# FCC TEST REPORT

# (15.407)

| | |
|---|---|
| **REPORT NO.:** | RF141029C03-1 |
| **MODEL NO.:** | MR72-HW |
| **FCC ID:** | UDX-60033010 |
| **RECEIVED:** | Oct. 07, 2014 |
| **TESTED:** | Oct. 07 ~ Dec. 10, 2014 |
| **ISSUED:** | Dec. 22, 2014 |

| | |
|---|---|
| **APPLICANT:** | Cisco Systems, Inc. |
| **ADDRESS:** | 170 West Tasman Drive, San Jose, CA 95134 |

| | |
|---|---|
| **ISSUED BY:** | Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch |
| **LAB ADDRESS:** | No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C. |
| **TEST LOCATION:** | No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C. |

This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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# RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|---|---|---|
| RF141029C03-1 | Original release | Dec. 22, 2014 |

# 1. CERTIFICATION

**PRODUCT:** 802.11 abgn/ac device
**MODEL:** MR72-HW
**BRAND:** Cisco
**APPLICANT:** Cisco Systems, Inc.
**TESTED:** Oct. 07 ~ Dec. 10, 2014
**TEST SAMPLE:** ENGINEERING SAMPLE
**STANDARDS:** **FCC Part 15, Subpart E (Section 15.407)**

The above equipment (model: MR72-HW) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY :** _____ **, DATE :** Dec. 22, 2014
Pettie Chen / Senior Specialist

**APPROVED BY :** _____ **, DATE :** Dec. 22, 2014
Ken Liu / Senior Manager

# 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407 Under New Rules) | | | |
|---|---|---|---|
| **STANDARD SECTION** | **TEST TYPE** | **RESULT** | **REMARK** |
| 15.407(b)(6) | AC Power Conducted Emissions | PASS | Meet the requirement of limit. Minimum passing margin is -9.88dB at 23.14211MHz. |
| 15.407(b) (1/2/3/4/6) | Radiated Emissions & Band Edge Measurement | PASS | Meet the requirement of limit. Minimum passing margin is -1.0dB at 30MHz, 108.40MHz, 154.13MHz, 5000.00MHz, 5714.00MHz, 5861.00MHz, 11570.00MHz |
| 15.407(a)(1/2/3) | Max Average Transmit Power | PASS | Meet the requirement of limit. |
| 15.407(a)(1/2/3) | Peak Power Spectral Density | PASS | Meet the requirement of limit. |
| 15.407(e) | 6dB bandwidth | PASS | Meet the requirement of limit. (U-NII-3 Band only) |
| 15.407(g) | Frequency Stability | PASS | Meet the requirement of limit. |
| 15.203 | Antenna Requirement | PASS | For Dipole, Patch, Sector antenna: Antenna connector is N-Type. (The device is professionally installed). For PIFA antenna: No antenna connector is used. |

## 2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| MEASUREMENT | FREQUENCY | UNCERTAINTY |
|---|---|---|
| Conducted emissions | 9kHz~30MHz | 2.44 dB |
| Radiated emissions | 30MHz ~ 200MHz | 3.86 dB |
| | 200MHz ~1000MHz | 3.87 dB |
| | 1GHz ~ 18GHz | 2.29 dB |
| | 18GHz ~ 40GHz | 2.29 dB |

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

# 3. GENERAL INFORMATION

## 3.1 GENERAL DESCRIPTION OF EUT

| | |
|---|---|
| **EUT** | 802.11 abgn/ac device |
| **MODEL NO.** | MR72-HW |
| **POWER SUPPLY** | 55Vdc (POE) |
| **MODULATION TYPE** | 256QAM, 64QAM, 16QAM, QPSK, BPSK |
| **MODULATION TECHNOLOGY** | OFDM |
| **TRANSFER RATE** | 802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps<br>802.11n: up to 300.0Mbps<br>802.11ac: up to 866.6Mbps |
| **OPERATING FREQUENCY** | 5180 ~ 5240MHz, 5745 ~ 5825MHz |
| **NUMBER OF CHANNEL** | 5180 ~ 5240MHz:<br>4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20)<br>2 for 802.11n (HT40), 802.11ac (VHT40)<br>1 for 802.11ac (VHT80)<br>5745 ~ 5825MHz:<br>5 for 802.11a, 802.11n (HT20), 802.11ac (VHT20)<br>2 for 802.11n (HT40), 802.11ac (VHT40)<br>1 for 802.11ac (VHT80) |
| **OUTPUT POWER** | **Dipole Antenna**:<br>Radio 2:<br>144.259mW for 5180 ~ 5240MHz<br>170.228mW for 5745 ~ 5825MHz<br>**Patch Antenna**:<br>Radio 2:<br>82.325mW for 5180 ~ 5240MHz<br>489.452mW for 5745 ~ 5825MHz<br>**Sector Antenna:**<br>Radio 2:<br>6.250mW for 5180 ~ 5240MHz<br>112.168mW for 5745 ~ 5825MHz<br>**PIFA Antenna:**<br>Radio 3:<br>25.003mW for 5180 ~ 5240MHz<br>145.211mW for 5745 ~ 5825MHz |
| **ANTENNA TYPE** | Refer to note |
| **ANTENNA CONNECTOR** | Refer to note |
| **DATA CABLE** | NA |

| | |
|---|---|
| **I/O PORTS** | Refer to user's manual |
| **ACCESSORY DEVICES** | NA |

**NOTE:**

1. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

| MODULATION MODE | TX FUNCTION | REMARK |
|---|---|---|
| **2.4GHz Band** | | |
| **802.11b** | 1TX | Radio 3 |
| | 2TX | Radio 1 |
| **802.11g** | 1TX | Radio 3 |
| | 2TX | Radio 1 |
| **802.11n (HT20)** | 1TX | Radio 3 |
| | 2TX | Radio 1 |
| **5GHz Band** | | |
| **802.11a** | 1TX | Radio 3 |
| | 2TX | Radio 2 |
| **802.11n (HT20)** | 1TX | Radio 3 |
| | 2TX | Radio 2 |
| **802.11n (HT40)** | 1TX | Radio 3 |
| | 2TX | Radio 2 |
| **802.11ac (80MHz)** | 2TX | Radio 2 |

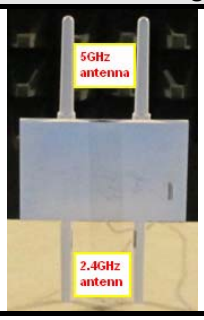
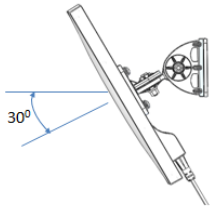
* The modulation and bandwidth are similar for 802.11n mode for 20MHz / 40MHz and 802.11ac mode for 20MHz / 40MHz, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

2. The EUT with follow antennas gain is listed as table below.

| No. | Type | Connector | Gain(dBi) | | | | | | | | | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2400 MHz | 2450 MHz | 2500 MHz | 4900 MHz | 5150 MHz | 5350 MHz | 5475 MHz | 5725 MHz | 5875 MHz | |
| 1 | Dipole | N-Type | 4 | | | - | | | | | | Radio 1 (WLAN) |
| | | | - | | | 7 | | | | | | Radio 2 (WLAN) |
| | Patch | N-Type | 8.1 | | | - | | | | | | Radio 1 (WLAN) |
| | | | - | | | 7.1 | | | | | | Radio 2 (WLAN) |
| | Sector | N-Type | 11 | | | - | | | | | | Radio 1 (WLAN) |
| | | | - | | | 13 | | | | | | Radio 2 (WLAN) |
| 2 | PIFA | NA | 5.4 | 5.7 | 4.7 | 6.0 | 6.1 | 5.7 | 6.2 | 5.8 | 6.5 | Radio 3 (WLAN) |
| 3 | PIFA | NA | 4.2 | | | - | | | | | | Radio 4 (BT LE) |

* Antenna 1 of the EUT can choose dipole, patch or sector antenna.

3. The EUT will install at outdoor area, the highest antenna gain from the horizon above 30 degrees as below, for more detail information please refer to antenna specification and user manual

| Antenna | Antenna gain | Antenna install degree |
|---|---|---|
| Dipole | -0.7 dBi |  |
| Patch | 1.8 dBi |  |
| Sector | 13 dBi | No limitations install degree, chosen the highest gain from the antenna specification. |
| PIFA | 6.5 dBi | No limitations install degree, chosen the highest gain from the antenna specification. |

4. The EUT consumes power from the following POE. (for supply unit only)

| POE | |
|---|---|
| **BRAND** | CISCO |
| **MODEL** | PD-9001GR/AT/AC |
| **INPUT POWER** | 100-240Vac~0.67A, 50/60Hz |
| **OUTPUT POWER** | 55Vdc, 0.6A |

5. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

## 3.2 DESCRIPTION OF TEST MODES

### FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---|---|---|---|
| 36 | 5180 MHz | 44 | 5220 MHz |
| 40 | 5200 MHz | 48 | 5240 MHz |

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---|---|---|---|
| 38 | 5190 MHz | 46 | 5230 MHz |

1 channel is provided for 802.11ac (VHT80):

| CHANNEL | FREQUENCY |
|---|---|
| 42 | 5210MHz |

### FOR 5745 ~ 5825MHz

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---|---|---|---|
| 149 | 5745MHz | 161 | 5805MHz |
| 153 | 5765MHz | 165 | 5825MHz |
| 157 | 5785MHz | | |

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---|---|---|---|
| 151 | 5755MHz | 159 | 5795MHz |

1 channel is provided for 802.11ac (VHT80):

| CHANNEL | FREQUENCY |
|---|---|
| 155 | 5775MHz |

## 3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

| EUT CONFIGURE MODE | APPLICABLE TO | | | | DESCRIPTION |
|---|---|---|---|---|---|
| | RE≥1G | RE<1G | PLC | APCM | |
| - | √ | √ | √ | √ | - |

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz
**PLC:** Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

**NOTE:**
1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane**.

**RADIATED EMISSION TEST (ABOVE 1GHz):**

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT CONFIGURE MODE | MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) | REMARK |
|---|---|---|---|---|---|---|---|---|
| - | 802.11a | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.0 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11n (HT20) | | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 14.4 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 7.2 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11n (HT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 30.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 38 to 46 | 38, 46 | OFDM | BPSK | 15.0 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 65.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | 802.11a | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.0 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11n (HT20) | | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 14.4 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 7.2 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11n (HT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 30.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 151 to 159 | 151, 159 | OFDM | BPSK | 15.0 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 65.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |

## RADIATED EMISSION TEST (BELOW 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT CONFIGURE MODE | MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) | REMARK |
|---|---|---|---|---|---|---|---|---|
| - | 802.11n (HT20) | 5180-5240 | 36 to 48 | 40 | OFDM | BPSK | 7.2 | 2TX (Radio 2) (Dipole Antenna) |
| | 802.11a | | 36 to 48 | 40 | OFDM | BPSK | 6.0 | 2TX (Radio 2) (Patch Antenna) |
| | 802.11a | | 36 to 48 | 36 | OFDM | BPSK | 6.0 | 2TX (Radio 2) (Sector Antenna) |
| | 802.11a | | 36 to 48 | 36 | OFDM | BPSK | 6.0 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11a | 5745-5825 | 149 to 165 | 165 | OFDM | BPSK | 6.0 | 2TX (Radio 2) (Dipole Antenna) |
| | 802.11n (HT20) | | 149 to 165 | 157 | OFDM | BPSK | 7.2 | 2TX (Radio 2) (Patch & Sector Antenna) |
| | 802.11a | | 149 to 165 | 157 | OFDM | BPSK | 6.0 | 1TX (Radio 3) (PIFA Antenna) |

## POWER LINE CONDUCTED EMISSION TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT CONFIGURE MODE | MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) | REMARK |
|---|---|---|---|---|---|---|---|---|
| - | 802.11n (HT20) | 5180-5240 | 36 to 48 | 40 | OFDM | BPSK | 7.2 | 2TX (Radio 2) (Dipole Antenna) |
| | 802.11a | | 36 to 48 | 40 | OFDM | BPSK | 6.0 | 2TX (Radio 2) (Patch Antenna) |
| | 802.11a | | 36 to 48 | 36 | OFDM | BPSK | 6.0 | 2TX (Radio 2) (Sector Antenna) |
| | 802.11a | | 36 to 48 | 36 | OFDM | BPSK | 6.0 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11a | 5745-5825 | 149 to 165 | 165 | OFDM | BPSK | 6.0 | 2TX (Radio 2) (Dipole Antenna) |
| | 802.11n (HT20) | | 149 to 165 | 157 | OFDM | BPSK | 7.2 | 2TX (Radio 2) (Patch & Sector Antenna) |
| | 802.11a | | 149 to 165 | 157 | OFDM | BPSK | 6.0 | 1TX (Radio 3) (PIFA Antenna) |

## ANTENNA PORT CONDUCTED MEASUREMENT:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT CONFIGURE MODE | MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) | REMARK |
|---|---|---|---|---|---|---|---|---|
| - | 802.11a | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.0 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11n (HT20) | | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 14.4 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 7.2 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11n (HT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 30.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 38 to 46 | 38, 46 | OFDM | BPSK | 15.0 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 65.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | 802.11a | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.0 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11n (HT20) | | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 14.4 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 7.2 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11n (HT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 30.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |
| | | | 151 to 159 | 151, 159 | OFDM | BPSK | 15.0 | 1TX (Radio 3) (PIFA Antenna) |
| | 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 65.0 | 2TX (Radio 2) (Dipole, Patch & Sector Antenna) |

## TEST CONDITION:

| APPLICABLE TO | ENVIRONMENTAL CONDITIONS | INPUT POWER | TESTED BY |
|---|---|---|---|
| RE>1G | 22deg. C, 72%RH<br>22deg. C, 70%RH | 55Vdc | Nick Hsu<br>Jones Chang |
| RE<1G | 22deg. C, 65%RH | 55Vdc | Jones Chang |
| PLC | 22deg. C, 72%RH | 55Vdc | Nick Hsu |
| APCM | 25deg. C, 60%RH | 55Vdc | Nick Hsu |

## 3.3 DUTY CYCLE OF TEST SIGNAL

**Radio 2: Dipole antenna (For U-NII-1 band)**

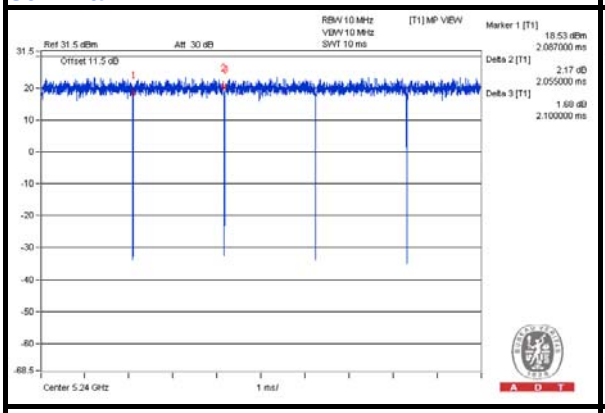
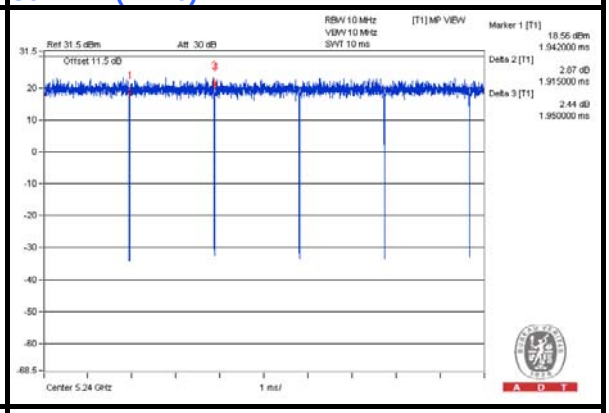
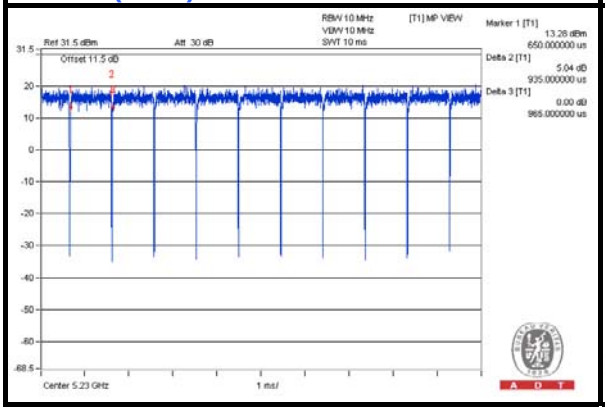
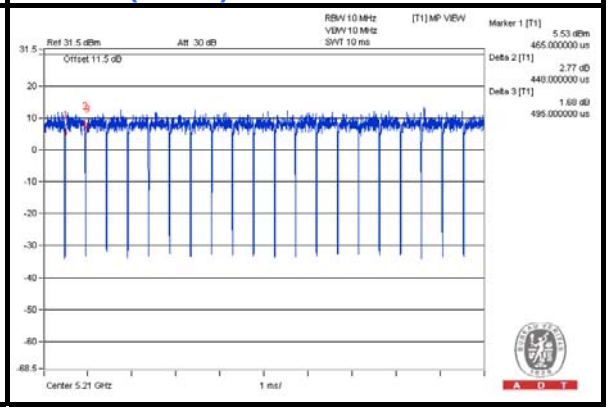
Duty cycle is < 98%, duty factor shall be considered.

**802.11a:** Duty cycle = 2.055/2.1 = 0.979, Duty factor = 10 * log(1/0.979) = 0.09

**802.11n (HT20):** Duty cycle = 1.915/1.95 = 0.982 > 98%, duty factor is not required.

**802.11n (HT40):** Duty cycle = 0.935/0.965 = 0.969, Duty factor = 10 * log(1/0.969) = 0.14

**802.11ac (VHT80):** Duty cycle = 0.448/0.495 = 0.905, Duty factor = 10 * log(1/0.905) = 0.43

| 802.11a | 802.11n (HT20) |
|---|---|
|  |  |
| **802.11n (HT40)** | **802.11ac (VHT80)** |
|  |  |

**Radio 2: Dipole antenna (For U-NII-3 band)**

Duty cycle is < 98%, duty factor shall be considered.

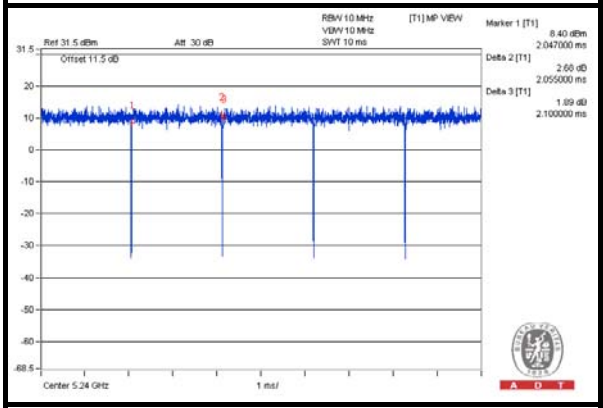
**802.11a:** Duty cycle = 2.055/2.1 = 0.979, Duty factor = 10 * log(1/0.979) = 0.09

**802.11n (HT20):** Duty cycle = 1.91/1.953 = 0.978, Duty factor = 10 * log(1/0.978) = 0.10

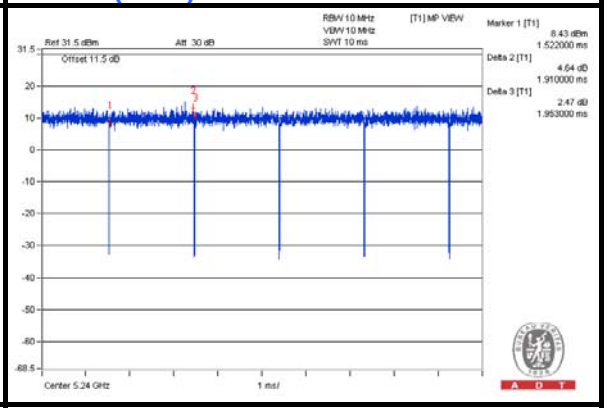
**802.11n (HT40):** Duty cycle = 0.935/0.975 = 0.959, Duty factor = 10 * log(1/0.959) = 0.18

**802.11ac (VHT80):** Duty cycle = 0.453/0.493 = 0.919, Duty factor = 10 * log(1/0.919) = 0.37

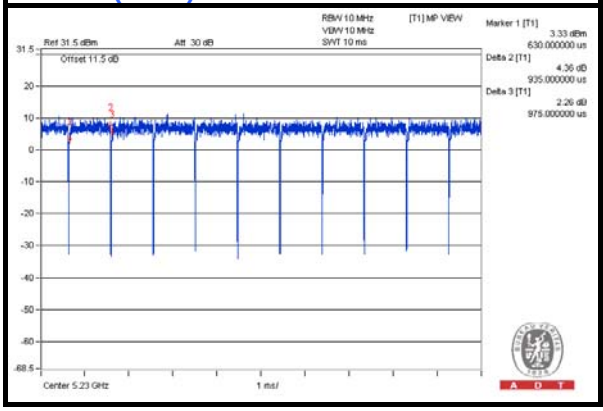
**802.11a**



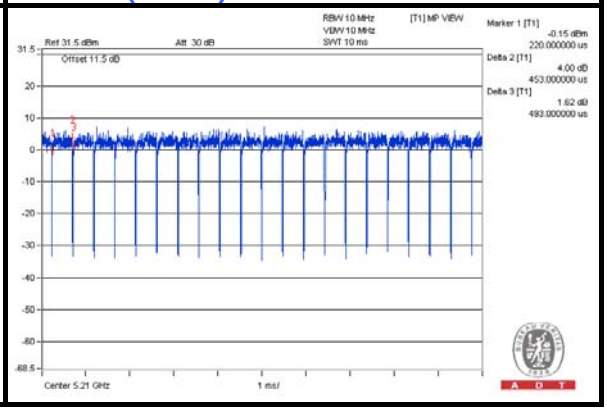

**802.11n (HT20)**




**802.11n (HT40)**




**802.11ac (VHT80)**



**Radio 2: Patch antenna (For U-NII-1 band)**

Duty cycle is > 98%, duty factor is not required.

**802.11a:** Duty cycle = 2.057/2.097 = 0.981 > 98%, duty factor is not required.

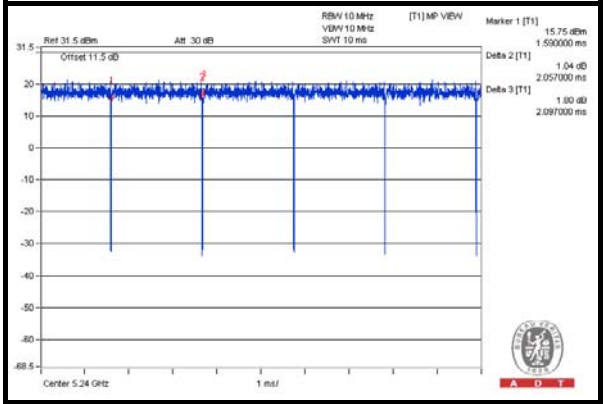
**802.11n (HT20):** Duty cycle = 1.907/1.939 = 0.983 > 98%, duty factor is not required.

Duty cycle is < 98%, duty factor shall be considered.

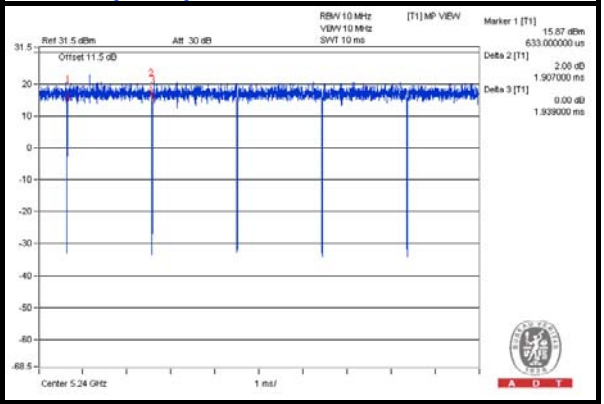
**802.11n (HT40):** Duty cycle = 0.927/0.975 = 0.951, Duty factor = 10 * log(1/0.951) = 0.22

**802.11ac (VHT80):** Duty cycle = 0.448/0.478 = 0.937, Duty factor = 10 * log(1/0.937) = 0.28

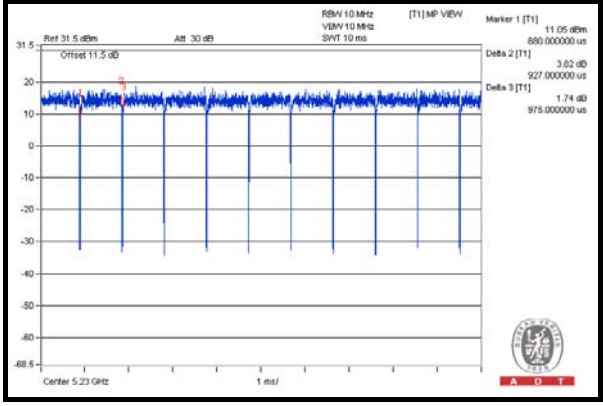
**802.11a**



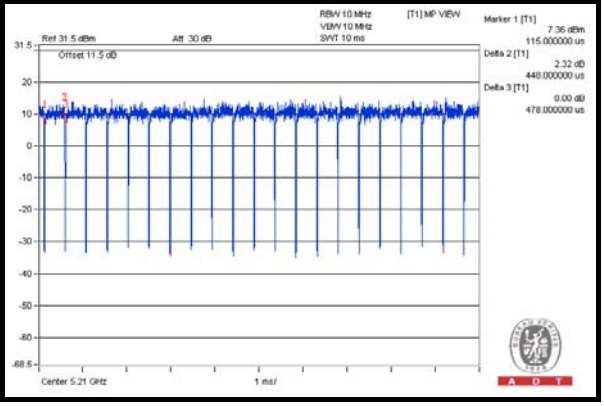
**802.11n (HT20)**



**802.11n (HT40)**



**802.11ac (VHT80)**



**Radio 2: Patch antenna (For U-NII-3 band)**

Duty cycle is > 98%, duty factor is not required.

**802.11a:** Duty cycle = 2.055/2.083 = 0.987 > 98%, duty factor is not required.

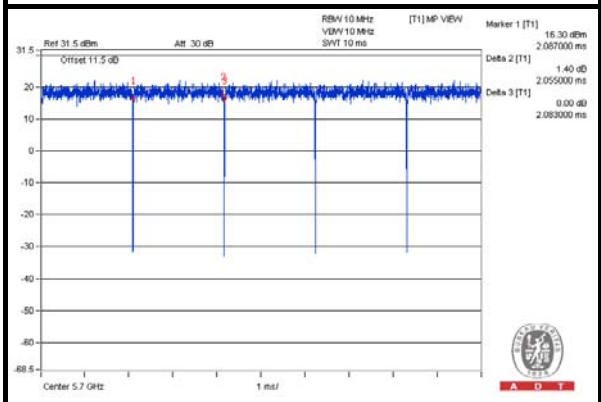
**802.11n (HT20):** Duty cycle = 1.915/1.955 = 0.98 > 98%, duty factor is not required.

Duty cycle is < 98%, duty factor shall be considered.

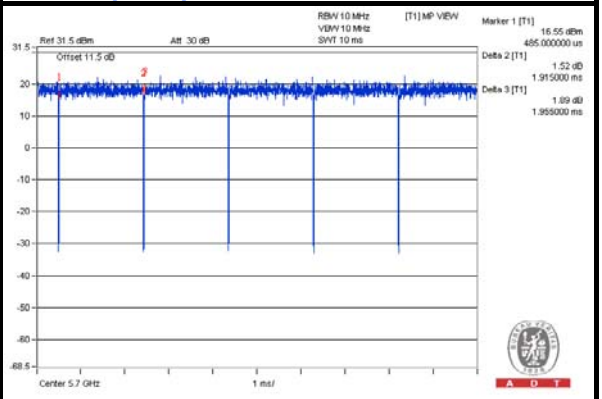
**802.11n (HT40):** Duty cycle = 0.935/0.972 = 0.962, Duty factor = 10 * log(1/0.962) = 0.17

**802.11ac (VHT80):** Duty cycle = 0.445/0.493 = 0.903, Duty factor = 10 * log(1/0.903) = 0.44

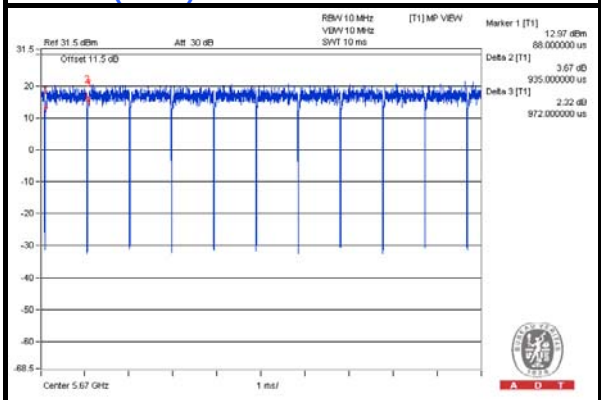
**802.11a**



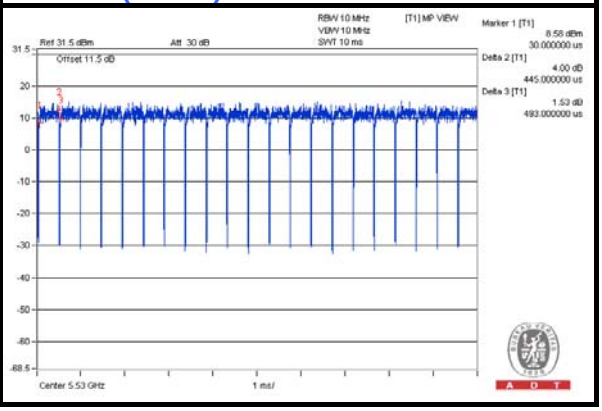
**802.11n (HT20)**



**802.11n (HT40)**



**802.11ac (VHT80)**



## Radio 2: Sector antenna (For U-NII-1 band)

Duty cycle is < 98%, duty factor shall be considered.

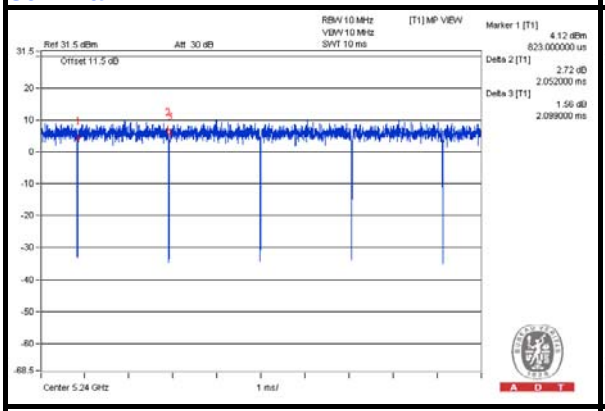
**802.11a:** Duty cycle = 2.052/2.099 = 0.978, Duty factor = 10 * log(1/0.978) = 0.10

**802.11n (HT20):** Duty cycle = 1.913/1.955 = 0.979, Duty factor = 10 * log(1/0.979) = 0.09

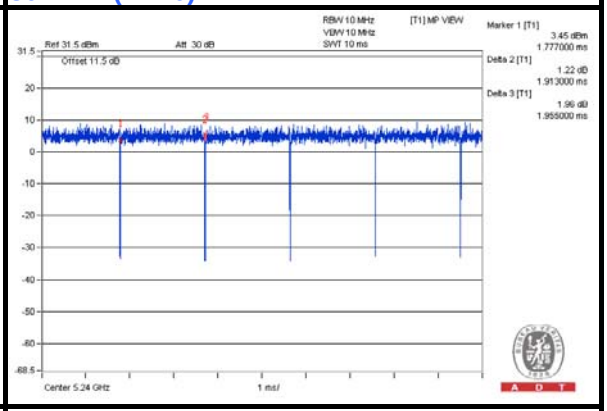
**802.11n (HT40):** Duty cycle = 0.942/0.969 = 0.972, Duty factor = 10 * log(1/0.972) = 0.12

**802.11ac (VHT80):** Duty cycle = 0.452/0.48 = 0.942, Duty factor = 10 * log(1/0.942) = 0.26

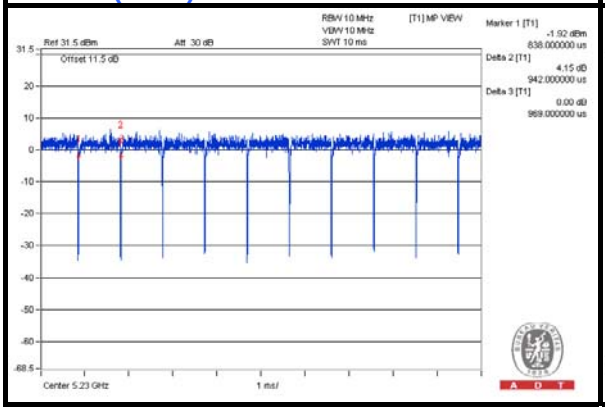
**802.11a**



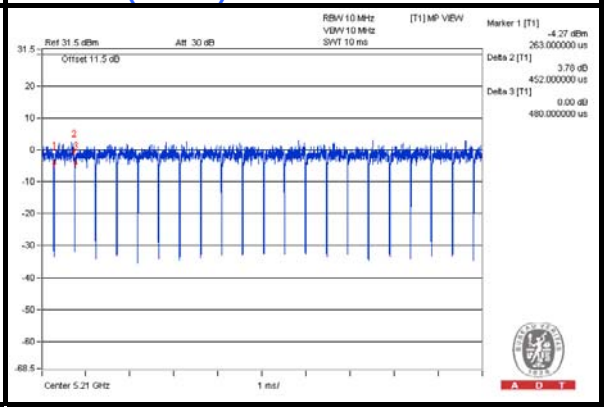
**802.11n (HT20)**



**802.11n (HT40)**



**802.11ac (VHT80)**



**Radio 2: Sector antenna (For U-NII-3 band)**

Duty cycle is > 98%, duty factor is not required.

**802.11a:** Duty cycle = 2.055/2.083 = 0.987 > 98%, duty factor is not required.

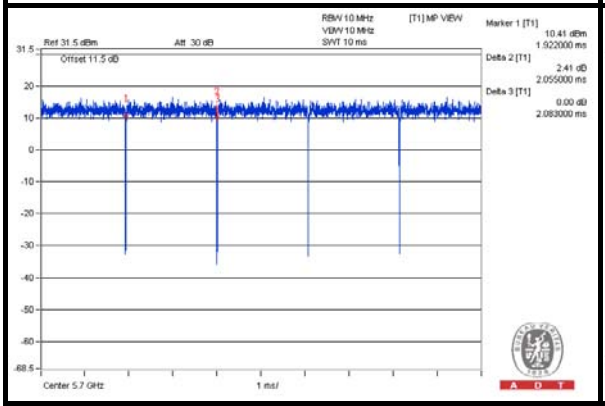
**802.11n (HT20):** Duty cycle = 1.91/1.947 = 0.981 > 98%, duty factor is not required.

Duty cycle is < 98%, duty factor shall be considered.

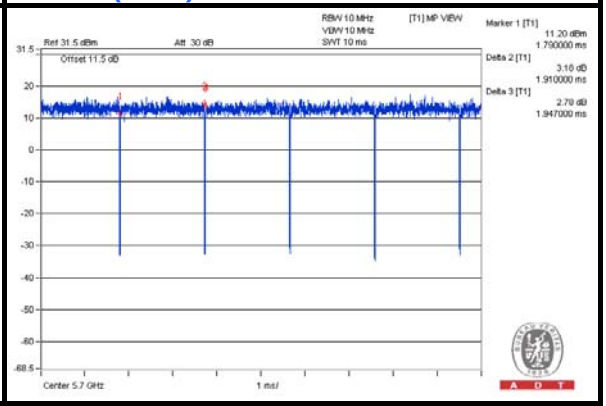
**802.11n (HT40):** Duty cycle = 0.934/0.967 = 0.966, Duty factor = 10 * log(1/0.966) = 0.15

**802.11ac (VHT80):** Duty cycle = 0.452/0.48 = 0.942, Duty factor = 10 * log(1/0.942) = 0.26

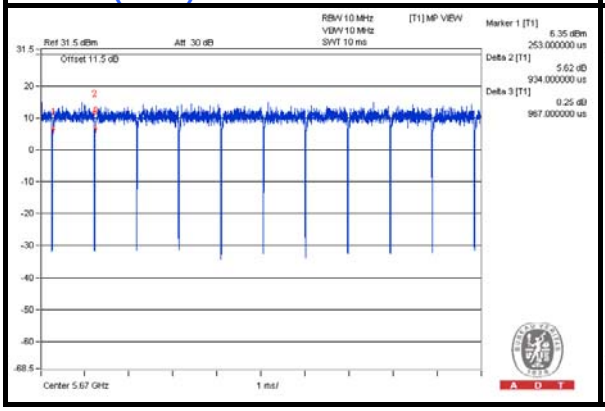
**802.11a**



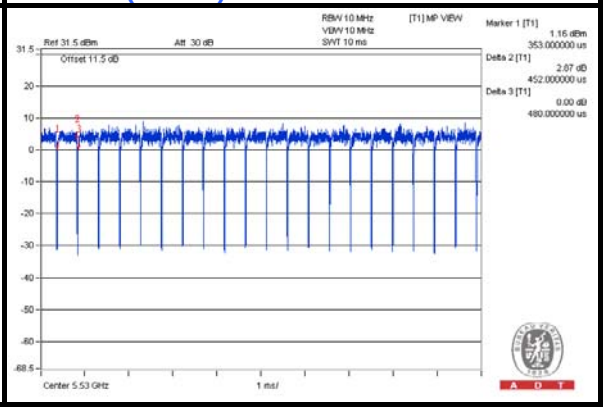
**802.11n (HT20)**



**802.11n (HT40)**



**802.11ac (VHT80)**



**Radio 3: PIFA antenna (For U-NII-1 & U-NII-3 band)**

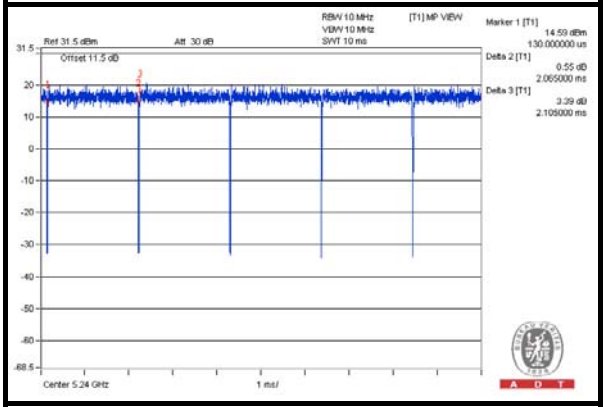
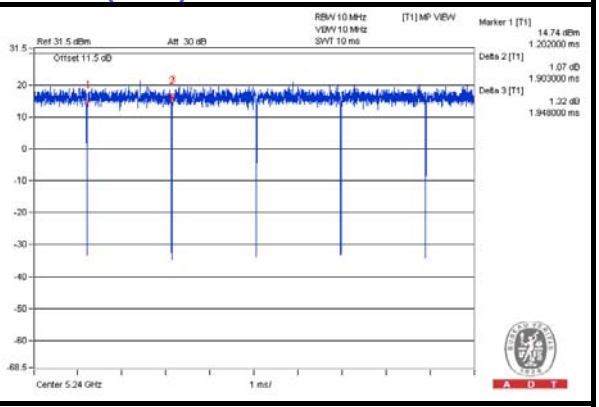
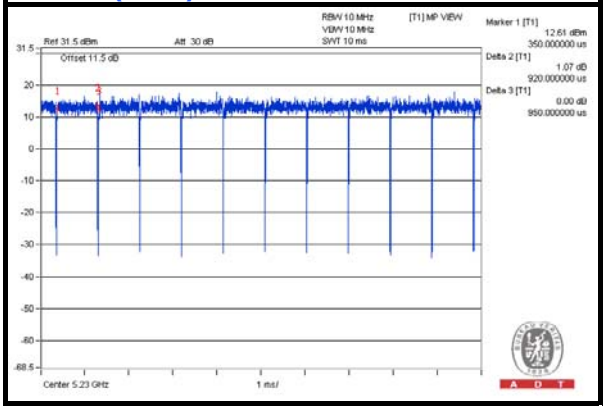
**802.11a:** Duty cycle of test signal is > 98 %, duty factor is not required.

**802.11a:** Duty cycle = 2.065/2.105 = 0.981

**802.11n (HT20), 802.11n (HT40):** Duty cycle is < 98%, duty factor shall be considered.

**802.11n (HT20):** Duty cycle = 1.903/1.948 = 0.977, Duty factor = 10 * log(1/0.977) = 0.10

**802.11n (HT40):** Duty cycle = 0.92/0.95 = 0.968, Duty factor = 10 * log(1/0.968) = 0.14

| 802.11a | 802.11n (HT20) |
|---|---|
|  |  |
| **802.11n (HT40)** | |
|  | |

## 3.4 DESCRIPTION OF SUPPORT UNITS

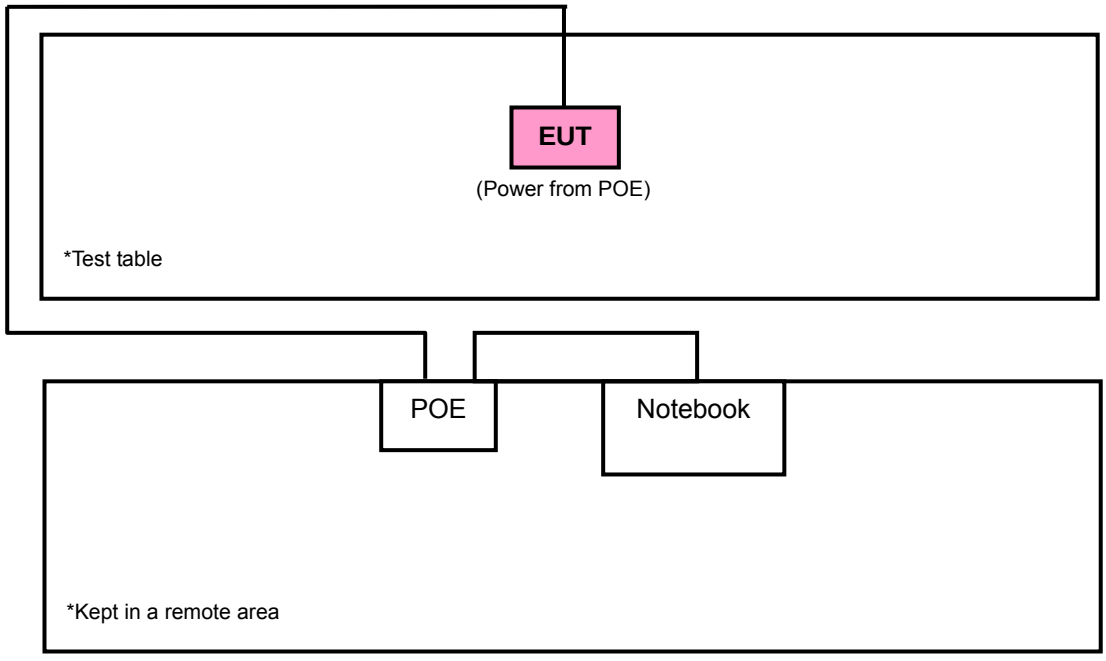
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| NO. | PRODUCT | BRAND | MODEL NO. | SERIAL NO. | FCC ID |
|---|---|---|---|---|---|
| 1 | NOTEBOOK | DELL | D531 | CN-0XM006-48643 -81U-2973 | QDS-BRCM1020 |
| 2 | POE | CISCO | PD-9001GR/AT/AC | NA | NA |

| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|---|---|
| 1 | 1.8m LAN cable |
| 2 | 10m LAN cable |

**NOTE:**
1. All power cords of the above support units are non-shielded (1.8 m).
2. Item 1 acted as a communication partner to transfer data.
3. Item 2 was provided by the manufacturer.

### 3.4.1 CONFIGURATION OF SYSTEM UNDER TEST



## 3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specification of the EUT declared by the manufacturer, it must comply with the requirements of the following standards:

**FCC Part 15, Subpart E (15.407)**
**789033 D02 General UNII Test Procedures New Rules v01**
**662911 D01 Multiple Transmitter Output v02r01**
ANSI C63.10-2009

All test items have been performed and recorded as per the above standards.

