TEST REPORT

Reference No. : WTS15S1240218-2E V1

FCC ID : WA6S5005

Applicant.....: VeryKool USA Inc

Manufacturer Shenzhen Fortuneship Technology Co., Ltd

Address...... 6/F, Kanghesheng Building, No.1 Chuangsheng Road, Nanshan

District, Shenzhen, Guangdong, China

Product Name..... : Mobile Phone

Model No. : \$5005, \$5004

Brand.....: verykool

Standards..... FCC CFR47 Part 15C Section 15.247:2015

Date of Receipt sample : Dec. 23, 2015

Date of Test : Dec. 24, 2015 – Jan. 27, 2016

Date of Issue.....: Feb. 25, 2016

Test Result..... : Pass

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

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ved by:

Reference No.: WTS15S1240218-2E V1 Page 2 of 68

2 Test Summary

| Test Items | Test Requirement | Result |
|--|------------------------|--------|
| 5 11 10 1 5 1 1 | 15.247(d) | DA 00 |
| Radiated Spurious Emissions | 15.205(a) 15.209(a) | PASS |
| Conducted Spurious Emissions | 15.247(d) | PASS |
| Conducted Emissions | 15.207(a) | PASS |
| 6dB Bandwidth | 15.247(a)(2) | PASS |
| Maximum Peak Output Power | 15.247(b)(3),(4) | PASS |
| Power Spectral Density | 15.247(e) | PASS |
| Band Edge | 15.247(d) | PASS |
| Antenna Requirement | 15.203 | PASS |
| Maximum Permissible Exposure (Exposure of Humans to RF Fields) | 1.1307(b)(1) | PASS |

3 Contents

| | | Page |
|-----|--|------|
| 1 | COVER PAGE | |
| 2 | TEST SUMMARY | |
| 3 | CONTENTS | |
| 4 | REPORT REVISION HISTORY | |
| 5 | GENERAL INFORMATION | |
| | 5.1 GENERAL DESCRIPTION OF E.U.T. | |
| | 5.2 DETAILS OF E.U.T. 5.3 CHANNEL LIST | |
| | 5.4 TEST MODE | |
| | 5.5 TEST FACILITY | |
| 6 | EQUIPMENT USED DURING TEST | 9 |
| | 6.1 EQUIPMENTS LIST | |
| | 6.2 DESCRIPTION OF SUPPORT UNITS | |
| | 6.3 MEASUREMENT UNCERTAINTY | |
| 7 | CONDUCTED EMISSION | |
| • | 7.1 E.U.T. OPERATION | |
| | 7.2 EUT SETUP | |
| | 7.3 MEASUREMENT DESCRIPTION | |
| | 7.4 CONDUCTED EMISSION TEST RESULT | |
| 8 | RADIATED EMISSIONS | |
| | 8.1 EUT OPERATION | |
| | 8.3 SPECTRUM ANALYZER SETUP | |
| | 8.4 TEST PROCEDURE | 19 |
| | 8.5 CORRECTED AMPLITUDE & MARGIN CALCULATION | |
| | 8.6 SUMMARY OF TEST RESULTS | |
| 9 | CONDUCTED SPURIOUS EMISSIONS | |
| | 2.1 TEST PROCEDURE | |
| 10 | BAND EDGE MEASUREMENT | |
| 10 | 10.1 Test Produce | |
| | 10.2 Test Result | |
| 11 | 6 DB BANDWIDTH MEASUREMENT | 44 |
| | 11.1 Test Procedure: | 44 |
| | 11.2 Test Result: | 44 |
| 12 | MAXIMUM PEAK OUTPUT POWER | 51 |
| | 12.1 Test Procedure: | |
| | 12.2 TEST RESULT: | |
| 13 | POWER SPECTRAL DENSITY | |
| | 13.1 TEST PROCEDURE: | |
| 1.4 | 13.2 TEST RESULT: | |
| 14 | ANTENNA REQUIREMENT | |
| 15 | RF EXPOSURE | 68 |

Reference No.: WTS15S1240218-2E V1 Page 4 of 68

4 Report Revision History

| Report No. | Report Version | Description | Issue Date |
|------------------|----------------|-------------|---------------|
| WTS15S1240218-2E | NONE | Original | Jan. 28, 2016 |
| WTS15S1240218-2E | V1 | Version 1 | Feb. 25, 2016 |
| | | | |

Reference No.: WTS15S1240218-2E V1 Page 5 of 68

5 General Information

5.1 General Description of E.U.T.

Product Name : Mobile Phone Model No. : \$5005, \$5004

Model Description : Only different for model names

GSM Band(s) : GSM 850/900/1800/1900MHz

GPRS/EGPRS Class : 12

WCDMA Band(s) : FDD Band II/IV/V

LTE Bnad(s) : N/A

Wi-Fi Specification : 2.4G: 802.11b/g/n HT20/n HT40

Bluetooth Version : Bluetooth v3.0+EDR

GPS : Support

NFC : N/A

Hardware Version : R613-MB-V0.3

Software Version : s5005_VK_Generic_Dual_SW_1.0

5.2 Details of E.U.T.

Operation Frequency : GSM/GPRS/EGPRS 850: 824~849MHz

PCS/GPRS/EGPRS1900: 1850~1910MHz

WCDMA Band II: 1850~1910MHz WCDMA Band V: 824~849MHz WCDMA Band IV:1710~1755MHz

WiFi:

802.11b/g/n HT20: 2412~2462MHz 802.11n HT40: 2422~2452MHz Bluetooth: 2402~2480MHz

Max. RF output power : GSM 850: 32.78dBm

PCS1900: 29.61dBm

WCDMA Band II: 22.52dBm WCDMA Band IV: 22.77dBm WCDMA Band V: 22.51dBm

WiFi(2.4G): 9.62dBm Bluetooth: 8.76dBm

Type of Modulation : GSM,GPRS: GMSK

EDGE: GMSK, 8PSK WCDMA: BPSK WiFi: CCK, OFDM

Bluetooth: GFSK, Pi/4 DQPSK,8DPSK

Reference No.: WTS15S1240218-2E V1 Page 6 of 68

Antenna installation : GSM/WCDMA: internal permanent antenna

WiFi/Bluetooth: internal permanent antenna

Antenna Gain GSM 850: 0dBi

PCS1900: -2dBi

WCDMA Band II: -1.5dBi WCDMA Band IV: -1dBi WCDMA Band V: -1dBi

WiFi(2.4G): 0dBi Bluetooth: 0dBi

Technical Data Battery DC 3.8V, 2000mAh

DC 5V, 0.2A, Charging from adapter 1 DC 5V, 0.15A, Charging from adapter 2 (Adapter Input:100-240V, 50/60Hz)

Adapter1 :Manufacture: Shenzhen Fortuneship Technology Co., Ltd.

Model: s5005

Adapter2 :Manufacture: Shenzhenshi Jingrichang Electronic Technology CO.,LTD

Model: JT-MO5100

5.3 Channel List

WIFI

| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| No. | (MHz) | No. | (MHz) | No. | (MHz) | No. | (MHz) |
| 1 | 2412 | 2 | 2417 | 3 | 2422 | 4 | 2427 |
| 5 | 2432 | 6 | 2437 | 7 | 2442 | 8 | 2447 |
| 9 | 2452 | 10 | 2457 | 11 | 2462 | 12 | - |

Reference No.: WTS15S1240218-2E V1 Page 7 of 68

5.4 Test Mode

Table 1 Tests Carried Out Under FCC part 15.247

| Test Items | Mode | Data Rate | Channel | TX/RX |
|--------------------------------|--------------|-----------|---------|-------|
| | 802.11b | 11 Mbps | 1/6/11 | TX |
| Maximum Book Output Bower | 802.11g | 54 Mbps | 1/6/11 | TX |
| Maximum Peak Output Power | 802.11n HT20 | 108 Mbps | 1/6/11 | TX |
| | 802.11n HT40 | 150 Mbps | 3/6/9 | TX |
| | 802.11b | 11 Mbps | 1/6/11 | TX |
| Dower Spectral Density | 802.11g | 54 Mbps | 1/6/11 | TX |
| Power Spectral Density | 802.11n HT20 | 108 Mbps | 1/6/11 | TX |
| | 802.11n HT40 | 150 Mbps | 3/6/9 | TX |
| | 802.11b | 11 Mbps | 1/6/11 | TX |
| CdD Doodwidth | 802.11g | 54 Mbps | 1/6/11 | TX |
| 6dB Bandwidth | 802.11n HT20 | 108 Mbps | 1/6/11 | TX |
| | 802.11n HT40 | 150 Mbps | 3/6/9 | TX |
| | 802.11b | 11 Mbps | 1/6/11 | TX |
| David Edwa | 802.11g | 54 Mbps | 1/6/11 | TX |
| Band Edge | 802.11n HT20 | 108 Mbps | 1/6/11 | TX |
| | 802.11n HT40 | 150 Mbps | 3/6/9 | TX |
| | 802.11b | 11 Mbps | 1/6/11 | TX |
| Transmittor Spurious Emissions | 802.11g | 54 Mbps | 1/6/11 | TX |
| Transmitter Spurious Emissions | 802.11n HT20 | 108 Mbps | 1/6/11 | TX |
| | 802.11n HT40 | 150 Mbps | 3/6/9 | TX |

Note :Parameters set by test software during channel & power tests, the software provided by the customer was used to set the operating channels as well as the output power level. The RF output power set is the power expected by the manufacturer and is going to be fixed on the firmware of the final product .

Reference No.: WTS15S1240218-2E V1 Page 8 of 68

5.5 Test Facility

The test facility has a test site registered with the following organizations:

• IC – Registration No.: 7760A

Waltek Services(Shenzhen) Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files. Registration number 7760A, October 15, 2015.

FCC Test Site 1# Registration No.: 880581

Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 880581, April 29, 2014.

FCC Test Site 2# Registration No.: 328995

Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 328995, December 3, 2014.

