

# FCC UNII REPORT

## FCC Certification

**Applicant Name:**

SAMSUNG Electronics Co.,Ltd.

**Date of Issue:**

June 12, 2015

**Test Site/Location:**

HCT CO., LTD., 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea

**Address:**

129, Samsung-ro, Yeongtong-gu Suwon-si,  
 Gyeonggi-do 443-742 Rep. of Korea

Report No. HCT-R-1506-F017-1

HCT FRN: 0005866421

**FCC ID : A3LSMG9198**

**APPLICANT : SAMSUNG Electronics Co.,Ltd.**

**FCC Model(s):**

SM-G9198

**EUT Type:**

Mobile Phone

**Modulation type**

OFDM

**FCC Classification:**

Unlicensed National Information Infrastructure(UNII)

**FCC Rule Part(s):**

Part 15.407

| Band   | Mode     | Channel Bandwidth (MHz) | Frequency Range (MHz) | Power (dBm) | Power (W) |
|--------|----------|-------------------------|-----------------------|-------------|-----------|
| UNII1  | 802.11a  | 20                      | 5180 – 5240           | 4.27        | 0.00267   |
|        | 802.11n  | 20                      | 5180 – 5240           | 4.19        | 0.00262   |
|        | 802.11n  | 40                      | 5190 – 5230           | 4.74        | 0.00298   |
|        | 802.11ac | 20                      | 5180 – 5240           | 4.29        | 0.00269   |
|        | 802.11ac | 40                      | 5190 – 5230           | 4.10        | 0.00257   |
|        | 802.11ac | 80                      | 5210                  | 4.04        | 0.00254   |
| UNII2A | 802.11a  | 20                      | 5260 – 5320           | 4.24        | 0.00265   |
|        | 802.11n  | 20                      | 5260 – 5320           | 3.97        | 0.00250   |
|        | 802.11n  | 40                      | 5270 – 5310           | 4.42        | 0.00277   |
|        | 802.11ac | 20                      | 5260 – 5320           | 4.32        | 0.00270   |
|        | 802.11ac | 40                      | 5270 – 5310           | 4.10        | 0.00257   |
|        | 802.11ac | 80                      | 5290                  | 4.05        | 0.00254   |
| UNII2C | 802.11a  | 20                      | 5500 – 5720           | 4.38        | 0.00274   |
|        | 802.11n  | 20                      | 5500 – 5720           | 4.26        | 0.00267   |
|        | 802.11n  | 40                      | 5510 – 5710           | 4.02        | 0.00252   |
|        | 802.11ac | 20                      | 5500 – 5720           | 4.42        | 0.00277   |
|        | 802.11ac | 40                      | 5510 – 5710           | 4.22        | 0.00264   |
|        | 802.11ac | 80                      | 5530 – 5690           | 4.27        | 0.00267   |
| UNII3  | 802.11a  | 20                      | 5745 – 5825           | 4.27        | 0.00267   |
|        | 802.11n  | 20                      | 5745 – 5825           | 4.14        | 0.00259   |
|        | 802.11n  | 40                      | 5755 – 5795           | 4.08        | 0.00256   |
|        | 802.11ac | 20                      | 5745 – 5825           | 4.29        | 0.00269   |
|        | 802.11ac | 40                      | 5755 – 5795           | 4.07        | 0.00255   |
|        | 802.11ac | 80                      | 5775                  | 4.40        | 0.00275   |

## Engineering Statement:

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

**HCT CO., LTD.** Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998, 21 U.S. C. 853(a)



**Report prepared by**  
**: Kyung Soo Kang**  
**Test Engineer of RF Team**



**Approved by**  
**: Sang Jun Lee**  
**Manager of RF Team**

This report only responds to the tested sample and may not be reproduced, except in full, without written approval of the HCT Co., Ltd.

## Version

| TEST REPORT NO.   | DATE          | DESCRIPTION                    |
|-------------------|---------------|--------------------------------|
| HCT-R-1506-F017   | June 08, 2015 | - First Approval Report        |
| HCT-R-1506-F017-1 | June 12, 2015 | -Add 6dB Bandwidth test result |
|                   |               |                                |
|                   |               |                                |

## Table of Contents

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| 1. GENERAL INFORMATION .....                                            | 5   |
| 2. EUT DESCRIPTION .....                                                | 5   |
| 3. TEST METHODOLOGY .....                                               | 6   |
| 3.1 EUT CONFIGURATION .....                                             | 6   |
| 3.2 EUT EXERCISE .....                                                  | 6   |
| 3.3 GENERAL TEST PROCEDURES .....                                       | 6   |
| 3.4 DESCRIPTION OF TEST MODES .....                                     | 6   |
| 4. INSTRUMENT CALIBRATION.....                                          | 7   |
| 5. FACILITIES AND ACCREDITATIONS .....                                  | 7   |
| 5.1 FACILITIES .....                                                    | 7   |
| 5.2 EQUIPMENT .....                                                     | 7   |
| 6. ANTENNA REQUIREMENTS .....                                           | 7   |
| 7. SUMMARY OF TEST RESULTS .....                                        | 8   |
| 8. TEST RESULT .....                                                    | 9   |
| 8.1 DUTY CYCLE.....                                                     | 9   |
| 8.2 EMISSION BANDWIDTH AND MINIMUM EMISSION BANDWIDTH MEASUREMENT ..... | 12  |
| 8.3 OUTPUT POWER MEASUREMENT .....                                      | 29  |
| 8.4 POWER SPECTRAL DENSITY .....                                        | 58  |
| 8.5 FREQUENCY STABILITY. ....                                           | 72  |
| 8.6 RADIATED MEASUREMENT.....                                           | 84  |
| 8.6.1 RADIATED SPURIOUS EMISSIONS.....                                  | 84  |
| 8.6.2 RADIATED RESTRICTED BAND EDGE MEASUREMENTS .....                  | 208 |
| 8.7 POWERLINE CONDUCTED EMISSIONS .....                                 | 232 |
| 9. LIST OF TEST EQUIPMENT .....                                         | 237 |
| 9.1 LIST OF TEST EQUIPMENT(Conducted Test) .....                        | 237 |
| 9.2 LIST OF TEST EQUIPMENT(Radiated Test).....                          | 238 |

## 1. GENERAL INFORMATION

**Applicant:** SAMSUNG Electronics Co.,Ltd.  
**Address:** 129, Samsung-ro, Yeongtong-gu Suwon-Si, Gyeonggi-do, 443-742 Rep. of Korea  
**FCC ID:** A3LSMG9198  
**EUT Type:** Mobile Phone  
**Model name(s):** SM-G9198  
**Date(s) of Tests:** May 14, 2015 ~ June 09, 2015  
**Place of Tests:** HCT Co., Ltd.  
74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea.  
(IC Recognition No. : 5944A-3)

## 2. EUT DESCRIPTION

|                              |                                                                                                                                                                                                            |                                                                                                                              |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>FCC Model Name</b>        | SM-G9198                                                                                                                                                                                                   |                                                                                                                              |
| <b>EUT Type</b>              | Mobile Phone                                                                                                                                                                                               |                                                                                                                              |
| <b>Power Supply</b>          | DC 3.85 V                                                                                                                                                                                                  |                                                                                                                              |
| <b>Battery type</b>          | Li-ion Battery(Standard)                                                                                                                                                                                   |                                                                                                                              |
| <b>Frequency Range</b>       | TX_20 MHz BW:                                                                                                                                                                                              | 5180 MHz - 5240 MHz (UNII 1)/ 5260 MHz - 5320 MHz (UNII 2A)/<br>5500 MHz - 5720 MHz (UNII 2C)/ 5745 MHz - 5825 MHz (UNII 3)  |
|                              | 40 MHz BW:                                                                                                                                                                                                 | 5190 MHz - 5230 MHz (UNII 1)/ 5270 MHz - 5310 MHz (UNII 2A)/<br>5510 MHz - 5710 MHz (UNII 2C) / 5755 MHz - 5795 MHz (UNII 3) |
|                              | 80 MHz BW:                                                                                                                                                                                                 | 5210 MHz(UNII 1)/ 5290 MHz(UNII 2A)/ 5530 MHz - 5690 MHz(UNII 2C)/<br>5775 MHz (UNII 3)                                      |
|                              | RX_20 MHz BW:                                                                                                                                                                                              | 5180 MHz - 5240 MHz (UNII 1)/ 5260 MHz - 5320 MHz (UNII 2A)/<br>5500 MHz - 5720 MHz (UNII 2C)/ 5745 MHz - 5825 MHz (UNII 3)  |
|                              | 40 MHz BW:                                                                                                                                                                                                 | 5190 MHz - 5230 MHz (UNII 1)/ 5270 MHz - 5310 MHz (UNII 2A)/<br>5510 MHz - 5710 MHz (UNII 2C) / 5755 MHz - 5795 MHz (UNII 3) |
|                              | 80 MHz BW:                                                                                                                                                                                                 | 5210 MHz(UNII 1)/ 5290 MHz(UNII 2A)/ 5530 MHz - 5690 MHz(UNII 2C)/<br>5775 MHz (UNII 3)                                      |
| <b>Modulation Type</b>       | OFDM(802.11a, 802.11n, 802.11ac)                                                                                                                                                                           |                                                                                                                              |
| <b>Antenna Specification</b> | Manufacturer: EMW Co.,Ltd.<br>Antenna type:PIFA<br>Peak Gain : -1.47 dBi (5180~5240 UNII1 BAND) / -0.63 dBi (5260~5320 UNII2A BAND)<br>-0.41 dBi (5500~5720 UNII2C BAND) / 1.23 dBi (5745~5825 UNII3 BAND) |                                                                                                                              |

### **3. TEST METHODOLOGY**

The measurement procedure described in FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 dated June 06, 2014 entitled “ Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part15, Subpart E” and the American National Standard for Testing Unlicensed Wireless Devices(ANSI C63.4-2003) were used in the measurement. For 802.11ac, KDB644545 D03 v01 dated August 14, 2014

#### **3.1 EUT CONFIGURATION**

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

#### **3.2 EUT EXERCISE**

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.407 under the FCC Rules Part 15 Subpart E.

### **3.3 GENERAL TEST PROCEDURES**

#### **Conducted Emissions**

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4. (Version :2003) Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

#### **Radiated Emissions**

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements in Section 13.1.4.1 of ANSI C63.4. (Version: 2003)

#### **Conducted Antenna Terminal**

See Section from 8.1 to 8.4.(KDB 789033)

### **3.4 DESCRIPTION OF TEST MODES**

The EUT has been tested under operating condition. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Channel low, mid and high with highest data rate (worst case) is chosen for full testing.

## 4. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipments, which is traceable to recognized national standards

## 5. FACILITIES AND ACCREDITATIONS

### 5.1 FACILITIES

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2003) and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated February 28, 2014 (Registration Number: 90661)

### 5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements. Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

## 6. ANTENNA REQUIREMENTS

### According to FCC 47 CFR §15.203:

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

\* The antennas of this E.U.T are permanently attached.

\*The E.U.T Complies with the requirement of §15.203,§15.407,

## 7. SUMMARY OF TEST RESULTS

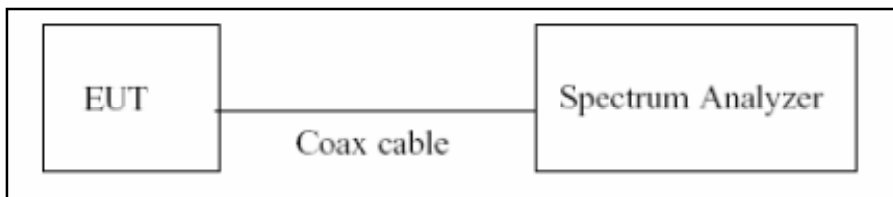
| Test Description                                                                | FCC Part Section(s)                | Test Limit                                                                                                                                                   | Test Condition | Test Result |
|---------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|
| 26dB Bandwidth                                                                  | §15.407<br>(for Power Measurement) | N/A                                                                                                                                                          | CONDUCTED      | PASS        |
| 6 dB Bandwidth                                                                  | §15.407(e)                         | >500 kHz<br>(5725-5850 MHz)                                                                                                                                  |                |             |
| Maximum Conducted Output Power                                                  | §15.407(a)(1)                      | < 250 mW<br>(5150-5250 MHz)<br>< 250 mW<br>(5250-5350 MHz)<br>< 250 mW<br>(5470-5725 MHz)<br><1 W<br>(5725-5850 MHz)                                         |                | PASS        |
| Peak Power Spectral Density                                                     | §15.407(a)(1), (5)                 | <11 dBm/ MHz (5150-5250 MHz)<br><11 dBm/ MHz (5250-5350 MHz)<br><11 dBm/ MHz (5470-5725 MHz)<br><30 dBm/500 kHz(5725-5850 MHz)                               |                | PASS        |
| Frequency Stability                                                             | §15.407(g)                         | NA                                                                                                                                                           |                | PASS        |
| AC Conducted Emissions<br>150 kHz-30 MHz                                        | 15.207                             | <FCC 15.207 limits                                                                                                                                           |                | PASS        |
| Undesirable Emissions                                                           | §15.407(b)(1), (2),<br>(3)         | <-27 dBm/ MHz EIRP<br>(UNII1, 2A, 2C)<br><-17 dBm/MHz EIRP within 5715-<br>5725 MHz and 5850-5860 MHz,<br><-27 dBm/MHz EIRP outside 5715-<br>5850 MHz(UNII3) | RADIATED       | PASS        |
| General Field Strength Limits(Restricted<br>Bands and Radiated Emission Limits) | 15.205,<br>15.407(b)(1), (5), (6)  | Emissions in restricted bands must<br>meet the radiated limits detailed in<br>15.209                                                                         |                | PASS        |

## 8. TEST RESULT

### 8.1 DUTY CYCLE

The zero-span mode on a spectrum analyzer or EMI receiver, if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set  $RBW \geq EBW$  if possible; otherwise, set RBW to the largest available value. Set  $VBW \geq RBW$ . Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are  $> 50/T$ , where  $T$  is defined in section B)1)a), and the number of sweep points across duration  $T$  exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if  $T \leq 16.7$  microseconds.)

#### TEST CONFIGURATION



#### TEST PROCEDURE

The transmitter output is connected to the Spectrum Analyzer. We tested according to the zero-span measurement method, (B.2 in KDB 789033 D02, issued 06/06/2014)

The largest available value of RBW is 8 MHz and VBW is 50 MHz. The zero-span method of measuring duty cycle shall not be used if  $T \leq 6.25$  microseconds. ( $50/6.25 = 8$ )

The zero-span method was used because all measured  $T$  data are  $> 6.25$  microseconds and both RBW and VBW are  $> 50/T$ .

1. RBW = 8 MHz (the largest available value)
2. VBW = 8 MHz ( $\geq$  RBW)
3. SPAN = 0 Hz
4. Detector = Peak
5. Number of points in sweep  $> 100$
6. Trace mode = Clear write
7. Measure  $T_{total}$  and  $T_{on}$
8. Calculate Duty Cycle =  $T_{on} / T_{total}$  and Duty Cycle Factor =  $10 \cdot \log(1/\text{Duty Cycle})$

### Duty Cycle Factor

| Mode              | Data Rate (Mbps) | T <sub>on</sub> (ms) | T <sub>total</sub> (ms) | Duty Cycle | Duty Cycle Factor (dB) |
|-------------------|------------------|----------------------|-------------------------|------------|------------------------|
| 802.11a           | 6                | 1.428                | 1.539                   | 0.92787524 | 0.325                  |
|                   | 9                | 0.960                | 1.068                   | 0.89887640 | 0.463                  |
|                   | 12               | 0.729                | 0.834                   | 0.87410072 | 0.584                  |
|                   | 18               | 0.492                | 0.588                   | 0.83673469 | 0.774                  |
|                   | 24               | 0.375                | 0.474                   | 0.79113924 | 1.017                  |
|                   | 36               | 0.255                | 0.363                   | 0.70247934 | 1.534                  |
|                   | 48               | 0.200                | 0.297                   | 0.67340067 | 1.717                  |
|                   | 54               | 0.180                | 0.277                   | 0.64981949 | 1.872                  |
| 802.11n_20 MHz BW | 6.5              | 1.340                | 1.440                   | 0.93055556 | 0.313                  |
|                   | 13               | 0.685                | 0.795                   | 0.86163522 | 0.647                  |
|                   | 19.5             | 0.470                | 0.570                   | 0.82456140 | 0.838                  |
|                   | 26               | 0.364                | 0.478                   | 0.76150628 | 1.183                  |
|                   | 39               | 0.256                | 0.354                   | 0.72316384 | 1.408                  |
|                   | 52               | 0.199                | 0.296                   | 0.67229730 | 1.724                  |
|                   | 58.5             | 0.183                | 0.280                   | 0.65357143 | 1.847                  |
|                   | 65               | 0.168                | 0.265                   | 0.63396226 | 1.979                  |
| 802.11n_40 MHz BW | 13.5             | 0.663                | 0.759                   | 0.87351779 | 0.587                  |
|                   | 27               | 0.351                | 0.450                   | 0.78000000 | 1.079                  |
|                   | 40.5             | 0.249                | 0.345                   | 0.72173913 | 1.416                  |
|                   | 54               | 0.196                | 0.293                   | 0.66894198 | 1.746                  |
|                   | 81               | 0.144                | 0.241                   | 0.59751037 | 2.237                  |
|                   | 108              | 0.115                | 0.212                   | 0.54245283 | 2.656                  |
|                   | 121.5            | 0.108                | 0.204                   | 0.52941176 | 2.762                  |
|                   | 135              | 0.099                | 0.196                   | 0.50510204 | 2.966                  |

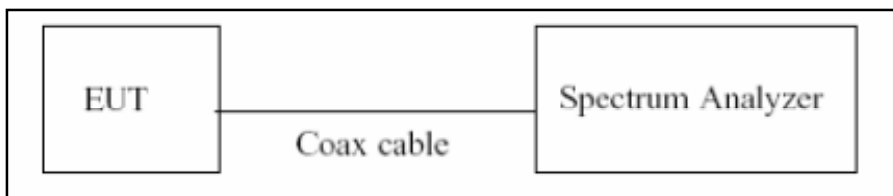
| Mode                               | Data Rate | T <sub>on</sub><br>(ms) | T <sub>total</sub><br>(ms) | Duty Cycle | Duty Cycle Factor<br>(dB) |
|------------------------------------|-----------|-------------------------|----------------------------|------------|---------------------------|
| 802.11ac_20 MHz BW                 | 6.5       | 0.699                   | 0.807                      | 0.86617100 | 0.624                     |
|                                    | 13        | 0.372                   | 0.479                      | 0.77661795 | 1.098                     |
|                                    | 19.5      | 0.264                   | 0.371                      | 0.71159030 | 1.478                     |
|                                    | 26        | 0.208                   | 0.306                      | 0.67973856 | 1.677                     |
|                                    | 39        | 0.156                   | 0.254                      | 0.61417323 | 2.117                     |
|                                    | 52        | 0.128                   | 0.235                      | 0.54468085 | 2.639                     |
|                                    | 58.5      | 0.120                   | 0.227                      | 0.52863436 | 2.768                     |
|                                    | 65        | 0.112                   | 0.218                      | 0.51376147 | 2.892                     |
|                                    | 78        | 0.100                   | 0.197                      | 0.50761421 | 2.945                     |
| 5.8 GHz Band<br>802.11ac_40 MHz BW | 13.5      | 0.359                   | 0.457                      | 0.78555799 | 1.048                     |
|                                    | 27        | 0.204                   | 0.302                      | 0.67549669 | 1.704                     |
|                                    | 40.5      | 0.151                   | 0.249                      | 0.60642570 | 2.172                     |
|                                    | 54        | 0.123                   | 0.221                      | 0.55656109 | 2.545                     |
|                                    | 81        | 0.099                   | 0.197                      | 0.50253807 | 2.988                     |
|                                    | 108       | 0.084                   | 0.181                      | 0.46408840 | 3.334                     |
|                                    | 121.5     | 0.080                   | 0.177                      | 0.45197740 | 3.449                     |
|                                    | 135       | 0.075                   | 0.173                      | 0.43352601 | 3.630                     |
|                                    | 162       | 0.072                   | 0.169                      | 0.42603550 | 3.706                     |
| 5.8 GHz Band<br>802.11ac_80 MHz BW | 180       | 0.067                   | 0.165                      | 0.40606061 | 3.914                     |
|                                    | 29.3      | 0.191                   | 0.298                      | 0.64093960 | 1.932                     |
|                                    | 58.5      | 0.120                   | 0.218                      | 0.55045872 | 2.593                     |
|                                    | 87.8      | 0.095                   | 0.193                      | 0.49222798 | 3.078                     |
|                                    | 117       | 0.083                   | 0.181                      | 0.45856354 | 3.386                     |
|                                    | 175.5     | 0.072                   | 0.169                      | 0.42603550 | 3.706                     |
|                                    | 234       | 0.064                   | 0.162                      | 0.39506173 | 4.033                     |
|                                    | 263.3     | 0.064                   | 0.161                      | 0.39751553 | 4.006                     |
|                                    | 292.5     | 0.060                   | 0.157                      | 0.38216561 | 4.177                     |
|                                    | 351       | 0.059                   | 0.156                      | 0.37820513 | 4.223                     |
|                                    | 390       | 0.056                   | 0.153                      | 0.36601307 | 4.365                     |

## 8.2 EMISSION BANDWIDTH AND MINIMUM EMISSION BANDWIDTH MEASUREMENT

The bandwidth at 26 dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum power control level, as defined in KDB 789033 D02(issued 06/06/2014), at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26 dB bandwidth.

The 26 dB bandwidth is used to determine the conducted power limits.

### TEST CONFIGURATION



### TEST PROCEDURE

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to( C.1 in KDB 789033 D02, issued 06/06/2014)

1. RBW = approximately 1 % of the emission bandwidth
2. VBW > RBW
3. Detector = Peak
4. Trace mode = max hold
5. Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1 %.

Note : We tested 26 dB bandwidth using the automatic bandwidth measurement capability of a spectrum analyzer. X dB is set 26 dB.

## TEST RESULTS

### 20 MHz BW

#### Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode    |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|-----------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz] | Channel No. |                             |                            |             |
| 5180            | 36          | 18.667                      | N/A                        | Pass        |
| 5200            | 40          | 18.672                      | N/A                        | Pass        |
| 5240            | 48          | 18.477                      | N/A                        | Pass        |

#### Conducted 26 dB Bandwidth Measurements for 802.11a

| 802.11a Mode    |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|-----------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz] | Channel No. |                             |                            |             |
| 5260            | 52          | 18.492                      | N/A                        | Pass        |
| 5300            | 60          | 18.579                      | N/A                        | Pass        |
| 5320            | 64          | 18.643                      | N/A                        | Pass        |

#### Conducted 26 dB Bandwidth Measurements for 802.11a

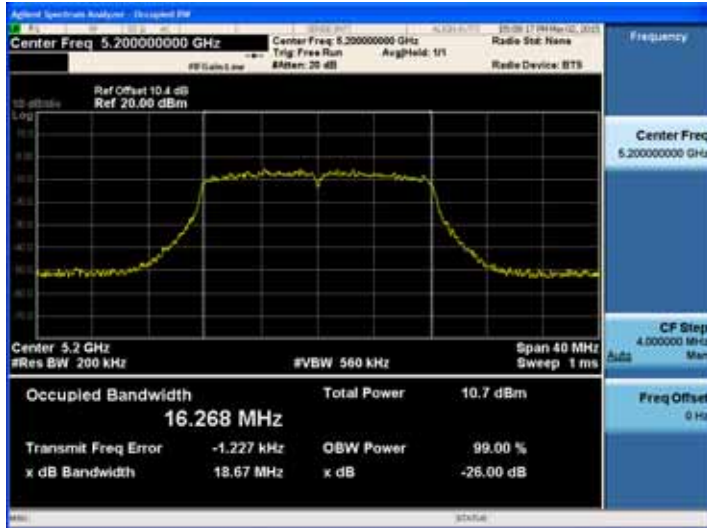
| 802.11a Mode    |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|-----------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz] | Channel No. |                             |                            |             |
| 5500            | 100         | 18.685                      | N/A                        | Pass        |
| 5580            | 116         | 18.861                      | N/A                        | Pass        |
| 5720            | 144         | 18.406                      | N/A                        | Pass        |

#### Conducted 26 dB Bandwidth Measurements for 802.11a

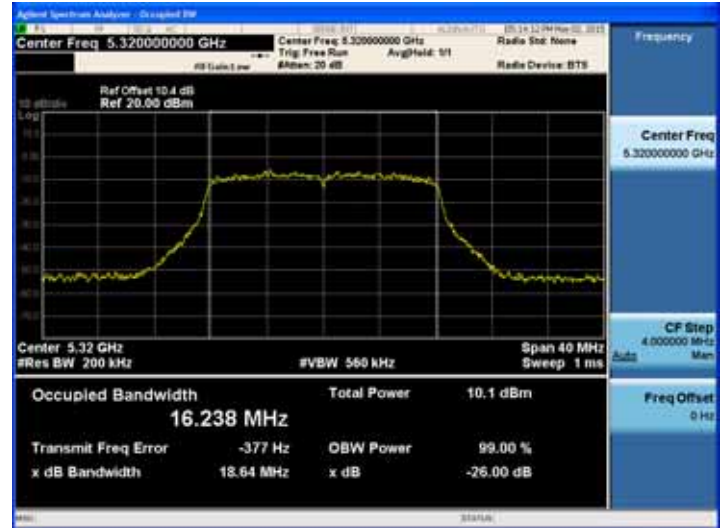
| 802.11a Mode    |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|-----------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz] | Channel No. |                             |                            |             |
| 5745            | 149         | 18.601                      | N/A                        | Pass        |
| 5785            | 157         | 18.662                      | N/A                        | Pass        |
| 5825            | 165         | 18.607                      | N/A                        | Pass        |

# TEST Plot for 802.11a \_20MHz BW

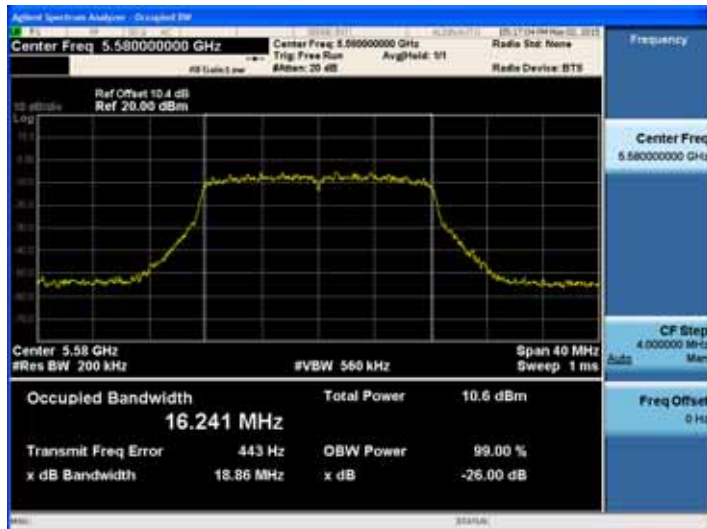
802.11a UNII 1 BAND 26dB Bandwidth (CH 40)



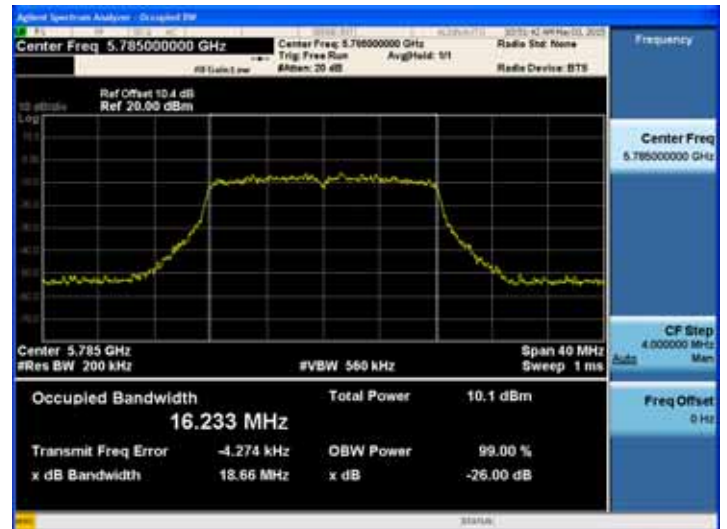
802.11a UNII 2A BAND 26dB Bandwidth (CH 64)



802.11a UNII 2C BAND 26dB Bandwidth (CH 116)



802.11a UNII 3 BAND 26dB Bandwidth (CH 157)



Note :

In order to simplify the report, attached plots were only the most wide channel.

# TEST RESULTS for 802.11n \_20MHz BW

## Conducted 26 dB Bandwidth Measurements for 802.11n 20M BW

| 802.11n(20MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|---------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]     | Channel No. |                             |                            |             |
| 5180                | 36          | 19.578                      | N/A                        | Pass        |
| 5200                | 40          | 19.529                      | N/A                        | Pass        |
| 5240                | 48          | 19.679                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11n 20M BW

| 802.11n(20MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|---------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]     | Channel No. |                             |                            |             |
| 5260                | 52          | 19.604                      | N/A                        | Pass        |
| 5300                | 60          | 19.629                      | N/A                        | Pass        |
| 5320                | 64          | 19.577                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11n 20M BW

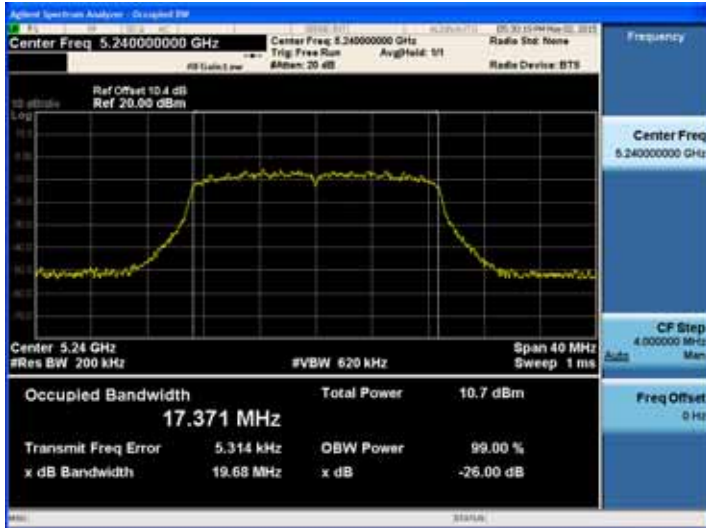
| 802.11n(20MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|---------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]     | Channel No. |                             |                            |             |
| 5500                | 100         | 19.647                      | N/A                        | Pass        |
| 5580                | 116         | 19.504                      | N/A                        | Pass        |
| 5720                | 144         | 19.555                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11n 20M BW

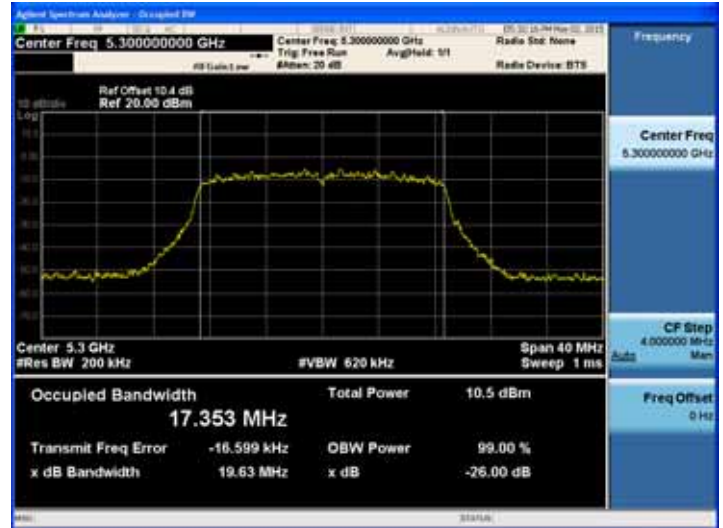
| 802.11n(20MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|---------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]     | Channel No. |                             |                            |             |
| 5745                | 149         | 19.490                      | N/A                        | Pass        |
| 5785                | 157         | 19.442                      | N/A                        | Pass        |
| 5825                | 165         | 19.492                      | N/A                        | Pass        |

# TEST Plot for 802.11n \_20MHz BW

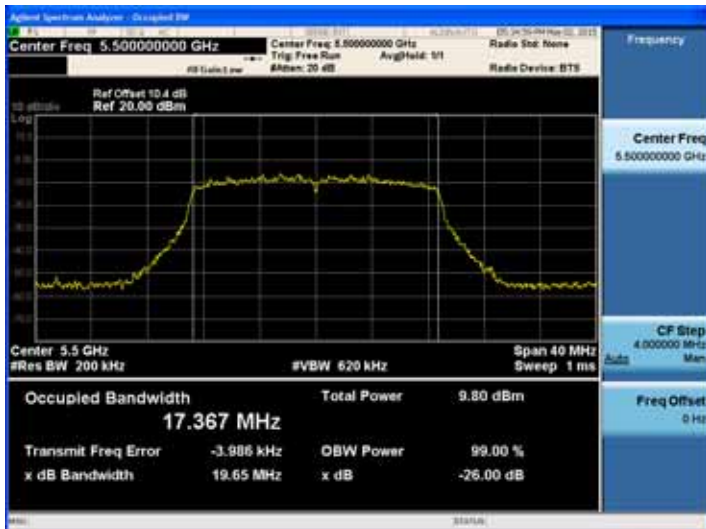
802.11n\_20 MHz BW UNII 1 BAND 26dB Bandwidth(CH 48)



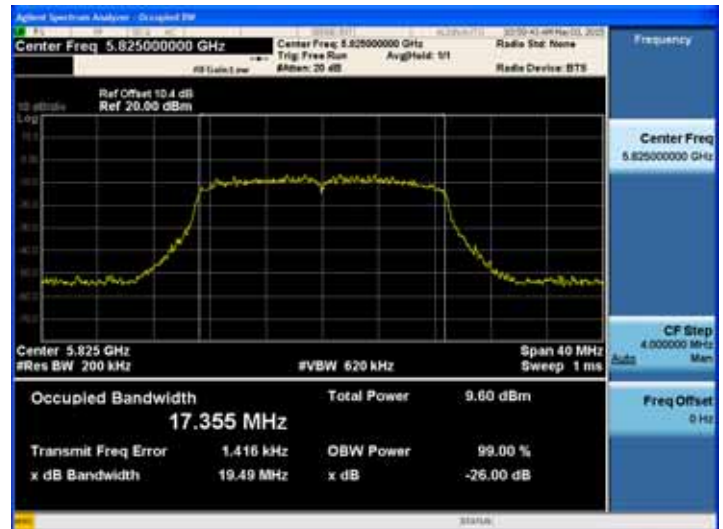
802.11n\_20 MHz BW UNII 2A BAND 26dB Bandwidth(CH 60)



802.11n\_20 MHz BW UNII 2C BAND 26dB Bandwidth(CH 100)



802.11n\_20 MHz BW UNII 3 BAND 26dB Bandwidth(CH 165)



Note :

In order to simplify the report, attached plots were only the most wide channel.

# TEST RESULTS for 802.11ac \_20MHz BW

## Conducted 26 dB Bandwidth Measurements for 802.11ac 20M BW

| 802.11ac(20MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|----------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]      | Channel No. |                             |                            |             |
| 5180                 | 36          | 19.605                      | N/A                        | Pass        |
| 5200                 | 40          | 19.381                      | N/A                        | Pass        |
| 5240                 | 48          | 19.554                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11ac 20M BW

| 802.11ac(20MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|----------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]      | Channel No. |                             |                            |             |
| 5260                 | 52          | 19.526                      | N/A                        | Pass        |
| 5300                 | 60          | 19.586                      | N/A                        | Pass        |
| 5320                 | 64          | 19.628                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11ac 20M BW

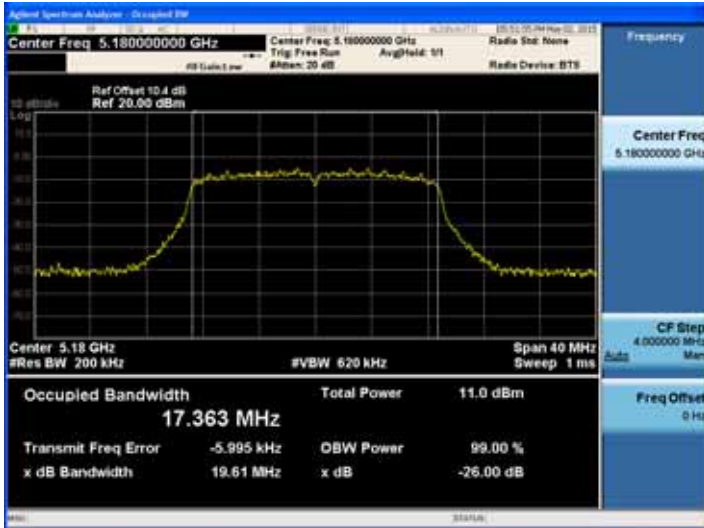
| 802.11ac(20MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|----------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]      | Channel No. |                             |                            |             |
| 5500                 | 100         | 19.589                      | N/A                        | Pass        |
| 5580                 | 116         | 19.415                      | N/A                        | Pass        |
| 5720                 | 144         | 19.435                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11ac 20M BW

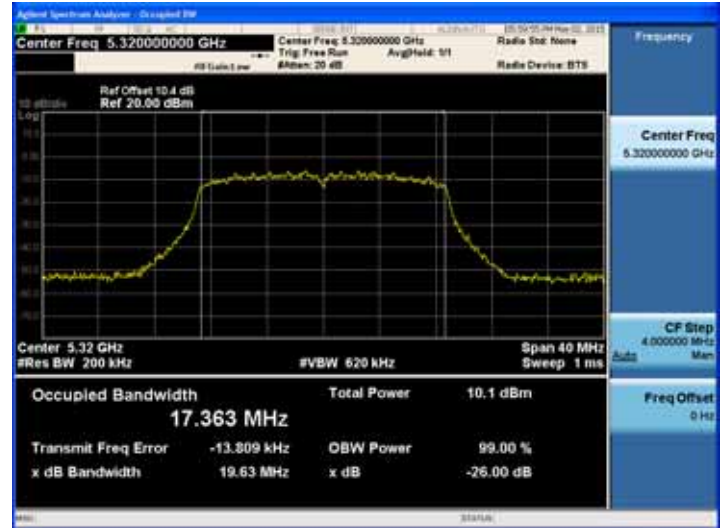
| 802.11ac(20MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|----------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]      | Channel No. |                             |                            |             |
| 5745                 | 149         | 19.289                      | N/A                        | Pass        |
| 5785                 | 157         | 19.500                      | N/A                        | Pass        |
| 5825                 | 165         | 19.878                      | N/A                        | Pass        |

# TEST Plot for 802.11ac \_20MHz BW

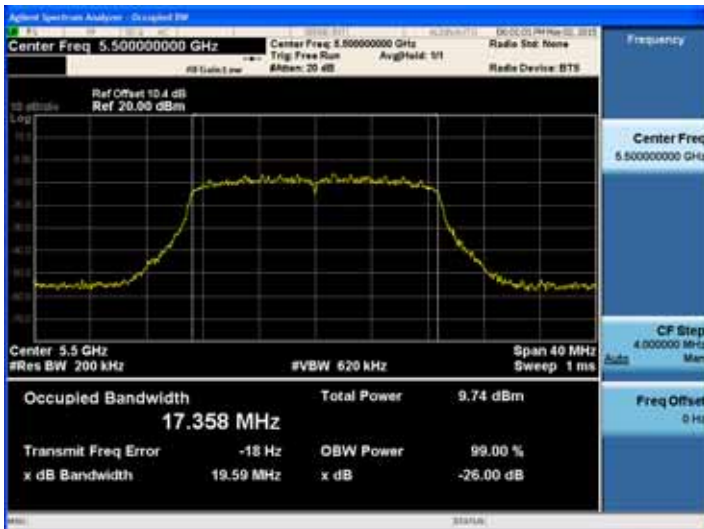
802.11ac\_20 MHz BW UNII 1 BAND 26dB Bandwidth( CH 36)



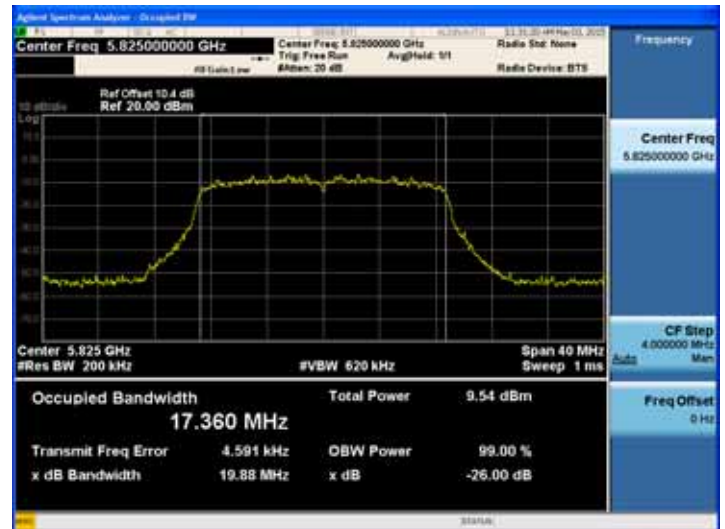
802.11ac\_20 MHz BW UNII 2A BAND 26dB Bandwidth( CH 64)



802.11ac\_20 MHz BW UNII 2C BAND 26dB Bandwidth( CH 100)



802.11ac\_20 MHz BW UNII 3 BAND 26dB Bandwidth(CH 165)



Note :

In order to simplify the report, attached plots were only the most wide channel.

