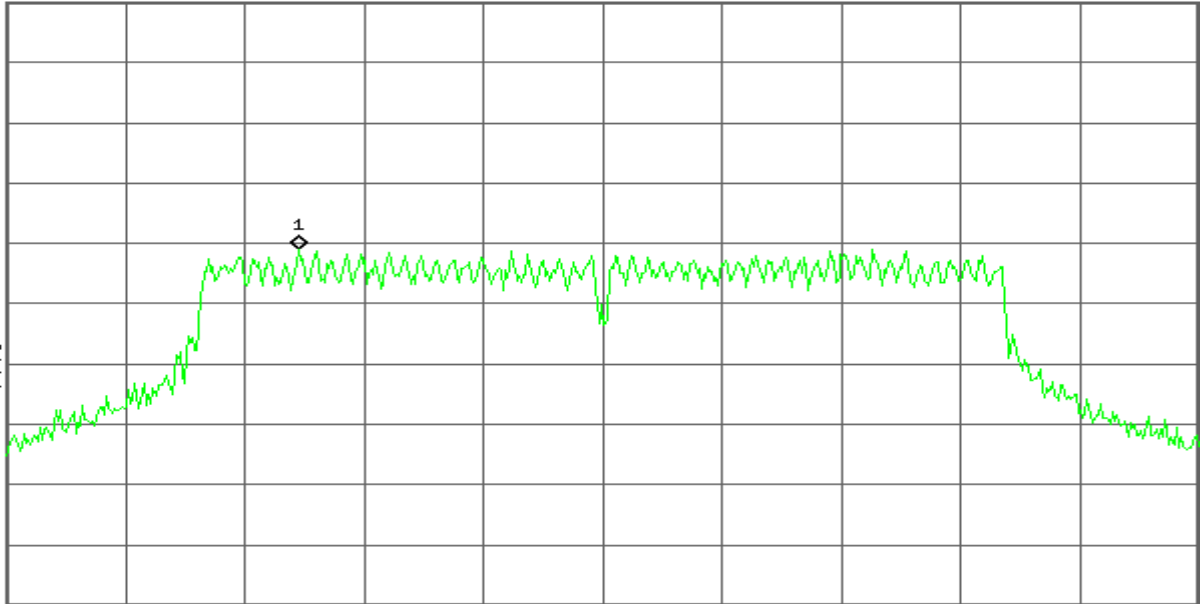
Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.437 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 24.6 MHz
Sweep 2.594 s (601 pts)

PPSD (CH High)

Agilent

R T

Mkr1 2.455 73 GHz
-7.06 dBm

Ref 30 dBm

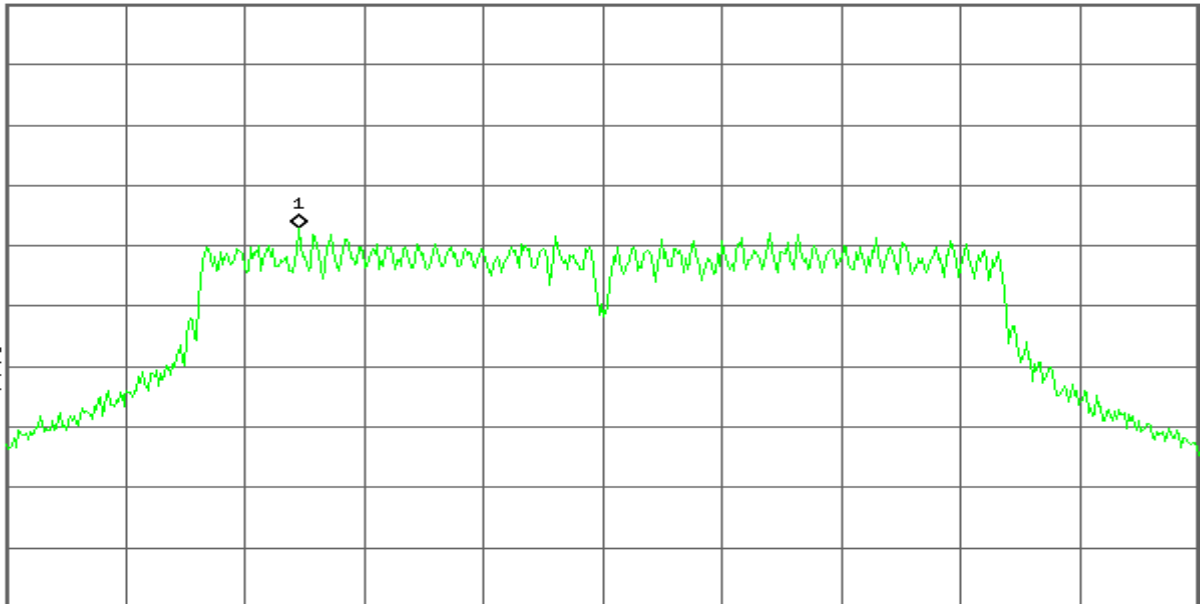
Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.462 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 24.6 MHz
Sweep 2.594 s (601 pts)



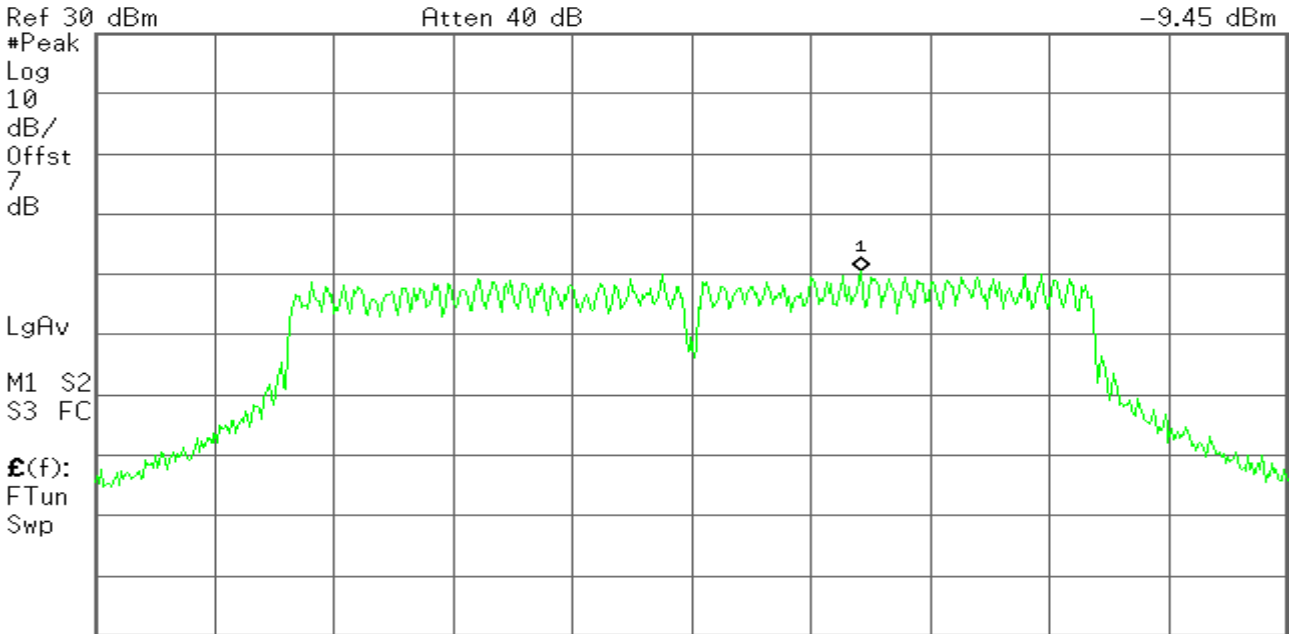
IEEE 802.11g mode/Chain 1

PPSD (CH Low)

Agilent

R T

Mkr1 2.415 48 GHz
-9.45 dBm



Center 2.412 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

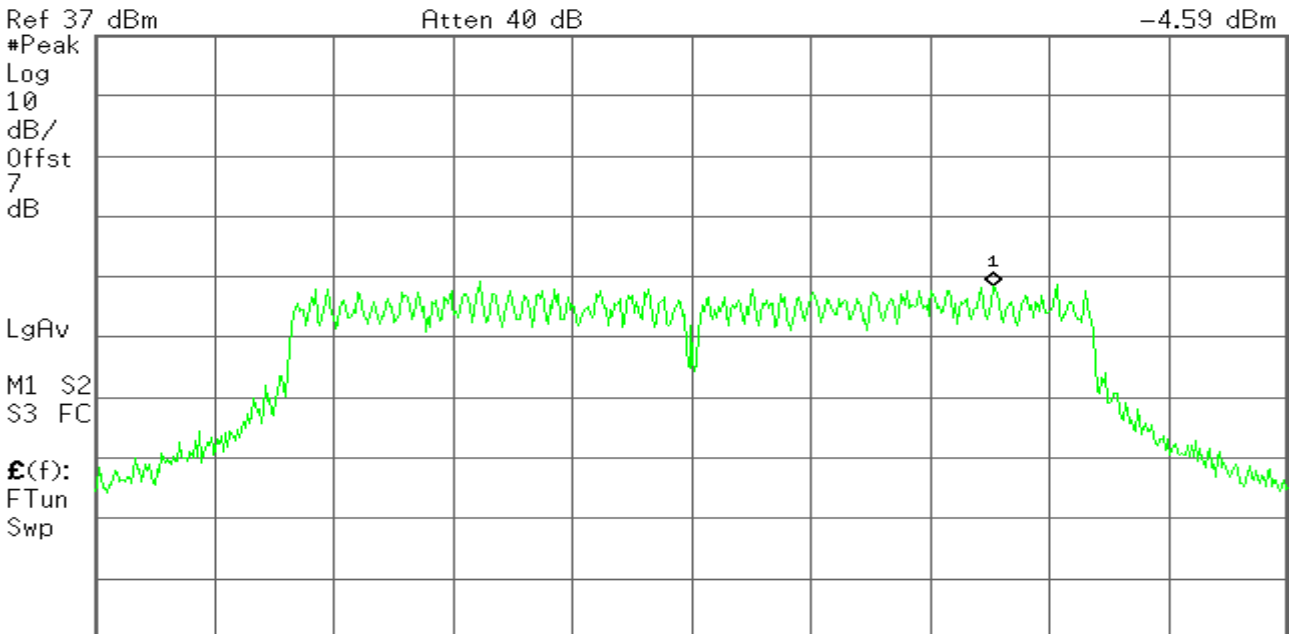
Span 24.6 MHz
Sweep 2.594 s (601 pts)

PPSD (CH Mid)

Agilent

R T

Mkr1 2.443 23 GHz
-4.59 dBm



Center 2.437 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 24.6 MHz
Sweep 2.594 s (601 pts)

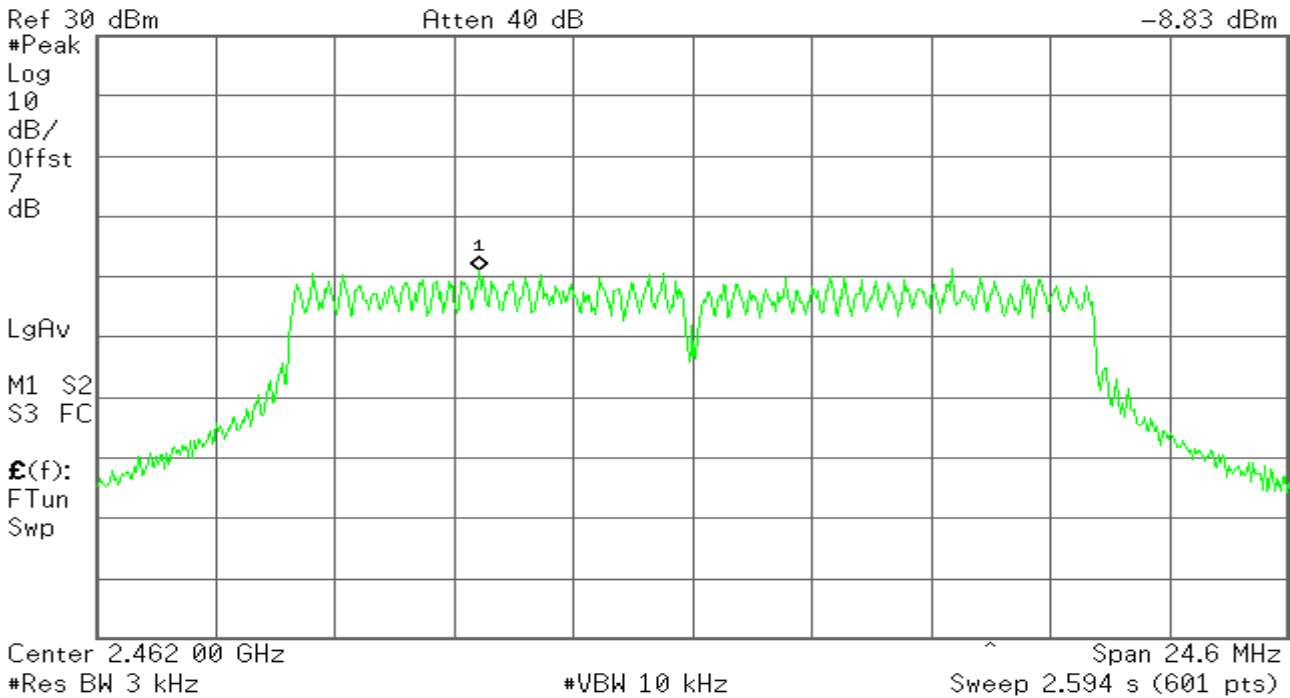


PPSD (CH High)

Agilent

R T

Mkr1 2.457 61 GHz
-8.83 dBm



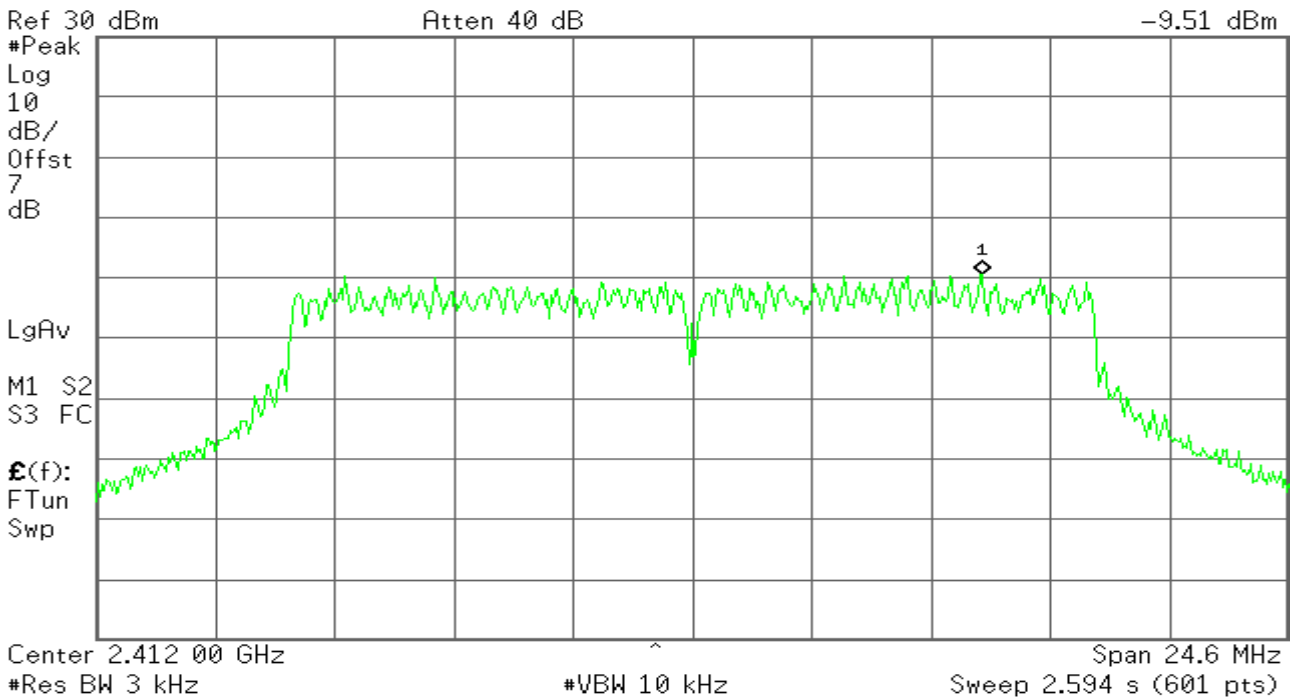
IEEE 802.11g mode/Chain 2

PPSD (CH Low)

Agilent

R T

Mkr1 2.417 99 GHz
-9.51 dBm





PPSD (CH Mid)

Agilent

R T

Mkr1 2.432 70 GHz
-4.06 dBm

Ref 37 dBm

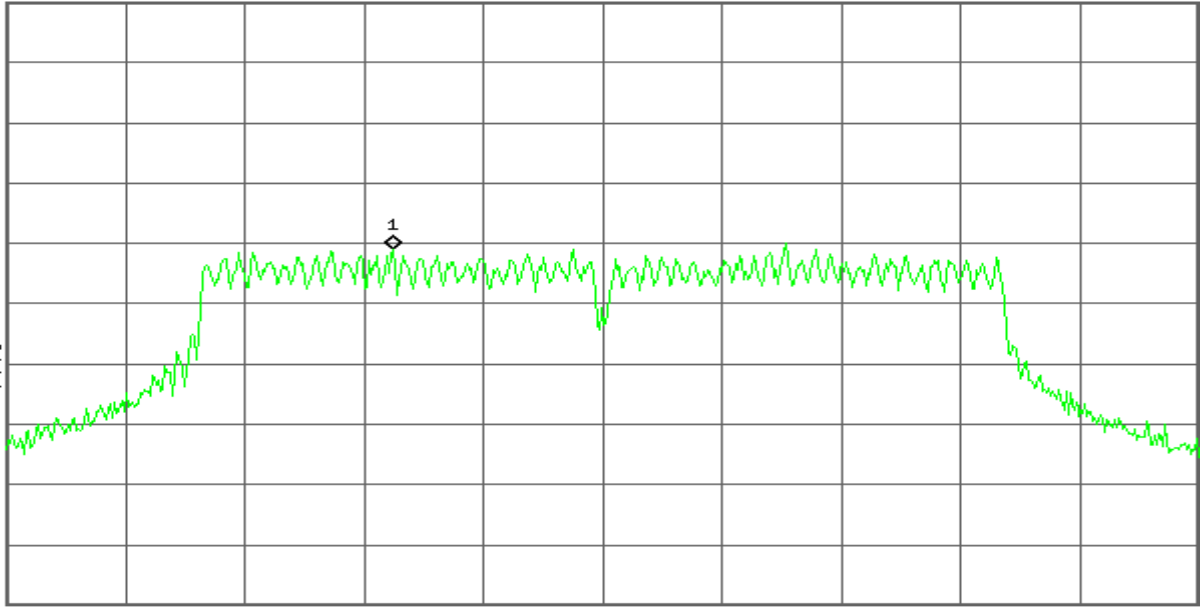
Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.437 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 24.6 MHz
Sweep 2.594 s (601 pts)

PPSD (CH High)

Agilent

R T

Mkr1 2.459 50 GHz
-9.89 dBm

Ref 30 dBm

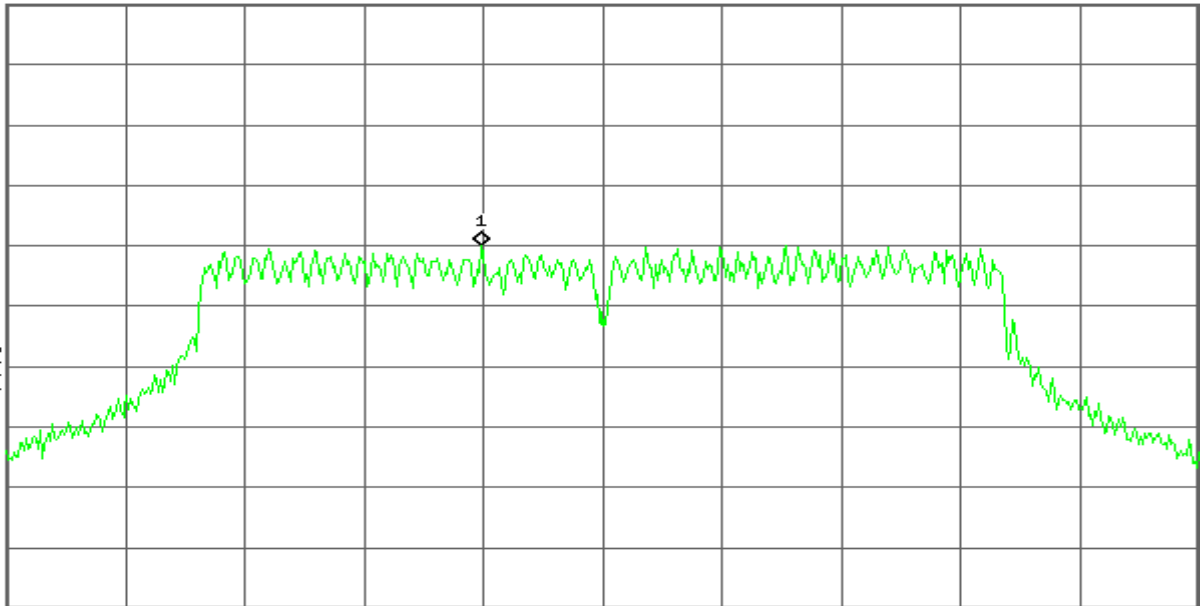
Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.462 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 24.6 MHz
Sweep 2.594 s (601 pts)



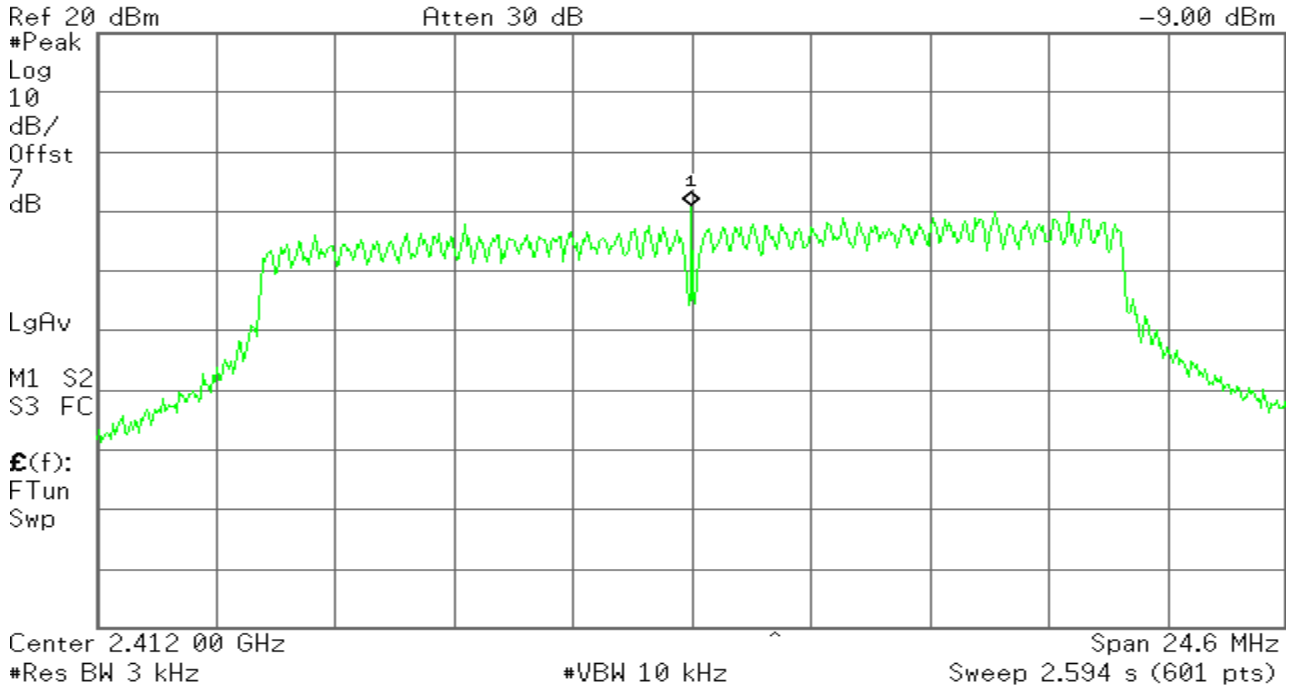
draft 802.11n Standard-20 MHz Channel mode / Chain 0

PPSD (CH Low)

Agilent

R L

Mkr1 2.412 00 GHz
-9.00 dBm

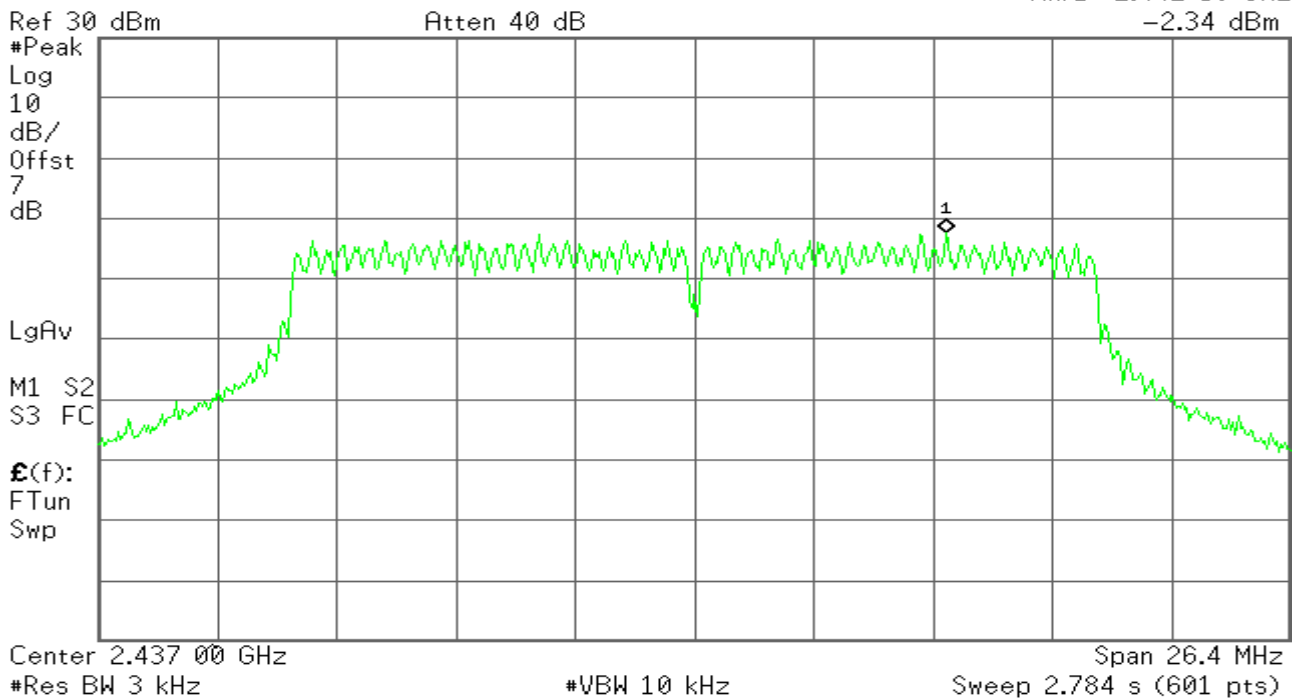


PPSD (CH Mid)

Agilent

R T

Mkr1 2.442 59 GHz
-2.34 dBm



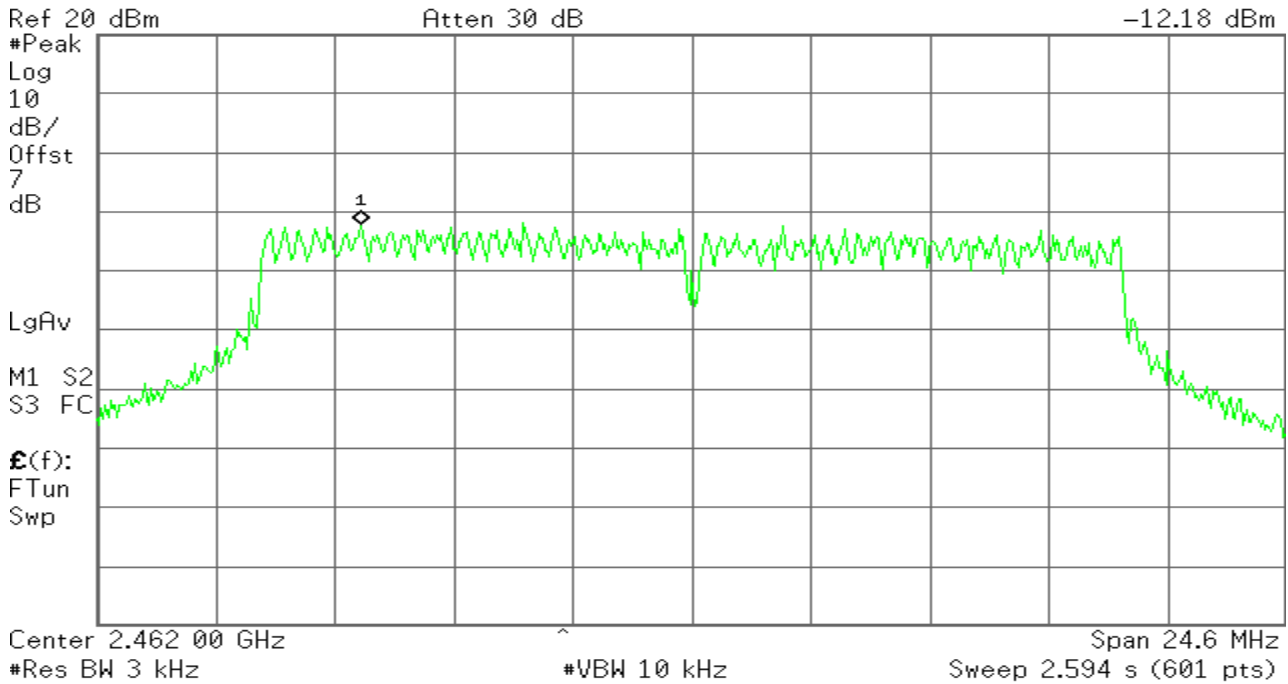


PPSD (CH High)

Agilent

R L

Mkr1 2.455 15 GHz
-12.18 dBm



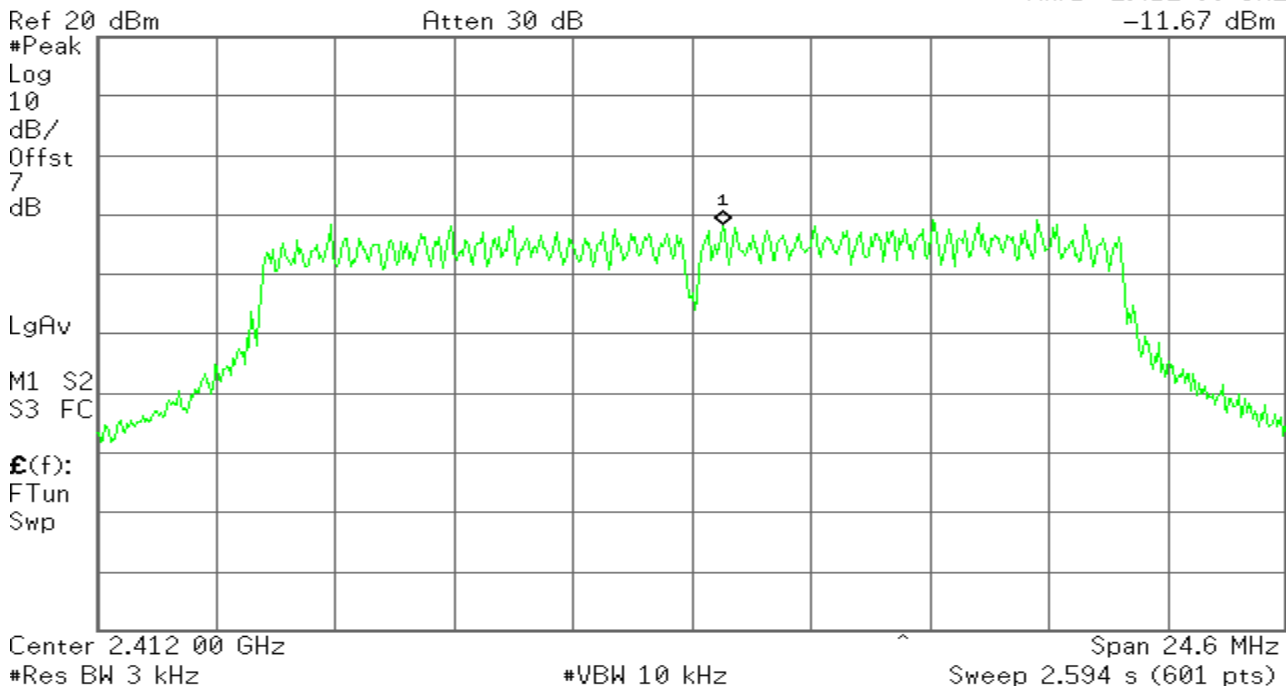
draft 802.11n Standard-20 MHz Channel mode / Chain 1

PPSD (CH Low)

Agilent

R L

Mkr1 2.412 66 GHz
-11.67 dBm





PPSD (CH Mid)

Agilent

R T

Mkr1 2.431 72 GHz
-3.30 dBm

Ref 30 dBm

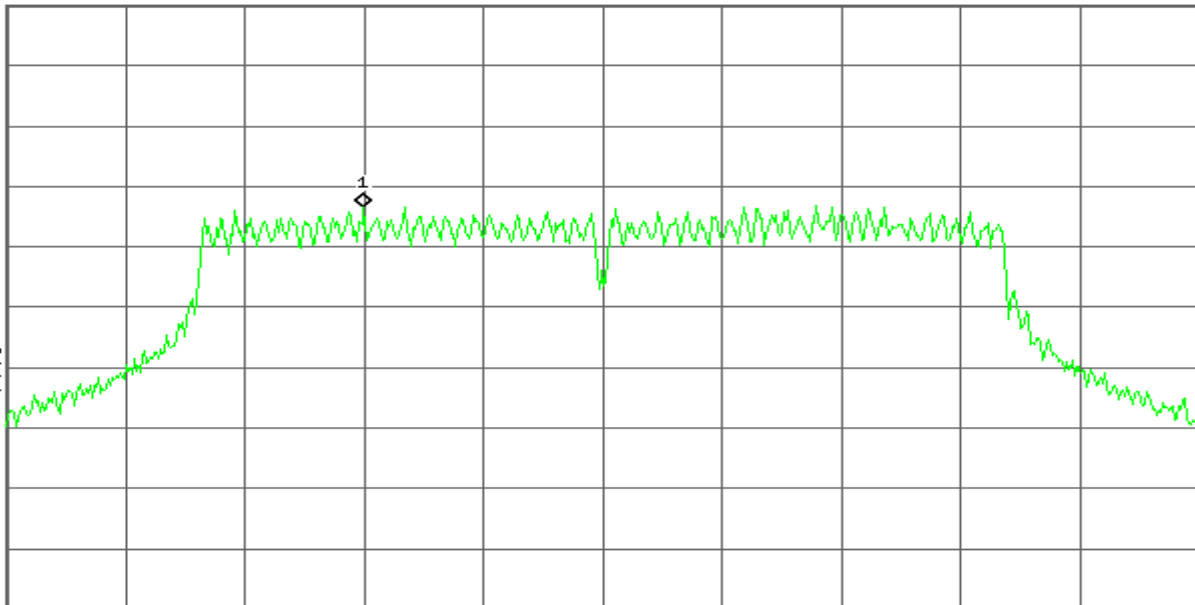
Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.437 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 26.4 MHz
Sweep 2.784 s (601 pts)

PPSD (CH High)

Agilent

R L

Mkr1 2.454 50 GHz
-11.51 dBm

Ref 20 dBm

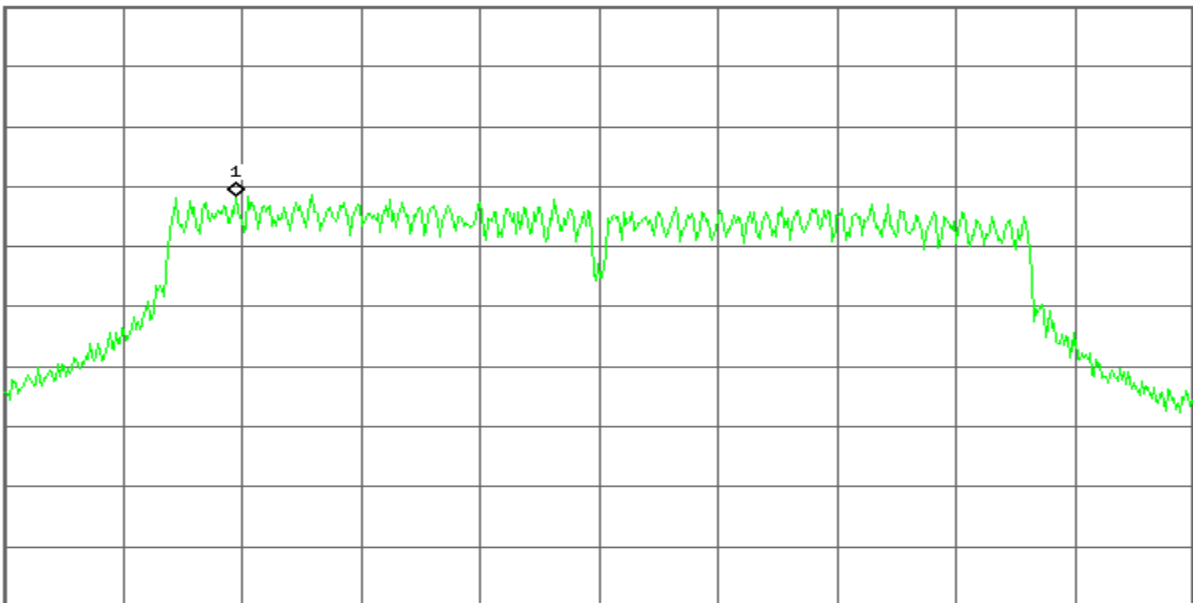
Atten 30 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.462 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 24.6 MHz
Sweep 2.594 s (601 pts)



draft 802.11n Standard-20 MHz Channel mode / Chain 2

PPSD (CH Low)

Agilent

R L

Mkr1 2.412 66 GHz
-11.22 dBm

Ref 20 dBm

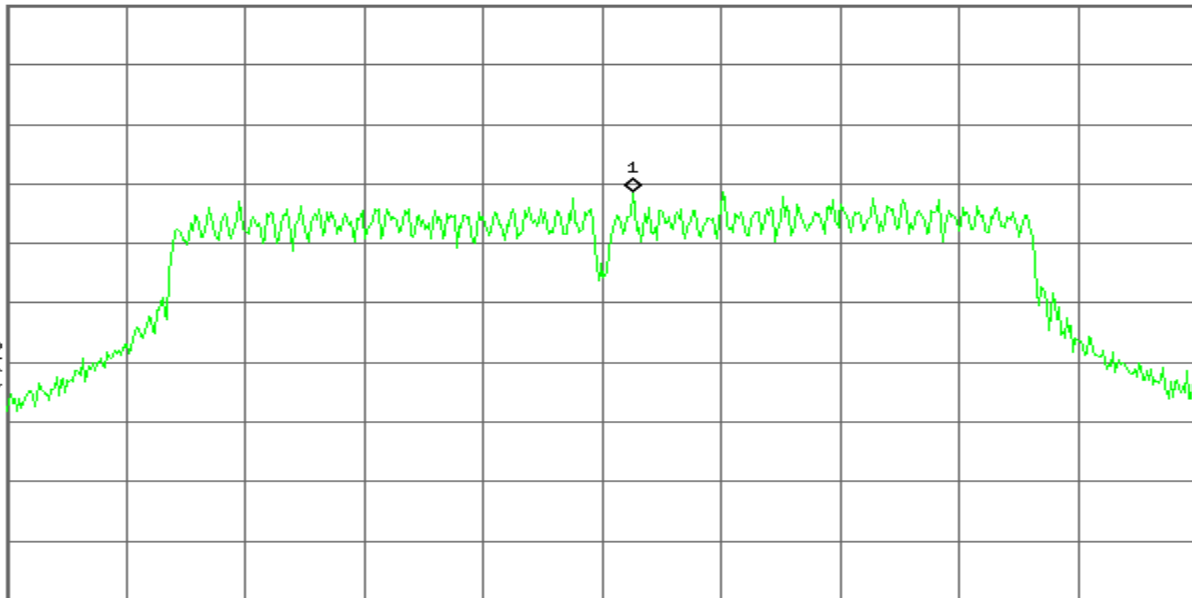
Atten 30 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.412 00 GHz ^

#Res BW 3 kHz

#VBW 10 kHz

Span 24.6 MHz
Sweep 2.594 s (601 pts)

PPSD (CH Mid)

Agilent

R T

Mkr1 2.441 62 GHz
-3.33 dBm

Ref 30 dBm

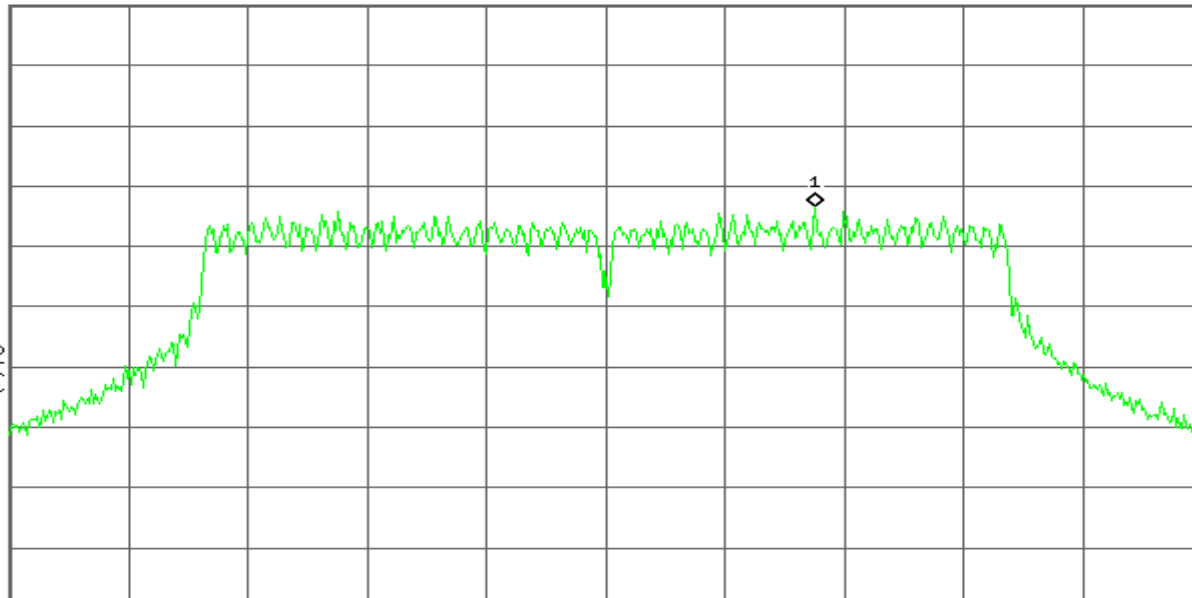
Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.437 00 GHz ^

#Res BW 3 kHz

#VBW 10 kHz

Span 26.4 MHz
Sweep 2.784 s (601 pts)

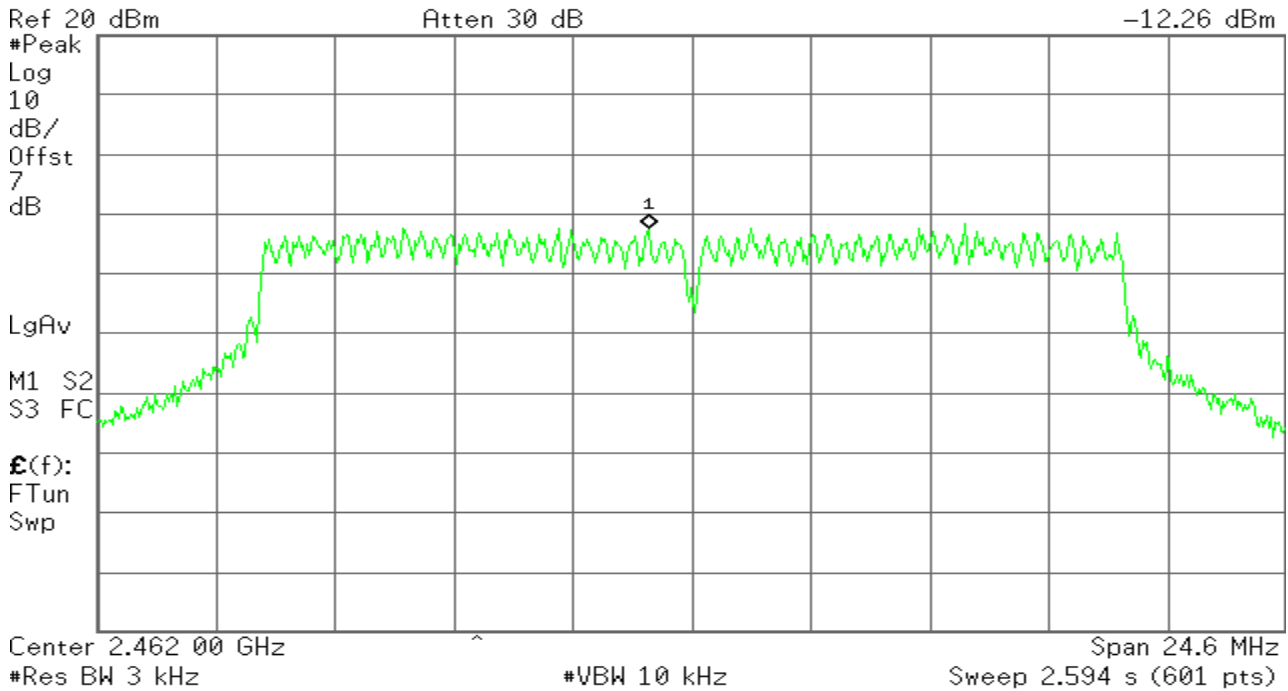


PPSD (CH High)

Agilent

R L

Mkr1 2.461 10 GHz
-12.26 dBm



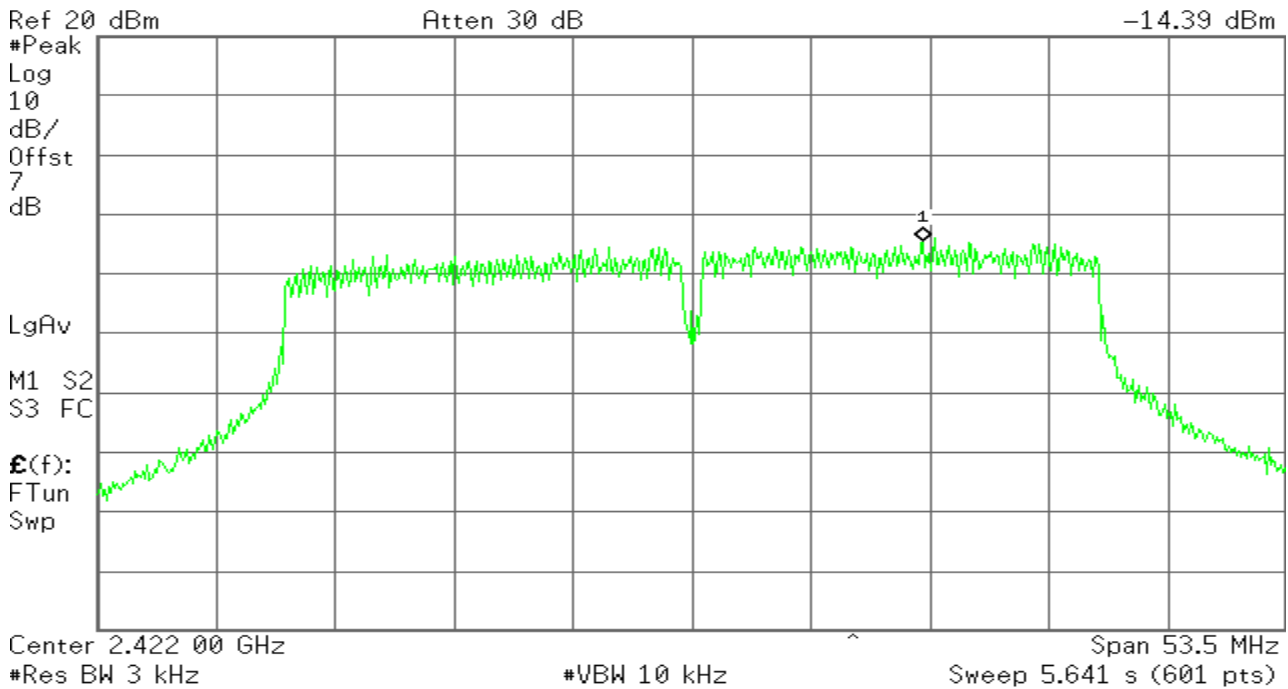
draft 802.11n wide-40 MHz Channel mode / Chain 0

PPSD (CH Low)

Agilent

R L

Mkr1 2.432 34 GHz
-14.39 dBm





PPSD (CH Mid)

Agilent

R T

Mkr1 2.422 66 GHz
-8.23 dBm

Ref 32 dBm

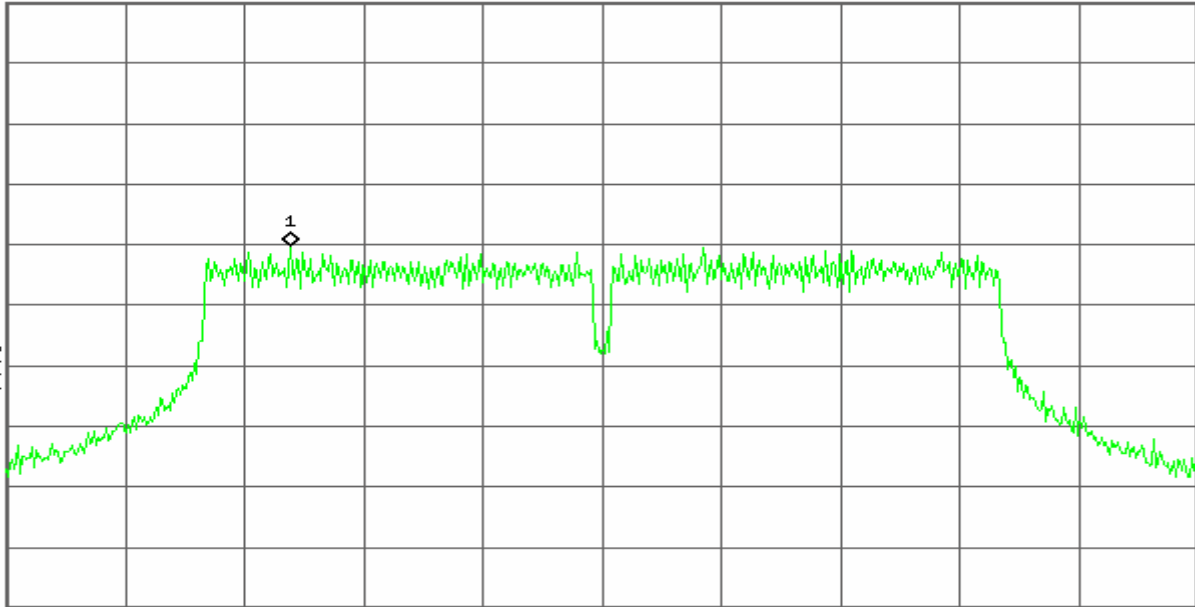
Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.437 00 GHz

Span 54.8 MHz

#Res BW 3 kHz

#VBW 10 kHz

Sweep 5.778 s (601 pts)

PPSD (CH High)

Agilent

R L

Mkr1 2.441 12 GHz
-15.91 dBm

Ref 20 dBm

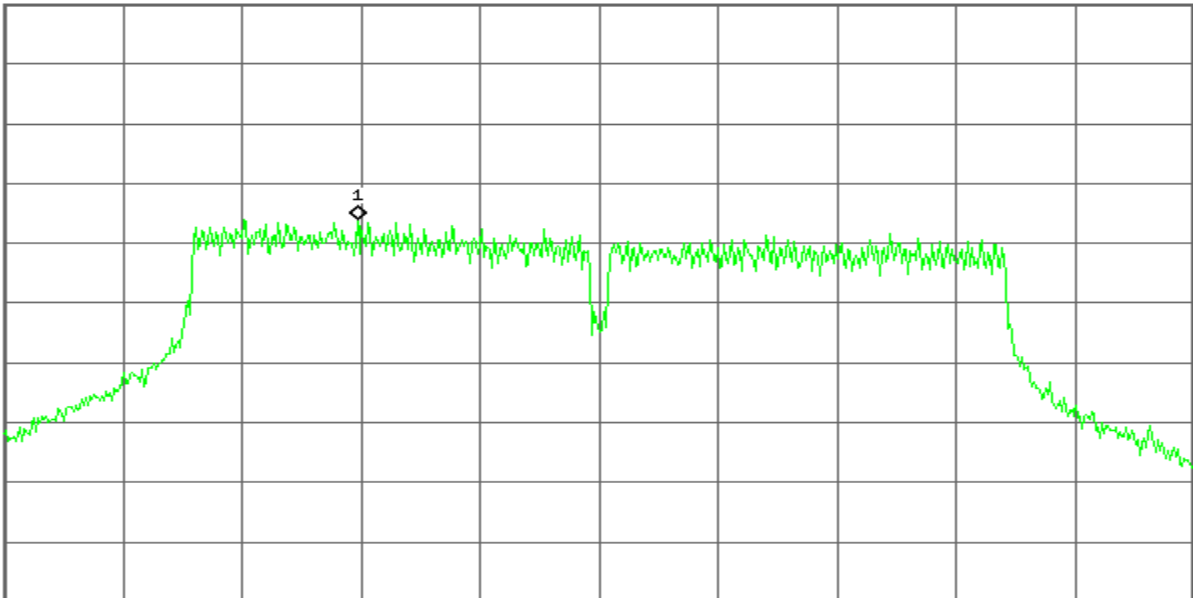
Atten 30 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.452 00 GHz