Reference No.: WTS15S1240218-2E V1 Page 9 of 68

6 Equipment Used during Test

6.1 Equipments List

| | cted Emissions at | | Disturbance Volta | age | | |
|-------|--|----------------------|-------------------|---------------------|-----------------------------|-------------------------|
| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Calibration Date | Calibration Due Date |
| 1. | EMI Test Receiver | R&S | ESCI | 101155 | Sep.15,2015 | Sep.14,2016 |
| 2. | LISN | SCHWARZBECK | NSLK 8128 | 8128-289 | Sep.15,2015 | Sep.14,2016 |
| 3. | Limiter | York | MTS-IMP-136 | 261115-001- 0024 | Sep.15,2015 | Sep.14,2016 |
| 4. | Cable | LARGE | RF300 | - | Sep.15,2015 | Sep.14,2016 |
| 3m Se | mi-anechoic Cham | ber for Radiation | | | | |
| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Calibration Date | Calibration Due Date |
| 1 | EMC Analyzer | Agilent | E7405A | MY45114943 | Sep.15,2015 | Sep.14,2016 |
| 2 | Active Loop Antenna | Beijing Dazhi | ZN30900A | - | Sep.15,2015 | Sep.14,2016 |
| 3 | Trilog Broadband Antenna | SCHWARZBECK | VULB9163 | 336 | Apr.18,2015 | Apr.17,2016 |
| 4 | Coaxial Cable (below 1GHz) | Тор | TYPE16(13M) | - | Sep.15,2015 | Sep.14,2016 |
| 5 | Broad-band Horn Antenna | SCHWARZBECK | BBHA 9120 D | 667 | Apr.18,2015 | Apr.17,2016 |
| 6 | Broad-band Horn Antenna | SCHWARZBECK | BBHA 9120 D | 669 | Apr.18,2015 | Apr.17,2016 |
| 7 | Broadband Preamplifier | COMPLIANCE DIRECTION | PAP-1G18 | 2004 | Mar.17,2015 | Mar.16,2016 |
| 8 | Coaxial Cable (above 1GHz) | Тор | 1000MHz-25GHz | EW02014-7 | Apr.10,2015 | Apr.09,2016 |
| 9 | Broad-band Horn Antenna | SCHWARZBECK | BBHA 9170 | 335 | Sep.15,2015 | Sep.14,2016 |
| 10 | Universal Radio Communication Tester | R&S | CMU 200 | 112461 | Apr.10,2015 | Apr.09,2016 |
| 11 | Signal Generator | R&S | SMR20 | 100046 | Sep.15,2015 | Sep.14,2016 |
| RF Co | nducted Testing | | | | | |
| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Calibration Date | Calibration Due Date |
| 1. | EMC Analyzer (9k~26.5GHz) | Agilent | E7405A | MY45114943 | Aug. 15,2015 | Aug.14,2016 |
| 2. | Spectrum Analyzer (9k-6GHz) | R&S | FSL6 | 100959 | Aug. 15,2015 | Aug.14,2016 |
| 3. | Humidity Chamber | GF | GTH-225-40-1P | IAA061213 | Aug. 15,2015 | Aug.14,2016 |

Reference No.: WTS15S1240218-2E V1 Page 10 of 68

6.2 Description of Support Units

| Equipment | Manufacturer | Model No. | Series No. | | |
|-----------|--------------|-----------|------------|--|--|
| 1 | 1 | 1 | / | | |

6.3 Measurement Uncertainty

| Parameter | Uncertainty |
|-----------------------------------|-----------------------------------|
| Radio Frequency | ± 1 x 10 ⁻⁶ |
| RF Power | ± 1.0 dB |
| RF Power Density | ± 2.2 dB |
| | ± 5.03 dB (30M~1000MHz) |
| Radiated Spurious Emissions test | ± 5.47 dB (1000M~25000MHz) |
| Conducted Spurious Emissions test | ± 3.64 dB (AC mains 150KHz~30MHz) |

6.4 Test Equipment Calibration

All the test equipments used are valid and calibrated by CEPREI Certification Body that address is No.110 Dongguan Zhuang RD. Guangzhou, P.R.China.

Reference No.: WTS15S1240218-2E V1 Page 11 of 68

7 Conducted Emission

Test Requirement: FCC CFR 47 Part 15 Section 15.207

Test Method: ANSI C63.4:2009

Test Result: PASS

Frequency Range: 150kHz to 30MHz

Class/Severity: Class B

Limit: 66-56 dB_µV between 0.15MHz & 0.5MHz

56 dB_μV between 0.5MHz & 5MHz60 dB_μV between 5MHz & 30MHz

Detector: Peak for pre-scan (9kHz Resolution Bandwidth)

7.1 E.U.T. Operation

Operating Environment:

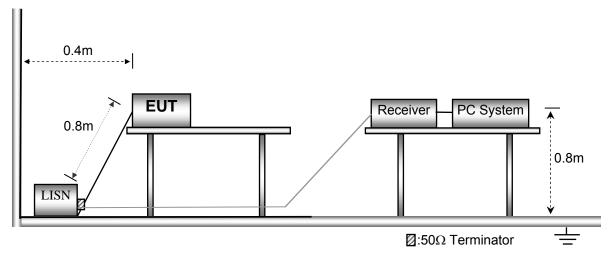
Temperature: 21.5 °C
Humidity: 51.9 % RH
Atmospheric Pressure: 101.2kPa

EUT Operation:

The test was performed in WIFI link mode(Wifi), the worst data were shown in the report.

7.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.4.



7.3 Measurement Description

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

Waltek Services (Shenzhen) Co.,Ltd. http://www.waltek.com.cn

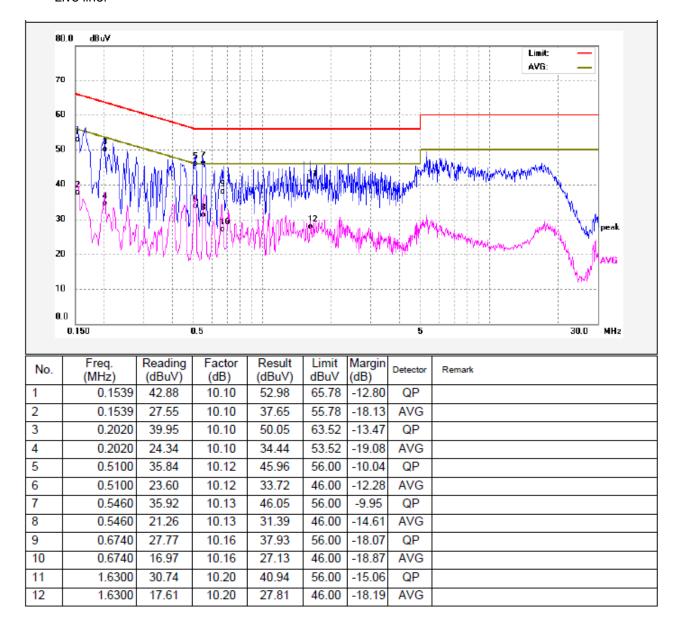
Reference No.: WTS15S1240218-2E V1 Page 12 of 68

7.4 Conducted Emission Test Result

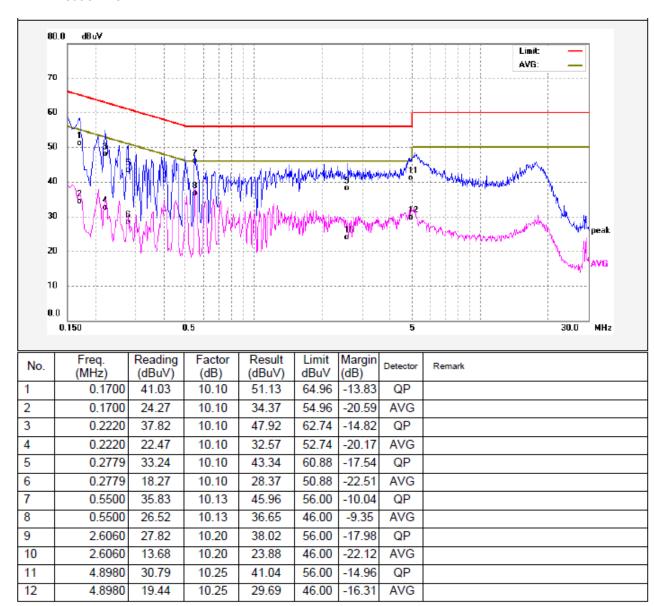
An initial pre-scan was performed on the live and neutral lines.

Worst Mode: WIFI mode

Adapter 1 Live line:

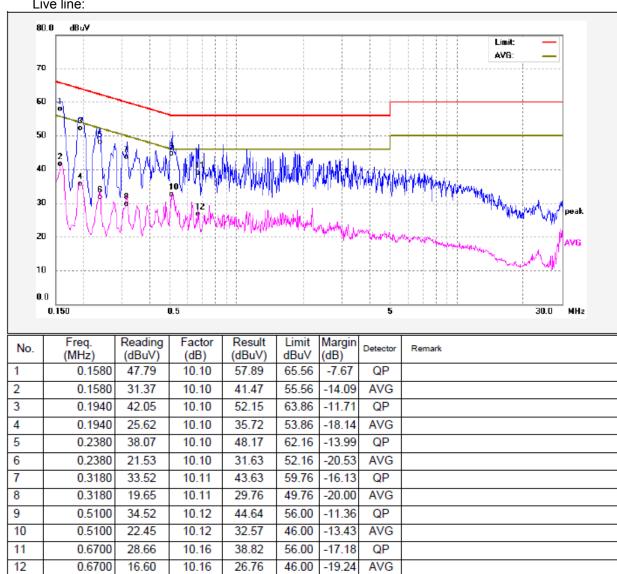


Neutral line:

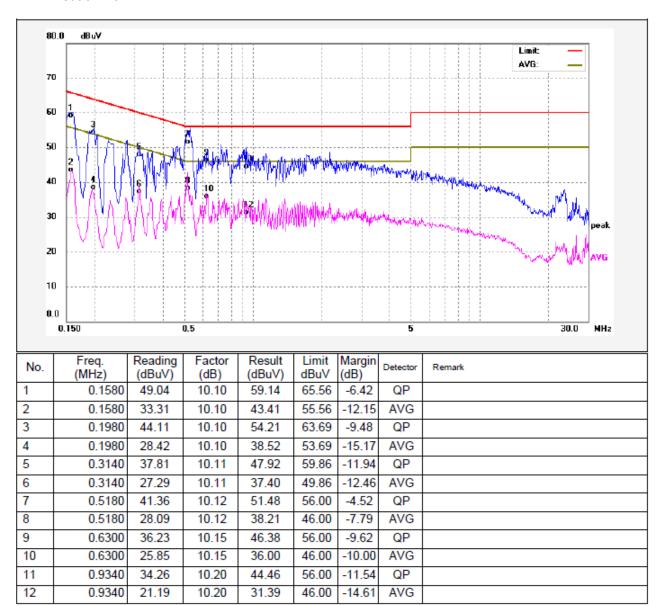


Adapter 2

Live line:



Neutral line:



Reference No.: WTS15S1240218-2E V1 Page 16 of 68

8 Radiated Emissions

Test Requirement: FCC CFR47 Part 15 Section 15.209 & 15.247

Test Method: ANSI C63.4:2009

Test Result: PASS
Measurement Distance: 3m

Limit:

| LIIIII. | | | | | | |
|--------------------|--------------|-----------------|---|--------------------------------------|--|--|
| _ | Field Strei | ngth | Field Strength Limit at 3m Measurement Dist | | | |
| Frequency (MHz) | uV/m | Distance (m) | uV/m | dBuV/m | | |
| 0.009 ~ 0.490 | 2400/F(kHz) | 300 | 10000 * 2400/F(kHz) | 20log ^{(2400/F(kHz))} + 80 | | |
| 0.490 ~ 1.705 | 24000/F(kHz) | 30 | 100 * 24000/F(kHz) | 20log ^{(24000/F(kHz))} + 40 | | |
| 1.705 ~ 30 | 30 | 30 | 100 * 30 | 20log ⁽³⁰⁾ + 40 | | |
| 30 ~ 88 | 100 | 3 | 100 | 20log ⁽¹⁰⁰⁾ | | |
| 88 ~ 216 | 150 | 3 | 150 | 20log ⁽¹⁵⁰⁾ | | |
| 216 ~ 960 | 200 | 3 | 200 | 20log ⁽²⁰⁰⁾ | | |
| Above 960 | 500 | 3 | 500 | 20log ⁽⁵⁰⁰⁾ | | |

8.1 EUT Operation

Operating Environment:

Temperature: 23.5 °C
Humidity: 52.1 % RH
Atmospheric Pressure: 101.2kPa

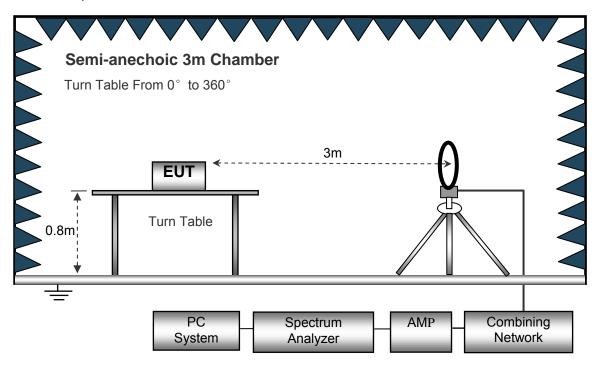
EUT Operation:

The test was performed in WIFI/BT link mode, the test data were shown in the report.

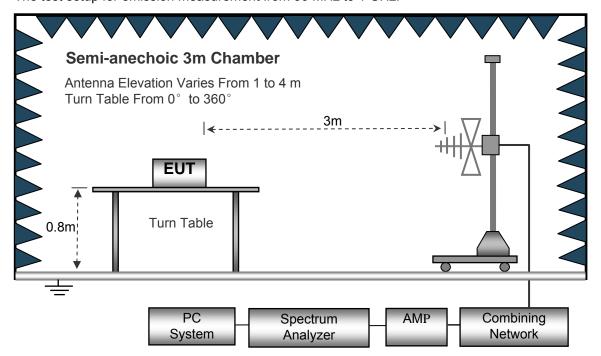
8.2 Test Setup

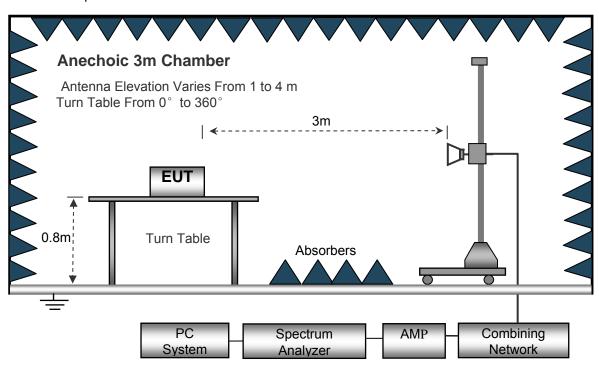
The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4.

The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30 MHz to 1 GHz.





The test setup for emission measurement above 1 GHz.

8.3 Spectrum Analyzer Setup

| Below 30MHz | | |
|--------------|----------------------|---------|
| | Sweep Speed | . Auto |
| | IF Bandwidth | .10kHz |
| | Video Bandwidth | .10kHz |
| | Resolution Bandwidth | .10kHz |
| 30MHz ~ 1GHz | z | |
| | Sweep Speed | . Auto |
| | Detector | .PK |
| | Resolution Bandwidth | .100kHz |
| | Video Bandwidth | .300kHz |
| Above 1GHz | | |
| | Sweep Speed | . Auto |
| | Detector | .PK |
| | Resolution Bandwidth | .1MHz |
| | Video Bandwidth | .3MHz |
| | Detector | .Ave. |
| | Resolution Bandwidth | .1MHz |
| | Video Bandwidth | .10Hz |

Reference No.: WTS15S1240218-2E V1 Page 19 of 68

8.4 Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above ground plane.

2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.

EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions.

4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.

5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

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

7. The radiation measurements are performed in X,Y and Z axis positioning(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand),the worst condition was tested putting the eut in X axis,so the worst data were shown as follow.

A 2.4GHz high –pass filter is used druing radiated emissions above 1GHz measurement.

8.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corr. Ampl. = Indicated Reading + Antenna Factor + Cable Factor - Amplifier Gain

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the maximum limit for Class B. The equation for margin calculation is as follows:

Margin = Corr. Ampl. - Limit

Reference No.: WTS15S1240218-2E V1 Page 20 of 68

8.6 Summary of Test Results

Wifi:

Test Frequency : 26MHz ~ 30MHz

The measurements were more than 20 dB below the limit and not reported.

Test Frequency : 30MHz ~ 18GHz

| F | Receiver | Datastas | Turn | RX An | tenna | Corrected | Corrected | FCC F 15.247/2 | |
|-----------|--------------------------|-------------|--------|----------------------|-------|-----------|------------------------|-------------------|--------|
| Frequency | Reading | Detector | Angle | table Angle Height F | Polar | Factor | Corrected Amplitude | Limit | Margin |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | (dB) | (dBµV/m) | (dBµV/m) | (dB) |
| | 11b: Low Channel 2412MHz | | | | | | | | |
| 223.45 | 40.17 | QP | 54 | 1.8 | Н | -11.62 | 28.55 | 46.00 | -17.45 |
| 223.45 | 36.45 | QP | 320 | 1.1 | V | -11.62 | 24.83 | 46.00 | -21.17 |
| 4824.00 | 50.84 | PK | 20 | 1.7 | V | -1.06 | 49.78 | 74.00 | -24.22 |
| 4824.00 | 47.16 | Ave | 20 | 1.7 | V | -1.06 | 46.10 | 54.00 | -7.90 |
| 7236.00 | 41.38 | PK | 171 | 1.7 | Н | 1.33 | 42.71 | 74.00 | -31.29 |
| 7236.00 | 40.50 | Ave | 171 | 1.7 | Н | 1.33 | 41.83 | 54.00 | -12.17 |
| 2336.81 | 46.89 | PK | 65 | 1.2 | V | -13.19 | 33.70 | 74.00 | -40.30 |
| 2336.81 | 39.58 | Ave | 65 | 1.2 | V | -13.19 | 26.39 | 54.00 | -27.61 |
| 2360.29 | 43.13 | PK | 51 | 1.0 | Н | -13.14 | 29.99 | 74.00 | -44.01 |
| 2360.29 | 37.42 | Ave | 51 | 1.0 | Н | -13.14 | 24.28 | 54.00 | -29.72 |
| 2499.33 | 44.28 | PK | 141 | 1.9 | V | -13.08 | 31.20 | 74.00 | -42.80 |
| 2499.33 | 37.52 | Ave | 141 | 1.9 | V | -13.08 | 24.44 | 54.00 | -29.56 |

Reference No.: WTS15S1240218-2E V1 Page 21 of 68

| _ | Receiver | 5 | Turn | RX An | tenna | Corrected Factor | Corrected | Corrected | Corrected | | | FCC F 15.247/2 | |
|-----------|----------|-------------|----------------|----------|---------|---------------------|------------------------|-----------|-----------|--|--|-------------------|--|
| Frequency | Reading | Detector | table Angle | Height | Polar | | Corrected Amplitude | Limit | Margin | | | | |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | | | | |
| | | | 11b: Mid | dle Chan | nel 243 | 7MHz | | | | | | | |
| 223.45 | 40.84 | QP | 222 | 1.7 | Н | -11.62 | 29.22 | 46.00 | -16.78 | | | | |
| 223.45 | 37.43 | QP | 290 | 1.1 | V | -11.62 | 25.81 | 46.00 | -20.19 | | | | |
| 4874.00 | 50.35 | PK | 357 | 1.6 | V | -0.62 | 49.73 | 74.00 | -24.27 | | | | |
| 4874.00 | 46.86 | Ave | 357 | 1.6 | V | -0.62 | 46.24 | 54.00 | -7.76 | | | | |
| 7311.00 | 41.10 | PK | 178 | 1.7 | Н | 2.21 | 43.31 | 74.00 | -30.69 | | | | |
| 7311.00 | 40.10 | Ave | 178 | 1.7 | Н | 2.21 | 42.31 | 54.00 | -11.69 | | | | |
| 2333.72 | 46.27 | PK | 288 | 2.0 | V | -13.19 | 33.08 | 74.00 | -40.92 | | | | |
| 2333.72 | 37.65 | Ave | 288 | 2.0 | V | -13.19 | 24.46 | 54.00 | -29.54 | | | | |
| 2362.63 | 44.37 | PK | 270 | 1.6 | Н | -13.14 | 31.23 | 74.00 | -42.77 | | | | |
| 2362.63 | 36.11 | Ave | 270 | 1.6 | Н | -13.14 | 22.97 | 54.00 | -31.03 | | | | |
| 2496.01 | 43.33 | PK | 146 | 1.4 | V | -13.08 | 30.25 | 74.00 | -43.75 | | | | |
| 2496.01 | 36.76 | Ave | 146 | 1.4 | V | -13.08 | 23.68 | 54.00 | -30.32 | | | | |

