# *TEST REPORT*

| | |
|---|---|
| **Application No.**: | HKEM1904000343AT |
| **Applicant:** | VTECH TELECOMMUNICATIONS LTD |
| **Address of Applicant:** | 23/F., BLOCK 1, TAI PING INDUSTRIAL CENTRE, NO. 57 TING KOK ROAD, TAI PO, N.T., Hong Kong |
| **Equipment Under Test (EUT):** | |
| **EUT Name:** | VIDEO MONITOR (Parent Unit) |
| **HVIN:** | 35-201134PU |
| **Model No.:** | RM5762 PU, RM5762-2 PU, RM5762-ab PU;<br>RM5752 PU, RM5752-2 PU, RM5752-ab PU<br>RM5753 PU, RM5753-2 PU, RM5753-ab PU;<br>RM5763 PU, RM5763-2 PU, RM5763-ab PU♣ |
| ♣ | Please refer to section 2 of this report which indicates which item was actually tested and which were electrically identical. |
| **Trade mark:** | Vtech |
| **Standard(s)** : | 47 CFR Part 15, Subpart C 15.247:2018<br>RSS-247 Issue 2, May 2017<br>RSS-GEN Issue 5, April 2018 |
| **FCC ID :** | EW780-1491-01 |
| **IC :** | 1135B-80149101 |
| **Date of Receipt**: | 10-04-2019 |
| **Date of Test**: | 10-04-2019 to 23-04-2019 |
| **Date of Issue**: | 24-04-2019 |
| **Test Result:** | **Pass** |

In the configuration tested, the EUT detailed in this report complied with the standards specified above.

Ivan Toa
EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

| Revision Record | | | | |
|---|---|---|---|---|
| **Version** | **Chapter** | **Date** | **Modifier** | **Remark** |
| *01* | | 24-04-2019 | | *Original* |
| | | | | |
| | | | | |

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|---|---|---|---|---|
| **Authorized for issue by:** | | | | |
| **Tested By** | |  **Leo Xu /Project Engineer** | | 23-04-2019 **Date** |
| **Checked By** | |  **Ivan Toa /Reviewer** | | 24-04-2019 **Date** |

# 2 Test Summary

| Radio Spectrum Technical Requirement | | | | |
|---|---|---|---|---|
| **Item** | **Standard** | **Method** | **Requirement** | **Result** |
| Antenna Requirement | CFR 47 FCC Part 15, Subpart C 15.247 | N/A | CFR 47 FCCPart 15, Subpart C 15.203 & 15.247(c) | Pass |
| Antenna Requirement | RSS-GEN Issue 5, April 2018 | N/A | RSS-Gen Section 6.8 | Pass |

| Radio Spectrum Matter Part | | | | |
|---|---|---|---|---|
| **Item** | **Standard** | **Method** | **Requirement** | **Result** |
| Conducted Disturbance at AC Power Line(150kHz-30MHz) | CFR 47 FCCPart 15, Subpart C 15.207 | ANSI C63.10: 2013 Section 6.2 | CFR 47 FCCPart 15, Subpart C 15.207 | Pass |
| Conducted Peak Output Power | CFR 47 FCCPart 15, Subpart C 15.247 | ANSI C63.10: 2013 Section 11.9.1.2 | CFR 47 FCCPart 15, Subpart C 15.247(b)(3) | Pass |
| Minimum 6dB Bandwidth | CFR 47 FCCPart 15, Subpart C 15.247 | ANSI C63.10: 2013 Section 11.8.1 | CFR 47 FCCPart 15, Subpart C 15.247a(2) | Pass |
| Power Spectrum Density | CFR 47 FCCPart 15, Subpart C 15.247 | ANSI C63.10: 2013 Section 11.10.2 | CFR 47 FCCPart 15, Subpart C 15.247(e) | Pass |
| Conducted Spurious Emissions | CFR 47 FCCPart 15, Subpart C 15.247 | ANSI C63.10: 2013 Section 11.11 | CFR 47 FCCPart 15, Subpart C 15.247(d) | Pass |
| Radiated Spurious Emissions | CFR 47 FCCPart 15, Subpart C 15.247 & 15.209 | ANSI C63.10: 2013 Section 6.10.4 | CFR 47 FCCPart 15, Subpart C 15.209 & 15.247(d) | Pass |
| Radiated Emissions which fall in the restricted bands | CFR 47 FCCPart 15, Subpart C 15.247 | ANSI C63.10: 2013 Section 6.10.5 | CFR 47 FCCPart 15, Subpart C 15.209 & 15.247(d) | Pass |
| Conducted Band Edges Measurement | CFR 47 FCCPart 15, Subpart C 15.247 | ANSI C63.10: 2013 Section 11.13.3.2 | CFR 47 FCCPart 15, Subpart C 15.247(d) | Pass |
| Conducted Emissions at AC Power Line (150kHz-30MHz) | RSS-GEN Issue 5, April 2018 | ANSI C63.10 (2013) Section 6.2 | RSS-Gen Section 8.8 | Pass |
| 99% Bandwidth | RSS-GEN Issue 5, April 2018 | ANSI C63.10 Section 6.9.3 | RSS-Gen Section 6.7 | Pass |
| Minimum 6dB Bandwidth | RSS-247 Issue 2, February 2017 | ANSI C63.10 (2013) Section 11.8.1 | RSS-247 Section 5.2(a) | Pass |
| Conducted Peak Output Power | RSS-247 Issue 2, February 2017 | ANSI C63.10 (2013) Section 11.9.1 | RSS-247 Section 5.4(d) | Pass |

| Radio Spectrum Matter Part | | | | |
|---|---|---|---|---|
| **Item** | **Standard** | **Method** | **Requirement** | **Result** |
| Power Spectrum Density | RSS-247 Issue 2, February 2017 | ANSI C63.10 (2013) Section 11.10.2 | RSS-247 Clause 5.2(b) | Pass |
| Conducted Band Edges Measurement | RSS-247 Issue 2, February 2017 | ANSI C63.10 (2013) Section 11.12 | RSS-247 Section 5.5 | Pass |
| Conducted Spurious Emissions | RSS-247 Issue 2, February 2017 | ANSI C63.10 (2013) Section 11.11 | RSS-247 Section 5.5 | Pass |
| Radiated Emissions which fall in the restricted bands | RSS-GEN Issue 5, April 2018 | ANSI C63.10 (2013) Section 6.4&6.5&6.6 | RSS-247 Section 5.5 & RSS-Gen Section 8.9 | Pass |
| Radiated Spurious Emissions | RSS-GEN Issue 5, April 2018 | ANSI C63.10 (2013) Section 6.4&6.5&6.6 | RSS-247 Section 5.5 & RSS-Gen Section 8.9 | Pass |

**Declaration of EUT Family Grouping:**

Model:
RM5762 PU, RM5762-2 PU, RM5762-ab PU;
RM5752 PU, RM5752-2 PU, RM5752-ab PU
RM5753 PU, RM5753-2 PU, RM5753-ab PU;
RM5763 PU, RM5763-2 PU, RM5763-ab PU

Where

Suffix (“a, b,”) represents

a=any alphanumeric character or blank is presenting number of baby unit.

b = any alphanumeric character or blank is presenting color of enclosure.

According to the confirmation from the applicant, the above models are identical in all electrical aspects in relating to the circuit design, PCB layout, electrical components used, internal wiring and function. The differences are only the model, color and decorations.

Therefore only the model RM5762 PU was tested in this report.

# 3 Contents

# 4 General Information

## 4.1 Details of E.U.T.

| | |
|---|---|
| Power supply: | AC100-240V, 50/60Hz 400mA |
| Adapter | Adapter Model: S012CDU0500150 |
| | Input: AC100-240V, 50/60Hz 400mA |
| | Output: DC 5.0V, 1.5A |
| Cable | 185cm 2 wires unshielded DC power cable |
| Funtion | Wireless Network camera, video, sound streaming |
| Test Voltage | AC120V 60 Hz |
| Operation Frequency: | IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz |
| | IEEE 802.11n(HT40): 2422MHz to 2452MHz |
| Channel Numbers: | IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels |
| | IEEE 802.11n HT40: 7 Channels |
| Channel Separation: | 5MHz |
| Type of Modulation: | IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) |
| | IEEE for 802.11g : OFDM(64QAM, 16QAM, QPSK, BPSK) |
| | IEEE for 802.11n(HT20 and HT40) : OFDM (64QAM, 16QAM, QPSK,BPSK) |
| Sample Type: | Fixed production |
| Antenna Type: | Intergral Antenna |
| Antenna Gain: | 2 dBi |
| Frequency List | |

**Channel list for 802.11b/g/n(HT20)**

| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---|---|---|---|---|---|
| 1 | 2412 | 5 | 2432 | 9 | 2452 |
| 2 | 2417 | 6 | 2437 | 10 | 2457 |
| 3 | 2422 | 7 | 2442 | 11 | 2462 |
| 4 | 2427 | 8 | 2447 | | |
| Remark: Test frequencies for 20MHz bandwidth are the lowest channel: 1 channel(2412MHz), middle channel: 6 channel (2437 MHz) and highest channel: 11 channel (2462 MHz). | | | | | |

**Channel list for 802.11n(HT40)**

| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---|---|---|---|---|---|
| | | 5 | 2432 | 9 | 2452 |
| | | 6 | 2437 | | |
| 3 | 2422 | 7 | 2442 | | |
| 4 | 2427 | 8 | 2447 | | |
| Test frequencies for 40MHz bandwidth are the lowest channel: 3 channel(2422MHz), middle channel: 6 channel (2437 MHz) and highest channel: 9 channel (2452 MHz). | | | | | |

## 4.2 Description of Support Units

The EUT has been tested as an independent unit for fixed frequency by testing lab.

The EUT has been tested with corresponding accessories as below:

Supplied by client

| Description | Manufacturer | Model No. | SN/Certificate NO |
|---|---|---|---|
| Test board | -- | -- | -- |

Supplied by SGS:

| Description | Manufacturer | Model No. | SN/Certificate NO |
|---|---|---|---|
| NoteBook | Dell | Inspiron 15 3000 | -- |

## 4.3 Measurement Uncertainty

RF

| No. | Item | Measurement Uncertainty |
|---|---|---|
| 1 | Radio Frequency | ± 7.25 x $10^{-8}$ |
| 2 | Duty cycle | ± 0.37% |
| 3 | Occupied Bandwidth | ± 3% |
| 4 | RF conducted power | ± 1.43dB |
| 5 | RF power density | ± 2.84dB |
| 6 | Conducted Spurious emissions | ± 1.43dB |
| 7 | RF Radiated power | ± 4.84dB (below 1GHz) |
| | | ± 5.05dB (above 1GHz) |
| 8 | Radiated Spurious emission test | ± 4.84dB (below 1GHz) |
| | | ± 5.05dB (above 1GHz) |
| 9 | Temperature test | ± 1°C |
| 10 | Humidity test | ± 3% |
| 11 | Supply voltages | ± 1.5% |
| 12 | Time | ± 3% |

Remark:

The $U_{lab}$ (lab Uncertainty) is less than $U_{cispr}$ (CISPR Uncertainty), so the test results

– compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;

– non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

## 4.4 Test Location

All tests were performed at:

SGS IECC Limited (Member of the SGS Group (SGS SA))
No. 16-B, Yip Wo Street, On Lok Tsuen, Fanling, N.T., Hong Kong
Tel: +852 2305 2570 Fax: +852 2756 4480

No tests were sub-contracted.

## 4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **HOKLAS (Lab Code: 125)**

SGS IECC Limited has been accepted by HKAS Executive, on the recommendation of the Accreditation Advisory Board, as a HOKLAS Accredited Laboratory, this laboratory meets the requirements of ISO/IEC 17025:2005 an it has been accredited for performing specific test as listed in the scope of accreditation within the test category of Electrical and Electronic Products.

- **FCC Recognized Accredited Test Firm(CAB Registration No.: 446297)**

SGS IECC Limited has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: HK0010, Test Firm Registration Number: 446297.

- **Industry Canada (Site Registration No.: 5193A; CAB Identifier No.: HK0001)**

SGS IECC Limited has been recognized by Department of Innovation, Science and Economic Development (ISED) Canada as a wireless testing laboratory. The acceptance letter from the ISED is maintained in our files. CAB Identifier No: HK0001, Site Registration Number: 5193A.

## 4.6 Deviation from Standards

None

## 4.7 Abnormalities from Standard Conditions

None

# 5 Equipment List

| General used equipment | | | | | |
|---|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model No** | **Inventory No** | **Cal Date** | **Cal Due Date** |
| Digital temperature & humidity data logger | SATO | SK-L200TH II | E232 | 2018/09/21 | 2019/09/20 |
| Electronic Digital Thermometer with Hygrometer | nil | 2074/2075 | E159 | 2018/10/04 | 2019/10/03 |
| Barometer with digital thermometer | SATO | 7612-00 | E218 | 2018/05/22 | 2019/05/21 |
| Conditional Chamber -40℃~ +150℃ | Zhong Zhi Testing Instruments | CZ-E-608D | E216 | 2018/09/18 | 2019/09/17 |

| Radiated Emission | | | |
|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model / Serial No.** | **Cal. Due Date** |
| 3m Semi-Anechoic Chamber | ChamPro | N/A | 2020/09/14 |
| Test Receiver | Rohde & Schwarz | ESCS 30 / 100388 | 2019/09/26 |
| EMI Test Receiver | Rohde & Schwarz | ESR3 | 2019/08/15 |
| Signal Generator | Rohde & Schwarz | SMT03 / 832939/017 | 2019/06/04 |
| Spectrum Analyzer | Rohde & Schwarz | FSP 30 / 101474 | 2019/05/30 |
| Loop Antenna | Rohde & Schwarz | HFH2-Z2 / 871336/48 | 2020/01/22 |
| Antenna 30-1000MHz | Schaffner | CBL6111C / 2791 | 2019/10/26 |
| Antennas (30MHz-300MHz) | Schwarzbeck | BBA9106, VHA9103 | 2019/11/14 |
| Log-periodic Antennas (300MHz-1000MHz) | Schwarzbeck | UHALP9107 | 2019/11/14 |
| Horn Antenna 1-18GHz | Schwarzbeck | BBHA9120D / 9120D-1070 | 2020/01/22 |
| Double Ridge Horn Antenna 2-18 GHz | Schwarzbeck | BBHA 9120 C | 2020/03/13 |
| Horn Antenna 15-40GHz | Schwarzbeck | BBHA9170 / 9170-492 | 2019/11/23 |
| Highpass Filter | Wainwright | WHNX3.5/26.5G-6SS / nil | 2019/12/18 |
| Band Reject Filter | Wainwright | WRCJV 2400/2500-2100/2800-40/3SS / nil | 2019/12/18 |
| Preamplifier 10MHz – 6GHz | Schwarzbeck | BBV9743 / 9743-052 | 2020/04/18 |

| | | | |
|---|---|---|---|
| Preamplifier 1-18GHz | Schwarzbeck | BBV9718 / 9718-223 | 2020/01/28 |
| Preamplifier 18-26.5GHz | Schwarzbeck | BBV9719 / 9719-019 | 2019/11/18 |
| Coaxial Cable | -- | E167 | 2019/10/09 |
| RF Cable | HUBER+SUHNER | E207 | 2019/11/16 |
| Boresight Mast Controller | ChamPro | AM-BS-4500-E / 060860-ABS | -- |
| Turntable with Controller | ChamPro | EM1000 / 60860 | -- |

**RF Conducted**

| Equipment | Manufacturer | Model / Serial No. | Cal. Due Date |
|---|---|---|---|
| Wireless Conn. Tester (CMW) | Rohde & Schwarz | CMW270 | 2019/08/12 |
| OSP | Rohde & Schwarz | OSP-B157W8 | 2019/09/17 |
| FSV40 SIGNAL ANALYZER 40GHz | Rohde & Schwarz | FSV40 | 2019/08/12 |
| SMBV100A VECTOR SIGNAL GENERATOR | Rohde & Schwarz | SMBV100A | 2019/08/12 |
| Cable | Rohde & Schwarz | J12J103539-00-2 | 2019/08/12 |

**Conducted Emission**

| Equipment | Manufacturer | Model / Serial No. | Calibration Due |
|---|---|---|---|
| Test Receiver | Rohde & Schwarz | ESHS 30 / 839667/002 | 2019/09/26 |
| Signal Generator | Rohde & Schwarz | SMT03 / 832939/017 | 2019/06/04 |
| Artificial Mains Network (LISN) | Schwarzbeck | NSLK 8127 / 8127309 | 2019/09/26 |
| Impulse Limiter | Rohde & Schwarz | ESH-3-Z2 / 357881052 | 2020/01/22 |

**Frequency stability**

| Equipment | Manufacturer | Model / Serial No. | Cal. Due Date |
|---|---|---|---|
| Conditional Chamber -40℃~ +150℃ | CEPREI | CZ-E-608D/ZH12649 | 2019/09/17 |
| EMI Test Receiver | Rohde & Schwarz | ESR3 | 2019/08/15 |
| Spectrum Analyzer | Rohde & Schwarz | FSP 30 / 101474 | 2019/05/30 |

# 6 Radio Spectrum Technical Requirement

## 6.1 Antenna Requirement

### 6.1.1 Test Requirement:

FCC Part 15 Subpart C Section 15.247 & 15.203

RSS-Gen Section 6.8

### 6.1.2 Conclusion

Standard Requirment:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Testing shall be performed using the highest gain antenna of each combination of licence-exempt transmitter and antenna type, with the transmitter output power set at the maximum level. When a measurement at the antenna connector is used to determine RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna manufacturer.

15.203 requirement:

For intentional device. According to 15.203. an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

15.247(b) (4) requirement:

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.

EUT Antenna:

The antenna uses a unique coupling to the intentional radiator and no consideration of replacement.

Photo of antenna refer to Appendix – Internal photo.

# 7 Radio Spectrum Matter Test Results

## 7.1 Conducted Disturbance at AC Power Line(150kHz-30MHz)

Test Requirement FCC Part 15 Subpart C Section 15.207
RSS-Gen Section 8.8

Test Method: ANSI C63.10 Section 6.2

Limit:

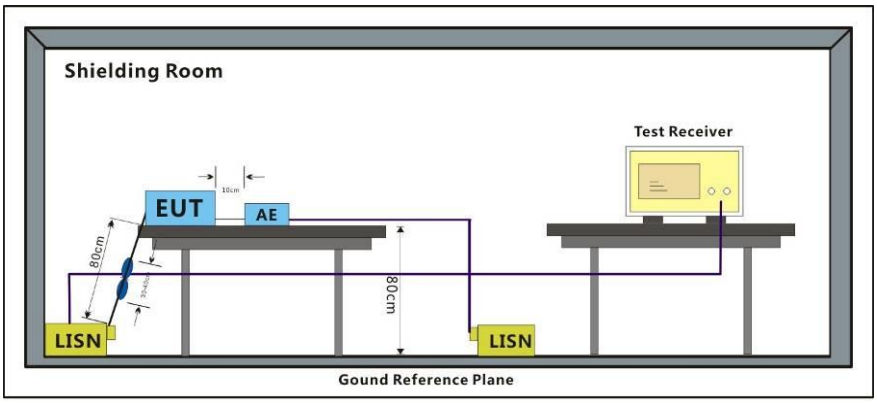
| Frequency of emission(MHz) | Conducted limit (dBμV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15-0.5 | 66 to 56* | 56 to 46* |
| 0.5-5 | 56 | 46 |
| 5-30 | 60 | 50 |
| *Decreases with the logarithm of the frequency. | | |

### 7.1.1 E.U.T. Operation

Operating Environment:

| | | | | | | |
|---|---|---|---|---|---|---|
| Temperature: | 26.0 °C | Humidity: | 51 % RH | Atmospheric Pressure: | 1015 | mbar |
| Test mode | Continuous Video transimitting mode | | | | | |
| The worst case for final test: | Continuous Video transimitting mode | | | | | |

### 7.1.2 Test Setup Diagram




### 7.1.3 Measurement Data

1) The mains terminal disturbance voltage test was conducted in a shielded room.

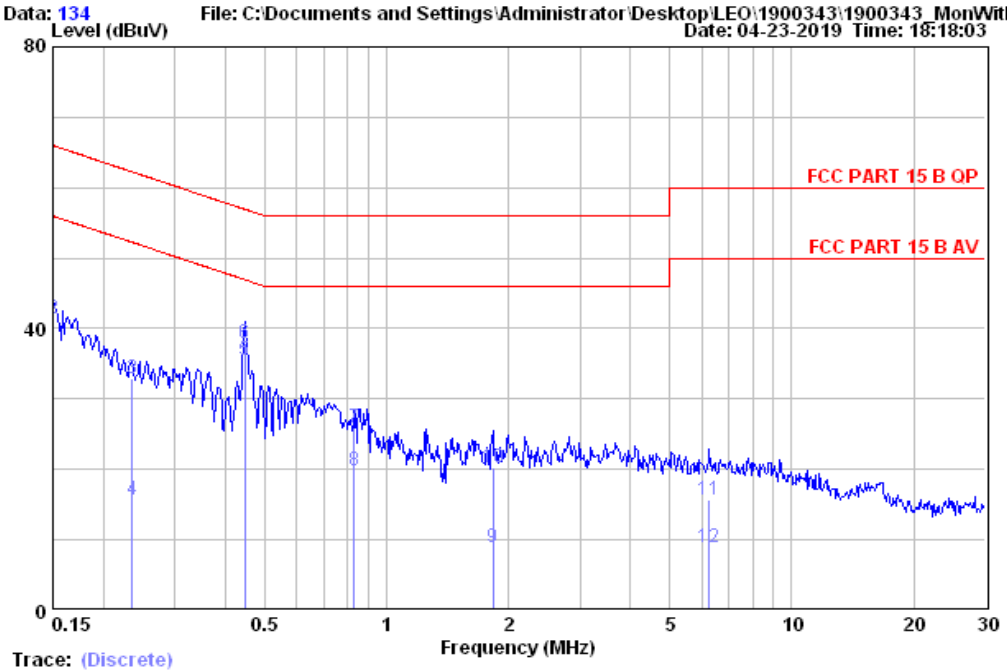
2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

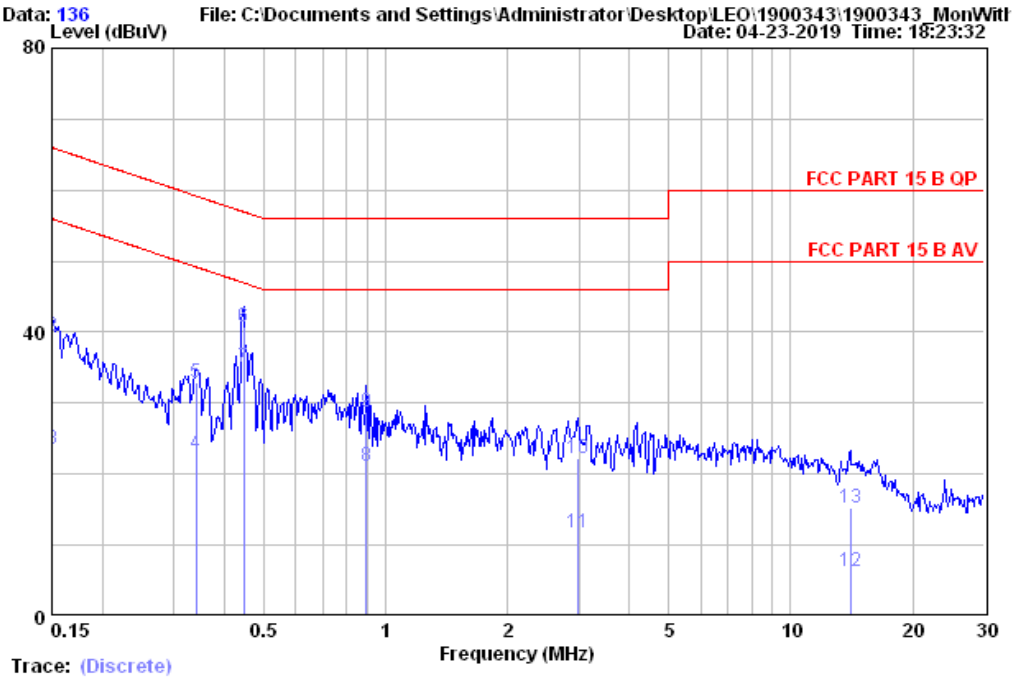
5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Live Line




| | | Freq | Cable Loss | LISN Factor | Read Level | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dB | dB | dBuV | dBuV | dBuV | dB | |
| 1 | | 0.15 | 0.00 | 9.93 | 15.29 | 25.22 | 66.00 | -40.78 | AVERAGE |
| 2 | | 0.15 | 0.00 | 9.93 | 31.40 | 41.33 | 66.00 | -24.67 | QP |
| 3 | | 0.24 | 0.00 | 9.93 | 22.92 | 32.85 | 62.26 | -29.41 | QP |
| 4 | | 0.24 | 0.00 | 9.93 | 5.87 | 15.80 | 62.26 | -46.46 | AVERAGE |
| 5 | | 0.45 | 0.00 | 9.94 | 25.57 | 35.51 | 56.93 | -21.43 | AVERAGE |
| 6 | peak | 0.45 | 0.00 | 9.94 | 27.94 | 37.88 | 56.93 | -19.06 | QP |
| 7 | | 0.83 | 0.00 | 9.96 | 15.96 | 25.92 | 56.00 | -30.08 | QP |
| 8 | | 0.83 | 0.00 | 9.96 | 9.86 | 19.82 | 56.00 | -36.18 | AVERAGE |
| 9 | | 1.83 | 0.00 | 9.99 | -1.01 | 8.98 | 56.00 | -47.02 | AVERAGE |
| 10 | | 1.83 | 0.00 | 9.99 | 10.28 | 20.27 | 56.00 | -35.73 | QP |
| 11 | | 6.25 | 0.00 | 10.15 | 5.46 | 15.61 | 60.00 | -44.39 | QP |
| 12 | | 6.25 | 0.00 | 10.15 | -1.21 | 8.94 | 60.00 | -51.06 | AVERAGE |

Neutral Line




| | | Freq | Cable Loss | LISN Factor | Read Level | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dB | dB | dBuV | dBuV | dBuV | dB | |
| 1 | | 0.15 | 0.00 | 9.95 | 31.62 | 41.57 | 66.00 | -24.43 | AVERAGE |
| 2 | | 0.15 | 0.00 | 9.95 | 29.56 | 39.51 | 66.00 | -26.49 | QP |
| 3 | | 0.15 | 0.00 | 9.95 | 13.68 | 23.63 | 66.00 | -42.37 | AVERAGE |
| 4 | | 0.34 | 0.00 | 9.95 | 12.91 | 22.86 | 59.18 | -36.32 | AVERAGE |
| 5 | | 0.34 | 0.00 | 9.95 | 23.04 | 32.99 | 59.18 | -26.19 | QP |
| 6 | peak | 0.45 | 0.00 | 9.95 | 30.72 | 40.67 | 56.93 | -16.26 | QP |
| 7 | | 0.45 | 0.00 | 9.95 | 25.16 | 35.11 | 56.93 | -21.82 | AVERAGE |
| 8 | | 0.89 | 0.00 | 9.98 | 11.08 | 21.06 | 56.00 | -34.94 | AVERAGE |
| 9 | | 0.89 | 0.00 | 9.98 | 18.84 | 28.82 | 56.00 | -27.18 | QP |
| 10 | | 2.98 | 0.00 | 10.04 | 12.12 | 22.16 | 56.00 | -33.84 | QP |
| 11 | | 2.98 | 0.00 | 10.04 | 1.71 | 11.75 | 56.00 | -44.25 | AVERAGE |
| 12 | | 14.06 | 0.00 | 10.60 | -4.24 | 6.36 | 60.00 | -53.64 | AVERAGE |
| 13 | | 14.06 | 0.00 | 10.60 | 4.74 | 15.34 | 60.00 | -44.66 | QP |

## 7.2 Conducted RF Output Power

Test Requirement FCC Part 15 Subpart C Section 15.247(b)(3)
RSS-247 Section 5.4(d)

Test Method: ANSI C63.10 Section 11.9.1

Limit:

| Frequency range(MHz) | Output power of the intentional radiator(watt) |
|---|---|
| 902-928 | 1w for ≥50 hopping channels |
| | 0.25w for 25≤ hopping channels <50 |
| | 1 for digital modulation |
| 2400-2483.5 | 1w for ≥75 non-overlapping hopping channels |
| | 0.125w for all other frequency hopping systems |
| | 1w for digital modulation |
| 5725-5850 | 1w for frequency hopping systems and digital modulation |