**NOTE:** The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

# 4. TEST TYPES AND RESULTS

## 4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

### 4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

| FREQUENCIES (MHz) | FIELD STRENGTH (microvolts/meter) | MEASUREMENT DISTANCE (meters) |
|---|---|---|
| 0.009 ~ 0.490 | 2400/F(kHz) | 300 |
| 0.490 ~ 1.705 | 24000/F(kHz) | 30 |
| 1.705 ~ 30.0 | 30 | 30 |
| 30 ~ 88 | 100 | 3 |
| 88 ~ 216 | 150 | 3 |
| 216 ~ 960 | 200 | 3 |
| Above 960 | 500 | 3 |

**NOTE**:
1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

### 4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

| APPLICABLE TO | LIMIT | |
|---|---|---|
| 789033 D02 General UNII Test Procedures New Rules v01 | FIELD STRENGTH AT 3m | |
| | PK: 74 (dBμV/m) | AV: 54 (dBμV/m) |
| **APPLICABLE TO** | **EIRP LIMIT** | **EQUIVALENT FIELD STRENGTH AT 3m** |
| 15.407(b)(1) | PK: -27 (dBm/MHz) | PK: 68.2 (dBμV/m) |
| 15.407(b)(2) | | |
| 15.407(b)(3) | | |
| 15.407(b)(4) | PK: -27 (dBm/MHz) *1<br>PK: -17 (dBm/MHz) *2 | PK: 68.2 (dBμV/m) *1<br>PK: 78.2 (dBμV/m) *2 |

**NOTE:** *1 beyond 10MHz of the band edge *2 within 10 MHz of band edge

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts).

### 4.1.3 TEST INSTRUMENTS

| DESCRIPTION & MANUFACTURER | MODEL NO. | SERIAL NO. | DATE OF CALIBRATION | DUE DATE OF CALIBRATION |
|---|---|---|---|---|
| Test Receiver ROHDE & SCHWARZ | ESIB7 | 100187 | Jan. 02, 2014 | Jan. 01, 2015 |
| Spectrum Analyzer ROHDE & SCHWARZ | FSP40 | 100039 | Mar. 03, 2014 | Mar. 02, 2015 |
| BILOG Antenna SCHWARZBECK | VULB9168 | 9168-160 | Feb. 26, 2014 | Feb. 25, 2015 |
| HORN Antenna SCHWARZBECK | 9120D | 209 | Aug. 25, 2014 | Aug. 24, 2015 |
| HORN Antenna SCHWARZBECK | BBHA 9170 | BBHA9170241 | Feb. 17, 2014 | Feb. 16, 2015 |
| Preamplifier Agilent | 8447D | 2944A10738 | Oct.18, 2014 | Oct. 17, 2015 |
| Preamplifier Agilent | 8449B | 3008A01964 | Aug. 22, 2014 | Aug. 21, 2015 |
| RF signal cable HUBER+SUHNNER | SUCOFLEX 104 | 214378/4 | Aug. 22, 2014 | Aug. 21, 2015 |
| RF signal cable HUBER+SUHNNER | SUCOFLEX 106 | 12738/6 +309224/4 | Aug. 22, 2014 | Aug. 21, 2015 |
| Software BV ADT | ADT_Radiated_ V7.6.15.9.4 | NA | NA | NA |
| Antenna Tower inn-co GmbH | MA 4000 | 013303 | NA | NA |
| Antenna Tower Controller inn-co GmbH | CO2000 | 017303 | NA | NA |
| Turn Table BV ADT | TT100 | TT93021703 | NA | NA |
| Turn Table Controller BV ADT | SC100 | SC93021703 | NA | NA |
| 26GHz ~ 40GHz Amplifier | EM26400 | 815221 | Oct. 18, 2014 | Oct. 17, 2015 |
| High Speed Peak Power Meter | ML2495A | 0824011 | Jul. 26, 2014 | Jul. 25, 2015 |
| Power Sensor | MA2411B | 0738171 | Jul. 26, 2014 | Jul. 25, 2015 |
| WIT Standard Temperature And Humidity Chamber | TH-4S-C | W981030 | Jun. 9, 2014 | Jun. 08, 2015 |

**NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Chamber 3.

3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

4. The FCC Site Registration No. is 988962.

5. The IC Site Registration No. is IC 7450F-3.

### 4.1.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

**NOTE:**

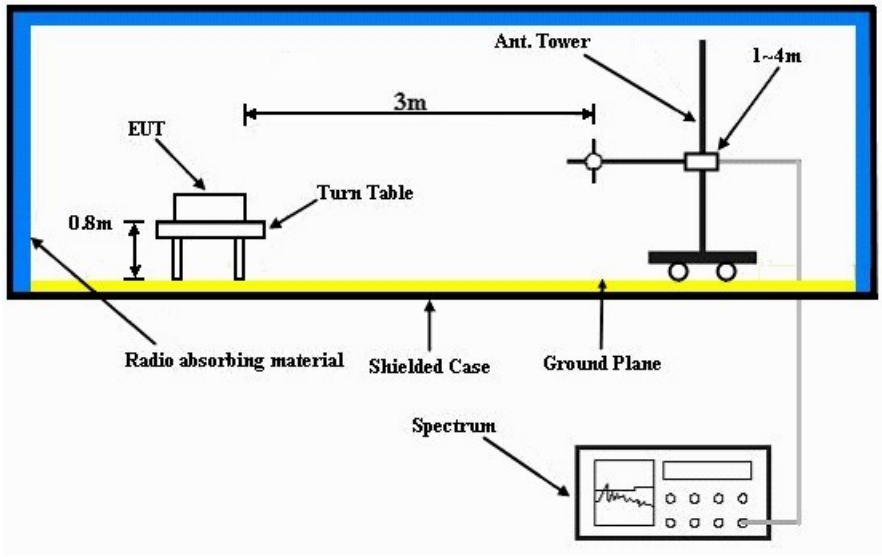
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

### 4.1.5 DEVIATION FROM TEST STANDARD

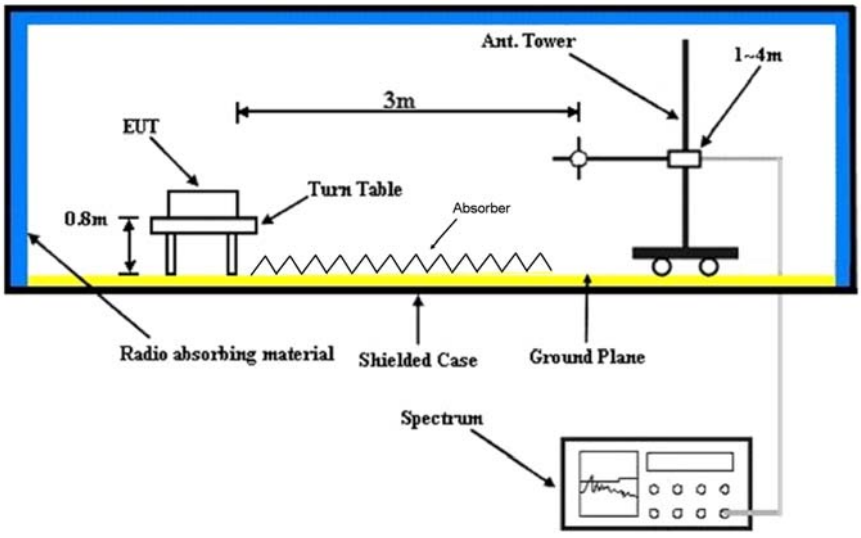
No deviation.

### 4.1.6 TEST SETUP

**Frequency range 30MHz~1GHz**




**Frequency range above 1GHz**




For the actual test configuration, please refer to the attached file (Test Setup Photo).

### 4.1.7 EUT OPERATING CONDITION

a. Placed the EUT on the testing table.
b. Prepared a notebook to act as communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and run a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

## 4.1.8 TEST RESULTS

**ABOVE 1GHz DATA：**

**Radio 2: Dipole antenna**

**802.11a**

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 36 | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5000.00 | 57.6 PK | 74.0 | -16.4 | 1.19 H | 302 | 51.50 | 6.10 |
| 2 | 5000.00 | 45.2 AV | 54.0 | -8.8 | 1.19 H | 302 | 39.10 | 6.10 |
| 3 | 5150.00 | 56.7 PK | 74.0 | -17.3 | 1.14 H | 103 | 50.30 | 6.40 |
| 4 | 5150.00 | 44.0 AV | 54.0 | -10.0 | 1.14 H | 103 | 37.60 | 6.40 |
| 5 | *5180.00 | 104.0 PK | | | 1.00 H | 327 | 64.10 | 39.90 |
| 6 | *5180.00 | 94.1 AV | | | 1.00 H | 327 | 54.20 | 39.90 |
| 7 | #10360.00 | 60.1 PK | 74.0 | -13.9 | 1.17 H | 121 | 41.40 | 18.70 |
| 8 | #10360.00 | 47.0 AV | 54.0 | -7.0 | 1.17 H | 121 | 28.30 | 18.70 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5000.00 | 61.4 PK | 74.0 | -12.6 | 1.00 V | 21 | 55.30 | 6.10 |
| **2** | **5000.00** | **53.0 AV** | **54.0** | **-1.0** | **1.00 V** | **21** | **46.90** | **6.10** |
| 3 | 5150.00 | 65.1 PK | 74.0 | -8.9 | 1.08 V | 324 | 58.70 | 6.40 |
| 4 | 5150.00 | 48.8 AV | 54.0 | -5.2 | 1.08 V | 324 | 42.40 | 6.40 |
| 5 | *5180.00 | 116.2 PK | | | 1.00 V | 284 | 76.30 | 39.90 |
| 6 | *5180.00 | 106.6 AV | | | 1.00 V | 284 | 66.70 | 39.90 |
| 7 | #10360.00 | 60.5 PK | 74.0 | -13.5 | 1.00 V | 62 | 41.80 | 18.70 |
| 8 | #10360.00 | 46.9 AV | 54.0 | -7.1 | 1.00 V | 62 | 28.20 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 57.5 PK | 74.0 | -16.5 | 1.06 H | 4 | 51.40 | 6.10 |
| 2 | 5000.00 | 45.0 AV | 54.0 | -9.0 | 1.06 H | 4 | 38.90 | 6.10 |
| 3 | *5200.00 | 104.5 PK | | | 1.32 H | 213 | 64.50 | 40.00 |
| 4 | *5200.00 | 95.2 AV | | | 1.32 H | 213 | 55.20 | 40.00 |
| 5 | 5360.00 | 58.8 PK | 74.0 | -15.2 | 1.00 H | 183 | 52.40 | 6.40 |
| 6 | 5360.00 | 45.7 AV | 54.0 | -8.3 | 1.00 H | 183 | 39.30 | 6.40 |
| 7 | #10400.00 | 60.6 PK | 74.0 | -13.4 | 1.20 H | 261 | 41.60 | 19.00 |
| 8 | #10400.00 | 47.3 AV | 54.0 | -6.7 | 1.20 H | 261 | 28.30 | 19.00 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 60.9 PK | 74.0 | -13.1 | 1.00 V | 25 | 54.80 | 6.10 |
| 2 | 5000.00 | 52.9 AV | 54.0 | -1.1 | 1.00 V | 25 | 46.80 | 6.10 |
| 3 | *5200.00 | 116.4 PK | | | 1.34 V | 283 | 76.40 | 40.00 |
| 4 | *5200.00 | 107.0 AV | | | 1.34 V | 283 | 67.00 | 40.00 |
| 5 | 5360.00 | 60.4 PK | 74.0 | -13.6 | 1.32 V | 265 | 54.00 | 6.40 |
| 6 | 5360.00 | 50.1 AV | 54.0 | -3.9 | 1.32 V | 265 | 43.70 | 6.40 |
| 7 | #10400.00 | 60.9 PK | 74.0 | -13.1 | 1.00 V | 101 | 41.90 | 19.00 |
| 8 | #10400.00 | 47.7 AV | 54.0 | -6.3 | 1.00 V | 101 | 28.70 | 19.00 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 57.4 PK | 74.0 | -16.6 | 1.17 H | 304 | 51.30 | 6.10 |
| 2 | 5000.00 | 44.8 AV | 54.0 | -9.2 | 1.17 H | 304 | 38.70 | 6.10 |
| 3 | *5240.00 | 106.0 PK | | | 1.01 H | 210 | 66.00 | 40.00 |
| 4 | *5240.00 | 96.0 AV | | | 1.01 H | 210 | 56.00 | 40.00 |
| 5 | 5400.00 | 58.1 PK | 74.0 | -15.9 | 1.00 H | 194 | 51.50 | 6.60 |
| 6 | 5400.00 | 46.1 AV | 54.0 | -7.9 | 1.00 H | 194 | 39.50 | 6.60 |
| 7 | #10480.00 | 59.9 PK | 74.0 | -14.1 | 1.22 H | 118 | 40.70 | 19.20 |
| 8 | #10480.00 | 46.8 AV | 54.0 | -7.2 | 1.22 H | 118 | 27.60 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 60.2 PK | 74.0 | -13.8 | 1.00 V | 22 | 54.10 | 6.10 |
| 2 | 5000.00 | 52.9 AV | 54.0 | -1.1 | 1.00 V | 22 | 46.80 | 6.10 |
| 3 | *5240.00 | 116.3 PK | | | 1.21 V | 282 | 76.30 | 40.00 |
| 4 | *5240.00 | 106.9 AV | | | 1.21 V | 282 | 66.90 | 40.00 |
| 5 | 5400.00 | 61.4 PK | 74.0 | -12.6 | 1.00 V | 312 | 54.80 | 6.60 |
| 6 | 5400.00 | 51.0 AV | 54.0 | -3.0 | 1.00 V | 312 | 44.40 | 6.60 |
| 7 | #10480.00 | 59.9 PK | 74.0 | -14.1 | 1.00 V | 172 | 40.70 | 19.20 |
| 8 | #10480.00 | 47.0 AV | 54.0 | -7.0 | 1.00 V | 172 | 27.80 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT20)

| CHANNEL | TX Channel 36 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 57.2 PK | 74.0 | -16.8 | 1.24 H | 298 | 51.10 | 6.10 |
| 2 | 5000.00 | 45.5 AV | 54.0 | -8.5 | 1.24 H | 298 | 39.40 | 6.10 |
| 3 | 5150.00 | 56.7 PK | 74.0 | -17.3 | 1.21 H | 205 | 50.30 | 6.40 |
| 4 | 5150.00 | 44.5 AV | 54.0 | -9.5 | 1.21 H | 205 | 38.10 | 6.40 |
| 5 | *5180.00 | 104.8 PK | | | 1.00 H | 213 | 64.90 | 39.90 |
| 6 | *5180.00 | 93.7 AV | | | 1.00 H | 213 | 53.80 | 39.90 |
| 7 | #10360.00 | 59.9 PK | 74.0 | -14.1 | 1.27 H | 141 | 41.20 | 18.70 |
| 8 | #10360.00 | 46.9 AV | 54.0 | -7.1 | 1.27 H | 141 | 28.20 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 60.6 PK | 74.0 | -13.4 | 1.00 V | 22 | 54.50 | 6.10 |
| 2 | 5000.00 | 52.8 AV | 54.0 | -1.2 | 1.00 V | 22 | 46.70 | 6.10 |
| 3 | 5150.00 | 63.6 PK | 74.0 | -10.4 | 1.00 V | 170 | 57.20 | 6.40 |
| 4 | 5150.00 | 48.2 AV | 54.0 | -5.8 | 1.00 V | 170 | 41.80 | 6.40 |
| 5 | *5180.00 | 116.4 PK | | | 1.00 V | 179 | 76.50 | 39.90 |
| 6 | *5180.00 | 106.0 AV | | | 1.00 V | 179 | 66.10 | 39.90 |
| 7 | #10360.00 | 59.9 PK | 74.0 | -14.1 | 1.00 V | 102 | 41.20 | 18.70 |
| 8 | #10360.00 | 46.9 AV | 54.0 | -7.1 | 1.00 V | 102 | 28.20 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 57.2 PK | 74.0 | -16.8 | 1.20 H | 298 | 51.10 | 6.10 |
| 2 | 5000.00 | 45.6 AV | 54.0 | -8.4 | 1.20 H | 298 | 39.50 | 6.10 |
| 3 | *5200.00 | 105.1 PK | | | 1.00 H | 166 | 65.10 | 40.00 |
| 4 | *5200.00 | 94.1 AV | | | 1.00 H | 166 | 54.10 | 40.00 |
| 5 | 5350.00 | 60.8 PK | 74.0 | -13.2 | 1.01 H | 192 | 54.40 | 6.40 |
| 6 | 5350.00 | 47.8 AV | 54.0 | -6.2 | 1.01 H | 192 | 41.40 | 6.40 |
| 7 | #10400.00 | 63.0 PK | 74.0 | -11.0 | 1.16 H | 216 | 44.00 | 19.00 |
| 8 | #10400.00 | 49.2 AV | 54.0 | -4.8 | 1.16 H | 216 | 30.20 | 19.00 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 62.4 PK | 74.0 | -11.6 | 1.00 V | 22 | 56.30 | 6.10 |
| **2** | **5000.00** | **53.0 AV** | **54.0** | **-1.0** | **1.00 V** | **22** | **46.90** | **6.10** |
| 3 | *5200.00 | 116.6 PK | | | 1.18 V | 322 | 76.60 | 40.00 |
| 4 | *5200.00 | 105.7 AV | | | 1.18 V | 322 | 65.70 | 40.00 |
| 5 | 5350.00 | 62.9 PK | 74.0 | -11.1 | 1.00 V | 344 | 56.50 | 6.40 |
| 6 | 5350.00 | 51.8 AV | 54.0 | -2.2 | 1.00 V | 344 | 45.40 | 6.40 |
| 7 | #10400.00 | 62.2 PK | 74.0 | -11.8 | 1.00 V | 59 | 43.20 | 19.00 |
| 8 | #10400.00 | 49.2 AV | 54.0 | -4.8 | 1.00 V | 59 | 30.20 | 19.00 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 57.4 PK | 74.0 | -16.6 | 1.22 H | 302 | 51.30 | 6.10 |
| 2 | 5000.00 | 45.7 AV | 54.0 | -8.3 | 1.22 H | 302 | 39.60 | 6.10 |
| 3 | *5240.00 | 105.3 PK | | | 1.12 H | 166 | 65.30 | 40.00 |
| 4 | *5240.00 | 94.6 AV | | | 1.12 H | 166 | 54.60 | 40.00 |
| 5 | 5400.00 | 60.4 PK | 74.0 | -13.6 | 1.00 H | 189 | 53.80 | 6.60 |
| 6 | 5400.00 | 48.4 AV | 54.0 | -5.6 | 1.00 H | 189 | 41.80 | 6.60 |
| 7 | #10480.00 | 62.0 PK | 74.0 | -12.0 | 1.14 H | 77 | 42.80 | 19.20 |
| 8 | #10480.00 | 49.0 AV | 54.0 | -5.0 | 1.14 H | 77 | 29.80 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 60.8 PK | 74.0 | -13.2 | 1.00 V | 23 | 54.70 | 6.10 |
| 2 | 5000.00 | 52.9 AV | 54.0 | -1.1 | 1.00 V | 23 | 46.80 | 6.10 |
| 3 | *5240.00 | 116.8 PK | | | 1.00 V | 286 | 76.80 | 40.00 |
| 4 | *5240.00 | 106.6 AV | | | 1.00 V | 286 | 66.60 | 40.00 |
| 5 | 5400.00 | 63.7 PK | 74.0 | -10.3 | 1.02 V | 312 | 57.10 | 6.60 |
| 6 | 5400.00 | 52.8 AV | 54.0 | -1.2 | 1.02 V | 312 | 46.20 | 6.60 |
| 7 | #10480.00 | 61.6 PK | 74.0 | -12.4 | 1.02 V | 221 | 42.40 | 19.20 |
| 8 | #10480.00 | 48.6 AV | 54.0 | -5.4 | 1.02 V | 221 | 29.40 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT40)

| CHANNEL | TX Channel 38 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 60.2 PK | 74.0 | -13.8 | 1.26 H | 302 | 54.10 | 6.10 |
| 2 | 5000.00 | 46.5 AV | 54.0 | -7.5 | 1.26 H | 302 | 40.40 | 6.10 |
| 3 | 5150.00 | 58.4 PK | 74.0 | -15.6 | 1.00 H | 290 | 52.00 | 6.40 |
| 4 | 5150.00 | 46.7 AV | 54.0 | -7.3 | 1.00 H | 290 | 40.30 | 6.40 |
| 5 | *5190.00 | 103.0 PK | | | 1.01 H | 166 | 63.10 | 39.90 |
| 6 | *5190.00 | 92.9 AV | | | 1.01 H | 166 | 53.00 | 39.90 |
| 7 | #10380.00 | 62.5 PK | 74.0 | -11.5 | 1.15 H | 91 | 43.70 | 18.80 |
| 8 | #10380.00 | 49.4 AV | 54.0 | -4.6 | 1.15 H | 91 | 30.60 | 18.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 62.4 PK | 74.0 | -11.6 | 1.00 V | 21 | 56.30 | 6.10 |
| **2** | **5000.00** | **53.0 AV** | **54.0** | **-1.0** | **1.00 V** | **21** | **46.90** | **6.10** |
| 3 | 5150.00 | 67.7 PK | 74.0 | -6.3 | 1.00 V | 176 | 61.30 | 6.40 |
| 4 | 5150.00 | 52.7 AV | 54.0 | -1.3 | 1.00 V | 176 | 46.30 | 6.40 |
| 5 | *5190.00 | 111.0 PK | | | 1.00 V | 282 | 71.10 | 39.90 |
| 6 | *5190.00 | 100.9 AV | | | 1.00 V | 282 | 61.00 | 39.90 |
| 7 | #10380.00 | 62.8 PK | 74.0 | -11.2 | 1.00 V | 133 | 44.00 | 18.80 |
| 8 | #10380.00 | 49.5 AV | 54.0 | -4.5 | 1.00 V | 133 | 30.70 | 18.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 46 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 60.3 PK | 74.0 | -13.7 | 1.22 H | 297 | 54.20 | 6.10 |
| 2 | 5000.00 | 46.7 AV | 54.0 | -7.3 | 1.22 H | 297 | 40.60 | 6.10 |
| 3 | *5230.00 | 105.6 PK | | | 1.00 H | 166 | 65.60 | 40.00 |
| 4 | *5230.00 | 95.1 AV | | | 1.00 H | 166 | 55.10 | 40.00 |
| 5 | 5400.00 | 60.1 PK | 74.0 | -13.9 | 1.00 H | 183 | 53.50 | 6.60 |
| 6 | 5400.00 | 47.8 AV | 54.0 | -6.2 | 1.00 H | 183 | 41.20 | 6.60 |
| 7 | #10460.00 | 62.3 PK | 74.0 | -11.7 | 1.14 H | 136 | 43.20 | 19.10 |
| 8 | #10460.00 | 48.8 AV | 54.0 | -5.2 | 1.14 H | 136 | 29.70 | 19.10 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 62.3 PK | 74.0 | -11.7 | 1.00 V | 24 | 56.20 | 6.10 |
| 2 | 5000.00 | 52.9 AV | 54.0 | -1.1 | 1.00 V | 24 | 46.80 | 6.10 |
| 3 | *5230.00 | 113.7 PK | | | 1.00 V | 278 | 73.70 | 40.00 |
| 4 | *5230.00 | 103.8 AV | | | 1.00 V | 278 | 63.80 | 40.00 |
| 5 | 5400.00 | 62.2 PK | 74.0 | -11.8 | 1.01 V | 310 | 55.60 | 6.60 |
| 6 | 5400.00 | 50.8 AV | 54.0 | -3.2 | 1.01 V | 310 | 44.20 | 6.60 |
| 7 | #10460.00 | 62.0 PK | 74.0 | -12.0 | 1.03 V | 211 | 42.90 | 19.10 |
| 8 | #10460.00 | 48.8 AV | 54.0 | -5.2 | 1.03 V | 211 | 29.70 | 19.10 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11ac (VHT80)

| CHANNEL | TX Channel 42 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 59.4 PK | 74.0 | -14.6 | 1.25 H | 299 | 53.30 | 6.10 |
| 2 | 5000.00 | 46.8 AV | 54.0 | -7.2 | 1.25 H | 299 | 40.70 | 6.10 |
| 3 | 5150.00 | 60.4 PK | 74.0 | -13.6 | 1.00 H | 328 | 54.00 | 6.40 |
| 4 | 5150.00 | 46.9 AV | 54.0 | -7.1 | 1.00 H | 328 | 40.50 | 6.40 |
| 5 | *5210.00 | 97.7 PK | | | 1.03 H | 191 | 57.70 | 40.00 |
| 6 | *5210.00 | 87.4 AV | | | 1.03 H | 191 | 47.40 | 40.00 |
| 7 | #5788.00 | 49.1 PK | 68.2 | -19.1 | 1.38 H | 169 | 42.00 | 7.10 |
| 8 | #10420.00 | 62.5 PK | 74.0 | -11.5 | 1.14 H | 73 | 43.60 | 18.90 |
| 9 | #10420.00 | 49.3 AV | 54.0 | -4.7 | 1.14 H | 73 | 30.40 | 18.90 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 61.7 PK | 74.0 | -12.3 | 1.00 V | 20 | 55.60 | 6.10 |
| **2** | **5000.00** | **53.0 AV** | **54.0** | **-1.0** | **1.00 V** | **20** | **46.90** | **6.10** |
| 3 | 5150.00 | 69.1 PK | 74.0 | -4.9 | 1.00 V | 177 | 62.70 | 6.40 |
| 4 | 5150.00 | 52.4 AV | 54.0 | -1.6 | 1.00 V | 177 | 46.00 | 6.40 |
| 5 | *5210.00 | 108.0 PK | | | 1.00 V | 283 | 68.00 | 40.00 |
| 6 | *5210.00 | 96.3 AV | | | 1.00 V | 283 | 56.30 | 40.00 |
| 7 | #5788.00 | 64.6 PK | 68.2 | -3.6 | 1.06 V | 318 | 57.50 | 7.10 |
| 8 | #10420.00 | 62.0 PK | 74.0 | -12.0 | 1.00 V | 221 | 43.10 | 18.90 |
| 9 | #10420.00 | 49.2 AV | 54.0 | -4.8 | 1.00 V | 221 | 30.30 | 18.90 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11a

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 149 | **DETECTOR FUNCTION** | Peak (PK) |
| **FREQUENCY RANGE** | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5000.00 | 57.7 PK | 74.0 | -16.3 | 1.19 H | 25 | 51.60 | 6.10 |
| 2 | 5000.00 | 47.1 AV | 54.0 | -6.9 | 1.19 H | 25 | 41.00 | 6.10 |
| 3 | #5714.00 | 62.7 PK | 74.0 | -11.3 | 1.00 H | 205 | 55.70 | 7.00 |
| 4 | #5714.00 | 48.6 AV | 54.0 | -5.4 | 1.00 H | 205 | 41.60 | 7.00 |
| 5 | #5722.00 | 72.7 PK | 78.2 | -5.5 | 1.00 H | 208 | 65.70 | 7.00 |
| 6 | #5725.00 | 73.0 PK | 78.2 | -5.2 | 1.00 H | 208 | 65.90 | 7.10 |
| 7 | *5745.00 | 106.3 PK | | | 1.56 H | 130 | 65.70 | 40.60 |
| 8 | *5745.00 | 97.4 AV | | | 1.56 H | 130 | 56.80 | 40.60 |
| 9 | 11490.00 | 66.3 PK | 74.0 | -7.7 | 1.00 H | 9 | 47.60 | 18.70 |
| 10 | 11490.00 | 52.7 AV | 54.0 | -1.3 | 1.00 H | 9 | 34.00 | 18.70 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5000.00 | 62.6 PK | 74.0 | -11.4 | 1.00 V | 297 | 56.50 | 6.10 |
| 2 | 5000.00 | 52.6 AV | 54.0 | -1.4 | 1.00 V | 297 | 46.50 | 6.10 |
| 3 | #5714.00 | 70.8 PK | 74.0 | -3.2 | 1.29 V | 159 | 63.80 | 7.00 |
| 4 | #5714.00 | 52.8 AV | 54.0 | -1.2 | 1.29 V | 159 | 45.80 | 7.00 |
| 5 | #5722.00 | 77.1 PK | 78.2 | -1.1 | 1.20 V | 120 | 70.10 | 7.00 |
| 6 | #5725.00 | 75.8 PK | 78.2 | -2.4 | 1.20 V | 120 | 68.70 | 7.10 |
| 7 | *5745.00 | 118.7 PK | | | 1.21 V | 101 | 78.10 | 40.60 |
| 8 | *5745.00 | 109.1 AV | | | 1.21 V | 101 | 68.50 | 40.60 |
| 9 | 11490.00 | 65.7 PK | 74.0 | -8.3 | 1.59 V | 331 | 47.00 | 18.70 |
| 10 | 11490.00 | 52.3 AV | 54.0 | -1.7 | 1.59 V | 331 | 33.60 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 57.8 PK | 74.0 | -16.2 | 1.14 H | 14 | 51.70 | 6.10 |
| 2 | 5000.00 | 47.2 AV | 54.0 | -6.8 | 1.14 H | 14 | 41.10 | 6.10 |
| 3 | *5785.00 | 107.2 PK | | | 1.00 H | 212 | 66.50 | 40.70 |
| 4 | *5785.00 | 98.0 AV | | | 1.00 H | 212 | 57.30 | 40.70 |
| 5 | 11570.00 | 67.4 PK | 74.0 | -6.6 | 1.77 H | 283 | 48.60 | 18.80 |
| **6** | **11570.00** | **53.0 AV** | **54.0** | **-1.0** | **1.77 H** | **283** | **34.20** | **18.80** |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 62.7 PK | 74.0 | -11.3 | 1.00 V | 297 | 56.60 | 6.10 |
| 2 | 5000.00 | 52.6 AV | 54.0 | -1.4 | 1.00 V | 297 | 46.50 | 6.10 |
| 3 | *5785.00 | 118.6 PK | | | 1.23 V | 161 | 77.90 | 40.70 |
| 4 | *5785.00 | 109.0 AV | | | 1.23 V | 161 | 68.30 | 40.70 |
| 5 | 11570.00 | 67.5 PK | 74.0 | -6.5 | 1.11 V | 7 | 48.70 | 18.80 |
| 6 | 11570.00 | 52.9 AV | 54.0 | -1.1 | 1.11 V | 7 | 34.10 | 18.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 58.0 PK | 74.0 | -16.0 | 1.15 H | 15 | 51.90 | 6.10 |
| 2 | 5000.00 | 47.3 AV | 54.0 | -6.7 | 1.15 H | 15 | 41.20 | 6.10 |
| 3 | *5825.00 | 107.2 PK | | | 1.52 H | 209 | 66.50 | 40.70 |
| 4 | *5825.00 | 97.0 AV | | | 1.52 H | 209 | 56.30 | 40.70 |
| 5 | #5850.00 | 69.2 PK | 78.2 | -9.0 | 1.13 H | 206 | 62.20 | 7.00 |
| 6 | #5853.00 | 70.2 PK | 78.2 | -8.0 | 1.13 H | 209 | 63.10 | 7.10 |
| 7 | #5861.00 | 60.6 PK | 74.0 | -13.4 | 1.13 H | 200 | 53.50 | 7.10 |
| 8 | #5861.00 | 47.7 AV | 54.0 | -6.3 | 1.13 H | 200 | 40.60 | 7.10 |
| 9 | 11650.00 | 66.0 PK | 74.0 | -8.0 | 1.81 H | 280 | 46.80 | 19.20 |
| 10 | 11650.00 | 52.8 AV | 54.0 | -1.2 | 1.81 H | 280 | 33.60 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 62.9 PK | 74.0 | -11.1 | 1.00 V | 297 | 56.80 | 6.10 |
| 2 | 5000.00 | 52.7 AV | 54.0 | -1.3 | 1.00 V | 297 | 46.60 | 6.10 |
| 3 | *5825.00 | 119.5 PK | | | 1.14 V | 359 | 78.80 | 40.70 |
| 4 | *5825.00 | 109.9 AV | | | 1.14 V | 359 | 69.20 | 40.70 |
| 5 | #5850.00 | 73.1 PK | 78.2 | -5.1 | 1.03 V | 19 | 66.10 | 7.00 |
| 6 | #5853.00 | 73.5 PK | 78.2 | -4.7 | 1.03 V | 19 | 66.40 | 7.10 |
| 7 | #5861.00 | 66.9 PK | 74.0 | -7.1 | 1.03 V | 359 | 59.80 | 7.10 |
| 8 | #5861.00 | 51.2 AV | 54.0 | -2.8 | 1.03 V | 359 | 44.10 | 7.10 |
| 9 | 11650.00 | 63.9 PK | 74.0 | -10.1 | 1.99 V | 358 | 44.70 | 19.20 |
| 10 | 11650.00 | 51.5 AV | 54.0 | -2.5 | 1.99 V | 358 | 32.30 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT20)

| CHANNEL | TX Channel 149 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 58.2 PK | 74.0 | -15.8 | 1.15 H | 19 | 52.10 | 6.10 |
| 2 | 5000.00 | 47.5 AV | 54.0 | -6.5 | 1.15 H | 19 | 41.40 | 6.10 |
| 3 | #5714.00 | 58.6 PK | 74.0 | -15.4 | 1.01 H | 212 | 51.60 | 7.00 |
| 4 | #5714.00 | 47.4 AV | 54.0 | -6.6 | 1.01 H | 212 | 40.40 | 7.00 |
| 5 | #5722.00 | 68.1 PK | 78.2 | -10.1 | 1.03 H | 214 | 61.10 | 7.00 |
| 6 | #5725.00 | 67.6 PK | 78.2 | -10.6 | 1.03 H | 214 | 60.50 | 7.10 |
| 7 | *5745.00 | 104.9 PK | | | 1.32 H | 132 | 64.30 | 40.60 |
| 8 | *5745.00 | 94.1 AV | | | 1.32 H | 132 | 53.50 | 40.60 |
| 9 | 11490.00 | 65.7 PK | 74.0 | -8.3 | 1.79 H | 322 | 47.00 | 18.70 |
| 10 | 11490.00 | 51.4 AV | 54.0 | -2.6 | 1.79 H | 322 | 32.70 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 62.6 PK | 74.0 | -11.4 | 1.12 V | 297 | 56.50 | 6.10 |
| 2 | 5000.00 | 52.8 AV | 54.0 | -1.2 | 1.12 V | 297 | 46.70 | 6.10 |
| 3 | #5714.00 | 70.5 PK | 74.0 | -3.5 | 1.00 V | 152 | 63.50 | 7.00 |
| **4** | **#5714.00** | **53.0 AV** | **54.0** | **-1.0** | **1.00 V** | **152** | **46.00** | **7.00** |
| 5 | #5722.00 | 74.5 PK | 78.2 | -3.7 | 1.01 V | 155 | 67.50 | 7.00 |
| 6 | #5725.00 | 74.2 PK | 78.2 | -4.0 | 1.01 V | 155 | 67.10 | 7.10 |
| 7 | *5745.00 | 117.3 PK | | | 1.05 V | 31 | 76.70 | 40.60 |
| 8 | *5745.00 | 106.5 AV | | | 1.05 V | 31 | 65.90 | 40.60 |
| 9 | 11490.00 | 63.6 PK | 74.0 | -10.4 | 1.21 V | 359 | 44.90 | 18.70 |
| 10 | 11490.00 | 49.6 AV | 54.0 | -4.4 | 1.21 V | 359 | 30.90 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 57.9 PK | 74.0 | -16.1 | 1.16 H | 18 | 51.80 | 6.10 |
| 2 | 5000.00 | 47.3 AV | 54.0 | -6.7 | 1.16 H | 18 | 41.20 | 6.10 |
| 3 | *5785.00 | 106.9 PK | | | 1.11 H | 130 | 66.20 | 40.70 |
| 4 | *5785.00 | 96.0 AV | | | 1.11 H | 130 | 55.30 | 40.70 |
| 5 | 11570.00 | 66.5 PK | 74.0 | -7.5 | 1.79 H | 290 | 47.70 | 18.80 |
| 6 | 11570.00 | 52.1 AV | 54.0 | -1.9 | 1.79 H | 290 | 33.30 | 18.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 62.5 PK | 74.0 | -11.5 | 1.00 V | 300 | 56.40 | 6.10 |
| 2 | 5000.00 | 52.4 AV | 54.0 | -1.6 | 1.00 V | 300 | 46.30 | 6.10 |
| 3 | *5785.00 | 116.9 PK | | | 1.00 V | 179 | 76.20 | 40.70 |
| 4 | *5785.00 | 105.3 AV | | | 1.00 V | 179 | 64.60 | 40.70 |
| 5 | 11570.00 | 65.0 PK | 74.0 | -9.0 | 1.00 V | 16 | 46.20 | 18.80 |
| 6 | 11570.00 | 51.4 AV | 54.0 | -2.6 | 1.00 V | 16 | 32.60 | 18.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 57.4 PK | 74.0 | -16.6 | 1.16 H | 14 | 51.30 | 6.10 |
| 2 | 5000.00 | 47.2 AV | 54.0 | -6.8 | 1.16 H | 14 | 41.10 | 6.10 |
| 3 | *5825.00 | 107.6 PK | | | 1.11 H | 126 | 66.90 | 40.70 |
| 4 | *5825.00 | 95.9 AV | | | 1.11 H | 126 | 55.20 | 40.70 |
| 5 | #5850.00 | 65.1 PK | 78.2 | -13.1 | 1.36 H | 242 | 58.10 | 7.00 |
| 6 | #5853.00 | 65.6 PK | 78.2 | -12.6 | 1.36 H | 242 | 58.50 | 7.10 |
| 7 | #5861.00 | 59.3 PK | 74.0 | -14.7 | 1.40 H | 239 | 52.20 | 7.10 |
| 8 | #5861.00 | 48.6 AV | 54.0 | -5.4 | 1.40 H | 239 | 41.50 | 7.10 |
| 9 | 11650.00 | 68.1 PK | 74.0 | -5.9 | 1.79 H | 282 | 48.90 | 19.20 |
| 10 | 11650.00 | 52.6 AV | 54.0 | -1.4 | 1.79 H | 282 | 33.40 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 62.0 PK | 74.0 | -12.0 | 1.11 V | 299 | 55.90 | 6.10 |
| 2 | 5000.00 | 52.4 AV | 54.0 | -1.6 | 1.11 V | 299 | 46.30 | 6.10 |
| 3 | *5825.00 | 117.4 PK | | | 1.16 V | 25 | 76.70 | 40.70 |
| 4 | *5825.00 | 106.5 AV | | | 1.16 V | 25 | 65.80 | 40.70 |
| 5 | #5850.00 | 73.3 PK | 78.2 | -4.9 | 1.25 V | 333 | 66.30 | 7.00 |
| 6 | #5853.00 | 73.7 PK | 78.2 | -4.5 | 1.25 V | 333 | 66.60 | 7.10 |
| 7 | #5861.00 | 64.0 PK | 74.0 | -10.0 | 1.23 V | 335 | 56.90 | 7.10 |
| 8 | #5861.00 | 49.3 AV | 54.0 | -4.7 | 1.23 V | 335 | 42.20 | 7.10 |
| 9 | 11650.00 | 65.0 PK | 74.0 | -9.0 | 1.02 V | 10 | 45.80 | 19.20 |
| 10 | 11650.00 | 51.6 AV | 54.0 | -2.4 | 1.02 V | 10 | 32.40 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT40)

| CHANNEL | TX Channel 151 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 58.4 PK | 74.0 | -15.6 | 1.16 H | 18 | 52.30 | 6.10 |
| 2 | 5000.00 | 48.0 AV | 54.0 | -6.0 | 1.16 H | 18 | 41.90 | 6.10 |
| 3 | #5714.00 | 58.1 PK | 74.0 | -15.9 | 1.00 H | 208 | 51.10 | 7.00 |
| 4 | #5714.00 | 47.2 AV | 54.0 | -6.8 | 1.00 H | 208 | 40.20 | 7.00 |
| 5 | #5722.00 | 65.2 PK | 78.2 | -13.0 | 1.00 H | 210 | 58.20 | 7.00 |
| 6 | #5725.00 | 62.3 PK | 78.2 | -15.9 | 1.00 H | 210 | 55.20 | 7.10 |
| 7 | *5755.00 | 99.2 PK | | | 1.21 H | 127 | 58.50 | 40.70 |
| 8 | *5755.00 | 90.0 AV | | | 1.21 H | 127 | 49.30 | 40.70 |
| 9 | 11510.00 | 61.0 PK | 74.0 | -13.0 | 1.00 H | 9 | 42.30 | 18.70 |
| 10 | 11510.00 | 47.4 AV | 54.0 | -6.6 | 1.00 H | 9 | 28.70 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 62.7 PK | 74.0 | -11.3 | 1.00 V | 299 | 56.60 | 6.10 |
| 2 | 5000.00 | 52.6 AV | 54.0 | -1.4 | 1.00 V | 299 | 46.50 | 6.10 |
| 3 | #5714.00 | 68.8 PK | 74.0 | -5.2 | 1.00 V | 156 | 61.80 | 7.00 |
| **4** | **#5714.00** | **53.0 AV** | **54.0** | **-1.0** | **1.00 V** | **156** | **46.00** | **7.00** |
| 5 | #5722.00 | 72.3 PK | 78.2 | -5.9 | 1.00 V | 151 | 65.30 | 7.00 |
| 6 | #5725.00 | 72.1 PK | 78.2 | -6.1 | 1.00 V | 151 | 65.00 | 7.10 |
| 7 | *5755.00 | 111.7 PK | | | 1.08 V | 29 | 71.00 | 40.70 |
| 8 | *5755.00 | 101.9 AV | | | 1.08 V | 29 | 61.20 | 40.70 |
| 9 | 11510.00 | 61.6 PK | 74.0 | -12.4 | 1.58 V | 331 | 42.90 | 18.70 |
| 10 | 11510.00 | 48.4 AV | 54.0 | -5.6 | 1.58 V | 331 | 29.70 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 159 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 58.5 PK | 74.0 | -15.5 | 1.15 H | 14 | 52.40 | 6.10 |
| 2 | 5000.00 | 48.0 AV | 54.0 | -6.0 | 1.15 H | 14 | 41.90 | 6.10 |
| 3 | *5795.00 | 105.9 PK | | | 1.01 H | 127 | 65.20 | 40.70 |
| 4 | *5795.00 | 96.6 AV | | | 1.01 H | 127 | 55.90 | 40.70 |
| 5 | #5850.00 | 70.8 PK | 78.2 | -7.4 | 1.40 H | 256 | 63.80 | 7.00 |
| 6 | #5853.00 | 72.6 PK | 78.2 | -5.6 | 1.40 H | 256 | 65.50 | 7.10 |
| 7 | #5861.00 | 58.4 PK | 74.0 | -15.6 | 1.40 H | 251 | 51.30 | 7.10 |
| 8 | #5861.00 | 47.6 AV | 54.0 | -6.4 | 1.40 H | 251 | 40.50 | 7.10 |
| 9 | 11590.00 | 64.2 PK | 74.0 | -9.8 | 1.91 H | 282 | 45.30 | 18.90 |
| 10 | 11590.00 | 51.6 AV | 54.0 | -2.4 | 1.91 H | 282 | 32.70 | 18.90 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 62.6 PK | 74.0 | -11.4 | 1.24 V | 299 | 56.50 | 6.10 |
| 2 | 5000.00 | 52.9 AV | 54.0 | -1.1 | 1.24 V | 299 | 46.80 | 6.10 |
| 3 | *5795.00 | 117.2 PK | | | 1.14 V | 333 | 76.50 | 40.70 |
| 4 | *5795.00 | 107.5 AV | | | 1.14 V | 333 | 66.80 | 40.70 |
| 5 | #5850.00 | 73.3 PK | 78.2 | -4.9 | 1.24 V | 340 | 66.30 | 7.00 |
| 6 | #5853.00 | 73.0 PK | 78.2 | -5.2 | 1.24 V | 340 | 65.90 | 7.10 |
| 7 | #5861.00 | 69.7 PK | 74.0 | -4.3 | 1.24 V | 333 | 62.60 | 7.10 |
| 8 | #5861.00 | 51.9 AV | 54.0 | -2.1 | 1.24 V | 333 | 44.80 | 7.10 |
| 9 | 11590.00 | 65.0 PK | 74.0 | -9.0 | 1.11 V | 6 | 46.10 | 18.90 |
| 10 | 11590.00 | 52.1 AV | 54.0 | -1.9 | 1.11 V | 6 | 33.20 | 18.90 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11ac (VHT80)