Span 53.5 MHz

#Res BW 3 kHz

#VBW 10 kHz

Sweep 5.641 s (601 pts)



draft 802.11n wide-40 MHz Channel mode / Chain 1

PPSD (CH Low)

Agilent

R L

Mkr1 2.404 88 GHz
-16.41 dBm

Ref 20 dBm

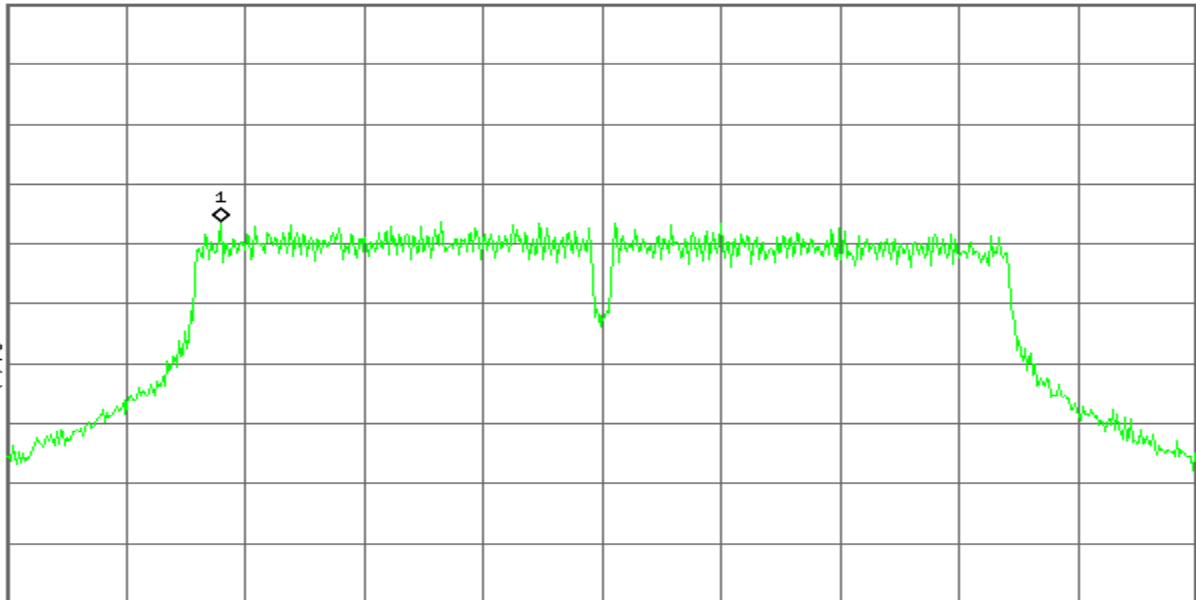
Atten 30 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.422 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 53.5 MHz
Sweep 5.641 s (601 pts)

PPSD (CH Mid)

Agilent

R T

Mkr1 2.425 40 GHz
-8.43 dBm

Ref 32 dBm

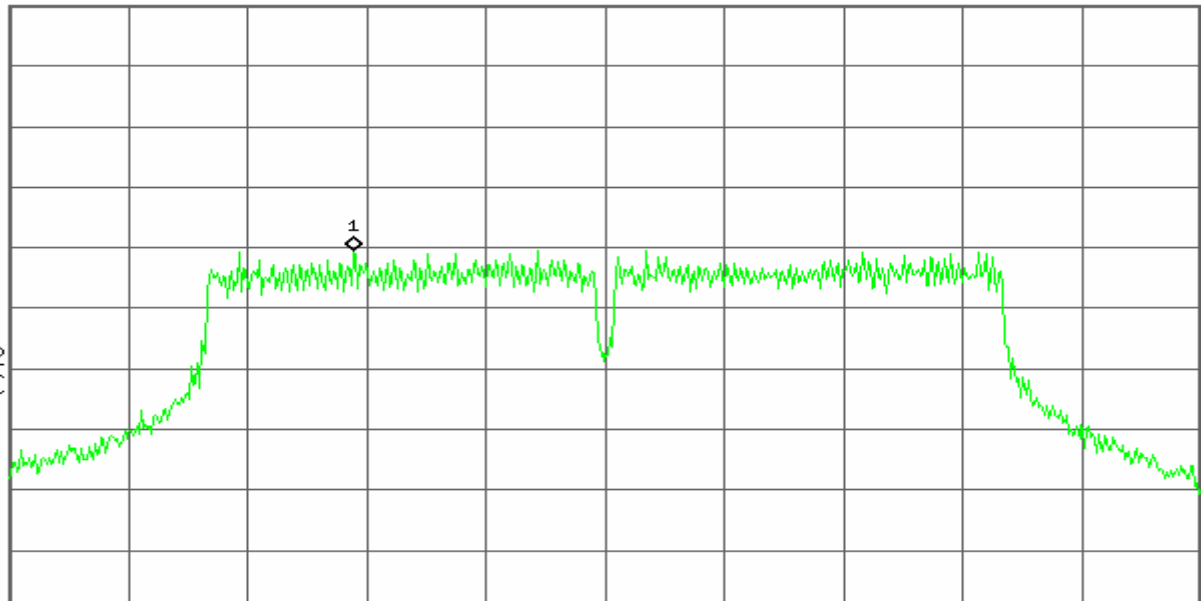
Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.437 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 54.8 MHz
Sweep 5.778 s (601 pts)

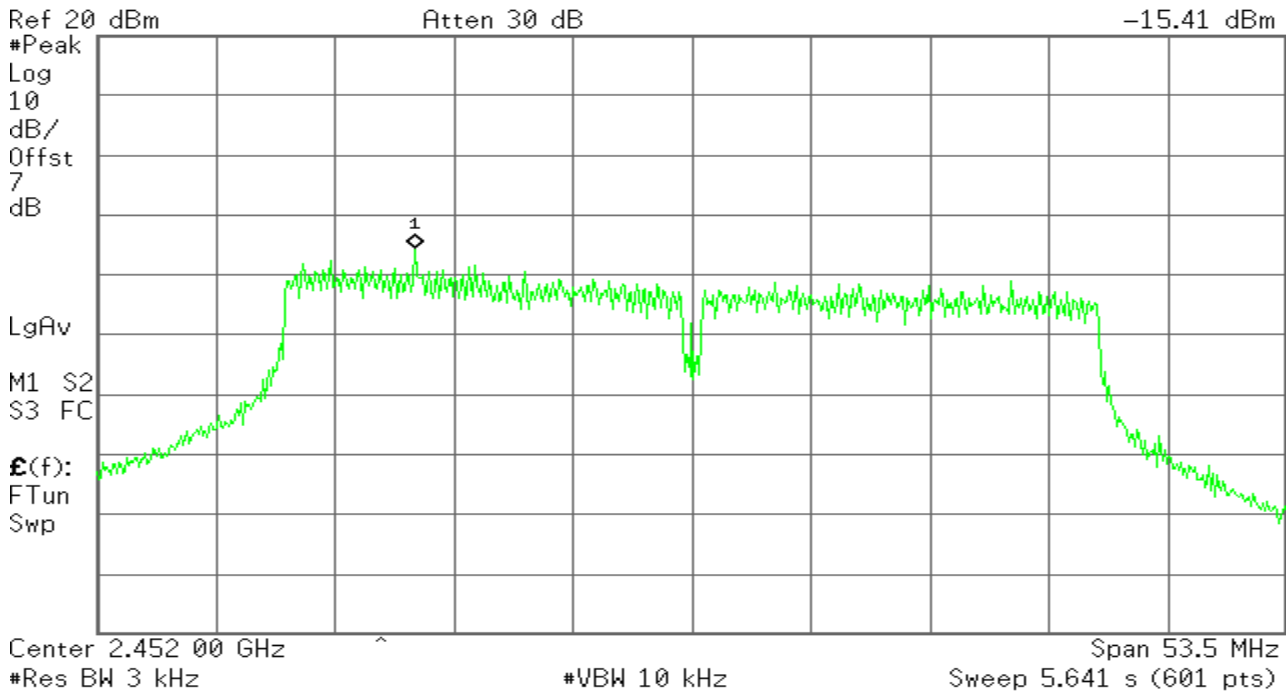


PPSD (CH High)

Agilent

R T

Mkr1 2.439 52 GHz
-15.41 dBm



draft 802.11n wide-40 MHz Channel mode / Chain 2

PPSD (CH Low)

Agilent

R L

Mkr1 2.430 74 GHz
-15.76 dBm





PPSD (CH Mid)

Agilent

R T

Mkr1 2.423 67 GHz
-9.70 dBm

Ref 32 dBm

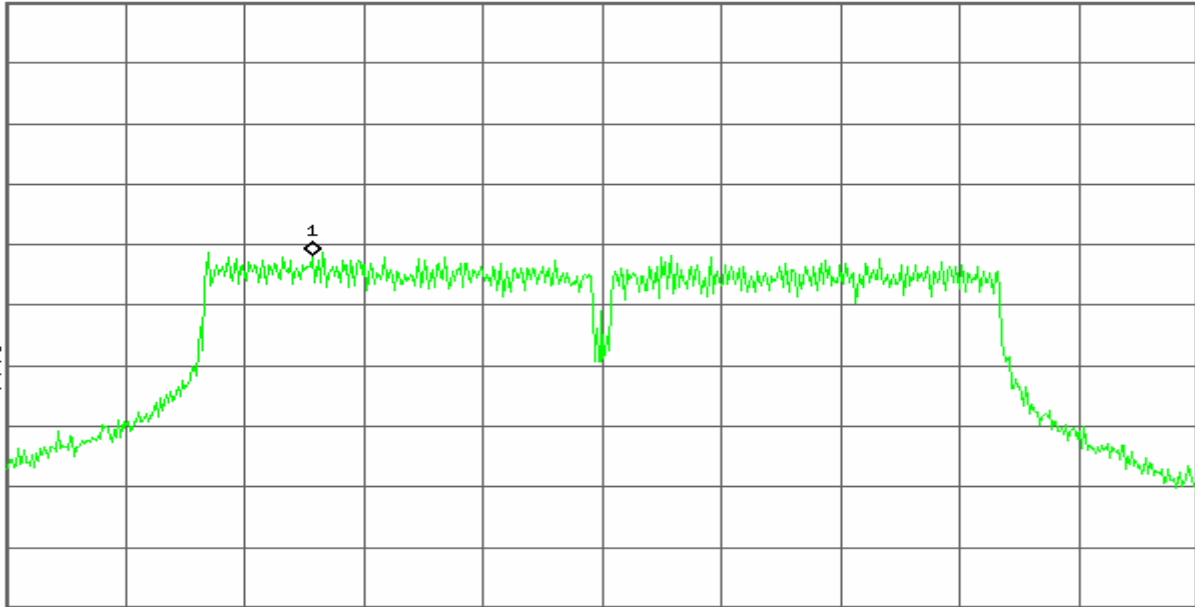
Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.437 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 54.8 MHz
Sweep 5.778 s (601 pts)

PPSD (CH High)

Agilent

R L

Mkr1 2.468 85 GHz
-15.64 dBm

Ref 20 dBm

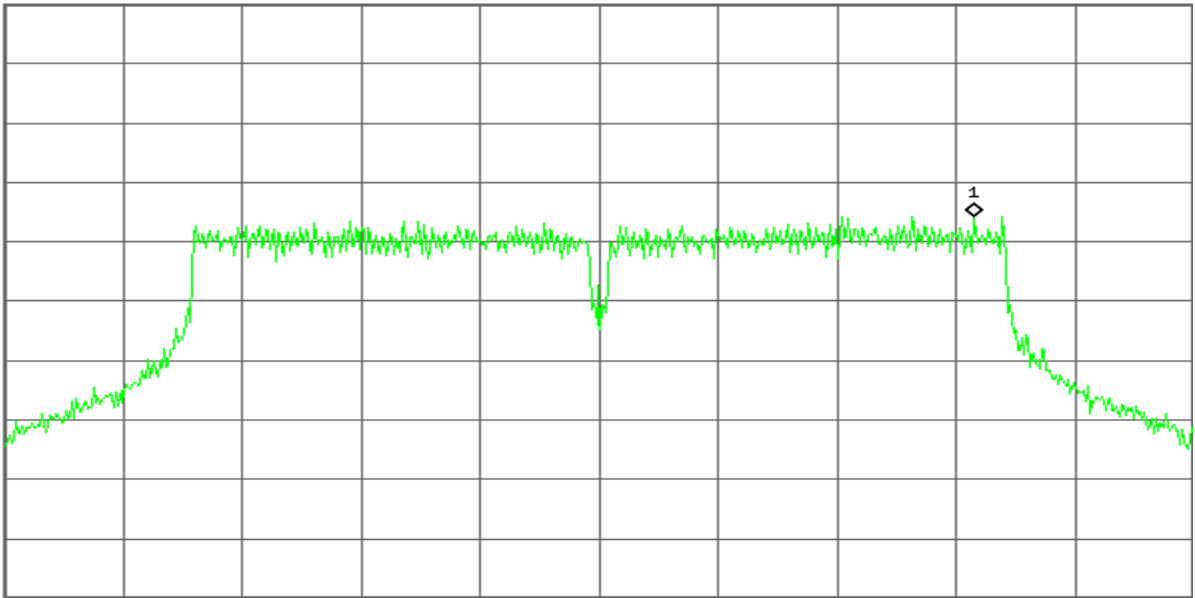
Atten 30 dB

#Peak
Log
10
dB/
Offst
7
dB

LgAv

M1 S2
S3 FC

£(f):
FTun
Swp



Center 2.452 00 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 53.5 MHz
Sweep 5.641 s (601 pts)

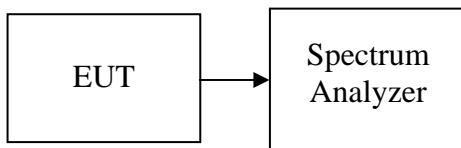


4.4.SPURIOUS EMISSIONS Conducted Measurement

LIMIT

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum 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. 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) (see Section 15.205(c)).

Test Configuration



TEST PROCEDURE

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

Measurements are made over the 30MHz to 40GHz range with the transmitter set to the lowest, middle, and highest channels.

TEST RESULTS

No non-compliance noted



Test Plot

OUT-OF-BAND SPURIOUS EMISSIONS-CONDUCTED MEASUREMENT

IEEE 802.11b mode/Chain 0

CH Low

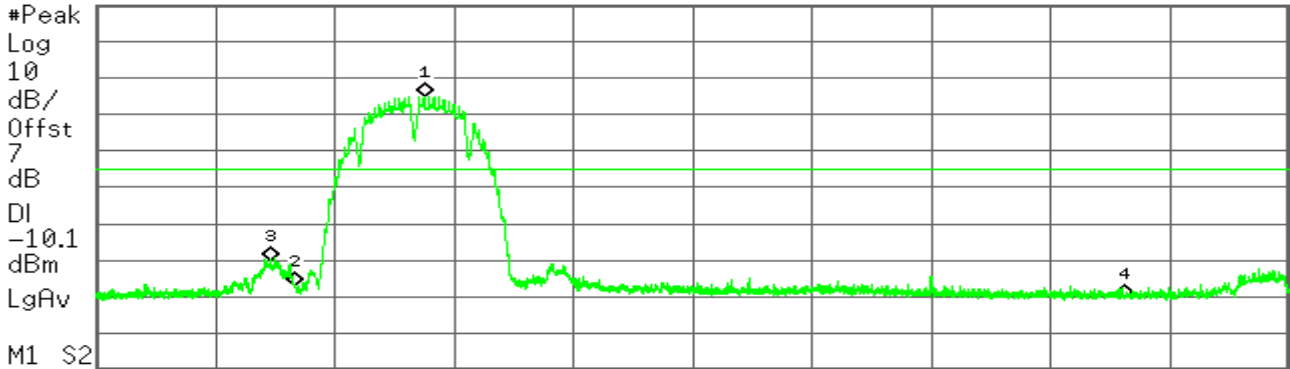
Agilent

R T

Mkr4 2.483 500 GHz
-45.69 dBm

Ref 35 dBm

Atten 40 dB



Start 2.380 0 GHz

Stop 2.500 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.413 007 GHz | 9.87 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -41.86 dBm |
| 3 | (1) | Freq | 2.397 534 GHz | -35.17 dBm |
| 4 | (1) | Freq | 2.483 500 GHz | -45.69 dBm |

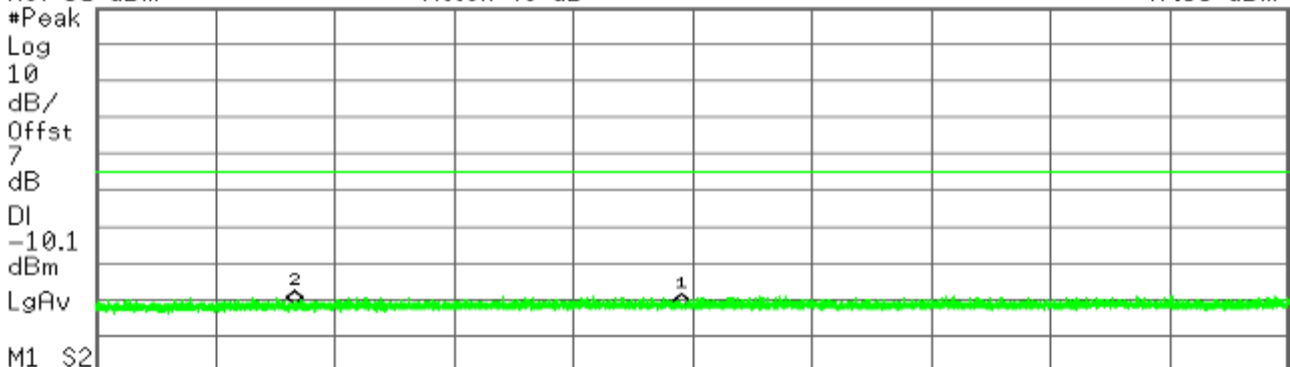
Agilent

R T

Mkr1 506.18 MHz
-47.33 dBm

Ref 35 dBm

Atten 40 dB



Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 506.18 MHz | -47.33 dBm |
| 2 | (1) | Freq | 191.67 MHz | -46.48 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

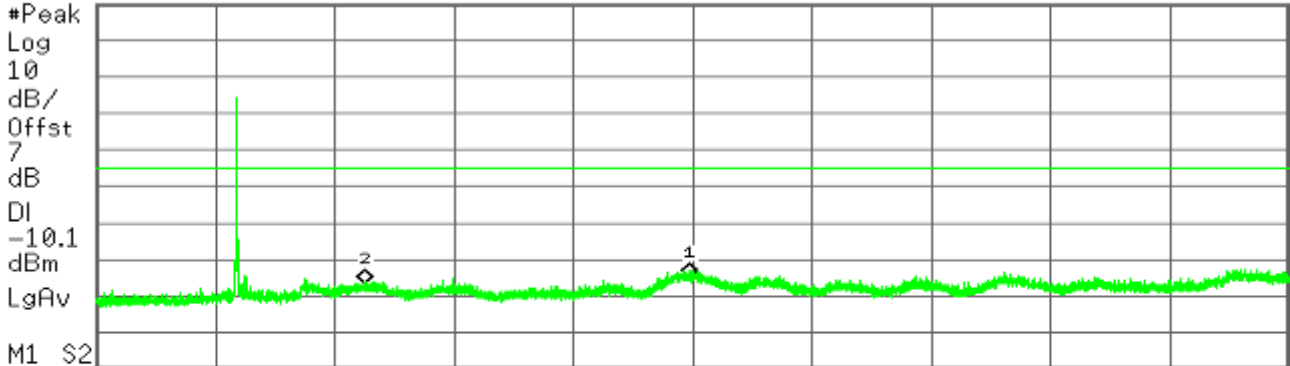
Agilent

R T

Mkr1 6.977 3 GHz
-39.74 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.977 3 GHz | -39.74 dBm |
| 2 | (1) | Freq | 3.789 1 GHz | -41.79 dBm |

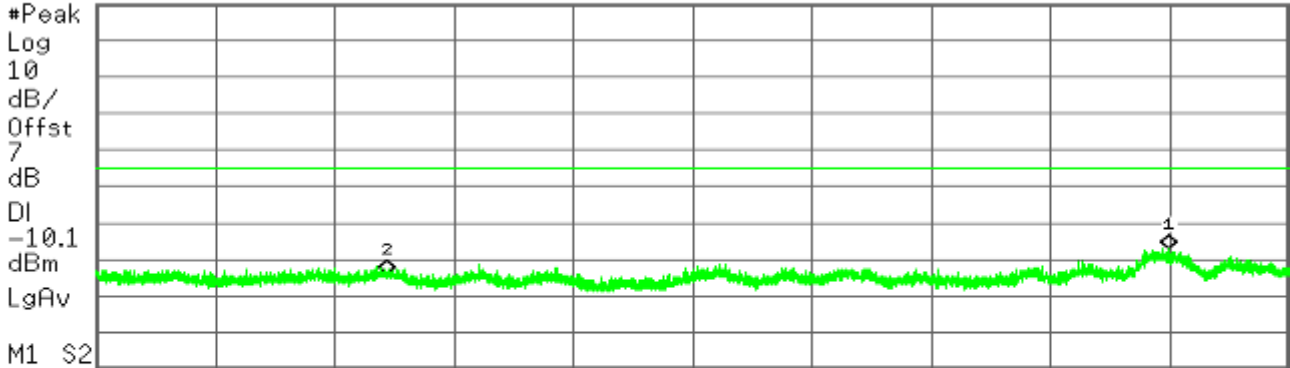
Agilent

R T

Mkr2 16.174 5 GHz
-39.06 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 16.174 5 GHz | -39.06 dBm |
| 2 | (1) | Freq | 24.692 2 GHz | -32.11 dBm |



CH Mid

* Agilent

R T

Mkr1 2.436 506 GHz
8.94 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

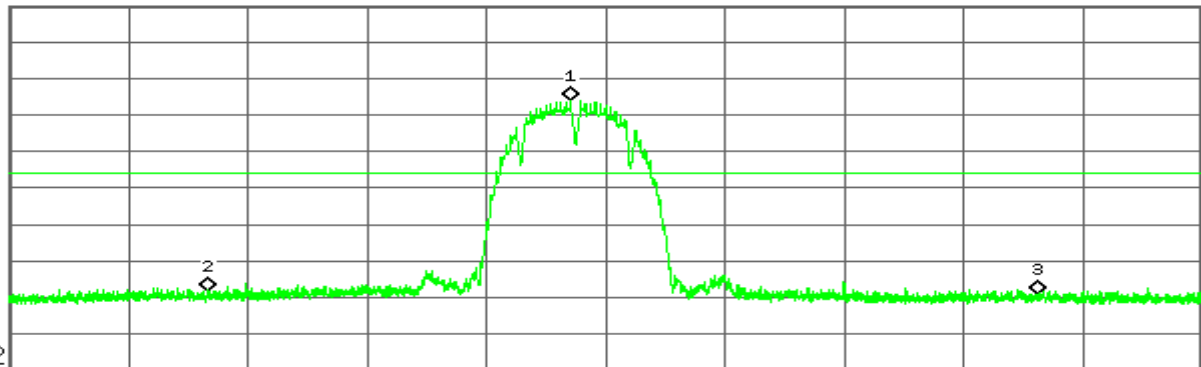
dB

DI

-11.1

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.436 506 GHz | 8.94 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -43.27 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -44.40 dBm |

* Agilent

R T

Mkr3 889.87 MHz
-43.75 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

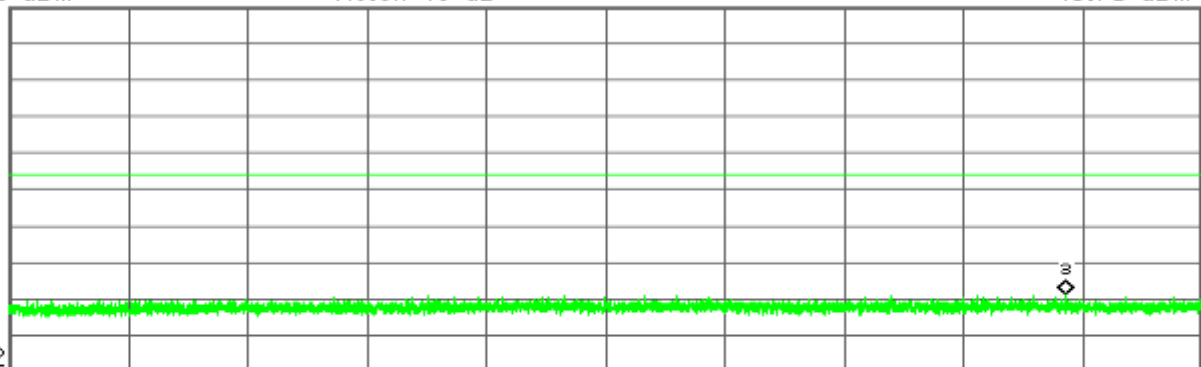
dB

DI

-11.1

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 3 | (1) | Freq | 889.87 MHz | -43.75 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Agilent

R T

Mkr1 6.943 6 GHz
-39.71 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

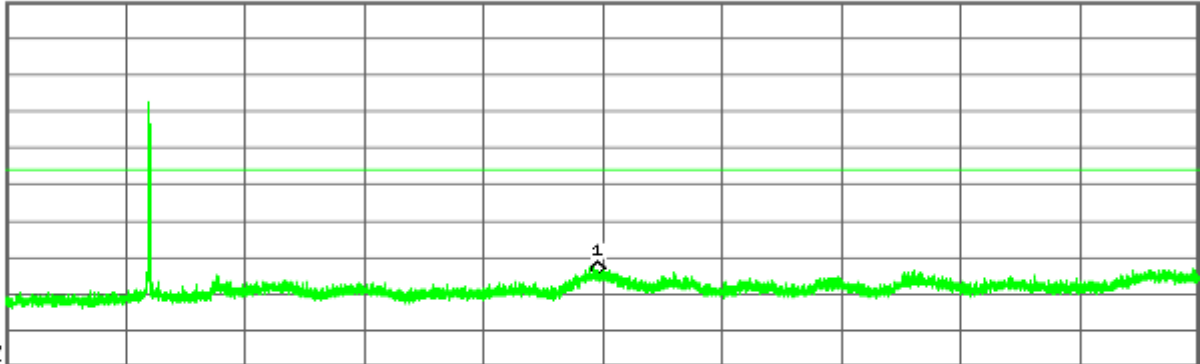
dB

DI

-11.1

dBm

LgAv



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.943 6 GHz | -39.71 dBm |

Agilent

R T

Mkr1 24.585 9 GHz
-32.09 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

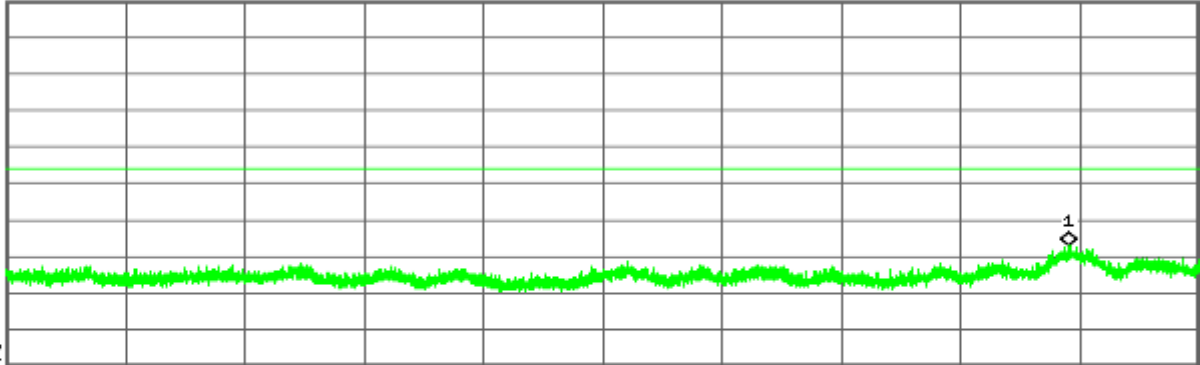
dB

DI

-11.1

dBm

LgAv



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.585 9 GHz | -32.09 dBm |



CH High

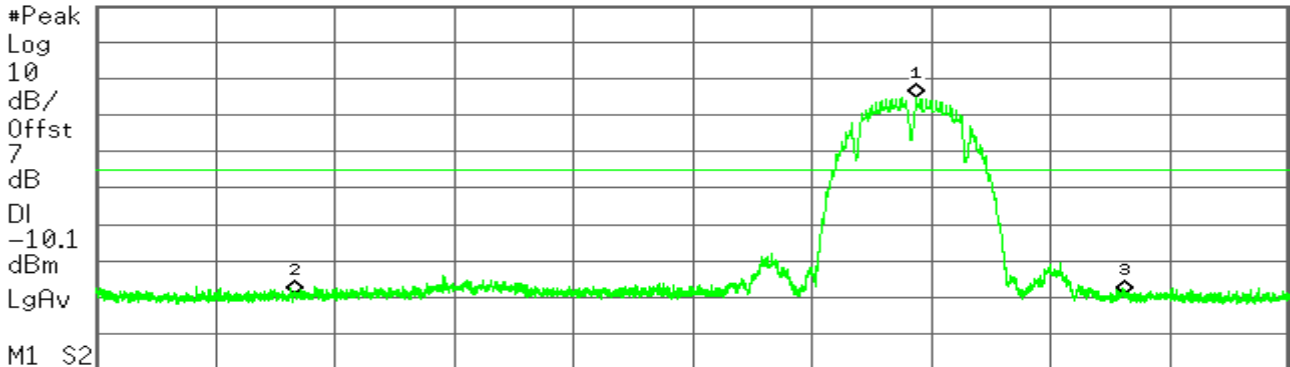
Agilent

R T

Mkr1 2.462 510 GHz
9.87 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.462 510 GHz | 9.87 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -44.20 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -44.05 dBm |

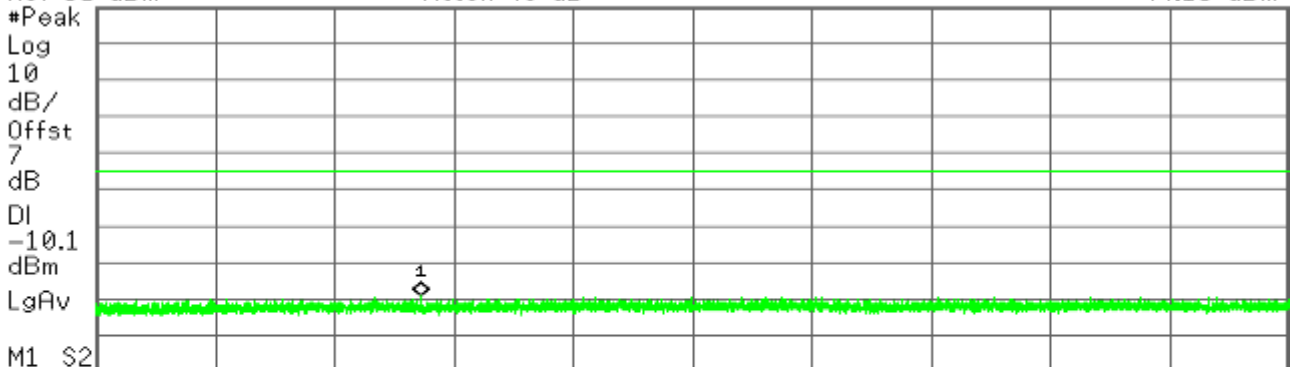
Agilent

R T

Mkr1 294.20 MHz
-44.13 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 294.20 MHz | -44.13 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

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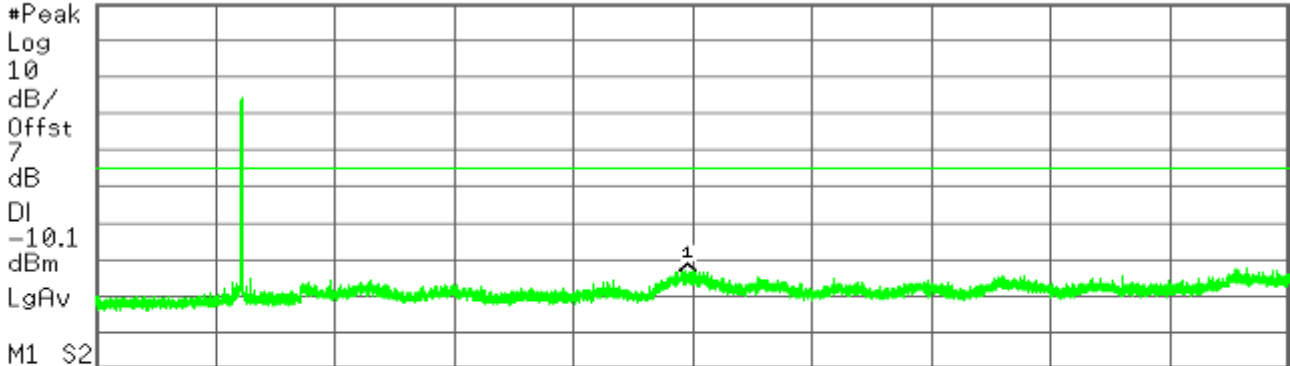
Agilent

R T

Mkr1 6.945 1 GHz
-39.77 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.945 1 GHz | -39.77 dBm |

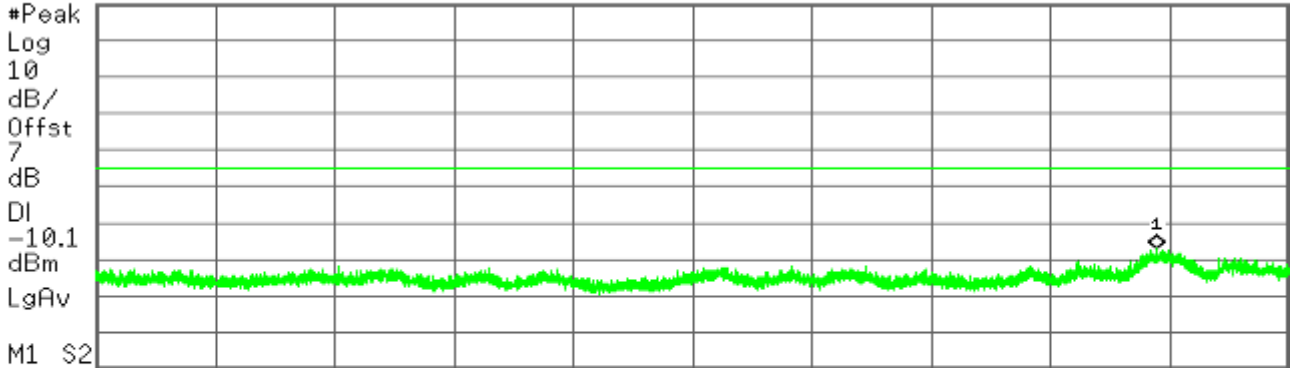
Agilent

R T

Mkr1 24.568 4 GHz
-31.98 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.568 4 GHz | -31.98 dBm |

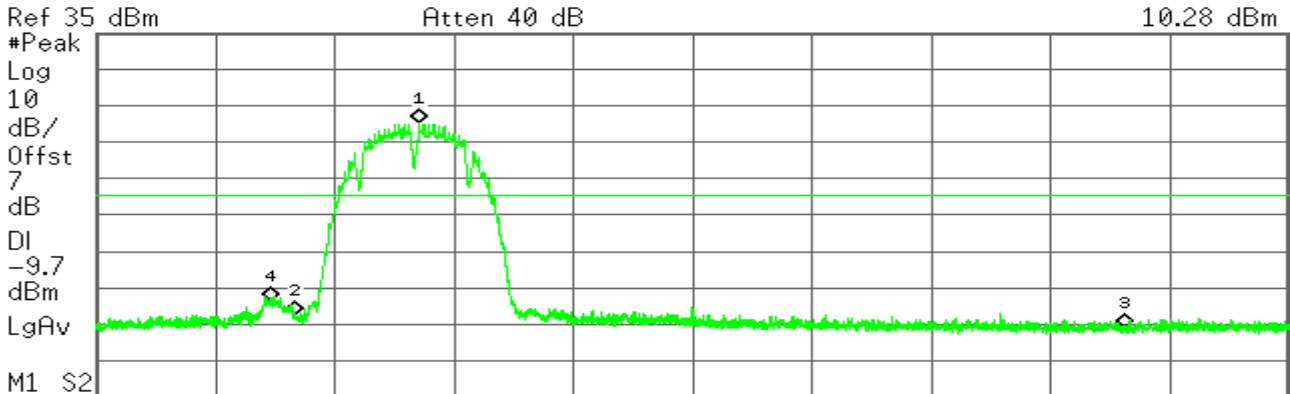


IEEE 802.11b mode/Chain 1

CH Low

Agilent

R T

Mkr1 2.412 509 GHz
10.28 dBm

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

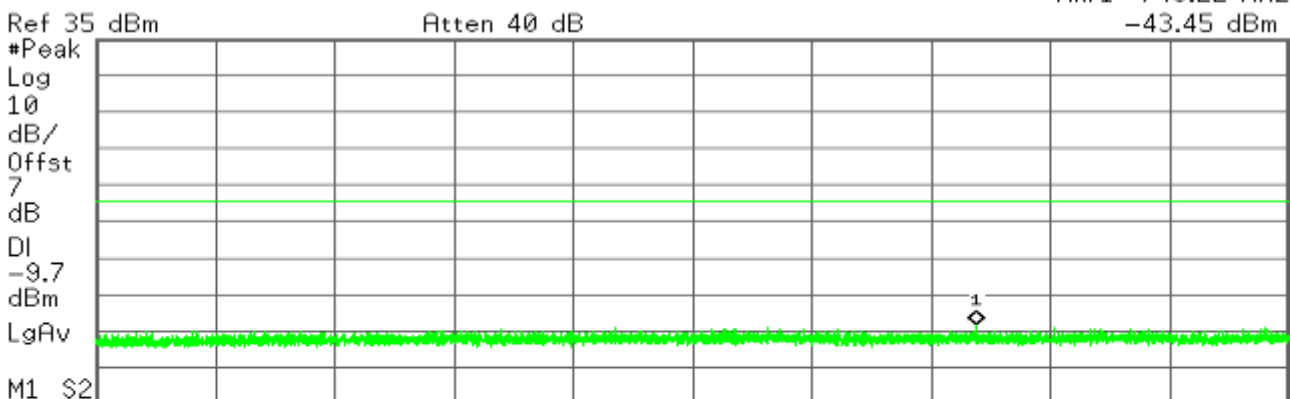
#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.412 509 GHz | 10.28 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -42.51 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -45.77 dBm |
| 4 | (1) | Freq | 2.397 478 GHz | -38.53 dBm |

Agilent

R T

Mkr1 746.22 MHz
-43.45 dBm

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 746.22 MHz | -43.45 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

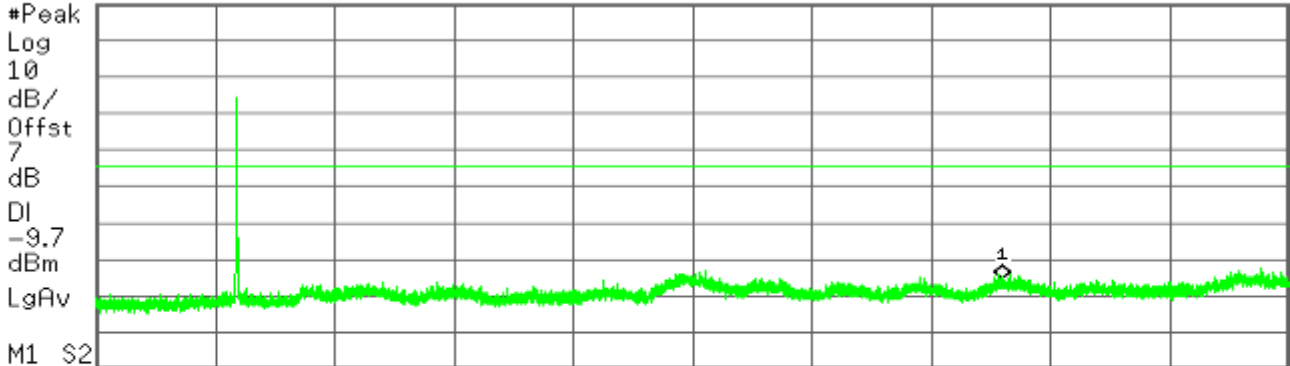
Agilent

R T

Mkr1 10.124 2 GHz
-40.53 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 10.124 2 GHz | -40.53 dBm |

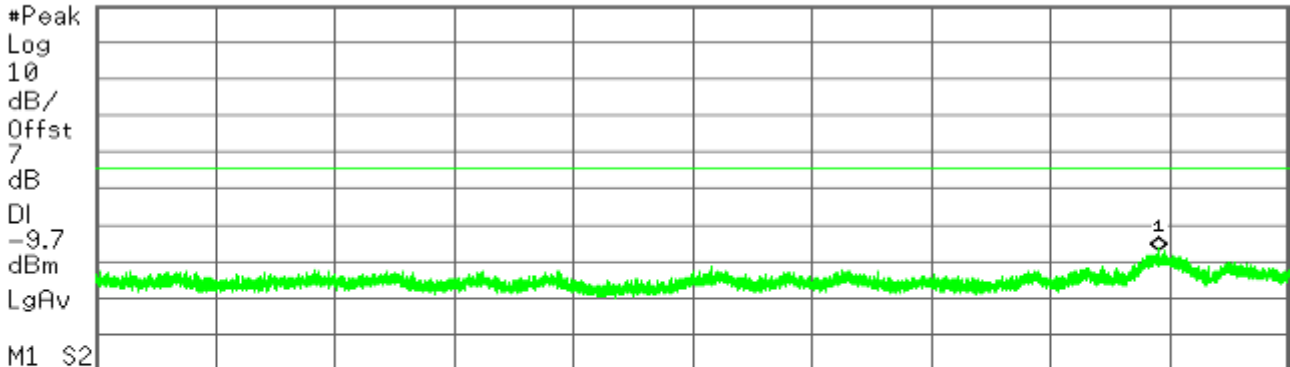
Agilent

R T

Mkr1 24.589 1 GHz
-32.25 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.589 1 GHz | -32.25 dBm |



CH Mid

Agilent

R T

Mkr1 2.435 012 GHz
10.10 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

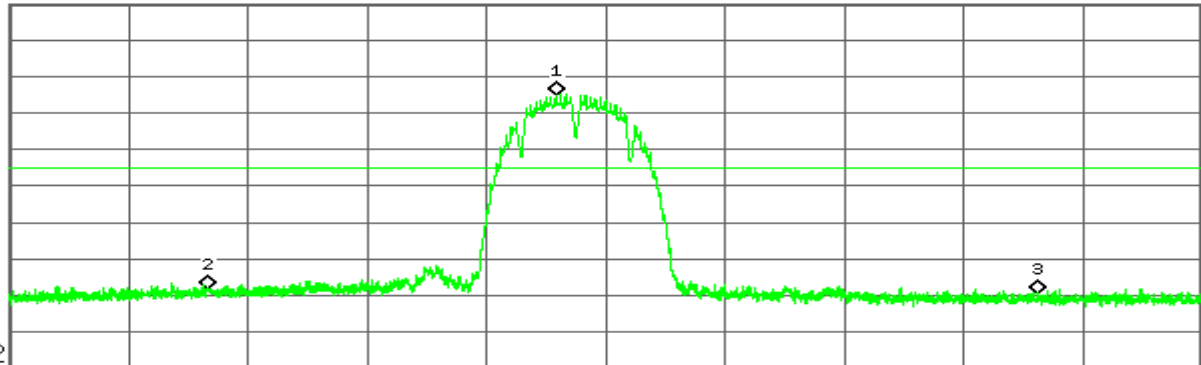
dB

DI

-9.9

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.435 012 GHz | 10.10 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -43.35 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -44.76 dBm |

Agilent

R T

Mkr1 858.72 MHz
-44.45 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

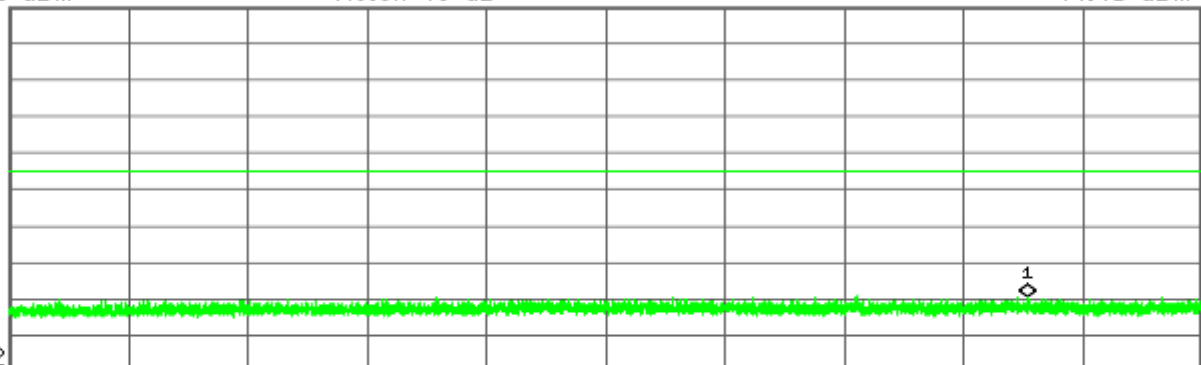
dB

DI

-9.9

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 858.72 MHz | -44.45 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

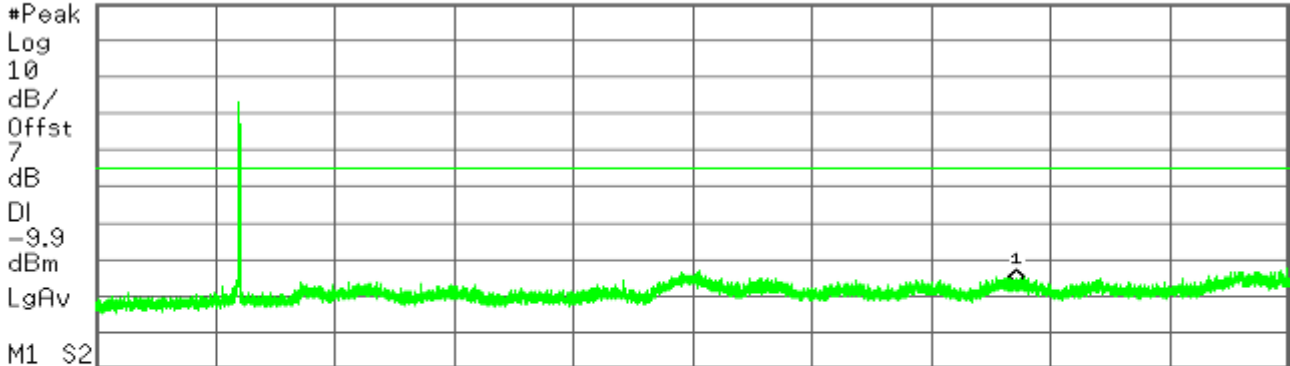
Agilent

R T

Mkr1 10.260 4 GHz
-41.49 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 10.260 4 GHz | -41.49 dBm |

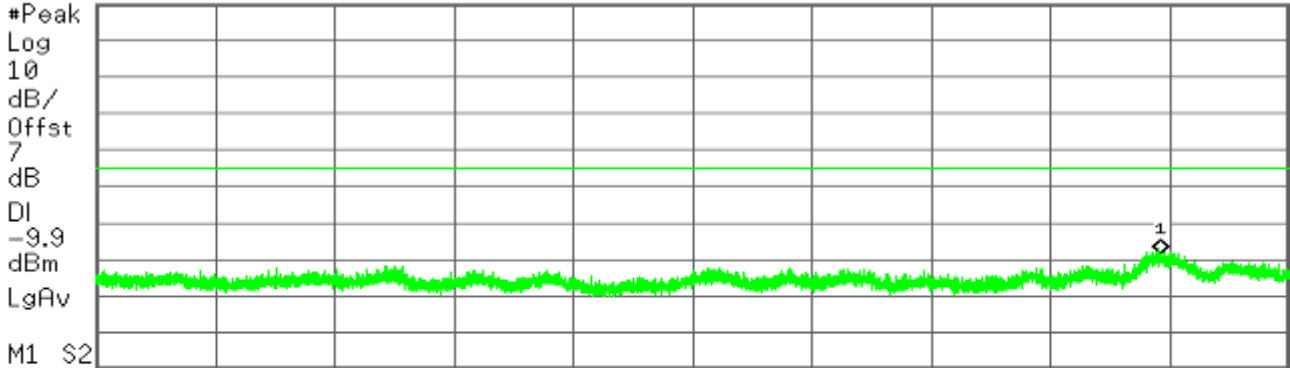
Agilent

R T

Mkr1 24.601 8 GHz
-33.38 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.601 8 GHz | -33.38 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

CH High

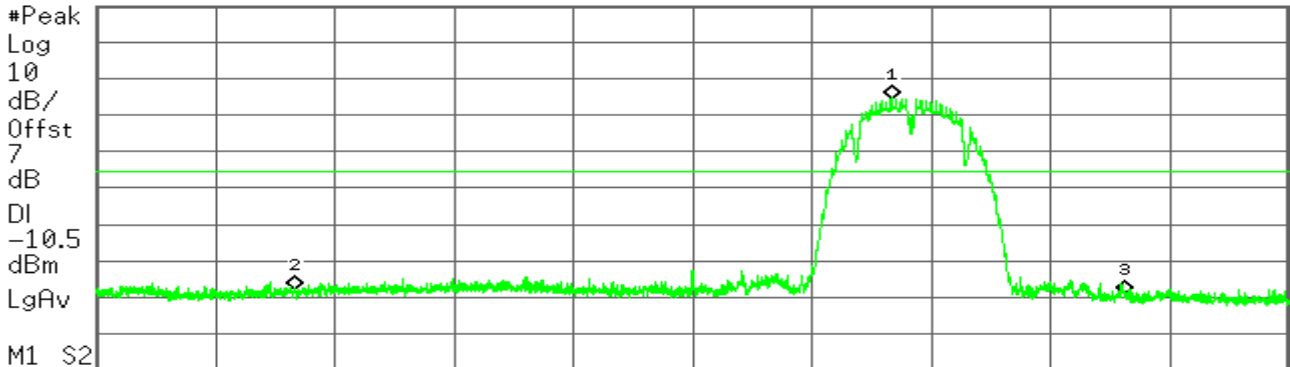
Agilent

R T

Mkr1 2.459 990 GHz
9.55 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.459 990 GHz | 9.55 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -42.75 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -44.16 dBm |

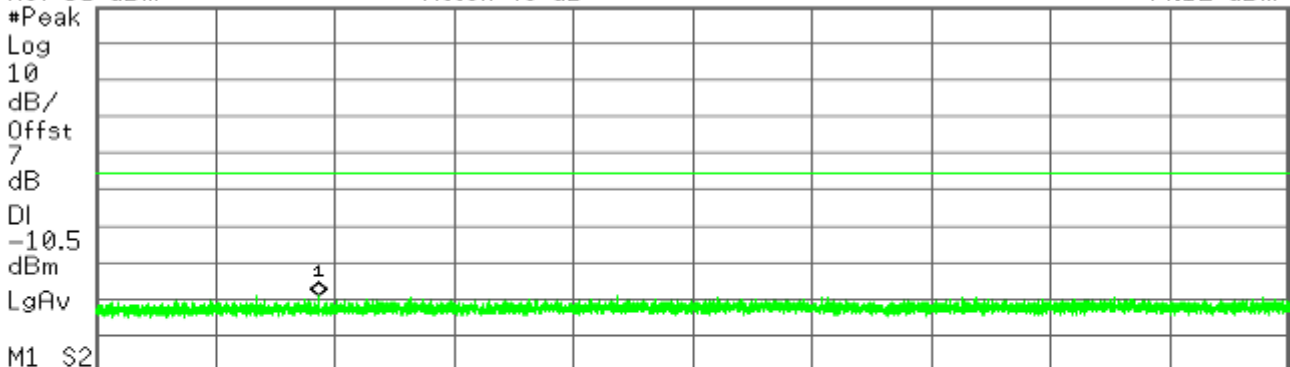
Agilent

R T

Mkr1 210.59 MHz
-44.12 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Center 515.00 MHz

