

## Partial FCC Test Report

**Report No.:** RF191104C25-3

**FCC ID:** J9C-QCNFA524

**Test Model:** QCNFA524

**Received Date:** Nov. 04, 2019

**Test Date:** Dec. 09 ~ Dec. 19, 2019

**Issued Date:** Dec. 24, 2019

**Applicant:** Qualcomm Technologies, Inc.

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**FCC Registration /** 788550 / TW0003  
**Designation Number:**



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### Release Control Record

| Issue No.     | Description      | Date Issued   |
|---------------|------------------|---------------|
| RF191104C25-3 | Original release | Dec. 24, 2019 |

## 1 Certificate of Conformity

**Product:** Wi-Fi 6 + BT 5.1 M.2 1216 Module

**Brand:** Qualcomm

**Test Model:** QCNFA524

**Sample Status:** Mass product

**Applicant:** Qualcomm Technologies, Inc.

**Test Date:** Dec. 09 ~ Dec. 19, 2019

**Standards:** 47 CFR FCC Part 15, Subpart E (Section 15.407)  
ANSI C63.10:2013

This report is issued as a supplementary report of RF190716E01-7. This report shall be used combined together with its original report.

**Prepared by :** Pettie Chen , **Date:** Dec. 24, 2019  
Pettie Chen / Senior Specialist

**Approved by :** Bruce Chen , **Date:** Dec. 24, 2019  
Bruce Chen / Senior Project Engineer

Note: Radiated emission, conducted emission and Maximum Peak Output Power are performed for the addendum. Refer to original report for the other test data.

## 2 Summary of Test Results

| 47 CFR FCC Part 15, Subpart E (Section 15.407) |                                            |        |                                                                                  |
|------------------------------------------------|--------------------------------------------|--------|----------------------------------------------------------------------------------|
| FCC Clause                                     | Test Item                                  | Result | Remarks                                                                          |
| 15.407(b)(6)                                   | AC Power Conducted Emissions               | Pass   | Meet the requirement of limit. Minimum passing margin is -13.31dB at 0.73984MHz. |
| 15.407(b)(1/2/3/4(i/ii)/6)                     | Radiated Emissions & Band Edge Measurement | Pass   | Meet the requirement of limit. Minimum passing margin is -2.0dB at 5150.00MHz.   |
| 15.407(a)(1/2/3)                               | Max Average Transmit Power                 | Pass   | Meet the requirement of limit.                                                   |
| ---                                            | Occupied Bandwidth Measurement             | N/A    | Refer to Note                                                                    |
| 15.407(a)(1/2/3)                               | Peak Power Spectral Density                | N/A    | Refer to Note                                                                    |
| 15.407(e)                                      | 6dB bandwidth                              | N/A    | Refer to Note                                                                    |
| 15.407(g)                                      | Frequency Stability                        | N/A    | Refer to Note                                                                    |
| 15.203                                         | Antenna Requirement                        | Pass   | Antenna connector is IPEX not a standard connector.                              |

\*For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOB test plots were recorded in Annex A.

\*Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

Note: Radiated emission, conducted emission and Maximum Conducted power are performed for the addendum. Refer to original report for the other test data.

### 2.1 Measurement Uncertainty

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

| Measurement                        | Frequency        | Expanded Uncertainty (k=2) (±) |
|------------------------------------|------------------|--------------------------------|
| Conducted Emissions at mains ports | 150kHz ~ 30MHz   | 2.94 dB                        |
| Radiated Emissions up to 1 GHz     | 9kHz ~ 30MHz     | 3.04 dB                        |
|                                    | 30MHz ~ 200MHz   | 3.59 dB                        |
|                                    | 200MHz ~ 1000MHz | 3.60 dB                        |
| Radiated Emissions above 1 GHz     | 1GHz ~ 18GHz     | 2.29 dB                        |
|                                    | 18GHz ~ 40GHz    | 2.29 dB                        |

### 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product               | Wi-Fi 6 + BT 5.1 M.2 1216 Module                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Brand                 | Qualcomm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Test Model            | QCNFA524                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Sample Status         | Mass product                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Nominal Voltage       | 3.3Vdc (from host equipment)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Modulation Type       | 64QAM, 16QAM, QPSK, BPSK for OFDM<br>256QAM for OFDM in 11ac mode<br>1024QAM for OFDMA in 11ax HE mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Modulation Technology | DSSS, OFDM, OFDMA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Transfer Rate         | 802.11a: up to 54Mbps<br>802.11n: up to 300Mbps<br>802.11ac: up to 866.7Mbps<br>802.11ax: up to 1201.0Mbps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Operating Frequency   | 5180~5240MHz, 5260~5320MHz, 5500~5720MHz, 5745~5825MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Number of Channel     | 5180 ~ 5240MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4<br>802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2<br>802.11ac (VHT80), 802.11ax (HE80): 1<br>5260 ~ 5320MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4<br>802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2<br>802.11ac (VHT80), 802.11ax (HE80): 1<br>5500 ~ 5720MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 12<br>802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 6<br>802.11ac (VHT80), 802.11ax (HE80): 3<br>5745 ~ 5825MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 5<br>802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2<br>802.11ac (VHT80), 802.11ax (HE80): 1 |
| Output Power          | 5180~5240MHz: 59.540mW<br>5260~5320MHz: 60.101mW<br>5500~5720MHz: 70.474mW<br>5745~5825MHz: 61.032mW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Antenna Type          | Refer to note                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Antenna Connector     | IPEX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Accessory Device      | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Cable Supplied        | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

**Note:**

1. This report is prepared for FCC class II permissive change. This is a supplementary report of RF190716E01-7. The difference compared with original report is adding End-product (Portable Computer, Brand: DELL, Model: P117G). Therefore, test item of Radiated emission, conducted emission and Conducted power was performed for this addendum and the other original data was kept in the report.
2. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

| Modulation Mode  | TX Function |
|------------------|-------------|
| 802.11a          | 2TX         |
| 802.11n (HT20)   | 2TX         |
| 802.11n (HT40)   | 2TX         |
| 802.11ac (VHT20) | 2TX         |
| 802.11ac (VHT40) | 2TX         |
| 802.11ac (VHT80) | 2TX         |
| 802.11ax (HE20)  | 2TX         |
| 802.11ax (HE40)  | 2TX         |
| 802.11ax (HE80)  | 2TX         |

\* For all test items except conducted output power, the modulation and bandwidth are similar for 802.11n mode for HT20 / HT40, 802.11ac mode for VHT20 / VHT40 / VHT80 and 802.11ax mode for HE20 / HE40 / HE80, therefore the investigated were worst case to representative mode in test report. (Final test mode refer section 3.2.1).

