



# FCC REPORT (WIFI)

**Applicant:** AZUMI S.A

**Address of Applicant:** Avenida Aquilino de la Guardia con Calle 47, PH Ocean Plaza, Piso 16 of. 16-01, Marbella, Ciudad de Panamá City, Rep. Panamá

**Equipment Under Test (EUT)**

Product Name: Tablet

Model No.: AT7

**FCC ID:** QRP-AZUMIAT7

**Applicable standards:** FCC CFR Title 47 Part 15 Subpart C Section 15.247

**Date of sample receipt:** 25 Oct., 2013

**Date of Test:** 28 Oct., 2013 to 05 Nov., 2013

**Date of report issued:** 07 Nov., 2013

**Test Result :** PASS \*

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Bruce Zhang  
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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## 2 Version

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| 00          | 07 Nov., 2013 | Original    |
|             |               |             |
|             |               |             |
|             |               |             |
|             |               |             |

Prepared by:



Date:

07 Nov., 2013

**Report Clerk**

Reviewed by:



Date:

07 Nov., 2013

**Project Engineer**

### 3 Contents

|                                                  | Page      |
|--------------------------------------------------|-----------|
| <b>1 COVER PAGE .....</b>                        | <b>1</b>  |
| <b>2 VERSION .....</b>                           | <b>2</b>  |
| <b>3 CONTENTS .....</b>                          | <b>3</b>  |
| <b>4 TEST SUMMARY .....</b>                      | <b>4</b>  |
| <b>5 GENERAL INFORMATION .....</b>               | <b>5</b>  |
| 5.1 CLIENT INFORMATION .....                     | 5         |
| 5.2 GENERAL DESCRIPTION OF E.U.T. ....           | 5         |
| 5.3 TEST ENVIRONMENT AND MODE.....               | 7         |
| 5.4 LABORATORY FACILITY .....                    | 8         |
| 5.5 LABORATORY LOCATION.....                     | 8         |
| 5.6 TEST INSTRUMENTS LIST .....                  | 9         |
| <b>6 TEST RESULTS AND MEASUREMENT DATA .....</b> | <b>10</b> |
| 6.1 ANTENNA REQUIREMENT: .....                   | 10        |
| 6.2 CONDUCTED EMISSION.....                      | 11        |
| 6.3 MAXIMUM PEAK CONDUCTED OUTPUT POWER .....    | 14        |
| 6.4 OCCUPY BANDWIDTH.....                        | 19        |
| 6.5 POWER SPECTRAL DENSITY.....                  | 28        |
| 6.6 BAND EDGE.....                               | 33        |
| 6.6.1 <i>Conducted Emission Method</i> .....     | 33        |
| 6.6.2 <i>Radiated Emission Method</i> .....      | 36        |
| 6.7 SPURIOUS EMISSION .....                      | 53        |
| 6.7.1 <i>Conducted Emission Method</i> .....     | 53        |
| 6.7.2 <i>Radiated Emission Method</i> .....      | 60        |
| <b>7 TEST SETUP PHOTO .....</b>                  | <b>76</b> |
| <b>8 EUT CONSTRUCTIONAL DETAILS.....</b>         | <b>78</b> |

## 4 Test Summary

| Test Item                                        | Section in CFR 47 | Result |
|--------------------------------------------------|-------------------|--------|
| Antenna requirement                              | 15.203/15.247 (c) | Pass   |
| AC Power Line Conducted Emission                 | 15.207            | Pass   |
| Conducted Peak Output Power                      | 15.247 (b)(3)     | Pass   |
| 6dB Emission Bandwidth<br>99% Occupied Bandwidth | 15.247 (a)(2)     | Pass   |
| Power Spectral Density                           | 15.247 (e)        | Pass   |
| Band Edge                                        | 15.247(d)         | Pass   |
| Spurious Emission                                | 15.205/15.209     | Pass   |

*Pass: The EUT complies with the essential requirements in the standard.*

## 5 General Information

### 5.1 Client Information

|                          |                                                                                                                              |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Applicant:               | AZUMI S.A                                                                                                                    |
| Address of Applicant:    | Avenida Aquilino de la Guardia con Calle 47, PH Ocean Plaza, Piso 16 of. 16-01, Marbella, Ciudad de Panamá City, Rep. Panamá |
| Manufacturer:            | AZUMI (HK) Limited                                                                                                           |
| Address of Manufacturer: | RM 2309, 23/F HO KING COMM CTR, 2-16 FAYUEN ST, MONGKOK KOWLOON, HONG KONG                                                   |
| Factory:                 | Shenzhen Fortune Ship Technology Co., LTD                                                                                    |
| Address of Factory:      | 6th Floor, Block E, Chiwan Industry Zone, No.1 Chiwan Shaodi Road, Nanshan District, Shenzhen ,China                         |

### 5.2 General Description of E.U.T.

|                                                  |                                                                                  |
|--------------------------------------------------|----------------------------------------------------------------------------------|
| Product Name:                                    | Tablet                                                                           |
| Model No.:                                       | AT7                                                                              |
| Operation Frequency:                             | 2412MHz~2462MHz (802.11b/802.11g/802.11n(H20))<br>2422MHz~2452MHz (802.11n(H40)) |
| Channel numbers:                                 | 11 for 802.11b/802.11g/802.11(H20)<br>7 for 802.11n(H40)                         |
| Channel separation:                              | 5MHz                                                                             |
| Modulation technology:<br>(IEEE 802.11b)         | Direct Sequence Spread Spectrum (DSSS)                                           |
| Modulation technology:<br>(IEEE 802.11g/802.11n) | Orthogonal Frequency Division Multiplexing(OFDM)                                 |
| Data speed (IEEE 802.11b):                       | 1Mbps, 2Mbps, 5.5Mbps, 11Mbps                                                    |
| Data speed (IEEE 802.11g):                       | 6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps,54Mbps                      |
| Data speed (IEEE 802.11n):                       | Up to 150Mbps                                                                    |
| Antenna Type:                                    | Internal Antenna                                                                 |
| Antenna gain:                                    | 2 dBi                                                                            |
| AC adapter:                                      | Model No.:AT7<br>Input:100-240V AC,50/60Hz 0.3A<br>Output:5.0V DC 1.5A           |
| Power supply:                                    | Rechargeable Li-ion Battery DC3.7V/3000mAh                                       |

| Operation Frequency each of channel For 802.11b/g/n(H20) |           |         |           |         |           |         |           |
|----------------------------------------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel                                                  | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 1                                                        | 2412MHz   | 4       | 2427MHz   | 7       | 2442MHz   | 10      | 2457MHz   |
| 2                                                        | 2417MHz   | 5       | 2432MHz   | 8       | 2447MHz   | 11      | 2462MHz   |
| 3                                                        | 2422MHz   | 6       | 2437MHz   | 9       | 2452MHz   |         |           |

| Operation Frequency each of channel For 802.11n(H40) |           |         |           |         |           |         |           |
|------------------------------------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel                                              | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
|                                                      |           | 4       | 2427MHz   | 7       | 2442MHz   |         |           |
|                                                      |           | 5       | 2432MHz   | 8       | 2447MHz   |         |           |
| 3                                                    | 2422MHz   | 6       | 2437MHz   | 9       | 2452MHz   |         |           |

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

802.11b/802.11g/802.11n (H20)

| Channel             | Frequency |
|---------------------|-----------|
| The lowest channel  | 2412MHz   |
| The middle channel  | 2437MHz   |
| The Highest channel | 2462MHz   |

802.11n (H40)

| Channel             | Frequency |
|---------------------|-----------|
| The lowest channel  | 2422MHz   |
| The middle channel  | 2437MHz   |
| The Highest channel | 2452MHz   |

### 5.3 Test environment and mode

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| <b>Operating Environment:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                         |
| Temperature:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 24.0 °C                                                 |
| Humidity:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 54 % RH                                                 |
| Atmospheric Pressure:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1010 mbar                                               |
| <b>Test mode:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                         |
| Operation mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Keep the EUT in continuous transmitting with modulation |
| The sample was placed 0.8m above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. |                                                         |

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

**Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.**

| Mode         | Data rate |
|--------------|-----------|
| 802.11b      | 1Mbps     |
| 802.11g      | 6Mbps     |
| 802.11n(H20) | 6.5Mbps   |
| 802.11n(H40) | 13.5Mbps  |

#### Final Test Mode:

According to ANSI C63.4 standards, the test results are both the “worst case” and “worst setup” 1Mbps for 802.11b, 6Mbps for 802.11g, 6.5Mbps for 802.11n(H20) and 13.5 Mbps for 802.11n(H40). Duty cycle setting during the transmission is 100% with maximum power setting for all modulations.

## 5.4 Laboratory Facility

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

● **FCC - Registration No.: 817957**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 817957, February 27, 2012.

● **IC - Registration No.: 10106A-1**

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L6048**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

## 5.5 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.  
Address: No.B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,  
Bao'an District, Shenzhen, Guangdong, China  
Tel: 0755-23118282  
Fax: 0755-23116366



## 5.6 Test Instruments list

| Radiated Emission: |                                      |                                      |                             |               |                      |                          |
|--------------------|--------------------------------------|--------------------------------------|-----------------------------|---------------|----------------------|--------------------------|
| Item               | Test Equipment                       | Manufacturer                         | Model No.                   | Inventory No. | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) |
| 1                  | 3m Semi- Anechoic Chamber            | SAEMC                                | 9(L)*6(W)* 6(H)             | CCIS0001      | June 09 2013         | June 08 2014             |
| 2                  | BiConiLog Antenna                    | SCHWARZBECK<br>MESS-ELEKTRONIK       | VULB9163                    | CCIS0005      | May 25 2013          | May 24 2014              |
| 3                  | Double -ridged waveguide horn        | SCHWARZBECK<br>MESS-ELEKTRONIK       | BBHA9120D                   | CCIS0006      | May 25 2013          | May 24 2014              |
| 4                  | EMI Test Software                    | AUDIX                                | E3                          | N/A           | N/A                  | N/A                      |
| 5                  | Coaxial Cable                        | CCIS                                 | N/A                         | CCIS0016      | Apr. 01 2013         | Mar. 31 2014             |
| 6                  | Coaxial Cable                        | CCIS                                 | N/A                         | CCIS0017      | Apr. 01 2013         | Mar. 31 2014             |
| 7                  | Coaxial cable                        | CCIS                                 | N/A                         | CCIS0018      | Apr. 01 2013         | Mar. 31 2014             |
| 8                  | Coaxial Cable                        | CCIS                                 | N/A                         | CCIS0019      | Apr. 01 2013         | Mar. 31 2014             |
| 9                  | Coaxial Cable                        | CCIS                                 | N/A                         | CCIS0087      | Apr. 01 2013         | Mar. 31 2014             |
| 10                 | Amplifier(10kHz-1.3GHz)              | HP                                   | 8447D                       | CCIS0003      | Apr. 01 2013         | Mar. 31 2014             |
| 11                 | Amplifier(1GHz-18GHz)                | Compliance Direction<br>Systems Inc. | PAP-1G18                    | CCIS0011      | June 09 2013         | June 08 2014             |
| 12                 | Pre-amplifier (18-26GHz)             | Rohde & Schwarz                      | AFS33-18002<br>650-30-8P-44 | GTS218        | Apr. 01 2013         | Mar. 31 2014             |
| 13                 | Horn Antenna                         | ETS-LINDGREN                         | 3160                        | GTS217        | Mar. 30 2013         | Mar. 29 2014             |
| 14                 | Printer                              | HP                                   | HP LaserJet P1007           | N/A           | N/A                  | N/A                      |
| 15                 | Positioning Controller               | UC                                   | UC3000                      | CCIS0015      | N/A                  | N/A                      |
| 16                 | Spectrum analyzer 9k-30GHz           | Rohde & Schwarz                      | FSP                         | CCIS0023      | May. 25 2013         | May. 24 2014             |
| 17                 | EMI Test Receiver                    | Rohde & Schwarz                      | ESPI                        | CCIS0022      | Apr 01 2013          | Mar. 31 2014             |
| 18                 | Loop antenna                         | Laplace instrument                   | RF300                       | EMC0701       | Aug. 12 2013         | Aug. 11 2014             |
| 19                 | Universal radio communication tester | Rhode & Schwarz                      | CMU200                      | CCIS0069      | May. 25 2013         | May. 24 2014             |
| 20                 | Signal Analyzer                      | Rohde & Schwarz                      | FSIQ3                       | CCIS0088      | May. 25 2013         | May. 24 2014             |
| 21                 | Spectrum analyzer                    | Agilent                              | E4440A                      | US43362176    | Jan.11 2013          | Jan.10 2014              |

| Conducted Emission: |                   |                    |                       |               |                      |                          |
|---------------------|-------------------|--------------------|-----------------------|---------------|----------------------|--------------------------|
| Item                | Test Equipment    | Manufacturer       | Model No.             | Inventory No. | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) |
| 1                   | Shielding Room    | ZhongShuo Electron | 11.0(L)x4.0(W)x3.0(H) | CCIS0061      | June 09 2013         | June 08 2014             |
| 2                   | EMI Test Receiver | Rohde & Schwarz    | ESCI                  | CCIS0002      | May 25 2013          | May 24 2014              |
| 3                   | LISN              | CHASE              | MN2050D               | CCIS0074      | Apr 01 2013          | Mar. 31 2014             |
| 4                   | Coaxial Cable     | CCIS               | N/A                   | CCIS0086      | Apr. 01 2013         | Mar. 31 2014             |
| 5                   | EMI Test Software | AUDIX              | E3                    | N/A           | N/A                  | N/A                      |

## 6 Test results and Measurement Data

### 6.1 Antenna requirement:

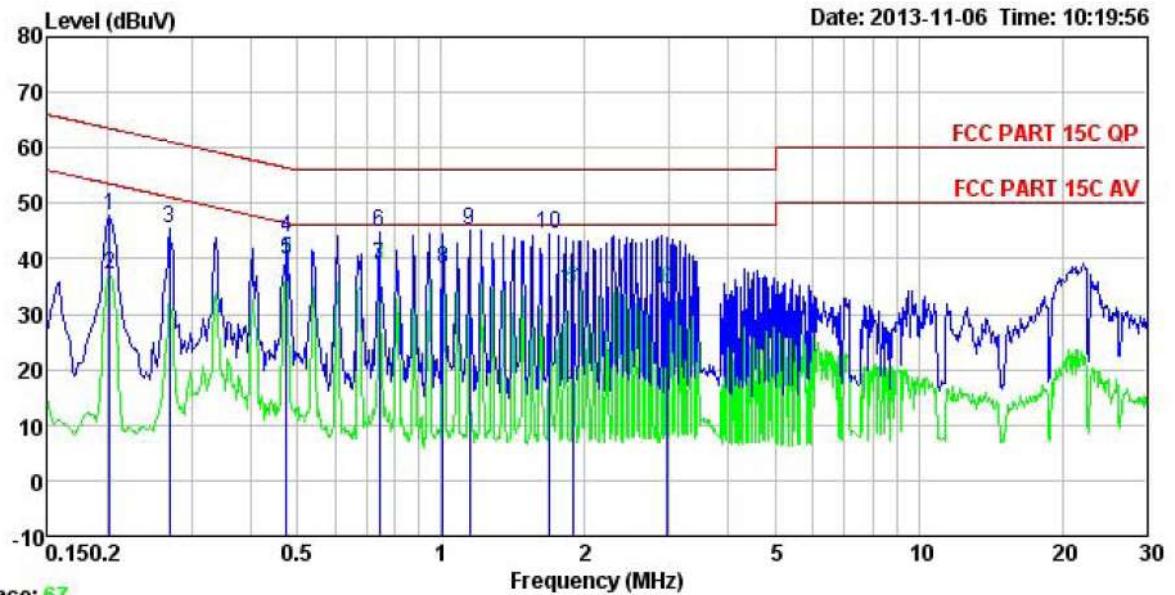
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>Standard requirement:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FCC Part15 C Section 15.203 /247(c) |
| <p><i>15.203 requirement:</i><br/> <i>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.</i></p> <p><i>15.247(c) (1)(i) requirement:</i><br/> <i>(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.</i></p> |                                     |
| <b>E.U.T Antenna:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |
| <p><i>The antenna is an internal antenna which cannot replace by end-user, the best case gain of the antenna is 2dBi.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     |

## 6.2 Conducted Emission

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |           |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------|
| Test Requirement:                                | FCC Part15 C Section 15.207                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |           |
| Test Method:                                     | ANSI C63.4: 2003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |           |
| Test Frequency Range:                            | 150 kHz to 30 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |           |
| Class / Severity:                                | Class B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |           |
| Receiver setup:                                  | RBW=9 kHz, VBW=30 kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |           |
| Limit:                                           | Frequency range (MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Limit (dBuV) |           |
|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 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. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |           |
| Test procedure                                   | <div>1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.), which provides a 50ohm/50uH coupling impedance for the measuring equipment.</div> <div>2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</div> <div>3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.</div> |              |           |
| Test setup:                                      | <div><div><div>Reference Plane</div><div><div><div>LISN</div><div>AUX Equipment</div><div>E.U.T</div></div><div>40cm</div><div>80cm</div><div><div>LISN</div><div>Filter</div><div>EMI Receiver</div></div><div>AC power</div><div>Test table/Insulation plane</div></div></div><div><div>Remark</div><div>E.U.T: Equipment Under Test</div><div>LISN: Line Impedance Stabilization Network</div><div>Test table height=0.8m</div></div></div>                                                                                                                                                                                                                                                                               |              |           |
| Test Instruments:                                | Refer to section 5.6 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |           |
| Test mode:                                       | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |           |
| Test results:                                    | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |           |

### Measurement Data

Neutral:

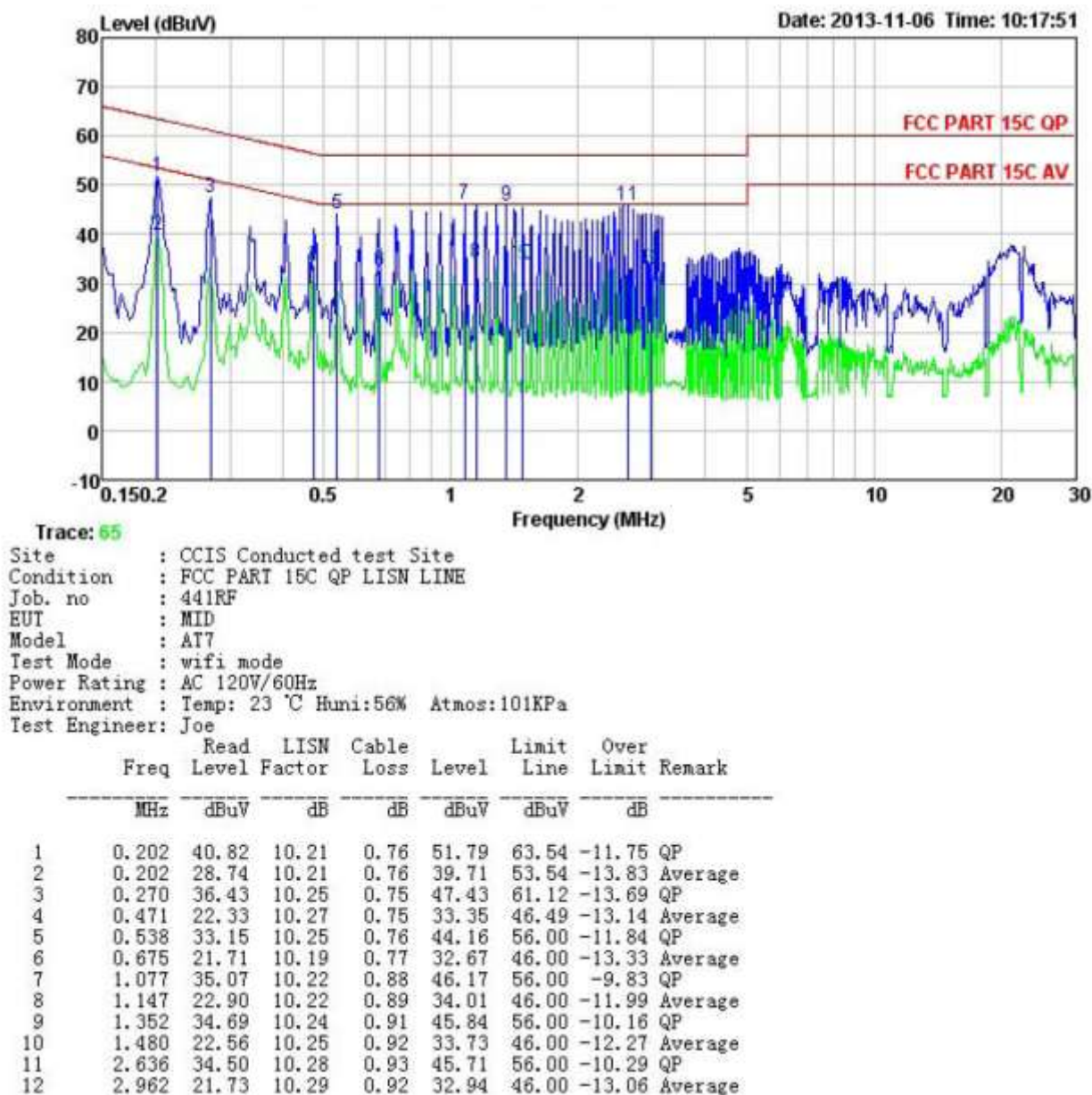


Trace: 67

Site : CCIS Conducted test Site  
Condition : FCC PART 15C QP LISN NEUTRAL  
Job. no : 441RF  
EUT : MID  
Model : AT7  
Test Mode : wifi mode  
Power Rating : AC 120V/60Hz  
Environment : Temp: 23 °C Humi:56% Atmos:101KPa  
Test Engineer: Joe

|    | Freq  | Read Level | LISN Factor | Cable Loss | Level | Limit Line | Over Limit | Remark  |
|----|-------|------------|-------------|------------|-------|------------|------------|---------|
|    | MHz   | dBuV       | dB          | dB         | dBuV  | dBuV       | dB         |         |
| 1  | 0.202 | 36.72      | 10.23       | 0.76       | 47.71 | 63.54      | -15.83     | QP      |
| 2  | 0.202 | 26.17      | 10.23       | 0.76       | 37.16 | 53.54      | -16.38     | Average |
| 3  | 0.270 | 34.48      | 10.24       | 0.75       | 45.47 | 61.12      | -15.65     | QP      |
| 4  | 0.474 | 32.64      | 10.28       | 0.75       | 43.67 | 56.45      | -12.78     | QP      |
| 5  | 0.474 | 28.91      | 10.28       | 0.75       | 39.94 | 46.45      | -6.51      | Average |
| 6  | 0.743 | 33.78      | 10.17       | 0.79       | 44.74 | 56.00      | -11.26     | QP      |
| 7  | 0.743 | 27.78      | 10.17       | 0.79       | 38.74 | 46.00      | -7.26      | Average |
| 8  | 1.010 | 27.23      | 10.20       | 0.87       | 38.30 | 46.00      | -7.70      | Average |
| 9  | 1.147 | 34.09      | 10.21       | 0.89       | 45.19 | 56.00      | -10.81     | QP      |
| 10 | 1.689 | 33.26      | 10.25       | 0.94       | 44.45 | 56.00      | -11.55     | QP      |
| 11 | 1.888 | 23.37      | 10.26       | 0.95       | 34.58 | 46.00      | -11.42     | Average |
| 12 | 2.978 | 23.42      | 10.28       | 0.92       | 34.62 | 46.00      | -11.38     | Average |

