



MEASUREMENT REPORT

FCC PART 15.247 WLAN 802.11b/g/n

| | |
|-------------------|-----------------------------------|
| FCC ID: | 2ABZGB8402 |
| APPLICANT: | GINWAVE MOBILE(HK) LIMITED |

Application Type: Certification
Product: Mobile Phone
Model No.: B8402
Brand Name: Bitel
FCC Classification: Digital Transmission System (DTS)
FCC Rule Part(s): Part 15.247
Test Procedure(s): ANSI C63.10-2009, KDB 558074 D01v03r01
Test Date: March 10 ~ 15, 2014

Reviewed By : Sunny Sun
(Engineer: Sunny Sun)
Approved By : Robin Wu
(Manager: Robin Wu)

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 558074 D01v03r01. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

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Revision History

| Report No. | Version | Description | Issue Date |
|--------------|---------|---------------------------------------|------------|
| 1403RSU00702 | Rev. 01 | Initial report | 03-16-2014 |
| 1403RSU00702 | Rev. 02 | Add band edge test data of all modes. | 03-25-2014 |

§2.1033 General Information

| | |
|--------------------------------|---|
| Applicant: | GINWAVE MOBILE(HK) LIMITED |
| Applicant Address: | ROOM 1701, 17/F, HENAN BUILDING, 90 JAFFE ROAD, WANCHAI, HONGKONG |
| Manufacturer: | Shenzhen Ginwave Mobile Technology Co., Ltd. |
| Manufacturer Address: | No.C. 4/F, R2-A, Gaoxin S 7th Ave 020, Nanshan, Shenzhen, China |
| Test Site: | MRT Technology (Suzhou) Co., Ltd |
| Test Site Address: | D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China |
| MRT Registration No.: | 809388 |
| FCC Rule Part(s): | Part 15.247 |
| Model No.: | B8402 |
| FCC ID: | 2ABZGB8402 |
| Test Device Serial No.: | N/A <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering |
| FCC Classification: | Digital Transmission System (DTS) |
| Date(s) of Test: | March 10 ~ 15, 2014 |
| Test Report S/N: | 1403RSU00702 |

1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2009 on September 30, 2013.



2. PRODUCT INFORMATION

2.1. Equipment Description

| | |
|----------------------|--|
| Product Name | Mobile Phone |
| Model No. | B8402 |
| Brand Name | Bitel |
| Wi-Fi | |
| Frequency Range | 802.11b/g/n-HT20: 2412 ~ 2462 MHz 802.11n-HT40: 2422 ~ 2452 MHz |
| Maximum Output Power | 802.11b: 10.60dBm; 802.11g: 16.92dBm; 802.11n-HT20: 16.15dBm ; 802.11n-HT40: 16.46dBm |
| Type of Modulation | 802.11b: DSSS 802.11g/n: OFDM |
| Data Rate | 802.11b: 1/2/5.5/11 Mbps 802.11g: 6/9/12/18/24/36/48/54 Mbps 802.11n: up to 135 Mbps |
| Antenna Gain | 0.25dBi |

Channel List for 802.11b/g/n-HT20

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|---------|-----------|
| 01 | 2412 MHz | 02 | 2417 MHz | 03 | 2422 MHz |
| 04 | 2427 MHz | 05 | 2432 MHz | 06 | 2437 MHz |
| 07 | 2442 MHz | 08 | 2447 MHz | 09 | 2452 MHz |
| 10 | 2457 MHz | 11 | 2462 MHz | N/A | N/A |

Channel List for 802.11n-HT40

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|---------|-----------|
| 03 | 2422 MHz | 04 | 2427 MHz | 05 | 2432 MHz |
| 06 | 2437 MHz | 07 | 2442 MHz | 08 | 2447 MHz |
| 09 | 2452 MHz | N/A | N/A | N/A | N/A |

2.2. Device Capabilities

This device contains the following capabilities:

850/1900 GSM/GPRS, 850/1900 WCDMA/HSDPA/HSUPA/HSPA+, 802.11b/g/n WLAN (DTS), Bluetooth (1x, EDR)

Note: 2.4GHz WLAN (DTS) operation is possible in 20MHz, and 40MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = peak per the guidance of Section 6.0 b) of KDB 558074 D01v03r01. The RBW and VBW were both greater than $50/T$, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

- 802.11b - 100.0%
- 802.11g/n-HT20MHz Bandwidth -100.0%
- 802.11n-HT40MHz Bandwidth -100.0%

2.3. Test Configuration

The Mobile Phone FCC ID: 2ABZGB8402 was tested per the guidance of KDB 558074 D01v03r01. ANSI C63.10-2009 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

2.4. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.5. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase.

However, when the device is so small wherein placement of the label with specified statement is not practical, only the trade name and FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

2.6. Test Software

The test utility software used during testing was engineering order by mobile phone.

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Testing Unlicensed Wireless Devices (ANSI C63.10-2009), and the guidance provided in KDB 558074 D01v03r01 were used in the measurement of the **Mobile Phone FCC ID: 2ABZGB8402**.

Deviation from measurement procedure.....None

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. The shielding effectiveness of the shielded room is in accordance with MIL-Std-285. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply line(s) will be connected to the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the spectrum analyzer and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The spectrum was scanned from 150kHz to 30MHz with a spectrum analyzer. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 10kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or resolution, clock or data exchange speed, scrolling H pattern to the EUT and/or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions is used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

Line conducted emissions test results are shown in Section 7.9.

3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up was placed on top of the 0.8 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB BeamWidth of horn antenna, the horn antenna should be always directed to the EUT when rising height.

4. ANTENNA REQUIREMENTS

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- The antenna of the Mobile Phone is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The **Mobile Phone FCC ID: 2ABZGB8402** unit complies with the requirement of §15.203.

5. TEST EQUIPMENT CALIBRATION DATA

Conducted Emissions

| Instrument | Manufacturer | Type No. | Serial No. | Cali. Interval | Cali. Due Date |
|-----------------------------|--------------|----------|------------|----------------|----------------|
| EMI Test Receiver | R&S | ESR7 | 101209 | 1 year | 2014/11/08 |
| Two-Line V-Network | R&S | ENV216 | 101683 | 1 year | 2014/11/08 |
| Two-Line V-Network | R&S | ENV216 | 101684 | 1 year | 2014/11/08 |
| Temperature/ Meter Humidity | Anymetre | TH101B | SR2-01 | 1 year | 2014/11/15 |

Radiated Emission

| Instrument | Manufacturer | Type No. | Serial No. | Cali. Interval | Cal. Date |
|----------------------------|--------------|-----------|------------|----------------|------------|
| Spectrum Analyzer | Agilent | E4447A | MY45300136 | 1 year | 2014/11/08 |
| Preamplifier | MRT | AP01G18 | 1310002 | 1 year | 2014/10/07 |
| Preamplifier | MRT | AP18G40 | 1310003 | 1 year | 2014/10/07 |
| Loop Antenna | Schwarzbeck | FMZB1519 | 1519-041 | 1 year | 2014/11/24 |
| TRILOG Antenna | Schwarzbeck | VULB9162 | 9162-047 | 1 year | 2014/11/24 |
| Broad-Band Horn Antenna | Schwarzbeck | BBHA9120D | 9120D-1167 | 1 year | 2014/11/24 |
| Broadband Horn Antenna | Schwarzbeck | BBHA9170 | 9170-549 | 1 year | 2014/12/11 |
| Temperature/Humidity Meter | Anymetre | TH101B | AC1-01 | 1 year | 2014/11/15 |

Conducted Test Equipment

| Instrument | Manufacturer | Type No. | Serial No. | Cali. Interval | Cali. Due Date |
|----------------------------|--------------|----------|------------|----------------|----------------|
| Spectrum Analyzer | Agilent | N9010A | MY5144016A | 1 year | 2014/12/14 |
| Power Sensor | Agilent | U2021XA | MY52450003 | 1 year | 2014/12/14 |
| Temperature/Humidity Meter | Anymetre | TH101B | TR3-01 | 1 year | 2014/11/15 |

6. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

| |
|--|
| AC Conducted Emission Measurement |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 150kHz~30MHz: $\pm 3.46\text{dB}$ |
| Radiated Emission Measurement |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 9kHz ~ 1GHz: $\pm 4.2\text{dB}$ 1GHz ~ 40GHz: $\pm 4.8\text{dB}$ |

7. TEST RESULT

7.1. Summary

Company Name: GINWAVE MOBILE(HK) LIMITED
FCC ID: 2ABZGB8402
FCC Classification: Digital Transmission System (DTS)
Data Rate(s) Tested: 1Mbps ~ 11Mbps (b);
6Mbps ~ 54Mbps (g);
6.5/7.2Mbps ~ 65/72.2Mbps (n - HT20);
13.5/15Mbps ~ 135/150Mbps (n - HT40)

| FCC Part Section(s) | Test Description | Test Limit | Test Condition | Test Result | Reference |
|---------------------|---|--|----------------|-------------|-------------------|
| 15.247(a)(2) | 6dB Bandwidth | $\geq 500\text{kHz}$ | Conducted | Pass | Section 7.2 |
| 15.247(b)(3) | Output Power | $\leq 1\text{Watt}$ | | Pass | Section 7.3 |
| 15.247(e) | Power Spectral Density | $\leq 8\text{dBm} / 3\text{kHz Band}$ | | Pass | Section 7.4 |
| 15.247(d) | Band Edge / Out-of-Band Emissions | $\geq 20\text{dBc(Peak)}$ | | Pass | Section 7.5 & 7.6 |
| 15.205 15.209 | General Field Strength Limits (Restricted Bands and Radiated Emission Limits) | Emissions in restricted bands must meet the radiated limits detailed in 15.209 | Radiated | Pass | Section 7.7 & 7.8 |
| 15.207 | AC Conducted Emissions 150kHz - 30MHz | < FCC 15.207 limits | Line Conducted | Pass | Section 7.9 |

Notes:

- 1) All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables and attenuators.

7.2. 6dB Bandwidth Measurement

7.2.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

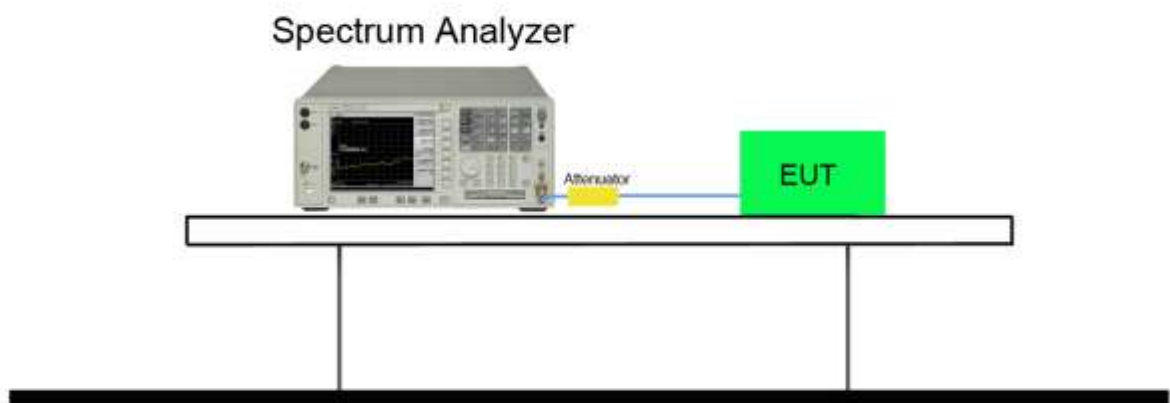
7.2.2. Test Procedure used

KDB 558074 D01v03r01 – Section 8.2 Option 2

7.2.3. Test Setting

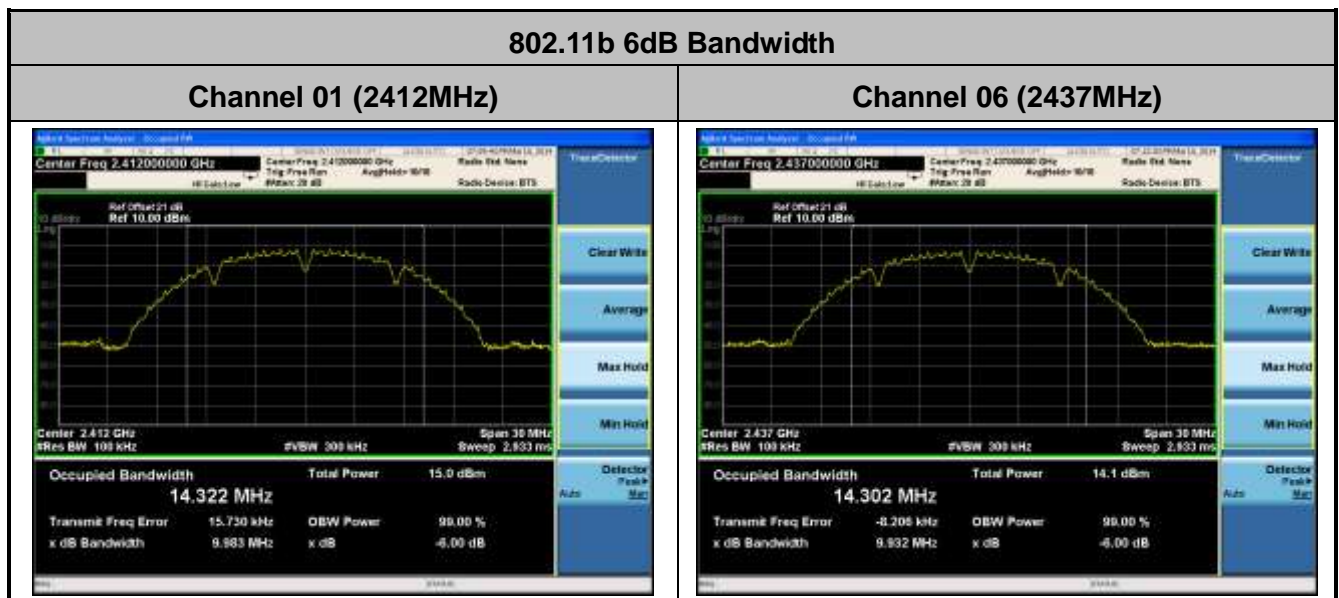
1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to $X = 6$. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set RBW = 100 kHz
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace was allowed to stabilize

7.2.4. Test Setup



7.2.5. Test Result

| Test Mode | Data Rate (Mbps) | Channel No. | Frequency (MHz) | 6dB Bandwidth (MHz) | Limit (MHz) | Result |
|--------------|------------------|-------------|-----------------|---------------------|-------------|--------|
| 802.11b | 1 | 01 | 2412 | 9.98 | ≥0.5 | Pass |
| 802.11b | 1 | 06 | 2437 | 9.93 | ≥0.5 | Pass |
| 802.11b | 1 | 11 | 2462 | 9.92 | ≥0.5 | Pass |
| 802.11g | 6 | 01 | 2412 | 16.60 | ≥0.5 | Pass |
| 802.11g | 6 | 06 | 2437 | 16.61 | ≥0.5 | Pass |
| 802.11g | 6 | 11 | 2462 | 16.60 | ≥0.5 | Pass |
| 802.11n-HT20 | 6.5/7.2 | 01 | 2412 | 17.82 | ≥0.5 | Pass |
| 802.11n-HT20 | 6.5/7.2 | 06 | 2437 | 17.81 | ≥0.5 | Pass |
| 802.11n-HT20 | 6.5/7.2 | 11 | 2462 | 17.82 | ≥0.5 | Pass |
| 802.11n-HT40 | 13.5/15 | 03 | 2422 | 36.47 | ≥0.5 | Pass |
| 802.11n-HT40 | 13.5/15 | 06 | 2437 | 36.47 | ≥0.5 | Pass |
| 802.11n-HT40 | 13.5/15 | 09 | 2452 | 36.50 | ≥0.5 | Pass |



Channel 11 (2462MHz)

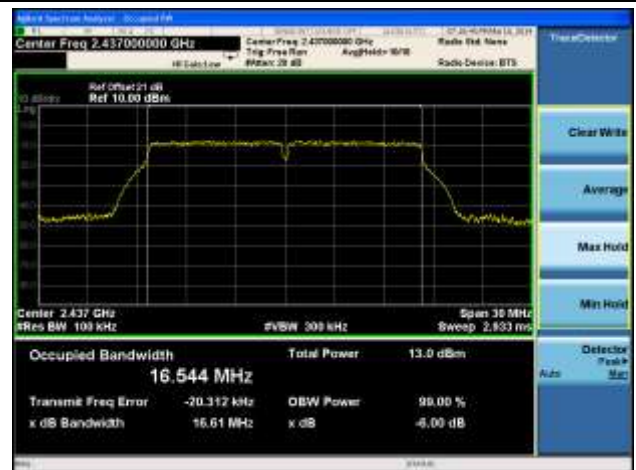


802.11g 6dB Bandwidth

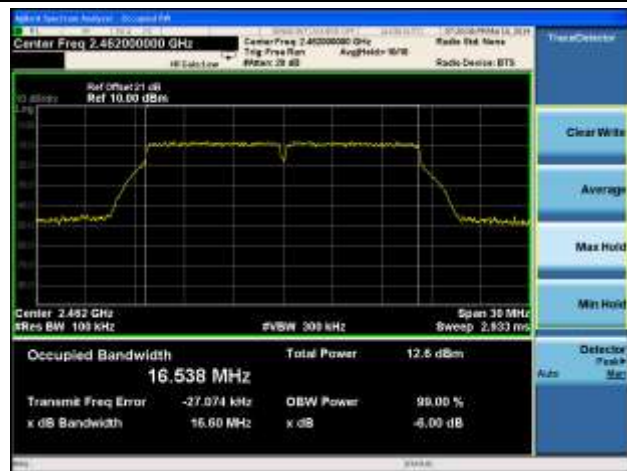
Channel 01 (2412MHz)



Channel 06 (2437MHz)

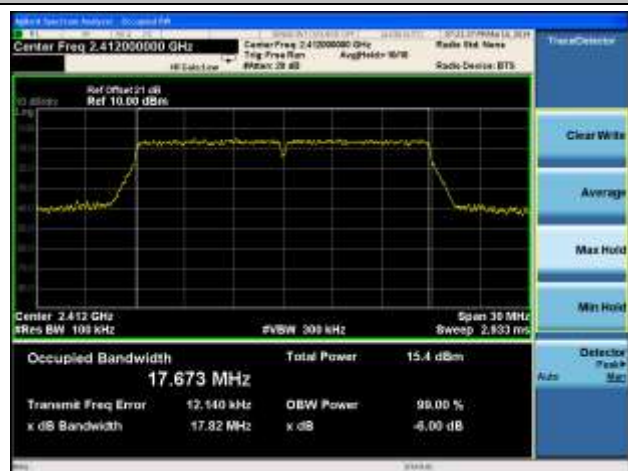


Channel 11 (2462MHz)

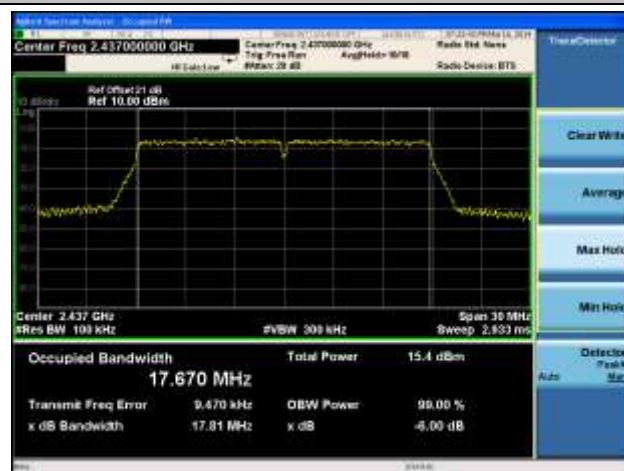


802.11n-HT20 6dB Bandwidth

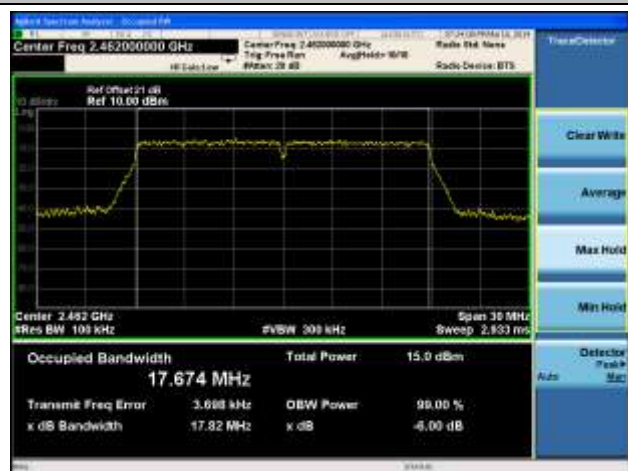
Channel 01 (2412MHz)



Channel 06 (2437MHz)

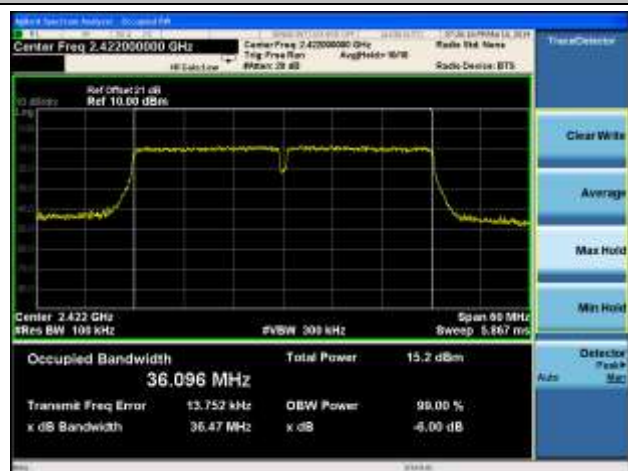


Channel 11 (2462MHz)

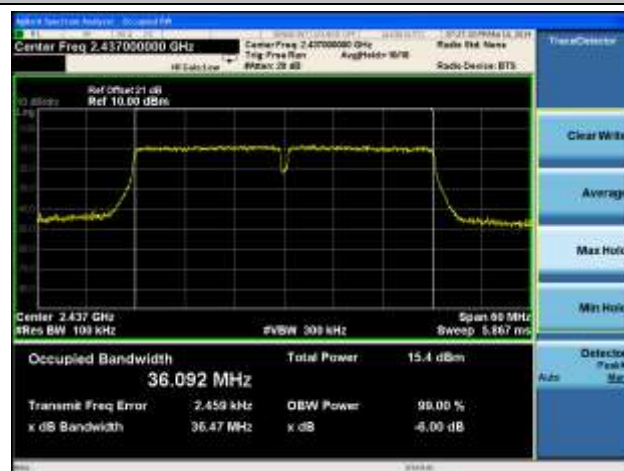


802.11n-HT40 6dB Bandwidth

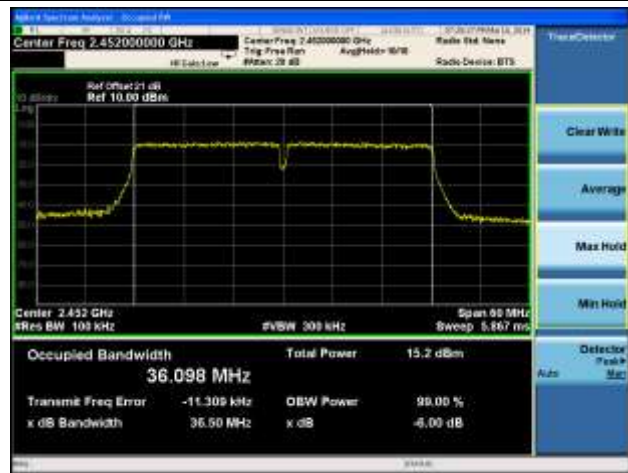
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



7.3. Output Power Measurement

7.3.1. Test Limit

The maximum out power shall be less 1 Watt (30dBm).