3. The following antennas were provided to the EUT.

| Main Antenna Model                | Aux. Antenna Model                | Type | Antenna Manufacturer      | Maximum Gain (dBi) |                 |                 |                 |
|-----------------------------------|-----------------------------------|------|---------------------------|--------------------|-----------------|-----------------|-----------------|
|                                   |                                   |      |                           | 2.400-2.500 GHz    | 5.150-5.350 GHz | 5.470-5.725 GHz | 5.725-5.850 GHz |
| F.0G.FH-6100-004-00 (DC33002BX3L) | F.0G.FH-6100-003-00 (DC33002BX2L) | Slot | Speedwire                 | 0.9                | -2.6            | -3.0            | -4.3            |
| F.0G.FH-6100-004-00 (DC33002BX3L) | F.0G.FH-6100-003-00 (DC33002BX2L) | Slot | Speedwire                 | 1.98               | -1.19           | -1.84           | -3              |
| 81ELAS15.G38 (DC33002D03L)        | 81ELAS15.G37 (DC33002D02L)        | Slot | Wistron Neweb Corporation | 2.08               | -4.03           | <b>-0.25</b>    | <b>-0.25</b>    |
| 81ELAS15.G38 (DC33002D03L)        | 81ELAS15.G37 (DC33002D02L)        | Slot | Wistron Neweb Corporation | <b>2.77</b>        | <b>-0.63</b>    | -2.3            | -2.66           |

\*The antenna with the maximum gain was chosen for the final tests.

4. The EUT is authorized for use in specific End-product. Please refer to below table for more details.

| Product Name      | Brand Name | Model No. | Description |
|-------------------|------------|-----------|-------------|
| Portable Computer | DELL       | P117G     | -           |

The following accessories were for the End-product.

| Product Name | Brand Name | Model No. | Description                                                                                                         |
|--------------|------------|-----------|---------------------------------------------------------------------------------------------------------------------|
| Battery      | DELL       | 722KK     | Rating: 7.6Vdc, 6500mAh                                                                                             |
| Adapter 1    | DELL       | DA45NM180 | I/P: 100-240Vac, 1.3A, 50-60 Hz,<br>O/P: 20Vdc, 2.25A or 15Vdc, 3A<br>or 9Vdc, 3A or 5Vdc, 3A<br>0.85m Type C cable |
| Adapter 2    | DELL       | HA45NM180 | I/P: 100-240Vac, 1.3A, 50-60 Hz,<br>O/P: 20Vdc, 2.25A or 15Vdc, 3A<br>or 9Vdc, 3A or 5Vdc, 3A<br>0.85m Type C cable |

\*Adapter 2 was chosen for the final tests.

### 3.2 Description of Test Modes

#### 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  | 44      | 5220 MHz  |
| 40      | 5200 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 |
|---------|-----------|
| 42      | 5210MHz   |

#### 5260~5320MHz:

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

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 52      | 5260 MHz  | 60      | 5300 MHz  |
| 56      | 5280 MHz  | 64      | 5320 MHz  |

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

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 54      | 5270 MHz  | 62      | 5310 MHz  |

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

| Channel | Frequency |
|---------|-----------|
| 58      | 5290MHz   |



#### 5500~5720MHz:

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

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 100     | 5500 MHz  | 124     | 5620 MHz  |
| 104     | 5520 MHz  | 128     | 5640 MHz  |
| 108     | 5540 MHz  | 132     | 5660 MHz  |
| 112     | 5560 MHz  | 136     | 5680 MHz  |
| 116     | 5580 MHz  | 140     | 5700 MHz  |
| 120     | 5600 MHz  | 144     | 5720 MHz  |

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

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 102     | 5510 MHz  | 126     | 5630 MHz  |
| 110     | 5550 MHz  | 134     | 5670 MHz  |
| 118     | 5590 MHz  | 142     | 5710 MHz  |

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

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 106     | 5530 MHz  | 122     | 5610 MHz  |
| 138     | 5690 MHz  |         |           |

#### 5745~5825MHz:

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

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 149     | 5745MHz   | 161     | 5805MHz   |
| 153     | 5765MHz   | 165     | 5825MHz   |
| 157     | 5785MHz   |         |           |

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

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 151     | 5755MHz   | 159     | 5795MHz   |

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

| Channel | Frequency |
|---------|-----------|
| 155     | 5775MHz   |

### 3.2.1 Test Mode Applicability and Tested Channel Detail

| EUT Configure Mode | Applicable to |       |     |       | Description |
|--------------------|---------------|-------|-----|-------|-------------|
|                    | RE $\geq$ 1G  | RE<1G | PLC | Power |             |
| -                  | √             | √     | √   | √     | -           |

Where RE $\geq$ 1G: Radiated Emission above 1GHz & Bandedge Measurement  
RE<1G: Radiated Emission below 1GHz  
PLC: Power Line Conducted Emission  
Power: Maximum Output Power 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**.