Reference No.: WTS15S1240218-2E V1 Page 22 of 68

| | Receiver | Detector | Turn | RX An | tenna | Corrected | Compated | FCC I 15.247/2 | |
|-----------|----------|-------------|----------------|----------|----------|-----------|------------------------|-------------------|--------|
| Frequency | Reading | Detector | table Angle | Height | Polar | Factor | Corrected Amplitude | Limit | Margin |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | (dB) | (dBµV/m) | (dBµV/m) | (dB) |
| | | | 11b: Hi | gh Chanr | nel 2462 | MHz | | | |
| 223.45 | 41.07 | QP | 29 | 1.2 | Н | -11.62 | 29.45 | 46.00 | -16.55 |
| 223.45 | 38.41 | QP | 349 | 1.5 | V | -11.62 | 26.79 | 46.00 | -19.21 |
| 4924.00 | 51.74 | PK | 179 | 1.8 | V | -0.24 | 51.50 | 74.00 | -22.50 |
| 4924.00 | 47.49 | Ave | 179 | 1.8 | V | -0.24 | 47.25 | 54.00 | -6.75 |
| 7386.00 | 39.78 | PK | 109 | 1.2 | Н | 2.84 | 42.62 | 74.00 | -31.38 |
| 7386.00 | 38.99 | Ave | 109 | 1.2 | Н | 2.84 | 41.83 | 54.00 | -12.17 |
| 2348.84 | 45.81 | PK | 131 | 1.1 | V | -13.19 | 32.62 | 74.00 | -41.38 |
| 2348.84 | 39.35 | Ave | 131 | 1.1 | V | -13.19 | 26.16 | 54.00 | -27.84 |
| 2381.17 | 44.85 | PK | 253 | 1.2 | Н | -13.14 | 31.71 | 74.00 | -42.29 |
| 2381.17 | 38.60 | Ave | 253 | 1.2 | Н | -13.14 | 25.46 | 54.00 | -28.54 |
| 2499.94 | 44.66 | PK | 69 | 1.2 | V | -13.08 | 31.58 | 74.00 | -42.42 |
| 2499.94 | 38.12 | Ave | 69 | 1.2 | V | -13.08 | 25.04 | 54.00 | -28.96 |

Reference No.: WTS15S1240218-2E V1 Page 23 of 68

| | Receiver | Detector | Turn | RX An | tenna | Corrected | Carra ata d | FCC F 15.247/2 | |
|-----------|----------|-------------|----------------|---------|----------|-----------|------------------------|-------------------|--------|
| Frequency | Reading | Detector | table Angle | Height | Polar | Factor | Corrected Amplitude | Limit | Margin |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | (dB) | (dBµV/m) | (dBµV/m) | (dB) |
| | | | 11g: Lo | w Chann | el 2412I | MHz | | | |
| 223.45 | 40.50 | QP | 86 | 1.2 | Н | -11.62 | 28.88 | 46.00 | -17.12 |
| 223.45 | 38.76 | QP | 36 | 1.1 | V | -11.62 | 27.14 | 46.00 | -18.86 |
| 4824.00 | 51.98 | PK | 281 | 1.8 | V | -1.06 | 50.92 | 74.00 | -23.08 |
| 4824.00 | 48.67 | Ave | 281 | 1.8 | V | -1.06 | 47.61 | 54.00 | -6.39 |
| 7236.00 | 38.74 | PK | 64 | 2.0 | Н | 1.33 | 40.07 | 74.00 | -33.93 |
| 7236.00 | 40.20 | Ave | 64 | 2.0 | Н | 1.33 | 41.53 | 54.00 | -12.47 |
| 2332.88 | 46.60 | PK | 57 | 1.4 | V | -13.19 | 33.41 | 74.00 | -40.59 |
| 2332.88 | 39.90 | Ave | 57 | 1.4 | V | -13.19 | 26.71 | 54.00 | -27.29 |
| 2364.18 | 44.33 | PK | 130 | 1.9 | Н | -13.14 | 31.19 | 74.00 | -42.81 |
| 2364.18 | 36.98 | Ave | 130 | 1.9 | Н | -13.14 | 23.84 | 54.00 | -30.16 |
| 2498.74 | 42.03 | PK | 251 | 1.1 | V | -13.08 | 28.95 | 74.00 | -45.05 |
| 2498.74 | 36.82 | Ave | 251 | 1.1 | V | -13.08 | 23.74 | 54.00 | -30.26 |

| F | Receiver | Datastan | Turn | RX An | tenna | Corrected | 0 | FCC F 15.247/2 | |
|-----------|----------|-------------|----------------|----------|---------|-----------|------------------------|-------------------|--------|
| Frequency | Reading | Detector | table Angle | Height | Polar | Factor | Corrected Amplitude | Limit | Margin |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | (dB) | (dBµV/m) | (dBµV/m) | (dB) |
| | | | 11g: Mid | dle Chan | nel 243 | 7MHz | | | |
| 223.45 | 41.95 | QP | 238 | 1.7 | Н | -11.62 | 30.33 | 46.00 | -15.67 |
| 223.45 | 37.97 | QP | 150 | 1.0 | V | -11.62 | 26.35 | 46.00 | -19.65 |
| 4874.00 | 50.66 | PK | 152 | 1.3 | V | -0.62 | 50.04 | 74.00 | -23.96 |
| 4874.00 | 49.28 | Ave | 152 | 1.3 | V | -0.62 | 48.66 | 54.00 | -5.34 |
| 7311.00 | 37.92 | PK | 132 | 1.1 | Н | 2.21 | 40.13 | 74.00 | -33.87 |
| 7311.00 | 41.59 | Ave | 132 | 1.1 | Н | 2.21 | 43.80 | 54.00 | -10.20 |
| 2313.71 | 46.84 | PK | 136 | 1.4 | V | -13.19 | 33.65 | 74.00 | -40.35 |
| 2313.71 | 37.94 | Ave | 136 | 1.4 | V | -13.19 | 24.75 | 54.00 | -29.25 |
| 2369.40 | 43.30 | PK | 167 | 1.1 | Н | -13.14 | 30.16 | 74.00 | -43.84 |
| 2369.40 | 37.84 | Ave | 167 | 1.1 | Н | -13.14 | 24.70 | 54.00 | -29.30 |
| 2493.85 | 43.92 | PK | 294 | 1.5 | V | -13.08 | 30.84 | 74.00 | -43.16 |
| 2493.85 | 38.53 | Ave | 294 | 1.5 | V | -13.08 | 25.45 | 54.00 | -28.55 |

Reference No.: WTS15S1240218-2E V1 Page 25 of 68

| F | Receiver | Datastan | Turn | RX An | tenna | Corrected | Carrantad | FCC F 15.247/20 | |
|-----------|----------|-------------|----------------|----------|---------|---------------|------------------------|--------------------|--------|
| Frequency | Reading | Detector | table Angle | Height | Polar | Factor | Corrected Amplitude | Limit | Margin |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | (dB) (dBµV/m) | (dBµV/m) | (dB) | |
| | | | 11g: Hig | gh Chann | el 2462 | MHz | | | |
| 223.45 | 41.94 | QP | 332 | 1.1 | Н | -11.62 | 30.32 | 46.00 | -15.68 |
| 223.45 | 38.87 | QP | 278 | 1.3 | V | -11.62 | 27.25 | 46.00 | -18.75 |
| 4924.00 | 51.19 | PK | 298 | 1.0 | V | -0.24 | 50.95 | 74.00 | -23.05 |
| 4924.00 | 49.51 | Ave | 298 | 1.0 | V | -0.24 | 49.27 | 54.00 | -4.73 |
| 7386.00 | 38.57 | PK | 58 | 1.3 | Н | 2.84 | 41.41 | 74.00 | -32.59 |
| 7386.00 | 40.20 | Ave | 58 | 1.3 | Н | 2.84 | 43.04 | 54.00 | -10.96 |
| 2349.26 | 46.31 | PK | 63 | 1.6 | V | -13.19 | 33.12 | 74.00 | -40.88 |
| 2349.26 | 38.88 | Ave | 63 | 1.6 | V | -13.19 | 25.69 | 54.00 | -28.31 |
| 2375.66 | 42.18 | PK | 127 | 1.4 | Н | -13.14 | 29.04 | 74.00 | -44.96 |
| 2375.66 | 38.97 | Ave | 127 | 1.4 | Н | -13.14 | 25.83 | 54.00 | -28.17 |
| 2494.37 | 44.18 | PK | 338 | 1.2 | V | -13.08 | 31.10 | 74.00 | -42.90 |
| 2494.37 | 36.86 | Ave | 338 | 1.2 | V | -13.08 | 23.78 | 54.00 | -30.22 |

Reference No.: WTS15S1240218-2E V1 Page 26 of 68

| _ | Receiver | 5 | Turn | RX An | tenna | | | FCC F 15.247/20 | |
|-----------|----------|-------------|----------------|---------|----------|--------|----------|--------------------|--------|
| Frequency | Reading | Reading | table Angle | Height | Polar | | | Limit | Margin |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | | (dBµV/m) | (dB) | |
| | | | n20: Lo | w Chann | el 2412l | MHz | | | |
| 223.45 | 42.82 | QP | 101 | 1.7 | Н | -11.62 | 31.20 | 46.00 | -14.80 |
| 223.45 | 38.89 | QP | 100 | 1.2 | V | -11.62 | 27.27 | 46.00 | -18.73 |
| 4824.00 | 51.73 | PK | 204 | 1.8 | V | -1.06 | 50.67 | 74.00 | -23.33 |
| 4824.00 | 48.49 | Ave | 204 | 1.8 | V | -1.06 | 47.43 | 54.00 | -6.57 |
| 7236.00 | 39.72 | PK | 298 | 1.2 | Н | 1.33 | 41.05 | 74.00 | -32.95 |
| 7236.00 | 39.60 | Ave | 298 | 1.2 | Н | 1.33 | 40.93 | 54.00 | -13.07 |
| 2343.30 | 46.33 | PK | 1 | 1.9 | V | -13.19 | 33.14 | 74.00 | -40.86 |
| 2343.30 | 39.65 | Ave | 1 | 1.9 | V | -13.19 | 26.46 | 54.00 | -27.54 |
| 2388.13 | 44.72 | PK | 153 | 1.7 | Н | -13.14 | 31.58 | 74.00 | -42.42 |
| 2388.13 | 36.16 | Ave | 153 | 1.7 | Н | -13.14 | 23.02 | 54.00 | -30.98 |
| 2490.25 | 44.07 | PK | 82 | 1.5 | V | -13.08 | 30.99 | 74.00 | -43.01 |
| 2490.25 | 36.12 | Ave | 82 | 1.5 | V | -13.08 | 23.04 | 54.00 | -30.96 |