7.3.2. Test Procedure Used

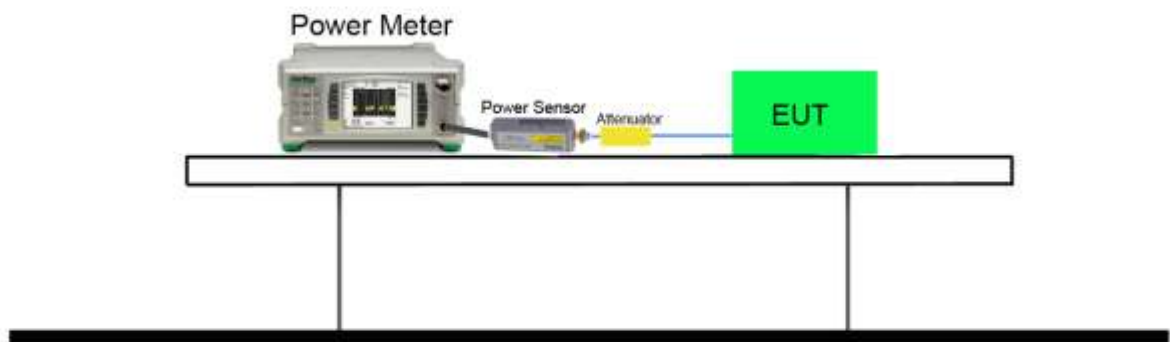
KDB 558074 D01v03r01 - Section 9.1.3 PKPM1 Peak Power Method (for signals with BW \leq 50MHz)

7.3.3. Test Setting

Method PKPM1 (Peak Power Measurement of Signals with DTS BW \leq 50MHz)

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

7.3.4. Test Setup



7.3.5. Test Result of Output Power

Output power at various data rates:

| Test Mode | Bandwidth | Frequency (MHz) | Channel | Data Rate (Mbps) | Peak Power (dBm) |
|-----------|-----------|-----------------|---------|------------------|------------------|
| 802.11b | 20 | 2412 | 1 | 1 | 10.28 |
| | | | | 5.5 | 10.16 |
| | | | | 11 | 10.03 |
| 802.11g | 20 | 2412 | 1 | 6 | 16.29 |
| | | | | 24 | 16.02 |
| | | | | 54 | 15.85 |
| 802.11n | 20 | 2412 | 1 | 6.5/7.2(MCS0) | 16.03 |
| | | | | 39/43.3(MCS4) | 15.83 |
| | | | | 65/72.2(MCS7) | 15.65 |
| 802.11n | 40 | 2422 | 1 | 13.5/15(MCS0) | 16.06 |
| | | | | 81/90(MCS4) | 15.82 |
| | | | | 135/150(MCS7) | 15.70 |

Test Result of Peak Output Power

| Test Mode | N _{Tx} | Data Rate (Mbps) | Channel No. | Frequency (MHz) | Peak Power (dBm) | Limit (dBm) | Result |
|-----------|-----------------|------------------|-------------|-----------------|------------------|-------------|--------|
| 11b | 1 | 1 | 1 | 2412 | 10.28 | ≤30 | Pass |
| 11b | 1 | 1 | 6 | 2437 | 10.17 | ≤30 | Pass |
| 11b | 1 | 1 | 11 | 2462 | 10.60 | ≤30 | Pass |
| 11g | 1 | 6 | 1 | 2412 | 16.29 | ≤30 | Pass |
| 11g | 1 | 6 | 6 | 2437 | 16.92 | ≤30 | Pass |
| 11g | 1 | 6 | 11 | 2462 | 16.65 | ≤30 | Pass |
| 11n-HT20 | 1 | 6.5/7.2 | 1 | 2412 | 16.03 | ≤30 | Pass |
| 11n-HT20 | 1 | 6.5/7.2 | 6 | 2437 | 16.15 | ≤30 | Pass |
| 11n-HT20 | 1 | 6.5/7.2 | 11 | 2462 | 16.04 | ≤30 | Pass |
| 11n-HT40 | 1 | 13.5/15 | 3 | 2422 | 16.06 | ≤30 | Pass |
| 11n-HT40 | 1 | 13.5/15 | 6 | 2437 | 16.46 | ≤30 | Pass |
| 11n-HT40 | 1 | 13.5/15 | 9 | 2452 | 16.23 | ≤30 | Pass |

Test Result of Average Output Power (Reporting Only)

| Test Mode | N _{Tx} | Data Rate (Mbps) | Channel No. | Frequency (MHz) | Average Power (dBm) | Limit (dBm) | Result |
|-----------|-----------------|------------------|-------------|-----------------|---------------------|-------------|--------|
| 11b | 1 | 1 | 1 | 2412 | 8.17 | ≤30 | Pass |
| 11b | 1 | 1 | 6 | 2437 | 8.02 | ≤30 | Pass |
| 11b | 1 | 1 | 11 | 2462 | 8.42 | ≤30 | Pass |
| 11g | 1 | 6 | 1 | 2412 | 8.24 | ≤30 | Pass |
| 11g | 1 | 6 | 6 | 2437 | 8.58 | ≤30 | Pass |
| 11g | 1 | 6 | 11 | 2462 | 8.20 | ≤30 | Pass |
| 11n-HT20 | 1 | 6.5/7.2 | 1 | 2412 | 8.56 | ≤30 | Pass |
| 11n-HT20 | 1 | 6.5/7.2 | 6 | 2437 | 8.57 | ≤30 | Pass |
| 11n-HT20 | 1 | 6.5/7.2 | 11 | 2462 | 8.15 | ≤30 | Pass |
| 11n-HT40 | 1 | 13.5/15 | 3 | 2422 | 8.23 | ≤30 | Pass |
| 11n-HT40 | 1 | 13.5/15 | 6 | 2437 | 8.38 | ≤30 | Pass |
| 11n-HT40 | 1 | 13.5/15 | 9 | 2452 | 8.24 | ≤30 | Pass |

7.4. Power Spectral Density Measurement

7.4.1. Test Limit

The maximum permissible power spectral density is 8 dBm in any 3 kHz band.

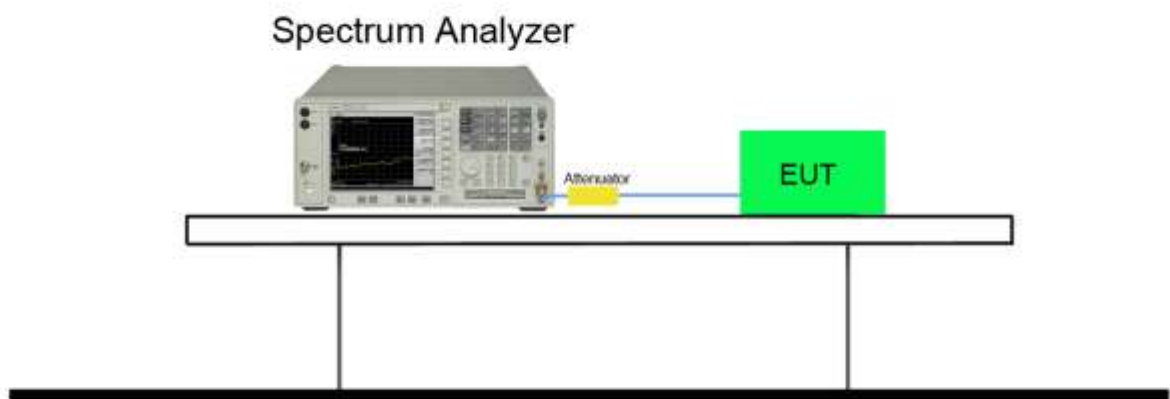
7.4.2. Test Procedure Used

KDB 558074 D01v03r01 - Section 10.2 Method PKPSD

7.4.3. Test Setting

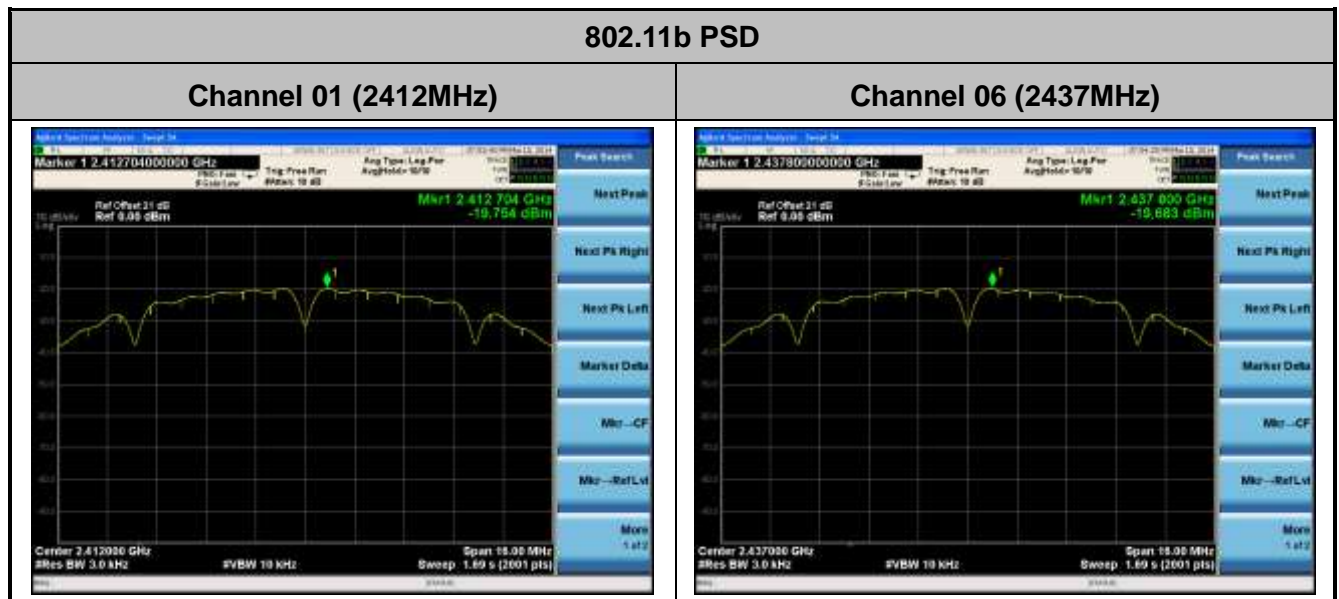
1. Analyzer was set to the center frequency of the DTS channel under investigation
2. Span = 1.5 times the DTS channel bandwidth
3. RBW = 3kHz
4. VBW = 10kHz
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Trace was allowed to stabilize

7.4.4. Test Setup



7.4.5. Test Result

| Test Mode | N _{Tx} | Data Rate (Mbps) | Channel No. | Frequency (MHz) | PSD Result (dBm) | Limit (dBm / 3kHz) | Result |
|-----------|-----------------|------------------|-------------|-----------------|------------------|--------------------|--------|
| 11b | 1 | 1 | 1 | 2412 | -19.75 | ≤8 | Pass |
| 11b | 1 | 1 | 6 | 2437 | -19.68 | ≤8 | Pass |
| 11b | 1 | 1 | 11 | 2462 | -20.10 | ≤8 | Pass |
| 11g | 1 | 6 | 1 | 2412 | -19.15 | ≤8 | Pass |
| 11g | 1 | 6 | 6 | 2437 | -19.08 | ≤8 | Pass |
| 11g | 1 | 6 | 11 | 2462 | -19.46 | ≤8 | Pass |
| 11n-HT20 | 1 | 6.5/7.2 | 1 | 2412 | -18.30 | ≤8 | Pass |
| 11n-HT20 | 1 | 6.5/7.2 | 6 | 2437 | -18.39 | ≤8 | Pass |
| 11n-HT20 | 1 | 6.5/7.2 | 11 | 2462 | -18.75 | ≤8 | Pass |
| 11n-HT40 | 1 | 13.5/15 | 3 | 2422 | -20.24 | ≤8 | Pass |
| 11n-HT40 | 1 | 13.5/15 | 6 | 2437 | -20.53 | ≤8 | Pass |
| 11n-HT40 | 1 | 13.5/15 | 9 | 2452 | -20.60 | ≤8 | Pass |

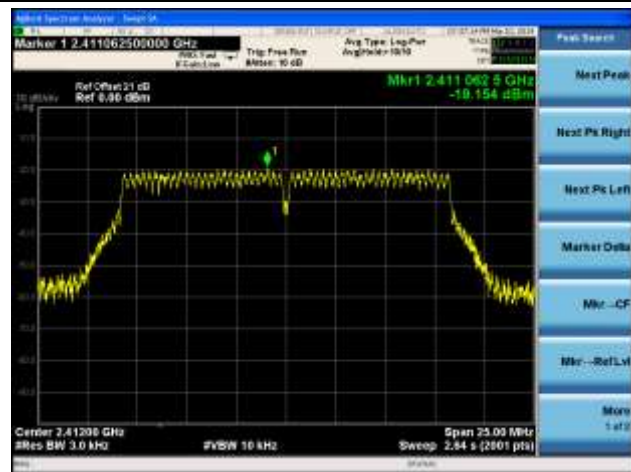


Channel 11 (2462MHz)

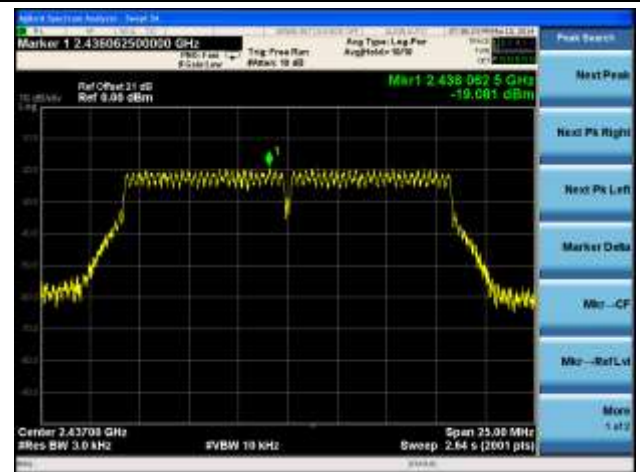


802.11g PSD

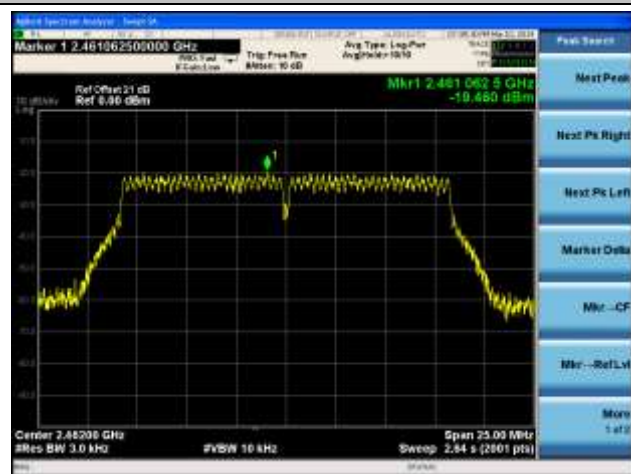
Channel 01 (2412MHz)



Channel 06 (2437MHz)

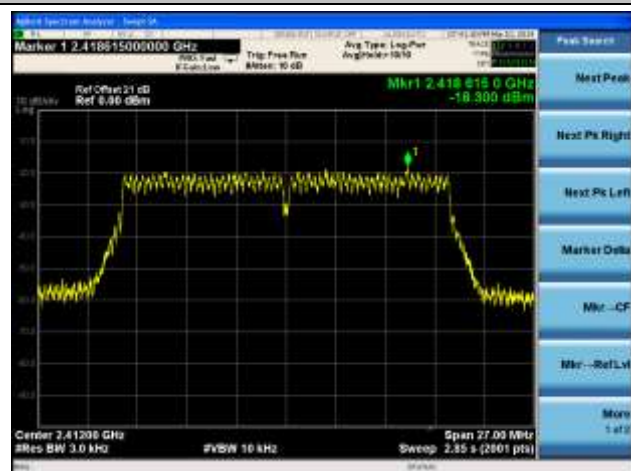


Channel 11 (2462MHz)

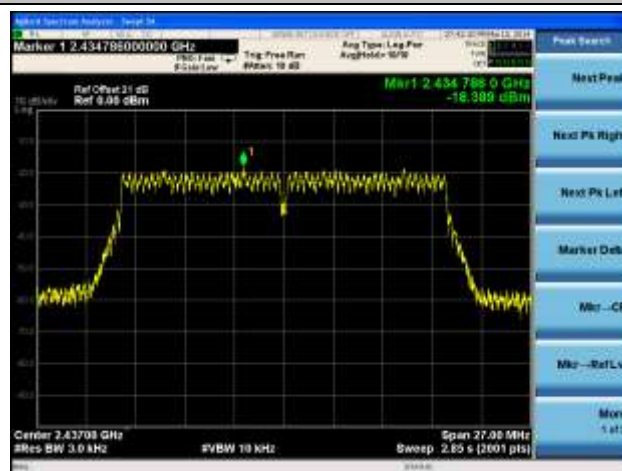


802.11n-HT20 PSD

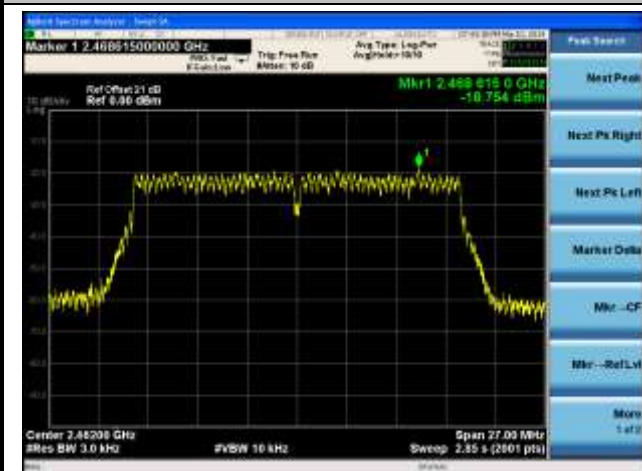
Channel 01 (2412MHz)



Channel 06 (2437MHz)

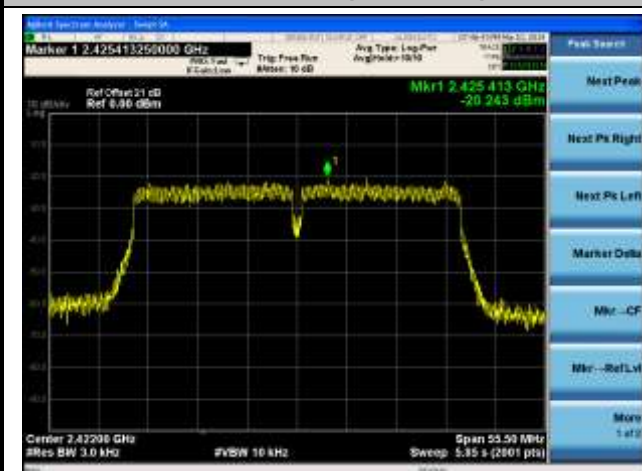


Channel 11 (2462MHz)



802.11n-HT40 PSD

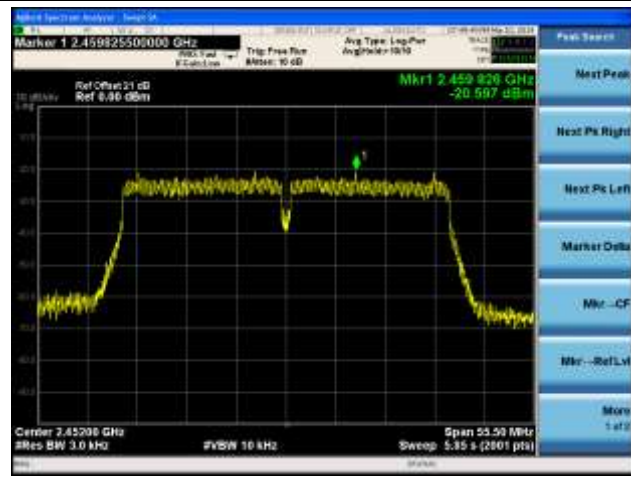
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



7.5. Conducted Band Edge and Out-of-Band Emissions

7.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure (Section 9.1).

