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FCC WIRELESS EQUIPMENT TEST&MEASUREMENT REPORT

On Model Name: 10.1" PAD

Model Numbers: 101P***

Brand Name: N/A

FCC ID Number: ROU00002

Prepared for Shenzhen KTC Technology Co., Ltd.

Test Specification: FCC Part 15, Subpart C

Test Report #: SHE-1212-10930-FCC ID

Tested by: Severine ECMG
Engineer Company Name

Reviewed by: Jane Zhang ECMG
Senior Engineer Company Name

QC Manager: Swall Zhang ECMG
QC Manager Company Name

Test Report Released by: Swall Zhang January 20th, 2013
Swall Zhang Date

List of Attached Files

| <i>Exhibit Type</i> | <i>File Description</i> | <i>File Name</i> |
|------------------------------|--------------------------------|---|
| <i>Test Report</i> | <i>Test Report</i> | <i>ROU00002 _ Test report.pdf</i> |
| <i>Operation Description</i> | <i>Technical Description</i> | <i>ROU00002 _ Operation Description.pdf</i> |
| <i>External Photos</i> | <i>External Photos</i> | <i>ROU00002 _ External Photos.pdf</i> |
| <i>Internal Photos</i> | <i>Internal Photos</i> | <i>ROU00002 _ Internal Photos.pdf</i> |
| <i>Block Diagram</i> | <i>Block Diagram</i> | <i>ROU00002 _ Block Diagram.pdf</i> |
| <i>Schematics</i> | <i>Circuit Diagram</i> | <i>ROU00002 _ Schematics.pdf</i> |
| <i>ID Label/Location</i> | <i>Label and Location</i> | <i>ROU00002 _ Label & Location.pdf</i> |
| <i>User Manual</i> | <i>User Manual</i> | <i>ROU00002 _ User Manual.pdf</i> |
| <i>Test Setup Photos</i> | <i>Test Setup Photos</i> | <i>ROU00002 _ Test Setup Photos.pdf</i> |

Test Location

Tests performed in a Certified ANSI Semi-Anechoic Chamber and Shielded Room.

Test Site Location : **Galanz**
*25 South Ronggui Rd., Shunde,
Foshan, Guangdong, China*

Tel : (86)-757-23612785

Fax : (86)-757-23612537

Test Facility

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

- **CNAL - LAB Code: L2244**

Galanz EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.

- **FCC - Registration No.: 580210**

Galanz EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC was maintained in our files.

List of Test and Measurement Instruments

| No. | Equipment | Manufacturer | Model No. | Serial No. | Calibrated Until |
|------------|---|--------------|-----------|------------|------------------|
| GAL-EMC002 | Shielding Room | ETS | N/A | N/A | 2013-05-18 |
| GAL-EMC056 | Spectrum Analyzer (9KHz-30GHz) | R&S | FSP30 | 100755 | 2013-11-30 |
| GAL-EMC003 | EMI Receiver | SCHAFFNER | SMR4503 | 11725 | 2013-11-30 |
| GAL-EMC005 | LISN | ETS | 4825/2 | 1161 | 2013-11-30 |
| GAL-EMC100 | Coaxial Cable | ATC-Lab | N/A | N/A | 2013-11-30 |
| GAL-EMC007 | Double-ridged Wave guide horn | ETS | 3115 | 6587 | 2013-11-30 |
| GAL-EMC075 | Double-ridged Wave guide horn | ETS | 3160 | 00052486 | 2013-11-30 |
| GAL-EMC008 | Microwave system amplifier (0.5G-26.5G) | Agilent | 83017A | MY39500438 | 2013-11-30 |
| GAL-EMC055 | Band-pass Filter | Micro-Tronic | BRM50702 | S/N-030 | 2013-11-30 |
| GAL-EMC017 | Biconilog Antenna | ETS | 3142C | 00042672 | 2013-11-30 |
| GAL-EMC001 | Semi-anechoic Chamber | ETS | N/A | N/A | 2013-11-30 |

Note: All testing were performed using internationally recognized standards. All test instruments were calibrated.

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Reproduction Clause

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Opinions and Interpretations

This test report relates to the abovementioned equipment under test (EU T). Without the permission of ECMG Electronic Technical Testing Corp (Shenzhen). Test Lab this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark on this or similar products. The manufacturer has sole responsibility of continued compliance of the device.

Statement of Measurement Uncertainty

The data and results referenced in the document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities that can account for a nominal measurement error. Furthermore, component and process variability of devices similar to that tested may result in additional deviation.

Administrative Data

Test Sample : 10.1" PAD

Model Name : 101P***

Model Tested : 101P11C

Receipt Date : January 14th, 2012

Date Tested : January 14th to 19th, 2012

Applicant : Shenzhen KTC Technology Co., Ltd.

Address : Northern Wuhe Road, Gangtou, Buji, Longgang, Shenzhen, China

Telephone : (86)-755-33688121

Fax : (86)-755-33615329

Manufacturer : Shenzhen KTC Technology Co., Ltd.

Address : Northern Wuhe Road, Gangtou, Buji, Longgang, Shenzhen, China

Telephone : (86)-755-33688121

Fax : (86)-755-33615329

Factory : Shenzhen KTC Technology Co., Ltd.

Address : The workshop No#1, Northern Wuhe Road, Gangtou, Buji, Longgang, Shenzhen, China

Telephone : (86)-755-33688121

Fax : (86)-755-33615329

EUT Description

Shenzhen KTC Technology Co., Ltd., model tested 101P11C (referred to as the EUT in this report) is an 10.1 " PAD.

The EUT is an 10.1" PAD with WLAN and bluetooth function and main technical specifications of the EUT as belows:

| Parameter | | Range | | | |
|-------------------------------|--|--|------------------------|--------------------|------------------------|
| <i>Rating</i> | <i>Rated voltage</i> | <i>DC9V</i> | | | |
| | <i>Rated Current</i> | <i>2.0A</i> | | | |
| <i>Wireless specification</i> | <i>Operating band</i> | 2400-2483.5MHz | | | |
| | <i>FCC Classification</i> | <i>Digital Transmit system</i> | | | |
| | <i>Working Frequency of Each Channel</i> | <i>Channel No.</i> | <i>Frequency (MHz)</i> | <i>Channel No.</i> | <i>Frequency (MHz)</i> |
| | | 001 | 2412 | 007 | 2442 |
| | | 002 | 2417 | 008 | 2447 |
| | | 003 | 2422 | 009 | 2452 |
| | | 004 | 2427 | 010 | 2457 |
| | | 005 | 2432 | 011 | 2462 |
| | | 006 | 2437 | --- | --- |
| | <i>Frequency of Number</i> | <i>IEEE 802.11b/g: 11 channels; Draft 802.11n standard 20MHz: 11channels;</i> | | | |
| | <i>Modulation Type</i> | <i>802.11b: DBPSK,DQPSK,CCK (DSSS); 802.11g/n: BPSK,QPSK,16-QAM,64-QAM (OFDM)</i> | | | |
| | <i>Data Rate</i> | <i>802.11b : 1, 2, 5.5, 11Mbps; 802.11g : 6, 9, 12, 18, 24, 36, 48, 54Mbps; 802.11n-20: MCS0-MCS7;</i> | | | |
| | <i>Antenna Spec.</i> | <i>Small antennas with 0~2 dBi peak gain(1T1R)</i> | | | |

Continue on the next page...

| | | |
|------------------------|--------------------------|--|
| I/O Ports | DC Power Jack | 9V DC Power connector port |
| | Mini USB Port | USB devices may be connected via the USB port |
| | TF Card Slot | TF card could be inserted in for picture/music/video files storage |
| | HDMI out | High-Definition Multimedia Interface |
| | Earphone Jack | Earphone connector port |
| Universal Power Supply | AC Adapter #1: | |
| | Input | AC 100-240V 50/60Hz,0.4A |
| | Output | DC 9V,2A |
| | Model | SFF0500200A1BA |
| | Brand name& Manufacturer | Mass Power |
| | AC Adapter #2: | |
| | Input | AC 100-240V 50/60Hz,0.5A |
| | Output | DC 9V,2A |
| | Model | HND050200U |
| | Brand name& Manufacturer | HUONIU |
| | AC Adapter #3: | |
| | Input | AC 100-240V 50/60Hz,0.45A |
| | Output | DC 9V,2A |
| | Model | ASSA1A-050200 |
| | Brand name& Manufacturer | AQUIL STAR PRECISION INDUSTRIAL(SHENZHEN)CO.,LTD |

NOTE:

1. For more detailed informations or features please refer to user's manual of EUT.
2. Pre-Scan has been conducted to determine the worst-case from all possible combinations between available AC adapter, the worst-case AC adapter #1(Mass Power) was selected for the all testing.

EUT Model Derived

*101P*** model designations as follows:*

101: express screen size is 10.1 inches;

“P”: express Pad;

The first “”: can be 0-9, express various front panel style;*

The second “”: can be 0-9, express various rear cover style;*

The third “”: can be A-Z, express various surface frame color.*

Model 101P11C was selected for the final testing.

Test Summary

The Electromagnetic Compatibility requirements on tested model 101P11C for this test is stated below. All results listed in this report relate exclusively to this above-mentioned model as the Equipment Under Test. This report confers no approval or endorsement upon any other component, host or subsystem used in the test set-up.

Tested model 101P11C has been tested to conform to the following parts of the Part 15, Subpart C as detailed below:

| FCC Rules | Requirement | Result | Remark |
|------------------------------|---------------------------|---------------|---------------|
| §15.247(c)(1)(i); §15.203 | Antenna Requirement | Compliant | Attachment 1 |
| §15.207 | Conducted Emission | Compliant | Attachment 2 |
| §15.205(a); §15.209(a) | Radiated Emission | Compliant | Attachment 3 |
| §15.247(b) | Maximum Peak Output Power | Compliant | Attachment 4 |
| §15.247(a)(2) | Occupied Bandwidth | Compliant | Attachment 5 |
| §15.247(d) | Edges Measurement | Compliant | Attachment 6 |
| §15.247(e) | Power Spectral Density | Compliant | Attachment 7 |

Test Mode Applicability and Tested Channel Detail

The EUT is a portable device that has three orientations; therefore, X Y and Z orientations have been investigated, and the worst case was found to be at Y position.

Regards to the frequency band over 10MHz, the lowest, middle and highest frequency of channel were selected to perform the test, and then shown on this report.

Pre-Scan has been conducted to determine the worst-case from all possible combinations between available modulations,data rate.The following mode& channels were chosen for final test as listed belows.

For IEEE 802.11b/g mode & IEEE 802.11n HT20 mode:

| Carried Frequency (MHz) | Channel Type& Number | Duty Cycle | Data Rate (Mbps) | Modulation Type |
|-------------------------|----------------------|------------|---|--|
| 2412 | Channel Low | 100% | IEEE 802.11b:1Mbps; IEEE 802.11g: 6Mbps; IEEE 802.11n HT20: MCS0; | IEEE 802.11b for DSSS; IEEE 802.11g & 802.11n HT20 For OFDM |
| 2437 | Channel Mid | | | |
| 2462 | Channel High | | | |

EUT Exercise Software

During testing an exercise software which “Ampak RF Test Tool” was provided by Shenzhen KTC Technology Co., Ltd., runs on Android system and control IEEE 802.11b/g/n operating on a continuous transmission mode and receive mode.

Equipment Modification

Any modifications installed previous to testing by Shenzhen KTC Technology Co., Ltd., will be incorporated in each production model sold or leased in United States.

There were no modifications for this EUT intended for grant.

Test System Details

| EUT | | | |
|--------------------------|-----------------------------------|---------------|--------------|
| Model Number: | 101P*** | | |
| Description: | 10.1 " PAD | | |
| Manufacturer: | Shenzhen KTC Technology Co., Ltd. | | |
| Input Voltage: | DC 9V | | |
| Support Equipment | | | |
| Description | Model Number | Serial Number | Manufacturer |
| | | None | |

| Cable Description | | | | | |
|-------------------------------------|-----|------|-----|---|---|
| AC Adapter | EUT | Plug | 1.8 | N | N |
| Note: The "EUT" means "10.1 " PAD". | | | | | |

NOTE: The EUT has been tested as an independent unit together with other necessary accessories or support units. the above support units or accessories were used to form a representative test configuration during the test tests.

ATTACHMENT 1 - ANTENNA REQUIREMENT

§15.203 Requirements:

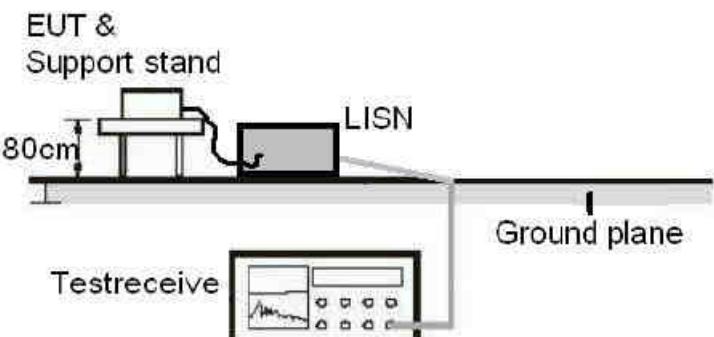
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. 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. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

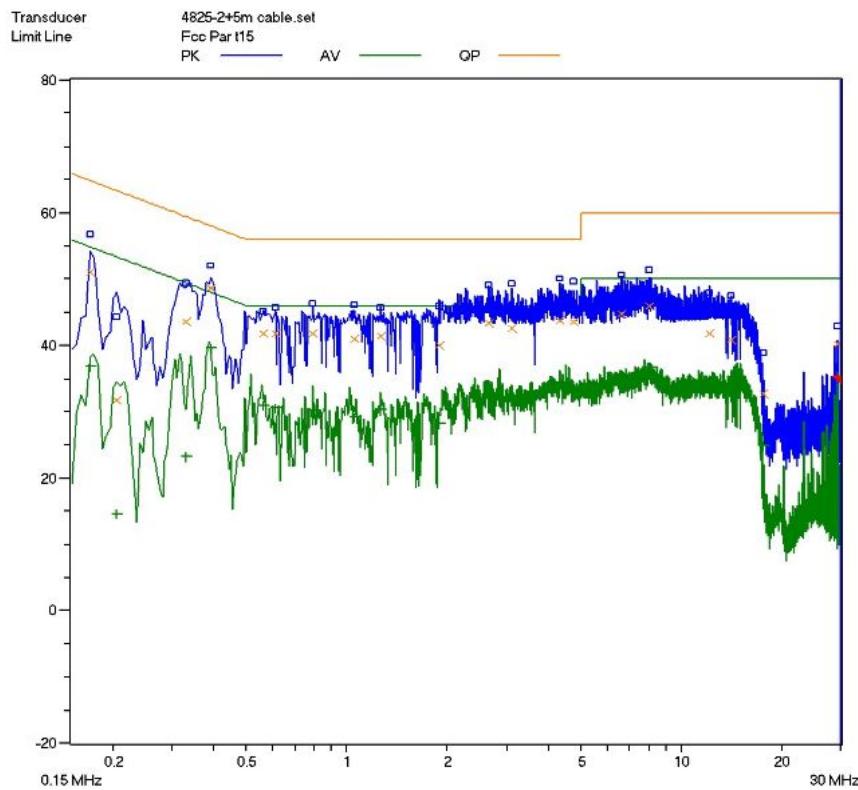
§15.247(c) (1)(i) Requirements:

(i) Systems operating in the 2400-2483.5 MHz bands that are 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 6 dBi.

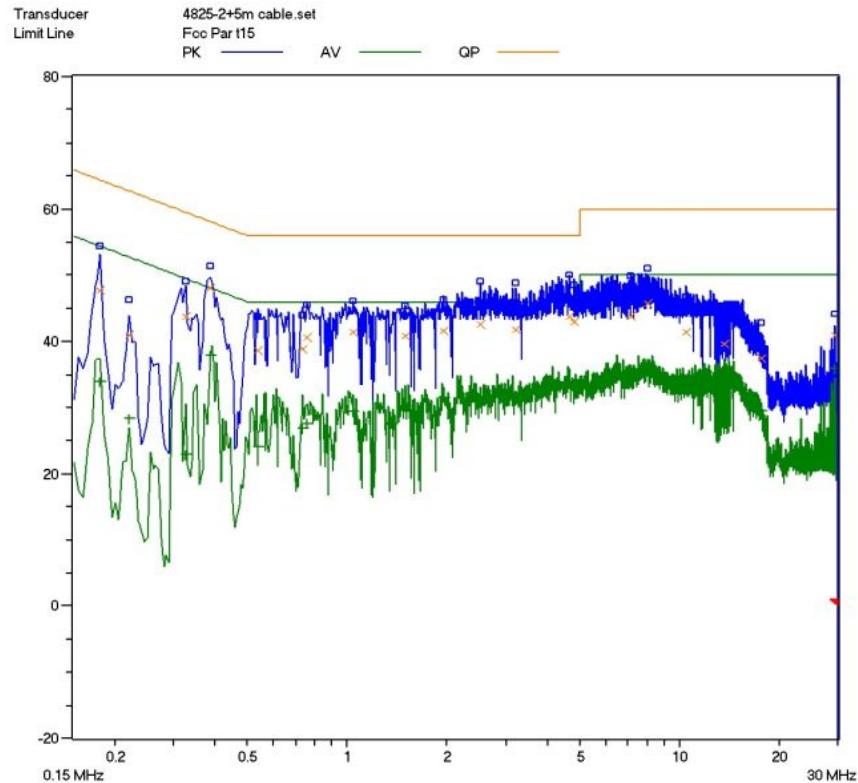
| FCC Section | FCC Rules | Conclusion |
|------------------------------------|--|--|
| §15.203& §15.207 (c) (1) (i) | <p><i>Described how the EUT complies with the requirements that either its antenna is permanently attached, or that it employ a unique antenna connector, for every antenna proposed for use with the EUT.</i></p> <p><i>The exception is in those cases where EUT must be professionally installed. In order to demonstrate that professional installation is required, the following 3 points must be addressed:</i></p> <ol style="list-style-type: none"> 1. <i>The application (or intended use) of the EUT.</i> 2. <i>The installation requirements of the EUT.</i> 3. <i>The method by which the EUT will be marketed.</i> | <p><i>The EUT uses a PIFA antenna, maximal gain of the antenna is 2.0 dBi and uses an unique connector.</i></p> <p><i>So the unit do meet requirement.</i></p> |

ATTACHMENT 2 - CONDUCTED EMISSION TEST RESULTS

| | | | |
|-----------------------------------|---|-------------------------|---------------------------------|
| CLIENT: | SHENZHEN KTC TECHNOLOGY CO., LTD. | TEST STANDERD: | Section 15.207 |
| MODEL NUMBERS: | 101P*** | PRODUCT: | 10.1" PAD |
| EUT MODEL: | 101P11C | EUT DESIGNATION: | Digital Transmission Device |
| TEMPERATURE: | 23°C | HUMIDITY: | 47%RH |
| ATM PRESSURE: | 101.0kPa | GROUNDING: | None |
| TESTED BY: | Sewen Guo | DATE OF TEST: | January 19 th , 2013 |
| TEST REFERENCE: | ANSI C63.4: 2003 | | |
| TEST PROCEDURE: | The EUT was set up according to the guidelines of ANSI C63.4:2003 for conducted emissions. The measurement was using a AMN on each line and an EMI receiver peak scan was made at the frequency measurement range. The six highest significant peaks were then marked, and these signals were then quasi-peaked and averaged. | | |
| TEST SETUP |  | | |
| DESCRIPTIONS OF TEST MODE: | Set to Wi-Fi mode, communicate with a notebook PC by wireless router nearby. | | |
| TESTED RANGE: | 150kHz to 30MHz | | |
| TEST VOLTAGE: | 120VAC/60Hz | | |
| RESULTS: | The EUT meet the requirements of test reference for conducted missions at AC input port. The test results relate only to the equipment under test provided by client. | | |
| CHANGES OR MODIFICATIONS: | There were no modifications installed by ECMG Electronic Technical Testing Corp (Shenzhen) test personnel. | | |
| M. UNCERTAINTY: | Freq. $\pm 2 \times 10^{-7}$ x Center Freq., Amp ± 2.6 dB | | |



Line L Conducted Emission Graph



Line N Conducted Emission Graph

Test Data:

| Lines | Frequency (MHz) | Corrected QP Level (dBuV) | Limits QP (dBuV) | Margin QP (dB) | Frequency (MHz) | Corrected AV Level (dBuV) | Limits AV (dBuV) | Margin QP (dB) |
|-------|-----------------|---------------------------|------------------|----------------|-----------------|---------------------------|------------------|----------------|
| L | 0.170 | 51.1 | 64.9 | -13.8 | 0.170 | 36.9 | 54.9 | -18.0 |
| L | 0.390 | 48.0 | 58.0 | -10.0 | 0.390 | 39.7 | 48.0 | -8.3 |
| L | 7.890 | 45.9 | 60.0 | -14.1 | 7.890 | 36.6 | 50.0 | -13.4 |
| L | / | / | / | / | / | / | / | / |
| L | / | / | / | / | / | / | / | / |
| L | / | / | / | / | / | / | / | / |
| N | 0.180 | 47.8 | 64.4 | -16.6 | 0.180 | 33.9 | 54.4 | -20.5 |
| N | 0.385 | 48.1 | 58.2 | -10.1 | 0.385 | 37.8 | 48.2 | -10.4 |
| N | 7.995 | 45.7 | 60.0 | -14.3 | 7.995 | 36.6 | 50.0 | -13.4 |
| N | / | / | / | / | / | / | / | / |
| N | / | / | / | / | / | / | / | / |
| N | / | / | / | / | / | / | / | / |

Note :

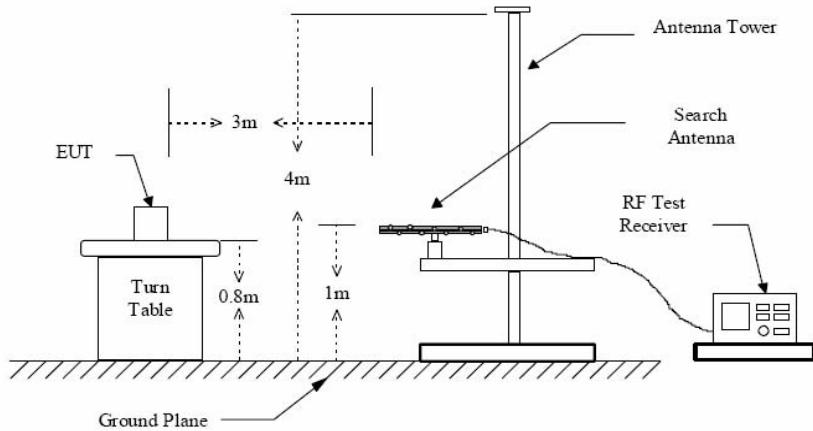
- 1) All readings are using a bandwidth of 9 kHz, with a 500 ms sweep time. A video filter was not used.
- 2) "QP" means "Quasi-Peak" values, "AV" means "Average" values.
- 3) The symbol "/" means other emission readings are too low against official limits that are not be recorded.