Reference No.: WTS15S1240218-2E V1 Page 27 of 68

| _ | Receiver | D 1 1 | Turn | RX An | tenna | Corrected | | FCC F 15.247/2 | |
|-----------|----------|-------------|----------------|----------|----------|-----------|------------------------|-------------------|--------|
| Frequency | Reading | Detector | table Angle | Height | Polar | Factor | Corrected Amplitude | Limit | Margin |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | (dB) | (dBµV/m) | (dBµV/m) | (dB) |
| | | | n20: Mid | dle Chan | nel 2437 | 7MHz | | | |
| 223.45 | 43.43 | QP | 352 | 1.3 | Н | -11.62 | 31.81 | 46.00 | -14.19 |
| 223.45 | 37.39 | QP | 349 | 1.2 | V | -11.62 | 25.77 | 46.00 | -20.23 |
| 4874.00 | 51.88 | PK | 94 | 1.5 | V | -0.62 | 51.26 | 74.00 | -22.74 |
| 4874.00 | 48.34 | Ave | 94 | 1.5 | ٧ | -0.62 | 47.72 | 54.00 | -6.28 |
| 7311.00 | 41.21 | PK | 356 | 1.0 | Н | 2.21 | 43.42 | 74.00 | -30.58 |
| 7311.00 | 40.85 | Ave | 356 | 1.0 | Н | 2.21 | 43.06 | 54.00 | -10.94 |
| 2342.33 | 45.90 | PK | 226 | 1.1 | V | -13.19 | 32.71 | 74.00 | -41.29 |
| 2342.33 | 38.44 | Ave | 226 | 1.1 | V | -13.19 | 25.25 | 54.00 | -28.75 |
| 2350.91 | 44.81 | PK | 148 | 1.9 | Н | -13.14 | 31.67 | 74.00 | -42.33 |
| 2350.91 | 36.24 | Ave | 148 | 1.9 | Н | -13.14 | 23.10 | 54.00 | -30.90 |
| 2496.74 | 42.03 | PK | 266 | 1.9 | V | -13.08 | 28.95 | 74.00 | -45.05 |
| 2496.74 | 38.65 | Ave | 266 | 1.9 | V | -13.08 | 25.57 | 54.00 | -28.43 |

Reference No.: WTS15S1240218-2E V1 Page 28 of 68

| _ | Receiver | | Turn | RX An | tenna | Corrected | | FCC F 15.247/20 | |
|-----------|----------|-------------|----------------|----------|---------|-----------|------------------------|--------------------|--------|
| Frequency | Reading | Detector | table Angle | Height | Polar | Factor | Corrected Amplitude | Limit | Margin |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | (dB) | (dBµV/m) | (dBµV/m) | (dB) |
| | | | n20: Hiç | gh Chann | el 2462 | MHz | | | |
| 223.45 | 44.58 | QP | 32 | 1.7 | Н | -11.62 | 32.96 | 46.00 | -13.04 |
| 223.45 | 37.10 | QP | 198 | 1.8 | ٧ | -11.62 | 25.48 | 46.00 | -20.52 |
| 4924.00 | 51.67 | PK | 264 | 1.5 | ٧ | -0.24 | 51.43 | 74.00 | -22.57 |
| 4924.00 | 47.87 | Ave | 264 | 1.5 | ٧ | -0.24 | 47.63 | 54.00 | -6.37 |
| 7386.00 | 40.26 | PK | 22 | 1.5 | Η | 2.84 | 43.10 | 74.00 | -30.90 |
| 7386.00 | 41.67 | Ave | 22 | 1.5 | Н | 2.84 | 44.51 | 54.00 | -9.49 |
| 2334.38 | 46.34 | PK | 311 | 1.1 | ٧ | -13.19 | 33.15 | 74.00 | -40.85 |
| 2334.38 | 39.06 | Ave | 311 | 1.1 | > | -13.19 | 25.87 | 54.00 | -28.13 |
| 2357.81 | 42.22 | PK | 49 | 1.6 | Н | -13.14 | 29.08 | 74.00 | -44.92 |
| 2357.81 | 38.32 | Ave | 49 | 1.6 | Н | -13.14 | 25.18 | 54.00 | -28.82 |
| 2487.55 | 44.94 | PK | 86 | 1.7 | V | -13.08 | 31.86 | 74.00 | -42.14 |
| 2487.55 | 38.95 | Ave | 86 | 1.7 | V | -13.08 | 25.87 | 54.00 | -28.13 |

Reference No.: WTS15S1240218-2E V1 Page 29 of 68

| | Receiver | Datastan | Turn | RX An | tenna | Corrected | 0 | FCC F 15.247/20 | |
|-----------|----------|-------------|----------------|---------|---------|-----------|------------------------|--------------------|--------|
| Frequency | Reading | Detector | table Angle | Height | Polar | Factor | Corrected Amplitude | Limit | Margin |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | (dB) | (dBµV/m) | (dBµV/m) | (dB) |
| | | | N40: Lo | w Chann | el 2422 | MHz | | | |
| 223.45 | 46.04 | QP | 12 | 1.8 | Н | -11.62 | 34.42 | 46.00 | -11.58 |
| 223.45 | 36.36 | QP | 216 | 1.4 | V | -11.62 | 24.74 | 46.00 | -21.26 |
| 4844.00 | 49.94 | PK | 51 | 1.7 | V | -1.06 | 48.88 | 74.00 | -25.12 |
| 4844.00 | 46.76 | Ave | 51 | 1.7 | V | -1.06 | 45.70 | 54.00 | -8.30 |
| 7266.00 | 38.59 | PK | 90 | 1.3 | Н | 1.33 | 39.92 | 74.00 | -34.08 |
| 7266.00 | 40.17 | Ave | 90 | 1.3 | Н | 1.33 | 41.50 | 54.00 | -12.50 |
| 2337.70 | 45.36 | PK | 279 | 1.4 | V | -13.19 | 32.17 | 74.00 | -41.83 |
| 2337.70 | 38.15 | Ave | 279 | 1.4 | V | -13.19 | 24.96 | 54.00 | -29.04 |
| 2358.02 | 43.71 | PK | 6 | 1.7 | Н | -13.14 | 30.57 | 74.00 | -43.43 |
| 2358.02 | 36.68 | Ave | 6 | 1.7 | Н | -13.14 | 23.54 | 54.00 | -30.46 |
| 2488.06 | 42.62 | PK | 260 | 1.3 | V | -13.08 | 29.54 | 74.00 | -44.46 |
| 2488.06 | 37.64 | Ave | 260 | 1.3 | V | -13.08 | 24.56 | 54.00 | -29.44 |

Reference No.: WTS15S1240218-2E V1 Page 30 of 68

| - | Receiver | Detector | Turn | RX An | tenna | r Factor An | 0 | FCC F 15.247/2 | |
|-----------|----------|---------------|----------------|----------|---------|-------------|------------------------|-------------------|--------|
| Frequency | Reading | ding Detector | table Angle | Height | Polar | | Corrected Amplitude | Limit | Margin |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | | (dBµV/m) | (dBµV/m) | (dB) |
| | | | N40: Mid | dle Chan | nel 243 | 7MHz | | | |
| 223.45 | 46.77 | QP | 343 | 1.0 | Н | -11.62 | 35.15 | 46.00 | -10.85 |
| 223.45 | 37.10 | QP | 129 | 2.0 | V | -11.62 | 25.48 | 46.00 | -20.52 |
| 4874.00 | 49.87 | PK | 248 | 1.2 | V | -0.62 | 49.25 | 74.00 | -24.75 |
| 4874.00 | 46.44 | Ave | 248 | 1.2 | V | -0.62 | 45.82 | 54.00 | -8.18 |
| 7311.00 | 39.24 | PK | 124 | 1.2 | Н | 2.21 | 41.45 | 74.00 | -32.55 |
| 7311.00 | 39.63 | Ave | 124 | 1.2 | Н | 2.21 | 41.84 | 54.00 | -12.16 |
| 2324.29 | 45.79 | PK | 82 | 1.9 | V | -13.19 | 32.60 | 74.00 | -41.40 |
| 2324.29 | 37.87 | Ave | 82 | 1.9 | V | -13.19 | 24.68 | 54.00 | -29.32 |
| 2367.72 | 43.31 | PK | 119 | 1.2 | Н | -13.14 | 30.17 | 74.00 | -43.83 |
| 2367.72 | 38.07 | Ave | 119 | 1.2 | Н | -13.14 | 24.93 | 54.00 | -29.07 |
| 2485.51 | 43.07 | PK | 277 | 1.3 | V | -13.08 | 29.99 | 74.00 | -44.01 |
| 2485.51 | 37.28 | Ave | 277 | 1.3 | V | -13.08 | 24.20 | 54.00 | -29.80 |

| | Receiver | Datastan | Turn | RX An | tenna | Corrected | Compated | FCC F 15.247/2 | |
|-----------|----------|-------------|----------------|----------|----------|-----------|------------------------|-------------------|--------|
| Frequency | Reading | Detector | table Angle | Height | Polar | Factor | Corrected Amplitude | Limit | Margin |
| (MHz) | (dBµV) | (PK/QP/Ave) | Degree | (m) | (H/V) | (dB) | (dBµV/m) | (dBµV/m) | (dB) |
| | | | N40: Hi | gh Chanr | nel 2452 | MHz | | | |
| 223.45 | 47.71 | QP | 335 | 1.9 | Н | -11.62 | 36.09 | 46.00 | -9.91 |
| 223.45 | 36.19 | QP | 246 | 1.6 | V | -11.62 | 24.57 | 46.00 | -21.43 |
| 4904.00 | 49.83 | PK | 340 | 1.7 | V | -0.24 | 49.59 | 74.00 | -24.41 |
| 4904.00 | 45.56 | Ave | 340 | 1.7 | V | -0.24 | 45.32 | 54.00 | -8.68 |
| 7356.00 | 40.04 | PK | 166 | 1.6 | Н | 2.84 | 42.88 | 74.00 | -31.12 |
| 7356.00 | 39.70 | Ave | 166 | 1.6 | Н | 2.84 | 42.54 | 54.00 | -11.46 |
| 2325.21 | 45.40 | PK | 79 | 1.5 | V | -13.19 | 32.21 | 74.00 | -41.79 |
| 2325.21 | 37.48 | Ave | 79 | 1.5 | V | -13.19 | 24.29 | 54.00 | -29.71 |
| 2363.14 | 42.97 | PK | 121 | 2.0 | Н | -13.14 | 29.83 | 74.00 | -44.17 |
| 2363.14 | 38.59 | Ave | 121 | 2.0 | Н | -13.14 | 25.45 | 54.00 | -28.55 |
| 2493.63 | 43.04 | PK | 197 | 1.1 | V | -13.08 | 29.96 | 74.00 | -44.04 |
| 2493.63 | 38.86 | Ave | 197 | 1.1 | V | -13.08 | 25.78 | 54.00 | -28.22 |

Test Frequency: 18GHz~25GHz

The measurements were more than 20 dB below the limit and not reported.