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 155 | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | #5714.00 | 57.9 PK | 74.0 | -16.1 | 1.01 H | 210 | 50.90 | 7.00 |
| 2 | #5714.00 | 47.1 AV | 54.0 | -6.9 | 1.01 H | 210 | 40.10 | 7.00 |
| 3 | #5722.00 | 67.8 PK | 78.2 | -10.4 | 1.03 H | 212 | 60.80 | 7.00 |
| 4 | #5725.00 | 67.0 PK | 78.2 | -11.2 | 1.03 H | 212 | 59.90 | 7.10 |
| 5 | *5775.00 | 95.5 PK | | | 1.22 H | 126 | 54.80 | 40.70 |
| 6 | *5775.00 | 96.0 PK | | | 1.01 H | 126 | 55.30 | 40.70 |
| 7 | #5850.00 | 62.9 PK | 78.2 | -15.3 | 1.01 H | 130 | 55.90 | 7.00 |
| 8 | #5853.00 | 63.9 PK | 78.2 | -14.3 | 1.01 H | 130 | 56.80 | 7.10 |
| 9 | #5861.00 | 57.4 PK | 74.0 | -16.6 | 1.35 H | 240 | 50.30 | 7.10 |
| 10 | #5861.00 | 47.0 AV | 54.0 | -7.0 | 1.35 H | 240 | 39.90 | 7.10 |
| 11 | 11550.00 | 61.4 PK | 74.0 | -12.6 | 1.23 H | 345 | 42.70 | 18.70 |
| 12 | 11550.00 | 47.5 AV | 54.0 | -6.5 | 1.23 H | 345 | 28.80 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 155 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5000.00 | 62.7 PK | 74.0 | -11.3 | 1.13 V | 297 | 56.60 | 6.10 |
| 2 | 5000.00 | 52.6 AV | 54.0 | -1.4 | 1.13 V | 297 | 46.50 | 6.10 |
| 3 | #5714.00 | 68.5 PK | 74.0 | -5.5 | 1.00 V | 156 | 61.50 | 7.00 |
| **4** | **#5714.00** | **53.0 AV** | **54.0** | **-1.0** | **1.00 V** | **156** | **46.00** | **7.00** |
| 5 | #5722.00 | 71.8 PK | 78.2 | -6.4 | 1.01 V | 159 | 64.80 | 7.00 |
| 6 | #5725.00 | 71.2 PK | 78.2 | -7.0 | 1.01 V | 159 | 64.10 | 7.10 |
| 7 | *5775.00 | 106.8 PK | | | 1.08 V | 28 | 66.10 | 40.70 |
| 8 | *5775.00 | 96.6 AV | | | 1.08 V | 28 | 55.90 | 40.70 |
| 9 | #5850.00 | 66.6 PK | 78.2 | -11.6 | 1.19 V | 30 | 59.60 | 7.00 |
| 10 | #5853.00 | 69.7 PK | 78.2 | -8.5 | 1.19 V | 30 | 62.60 | 7.10 |
| 11 | #5861.00 | 60.7 PK | 74.0 | -13.3 | 1.15 V | 33 | 53.60 | 7.10 |
| 12 | #5861.00 | 49.5 AV | 54.0 | -4.5 | 1.15 V | 33 | 42.40 | 7.10 |
| 13 | 11550.00 | 61.7 PK | 74.0 | -12.3 | 1.60 V | 330 | 43.00 | 18.70 |
| 14 | 11550.00 | 48.5 AV | 54.0 | -5.5 | 1.60 V | 330 | 29.80 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## Radio 2: Patch antenna

### ABOVE 1GHz DATA

### 802.11a

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 36 | **DETECTOR FUNCTION** | Peak (PK) |
| **FREQUENCY RANGE** | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | *5180.00 | 110.1 PK | | | 1.00 H | 310 | 70.20 | 39.90 |
| 2 | *5180.00 | 100.5 AV | | | 1.00 H | 310 | 60.60 | 39.90 |
| 3 | 5400.00 | 59.4 PK | 74.0 | -14.6 | 1.08 H | 345 | 52.80 | 6.60 |
| 4 | 5400.00 | 47.2 AV | 54.0 | -6.8 | 1.08 H | 345 | 40.60 | 6.60 |
| 5 | #10360.00 | 61.8 PK | 74.0 | -12.2 | 1.14 H | 143 | 43.10 | 18.70 |
| 6 | #10360.00 | 48.6 AV | 54.0 | -5.4 | 1.14 H | 143 | 29.90 | 18.70 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | *5180.00 | 113.8 PK | | | 1.00 V | 348 | 73.90 | 39.90 |
| 2 | *5180.00 | 104.4 AV | | | 1.00 V | 348 | 64.50 | 39.90 |
| 3 | 5400.00 | 62.7 PK | 74.0 | -11.3 | 1.00 V | 2 | 56.10 | 6.60 |
| 4 | 5400.00 | 50.9 AV | 54.0 | -3.1 | 1.00 V | 2 | 44.30 | 6.60 |
| 5 | #10360.00 | 62.2 PK | 74.0 | -11.8 | 1.00 V | 163 | 43.50 | 18.70 |
| 6 | #10360.00 | 48.6 AV | 54.0 | -5.4 | 1.00 V | 163 | 29.90 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 111.8 PK | | | 1.00 H | 308 | 71.80 | 40.00 |
| 2 | *5200.00 | 102.1 AV | | | 1.00 H | 308 | 62.10 | 40.00 |
| 3 | 5360.00 | 58.6 PK | 74.0 | -15.4 | 1.00 H | 323 | 52.20 | 6.40 |
| 4 | 5360.00 | 46.9 AV | 54.0 | -7.1 | 1.00 H | 323 | 40.50 | 6.40 |
| 5 | #10400.00 | 60.8 PK | 74.0 | -13.2 | 1.22 H | 231 | 41.80 | 19.00 |
| 6 | #10400.00 | 47.8 AV | 54.0 | -6.2 | 1.22 H | 231 | 28.80 | 19.00 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 114.9 PK | | | 1.00 V | 346 | 74.90 | 40.00 |
| 2 | *5200.00 | 105.1 AV | | | 1.00 V | 346 | 65.10 | 40.00 |
| 3 | 5360.00 | 63.4 PK | 74.0 | -10.6 | 1.00 V | 2 | 57.00 | 6.40 |
| 4 | 5360.00 | 52.2 AV | 54.0 | -1.8 | 1.00 V | 2 | 45.80 | 6.40 |
| 5 | #10400.00 | 61.0 PK | 74.0 | -13.0 | 1.00 V | 72 | 42.00 | 19.00 |
| 6 | #10400.00 | 47.7 AV | 54.0 | -6.3 | 1.00 V | 72 | 28.70 | 19.00 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 114.5 PK | | | 1.11 H | 319 | 74.50 | 40.00 |
| 2 | *5240.00 | 104.5 AV | | | 1.11 H | 319 | 64.50 | 40.00 |
| 3 | 5400.00 | 59.4 PK | 74.0 | -14.6 | 1.00 H | 337 | 52.80 | 6.60 |
| 4 | 5400.00 | 47.9 AV | 54.0 | -6.1 | 1.00 H | 337 | 41.30 | 6.60 |
| 5 | #10480.00 | 60.4 PK | 74.0 | -13.6 | 1.14 H | 251 | 41.20 | 19.20 |
| 6 | #10480.00 | 47.2 AV | 54.0 | -6.8 | 1.14 H | 251 | 28.00 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 116.6 PK | | | 1.00 V | 0 | 76.60 | 40.00 |
| 2 | *5240.00 | 106.8 AV | | | 1.00 V | 0 | 66.80 | 40.00 |
| 3 | 5400.00 | 61.7 PK | 74.0 | -12.3 | 1.07 V | 4 | 55.10 | 6.60 |
| 4 | 5400.00 | 50.5 AV | 54.0 | -3.5 | 1.07 V | 4 | 43.90 | 6.60 |
| 5 | #10480.00 | 60.2 PK | 74.0 | -13.8 | 1.01 V | 114 | 41.00 | 19.20 |
| 6 | #10480.00 | 47.4 AV | 54.0 | -6.6 | 1.01 V | 114 | 28.20 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT20)

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 36 | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | *5180.00 | 110.9 PK | | | 1.00 H | 27 | 71.00 | 39.90 |
| 2 | *5180.00 | 100.5 AV | | | 1.00 H | 27 | 60.60 | 39.90 |
| 3 | 5400.00 | 58.1 PK | 74.0 | -15.9 | 1.09 H | 338 | 51.50 | 6.60 |
| 4 | 5400.00 | 45.5 AV | 54.0 | -8.5 | 1.09 H | 338 | 38.90 | 6.60 |
| 5 | #10360.00 | 60.7 PK | 74.0 | -13.3 | 1.13 H | 91 | 42.00 | 18.70 |
| 6 | #10360.00 | 46.8 AV | 54.0 | -7.2 | 1.13 H | 91 | 28.10 | 18.70 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | *5180.00 | 114.1 PK | | | 1.00 V | 347 | 74.20 | 39.90 |
| 2 | *5180.00 | 104.6 AV | | | 1.00 V | 347 | 64.70 | 39.90 |
| 3 | 5400.00 | 60.5 PK | 74.0 | -13.5 | 1.00 V | 5 | 53.90 | 6.60 |
| 4 | 5400.00 | 48.1 AV | 54.0 | -5.9 | 1.00 V | 5 | 41.50 | 6.60 |
| 5 | #10360.00 | 59.9 PK | 74.0 | -14.1 | 1.00 V | 216 | 41.20 | 18.70 |
| 6 | #10360.00 | 46.8 AV | 54.0 | -7.2 | 1.00 V | 216 | 28.10 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 112.2 PK | | | 1.00 H | 310 | 72.20 | 40.00 |
| 2 | *5200.00 | 101.7 AV | | | 1.00 H | 310 | 61.70 | 40.00 |
| 3 | 5360.00 | 58.7 PK | 74.0 | -15.3 | 1.00 H | 324 | 52.30 | 6.40 |
| 4 | 5360.00 | 46.4 AV | 54.0 | -7.6 | 1.00 H | 324 | 40.00 | 6.40 |
| 5 | #10400.00 | 60.8 PK | 74.0 | -13.2 | 1.00 H | 62 | 41.80 | 19.00 |
| 6 | #10400.00 | 47.8 AV | 54.0 | -6.2 | 1.00 H | 62 | 28.80 | 19.00 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 114.8 PK | | | 1.00 V | 342 | 74.80 | 40.00 |
| 2 | *5200.00 | 105.0 AV | | | 1.00 V | 342 | 65.00 | 40.00 |
| 3 | 5360.00 | 59.9 PK | 74.0 | -14.1 | 1.00 V | 0 | 53.50 | 6.40 |
| 4 | 5360.00 | 49.2 AV | 54.0 | -4.8 | 1.00 V | 0 | 42.80 | 6.40 |
| 5 | #10400.00 | 60.6 PK | 74.0 | -13.4 | 1.02 V | 243 | 41.60 | 19.00 |
| 6 | #10400.00 | 47.2 AV | 54.0 | -6.8 | 1.02 V | 243 | 28.20 | 19.00 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 113.9 PK | | | 1.11 H | 317 | 73.90 | 40.00 |
| 2 | *5240.00 | 102.9 AV | | | 1.11 H | 317 | 62.90 | 40.00 |
| 3 | 5400.00 | 58.7 PK | 74.0 | -15.3 | 1.10 H | 339 | 52.10 | 6.60 |
| 4 | 5400.00 | 47.0 AV | 54.0 | -7.0 | 1.10 H | 339 | 40.40 | 6.60 |
| 5 | #10480.00 | 60.2 PK | 74.0 | -13.8 | 1.12 H | 86 | 41.00 | 19.20 |
| 6 | #10480.00 | 46.7 AV | 54.0 | -7.3 | 1.12 H | 86 | 27.50 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 116.8 PK | | | 1.00 V | 347 | 76.80 | 40.00 |
| 2 | *5240.00 | 106.8 AV | | | 1.00 V | 347 | 66.80 | 40.00 |
| 3 | 5400.00 | 61.7 PK | 74.0 | -12.3 | 1.00 V | 3 | 55.10 | 6.60 |
| 4 | 5400.00 | 49.7 AV | 54.0 | -4.3 | 1.00 V | 3 | 43.10 | 6.60 |
| 5 | #10480.00 | 59.4 PK | 74.0 | -14.6 | 1.00 V | 219 | 40.20 | 19.20 |
| 6 | #10480.00 | 46.9 AV | 54.0 | -7.1 | 1.00 V | 219 | 27.70 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT40)

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 38 | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5150.00 | 62.4 PK | 74.0 | -11.6 | 1.00 H | 30 | 56.00 | 6.40 |
| 2 | 5150.00 | 46.0 AV | 54.0 | -8.0 | 1.00 H | 30 | 39.60 | 6.40 |
| 3 | *5190.00 | 109.2 PK | | | 1.02 H | 312 | 69.30 | 39.90 |
| 4 | *5190.00 | 98.2 AV | | | 1.02 H | 312 | 58.30 | 39.90 |
| 5 | #10380.00 | 60.1 PK | 74.0 | -13.9 | 1.02 H | 213 | 41.30 | 18.80 |
| 6 | #10380.00 | 47.1 AV | 54.0 | -6.9 | 1.02 H | 213 | 28.30 | 18.80 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5150.00 | 65.4 PK | 74.0 | -8.6 | 1.00 V | 336 | 59.00 | 6.40 |
| 2 | 5150.00 | 48.8 AV | 54.0 | -5.2 | 1.00 V | 336 | 42.40 | 6.40 |
| 3 | *5190.00 | 111.5 PK | | | 1.00 V | 344 | 71.60 | 39.90 |
| 4 | *5190.00 | 101.8 AV | | | 1.00 V | 344 | 61.90 | 39.90 |
| 5 | #10380.00 | 60.0 PK | 74.0 | -14.0 | 1.00 V | 216 | 41.20 | 18.80 |
| 6 | #10380.00 | 47.3 AV | 54.0 | -6.7 | 1.00 V | 216 | 28.50 | 18.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 46 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5230.00 | 111.4 PK | | | 1.12 H | 313 | 71.40 | 40.00 |
| 2 | *5230.00 | 100.0 AV | | | 1.12 H | 313 | 60.00 | 40.00 |
| 3 | 5400.00 | 58.2 PK | 74.0 | -15.8 | 1.11 H | 329 | 51.60 | 6.60 |
| 4 | 5400.00 | 46.3 AV | 54.0 | -7.7 | 1.11 H | 329 | 39.70 | 6.60 |
| 5 | #10460.00 | 60.3 PK | 74.0 | -13.7 | 1.14 H | 102 | 41.20 | 19.10 |
| 6 | #10460.00 | 46.7 AV | 54.0 | -7.3 | 1.14 H | 102 | 27.60 | 19.10 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5230.00 | 113.2 PK | | | 1.00 V | 347 | 73.20 | 40.00 |
| 2 | *5230.00 | 103.2 AV | | | 1.00 V | 347 | 63.20 | 40.00 |
| 3 | 5400.00 | 59.8 PK | 74.0 | -14.2 | 1.07 V | 3 | 53.20 | 6.60 |
| 4 | 5400.00 | 48.4 AV | 54.0 | -5.6 | 1.07 V | 3 | 41.80 | 6.60 |
| 5 | #10460.00 | 60.4 PK | 74.0 | -13.6 | 1.00 V | 216 | 41.30 | 19.10 |
| 6 | #10460.00 | 47.2 AV | 54.0 | -6.8 | 1.00 V | 216 | 28.10 | 19.10 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11ac (VHT80)

| CHANNEL | TX Channel 42 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 66.1 PK | 74.0 | -7.9 | 1.00 H | 304 | 59.70 | 6.40 |
| 2 | 5150.00 | 46.9 AV | 54.0 | -7.1 | 1.00 H | 304 | 40.50 | 6.40 |
| 3 | *5210.00 | 106.3 PK | | | 1.00 H | 314 | 66.30 | 40.00 |
| 4 | *5210.00 | 96.0 AV | | | 1.00 H | 314 | 56.00 | 40.00 |
| 5 | #5788.00 | 61.5 PK | 68.2 | -6.7 | 1.00 H | 321 | 54.40 | 7.10 |
| 6 | #10420.00 | 59.8 PK | 74.0 | -14.2 | 1.14 H | 116 | 40.90 | 18.90 |
| 7 | #10420.00 | 47.4 AV | 54.0 | -6.6 | 1.14 H | 116 | 28.50 | 18.90 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 70.4 PK | 74.0 | -3.6 | 1.00 V | 345 | 64.00 | 6.40 |
| 2 | 5150.00 | 50.4 AV | 54.0 | -3.6 | 1.00 V | 345 | 44.00 | 6.40 |
| 3 | *5210.00 | 109.6 PK | | | 1.00 V | 349 | 69.60 | 40.00 |
| 4 | *5210.00 | 99.6 AV | | | 1.00 V | 349 | 59.60 | 40.00 |
| 5 | #5788.00 | 62.2 PK | 68.2 | -6.0 | 1.00 V | 352 | 55.10 | 7.10 |
| 6 | #10420.00 | 59.8 PK | 74.0 | -14.2 | 1.00 V | 312 | 40.90 | 18.90 |
| 7 | #10420.00 | 46.9 AV | 54.0 | -7.1 | 1.00 V | 312 | 28.00 | 18.90 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11a

| CHANNEL | TX Channel 149 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 64.6 PK | 74.0 | -9.4 | 1.00 H | 314 | 57.60 | 7.00 |
| 2 | #5714.00 | 49.4 AV | 54.0 | -4.6 | 1.00 H | 314 | 42.40 | 7.00 |
| 3 | #5722.00 | 71.8 PK | 78.2 | -6.4 | 1.02 H | 315 | 64.80 | 7.00 |
| 4 | #5725.00 | 59.4 PK | 78.2 | -18.8 | 1.03 H | 316 | 52.30 | 7.10 |
| 5 | *5745.00 | 115.1 PK | | | 1.02 H | 317 | 74.50 | 40.60 |
| 6 | *5745.00 | 104.0 AV | | | 1.02 H | 317 | 63.40 | 40.60 |
| 7 | 11490.00 | 58.8 PK | 74.0 | -15.2 | 1.17 H | 126 | 40.10 | 18.70 |
| 8 | 11490.00 | 46.1 AV | 54.0 | -7.9 | 1.17 H | 126 | 27.40 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 66.9 PK | 74.0 | -7.1 | 1.00 V | 346 | 59.90 | 7.00 |
| 2 | #5714.00 | 50.8 AV | 54.0 | -3.2 | 1.00 V | 346 | 43.80 | 7.00 |
| 3 | #5722.00 | 76.6 PK | 78.2 | -1.6 | 1.00 V | 350 | 69.60 | 7.00 |
| 4 | #5725.00 | 61.1 PK | 78.2 | -17.1 | 1.00 V | 343 | 54.00 | 7.10 |
| 5 | *5745.00 | 119.2 PK | | | 1.00 V | 344 | 78.60 | 40.60 |
| 6 | *5745.00 | 108.7 AV | | | 1.00 V | 344 | 68.10 | 40.60 |
| 7 | 11490.00 | 59.0 PK | 74.0 | -15.0 | 1.00 V | 319 | 40.30 | 18.70 |
| 8 | 11490.00 | 45.8 AV | 54.0 | -8.2 | 1.00 V | 319 | 27.10 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5785.00 | 121.8 PK | | | 1.01 H | 319 | 81.10 | 40.70 |
| 2 | *5785.00 | 111.5 AV | | | 1.01 H | 319 | 70.80 | 40.70 |
| 3 | 11570.00 | 62.8 PK | 74.0 | -11.2 | 1.00 H | 308 | 44.00 | 18.80 |
| 4 | 11570.00 | 51.9 AV | 54.0 | -2.1 | 1.00 H | 308 | 33.10 | 18.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5785.00 | 124.6 PK | | | 1.00 V | 0 | 83.90 | 40.70 |
| 2 | *5785.00 | 114.8 AV | | | 1.00 V | 0 | 74.10 | 40.70 |
| 3 | 11570.00 | 64.9 PK | 74.0 | -9.1 | 1.00 V | 8 | 46.10 | 18.80 |
| 4 | 11570.00 | 52.6 AV | 54.0 | -1.4 | 1.00 V | 8 | 33.80 | 18.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 119.8 PK | | | 1.01 H | 322 | 79.10 | 40.70 |
| 2 | *5825.00 | 109.6 AV | | | 1.01 H | 322 | 68.90 | 40.70 |
| 3 | #5850.00 | 60.5 PK | 78.2 | -17.7 | 1.00 H | 325 | 53.50 | 7.00 |
| 4 | #5853.00 | 76.5 PK | 78.2 | -1.7 | 1.00 H | 323 | 69.40 | 7.10 |
| 5 | #5861.00 | 72.8 PK | 74.0 | -1.2 | 1.00 H | 335 | 65.70 | 7.10 |
| 6 | #5861.00 | 51.4 AV | 54.0 | -2.6 | 1.00 H | 335 | 44.30 | 7.10 |
| 7 | 11650.00 | 63.6 PK | 74.0 | -10.4 | 1.00 H | 334 | 44.40 | 19.20 |
| 8 | 11650.00 | 50.9 AV | 54.0 | -3.1 | 1.00 H | 334 | 31.70 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 121.5 PK | | | 1.00 V | 347 | 80.80 | 40.70 |
| 2 | *5825.00 | 111.9 AV | | | 1.00 V | 347 | 71.20 | 40.70 |
| 3 | #5850.00 | 59.8 PK | 78.2 | -18.4 | 1.00 V | 2 | 52.80 | 7.00 |
| 4 | #5853.00 | 73.4 PK | 78.2 | -4.8 | 1.08 V | 1 | 66.30 | 7.10 |
| 5 | #5861.00 | 71.2 PK | 74.0 | -2.8 | 1.08 V | 0 | 64.10 | 7.10 |
| 6 | #5861.00 | 52.9 AV | 54.0 | -1.1 | 1.08 V | 0 | 45.80 | 7.10 |
| 7 | 11650.00 | 67.0 PK | 74.0 | -7.0 | 1.48 V | 6 | 47.80 | 19.20 |
| 8 | 11650.00 | 52.7 AV | 54.0 | -1.3 | 1.48 V | 6 | 33.50 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT20)

| CHANNEL | TX Channel 149 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 65.9 PK | 74.0 | -8.1 | 1.03 H | 339 | 58.90 | 7.00 |
| 2 | #5714.00 | 50.1 AV | 54.0 | -3.9 | 1.03 H | 339 | 43.10 | 7.00 |
| 3 | #5722.00 | 73.9 PK | 78.2 | -4.3 | 1.03 H | 339 | 66.90 | 7.00 |
| 4 | #5725.00 | 60.2 PK | 78.2 | -18.0 | 1.04 H | 342 | 53.10 | 7.10 |
| 5 | *5745.00 | 114.5 PK | | | 1.02 H | 318 | 73.90 | 40.60 |
| 6 | *5745.00 | 104.1 AV | | | 1.02 H | 318 | 63.50 | 40.60 |
| 7 | 11490.00 | 58.6 PK | 74.0 | -15.4 | 1.05 H | 349 | 39.90 | 18.70 |
| 8 | 11490.00 | 46.0 AV | 54.0 | -8.0 | 1.05 H | 349 | 27.30 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 64.4 PK | 74.0 | -9.6 | 1.00 V | 348 | 57.40 | 7.00 |
| 2 | #5714.00 | 50.5 AV | 54.0 | -3.5 | 1.00 V | 348 | 43.50 | 7.00 |
| 3 | #5722.00 | 76.9 PK | 78.2 | -1.3 | 1.00 V | 350 | 69.90 | 7.00 |
| 4 | #5725.00 | 60.8 PK | 78.2 | -17.4 | 1.00 V | 349 | 53.70 | 7.10 |
| 5 | *5745.00 | 119.6 PK | | | 1.00 V | 346 | 79.00 | 40.60 |
| 6 | *5745.00 | 108.2 AV | | | 1.00 V | 346 | 67.60 | 40.60 |
| 7 | 11490.00 | 60.8 PK | 74.0 | -13.2 | 1.10 V | 1 | 42.10 | 18.70 |
| 8 | 11490.00 | 47.1 AV | 54.0 | -6.9 | 1.10 V | 1 | 28.40 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5785.00 | 121.7 PK | | | 1.00 H | 317 | 81.00 | 40.70 |
| 2 | *5785.00 | 111.3 AV | | | 1.00 H | 317 | 70.60 | 40.70 |
| 3 | 11570.00 | 64.6 PK | 74.0 | -9.4 | 1.00 H | 290 | 45.80 | 18.80 |
| 4 | 11570.00 | 51.9 AV | 54.0 | -2.1 | 1.00 H | 290 | 33.10 | 18.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5785.00 | 124.4 PK | | | 1.00 V | 359 | 83.70 | 40.70 |
| 2 | *5785.00 | 115.1 AV | | | 1.00 V | 359 | 74.40 | 40.70 |
| 3 | 11570.00 | 63.9 PK | 74.0 | -10.1 | 1.04 V | 9 | 45.10 | 18.80 |
| 4 | 11570.00 | 52.5 AV | 54.0 | -1.5 | 1.04 V | 9 | 33.70 | 18.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 119.7 PK | | | 1.01 H | 325 | 79.00 | 40.70 |
| 2 | *5825.00 | 108.5 AV | | | 1.01 H | 325 | 67.80 | 40.70 |
| 3 | #5850.00 | 59.9 PK | 78.2 | -18.3 | 1.01 H | 333 | 52.90 | 7.00 |
| 4 | #5853.00 | 76.9 PK | 78.2 | -1.3 | 1.02 H | 332 | 69.80 | 7.10 |
| 5 | #5861.00 | 71.8 PK | 74.0 | -2.2 | 1.01 H | 336 | 64.70 | 7.10 |
| 6 | #5861.00 | 50.3 AV | 54.0 | -3.7 | 1.01 H | 336 | 43.20 | 7.10 |
| 7 | 11650.00 | 60.9 PK | 74.0 | -13.1 | 1.29 H | 97 | 41.70 | 19.20 |
| 8 | 11650.00 | 48.1 AV | 54.0 | -5.9 | 1.29 H | 97 | 28.90 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 120.2 PK | | | 1.00 V | 353 | 79.50 | 40.70 |
| 2 | *5825.00 | 110.8 AV | | | 1.00 V | 353 | 70.10 | 40.70 |
| 3 | #5850.00 | 61.8 PK | 78.2 | -16.4 | 1.07 V | 0 | 54.80 | 7.00 |
| 4 | #5853.00 | 75.2 PK | 78.2 | -3.0 | 1.08 V | 0 | 68.10 | 7.10 |
| 5 | #5861.00 | 71.2 PK | 74.0 | -2.8 | 1.08 V | 6 | 64.10 | 7.10 |
| **6** | **#5861.00** | **53.0 AV** | **54.0** | **-1.0** | **1.08 V** | **6** | **45.90** | **7.10** |
| 7 | 11650.00 | 64.4 PK | 74.0 | -9.6 | 1.09 V | 89 | 45.20 | 19.20 |
| 8 | 11650.00 | 52.4 AV | 54.0 | -1.6 | 1.09 V | 89 | 33.20 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT40)

| CHANNEL | TX Channel 151 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 69.0 PK | 74.0 | -5.0 | 1.11 H | 316 | 62.00 | 7.00 |
| 2 | #5714.00 | 52.8 AV | 54.0 | -1.2 | 1.11 H | 316 | 45.80 | 7.00 |
| 3 | #5722.00 | 71.0 PK | 78.2 | -7.2 | 1.11 H | 316 | 64.00 | 7.00 |
| 4 | #5725.00 | 57.7 PK | 78.2 | -20.5 | 1.12 H | 321 | 50.60 | 7.10 |
| 5 | *5755.00 | 110.0 PK | | | 1.01 H | 317 | 69.30 | 40.70 |
| 6 | *5755.00 | 99.4 AV | | | 1.01 H | 317 | 58.70 | 40.70 |
| 7 | 11510.00 | 59.3 PK | 74.0 | -14.7 | 1.12 H | 105 | 40.60 | 18.70 |
| 8 | 11510.00 | 45.7 AV | 54.0 | -8.3 | 1.12 H | 105 | 27.00 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 68.9 PK | 74.0 | -5.1 | 1.00 V | 343 | 61.90 | 7.00 |
| 2 | #5714.00 | 52.9 AV | 54.0 | -1.1 | 1.00 V | 343 | 45.90 | 7.00 |
| 3 | #5722.00 | 70.7 PK | 78.2 | -7.5 | 1.00 V | 345 | 63.70 | 7.00 |
| 4 | #5725.00 | 57.8 PK | 78.2 | -20.4 | 1.00 V | 348 | 50.70 | 7.10 |
| 5 | *5755.00 | 112.0 PK | | | 1.00 V | 354 | 71.30 | 40.70 |
| 6 | *5755.00 | 103.3 AV | | | 1.00 V | 354 | 62.60 | 40.70 |
| 7 | 11510.00 | 59.0 PK | 74.0 | -15.0 | 1.00 V | 243 | 40.30 | 18.70 |
| 8 | 11510.00 | 46.2 AV | 54.0 | -7.8 | 1.00 V | 243 | 27.50 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 159 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5795.00 | 115.6 PK | | | 1.00 H | 316 | 74.90 | 40.70 |
| 2 | *5795.00 | 105.1 AV | | | 1.00 H | 316 | 64.40 | 40.70 |
| 3 | #5850.00 | 53.6 PK | 78.2 | -24.6 | 1.00 H | 328 | 46.60 | 7.00 |
| 4 | #5853.00 | 70.3 PK | 78.2 | -7.9 | 1.00 H | 323 | 63.20 | 7.10 |
| 5 | #5861.00 | 68.0 PK | 74.0 | -6.0 | 1.00 H | 327 | 60.90 | 7.10 |
| 6 | #5861.00 | 50.7 AV | 54.0 | -3.3 | 1.00 H | 327 | 43.60 | 7.10 |
| 7 | 11590.00 | 60.5 PK | 74.0 | -13.5 | 1.00 H | 246 | 41.60 | 18.90 |
| 8 | 11590.00 | 48.0 AV | 54.0 | -6.0 | 1.00 H | 246 | 29.10 | 18.90 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5795.00 | 118.7 PK | | | 1.00 V | 347 | 78.00 | 40.70 |
| 2 | *5795.00 | 108.7 AV | | | 1.00 V | 347 | 68.00 | 40.70 |
| 3 | #5850.00 | 56.2 PK | 78.2 | -22.0 | 1.06 V | 343 | 49.20 | 7.00 |
| 4 | #5853.00 | 71.4 PK | 78.2 | -6.8 | 1.01 V | 8 | 64.30 | 7.10 |
| 5 | #5861.00 | 71.3 PK | 74.0 | -2.7 | 1.06 V | 349 | 64.20 | 7.10 |
| 6 | #5861.00 | 52.9 AV | 54.0 | -1.1 | 1.06 V | 349 | 45.80 | 7.10 |
| 7 | 11590.00 | 61.2 PK | 74.0 | -12.8 | 1.00 V | 5 | 42.30 | 18.90 |
| 8 | 11590.00 | 48.3 AV | 54.0 | -5.7 | 1.00 V | 5 | 29.40 | 18.90 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11ac (VHT80)

| CHANNEL | TX Channel 155 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 66.7 PK | 74.0 | -7.3 | 1.03 H | 326 | 59.70 | 7.00 |
| 2 | #5714.00 | 52.5 AV | 54.0 | -1.5 | 1.03 H | 326 | 45.50 | 7.00 |
| 3 | #5722.00 | 69.1 PK | 78.2 | -9.1 | 1.03 H | 340 | 62.10 | 7.00 |
| 4 | #5725.00 | 54.2 PK | 78.2 | -24.0 | 1.04 H | 346 | 47.10 | 7.10 |
| 5 | *5775.00 | 105.7 PK | | | 1.02 H | 318 | 65.00 | 40.70 |
| 6 | *5775.00 | 95.0 AV | | | 1.02 H | 318 | 54.30 | 40.70 |
| 7 | 11550.00 | 59.1 PK | 74.0 | -14.9 | 1.14 H | 333 | 40.40 | 18.70 |
| 8 | 11550.00 | 46.1 AV | 54.0 | -7.9 | 1.14 H | 333 | 27.40 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 67.8 PK | 74.0 | -6.2 | 1.00 V | 342 | 60.80 | 7.00 |
| 2 | #5714.00 | 52.5 AV | 54.0 | -1.5 | 1.00 V | 342 | 45.50 | 7.00 |
| 3 | #5722.00 | 72.3 PK | 78.2 | -5.9 | 1.00 V | 348 | 65.30 | 7.00 |
| 4 | #5725.00 | 53.6 PK | 78.2 | -24.6 | 1.00 V | 342 | 46.50 | 7.10 |
| 5 | *5775.00 | 106.9 PK | | | 1.00 V | 0 | 66.20 | 40.70 |
| 6 | *5775.00 | 97.5 AV | | | 1.00 V | 0 | 56.80 | 40.70 |
| 7 | 11550.00 | 59.4 PK | 74.0 | -14.6 | 1.00 V | 63 | 40.70 | 18.70 |
| 8 | 11550.00 | 45.9 AV | 54.0 | -8.1 | 1.00 V | 63 | 27.20 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## Radio 2: Sector antenna

### 802.11a

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 36 | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5150.00 | 56.8 PK | 74.0 | -17.2 | 1.05 H | 216 | 50.40 | 6.40 |
| 2 | 5150.00 | 44.7 AV | 54.0 | -9.3 | 1.05 H | 216 | 38.30 | 6.40 |
| 3 | *5180.00 | 108.9 PK | | | 1.00 H | 354 | 69.00 | 39.90 |
| 4 | *5180.00 | 98.8 AV | | | 1.00 H | 354 | 58.90 | 39.90 |
| 5 | #10360.00 | 59.6 PK | 74.0 | -14.4 | 1.14 H | 213 | 40.90 | 18.70 |
| 6 | #10360.00 | 46.7 AV | 54.0 | -7.3 | 1.14 H | 213 | 28.00 | 18.70 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5150.00 | 56.7 PK | 74.0 | -17.3 | 1.00 V | 213 | 50.30 | 6.40 |
| 2 | 5150.00 | 43.7 AV | 54.0 | -10.3 | 1.00 V | 213 | 37.30 | 6.40 |
| 3 | *5180.00 | 105.0 PK | | | 1.24 V | 327 | 65.10 | 39.90 |
| 4 | *5180.00 | 95.4 AV | | | 1.24 V | 327 | 55.50 | 39.90 |
| 5 | #10360.00 | 60.3 PK | 74.0 | -13.7 | 1.00 V | 124 | 41.60 | 18.70 |
| 6 | #10360.00 | 46.9 AV | 54.0 | -7.1 | 1.00 V | 124 | 28.20 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 108.5 PK | | | 1.09 H | 0 | 68.50 | 40.00 |
| 2 | *5200.00 | 98.5 AV | | | 1.09 H | 0 | 58.50 | 40.00 |
| 3 | #10400.00 | 59.7 PK | 74.0 | -14.3 | 1.08 H | 84 | 40.70 | 19.00 |
| 4 | #10400.00 | 46.8 AV | 54.0 | -7.2 | 1.08 H | 84 | 27.80 | 19.00 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 105.7 PK | | | 1.15 V | 328 | 65.70 | 40.00 |
| 2 | *5200.00 | 96.3 AV | | | 1.15 V | 328 | 56.30 | 40.00 |
| 3 | #10400.00 | 59.8 PK | 74.0 | -14.2 | 1.00 V | 184 | 40.80 | 19.00 |
| 4 | #10400.00 | 46.7 AV | 54.0 | -7.3 | 1.00 V | 184 | 27.70 | 19.00 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 109.8 PK | | | 1.00 H | 349 | 69.80 | 40.00 |
| 2 | *5240.00 | 99.5 AV | | | 1.00 H | 349 | 59.50 | 40.00 |
| 3 | 5400.00 | 57.9 PK | 74.0 | -16.1 | 1.00 H | 0 | 51.30 | 6.60 |
| 4 | 5400.00 | 45.9 AV | 54.0 | -8.1 | 1.00 H | 0 | 39.30 | 6.60 |
| 5 | #10480.00 | 60.1 PK | 74.0 | -13.9 | 1.14 H | 76 | 40.90 | 19.20 |
| 6 | #10480.00 | 46.7 AV | 54.0 | -7.3 | 1.14 H | 76 | 27.50 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 105.6 PK | | | 1.10 V | 324 | 65.60 | 40.00 |
| 2 | *5240.00 | 95.7 AV | | | 1.10 V | 324 | 55.70 | 40.00 |
| 3 | 5400.00 | 58.2 PK | 74.0 | -15.8 | 1.19 V | 0 | 51.60 | 6.60 |
| 4 | 5400.00 | 46.4 AV | 54.0 | -7.6 | 1.19 V | 0 | 39.80 | 6.60 |
| 5 | #10480.00 | 59.6 PK | 74.0 | -14.4 | 1.00 V | 215 | 40.40 | 19.20 |
| 6 | #10480.00 | 46.9 AV | 54.0 | -7.1 | 1.00 V | 215 | 27.70 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT20)

| CHANNEL | TX Channel 36 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 56.3 PK | 74.0 | -17.7 | 1.00 H | 98 | 49.90 | 6.40 |
| 2 | 5150.00 | 43.3 AV | 54.0 | -10.7 | 1.00 H | 98 | 36.90 | 6.40 |
| 3 | *5180.00 | 109.6 PK | | | 1.12 H | 0 | 69.70 | 39.90 |
| 4 | *5180.00 | 98.3 AV | | | 1.12 H | 0 | 58.40 | 39.90 |
| 5 | #10360.00 | 59.8 PK | 74.0 | -14.2 | 1.05 H | 146 | 41.10 | 18.70 |
| 6 | #10360.00 | 47.1 AV | 54.0 | -6.9 | 1.05 H | 146 | 28.40 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 56.6 PK | 74.0 | -17.4 | 1.00 V | 105 | 50.20 | 6.40 |
| 2 | 5150.00 | 44.3 AV | 54.0 | -9.7 | 1.00 V | 105 | 37.90 | 6.40 |
| 3 | *5180.00 | 105.7 PK | | | 1.28 V | 321 | 65.80 | 39.90 |
| 4 | *5180.00 | 95.3 AV | | | 1.28 V | 321 | 55.40 | 39.90 |
| 5 | #10360.00 | 59.7 PK | 74.0 | -14.3 | 1.00 V | 215 | 41.00 | 18.70 |
| 6 | #10360.00 | 46.6 AV | 54.0 | -7.4 | 1.00 V | 215 | 27.90 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 108.9 PK | | | 1.09 H | 355 | 68.90 | 40.00 |
| 2 | *5200.00 | 97.8 AV | | | 1.09 H | 355 | 57.80 | 40.00 |
| 3 | #10400.00 | 60.4 PK | 74.0 | -13.6 | 1.11 H | 121 | 41.40 | 19.00 |
| 4 | #10400.00 | 47.2 AV | 54.0 | -6.8 | 1.11 H | 121 | 28.20 | 19.00 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 104.7 PK | | | 1.13 V | 327 | 64.70 | 40.00 |
| 2 | *5200.00 | 95.2 AV | | | 1.13 V | 327 | 55.20 | 40.00 |
| 3 | #10400.00 | 60.6 PK | 74.0 | -13.4 | 1.00 V | 164 | 41.60 | 19.00 |
| 4 | #10400.00 | 47.1 AV | 54.0 | -6.9 | 1.00 V | 164 | 28.10 | 19.00 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 109.9 PK | | | 1.00 H | 353 | 69.90 | 40.00 |
| 2 | *5240.00 | 98.4 AV | | | 1.00 H | 353 | 58.40 | 40.00 |
| 3 | 5400.00 | 58.6 PK | 74.0 | -15.4 | 1.15 H | 349 | 52.00 | 6.60 |
| 4 | 5400.00 | 45.7 AV | 54.0 | -8.3 | 1.15 H | 349 | 39.10 | 6.60 |
| 5 | #10480.00 | 59.5 PK | 74.0 | -14.5 | 1.00 H | 246 | 40.30 | 19.20 |
| 6 | #10480.00 | 47.0 AV | 54.0 | -7.0 | 1.00 H | 246 | 27.80 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 105.2 PK | | | 1.25 V | 323 | 65.20 | 40.00 |
| 2 | *5240.00 | 95.5 AV | | | 1.25 V | 323 | 55.50 | 40.00 |
| 3 | 5400.00 | 48.3 PK | 74.0 | -25.7 | 1.22 V | 360 | 41.70 | 6.60 |
| 4 | 5400.00 | 46.4 AV | 54.0 | -7.6 | 1.22 V | 360 | 39.80 | 6.60 |
| 5 | #10480.00 | 60.3 PK | 74.0 | -13.7 | 1.00 V | 64 | 41.10 | 19.20 |
| 6 | #10480.00 | 47.0 AV | 54.0 | -7.0 | 1.00 V | 64 | 27.80 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT40)