### TEST RESULTS for 802.11n\_40MHz BW

#### Conducted 26 dB Bandwidth Measurements for 802.11n\_40 M BW

| 802.11n(40MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|---------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]     | Channel No. |                             |                            |             |
| 5190                | 38          | 39.778                      | N/A                        | Pass        |
| 5230                | 46          | 39.724                      | N/A                        | Pass        |

#### Conducted 26 dB Bandwidth Measurements for 802.11n\_40 M BW

| 802.11n(40MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|---------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]     | Channel No. |                             |                            |             |
| 5270                | 54          | 40.086                      | N/A                        | Pass        |
| 5310                | 62          | 39.927                      | N/A                        | Pass        |

#### Conducted 26 dB Bandwidth Measurements for 802.11n\_40 M BW

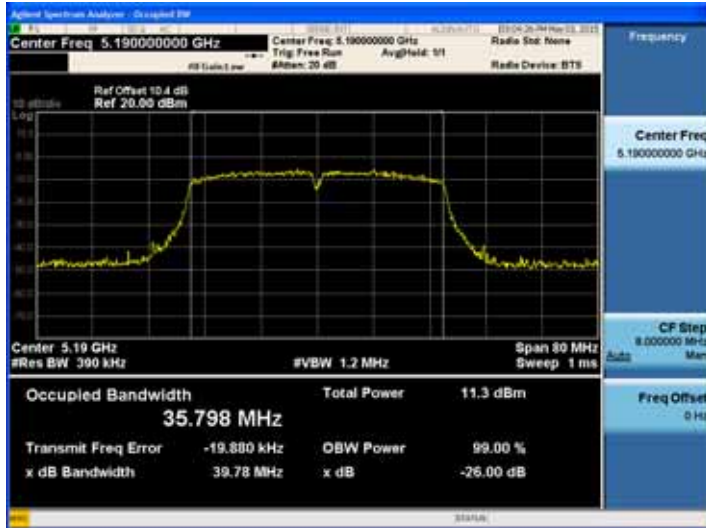
| 802.11n(40MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|---------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]     | Channel No. |                             |                            |             |
| 5510                | 102         | 40.287                      | N/A                        | Pass        |
| 5550                | 110         | 39.781                      | N/A                        | Pass        |
| 5710                | 142         | 39.418                      | N/A                        | Pass        |

#### Conducted 26 dB Bandwidth Measurements for 802.11n\_40 M BW

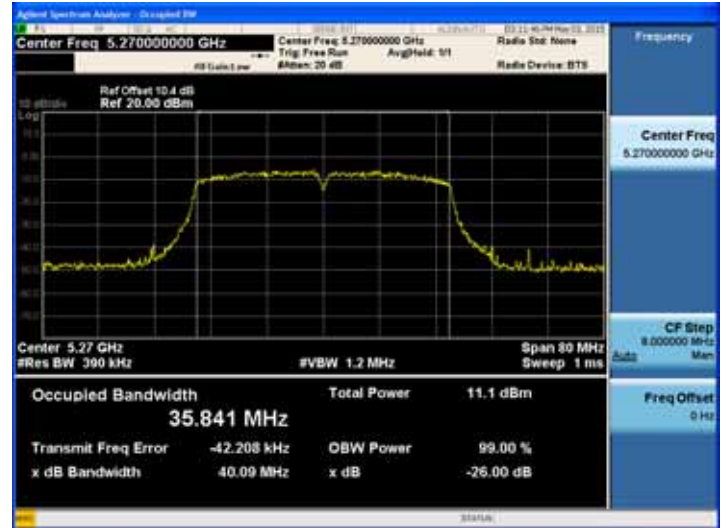
| 802.11n(40MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|---------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]     | Channel No. |                             |                            |             |
| 5755                | 151         | 39.403                      | N/A                        | Pass        |
| 5795                | 159         | 40.389                      | N/A                        | Pass        |

# TEST Plot for 802.11n\_40MHz BW

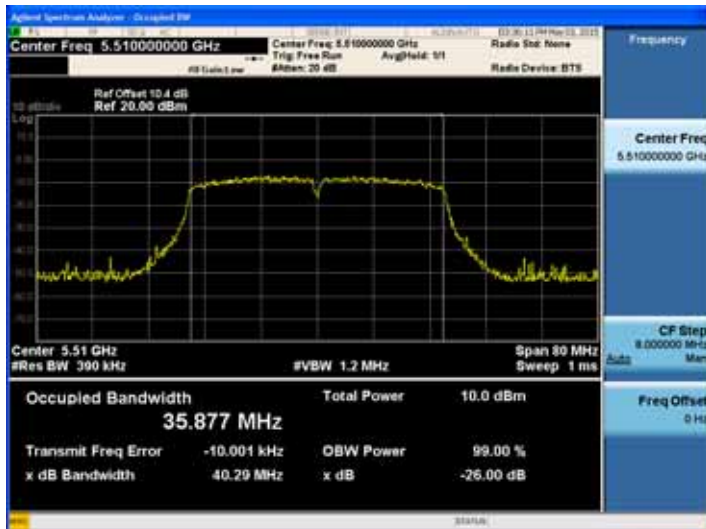
802.11n\_40 MHz BW UNII 1 BAND 26dB Bandwidth(CH 38)



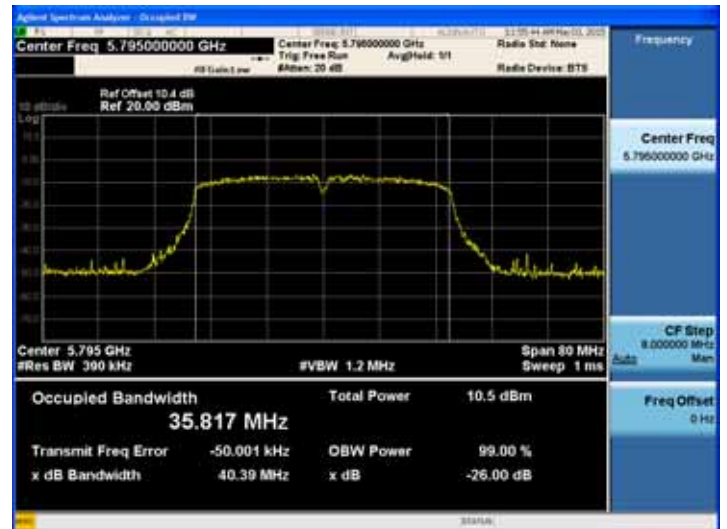
802.11n\_40 MHz BW UNII 2A BAND 26dB Bandwidth (CH 54)



802.11n\_40 MHz BW UNII 2C BAND 26dB Bandwidth(CH 102)



802.11n\_40 MHz BW UNII 3 BAND 26dB Bandwidth (CH 159)



Note :

In order to simplify the report, attached plots were only the most wide channel.

# TEST RESULTS for 802.11ac\_40MHz BW

## Conducted 26 dB Bandwidth Measurements for 802.11ac\_40 M BW

| 802.11ac(40MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|----------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]      | Channel No. |                             |                            |             |
| 5190                 | 38          | 40.264                      | N/A                        | Pass        |
| 5230                 | 46          | 39.967                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11ac\_40 M BW

| 802.11ac(40MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|----------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]      | Channel No. |                             |                            |             |
| 5270                 | 54          | 40.023                      | N/A                        | Pass        |
| 5310                 | 62          | 39.932                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11ac\_40 M BW

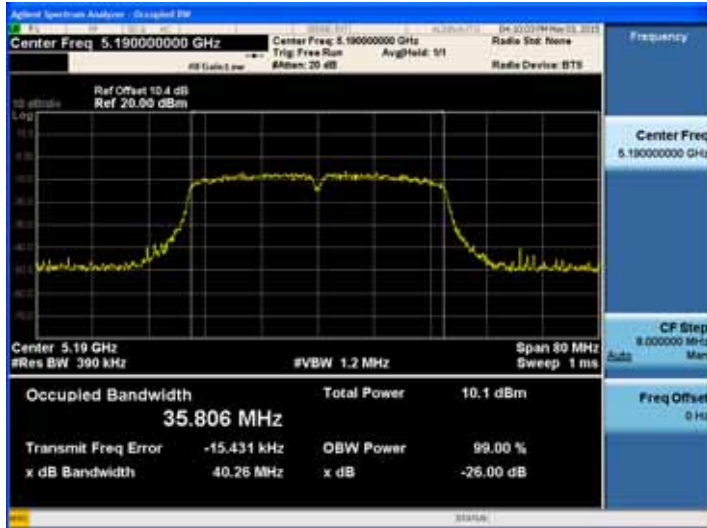
| 802.11ac(40MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|----------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]      | Channel No. |                             |                            |             |
| 5510                 | 102         | 39.925                      | N/A                        | Pass        |
| 5550                 | 110         | 40.032                      | N/A                        | Pass        |
| 5710                 | 142         | 39.899                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11ac\_40 M BW

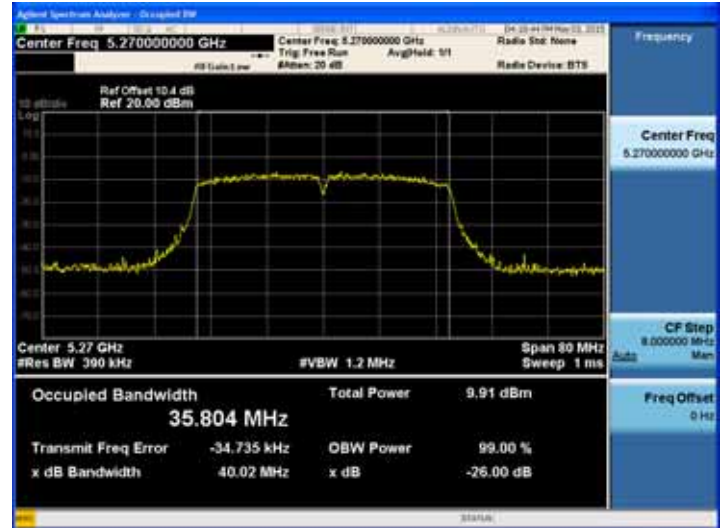
| 802.11ac(40MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|----------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]      | Channel No. |                             |                            |             |
| 5755                 | 151         | 40.020                      | N/A                        | Pass        |
| 5795                 | 159         | 39.575                      | N/A                        | Pass        |

## TEST Plot for 802.11ac\_40MHz BW

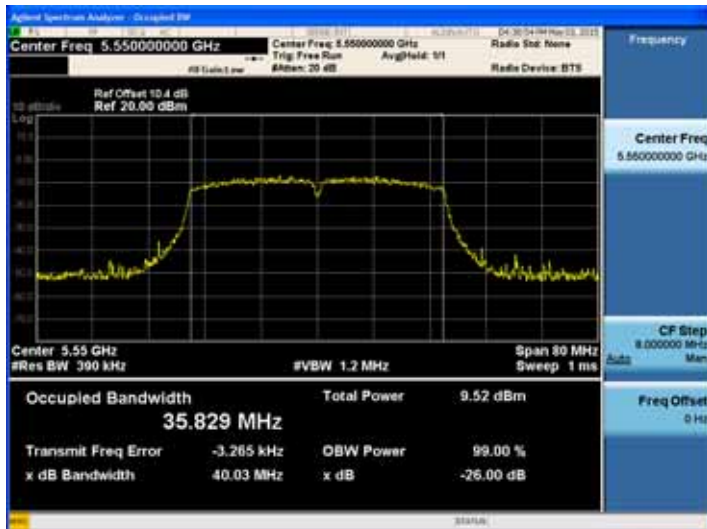
802.11ac\_40 MHz BW UNII 1 BAND 26dB Bandwidth(CH 38)



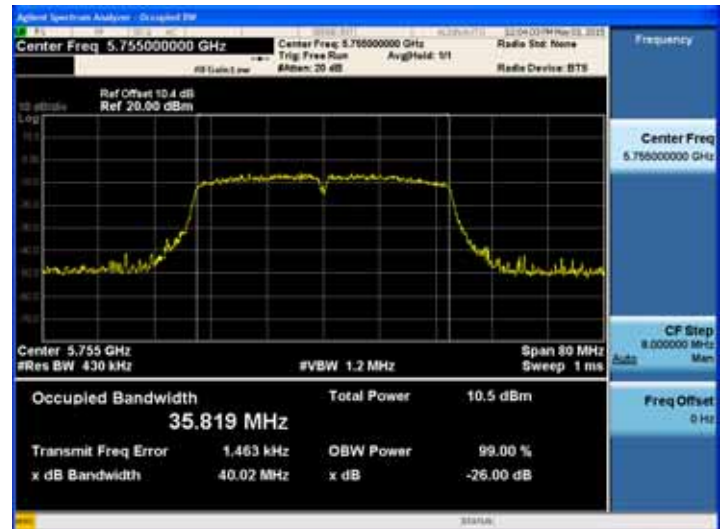
802.11ac\_40 MHz BW UNII 2A BAND 26dB Bandwidth(CH 54)



802.11ac\_40 MHz BW UNII 2C BAND 26dB Bandwidth(CH 110)



802.11ac\_40 MHz BW UNII 3 BAND 26dB Bandwidth(CH 151)



Note :

In order to simplify the report, attached plots were only the most wide channel.

# TEST RESULTS for 802.11ac\_80MHz BW

## Conducted 26 dB Bandwidth Measurements for 802.11ac\_80M BW

| 802.11ac(80M) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|--------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]    | Channel No. |                             |                            |             |
| 5210               | 42          | 82.484                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11ac\_80M BW

| 802.11ac(80M) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|--------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]    | Channel No. |                             |                            |             |
| 5290               | 58          | 82.299                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11ac\_80M BW

| 802.11ac(80M) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|--------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]    | Channel No. |                             |                            |             |
| 5530               | 106         | 83.210                      | N/A                        | Pass        |
| 5690               | 138         | 82.490                      | N/A                        | Pass        |

## Conducted 26 dB Bandwidth Measurements for 802.11ac\_80M BW

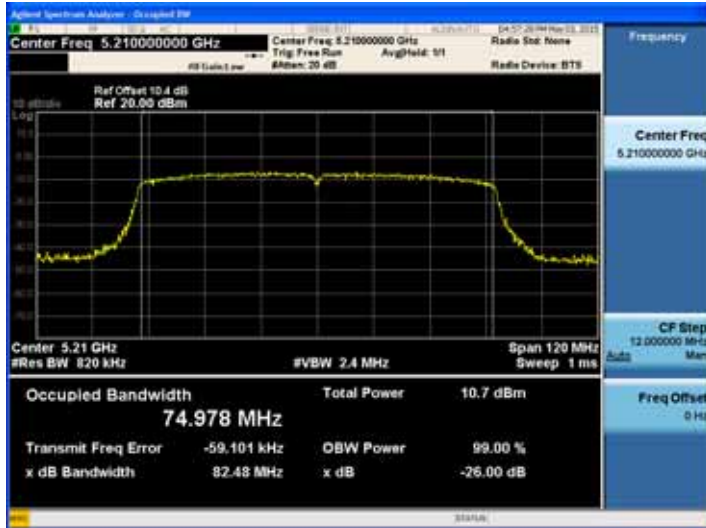
| 802.11ac(80M) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|--------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]    | Channel No. |                             |                            |             |
| 5775               | 155         | 81.911                      | N/A                        | Pass        |

### Note :

1. In order to simplify the report, attached plots were only the most wide channel.
2. DFS test channels should be defined. So, We performed the OBW test to prove that no part of the fundamental emissions of any channels belong to UNII1 and UNII3 band for DFS.

# TEST Plot for 802.11ac\_80MHz BW

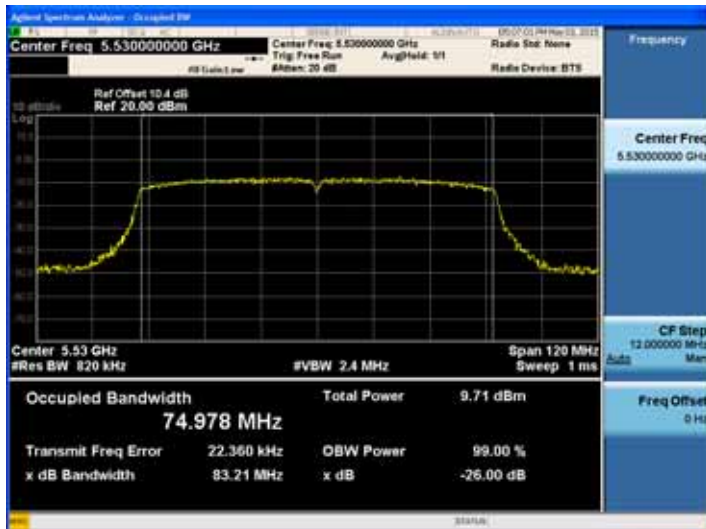
802.11ac\_80 MHz BW UNII 1 BAND 26dB Bandwidth(CH 42)



802.11ac\_80 MHz BW UNII 2A BAND 26dB Bandwidth(CH 58)



802.11ac\_80 MHz BW UNII 2C BAND 26dB Bandwidth(CH 106)



802.11ac\_80 MHz BW UNII 3 BAND 26dB Bandwidth(CH 155)



Note :

In order to simplify the report, attached plots were only the most wide channel.

## Conducted 6 dB Bandwidth

### TEST RESULTS for 802.11a/n/ac\_20MHz BW

#### Conducted 6 dB Bandwidth Measurements for 802.11a

| 802.11a Mode    |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|-----------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz] | Channel No. |                             |                            |             |
| 5745            | 149         | 15.19                       | 0.5                        | Pass        |
| 5785            | 157         | 15.07                       | 0.5                        | Pass        |
| 5825            | 165         | 15.12                       | 0.5                        | Pass        |

#### Conducted 6 dB Bandwidth Measurements for 802.11n\_20MHz BW

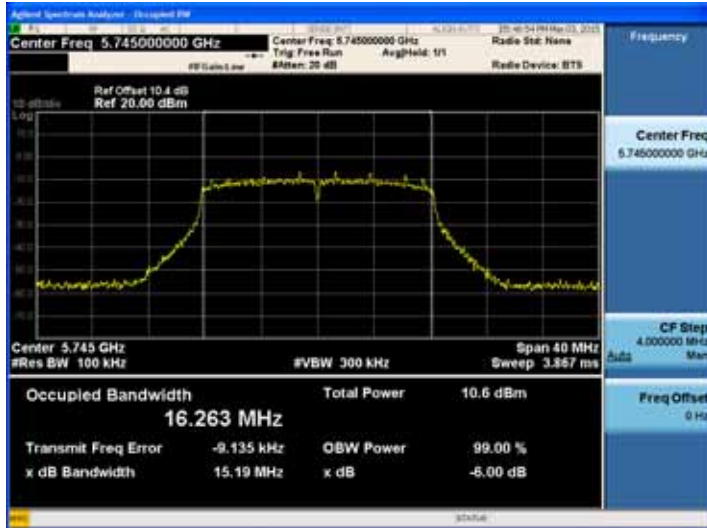
| 802.11n(20MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|---------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]     | Channel No. |                             |                            |             |
| 5745                | 149         | 15.20                       | 0.5                        | Pass        |
| 5785                | 157         | 15.15                       | 0.5                        | Pass        |
| 5825                | 165         | 15.12                       | 0.5                        | Pass        |

#### Conducted 6 dB Bandwidth Measurements for 802.11ac\_20 MHz BW

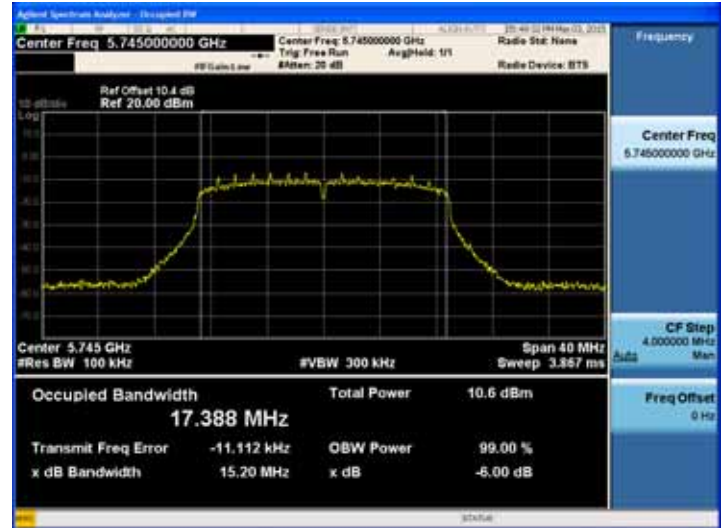
| 802.11ac(20MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|----------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]      | Channel No. |                             |                            |             |
| 5745                 | 149         | 15.17                       | 0.5                        | Pass        |
| 5785                 | 157         | 15.12                       | 0.5                        | Pass        |
| 5825                 | 165         | 15.18                       | 0.5                        | Pass        |

# TEST Plot for 802.11a/n/ac\_20MHz BW

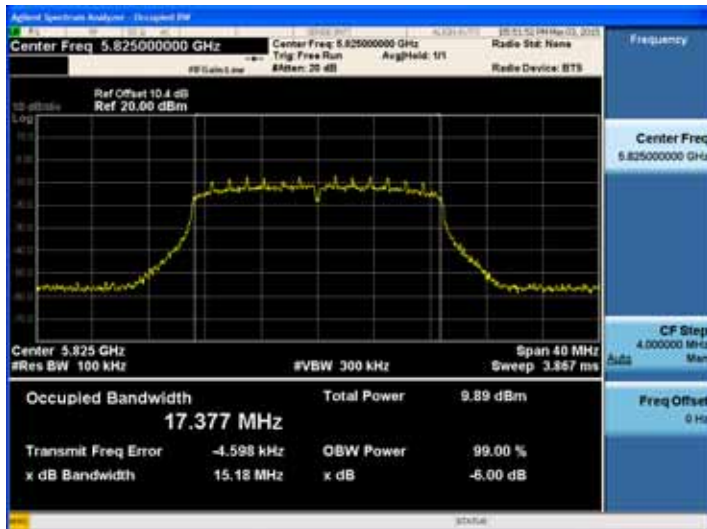
802.11a UNII 3 BAND 6dB Bandwidth



802.11n\_20 MHz BW UNII 3 BAND 6dB Bandwidth



802.11ac\_20 MHz BW UNII 3 BAND 6dB Bandwidth



## Note :

- In order to simplify the report, attached plots were only the most wide channel.

### TEST RESULTS for 802.11n/ac\_40MHz BW

#### Conducted 6 dB Bandwidth Measurements for 802.11n\_40MHz BW

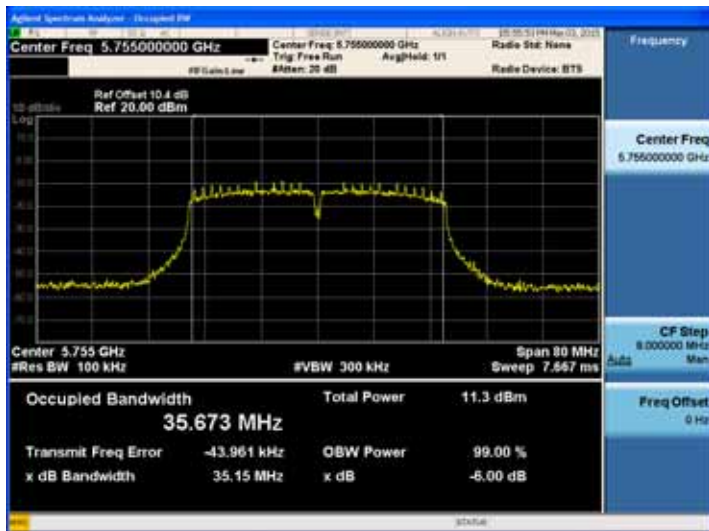
| 802.11n(40MHz) Mode |             | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|---------------------|-------------|--------------------------|-------------------------|-------------|
| Frequency [MHz]     | Channel No. |                          |                         |             |
| 5755                | 151         | 35.15                    | 0.5                     | Pass        |
| 5795                | 159         | 35.14                    | 0.5                     | Pass        |

#### Conducted 6 dB Bandwidth Measurements for 802.11ac\_40 MHz BW

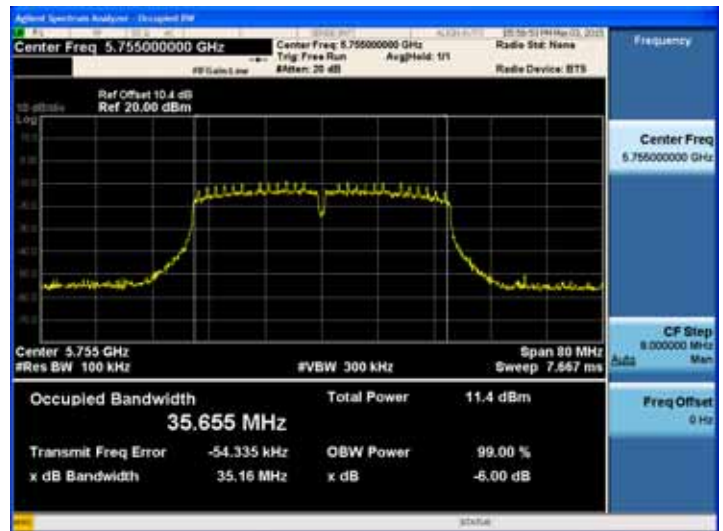
| 802.11ac(40MHz) Mode |             | Measured Bandwidth [MHz] | Minimum Bandwidth [MHz] | Pass / Fail |
|----------------------|-------------|--------------------------|-------------------------|-------------|
| Frequency [MHz]      | Channel No. |                          |                         |             |
| 5755                 | 151         | 35.16                    | 0.5                     | Pass        |
| 5795                 | 159         | 35.13                    | 0.5                     | Pass        |

### TEST Plot for 802.11n/ac\_40MHz BW

802.11n\_40 MHz BW UNII 3 BAND 6dB Bandwidth



802.11ac\_40 MHz BW UNII 3 BAND 6dB Bandwidth



#### Note :

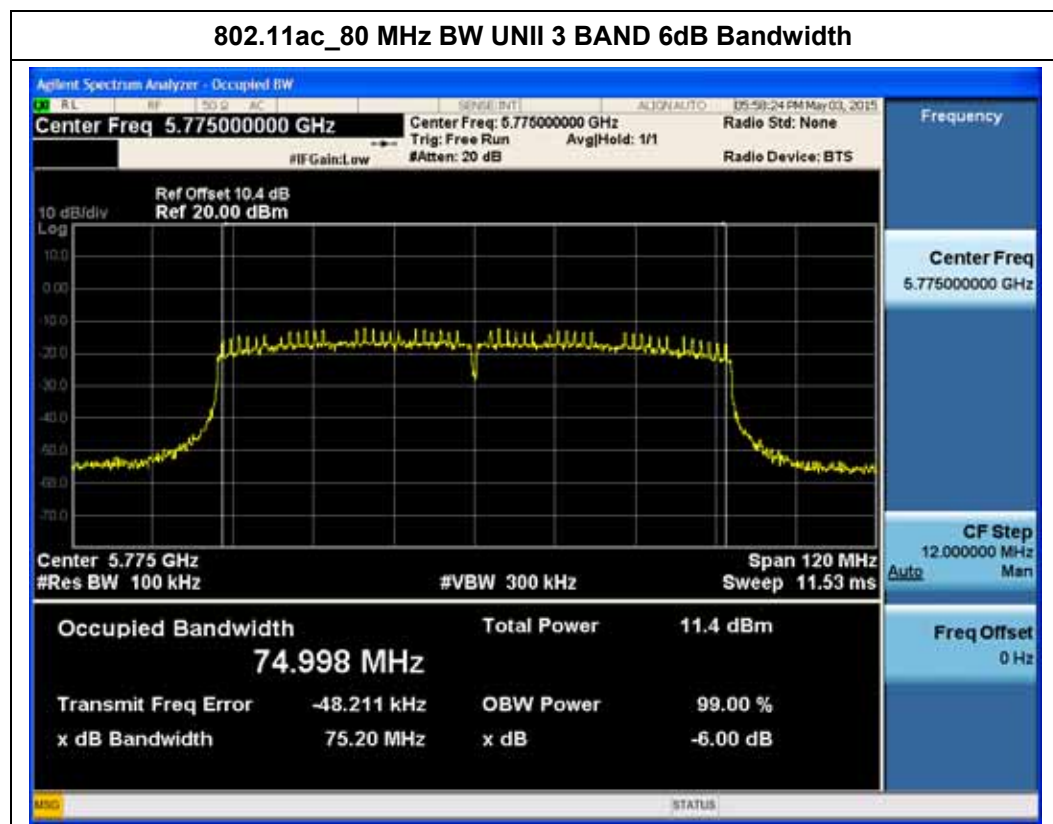
- In order to simplify the report, attached plots were only the most wide channel.

## TEST RESULTS for 802.11ac\_80MHz BW

Conducted 6 dB Bandwidth Measurements for 802.11ac\_80MHz BW

| 802.11ac(80MHz) Mode |             | Measured Bandwidth<br>[MHz] | Minimum Bandwidth<br>[MHz] | Pass / Fail |
|----------------------|-------------|-----------------------------|----------------------------|-------------|
| Frequency [MHz]      | Channel No. |                             |                            |             |
| 5775                 | 155         | 75.20                       | 0.5                        | Pass        |

## TEST Plot for 802.11ac\_80MHz BW



### Note :

- In order to simplify the report, attached plots were only the most wide channel.

### 8.3 OUTPUT POWER MEASUREMENT

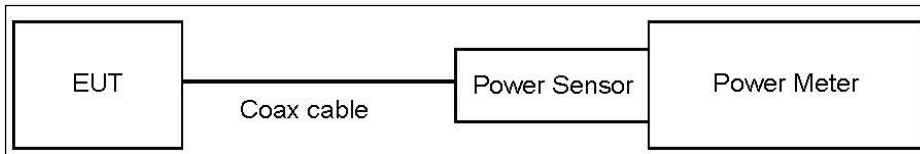
#### Test Requirements and limit, §15.407(a)(1)

A transmitter antenna terminal of EUT is connected to the input of a Power meter or Spectrum Analyzer .Measurement is made while the EUT is operating in transmission mode at the appropriate frequencies.

#### Limit

##### 1. Maximum Conducted Output Power :

| Band           | Mode         | Limit<br>(dBm) |
|----------------|--------------|----------------|
| UNII 1, 2A, 2C | 802.11a,n,ac | 23.98          |
| UNII 3         | 802.11a,n,ac | 30.00          |

**TEST CONFIGURATION(20 MHz BW)****TEST PROCEDURE(20 MHz BW)**

- Average Power (Procedure E.3.a in KDB 789033, issued 06/06/2014).
  1. Measure the duty cycle.
  2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
  3. Add  $10 \log (1/x)$ , where  $x$  is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

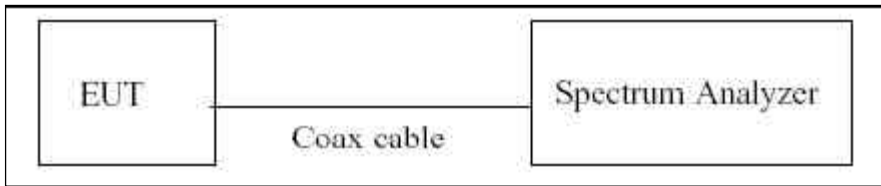
Note :

1. Actual value of loss for the attenuator and cable combination is below table.

| Band              | Loss(dB) |
|-------------------|----------|
| UNII 1, 2A, 2C, 3 | 10.4     |

(Actual value of loss for the attenuator and cable combination)

### TEST CONFIGURATION(40 MHz BW & 80 MHz BW)



### TEST PROCEDURE(40 MHz BW & 80 MHz BW)

#### ▪ Average Power

The transmitter output is connected to the Spectrum Analyzer. We use the spectrum analyzer's integrated band power measurement function. We tested according to Method SA-2 in KDB 789033(issued 06/06/2014).

The Spectrum Analyzer is set to

1. Measure the duty cycle.
2. Set span to encompass the 26 dB EBW of the signal.
3. RBW = 1 MHz.
4. VBW  $\geq$  3 MHz.
5. Number of points in sweep  $\geq 2 \times \text{span} / \text{RBW}$ .
6. Sweep time = auto.
7. Detector = RMS.
8. Do not use sweep triggering. Allow the sweep to "free run".
9. Trace average at least 100 traces in power averaging(RMS) mode
10. Integrated bandwidth = OBW
11. Add  $10\log(1/x)$ , where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

### Sample Calculation (Conducted)

Output Power = Reading Value + ATT loss + Cable loss(1 ea) + Duty Cycle Factor

### Sample Calculation (EIRP)

Output Power = Reading Value + ATT loss + Cable loss(1 ea) + Duty Cycle Factor + Ant gain

Note :

1. Spectrum reading values are not plot data. The power results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset = Attenuator loss + Cable loss
3. Actual value of loss for the attenuator and cable combination is below table.

| Band              | Loss(dB) |
|-------------------|----------|
| UNII 1, 2A, 2C, 3 | 10.4     |

(Actual value of loss for the attenuator and cable combination)

## 802.11a\_20MHz BW (UNII 1)

### TEST RESULTS

#### Conducted Output Power Measurements (802.11a\_20M BW Mode: 5180~5240)

| 802.11a(20MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|---------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]  | Channel<br>No. |                |                            |                              |                                                         |                |
| 5180                | 36             | 6              | 3.54                       | 0.325                        | 3.87                                                    | 23.98          |
|                     |                | 9              | 3.29                       | 0.463                        | 3.76                                                    | 23.98          |
|                     |                | 12             | 3.20                       | 0.584                        | 3.78                                                    | 23.98          |
|                     |                | 18             | 3.01                       | 0.774                        | 3.79                                                    | 23.98          |
|                     |                | 24             | 3.02                       | 1.017                        | 4.04                                                    | 23.98          |
|                     |                | 36             | 2.66                       | 1.534                        | 4.20                                                    | 23.98          |
|                     |                | 48             | 2.21                       | 1.717                        | 3.93                                                    | 23.98          |
|                     |                | 54             | 2.15                       | 1.872                        | 4.02                                                    | 23.98          |
| 5200                | 40             | 6              | 3.48                       | 0.325                        | 3.81                                                    | 23.98          |
|                     |                | 9              | 3.21                       | 0.463                        | 3.68                                                    | 23.98          |
|                     |                | 12             | 3.17                       | 0.584                        | 3.75                                                    | 23.98          |
|                     |                | 18             | 3.11                       | 0.774                        | 3.88                                                    | 23.98          |
|                     |                | 24             | 3.11                       | 1.017                        | 4.12                                                    | 23.98          |
|                     |                | 36             | 2.74                       | 1.534                        | 4.27                                                    | 23.98          |
|                     |                | 48             | 2.35                       | 1.717                        | 4.07                                                    | 23.98          |
|                     |                | 54             | 2.17                       | 1.872                        | 4.04                                                    | 23.98          |
| 5240                | 48             | 6              | 3.47                       | 0.325                        | 3.80                                                    | 23.98          |
|                     |                | 9              | 3.29                       | 0.463                        | 3.76                                                    | 23.98          |
|                     |                | 12             | 3.14                       | 0.584                        | 3.73                                                    | 23.98          |
|                     |                | 18             | 3.01                       | 0.774                        | 3.78                                                    | 23.98          |
|                     |                | 24             | 2.97                       | 1.017                        | 3.99                                                    | 23.98          |
|                     |                | 36             | 2.59                       | 1.534                        | 4.13                                                    | 23.98          |
|                     |                | 48             | 2.29                       | 1.717                        | 4.01                                                    | 23.98          |
|                     |                | 54             | 2.09                       | 1.872                        | 3.97                                                    | 23.98          |

# 802.11a \_20MHz BW (UNII 2A)

## TEST RESULTS

### Conducted Output Power Measurements (802.11a\_20M Mode: 5260~5320)

| 802.11a Mode       |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|--------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz] | Channel<br>No. |                |                            |                              |                                                         |                |
| 5260               | 52             | 6              | 3.49                       | 0.325                        | 3.81                                                    | 23.98          |
|                    |                | 9              | 3.26                       | 0.463                        | 3.72                                                    | 23.98          |
|                    |                | 12             | 3.30                       | 0.584                        | 3.88                                                    | 23.98          |
|                    |                | 18             | 3.04                       | 0.774                        | 3.82                                                    | 23.98          |
|                    |                | 24             | 3.01                       | 1.017                        | 4.02                                                    | 23.98          |
|                    |                | 36             | 2.56                       | 1.534                        | 4.09                                                    | 23.98          |
|                    |                | 48             | 2.34                       | 1.717                        | 4.06                                                    | 23.98          |
|                    |                | 54             | 2.27                       | 1.872                        | 4.14                                                    | 23.98          |
| 5300               | 60             | 6              | 3.61                       | 0.325                        | 3.93                                                    | 23.98          |
|                    |                | 9              | 3.39                       | 0.463                        | 3.85                                                    | 23.98          |
|                    |                | 12             | 3.35                       | 0.584                        | 3.93                                                    | 23.98          |
|                    |                | 18             | 3.18                       | 0.774                        | 3.96                                                    | 23.98          |
|                    |                | 24             | 3.18                       | 1.017                        | 4.20                                                    | 23.98          |
|                    |                | 36             | 2.71                       | 1.534                        | 4.24                                                    | 23.98          |
|                    |                | 48             | 2.44                       | 1.717                        | 4.16                                                    | 23.98          |
|                    |                | 54             | 2.27                       | 1.872                        | 4.14                                                    | 23.98          |
| 5320               | 64             | 6              | 3.42                       | 0.325                        | 3.74                                                    | 23.98          |
|                    |                | 9              | 3.41                       | 0.463                        | 3.88                                                    | 23.98          |
|                    |                | 12             | 3.23                       | 0.584                        | 3.82                                                    | 23.98          |
|                    |                | 18             | 2.99                       | 0.774                        | 3.77                                                    | 23.98          |
|                    |                | 24             | 2.98                       | 1.017                        | 3.99                                                    | 23.98          |
|                    |                | 36             | 2.56                       | 1.534                        | 4.09                                                    | 23.98          |
|                    |                | 48             | 2.26                       | 1.717                        | 3.98                                                    | 23.98          |
|                    |                | 54             | 2.15                       | 1.872                        | 4.02                                                    | 23.98          |

# 802.11a \_20MHz BW (UNII 2C)

## TEST RESULTS

### Conducted Output Power Measurements (802.11a\_20M Mode: 5500~5720)

| 802.11a Mode       |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|--------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz] | Channel<br>No. |                |                            |                              |                                                         |                |
| 5500               | 100            | 6              | 3.61                       | 0.325                        | 3.93                                                    | 23.98          |
|                    |                | 9              | 3.43                       | 0.463                        | 3.89                                                    | 23.98          |
|                    |                | 12             | 3.38                       | 0.584                        | 3.97                                                    | 23.98          |
|                    |                | 18             | 3.16                       | 0.774                        | 3.94                                                    | 23.98          |
|                    |                | 24             | 3.19                       | 1.017                        | 4.21                                                    | 23.98          |
|                    |                | 36             | 2.77                       | 1.534                        | 4.31                                                    | 23.98          |
|                    |                | 48             | 2.39                       | 1.717                        | 4.11                                                    | 23.98          |
|                    |                | 54             | 2.34                       | 1.872                        | 4.21                                                    | 23.98          |
| 5580               | 116            | 6              | 3.65                       | 0.325                        | 3.97                                                    | 23.98          |
|                    |                | 9              | 3.45                       | 0.463                        | 3.91                                                    | 23.98          |
|                    |                | 12             | 3.36                       | 0.584                        | 3.94                                                    | 23.98          |
|                    |                | 18             | 3.30                       | 0.774                        | 4.07                                                    | 23.98          |
|                    |                | 24             | 3.18                       | 1.017                        | 4.20                                                    | 23.98          |
|                    |                | 36             | 2.85                       | 1.534                        | 4.38                                                    | 23.98          |
|                    |                | 48             | 2.49                       | 1.717                        | 4.21                                                    | 23.98          |
|                    |                | 54             | 2.39                       | 1.872                        | 4.26                                                    | 23.98          |
| 5720               | 144            | 6              | 3.56                       | 0.325                        | 3.89                                                    | 23.98          |
|                    |                | 9              | 3.57                       | 0.463                        | 4.03                                                    | 23.98          |
|                    |                | 12             | 3.39                       | 0.584                        | 3.98                                                    | 23.98          |
|                    |                | 18             | 3.23                       | 0.774                        | 4.01                                                    | 23.98          |
|                    |                | 24             | 3.27                       | 1.017                        | 4.29                                                    | 23.98          |
|                    |                | 36             | 2.78                       | 1.534                        | 4.31                                                    | 23.98          |
|                    |                | 48             | 2.58                       | 1.717                        | 4.30                                                    | 23.98          |
|                    |                | 54             | 2.33                       | 1.872                        | 4.20                                                    | 23.98          |