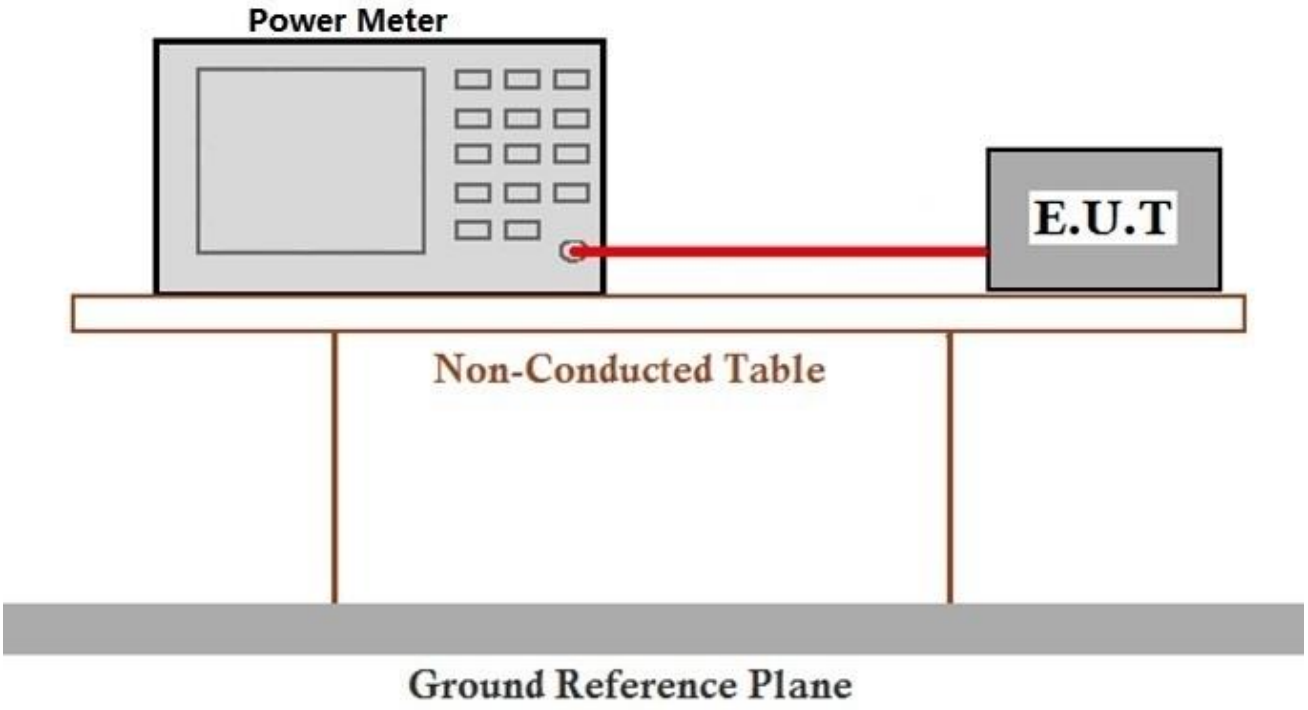
### 7.2.1 E.U.T. Operation

Operating Environment:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Temperature: | 25.0 °C | Humidity: | 56 % RH | Atmospheric Pressure: | 1015 | mbar |

| | |
|---|---|
| Test mode | Continuous Transmiiting Mode with 802.11b/g/n (20) and 802.11n(HT40). |
| The worst case for final test: | Continuous Transmitting Mode<br>Through Pre-scan, found<br>5.5Mbps of rate is the worst case of 802.11b;<br>9Mbps of rate is the worst case of 802.11g;<br>21.7Mbps of rate is the worst case of 802.11n(HT20);<br>45Mbps of rate is the worst case of 802.11n(HT40).<br>Only the data of worst case is recorded in the report |

### 7.2.2 Test Setup Diagram




### 7.2.3 Measurement Data

The detailed test data see: section 9 Appendix

## 7.3 Minimum 6dB Bandwidth

| | |
|---|---|
| Test Requirement | FCC Part 15 Subpart C Section 15.247a(2) |
| | RSS-247 Section 5.2(a) |
| Test Method: | ANSI C63.10 Section 11.8.1 |
| Limit: | ≥500 kHz |

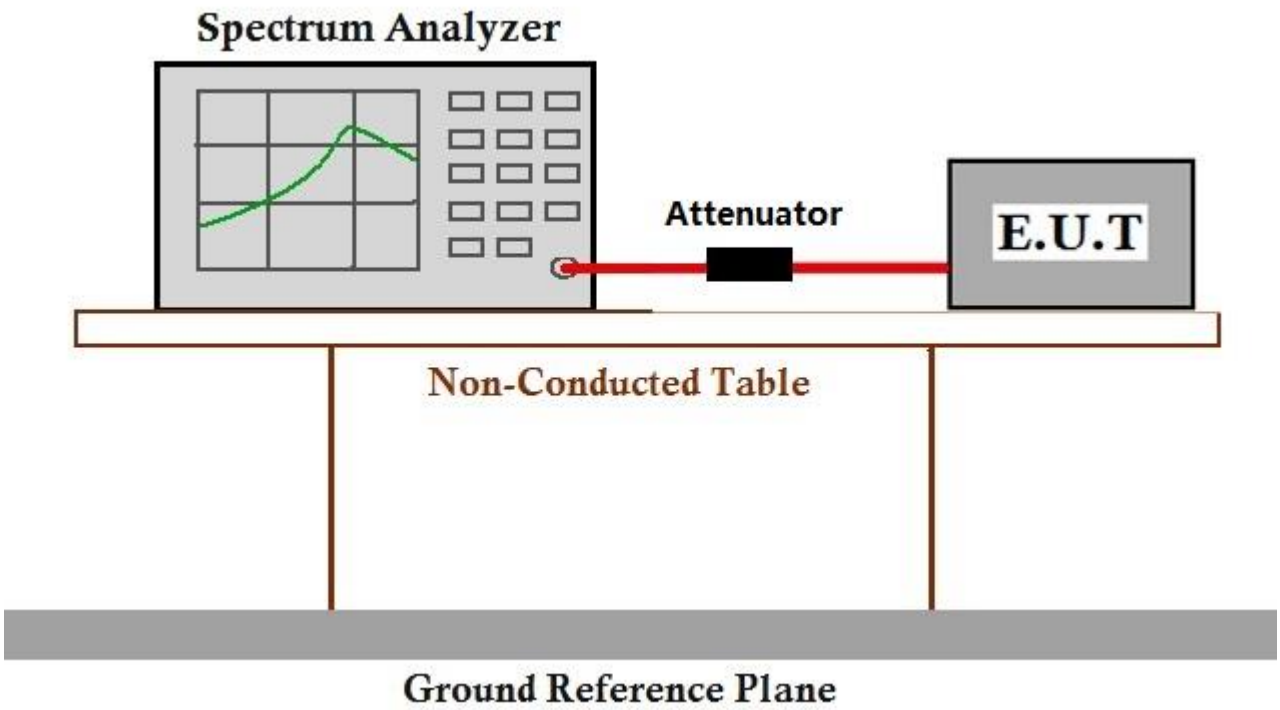
### 7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 56 % RH Atmospheric Pressure: 1015 mbar

| | |
|---|---|
| Test mode | Continuous Transmiiting Mode |
| | Continuous Transmiiting Mode with 802.11b/g/n (20) and 802.11n(HT40). |
| The worst case for final test: | Continuous Transmitting Mode |
| | Through Pre-scan, found |
| | 5.5Mbps of rate is the worst case of 802.11b; |
| | 9Mbps of rate is the worst case of 802.11g; |
| | 21.7Mbps of rate is the worst case of 802.11n(HT20); |
| | 45Mbps of rate is the worst case of 802.11n(HT40). |
| | Only the data of worst case is recorded in the report |

### 7.3.2 Test Setup Diagram




### 7.3.3 Measurement Data

The detailed test data see: section 9 Appendix

## 7.4 Power Spectrum Density

| | |
|---|---|
| Test Requirement | FCC Part 15, Subpart C Section 15.247(e)<br>RSS-247 Clause 5.2(b) |
| Test Method: | ANSI C63.10 Section 11.10.2 |
| Limit: | ≤8dBm in any 3 kHz band during any time interval of continuous transmission |

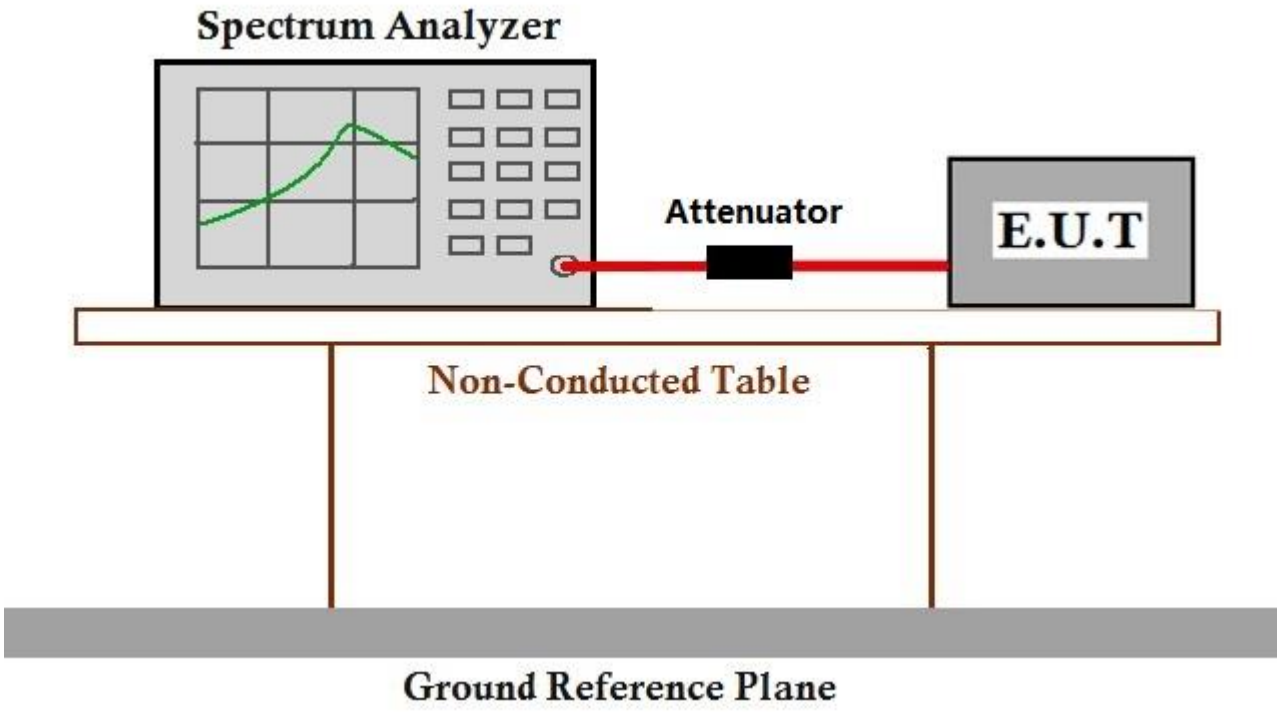
### 7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 56 % RH Atmospheric Pressure: 1015 mbar

| | |
|---|---|
| Test mode | Continuous Transmiiting Mode<br>Continuous Transmiiting Mode with 802.11b/g/n (20) and 802.11n(HT40). |
| The worst case for final test: | Continuous Transmitting Mode<br>Through Pre-scan, found<br>5.5Mbps of rate is the worst case of 802.11b;<br>9Mbps of rate is the worst case of 802.11g;<br>21.7Mbps of rate is the worst case of 802.11n(HT20);<br>45Mbps of rate is the worst case of 802.11n(HT40).<br>Only the data of worst case is recorded in the report |

### 7.4.2 Test Setup Diagram




### 7.4.3 Measurement Data

The detailed test data see: section 9 Appendix

## 7.5 Conducted Spurious Emissions

| | |
|---|---|
| Test Requirement | FCC Part 15, Subpart C Section 15.247(d)<br>RSS-247 Section 5.5 |
| Test Method: | ANSI C63.10 Section 11.11 |
| Limit: | In any 100 kHz bandwidth outside the frequency band 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. |

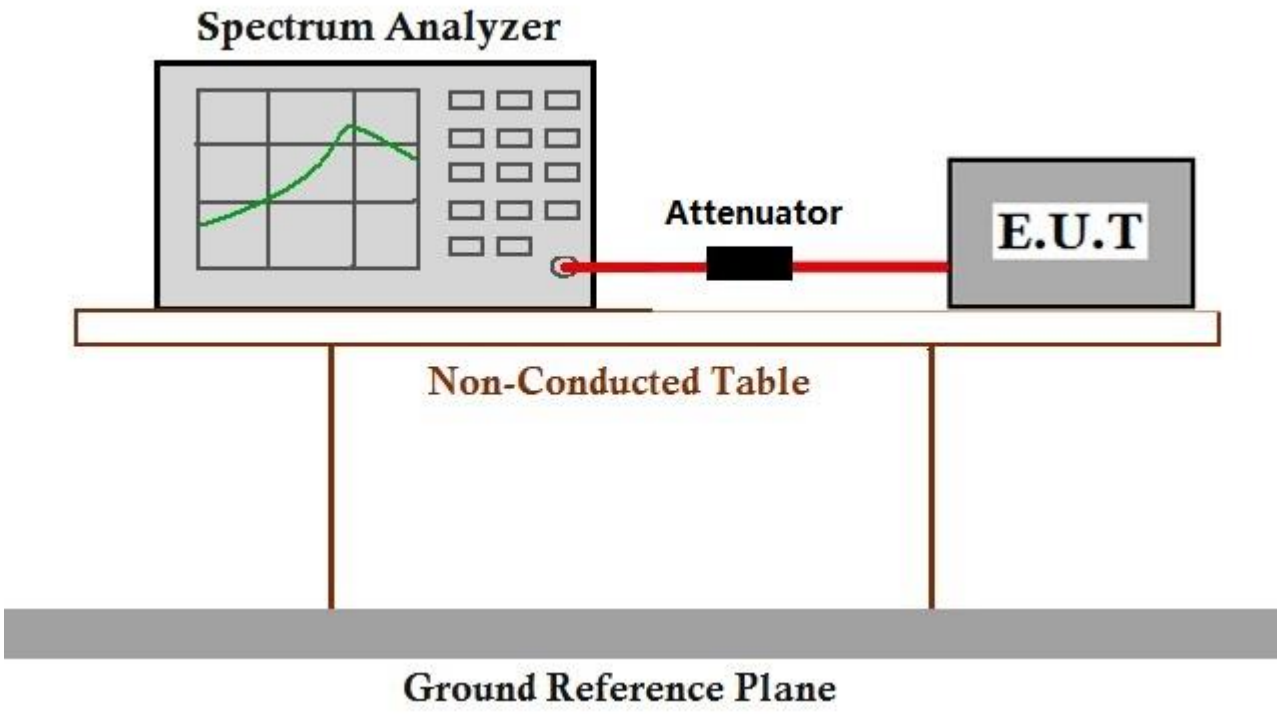
### 7.5.1 E.U.T. Operation

Operating Environment:

| | | | | | | |
|---|---|---|---|---|---|---|
| Temperature: | 25.0 °C | Humidity: | 56 % RH | Atmospheric Pressure: | 1015 | mbar |

| | |
|---|---|
| Test mode | Continuous Transmiiting Mode<br>Continuous Transmiiting Mode with 802.11b/g/n (20) and 802.11n(HT40). |
| The worst case for final test: | Continuous Transmitting Mode<br>Through Pre-scan, found<br>5.5Mbps of rate is the worst case of 802.11b;<br>9Mbps of rate is the worst case of 802.11g;<br>21.7Mbps of rate is the worst case of 802.11n(HT20);<br>45Mbps of rate is the worst case of 802.11n(HT40).<br>Only the data of worst case is recorded in the report |

### 7.5.2 Test Setup Diagram




### 7.5.3 Measurement Data

The detailed test data see: section 9 Appendix

## 7.6 Radiated Emissions which fall in the restricted bands

Test Requirement: 47 CFR Part 15, Subpart C 15.209 & 15.247(d), Section 5.5 & RSS-Gen Section 8.9

Test Method: ANSI C63.10 (2013) Section 6.10.5

Measurement Distance: 3m

Limit:

| Frequency(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: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

### 7.6.1 E.U.T. Operation

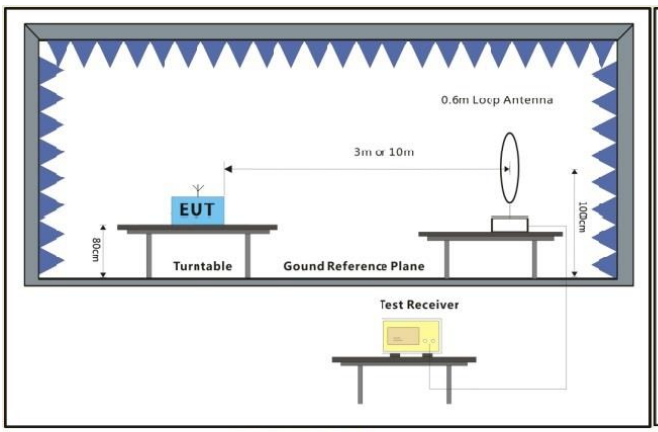
Operating Environment:

Temperature: 23.0 °C Humidity: 52 % RH Atmospheric Pressure: 1015 mbar

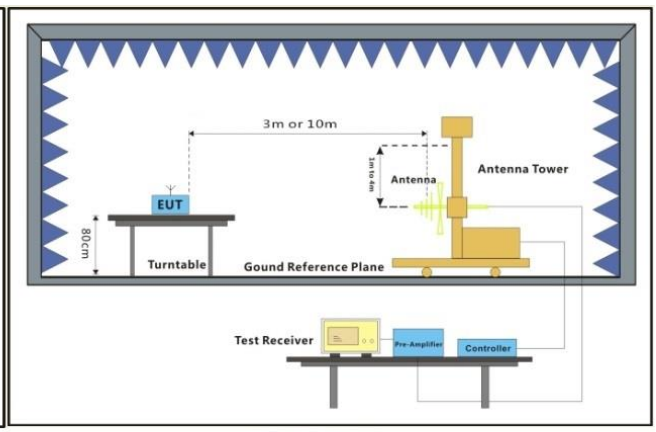
Test mode: Continuous Transmiiting Mode with 802.11b/g/n (20) and 802.11n(HT40).

The worst case for final test: Continuous Transmitting Mode
Through Pre-scan, found
5.5Mbps of rate is the worst case of 802.11b;
9Mbps of rate is the worst case of 802.11g;
21.7Mbps of rate is the worst case of 802.11n(HT20);
45Mbps of rate is the worst case of 802.11n(HT40).
Only the worst case is recorded in the report.

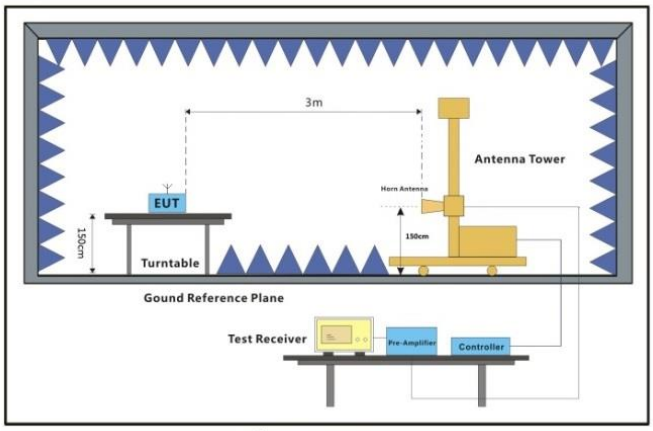
### 7.6.2 Test Setup Diagram




Below 30MHz




30MHz-1GHz




Above 1GHz

### 7.6.3 Measurement Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
j. Repeat above procedures until all frequencies measured was complete.
Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

### 7.6.4 Measurement Procedure and Data

The detailed test data see: 9.1 Appendix

## 7.7 Conducted Band Edges Measurement

| | |
|---|---|
| Test Requirement | FCC Part 15, Subpart C Section 15.247(d) |
| | RSS-247 Section 5.5 |
| Test Method: | ANSI C63.10 Section 11.13.3.2 |

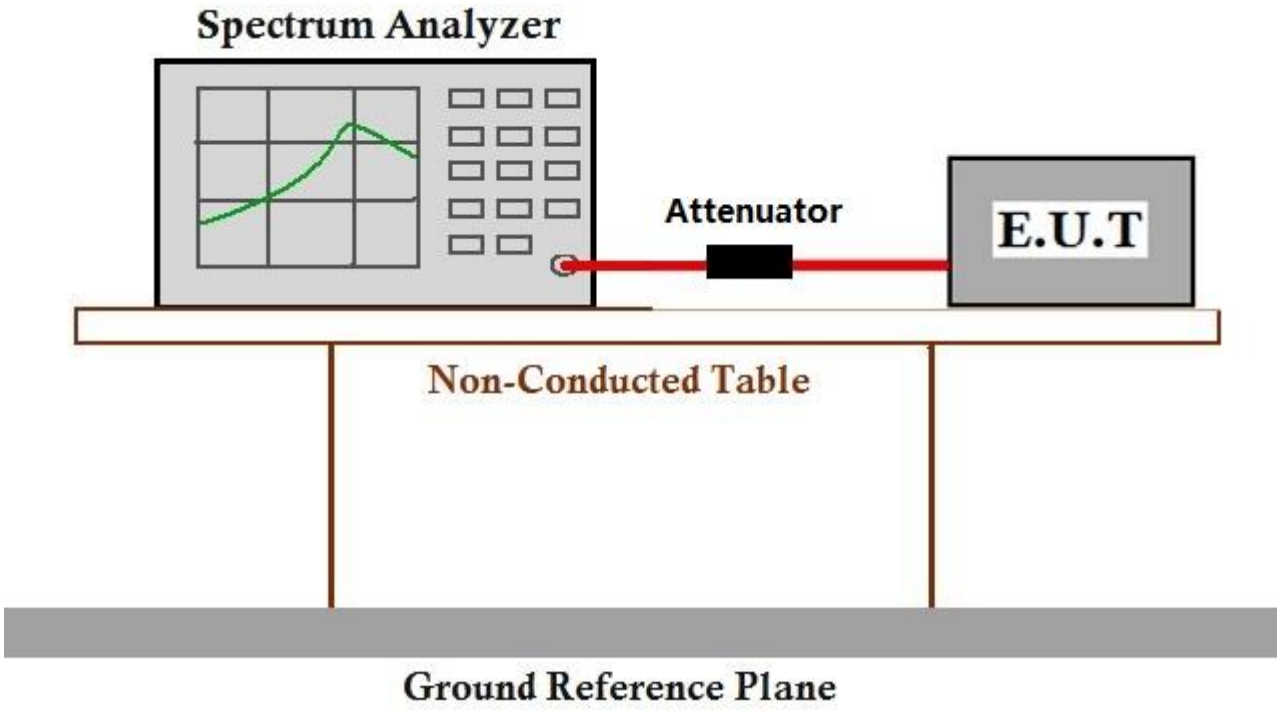
### 7.7.1 E.U.T. Operation

Operating Environment:

| | | | | | |
|---|---|---|---|---|---|
| Temperature: | 25.0 °C | Humidity: | 56 % RH | Atmospheric Pressure: | 1015 mbar |

| | |
|---|---|
| Test mode | Keep the EUT transmitted the continuous modulation test signal at the lowest and highest channel |
| The worst case for final test: | Keep the EUT transmitted the continuous modulation test signal at the lowest and highest channel.Through Pre-scan, found<br>1Mbps of rate is the worst case of 802.11b;<br>6Mbps of rate is the worst case of 802.11g;<br>6.5Mbps of rate is the worst case of 802.11n(HT20);<br>13.5Mbps of rate is the worst case of 802.11n(HT40)<br>Only the worst case is recorded in the report. |

### 7.7.2 Test Setup Diagram




### 7.7.3 Measurement Data

The detailed test data see: section 9 Appendix

## 7.1 99% Bandwidth

Test Requirement RSS-Gen Section 6.7

Test Method: ANSI C63.10 Section 6.9.3

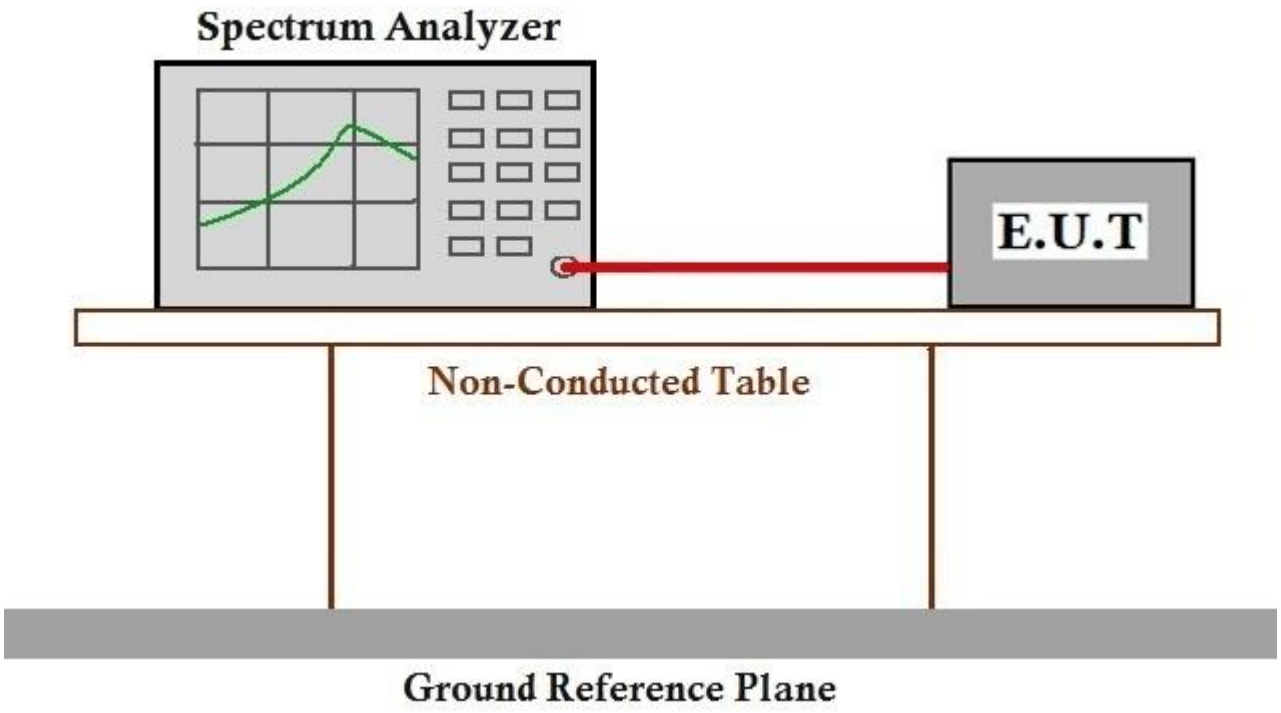
### 7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 56 % RH Atmospheric Pressure: 1020 mbar

Test mode Keep the EUT transmitted the continuous modulation test signal at the specific channel(s).