#### Radiated Emission Test (Above 1GHz):

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

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

| EUT Configure Mode | Mode             | Frequency Band (MHz) | Available Channel | Tested Channel | Modulation Technology | Data Rate (Mbps) |
|--------------------|------------------|----------------------|-------------------|----------------|-----------------------|------------------|
| -                  | 802.11ac (VHT20) | 5180-5240            | 36 to 48          | 36             | OFDM                  | MCS4             |
|                    | 802.11ac (VHT40) |                      | 38 to 46          | 38             | OFDM                  | MCS4             |
|                    | 802.11ac (VHT80) |                      | 42                | 42             | OFDM                  | MCS4             |
|                    | 802.11ax (HE20)  |                      | 36 to 48          | 36             | OFDMA                 | MCS4             |
|                    | 802.11ax (HE40)  |                      | 38 to 46          | 38             | OFDMA                 | MCS4             |
|                    | 802.11ax (HE80)  |                      | 42                | 42             | OFDMA                 | MCS4             |
| -                  | 802.11ac (VHT20) | 5260-5320            | 52 to 64          | 64             | OFDM                  | MCS4             |
|                    | 802.11ac (VHT40) |                      | 54 to 62          | 62             | OFDM                  | MCS4             |
|                    | 802.11ac (VHT80) |                      | 58                | 58             | OFDM                  | MCS4             |
|                    | 802.11ax (HE20)  |                      | 52 to 64          | 64             | OFDMA                 | MCS4             |
|                    | 802.11ax (HE40)  |                      | 54 to 62          | 62             | OFDMA                 | MCS4             |
|                    | 802.11ax (HE80)  |                      | 58                | 58             | OFDMA                 | MCS4             |
| -                  | 802.11ac (VHT20) | 5500-5720            | 100 to 144        | 100, 140       | OFDM                  | MCS4             |
|                    | 802.11ac (VHT40) |                      | 102 to 142        | 102, 134       | OFDM                  | MCS4             |
|                    | 802.11ac (VHT80) |                      | 106 to 138        | 106, 122       | OFDM                  | MCS4             |
|                    | 802.11ax (HE20)  |                      | 100 to 144        | 100, 140       | OFDMA                 | MCS4             |
|                    | 802.11ax (HE40)  |                      | 102 to 142        | 102, 134       | OFDMA                 | MCS4             |
|                    | 802.11ax (HE80)  |                      | 106 to 138        | 106, 122       | OFDMA                 | MCS4             |
| -                  | 802.11ac (VHT20) | 5745-5825            | 149 to 165        | 149, 165       | OFDM                  | MCS4             |
|                    | 802.11ac (VHT40) |                      | 151 to 159        | 151, 159       | OFDM                  | MCS4             |
|                    | 802.11ac (VHT80) |                      | 155               | 155            | OFDM                  | MCS4             |
|                    | 802.11ax (HE20)  |                      | 149 to 165        | 149, 165       | OFDMA                 | MCS4             |
|                    | 802.11ax (HE40)  |                      | 151 to 159        | 151, 159       | OFDMA                 | MCS4             |
|                    | 802.11ax (HE80)  |                      | 155               | 155            | OFDMA                 | MCS4             |

#### Radiated Emission Test (Below 1GHz):

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

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

| EUT Configure Mode | Mode            | Frequency Band (MHz) | Available Channel | Tested Channel | Modulation Technology | Data Rate (Mbps) |
|--------------------|-----------------|----------------------|-------------------|----------------|-----------------------|------------------|
| -                  | 802.11ax (HE20) | 5180-5240            | 36 to 48          | 36             | OFDMA                 | MCS4             |

#### Power Line Conducted Emission Test:

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

| EUT Configure Mode | Mode            | Frequency Band (MHz) | Available Channel | Tested Channel | Modulation Technology | Data Rate (Mbps) |
|--------------------|-----------------|----------------------|-------------------|----------------|-----------------------|------------------|
| -                  | 802.11ax (HE20) | 5180-5240            | 36 to 48          | 36             | OFDMA                 | MCS4             |

#### Maximum Output Power Measurement:

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

| EUT Configure Mode | Mode             | Frequency Band (MHz) | Available Channel | Tested Channel     | Modulation Technology | Data Rate (Mbps) |
|--------------------|------------------|----------------------|-------------------|--------------------|-----------------------|------------------|
| -                  | 802.11a          | 5180-5240            | 36 to 48          | 36, 40, 48         | OFDM                  | 36.0             |
|                    | 802.11ac (VHT20) |                      | 36 to 48          | 36, 40, 48         | OFDM                  | MCS4             |
|                    | 802.11ac (VHT40) |                      | 38 to 46          | 38, 46             | OFDM                  | MCS4             |
|                    | 802.11ac (VHT80) |                      | 42                | 42                 | OFDM                  | MCS4             |
|                    | 802.11ax (HE20)  |                      | 36 to 48          | 36, 40, 48         | OFDMA                 | MCS4             |
|                    | 802.11ax (HE40)  |                      | 38 to 46          | 38, 46             | OFDMA                 | MCS4             |
|                    | 802.11ax (HE80)  |                      | 42                | 42                 | OFDMA                 | MCS4             |
| -                  | 802.11a          | 5260-5320            | 52 to 64          | 52, 60, 64         | OFDM                  | 36.0             |
|                    | 802.11ac (VHT20) |                      | 52 to 64          | 52, 60, 64         | OFDM                  | MCS4             |
|                    | 802.11ac (VHT40) |                      | 54 to 62          | 54, 62             | OFDM                  | MCS4             |
|                    | 802.11ac (VHT80) |                      | 58                | 58                 | OFDM                  | MCS4             |
|                    | 802.11ax (HE20)  |                      | 52 to 64          | 52, 60, 64         | OFDMA                 | MCS4             |
|                    | 802.11ax (HE40)  |                      | 54 to 62          | 54, 62             | OFDMA                 | MCS4             |
|                    | 802.11ax (HE80)  |                      | 58                | 58                 | OFDMA                 | MCS4             |
| -                  | 802.11a          | 5500-5720            | 100 to 144        | 100, 116, 140, 144 | OFDM                  | 36.0             |
|                    | 802.11ac (VHT20) |                      | 100 to 144        | 100, 116, 140, 144 | OFDM                  | MCS4             |
|                    | 802.11ac (VHT40) |                      | 102 to 142        | 102, 110, 134, 142 | OFDM                  | MCS4             |
|                    | 802.11ac (VHT80) |                      | 106 to 138        | 106, 122, 138      | OFDM                  | MCS4             |
|                    | 802.11ax (HE20)  |                      | 100 to 144        | 100, 140           | OFDMA                 | MCS4             |
|                    | 802.11ax (HE40)  |                      | 102 to 142        | 102, 110, 134, 142 | OFDMA                 | MCS4             |
|                    | 802.11ax (HE80)  |                      | 106 to 138        | 106, 122, 138      | OFDMA                 | MCS4             |
| -                  | 802.11a          | 5745-5825            | 149 to 165        | 149, 157, 165      | OFDM                  | 36.0             |
|                    | 802.11ac (VHT20) |                      | 149 to 165        | 149, 157, 165      | OFDM                  | MCS4             |
|                    | 802.11ac (VHT40) |                      | 151 to 159        | 151, 159           | OFDM                  | MCS4             |
|                    | 802.11ac (VHT80) |                      | 155               | 155                | OFDM                  | MCS4             |
|                    | 802.11ax (HE20)  |                      | 149 to 165        | 149, 157, 165      | OFDMA                 | MCS4             |
|                    | 802.11ax (HE40)  |                      | 151 to 159        | 151, 159           | OFDMA                 | MCS4             |
|                    | 802.11ax (HE80)  |                      | 155               | 155                | OFDMA                 | MCS4             |