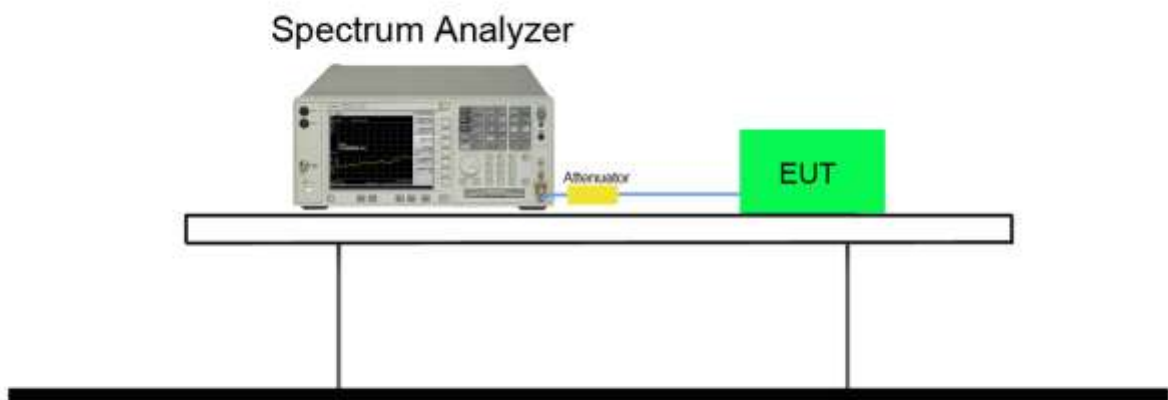
7.5.2. Test Procedure Used

KDB 558074 D01v03r01 – Section 11.3

7.5.3. Test Settling

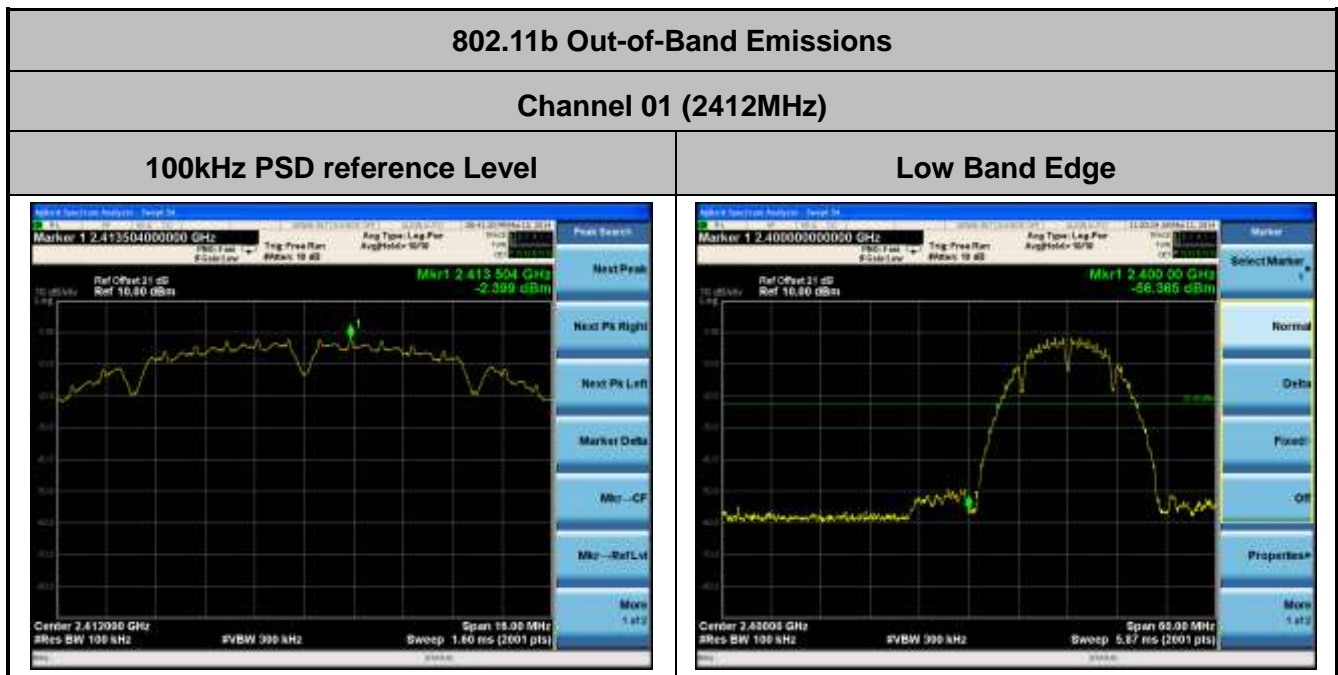
1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 100kHz
3. VBW = 300kHz
4. Detector = Peak
5. Number of sweep points $\geq 2 \times \text{Span/RBW}$
6. Trace mode = max hold
7. Sweep time = auto couple
8. The trace was allowed to stabilize

7.5.4. Test Setup



7.5.5. Test Result

| Test Mode | N _{Tx} | Data Rate | Channel No. | Frequency (MHz) | Limit | Result |
|--------------|-----------------|-------------|-------------|-----------------|-------|--------|
| 802.11b | 1 | 1Mbps | 01 | 2412 | 20dBc | Pass |
| 802.11b | 1 | 1Mbps | 06 | 2437 | 20dBc | Pass |
| 802.11b | 1 | 1Mbps | 11 | 2462 | 20dBc | Pass |
| 802.11g | 1 | 6Mbps | 01 | 2412 | 20dBc | Pass |
| 802.11g | 1 | 6Mbps | 06 | 2437 | 20dBc | Pass |
| 802.11g | 1 | 6Mbps | 11 | 2462 | 20dBc | Pass |
| 802.11n-HT20 | 1 | 6.5/7.2Mbps | 01 | 2412 | 20dBc | Pass |
| 802.11n-HT20 | 1 | 6.5/7.2Mbps | 06 | 2437 | 20dBc | Pass |
| 802.11n-HT20 | 1 | 6.5/7.2Mbps | 11 | 2462 | 20dBc | Pass |
| 802.11n-HT40 | 1 | 13.5/15Mbps | 03 | 2422 | 20dBc | Pass |
| 802.11n-HT40 | 1 | 13.5/15Mbps | 06 | 2437 | 20dBc | Pass |
| 802.11n-HT40 | 1 | 13.5/15Mbps | 09 | 2452 | 20dBc | Pass |



Spurious Emission 30MHz ~ 3GHz



Spurious Emission 2GHz ~ 25GHz

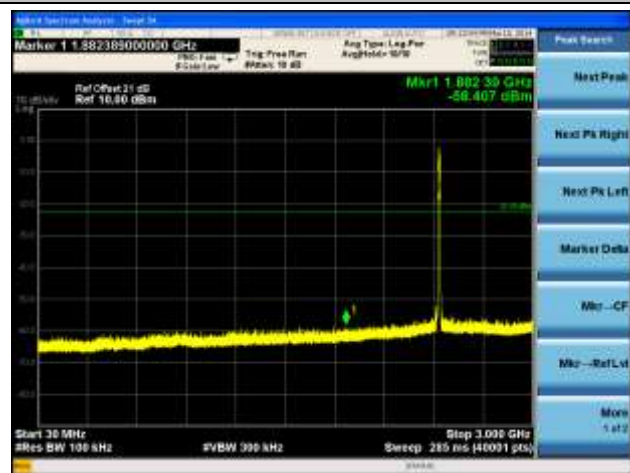


Channel 06 (2437MHz)

100kHz PSD reference Level



Spurious Emission 30MHz ~ 3GHz



Spurious Emission 2GHz ~ 25GHz

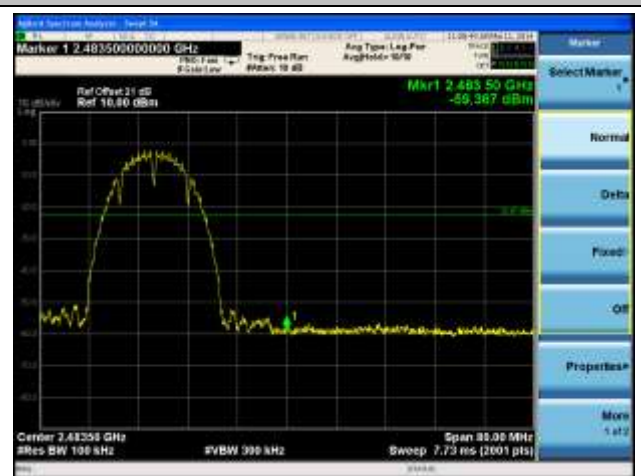


Channel 11 (2462MHz)

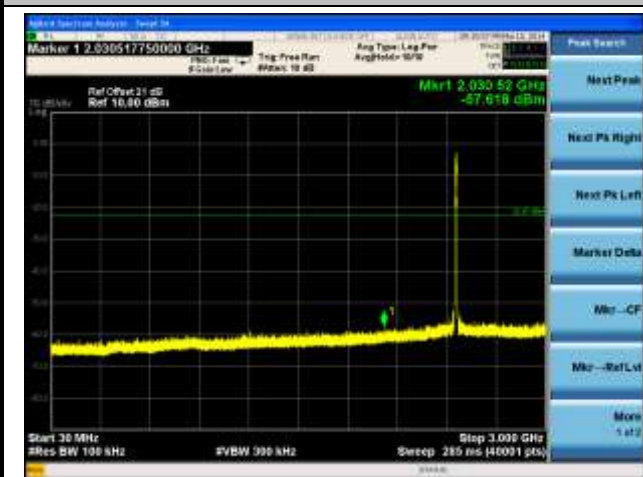
100kHz PSD reference Level



High Band Edge



Spurious Emission 30MHz ~ 3GHz



Spurious Emission 2GHz ~ 25GHz



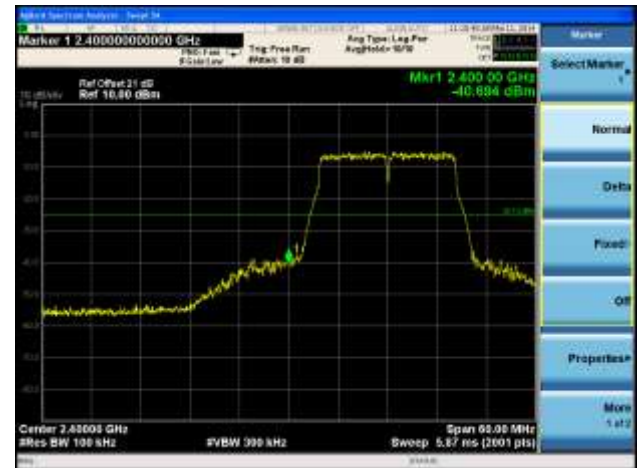
802.11g Out-of-Band Emissions

Channel 01 (2412MHz)

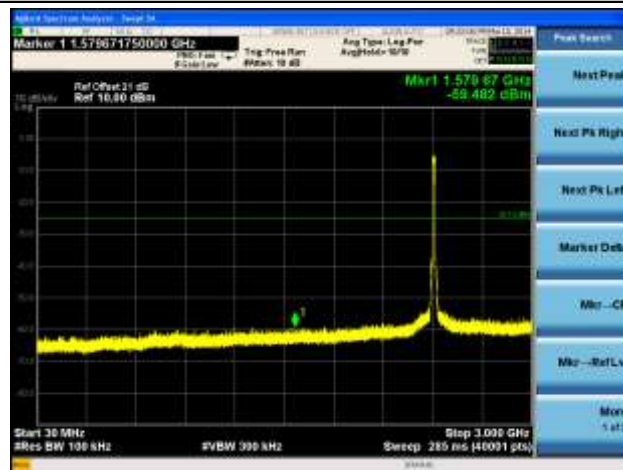
100kHz PSD reference Level



Low Band Edge



Spurious Emission 30MHz ~ 3GHz

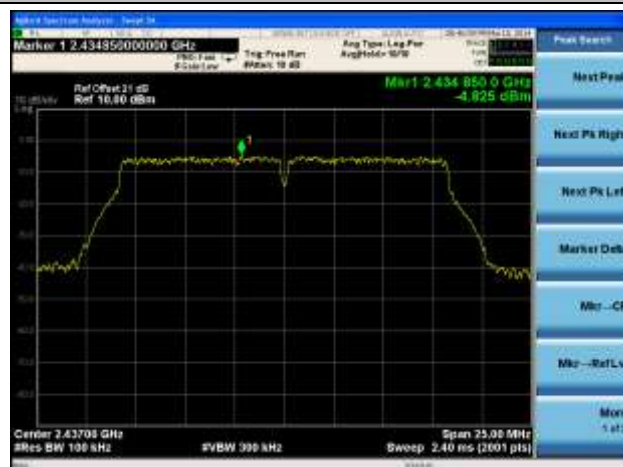


Spurious Emission 2GHz ~ 25GHz

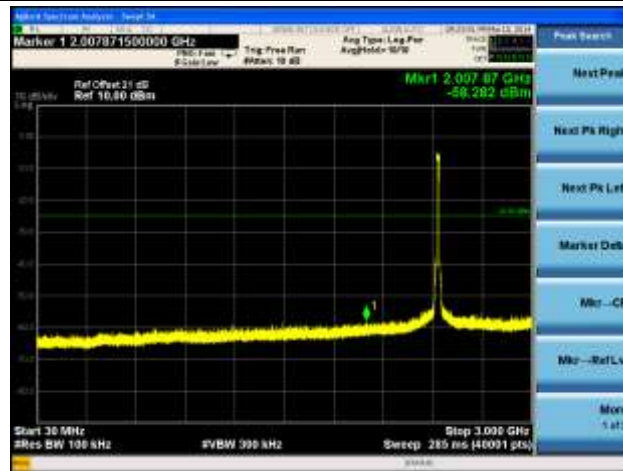


Channel 06 (2437MHz)

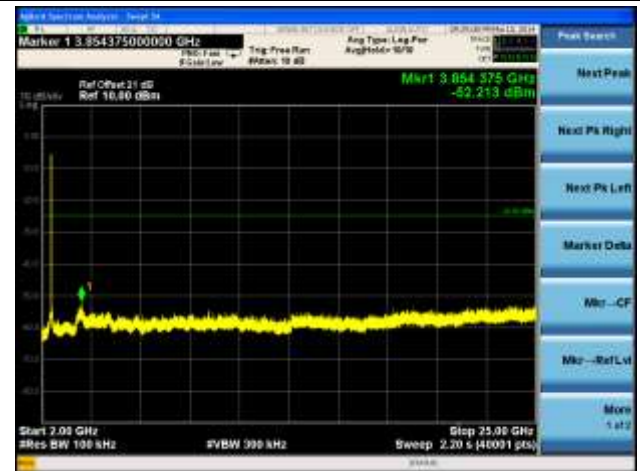
100kHz PSD reference Level



Spurious Emission 30MHz ~ 3GHz

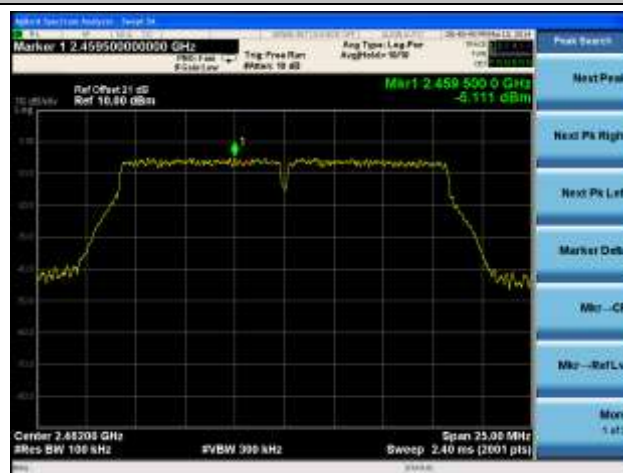


Spurious Emission 2GHz ~ 25GHz



Channel 11 (2462MHz)

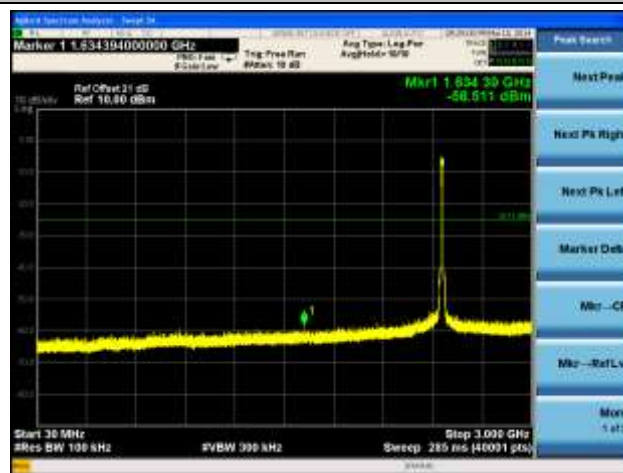
100kHz PSD reference Level



High Band Edge



Spurious Emission 30MHz ~ 3GHz



Spurious Emission 2GHz ~ 25GHz



802.11n-HT20 Out-of-Band Emissions

Channel 01 (2412MHz)

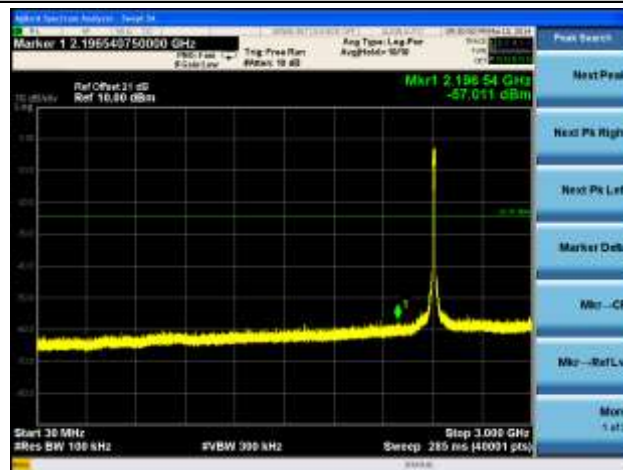
100kHz PSD reference Level



Low Band Edge



Spurious Emission 30MHz ~ 3GHz

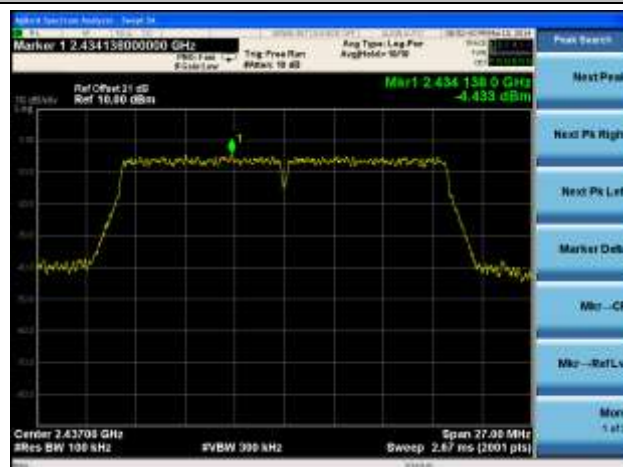


Spurious Emission 2GHz ~ 25GHz

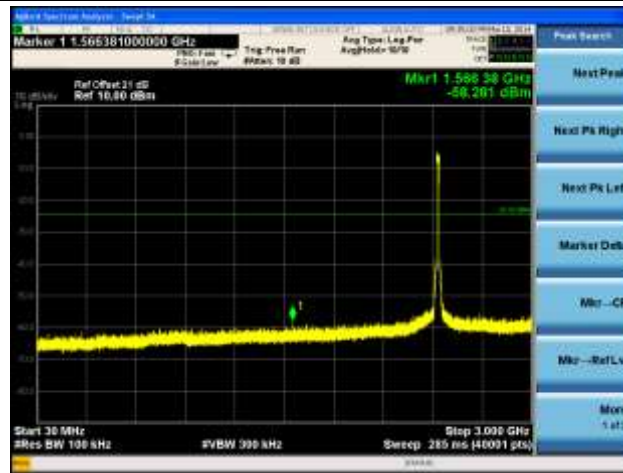


Channel 06 (2437MHz)

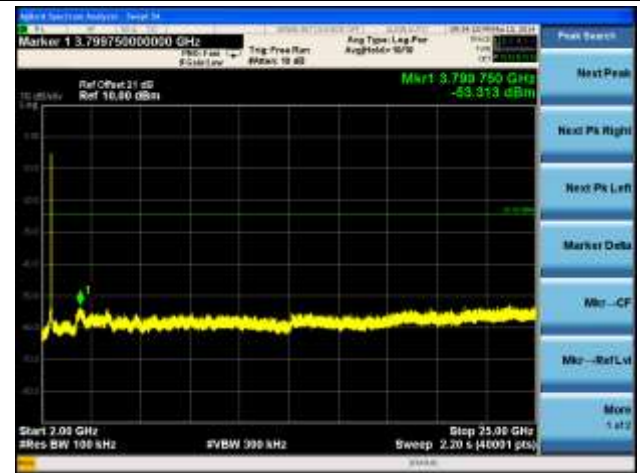
100kHz PSD reference Level



Spurious Emission 30MHz ~ 3GHz



Spurious Emission 2GHz ~ 25GHz

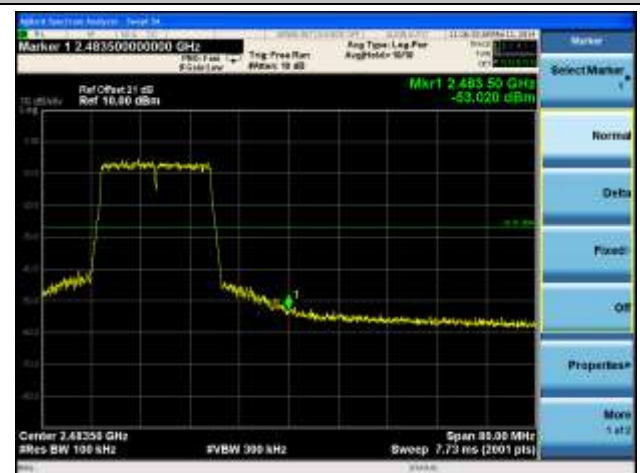


Channel 11 (2462MHz)

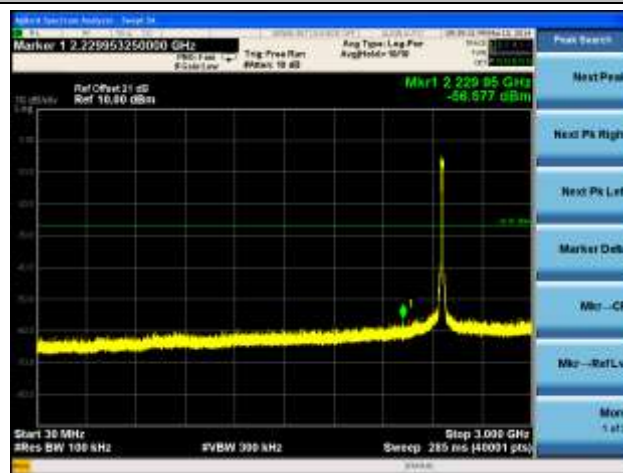
100kHz PSD reference Level



High Band Edge



Spurious Emission 30MHz ~ 3GHz



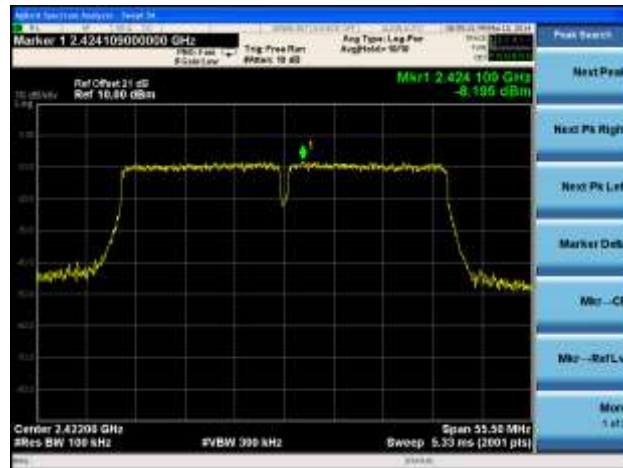
Spurious Emission 2GHz ~ 25GHz



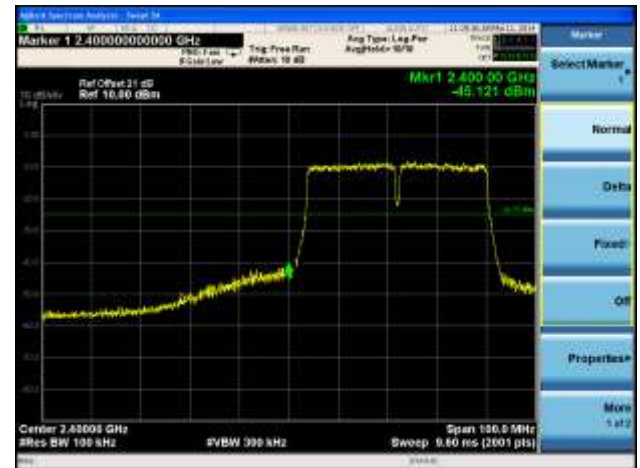
802.11n-HT40 Out-of-Band Emissions

Channel 03 (2422MHz)