Reference No.: WTS15S1240218-2E V1 Page 32 of 68

9 Conducted Spurious Emissions

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 DTS Meas Guidance v03r04 06/09/2015

Test Result: PASS

Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

2.1 Test Procedure

- 1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
- 2. Set the spectrum analyzer:

RBW = 100kHz, VBW = 300kHz, Sweep = auto Detector function = peak, Trace = max hold

2.2 Test Result

802.11b

Low Channel



Middle Channel





802.11g

Low Channel



Middle Channel



High Channel



802.11n HT20

Low Channel



Middle Channel





802.11n HT40 Low Channel



Middle Channel





Reference No.: WTS15S1240218-2E V1 Page 39 of 68

10 Band Edge Measurement

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 DTS Meas Guidance v03r04 06/09/2015

Test Limit: Regulation 15.247 (d),In any 100 kHz bandwidth outside the

frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

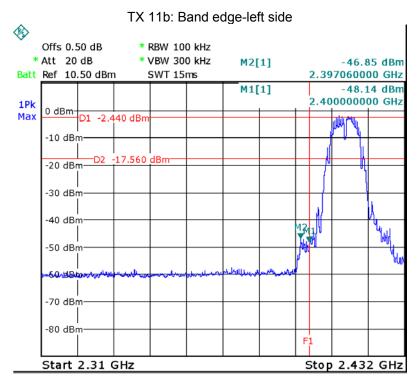
Test Mode: Transmitting

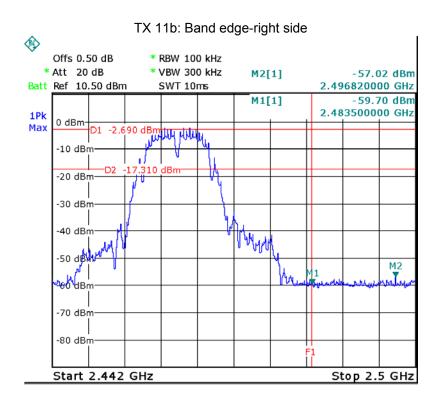
10.1 Test Produce

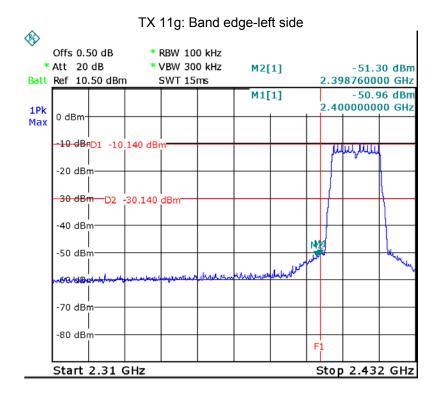
- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- 3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
- 4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
- 5. Repeat above procedures until all measured frequencies were complete.

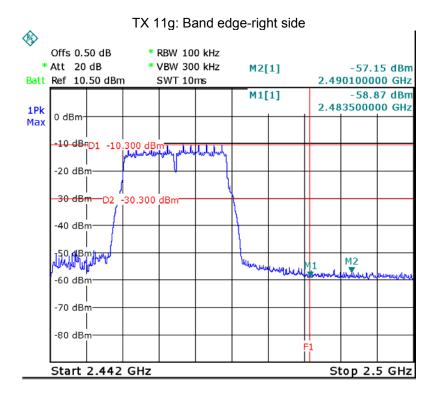
10.2 Test Result

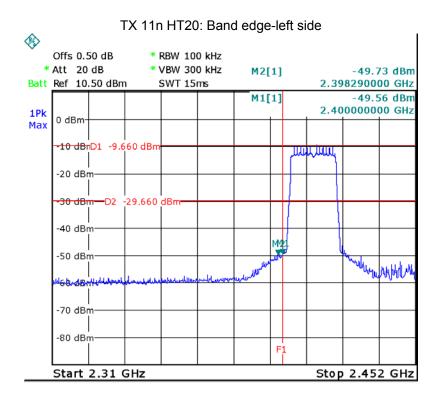
Test result plots shown as follows:

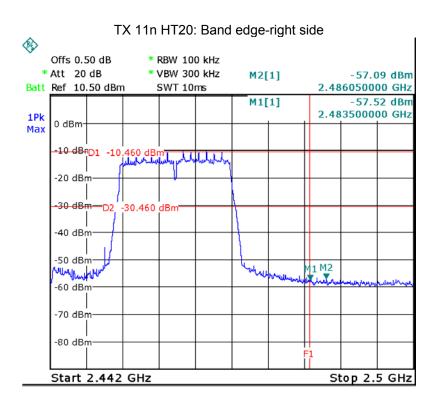


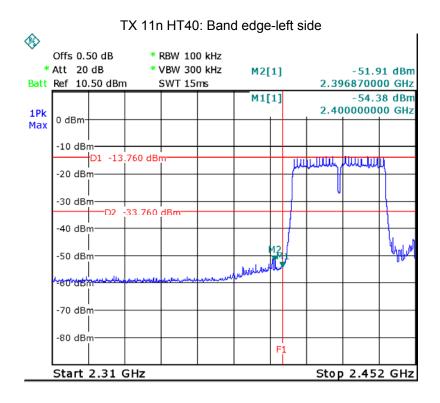


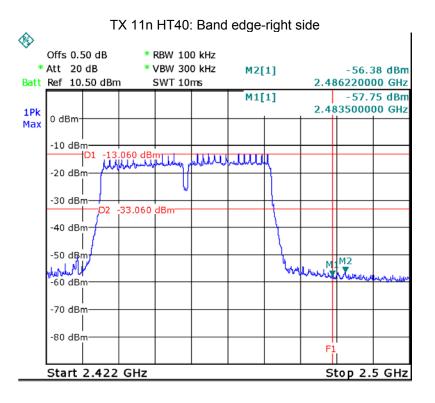












Reference No.: WTS15S1240218-2E V1 Page 44 of 68

11 6 dB Bandwidth Measurement

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 DTS Meas Guidance v03r04 06/09/2015

11.1 Test Procedure:

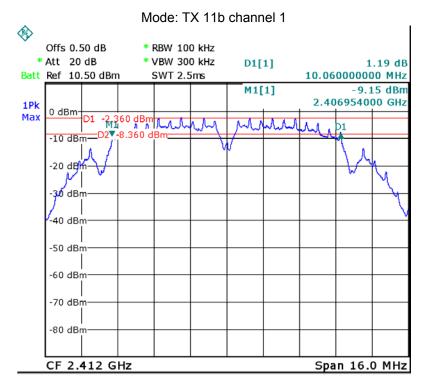
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;

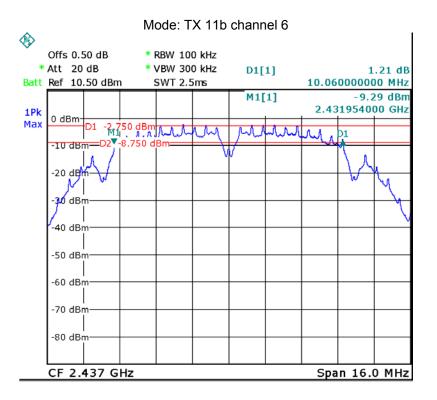
2. Set the spectrum analyzer: RBW = 100kHz, VBW = 300kHz

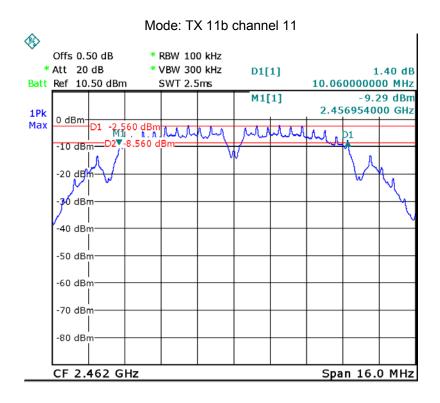
11.2 Test Result:

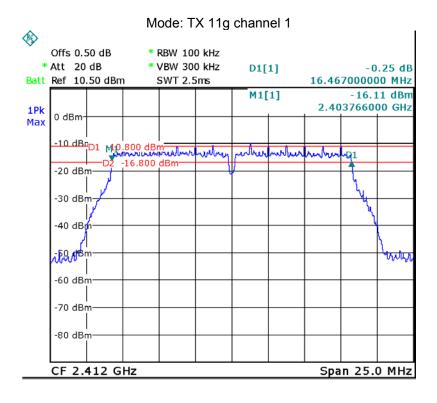
| Operation mode | Bandwidth (MHz) | | |
|----------------|-----------------|-----------|------------|
| TX 11b | Channel 1 | Channel 6 | Channel 11 |
| | 10.060 | 10.060 | 10.060 |
| TX 11g | Channel 1 | Channel 6 | Channel 11 |
| | 16.467 | 16.467 | 16.467 |
| TX 11n HT20 | Channel 1 | Channel 6 | Channel 11 |
| | 17.623 | 17.623 | 17.623 |
| TX 11n HT40 | Channel 3 | Channel 6 | Channel 9 |
| | 36.340 | 36.230 | 36.230 |

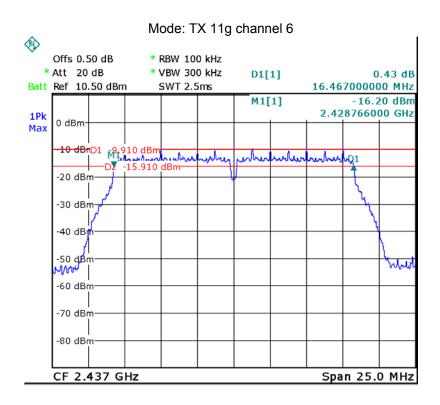
Test result plot as follows:

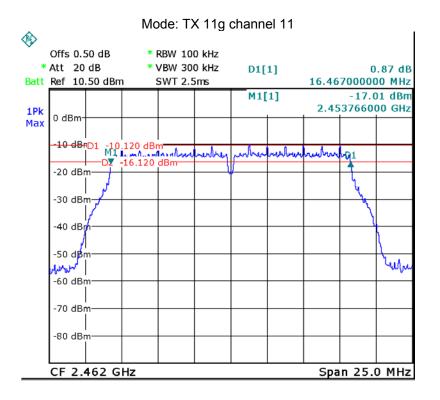


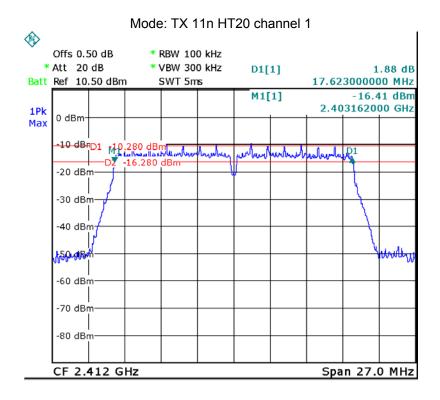


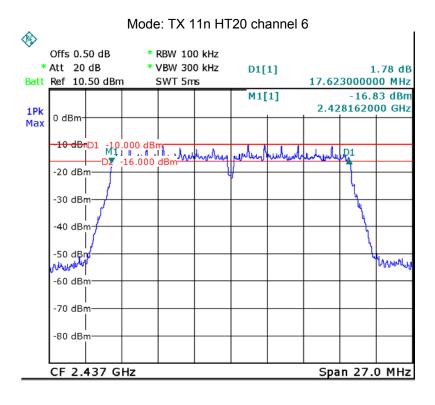


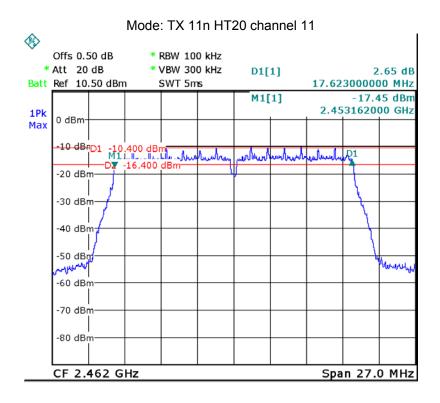


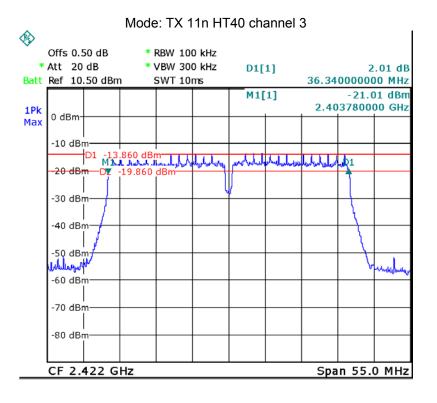


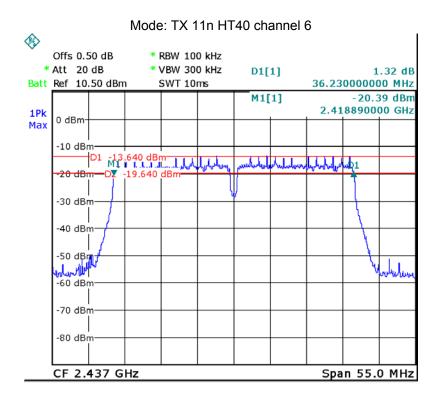


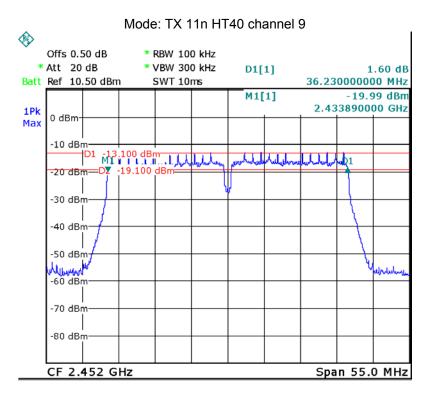












Reference No.: WTS15S1240218-2E V1 Page 51 of 68

12 Maximum Peak Output Power

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 DTS Meas Guidance v03r04 06/09/2015

12.1 Test Procedure:

KDB 558074 D01 DTS Meas Guidance v03r04 06/09/2015

section 9.1.1 (For BLE)

This procedure shall be used when the measurement instrument has available a resolution bandwidth that is greater than the DTS bandwidth.

- a)Set the RBW ≥ DTS bandwidth.
- b)Set VBW \geq 3 RBW.
- c)Set span ≥ 3 x RBW
- d)Sweep time = auto couple.
- e)Detector = peak.
- f)Trace mode = max hold.
- g)Allow trace to fully stabilize.
- h)Use peak marker function to determine the peak amplitude level.

section 9.1.2 (For WIFI)

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

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

Reference No.: WTS15S1240218-2E V1 Page 52 of 68

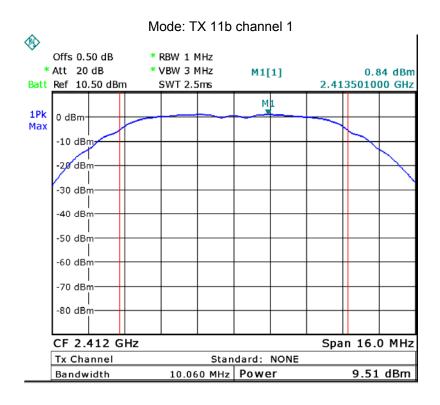
12.2 Test Result:

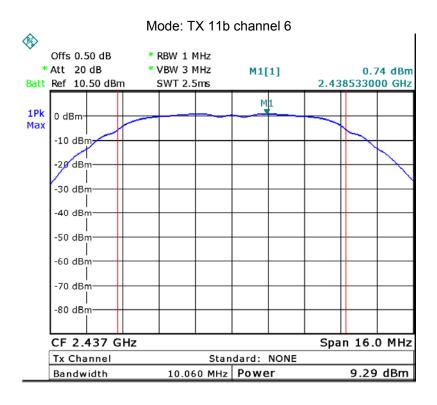
| Test mode :TX 11b | | |
|---------------------------------|---------|---------|
| Maximum Peak Output Power (dBm) | | |
| 2412MHz | 2437MHz | 2462MHz |
| 9.51 | 9.29 | 9.52 |
| Limit: 1W/30dBm | | |

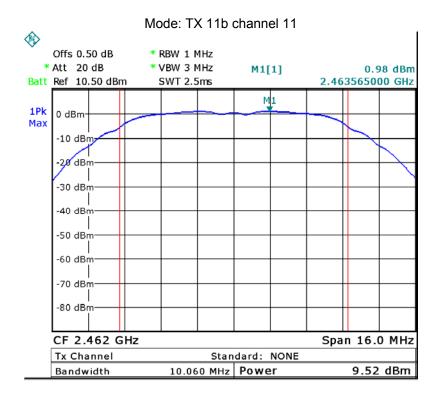
| Test mode :TX 11g | | |
|---------------------------------|---------|---------|
| Maximum Peak Output Power (dBm) | | |
| 2412MHz | 2437MHz | 2462MHz |
| 9.17 | 9.35 | 9.21 |
| Limit: 1W/30dBm | | |

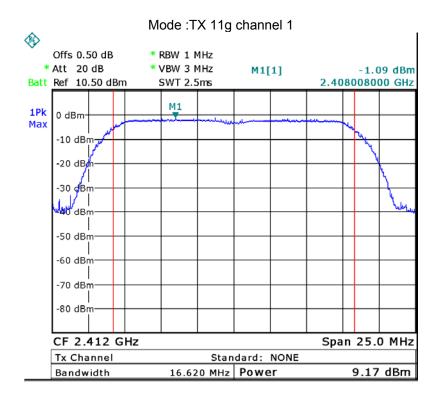
| Test mode :TX 11n HT20 | | |
|---------------------------------|---------|---------|
| Maximum Peak Output Power (dBm) | | |
| 2412MHz | 2437MHz | 2462MHz |
| 9.62 | 9.29 | 9.11 |
| Limit: 1W/30dBm | | |

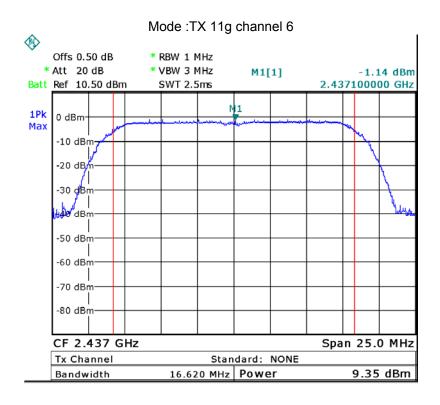
| Test mode :TX 11n HT40 | | |
|---------------------------------|---------|---------|
| Maximum Peak Output Power (dBm) | | |
| 2422MHz | 2437MHz | 2452MHz |
| 9.32 | 9.37 | 9.40 |
| Limit: 1W/30dBm | | |