Line:

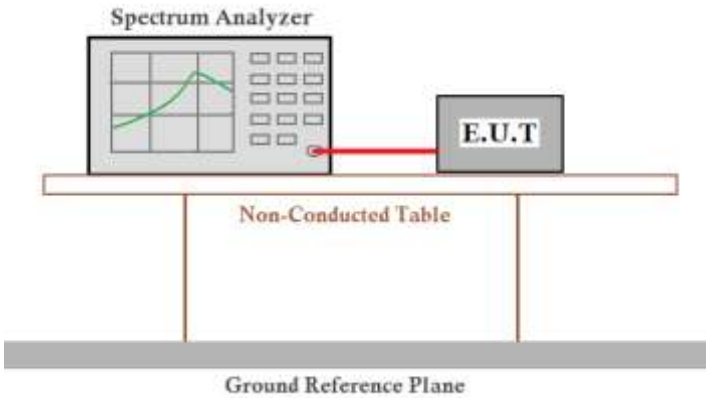


**Notes:**

1. An initial pre-scan was performed on the live and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Cable Loss



## 6.3 Maximum peak conducted output power

|                   |                                                                                    |
|-------------------|------------------------------------------------------------------------------------|
| Test Requirement: | FCC Part15 C Section 15.247 (b)(3)                                                 |
| Test Method:      | ANSI C63.4:2003 and KDB558074 v03                                                  |
| Limit:            | 30dBm                                                                              |
| Test setup:       |  |
| Test Instruments: | Refer to section 5.6 for details                                                   |
| Test mode:        | Refer to section 5.3 for details                                                   |
| Test results:     | Passed                                                                             |
| Remark:           | Test method refer to KDB558074 v03 (DTS Measure Guidance)                          |

### Measurement Data

| Test CH | Maximum peak conducted output power (dBm) |         |              |              | Limit(dBm) | Result |
|---------|-------------------------------------------|---------|--------------|--------------|------------|--------|
|         | 802.11b                                   | 802.11g | 802.11n(H20) | 802.11n(H40) |            |        |
| Lowest  | 13.16                                     | 12.92   | 12.53        | 12.58        | 30.00      | Pass   |
| Middle  | 13.43                                     | 12.86   | 13.08        | 12.54        |            |        |
| Highest | 12.71                                     | 12.55   | 12.47        | 12.54        |            |        |

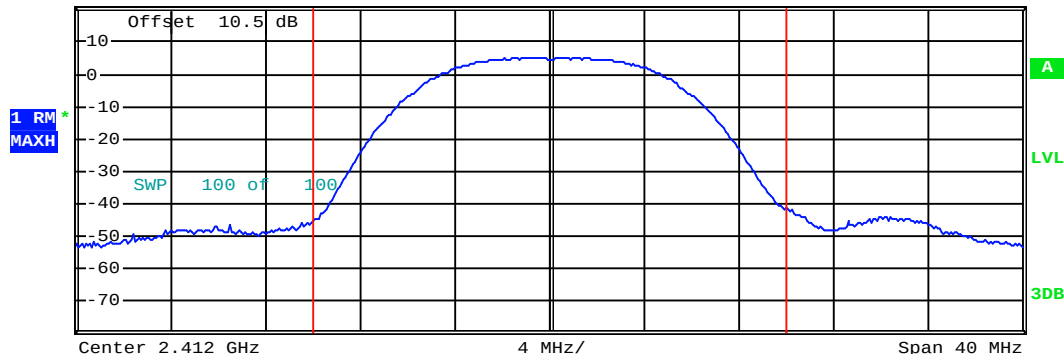
Test plot as follows:

Test mode:

802.11b



Ref 20.5 dBm \* Att 20 dB \* RBW 1 MHz  
\* VBW 3 MHz  
SWT 2.5 ms



Tx Channel

Bandwidth

20 MHz

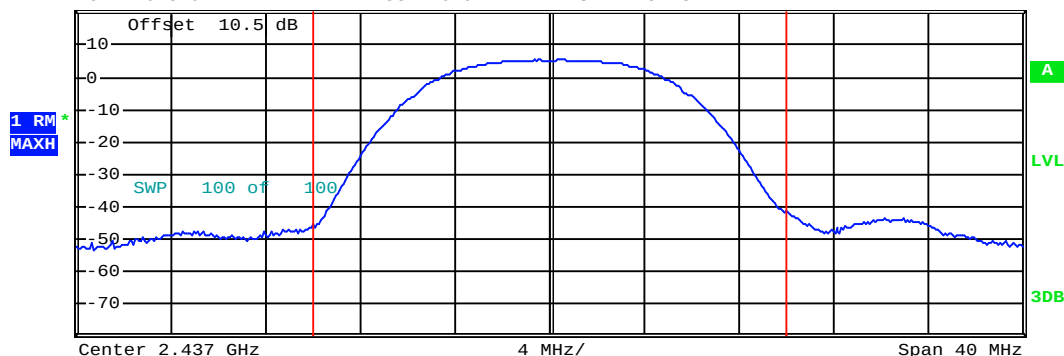
Power

13.16 dBm

Lowest channel



Ref 20.5 dBm \* Att 20 dB \* RBW 1 MHz  
\* VBW 3 MHz  
SWT 2.5 ms



Tx Channel

Bandwidth

20 MHz

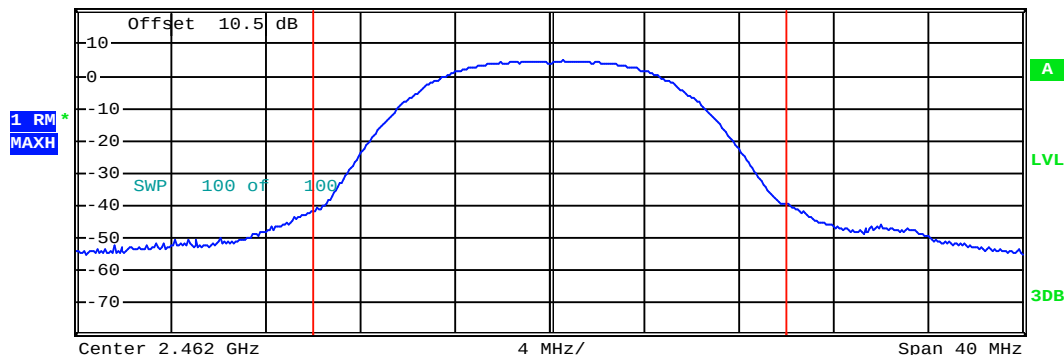
Power

13.43 dBm

Middle channel



Ref 20.5 dBm \* Att 20 dB \* RBW 1 MHz  
\* VBW 3 MHz  
SWT 2.5 ms



Tx Channel

Bandwidth

20 MHz

Power

12.71 dBm

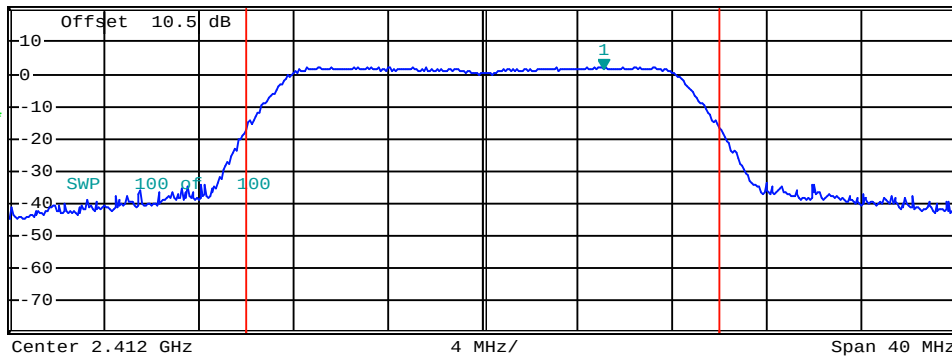
Highest channel

|            |         |
|------------|---------|
| Test mode: | 802.11g |
|------------|---------|



Ref 20.5 dBm \* Att 20 dB \* RBW 1 MHz Marker 1 [T1] 2.28 dBm  
\* VBW 3 MHz 2.417040000 GHz  
SWT 2.5 ms

1 RM  
MAXH



Tx Channel  
Bandwidth

20 MHz

Power

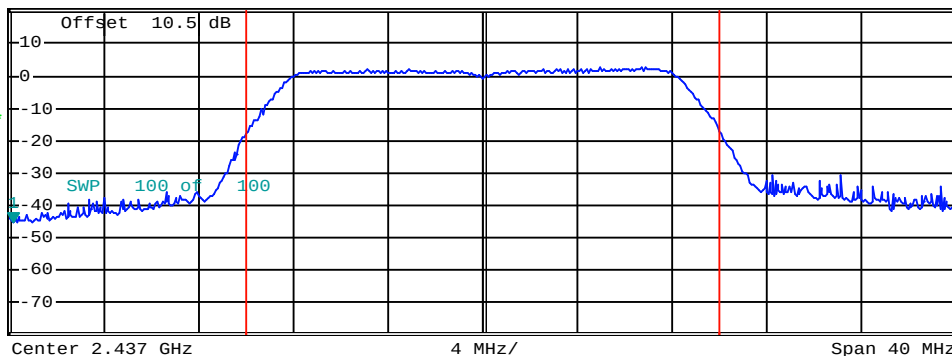
12.92 dBm

## Lowest channel



Ref 20.5 dBm \* Att 20 dB \* RBW 1 MHz Marker 1 [T1] -44.51 dBm  
\* VBW 3 MHz 2.417040000 GHz  
SWT 2.5 ms

1 RM  
MAXH



Tx Channel  
Bandwidth

20 MHz

Power

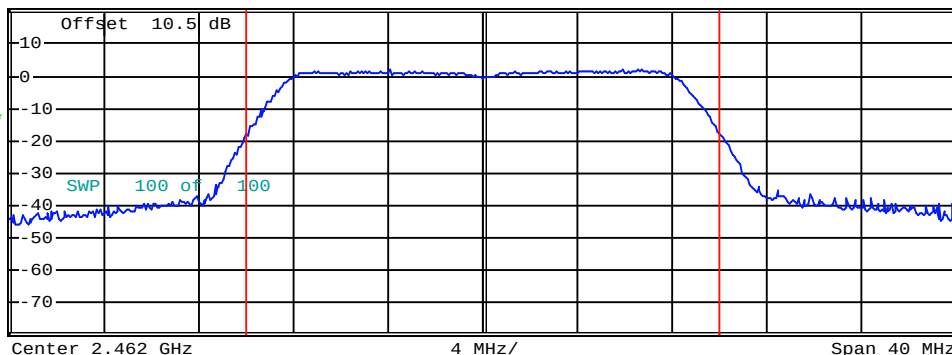
12.86 dBm

## Middle channel



Ref 20.5 dBm \* Att 20 dB \* RBW 1 MHz  
\* VBW 3 MHz  
SWT 2.5 ms

1 RM  
MAXH



Tx Channel  
Bandwidth

20 MHz

Power

12.55 dBm

## Highest channel

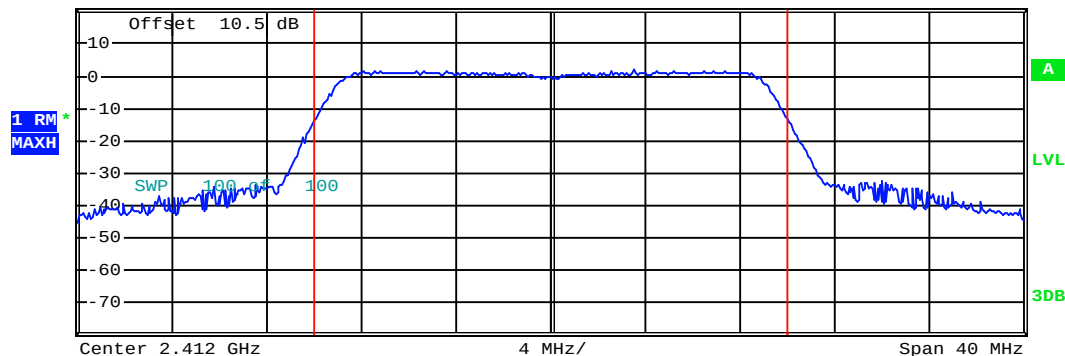


Test mode:

802.11n(H20)



Ref 20.5 dBm \* Att 20 dB \* RBW 1 MHz  
\* VBW 3 MHz  
SWT 2.5 ms



Tx Channel

Bandwidth

20 MHz

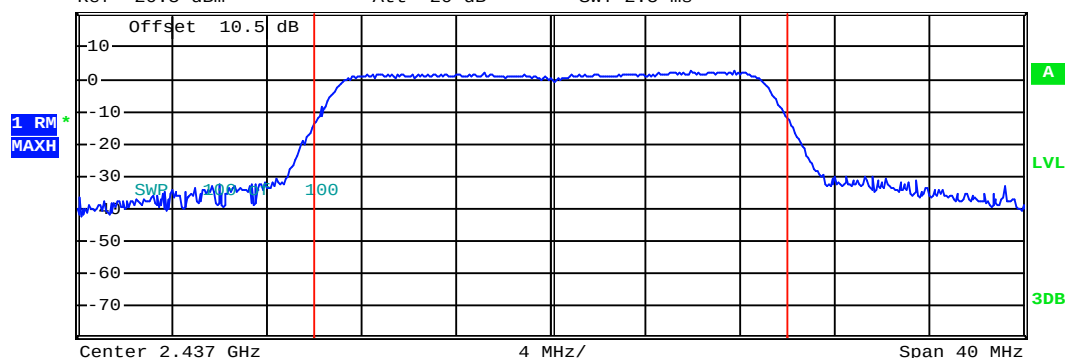
Power

12.53 dBm

Lowest channel



Ref 20.5 dBm \* Att 20 dB \* RBW 1 MHz  
\* VBW 3 MHz  
SWT 2.5 ms



Tx Channel

Bandwidth

20 MHz

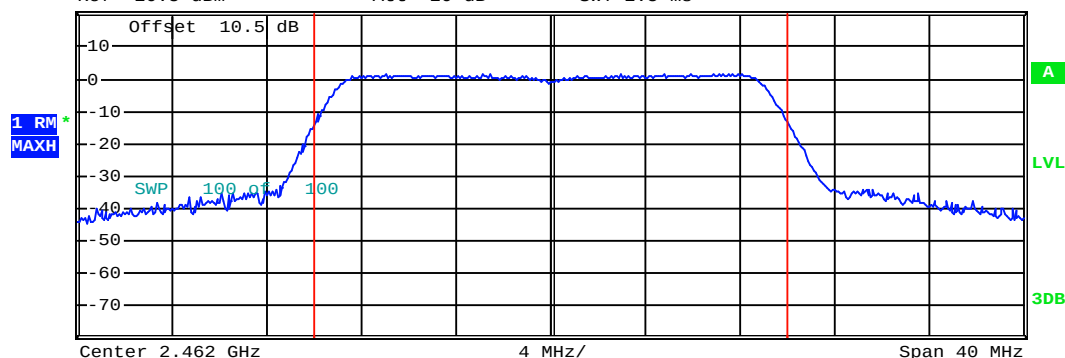
Power

13.08 dBm

Middle channel



Ref 20.5 dBm \* Att 20 dB \* RBW 1 MHz  
\* VBW 3 MHz  
SWT 2.5 ms



Tx Channel

Bandwidth

20 MHz

Power

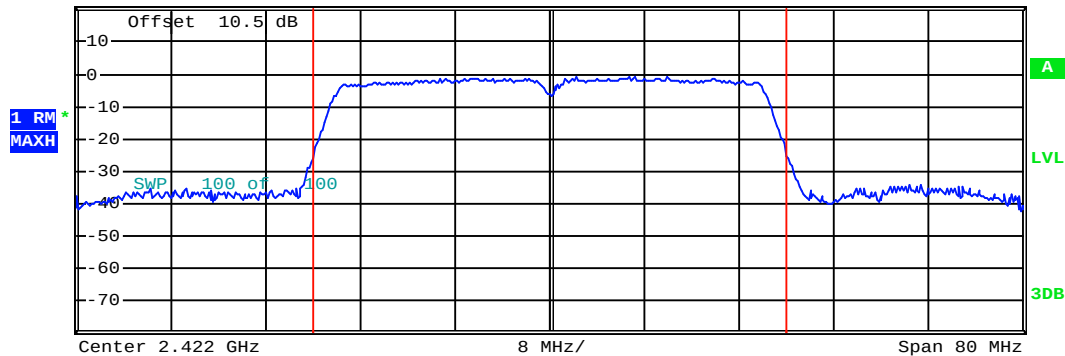
12.47 dBm

Highest channel

|            |              |
|------------|--------------|
| Test mode: | 802.11n(H40) |
|------------|--------------|



Ref 20.5 dBm \* Att 20 dB  
 \* RBW 1 MHz  
 \* VBW 3 MHz  
 SWT 2.5 ms

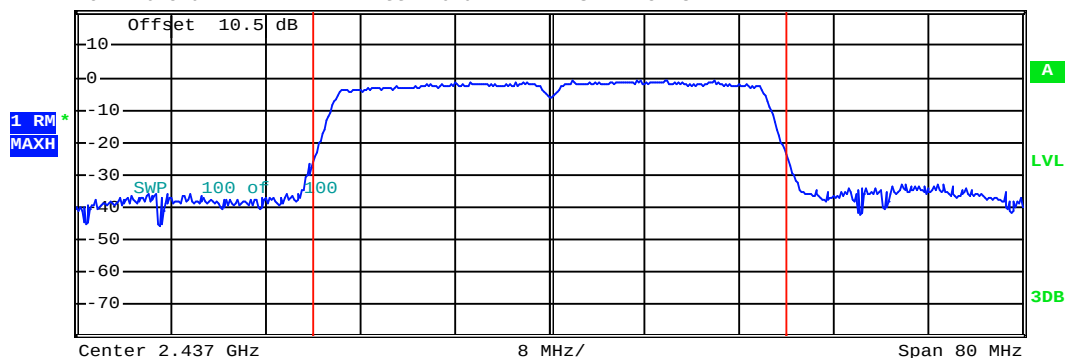


**Tx Channel**  
 Bandwidth 40 MHz Power 12.58 dBm

## Lowest channel



Ref 20.5 dBm \* Att 20 dB  
 \* RBW 1 MHz  
 \* VBW 3 MHz  
 SWT 2.5 ms

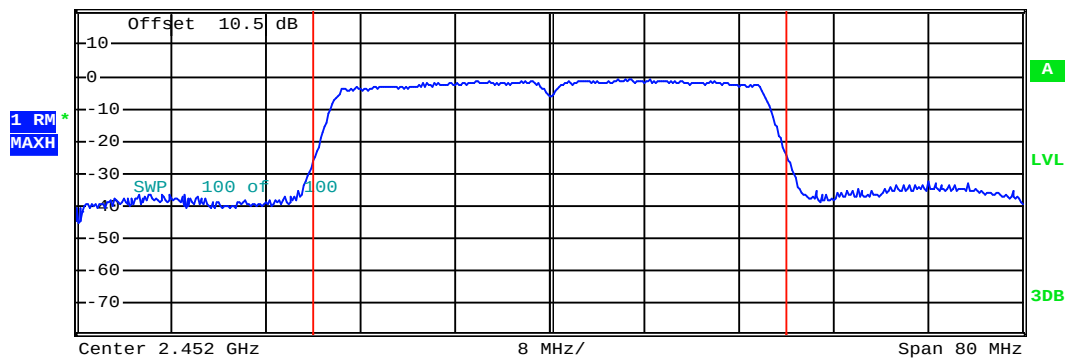


**Tx Channel**  
 Bandwidth 40 MHz Power 12.54 dBm

## Middle channel



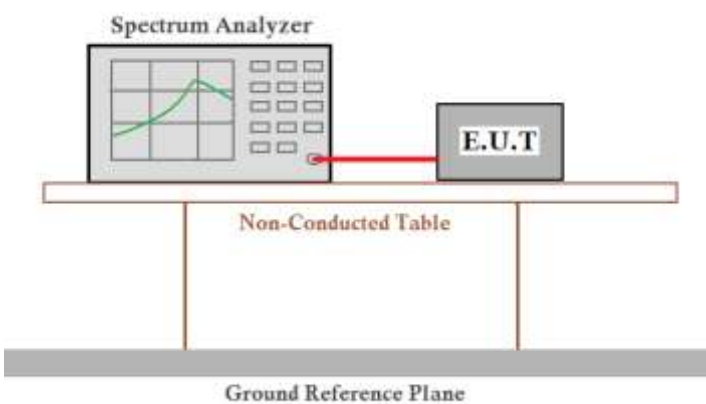
Ref 20.5 dBm \* Att 20 dB  
 \* RBW 1 MHz  
 \* VBW 3 MHz  
 SWT 2.5 ms



**Tx Channel**  
 Bandwidth 40 MHz Power 12.54 dBm

## Highest channel

## 6.4 Occupy Bandwidth

|                   |                                                                                    |
|-------------------|------------------------------------------------------------------------------------|
| Test Requirement: | FCC Part15 C Section 15.247 (a)(2)                                                 |
| Test Method:      | ANSI C63.4:2003 and KDB558074 v03                                                  |
| Limit:            | >500kHz                                                                            |
| Test setup:       |  |
| Test Instruments: | Refer to section 5.6 for details                                                   |
| Test mode:        | Refer to section 5.3 for details                                                   |
| Test results:     | Passed                                                                             |

### Measurement Data

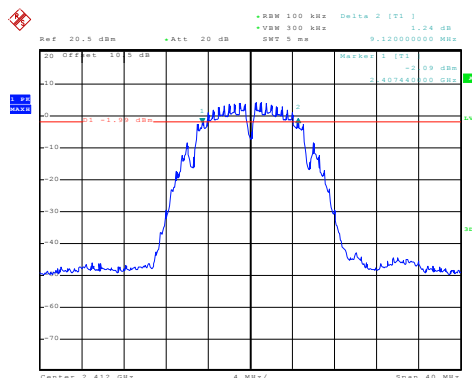
| Test CH | 6dB Emission Bandwidth (MHz) |         |              |              | Limit(kHz) | Result |
|---------|------------------------------|---------|--------------|--------------|------------|--------|
|         | 802.11b                      | 802.11g | 802.11n(H20) | 802.11n(H40) |            |        |
| Lowest  | 9.12                         | 16.56   | 17.76        | 36.00        | >500       | Pass   |
| Middle  | 9.12                         | 16.56   | 17.68        | 36.16        |            |        |
| Highest | 9.12                         | 17.76   | 17.76        | 35.84        |            |        |

| Test CH | 99% Occupy Bandwidth (MHz) |         |              |              | Limit(kHz) | Result |
|---------|----------------------------|---------|--------------|--------------|------------|--------|
|         | 802.11b                    | 802.11g | 802.11n(H20) | 802.11n(H40) |            |        |
| Lowest  | 11.92                      | 16.64   | 17.76        | 36.00        | N/A        | N/A    |
| Middle  | 11.92                      | 16.56   | 17.68        | 36.00        |            |        |
| Highest | 11.92                      | 16.56   | 17.76        | 36.00        |            |        |

Test plot as follows:

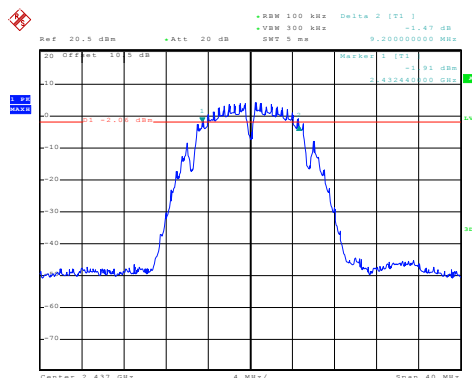
Test mode:6dB OBW

802.11b



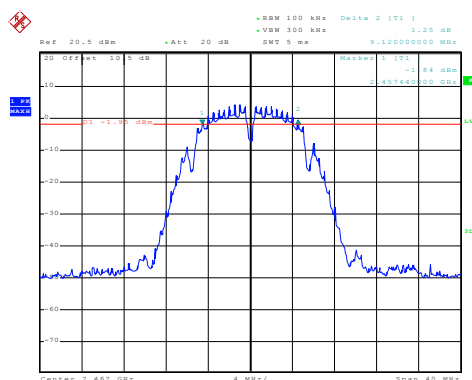
Date: 31.OCT.2013 14:03:23

### Lowest channel



Date: 31.OCT.2013 14:06:52

### Middle channel

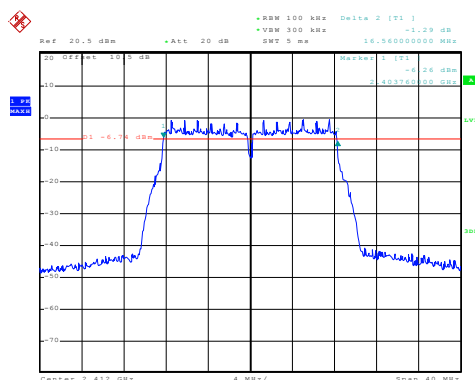


Date: 31.OCT.2013 14:10:11

### Highest channel

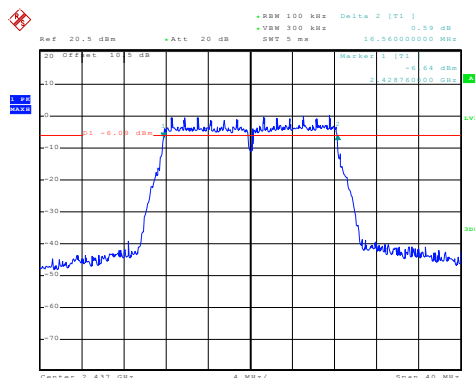
Test mode:6dB OBW

802.11g



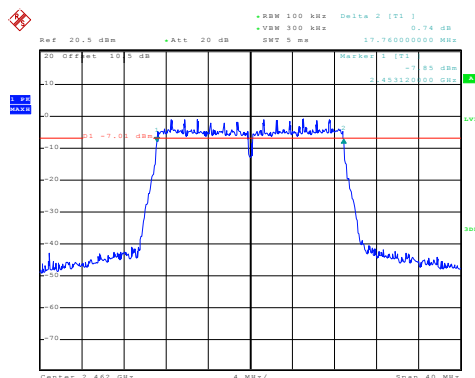
Date: 31.OCT.2013 14:57:24

### Lowest channel



Date: 31.OCT.2013 14:55:18

### Middle channel

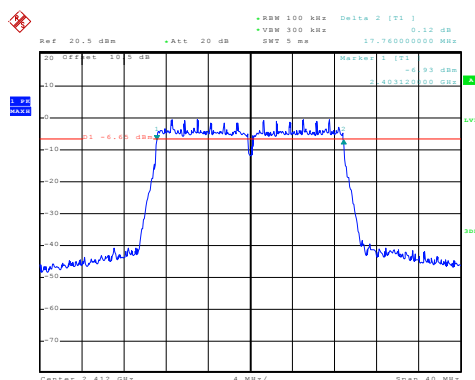


Date: 31.OCT.2013 15:01:30

### Highest channel

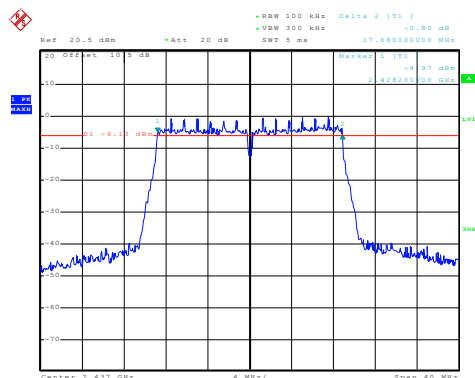
Test mode:6dB OBW

802.11n(H20)



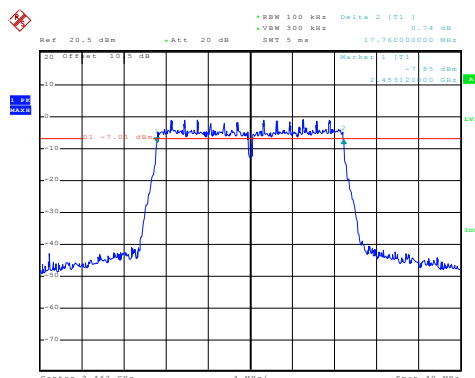
Date: 31.OCT.2013 15:06:17

### Lowest channel



Date: 31.OCT.2013 15:03:39

### Middle channel

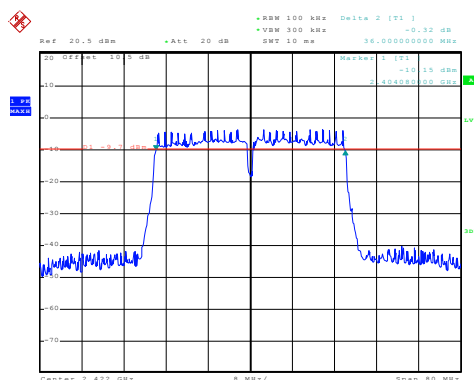


Date: 31.OCT.2013 15:01:30

### Highest channel

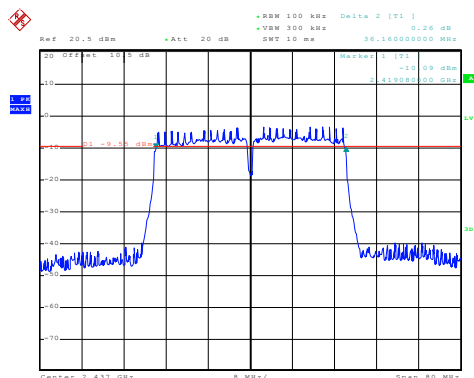
Test mode:6dB OBW

802.11n(H40)



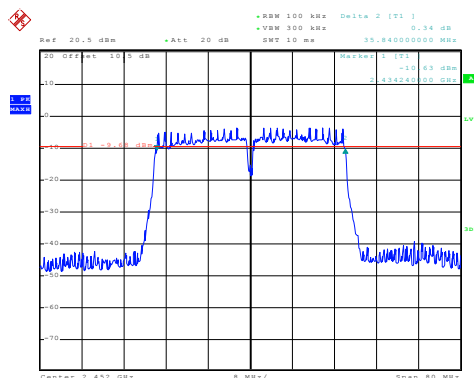
Date: 31.OCT.2013 15:17:47

### Lowest channel



Date: 31.OCT.2013 15:14:58

### Middle channel

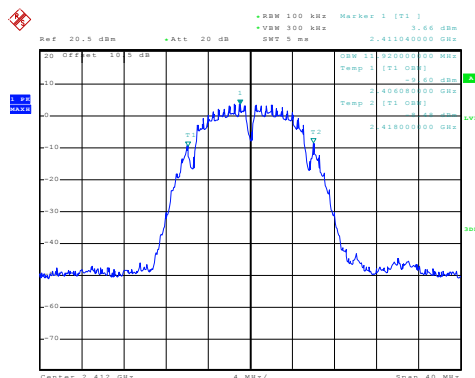


Date: 31.OCT.2013 15:11:33

### Highest channel

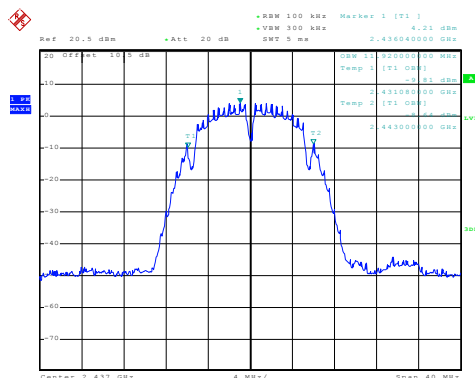
Test mode:99% OBW

802.11b



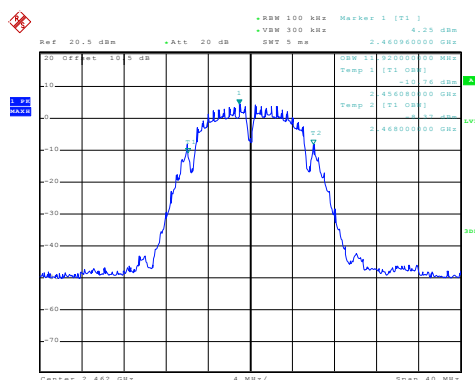
Date: 31.OCT.2013 14:03:51

### Lowest channel



Date: 31.OCT.2013 14:06:30

### Middle channel



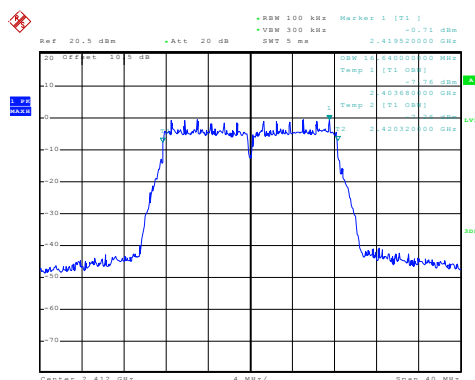
Date: 31.OCT.2013 14:09:31

### Highest channel



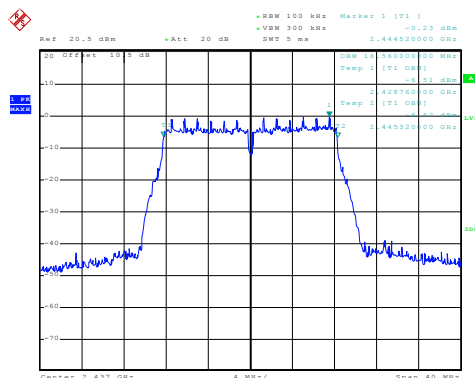
Test mode: 99% OBW

802.11g



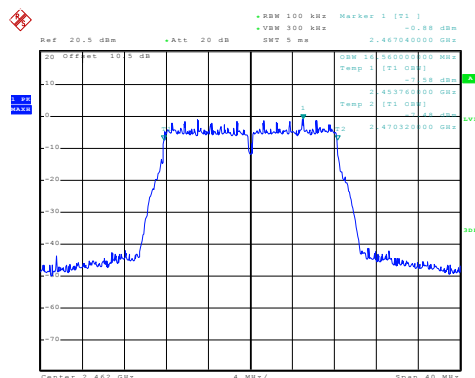
Date: 31.OCT.2013 14:56:57

### Lowest channel



Date: 31.OCT.2013 14:54:49

### Middle channel

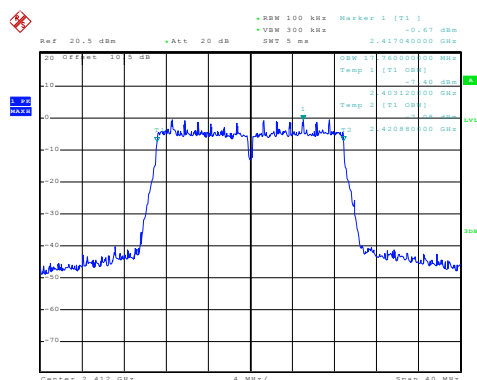


Date: 31.OCT.2013 14:51:10

### Highest channel

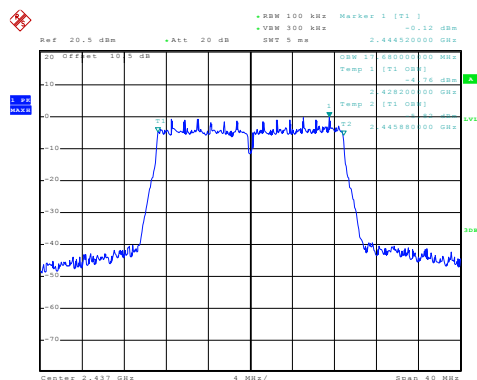
Test mode: 99% OBW

802.11n(H20)



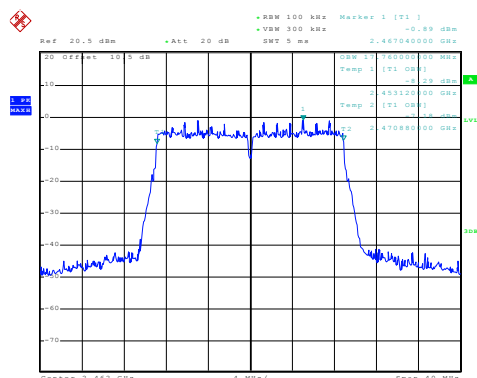
Date: 31.OCT.2013 15:05:46

### Lowest channel



Date: 31.OCT.2013 15:03:17

### Middle channel

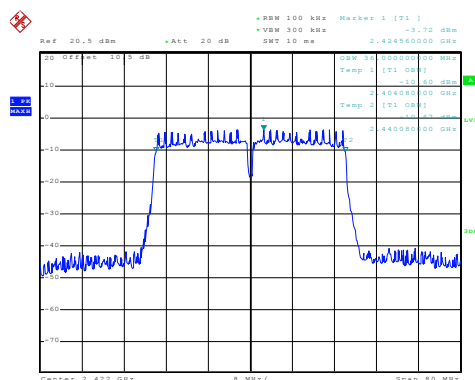


Date: 31.OCT.2013 15:01:04

### Highest channel

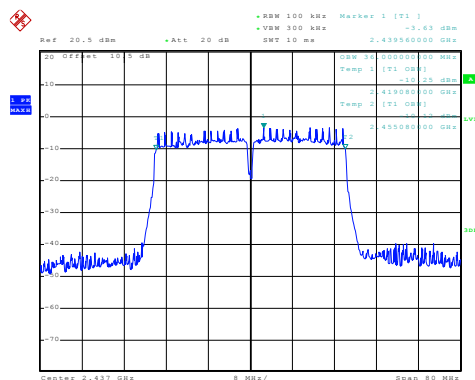
Test mode: 99% OBW

802.11n(H40)



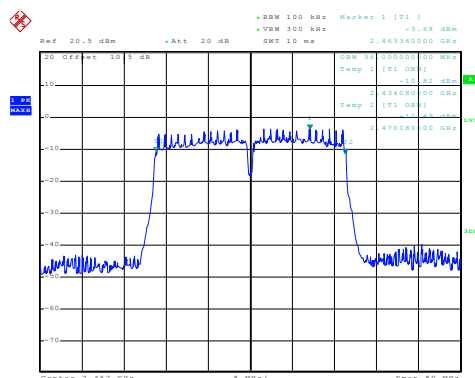
Date: 31.OCT.2013 15:17:24

### Lowest channel



Date: 31.OCT.2013 15:14:32

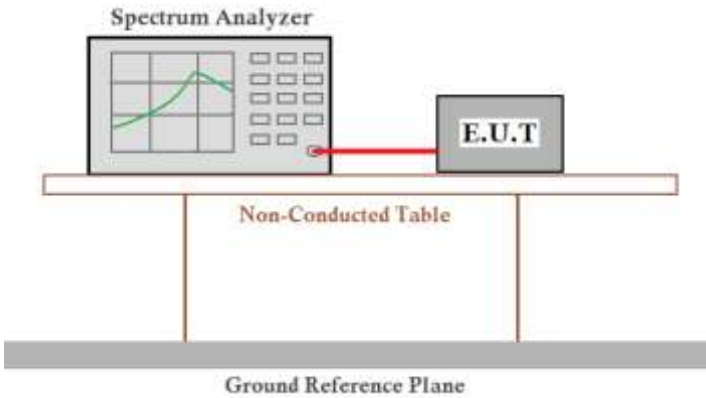
### Middle channel



Date: 31.OCT.2013 15:11:01

### Highest channel

## 6.5 Power Spectral Density

|                   |                                                                                    |
|-------------------|------------------------------------------------------------------------------------|
| Test Requirement: | FCC Part15 C Section 15.247 (e)                                                    |
| Test Method:      | ANSI C63.4:2003 and KDB558074 v03                                                  |
| Limit:            | 8dBm                                                                               |
| Test setup:       |  |
| Test Instruments: | Refer to section 5.6 for details                                                   |
| Test mode:        | Refer to section 5.3 for details                                                   |
| Test results:     | Passed                                                                             |

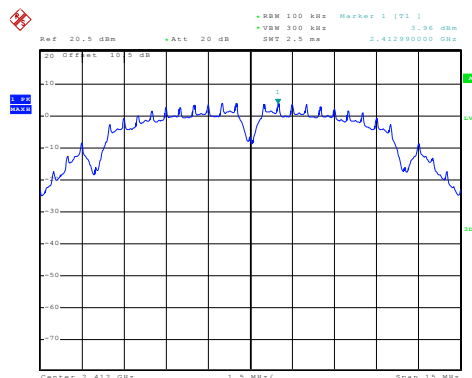
### Measurement Data

| Test CH | Power Spectral Density (dBm) |         |              |              | Limit(dBm) | Result |
|---------|------------------------------|---------|--------------|--------------|------------|--------|
|         | 802.11b                      | 802.11g | 802.11n(H20) | 802.11n(H40) |            |        |
| Lowest  | 3.96                         | -0.67   | -0.64        | -3.80        | 8.00       | Pass   |
| Middle  | 4.20                         | 0.18    | -0.05        | -3.41        |            |        |
| Highest | 4.29                         | -0.77   | -0.80        | -3.65        |            |        |

Test plot as follows:

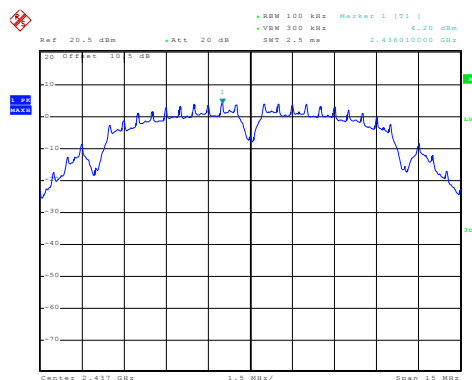
Test mode:

802.11b



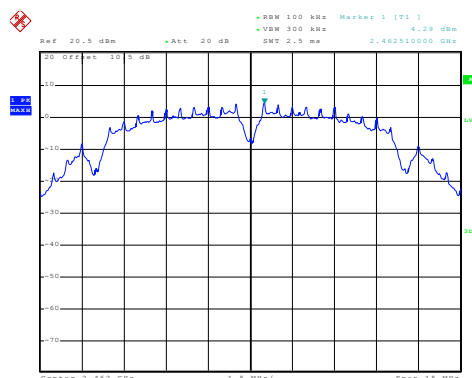
Date: 31.OCT.2013 14:04:30

### Lowest channel



Date: 31.OCT.2013 14:07:24

### Middle channel

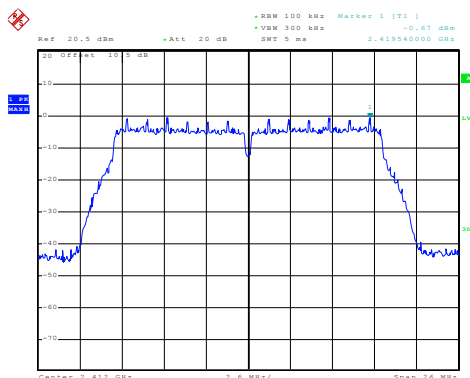


Date: 31.OCT.2013 14:10:29

### Highest channel

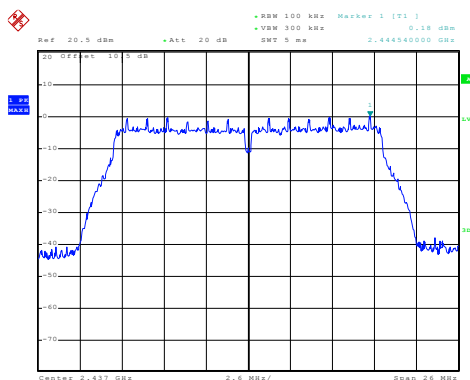
Test mode:

802.11g



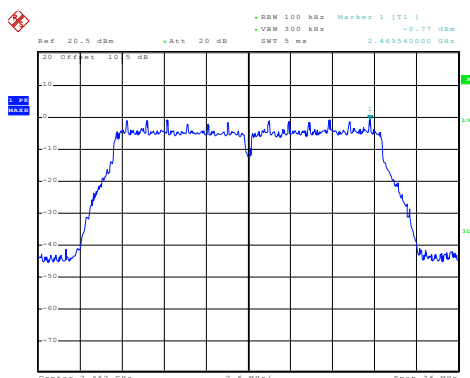
Date: 31.OCT.2013 14:57:49

## Lowest channel



Date: 31.OCT.2013 14:55:41

## Middle channel

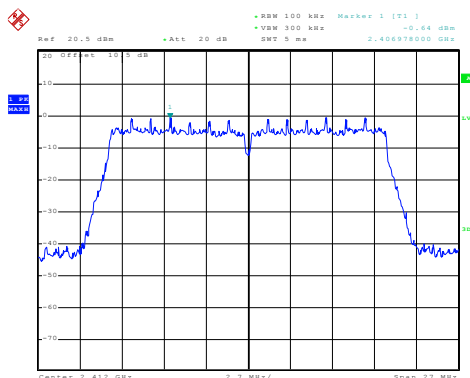


Date: 31.OCT.2013 14:51:53

## Highest channel

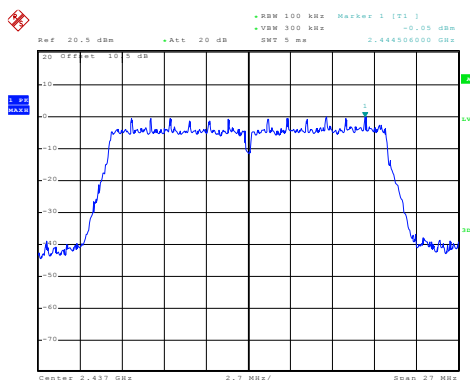
Test mode:

802.11n(H20)