ATTACHMENT 3- RADIATED EMISSION TEST

| | | | |
|---------------------------------|---|-------------------------|---|
| CLIENT: | SHENZHEN KTC TECHNOLOGY CO., LTD. | TEST STANDERD: | Section 15.209(a), Section 15.205(a) |
| MODEL NUMBERS: | 101P*** | PRODUCT: | 10.1" PAD |
| EUT MODEL: | 101P11C | EUT DESIGNATION: | Digital Transmission Device |
| TEMPERATURE: | 23°C | HUMIDITY: | 47%RH |
| ATM PRESSURE: | 101.0kPa | GROUNDING: | None |
| TESTED BY: | Sewen Guo | DATE OF TEST: | January 18 th , 2013 |
| TEST REFERENCE: | ANSI C63.4: 2003 | | |
| TEST PROCEDURE: | <p>The EUT was set up according to the guidelines of ANSI C63.4: 2003 for radiated emissions. An EMI receiver peak scan was made at the frequency measurement range (pre-scan) in an Anechoic chamber. Test procedure as follow:</p> <ul style="list-style-type: none"> a) The EUT is placed on a turntable, which is 0.8 m above ground plane. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. b) The EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions. c) Maximum procedure was performed on the six highest emissions to ensure EUT compliance. d) And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. e) Repeat above procedures until the measurements for all frequencies are complete. | | |
| DESCRIPTION OF TEST MODE | <p>For below 1GHz:</p> <p>Set to Wi-Fi mode, pre-scan all channels of the IEEE 802.11b/g/n, and found the 801.11b mode, channel 1 with data rate of 1Mbps which is worst-case. So 802.11b mode, channel 1 with data rate of 1Mbps was chosen for the final testing and recorded in report.</p> <p>For above 1GHz:</p> <p>Pre-Scan has been conducted to determine the worst-case from all possible combinations between available modulations, data rate and antenna ports (if EUT with antenna diversity architecture). Following channels were chosen for the final test as listed below: 802.11b mode with data rate of 1Mbps, 802.11g mode with data rate of 6Mbps, 802.11n HT20 mode with data rate of MCS0 .</p> | | |

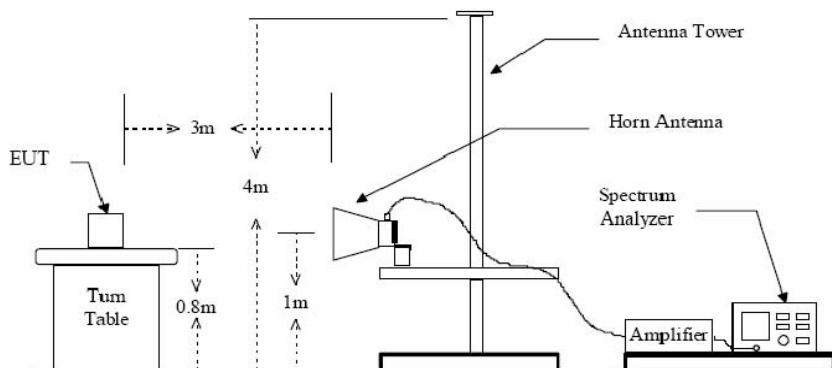
| | | | | | | | |
|---------------------------|---|------------------|--|--------|------------|--|--|
| MEASUREMENT SETUP: | <i>Measurement receiver shall be set as below:</i> | | | | | | |
| | Frequency (MHz) | Receive detector | RBW | VBW | Value | | |
| | 30-1000 | Quasi-peak | 120KHz | 300KHz | Quasi-peak | | |
| | Above 1000 | Peak | 1MHz | 1MHz | Peak | | |
| | Above 1000 | Peak | 1MHz | 10Hz | average | | |
| LIMITS: | <i>Section 15.209 limits as below:</i> | | | | | | |
| | <i>Other Frequency (MHz)</i> | | <i>Field strength (uV/meter) dB uV/meter</i> | | | | |
| | 30-88 | | 100 | 40.0 | | | |
| | 88-216 | | 150 | 43.5 | | | |
| | 216-960 | | 200 | 46.0 | | | |
| | Above 960 | | 500 | 54.0 | | | |
| | <i>NOTE:</i> | | | | | | |
| | 1) <i>Field Strength (dBmV/m) = 20log Field Strength (mV/m).</i> | | | | | | |
| | 2) <i>In the emission tables above, the tighter limit applies at the band edge.</i> | | | | | | |
| TESTED RANGE: | 30MHz to 25GHz | | | | | | |
| TEST VOLTAGE: | 120VAC/60Hz | | | | | | |
| RESULTS: | According to the data in the following, the EUT complied with the FCC Part 15.209 &15.205. The test results relate only to the equipment under test provided by client. | | | | | | |

Figure 1 : Frequencies measured below 1 GHz configuration



TEST SETUP:

Figure 2 : Frequencies measured above 1 GHz configuration



| | |
|----------------------------------|--|
| CHANGES OR MODIFICATIONS: | There were no modifications installed by ECMG Electronic Technical Testing Corp (Shenzhen) test personnel. |
| M. UNCERTAINTY: | Freq. $\pm 2 \times 10^{-7} \times$ Center Freq., Amp ± 4.5 dB |

Test Data (Below 1GHz):**For 802.11b mode, channel 1 with data rate of 1Mbps:**

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level QP (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-------------------|-----------------|---------------------|--------------------|---------------------------|-------------------------|----------------|-------------|
| Horizontal | | | | | | | |
| 40.640 | 0.02 | 16.8 | / | 5.88 | 22.7 | 40.0 | -17.3 |
| 240.000 | 0.15 | 12.9 | / | 22.25 | 35.3 | 46.0 | -10.7 |
| 322.960 | 0.16 | 13.4 | / | 12.94 | 26.5 | 46.0 | -19.5 |
| 432.000 | 0.20 | 15.8 | / | 12.40 | 28.4 | 46.0 | -17.6 |
| 720.000 | 0.39 | 20.7 | / | 13.61 | 34.7 | 46.0 | -11.3 |
| 799.840 | 0.39 | 22.2 | / | 14.31 | 36.9 | 46.0 | -9.1 |
| Vertical | | | | | | | |
| 30.640 | 0.02 | 16.8 | / | 21.1 | 37.9 | 40.0 | -2.1 |
| 265.920 | 0.15 | 12.9 | / | 18.55 | 31.6 | 46.0 | -14.4 |
| 307.920 | 0.16 | 13.7 | / | 7.64 | 21.5 | 46.0 | -24.5 |
| 531.280 | 0.30 | 18.1 | / | 10.00 | 28.4 | 46.0 | -17.6 |
| 584.720 | 0.30 | 19.0 | / | 11.40 | 30.7 | 46.0 | -15.3 |
| 648.000 | 0.36 | 20.0 | / | 10.54 | 30.9 | 46.0 | -15.1 |

Note:

1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows: Emission Level =Reading Level + Antenna Factor + Cable Loss -Preamplifier Factor.
2. Other emission levels are too low against official limits that are not recorded.

**Test Data (Above 1GHz):
802.11b mode/Low Channel: 2412MHz**

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|-------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Peak Measurement | | | | | | | | |
| 1656.00 | 1.71 | 26.1 | 33.6 | 65.43 | 59.64 | 74 | -14.36 | V |
| 4823.26 | 3.26 | 32.9 | 32.0 | 53.30 | 57.46 | 74 | -30.90 | V |
| 7246.00 | 4.67 | 36.0 | 30.5 | 52.77 | 62.94 | 74 | -11.06 | V |
| 7392.00 | 5.32 | 36.2 | 30.5 | 29.35 | 40.37 | 74 | -33.63 | V |
| 8320.52 | 4.67 | 35.8 | 29.9 | 29.99 | 40.56 | 74 | -33.44 | V |
| 7250.00 | 4.67 | 36.0 | 30.5 | 40.13 | 50.3 | 74 | -23.70 | V |
| 1656.00 | 1.71 | 26.1 | 33.6 | 60.44 | 54.65 | 74 | -19.35 | H |
| 4823.26 | 3.26 | 32.9 | 32.0 | 55.94 | 60.10 | 74 | -13.90 | H |
| 7246.00 | 4.67 | 36.0 | 30.5 | 52.75 | 62.92 | 74 | -11.08 | H |
| 4808.0 | 3.26 | 32.9 | 32.0 | 45.08 | 49.24 | 74 | -24.76 | H |
| 3212.0 | 3.26 | 32.2 | 32.1 | 36.94 | 40.30 | 74 | -33.70 | H |
| 1272.5 | 1.71 | 23.9 | 33.6 | 55.55 | 47.56 | 74 | -26.44 | H |

| Frequency (MHz) | Cable Loss(dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|----------------------------|----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Average Measurement | | | | | | | | |
| 1656.00 | 1.71 | 26.1 | 33.6 | 56.75 | 51.00 | 54 | -3.00 | V |
| 4823.26 | 3.26 | 32.9 | 32.0 | 49.84 | 44.10 | 54 | -9.90 | V |
| 7246.00 | 4.67 | 36.0 | 30.5 | 40.45 | 50.66 | 54 | -3.34 | V |
| 7392.00 | 4.10 | 36.20 | 30.5 | 18.67 | 28.47 | 54 | -25.53 | V |
| 6904.85 | 4.10 | 33.90 | 30.8 | 22.8 | 30.0 | 54 | -24.00 | V |
| 5987.01 | 3.87 | 35.40 | 31.6 | 21.87 | 29.54 | 54 | -24.46 | V |
| 1656.00 | 1.71 | 26.1 | 33.6 | 57.49 | 51.7 | 54 | -2.30 | H |
| 4823.26 | 3.26 | 32.9 | 32.0 | 41.61 | 45.77 | 54 | -8.23 | H |
| 7246.00 | 4.67 | 36.0 | 30.5 | 39.41 | 49.58 | 54 | -4.42 | H |
| 1170.00 | 1.39 | 23.9 | 31.6 | 39.63 | 33.32 | 54 | -20.68 | H |
| 5672.00 | 3.87 | 35.40 | 31.6 | 22.48 | 30.15 | 54 | -23.85 | H |
| 4503.34 | 3.26 | 33.5 | 32.0 | 25.74 | 30.50 | 54 | -23.50 | H |

802.11b mode/Mid Channel: 2437MHz

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|-------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Peak Measurement | | | | | | | | |
| 1656.00 | 1.71 | 26.1 | 33.6 | 65.43 | 59.64 | 74 | -14.36 | V |
| 4823.26 | 3.26 | 32.9 | 32.0 | 53.30 | 57.46 | 74 | -30.90 | V |
| 7246.00 | 4.67 | 36.0 | 30.5 | 52.77 | 62.94 | 74 | -11.06 | V |
| 1034.00 | 1.39 | 23.9 | 31.6 | 59.18 | 52.87 | 74 | -21.13 | V |
| 5320.00 | 3.50 | 32.9 | 31.6 | 40.2 | 45.00 | 74 | -29.00 | V |
| 4502.30 | 3.26 | 33.5 | 32.0 | 35.45 | 40.21 | 74 | -33.79 | V |
| 1656.00 | 1.71 | 26.1 | 33.6 | 60.44 | 54.65 | 74 | -19.35 | H |
| 4823.26 | 3.26 | 32.9 | 32.0 | 55.94 | 60.10 | 74 | -13.90 | H |
| 7246.00 | 4.67 | 36.0 | 30.5 | 52.75 | 62.92 | 74 | -11.08 | H |
| 1544.00 | 1.71 | 26.1 | 33.6 | 53.89 | 48.10 | 74 | -25.90 | H |
| 5461.00 | 3.50 | 32.9 | 31.6 | 40.33 | 45.13 | 74 | -28.87 | H |
| 6473.00 | 4.10 | 33.90 | 30.8 | 38.03 | 45.23 | 74 | -28.77 | H |

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|----------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Average Measurement | | | | | | | | |
| 1656.00 | 1.71 | 26.1 | 33.6 | 56.75 | 51.00 | 54 | -3.00 | V |
| 4823.26 | 3.26 | 32.9 | 32.0 | 49.84 | 44.10 | 54 | -9.90 | V |
| 7246.00 | 4.67 | 36.0 | 30.5 | 40.45 | 50.66 | 54 | -3.34 | V |
| 4876.00 | 3.26 | 33.5 | 32.0 | 25.12 | 29.88 | 54 | -24.12 | V |
| 3554.00 | 2.67 | 32.2 | 32.1 | 22.86 | 25.63 | 54 | -28.37 | V |
| 1257.00 | 1.39 | 23.9 | 31.6 | 41.32 | 35.01 | 54 | -18.99 | V |
| 1631.00 | 1.71 | 26.1 | 33.6 | 57.69 | 51.9 | 54 | -2.10 | H |
| 4823.26 | 3.26 | 32.9 | 32.0 | 41.61 | 45.77 | 54 | -8.23 | H |
| 7246.00 | 4.67 | 36.0 | 30.5 | 39.41 | 49.58 | 54 | -4.42 | H |
| 2224.00 | 2.01 | 28.00 | 33.0 | 35.19 | 32.20 | 54 | -21.80 | H |
| 3526.20 | 2.67 | 32.2 | 32.1 | 32.63 | 35.40 | 54 | -18.60 | H |
| 6934.00 | 4.10 | 33.90 | 30.8 | 19.1 | 26.30 | 54 | -27.70 | H |

802.11b mode/High Channel: 2462MHz

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|-------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Peak Measurement | | | | | | | | |
| 1656.00 | 1.71 | 26.1 | 33.6 | 65.43 | 59.64 | 74 | -14.36 | V |
| 4823.26 | 3.26 | 32.9 | 32.0 | 53.30 | 57.46 | 74 | -30.90 | V |
| 7246.00 | 4.67 | 36.0 | 30.5 | 52.77 | 62.94 | 74 | -11.06 | V |
| 7392.00 | 4.10 | 36.20 | 30.5 | 30.54 | 40.34 | 74 | -33.66 | V |
| 5320.15 | 3.50 | 32.90 | 31.6 | 33.4 | 38.20 | 74 | -35.80 | V |
| 6103.00 | 4.02 | 35.00 | 30.8 | 30.88 | 39.10 | 74 | -34.90 | V |
| 1656.00 | 1.71 | 26.1 | 33.6 | 60.44 | 54.65 | 74 | -19.35 | H |
| 4823.26 | 3.26 | 32.9 | 32.0 | 55.94 | 60.10 | 74 | -13.90 | H |
| 7246.00 | 4.67 | 36.0 | 30.5 | 52.75 | 62.92 | 74 | -11.08 | H |
| 7834.00 | 4.10 | 36.20 | 30.5 | 31.57 | 41.37 | 74 | -32.63 | H |
| 6534.00 | 4.10 | 33.90 | 30.8 | 32.9 | 40.10 | 74 | -33.90 | H |
| 5210.32 | 3.50 | 32.90 | 31.6 | 40.52 | 45.32 | 74 | -28.68 | H |

| Frequency (MHz) | Cable Loss(dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|----------------------------|----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Average Measurement | | | | | | | | |
| 1631.00 | 1.71 | 26.1 | 33.6 | 56.49 | 50.70 | 54 | -3.3 | V |
| 4823.26 | 3.26 | 32.9 | 32.0 | 49.84 | 44.10 | 54 | -9.90 | V |
| 7246.00 | 4.67 | 36.0 | 30.5 | 40.45 | 50.66 | 54 | -3.34 | V |
| 1170.00 | 1.39 | 23.9 | 31.60 | 40.37 | 34.06 | 54 | -19.94 | V |
| 5220.00 | 3.50 | 32.9 | 31.60 | 25.3 | 30.10 | 54 | -23.90 | V |
| 1232.00 | 1.39 | 23.9 | 31.60 | 41.36 | 35.05 | 54 | -18.95 | V |
| 1631.00 | 1.71 | 26.1 | 33.6 | 57.89 | 52.10 | 54 | -1.9 | H |
| 4823.26 | 3.26 | 32.9 | 32.0 | 41.61 | 45.77 | 54 | -8.23 | H |
| 7246.00 | 4.67 | 36.0 | 30.5 | 39.41 | 49.58 | 54 | -4.42 | H |
| 7392.00 | 4.10 | 36.20 | 30.50 | 19.3 | 29.10 | 54 | -24.90 | H |
| 3550.00 | 2.67 | 32.20 | 32.10 | 29.33 | 32.10 | 54 | -21.90 | H |
| 6230.00 | 4.02 | 35.00 | 30.80 | 21.88 | 30.10 | 54 | -23.90 | H |

For 802.11g mode/Low Channel: 2412MHz

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|-------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Peak Measurement | | | | | | | | |
| 1034.00 | 1.39 | 23.9 | 31.6 | 58.63 | 52.32 | 74 | -21.68 | V |
| 3210.00 | 2.57 | 31.5 | 32.1 | 40.64 | 42.61 | 74 | -31.39 | V |
| 4808.00 | 3.26 | 33.5 | 32.0 | 36.89 | 41.65 | 74 | -32.35 | V |
| 7120.00 | 4.10 | 36.20 | 30.5 | 30.77 | 40.57 | 74 | -33.43 | V |
| 4905.00 | 3.26 | 33.5 | 32.0 | 37.8 | 42.56 | 74 | -31.44 | V |
| 1250.00 | 1.39 | 23.9 | 31.6 | 61.31 | 55.00 | 74 | -19.00 | V |
| 7256.00 | 4.10 | 36.20 | 30.5 | 31.32 | 41.12 | 74 | -32.88 | H |
| 4808.00 | 3.26 | 33.5 | 32.0 | 38.81 | 43.57 | 74 | -30.43 | H |
| 3210.00 | 2.57 | 31.5 | 32.1 | 43.76 | 45.73 | 74 | -28.27 | H |
| 1544.00 | 1.71 | 26.1 | 33.6 | 56.19 | 50.40 | 74 | -23.60 | H |
| 3350.12 | 2.57 | 31.5 | 32.1 | 44.53 | 46.50 | 74 | -27.50 | H |
| 6825.00 | 4.10 | 33.90 | 30.8 | 33.0 | 40.20 | 74 | -33.80 | H |

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|----------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Average Measurement | | | | | | | | |
| 4908.00 | 3.26 | 33.5 | 32.0 | 24.54 | 29.3 | 54 | -24.70 | V |
| 1024.00 | 7.2 | 37.8 | 30.0 | 5.62 | 20.62 | 54 | -33.38 | V |
| 1170.00 | 1.39 | 23.9 | 31.6 | 40.77 | 34.46 | 54 | -19.54 | V |
| 7426.00 | 4.10 | 36.20 | 30.5 | 18.66 | 28.46 | 54 | -25.54 | V |
| 7500.00 | 5.32 | 36.00 | 30.5 | 16.76 | 27.58 | 54 | -26.42 | V |
| 1800.00 | 1.71 | 26.1 | 33.6 | 37.99 | 32.20 | 54 | -21.80 | V |
| 4808.00 | 3.26 | 33.5 | 32.0 | 24.41 | 29.17 | 54 | -24.83 | H |
| 3210.00 | 2.57 | 31.5 | 32.1 | 27.95 | 29.92 | 54 | -24.08 | H |
| 1660.00 | 1.71 | 26.1 | 33.6 | 56.49 | 50.70 | 54 | -3.30 | H |
| 7256.00 | 4.10 | 36.20 | 30.5 | 18.35 | 28.15 | 54 | -25.85 | H |
| 1860.00 | 1.71 | 26.1 | 33.6 | 40.79 | 35.00 | 54 | -19.00 | H |
| 7005.00 | 4.10 | 36.20 | 30.5 | 19.2 | 29.00 | 54 | -25.00 | H |

For 802.11g mode /Mid Channel: 2437MHz

| Frequency (MHz) | Cable Loss(dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|-------------------------|----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Peak Measurement | | | | | | | | |
| 4876.00 | 3.26 | 33.5 | 32.0 | 36.35 | 41.11 | 74 | -32.89 | V |
| 3006.00 | 2.57 | 31.5 | 32.1 | 39.96 | 41.93 | 74 | -32.07 | V |
| 1034.00 | 1.39 | 23.9 | 31.6 | 58.81 | 52.50 | 74 | -21.50 | V |
| 7460.00 | 4.10 | 36.20 | 30.5 | 30.99 | 40.79 | 74 | -33.21 | V |
| 7600.50 | 5.32 | 36.00 | 30.5 | 31.68 | 42.50 | 74 | -31.50 | V |
| 3260.00 | 2.57 | 31.5 | 32.1 | 40.03 | 42.00 | 74 | -32.00 | V |
| 4876.00 | 3.26 | 33.5 | 32.0 | 37.32 | 42.08 | 74 | -31.92 | H |
| 3244.00 | 2.57 | 31.5 | 32.1 | 43.13 | 45.10 | 74 | -28.90 | H |
| 1544.00 | 1.71 | 26.1 | 33.6 | 56.74 | 50.95 | 74 | -23.05 | H |
| 7324.00 | 4.10 | 36.20 | 30.5 | 31.75 | 41.55 | 74 | -32.45 | H |
| 7500.25 | 5.32 | 36.00 | 30.5 | 31.68 | 42.50 | 74 | -31.50 | H |
| 3500.00 | 2.67 | 32.2 | 32.1 | 43.23 | 46.00 | 74 | -28.00 | H |

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|----------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Average Measurement | | | | | | | | |
| 4876.00 | 3.26 | 33.5 | 32.0 | 22.89 | 27.65 | 54 | -26.35 | V |
| 3006.00 | 2.57 | 31.5 | 32.1 | 27.3 | 29.27 | 54 | -24.73 | V |
| 1170.00 | 1.39 | 23.9 | 31.6 | 41.89 | 35.58 | 54 | -18.42 | V |
| 7426.00 | 4.10 | 36.20 | 30.5 | 18.46 | 28.26 | 54 | -25.74 | V |
| 7620.00 | 5.32 | 36.00 | 30.5 | 16.68 | 27.50 | 54 | -26.50 | V |
| 1260.00 | 1.39 | 23.9 | 31.6 | 41.81 | 35.50 | 54 | -18.50 | V |
| 7426.00 | 4.10 | 36.20 | 30.5 | 18.77 | 28.57 | 54 | -25.43 | H |
| 4910.00 | 5.32 | 33.5 | 32.0 | 20.5 | 27.32 | 54 | -26.68 | H |
| 3278.00 | 2.57 | 31.5 | 32.1 | 27.2 | 29.17 | 54 | -24.83 | H |
| 1068.00 | 1.39 | 23.9 | 31.6 | 39.35 | 33.04 | 54 | -20.96 | H |
| 1170.50 | 1.39 | 23.9 | 31.6 | 41.36 | 35.05 | 54 | -18.95 | H |
| 7620.00 | 4.10 | 36.00 | 30.5 | 19.7 | 29.30 | 54 | -24.70 | H |

For 802.11g mode /High Channel: 2462MHz

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Resding Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarizat ion (H/V) |
|-------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|-----------------------------|
| Peak Measurement | | | | | | | | |
| 4910.00 | 3.26 | 33.5 | 32.0 | 39.8 | 44.56 | 74 | -29.44 | V |
| 3278.00 | 2.57 | 31.5 | 32.1 | 42.12 | 44.09 | 74 | -29.91 | V |
| 1034.00 | 1.39 | 23.9 | 31.6 | 63.27 | 56.96 | 74 | -17.04 | V |
| 7936.00 | 5.32 | 36.00 | 30.5 | 31.05 | 41.87 | 74 | -32.13 | V |
| 7800.25 | 5.32 | 36.00 | 30.5 | 31.68 | 42.50 | 74 | -31.5 | V |
| 3560.00 | 2.67 | 32.2 | 32.1 | 42.23 | 45.00 | 74 | -29.00 | V |
| 7426.00 | 4.10 | 36.00 | 30.5 | 30.97 | 40.57 | 74 | -33.43 | H |
| 4910.00 | 3.26 | 33.5 | 32.0 | 36.65 | 41.41 | 74 | -32.59 | H |
| 3278.00 | 2.57 | 31.5 | 32.1 | 45.08 | 47.05 | 74 | -26.95 | H |
| 1102.00 | 1.39 | 23.9 | 31.6 | 56.51 | 50.20 | 74 | -23.80 | H |
| 1250.00 | 1.39 | 23.9 | 31.6 | 57.51 | 51.20 | 74 | -22.80 | H |
| 3560.50 | 2.67 | 32.2 | 32.1 | 42.43 | 45.20 | 74 | -28.80 | H |

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|----------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Average Measurement | | | | | | | | |
| 7936.00 | 5.32 | 36.00 | 30.5 | 18.09 | 28.91 | 54 | -25.09 | V |
| 4910.00 | 3.26 | 33.5 | 32.0 | 24.5 | 29.26 | 54 | -24.74 | V |
| 3278.00 | 2.57 | 31.5 | 32.1 | 28.07 | 30.04 | 54 | -23.96 | V |
| 1170.00 | 1.39 | 23.9 | 31.6 | 42.02 | 35.71 | 54 | -18.29 | V |
| 3562.00 | 2.67 | 32.2 | 32.1 | 29.43 | 32.20 | 54 | -21.80 | V |
| 4806.00 | 3.26 | 33.5 | 32.0 | 30.24 | 35.00 | 54 | -19.00 | V |
| 7426.00 | 4.10 | 36.00 | 30.5 | 19.04 | 28.64 | 54 | -25.36 | H |
| 4910.00 | 3.26 | 33.5 | 32.0 | 22.31 | 27.07 | 54 | -26.93 | H |
| 3278.00 | 2.57 | 31.5 | 32.1 | 28.81 | 30.78 | 54 | -23.22 | H |
| 1068.00 | 1.39 | 23.9 | 31.6 | 39.63 | 33.32 | 54 | -20.68 | H |
| 1253.00 | 1.39 | 23.9 | 31.6 | 40.51 | 34.20 | 54 | -19.80 | H |
| 7600.50 | 5.32 | 36.00 | 30.5 | 18.18 | 29.00 | 54 | -25.00 | H |

For 802.11n HT20 mode/Low Channel: 2412MHz

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|-------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Peak Measurement | | | | | | | | |
| 7426.00 | 4.10 | 36.00 | 30.5 | 31.18 | 40.78 | 74 | -33.22 | V |
| 4808.00 | 3.26 | 33.5 | 32.0 | 40.44 | 45.20 | 74 | -28.80 | V |
| 3380.00 | 2.57 | 31.5 | 32.1 | 39.84 | 41.81 | 74 | -32.19 | V |
| 1306.00 | 1.39 | 23.9 | 31.6 | 60.72 | 54.41 | 74 | -19.59 | V |
| 1520.00 | 1.71 | 26.1 | 33.6 | 61.29 | 55.50 | 74 | -18.5 | V |
| 4900.00 | 3.26 | 33.5 | 32.0 | 41.24 | 46.00 | 74 | -28.00 | V |
| 7324.00 | 4.10 | 36.00 | 30.5 | 31.69 | 41.29 | 74 | -32.71 | H |
| 4808.00 | 3.26 | 33.5 | 32.0 | 39.47 | 44.23 | 74 | -29.77 | H |
| 3210.00 | 2.57 | 31.5 | 32.1 | 42.41 | 44.38 | 74 | -29.62 | H |
| 1544.00 | 1.71 | 26.1 | 33.6 | 56.96 | 51.17 | 74 | -22.83 | H |
| 3350.20 | 2.57 | 31.5 | 32.1 | 43.23 | 45.20 | 74 | -28.80 | H |
| 7520.00 | 5.32 | 36.00 | 30.5 | 31.68 | 42.50 | 74 | -31.50 | H |