### 7.1.2 Test Setup Diagram



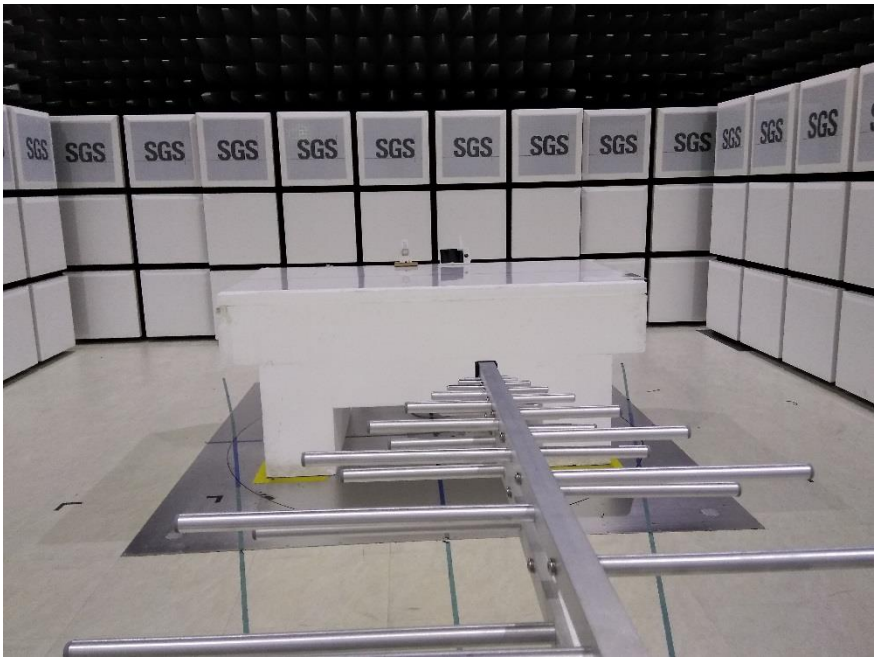

### 7.1.3 Measurement Procedure and Data

The detailed test data see: 9.1 Appendix

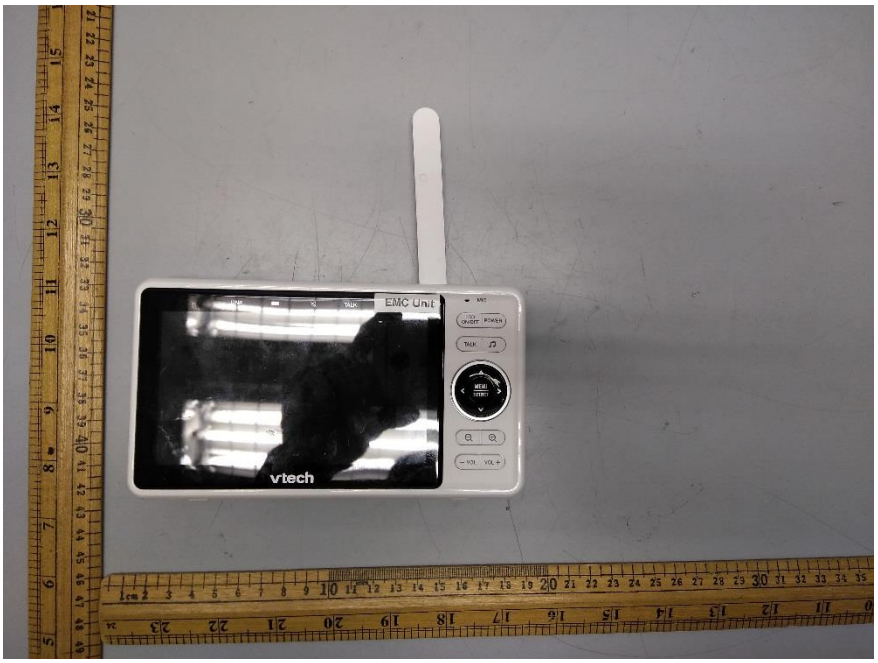
# 8 Photographs

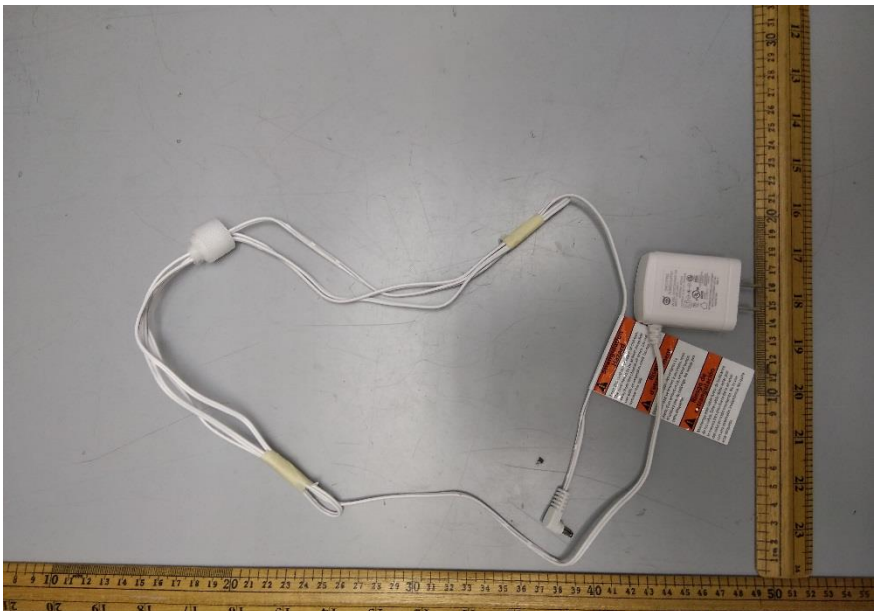
## 8.1 Conducted Disturbance at AC Power Line(150kHz-30MHz) Test Setup

## 8.2 Radiated Spurious Emissions Test Setup



## 8.3 EUT Constructional Details



# 9 Appendix

## 9.1 Minimum Emission Bandwidth 6 dB

**(802.11b)**

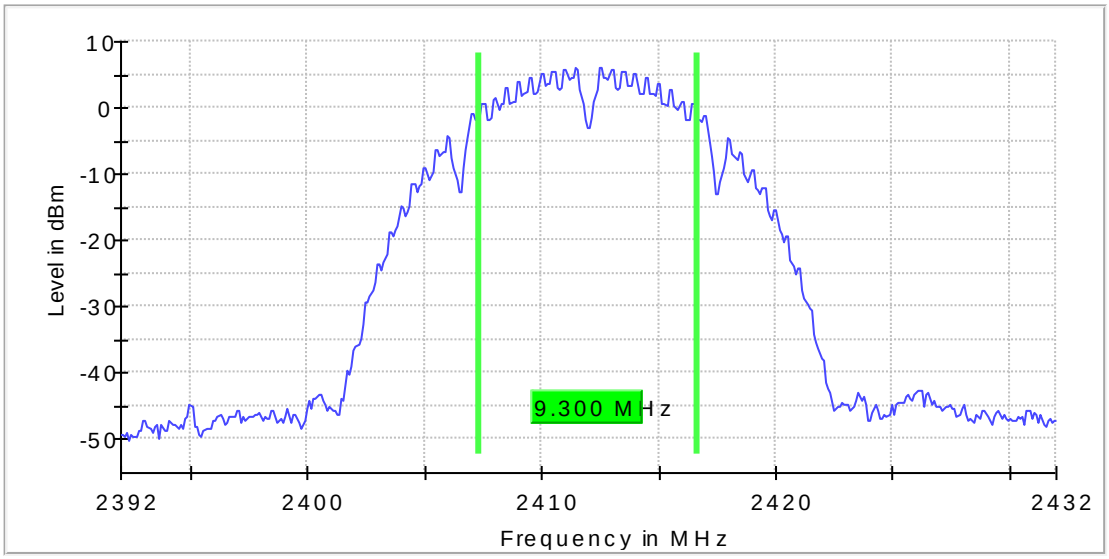
## Minimum Emission Bandwidth 6 dB (2412 MHz; 15.000 dBm; 20 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2412.000000 | 9.300000 | 0.500000 | --- | 2407.350000 | 2416.650000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2412.000000 | 6.1 | PASS |



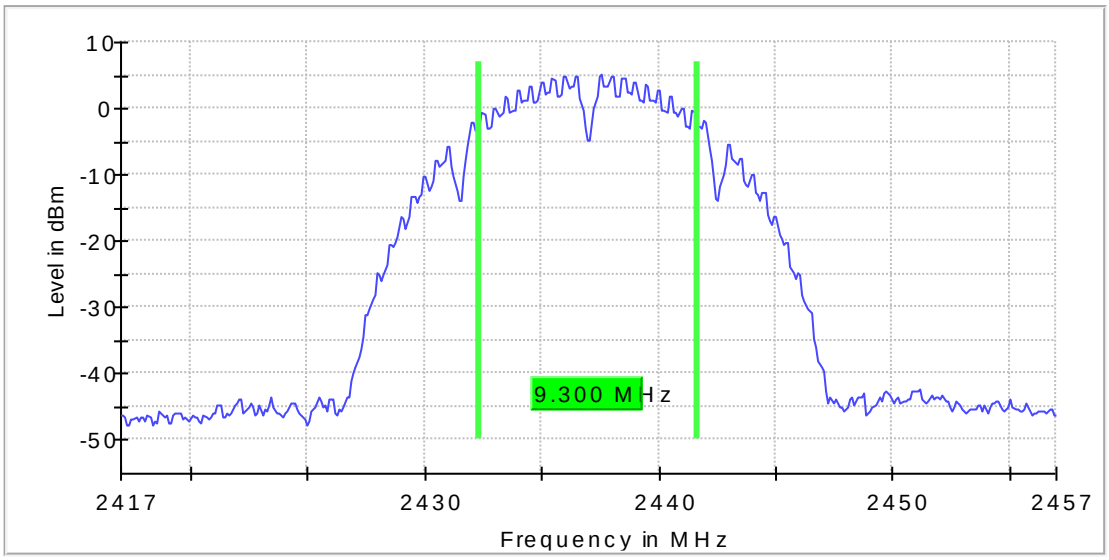
# Minimum Emission Bandwidth 6 dB (2437 MHz; 15.000 dBm; 20 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2437.000000 | 9.300000 | 0.500000 | --- | 2432.350000 | 2441.650000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2437.000000 | 5.0 | PASS |



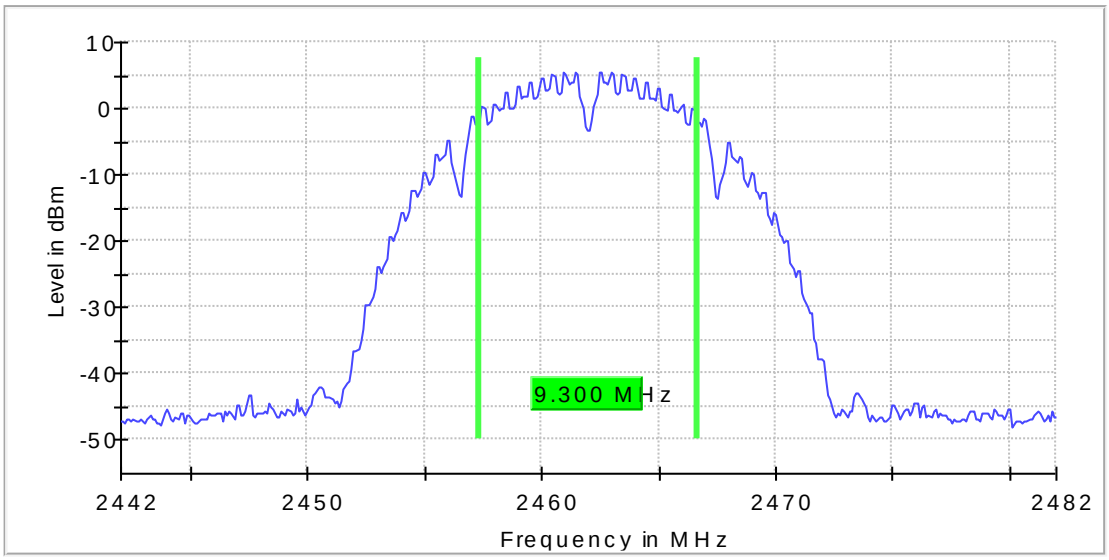
# Minimum Emission Bandwidth 6 dB (2462 MHz; 15.000 dBm; 20 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2462.000000 | 9.300000 | 0.500000 | --- | 2457.350000 | 2466.650000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2462.000000 | 5.5 | PASS |



**(802.11g)**

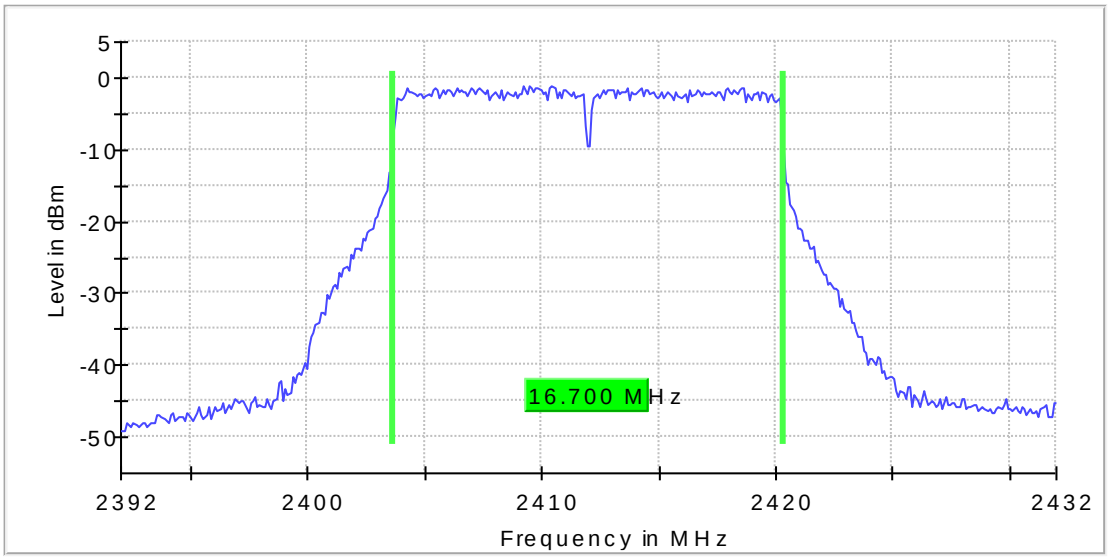
## Minimum Emission Bandwidth 6 dB (2412 MHz; 15.000 dBm; 20 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2412.000000 | 16.700000 | 0.500000 | --- | 2403.650000 | 2420.350000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2412.000000 | -1.1 | PASS |



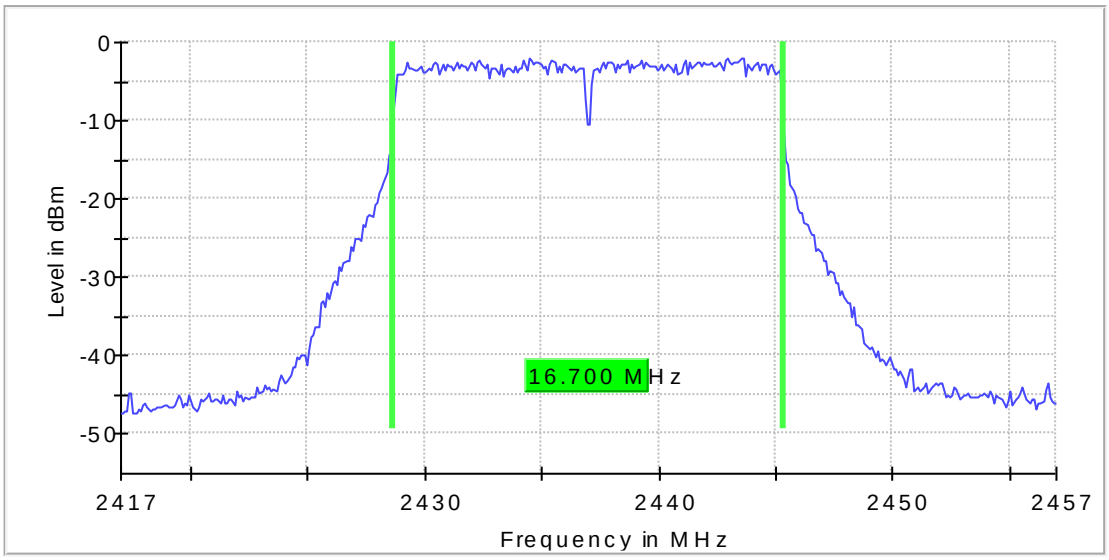
# Minimum Emission Bandwidth 6 dB (2437 MHz; 15.000 dBm; 20 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2437.000000 | 16.700000 | 0.500000 | --- | 2428.650000 | 2445.350000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2437.000000 | -2.0 | PASS |



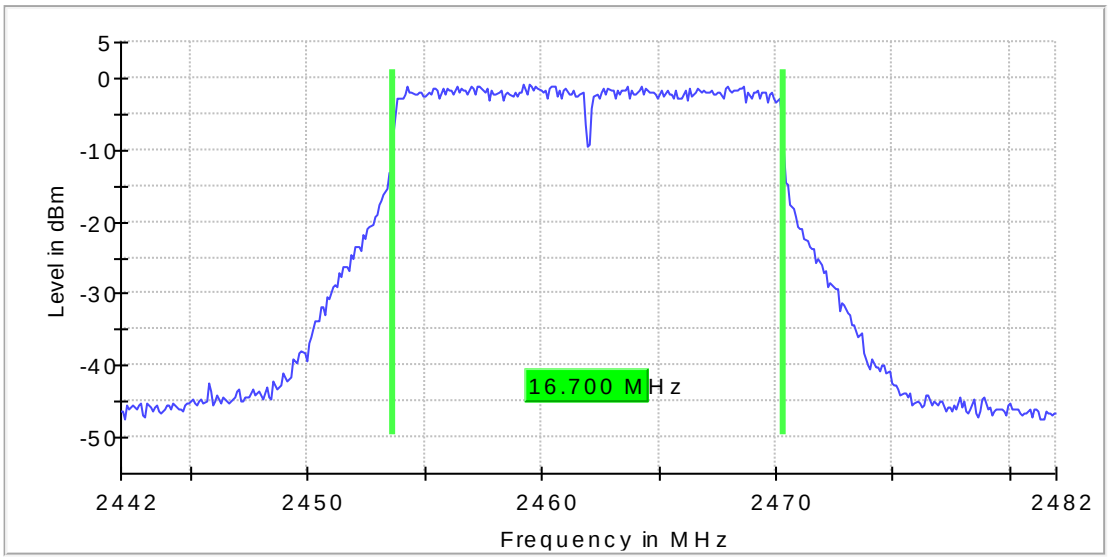
# Minimum Emission Bandwidth 6 dB (2462 MHz; 15.000 dBm; 20 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2462.000000 | 16.700000 | 0.500000 | --- | 2453.650000 | 2470.350000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2462.000000 | -0.9 | PASS |



**(802.11n20)**

## Minimum Emission Bandwidth 6 dB (2412 MHz; 15.000 dBm; 20 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2412.000000 | 17.800000 | 0.500000 | --- | 2403.050000 | 2420.850000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2412.000000 | -1.0 | PASS |

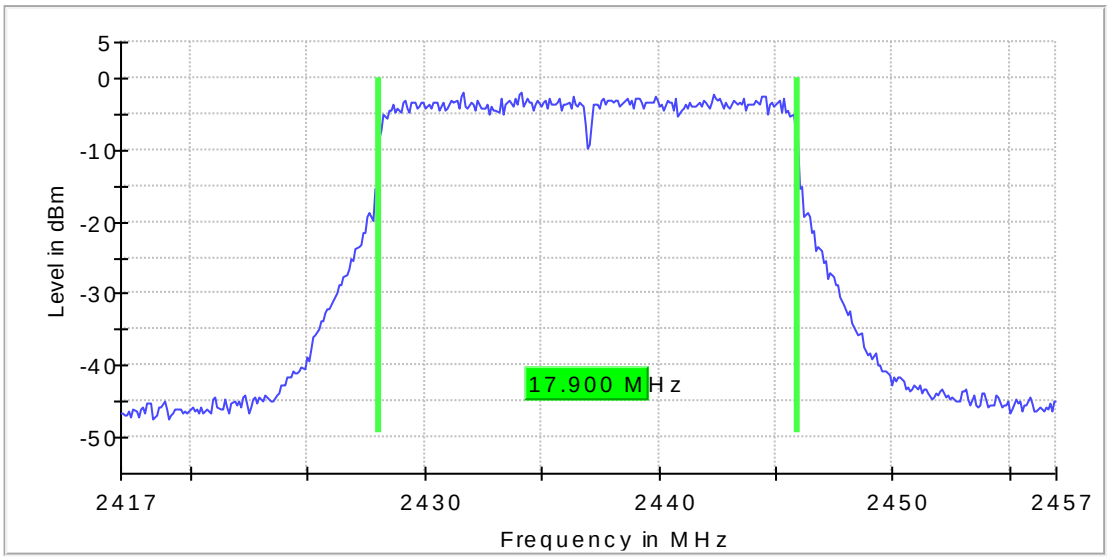
# Minimum Emission Bandwidth 6 dB (2437 MHz; 15.000 dBm; 20 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2437.000000 | 17.900000 | 0.500000 | --- | 2428.050000 | 2445.950000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2437.000000 | -1.9 | PASS |



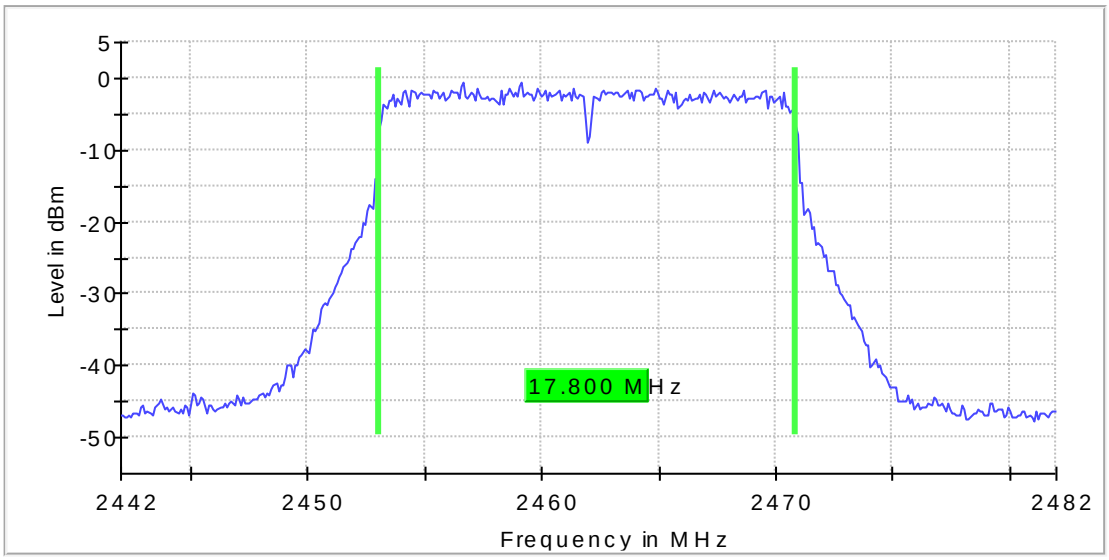
# Minimum Emission Bandwidth 6 dB (2462 MHz; 15.000 dBm; 20 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2462.000000 | 17.800000 | 0.500000 | --- | 2453.050000 | 2470.850000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2462.000000 | -0.5 | PASS |



**(802.11n40)**

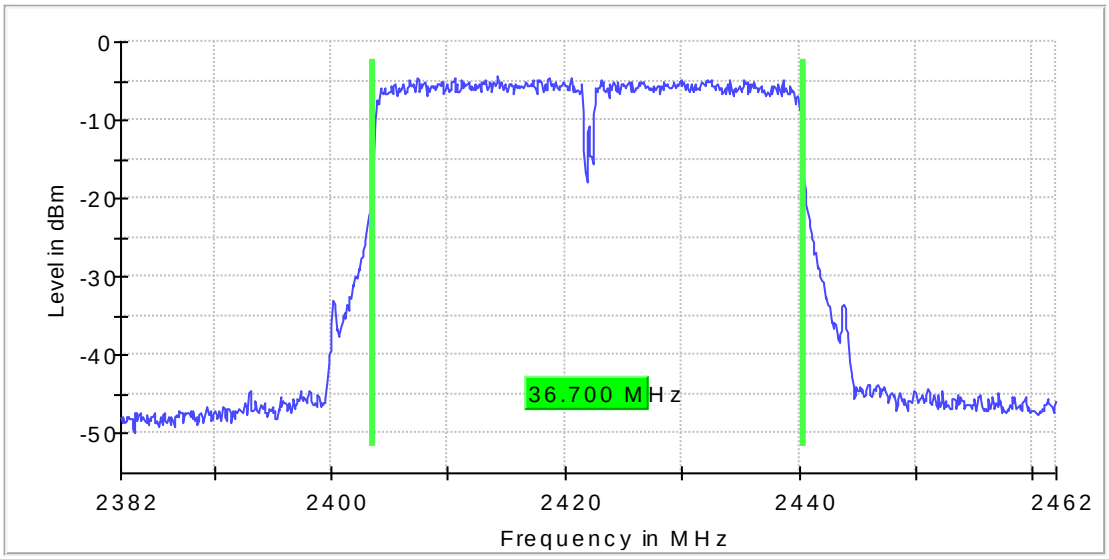
## Minimum Emission Bandwidth 6 dB (2422 MHz; 15.000 dBm; 40 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2422.000000 | 36.700000 | 0.500000 | --- | 2403.650000 | 2440.350000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2422.000000 | -4.4 | PASS |



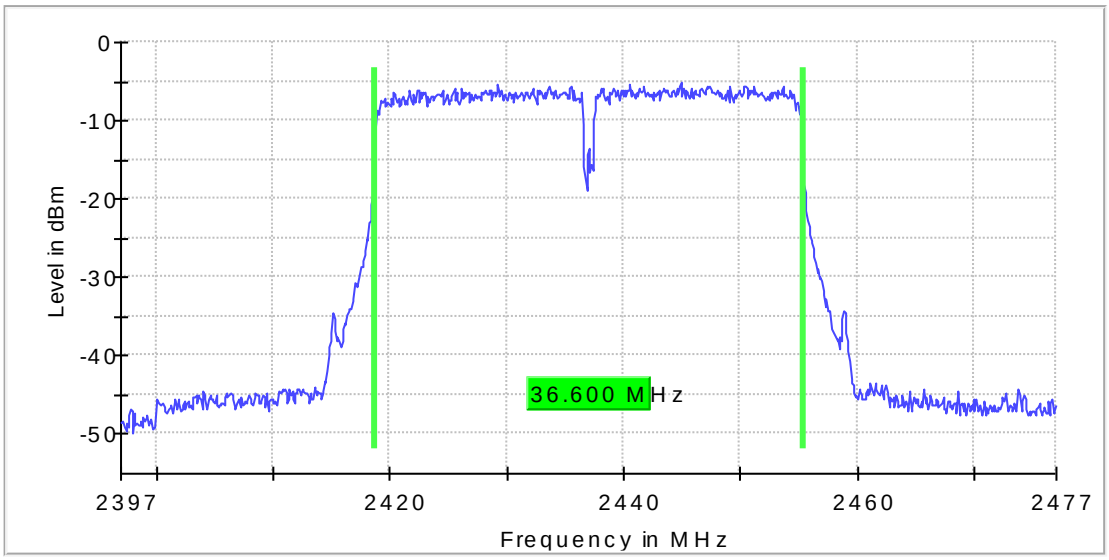
# Minimum Emission Bandwidth 6 dB (2437 MHz; 15.000 dBm; 40 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2437.000000 | 36.600000 | 0.500000 | --- | 2418.750000 | 2455.350000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2437.000000 | -5.2 | PASS |



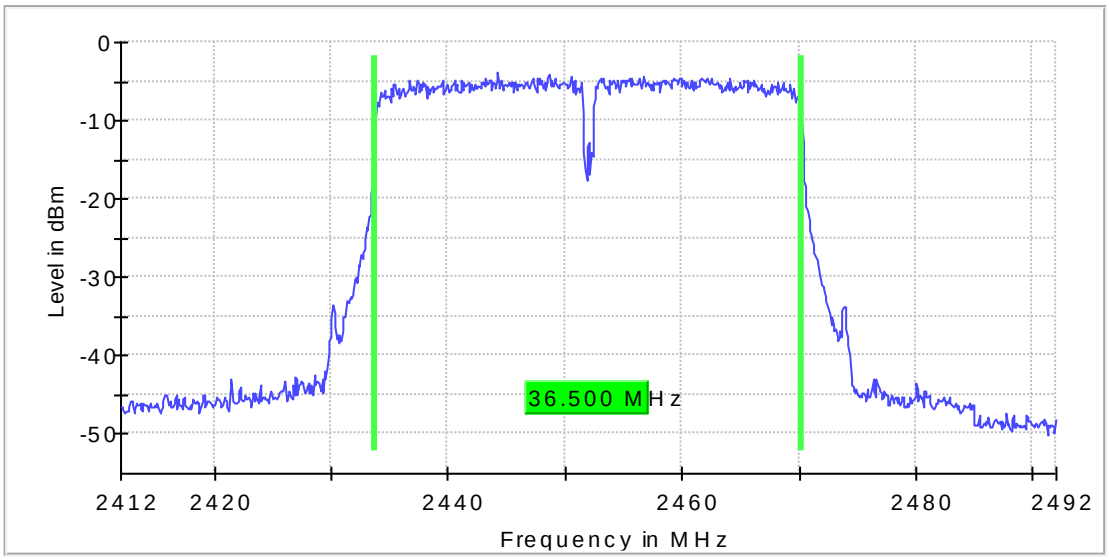
# Minimum Emission Bandwidth 6 dB (2452 MHz; 15.000 dBm; 40 MHz)

## 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---|---|---|---|---|---|
| 2452.000000 | 36.500000 | 0.500000 | --- | 2433.750000 | 2470.250000 |

**(continuation of the "6 dB Bandwidth" table from column 6 ...)**

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---|---|---|
| 2452.000000 | -3.9 | PASS |



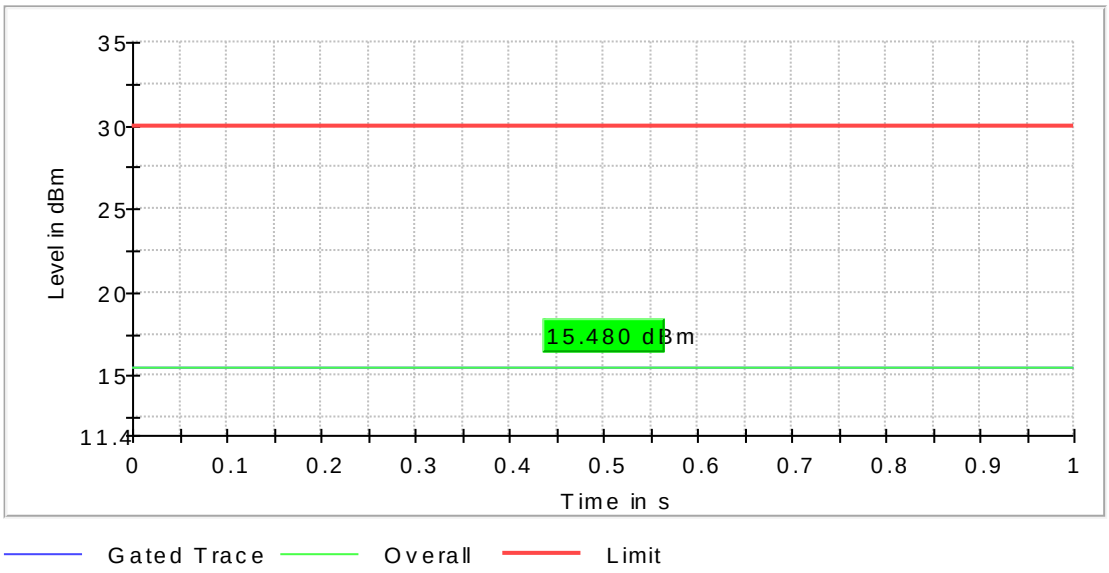
## 9.2 RF output power

### (802.11b)

## RF output power (2412 MHz; 15.000 dBm; 20 MHz)

## Result

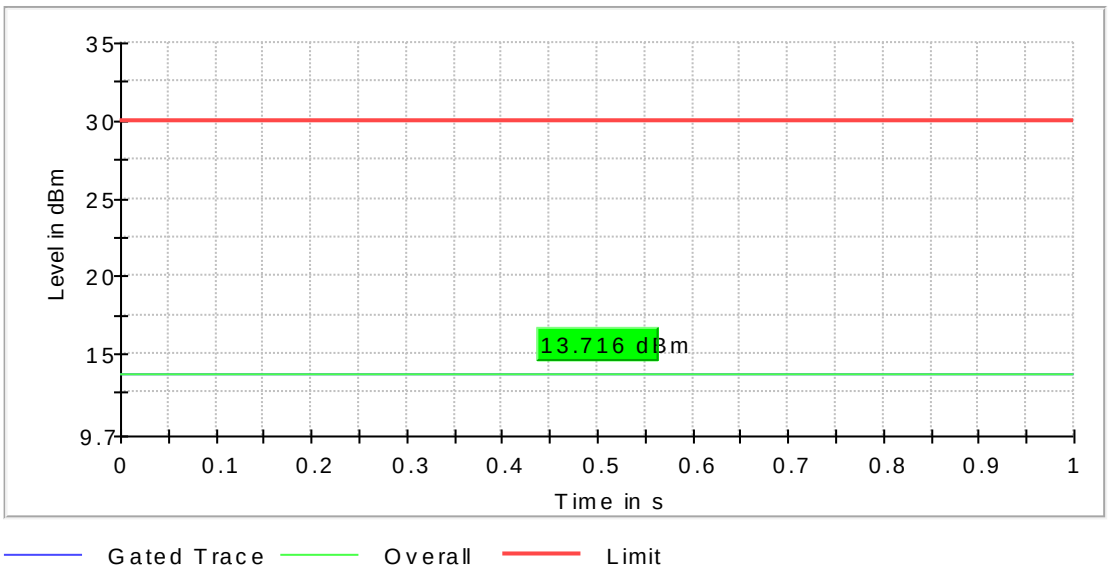
| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2412.000000 | 15.5 | 30.0 | 17.5 | 100.000 | PASS |