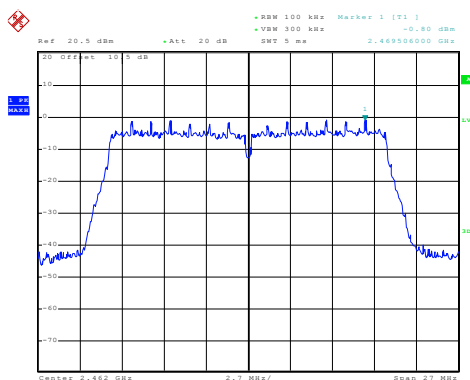
Date: 31.OCT.2013 15:06:36

### Lowest channel



Date: 31.OCT.2013 15:04:04

### Middle channel

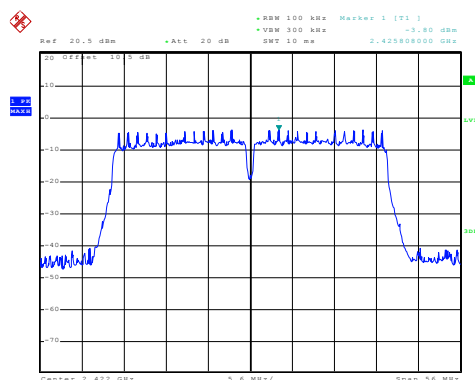


Date: 31.OCT.2013 15:01:48

### Highest channel

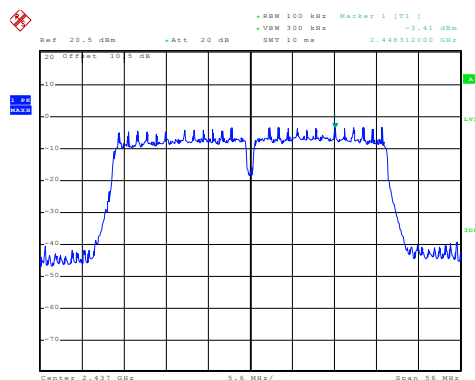
Test mode:

802.11n(H40)



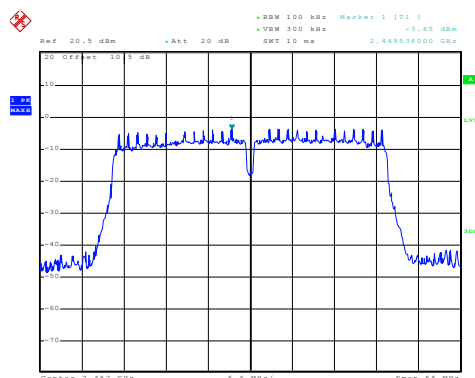
Date: 31.OCT.2013 15:18:09

### Lowest channel



Date: 31.OCT.2013 15:15:36

### Middle channel



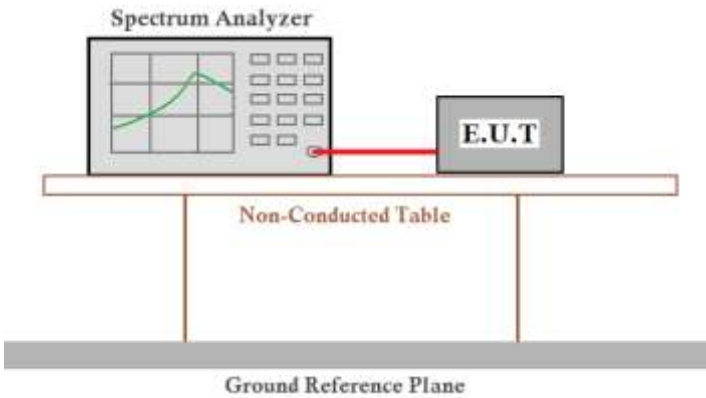
Date: 31.OCT.2013 15:12:38

### Highest channel



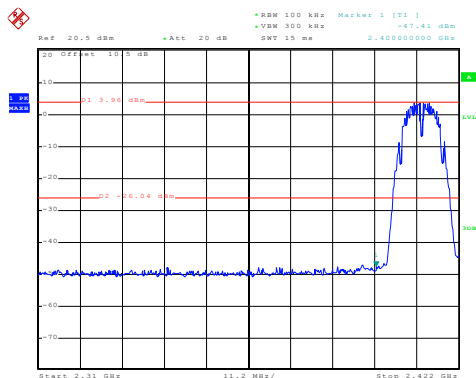
## 6.6 Band Edge

### 6.6.1 Conducted Emission Method

|                   |                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | FCC Part15 C Section 15.247 (d)                                                                                                                                                                                                                                                                                                                                                         |
| Test Method:      | ANSI C63.4:2003 and KDB558074 v03                                                                                                                                                                                                                                                                                                                                                       |
| 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 30 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. |
| Test setup:       |  <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.</p>                             |
| Test Instruments: | Refer to section 5.6 for details                                                                                                                                                                                                                                                                                                                                                        |
| Test mode:        | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                        |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                  |

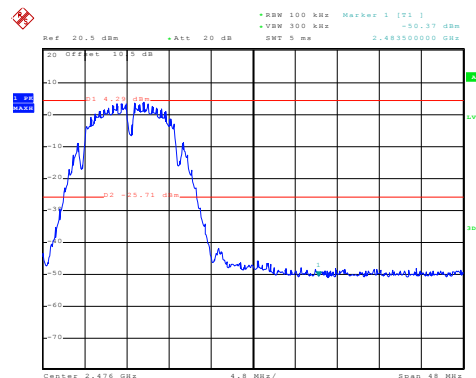
Test plot as follows:

|            |         |
|------------|---------|
| Test mode: | 802.11b |
|------------|---------|



Date: 31.OCT.2013 14:05:18

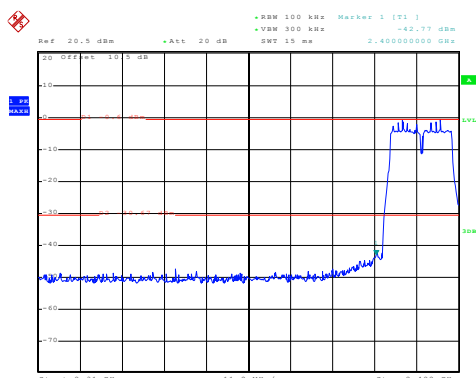
Lowest channel



Date: 31.OCT.2013 14:11:23

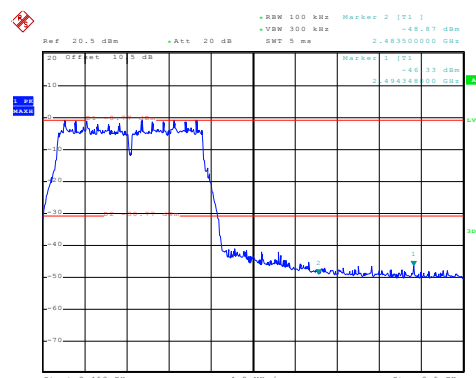
Highest channel

|            |         |
|------------|---------|
| Test mode: | 802.11g |
|------------|---------|



Date: 31.OCT.2013 14:58:09

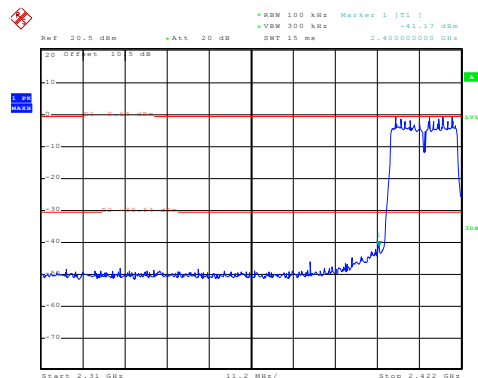
Lowest channel



Date: 31.OCT.2013 14:53:11

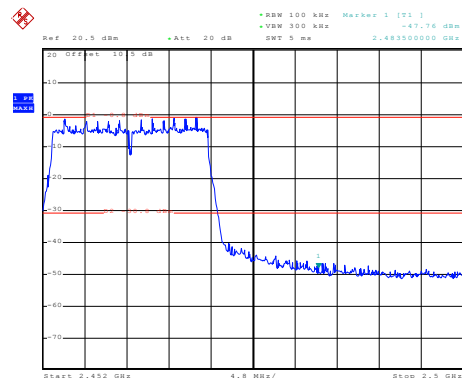
Highest channel

|            |              |
|------------|--------------|
| Test mode: | 802.11n(H20) |
|------------|--------------|



Date: 31.OCT.2013 15:07:05

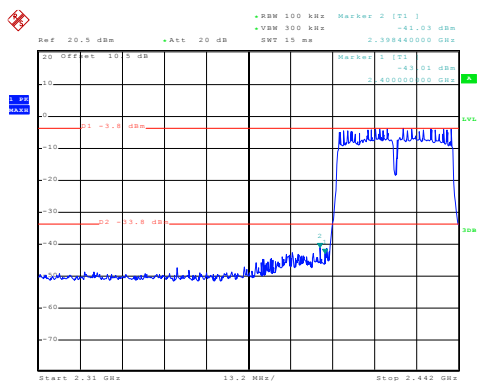
Lowest channel



Date: 31.OCT.2013 15:02:10

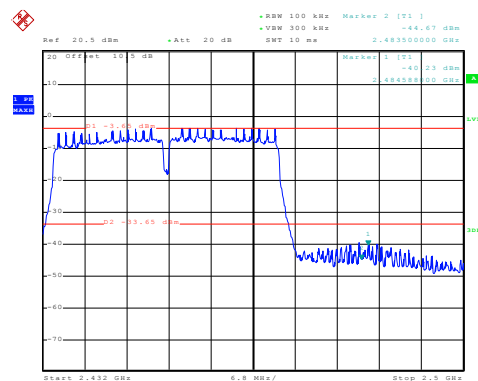
Highest channel

|            |              |
|------------|--------------|
| Test mode: | 802.11n(H40) |
|------------|--------------|



Date: 31.OCT.2013 15:18:34

Lowest channel



Date: 31.OCT.2013 15:13:27

Highest channel

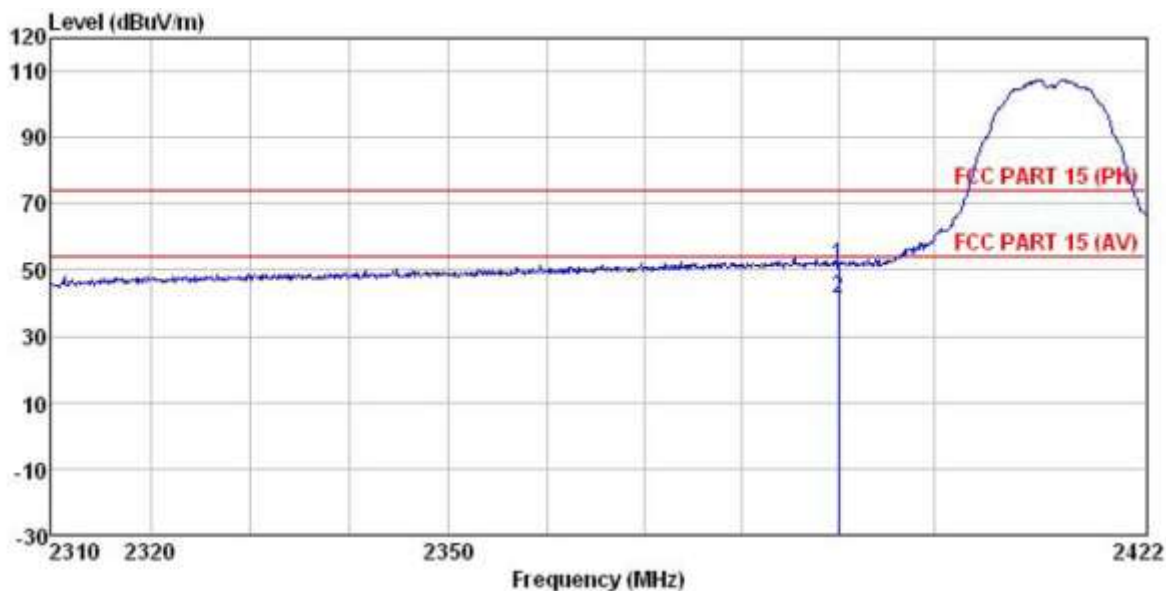
## 6.6.2 Radiated Emission Method

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------|---------------|--|-----------|--------------------|--------|------------|--------|---------------|-------|------------|------|------------|------|------|------|---------------|
| Test Requirement:     | FCC Part15 C Section 15.209 and 15.205                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Test Method:          | ANSI C63.4: 2003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Test Frequency Range: | 2.3GHz to 2.5GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Test site:            | Measurement Distance: 3m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Receiver setup:       | <table><tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr><tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr><tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |      |               |  | Frequency | Detector           | RBW    | VBW        | Remark | Above 1GHz    | Peak  | 1MHz       | 3MHz | Peak Value | Peak | 1MHz | 10Hz | Average Value |
| Frequency             | Detector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | RBW           | VBW  | Remark        |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Above 1GHz            | Peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1MHz          | 3MHz | Peak Value    |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
|                       | Peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1MHz          | 10Hz | Average Value |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Limit:                | <table><tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr><tr><td rowspan="2">Above 1GHz</td><td>54.00</td><td>Average Value</td></tr><tr><td>74.00</td><td>Peak Value</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |      |               |  | Frequency | Limit (dBuV/m @3m) | Remark | Above 1GHz | 54.00  | Average Value | 74.00 | Peak Value |      |            |      |      |      |               |
| Frequency             | Limit (dBuV/m @3m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Remark        |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Above 1GHz            | 54.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Average Value |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
|                       | 74.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Peak Value    |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Test Procedure:       | <div><div>1.</div><div>The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</div></div> <div><div>2.</div><div>The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</div></div> <div><div>3.</div><div>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.</div></div> <div><div>4.</div><div>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 and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.</div></div> <div><div>5.</div><div>The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</div></div> <div><div>6.</div><div>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.</div></div> |               |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Test setup:           | <div><div><div><div><div>EUT</div><div>Turn Table</div></div><div><div>0.8m</div><div>3m</div></div></div><div><div>4m</div><div>1m</div></div><div><div>Antenna Tower</div><div>Horn Antenna</div></div><div><div>Spectrum Analyzer</div><div>Amplifier</div></div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Test Instruments:     | Refer to section 5.6 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Test mode:            | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |
| Test results:         | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |      |               |  |           |                    |        |            |        |               |       |            |      |            |      |      |      |               |

802.11b

Test channel: Lowest

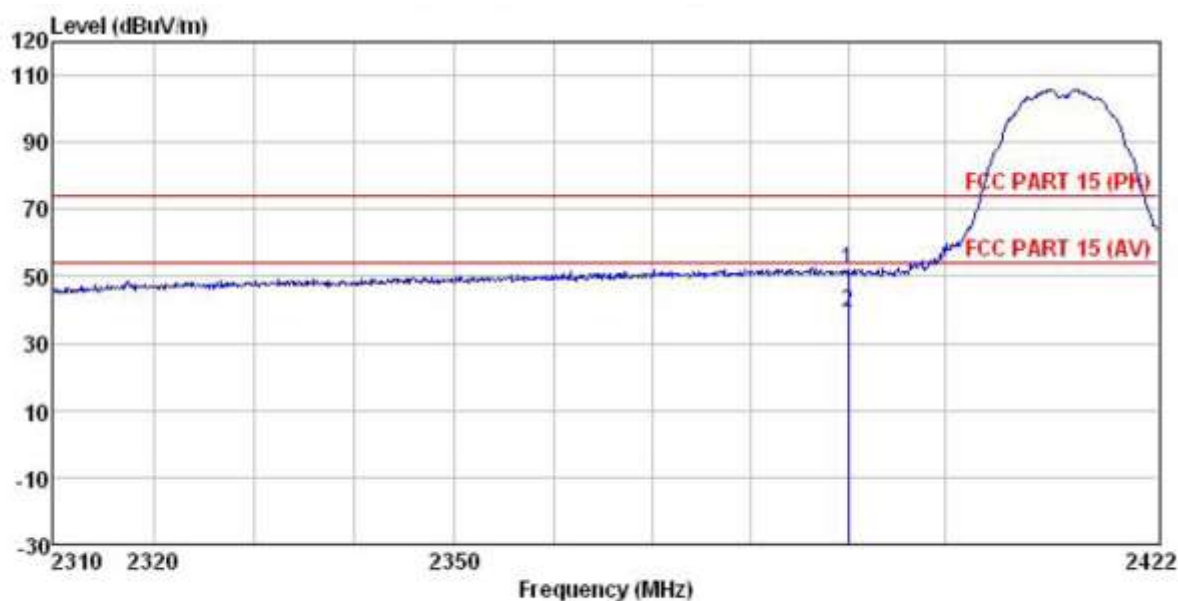
Horizontal:



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL  
 Job No. : 441RF  
 EUT : MID  
 Model : AT7  
 Test mode : WIFI TX mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe  
 Remark : 802.11B-L

|   | Freq     | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Level  | Limit Line | Over Limit | Remark  |
|---|----------|------------|----------------|------------|---------------|--------|------------|------------|---------|
|   | MHz      | dBuV       | dB/m           | dB         | dB            | dBuV/m | dBuV/m     | dB         |         |
| 1 | 2390.000 | 49.52      | 27.58          | 5.67       | 31.35         | 51.42  | 74.00      | -22.58     | Peak    |
| 2 | 2390.000 | 39.62      | 27.58          | 5.67       | 31.35         | 41.52  | 54.00      | -12.48     | Average |

Vertical :

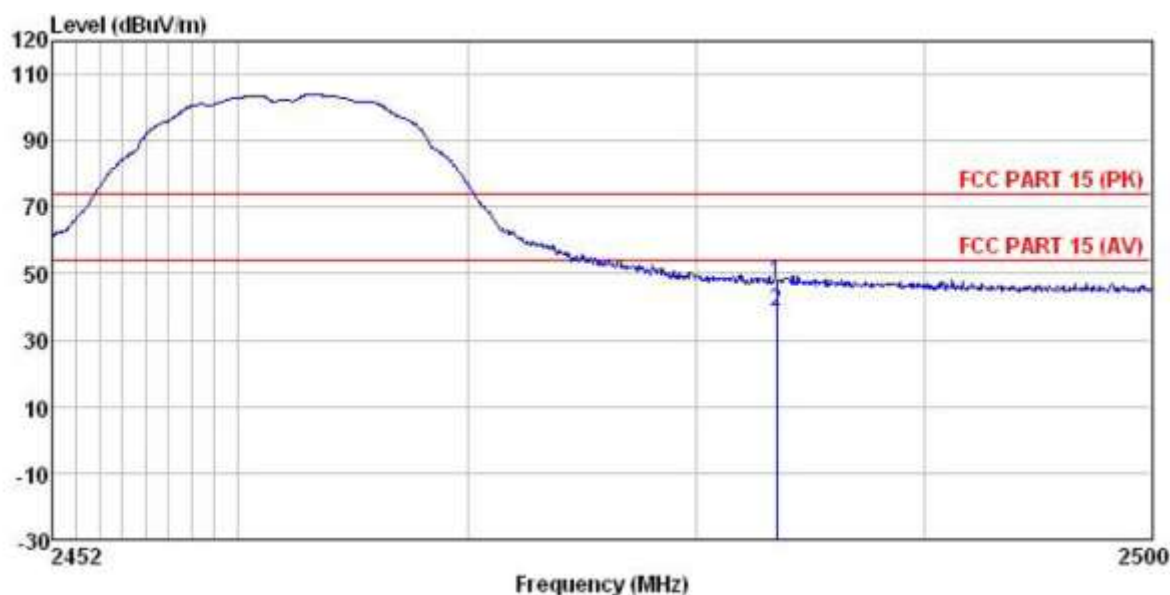


Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL  
 Job No. : 441RF  
 EUT : MID  
 Model : AT7  
 Test mode : WIFI TX mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe  
 Remark : 802.11B-L

|   | Freq     | Level | Antenna Factor | Cable Loss | Preamp Factor | Level  | Limit  | Over Limit | Remark  |
|---|----------|-------|----------------|------------|---------------|--------|--------|------------|---------|
|   | MHz      | dBuV  | dB/m           | dB         | dB            | dBuV/m | dBuV/m | dB         |         |
| 1 | 2390.000 | 49.90 | 27.58          | 5.67       | 31.35         | 51.80  | 74.00  | -22.20     | Peak    |
| 2 | 2390.000 | 37.25 | 27.58          | 5.67       | 31.35         | 39.15  | 54.00  | -14.85     | Average |

Test channel: Highest

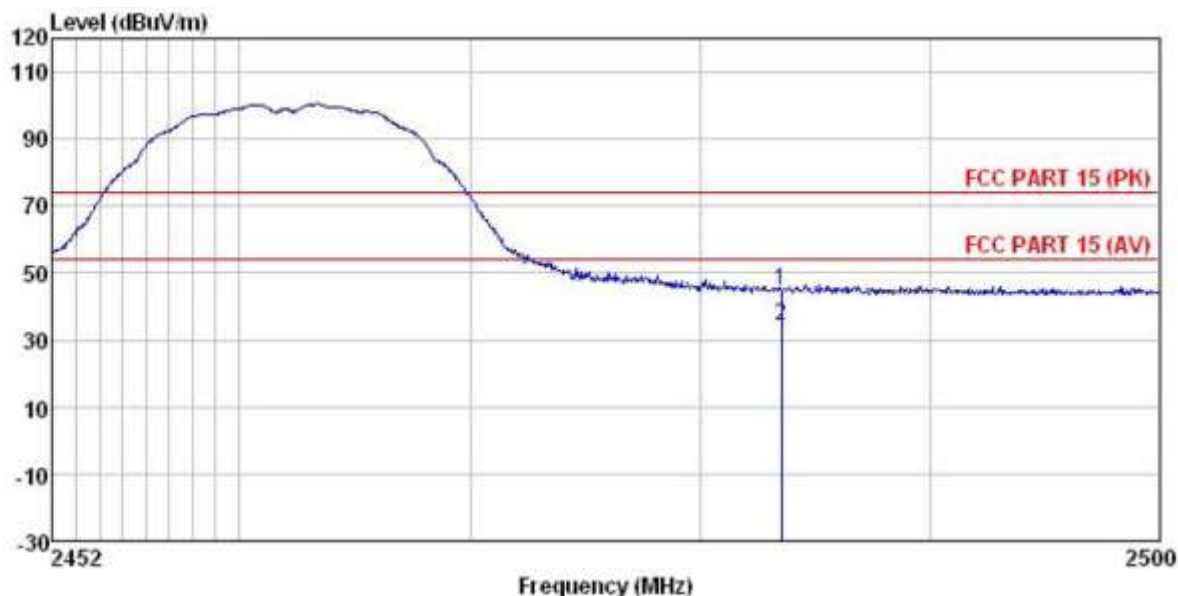
Horizontal:



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL  
 Job No. : 441RF  
 EUT : MID  
 Model : AT7  
 Test mode : WIFI TX mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe  
 : 802.11B-H

|   | Freq     | ReadAntenna<br>Level | Cable Factor | Preamp<br>Loss | Level  | Limit  | Over  |                |
|---|----------|----------------------|--------------|----------------|--------|--------|-------|----------------|
|   | MHz      | dBuV                 | dB/m         | dB             | dBuV/m | dBuV/m | dB    | Remark         |
| 1 | 2483.500 | 51.42                | 27.52        | 5.70           | 37.26  | 47.38  | 74.00 | -26.62 Peak    |
| 2 | 2483.500 | 42.52                | 27.52        | 5.70           | 37.26  | 38.48  | 54.00 | -15.52 Average |

Vertical :



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL  
 Job No. : 441RF  
 EUT : MID  
 Model : AT7 AT7  
 Test mode : WIFI TX mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe  
 : 802.11B-H