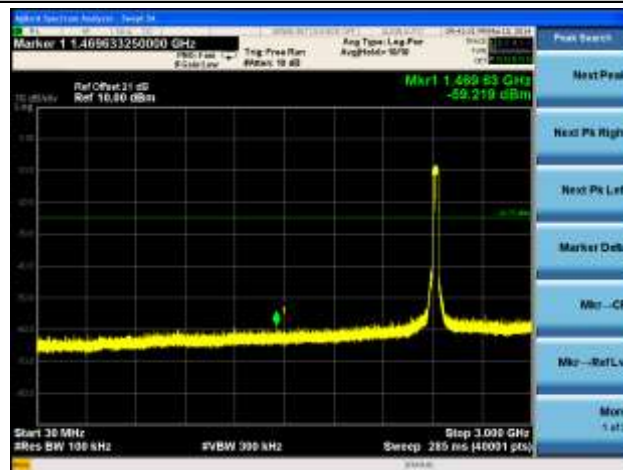
100kHz PSD reference Level



Low Band Edge



Spurious Emission 30MHz ~ 3GHz

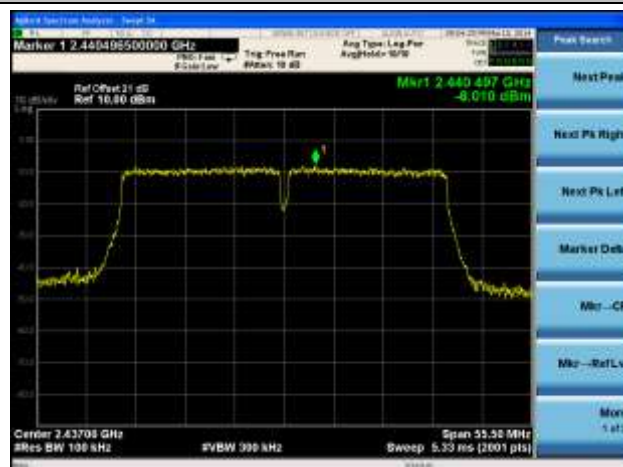


Spurious Emission 2GHz ~ 25GHz

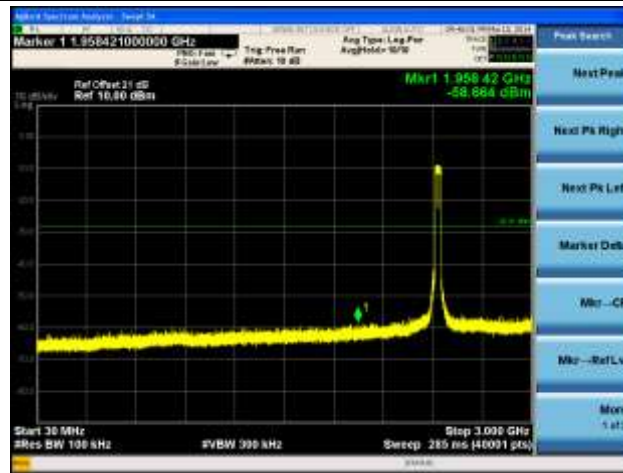


Channel 06 (2437MHz)

100kHz PSD reference Level



Spurious Emission 30MHz ~ 3GHz

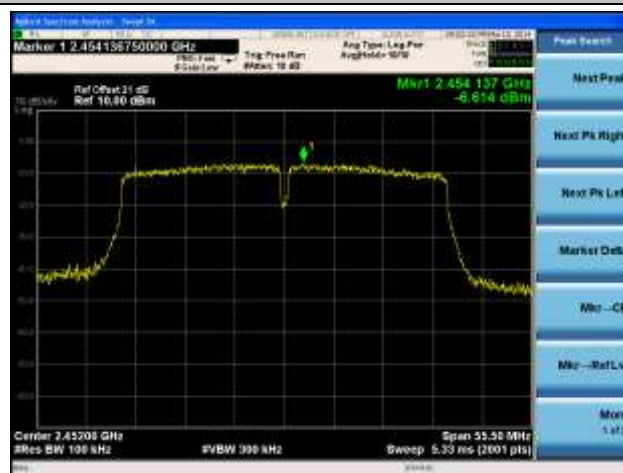


Spurious Emission 2GHz ~ 25GHz



Channel 09 (2452MHz)

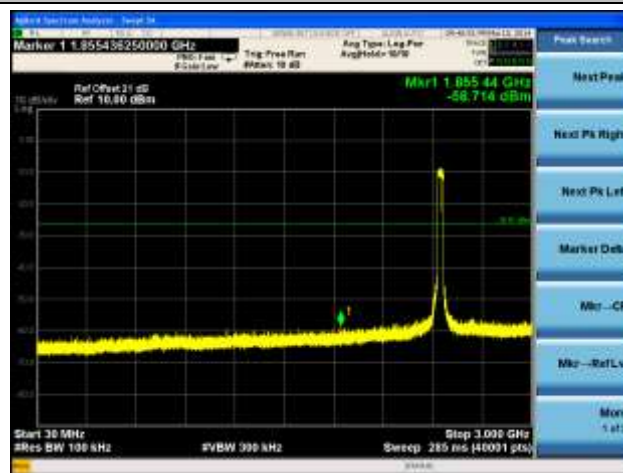
100kHz PSD reference Level



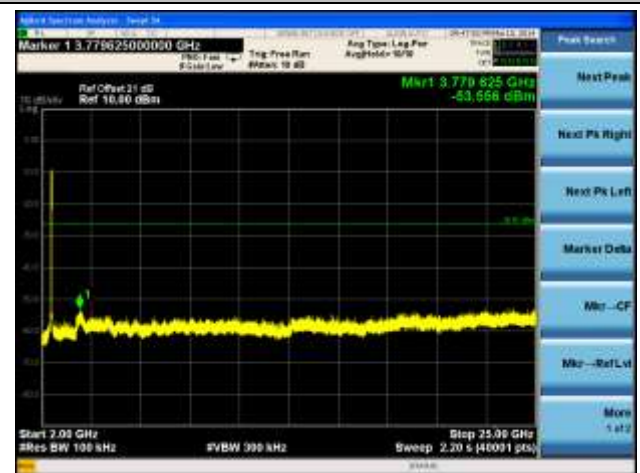
High Band Edge



Spurious Emission 30MHz ~ 3GHz



Spurious Emission 2GHz ~ 25GHz



7.6. Radiated Spurious Emission Measurement

7.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

| FCC Part 15 Subpart C Paragraph 15.209 | | |
|--|----------------------|----------------------------|
| Frequency [MHz] | Field Strength [V/m] | Measured Distance [Meters] |
| 0.009 – 0.490 | 2400/F (kHz) | 300 |
| 0.490 – 1.705 | 24000/F (kHz) | 30 |
| 1.705 - 30 | 30 | 30 |
| 30 - 88 | 100 | 3 |
| 88 - 216 | 150 | 3 |
| 216 - 960 | 200 | 3 |
| Above 960 | 500 | 3 |

7.6.2. Test Procedure Used

KDB 558074 D01v03r01 – Section 12.2.3 (quasi-peak measurements)

KDB 558074 D01v03r01 – Section 12.2.4 (peak power measurements)

KDB 558074 D01v03r01 – Section 12.2.5 (average power measurements)

7.6.3. Test Setting

Peak Field Strength Measurements per Section 12.2.4 of KDB 558074 D01v03r01

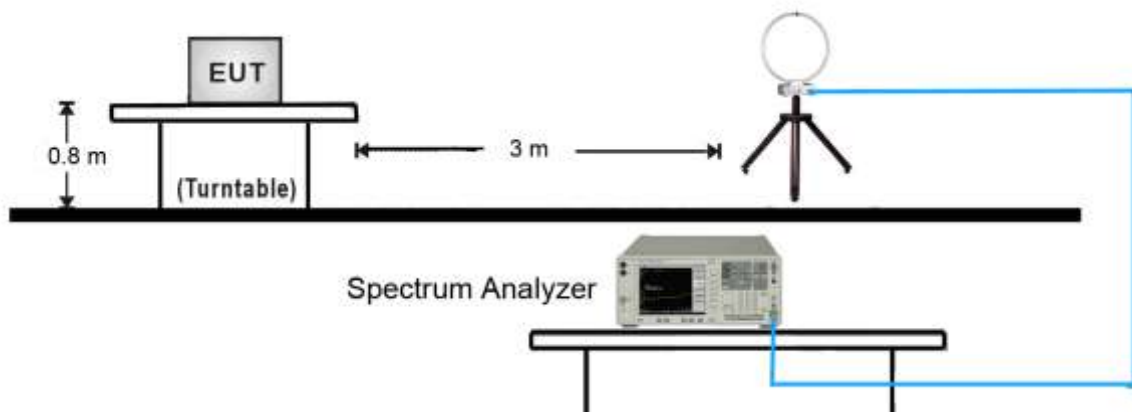
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements per Section 12.2.5.1 of KDB 558074 D01v03r01

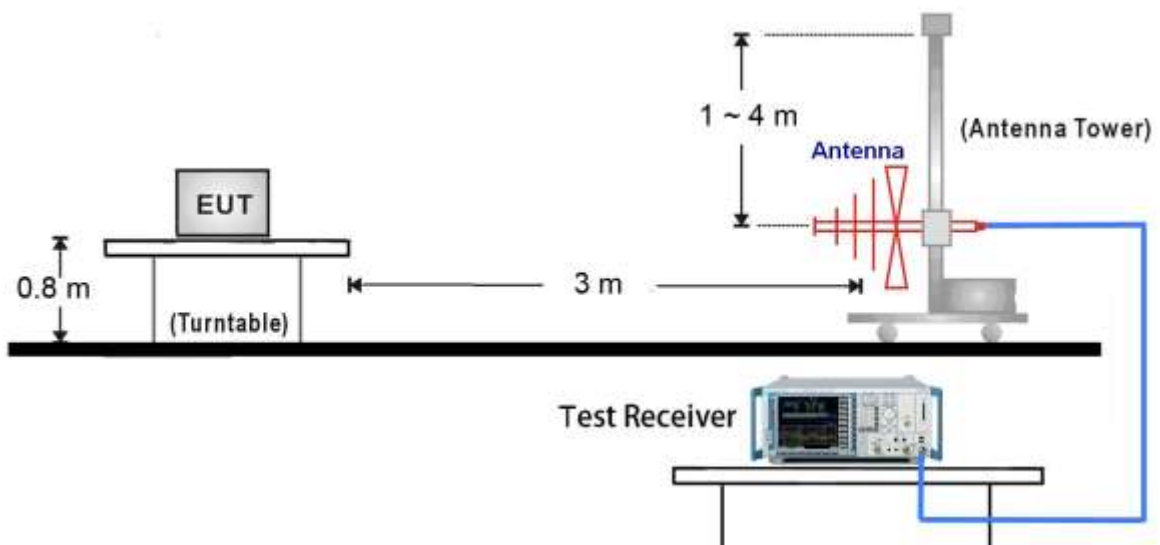
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be $> 2 \times \text{span}/\text{RBW}$)
6. Sweep time = auto
7. Trace (RMS) averaging was performed over at least 100 traces

7.6.4. Test Setup

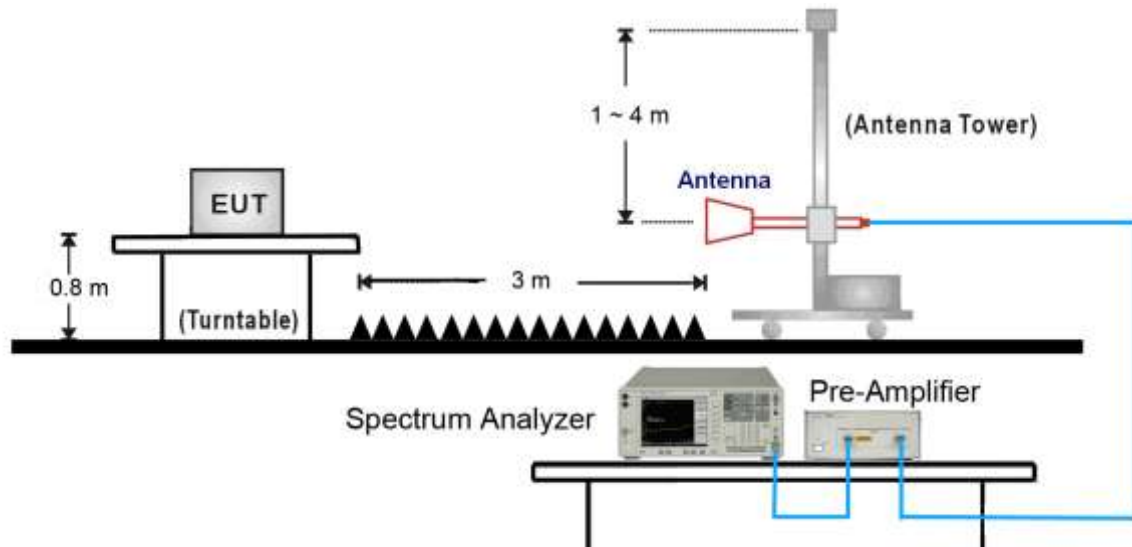
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



7.6.5. Test Result

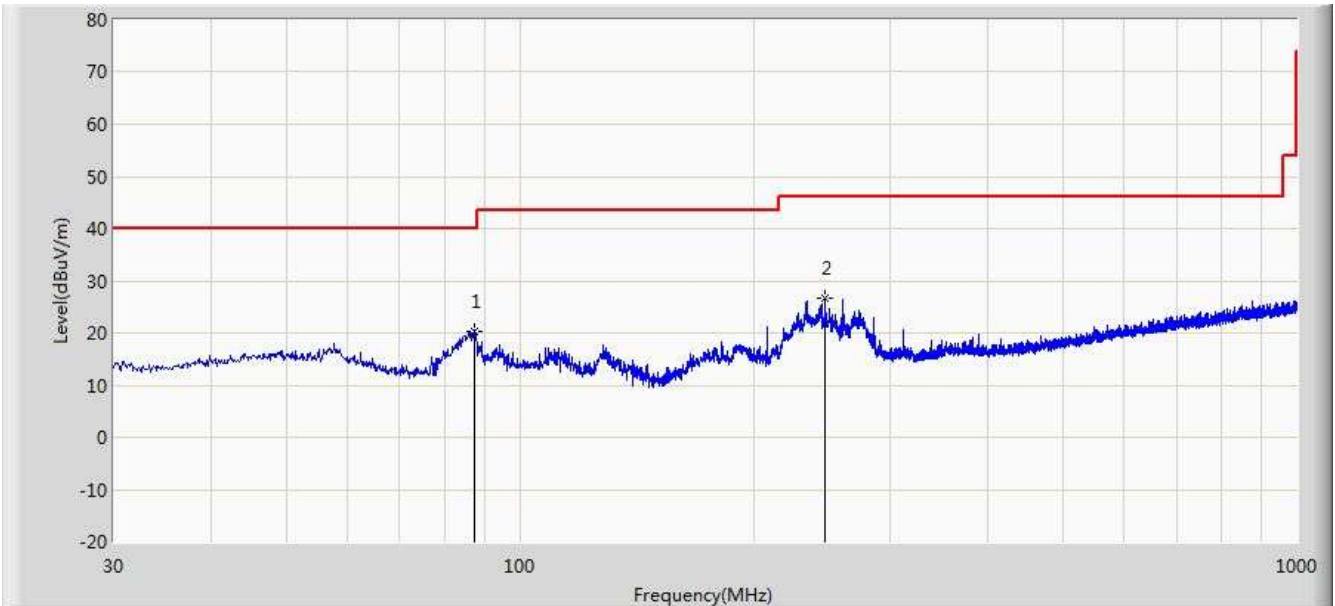
| | | | |
|---------------|--|----------------|-----------|
| Test Mode: | 802.11g | Test Site: | AC1 |
| Test Channel: | 11 | Test Engineer: | Roy Cheng |
| Remark: | 1. Average measurement was not performed if peak level lower than average limit. 2. The worst case of Radiated Spurious Emission | | |

| Mark | Frequency (MHz) | Reading Level (dBμV/m) | Factor (dB) | Measure Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|------------------------|-------------|------------------------|----------------|-------------|----------|--------------|
| * | 3142.0 | 36.3 | 3.6 | 39.9 | 82.8 | -42.9 | Peak | Horizontal |
| * | 3465.0 | 36.6 | 3.6 | 40.2 | 82.8 | -42.6 | Peak | Horizontal |
| | 4924.0 | 35.8 | 6.7 | 42.5 | 74.0 | -31.5 | Peak | Horizontal |
| | 7386.0 | 34.5 | 14.1 | 48.6 | 74.0 | -25.4 | Peak | Horizontal |
| * | 3227.0 | 36.7 | 3.5 | 40.2 | 82.8 | -42.6 | Peak | Vertical |
| * | 3550.0 | 36.6 | 4.1 | 40.7 | 82.8 | -42.1 | Peak | Vertical |
| | 4924.0 | 35.2 | 6.7 | 41.9 | 74.0 | -32.1 | Peak | Vertical |
| | 7386.0 | 34.3 | 14.1 | 48.4 | 74.0 | -25.6 | Peak | Vertical |

Note: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (102.8dBμV/m).

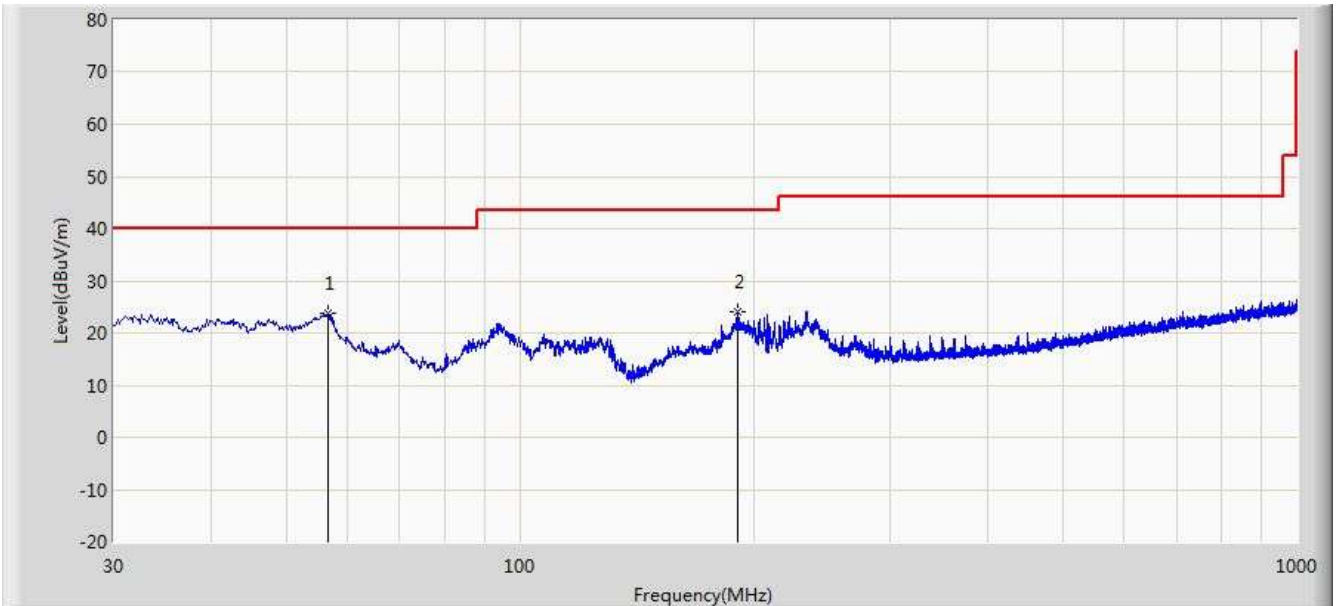
The worst case of Radiated Emission below 1GHz:

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/13 - 11:05 |
| Limit: FCC_Part15.209_RE(3m)_ClassB | Margin: 0 |
| Probe: VULB9162_0.03-8GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Worst Case Mode: 802.11g Channel 2462MHz | |



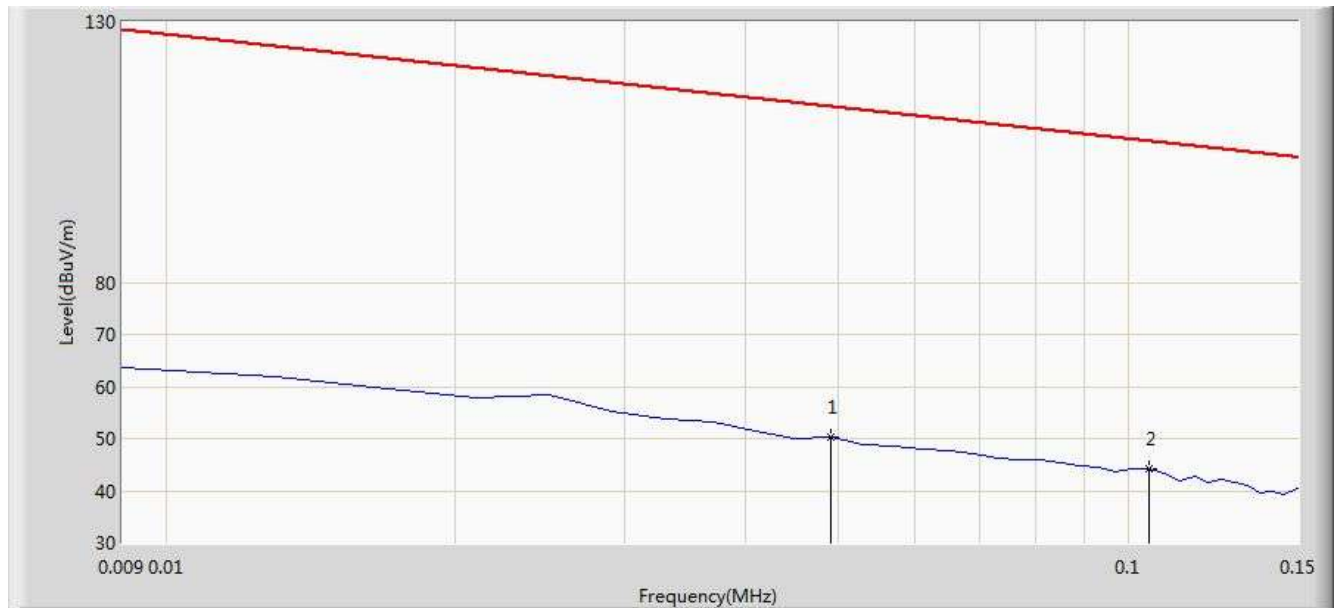
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 87.351 | 20.381 | 10.035 | -19.619 | 40.000 | 10.346 | PK |
| 2 | | * | 247.280 | 26.566 | 13.347 | -19.434 | 46.000 | 13.219 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/13 - 11:08 |
| Limit: FCC_Part15.209_RE(3m)_ClassB | Margin: 0 |
| Probe: VULB9162_0.03-8GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Worst Case Mode: 802.11g Channel 2462MHz | |