# RF output power (2437 MHz; 15.000 dBm; 20 MHz)

## Result

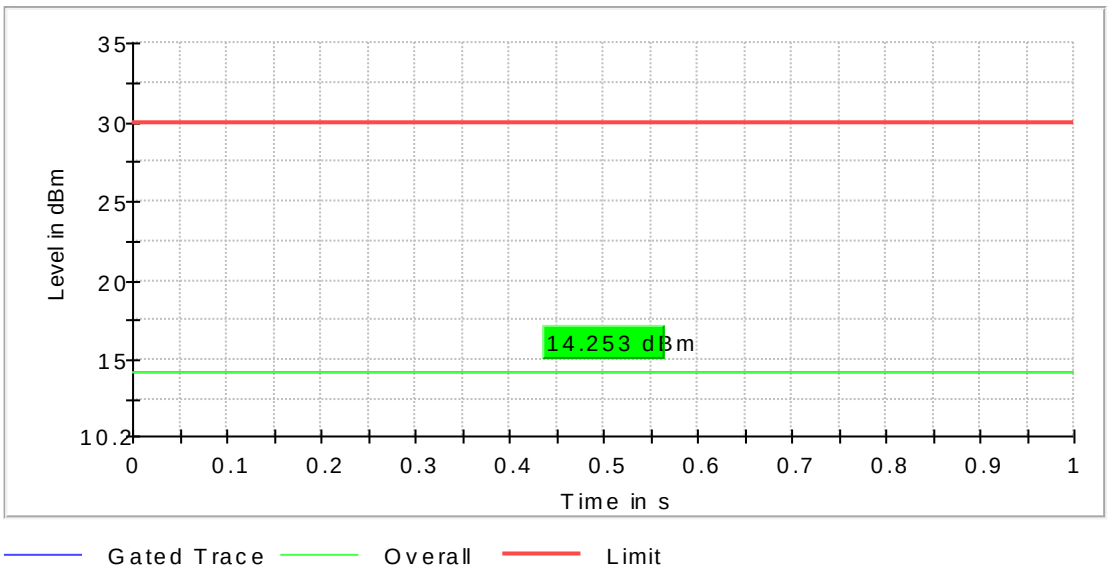
| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2437.000000 | 13.7 | 30.0 | 15.7 | 100.000 | PASS |



## RF output power (2462 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2462.000000 | 14.3 | 30.0 | 16.3 | 100.000 | PASS |

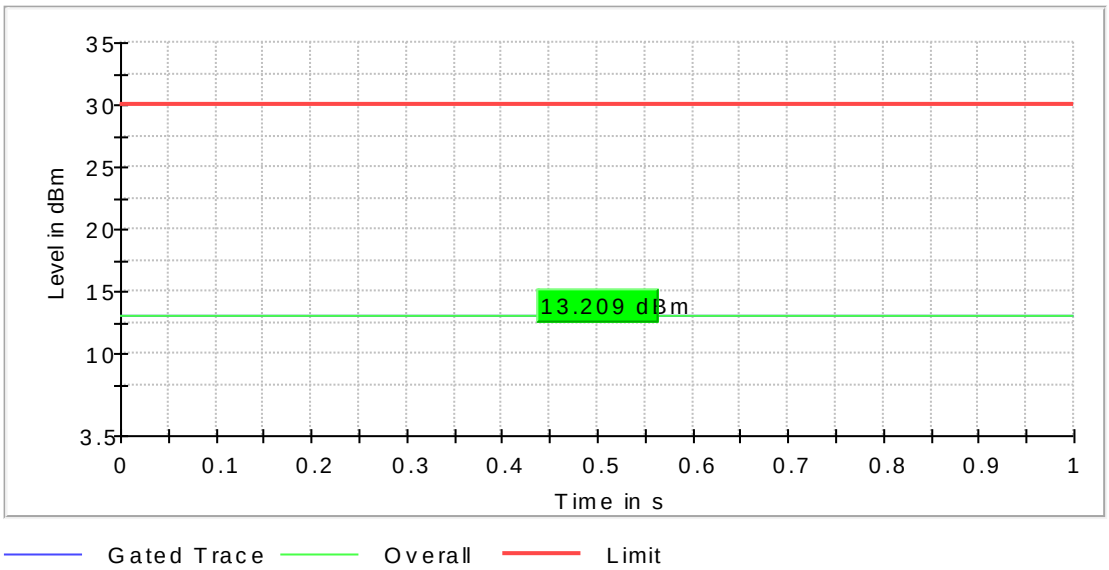



**(802.11g)**

## RF output power (2412 MHz; 15.000 dBm; 20 MHz)

## Result

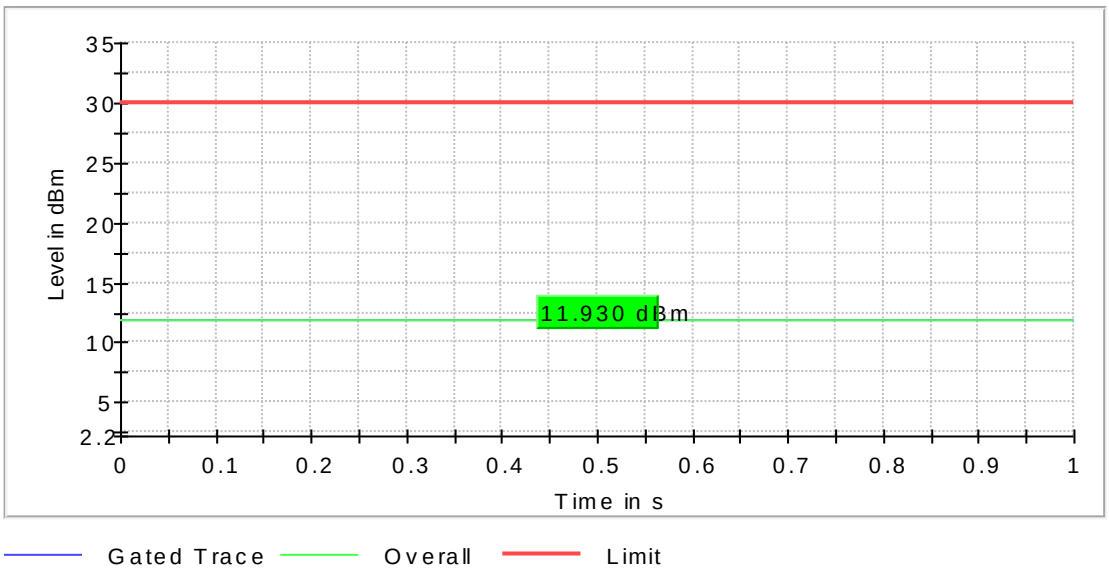
| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2412.000000 | 13.2 | 30.0 | 15.2 | 100.000 | PASS |



# RF output power (2437 MHz; 15.000 dBm; 20 MHz)

## Result

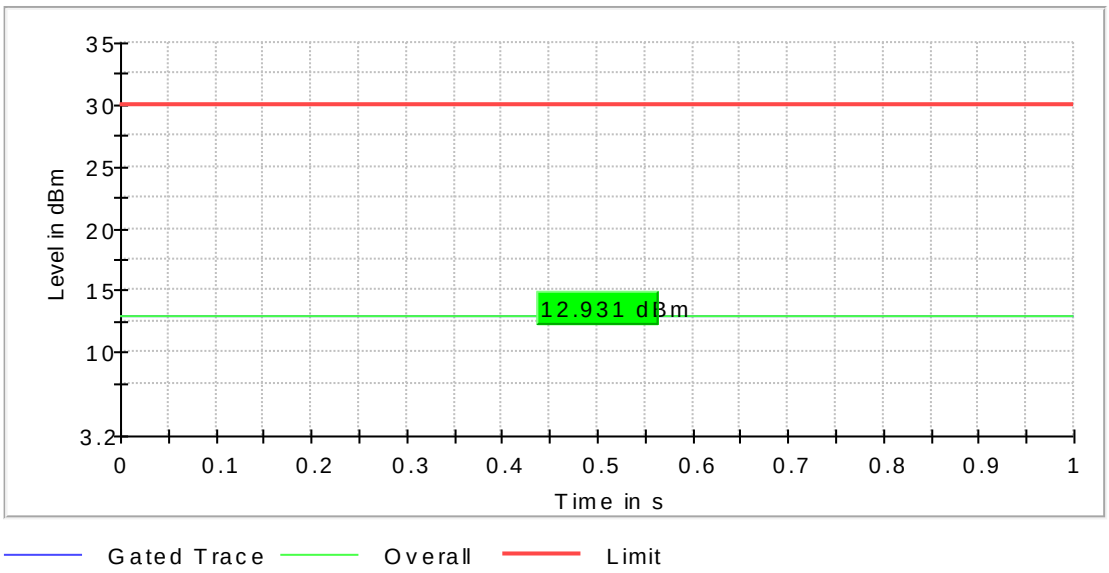
| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2437.000000 | 11.9 | 30.0 | 13.9 | 100.000 | PASS |



# RF output power (2462 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2462.000000 | 12.9 | 30.0 | 14.9 | 100.000 | PASS |

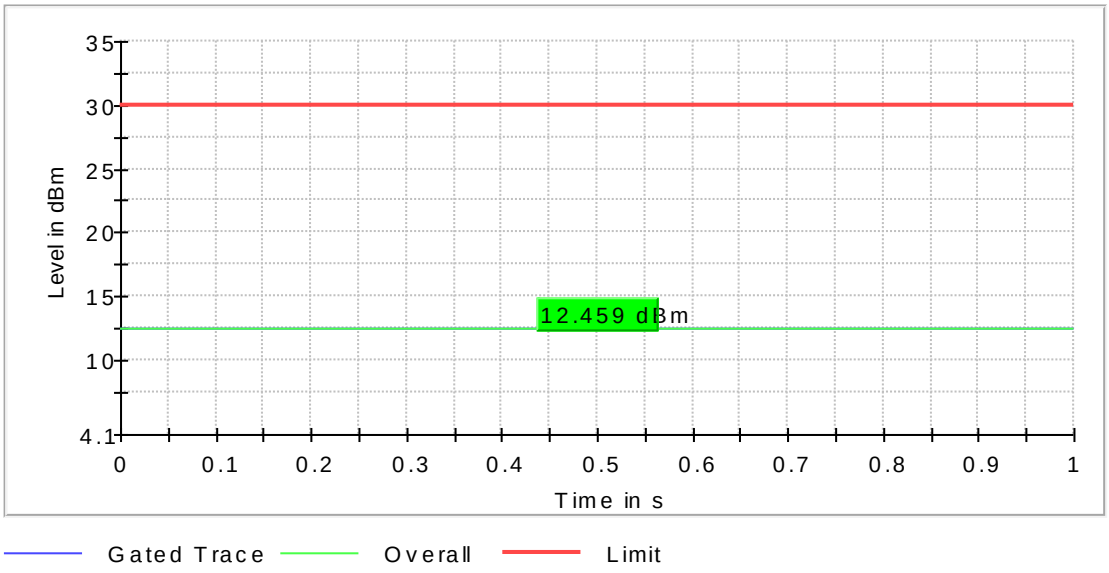



## (802.11n20)

# RF output power (2412 MHz; 15.000 dBm; 20 MHz)

## Result

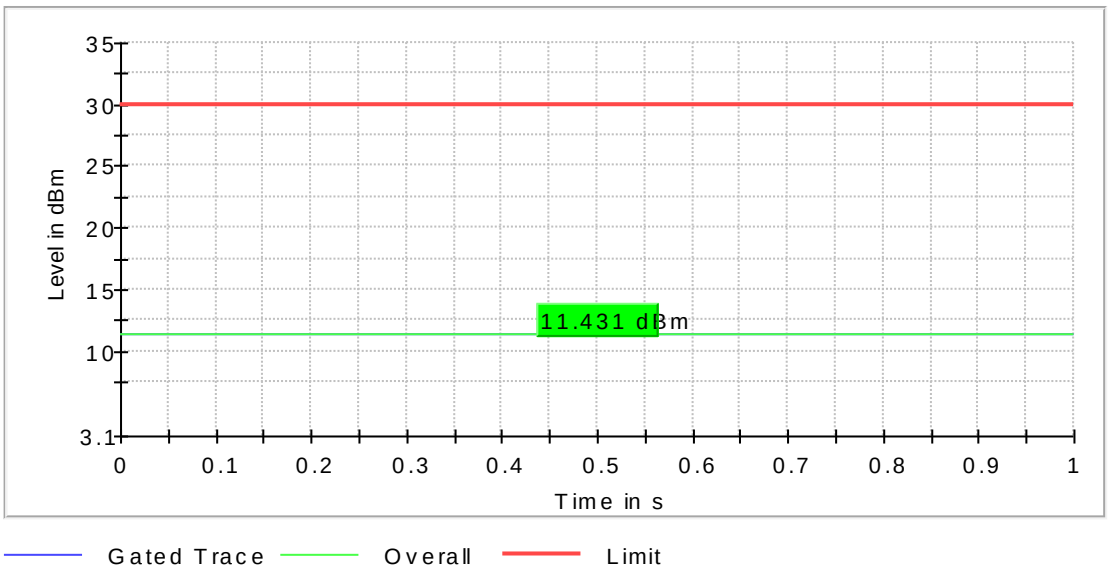
| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2412.000000 | 12.5 | 30.0 | 14.5 | 100.000 | PASS |



# RF output power (2437 MHz; 15.000 dBm; 20 MHz)

## Result

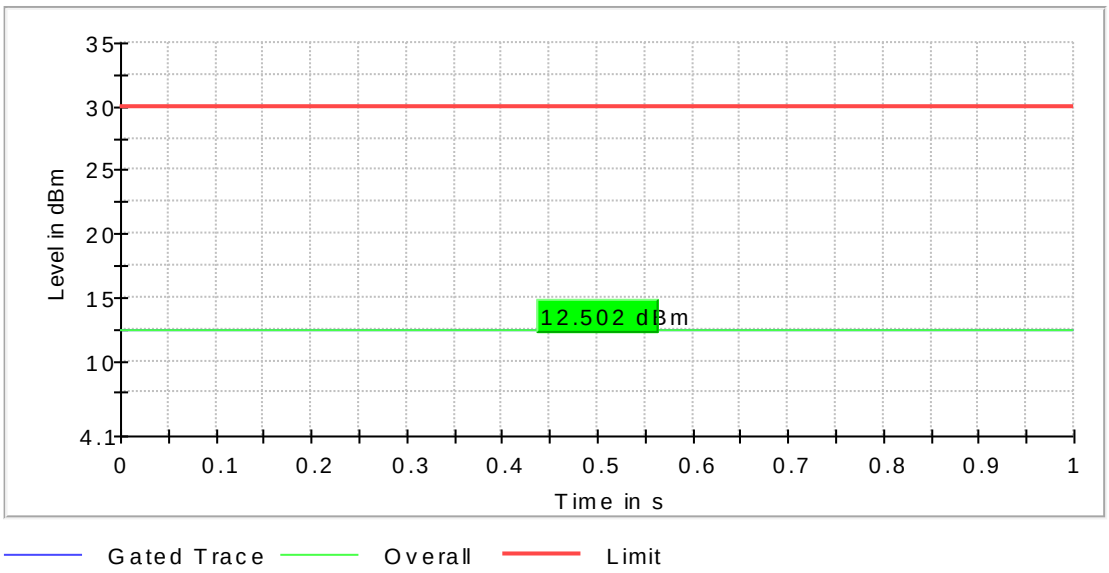
| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2437.000000 | 11.4 | 30.0 | 13.4 | 100.000 | PASS |



# RF output power (2462 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2462.000000 | 12.5 | 30.0 | 14.5 | 100.000 | PASS |

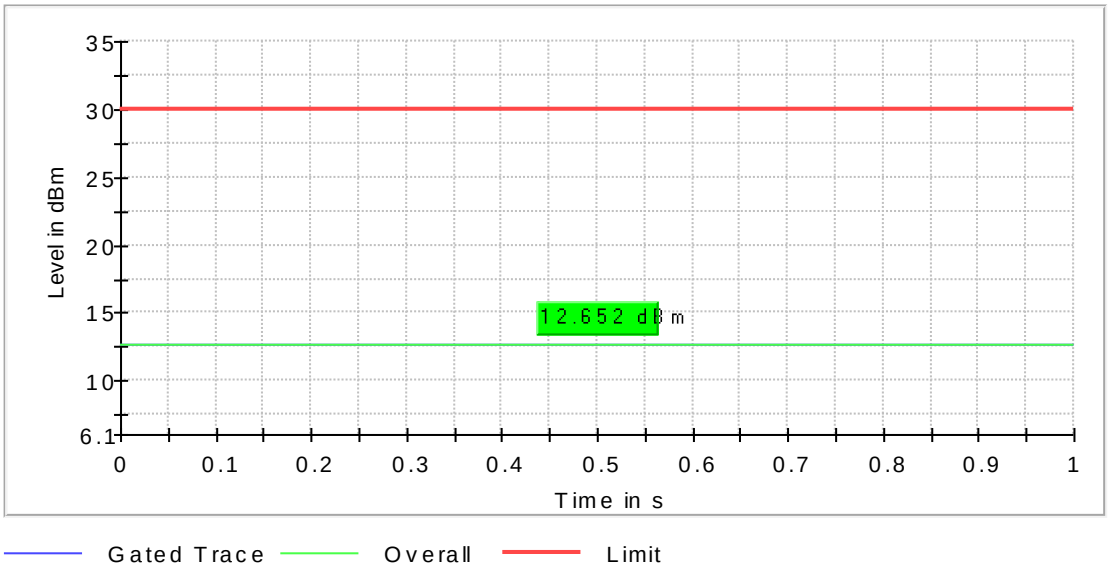



## (802.11n40)

# RF output power (2422 MHz; 15.000 dBm; 40 MHz)

## Result

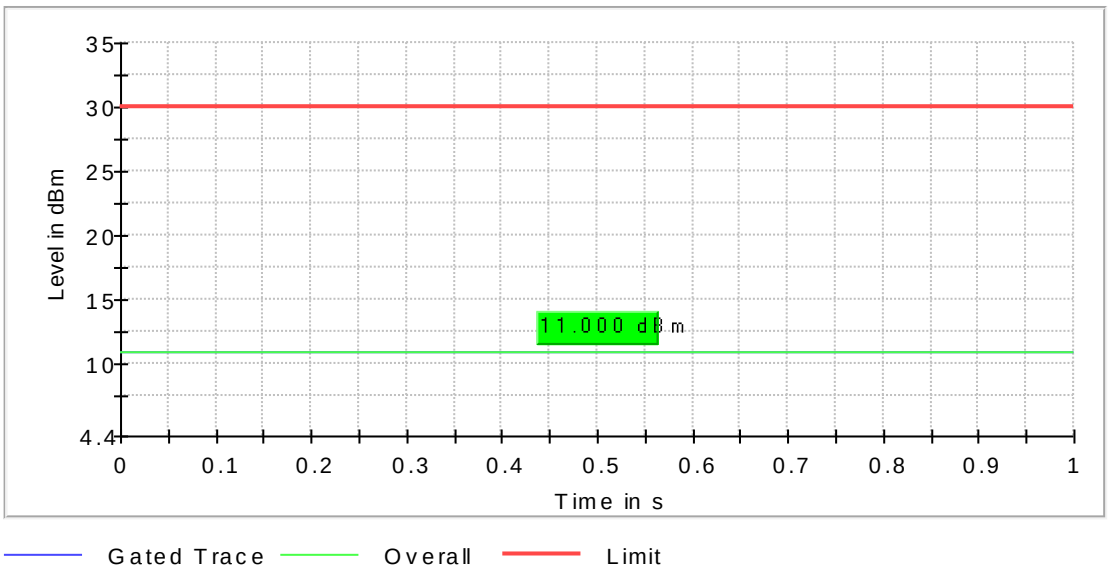
| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2422.000000 | 12.7 | 30.0 | 14.7 | 100.000 | PASS |



# RF output power (2437 MHz; 15.000 dBm; 40 MHz)

## Result

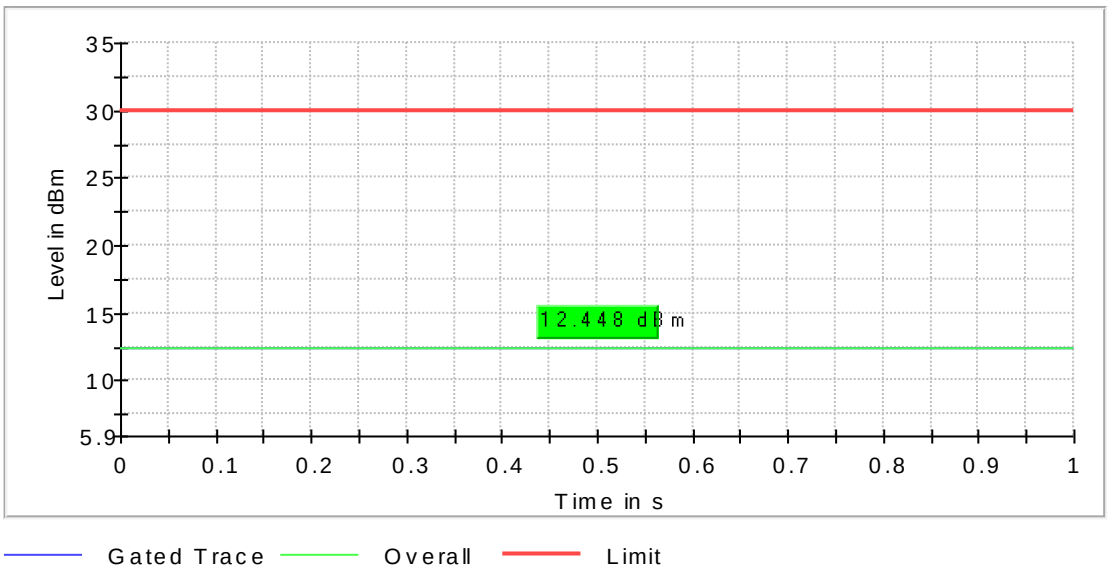
| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2437.000000 | 11.0 | 30.0 | 13.0 | 100.000 | PASS |



# RF output power (2452 MHz; 15.000 dBm; 40 MHz)

## Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---|---|---|---|---|---|
| 2452.000000 | 12.4 | 30.0 | 14.4 | 100.000 | PASS |



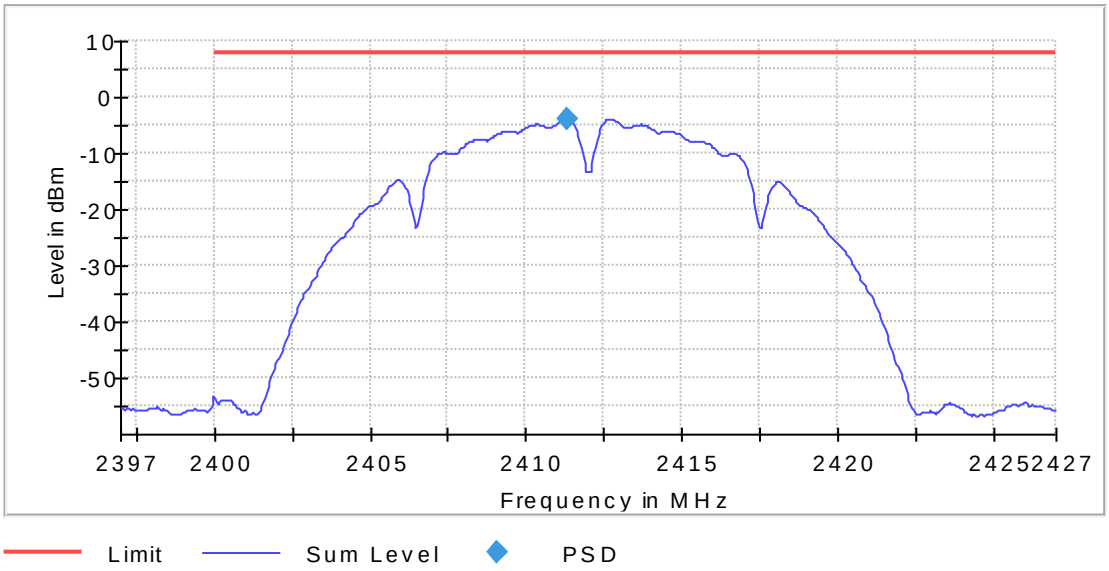
## 9.3 Power Spectral Density

**(802.11b)**

# Power Spectral Density (2412 MHz; 15.000 dBm; 20 MHz)

# Result

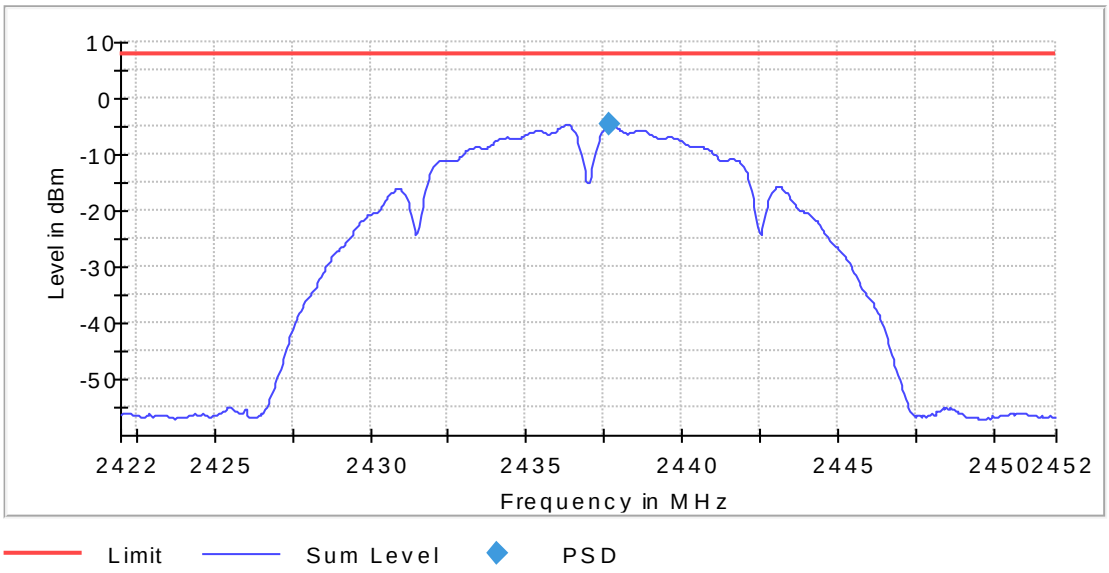
| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2412.000000 | 2411.325000 | -3.777 | 8.0 | PASS |



# Power Spectral Density (2437 MHz; 15.000 dBm; 20 MHz)

## Result

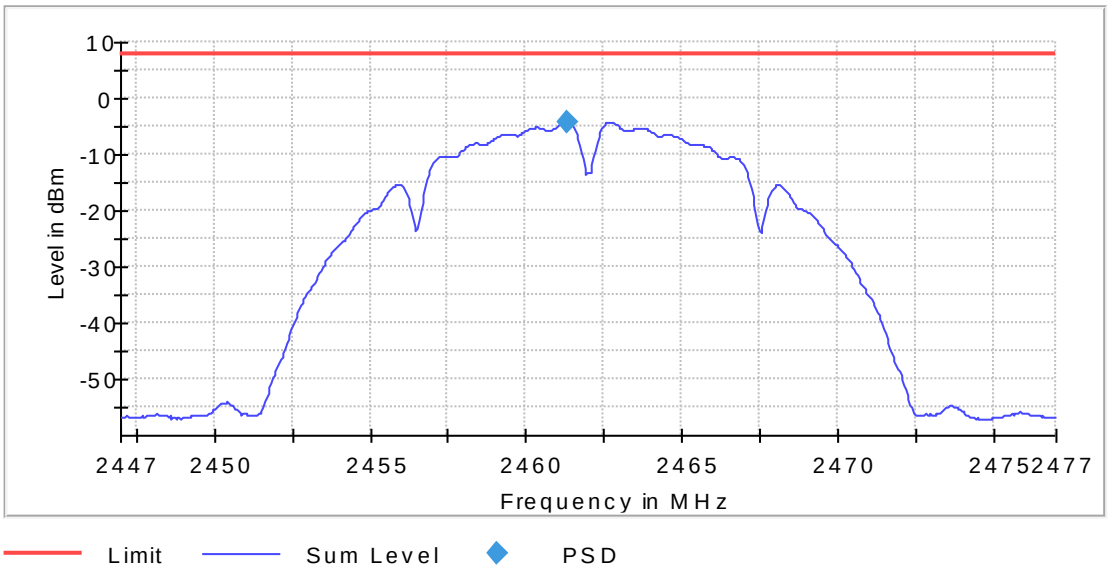
| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2437.000000 | 2437.675000 | -4.706 | 8.0 | PASS |



# Power Spectral Density (2462 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2462.000000 | 2461.325000 | -4.146 | 8.0 | PASS |