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 38 | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5150.00 | 57.9 PK | 74.0 | -16.1 | 1.10 H | 340 | 51.50 | 6.40 |
| 2 | 5150.00 | 45.4 AV | 54.0 | -8.6 | 1.10 H | 340 | 39.00 | 6.40 |
| 3 | *5190.00 | 106.3 PK | | | 1.11 H | 0 | 66.40 | 39.90 |
| 4 | *5190.00 | 95.5 AV | | | 1.11 H | 0 | 55.60 | 39.90 |
| 5 | #10380.00 | 60.3 PK | 74.0 | -13.7 | 1.10 H | 99 | 41.50 | 18.80 |
| 6 | #10380.00 | 46.8 AV | 54.0 | -7.2 | 1.10 H | 99 | 28.00 | 18.80 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5150.00 | 46.2 PK | 74.0 | -27.8 | 1.00 V | 219 | 39.80 | 6.40 |
| 2 | 5150.00 | 34.1 AV | 54.0 | -19.9 | 1.00 V | 219 | 27.70 | 6.40 |
| 3 | *5190.00 | 101.9 PK | | | 1.21 V | 322 | 62.00 | 39.90 |
| 4 | *5190.00 | 91.8 AV | | | 1.21 V | 322 | 51.90 | 39.90 |
| 5 | #10380.00 | 60.3 PK | 74.0 | -13.7 | 1.00 V | 243 | 41.50 | 18.80 |
| 6 | #10380.00 | 47.2 AV | 54.0 | -6.8 | 1.00 V | 243 | 28.40 | 18.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 46 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5230.00 | 105.7 PK | | | 1.00 H | 0 | 65.70 | 40.00 |
| 2 | *5230.00 | 95.7 AV | | | 1.00 H | 0 | 55.70 | 40.00 |
| 3 | 5350.00 | 57.0 PK | 74.0 | -17.0 | 1.00 H | 110 | 50.60 | 6.40 |
| 4 | 5350.00 | 45.0 AV | 54.0 | -9.0 | 1.00 H | 110 | 38.60 | 6.40 |
| 5 | #10460.00 | 60.2 PK | 74.0 | -13.8 | 1.13 H | 84 | 41.10 | 19.10 |
| 6 | #10460.00 | 46.4 AV | 54.0 | -7.6 | 1.13 H | 84 | 27.30 | 19.10 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5230.00 | 102.9 PK | | | 1.21 V | 332 | 62.90 | 40.00 |
| 2 | *5230.00 | 93.1 AV | | | 1.21 V | 332 | 53.10 | 40.00 |
| 3 | 5400.00 | 58.0 PK | 74.0 | -16.0 | 1.22 V | 330 | 51.40 | 6.60 |
| 4 | 5400.00 | 45.7 AV | 54.0 | -8.3 | 1.22 V | 330 | 39.10 | 6.60 |
| 5 | #10460.00 | 59.6 PK | 74.0 | -14.4 | 1.00 V | 284 | 40.50 | 19.10 |
| 6 | #10460.00 | 46.8 AV | 54.0 | -7.2 | 1.00 V | 284 | 27.70 | 19.10 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11ac (VHT80)

| CHANNEL | TX Channel 42 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 62.1 PK | 74.0 | -11.9 | 1.10 H | 356 | 55.70 | 6.40 |
| 2 | 5150.00 | 45.8 AV | 54.0 | -8.2 | 1.10 H | 356 | 39.40 | 6.40 |
| 3 | *5210.00 | 98.7 PK | | | 1.21 H | 317 | 58.70 | 40.00 |
| 4 | *5210.00 | 88.9 AV | | | 1.21 H | 317 | 48.90 | 40.00 |
| 5 | #5788.00 | 65.1 PK | 68.2 | -3.1 | 1.13 H | 6 | 58.00 | 7.10 |
| 6 | #10420.00 | 60.1 PK | 74.0 | -13.9 | 1.16 H | 241 | 41.20 | 18.90 |
| 7 | #10420.00 | 47.1 AV | 54.0 | -6.9 | 1.16 H | 241 | 28.20 | 18.90 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 57.0 PK | 74.0 | -17.0 | 1.00 V | 203 | 50.60 | 6.40 |
| 2 | 5150.00 | 44.4 AV | 54.0 | -9.6 | 1.00 V | 203 | 38.00 | 6.40 |
| 3 | *5210.00 | 99.2 PK | | | 1.23 V | 319 | 59.20 | 40.00 |
| 4 | *5210.00 | 88.7 AV | | | 1.23 V | 319 | 48.70 | 40.00 |
| 5 | #5788.00 | 59.8 PK | 68.2 | -8.4 | 1.21 V | 0 | 52.70 | 7.10 |
| 6 | #10420.00 | 60.5 PK | 74.0 | -13.5 | 1.00 V | 133 | 41.60 | 18.90 |
| 7 | #10420.00 | 47.1 AV | 54.0 | -6.9 | 1.00 V | 133 | 28.20 | 18.90 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11a

| CHANNEL | TX Channel 149 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 67.0 PK | 74.0 | -7.0 | 1.00 H | 3 | 60.00 | 7.00 |
| 2 | #5714.00 | 52.3 AV | 54.0 | -1.7 | 1.00 H | 3 | 45.30 | 7.00 |
| 3 | #5722.00 | 72.2 PK | 78.2 | -6.0 | 1.01 H | 0 | 65.20 | 7.00 |
| 4 | #5725.00 | 55.8 PK | 78.2 | -22.4 | 1.06 H | 359 | 48.70 | 7.10 |
| 5 | *5745.00 | 122.6 PK | | | 1.00 H | 0 | 82.00 | 40.60 |
| 6 | *5745.00 | 112.7 AV | | | 1.00 H | 0 | 72.10 | 40.60 |
| 7 | #5903.00 | 66.7 PK | 68.2 | -1.5 | 1.00 H | 1 | 59.50 | 7.20 |
| 8 | 11490.00 | 59.6 PK | 74.0 | -14.4 | 1.17 H | 108 | 40.90 | 18.70 |
| 9 | 11490.00 | 46.4 AV | 54.0 | -7.6 | 1.17 H | 108 | 27.70 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 63.6 PK | 74.0 | -10.4 | 1.12 V | 0 | 56.60 | 7.00 |
| 2 | #5714.00 | 50.4 AV | 54.0 | -3.6 | 1.12 V | 0 | 43.40 | 7.00 |
| 3 | #5722.00 | 66.6 PK | 78.2 | -11.6 | 1.14 V | 4 | 59.60 | 7.00 |
| 4 | #5725.00 | 51.8 PK | 78.2 | -26.4 | 1.08 V | 4 | 44.70 | 7.10 |
| 5 | *5745.00 | 118.2 PK | | | 1.18 V | 351 | 77.60 | 40.60 |
| 6 | *5745.00 | 108.7 AV | | | 1.18 V | 351 | 68.10 | 40.60 |
| 7 | #5903.00 | 63.9 PK | 68.2 | -4.3 | 1.16 V | 352 | 56.70 | 7.20 |
| 8 | 11490.00 | 59.3 PK | 74.0 | -14.7 | 1.02 V | 243 | 40.60 | 18.70 |
| 9 | 11490.00 | 46.4 AV | 54.0 | -7.6 | 1.02 V | 243 | 27.70 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5785.00 | 124.9 PK | | | 1.00 H | 0 | 84.20 | 40.70 |
| 2 | *5785.00 | 115.1 AV | | | 1.00 H | 0 | 74.40 | 40.70 |
| 3 | #5945.00 | 67.1 PK | 68.2 | -1.1 | 1.00 H | 7 | 59.90 | 7.20 |
| 4 | 11570.00 | 60.4 PK | 74.0 | -13.6 | 1.09 H | 283 | 41.60 | 18.80 |
| 5 | 11570.00 | 46.6 AV | 54.0 | -7.4 | 1.09 H | 283 | 27.80 | 18.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5785.00 | 119.9 PK | | | 1.06 V | 356 | 79.20 | 40.70 |
| 2 | *5785.00 | 110.3 AV | | | 1.06 V | 356 | 69.60 | 40.70 |
| 3 | #5945.00 | 65.3 PK | 68.2 | -2.9 | 1.12 V | 350 | 58.10 | 7.20 |
| 4 | 11570.00 | 60.7 PK | 74.0 | -13.3 | 1.00 V | 93 | 41.90 | 18.80 |
| 5 | 11570.00 | 47.0 AV | 54.0 | -7.0 | 1.00 V | 93 | 28.20 | 18.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 124.7 PK | | | 1.00 H | 2 | 84.00 | 40.70 |
| 2 | *5825.00 | 114.9 AV | | | 1.00 H | 2 | 74.20 | 40.70 |
| 3 | #5850.00 | 55.9 PK | 78.2 | -22.3 | 1.00 H | 4 | 48.90 | 7.00 |
| 4 | #5853.00 | 70.0 PK | 78.2 | -8.2 | 1.00 H | 4 | 62.90 | 7.10 |
| 5 | #5861.00 | 68.1 PK | 74.0 | -5.9 | 1.00 H | 0 | 61.00 | 7.10 |
| 6 | #5861.00 | 52.8 AV | 54.0 | -1.2 | 1.00 H | 0 | 45.70 | 7.10 |
| 7 | #5983.00 | 66.0 PK | 68.2 | -2.2 | 1.00 H | 3 | 58.80 | 7.20 |
| 8 | 11650.00 | 59.7 PK | 74.0 | -14.3 | 1.13 H | 264 | 40.50 | 19.20 |
| 9 | 11650.00 | 46.7 AV | 54.0 | -7.3 | 1.13 H | 264 | 27.50 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 120.6 PK | | | 1.16 V | 356 | 79.90 | 40.70 |
| 2 | *5825.00 | 111.2 AV | | | 1.16 V | 356 | 70.50 | 40.70 |
| 3 | #5850.00 | 52.1 PK | 78.2 | -26.1 | 1.25 V | 322 | 45.10 | 7.00 |
| 4 | #5853.00 | 66.8 PK | 78.2 | -11.4 | 1.16 V | 316 | 59.70 | 7.10 |
| 5 | #5861.00 | 63.1 PK | 74.0 | -10.9 | 1.09 V | 348 | 56.00 | 7.10 |
| 6 | #5861.00 | 50.9 AV | 54.0 | -3.1 | 1.09 V | 348 | 43.80 | 7.10 |
| 7 | #5983.00 | 65.2 PK | 68.2 | -3.0 | 1.21 V | 340 | 58.00 | 7.20 |
| 8 | 11650.00 | 62.2 PK | 74.0 | -11.8 | 1.00 V | 102 | 43.00 | 19.20 |
| 9 | 11650.00 | 48.5 AV | 54.0 | -5.5 | 1.00 V | 102 | 29.30 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT20)

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 149 | **DETECTOR FUNCTION** | Peak (PK) |
| **FREQUENCY RANGE** | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | #5714.00 | 66.8 PK | 74.0 | -7.2 | 1.00 H | 0 | 59.80 | 7.00 |
| 2 | #5714.00 | 51.6 AV | 54.0 | -2.4 | 1.00 H | 0 | 44.60 | 7.00 |
| 3 | #5722.00 | 76.4 PK | 78.2 | -1.8 | 1.00 H | 4 | 69.40 | 7.00 |
| 4 | #5725.00 | 57.0 PK | 78.2 | -21.2 | 1.07 H | 2 | 49.90 | 7.10 |
| 5 | *5745.00 | 122.3 PK | | | 1.00 H | 0 | 81.70 | 40.60 |
| 6 | *5745.00 | 111.5 AV | | | 1.00 H | 0 | 70.90 | 40.60 |
| 7 | #5984.00 | 65.4 PK | 68.2 | -2.8 | 1.00 H | 16 | 58.20 | 7.20 |
| 8 | 11490.00 | 59.9 PK | 74.0 | -14.1 | 1.13 H | 124 | 41.20 | 18.70 |
| 9 | 11490.00 | 46.1 AV | 54.0 | -7.9 | 1.13 H | 124 | 27.40 | 18.70 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | #5714.00 | 62.9 PK | 74.0 | -11.1 | 1.07 V | 6 | 55.90 | 7.00 |
| 2 | #5714.00 | 50.2 AV | 54.0 | -3.8 | 1.07 V | 6 | 43.20 | 7.00 |
| 3 | #5722.00 | 70.0 PK | 78.2 | -8.2 | 1.00 V | 0 | 63.00 | 7.00 |
| 4 | #5725.00 | 54.3 PK | 78.2 | -23.9 | 1.02 V | 1 | 47.20 | 7.10 |
| 5 | *5745.00 | 117.7 PK | | | 1.18 V | 353 | 77.10 | 40.60 |
| 6 | *5745.00 | 107.2 AV | | | 1.18 V | 353 | 66.60 | 40.60 |
| 7 | #5984.00 | 63.3 PK | 68.2 | -4.9 | 1.10 V | 328 | 56.10 | 7.20 |
| 8 | 11490.00 | 61.0 PK | 74.0 | -13.0 | 1.00 V | 213 | 42.30 | 18.70 |
| 9 | 11490.00 | 47.8 AV | 54.0 | -6.2 | 1.00 V | 213 | 29.10 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5785.00 | 125.5 PK | | | 1.00 H | 5 | 84.80 | 40.70 |
| 2 | *5785.00 | 114.5 AV | | | 1.00 H | 5 | 73.80 | 40.70 |
| 3 | #5938.00 | 66.4 PK | 68.2 | -1.8 | 1.00 H | 4 | 59.20 | 7.20 |
| 4 | 11570.00 | 59.7 PK | 74.0 | -14.3 | 1.13 H | 246 | 40.90 | 18.80 |
| 5 | 11570.00 | 45.6 AV | 54.0 | -8.4 | 1.13 H | 246 | 26.80 | 18.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5785.00 | 119.7 PK | | | 1.17 V | 349 | 79.00 | 40.70 |
| 2 | *5785.00 | 109.8 AV | | | 1.17 V | 349 | 69.10 | 40.70 |
| 3 | #5938.00 | 64.7 PK | 68.2 | -3.5 | 1.04 V | 351 | 57.50 | 7.20 |
| 4 | 11570.00 | 59.5 PK | 74.0 | -14.5 | 1.00 V | 142 | 40.70 | 18.80 |
| 5 | 11570.00 | 46.2 AV | 54.0 | -7.8 | 1.00 V | 142 | 27.40 | 18.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 124.5 PK | | | 1.00 H | 3 | 83.80 | 40.70 |
| 2 | *5825.00 | 113.5 AV | | | 1.00 H | 3 | 72.80 | 40.70 |
| 3 | #5850.00 | 57.2 PK | 78.2 | -21.0 | 1.00 H | 0 | 50.20 | 7.00 |
| 4 | #5853.00 | 71.2 PK | 78.2 | -7.0 | 1.03 H | 7 | 64.10 | 7.10 |
| 5 | #5861.00 | 68.7 PK | 74.0 | -5.3 | 1.00 H | 4 | 61.60 | 7.10 |
| 6 | #5861.00 | 52.8 AV | 54.0 | -1.2 | 1.00 H | 4 | 45.70 | 7.10 |
| 7 | #5983.00 | 66.6 PK | 68.2 | -1.6 | 1.00 H | 8 | 59.40 | 7.20 |
| 8 | 11650.00 | 59.7 PK | 74.0 | -14.3 | 1.18 H | 70 | 40.50 | 19.20 |
| 9 | 11650.00 | 47.9 AV | 54.0 | -6.1 | 1.18 H | 70 | 28.70 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 118.7 PK | | | 1.08 V | 5 | 78.00 | 40.70 |
| 2 | *5825.00 | 108.6 AV | | | 1.08 V | 5 | 67.90 | 40.70 |
| 3 | #5850.00 | 56.8 PK | 78.2 | -21.4 | 1.07 V | 346 | 49.80 | 7.00 |
| 4 | #5853.00 | 72.5 PK | 78.2 | -5.7 | 1.07 V | 356 | 65.40 | 7.10 |
| 5 | #5861.00 | 65.8 PK | 74.0 | -8.2 | 1.06 V | 352 | 58.70 | 7.10 |
| 6 | #5861.00 | 51.8 AV | 54.0 | -2.2 | 1.06 V | 352 | 44.70 | 7.10 |
| 7 | #5983.00 | 65.2 PK | 68.2 | -3.0 | 1.20 V | 335 | 58.00 | 7.20 |
| 8 | 11650.00 | 59.5 PK | 74.0 | -14.5 | 1.04 V | 246 | 40.30 | 19.20 |
| 9 | 11650.00 | 46.6 AV | 54.0 | -7.4 | 1.04 V | 246 | 27.40 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT40)

| CHANNEL | TX Channel 151 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 69.8 PK | 74.0 | -4.2 | 1.00 H | 0 | 62.80 | 7.00 |
| 2 | #5714.00 | 52.9 AV | 54.0 | -1.1 | 1.00 H | 0 | 45.90 | 7.00 |
| 3 | #5722.00 | 70.0 PK | 78.2 | -8.2 | 1.00 H | 2 | 63.00 | 7.00 |
| 4 | #5725.00 | 56.1 PK | 78.2 | -22.1 | 1.00 H | 358 | 49.00 | 7.10 |
| 5 | *5755.00 | 114.8 PK | | | 1.00 H | 5 | 74.10 | 40.70 |
| 6 | *5755.00 | 104.4 AV | | | 1.00 H | 5 | 63.70 | 40.70 |
| 7 | 11510.00 | 58.7 PK | 74.0 | -15.3 | 1.14 H | 86 | 40.00 | 18.70 |
| 8 | 11510.00 | 46.4 AV | 54.0 | -7.6 | 1.14 H | 86 | 27.70 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 63.8 PK | 74.0 | -10.2 | 1.00 V | 6 | 56.80 | 7.00 |
| 2 | #5714.00 | 48.8 AV | 54.0 | -5.2 | 1.00 V | 6 | 41.80 | 7.00 |
| 3 | #5722.00 | 65.6 PK | 78.2 | -12.6 | 1.04 V | 0 | 58.60 | 7.00 |
| 4 | #5725.00 | 52.0 PK | 78.2 | -26.2 | 1.00 V | 8 | 44.90 | 7.10 |
| 5 | *5755.00 | 110.3 PK | | | 1.08 V | 356 | 69.60 | 40.70 |
| 6 | *5755.00 | 100.2 AV | | | 1.08 V | 356 | 59.50 | 40.70 |
| 7 | 11510.00 | 57.7 PK | 74.0 | -16.3 | 1.00 V | 272 | 39.00 | 18.70 |
| 8 | 11510.00 | 45.3 AV | 54.0 | -8.7 | 1.00 V | 272 | 26.60 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 159 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5795.00 | 121.5 PK | | | 1.00 H | 7 | 80.80 | 40.70 |
| 2 | *5795.00 | 110.5 AV | | | 1.00 H | 7 | 69.80 | 40.70 |
| 3 | #5850.00 | 55.0 PK | 78.2 | -23.2 | 1.00 H | 7 | 48.00 | 7.00 |
| 4 | #5853.00 | 71.3 PK | 78.2 | -6.9 | 1.00 H | 0 | 64.20 | 7.10 |
| 5 | #5861.00 | 68.6 PK | 74.0 | -5.4 | 1.00 H | 6 | 61.50 | 7.10 |
| 6 | #5861.00 | 52.8 AV | 54.0 | -1.2 | 1.00 H | 6 | 45.70 | 7.10 |
| 7 | 11590.00 | 60.1 PK | 74.0 | -13.9 | 1.17 H | 84 | 41.20 | 18.90 |
| 8 | 11590.00 | 46.8 AV | 54.0 | -7.2 | 1.17 H | 84 | 27.90 | 18.90 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5795.00 | 115.4 PK | | | 1.08 V | 1 | 74.70 | 40.70 |
| 2 | *5795.00 | 105.8 AV | | | 1.08 V | 1 | 65.10 | 40.70 |
| 3 | #5850.00 | 51.6 PK | 78.2 | -26.6 | 1.07 V | 0 | 44.60 | 7.00 |
| 4 | #5853.00 | 64.7 PK | 78.2 | -13.5 | 1.17 V | 7 | 57.60 | 7.10 |
| 5 | #5861.00 | 63.0 PK | 74.0 | -11.0 | 1.15 V | 8 | 55.90 | 7.10 |
| 6 | #5861.00 | 50.4 AV | 54.0 | -3.6 | 1.15 V | 8 | 43.30 | 7.10 |
| 7 | 11590.00 | 59.6 PK | 74.0 | -14.4 | 1.00 V | 216 | 40.70 | 18.90 |
| 8 | 11590.00 | 47.0 AV | 54.0 | -7.0 | 1.00 V | 216 | 28.10 | 18.90 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11ac (80MHz)

| CHANNEL | TX Channel 155 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5133.00 | 60.9 PK | 74.0 | -13.1 | 1.00 H | 351 | 54.50 | 6.40 |
| 2 | 5133.00 | 52.9 AV | 54.0 | -1.1 | 1.00 H | 351 | 46.50 | 6.40 |
| 3 | #5714.00 | 69.2 PK | 74.0 | -4.8 | 1.00 H | 0 | 62.20 | 7.00 |
| 4 | #5714.00 | 52.8 AV | 54.0 | -1.2 | 1.00 H | 0 | 45.80 | 7.00 |
| 5 | #5722.00 | 71.7 PK | 78.2 | -6.5 | 1.00 H | 2 | 64.70 | 7.00 |
| 6 | #5725.00 | 54.9 PK | 78.2 | -23.3 | 1.02 H | 0 | 47.80 | 7.10 |
| 7 | *5775.00 | 109.1 PK | | | 1.00 H | 6 | 68.40 | 40.70 |
| 8 | *5775.00 | 97.8 AV | | | 1.00 H | 6 | 57.10 | 40.70 |
| 9 | 11550.00 | 59.0 PK | 74.0 | -15.0 | 1.08 H | 284 | 40.30 | 18.70 |
| 10 | 11550.00 | 45.4 AV | 54.0 | -8.6 | 1.08 H | 284 | 26.70 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5133.00 | 60.1 PK | 74.0 | -13.9 | 1.00 V | 348 | 53.70 | 6.40 |
| 2 | 5133.00 | 50.2 AV | 54.0 | -3.8 | 1.00 V | 348 | 43.80 | 6.40 |
| 3 | #5714.00 | 64.4 PK | 74.0 | -9.6 | 1.16 V | 1 | 57.40 | 7.00 |
| 4 | #5714.00 | 49.3 AV | 54.0 | -4.7 | 1.16 V | 1 | 42.30 | 7.00 |
| 5 | #5722.00 | 67.7 PK | 78.2 | -10.5 | 1.07 V | 0 | 60.70 | 7.00 |
| 6 | #5725.00 | 49.5 PK | 78.2 | -28.7 | 1.18 V | 0 | 42.40 | 7.10 |
| 7 | *5775.00 | 101.8 PK | | | 1.18 V | 355 | 61.10 | 40.70 |
| 8 | *5775.00 | 92.9 AV | | | 1.18 V | 355 | 52.20 | 40.70 |
| 9 | 11550.00 | 58.7 PK | 74.0 | -15.3 | 1.00 V | 255 | 40.00 | 18.70 |
| 10 | 11550.00 | 46.2 AV | 54.0 | -7.8 | 1.00 V | 255 | 27.50 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## Radio 3: PIFA antenna

### 802.11a

| CHANNEL | TX Channel 36 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 59.8 PK | 74.0 | -14.2 | 1.37 H | 311 | 53.40 | 6.40 |
| 2 | 5150.00 | 45.6 AV | 54.0 | -8.4 | 1.37 H | 311 | 39.20 | 6.40 |
| 3 | *5180.00 | 102.3 PK | | | 1.00 H | 292 | 62.40 | 39.90 |
| 4 | *5180.00 | 92.6 AV | | | 1.00 H | 292 | 52.70 | 39.90 |
| 5 | #10360.00 | 60.2 PK | 74.0 | -13.8 | 1.10 H | 148 | 41.50 | 18.70 |
| 6 | #10360.00 | 46.7 AV | 54.0 | -7.3 | 1.10 H | 148 | 28.00 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 66.1 PK | 74.0 | -7.9 | 1.00 V | 334 | 59.70 | 6.40 |
| 2 | 5150.00 | 49.5 AV | 54.0 | -4.5 | 1.00 V | 334 | 43.10 | 6.40 |
| 3 | *5180.00 | 109.8 PK | | | 1.00 V | 333 | 69.90 | 39.90 |
| 4 | *5180.00 | 98.4 AV | | | 1.00 V | 333 | 58.50 | 39.90 |
| 5 | #10360.00 | 59.7 PK | 74.0 | -14.3 | 1.02 V | 131 | 41.00 | 18.70 |
| 6 | #10360.00 | 46.6 AV | 54.0 | -7.4 | 1.02 V | 131 | 27.90 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 104.6 PK | | | 1.02 H | 351 | 64.60 | 40.00 |
| 2 | *5200.00 | 94.1 AV | | | 1.02 H | 351 | 54.10 | 40.00 |
| 3 | #10400.00 | 59.8 PK | 74.0 | -14.2 | 1.05 H | 272 | 40.80 | 19.00 |
| 4 | #10400.00 | 46.9 AV | 54.0 | -7.1 | 1.05 H | 272 | 27.90 | 19.00 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 109.0 PK | | | 1.20 V | 335 | 69.00 | 40.00 |
| 2 | *5200.00 | 98.3 AV | | | 1.20 V | 335 | 58.30 | 40.00 |
| 3 | #10400.00 | 60.5 PK | 74.0 | -13.5 | 1.00 V | 95 | 41.50 | 19.00 |
| 4 | #10400.00 | 46.9 AV | 54.0 | -7.1 | 1.00 V | 95 | 27.90 | 19.00 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 106.5 PK | | | 1.01 H | 353 | 66.50 | 40.00 |
| 2 | *5240.00 | 95.1 AV | | | 1.01 H | 353 | 55.10 | 40.00 |
| 3 | 5350.00 | 56.5 PK | 74.0 | -17.5 | 1.05 H | 262 | 50.10 | 6.40 |
| 4 | 5350.00 | 43.8 AV | 54.0 | -10.2 | 1.05 H | 262 | 37.40 | 6.40 |
| 5 | #10480.00 | 59.9 PK | 74.0 | -14.1 | 1.16 H | 275 | 40.70 | 19.20 |
| 6 | #10480.00 | 47.4 AV | 54.0 | -6.6 | 1.16 H | 275 | 28.20 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 109.1 PK | | | 1.20 V | 337 | 69.10 | 40.00 |
| 2 | *5240.00 | 98.5 AV | | | 1.20 V | 337 | 58.50 | 40.00 |
| 3 | 5350.00 | 57.1 PK | 74.0 | -16.9 | 1.15 V | 234 | 50.70 | 6.40 |
| 4 | 5350.00 | 43.6 AV | 54.0 | -10.4 | 1.15 V | 234 | 37.20 | 6.40 |
| 5 | #10480.00 | 59.8 PK | 74.0 | -14.2 | 1.02 V | 63 | 40.60 | 19.20 |
| 6 | #10480.00 | 47.3 AV | 54.0 | -6.7 | 1.02 V | 63 | 28.10 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT20)

| CHANNEL | TX Channel 36 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 60.0 PK | 74.0 | -14.0 | 1.30 H | 318 | 53.60 | 6.40 |
| 2 | 5150.00 | 45.9 AV | 54.0 | -8.1 | 1.30 H | 318 | 39.50 | 6.40 |
| 3 | *5180.00 | 101.9 PK | | | 1.48 H | 292 | 62.00 | 39.90 |
| 4 | *5180.00 | 92.1 AV | | | 1.48 H | 292 | 52.20 | 39.90 |
| 5 | #10360.00 | 60.1 PK | 74.0 | -13.9 | 1.20 H | 95 | 41.40 | 18.70 |
| 6 | #10360.00 | 47.0 AV | 54.0 | -7.0 | 1.20 H | 95 | 28.30 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 59.6 PK | 74.0 | -14.4 | 1.13 V | 290 | 53.20 | 6.40 |
| 2 | 5150.00 | 46.0 AV | 54.0 | -8.0 | 1.13 V | 290 | 39.60 | 6.40 |
| 3 | *5180.00 | 108.3 PK | | | 1.00 V | 335 | 68.40 | 39.90 |
| 4 | *5180.00 | 98.4 AV | | | 1.00 V | 335 | 58.50 | 39.90 |
| 5 | #10360.00 | 60.0 PK | 74.0 | -14.0 | 1.02 V | 256 | 41.30 | 18.70 |
| 6 | #10360.00 | 47.2 AV | 54.0 | -6.8 | 1.02 V | 256 | 28.50 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 104.3 PK | | | 1.03 H | 351 | 64.30 | 40.00 |
| 2 | *5200.00 | 94.4 AV | | | 1.03 H | 351 | 54.40 | 40.00 |
| 3 | #10400.00 | 60.1 PK | 74.0 | -13.9 | 1.17 H | 83 | 41.10 | 19.00 |
| 4 | #10400.00 | 47.5 AV | 54.0 | -6.5 | 1.17 H | 83 | 28.50 | 19.00 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 109.0 PK | | | 1.21 V | 336 | 69.00 | 40.00 |
| 2 | *5200.00 | 98.2 AV | | | 1.21 V | 336 | 58.20 | 40.00 |
| 3 | #10400.00 | 59.9 PK | 74.0 | -14.1 | 1.05 V | 223 | 40.90 | 19.00 |
| 4 | #10400.00 | 46.3 AV | 54.0 | -7.7 | 1.05 V | 223 | 27.30 | 19.00 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 105.9 PK | | | 1.01 H | 353 | 65.90 | 40.00 |
| 2 | *5240.00 | 95.1 AV | | | 1.01 H | 353 | 55.10 | 40.00 |
| 3 | 5350.00 | 56.5 PK | 74.0 | -17.5 | 1.13 H | 272 | 50.10 | 6.40 |
| 4 | 5350.00 | 44.6 AV | 54.0 | -9.4 | 1.13 H | 272 | 38.20 | 6.40 |
| 5 | #10480.00 | 60.6 PK | 74.0 | -13.4 | 1.07 H | 280 | 41.40 | 19.20 |
| 6 | #10480.00 | 47.5 AV | 54.0 | -6.5 | 1.07 H | 280 | 28.30 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5240.00 | 108.5 PK | | | 1.08 V | 337 | 68.50 | 40.00 |
| 2 | *5240.00 | 98.3 AV | | | 1.08 V | 337 | 58.30 | 40.00 |
| 3 | 5350.00 | 56.6 PK | 74.0 | -17.4 | 1.00 V | 117 | 50.20 | 6.40 |
| 4 | 5350.00 | 44.5 AV | 54.0 | -9.5 | 1.00 V | 117 | 38.10 | 6.40 |
| 5 | #10480.00 | 59.8 PK | 74.0 | -14.2 | 1.03 V | 262 | 40.60 | 19.20 |
| 6 | #10480.00 | 46.6 AV | 54.0 | -7.4 | 1.03 V | 262 | 27.40 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT40)

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 38 | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5150.00 | 64.2 PK | 74.0 | -9.8 | 1.25 H | 290 | 57.80 | 6.40 |
| 2 | 5150.00 | 48.7 AV | 54.0 | -5.3 | 1.25 H | 290 | 42.30 | 6.40 |
| 3 | *5190.00 | 97.0 PK | | | 1.47 H | 292 | 57.10 | 39.90 |
| 4 | *5190.00 | 87.1 AV | | | 1.47 H | 292 | 47.20 | 39.90 |
| 5 | #10380.00 | 59.8 PK | 74.0 | -14.2 | 1.11 H | 221 | 41.00 | 18.80 |
| 6 | #10380.00 | 46.9 AV | 54.0 | -7.1 | 1.11 H | 221 | 28.10 | 18.80 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 5150.00 | 70.6 PK | 74.0 | -3.4 | 1.00 V | 331 | 64.20 | 6.40 |
| 2 | 5150.00 | 52.7 AV | 54.0 | -1.3 | 1.00 V | 331 | 46.30 | 6.40 |
| 3 | *5190.00 | 103.6 PK | | | 1.00 V | 335 | 63.70 | 39.90 |
| 4 | *5190.00 | 93.7 AV | | | 1.00 V | 335 | 53.80 | 39.90 |
| 5 | #10380.00 | 60.2 PK | 74.0 | -13.8 | 1.00 V | 85 | 41.40 | 18.80 |
| 6 | #10380.00 | 46.9 AV | 54.0 | -7.1 | 1.00 V | 85 | 28.10 | 18.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 46 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5230.00 | 101.5 PK | | | 1.02 H | 354 | 61.50 | 40.00 |
| 2 | *5230.00 | 91.0 AV | | | 1.02 H | 354 | 51.00 | 40.00 |
| 3 | 5350.00 | 57.2 PK | 74.0 | -16.8 | 1.11 H | 286 | 50.80 | 6.40 |
| 4 | 5350.00 | 44.5 AV | 54.0 | -9.5 | 1.11 H | 286 | 38.10 | 6.40 |
| 5 | #10420.00 | 60.1 PK | 74.0 | -13.9 | 1.16 H | 53 | 41.20 | 18.90 |
| 6 | #10420.00 | 46.9 AV | 54.0 | -7.1 | 1.16 H | 53 | 28.00 | 18.90 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5230.00 | 105.1 PK | | | 1.19 V | 339 | 65.10 | 40.00 |
| 2 | *5230.00 | 94.5 AV | | | 1.19 V | 339 | 54.50 | 40.00 |
| 3 | 5350.00 | 57.6 PK | 74.0 | -16.4 | 1.03 V | 72 | 51.20 | 6.40 |
| 4 | 5350.00 | 44.5 AV | 54.0 | -9.5 | 1.03 V | 72 | 38.10 | 6.40 |
| 5 | #10420.00 | 60.2 PK | 74.0 | -13.8 | 1.00 V | 26 | 41.30 | 18.90 |
| 6 | #10420.00 | 47.4 AV | 54.0 | -6.6 | 1.00 V | 26 | 28.50 | 18.90 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11a

| CHANNEL | TX Channel 149 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 71.4 PK | 74.0 | -2.6 | 1.16 H | 2 | 64.40 | 7.00 |
| 2 | #5714.00 | 50.4 AV | 54.0 | -3.6 | 1.16 H | 2 | 43.40 | 7.00 |
| 3 | #5722.00 | 76.4 PK | 78.2 | -1.8 | 1.25 H | 4 | 69.40 | 7.00 |
| 4 | #5725.00 | 76.1 PK | 78.2 | -2.1 | 1.25 H | 4 | 69.00 | 7.10 |
| 5 | *5745.00 | 107.0 PK | | | 1.06 H | 19 | 66.40 | 40.60 |
| 6 | *5745.00 | 96.8 AV | | | 1.06 H | 19 | 56.20 | 40.60 |
| 7 | 11490.00 | 61.0 PK | 74.0 | -13.0 | 1.19 H | 179 | 42.30 | 18.70 |
| 8 | 11490.00 | 47.8 AV | 54.0 | -6.2 | 1.19 H | 179 | 29.10 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 72.4 PK | 74.0 | -1.6 | 1.08 V | 49 | 65.40 | 7.00 |
| 2 | #5714.00 | 51.2 AV | 54.0 | -2.8 | 1.08 V | 49 | 44.20 | 7.00 |
| 3 | #5722.00 | 77.0 PK | 78.2 | -1.2 | 1.10 V | 49 | 70.00 | 7.00 |
| 4 | #5725.00 | 76.6 PK | 78.2 | -1.6 | 1.10 V | 49 | 69.50 | 7.10 |
| 5 | *5745.00 | 109.1 PK | | | 1.00 V | 354 | 68.50 | 40.60 |
| 6 | *5745.00 | 97.9 AV | | | 1.00 V | 354 | 57.30 | 40.60 |
| 7 | 11490.00 | 61.3 PK | 74.0 | -12.7 | 1.18 V | 28 | 42.60 | 18.70 |
| 8 | 11490.00 | 48.2 AV | 54.0 | -5.8 | 1.18 V | 28 | 29.50 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 70.6 PK | 74.0 | -3.4 | 1.06 H | 23 | 63.60 | 7.00 |
| 2 | #5714.00 | 50.1 AV | 54.0 | -3.9 | 1.06 H | 23 | 43.10 | 7.00 |
| 3 | *5785.00 | 113.6 PK | | | 1.25 H | 19 | 72.90 | 40.70 |
| 4 | *5785.00 | 103.6 AV | | | 1.25 H | 19 | 62.90 | 40.70 |
| 5 | 11570.00 | 62.3 PK | 74.0 | -11.7 | 1.57 H | 23 | 43.50 | 18.80 |
| 6 | 11570.00 | 49.3 AV | 54.0 | -4.7 | 1.57 H | 23 | 30.50 | 18.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 72.7 PK | 74.0 | -1.3 | 1.09 V | 48 | 65.70 | 7.00 |
| 2 | #5714.00 | 51.0 AV | 54.0 | -3.0 | 1.09 V | 48 | 44.00 | 7.00 |
| 3 | *5785.00 | 116.9 PK | | | 1.28 V | 50 | 76.20 | 40.70 |
| 4 | *5785.00 | 105.7 AV | | | 1.28 V | 50 | 65.00 | 40.70 |
| 5 | 11507.00 | 61.0 PK | 74.0 | -13.0 | 1.18 V | 58 | 42.30 | 18.70 |
| 6 | 11507.00 | 47.8 AV | 54.0 | -6.2 | 1.18 V | 58 | 29.10 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 111.0 PK | | | 1.25 H | 19 | 70.30 | 40.70 |
| 2 | *5825.00 | 100.1 AV | | | 1.25 H | 19 | 59.40 | 40.70 |
| 3 | #5850.00 | 75.9 PK | 78.2 | -2.3 | 1.44 H | 22 | 68.90 | 7.00 |
| 4 | #5853.00 | 76.1 PK | 78.2 | -2.1 | 1.44 H | 22 | 69.00 | 7.10 |
| 5 | #5861.00 | 69.6 PK | 74.0 | -4.4 | 1.44 H | 19 | 62.50 | 7.10 |
| 6 | #5861.00 | 50.9 AV | 54.0 | -3.1 | 1.44 H | 19 | 43.80 | 7.10 |
| 7 | 11650.00 | 61.7 PK | 74.0 | -12.3 | 1.50 H | 19 | 42.50 | 19.20 |
| 8 | 11650.00 | 48.7 AV | 54.0 | -5.3 | 1.50 H | 19 | 29.50 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 110.9 PK | | | 1.09 V | 7 | 70.20 | 40.70 |
| 2 | *5825.00 | 100.1 AV | | | 1.09 V | 7 | 59.40 | 40.70 |
| 3 | #5850.00 | 76.0 PK | 78.2 | -2.2 | 1.03 V | 65 | 69.00 | 7.00 |
| 4 | #5853.00 | 76.9 PK | 78.2 | -1.3 | 1.03 V | 65 | 69.80 | 7.10 |
| 5 | #5861.00 | 71.8 PK | 74.0 | -2.2 | 1.18 V | 66 | 64.70 | 7.10 |
| 6 | #5861.00 | 50.7 AV | 54.0 | -3.3 | 1.18 V | 66 | 43.60 | 7.10 |
| 7 | 11650.00 | 61.4 PK | 74.0 | -12.6 | 1.09 V | 10 | 42.20 | 19.20 |
| 8 | 11650.00 | 48.3 AV | 54.0 | -5.7 | 1.09 V | 10 | 29.10 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT20)

| CHANNEL | TX Channel 149 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 67.9 PK | 74.0 | -6.1 | 1.24 H | 4 | 60.90 | 7.00 |
| 2 | #5714.00 | 50.1 AV | 54.0 | -3.9 | 1.24 H | 4 | 43.10 | 7.00 |
| 3 | #5722.00 | 76.9 PK | 78.2 | -1.3 | 1.24 H | 6 | 69.90 | 7.00 |
| 4 | #5725.00 | 76.1 PK | 78.2 | -2.1 | 1.24 H | 6 | 69.00 | 7.10 |
| 5 | *5745.00 | 107.1 PK | | | 1.24 H | 17 | 66.50 | 40.60 |
| 6 | *5745.00 | 97.1 AV | | | 1.24 H | 17 | 56.50 | 40.60 |
| 7 | 11490.00 | 60.2 PK | 74.0 | -13.8 | 1.34 H | 73 | 41.50 | 18.70 |
| 8 | 11490.00 | 47.0 AV | 54.0 | -7.0 | 1.34 H | 73 | 28.30 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 71.3 PK | 74.0 | -2.7 | 1.19 V | 51 | 64.30 | 7.00 |
| 2 | #5714.00 | 52.0 AV | 54.0 | -2.0 | 1.19 V | 51 | 45.00 | 7.00 |
| 3 | #5722.00 | 76.5 PK | 78.2 | -1.7 | 1.17 V | 49 | 69.50 | 7.00 |
| 4 | #5725.00 | 76.0 PK | 78.2 | -2.2 | 1.17 V | 49 | 68.90 | 7.10 |
| 5 | *5745.00 | 108.7 PK | | | 1.13 V | 66 | 68.10 | 40.60 |
| 6 | *5745.00 | 98.1 AV | | | 1.13 V | 66 | 57.50 | 40.60 |
| 7 | 11490.00 | 60.5 PK | 74.0 | -13.5 | 1.23 V | 354 | 41.80 | 18.70 |
| 8 | 11490.00 | 47.2 AV | 54.0 | -6.8 | 1.23 V | 354 | 28.50 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 69.2 PK | 74.0 | -4.8 | 1.06 H | 21 | 62.20 | 7.00 |
| 2 | #5714.00 | 48.8 AV | 54.0 | -5.2 | 1.06 H | 21 | 41.80 | 7.00 |
| 3 | *5785.00 | 113.6 PK | | | 1.24 H | 18 | 72.90 | 40.70 |
| 4 | *5785.00 | 103.6 AV | | | 1.24 H | 18 | 62.90 | 40.70 |
| 5 | 11570.00 | 61.4 PK | 74.0 | -12.6 | 4.00 H | 60 | 42.60 | 18.80 |
| 6 | 11570.00 | 48.4 AV | 54.0 | -5.6 | 4.00 H | 60 | 29.60 | 18.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 72.5 PK | 74.0 | -1.5 | 1.11 V | 55 | 65.50 | 7.00 |
| 2 | #5714.00 | 51.0 AV | 54.0 | -3.0 | 1.11 V | 55 | 44.00 | 7.00 |
| 3 | *5785.00 | 113.8 PK | | | 1.00 V | 4 | 73.10 | 40.70 |
| 4 | *5785.00 | 103.9 AV | | | 1.00 V | 4 | 63.20 | 40.70 |
| 5 | 11570.00 | 61.2 PK | 74.0 | -12.8 | 1.00 V | 358 | 42.40 | 18.80 |
| 6 | 11570.00 | 47.3 AV | 54.0 | -6.7 | 1.00 V | 358 | 28.50 | 18.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 110.3 PK | | | 1.33 H | 19 | 69.60 | 40.70 |
| 2 | *5825.00 | 100.2 AV | | | 1.33 H | 19 | 59.50 | 40.70 |
| 3 | #5850.00 | 76.0 PK | 78.2 | -2.2 | 1.23 H | 23 | 69.00 | 7.00 |
| 4 | #5853.00 | 76.6 PK | 78.2 | -1.6 | 1.23 H | 23 | 69.50 | 7.10 |
| 5 | #5861.00 | 72.2 PK | 74.0 | -1.8 | 1.22 H | 6 | 65.10 | 7.10 |
| 6 | #5861.00 | 50.3 AV | 54.0 | -3.7 | 1.22 H | 6 | 43.20 | 7.10 |
| 7 | 11650.00 | 61.4 PK | 74.0 | -12.6 | 1.44 H | 22 | 42.20 | 19.20 |
| 8 | 11650.00 | 48.3 AV | 54.0 | -5.7 | 1.44 H | 22 | 29.10 | 19.20 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5825.00 | 110.5 PK | | | 1.09 V | 65 | 69.80 | 40.70 |
| 2 | *5825.00 | 100.7 AV | | | 1.09 V | 65 | 60.00 | 40.70 |
| 3 | #5850.00 | 75.0 PK | 78.2 | -3.2 | 1.08 V | 60 | 68.00 | 7.00 |
| 4 | #5852.00 | 75.5 PK | 78.2 | -2.7 | 1.08 V | 60 | 68.40 | 7.10 |
| 5 | #5861.00 | 72.7 PK | 74.0 | -1.3 | 1.08 V | 64 | 65.60 | 7.10 |
| 6 | #5861.00 | 51.1 AV | 54.0 | -2.9 | 1.08 V | 64 | 44.00 | 7.10 |
| 7 | 11650.00 | 61.4 PK | 74.0 | -12.6 | 1.00 V | 359 | 42.20 | 19.20 |
| 8 | 11650.00 | 48.0 AV | 54.0 | -6.0 | 1.00 V | 359 | 28.80 | 19.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## 802.11n (HT40)

| CHANNEL | TX Channel 151 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 69.0 PK | 74.0 | -5.0 | 1.15 H | 3 | 62.00 | 7.00 |
| 2 | #5714.00 | 51.8 AV | 54.0 | -2.2 | 1.15 H | 3 | 44.80 | 7.00 |
| 3 | #5720.00 | 69.7 PK | 78.2 | -8.5 | 1.15 H | 5 | 62.70 | 7.00 |
| 4 | #5725.00 | 69.1 PK | 78.2 | -9.1 | 1.15 H | 5 | 62.00 | 7.10 |
| 5 | *5755.00 | 100.6 PK | | | 1.12 H | 352 | 59.90 | 40.70 |
| 6 | *5755.00 | 90.3 AV | | | 1.12 H | 352 | 49.60 | 40.70 |
| 7 | 11510.00 | 67.4 PK | 74.0 | -6.6 | 1.19 H | 48 | 48.70 | 18.70 |
| 8 | 11510.00 | 46.8 AV | 54.0 | -7.2 | 1.19 H | 48 | 28.10 | 18.70 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 71.3 PK | 74.0 | -2.7 | 1.09 V | 50 | 64.30 | 7.00 |
| 2 | #5714.00 | 52.9 AV | 54.0 | -1.1 | 1.09 V | 50 | 45.90 | 7.00 |
| 3 | #5718.00 | 72.0 PK | 78.2 | -6.2 | 1.09 V | 48 | 65.00 | 7.00 |
| 4 | #5725.00 | 72.1 PK | 78.2 | -6.1 | 1.08 V | 48 | 65.00 | 7.10 |
| 5 | *5755.00 | 101.8 PK | | | 1.16 V | 51 | 61.10 | 40.70 |
| 6 | *5755.00 | 91.9 AV | | | 1.16 V | 51 | 51.20 | 40.70 |
| 7 | 11510.00 | 60.4 PK | 74.0 | -13.6 | 1.11 V | 36 | 41.70 | 18.70 |
| 8 | 11510.00 | 46.9 AV | 54.0 | -7.1 | 1.11 V | 36 | 28.20 | 18.70 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| CHANNEL | TX Channel 159 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 70.7 PK | 74.0 | -3.3 | 1.07 H | 16 | 63.70 | 7.00 |
| 2 | #5714.00 | 51.7 AV | 54.0 | -2.3 | 1.07 H | 16 | 44.70 | 7.00 |
| 3 | #5722.00 | 76.5 PK | 78.2 | -1.7 | 1.07 H | 19 | 69.50 | 7.00 |
| 4 | #5725.00 | 76.1 PK | 78.2 | -2.1 | 1.07 H | 19 | 69.00 | 7.10 |
| 5 | *5795.00 | 108.5 PK | | | 1.44 H | 17 | 67.80 | 40.70 |
| 6 | *5795.00 | 97.8 AV | | | 1.44 H | 17 | 57.10 | 40.70 |
| 7 | #5850.00 | 73.0 PK | 78.2 | -5.2 | 1.43 H | 20 | 66.00 | 7.00 |
| 8 | #5855.00 | 73.3 PK | 78.2 | -4.9 | 1.43 H | 20 | 66.20 | 7.10 |
| 9 | #5861.00 | 69.4 PK | 74.0 | -4.6 | 1.43 H | 19 | 62.30 | 7.10 |
| 10 | #5861.00 | 51.4 AV | 54.0 | -2.6 | 1.43 H | 19 | 44.30 | 7.10 |
| 11 | 11590.00 | 61.0 PK | 74.0 | -13.0 | 1.50 H | 36 | 42.10 | 18.90 |
| 12 | 11590.00 | 47.9 AV | 54.0 | -6.1 | 1.50 H | 36 | 29.00 | 18.90 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | #5714.00 | 72.1 PK | 74.0 | -1.9 | 1.00 V | 66 | 65.10 | 7.00 |
| 2 | #5714.00 | 52.6 AV | 54.0 | -1.4 | 1.00 V | 66 | 45.60 | 7.00 |
| 3 | #5722.00 | 76.1 PK | 78.2 | -2.1 | 1.00 V | 66 | 69.10 | 7.00 |
| 4 | #5725.00 | 76.1 PK | 78.2 | -2.1 | 1.00 V | 66 | 69.00 | 7.10 |
| 5 | *5795.00 | 108.7 PK | | | 1.01 V | 64 | 68.00 | 40.70 |
| 6 | *5795.00 | 98.4 AV | | | 1.01 V | 64 | 57.70 | 40.70 |
| 7 | #5850.00 | 73.0 PK | 78.2 | -5.2 | 1.10 V | 66 | 66.00 | 7.00 |
| 8 | #5855.00 | 73.9 PK | 78.2 | -4.3 | 1.10 V | 66 | 66.80 | 7.10 |
| 9 | #5861.00 | 70.0 PK | 74.0 | -4.0 | 1.09 V | 64 | 62.90 | 7.10 |
| 10 | #5861.00 | 52.1 AV | 54.0 | -1.9 | 1.09 V | 64 | 45.00 | 7.10 |
| 11 | 11590.00 | 60.0 PK | 74.0 | -14.0 | 1.20 V | 354 | 41.10 | 18.90 |
| 12 | 11590.00 | 46.9 AV | 54.0 | -7.1 | 1.20 V | 354 | 28.00 | 18.90 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