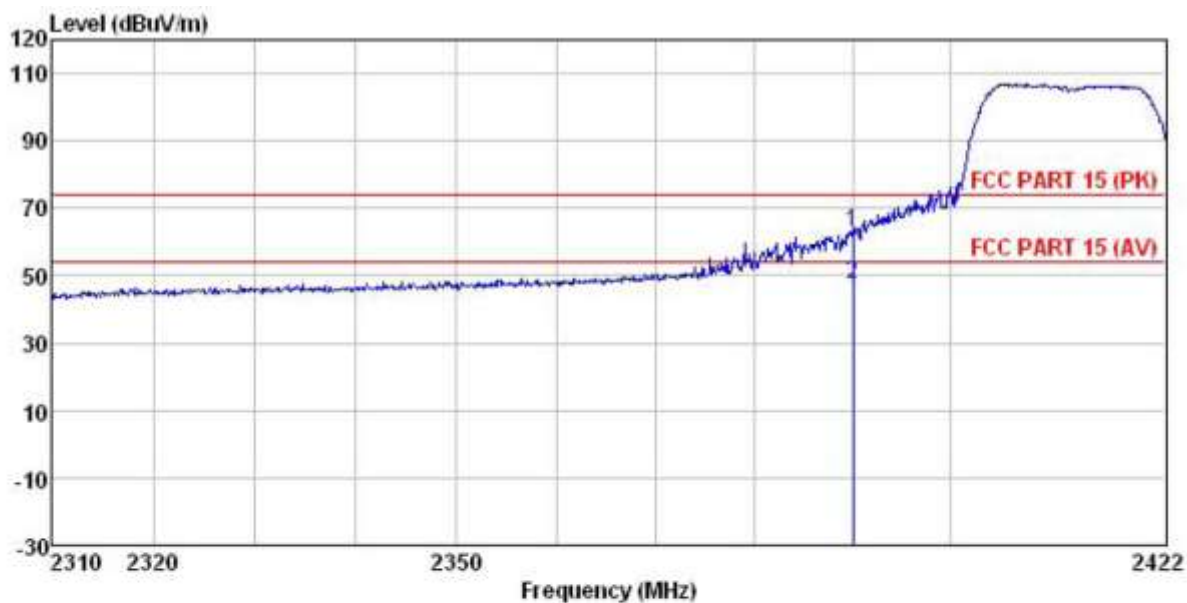
|   | Freq     | Read  | Antenna | Cable | Preamp | Level  | Limit  | Over   |         |
|---|----------|-------|---------|-------|--------|--------|--------|--------|---------|
|   |          | Level | Factor  | Loss  | Factor | Level  | Line   | Limit  | Remark  |
|   | MHz      | dBuV  | dB/m    | dB    | dB     | dBuV/m | dBuV/m | dB     |         |
| 1 | 2483.500 | 48.68 | 27.52   | 5.70  | 37.26  | 44.64  | 74.00  | -29.36 | Peak    |
| 2 | 2483.500 | 38.26 | 27.52   | 5.70  | 37.26  | 34.22  | 54.00  | -19.78 | Average |



802.11g

Test channel: Lowest

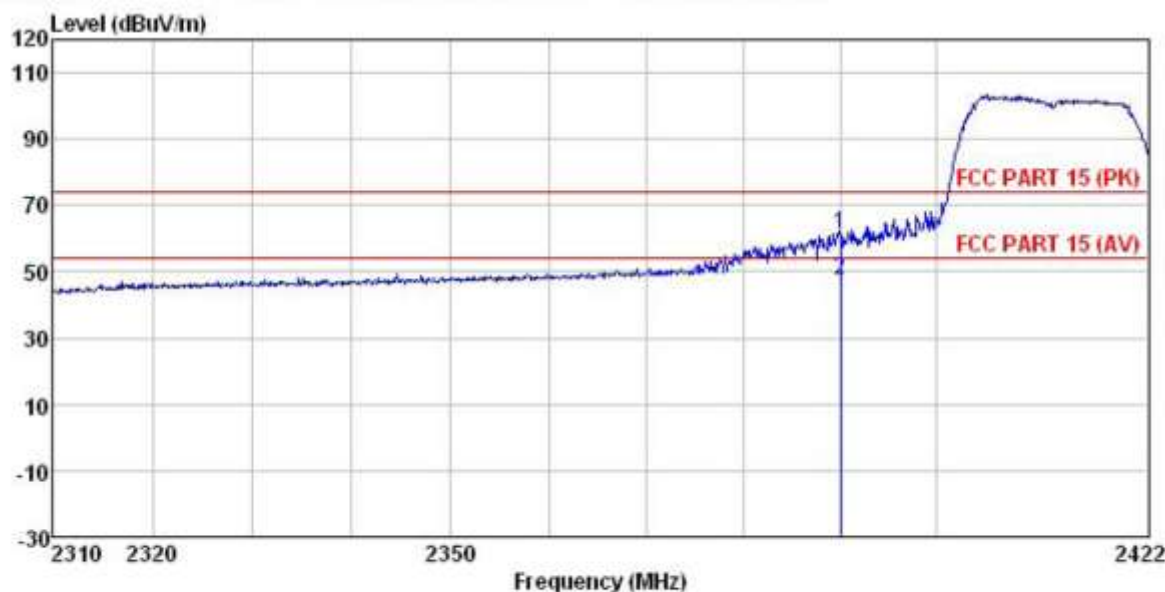
Horizontal :



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL  
 Job No. : 441RF  
 EUI : MID  
 Model : AT7  
 Test mode : WIFI TX mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe  
 : 802.11 G-L

|            | ReadAntenna  | Cable Preamp | Limit | Over  |                           |
|------------|--------------|--------------|-------|-------|---------------------------|
| Freq       | Level Factor | Loss Factor  | Level | Line  | Limit Remark              |
| MHz        | dBuV         | dB/m         | dB    | dB    | dBuV/m dBuV/m dB          |
| 1 2390.000 | 61.32        | 27.58        | 5.67  | 31.35 | 63.22 74.00 -10.78 Peak   |
| 2 2390.000 | 45.56        | 27.58        | 5.67  | 31.35 | 47.46 54.00 -6.54 Average |

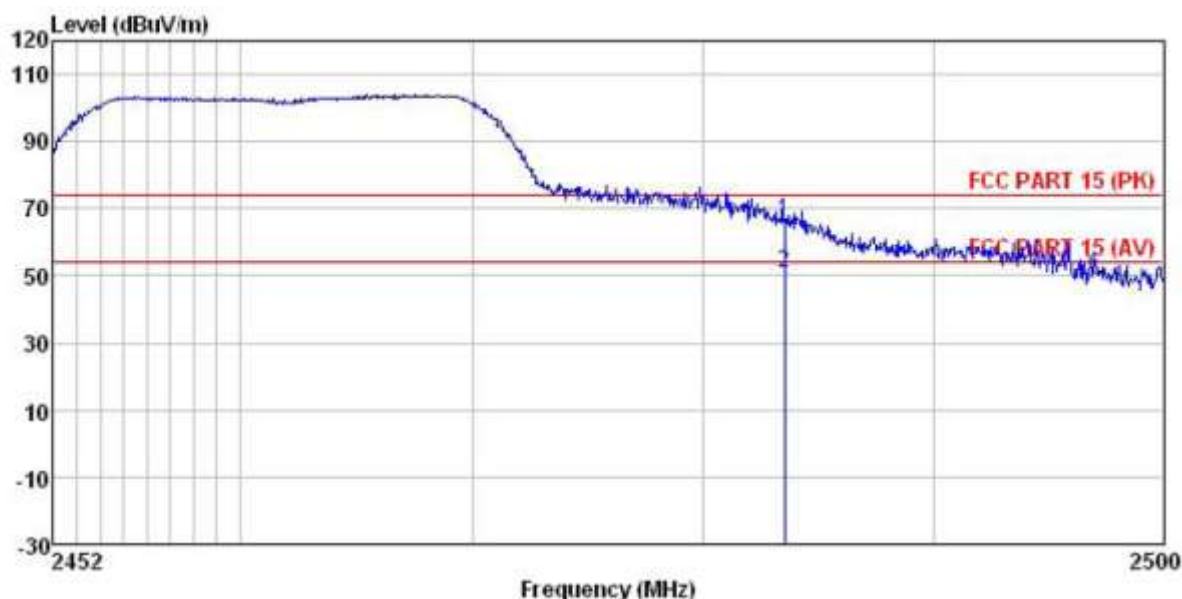
Vertical :



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL  
 Job No. : 441RF  
 EUT : MID  
 Model : AT7  
 Test mode : WIFI TX mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe  
 : 802.11 G-L

|   | Freq     | Level | Antenna Factor | Cable Loss | Preamp Factor | Level  | Limit  | Over   | Remark  |
|---|----------|-------|----------------|------------|---------------|--------|--------|--------|---------|
|   | MHz      | dBuV  | dB/m           | dB         | dB            | dBuV/m | dBuV/m | dB     |         |
| 1 | 2390.000 | 59.64 | 27.58          | 5.67       | 31.35         | 61.54  | 74.00  | -12.46 | Peak    |
| 2 | 2390.000 | 45.62 | 27.58          | 5.67       | 31.35         | 47.52  | 54.00  | -6.48  | Average |

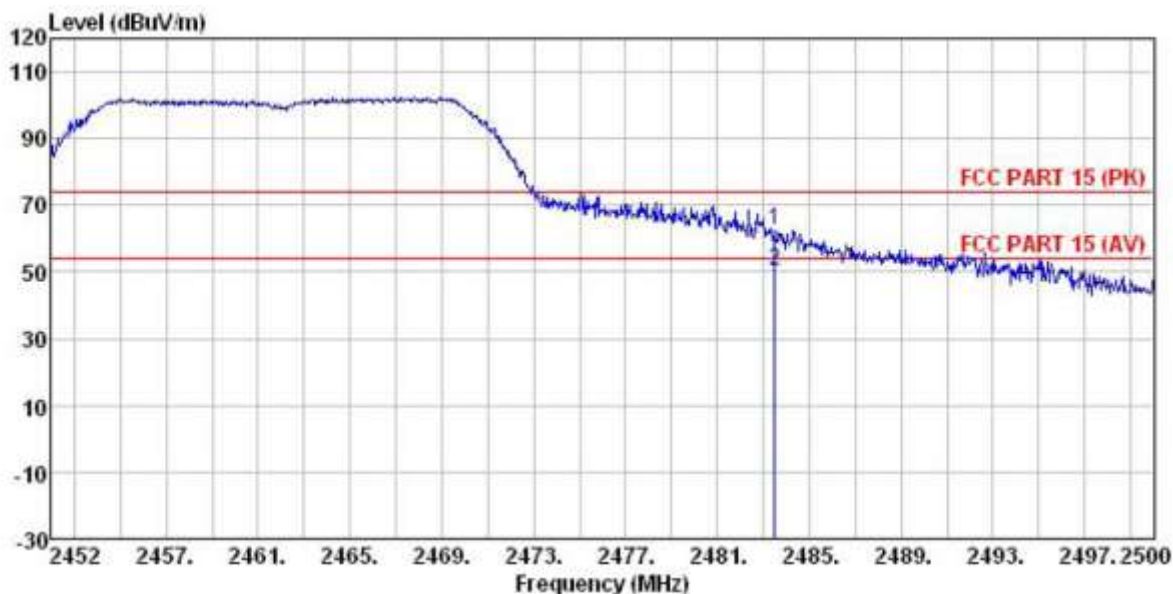
Test channel: Highest  
Horizontal :



Site : 3m chamber  
Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL  
Job No. : 441RF  
EUT : MID  
Model : AT7  
Test mode : WIFI TX mode  
Power Rating : AC 120V/60Hz  
Environment : Temp:25°C Humi:55% Atmos:101Kpa  
Test Engineer: Joe  
: 802.11G-H

|   | Freq     | Level | ReadAntenna | Cable | Preamp | Limit  | Over   |               |
|---|----------|-------|-------------|-------|--------|--------|--------|---------------|
|   | MHz      | dBuV  | Factor      | Loss  | Factor | Line   | Limit  | Remark        |
|   | MHz      | dBuV  | dB/m        | dB    | dB     | dBuV/m | dBuV/m | dB            |
| 1 | 2483.500 | 70.16 | 27.52       | 5.70  | 37.26  | 66.12  | 74.00  | -7.88 Peak    |
| 2 | 2483.500 | 54.80 | 27.52       | 5.70  | 37.26  | 50.76  | 54.00  | -3.24 Average |

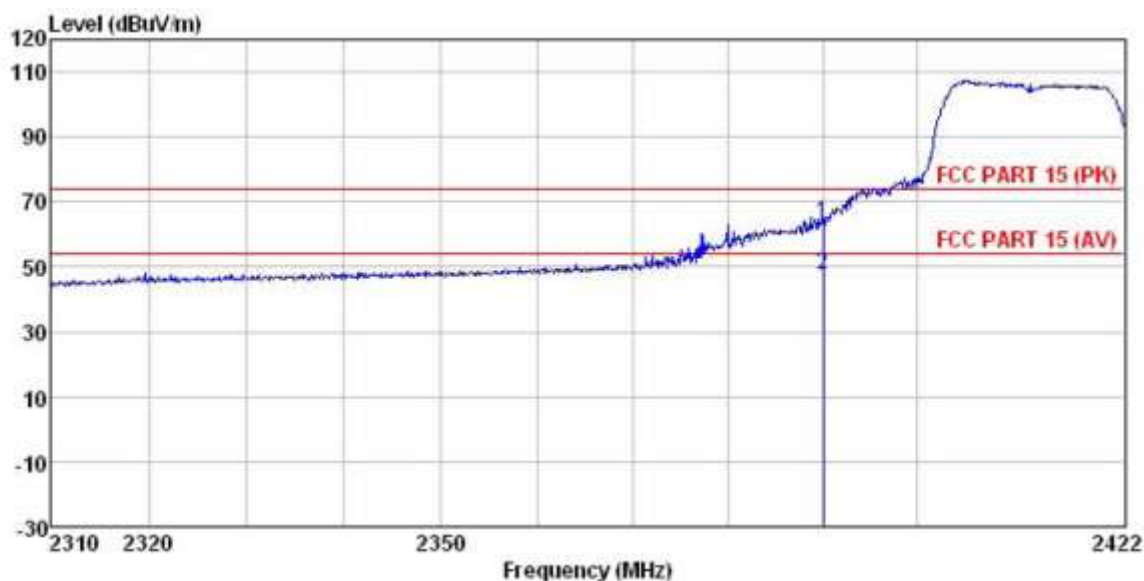
Vertical :



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL  
 Job No. : 441RF  
 EUT : MID  
 Model : AT7  
 Test mode : WIFI TX mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe  
 : 802.11 G-H

|   | Freq     | ReadAntenna<br>Level Factor | Cable Preamp<br>Loss Factor | Level | Limit<br>Line | Over<br>Limit | Remark |        |         |
|---|----------|-----------------------------|-----------------------------|-------|---------------|---------------|--------|--------|---------|
|   | MHz      | dBuV                        | dB/m                        | dB    | dBuV/m        | dBuV/m        | dB     |        |         |
| 1 | 2483.500 | 66.57                       | 27.52                       | 5.70  | 37.26         | 62.53         | 74.00  | -11.47 | Peak    |
| 2 | 2483.500 | 54.25                       | 27.52                       | 5.70  | 37.26         | 50.21         | 54.00  | -3.79  | Average |

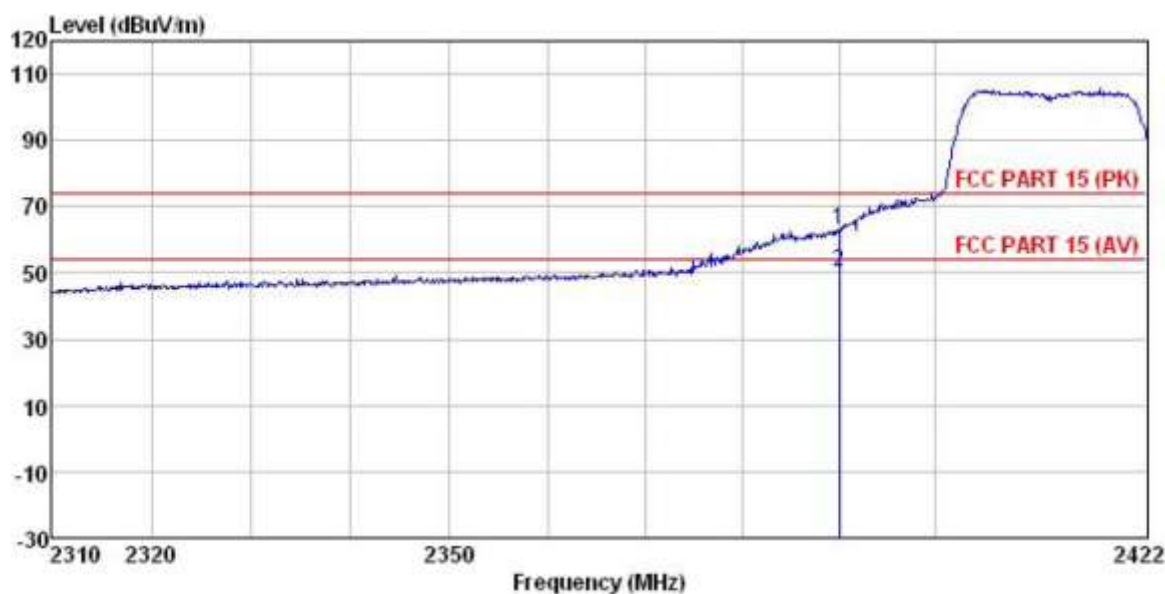
802.11n (H20)  
Test channel: Lowest  
Horizontal :



Site : 3m chamber  
Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL  
Job No. : 441RF  
EUT : MID  
Model : AT7  
Test mode : WIFI TX mode  
Power Rating : AC 120V/60Hz  
Environment : Temp:25°C Humi:55% Atmos:101Kpa  
Test Engineer: Joe  
: 802.11N20-L

|   |          | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |               |
|---|----------|-------------|--------|--------|--------|--------|--------|---------------|
|   | Freq     | Level       | Factor | Loss   | Factor | Level  | Line   | Limit         |
|   | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB            |
| 1 | 2390.000 | 61.67       | 27.58  | 5.67   | 31.35  | 63.57  | 74.00  | -10.43 Peak   |
| 2 | 2390.000 | 45.56       | 27.58  | 5.67   | 31.35  | 47.46  | 54.00  | -6.54 Average |

Vertical :

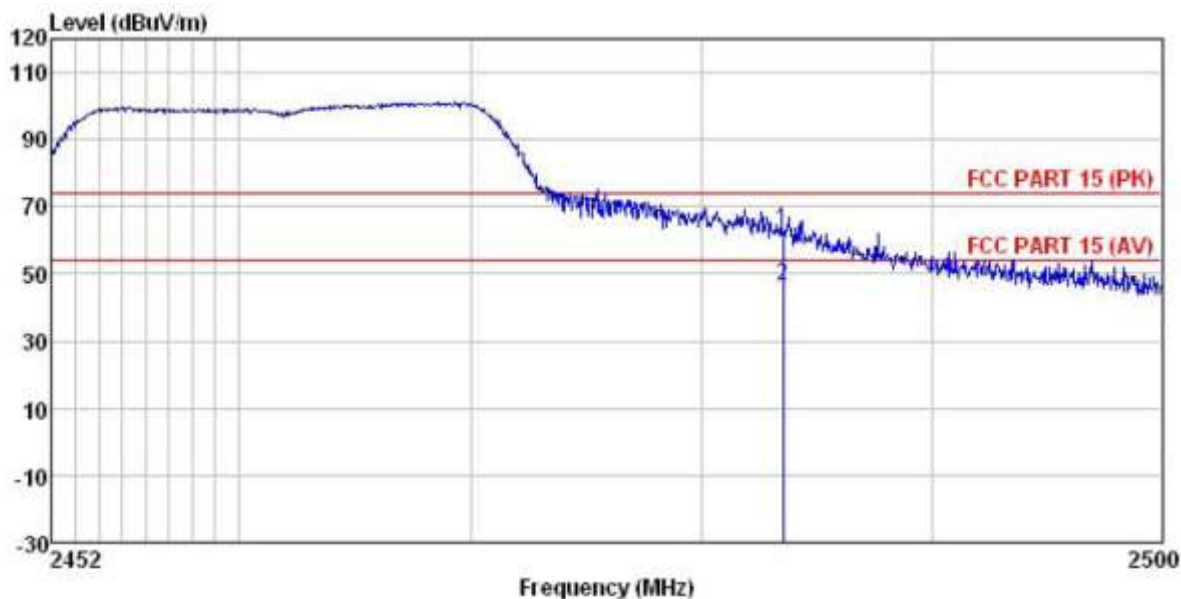


Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL  
 Job No. : 441RF  
 EUT : MID  
 Model : AT7  
 Test mode : WIFI TX mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe  
 : 802.11 N20-L

|   | Freq     | ReadAntenna | Cable | Preamp |       | Limit  | Over   |               |
|---|----------|-------------|-------|--------|-------|--------|--------|---------------|
|   | Level    | Factor      | Loss  | Factor | Level | Line   | Limit  | Remark        |
|   | MHz      | dBuV        | dB/m  | dB     | dB    | dBuV/m | dBuV/m | dB            |
| 1 | 2390.000 | 61.06       | 27.58 | 5.67   | 31.35 | 62.96  | 74.00  | -11.04 Peak   |
| 2 | 2390.000 | 48.21       | 27.58 | 5.67   | 31.35 | 50.11  | 54.00  | -3.89 Average |



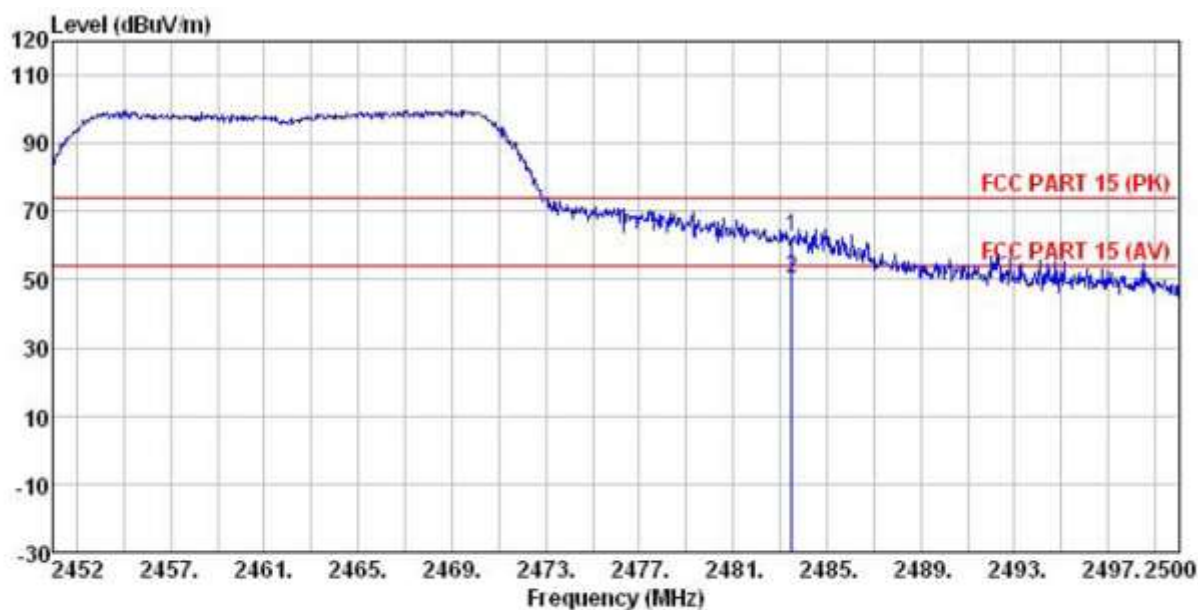
Test channel: Highest  
Horizontal :



