

Test Report No.:  
**FCC2022-0020-RF3**

## **RF Test Report**

**EUT** : **ActivPanel 9 WiFi and Bluetooth Module**  
**MODEL** : **AP9-WIFIBT-AB-02**  
**BRAND NAME** : **Promethean**  
**APPLICANT** : **Promethean Limited**  
**Classification Of Test** : **N/A**

**CVC Testing Technology Co., Ltd.**



|                                                                                                                                                |                                                                                                                                                   |                                                                                                                                                     |                       |
|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| <b>Client</b>                                                                                                                                  | Name : Promethean Limited<br>Address : Promethean House, Lower Philips Rd, whitebirk Industrial Estate, Blackburn, Bb1 5th United Kingdom         |                                                                                                                                                     |                       |
| <b>Manufacturer</b>                                                                                                                            | Name : Promethean Limited<br>Address : Promethean House, Lower Philips Rd, whitebirk Industrial Estate, Blackburn, Bb1 5th United Kingdom         |                                                                                                                                                     |                       |
| <b>Equipment Under Test</b>                                                                                                                    | Name : ActivPanel 9 WiFi and Bluetooth Module<br>Model/Type: AP9-WIFIBT-AB-02<br>Trade mark : Promethean<br>SerialNO.: N/A<br>Sampe NO.: 3-1      |                                                                                                                                                     |                       |
| Date of Receipt.                                                                                                                               | 2022.03.25                                                                                                                                        | Date of Testing                                                                                                                                     | 2022.03.25~2022.05.24 |
| <b>Test Specification</b>                                                                                                                      |                                                                                                                                                   | <b>Test Result</b>                                                                                                                                  |                       |
| FCC Part 15, Subpart E (15.407)<br>Canada RSS-247 Issue 2 (2017-02)<br>Canada RSS-Gen Issue 5 (2019-03)                                        |                                                                                                                                                   | PASS                                                                                                                                                |                       |
| <b>Evaluation of Test Result</b>                                                                                                               | The equipment under test was found to comply with the requirements of the standards applied.<br><br><b>Issue Date: 2022.05.25</b>                 |                                                                                                                                                     |                       |
| Tested by: <br><br><u>Xu ZhenFei</u><br>Name      Signature | Reviewed by: <br><br><u>Liu YongHai</u><br>Name      Signature | Approved by: <br><br><u>Chen HuaWen</u><br>Name      Signature |                       |
| <b>Other Aspects: NONE.</b>                                                                                                                    |                                                                                                                                                   |                                                                                                                                                     |                       |
| Abbreviations: OK, Pass= passed      Fail = failed      N/A= not applicable      EUT= equipment, sample(s) under tested                        |                                                                                                                                                   |                                                                                                                                                     |                       |



This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.

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## RELEASE CONTROL RECORD

| ISSUE NO.        | REASON FOR CHANGE | DATE ISSUED |
|------------------|-------------------|-------------|
| FCC2022-0020-RF3 | Original release  | 2022.05.25  |



## 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)                                     |                                |        |                                |
|-----------------------------------------------------------------------------------------------|--------------------------------|--------|--------------------------------|
| STANDARD SECTION                                                                              | TEST TYPE                      | RESULT | REMARK                         |
| 15.207<br>RSS-Gen 8.8                                                                         | Conducted Emissions            | PASS   | Meet the requirement of limit. |
| 15.403(i)<br>RSS-247 6.2.4 (1)                                                                | 6dB&26dB Emission Bandwidth    | PASS   | Meet the requirement of limit. |
| RSS-Gen 6.7                                                                                   | Occupied Bandwidth Measurement | PASS   | Meet the requirement of limit. |
| 15.407(b)<br>RSS-247 6.2.1 (2)<br>RSS-247 6.2.2 (2)<br>RSS-247 6.2.3 (2)<br>RSS-247 6.2.4 (2) | Radiated Emission and Bandedge | PASS   | Meet the requirement of limit. |
| 15.407(a)<br>RSS-247 6.2.1 (1)<br>RSS-247 6.2.2 (1)<br>RSS-247 6.2.3 (1)<br>RSS-247 6.2.4 (1) | Transmit Power                 | PASS   | Meet the requirement of limit. |
| 15.407(a)<br>RSS-247 6.2.1 (1)<br>RSS-247 6.2.2 (1)<br>RSS-247 6.2.3 (1)<br>RSS-247 6.2.4 (1) | Power Spectral Density         | PASS   | Meet the requirement of limit. |
| 15.407(g)                                                                                     | Frequency Stability            | PASS   | Meet the requirement of limit. |
| 15.203<br>15.407(a)                                                                           | Antenna Requirement            | PASS   | No antenna connector is used   |

Note: refer to DFS report (Report No. FCC2022-0020-RF4)



## 1.1 LIST OF TEST AND MEASUREMENT INSTRUMENTS

| Test Equipment                    | Type/Mode                        | SERIAL NO.    | Equipment No. | Manufacturer | Cal. Due   |
|-----------------------------------|----------------------------------|---------------|---------------|--------------|------------|
| WIFI & Bluetooth Test System 1    |                                  |               |               |              | /          |
| Communication Shielded Room 1     | 4m*3m*3m                         | CRTDSWKS44301 | VGDS-0699     | CRT          | 2024/04/24 |
| Spectrum Analyzer                 | FSV30                            | 104337        | DZ-000235     | R&S          | 2022/11/03 |
| Comprehensive Test Instrument     | CMW500                           | 137779        | DZ-000220     | R&S          | 2022/06/30 |
| Comprehensive Test Instrument     | CMW500                           | 169888        | DZ-000342     | R&S          | 2022/12/01 |
| LTE Comprehensive Test Instrument | E7515A                           | MY58010639    | DZ-000173     | KEYSIGHT     | 2022/04/14 |
| Analog Signal Generator           | SMA100B                          | 103663        | DZ-000239-2   | R&S          | 2022/06/30 |
| Vector Signal Generator           | SMBV100B                         | 101757        | DZ-000239-1   | R&S          | 2022/06/30 |
| Programmable DC Power Supply      | E3642A                           | MY59108106    | DZ-000242-2   | KEYSIGHT     | 2022/08/05 |
| Radiation Spurious Test System    |                                  |               |               |              | /          |
| 3m Semi-Anechoic Chamber          | FACT-4                           | ST08035       | WKNA-0024     | ETS          | 2024/12/12 |
| Spectrum Analyzer                 | N9010B                           | MY57470323    | DZ-000174     | KEYSIGHT     | 2023/03/02 |
| EMI Test Receiver                 | N9038A-508                       | MY532290079   | EM-000397     | Agilent      | 2023/03/02 |
| Broadband Antenna                 | VULB 9163                        | 9163-530      | EM-000342     | SCHWARZBECK  | 2022/06/26 |
| Waveguide Horn Antenna            | HF906                            | 360306/008    | WKNA-0024-8   | R&S          | 2023/03/04 |
| Waveguide Horn Antenna            | BBHA9170                         | 00949         | DZ-000209-2   | SCHWARZBECK  | 2022/08/27 |
| Preamplifier                      | BBV 9721                         | 9721-050      | DZ-000209-1   | SCHWARZBECK  | 2022/06/30 |
| 5G Bandstop Filters               | WRCJV12-4900-5100-5900-6100-50EE | 1             | DZ-000186     | WI           | 2022/12/20 |
| Comprehensive tester              | CMW500                           | 159000        | DZ-000240-2   | R&S          | 2022/12/20 |
| Conducted emission                |                                  |               |               |              | /          |
| EMI Test Receiver                 | ESCI                             | 100857        | WKNB-0081     | R&S          | 2022-12-08 |
| EMI Test Receiver                 | ESR3                             | 102394        | VG DY-0705    | R&S          | 2023-03-04 |
| LISN                              | NSLK 8127                        | 8127644       | VG DY-0150    | SCHWARZBECK  | 2022-09-01 |
| DC LISN                           | PVDC8301-017                     | PVDC8301#17   | VG DY-0692    | SCHWARZBECK  | 2022-06-07 |
| LISN                              | NSLK 8129                        | 8129-268      | EM-000388     | SCHWARZBECK  | 2023-03-03 |
| Plus Limiter (#1)                 | VTSD 9561 F-N                    | 00515         | VG DY-0808    | SCHWARZBECK  | 2023-03-04 |
| Impedance Stabilization Network   | ISN T800                         | 27095         | WKNE-0195     | TESEQ        | 2022-09-01 |
| Impedance Stabilization Network   | NTFM8158                         | 8158-0092     | VG DY-0356    | SCHWARZBECK  | 2022-06-07 |
| Impedance Stabilization Network   | NTFM8131                         | #184          | EM-000498     | SCHWARZBECK  | 2022-06-05 |
| Voltage Probe                     | TK9420                           | 9420-499      | VG DY-0128    | SCHWARZBECK  | 2023-03-04 |
| Power Divider                     | 4901.17.B                        | 22643830      | DB-0016       | HUBER+SUHNER | 2023-09-01 |
| Video Signal Generator            | GV-798+                          | 151064920001  | VGDS-0215     | PROMAX       | 2022-06-07 |
| Audio Signal Generator            | GAG-810                          | EK871591      | EM-000309     | GW           | 2022-12-08 |
| Shielding Room(#1)                | GP1A                             | 001           | WKNF-0001     | LEINING      | 2024-08-08 |



## 1.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT:

| No. | ITEM                | FREQUENCY     | UNCERTAINTY |
|-----|---------------------|---------------|-------------|
| 1   | Conducted emissions | 9kHz~30MHz    | ±2.66dB     |
| 2   | Radiated emissions  | 9KHz ~ 30MHz  | ±0.769dB    |
|     |                     | 30MHz ~ 1GMHz | ±0.877dB    |
|     |                     | 1GHz ~ 18GHz  | ±0.777dB    |
|     |                     | 18GHz ~ 40GHz | ±1.315dB    |

## 1.3 TEST LOCATION

The tests and measurements refer to this report were performed by EMC testing Lab. of CVC Testing Technology Co., Ltd.

Address: No.3,TiantaiyiRoad,KaitaiAvenue,ScienceCity,Guangzhou,China

Post Code: 510663 Tel: 020-32293888

FAX: 020-32293889 E-mail: office@cvc.org.cn



## 2 GENERAL INFORMATION

### 2.1 GENERAL PRODUCT INFORMATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRODUCT                 | ActivPanel 9 WiFi and Bluetooth Module                                                                                                                                                                                                                                                                                                                                                                                                               |
| BRAND                   | Promethean                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| MODEL NO.               | AP9-WIFIBT-AB-02                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| FCC ID                  | QAM023                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| IC ID                   | 5459A-023                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| POWER SUPPLY            | DC 5V From USB Host Unit                                                                                                                                                                                                                                                                                                                                                                                                                             |
| MODULATION TECHNOLOGY   | OFDM,OFDMA                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| MODULATION TYPE         | 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM<br>1024QAM,256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA                                                                                                                                                                                                                                                                                                                                                      |
| TRANSFER RATE           | 802.11a: up to 54Mbps<br>802.11n : up to 300Mbit/s<br>802.11ac: up to 1733.3Mbps<br>802.11ax: up to 2401.9 Mbps                                                                                                                                                                                                                                                                                                                                      |
| OPERATING FREQUENCY     | 5180 ~ 5240MHz,5260 ~ 5320MHz,<br>5500 ~ 5720MHz (Remark 5), 5745 ~ 5825MHz                                                                                                                                                                                                                                                                                                                                                                          |
| NUMBER OF CHANNEL       | See item 2.2                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| CONDUCTED OUTPUT POWER  | 15.04 dBm for 5180 ~ 5240MHz (Maximum AVG Power)<br>15.97 dBm for 5260 ~ 5320MHz (Maximum AVG Power)<br>15.56 dBm for 5500 ~ 5720MHz (Maximum AVG Power)<br>13.91 dBm for 5745 ~ 5825MHz (Maximum AVG Power)                                                                                                                                                                                                                                         |
| ANTENNA TYPE (Remark 6) | ANT0<br>5180 ~ 5240MHz: External antenna with 5.3dBi gain<br>5260 ~ 5320MHz: External antenna with 4.4dBi gain<br>5500 ~ 5720MHz: External antenna with 3.0dBi gain<br>5745 ~ 5825MHz: External antenna with 3.2dBi gain<br>ANT1<br>5180 ~ 5240MHz: External antenna with 5.3dBi gain<br>5260 ~ 5320MHz: External antenna with 4.4dBi gain<br>5500 ~ 5720MHz: External antenna with 3.0dBi gain<br>5745 ~ 5825MHz: External antenna with 3.2dBi gain |
| I/O PORTS               | Refer to user's manual                                                                                                                                                                                                                                                                                                                                                                                                                               |
| CABLE SUPPLIED          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



**NOTE:**

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. EUT photo refer to report (Report NO.: FCC2022-0020-E).
4. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitter and 2 receiver.
5. RSS-247 For the band 5600-5650 MHz, no operation is permitted. Until further notice, devices subject to this annex shall not be capable of transmitting in the band 5600-5650 MHz. This restriction is for the protection of Environment Canada weather radars operating in this band.
6. Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, CVC is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.

| MODULATION MODE | TX FUNCTION |
|-----------------|-------------|
| 802.11a         | 2TX/2RX     |
| 802. 11n 20MHz  | 2TX/2RX     |
| 802. 11n 40MHz  | 2TX/2RX     |
| 802.11ax 80MHz  | 2TX/2RX     |
| 802.11ac 80MHz  | 2TX/2RX     |



## 2.2 Carrier Frequency and Channel

### FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20) ,802.11ax (HE20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

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

1 channel is provided for 802.11ac (VHT80) , 802.11ax (HE80):

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

### WLAN 5.26 ~ 5.32GHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20) ,802.11ax (HE20):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 52      | 5260MHz   | 56      | 5280MHz   |
| 60      | 5300MHz   | 64      | 5320MHz   |

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 54      | 5270MHz   | 62      | 5310MHz   |

1 channels are provided for 802.11ac (VHT80), 802.11ax (HE80):

| CHANNEL | FREQUENCY |
|---------|-----------|
| 58      | 5290MHz   |



## WLAN 5.50 ~ 5.72GHz

9 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20)::

| CHANNEL    | FREQUENCY      | CHANNEL    | FREQUENCY      |
|------------|----------------|------------|----------------|
| <b>100</b> | <b>5500MHz</b> | 124        | 5620MHz        |
| 104        | 5520MHz        | 128        | 5640MHz        |
| 108        | 5540MHz        | 132        | 5660MHz        |
| 112        | 5560MHz        | 136        | 5680MHz        |
| 116        | 5580MHz        | <b>140</b> | <b>5700MHz</b> |
| <b>120</b> | <b>5600MHz</b> | <b>144</b> | <b>5720MHz</b> |

4 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

| CHANNEL    | FREQUENCY      | CHANNEL    | FREQUENCY      |
|------------|----------------|------------|----------------|
| <b>102</b> | <b>5510MHz</b> | <b>126</b> | <b>5630MHz</b> |
| 110        | 5550MHz        | <b>134</b> | <b>5670MHz</b> |
| 118        | 5590MHz        | <b>142</b> | <b>5710MHz</b> |

2 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

| CHANNEL    | FREQUENCY      | CHANNEL    | FREQUENCY      |
|------------|----------------|------------|----------------|
| <b>106</b> | <b>5530MHz</b> | <b>138</b> | <b>5690MHz</b> |
| <b>122</b> | <b>5610MHz</b> |            |                |

## FOR 5745 ~ 5825MHz

5 channels are provided for 802.11a, 802.11a c 20MHz, 802.11n (20MHz), 802.11ax (HE20)::

| CHANNEL    | FREQUENCY      | CHANNEL | FREQUENCY |
|------------|----------------|---------|-----------|
| <b>149</b> | <b>5745MHz</b> | 153     | 5765MHz   |
| <b>157</b> | <b>5785MHz</b> | 161     | 5805MHz   |
| <b>165</b> | <b>5825MHz</b> | --      | --        |

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

| CHANNEL    | FREQUENCY      | CHANNEL    | FREQUENCY      |
|------------|----------------|------------|----------------|
| <b>151</b> | <b>5755MHz</b> | <b>159</b> | <b>5795MHz</b> |