Span 970 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 210.59 MHz | -44.12 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

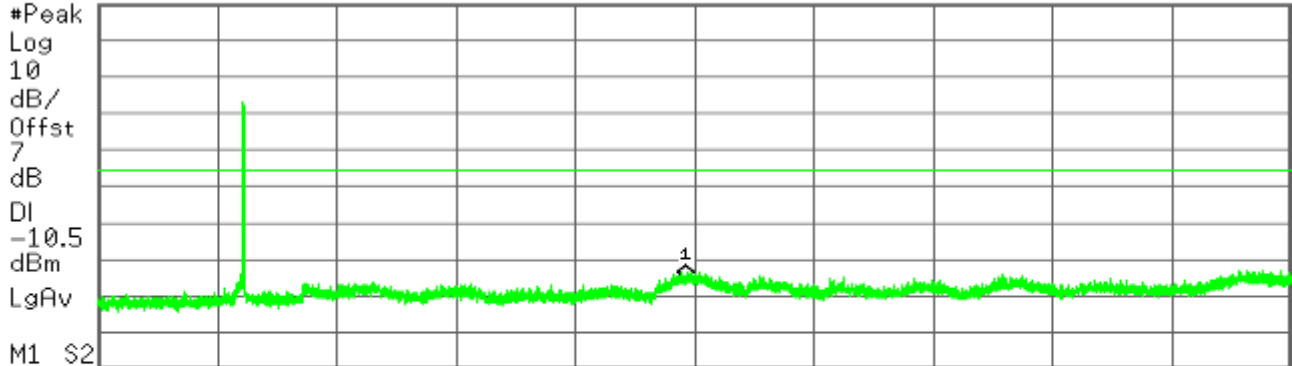
Agilent

R T

Mkr1 6.918 7 GHz
-40.25 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.918 7 GHz | -40.25 dBm |

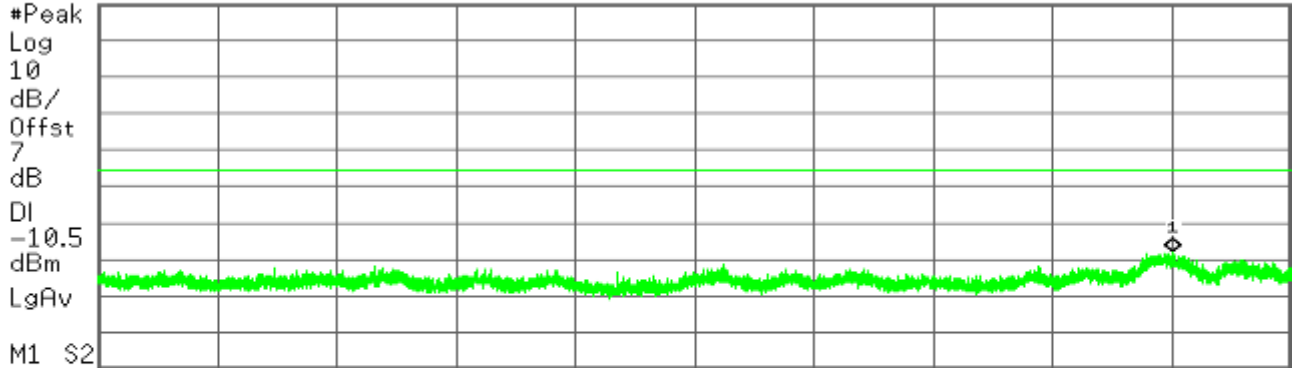
Agilent

R T

Mkr1 24.712 9 GHz
-32.94 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.712 9 GHz | -32.94 dBm |

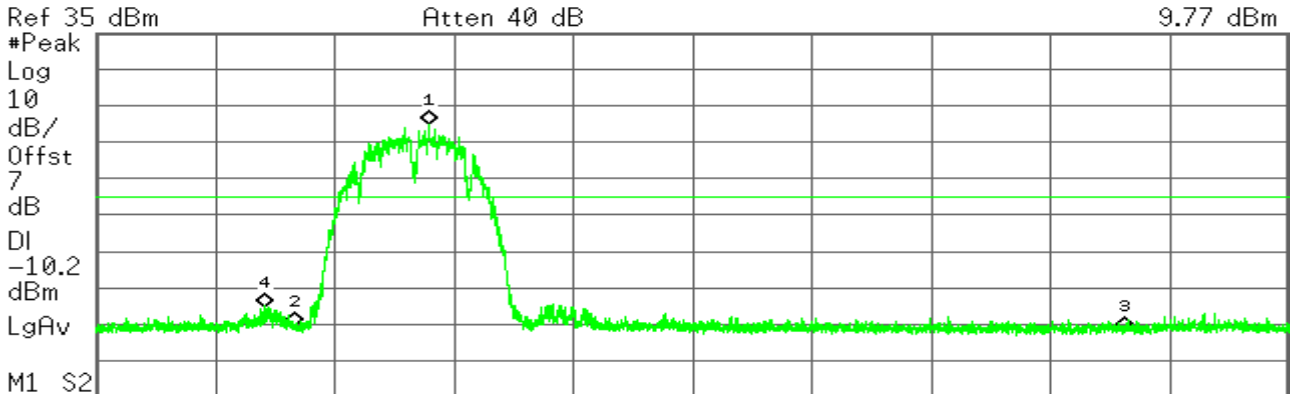


IEEE 802.11b mode/Chain 2

CH Low

Agilent

R T

Mkr1 2.413 505 GHz
9.77 dBm

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

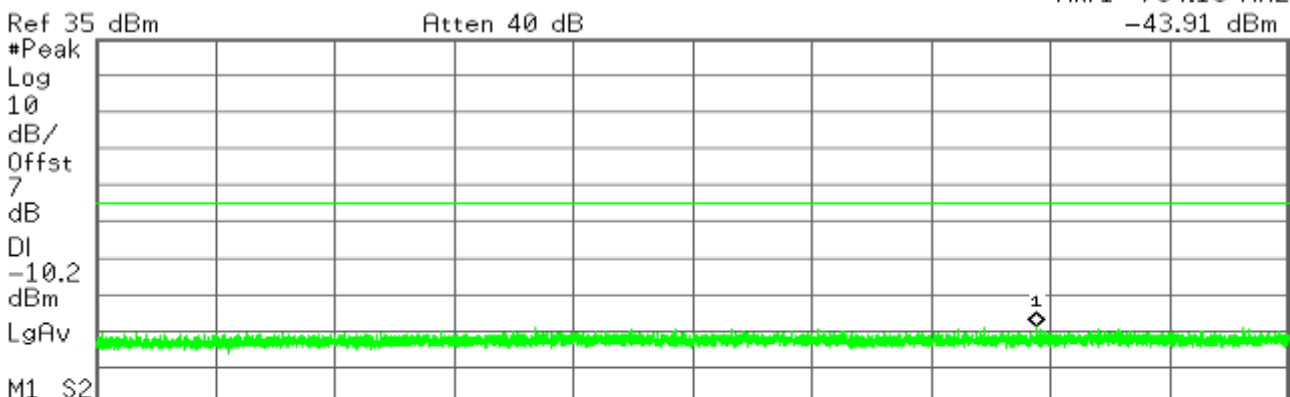
#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.413 505 GHz | 9.77 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -45.57 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -46.70 dBm |
| 4 | (1) | Freq | 2.396 980 GHz | -48.17 dBm |

Agilent

R T

Mkr1 794.18 MHz
-43.91 dBm

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 794.18 MHz | -43.91 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

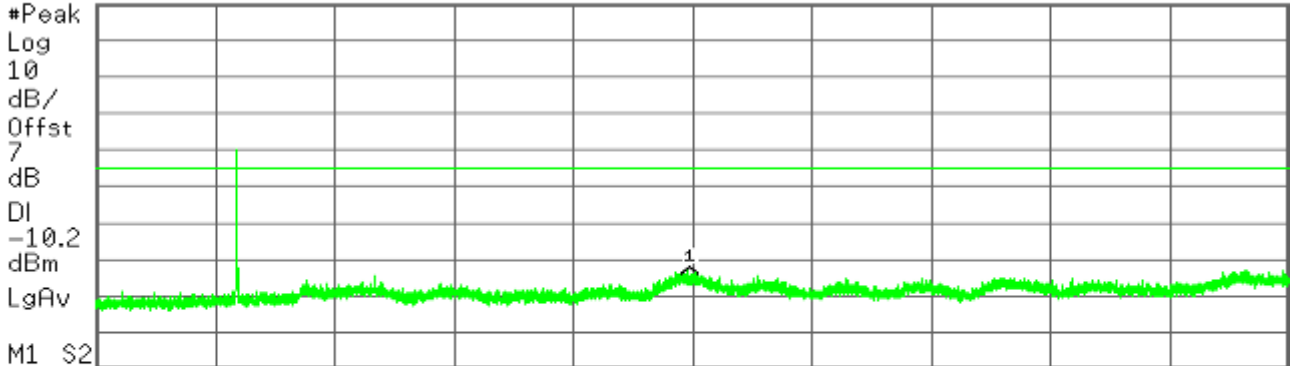
Agilent

R T

Mkr1 6.967 0 GHz
-40.66 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.967 0 GHz | -40.66 dBm |

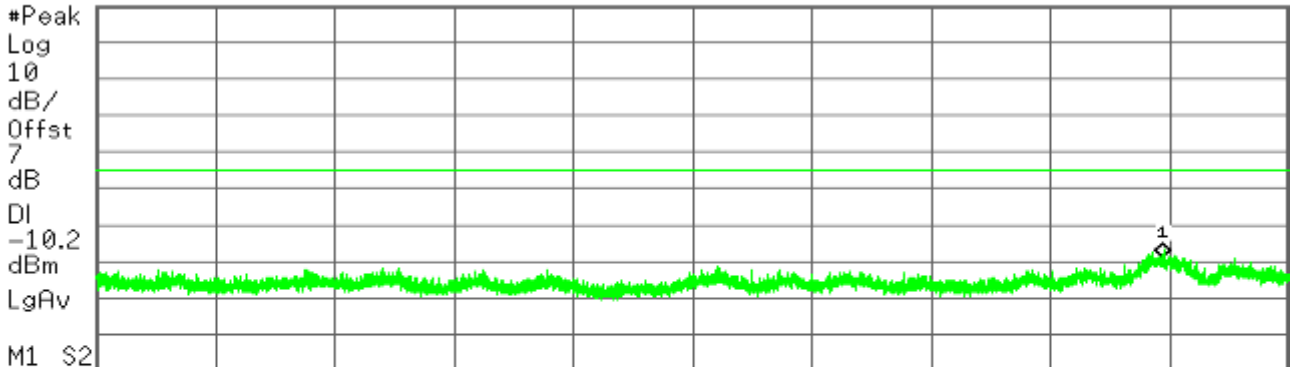
Agilent

R T

Mkr1 24.633 5 GHz
-33.84 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.633 5 GHz | -33.84 dBm |



CH Mid

* Agilent

R T

Mkr1 2.435 524 GHz
9.45 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

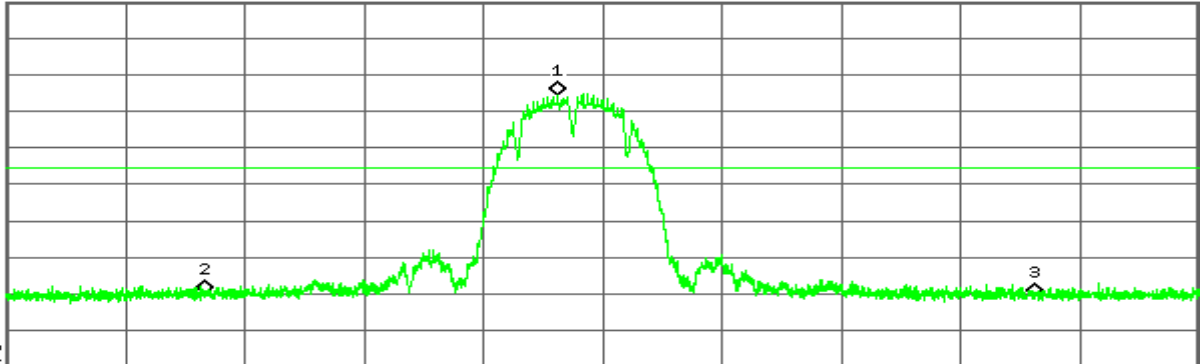
dB

DI

-10.6

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.435 524 GHz | 9.45 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -45.22 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -45.85 dBm |

* Agilent

R T

Mkr1 948.60 MHz
-44.31 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

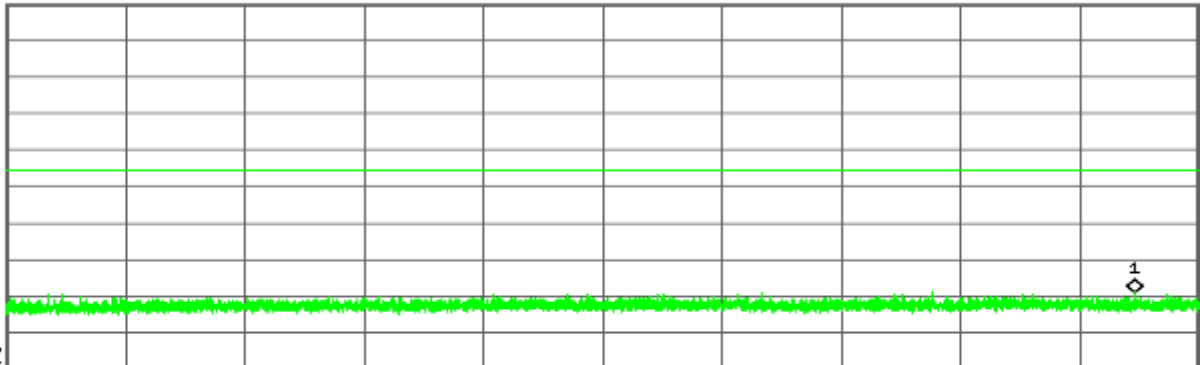
dB

DI

-10.6

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 948.60 MHz | -44.31 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

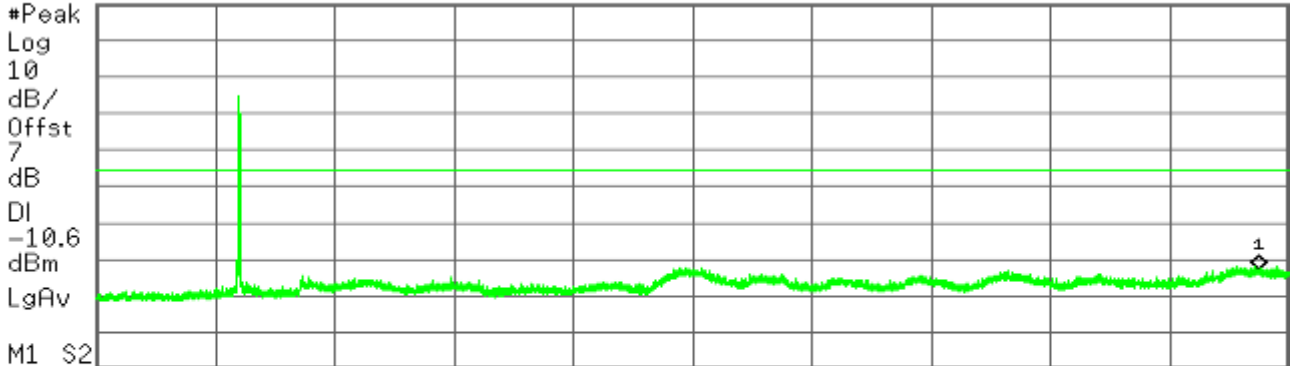
Agilent

R T

Mkr1 12.698 2 GHz
-37.89 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 12.698 2 GHz | -37.89 dBm |

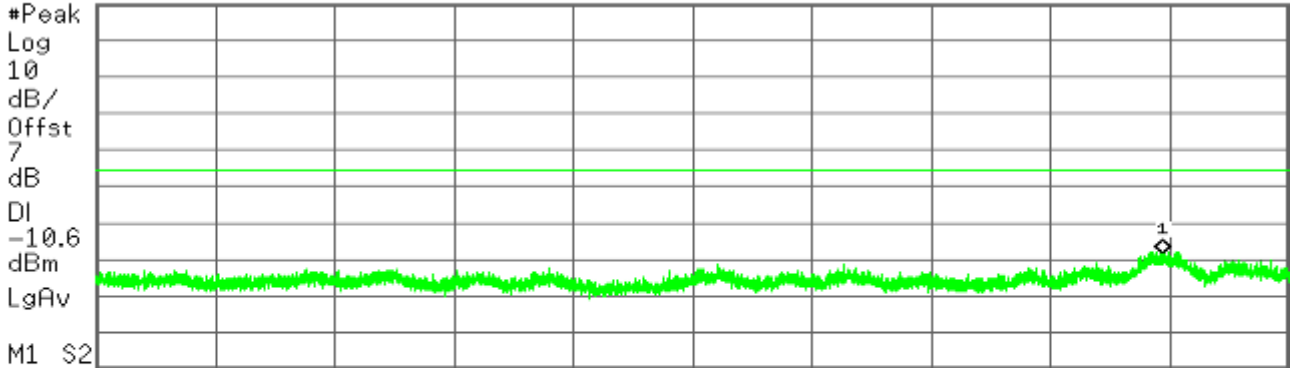
Agilent

R T

Mkr1 24.619 2 GHz
-33.29 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.619 2 GHz | -33.29 dBm |



CH High

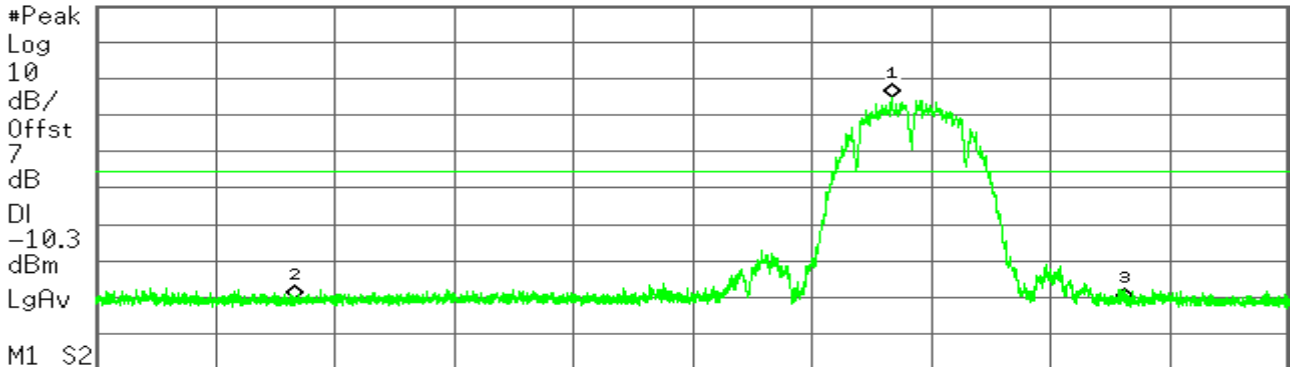
Agilent

R T

Mkr1 2.460 005 GHz
9.70 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.460 005 GHz | 9.70 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -45.40 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -46.53 dBm |

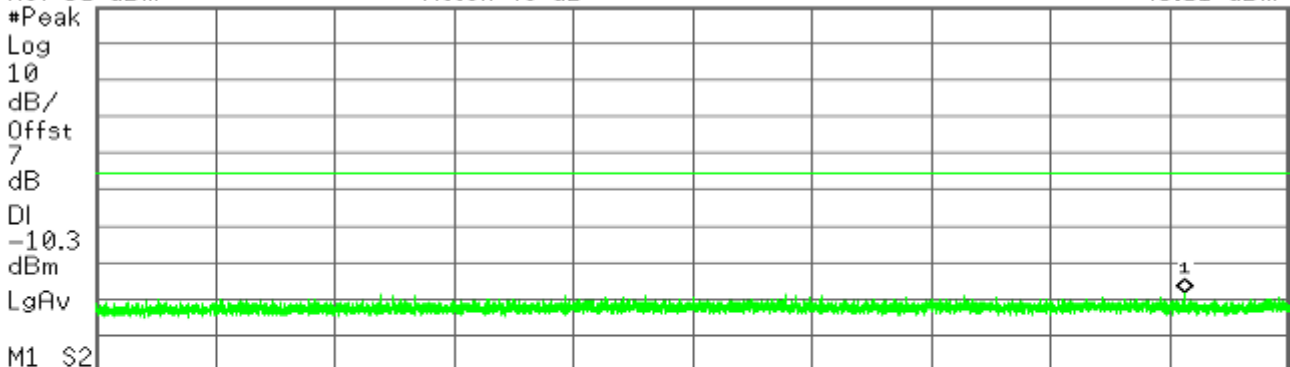
Agilent

R T

Mkr1 914.74 MHz
-43.51 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 914.74 MHz | -43.51 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

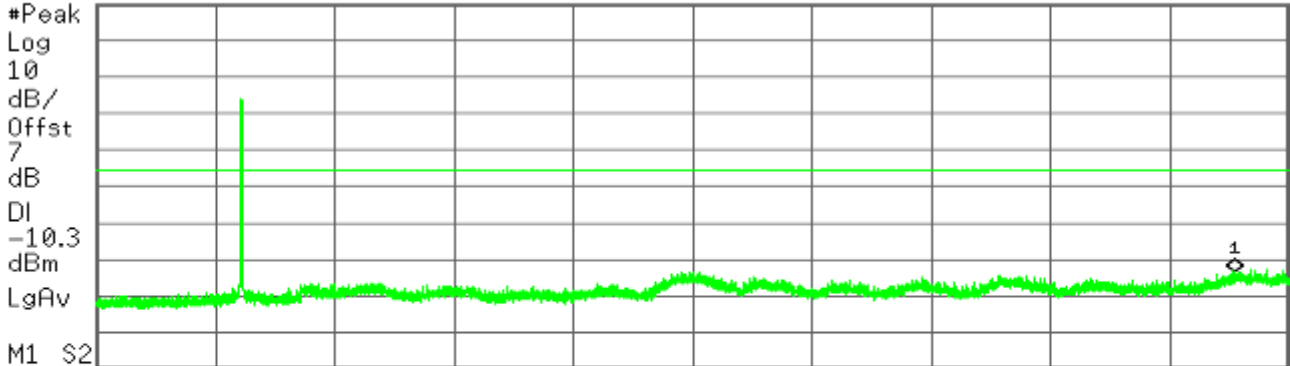
Agilent

R T

Mkr1 12.459 4 GHz
-38.58 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 12.459 4 GHz | -38.58 dBm |

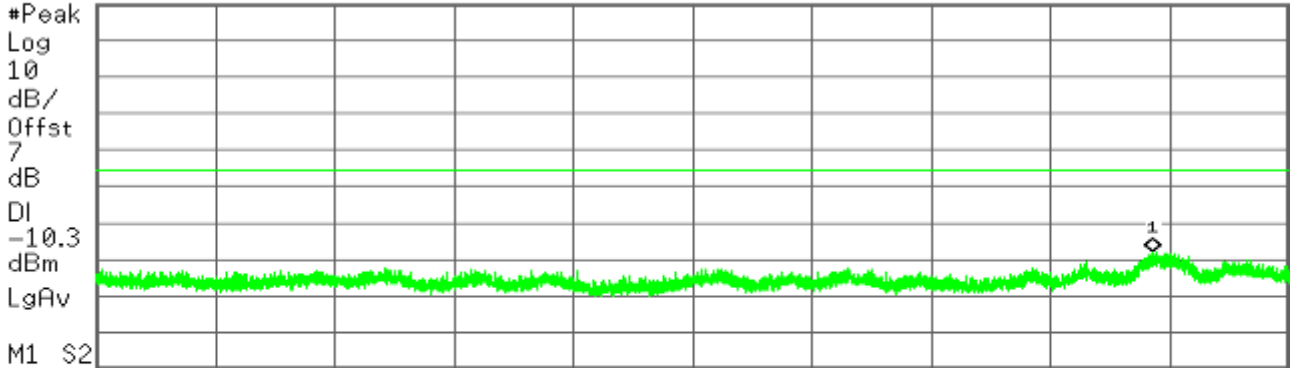
Agilent

R T

Mkr1 24.517 6 GHz
-32.92 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.517 6 GHz | -32.92 dBm |

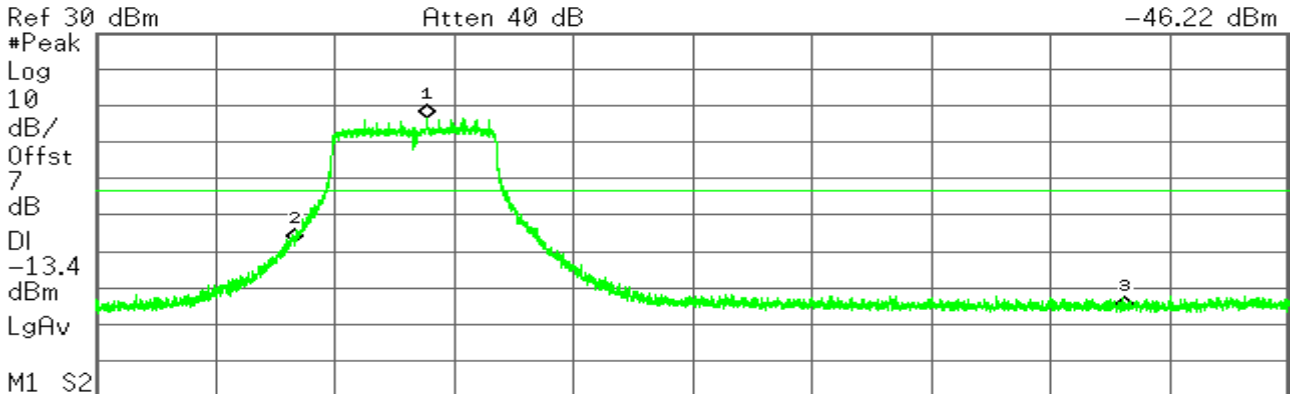


IEEE 802.11g mode/Chain 0

CH Low

* Agilent

R T

Mkr3 2.483 500 GHz
-46.22 dBm

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

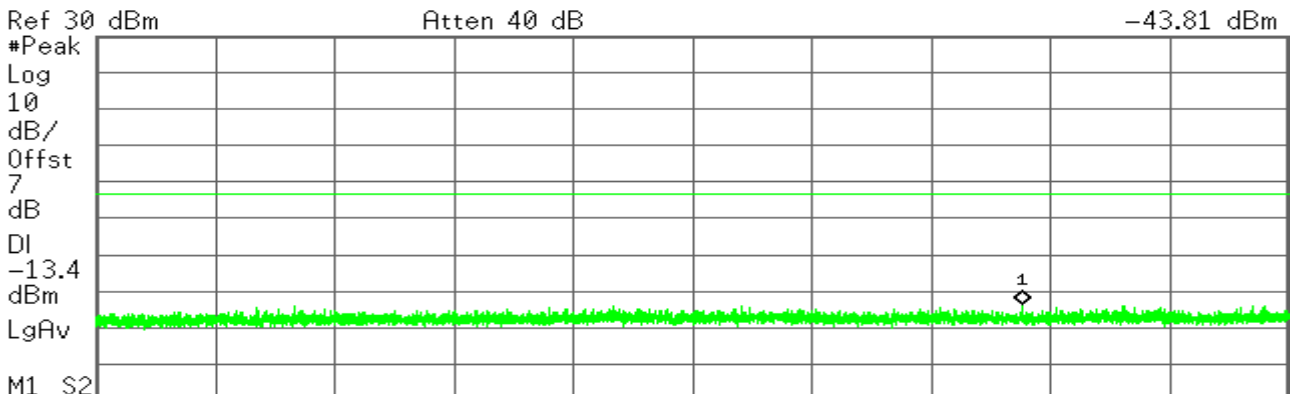
#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.413 271 GHz | 6.62 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -27.63 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -46.22 dBm |

* Agilent

R T

Mkr1 782.58 MHz
-43.81 dBm

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 782.58 MHz | -43.81 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

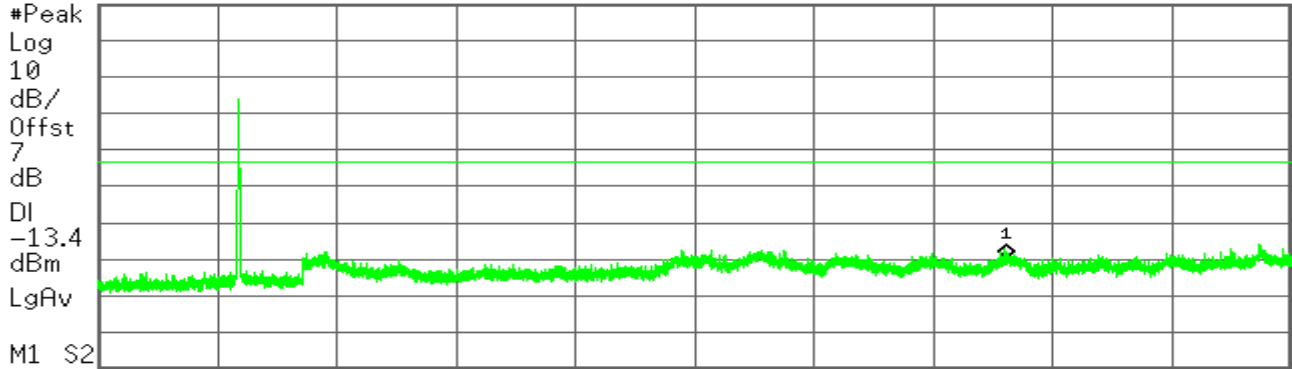
Agilent

R T

Mkr1 10.127 1 GHz
-39.59 dBm

Ref 30 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 10.127 1 GHz | -39.59 dBm |

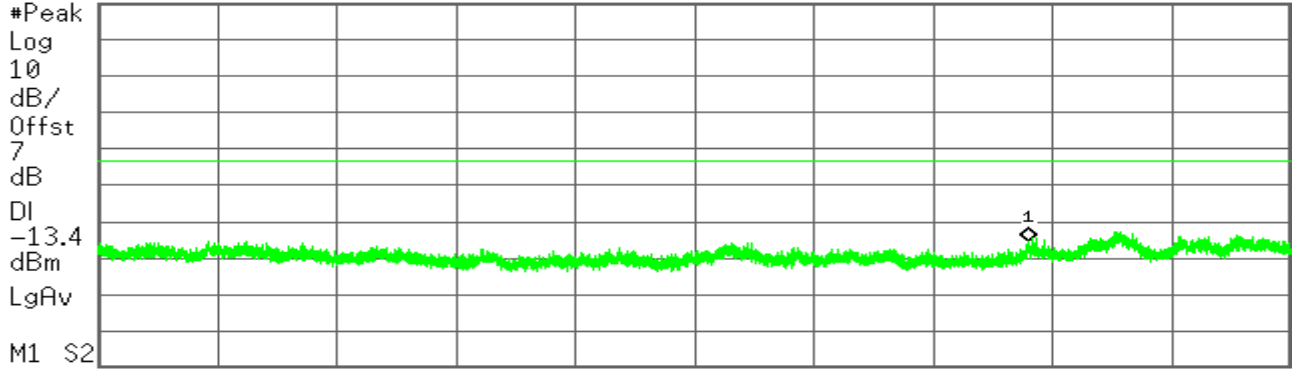
Agilent

R T

Mkr1 23.144 8 GHz
-35.16 dBm

Ref 30 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 23.144 8 GHz | -35.16 dBm |



CH Mid

* Agilent

R T

Mkr1 2.430 763 GHz
3.12 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

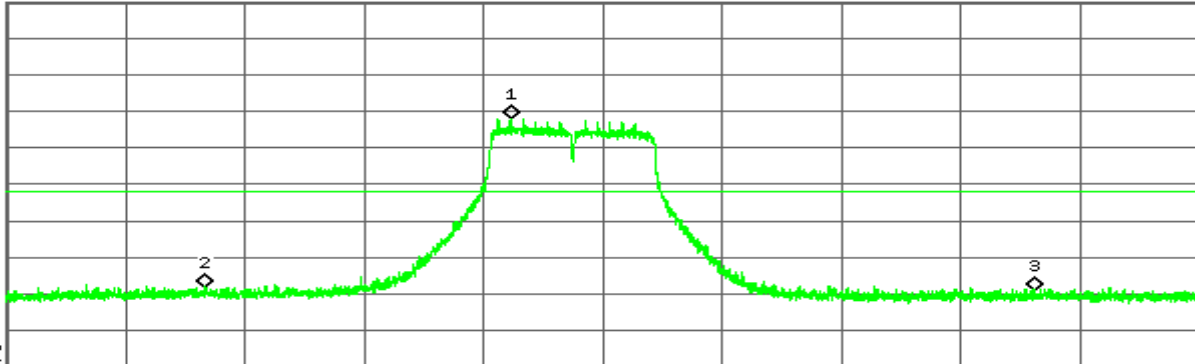
dB

DI

-16.9

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.430 763 GHz | 3.12 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -43.16 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -44.19 dBm |

* Agilent

R T

Mkr1 862.63 MHz
-43.69 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

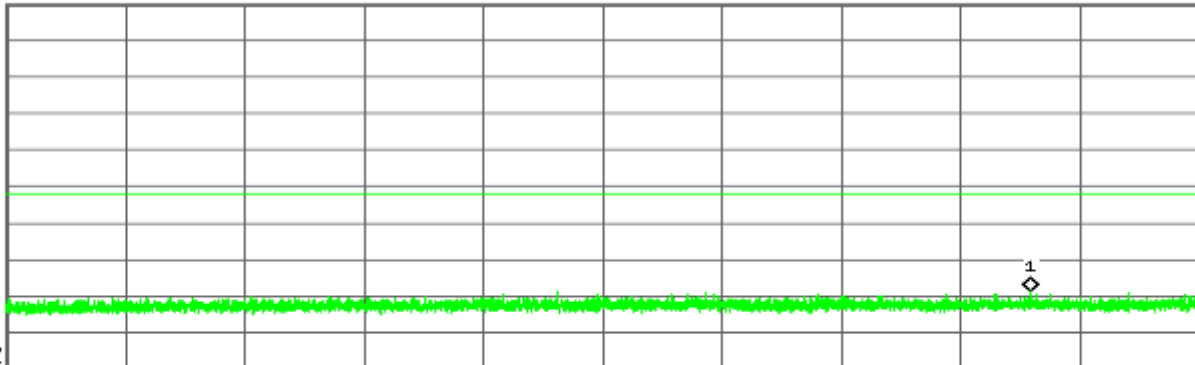
dB

DI

-16.9

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 862.63 MHz | -43.69 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Agilent

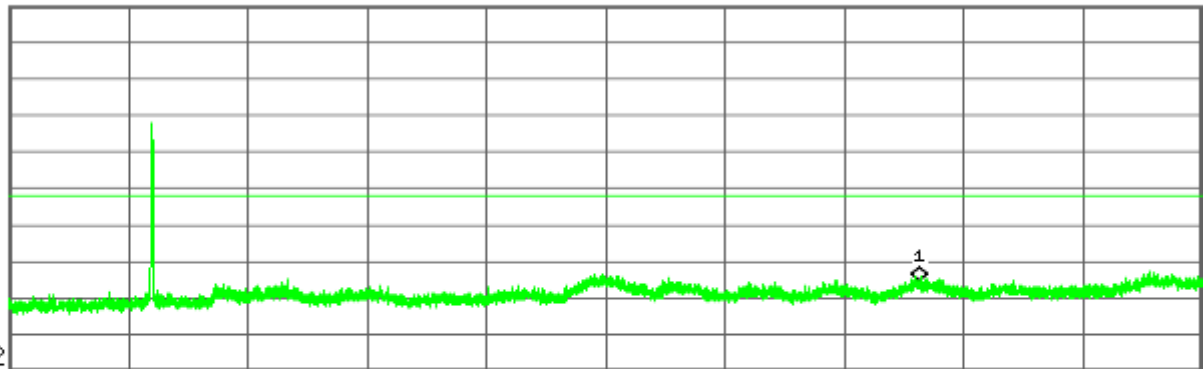
R T

Mkr1 10.147 6 GHz
-40.43 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-16.9
dBm
LgAv



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 10.147 6 GHz | -40.43 dBm |

Agilent

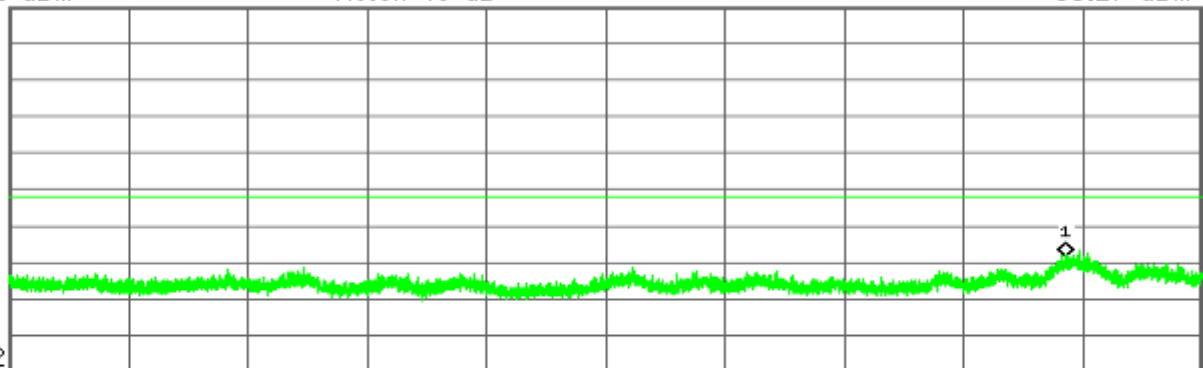
R T

Mkr1 24.516 1 GHz
-33.27 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-16.9
dBm
LgAv



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.516 1 GHz | -33.27 dBm |



CH High

* Agilent

R T

Mkr1 2.466 978 GHz
5.13 dBm

Ref 30 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

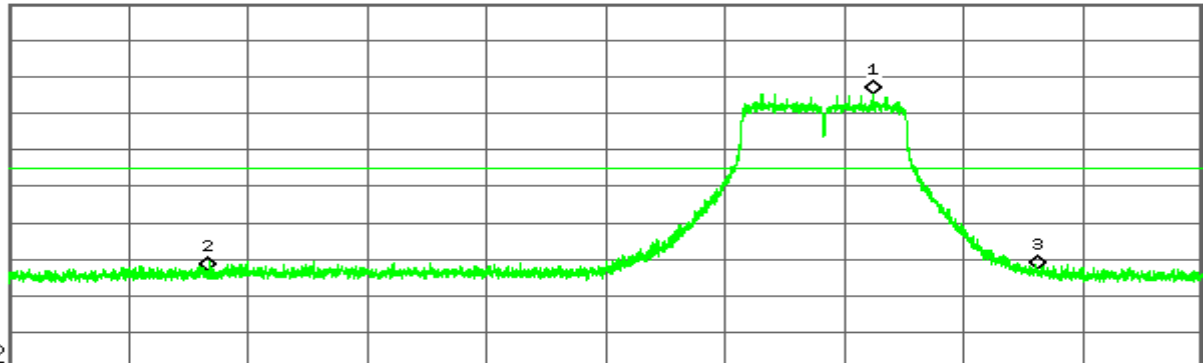
dB

DI

-14.9

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.466 978 GHz | 5.13 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -43.32 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -42.87 dBm |

* Agilent

R T

Mkr1 849.96 MHz
-43.95 dBm

Ref 30 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

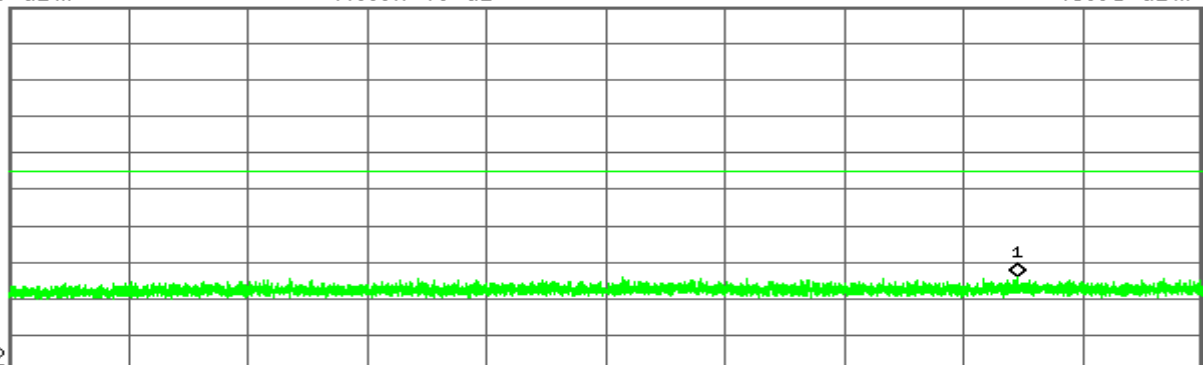
dB

DI

-14.9

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 849.96 MHz | -43.95 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Agilent

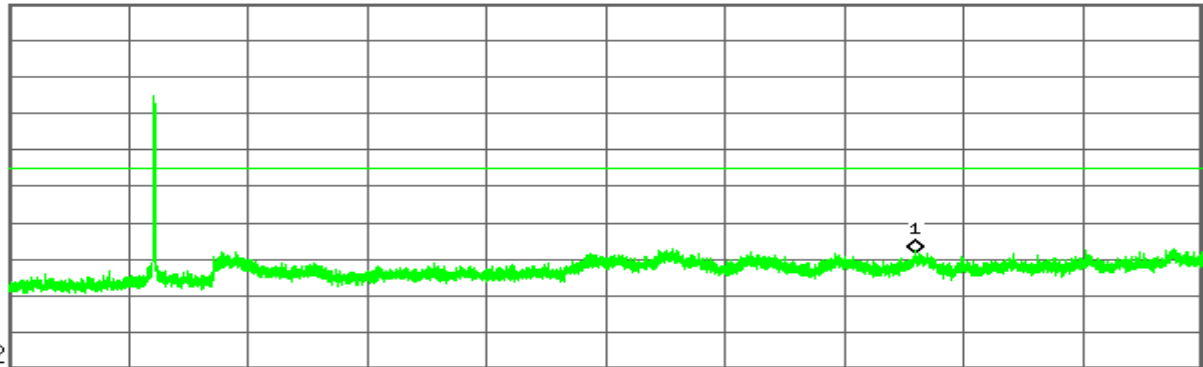
R T

Mkr1 10.108 0 GHz
-38.53 dBm

Ref 30 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-14.9
dBm
LgAv



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 10.108 0 GHz | -38.53 dBm |

Agilent

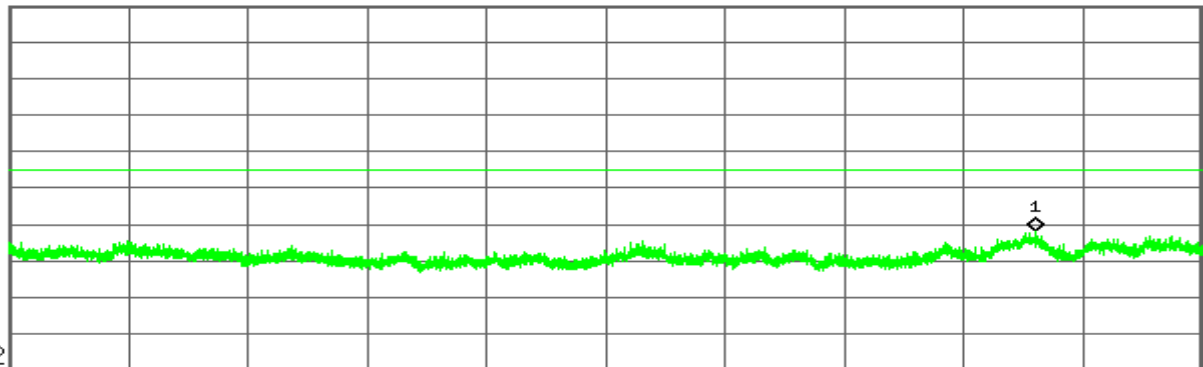
R T

Mkr1 24.190 7 GHz
-32.03 dBm

Ref 30 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-14.9
dBm
LgAv



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.190 7 GHz | -32.03 dBm |

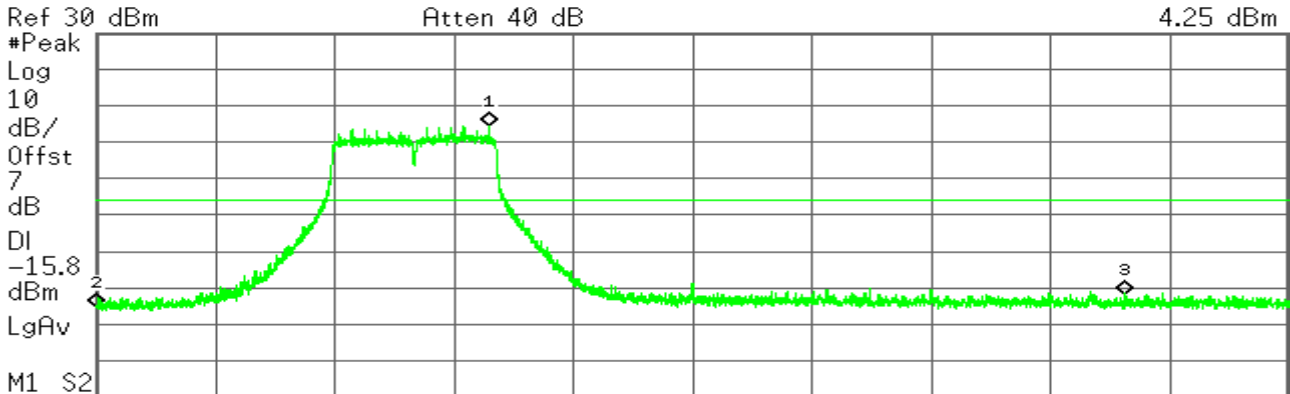


IEEE 802.11g mode/Chain 1

CH Low

* Agilent

R T

Mkr1 2.419 512 GHz
4.25 dBm

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

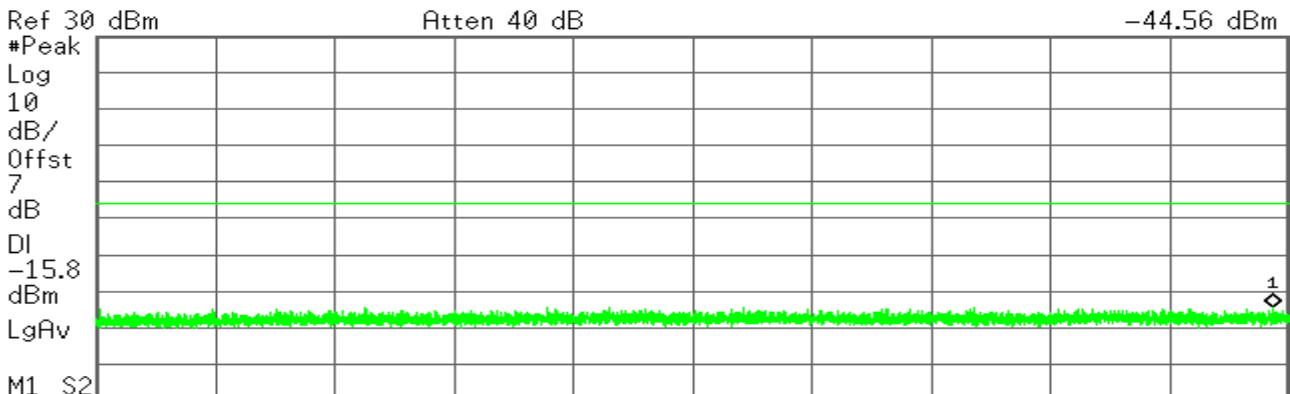
#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.419 512 GHz | 4.25 dBm |
| 2 | (1) | Freq | 2.380 000 GHz | -45.14 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -42.07 dBm |

* Agilent

R T

Mkr1 986.86 MHz
-44.56 dBm

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 986.86 MHz | -44.56 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

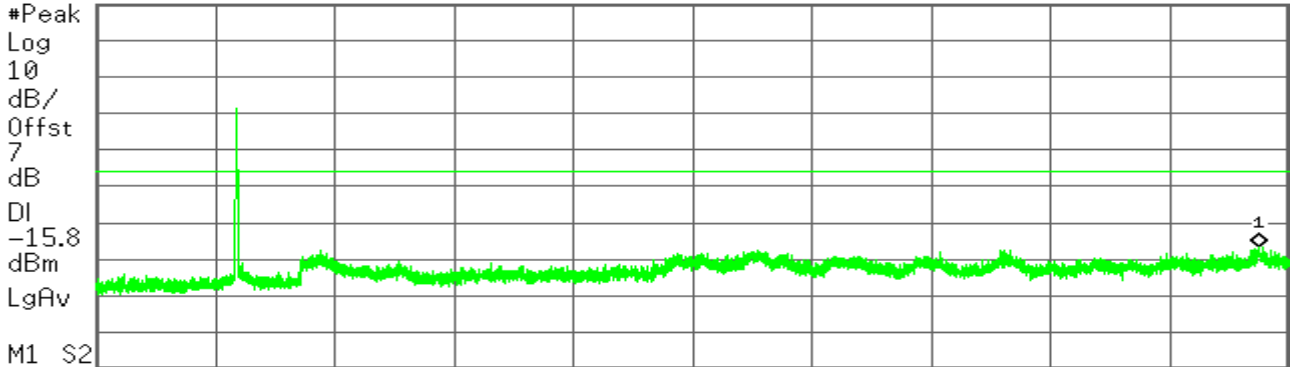
Agilent

R T

Mkr1 12.705 5 GHz
-36.87 dBm

Ref 30 dBm

Atten 40 dB



M1 S2
Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 12.705 5 GHz | -36.87 dBm |

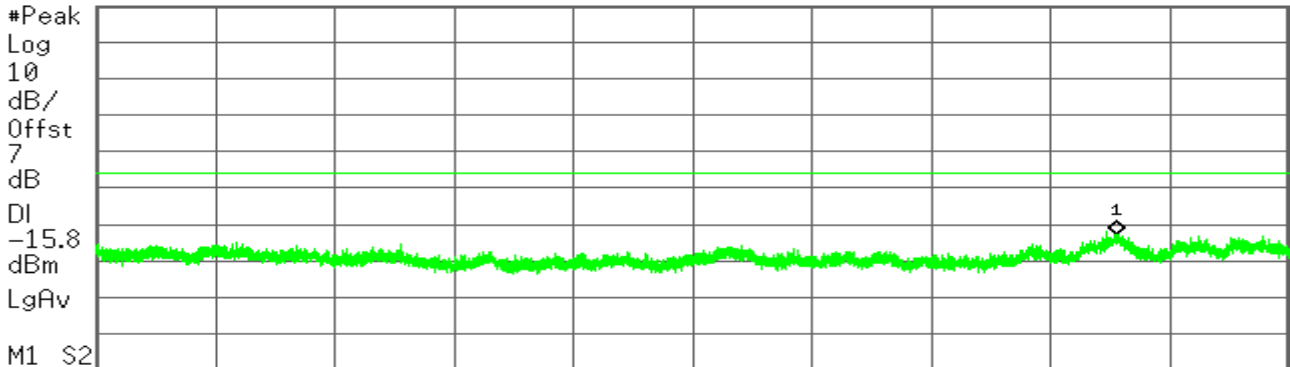
Agilent

R T

Mkr1 24.127 2 GHz
-32.61 dBm

Ref 30 dBm

Atten 40 dB



M1 S2
Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.127 2 GHz | -32.61 dBm |



CH Mid

* Agilent

R T

Mkr1 2.430 734 GHz
3.02 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

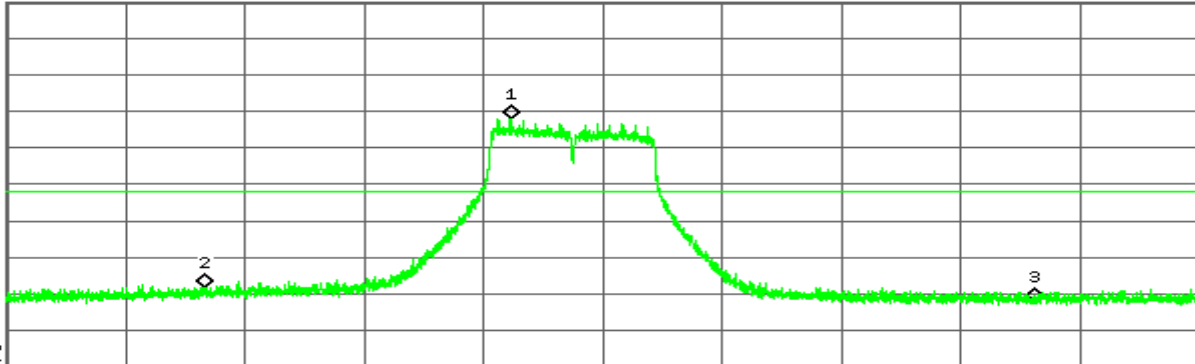
dB

DI

-17.0

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.430 734 GHz | 3.02 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -43.50 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -47.46 dBm |