## BELOW 1GHz WORST-CASE DATA

### Radio 2: Dipole antenna

### 802.11n (HT20)

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 40 | **DETECTOR FUNCTION** | Quasi-Peak (QP) |
| **FREQUENCY RANGE** | 30MHz ~ 1GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 61.01 | 33.9 QP | 40.0 | -6.1 | 1.00 H | 130 | 48.80 | -14.90 |
| 2 | 158.22 | 41.6 QP | 43.5 | -1.9 | 2.00 H | 231 | 55.20 | -13.60 |
| 3 | 204.89 | 36.8 QP | 43.5 | -6.7 | 1.49 H | 100 | 53.30 | -16.50 |
| 4 | 397.37 | 31.2 QP | 46.0 | -14.8 | 2.00 H | 10 | 41.40 | -10.20 |
| 5 | 799.84 | 34.3 QP | 46.0 | -11.7 | 1.49 H | 15 | 36.10 | -1.80 |
| 6 | 1000.00 | 39.4 QP | 54.0 | -14.6 | 1.49 H | 15 | 38.00 | 1.40 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 47.40 | 38.7 QP | 40.0 | -1.3 | 1.00 V | 321 | 53.30 | -14.60 |
| 2 | 66.84 | 34.4 QP | 40.0 | -5.6 | 1.50 V | 310 | 50.00 | -15.60 |
| 3 | 148.50 | 39.0 QP | 43.5 | -4.5 | 1.00 V | 129 | 52.80 | -13.80 |
| 4 | 204.89 | 38.5 QP | 43.5 | -5.0 | 1.00 V | 14 | 55.00 | -16.50 |
| 5 | 354.60 | 36.5 QP | 46.0 | -9.5 | 1.50 V | 7 | 47.70 | -11.20 |
| 6 | 799.84 | 39.2 QP | 46.0 | -6.8 | 1.00 V | 4 | 41.00 | -1.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

## Radio 2: Dipole antenna

### 802.11a

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 165 | **DETECTOR FUNCTION** | Quasi-Peak (QP) |
| **FREQUENCY RANGE** | 30MHz ~ 1GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 57.12 | 32.9 QP | 40.0 | -7.1 | 1.99 H | 113 | 47.40 | -14.50 |
| 2 | 152.39 | 41.6 QP | 43.5 | -1.9 | 1.99 H | 248 | 55.30 | -13.70 |
| 3 | 162.11 | 39.7 QP | 43.5 | -3.8 | 1.49 H | 222 | 53.40 | -13.70 |
| 4 | 204.89 | 36.6 QP | 43.5 | -6.9 | 1.00 H | 102 | 53.10 | -16.50 |
| 5 | 364.32 | 32.2 QP | 46.0 | -13.8 | 1.99 H | 349 | 43.00 | -10.80 |
| 6 | 799.84 | 36.5 QP | 46.0 | -9.5 | 1.49 H | 6 | 38.30 | -1.80 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 49.34 | 38.9 QP | 40.0 | -1.1 | 1.49 V | 326 | 53.30 | -14.40 |
| 2 | 66.84 | 34.9 QP | 40.0 | -5.1 | 1.00 V | 9 | 50.50 | -15.60 |
| 3 | 146.56 | 39.1 QP | 43.5 | -4.4 | 1.00 V | 141 | 53.00 | -13.90 |
| 4 | 204.89 | 37.8 QP | 43.5 | -5.7 | 1.00 V | 15 | 54.30 | -16.50 |
| 5 | 350.71 | 36.7 QP | 46.0 | -9.3 | 1.49 V | 15 | 47.90 | -11.20 |
| 6 | 799.84 | 36.2 QP | 46.0 | -9.8 | 1.00 V | 9 | 38.00 | -1.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

## Radio 2: Patch antenna

### 802.11a

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 40 | **DETECTOR FUNCTION** | Quasi-Peak (QP) |
| **FREQUENCY RANGE** | 30MHz ~ 1GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 35.73 | 36.6 QP | 40.0 | -3.4 | 1.00 H | 333 | 52.20 | -15.60 |
| 2 | 97.95 | 33.0 QP | 43.5 | -10.5 | 1.99 H | 118 | 51.90 | -18.90 |
| 3 | 156.15 | 42.1 QP | 43.5 | -1.4 | 2.00 H | 252 | 55.70 | -13.60 |
| 4 | 187.39 | 42.4 QP | 43.5 | -1.1 | 1.50 H | 90 | 58.40 | -16.00 |
| 5 | 237.94 | 33.4 QP | 46.0 | -12.6 | 1.50 H | 293 | 48.10 | -14.70 |
| 6 | 300.16 | 32.7 QP | 46.0 | -13.3 | 1.00 H | 233 | 44.70 | -12.00 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| **NO.** | **FREQ. (MHz)** | **EMISSION LEVEL (dBuV/m)** | **LIMIT (dBuV/m)** | **MARGIN (dB)** | **ANTENNA HEIGHT (m)** | **TABLE ANGLE (Degree)** | **RAW VALUE (dBuV)** | **CORRECTION FACTOR (dB/m)** |
| 1 | 36.88 | 38.0 QP | 40.0 | -2.0 | 1.00 V | 58 | 53.40 | -15.40 |
| **2** | **154.13** | **42.5 QP** | **43.5** | **-1.0** | **1.00 V** | **129** | **56.10** | **-13.60** |
| 3 | 189.33 | 40.2 QP | 43.5 | -3.3 | 1.00 V | 90 | 56.20 | -16.00 |
| 4 | 300.16 | 33.1 QP | 46.0 | -12.9 | 1.49 V | 184 | 45.10 | -12.00 |
| 5 | 461.53 | 32.6 QP | 46.0 | -13.4 | 1.00 V | 244 | 41.30 | -8.70 |
| 6 | 799.84 | 38.2 QP | 46.0 | -7.8 | 1.99 V | 113 | 40.00 | -1.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

## Radio 2: Patch antenna

### 802.11n (HT20)

| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 30MHz ~ 1GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 57.12 | 33.5 QP | 40.0 | -6.5 | 1.99 H | 290 | 48.00 | -14.50 |
| 2 | 105.73 | 32.8 QP | 43.5 | -10.7 | 1.99 H | 105 | 50.60 | -17.80 |
| 3 | 146.56 | 40.9 QP | 43.5 | -2.6 | 1.99 H | 240 | 54.80 | -13.90 |
| 4 | 193.22 | 42.2 QP | 43.5 | -1.3 | 1.50 H | 95 | 58.50 | -16.30 |
| 5 | 375.98 | 30.0 QP | 46.0 | -16.0 | 1.00 H | 144 | 40.50 | -10.50 |
| 6 | 1000.00 | 34.4 QP | 54.0 | -19.6 | 1.50 H | 124 | 33.00 | 1.40 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 55.18 | 38.5 QP | 40.0 | -1.5 | 1.01 V | 16 | 52.90 | -14.40 |
| 2 | 146.56 | 41.1 QP | 43.5 | -2.4 | 1.01 V | 115 | 55.00 | -13.90 |
| 3 | 214.61 | 29.9 QP | 43.5 | -13.6 | 1.01 V | 16 | 46.00 | -16.10 |
| 4 | 401.26 | 30.3 QP | 46.0 | -15.7 | 1.50 V | 6 | 40.50 | -10.20 |
| 5 | 500.42 | 30.0 QP | 46.0 | -16.0 | 1.01 V | 103 | 38.20 | -8.20 |
| 6 | 1000.00 | 36.9 QP | 54.0 | -17.1 | 1.50 V | 241 | 35.50 | 1.40 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

## Radio 2: Sector antenna

### 802.11a

| CHANNEL | TX Channel 36 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 30MHz ~ 1GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 49.34 | 32.0 QP | 40.0 | -8.0 | 1.99 H | 81 | 46.40 | -14.40 |
| 2 | 108.91 | 42.3 QP | 43.5 | -1.2 | 1.50 H | 164 | 59.60 | -17.30 |
| 3 | 141.44 | 41.4 QP | 43.5 | -2.1 | 1.99 H | 252 | 55.70 | -14.30 |
| 4 | 162.14 | 41.7 QP | 43.5 | -1.8 | 1.50 H | 279 | 55.40 | -13.70 |
| 5 | 232.11 | 33.7 QP | 46.0 | -12.3 | 1.51 H | 67 | 49.30 | -15.60 |
| 6 | 420.70 | 32.3 QP | 46.0 | -13.7 | 1.00 H | 98 | 42.00 | -9.70 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| **1** | **30.00** | **39.0 QP** | **40.0** | **-1.0** | **1.01 V** | **204** | **54.90** | **-15.90** |
| 2 | 49.15 | 38.2 QP | 40.0 | -1.8 | 1.00 V | 45 | 52.60 | -14.40 |
| 3 | 107.67 | 38.5 QP | 43.5 | -5.0 | 1.01 V | 132 | 56.00 | -17.50 |
| 4 | 160.17 | 38.6 QP | 43.5 | -4.9 | 1.01 V | 102 | 52.10 | -13.50 |
| 5 | 179.61 | 41.9 QP | 43.5 | -1.6 | 1.01 V | 19 | 56.80 | -14.90 |
| 6 | 198.34 | 42.3 QP | 43.5 | -1.2 | 1.00 V | 39 | 58.80 | -16.50 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

## Radio 2: Sector antenna

### 802.11n (HT20)

| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 30MHz ~ 1GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| **1** | **108.40** | **42.5 QP** | **43.5** | **-1.0** | **1.50 H** | **157** | **59.90** | **-17.40** |
| 2 | 142.45 | 42.0 QP | 43.5 | -1.5 | 1.99 H | 276 | 56.20 | -14.20 |
| 3 | 165.59 | 42.4 QP | 43.5 | -1.1 | 1.49 H | 285 | 56.20 | -13.80 |
| 4 | 197.11 | 35.2 QP | 43.5 | -8.3 | 1.00 H | 303 | 51.70 | -16.50 |
| 5 | 234.05 | 33.8 QP | 46.0 | -12.2 | 1.50 H | 272 | 49.00 | -15.20 |
| 6 | 416.81 | 32.1 QP | 46.0 | -13.9 | 1.00 H | 100 | 41.90 | -9.80 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 51.29 | 38.8 QP | 40.0 | -1.2 | 1.00 V | 24 | 53.20 | -14.40 |
| 2 | 107.67 | 38.6 QP | 43.5 | -4.9 | 1.00 V | 146 | 56.10 | -17.50 |
| 3 | 166.00 | 40.8 QP | 43.5 | -2.7 | 1.00 V | 66 | 54.70 | -13.90 |
| 4 | 177.67 | 42.5 QP | 43.5 | -1.0 | 1.00 V | 5 | 57.20 | -14.70 |
| 5 | 199.05 | 41.6 QP | 43.5 | -1.9 | 1.00 V | 31 | 58.10 | -16.50 |
| 6 | 500.42 | 34.0 QP | 46.0 | -12.0 | 1.00 V | 32 | 42.20 | -8.20 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

## Radio 3: PIFA antenna

### 802.11a

| CHANNEL | TX Channel 36 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 30MHz ~ 1GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 57.12 | 33.2 QP | 40.0 | -6.8 | 1.99 H | 71 | 47.70 | -14.50 |
| 2 | 149.06 | 41.5 QP | 43.5 | -2.0 | 2.00 H | 240 | 55.20 | -13.70 |
| 3 | 162.11 | 39.8 QP | 43.5 | -3.7 | 1.99 H | 246 | 53.50 | -13.70 |
| 4 | 204.89 | 37.3 QP | 43.5 | -6.2 | 1.49 H | 85 | 53.80 | -16.50 |
| 5 | 348.76 | 32.2 QP | 46.0 | -13.8 | 1.99 H | 341 | 43.50 | -11.30 |
| 6 | 799.84 | 37.2 QP | 46.0 | -8.8 | 1.49 H | 7 | 39.00 | -1.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 31.84 | 38.8 QP | 40.0 | -1.2 | 1.50 V | 128 | 54.70 | -15.90 |
| 2 | 66.84 | 34.9 QP | 40.0 | -5.1 | 1.00 V | 16 | 50.50 | -15.60 |
| 3 | 148.50 | 40.6 QP | 43.5 | -2.9 | 1.00 V | 144 | 54.40 | -13.80 |
| 4 | 204.89 | 37.8 QP | 43.5 | -5.7 | 1.00 V | 16 | 54.30 | -16.50 |
| 5 | 344.87 | 31.4 QP | 46.0 | -14.6 | 1.00 V | 16 | 42.70 | -11.30 |
| 6 | 799.84 | 35.5 QP | 46.0 | -10.5 | 1.50 V | 250 | 37.30 | -1.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

## Radio 3: PIFA antenna

### 802.11a

| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 30MHz ~ 1GHz | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 57.12 | 32.8 QP | 40.0 | -7.2 | 2.00 H | 5 | 47.30 | -14.50 |
| 2 | 150.45 | 41.9 QP | 43.5 | -1.6 | 1.00 H | 245 | 55.60 | -13.70 |
| 3 | 162.11 | 39.5 QP | 43.5 | -4.0 | 1.50 H | 246 | 53.20 | -13.70 |
| 4 | 204.89 | 37.2 QP | 43.5 | -6.3 | 1.00 H | 94 | 53.70 | -16.50 |
| 5 | 350.71 | 32.4 QP | 46.0 | -13.6 | 2.00 H | 334 | 43.60 | -11.20 |
| 6 | 799.84 | 36.7 QP | 46.0 | -9.3 | 1.50 H | 16 | 38.50 | -1.80 |
| **ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M** | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 45.45 | 38.2 QP | 40.0 | -1.8 | 1.49 V | 220 | 52.90 | -14.70 |
| 2 | 64.90 | 35.5 QP | 40.0 | -4.5 | 1.00 V | 339 | 50.80 | -15.30 |
| 3 | 140.72 | 39.9 QP | 43.5 | -3.6 | 1.00 V | 136 | 54.20 | -14.30 |
| 4 | 204.89 | 38.0 QP | 43.5 | -5.5 | 1.00 V | 5 | 54.50 | -16.50 |
| 5 | 346.82 | 31.2 QP | 46.0 | -14.8 | 1.49 V | 352 | 42.50 | -11.30 |
| 6 | 799.84 | 36.3 QP | 46.0 | -9.7 | 1.00 V | 12 | 38.10 | -1.80 |

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

## 4.2 CONDUCTED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

| FREQUENCY OF EMISSION (MHz) | CONDUCTED LIMIT (dBμV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15 ~ 0.5 | 66 to 56 | 56 to 46 |
| 0.5 ~ 5 | 56 | 46 |
| 5 ~ 30 | 60 | 50 |

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

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

### 4.2.2 TEST INSTRUMENTS

| DESCRIPTION & MANUFACTURER | MODEL NO. | SERIAL NO. | DATE OF CALIBRATION | DUE DATE OF CALIBRATION |
|---|---|---|---|---|
| Test Receiver ROHDE & SCHWARZ | ESCS30 | 100288 | Apr. 24, 2014 | Apr. 23, 2015 |
| RF signal cable Woken | 5D-FB | Cable-HYCO2-01 | Dec. 27, 2013 | Dec. 26, 2014 |
| LISN ROHDE & SCHWARZ (EUT) | ESH2-Z5 | 100100 | Dec. 23, 2013 | Dec. 22, 2014 |
| LISN ROHDE & SCHWARZ (Peripheral) | ESH3-Z5 | 100312 | Jul. 10, 2014 | Jul. 09, 2015 |
| Software ADT | BV ADT_Cond_ V7.3.7.3 | NA | NA | NA |

**NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-2047.

### 4.2.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

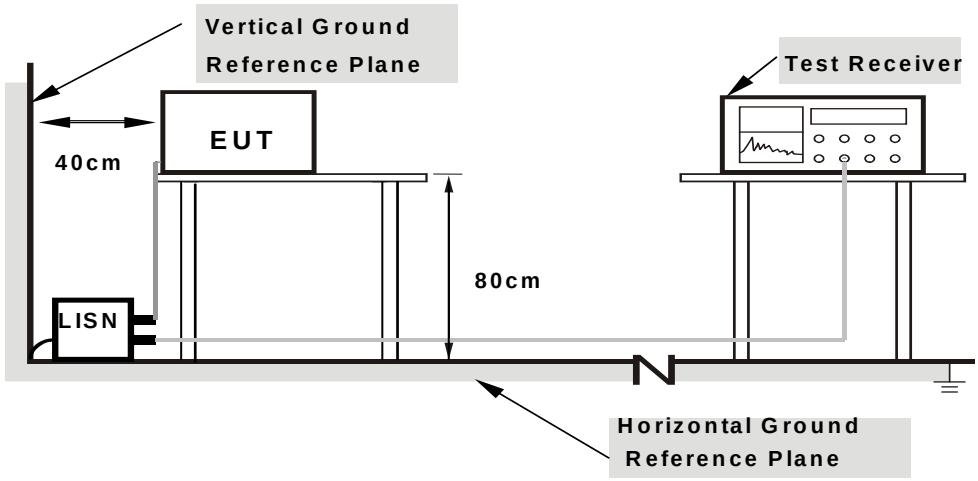
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

**NOTE:** All modes of operation were investigated and the worst-case emissions are reported.

### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

### 4.2.5 TEST SETUP




**Note: 1.Support units were connected to second LISN.**
**2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**

For the actual test configuration, please refer to the attached file (Test Setup Photo).

### 4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.7.

## 4.2.7 TEST RESULTS

**CONDUCTED WORST-CASE DATA：**

**Radio 2: Dipole antenna**

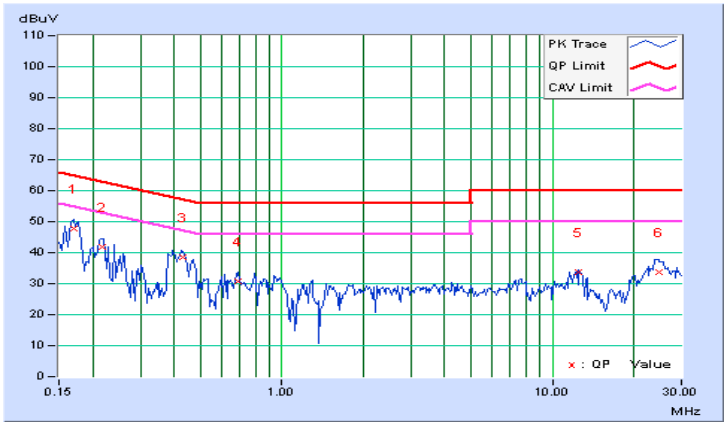
**802.11n (HT20)**

| PHASE | Line 1 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 40 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.16953 | 0.27 | 47.57 | 37.11 | 47.84 | 37.38 | 64.98 | 54.98 | -17.14 | -17.60 |
| 2 | 0.21776 | 0.28 | 41.73 | 33.80 | 42.01 | 34.08 | 62.90 | 52.90 | -20.89 | -18.82 |
| 3 | 0.42853 | 0.30 | 38.09 | 34.13 | 38.39 | 34.43 | 57.28 | 47.28 | -18.89 | -12.85 |
| 4 | 0.68516 | 0.32 | 30.48 | 24.39 | 30.80 | 24.71 | 56.00 | 46.00 | -25.20 | -21.29 |
| 5 | 12.53516 | 0.52 | 33.08 | 32.31 | 33.60 | 32.83 | 60.00 | 50.00 | -26.40 | -17.17 |
| 6 | 24.68750 | 0.54 | 33.06 | 27.55 | 33.60 | 28.09 | 60.00 | 50.00 | -26.40 | -21.91 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

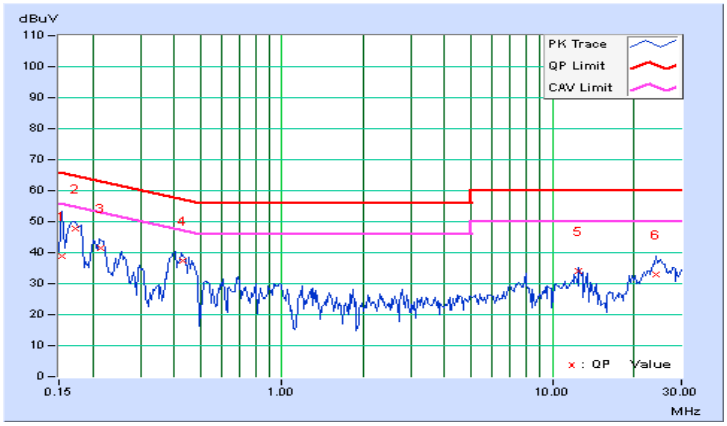


| PHASE | Line 2 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 40 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.15391 | 0.27 | 38.60 | 17.61 | 38.87 | 17.88 | 65.79 | 55.79 | -26.92 | -37.91 |
| 2 | 0.17344 | 0.27 | 47.48 | 38.27 | 47.75 | 38.54 | 64.79 | 54.79 | -17.04 | -16.25 |
| 3 | 0.21505 | 0.28 | 41.37 | 33.56 | 41.65 | 33.84 | 63.01 | 53.01 | -21.36 | -19.17 |
| 4 | 0.42980 | 0.30 | 37.17 | 33.60 | 37.47 | 33.90 | 57.26 | 47.26 | -19.78 | -13.35 |
| 5 | 12.53516 | 0.54 | 33.37 | 32.67 | 33.91 | 33.21 | 60.00 | 50.00 | -26.09 | -16.79 |
| 6 | 24.21484 | 0.58 | 32.22 | 26.86 | 32.80 | 27.44 | 60.00 | 50.00 | -27.20 | -22.56 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



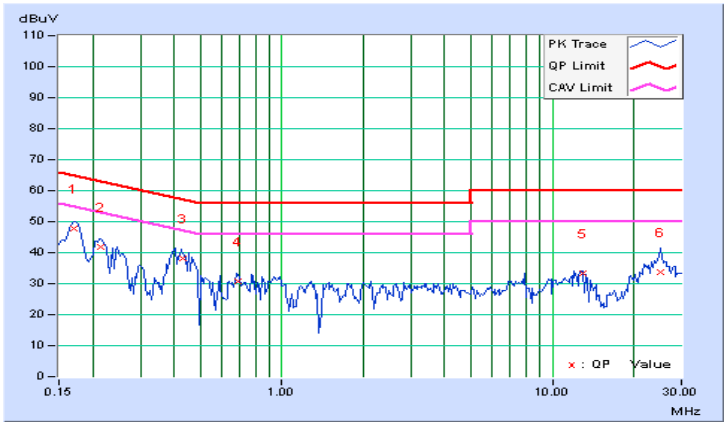
802.11a

| PHASE | Line 1 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 165 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.17089 | 0.27 | 47.57 | 38.06 | 47.84 | 38.33 | 64.92 | 54.92 | -17.08 | -16.59 |
| 2 | 0.21505 | 0.28 | 41.49 | 34.25 | 41.77 | 34.53 | 63.01 | 53.01 | -21.24 | -18.48 |
| 3 | 0.42980 | 0.30 | 37.96 | 34.37 | 38.26 | 34.67 | 57.26 | 47.26 | -18.99 | -12.58 |
| 4 | 0.68507 | 0.32 | 30.52 | 24.23 | 30.84 | 24.55 | 56.00 | 46.00 | -25.16 | -21.45 |
| 5 | 13.01563 | 0.52 | 32.68 | 32.00 | 33.20 | 32.52 | 60.00 | 50.00 | -26.80 | -17.48 |
| 6 | 25.01953 | 0.53 | 32.99 | 27.56 | 33.52 | 28.09 | 60.00 | 50.00 | -26.48 | -21.91 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

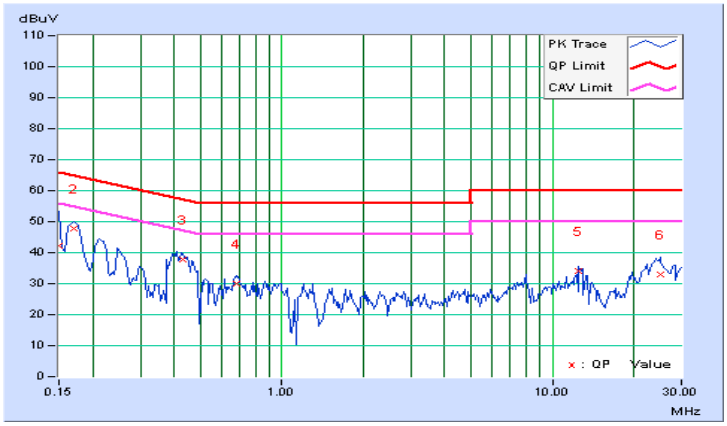


| PHASE | Line 2 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 165 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.15000 | 0.26 | 41.78 | 16.13 | 42.04 | 16.39 | 66.00 | 56.00 | -23.96 | -39.61 |
| 2 | 0.17081 | 0.27 | 47.39 | 37.70 | 47.66 | 37.97 | 64.92 | 54.92 | -17.26 | -16.95 |
| 3 | 0.42911 | 0.30 | 37.32 | 33.46 | 37.62 | 33.76 | 57.27 | 47.27 | -19.65 | -13.51 |
| 4 | 0.68370 | 0.32 | 29.82 | 23.35 | 30.14 | 23.67 | 56.00 | 46.00 | -25.86 | -22.33 |
| 5 | 12.53516 | 0.54 | 33.35 | 32.81 | 33.89 | 33.35 | 60.00 | 50.00 | -26.11 | -16.65 |
| 6 | 24.99219 | 0.57 | 32.43 | 27.21 | 33.00 | 27.78 | 60.00 | 50.00 | -27.00 | -22.22 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



## Radio 2: Patch antenna

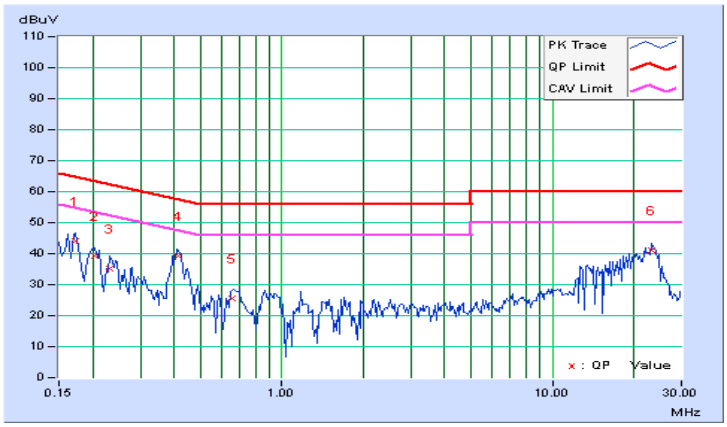
### 802.11a

| PHASE | Line 1 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 40 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.17344 | 0.27 | 43.96 | 32.89 | 44.23 | 33.16 | 64.79 | 54.79 | -20.56 | -21.63 |
| 2 | 0.20469 | 0.28 | 38.97 | 28.85 | 39.25 | 29.13 | 63.42 | 53.42 | -24.17 | -24.29 |
| 3 | 0.23203 | 0.28 | 34.80 | 24.07 | 35.08 | 24.35 | 62.38 | 52.38 | -27.29 | -28.02 |
| 4 | 0.41384 | 0.30 | 39.05 | 34.69 | 39.35 | 34.99 | 57.57 | 47.57 | -18.22 | -12.58 |
| 5 | 0.65462 | 0.32 | 25.19 | 22.23 | 25.51 | 22.55 | 56.00 | 46.00 | -30.49 | -23.45 |
| **6** | **23.14211** | **0.56** | **40.63** | **39.56** | **41.19** | **40.12** | **60.00** | **50.00** | **-18.81** | **-9.88** |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

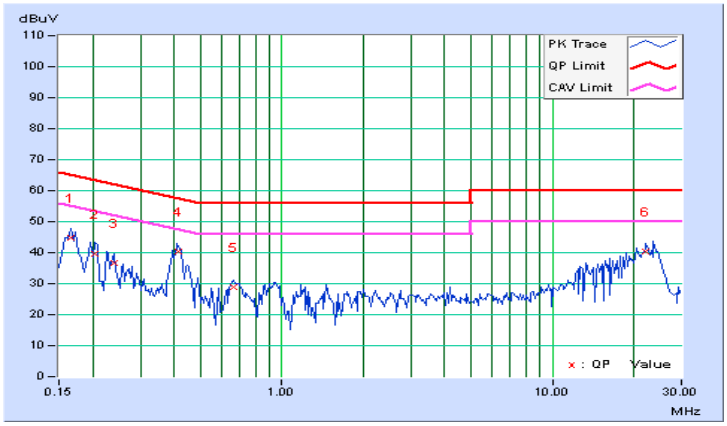


| PHASE | Line 2 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 40 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.16562 | 0.27 | 44.72 | 33.27 | 44.99 | 33.54 | 65.18 | 55.18 | -20.19 | -21.64 |
| 2 | 0.20469 | 0.28 | 39.48 | 30.65 | 39.76 | 30.93 | 63.42 | 53.42 | -23.66 | -22.49 |
| 3 | 0.23984 | 0.28 | 36.55 | 27.49 | 36.83 | 27.77 | 62.10 | 52.10 | -25.27 | -24.33 |
| 4 | 0.41574 | 0.30 | 40.20 | 36.48 | 40.50 | 36.78 | 57.53 | 47.53 | -17.03 | -10.75 |
| 5 | 0.66172 | 0.32 | 28.55 | 23.25 | 28.87 | 23.57 | 56.00 | 46.00 | -27.13 | -22.43 |
| 6 | 22.12891 | 0.61 | 39.94 | 36.19 | 40.55 | 36.80 | 60.00 | 50.00 | -19.45 | -13.20 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



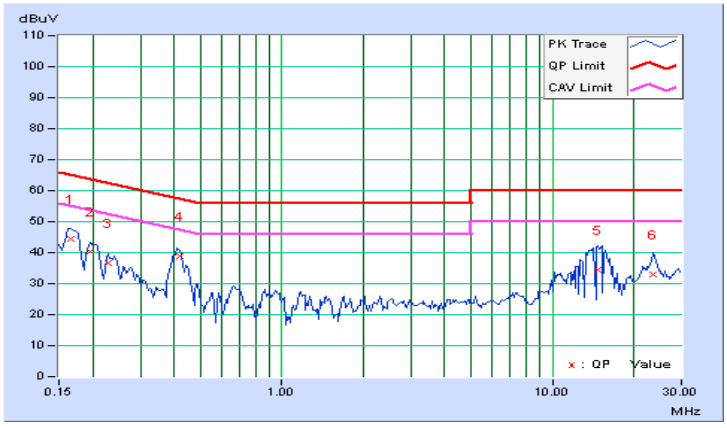
## 802.11n (HT20)

| PHASE | Line 1 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 157 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.16562 | 0.27 | 44.27 | 32.29 | 44.54 | 32.56 | 65.18 | 55.18 | -20.64 | -22.62 |
| 2 | 0.19687 | 0.28 | 40.02 | 28.17 | 40.30 | 28.45 | 63.74 | 53.74 | -23.44 | -25.29 |
| 3 | 0.22812 | 0.28 | 36.43 | 25.21 | 36.71 | 25.49 | 62.52 | 52.52 | -25.81 | -27.03 |
| 4 | 0.41741 | 0.30 | 38.63 | 35.11 | 38.93 | 35.41 | 57.50 | 47.50 | -18.57 | -12.09 |
| 5 | 14.75000 | 0.53 | 33.75 | 33.68 | 34.28 | 34.21 | 60.00 | 50.00 | -25.72 | -15.79 |
| 6 | 23.56641 | 0.55 | 32.33 | 27.00 | 32.88 | 27.55 | 60.00 | 50.00 | -27.12 | -22.45 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

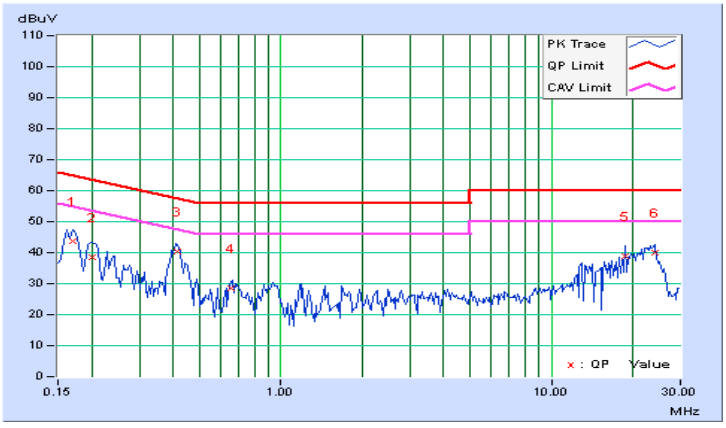


| PHASE | Line 2 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 157 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.16953 | 0.27 | 43.52 | 33.61 | 43.79 | 33.88 | 64.98 | 54.98 | -21.19 | -21.10 |
| 2 | 0.20078 | 0.28 | 38.28 | 28.45 | 38.56 | 28.73 | 63.58 | 53.58 | -25.02 | -24.85 |
| 3 | 0.41614 | 0.30 | 40.16 | 36.62 | 40.46 | 36.92 | 57.52 | 47.52 | -17.06 | -10.60 |
| 4 | 0.65390 | 0.32 | 28.05 | 24.73 | 28.37 | 25.05 | 56.00 | 46.00 | -27.63 | -20.95 |
| 5 | 18.82031 | 0.62 | 38.30 | 37.82 | 38.92 | 38.44 | 60.00 | 50.00 | -21.08 | -11.56 |
| 6 | 24.16033 | 0.58 | 39.28 | 37.33 | 39.86 | 37.91 | 60.00 | 50.00 | -20.14 | -12.09 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



## Radio 2: Sector antenna

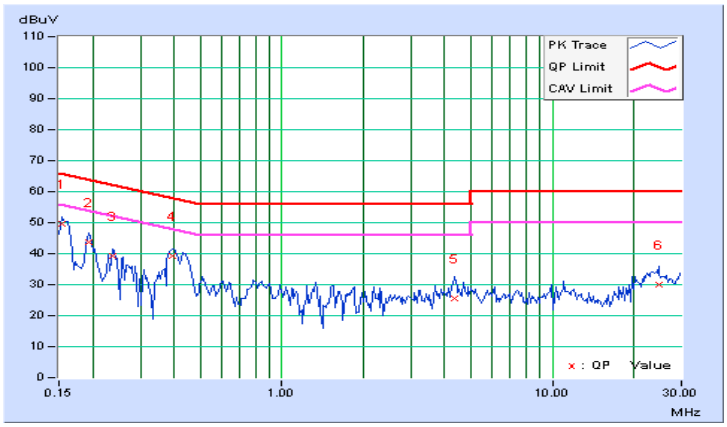
### 802.11a

| PHASE | Line 1 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 36 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.15391 | 0.27 | 49.19 | 38.73 | 49.46 | 39.00 | 65.79 | 55.79 | -16.33 | -16.79 |
| 2 | 0.19297 | 0.28 | 43.38 | 35.01 | 43.66 | 35.29 | 63.91 | 53.91 | -20.25 | -18.62 |
| 3 | 0.23594 | 0.28 | 38.82 | 31.26 | 39.10 | 31.54 | 62.24 | 52.24 | -23.13 | -20.69 |
| 4 | 0.39219 | 0.30 | 39.00 | 33.58 | 39.30 | 33.88 | 58.02 | 48.02 | -18.72 | -14.14 |
| 5 | 4.35938 | 0.43 | 24.97 | 19.51 | 25.40 | 19.94 | 56.00 | 46.00 | -30.60 | -26.06 |
| 6 | 24.76953 | 0.54 | 29.52 | 24.69 | 30.06 | 25.23 | 60.00 | 50.00 | -29.94 | -24.77 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

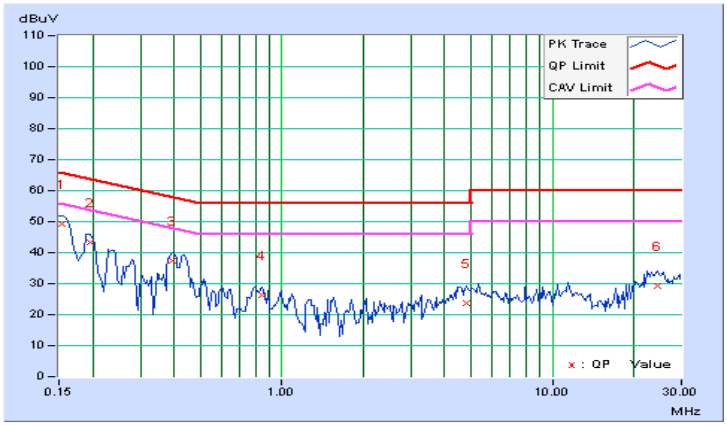


| PHASE | Line 2 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 36 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.15402 | 0.27 | 48.92 | 38.39 | 49.19 | 38.66 | 65.78 | 55.78 | -16.59 | -17.12 |
| 2 | 0.19687 | 0.28 | 42.91 | 35.05 | 43.19 | 35.33 | 63.74 | 53.74 | -20.55 | -18.41 |
| 3 | 0.39219 | 0.30 | 37.19 | 31.57 | 37.49 | 31.87 | 58.02 | 48.02 | -20.53 | -16.15 |
| 4 | 0.84141 | 0.33 | 25.99 | 18.71 | 26.32 | 19.04 | 56.00 | 46.00 | -29.68 | -26.96 |
| 5 | 4.84375 | 0.45 | 23.22 | 18.29 | 23.67 | 18.74 | 56.00 | 46.00 | -32.33 | -27.26 |
| 6 | 24.45703 | 0.57 | 28.83 | 24.06 | 29.40 | 24.63 | 60.00 | 50.00 | -30.60 | -25.37 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



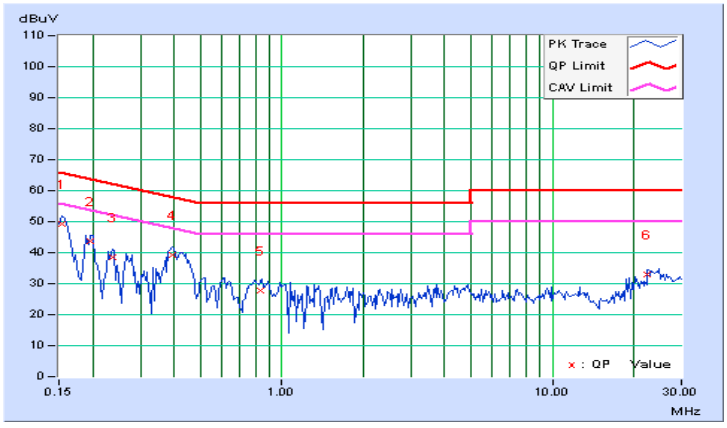
## 802.11n (HT20)

| PHASE | Line 1 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 157 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.15391 | 0.27 | 48.99 | 38.35 | 49.26 | 38.62 | 65.79 | 55.79 | -16.53 | -17.17 |
| 2 | 0.19687 | 0.28 | 43.34 | 36.19 | 43.62 | 36.47 | 63.74 | 53.74 | -20.12 | -17.27 |
| 3 | 0.23594 | 0.28 | 38.24 | 30.97 | 38.52 | 31.25 | 62.24 | 52.24 | -23.71 | -20.98 |
| 4 | 0.39219 | 0.30 | 39.04 | 33.32 | 39.34 | 33.62 | 58.02 | 48.02 | -18.68 | -14.40 |
| 5 | 0.83344 | 0.33 | 27.61 | 20.66 | 27.94 | 20.99 | 56.00 | 46.00 | -28.06 | -25.01 |
| 6 | 22.45703 | 0.56 | 32.37 | 28.53 | 32.93 | 29.09 | 60.00 | 50.00 | -27.07 | -20.91 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

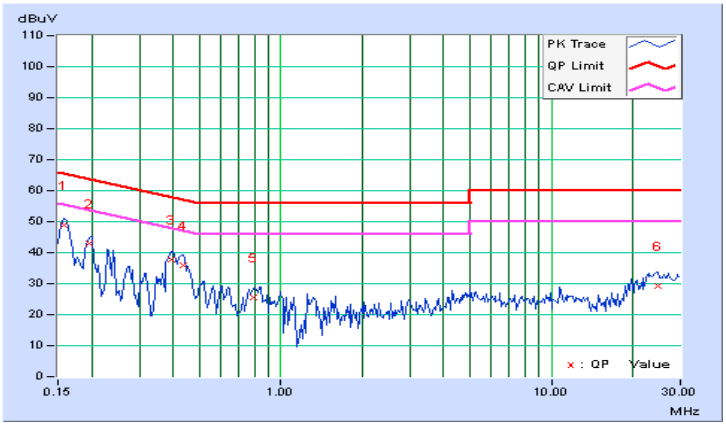


| PHASE | Line 2 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 157 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.15781 | 0.27 | 48.48 | 38.92 | 48.75 | 39.19 | 65.58 | 55.58 | -16.83 | -16.39 |
| 2 | 0.19696 | 0.28 | 42.67 | 35.07 | 42.95 | 35.35 | 63.74 | 53.74 | -20.79 | -18.39 |
| 3 | 0.39219 | 0.30 | 37.33 | 32.06 | 37.63 | 32.36 | 58.02 | 48.02 | -20.39 | -15.66 |
| 4 | 0.43516 | 0.30 | 35.73 | 30.70 | 36.03 | 31.00 | 57.15 | 47.15 | -21.12 | -16.15 |
| 5 | 0.79453 | 0.33 | 25.31 | 17.53 | 25.64 | 17.86 | 56.00 | 46.00 | -30.36 | -28.14 |
| 6 | 24.81250 | 0.57 | 28.64 | 23.93 | 29.21 | 24.50 | 60.00 | 50.00 | -30.79 | -25.50 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



## Radio 3: PIFA antenna

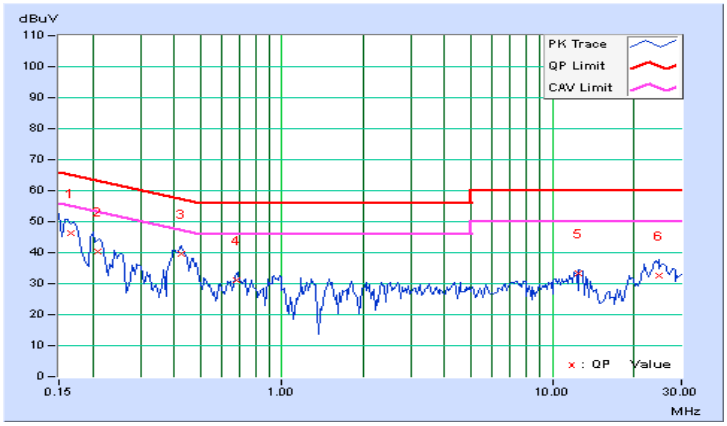
### 802.11a

| PHASE | Line 1 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 36 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.16680 | 0.27 | 46.01 | 35.54 | 46.28 | 35.81 | 65.12 | 55.12 | -18.84 | -19.31 |
| 2 | 0.20968 | 0.28 | 40.24 | 31.13 | 40.52 | 31.41 | 63.22 | 53.22 | -22.70 | -21.81 |
| 3 | 0.42726 | 0.30 | 39.51 | 36.00 | 39.81 | 36.30 | 57.31 | 47.31 | -17.49 | -11.00 |
| 4 | 0.68261 | 0.32 | 30.78 | 26.61 | 31.10 | 26.93 | 56.00 | 46.00 | -24.90 | -19.07 |
| 5 | 12.53516 | 0.52 | 32.85 | 31.94 | 33.37 | 32.46 | 60.00 | 50.00 | -26.63 | -17.54 |
| 6 | 24.91797 | 0.54 | 31.88 | 26.83 | 32.42 | 27.37 | 60.00 | 50.00 | -27.58 | -22.63 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