#### Test Condition:

| Applicable to | Environmental Conditions | Input Power (System) | Tested by  |
|---------------|--------------------------|----------------------|------------|
| RE $\geq$ 1G  | 23deg. C, 67%RH          | 120Vac, 60Hz         | Adair Peng |
| RE<1G         | 23deg. C, 67%RH          | 120Vac, 60Hz         | Adair Peng |
| PLC           | 23deg. C, 67%RH          | 120Vac, 60Hz         | Adair Peng |
| Power         | 25deg. C, 60%RH          | 120Vac, 60Hz         | Chris Lin  |

### 3.3 Description of Support Units

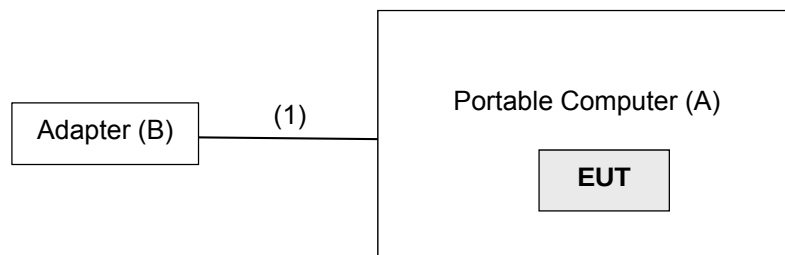
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| ID | Product           | Brand | Model No. | Serial No. | FCC ID           | Remarks |
|----|-------------------|-------|-----------|------------|------------------|---------|
| A. | Portable Computer | DELL  | P117G     | NA         | FCC DoC Approved | -       |
| B. | Adapter           | DELL  | HA45NM180 | NA         | NA               | -       |

Note: All power cords of the above support units are non-shielded (1.8m).

| ID | Descriptions | Qty. | Length (m) | Shielding (Yes/No) | Cores (Qty.) | Remarks                  |
|----|--------------|------|------------|--------------------|--------------|--------------------------|
| 1. | Type C cable | 1    | 0.85       | -                  | 0            | Provided by manufacturer |

#### 3.3.1 Configuration of System under Test



### 3.4 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and References:

#### Test Standard:

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

**ANSI C63.10-2013**

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

#### References Test Guidance:

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

All test items have been performed as a reference to the above KDB test guidance.

## 4 Test Types and Results

### 4.1 Radiated Emission and Bandedge Measurement

#### 4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

| Frequencies (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|-------------------|-----------------------------------|-------------------------------|
| 0.009 ~ 0.490     | 2400/F(kHz)                       | 300                           |
| 0.490 ~ 1.705     | 24000/F(kHz)                      | 30                            |
| 1.705 ~ 30.0      | 30                                | 30                            |
| 30 ~ 88           | 100                               | 3                             |
| 88 ~ 216          | 150                               | 3                             |
| 216 ~ 960         | 200                               | 3                             |
| Above 960         | 500                               | 3                             |

#### NOTE:

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

#### Limits of unwanted emission out of the restricted bands

| Applicable To                                                                                    |                                     |                  | Limit                                                                                                                                   |                                                                                                                                           |
|--------------------------------------------------------------------------------------------------|-------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 789033 D02 General UNII Test Procedure<br>New Rules v02r01                                       |                                     |                  | Field Strength at 3m                                                                                                                    |                                                                                                                                           |
|                                                                                                  |                                     |                  | PK: 74 (dBµV/m)                                                                                                                         | AV: 54 (dBµV/m)                                                                                                                           |
| Frequency Band                                                                                   | Applicable To                       |                  | EIRP Limit                                                                                                                              | Equivalent Field Strength at 3m                                                                                                           |
| 5150~5250 MHz                                                                                    | 15.407(b)(1)                        |                  | PK: -27 (dBm/MHz)                                                                                                                       | PK: 68.2(dBµV/m)                                                                                                                          |
| 5250~5350 MHz                                                                                    | 15.407(b)(2)                        |                  |                                                                                                                                         |                                                                                                                                           |
| 5470~5725 MHz                                                                                    | 15.407(b)(3)                        |                  |                                                                                                                                         |                                                                                                                                           |
| 5725~5850 MHz                                                                                    | <input checked="" type="checkbox"/> | 15.407(b)(4)(i)  | PK: -27 (dBm/MHz) <sup>*1</sup><br>PK: 10 (dBm/MHz) <sup>*2</sup><br>PK: 15.6 (dBm/MHz) <sup>*3</sup><br>PK: 27 (dBm/MHz) <sup>*4</sup> | PK: 68.2(dBµV/m) <sup>*1</sup><br>PK: 105.2 (dBµV/m) <sup>*2</sup><br>PK: 110.8(dBµV/m) <sup>*3</sup><br>PK: 122.2 (dBµV/m) <sup>*4</sup> |
|                                                                                                  | <input type="checkbox"/>            | 15.407(b)(4)(ii) | Emission limits in section 15.247(d)                                                                                                    |                                                                                                                                           |
| <sup>*1</sup> beyond 75 MHz or more above of the band edge.                                      |                                     |                  | <sup>*2</sup> below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.                                                    |                                                                                                                                           |
| <sup>*3</sup> below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above. |                                     |                  | <sup>*4</sup> from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.                    |                                                                                                                                           |