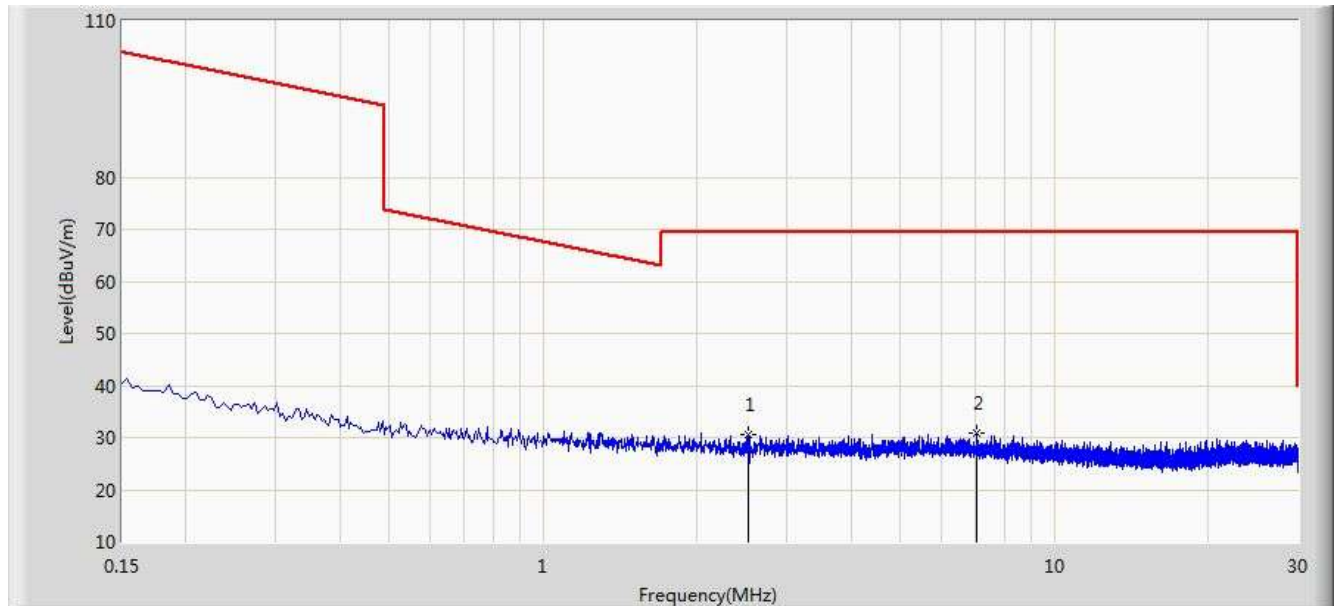
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 56.675 | 23.679 | 9.449 | -16.321 | 40.000 | 14.231 | PK |
| 2 | | | 190.777 | 23.979 | 12.484 | -19.521 | 43.500 | 11.495 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/13 - 16:39 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: FMZB1519_0.009-30MHz | Polarity: Face On |
| EUT: Mobile Phone | Power: By Battery |
| Note: There is the ambient noise within frequency range 9kHz~30MHz. | |



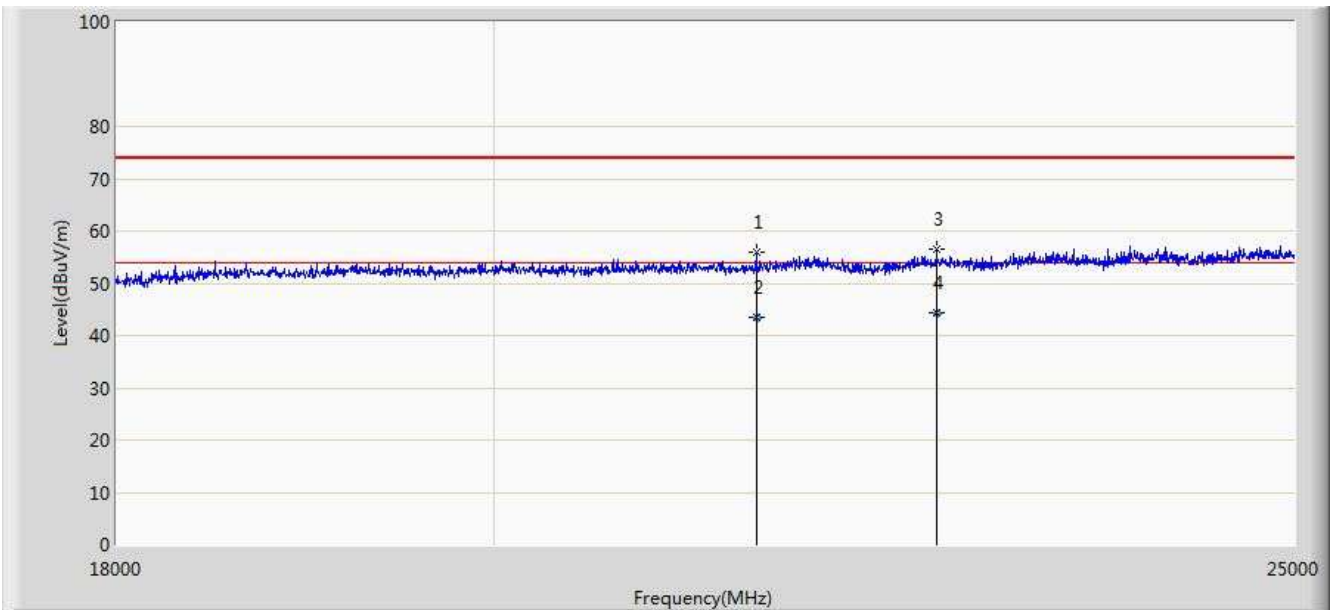
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 0.049 | 50.367 | 29.861 | -63.422 | 113.789 | 20.505 | PK |
| 2 | | * | 0.105 | 44.143 | 23.996 | -63.029 | 107.173 | 20.147 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/13 - 16:41 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: FMZB1519_0.009-30MHz | Polarity: Face On |
| EUT: Mobile Phone | Power: By Battery |
| Note: There is the ambient noise within frequency range 9kHz~30MHz. | |



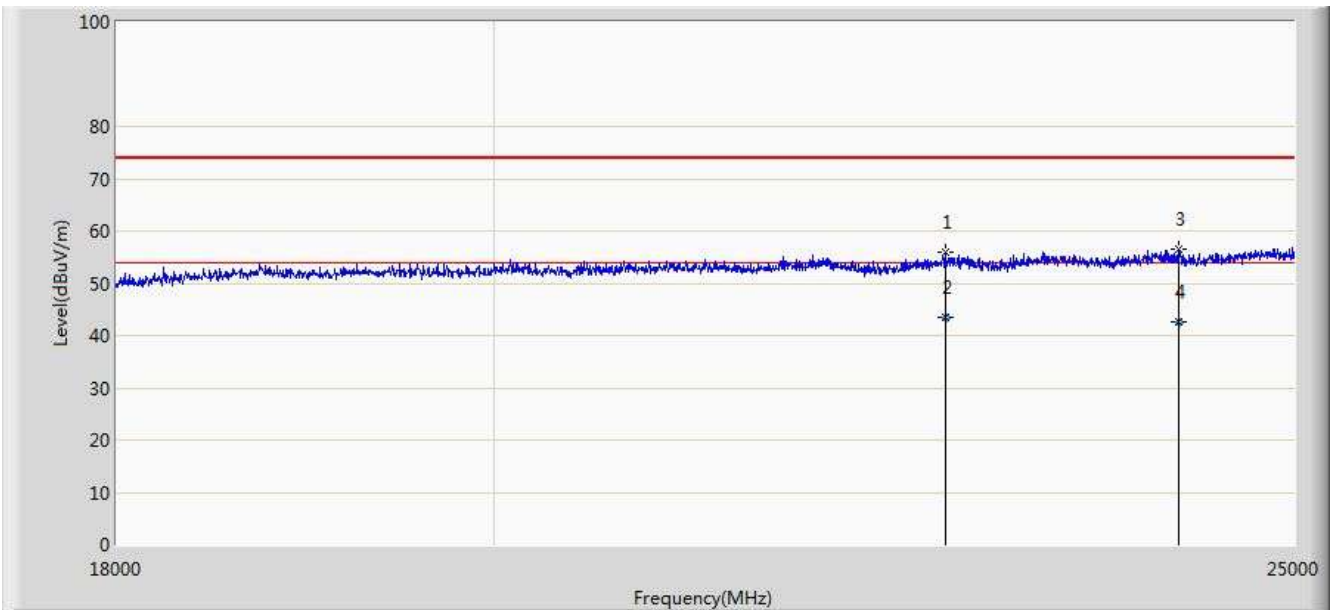
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2.513 | 30.495 | 10.336 | -39.005 | 69.500 | 20.159 | PK |
| 2 | | * | 7.041 | 30.974 | 10.579 | -38.526 | 69.500 | 20.395 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/13 - 17:39 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9170_18-40GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: There is the ambient noise within frequency range 18 ~ 25GHz. | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 21517.500 | 55.869 | 17.883 | -18.131 | 74.000 | 37.986 | PK |
| 2 | | | 21517.650 | 43.351 | 5.365 | -10.649 | 54.000 | 37.986 | AV |
| 3 | | | 22630.500 | 56.509 | 18.223 | -17.491 | 74.000 | 38.286 | PK |
| 4 | | * | 22630.540 | 44.310 | 6.024 | -9.690 | 54.000 | 38.286 | AV |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/13 - 17:43 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9170_18-40GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: There is the ambient noise within frequency range 18 ~ 25GHz. | |

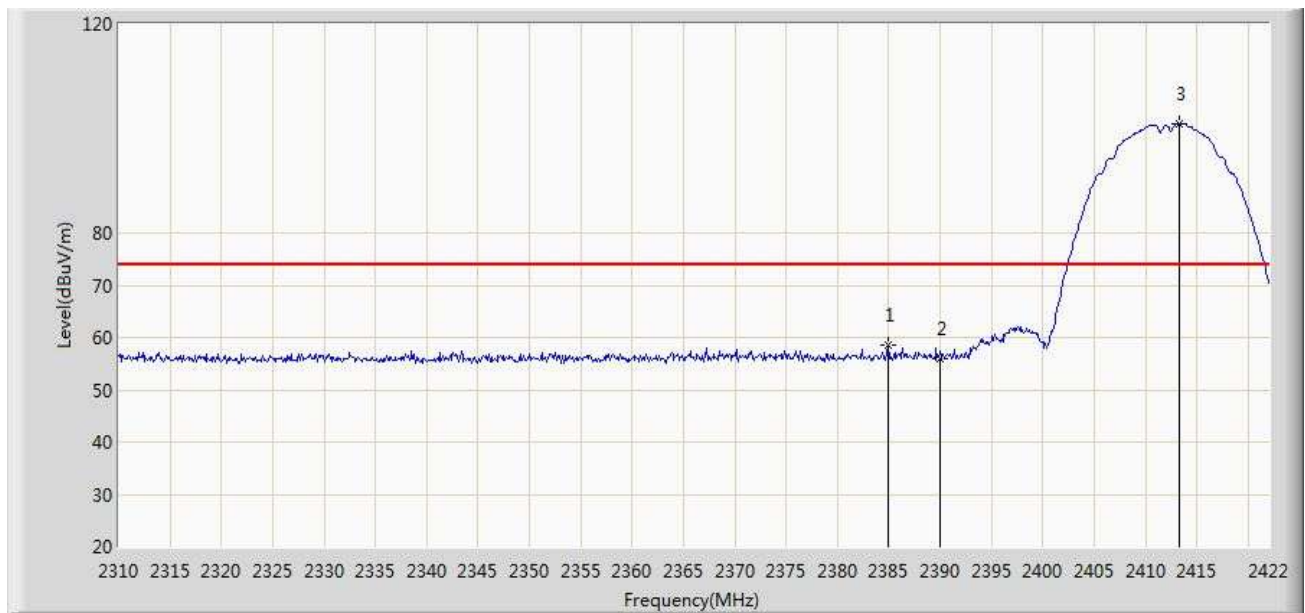


| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 22686.500 | 55.811 | 17.457 | -18.189 | 74.000 | 38.354 | PK |
| 2 | | * | 22686.540 | 43.598 | 5.244 | -10.402 | 54.000 | 38.354 | AV |
| 3 | | | 24205.500 | 56.430 | 17.607 | -17.570 | 74.000 | 38.823 | PK |
| 4 | | | 24205.658 | 42.518 | 3.695 | -11.482 | 54.000 | 38.823 | AV |

7.7. Radiated Restricted Band Edge Measurement

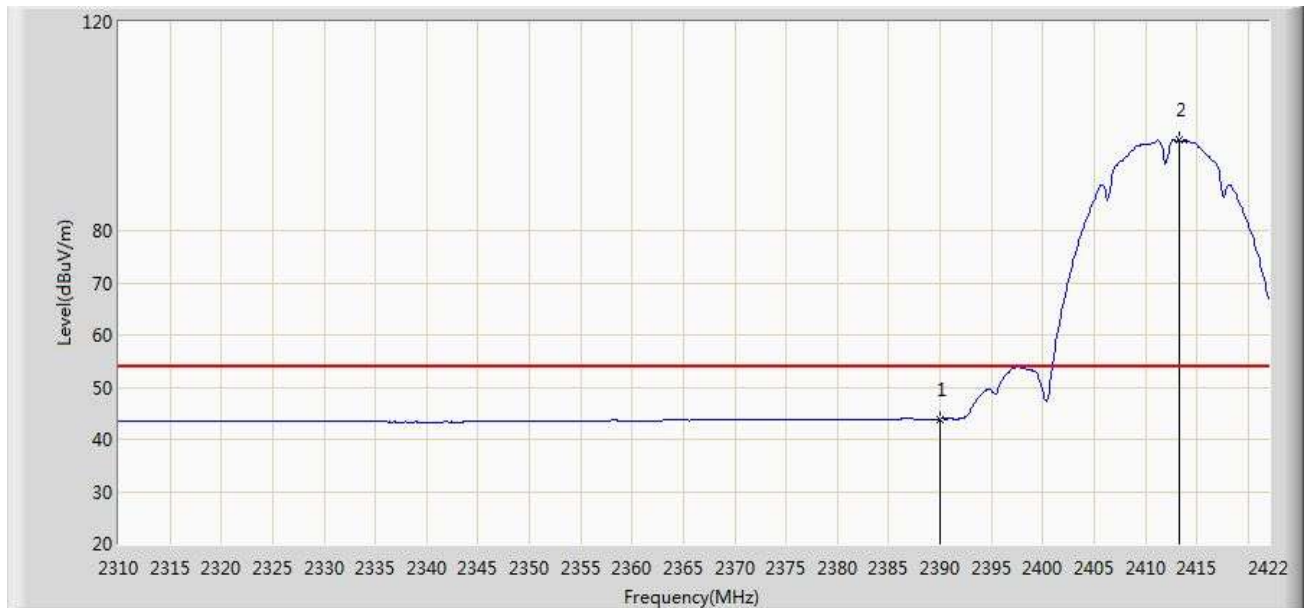
7.7.1. Test Result

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 17:40 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11b Channel 2412MHz | |



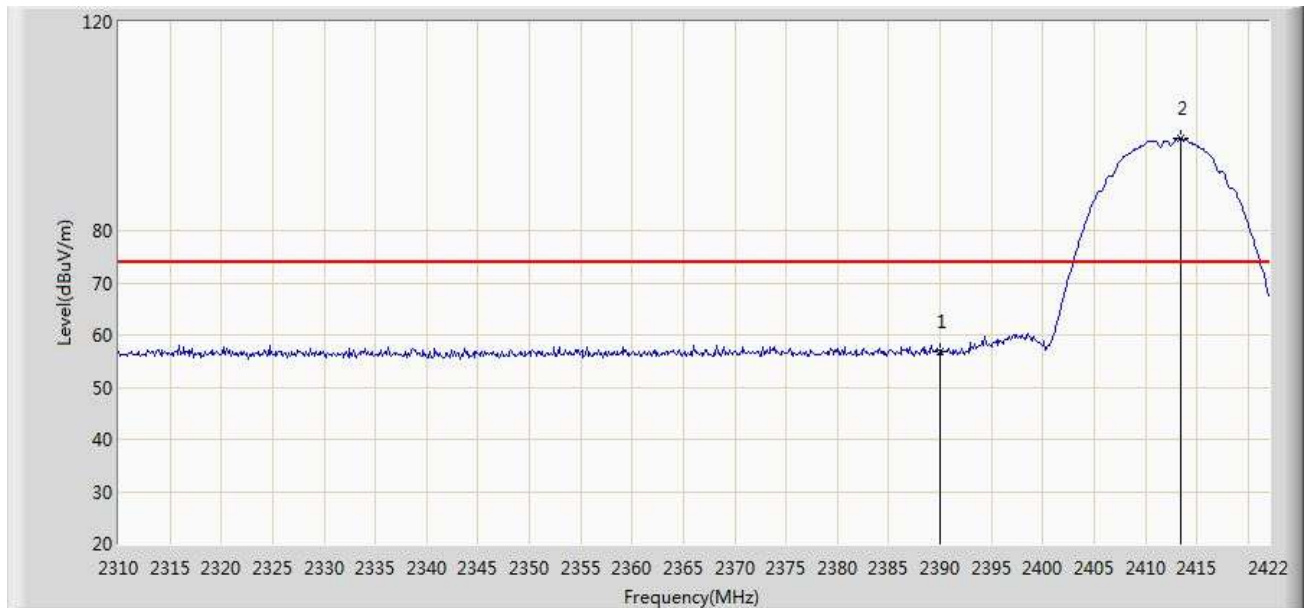
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2384.928 | 58.484 | 27.789 | -15.516 | 74.000 | 30.695 | PK |
| 2 | | | 2390.000 | 55.990 | 25.306 | -18.010 | 74.000 | 30.684 | PK |
| 3 | | * | 2413.264 | 100.970 | 70.327 | N/A | N/A | 30.643 | PK |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 17:44 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11b Channel 2412MHz | |



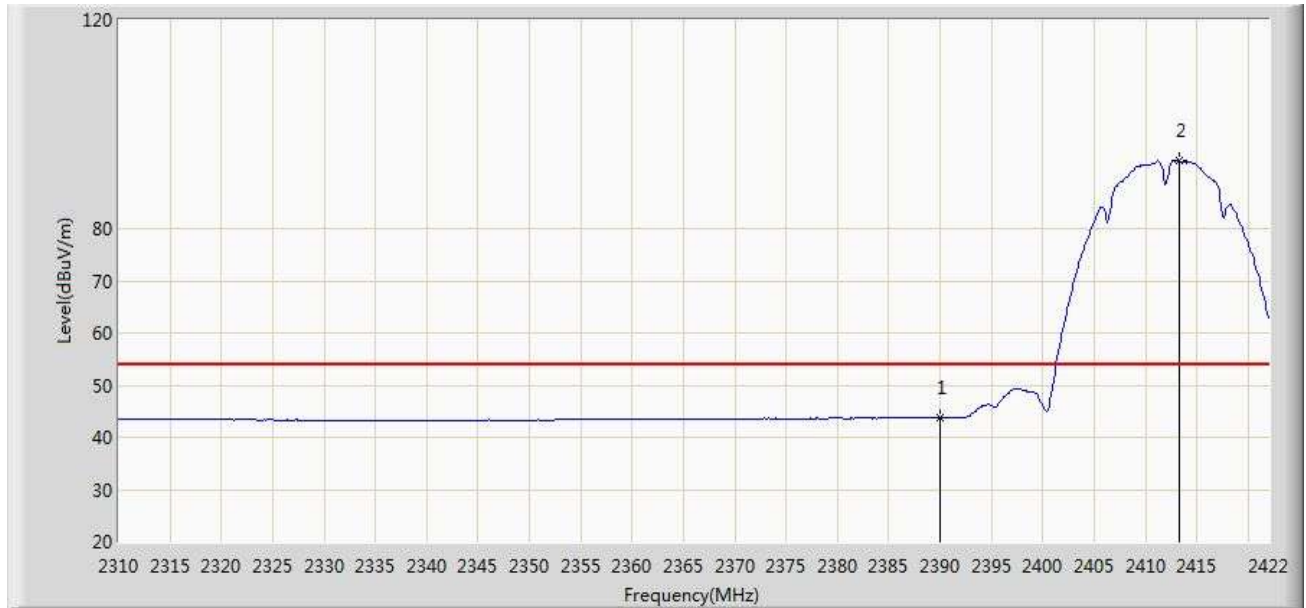
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 43.908 | 13.224 | -10.092 | 54.000 | 30.684 | AV |
| 2 | | * | 2413.264 | 97.251 | 66.608 | N/A | N/A | 30.643 | AV |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 17:44 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11b Channel 2412MHz | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 56.822 | 26.138 | -17.178 | 74.000 | 30.684 | PK |
| 2 | | * | 2413.488 | 97.617 | 66.975 | N/A | N/A | 30.642 | PK |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 17:47 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11b Channel 2412MHz | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 43.720 | 13.036 | -10.280 | 54.000 | 30.684 | AV |
| 2 | | * | 2413.264 | 92.935 | 62.292 | N/A | N/A | 30.643 | AV |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 17:48 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11b Channel 2462MHz | |