# 802.11a \_20MHz BW (UNII 3)

## TEST RESULTS

### Conducted Output Power Measurements (802.11a\_20M BW Mode: 5745~5825)

| 802.11a (20MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5745                 | 149            | 6              | 3.49                       | 0.325                        | 3.82                                                    | 30             |
|                      |                | 9              | 3.34                       | 0.463                        | 3.80                                                    | 30             |
|                      |                | 12             | 3.25                       | 0.584                        | 3.83                                                    | 30             |
|                      |                | 18             | 3.07                       | 0.774                        | 3.84                                                    | 30             |
|                      |                | 24             | 3.06                       | 1.017                        | 4.08                                                    | 30             |
|                      |                | 36             | 2.66                       | 1.534                        | 4.19                                                    | 30             |
|                      |                | 48             | 2.33                       | 1.717                        | 4.05                                                    | 30             |
|                      |                | 54             | 2.18                       | 1.872                        | 4.05                                                    | 30             |
| 5785                 | 157            | 6              | 3.56                       | 0.325                        | 3.89                                                    | 30             |
|                      |                | 9              | 3.41                       | 0.463                        | 3.87                                                    | 30             |
|                      |                | 12             | 3.34                       | 0.584                        | 3.92                                                    | 30             |
|                      |                | 18             | 3.16                       | 0.774                        | 3.93                                                    | 30             |
|                      |                | 24             | 3.12                       | 1.017                        | 4.14                                                    | 30             |
|                      |                | 36             | 2.74                       | 1.534                        | 4.27                                                    | 30             |
|                      |                | 48             | 2.40                       | 1.717                        | 4.12                                                    | 30             |
|                      |                | 54             | 2.25                       | 1.872                        | 4.12                                                    | 30             |
| 5825                 | 165            | 6              | 3.32                       | 0.325                        | 3.65                                                    | 30             |
|                      |                | 9              | 3.17                       | 0.463                        | 3.63                                                    | 30             |
|                      |                | 12             | 3.09                       | 0.584                        | 3.67                                                    | 30             |
|                      |                | 18             | 2.90                       | 0.774                        | 3.67                                                    | 30             |
|                      |                | 24             | 2.86                       | 1.017                        | 3.88                                                    | 30             |
|                      |                | 36             | 2.47                       | 1.534                        | 4.00                                                    | 30             |
|                      |                | 48             | 2.16                       | 1.717                        | 3.88                                                    | 30             |
|                      |                | 54             | 2.00                       | 1.872                        | 3.87                                                    | 30             |

# 802.11n\_20MHz BW (UNII 1)

## TEST RESULTS

### Conducted Output Power Measurements (802.11n\_20M BW Mode: 5180~5240)

| 802.11n(20MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|---------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]  | Channel<br>No. |                |                            |                              |                                                         |                |
| 5180                | 36             | 6.5            | 3.25                       | 0.313                        | 3.56                                                    | 23.98          |
|                     |                | 13             | 3.02                       | 0.647                        | 3.67                                                    | 23.98          |
|                     |                | 19.5           | 2.83                       | 0.838                        | 3.67                                                    | 23.98          |
|                     |                | 26             | 3.01                       | 1.183                        | 4.19                                                    | 23.98          |
|                     |                | 39             | 2.64                       | 1.408                        | 4.05                                                    | 23.98          |
|                     |                | 52             | 2.32                       | 1.724                        | 4.04                                                    | 23.98          |
|                     |                | 58.5           | 2.22                       | 1.847                        | 4.07                                                    | 23.98          |
|                     |                | 65             | 2.05                       | 1.979                        | 4.03                                                    | 23.98          |
| 5200                | 40             | 6.5            | 3.00                       | 0.313                        | 3.31                                                    | 23.98          |
|                     |                | 13             | 2.78                       | 0.647                        | 3.43                                                    | 23.98          |
|                     |                | 19.5           | 2.58                       | 0.838                        | 3.42                                                    | 23.98          |
|                     |                | 26             | 2.75                       | 1.183                        | 3.93                                                    | 23.98          |
|                     |                | 39             | 2.40                       | 1.408                        | 3.81                                                    | 23.98          |
|                     |                | 52             | 2.08                       | 1.724                        | 3.80                                                    | 23.98          |
|                     |                | 58.5           | 1.97                       | 1.847                        | 3.82                                                    | 23.98          |
|                     |                | 65             | 1.83                       | 1.979                        | 3.81                                                    | 23.98          |
| 5240                | 48             | 6.5            | 2.80                       | 0.313                        | 3.11                                                    | 23.98          |
|                     |                | 13             | 2.59                       | 0.647                        | 3.24                                                    | 23.98          |
|                     |                | 19.5           | 2.40                       | 0.838                        | 3.24                                                    | 23.98          |
|                     |                | 26             | 2.59                       | 1.183                        | 3.77                                                    | 23.98          |
|                     |                | 39             | 2.23                       | 1.408                        | 3.64                                                    | 23.98          |
|                     |                | 52             | 1.89                       | 1.724                        | 3.61                                                    | 23.98          |
|                     |                | 58.5           | 1.78                       | 1.847                        | 3.63                                                    | 23.98          |
|                     |                | 65             | 1.63                       | 1.979                        | 3.61                                                    | 23.98          |

# 802.11n\_20MHz BW (UNII 2A)

## TEST RESULTS

### Conducted Output Power Measurements (802.11n\_20M BW Mode: 5260~5320)

| 802.11n(20MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|---------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]  | Channel<br>No. |                |                            |                              |                                                         |                |
| 5260                | 52             | 6.5            | 2.91                       | 0.313                        | 3.22                                                    | 23.98          |
|                     |                | 13             | 2.72                       | 0.647                        | 3.37                                                    | 23.98          |
|                     |                | 19.5           | 2.51                       | 0.838                        | 3.35                                                    | 23.98          |
|                     |                | 26             | 2.71                       | 1.183                        | 3.89                                                    | 23.98          |
|                     |                | 39             | 2.33                       | 1.408                        | 3.74                                                    | 23.98          |
|                     |                | 52             | 1.99                       | 1.724                        | 3.71                                                    | 23.98          |
|                     |                | 58.5           | 1.87                       | 1.847                        | 3.72                                                    | 23.98          |
|                     |                | 65             | 1.74                       | 1.979                        | 3.72                                                    | 23.98          |
| 5300                | 60             | 6.5            | 3.00                       | 0.313                        | 3.31                                                    | 23.98          |
|                     |                | 13             | 2.79                       | 0.647                        | 3.44                                                    | 23.98          |
|                     |                | 19.5           | 2.60                       | 0.838                        | 3.44                                                    | 23.98          |
|                     |                | 26             | 2.79                       | 1.183                        | 3.97                                                    | 23.98          |
|                     |                | 39             | 2.41                       | 1.408                        | 3.82                                                    | 23.98          |
|                     |                | 52             | 2.10                       | 1.724                        | 3.82                                                    | 23.98          |
|                     |                | 58.5           | 1.98                       | 1.847                        | 3.83                                                    | 23.98          |
|                     |                | 65             | 1.83                       | 1.979                        | 3.81                                                    | 23.98          |
| 5320                | 64             | 6.5            | 2.91                       | 0.313                        | 3.22                                                    | 23.98          |
|                     |                | 13             | 2.71                       | 0.647                        | 3.36                                                    | 23.98          |
|                     |                | 19.5           | 2.50                       | 0.838                        | 3.34                                                    | 23.98          |
|                     |                | 26             | 2.71                       | 1.183                        | 3.89                                                    | 23.98          |
|                     |                | 39             | 2.32                       | 1.408                        | 3.73                                                    | 23.98          |
|                     |                | 52             | 2.01                       | 1.724                        | 3.73                                                    | 23.98          |
|                     |                | 58.5           | 1.88                       | 1.847                        | 3.73                                                    | 23.98          |
|                     |                | 65             | 1.74                       | 1.979                        | 3.72                                                    | 23.98          |

## 802.11n\_20MHz BW (UNII 2C)

## TEST RESULTS

## Conducted Output Power Measurements (802.11n\_20M BW Mode: 5500~5720)

| 802.11n(20MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|---------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]  | Channel<br>No. |                |                            |                              |                                                         |                |
| 5500                | 100            | 6.5            | 3.03                       | 0.313                        | 3.34                                                    | 23.98          |
|                     |                | 13             | 2.83                       | 0.647                        | 3.48                                                    | 23.98          |
|                     |                | 19.5           | 2.63                       | 0.838                        | 3.47                                                    | 23.98          |
|                     |                | 26             | 2.83                       | 1.183                        | 4.01                                                    | 23.98          |
|                     |                | 39             | 2.45                       | 1.408                        | 3.86                                                    | 23.98          |
|                     |                | 52             | 2.12                       | 1.724                        | 3.84                                                    | 23.98          |
|                     |                | 58.5           | 2.00                       | 1.847                        | 3.85                                                    | 23.98          |
|                     |                | 65             | 1.86                       | 1.979                        | 3.84                                                    | 23.98          |
| 5580                | 116            | 6.5            | 3.15                       | 0.313                        | 3.46                                                    | 23.98          |
|                     |                | 13             | 2.94                       | 0.647                        | 3.59                                                    | 23.98          |
|                     |                | 19.5           | 2.75                       | 0.838                        | 3.59                                                    | 23.98          |
|                     |                | 26             | 2.92                       | 1.183                        | 4.10                                                    | 23.98          |
|                     |                | 39             | 2.56                       | 1.408                        | 3.97                                                    | 23.98          |
|                     |                | 52             | 2.25                       | 1.724                        | 3.97                                                    | 23.98          |
|                     |                | 58.5           | 2.13                       | 1.847                        | 3.98                                                    | 23.98          |
|                     |                | 65             | 1.98                       | 1.979                        | 3.96                                                    | 23.98          |
| 5720                | 144            | 6.5            | 3.18                       | 0.313                        | 3.49                                                    | 23.98          |
|                     |                | 13             | 2.97                       | 0.647                        | 3.62                                                    | 23.98          |
|                     |                | 19.5           | 2.77                       | 0.838                        | 3.61                                                    | 23.98          |
|                     |                | 26             | 3.08                       | 1.183                        | 4.26                                                    | 23.98          |
|                     |                | 39             | 2.70                       | 1.408                        | 4.11                                                    | 23.98          |
|                     |                | 52             | 2.36                       | 1.724                        | 4.08                                                    | 23.98          |
|                     |                | 58.5           | 2.22                       | 1.847                        | 4.07                                                    | 23.98          |
|                     |                | 65             | 2.08                       | 1.979                        | 4.06                                                    | 23.98          |

## 802.11n\_20MHz BW (UNII 3)

## TEST RESULTS

## Conducted Output Power Measurements (802.11n\_20M BW Mode: 5745~5825)

| 802.11n(20MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|---------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]  | Channel<br>No. |                |                            |                              |                                                         |                |
| 5745                | 149            | 6.5            | 3.09                       | 0.313                        | 3.40                                                    | 30             |
|                     |                | 13             | 2.87                       | 0.647                        | 3.52                                                    | 30             |
|                     |                | 19.5           | 2.68                       | 0.838                        | 3.52                                                    | 30             |
|                     |                | 26             | 2.85                       | 1.183                        | 4.03                                                    | 30             |
|                     |                | 39             | 2.50                       | 1.408                        | 3.91                                                    | 30             |
|                     |                | 52             | 2.17                       | 1.724                        | 3.89                                                    | 30             |
|                     |                | 58.5           | 2.05                       | 1.847                        | 3.90                                                    | 30             |
|                     |                | 65             | 1.91                       | 1.979                        | 3.89                                                    | 30             |
| 5785                | 157            | 6.5            | 3.19                       | 0.313                        | 3.50                                                    | 30             |
|                     |                | 13             | 2.98                       | 0.647                        | 3.63                                                    | 30             |
|                     |                | 19.5           | 2.78                       | 0.838                        | 3.62                                                    | 30             |
|                     |                | 26             | 2.96                       | 1.183                        | 4.14                                                    | 30             |
|                     |                | 39             | 2.59                       | 1.408                        | 4.00                                                    | 30             |
|                     |                | 52             | 2.27                       | 1.724                        | 3.99                                                    | 30             |
|                     |                | 58.5           | 2.17                       | 1.847                        | 4.02                                                    | 30             |
|                     |                | 65             | 2.03                       | 1.979                        | 4.01                                                    | 30             |
| 5825                | 165            | 6.5            | 2.95                       | 0.313                        | 3.26                                                    | 30             |
|                     |                | 13             | 2.76                       | 0.647                        | 3.41                                                    | 30             |
|                     |                | 19.5           | 2.54                       | 0.838                        | 3.38                                                    | 30             |
|                     |                | 26             | 2.74                       | 1.183                        | 3.92                                                    | 30             |
|                     |                | 39             | 2.37                       | 1.408                        | 3.78                                                    | 30             |
|                     |                | 52             | 2.05                       | 1.724                        | 3.77                                                    | 30             |
|                     |                | 58.5           | 1.95                       | 1.847                        | 3.80                                                    | 30             |
|                     |                | 65             | 1.80                       | 1.979                        | 3.78                                                    | 30             |

# 802.11ac \_20MHz BW (UNII 1)

## TEST RESULTS

### Conducted Output Power Measurements (802.11ac\_20M BW Mode: 5180~5240)

| 802.11ac(20MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5180                 | 36             | 6.5            | 3.01                       | 0.624                        | 3.63                                                    | 23.98          |
|                      |                | 13             | 2.64                       | 1.098                        | 3.74                                                    | 23.98          |
|                      |                | 19.5           | 2.33                       | 1.478                        | 3.81                                                    | 23.98          |
|                      |                | 26             | 2.40                       | 1.677                        | 4.08                                                    | 23.98          |
|                      |                | 39             | 1.98                       | 2.117                        | 4.10                                                    | 23.98          |
|                      |                | 52             | 1.63                       | 2.639                        | 4.27                                                    | 23.98          |
|                      |                | 58.5           | 1.50                       | 2.768                        | 4.27                                                    | 23.98          |
|                      |                | 65             | 1.37                       | 2.892                        | 4.26                                                    | 23.98          |
|                      |                | 78             | 1.15                       | 2.945                        | 4.09                                                    | 23.98          |
| 5200                 | 40             | 6.5            | 3.05                       | 0.624                        | 3.67                                                    | 23.98          |
|                      |                | 13             | 2.65                       | 1.098                        | 3.75                                                    | 23.98          |
|                      |                | 19.5           | 2.34                       | 1.478                        | 3.82                                                    | 23.98          |
|                      |                | 26             | 2.41                       | 1.677                        | 4.09                                                    | 23.98          |
|                      |                | 39             | 1.99                       | 2.117                        | 4.11                                                    | 23.98          |
|                      |                | 52             | 1.65                       | 2.639                        | 4.29                                                    | 23.98          |
|                      |                | 58.5           | 1.52                       | 2.768                        | 4.29                                                    | 23.98          |
|                      |                | 65             | 1.40                       | 2.892                        | 4.29                                                    | 23.98          |
|                      |                | 78             | 1.16                       | 2.945                        | 4.10                                                    | 23.98          |
| 5240                 | 48             | 6.5            | 2.87                       | 0.624                        | 3.49                                                    | 23.98          |
|                      |                | 13             | 2.49                       | 1.098                        | 3.59                                                    | 23.98          |
|                      |                | 19.5           | 2.18                       | 1.478                        | 3.66                                                    | 23.98          |
|                      |                | 26             | 2.24                       | 1.677                        | 3.92                                                    | 23.98          |
|                      |                | 39             | 1.83                       | 2.117                        | 3.95                                                    | 23.98          |
|                      |                | 52             | 1.48                       | 2.639                        | 4.12                                                    | 23.98          |
|                      |                | 58.5           | 1.34                       | 2.768                        | 4.11                                                    | 23.98          |
|                      |                | 65             | 1.20                       | 2.892                        | 4.09                                                    | 23.98          |
|                      |                | 78             | 0.98                       | 2.945                        | 3.92                                                    | 23.98          |

# 802.11ac \_20MHz BW (UNII 2A)

## TEST RESULTS

### Conducted Output Power Measurements (802.11ac\_20M BW Mode: 5260~5320)

| 802.11ac(20MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5260                 | 52             | 6.5            | 2.97                       | 0.624                        | 3.59                                                    | 23.98          |
|                      |                | 13             | 2.58                       | 1.098                        | 3.68                                                    | 23.98          |
|                      |                | 19.5           | 2.27                       | 1.478                        | 3.75                                                    | 23.98          |
|                      |                | 26             | 2.36                       | 1.677                        | 4.04                                                    | 23.98          |
|                      |                | 39             | 1.93                       | 2.117                        | 4.05                                                    | 23.98          |
|                      |                | 52             | 1.60                       | 2.639                        | 4.24                                                    | 23.98          |
|                      |                | 58.5           | 1.47                       | 2.768                        | 4.24                                                    | 23.98          |
|                      |                | 65             | 1.34                       | 2.892                        | 4.23                                                    | 23.98          |
|                      |                | 78             | 1.11                       | 2.945                        | 4.05                                                    | 23.98          |
| 5300                 | 60             | 6.5            | 3.05                       | 0.624                        | 3.67                                                    | 23.98          |
|                      |                | 13             | 2.67                       | 1.098                        | 3.77                                                    | 23.98          |
|                      |                | 19.5           | 2.36                       | 1.478                        | 3.84                                                    | 23.98          |
|                      |                | 26             | 2.45                       | 1.677                        | 4.13                                                    | 23.98          |
|                      |                | 39             | 2.02                       | 2.117                        | 4.14                                                    | 23.98          |
|                      |                | 52             | 1.68                       | 2.639                        | 4.32                                                    | 23.98          |
|                      |                | 58.5           | 1.52                       | 2.768                        | 4.29                                                    | 23.98          |
|                      |                | 65             | 1.39                       | 2.892                        | 4.28                                                    | 23.98          |
|                      |                | 78             | 1.18                       | 2.945                        | 4.12                                                    | 23.98          |
| 5320                 | 64             | 6.5            | 2.92                       | 0.624                        | 3.54                                                    | 23.98          |
|                      |                | 13             | 2.53                       | 1.098                        | 3.63                                                    | 23.98          |
|                      |                | 19.5           | 2.23                       | 1.478                        | 3.71                                                    | 23.98          |
|                      |                | 26             | 2.31                       | 1.677                        | 3.99                                                    | 23.98          |
|                      |                | 39             | 1.89                       | 2.117                        | 4.01                                                    | 23.98          |
|                      |                | 52             | 1.55                       | 2.639                        | 4.19                                                    | 23.98          |
|                      |                | 58.5           | 1.40                       | 2.768                        | 4.17                                                    | 23.98          |
|                      |                | 65             | 1.28                       | 2.892                        | 4.17                                                    | 23.98          |
|                      |                | 78             | 1.06                       | 2.945                        | 4.00                                                    | 23.98          |

# 802.11ac \_20MHz BW (UNII 2C)

## TEST RESULTS

### Conducted Output Power Measurements (802.11ac\_20M BW Mode: 5500~5720)

| 802.11ac(20MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5500                 | 100            | 6.5            | 3.05                       | 0.624                        | 3.67                                                    | 23.98          |
|                      |                | 13             | 2.67                       | 1.098                        | 3.77                                                    | 23.98          |
|                      |                | 19.5           | 2.36                       | 1.478                        | 3.84                                                    | 23.98          |
|                      |                | 26             | 2.43                       | 1.677                        | 4.11                                                    | 23.98          |
|                      |                | 39             | 2.00                       | 2.117                        | 4.12                                                    | 23.98          |
|                      |                | 52             | 1.66                       | 2.639                        | 4.30                                                    | 23.98          |
|                      |                | 58.5           | 1.53                       | 2.768                        | 4.30                                                    | 23.98          |
|                      |                | 65             | 1.40                       | 2.892                        | 4.29                                                    | 23.98          |
|                      |                | 78             | 1.18                       | 2.945                        | 4.12                                                    | 23.98          |
| 5580                 | 116            | 6.5            | 3.15                       | 0.624                        | 3.77                                                    | 23.98          |
|                      |                | 13             | 2.78                       | 1.098                        | 3.88                                                    | 23.98          |
|                      |                | 19.5           | 2.47                       | 1.478                        | 3.95                                                    | 23.98          |
|                      |                | 26             | 2.54                       | 1.677                        | 4.22                                                    | 23.98          |
|                      |                | 39             | 2.12                       | 2.117                        | 4.24                                                    | 23.98          |
|                      |                | 52             | 1.78                       | 2.639                        | 4.42                                                    | 23.98          |
|                      |                | 58.5           | 1.64                       | 2.768                        | 4.41                                                    | 23.98          |
|                      |                | 65             | 1.51                       | 2.892                        | 4.40                                                    | 23.98          |
|                      |                | 78             | 1.29                       | 2.945                        | 4.23                                                    | 23.98          |
| 5720                 | 144            | 6.5            | 3.16                       | 0.624                        | 3.78                                                    | 23.98          |
|                      |                | 13             | 2.78                       | 1.098                        | 3.88                                                    | 23.98          |
|                      |                | 19.5           | 2.47                       | 1.478                        | 3.95                                                    | 23.98          |
|                      |                | 26             | 2.55                       | 1.677                        | 4.23                                                    | 23.98          |
|                      |                | 39             | 2.13                       | 2.117                        | 4.25                                                    | 23.98          |
|                      |                | 52             | 1.77                       | 2.639                        | 4.41                                                    | 23.98          |
|                      |                | 58.5           | 1.64                       | 2.768                        | 4.41                                                    | 23.98          |
|                      |                | 65             | 1.50                       | 2.892                        | 4.39                                                    | 23.98          |
|                      |                | 78             | 1.29                       | 2.945                        | 4.23                                                    | 23.98          |

## 802.11ac \_20MHz BW (UNII 3)

## TEST RESULTS

## Conducted Output Power Measurements (802.11ac\_20M BW Mode: 5745~5825)

| 802.11ac(20MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5745                 | 149            | 6.5            | 2.96                       | 0.624                        | 3.58                                                    | 30             |
|                      |                | 13             | 2.54                       | 1.098                        | 3.64                                                    | 30             |
|                      |                | 19.5           | 2.29                       | 1.478                        | 3.77                                                    | 30             |
|                      |                | 26             | 2.35                       | 1.677                        | 4.03                                                    | 30             |
|                      |                | 39             | 1.92                       | 2.117                        | 4.04                                                    | 30             |
|                      |                | 52             | 1.58                       | 2.639                        | 4.22                                                    | 30             |
|                      |                | 58.5           | 1.43                       | 2.768                        | 4.20                                                    | 30             |
|                      |                | 65             | 1.30                       | 2.892                        | 4.19                                                    | 30             |
|                      |                | 78             | 1.08                       | 2.945                        | 4.02                                                    | 30             |
| 5785                 | 157            | 6.5            | 3.02                       | 0.624                        | 3.64                                                    | 30             |
|                      |                | 13             | 2.64                       | 1.098                        | 3.74                                                    | 30             |
|                      |                | 19.5           | 2.34                       | 1.478                        | 3.82                                                    | 30             |
|                      |                | 26             | 2.41                       | 1.677                        | 4.09                                                    | 30             |
|                      |                | 39             | 1.99                       | 2.117                        | 4.11                                                    | 30             |
|                      |                | 52             | 1.65                       | 2.639                        | 4.29                                                    | 30             |
|                      |                | 58.5           | 1.50                       | 2.768                        | 4.27                                                    | 30             |
|                      |                | 65             | 1.37                       | 2.892                        | 4.26                                                    | 30             |
|                      |                | 78             | 1.13                       | 2.945                        | 4.07                                                    | 30             |
| 5825                 | 165            | 6.5            | 2.79                       | 0.624                        | 3.41                                                    | 30             |
|                      |                | 13             | 2.40                       | 1.098                        | 3.50                                                    | 30             |
|                      |                | 19.5           | 2.10                       | 1.478                        | 3.58                                                    | 30             |
|                      |                | 26             | 2.16                       | 1.677                        | 3.84                                                    | 30             |
|                      |                | 39             | 1.76                       | 2.117                        | 3.88                                                    | 30             |
|                      |                | 52             | 1.40                       | 2.639                        | 4.04                                                    | 30             |
|                      |                | 58.5           | 1.27                       | 2.768                        | 4.04                                                    | 30             |
|                      |                | 65             | 1.12                       | 2.892                        | 4.01                                                    | 30             |
|                      |                | 78             | 0.89                       | 2.945                        | 3.83                                                    | 30             |

# 802.11n \_40MHz BW (UNII 1)

## TEST RESULTS

### Conducted Output Power Measurements (802.11n\_40M BW Mode: 5190~5230)

| 802.11n(40MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|---------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]  | Channel<br>No. |                |                            |                              |                                                         |                |
| 5190                | 38             | 13.5           | 4.09                       | 0.587                        | 4.67                                                    | 23.98          |
|                     |                | 27             | 3.63                       | 1.079                        | 4.71                                                    | 23.98          |
|                     |                | 40.5           | 3.22                       | 1.416                        | 4.64                                                    | 23.98          |
|                     |                | 54             | 2.90                       | 1.746                        | 4.64                                                    | 23.98          |
|                     |                | 81             | 2.43                       | 2.237                        | 4.66                                                    | 23.98          |
|                     |                | 108            | 2.01                       | 2.656                        | 4.67                                                    | 23.98          |
|                     |                | 121.5          | 1.89                       | 2.762                        | 4.65                                                    | 23.98          |
|                     |                | 135            | 1.78                       | 2.966                        | 4.74                                                    | 23.98          |
| 5230                | 46             | 13.5           | 4.01                       | 0.587                        | 4.60                                                    | 23.98          |
|                     |                | 27             | 3.48                       | 1.079                        | 4.56                                                    | 23.98          |
|                     |                | 40.5           | 3.08                       | 1.416                        | 4.50                                                    | 23.98          |
|                     |                | 54             | 2.80                       | 1.746                        | 4.54                                                    | 23.98          |
|                     |                | 81             | 2.26                       | 2.237                        | 4.50                                                    | 23.98          |
|                     |                | 108            | 1.88                       | 2.656                        | 4.54                                                    | 23.98          |
|                     |                | 121.5          | 1.76                       | 2.762                        | 4.53                                                    | 23.98          |
|                     |                | 135            | 1.55                       | 2.966                        | 4.51                                                    | 23.98          |

# 802.11n\_40MHz BW (UNII 2A)

## TEST RESULTS

### Conducted Output Power Measurements (802.11n\_40M BW Mode: 5270~5310)

| 802.11n(40MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|---------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]  | Channel<br>No. |                |                            |                              |                                                         |                |
| 5270                | 54             | 13.5           | 3.77                       | 0.587                        | 4.35                                                    | 23.98          |
|                     |                | 27             | 3.31                       | 1.079                        | 4.39                                                    | 23.98          |
|                     |                | 40.5           | 2.93                       | 1.416                        | 4.35                                                    | 23.98          |
|                     |                | 54             | 2.68                       | 1.746                        | 4.42                                                    | 23.98          |
|                     |                | 81             | 2.13                       | 2.237                        | 4.37                                                    | 23.98          |
|                     |                | 108            | 1.74                       | 2.656                        | 4.39                                                    | 23.98          |
|                     |                | 121.5          | 1.60                       | 2.762                        | 4.36                                                    | 23.98          |
|                     |                | 135            | 1.41                       | 2.966                        | 4.38                                                    | 23.98          |
| 5310                | 62             | 13.5           | 3.60                       | 0.587                        | 4.18                                                    | 23.98          |
|                     |                | 27             | 3.06                       | 1.079                        | 4.14                                                    | 23.98          |
|                     |                | 40.5           | 2.68                       | 1.416                        | 4.10                                                    | 23.98          |
|                     |                | 54             | 2.31                       | 1.746                        | 4.05                                                    | 23.98          |
|                     |                | 81             | 1.90                       | 2.237                        | 4.13                                                    | 23.98          |
|                     |                | 108            | 1.48                       | 2.656                        | 4.14                                                    | 23.98          |
|                     |                | 121.5          | 1.33                       | 2.762                        | 4.10                                                    | 23.98          |
|                     |                | 135            | 1.18                       | 2.966                        | 4.15                                                    | 23.98          |

# 802.11n \_40MHz BW (UNII 2C)

## TEST RESULTS

### Conducted Output Power Measurements (802.11n\_40M BW Mode: 5510~5710)

| 802.11n(40MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|---------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]  | Channel<br>No. |                |                            |                              |                                                         |                |
| 5510                | 102            | 13.5           | 2.73                       | 0.587                        | 3.32                                                    | 23.98          |
|                     |                | 27             | 2.34                       | 1.079                        | 3.42                                                    | 23.98          |
|                     |                | 40.5           | 1.95                       | 1.416                        | 3.37                                                    | 23.98          |
|                     |                | 54             | 1.61                       | 1.746                        | 3.36                                                    | 23.98          |
|                     |                | 81             | 1.16                       | 2.237                        | 3.40                                                    | 23.98          |
|                     |                | 108            | 0.73                       | 2.656                        | 3.39                                                    | 23.98          |
|                     |                | 121.5          | 0.58                       | 2.762                        | 3.34                                                    | 23.98          |
|                     |                | 135            | 0.44                       | 2.966                        | 3.41                                                    | 23.98          |
| 5550                | 110            | 13.5           | 3.09                       | 0.587                        | 3.68                                                    | 23.98          |
|                     |                | 27             | 2.62                       | 1.079                        | 3.69                                                    | 23.98          |
|                     |                | 40.5           | 2.22                       | 1.416                        | 3.63                                                    | 23.98          |
|                     |                | 54             | 1.94                       | 1.746                        | 3.68                                                    | 23.98          |
|                     |                | 81             | 1.44                       | 2.237                        | 3.67                                                    | 23.98          |
|                     |                | 108            | 1.03                       | 2.656                        | 3.68                                                    | 23.98          |
|                     |                | 121.5          | 0.87                       | 2.762                        | 3.63                                                    | 23.98          |
|                     |                | 135            | 0.72                       | 2.966                        | 3.69                                                    | 23.98          |
| 5710                | 142            | 13.5           | 3.37                       | 0.587                        | 3.96                                                    | 23.98          |
|                     |                | 27             | 2.89                       | 1.079                        | 3.97                                                    | 23.98          |
|                     |                | 40.5           | 2.54                       | 1.416                        | 3.96                                                    | 23.98          |
|                     |                | 54             | 2.27                       | 1.746                        | 4.02                                                    | 23.98          |
|                     |                | 81             | 1.73                       | 2.237                        | 3.97                                                    | 23.98          |
|                     |                | 108            | 1.30                       | 2.656                        | 3.96                                                    | 23.98          |
|                     |                | 121.5          | 1.23                       | 2.762                        | 3.99                                                    | 23.98          |
|                     |                | 135            | 1.03                       | 2.966                        | 4.00                                                    | 23.98          |

# 802.11n\_40MHz BW (UNII 3)

## TEST RESULTS

### Conducted Output Power Measurements (802.11n\_40M BW Mode: 5755~5795)

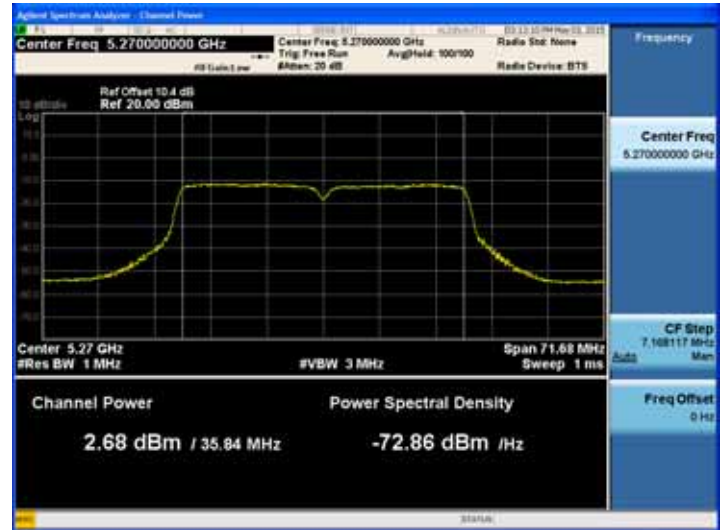
| 802.11n(40MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|---------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]  | Channel<br>No. |                |                            |                              |                                                         |                |
| 5755                | 151            | 13.5           | 3.42                       | 0.587                        | 4.01                                                    | 30             |
|                     |                | 27             | 2.95                       | 1.079                        | 4.03                                                    | 30             |
|                     |                | 40.5           | 2.58                       | 1.416                        | 4.00                                                    | 30             |
|                     |                | 54             | 2.24                       | 1.746                        | 3.98                                                    | 30             |
|                     |                | 81             | 1.75                       | 2.237                        | 3.98                                                    | 30             |
|                     |                | 108            | 1.37                       | 2.656                        | 4.02                                                    | 30             |
|                     |                | 121.5          | 1.24                       | 2.762                        | 4.00                                                    | 30             |
|                     |                | 135            | 1.11                       | 2.966                        | 4.08                                                    | 30             |
| 5795                | 159            | 13.5           | 3.17                       | 0.587                        | 3.76                                                    | 30             |
|                     |                | 27             | 2.82                       | 1.079                        | 3.89                                                    | 30             |
|                     |                | 40.5           | 2.37                       | 1.416                        | 3.79                                                    | 30             |
|                     |                | 54             | 2.13                       | 1.746                        | 3.87                                                    | 30             |
|                     |                | 81             | 1.60                       | 2.237                        | 3.83                                                    | 30             |
|                     |                | 108            | 1.14                       | 2.656                        | 3.79                                                    | 30             |
|                     |                | 121.5          | 1.04                       | 2.762                        | 3.80                                                    | 30             |
|                     |                | 135            | 0.89                       | 2.966                        | 3.86                                                    | 30             |

# TEST Plot for 802.11n\_40MHz BW

## 802.11n\_40 MHz BW UNII 1 BAND Average Power (5190 MHz ~5230 MHz) CH 38 135 Mbps



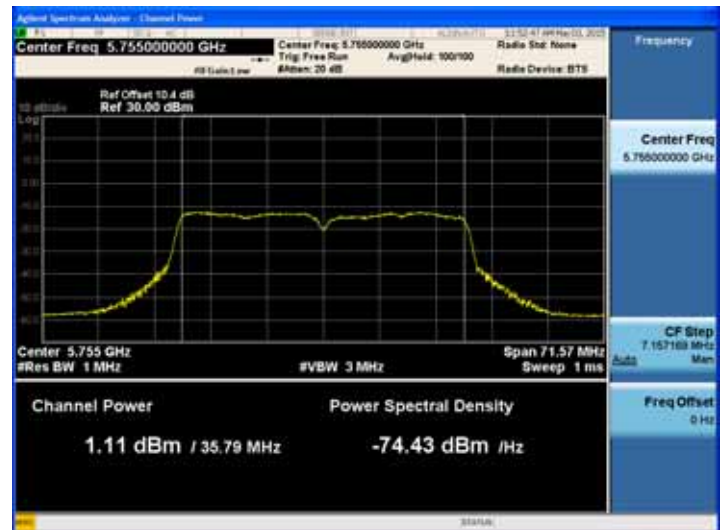
## 802.11n\_40 MHz BW UNII 2A BAND Average Power (5270 MHz ~5310 MHz) CH 54 54 Mbps



## 802.11n\_40 MHz BW UNII 2C BAND Average Power (5510 MHz ~5710 MHz) CH 142 54 Mbps



## 802.11n\_40 MHz BW UNII 3 BAND Average Power (5755 MHz ~5795 MHz) CH 151 135 Mbps



# 802.11ac\_40 MHz BW (UNII 1)

## TEST RESULTS

### Conducted Output Power Measurements (802.11ac\_40M BW Mode: 5190~5230)

| 802.11ac(40MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5190                 | 38             | 13.5           | 2.97                       | 1.048                        | 4.02                                                    | 23.98          |
|                      |                | 27             | 2.29                       | 1.704                        | 3.99                                                    | 23.98          |
|                      |                | 40.5           | 1.85                       | 2.172                        | 4.02                                                    | 23.98          |
|                      |                | 54             | 1.53                       | 2.545                        | 4.07                                                    | 23.98          |
|                      |                | 81             | 1.10                       | 2.988                        | 4.09                                                    | 23.98          |
|                      |                | 108            | 0.73                       | 3.334                        | 4.06                                                    | 23.98          |
|                      |                | 121.5          | 0.60                       | 3.449                        | 4.05                                                    | 23.98          |
|                      |                | 135            | 0.47                       | 3.630                        | 4.10                                                    | 23.98          |
|                      |                | 162            | 0.33                       | 3.706                        | 4.04                                                    | 23.98          |
|                      |                | 180            | 0.18                       | 3.914                        | 4.09                                                    | 23.98          |
| 5230                 | 46             | 13.5           | 2.86                       | 1.048                        | 3.91                                                    | 23.98          |
|                      |                | 27             | 2.18                       | 1.704                        | 3.88                                                    | 23.98          |
|                      |                | 40.5           | 1.74                       | 2.172                        | 3.91                                                    | 23.98          |
|                      |                | 54             | 1.42                       | 2.545                        | 3.96                                                    | 23.98          |
|                      |                | 81             | 1.00                       | 2.988                        | 3.99                                                    | 23.98          |
|                      |                | 108            | 0.63                       | 3.334                        | 3.96                                                    | 23.98          |
|                      |                | 121.5          | 0.49                       | 3.449                        | 3.94                                                    | 23.98          |
|                      |                | 135            | 0.38                       | 3.630                        | 4.01                                                    | 23.98          |
|                      |                | 162            | 0.24                       | 3.706                        | 3.95                                                    | 23.98          |
|                      |                | 180            | 0.10                       | 3.914                        | 4.01                                                    | 23.98          |

# 802.11ac \_40MHz BW (UNII 2A)

## TEST RESULTS

### Conducted Output Power Measurements (802.11ac\_40M BW Mode: 5270~5310)

| 802.11ac(40MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5270                 | 54             | 13.5           | 2.88                       | 1.048                        | 3.93                                                    | 23.98          |
|                      |                | 27             | 2.20                       | 1.704                        | 3.90                                                    | 23.98          |
|                      |                | 40.5           | 1.75                       | 2.172                        | 3.92                                                    | 23.98          |
|                      |                | 54             | 1.00                       | 2.545                        | 3.54                                                    | 23.98          |
|                      |                | 81             | 1.02                       | 2.988                        | 4.01                                                    | 23.98          |
|                      |                | 108            | 0.65                       | 3.334                        | 3.98                                                    | 23.98          |
|                      |                | 121.5          | 0.51                       | 3.449                        | 3.96                                                    | 23.98          |
|                      |                | 135            | 0.39                       | 3.630                        | 4.02                                                    | 23.98          |
|                      |                | 162            | 0.26                       | 3.706                        | 3.97                                                    | 23.98          |
|                      |                | 180            | 0.11                       | 3.914                        | 4.02                                                    | 23.98          |
| 5310                 | 62             | 13.5           | 2.96                       | 1.048                        | 4.01                                                    | 23.98          |
|                      |                | 27             | 2.27                       | 1.704                        | 3.97                                                    | 23.98          |
|                      |                | 40.5           | 1.83                       | 2.172                        | 4.00                                                    | 23.98          |
|                      |                | 54             | 1.52                       | 2.545                        | 4.06                                                    | 23.98          |
|                      |                | 81             | 1.10                       | 2.988                        | 4.09                                                    | 23.98          |
|                      |                | 108            | 0.72                       | 3.334                        | 4.05                                                    | 23.98          |
|                      |                | 121.5          | 0.60                       | 3.449                        | 4.05                                                    | 23.98          |
|                      |                | 135            | 0.46                       | 3.630                        | 4.09                                                    | 23.98          |
|                      |                | 162            | 0.33                       | 3.706                        | 4.04                                                    | 23.98          |
|                      |                | 180            | 0.19                       | 3.914                        | 4.10                                                    | 23.98          |

# 802.11ac \_40MHz BW (UNII 2C)

## TEST RESULTS

### Conducted Output Power Measurements (802.11ac\_40M BW Mode: 5510~5710)

| 802.11ac(40MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5510                 | 102            | 13.5           | 3.01                       | 1.048                        | 4.06                                                    | 23.98          |
|                      |                | 27             | 2.32                       | 1.704                        | 4.02                                                    | 23.98          |
|                      |                | 40.5           | 1.87                       | 2.172                        | 4.04                                                    | 23.98          |
|                      |                | 54             | 1.56                       | 2.545                        | 4.10                                                    | 23.98          |
|                      |                | 81             | 1.12                       | 2.988                        | 4.11                                                    | 23.98          |
|                      |                | 108            | 0.76                       | 3.334                        | 4.09                                                    | 23.98          |
|                      |                | 121.5          | 0.61                       | 3.449                        | 4.06                                                    | 23.98          |
|                      |                | 135            | 0.48                       | 3.630                        | 4.11                                                    | 23.98          |
|                      |                | 162            | 0.35                       | 3.706                        | 4.06                                                    | 23.98          |
|                      |                | 180            | 0.20                       | 3.914                        | 4.11                                                    | 23.98          |
| 5550                 | 110            | 13.5           | 2.90                       | 1.048                        | 3.95                                                    | 23.98          |
|                      |                | 27             | 2.20                       | 1.704                        | 3.90                                                    | 23.98          |
|                      |                | 40.5           | 1.75                       | 2.172                        | 3.92                                                    | 23.98          |
|                      |                | 54             | 1.44                       | 2.545                        | 3.98                                                    | 23.98          |
|                      |                | 81             | 1.01                       | 2.988                        | 4.00                                                    | 23.98          |
|                      |                | 108            | 0.64                       | 3.334                        | 3.97                                                    | 23.98          |
|                      |                | 121.5          | 0.48                       | 3.449                        | 3.93                                                    | 23.98          |
|                      |                | 135            | 0.36                       | 3.630                        | 3.99                                                    | 23.98          |
|                      |                | 162            | 0.24                       | 3.706                        | 3.95                                                    | 23.98          |
|                      |                | 180            | 0.08                       | 3.914                        | 3.99                                                    | 23.98          |
| 5710                 | 142            | 13.5           | 3.10                       | 1.048                        | 4.15                                                    | 23.98          |
|                      |                | 27             | 2.42                       | 1.704                        | 4.12                                                    | 23.98          |
|                      |                | 40.5           | 1.95                       | 2.172                        | 4.12                                                    | 23.98          |
|                      |                | 54             | 1.65                       | 2.545                        | 4.19                                                    | 23.98          |
|                      |                | 81             | 1.23                       | 2.988                        | 4.22                                                    | 23.98          |
|                      |                | 108            | 0.85                       | 3.334                        | 4.18                                                    | 23.98          |
|                      |                | 121.5          | 0.72                       | 3.449                        | 4.17                                                    | 23.98          |
|                      |                | 135            | 0.58                       | 3.630                        | 4.21                                                    | 23.98          |
|                      |                | 162            | 0.45                       | 3.706                        | 4.16                                                    | 23.98          |
|                      |                | 180            | 0.30                       | 3.914                        | 4.21                                                    | 23.98          |