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

| CHANNEL    | FREQUENCY      | CHANNEL | FREQUENCY |
|------------|----------------|---------|-----------|
| <b>155</b> | <b>5775MHz</b> | --      | --        |

1. The channels which were indicated in bold type of the above channel list were selected as representative test channel. Therefore only the data of the test channels were recorded in this report.
2. By means of test software which provided by manufacture, the power levels during the tests were set according to the following codes:



| Operated in 5180 ~ 5240MHz band |                  |                    |                  |                    |                  |                    |                  |                    |                  |
|---------------------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|
| 802.11a                         |                  | 802.11n(HT20)      |                  | 802.11n(HT40)      |                  | 802.11ac (VHT80)   |                  | 802.11ax (HE80)    |                  |
| FREQUEN<br>CY(MHZ)              | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING |
| 5180                            | 17               | 5180               | 11.5             | 5190               | 13               | 5210               | 12               | 5210               | 11               |
| 5200                            | 17               | 5200               | 11.5             | 5230               | 13               |                    |                  |                    |                  |
| 5240                            | 17               | 5240               | 11.5             |                    |                  |                    |                  |                    |                  |
| Operated in 5260 ~ 5320MHz band |                  |                    |                  |                    |                  |                    |                  |                    |                  |
| 802.11a                         |                  | 802.11n(HT20)      |                  | 802.11n(HT40)      |                  | 802.11ac (VHT80)   |                  | 802.11ax (HE80)    |                  |
| FREQUEN<br>CY(MHZ)              | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING |
| 5260                            | 17               | 5260               | 14               | 5270               | 13               | 5290               | 12               | 5290               | 11               |
| 5280                            | 17               | 5280               | 14               | 5310               | 13               |                    |                  |                    |                  |
| 5320                            | 17               | 5320               | 14               |                    |                  |                    |                  |                    |                  |
| Operated in 5500 ~ 5720MHz band |                  |                    |                  |                    |                  |                    |                  |                    |                  |
| 802.11a                         |                  | 802.11n(HT20)      |                  | 802.11n(HT40)      |                  | 802.11ac (VHT80)   |                  | 802.11ax (HE80)    |                  |
| FREQUEN<br>CY(MHZ)              | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING | FREQUEN<br>CY(MHZ) | POWER<br>SETTING |
| 5500                            | 17               | 5500               | 14               | 5510               | 13               | 5530               | 12               | 5530               | 11               |
| 5600                            | 17               | 5600               | 14               | 5630               | 13               | 5610               | 12               | 5610               | 11               |
| 5700                            | 17               | 5700               | 14               | 5670               | 13               | 5690               | 12               | 5690               | 11               |
| 5720                            | 17               | 5720               | 14               | 5710               | 13               |                    |                  |                    |                  |
| Operated in 5745 ~ 5825MHz band |                  |                    |                  |                    |                  |                    |                  |                    |                  |
| 802.11a                         |                  | 802.11n(HT20)      |                  | 802.11n(HT40)      |                  | 802.11ac (VHT80)   |                  | 802.11ax (HE80)    |                  |
| CHANNEL                         | POWER<br>SETTING | CHANNEL            | POWER<br>SETTING | CHANNEL            | POWER<br>SETTING | CHANNEL            | POWER<br>SETTING | CHANNEL            | POWER<br>SETTING |
| 5745                            | 17               | 5745               | 14               | 5755               | 13               | 5755               | 12               | 5755               | 11               |
| 5785                            | 17               | 5785               | 14               | 5795               | 13               |                    |                  |                    |                  |
| 5825                            | 17               | 5825               | 14               |                    |                  |                    |                  |                    |                  |



## 2.3 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

| EUT<br>CONFIGURE<br>MODE | APPLICABLE TO |       |     |      | DESCRIPTION                             |
|--------------------------|---------------|-------|-----|------|-----------------------------------------|
|                          | RE $\geq$ 1G  | RE<1G | PLC | APCM |                                         |
| -                        | √             | √     | √   | √    | Powered by host unit with wifi(5G) link |

Where **RE $\geq$ 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 **X-plane**.**NOTE:** "-" means no effect.

| MODULATION                      | DATA RATE |
|---------------------------------|-----------|
| 802.11a                         | 6Mbps     |
| 802.11n HT20                    | MCS0      |
| 802.11n HT40                    | MCS0      |
| 802.11ac VHT20(Covered by HT20) | MCS0      |
| 802.11ac VHT40(Covered by HT40) | MCS0      |
| 802.11ax HE20(Covered by HT20)  | MCS0      |
| 802.11ax HE40(Covered by HT40)  | MCS0      |
| 802.11ac VHT80                  | MCS0      |
| 802.11ax HE80                   | MCS0      |

**TEST CONDITION:**

| APPLICABLE TO                | ENVIRONMENTAL CONDITIONS | INPUT POWER              | TESTED BY  |
|------------------------------|--------------------------|--------------------------|------------|
| <b>RE&lt;1G</b>              | 25deg. C, 54%RH          | DC 5V From USB Host Unit | Liu ShiWei |
| <b>RE<math>\geq</math>1G</b> | 25deg. C, 54%RH          | DC 5V From USB Host Unit | Liu ShiWei |
| <b>PLC</b>                   | 20deg. C, 56%RH          | DC 5V From USB Host Unit | Liu ShiWei |
| <b>APCM</b>                  | 20deg. C, 55%RH          | DC 5V From USB Host Unit | Liu ShiWei |



## 2.4 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.

| Support Equipment |             |                   |            |                      |                    |                |             |
|-------------------|-------------|-------------------|------------|----------------------|--------------------|----------------|-------------|
| NO                | Description | Brand             | Model No.  | Serial Number        | Supplied by        |                |             |
|                   |             |                   |            |                      |                    |                |             |
|                   |             |                   |            |                      |                    |                |             |
| Support Cable     |             |                   |            |                      |                    |                |             |
| NO                | Description | Quantity (Number) | Length (m) | Detachable (Yes/ No) | Shielded (Yes/ No) | Cores (Number) | Supplied by |
| -                 | -           | -                 | -          | -                    | -                  | -              | -           |

## 2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

**FCC Part 15, Subpart E (15.407)**

**KDB 789033 D02 General UNII Test Procedures New Rules v02r01**

**KDB 662911 D01 Multiple Transmitter Output v02r01**

**Canada RSS-247 Issue 2 (2017-02)**

**Canada RSS-Gen Issue 5 (2019-03)**

**ANSI C63.10-2020**

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



## 3 TEST TYPES AND RESULTS

### 3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

#### 3.1.1 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<br>(MHz) | FIELD STRENGTH<br>(microvolts/meter) | MEASUREMENT DISTANCE<br>(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 30dB under any condition of modulation.



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

| APPLICABLE TO                                                   | LIMIT                |                                 |
|-----------------------------------------------------------------|----------------------|---------------------------------|
| KDB 789033 D02 General UNII<br>Test Procedures New Rules v02r01 | 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)                                                    | Note                 | Note                            |

### NOTE:

For transmitters operating in the 5.725-5.85 GHz band: Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the alternative limit.

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

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



## 3.1.3 TEST PROCEDURES

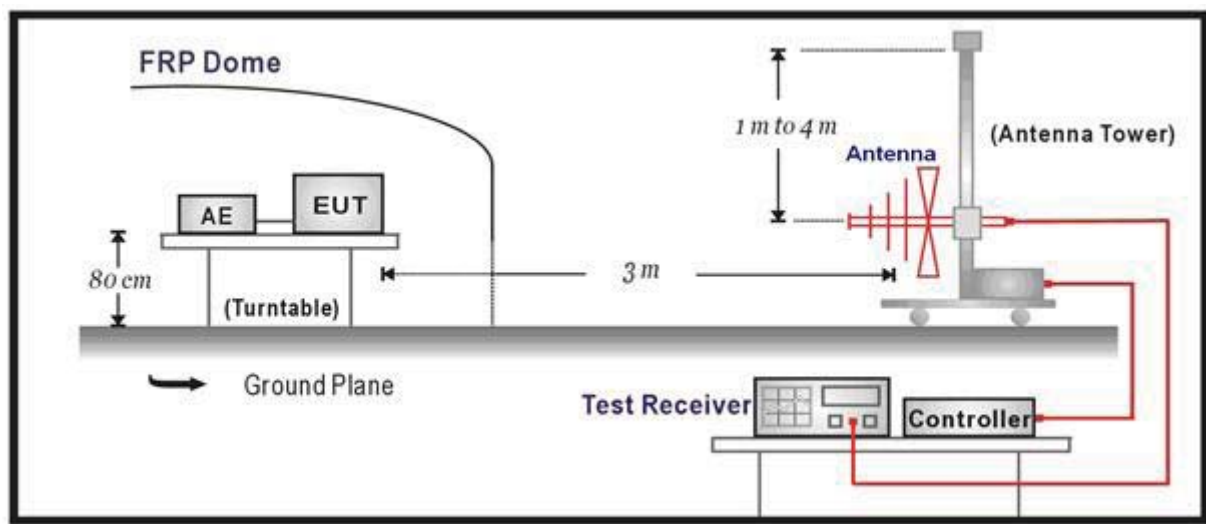
- a. The EUT was placed on the top of a rotating table 1.5 meters(above 1GHz) and 0.8 meters(below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving 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:

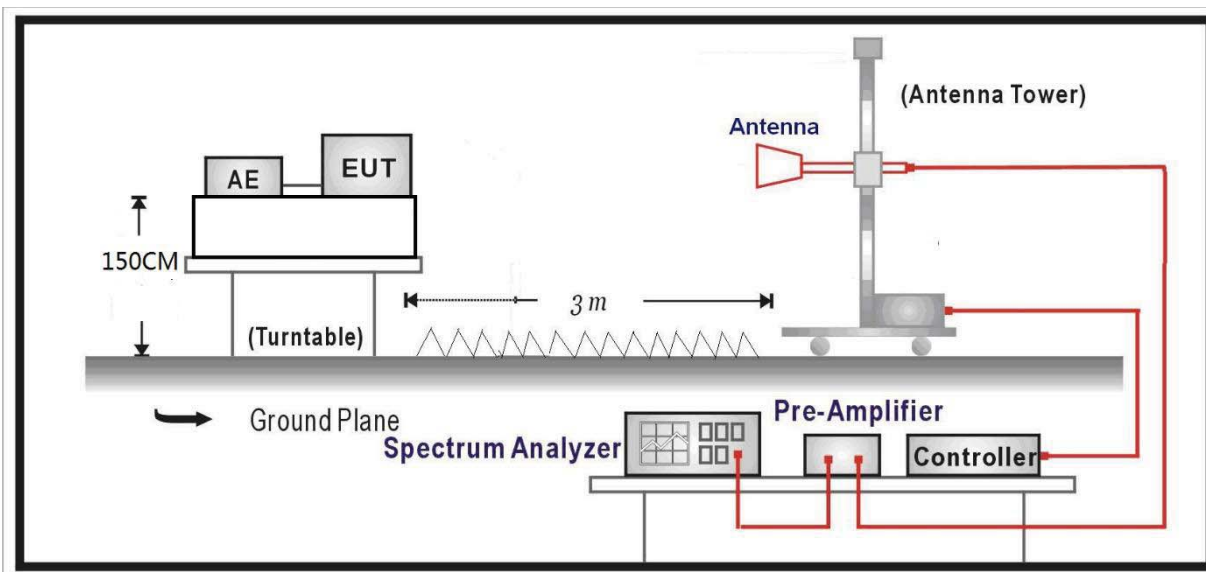
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is  $\geq 1/T$  (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.

## 3.1.4 TEST SETUP

Below 1GHz Test Setup:



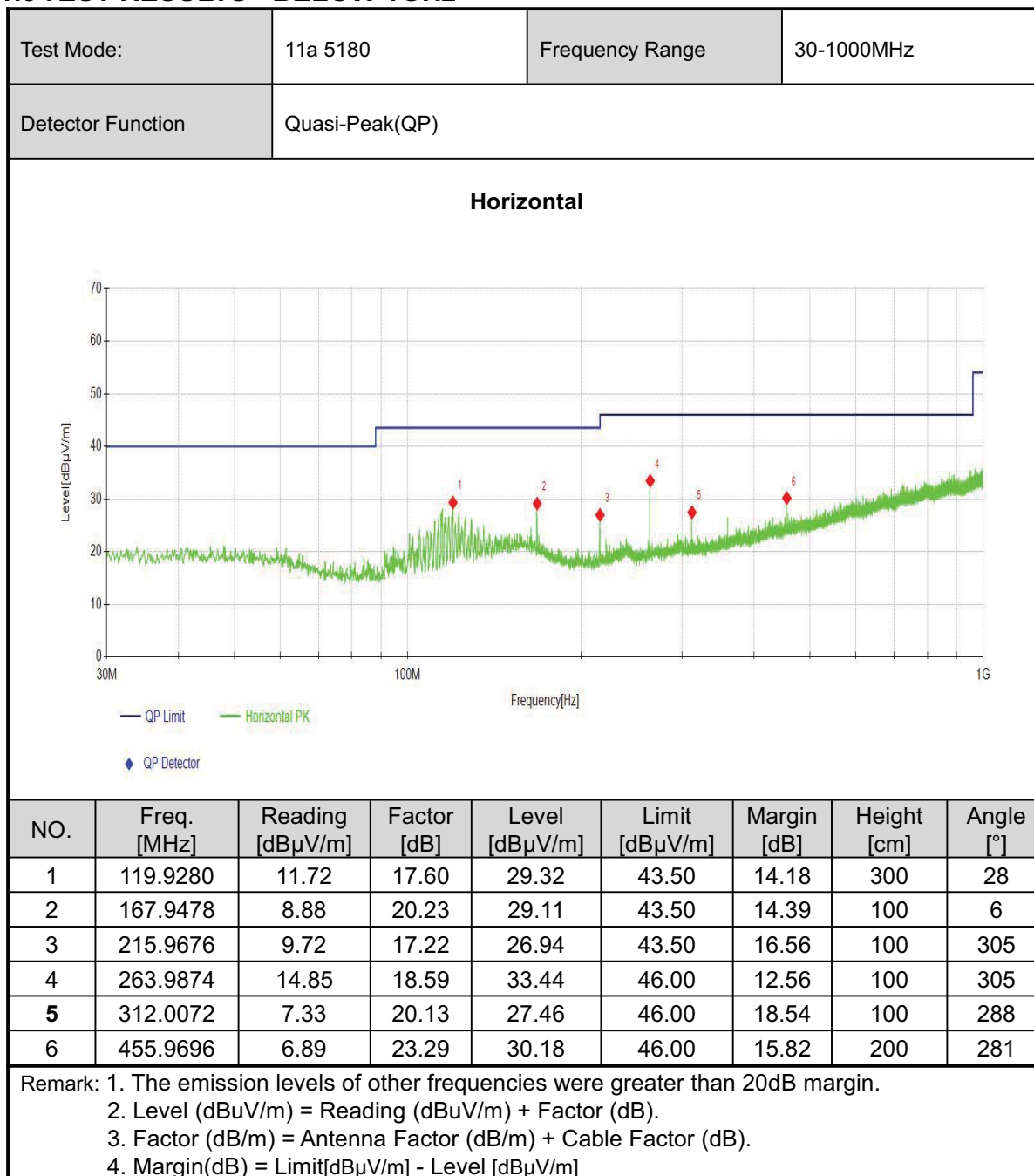
Above 1GHz Test Setup:

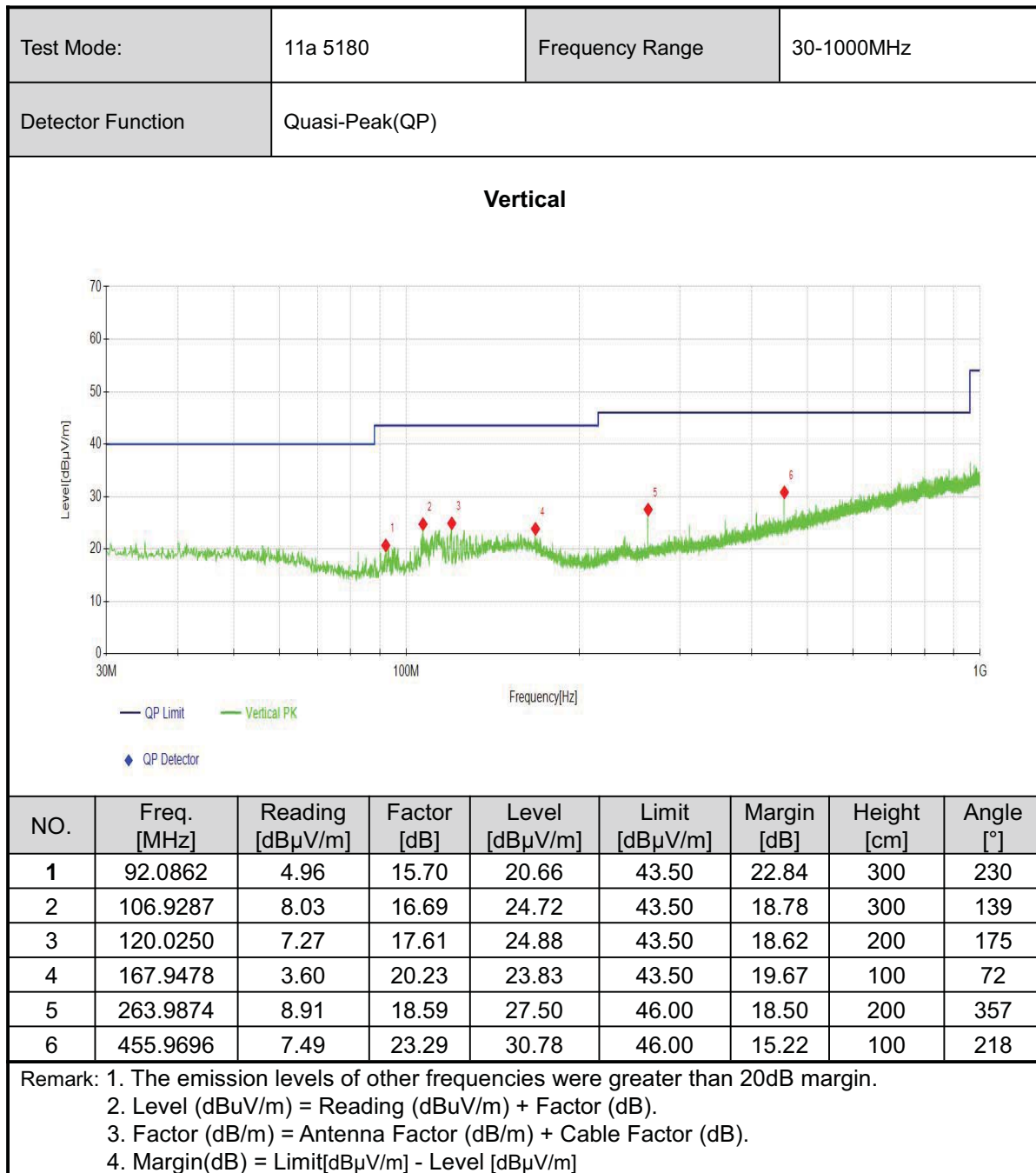


**Note:** For the actual test configuration, please refer to the related Item in this test report (Photographs of the Test Setup)



## 3.1.5 TEST RESULTS - BELOW 1GHz







## 3.1.6 TEST RESULTS - Band 1 (5180-5240MHz):

### ABOVE 1GHz DATA

|                 |              |                   |             |                |                |             |             |           |          |
|-----------------|--------------|-------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| Channel         | 802.11a CH36 | Frequency         | 5180 MHz    |                |                |             |             |           |          |
| Frequency Range | Above 1G     | Detector Function | PK/AV       |                |                |             |             |           |          |
| Horizontal      |              |                   |             |                |                |             |             |           |          |
| NO.             | Freq. [MHz]  | Reading [dBμV/m]  | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5077.7289    | 46.66             | 7.72        | 54.38          | 74.00          | 19.62       | 258         | 204       | PK       |
| 2               | 5110.8654    | 35.69             | 8.05        | 43.74          | 54.00          | 10.26       | 163         | 293       | AV       |
| 3               | 5150.0000    | 46.35             | 8.03        | 54.38          | 74.00          | 19.62       | 324         | 251       | PK       |
| 4               | 5150.0000    | 35.64             | 8.03        | 43.67          | 54.00          | 10.33       | 247         | 253       | AV       |
| 5               | 5178.5793    | 85.78             | 7.90        | 93.68          |                |             | 180         | 230       | AV       |
| 6               | 5178.5793    | 94.78             | 7.90        | 102.68         |                |             | 300         | 230       | PK       |
| 7               | 10360.0000   | 26.47             | 14.09       | 40.56          | 68.20          | 27.64       | 263         | 129       | PK       |
| 8               | 10360.0000   | 18.70             | 14.09       | 32.79          | 54.00          | 21.21       | 171         | 241       | AV       |
| 9               | 15540.0000   | 22.92             | 19.38       | 42.30          | 74.00          | 31.70       | 315         | 3         | PK       |
| 10              | 15540.0000   | 14.56             | 19.38       | 33.94          | 54.00          | 20.06       | 303         | 198       | AV       |

FCC Part15C

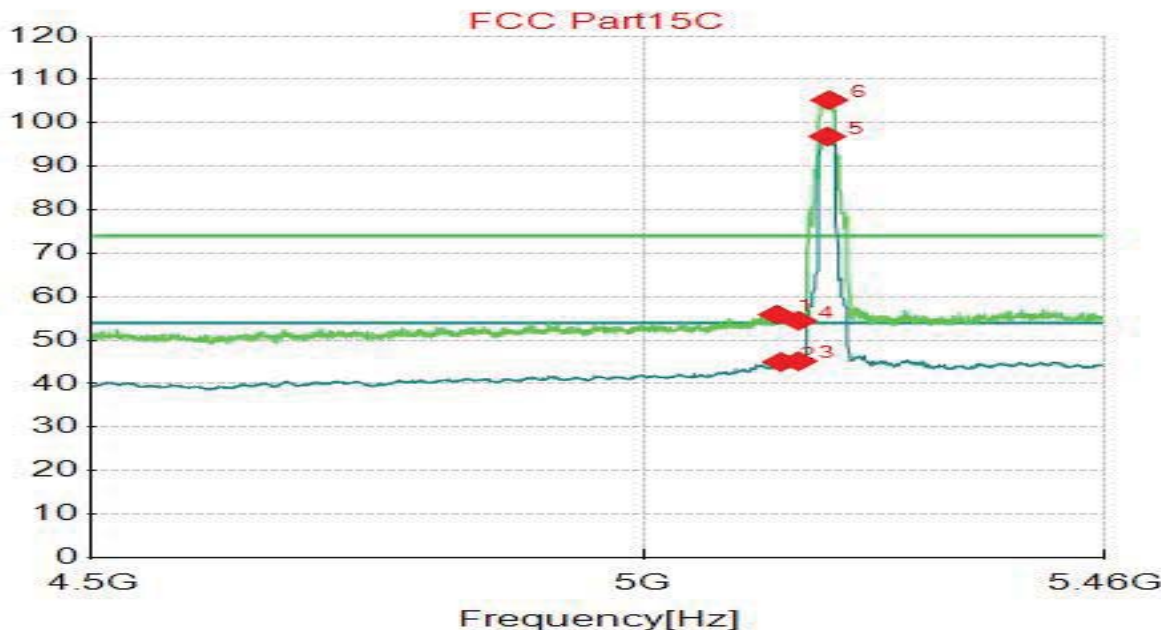
Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                 |              |                  |             |                   |                |             |             |           |          |
|-----------------|--------------|------------------|-------------|-------------------|----------------|-------------|-------------|-----------|----------|
| Channel         | 802.11a CH36 |                  |             | Frequency         | 5180 MHz       |             |             |           |          |
| Frequency Range | Above 1G     |                  |             | Detector Function | PK/AV          |             |             |           |          |
| Vertical        |              |                  |             |                   |                |             |             |           |          |
| NO.             | Freq. [MHz]  | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m]    | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5129.1146    | 47.67            | 8.21        | 55.88             | 74.00          | 18.12       | 100         | 3         | PK       |
| 2               | 5132.9565    | 36.83            | 8.16        | 44.99             | 54.00          | 9.01        | 185         | 1         | AV       |
| 3               | 5150.0000    | 37.13            | 8.03        | 45.16             | 54.00          | 8.84        | 121         | 1         | AV       |
| 4               | 5150.0000    | 46.46            | 8.03        | 54.49             | 74.00          | 19.51       | 102         | 1         | PK       |
| 5               | 5178.5793    | 88.98            | 7.90        | 96.88             |                |             | 190         | 1         | AV       |
| 6               | 5180.5003    | 97.32            | 7.90        | 105.22            |                |             | 246         | 1         | PK       |
| 7               | 10360.0000   | 28.03            | 14.09       | 42.12             | 68.20          | 26.08       | 160         | 353       | PK       |
| 8               | 10360.0000   | 18.76            | 14.09       | 32.85             | 54.00          | 21.15       | 200         | 334       | AV       |
| 9               | 15540.0000   | 23.47            | 19.38       | 42.85             | 74.00          | 31.15       | 208         | 218       | PK       |
| 10              | 15540.0000   | 15.06            | 19.38       | 34.44             | 54.00          | 19.56       | 345         | 261       | AV       |

FCC Part15C



Frequency[Hz]

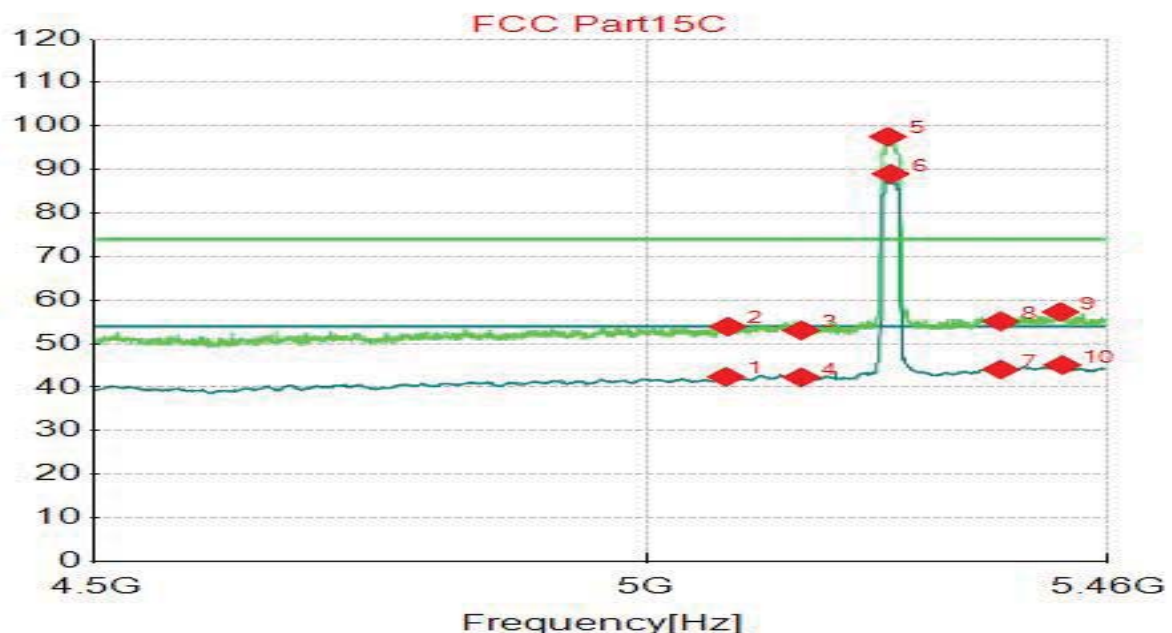
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                                                                                                                                                                                                                                                              |                |                     |                |                   |                   |                |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Channel                                                                                                                                                                                                                                                      |                | 802.11a CH 40       |                | Frequency         |                   | 5200MHz        |                |              |          |
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                | Detector Function |                   | PK/AV          |                |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO.                                                                                                                                                                                                                                                          | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 10400.0000     | 27.25               | 14.30          | 41.55             | 68.20             | 26.65          | 104            | 276          | PK       |
| 2                                                                                                                                                                                                                                                            | 10400.0000     | 18.15               | 14.30          | 32.45             | 54.00             | 21.55          | 116            | 345          | AV       |
| 3                                                                                                                                                                                                                                                            | 15600.0000     | 22.39               | 19.58          | 41.97             | 74.00             | 32.03          | 228            | 142          | PK       |
| 4                                                                                                                                                                                                                                                            | 15600.0000     | 14.02               | 19.58          | 33.60             | 54.00             | 20.40          | 391            | 316          | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO.                                                                                                                                                                                                                                                          | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 10400.0000     | 27.71               | 14.30          | 42.01             | 68.20             | 26.19          | 334            | 69           | PK       |
| 2                                                                                                                                                                                                                                                            | 10400.0000     | 18.43               | 14.30          | 32.73             | 54.00             | 21.27          | 371            | 66           | AV       |
| 3                                                                                                                                                                                                                                                            | 15600.0000     | 23.72               | 19.58          | 43.30             | 74.00             | 30.70          | 200            | 26           | PK       |
| 4                                                                                                                                                                                                                                                            | 15600.0000     | 13.83               | 19.58          | 33.41             | 54.00             | 20.59          | 314            | 102          | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m] |                |                     |                |                   |                   |                |                |              |          |



| Channel         |                |                     | 802.11a CH48   |                   | Frequency         |                | 5240 MHz       |              |          |
|-----------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Frequency Range |                |                     | Above 1G       |                   | Detector Function |                | PK/AV          |              |          |
| Horizontal      |                |                     |                |                   |                   |                |                |              |          |
| NO.             | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1               | 5076.2881      | 34.73               | 7.66           | 42.39             | 54.00             | 11.61          | 298            | 65           | AV       |
| 2               | 5078.2091      | 46.18               | 7.74           | 53.92             | 74.00             | 20.08          | 389            | 304          | PK       |
| 3               | 5150.0000      | 45.03               | 8.03           | 53.06             | 74.00             | 20.94          | 142            | 10           | PK       |
| 4               | 5150.0000      | 34.24               | 8.03           | 42.27             | 54.00             | 11.73          | 370            | 136          | AV       |
| 5               | 5235.7279      | 89.33               | 8.21           | 97.54             |                   |                | 198            | 230          | PK       |
| 6               | 5238.6093      | 80.79               | 8.21           | 89.00             |                   |                | 282            | 230          | AV       |
| 7               | 5350.0000      | 34.10               | 9.96           | 44.06             | 54.00             | 9.94           | 199            | 138          | AV       |
| 8               | 5350.0000      | 45.18               | 9.96           | 55.14             | 74.00             | 18.86          | 105            | 151          | PK       |
| 9               | 5411.4957      | 47.07               | 10.21          | 57.28             | 74.00             | 16.72          | 357            | 183          | PK       |
| 10              | 5413.4167      | 34.99               | 10.11          | 45.10             | 54.00             | 8.90           | 170            | 142          | AV       |
| 11              | 10480.0000     | 26.52               | 14.45          | 40.97             | 68.20             | 27.23          | 127            | 340          | PK       |
| 12              | 10480.0000     | 17.48               | 14.45          | 31.93             | 54.00             | 22.07          | 138            | 46           | AV       |
| 13              | 15720.0000     | 22.86               | 20.55          | 43.41             | 74.00             | 30.59          | 386            | 286          | PK       |
| 14              | 15720.0000     | 14.22               | 20.55          | 34.77             | 54.00             | 19.23          | 374            | 286          | AV       |