* Agilent

R T

Mkr1 482.37 MHz
-43.45 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

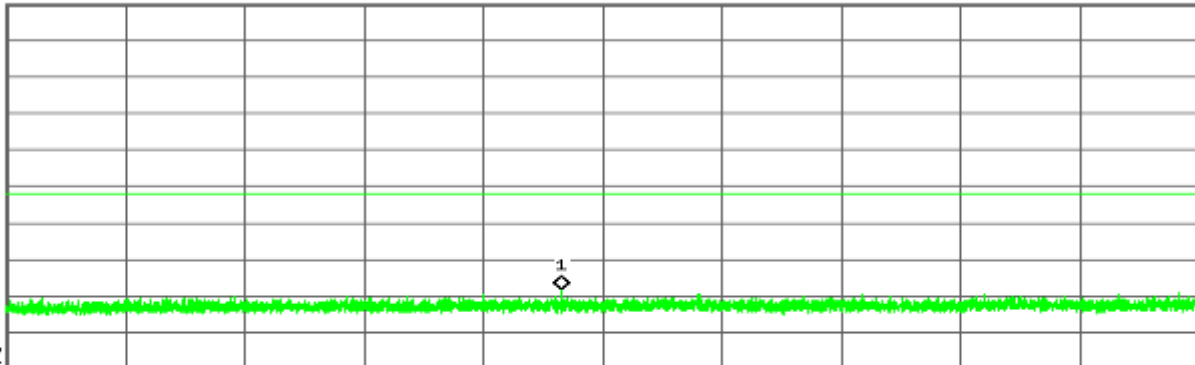
dB

DI

-17.0

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 482.37 MHz | -43.45 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Agilent

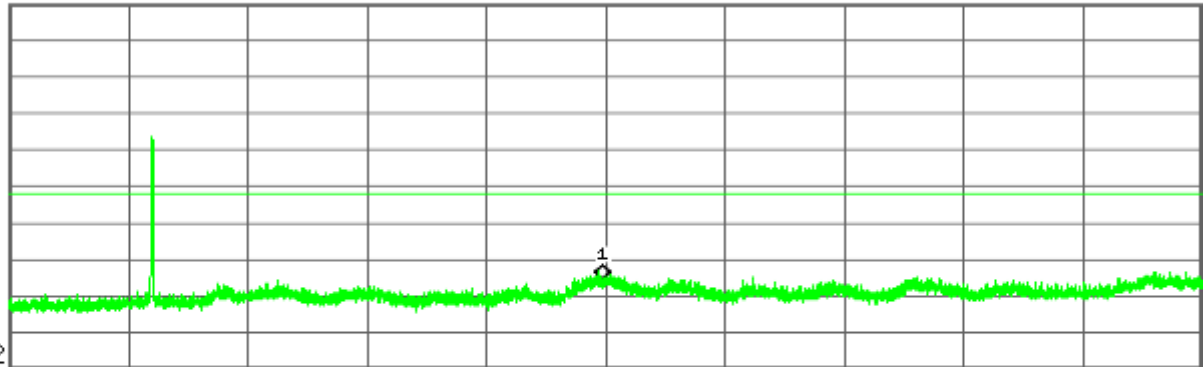
R T

Mkr1 6.971 4 GHz
-40.47 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-17.0
dBm
LgAv



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.971 4 GHz | -40.47 dBm |

Agilent

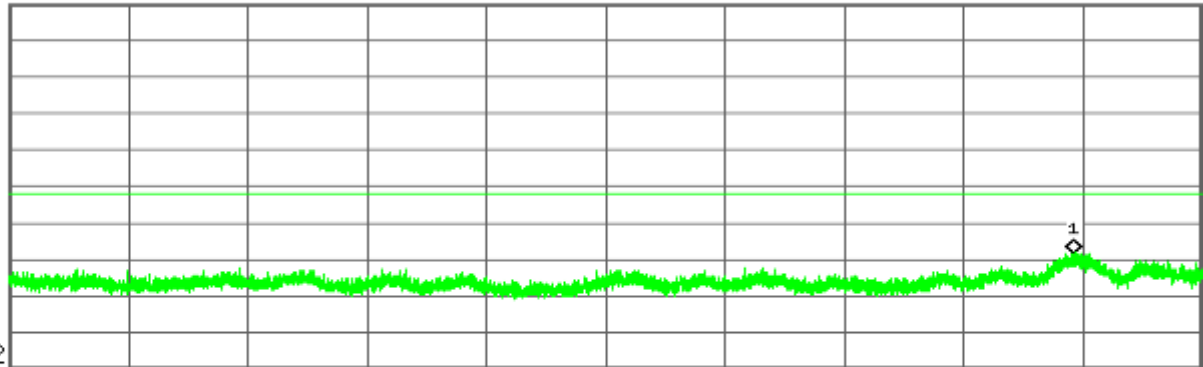
R T

Mkr1 24.593 8 GHz
-33.29 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-17.0
dBm
LgAv



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.593 8 GHz | -33.29 dBm |



CH High

* Agilent

R T

Mkr3 2.483 500 GHz
-43.55 dBm

Ref 30 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

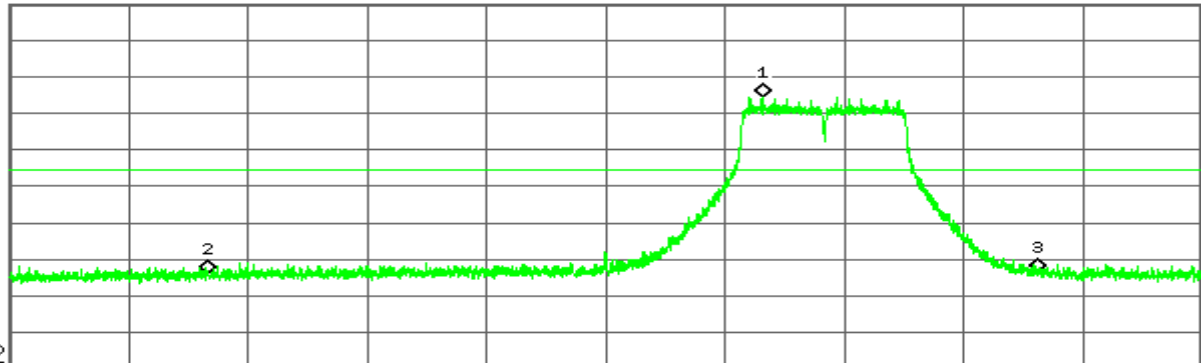
dB

DI

-15.4

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | <1> | Freq | 2.455 742 GHz | 4.58 dBm |
| 2 | <1> | Freq | 2.400 000 GHz | -44.25 dBm |
| 3 | <1> | Freq | 2.483 500 GHz | -43.55 dBm |

* Agilent

R T

Mkr1 598.07 MHz
-43.43 dBm

Ref 30 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

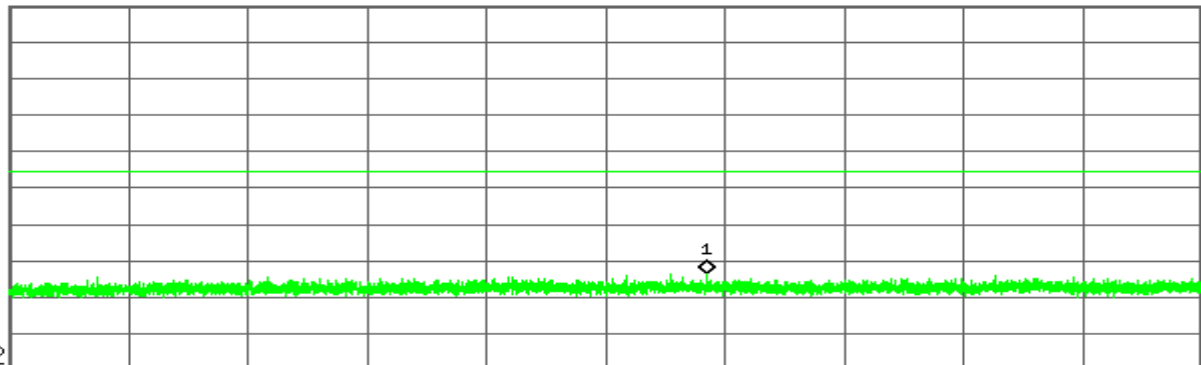
dB

DI

-15.4

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | <1> | Freq | 598.07 MHz | -43.43 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

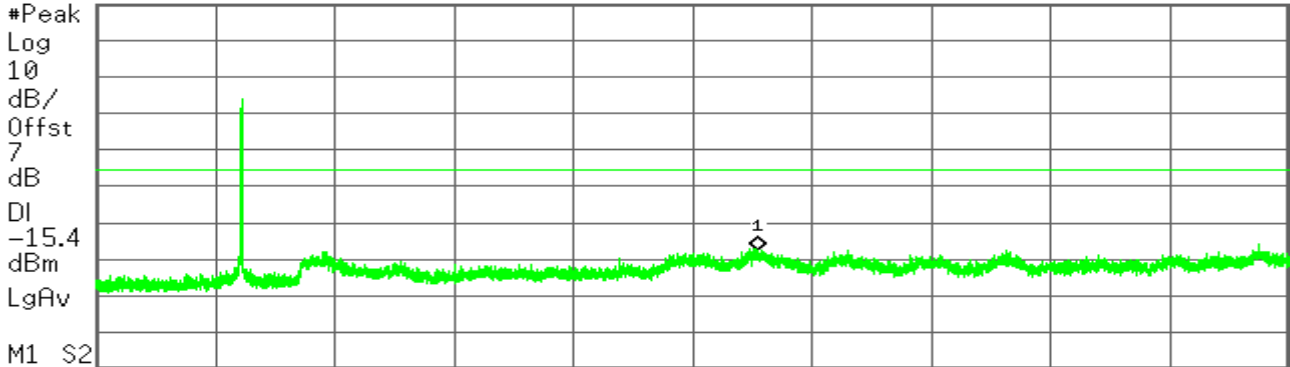
Agilent

R T

Mkr1 7.654 1 GHz
-37.49 dBm

Ref 30 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

^ Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 7.654 1 GHz | -37.49 dBm |

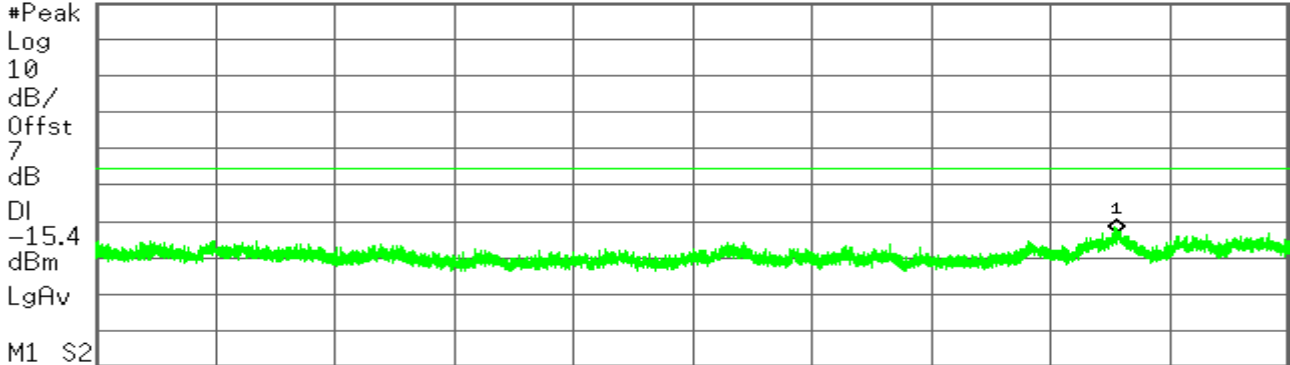
Agilent

R T

Mkr1 24.111 3 GHz
-33.04 dBm

Ref 30 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

^ Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.111 3 GHz | -33.04 dBm |

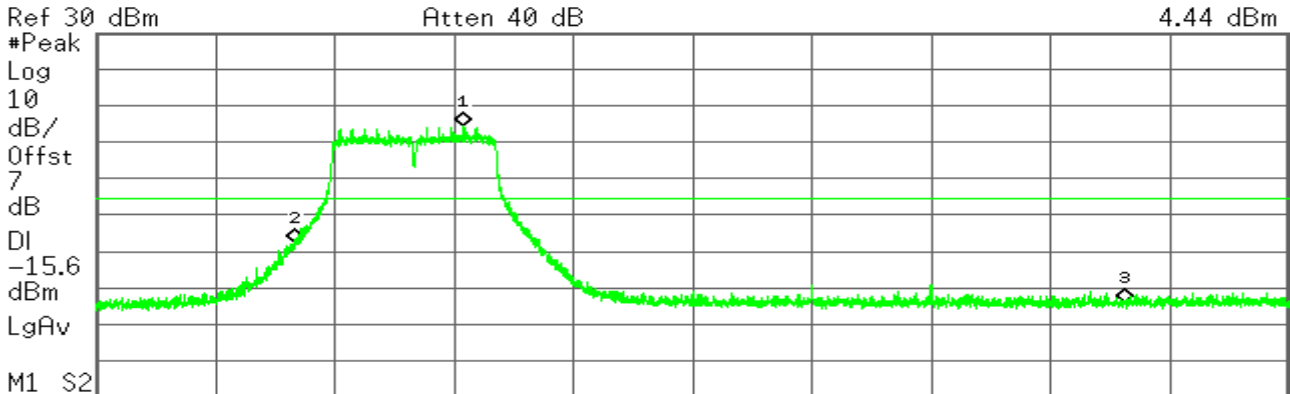


IEEE 802.11g mode/Chain 2

CH Low

* Agilent

R T

Mkr1 2.416 977 GHz
4.44 dBm

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

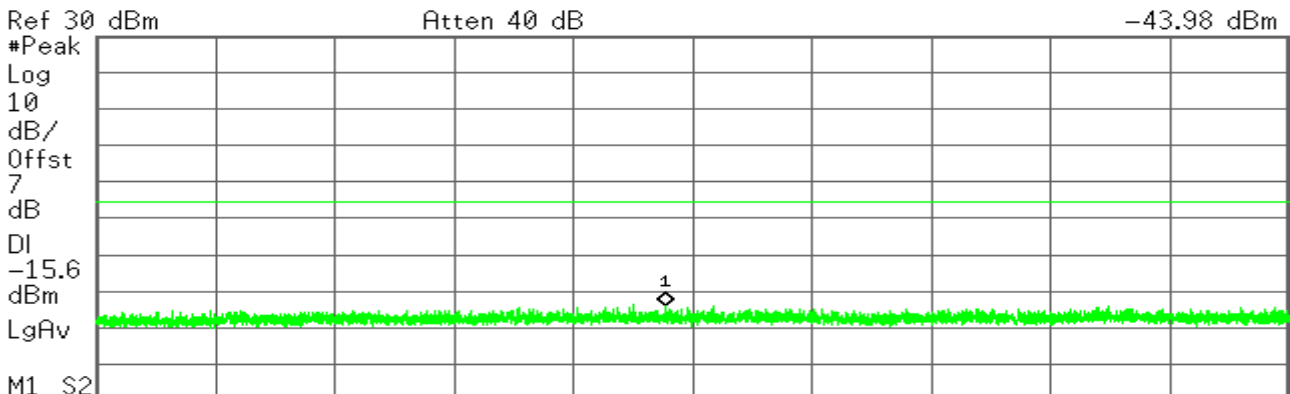
#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.416 977 GHz | 4.44 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -27.66 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -43.86 dBm |

* Agilent

R T

Mkr1 493.03 MHz
-43.98 dBm

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 493.03 MHz | -43.98 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

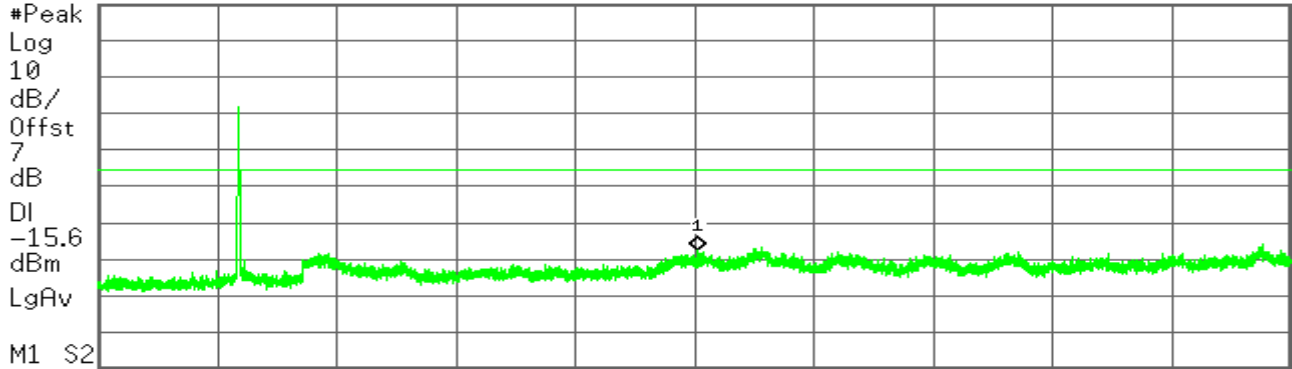
Agilent

R T

Mkr1 7.035 9 GHz
-37.40 dBm

Ref 30 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 7.035 9 GHz | -37.40 dBm |

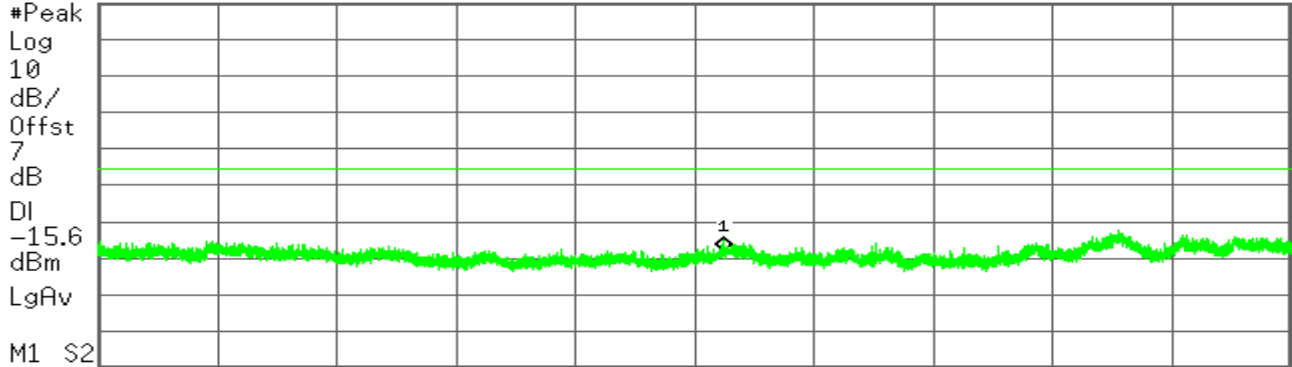
Agilent

R T

Mkr1 19.824 6 GHz
-38.04 dBm

Ref 30 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 19.824 6 GHz | -38.04 dBm |



CH Mid

* Agilent

R T

Mkr1 2.438 249 GHz
2.73 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

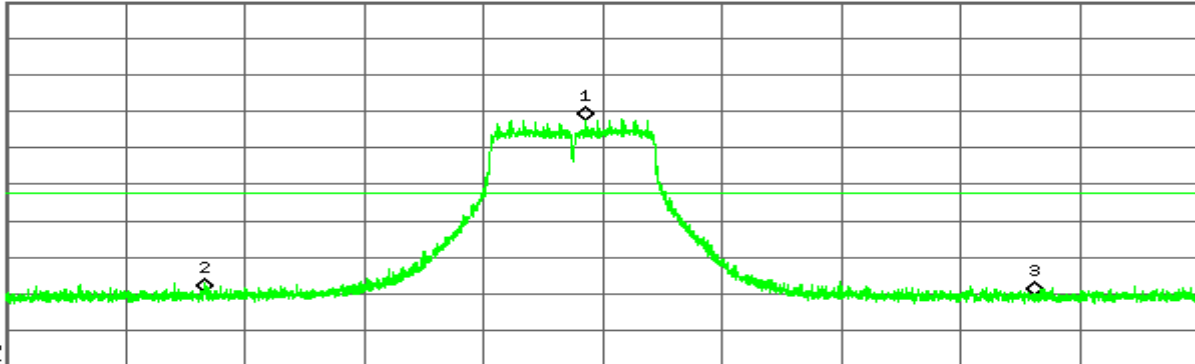
dB

DI

-17.3

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.438 249 GHz | 2.73 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -44.46 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -45.48 dBm |

* Agilent

R T

Mkr1 121.78 MHz
-44.89 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

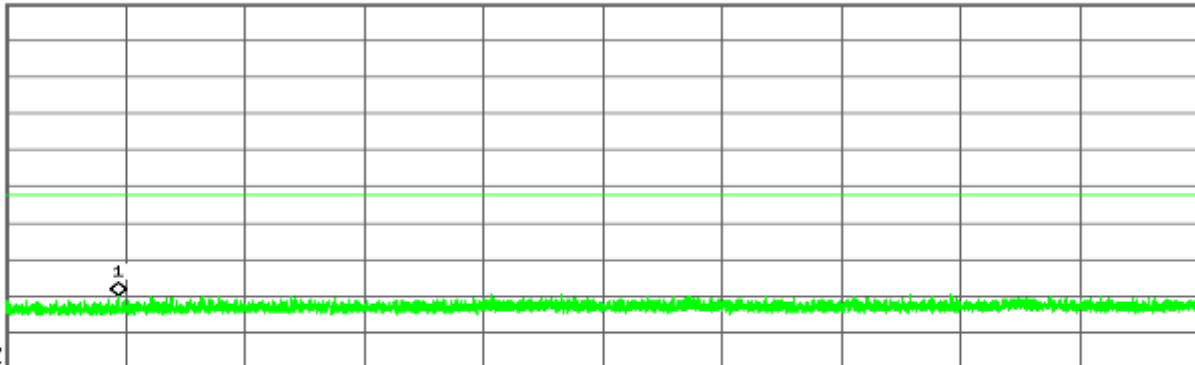
dB

DI

-17.3

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 121.78 MHz | -44.89 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

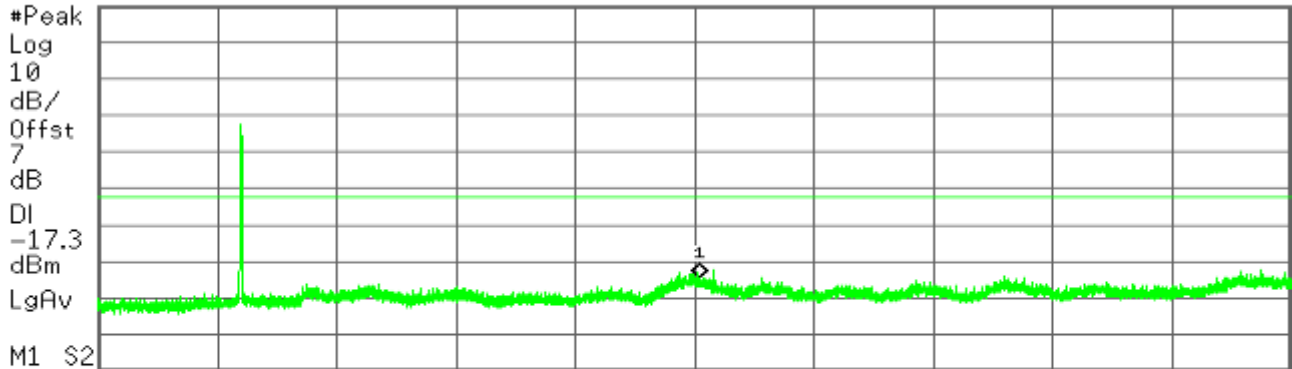
Agilent

R T

Mkr1 7.052 0 GHz
-39.27 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 7.052 0 GHz | -39.27 dBm |

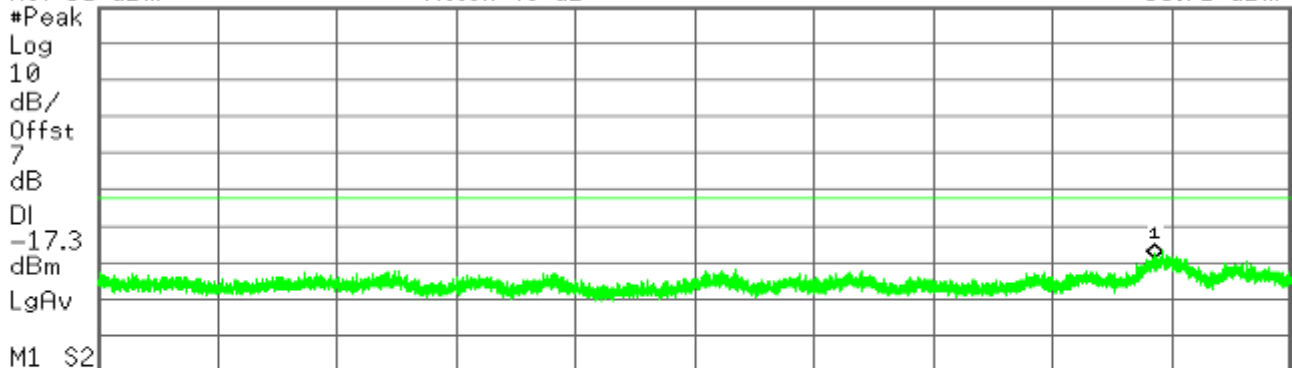
Agilent

R T

Mkr1 24.512 9 GHz
-33.71 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.512 9 GHz | -33.71 dBm |



CH High

* Agilent

R T

Mkr1 2.466 978 GHz
4.18 dBm

Ref 30 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

dB

DI

-15.8

dBm

LgAv

M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)



* Agilent

R T

Mkr1 921.01 MHz
-44.11 dBm

Ref 30 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

dB

DI

-15.8

dBm

LgAv

M1 S2

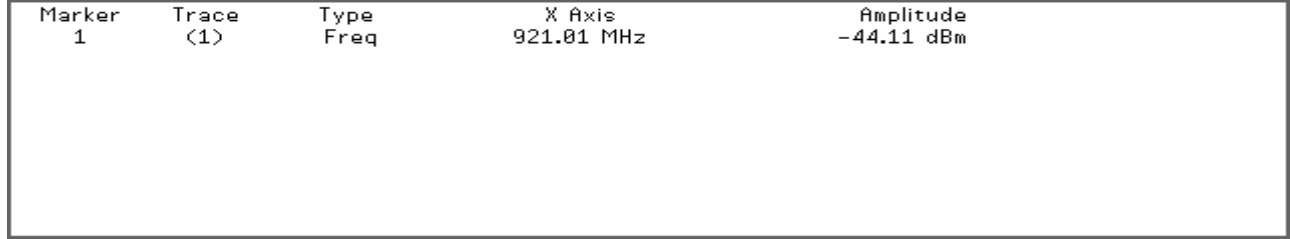
Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)





Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

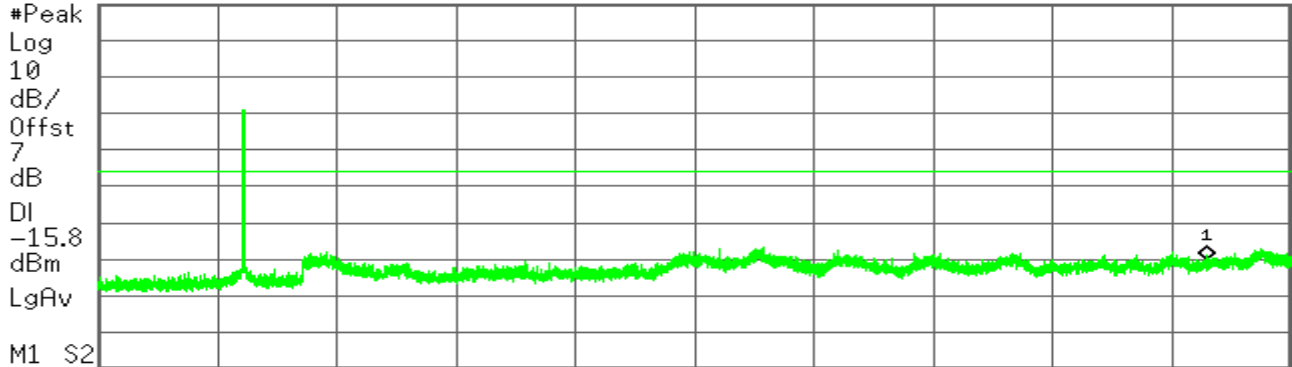
Agilent

R T

Mkr1 12.159 1 GHz
-39.98 dBm

Ref 30 dBm

Atten 40 dB



M1 S2
Center 7.000 0 GHz

Span 12 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 12.159 1 GHz | -39.98 dBm |

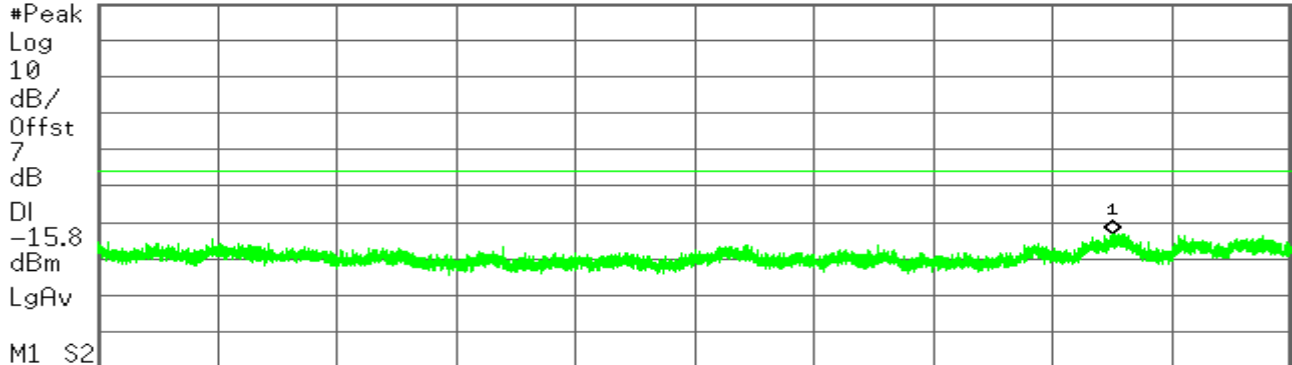
Agilent

R T

Mkr1 24.049 4 GHz
-33.06 dBm

Ref 30 dBm

Atten 40 dB



M1 S2
Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.049 4 GHz | -33.06 dBm |



draft 802.11n Standard-20 MHz Channel mode / Chain 0

CH Low

* Agilent

R T

Mkr1 2.419 512 GHz
3.96 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

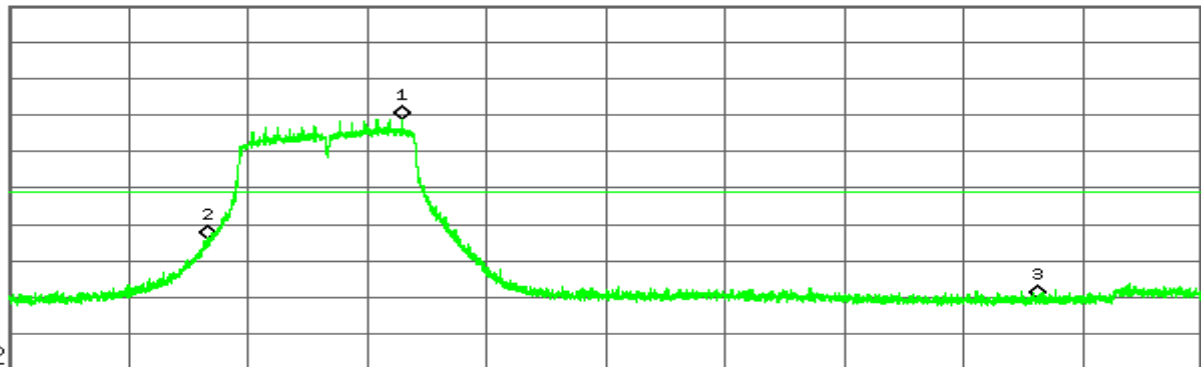
dB

DI

-16.0

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.419 512 GHz | 3.96 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -29.07 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -45.44 dBm |

* Agilent

R T

Mkr1 782.93 MHz
-44.11 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

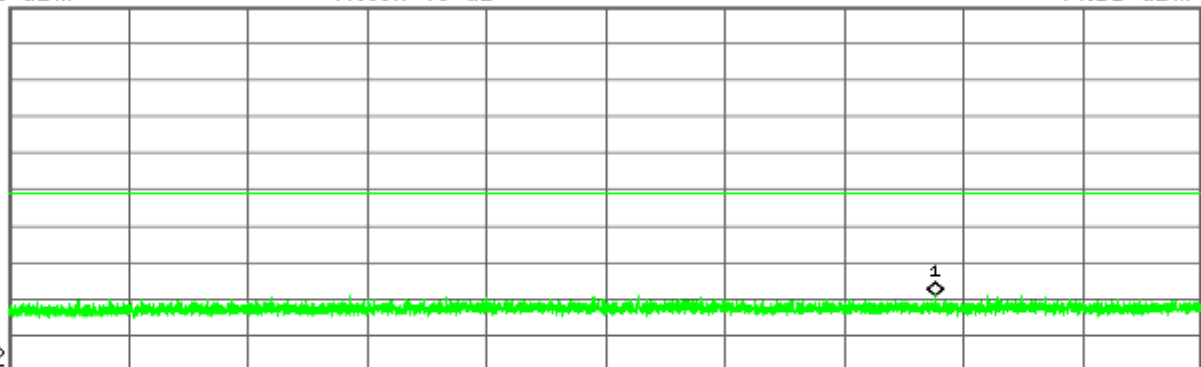
dB

DI

-16.0

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 782.93 MHz | -44.11 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

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Agilent

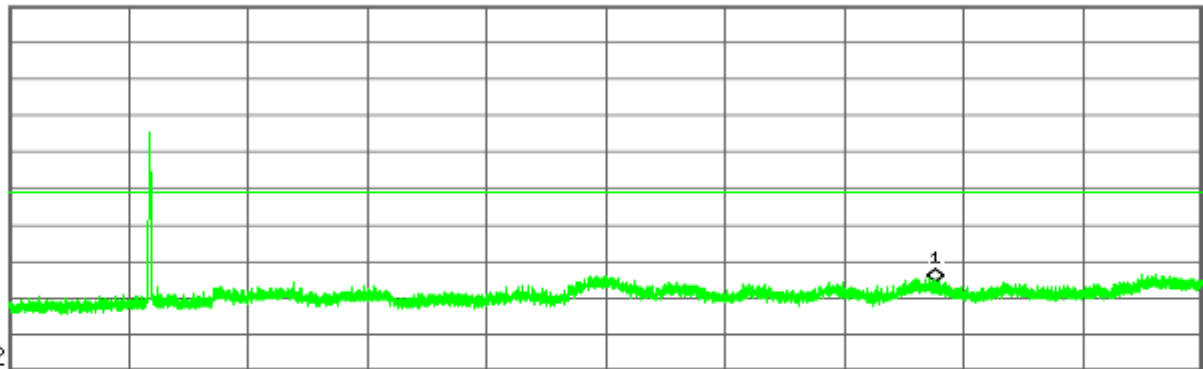
R T

Mkr1 10.313 1 GHz
-40.65 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-16.0
dBm
LgAv



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 10.313 1 GHz | -40.65 dBm |

Agilent

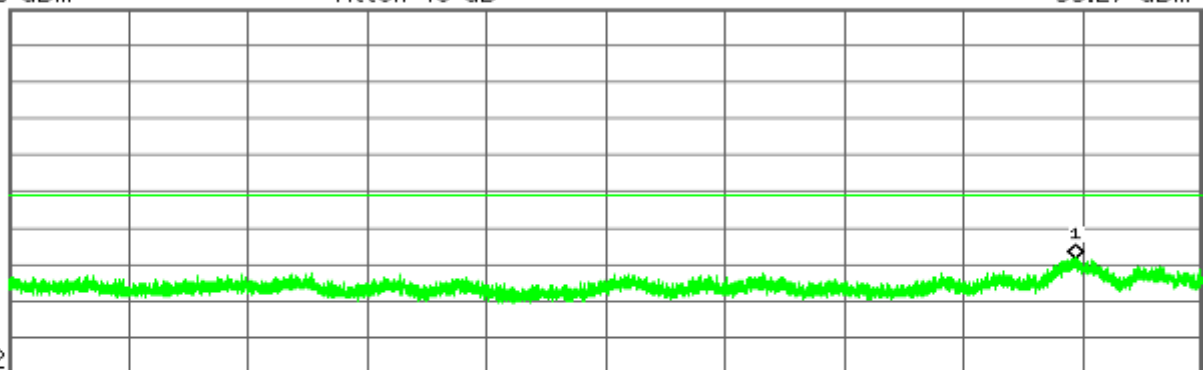
R T

Mkr1 24.624 0 GHz
-33.27 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-16.0
dBm
LgAv



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.624 0 GHz | -33.27 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

CH Mid

Agilent

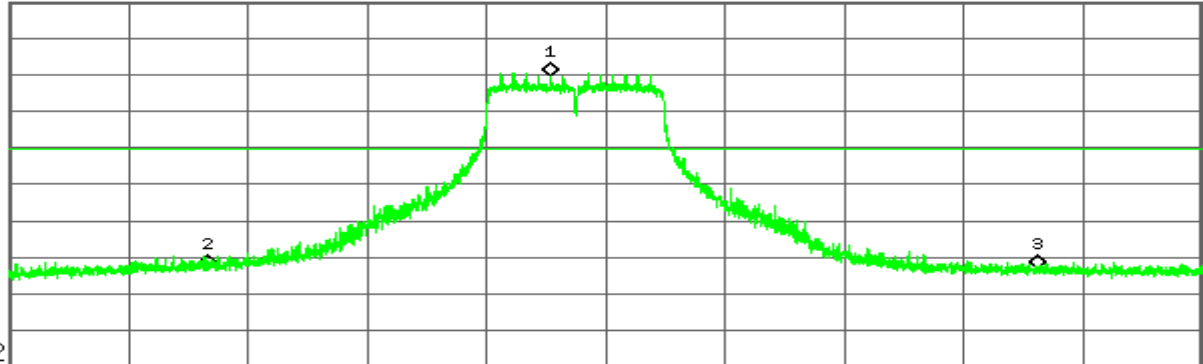
R T

Mkr1 2.434 499 GHz
9.81 dBm

Ref 30 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-10.2
dBm
LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.434 499 GHz | 9.81 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -43.28 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -43.21 dBm |

Agilent

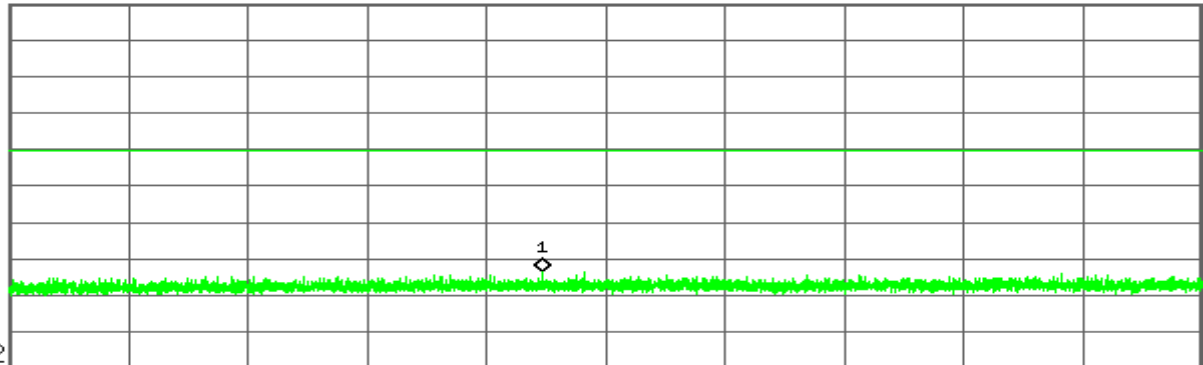
R T

Mkr1 464.26 MHz
-43.51 dBm

Ref 30 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-10.2
dBm
LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 464.26 MHz | -43.51 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

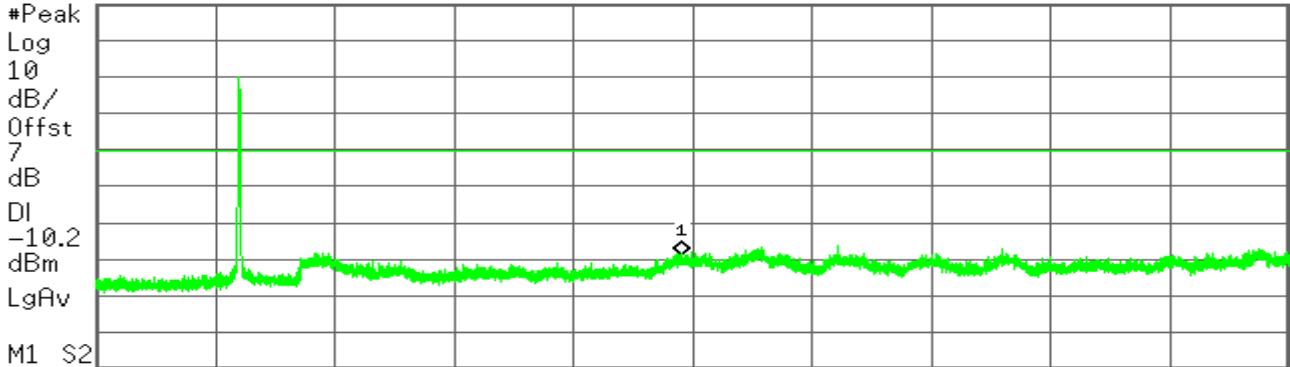
Agilent

R T

Mkr1 6.892 3 GHz
-38.95 dBm

Ref 30 dBm

Atten 40 dB



Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.892 3 GHz | -38.95 dBm |

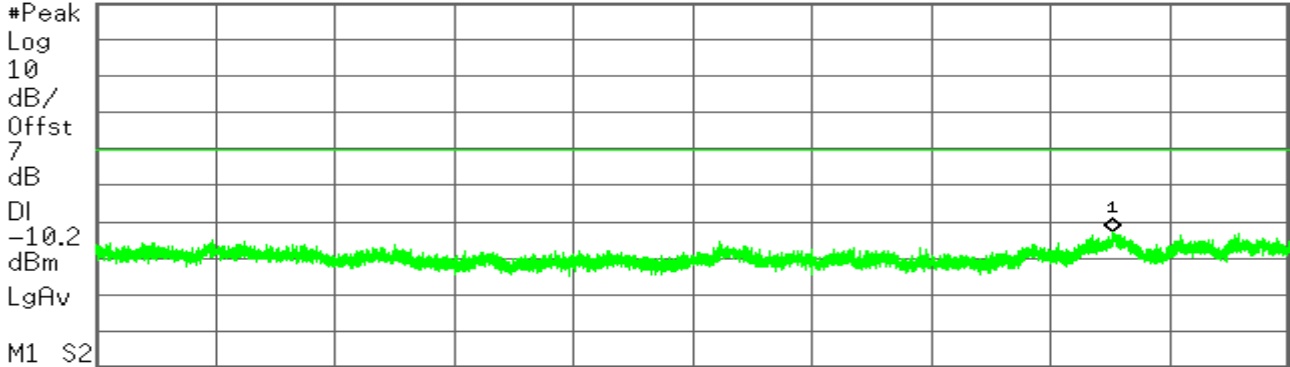
Agilent

R T

Mkr1 24.076 4 GHz
-32.78 dBm

Ref 30 dBm

Atten 40 dB



Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.076 4 GHz | -32.78 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

CH High

Agilent

R T

Mkr1 2.455 727 GHz
2.30 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

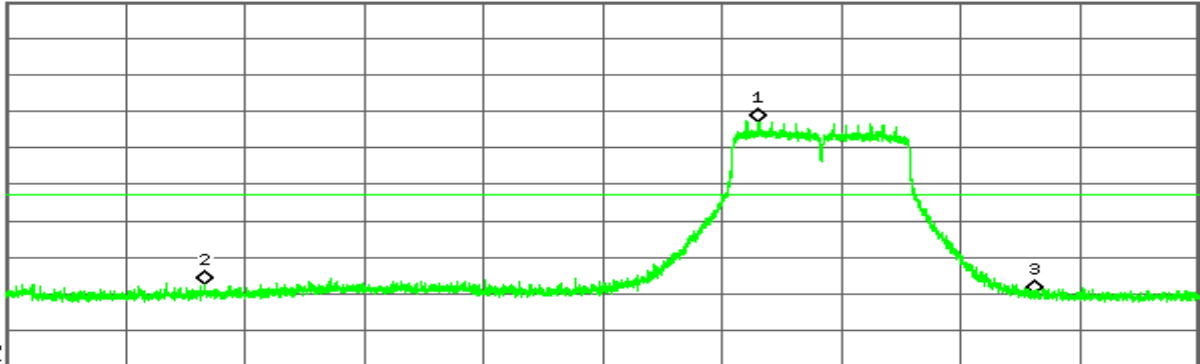
dB

DI

-17.7

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.455 727 GHz | 2.30 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -42.65 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -45.30 dBm |

Agilent

R T

Mkr1 554.61 MHz
-44.86 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

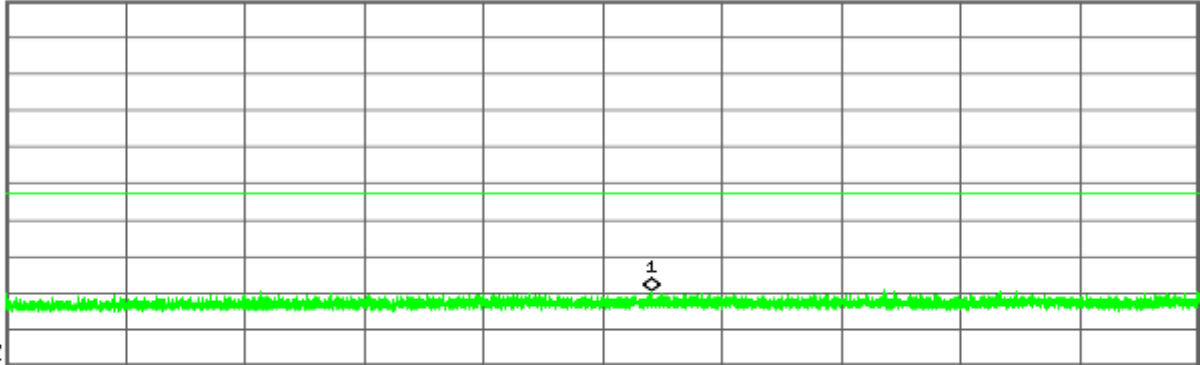
dB

DI

-17.7

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 554.61 MHz | -44.86 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Agilent

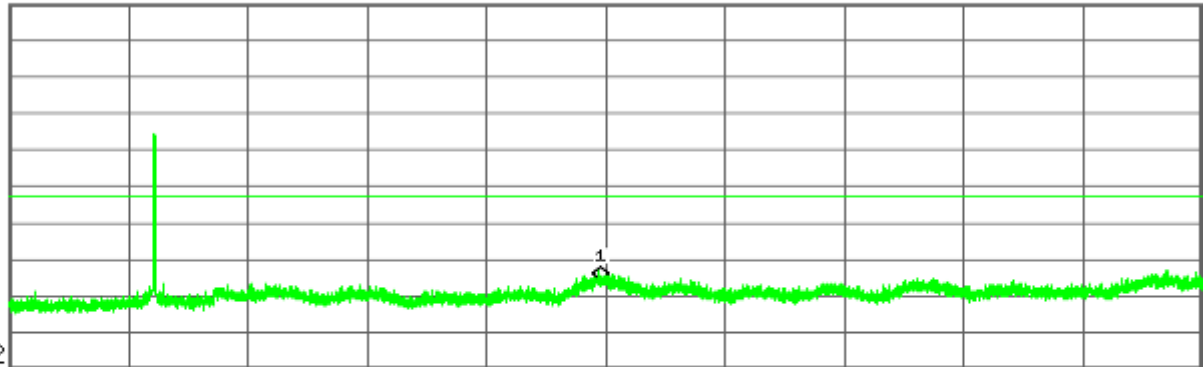
R T

Mkr1 6.946 5 GHz
-40.56 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-17.7
dBm
LgAv



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.946 5 GHz | -40.56 dBm |

Agilent

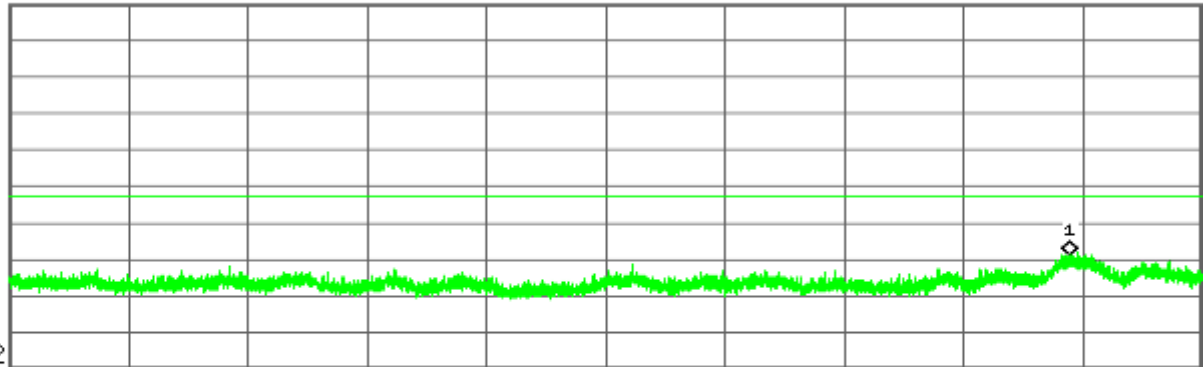
R T

Mkr1 24.554 1 GHz
-33.75 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-17.7
dBm
LgAv



M1 S2

Center 19.500 0 GHz

Span 13 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.554 1 GHz | -33.75 dBm |



draft 802.11n Standard-20 MHz Channel mode / Chain 1

CH Low

* Agilent

R T

Mkr1 2.419 497 GHz
2.53 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

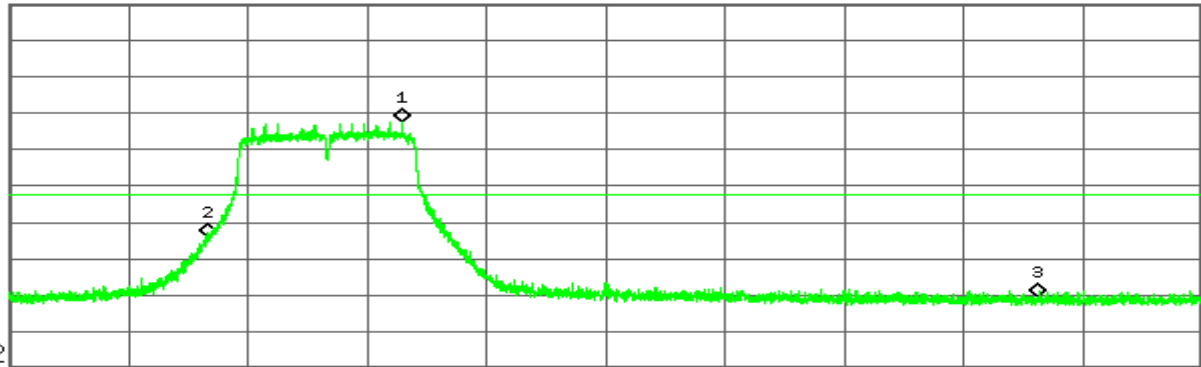
dB

DI

-17.5

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.419 497 GHz | 2.53 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -28.92 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -45.56 dBm |

* Agilent

R T

Mkr1 454.90 MHz
-44.44 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

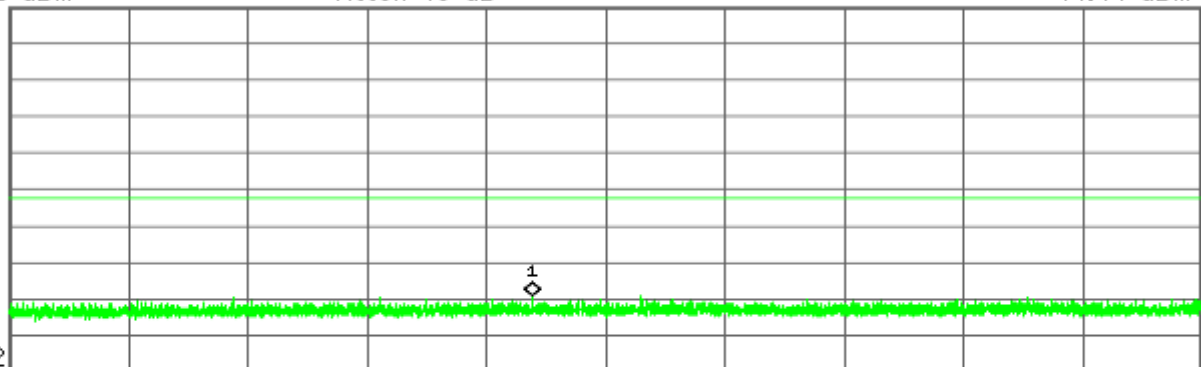
dB

DI

-17.5

dBm

LgAv



M1 S2

Center 515.00 MHz

Span 970 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 454.90 MHz | -44.44 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Agilent