# 802.11ac\_40MHz BW (UNII 3)

## TEST RESULTS

### Conducted Output Power Measurements (802.11ac\_40M BW Mode: 5755~5795)

| 802.11ac(40MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5755                 | 151            | 13.5           | 2.96                       | 1.048                        | 4.01                                                    | 30             |
|                      |                | 27             | 2.33                       | 1.704                        | 4.03                                                    | 30             |
|                      |                | 40.5           | 1.81                       | 2.172                        | 3.99                                                    | 30             |
|                      |                | 54             | 1.46                       | 2.545                        | 4.01                                                    | 30             |
|                      |                | 81             | 1.06                       | 2.988                        | 4.05                                                    | 30             |
|                      |                | 108            | 0.70                       | 3.334                        | 4.03                                                    | 30             |
|                      |                | 121.5          | 0.55                       | 3.449                        | 4.00                                                    | 30             |
|                      |                | 135            | 0.44                       | 3.630                        | 4.07                                                    | 30             |
|                      |                | 162            | 0.28                       | 3.706                        | 3.99                                                    | 30             |
|                      |                | 180            | 0.11                       | 3.914                        | 4.03                                                    | 30             |
| 5795                 | 159            | 13.5           | 2.83                       | 1.048                        | 3.87                                                    | 30             |
|                      |                | 27             | 2.17                       | 1.704                        | 3.88                                                    | 30             |
|                      |                | 40.5           | 1.76                       | 2.172                        | 3.93                                                    | 30             |
|                      |                | 54             | 1.29                       | 2.545                        | 3.84                                                    | 30             |
|                      |                | 81             | 0.96                       | 2.988                        | 3.95                                                    | 30             |
|                      |                | 108            | 0.57                       | 3.334                        | 3.90                                                    | 30             |
|                      |                | 121.5          | 0.43                       | 3.449                        | 3.88                                                    | 30             |
|                      |                | 135            | 0.26                       | 3.630                        | 3.89                                                    | 30             |
|                      |                | 162            | 0.15                       | 3.706                        | 3.86                                                    | 30             |
|                      |                | 180            | 0.04                       | 3.914                        | 3.95                                                    | 30             |

# TEST Plot for 802.11ac\_40MHz BW

802.11ac\_40 MHz BW UNII 1 BAND Average Power  
(5190 ~ 5230 MHz) CH 38 135 Mbps



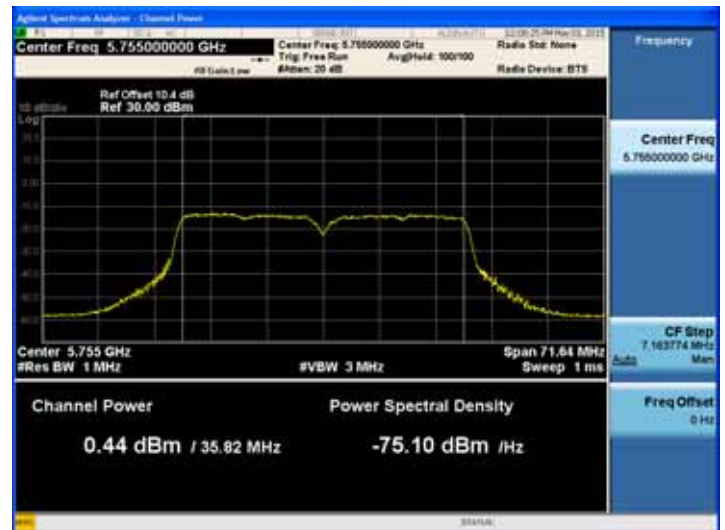
802.11ac\_40 MHz BW UNII 2A BAND Average Power  
(5270 ~ 5310 MHz) CH 62 180 Mbps



802.11ac\_40 MHz BW UNII 2C BAND Average Power  
(5510 ~ 5710 MHz) CH 142 81 Mbps



802.11ac\_40 MHz BW UNII 3 BAND Average Power  
(5755 ~ 5795 MHz) CH 151 135 Mbps



## 802.11ac\_80 MHz BW(UNII 1)

### TEST RESULTS

#### Conducted Output Power Measurements (802.11ac\_80M BW Mode: 5210)

| 802.11ac(80MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5210                 | 42             | 29.3           | 1.97                       | 1.932                        | 3.90                                                    | 23.98          |
|                      |                | 58.5           | 1.21                       | 2.593                        | 3.80                                                    | 23.98          |
|                      |                | 87.8           | 0.81                       | 3.078                        | 3.89                                                    | 23.98          |
|                      |                | 117            | 0.61                       | 3.386                        | 4.00                                                    | 23.98          |
|                      |                | 175.5          | 0.24                       | 3.706                        | 3.95                                                    | 23.98          |
|                      |                | 234            | -0.03                      | 4.033                        | 4.00                                                    | 23.98          |
|                      |                | 263.3          | -0.03                      | 4.006                        | 3.98                                                    | 23.98          |
|                      |                | 292.5          | -0.20                      | 4.177                        | 3.98                                                    | 23.98          |
|                      |                | 351            | -0.18                      | 4.223                        | 4.04                                                    | 23.98          |
|                      |                | 390            | -0.39                      | 4.365                        | 3.98                                                    | 23.98          |

## 802.11ac\_80MHz BW (UNII 2A)

### TEST RESULTS

#### Conducted Output Power Measurements (802.11ac\_80M BW Mode: 5290)

| 802.11ac (80MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|-----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]    | Channel<br>No. |                |                            |                              |                                                         |                |
| 5290                  | 58             | 29.3           | 1.98                       | 1.932                        | 3.91                                                    | 23.98          |
|                       |                | 58.5           | 1.21                       | 2.593                        | 3.80                                                    | 23.98          |
|                       |                | 87.8           | 0.80                       | 3.078                        | 3.88                                                    | 23.98          |
|                       |                | 117            | 0.61                       | 3.386                        | 4.00                                                    | 23.98          |
|                       |                | 175.5          | 0.26                       | 3.706                        | 3.97                                                    | 23.98          |
|                       |                | 234            | -0.02                      | 4.033                        | 4.01                                                    | 23.98          |
|                       |                | 263.3          | -0.02                      | 4.006                        | 3.99                                                    | 23.98          |
|                       |                | 292.5          | -0.19                      | 4.177                        | 3.99                                                    | 23.98          |
|                       |                | 351            | -0.17                      | 4.223                        | 4.05                                                    | 23.98          |
|                       |                | 390            | -0.38                      | 4.365                        | 3.99                                                    | 23.98          |

# 802.11ac\_80MHz BW (UNII 2C)

## TEST RESULTS

### Conducted Output Power Measurements (802.11ac\_80M BW Mode: 5530~5690)

| 802.11ac(80MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5530                 | 106            | 29.3           | 1.96                       | 1.932                        | 3.89                                                    | 23.98          |
|                      |                | 58.5           | 1.18                       | 2.593                        | 3.77                                                    | 23.98          |
|                      |                | 87.8           | 0.78                       | 3.078                        | 3.86                                                    | 23.98          |
|                      |                | 117            | 0.58                       | 3.386                        | 3.97                                                    | 23.98          |
|                      |                | 175.5          | 0.20                       | 3.706                        | 3.91                                                    | 23.98          |
|                      |                | 234            | -0.08                      | 4.033                        | 3.95                                                    | 23.98          |
|                      |                | 263.3          | -0.06                      | 4.006                        | 3.95                                                    | 23.98          |
|                      |                | 292.5          | -0.41                      | 4.177                        | 3.77                                                    | 23.98          |
|                      |                | 351            | -0.22                      | 4.223                        | 4.00                                                    | 23.98          |
|                      |                | 390            | -0.42                      | 4.365                        | 3.95                                                    | 23.98          |
| 5690                 | 138            | 29.3           | 2.21                       | 1.932                        | 4.14                                                    | 23.98          |
|                      |                | 58.5           | 1.38                       | 2.593                        | 3.97                                                    | 23.98          |
|                      |                | 87.8           | 0.97                       | 3.078                        | 4.05                                                    | 23.98          |
|                      |                | 117            | 0.79                       | 3.386                        | 4.18                                                    | 23.98          |
|                      |                | 175.5          | 0.39                       | 3.706                        | 4.10                                                    | 23.98          |
|                      |                | 234            | 0.15                       | 4.033                        | 4.18                                                    | 23.98          |
|                      |                | 263.3          | 0.15                       | 4.006                        | 4.16                                                    | 23.98          |
|                      |                | 292.5          | -0.01                      | 4.177                        | 4.17                                                    | 23.98          |
|                      |                | 351            | 0.05                       | 4.223                        | 4.27                                                    | 23.98          |
|                      |                | 390            | -0.21                      | 4.365                        | 4.16                                                    | 23.98          |

# 802.11ac \_80MHz BW (UNII 3)

## TEST RESULTS

### Conducted Output Power Measurements (802.11ac\_80M BW Mode: 5775)

| 802.11ac(80MHz) Mode |                | Rate<br>(Mbps) | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power(dBm)<br>+<br>Duty Cycle<br>Factor(dB) | Limit<br>(dBm) |
|----------------------|----------------|----------------|----------------------------|------------------------------|---------------------------------------------------------|----------------|
| Frequency<br>[MHz]   | Channel<br>No. |                |                            |                              |                                                         |                |
| 5775                 | 155            | 29.3           | 2.38                       | 1.932                        | 4.31                                                    | 30             |
|                      |                | 58.5           | 1.59                       | 2.593                        | 4.19                                                    | 30             |
|                      |                | 87.8           | 1.15                       | 3.078                        | 4.23                                                    | 30             |
|                      |                | 117            | 0.95                       | 3.386                        | 4.34                                                    | 30             |
|                      |                | 175.5          | 0.59                       | 3.706                        | 4.30                                                    | 30             |
|                      |                | 234            | 0.35                       | 4.033                        | 4.38                                                    | 30             |
|                      |                | 263.3          | 0.35                       | 4.006                        | 4.36                                                    | 30             |
|                      |                | 292.5          | 0.17                       | 4.177                        | 4.35                                                    | 30             |
|                      |                | 351            | 0.17                       | 4.223                        | 4.40                                                    | 30             |
|                      |                | 930            | -0.08                      | 4.365                        | 4.28                                                    | 30             |

# TEST Plot for 802.11ac\_80MHz BW

802.11ac\_80 MHz BW UNII 1 BAND Average Power  
(5210 MHz) CH 42 351 Mbps



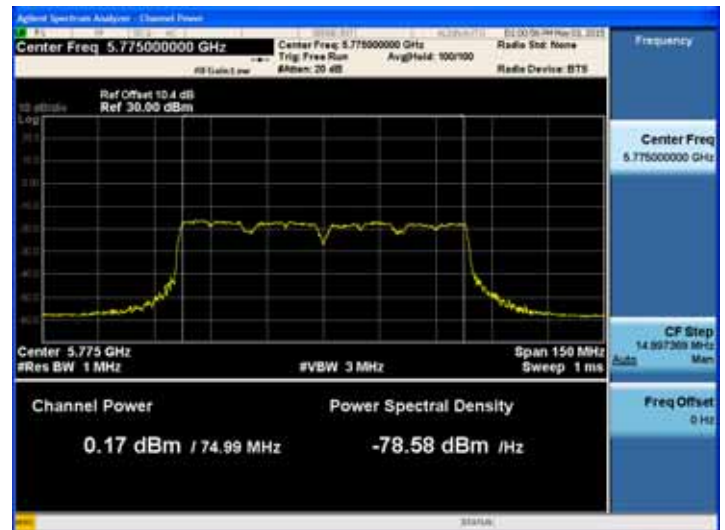
802.11ac\_80 MHz BW UNII 2A BAND Average Power  
(5290 MHz) CH 58 351 Mbps



802.11ac\_80 MHz BW UNII 2C BAND Average Power  
(5530 MHz ~ 5690 MHz) CH 138 351 Mbps



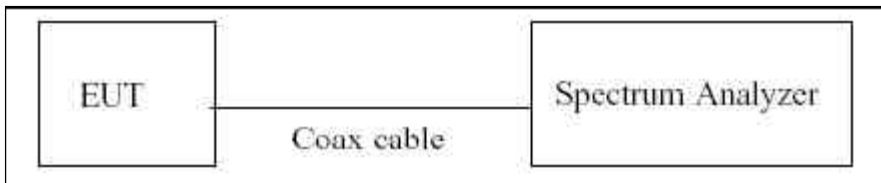
802.11ac\_80 MHz BW UNII 3 BAND Average Power  
(5775 MHz) CH 155 351 Mbps



## 8.4 POWER SPECTRAL DENSITY

The peak power density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies. The maximum permissible peak power spectral density is 11 dBm/ MHz for UNII 1,2A, 2C and 30 dBm/500 kHz for UNII 3.

### TEST CONFIGURATION



### TEST PROCEDURE

We tested according to Method in KDB 789033(issued 06/06/2014).

The spectrum analyzer is set to :

1. Set span to encompass the entire emission bandwidth(EBW) of the signal.
2. RBW = 1 MHz(510 kHz for UNII 3)
3. VBW  $\geq$  3 MHz
4. Number of points in sweep  $\geq 2 \times \text{span} / \text{RBW}$ .
5. Sweep time = auto.
6. Detector = RMS(i.e., power averaging), if available. Otherwise, use sample detector mode.
7. Do not use sweep triggering. Allow the sweep to "free run".
8. Trace average at least 100 traces in power averaging(RMS) mode
9. Use the peak search function on the spectrum analyzer to find the peak of the spectrum.
10. If Method SA-2 was used, add  $10 \log(1/x)$ , where x is the duty cycle, to the peak of the spectrum.

### Sample Calculation

PSD = Reading Value + ATT loss + Cable loss(1 ea) + Duty Cycle Factor

Output Power = -5 dBm + 10 dB + 0.8 dB + 0.21 dB = 16.01 dBm

Note :

1. Spectrum reading values are not plot data. The PSD results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset = Attenuator loss + Cable loss
3. We apply to the offset in the 5.2 GHz, 5.3 GHz and 5.6 GHz range that was rounded off to the closest tenth dB. Actual value of loss for the attenuator and cable combination is below table.

| Band               | Loss(dB) |
|--------------------|----------|
| UNII 1, 2A , 2C, 3 | 10.4     |

(Actual value of loss for the attenuator and cable combination)

# 802.11a\_20MHz BW

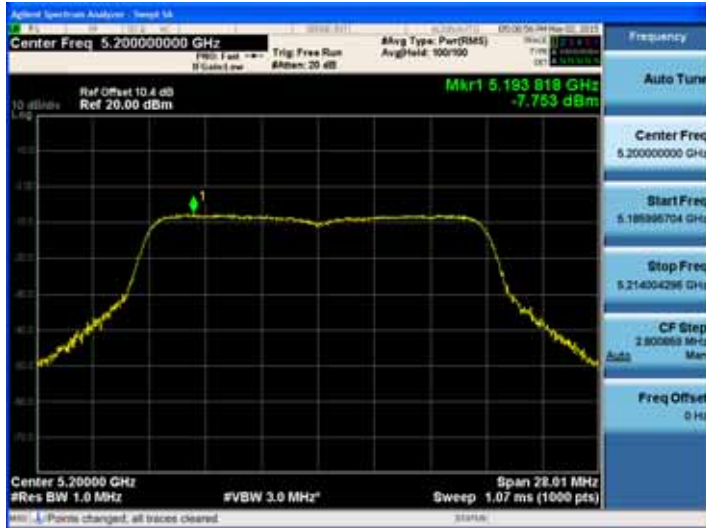
## TEST RESULTS

### Conducted Power Density Measurements

| Frequency<br>(MHz) | Channel<br>No. | Mode    | Test Result                           |                              |                                                                |                |           |
|--------------------|----------------|---------|---------------------------------------|------------------------------|----------------------------------------------------------------|----------------|-----------|
|                    |                |         | Measured<br>Power<br>Density<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power<br>Density(dBm)<br>+<br>Duty Cycle<br>Factor | Limit<br>(dBm) | Pass/Fail |
| 5180               | 36             | 802.11a | -7.819                                | 1.53366                      | -6.285                                                         | 11             | Pass      |
| 5200               | 40             |         | -7.753                                | 1.53366                      | -6.219                                                         | 11             | Pass      |
| 5240               | 48             |         | -7.940                                | 1.53366                      | -6.406                                                         | 11             | Pass      |
| 5260               | 52             |         | -8.126                                | 1.87207                      | -6.254                                                         | 11             | Pass      |
| 5300               | 60             |         | -8.070                                | 1.53366                      | -6.536                                                         | 11             | Pass      |
| 5320               | 64             |         | -8.417                                | 1.53366                      | -6.883                                                         | 11             | Pass      |
| 5500               | 100            |         | -8.480                                | 1.53366                      | -6.946                                                         | 11             | Pass      |
| 5580               | 116            |         | -7.821                                | 1.53366                      | -6.287                                                         | 11             | Pass      |
| 5720               | 144            |         | -7.830                                | 1.53366                      | -6.296                                                         | 11             | Pass      |
| 5745               | 149            |         | -1.128                                | 1.534                        | 0.406                                                          | 30             | Pass      |
| 5785               | 157            |         | -1.419                                | 1.534                        | 0.115                                                          | 30             | Pass      |
| 5825               | 165            |         | -1.626                                | 1.534                        | -0.092                                                         | 30             | Pass      |

## TEST Plot for 802.11a 20MHz BW

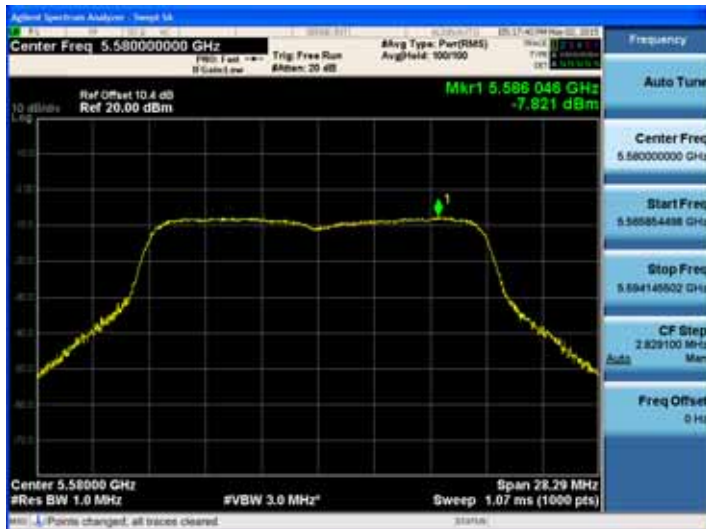
802.11a\_20MHz BW UNII 1 BAND PSD CH 40



802.11a\_20MHz BW UNII 2A BAND PSD CH 52



802.11a\_20MHz BW UNII 2C BAND PSD CH 116



802.11a\_20MHz BW UNII 3 BAND PSD CH 149



# 802.11n\_20MHz BW

## TEST RESULTS

### Conducted Power Density Measurements

| Frequency<br>(MHz) | Channel<br>No. | Mode                 | Test Result                           |                              |                                                                |                |           |
|--------------------|----------------|----------------------|---------------------------------------|------------------------------|----------------------------------------------------------------|----------------|-----------|
|                    |                |                      | Measured<br>Power<br>Density<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power<br>Density(dBm)<br>+<br>Duty Cycle<br>Factor | Limit<br>(dBm) | Pass/Fail |
| 5180               | 36             | 802.11n<br>20M<br>BW | -7.336                                | 1.18327                      | -6.153                                                         | 11             | Pass      |
| 5200               | 40             |                      | -7.354                                | 1.18327                      | -6.171                                                         | 11             | Pass      |
| 5240               | 48             |                      | -7.470                                | 1.18327                      | -6.287                                                         | 11             | Pass      |
| 5260               | 52             |                      | -7.758                                | 1.18327                      | -6.575                                                         | 11             | Pass      |
| 5300               | 60             |                      | -7.686                                | 1.18327                      | -6.503                                                         | 11             | Pass      |
| 5320               | 64             |                      | -8.428                                | 1.18327                      | -7.245                                                         | 11             | Pass      |
| 5500               | 100            |                      | -8.620                                | 1.18327                      | -7.437                                                         | 11             | Pass      |
| 5580               | 116            |                      | -7.731                                | 1.18327                      | -6.548                                                         | 11             | Pass      |
| 5720               | 144            |                      | -7.732                                | 1.18327                      | -6.549                                                         | 11             | Pass      |
| 5745               | 149            |                      | -0.930                                | 1.183                        | 0.253                                                          | 30             | Pass      |
| 5785               | 157            |                      | -1.254                                | 1.183                        | -0.071                                                         | 30             | Pass      |
| 5825               | 165            |                      | -2.129                                | 1.183                        | -0.946                                                         | 30             | Pass      |

**TEST Plot for 802.11n 20MHz BW**

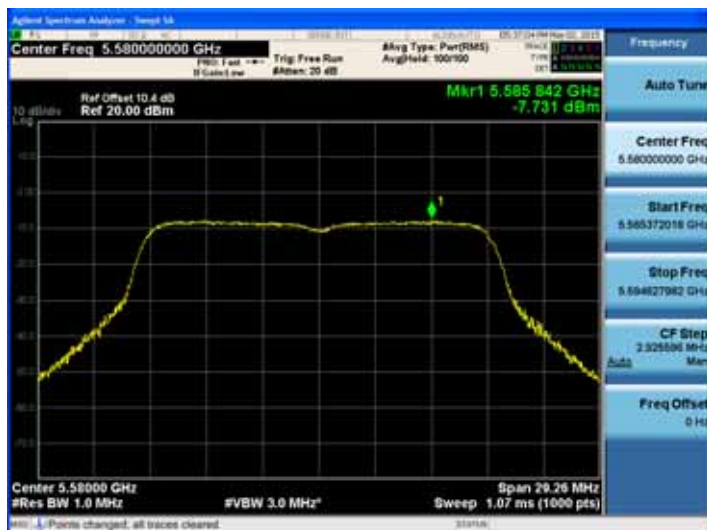
**802.11n\_20MHz BW UNII 1 BAND PSD CH 36**



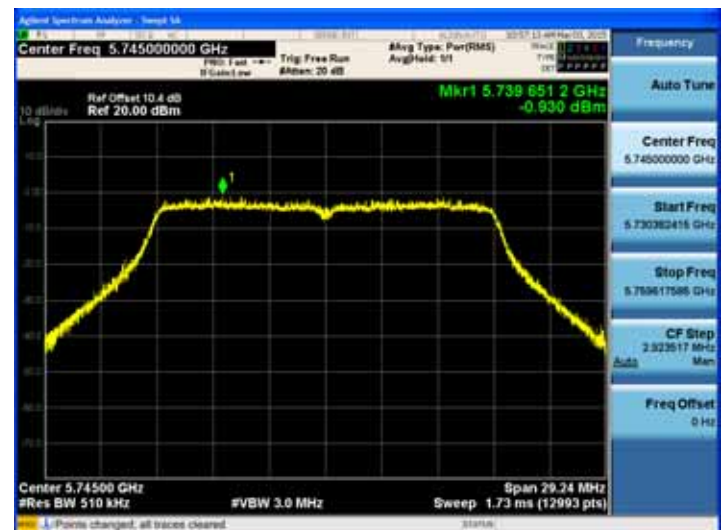
**802.11n\_20MHz BW UNII 2A BAND PSD CH 60**



**802.11n\_20MHz BW UNII 2C BAND PSD CH 116**



**802.11n\_20MHz BW UNII 3 BAND PSD CH 149**



# 802.11ac\_20MHz BW

## TEST RESULTS

### Conducted Power Density Measurements

| Frequency<br>(MHz) | Channel<br>No. | Mode                     | Test Result                           |                              |                                                                |                |           |
|--------------------|----------------|--------------------------|---------------------------------------|------------------------------|----------------------------------------------------------------|----------------|-----------|
|                    |                |                          | Measured<br>Power<br>Density<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power<br>Density(dBm)<br>+<br>Duty Cycle<br>Factor | Limit<br>(dBm) | Pass/Fail |
| 5180               | 36             | 802.11ac<br>_20MHz<br>BW | -8.821                                | 2.63858                      | -6.182                                                         | 11             | Pass      |
| 5200               | 40             |                          | -8.418                                | 2.89238                      | -5.526                                                         |                | Pass      |
| 5240               | 48             |                          | -8.774                                | 2.63858                      | -6.135                                                         |                | Pass      |
| 5260               | 52             |                          | -8.977                                | 2.63858                      | -6.338                                                         | 11             | Pass      |
| 5300               | 60             |                          | -8.759                                | 2.63858                      | -6.120                                                         |                | Pass      |
| 5320               | 64             |                          | -9.477                                | 2.63858                      | -6.838                                                         |                | Pass      |
| 5500               | 100            |                          | -9.648                                | 2.63858                      | -7.009                                                         | 11             | Pass      |
| 5580               | 116            |                          | -8.986                                | 2.63858                      | -6.347                                                         |                | Pass      |
| 5720               | 144            |                          | -8.993                                | 2.63858                      | -6.354                                                         |                | Pass      |
| 5745               | 149            |                          | -0.476                                | 2.639                        | 2.163                                                          | 30             | Pass      |
| 5785               | 157            |                          | -1.352                                | 2.639                        | 1.287                                                          |                | Pass      |
| 5825               | 165            |                          | -1.960                                | 2.639                        | 0.679                                                          |                | Pass      |

**TEST Plot for 802.11ac 20MHz BW**

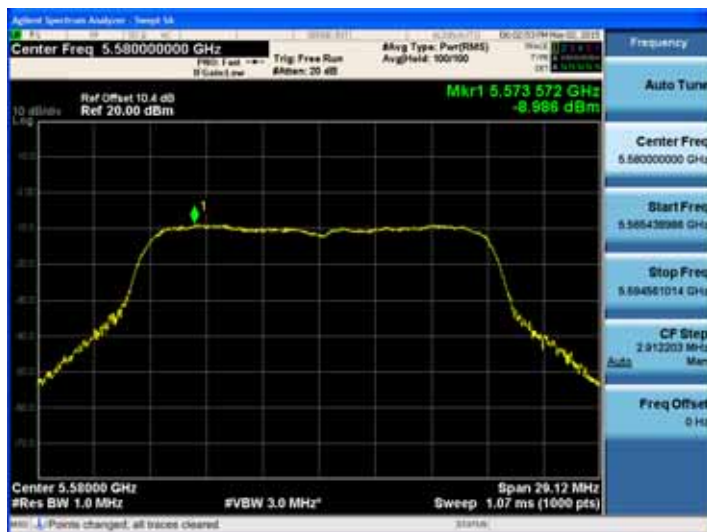
**802.11ac\_20MHz BW UNII 1 BAND PSD CH 40**



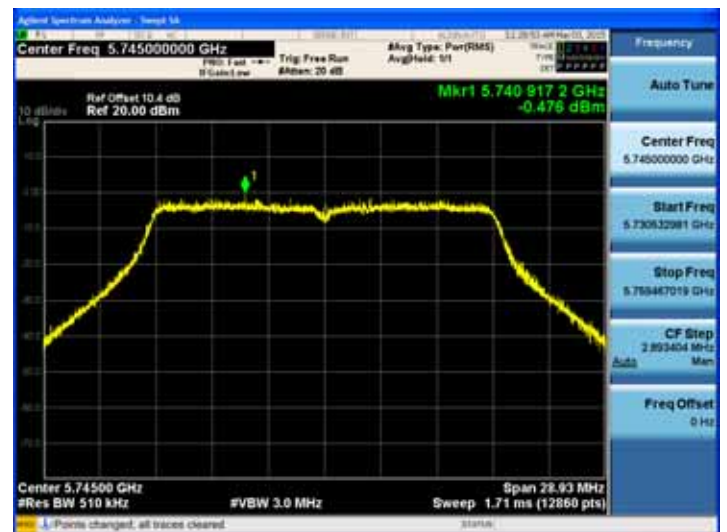
**802.11ac\_20MHz BW UNII 2A BAND PSD CH 60**



**802.11ac\_20MHz BW UNII 2C BAND PSD CH 116**



**802.11ac\_20MHz BW UNII 3 BAND PSD CH 149**



# 802.11n\_40MHz BW

## TEST RESULTS

### Conducted Power Density Measurements

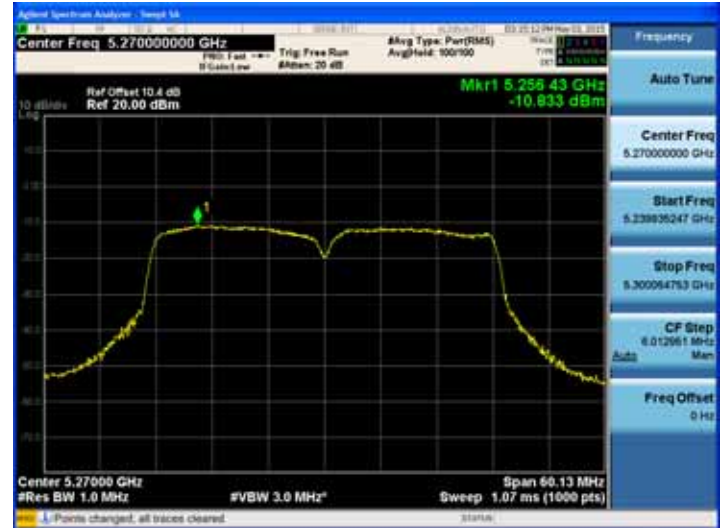
| Frequency<br>(MHz) | Channel<br>No. | Mode                   | Test Result                           |                              |                                                                |                |           |
|--------------------|----------------|------------------------|---------------------------------------|------------------------------|----------------------------------------------------------------|----------------|-----------|
|                    |                |                        | Measured<br>Power<br>Density<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power<br>Density(dBm)<br>+<br>Duty Cycle<br>Factor | Limit<br>(dBm) | Pass/Fail |
| 5190               | 38             | 802.11n<br>40MHz<br>BW | -11.904                               | 2.96621                      | -8.938                                                         | 11             | Pass      |
| 5230               | 46             |                        | -9.696                                | 0.58728                      | -9.109                                                         |                | Pass      |
| 5270               | 54             |                        | -10.833                               | 1.74612                      | -9.087                                                         | 11             | Pass      |
| 5310               | 62             |                        | -10.356                               | 0.58728                      | -9.769                                                         |                | Pass      |
| 5510               | 102            |                        | -11.507                               | 1.07905                      | -10.428                                                        | 11             | Pass      |
| 5550               | 110            |                        | -11.273                               | 1.07905                      | -10.194                                                        |                | Pass      |
| 5710               | 142            |                        | -11.319                               | 0.58728                      | -10.732                                                        |                | Pass      |
| 5755               | 151            |                        | -4.577                                | 2.966                        | -1.611                                                         | 30             | Pass      |
| 5795               | 159            |                        | -4.162                                | 1.183                        | -2.979                                                         |                | Pass      |

# TEST Plot for 802.11n 40MHz BW

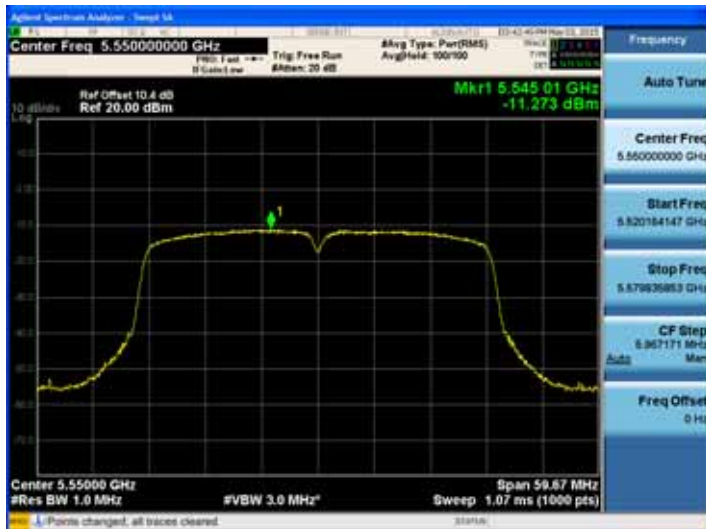
802.11n\_40MHz BW UNII 1 BAND PSD CH 38



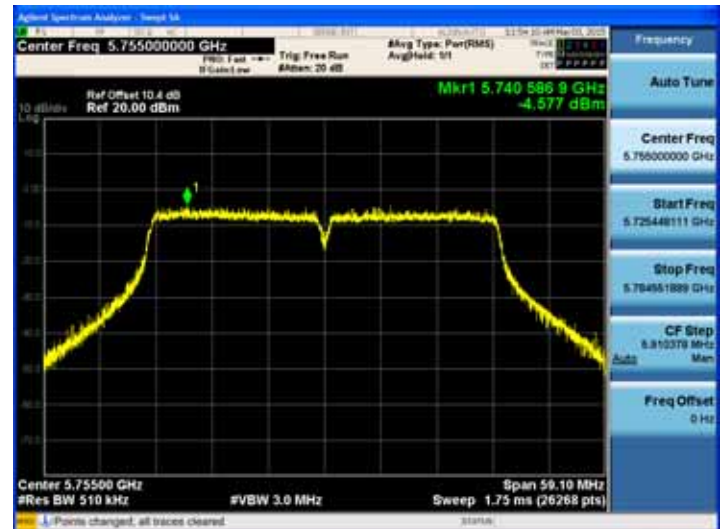
802.11n\_40MHz BW UNII 2A BAND PSD CH 54



802.11n\_40MHz BW UNII 2C BAND PSD CH 110



802.11n\_40MHz BW UNII 3 BAND PSD CH 151



# 802.11ac\_40MHz BW

## TEST RESULTS

### Conducted Power Density Measurements

| Frequency<br>(MHz) | Channel<br>No. | Mode                    | Test Result                           |                              |                                                                |                |           |
|--------------------|----------------|-------------------------|---------------------------------------|------------------------------|----------------------------------------------------------------|----------------|-----------|
|                    |                |                         | Measured<br>Power<br>Density<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power<br>Density(dBm)<br>+<br>Duty Cycle<br>Factor | Limit<br>(dBm) | Pass/Fail |
| 5190               | 38             | 802.11ac<br>40MHz<br>BW | -12.796                               | 3.91409                      | -8.882                                                         | 11             | Pass      |
| 5230               | 46             |                         | -13.502                               | 3.33399                      | -10.168                                                        |                | Pass      |
| 5270               | 54             |                         | -13.292                               | 3.33399                      | -9.958                                                         | 11             | Pass      |
| 5310               | 62             |                         | -13.734                               | 3.91409                      | -9.820                                                         |                | Pass      |
| 5510               | 102            |                         | -14.535                               | 3.91409                      | -10.621                                                        | 11             | Pass      |
| 5550               | 110            |                         | -14.521                               | 3.91409                      | -10.607                                                        |                | Pass      |
| 5710               | 142            |                         | -13.881                               | 3.91409                      | -9.967                                                         |                | Pass      |
| 5755               | 151            |                         | -4.430                                | 3.630                        | -0.800                                                         | 30             | Pass      |
| 5795               | 159            |                         | -3.378                                | 3.914                        | 0.536                                                          |                | Pass      |

# TEST Plot for 802.11ac\_40MHz BW

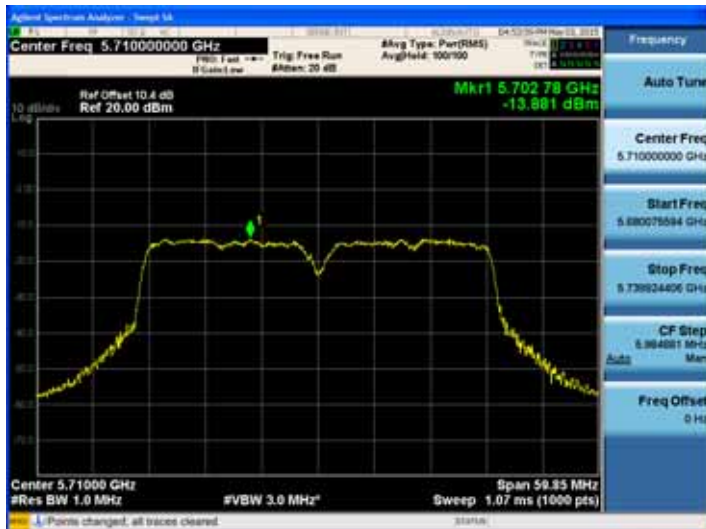
802.11ac\_40MHz BW UNII 1 BAND PSD CH 38



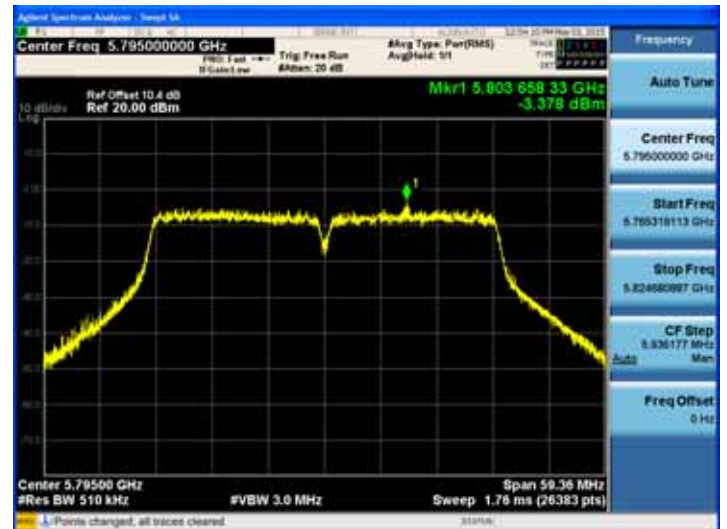
802.11ac\_40MHz BW UNII 2A BAND PSD CH 62



802.11ac\_40MHz BW UNII 2C BAND PSD CH 142



802.11ac\_40MHz BW UNII 3 BAND PSD CH 159



# 802.11ac\_80MHz BW

## TEST RESULTS

### Conducted Power Density Measurements

| Frequency<br>(MHz) | Channel<br>No. | Mode                    | Test Result                           |                              |                                                                |                |           |
|--------------------|----------------|-------------------------|---------------------------------------|------------------------------|----------------------------------------------------------------|----------------|-----------|
|                    |                |                         | Measured<br>Power<br>Density<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured<br>Power<br>Density(dBm)<br>+<br>Duty Cycle<br>Factor | Limit<br>(dBm) | Pass/Fail |
| 5210               | 42             | 802.11ac<br>80MHz<br>BW | -16.103                               | 4.22273                      | -11.880                                                        | 11             | Pass      |
| 5290               | 58             |                         | -16.837                               | 4.22273                      | -12.614                                                        | 11             | Pass      |
| 5530               | 106            |                         | -17.829                               | 4.03335                      | -13.796                                                        | 11             | Pass      |
| 5690               | 138            |                         | -16.308                               | 3.386                        | -12.922                                                        | 11             | Pass      |
| 5775               | 155            |                         | -7.978                                | 4.223                        | -3.755                                                         | 30             | Pass      |

# TEST Plot for 802.11ac\_80MHz BW

802.11ac\_80MHz BW UNII 1 BAND PSD CH 42



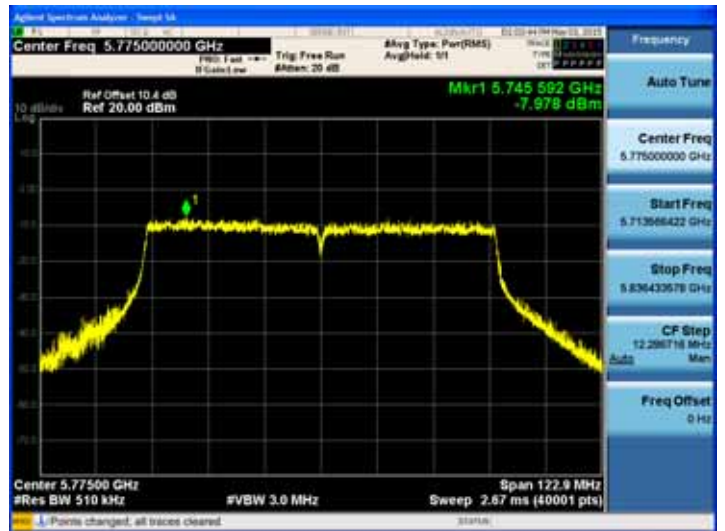
802.11ac\_80MHz BW UNII 2A BAND PSD CH 58



802.11ac\_80MHz BW UNII 2C BAND PSD CH 138



802.11ac\_80MHz BW UNII 3 BAND PSD CH 155



## 8.5 FREQUENCY STABILITY.

The EUT was placed inside an environmental chamber as the temperature in the chamber was varied between -30 and 50 . The temperature was incremented by 10 intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded.