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                 |              |                  |             |                   |                |             |             |           |          |
|-----------------|--------------|------------------|-------------|-------------------|----------------|-------------|-------------|-----------|----------|
| Channel         | 802.11a CH48 |                  |             | Frequency         | 5240 MHz       |             |             |           |          |
| Frequency Range | Above 1G     |                  |             | Detector Function | PK/AV          |             |             |           |          |
| Vertical        |              |                  |             |                   |                |             |             |           |          |
| NO.             | Freq. [MHz]  | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m]    | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5131.9960    | 37.35            | 8.19        | 45.54             | 54.00          | 8.46        | 181         | 279       | AV       |
| 2               | 5134.8774    | 48.95            | 8.10        | 57.05             | 74.00          | 16.95       | 208         | 283       | PK       |
| 3               | 5150.0000    | 47.79            | 8.03        | 55.82             | 74.00          | 18.18       | 186         | 281       | PK       |
| 4               | 5150.0000    | 37.54            | 8.03        | 45.57             | 54.00          | 8.43        | 220         | 290       | AV       |
| 5               | 5238.6093    | 101.59           | 8.21        | 109.80            |                |             | 304         | 292       | PK       |
| 6               | 5239.0895    | 93.28            | 8.22        | 101.50            |                |             | 255         | 288       | AV       |
| 7               | 5350.0000    | 36.00            | 9.96        | 45.96             | 54.00          | 8.04        | 359         | 292       | AV       |
| 8               | 5350.0000    | 46.13            | 9.96        | 56.09             | 74.00          | 17.91       | 188         | 281       | PK       |
| 9               | 5373.5568    | 47.29            | 10.00       | 57.29             | 74.00          | 16.71       | 390         | 275       | PK       |
| 10              | 5377.8789    | 35.82            | 10.08       | 45.90             | 54.00          | 8.10        | 293         | 292       | AV       |
| 11              | 10480.0000   | 28.01            | 14.45       | 42.46             | 68.20          | 25.74       | 133         | 9         | PK       |
| 12              | 10480.0000   | 17.56            | 14.45       | 32.01             | 54.00          | 21.99       | 181         | 175       | AV       |
| 13              | 15720.0000   | 22.18            | 20.55       | 42.73             | 74.00          | 31.27       | 158         | 323       | PK       |
| 14              | 15720.0000   | 13.56            | 20.55       | 34.11             | 54.00          | 19.89       | 388         | 139       | AV       |

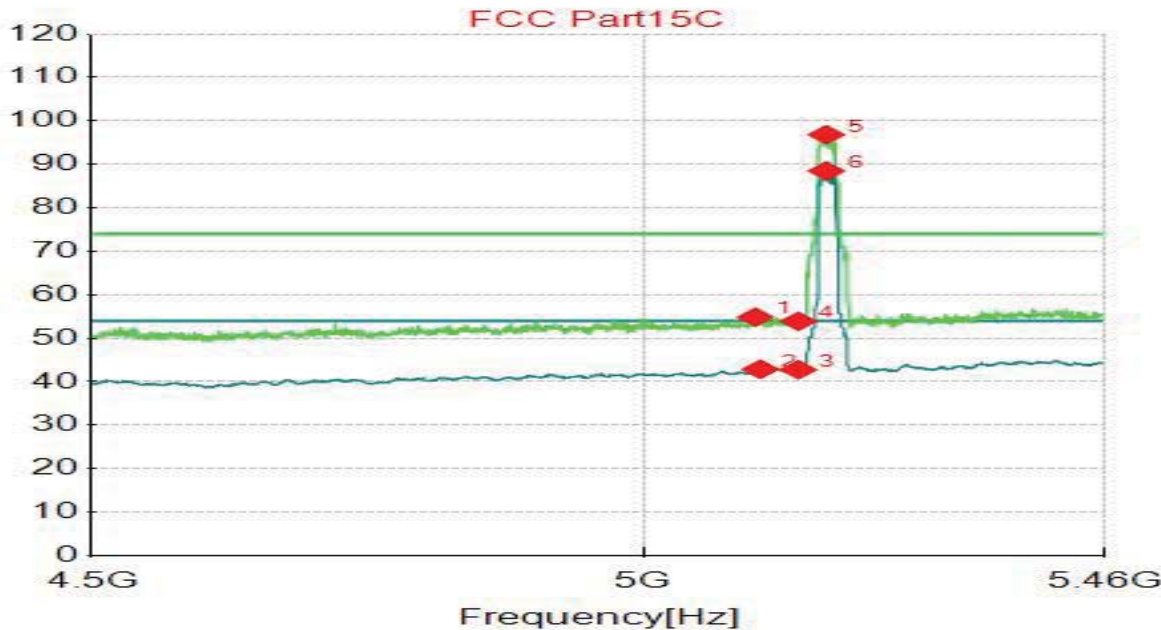
FCC Part15C

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]



|                 |                |                  |             |                   |                |             |             |           |          |
|-----------------|----------------|------------------|-------------|-------------------|----------------|-------------|-------------|-----------|----------|
| Channel         | 802.11n20 CH36 |                  |             | Frequency         | 5180 MHz       |             |             |           |          |
| Frequency Range | Above 1G       |                  |             | Detector Function | PK/AV          |             |             |           |          |
| Horizontal      |                |                  |             |                   |                |             |             |           |          |
| NO.             | Freq. [MHz]    | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m]    | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5107.9840      | 46.87            | 7.97        | 54.84             | 74.00          | 19.16       | 296         | 332       | PK       |
| 2               | 5112.7864      | 34.88            | 7.99        | 42.87             | 54.00          | 11.13       | 293         | 237       | AV       |
| 3               | 5150.0000      | 34.72            | 8.03        | 42.75             | 54.00          | 11.25       | 274         | 260       | AV       |
| 4               | 5150.0000      | 45.87            | 8.03        | 53.90             | 74.00          | 20.10       | 358         | 134       | PK       |
| 5               | 5177.6188      | 88.92            | 7.89        | 96.81             |                |             | 400         | 144       | PK       |
| 6               | 5177.6188      | 80.59            | 7.89        | 88.48             |                |             | 149         | 140       | AV       |
| 7               | 10360.0000     | 27.45            | 14.09       | 41.54             | 68.20          | 26.66       | 367         | 72        | PK       |
| 8               | 10360.0000     | 18.30            | 14.09       | 32.39             | 54.00          | 21.61       | 373         | 351       | AV       |
| 9               | 15540.0000     | 24.33            | 19.38       | 43.71             | 74.00          | 30.29       | 250         | 22        | PK       |
| 10              | 15540.0000     | 14.46            | 19.38       | 33.84             | 54.00          | 20.16       | 146         | 169       | AV       |

FCC Part15C



Frequency[Hz]

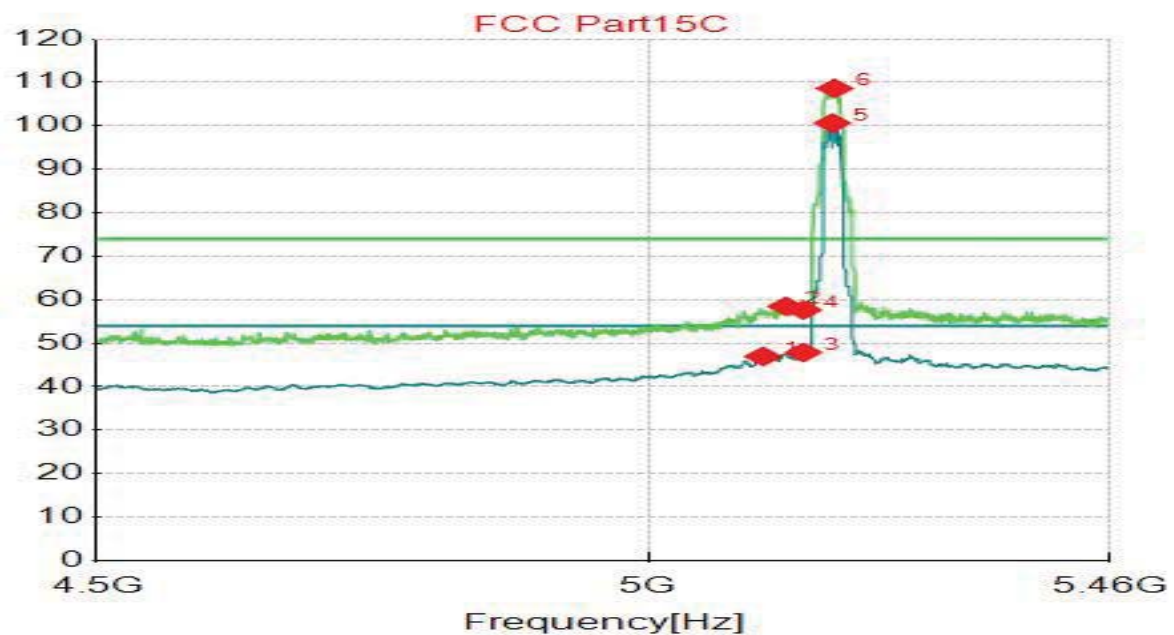
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                 |                |                   |          |
|-----------------|----------------|-------------------|----------|
| Channel         | 802.11n20 CH36 | Frequency         | 5180 MHz |
| Frequency Range | Above 1G       | Detector Function | PK/AV    |

## Vertical

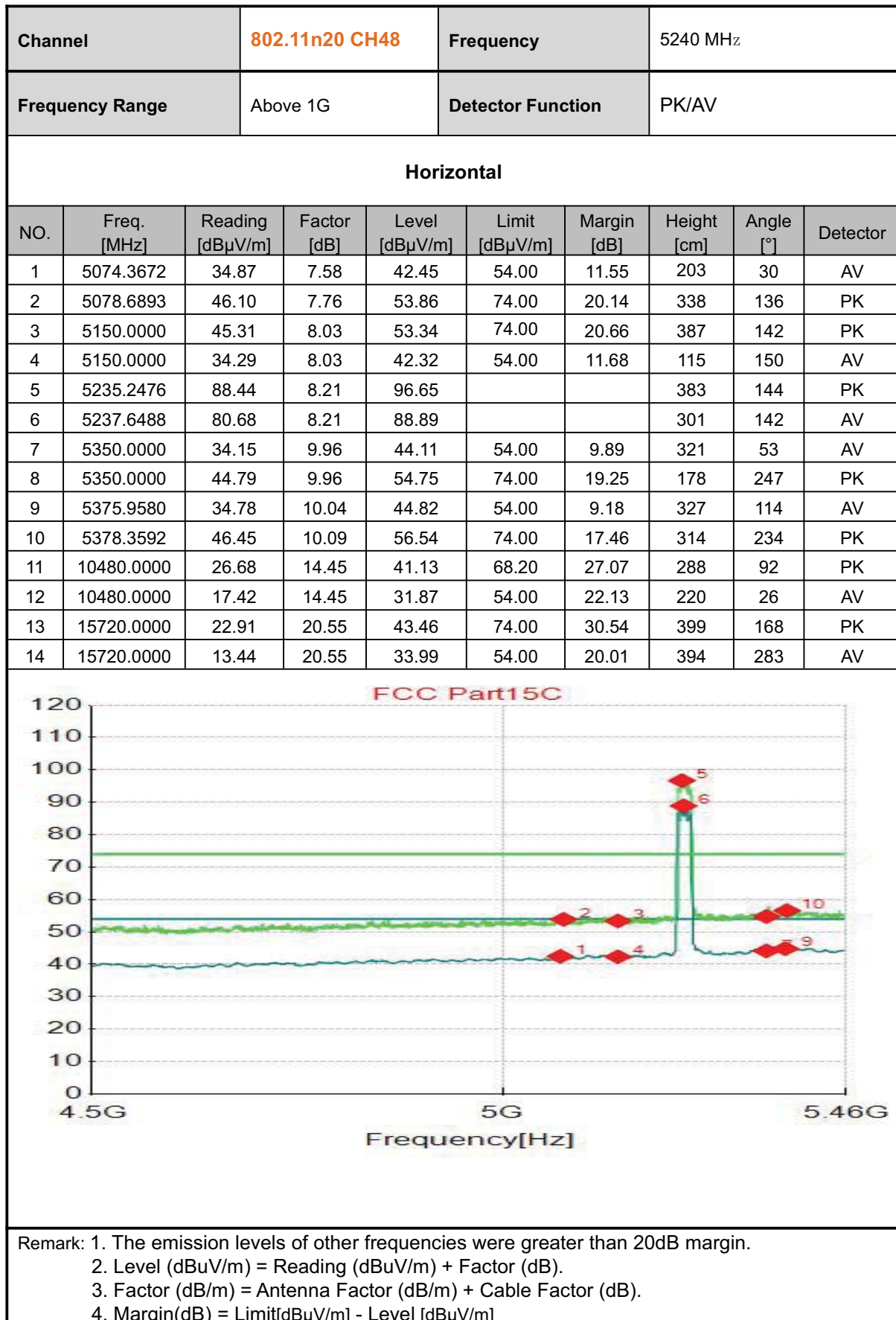
| NO. | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
|-----|-------------|------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| 1   | 5110.3852   | 38.89            | 8.07        | 46.96          | 54.00          | 7.04        | 334         | 274       | AV       |
| 2   | 5132.9565   | 50.30            | 8.16        | 58.46          | 74.00          | 15.54       | 300         | 300       | PK       |
| 3   | 5150.0000   | 39.85            | 8.03        | 47.88          | 54.00          | 6.12        | 190         | 287       | AV       |
| 4   | 5150.0000   | 49.60            | 8.03        | 57.63          | 74.00          | 16.37       | 188         | 300       | PK       |
| 5   | 5178.5793   | 92.73            | 7.90        | 100.63         |                |             | 344         | 281       | AV       |
| 6   | 5180.9805   | 100.72           | 7.89        | 108.61         |                |             | 321         | 281       | PK       |
| 7   | 10360.0000  | 28.52            | 14.09       | 42.61          | 68.20          | 25.59       | 215         | 332       | PK       |
| 8   | 10360.0000  | 18.15            | 14.09       | 32.24          | 54.00          | 21.76       | 208         | 49        | AV       |
| 9   | 15540.0000  | 23.99            | 19.38       | 43.37          | 74.00          | 30.63       | 130         | 360       | PK       |
| 10  | 15540.0000  | 15.36            | 19.38       | 34.74          | 54.00          | 19.26       | 296         | 355       | AV       |



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                                                                                                                                                                                                                                                              |                |                     |                |                   |                   |                |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Channel                                                                                                                                                                                                                                                      |                | 802.11n20 CH 40     |                |                   | Frequency         |                | 5200MHz        |              |          |
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                |                   | Detector Function |                | PK/AV          |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO.                                                                                                                                                                                                                                                          | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 10400.0000     | 26.49               | 14.30          | 40.79             | 68.20             | 27.41          | 163            | 29           | PK       |
| 2                                                                                                                                                                                                                                                            | 10400.0000     | 17.90               | 14.30          | 32.20             | 54.00             | 21.80          | 274            | 174          | AV       |
| 3                                                                                                                                                                                                                                                            | 15600.0000     | 25.07               | 19.58          | 44.65             | 74.00             | 29.35          | 387            | 1            | PK       |
| 4                                                                                                                                                                                                                                                            | 15600.0000     | 14.07               | 19.58          | 33.65             | 54.00             | 20.35          | 195            | 23           | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO.                                                                                                                                                                                                                                                          | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 10400.0000     | 28.98               | 14.30          | 43.28             | 68.20             | 24.92          | 242            | 142          | PK       |
| 2                                                                                                                                                                                                                                                            | 10400.0000     | 18.12               | 14.30          | 32.42             | 54.00             | 21.58          | 162            | 53           | AV       |
| 3                                                                                                                                                                                                                                                            | 15600.0000     | 23.02               | 19.58          | 42.60             | 74.00             | 31.40          | 132            | 304          | PK       |
| 4                                                                                                                                                                                                                                                            | 15600.0000     | 13.70               | 19.58          | 33.28             | 54.00             | 20.72          | 211            | 6            | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m] |                |                     |                |                   |                   |                |                |              |          |