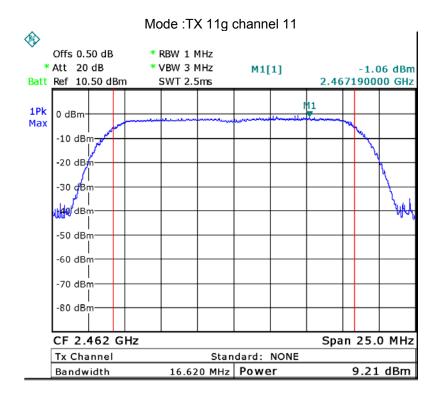


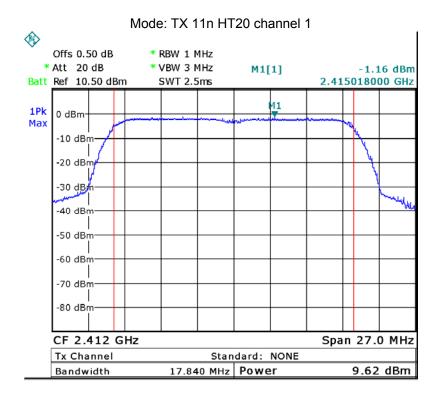


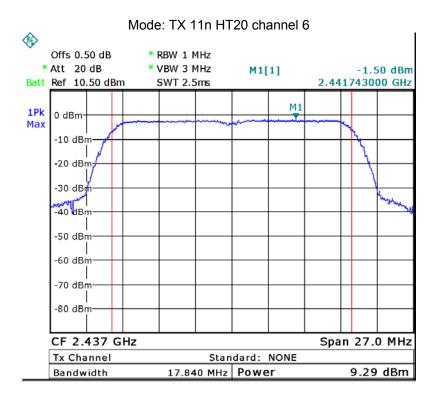


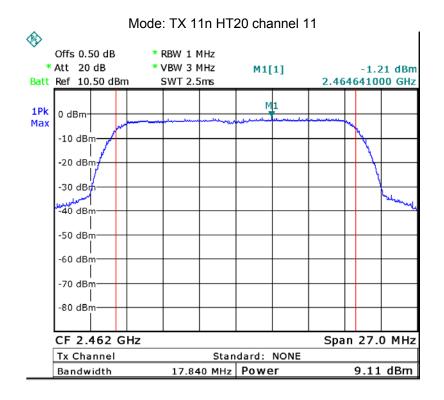


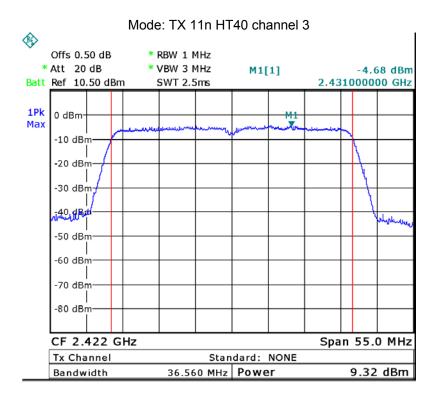


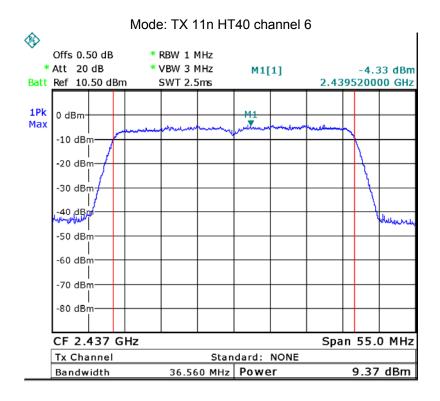


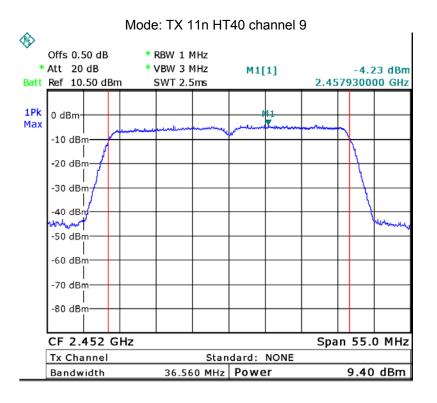












Reference No.: WTS15S1240218-2E V1 Page 59 of 68

13 Power Spectral density

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 DTS Meas Guidance v03r04

13.1 Test Procedure:

KDB 558074 D01 DTS Meas Guidance v03r04 06/09/2015 section 10.2

- 1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
- 2. Set the spectrum analyzer: RBW = 3kHz. VBW = 10kHz , Span = 1.5 times the DTS channel bandwidth(6 dB bandwidth). Sweep = auto; Detector Function = Peak. Trace = Max hold.
- 3. Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The limit is specified in one of the subparagraphs of this Section Submit this plot.

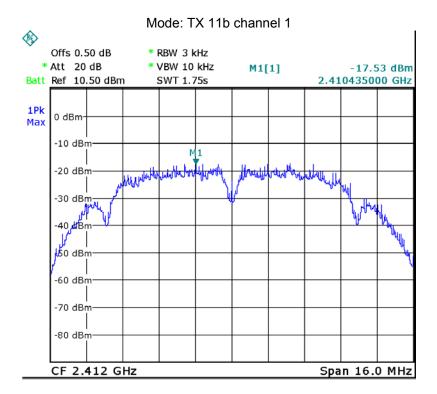
13.2 Test Result:

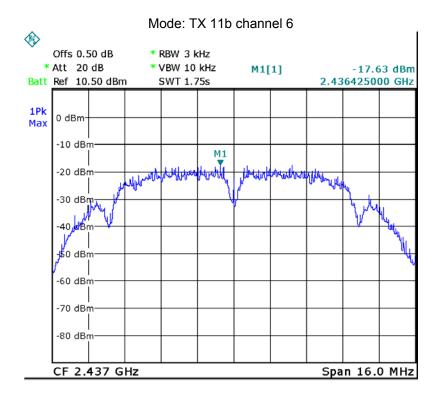
| Test mode :TX 11b | | |
|-------------------------------|---------|---------|
| Power Spectral (dBm per 3kHz) | | |
| 2412MHz | 2437MHz | 2462MHz |
| -17.53 | -17.63 | -15.61 |
| Limit: 8dBm per 3kHz | | |

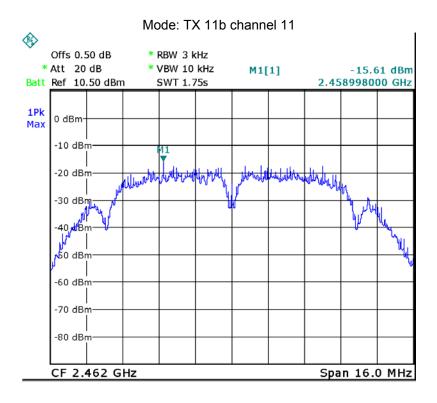
| Test mode :TX 11g | | |
|-------------------------------|---------|---------|
| Power Spectral (dBm per 3kHz) | | |
| 2412MHz | 2437MHz | 2462MHz |
| -25.18 | -25.74 | -24.82 |
| Limit: 8dBm per 3kHz | | |

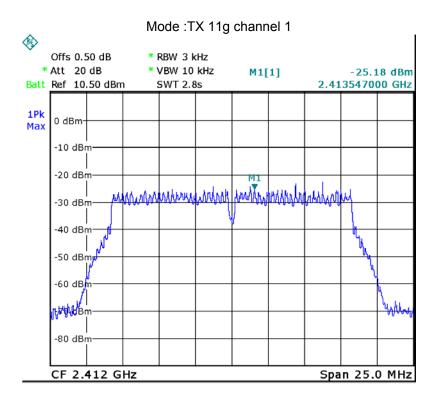
| Test mode :TX 11n HT20 | | |
|-------------------------------|---------|---------|
| Power Spectral (dBm per 3kHz) | | |
| 2412MHz | 2437MHz | 2462MHz |
| -24.80 | -25.77 | -24.90 |
| Limit: 8dBm per 3kHz | | |

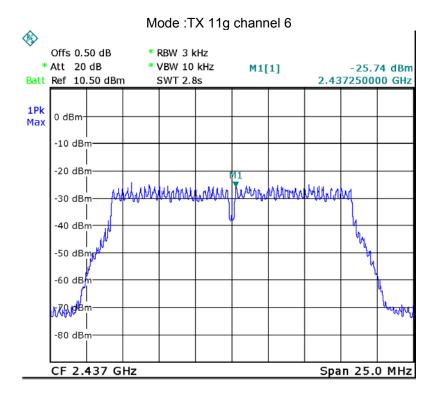
| Test mode :TX 11n HT40 | | |
|-------------------------------|---------|---------|
| Power Spectral (dBm per 3kHz) | | |
| 2422MHz | 2437MHz | 2452MHz |
| -28.77 | 27.83 | -27.16 |
| Limit: 8dBm per 3kHz | | |

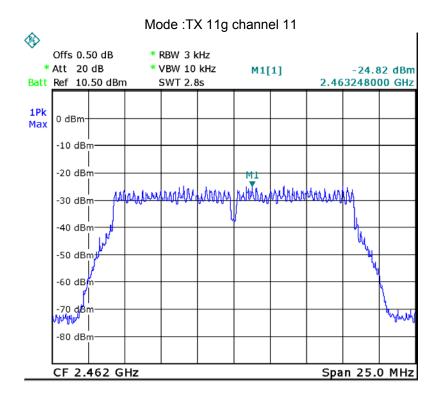


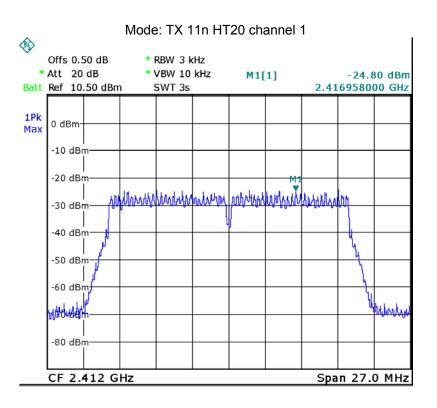


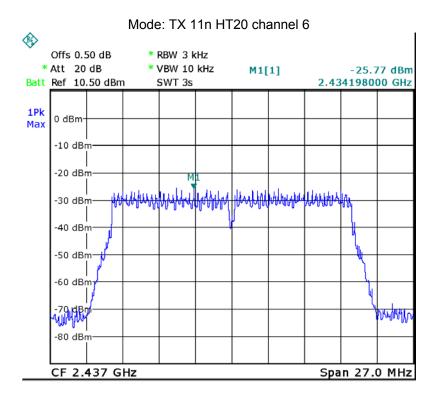


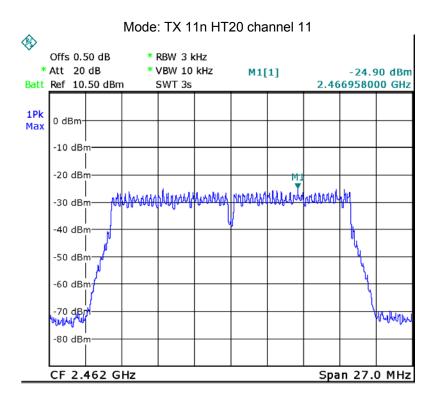


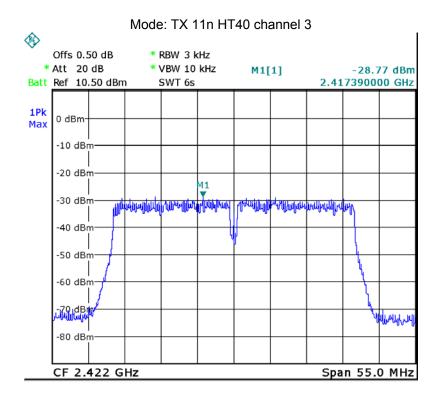


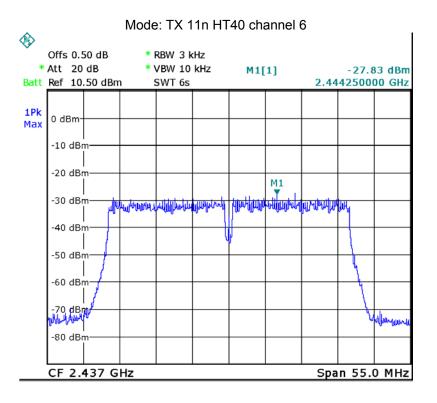


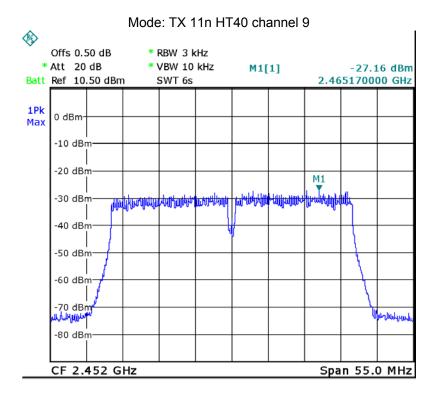












14 Antenna Requirement

According to the FCC Part 15 Paragraph 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. This product has an integrated antenna fulfill the requirement of this section.

Reference No.: WTS15S1240218-2E V1 Page 68 of 68

15 RF Exposure

Remark: refer to SAR test report: WTS15S1240219E

=====End of Report=====