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

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

#### 4.1.2 Test Instruments

| Description & Manufacturer                | Model No.                             | Serial No.                                          | Cal. Date     | Cal. Due      |
|-------------------------------------------|---------------------------------------|-----------------------------------------------------|---------------|---------------|
| Test Receiver<br>ROHDE & SCHWARZ          | ESIB7                                 | 100187                                              | May 30, 2019  | May 29, 2020  |
| Spectrum Analyzer<br>ROHDE & SCHWARZ      | FSP40                                 | 100269                                              | Jun. 10, 2019 | Jun. 09, 2020 |
| BILOG Antenna<br>SCHWARZBECK              | VULB9168                              | 9168-171                                            | Nov. 11, 2019 | Nov. 10, 2020 |
| HORN Antenna<br>SCHWARZBECK               | 9120D                                 | 209                                                 | Nov. 24, 2019 | Nov. 23, 2020 |
| HORN Antenna<br>SCHWARZBECK               | BBHA 9170                             | BBHA9170241                                         | Nov. 24, 2019 | Nov. 23, 2020 |
| Loop Antenna<br>TESEQ                     | HLA 6121                              | 45745                                               | Jul. 01, 2019 | Jun. 30, 2020 |
| Preamplifier<br>Agilent<br>(Below 1GHz)   | 8447D                                 | 2944A10738                                          | Aug. 20, 2019 | Aug. 19, 2020 |
| Preamplifier<br>Agilent<br>(Above 1GHz)   | 8449B                                 | 3008A02465                                          | Mar. 27, 2019 | Mar. 26, 2020 |
| Preamplifier<br>EMC<br>(18GHz~40GHz)      | EMC184045B                            | 980175                                              | Sep. 05, 2019 | Sep. 04, 2020 |
| RF Coaxial Cable<br>WOKEN<br>With 5dB PAD | 8D-FB                                 | Cable-CH3-01                                        | Aug. 20, 2019 | Aug. 19, 2020 |
| RF signal cable<br>HUBER+SUHNER           | SUCOFLEX 104                          | Cable-CH3-03<br>(223653/4)                          | Aug. 20, 2019 | Aug. 19, 2020 |
| RF signal cable<br>HUBER+SUHNER&<br>EMCI  | SUCOFLEX<br>104&EMC104-SM-SM-<br>8000 | Cable-CH3-03<br>(309224+170907)                     | Aug. 20, 2019 | Aug. 19, 2020 |
| Software<br>BV ADT                        | ADT_Radiated_<br>V7.6.15.9.5          | NA                                                  | NA            | NA            |
| Antenna Tower<br>inn-co GmbH              | MA 4000                               | 013303                                              | NA            | NA            |
| Antenna Tower Controller<br>BV ADT        | AT100                                 | AT93021702                                          | NA            | NA            |
| Turn Table<br>BV ADT                      | TT100                                 | TT93021702                                          | NA            | NA            |
| Turn Table Controller<br>BV ADT           | SC100                                 | SC93021702                                          | NA            | NA            |
| Boresight Antenna Fixture                 | FBA-01                                | FBA-SIP01                                           | NA            | NA            |
| USB Wideband Power<br>Sensor<br>KEYSIGHT  | U2021XA                               | MY55050005/MY55190<br>004/MY55190007/MY55<br>210005 | Jul. 15, 2019 | Jul. 14, 2020 |

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.  
 2. The test was performed in HwaYa Chamber 3.

#### 4.1.3 Test Procedures

##### For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case 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 Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

##### Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

##### For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. 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 height of antenna 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

##### Note:

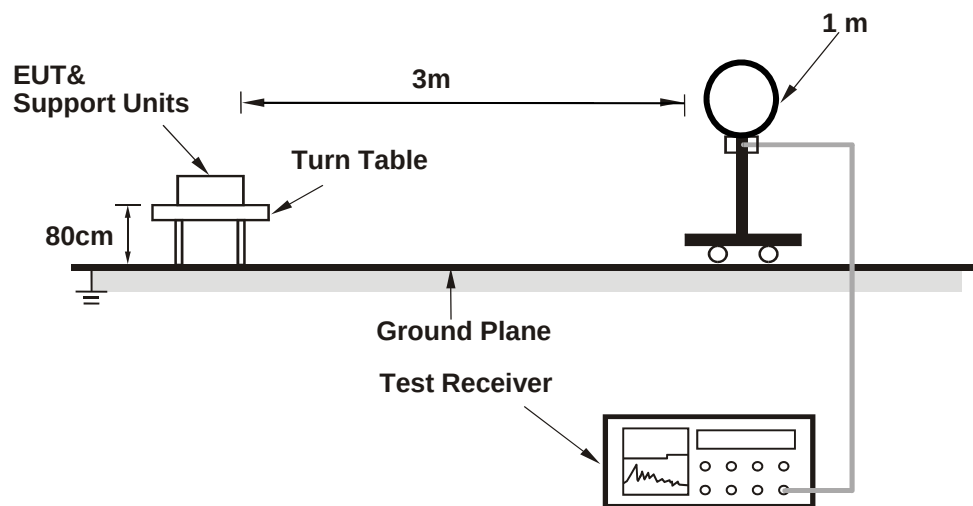
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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  $\geq 98\%$ ) for Average detection (AV) at frequency above 1GHz.  
(802.11ac (VTH20): RBW = 1 MHz, VBW = 10 Hz; 802.11ac (VHT40): RBW = 1 MHz, VBW = 10 Hz;  
802.11ac (VHT80): RBW = 1 MHz, VBW = 1 kHz; 802.11ax (HE20): RBW = 1 MHz, VBW = 10 Hz;  
802.11ax (HE40): RBW = 1 MHz, VBW = 10 Hz; 802.11ax (HE80): RBW = 1 MHz, VBW = 1 kHz)
4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.4 Deviation from Test Standard