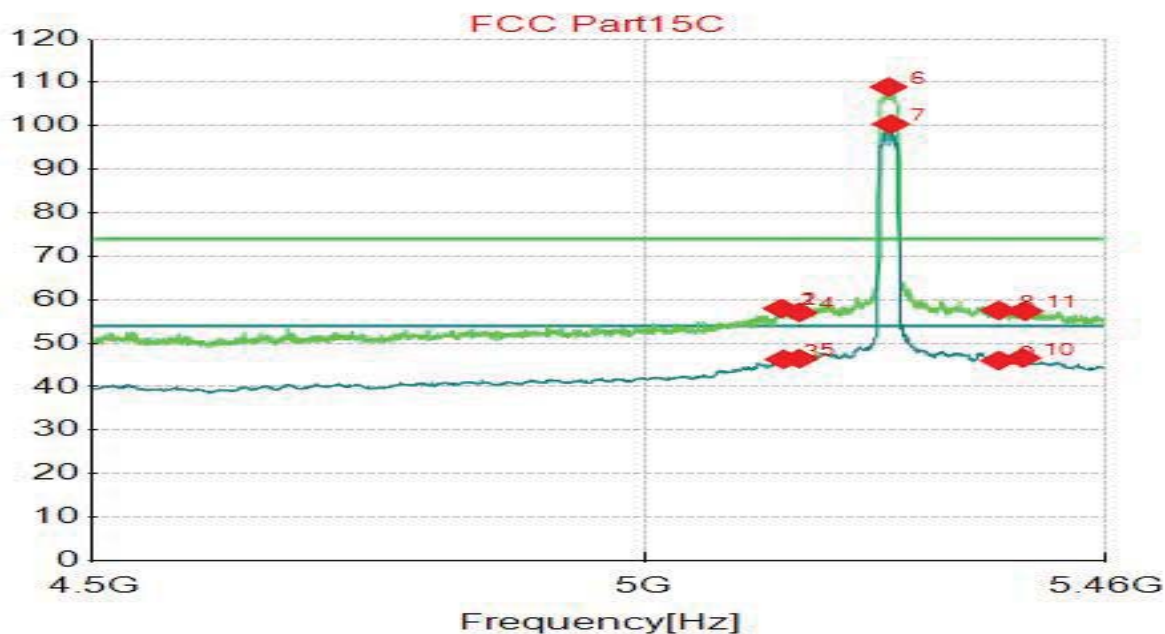




|                 |                |                   |          |
|-----------------|----------------|-------------------|----------|
| Channel         | 802.11n20 CH48 | Frequency         | 5240 MHz |
| Frequency Range | Above 1G       | Detector Function | PK/AV    |

## Vertical

| NO. | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
|-----|-------------|------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| 1   | 5132.4762   | 49.80            | 8.17        | 57.97          | 74.00          | 16.03       | 124         | 292       | PK       |
| 2   | 5132.4762   | 49.80            | 8.17        | 57.97          | 74.00          | 16.03       | 207         | 292       | PK       |
| 3   | 5134.3972   | 38.18            | 8.11        | 46.29          | 54.00          | 7.71        | 304         | 290       | AV       |
| 4   | 5150.0000   | 49.05            | 8.03        | 57.08          | 74.00          | 16.92       | 134         | 267       | PK       |
| 5   | 5150.0000   | 38.41            | 8.03        | 46.44          | 54.00          | 7.56        | 346         | 292       | AV       |
| 6   | 5238.6093   | 100.72           | 8.21        | 108.93         |                |             | 265         | 307       | PK       |
| 7   | 5241.0105   | 92.20            | 8.22        | 100.42         |                |             | 182         | 299       | AV       |
| 8   | 5350.0000   | 47.57            | 9.96        | 57.53          | 74.00          | 16.47       | 320         | 292       | PK       |
| 9   | 5350.0000   | 36.05            | 9.96        | 46.01          | 54.00          | 7.99        | 168         | 307       | AV       |
| 10  | 5374.5173   | 36.58            | 10.02       | 46.60          | 54.00          | 7.40        | 329         | 282       | AV       |
| 11  | 10480.0000  | 27.06            | 14.45       | 41.51          | 68.20          | 26.69       | 212         | 69        | PK       |
| 12  | 10480.0000  | 17.58            | 14.45       | 32.03          | 54.00          | 21.97       | 259         | 182       | AV       |
| 13  | 15720.0000  | 24.18            | 20.55       | 44.73          | 74.00          | 29.27       | 245         | 49        | PK       |
| 14  | 15720.0000  | 13.95            | 20.55       | 34.50          | 54.00          | 19.50       | 187         | 324       | AV       |



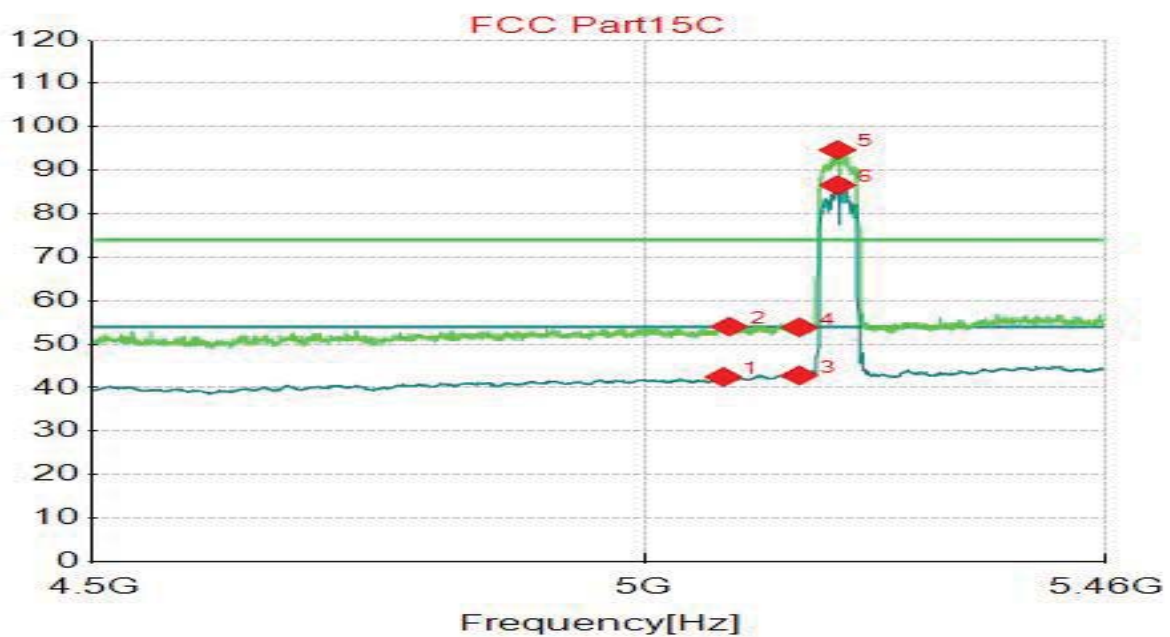
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                 |                |                   |          |
|-----------------|----------------|-------------------|----------|
| Channel         | 802.11n40 CH38 | Frequency         | 5190 MHz |
| Frequency Range | Above 1G       | Detector Function | PK/AV    |

## Horizontal

| NO. | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
|-----|-------------|------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| 1   | 5075.8079   | 34.80            | 7.64        | 42.44          | 54.00          | 11.56       | 202         | 229       | AV       |
| 2   | 5081.5708   | 46.26            | 7.78        | 54.04          | 74.00          | 19.96       | 354         | 338       | PK       |
| 3   | 5150.0000   | 34.78            | 8.03        | 42.81          | 54.00          | 11.19       | 183         | 148       | AV       |
| 4   | 5150.0000   | 45.84            | 8.03        | 53.87          | 74.00          | 20.13       | 225         | 220       | PK       |
| 5   | 5187.7039   | 86.99            | 7.70        | 94.69          |                |             | 146         | 140       | PK       |
| 6   | 5187.7039   | 78.89            | 7.70        | 86.59          |                |             | 250         | 142       | AV       |
| 7   | 10380.0000  | 27.40            | 14.14       | 41.54          | 68.20          | 26.66       | 152         | 56        | PK       |
| 8   | 10380.0000  | 17.79            | 14.14       | 31.93          | 54.00          | 22.07       | 207         | 223       | AV       |
| 9   | 15570.0000  | 22.53            | 19.64       | 42.17          | 74.00          | 31.83       | 237         | 279       | PK       |
| 10  | 15570.0000  | 13.88            | 19.64       | 33.52          | 54.00          | 20.48       | 163         | 285       | AV       |



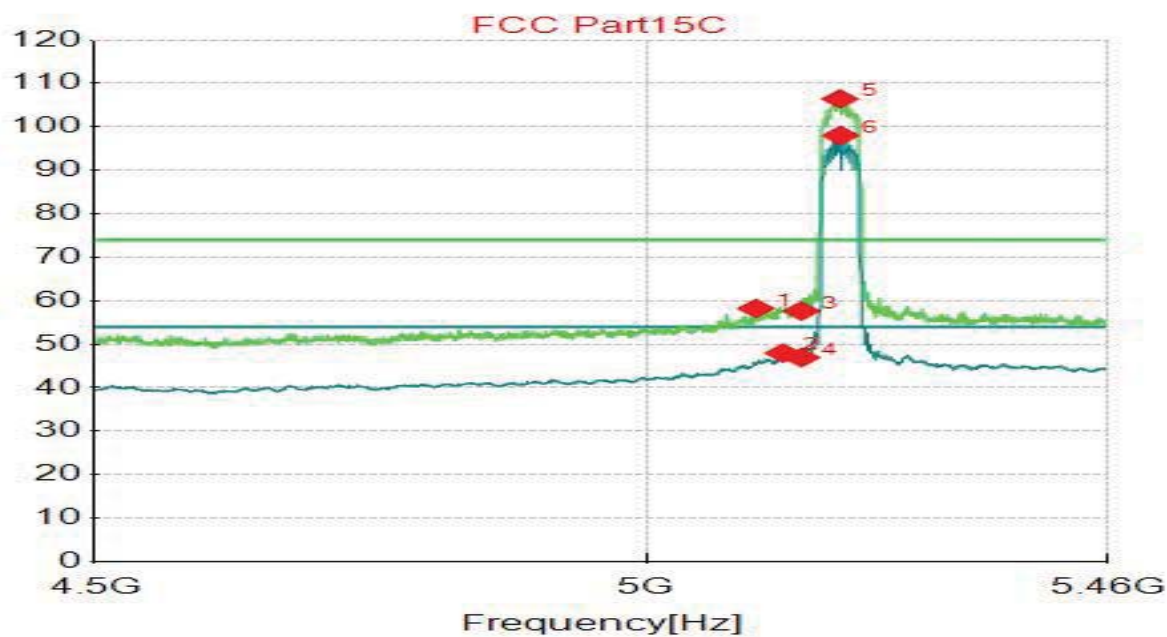
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                 |                |                   |          |
|-----------------|----------------|-------------------|----------|
| Channel         | 802.11n40 CH38 | Frequency         | 5190 MHz |
| Frequency Range | Above 1G       | Detector Function | PK/AV    |

### Vertical

| NO. | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
|-----|-------------|------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| 1   | 5105.5828   | 50.38            | 7.84        | 58.22          | 74.00          | 15.78       | 114         | 281       | PK       |
| 2   | 5131.9960   | 39.78            | 8.19        | 47.97          | 54.00          | 6.03        | 180         | 290       | AV       |
| 3   | 5150.0000   | 49.62            | 8.03        | 57.65          | 74.00          | 16.35       | 156         | 266       | PK       |
| 4   | 5150.0000   | 38.90            | 8.03        | 46.93          | 54.00          | 7.07        | 215         | 294       | AV       |
| 5   | 5188.1841   | 98.73            | 7.69        | 106.42         |                |             | 297         | 281       | PK       |
| 6   | 5188.6643   | 90.34            | 7.68        | 98.02          |                |             | 122         | 298       | AV       |
| 7   | 10380.0000  | 27.35            | 14.14       | 41.49          | 68.20          | 26.71       | 171         | 283       | PK       |
| 8   | 10380.0000  | 17.92            | 14.14       | 32.06          | 54.00          | 21.94       | 339         | 210       | AV       |
| 9   | 15570.0000  | 22.93            | 19.64       | 42.57          | 74.00          | 31.43       | 379         | 62        | PK       |
| 10  | 15570.0000  | 13.94            | 19.64       | 33.58          | 54.00          | 20.42       | 298         | 42        | AV       |



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



| Channel         | 802.11n40 CH46 | Frequency         | 5230 MHz    |                |                |             |             |           |          |
|-----------------|----------------|-------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| Frequency Range | Above 1G       | Detector Function | PK/AV       |                |                |             |             |           |          |
| Horizontal      |                |                   |             |                |                |             |             |           |          |
| NO.             | Freq. [MHz]    | Reading [dBμV/m]  | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5073.4067      | 46.86             | 7.54        | 54.40          | 74.00          | 19.60       | 202         | 11        | PK       |
| 2               | 5076.7684      | 34.53             | 7.68        | 42.21          | 54.00          | 11.79       | 92          | 103       | AV       |
| 3               | 5150.0000      | 34.37             | 8.03        | 42.40          | 54.00          | 11.60       | 352         | 141       | AV       |
| 4               | 5150.0000      | 45.17             | 8.03        | 53.20          | 74.00          | 20.80       | 39          | 265       | PK       |
| 5               | 5227.5638      | 78.73             | 8.20        | 86.93          |                |             | 237         | 141       | AV       |
| 6               | 5232.8464      | 87.23             | 8.20        | 95.43          |                |             | 34          | 145       | PK       |
| 7               | 5350.0000      | 45.72             | 9.96        | 55.68          | 74.00          | 18.32       | 325         | 208       | PK       |
| 8               | 5350.0000      | 34.19             | 9.96        | 44.15          | 54.00          | 9.85        | 355         | 296       | AV       |
| 9               | 5375.4777      | 34.71             | 10.03       | 44.74          | 54.00          | 9.26        | 365         | 229       | AV       |
| 10              | 5378.3592      | 47.28             | 10.09       | 57.37          | 74.00          | 16.63       | 177         | 183       | PK       |
| 11              | 10460.0000     | 26.96             | 14.59       | 41.55          | 68.20          | 26.65       | 148         | 149       | PK       |
| 12              | 10460.0000     | 16.95             | 14.59       | 31.54          | 54.00          | 22.46       | 259         | 264       | AV       |
| 13              | 15690.0000     | 13.99             | 20.46       | 34.45          | 54.00          | 19.55       | 314         | 23        | AV       |
| 14              | 15690.0000     | 23.82             | 20.46       | 44.28          | 74.00          | 29.72       | 318         | 46        | PK       |

FCC Part15C

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                 |                |                  |                   |                |                |             |             |           |          |
|-----------------|----------------|------------------|-------------------|----------------|----------------|-------------|-------------|-----------|----------|
| Channel         | 802.11n40 CH46 |                  | Frequency         | 5230 MHz       |                |             |             |           |          |
| Frequency Range | Above 1G       |                  | Detector Function | PK/AV          |                |             |             |           |          |
| Vertical        |                |                  |                   |                |                |             |             |           |          |
| NO.             | Freq. [MHz]    | Reading [dBμV/m] | Factor [dB]       | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5128.1541      | 49.03            | 8.16              | 57.19          | 74.00          | 16.81       | 287         | 269       | PK       |
| 2               | 5131.9960      | 38.60            | 8.19              | 46.79          | 54.00          | 7.21        | 399         | 298       | AV       |
| 3               | 5150.0000      | 38.23            | 8.03              | 46.26          | 54.00          | 7.74        | 32          | 288       | AV       |
| 4               | 5150.0000      | 48.94            | 8.03              | 56.97          | 74.00          | 17.03       | 201         | 298       | PK       |
| 5               | 5228.5243      | 99.51            | 8.20              | 107.71         |                |             | 277         | 290       | PK       |
| 6               | 5231.4057      | 90.09            | 8.20              | 98.29          |                |             | 98          | 306       | AV       |
| 7               | 5350.0000      | 35.74            | 9.96              | 45.70          | 54.00          | 8.30        | 104         | 298       | AV       |
| 8               | 5350.0000      | 46.36            | 9.96              | 56.32          | 74.00          | 17.68       | 225         | 266       | PK       |
| 9               | 5376.4382      | 36.22            | 10.05             | 46.27          | 54.00          | 7.73        | 270         | 302       | AV       |
| 10              | 5386.0430      | 47.58            | 10.08             | 57.66          | 74.00          | 16.34       | 107         | 304       | PK       |
| 11              | 10460.0000     | 26.22            | 14.59             | 40.81          | 68.20          | 27.39       | 140         | 211       | PK       |
| 12              | 10460.0000     | 17.09            | 14.59             | 31.68          | 54.00          | 22.32       | 243         | 79        | AV       |
| 13              | 15690.0000     | 14.58            | 20.46             | 35.04          | 54.00          | 18.96       | 184         | 76        | AV       |
| 14              | 15690.0000     | 24.02            | 20.46             | 44.48          | 74.00          | 29.52       | 376         | 115       | PK       |