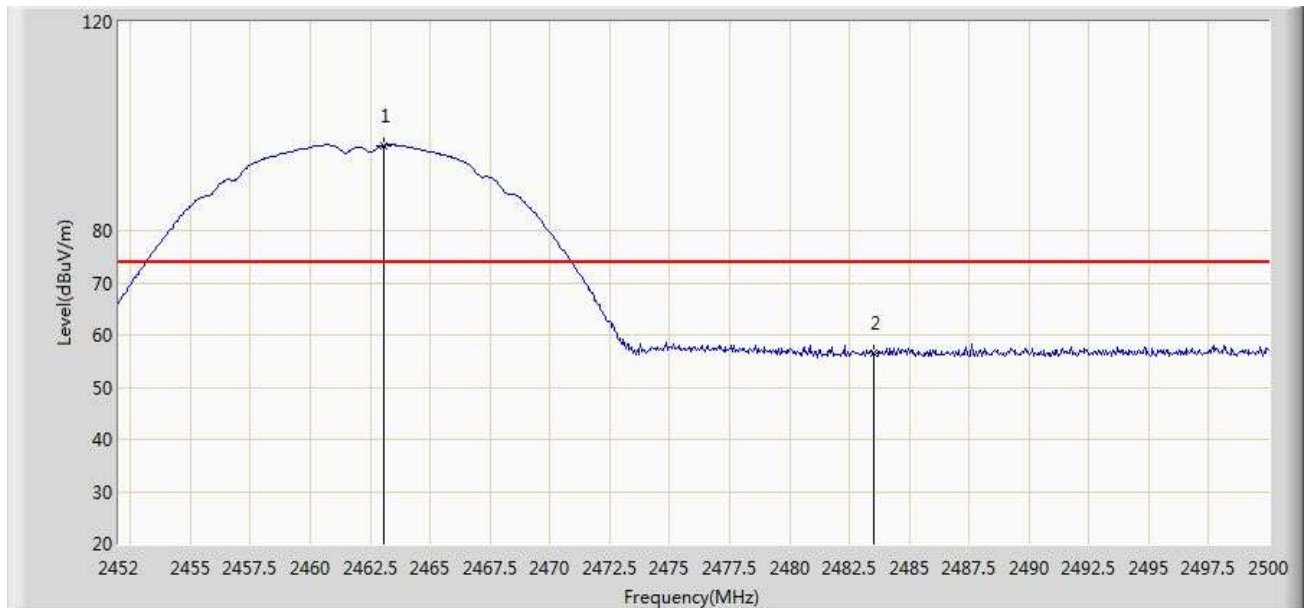
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2460.736 | 101.601 | 70.992 | N/A | N/A | 30.609 | PK |
| 2 | | | 2483.500 | 56.872 | 26.199 | -17.128 | 74.000 | 30.673 | PK |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 17:53 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11b Channel 2462MHz | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2461.312 | 97.687 | 67.077 | N/A | N/A | 30.611 | AV |
| 2 | | | 2483.500 | 43.678 | 13.005 | -10.322 | 54.000 | 30.673 | AV |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:00 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11b Channel 2462MHz | |



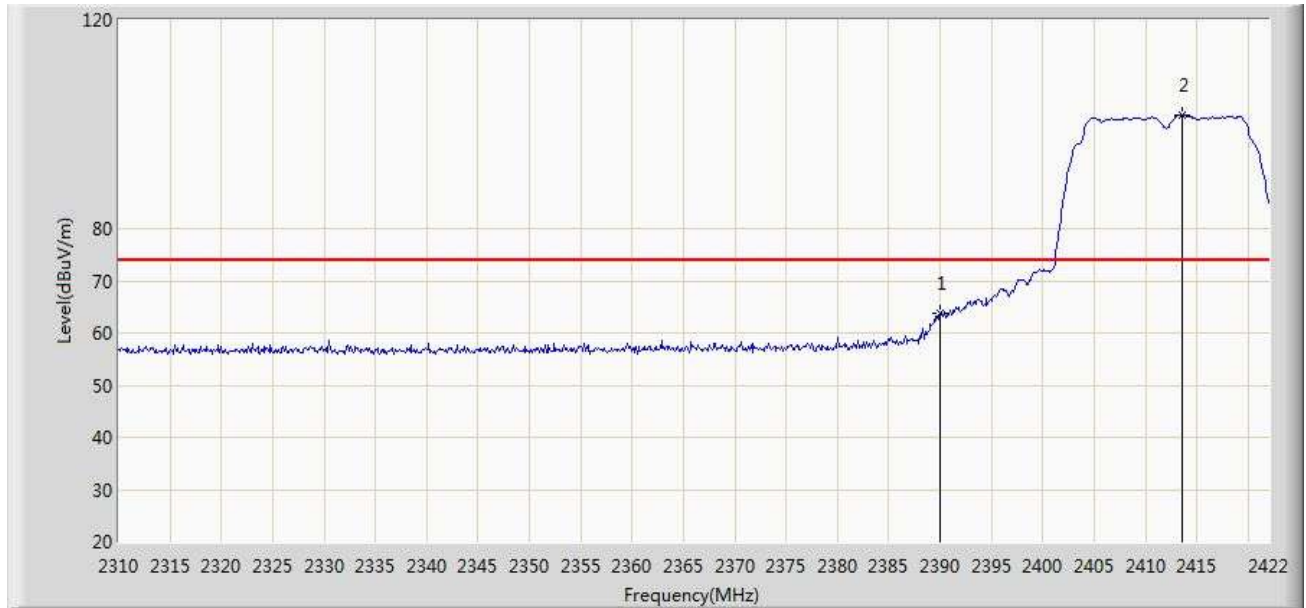
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2463.088 | 96.357 | 65.743 | N/A | N/A | 30.613 | PK |
| 2 | | | 2483.500 | 56.497 | 25.824 | -17.503 | 74.000 | 30.673 | PK |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:00 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11b Channel 2462MHz | |



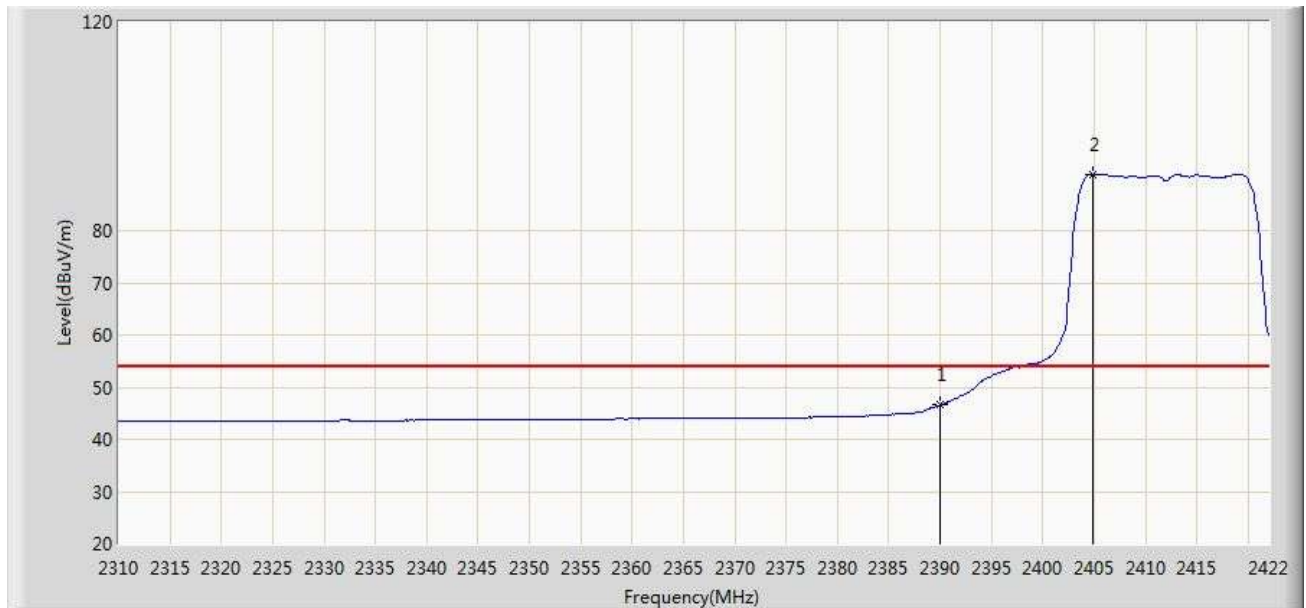
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2461.168 | 92.894 | 62.284 | N/A | N/A | 30.611 | AV |
| 2 | | | 2483.500 | 43.411 | 12.738 | -10.589 | 54.000 | 30.673 | AV |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:02 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11g Channel 2412MHz | |



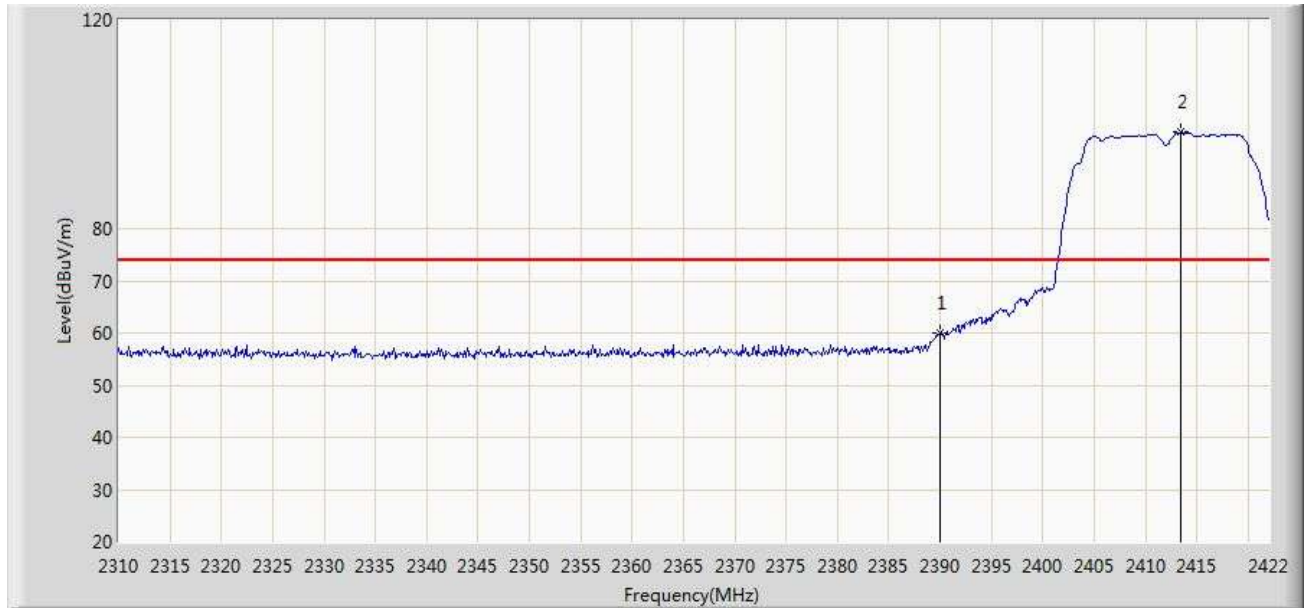
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 63.799 | 33.115 | -10.201 | 74.000 | 30.684 | PK |
| 2 | | * | 2413.600 | 101.617 | 70.975 | N/A | N/A | 30.642 | PK |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:05 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11g Channel 2412MHz | |



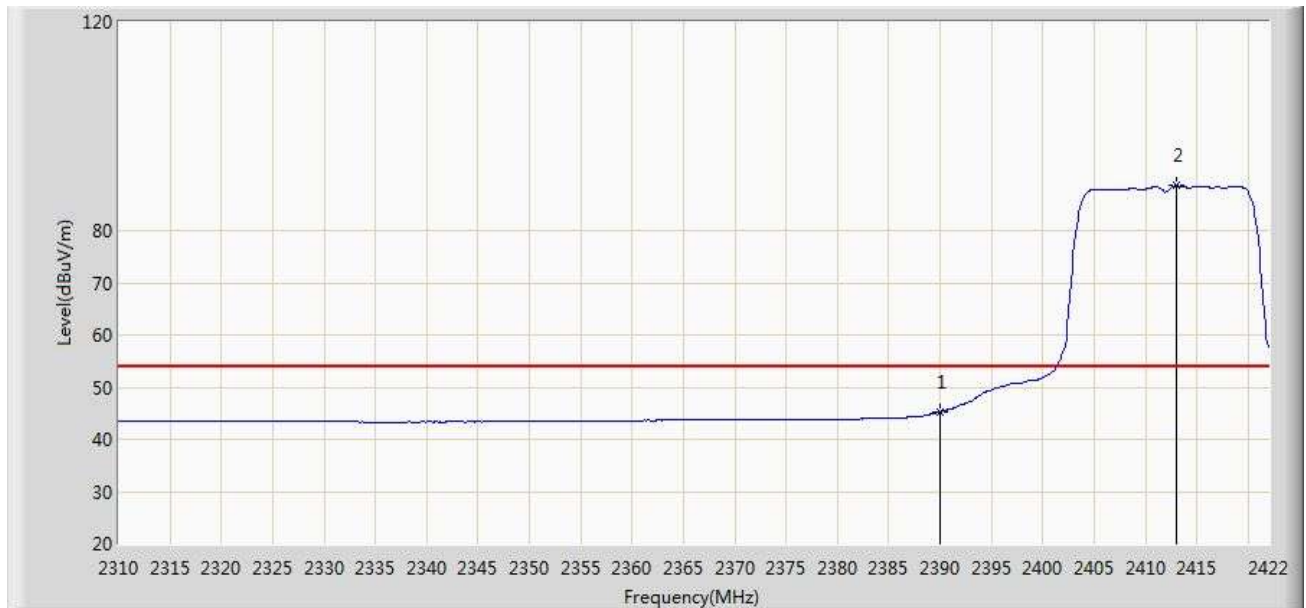
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 46.565 | 15.881 | -7.435 | 54.000 | 30.684 | AV |
| 2 | | * | 2404.864 | 90.829 | 60.173 | N/A | N/A | 30.657 | AV |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:06 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11g Channel 2412MHz | |



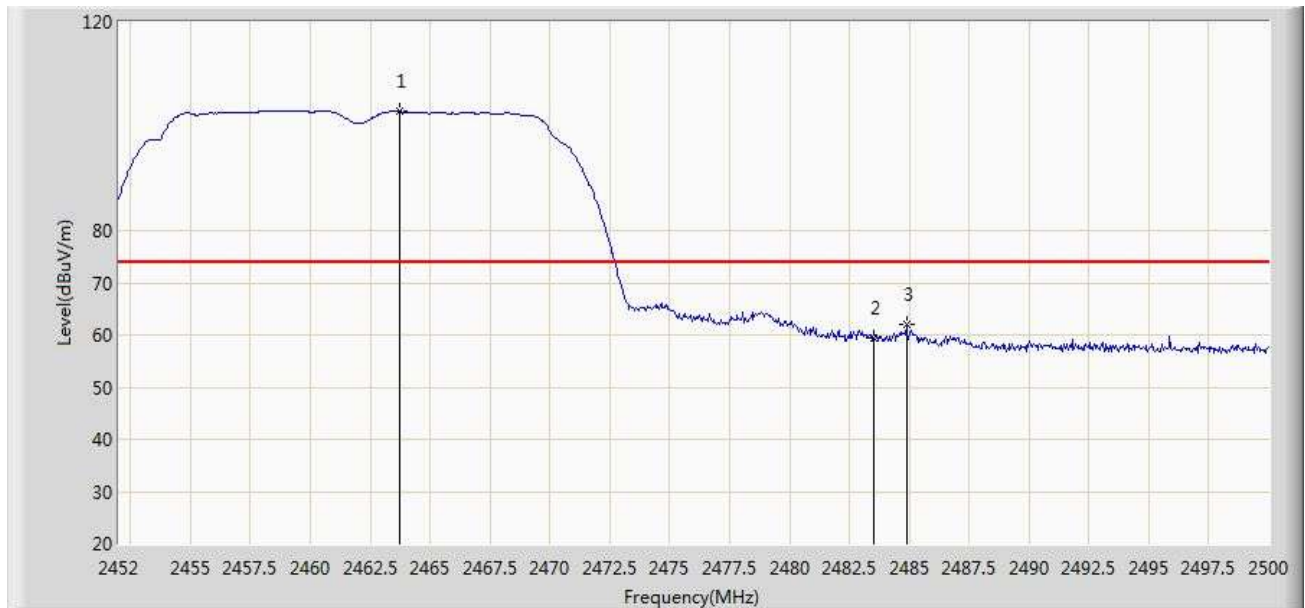
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 59.985 | 29.301 | -14.015 | 74.000 | 30.684 | PK |
| 2 | | * | 2413.488 | 98.454 | 67.812 | N/A | N/A | 30.642 | PK |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:07 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11g Channel 2412MHz | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 45.293 | 14.609 | -8.707 | 54.000 | 30.684 | AV |
| 2 | | * | 2413.040 | 88.574 | 57.931 | N/A | N/A | 30.643 | AV |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:09 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11g Channel 2462MHz | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2463.712 | 102.784 | 72.169 | N/A | N/A | 30.615 | PK |
| 2 | | | 2483.500 | 59.537 | 28.864 | -14.463 | 74.000 | 30.673 | PK |
| 3 | | | 2484.880 | 61.927 | 31.250 | -12.073 | 74.000 | 30.677 | PK |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:10 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11g Channel 2462MHz | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2457.280 | 92.608 | 62.004 | N/A | N/A | 30.604 | AV |
| 2 | | | 2483.500 | 45.559 | 14.886 | -8.441 | 54.000 | 30.673 | AV |

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|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:11 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11g Channel 2462MHz | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2459.344 | 100.908 | 70.301 | N/A | N/A | 30.607 | PK |
| 2 | | | 2483.500 | 58.156 | 27.483 | -15.844 | 74.000 | 30.673 | PK |

| | |
|--|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:13 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11g Channel 2462MHz | |



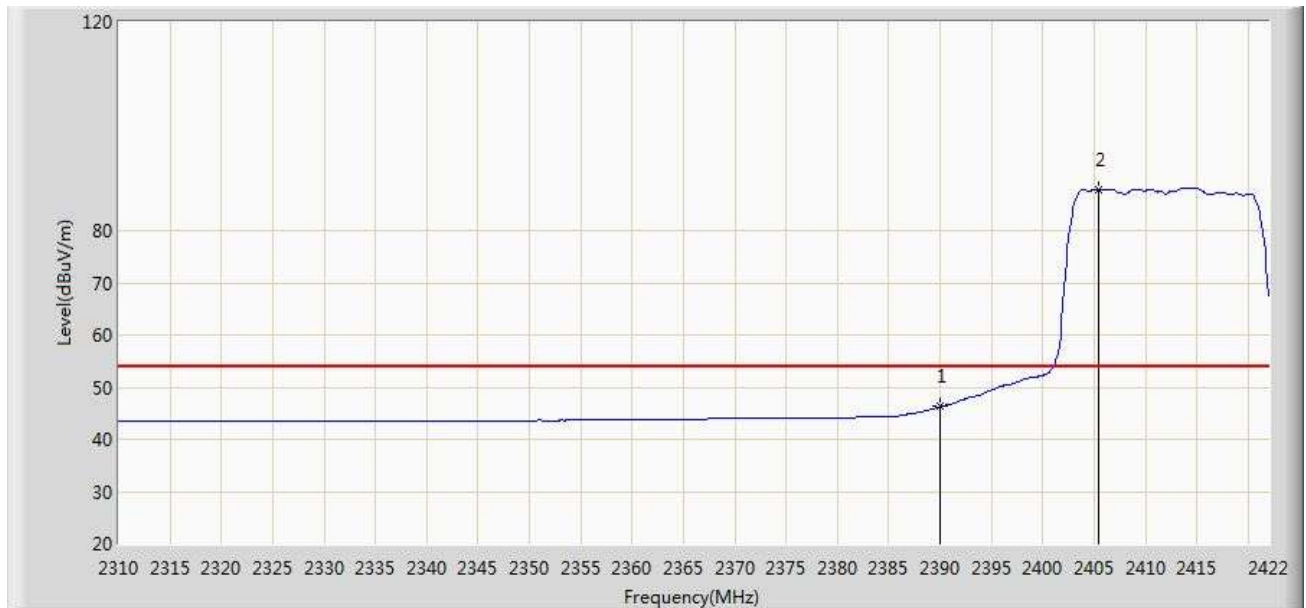
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2457.712 | 90.992 | 60.387 | N/A | N/A | 30.604 | AV |
| 2 | | | 2483.500 | 44.857 | 14.184 | -9.143 | 54.000 | 30.673 | AV |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:14 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT20 Channel 2412MHz | |



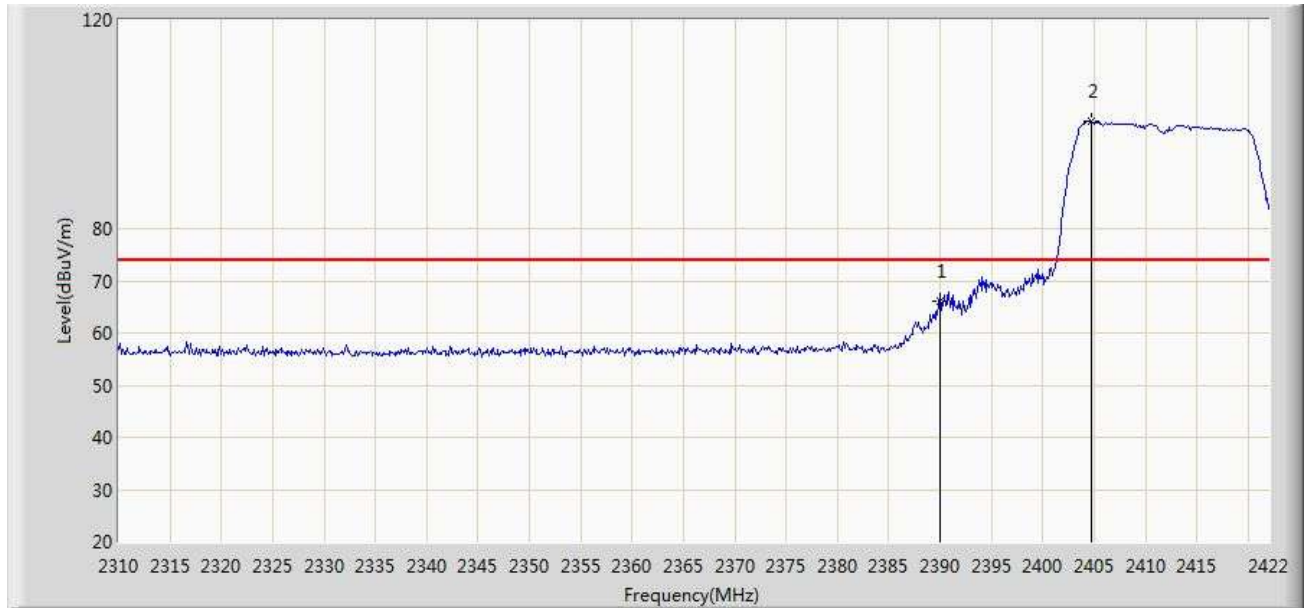
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 65.377 | 34.693 | -8.623 | 74.000 | 30.684 | PK |
| 2 | | * | 2404.752 | 97.818 | 67.161 | N/A | N/A | 30.657 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:18 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT20 Channel 2412MHz | |