Site : 3m chamber  
Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL  
Job No. : 441RF  
EUT : MID  
Model : AT7  
Test mode : WIFI TX mode  
Power Rating : AC 120V/60Hz  
Environment : Temp:25°C Humi:55% Atmos:101Kpa  
Test Engineer: Joe  
: 802.11N20-H

|   |          | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |               |
|---|----------|-------------|--------|--------|--------|--------|--------|---------------|
|   | Freq     | Level       | Factor | Loss   | Factor | Level  | Line   | Limit         |
|   | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB            |
| 1 | 2483.500 | 67.03       | 27.52  | 5.70   | 37.26  | 62.99  | 74.00  | -11.01 Peak   |
| 2 | 2483.500 | 50.53       | 27.52  | 5.70   | 37.26  | 46.49  | 54.00  | -7.51 Average |

Vertical :

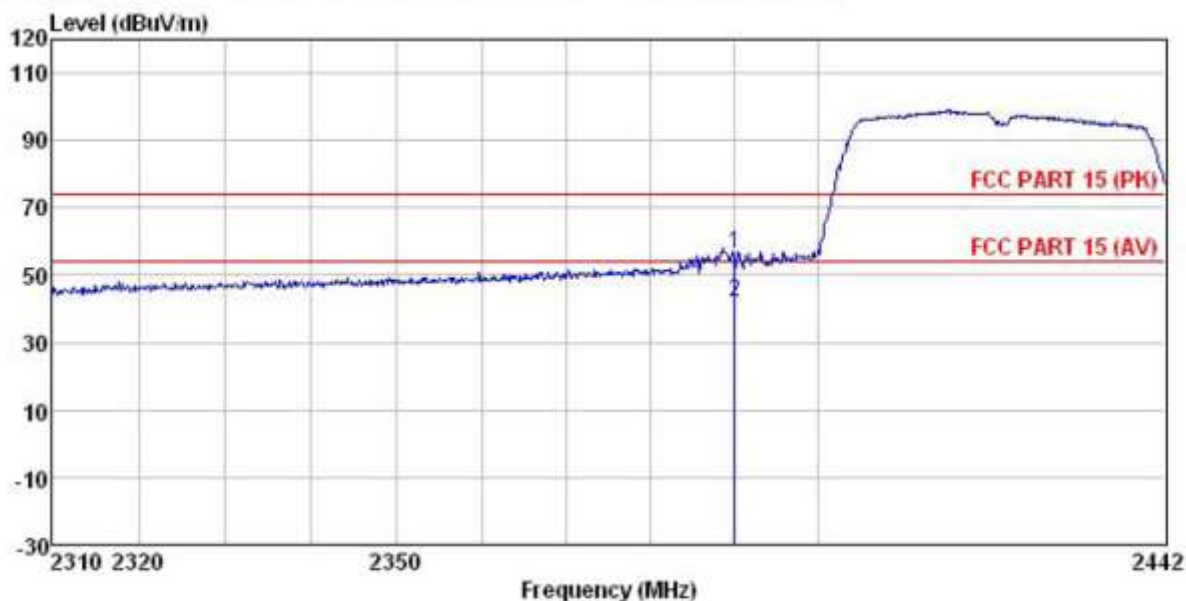


Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL  
 Job No. : 441RF  
 EUT : MID  
 Model : AT7  
 Test mode : WIFI TX mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe  
 : 802.11 N20-H

|   | Freq     | Level | Antenna Factor | Cable Loss | Preamp Factor | Level  | Limit  | Over Limit | Remark  |
|---|----------|-------|----------------|------------|---------------|--------|--------|------------|---------|
|   | MHz      | dBuV  | dB/m           | dB         | dB            | dBuV/m | dBuV/m | dB         |         |
| 1 | 2483.500 | 66.30 | 27.52          | 5.70       | 37.26         | 62.26  | 74.00  | -11.74     | Peak    |
| 2 | 2483.500 | 54.25 | 27.52          | 5.70       | 37.26         | 50.21  | 54.00  | -3.79      | Average |



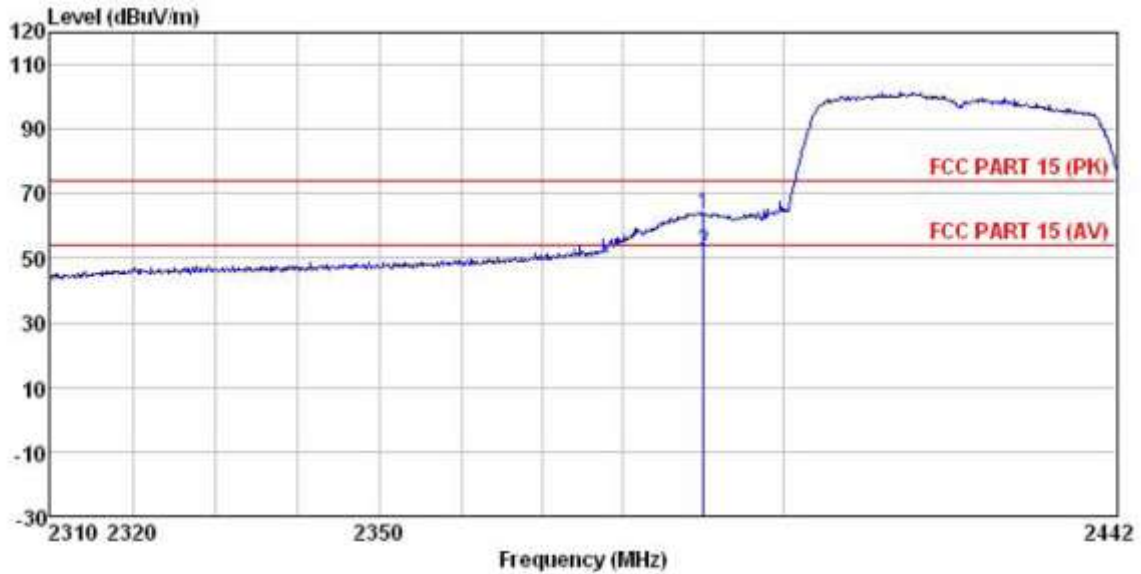
802.11n (H40)  
Test channel: Lowest  
Horizontal :



Site : 3m chamber  
Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL  
Job No. : 441RF  
EUT : MID  
Model : AT7  
Test mode : WIFI TX mode  
Power Rating : AC 120V/60Hz  
Environment : Temp:25°C Humi:55% Atmos:101Kpa  
Test Engineer: Joe  
: 802.11N40-L

|   | Freq     | ReadAntenna<br>Level | Antenna<br>Factor | Cable<br>Loss | Preamp<br>Factor | Level  | Limit<br>Line | Over<br>Limit | Remark  |
|---|----------|----------------------|-------------------|---------------|------------------|--------|---------------|---------------|---------|
|   | MHz      | dBuV                 | dB/m              | dB            | dB               | dBuV/m | dBuV/m        | dB            |         |
| 1 | 2390.000 | 54.49                | 27.58             | 5.67          | 31.35            | 56.39  | 74.00         | -17.61        | Peak    |
| 2 | 2390.000 | 40.26                | 27.58             | 5.67          | 31.35            | 42.16  | 54.00         | -11.84        | Average |

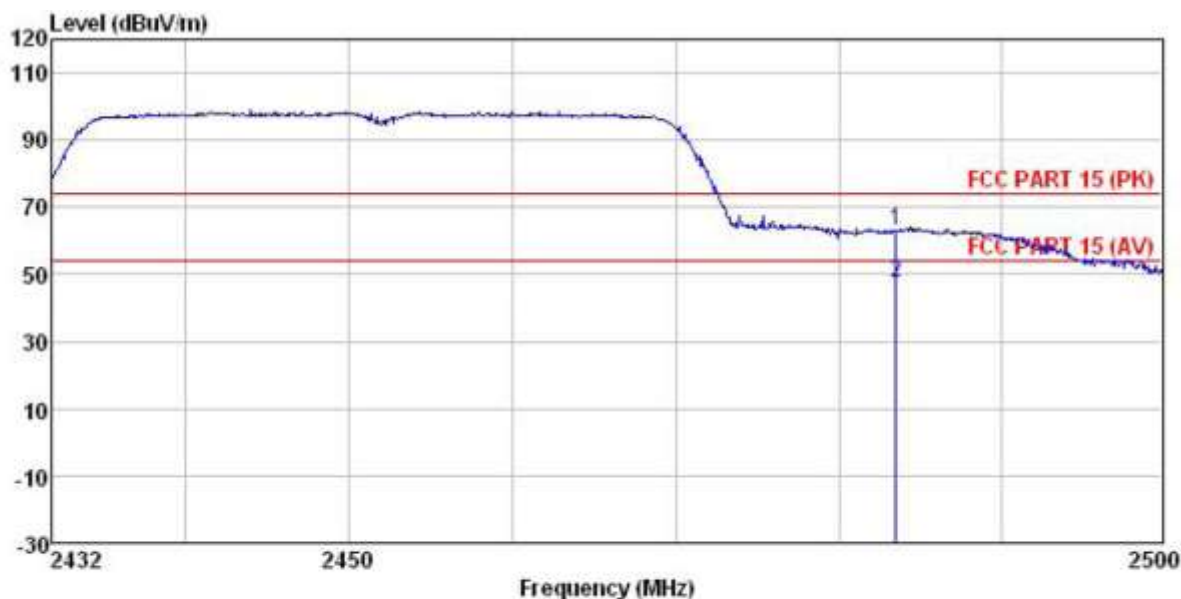
Vertical :



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL  
 Job No. : 441RF  
 EUI : MID  
 Model : AT7  
 Test mode : WIFI TX mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe  
 : 802.11 N40-L

|   | Freq     | ReadAntenna | Cable Preamp | Level       | Limit | Over   |                     |
|---|----------|-------------|--------------|-------------|-------|--------|---------------------|
|   | MHz      | Level       | Factor       | Loss Factor | Line  | Limit  | Remark              |
|   |          | dBuV        | dB/m         | dB          | dB    | dBuV/m | dB                  |
| 1 | 2390.000 | 61.73       | 27.58        | 5.67        | 31.35 | 63.63  | 74.00 -10.37 Peak   |
| 2 | 2390.000 | 50.10       | 27.58        | 5.67        | 31.35 | 52.00  | 54.00 -2.00 Average |

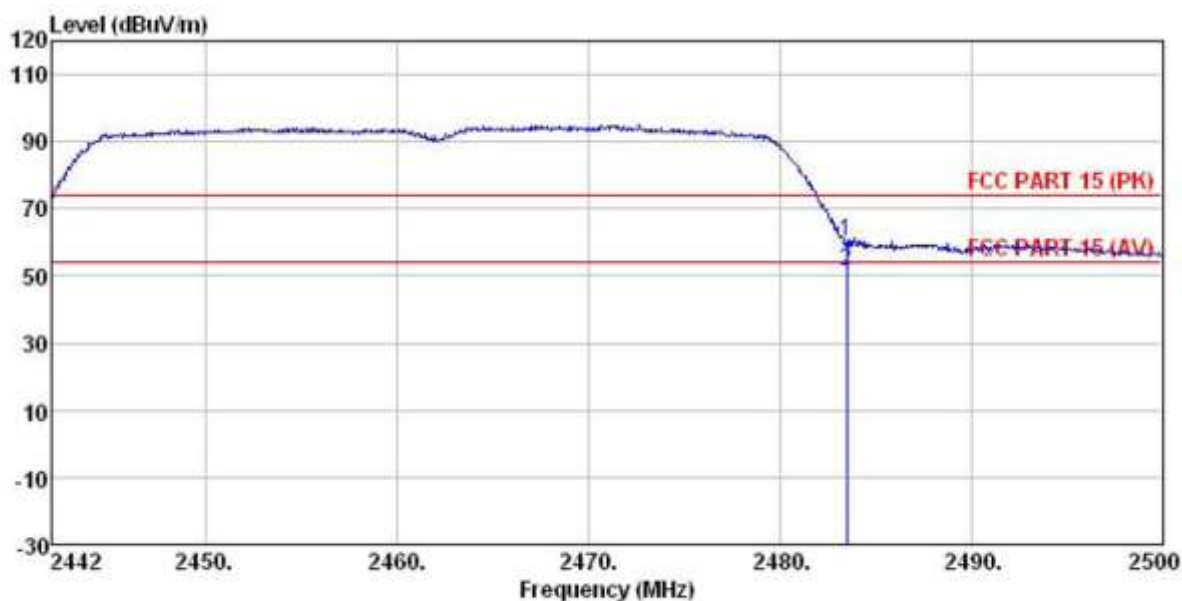
Test channel: Highest  
Horizontal :



Site : 3m chamber  
Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL  
Job No. : 441RF  
EUT : MID  
Model : AT7  
Test mode : WIFI TX mode  
Power Rating : AC 120V/60Hz  
Environment : Temp:25°C Humi:55% Atmos:101Kpa  
Test Engineer: Joe  
: 802.11N40-H

|   | Freq     | ReadAntenna | Cable Preamp | Limit | Over  |        |        |               |
|---|----------|-------------|--------------|-------|-------|--------|--------|---------------|
|   | Level    | Factor      | Loss Factor  | Line  | Limit | Remark |        |               |
|   | MHz      | dBuV        | dB/m         | dB    | dB    | dBuV/m | dBuV/m | dB            |
| 1 | 2483.500 | 67.23       | 27.52        | 5.70  | 37.26 | 63.19  | 74.00  | -10.81 Peak   |
| 2 | 2483.500 | 51.30       | 27.52        | 5.70  | 37.26 | 47.26  | 54.00  | -6.74 Average |

Vertical :



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL  
 Job No. : 441RF  
 EUT : MID  
 Model : AT7  
 Test mode : WIFI TX mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe  
 : 802.11 N40-H

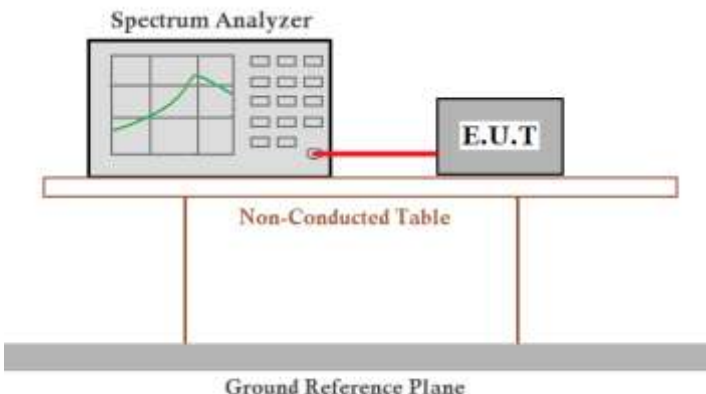
|   | Freq     | ReadAntenna | Cable  | Preamp |        | Limit  | Over   |               |
|---|----------|-------------|--------|--------|--------|--------|--------|---------------|
|   | MHz      | Level       | Factor | Loss   | Factor | Level  | Line   | Limit Remark  |
|   | MHz      | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB            |
| 1 | 2483.500 | 64.15       | 27.52  | 5.70   | 37.26  | 60.11  | 74.00  | -13.89 Peak   |
| 2 | 2483.500 | 55.32       | 27.52  | 5.70   | 37.26  | 51.28  | 54.00  | -2.72 Average |

Remark:

1. Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

## 6.7 Spurious Emission

### 6.7.1 Conducted Emission Method

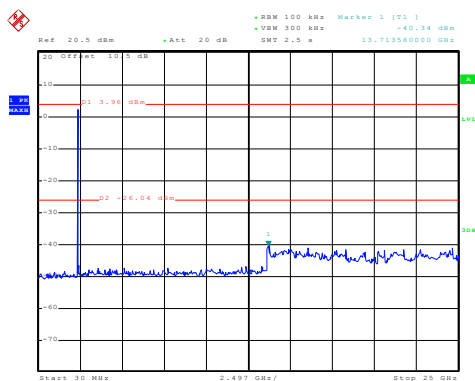
|                   |                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | FCC Part15 C Section 15.247 (d)                                                                                                                                                                                                                                                                                                                                                         |
| Test Method:      | ANSI C63.4:2003 and KDB558074 v03                                                                                                                                                                                                                                                                                                                                                       |
| 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. |
| Test setup:       |  <p>The diagram illustrates the test setup for conducted emission measurement. A Spectrum Analyzer is connected via a red cable to an E.U.T. (Equipment Under Test). Both are placed on a Non-Conducted Table, which is supported by a Ground Reference Plane.</p>                                   |
| Test Instruments: | Refer to section 5.6 for details                                                                                                                                                                                                                                                                                                                                                        |
| Test mode:        | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                        |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                  |

Test plot as follows:

Test mode:

802.11b

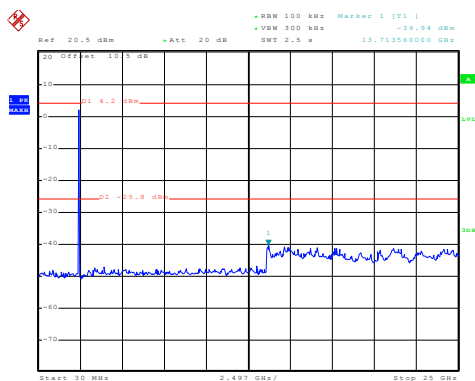
Lowest channel



Date: 31.OCT.2013 14:05:43

30MHz~25GHz

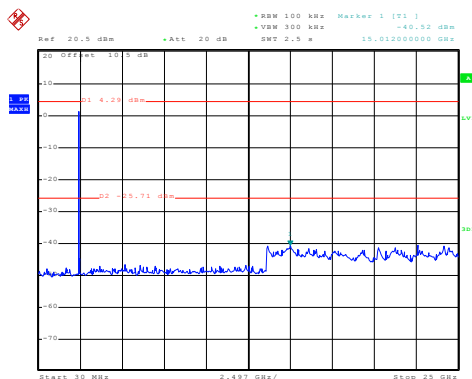
Middle channel



Date: 31.OCT.2013 14:07:59

30MHz~25GHz

## Highest channel



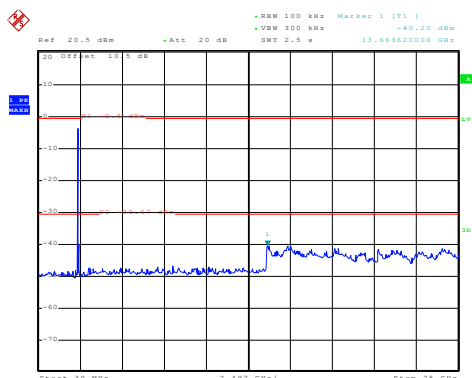
Date: 31.OCT.2013 14:12:18

30MHz~25GHz

Test mode:

802.11g

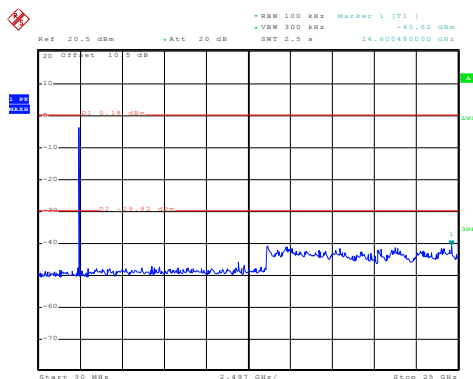
## Lowest channel



Date: 31.OCT.2013 14:58:51

30MHz~25GHz

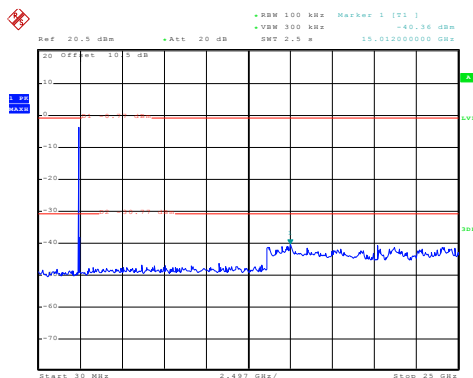
## Middle channel



Date: 31.OCT.2013 14:56:17

30MHz~25GHz

## Highest channel



Date: 31.OCT.2013 14:54:02

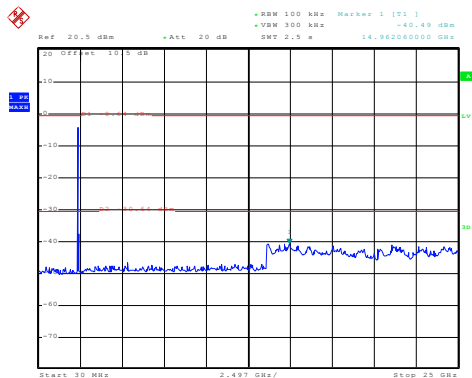
30MHz~25GHz



Test mode:

802.11n(H20)

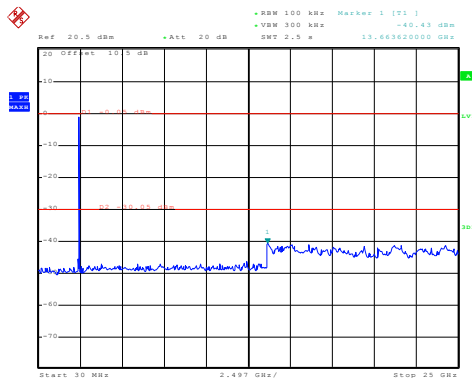
## Lowest channel



Date: 31.OCT.2013 15:07:48

30MHz~25GHz

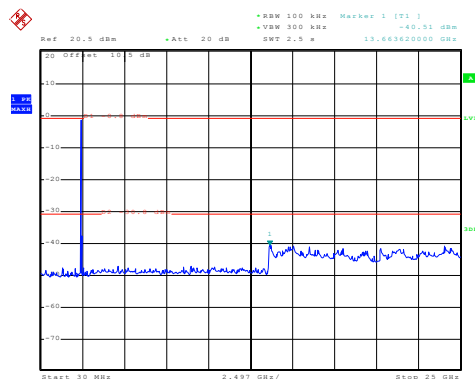
## Middle channel



Date: 31.OCT.2013 15:05:17

30MHz~25GHz

## Highest channel



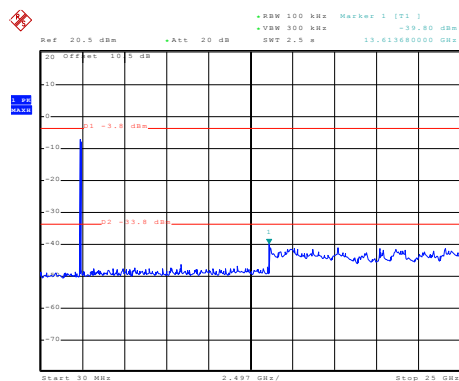
Date: 31.OCT.2013 15:02:40

30MHz~25GHz

Test mode:

802.11n(H40)