FCC Part15C

Level[dBμV/m]

Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



| Channel         |             | 802.11ac80 CH42  |             | Frequency         |                | 5210 MHz    |             |           |          |
|-----------------|-------------|------------------|-------------|-------------------|----------------|-------------|-------------|-----------|----------|
| Frequency Range |             | Above 1G         |             | Detector Function |                | PK/AV       |             |           |          |
| Horizontal      |             |                  |             |                   |                |             |             |           |          |
| NO.             | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m]    | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5100.3002   | 47.05            | 7.57        | 54.62             | 74.00          | 19.38       | 100         | 77        | PK       |
| 2               | 5111.3457   | 34.73            | 8.03        | 42.76             | 54.00          | 11.24       | 291         | 302       | AV       |
| 3               | 5150.0000   | 34.44            | 8.03        | 42.47             | 54.00          | 11.53       | 198         | 141       | AV       |
| 4               | 5150.0000   | 45.38            | 8.03        | 53.41             | 74.00          | 20.59       | 216         | 0         | PK       |
| 5               | 5205.9530   | 82.19            | 8.20        | 90.39             |                |             | 299         | 141       | PK       |
| 6               | 5213.1566   | 72.40            | 8.46        | 80.86             |                |             | 250         | 141       | AV       |
| 7               | 5350.0000   | 45.54            | 9.96        | 55.50             | 74.00          | 18.50       | 14          | 88        | PK       |
| 8               | 5350.0000   | 34.32            | 9.96        | 44.28             | 54.00          | 9.72        | 348         | 255       | AV       |
| 9               | 5372.5963   | 47.03            | 9.98        | 57.01             | 74.00          | 16.99       | 382         | 351       | PK       |
| 10              | 5374.9975   | 34.81            | 10.02       | 44.83             | 54.00          | 9.17        | 252         | 170       | AV       |
| 11              | 5118.0690   | 49.87            | 7.82        | 57.69             | 74.00          | 16.31       | 100         | 273       | PK       |
| 12              | 5137.2786   | 39.30            | 8.02        | 47.32             | 54.00          | 6.68        | 291         | 290       | AV       |
| 13              | 5150.0000   | 39.83            | 8.03        | 47.86             | 54.00          | 6.14        | 198         | 265       | AV       |
| 14              | 5150.0000   | 50.42            | 8.03        | 58.45             | 74.00          | 15.55       | 216         | 294       | PK       |

FCC Part15C

Level[dBμV/m]

Frequency[Hz]

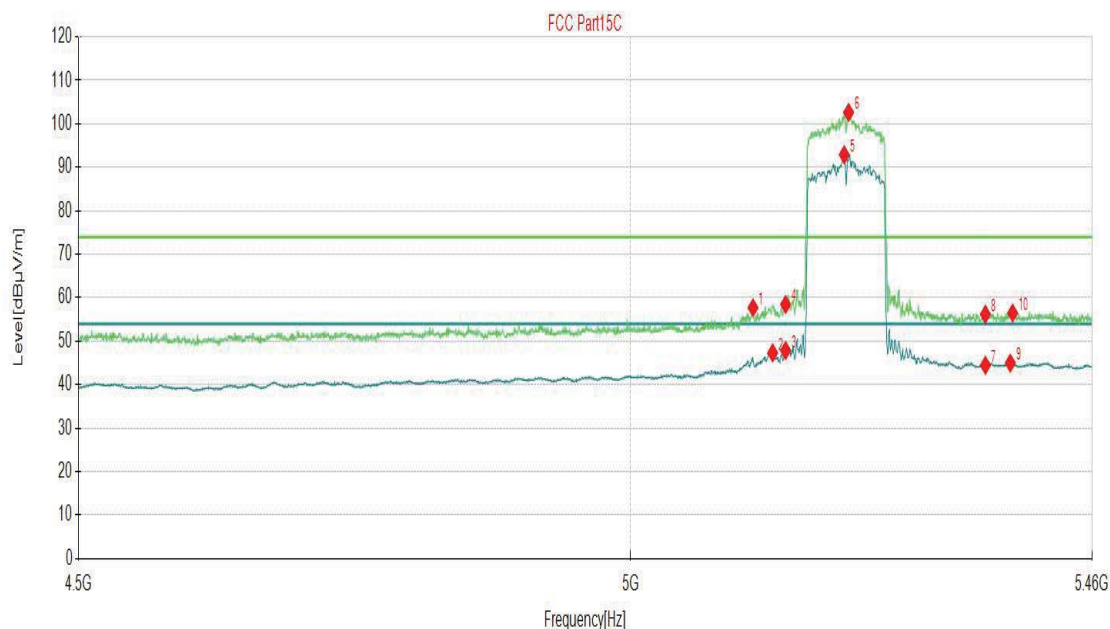
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                 |                 |                   |          |
|-----------------|-----------------|-------------------|----------|
| Channel         | 802.11ac80 CH42 | Frequency         | 5210 MHz |
| Frequency Range | Above 1G        | Detector Function | PK/AV    |

## Vertical

| NO. | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
|-----|-------------|------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| 1   | 5118.0690   | 49.87            | 7.82        | 57.69          | 74.00          | 16.31       | 240         | 273       | PK       |
| 2   | 5137.2786   | 39.30            | 8.02        | 47.32          | 54.00          | 6.68        | 379         | 290       | AV       |
| 3   | 5150.0000   | 39.83            | 8.03        | 47.86          | 54.00          | 6.14        | 333         | 265       | AV       |
| 4   | 5150.0000   | 50.42            | 8.03        | 58.45          | 74.00          | 15.55       | 299         | 294       | PK       |
| 5   | 5207.8739   | 84.50            | 8.38        | 92.88          |                |             | 214         | 299       | AV       |
| 6   | 5212.1961   | 94.12            | 8.50        | 102.62         |                |             | 132         | 292       | PK       |
| 7   | 5350.0000   | 34.49            | 9.96        | 44.45          | 54.00          | 9.55        | 353         | 114       | AV       |
| 8   | 5350.0000   | 46.23            | 9.96        | 56.19          | 74.00          | 17.81       | 389         | 72        | PK       |
| 9   | 5375.4777   | 34.94            | 10.03       | 44.97          | 54.00          | 9.03        | 397         | 305       | AV       |
| 10  | 5377.8789   | 46.40            | 10.08       | 56.48          | 74.00          | 17.52       | 231         | 301       | PK       |
| 11  | 10420.0000  | 26.84            | 14.27       | 41.11          | 68.20          | 27.09       | 327         | 310       | PK       |
| 12  | 10420.0000  | 17.35            | 14.27       | 31.62          | 54.00          | 22.38       | 239         | 287       | AV       |
| 13  | 15630.0000  | 23.98            | 20.00       | 43.98          | 74.00          | 30.02       | 344         | 26        | PK       |
| 14  | 15630.0000  | 14.53            | 20.00       | 34.53          | 54.00          | 19.47       | 383         | 227       | AV       |



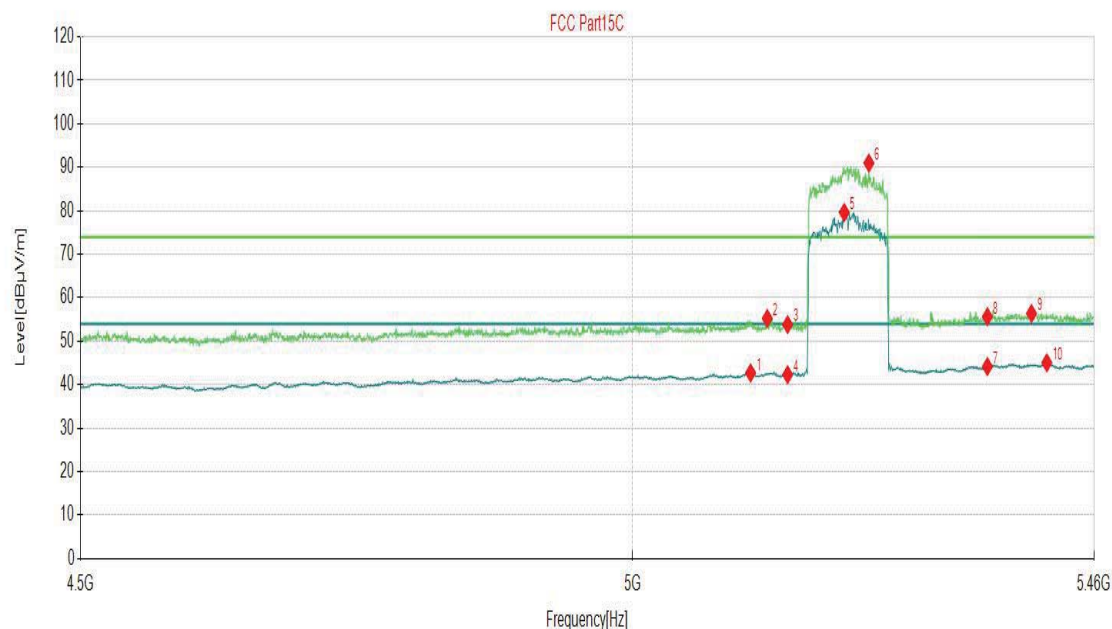
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                 |                 |                   |          |
|-----------------|-----------------|-------------------|----------|
| Channel         | 802.11ax80 CH42 | Frequency         | 5210 MHz |
| Frequency Range | Above 1G        | Detector Function | PK/AV    |

## Horizontal

| NO. | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
|-----|-------------|------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| 1   | 5113.7469   | 34.73            | 7.96        | 42.69          | 54.00          | 11.31       | 116         | 359       | AV       |
| 2   | 5130.0750   | 46.99            | 8.25        | 55.24          | 74.00          | 18.76       | 163         | 39        | PK       |
| 3   | 5150.0000   | 45.80            | 8.03        | 53.83          | 74.00          | 20.17       | 189         | 46        | PK       |
| 4   | 5150.0000   | 34.25            | 8.03        | 42.28          | 54.00          | 11.72       | 14          | 94        | AV       |
| 5   | 5205.9530   | 71.43            | 8.20        | 79.63          |                |             | 103         | 138       | AV       |
| 6   | 5230.4452   | 82.76            | 8.20        | 90.96          |                |             | 25          | 140       | PK       |
| 7   | 5350.0000   | 34.19            | 9.96        | 44.15          | 54.00          | 9.85        | 77          | 124       | AV       |
| 8   | 5350.0000   | 45.69            | 9.96        | 55.65          | 74.00          | 18.35       | 346         | 309       | PK       |
| 9   | 5395.1676   | 46.34            | 10.04       | 56.38          | 74.00          | 17.62       | 313         | 107       | PK       |
| 10  | 5411.0155   | 34.81            | 10.24       | 45.05          | 54.00          | 8.95        | 81          | 180       | AV       |
| 11  | 10420.0000  | 27.42            | 14.27       | 41.69          | 68.20          | 26.51       | 259         | 264       | PK       |
| 12  | 10420.0000  | 17.69            | 14.27       | 31.96          | 54.00          | 22.04       | 222         | 142       | AV       |
| 13  | 15630.0000  | 22.93            | 20.00       | 42.93          | 74.00          | 31.07       | 136         | 145       | PK       |
| 14  | 15630.0000  | 14.56            | 20.00       | 34.56          | 54.00          | 19.44       | 400         | 155       | AV       |



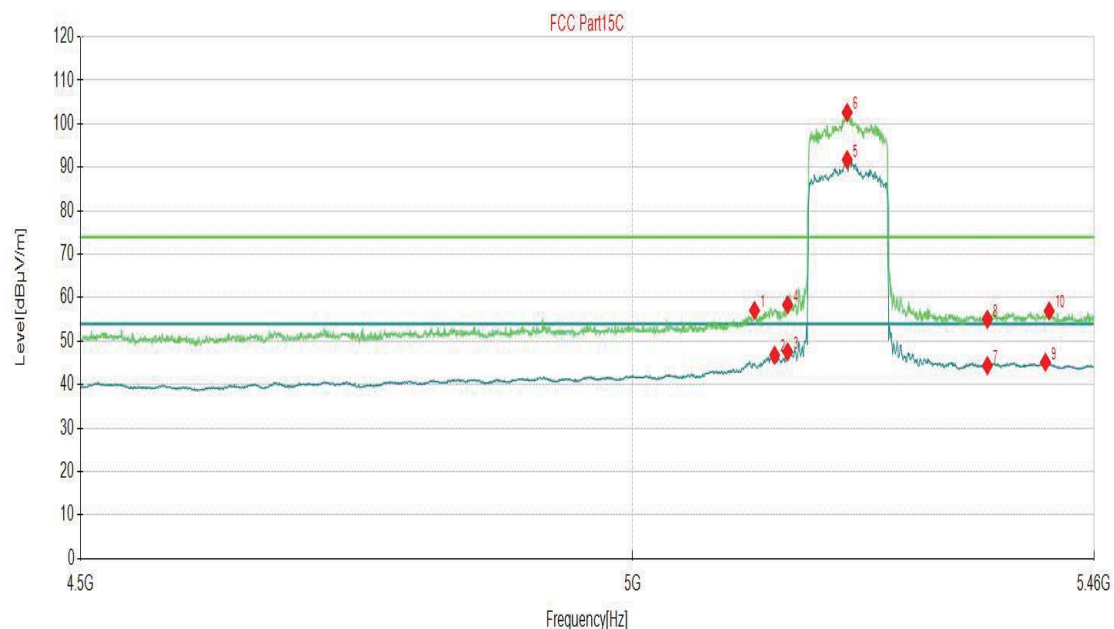
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                 |                 |                   |          |
|-----------------|-----------------|-------------------|----------|
| Channel         | 802.11ax80 CH42 | Frequency         | 5210 MHz |
| Frequency Range | Above 1G        | Detector Function | PK/AV    |

## Vertical

| NO. | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
|-----|-------------|------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| 1   | 5117.5888   | 49.25            | 7.83        | 57.08          | 74.00          | 16.92       | 154         | 291       | PK       |
| 2   | 5137.2786   | 38.76            | 8.02        | 46.78          | 54.00          | 7.22        | 181         | 274       | AV       |
| 3   | 5150.0000   | 39.54            | 8.03        | 47.57          | 54.00          | 6.43        | 167         | 295       | AV       |
| 4   | 5150.0000   | 50.33            | 8.03        | 58.36          | 74.00          | 15.64       | 395         | 303       | PK       |
| 5   | 5208.8344   | 83.28            | 8.47        | 91.75          |                |             | 131         | 291       | AV       |
| 6   | 5208.8344   | 94.13            | 8.47        | 102.60         |                |             | 24          | 291       | PK       |
| 7   | 5350.0000   | 34.42            | 9.96        | 44.38          | 54.00          | 9.62        | 46          | 295       | AV       |
| 8   | 5350.0000   | 45.09            | 9.96        | 55.05          | 74.00          | 18.95       | 391         | 120       | PK       |
| 9   | 5409.5748   | 34.89            | 10.28       | 45.17          | 54.00          | 8.83        | 98          | 47        | AV       |
| 10  | 5413.4167   | 46.82            | 10.11       | 56.93          | 74.00          | 17.07       | 45          | 99        | PK       |
| 11  | 10420.0000  | 26.69            | 14.27       | 40.96          | 68.20          | 27.24       | 264         | 46        | PK       |
| 12  | 10420.0000  | 17.35            | 14.27       | 31.62          | 54.00          | 22.38       | 269         | 260       | AV       |
| 13  | 15630.0000  | 24.29            | 20.00       | 44.29          | 74.00          | 29.71       | 286         | 158       | PK       |
| 14  | 15630.0000  | 14.08            | 20.00       | 34.08          | 54.00          | 19.92       | 261         | 293       | AV       |