### 20 MHz BW

OPERATING BAND: UNII Band 1  
 OPERATING FREQUENCY: 5,180,000,000 Hz  
 CHANNEL: 36  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage (%)    | Power (VDC) | Temp. ( ) | Frequency (kHz) | Frequency Error (kHz) |
|----------------|-------------|-----------|-----------------|-----------------------|
| 100%           | 3.85        | +20(Ref)  | 5180030.20      | 30.20                 |
| 100%           |             | -30       | 5180021.40      | 21.40                 |
| 100%           |             | -20       | 5180023.50      | 23.50                 |
| 100%           |             | -10       | 5180024.90      | 24.90                 |
| 100%           |             | 0         | 5180027.10      | 27.10                 |
| 100%           |             | +10       | 5180027.70      | 27.70                 |
| 100%           |             | +30       | 5180032.50      | 32.50                 |
| 100%           |             | +40       | 5180033.70      | 33.70                 |
| 100%           |             | +50       | 5180035.40      | 35.40                 |
| Batt. Endpoint | 3.27        | +20       | 5180028.10      | 28.10                 |

### Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A  
 OPERATING FREQUENCY: 5,260,000,000 Hz  
 CHANNEL: 52  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage (%)    | Power (VDC) | Temp. ( ) | Frequency (kHz) | Frequency Error (kHz) |
|----------------|-------------|-----------|-----------------|-----------------------|
| 100%           | 3.85        | +20(Ref)  | 5260032.20      | 32.20                 |
| 100%           |             | -30       | 5260021.70      | 21.70                 |
| 100%           |             | -20       | 5260023.20      | 23.2                  |
| 100%           |             | -10       | 5260025.40      | 25.40                 |
| 100%           |             | 0         | 5260027.60      | 27.6                  |
| 100%           |             | +10       | 5260030.10      | 30.1                  |
| 100%           |             | +30       | 5260034.30      | 34.3                  |
| 100%           |             | +40       | 5260036.30      | 36.3                  |
| 100%           |             | +50       | 5260038.10      | 38.10                 |
| Batt. Endpoint | 3.27        | +20       | 5260029.70      | 29.7                  |

#### Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C  
 OPERATING FREQUENCY: 5,500,000,000 Hz  
 CHANNEL: 100  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage<br>(%) | Power<br>(VDC) | Temp.<br>( ) | Frequency<br>(kHz) | Frequency<br>Error (kHz) |
|----------------|----------------|--------------|--------------------|--------------------------|
| 100%           | 3.85           | +20(Ref)     | 5500033.10         | 33.10                    |
| 100%           |                | -30          | 5500021.50         | 21.50                    |
| 100%           |                | -20          | 5500023.50         | 23.5                     |
| 100%           |                | -10          | 5500025.60         | 25.6                     |
| 100%           |                | 0            | 5500027.40         | 27.4                     |
| 100%           |                | +10          | 5500030.20         | 30.2                     |
| 100%           |                | +30          | 5500035.20         | 35.2                     |
| 100%           |                | +40          | 5500037.80         | 37.8                     |
| 100%           |                | +50          | 5500040.10         | 40.10                    |
| Batt. Endpoint | 3.27           | +20          | 5500032.10         | 32.1                     |

#### Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3  
 OPERATING FREQUENCY: 5,745,000,000 Hz  
 CHANNEL: 149  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage<br>(%) | Power<br>(VDC) | Temp.<br>( ) | Frequency<br>(kHz) | Frequency<br>Error (kHz) |
|----------------|----------------|--------------|--------------------|--------------------------|
| 100%           | 3.85           | +20(Ref)     | 5745033.10         | 33.10                    |
| 100%           |                | -30          | 5745023.40         | 23.40                    |
| 100%           |                | -20          | 5745026.10         | 26.1                     |
| 100%           |                | -10          | 5745027.50         | 27.5                     |
| 100%           |                | 0            | 5745030.40         | 30.4                     |
| 100%           |                | +10          | 5745032.10         | 32.1                     |
| 100%           |                | +30          | 5745036.50         | 36.5                     |
| 100%           |                | +40          | 5745038.10         | 38.1                     |
| 100%           |                | +50          | 5745040.70         | 40.70                    |
| Batt. Endpoint | 3.27           | +20          | 5745030.20         | 30.2                     |

#### Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

#### 40 MHz BW

OPERATING BAND: UNII Band 1  
 OPERATING FREQUENCY: 5,190,000,000 Hz  
 CHANNEL: 38  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage<br>(%) | Power<br>(VDC) | Temp.<br>( ) | Frequency<br>(kHz) | Frequency<br>Error (kHz) |
|----------------|----------------|--------------|--------------------|--------------------------|
| 100%           | 3.85           | +20(Ref)     | 5190031.90         | 31.90                    |
| 100%           |                | -30          | 5190021.70         | 21.70                    |
| 100%           |                | -20          | 5190025.60         | 25.60                    |
| 100%           |                | -10          | 5190027.00         | 27.00                    |
| 100%           |                | 0            | 5190028.40         | 28.40                    |
| 100%           |                | +10          | 5190030.10         | 30.10                    |
| 100%           |                | +30          | 5190034.30         | 34.30                    |
| 100%           |                | +40          | 5190036.10         | 36.10                    |
| 100%           |                | +50          | 5190038.20         | 38.20                    |
| Batt. Endpoint | 3.27           | +20          | 5190029.80         | 29.80                    |

#### Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A  
 OPERATING FREQUENCY: 5,270,000,000 Hz  
 CHANNEL: 54  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage (%)    | Power (VDC) | Temp. ( ) | Frequency (kHz) | Frequency Error (kHz) |
|----------------|-------------|-----------|-----------------|-----------------------|
| 100%           | 3.85        | +20(Ref)  | 5270031.30      | 31.30                 |
| 100%           |             | -30       | 5270022.40      | 22.40                 |
| 100%           |             | -20       | 5270023.50      | 23.5                  |
| 100%           |             | -10       | 5270025.10      | 25.1                  |
| 100%           |             | 0         | 5270027.40      | 27.4                  |
| 100%           |             | +10       | 5270030.20      | 30.2                  |
| 100%           |             | +30       | 5270033.10      | 33.1                  |
| 100%           |             | +40       | 5270035.70      | 35.7                  |
| 100%           |             | +50       | 5270037.40      | 37.40                 |
| Batt. Endpoint | 3.27        | +20       | 5270029.40      | 29.4                  |

# Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C  
 OPERATING FREQUENCY: 5,510,000,000 Hz  
 CHANNEL: 102  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage<br>(%) | Power<br>(VDC) | Temp.<br>( ) | Frequency<br>(kHz) | Frequency<br>Error (kHz) |
|----------------|----------------|--------------|--------------------|--------------------------|
| 100%           | 3.85           | +20(Ref)     | 5510032.40         | 32.40                    |
| 100%           |                | -30          | 5510023.70         | 23.70                    |
| 100%           |                | -20          | 5510025.90         | 25.9                     |
| 100%           |                | -10          | 5510027.30         | 27.3                     |
| 100%           |                | 0            | 5510030.10         | 30.1                     |
| 100%           |                | +10          | 5510032.40         | 32.4                     |
| 100%           |                | +30          | 5510035.10         | 35.1                     |
| 100%           |                | +40          | 5510037.70         | 37.7                     |
| 100%           |                | +50          | 5510040.20         | 40.20                    |
| Batt. Endpoint | 3.27           | +20          | 5510029.80         | 29.8                     |

#### Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3  
 OPERATING FREQUENCY: 5,755,000,000 Hz  
 CHANNEL: 151  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage<br>(%) | Power<br>(VDC) | Temp.<br>( ) | Frequency<br>(kHz) | Frequency<br>Error (kHz) |
|----------------|----------------|--------------|--------------------|--------------------------|
| 100%           | 3.85           | +20(Ref)     | 5755033.40         | 33.40                    |
| 100%           |                | -30          | 5755023.20         | 23.20                    |
| 100%           |                | -20          | 5755025.10         | 25.1                     |
| 100%           |                | -10          | 5755026.80         | 26.8                     |
| 100%           |                | 0            | 5755029.20         | 29.2                     |
| 100%           |                | +10          | 5755031.60         | 31.6                     |
| 100%           |                | +30          | 5755035.40         | 35.4                     |
| 100%           |                | +40          | 5755037.50         | 37.5                     |
| 100%           |                | +50          | 5755039.30         | 39.30                    |
| Batt. Endpoint | 3.27           | +20          | 5755032.10         | 32.1                     |

#### Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

## 80 MHz BW

OPERATING BAND: UNII Band 1  
 OPERATING FREQUENCY: 5,210,000,000 Hz  
 CHANNEL: 42  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage<br>(%) | Power<br>(VDC) | Temp.<br>( ) | Frequency<br>(kHz) | Frequency<br>Error (kHz) |
|----------------|----------------|--------------|--------------------|--------------------------|
| 100%           | 3.85           | +20(Ref)     | 5210033.10         | 33.10                    |
| 100%           |                | -30          | 5210024.60         | 24.60                    |
| 100%           |                | -20          | 5210026.20         | 26.20                    |
| 100%           |                | -10          | 5210027.90         | 27.90                    |
| 100%           |                | 0            | 5210030.10         | 30.10                    |
| 100%           |                | +10          | 5210031.50         | 31.50                    |
| 100%           |                | +30          | 5210034.50         | 34.50                    |
| 100%           |                | +40          | 5210036.20         | 36.20                    |
| 100%           |                | +50          | 5210038.40         | 38.40                    |
| Batt. Endpoint | 3.27           | +20          | 5210031.60         | 31.60                    |

### Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A  
 OPERATING FREQUENCY: 5,290,000,000 Hz  
 CHANNEL: 58  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage (%)    | Power (VDC) | Temp. ( ) | Frequency (kHz) | Frequency Error (kHz) |
|----------------|-------------|-----------|-----------------|-----------------------|
| 100%           | 3.85        | +20(Ref)  | 5290030.80      | 30.80                 |
| 100%           |             | -30       | 5290031.90      | 31.90                 |
| 100%           |             | -20       | 5290023.50      | 23.5                  |
| 100%           |             | -10       | 5290024.60      | 24.6                  |
| 100%           |             | 0         | 5290026.10      | 26.1                  |
| 100%           |             | +10       | 5290028.20      | 28.2                  |
| 100%           |             | +30       | 5290032.40      | 32.4                  |
| 100%           |             | +40       | 5290034.00      | 34                    |
| 100%           |             | +50       | 5290036.30      | 36.30                 |
| Batt. Endpoint | 3.27        | +20       | 5290029.10      | 29.1                  |

# Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C  
 OPERATING FREQUENCY: 5,530,000,000 Hz  
 CHANNEL: 106  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage<br>(%) | Power<br>(VDC) | Temp.<br>( ) | Frequency<br>(kHz) | Frequency<br>Error (kHz) |
|----------------|----------------|--------------|--------------------|--------------------------|
| 100%           | 3.85           | +20(Ref)     | 5530032.30         | 32.30                    |
| 100%           |                | -30          | 5530023.80         | 23.80                    |
| 100%           |                | -20          | 5530024.40         | 24.4                     |
| 100%           |                | -10          | 5530027.30         | 27.3                     |
| 100%           |                | 0            | 5530028.80         | 28.8                     |
| 100%           |                | +10          | 5530030.50         | 30.5                     |
| 100%           |                | +30          | 5530034.00         | 34                       |
| 100%           |                | +40          | 5530035.90         | 35.9                     |
| 100%           |                | +50          | 5530037.70         | 37.70                    |
| Batt. Endpoint | 3.27           | +20          | 5530030.00         | 30                       |

# Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3  
 OPERATING FREQUENCY: 5,775,000,000 Hz  
 CHANNEL: 155  
 REFERENCE VOLTAGE: 3.8 VDC

| Voltage (%)    | Power (VDC) | Temp. ( ) | Frequency (kHz) | Frequency Error (kHz) |
|----------------|-------------|-----------|-----------------|-----------------------|
| 100%           | 3.85        | +20(Ref)  | 5775033.80      | 33.80                 |
| 100%           |             | -30       | 5775024.40      | 24.40                 |
| 100%           |             | -20       | 5775026.30      | 26.3                  |
| 100%           |             | -10       | 5775028.40      | 28.4                  |
| 100%           |             | 0         | 5775030.50      | 30.5                  |
| 100%           |             | +10       | 5775032.40      | 32.4                  |
| 100%           |             | +30       | 5775035.20      | 35.2                  |
| 100%           |             | +40       | 5775037.40      | 37.4                  |
| 100%           |             | +50       | 5775040.10      | 40.10                 |
| Batt. Endpoint | 3.27        | +20       | 5775031.60      | 31.6                  |

# Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

## 8.6 RADIATED MEASUREMENT

### 8.6.1 RADIATED SPURIOUS EMISSIONS.

Test Requirements and limit, §15.205, §15.209, §15.407

| Frequency (MHz) | Field Strength (uV/m) | Measurement Distance (m) |
|-----------------|-----------------------|--------------------------|
| 0.009 – 0.490   | 2400/F(kHz)           | 300                      |
| 0.490 – 1.705   | 24000/F(kHz)          | 30                       |
| 1.705 – 30      | 30                    | 30                       |
| 30-88           | 100                   | 3                        |
| 88-216          | 150                   | 3                        |
| 216-960         | 200                   | 3                        |
| Above 960       | 500                   | 3                        |

#### §15.407, KDB 789033 D02

All harmonics that do not lie in a restricted band are subject to a peak limit of -27 dBm/MHz. At a distance of 3 meters the field strength limit in dBµV/m can be determined by adding a “conversion” factor of 95.2 dB to the EIRP limit of -27 dBm/MHz to obtain the limit for out of band spurious emissions of 68.2 dBµV/m.

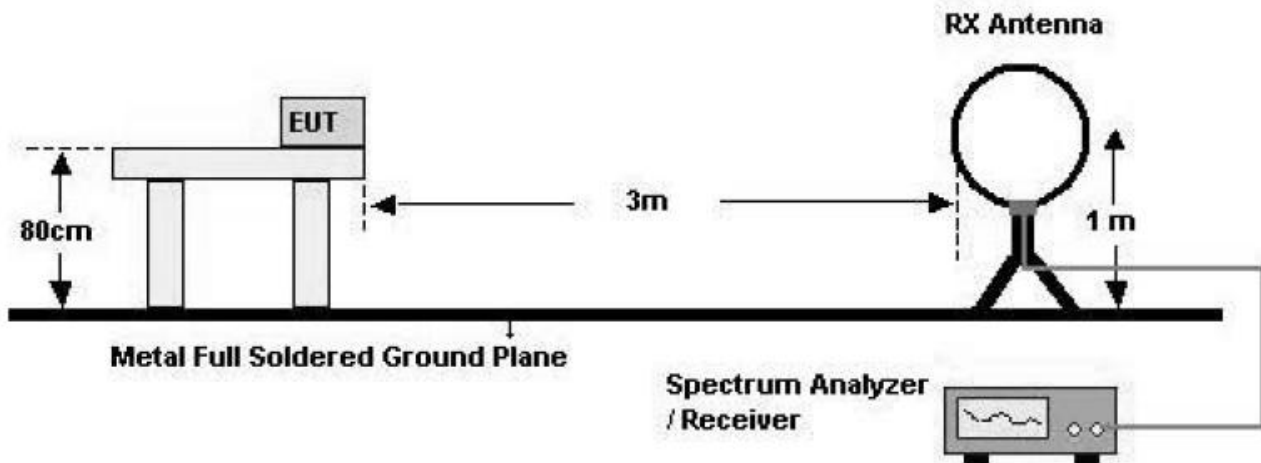
Especially, for transmitter operating in the 5725 Mhz – 5850 MHz : all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequency 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

#### Test Mode

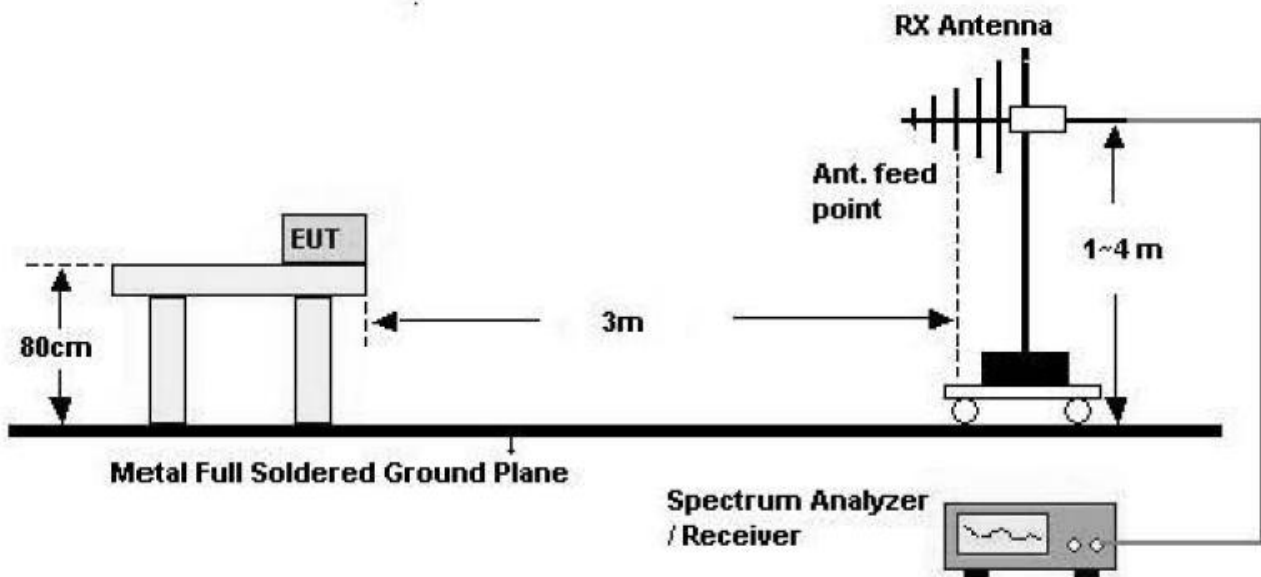
- Open
- Close

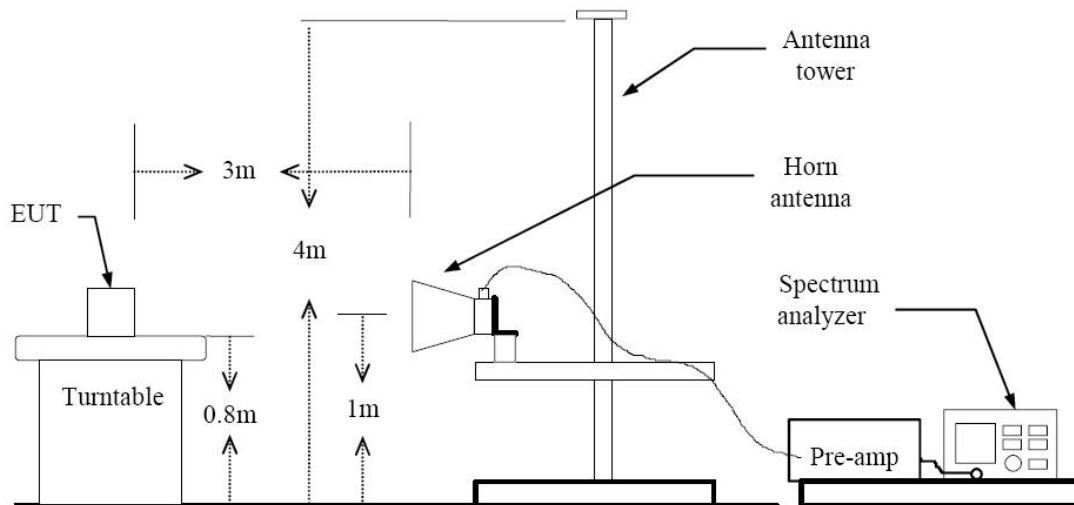
## Test Configuration

### Below 30 MHz



### 30 MHz - 1 GHz



**Above 1 GHz****TEST PROCEDURE USED**

ANSI C63.4(2003)

Method H)5) in KDB 789033, issued 06/06/2014 (Peak)

Method H)6)d) in KDB 789033, issued 06/06/2014 (Average)

**. Spectrum setting:****- Peak.**

1. RBW = 1 MHz
2. VBW  $\geq$  3 MHz
3. Detector = Peak
4. Sweep Time = auto
5. Trace mode = max hold
6. Allow sweeps to continue until the trace stabilizes.
7. Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately  $1/x$ , where  $x$  is the duty cycle.

**- Average ( Method VB :Averaging using reduced video bandwidth)**

1. RBW = 1 MHz
2. VBW
  - 2.1. If the EUT is configured to transmit with duty cycle  $\geq$  98 percent, set  $VBW \leq RBW/100$ (i.e., 10 kHz) but not less than 10 Hz.
  - 2.2. If the EUT duty cycle is  $<$  98 percent, set  $VBW \geq 1/T$ , where  $T$  is the minimum transmission duration.
3. The analyzer is set to linear detector mode.

4. Detector = Peak.
5. Sweep time = auto.
6. Trace mode = max hold.
7. Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of  $1/x$ , where  $x$  is the duty cycle.

**Note :**

1. We used the case 2 for 802.11a/g/n/ac\_20/n/ac\_40\_80 mode to perform the average filed strength measurements.
2. The actual setting value of VBW for 802.11a/g/n/ac\_20/n/ac\_40\_80

| Mode         | Worst Data rate (Mbps) | T <sub>on</sub> (ms) | T <sub>total</sub> (ms) | Duty Cycle (%) | VBW(1/T) (Hz) | The actual setting value of VBW (Hz) |
|--------------|------------------------|----------------------|-------------------------|----------------|---------------|--------------------------------------|
| <b>a</b>     | <b>6</b>               | <b>1.428</b>         | <b>1.539</b>            | <b>92.79</b>   | <b>700</b>    | <b>1000</b>                          |
| <b>n_20</b>  | <b>6.5</b>             | <b>1.340</b>         | <b>1.440</b>            | <b>93.06</b>   | <b>746</b>    | <b>1000</b>                          |
| <b>n_40</b>  | <b>13.5</b>            | <b>0.663</b>         | <b>0.759</b>            | <b>87.35</b>   | <b>1508</b>   | <b>3000</b>                          |
| <b>ac_20</b> | <b>6.5</b>             | <b>0.699</b>         | <b>0.807</b>            | <b>86.62</b>   | <b>1431</b>   | <b>3000</b>                          |
| <b>ac_40</b> | <b>13.5</b>            | <b>0.359</b>         | <b>0.457</b>            | <b>78.56</b>   | <b>2786</b>   | <b>3000</b>                          |
| <b>ac_80</b> | <b>29.3</b>            | <b>0.191</b>         | <b>0.298</b>            | <b>64.09</b>   | <b>5236</b>   | <b>10000</b>                         |

## TEST RESULTS

### 9 kHz – 30MHz

**Operation Mode:** Normal Mode

| Frequency               | Reading    | Ant. factor | Cable loss | Ant. POL | Total        | Limit        | Margin |
|-------------------------|------------|-------------|------------|----------|--------------|--------------|--------|
| MHz                     | dB $\mu$ V | dB /m       | dB         | (H/V)    | dB $\mu$ V/m | dB $\mu$ V/m | dB     |
| No Critical peaks found |            |             |            |          |              |              |        |

### Notes:

1. Measuring frequencies from 9 kHz to the 30MHz.
2. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
3. Distance extrapolation factor =  $40 \log (\text{specific distance} / \text{test distance})$  (dB)
4. Limit line = specific Limits (dB $\mu$ V) + Distance extrapolation factor
5. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

**TEST RESULTS****Below 1 GHz****Operation Mode:** Normal Mode

| Frequency               | Reading    | Ant. factor | Cable loss | Ant. POL | Total        | Limit        | Margin |
|-------------------------|------------|-------------|------------|----------|--------------|--------------|--------|
| MHz                     | dB $\mu$ V | dB /m       | dB         | (H/V)    | dB $\mu$ V/m | dB $\mu$ V/m | dB     |
| No Critical peaks found |            |             |            |          |              |              |        |

**Notes:**

1. Measuring frequencies from 30 MHz to the 1 GHz.
2. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode.
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

## Open

### Above 1 GHz

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5180 MHz           |
| Channel No.         | 36 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10360              | 61.94           | -6.51                 | V                 | 55.43             | 68.20             | 12.77          | PK                  |
| 15540              | 63.07           | -6.42                 | V                 | 56.65             | 73.98             | 17.33          | PK                  |
| 15540              | 49.28           | -6.42                 | V                 | 42.86             | 53.98             | 11.12          | AV                  |
| 10360              | 61.85           | -6.51                 | H                 | 55.34             | 68.20             | 12.86          | PK                  |
| 15540              | 62.83           | -6.42                 | H                 | 56.41             | 73.98             | 17.57          | PK                  |
| 15540              | 49.12           | -6.42                 | H                 | 42.70             | 53.98             | 11.28          | AV                  |

### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5200 MHz           |
| Channel No.         | 40 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10400              | 61.58           | -6.49                 | V                 | 55.09             | 68.20             | 13.11          | PK                  |
| 15600              | 63.27           | -7.15                 | V                 | 56.12             | 73.98             | 17.86          | PK                  |
| 15600              | 49.51           | -7.15                 | V                 | 42.36             | 53.98             | 11.62          | AV                  |
| 10400              | 61.35           | -6.49                 | H                 | 54.86             | 68.20             | 13.34          | PK                  |
| 15600              | 63.03           | -7.15                 | H                 | 55.88             | 73.98             | 18.10          | PK                  |
| 15600              | 49.36           | -7.15                 | H                 | 42.21             | 53.98             | 11.77          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5240 MHz           |
| Channel No.         | 48 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10480              | 62.80           | -6.96                 | V                 | 55.84             | 68.20             | 12.36          | PK                  |
| 15720              | 63.04           | -6.62                 | V                 | 56.42             | 73.98             | 17.56          | PK                  |
| 15720              | 49.68           | -6.62                 | V                 | 43.06             | 53.98             | 10.92          | AV                  |
| 10480              | 62.73           | -6.96                 | H                 | 55.77             | 68.20             | 12.43          | PK                  |
| 15720              | 62.91           | -6.96                 | H                 | 55.95             | 73.98             | 18.03          | PK                  |
| 15720              | 49.41           | -6.62                 | H                 | 42.79             | 53.98             | 11.19          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5180 MHz           |
| Channel No.         | 36 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10360              | 61.82           | -6.51                 | V                 | 55.31             | 68.20             | 12.89          | PK                  |
| 15540              | 63.01           | -6.42                 | V                 | 56.59             | 73.98             | 17.39          | PK                  |
| 15540              | 49.35           | -6.42                 | V                 | 42.93             | 53.98             | 11.05          | AV                  |
| 10360              | 61.63           | -6.51                 | H                 | 55.12             | 68.20             | 13.08          | PK                  |
| 15540              | 62.97           | -6.42                 | H                 | 56.55             | 73.98             | 17.43          | PK                  |
| 15540              | 49.17           | -6.42                 | H                 | 42.75             | 53.98             | 11.23          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5200 MHz           |
| Channel No.         | 40 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10400              | 62.30           | -6.49                 | V                 | 55.81             | 68.20             | 12.39          | PK                  |
| 15600              | 63.09           | -7.15                 | V                 | 55.94             | 73.98             | 18.04          | PK                  |
| 15600              | 49.18           | -7.15                 | V                 | 42.03             | 53.98             | 11.95          | AV                  |
| 10400              | 62.14           | -6.49                 | H                 | 55.65             | 68.20             | 12.55          | PK                  |
| 15600              | 62.86           | -7.15                 | H                 | 55.71             | 73.98             | 18.27          | PK                  |
| 15600              | 49.13           | -7.15                 | H                 | 41.98             | 53.98             | 12.00          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5240 MHz           |
| Channel No.         | 48 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10480              | 61.94           | -6.96                 | V                 | 54.98             | 68.20             | 13.22          | PK                  |
| 15720              | 62.86           | -6.62                 | V                 | 56.24             | 73.98             | 17.74          | PK                  |
| 15720              | 49.41           | -6.62                 | V                 | 42.79             | 53.98             | 11.19          | AV                  |
| 10480              | 61.66           | -6.96                 | H                 | 54.70             | 68.20             | 13.50          | PK                  |
| 15720              | 62.59           | -6.96                 | H                 | 55.63             | 73.98             | 18.35          | PK                  |
| 15720              | 49.13           | -6.62                 | H                 | 42.51             | 53.98             | 11.47          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 1              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5180 MHz            |
| Channel No.         | 36 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10360              | 62.90           | -6.51                 | V                 | 56.39             | 68.20             | 11.81          | PK                  |
| 15540              | 63.03           | -6.42                 | V                 | 56.61             | 73.98             | 17.37          | PK                  |
| 15540              | 49.64           | -6.42                 | V                 | 43.22             | 53.98             | 10.76          | AV                  |
| 10360              | 62.73           | -6.51                 | H                 | 56.22             | 68.20             | 11.98          | PK                  |
| 15540              | 62.99           | -6.42                 | H                 | 56.57             | 73.98             | 17.41          | PK                  |
| 15540              | 49.51           | -6.42                 | H                 | 43.09             | 53.98             | 10.89          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 1              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5200 MHz            |
| Channel No.         | 40 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10400              | 62.85           | -6.49                 | V                 | 56.36             | 68.20             | 11.84          | PK                  |
| 15600              | 63.23           | -7.15                 | V                 | 56.08             | 73.98             | 17.90          | PK                  |
| 15600              | 49.62           | -7.15                 | V                 | 42.47             | 53.98             | 11.51          | AV                  |
| 10400              | 62.46           | -6.49                 | H                 | 55.97             | 68.20             | 12.23          | PK                  |
| 15600              | 63.14           | -7.15                 | H                 | 55.99             | 73.98             | 17.99          | PK                  |
| 15600              | 49.38           | -7.15                 | H                 | 42.23             | 53.98             | 11.75          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 1              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5240 MHz            |
| Channel No.         | 48 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10480              | 62.83           | -6.96                 | V                 | 55.87             | 68.20             | 12.33          | PK                  |
| 15720              | 63.42           | -6.62                 | V                 | 56.80             | 73.98             | 17.18          | PK                  |
| 15720              | 49.35           | -6.62                 | V                 | 42.73             | 53.98             | 11.25          | AV                  |
| 10480              | 62.51           | -6.96                 | H                 | 55.55             | 68.20             | 12.65          | PK                  |
| 15720              | 63.16           | -6.96                 | H                 | 56.20             | 73.98             | 17.78          | PK                  |
| 15720              | 43.22           | -6.62                 | H                 | 36.60             | 53.98             | 17.38          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 1            |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5190 MHz          |
| Channel No.         | 38 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10380              | 61.58           | -5.38                 | V                 | 56.20             | 68.20             | 12.00          | PK                  |
| 15570              | 62.85           | -6.41                 | V                 | 56.44             | 73.98             | 17.54          | PK                  |
| 15570              | 49.12           | -6.41                 | V                 | 42.71             | 53.98             | 11.27          | AV                  |
| 10380              | 61.52           | -5.38                 | H                 | 56.14             | 68.20             | 12.06          | PK                  |
| 15570              | 62.61           | -6.41                 | H                 | 56.20             | 73.98             | 17.78          | PK                  |
| 15570              | 48.93           | -6.41                 | H                 | 42.52             | 53.98             | 11.46          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 1            |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5230 MHz          |
| Channel No.         | 46 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10460              | 62.04           | -6.88                 | V                 | 55.16             | 68.20             | 13.04          | PK                  |
| 15690              | 62.85           | -6.64                 | V                 | 56.21             | 73.98             | 17.77          | PK                  |
| 15690              | 48.94           | -6.64                 | V                 | 42.30             | 53.98             | 11.68          | AV                  |
| 10460              | 61.86           | -6.88                 | H                 | 54.98             | 68.20             | 13.22          | PK                  |
| 15690              | 62.69           | -6.64                 | H                 | 56.05             | 73.98             | 17.93          | PK                  |
| 15690              | 48.82           | -6.64                 | H                 | 42.18             | 53.98             | 11.80          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5190 MHz           |
| Channel No.         | 38 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10380              | 61.86           | -5.38                 | V                 | 56.48             | 68.20             | 11.72          | PK                  |
| 15570              | 62.92           | -6.41                 | V                 | 56.51             | 73.98             | 17.47          | PK                  |
| 15570              | 48.83           | -6.41                 | V                 | 42.42             | 53.98             | 11.56          | AV                  |
| 10380              | 61.67           | -5.38                 | H                 | 56.29             | 68.20             | 11.91          | PK                  |
| 15570              | 62.75           | -6.41                 | H                 | 56.34             | 73.98             | 17.64          | PK                  |
| 15570              | 48.59           | -6.41                 | H                 | 42.18             | 53.98             | 11.80          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5230 MHz           |
| Channel No.         | 46 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10460              | 61.75           | -6.88                 | V                 | 54.87             | 68.20             | 13.33          | PK                  |
| 15690              | 62.58           | -6.64                 | V                 | 55.94             | 73.98             | 18.04          | PK                  |
| 15690              | 48.62           | -6.64                 | V                 | 41.98             | 53.98             | 12.00          | AV                  |
| 10460              | 61.66           | -6.88                 | H                 | 54.78             | 68.20             | 13.42          | PK                  |
| 15690              | 62.43           | -6.64                 | H                 | 55.79             | 73.98             | 18.19          | PK                  |
| 15690              | 48.57           | -6.64                 | H                 | 41.93             | 53.98             | 12.05          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps          |
| Operating Frequency | 5210 MHz           |
| Channel No.         | 42 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10420              | 62.14           | -6.32                 | V                 | 55.82             | 68.20             | 12.38          | PK                  |
| 15630              | 62.95           | -7.14                 | V                 | 55.81             | 73.98             | 18.17          | PK                  |
| 15630              | 48.59           | -7.14                 | V                 | 41.45             | 53.98             | 12.53          | AV                  |
| 10420              | 62.03           | -6.32                 | H                 | 55.71             | 68.20             | 12.49          | PK                  |
| 15630              | 62.92           | -7.14                 | H                 | 55.78             | 73.98             | 18.20          | PK                  |
| 15630              | 48.56           | -7.14                 | H                 | 41.42             | 53.98             | 12.56          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_80 MHz BW. Worst case is 29.3 Mbps in 802.11ac\_80 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5260 MHz           |
| Channel No.         | 52 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10520              | 62.25           | -6.52                 | V                 | 55.73             | 68.20             | 12.47          | PK                  |
| 15780              | 64.04           | -6.67                 | V                 | 57.37             | 73.98             | 16.61          | PK                  |
| 15780              | 49.93           | -6.67                 | V                 | 43.26             | 53.98             | 10.72          | AV                  |
| 10520              | 62.18           | -6.52                 | H                 | 55.66             | 68.20             | 12.54          | PK                  |
| 15780              | 63.99           | -6.67                 | H                 | 57.32             | 73.98             | 16.66          | PK                  |
| 15780              | 49.72           | -6.67                 | H                 | 43.05             | 53.98             | 10.93          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5300 MHz           |
| Channel No.         | 60 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10600              | 62.30           | -6.72                 | V                 | 55.58             | 73.98             | 18.40          | PK                  |
| 10600              | 48.82           | -6.72                 | V                 | 42.10             | 53.98             | 11.88          | AV                  |
| 15900              | 63.90           | -7.00                 | V                 | 56.90             | 73.98             | 17.08          | PK                  |
| 15900              | 49.95           | -7.00                 | V                 | 42.95             | 53.98             | 11.03          | AV                  |
| 10600              | 62.14           | -6.72                 | H                 | 55.42             | 73.98             | 18.56          | PK                  |
| 10600              | 48.73           | -6.72                 | H                 | 42.01             | 53.98             | 11.97          | AV                  |
| 15900              | 63.72           | -7.00                 | H                 | 56.72             | 73.98             | 17.26          | PK                  |
| 15900              | 49.83           | -7.00                 | H                 | 42.83             | 53.98             | 11.15          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5320 MHz           |
| Channel No.         | 64 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10640              | 62.31           | -6.43                 | V                 | 55.88             | 73.98             | 18.10          | PK                  |
| 10640              | 48.90           | -6.43                 | V                 | 42.47             | 53.98             | 11.51          | AV                  |
| 15960              | 62.71           | -6.93                 | V                 | 55.78             | 73.98             | 18.20          | PK                  |
| 15960              | 48.95           | -6.93                 | V                 | 42.02             | 53.98             | 11.96          | AV                  |
| 10640              | 62.19           | -6.43                 | H                 | 55.76             | 73.98             | 18.22          | PK                  |
| 10640              | 48.75           | -6.43                 | H                 | 42.32             | 53.98             | 11.66          | AV                  |
| 15960              | 62.55           | -6.93                 | H                 | 55.62             | 73.98             | 18.36          | PK                  |
| 15960              | 48.70           | -6.93                 | H                 | 41.77             | 53.98             | 12.21          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5260 MHz           |
| Channel No.         | 52 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10520              | 62.05           | -6.52                 | V                 | 55.53             | 68.20             | 12.67          | PK                  |
| 15780              | 62.95           | -6.67                 | V                 | 56.28             | 73.98             | 17.70          | PK                  |
| 15780              | 49.68           | -6.67                 | V                 | 43.01             | 53.98             | 10.97          | AV                  |
| 10520              | 61.89           | -6.52                 | H                 | 55.37             | 68.20             | 12.83          | PK                  |
| 15780              | 62.73           | -6.67                 | H                 | 56.06             | 73.98             | 17.92          | PK                  |
| 15780              | 49.30           | -6.67                 | H                 | 42.63             | 53.98             | 11.35          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5300 MHz           |
| Channel No.         | 60 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10600              | 62.27           | -6.72                 | V                 | 55.55             | 73.98             | 18.43          | PK                  |
| 10600              | 49.05           | -6.72                 | V                 | 42.33             | 53.98             | 11.65          | AV                  |
| 15900              | 63.14           | -7.00                 | V                 | 56.14             | 73.98             | 17.84          | PK                  |
| 15900              | 49.13           | -7.00                 | V                 | 42.13             | 53.98             | 11.85          | AV                  |
| 10600              | 62.16           | -6.72                 | H                 | 55.44             | 73.98             | 18.54          | PK                  |
| 10600              | 48.72           | -6.72                 | H                 | 42.00             | 53.98             | 11.98          | AV                  |
| 15900              | 63.05           | -7.00                 | H                 | 56.05             | 73.98             | 17.93          | PK                  |
| 15900              | 49.02           | -7.00                 | H                 | 42.02             | 53.98             | 11.96          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5320 MHz           |
| Channel No.         | 64 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10640              | 61.94           | -6.43                 | V                 | 55.51             | 73.98             | 18.47          | PK                  |
| 10640              | 49.38           | -6.43                 | V                 | 42.95             | 53.98             | 11.03          | AV                  |
| 15960              | 63.12           | -6.93                 | V                 | 56.19             | 73.98             | 17.79          | PK                  |
| 15960              | 49.68           | -6.93                 | V                 | 42.75             | 53.98             | 11.23          | AV                  |
| 10640              | 61.82           | -6.43                 | H                 | 55.39             | 73.98             | 18.59          | PK                  |
| 10640              | 49.19           | -6.43                 | H                 | 42.76             | 53.98             | 11.22          | AV                  |
| 15960              | 63.01           | -6.93                 | H                 | 56.08             | 73.98             | 17.90          | PK                  |
| 15960              | 49.43           | -6.93                 | H                 | 42.50             | 53.98             | 11.48          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2A             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5260MHz             |
| Channel No.         | 52 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10520              | 62.76           | -6.52                 | V                 | 56.24             | 68.20             | 11.96          | PK                  |
| 15780              | 63.18           | -6.67                 | V                 | 56.51             | 73.98             | 17.47          | PK                  |
| 15780              | 49.52           | -6.67                 | V                 | 42.85             | 53.98             | 11.13          | AV                  |
| 10520              | 62.55           | -6.52                 | H                 | 56.03             | 68.20             | 12.17          | PK                  |
| 15780              | 62.89           | -6.67                 | H                 | 56.22             | 73.98             | 17.76          | PK                  |
| 15780              | 49.36           | -6.67                 | H                 | 42.69             | 53.98             | 11.29          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2A             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5300 MHz            |
| Channel No.         | 60 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10600              | 62.62           | -6.72                 | V                 | 55.90             | 73.98             | 18.08          | PK                  |
| 10600              | 49.41           | -6.72                 | V                 | 42.69             | 53.98             | 11.29          | AV                  |
| 15900              | 63.35           | -7.00                 | V                 | 56.35             | 73.98             | 17.63          | PK                  |
| 15900              | 49.38           | -7.00                 | V                 | 42.38             | 53.98             | 11.60          | AV                  |
| 10600              | 62.39           | -6.72                 | H                 | 55.67             | 73.98             | 18.31          | PK                  |
| 10600              | 49.27           | -6.72                 | H                 | 42.55             | 53.98             | 11.43          | AV                  |
| 15900              | 63.08           | -7.00                 | H                 | 56.08             | 73.98             | 17.90          | PK                  |
| 15900              | 49.16           | -7.00                 | H                 | 42.16             | 53.98             | 11.82          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2A             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5320 MHz            |
| Channel No.         | 64 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10640              | 62.81           | -6.43                 | V                 | 56.38             | 73.98             | 17.60          | PK                  |
| 10640              | 49.37           | -6.43                 | V                 | 42.94             | 53.98             | 11.04          | AV                  |
| 15960              | 63.44           | -6.93                 | V                 | 56.51             | 73.98             | 17.47          | PK                  |
| 15960              | 49.52           | -6.93                 | V                 | 42.59             | 53.98             | 11.39          | AV                  |
| 10640              | 62.46           | -6.43                 | H                 | 56.03             | 73.98             | 17.95          | PK                  |
| 10640              | 49.12           | -6.43                 | H                 | 42.69             | 53.98             | 11.29          | AV                  |
| 15960              | 63.28           | -6.93                 | H                 | 56.35             | 73.98             | 17.63          | PK                  |
| 15960              | 49.34           | -6.93                 | H                 | 42.41             | 53.98             | 11.57          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 2A           |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5270 MHz          |
| Channel No.         | 54 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10540              | 62.24           | -5.77                 | V                 | 56.47             | 68.20             | 11.73          | PK                  |
| 15810              | 62.79           | -7.47                 | V                 | 55.32             | 73.98             | 18.66          | PK                  |
| 15810              | 49.57           | -7.47                 | V                 | 42.10             | 53.98             | 11.88          | AV                  |
| 10540              | 62.08           | -5.77                 | H                 | 56.31             | 68.20             | 11.89          | PK                  |
| 15810              | 62.51           | -7.47                 | H                 | 55.04             | 73.98             | 18.94          | PK                  |
| 15810              | 49.33           | -7.47                 | H                 | 41.86             | 53.98             | 12.12          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 2A           |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5310 MHz          |
| Channel No.         | 62 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10620              | 62.15           | -6.36                 | V                 | 55.79             | 73.98             | 18.19          | PK                  |
| 10620              | 48.86           | -6.36                 | V                 | 42.50             | 53.98             | 11.48          | AV                  |
| 15930              | 63.01           | -6.77                 | V                 | 56.24             | 73.98             | 17.74          | PK                  |
| 15930              | 49.23           | -6.77                 | V                 | 42.46             | 53.98             | 11.52          | AV                  |
| 10620              | 61.99           | -6.36                 | H                 | 55.63             | 73.98             | 18.35          | PK                  |
| 10620              | 48.69           | -6.36                 | H                 | 42.33             | 53.98             | 11.65          | AV                  |
| 15930              | 62.76           | -6.77                 | H                 | 55.99             | 73.98             | 17.99          | PK                  |
| 15930              | 49.04           | -6.77                 | H                 | 42.27             | 53.98             | 11.71          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5270 MHz           |
| Channel No.         | 54 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10540              | 62.05           | -5.77                 | V                 | 56.28             | 68.20             | 11.92          | PK                  |
| 15810              | 62.88           | -7.47                 | V                 | 55.41             | 73.98             | 18.57          | PK                  |
| 15810              | 49.02           | -7.47                 | V                 | 41.55             | 53.98             | 12.43          | AV                  |
| 10540              | 61.85           | -5.77                 | H                 | 56.08             | 68.20             | 12.12          | PK                  |
| 15810              | 62.82           | -7.47                 | H                 | 55.35             | 73.98             | 18.63          | PK                  |
| 15810              | 48.96           | -7.47                 | H                 | 41.49             | 53.98             | 12.49          | AV                  |