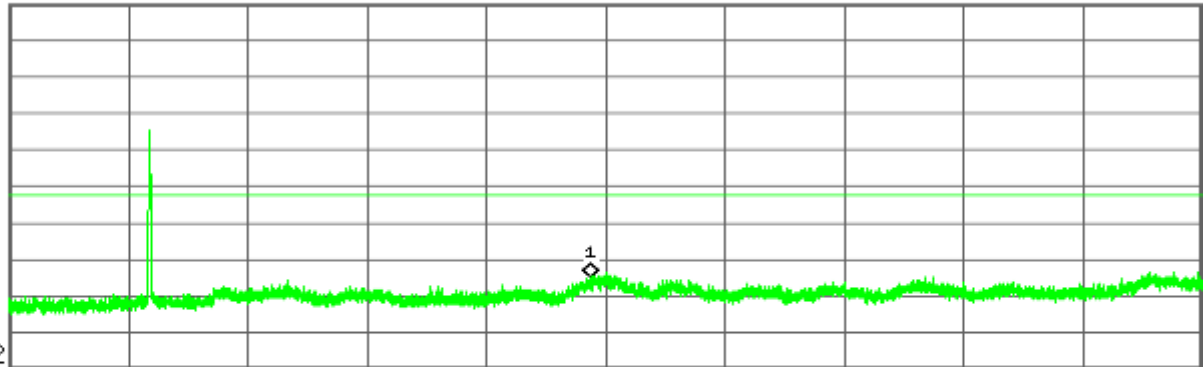
R T

Mkr1 6.851 3 GHz
-39.84 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-17.5
dBm
LgAv



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.851 3 GHz | -39.84 dBm |

Agilent

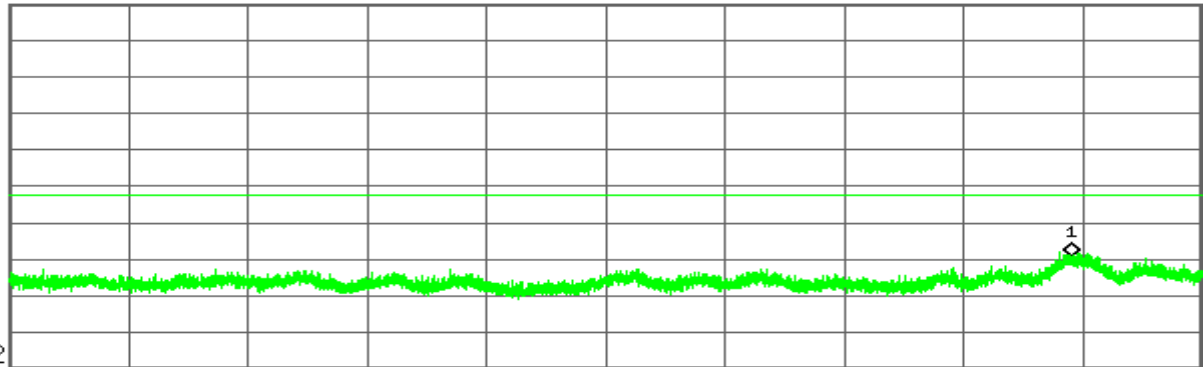
R T

Mkr1 24.585 9 GHz
-34.24 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-17.5
dBm
LgAv



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.585 9 GHz | -34.24 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

CH Mid

Agilent

R T

Mkr3 2.483 500 GHz
-42.44 dBm

Ref 30 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

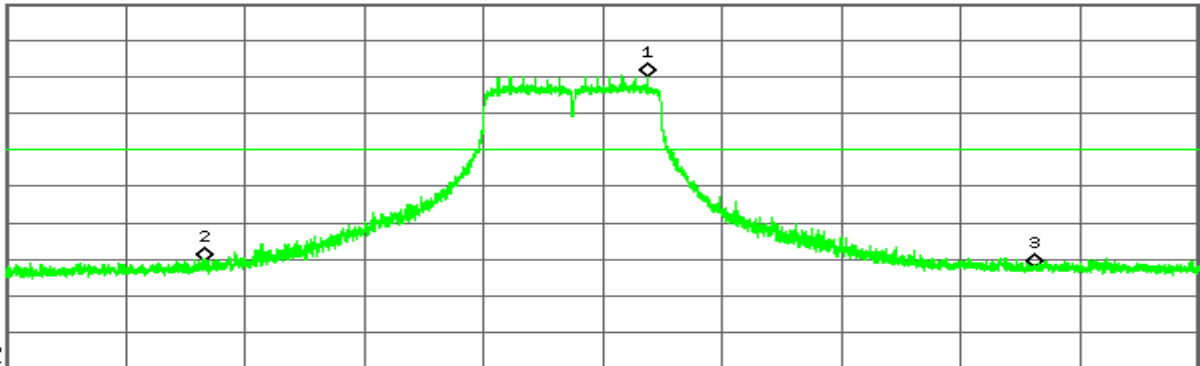
dB

DI

-9.7

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.444 505 GHz | 10.30 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -40.71 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -42.44 dBm |

Agilent

R T

Mkr1 407.89 MHz
-43.89 dBm

Ref 30 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

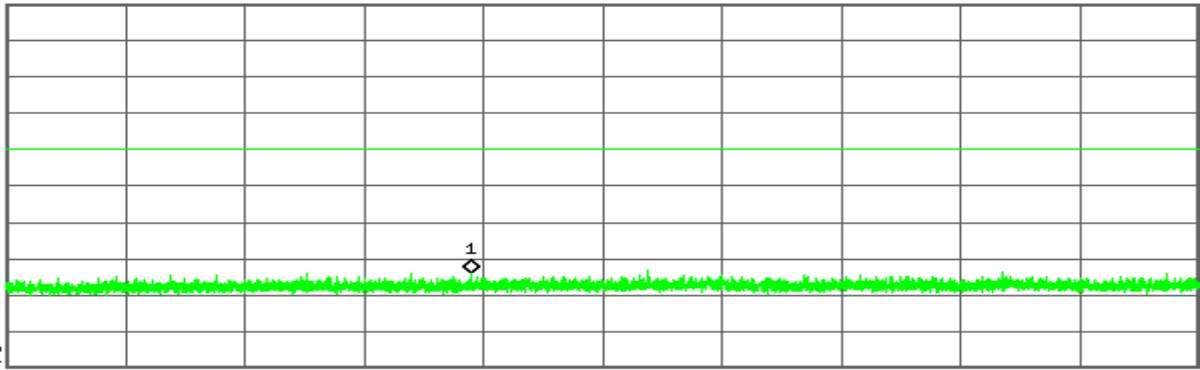
dB

DI

-9.7

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 407.89 MHz | -43.89 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

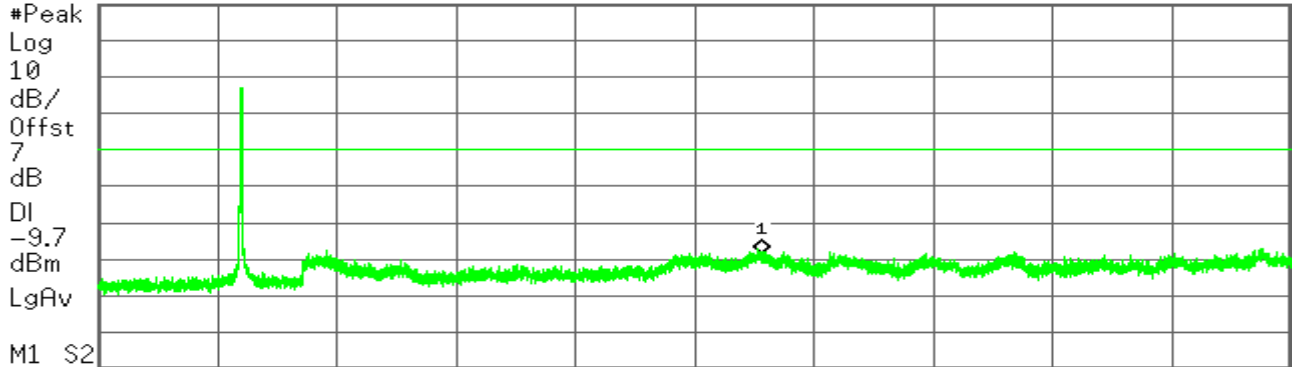
Agilent

R T

Mkr1 7.676 1 GHz
-38.46 dBm

Ref 30 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 7.676 1 GHz | -38.46 dBm |

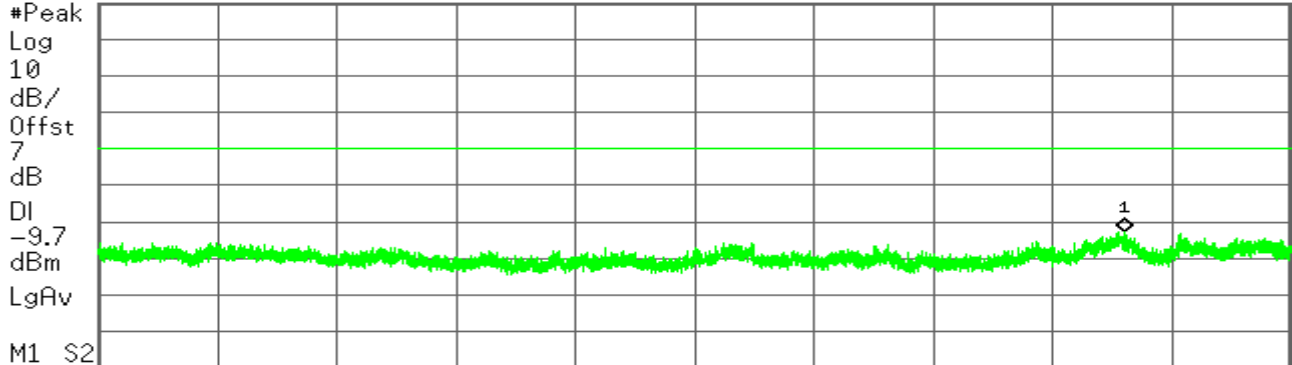
Agilent

R T

Mkr1 24.181 2 GHz
-32.81 dBm

Ref 30 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.181 2 GHz | -32.81 dBm |



CH High

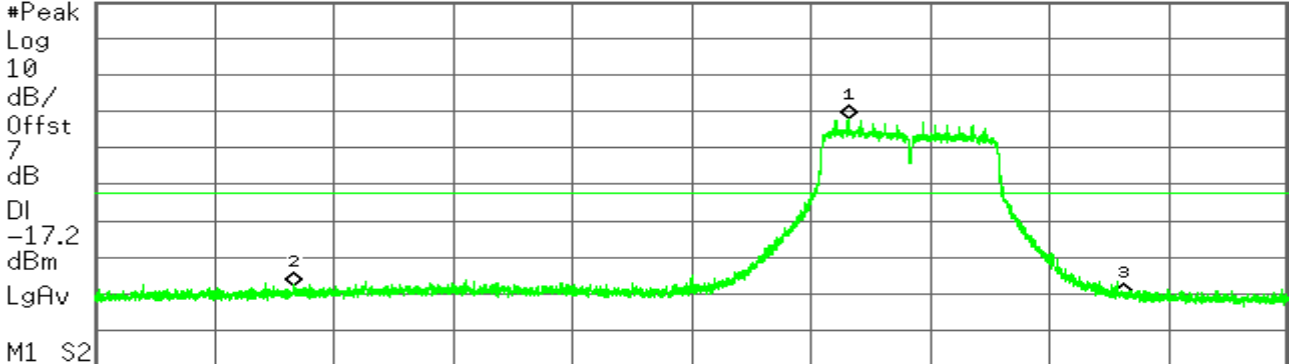
Agilent

R T

Mkr1 2.455 756 GHz
2.80 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.455 756 GHz | 2.80 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -43.04 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -45.97 dBm |

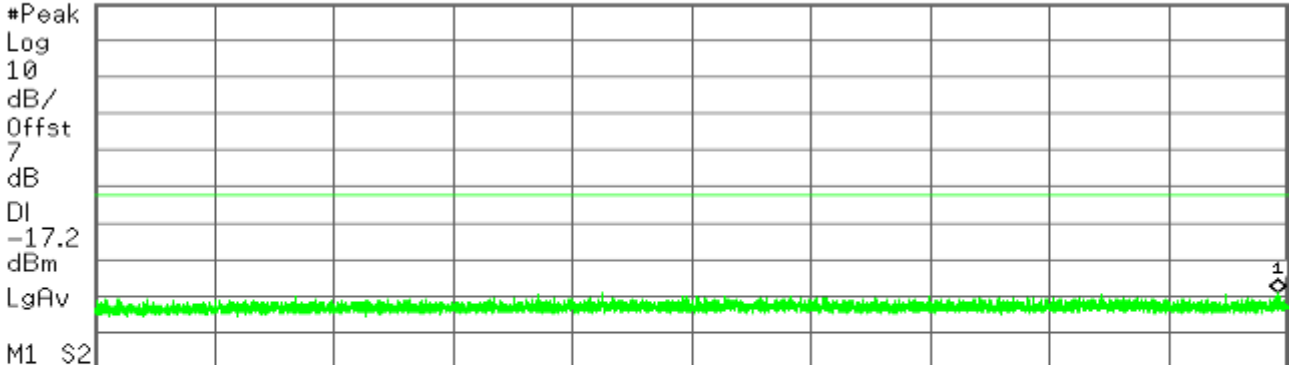
Agilent

R T

Mkr1 992.30 MHz
-44.35 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 992.30 MHz | -44.35 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

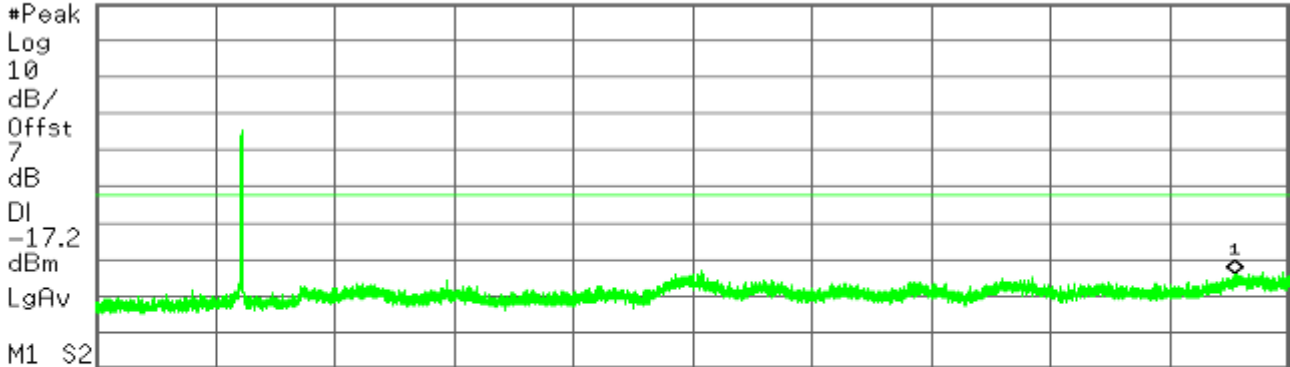
Agilent

R T

Mkr1 12.460 9 GHz
-39.12 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 12.460 9 GHz | -39.12 dBm |

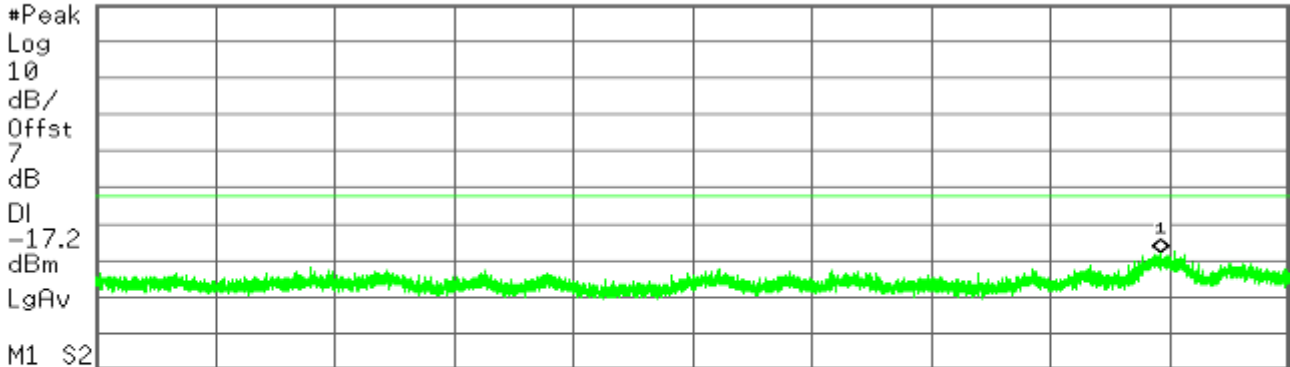
Agilent

R T

Mkr1 24.611 3 GHz
-33.02 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.611 3 GHz | -33.02 dBm |



draft 802.11n Standard-20 MHz Channel mode / Chain 2

CH Low

* Agilent

R T

Mkr1 2.419 497 GHz
2.38 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

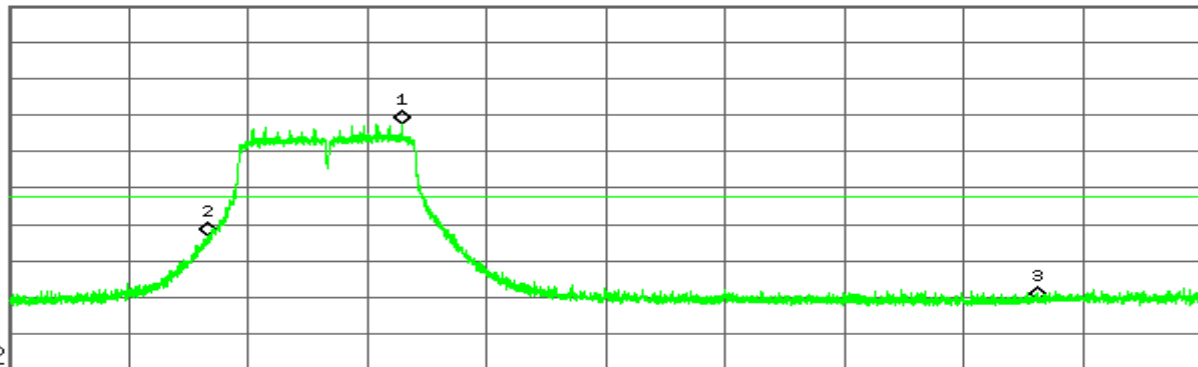
dB

DI

-17.6

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.419 497 GHz | 2.38 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -28.00 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -46.06 dBm |

* Agilent

R T

Mkr1 525.13 MHz
-44.56 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

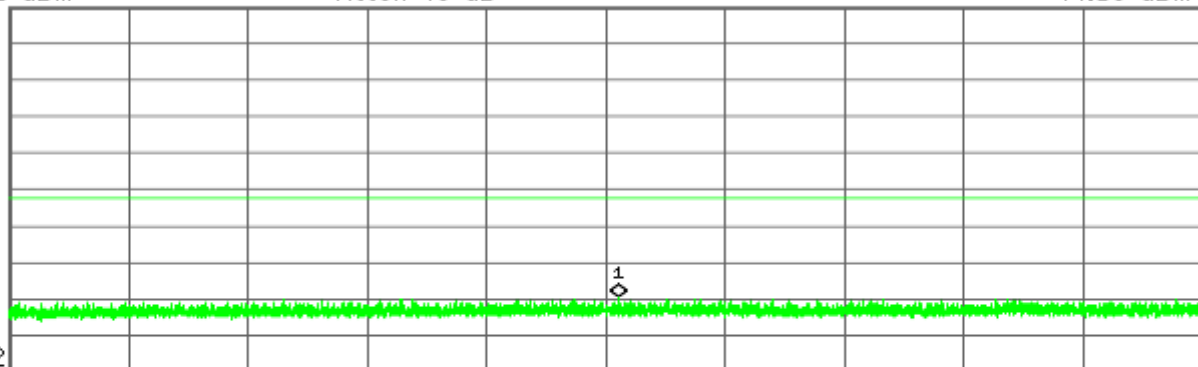
dB

DI

-17.6

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 525.13 MHz | -44.56 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

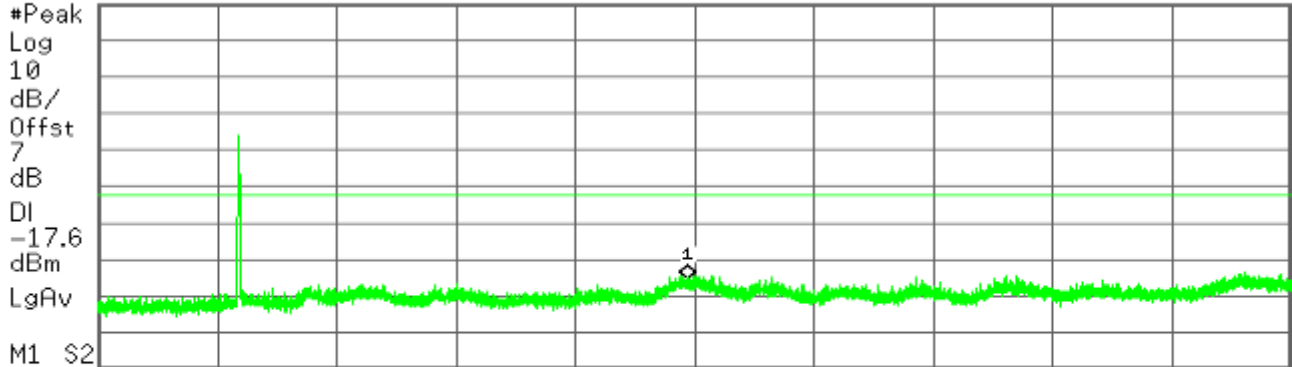
Agilent

R T

Mkr1 6.928 9 GHz
-40.26 dBm

Ref 35 dBm

Atten 40 dB



M1 S2
Start 1.000 0 GHz

Stop 13.000 0 GHz

*Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.928 9 GHz | -40.26 dBm |

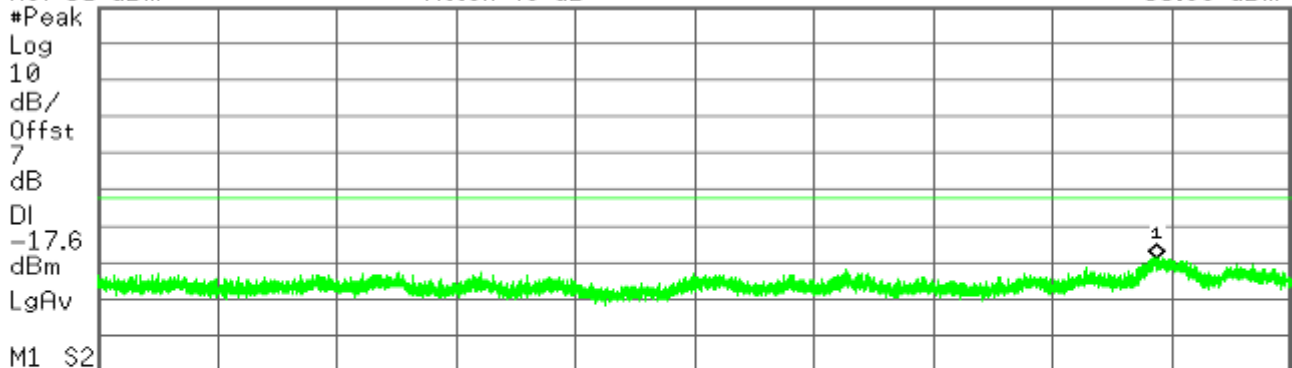
Agilent

R T

Mkr1 24.543 0 GHz
-33.90 dBm

Ref 35 dBm

Atten 40 dB



M1 S2
Start 13.000 0 GHz

Stop 26.000 0 GHz

*Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.543 0 GHz | -33.90 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

CH Mid

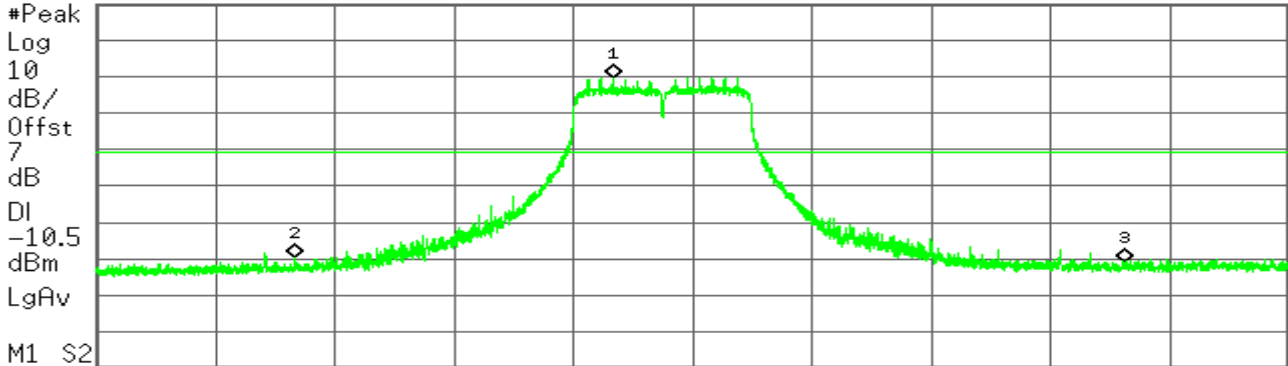
Agilent

R T

Mkr1 2.431 994 GHz
9.55 dBm

Ref 30 dBm

Atten 40 dB



Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.431 994 GHz | 9.55 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -39.84 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -41.17 dBm |

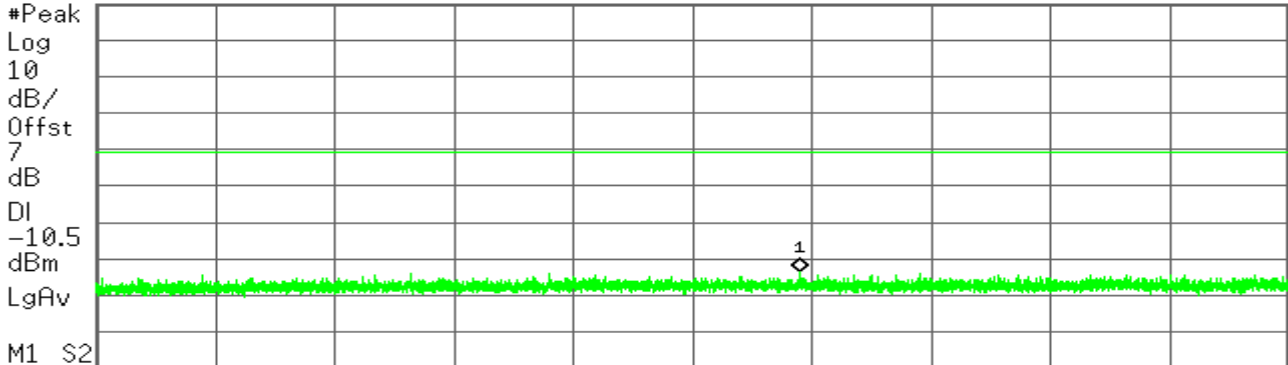
Agilent

R T

Mkr1 602.57 MHz
-43.55 dBm

Ref 30 dBm

Atten 40 dB



Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 602.57 MHz | -43.55 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

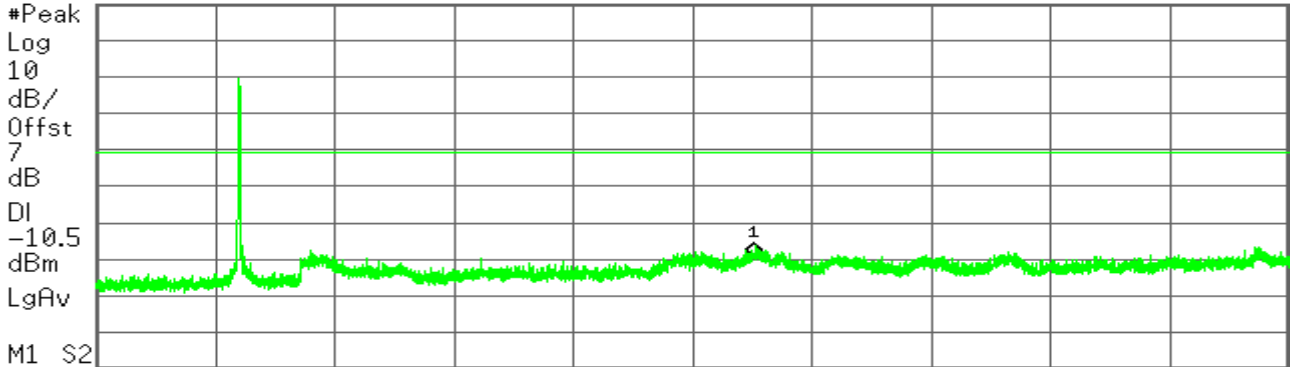
Agilent

R T

Mkr1 7.620 4 GHz
-39.41 dBm

Ref 30 dBm

Atten 40 dB



M1 S2
Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 7.620 4 GHz | -39.41 dBm |

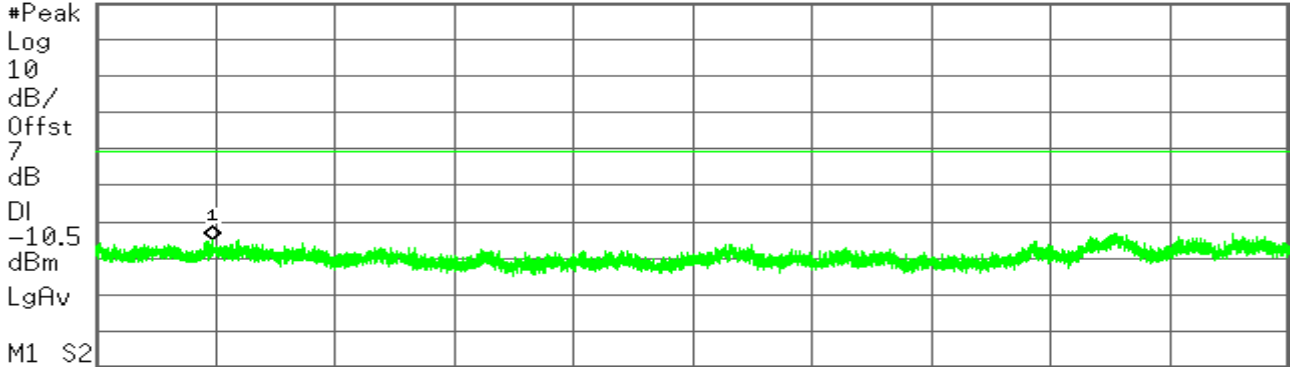
Agilent

R T

Mkr1 14.268 1 GHz
-35.10 dBm

Ref 30 dBm

Atten 40 dB



M1 S2
Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 14.268 1 GHz | -35.10 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

CH High

Agilent

R T

Mkr1 2.463 272 GHz
2.50 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

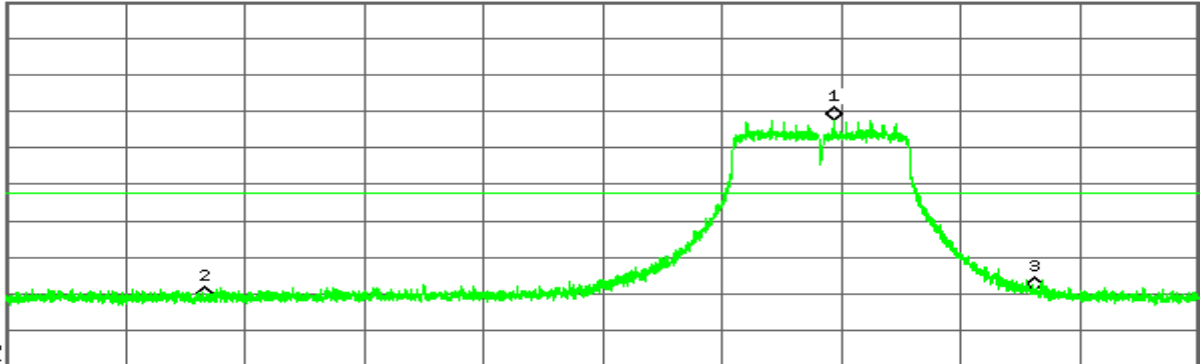
dB

DI

-17.5

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.463 272 GHz | 2.50 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -46.86 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -44.18 dBm |

Agilent

R T

Mkr1 569.89 MHz
-44.32 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

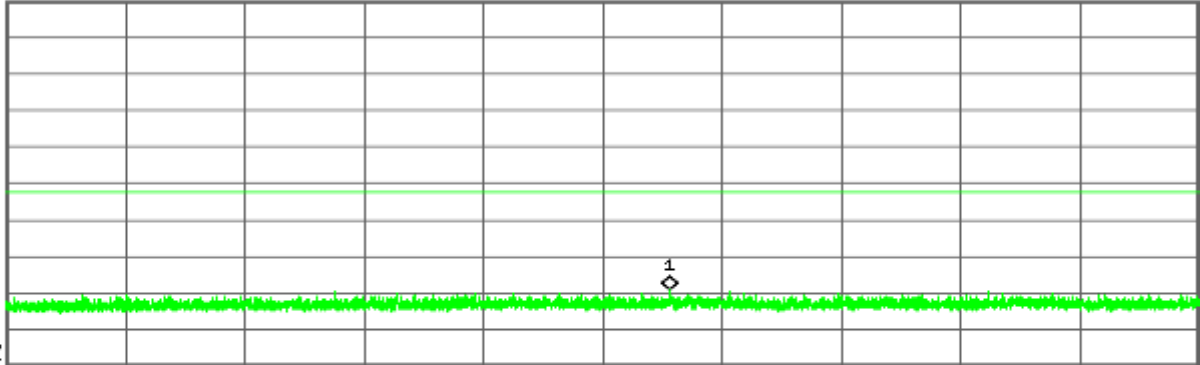
dB

DI

-17.5

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 569.89 MHz | -44.32 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Agilent

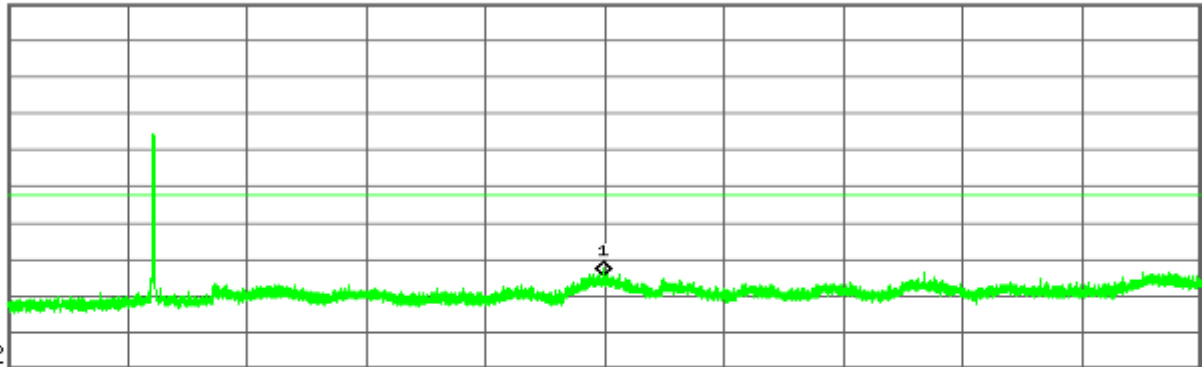
R T

Mkr1 6.981 7 GHz
-39.33 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-17.5
dBm
LgAv



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.981 7 GHz | -39.33 dBm |

Agilent

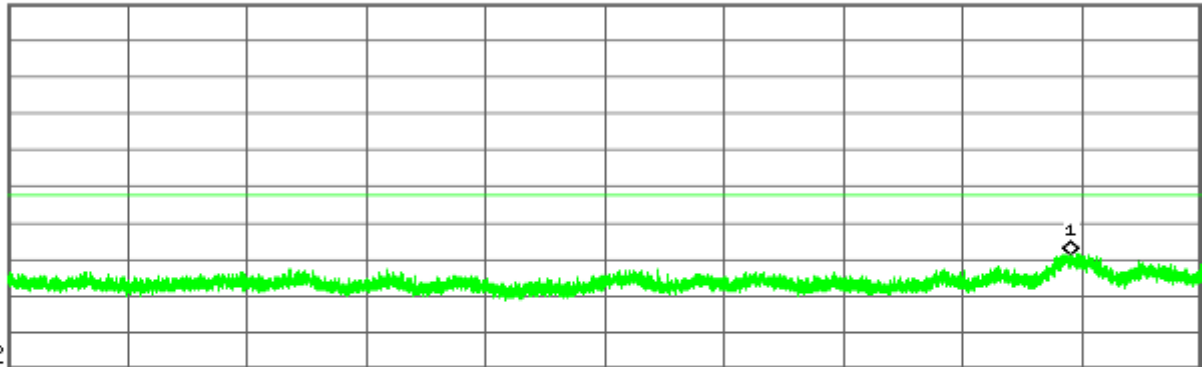
R T

Mkr1 24.589 1 GHz
-33.65 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-17.5
dBm
LgAv



M1 S2

Center 19.500 0 GHz

Span 13 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.589 1 GHz | -33.65 dBm |

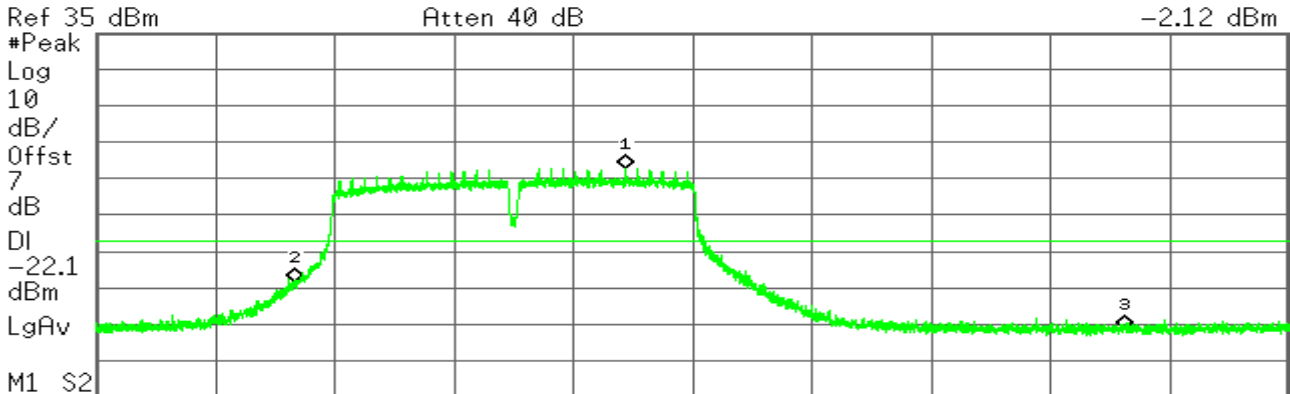


draft 802.11n wide-40 MHz Channel mode / Chain 0

CH Low

Agilent

R T

Mkr1 2.433 283 GHz
-2.12 dBm

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

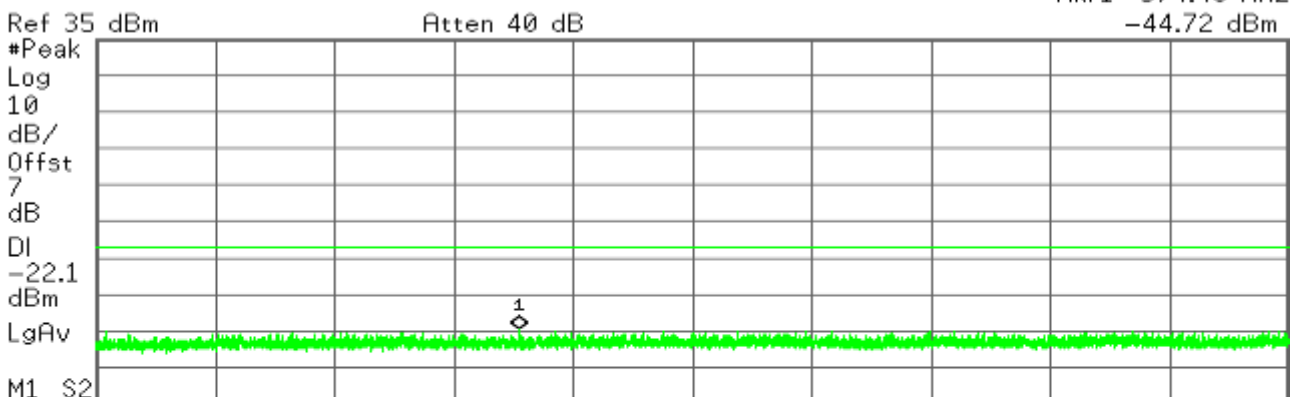
#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.433 283 GHz | -2.12 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -33.37 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -46.46 dBm |

Agilent

R T

Mkr1 374.49 MHz
-44.72 dBm

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 374.49 MHz | -44.72 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Agilent

R T

Mkr1 6.927 5 GHz
-38.85 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

dB

DI

-22.1

dBm

LgAv

M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.927 5 GHz | -38.85 dBm |

Agilent

R T

Mkr1 24.506 5 GHz
-33.30 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

dB

DI

-22.1

dBm

LgAv

M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.506 5 GHz | -33.30 dBm |



CH Mid

Agilent

R T

Mkr1 2.422 002 GHz
-2.99 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

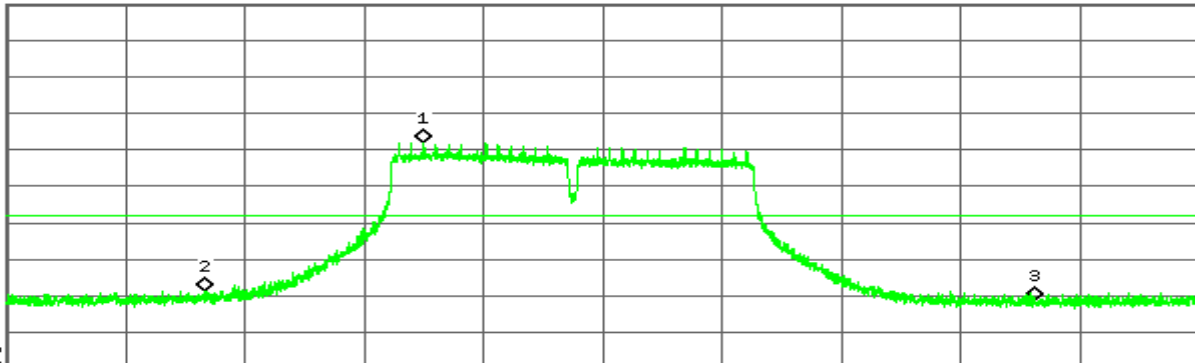
dB

DI

-23.0

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.422 002 GHz | -2.99 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -43.72 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -46.34 dBm |

Agilent

R T

Mkr1 845.22 MHz
-44.79 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

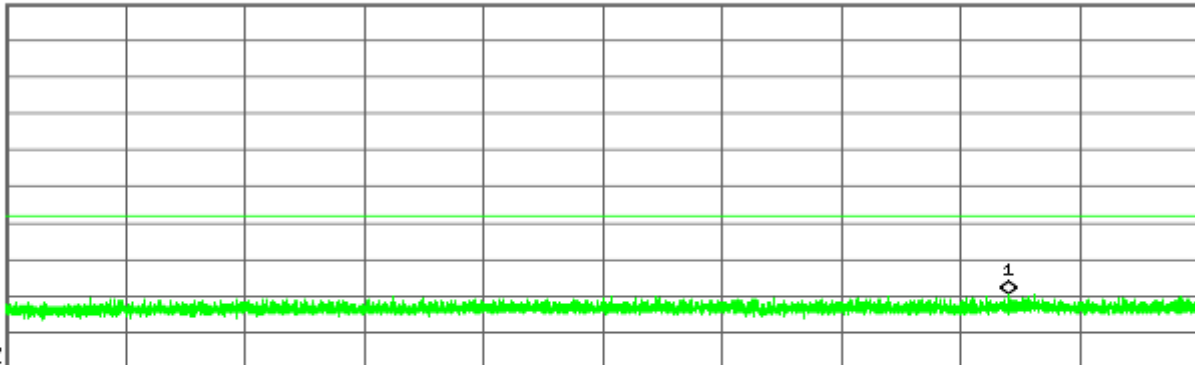
dB

DI

-23.0

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 845.22 MHz | -44.79 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Agilent

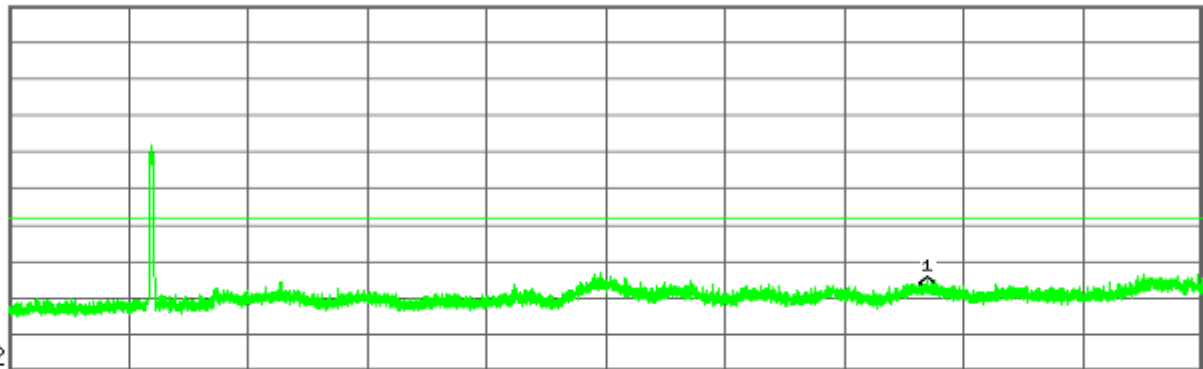
R T

Mkr1 10.245 8 GHz
-43.00 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-23.0
dBm
LgAv



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 10.245 8 GHz | -43.00 dBm |

Agilent

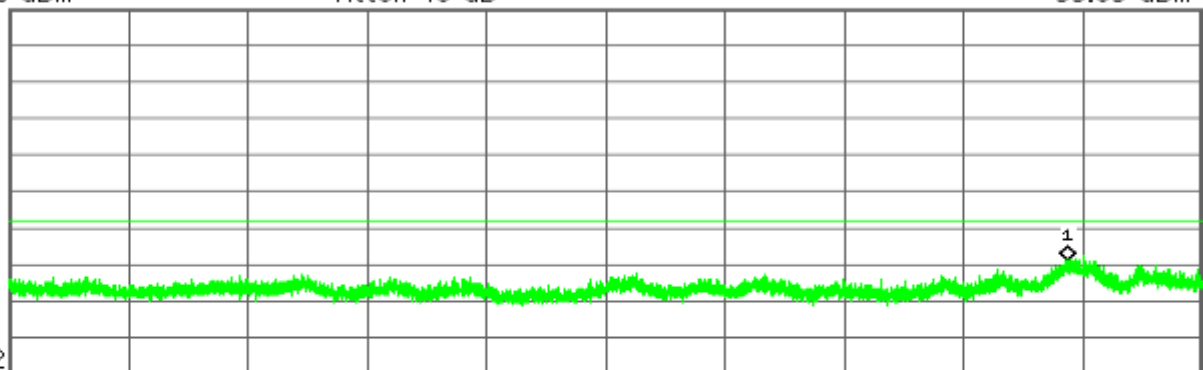
R T

Mkr1 24.530 3 GHz
-33.83 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-23.0
dBm
LgAv



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.530 3 GHz | -33.83 dBm |



CH High

* Agilent

R T

Mkr1 2.435 744 GHz
-3.21 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

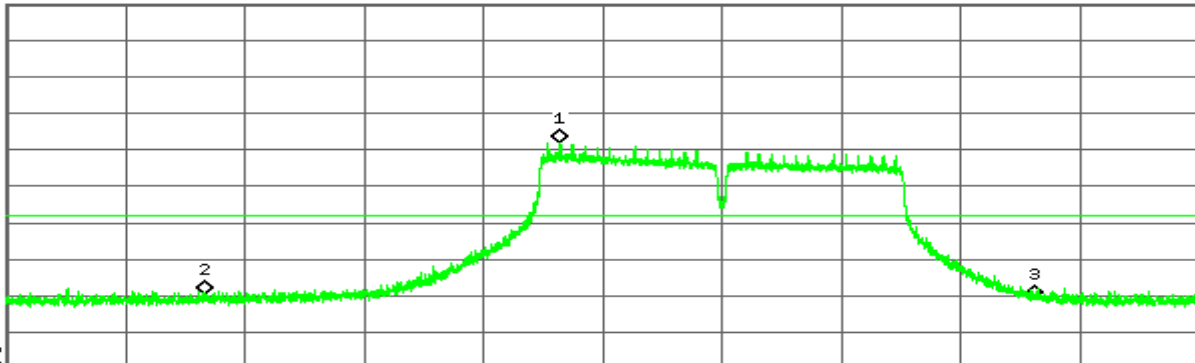
dB

DI

-23.2

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.435 744 GHz | -3.21 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -44.46 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -45.89 dBm |

* Agilent

R T

Mkr1 846.52 MHz
-44.80 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

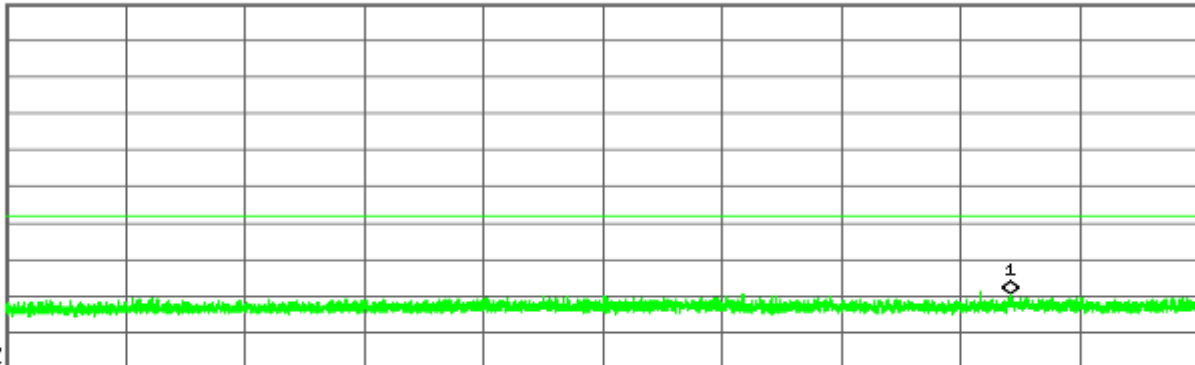
dB

DI

-23.2

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 846.52 MHz | -44.80 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

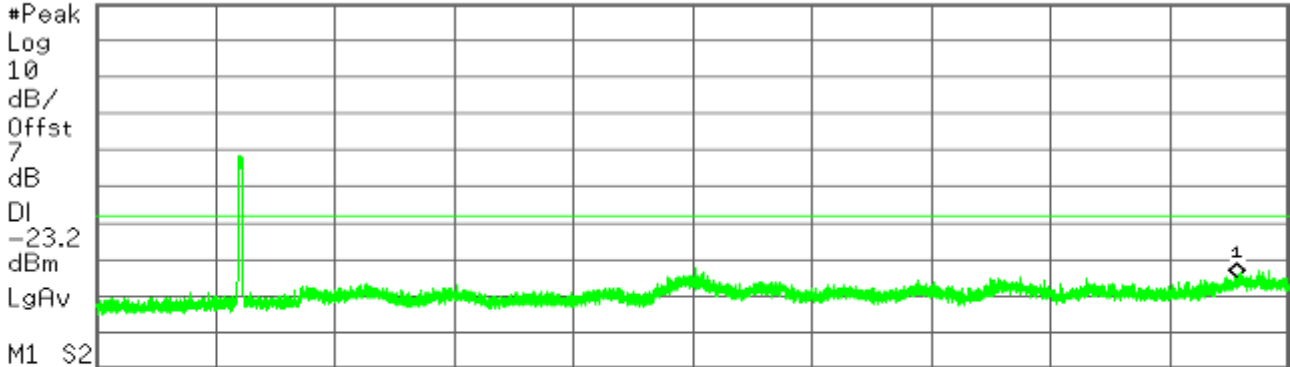
Agilent

R T

Mkr1 12.466 7 GHz
-39.83 dBm

Ref 35 dBm

Atten 40 dB



M1 S2
Start 1.000 0 GHz

Stop 13.000 0 GHz
Sweep 1.147 s (8192 pts)

*Res BW 100 kHz

*VBW 300 kHz

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 12.466 7 GHz | -39.83 dBm |