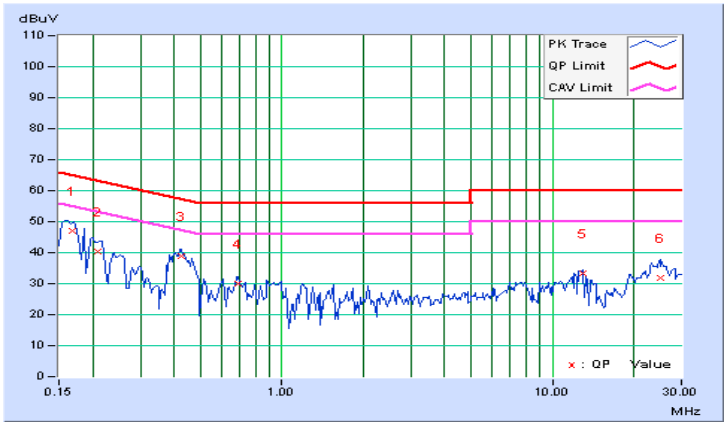


| PHASE | Line 2 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 36 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.16851 | 0.27 | 46.68 | 36.15 | 46.95 | 36.42 | 65.03 | 55.03 | -18.08 | -18.61 |
| 2 | 0.20968 | 0.28 | 39.92 | 30.59 | 40.20 | 30.87 | 63.22 | 53.22 | -23.02 | -22.35 |
| 3 | 0.42716 | 0.30 | 38.59 | 35.29 | 38.89 | 35.59 | 57.31 | 47.31 | -18.42 | -11.72 |
| 4 | 0.68516 | 0.32 | 29.67 | 24.69 | 29.99 | 25.01 | 56.00 | 46.00 | -26.01 | -20.99 |
| 5 | 13.01563 | 0.55 | 32.88 | 32.75 | 33.43 | 33.30 | 60.00 | 50.00 | -26.57 | -16.70 |
| 6 | 25.22266 | 0.56 | 31.15 | 25.81 | 31.71 | 26.37 | 60.00 | 50.00 | -28.29 | -23.63 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



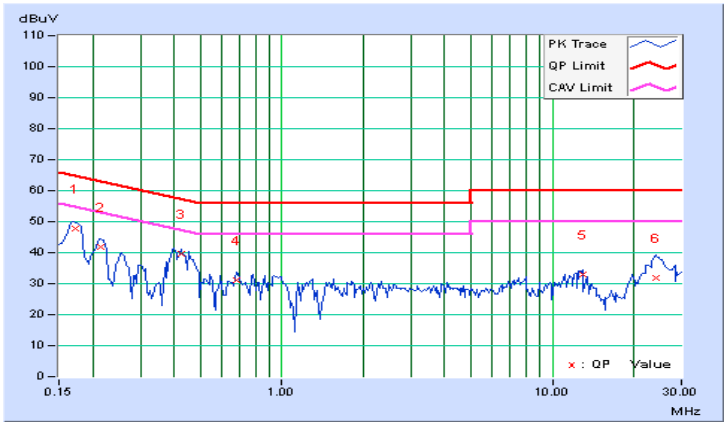
802.11a

| PHASE | Line 1 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 157 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.17208 | 0.27 | 47.49 | 38.49 | 47.76 | 38.76 | 64.86 | 54.86 | -17.10 | -16.10 |
| 2 | 0.21505 | 0.28 | 41.45 | 34.13 | 41.73 | 34.41 | 63.01 | 53.01 | -21.28 | -18.60 |
| 3 | 0.42726 | 0.30 | 39.37 | 36.06 | 39.67 | 36.36 | 57.31 | 47.31 | -17.63 | -10.94 |
| 4 | 0.68243 | 0.32 | 30.76 | 26.61 | 31.08 | 26.93 | 56.00 | 46.00 | -24.92 | -19.07 |
| 5 | 13.01817 | 0.52 | 32.54 | 32.22 | 33.06 | 32.74 | 60.00 | 50.00 | -26.94 | -17.26 |
| 6 | 24.17188 | 0.54 | 31.39 | 26.25 | 31.93 | 26.79 | 60.00 | 50.00 | -28.07 | -23.21 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

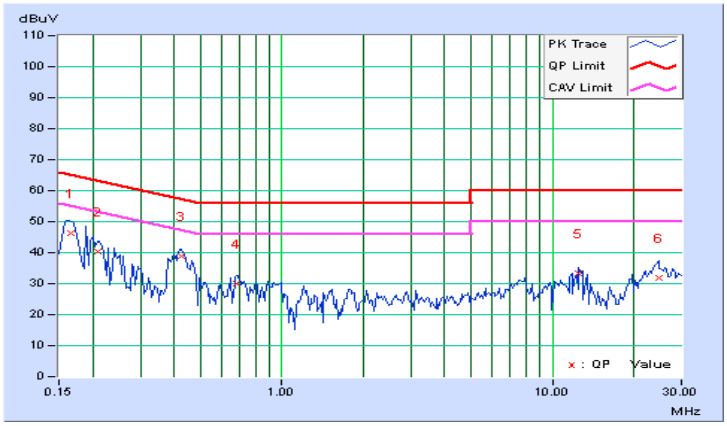


| PHASE | Line 2 | 6dB BANDWIDTH | 9kHz |
|---|---|---|---|
| CHANNEL | TX Channel 157 | | |

| No | Freq. | Corr. Factor | Reading Value | | Emission Level | | Limit | | Margin | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | [MHz] | (dB) | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.16681 | 0.27 | 45.95 | 35.30 | 46.22 | 35.57 | 65.12 | 55.12 | -18.90 | -19.55 |
| 2 | 0.20968 | 0.28 | 40.08 | 30.63 | 40.36 | 30.91 | 63.22 | 53.22 | -22.86 | -22.31 |
| 3 | 0.42716 | 0.30 | 38.59 | 35.17 | 38.89 | 35.47 | 57.31 | 47.31 | -18.42 | -11.84 |
| 4 | 0.68261 | 0.32 | 29.69 | 25.41 | 30.01 | 25.73 | 56.00 | 46.00 | -25.99 | -20.27 |
| 5 | 12.53516 | 0.54 | 32.87 | 32.61 | 33.41 | 33.15 | 60.00 | 50.00 | -26.59 | -16.85 |
| 6 | 24.71484 | 0.57 | 31.43 | 26.13 | 32.00 | 26.70 | 60.00 | 50.00 | -28.00 | -23.30 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



## 4.3 TRANSMIT POWER MEASUREMENT

### 4.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

| Operation Band | EUT Category | | LIMIT |
|---|---|---|---|
| U-NII-1 | √ | Outdoor Access Point | 1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon) |
| | | Fixed point-to-point Access Point | 1 Watt (30 dBm) |
| | | Indoor Access Point | 1 Watt (30 dBm) |
| | | Mobile and Portable client device | 250mW (24 dBm) |
| U-NII-2A | | --- | 250mW (24 dBm) or 11 dBm+10 log B* |
| U-NII-2C | | --- | 250mW (24 dBm) or 11 dBm+10 log B* |
| U-NII-3 | √ | --- | 1 Watt (30 dBm) |

*B is the 26 dB emission bandwidth in megahertz

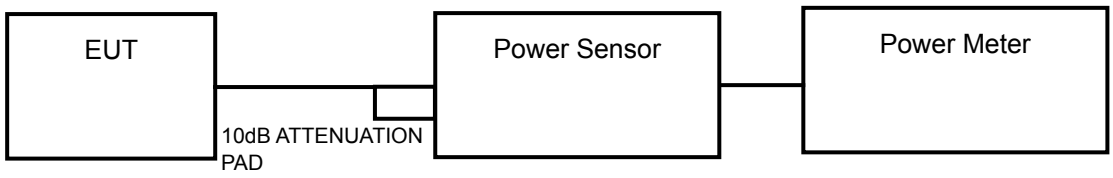
Per KDB 662911 D01 Multiple Transmitter Output v02r01 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any NANT;
Array Gain = 5 log(NANT/NSS) dB or 3 dB, whichever is less for 20-MHz channel widths with NANT ≥ 5.

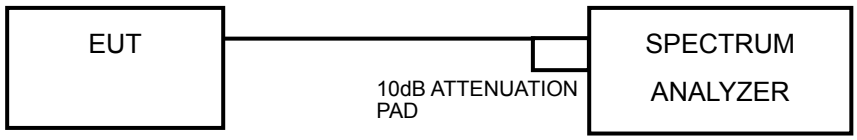
For power measurements on all other devices: Array Gain = 10 log(NANT/NSS) dB.

### 4.3.2 TEST SETUP

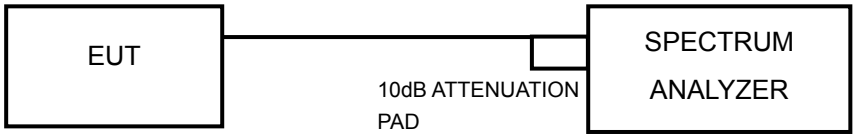
**FOR AVERAGE POWER MEASUREMENT**
**For 802.11a, 802.11n (HT20), 802.11n (HT40)**




**For 802.11ac (VHT80)**




**FOR OCCUPIED BANDWIDTH**




### 4.3.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

### 4.3.4 TEST PROCEDURE

**FOR AVERAGE POWER MEASUREMENT**

**For 802.11a, 802.11n (HT20), 802.11n (HT40)**

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

**For 802.11ac (VHT80)**

1) Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
2) Set sweep trigger to “free run”.
3) Set RBW = 1 MHz.
4) Set VBW ≥ 3 MHz
5) Number of points in sweep ≥ 2 Span / RBW.
6) Sweep time ≤ (number of points in sweep) * T
7) Detector = RMS.
8) Trace mode = max hold.
9) Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

**FOR OCCUPIED BANDWIDTH**

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 300 kHz RBW and 1MHz VBW. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

### 4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

### 4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

## 4.3.7 TEST RESULTS

**POWER OUTPUT:**

**Radio 2: Dipole antenna**

**802.11a**

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 36 | 5180 | 18.68 | 18.22 | 140.164 | 21.47 | 29 | -0.7 | 20.77 | 21 | PASS |
| 40 | 5200 | 18.62 | 18.11 | 137.492 | 21.38 | 29 | -0.7 | 20.68 | 21 | PASS |
| 48 | 5240 | 18.79 | 18.19 | 141.600 | 21.51 | 29 | -0.7 | 20.81 | 21 | PASS |

*For U-NII-1:
Gain = 7 > 6dBi, so the conducted power limit shall be reduced to 30-(7-6) = 29dBm.
Gain = -0.70dBi (above 30 degrees from the horizon),
EIRP = conducted power +(-0.70dBi) + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 149 | 5745 | 18.31 | 18.29 | 135.217 | 21.31 | 29 | PASS |
| 157 | 5785 | 18.38 | 18.51 | 139.823 | 21.46 | 29 | PASS |
| 165 | 5825 | 18.55 | 18.73 | 146.259 | 21.65 | 29 | PASS |

*For U-NII-3: Gain=7dBi, so the power limit shall be reduced to 30-(7-6) = 29.0dBm.

## 802.11n (HT20)

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 36 | 5180 | 18.64 | 18.26 | 140.102 | 21.46 | 29 | -0.7 | 20.76 | 21 | PASS |
| 40 | 5200 | 18.68 | 18.48 | **144.259** | 21.59 | 29 | -0.7 | 20.89 | 21 | PASS |
| 48 | 5240 | 18.77 | 18.26 | 142.324 | 21.53 | 29 | -0.7 | 20.83 | 21 | PASS |

*For U-NII-1:
Gain = 7 > 6dBi, so the conducted power limit shall be reduced to 30-(7-6) = 29dBm.
Gain = -0.70dBi (above 30 degrees from the horizon),
EIRP = conducted power +(-0.70dBi) + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 149 | 5745 | 17.37 | 17.49 | 110.681 | 20.44 | 29 | PASS |
| 157 | 5785 | 18.14 | 18.29 | 132.616 | 21.23 | 29 | PASS |
| 165 | 5825 | 18.59 | 18.86 | 149.190 | 21.74 | 29 | PASS |

*For U-NII-3: Gain=7dBi, so the power limit shall be reduced to 30-(7-6) = 29.0dBm.

## 802.11n (HT40)

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 38 | 5190 | 15.49 | 15.21 | 68.589 | 18.36 | 29 | -0.7 | 17.66 | 21 | PASS |
| 46 | 5230 | 18.72 | 18.07 | 138.594 | 21.42 | 29 | -0.7 | 20.72 | 21 | PASS |

*For U-NII-1:
Gain = 7 > 6dBi, so the conducted power limit shall be reduced to 30-(7-6) = 29dBm.
Gain = -0.70dBi (above 30 degrees from the horizon),
EIRP = conducted power +(-0.70dBi) + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 151 | 5755 | 14.59 | 14.77 | 58.766 | 17.69 | 29 | PASS |
| 159 | 5795 | 19.30 | 19.30 | **170.228** | 22.31 | 29 | PASS |

*For U-NII-3: Gain=7dBi, so the power limit shall be reduced to 30-(7-6) = 29.0dBm.

### 802.11ac (VHT80)

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 42 | 5210 | 14.53 | 14.33 | 55.481 | 17.44 | 29 | -0.7 | 16.74 | 21 | PASS |

*For U-NII-1:
Gain = 7 > 6dBi, so the conducted power limit shall be reduced to 30-(7-6) = 29dBm.
Gain = -0.70dBi (above 30 degrees from the horizon),
EIRP = conducted power +(-0.70dBi) + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | CHAN. FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 155 | 5775 | 12.07 | 13.13 | 36.665 | 15.64 | 29 | PASS |

*For U-NII-3: Gain=7dBi, so the power limit shall be reduced to 30-(7-6) = 29.0dBm.

## Radio 2: Patch antenna

### 802.11a

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 36 | 5180 | 16.06 | 15.67 | 77.263 | 18.88 | 28.9 | 1.8 | 20.68 | 21 | PASS |
| 40 | 5200 | 16.17 | 15.84 | 79.771 | 19.02 | 28.9 | 1.8 | 20.82 | 21 | PASS |
| 48 | 5240 | 16.09 | 15.73 | 78.055 | 18.92 | 28.9 | 1.8 | 20.72 | 21 | PASS |

*For U-NII-1:
Gain = 7.1 > 6dBi, so the conducted power limit shall be reduced to 30-(7.1-6) = 28.9dBm.
Gain = 1.8dBi (above 30 degrees from the horizon),
EIRP = conducted power + 1.8dBi + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 149 | 5745 | 16.87 | 17.79 | 108.758 | 20.36 | 28.9 | PASS |
| 157 | 5785 | 23.76 | 24.01 | **489.452** | 26.90 | 28.9 | PASS |
| 165 | 5825 | 21.63 | 22.07 | 306.611 | 24.87 | 28.9 | PASS |

*For U-NII-3: Gain=7.1dBi, so the power limit shall be reduced to 30-(7.1-6) = 28.9dBm.

### 802.11n (HT20)

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 36 | 5180 | 16.04 | 15.71 | 77.418 | 18.89 | 28.9 | 1.8 | 20.69 | 21 | PASS |
| 40 | 5200 | 16.06 | 15.89 | 79.180 | 18.99 | 28.9 | 1.8 | 20.79 | 21 | PASS |
| 48 | 5240 | 16.11 | 15.86 | 79.380 | 19.00 | 28.9 | 1.8 | 20.80 | 21 | PASS |

*For U-NII-1:
Gain = 7.1 > 6dBi, so the conducted power limit shall be reduced to 30-(7.1-6) = 28.9dBm.
Gain = 1.8dBi (above 30 degrees from the horizon),
EIRP = conducted power + 1.8dBi + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 149 | 5745 | 16.78 | 17.59 | 105.055 | 20.21 | 28.9 | PASS |
| 157 | 5785 | 23.67 | 23.84 | 474.912 | 26.77 | 28.9 | PASS |
| 165 | 5825 | 20.21 | 20.56 | 218.717 | 23.40 | 28.9 | PASS |

*For U-NII-3: Gain=7.1dBi, so the power limit shall be reduced to 30-(7.1-6) = 28.9dBm.

### 802.11n (HT40)

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 38 | 5190 | 16.05 | 15.61 | 76.664 | 18.85 | 28.9 | 1.8 | 20.65 | 21 | PASS |
| 46 | 5230 | 16.13 | 15.68 | 78.003 | 18.92 | 28.9 | 1.8 | 20.72 | 21 | PASS |

*For U-NII-1:
Gain = 7.1 > 6dBi, so the conducted power limit shall be reduced to 30-(7.1-6) = 28.9dBm.
Gain = 1.8dBi (above 30 degrees from the horizon),
EIRP = conducted power + 1.8dBi + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 151 | 5755 | 14.38 | 15.09 | 59.701 | 17.76 | 28.9 | PASS |
| 159 | 5795 | 20.51 | 20.97 | 237.486 | 23.76 | 28.9 | PASS |

*For U-NII-3: Gain=7.1dBi, so the power limit shall be reduced to 30-(7.1-6) = 28.9dBm.

### 802.11ac (VHT80)

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 42 | 5210 | 16.16 | 16.13 | **82.325** | 19.16 | 28.9 | 1.8 | 20.96 | 21 | PASS |

*For U-NII-1:
Gain = 7.1 > 6dBi, so the conducted power limit shall be reduced to 30-(7.1-6) = 28.9dBm.
Gain = 1.8dBi (above 30 degrees from the horizon),
EIRP = conducted power + 1.8dBi + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | CHAN. FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 155 | 5775 | 12.05 | 13.65 | 39.206 | 15.93 | 28.9 | PASS |

*For U-NII-3: Gain=7.1dBi, so the power limit shall be reduced to 30-(7.1-6) = 28.9dBm.

## Radio 2: Sector antenna

### 802.11a

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 36 | 5180 | 4.76 | 5.13 | **6.250** | 7.96 | 23 | 13 | 20.96 | 21 | PASS |
| 40 | 5200 | 4.30 | 4.67 | 5.623 | 7.50 | 23 | 13 | 20.50 | 21 | PASS |
| 48 | 5240 | 4.47 | 5.08 | 6.020 | 7.80 | 23 | 13 | 20.80 | 21 | PASS |

*For U-NII-1:
Gain = 13 > 6dBi, so the conducted power limit shall be reduced to 30-(13-6) = 23.0dBm.
EIRP = conducted power + 13dBi + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 149 | 5745 | 14.73 | 15.40 | 64.391 | 18.09 | 23 | PASS |
| 157 | 5785 | 17.01 | 17.86 | 111.328 | 20.47 | 23 | PASS |
| 165 | 5825 | 17.04 | 17.89 | 112.100 | 20.50 | 23 | PASS |

*For U-NII-3: Gain=13dBi, so the power limit shall be reduced to 30-(13-6) = 23.0dBm.

### 802.11n (HT20)

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 36 | 5180 | 4.26 | 5.05 | 5.866 | 7.68 | 23 | 13 | 20.68 | 21 | PASS |
| 40 | 5200 | 4.32 | 4.58 | 5.575 | 7.46 | 23 | 13 | 20.46 | 21 | PASS |
| 48 | 5240 | 4.46 | 5.03 | 5.977 | 7.76 | 23 | 13 | 20.76 | 21 | PASS |

*For U-NII-1:
Gain = 13 > 6dBi, so the conducted power limit shall be reduced to 30-(13-6) = 23.0dBm.
EIRP = conducted power + 13dBi + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 149 | 5745 | 14.44 | 14.93 | 58.914 | 17.70 | 23 | PASS |
| 157 | 5785 | 17.07 | 17.87 | **112.168** | 20.50 | 23 | PASS |
| 165 | 5825 | 16.01 | 16.84 | 88.208 | 19.46 | 23 | PASS |

*For U-NII-3: Gain=13dBi, so the power limit shall be reduced to 30-(13-6) = 23.0dBm.

### 802.11n (HT40)

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 38 | 5190 | 4.36 | 5.07 | 5.943 | 7.74 | 23 | 13 | 20.74 | 21 | PASS |
| 46 | 5230 | 4.33 | 4.93 | 5.822 | 7.65 | 23 | 13 | 20.65 | 21 | PASS |

*For U-NII-1:
Gain = 13 > 6dBi, so the conducted power limit shall be reduced to 30-(13-6) = 23.0dBm.
EIRP = conducted power + 13dBi + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 151 | 5755 | 9.33 | 10.99 | 21.130 | 13.25 | 23 | PASS |
| 159 | 5795 | 16.19 | 16.81 | 89.564 | 19.52 | 23 | PASS |

*For U-NII-3: Gain=13dBi, so the power limit shall be reduced to 30-(13-6) = 23.0dBm.

### 802.11ac (VHT80)

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | | | |
| 42 | 5210 | 4.18 | 4.91 | 5.715 | 7.57 | 23 | 13 | 20.57 | 21 | PASS |

*For U-NII-1:
Gain = 13 > 6dBi, so the conducted power limit shall be reduced to 30-(13-6) = 23.0dBm.
EIRP = conducted power + 13dBi + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHAN. | CHAN. FREQ. (MHz) | MAXIMUM CONDUCTED POWER (dBm) | | TOTAL POWER (mW) | TOTAL POWER (dBm) | POWER LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | |
| 155 | 5775 | 4.29 | 6.79 | 7.460 | 8.73 | 23 | PASS |

*For U-NII-3: Gain=13dBi, so the power limit shall be reduced to 30-(13-6) = 23.0dBm.

## Radio 3: PIFA antenna

### 802.11a

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (mW) | CONDUCTED POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| 36 | 5180 | **25.003** | 13.98 | 29.5 | 6.5 | 20.48 | 21 | PASS |
| 40 | 5200 | 24.946 | 13.97 | 29.5 | 6.5 | 20.47 | 21 | PASS |
| 48 | 5240 | 24.547 | 13.90 | 29.5 | 6.5 | 20.40 | 21 | PASS |

*For U-NII-1:
Gain = 6.5 > 6dBi, so the conducted power limit shall be reduced to 30-(6.5-6) = 29.5dBm.
EIRP = conducted power + 6.5dBi + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHANNEL | CHANNEL FREQUENCY (MHz) | CONDUCTED POWER (mW) | CONDUCTED POWER (dBm) | POWER LIMIT (dBm) | PASS/FAIL |
|---|---|---|---|---|---|
| 149 | 5745 | 29.580 | 14.71 | 29.50 | PASS |
| 157 | 5785 | **145.211** | 21.62 | 29.50 | PASS |
| 165 | 5825 | 59.566 | 17.75 | 29.50 | PASS |

*For U-NII-3: Gain= 6.5dBi, so the power limit shall be reduced to 30-(6.5-6) = 29.5dBm.

### 802.11n (HT20)

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (mW) | CONDUCTED POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| 36 | 5180 | 24.946 | 13.97 | 29.5 | 6.5 | 20.47 | 21 | PASS |
| 40 | 5200 | 25.003 | 13.98 | 29.5 | 6.5 | 20.48 | 21 | PASS |
| 48 | 5240 | 24.717 | 13.93 | 29.5 | 6.5 | 20.43 | 21 | PASS |

*For U-NII-1:
Gain = 6.5 > 6dBi, so the conducted power limit shall be reduced to 30-(6.5-6) = 29.5dBm.
EIRP = conducted power + 6.5dBi + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHANNEL | CHANNEL FREQUENCY (MHz) | CONDUCTED POWER (mW) | CONDUCTED POWER (dBm) | POWER LIMIT (dBm) | PASS/FAIL |
|---|---|---|---|---|---|
| 149 | 5745 | 25.763 | 14.11 | 29.50 | PASS |
| 157 | 5785 | 79.983 | 19.03 | 29.50 | PASS |
| 165 | 5825 | 60.117 | 17.79 | 29.50 | PASS |

*For U-NII-3: Gain= 6.5dBi, so the power limit shall be reduced to 30-(6.5-6) = 29.5dBm.

### 802.11n (HT40)

| CHAN. | FREQ. (MHz) | CONDUCTED POWER (mW) | CONDUCTED POWER (dBm) | POWER LIMIT (dBm) | GAIN (dBi) | EIRP (dBm) | EIRP LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| 38 | 5190 | 17.742 | 12.49 | 29.5 | 6.5 | 18.99 | 21 | PASS |
| 46 | 5230 | 24.044 | 13.81 | 29.5 | 6.5 | 20.31 | 21 | PASS |

*For U-NII-1:
Gain = 6.5 > 6dBi, so the conducted power limit shall be reduced to 30-(6.5-6) = 29.5dBm.
EIRP = conducted power + 6.5dBi + array gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

| CHANNEL | CHANNEL FREQUENCY (MHz) | CONDUCTED POWER (mW) | CONDUCTED POWER (dBm) | POWER LIMIT (dBm) | PASS/FAIL |
|---|---|---|---|---|---|
| 151 | 5755 | 10.069 | 10.03 | 29.50 | PASS |
| 159 | 5795 | 58.614 | 17.68 | 29.50 | PASS |

*For U-NII-3: Gain= 6.5dBi, so the power limit shall be reduced to 30-(6.5-6) = 29.5dBm.

## 26dBc BANDWIDTH

### Radio 2: Dipole antenna

#### 802.11a

| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 20.68 | 20.45 | PASS |
| 40 | 5200 | 20.64 | 20.50 | PASS |
| 48 | 5240 | 20.71 | 20.50 | PASS |

#### 802.11n (HT20)

| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 21.84 | 20.73 | PASS |
| 40 | 5200 | 21.39 | 20.68 | PASS |
| 48 | 5240 | 20.95 | 20.72 | PASS |

#### 802.11n (HT40)

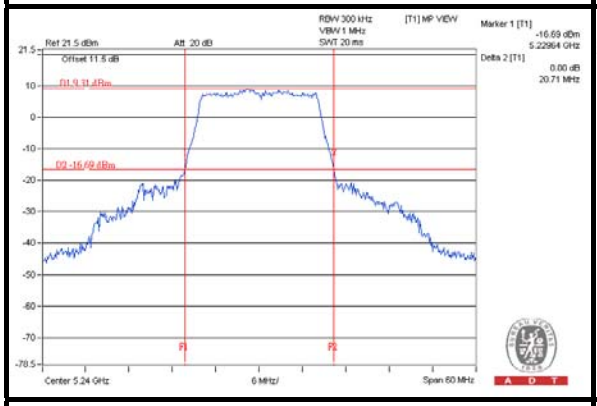
| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 38 | 5190 | 41.74 | 41.26 | PASS |
| 46 | 5230 | 42.15 | 41.13 | PASS |

#### 802.11ac (VHT80)

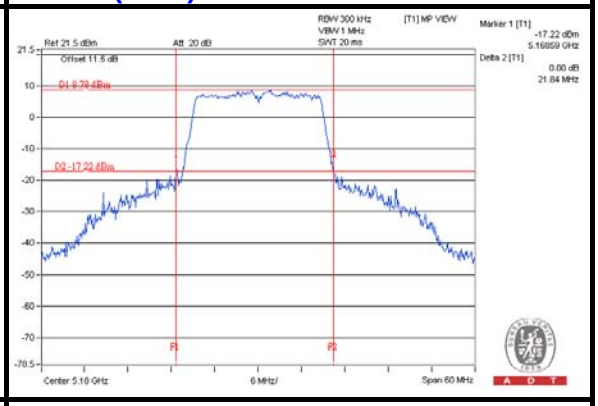
| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 42 | 5210 | 83.10 | 82.58 | PASS |

## SPECTRUM PLOT OF WORST VALUE

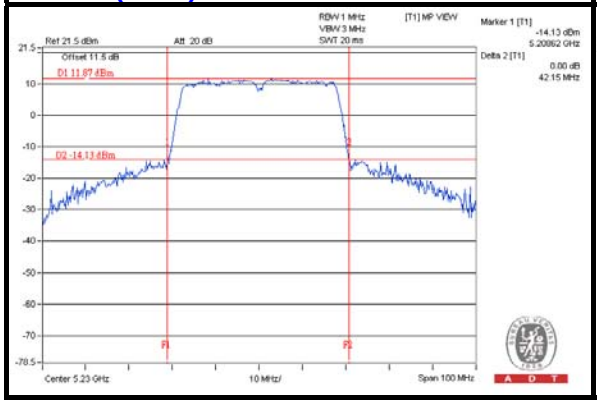
### 802.11a



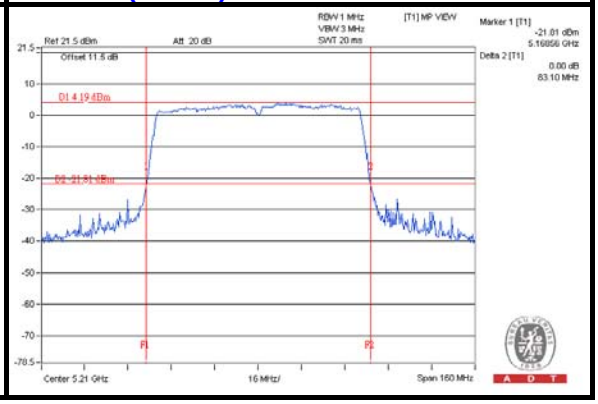

### 802.11n (HT20)




### 802.11n (HT40)




### 802.11ac (VHT80)



## Radio 2: Patch antenna

### 802.11a

| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 20.43 | 20.50 | PASS |
| 40 | 5200 | 20.57 | 20.55 | PASS |
| 48 | 5240 | 20.52 | 20.36 | PASS |

### 802.11n (HT20)

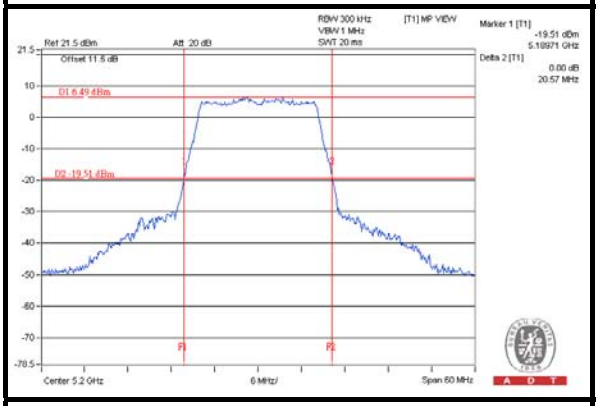
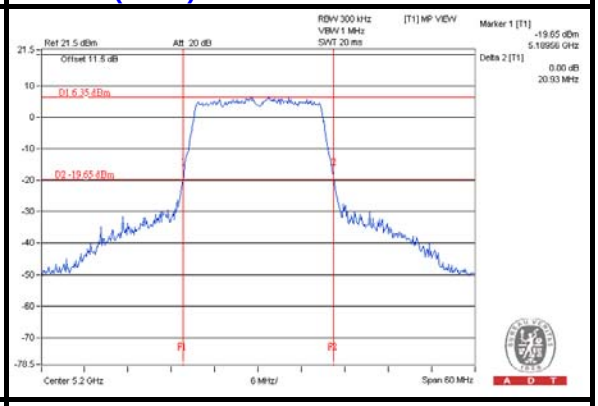
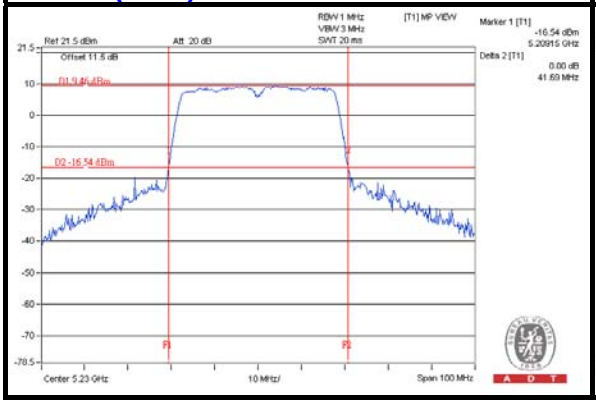
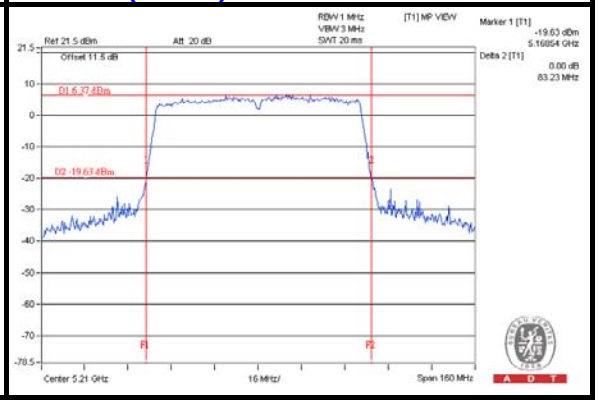
| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 20.83 | 20.50 | PASS |
| 40 | 5200 | 20.93 | 20.51 | PASS |
| 48 | 5240 | 20.76 | 20.63 | PASS |

### 802.11n (HT40)

| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 38 | 5190 | 41.51 | 41.14 | PASS |
| 46 | 5230 | 41.69 | 41.18 | PASS |

### 802.11ac (VHT80)

| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 42 | 5210 | 83.23 | 82.72 | PASS |

| SPECTRUM PLOT OF WORST VALUE | |
|---|---|
| 802.11a | 802.11n (HT20) |
|  |  |
| 802.11n (HT40) | 802.11ac (VHT80) |
|  |  |

## Radio 2: Sector antenna

### 802.11a

| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 20.51 | 20.55 | PASS |
| 40 | 5200 | 20.58 | 20.47 | PASS |
| 48 | 5240 | 20.53 | 20.36 | PASS |

### 802.11n (HT20)

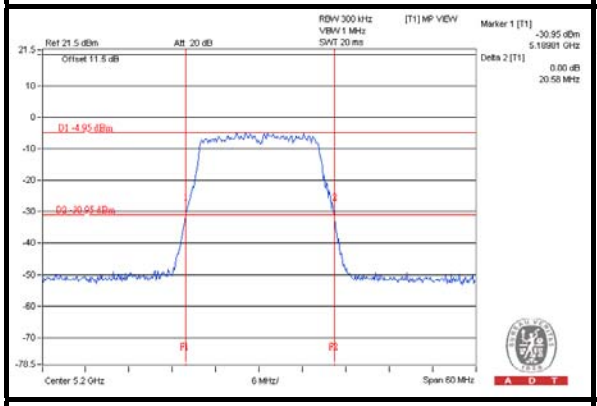
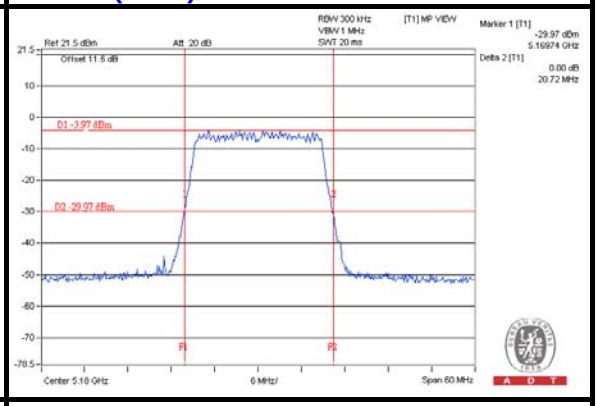
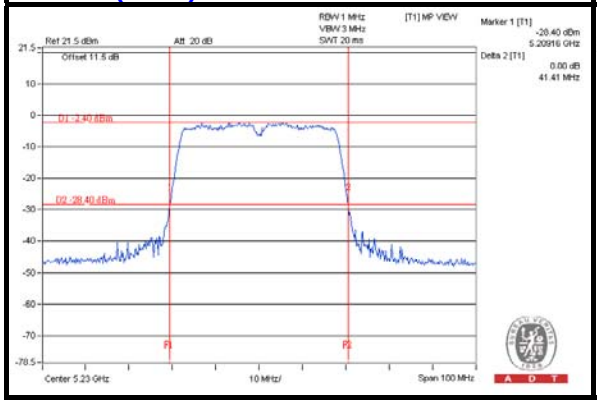
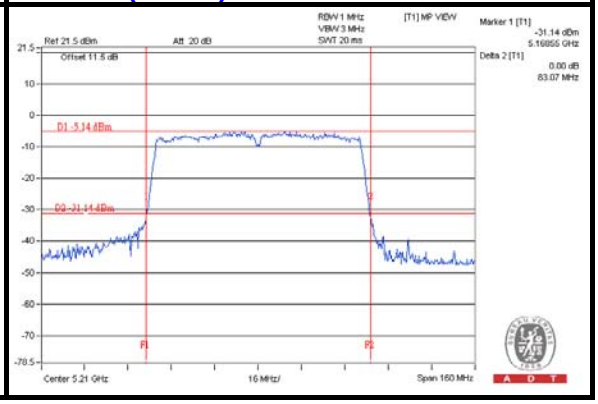
| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 20.62 | 20.72 | PASS |
| 40 | 5200 | 20.61 | 20.49 | PASS |
| 48 | 5240 | 20.66 | 20.60 | PASS |

### 802.11n (HT40)

| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 38 | 5190 | 41.25 | 41.18 | PASS |
| 46 | 5230 | 41.41 | 41.07 | PASS |

### 802.11ac (VHT80)

| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 42 | 5210 | 82.75 | 83.07 | PASS |

| SPECTRUM PLOT OF WORST VALUE | |
|---|---|
| 802.11a | 802.11n (HT20) |
|  |  |
| 802.11n (HT40) | 802.11ac (VHT80) |
|  |  |

## Radio 3: PIFA antenna

### 802.11a

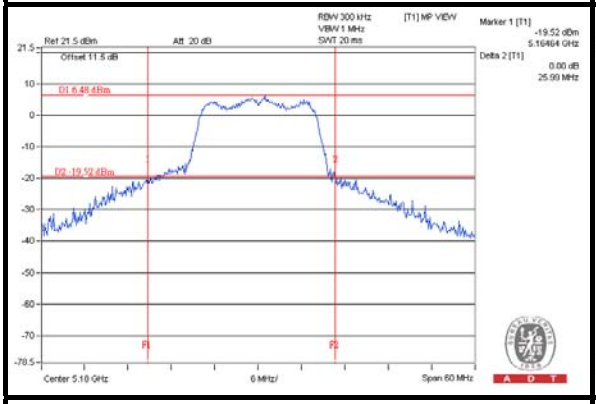
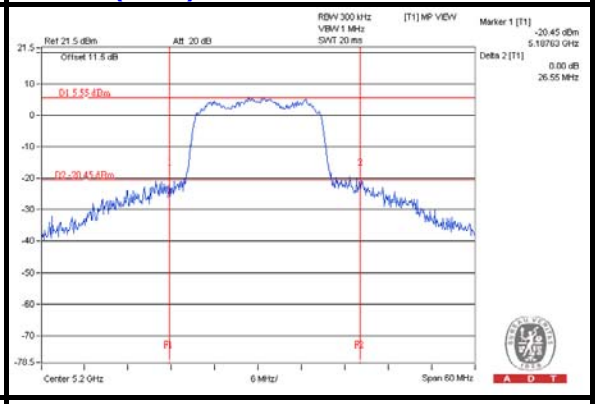
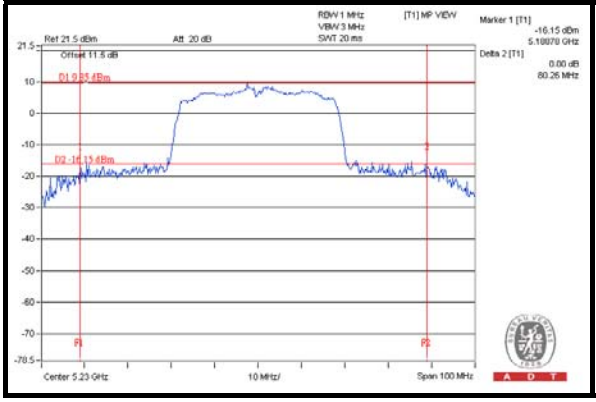
| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | PASS / FAIL |
|---|---|---|---|
| 36 | 5180 | 25.99 | PASS |
| 40 | 5200 | 21.75 | PASS |
| 48 | 5240 | 21.74 | PASS |

### 802.11n (HT20)

| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | PASS / FAIL |
|---|---|---|---|
| 36 | 5180 | 21.59 | PASS |
| 40 | 5200 | 26.55 | PASS |
| 48 | 5240 | 20.85 | PASS |

### 802.11n (HT40)

| CHANNEL | CHANNEL FREQUENCY (MHz) | 26dBc BANDWIDTH (MHz) | PASS / FAIL |
|---|---|---|---|
| 38 | 5190 | 68.30 | PASS |
| 46 | 5230 | 80.26 | PASS |

| SPECTRUM PLOT OF WORST VALUE | |
|---|---|
| **802.11a** | **802.11n (HT20)** |
|  |  |
| **802.11n (HT40)** | |
|  | |

## OCCUPIED BANDWIDTH:

### Radio 2: Dipole antenna

#### 802.11a

| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 16.92 | 16.80 | PASS |
| 40 | 5200 | 16.92 | 16.80 | PASS |
| 48 | 5240 | 16.92 | 16.68 | PASS |
| 149 | 5745 | 16.80 | 16.92 | PASS |
| 157 | 5785 | 16.92 | 16.68 | PASS |
| 165 | 5825 | 16.92 | 16.68 | PASS |

#### 802.11n (HT20)

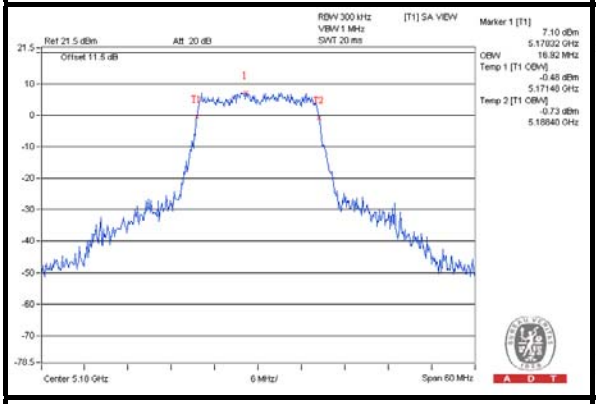
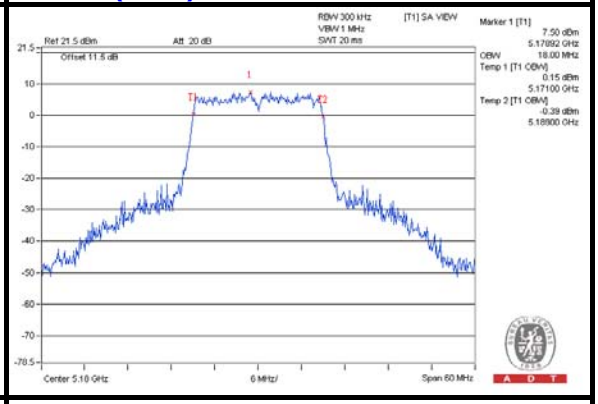
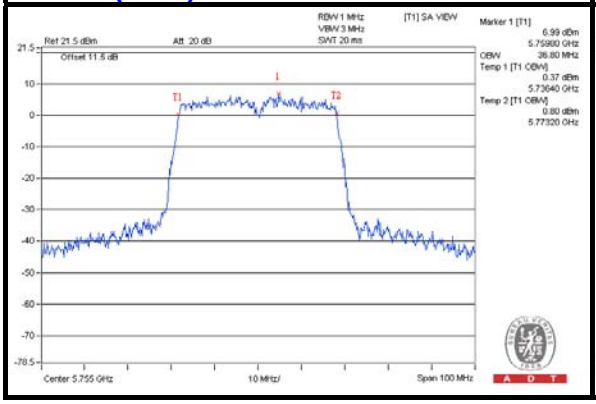
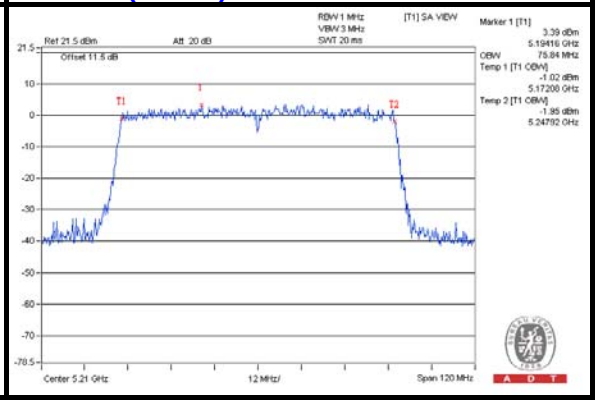
| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 18.00 | 17.88 | PASS |
| 40 | 5200 | 18.00 | 17.88 | PASS |
| 48 | 5240 | 17.88 | 17.88 | PASS |
| 149 | 5745 | 17.88 | 17.88 | PASS |
| 157 | 5785 | 18.00 | 17.88 | PASS |
| 165 | 5825 | 17.88 | 17.88 | PASS |

#### 802.11n (HT40)

| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 38 | 5190 | 36.60 | 36.60 | PASS |
| 46 | 5230 | 36.60 | 36.60 | PASS |
| 151 | 5755 | 36.80 | 36.80 | PASS |
| 159 | 5795 | 36.60 | 36.60 | PASS |

#### 802.11ac (VHT80)

| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 42 | 5210 | 75.84 | 75.84 | PASS |
| 155 | 5775 | 75.84 | 75.84 | PASS |

| SPECTRUM PLOT OF WORST VALUE | |
|---|---|
| 802.11a | 802.11n (HT20) |
|  |  |
| 802.11n (HT40) | 802.11ac (VHT80) |
|  |  |

## Radio 2: Patch antenna

### 802.11a

| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 16.92 | 16.92 | PASS |
| 40 | 5200 | 16.80 | 16.80 | PASS |
| 48 | 5240 | 16.92 | 16.68 | PASS |
| 149 | 5745 | 17.80 | 17.80 | PASS |
| 157 | 5785 | 18.20 | 18.80 | PASS |
| 165 | 5825 | 17.80 | 18.00 | PASS |