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|----------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Average Measurement | | | | | | | | |
| 8140.00 | 4.67 | 35.8 | 29.9 | 17.87 | 28.44 | 54 | -25.56 | V |
| 3312.00 | 2.57 | 31.5 | 32.1 | 27.1 | 29.07 | 54 | -24.93 | V |
| 1170.00 | 1.39 | 23.9 | 31.6 | 41.75 | 35.44 | 54 | -18.56 | V |
| 4808.00 | 3.26 | 33.5 | 32.0 | 26.14 | 30.90 | 54 | -23.10 | V |
| 4940.50 | 3.26 | 33.5 | 32.0 | 27.74 | 32.50 | 54 | -21.50 | V |
| 1250.00 | 1.39 | 23.9 | 31.6 | 42.51 | 36.20 | 54 | -17.80 | V |
| 4808.00 | 3.26 | 33.5 | 32.0 | 24.68 | 29.44 | 54 | -24.56 | H |
| 3210.00 | 2.57 | 31.5 | 32.1 | 27.73 | 29.70 | 54 | -24.30 | H |
| 1306.00 | 1.39 | 23.9 | 31.6 | 39.4 | 33.09 | 54 | -20.91 | H |
| 7222.00 | 4.10 | 36.00 | 30.5 | 18.74 | 28.34 | 54 | -25.66 | H |
| 7534.00 | 5.32 | 36.00 | 30.5 | 18.38 | 29.20 | 54 | -24.8 | H |
| 3500.20 | 2.67 | 32.2 | 32.1 | 27.38 | 30.15 | 54 | -23.85 | H |

For 802.11n HT20 mode/Mid Channel: 2437MHz

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|-------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Peak Measurement | | | | | | | | |
| 4876.00 | 3.26 | 33.5 | 32.0 | 37.05 | 41.81 | 74 | -32.19 | V |
| 3312.00 | 2.57 | 31.5 | 32.1 | 39.76 | 41.73 | 74 | -32.27 | V |
| 1034.00 | 1.39 | 23.9 | 31.6 | 63.51 | 57.20 | 74 | -16.80 | V |
| 8140.00 | 4.67 | 35.8 | 29.9 | 30.49 | 41.06 | 74 | -32.94 | V |
| 8250.00 | 4.67 | 35.8 | 29.9 | 31.93 | 42.50 | 74 | -31.50 | V |
| 1259.00 | 1.39 | 23.9 | 31.6 | 64.31 | 58.00 | 74 | -16.00 | V |
| 7460.00 | 4.10 | 36.00 | 30.5 | 31.77 | 41.37 | 74 | -32.63 | H |
| 4876.00 | 3.26 | 33.5 | 32.0 | 38.26 | 43.02 | 74 | -30.98 | H |
| 3346.00 | 2.57 | 31.5 | 32.1 | 40.59 | 42.56 | 74 | -31.44 | H |
| 1306.00 | 1.39 | 23.9 | 31.6 | 55.69 | 49.38 | 74 | -24.62 | H |
| 1450.00 | 1.39 | 23.9 | 31.6 | 54.66 | 48.35 | 74 | -25.65 | H |
| 4874.00 | 3.26 | 33.5 | 32.0 | 40.44 | 45.20 | 74 | -28.80 | H |

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|----------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Average Measurement | | | | | | | | |
| 4876.00 | 3.26 | 33.5 | 32.0 | 24.76 | 29.52 | 54 | -24.48 | V |
| 3312.00 | 2.57 | 31.5 | 32.1 | 27.24 | 29.21 | 54 | -24.79 | V |
| 1034.00 | 1.39 | 23.9 | 31.6 | 43.64 | 37.33 | 54 | -16.67 | V |
| 8140.00 | 4.67 | 35.8 | 29.9 | 17.87 | 28.44 | 54 | -25.56 | V |
| 8200.00 | 4.67 | 35.8 | 29.9 | 18.43 | 29.00 | 54 | -25.00 | V |
| 1400.50 | 1.39 | 23.9 | 31.6 | 44.81 | 38.50 | 54 | -15.50 | V |
| 7426.00 | 4.10 | 36.00 | 30.5 | 19.02 | 28.62 | 54 | -25.38 | H |
| 4876.00 | 3.26 | 33.5 | 32.0 | 23.17 | 27.93 | 54 | -26.07 | H |
| 3244.00 | 2.57 | 31.5 | 32.1 | 27.74 | 29.71 | 54 | -24.29 | H |
| 1170.00 | 1.39 | 23.9 | 31.6 | 39.73 | 33.42 | 54 | -20.58 | H |
| 1252.00 | 1.39 | 23.9 | 31.6 | 40.51 | 34.20 | 54 | -19.80 | H |
| 4900.00 | 3.26 | 33.5 | 32.0 | 23.24 | 28.00 | 54 | -26.00 | H |

For 802.11n HT20 mode/High Channel: 2462MHz

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|-------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Peak Measurement | | | | | | | | |
| 7936.00 | 5.32 | 36.0 | 30.5 | 30.52 | 41.34 | 74 | -32.66 | V |
| 3210.00 | 2.57 | 31.5 | 32.1 | 39.75 | 41.72 | 74 | -32.28 | V |
| 1034.00 | 1.39 | 23.9 | 31.6 | 64.83 | 58.52 | 74 | -15.48 | V |
| 4876.00 | 3.26 | 33.5 | 32.0 | 35.92 | 40.68 | 74 | -33.32 | V |
| 3310.00 | 2.57 | 31.5 | 32.1 | 40.23 | 42.20 | 74 | -31.80 | V |
| 1350.00 | 1.39 | 23.9 | 31.6 | 61.81 | 55.50 | 74 | -18.50 | V |
| 7356.00 | 4.10 | 36.2 | 30.5 | 30.89 | 40.69 | 74 | -33.31 | H |
| 5216.00 | 3.50 | 32.9 | 31.6 | 35.6 | 40.40 | 74 | -33.60 | H |
| 3278.00 | 2.57 | 31.5 | 32.1 | 44.04 | 46.01 | 74 | -27.99 | H |
| 1544.00 | 1.71 | 26.1 | 33.6 | 55.96 | 50.17 | 74 | -23.83 | H |
| 1660.00 | 1.71 | 26.1 | 33.6 | 56.99 | 51.20 | 74 | -22.80 | H |
| 3530.00 | 2.67 | 32.2 | 32.1 | 44.23 | 47.00 | 74 | -27.00 | H |

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB) | Preamp Factor (dB) | Reading Level (dBuV/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Polarization (H/V) |
|----------------------------|-----------------|---------------------|--------------------|------------------------|-------------------------|----------------|-------------|----------------------------|
| Average Measurement | | | | | | | | |
| 7936.00 | 5.32 | 36.00 | 30.5 | 18.21 | 29.03 | 54 | -24.97 | V |
| 4910.00 | 3.26 | 33.5 | 32.0 | 24.49 | 29.25 | 54 | -24.75 | V |
| 3278.00 | 2.57 | 31.5 | 32.1 | 27.92 | 29.89 | 54 | -24.11 | V |
| 1170.00 | 1.39 | 23.9 | 31.6 | 42.56 | 36.25 | 54 | -17.75 | V |
| 1250.00 | 1.39 | 23.9 | 31.6 | 41.51 | 35.20 | 54 | -18.80 | V |
| 3500.50 | 2.67 | 32.2 | 32.1 | 27.43 | 30.20 | 54 | -23.80 | V |
| 7426.00 | 4.10 | 36.00 | 30.5 | 19.1 | 28.70 | 54 | -25.30 | H |
| 3278.00 | 2.57 | 31.5 | 32.1 | 28.59 | 30.56 | 54 | -23.44 | H |
| 1170.00 | 1.39 | 23.9 | 31.6 | 39.54 | 33.23 | 54 | -20.77 | H |
| 4910.00 | 3.26 | 33.5 | 32.0 | 22.97 | 27.73 | 54 | -26.27 | H |
| 1250.00 | 1.39 | 23.9 | 31.6 | 40.51 | 34.20 | 54 | -19.80 | H |
| 7520.00 | 5.32 | 36.00 | 30.5 | 18.18 | 29.00 | 54 | -25.00 | H |

Note:

1. The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows: Emission Level =Reading Level + Antenna Factor + Cable Loss -Preamplifier Factor.
2. According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.Hence there no other emissions have been reported.
3. As shown in Section, for frequencies above 1000 MHz. the above field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.
4. The test only perform the EUT in transmitting status since the test frequencies were over 1GHz only required transmitting status.

§15.205(a) Requirement:

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

| MHz | MHz | MHz | GHz |
|----------------------------|-----------------------|-----------------|------------------|
| 0.090 - 0.110 | 16.42 - 16.423 | 399.9 - 410 | 4.5 - 5.15 |
| ¹ 0.495 - 0.505 | 16.69475 - 16.69525 | 608 - 614 | 5.35 - 5.46 |
| 2.1735 - 2.1905 | 16.80425 - 16.80475 | 960 - 1240 | 7.25 - 7.75 |
| 4.125 - 4.128 | 25.5 - 25.67 | 1300 - 1427 | 8.025 - 8.5 |
| 4.17725 - 4.17775 | 37.5 - 38.25 | 1435 - 1626.5 | 9.0 - 9.2 |
| 4.20725 - 4.20775 | 73 - 74.6 | 1645.5 - 1646.5 | 9.3 - 9.5 |
| 6.215 - 6.218 | 74.8 - 75.2 | 1660 - 1710 | 10.6 - 12.7 |
| 6.26775 - 6.26825 | 108 - 121.94 | 1718.8 - 1722.2 | 13.25 - 13.4 |
| 6.31175 - 6.31225 | 123 - 138 | 2200 - 2300 | 14.47 - 14.5 |
| 8.291 - 8.294 | 149.9 - 150.05 | 2310 - 2390 | 15.35 - 16.2 |
| 8.362 - 8.366 | 156.52475 - 156.52525 | 2483.5 - 2500 | 17.7 - 21.4 |
| 8.37625 - 8.38675 | 156.7 - 156.9 | 2690 - 2900 | 22.01 - 23.12 |
| 8.41425 - 8.41475 | 162.0125 - 167.17 | 3260 - 3267 | 23.6 - 24.0 |
| 12.29 - 12.293 | 167.72 - 173.2 | 3332 - 3339 | 31.2 - 31.8 |
| 12.51975 - 12.52025 | 240 - 285 | 3345.8 - 3358 | 36.43 - 36.5 |
| 12.57675 - 12.57725 | 322 - 335.4 | 3600 - 4400 | (²) |
| 13.36 - 13.41 | | | |

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

² Above 38.6

Conclusions:

The fundamental is not in a restricted band, and spurious emission in the restricted bands comply with the general emission limits of 15.209.

ATTACHMENT 4 - OCCUPIED BANDWIDTH TEST

| | | | | | | | | | | | |
|-----------------------------------|--|-------------------------|---------------------------------|----------------|-------------------|-------------------|------|-----|--------|-----|--------|
| CLIENT: | SHENZHEN KTC TECHNOLOGY CO., LTD. | TEST STANDERD: | Section 15.247(a) | | | | | | | | |
| MODEL NUMBERS: | 101P*** | PRODUCT: | 10.1" PAD | | | | | | | | |
| EUT MODEL: | 101P11C | EUT DESIGNATION: | Digital Transmission Device | | | | | | | | |
| TEMPERATURE: | 23°C | HUMIDITY: | 47%RH | | | | | | | | |
| ATM PRESSURE: | 101.0kPa | GROUNDING: | None | | | | | | | | |
| TESTED BY: | Sewen Guo | DATE OF TEST: | January 19 th , 2013 | | | | | | | | |
| TEST REFERENCE: | ANSI C63.4:2003 and 558074 D01 | | | | | | | | | | |
| TEST PROCEDURE: | The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB. Analyzer and the attached plot were taken. The EUT was set up to ANSI C63.4-2003, tested to DTS test procedure of 558074 D01 for compliance with FCC 47CFR 15.247 requirements. | | | | | | | | | | |
| DESCRIPTIONS OF TEST MODE: | <p>Pre-Scan has been conducted to determine the worst-case mode from all possible Combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).</p> <p>Following channels were selected for the final test as listed below:</p> <p>802.11b mode with data rate of 1Mbps, 802.11g mode with data rate of 6Mbps, 802.11n HT20 mode with data rate of MCS0 and 802.11n HT40 mode with data rate of MCS0.</p> | | | | | | | | | | |
| EQUIPMENT SETUP | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Equipment Mode</td><td style="width: 50%;">Spectrum Analyzer</td></tr> <tr> <td>Detector Function</td><td>Peak</td></tr> <tr> <td>RBW</td><td>100KHz</td></tr> <tr> <td>VBW</td><td>300KHz</td></tr> </table> | | | Equipment Mode | Spectrum Analyzer | Detector Function | Peak | RBW | 100KHz | VBW | 300KHz |
| Equipment Mode | Spectrum Analyzer | | | | | | | | | | |
| Detector Function | Peak | | | | | | | | | | |
| RBW | 100KHz | | | | | | | | | | |
| VBW | 300KHz | | | | | | | | | | |
| TEST VOLTAGE: | 120VAC/60Hz | | | | | | | | | | |
| RESULTS: | The EUT meet the requirements of test reference for occupied bandwidth. The test results relate only to the equipment under test provided by client. | | | | | | | | | | |
| CHANGES OR MODIFICATIONS: | There were no modifications installed by ECMG Electronic Technical Testing Corp (Shenzhen) test personnel. | | | | | | | | | | |
| M. UNCERTAINTY: | Freq. $\pm 2 \times 10^{-7}$ x Center Freq., Amp ± 2.6 dB | | | | | | | | | | |

Test Data:**For 802.11b Mode:**

| <i>Channel Frequency (MHz)</i> | <i>6dB Bandwidth (MHz)</i> | <i>Minimum Limit (MHz)</i> | <i>Pass/Fail</i> |
|--------------------------------|----------------------------|----------------------------|------------------|
| 2412 | 8.08 | 0.5 | Pass |
| 2437 | 6.67 | 0.5 | Pass |
| 2462 | 6.30 | 0.5 | Pass |

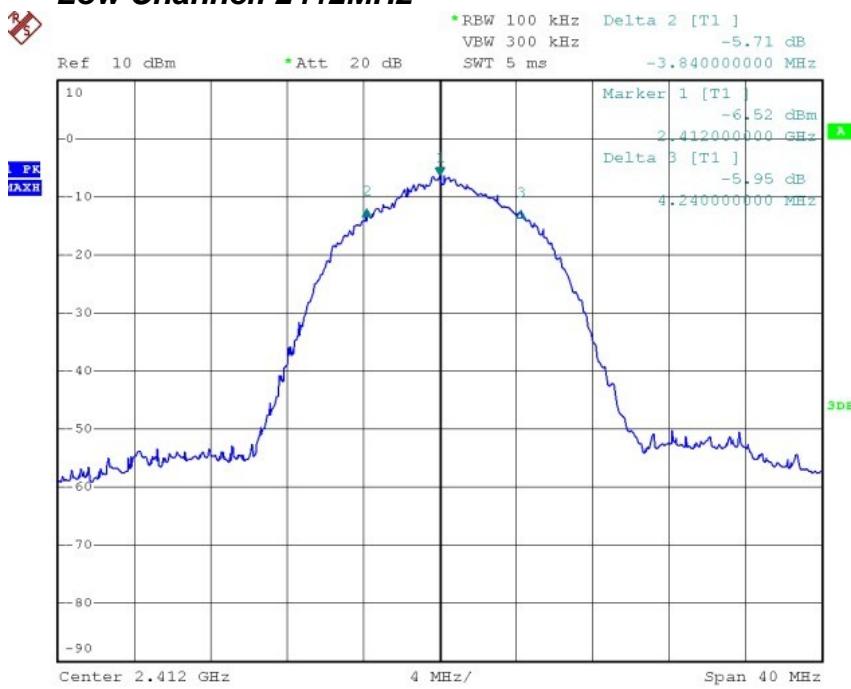
For 802.11g Mode:

| <i>Channel Frequency (MHz)</i> | <i>6dB Bandwidth (MHz)</i> | <i>Minimum Limit (MHz)</i> | <i>Pass/Fail</i> |
|--------------------------------|----------------------------|----------------------------|------------------|
| 2412 | 8.73 | 0.5 | Pass |
| 2437 | 9.31 | 0.5 | Pass |
| 2462 | 9.42 | 0.5 | Pass |

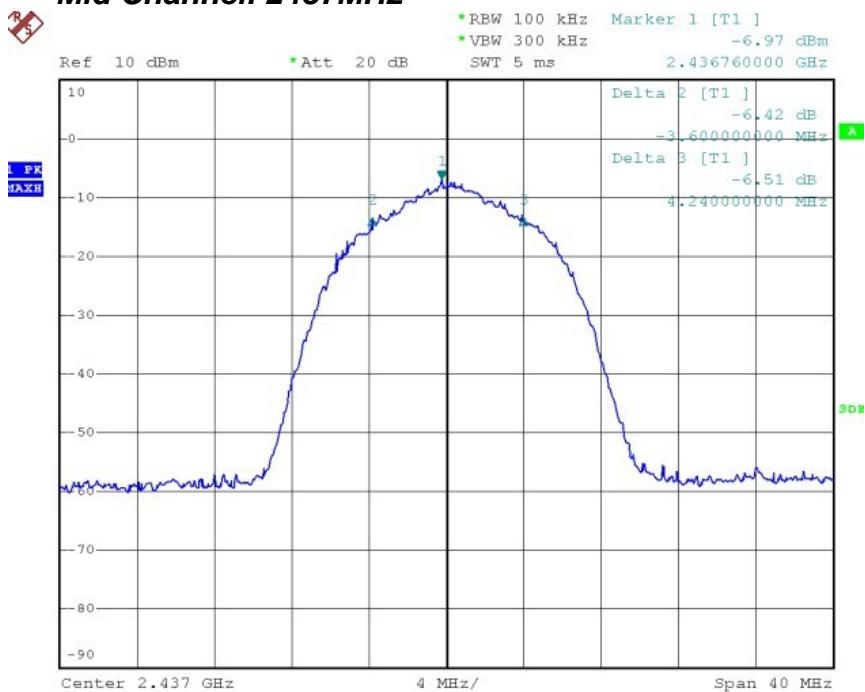
For 802.11n HT20 Mode:

| <i>Channel Frequency (MHz)</i> | <i>6dB Bandwidth (MHz)</i> | <i>Minimum Limit (MHz)</i> | <i>Pass/Fail</i> |
|--------------------------------|----------------------------|----------------------------|------------------|
| 2412 | 10.1 | 0.5 | Pass |
| 2437 | 10.03 | 0.5 | Pass |
| 2462 | 9.98 | 0.5 | Pass |

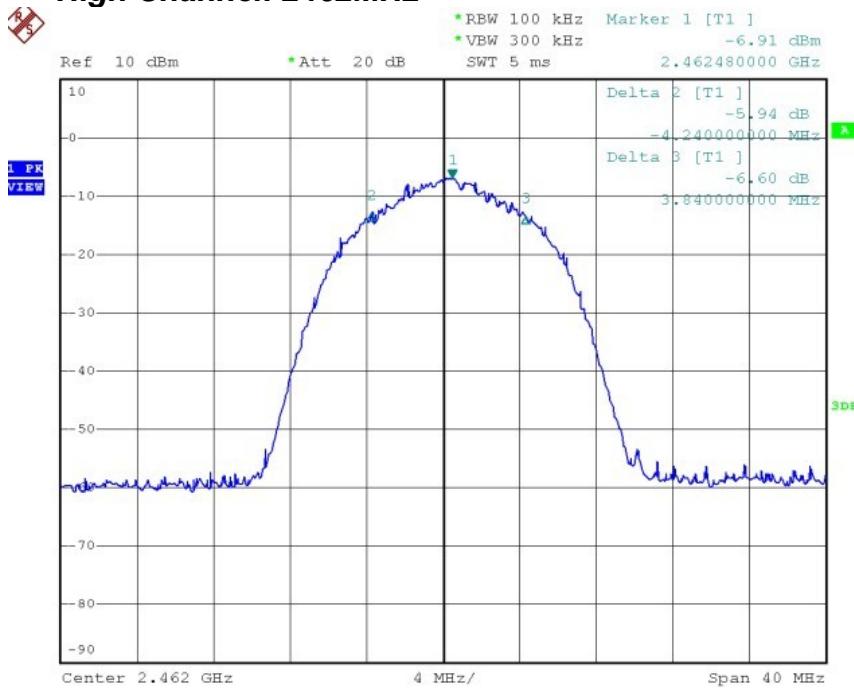
**For 802.11b Mode:
Low Channel: 2412MHz**