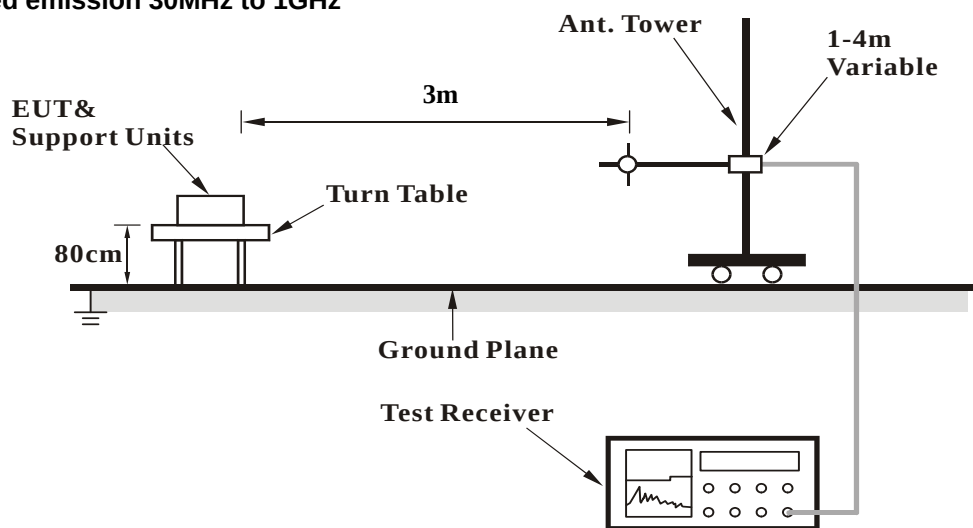
No deviation.

#### 4.1.5 Test Set Up

For Radiated emission below 30MHz

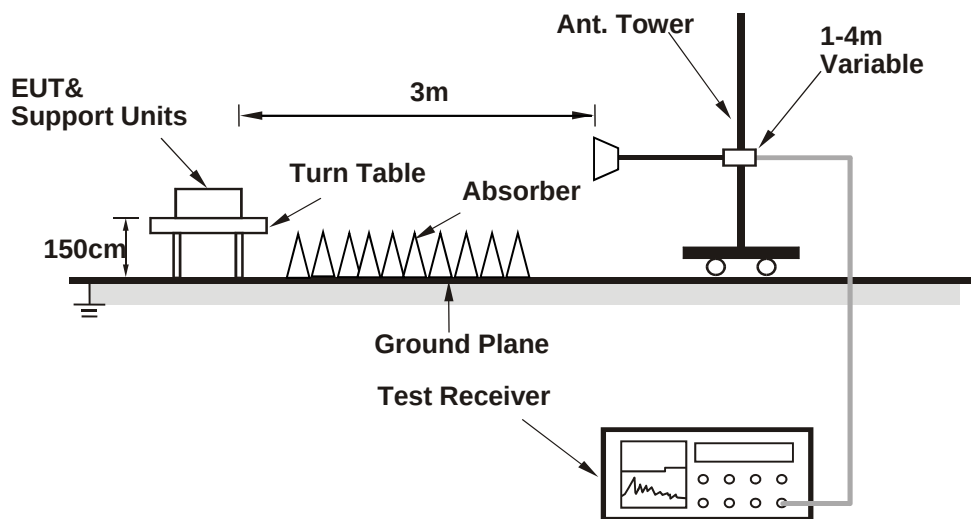


For Radiated emission 30MHz to 1GHz





#### For Radiated emission above 1GHz



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

#### 4.1.6 EUT Operating Conditions

- Installed the EUT into the Portable Computer which is placed on the testing table.
- Controlling software (QRCT 4.0) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

#### 4.1.7 Test Results

Above 1GHz data:

802.11ac (VHT20)

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 65.1 PK                       | 74.0              | -8.9           | 2.73 H                   | 357                        | 61.0                   | 4.1                            |
| 2                                                   | 5150.00        | 47.4 AV                       | 54.0              | -6.6           | 2.73 H                   | 357                        | 43.3                   | 4.1                            |
| 3                                                   | *5180.00       | 110.0 PK                      |                   |                | 2.65 H                   | 349                        | 70.7                   | 39.3                           |
| 4                                                   | *5180.00       | 98.1 AV                       |                   |                | 2.65 H                   | 349                        | 58.8                   | 39.3                           |
| 5                                                   | #10360.00      | 57.3 PK                       | 68.2              | -10.9          | 2.05 H                   | 111                        | 40.1                   | 17.2                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 69.6 PK                       | 74.0              | -4.4           | 2.32 V                   | 49                         | 65.5                   | 4.1                            |
| 2                                                   | 5150.00        | 50.4 AV                       | 54.0              | -3.6           | 2.32 V                   | 49                         | 46.3                   | 4.1                            |
| 3                                                   | *5180.00       | 112.0 PK                      |                   |                | 2.22 V                   | 50                         | 72.7                   | 39.3                           |
| 4                                                   | *5180.00       | 100.1 AV                      |                   |                | 2.22 V                   | 50                         | 60.8                   | 39.3                           |
| 5                                                   | #10360.00      | 57.7 PK                       | 68.2              | -10.5          | 1.75 V                   | 49                         | 40.5                   | 17.2                           |