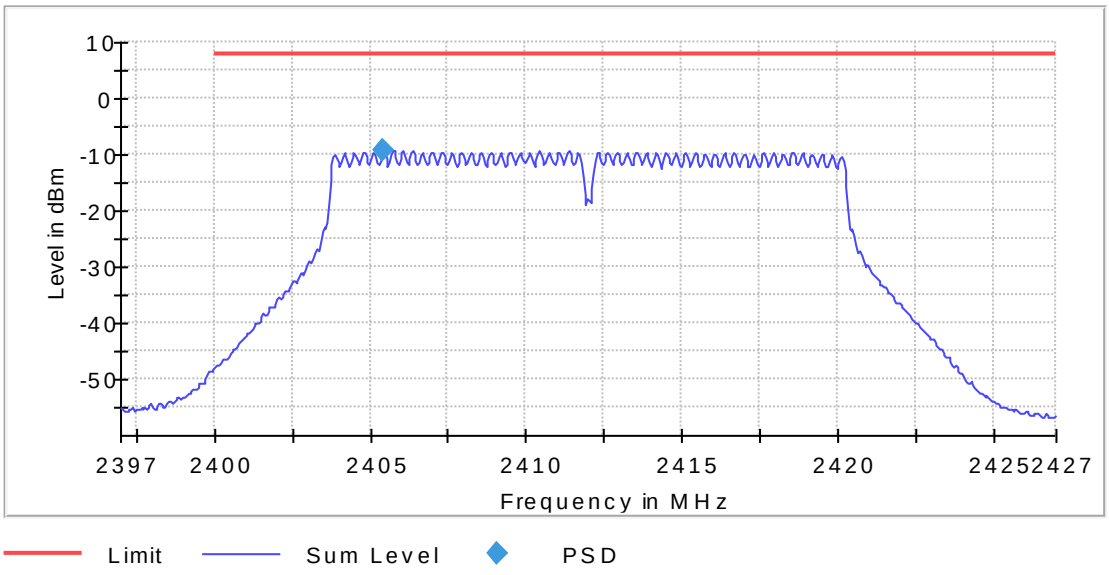


**(802.11g)**

## Power Spectral Density (2412 MHz; 15.000 dBm; 20 MHz)

## Result

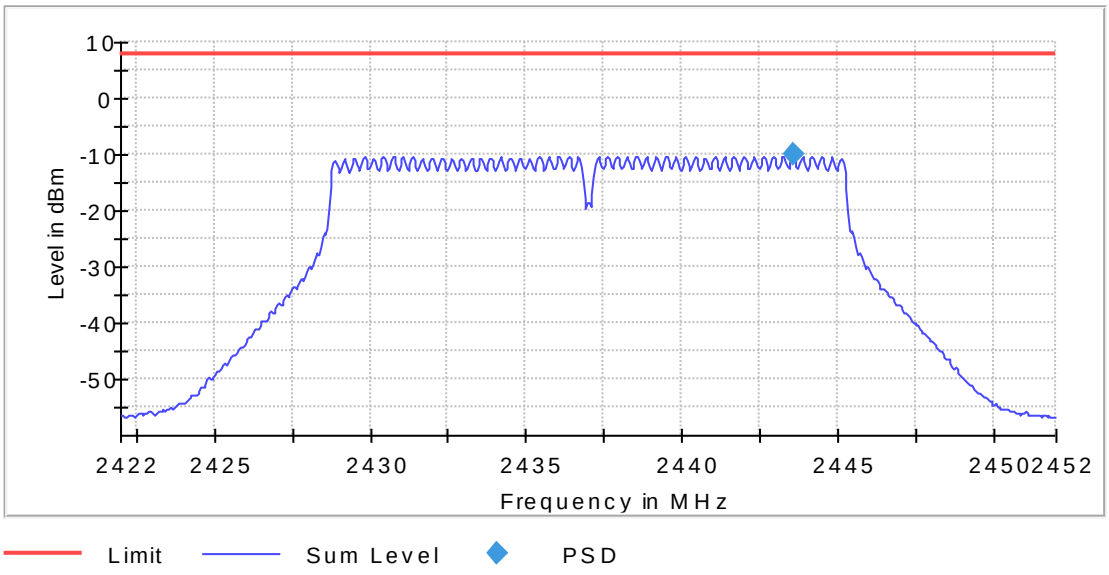
| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2412.000000 | 2405.425000 | -9.303 | 8.0 | PASS |



# Power Spectral Density (2437 MHz; 15.000 dBm; 20 MHz)

## Result

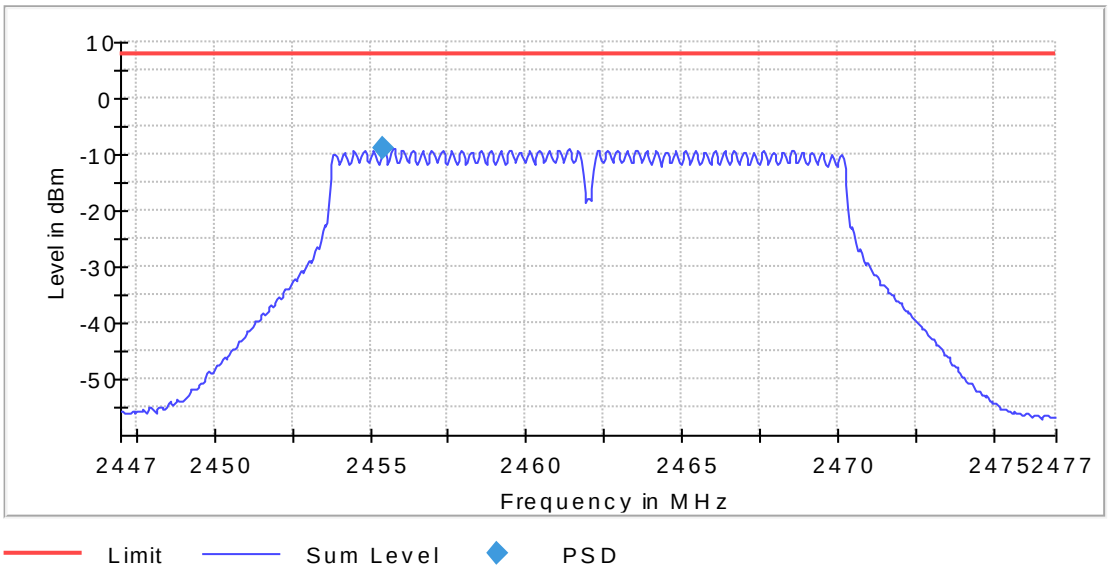
| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2437.000000 | 2443.575000 | -10.041 | 8.0 | PASS |



# Power Spectral Density (2462 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2462.000000 | 2455.425000 | -9.031 | 8.0 | PASS |

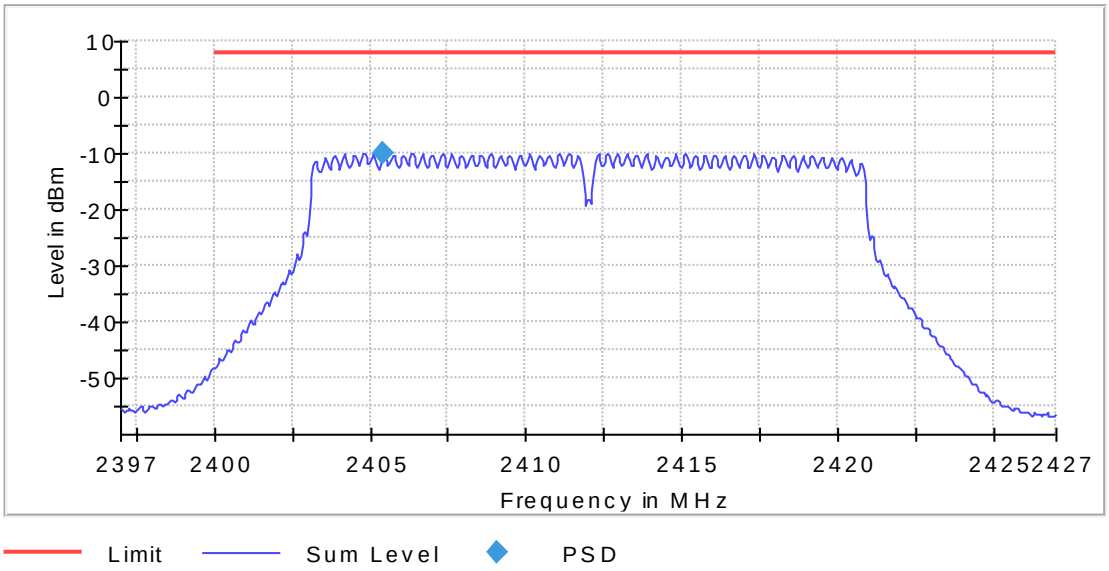


**(802.11n20)**

## Power Spectral Density (2412 MHz; 15.000 dBm; 20 MHz)

## Result

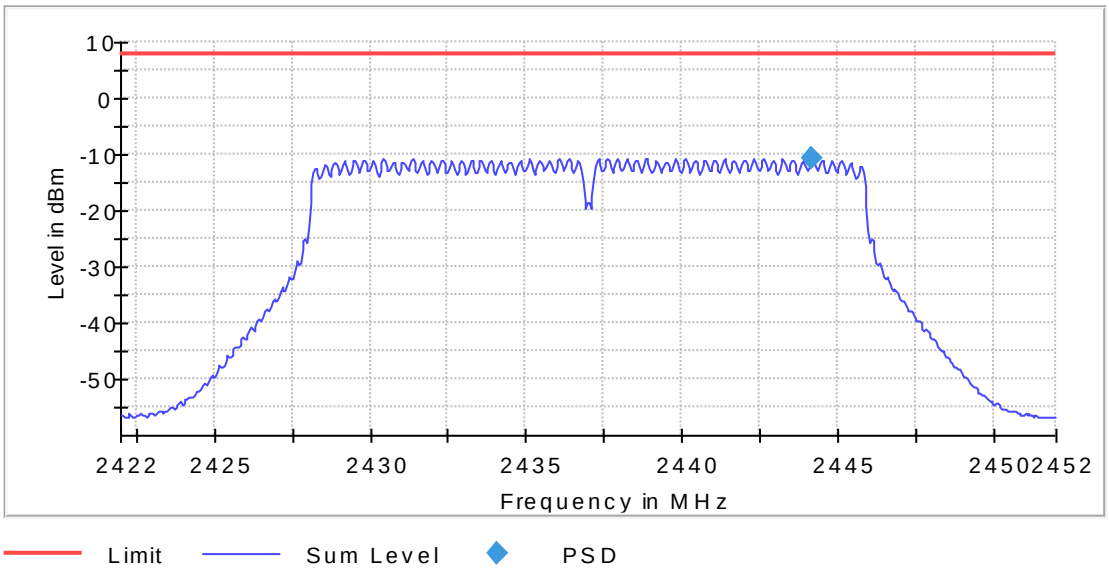
| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2412.000000 | 2405.425000 | -9.877 | 8.0 | PASS |



# Power Spectral Density (2437 MHz; 15.000 dBm; 20 MHz)

## Result

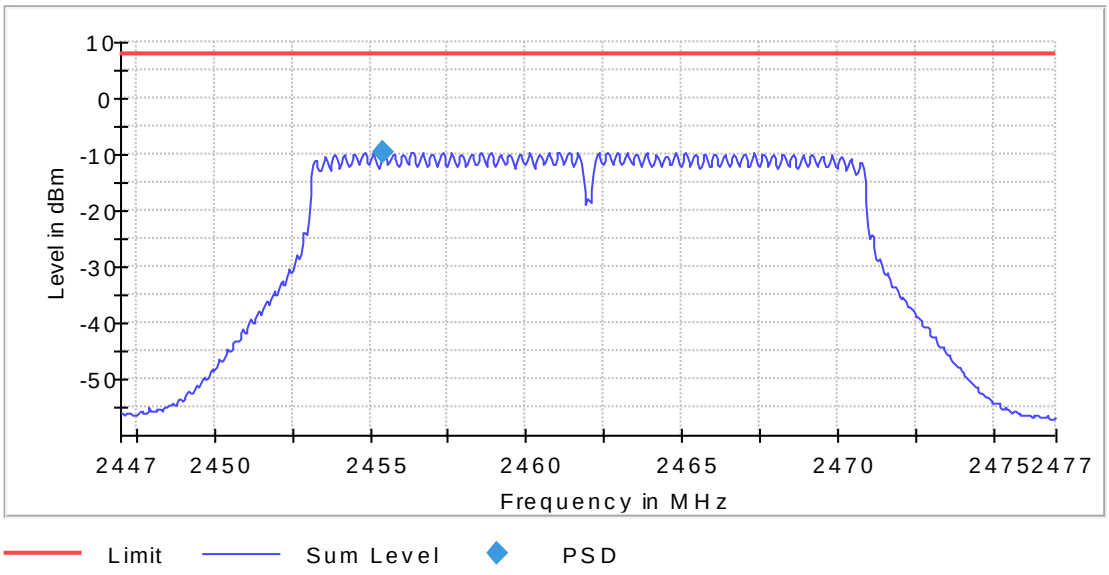
| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2437.000000 | 2444.175000 | -10.657 | 8.0 | PASS |



# Power Spectral Density (2462 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2462.000000 | 2455.425000 | -9.546 | 8.0 | PASS |

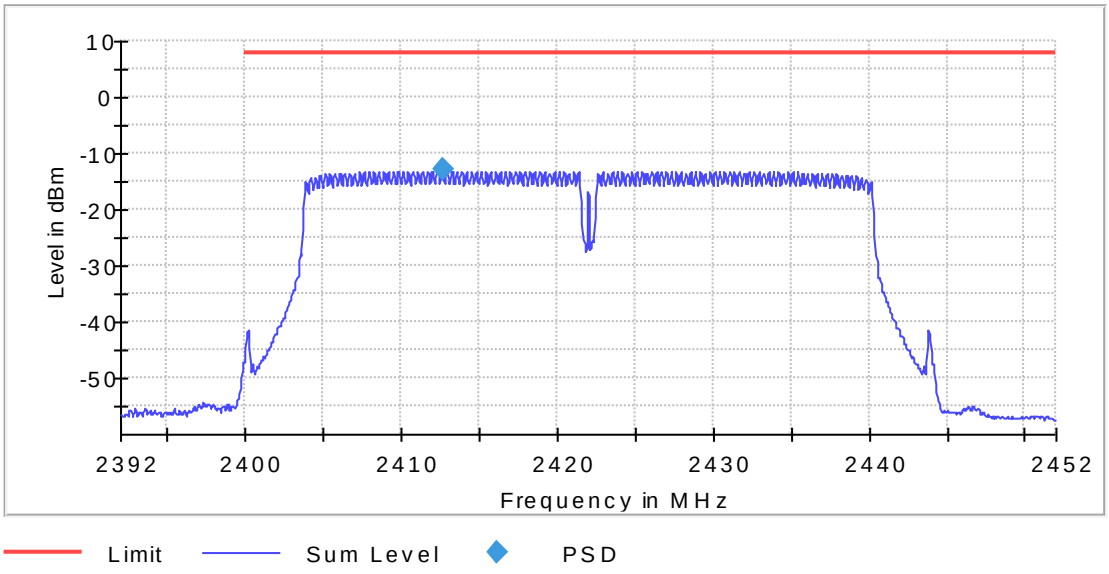


**(802.11n40)**

## Power Spectral Density (2422 MHz; 15.000 dBm; 40 MHz)

## Result

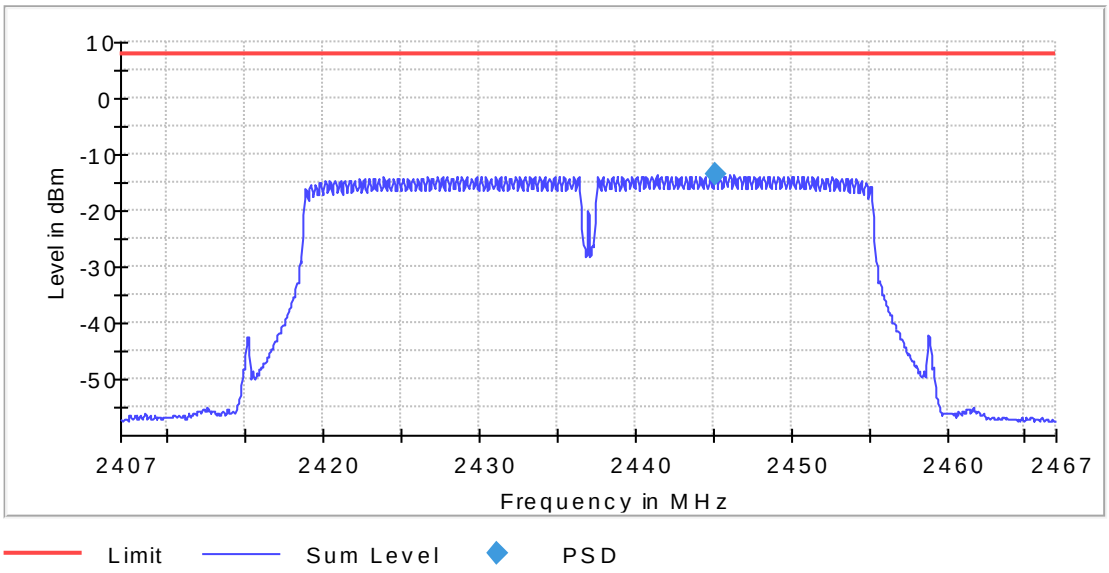
| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2422.000000 | 2412.625000 | -13.022 | 8.0 | PASS |



# Power Spectral Density (2437 MHz; 15.000 dBm; 40 MHz)

## Result

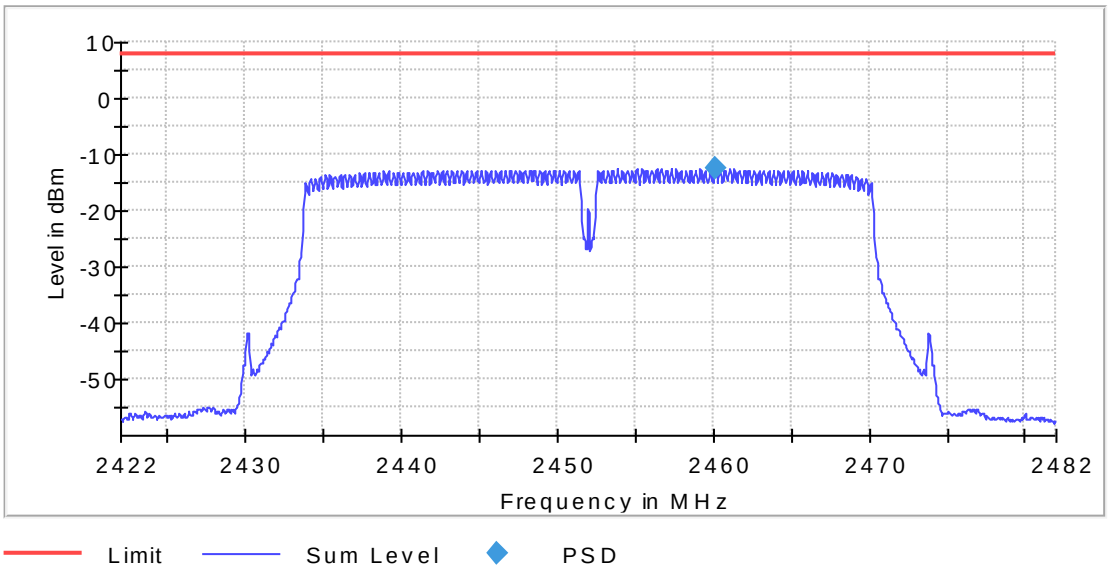
| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2437.000000 | 2445.125000 | -13.638 | 8.0 | PASS |



# Power Spectral Density (2452 MHz; 15.000 dBm; 40 MHz)

## Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---|---|---|---|---|
| 2452.000000 | 2460.125000 | -12.562 | 8.0 | PASS |



## 9.4 Band Edge

### (802.11b)

## Band Edge low (2412 MHz; 15.000 dBm; 20 MHz)

## Result

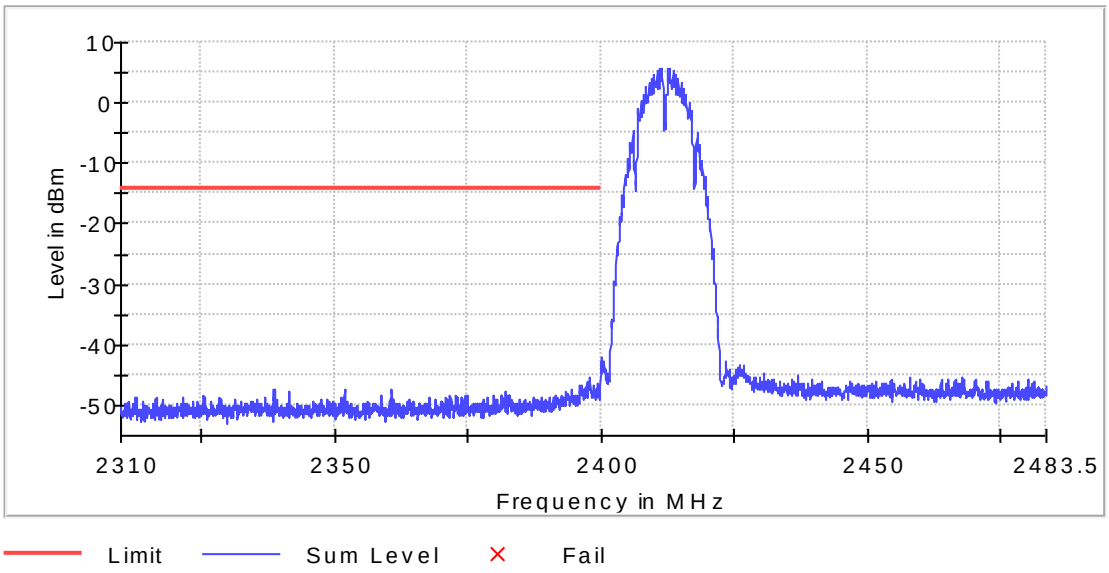
| DUT Frequency (MHz) | Result |
|---|---|
| 2412.000000 | PASS |

## Inband Peak

| Frequency (MHz) | Level (dBm) |
|---|---|
| 2412.525000 | 5.7 |

## Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|---|---|---|---|---|
| 2399.975000 | -44.1 | 29.9 | -14.3 | PASS |
| 2397.975000 | -45.5 | 31.2 | -14.3 | PASS |
| 2398.025000 | -46.0 | 31.7 | -14.3 | PASS |
| 2397.325000 | -46.1 | 31.8 | -14.3 | PASS |
| 2397.375000 | -46.2 | 32.0 | -14.3 | PASS |
| 2397.425000 | -46.3 | 32.1 | -14.3 | PASS |
| 2397.925000 | -46.4 | 32.1 | -14.3 | PASS |
| 2399.375000 | -46.4 | 32.1 | -14.3 | PASS |
| 2396.275000 | -46.6 | 32.4 | -14.3 | PASS |
| 2397.725000 | -46.7 | 32.4 | -14.3 | PASS |
| 2396.025000 | -46.8 | 32.5 | -14.3 | PASS |
| 2398.675000 | -46.9 | 32.6 | -14.3 | PASS |
| 2399.925000 | -46.9 | 32.6 | -14.3 | PASS |
| 2397.775000 | -46.9 | 32.6 | -14.3 | PASS |
| 2399.725000 | -47.0 | 32.7 | -14.3 | PASS |



# Band Edge high (2462 MHz; 15.000 dBm; 20 MHz)

## Result

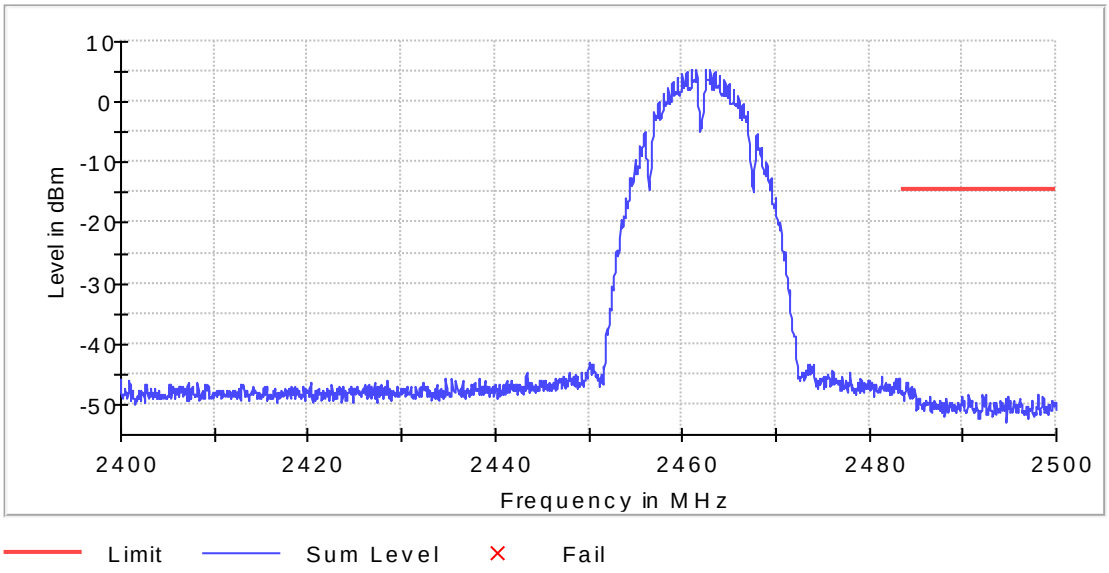
| DUT Frequency (MHz) | Result |
|---|---|
| 2462.000000 | PASS |

## Inband Peak

| Frequency (MHz) | Level (dBm) |
|---|---|
| 2461.525000 | 5.5 |

## Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|---|---|---|---|---|
| 2484.075000 | -46.3 | 31.8 | -14.5 | PASS |
| 2484.025000 | -46.4 | 31.8 | -14.5 | PASS |
| 2484.525000 | -47.0 | 32.4 | -14.5 | PASS |
| 2483.925000 | -47.1 | 32.6 | -14.5 | PASS |
| 2484.125000 | -47.1 | 32.6 | -14.5 | PASS |
| 2484.575000 | -47.3 | 32.8 | -14.5 | PASS |
| 2483.975000 | -47.3 | 32.8 | -14.5 | PASS |
| 2484.875000 | -47.3 | 32.8 | -14.5 | PASS |
| 2484.825000 | -47.4 | 32.9 | -14.5 | PASS |
| 2484.475000 | -47.4 | 32.9 | -14.5 | PASS |
| 2483.875000 | -47.8 | 33.3 | -14.5 | PASS |
| 2483.525000 | -47.8 | 33.3 | -14.5 | PASS |
| 2484.225000 | -47.9 | 33.4 | -14.5 | PASS |
| 2484.175000 | -47.9 | 33.4 | -14.5 | PASS |
| 2483.775000 | -48.0 | 33.4 | -14.5 | PASS |



**(802.11g)**

## Band Edge low (2412 MHz; 15.000 dBm; 20 MHz)

## Result

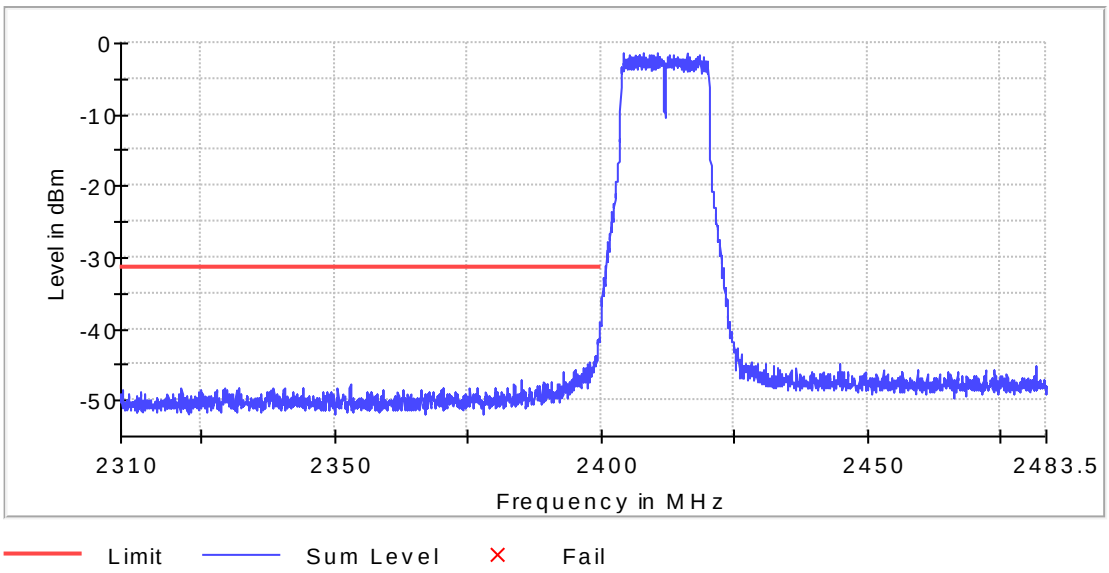
| DUT Frequency (MHz) | Result |
|---|---|
| 2412.000000 | PASS |

## Inband Peak

| Frequency (MHz) | Level (dBm) |
|---|---|
| 2416.125000 | -1.3 |

## Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|---|---|---|---|---|
| 2399.925000 | -38.9 | 7.6 | -31.3 | PASS |
| 2399.875000 | -39.2 | 7.8 | -31.3 | PASS |
| 2399.825000 | -39.4 | 8.1 | -31.3 | PASS |
| 2399.975000 | -39.7 | 8.3 | -31.3 | PASS |
| 2399.725000 | -41.0 | 9.7 | -31.3 | PASS |
| 2399.775000 | -41.1 | 9.7 | -31.3 | PASS |
| 2399.575000 | -41.2 | 9.9 | -31.3 | PASS |
| 2399.625000 | -41.4 | 10.0 | -31.3 | PASS |
| 2399.425000 | -41.5 | 10.2 | -31.3 | PASS |
| 2399.375000 | -41.6 | 10.3 | -31.3 | PASS |
| 2399.675000 | -41.8 | 10.4 | -31.3 | PASS |
| 2399.525000 | -41.9 | 10.6 | -31.3 | PASS |
| 2399.475000 | -42.1 | 10.8 | -31.3 | PASS |
| 2399.325000 | -42.8 | 11.4 | -31.3 | PASS |
| 2399.025000 | -43.8 | 12.5 | -31.3 | PASS |