## Notes

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5310 MHz           |
| Channel No.         | 62 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10620              | 62.03           | -6.36                 | V                 | 55.67             | 73.98             | 18.31          | PK                  |
| 10620              | 48.71           | -6.36                 | V                 | 42.35             | 53.98             | 11.63          | AV                  |
| 15930              | 62.76           | -6.77                 | V                 | 55.99             | 73.98             | 17.99          | PK                  |
| 15930              | 48.93           | -6.77                 | V                 | 42.16             | 53.98             | 11.82          | AV                  |
| 10620              | 61.99           | -6.36                 | H                 | 55.63             | 73.98             | 18.35          | PK                  |
| 10620              | 48.65           | -6.36                 | H                 | 42.29             | 53.98             | 11.69          | AV                  |
| 15930              | 62.58           | -6.77                 | H                 | 55.81             | 73.98             | 18.17          | PK                  |
| 15930              | 48.84           | -6.77                 | H                 | 42.07             | 53.98             | 11.91          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps          |
| Operating Frequency | 5290 MHz           |
| Channel No.         | 58 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10580              | 61.96           | -5.70                 | V                 | 56.26             | 68.20             | 11.94          | PK                  |
| 15870              | 62.80           | -7.27                 | V                 | 55.53             | 73.98             | 18.45          | PK                  |
| 15870              | 48.75           | -7.27                 | V                 | 41.48             | 53.98             | 12.50          | AV                  |
| 10580              | 61.95           | -5.70                 | H                 | 56.25             | 68.20             | 11.95          | PK                  |
| 15870              | 62.76           | -7.27                 | H                 | 55.49             | 73.98             | 18.49          | PK                  |
| 15870              | 48.63           | -7.27                 | H                 | 41.36             | 53.98             | 12.62          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_80 MHz BW. Worst case is 29.3 Mbps in 802.11ac\_80 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5500 MHz           |
| Channel No.         | 100 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11000              | 62.60           | -5.06                 | V                 | 57.54             | 73.98             | 16.44          | PK                  |
| 11000              | 48.97           | -5.06                 | V                 | 43.91             | 53.98             | 10.07          | AV                  |
| 16500              | 62.97           | -4.35                 | V                 | 58.62             | 68.20             | 9.58           | PK                  |
| 11000              | 62.45           | -5.06                 | H                 | 57.39             | 73.98             | 16.59          | PK                  |
| 11000              | 48.78           | -5.06                 | H                 | 43.72             | 53.98             | 10.26          | AV                  |
| 16500              | 62.84           | -4.35                 | H                 | 58.49             | 68.20             | 9.71           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5580 MHz           |
| Channel No.         | 116 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11160              | 62.55           | -5.55                 | V                 | 57.00             | 73.98             | 16.98          | PK                  |
| 11160              | 48.99           | -5.55                 | V                 | 43.44             | 53.98             | 10.54          | AV                  |
| 16740              | 63.10           | -3.73                 | V                 | 59.37             | 68.20             | 8.83           | PK                  |
| 11160              | 62.46           | -5.55                 | H                 | 56.91             | 73.98             | 17.07          | PK                  |
| 11160              | 48.83           | -5.55                 | H                 | 43.28             | 53.98             | 10.70          | AV                  |
| 16740              | 62.86           | -3.73                 | H                 | 59.13             | 68.20             | 9.07           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5720 MHz           |
| Channel No.         | 144 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11440              | 61.65           | -6.08                 | V                 | 55.57             | 73.98             | 18.41          | PK                  |
| 11440              | 48.30           | -6.08                 | V                 | 42.22             | 53.98             | 11.76          | AV                  |
| 17160              | 63.01           | -0.85                 | V                 | 62.16             | 68.20             | 6.04           | PK                  |
| 11440              | 61.37           | -6.08                 | H                 | 55.29             | 73.98             | 18.69          | PK                  |
| 11440              | 48.12           | -6.08                 | H                 | 42.04             | 53.98             | 11.94          | AV                  |
| 17160              | 62.76           | -0.85                 | H                 | 61.91             | 68.20             | 6.29           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5500 MHz           |
| Channel No.         | 100 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11000              | 62.61           | -5.06                 | V                 | 57.55             | 73.98             | 16.43          | PK                  |
| 11000              | 48.74           | -5.06                 | V                 | 43.68             | 53.98             | 10.30          | AV                  |
| 16500              | 62.97           | -4.35                 | V                 | 58.62             | 68.20             | 9.58           | PK                  |
| 11000              | 62.37           | -5.06                 | H                 | 57.31             | 73.98             | 16.67          | PK                  |
| 11000              | 48.61           | -5.06                 | H                 | 43.55             | 53.98             | 10.43          | AV                  |
| 16500              | 62.59           | -4.35                 | H                 | 58.24             | 68.20             | 9.96           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5580 MHz           |
| Channel No.         | 116 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11160              | 62.82           | -5.55                 | V                 | 57.27             | 73.98             | 16.71          | PK                  |
| 11160              | 48.93           | -5.55                 | V                 | 43.38             | 53.98             | 10.60          | AV                  |
| 16740              | 62.99           | -3.73                 | V                 | 59.26             | 68.20             | 8.94           | PK                  |
| 11160              | 62.53           | -5.55                 | H                 | 56.98             | 73.98             | 17.00          | PK                  |
| 11160              | 48.71           | -5.55                 | H                 | 43.16             | 53.98             | 10.82          | AV                  |
| 16740              | 62.64           | -3.73                 | H                 | 58.91             | 68.20             | 9.29           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5720 MHz           |
| Channel No.         | 144 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11440              | 62.57           | -6.08                 | V                 | 56.49             | 73.98             | 17.49          | PK                  |
| 11440              | 49.21           | -6.08                 | V                 | 43.13             | 53.98             | 10.85          | AV                  |
| 17160              | 63.28           | -0.85                 | V                 | 62.43             | 68.20             | 5.77           | PK                  |
| 11440              | 62.31           | -6.08                 | H                 | 56.23             | 73.98             | 17.75          | PK                  |
| 11440              | 49.14           | -6.08                 | H                 | 43.06             | 53.98             | 10.92          | AV                  |
| 17160              | 63.06           | -0.85                 | H                 | 62.21             | 68.20             | 5.99           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2C             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5500MHz             |
| Channel No.         | 100 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11000              | 62.68           | -5.06                 | V                 | 57.62             | 73.98             | 16.36          | PK                  |
| 11000              | 48.90           | -5.06                 | V                 | 43.84             | 53.98             | 10.14          | AV                  |
| 16500              | 62.95           | -4.35                 | V                 | 58.60             | 68.20             | 9.60           | PK                  |
| 11000              | 62.55           | -5.06                 | H                 | 57.49             | 73.98             | 16.49          | PK                  |
| 11000              | 48.76           | -5.06                 | H                 | 43.70             | 53.98             | 10.28          | AV                  |
| 16500              | 62.46           | -4.35                 | H                 | 58.11             | 68.20             | 10.09          | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2C             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5580 MHz            |
| Channel No.         | 116 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11160              | 62.34           | -5.55                 | V                 | 56.79             | 73.98             | 17.19          | PK                  |
| 11160              | 48.75           | -5.55                 | V                 | 43.20             | 53.98             | 10.78          | AV                  |
| 16740              | 63.05           | -3.73                 | V                 | 59.32             | 68.20             | 8.88           | PK                  |
| 11160              | 62.17           | -5.55                 | H                 | 56.62             | 73.98             | 17.36          | PK                  |
| 11160              | 48.52           | -5.55                 | H                 | 42.97             | 53.98             | 11.01          | AV                  |
| 16740              | 62.76           | -3.73                 | H                 | 59.03             | 68.20             | 9.17           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2C             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5720 MHz            |
| Channel No.         | 144 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11440              | 62.51           | -6.08                 | V                 | 56.43             | 73.98             | 17.55          | PK                  |
| 11440              | 48.84           | -6.08                 | V                 | 42.76             | 53.98             | 11.22          | AV                  |
| 17160              | 62.98           | -0.85                 | V                 | 62.13             | 68.20             | 6.07           | PK                  |
| 11440              | 62.19           | -6.08                 | H                 | 56.11             | 73.98             | 17.87          | PK                  |
| 11440              | 48.62           | -6.08                 | H                 | 42.54             | 53.98             | 11.44          | AV                  |
| 17160              | 62.57           | -0.85                 | H                 | 61.72             | 68.20             | 6.48           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 2C           |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5510 MHz          |
| Channel No.         | 102 Ch            |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11020              | 61.62           | -5.86                 | V                 | 55.76             | 73.98             | 18.22          | PK                  |
| 11020              | 49.02           | -5.86                 | V                 | 43.16             | 53.98             | 10.82          | AV                  |
| 16530              | 62.74           | -3.75                 | V                 | 58.99             | 68.20             | 9.21           | PK                  |
| 11020              | 61.47           | -5.86                 | H                 | 55.61             | 73.98             | 18.37          | PK                  |
| 11020              | 48.86           | -5.86                 | H                 | 43.00             | 53.98             | 10.98          | AV                  |
| 16530              | 62.38           | -3.75                 | H                 | 58.63             | 68.20             | 9.57           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 2C           |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5550 MHz          |
| Channel No.         | 110 Ch            |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11100              | 61.78           | -6.14                 | V                 | 55.64             | 73.98             | 18.34          | PK                  |
| 11100              | 48.81           | -6.14                 | V                 | 42.67             | 53.98             | 11.31          | AV                  |
| 16650              | 62.63           | -3.11                 | V                 | 59.52             | 68.20             | 8.68           | PK                  |
| 11100              | 61.55           | -6.14                 | H                 | 55.41             | 73.98             | 18.57          | PK                  |
| 11100              | 48.63           | -6.14                 | H                 | 42.49             | 53.98             | 11.49          | AV                  |
| 16650              | 62.48           | -3.11                 | H                 | 59.37             | 68.20             | 8.83           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 2C           |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5710 MHz          |
| Channel No.         | 142 Ch            |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11420              | 61.73           | -5.10                 | V                 | 56.63             | 73.98             | 17.35          | PK                  |
| 11420              | 48.66           | -5.10                 | V                 | 43.56             | 53.98             | 10.42          | AV                  |
| 17130              | 62.52           | -1.27                 | V                 | 61.25             | 68.20             | 6.95           | PK                  |
| 11420              | 61.54           | -5.10                 | H                 | 56.44             | 73.98             | 17.54          | PK                  |
| 11420              | 48.51           | -5.10                 | H                 | 43.41             | 53.98             | 10.57          | AV                  |
| 17130              | 62.39           | -1.27                 | H                 | 61.12             | 68.20             | 7.08           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5510 MHz           |
| Channel No.         | 102 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11020              | 62.12           | -5.86                 | V                 | 56.26             | 73.98             | 17.72          | PK                  |
| 11020              | 48.73           | -5.86                 | V                 | 42.87             | 53.98             | 11.11          | AV                  |
| 16530              | 62.88           | -3.75                 | V                 | 59.13             | 68.20             | 9.07           | PK                  |
| 11020              | 62.05           | -5.86                 | H                 | 56.19             | 73.98             | 17.79          | PK                  |
| 11020              | 48.66           | -5.86                 | H                 | 42.80             | 53.98             | 11.18          | AV                  |
| 16530              | 62.74           | -3.75                 | H                 | 58.99             | 68.20             | 9.21           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5550 MHz           |
| Channel No.         | 110 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11100              | 62.06           | -6.14                 | V                 | 55.92             | 73.98             | 18.06          | PK                  |
| 11100              | 48.82           | -6.14                 | V                 | 42.68             | 53.98             | 11.30          | AV                  |
| 16650              | 62.93           | -3.11                 | V                 | 59.82             | 68.20             | 8.38           | PK                  |
| 11100              | 62.02           | -6.14                 | H                 | 55.88             | 73.98             | 18.10          | PK                  |
| 11100              | 48.75           | -6.14                 | H                 | 42.61             | 53.98             | 11.37          | AV                  |
| 16650              | 62.78           | -3.11                 | H                 | 59.67             | 68.20             | 8.53           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5710 MHz           |
| Channel No.         | 142 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11420              | 62.25           | -6.07                 | V                 | 56.18             | 73.98             | 17.80          | PK                  |
| 11420              | 49.03           | -6.07                 | V                 | 42.96             | 53.98             | 11.02          | AV                  |
| 17130              | 62.96           | -0.81                 | V                 | 62.15             | 68.20             | 6.05           | PK                  |
| 11420              | 62.13           | -6.07                 | H                 | 56.06             | 73.98             | 17.92          | PK                  |
| 11420              | 48.87           | -6.07                 | H                 | 42.80             | 53.98             | 11.18          | AV                  |
| 17130              | 62.91           | -0.81                 | H                 | 62.10             | 68.20             | 6.10           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps          |
| Operating Frequency | 5530 MHz           |
| Channel No.         | 106 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11060              | 61.82           | -6.21                 | V                 | 55.61             | 73.98             | 18.37          | PK                  |
| 11060              | 48.66           | -6.21                 | V                 | 42.45             | 53.98             | 11.53          | AV                  |
| 16590              | 62.73           | -3.20                 | V                 | 59.53             | 68.20             | 8.67           | PK                  |
| 11060              | 61.74           | -6.21                 | H                 | 55.53             | 73.98             | 18.45          | PK                  |
| 11060              | 48.60           | -6.21                 | H                 | 42.39             | 53.98             | 11.59          | AV                  |
| 16590              | 62.68           | -3.20                 | H                 | 59.48             | 68.20             | 8.72           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_80 MHz BW. Worst case is 29.3 Mbps in 802.11ac\_80 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps          |
| Operating Frequency | 5690 MHz           |
| Channel No.         | 138 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11380              | 62.01           | -5.59                 | V                 | 56.42             | 73.98             | 17.56          | PK                  |
| 11380              | 48.86           | -5.59                 | V                 | 43.27             | 53.98             | 10.71          | AV                  |
| 17070              | 62.89           | -1.32                 | V                 | 61.57             | 68.20             | 6.63           | PK                  |
| 11380              | 61.89           | -5.59                 | H                 | 56.30             | 73.98             | 17.68          | PK                  |
| 11380              | 48.72           | -5.59                 | H                 | 43.13             | 53.98             | 10.85          | AV                  |
| 17070              | 62.84           | -1.32                 | H                 | 61.52             | 68.20             | 6.68           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_80 MHz BW. Worst case is 29.3 Mbps in 802.11ac\_80 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5745MHz            |
| Channel No.         | 149 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11490              | 62.98           | -6.10                 | V                 | 56.88             | 73.98             | 17.10          | PK                  |
| 11490              | 49.27           | -6.10                 | V                 | 43.17             | 53.98             | 10.81          | AV                  |
| 17235              | 63.01           | -1.35                 | V                 | 61.66             | 68.20             | 6.54           | PK                  |
| 11490              | 62.81           | -6.10                 | H                 | 56.71             | 73.98             | 17.27          | PK                  |
| 11490              | 49.16           | -6.10                 | H                 | 43.06             | 53.98             | 10.92          | AV                  |
| 17235              | 62.83           | -1.35                 | H                 | 61.48             | 68.20             | 6.72           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5785 MHz           |
| Channel No.         | 157 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11570              | 62.33           | -5.57                 | V                 | 56.76             | 73.98             | 17.22          | PK                  |
| 11570              | 48.94           | -5.57                 | V                 | 43.37             | 53.98             | 10.61          | AV                  |
| 17355              | 62.00           | -0.39                 | V                 | 61.61             | 68.20             | 6.59           | PK                  |
| 11570              | 62.11           | -5.57                 | H                 | 56.54             | 73.98             | 17.44          | PK                  |
| 11570              | 48.60           | -5.57                 | H                 | 43.03             | 53.98             | 10.95          | AV                  |
| 17355              | 61.84           | -0.39                 | H                 | 61.45             | 68.20             | 6.75           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5825 MHz           |
| Channel No.         | 165 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11650              | 62.99           | -6.63                 | V                 | 56.36             | 73.98             | 17.62          | PK                  |
| 11650              | 49.31           | -6.63                 | V                 | 42.68             | 53.98             | 11.30          | AV                  |
| 17475              | 62.30           | 0.29                  | V                 | 62.59             | 68.20             | 5.61           | PK                  |
| 11650              | 62.57           | -6.63                 | H                 | 55.94             | 73.98             | 18.04          | PK                  |
| 11650              | 49.16           | -6.63                 | H                 | 42.53             | 53.98             | 11.45          | AV                  |
| 17475              | 62.54           | 0.29                  | H                 | 62.83             | 68.20             | 5.37           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5745 MHz           |
| Channel No.         | 149 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11490              | 62.62           | -6.10                 | V                 | 56.52             | 73.98             | 17.46          | PK                  |
| 11490              | 48.93           | -6.10                 | V                 | 42.83             | 53.98             | 11.15          | AV                  |
| 17235              | 63.21           | -1.35                 | V                 | 61.86             | 68.20             | 6.34           | PK                  |
| 11490              | 62.37           | -6.10                 | H                 | 56.27             | 73.98             | 17.71          | PK                  |
| 11490              | 48.69           | -6.10                 | H                 | 42.59             | 53.98             | 11.39          | AV                  |
| 17235              | 62.98           | -1.35                 | H                 | 61.63             | 68.20             | 6.57           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5785 MHz           |
| Channel No.         | 157 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11570              | 62.53           | -5.57                 | V                 | 56.96             | 73.98             | 17.02          | PK                  |
| 11570              | 49.12           | -5.57                 | V                 | 43.55             | 53.98             | 10.43          | AV                  |
| 17355              | 63.62           | -0.39                 | V                 | 63.23             | 68.20             | 4.97           | PK                  |
| 11570              | 62.35           | -5.57                 | H                 | 56.78             | 73.98             | 17.20          | PK                  |
| 11570              | 48.88           | -5.57                 | H                 | 43.31             | 53.98             | 10.67          | AV                  |
| 17355              | 63.49           | -0.39                 | H                 | 63.10             | 68.20             | 5.10           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5825 MHz           |
| Channel No.         | 165 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11650              | 63.02           | -6.63                 | V                 | 56.39             | 73.98             | 17.59          | PK                  |
| 11650              | 48.63           | -6.63                 | V                 | 42.00             | 53.98             | 11.98          | AV                  |
| 17475              | 63.74           | 0.29                  | V                 | 64.03             | 68.20             | 4.17           | PK                  |
| 11650              | 62.84           | -6.63                 | H                 | 56.21             | 73.98             | 17.77          | PK                  |
| 11650              | 48.45           | -6.63                 | H                 | 41.82             | 53.98             | 12.16          | AV                  |
| 17475              | 63.49           | 0.29                  | H                 | 63.78             | 68.20             | 4.42           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 3              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5745 MHz            |
| Channel No.         | 149 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11490              | 62.43           | -6.10                 | V                 | 56.33             | 73.98             | 17.65          | PK                  |
| 11490              | 49.05           | -6.10                 | V                 | 42.95             | 53.98             | 11.03          | AV                  |
| 17235              | 62.91           | -1.35                 | V                 | 61.56             | 68.20             | 6.64           | PK                  |
| 11490              | 62.37           | -6.10                 | H                 | 56.27             | 73.98             | 17.71          | PK                  |
| 11490              | 48.86           | -6.10                 | H                 | 42.76             | 53.98             | 11.22          | AV                  |
| 17235              | 62.78           | -1.35                 | H                 | 61.43             | 68.20             | 6.77           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 3              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5785 MHz            |
| Channel No.         | 157 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11570              | 62.37           | -5.57                 | V                 | 56.80             | 73.98             | 17.18          | PK                  |
| 11570              | 48.98           | -5.57                 | V                 | 43.41             | 53.98             | 10.57          | AV                  |
| 17355              | 63.16           | -0.39                 | V                 | 62.77             | 68.20             | 5.43           | PK                  |
| 11570              | 62.14           | -5.57                 | H                 | 56.57             | 73.98             | 17.41          | PK                  |
| 11570              | 48.64           | -5.57                 | H                 | 43.07             | 53.98             | 10.91          | AV                  |
| 17355              | 62.92           | -0.39                 | H                 | 62.53             | 68.20             | 5.67           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 3              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5825 MHz            |
| Channel No.         | 165 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11650              | 62.48           | -6.63                 | V                 | 55.85             | 73.98             | 18.13          | PK                  |
| 11650              | 48.75           | -6.63                 | V                 | 42.12             | 53.98             | 11.86          | AV                  |
| 17475              | 63.10           | 0.29                  | V                 | 63.39             | 68.20             | 4.81           | PK                  |
| 11650              | 62.25           | -6.63                 | H                 | 55.62             | 73.98             | 18.36          | PK                  |
| 11650              | 48.53           | -6.63                 | H                 | 41.90             | 53.98             | 12.08          | AV                  |
| 17475              | 62.85           | 0.29                  | H                 | 63.14             | 68.20             | 5.06           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII3             |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5755 MHz          |
| Channel No.         | 151 Ch            |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11510              | 62.23           | -6.26                 | V                 | 55.97             | 73.98             | 18.01          | PK                  |
| 11510              | 48.97           | -6.26                 | V                 | 42.71             | 53.98             | 11.27          | AV                  |
| 17265              | 62.89           | -1.10                 | V                 | 61.79             | 68.20             | 6.41           | PK                  |
| 11510              | 62.06           | -6.26                 | H                 | 55.80             | 73.98             | 18.18          | PK                  |
| 11510              | 48.64           | -6.26                 | H                 | 42.38             | 53.98             | 11.60          | AV                  |
| 17265              | 62.73           | -1.10                 | H                 | 61.63             | 68.20             | 6.57           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 3            |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5795 MHz          |
| Channel No.         | 159 Ch            |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11590              | 62.14           | -5.92                 | V                 | 56.22             | 73.98             | 17.76          | PK                  |
| 11590              | 49.02           | -5.92                 | V                 | 43.10             | 53.98             | 10.88          | AV                  |
| 17385              | 62.93           | -0.24                 | V                 | 62.69             | 68.20             | 5.51           | PK                  |
| 11590              | 61.86           | -5.92                 | H                 | 55.94             | 73.98             | 18.04          | PK                  |
| 11590              | 48.93           | -5.92                 | H                 | 43.01             | 53.98             | 10.97          | AV                  |
| 17385              | 62.87           | -0.24                 | H                 | 62.63             | 68.20             | 5.57           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5755 MHz           |
| Channel No.         | 151 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11510              | 62.13           | -6.26                 | V                 | 55.87             | 73.98             | 18.11          | PK                  |
| 11510              | 48.82           | -6.26                 | V                 | 42.56             | 53.98             | 11.42          | AV                  |
| 17265              | 62.88           | -1.10                 | V                 | 61.78             | 68.20             | 6.42           | PK                  |
| 11510              | 62.05           | -6.26                 | H                 | 55.79             | 73.98             | 18.19          | PK                  |
| 11510              | 48.65           | -6.26                 | H                 | 42.39             | 53.98             | 11.59          | AV                  |
| 17265              | 62.74           | -1.10                 | H                 | 61.64             | 68.20             | 6.56           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5795 MHz           |
| Channel No.         | 159 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11590              | 62.16           | -5.92                 | V                 | 56.24             | 73.98             | 17.74          | PK                  |
| 11590              | 48.74           | -5.92                 | V                 | 42.82             | 53.98             | 11.16          | AV                  |
| 17385              | 62.85           | -0.24                 | V                 | 62.61             | 68.20             | 5.59           | PK                  |
| 11590              | 62.01           | -5.92                 | H                 | 56.09             | 73.98             | 17.89          | PK                  |
| 11590              | 48.56           | -5.92                 | H                 | 42.64             | 53.98             | 11.34          | AV                  |
| 17385              | 62.83           | -0.24                 | H                 | 62.59             | 68.20             | 5.61           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps          |
| Operating Frequency | 5775 MHz           |
| Channel No.         | 155 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11550              | 62.13           | -5.97                 | V                 | 56.16             | 73.98             | 17.82          | PK                  |
| 11550              | 48.85           | -5.97                 | V                 | 42.88             | 53.98             | 11.10          | AV                  |
| 17325              | 62.82           | -0.24                 | V                 | 62.58             | 68.20             | 5.62           | PK                  |
| 11550              | 62.10           | -5.97                 | H                 | 56.13             | 73.98             | 17.85          | PK                  |
| 11550              | 48.76           | -5.97                 | H                 | 42.79             | 53.98             | 11.19          | AV                  |
| 17325              | 62.76           | -0.24                 | H                 | 62.52             | 68.20             | 5.68           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_80 MHz BW. Worst case is 29.3 Mbps in 802.11ac\_80 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

## Close

### Above 1 GHz

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5180 MHz           |
| Channel No.         | 36 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10360              | 62.40           | -6.51                 | V                 | 55.89             | 68.20             | 12.31          | PK                  |
| 15540              | 62.84           | -6.42                 | V                 | 56.42             | 73.98             | 17.56          | PK                  |
| 15540              | 49.26           | -6.42                 | V                 | 42.84             | 53.98             | 11.14          | AV                  |
| 10360              | 62.17           | -6.51                 | H                 | 55.66             | 68.20             | 12.54          | PK                  |
| 15540              | 62.82           | -6.42                 | H                 | 56.40             | 73.98             | 17.58          | PK                  |
| 15540              | 49.22           | -6.42                 | H                 | 42.80             | 53.98             | 11.18          | AV                  |

### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5200 MHz           |
| Channel No.         | 40 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10400              | 61.05           | -6.49                 | V                 | 54.56             | 68.20             | 13.64          | PK                  |
| 15600              | 63.02           | -7.15                 | V                 | 55.87             | 73.98             | 18.11          | PK                  |
| 15600              | 49.55           | -7.15                 | V                 | 42.40             | 53.98             | 11.58          | AV                  |
| 10400              | 61.06           | -6.49                 | H                 | 54.57             | 68.20             | 13.63          | PK                  |
| 15600              | 63.19           | -7.15                 | H                 | 56.04             | 73.98             | 17.94          | PK                  |
| 15600              | 49.52           | -7.15                 | H                 | 42.37             | 53.98             | 11.61          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5240 MHz           |
| Channel No.         | 48 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10480              | 61.17           | -6.96                 | V                 | 54.21             | 68.20             | 13.99          | PK                  |
| 15720              | 63.10           | -6.62                 | V                 | 56.48             | 73.98             | 17.50          | PK                  |
| 15720              | 49.31           | -6.62                 | V                 | 42.69             | 53.98             | 11.29          | AV                  |
| 10480              | 61.23           | -6.96                 | H                 | 54.27             | 68.20             | 13.93          | PK                  |
| 15720              | 63.05           | -6.96                 | H                 | 56.09             | 73.98             | 17.89          | PK                  |
| 15720              | 49.28           | -6.62                 | H                 | 42.66             | 53.98             | 11.32          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5180 MHz           |
| Channel No.         | 36 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10360              | 62.66           | -6.51                 | V                 | 56.15             | 68.20             | 12.05          | PK                  |
| 15540              | 62.38           | -6.42                 | V                 | 55.96             | 73.98             | 18.02          | PK                  |
| 15540              | 49.20           | -6.42                 | V                 | 42.78             | 53.98             | 11.20          | AV                  |
| 10360              | 62.55           | -6.51                 | H                 | 56.04             | 68.20             | 12.16          | PK                  |
| 15540              | 62.35           | -6.42                 | H                 | 55.93             | 73.98             | 18.05          | PK                  |
| 15540              | 49.15           | -6.42                 | H                 | 42.73             | 53.98             | 11.25          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5200 MHz           |
| Channel No.         | 40 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10400              | 62.13           | -6.49                 | V                 | 55.64             | 68.20             | 12.56          | PK                  |
| 15600              | 62.29           | -7.15                 | V                 | 55.14             | 73.98             | 18.84          | PK                  |
| 15600              | 49.61           | -7.15                 | V                 | 42.46             | 53.98             | 11.52          | AV                  |
| 10400              | 62.12           | -6.49                 | H                 | 55.63             | 68.20             | 12.57          | PK                  |
| 15600              | 62.27           | -7.15                 | H                 | 55.12             | 73.98             | 18.86          | PK                  |
| 15600              | 49.58           | -7.15                 | H                 | 42.43             | 53.98             | 11.55          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5240 MHz           |
| Channel No.         | 48 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10480              | 62.10           | -6.96                 | V                 | 55.14             | 68.20             | 13.06          | PK                  |
| 15720              | 62.18           | -6.62                 | V                 | 55.56             | 73.98             | 18.42          | PK                  |
| 15720              | 49.35           | -6.62                 | V                 | 42.73             | 53.98             | 11.25          | AV                  |
| 10480              | 62.11           | -6.96                 | H                 | 55.15             | 68.20             | 13.05          | PK                  |
| 15720              | 62.21           | -6.96                 | H                 | 55.25             | 73.98             | 18.73          | PK                  |
| 15720              | 49.29           | -6.62                 | H                 | 42.67             | 53.98             | 11.31          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 1              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5180 MHz            |
| Channel No.         | 36 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10360              | 62.39           | -6.51                 | V                 | 55.88             | 68.20             | 12.32          | PK                  |
| 15540              | 62.21           | -6.42                 | V                 | 55.79             | 73.98             | 18.19          | PK                  |
| 15540              | 49.35           | -6.42                 | V                 | 42.93             | 53.98             | 11.05          | AV                  |
| 10360              | 62.48           | -6.51                 | H                 | 55.97             | 68.20             | 12.23          | PK                  |
| 15540              | 62.18           | -6.42                 | H                 | 55.76             | 73.98             | 18.22          | PK                  |
| 15540              | 49.26           | -6.42                 | H                 | 42.84             | 53.98             | 11.14          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 1              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5200 MHz            |
| Channel No.         | 40 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10400              | 62.03           | -6.49                 | V                 | 55.54             | 68.20             | 12.66          | PK                  |
| 15600              | 62.19           | -7.15                 | V                 | 55.04             | 73.98             | 18.94          | PK                  |
| 15600              | 49.26           | -7.15                 | V                 | 42.11             | 53.98             | 11.87          | AV                  |
| 10400              | 62.05           | -6.49                 | H                 | 55.56             | 68.20             | 12.64          | PK                  |
| 15600              | 62.18           | -7.15                 | H                 | 55.03             | 73.98             | 18.95          | PK                  |
| 15600              | 48.99           | -7.15                 | H                 | 41.84             | 53.98             | 12.14          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 1              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5240 MHz            |
| Channel No.         | 48 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10480              | 62.22           | -6.96                 | V                 | 55.26             | 68.20             | 12.94          | PK                  |
| 15720              | 62.10           | -6.62                 | V                 | 55.48             | 73.98             | 18.50          | PK                  |
| 15720              | 49.64           | -6.62                 | V                 | 43.02             | 53.98             | 10.96          | AV                  |
| 10480              | 62.14           | -6.96                 | H                 | 55.18             | 68.20             | 13.02          | PK                  |
| 15720              | 62.05           | -6.96                 | H                 | 55.09             | 73.98             | 18.89          | PK                  |
| 15720              | 49.21           | -6.62                 | H                 | 42.59             | 53.98             | 11.39          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 1            |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5190 MHz          |
| Channel No.         | 38 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10380              | 61.52           | -5.38                 | V                 | 56.14             | 68.20             | 12.06          | PK                  |
| 15570              | 62.81           | -6.41                 | V                 | 56.40             | 73.98             | 17.58          | PK                  |
| 15570              | 49.10           | -6.41                 | V                 | 42.69             | 53.98             | 11.29          | AV                  |
| 10380              | 61.50           | -5.38                 | H                 | 56.12             | 68.20             | 12.08          | PK                  |
| 15570              | 62.59           | -6.41                 | H                 | 56.18             | 73.98             | 17.80          | PK                  |
| 15570              | 48.92           | -6.41                 | H                 | 42.51             | 53.98             | 11.47          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 1            |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5230 MHz          |
| Channel No.         | 46 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10460              | 62.03           | -6.88                 | V                 | 55.15             | 68.20             | 13.05          | PK                  |
| 15690              | 62.83           | -6.64                 | V                 | 56.19             | 73.98             | 17.79          | PK                  |
| 15690              | 48.92           | -6.64                 | V                 | 42.28             | 53.98             | 11.70          | AV                  |
| 10460              | 61.85           | -6.88                 | H                 | 54.97             | 68.20             | 13.23          | PK                  |
| 15690              | 62.67           | -6.64                 | H                 | 56.03             | 73.98             | 17.95          | PK                  |
| 15690              | 48.80           | -6.64                 | H                 | 42.16             | 53.98             | 11.82          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5190 MHz           |
| Channel No.         | 38 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10380              | 61.84           | -5.38                 | V                 | 56.46             | 68.20             | 11.74          | PK                  |
| 15570              | 62.90           | -6.41                 | V                 | 56.49             | 73.98             | 17.49          | PK                  |
| 15570              | 48.85           | -6.41                 | V                 | 42.44             | 53.98             | 11.54          | AV                  |
| 10380              | 61.65           | -5.38                 | H                 | 56.27             | 68.20             | 11.93          | PK                  |
| 15570              | 62.76           | -6.41                 | H                 | 56.35             | 73.98             | 17.63          | PK                  |
| 15570              | 48.61           | -6.41                 | H                 | 42.20             | 53.98             | 11.78          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5230 MHz           |
| Channel No.         | 46 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10460              | 61.73           | -6.88                 | V                 | 54.85             | 68.20             | 13.35          | PK                  |
| 15690              | 62.61           | -6.64                 | V                 | 55.97             | 73.98             | 18.01          | PK                  |
| 15690              | 48.59           | -6.64                 | V                 | 41.95             | 53.98             | 12.03          | AV                  |
| 10460              | 61.64           | -6.88                 | H                 | 54.76             | 68.20             | 13.44          | PK                  |
| 15690              | 62.39           | -6.64                 | H                 | 55.75             | 73.98             | 18.23          | PK                  |
| 15690              | 48.55           | -6.64                 | H                 | 41.91             | 53.98             | 12.07          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps          |
| Operating Frequency | 5210 MHz           |
| Channel No.         | 42 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10420              | 62.13           | -6.32                 | V                 | 55.81             | 68.20             | 12.39          | PK                  |
| 15630              | 62.91           | -7.14                 | V                 | 55.77             | 73.98             | 18.21          | PK                  |
| 15630              | 48.57           | -7.14                 | V                 | 41.43             | 53.98             | 12.55          | AV                  |
| 10420              | 62.05           | -6.32                 | H                 | 55.73             | 68.20             | 12.47          | PK                  |
| 15630              | 62.89           | -7.14                 | H                 | 55.75             | 73.98             | 18.23          | PK                  |
| 15630              | 48.54           | -7.14                 | H                 | 41.40             | 53.98             | 12.58          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_80 MHz BW. Worst case is 29.3 Mbps in 802.11ac\_80 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5260 MHz           |
| Channel No.         | 52 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10520              | 62.55           | -6.52                 | V                 | 56.03             | 68.20             | 12.17          | PK                  |
| 15780              | 63.22           | -6.67                 | V                 | 56.55             | 73.98             | 17.43          | PK                  |
| 15780              | 49.85           | -6.67                 | V                 | 43.18             | 53.98             | 10.80          | AV                  |
| 10520              | 62.73           | -6.52                 | H                 | 56.21             | 68.20             | 11.99          | PK                  |
| 15780              | 63.25           | -6.67                 | H                 | 56.58             | 73.98             | 17.40          | PK                  |
| 15780              | 49.80           | -6.67                 | H                 | 43.13             | 53.98             | 10.85          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5300 MHz           |
| Channel No.         | 60 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10600              | 62.35           | -6.72                 | V                 | 55.63             | 73.98             | 18.35          | PK                  |
| 10600              | 48.79           | -6.72                 | V                 | 42.07             | 53.98             | 11.91          | AV                  |
| 15900              | 64.01           | -7.00                 | V                 | 57.01             | 73.98             | 16.97          | PK                  |
| 15900              | 49.98           | -7.00                 | V                 | 42.98             | 53.98             | 11.00          | AV                  |
| 10600              | 62.34           | -6.72                 | H                 | 55.62             | 73.98             | 18.36          | PK                  |
| 10600              | 48.82           | -6.72                 | H                 | 42.10             | 53.98             | 11.88          | AV                  |
| 15900              | 63.58           | -7.00                 | H                 | 56.58             | 73.98             | 17.40          | PK                  |
| 15900              | 49.77           | -7.00                 | H                 | 42.77             | 53.98             | 11.21          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5320 MHz           |
| Channel No.         | 64 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10640              | 63.54           | -6.43                 | V                 | 57.11             | 73.98             | 16.87          | PK                  |
| 10640              | 48.84           | -6.43                 | V                 | 42.41             | 53.98             | 11.57          | AV                  |
| 15960              | 62.53           | -6.93                 | V                 | 55.60             | 73.98             | 18.38          | PK                  |
| 15960              | 48.86           | -6.93                 | V                 | 41.93             | 53.98             | 12.05          | AV                  |
| 10640              | 63.53           | -6.43                 | H                 | 57.10             | 73.98             | 16.88          | PK                  |
| 10640              | 48.79           | -6.43                 | H                 | 42.36             | 53.98             | 11.62          | AV                  |
| 15960              | 62.51           | -6.93                 | H                 | 55.58             | 73.98             | 18.40          | PK                  |
| 15960              | 48.78           | -6.93                 | H                 | 41.85             | 53.98             | 12.13          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5260 MHz           |
| Channel No.         | 52 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10520              | 62.13           | -6.52                 | V                 | 55.61             | 68.20             | 12.59          | PK                  |
| 15780              | 62.15           | -6.67                 | V                 | 55.48             | 73.98             | 18.50          | PK                  |
| 15780              | 49.25           | -6.67                 | V                 | 42.58             | 53.98             | 11.40          | AV                  |
| 10520              | 61.96           | -6.52                 | H                 | 55.44             | 68.20             | 12.76          | PK                  |
| 15780              | 62.12           | -6.67                 | H                 | 55.45             | 73.98             | 18.53          | PK                  |
| 15780              | 49.22           | -6.67                 | H                 | 42.55             | 53.98             | 11.43          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5300 MHz           |
| Channel No.         | 60 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10600              | 62.41           | -6.72                 | V                 | 55.69             | 73.98             | 18.29          | PK                  |
| 10600              | 48.27           | -6.72                 | V                 | 41.55             | 53.98             | 12.43          | AV                  |
| 15900              | 63.15           | -7.00                 | V                 | 56.15             | 73.98             | 17.83          | PK                  |
| 15900              | 49.59           | -7.00                 | V                 | 42.59             | 53.98             | 11.39          | AV                  |
| 10600              | 62.45           | -6.72                 | H                 | 55.73             | 73.98             | 18.25          | PK                  |
| 10600              | 48.23           | -6.72                 | H                 | 41.51             | 53.98             | 12.47          | AV                  |
| 15900              | 63.12           | -7.00                 | H                 | 56.12             | 73.98             | 17.86          | PK                  |
| 15900              | 49.56           | -7.00                 | H                 | 42.56             | 53.98             | 11.42          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5320 MHz           |
| Channel No.         | 64 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10640              | 63.55           | -6.43                 | V                 | 57.12             | 73.98             | 16.86          | PK                  |
| 10640              | 49.19           | -6.43                 | V                 | 42.76             | 53.98             | 11.22          | AV                  |
| 15960              | 62.17           | -6.93                 | V                 | 55.24             | 73.98             | 18.74          | PK                  |
| 15960              | 48.60           | -6.93                 | V                 | 41.67             | 53.98             | 12.31          | AV                  |
| 10640              | 63.63           | -6.43                 | H                 | 57.20             | 73.98             | 16.78          | PK                  |
| 10640              | 49.12           | -6.43                 | H                 | 42.69             | 53.98             | 11.29          | AV                  |
| 15960              | 62.18           | -6.93                 | H                 | 55.25             | 73.98             | 18.73          | PK                  |
| 15960              | 48.56           | -6.93                 | H                 | 41.63             | 53.98             | 12.35          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2A             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5260MHz             |
| Channel No.         | 52 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10520              | 61.78           | -6.52                 | V                 | 55.26             | 68.20             | 12.94          | PK                  |
| 15780              | 61.98           | -6.67                 | V                 | 55.31             | 73.98             | 18.67          | PK                  |
| 15780              | 49.05           | -6.67                 | V                 | 42.38             | 53.98             | 11.60          | AV                  |
| 10520              | 61.88           | -6.52                 | H                 | 55.36             | 68.20             | 12.84          | PK                  |
| 15780              | 62.05           | -6.67                 | H                 | 55.38             | 73.98             | 18.60          | PK                  |
| 15780              | 48.96           | -6.67                 | H                 | 42.29             | 53.98             | 11.69          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2A             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5300 MHz            |
| Channel No.         | 60 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10600              | 61.99           | -6.72                 | V                 | 55.27             | 73.98             | 18.71          | PK                  |
| 10600              | 48.33           | -6.72                 | V                 | 41.61             | 53.98             | 12.37          | AV                  |
| 15900              | 62.84           | -7.00                 | V                 | 55.84             | 73.98             | 18.14          | PK                  |
| 15900              | 49.69           | -7.00                 | V                 | 42.69             | 53.98             | 11.29          | AV                  |
| 10600              | 62.05           | -6.72                 | H                 | 55.33             | 73.98             | 18.65          | PK                  |
| 10600              | 48.12           | -6.72                 | H                 | 41.40             | 53.98             | 12.58          | AV                  |
| 15900              | 63.07           | -7.00                 | H                 | 56.07             | 73.98             | 17.91          | PK                  |
| 15900              | 49.45           | -7.00                 | H                 | 42.45             | 53.98             | 11.53          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2A             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5320 MHz            |
| Channel No.         | 64 Ch               |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10640              | 63.48           | -6.43                 | V                 | 57.05             | 73.98             | 16.93          | PK                  |
| 10640              | 49.33           | -6.43                 | V                 | 42.90             | 53.98             | 11.08          | AV                  |
| 15960              | 62.01           | -6.93                 | V                 | 55.08             | 73.98             | 18.90          | PK                  |
| 15960              | 48.59           | -6.93                 | V                 | 41.66             | 53.98             | 12.32          | AV                  |
| 10640              | 63.56           | -6.43                 | H                 | 57.13             | 73.98             | 16.85          | PK                  |
| 10640              | 49.21           | -6.43                 | H                 | 42.78             | 53.98             | 11.20          | AV                  |
| 15960              | 62.05           | -6.93                 | H                 | 55.12             | 73.98             | 18.86          | PK                  |
| 15960              | 48.45           | -6.93                 | H                 | 41.52             | 53.98             | 12.46          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 2A           |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5270 MHz          |
| Channel No.         | 54 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10540              | 62.22           | -5.77                 | V                 | 56.45             | 68.20             | 11.75          | PK                  |
| 15810              | 62.77           | -7.47                 | V                 | 55.30             | 73.98             | 18.68          | PK                  |
| 15810              | 49.55           | -7.47                 | V                 | 42.08             | 53.98             | 11.90          | AV                  |
| 10540              | 62.06           | -5.77                 | H                 | 56.29             | 68.20             | 11.91          | PK                  |
| 15810              | 62.49           | -7.47                 | H                 | 55.02             | 73.98             | 18.96          | PK                  |
| 15810              | 49.32           | -7.47                 | H                 | 41.85             | 53.98             | 12.13          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 2A           |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5310 MHz          |
| Channel No.         | 62 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10620              | 62.13           | -6.36                 | V                 | 55.77             | 73.98             | 18.21          | PK                  |
| 10620              | 48.85           | -6.36                 | V                 | 42.49             | 53.98             | 11.49          | AV                  |
| 15930              | 62.89           | -6.77                 | V                 | 56.12             | 73.98             | 17.86          | PK                  |
| 15930              | 49.25           | -6.77                 | V                 | 42.48             | 53.98             | 11.50          | AV                  |
| 10620              | 62.01           | -6.36                 | H                 | 55.65             | 73.98             | 18.33          | PK                  |
| 10620              | 48.67           | -6.36                 | H                 | 42.31             | 53.98             | 11.67          | AV                  |
| 15930              | 62.73           | -6.77                 | H                 | 55.96             | 73.98             | 18.02          | PK                  |
| 15930              | 49.05           | -6.77                 | H                 | 42.28             | 53.98             | 11.70          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5270 MHz           |
| Channel No.         | 54 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10540              | 61.99           | -5.77                 | V                 | 56.22             | 68.20             | 11.98          | PK                  |
| 15810              | 62.84           | -7.47                 | V                 | 55.37             | 73.98             | 18.61          | PK                  |
| 15810              | 49.03           | -7.47                 | V                 | 41.56             | 53.98             | 12.42          | AV                  |
| 10540              | 61.84           | -5.77                 | H                 | 56.07             | 68.20             | 12.13          | PK                  |
| 15810              | 62.78           | -7.47                 | H                 | 55.31             | 73.98             | 18.67          | PK                  |
| 15810              | 48.89           | -7.47                 | H                 | 41.42             | 53.98             | 12.56          | AV                  |