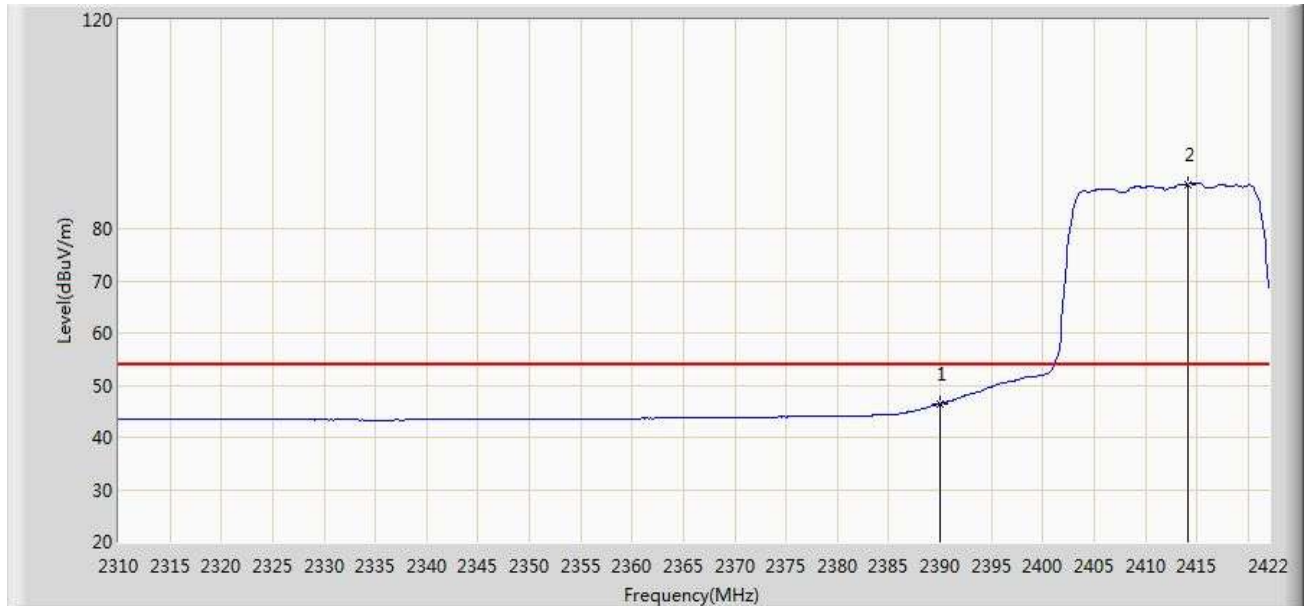
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 46.279 | 15.595 | -7.721 | 54.000 | 30.684 | AV |
| 2 | | * | 2405.424 | 87.889 | 57.233 | N/A | N/A | 30.655 | AV |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:19 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT20 Channel 2412MHz | |



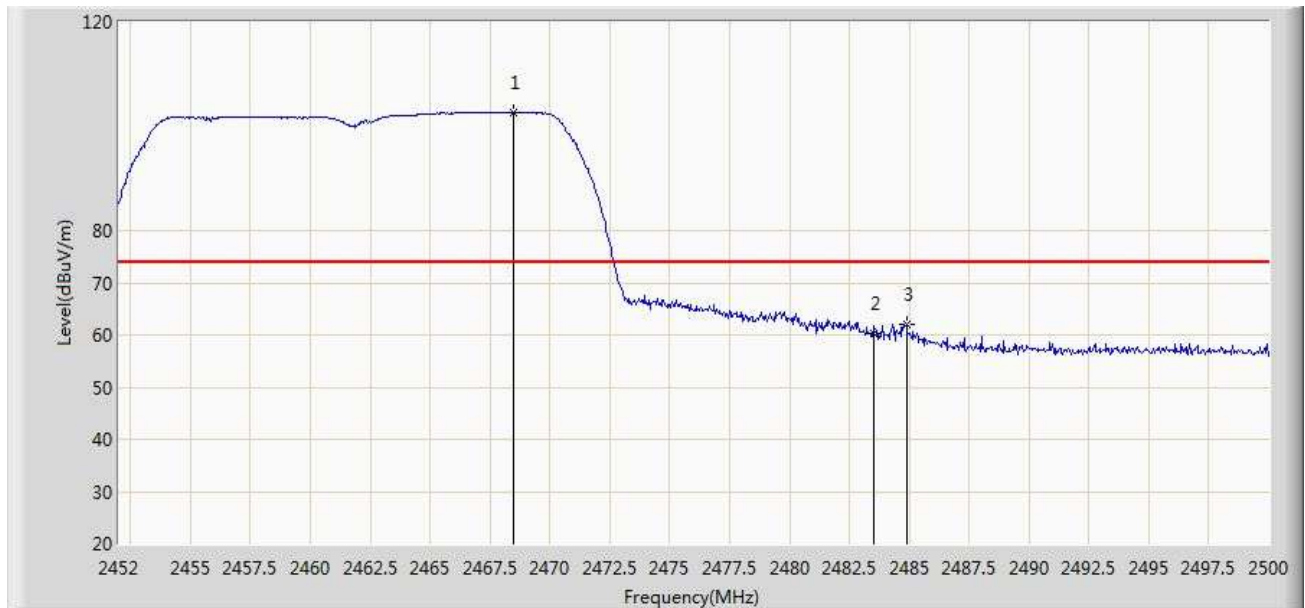
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 66.230 | 35.546 | -7.770 | 74.000 | 30.684 | PK |
| 2 | | * | 2404.752 | 100.480 | 69.823 | N/A | N/A | 30.657 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:21 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT20 Channel 2412MHz | |



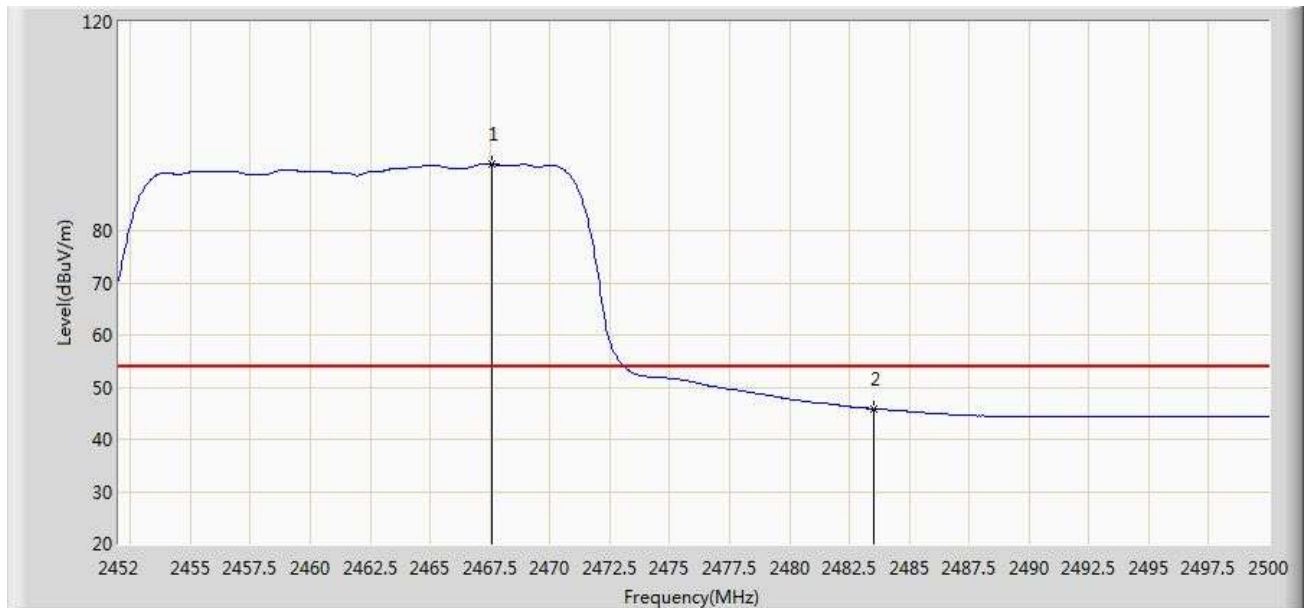
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 46.463 | 15.779 | -7.537 | 54.000 | 30.684 | AV |
| 2 | | * | 2414.160 | 88.550 | 57.909 | N/A | N/A | 30.642 | AV |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:24 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT20 Channel 2462MHz | |



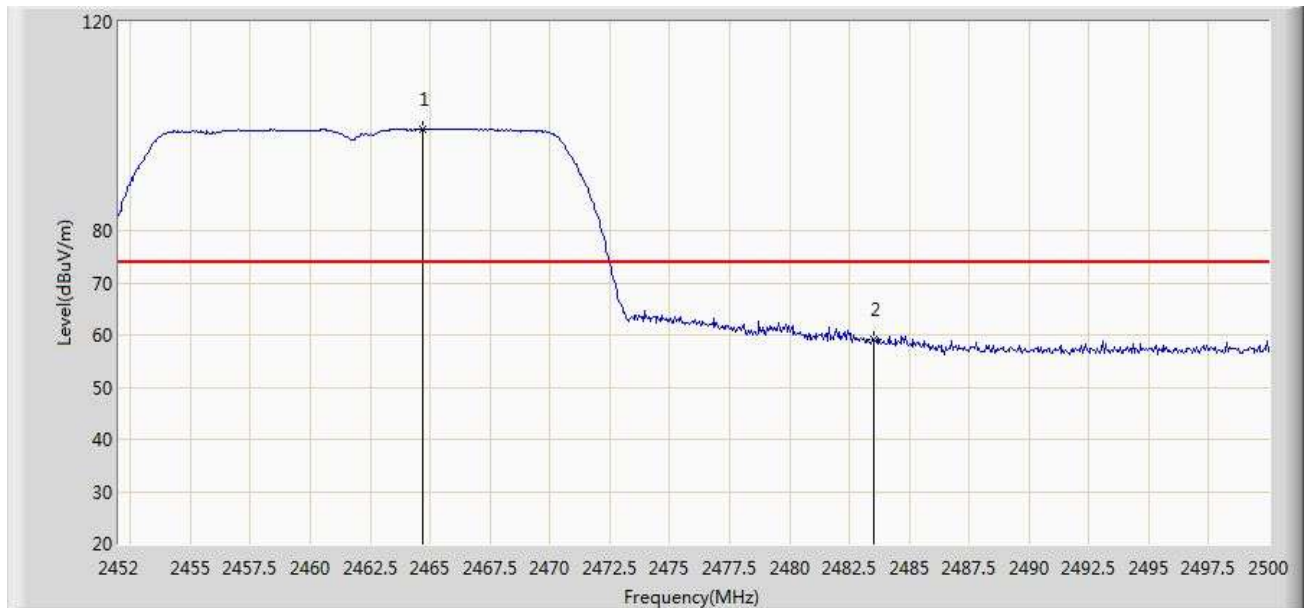
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2468.464 | 102.602 | 71.973 | N/A | N/A | 30.628 | PK |
| 2 | | | 2483.500 | 60.226 | 29.553 | -13.774 | 74.000 | 30.673 | PK |
| 3 | | | 2484.880 | 62.137 | 31.460 | -11.863 | 74.000 | 30.677 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:26 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT20 Channel 2462MHz | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2467.600 | 92.689 | 62.063 | N/A | N/A | 30.626 | AV |
| 2 | | | 2483.500 | 45.904 | 15.231 | -8.096 | 54.000 | 30.673 | AV |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:26 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT20 Channel 2462MHz | |



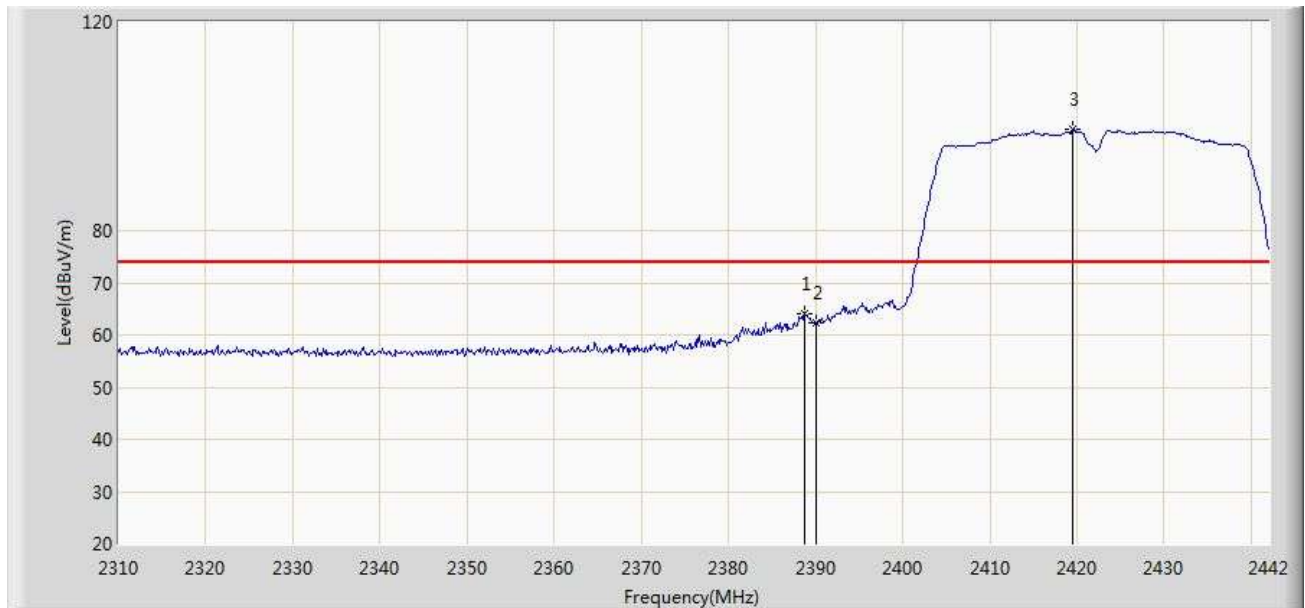
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2464.672 | 99.376 | 68.758 | N/A | N/A | 30.618 | PK |
| 2 | | | 2483.500 | 59.132 | 28.459 | -14.868 | 74.000 | 30.673 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:30 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT20 Channel 2462MHz | |



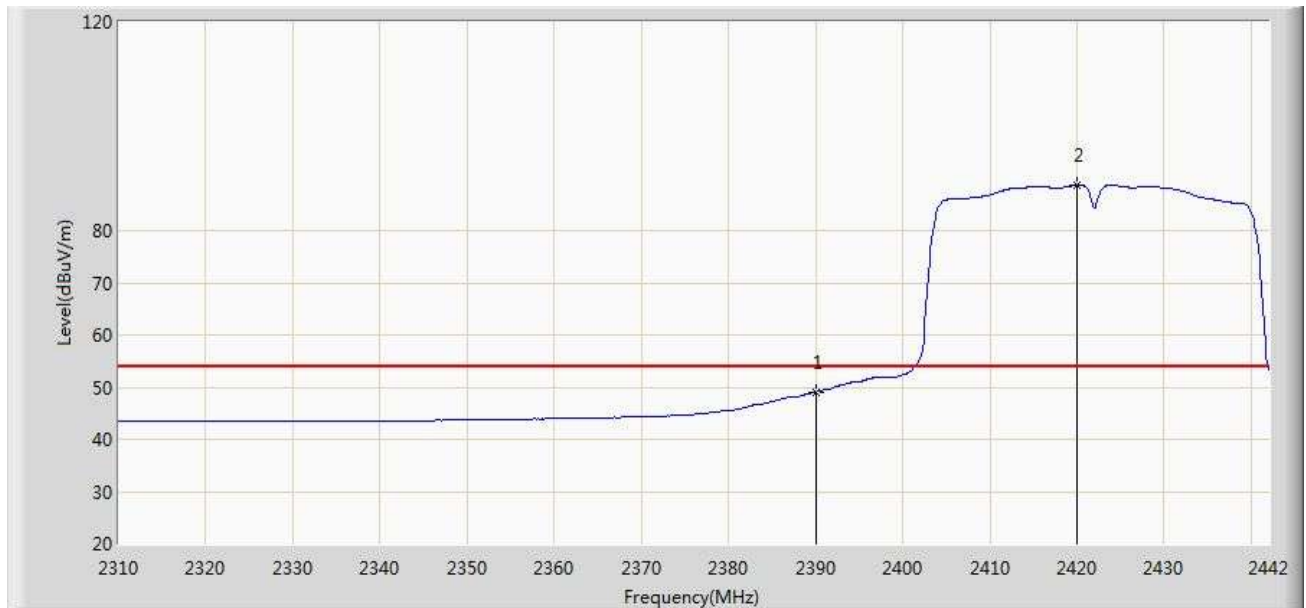
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2458.912 | 89.492 | 58.885 | N/A | N/A | 30.607 | AV |
| 2 | | | 2483.500 | 45.004 | 14.331 | -8.996 | 54.000 | 30.673 | AV |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:32 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT40 Channel 2422MHz | |



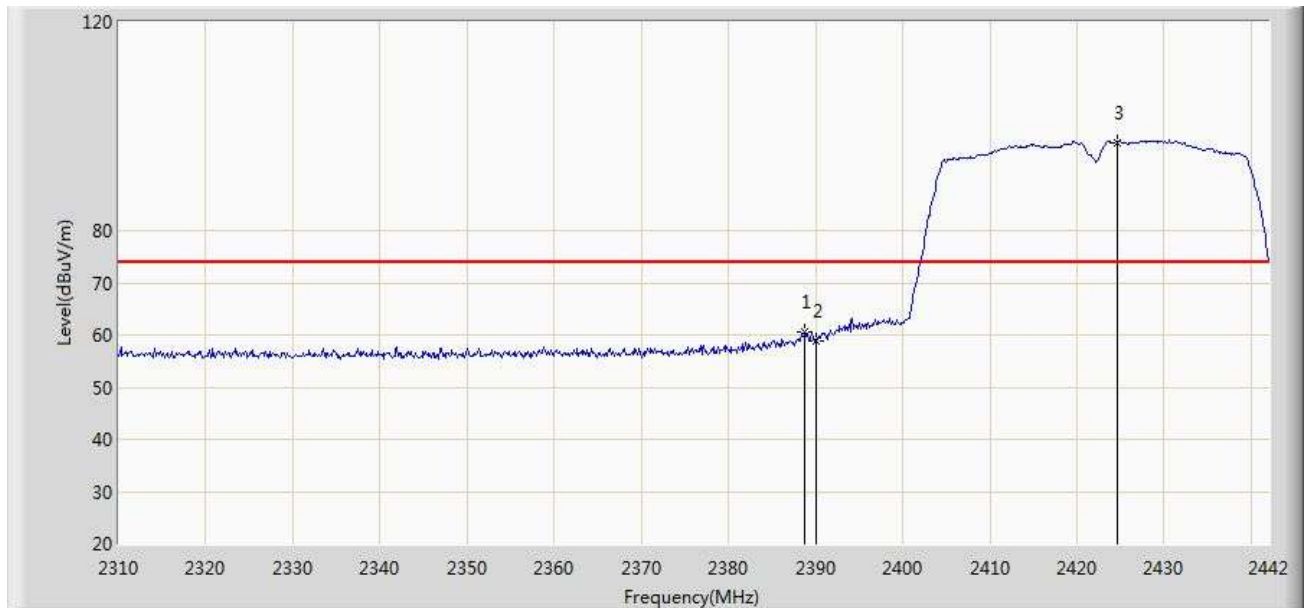
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2388.672 | 64.133 | 33.446 | -9.867 | 74.000 | 30.686 | PK |
| 2 | | | 2390.000 | 62.186 | 31.502 | -11.814 | 74.000 | 30.684 | PK |
| 3 | | * | 2419.560 | 99.392 | 68.759 | N/A | N/A | 30.633 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:36 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT40 Channel 2422MHz | |



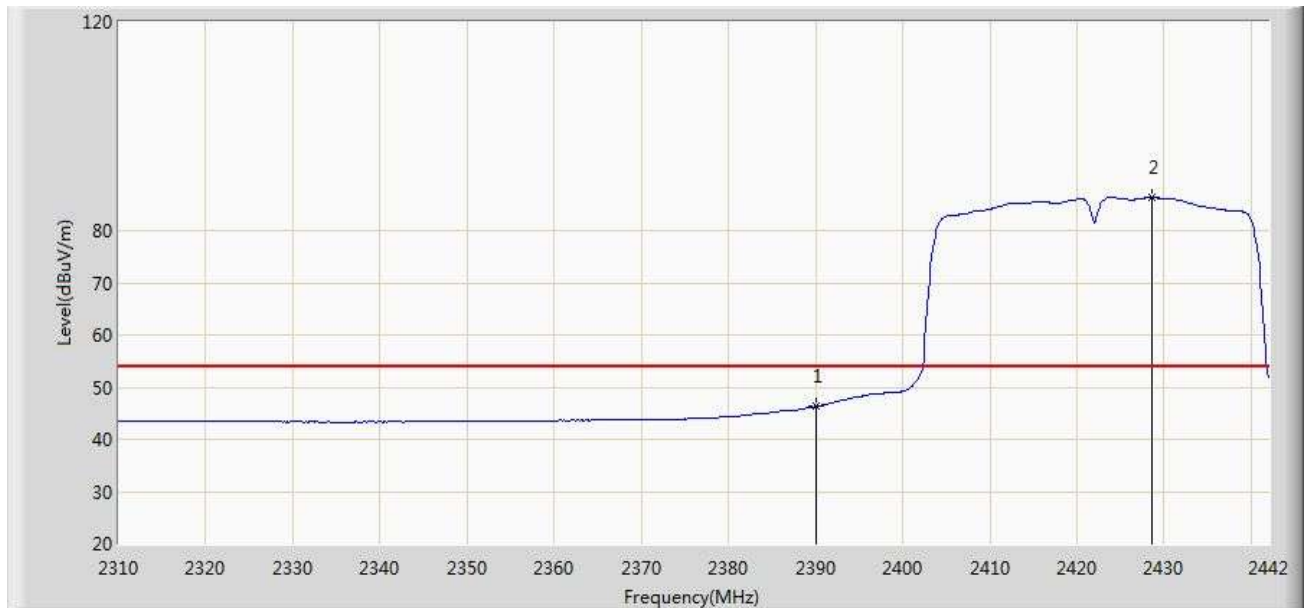
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 49.095 | 18.411 | -4.905 | 54.000 | 30.684 | AV |
| 2 | | * | 2419.956 | 88.725 | 58.093 | N/A | N/A | 30.632 | AV |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:37 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT40 Channel 2422MHz | |