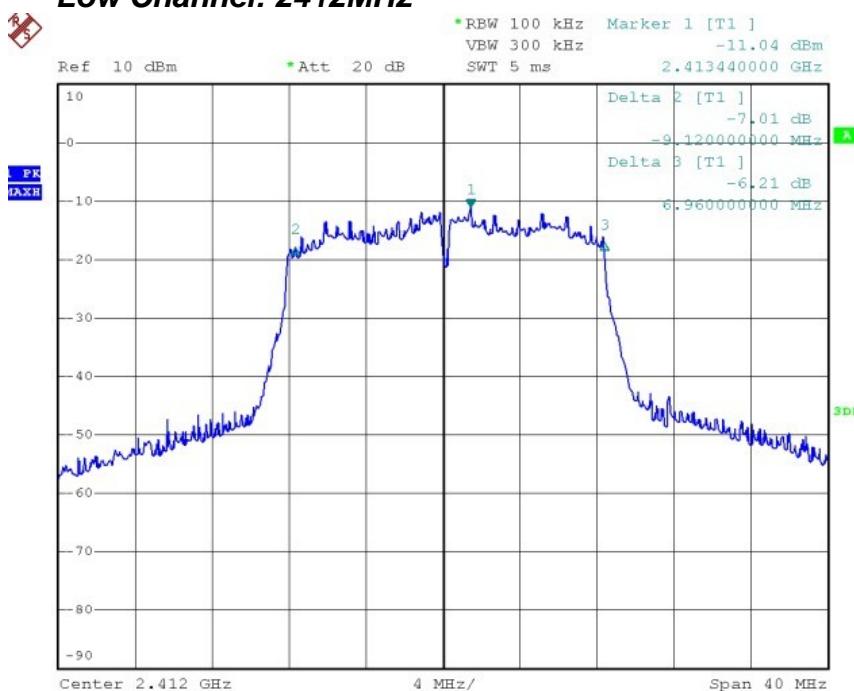
Mid Channel: 2437MHz



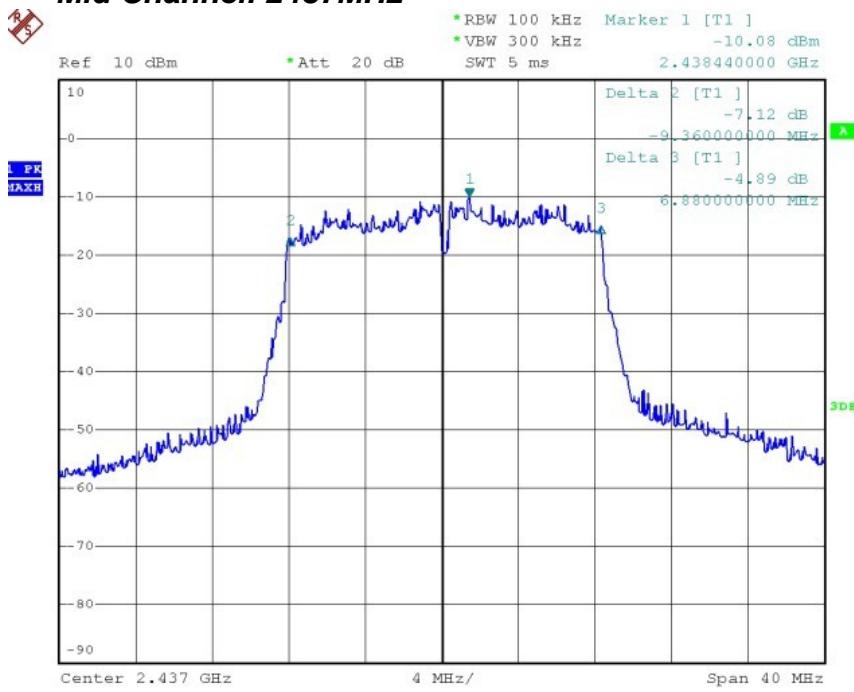
High Channel: 2462MHz



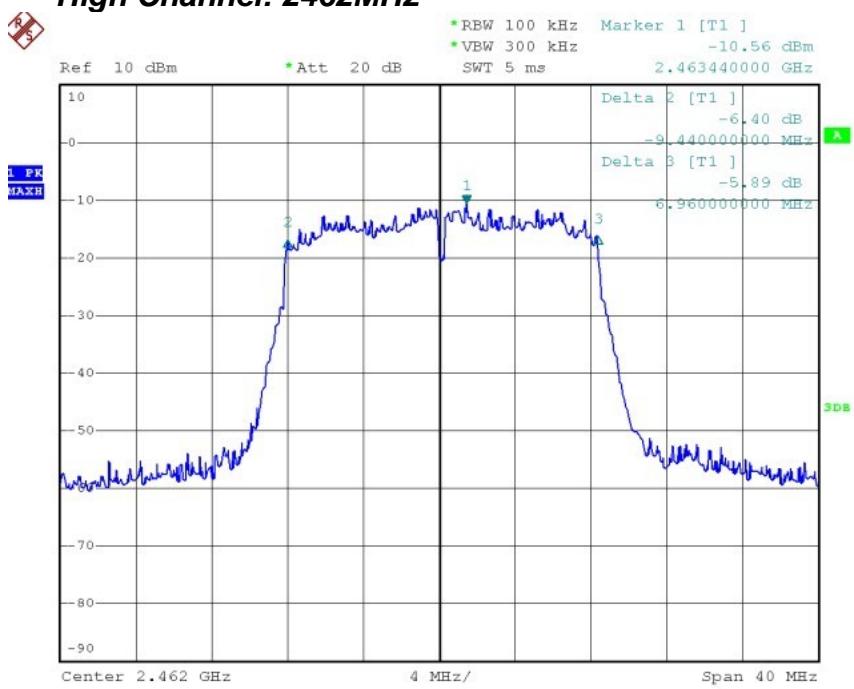
For 802.11g Mode: Low Channel: 2412MHz



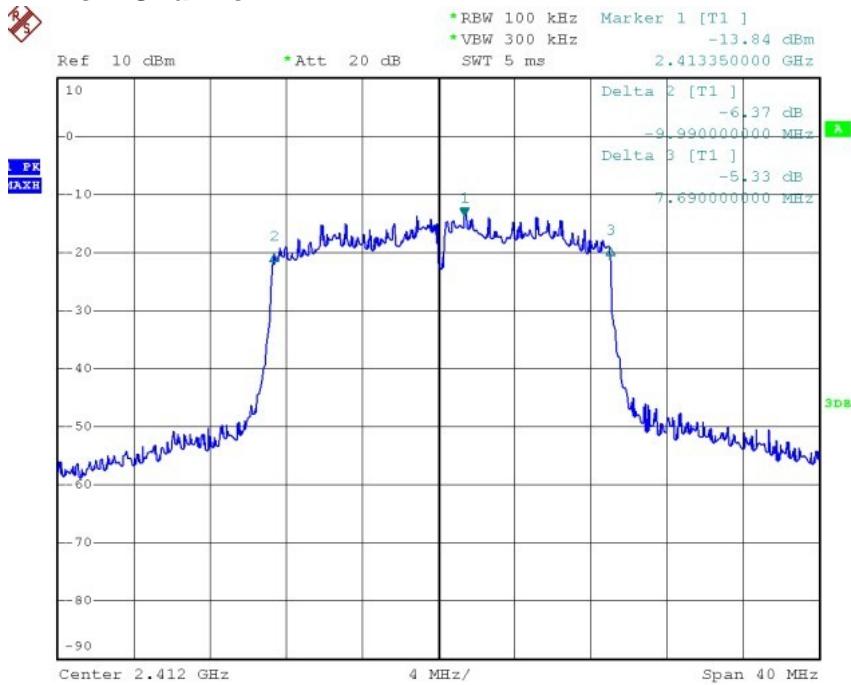
Mid Channel: 2437MHz



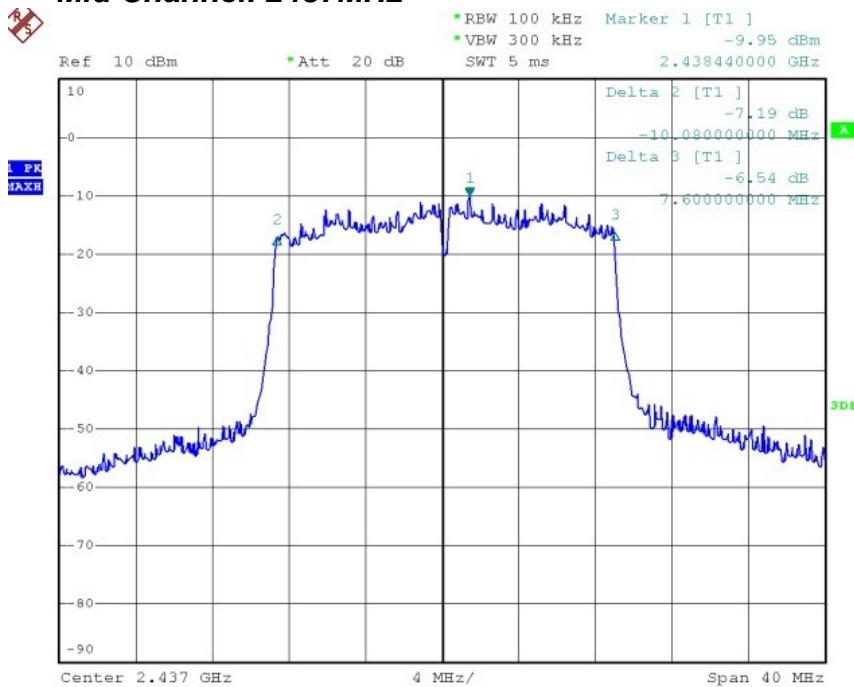
High Channel: 2462MHz



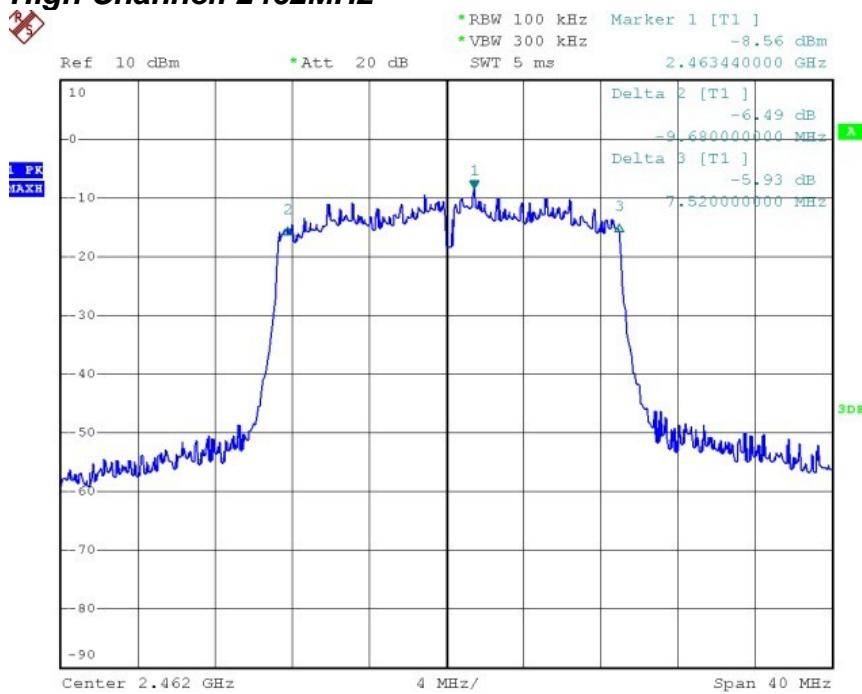
**For 802.11n HT20 Mode:
Low Channel: 2412MHz**



Mid Channel: 2437MHz



High Channel: 2462MHz



ATTACHMENT 5- MAXIMUM PEAK OUTPUT POWER

| | | | | | | | | | | | |
|-----------------------------------|---|-------------------------|---------------------------------|----------------|-------------------|-------------------|------|-----|------|-----|------|
| CLIENT: | SHENZHEN KTC TECHNOLOGY CO., LTD. | TEST STANDERD: | Section 15.247(b) | | | | | | | | |
| MODEL NUMBERS: | 101P*** | PRODUCT: | 10.1" PAD | | | | | | | | |
| EUT MODEL: | 101P11C | EUT DESIGNATION: | Digital Transmission Device | | | | | | | | |
| TEMPERATURE: | 23°C | HUMIDITY: | 47%RH | | | | | | | | |
| ATM PRESSURE: | 101.0kPa | GROUNDING: | None | | | | | | | | |
| TESTED BY: | Sewen Guo | DATE OF TEST: | January 18 th , 2013 | | | | | | | | |
| TEST REFERENCE: | ANSI C63.4:2003 and 558074 D01 | | | | | | | | | | |
| TEST PROCEDURE: | The EUT was set-up as ANSI C63.4:2003, tested to DTS test procedure of 558074 D01 for compliance to FCC 47CFR 15.247 requirements. | | | | | | | | | | |
| DESCRIPTIONS OF TEST MODE: | <p>Pre-Scan has been conducted to determine the worst-case mode from all possible Combinations between available modulations,data rates and antenna ports (if EUT with antenna diversity architecture). Following channels were selected for the final test as listed below:</p> <p>802.11b mode with data rate of 1Mbps, 802.11g mode with data rate of 6Mbps, 802.11n HT20 mode with data rate of MCS0.</p> | | | | | | | | | | |
| MEASUREMENT EQUIPMENT SET | <p>Spectrum analyzer was set as below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Equipment mode</td> <td style="width: 50%;">Spectrum analyzer</td> </tr> <tr> <td>Detector function</td> <td>Peak</td> </tr> <tr> <td>RBW</td> <td>1MHz</td> </tr> <tr> <td>VBW</td> <td>3MHz</td> </tr> </table> | | | Equipment mode | Spectrum analyzer | Detector function | Peak | RBW | 1MHz | VBW | 3MHz |
| Equipment mode | Spectrum analyzer | | | | | | | | | | |
| Detector function | Peak | | | | | | | | | | |
| RBW | 1MHz | | | | | | | | | | |
| VBW | 3MHz | | | | | | | | | | |
| TESTED RANGE: | N/A | | | | | | | | | | |
| TEST VOLTAGE: | 120VAC/60Hz | | | | | | | | | | |
| RESULTS: | The EUT meet the requirements of test reference for maximum peak output power. the worst-case mode is 802.11b mode with data rate 1Mbps in channel 1.The test results relate only to the equipment under test provided by client. | | | | | | | | | | |
| CHANGES OR MODIFICATIONS: | There were no modifications installed by ECMG Electronic Technical Testing Corp (Shenzhen) test personnel. | | | | | | | | | | |
| M. UNCERTAINTY: | Freq. $\pm 2 \times 10^{-7}$ x Center Freq., Amp ± 2.6 dB. | | | | | | | | | | |

Test Data:**For 802.11b Mode:**

| <i>Channel Frequency (MHz)</i> | <i>Peak Output Power(dBm)</i> | <i>Cable Loss (dB)</i> | <i>Power Level (dBm)</i> | <i>Limit</i> | <i>Margin</i> |
|--------------------------------|-------------------------------|------------------------|--------------------------|--------------|---------------|
| 2412 | 7.82 | 1.5 | 9.32 | 30.00 | -20.68 |
| 2437 | 7.84 | 1.5 | 9.34 | 30.00 | -20.66 |
| 2462 | 7.96 | 1.5 | 9.46 | 30.00 | -20.54 |

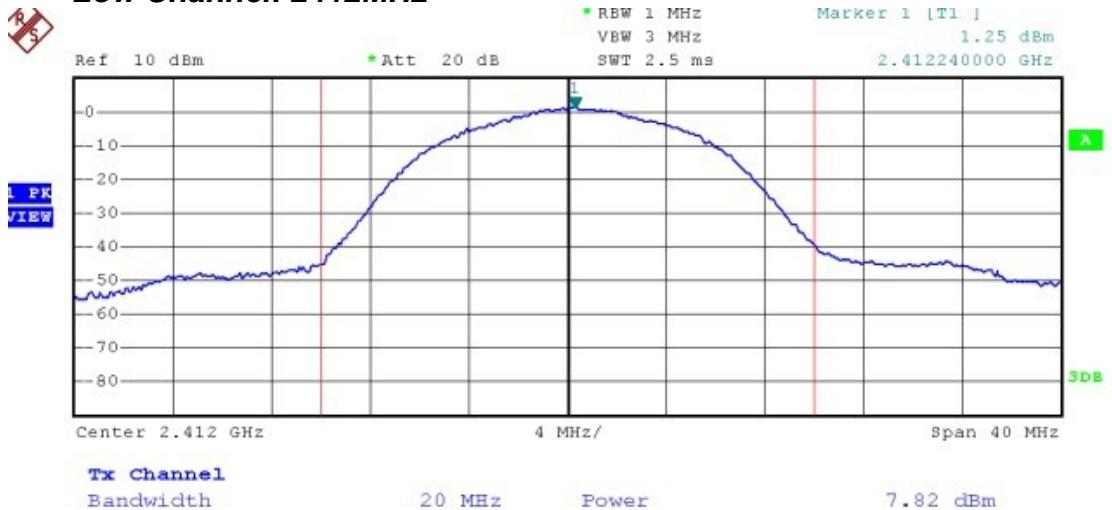
For 802.11g Mode:

| <i>Channel Frequency (MHz)</i> | <i>Peak Output Power(dBm)</i> | <i>Cable Loss (dB)</i> | <i>Power Level (dBm)</i> | <i>Limit</i> | <i>Margin</i> |
|--------------------------------|-------------------------------|------------------------|--------------------------|--------------|---------------|
| 2412 | 7.57 | 1.5 | 9.07 | 30.00 | -20.93 |
| 2437 | 7.78 | 1.5 | 9.28 | 30.00 | -20.72 |
| 2462 | 7.82 | 1.5 | 9.32 | 30.00 | -20.68 |

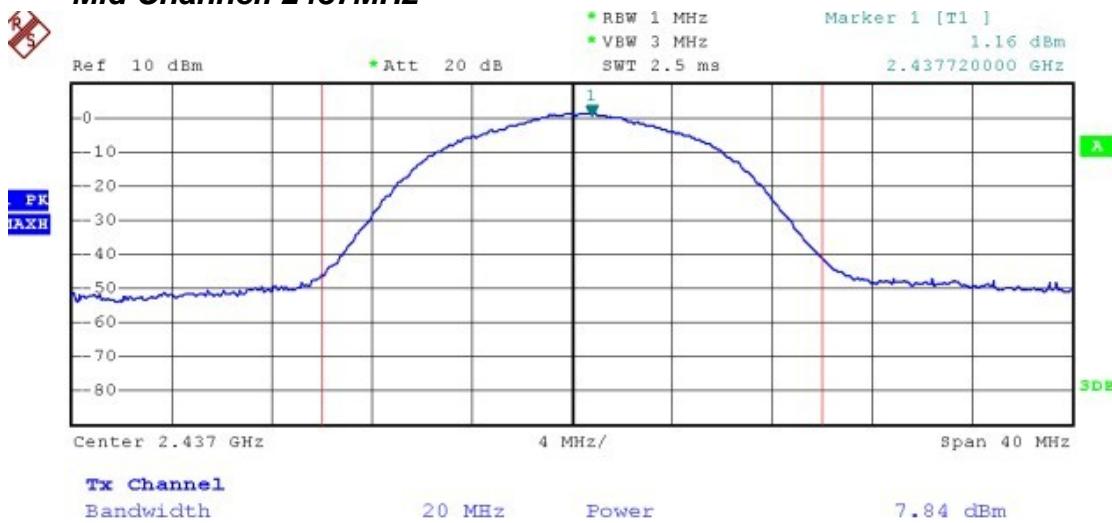
For 802.11n HT20 Mode:

| <i>Channel Frequency (MHz)</i> | <i>Peak Output Power(dBm)</i> | <i>Cable Loss (dB)</i> | <i>Power Level (dBm)</i> | <i>Limit</i> | <i>Margin</i> |
|--------------------------------|-------------------------------|------------------------|--------------------------|--------------|---------------|
| 2412 | 7.04 | 1.5 | 8.54 | 30.00 | -21.46 |
| 2437 | 7.76 | 1.5 | 9.26 | 30.00 | -20.74 |
| 2462 | 7.55 | 1.5 | 9.05 | 30.00 | -20.95 |

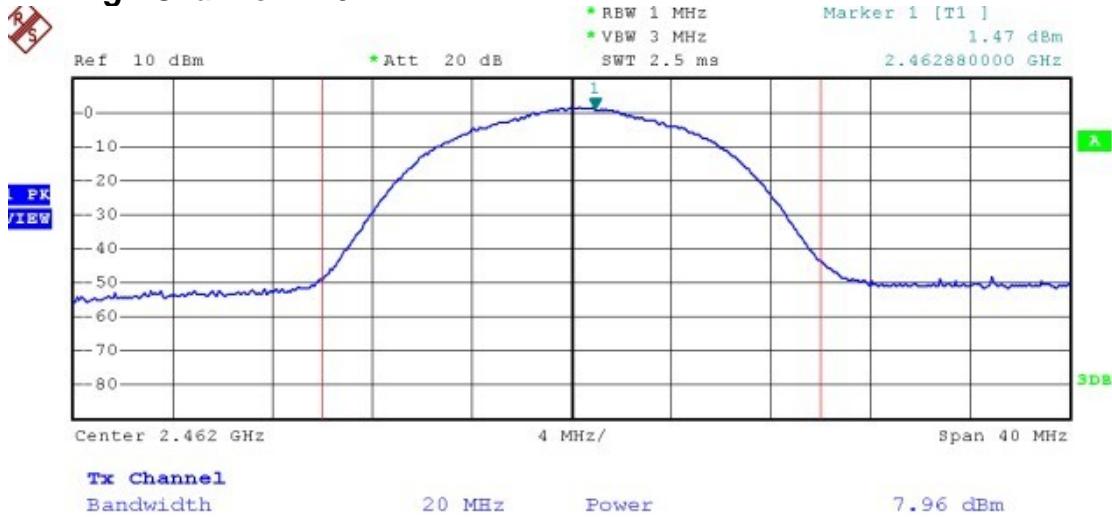
**For 802.11b Mode:
Low Channel: 2412MHz**