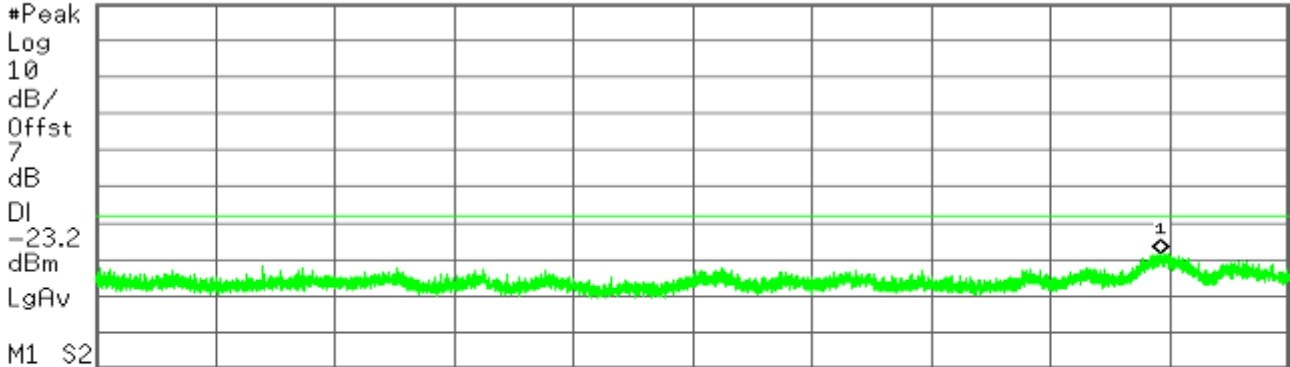
Agilent

R T

Mkr1 24.603 3 GHz
-33.22 dBm

Ref 35 dBm

Atten 40 dB



Center 19.500 0 GHz

Span 13 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.603 3 GHz | -33.22 dBm |

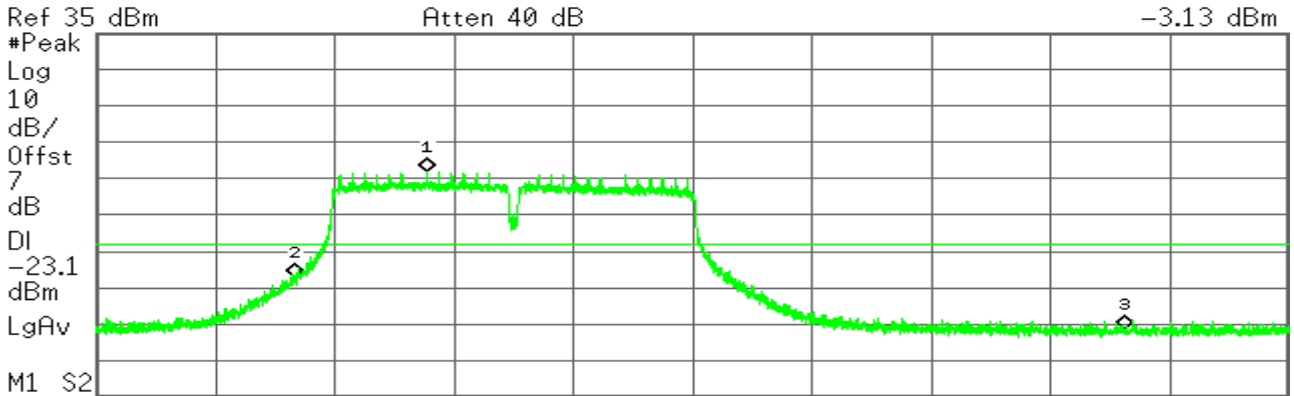


draft 802.11n wide-40 MHz Channel mode / Chain 1

CH Low

Agilent

R T

Mkr1 2.413 241 GHz
-3.13 dBm

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

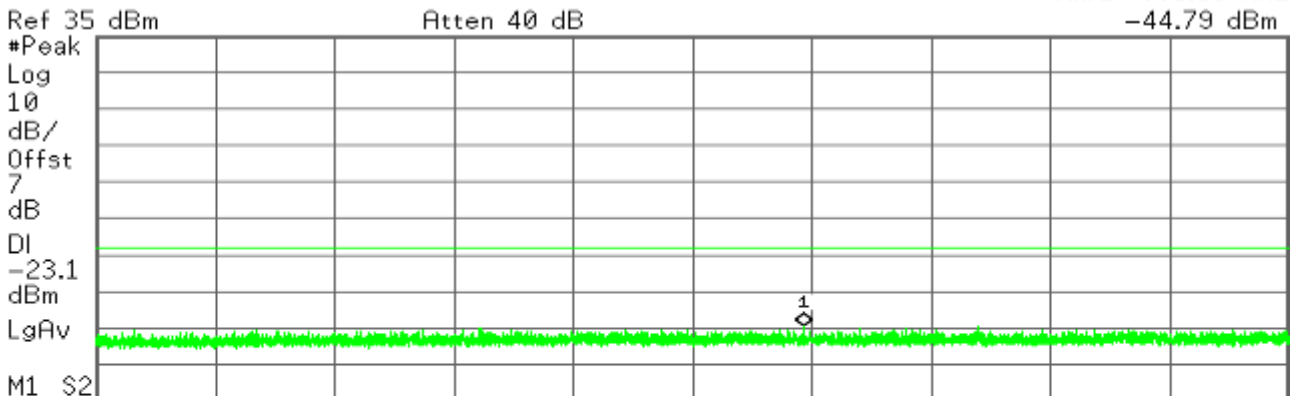
#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.413 241 GHz | -3.13 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -32.30 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -46.46 dBm |

Agilent

R T

Mkr1 605.53 MHz
-44.79 dBm

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 605.53 MHz | -44.79 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

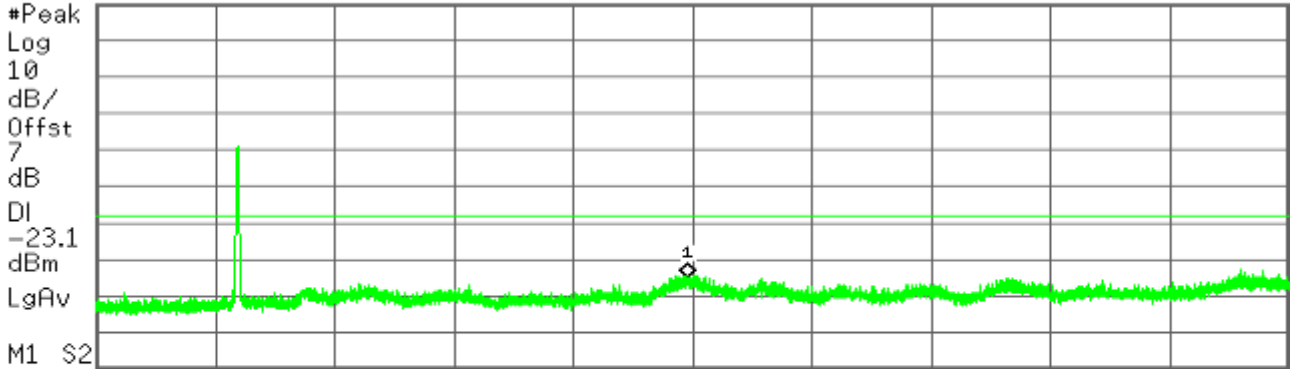
Agilent

R T

Mkr1 6.953 9 GHz
-40.04 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.953 9 GHz | -40.04 dBm |

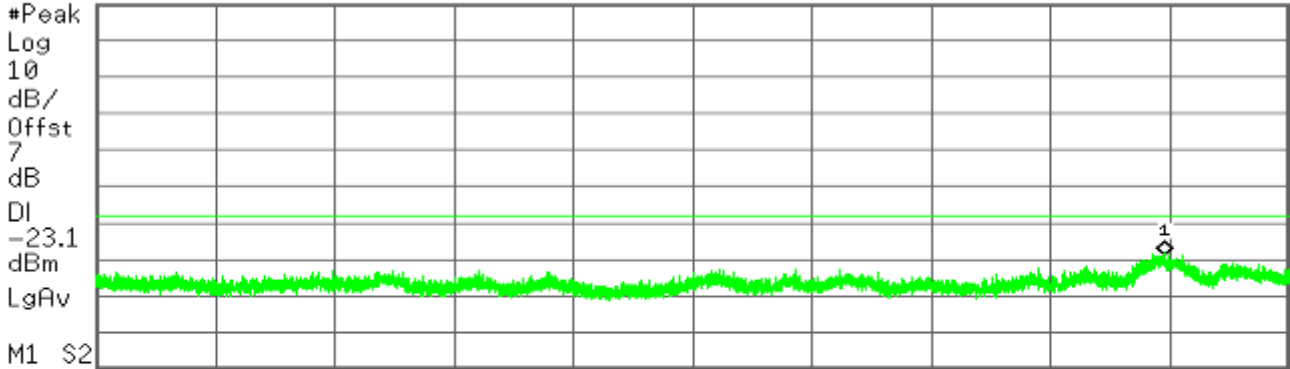
Agilent

R T

Mkr1 24.638 3 GHz
-33.95 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.638 3 GHz | -33.95 dBm |



CH Mid

* Agilent

R T

Mkr1 2.422 002 GHz
-2.56 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

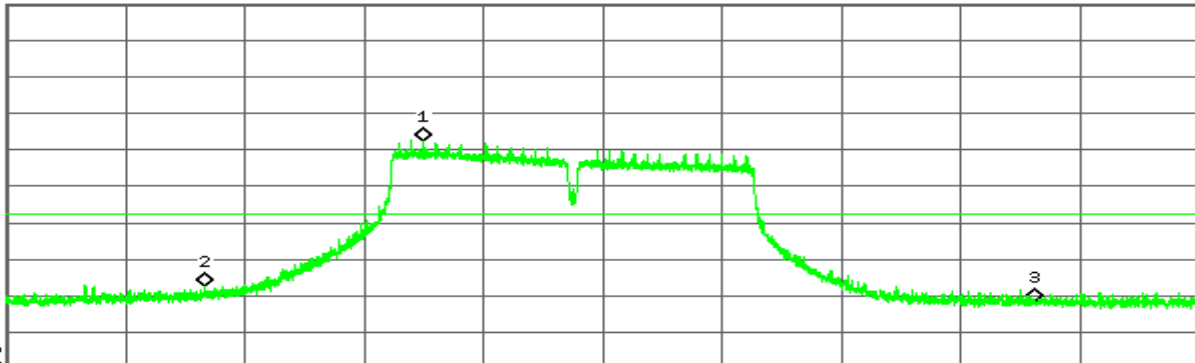
dB

DI

-22.6

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.422 002 GHz | -2.56 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -42.65 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -46.93 dBm |

* Agilent

R T

Mkr1 225.52 MHz
-44.60 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

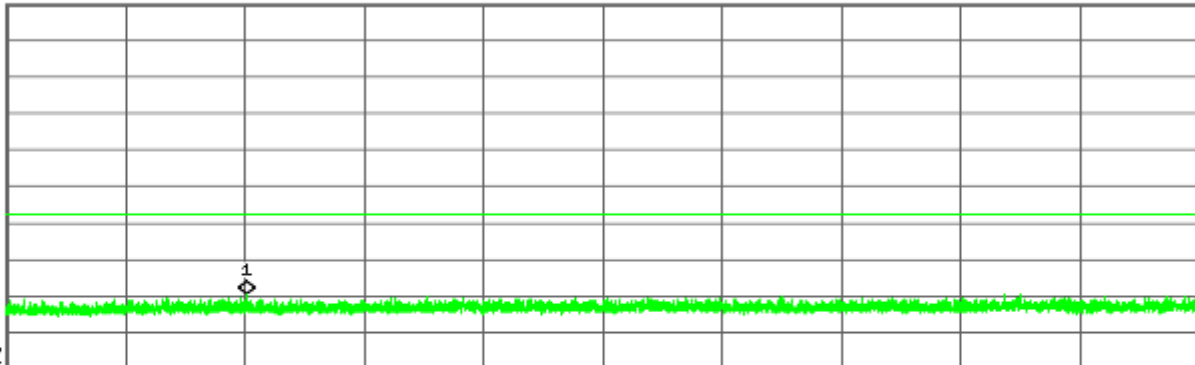
dB

DI

-22.6

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 225.52 MHz | -44.60 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

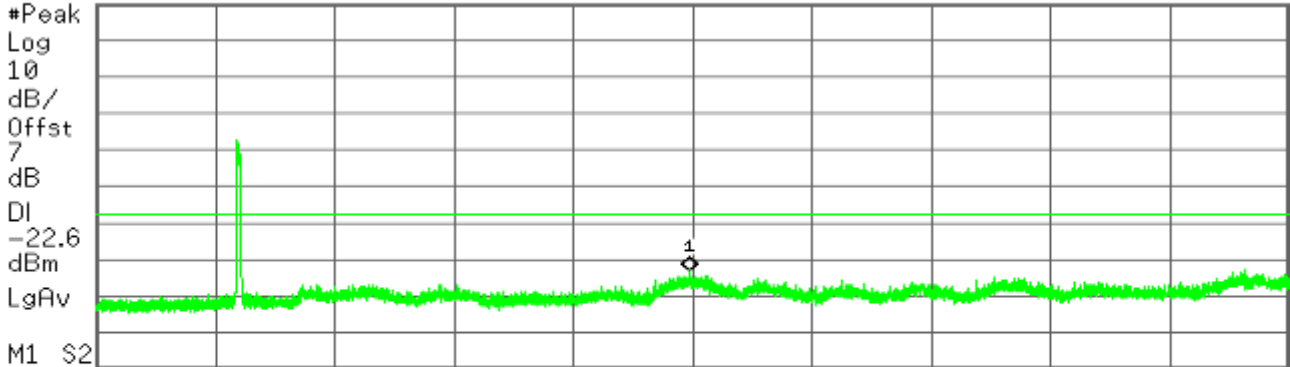
Agilent

R T

Mkr1 6.974 4 GHz
-38.35 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.974 4 GHz | -38.35 dBm |

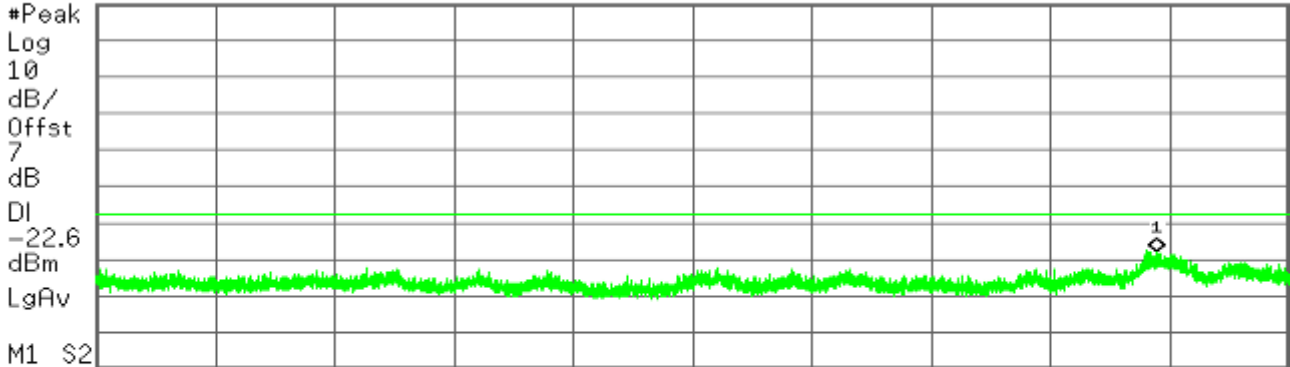
Agilent

R T

Mkr1 24.560 5 GHz
-32.97 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.560 5 GHz | -32.97 dBm |



CH High

* Agilent

R T

Mkr1 2.437 004 GHz
-2.57 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

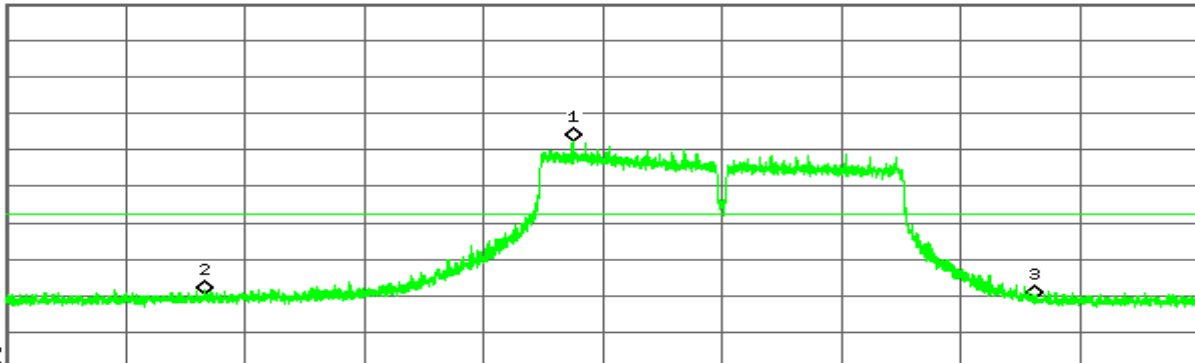
dB

DI

-22.6

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.437 004 GHz | -2.57 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -44.61 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -46.07 dBm |

* Agilent

R T

Mkr1 974.89 MHz
-44.39 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

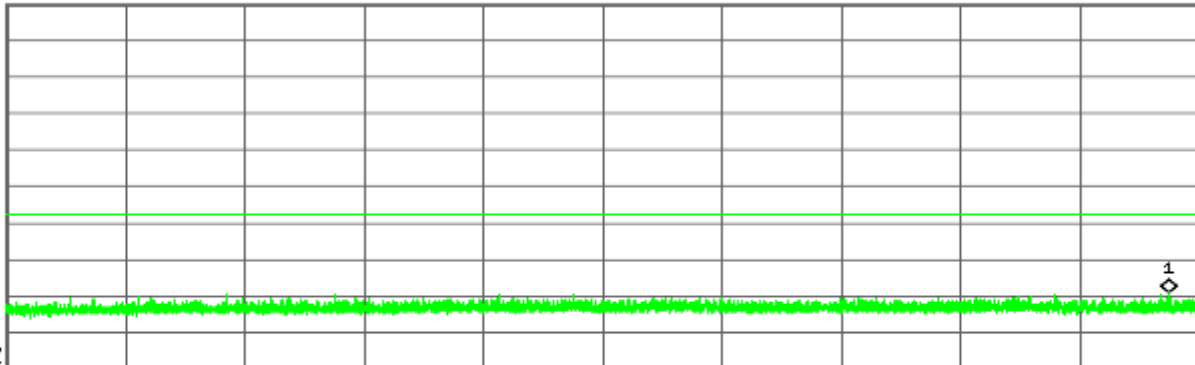
dB

DI

-22.6

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 974.89 MHz | -44.39 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Agilent

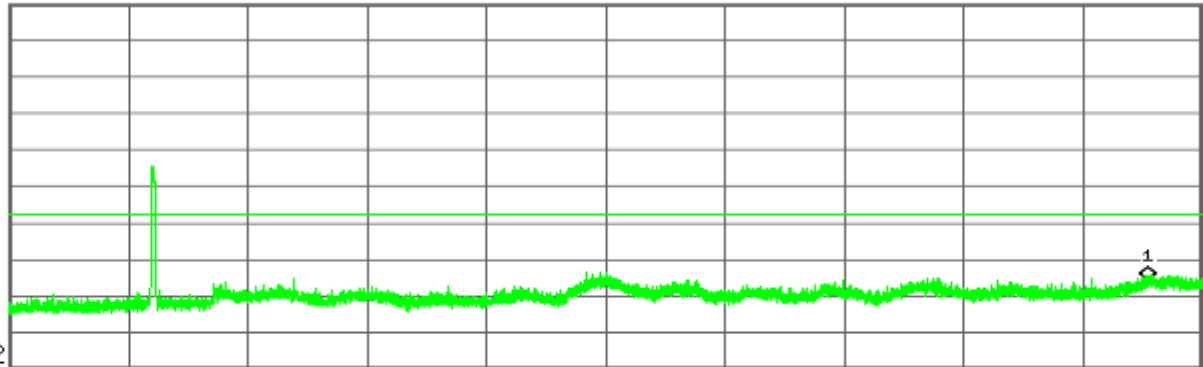
R T

Mkr1 12.446 2 GHz
-40.85 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-22.6
dBm
LgAv



M1 S2

Center 7.000 0 GHz

Span 12 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 12.446 2 GHz | -40.85 dBm |

Agilent

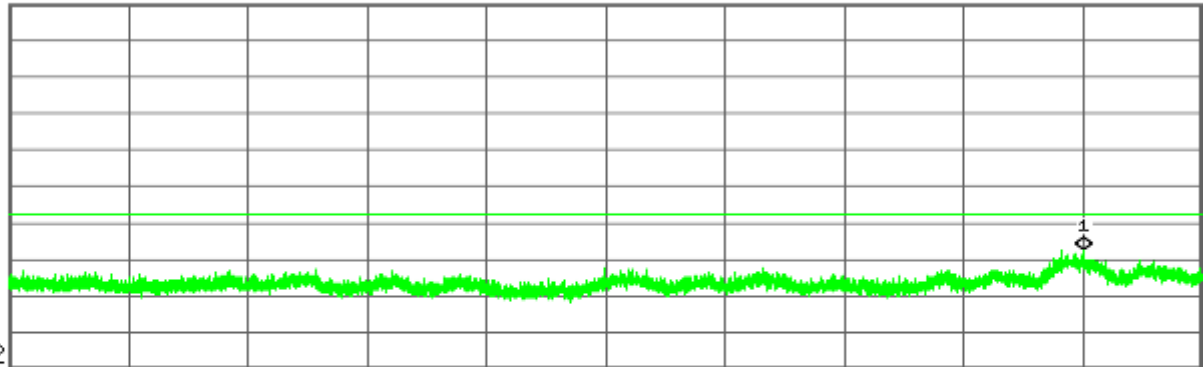
R T

Mkr1 24.703 3 GHz
-32.51 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-22.6
dBm
LgAv



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.703 3 GHz | -32.51 dBm |

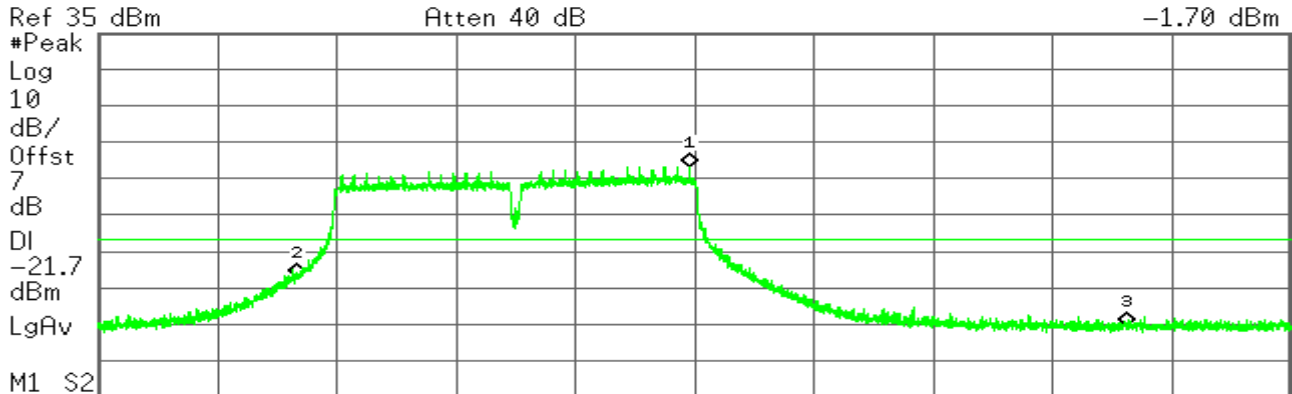


draft 802.11n wide-40 MHz Channel mode / Chain 2

CH Low

* Agilent

R T

Mkr1 2.439 495 GHz
-1.70 dBm

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

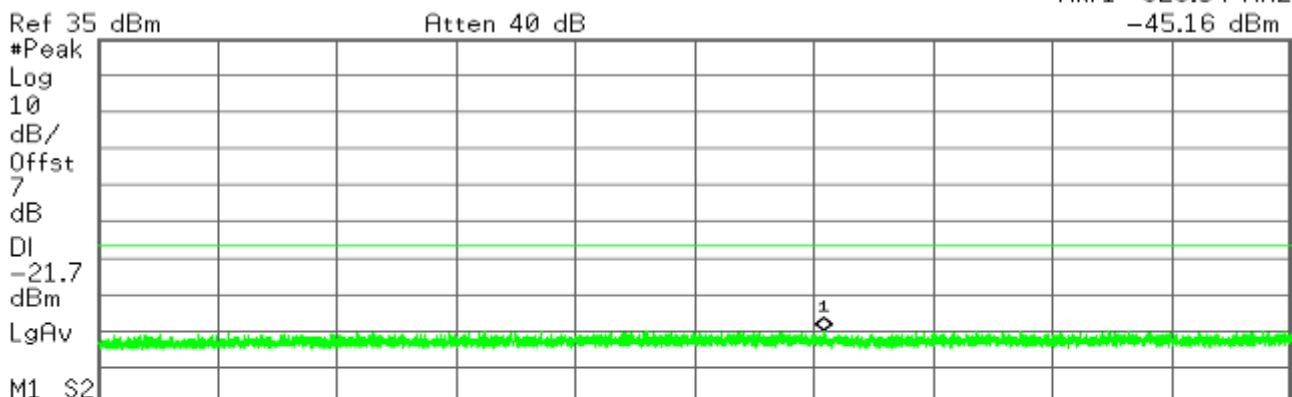
#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.439 495 GHz | -1.70 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -32.00 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -45.66 dBm |

* Agilent

R T

Mkr1 620.34 MHz
-45.16 dBm

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 620.34 MHz | -45.16 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Agilent

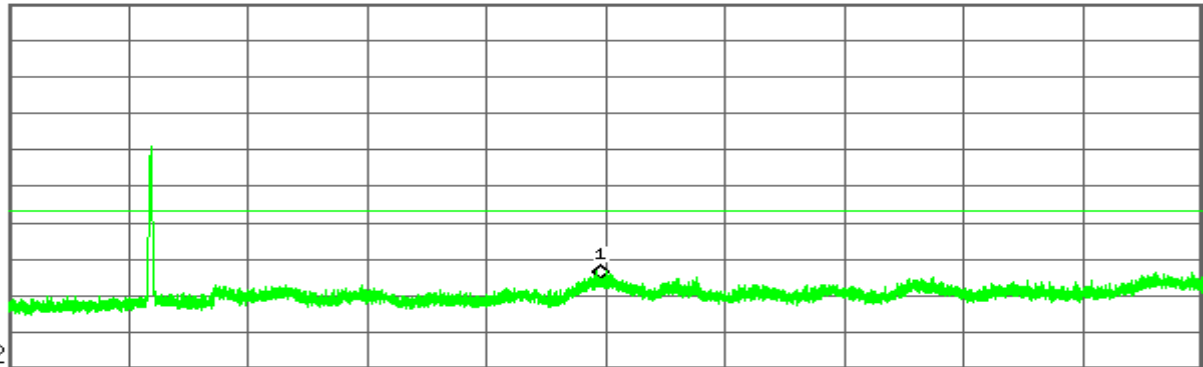
R T

Mkr1 6.950 9 GHz
-40.36 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-21.7
dBm
LgAv



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.950 9 GHz | -40.36 dBm |

Agilent

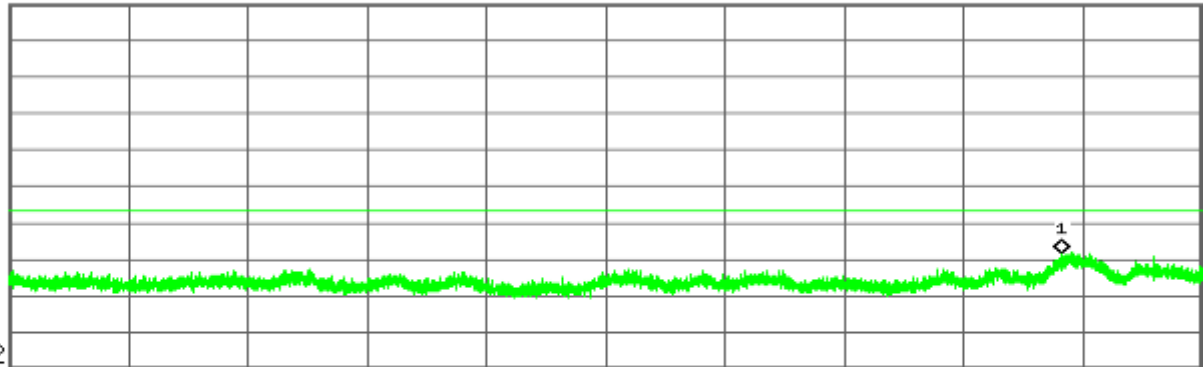
R T

Mkr1 24.462 1 GHz
-33.29 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-21.7
dBm
LgAv



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.462 1 GHz | -33.29 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

CH Mid

Agilent

R T

Mkr1 2.454 496 GHz
-2.21 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

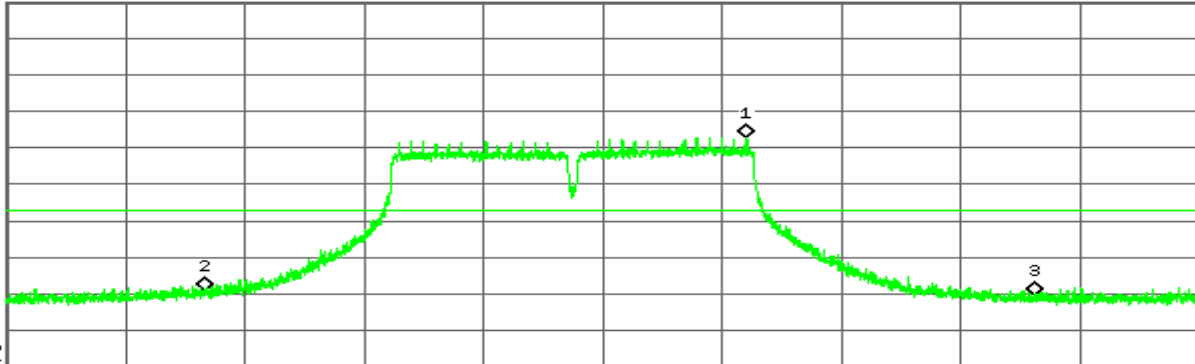
dB

DI

-22.2

dBm

LgAv



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.454 496 GHz | -2.21 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -44.20 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -45.60 dBm |

Agilent

R T

Mkr1 473.49 MHz
-45.09 dBm

Ref 35 dBm

Atten 40 dB

#Peak

Log

10

dB/

Offst

7

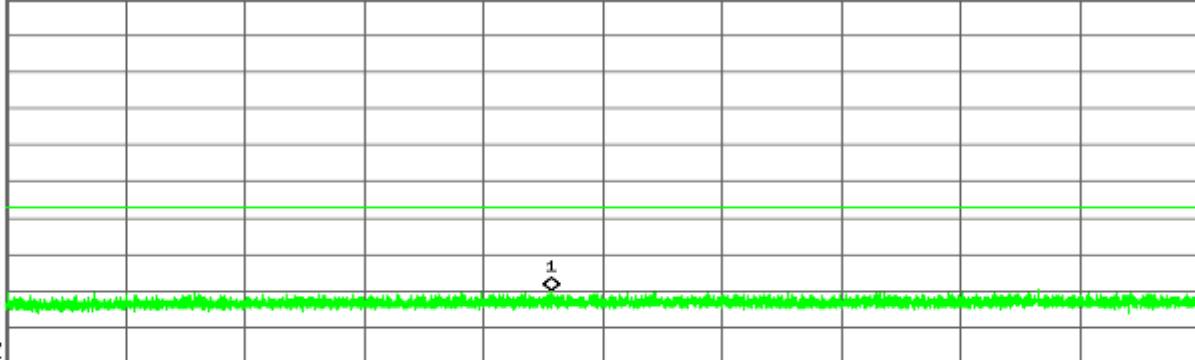
dB

DI

-22.2

dBm

LgAv



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 473.49 MHz | -45.09 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

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Date of Issue : November 25, 2014

Agilent

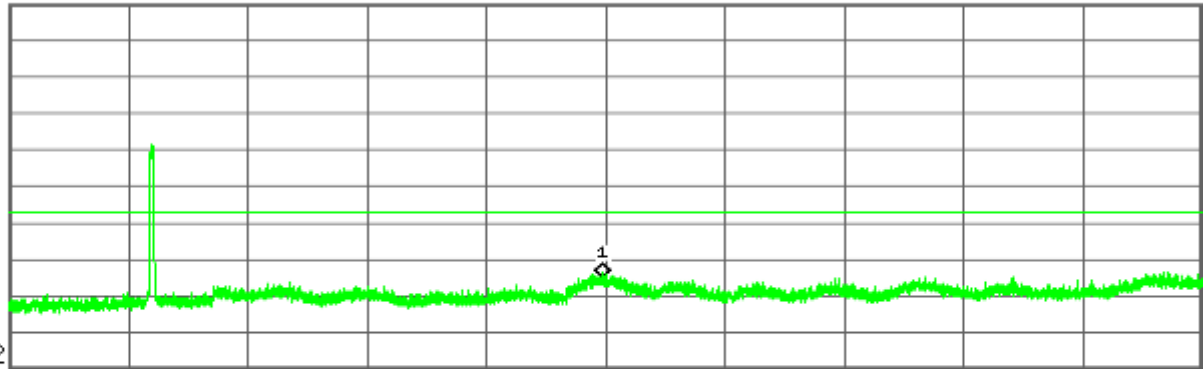
R T

Mkr1 6.961 2 GHz
-39.97 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-22.2
dBm
LgAv



M1 S2

Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.961 2 GHz | -39.97 dBm |

Agilent

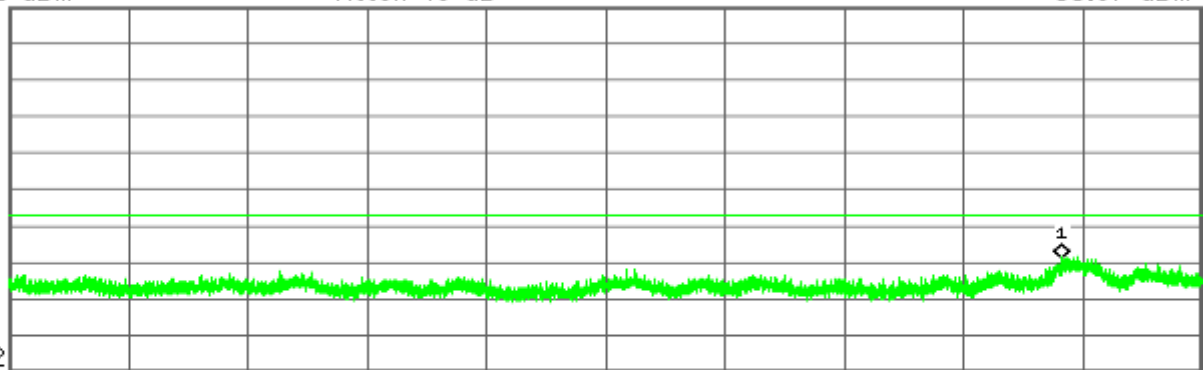
R T

Mkr1 24.466 9 GHz
-33.87 dBm

Ref 35 dBm

Atten 40 dB

#Peak
Log
10
dB/
Offst
7
dB
DI
-22.2
dBm
LgAv



M1 S2

Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.466 9 GHz | -33.87 dBm |



CH High

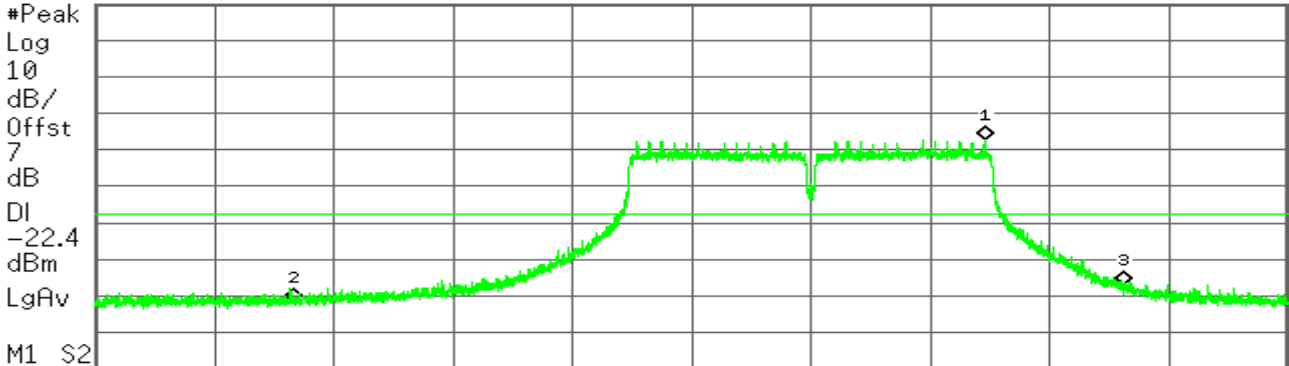
Agilent

R T

Mkr1 2.469 498 GHz
-2.38 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 2.380 000 GHz

Stop 2.500 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 11.47 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|---------------|------------|
| 1 | (1) | Freq | 2.469 498 GHz | -2.38 dBm |
| 2 | (1) | Freq | 2.400 000 GHz | -46.82 dBm |
| 3 | (1) | Freq | 2.483 500 GHz | -42.25 dBm |

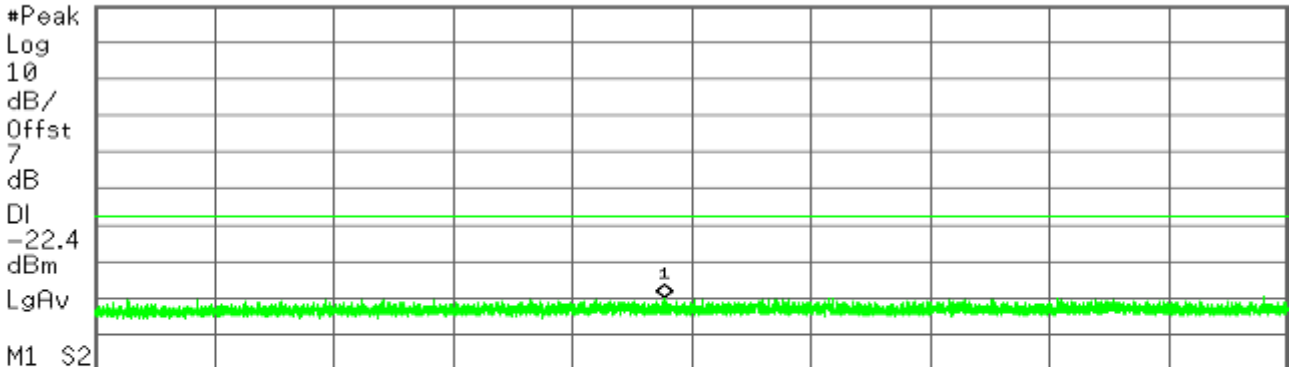
Agilent

R T

Mkr1 492.80 MHz
-44.95 dBm

Ref 35 dBm

Atten 40 dB



M1 S2

Start 30.00 MHz

Stop 1.000 00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 92.83 ms (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|------------|------------|
| 1 | (1) | Freq | 492.80 MHz | -44.95 dBm |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

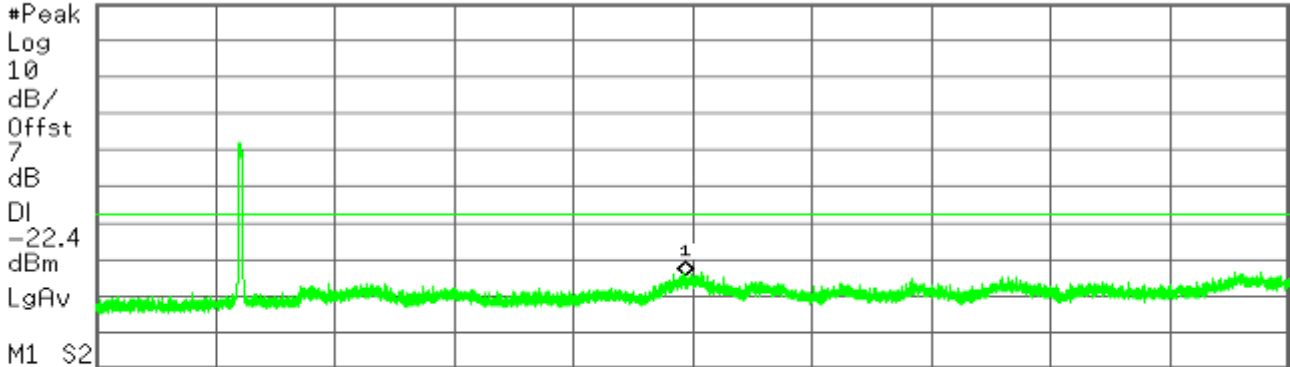
Agilent

R T

Mkr1 6.924 6 GHz
-39.38 dBm

Ref 35 dBm

Atten 40 dB



M1 S2
Start 1.000 0 GHz

Stop 13.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.147 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|-------------|------------|
| 1 | (1) | Freq | 6.924 6 GHz | -39.38 dBm |

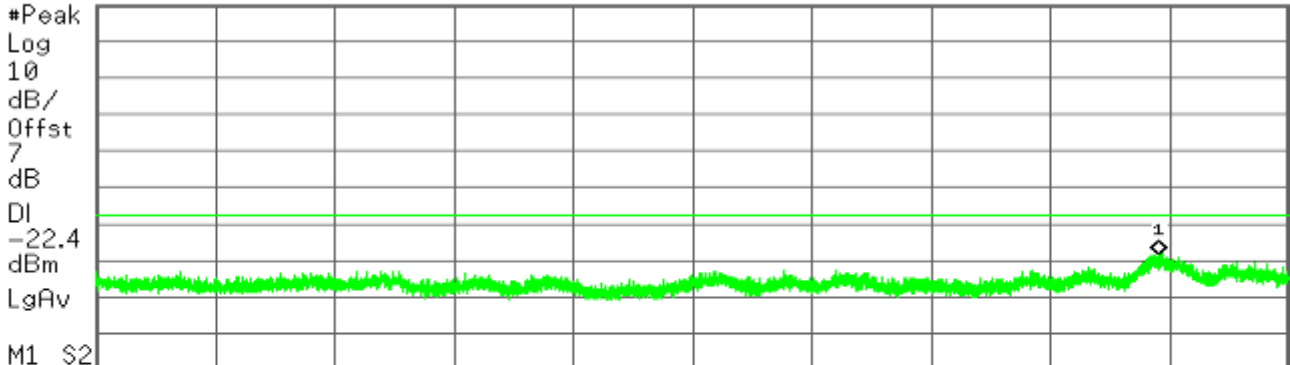
Agilent

R T

Mkr1 24.578 0 GHz
-33.56 dBm

Ref 35 dBm

Atten 40 dB



M1 S2
Start 13.000 0 GHz

Stop 26.000 0 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.243 s (8192 pts)

| Marker | Trace | Type | X Axis | Amplitude |
|--------|-------|------|--------------|------------|
| 1 | (1) | Freq | 24.578 0 GHz | -33.56 dBm |



4.5.RADIATED EMISSIONS

LIMIT

Radiated emissions from 9 kHz to 25 GHz were measured according to the methods defines in ANSI C63.4-2009. The EUT was placed, 0.8 meter above the ground plane, as shown in section 5.6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions

1. According to §15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

| FREQUENCIES(MHz) | FIELD STRENGTH (microvolts/meter) | MEASUREMENT DISTANCE(meters) |
|------------------|--------------------------------------|---------------------------------|
| 0.009~0.490 | 2400/F(kHz) | 300 |
| 0.490~1.705 | 24000/F(kHz) | 30 |
| 1.705~30.0 | 30 | 30 |
| 30~88 | 100 | 3 |
| 88~216 | 150 | 3 |
| 216~960 | 200 | 3 |
| Above 960 | 500 | 3 |

Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

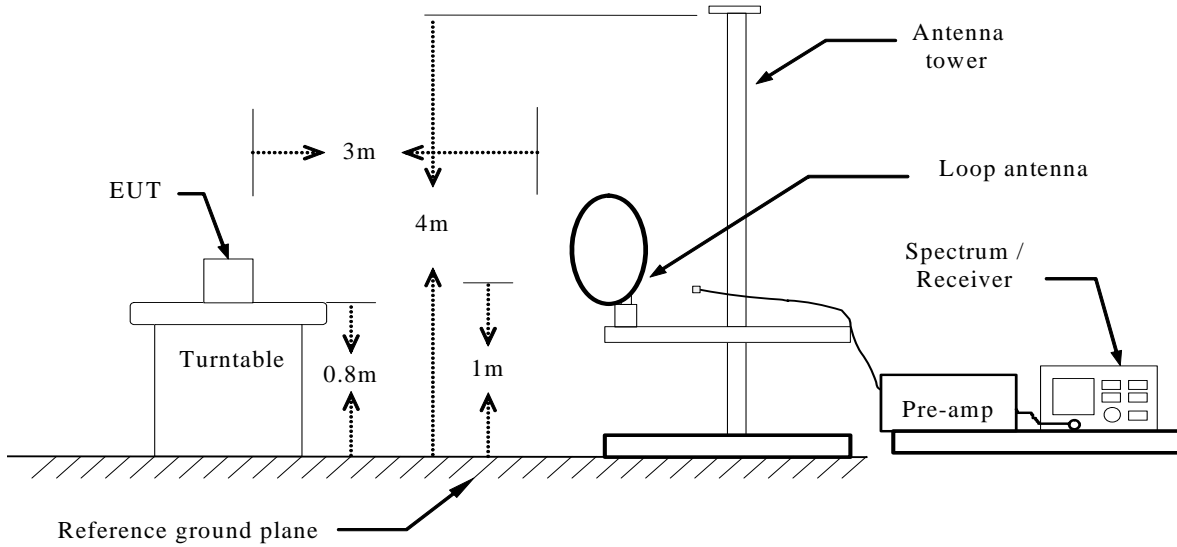
2. In the emission table above, the tighter limit applies at the band edges.

| Frequency (MHz) | Field Strength (μ V/m at 3-meter) | Field Strength (dB μ V/m at 3-meter) |
|--------------------|---|---|
| 30-88 | 100 | 40 |
| 88-216 | 150 | 43.5 |
| 216-960 | 200 | 46 |
| Above 960 | 500 | 54 |

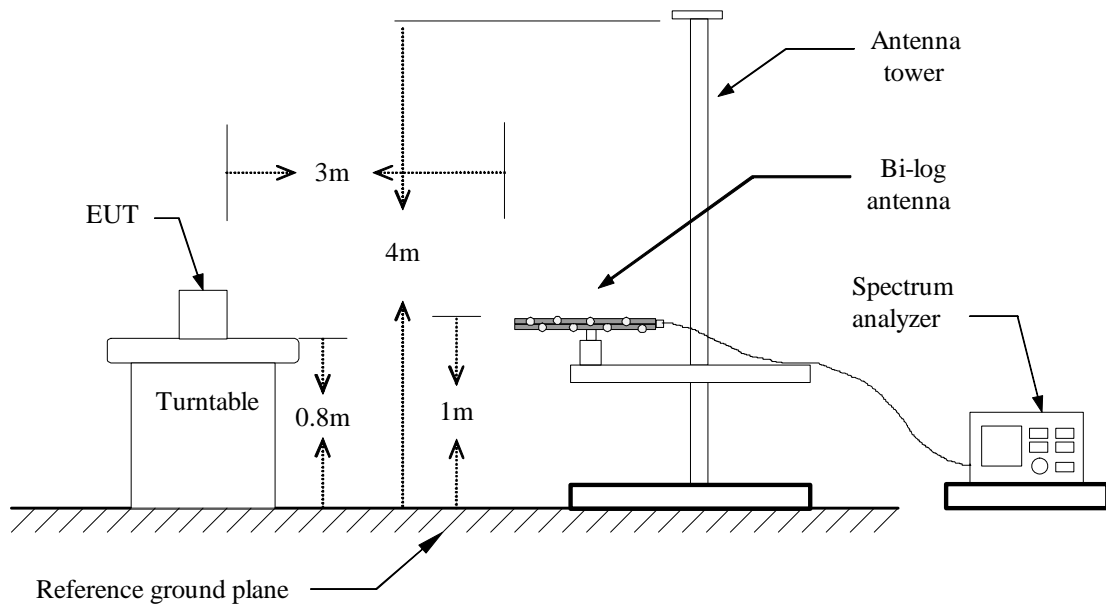


Test Configuration

Below 30MHz

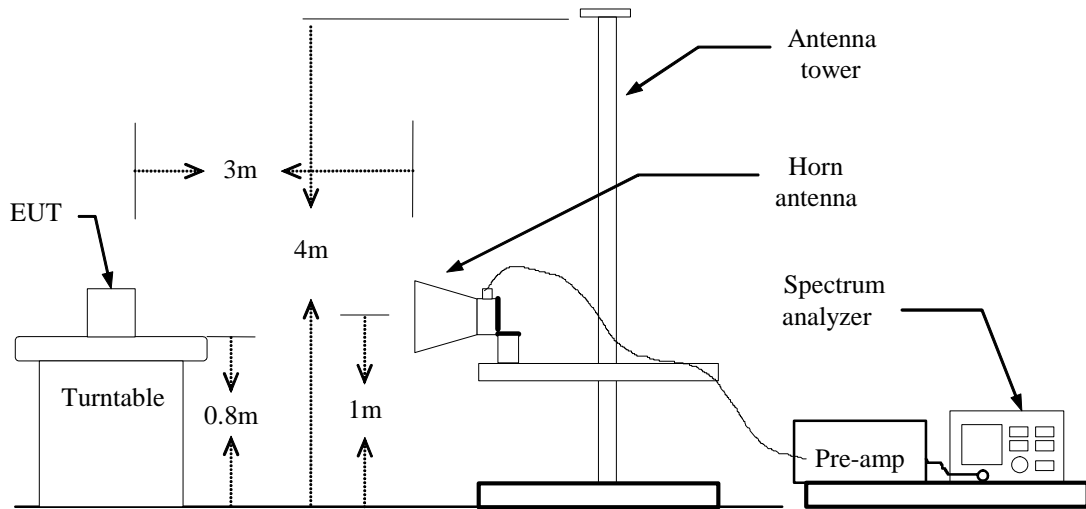


Below 1 GHz





Above 1 GHz



TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:

Below 1GHz:

RBW=100kHz / VBW=300kHz / Sweep=AUTO

Above 1GHz:

(a) PEAK: RBW=VBW=1MHz / Sweep=AUTO

(b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO

7. Repeat above procedures until the measurements for all frequencies are complete.

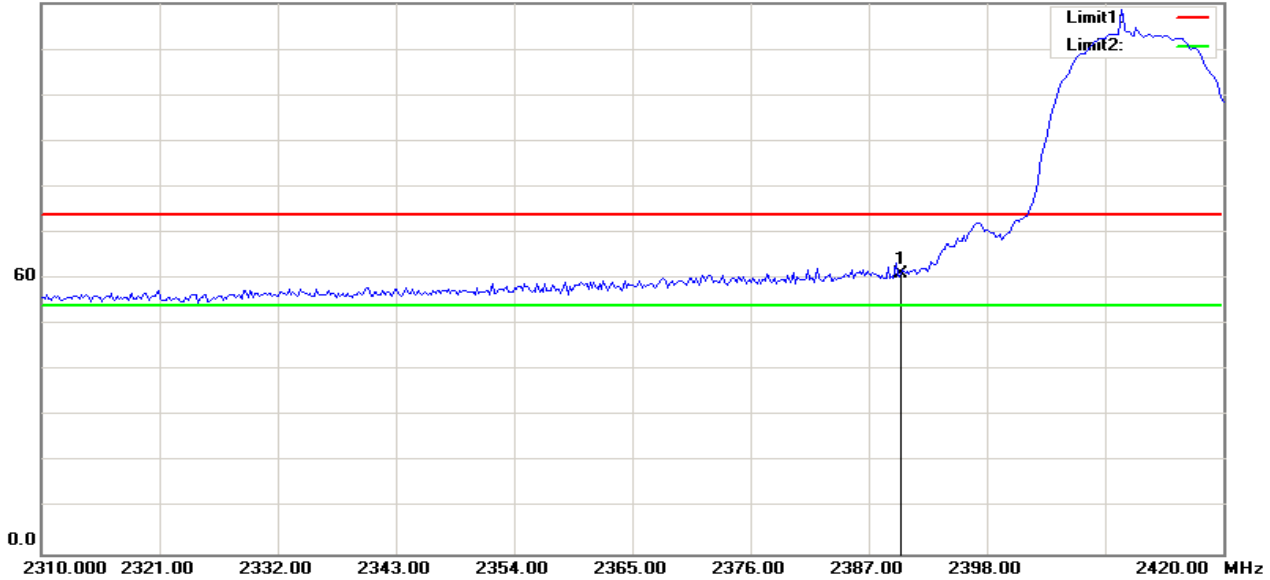
TEST RESULTS



RESTRICTED BANDEDGE (b Mode, Low Channel, Horizontal)