### 802.11n (HT20)

| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 17.88 | 17.88 | PASS |
| 40 | 5200 | 17.88 | 17.88 | PASS |
| 48 | 5240 | 17.88 | 17.88 | PASS |
| 149 | 5745 | 18.60 | 18.60 | PASS |
| 157 | 5785 | 19.20 | 19.20 | PASS |
| 165 | 5825 | 18.80 | 18.60 | PASS |

### 802.11n (HT40)

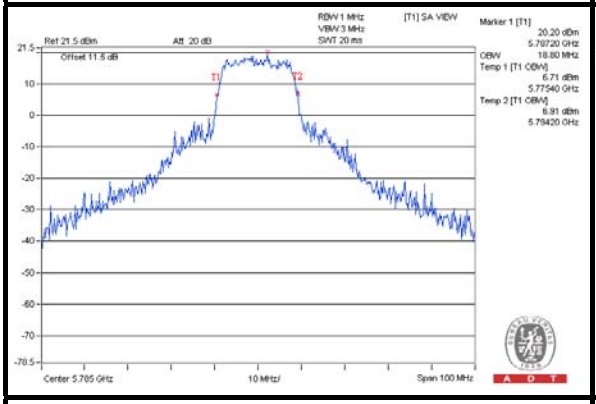
| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 38 | 5190 | 36.60 | 36.60 | PASS |
| 46 | 5230 | 36.60 | 36.60 | PASS |
| 151 | 5755 | 36.80 | 37.00 | PASS |
| 159 | 5795 | 36.60 | 36.80 | PASS |

### 802.11ac (VHT80)

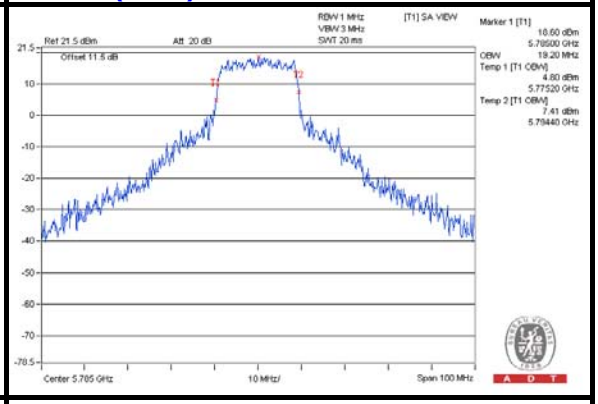
| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 42 | 5210 | 75.60 | 76.08 | PASS |
| 155 | 5775 | 75.80 | 75.80 | PASS |

## SPECTRUM PLOT OF WORST VALUE

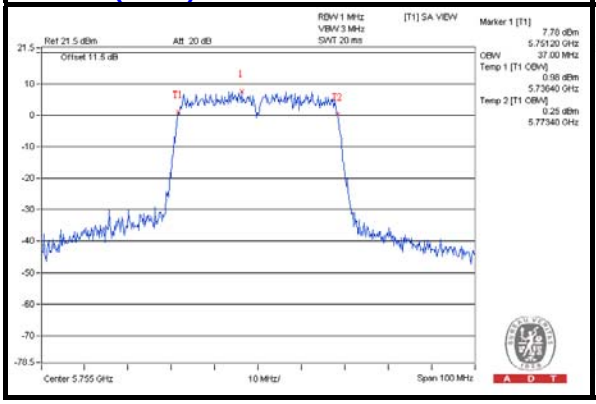
### 802.11a



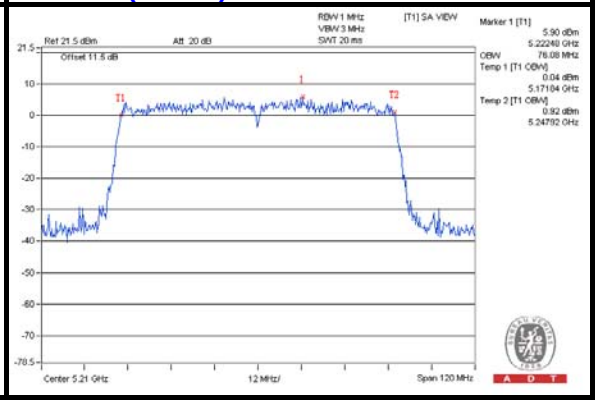

### 802.11n (HT20)




### 802.11n (HT40)




### 802.11ac (VHT80)



## Radio 2: Sector antenna

### 802.11a

| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 16.80 | 16.68 | PASS |
| 40 | 5200 | 16.68 | 16.80 | PASS |
| 48 | 5240 | 16.68 | 16.80 | PASS |
| 149 | 5745 | 17.80 | 17.80 | PASS |
| 157 | 5785 | 17.80 | 17.40 | PASS |
| 165 | 5825 | 17.80 | 17.60 | PASS |

### 802.11n (HT20)

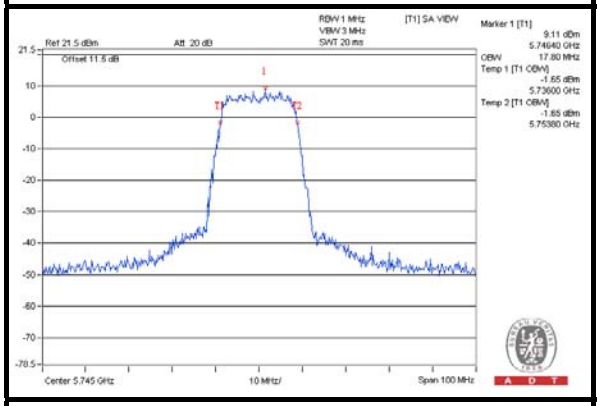
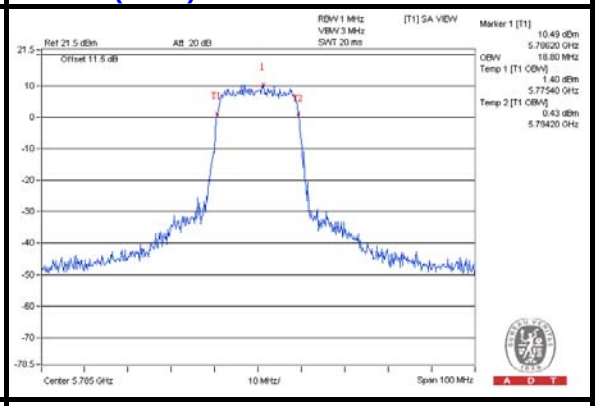
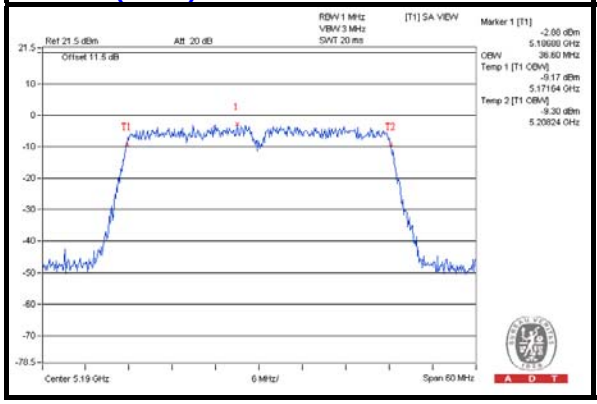
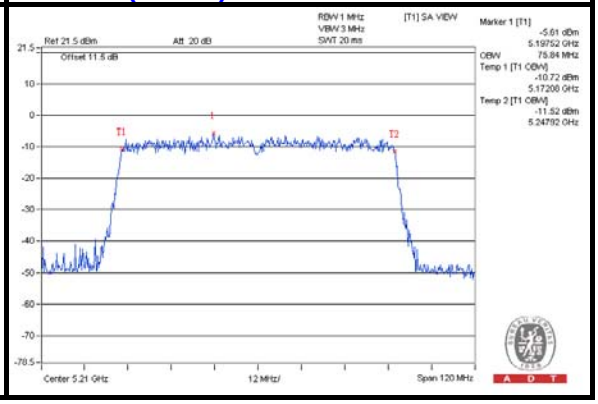
| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 36 | 5180 | 17.88 | 17.88 | PASS |
| 40 | 5200 | 17.88 | 17.88 | PASS |
| 48 | 5240 | 17.88 | 17.88 | PASS |
| 149 | 5745 | 18.40 | 18.40 | PASS |
| 157 | 5785 | 18.80 | 18.40 | PASS |
| 165 | 5825 | 18.60 | 18.40 | PASS |

### 802.11n (HT40)

| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 38 | 5190 | 36.60 | 36.60 | PASS |
| 46 | 5230 | 36.60 | 36.60 | PASS |
| 151 | 5755 | 36.60 | 36.60 | PASS |
| 159 | 5795 | 36.60 | 36.60 | PASS |

### 802.11ac (VHT80)

| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | | PASS / FAIL |
|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | |
| 42 | 5210 | 75.84 | 75.84 | PASS |
| 155 | 5775 | 75.80 | 75.80 | PASS |

| SPECTRUM PLOT OF WORST VALUE | |
|---|---|
| 802.11a | 802.11n (HT20) |
|  |  |
| 802.11n (HT40) | 802.11ac (VHT80) |
|  |  |

## Radio 3: PIFA antenna

### 802.11a

| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | PASS / FAIL |
|---|---|---|---|
| 36 | 5180 | 16.80 | PASS |
| 40 | 5200 | 16.44 | PASS |
| 48 | 5240 | 16.56 | PASS |
| 149 | 5745 | 16.56 | PASS |
| 157 | 5785 | 26.76 | PASS |
| 165 | 5825 | 16.68 | PASS |

### 802.11n (HT20)

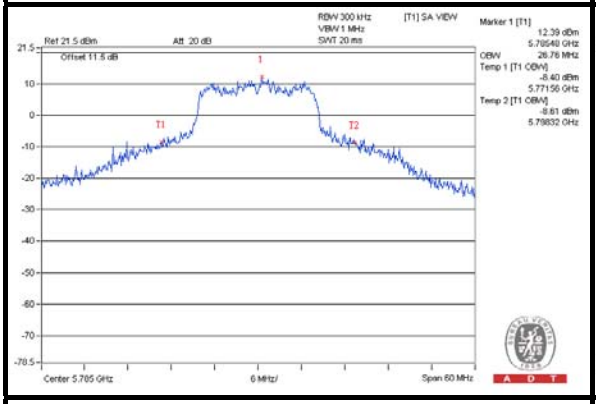
| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | PASS / FAIL |
|---|---|---|---|
| 36 | 5180 | 17.64 | PASS |
| 40 | 5200 | 17.76 | PASS |
| 48 | 5240 | 17.64 | PASS |
| 149 | 5745 | 17.64 | PASS |
| 157 | 5785 | 18.24 | PASS |
| 165 | 5825 | 17.76 | PASS |

### 802.11n (HT40)

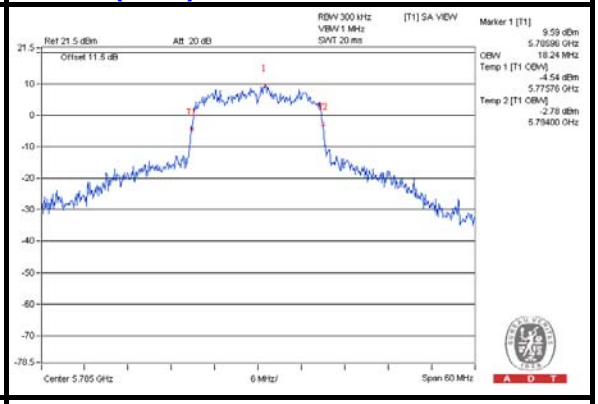
| CHANNEL | CHANNEL FREQUENCY (MHz) | OCCUPIED BANDWIDTH (MHz) | PASS / FAIL |
|---|---|---|---|
| 38 | 5190 | 36.80 | PASS |
| 46 | 5230 | 36.80 | PASS |
| 151 | 5755 | 36.60 | PASS |
| 159 | 5795 | 38.00 | PASS |

## SPECTRUM PLOT OF WORST VALUE

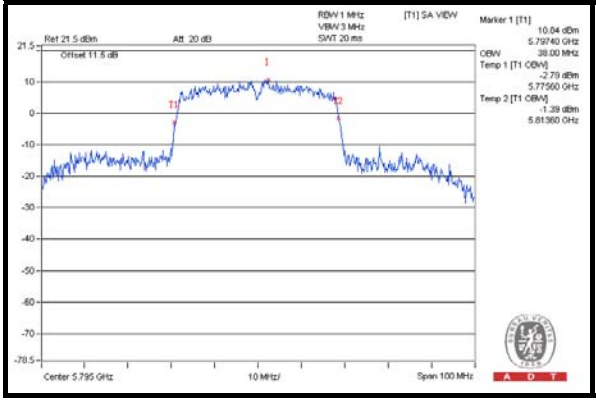
### 802.11a




### 802.11n (HT20)




### 802.11n (HT40)



## 4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

### 4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

| Operation Band | EUT Category | | LIMIT |
|---|---|---|---|
| U-NII-1 | √ | Outdoor Access Point | 17dBm/ MHz |
| | | Fixed point-to-point Access Point | |
| | | Indoor Access Point | |
| | | Mobile and Portable client device | 11dBm/ MHz |
| U-NII-2A | | --- | 11dBm/ MHz |
| U-NII-2C | | --- | 11dBm/ MHz |
| U-NII-3 | √ | --- | 30dBm/ 500kHz |

### 4.4.2 TEST SETUP


### 4.4.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

### 4.4.4 TEST PROCEDURES

**For U-NII-1 band:**

**Without duty factor:**

Using method SA-2

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 30 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value

**With duty factor:**

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 30 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value and add 10 log (1/duty cycle)

**For U-NII-3 band:**

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 300 kHz, Set VBW ≥ 3 RBW, Detector = RMS
3) Sweep time = auto, trigger set to “free run”.
4) Trace average at least 100 traces in power averaging mode.
5) Record the max value and add 10 log (1/duty cycle)
6) Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz)

### 4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

### 4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6.

## 4.4.7 TEST RESULTS

### For U-NII-1 band

**Radio 2: Dipole antenna**

**802.11a**

| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD W/O DUTY FACTOR (dBm) | DUTY FACTOR | TOTAL PSD WITH DUTY FACTOR (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | |
| 36 | 5180 | 4.40 | 4.85 | 7.64 | 0.09 | 7.73 | 12.99 | PASS |
| 40 | 5200 | 4.66 | 4.64 | 7.66 | 0.09 | 7.75 | 12.99 | PASS |
| 48 | 5240 | 5.20 | 4.66 | 7.95 | 0.09 | 8.04 | 12.99 | PASS |

**NOTE:**

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 7dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 17-(10.01-6) = 12.99dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

**802.11n (HT20)**

| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD W/O DUTY FACTOR (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | |
| 36 | 5180 | 4.35 | 4.20 | 7.29 | 12.99 | PASS |
| 40 | 5200 | 4.36 | 4.36 | 7.37 | 12.99 | PASS |
| 48 | 5240 | 5.12 | 4.51 | 7.84 | 12.99 | PASS |

**NOTE:**

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 7dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 17-(10.01-6) = 12.99dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

**802.11n (HT40)**

| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD W/O DUTY FACTOR (dBm) | DUTY FACTOR | TOTAL PSD WITH DUTY FACTOR (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | |
| 38 | 5190 | -2.01 | -2.05 | 0.98 | 0.14 | 1.12 | 12.99 | PASS |
| 46 | 5230 | 1.56 | 1.22 | 4.40 | 0.14 | 4.54 | 12.99 | PASS |

**NOTE:**

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 7dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 17-(10.01-6) = 12.99dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

## 802.11ac (VHT80)

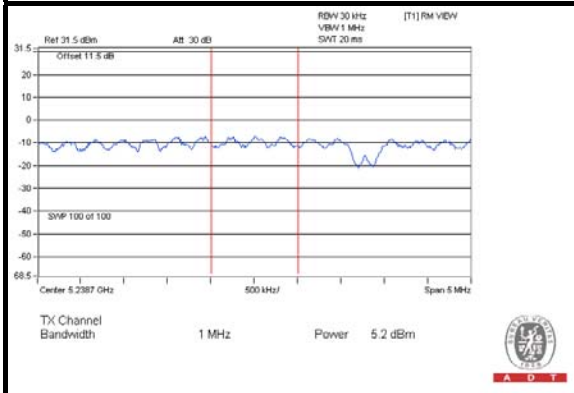
| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD W/O DUTY FACTOR (dBm) | DUTY FACTOR | TOTAL PSD WITH DUTY FACTOR (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | |
| 42 | 5210 | -6.23 | -6.43 | -3.32 | 0.43 | -2.89 | 12.99 | PASS |

**NOTE:**

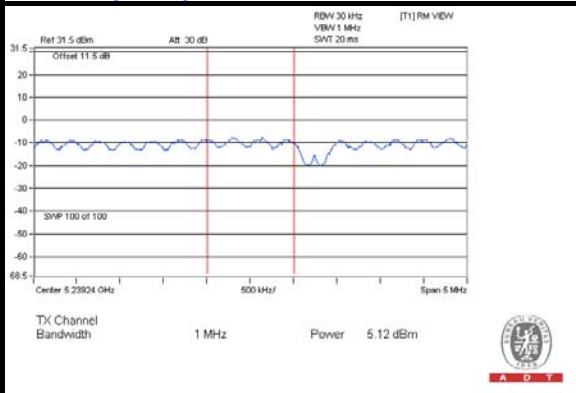
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 7dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 17-(10.01-6) = 12.99dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

**SPECTRUM PLOT OF WORST VALUE**

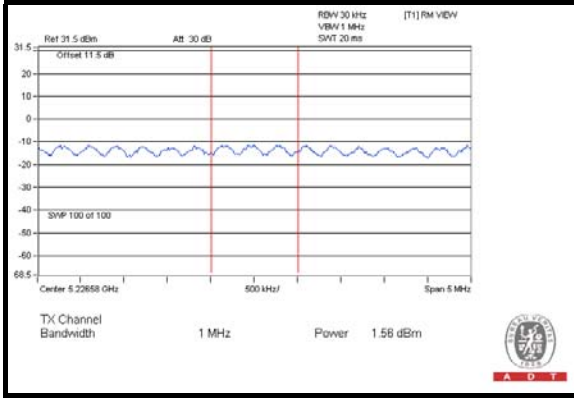
802.11a



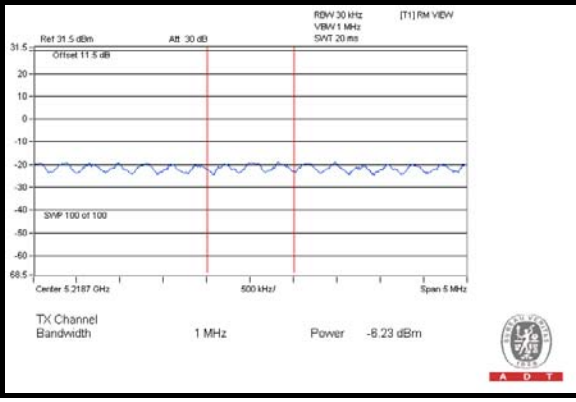

802.11n (HT20)




802.11n (HT40)




802.11ac (VHT80)



## Radio 2: Patch antenna

### 802.11a

| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | |
| 36 | 5180 | 1.80 | 1.86 | 4.84 | 12.89 | PASS |
| 40 | 5200 | 2.31 | 1.91 | 5.12 | 12.89 | PASS |
| 48 | 5240 | 2.72 | 1.80 | 5.29 | 12.89 | PASS |

**NOTE:**
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 7.1dBi + 10log(2) = 10.11dBi > 6dBi, so the power density limit shall be reduced to 17-(10.11-6) = 12.89dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11n (HT20)

| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | |
| 36 | 5180 | 1.88 | 1.93 | 4.92 | 12.89 | PASS |
| 40 | 5200 | 2.31 | 1.90 | 5.12 | 12.89 | PASS |
| 48 | 5240 | 2.53 | 1.55 | 5.08 | 12.89 | PASS |

**NOTE:**
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 7.1dBi + 10log(2) = 10.11dBi > 6dBi, so the power density limit shall be reduced to 17-(10.11-6) = 12.89dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11n (HT40)

| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD W/O DUTY FACTOR (dBm) | DUTY FACTOR | TOTAL PSD WITH DUTY FACTOR (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | |
| 38 | 5190 | -1.08 | -1.18 | 1.88 | 0.22 | 2.10 | 12.89 | PASS |
| 46 | 5230 | -0.46 | -0.98 | 2.30 | 0.22 | 2.52 | 12.89 | PASS |

**NOTE:**
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 7.1dBi + 10log(2) = 10.11dBi > 6dBi, so the power density limit shall be reduced to 17-(10.11-6) = 12.89dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

## 802.11ac (VHT80)

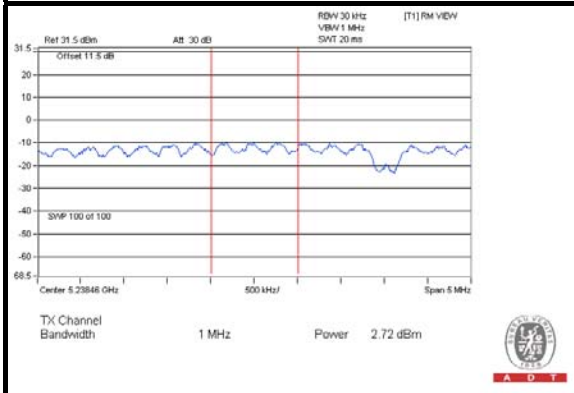
| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD W/O DUTY FACTOR (dBm) | DUTY FACTOR | TOTAL PSD WITH DUTY FACTOR (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | |
| 42 | 5210 | -4.25 | -4.56 | -1.39 | 0.28 | -1.11 | 12.89 | PASS |

**NOTE:**

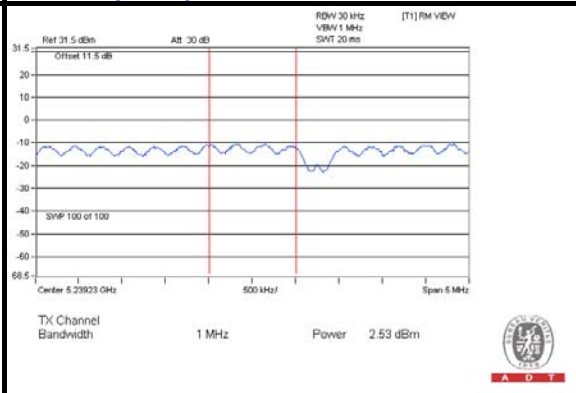
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 7.1dBi + 10log(2) = 10.11dBi > 6dBi, so the power density limit shall be reduced to 17-(10.11-6) = 12.89dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

**SPECTRUM PLOT OF WORST VALUE**

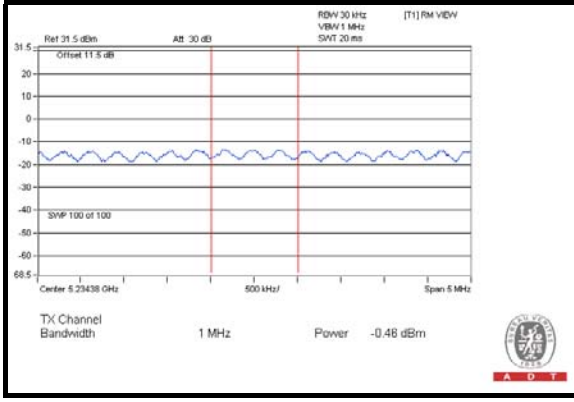
802.11a



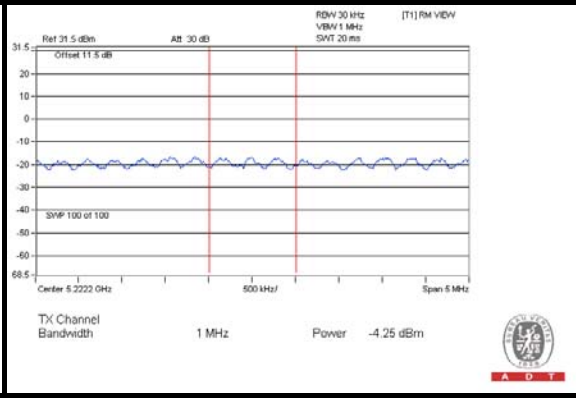

802.11n (HT20)




802.11n (HT40)




802.11ac (VHT80)



## Radio 2: Sector antenna

### 802.11a

| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD W/O DUTY FACTOR (dBm) | DUTY FACTOR | TOTAL PSD WITH DUTY FACTOR (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | |
| 36 | 5180 | -8.66 | -9.01 | -5.83 | 0.10 | -5.73 | 6.99 | PASS |
| 40 | 5200 | -9.70 | -9.37 | -6.52 | 0.10 | -6.42 | 6.99 | PASS |
| 48 | 5240 | -9.06 | -9.60 | -6.31 | 0.10 | -6.21 | 6.99 | PASS |

**NOTE:**
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 17-(16.01-6) = 6.99dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11n (HT20)

| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD W/O DUTY FACTOR (dBm) | DUTY FACTOR | TOTAL PSD WITH DUTY FACTOR (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | |
| 36 | 5180 | -8.92 | -9.34 | -6.11 | 0.09 | -6.02 | 6.99 | PASS |
| 40 | 5200 | -10.32 | -9.90 | -7.09 | 0.09 | -7.00 | 6.99 | PASS |
| 48 | 5240 | -10.26 | -9.96 | -7.09 | 0.09 | -7.00 | 6.99 | PASS |

**NOTE:**
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 17-(16.01-6) = 6.99dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11n (HT40)

| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD W/O DUTY FACTOR (dBm) | DUTY FACTOR | TOTAL PSD WITH DUTY FACTOR (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | |
| 38 | 5190 | -12.59 | -12.64 | -9.60 | 0.12 | -9.48 | 6.99 | PASS |
| 46 | 5230 | -13.05 | -12.89 | -9.96 | 0.12 | -9.84 | 6.99 | PASS |

**NOTE:**
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 17-(16.01-6) = 6.99dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

## 802.11ac (VHT80)

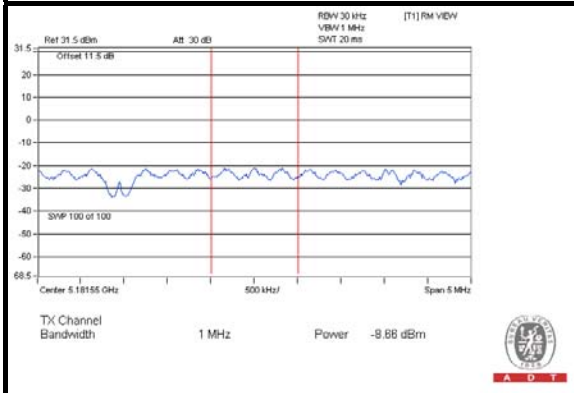
| CHAN. | FREQ. (MHz) | PSD (dBm) | | TOTAL PSD W/O DUTY FACTOR (dBm) | DUTY FACTOR | TOTAL PSD WITH DUTY FACTOR (dBm) | MAX. LIMIT (dBm) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | | | | |
| 42 | 5210 | -16.25 | -16.28 | -13.25 | 0.26 | -12.99 | 6.99 | PASS |

**NOTE:**

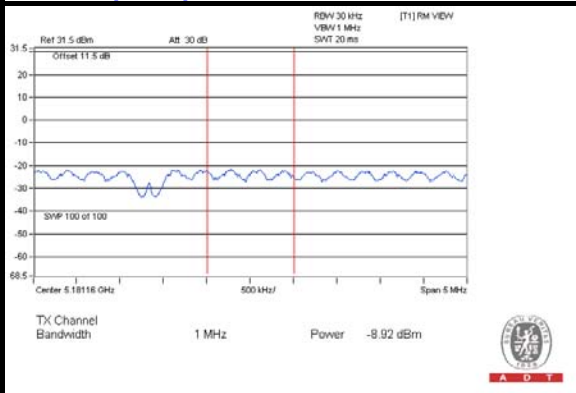
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 17-(16.01-6) = 6.99dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

**SPECTRUM PLOT OF WORST VALUE**

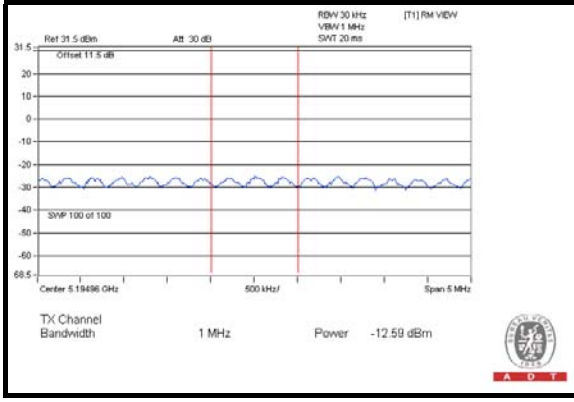
802.11a



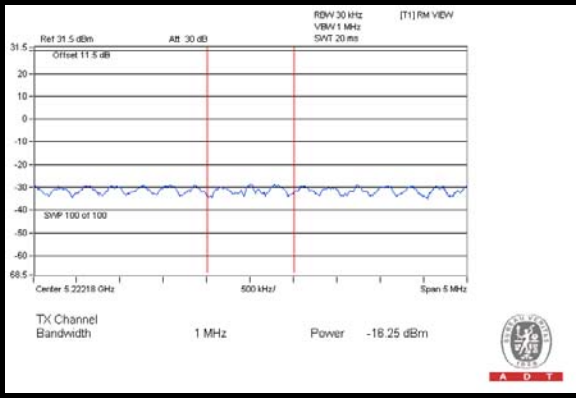

802.11n (HT20)




802.11n (HT40)




802.11ac (VHT80)



## Radio 3: PIFA antenna

### 802.11a

| CHANNEL | FREQUENCY (MHz) | PSD (dBm) | MAXIMUM LIMIT (dBm) | PASS/FAIL |
|---|---|---|---|---|
| 36 | 5180 | 1.69 | 16.50 | PASS |
| 40 | 5200 | 1.89 | 16.50 | PASS |
| 48 | 5240 | 1.92 | 16.50 | PASS |

**NOTE:**

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 6.5dBi > 6dBi, so the power density limit shall be reduced to 17-(6.5-6) = 16.5dBm.

### 802.11n (HT20)

| CHANNEL | FREQUENCY (MHz) | PSD W/O DUTY FACTOR (dBm) | DUTY FACTOR | PSD WITH DUTY FACTOR (dBm) | MAXIMUM LIMIT (dBm) | PASS/FAIL |
|---|---|---|---|---|---|---|
| 36 | 5180 | 1.66 | 0.10 | 1.76 | 16.50 | PASS |
| 40 | 5200 | 1.74 | 0.10 | 1.84 | 16.50 | PASS |
| 48 | 5240 | 1.74 | 0.10 | 1.84 | 16.50 | PASS |

**NOTE:**

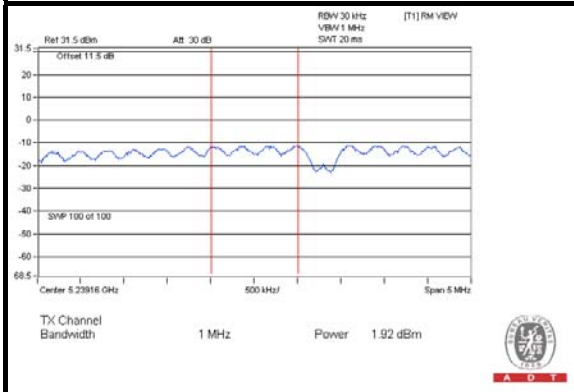
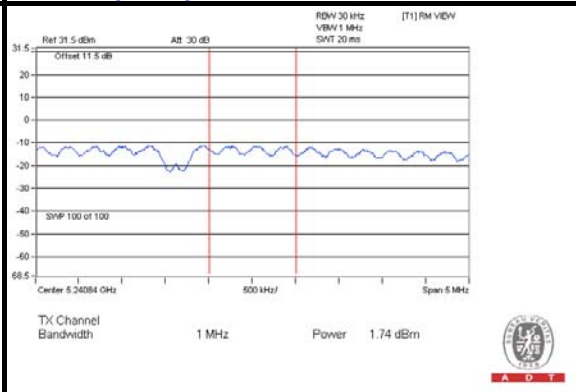
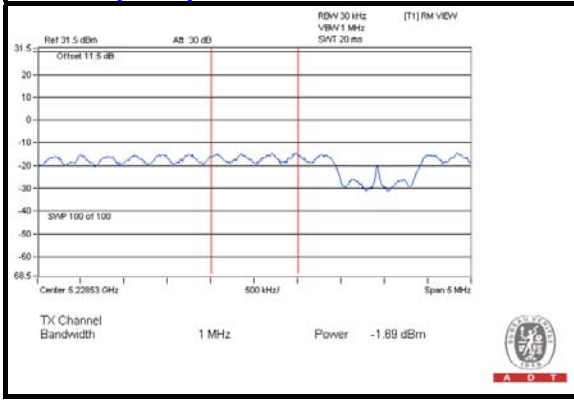
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 6.5dBi > 6dBi, so the power density limit shall be reduced to 17-(6.5-6) = 16.5dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11n (HT40)

| CHANNEL | FREQUENCY (MHz) | PSD W/O DUTY FACTOR (dBm) | DUTY FACTOR | PSD WITH DUTY FACTOR (dBm) | MAXIMUM LIMIT (dBm) | PASS/FAIL |
|---|---|---|---|---|---|---|
| 38 | 5190 | -3.23 | 0.14 | -3.09 | 16.50 | PASS |
| 46 | 5230 | -1.69 | 0.14 | -1.55 | 16.50 | PASS |

**NOTE:**

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 6.5dBi > 6dBi, so the power density limit shall be reduced to 17-(6.5-6) = 16.5dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

| SPECTRUM PLOT OF WORST VALUE | |
|---|---|
| **802.11a** | **802.11n (HT20)** |
|  |  |
| **802.11n (HT40)** | |
|  | |

## For U-NII-3 band

### Radio 2: Dipole antenna

#### 802.11a

| TX chain | Channel | Freq. (MHz) | PSD (dBm/300 kHz) | PSD (dBm/500 kHz) | 10 log (N=2) dB | Duty Factor | Total PSD (dBm/500 kHz) | Limit (dBm/500 kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 149 | 5745 | -3.14 | -0.92 | 3.01 | 0.09 | 2.18 | 25.99 | PASS |
| | 157 | 5785 | -3.56 | -1.34 | 3.01 | 0.09 | 1.76 | 25.99 | PASS |
| | 165 | 5825 | -3.58 | -1.36 | 3.01 | 0.09 | 1.74 | 25.99 | PASS |
| 1 | 149 | 5745 | -3.39 | -1.17 | 3.01 | 0.09 | 1.93 | 25.99 | PASS |
| | 157 | 5785 | -3.46 | -1.24 | 3.01 | 0.09 | 1.86 | 25.99 | PASS |
| | 165 | 5825 | -3.25 | -1.03 | 3.01 | 0.09 | 2.07 | 25.99 | PASS |

**NOTE:**

1. Directional gain = 7dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 30-(10.01-6) = 25.99dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

#### 802.11n (HT20)

| TX chain | Channel | Freq. (MHz) | PSD (dBm/300 kHz) | PSD (dBm/500 kHz) | 10 log (N=2) dB | Duty Factor | Total PSD (dBm/500 kHz) | Limit (dBm/500 kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 149 | 5745 | -4.78 | -2.56 | 3.01 | 0.10 | 0.55 | 25.99 | PASS |
| | 157 | 5785 | -3.83 | -1.61 | 3.01 | 0.10 | 1.50 | 25.99 | PASS |
| | 165 | 5825 | -3.67 | -1.45 | 3.01 | 0.10 | 1.66 | 25.99 | PASS |
| 1 | 149 | 5745 | -4.61 | -2.39 | 3.01 | 0.10 | 0.72 | 25.99 | PASS |
| | 157 | 5785 | -3.83 | -1.61 | 3.01 | 0.10 | 1.50 | 25.99 | PASS |
| | 165 | 5825 | -3.56 | -1.34 | 3.01 | 0.10 | 1.77 | 25.99 | PASS |

**NOTE:**

1. Directional gain = 7dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 30-(10.01-6) = 25.99dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11n (HT40)

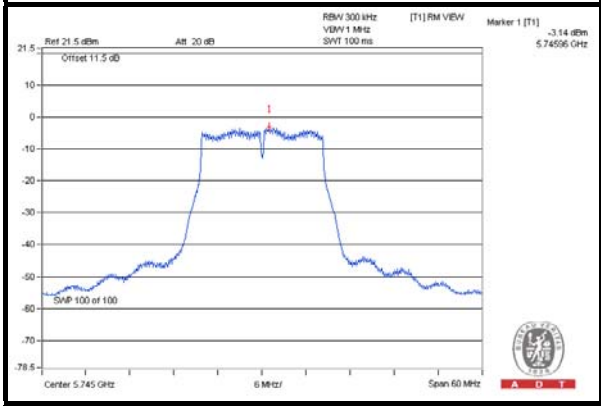
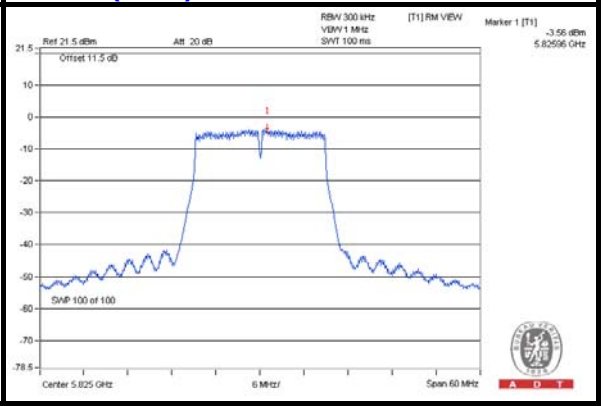
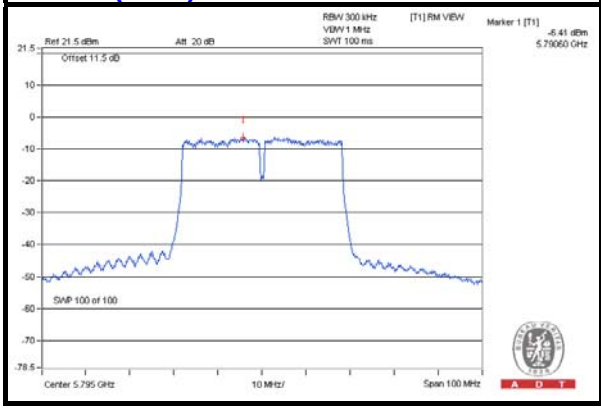
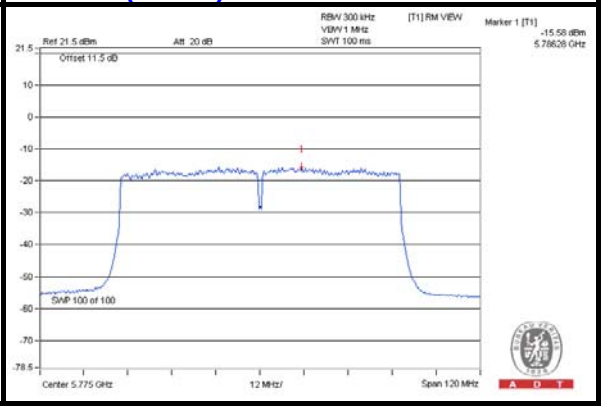
| TX chain | Channel | Freq. (MHz) | PSD (dBm/300 kHz) | PSD (dBm/500 kHz) | 10 log (N=2) dB | Duty Factor | Total PSD (dBm/500 kHz) | Limit (dBm/500 kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 151 | 5755 | -11.29 | -9.07 | 3.01 | 0.37 | -5.88 | 25.99 | PASS |
| | 159 | 5795 | -6.44 | -4.22 | 3.01 | 0.37 | -1.03 | 25.99 | PASS |
| 1 | 151 | 5755 | -10.77 | -8.55 | 3.01 | 0.37 | -5.36 | 25.99 | PASS |
| | 159 | 5795 | -6.41 | -4.19 | 3.01 | 0.37 | -1.00 | 25.99 | PASS |

**NOTE:**
1. Directional gain = 7dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 30-(10.01-6) = 25.99dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11ac (VHT80)

| TX chain | Channel | Freq. (MHz) | PSD (dBm/300 kHz) | PSD (dBm/500 kHz) | 10 log (N=2) dB | Duty Factor | Total PSD (dBm/500 kHz) | Limit (dBm/500 kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 155 | 5775 | -16.63 | -14.41 | 3.01 | 0.37 | -11.03 | 25.99 | PASS |
| 1 | 155 | 5775 | -15.58 | -13.36 | 3.01 | 0.37 | -9.98 | 25.99 | PASS |

**NOTE:**
1. Directional gain = 7dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 30-(10.01-6) = 25.99dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

| SPECTRUM PLOT OF WORST VALUE | |
|---|---|
| 802.11a | 802.11n (HT20) |
|  |  |
| 802.11n (HT40) | 802.11ac (VHT80) |
|  |  |

## Radio 2: Patch antenna

### 802.11a

| TX chain | Chan. | Freq. (MHz) | PSD (dBm/300kHz) | PSD (dBm/500kHz) | 10 log (N=2) dB | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|
| 0 | 149 | 5745 | -5.29 | -3.07 | 3.01 | -0.06 | 25.89 | PASS |
| | 157 | 5785 | 1.43 | 3.65 | 3.01 | 6.66 | 25.89 | PASS |
| | 165 | 5825 | -0.41 | 1.81 | 3.01 | 4.82 | 25.89 | PASS |
| 1 | 149 | 5745 | -4.26 | -2.04 | 3.01 | 0.97 | 25.89 | PASS |
| | 157 | 5785 | 1.63 | 3.85 | 3.01 | 6.86 | 25.89 | PASS |
| | 165 | 5825 | -0.47 | 1.75 | 3.01 | 4.76 | 25.89 | PASS |

**NOTE:**

1. Directional gain = 7.1dBi + 10log(2) = 10.11dBi > 6dBi, so the power density limit shall be reduced to 30-(10.11-6) = 25.89dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11n (HT20)

| TX chain | Chan. | Freq. (MHz) | PSD (dBm/300kHz) | PSD (dBm/500kHz) | 10 log (N=2) dB | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|
| 0 | 149 | 5745 | -5.55 | -3.33 | 3.01 | -0.32 | 25.89 | PASS |
| | 157 | 5785 | 0.90 | 3.12 | 3.01 | 6.13 | 25.89 | PASS |
| | 165 | 5825 | -2.47 | -0.25 | 3.01 | 2.76 | 25.89 | PASS |
| 1 | 149 | 5745 | -4.93 | -2.71 | 3.01 | 0.30 | 25.89 | PASS |
| | 157 | 5785 | 1.28 | 3.50 | 3.01 | 6.51 | 25.89 | PASS |
| | 165 | 5825 | -2.28 | -0.06 | 3.01 | 2.95 | 25.89 | PASS |

**NOTE:**

1. Directional gain = 7.1dBi + 10log(2) = 10.11dBi > 6dBi, so the power density limit shall be reduced to 30-(10.11-6) = 25.89dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11n (HT40)

| TX chain | Channel | Freq. (MHz) | PSD (dBm/300 kHz) | PSD (dBm/500 kHz) | 10 log (N=2) dB | Duty Factor | Total PSD (dBm/500 kHz) | Limit (dBm/500 kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 151 | 5755 | -11.51 | -9.29 | 3.01 | 0.17 | -6.11 | 25.89 | PASS |
| | 159 | 5795 | -5.63 | -3.41 | 3.01 | 0.17 | -0.23 | 25.89 | PASS |
| 1 | 151 | 5755 | -10.79 | -8.57 | 3.01 | 0.17 | -5.39 | 25.89 | PASS |
| | 159 | 5795 | -5.12 | -2.90 | 3.01 | 0.17 | 0.28 | 25.89 | PASS |