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



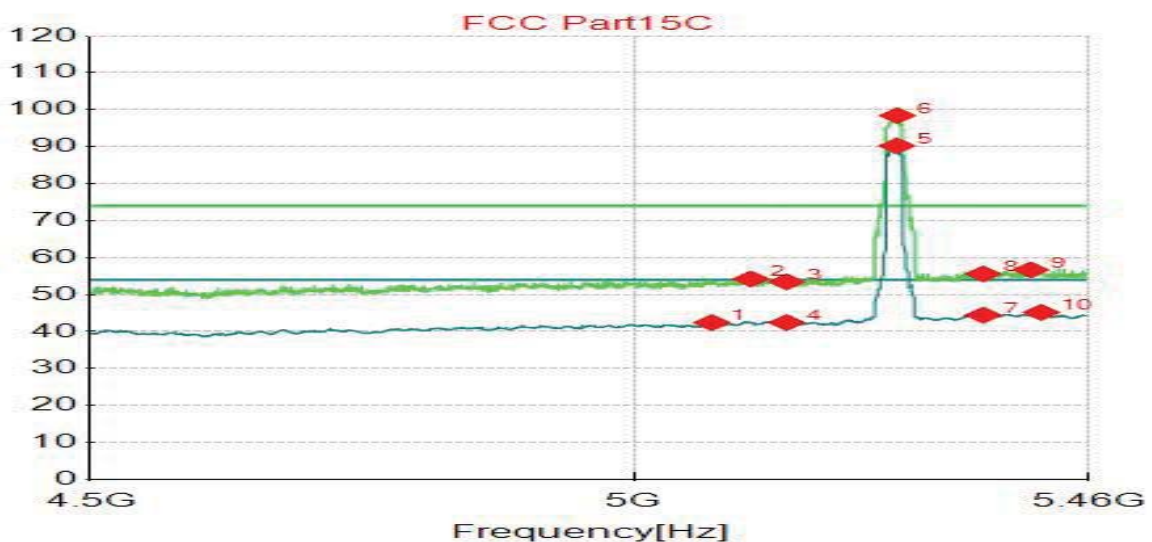
## 3.1.7 TEST RESULTS - Band 2 (5260-5320MHz):

### ABOVE 1GHz DATA

|                 |              |                   |          |
|-----------------|--------------|-------------------|----------|
| Channel         | 802.11a CH52 | Frequency         | 5260 MHz |
| Frequency Range | Above 1G     | Detector Function | PK/AV    |

#### Horizontal

| NO. | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
|-----|-------------|------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| 1   | 5075.8079   | 34.77            | 7.64        | 42.41          | 54.00          | 11.59       | 252         | 276       | AV       |
| 2   | 5114.2271   | 46.27            | 7.94        | 54.21          | 74.00          | 19.79       | 203         | 152       | PK       |
| 3   | 5150.0000   | 45.41            | 8.03        | 53.44          | 74.00          | 20.56       | 396         | 139       | PK       |
| 4   | 5150.0000   | 34.40            | 8.03        | 42.43          | 54.00          | 11.57       | 351         | 15        | AV       |
| 5   | 5261.1806   | 80.96            | 9.27        | 90.23          |                |             | 356         | 232       | AV       |
| 6   | 5261.6608   | 89.17            | 9.24        | 98.41          |                |             | 126         | 232       | PK       |
| 7   | 5350.0000   | 34.46            | 9.96        | 44.42          | 54.00          | 9.58        | 213         | 133       | AV       |
| 8   | 5350.0000   | 45.62            | 9.96        | 55.58          | 74.00          | 18.42       | 149         | 109       | PK       |
| 9   | 5399.4897   | 46.65            | 10.02       | 56.67          | 74.00          | 17.33       | 151         | 308       | PK       |
| 10  | 5410.5353   | 34.90            | 10.27       | 45.17          | 54.00          | 8.83        | 269         | 97        | AV       |
| 11  | 10520.0000  | 26.31            | 14.32       | 40.63          | 68.20          | 27.57       | 110         | 79        | PK       |
| 12  | 10520.0000  | 17.55            | 14.32       | 31.87          | 54.00          | 22.13       | 102         | 189       | AV       |
| 13  | 15780.0000  | 22.63            | 20.63       | 43.26          | 74.00          | 30.74       | 355         | 232       | PK       |
| 14  | 15780.0000  | 12.99            | 20.63       | 33.62          | 54.00          | 20.38       | 231         | 139       | AV       |



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                 |              |                  |             |                   |                |             |             |           |          |
|-----------------|--------------|------------------|-------------|-------------------|----------------|-------------|-------------|-----------|----------|
| Channel         | 802.11a CH52 |                  |             | Frequency         | 5260 MHz       |             |             |           |          |
| Frequency Range | Above 1G     |                  |             | Detector Function | PK/AV          |             |             |           |          |
| Vertical        |              |                  |             |                   |                |             |             |           |          |
| NO.             | Freq. [MHz]  | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m]    | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5061.8809    | 48.06            | 7.36        | 55.42             | 74.00          | 18.58       | 307         | 170       | PK       |
| 2               | 5134.8774    | 35.96            | 8.10        | 44.06             | 54.00          | 9.94        | 356         | 292       | AV       |
| 3               | 5150.0000    | 35.95            | 8.03        | 43.98             | 54.00          | 10.02       | 191         | 301       | AV       |
| 4               | 5150.0000    | 47.36            | 8.03        | 55.39             | 74.00          | 18.61       | 226         | 263       | PK       |
| 5               | 5259.2596    | 93.42            | 9.27        | 102.69            |                |             | 232         | 296       | AV       |
| 6               | 5259.7399    | 101.97           | 9.32        | 111.29            |                |             | 118         | 296       | PK       |
| 7               | 5350.0000    | 47.85            | 9.96        | 57.81             | 74.00          | 16.19       | 247         | 280       | PK       |
| 8               | 5350.0000    | 36.80            | 9.96        | 46.76             | 54.00          | 7.24        | 274         | 299       | AV       |
| 9               | 5374.5173    | 36.44            | 10.02       | 46.46             | 54.00          | 7.54        | 286         | 294       | AV       |
| 10              | 5378.8394    | 47.92            | 10.10       | 58.02             | 74.00          | 15.98       | 286         | 288       | PK       |
| 11              | 10520.0000   | 27.01            | 14.32       | 41.33             | 68.20          | 26.87       | 381         | 59        | PK       |
| 12              | 10520.0000   | 17.92            | 14.32       | 32.24             | 54.00          | 21.76       | 350         | 138       | AV       |
| 13              | 15780.0000   | 22.26            | 20.63       | 42.89             | 74.00          | 31.11       | 138         | 198       | PK       |
| 14              | 15780.0000   | 13.67            | 20.63       | 34.30             | 54.00          | 19.70       | 365         | 42        | AV       |

FCC Part15C

Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                                                                                                                                                                                                                                                              |                |                     |                |                   |                   |                |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Channel                                                                                                                                                                                                                                                      |                | 802.11a CH 56       |                |                   | Frequency         |                | 5280MHz        |              |          |
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                |                   | Detector Function |                | PK/AV          |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO.                                                                                                                                                                                                                                                          | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 10560.0000     | 27.43               | 14.32          | 41.75             | 68.20             | 26.45          | 339            | 29           | PK       |
| 2                                                                                                                                                                                                                                                            | 10560.0000     | 18.68               | 14.32          | 33.00             | 54.00             | 21.00          | 134            | 295          | AV       |
| 3                                                                                                                                                                                                                                                            | 15840.0000     | 22.69               | 20.59          | 43.28             | 74.00             | 30.72          | 214            | 98           | PK       |
| 4                                                                                                                                                                                                                                                            | 15840.0000     | 14.40               | 20.59          | 34.99             | 54.00             | 19.01          | 306            | 3            | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO.                                                                                                                                                                                                                                                          | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 10560.0000     | 27.84               | 14.32          | 42.16             | 68.20             | 26.04          | 193            | 177          | PK       |
| 2                                                                                                                                                                                                                                                            | 10560.0000     | 17.96               | 14.32          | 32.28             | 54.00             | 21.72          | 343            | 121          | AV       |
| 3                                                                                                                                                                                                                                                            | 15840.0000     | 23.17               | 20.59          | 43.76             | 74.00             | 30.24          | 110            | 105          | PK       |
| 4                                                                                                                                                                                                                                                            | 15840.0000     | 13.79               | 20.59          | 34.38             | 54.00             | 19.62          | 145            | 334          | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |                |                     |                |                   |                   |                |                |              |          |



|                 |             |                  |             |                   |                |             |             |           |          |
|-----------------|-------------|------------------|-------------|-------------------|----------------|-------------|-------------|-----------|----------|
| Channel         |             | 802.11a CH64     |             | Frequency         |                | 5320 MHz    |             |           |          |
| Frequency Range |             | Above 1G         |             | Detector Function |                | PK/AV       |             |           |          |
| Horizontal      |             |                  |             |                   |                |             |             |           |          |
| NO.             | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m]    | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5318.8094   | 88.51            | 9.00        | 97.51             |                |             | 300         | 227       | AV       |
| 2               | 5321.2106   | 81.06            | 9.04        | 90.10             |                |             | 320         | 227       | PK       |
| 3               | 5350.0000   | 45.43            | 9.96        | 55.39             | 74.00          | 18.61       | 284         | 148       | PK       |
| 4               | 5350.0000   | 34.50            | 9.96        | 44.46             | 54.00          | 9.54        | 321         | 144       | AV       |
| 5               | 5372.5963   | 47.73            | 9.98        | 57.71             | 74.00          | 16.29       | 269         | 28        | PK       |
| 6               | 5377.8789   | 34.78            | 10.08       | 44.86             | 54.00          | 9.14        | 133         | 125       | AV       |
| 7               | 10640.0000  | 26.45            | 14.17       | 40.62             | 74.00          | 33.38       | 170         | 163       | PK       |
| 8               | 10640.0000  | 17.96            | 14.17       | 32.13             | 54.00          | 21.87       | 298         | 281       | AV       |
| 9               | 15960.0000  | 13.61            | 21.31       | 34.92             | 54.00          | 19.08       | 303         | 121       | AV       |
| 10              | 15960.0000  | 23.46            | 21.31       | 44.77             | 74.00          | 29.23       | 311         | 347       | PK       |

FCC Part15C

Frequency[Hz]

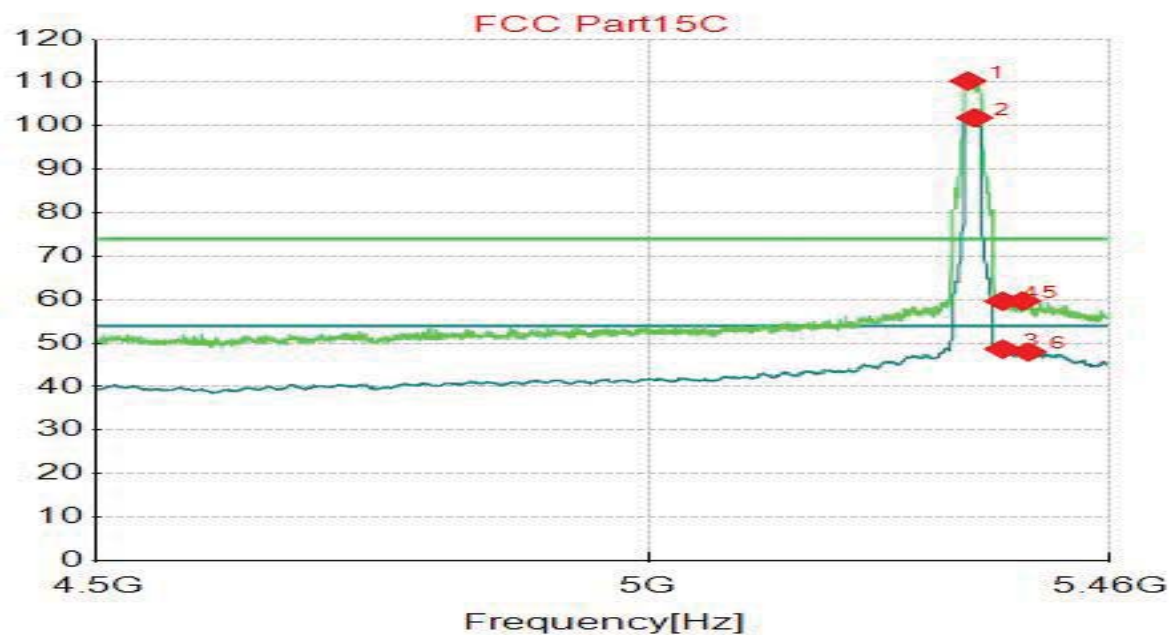
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]



|                 |              |                   |          |
|-----------------|--------------|-------------------|----------|
| Channel         | 802.11a CH64 | Frequency         | 5320 MHz |
| Frequency Range | Above 1G     | Detector Function | PK/AV    |

## Vertical

| NO. | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
|-----|-------------|------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| 1   | 5314.4872   | 101.20           | 9.11        | 110.31         |                |             | 212         | 291       | PK       |
| 2   | 5321.2106   | 92.82            | 9.04        | 101.86         |                |             | 253         | 287       | AV       |
| 3   | 5350.0000   | 38.69            | 9.96        | 48.65          | 54.00          | 5.35        | 166         | 295       | AV       |
| 4   | 5350.0000   | 49.69            | 9.96        | 59.65          | 74.00          | 14.35       | 286         | 305       | PK       |
| 5   | 5370.1951   | 49.76            | 9.93        | 59.69          | 74.00          | 14.31       | 166         | 262       | PK       |
| 6   | 5375.9580   | 37.98            | 10.04       | 48.02          | 54.00          | 5.98        | 248         | 280       | AV       |
| 7   | 10640.0000  | 28.40            | 14.17       | 42.57          | 74.00          | 31.43       | 315         | 345       | PK       |
| 8   | 10640.0000  | 17.80            | 14.17       | 31.97          | 54.00          | 22.03       | 312         | 1         | AV       |
| 9   | 15960.0000  | 22.24            | 21.31       | 43.55          | 74.00          | 30.45       | 260         | 52        | PK       |
| 10  | 15960.0000  | 13.82            | 21.31       | 35.13          | 54.00          | 18.87       | 140         | 127       | AV       |



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]