PEAK

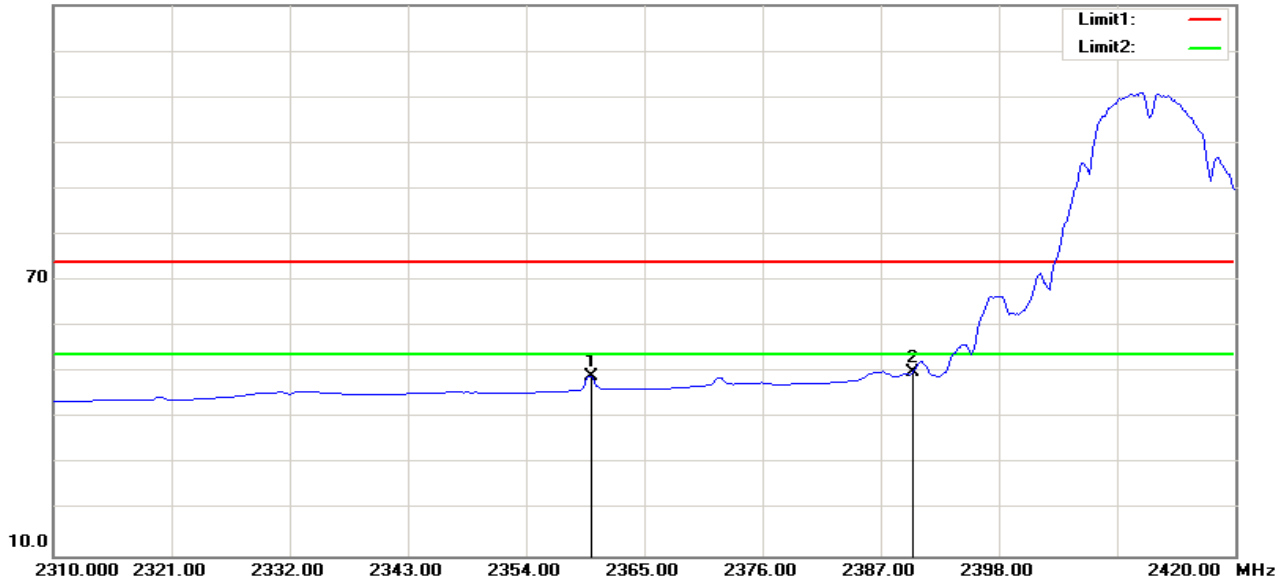
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 70.52 | -9.42 | 61.10 | 74.00 | -12.90 | 100 | 54 | peak |

AVG

130.0 dBuV/m



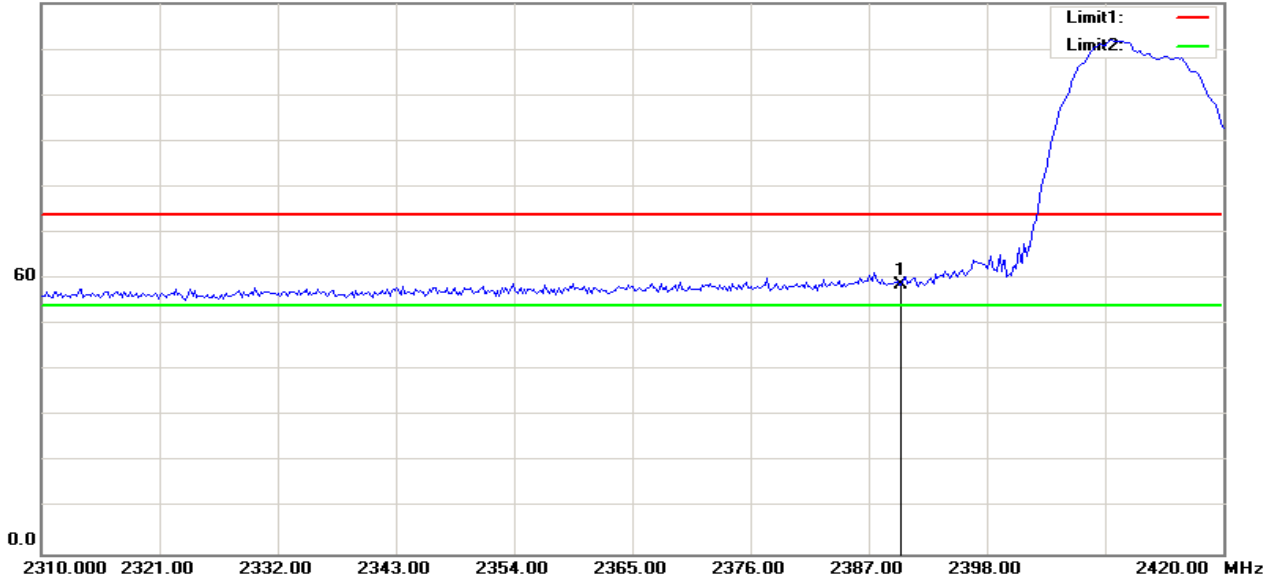
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2360.064 | 58.86 | -9.58 | 49.28 | 54.00 | -4.72 | 100 | 45 | AVG |
| 2 | 2390.000 | 59.48 | -9.42 | 50.06 | 54.00 | -3.94 | 100 | 265 | AVG |



RESTRICTED BANDEDGE (b Mode, Low Channel, Vertical)

PEAK

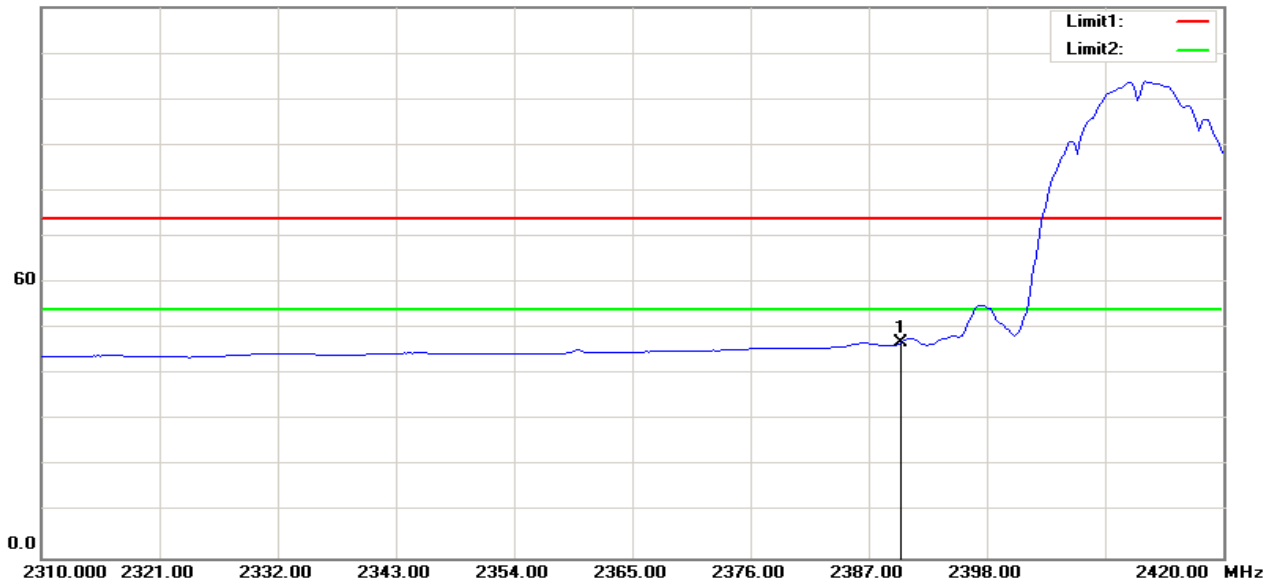
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 67.95 | -9.42 | 58.53 | 74.00 | -15.47 | 100 | 238 | peak |

AVG

120.0 dBuV/m



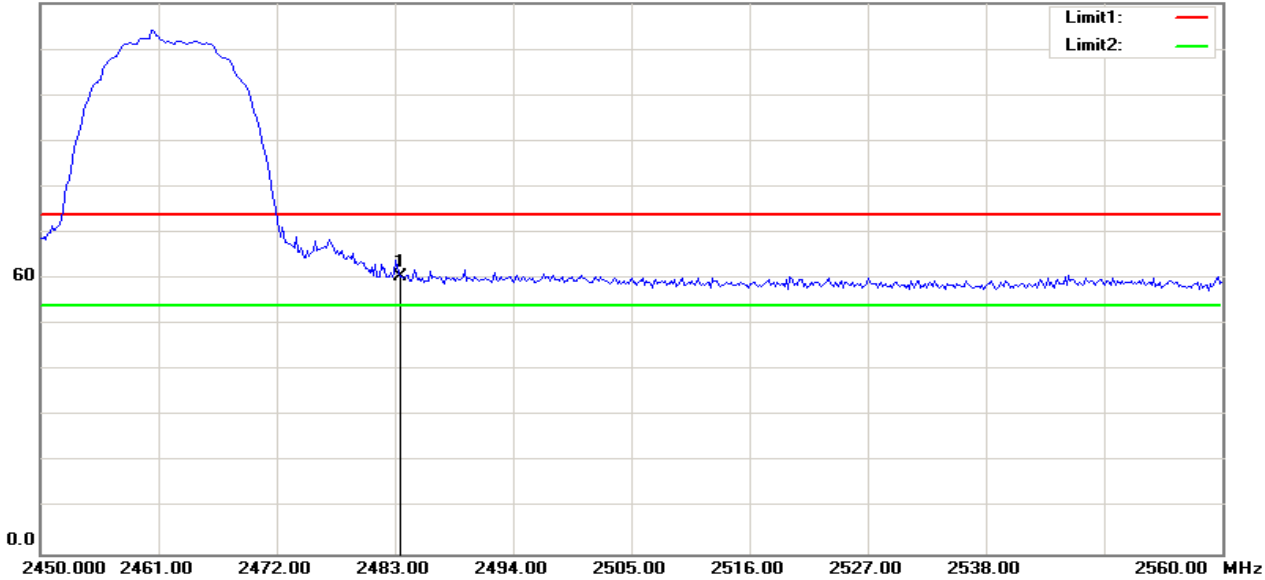
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 56.31 | -9.42 | 46.89 | 54.00 | -7.11 | 100 | 238 | AVG |



RESTRICTED BANDEDGE (b Mode, High Channel, Horizontal)

PEAK

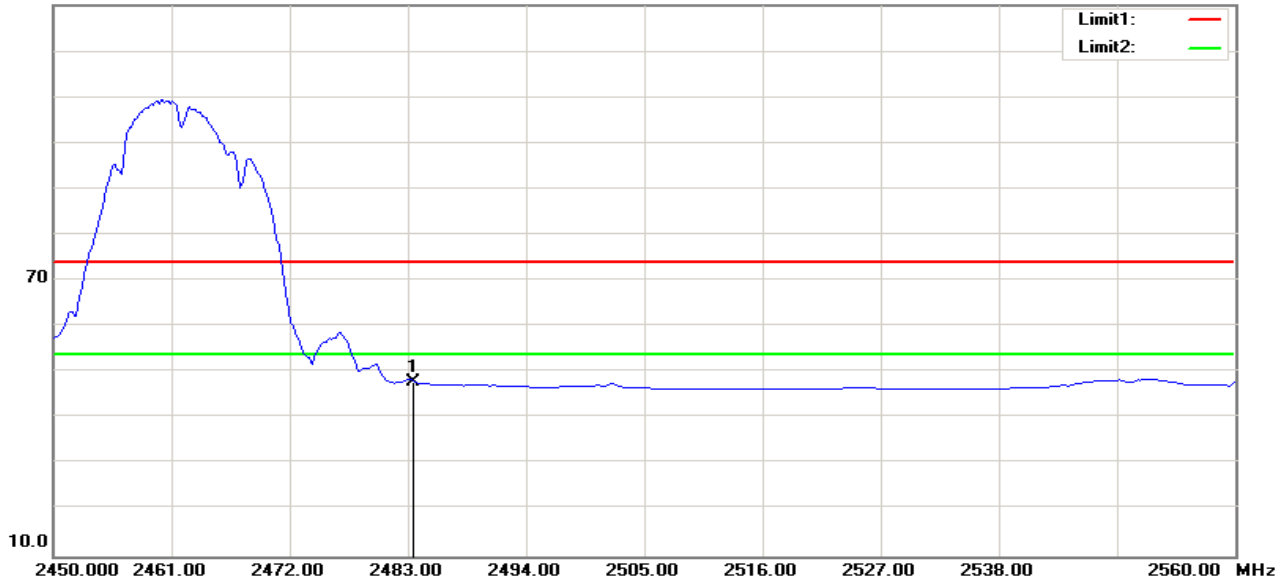
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 69.37 | -8.92 | 60.45 | 74.00 | -13.55 | 100 | 65 | peak |

AVG

130.0 dBuV/m



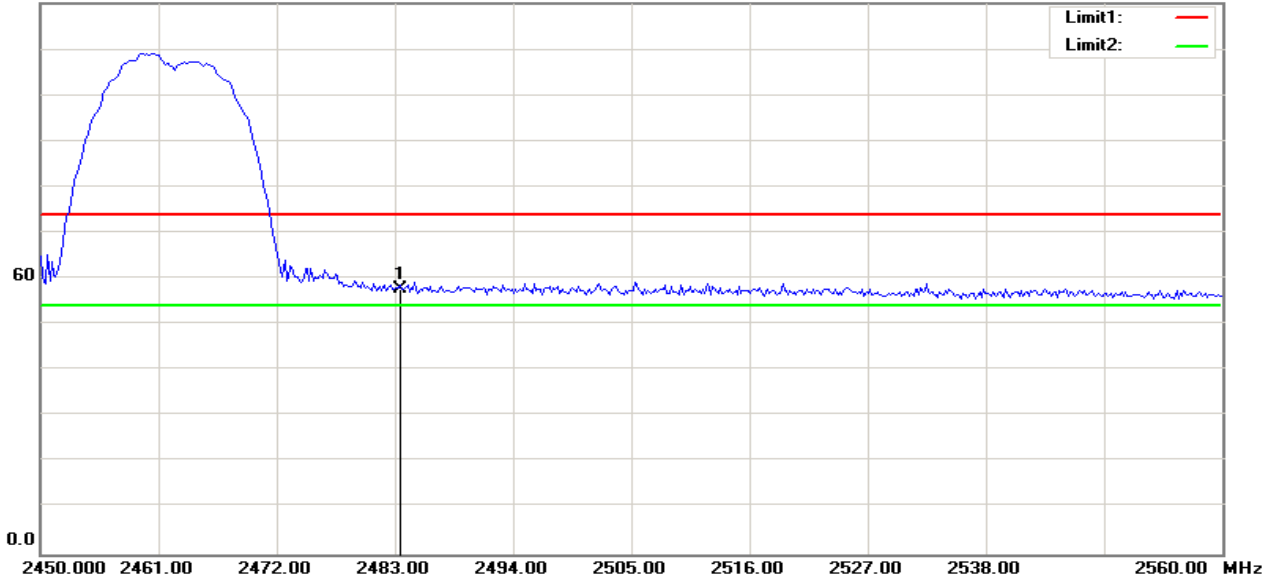
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 56.96 | -8.92 | 48.04 | 54.00 | -5.96 | 100 | 125 | AVG |



RESTRICTED BANDEDGE (b Mode, High Channel, Vertical)

PEAK

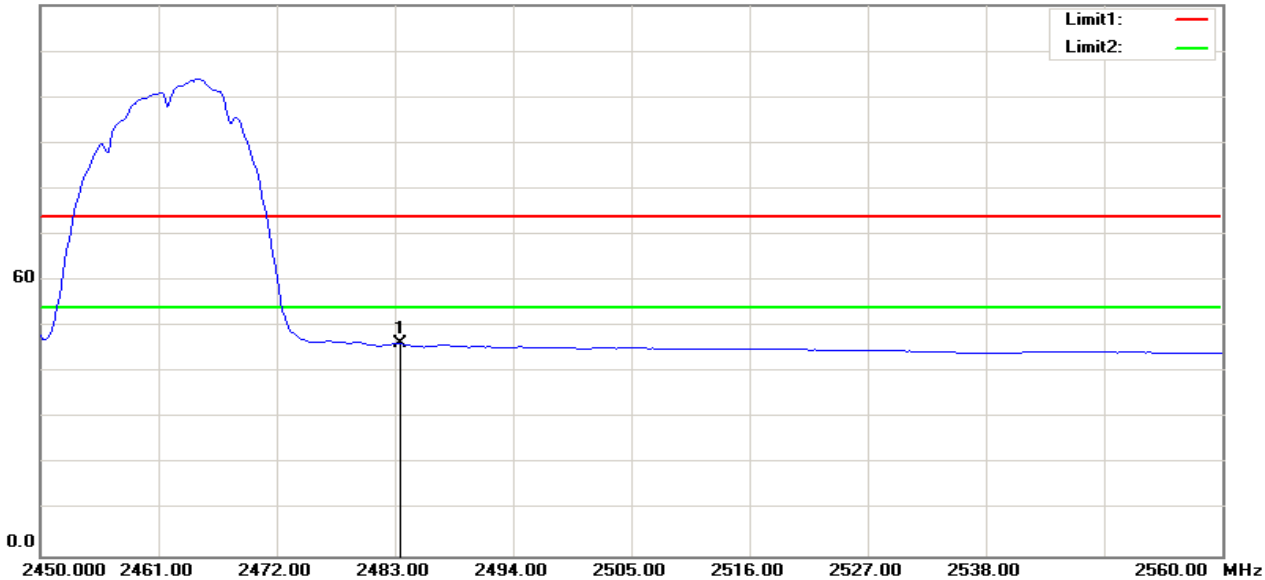
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 66.74 | -8.92 | 57.82 | 74.00 | -16.18 | 100 | 245 | peak |

AVG

120.0 dBuV/m



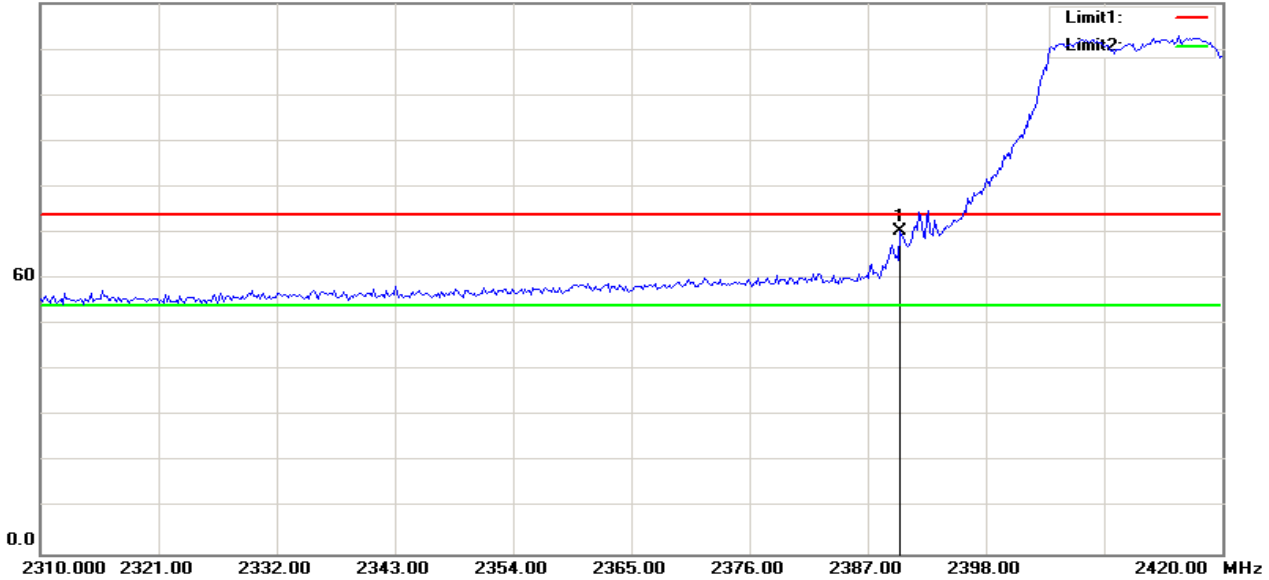
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 55.18 | -8.92 | 46.26 | 54.00 | -7.74 | 100 | 245 | AVG |



RESTRICTED BANDEDGE (g Mode, Low Channel, Horizontal)

PEAK

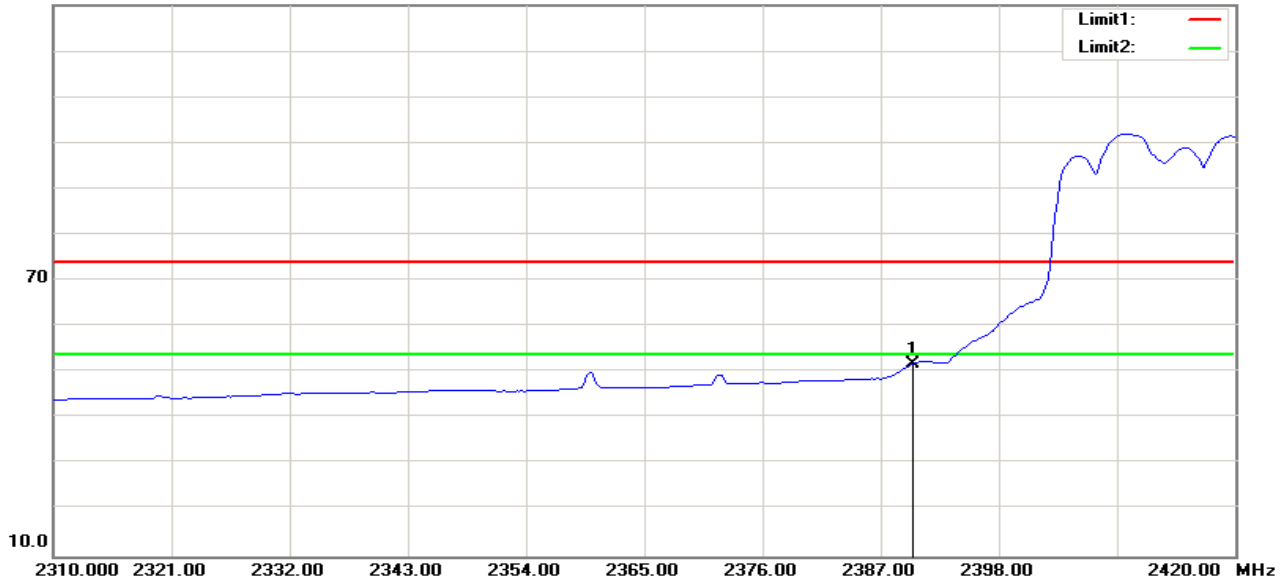
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 79.64 | -9.42 | 70.22 | 74.00 | -3.78 | 100 | 125 | peak |

AVG

130.0 dBuV/m



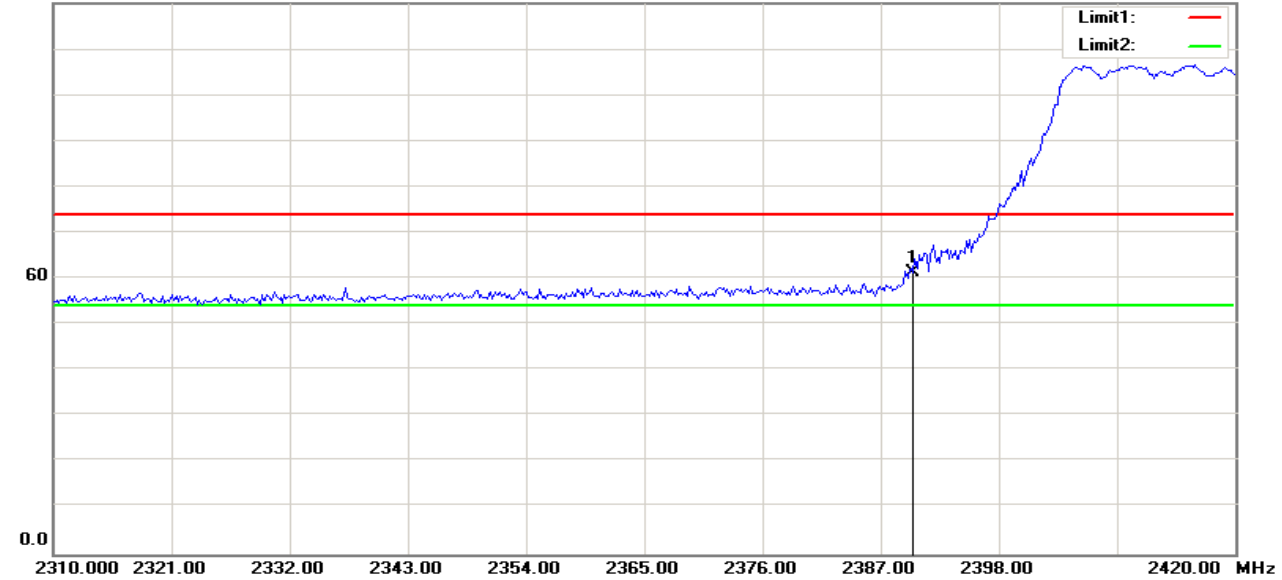
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 61.40 | -9.42 | 51.98 | 54.00 | -2.02 | 100 | 159 | AVG |



RESTRICTED BANDEDGE (g Mode, Low Channel, Vertical)

PEAK

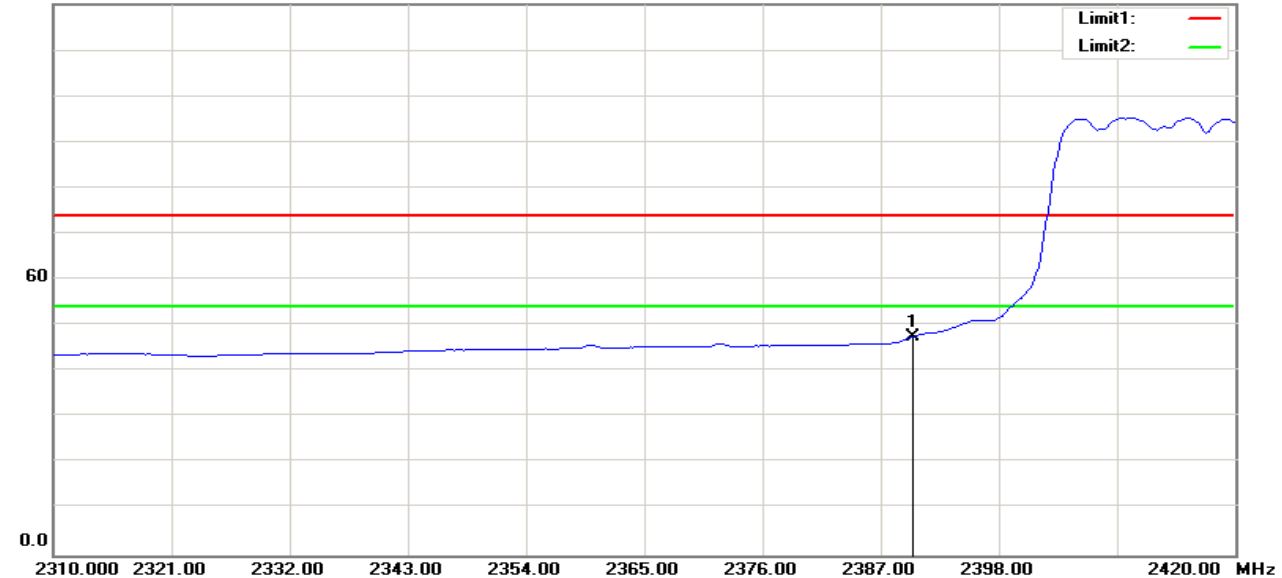
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 70.88 | -9.42 | 61.46 | 74.00 | -12.54 | 100 | 344 | peak |

AVG

120.0 dBuV/m



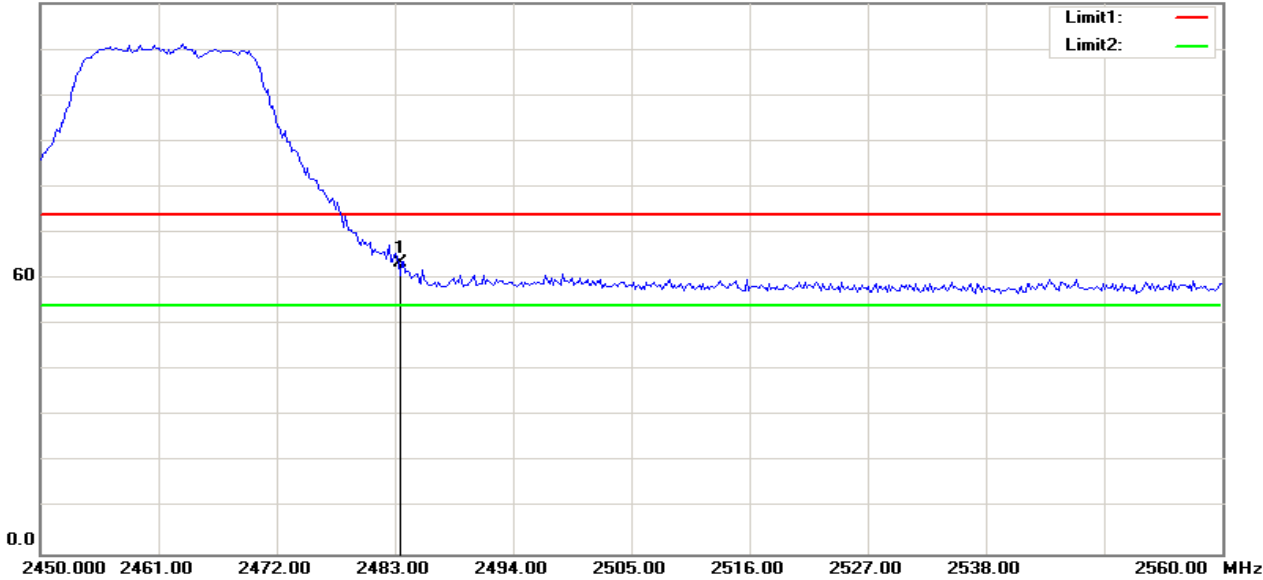
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 57.04 | -9.42 | 47.62 | 54.00 | -6.38 | 100 | 344 | AVG |



RESTRICTED BANDEDGE (g Mode, High Channel, Horizontal)

PEAK

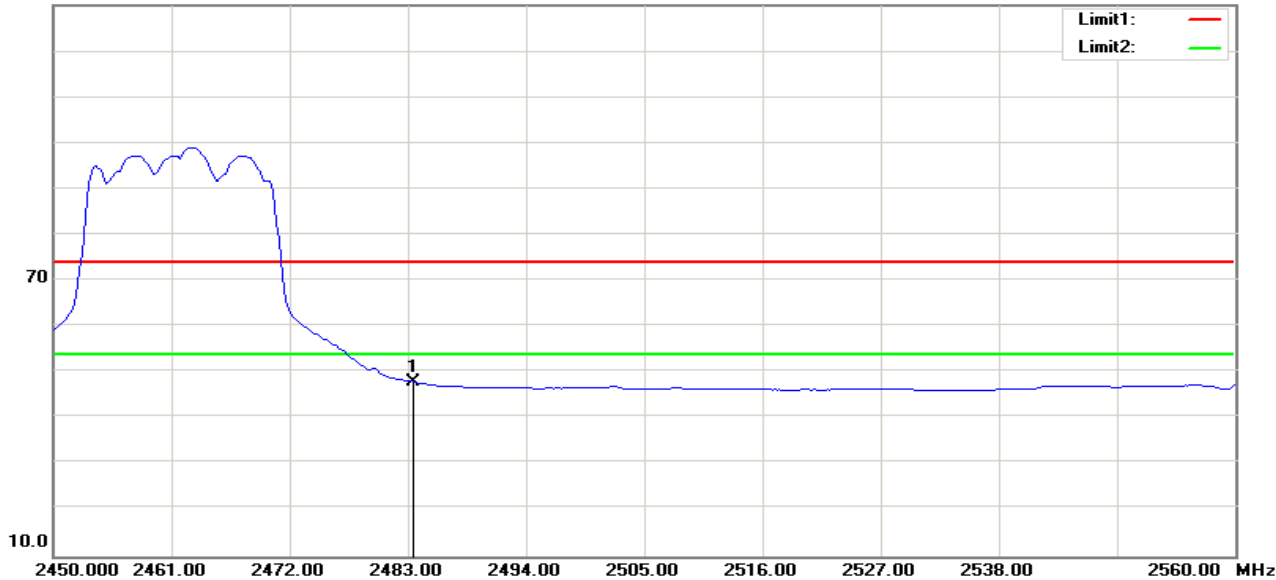
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 72.52 | -8.92 | 63.60 | 74.00 | -10.40 | 100 | 323 | peak |

AVG

130.0 dBuV/m



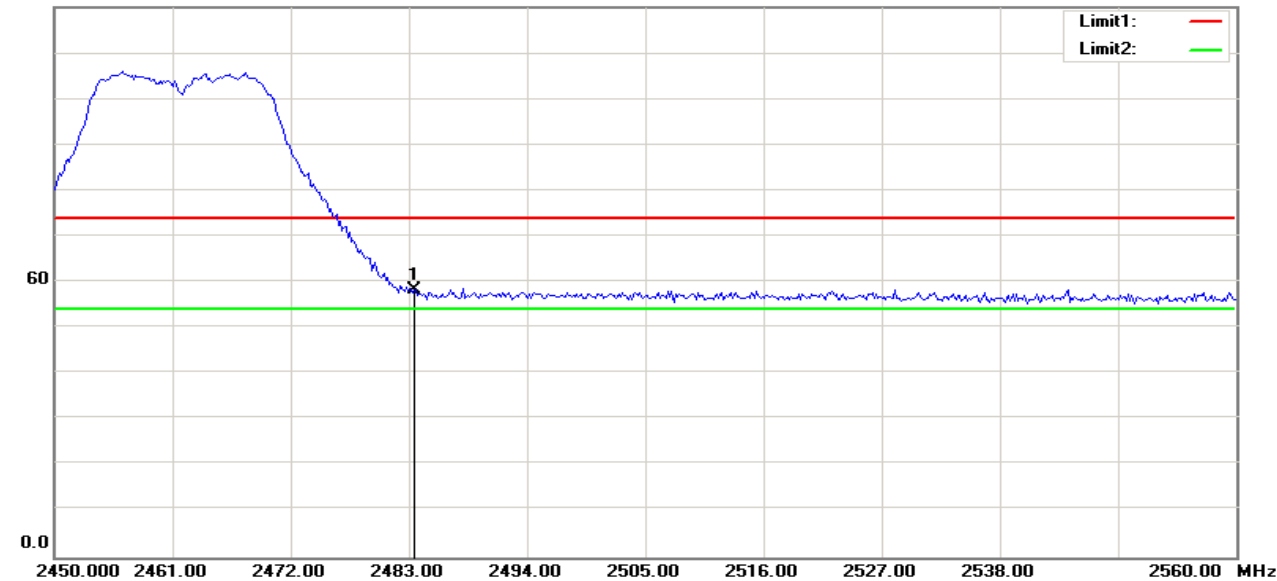
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 56.85 | -8.92 | 47.93 | 54.00 | -6.07 | 100 | 164 | AVG |



RESTRICTED BANDEDGE (g Mode, High Channel, Vertical)

Peak

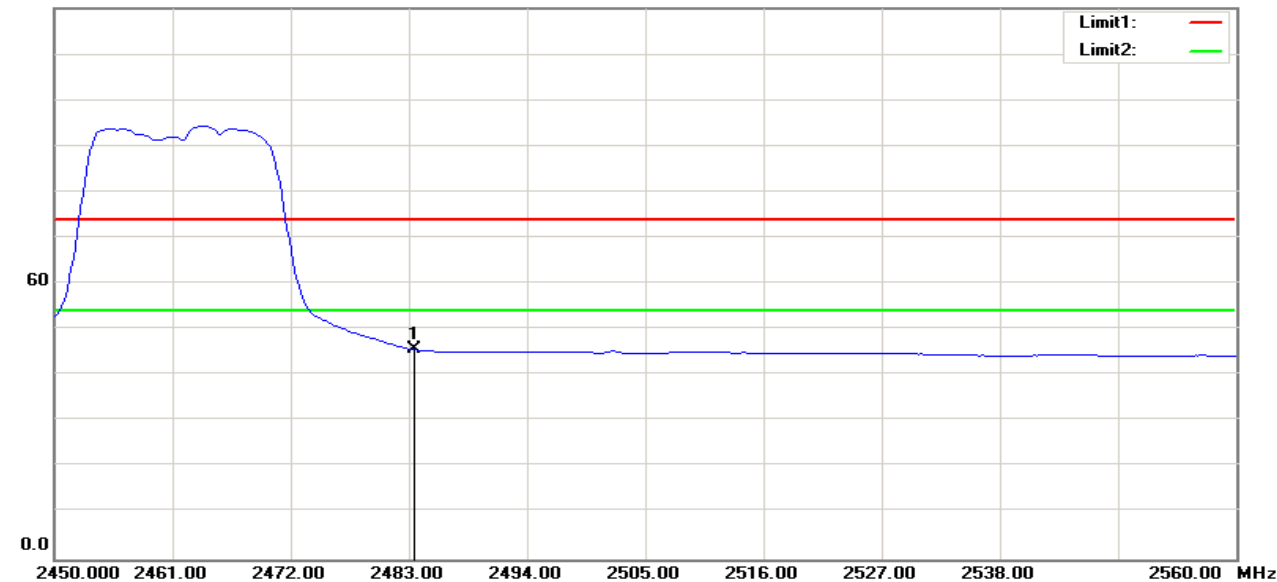
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 67.21 | -8.92 | 58.29 | 74.00 | -15.71 | 100 | 94 | peak |

AVG

120.0 dBuV/m



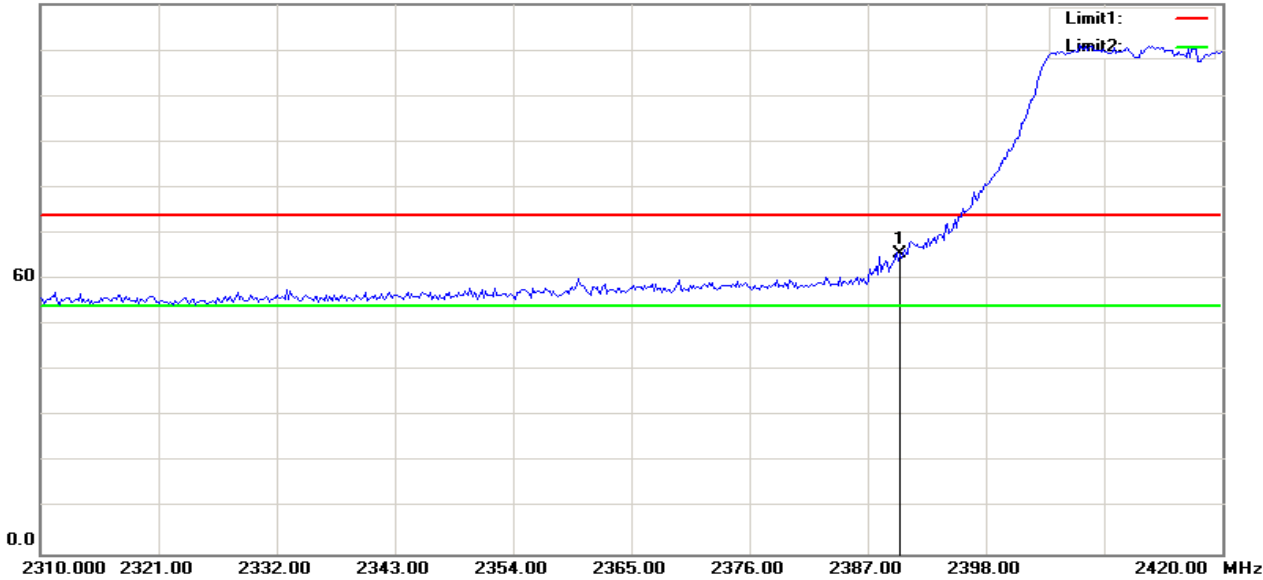
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 54.59 | -8.92 | 45.67 | 54.00 | -8.33 | 100 | 94 | AVG |



RESTRICTED BANDEDGE (draft 802.11n Standard-20 MHz Channel mode, Low Channel, Horizontal)

PEAK

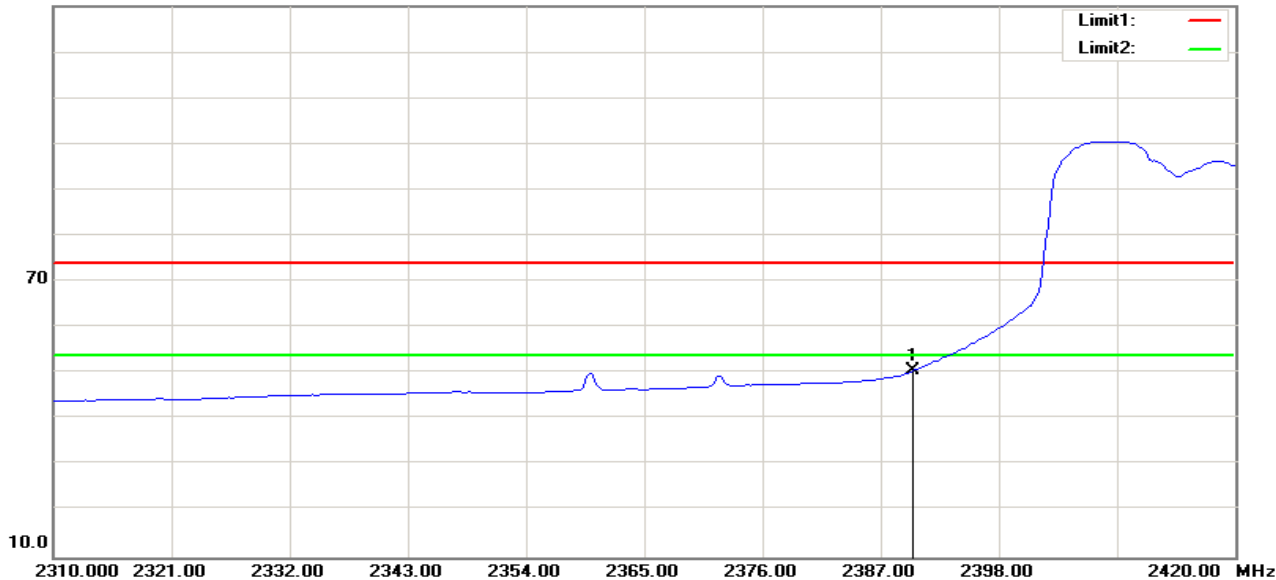
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 74.91 | -9.42 | 65.49 | 74.00 | -8.51 | 100 | 307 | peak |

AVG

130.0 dBuV/m



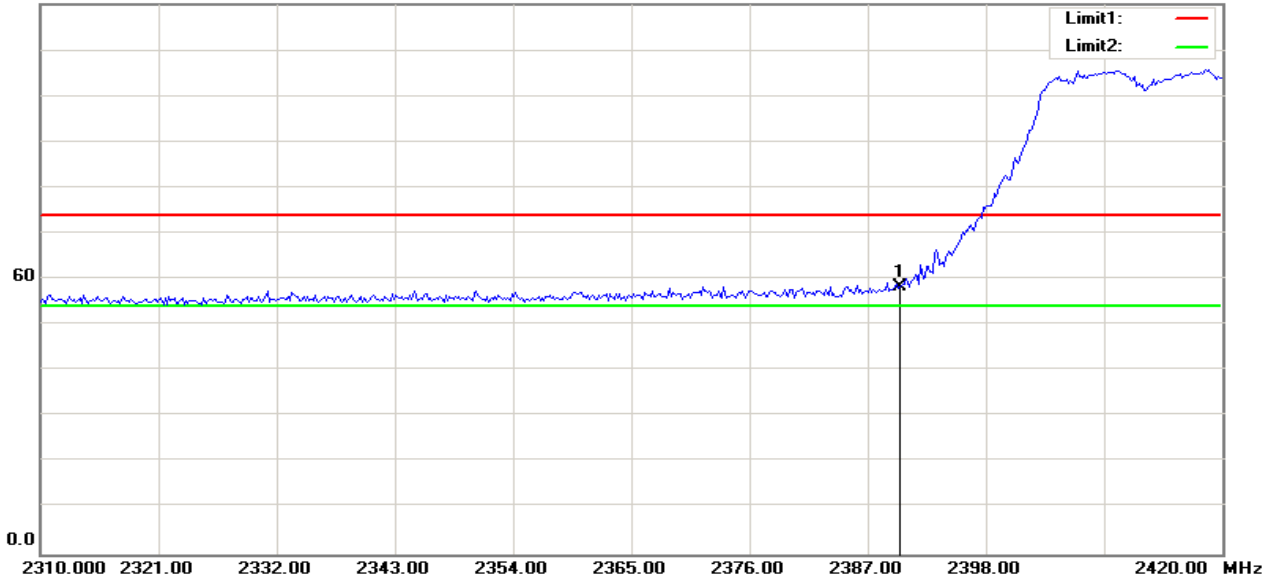
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 60.10 | -9.42 | 50.68 | 54.00 | -3.32 | 100 | 187 | AVG |



RESTRICTED BANDEDGE (draft 802.11n Standard-20 MHz Channel mode, Low Channel, Vertical)

PEAK

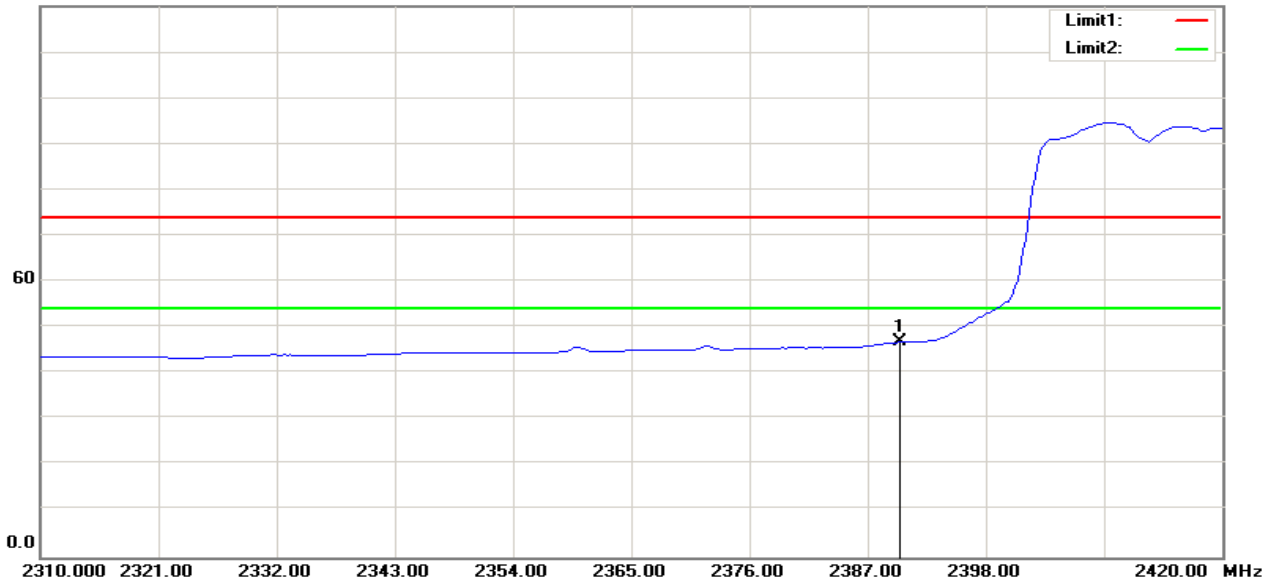
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 67.63 | -9.42 | 58.21 | 74.00 | -15.79 | 100 | 114 | peak |

AVG

120.0 dBuV/m



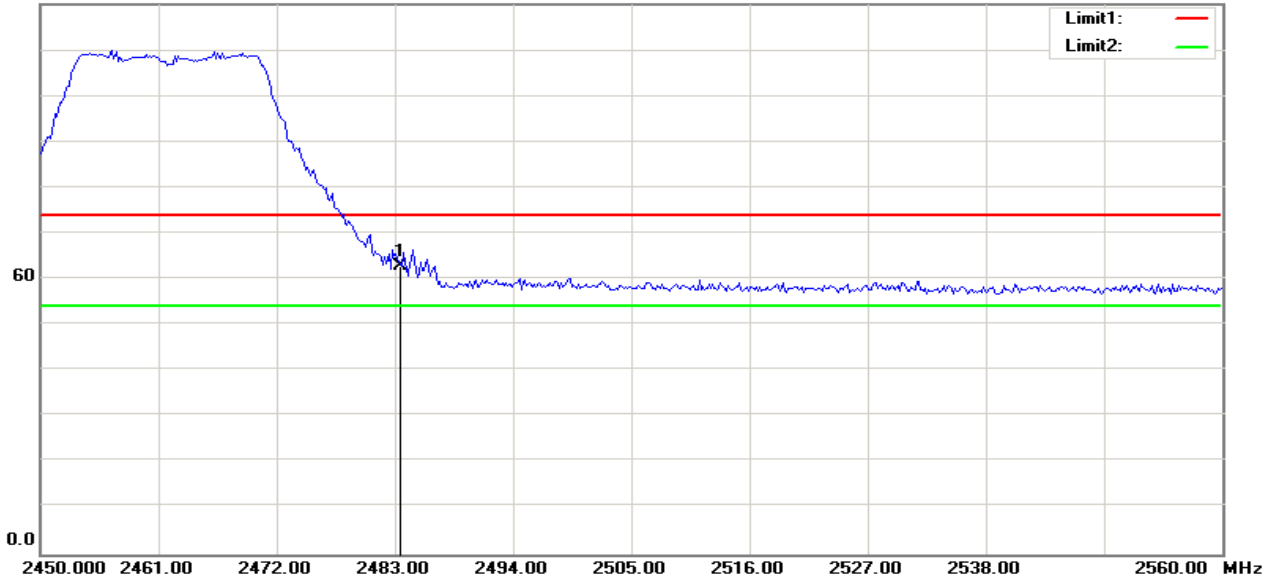
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 56.23 | -9.42 | 46.81 | 54.00 | -7.19 | 100 | 114 | AVG |



RESTRICTED BANDEDGE (draft 802.11n Standard-20 MHz Channel mode, High Channel, Horizontal)

PEAK

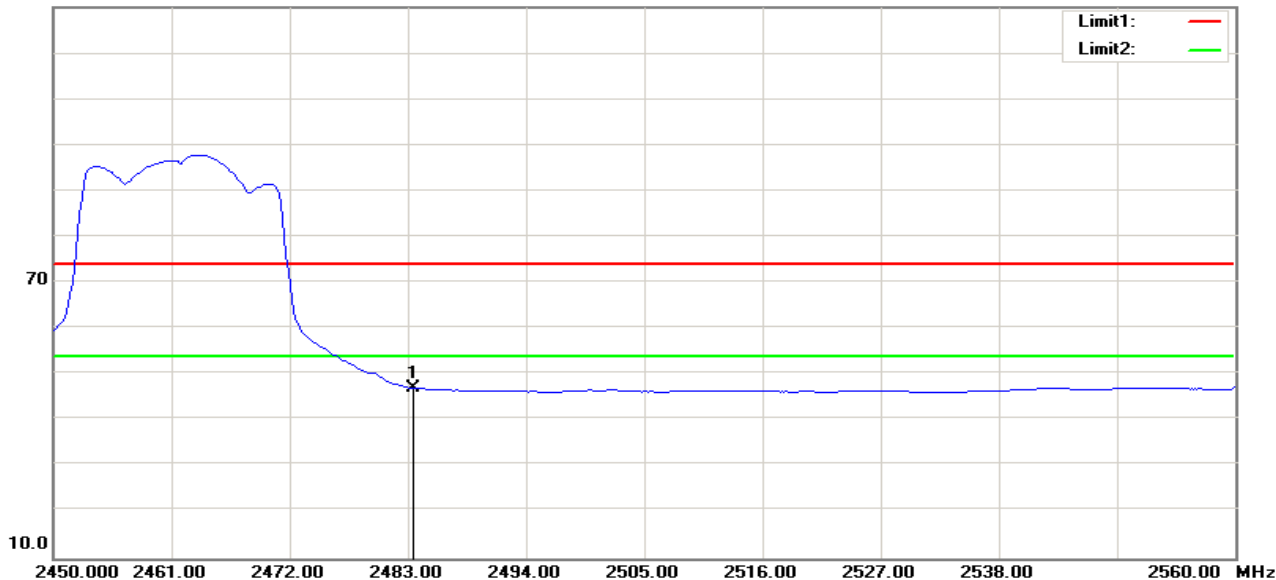
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 71.71 | -8.92 | 62.79 | 74.00 | -11.21 | 100 | 91 | peak |