## Notes

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5310 MHz           |
| Channel No.         | 62 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10620              | 62.05           | -6.36                 | V                 | 55.69             | 73.98             | 18.29          | PK                  |
| 10620              | 48.72           | -6.36                 | V                 | 42.36             | 53.98             | 11.62          | AV                  |
| 15930              | 62.77           | -6.77                 | V                 | 56.00             | 73.98             | 17.98          | PK                  |
| 15930              | 48.95           | -6.77                 | V                 | 42.18             | 53.98             | 11.80          | AV                  |
| 10620              | 62.01           | -6.36                 | H                 | 55.65             | 73.98             | 18.33          | PK                  |
| 10620              | 48.66           | -6.36                 | H                 | 42.30             | 53.98             | 11.68          | AV                  |
| 15930              | 62.61           | -6.77                 | H                 | 55.84             | 73.98             | 18.14          | PK                  |
| 15930              | 48.85           | -6.77                 | H                 | 42.08             | 53.98             | 11.90          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps          |
| Operating Frequency | 5290 MHz           |
| Channel No.         | 58 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 10580              | 61.95           | -5.70                 | V                 | 56.25             | 68.20             | 11.95          | PK                  |
| 15870              | 62.81           | -7.27                 | V                 | 55.54             | 73.98             | 18.44          | PK                  |
| 15870              | 48.76           | -7.27                 | V                 | 41.49             | 53.98             | 12.49          | AV                  |
| 10580              | 61.93           | -5.70                 | H                 | 56.23             | 68.20             | 11.97          | PK                  |
| 15870              | 62.74           | -7.27                 | H                 | 55.47             | 73.98             | 18.51          | PK                  |
| 15870              | 48.62           | -7.27                 | H                 | 41.35             | 53.98             | 12.63          | AV                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_80 MHz BW. Worst case is 29.3 Mbps in 802.11ac\_80 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5500 MHz           |
| Channel No.         | 100 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11000              | 62.49           | -5.06                 | V                 | 57.43             | 73.98             | 16.55          | PK                  |
| 11000              | 48.79           | -5.06                 | V                 | 43.73             | 53.98             | 10.25          | AV                  |
| 16500              | 62.66           | -4.35                 | V                 | 58.31             | 68.20             | 9.89           | PK                  |
| 11000              | 62.45           | -5.06                 | H                 | 57.39             | 73.98             | 16.59          | PK                  |
| 11000              | 48.69           | -5.06                 | H                 | 43.63             | 53.98             | 10.35          | AV                  |
| 16500              | 62.65           | -4.35                 | H                 | 58.30             | 68.20             | 9.90           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5580 MHz           |
| Channel No.         | 116 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11160              | 63.01           | -5.55                 | V                 | 57.46             | 73.98             | 16.52          | PK                  |
| 11160              | 49.02           | -5.55                 | V                 | 43.47             | 53.98             | 10.51          | AV                  |
| 16740              | 62.87           | -3.73                 | V                 | 59.14             | 68.20             | 9.06           | PK                  |
| 11160              | 63.00           | -5.55                 | H                 | 57.45             | 73.98             | 16.53          | PK                  |
| 11160              | 48.96           | -5.55                 | H                 | 43.41             | 53.98             | 10.57          | AV                  |
| 16740              | 62.91           | -3.73                 | H                 | 59.18             | 68.20             | 9.02           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5720 MHz           |
| Channel No.         | 144 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11440              | 62.34           | -6.08                 | V                 | 56.26             | 73.98             | 17.72          | PK                  |
| 11440              | 48.26           | -6.08                 | V                 | 42.18             | 53.98             | 11.80          | AV                  |
| 17160              | 62.79           | -0.85                 | V                 | 61.94             | 68.20             | 6.26           | PK                  |
| 11440              | 62.35           | -6.08                 | H                 | 56.27             | 73.98             | 17.71          | PK                  |
| 11440              | 48.12           | -6.08                 | H                 | 42.04             | 53.98             | 11.94          | AV                  |
| 17160              | 62.84           | -0.85                 | H                 | 61.99             | 68.20             | 6.21           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5500 MHz           |
| Channel No.         | 100 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11000              | 62.14           | -5.06                 | V                 | 57.08             | 73.98             | 16.90          | PK                  |
| 11000              | 49.01           | -5.06                 | V                 | 43.95             | 53.98             | 10.03          | AV                  |
| 16500              | 62.59           | -4.35                 | V                 | 58.24             | 68.20             | 9.96           | PK                  |
| 11000              | 62.16           | -5.06                 | H                 | 57.10             | 73.98             | 16.88          | PK                  |
| 11000              | 48.99           | -5.06                 | H                 | 43.93             | 53.98             | 10.05          | AV                  |
| 16500              | 62.55           | -4.35                 | H                 | 58.20             | 68.20             | 10.00          | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5580 MHz           |
| Channel No.         | 116 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11160              | 62.71           | -5.55                 | V                 | 57.16             | 73.98             | 16.82          | PK                  |
| 11160              | 48.72           | -5.55                 | V                 | 43.17             | 53.98             | 10.81          | AV                  |
| 16740              | 62.87           | -3.73                 | V                 | 59.14             | 68.20             | 9.06           | PK                  |
| 11160              | 62.96           | -5.55                 | H                 | 57.41             | 73.98             | 16.57          | PK                  |
| 11160              | 48.68           | -5.55                 | H                 | 43.13             | 53.98             | 10.85          | AV                  |
| 16740              | 62.93           | -3.73                 | H                 | 59.20             | 68.20             | 9.00           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5720 MHz           |
| Channel No.         | 144 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11440              | 62.19           | -6.08                 | V                 | 56.11             | 73.98             | 17.87          | PK                  |
| 11440              | 48.15           | -6.08                 | V                 | 42.07             | 53.98             | 11.91          | AV                  |
| 17160              | 62.49           | -0.85                 | V                 | 61.64             | 68.20             | 6.56           | PK                  |
| 11440              | 62.16           | -6.08                 | H                 | 56.08             | 73.98             | 17.90          | PK                  |
| 11440              | 48.05           | -6.08                 | H                 | 41.97             | 53.98             | 12.01          | AV                  |
| 17160              | 62.44           | -0.85                 | H                 | 61.59             | 68.20             | 6.61           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2C             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5500MHz             |
| Channel No.         | 100 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11000              | 62.48           | -5.06                 | V                 | 57.42             | 73.98             | 16.56          | PK                  |
| 11000              | 49.36           | -5.06                 | V                 | 44.30             | 53.98             | 9.68           | AV                  |
| 16500              | 62.49           | -4.35                 | V                 | 58.14             | 68.20             | 10.06          | PK                  |
| 11000              | 62.50           | -5.06                 | H                 | 57.44             | 73.98             | 16.54          | PK                  |
| 11000              | 49.23           | -5.06                 | H                 | 44.17             | 53.98             | 9.81           | AV                  |
| 16500              | 62.47           | -4.35                 | H                 | 58.12             | 68.20             | 10.08          | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2C             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5580 MHz            |
| Channel No.         | 116 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11160              | 63.12           | -5.55                 | V                 | 57.57             | 73.98             | 16.41          | PK                  |
| 11160              | 48.72           | -5.55                 | V                 | 43.17             | 53.98             | 10.81          | AV                  |
| 16740              | 62.92           | -3.73                 | V                 | 59.19             | 68.20             | 9.01           | PK                  |
| 11160              | 62.99           | -5.55                 | H                 | 57.44             | 73.98             | 16.54          | PK                  |
| 11160              | 48.69           | -5.55                 | H                 | 43.14             | 53.98             | 10.84          | AV                  |
| 16740              | 62.82           | -3.73                 | H                 | 59.09             | 68.20             | 9.11           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 2C             |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5720 MHz            |
| Channel No.         | 144 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11440              | 62.47           | -6.08                 | V                 | 56.39             | 73.98             | 17.59          | PK                  |
| 11440              | 48.54           | -6.08                 | V                 | 42.46             | 53.98             | 11.52          | AV                  |
| 17160              | 62.44           | -0.85                 | V                 | 61.59             | 68.20             | 6.61           | PK                  |
| 11440              | 62.55           | -6.08                 | H                 | 56.47             | 73.98             | 17.51          | PK                  |
| 11440              | 48.16           | -6.08                 | H                 | 42.08             | 53.98             | 11.90          | AV                  |
| 17160              | 62.73           | -0.85                 | H                 | 61.88             | 68.20             | 6.32           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 2C           |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5510 MHz          |
| Channel No.         | 102 Ch            |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11020              | 61.58           | -5.86                 | V                 | 55.72             | 73.98             | 18.26          | PK                  |
| 11020              | 49.00           | -5.86                 | V                 | 43.14             | 53.98             | 10.84          | AV                  |
| 16530              | 62.71           | -3.75                 | V                 | 58.96             | 68.20             | 9.24           | PK                  |
| 11020              | 61.42           | -5.86                 | H                 | 55.56             | 73.98             | 18.42          | PK                  |
| 11020              | 48.91           | -5.86                 | H                 | 43.05             | 53.98             | 10.93          | AV                  |
| 16530              | 62.35           | -3.75                 | H                 | 58.60             | 68.20             | 9.60           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 2C           |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5550 MHz          |
| Channel No.         | 110 Ch            |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11100              | 61.77           | -6.14                 | V                 | 55.63             | 73.98             | 18.35          | PK                  |
| 11100              | 48.80           | -6.14                 | V                 | 42.66             | 53.98             | 11.32          | AV                  |
| 16650              | 62.65           | -3.11                 | V                 | 59.54             | 68.20             | 8.66           | PK                  |
| 11100              | 61.58           | -6.14                 | H                 | 55.44             | 73.98             | 18.54          | PK                  |
| 11100              | 48.61           | -6.14                 | H                 | 42.47             | 53.98             | 11.51          | AV                  |
| 16650              | 62.49           | -3.11                 | H                 | 59.38             | 68.20             | 8.82           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 2C           |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5710 MHz          |
| Channel No.         | 142 Ch            |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11420              | 61.70           | -5.10                 | V                 | 56.60             | 73.98             | 17.38          | PK                  |
| 11420              | 48.63           | -5.10                 | V                 | 43.53             | 53.98             | 10.45          | AV                  |
| 17130              | 62.51           | -1.27                 | V                 | 61.24             | 68.20             | 6.96           | PK                  |
| 11420              | 61.57           | -5.10                 | H                 | 56.47             | 73.98             | 17.51          | PK                  |
| 11420              | 48.52           | -5.10                 | H                 | 43.42             | 53.98             | 10.56          | AV                  |
| 17130              | 62.42           | -1.27                 | H                 | 61.15             | 68.20             | 7.05           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5510 MHz           |
| Channel No.         | 102 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11020              | 62.08           | -5.86                 | V                 | 56.22             | 73.98             | 17.76          | PK                  |
| 11020              | 48.74           | -5.86                 | V                 | 42.88             | 53.98             | 11.10          | AV                  |
| 16530              | 62.84           | -3.75                 | V                 | 59.09             | 68.20             | 9.11           | PK                  |
| 11020              | 62.01           | -5.86                 | H                 | 56.15             | 73.98             | 17.83          | PK                  |
| 11020              | 48.64           | -5.86                 | H                 | 42.78             | 53.98             | 11.20          | AV                  |
| 16530              | 62.73           | -3.75                 | H                 | 58.98             | 68.20             | 9.22           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5550 MHz           |
| Channel No.         | 110 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11100              | 62.04           | -6.14                 | V                 | 55.90             | 73.98             | 18.08          | PK                  |
| 11100              | 48.78           | -6.14                 | V                 | 42.64             | 53.98             | 11.34          | AV                  |
| 16650              | 62.89           | -3.11                 | V                 | 59.78             | 68.20             | 8.42           | PK                  |
| 11100              | 61.98           | -6.14                 | H                 | 55.84             | 73.98             | 18.14          | PK                  |
| 11100              | 48.74           | -6.14                 | H                 | 42.60             | 53.98             | 11.38          | AV                  |
| 16650              | 62.81           | -3.11                 | H                 | 59.70             | 68.20             | 8.50           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5710 MHz           |
| Channel No.         | 142 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11420              | 62.14           | -6.07                 | V                 | 56.07             | 73.98             | 17.91          | PK                  |
| 11420              | 48.98           | -6.07                 | V                 | 42.91             | 53.98             | 11.07          | AV                  |
| 17130              | 62.89           | -0.81                 | V                 | 62.08             | 68.20             | 6.12           | PK                  |
| 11420              | 62.04           | -6.07                 | H                 | 55.97             | 73.98             | 18.01          | PK                  |
| 11420              | 48.84           | -6.07                 | H                 | 42.77             | 53.98             | 11.21          | AV                  |
| 17130              | 62.76           | -0.81                 | H                 | 61.95             | 68.20             | 6.25           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps          |
| Operating Frequency | 5530 MHz           |
| Channel No.         | 106 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11060              | 61.83           | -6.21                 | V                 | 55.62             | 73.98             | 18.36          | PK                  |
| 11060              | 48.62           | -6.21                 | V                 | 42.41             | 53.98             | 11.57          | AV                  |
| 16590              | 62.72           | -3.20                 | V                 | 59.52             | 68.20             | 8.68           | PK                  |
| 11060              | 61.79           | -6.21                 | H                 | 55.58             | 73.98             | 18.40          | PK                  |
| 11060              | 48.58           | -6.21                 | H                 | 42.37             | 53.98             | 11.61          | AV                  |
| 16590              | 62.69           | -3.20                 | H                 | 59.49             | 68.20             | 8.71           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_80 MHz BW. Worst case is 29.3 Mbps in 802.11ac\_80 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2C            |
| Operation Mode:     | 802.11ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps          |
| Operating Frequency | 5690 MHz           |
| Channel No.         | 138 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11380              | 62.03           | -5.59                 | V                 | 56.44             | 73.98             | 17.54          | PK                  |
| 11380              | 48.76           | -5.59                 | V                 | 43.17             | 53.98             | 10.81          | AV                  |
| 17070              | 62.88           | -1.32                 | V                 | 61.56             | 68.20             | 6.64           | PK                  |
| 11380              | 61.91           | -5.59                 | H                 | 56.32             | 73.98             | 17.66          | PK                  |
| 11380              | 48.67           | -5.59                 | H                 | 43.08             | 53.98             | 10.90          | AV                  |
| 17070              | 62.85           | -1.32                 | H                 | 61.53             | 68.20             | 6.67           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_80 MHz BW. Worst case is 29.3 Mbps in 802.11ac\_80 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5745MHz            |
| Channel No.         | 149 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11490              | 63.28           | -6.10                 | V                 | 57.18             | 73.98             | 16.80          | PK                  |
| 11490              | 49.51           | -6.10                 | V                 | 43.41             | 53.98             | 10.57          | AV                  |
| 17235              | 62.78           | -1.35                 | V                 | 61.43             | 68.20             | 6.77           | PK                  |
| 11490              | 63.31           | -6.10                 | H                 | 57.21             | 73.98             | 16.77          | PK                  |
| 11490              | 49.35           | -6.10                 | H                 | 43.25             | 53.98             | 10.73          | AV                  |
| 17235              | 62.88           | -1.35                 | H                 | 61.53             | 68.20             | 6.67           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5785 MHz           |
| Channel No.         | 157 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11570              | 63.44           | -5.57                 | V                 | 57.87             | 73.98             | 16.11          | PK                  |
| 11570              | 48.99           | -5.57                 | V                 | 43.42             | 53.98             | 10.56          | AV                  |
| 17355              | 62.02           | -0.39                 | V                 | 61.63             | 68.20             | 6.57           | PK                  |
| 11570              | 63.46           | -5.57                 | H                 | 57.89             | 73.98             | 16.09          | PK                  |
| 11570              | 48.90           | -5.57                 | H                 | 43.33             | 53.98             | 10.65          | AV                  |
| 17355              | 61.95           | -0.39                 | H                 | 61.56             | 68.20             | 6.64           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5825 MHz           |
| Channel No.         | 165 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11650              | 62.89           | -6.63                 | V                 | 56.26             | 73.98             | 17.72          | PK                  |
| 11650              | 49.25           | -6.63                 | V                 | 42.62             | 53.98             | 11.36          | AV                  |
| 17475              | 62.19           | 0.29                  | V                 | 62.48             | 68.20             | 5.72           | PK                  |
| 11650              | 62.92           | -6.63                 | H                 | 56.29             | 73.98             | 17.69          | PK                  |
| 11650              | 49.15           | -6.63                 | H                 | 42.52             | 53.98             | 11.46          | AV                  |
| 17475              | 62.18           | 0.29                  | H                 | 62.47             | 68.20             | 5.73           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5745 MHz           |
| Channel No.         | 149 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11490              | 63.24           | -6.10                 | V                 | 57.14             | 73.98             | 16.84          | PK                  |
| 11490              | 49.89           | -6.10                 | V                 | 43.79             | 53.98             | 10.19          | AV                  |
| 17235              | 62.57           | -1.35                 | V                 | 61.22             | 68.20             | 6.98           | PK                  |
| 11490              | 63.12           | -6.10                 | H                 | 57.02             | 73.98             | 16.96          | PK                  |
| 11490              | 49.65           | -6.10                 | H                 | 43.55             | 53.98             | 10.43          | AV                  |
| 17235              | 62.45           | -1.35                 | H                 | 61.10             | 68.20             | 7.10           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5785 MHz           |
| Channel No.         | 157 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11570              | 62.87           | -5.57                 | V                 | 57.30             | 73.98             | 16.68          | PK                  |
| 11570              | 49.33           | -5.57                 | V                 | 43.76             | 53.98             | 10.22          | AV                  |
| 17355              | 61.49           | -0.39                 | V                 | 61.10             | 68.20             | 7.10           | PK                  |
| 11570              | 62.85           | -5.57                 | H                 | 57.28             | 73.98             | 16.70          | PK                  |
| 11570              | 49.12           | -5.57                 | H                 | 43.55             | 53.98             | 10.43          | AV                  |
| 17355              | 61.44           | -0.39                 | H                 | 61.05             | 68.20             | 7.15           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5825 MHz           |
| Channel No.         | 165 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11650              | 62.78           | -6.63                 | V                 | 56.15             | 73.98             | 17.83          | PK                  |
| 11650              | 49.64           | -6.63                 | V                 | 43.01             | 53.98             | 10.97          | AV                  |
| 17475              | 62.25           | 0.29                  | V                 | 62.54             | 68.20             | 5.66           | PK                  |
| 11650              | 62.69           | -6.63                 | H                 | 56.06             | 73.98             | 17.92          | PK                  |
| 11650              | 49.56           | -6.63                 | H                 | 42.93             | 53.98             | 11.05          | AV                  |
| 17475              | 62.12           | 0.29                  | H                 | 62.41             | 68.20             | 5.79           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_20 MHz BW. Worst case is 6.5 Mbps in 802.11n\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 3              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5745 MHz            |
| Channel No.         | 149 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11490              | 63.32           | -6.10                 | V                 | 57.22             | 73.98             | 16.76          | PK                  |
| 11490              | 49.51           | -6.10                 | V                 | 43.41             | 53.98             | 10.57          | AV                  |
| 17235              | 62.23           | -1.35                 | V                 | 60.88             | 68.20             | 7.32           | PK                  |
| 11490              | 62.96           | -6.10                 | H                 | 56.86             | 73.98             | 17.12          | PK                  |
| 11490              | 49.29           | -6.10                 | H                 | 43.19             | 53.98             | 10.79          | AV                  |
| 17235              | 62.42           | -1.35                 | H                 | 61.07             | 68.20             | 7.13           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 3              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5785 MHz            |
| Channel No.         | 157 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11570              | 62.75           | -5.57                 | V                 | 57.18             | 73.98             | 16.80          | PK                  |
| 11570              | 49.12           | -5.57                 | V                 | 43.55             | 53.98             | 10.43          | AV                  |
| 17355              | 62.35           | -0.39                 | V                 | 61.96             | 68.20             | 6.24           | PK                  |
| 11570              | 62.66           | -5.57                 | H                 | 57.09             | 73.98             | 16.89          | PK                  |
| 11570              | 49.21           | -5.57                 | H                 | 43.64             | 53.98             | 10.34          | AV                  |
| 17355              | 62.28           | -0.39                 | H                 | 61.89             | 68.20             | 6.31           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 3              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5825 MHz            |
| Channel No.         | 165 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11650              | 62.33           | -6.63                 | V                 | 55.70             | 73.98             | 18.28          | PK                  |
| 11650              | 49.84           | -6.63                 | V                 | 43.21             | 53.98             | 10.77          | AV                  |
| 17475              | 62.58           | 0.29                  | V                 | 62.87             | 68.20             | 5.33           | PK                  |
| 11650              | 62.23           | -6.63                 | H                 | 55.60             | 73.98             | 18.38          | PK                  |
| 11650              | 49.66           | -6.63                 | H                 | 43.03             | 53.98             | 10.95          | AV                  |
| 17475              | 62.42           | 0.29                  | H                 | 62.71             | 68.20             | 5.49           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_20 MHz BW. Worst case is 6.5 Mbps in 802.11ac\_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII3             |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5755 MHz          |
| Channel No.         | 151 Ch            |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11510              | 62.28           | -6.26                 | V                 | 56.02             | 73.98             | 17.96          | PK                  |
| 11510              | 48.93           | -6.26                 | V                 | 42.67             | 53.98             | 11.31          | AV                  |
| 17265              | 62.92           | -1.10                 | V                 | 61.82             | 68.20             | 6.38           | PK                  |
| 11510              | 62.07           | -6.26                 | H                 | 55.81             | 73.98             | 18.17          | PK                  |
| 11510              | 48.62           | -6.26                 | H                 | 42.36             | 53.98             | 11.62          | AV                  |
| 17265              | 62.77           | -1.10                 | H                 | 61.67             | 68.20             | 6.53           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 3            |
| Operation Mode:     | 802.11n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps         |
| Operating Frequency | 5795 MHz          |
| Channel No.         | 159 Ch            |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11590              | 62.16           | -5.92                 | V                 | 56.24             | 73.98             | 17.74          | PK                  |
| 11590              | 49.05           | -5.92                 | V                 | 43.13             | 53.98             | 10.85          | AV                  |
| 17385              | 62.95           | -0.24                 | V                 | 62.71             | 68.20             | 5.49           | PK                  |
| 11590              | 61.88           | -5.92                 | H                 | 55.96             | 73.98             | 18.02          | PK                  |
| 11590              | 48.94           | -5.92                 | H                 | 43.02             | 53.98             | 10.96          | AV                  |
| 17385              | 62.89           | -0.24                 | H                 | 62.65             | 68.20             | 5.55           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n\_40 MHz BW. Worst case is 13.5 Mbps in 802.11n\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5755 MHz           |
| Channel No.         | 151 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11510              | 62.09           | -6.26                 | V                 | 55.83             | 73.98             | 18.15          | PK                  |
| 11510              | 48.79           | -6.26                 | V                 | 42.53             | 53.98             | 11.45          | AV                  |
| 17265              | 62.91           | -1.10                 | V                 | 61.81             | 68.20             | 6.39           | PK                  |
| 11510              | 61.98           | -6.26                 | H                 | 55.72             | 73.98             | 18.26          | PK                  |
| 11510              | 48.63           | -6.26                 | H                 | 42.37             | 53.98             | 11.61          | AV                  |
| 17265              | 62.77           | -1.10                 | H                 | 61.67             | 68.20             | 6.53           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5795 MHz           |
| Channel No.         | 159 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11590              | 62.09           | -5.92                 | V                 | 56.17             | 73.98             | 17.81          | PK                  |
| 11590              | 48.75           | -5.92                 | V                 | 42.83             | 53.98             | 11.15          | AV                  |
| 17385              | 62.91           | -0.24                 | V                 | 62.67             | 68.20             | 5.53           | PK                  |
| 11590              | 62.03           | -5.92                 | H                 | 56.11             | 73.98             | 17.87          | PK                  |
| 11590              | 48.55           | -5.92                 | H                 | 42.63             | 53.98             | 11.35          | AV                  |
| 17385              | 62.87           | -0.24                 | H                 | 62.63             | 68.20             | 5.57           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_40 MHz BW. Worst case is 13.5 Mbps in 802.11ac\_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps          |
| Operating Frequency | 5775 MHz           |
| Channel No.         | 155 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-Amp G.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-----------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 11550              | 62.09           | -5.97                 | V                 | 56.12             | 73.98             | 17.86          | PK                  |
| 11550              | 48.81           | -5.97                 | V                 | 42.84             | 53.98             | 11.14          | AV                  |
| 17325              | 62.77           | -0.24                 | V                 | 62.53             | 68.20             | 5.67           | PK                  |
| 11550              | 62.05           | -5.97                 | H                 | 56.08             | 73.98             | 17.90          | PK                  |
| 11550              | 48.77           | -5.97                 | H                 | 42.80             | 53.98             | 11.18          | AV                  |
| 17325              | 62.69           | -0.24                 | H                 | 62.45             | 68.20             | 5.75           | PK                  |

#### Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11ac\_80 MHz BW. Worst case is 29.3 Mbps in 802.11ac\_80 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

## 8.6.2 RADIATED RESTRICTED BAND EDGE MEASUREMENTS

### Test Requirements and limit, §15.247(d) §15.205, §15.209

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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. 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)).

### Open

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5180 MHz           |
| Channel No.         | 36 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT.<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|-------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 49.16           | 8.79                    | H                 | 57.95             | 73.98             | 16.03          | PK                  |
| 5150               | 36.12           | 8.79                    | H                 | 44.91             | 53.98             | 9.07           | AV                  |
| 5150               | 49.41           | 8.79                    | V                 | 58.2              | 73.98             | 15.78          | PK                  |
| 5150               | 36.38           | 8.79                    | V                 | 45.17             | 53.98             | 8.81           | AV                  |

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5180 MHz           |
| Channel No.         | 36 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 48.42           | 8.79                   | H                 | 57.21             | 73.98             | 16.77          | PK                  |
| 5150               | 35.96           | 8.79                   | H                 | 44.75             | 53.98             | 9.23           | AV                  |
| 5150               | 48.71           | 8.79                   | V                 | 57.5              | 73.98             | 16.48          | PK                  |
| 5150               | 36.17           | 8.79                   | V                 | 44.96             | 53.98             | 9.02           | AV                  |

Band : UNII 1  
 Operation Mode: 802.11 ac\_20Mz BW  
 Transfer Rate: 6.5 Mbps  
 Operating Frequency 5180 MHz  
 Channel No. 36 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 49.43           | 8.79                   | H                 | 58.22             | 73.98             | 15.76          | PK                  |
| 5150               | 35.91           | 8.79                   | H                 | 44.7              | 53.98             | 9.28           | AV                  |
| 5150               | 49.86           | 8.79                   | V                 | 58.65             | 73.98             | 15.33          | PK                  |
| 5150               | 36.30           | 8.79                   | V                 | 45.09             | 53.98             | 8.89           | AV                  |

Band : UNII 1  
 Operation Mode: 802.11 n\_40 MHz BW  
 Transfer Rate: 13.5 Mbps  
 Operating Frequency 5190 MHz  
 Channel No. 38 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 48.05           | 8.79                   | H                 | 56.84             | 73.98             | 17.14          | PK                  |
| 5150               | 35.96           | 8.79                   | H                 | 44.75             | 53.98             | 9.23           | AV                  |
| 5150               | 49.42           | 8.79                   | V                 | 58.21             | 73.98             | 15.77          | PK                  |
| 5150               | 36.38           | 8.79                   | V                 | 45.17             | 53.98             | 8.81           | AV                  |

Band : UNII 1  
 Operation Mode: 802.11 ac\_40 MHz BW  
 Transfer Rate: 13.5 Mbps  
 Operating Frequency 5190 MHz  
 Channel No. 38 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 48.76           | 8.79                   | H                 | 57.55             | 73.98             | 16.43          | PK                  |
| 5150               | 35.82           | 8.79                   | H                 | 44.61             | 53.98             | 9.37           | AV                  |
| 5150               | 49.35           | 8.79                   | V                 | 58.14             | 73.98             | 15.84          | PK                  |
| 5150               | 36.27           | 8.79                   | V                 | 45.06             | 53.98             | 8.92           | AV                  |

Band : UNII 1  
 Operation Mode: 802.11 ac\_80 MHz BW  
 Transfer Rate: 29.3 Mbps  
 Operating Frequency 5210 MHz  
 Channel No. 42 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 49.39           | 8.79                   | H                 | 58.18             | 73.98             | 15.80          | PK                  |
| 5150               | 35.96           | 8.79                   | H                 | 44.75             | 53.98             | 9.23           | AV                  |
| 5150               | 49.89           | 8.79                   | V                 | 58.68             | 73.98             | 15.30          | PK                  |
| 5150               | 36.47           | 8.79                   | V                 | 45.26             | 53.98             | 8.72           | AV                  |

Band : UNII 2A  
 Operation Mode: 802.11 a\_20 MHz BW  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5320 MHz  
 Channel No. 64 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 49.97           | 9.28                   | H                 | 59.25             | 73.98             | 14.73          | PK                  |
| 5350               | 37.24           | 9.28                   | H                 | 46.52             | 53.98             | 7.46           | AV                  |
| 5350               | 50.28           | 9.28                   | V                 | 59.56             | 73.98             | 14.42          | PK                  |
| 5350               | 37.27           | 9.28                   | V                 | 46.55             | 53.98             | 7.43           | AV                  |

Band : UNII 2A  
 Operation Mode: 802.11 n\_20 MHz BW  
 Transfer Rate: 6.5 Mbps  
 Operating Frequency 5320 MHz  
 Channel No. 64 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 49.91           | 9.28                   | H                 | 59.19             | 73.98             | 14.79          | PK                  |
| 5350               | 36.88           | 9.28                   | H                 | 46.16             | 53.98             | 7.82           | AV                  |
| 5350               | 50.37           | 9.28                   | V                 | 59.65             | 73.98             | 14.33          | PK                  |
| 5350               | 37.17           | 9.28                   | V                 | 46.45             | 53.98             | 7.53           | AV                  |

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 2A           |
| Operation Mode:     | 802.11 ac_20Mz BW |
| Transfer Rate:      | 6.5 Mbps          |
| Operating Frequency | 5320 MHz          |
| Channel No.         | 64 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 50.11           | 9.28                   | H                 | 59.39             | 73.98             | 14.59          | PK                  |
| 5350               | 36.79           | 9.28                   | H                 | 46.07             | 53.98             | 7.91           | AV                  |
| 5350               | 50.36           | 9.28                   | V                 | 59.64             | 73.98             | 14.34          | PK                  |
| 5350               | 37.22           | 9.28                   | V                 | 46.5              | 53.98             | 7.48           | AV                  |

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 2A            |
| Operation Mode:     | 802.11 n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5310 MHz           |
| Channel No.         | 62 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 53.07           | 9.28                   | H                 | 62.35             | 73.98             | 11.63          | PK                  |
| 5350               | 37.58           | 9.28                   | H                 | 46.86             | 53.98             | 7.12           | AV                  |
| 5350               | 54.40           | 9.28                   | V                 | 63.68             | 73.98             | 10.30          | PK                  |
| 5350               | 37.79           | 9.28                   | V                 | 47.07             | 53.98             | 6.91           | AV                  |

Band : UNII 2A  
 Operation Mode: 802.11 ac\_40 MHz BW  
 Transfer Rate: 13.5 Mbps  
 Operating Frequency 5310 MHz  
 Channel No. 62 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 54.50           | 9.28                   | H                 | 63.78             | 73.98             | 10.20          | PK                  |
| 5350               | 37.34           | 9.28                   | H                 | 46.62             | 53.98             | 7.36           | AV                  |
| 5350               | 55.21           | 9.28                   | V                 | 64.49             | 73.98             | 9.49           | PK                  |
| 5350               | 37.61           | 9.28                   | V                 | 46.89             | 53.98             | 7.09           | AV                  |

Band : UNII 1  
 Operation Mode: 802.11 ac\_80 MHz BW  
 Transfer Rate: 29.3 Mbps  
 Operating Frequency 5290 MHz  
 Channel No. 58 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 50.30           | 9.28                   | H                 | 59.58             | 73.98             | 14.40          | PK                  |
| 5350               | 36.89           | 9.28                   | H                 | 46.17             | 53.98             | 7.81           | AV                  |
| 5350               | 51.06           | 9.28                   | V                 | 60.34             | 73.98             | 13.64          | PK                  |
| 5350               | 37.45           | 9.28                   | V                 | 46.73             | 53.98             | 7.25           | AV                  |

Band : UNII 2C  
 Operation Mode: 802.11 a\_20 MHz BW  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5500 MHz  
 Channel No. 100 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 50.13           | 10.08                  | H                 | 60.21             | 73.98             | 13.77          | PK                  |
| 5460               | 36.85           | 10.08                  | H                 | 46.93             | 53.98             | 7.05           | AV                  |
| *5470              | 50.24           | 9.95                   | H                 | 60.19             | 68.20             | 8.01           | PK                  |
| 5460               | 50.41           | 10.08                  | V                 | 60.49             | 73.98             | 13.49          | PK                  |
| 5460               | 37.08           | 10.08                  | V                 | 47.16             | 53.98             | 6.82           | AV                  |
| *5470              | 51.38           | 9.95                   | V                 | 61.33             | 68.20             | 6.87           | PK                  |

Band : UNII 2C  
 Operation Mode: 802.11 n\_20MHz BW  
 Transfer Rate: 6.5 Mbps  
 Operating Frequency 5500 MHz  
 Channel No. 100 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 49.75           | 10.08                  | H                 | 59.83             | 73.98             | 14.15          | PK                  |
| 5460               | 36.69           | 10.08                  | H                 | 46.77             | 53.98             | 7.21           | AV                  |
| *5470              | 50.38           | 9.95                   | H                 | 60.33             | 68.20             | 7.87           | PK                  |
| 5460               | 50.42           | 10.08                  | V                 | 60.5              | 73.98             | 13.48          | PK                  |
| 5460               | 37.08           | 10.08                  | V                 | 47.16             | 53.98             | 6.82           | AV                  |
| *5470              | 51.09           | 9.95                   | V                 | 61.04             | 68.20             | 7.16           | PK                  |

Band : UNII 2C  
 Operation Mode: 802.11 ac\_20 MHz BW  
 Transfer Rate: 6.5 Mbps  
 Operating Frequency 5500 MHz  
 Channel No. 100 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 49.63           | 10.08                  | H                 | 59.71             | 73.98             | 14.27          | PK                  |
| 5460               | 36.57           | 10.08                  | H                 | 46.65             | 53.98             | 7.33           | AV                  |
| *5470              | 49.92           | 9.95                   | H                 | 59.87             | 68.20             | 8.33           | PK                  |
| 5460               | 50.19           | 10.08                  | V                 | 60.27             | 73.98             | 13.71          | PK                  |
| 5460               | 36.92           | 10.08                  | V                 | 47                | 53.98             | 6.98           | AV                  |
| *5470              | 50.76           | 9.95                   | V                 | 60.71             | 68.20             | 7.49           | PK                  |