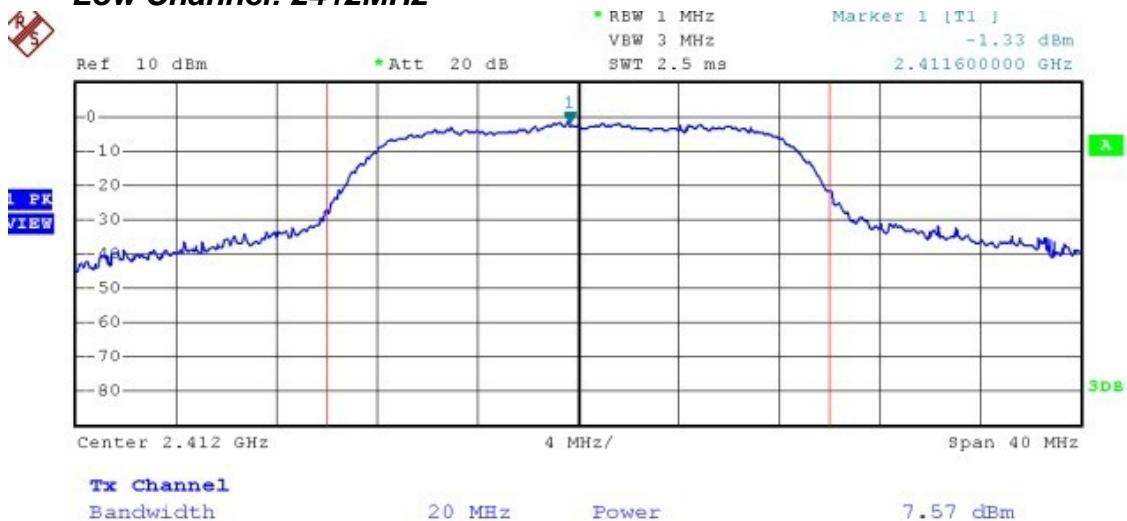
Mid Channel: 2437MHz



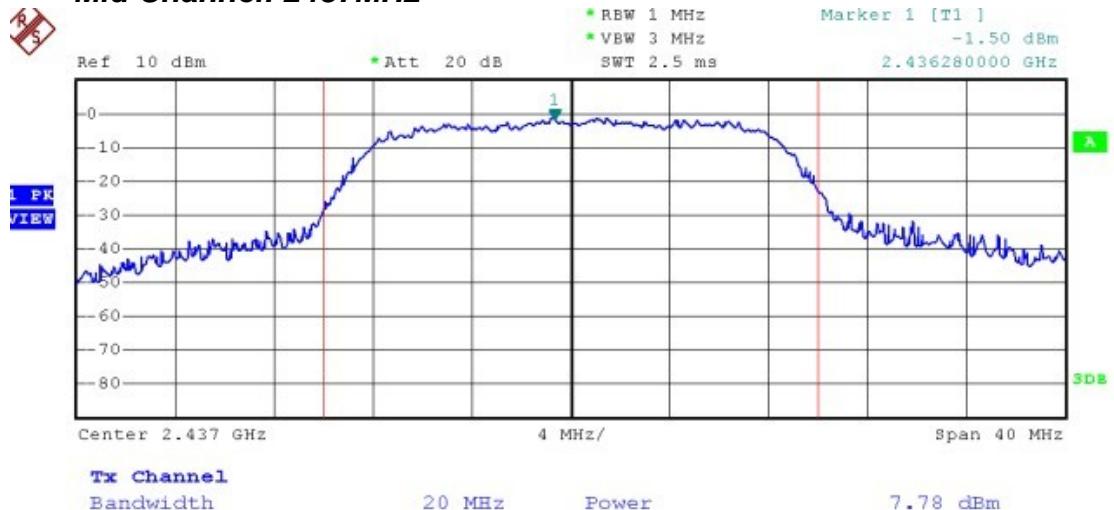
High Channel: 2462MHz



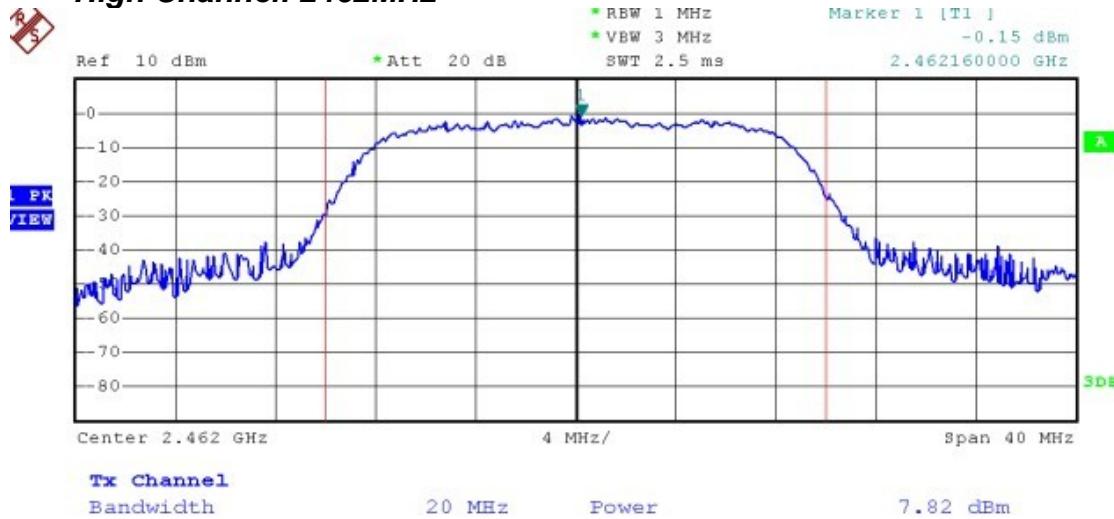
For 802.11g Mode: Low Channel: 2412MHz



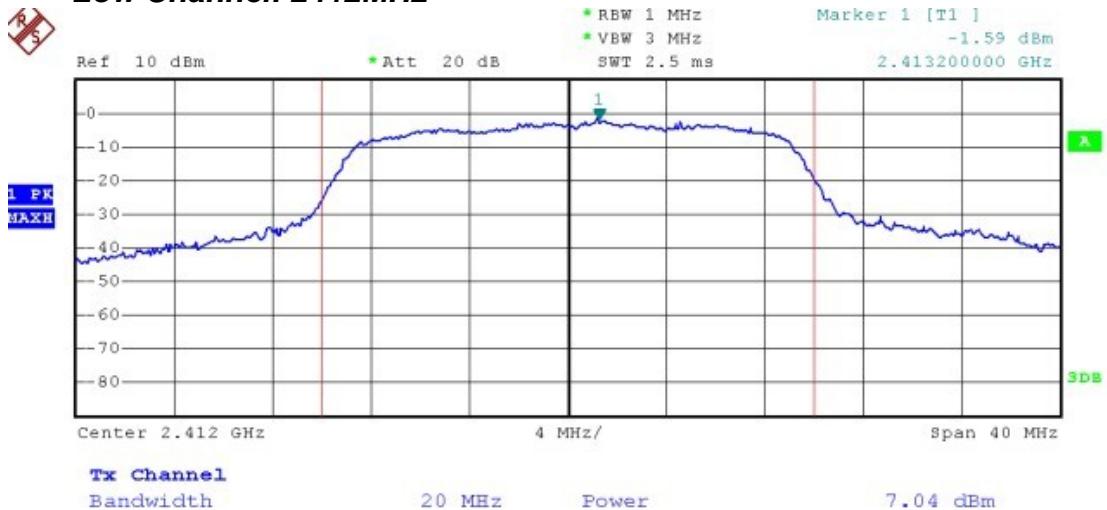
Mid Channel: 2437MHz



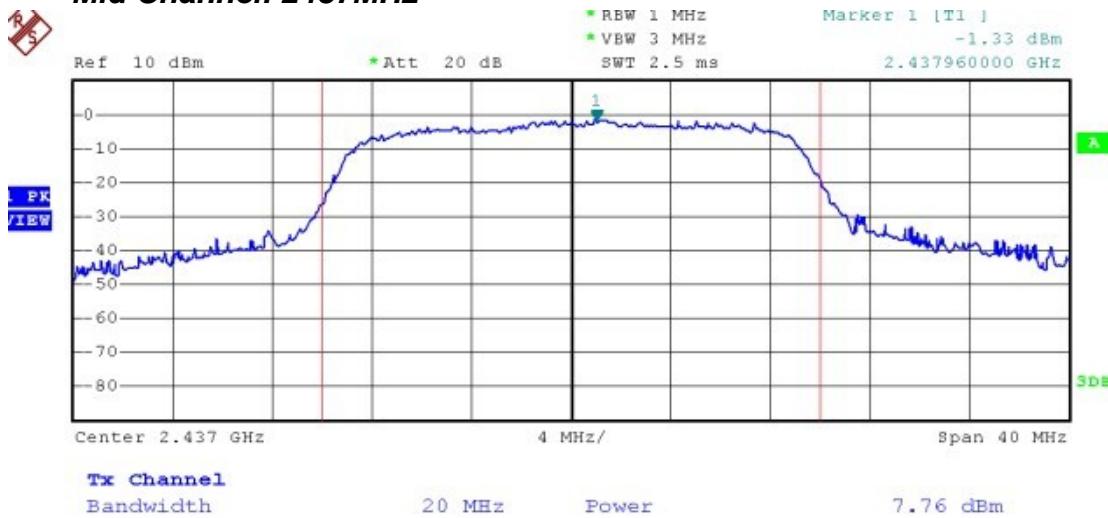
High Channel: 2462MHz



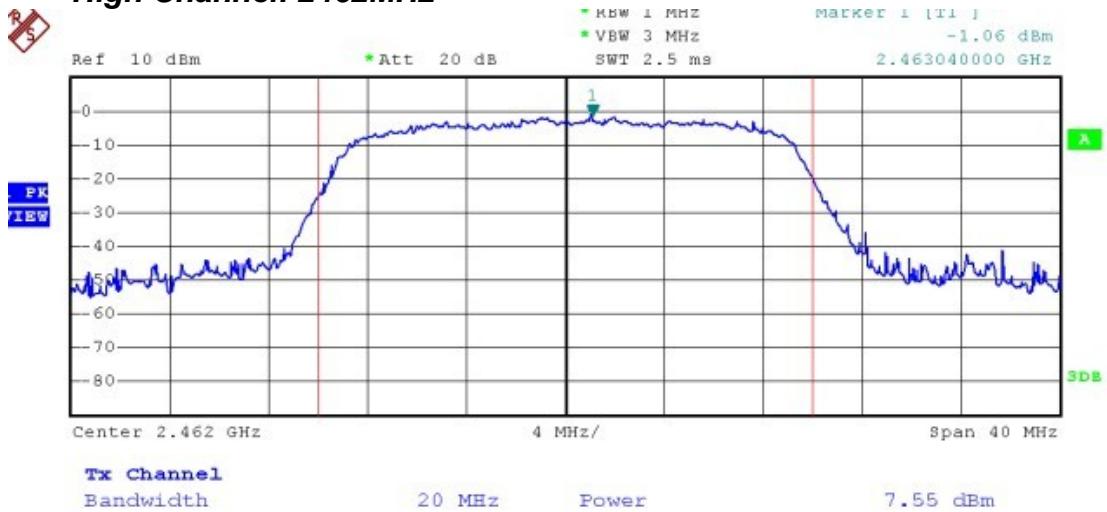
**For 802.11n HT20 Mode:
Low Channel: 2412MHz**



Mid Channel: 2437MHz



High Channel: 2462MHz



Test Report #: SHE-1212-10930-FCC ID

Prepared for Shenzhen KTC Technology Co., Ltd.

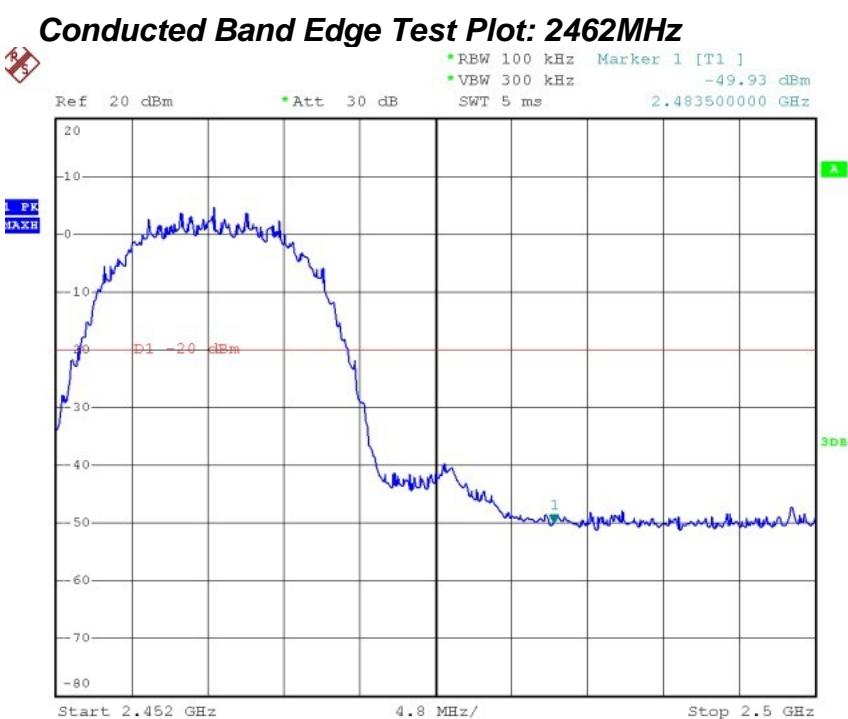
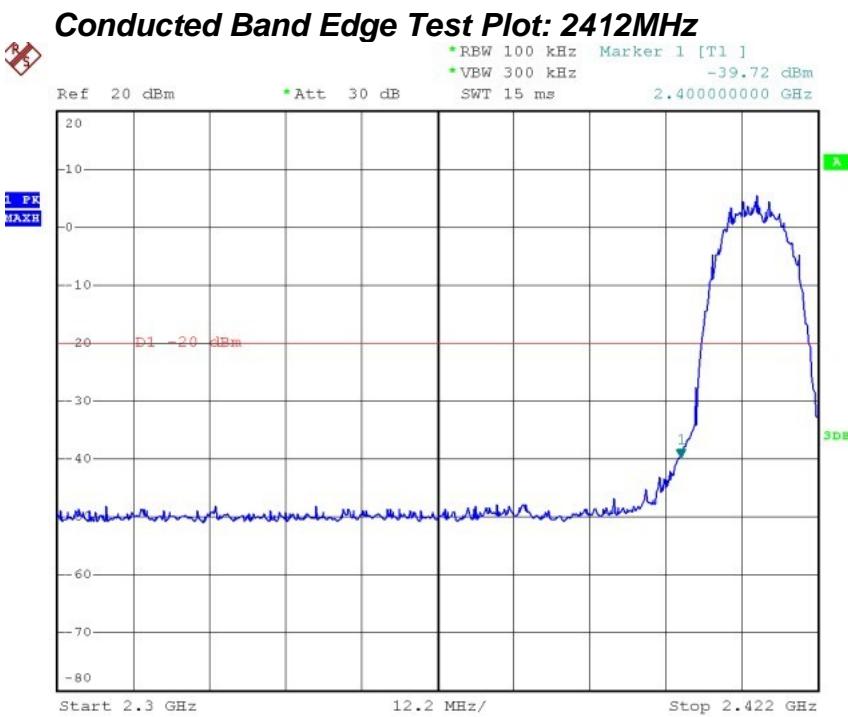
Prepared by ECMG Electronic Technical Testing Corp (Shenzhen).

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ATTACHMENT 6 - BAND EDGES TEST

| | | | | | | | | | | | |
|-----------------------------------|---|-------------------------|---------------------------------|----------------|-------------------|-------------------|-----------|-----|--------|-----|--------|
| CLIENT: | SHENZHEN KTC TECHNOLOGY CO., LTD. | TEST STANDERD: | Section 15.247(d) | | | | | | | | |
| MODEL NUMBERS: | 101P*** | PRODUCT: | 10.1" PAD | | | | | | | | |
| EUT MODEL: | 101P11C | EUT DESIGNATION: | Digital Transmission Device | | | | | | | | |
| TEMPERATURE: | 23°C | HUMIDITY: | 47%RH | | | | | | | | |
| ATM PRESSURE: | 101.0kPa | GROUNDING: | None | | | | | | | | |
| TESTED BY: | Sewen Guo | DATE OF TEST: | January 19 th , 2013 | | | | | | | | |
| TEST REFERENCE: | ANSI C63.4:2003 and 558074 D01 | | | | | | | | | | |
| TEST PROCEDURE: | <p>Requirement: 15.247 (d) 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.</p> <p>Test Procedures: The EUT was set up as ANSI C63.4-2003, tested to DTS test procedure of 558074 D01 for compliance to FCC 47CFR 15.247 requirements.</p> | | | | | | | | | | |
| DESCRIPTIONS OF TEST MODE: | Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channels were chosen for the final test as listed below: 802.11b mode with data rate of 1Mbps, 802.11g mode with data rate of 6Mbps, 802.11n HT20 mode with data rate of MCS0 and 802.11n HT40 mode with data rate of MCS0. | | | | | | | | | | |
| EQUIPMENT SETUP | <p><i>Spectrum analyzer shall be set as below:</i></p> <table border="1"> <tr> <td>Equipment Mode</td> <td>Spectrum Analyzer</td> </tr> <tr> <td>Detector Function</td> <td>Peak Mode</td> </tr> <tr> <td>RBW</td> <td>100KHz</td> </tr> <tr> <td>VBW</td> <td>300KHz</td> </tr> </table> | | | Equipment Mode | Spectrum Analyzer | Detector Function | Peak Mode | RBW | 100KHz | VBW | 300KHz |
| Equipment Mode | Spectrum Analyzer | | | | | | | | | | |
| Detector Function | Peak Mode | | | | | | | | | | |
| RBW | 100KHz | | | | | | | | | | |
| VBW | 300KHz | | | | | | | | | | |
| TEST VOLTAGE: | 120VAC/60Hz | | | | | | | | | | |
| RESULTS: | The EUT meets the requirements of test reference for band edges. The test results relate only to the equipment under test provided by client. | | | | | | | | | | |
| CHANGES OR MODIFICATIONS: | There were no modifications installed by ECMG Electronic Technical Testing Corp (Shenzhen) test personnel. | | | | | | | | | | |
| M. UNCERTAINTY: | Freq. $\pm 2 \times 10^{-7}$ x Center Freq., Amp ± 2.6 dB. | | | | | | | | | | |

For 802.11b Mode:

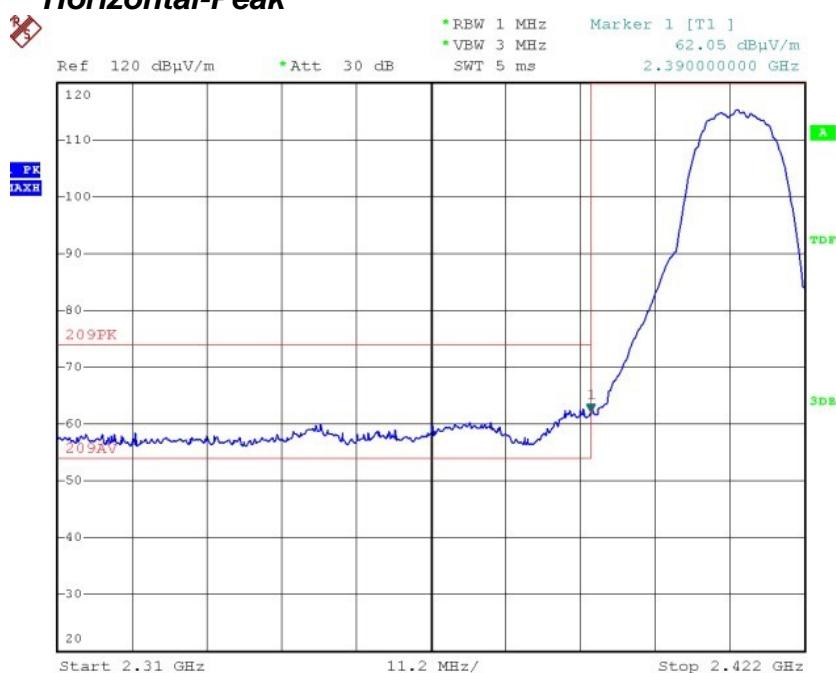


Radiated Band Edge Test Plot: 2412MHz

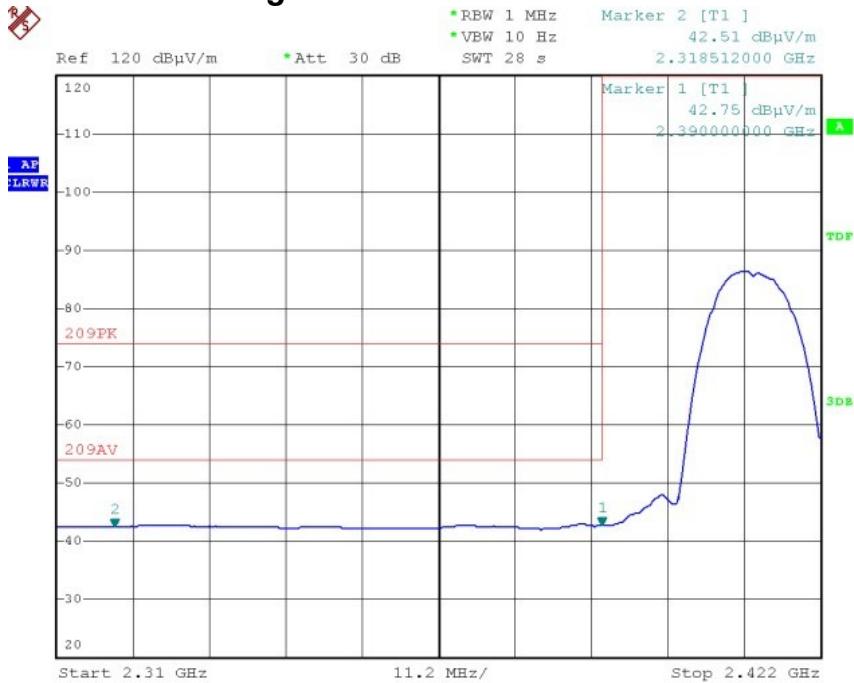
Horizontal-Average



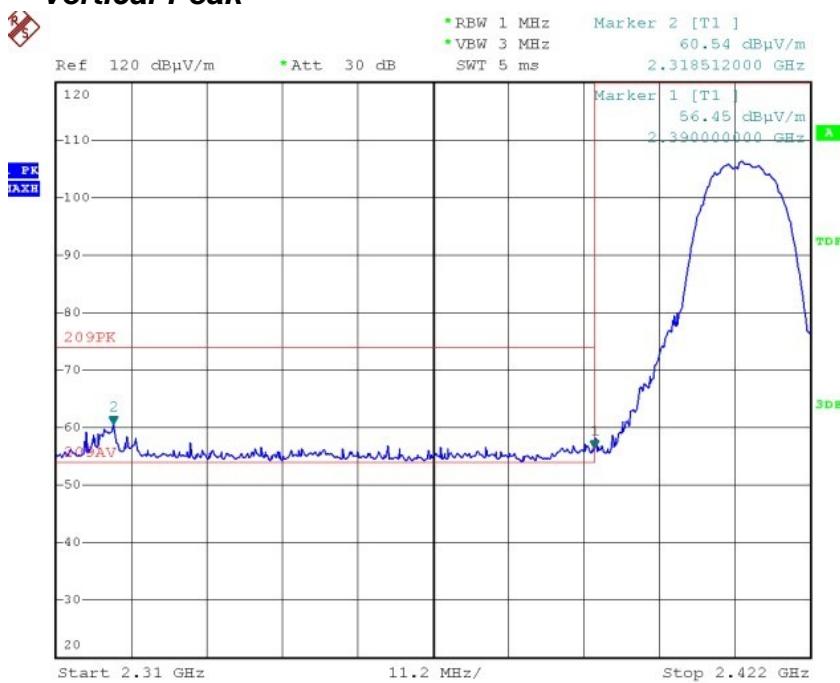
Horizontal-Peak



Vertical-Average

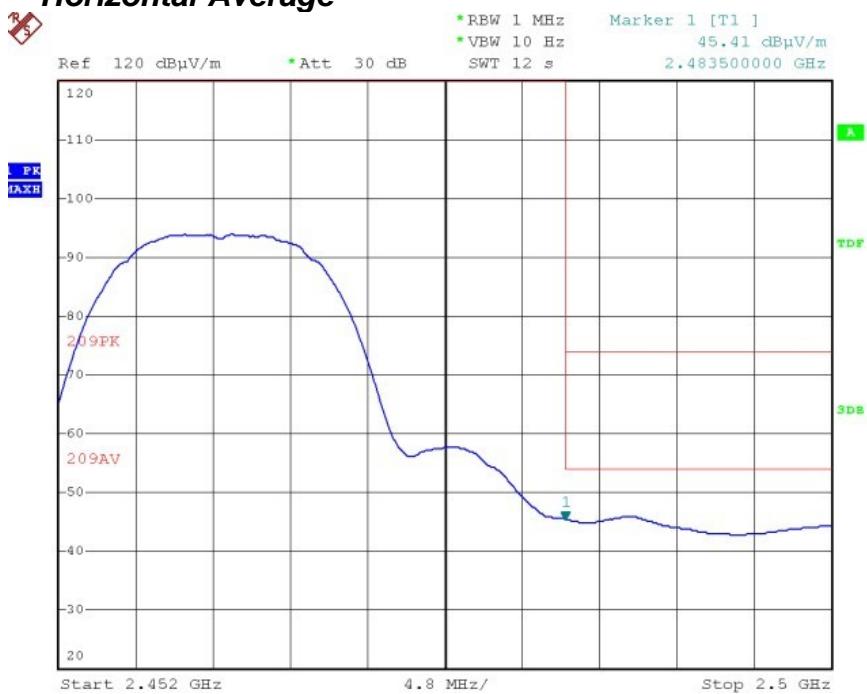


Vertical-Peak

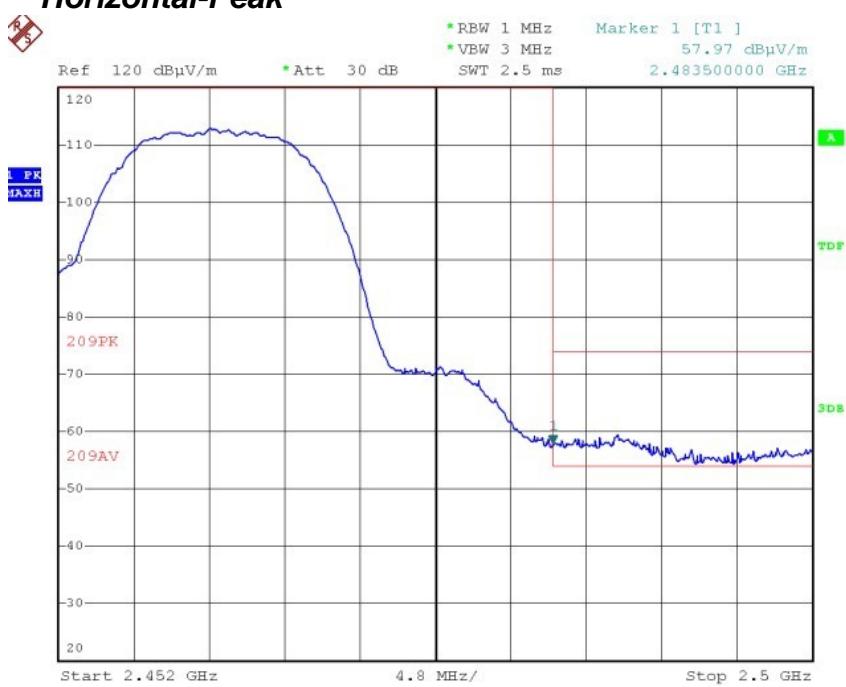


Radiated Band Edge Test Plot: 2462MHz

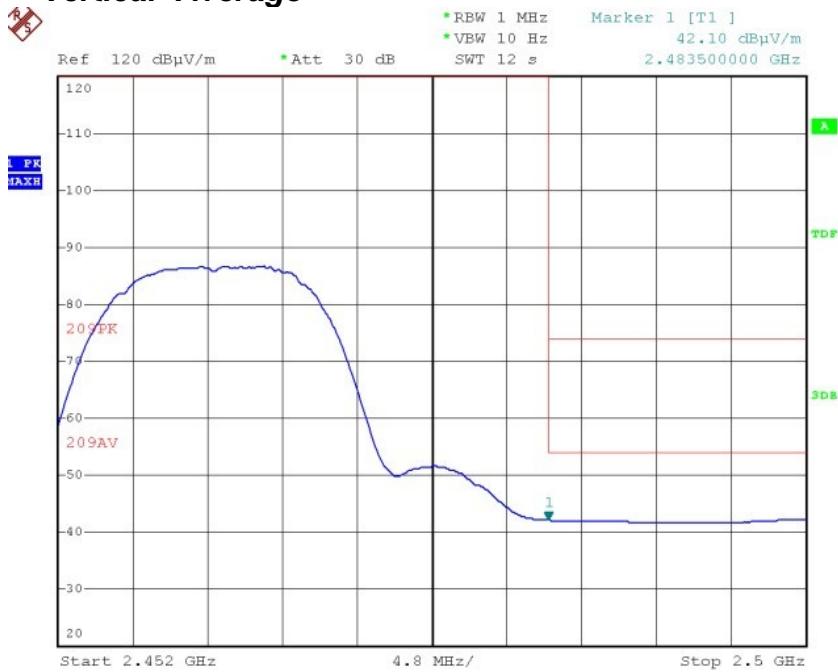
Horizontal-Average



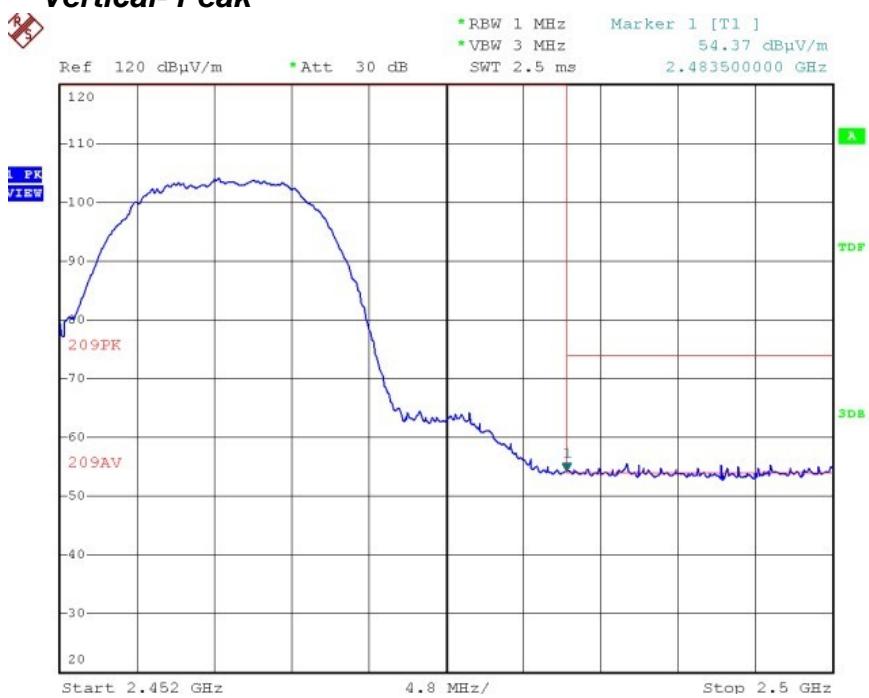
Horizontal-Peak



Vertical- Average

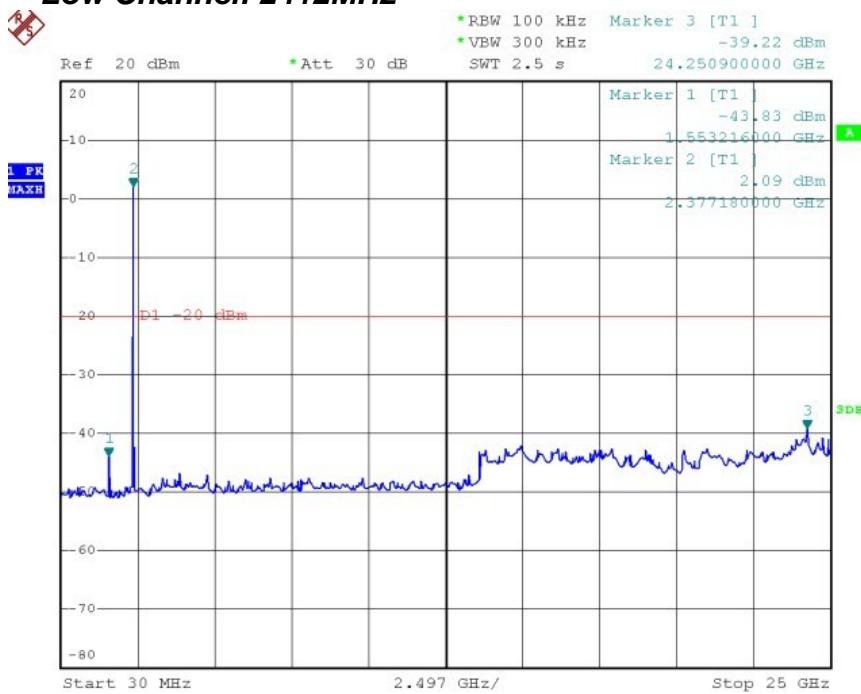


Vertical- Peak

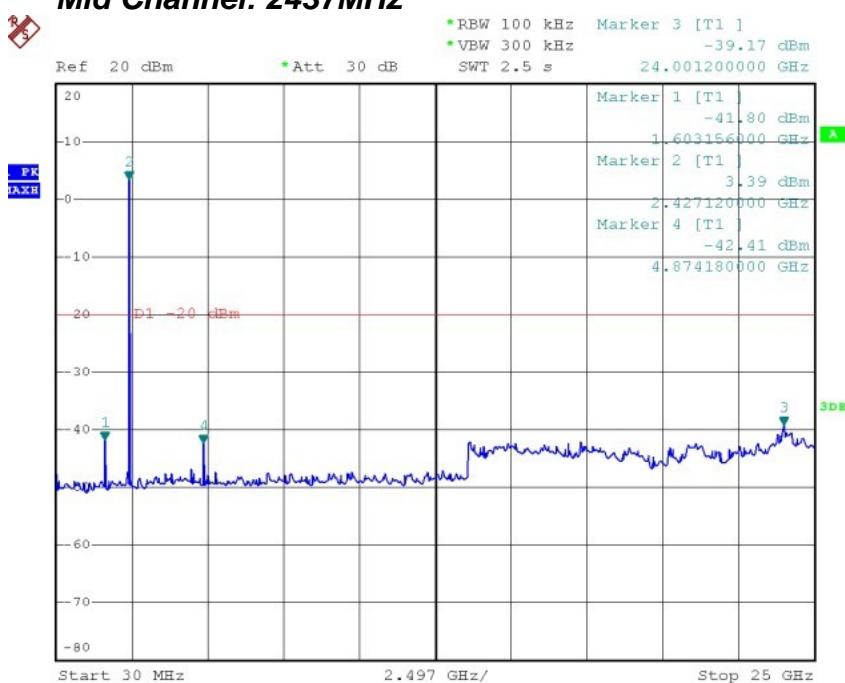


Conducted Spurious Emission Test Plot

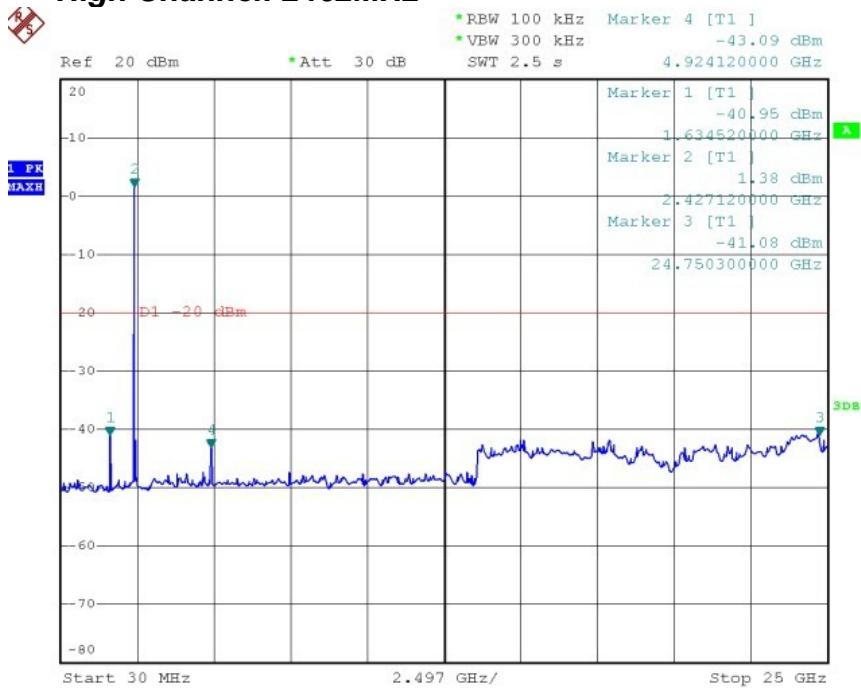
Low Channel: 2412MHz



Mid Channel: 2437MHz



High Channel: 2462MHz



Test Report #: SHE-1212-10930-FCC ID

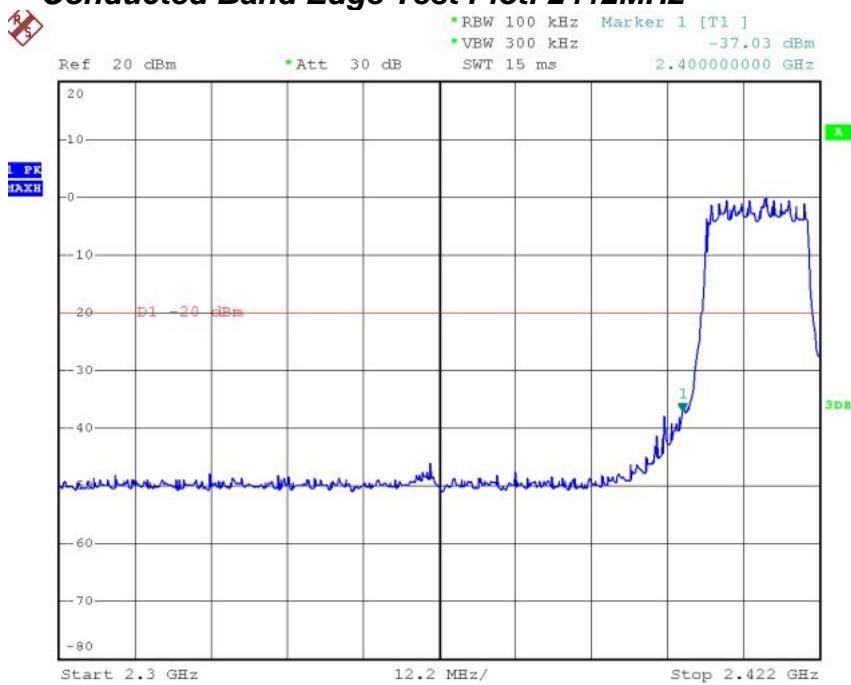
Prepared for Shenzhen KTC Technology Co., Ltd.

Prepared by ECMG Electronic Technical Testing Corp (Shenzhen).

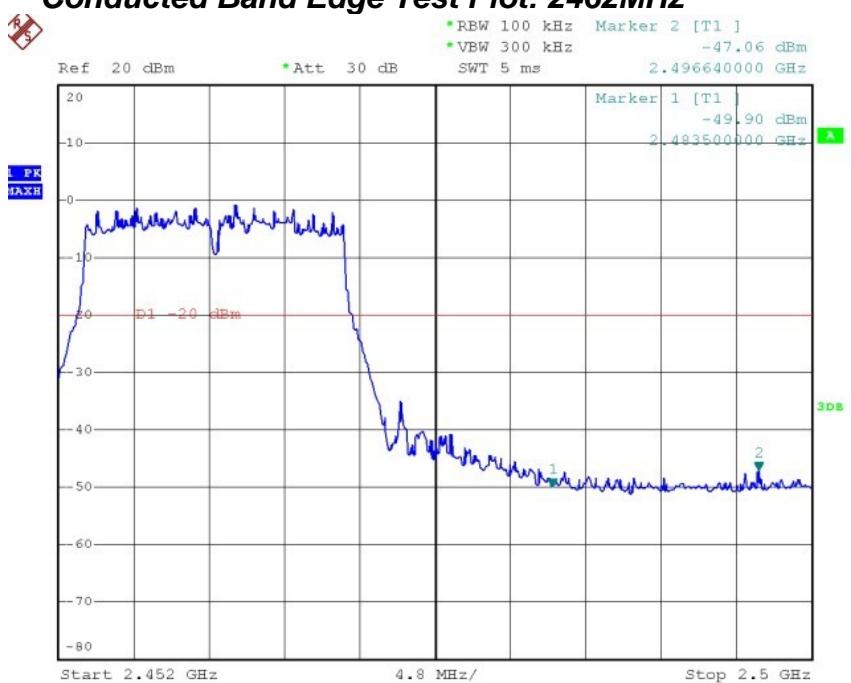
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For 802.11g Mode:

Conducted Band Edge Test Plot: 2412MHz



Conducted Band Edge Test Plot: 2462MHz

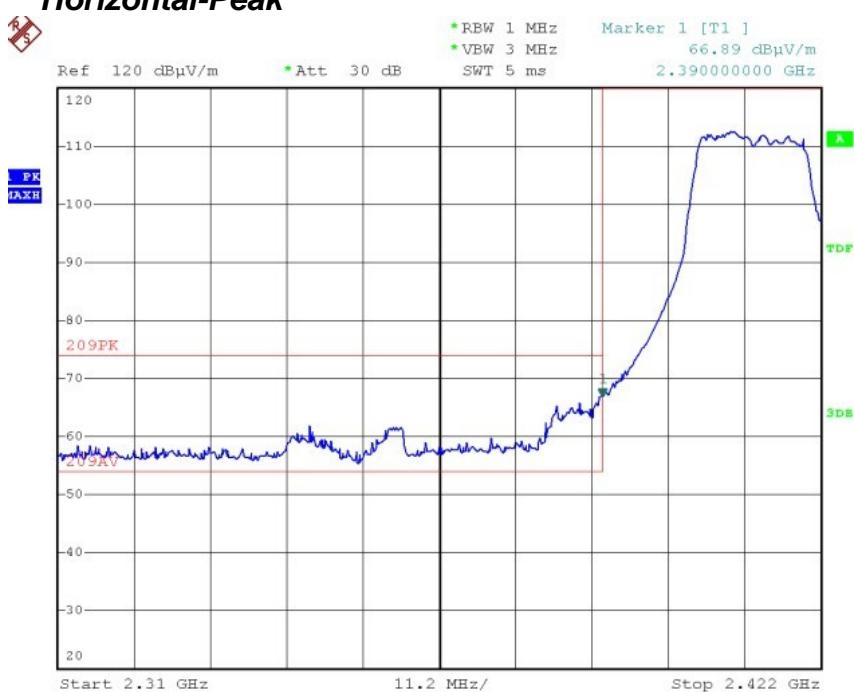


Radiated Band Edge Test Plot: 2412MHz

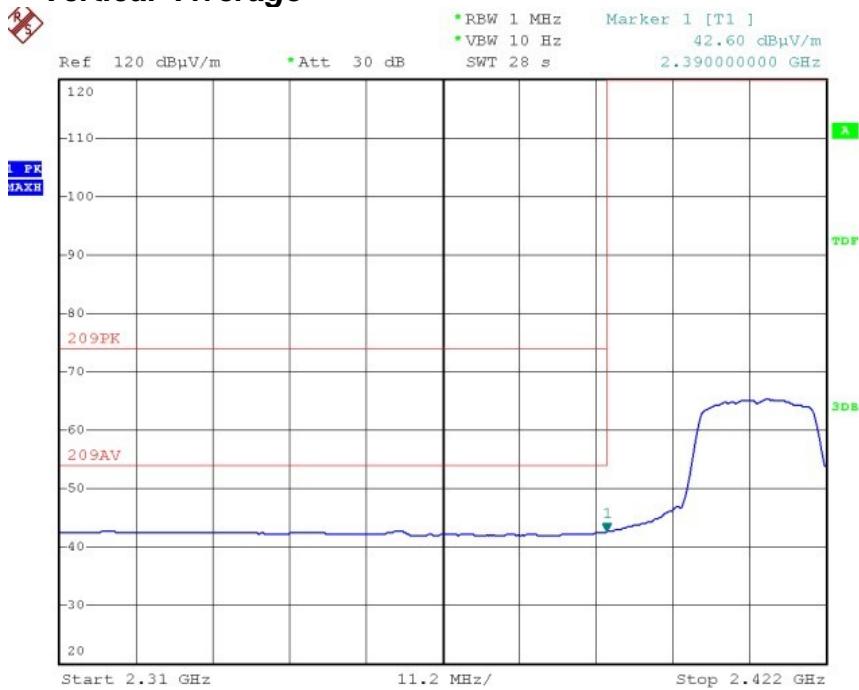
Horizontal-Average



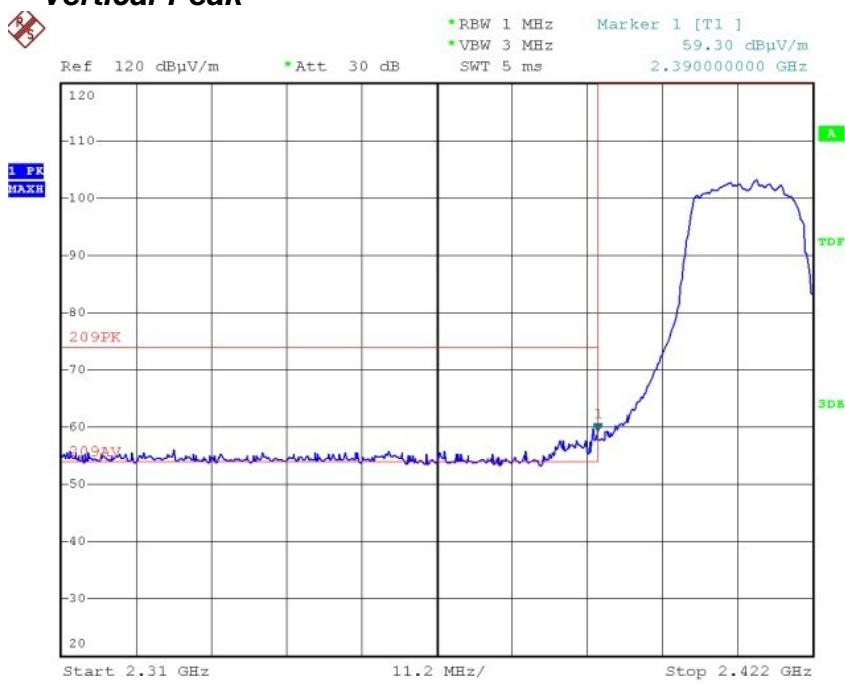
Horizontal-Peak



Vertical- Average



Vertical-Peak

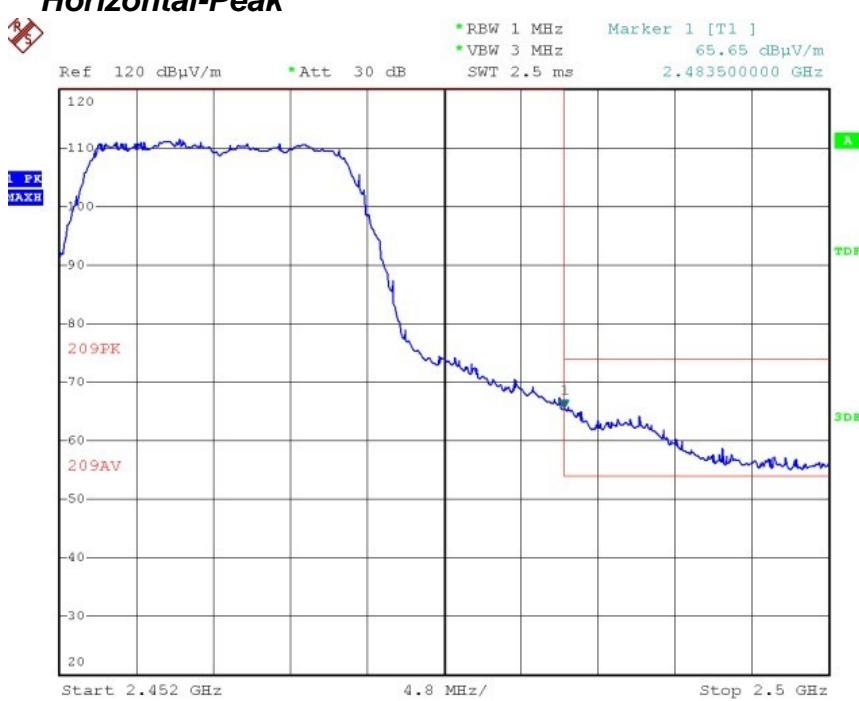


Radiated Band Edge Test Plot: 2462MHz

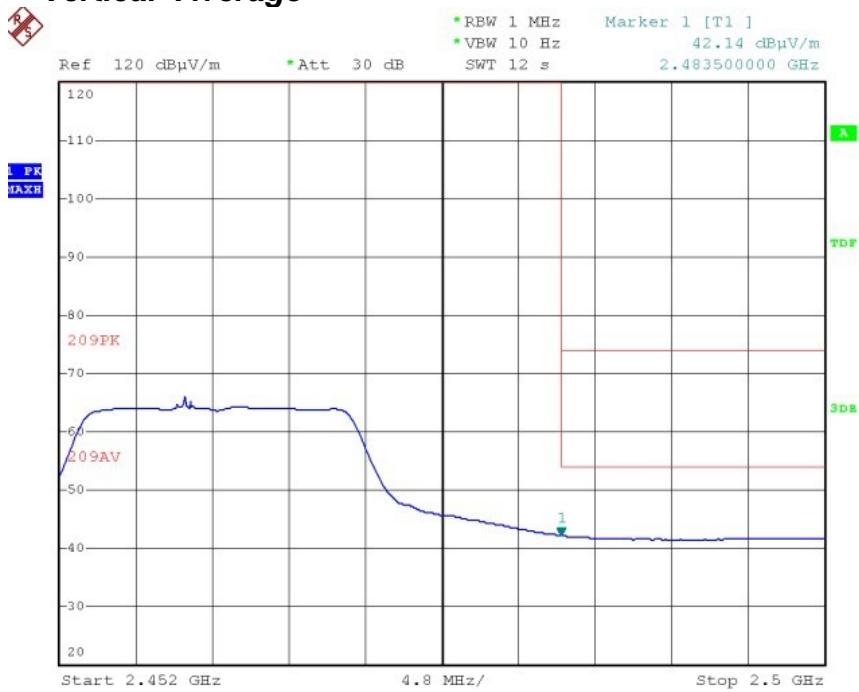
Horizontal- Average



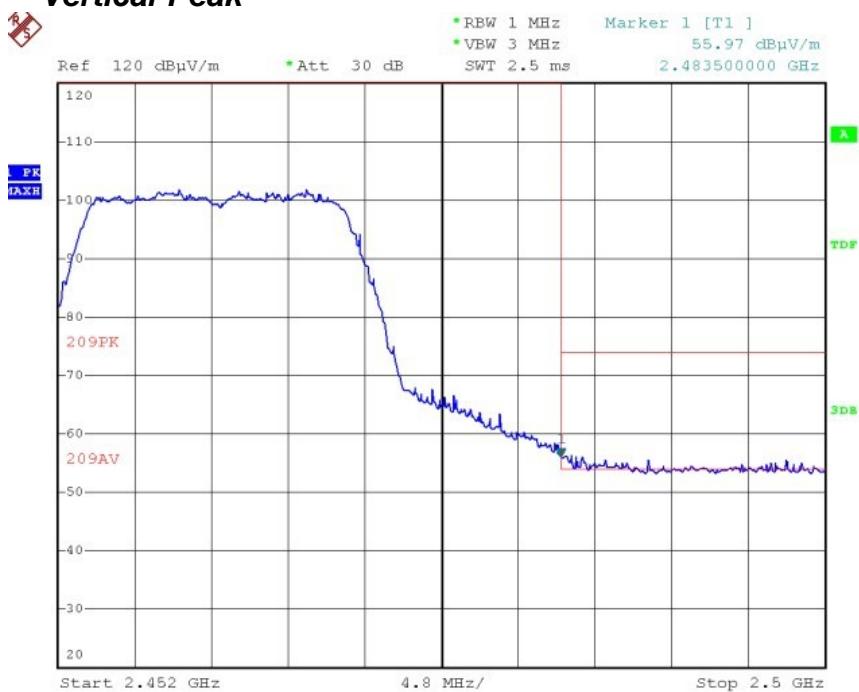
Horizontal-Peak



Vertical- Average

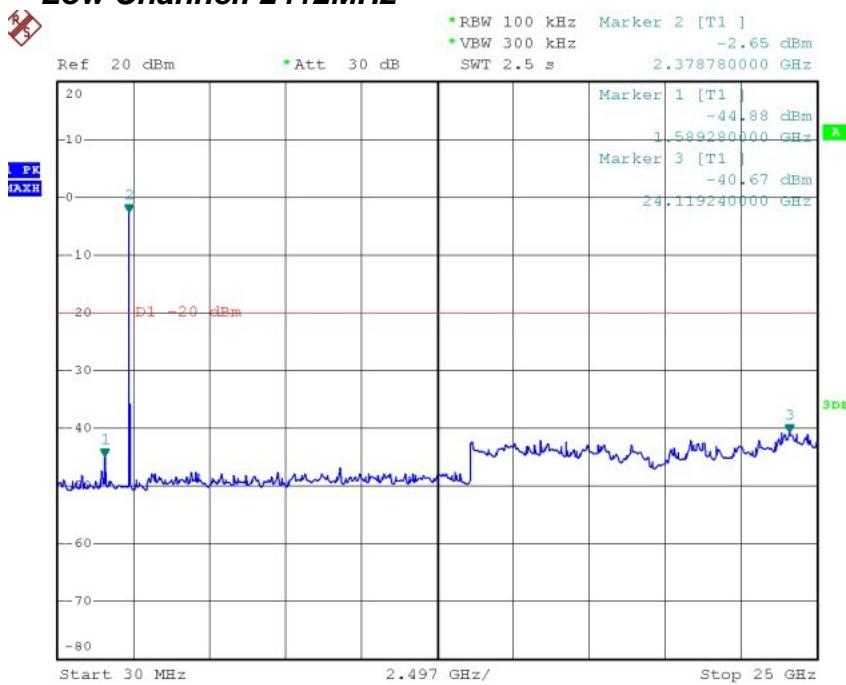


Vertical-Peak

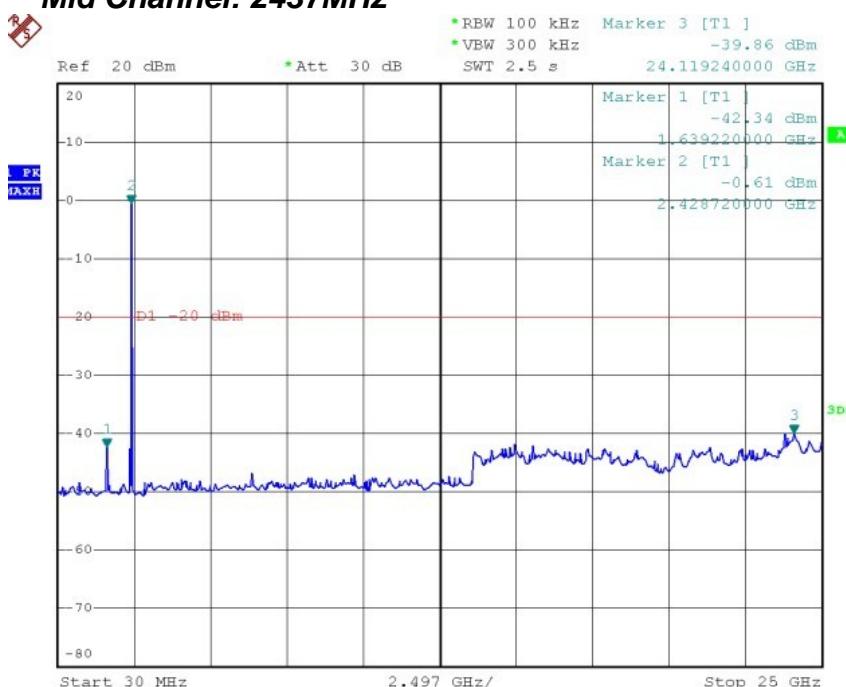


Conducted Spurious Emission Test Plot

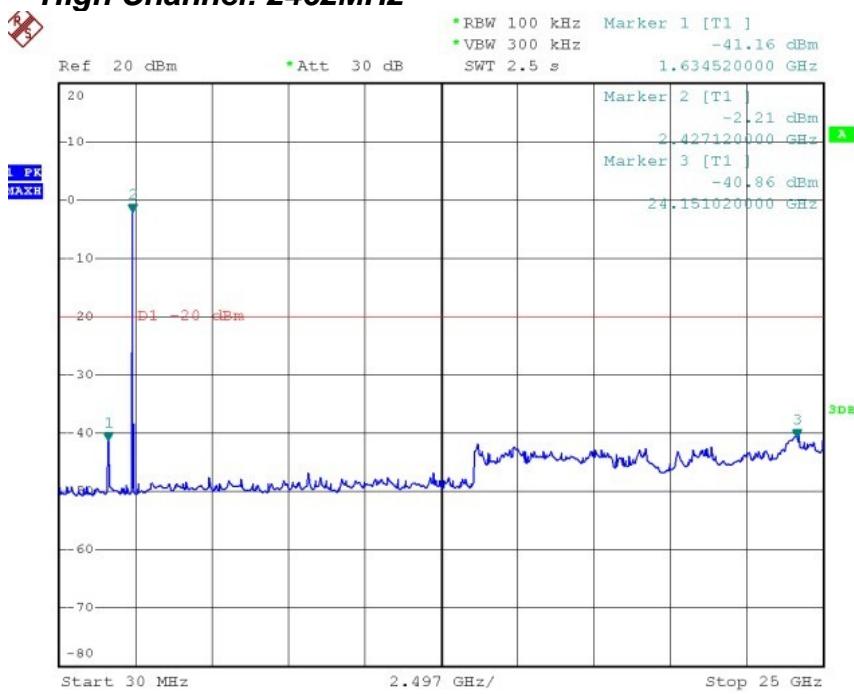
Low Channel: 2412MHz



Mid Channel: 2437MHz



High Channel: 2462MHz



Test Report #: SHE-1212-10930-FCC ID

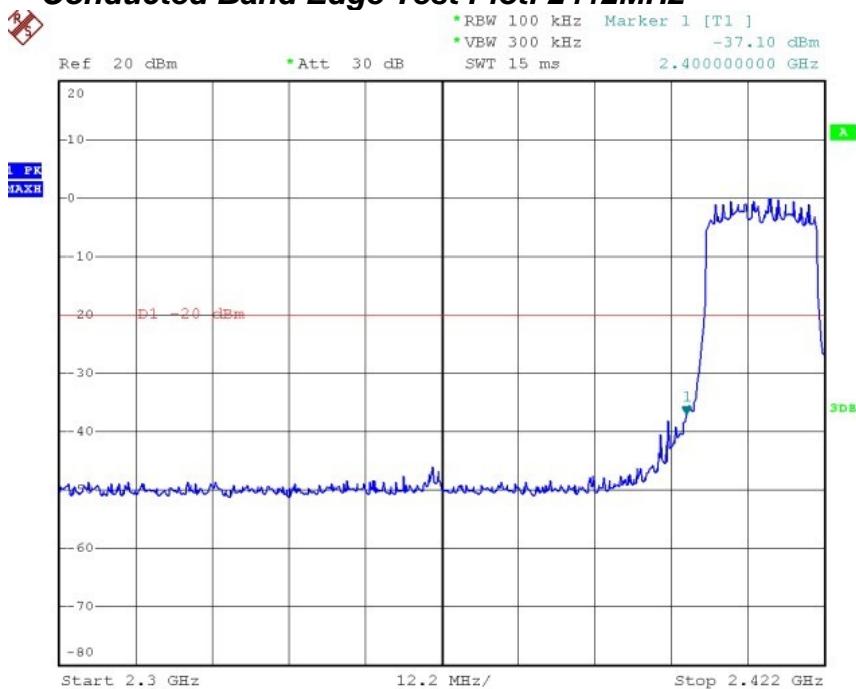
Prepared for Shenzhen KTC Technology Co., Ltd.