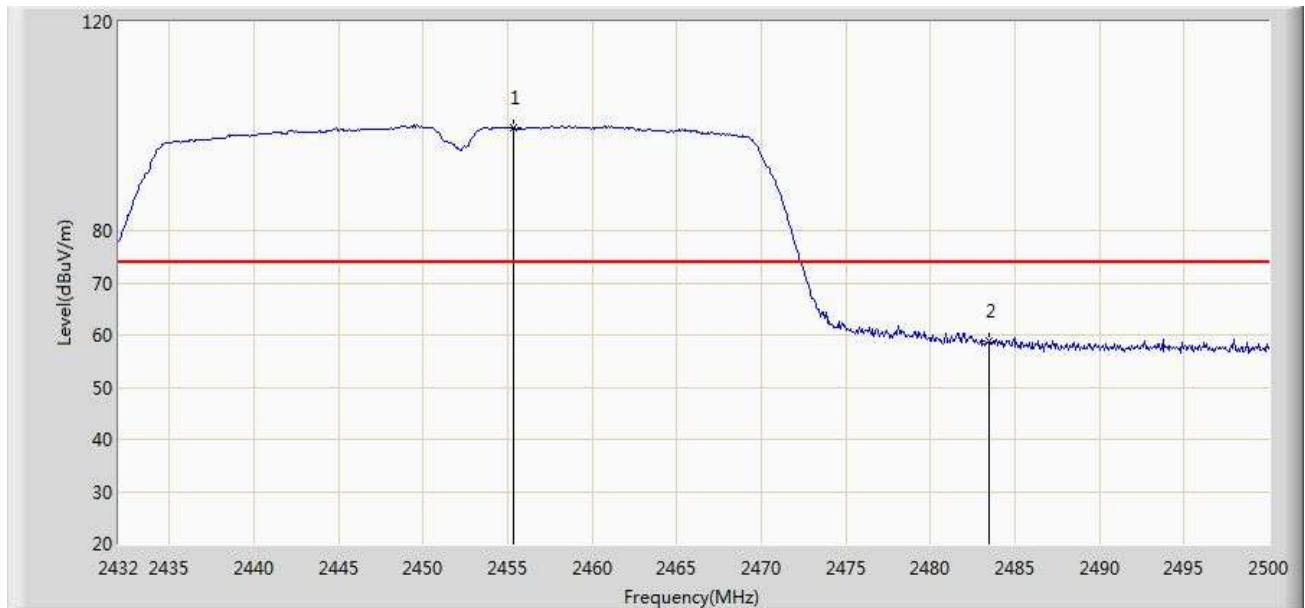
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2388.804 | 60.608 | 29.922 | -13.392 | 74.000 | 30.686 | PK |
| 2 | | | 2390.000 | 58.977 | 28.293 | -15.023 | 74.000 | 30.684 | PK |
| 3 | | * | 2424.576 | 96.945 | 66.320 | N/A | N/A | 30.625 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:39 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT40 Channel 2422MHz | |



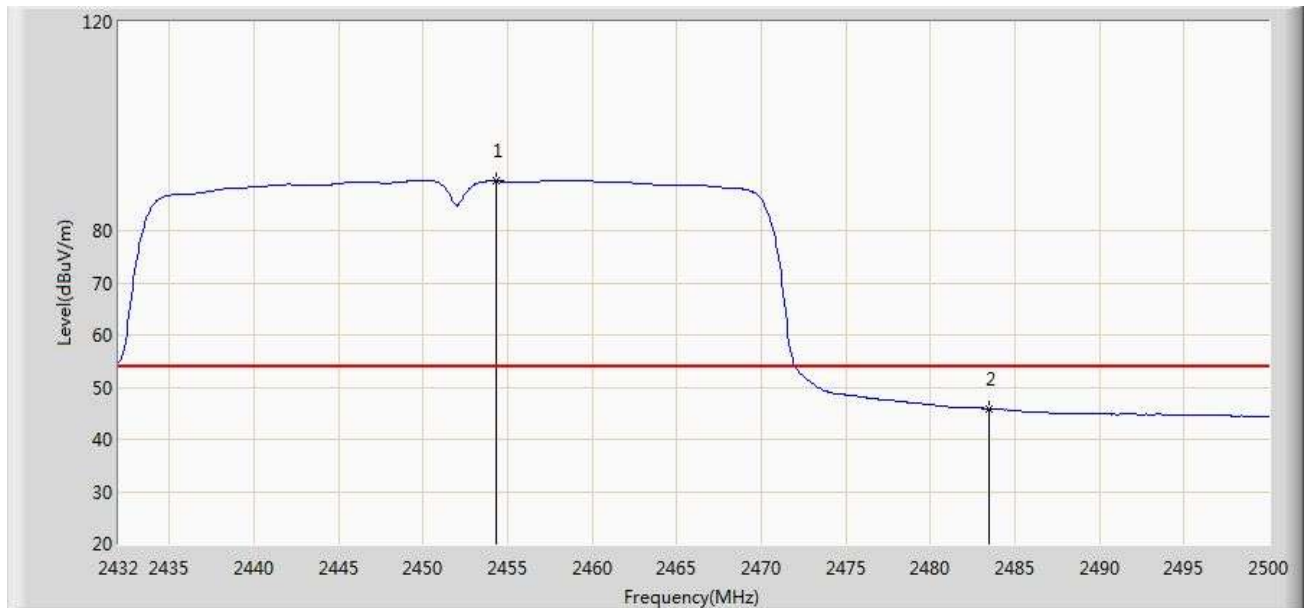
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | | 2390.000 | 46.317 | 15.633 | -7.683 | 54.000 | 30.684 | AV |
| 2 | | * | 2428.668 | 86.315 | 55.696 | N/A | N/A | 30.618 | AV |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:40 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT40 Channel 2452MHz | |



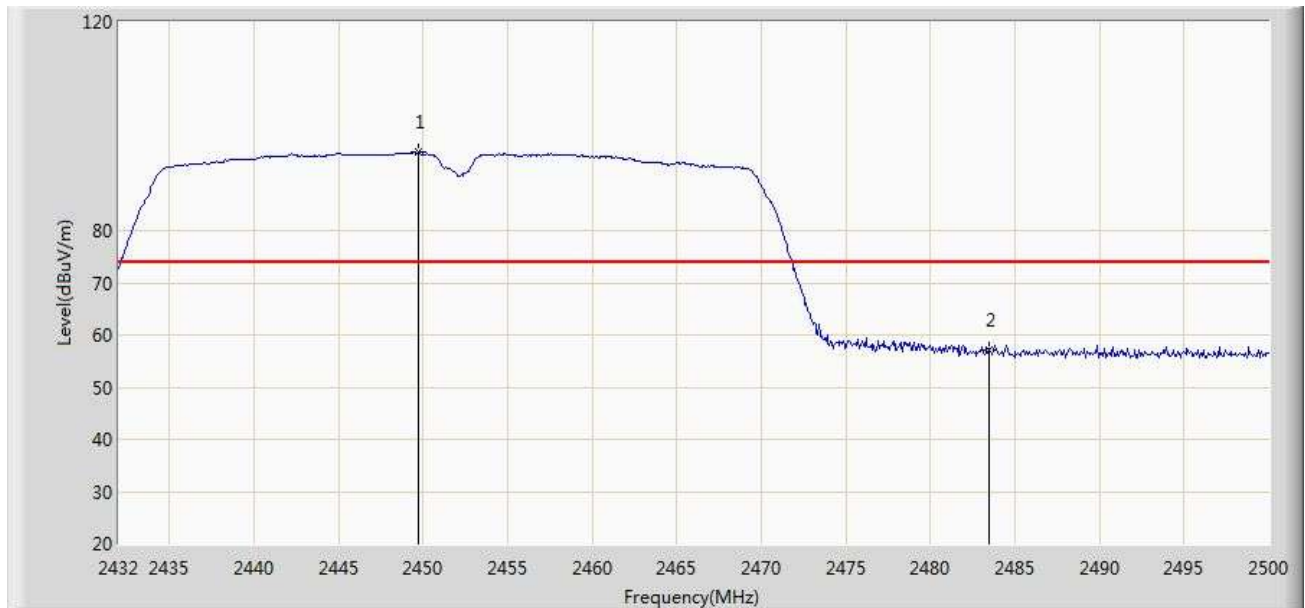
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2455.324 | 99.668 | 69.067 | N/A | N/A | 30.601 | PK |
| 2 | | | 2483.500 | 58.740 | 28.067 | -15.260 | 74.000 | 30.673 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 18:59 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Horizontal |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT40 Channel 2452MHz | |



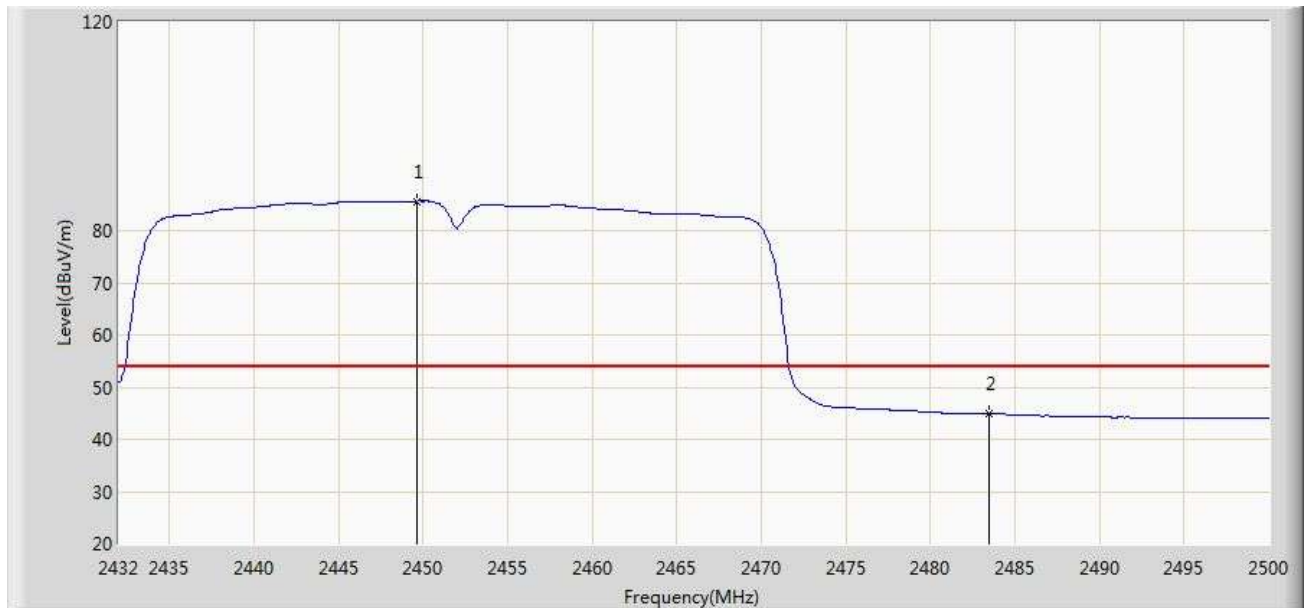
| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2454.304 | 89.458 | 58.858 | N/A | N/A | 30.599 | AV |
| 2 | | | 2483.500 | 45.869 | 15.196 | -8.131 | 54.000 | 30.673 | AV |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 19:00 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT40 Channel 2452MHz | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2449.748 | 95.144 | 64.551 | N/A | N/A | 30.593 | PK |
| 2 | | | 2483.500 | 57.105 | 26.432 | -16.895 | 74.000 | 30.673 | PK |

| | |
|---|--------------------------|
| Engineer: Roy Cheng | |
| Site: AC1 | Time: 2014/03/10 - 19:01 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: BBHA9120D_1-18GHz | Polarity: Vertical |
| EUT: Mobile Phone | Power: By Battery |
| Note: Test Mode: 802.11n-HT40 Channel 2452MHz | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor | Type |
|----|------|------|-----------------|------------------------|----------------------|-----------------|----------------|--------|------|
| 1 | | * | 2449.612 | 85.648 | 55.055 | N/A | N/A | 30.593 | AV |
| 2 | | | 2483.500 | 44.871 | 14.198 | -9.129 | 54.000 | 30.673 | AV |

7.8. AC Conducted Emissions Measurement

7.8.1. Test Limit

| FCC Part 15 Subpart C Paragraph 15.207 Limits | | |
|---|-----------|-----------|
| Frequency (MHz) | QP (dBuV) | AV (dBuV) |
| 0.15 - 0.50 | 66 - 56 | 56 – 46 |
| 0.50 - 5.0 | 56 | 46 |
| 5.0 - 30 | 60 | 50 |

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

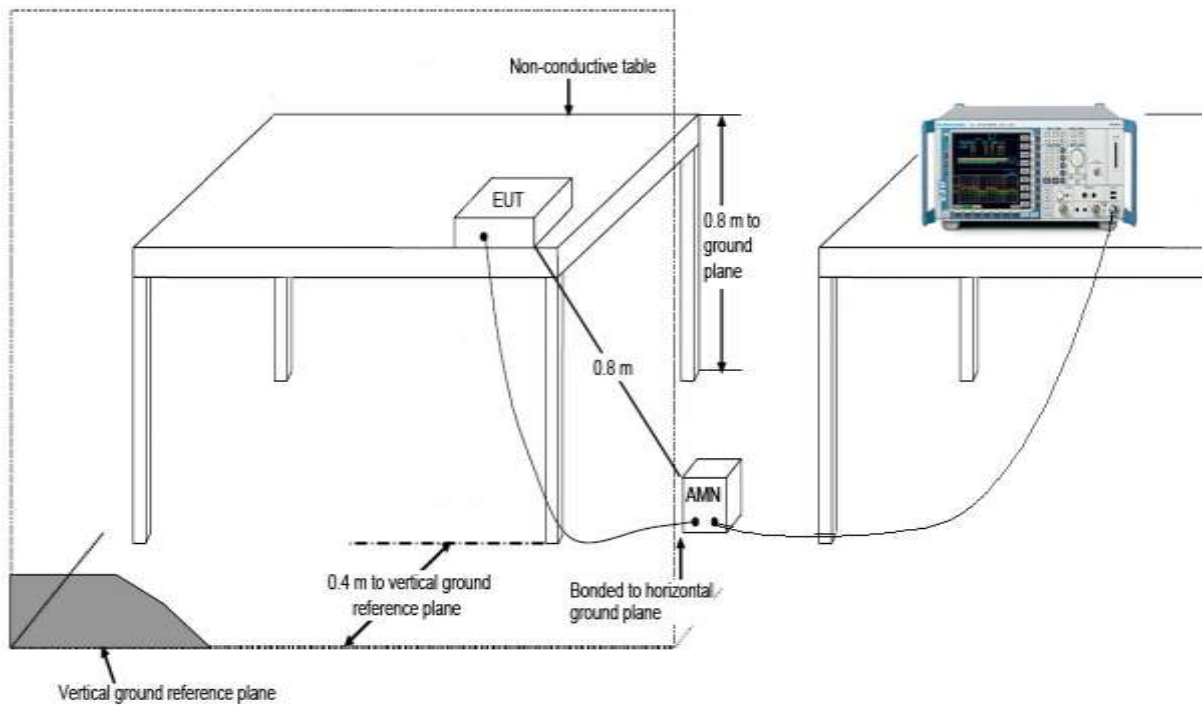
7.8.2. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

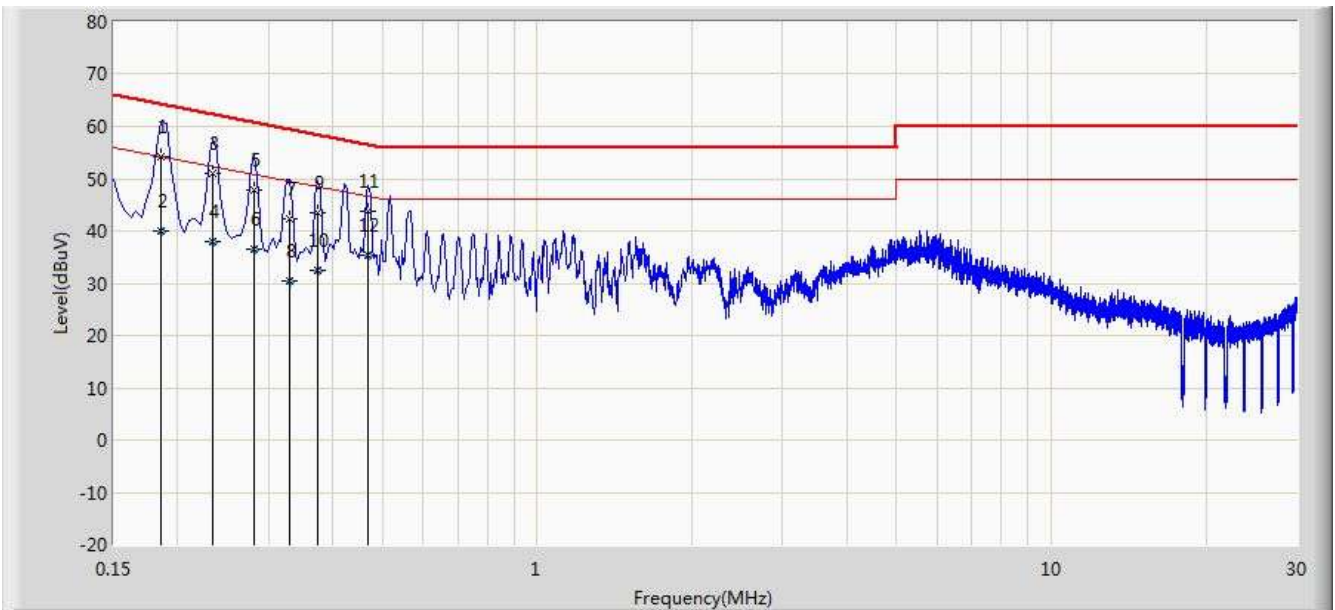
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

7.8.3. Test Setup



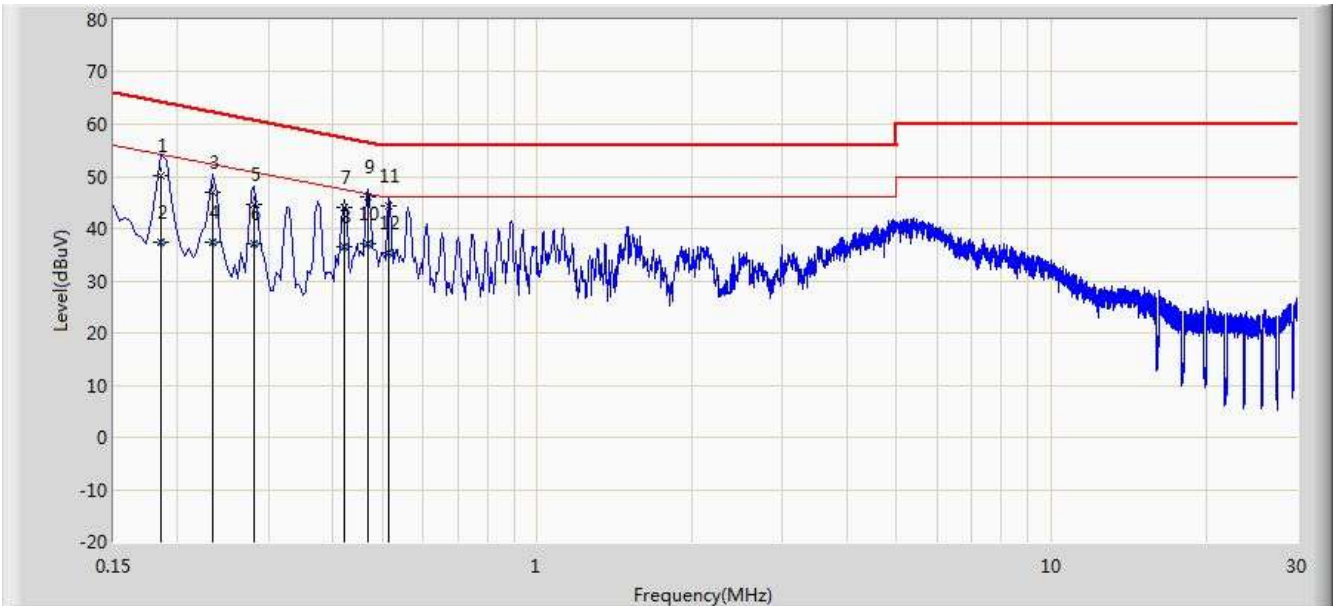
7.8.4. Test Result

| | |
|-----------------------------------|--------------------------|
| Engineer: Milo Li | |
| Site: SR2 | Time: 2014/03/13 - 13:53 |
| Limit: FCC_Part15.207_CE_AC Power | Margin: 0 |
| Probe: ENV216_101683_Filter On | Polarity: Line |
| EUT: Mobile Phone | Power: AC 120V/60Hz |
| Note: Normal Operation | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV) | Factor | Type |
|----|------|------|-----------------|----------------------|----------------------|-----------------|--------------|--------|------|
| 1 | | * | 0.186 | 54.248 | 44.209 | -9.966 | 64.213 | 10.039 | QP |
| 2 | | | 0.186 | 40.026 | 29.987 | -14.187 | 54.213 | 10.039 | AV |
| 3 | | | 0.234 | 51.022 | 41.071 | -11.285 | 62.307 | 9.951 | QP |
| 4 | | | 0.234 | 38.045 | 28.094 | -14.262 | 52.307 | 9.951 | AV |
| 5 | | | 0.282 | 47.810 | 37.820 | -12.947 | 60.757 | 9.990 | QP |
| 6 | | | 0.282 | 36.641 | 26.651 | -14.116 | 50.757 | 9.990 | AV |
| 7 | | | 0.330 | 42.380 | 32.352 | -17.071 | 59.451 | 10.028 | QP |
| 8 | | | 0.330 | 30.308 | 20.280 | -19.143 | 49.451 | 10.028 | AV |
| 9 | | | 0.374 | 43.534 | 33.470 | -14.878 | 58.412 | 10.064 | QP |
| 10 | | | 0.374 | 32.504 | 22.440 | -15.907 | 48.412 | 10.064 | AV |
| 11 | | | 0.470 | 43.794 | 33.652 | -12.720 | 56.514 | 10.142 | QP |
| 12 | | | 0.470 | 35.348 | 25.206 | -11.166 | 46.514 | 10.142 | AV |

| | |
|-----------------------------------|--------------------------|
| Engineer: Milo Li | |
| Site: SR2 | Time: 2014/03/13 - 14:01 |
| Limit: FCC_Part15.207_CE_AC Power | Margin: 0 |
| Probe: ENV216_101683_Filter On | Polarity: Neutral |
| EUT: Mobile Phone | Power: AC 120V/60Hz |
| Note: Normal Operation | |



| No | Flag | Mark | Frequency (MHz) | Measure Level (dBuV) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV) | Factor | Type |
|----|------|------|-----------------|----------------------|----------------------|-----------------|--------------|--------|------|
| 1 | | | 0.186 | 50.115 | 40.080 | -14.098 | 64.213 | 10.035 | QP |
| 2 | | | 0.186 | 37.357 | 27.322 | -16.856 | 54.213 | 10.035 | AV |
| 3 | | | 0.234 | 46.847 | 36.858 | -15.460 | 62.307 | 9.989 | QP |
| 4 | | | 0.234 | 37.385 | 27.397 | -14.921 | 52.307 | 9.989 | AV |
| 5 | | | 0.282 | 44.626 | 34.602 | -16.131 | 60.757 | 10.025 | QP |
| 6 | | | 0.282 | 37.153 | 27.128 | -13.604 | 50.757 | 10.025 | AV |
| 7 | | | 0.422 | 44.097 | 33.968 | -13.312 | 57.409 | 10.129 | QP |
| 8 | | | 0.422 | 36.449 | 26.320 | -10.960 | 47.409 | 10.129 | AV |
| 9 | | | 0.470 | 46.199 | 36.035 | -10.315 | 56.514 | 10.164 | QP |
| 10 | | * | 0.470 | 37.141 | 26.977 | -9.372 | 46.514 | 10.164 | AV |
| 11 | | | 0.514 | 44.204 | 34.029 | -11.796 | 56.000 | 10.176 | QP |
| 12 | | | 0.514 | 35.345 | 25.169 | -10.655 | 46.000 | 10.176 | AV |

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **Mobile Phone FCC ID:**

2ABZGB8402 is in compliance with Part 15C of the FCC Rules.