**NOTE:**

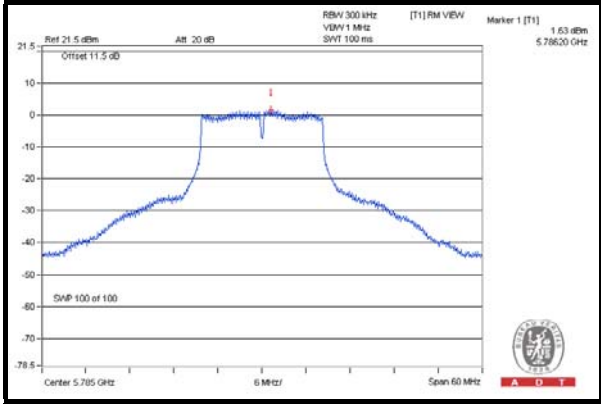
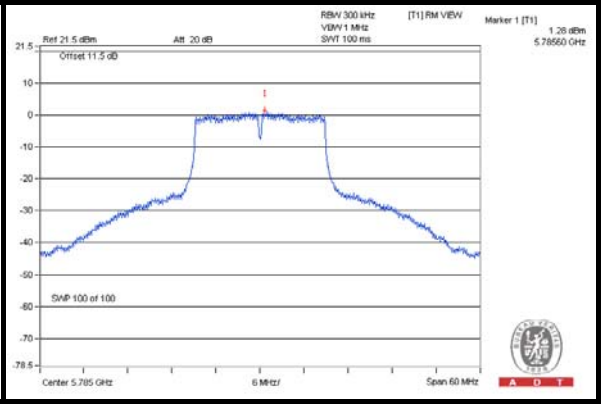
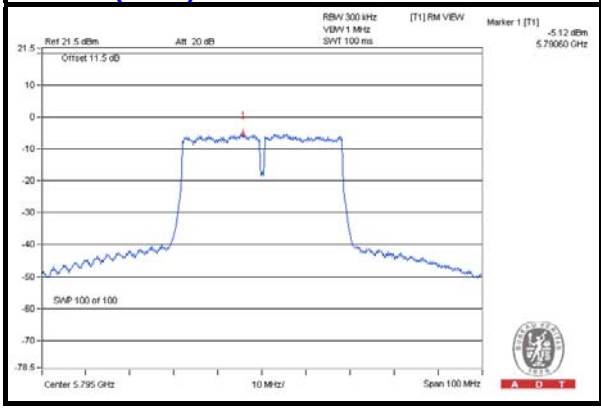
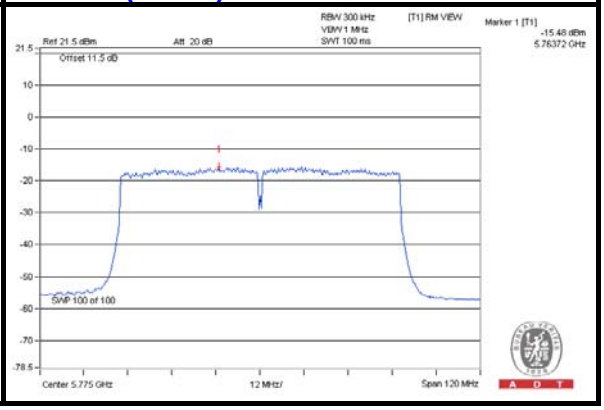
1. Directional gain = 7.1dBi + 10log(2) = 10.11dBi > 6dBi, so the power density limit shall be reduced to 30-(10.11-6) = 25.89dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11ac (VHT80)

| TX chain | Channel | Freq. (MHz) | PSD (dBm/300 kHz) | PSD (dBm/500 kHz) | 10 log (N=2) dB | Duty Factor | Total PSD (dBm/500 kHz) | Limit (dBm/500 kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 155 | 5775 | -17.02 | -14.80 | 3.01 | 0.44 | -11.35 | 25.89 | PASS |
| 1 | 155 | 5775 | -15.48 | -13.26 | 3.01 | 0.44 | -9.81 | 25.89 | PASS |

**NOTE:**

1. Directional gain = 7.1dBi + 10log(2) = 10.11dBi > 6dBi, so the power density limit shall be reduced to 30-(10.11-6) = 25.89dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

| SPECTRUM PLOT OF WORST VALUE | |
|---|---|
| 802.11a | 802.11n (HT20) |
|  |  |
| 802.11n (HT40) | 802.11ac (VHT80) |
|  |  |

## Radio 2: Sector antenna

### 802.11a

| TX chain | Chan. | Freq. (MHz) | PSD (dBm/300kHz) | PSD (dBm/500kHz) | 10 log (N=2) dB | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|
| 0 | 149 | 5745 | -8.19 | -5.97 | 3.01 | -2.96 | 19.99 | PASS |
| | 157 | 5785 | -6.14 | -3.92 | 3.01 | -0.91 | 19.99 | PASS |
| | 165 | 5825 | -5.90 | -3.68 | 3.01 | -0.67 | 19.99 | PASS |
| 1 | 149 | 5745 | -7.48 | -5.26 | 3.01 | -2.25 | 19.99 | PASS |
| | 157 | 5785 | -5.26 | -3.04 | 3.01 | -0.03 | 19.99 | PASS |
| | 165 | 5825 | -5.35 | -3.13 | 3.01 | -0.12 | 19.99 | PASS |

**NOTE:**
1. Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 30-(16.01-6) = 19.99dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11n (HT20)

| TX chain | Chan. | Freq. (MHz) | PSD (dBm/300kHz) | PSD (dBm/500kHz) | 10 log (N=2) dB | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|
| 0 | 149 | 5745 | -9.01 | -6.79 | 3.01 | -3.78 | 19.99 | PASS |
| | 157 | 5785 | -6.60 | -4.38 | 3.01 | -1.37 | 19.99 | PASS |
| | 165 | 5825 | -7.31 | -5.09 | 3.01 | -2.08 | 19.99 | PASS |
| 1 | 149 | 5745 | -8.49 | -6.27 | 3.01 | -3.26 | 19.99 | PASS |
| | 157 | 5785 | -6.00 | -3.78 | 3.01 | -0.77 | 19.99 | PASS |
| | 165 | 5825 | -6.79 | -4.57 | 3.01 | -1.56 | 19.99 | PASS |

**NOTE:**
1. Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 30-(16.01-6) = 19.99dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

## 802.11n (HT40)

| TX chain | Channel | Freq. (MHz) | PSD (dBm/300 kHz) | PSD (dBm/500 kHz) | 10 log (N=2) dB | Duty Factor | Total PSD (dBm/500 kHz) | Limit (dBm/500 kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 151 | 5755 | -17.30 | -15.08 | 3.01 | 0.15 | -11.92 | 19.99 | PASS |
| | 159 | 5795 | -10.67 | -8.45 | 3.01 | 0.15 | -5.29 | 19.99 | PASS |
| 1 | 151 | 5755 | -15.59 | -13.37 | 3.01 | 0.15 | -10.21 | 19.99 | PASS |
| | 159 | 5795 | -10.15 | -7.93 | 3.01 | 0.15 | -4.77 | 19.99 | PASS |

**NOTE:**

1. Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 30-(16.01-6) = 19.99dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

## 802.11ac (VHT80)

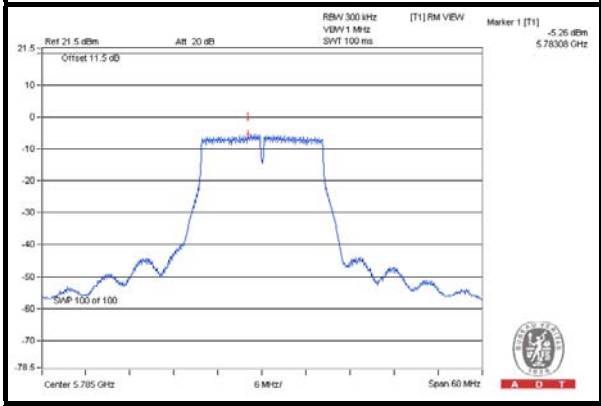
| TX chain | Channel | Freq. (MHz) | PSD (dBm/300 kHz) | PSD (dBm/500 kHz) | 10 log (N=2) dB | Duty Factor | Total PSD (dBm/500 kHz) | Limit (dBm/500 kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 155 | 5775 | -26.27 | -24.05 | 3.01 | 0.26 | -20.78 | 19.99 | PASS |
| 1 | 155 | 5775 | -22.54 | -20.32 | 3.01 | 0.26 | -17.05 | 19.99 | PASS |

**NOTE:**

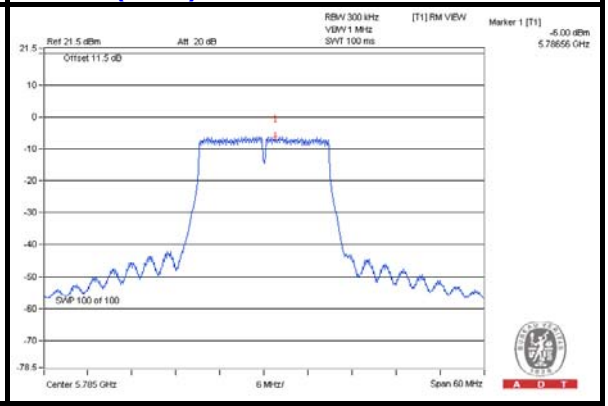
1. Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 30-(16.01-6) = 19.99dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

## SPECTRUM PLOT OF WORST VALUE

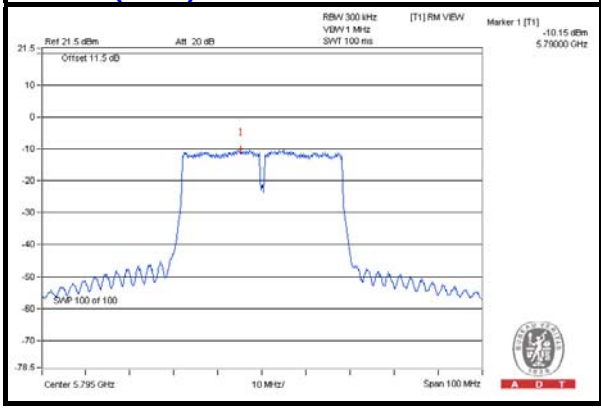
**802.11a**



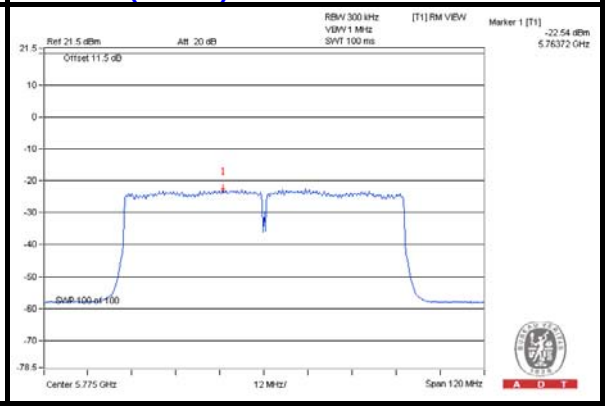

**802.11n (HT20)**




**802.11n (HT40)**




**802.11ac (VHT80)**



## Radio 3: PIFA antenna

### 802.11a

| Channel | Freq. (MHz) | PSD (dBm/300kHz) | PSD (dBm/500kHz) | Limit (dBm/500kHz) | PASS /FAIL |
|---|---|---|---|---|---|
| 149 | 5745 | -6.23 | -4.01 | 29.50 | PASS |
| 157 | 5785 | 0.19 | 2.41 | 29.50 | PASS |
| 165 | 5825 | -3.27 | -1.05 | 29.50 | PASS |

**NOTE:**

1. Gain = 6.5dBi > 6dBi, so the power density limit shall be reduced to 30-(6.5-6) = 29.50dBm.

### 802.11n (HT20)

| Channel | Freq. (MHz) | PSD (dBm/300kHz) | PSD (dBm/500kHz) | Duty Factor | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|
| 149 | 5745 | -6.99 | -4.77 | 0.10 | -4.67 | 29.50 | PASS |
| 157 | 5785 | -2.14 | 0.08 | 0.10 | 0.18 | 29.50 | PASS |
| 165 | 5825 | -3.13 | -0.91 | 0.10 | -0.81 | 29.50 | PASS |

**NOTE:**

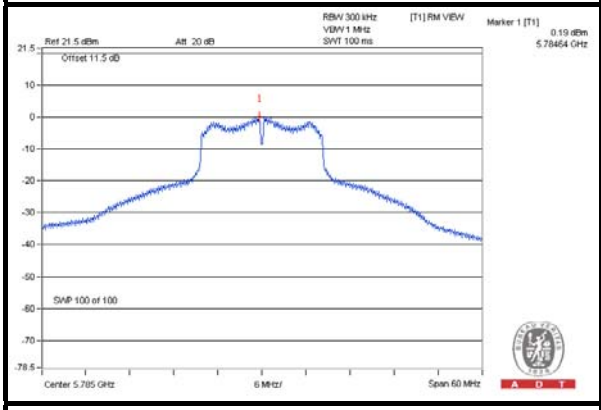
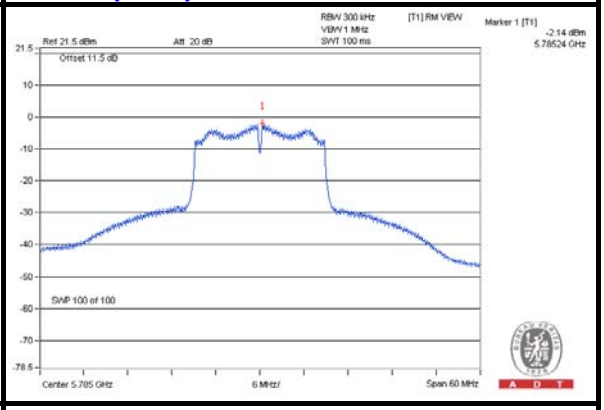
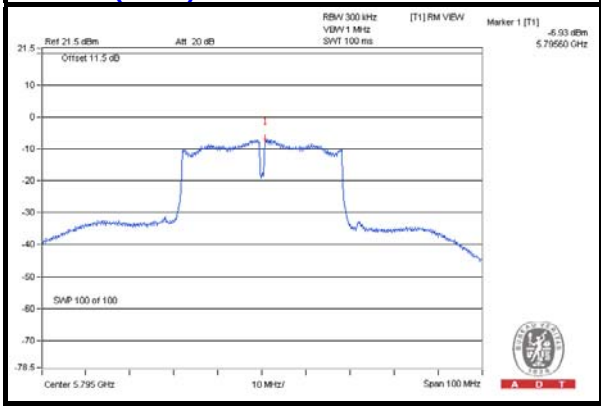
1. Gain = 6.5dBi > 6dBi, so the power density limit shall be reduced to 30-(6.5-6) = 29.50dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

### 802.11n (HT40)

| Channel | Freq. (MHz) | PSD (dBm/300kHz) | PSD (dBm/500kHz) | Duty Factor | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | PASS /FAIL |
|---|---|---|---|---|---|---|---|
| 151 | 5755 | -15.04 | -12.82 | 0.14 | -12.68 | 29.50 | PASS |
| 159 | 5795 | -6.93 | -4.71 | 0.14 | -4.57 | 29.50 | PASS |

**NOTE:**

1. Gain = 6.5dBi > 6dBi, so the power density limit shall be reduced to 30-(6.5-6) = 29.50dBm.
2. Refer to section 3.3 for duty cycle spectrum plot.

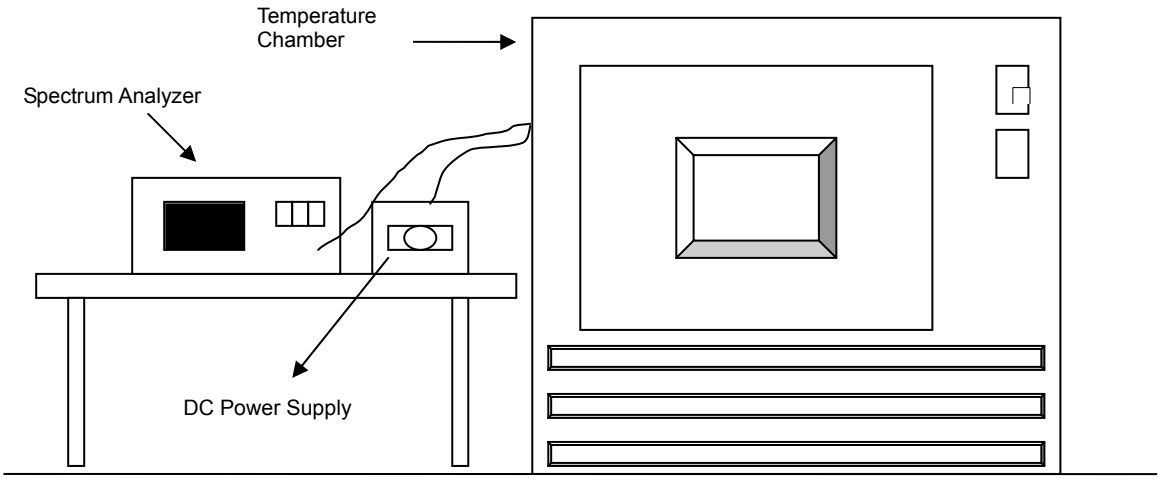
| SPECTRUM PLOT OF WORST VALUE | |
|---|---|
| 802.11a | 802.11n (HT20) |
|  |  |
| 802.11n (HT40) | |
|  | |

## 4.5 FREQUENCY STABILITY

### 4.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency of the carrier signal shall be maintained within band of operation

### 4.5.2 TEST SETUP




### 4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

### 4.5.4 TEST PROCEDURE

a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.

e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.

f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

### 4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

### 4.5.6 EUT OPERATING CONDITION

Set the EUT transmit at un-modulation mode to test frequency stability.

## 4.5.7 TEST RESULTS

**Radio 2: Dipole antenna**

| FREQUEMCY STABILITY VERSUS TEMP. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OPERATING FREQUENCY: 5240MHz | | | | | | | | | |
| TEMP. (℃) | POWER SUPPLY (Vdc) | 0 MINUTE | | 2 MINUTE | | 5 MINUTE | | 10 MINUTE | |
| | | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) |
| 50 | 55 | 5240.0105 | 0.00020 | 5240.0075 | 0.00014 | 5240.0089 | 0.00017 | 5240.0112 | 0.00021 |
| 40 | 55 | 5239.9801 | -0.00038 | 5239.9806 | -0.00037 | 5239.9842 | -0.00030 | 5239.9800 | -0.00038 |
| 30 | 55 | 5239.9775 | -0.00043 | 5239.9773 | -0.00043 | 5239.9758 | -0.00046 | 5239.9779 | -0.00042 |
| 20 | 55 | 5239.9971 | -0.00006 | 5239.9966 | -0.00006 | 5239.9975 | -0.00005 | 5240.0002 | 0.00000 |
| 10 | 55 | 5239.9876 | -0.00024 | 5239.9835 | -0.00031 | 5239.9854 | -0.00028 | 5239.9840 | -0.00031 |
| 0 | 55 | 5240.0167 | 0.00032 | 5240.0144 | 0.00027 | 5240.0172 | 0.00033 | 5240.0168 | 0.00032 |
| -10 | 55 | 5240.0099 | 0.00019 | 5240.0097 | 0.00019 | 5240.0096 | 0.00018 | 5240.0089 | 0.00017 |
| -20 | 55 | 5239.9934 | -0.00013 | 5239.9945 | -0.00010 | 5239.9921 | -0.00015 | 5239.9899 | -0.00019 |
| -30 | 55 | 5240.0128 | 0.00024 | 5240.0092 | 0.00018 | 5240.0093 | 0.00018 | 5240.0089 | 0.00017 |

| FREQUEMCY STABILITY VERSUS TEMP. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OPERATING FREQUENCY: 5240MHz | | | | | | | | | |
| TEMP. (℃) | POWER SUPPLY (Vdc) | 0 MINUTE | | 2 MINUTE | | 5 MINUTE | | 10 MINUTE | |
| | | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) |
| 20 | 63.25 | 5239.9972 | -0.00005 | 5239.9963 | -0.00007 | 5239.9981 | -0.00004 | 5239.9992 | -0.00002 |
| | 55 | 5239.9971 | -0.00006 | 5239.9966 | -0.00006 | 5239.9975 | -0.00005 | 5240.0002 | 0.00000 |
| | 46.75 | 5239.9978 | -0.00004 | 5239.9968 | -0.00006 | 5239.9980 | -0.00004 | 5240.0004 | 0.00001 |

## Radio 2: Patch antenna

| FREQUEMCY STABILITY VERSUS TEMP. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OPERATING FREQUENCY: 5240MHz | | | | | | | | | |
| TEMP. (℃) | POWER SUPPLY (Vdc) | 0 MINUTE | | 2 MINUTE | | 5 MINUTE | | 10 MINUTE | |
| | | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) |
| 50 | 55 | 5240.0105 | 0.00020 | 5240.0075 | 0.00014 | 5240.0089 | 0.00017 | 5240.0112 | 0.00021 |
| 40 | 55 | 5239.9801 | -0.00038 | 5239.9806 | -0.00037 | 5239.9842 | -0.00030 | 5239.9800 | -0.00038 |
| 30 | 55 | 5239.9775 | -0.00043 | 5239.9773 | -0.00043 | 5239.9758 | -0.00046 | 5239.9779 | -0.00042 |
| 20 | 55 | 5239.9971 | -0.00006 | 5239.9966 | -0.00006 | 5239.9975 | -0.00005 | 5240.0002 | 0.00000 |
| 10 | 55 | 5239.9876 | -0.00024 | 5239.9835 | -0.00031 | 5239.9854 | -0.00028 | 5239.9840 | -0.00031 |
| 0 | 55 | 5240.0167 | 0.00032 | 5240.0144 | 0.00027 | 5240.0172 | 0.00033 | 5240.0168 | 0.00032 |
| -10 | 55 | 5240.0099 | 0.00019 | 5240.0097 | 0.00019 | 5240.0096 | 0.00018 | 5240.0089 | 0.00017 |
| -20 | 55 | 5239.9934 | -0.00013 | 5239.9945 | -0.00010 | 5239.9921 | -0.00015 | 5239.9899 | -0.00019 |
| -30 | 55 | 5240.0128 | 0.00024 | 5240.0092 | 0.00018 | 5240.0093 | 0.00018 | 5240.0089 | 0.00017 |

| FREQUEMCY STABILITY VERSUS TEMP. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OPERATING FREQUENCY: 5240MHz | | | | | | | | | |
| TEMP. (℃) | POWER SUPPLY (Vdc) | 0 MINUTE | | 2 MINUTE | | 5 MINUTE | | 10 MINUTE | |
| | | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) |
| 20 | 63.25 | 5239.9972 | -0.00005 | 5239.9963 | -0.00007 | 5239.9981 | -0.00004 | 5239.9992 | -0.00002 |
| | 55 | 5239.9971 | -0.00006 | 5239.9966 | -0.00006 | 5239.9975 | -0.00005 | 5240.0002 | 0.00000 |
| | 46.75 | 5239.9978 | -0.00004 | 5239.9968 | -0.00006 | 5239.9980 | -0.00004 | 5240.0004 | 0.00001 |

## Radio 2: Sector antenna

| FREQUEMCY STABILITY VERSUS TEMP. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OPERATING FREQUENCY: 5240MHz | | | | | | | | | |
| TEMP. (℃) | POWER SUPPLY (Vdc) | 0 MINUTE | | 2 MINUTE | | 5 MINUTE | | 10 MINUTE | |
| | | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) |
| 50 | 55 | 5240.0105 | 0.00020 | 5240.0075 | 0.00014 | 5240.0089 | 0.00017 | 5240.0112 | 0.00021 |
| 40 | 55 | 5239.9801 | -0.00038 | 5239.9806 | -0.00037 | 5239.9842 | -0.00030 | 5239.9800 | -0.00038 |
| 30 | 55 | 5239.9775 | -0.00043 | 5239.9773 | -0.00043 | 5239.9758 | -0.00046 | 5239.9779 | -0.00042 |
| 20 | 55 | 5239.9971 | -0.00006 | 5239.9966 | -0.00006 | 5239.9975 | -0.00005 | 5240.0002 | 0.00000 |
| 10 | 55 | 5239.9876 | -0.00024 | 5239.9835 | -0.00031 | 5239.9854 | -0.00028 | 5239.9840 | -0.00031 |
| 0 | 55 | 5240.0167 | 0.00032 | 5240.0144 | 0.00027 | 5240.0172 | 0.00033 | 5240.0168 | 0.00032 |
| -10 | 55 | 5240.0099 | 0.00019 | 5240.0097 | 0.00019 | 5240.0096 | 0.00018 | 5240.0089 | 0.00017 |
| -20 | 55 | 5239.9934 | -0.00013 | 5239.9945 | -0.00010 | 5239.9921 | -0.00015 | 5239.9899 | -0.00019 |
| -30 | 55 | 5240.0128 | 0.00024 | 5240.0092 | 0.00018 | 5240.0093 | 0.00018 | 5240.0089 | 0.00017 |

| FREQUEMCY STABILITY VERSUS TEMP. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OPERATING FREQUENCY: 5240MHz | | | | | | | | | |
| TEMP. (℃) | POWER SUPPLY (Vdc) | 0 MINUTE | | 2 MINUTE | | 5 MINUTE | | 10 MINUTE | |
| | | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) |
| 20 | 63.25 | 5239.9972 | -0.00005 | 5239.9963 | -0.00007 | 5239.9981 | -0.00004 | 5239.9992 | -0.00002 |
| | 55 | 5239.9971 | -0.00006 | 5239.9966 | -0.00006 | 5239.9975 | -0.00005 | 5240.0002 | 0.00000 |
| | 46.75 | 5239.9978 | -0.00004 | 5239.9968 | -0.00006 | 5239.998 | -0.00004 | 5240.0004 | 0.00001 |

## Radio 3: PIFA antenna

| FREQUEMCY STABILITY VERSUS TEMP. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OPERATING FREQUENCY: 5240MHz | | | | | | | | | |
| TEMP. (℃) | POWER SUPPLY (Vdc) | 0 MINUTE | | 2 MINUTE | | 5 MINUTE | | 10 MINUTE | |
| | | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) |
| 50 | 55 | 5240.0026 | 0.00005 | 5239.9999 | 0.00000 | 5240.0018 | 0.00003 | 5240.0022 | 0.00004 |
| 40 | 55 | 5239.9804 | -0.00037 | 5239.9770 | -0.00044 | 5239.9783 | -0.00041 | 5239.9799 | -0.00038 |
| 30 | 55 | 5240.0171 | 0.00033 | 5240.0173 | 0.00033 | 5240.0130 | 0.00025 | 5240.0173 | 0.00033 |
| 20 | 55 | 5240.0205 | 0.00039 | 5240.0180 | 0.00034 | 5240.0175 | 0.00033 | 5240.0194 | 0.00037 |
| 10 | 55 | 5239.9786 | -0.00041 | 5239.9751 | -0.00048 | 5239.9774 | -0.00043 | 5239.9781 | -0.00042 |
| 0 | 55 | 5240.0218 | 0.00042 | 5240.0225 | 0.00043 | 5240.0239 | 0.00046 | 5240.0191 | 0.00036 |
| -10 | 55 | 5239.9957 | -0.00008 | 5239.9960 | -0.00008 | 5239.9936 | -0.00012 | 5239.9909 | -0.00017 |
| -20 | 55 | 5240.0051 | 0.00010 | 5240.0038 | 0.00007 | 5240.0083 | 0.00016 | 5240.0057 | 0.00011 |
| -30 | 55 | 5239.9871 | -0.00025 | 5239.9899 | -0.00019 | 5239.9887 | -0.00022 | 5239.9901 | -0.00019 |

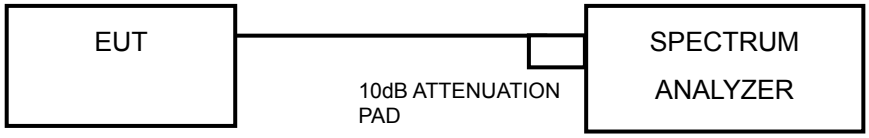
| FREQUEMCY STABILITY VERSUS TEMP. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OPERATING FREQUENCY: 5240MHz | | | | | | | | | |
| TEMP. (℃) | POWER SUPPLY (Vdc) | 0 MINUTE | | 2 MINUTE | | 5 MINUTE | | 10 MINUTE | |
| | | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) |
| 20 | 63.25 | 5240.0199 | 0.00038 | 5240.0173 | 0.00033 | 5240.0179 | 0.00034 | 5240.0199 | 0.00038 |
| | 55 | 5240.0205 | 0.00039 | 5240.0180 | 0.00034 | 5240.0175 | 0.00033 | 5240.0194 | 0.00037 |
| | 46.75 | 5240.0206 | 0.00039 | 5240.0190 | 0.00036 | 5240.0166 | 0.00032 | 5240.0203 | 0.00039 |

## 4.6 6dB BANDWIDTH MEASUREMENT

### 4.6.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

### 4.6.2 TEST SETUP




### 4.6.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

### 4.6.4 TEST PROCEDURE

a. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

### 4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

### 4.6.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

## 4.6.7 TEST RESULTS

### Radio 2: Dipole antenna

#### 802.11a

| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 149 | 5745 | 16.39 | 16.48 | 0.5 | PASS |
| 157 | 5785 | 16.44 | 16.47 | 0.5 | PASS |
| 165 | 5825 | 16.45 | 16.47 | 0.5 | PASS |

#### 802.11n (HT20)

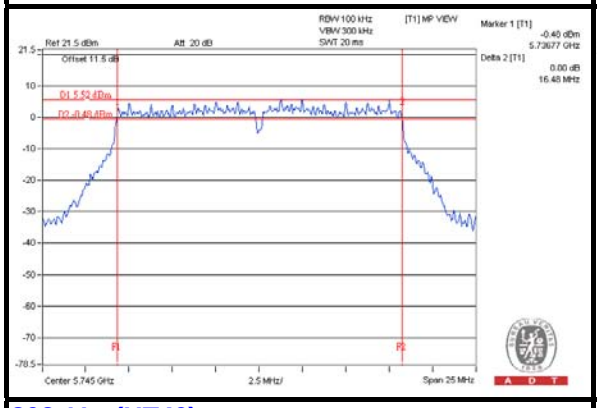
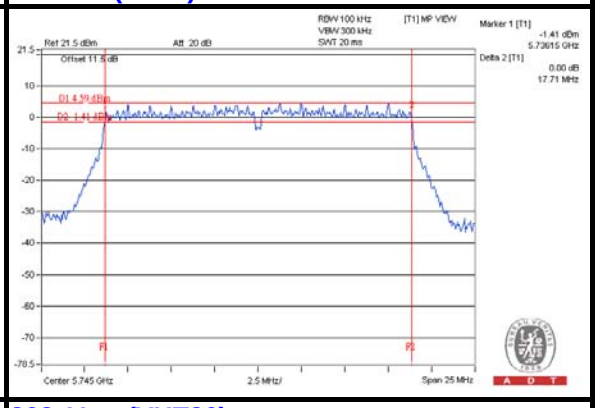
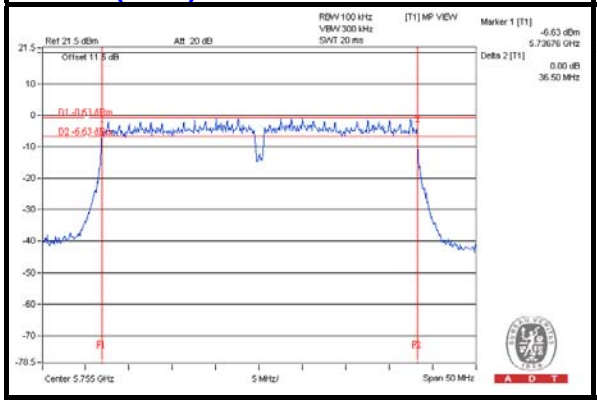
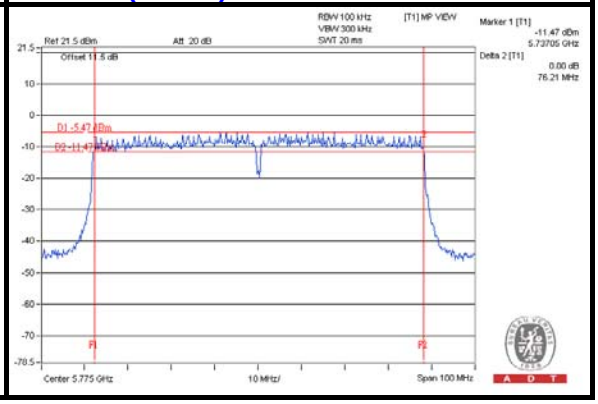
| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 149 | 5745 | 17.64 | 17.71 | 0.5 | PASS |
| 157 | 5785 | 17.68 | 17.71 | 0.5 | PASS |
| 165 | 5825 | 17.67 | 17.68 | 0.5 | PASS |

#### 802.11n (HT40)

| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 151 | 5755 | 36.46 | 36.50 | 0.5 | PASS |
| 159 | 5795 | 36.43 | 36.49 | 0.5 | PASS |

#### 802.11ac (VHT80)

| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 42 | 5210 | 75.72 | 76.21 | 0.5 | PASS |

| SPECTRUM PLOT OF WORST VALUE | |
|---|---|
| 802.11a | 802.11n (HT20) |
|  |  |
| 802.11n (HT40) | 802.11ac (VHT80) |
|  |  |

## Radio 2: Patch antenna

### 802.11a

| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 149 | 5745 | 16.46 | 16.46 | 0.5 | PASS |
| 157 | 5785 | 16.43 | 16.42 | 0.5 | PASS |
| 165 | 5825 | 16.41 | 16.46 | 0.5 | PASS |

### 802.11n (HT20)

| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 149 | 5745 | 17.69 | 17.71 | 0.5 | PASS |
| 157 | 5785 | 17.67 | 17.69 | 0.5 | PASS |
| 165 | 5825 | 17.64 | 17.68 | 0.5 | PASS |

### 802.11n (HT40)

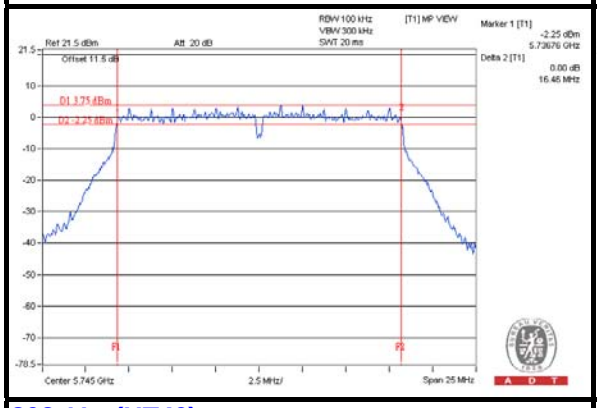
| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 151 | 5755 | 36.49 | 36.51 | 0.5 | PASS |
| 159 | 5795 | 36.47 | 36.47 | 0.5 | PASS |

### 802.11ac (VHT80)

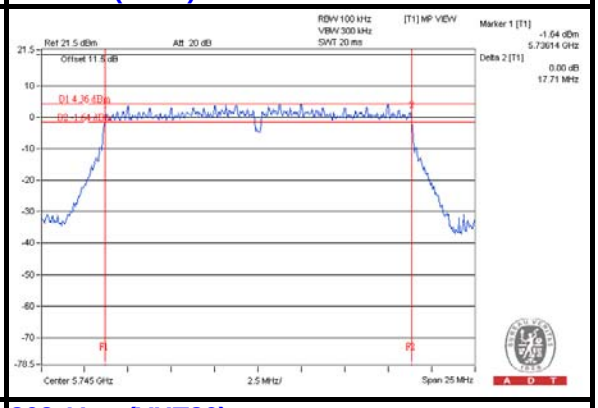
| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 42 | 5210 | 76.45 | 76.46 | 0.5 | PASS |

## SPECTRUM PLOT OF WORST VALUE

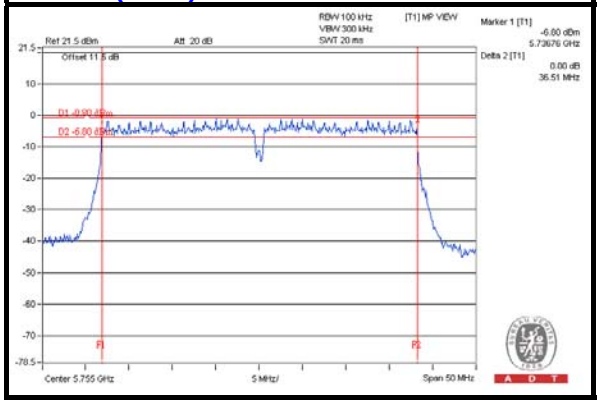
### 802.11a



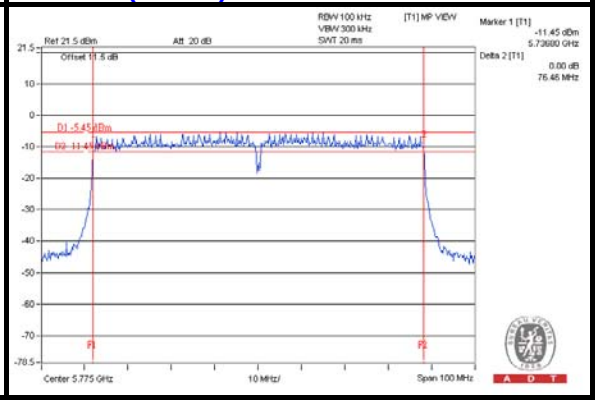

### 802.11n (HT20)




### 802.11n (HT40)




### 802.11ac (VHT80)



## Radio 2: Sector antenna

### 802.11a

| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 149 | 5745 | 16.44 | 16.48 | 0.5 | PASS |
| 157 | 5785 | 16.46 | 16.47 | 0.5 | PASS |
| 165 | 5825 | 16.41 | 16.46 | 0.5 | PASS |

### 802.11n (HT20)

| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 149 | 5745 | 17.67 | 17.69 | 0.5 | PASS |
| 157 | 5785 | 17.67 | 17.73 | 0.5 | PASS |
| 165 | 5825 | 17.67 | 17.68 | 0.5 | PASS |

### 802.11n (HT40)

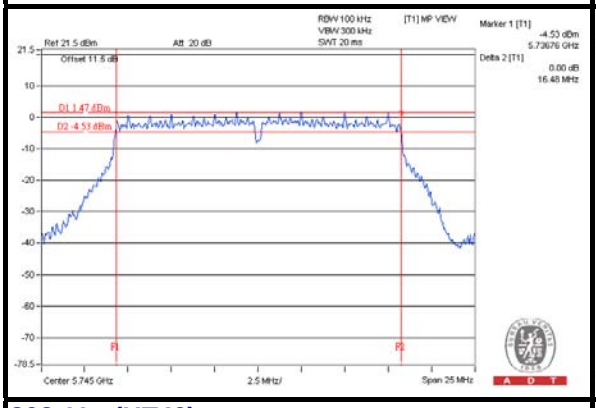
| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 151 | 5755 | 36.50 | 36.49 | 0.5 | PASS |
| 159 | 5795 | 36.50 | 36.49 | 0.5 | PASS |

### 802.11ac (VHT80)

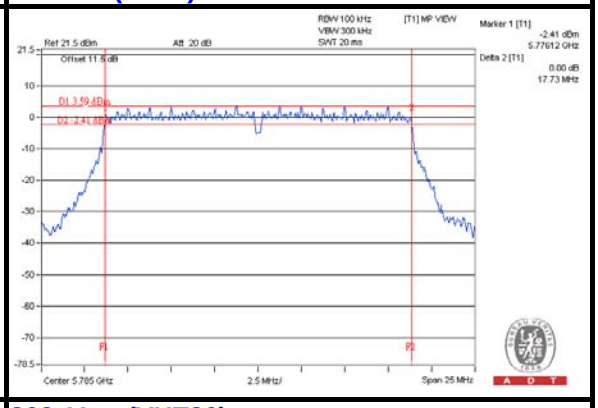
| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|---|
| | | CHAIN 0 | CHAIN 1 | | |
| 42 | 5210 | 76.38 | 76.50 | 0.5 | PASS |

## SPECTRUM PLOT OF WORST VALUE

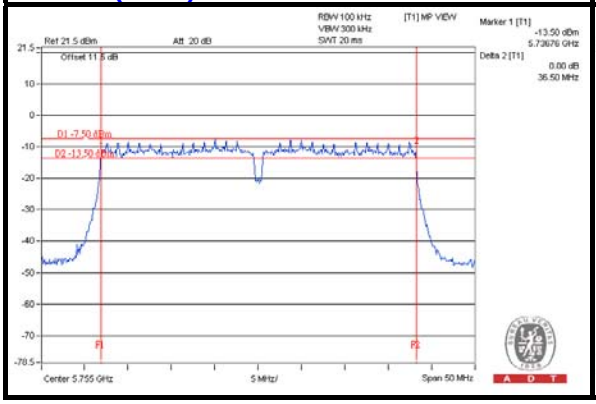
### 802.11a



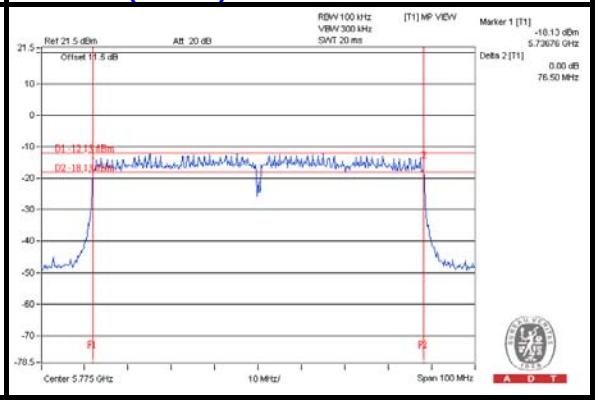

### 802.11n (HT20)




### 802.11n (HT40)




### 802.11ac (VHT80)



## Radio 3: PIFA antenna

### 802.11a

| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|
| 149 | 5745 | 15.19 | 0.5 | PASS |
| 157 | 5785 | 15.34 | 0.5 | PASS |
| 165 | 5825 | 15.18 | 0.5 | PASS |

### 802.11n (HT20)

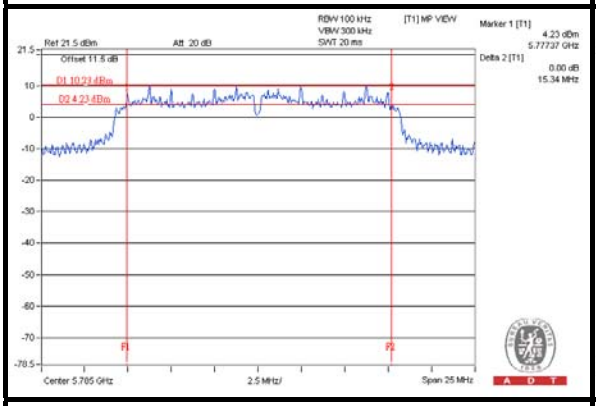
| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|
| 149 | 5745 | 15.20 | 0.5 | PASS |
| 157 | 5785 | 15.17 | 0.5 | PASS |
| 165 | 5825 | 15.36 | 0.5 | PASS |

### 802.11n (HT40)

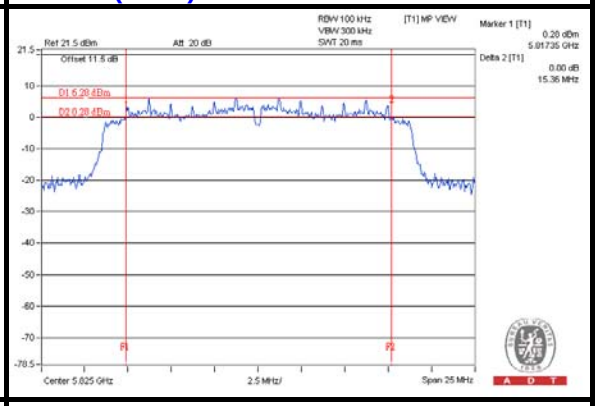
| CHANNEL | FREQUENCY (MHz) | 6dB BANDWIDTH (MHz) | MINIMUM LIMIT (MHz) | PASS / FAIL |
|---|---|---|---|---|
| 151 | 5755 | 35.26 | 0.5 | PASS |
| 159 | 5795 | 36.30 | 0.5 | PASS |

## SPECTRUM PLOT OF WORST VALUE

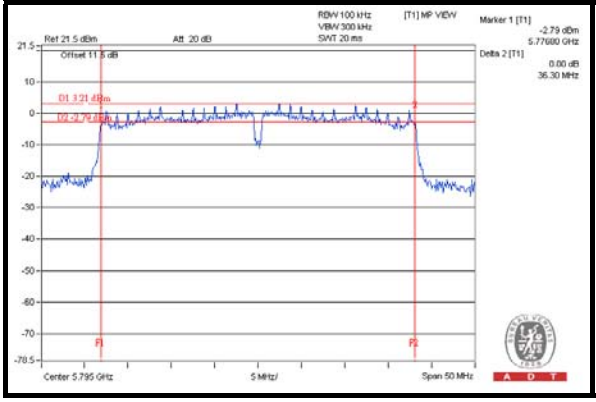
### 802.11a




### 802.11n (HT20)




### 802.11n (HT40)



# 5. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

# 6. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:


**Linko EMC/RF Lab**:
Tel: 886-2-26052180
Fax: 886-2-26051924

**Hsin Chu EMC/RF/Telecom Lab**:
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**Email:** service.adt@tw.bureauveritas.com
**Web Site:** www.bureauveritas-adt.com


The address and road map of all our labs can be found in our web site also.

# 7. APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

**---END---**