Prepared by ECMG Electronic Technical Testing Corp (Shenzhen).

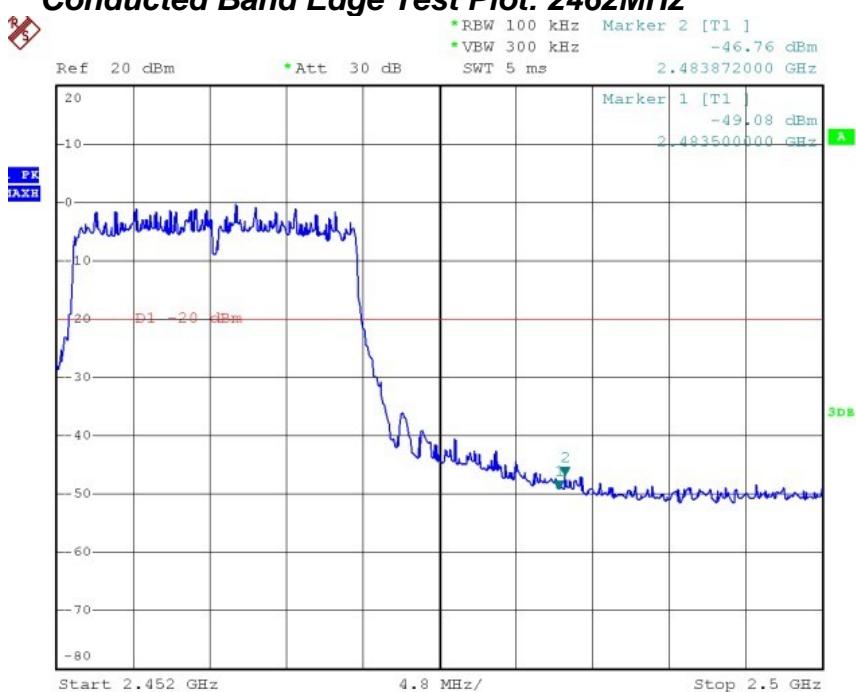
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For 802.11n HT20 Mode:

Conducted Band Edge Test Plot: 2412MHz

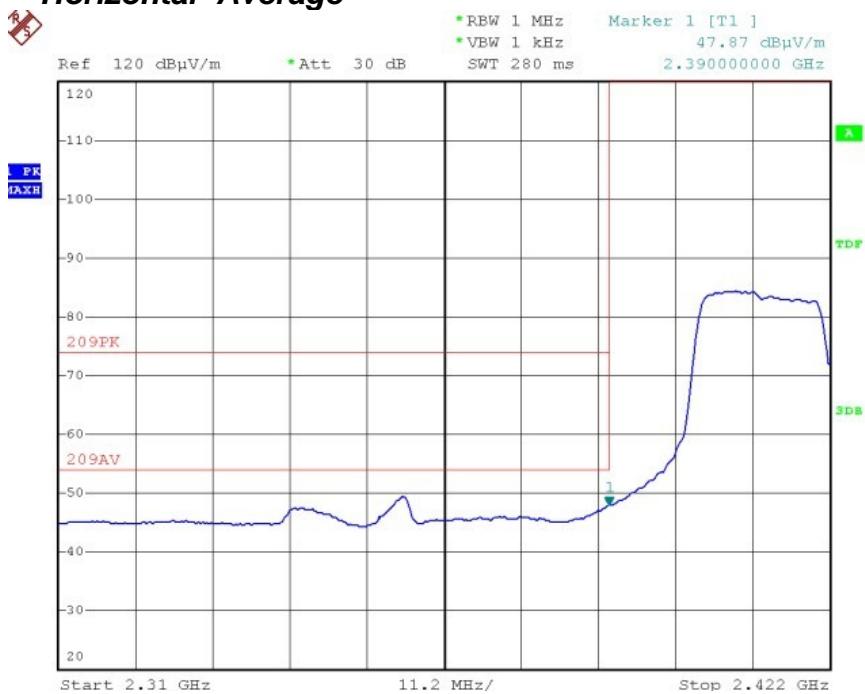


Conducted Band Edge Test Plot: 2462MHz

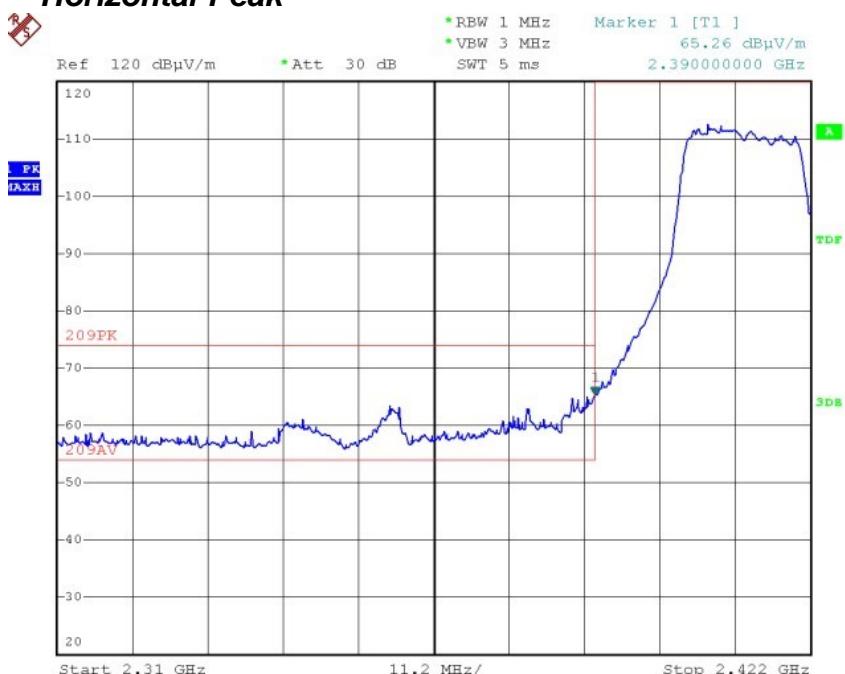


Radiated Band Edge Test Plot: 2412MHz

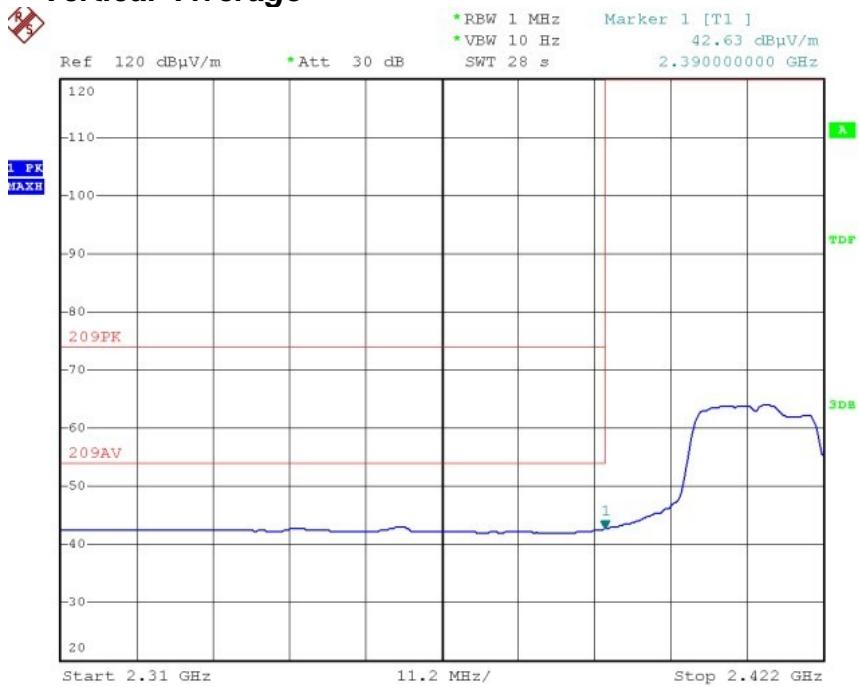
Horizontal- Average



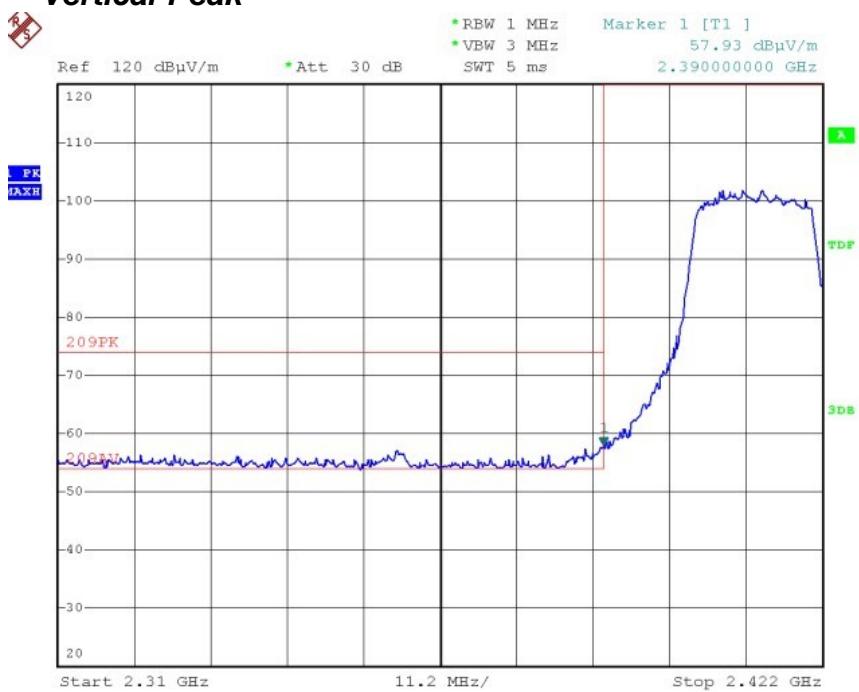
Horizontal-Peak



Vertical- Average

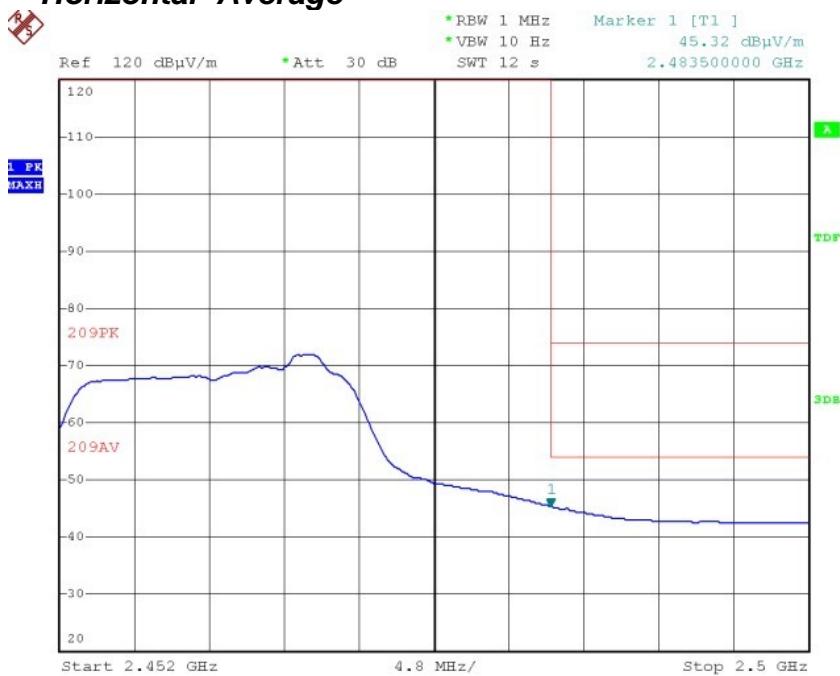


Vertical-Peak

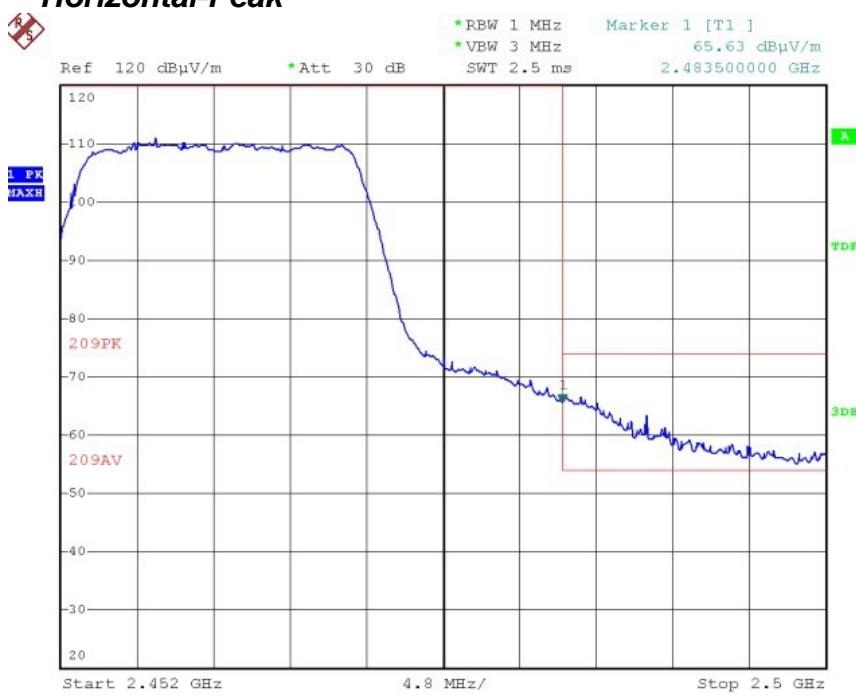


Radiated Band Edge Test Plot: 2462MHz

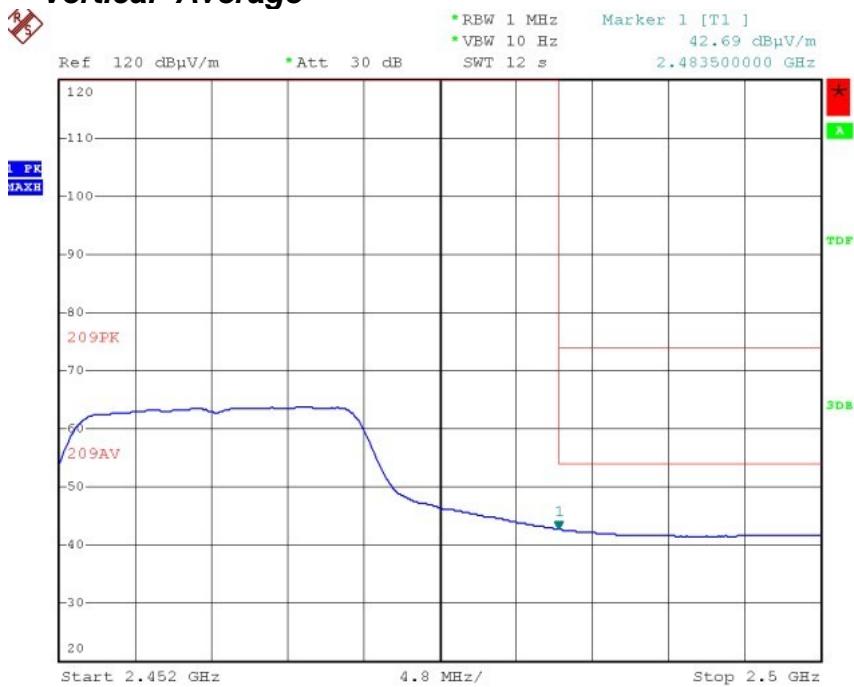
Horizontal-Average



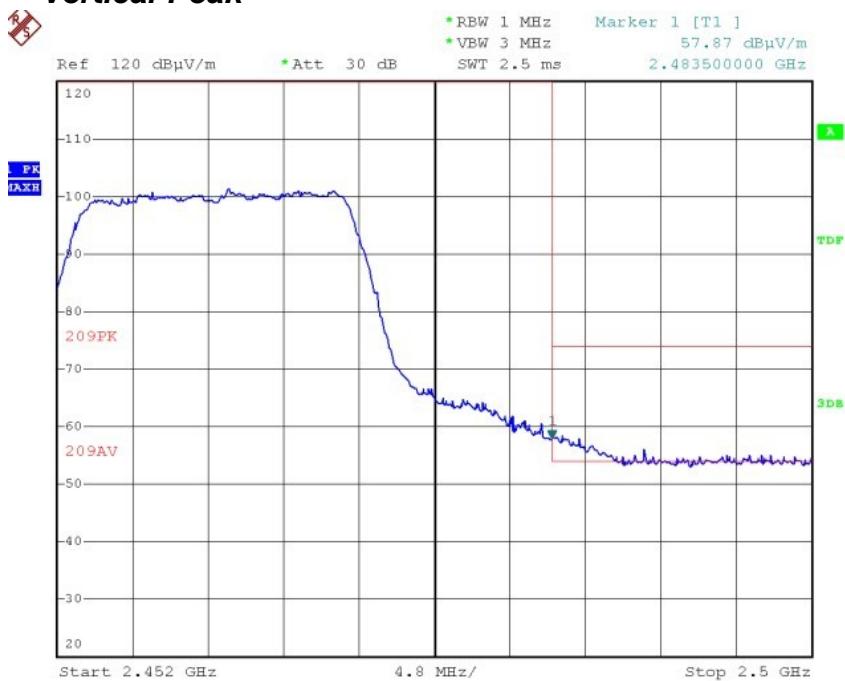
Horizontal-Peak



Vertical- Average

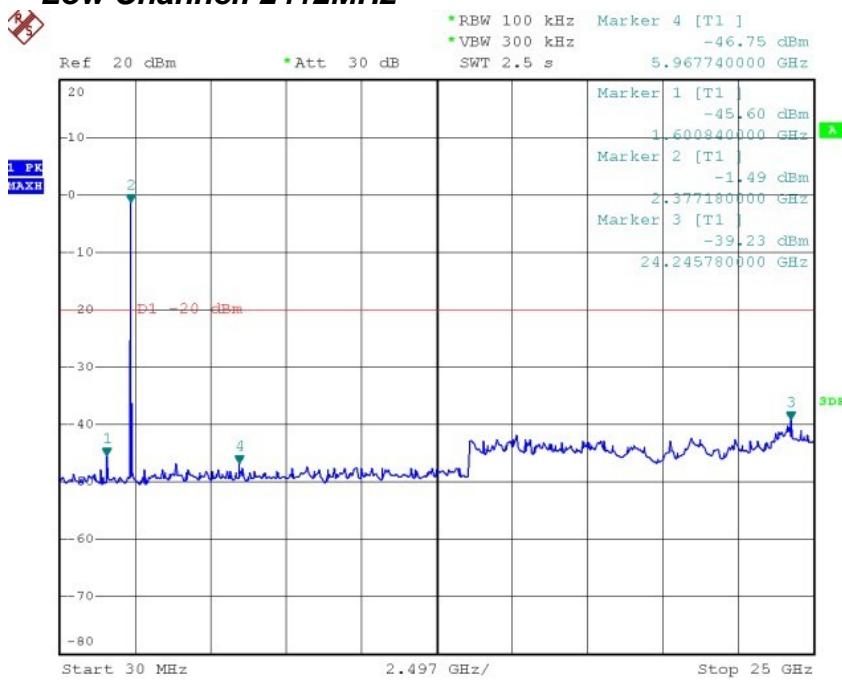


Vertical-Peak

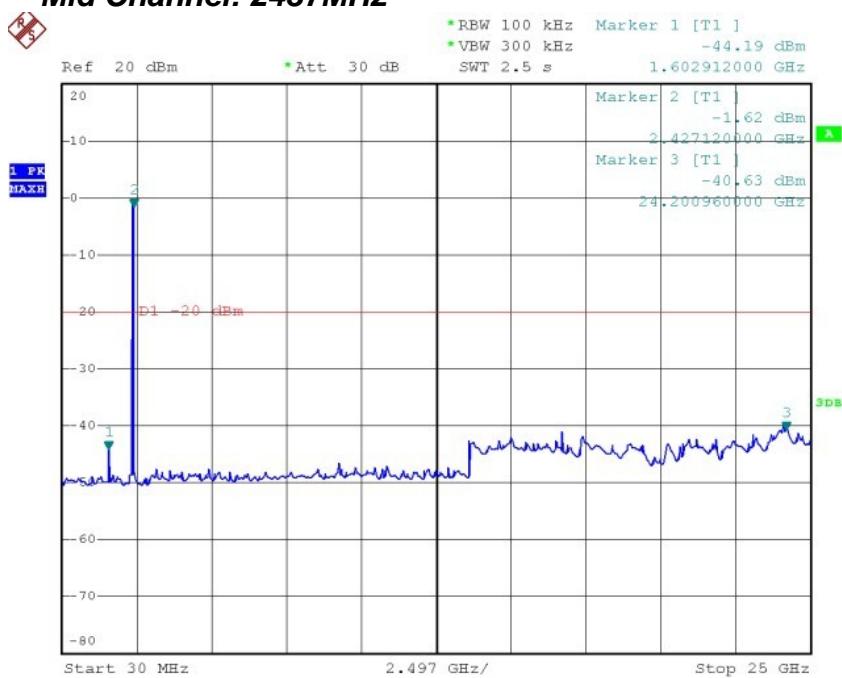


Conducted Spurious Emission Test Plot

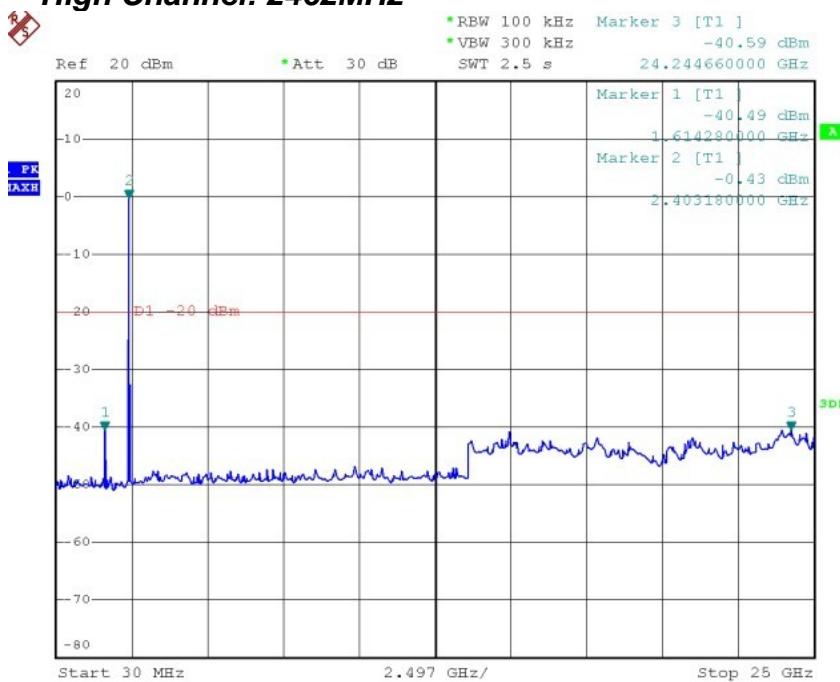
Low Channel: 2412MHz



Mid Channel: 2437MHz



High Channel: 2462MHz



Test Report #: SHE-1212-10930-FCC ID

Prepared for Shenzhen KTC Technology Co., Ltd.