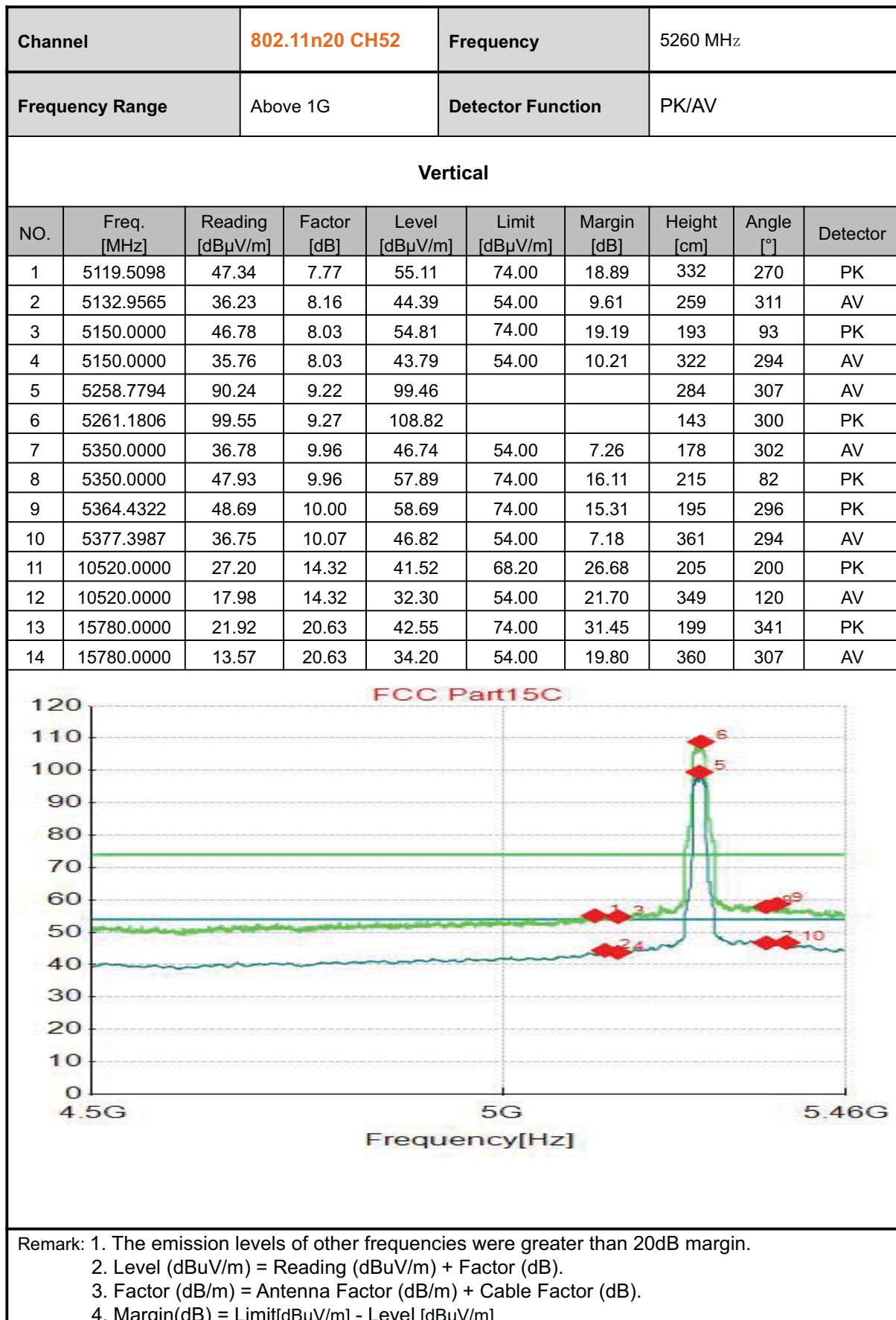


|                 |                |                  |                   |                |                |             |             |           |          |
|-----------------|----------------|------------------|-------------------|----------------|----------------|-------------|-------------|-----------|----------|
| Channel         | 802.11n20 CH52 |                  | Frequency         | 5260 MHz       |                |             |             |           |          |
| Frequency Range | Above 1G       |                  | Detector Function | PK/AV          |                |             |             |           |          |
| Horizontal      |                |                  |                   |                |                |             |             |           |          |
| NO.             | Freq. [MHz]    | Reading [dBμV/m] | Factor [dB]       | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5130.0750      | 34.50            | 8.25              | 42.75          | 54.00          | 11.25       | 368         | 124       | AV       |
| 2               | 5131.9960      | 47.29            | 8.19              | 55.48          | 74.00          | 18.52       | 115         | 297       | PK       |
| 3               | 5150.0000      | 45.43            | 8.03              | 53.46          | 74.00          | 20.54       | 156         | 340       | PK       |
| 4               | 5150.0000      | 34.38            | 8.03              | 42.41          | 54.00          | 11.59       | 202         | 340       | AV       |
| 5               | 5254.9375      | 87.55            | 8.79              | 96.34          |                |             | 351         | 156       | PK       |
| 6               | 5262.6213      | 79.51            | 9.17              | 88.68          |                |             | 266         | 151       | AV       |
| 7               | 5350.0000      | 34.49            | 9.96              | 44.45          | 54.00          | 9.55        | 372         | 119       | AV       |
| 8               | 5350.0000      | 45.15            | 9.96              | 55.11          | 74.00          | 18.89       | 309         | 299       | PK       |
| 9               | 5378.8394      | 46.51            | 10.10             | 56.61          | 74.00          | 17.39       | 220         | 126       | PK       |
| 10              | 5392.7664      | 34.65            | 10.05             | 44.70          | 54.00          | 9.30        | 399         | 57        | AV       |
| 11              | 10520.0000     | 26.50            | 14.32             | 40.82          | 68.20          | 27.38       | 110         | 56        | PK       |
| 12              | 10520.0000     | 18.27            | 14.32             | 32.59          | 54.00          | 21.41       | 239         | 56        | AV       |
| 13              | 15780.0000     | 22.50            | 20.63             | 43.13          | 74.00          | 30.87       | 327         | 249       | PK       |
| 14              | 15780.0000     | 13.30            | 20.63             | 33.93          | 54.00          | 20.07       | 314         | 56        | AV       |

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Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



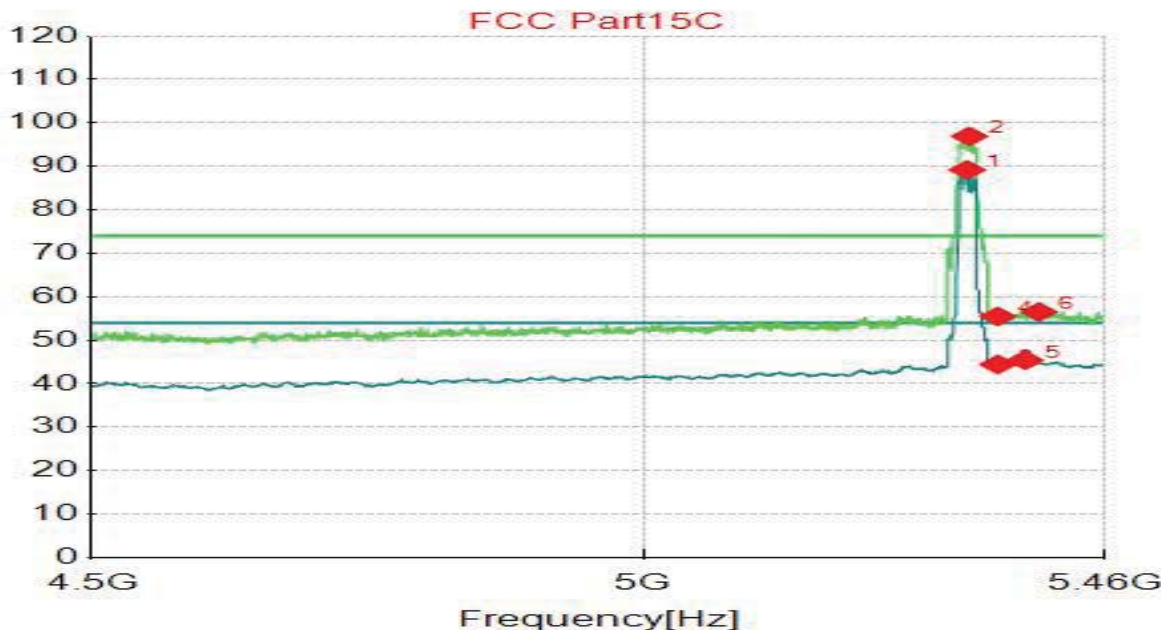


|                                                                                                                                                                                                                                                              |                |                     |                |                   |                   |                |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Channel                                                                                                                                                                                                                                                      |                | 802.11n20 CH 56     |                |                   | Frequency         |                | 5280MHz        |              |          |
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                |                   | Detector Function |                | PK/AV          |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO.                                                                                                                                                                                                                                                          | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 10560.0000     | 27.95               | 14.32          | 42.27             | 68.20             | 25.93          | 129            | 360          | PK       |
| 2                                                                                                                                                                                                                                                            | 10560.0000     | 18.12               | 14.32          | 32.44             | 54.00             | 21.56          | 253            | 299          | AV       |
| 3                                                                                                                                                                                                                                                            | 15840.0000     | 23.30               | 20.59          | 43.89             | 74.00             | 30.11          | 189            | 106          | PK       |
| 4                                                                                                                                                                                                                                                            | 15840.0000     | 13.85               | 20.59          | 34.44             | 54.00             | 19.56          | 302            | 86           | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO.                                                                                                                                                                                                                                                          | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 10560.0000     | 26.56               | 14.32          | 40.88             | 68.20             | 27.32          | 212            | 166          | PK       |
| 2                                                                                                                                                                                                                                                            | 10560.0000     | 18.26               | 14.32          | 32.58             | 54.00             | 21.42          | 298            | 152          | AV       |
| 3                                                                                                                                                                                                                                                            | 15840.0000     | 23.56               | 20.59          | 44.15             | 74.00             | 29.85          | 213            | 53           | PK       |
| 4                                                                                                                                                                                                                                                            | 15840.0000     | 14.32               | 20.59          | 34.91             | 54.00             | 19.09          | 276            | 272          | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |                |                     |                |                   |                   |                |                |              |          |



|                 |                |                  |             |                   |                |             |             |           |          |
|-----------------|----------------|------------------|-------------|-------------------|----------------|-------------|-------------|-----------|----------|
| Channel         | 802.11n20 CH64 |                  |             | Frequency         | 5320 MHz       |             |             |           |          |
| Frequency Range | Above 1G       |                  |             | Detector Function | PK/AV          |             |             |           |          |
| Horizontal      |                |                  |             |                   |                |             |             |           |          |
| NO.             | Freq. [MHz]    | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m]    | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5318.8094      | 80.18            | 9.00        | 89.18             |                |             | 345         | 153       | AV       |
| 2               | 5321.2106      | 87.86            | 9.04        | 96.90             |                |             | 289         | 153       | PK       |
| 3               | 5350.0000      | 34.47            | 9.96        | 44.43             | 54.00          | 9.57        | 147         | 40        | AV       |
| 4               | 5350.0000      | 45.51            | 9.96        | 55.47             | 74.00          | 18.53       | 392         | 306       | PK       |
| 5               | 5377.8789      | 35.32            | 10.08       | 45.40             | 54.00          | 8.60        | 239         | 153       | AV       |
| 6               | 5392.2861      | 46.45            | 10.05       | 56.50             | 74.00          | 17.50       | 228         | 34        | PK       |
| 7               | 10640.0000     | 27.00            | 14.17       | 41.17             | 74.00          | 32.83       | 257         | 286       | PK       |
| 8               | 10640.0000     | 17.57            | 14.17       | 31.74             | 54.00          | 22.26       | 396         | 247       | AV       |
| 9               | 15960.0000     | 22.81            | 21.31       | 44.12             | 74.00          | 29.88       | 221         | 86        | PK       |
| 10              | 15960.0000     | 13.77            | 21.31       | 35.08             | 54.00          | 18.92       | 252         | 96        | AV       |

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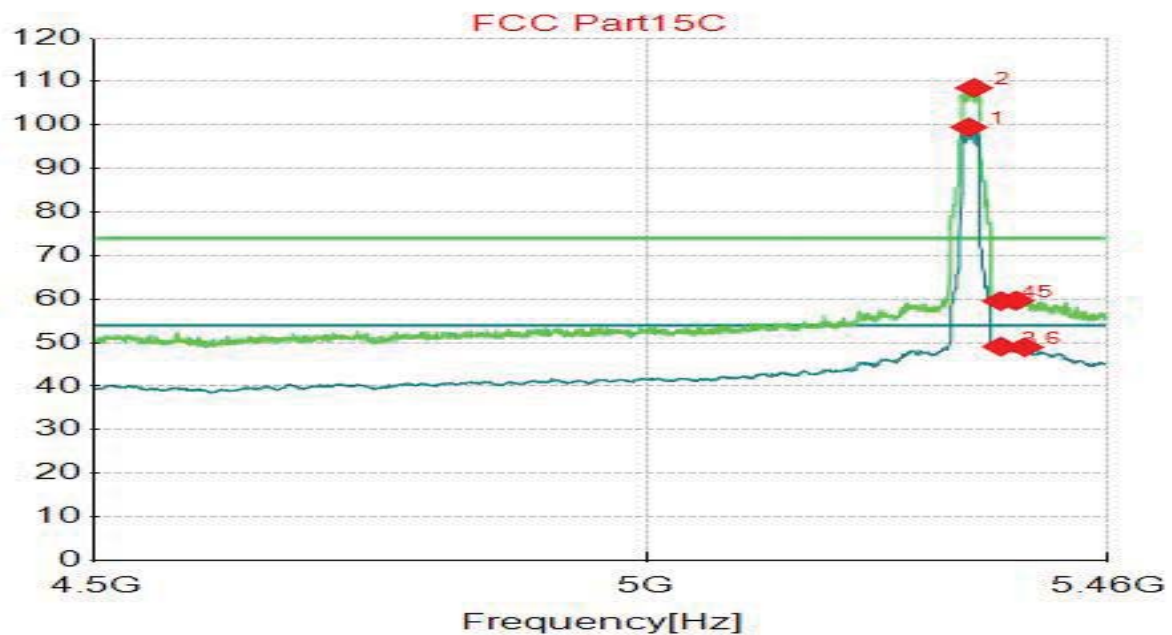
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



|                 |                |                   |          |
|-----------------|----------------|-------------------|----------|
| Channel         | 802.11n20 CH64 | Frequency         | 5320 MHz |
| Frequency Range | Above 1G       | Detector Function | PK/AV    |

## Vertical

| NO. | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
|-----|-------------|------------------|-------------|----------------|----------------|-------------|-------------|-----------|----------|
| 1   | 5317.3687   | 90.46            | 9.04        | 99.50          |                |             | 380         | 299       | AV       |
| 2   | 5322.6513   | 99.40            | 9.12        | 108.52         |                |             | 147         | 297       | PK       |
| 3   | 5350.0000   | 39.13            | 9.96        | 49.09          | 54.00          | 4.91        | 147         | 98        | AV       |
| 4   | 5350.0000   | 49.60            | 9.96        | 59.56          | 74.00          | 14.44       | 166         | 81        | PK       |
| 5   | 5365.3927   | 49.66            | 9.99        | 59.65          | 74.00          | 14.35       | 209         | 306       | PK       |
| 6   | 5374.5173   | 38.95            | 10.02       | 48.97          | 54.00          | 5.03        | 231         | 282       | AV       |
| 7   | 10640.0000  | 27.70            | 14.17       | 41.87          | 74.00          | 32.13       | 255         | 171       | PK       |
| 8   | 10640.0000  | 17.95            | 14.17       | 32.12          | 54.00          | 21.88       | 112         | 171       | AV       |
| 9   | 15960.0000  | 22.88            | 21.31       | 44.19          | 74.00          | 29.81       | 250         | 46        | PK       |
| 10  | 15960.0000  | 13.66            | 21.31       | 34.97          | 54.00          | 19.03       | 272         | 324       | AV       |



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



| Channel         |             | 802.11n40 CH54   |             | Frequency         |                | 5270 MHz    |             |           |          |
|-----------------|-------------|------------------|-------------|-------------------|----------------|-------------|-------------|-----------|----------|
| Frequency Range |             | Above 1G         |             | Detector Function |                | PK/AV       |             |           |          |
| Horizontal      |             |                  |             |                   |                |             |             |           |          |
| NO.             | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m]    | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1               | 5073.8869   | 46.69            | 7.56        | 54.25             | 74.00          | 19.75       | 266         | 219       | PK       |
| 2               | 5078.6893   | 34.36            | 7.76        | 42.12             | 54.00          | 11.88       | 200         | 82        | AV       |
| 3               | 5150.0000   | 45.17            | 8.03        | 53.20             | 74.00          | 20.80       | 289         | 239       | PK       |
| 4               | 5150.0000   | 34.03            | 8.03        | 42.06             | 54.00          | 11.94       | 356         | 357       | AV       |
| 5               | 5267.9040   | 85.43            | 8.80        | 94.23             |                |             | 152         | 153       | PK       |
| 6               | 5272.7064   | 77.71            | 8.63        | 86.34             |                |             | 211         | 155       | AV       |
| 7               | 5350.0000   | 45.23            | 9.96        | 55.19             | 74.00          | 18.81       | 111         | 33        | PK       |
| 8               | 5350.0000   | 34.15            | 9.96        | 44.11             | 54.00          | 9.89        | 381         | 115       | AV       |
| 9               | 5374.5173   | 34.97            | 10.02       | 44.99             | 54.00          | 9.01        | 350         | 3         | AV       |
| 10              | 5414.3772   | 46.94            | 10.06       | 57.00             | 74.00          | 17.00       | 237         | 217       | PK       |
| 11              | 10540.0000  | 27.26            | 14.39       | 41.65             | 68.20          | 26.55       | 328         | 164       | PK       |
| 12              | 10540.0000  | 17.66            | 14.39       | 32.05             | 54.00          | 21.95       | 157         | 20        | AV       |
| 13              | 15810.0000  | 22.20            | 20.56       | 42.76             | 74.00          | 31.24       | 383         | 270       | PK       |
| 14              | 15810.0000  | 13.05            | 20.56       | 33.61             | 54.00          | 20.39       | 237         | 82        | AV       |

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Remark: 1. The emission levels of other frequencies were greater than 20dB margin.  
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).  
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]