# Band Edge high (2462 MHz; 15.000 dBm; 20 MHz)

## Result

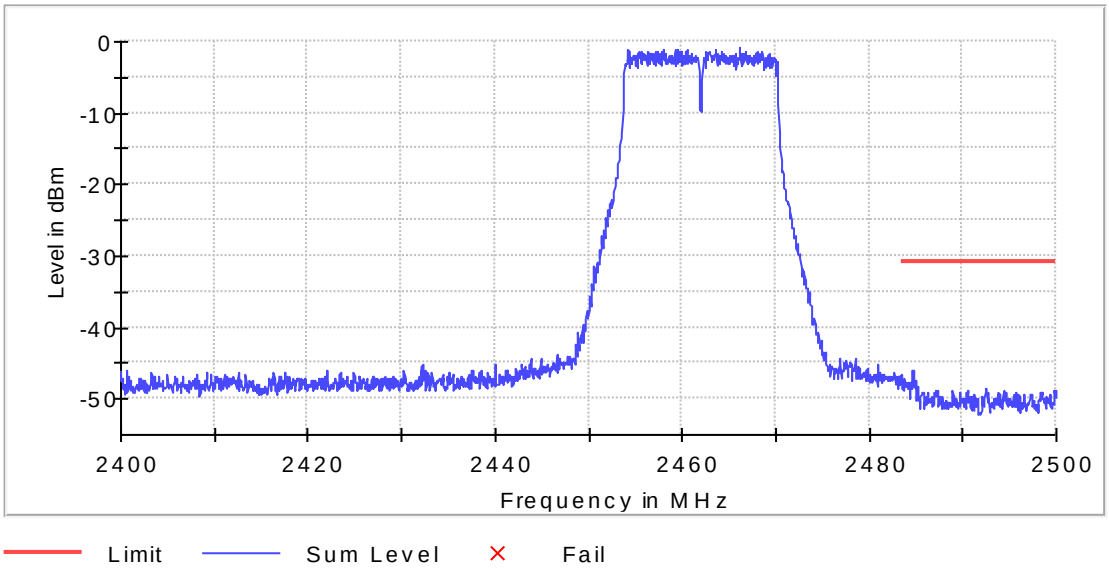
| DUT Frequency (MHz) | Result |
|---|---|
| 2462.000000 | PASS |

## Inband Peak

| Frequency (MHz) | Level (dBm) |
|---|---|
| 2466.175000 | -1.0 |

## Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|---|---|---|---|---|
| 2484.725000 | -45.9 | 15.0 | -31.0 | PASS |
| 2484.675000 | -46.1 | 15.2 | -31.0 | PASS |
| 2483.825000 | -47.1 | 16.1 | -31.0 | PASS |
| 2483.775000 | -47.2 | 16.3 | -31.0 | PASS |
| 2484.775000 | -47.3 | 16.3 | -31.0 | PASS |
| 2484.975000 | -47.6 | 16.6 | -31.0 | PASS |
| 2484.475000 | -47.6 | 16.6 | -31.0 | PASS |
| 2484.525000 | -47.6 | 16.7 | -31.0 | PASS |
| 2483.975000 | -47.7 | 16.7 | -31.0 | PASS |
| 2484.025000 | -47.7 | 16.8 | -31.0 | PASS |
| 2484.225000 | -47.8 | 16.8 | -31.0 | PASS |
| 2484.075000 | -47.9 | 17.0 | -31.0 | PASS |
| 2484.275000 | -48.0 | 17.0 | -31.0 | PASS |
| 2483.725000 | -48.0 | 17.1 | -31.0 | PASS |
| 2484.825000 | -48.1 | 17.1 | -31.0 | PASS |



**(802.11n20)**

## Band Edge low (2412 MHz; 15.000 dBm; 20 MHz)

## Result

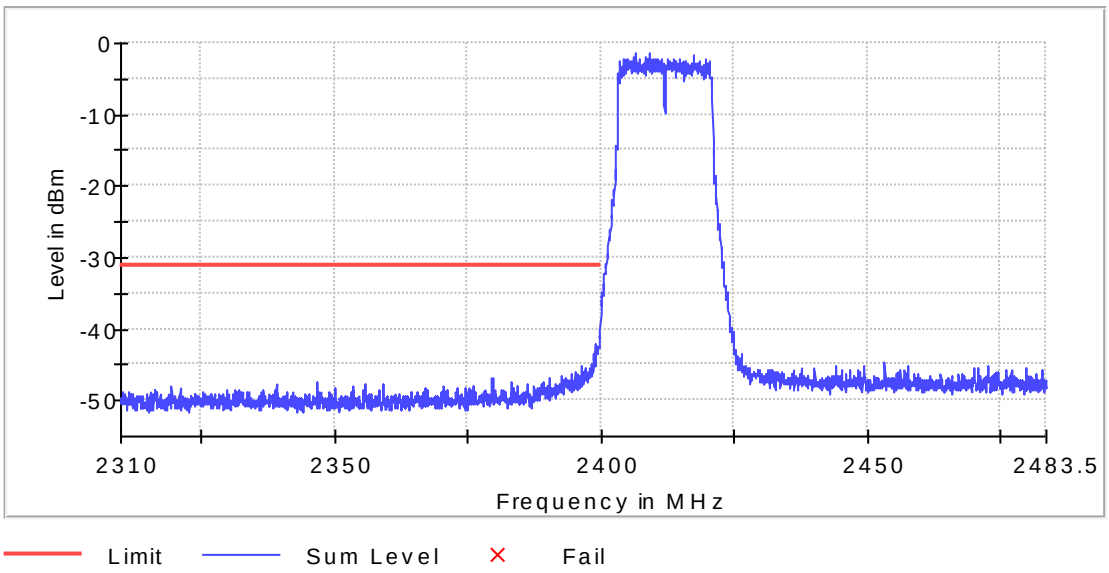
| DUT Frequency (MHz) | Result |
|---|---|
| 2412.000000 | PASS |

## Inband Peak

| Frequency (MHz) | Level (dBm) |
|---|---|
| 2409.125000 | -1.3 |

## Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|---|---|---|---|---|
| 2399.975000 | -37.9 | 6.6 | -31.3 | PASS |
| 2399.925000 | -40.2 | 8.9 | -31.3 | PASS |
| 2399.875000 | -40.4 | 9.1 | -31.3 | PASS |
| 2399.825000 | -40.7 | 9.5 | -31.3 | PASS |
| 2399.725000 | -40.9 | 9.6 | -31.3 | PASS |
| 2399.775000 | -41.2 | 9.9 | -31.3 | PASS |
| 2399.675000 | -41.8 | 10.5 | -31.3 | PASS |
| 2398.875000 | -42.1 | 10.8 | -31.3 | PASS |
| 2399.625000 | -42.2 | 10.9 | -31.3 | PASS |
| 2399.525000 | -42.4 | 11.1 | -31.3 | PASS |
| 2399.475000 | -42.4 | 11.2 | -31.3 | PASS |
| 2399.175000 | -42.5 | 11.2 | -31.3 | PASS |
| 2399.575000 | -42.6 | 11.3 | -31.3 | PASS |
| 2398.925000 | -42.6 | 11.4 | -31.3 | PASS |
| 2399.425000 | -42.9 | 11.7 | -31.3 | PASS |



# Band Edge high (2462 MHz; 15.000 dBm; 20 MHz)

## Result

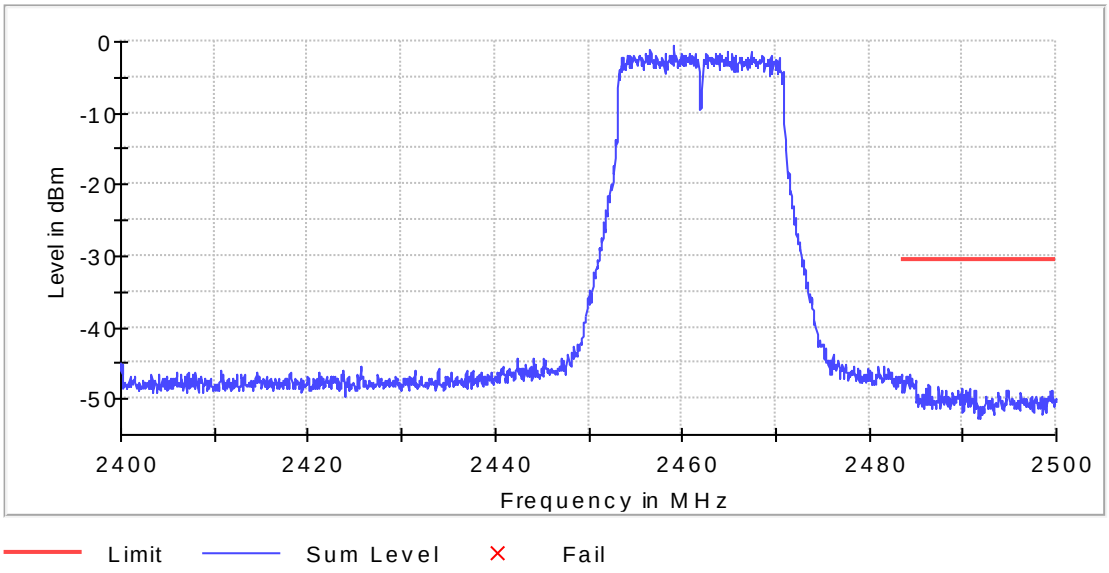
| DUT Frequency (MHz) | Result |
|---|---|
| 2462.000000 | PASS |

## Inband Peak

| Frequency (MHz) | Level (dBm) |
|---|---|
| 2459.125000 | -0.7 |

## Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|---|---|---|---|---|
| 2484.425000 | -46.7 | 16.0 | -30.7 | PASS |
| 2484.475000 | -46.8 | 16.1 | -30.7 | PASS |
| 2484.025000 | -46.8 | 16.1 | -30.7 | PASS |
| 2484.075000 | -47.0 | 16.3 | -30.7 | PASS |
| 2484.175000 | -47.1 | 16.4 | -30.7 | PASS |
| 2484.625000 | -47.2 | 16.5 | -30.7 | PASS |
| 2483.975000 | -47.5 | 16.8 | -30.7 | PASS |
| 2483.725000 | -47.6 | 16.9 | -30.7 | PASS |
| 2484.975000 | -47.6 | 16.9 | -30.7 | PASS |
| 2483.675000 | -47.6 | 16.9 | -30.7 | PASS |
| 2484.925000 | -47.6 | 16.9 | -30.7 | PASS |
| 2484.575000 | -47.6 | 16.9 | -30.7 | PASS |
| 2484.675000 | -47.6 | 16.9 | -30.7 | PASS |
| 2483.875000 | -47.7 | 17.0 | -30.7 | PASS |
| 2483.925000 | -47.8 | 17.1 | -30.7 | PASS |



**(802.11n40)**

## Band Edge low (2422 MHz; 15.000 dBm; 40 MHz)

## Result

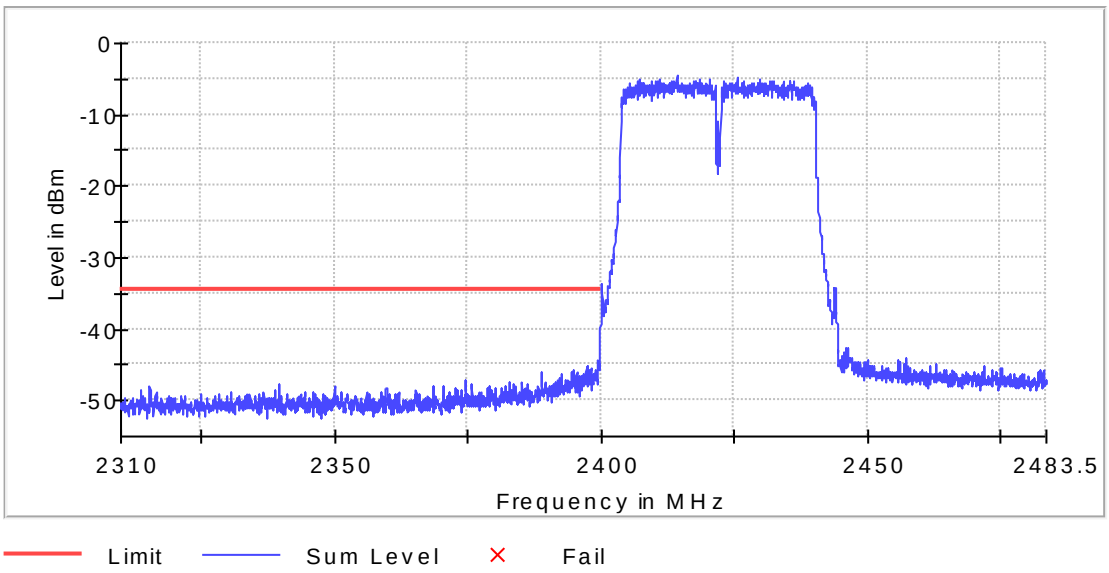
| DUT Frequency (MHz) | Result |
|---|---|
| 2422.000000 | PASS |

## Inband Peak

| Frequency (MHz) | Level (dBm) |
|---|---|
| 2414.225000 | -4.6 |

## Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|---|---|---|---|---|
| 2399.975000 | -39.2 | 4.6 | -34.6 | PASS |
| 2399.925000 | -39.9 | 5.3 | -34.6 | PASS |
| 2399.875000 | -40.4 | 5.7 | -34.6 | PASS |
| 2399.825000 | -41.5 | 6.9 | -34.6 | PASS |
| 2399.775000 | -42.3 | 7.6 | -34.6 | PASS |
| 2399.725000 | -42.7 | 8.1 | -34.6 | PASS |
| 2399.525000 | -44.4 | 9.8 | -34.6 | PASS |
| 2399.475000 | -44.5 | 9.8 | -34.6 | PASS |
| 2399.625000 | -44.9 | 10.3 | -34.6 | PASS |
| 2399.675000 | -45.1 | 10.5 | -34.6 | PASS |
| 2397.325000 | -45.2 | 10.6 | -34.6 | PASS |
| 2397.575000 | -45.3 | 10.7 | -34.6 | PASS |
| 2398.075000 | -45.5 | 10.9 | -34.6 | PASS |
| 2398.125000 | -45.6 | 11.0 | -34.6 | PASS |
| 2399.025000 | -45.6 | 11.0 | -34.6 | PASS |



# Band Edge high (2452 MHz; 15.000 dBm; 40 MHz)

## Result

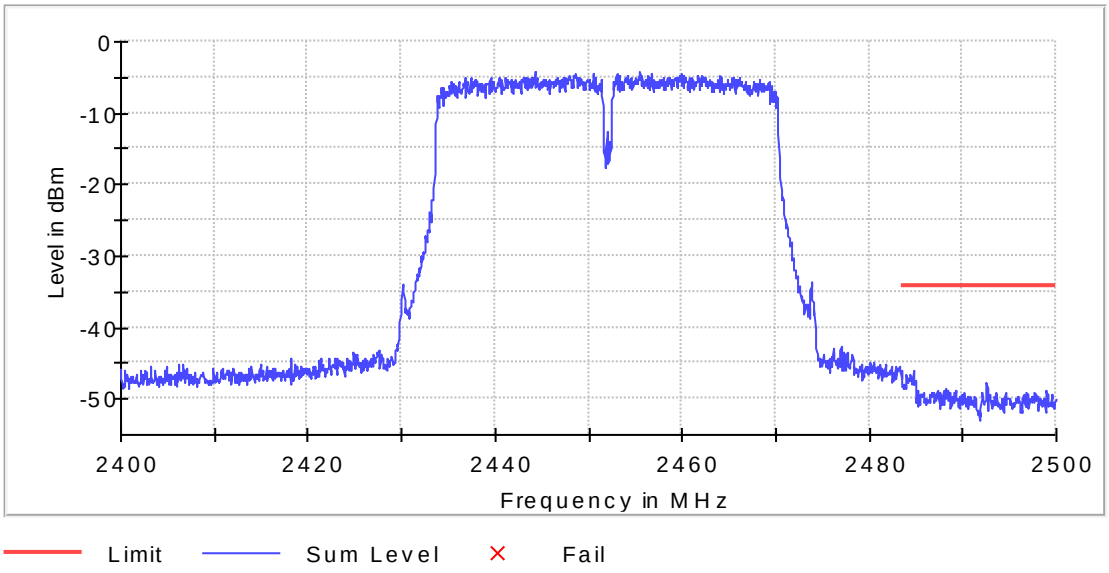
| DUT Frequency (MHz) | Result |
|---|---|
| 2452.000000 | PASS |

## Inband Peak

| Frequency (MHz) | Level (dBm) |
|---|---|
| 2455.525000 | -4.2 |

## Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|---|---|---|---|---|
| 2484.725000 | -46.1 | 11.8 | -34.2 | PASS |
| 2484.775000 | -46.2 | 12.0 | -34.2 | PASS |
| 2484.475000 | -46.5 | 12.3 | -34.2 | PASS |
| 2484.425000 | -46.6 | 12.4 | -34.2 | PASS |
| 2484.025000 | -46.7 | 12.5 | -34.2 | PASS |
| 2484.375000 | -46.8 | 12.6 | -34.2 | PASS |
| 2484.275000 | -47.1 | 12.9 | -34.2 | PASS |
| 2484.525000 | -47.1 | 12.9 | -34.2 | PASS |
| 2483.525000 | -47.2 | 13.0 | -34.2 | PASS |
| 2484.125000 | -47.2 | 13.0 | -34.2 | PASS |
| 2484.075000 | -47.3 | 13.1 | -34.2 | PASS |
| 2484.925000 | -47.3 | 13.1 | -34.2 | PASS |
| 2484.225000 | -47.4 | 13.2 | -34.2 | PASS |
| 2484.325000 | -47.4 | 13.2 | -34.2 | PASS |
| 2483.975000 | -47.6 | 13.4 | -34.2 | PASS |



## 9.5 Conducted Spurious Emissions

## (802.11b)

# Tx Spurious Emission (2412 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2412.000000 | PASS |

## Final measurements

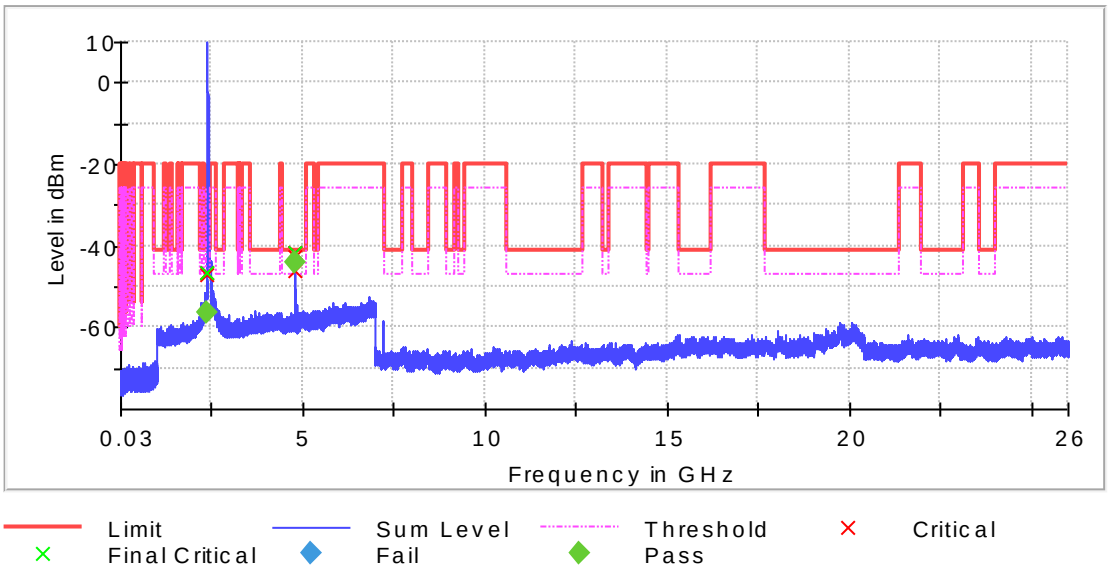
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 2389.250000 | -46.7 | -56.3 | -41.2 | 15.1 | PASS |
| 4824.250000 | -41.8 | -44.3 | -41.2 | 3.1 | PASS |

## Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 4824.250000 | -41.8 | 0.6 | -41.2 |
| 4824.750000 | -41.9 | 0.7 | -41.2 |
| 4823.750000 | -42.4 | 1.2 | -41.2 |
| 4825.250000 | -46.1 | 4.9 | -41.2 |
| 2389.250000 | -46.7 | 5.5 | -41.2 |
| 2389.750000 | -47.1 | 5.9 | -41.2 |
| 4823.250000 | -47.5 | 6.3 | -41.2 |
| 2388.750000 | -47.5 | 6.3 | -41.2 |
| 2493.750000 | -47.6 | 6.4 | -41.2 |
| 2388.250000 | -48.1 | 6.9 | -41.2 |
| 2387.250000 | -48.3 | 7.1 | -41.2 |
| 2387.750000 | -48.3 | 7.1 | -41.2 |
| 2384.750000 | -48.4 | 7.2 | -41.2 |
| 2484.250000 | -48.4 | 7.2 | -41.2 |
| 2494.250000 | -48.4 | 7.2 | -41.2 |

## Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



# Tx Spurious Emission (2437 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2437.000000 | PASS |

## Final measurements

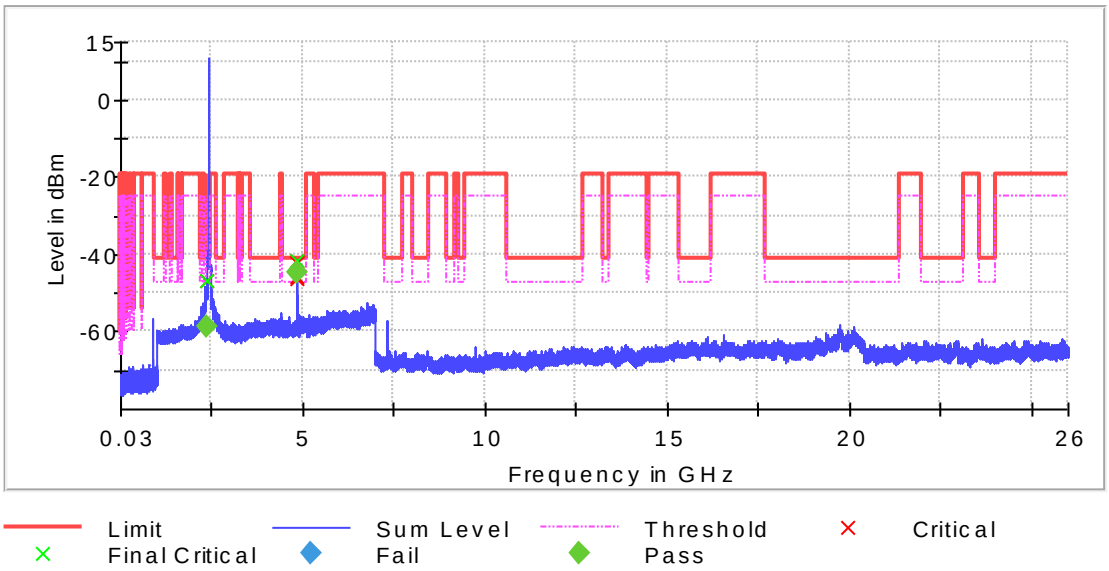
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 2387.250000 | -47.0 | -58.7 | -41.2 | 17.5 | PASS |
| 4874.250000 | -41.5 | -44.5 | -41.2 | 3.3 | PASS |

## Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 4874.250000 | -41.5 | 0.3 | -41.2 |
| 4874.750000 | -41.9 | 0.7 | -41.2 |
| 4873.750000 | -42.0 | 0.8 | -41.2 |
| 4875.250000 | -45.9 | 4.7 | -41.2 |
| 4873.250000 | -46.5 | 5.3 | -41.2 |
| 2387.250000 | -47.0 | 5.8 | -41.2 |
| 2366.250000 | -47.3 | 6.1 | -41.2 |
| 2366.750000 | -47.3 | 6.1 | -41.2 |
| 2385.750000 | -47.4 | 6.2 | -41.2 |
| 2386.250000 | -47.6 | 6.4 | -41.2 |
| 2388.250000 | -47.7 | 6.5 | -41.2 |
| 2484.250000 | -47.9 | 6.7 | -41.2 |
| 2484.750000 | -48.0 | 6.8 | -41.2 |
| 2385.250000 | -48.2 | 7.0 | -41.2 |
| 2356.250000 | -48.4 | 7.2 | -41.2 |

## Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



# Tx Spurious Emission (2462 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2462.000000 | PASS |

## Final measurements

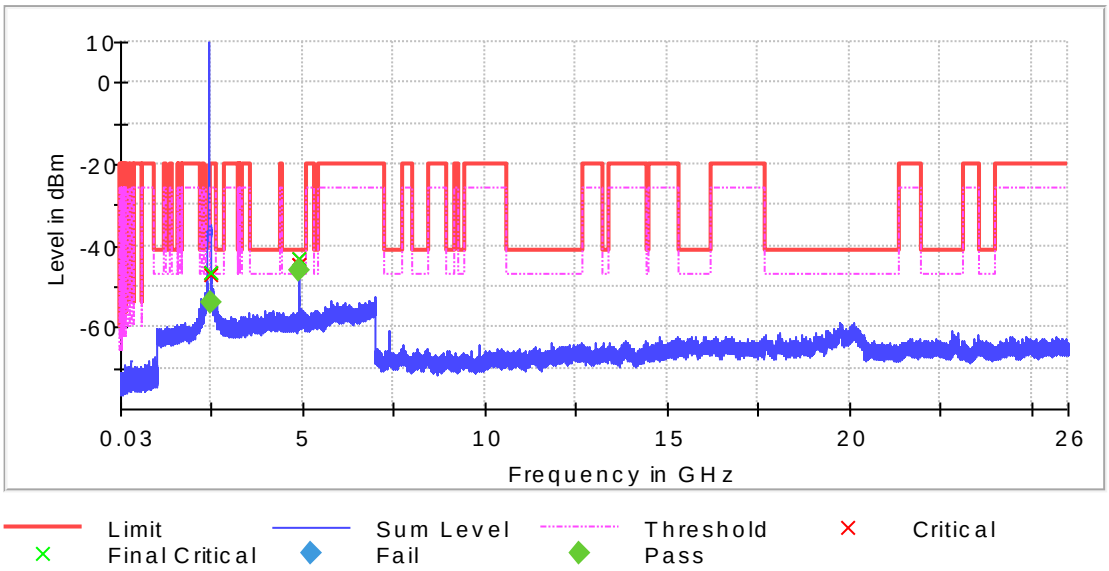
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 2483.750000 | -46.5 | -54.2 | -41.2 | 13.0 | PASS |
| 4924.250000 | -43.3 | -46.3 | -41.2 | 5.1 | PASS |

## Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 4924.250000 | -43.3 | 2.1 | -41.2 |
| 4924.750000 | -44.4 | 3.2 | -41.2 |
| 4923.750000 | -44.7 | 3.5 | -41.2 |
| 2483.750000 | -46.5 | 5.3 | -41.2 |
| 2484.750000 | -47.1 | 5.9 | -41.2 |
| 2485.250000 | -47.4 | 6.2 | -41.2 |
| 2484.250000 | -47.6 | 6.4 | -41.2 |
| 2486.250000 | -47.7 | 6.5 | -41.2 |
| 4925.250000 | -47.7 | 6.5 | -41.2 |
| 2491.750000 | -47.7 | 6.5 | -41.2 |
| 2491.250000 | -47.7 | 6.5 | -41.2 |
| 2487.250000 | -47.7 | 6.5 | -41.2 |
| 2486.750000 | -48.5 | 7.3 | -41.2 |
| 2381.750000 | -48.5 | 7.3 | -41.2 |
| 2489.250000 | -48.7 | 7.5 | -41.2 |

## Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



**(802.11g)**

## Tx Spurious Emission (2412 MHz; 15.000 dBm; 20 MHz)

### Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2412.000000 | PASS |

### Final measurements

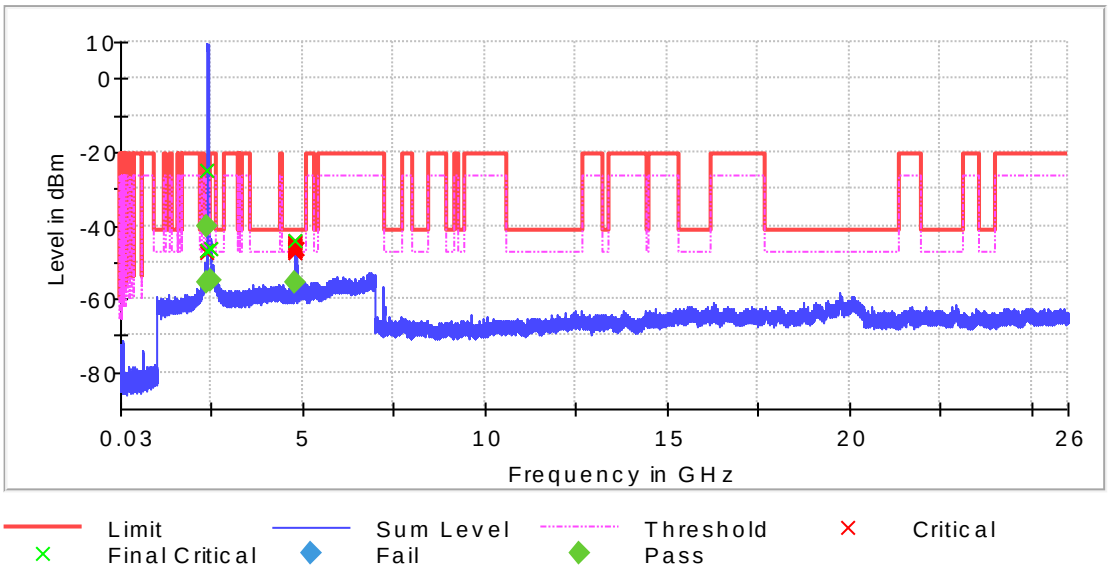
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 2389.750000 | -46.8 | -55.4 | -41.2 | 14.2 | PASS |
| 2399.750000 | -24.8 | -40.4 | -20.5 | 19.9 | PASS |
| 2484.250000 | -46.5 | -55.2 | -41.2 | 14.0 | PASS |
| 4825.250000 | -44.3 | -55.5 | -41.2 | 14.3 | PASS |

### Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 4825.250000 | -44.3 | 3.1 | -41.2 |
| 4820.750000 | -44.5 | 3.3 | -41.2 |
| 4820.250000 | -44.6 | 3.4 | -41.2 |
| 4824.750000 | -44.9 | 3.7 | -41.2 |
| 4825.750000 | -45.3 | 4.1 | -41.2 |
| 4817.250000 | -45.4 | 4.2 | -41.2 |
| 2399.750000 | -24.8 | 4.3 | -20.5 |
| 4826.750000 | -45.6 | 4.4 | -41.2 |
| 4824.250000 | -45.9 | 4.7 | -41.2 |
| 4817.750000 | -46.0 | 4.8 | -41.2 |
| 4816.250000 | -46.1 | 4.9 | -41.2 |
| 4826.250000 | -46.1 | 4.9 | -41.2 |
| 4813.750000 | -46.1 | 4.9 | -41.2 |
| 4822.250000 | -46.2 | 5.0 | -41.2 |
| 4819.250000 | -46.2 | 5.0 | -41.2 |

### Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



# Tx Spurious Emission (2437 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2437.000000 | PASS |

## Final measurements

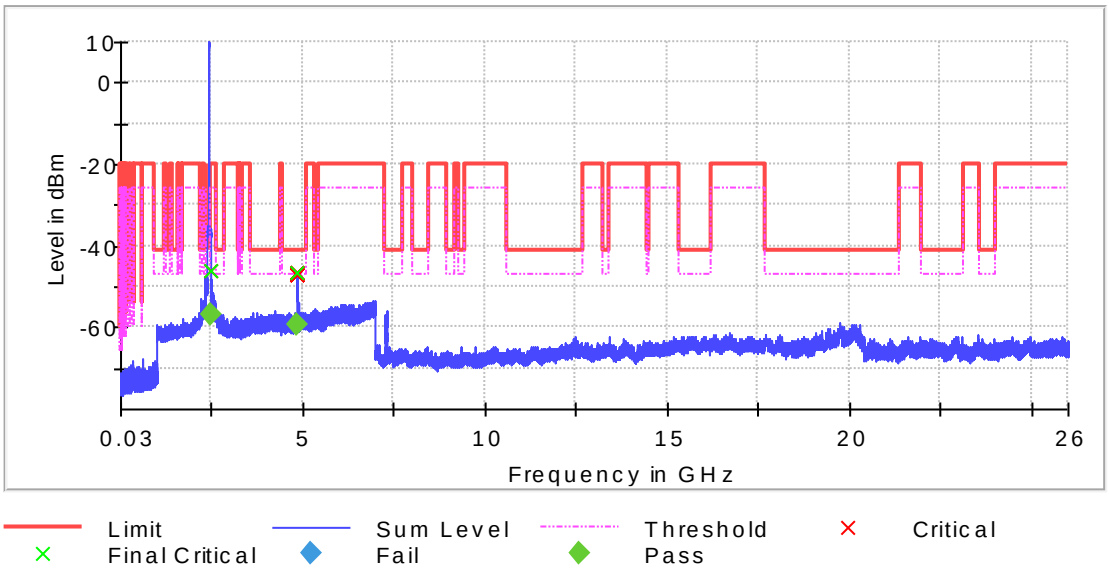
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 2483.750000 | -46.3 | -56.8 | -41.2 | 15.6 | PASS |
| 4863.250000 | -46.7 | -59.5 | -41.2 | 18.3 | PASS |

## Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 2483.750000 | -46.3 | 5.1 | -41.2 |
| 4863.250000 | -46.7 | 5.5 | -41.2 |
| 4884.750000 | -46.7 | 5.5 | -41.2 |
| 4865.250000 | -46.7 | 5.5 | -41.2 |
| 4874.750000 | -46.8 | 5.6 | -41.2 |
| 4872.250000 | -46.8 | 5.6 | -41.2 |
| 4871.750000 | -46.9 | 5.7 | -41.2 |
| 4877.250000 | -46.9 | 5.7 | -41.2 |
| 4876.750000 | -47.0 | 5.8 | -41.2 |
| 4878.250000 | -47.1 | 5.9 | -41.2 |
| 4872.750000 | -47.1 | 5.9 | -41.2 |
| 4873.750000 | -47.2 | 6.0 | -41.2 |
| 4865.750000 | -47.2 | 6.0 | -41.2 |
| 4875.250000 | -47.3 | 6.1 | -41.2 |
| 4864.750000 | -47.3 | 6.1 | -41.2 |

## Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



# Tx Spurious Emission (2462 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2462.000000 | PASS |

## Final measurements

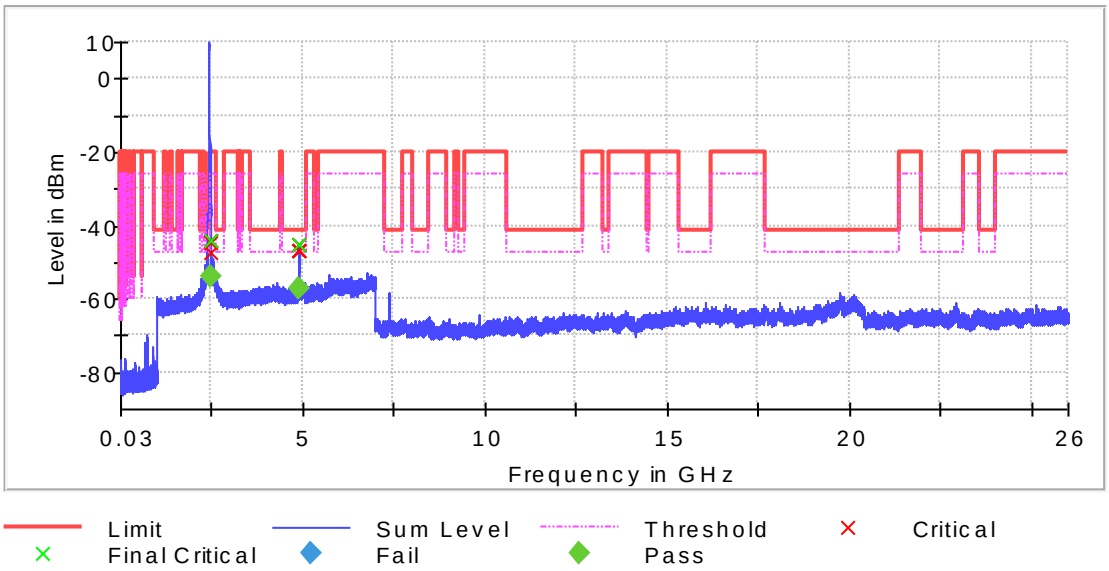
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 2483.750000 | -44.1 | -53.7 | -41.2 | 12.5 | PASS |
| 4920.750000 | -45.0 | -57.1 | -41.2 | 15.9 | PASS |

## Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 2483.750000 | -44.1 | 2.9 | -41.2 |
| 2484.750000 | -44.3 | 3.1 | -41.2 |
| 2484.250000 | -44.7 | 3.5 | -41.2 |
| 4920.750000 | -45.0 | 3.8 | -41.2 |
| 4920.250000 | -45.4 | 4.2 | -41.2 |
| 4923.250000 | -46.6 | 5.4 | -41.2 |
| 4925.250000 | -46.7 | 5.5 | -41.2 |
| 4925.750000 | -46.7 | 5.5 | -41.2 |
| 4924.750000 | -46.9 | 5.7 | -41.2 |
| 2485.750000 | -47.1 | 5.9 | -41.2 |
| 4926.750000 | -47.2 | 6.0 | -41.2 |
| 4927.250000 | -47.3 | 6.1 | -41.2 |
| 2375.250000 | -47.4 | 6.2 | -41.2 |
| 4922.750000 | -47.5 | 6.3 | -41.2 |
| 2382.250000 | -47.6 | 6.4 | -41.2 |

## Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



**(802.11n20)**

## Tx Spurious Emission (2412 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2412.000000 | PASS |

## Final measurements

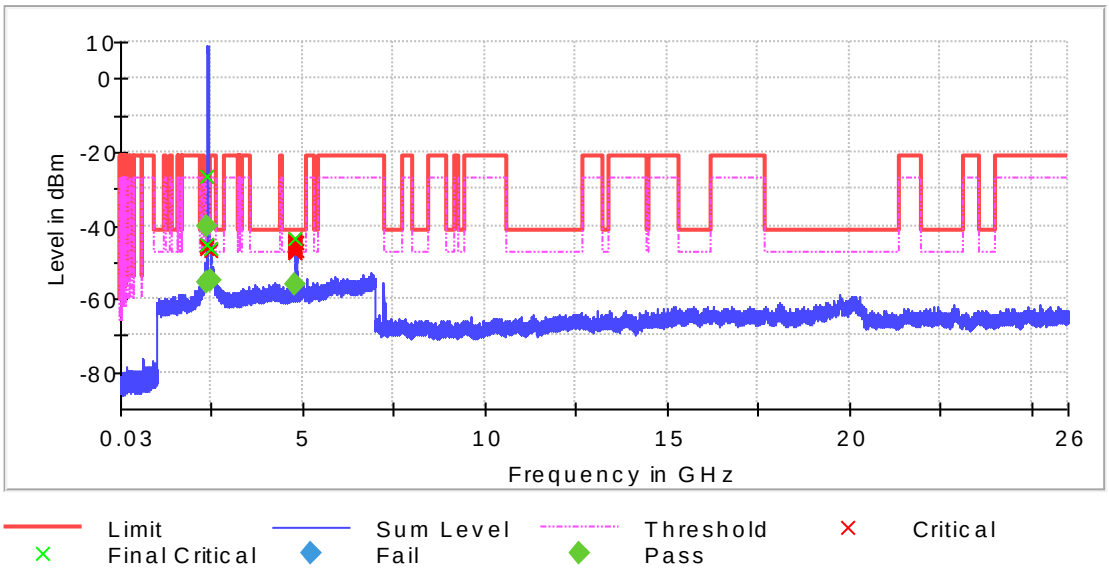
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 2389.250000 | -45.2 | -55.4 | -41.2 | 14.2 | PASS |
| 2399.750000 | -26.8 | -40.0 | -21.1 | 19.0 | PASS |
| 2484.250000 | -46.0 | -55.2 | -41.2 | 14.0 | PASS |
| 4823.250000 | -43.8 | -55.9 | -41.2 | 14.7 | PASS |

## Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 4823.250000 | -43.8 | 2.6 | -41.2 |
| 4817.750000 | -44.3 | 3.1 | -41.2 |
| 4824.750000 | -44.3 | 3.1 | -41.2 |
| 4827.250000 | -44.4 | 3.2 | -41.2 |
| 4816.250000 | -44.5 | 3.3 | -41.2 |
| 4835.250000 | -44.6 | 3.4 | -41.2 |
| 4815.750000 | -44.6 | 3.4 | -41.2 |
| 4833.250000 | -44.7 | 3.5 | -41.2 |
| 4833.750000 | -44.7 | 3.5 | -41.2 |
| 4830.250000 | -44.7 | 3.5 | -41.2 |
| 4823.750000 | -44.8 | 3.6 | -41.2 |
| 4824.250000 | -44.8 | 3.6 | -41.2 |
| 4831.250000 | -44.8 | 3.6 | -41.2 |
| 4830.750000 | -44.9 | 3.7 | -41.2 |
| 4820.750000 | -44.9 | 3.7 | -41.2 |

## Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



# Tx Spurious Emission (2437 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2437.000000 | PASS |

## Final measurements

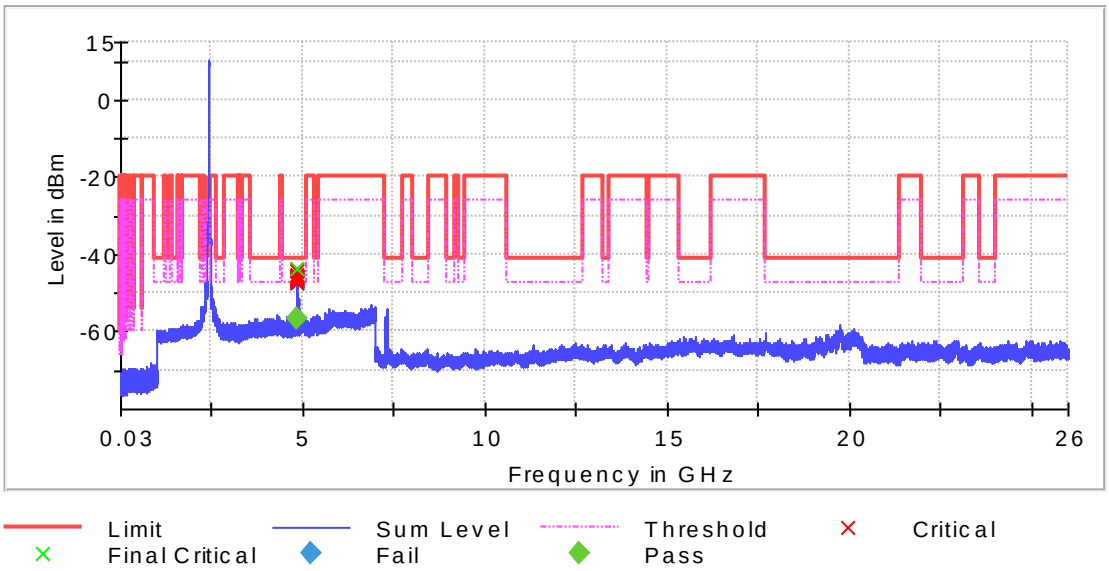
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 4873.250000 | -43.6 | -56.5 | -41.2 | 15.3 | PASS |

## Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 4873.250000 | -43.6 | 2.4 | -41.2 |
| 4874.750000 | -44.1 | 2.9 | -41.2 |
| 4868.250000 | -44.4 | 3.2 | -41.2 |
| 4877.750000 | -45.4 | 4.2 | -41.2 |
| 4878.750000 | -45.5 | 4.3 | -41.2 |
| 4877.250000 | -45.5 | 4.3 | -41.2 |
| 4871.750000 | -45.5 | 4.3 | -41.2 |
| 4874.250000 | -45.6 | 4.4 | -41.2 |
| 4870.750000 | -45.6 | 4.4 | -41.2 |
| 4872.250000 | -45.7 | 4.5 | -41.2 |
| 4871.250000 | -45.8 | 4.6 | -41.2 |
| 4868.750000 | -46.0 | 4.8 | -41.2 |
| 4882.750000 | -46.0 | 4.8 | -41.2 |
| 4873.750000 | -46.1 | 4.9 | -41.2 |
| 4875.750000 | -46.1 | 4.9 | -41.2 |

## Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



# Tx Spurious Emission (2462 MHz; 15.000 dBm; 20 MHz)

## Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2462.000000 | PASS |

## Final measurements

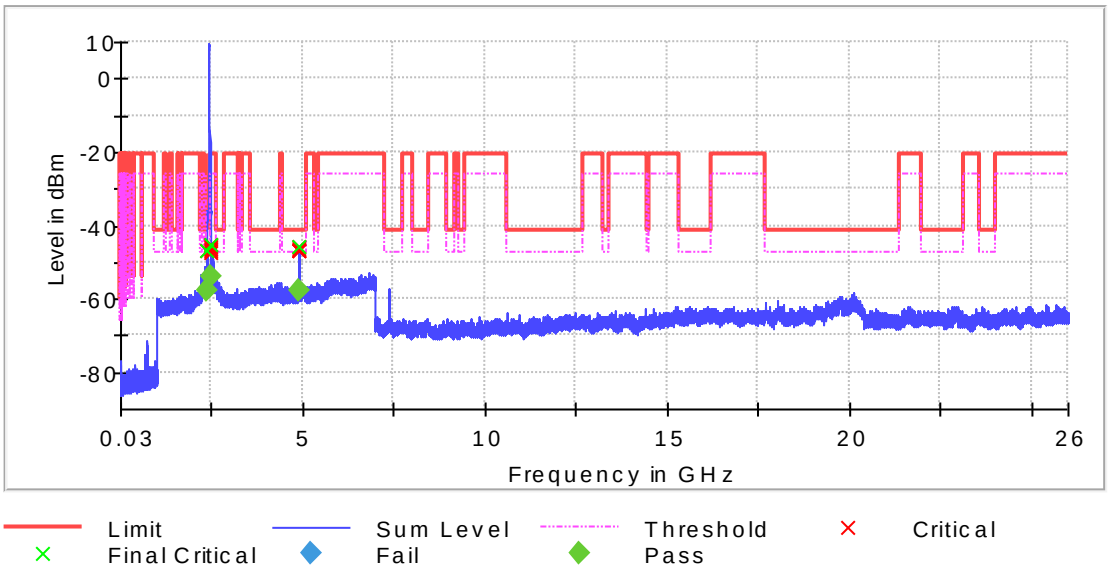
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 2379.250000 | -46.7 | -57.7 | -41.2 | 16.5 | PASS |
| 2483.750000 | -45.2 | -53.7 | -41.2 | 12.5 | PASS |
| 4922.250000 | -45.9 | -57.7 | -41.2 | 16.5 | PASS |

## Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 2483.750000 | -45.2 | 4.0 | -41.2 |
| 2484.250000 | -45.9 | 4.7 | -41.2 |
| 4922.250000 | -45.9 | 4.7 | -41.2 |
| 4933.750000 | -46.2 | 5.0 | -41.2 |
| 2484.750000 | -46.3 | 5.1 | -41.2 |
| 4933.250000 | -46.6 | 5.4 | -41.2 |
| 2379.250000 | -46.7 | 5.5 | -41.2 |
| 4921.750000 | -46.7 | 5.5 | -41.2 |
| 4925.250000 | -47.0 | 5.8 | -41.2 |
| 2488.250000 | -47.0 | 5.8 | -41.2 |
| 2488.750000 | -47.2 | 6.0 | -41.2 |
| 4918.250000 | -47.2 | 6.0 | -41.2 |
| 4916.750000 | -47.3 | 6.1 | -41.2 |
| 4930.750000 | -47.3 | 6.1 | -41.2 |
| 4927.250000 | -47.4 | 6.2 | -41.2 |

## Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



**(802.11n40)**

## Tx Spurious Emission (2422 MHz; 15.000 dBm; 40 MHz)

## Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2422.000000 | PASS |

## Final measurements

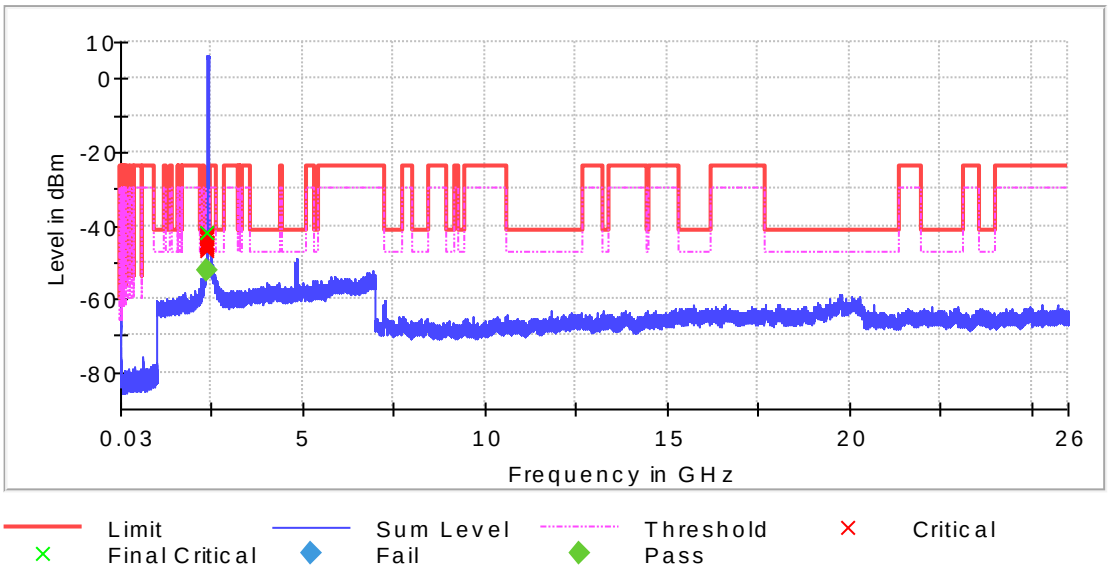
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 2389.750000 | -42.0 | -52.4 | -41.2 | 11.2 | PASS |

## Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 2389.750000 | -42.0 | 0.8 | -41.2 |
| 2389.250000 | -42.3 | 1.1 | -41.2 |
| 2383.750000 | -43.1 | 1.9 | -41.2 |
| 2387.250000 | -43.2 | 2.0 | -41.2 |
| 2388.250000 | -43.5 | 2.3 | -41.2 |
| 2384.250000 | -43.7 | 2.5 | -41.2 |
| 2383.250000 | -44.4 | 3.2 | -41.2 |
| 2388.750000 | -44.5 | 3.3 | -41.2 |
| 2386.250000 | -44.5 | 3.3 | -41.2 |
| 2387.750000 | -44.6 | 3.4 | -41.2 |
| 2384.750000 | -44.7 | 3.5 | -41.2 |
| 2386.750000 | -44.9 | 3.7 | -41.2 |
| 2385.250000 | -45.1 | 3.9 | -41.2 |
| 2382.250000 | -45.4 | 4.2 | -41.2 |
| 2382.750000 | -45.4 | 4.2 | -41.2 |

## Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



# Tx Spurious Emission (2437 MHz; 15.000 dBm; 40 MHz)

## Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2437.000000 | PASS |

## Final measurements

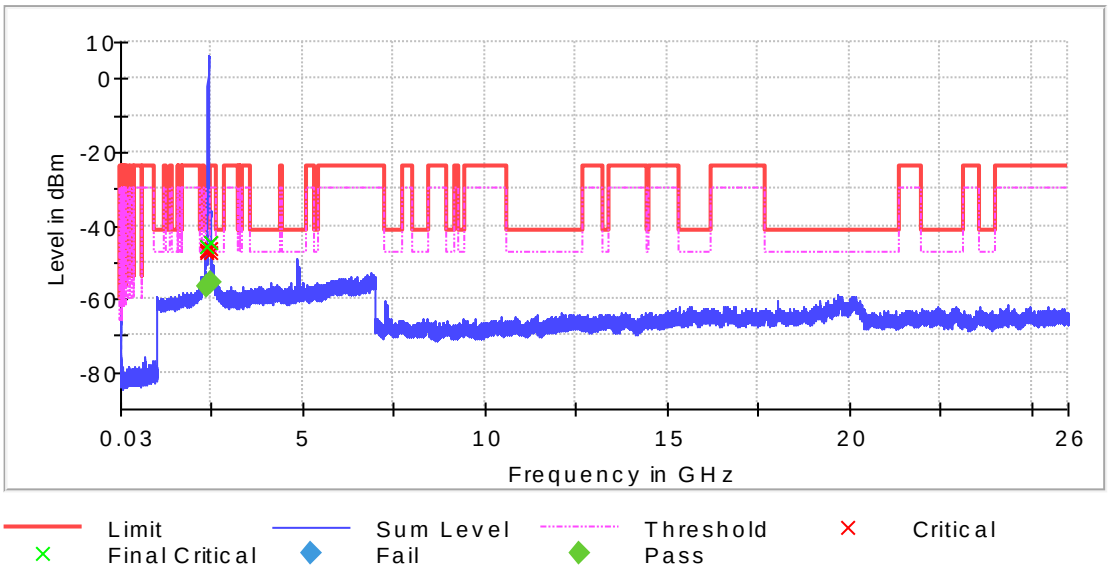
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 2387.750000 | -45.8 | -56.8 | -41.2 | 15.6 | PASS |
| 2484.750000 | -44.6 | -55.5 | -41.2 | 14.3 | PASS |

## Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 2484.750000 | -44.6 | 3.4 | -41.2 |
| 2387.750000 | -45.8 | 4.6 | -41.2 |
| 2485.250000 | -46.5 | 5.3 | -41.2 |
| 2389.750000 | -46.6 | 5.4 | -41.2 |
| 2384.250000 | -46.9 | 5.7 | -41.2 |
| 2483.750000 | -47.1 | 5.9 | -41.2 |
| 2389.250000 | -47.2 | 6.0 | -41.2 |
| 2388.750000 | -47.2 | 6.0 | -41.2 |
| 2385.250000 | -47.5 | 6.3 | -41.2 |
| 2386.250000 | -47.7 | 6.5 | -41.2 |
| 2371.750000 | -47.8 | 6.6 | -41.2 |
| 2385.750000 | -47.8 | 6.6 | -41.2 |
| 2490.750000 | -47.8 | 6.6 | -41.2 |
| 2380.750000 | -47.8 | 6.6 | -41.2 |
| 2388.250000 | -47.9 | 6.7 | -41.2 |

## Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



# Tx Spurious Emission (2452 MHz; 15.000 dBm; 40 MHz)

## Result

| DUT Frequency (MHz) | Result |
|---|---|
| 2452.000000 | PASS |

## Final measurements

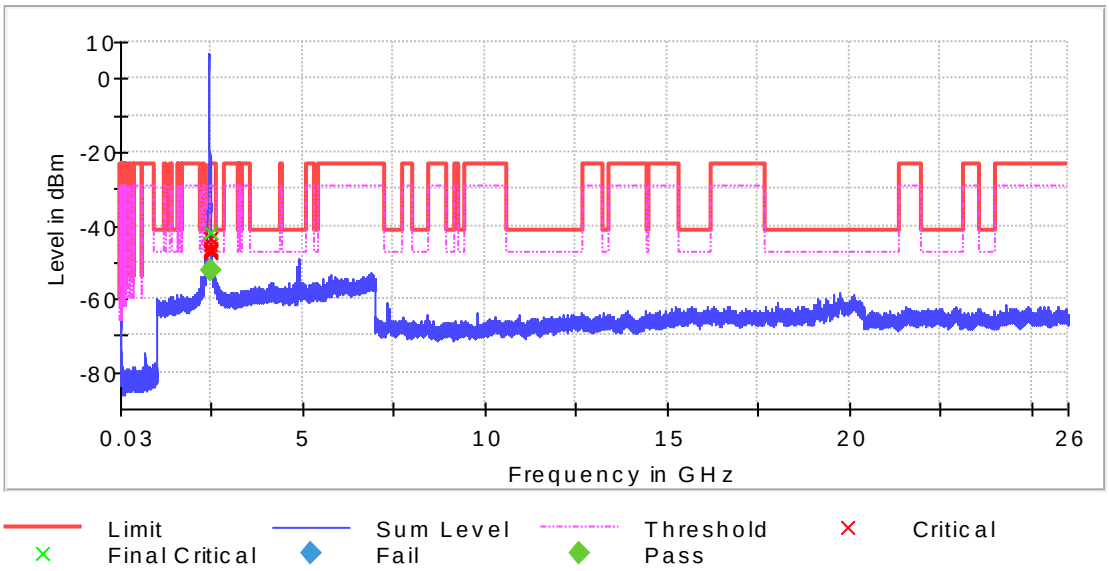
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|---|---|---|---|---|---|
| 2484.750000 | -42.0 | -52.4 | -41.2 | 11.2 | PASS |

## Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|---|---|---|---|
| 2484.750000 | -42.0 | 0.8 | -41.2 |
| 2484.250000 | -43.4 | 2.2 | -41.2 |
| 2483.750000 | -43.6 | 2.4 | -41.2 |
| 2487.750000 | -45.3 | 4.1 | -41.2 |
| 2485.750000 | -46.1 | 4.9 | -41.2 |
| 2489.750000 | -46.2 | 5.0 | -41.2 |
| 2490.250000 | -46.6 | 5.4 | -41.2 |
| 2489.250000 | -46.7 | 5.5 | -41.2 |
| 2491.250000 | -46.9 | 5.7 | -41.2 |
| 2490.750000 | -47.0 | 5.8 | -41.2 |
| 2486.750000 | -47.1 | 5.9 | -41.2 |
| 2499.750000 | -47.2 | 6.0 | -41.2 |
| 2486.250000 | -47.2 | 6.0 | -41.2 |
| 2485.250000 | -47.4 | 6.2 | -41.2 |
| 2493.250000 | -47.4 | 6.2 | -41.2 |

## Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|---|---|---|---|
| 30.000000 | 1000.000000 | 1 | 1 |
| 1000.000000 | 2400.000000 | 2 | 2 |
| 2400.000000 | 2483.500000 | 2 | 2 |
| 2483.500000 | 7000.000000 | 2 | 2 |
| 7000.000000 | 18000.000000 | 2 | 2 |
| 18000.000000 | 26000.000000 | 2 | 2 |