Prepared by ECMG Electronic Technical Testing Corp (Shenzhen).

ATTACHMENT 7 - PEAK POWER SPECTRAL DENSITY TEST

| | | | | | | | | | | | | | | | |
|-----------------------------------|---|-------------------------|---------------------------------|----------------|-------------------|-------------------|------|-----|------|-----|-------|------|--------|------------|------|
| CLIENT: | SHENZHEN KTC TECHNOLOGY CO., LTD. | TEST STANDERD: | Section 15.247(e) | | | | | | | | | | | | |
| MODEL NUMBERS: | 101P*** | PRODUCT: | 10.1" PAD | | | | | | | | | | | | |
| EUT MODEL: | 101P11C | EUT DESIGNATION: | Digital Transmission Device | | | | | | | | | | | | |
| TEMPERATURE: | 23°C | HUMIDITY: | 47%RH | | | | | | | | | | | | |
| ATM PRESSURE: | 101.0kPa | GROUNDING: | None | | | | | | | | | | | | |
| TESTED BY: | Sewen Guo | DATE OF TEST: | January 19 th , 2013 | | | | | | | | | | | | |
| TEST REFERENCE: | ANSI C63.4:2003 and KDB Publication No. 558074 D01 for DSSS. | | | | | | | | | | | | | | |
| TEST PROCEDURE: | Regulation 15.247(e) for direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. The EUT was set transmitting continuously and force selection of output power level and channel number. We'd observed that the peak levels aren't greater than +8dBm limit. The EUT was set up as ANSI C63.4: 2003, tested to DTS test procedure of 558074 D01 for compliance to FCC 47CFR 15.247 requirements. | | | | | | | | | | | | | | |
| DESCRIPTIONS OF TEST MODE: | Pre-Scan has been conducted to determine the worst-case mode from all possible Combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channels were selected for the final test as listed below: 802.11b mode with data rate of 1mbps, 802.11g mode with data rate of 6mbps, 802.11n HT20 mode with data rate of MCS0. | | | | | | | | | | | | | | |
| EQUIPMENT SETUP | <p>Spectrum analyzer shall be set as below:</p> <table border="1"> <tr> <td>Equipment Mode</td> <td>Spectrum Analyzer</td> </tr> <tr> <td>Detector Function</td> <td>Peak</td> </tr> <tr> <td>RBW</td> <td>3KHz</td> </tr> <tr> <td>VBW</td> <td>10KHz</td> </tr> <tr> <td>Span</td> <td>300KHz</td> </tr> <tr> <td>Sweep Time</td> <td>100S</td> </tr> </table> | | | Equipment Mode | Spectrum Analyzer | Detector Function | Peak | RBW | 3KHz | VBW | 10KHz | Span | 300KHz | Sweep Time | 100S |
| Equipment Mode | Spectrum Analyzer | | | | | | | | | | | | | | |
| Detector Function | Peak | | | | | | | | | | | | | | |
| RBW | 3KHz | | | | | | | | | | | | | | |
| VBW | 10KHz | | | | | | | | | | | | | | |
| Span | 300KHz | | | | | | | | | | | | | | |
| Sweep Time | 100S | | | | | | | | | | | | | | |
| TEST VOLTAGE: | 120VAC/60Hz | | | | | | | | | | | | | | |
| RESULTS: | The EUT meet the requirements of test reference for power spectral density. The test results relate only to the equipment under test provided by client. | | | | | | | | | | | | | | |
| CHANGES OR MODIFICATIONS: | There were no modifications installed by ECMG Electronic Technical Testing Corp (Shenzhen) test personnel. | | | | | | | | | | | | | | |
| M. UNCERTAINTY: | Freq. $\pm 2 \times 10^{-7}$ x Center Freq., Amp ± 2.6 dB. | | | | | | | | | | | | | | |

Test Data:**For 802.11b Mode:**

| Channel Frequency (MHz) | Power Spectral Density (dBm) | BWCF (dB) | Cable Loss (dB) | Power Spectral Density Level (dBm) | Maximum Limit (dBm) | Margin (dB) |
|-------------------------|------------------------------|-----------|-----------------|------------------------------------|---------------------|-------------|
| 2412 | -21.81 | -15.2 | 1.5 | -35.51 | 8.00 | -27.51 |
| 2437 | -22.95 | -15.2 | 1.5 | -36.65 | 8.00 | -28.65 |
| 2462 | -20.99 | -15.2 | 1.5 | -34.69 | 8.00 | -26.69 |

For 802.11g Mode:

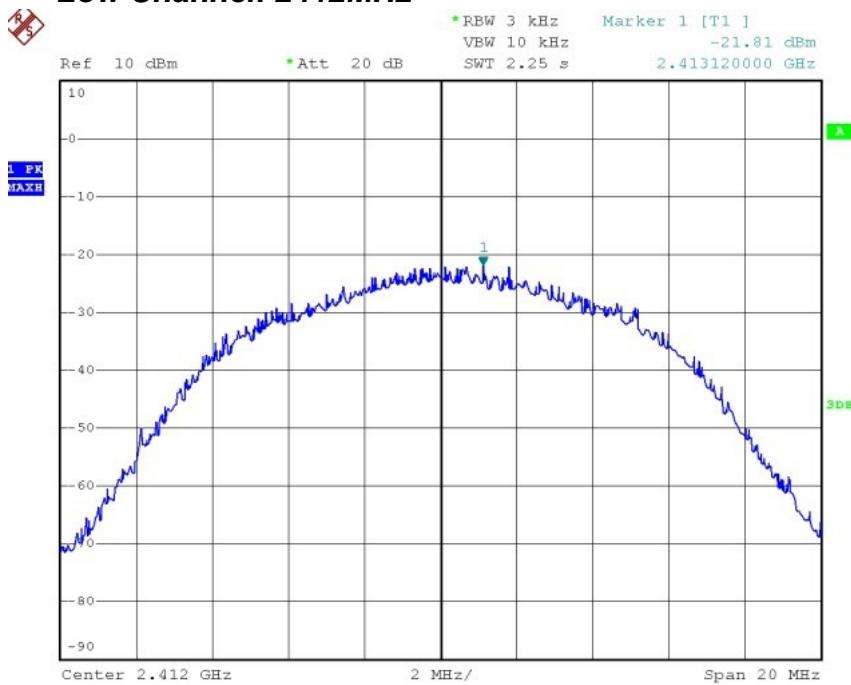
| Channel Frequency (MHz) | Power Spectral Density (dBm) | BWCF (dB) | Cable Loss (dB) | Power Spectral Density Level (dBm) | Maximum Limit (dBm) | Margin (dB) |
|-------------------------|------------------------------|-----------|-----------------|------------------------------------|---------------------|-------------|
| 2412 | -25.72 | -15.2 | 1.5 | -39.42 | 8.00 | -31.42 |
| 2437 | -25.54 | -15.2 | 1.5 | -39.24 | 8.00 | -31.24 |
| 2462 | -24.23 | -15.2 | 1.5 | -37.93 | 8.00 | -29.93 |

For 802.11n HT20 Mode:

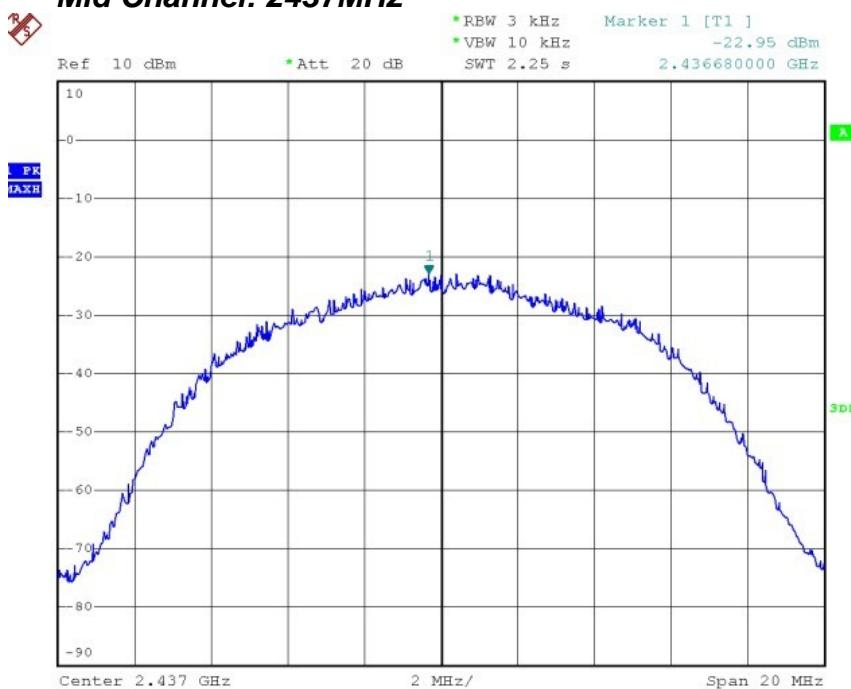
| Channel Frequency (MHz) | Power Spectral Density (dBm) | BWCF (dB) | Cable Loss (dB) | Power Spectral Density Level (dBm) | Maximum Limit (dBm) | Margin (dB) |
|-------------------------|------------------------------|-----------|-----------------|------------------------------------|---------------------|-------------|
| 2412 | -27.56 | -15.2 | 1.5 | -41.26 | 8.00 | -33.26 |
| 2437 | -25.70 | -15.2 | 1.5 | -39.4 | 8.00 | -31.4 |
| 2462 | -25.54 | -15.2 | 1.5 | -39.24 | 8.00 | -31.24 |

Note: BWCF = $10\log(3 \text{ kHz}/100\text{kHz}) = -15.2 \text{ dB}$.

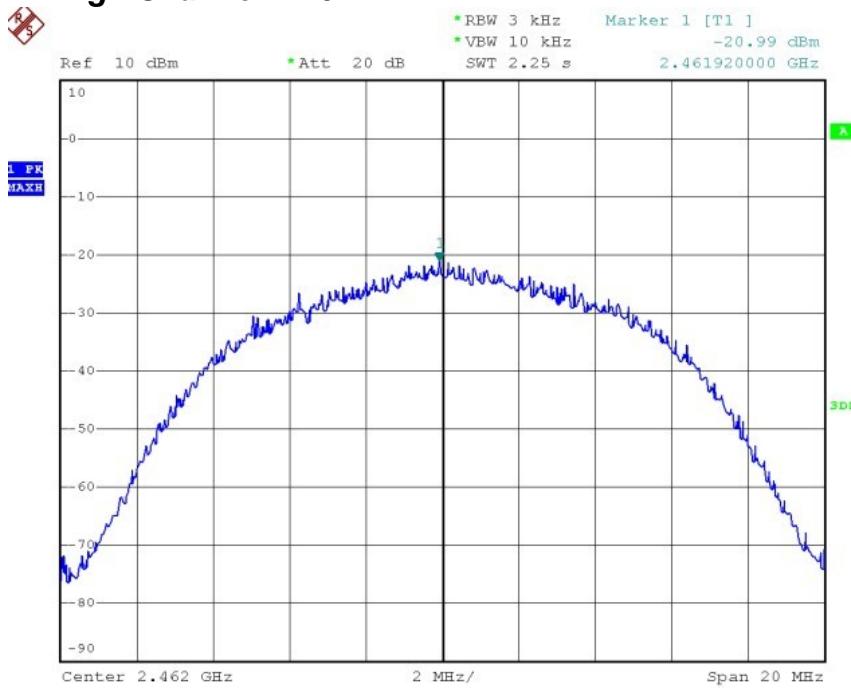
**For 802.11b Mode:
Low Channel: 2412MHz**



Mid Channel: 2437MHz



High Channel: 2462MHz

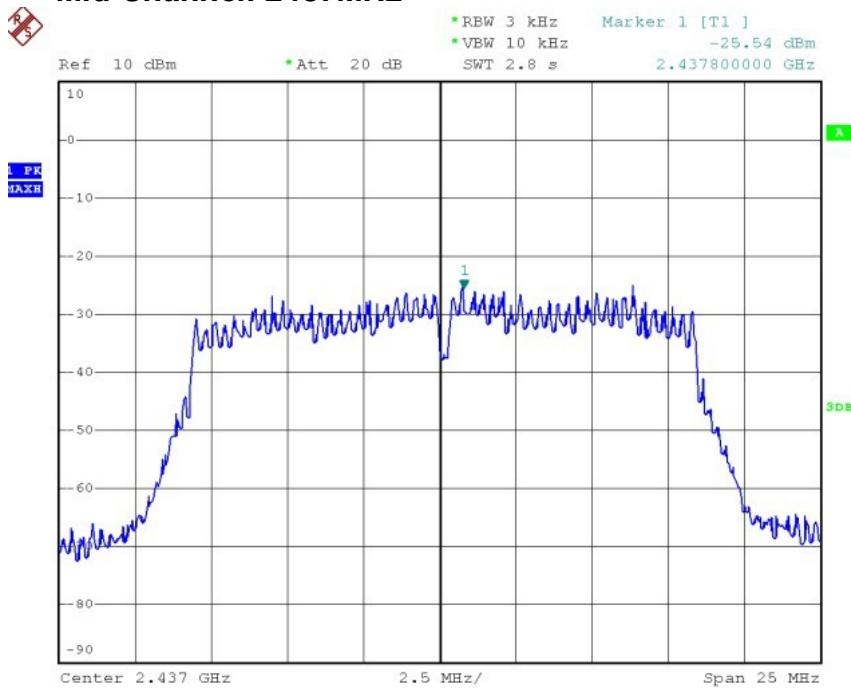


For 802.11g Mode:

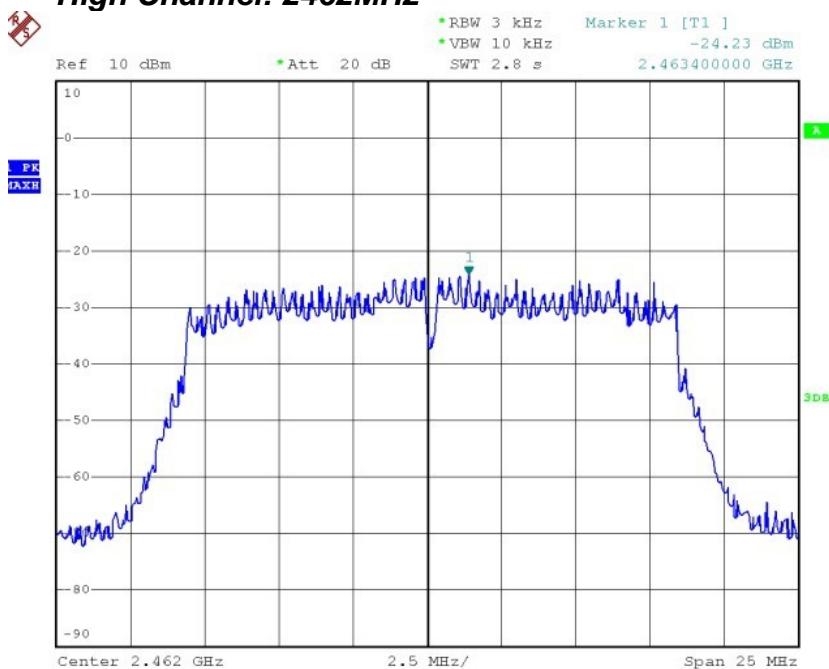
Low Channel: 2412MHz



Mid Channel: 2437MHz

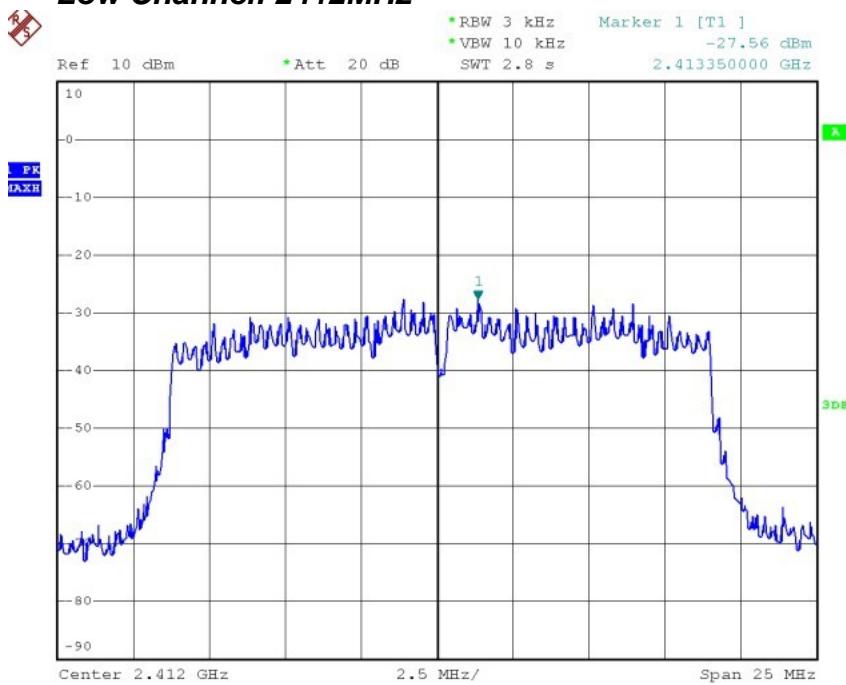


High Channel: 2462MHz

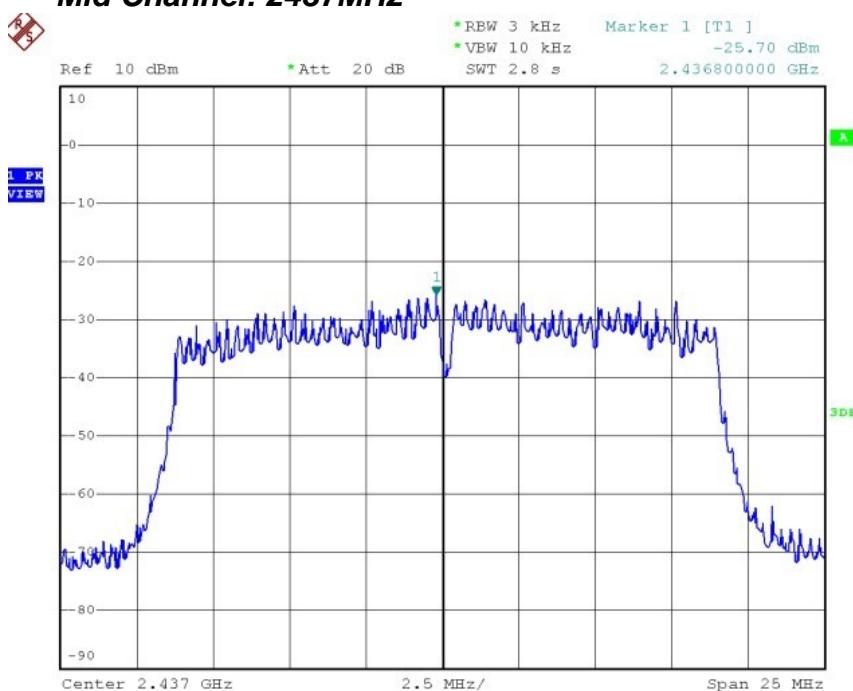


For 802.11n HT20 Mode:

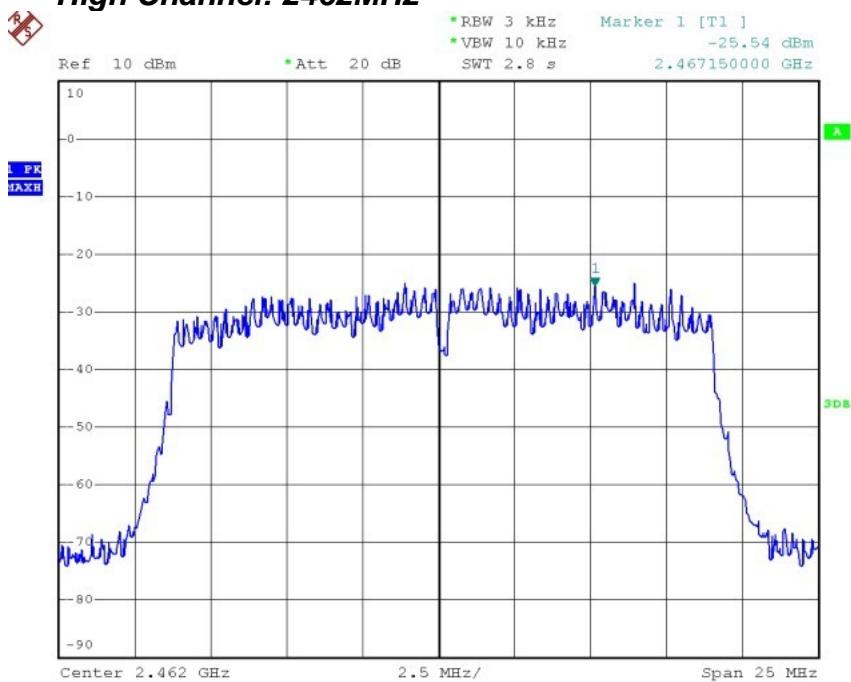
Low Channel: 2412MHz



Mid Channel: 2437MHz



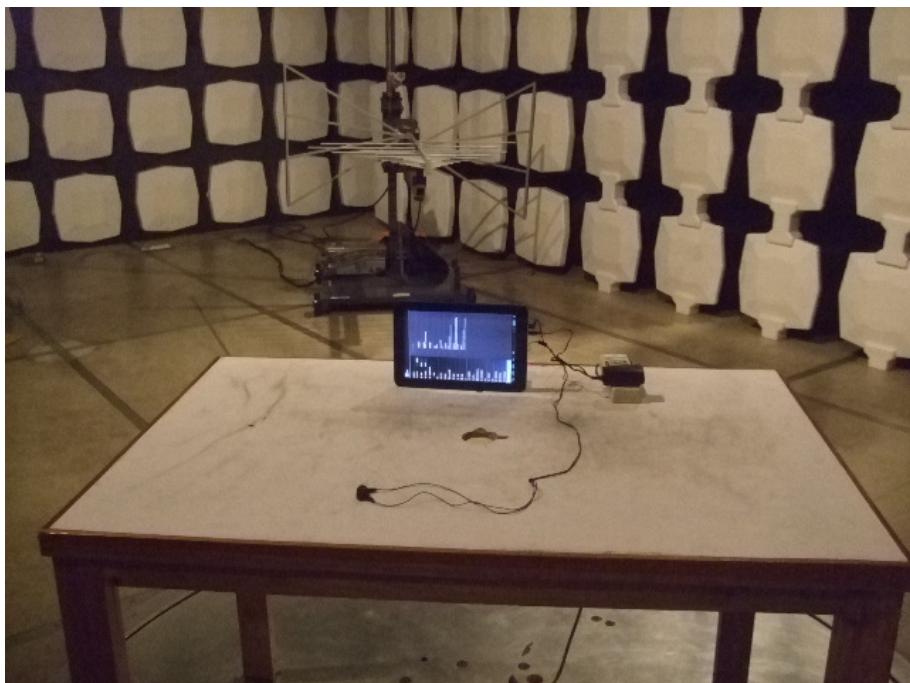
High Channel: 2462MHz



Attachment: Test Set-Up Photograph



Conducted Emission Test Set-up



Radiated Emission Test Set-up -below 1GHz



Radiated Emission Test Set-up - Above 1GHz