AVG

130.0 dBuV/m



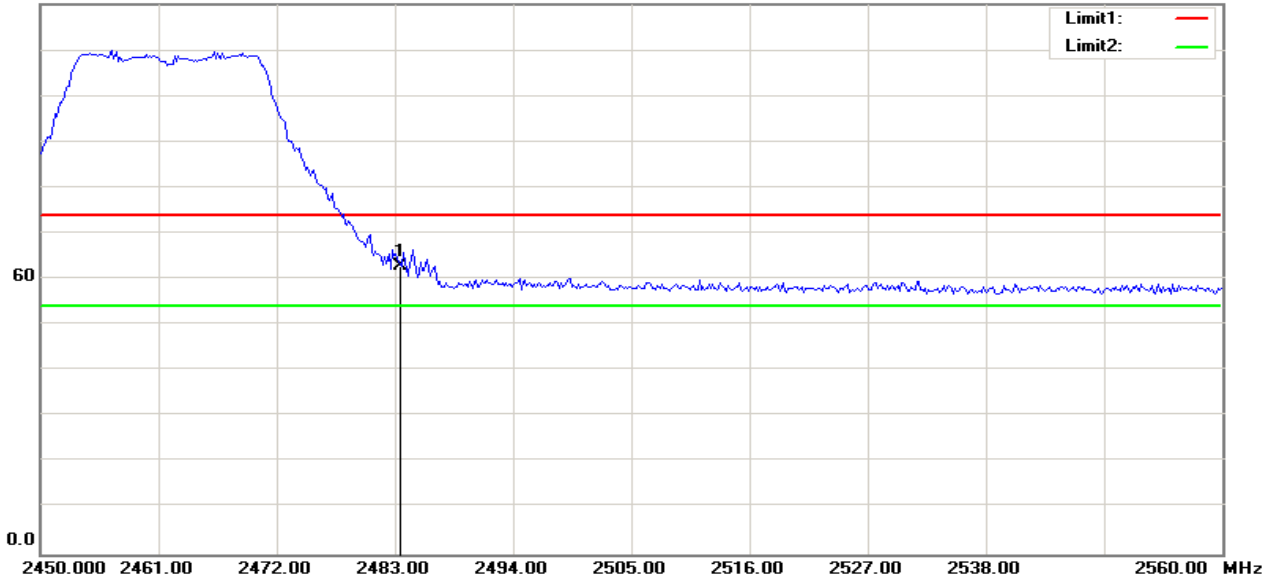
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 55.91 | -8.92 | 46.99 | 54.00 | -7.01 | 100 | 159 | AVG |



RESTRICTED BANDEDGE (draft 802.11n Standard-20 MHz Channel mode, High Channel, Vertical)

PEAK

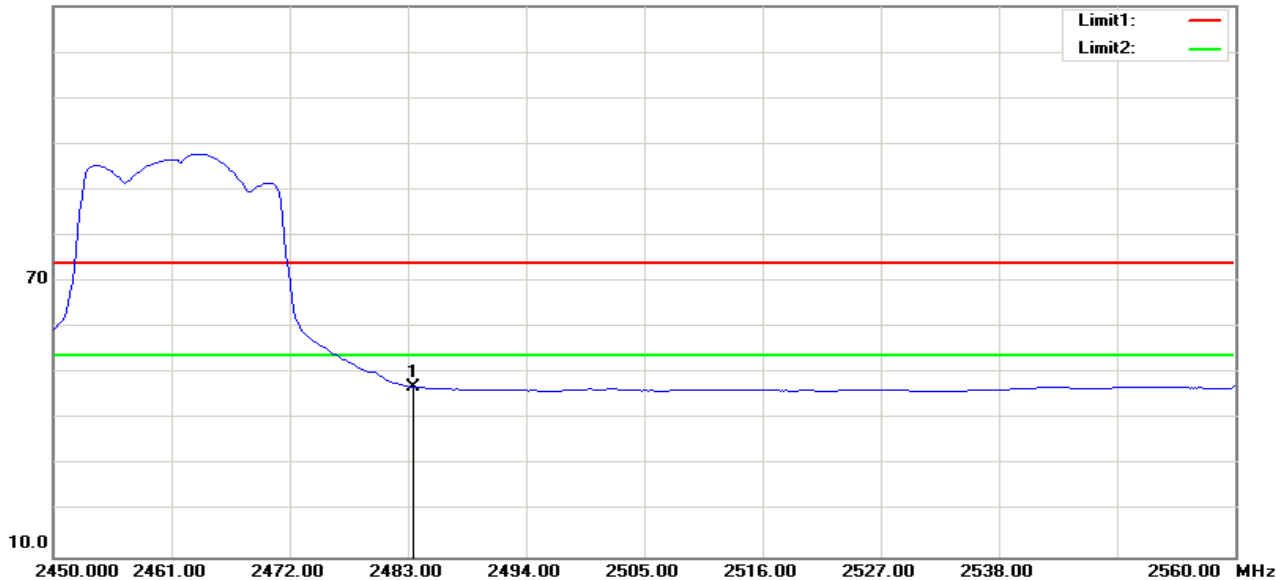
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 71.71 | -8.92 | 62.79 | 74.00 | -11.21 | 100 | 91 | peak |

AVG

130.0 dBuV/m



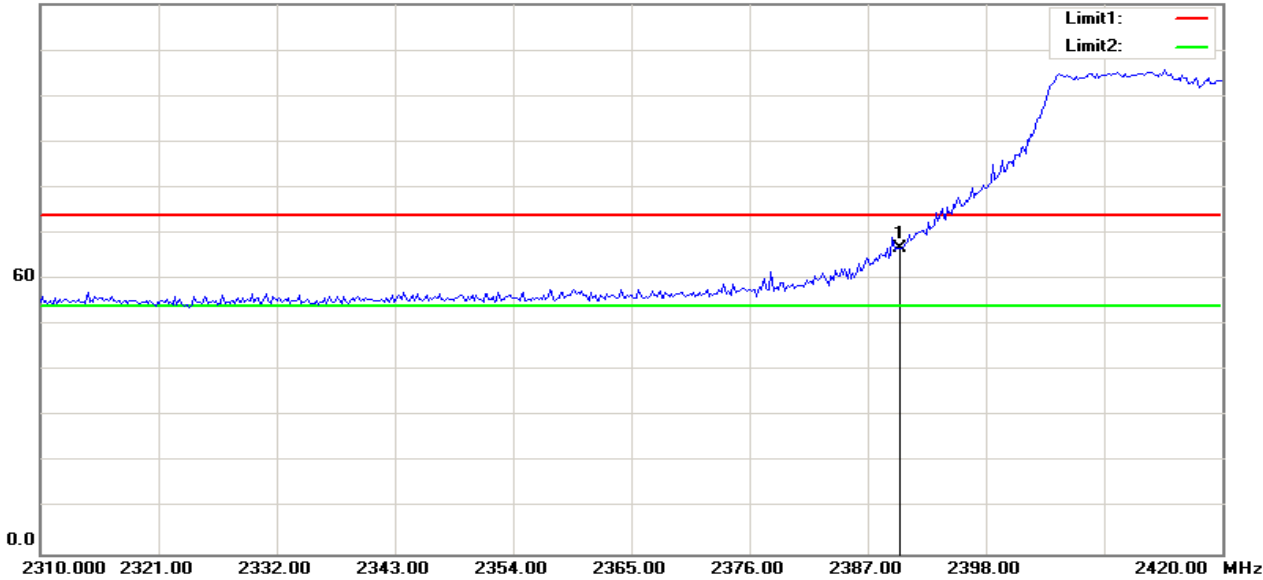
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 55.91 | -8.92 | 46.99 | 54.00 | -7.01 | 100 | 47 | AVG |



RESTRICTED BANDEDGE (draft 802.11n Wide -40 MHz Channel mode, Low Channel, Horizontal)

PEAK

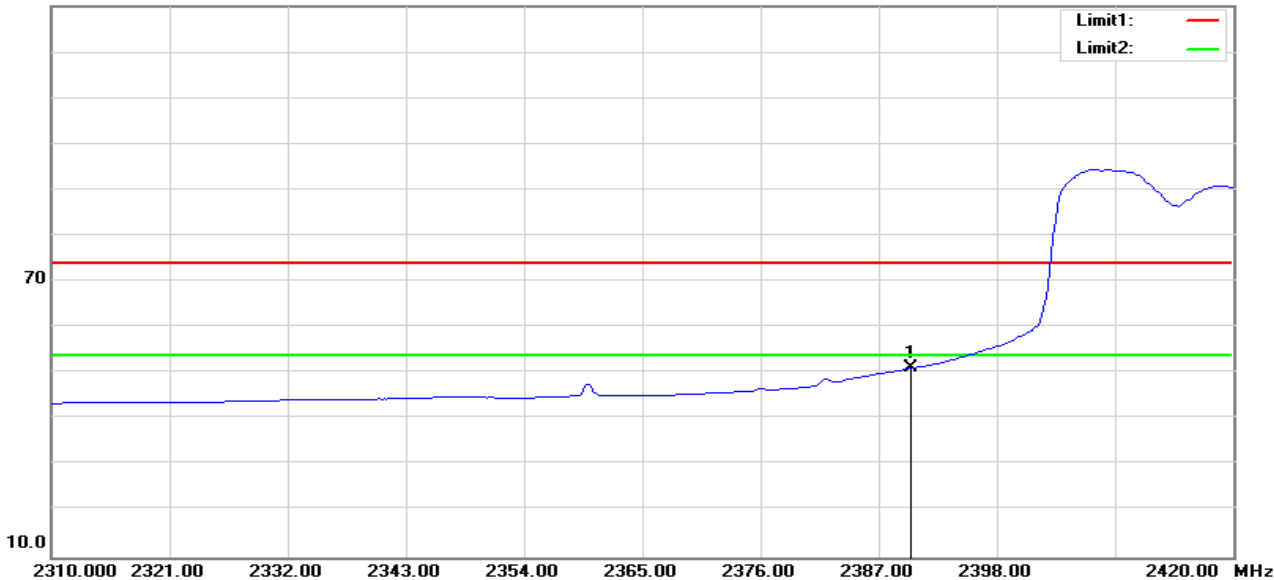
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 76.17 | -9.42 | 66.75 | 74.00 | -7.25 | 100 | 57 | peak |

AVG

130.0 dBuV/m



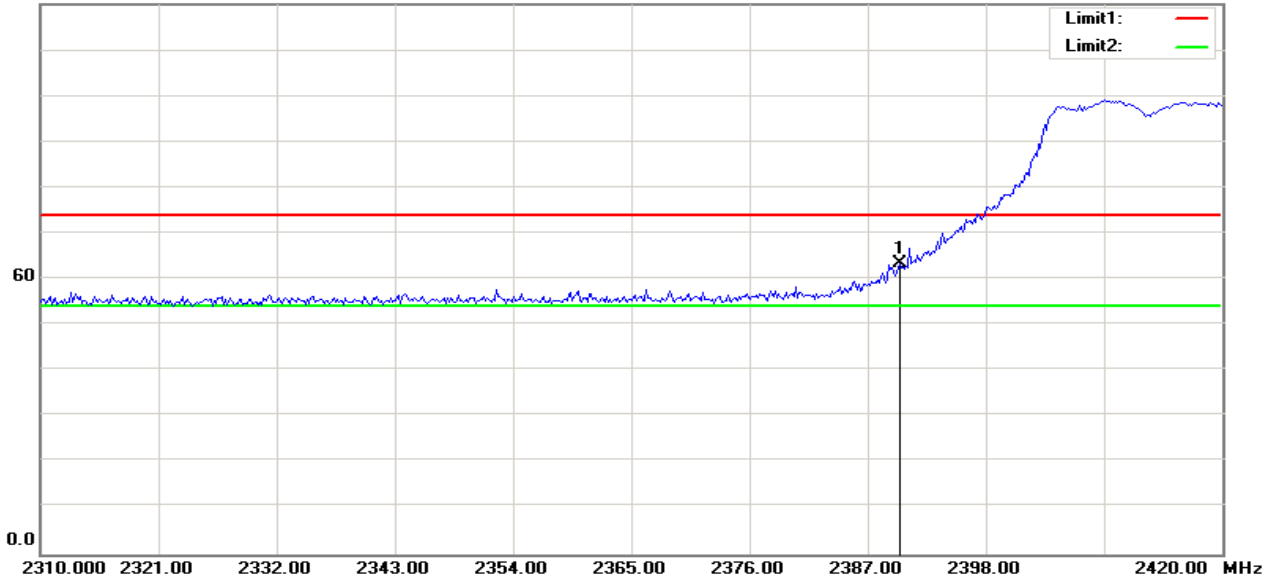
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 60.61 | -9.42 | 51.19 | 54.00 | -2.81 | 100 | 159 | AVG |



RESTRICTED BANDEDGE (draft 802.11n Wide -40 MHz Channel mode, Low Channel, Vertical)

PEAK

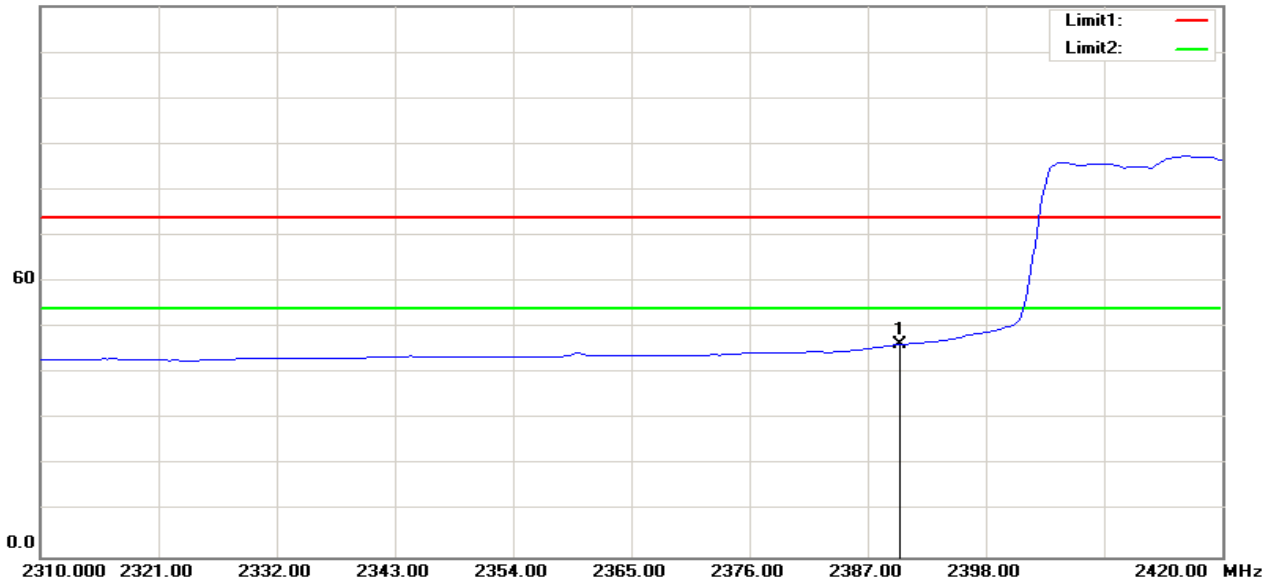
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 72.75 | -9.42 | 63.33 | 74.00 | -10.67 | 100 | 295 | peak |

AVG

120.0 dBuV/m



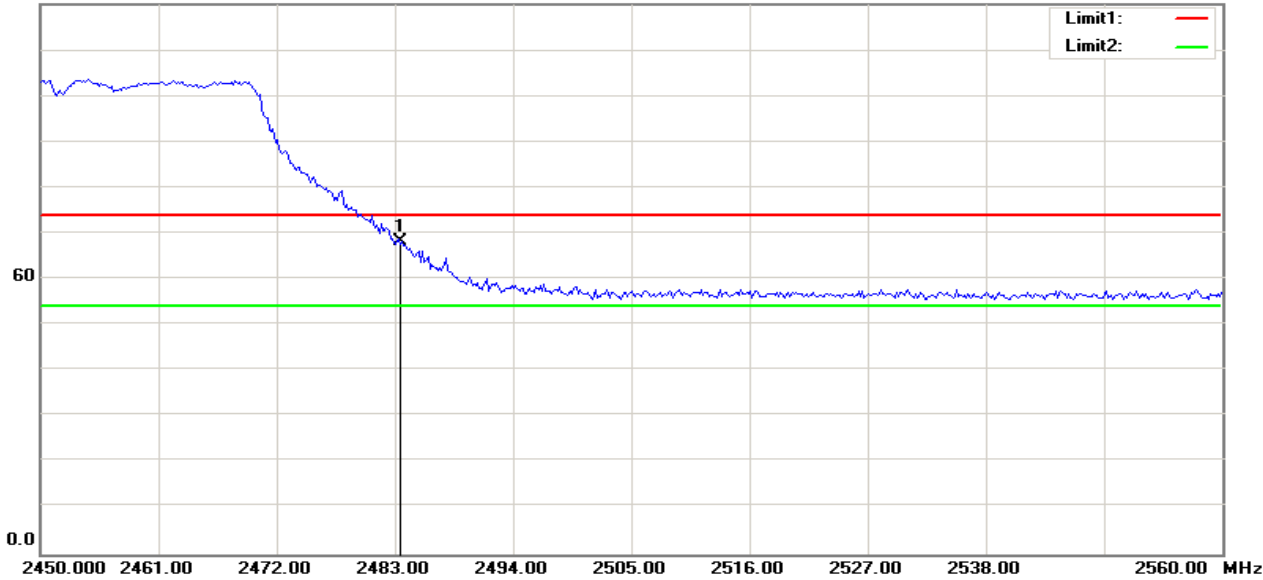
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2390.000 | 55.77 | -9.42 | 46.35 | 54.00 | -7.65 | 100 | 295 | AVG |



RESTRICTED BANDEDGE (draft 802.11n Wide -40 MHz Channel mode, High Channel, Horizontal)

PEAK

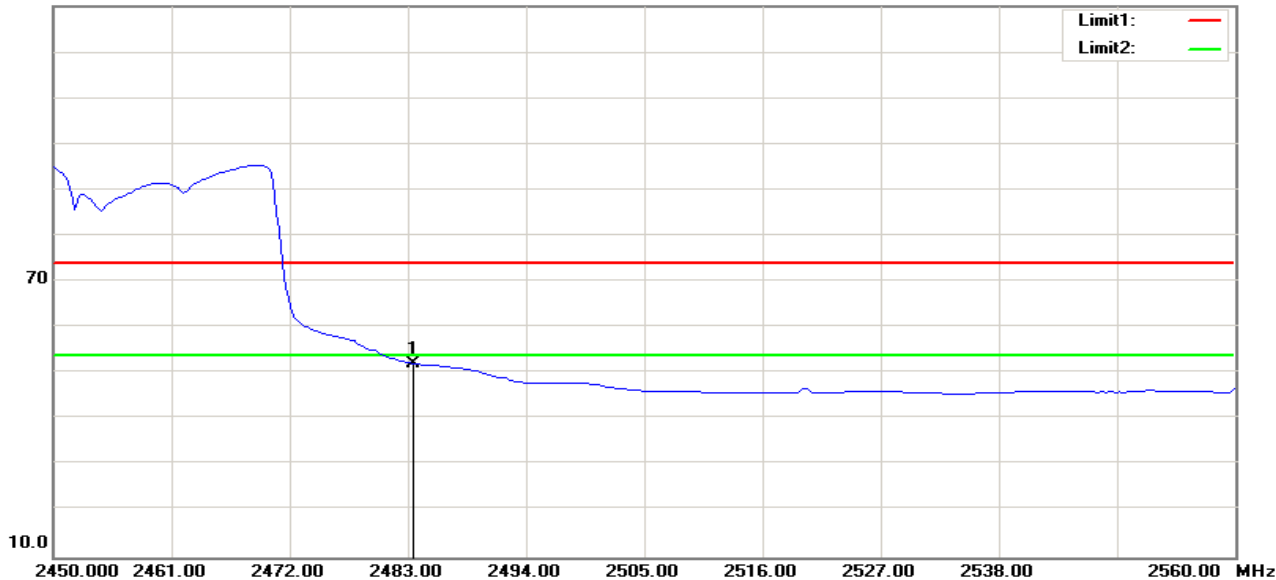
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 77.04 | -8.92 | 68.12 | 74.00 | -5.88 | 100 | 332 | peak |

AVG

130.0 dBuV/m



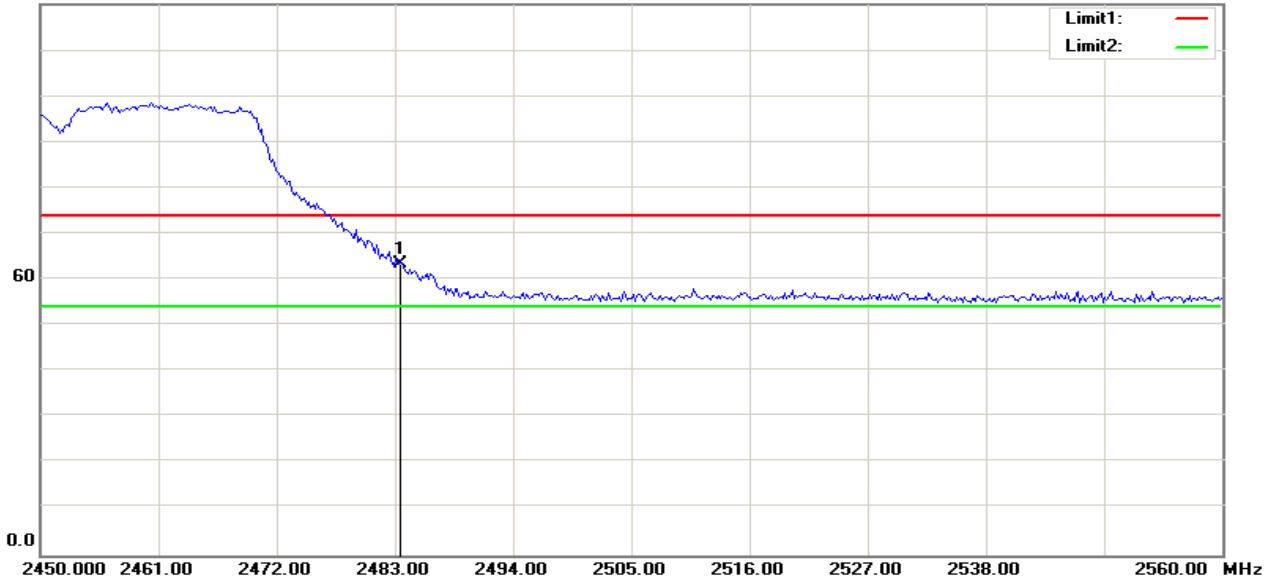
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 60.98 | -8.92 | 52.06 | 54.00 | -1.94 | 100 | 198 | AVG |



RESTRICTED BANDEDGE (draft 802.11n Wide -40 MHz Channel mode, High Channel, Vertical)

Peak

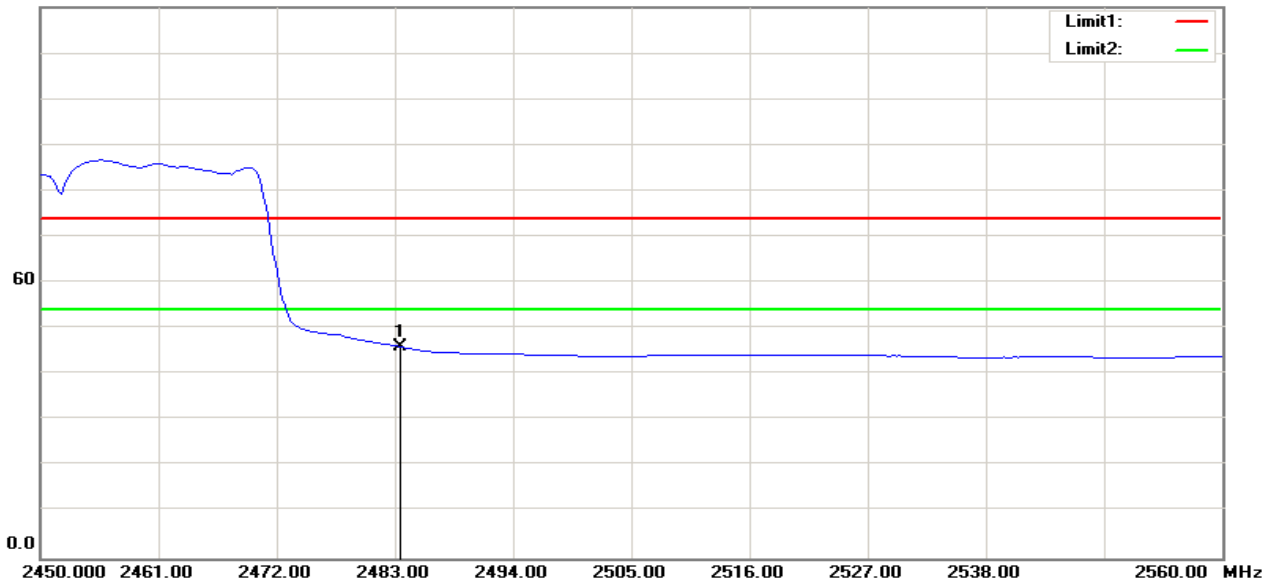
120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 72.28 | -8.92 | 63.36 | 74.00 | -10.64 | 100 | 85 | peak |

AVG

120.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2483.500 | 54.90 | -8.92 | 45.98 | 54.00 | -8.02 | 100 | 85 | AVG |



Below 1GHz

Operation Mode: Normal Link

Test Date: 2014-10-22

Temperature: 22°C

Tested by: Charly.xue

Humidity: 48% RH

Polarity: Ver. / Hor.

| Frequency (MHz) | Ant. Pol. (H/V) | Reading (dBuV) | Correction Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|-----------------|----------------|--------------------------|-----------------|----------------|-------------|--------|
| 74.6200 | V | 26.72 | 9.22 | 35.94 | 40.00 | -4.06 | Peak |
| 102.7500 | V | 27.59 | 10.85 | 38.44 | 43.50 | -5.06 | Peak |
| 141.5500 | V | 20.75 | 14.81 | 35.56 | 43.50 | -7.94 | Peak |
| 372.4100 | V | 18.47 | 17.23 | 35.70 | 46.00 | -10.30 | Peak |
| 749.7400 | V | 15.34 | 22.68 | 38.02 | 46.00 | -7.98 | Peak |
| 910.7600 | V | 15.58 | 24.34 | 39.92 | 46.00 | -6.08 | Peak |
| 74.6200 | H | 24.89 | 9.22 | 34.11 | 40.00 | -5.89 | Peak |
| 145.4300 | H | 19.26 | 14.71 | 33.97 | 43.50 | -9.53 | Peak |
| 362.7100 | H | 18.92 | 17.00 | 35.92 | 46.00 | -10.08 | Peak |
| 429.6400 | H | 18.98 | 18.74 | 37.72 | 46.00 | -8.28 | Peak |
| 800.1800 | H | 14.66 | 23.51 | 38.17 | 46.00 | -7.83 | Peak |
| 875.8400 | H | 14.78 | 23.73 | 38.51 | 46.00 | -7.49 | Peak |

Remark:

1. Measuring frequencies from 30 MHz to the 1GHz (No emission found between lowest internal used/generated frequency to 30 MH).
2. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using peak/quasi-peak detector mode.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Margin (dB) = Result (dBuV/m) – Limit (dBuV/m).



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Above 1 GHz

Operation Mode: TX / IEEE 802.11b / CH Low

Test Date: 2014-10-23

Temperature: 22°C

Tested by: Charly.xue

Humidity: 48 % RH

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3370.192 | 58.91 | -7.39 | 51.52 | 74.00 | -22.48 | 100 | 167 | peak |
| 2 | 6394.231 | 44.20 | 1.65 | 45.85 | 74.00 | -28.15 | 100 | 47 | peak |
| 3 | 9036.859 | 41.20 | 6.78 | 47.98 | 74.00 | -26.02 | 100 | 255 | peak |
| 4 | 11216.346 | 40.36 | 12.45 | 52.81 | 74.00 | -21.19 | 100 | 162 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 4732.372 | 47.09 | -3.66 | 43.43 | 74.00 | -30.57 | 100 | 200 | peak |
| 2 | 7048.077 | 42.80 | 4.12 | 46.92 | 74.00 | -27.08 | 100 | 120 | peak |
| 3 | 9282.051 | 40.19 | 7.44 | 47.63 | 74.00 | -26.37 | 100 | 2 | peak |
| 4 | 11488.782 | 38.88 | 12.96 | 51.84 | 74.00 | -22.16 | 100 | 162 | peak |
| N/A | | | | | | | | | |

Operation Mode: TX / IEEE 802.11b / CH Mid

Test Date: 2014-10-23

Temperature: 22°C

Tested by: Charly.xue

Humidity: 48 % RH

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3996.795 | 54.37 | -5.42 | 48.95 | 74.00 | -25.05 | 100 | 109 | peak |
| 2 | 6503.205 | 43.62 | 1.78 | 45.40 | 74.00 | -28.60 | 100 | 307 | peak |
| 3 | 8955.128 | 39.90 | 6.63 | 46.53 | 74.00 | -27.47 | 100 | 281 | peak |
| 4 | 11107.372 | 38.59 | 12.24 | 50.83 | 74.00 | -23.17 | 100 | 94 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 4977.564 | 52.49 | -2.36 | 50.13 | 74.00 | -23.87 | 100 | 219 | peak |
| 2 | 7211.538 | 41.69 | 4.55 | 46.24 | 74.00 | -27.76 | 100 | 336 | peak |
| 3 | 9472.756 | 40.31 | 7.95 | 48.26 | 74.00 | -25.74 | 100 | 215 | peak |
| 4 | 12006.410 | 39.32 | 12.51 | 51.83 | 74.00 | -22.17 | 100 | 93 | peak |
| N/A | | | | | | | | | |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Operation Mode: TX / IEEE 802.11b / CH High

Test Date: 2014-10-23

Temperature: 22°C

Tested by: Charly.xue

Humidity: 48 % RH

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3860.577 | 54.68 | -5.90 | 48.78 | 74.00 | -25.22 | 100 | 122 | peak |
| 2 | 6285.256 | 41.93 | 1.52 | 43.45 | 74.00 | -30.55 | 100 | 232 | peak |
| 3 | 8791.667 | 40.54 | 6.46 | 47.00 | 74.00 | -27.00 | 100 | 360 | peak |
| 4 | 11298.077 | 39.78 | 12.60 | 52.38 | 74.00 | -21.62 | 100 | 0 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 4814.103 | 54.57 | -3.23 | 51.34 | 74.00 | -22.66 | 100 | 16 | peak |
| 2 | 7048.077 | 42.80 | 4.12 | 46.92 | 74.00 | -27.08 | 100 | 120 | peak |
| 3 | 9363.782 | 41.29 | 7.65 | 48.94 | 74.00 | -25.06 | 100 | 28 | peak |
| 4 | 11897.436 | 40.21 | 12.59 | 52.80 | 74.00 | -21.20 | 100 | 139 | peak |
| N/A | | | | | | | | | |

Operation Mode: TX / IEEE 802.11g / CH Low

Test Date: 2014-10-23

Temperature: 24°C

Tested by: Charly.xue

Humidity: 48 % RH

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3996.795 | 54.97 | -5.42 | 49.55 | 74.00 | -24.45 | 100 | 107 | peak |
| 2 | 5386.218 | 44.42 | -0.02 | 44.40 | 74.00 | -29.60 | 100 | 204 | peak |
| 3 | 7838.141 | 40.64 | 6.25 | 46.89 | 74.00 | -27.11 | 100 | 139 | peak |
| 4 | 10589.744 | 38.94 | 10.59 | 49.53 | 74.00 | -24.47 | 100 | 274 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 4977.564 | 52.25 | -2.36 | 49.89 | 74.00 | -24.11 | 100 | 221 | peak |
| 2 | 7456.731 | 41.99 | 5.20 | 47.19 | 74.00 | -26.81 | 100 | 140 | peak |
| 3 | 9309.295 | 41.32 | 7.51 | 48.83 | 74.00 | -25.17 | 100 | 346 | peak |
| 4 | 11434.295 | 39.66 | 12.86 | 52.52 | 74.00 | -21.48 | 100 | 87 | peak |
| N/A | | | | | | | | | |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Operation Mode: TX / IEEE 802.11g / CH Mid

Test Date: 2014-10-23

Temperature: 24°C

Tested by: Charly.xue

Humidity: 48 % RH

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3860.577 | 55.34 | -5.90 | 49.44 | 74.00 | -24.56 | 100 | 122 | peak |
| 2 | 5495.192 | 45.28 | 0.61 | 45.89 | 74.00 | -28.11 | 100 | 141 | peak |
| 3 | 7729.167 | 42.25 | 5.95 | 48.20 | 74.00 | -25.80 | 100 | 3 | peak |
| 4 | 10453.526 | 40.43 | 10.12 | 50.55 | 74.00 | -23.45 | 100 | 355 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 4814.103 | 47.59 | -3.23 | 44.36 | 74.00 | -29.64 | 100 | 356 | peak |
| 2 | 7375.000 | 40.94 | 4.99 | 45.93 | 74.00 | -28.07 | 100 | 202 | peak |
| 3 | 9418.269 | 40.50 | 7.80 | 48.30 | 74.00 | -25.70 | 100 | 187 | peak |
| 4 | 11379.808 | 39.30 | 12.75 | 52.05 | 74.00 | -21.95 | 100 | 71 | peak |
| N/A | | | | | | | | | |

Operation Mode: TX / IEEE 802.11g / CH High

Test Date: 2014-10-23

Temperature: 24°C

Tested by: Charly.xue

Humidity: 48 % RH

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3370.192 | 59.16 | -7.39 | 51.77 | 74.00 | -22.23 | 100 | 164 | peak |
| 2 | 6394.231 | 44.48 | 1.65 | 46.13 | 74.00 | -27.87 | 100 | 228 | peak |
| 3 | 8110.577 | 41.73 | 6.58 | 48.31 | 74.00 | -25.69 | 100 | 58 | peak |
| 4 | 10862.180 | 40.90 | 11.55 | 52.45 | 74.00 | -21.55 | 100 | 337 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 4705.128 | 43.39 | -3.81 | 39.58 | 74.00 | -34.42 | 100 | 360 | peak |
| 2 | 7184.295 | 42.07 | 4.48 | 46.55 | 74.00 | -27.45 | 100 | 142 | peak |
| 3 | 9254.808 | 40.28 | 7.36 | 47.64 | 74.00 | -26.36 | 100 | 354 | peak |
| 4 | 11270.833 | 39.46 | 12.55 | 52.01 | 74.00 | -21.99 | 100 | 276 | peak |
| N/A | | | | | | | | | |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Operation Mode: TX / draft 802.11gn Standard-20 MHz Channel mode / CH Low

Temperature: 22°C

Humidity: 48 % RH

Test Date: 2014-10-23

Tested by: Charly.xue

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3370.192 | 58.44 | -7.39 | 51.05 | 74.00 | -22.95 | 100 | 159 | peak |
| 2 | 5004.808 | 47.79 | -2.21 | 45.58 | 74.00 | -28.42 | 100 | 153 | peak |
| 3 | 6775.641 | 42.56 | 2.99 | 45.55 | 74.00 | -28.45 | 100 | 163 | peak |
| 4 | 8628.205 | 42.53 | 6.29 | 48.82 | 74.00 | -25.18 | 100 | 225 | peak |
| 5 | 10916.667 | 39.84 | 11.75 | 51.59 | 74.00 | -22.41 | 100 | 25 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 4977.564 | 53.13 | -2.36 | 50.77 | 74.00 | -23.23 | 100 | 222 | peak |
| 2 | 7592.949 | 42.17 | 5.58 | 47.75 | 74.00 | -26.25 | 100 | 0 | peak |
| 3 | 9854.167 | 41.18 | 8.47 | 49.65 | 74.00 | -24.35 | 100 | 94 | peak |
| 4 | 12006.410 | 39.83 | 12.51 | 52.34 | 74.00 | -21.66 | 100 | 173 | peak |
| N/A | | | | | | | | | |

Operation Mode: TX / draft 802.11gn Standard-20 MHz Channel mode / CH Mid

Temperature: 22°C

Humidity: 48 % RH

Test Date: 2014-10-23

Tested by: Charly.xue

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3506.410 | 48.98 | -7.15 | 41.83 | 74.00 | -32.17 | 100 | 239 | peak |
| 2 | 6421.474 | 43.75 | 1.68 | 45.43 | 74.00 | -28.57 | 100 | 215 | peak |
| 3 | 8846.154 | 40.09 | 6.52 | 46.61 | 74.00 | -27.39 | 100 | 292 | peak |
| 4 | 11189.103 | 40.22 | 12.40 | 52.62 | 74.00 | -21.38 | 100 | 40 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 5032.051 | 43.51 | -2.06 | 41.45 | 74.00 | -32.55 | 100 | 14 | peak |
| 2 | 7511.218 | 41.50 | 5.35 | 46.85 | 74.00 | -27.15 | 100 | 235 | peak |
| 3 | 9772.436 | 40.44 | 8.37 | 48.81 | 74.00 | -25.19 | 100 | 198 | peak |
| 4 | 11951.923 | 39.32 | 12.54 | 51.86 | 74.00 | -22.14 | 100 | 162 | peak |
| N/A | | | | | | | | | |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Operation TX / draft 802.11gn Standard-20 MHz Channel
Mode: mode / CH High

Test Date: 2014-10-23

Temperature: 22°C

Tested by:Charly.xue

Humidity: 48 % RH

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3233.974 | 55.70 | -7.62 | 48.08 | 74.00 | -25.92 | 100 | 255 | peak |
| 2 | 6339.744 | 42.73 | 1.58 | 44.31 | 74.00 | -29.69 | 100 | 105 | peak |
| 3 | 8764.423 | 40.81 | 6.43 | 47.24 | 74.00 | -26.76 | 100 | 114 | peak |
| 4 | 11352.564 | 38.84 | 12.70 | 51.54 | 74.00 | -22.46 | 100 | 35 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 4841.346 | 43.21 | -3.08 | 40.13 | 74.00 | -33.87 | 100 | 32 | peak |
| 2 | 7429.487 | 41.65 | 5.13 | 46.78 | 74.00 | -27.22 | 100 | 262 | peak |
| 3 | 9963.141 | 40.27 | 8.61 | 48.88 | 74.00 | -25.12 | 100 | 239 | peak |
| 4 | 12251.603 | 37.29 | 13.24 | 50.53 | 74.00 | -23.47 | 100 | 95 | peak |
| N/A | | | | | | | | | |

Operation TX / draft 802.11gn Wide-40 MHz Channel
Mode: mode / CH Low

Test Date: 2014-10-23

Temperature: 24°C

Tested by:Charly.xue

Humidity: 48 % RH

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3370.192 | 58.43 | -7.39 | 51.04 | 74.00 | -22.96 | 100 | 170 | peak |
| 2 | 3996.795 | 54.39 | -5.42 | 48.97 | 74.00 | -25.03 | 100 | 107 | peak |
| 3 | 5876.603 | 45.52 | 1.05 | 46.57 | 74.00 | -27.43 | 100 | 117 | peak |
| 4 | 9227.564 | 41.52 | 7.29 | 48.81 | 74.00 | -25.19 | 100 | 259 | peak |
| 5 | 11407.051 | 40.06 | 12.81 | 52.87 | 74.00 | -21.13 | 100 | 89 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2988.782 | 50.59 | -8.04 | 42.55 | 74.00 | -31.45 | 100 | 184 | peak |
| 2 | 5004.808 | 51.51 | -2.21 | 49.30 | 74.00 | -24.70 | 100 | 226 | peak |
| 3 | 7511.218 | 42.24 | 5.35 | 47.59 | 74.00 | -26.41 | 100 | 360 | peak |
| 4 | 11243.590 | 40.41 | 12.50 | 52.91 | 74.00 | -21.09 | 100 | 171 | peak |
| N/A | | | | | | | | | |



Compliance Certification Services Inc.

Report No: C141031R01-RPW

FCC ID:UIDTG2472

Date of Issue : November 25, 2014

Operation Mode: TX / draft 802.11gn Wide-40 MHz Channel mode / CH Mid

Test Date: 2014-10-23

Temperature: 24°C

Tested by: Charly.xue

Humidity: 48 % RH

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3370.192 | 58.19 | -7.39 | 50.80 | 74.00 | -23.20 | 100 | 165 | peak |
| 2 | 5004.808 | 47.84 | -2.21 | 45.63 | 74.00 | -28.37 | 100 | 148 | peak |
| 3 | 7756.410 | 42.06 | 6.03 | 48.09 | 74.00 | -25.91 | 100 | 239 | peak |
| 4 | 9990.385 | 41.06 | 8.65 | 49.71 | 74.00 | -24.29 | 100 | 46 | peak |
| 5 | 12605.769 | 38.59 | 14.06 | 52.65 | 74.00 | -21.35 | 100 | 102 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 2443.910 | 54.09 | -9.13 | 44.96 | 74.00 | -29.04 | 100 | 76 | peak |
| 2 | 5004.808 | 51.75 | -2.21 | 49.54 | 74.00 | -24.46 | 100 | 223 | peak |
| 3 | 7701.923 | 41.92 | 5.88 | 47.80 | 74.00 | -26.20 | 100 | 42 | peak |
| 4 | 10862.180 | 40.86 | 11.55 | 52.41 | 74.00 | -21.59 | 100 | 155 | peak |
| N/A | | | | | | | | | |

Operation Mode: TX / draft 802.11gn Wide-40 MHz Channel mode / CH High

Test Date: 2014-10-23

Temperature: 24°C

Tested by: Charly.xue

Humidity: 48 % RH

Polarity: Ver. / Hor.

Horizontal

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 3370.192 | 57.11 | -7.39 | 49.72 | 74.00 | -24.28 | 100 | 255 | peak |
| 2 | 5740.385 | 44.22 | 0.90 | 45.12 | 74.00 | -28.88 | 100 | 359 | peak |
| 3 | 7483.974 | 43.11 | 5.28 | 48.39 | 74.00 | -25.61 | 100 | 246 | peak |
| 4 | 9826.923 | 41.50 | 8.44 | 49.94 | 74.00 | -24.06 | 100 | 322 | peak |
| 5 | 12660.256 | 38.98 | 14.09 | 53.07 | 74.00 | -20.93 | 100 | 66 | peak |
| N/A | | | | | | | | | |

Vertical

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Height (cm) | Degree (deg.) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|-------------|---------------|--------|
| 1 | 4977.564 | 51.99 | -2.36 | 49.63 | 74.00 | -24.37 | 100 | 228 | peak |
| 2 | 7483.974 | 42.69 | 5.28 | 47.97 | 74.00 | -26.03 | 100 | 183 | peak |
| 3 | 10426.282 | 41.00 | 10.03 | 51.03 | 74.00 | -22.97 | 100 | 67 | peak |
| 4 | 12605.769 | 38.85 | 14.06 | 52.91 | 74.00 | -21.09 | 100 | 261 | peak |
| N/A | | | | | | | | | |



4.6. POWERLINE CONDUCTED EMISSIONS

LIMIT

According to §15.207(a), except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

| Frequency Range (MHz) | Limits (dB μ V) | |
|--------------------------|------------------------|-----------|
| | Quasi-peak | Average |
| 0.15 to 0.50 | 66 to 56* | 56 to 46* |
| 0.50 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |

* Decreases with the logarithm of the frequency.

Test Configuration

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

Test Data



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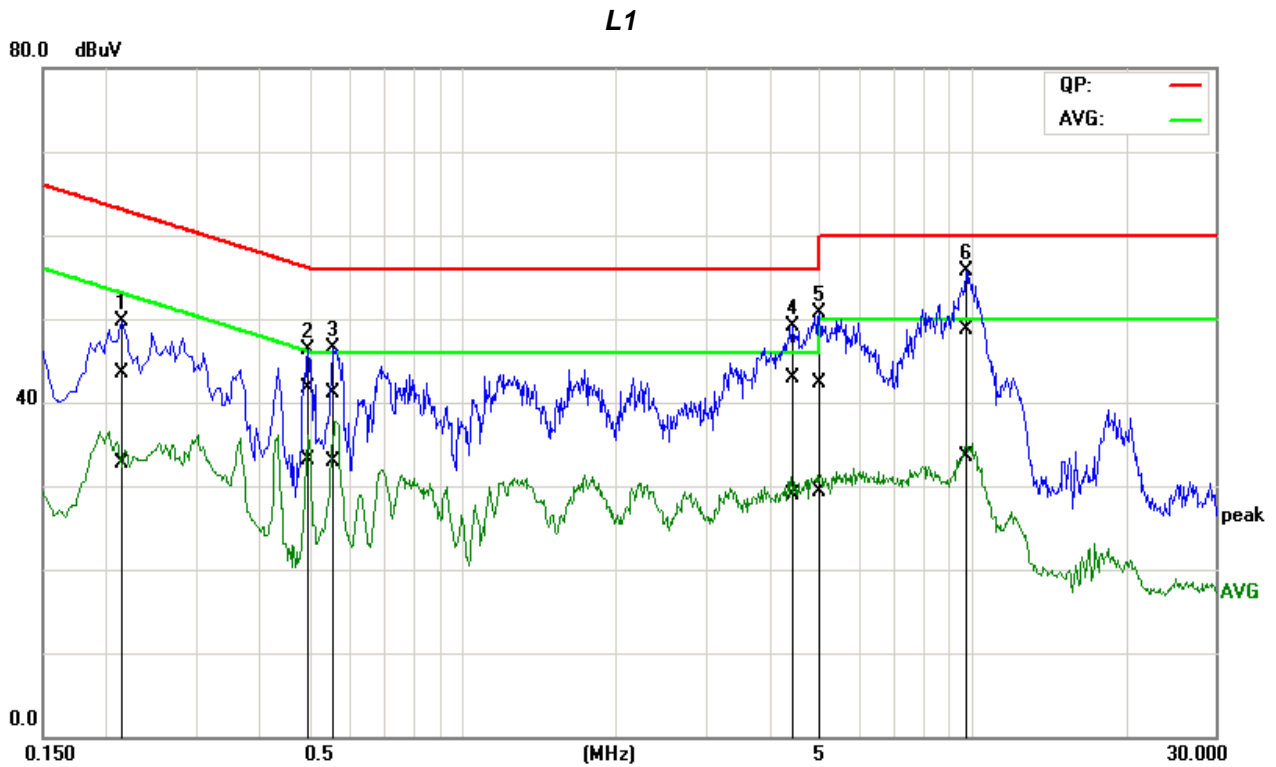
Report No: C141031R01-RPW

FCC ID: UIDTG2472

Date of Issue : November 25, 2014

Job No.: C140925R01
 Company: TG2472G
 Standard: FCC Class B
 Test item: Conduction test
 Line: L1
 Model:

Date: 2014-10-23
 Time: 15:30:22
 Temp.(C)/Hum.(%): 22(C)/48%
 Test By: Charly.xue
 Test Voltage: AC 120V/60Hz
 Description:



| No. | Frequency (MHz) | QuasiPeak reading (dBuV) | Average reading (dBuV) | Correction factor (dB) | QuasiPeak result (dBuV) | Average result (dBuV) | QuasiPeak limit (dBuV) | Average limit (dBuV) | QuasiPeak margin (dB) | Average margin (dB) | Remark |
|-----|--------------------|--------------------------------|------------------------------|------------------------------|-------------------------------|-----------------------------|------------------------------|----------------------------|-----------------------------|---------------------------|--------|
| 1 | 0.2125 | 23.99 | 13.09 | 19.61 | 43.60 | 32.70 | 63.11 | 53.11 | -19.51 | -20.41 | Pass |
| 2 | 0.4998 | 21.89 | 13.25 | 19.83 | 41.72 | 33.08 | 56.00 | 46.00 | -14.28 | -12.92 | Pass |
| 3 | 0.5525 | 21.32 | 13.02 | 19.83 | 41.15 | 32.85 | 56.00 | 46.00 | -14.85 | -13.15 | Pass |
| 4 | 4.4059 | 22.70 | 8.66 | 20.23 | 42.93 | 28.89 | 56.00 | 46.00 | -13.07 | -17.11 | Pass |
| 5 | 5.0426 | 22.09 | 9.08 | 20.30 | 42.39 | 29.38 | 60.00 | 50.00 | -17.61 | -20.62 | Pass |
| 6* | 9.7201 | 28.04 | 12.78 | 20.74 | 48.78 | 33.52 | 60.00 | 50.00 | -11.22 | -16.48 | Pass |

Note: 1. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).



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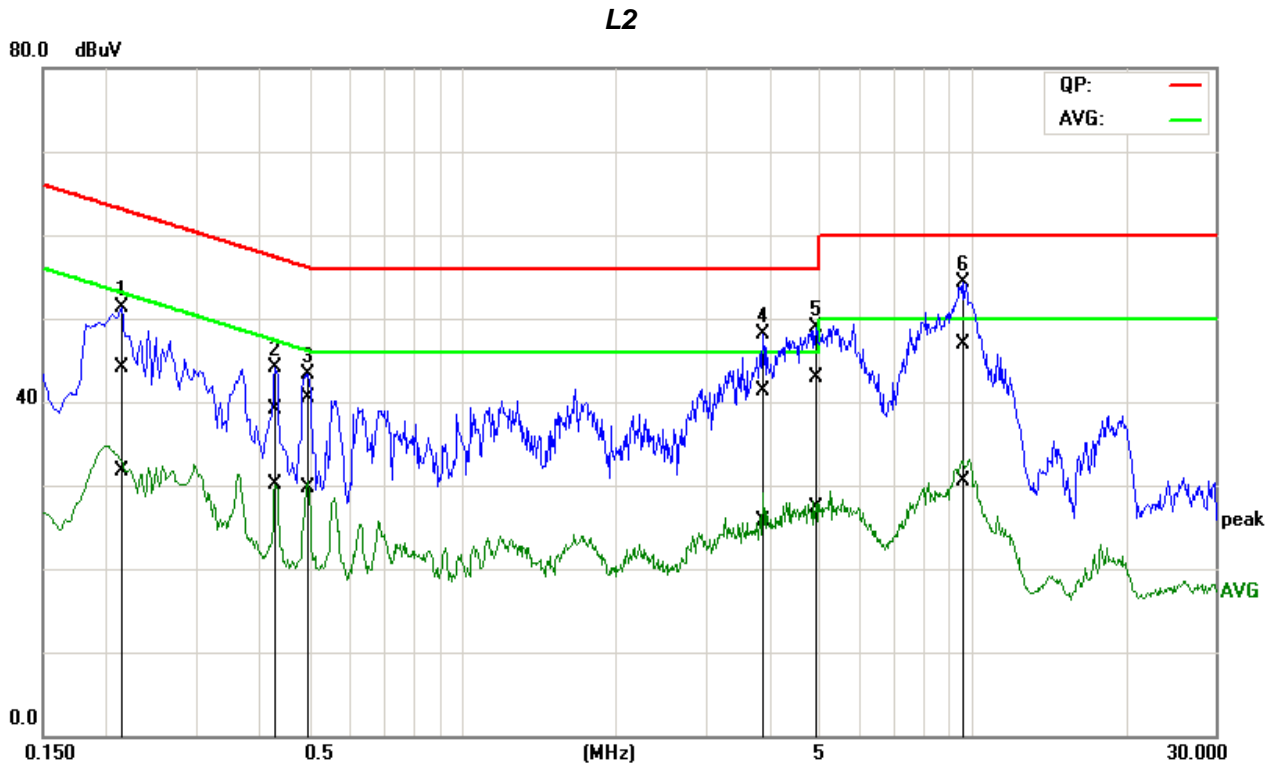
Report No: C141031R01-RPW

FCC ID: UIDTG2472

Date of Issue : November 25, 2014

Job No.: C14925R01
 Company: TG2472G
 Standard: FCC Class B
 Test item: Conduction test
 Line: L2
 Model:

Date: 2014-10-23
 Time: 15:33:55
 Temp.(C)/Hum.(%): 22(C)/48%
 Test By: Charly.xue
 Test Voltage: AC 120V/60Hz
 Description:



| No. | Frequency (MHz) | QuasiPeak reading (dBuV) | Average reading (dBuV) | Correction factor (dB) | QuasiPeak result (dBuV) | Average result (dBuV) | QuasiPeak limit (dBuV) | Average limit (dBuV) | QuasiPeak margin (dB) | Average margin (dB) | Remark |
|-----|-----------------|--------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|----------------------|-----------------------|---------------------|--------|
| 1 | 0.2116 | 24.36 | 11.97 | 19.65 | 44.01 | 31.62 | 63.14 | 53.14 | -19.13 | -21.52 | Pass |
| 2 | 0.4288 | 19.25 | 10.23 | 19.80 | 39.05 | 30.03 | 57.28 | 47.28 | -18.23 | -17.25 | Pass |
| 3 | 0.4937 | 20.58 | 9.80 | 19.85 | 40.43 | 29.65 | 56.11 | 46.11 | -15.68 | -16.46 | Pass |
| 4 | 3.8927 | 21.04 | 5.61 | 20.18 | 41.22 | 25.79 | 56.00 | 46.00 | -14.78 | -20.21 | Pass |
| 5* | 4.9513 | 22.69 | 6.99 | 20.29 | 42.98 | 27.28 | 56.00 | 46.00 | -13.02 | -18.72 | Pass |
| 6 | 9.5837 | 26.14 | 9.77 | 20.77 | 46.91 | 30.54 | 60.00 | 50.00 | -13.09 | -19.46 | Pass |

Note: 1. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).