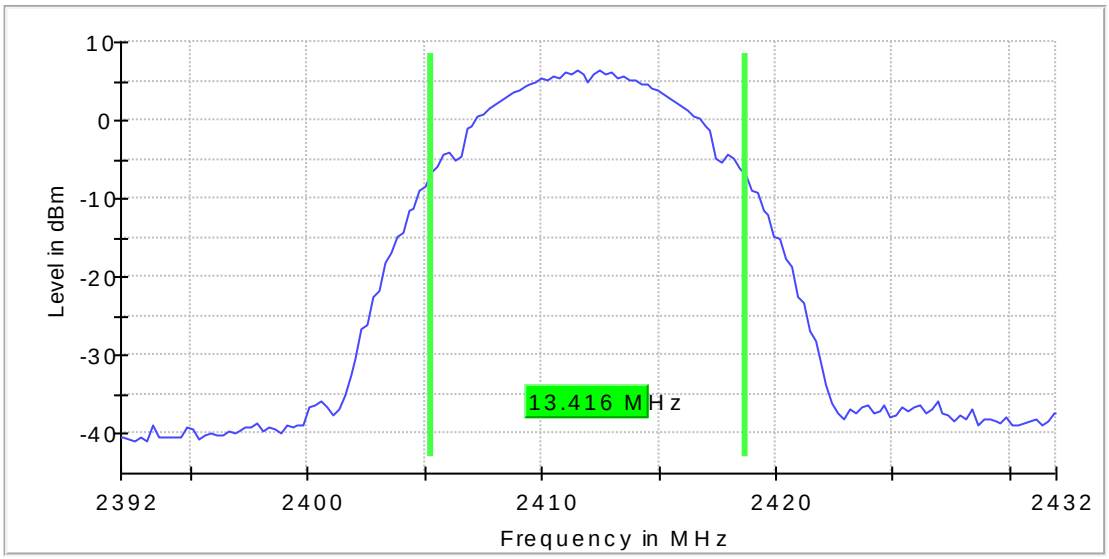
## 9.6 99% Occupied Bandwidth

### 802.11b

## Occupied Channel Bandwidth (2412 MHz; 15 (15 dBm); 20 MHz)

## 99 % Bandwidth

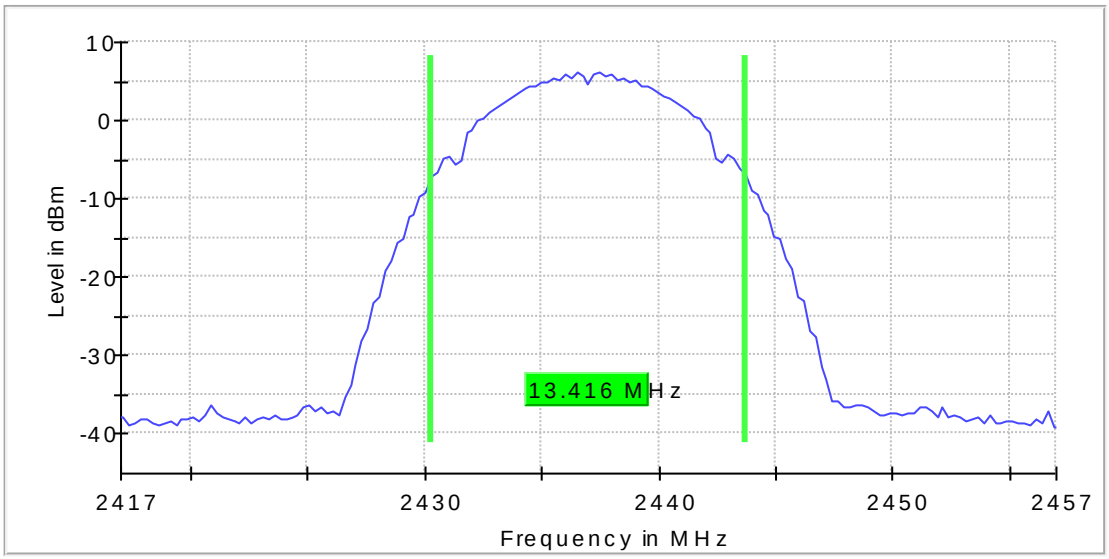
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2412.000000 | 13.416150 | --- | --- | 2405.291925 | 2400.000000 |



# Occupied Channel Bandwidth (2437 MHz; 15 (15 dBm); 20 MHz)

## 99 % Bandwidth

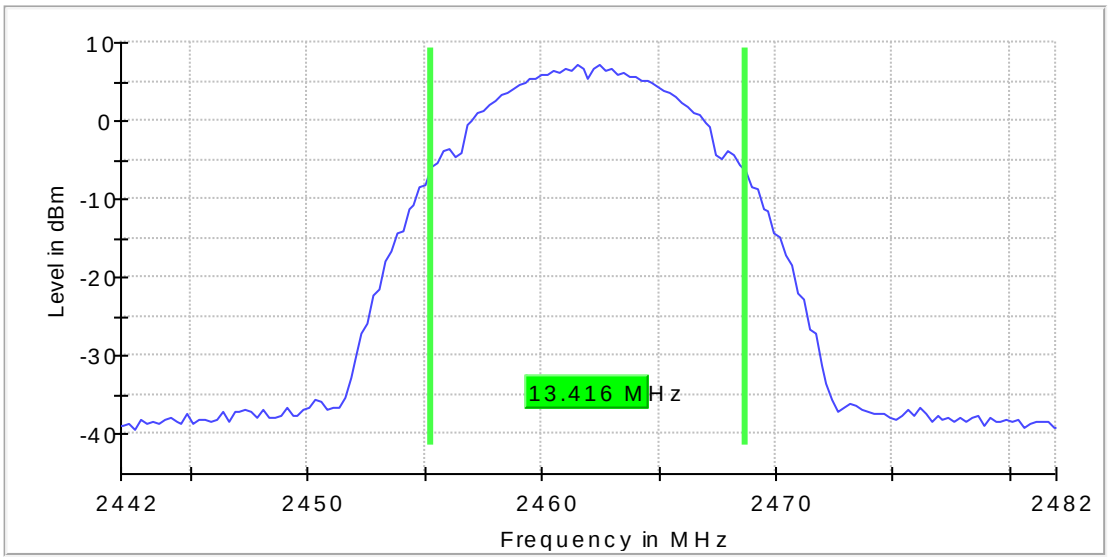
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2437.000000 | 13.416150 | --- | --- | 2430.291925 | 2400.000000 |



# Occupied Channel Bandwidth (2462 MHz; 15 (15 dBm); 20 MHz)

## 99 % Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2462.000000 | 13.416150 | --- | --- | 2455.291925 | 2400.000000 |

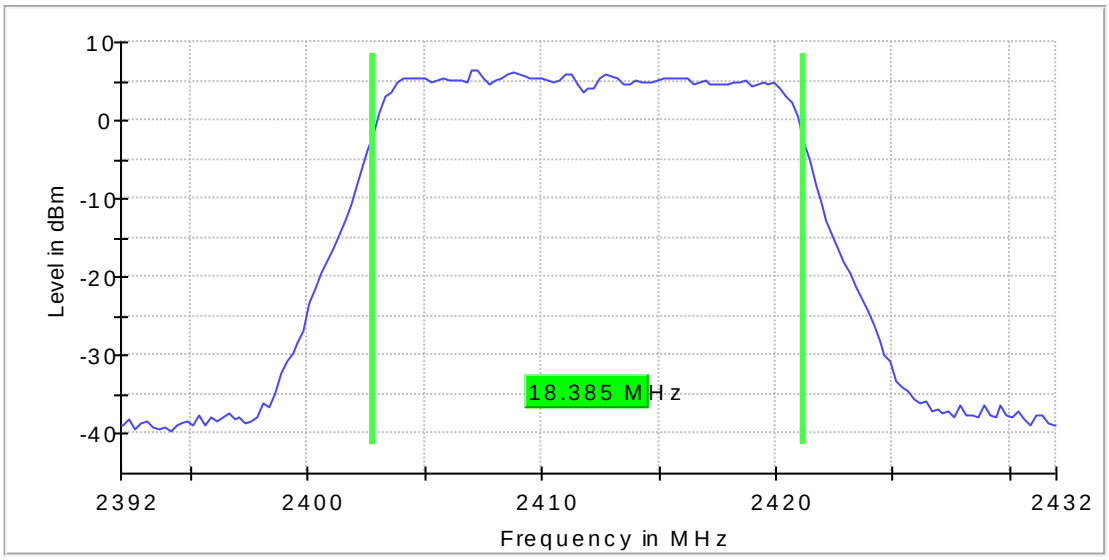


**802.11g**

## Occupied Channel Bandwidth (2412 MHz; 15 (15 dBm); 20 MHz)

### 99 % Bandwidth

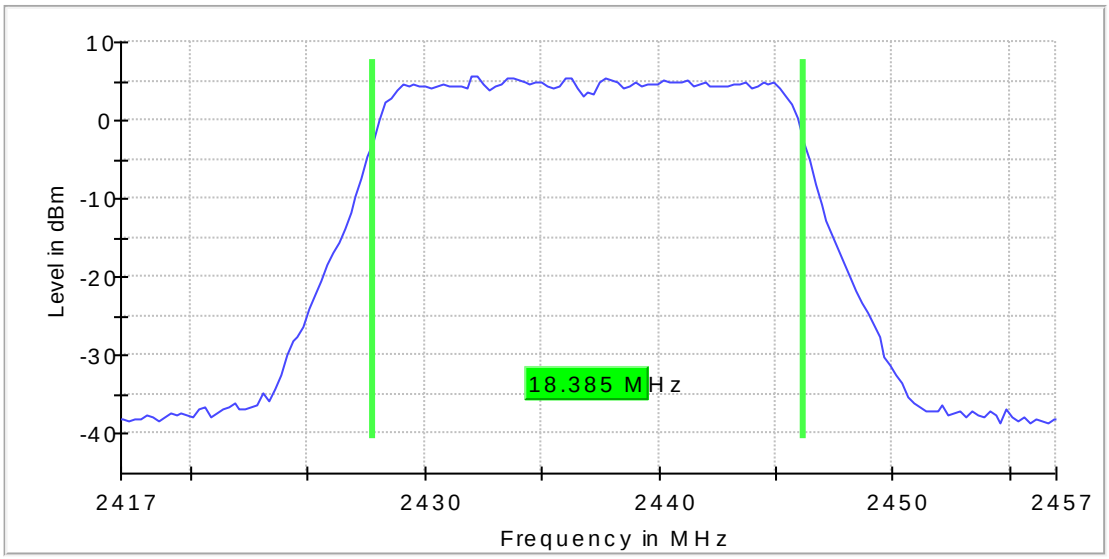
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2412.000000 | 18.385094 | --- | --- | 2402.807453 | 2400.000000 |



# Occupied Channel Bandwidth (2437 MHz; 15 (15 dBm); 20 MHz)

## 99 % Bandwidth

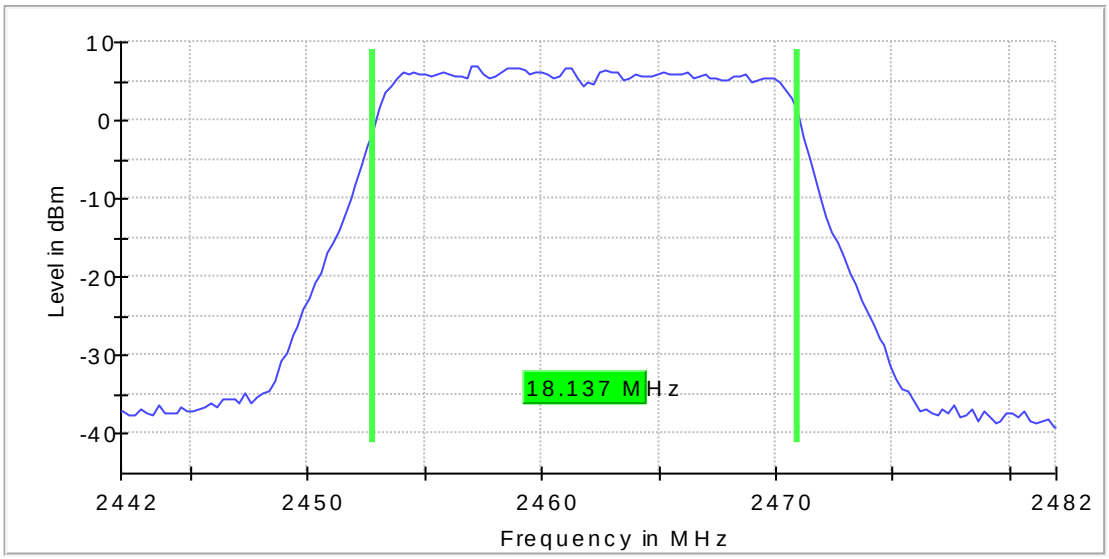
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2437.000000 | 18.385094 | --- | --- | 2427.807453 | 2400.000000 |



# Occupied Channel Bandwidth (2462 MHz; 15 (15 dBm); 20 MHz)

## 99 % Bandwidth

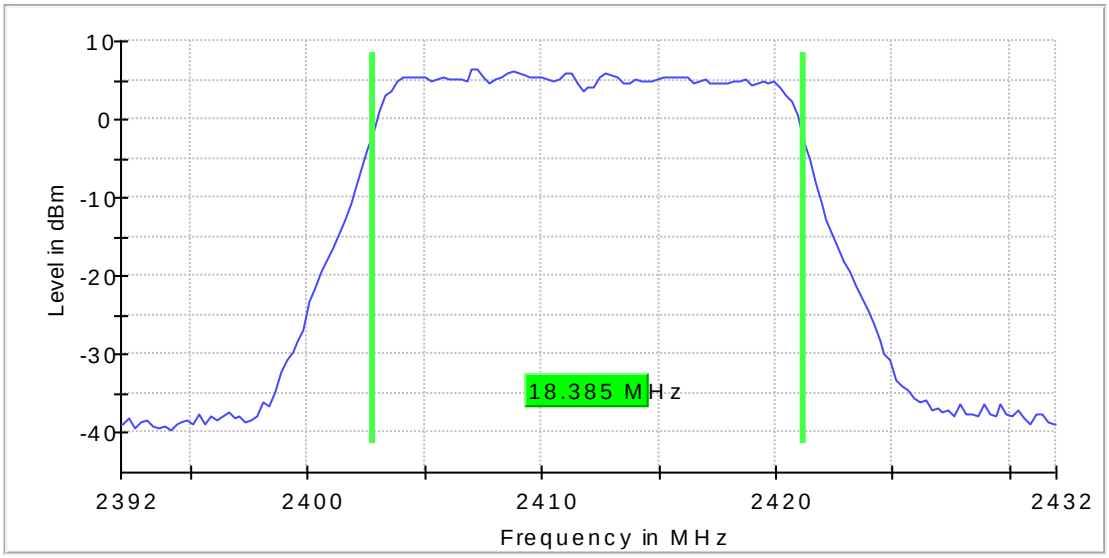
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2462.000000 | 18.136646 | --- | --- | 2452.807453 | 2400.000000 |



## 802.11n20
# Occupied Channel Bandwidth (2412 MHz; 15 (15 dBm); 20 MHz)

## 99 % Bandwidth

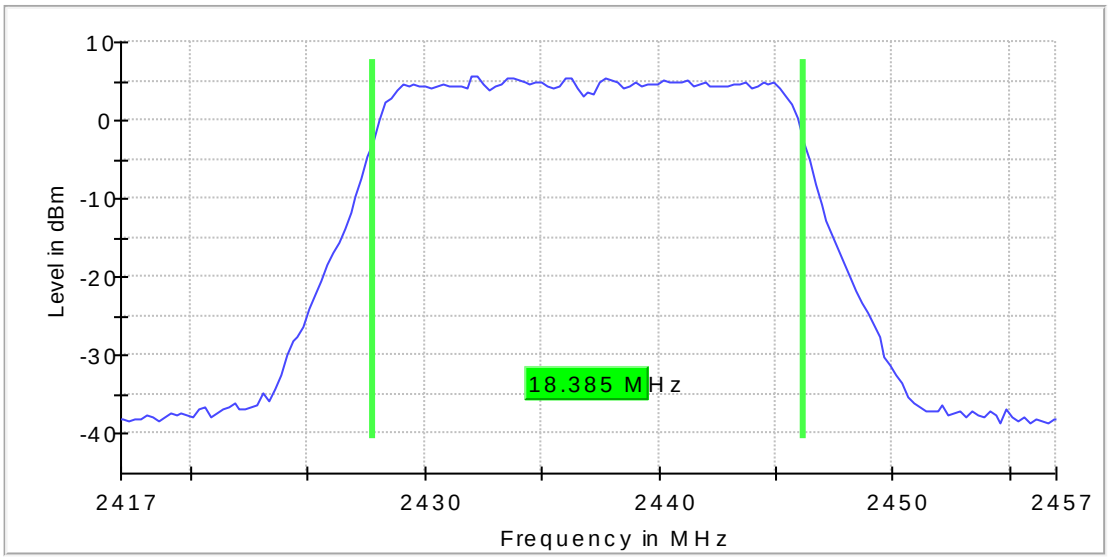
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2412.000000 | 18.385094 | --- | --- | 2402.807453 | 2400.000000 |



# Occupied Channel Bandwidth (2437 MHz; 15 (15 dBm); 20 MHz)

## 99 % Bandwidth

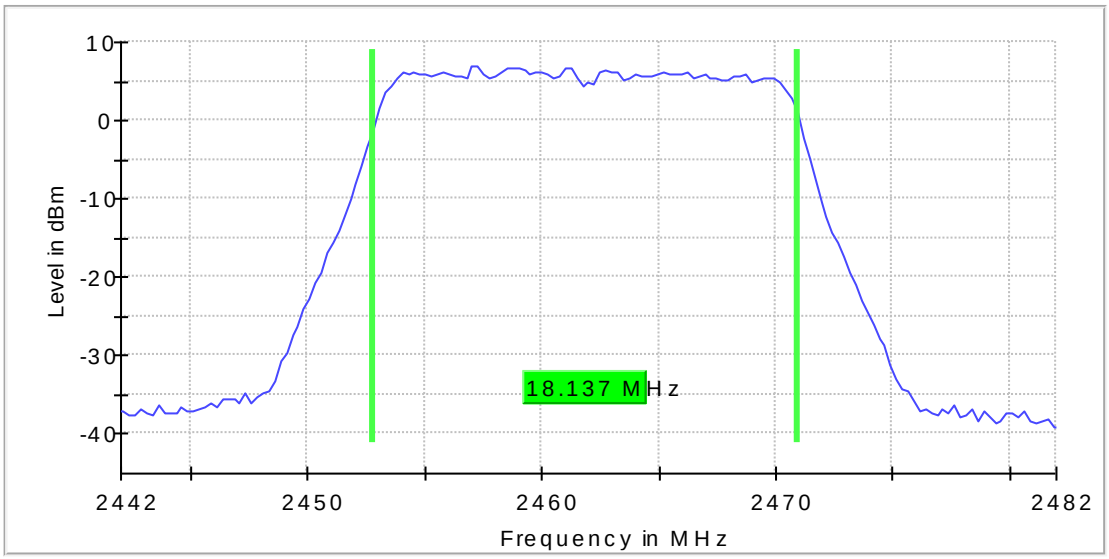
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2437.000000 | 18.385094 | --- | --- | 2427.807453 | 2400.000000 |



# Occupied Channel Bandwidth (2462 MHz; 15 (15 dBm); 20 MHz)

## 99 % Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2462.000000 | 18.136646 | --- | --- | 2452.807453 | 2400.000000 |

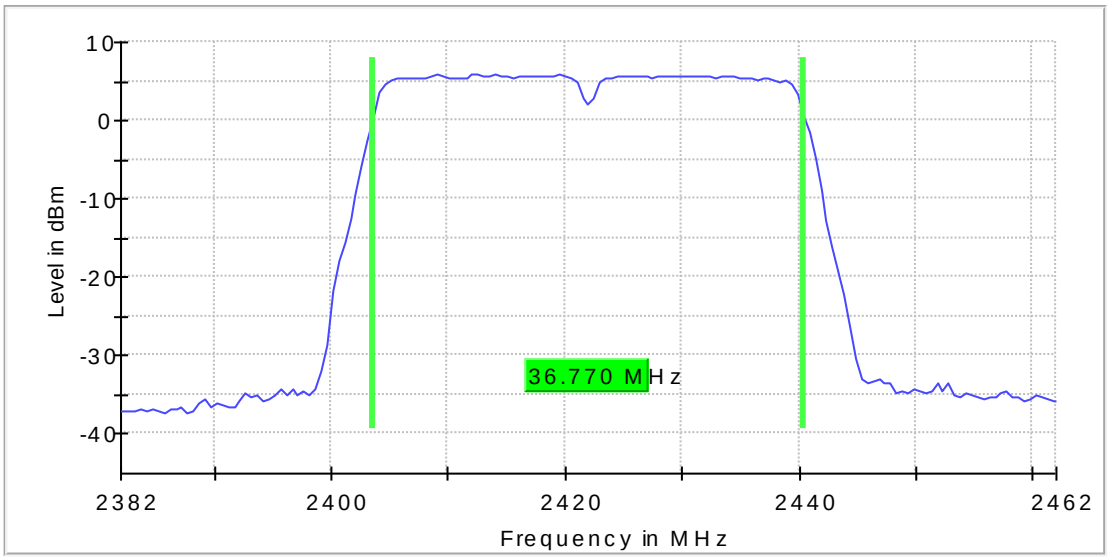


**802.11n40**

## Occupied Channel Bandwidth (2422 MHz; 15 (15 dBm); 40 MHz)

## 99 % Bandwidth

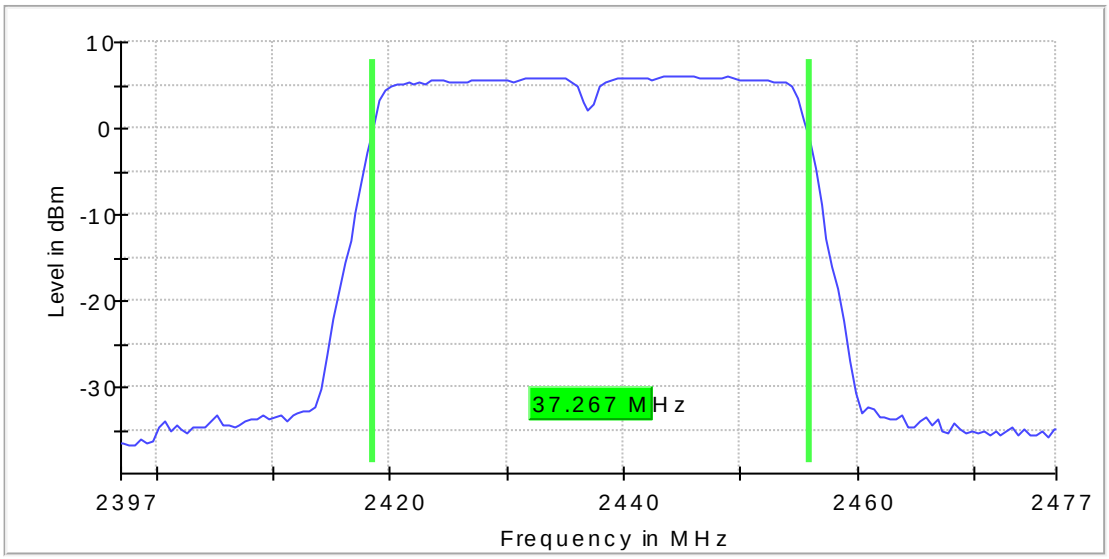
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2422.000000 | 36.770186 | --- | --- | 2403.614907 | 2400.000000 |



# Occupied Channel Bandwidth (2437 MHz; 15 (15 dBm); 40 MHz)

## 99 % Bandwidth

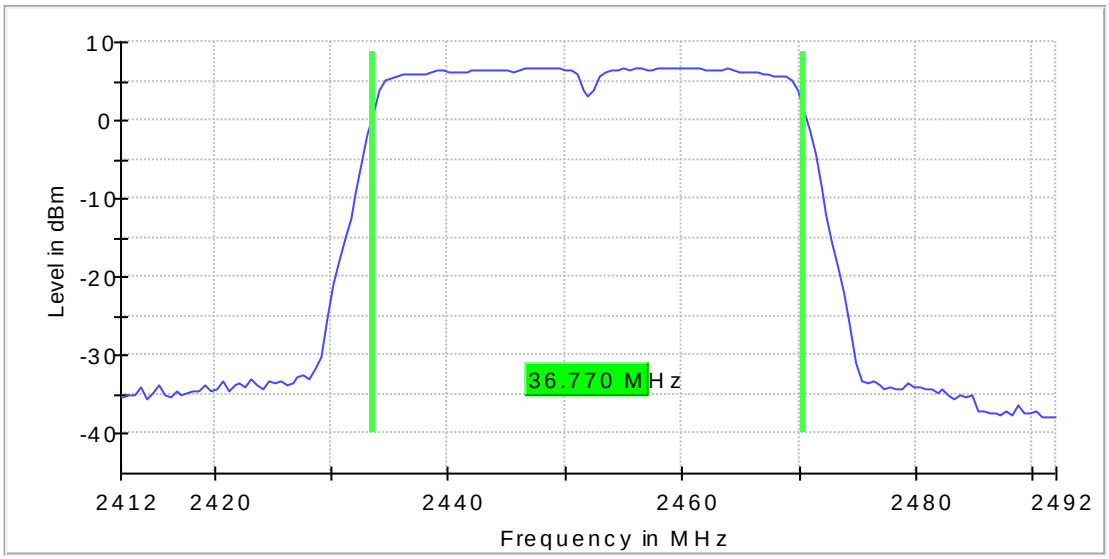
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2437.000000 | 37.267081 | --- | --- | 2418.614907 | 2400.000000 |



# Occupied Channel Bandwidth (2452 MHz; 15 (15 dBm); 40 MHz)

## 99 % Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Limit Min BE L (MHz) |
|---|---|---|---|---|---|
| 2452.000000 | 36.770186 | --- | --- | 2433.614907 | 2400.000000 |



## 9.7 Radiated Emissions which fall in the restricted band

11b
Lowest

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2658.0 | V | 57.9 | 34.5 | 74.0 | 54.0 | -16.1 | -19.5 |
| 2692.9 | V | 41.2 | / | 74.0 | 54.0 | -32.8 | / |
| 4824.0 | V | 54.9 | 51.4 | 74.0 | 54.0 | -19.1 | -2.6 |

Middle

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2656.0 | V | 57.7 | 33.3 | 74.0 | 54.0 | -16.3 | -20.7 |
| 2692.9 | V | 40.0 | / | 74.0 | 54.0 | -34.0 | / |
| 4874.0 | V | 52.6 | / | 74.0 | 54.0 | -21.4 | / |

Highest

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2656.0 | V | 59.8 | 36.1 | 74.0 | 54.0 | -14.2 | -17.9 |
| 2692.9 | V | 41.3 | / | 74.0 | 54.0 | -32.7 | / |
| 4924.0 | V | 48.5 | / | 74.0 | 54.0 | -25.5 | / |

11g
Lowest

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2655.0 | V | 56.7 | 34.2 | 74.0 | 54.0 | -17.3 | -19.8 |
| 2691.2 | V | 42.0 | / | 74.0 | 54.0 | -32.0 | / |
| 4824.0 | V | 51.7 | / | 74.0 | 54.0 | -22.3 | / |

Middle

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2656.0 | V | 58.8 | 34.9 | 74.0 | 54.0 | -15.2 | -19.1 |
| 2691.2 | V | 41.2 | / | 74.0 | 54.0 | -32.8 | / |
| 4874.0 | V | 49.2 | / | 74.0 | 54.0 | -24.8 | / |

Highest

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2662.0 | V | 55.9 | 32.7 | 74.0 | 54.0 | -18.1 | -21.3 |
| 2691.2 | V | 40.8 | / | 74.0 | 54.0 | -33.2 | / |
| 4924.0 | V | 46.8 | / | 74.0 | 54.0 | -27.2 | / |

11n20
Lowest

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2655.0 | V | 58.7 | 34.1 | 74.0 | 54.0 | -15.3 | -19.9 |
| 2691.9 | V | 41.4 | / | 74.0 | 54.0 | -32.6 | / |
| 4824.0 | V | 53.1 | / | 74.0 | 54.0 | -20.9 | / |

Middle

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2656.0 | V | 56.9 | 33.4 | 74.0 | 54.0 | -17.1 | -20.6 |
| 2691.9 | V | 41.2 | / | 74.0 | 54.0 | -32.8 | / |
| 4874.0 | V | 50.4 | / | 74.0 | 54.0 | -23.6 | / |

Highest

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2662.0 | V | 58.7 | 34.5 | 74.0 | 54.0 | -15.3 | -19.5 |
| 2691.9 | V | 42.0 | / | 74.0 | 54.0 | -32.0 | / |
| 4924.0 | V | 46.4 | / | 74.0 | 54.0 | -27.6 | / |

11n40
Lowest

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2655.00 | V | 56.78 | 31.90 | 74.00 | 54.00 | -17.22 | -22.10 |
| 2692.20 | V | 40.30 | / | 74.00 | 54.00 | -33.70 | / |
| 4844.0 | V | 47.9 | / | 74.0 | 54.0 | -26.1 | / |

Middle

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2656.0 | V | 56.0 | 33.4 | 74.0 | 54.0 | -18.0 | -20.6 |
| 2692.2 | V | 40.9 | / | 74.0 | 54.0 | -33.1 | / |
| 4874.0 | V | 47.4 | / | 74.0 | 54.0 | -26.6 | / |

Highest

| Frequency (MHz) | Polarity | Peak Level (dBµV/m) | Average Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/m) | Peak Margin (dB) | Average Margin (dB) |
|---|---|---|---|---|---|---|---|
| 2662.0 | V | 58.5 | 34.1 | 74.0 | 54.0 | -15.5 | -19.9 |
| 2692.2 | V | 40.5 | / | 74.0 | 54.0 | -33.5 | / |
| 4904.0 | V | 45.1 | / | 74.0 | 54.0 | -28.9 | / |

Remark:
1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor
2) Scan from 9kHz to 25GHz, the amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported .

3）As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.

4) Spurious emissions that fall within restricted band have been highlighted in Bold.

**- End of Report -**