Band : UNII 2C  
 Operation Mode: 802.11 n\_40 MHz BW  
 Transfer Rate: 13.5 Mbps  
 Operating Frequency 5510 MHz  
 Channel No. 102 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 50.80           | 10.08                  | H                 | 60.88             | 73.98             | 13.10          | PK                  |
| 5460               | 36.72           | 10.08                  | H                 | 46.8              | 53.98             | 7.18           | AV                  |
| *5470              | 53.90           | 9.95                   | H                 | 63.85             | 68.20             | 4.35           | PK                  |
| 5460               | 51.54           | 10.08                  | V                 | 61.62             | 73.98             | 12.36          | PK                  |
| 5460               | 36.97           | 10.08                  | V                 | 47.05             | 53.98             | 6.93           | AV                  |
| *5470              | 55.87           | 9.95                   | V                 | 65.82             | 68.20             | 2.38           | PK                  |

Band : UNII 2C  
 Operation Mode: 802.11 ac\_40 MHz BW  
 Transfer Rate: 13.5 Mbps  
 Operating Frequency 5510 MHz  
 Channel No. 102 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 51.49           | 10.08                  | H                 | 61.57             | 73.98             | 12.41          | PK                  |
| 5460               | 36.57           | 10.08                  | H                 | 46.65             | 53.98             | 7.33           | AV                  |
| *5470              | 54.83           | 9.95                   | H                 | 64.78             | 68.20             | 3.42           | PK                  |
| 5460               | 52.60           | 10.08                  | V                 | 62.68             | 73.98             | 11.30          | PK                  |
| 5460               | 36.81           | 10.08                  | V                 | 46.89             | 53.98             | 7.09           | AV                  |
| *5470              | 55.97           | 9.95                   | V                 | 65.92             | 68.20             | 2.28           | PK                  |

Band : UNII 2C  
 Operation Mode: 802.11 ac\_80 MHz BW  
 Transfer Rate: 29.3 Mbps  
 Operating Frequency 5530 MHz  
 Channel No. 106 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 49.93           | 10.08                  | H                 | 60.01             | 73.98             | 13.97          | PK                  |
| 5460               | 36.84           | 10.08                  | H                 | 46.92             | 53.98             | 7.06           | AV                  |
| *5470              | 50.11           | 9.95                   | H                 | 60.06             | 68.20             | 8.14           | PK                  |
| 5460               | 50.73           | 10.08                  | V                 | 60.81             | 73.98             | 13.17          | PK                  |
| 5460               | 37.29           | 10.08                  | V                 | 47.37             | 53.98             | 6.61           | AV                  |
| *5470              | 51.89           | 9.95                   | V                 | 61.84             | 68.20             | 6.36           | PK                  |

Band : UNII 3  
 Operation Mode: 802.11 a\_20 MHz BW  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5825 MHz  
 Channel No. 165 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| *5850              | 47.37           | 11.37                  | H                 | 58.74             | 78.20             | 19.46          | PK                  |
| *5850              | 47.48           | 11.37                  | V                 | 58.85             | 78.20             | 19.35          | PK                  |
| *5860              | 47.26           | 11.37                  | H                 | 58.63             | 68.20             | 9.57           | PK                  |
| *5860              | 47.49           | 11.37                  | V                 | 58.86             | 68.20             | 9.34           | PK                  |

Band : UNII 3  
 Operation Mode: 802.11 n\_20MHz BW  
 Transfer Rate: 6.5 Mbps  
 Operating Frequency 5825 MHz  
 Channel No. 165 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| *5850              | 46.58           | 11.37                  | H                 | 57.95             | 78.20             | 20.25          | PK                  |
| *5850              | 46.94           | 11.37                  | V                 | 58.31             | 78.20             | 19.89          | PK                  |
| *5860              | 46.36           | 11.37                  | H                 | 57.73             | 68.20             | 10.47          | PK                  |
| *5860              | 46.73           | 11.37                  | V                 | 58.10             | 68.20             | 10.10          | PK                  |

Band : UNII 3  
 Operation Mode: 802.11 ac\_20 MHz BW  
 Transfer Rate: 6.5 Mbps  
 Operating Frequency 5825 MHz  
 Channel No. 165 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| *5850              | 46.32           | 11.37                  | H                 | 57.69             | 78.20             | 20.51          | PK                  |
| *5850              | 46.93           | 11.37                  | V                 | 58.3              | 78.20             | 19.90          | AV                  |
| *5860              | 46.16           | 11.37                  | H                 | 57.53             | 68.20             | 10.67          | PK                  |
| *5860              | 46.54           | 11.37                  | V                 | 57.91             | 68.20             | 10.29          | AV                  |

Band : UNII 3  
 Operation Mode: 802.11 n\_40 MHz BW  
 Transfer Rate: 13.5 Mbps  
 Operating Frequency 5795 MHz  
 Channel No. 159 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| *5850              | 48.14           | 11.37                  | H                 | 59.51             | 78.20             | 18.69          | PK                  |
| *5850              | 48.50           | 11.37                  | V                 | 59.87             | 78.20             | 18.33          | PK                  |
| *5860              | 46.77           | 11.37                  | H                 | 58.14             | 68.20             | 10.06          | PK                  |
| *5860              | 47.10           | 11.37                  | V                 | 58.47             | 68.20             | 9.73           | PK                  |

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 3              |
| Operation Mode:     | 802.11 ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps           |
| Operating Frequency | 5795 MHz            |
| Channel No.         | 159 Ch              |

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| *5850              | 48.17           | 11.37                  | H                 | 59.54             | 78.20             | 18.66          | PK                  |
| *5850              | 48.43           | 11.37                  | V                 | 59.8              | 78.20             | 18.40          | AV                  |
| *5860              | 47.84           | 11.37                  | H                 | 59.21             | 68.20             | 8.99           | PK                  |
| *5860              | 48.12           | 11.37                  | V                 | 59.49             | 68.20             | 8.71           | AV                  |

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 3              |
| Operation Mode:     | 802.11 ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps           |
| Operating Frequency | 5755 MHz            |
| Channel No.         | 155 Ch              |

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5725               | 49.01           | 11.37                  | H                 | 60.38             | 78.20             | 17.82          | PK                  |
| 5725               | 49.58           | 11.37                  | V                 | 60.95             | 78.20             | 17.25          | PK                  |
| 5715               | 48.34           | 11.37                  | H                 | 59.71             | 68.20             | 8.49           | PK                  |
| 5715               | 48.64           | 11.37                  | V                 | 60.01             | 68.20             | 8.19           | PK                  |
| 5850               | 46.26           | 11.37                  | H                 | 57.63             | 78.20             | 20.57          | PK                  |
| 5850               | 46.81           | 11.37                  | V                 | 58.18             | 78.20             | 20.02          | PK                  |
| 5860               | 46.20           | 11.37                  | H                 | 57.57             | 68.20             | 10.63          | PK                  |
| 5860               | 46.79           | 11.37                  | V                 | 58.16             | 68.20             | 10.04          | PK                  |

#### Notes:

1. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + ATT
2. We have done all data rate in 802.11a/n/ac mode test. . Worst case of EUT is lowest data rate in 802.11a/n/ac.
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
4. '\*' is radiated band edge test frequency.(not restricted band emissions)

## Close

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 a_20 MHz BW |
| Transfer Rate:      | 6 Mbps             |
| Operating Frequency | 5180 MHz           |
| Channel No.         | 36 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 49.55           | 8.79                   | H                 | 58.34             | 73.98             | 15.64          | PK                  |
| 5150               | 36.28           | 8.79                   | H                 | 45.07             | 53.98             | 8.91           | AV                  |
| 5150               | 49.52           | 8.79                   | V                 | 58.31             | 73.98             | 15.67          | PK                  |
| 5150               | 36.61           | 8.79                   | V                 | 45.4              | 53.98             | 8.58           | AV                  |

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 n_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps           |
| Operating Frequency | 5180 MHz           |
| Channel No.         | 36 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 49.21           | 8.79                   | H                 | 58.00             | 73.98             | 15.98          | PK                  |
| 5150               | 36.77           | 8.79                   | H                 | 45.56             | 53.98             | 8.42           | AV                  |
| 5150               | 49.38           | 8.79                   | V                 | 58.17             | 73.98             | 15.81          | PK                  |
| 5150               | 37.01           | 8.79                   | V                 | 45.8              | 53.98             | 8.18           | AV                  |

|                     |                   |
|---------------------|-------------------|
| Band :              | UNII 1            |
| Operation Mode:     | 802.11 ac_20Mz BW |
| Transfer Rate:      | 6.5 Mbps          |
| Operating Frequency | 5180 MHz          |
| Channel No.         | 36 Ch             |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 49.11           | 8.79                   | H                 | 57.90             | 73.98             | 16.08          | PK                  |
| 5150               | 36.87           | 8.79                   | H                 | 45.66             | 53.98             | 8.32           | AV                  |
| 5150               | 49.38           | 8.79                   | V                 | 58.17             | 73.98             | 15.81          | PK                  |
| 5150               | 37.04           | 8.79                   | V                 | 45.83             | 53.98             | 8.15           | AV                  |

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 1             |
| Operation Mode:     | 802.11 n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5190 MHz           |
| Channel No.         | 38 Ch              |

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 50.21           | 8.79                   | H                 | 59.00             | 73.98             | 14.98          | PK                  |
| 5150               | 37.06           | 8.79                   | H                 | 45.85             | 53.98             | 8.13           | AV                  |
| 5150               | 50.54           | 8.79                   | V                 | 59.33             | 73.98             | 14.65          | PK                  |
| 5150               | 37.26           | 8.79                   | V                 | 46.05             | 53.98             | 7.93           | AV                  |

Band : UNII 1  
 Operation Mode: 802.11 ac\_40 MHz BW  
 Transfer Rate: 13.5 Mbps  
 Operating Frequency 5190 MHz  
 Channel No. 38 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 50.77           | 8.79                   | H                 | 59.56             | 73.98             | 14.42          | PK                  |
| 5150               | 37.48           | 8.79                   | H                 | 46.27             | 53.98             | 7.71           | AV                  |
| 5150               | 50.95           | 8.79                   | V                 | 59.74             | 73.98             | 14.24          | PK                  |
| 5150               | 37.65           | 8.79                   | V                 | 46.44             | 53.98             | 7.54           | AV                  |

Band : UNII 1  
 Operation Mode: 802.11 ac\_80 MHz BW  
 Transfer Rate: 29.3 Mbps  
 Operating Frequency 5210 MHz  
 Channel No. 42 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 50.78           | 8.79                   | H                 | 59.57             | 73.98             | 14.41          | PK                  |
| 5150               | 37.01           | 8.79                   | H                 | 45.8              | 53.98             | 8.18           | AV                  |
| 5150               | 51.09           | 8.79                   | V                 | 59.88             | 73.98             | 14.10          | PK                  |
| 5150               | 37.13           | 8.79                   | V                 | 45.92             | 53.98             | 8.06           | AV                  |

Band : UNII 2A  
 Operation Mode: 802.11 a\_20 MHz BW  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5320 MHz  
 Channel No. 64 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 50.78           | 9.28                   | H                 | 60.06             | 73.98             | 13.92          | PK                  |
| 5350               | 37.78           | 9.28                   | H                 | 47.06             | 53.98             | 6.92           | AV                  |
| 5350               | 51.07           | 9.28                   | V                 | 60.35             | 73.98             | 13.63          | PK                  |
| 5350               | 38.05           | 9.28                   | V                 | 47.33             | 53.98             | 6.65           | AV                  |

Band : UNII 2A  
 Operation Mode: 802.11 n\_20 MHz BW  
 Transfer Rate: 6.5 Mbps  
 Operating Frequency 5320 MHz  
 Channel No. 64 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 51.22           | 9.28                   | H                 | 60.50             | 73.98             | 13.48          | PK                  |
| 5350               | 38.17           | 9.28                   | H                 | 47.45             | 53.98             | 6.53           | AV                  |
| 5350               | 51.47           | 9.28                   | V                 | 60.75             | 73.98             | 13.23          | PK                  |
| 5350               | 38.30           | 9.28                   | V                 | 47.58             | 53.98             | 6.40           | AV                  |

Band : UNII 2A  
 Operation Mode: 802.11 ac\_20Mz BW  
 Transfer Rate: 6.5 Mbps  
 Operating Frequency 5320 MHz  
 Channel No. 64 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 51.20           | 9.28                   | H                 | 60.48             | 73.98             | 13.50          | PK                  |
| 5350               | 38.01           | 9.28                   | H                 | 47.29             | 53.98             | 6.69           | AV                  |
| 5350               | 51.44           | 9.28                   | V                 | 60.72             | 73.98             | 13.26          | PK                  |
| 5350               | 38.12           | 9.28                   | V                 | 47.4              | 53.98             | 6.58           | AV                  |

Band : UNII 2A  
 Operation Mode: 802.11 n\_40 MHz BW  
 Transfer Rate: 13.5 Mbps  
 Operating Frequency 5310 MHz  
 Channel No. 62 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 51.78           | 9.28                   | H                 | 61.06             | 73.98             | 12.92          | PK                  |
| 5350               | 38.03           | 9.28                   | H                 | 47.31             | 53.98             | 6.67           | AV                  |
| 5350               | 52.02           | 9.28                   | V                 | 61.3              | 73.98             | 12.68          | PK                  |
| 5350               | 38.24           | 9.28                   | V                 | 47.52             | 53.98             | 6.46           | AV                  |

Band : UNII 2A  
 Operation Mode: 802.11 ac\_40 MHz BW  
 Transfer Rate: 13.5 Mbps  
 Operating Frequency 5310 MHz  
 Channel No. 62 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 51.78           | 9.28                   | H                 | 61.06             | 73.98             | 12.92          | PK                  |
| 5350               | 37.89           | 9.28                   | H                 | 47.17             | 53.98             | 6.81           | AV                  |
| 5350               | 51.94           | 9.28                   | V                 | 61.22             | 73.98             | 12.76          | PK                  |
| 5350               | 38.12           | 9.28                   | V                 | 47.4              | 53.98             | 6.58           | AV                  |

Band : UNII 1  
 Operation Mode: 802.11 ac\_80 MHz BW  
 Transfer Rate: 29.3 Mbps  
 Operating Frequency 5290 MHz  
 Channel No. 58 Ch

| Frequency<br>[MHz] | Reading<br>dBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 51.48           | 9.28                   | H                 | 60.76             | 73.98             | 13.22          | PK                  |
| 5350               | 38.47           | 9.28                   | H                 | 47.75             | 53.98             | 6.23           | AV                  |
| 5350               | 51.59           | 9.28                   | V                 | 60.87             | 73.98             | 13.11          | PK                  |
| 5350               | 38.59           | 9.28                   | V                 | 47.87             | 53.98             | 6.11           | AV                  |

Band : UNII 2C  
 Operation Mode: 802.11 a\_20 MHz BW  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5500 MHz  
 Channel No. 100 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 48.94           | 10.08                  | H                 | 59.02             | 73.98             | 14.96          | PK                  |
| 5460               | 35.89           | 10.08                  | H                 | 45.97             | 53.98             | 8.01           | AV                  |
| *5470              | 50.28           | 9.95                   | H                 | 60.23             | 68.20             | 7.97           | PK                  |
| 5460               | 49.15           | 10.08                  | V                 | 59.23             | 73.98             | 14.75          | PK                  |
| 5460               | 36.21           | 10.08                  | V                 | 46.29             | 53.98             | 7.69           | AV                  |
| *5470              | 50.52           | 9.95                   | V                 | 60.47             | 68.20             | 7.73           | PK                  |

Band : UNII 2C  
 Operation Mode: 802.11 n\_20MHz BW  
 Transfer Rate: 6.5 Mbps  
 Operating Frequency 5500 MHz  
 Channel No. 100 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 49.11           | 10.08                  | H                 | 59.19             | 73.98             | 14.79          | PK                  |
| 5460               | 36.01           | 10.08                  | H                 | 46.09             | 53.98             | 7.89           | AV                  |
| *5470              | 50.01           | 9.95                   | H                 | 59.96             | 68.20             | 8.24           | PK                  |
| 5460               | 49.31           | 10.08                  | V                 | 59.39             | 73.98             | 14.59          | PK                  |
| 5460               | 36.21           | 10.08                  | V                 | 46.29             | 53.98             | 7.69           | AV                  |
| *5470              | 50.22           | 9.95                   | V                 | 60.17             | 68.20             | 8.03           | PK                  |

Band : UNII 2C  
 Operation Mode: 802.11 ac\_20 MHz BW  
 Transfer Rate: 6.5 Mbps  
 Operating Frequency 5500 MHz  
 Channel No. 100 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 48.87           | 10.08                  | H                 | 58.95             | 73.98             | 15.03          | PK                  |
| 5460               | 36.29           | 10.08                  | H                 | 46.37             | 53.98             | 7.61           | AV                  |
| *5470              | 49.67           | 9.95                   | H                 | 59.62             | 68.20             | 8.58           | PK                  |
| 5460               | 49.10           | 10.08                  | V                 | 59.18             | 73.98             | 14.80          | PK                  |
| 5460               | 36.43           | 10.08                  | V                 | 46.51             | 53.98             | 7.47           | AV                  |
| *5470              | 49.93           | 9.95                   | V                 | 59.88             | 68.20             | 8.32           | PK                  |

Band : UNII 2C  
 Operation Mode: 802.11 n\_40 MHz BW  
 Transfer Rate: 13.5 Mbps  
 Operating Frequency 5510 MHz  
 Channel No. 102 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 50.87           | 10.08                  | H                 | 60.95             | 73.98             | 13.03          | PK                  |
| 5460               | 36.13           | 10.08                  | H                 | 46.21             | 53.98             | 7.77           | AV                  |
| *5470              | 55.62           | 9.95                   | H                 | 65.57             | 68.20             | 2.63           | PK                  |
| 5460               | 50.93           | 10.08                  | V                 | 61.01             | 73.98             | 12.97          | PK                  |
| 5460               | 36.29           | 10.08                  | V                 | 46.37             | 53.98             | 7.61           | AV                  |
| *5470              | 55.59           | 9.95                   | V                 | 65.54             | 68.20             | 2.66           | PK                  |

Band : UNII 2C  
 Operation Mode: 802.11 ac\_40 MHz BW  
 Transfer Rate: 13.5 Mbps  
 Operating Frequency 5510 MHz  
 Channel No. 102 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 51.54           | 10.08                  | H                 | 61.62             | 73.98             | 12.36          | PK                  |
| 5460               | 36.17           | 10.08                  | H                 | 46.25             | 53.98             | 7.73           | AV                  |
| *5470              | 55.78           | 9.95                   | H                 | 65.73             | 68.20             | 2.47           | PK                  |
| 5460               | 51.76           | 10.08                  | V                 | 61.84             | 73.98             | 12.14          | PK                  |
| 5460               | 36.32           | 10.08                  | V                 | 46.4              | 53.98             | 7.58           | AV                  |
| *5470              | 55.95           | 9.95                   | V                 | 65.9              | 68.20             | 2.30           | PK                  |

Band : UNII 2C  
 Operation Mode: 802.11 ac\_80 MHz BW  
 Transfer Rate: 29.3 Mbps  
 Operating Frequency 5530 MHz  
 Channel No. 106 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 36.54           | 10.08                  | H                 | 46.62             | 53.98             | 7.36           | AV                  |
| 5460               | 50.26           | 9.95                   | H                 | 60.21             | 68.20             | 7.99           | PK                  |
| *5470              | 50.35           | 10.08                  | V                 | 60.43             | 73.98             | 13.55          | PK                  |
| 5460               | 36.68           | 10.08                  | V                 | 46.76             | 53.98             | 7.22           | AV                  |
| 5460               | 50.40           | 9.95                   | V                 | 60.35             | 68.20             | 7.85           | PK                  |
| *5470              | 36.54           | 10.08                  | H                 | 46.62             | 53.98             | 7.36           | AV                  |

Band : UNII 3  
 Operation Mode: 802.11 a\_20 MHz BW  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5825 MHz  
 Channel No. 165 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| *5850              | 48.02           | 11.37                  | H                 | 59.39             | 78.20             | 18.81          | PK                  |
| *5850              | 48.39           | 11.37                  | V                 | 59.76             | 78.20             | 18.44          | PK                  |
| *5860              | 47.68           | 11.37                  | H                 | 59.05             | 68.20             | 9.15           | PK                  |
| *5860              | 47.75           | 11.37                  | V                 | 59.12             | 68.20             | 9.08           | PK                  |

Band : UNII 3  
 Operation Mode: 802.11 n\_20MHz BW  
 Transfer Rate: 6.5 Mbps  
 Operating Frequency 5825 MHz  
 Channel No. 165 Ch

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| *5850              | 48.15           | 11.37                  | H                 | 59.52             | 78.20             | 18.68          | PK                  |
| *5850              | 48.33           | 11.37                  | V                 | 59.70             | 78.20             | 18.50          | PK                  |
| *5860              | 47.19           | 11.37                  | H                 | 58.56             | 68.20             | 9.64           | PK                  |
| *5860              | 47.28           | 11.37                  | V                 | 58.65             | 68.20             | 9.55           | PK                  |

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 3              |
| Operation Mode:     | 802.11 ac_20 MHz BW |
| Transfer Rate:      | 6.5 Mbps            |
| Operating Frequency | 5825 MHz            |
| Channel No.         | 165 Ch              |

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| *5850              | 48.57           | 11.37                  | H                 | 59.94             | 78.20             | 18.26          | PK                  |
| *5850              | 48.68           | 11.37                  | V                 | 60.05             | 78.20             | 18.15          | AV                  |
| *5860              | 47.89           | 11.37                  | H                 | 59.26             | 68.20             | 8.94           | PK                  |
| *5860              | 48.16           | 11.37                  | V                 | 59.53             | 68.20             | 8.67           | AV                  |

|                     |                    |
|---------------------|--------------------|
| Band :              | UNII 3             |
| Operation Mode:     | 802.11 n_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps          |
| Operating Frequency | 5795 MHz           |
| Channel No.         | 159 Ch             |

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| *5850              | 55.74           | 11.37                  | H                 | 67.11             | 78.20             | 11.09          | PK                  |
| *5850              | 55.69           | 11.37                  | V                 | 67.06             | 78.20             | 11.14          | PK                  |
| *5860              | 53.10           | 11.37                  | H                 | 64.47             | 68.20             | 3.73           | PK                  |
| *5860              | 53.03           | 11.37                  | V                 | 64.40             | 68.20             | 3.80           | PK                  |

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 3              |
| Operation Mode:     | 802.11 ac_40 MHz BW |
| Transfer Rate:      | 13.5 Mbps           |
| Operating Frequency | 5795 MHz            |
| Channel No.         | 159 Ch              |

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| *5850              | 54.39           | 11.37                  | H                 | 65.76             | 78.20             | 12.44          | PK                  |
| *5850              | 54.56           | 11.37                  | V                 | 65.93             | 78.20             | 12.27          | AV                  |
| *5860              | 51.47           | 11.37                  | H                 | 62.84             | 68.20             | 5.36           | PK                  |
| *5860              | 51.67           | 11.37                  | V                 | 63.04             | 68.20             | 5.16           | AV                  |

|                     |                     |
|---------------------|---------------------|
| Band :              | UNII 3              |
| Operation Mode:     | 802.11 ac_80 MHz BW |
| Transfer Rate:      | 29.3 Mbps           |
| Operating Frequency | 5755 MHz            |
| Channel No.         | 155 Ch              |

| Frequency<br>[MHz] | Reading<br>DBuV | AN.+CL-AMP+ATT<br>[dB] | ANT. POL<br>[H/V] | Total<br>[dBuV/m] | Limit<br>[dBuV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------|------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5725               | 48.89           | 11.37                  | H                 | 60.26             | 78.20             | 17.94          | PK                  |
| 5725               | 49.23           | 11.37                  | V                 | 60.6              | 78.20             | 17.60          | PK                  |
| 5715               | 48.77           | 11.37                  | H                 | 60.14             | 68.20             | 8.06           | PK                  |
| 5715               | 49.06           | 11.37                  | V                 | 60.43             | 68.20             | 7.77           | PK                  |
| 5850               | 47.54           | 11.37                  | H                 | 58.91             | 78.20             | 19.29          | PK                  |
| 5850               | 47.70           | 11.37                  | V                 | 59.07             | 78.20             | 19.13          | PK                  |
| 5860               | 47.76           | 11.37                  | H                 | 59.13             | 68.20             | 9.07           | PK                  |
| 5860               | 47.91           | 11.37                  | V                 | 59.28             | 68.20             | 8.92           | PK                  |

#### Notes:

1. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + ATT
2. We have done all data rate in 802.11a/n/ac mode test. . Worst case of EUT is lowest data rate in 802.11a/n/ac.
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
4. '\*' is radiated band edge test frequency.(not restricted band emissions)

## 8.7 POWERLINE CONDUCTED EMISSIONS

### Test Requirements and limit, §15.207

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

| Frequency Range (MHz) | Limits (dB $\mu$ V) |          |
|-----------------------|---------------------|----------|
|                       | Quasi-peak          | Average  |
| 0.15 to 0.50          | 66 to 56            | 56 to 46 |
| 0.50 to 5             | 56                  | 46       |
| 5 to 30               | 60                  | 50       |

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

### Test Configuration

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

### TEST PROCEDURE

1. The EUT is placed on a wooden table 80 cm above the reference groundplane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors – Quasi Peak and Average Detector.
5. We are performed the AC Power Line Conducted Emission test for 135 Mbps, Ch.38 and 802.11n\_40 MHz mode in UNII 1. Because 802.11n\_40 MHz mode in UNII 1 is worst case.

## RESULT PLOTS

### Conducted Emissions (Line 1)

WLAN 5G N

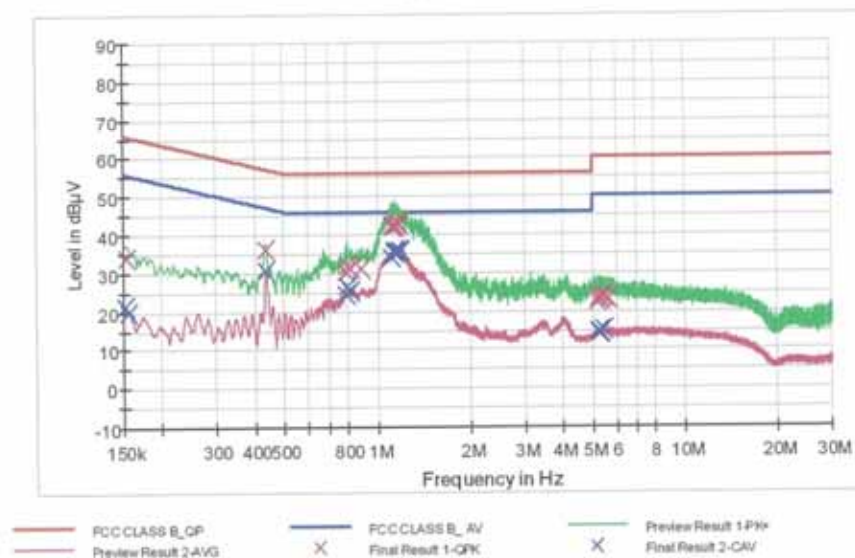
1 / 2

## HCT TEST Report

### Common Information

EUT: SM-G9198  
Manufacturer: SAMSUNG  
Test Site: SHIELD ROOM  
Operating Conditions: WLAN MODE (5G)  
Operator Name: KS KANG

FCC CLASS B



### Final Result 1

| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|------------------|-----------------|--------|------|------------|-------------|--------------|
| 0.154000        | 34.1             | 9.000           | Off    | N    | 9.6        | 31.7        | 65.8         |
| 0.436000        | 36.1             | 9.000           | Off    | N    | 9.7        | 21.0        | 57.1         |
| 0.788000        | 39.2             | 9.000           | Off    | N    | 9.7        | 25.8        | 56.0         |
| 0.802000        | 31.8             | 9.000           | Off    | N    | 9.7        | 24.2        | 56.0         |
| 0.820000        | 31.2             | 9.000           | Off    | N    | 9.7        | 24.8        | 56.0         |
| 0.890000        | 31.0             | 9.000           | Off    | N    | 9.7        | 25.0        | 56.0         |
| 1.114000        | 42.1             | 9.000           | Off    | N    | 9.7        | 13.9        | 56.0         |
| 1.130000        | 42.5             | 9.000           | Off    | N    | 9.7        | 13.5        | 56.0         |
| 1.134000        | 42.4             | 9.000           | Off    | N    | 9.7        | 13.6        | 56.0         |
| 1.144000        | 42.2             | 9.000           | Off    | N    | 9.7        | 13.8        | 56.0         |
| 1.164000        | 43.3             | 9.000           | Off    | N    | 9.7        | 12.7        | 56.0         |
| 1.176000        | 42.5             | 9.000           | Off    | N    | 9.7        | 13.5        | 56.0         |
| 5.206000        | 22.1             | 9.000           | Off    | N    | 9.9        | 37.9        | 60.0         |
| 5.254000        | 23.1             | 9.000           | Off    | N    | 9.9        | 36.9        | 60.0         |
| 5.268000        | 23.8             | 9.000           | Off    | N    | 9.9        | 36.2        | 60.0         |
| 5.278000        | 23.3             | 9.000           | Off    | N    | 9.9        | 36.7        | 60.0         |

5/27/2015

10:37:37

## WLAN 5G N

2 / 2

| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|------------------|-----------------|--------|------|------------|-------------|--------------|
| 5.456000        | 23.8             | 9.000           | Off    | N    | 9.9        | 36.2        | 60.0         |
| 5.642000        | 23.0             | 9.000           | Off    | N    | 9.9        | 37.0        | 60.0         |

## Final Result 2

| Frequency (MHz) | CAverage (dBμV) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|-----------------|-----------------|--------|------|------------|-------------|--------------|
| 0.152000        | 21.3            | 9.000           | Off    | N    | 9.6        | 34.6        | 55.9         |
| 0.156000        | 19.8            | 9.000           | Off    | N    | 9.6        | 35.9        | 55.7         |
| 0.436000        | 30.6            | 9.000           | Off    | N    | 9.7        | 16.5        | 47.1         |
| 0.788000        | 24.4            | 9.000           | Off    | N    | 9.7        | 21.6        | 46.0         |
| 0.804000        | 26.4            | 9.000           | Off    | N    | 9.7        | 19.6        | 46.0         |
| 0.820000        | 25.2            | 9.000           | Off    | N    | 9.7        | 20.8        | 46.0         |
| 1.108000        | 34.2            | 9.000           | Off    | N    | 9.7        | 11.8        | 46.0         |
| 1.132000        | 35.2            | 9.000           | Off    | N    | 9.7        | 10.8        | 46.0         |
| 1.144000        | 35.8            | 9.000           | Off    | N    | 9.7        | 10.2        | 46.0         |
| 1.154000        | 35.8            | 9.000           | Off    | N    | 9.7        | 10.2        | 46.0         |
| 1.180000        | 35.8            | 9.000           | Off    | N    | 9.7        | 10.2        | 46.0         |
| 1.192000        | 35.9            | 9.000           | Off    | N    | 9.7        | 10.1        | 46.0         |
| 5.238000        | 14.4            | 9.000           | Off    | N    | 9.9        | 35.6        | 50.0         |
| 5.254000        | 14.4            | 9.000           | Off    | N    | 9.9        | 35.6        | 50.0         |
| 5.268000        | 14.6            | 9.000           | Off    | N    | 9.9        | 35.4        | 50.0         |
| 5.278000        | 14.3            | 9.000           | Off    | N    | 9.9        | 35.7        | 50.0         |
| 5.286000        | 14.6            | 9.000           | Off    | N    | 9.9        | 35.4        | 50.0         |
| 5.456000        | 15.1            | 9.000           | Off    | N    | 9.9        | 34.9        | 50.0         |

5/27/2015

10:37:37

## Conducted Emissions (Line 2)

WLAN 5G L1

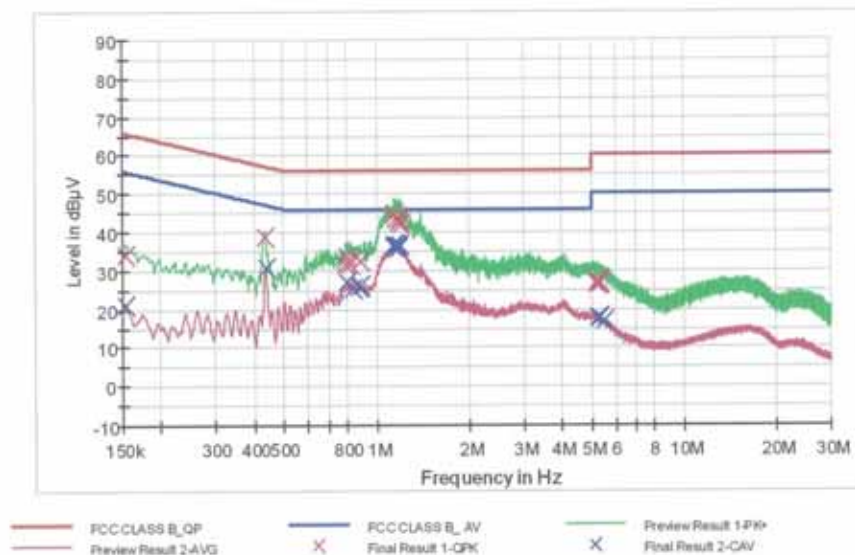
1 / 2

### HCT TEST Report

#### Common Information

EUT: SM-G9198  
 Manufacturer: SAMSUNG  
 Test Site: SHIELD ROOM  
 Operating Conditions: WLAN MODE (5G)  
 Operator Name: KS KANG

FCC CLASS B



#### Final Result 1

| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|------------------|-----------------|--------|------|------------|-------------|--------------|
| 0.154000        | 34.0             | 9.000           | Off    | L1   | 9.6        | 31.8        | 65.8         |
| 0.436000        | 38.6             | 9.000           | Off    | L1   | 9.7        | 18.6        | 57.1         |
| 0.792000        | 31.6             | 9.000           | Off    | L1   | 9.7        | 24.4        | 56.0         |
| 0.804000        | 33.8             | 9.000           | Off    | L1   | 9.7        | 22.2        | 56.0         |
| 0.824000        | 31.4             | 9.000           | Off    | L1   | 9.7        | 24.6        | 56.0         |
| 0.890000        | 32.6             | 9.000           | Off    | L1   | 9.7        | 23.4        | 56.0         |
| 1.138000        | 44.6             | 9.000           | Off    | L1   | 9.7        | 11.4        | 56.0         |
| 1.154000        | 43.2             | 9.000           | Off    | L1   | 9.7        | 12.8        | 56.0         |
| 1.162000        | 43.6             | 9.000           | Off    | L1   | 9.7        | 12.4        | 56.0         |
| 1.184000        | 42.5             | 9.000           | Off    | L1   | 9.7        | 13.5        | 56.0         |
| 1.190000        | 43.2             | 9.000           | Off    | L1   | 9.7        | 12.8        | 56.0         |
| 1.210000        | 42.0             | 9.000           | Off    | L1   | 9.7        | 14.0        | 56.0         |
| 5.188000        | 26.4             | 9.000           | Off    | L1   | 9.9        | 33.6        | 60.0         |
| 5.230000        | 26.4             | 9.000           | Off    | L1   | 9.9        | 33.6        | 60.0         |
| 5.260000        | 27.0             | 9.000           | Off    | L1   | 9.9        | 33.0        | 60.0         |
| 5.264000        | 27.2             | 9.000           | Off    | L1   | 9.9        | 32.8        | 60.0         |

5/27/2015

10:47:15

## WLAN 5G L1

2 / 2

| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|------------------|-----------------|--------|------|------------|-------------|--------------|
| 5.268000        | 27.1             | 9.000           | Off    | L1   | 9.9        | 32.9        | 60.0         |
| 5.316000        | 26.4             | 9.000           | Off    | L1   | 9.9        | 33.6        | 60.0         |

## Final Result 2

| Frequency (MHz) | CAverage (dBμV) | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|-----------------|-----------------|--------|------|------------|-------------|--------------|
| 0.164000        | 21.0            | 9.000           | Off    | L1   | 9.6        | 34.8        | 55.8         |
| 0.438000        | 30.8            | 9.000           | Off    | L1   | 9.7        | 16.3        | 47.1         |
| 0.804000        | 27.2            | 9.000           | Off    | L1   | 9.7        | 18.8        | 46.0         |
| 0.842000        | 25.2            | 9.000           | Off    | L1   | 9.7        | 20.8        | 46.0         |
| 0.874000        | 25.6            | 9.000           | Off    | L1   | 9.7        | 20.4        | 46.0         |
| 0.890000        | 26.3            | 9.000           | Off    | L1   | 9.7        | 19.7        | 46.0         |
| 1.138000        | 36.5            | 9.000           | Off    | L1   | 9.7        | 9.5         | 46.0         |
| 1.144000        | 36.1            | 9.000           | Off    | L1   | 9.7        | 9.9         | 46.0         |
| 1.162000        | 36.6            | 9.000           | Off    | L1   | 9.7        | 9.4         | 46.0         |
| 1.166000        | 36.8            | 9.000           | Off    | L1   | 9.7        | 9.2         | 46.0         |
| 1.184000        | 35.9            | 9.000           | Off    | L1   | 9.7        | 10.1        | 46.0         |
| 1.190000        | 36.5            | 9.000           | Off    | L1   | 9.7        | 9.5         | 46.0         |
| 5.230000        | 17.6            | 9.000           | Off    | L1   | 9.9        | 32.4        | 50.0         |
| 5.246000        | 17.9            | 9.000           | Off    | L1   | 9.9        | 32.1        | 50.0         |
| 5.260000        | 17.8            | 9.000           | Off    | L1   | 9.9        | 32.2        | 50.0         |
| 5.264000        | 17.9            | 9.000           | Off    | L1   | 9.9        | 32.1        | 50.0         |
| 5.288000        | 17.9            | 9.000           | Off    | L1   | 9.9        | 32.1        | 50.0         |
| 5.498000        | 16.9            | 9.000           | Off    | L1   | 9.9        | 33.1        | 50.0         |

5/27/2015

10:47:15

## 9. LIST OF TEST EQUIPMENT

### 9.1 LIST OF TEST EQUIPMENT(Conducted Test)

| Manufacturer    | Model / Equipment          | Calibration Date | Calibration Interval | Serial No.         |
|-----------------|----------------------------|------------------|----------------------|--------------------|
| Rohde & Schwarz | ENV216/ LISN               | 01/13/2015       | Annual               | 100073             |
| Agilent         | E4440A/ Spectrum Analyzer  | 03/18/2015       | Annual               | US45303008         |
| Agilent         | N9020A/ SIGNAL ANALYZER    | 04/29/2015       | Annual               | MY51110063         |
| Agilent         | N1911A/Power Meter         | 01/15/2015       | Annual               | MY45100523         |
| Agilent         | N1921A /POWER SENSOR       | 07/09/2014       | Annual               | MY45241059         |
| Agilent         | 87300B/Directional Coupler | 12/08/2014       | Annual               | 3116A03621         |
| Hewlett Packard | 11667B / Power Splitter    | 04/30/2015       | Annual               | 11275              |
| ITECH           | IT6720 / DC POWER SUPPLY   | 11/04/2014       | Annual               | 010002156287001199 |
| Rohde & Schwarz | CBT / BLUETOOTH TESTER     | 03/13/2015       | Annual               | 100808             |
| Agilent         | 8493C / Attenuator(10 dB)  | 07/21/2014       | Annual               | 76649              |

## 9.2 LIST OF TEST EQUIPMENT(Radiated Test)

| Manufacturer          | Model / Equipment                                      | Calibration Date | Calibration Interval | Serial No.  |
|-----------------------|--------------------------------------------------------|------------------|----------------------|-------------|
| Schwarzbeck           | VULB 9160/ TRILOG Antenna                              | 10/10/2014       | Biennial             | 3368        |
| HD                    | MA240/ Antenna Position Tower                          | N/A              | N/A                  | 556         |
| EMCO                  | 1050/ Turn Table                                       | N/A              | N/A                  | 114         |
| HD GmbH               | HD 100/ Controller                                     | N/A              | N/A                  | 13          |
| HD GmbH               | KMS 560/ SlideBar                                      | N/A              | N/A                  | 12          |
| Rohde & Schwarz       | SCU-18/ Signal Conditioning Unit                       | 09/04/2014       | Annual               | 10094       |
| CERNEX                | CBL18265035 / POWER AMP                                | 07/23/2014       | Annual               | 22966       |
| Schwarzbeck           | BBHA 9120D/ Horn Antenna                               | 07/05/2013       | Biennial             | 1151        |
| Schwarzbeck           | BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)               | 07/05/2013       | Biennial             | BBHA9170541 |
| Rohde & Schwarz       | FSP / Spectrum Analyzer                                | 10/23/2014       | Annual               | 836650/016  |
| Wainwright Instrument | WHF3.0/18G-10EF / High Pass Filter                     | 06/23/2014       | Annual               | 8           |
| Wainwright Instrument | WRCJ2400/2483.5-2370/2520-60/14SS / Band Reject Filter | 06/17/2014       | Annual               | 1           |
| Rohde & Schwarz       | CBT / BLUETOOTH TESTER                                 | 03/13/2015       | Annual               | 100808      |
| Rohde & Schwarz       | LOOP ANTENNA                                           | 09/03/2014       | Biennial             | 1513-175    |
| CERNEX                | CBL06185030 / POWER AMP                                | 07/21/2014       | Annual               | 22965       |
| CERNEX                | CBLU1183540 / POWER AMP                                | 07/21/2014       | Annual               | 22964       |
| MITEQ                 | AMF-4D-260400-45-6P/PREAMPLIFIER                       | 04/09/2015       | Annual               | 671314      |