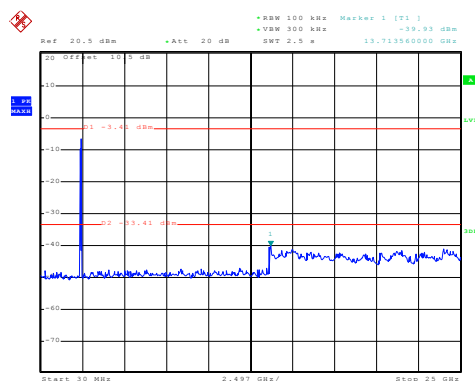
## Lowest channel



Date: 31.OCT.2013 15:19:08

30MHz~25GHz

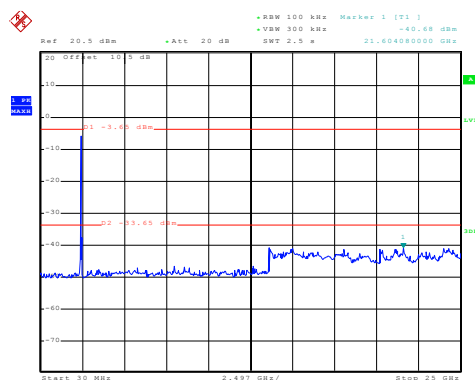
Middle channel



Date: 31.OCT.2013 15:16:40

30MHz~25GHz

## Highest channel

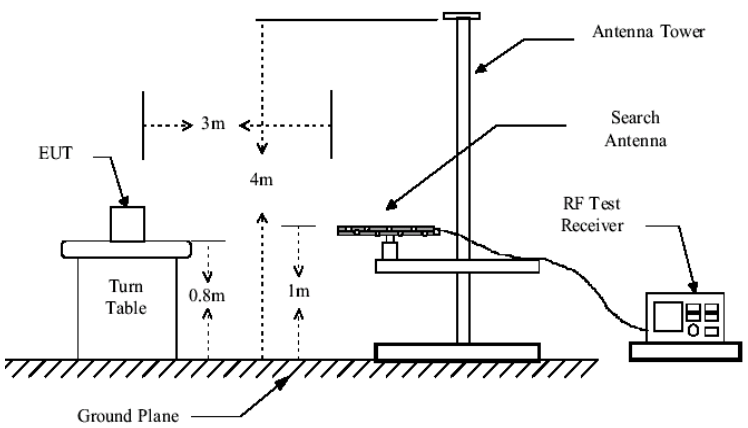
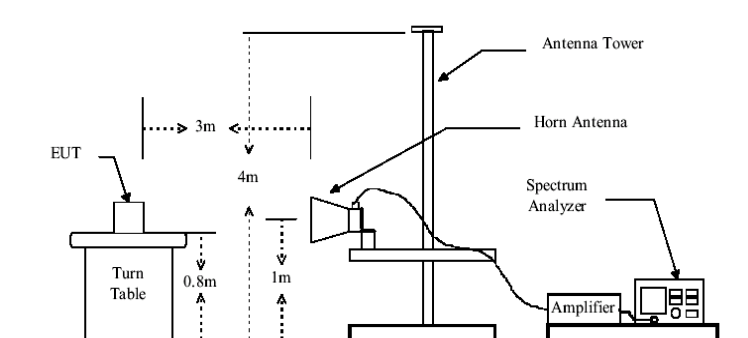


Date: 31.OCT.2013 15:14:01

30MHz~25GHz

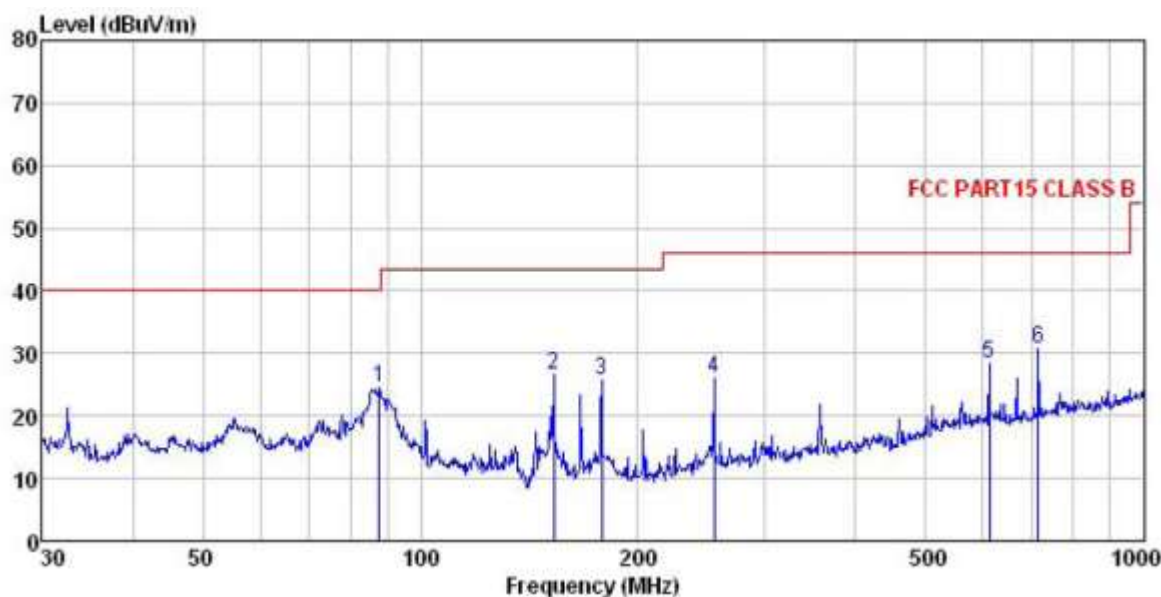
## 6.7.2 Radiated Emission Method

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                    |               |                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|---------------|------------------|
| Test Requirement:     | FCC Part15 C Section 15.209 and 15.205                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                    |               |                  |
| Test Method:          | ANSI C63.4:2003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                    |               |                  |
| Test Frequency Range: | 9KHz to 25GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                    |               |                  |
| Test site:            | Measurement Distance: 3m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                    |               |                  |
| Receiver setup:       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                    |               |                  |
|                       | Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Detector   | RBW                | VBW           | Remark           |
|                       | 30MHz-1GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Quasi-peak | 120KHz             | 300KHz        | Quasi-peak Value |
|                       | Above 1GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Peak       | 1MHz               | 3MHz          | Peak Value       |
| Peak                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1MHz       | 10Hz               | Average Value |                  |
| Limit:                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                    |               |                  |
|                       | Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | Limit (dBuV/m @3m) |               | Remark           |
|                       | 30MHz-88MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | 40.0               |               | Quasi-peak Value |
|                       | 88MHz-216MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | 43.5               |               | Quasi-peak Value |
|                       | 216MHz-960MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | 46.0               |               | Quasi-peak Value |
|                       | 960MHz-1GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | 54.0               |               | Quasi-peak Value |
|                       | Above 1GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 54.0       |                    | Average Value |                  |
| 74.0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Peak Value |                    |               |                  |
| Test Procedure:       | <div>1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</div> <div>2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</div> <div>3. 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.</div> <div>4. 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 and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.</div> <div>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</div> <div>6. 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.</div> |            |                    |               |                  |

|                          |                                                                                                                                                                                                                                                                                                 |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Test setup:</p>       | <p>Below 1GHz</p>  <p>Above 1GHz</p>                                                                                       |
| <p>Test Instruments:</p> | <p>Refer to section 5.6 for details</p>                                                                                                                                                                                                                                                         |
| <p>Test mode:</p>        | <p>Refer to section 5.3 for details</p>                                                                                                                                                                                                                                                         |
| <p>Test results:</p>     | <p>Passed</p>                                                                                                                                                                                                                                                                                   |
| <p>Remark:</p>           | <ol style="list-style-type: none"> <li>1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case.</li> <li>2. 9 kHz to 30MHz and above 12.75G are very lower than the limit, so only shows the data of 30MHz to 12.75G in this report.</li> </ol> |

Below 1GHz

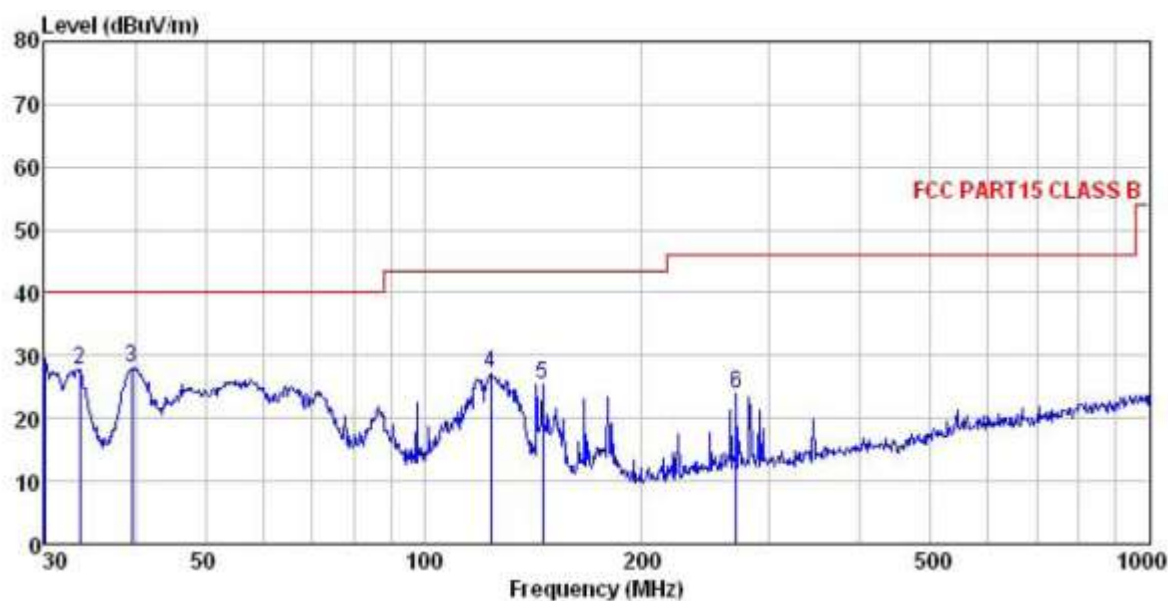
Horizontal :



Site : 3m chamber  
 Condition : FCC PART15 CLASS B 3m VULB9163(30M1G) HORIZONTAL  
 Job No. : 441RF  
 EUT : MID  
 Model : AT7  
 Test mode : wifi mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe

|      | ReadAntenna | Cable  | Preamp | Limit  | Over   |        |       |           |
|------|-------------|--------|--------|--------|--------|--------|-------|-----------|
| Freq | Level       | Factor | Loss   | Factor | Level  | Line   | Limit | Remark    |
| MHz  | dBuV        | dB/m   | dB     | dB     | dBuV/m | dBuV/m | dB    |           |
| 1    | 87.725      | 41.53  | 11.18  | 1.96   | 30.08  | 24.59  | 40.00 | -15.41 QP |
| 2    | 152.664     | 45.22  | 8.39   | 2.53   | 29.44  | 26.70  | 43.50 | -16.80 QP |
| 3    | 178.133     | 40.51  | 9.55   | 2.71   | 26.96  | 25.81  | 43.50 | -17.69 QP |
| 4    | 254.728     | 40.67  | 12.06  | 2.82   | 29.59  | 25.96  | 46.00 | -20.04 QP |
| 5    | 612.064     | 36.38  | 18.50  | 3.92   | 30.56  | 28.24  | 46.00 | -17.76 QP |
| 6    | 714.173     | 38.16  | 19.00  | 4.23   | 30.57  | 30.82  | 46.00 | -15.18 QP |

Vertical :



Site : 3m chamber  
 Condition : FCC PART15 CLASS B 3m VULB9163(30M1G) VERTICAL  
 Job No. : 441RF  
 EUT : MID  
 Model : AT7  
 Test mode : wifi mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Humi:55% Atmos:101Kpa  
 Test Engineer: Joe

|   | Freq    | Read  | Antenna | Cable | Preamp | Level  | Limit  | Over   |        |
|---|---------|-------|---------|-------|--------|--------|--------|--------|--------|
|   | MHz     | Level | Factor  | Loss  | Factor | dBuV/m | dBuV/m | Limit  | Remark |
|   |         | dBuV  | dB/m    | dB    | dB     |        |        | dB     |        |
| 1 | 30.000  | 42.65 | 12.33   | 0.72  | 26.27  | 29.43  | 40.00  | -10.57 | QP     |
| 2 | 33.562  | 41.23 | 12.31   | 0.98  | 26.65  | 27.87  | 40.00  | -12.13 | QP     |
| 3 | 39.576  | 40.58 | 13.49   | 1.21  | 27.21  | 28.07  | 40.00  | -11.93 | QP     |
| 4 | 123.699 | 44.58 | 9.90    | 2.21  | 29.64  | 27.05  | 43.50  | -16.45 | QP     |
| 5 | 145.861 | 44.07 | 8.23    | 2.46  | 29.29  | 25.47  | 43.50  | -18.03 | QP     |
| 6 | 269.428 | 38.24 | 12.34   | 2.86  | 29.53  | 23.91  | 46.00  | -22.09 | QP     |

### Above 1GHz

| Test mode: 802.11b |                   |                       | Test channel:   | Lowest             |                | Remark:             | Peak            |              |
|--------------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz)    | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4824.00            | 39.25             | 31.79                 | 5.34            | 24.07              | 52.31          | 74.00               | -21.69          | Vertical     |
| 7236.00            | 31.59             | 36.19                 | 6.88            | 26.44              | 48.22          | 74.00               | -25.78          | Vertical     |
| 9648.00            | 28.12             | 38.07                 | 8.96            | 25.36              | 49.79          | 74.00               | -24.21          | Vertical     |
| 12060.00           | 26.56             | 39.05                 | 10.35           | 25.15              | 50.81          | 74.00               | -23.19          | Vertical     |
| 14472.00           | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 16884.00           | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 4824.00            | 40.10             | 31.79                 | 5.34            | 24.07              | 53.16          | 74.00               | -20.84          | Horizontal   |
| 7236.00            | 28.98             | 36.19                 | 6.88            | 26.44              | 45.61          | 74.00               | -28.39          | Horizontal   |
| 9648.00            | 28.66             | 38.07                 | 8.96            | 25.36              | 50.33          | 74.00               | -23.67          | Horizontal   |
| 12060.00           | 28.96             | 39.05                 | 10.35           | 25.15              | 53.21          | 74.00               | -20.79          | Horizontal   |
| 14472.00           | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |
| 16884.00           | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |

| Test mode: 802.11b |                   |                       | Test channel:   | Lowest             |                | Remark:             | Average         |              |
|--------------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz)    | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4824.00            | 22.59             | 31.79                 | 5.34            | 24.07              | 35.65          | 54.00               | -18.35          | Vertical     |
| 7236.00            | 18.53             | 36.19                 | 6.88            | 26.44              | 35.16          | 54.00               | -18.84          | Vertical     |
| 9648.00            | 15.85             | 38.07                 | 8.96            | 25.36              | 37.52          | 54.00               | -16.48          | Vertical     |
| 12060.00           | 14.25             | 39.05                 | 10.35           | 25.15              | 38.50          | 54.00               | -15.50          | Vertical     |
| 14472.00           | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 16884.00           | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 4824.00            | 23.25             | 31.79                 | 5.34            | 24.07              | 36.31          | 54.00               | -17.69          | Horizontal   |
| 7236.00            | 18.48             | 36.19                 | 6.88            | 26.44              | 35.11          | 54.00               | -18.89          | Horizontal   |
| 9648.00            | 16.85             | 38.07                 | 8.96            | 25.36              | 38.52          | 54.00               | -15.48          | Horizontal   |
| 12060.00           | 14.85             | 39.05                 | 10.35           | 25.15              | 39.10          | 54.00               | -14.90          | Horizontal   |
| 14472.00           | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |
| 16884.00           | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |

#### Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.



| Test mode: 802.11b |                   |                       | Test channel: Middle |                    |                | Remark: Peak        |                 |              |
|--------------------|-------------------|-----------------------|----------------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz)    | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB)      | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4874.00            | 40.26             | 31.85                 | 5.40                 | 24.01              | 53.50          | 74.00               | -20.50          | Vertical     |
| 7311.00            | 35.65             | 36.37                 | 6.90                 | 26.58              | 52.34          | 74.00               | -21.66          | Vertical     |
| 9748.00            | 31.25             | 38.13                 | 8.98                 | 25.34              | 53.02          | 74.00               | -20.98          | Vertical     |
| 12185.00           | 28.13             | 38.92                 | 10.38                | 25.04              | 52.39          | 74.00               | -21.61          | Vertical     |
| 14622.00           | *                 |                       |                      |                    |                | 74.00               |                 | Vertical     |
| 17059.00           | *                 |                       |                      |                    |                | 74.00               |                 | Vertical     |
| 4874.00            | 40.28             | 31.85                 | 5.40                 | 24.01              | 53.52          | 74.00               | -20.48          | Horizontal   |
| 7311.00            | 34.63             | 36.37                 | 6.90                 | 26.58              | 51.32          | 74.00               | -22.68          | Horizontal   |
| 9748.00            | 31.75             | 38.13                 | 8.98                 | 25.34              | 53.52          | 74.00               | -20.48          | Horizontal   |
| 12185.00           | 28.97             | 38.92                 | 10.38                | 25.04              | 53.23          | 74.00               | -20.77          | Horizontal   |
| 14622.00           | *                 |                       |                      |                    |                | 74.00               |                 | Horizontal   |
| 17059.00           | *                 |                       |                      |                    |                | 74.00               |                 | Horizontal   |

| Test mode: 802.11b |                   |                       | Test channel: Middle |                    |                | Remark: Average     |                 |              |
|--------------------|-------------------|-----------------------|----------------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz)    | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB)      | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4874.00            | 21.36             | 31.85                 | 5.40                 | 24.01              | 34.60          | 54.00               | -19.40          | Vertical     |
| 7311.00            | 17.45             | 36.37                 | 6.90                 | 26.58              | 34.14          | 54.00               | -19.86          | Vertical     |
| 9748.00            | 15.25             | 38.13                 | 8.98                 | 25.34              | 37.02          | 54.00               | -16.98          | Vertical     |
| 12185.00           | 14.86             | 38.92                 | 10.38                | 25.04              | 39.12          | 54.00               | -14.88          | Vertical     |
| 14622.00           | *                 |                       |                      |                    |                | 54.00               |                 | Vertical     |
| 17059.00           | *                 |                       |                      |                    |                | 54.00               |                 | Vertical     |
| 4874.00            | 25.63             | 31.85                 | 5.40                 | 24.01              | 38.87          | 54.00               | -15.13          | Horizontal   |
| 7311.00            | 22.54             | 36.37                 | 6.90                 | 26.58              | 39.23          | 54.00               | -14.77          | Horizontal   |
| 9748.00            | 18.24             | 38.13                 | 8.98                 | 25.34              | 40.01          | 54.00               | -13.99          | Horizontal   |
| 12185.00           | 16.58             | 38.92                 | 10.38                | 25.04              | 40.84          | 54.00               | -13.16          | Horizontal   |
| 14622.00           | *                 |                       |                      |                    |                | 54.00               |                 | Horizontal   |
| 17059.00           | *                 |                       |                      |                    |                | 54.00               |                 | Horizontal   |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

| Test mode: 802.11b |                   |                       | Test channel:   |                    | Highest        |                     | Remark:         | Peak         |
|--------------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz)    | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4924.00            | 40.26             | 31.89                 | 5.46            | 23.96              | 53.65          | 74.00               | -20.35          | Vertical     |
| 7386.00            | 36.69             | 36.49                 | 6.93            | 26.79              | 53.32          | 74.00               | -20.68          | Vertical     |
| 9848.00            | 29.58             | 38.24                 | 9.05            | 25.30              | 51.57          | 74.00               | -22.43          | Vertical     |
| 12310.00           | 29.76             | 38.83                 | 10.41           | 24.90              | 54.10          | 74.00               | -19.90          | Vertical     |
| 14772.00           | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 17234.00           | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 4924.00            | 46.38             | 31.89                 | 5.46            | 23.96              | 59.77          | 74.00               | -14.23          | Horizontal   |
| 7386.00            | 39.65             | 36.49                 | 6.93            | 26.79              | 56.28          | 74.00               | -17.72          | Horizontal   |
| 9848.00            | 32.16             | 38.24                 | 9.05            | 25.30              | 54.15          | 74.00               | -19.85          | Horizontal   |
| 12310.00           | 33.65             | 38.83                 | 10.41           | 24.90              | 57.99          | 74.00               | -16.01          | Horizontal   |
| 14772.00           | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |
| 17234.00           | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |

| Test mode: 802.11b |                   |                       | Test channel:   |                    | Highest        |                     | Remark:         | Average      |
|--------------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz)    | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4924.00            | 25.00             | 31.89                 | 5.46            | 23.96              | 38.39          | 54.00               | -15.61          | Vertical     |
| 7386.00            | 21.54             | 36.49                 | 6.93            | 26.79              | 38.17          | 54.00               | -15.83          | Vertical     |
| 9848.00            | 16.95             | 38.24                 | 9.05            | 25.30              | 38.94          | 54.00               | -15.06          | Vertical     |
| 12310.00           | 16.26             | 38.83                 | 10.41           | 24.90              | 40.60          | 54.00               | -13.40          | Vertical     |
| 14772.00           | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 17234.00           | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 4924.00            | 25.63             | 31.89                 | 5.46            | 23.96              | 39.02          | 54.00               | -14.98          | Horizontal   |
| 7386.00            | 23.65             | 36.49                 | 6.93            | 26.79              | 40.28          | 54.00               | -13.72          | Horizontal   |
| 9848.00            | 17.85             | 38.24                 | 9.05            | 25.30              | 39.84          | 54.00               | -14.16          | Horizontal   |
| 12310.00           | 17.46             | 38.83                 | 10.41           | 24.90              | 41.80          | 54.00               | -12.20          | Horizontal   |
| 14772.00           | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |
| 17234.00           | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

| Test mode:      | 802.11g           |                       | Test channel:   | Lowest             |                | Remark:             |                 | Peak         |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4824.00         | 40.00             | 31.79                 | 5.34            | 24.07              | 53.06          | 74.00               | -20.94          | Vertical     |
| 7236.00         | 36.97             | 36.19                 | 6.88            | 26.44              | 53.60          | 74.00               | -20.40          | Vertical     |
| 9648.00         | 32.45             | 38.07                 | 8.96            | 25.36              | 54.12          | 74.00               | -19.88          | Vertical     |
| 12060.00        | 32.45             | 39.05                 | 10.35           | 25.15              | 56.70          | 74.00               | -17.30          | Vertical     |
| 14472.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 16884.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 4824.00         | 39.89             | 31.79                 | 5.34            | 24.07              | 52.95          | 74.00               | -21.05          | Horizontal   |
| 7236.00         | 35.00             | 36.19                 | 6.88            | 26.44              | 51.63          | 74.00               | -22.37          | Horizontal   |
| 9648.00         | 33.26             | 38.07                 | 8.96            | 25.36              | 54.93          | 74.00               | -19.07          | Horizontal   |
| 12060.00        | 30.49             | 39.05                 | 10.35           | 25.15              | 54.74          | 74.00               | -19.26          | Horizontal   |
| 14472.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |
| 16884.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |

| Test mode:      | 802.11g           |                       | Test channel:   | Lowest             |                | Remark:             |                 | Average      |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4824.00         | 25.36             | 31.79                 | 5.34            | 24.07              | 38.42          | 54.00               | -15.58          | Vertical     |
| 7236.00         | 23.18             | 36.19                 | 6.88            | 26.44              | 39.81          | 54.00               | -14.19          | Vertical     |
| 9648.00         | 17.46             | 38.07                 | 8.96            | 25.36              | 39.13          | 54.00               | -14.87          | Vertical     |
| 12060.00        | 15.14             | 39.05                 | 10.35           | 25.15              | 39.39          | 54.00               | -14.61          | Vertical     |
| 14472.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 16884.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 4824.00         | 26.54             | 31.79                 | 5.34            | 24.07              | 39.60          | 54.00               | -14.40          | Horizontal   |
| 7236.00         | 24.12             | 36.19                 | 6.88            | 26.44              | 40.75          | 54.00               | -13.25          | Horizontal   |
| 9648.00         | 19.89             | 38.07                 | 8.96            | 25.36              | 41.56          | 54.00               | -12.44          | Horizontal   |
| 12060.00        | 18.17             | 39.05                 | 10.35           | 25.15              | 42.42          | 54.00               | -11.58          | Horizontal   |
| 14472.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |
| 16884.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

| Test mode:      | 802.11g           |                       | Test channel:   | Middle             |                | Remark:             |                 | Peak         |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4874.00         | 35.34             | 31.85                 | 5.40            | 24.01              | 48.58          | 74.00               | -25.42          | Vertical     |
| 7311.00         | 32.56             | 36.37                 | 6.90            | 26.58              | 49.25          | 74.00               | -24.75          | Vertical     |
| 9748.00         | 30.41             | 38.13                 | 8.98            | 25.34              | 52.18          | 74.00               | -21.82          | Vertical     |
| 12185.00        | 30.86             | 38.92                 | 10.38           | 25.04              | 55.12          | 74.00               | -18.88          | Vertical     |
| 14622.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 17059.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 4874.00         | 37.43             | 31.85                 | 5.40            | 24.01              | 50.67          | 74.00               | -23.33          | Horizontal   |
| 7311.00         | 33.15             | 36.37                 | 6.90            | 26.58              | 49.84          | 74.00               | -24.16          | Horizontal   |
| 9748.00         | 27.58             | 38.13                 | 8.98            | 25.34              | 49.35          | 74.00               | -24.65          | Horizontal   |
| 12185.00        | 25.94             | 38.92                 | 10.38           | 25.04              | 50.20          | 74.00               | -23.80          | Horizontal   |
| 14622.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |
| 17059.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |

| Test mode:      | 802.11g           |                       | Test channel:   | Middle             |                | Remark:             |                 | Average      |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4874.00         | 24.28             | 31.85                 | 5.40            | 24.01              | 37.52          | 54.00               | -16.48          | Vertical     |
| 7311.00         | 22.86             | 36.37                 | 6.90            | 26.58              | 39.55          | 54.00               | -14.45          | Vertical     |
| 9748.00         | 16.79             | 38.13                 | 8.98            | 25.34              | 38.56          | 54.00               | -15.44          | Vertical     |
| 12185.00        | 13.65             | 38.92                 | 10.38           | 25.04              | 37.91          | 54.00               | -16.09          | Vertical     |
| 14622.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 17059.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 4874.00         | 24.56             | 31.85                 | 5.40            | 24.01              | 37.80          | 54.00               | -16.20          | Horizontal   |
| 7311.00         | 21.53             | 36.37                 | 6.90            | 26.58              | 38.22          | 54.00               | -15.78          | Horizontal   |
| 9748.00         | 16.43             | 38.13                 | 8.98            | 25.34              | 38.20          | 54.00               | -15.80          | Horizontal   |
| 12185.00        | 14.12             | 38.92                 | 10.38           | 25.04              | 38.38          | 54.00               | -15.62          | Horizontal   |
| 14622.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |
| 17059.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

| Test mode:      | 802.11g           |                       | Test channel:   | Highest            |                | Remark:             | Peak            |              |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4924.00         | 37.42             | 31.89                 | 5.46            | 23.96              | 50.81          | 74.00               | -23.19          | Vertical     |
| 7386.00         | 35.19             | 36.49                 | 6.93            | 26.79              | 51.82          | 74.00               | -22.18          | Vertical     |
| 9848.00         | 30.58             | 38.24                 | 9.05            | 25.30              | 52.57          | 74.00               | -21.43          | Vertical     |
| 12310.00        | 29.95             | 38.83                 | 10.41           | 24.90              | 54.29          | 74.00               | -19.71          | Vertical     |
| 14772.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 17234.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 4924.00         | 37.58             | 31.89                 | 5.46            | 23.96              | 50.97          | 74.00               | -23.03          | Horizontal   |
| 7386.00         | 35.37             | 36.49                 | 6.93            | 26.79              | 52.00          | 74.00               | -22.00          | Horizontal   |
| 9848.00         | 30.56             | 38.24                 | 9.05            | 25.30              | 52.55          | 74.00               | -21.45          | Horizontal   |
| 12310.00        | 26.72             | 38.83                 | 10.41           | 24.90              | 51.06          | 74.00               | -22.94          | Horizontal   |
| 14772.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |
| 17234.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |

| Test mode:      | 802.11g           |                       | Test channel:   | Highest            |                | Remark:             | Average         |              |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4924.00         | 24.12             | 31.89                 | 5.46            | 23.96              | 37.51          | 54.00               | -16.49          | Vertical     |
| 7386.00         | 22.46             | 36.49                 | 6.93            | 26.79              | 39.09          | 54.00               | -14.91          | Vertical     |
| 9848.00         | 17.85             | 38.24                 | 9.05            | 25.30              | 39.84          | 54.00               | -14.16          | Vertical     |
| 12310.00        | 14.85             | 38.83                 | 10.41           | 24.90              | 39.19          | 54.00               | -14.81          | Vertical     |
| 14772.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 17234.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 4924.00         | 25.42             | 31.89                 | 5.46            | 23.96              | 38.81          | 54.00               | -15.19          | Horizontal   |
| 7386.00         | 23.06             | 36.49                 | 6.93            | 26.79              | 39.69          | 54.00               | -14.31          | Horizontal   |
| 9848.00         | 18.68             | 38.24                 | 9.05            | 25.30              | 40.67          | 54.00               | -13.33          | Horizontal   |
| 12310.00        | 15.43             | 38.83                 | 10.41           | 24.90              | 39.77          | 54.00               | -14.23          | Horizontal   |
| 14772.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |
| 17234.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

| Test mode:      | 802.11n(H20)      |                       | Test channel:   | Lowest             |                | Remark:             | Peak            |              |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4824.00         | 36.16             | 31.79                 | 5.34            | 24.07              | 49.22          | 74.00               | -24.78          | Vertical     |
| 7236.00         | 33.61             | 36.19                 | 6.88            | 26.44              | 50.24          | 74.00               | -23.76          | Vertical     |
| 9648.00         | 28.62             | 38.07                 | 8.96            | 25.36              | 50.29          | 74.00               | -23.71          | Vertical     |
| 12060.00        | 27.41             | 39.05                 | 10.35           | 25.15              | 51.66          | 74.00               | -22.34          | Vertical     |
| 14472.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 16884.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 4824.00         | 38.55             | 31.79                 | 5.34            | 24.07              | 51.61          | 74.00               | -22.39          | Horizontal   |
| 7236.00         | 35.20             | 36.19                 | 6.88            | 26.44              | 51.83          | 74.00               | -22.17          | Horizontal   |
| 9648.00         | 32.14             | 38.07                 | 8.96            | 25.36              | 53.81          | 74.00               | -20.19          | Horizontal   |
| 12060.00        | 28.46             | 39.05                 | 10.35           | 25.15              | 52.71          | 74.00               | -21.29          | Horizontal   |
| 14472.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |
| 16884.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |

| Test mode:      | 802.11n(H20)      |                       | Test channel:   | Lowest             |                | Remark:             | Average         |              |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4824.00         | 24.24             | 31.79                 | 5.34            | 24.07              | 37.30          | 54.00               | -16.70          | Vertical     |
| 7236.00         | 22.36             | 36.19                 | 6.88            | 26.44              | 38.99          | 54.00               | -15.01          | Vertical     |
| 9648.00         | 16.85             | 38.07                 | 8.96            | 25.36              | 38.52          | 54.00               | -15.48          | Vertical     |
| 12060.00        | 14.52             | 39.05                 | 10.35           | 25.15              | 38.77          | 54.00               | -15.23          | Vertical     |
| 14472.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 16884.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 4824.00         | 23.54             | 31.79                 | 5.34            | 24.07              | 36.60          | 54.00               | -17.40          | Horizontal   |
| 7236.00         | 22.56             | 36.19                 | 6.88            | 26.44              | 39.19          | 54.00               | -14.81          | Horizontal   |
| 9648.00         | 18.38             | 38.07                 | 8.96            | 25.36              | 40.05          | 54.00               | -13.95          | Horizontal   |
| 12060.00        | 15.96             | 39.05                 | 10.35           | 25.15              | 40.21          | 54.00               | -13.79          | Horizontal   |
| 14472.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |
| 16884.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

| Test mode: 802.11n(H20) |                   |                       | Test channel: Middle |                    |                | Remark:             |                 | Peak         |
|-------------------------|-------------------|-----------------------|----------------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz)         | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB)      | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4874.00                 | 34.52             | 31.85                 | 5.40                 | 24.01              | 47.76          | 74.00               | -26.24          | Vertical     |
| 7311.00                 | 30.28             | 36.37                 | 6.90                 | 26.58              | 46.97          | 74.00               | -27.03          | Vertical     |
| 9748.00                 | 25.96             | 38.13                 | 8.98                 | 25.34              | 47.73          | 74.00               | -26.27          | Vertical     |
| 12185.00                | 24.75             | 38.92                 | 10.38                | 25.04              | 49.01          | 74.00               | -24.99          | Vertical     |
| 14622.00                | *                 |                       |                      |                    |                | 74.00               |                 | Vertical     |
| 17059.00                | *                 |                       |                      |                    |                | 74.00               |                 | Vertical     |
| 4874.00                 | 37.98             | 31.85                 | 5.40                 | 24.01              | 51.22          | 74.00               | -22.78          | Horizontal   |
| 7311.00                 | 35.98             | 36.37                 | 6.90                 | 26.58              | 52.67          | 74.00               | -21.33          | Horizontal   |
| 9748.00                 | 28.97             | 38.13                 | 8.98                 | 25.34              | 50.74          | 74.00               | -23.26          | Horizontal   |
| 12185.00                | 26.34             | 38.92                 | 10.38                | 25.04              | 50.60          | 74.00               | -23.40          | Horizontal   |
| 14622.00                | *                 |                       |                      |                    |                | 74.00               |                 | Horizontal   |
| 17059.00                | *                 |                       |                      |                    |                | 74.00               |                 | Horizontal   |

| Test mode: 802.11n(H20) |                   |                       | Test channel: Middle |                    |                | Remark:             |                 | Average      |
|-------------------------|-------------------|-----------------------|----------------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz)         | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB)      | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4874.00                 | 23.16             | 31.85                 | 5.40                 | 24.01              | 36.40          | 54.00               | -17.60          | Vertical     |
| 7311.00                 | 21.15             | 36.37                 | 6.90                 | 26.58              | 37.84          | 54.00               | -16.16          | Vertical     |
| 9748.00                 | 17.76             | 38.13                 | 8.98                 | 25.34              | 39.53          | 54.00               | -14.47          | Vertical     |
| 12185.00                | 15.82             | 38.92                 | 10.38                | 25.04              | 40.08          | 54.00               | -13.92          | Vertical     |
| 14622.00                | *                 |                       |                      |                    |                | 54.00               |                 | Vertical     |
| 17059.00                | *                 |                       |                      |                    |                | 54.00               |                 | Vertical     |
| 4874.00                 | 24.64             | 31.85                 | 5.40                 | 24.01              | 37.88          | 54.00               | -16.12          | Horizontal   |
| 7311.00                 | 22.46             | 36.37                 | 6.90                 | 26.58              | 39.15          | 54.00               | -14.85          | Horizontal   |
| 9748.00                 | 17.68             | 38.13                 | 8.98                 | 25.34              | 39.45          | 54.00               | -14.55          | Horizontal   |
| 12185.00                | 14.26             | 38.92                 | 10.38                | 25.04              | 38.52          | 54.00               | -15.49          | Horizontal   |
| 14622.00                | *                 |                       |                      |                    |                | 54.00               |                 | Horizontal   |
| 17059.00                | *                 |                       |                      |                    |                | 54.00               |                 | Horizontal   |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

| Test mode:      | 802.11n(H20)      |                       | Test channel:   | Highest            |                | Remark:             | Peak            |              |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4924.00         | 37.48             | 31.89                 | 5.46            | 23.96              | 50.87          | 74.00               | -23.13          | Vertical     |
| 7386.00         | 34.74             | 36.49                 | 6.93            | 26.79              | 51.37          | 74.00               | -22.63          | Vertical     |
| 9848.00         | 30.49             | 38.24                 | 9.05            | 25.30              | 52.48          | 74.00               | -21.52          | Vertical     |
| 12310.00        | 28.49             | 38.83                 | 10.41           | 24.90              | 52.83          | 74.00               | -21.17          | Vertical     |
| 14772.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 17234.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 4924.00         | 37.54             | 31.89                 | 5.46            | 23.96              | 50.93          | 74.00               | -23.07          | Horizontal   |
| 7386.00         | 35.23             | 36.49                 | 6.93            | 26.79              | 51.86          | 74.00               | -22.14          | Horizontal   |
| 9848.00         | 30.00             | 38.24                 | 9.05            | 25.30              | 51.99          | 74.00               | -22.01          | Horizontal   |
| 12310.00        | 30.41             | 38.83                 | 10.41           | 24.90              | 54.75          | 74.00               | -19.25          | Horizontal   |
| 14772.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |
| 17234.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |

| Test mode:      | 802.11n(H20)      |                       | Test channel:   | Highest            |                | Remark:             | Average         |              |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4924.00         | 23.89             | 31.89                 | 5.46            | 23.96              | 37.28          | 54.00               | -16.72          | Vertical     |
| 7386.00         | 21.46             | 36.49                 | 6.93            | 26.79              | 38.09          | 54.00               | -15.91          | Vertical     |
| 9848.00         | 15.96             | 38.24                 | 9.05            | 25.30              | 37.95          | 54.00               | -16.05          | Vertical     |
| 12310.00        | 15.40             | 38.83                 | 10.41           | 24.90              | 39.74          | 54.00               | -14.26          | Vertical     |
| 14772.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 17234.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 4924.00         | 25.64             | 31.89                 | 5.46            | 23.96              | 39.03          | 54.00               | -14.97          | Horizontal   |
| 7386.00         | 21.54             | 36.49                 | 6.93            | 26.79              | 38.17          | 54.00               | -15.83          | Horizontal   |
| 9848.00         | 17.03             | 38.24                 | 9.05            | 25.30              | 39.02          | 54.00               | -14.98          | Horizontal   |
| 12310.00        | 14.96             | 38.83                 | 10.41           | 24.90              | 39.30          | 54.00               | -14.70          | Horizontal   |
| 14772.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |
| 17234.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.



| Test mode:      | 802.11n(H40)      |                       | Test channel:   | Lowest             |                | Remark:             | Peak            |              |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4844.00         | 40.01             | 31.79                 | 5.34            | 24.07              | 53.07          | 74.00               | -20.93          | Vertical     |
| 7266.00         | 36.85             | 36.19                 | 6.88            | 26.44              | 53.48          | 74.00               | -20.52          | Vertical     |
| 9688.00         | 31.48             | 38.07                 | 8.96            | 25.36              | 53.15          | 74.00               | -20.85          | Vertical     |
| 12110.00        | 28.97             | 39.05                 | 10.35           | 25.15              | 53.22          | 74.00               | -20.78          | Vertical     |
| 14532.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 16954.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 4844.00         | 39.56             | 31.79                 | 5.34            | 24.07              | 52.62          | 74.00               | -21.38          | Horizontal   |
| 7266.00         | 38.26             | 36.19                 | 6.88            | 26.44              | 54.89          | 74.00               | -19.11          | Horizontal   |
| 9688.00         | 32.52             | 38.07                 | 8.96            | 25.36              | 54.19          | 74.00               | -19.81          | Horizontal   |
| 12110.00        | 31.46             | 39.05                 | 10.35           | 25.15              | 55.71          | 74.00               | -18.29          | Horizontal   |
| 14532.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |
| 16954.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |

| Test mode:      | 802.11n(H40)      |                       | Test channel:   | Lowest             |                | Remark:             | Average         |              |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4844.00         | 24.98             | 31.79                 | 5.34            | 24.07              | 38.04          | 54.00               | -15.96          | Vertical     |
| 7266.00         | 22.70             | 36.19                 | 6.88            | 26.44              | 39.33          | 54.00               | -14.67          | Vertical     |
| 9688.00         | 18.40             | 38.07                 | 8.96            | 25.36              | 40.07          | 54.00               | -13.93          | Vertical     |
| 12110.00        | 16.85             | 39.05                 | 10.35           | 25.15              | 41.10          | 54.00               | -12.90          | Vertical     |
| 14532.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 16954.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 4844.00         | 26.69             | 31.79                 | 5.34            | 24.07              | 39.75          | 54.00               | -14.25          | Horizontal   |
| 7266.00         | 23.65             | 36.19                 | 6.88            | 26.44              | 40.28          | 54.00               | -13.72          | Horizontal   |
| 9688.00         | 20.15             | 38.07                 | 8.96            | 25.36              | 41.82          | 54.00               | -12.18          | Horizontal   |
| 12110.00        | 17.46             | 39.05                 | 10.35           | 25.15              | 41.71          | 54.00               | -12.29          | Horizontal   |
| 14532.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |
| 16954.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

| Test mode:      | 802.11n(H40)      |                       | Test channel:   | Middle             |                | Remark:             |                 | Peak         |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4874.00         | 40.16             | 31.85                 | 5.40            | 24.01              | 53.40          | 74.00               | -20.60          | Vertical     |
| 7311.00         | 37.40             | 36.37                 | 6.90            | 26.58              | 54.09          | 74.00               | -19.91          | Vertical     |
| 9748.00         | 31.54             | 38.13                 | 8.98            | 25.34              | 53.31          | 74.00               | -20.69          | Vertical     |
| 12185.00        | 29.58             | 38.92                 | 10.38           | 25.04              | 53.84          | 74.00               | -20.16          | Vertical     |
| 14622.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 17059.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 4874.00         | 40.46             | 31.85                 | 5.40            | 24.01              | 53.70          | 74.00               | -20.30          | Horizontal   |
| 7311.00         | 37.12             | 36.37                 | 6.90            | 26.58              | 53.81          | 74.00               | -20.19          | Horizontal   |
| 9748.00         | 32.96             | 38.13                 | 8.98            | 25.34              | 54.73          | 74.00               | -19.27          | Horizontal   |
| 12185.00        | 30.45             | 38.92                 | 10.38           | 25.04              | 54.71          | 74.00               | -19.29          | Horizontal   |
| 14622.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |
| 17059.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |

| Test mode:      | 802.11n(H40)      |                       | Test channel:   | Middle             |                | Remark:             | Average         |              |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4874.00         | 22.58             | 31.85                 | 5.40            | 24.01              | 35.82          | 54.00               | -18.18          | Vertical     |
| 7311.00         | 19.88             | 36.37                 | 6.90            | 26.58              | 36.57          | 54.00               | -17.43          | Vertical     |
| 9748.00         | 16.68             | 38.13                 | 8.98            | 25.34              | 38.45          | 54.00               | -15.55          | Vertical     |
| 12185.00        | 14.28             | 38.92                 | 10.38           | 25.04              | 38.54          | 54.00               | -15.46          | Vertical     |
| 14622.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 17059.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 4874.00         | 24.69             | 31.85                 | 5.40            | 24.01              | 37.93          | 54.00               | -16.07          | Horizontal   |
| 7311.00         | 21.08             | 36.37                 | 6.90            | 26.58              | 37.77          | 54.00               | -16.23          | Horizontal   |
| 9748.00         | 17.59             | 38.13                 | 8.98            | 25.34              | 39.36          | 54.00               | -14.64          | Horizontal   |
| 12185.00        | 16.25             | 38.92                 | 10.38           | 25.04              | 40.51          | 54.00               | -13.49          | Horizontal   |
| 14622.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |
| 17059.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

| Test mode:      | 802.11n(H40)      |                       | Test channel:   | Highest            |                | Remark:             | Peak            |              |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4904.00         | 39.00             | 31.89                 | 5.46            | 23.96              | 52.39          | 74.00               | -21.61          | Vertical     |
| 7356.00         | 35.63             | 36.49                 | 6.93            | 26.79              | 52.26          | 74.00               | -21.74          | Vertical     |
| 9808.00         | 30.45             | 38.24                 | 9.05            | 25.30              | 52.44          | 74.00               | -21.56          | Vertical     |
| 12260.00        | 27.99             | 38.83                 | 10.41           | 24.90              | 52.33          | 74.00               | -21.67          | Vertical     |
| 14712.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 17164.00        | *                 |                       |                 |                    |                | 74.00               |                 | Vertical     |
| 4904.00         | 38.05             | 31.89                 | 5.46            | 23.96              | 51.44          | 74.00               | -22.56          | Horizontal   |
| 7356.00         | 35.00             | 36.49                 | 6.93            | 26.79              | 51.63          | 74.00               | -22.37          | Horizontal   |
| 9808.00         | 31.28             | 38.24                 | 9.05            | 25.30              | 53.27          | 74.00               | -20.73          | Horizontal   |
| 12260.00        | 28.46             | 38.83                 | 10.41           | 24.90              | 52.80          | 74.00               | -21.20          | Horizontal   |
| 14712.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |
| 17164.00        | *                 |                       |                 |                    |                | 74.00               |                 | Horizontal   |

| Test mode:      | 802.11n(H40)      |                       | Test channel:   | Highest            |                | Remark:             | Average         |              |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 4904.00         | 23.22             | 31.89                 | 5.46            | 23.96              | 36.61          | 54.00               | -17.39          | Vertical     |
| 7356.00         | 20.45             | 36.49                 | 6.93            | 26.79              | 37.08          | 54.00               | -16.92          | Vertical     |
| 9808.00         | 18.65             | 38.24                 | 9.05            | 25.30              | 40.64          | 54.00               | -13.36          | Vertical     |
| 12260.00        | 15.46             | 38.83                 | 10.41           | 24.90              | 39.80          | 54.00               | -14.20          | Vertical     |
| 14712.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 17164.00        | *                 |                       |                 |                    |                | 54.00               |                 | Vertical     |
| 4904.00         | 25.64             | 31.89                 | 5.46            | 23.96              | 39.03          | 54.00               | -14.97          | Horizontal   |
| 7356.00         | 22.01             | 36.49                 | 6.93            | 26.79              | 38.64          | 54.00               | -15.36          | Horizontal   |
| 9808.00         | 17.89             | 38.24                 | 9.05            | 25.30              | 39.88          | 54.00               | -14.12          | Horizontal   |
| 12260.00        | 14.13             | 38.83                 | 10.41           | 24.90              | 38.47          | 54.00               | -15.53          | Horizontal   |
| 14712.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |
| 17164.00        | *                 |                       |                 |                    |                | 54.00               |                 | Horizontal   |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
  2. “\*”, means this data is the too weak instrument of signal is unable to test.
- The emission levels of other frequencies are very lower than the limit and not show in test report.