#### Remarks:

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

|                 |               |                      |              |
|-----------------|---------------|----------------------|--------------|
| CHANNEL         | TX Channel 64 | DETECTOR<br>FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz  |                      | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5320.00       | 106.3 PK                      |                   |                | 2.75 H                   | 350                        | 67.1                   | 39.2                           |
| 2                                                   | *5320.00       | 95.2 AV                       |                   |                | 2.75 H                   | 350                        | 56.0                   | 39.2                           |
| 3                                                   | 5350.00        | 57.3 PK                       | 74.0              | -16.7          | 2.66 H                   | 339                        | 53.2                   | 4.1                            |
| 4                                                   | 5350.00        | 41.2 AV                       | 54.0              | -12.8          | 2.66 H                   | 339                        | 37.1                   | 4.1                            |
| 5                                                   | 10640.00       | 58.9 PK                       | 74.0              | -15.1          | 2.15 H                   | 120                        | 40.3                   | 18.6                           |
| 6                                                   | 10640.00       | 43.1 AV                       | 54.0              | -10.9          | 2.15 H                   | 120                        | 24.5                   | 18.6                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5320.00       | 108.5 PK                      |                   |                | 2.67 V                   | 48                         | 69.3                   | 39.2                           |
| 2                                                   | *5320.00       | 97.2 AV                       |                   |                | 2.67 V                   | 48                         | 58.0                   | 39.2                           |
| 3                                                   | 5350.00        | 61.8 PK                       | 74.0              | -12.2          | 2.70 V                   | 52                         | 57.7                   | 4.1                            |
| 4                                                   | 5350.00        | 44.6 AV                       | 54.0              | -9.4           | 2.70 V                   | 52                         | 40.5                   | 4.1                            |
| 5                                                   | 10640.00       | 59.4 PK                       | 74.0              | -14.6          | 1.81 V                   | 61                         | 40.8                   | 18.6                           |
| 6                                                   | 10640.00       | 43.5 AV                       | 54.0              | -10.5          | 1.81 V                   | 61                         | 24.9                   | 18.6                           |

Remarks:

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

|                 |                |                      |              |
|-----------------|----------------|----------------------|--------------|
| CHANNEL         | TX Channel 100 | DETECTOR<br>FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                      | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 54.8 PK                       | 74.0              | -19.2          | 2.71 H                   | 350                        | 50.3                   | 4.5                            |
| 2                                                   | 5460.00        | 38.9 AV                       | 54.0              | -15.1          | 2.71 H                   | 350                        | 34.4                   | 4.5                            |
| 3                                                   | #5470.00       | 57.3 PK                       | 68.2              | -10.9          | 2.55 H                   | 348                        | 52.8                   | 4.5                            |
| 4                                                   | *5500.00       | 105.0 PK                      |                   |                | 2.63 H                   | 359                        | 65.3                   | 39.7                           |
| 5                                                   | *5500.00       | 93.8 AV                       |                   |                | 2.63 H                   | 359                        | 54.1                   | 39.7                           |
| 6                                                   | 11000.00       | 59.4 PK                       | 74.0              | -14.6          | 2.03 H                   | 118                        | 40.1                   | 19.3                           |
| 7                                                   | 11000.00       | 44.5 AV                       | 54.0              | -9.5           | 2.03 H                   | 118                        | 25.2                   | 19.3                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 59.3 PK                       | 74.0              | -14.7          | 2.35 V                   | 44                         | 54.8                   | 4.5                            |
| 2                                                   | 5460.00        | 42.4 AV                       | 54.0              | -11.6          | 2.35 V                   | 44                         | 37.9                   | 4.5                            |
| 3                                                   | #5470.00       | 62.0 PK                       | 68.2              | -6.2           | 2.19 V                   | 32                         | 57.5                   | 4.5                            |
| 4                                                   | *5500.00       | 107.4 PK                      |                   |                | 2.28 V                   | 32                         | 67.7                   | 39.7                           |
| 5                                                   | *5500.00       | 96.0 AV                       |                   |                | 2.28 V                   | 32                         | 56.3                   | 39.7                           |
| 6                                                   | 11000.00       | 59.9 PK                       | 74.0              | -14.1          | 1.79 V                   | 52                         | 40.6                   | 19.3                           |
| 7                                                   | 11000.00       | 45.1 AV                       | 54.0              | -8.9           | 1.79 V                   | 52                         | 25.8                   | 19.3                           |

Remarks:

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

|                 |                |                      |              |
|-----------------|----------------|----------------------|--------------|
| CHANNEL         | TX Channel 140 | DETECTOR<br>FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                      | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5700.00       | 107.4 PK                      |                   |                | 2.78 H                   | 349                        | 67.6                   | 39.8                           |
| 2                                                   | *5700.00       | 95.3 AV                       |                   |                | 2.78 H                   | 349                        | 55.5                   | 39.8                           |
| 3                                                   | #5725.00       | 59.5 PK                       | 68.2              | -8.7           | 2.60 H                   | 333                        | 54.8                   | 4.7                            |
| 4                                                   | 11400.00       | 58.5 PK                       | 74.0              | -15.5          | 2.09 H                   | 120                        | 40.0                   | 18.5                           |
| 5                                                   | 11400.00       | 42.7 AV                       | 54.0              | -11.3          | 2.09 H                   | 120                        | 24.2                   | 18.5                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5700.00       | 109.8 PK                      |                   |                | 2.72 V                   | 277                        | 70.0                   | 39.8                           |
| 2                                                   | *5700.00       | 97.7 AV                       |                   |                | 2.72 V                   | 277                        | 57.9                   | 39.8                           |
| 3                                                   | #5725.00       | 64.4 PK                       | 68.2              | -3.8           | 2.62 V                   | 276                        | 59.7                   | 4.7                            |
| 4                                                   | 11400.00       | 58.9 PK                       | 74.0              | -15.1          | 1.72 V                   | 59                         | 40.4                   | 18.5                           |
| 5                                                   | 11400.00       | 43.2 AV                       | 54.0              | -10.8          | 1.72 V                   | 59                         | 24.7                   | 18.5                           |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5640.80       | 56.5 PK                       | 68.2              | -11.7          | 2.25 H                   | 59                         | 52.0                   | 4.5                            |
| 2                                                   | *5745.00       | 99.2 PK                       |                   |                | 2.25 H                   | 59                         | 59.2                   | 40.0                           |
| 3                                                   | *5745.00       | 87.7 AV                       |                   |                | 2.25 H                   | 59                         | 47.7                   | 40.0                           |
| 4                                                   | #5981.60       | 57.5 PK                       | 68.2              | -10.7          | 2.25 H                   | 59                         | 52.1                   | 5.4                            |
| 5                                                   | 11490.00       | 56.5 PK                       | 74.0              | -17.5          | 2.35 H                   | 133                        | 37.7                   | 18.8                           |
| 6                                                   | 11490.00       | 42.8 AV                       | 54.0              | -11.2          | 2.35 H                   | 133                        | 24.0                   | 18.8                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5642.40       | 55.6 PK                       | 68.2              | -12.6          | 2.69 V                   | 277                        | 51.1                   | 4.5                            |
| 2                                                   | *5745.00       | 105.4 PK                      |                   |                | 2.69 V                   | 277                        | 65.4                   | 40.0                           |
| 3                                                   | *5745.00       | 93.6 AV                       |                   |                | 2.69 V                   | 277                        | 53.6                   | 40.0                           |
| 4                                                   | #5988.80       | 56.7 PK                       | 68.2              | -11.5          | 2.69 V                   | 277                        | 51.3                   | 5.4                            |
| 5                                                   | 11490.00       | 56.9 PK                       | 74.0              | -17.1          | 1.91 V                   | 63                         | 38.1                   | 18.8                           |
| 6                                                   | 11490.00       | 42.9 AV                       | 54.0              | -11.1          | 1.91 V                   | 63                         | 24.1                   | 18.8                           |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5622.40       | 56.5 PK                       | 68.2              | -11.7          | 2.20 H                   | 59                         | 52.0                   | 4.5                            |
| 2                                                   | *5825.00       | 97.0 PK                       |                   |                | 2.20 H                   | 59                         | 56.6                   | 40.4                           |
| 3                                                   | *5825.00       | 85.9 AV                       |                   |                | 2.20 H                   | 59                         | 45.5                   | 40.4                           |
| 4                                                   | #5947.20       | 57.2 PK                       | 68.2              | -11.0          | 2.20 H                   | 59                         | 51.9                   | 5.3                            |
| 5                                                   | 11650.00       | 56.1 PK                       | 74.0              | -17.9          | 2.28 H                   | 127                        | 37.6                   | 18.5                           |
| 6                                                   | 11650.00       | 42.5 AV                       | 54.0              | -11.5          | 2.28 H                   | 127                        | 24.0                   | 18.5                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5611.20       | 55.4 PK                       | 68.2              | -12.8          | 2.74 V                   | 278                        | 50.9                   | 4.5                            |
| 2                                                   | *5825.00       | 104.7 PK                      |                   |                | 2.74 V                   | 278                        | 64.3                   | 40.4                           |
| 3                                                   | *5825.00       | 92.9 AV                       |                   |                | 2.74 V                   | 278                        | 52.5                   | 40.4                           |
| 4                                                   | #5934.40       | 56.1 PK                       | 68.2              | -12.1          | 2.74 V                   | 278                        | 50.8                   | 5.3                            |
| 5                                                   | 11650.00       | 56.5 PK                       | 74.0              | -17.5          | 1.85 V                   | 61                         | 38.0                   | 18.5                           |
| 6                                                   | 11650.00       | 42.8 AV                       | 54.0              | -11.2          | 1.85 V                   | 61                         | 24.3                   | 18.5                           |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 65.4 PK                       | 74.0              | -8.6           | 2.51 H                   | 339                        | 61.3                   | 4.1                            |
| 2                                                   | 5150.00        | 47.8 AV                       | 54.0              | -6.2           | 2.51 H                   | 339                        | 43.7                   | 4.1                            |
| 3                                                   | *5190.00       | 105.4 PK                      |                   |                | 2.53 H                   | 343                        | 66.1                   | 39.3                           |
| 4                                                   | *5190.00       | 93.6 AV                       |                   |                | 2.53 H                   | 343                        | 54.3                   | 39.3                           |
| 5                                                   | #10380.00      | 59.6 PK                       | 68.2              | -8.6           | 2.21 H                   | 123                        | 42.2                   | 17.4                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 70.3 PK                       | 74.0              | -3.7           | 2.36 V                   | 274                        | 66.2                   | 4.1                            |
| 2                                                   | 5150.00        | 51.3 AV                       | 54.0              | -2.7           | 2.36 V                   | 274                        | 47.2                   | 4.1                            |
| 3                                                   | *5190.00       | 107.8 PK                      |                   |                | 2.52 V                   | 50                         | 68.5                   | 39.3                           |
| 4                                                   | *5190.00       | 96.0 AV                       |                   |                | 2.52 V                   | 50                         | 56.7                   | 39.3                           |
| 5                                                   | #10380.00      | 60.3 PK                       | 68.2              | -7.9           | 1.91 V                   | 66                         | 42.9                   | 17.4                           |

## Remarks:

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



|                 |               |                      |              |
|-----------------|---------------|----------------------|--------------|
| CHANNEL         | TX Channel 62 | DETECTOR<br>FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz  |                      | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5310.00       | 106.0 PK                      |                   |                | 2.56 H                   | 350                        | 66.8                   | 39.2                           |
| 2                                                   | *5310.00       | 94.6 AV                       |                   |                | 2.56 H                   | 350                        | 55.4                   | 39.2                           |
| 3                                                   | 5350.00        | 58.8 PK                       | 74.0              | -15.2          | 2.50 H                   | 344                        | 54.7                   | 4.1                            |
| 4                                                   | 5350.00        | 42.3 AV                       | 54.0              | -11.7          | 2.50 H                   | 344                        | 38.2                   | 4.1                            |
| 5                                                   | 10620.00       | 62.1 PK                       | 74.0              | -11.9          | 2.05 H                   | 133                        | 43.3                   | 18.8                           |
| 6                                                   | 10620.00       | 47.2 AV                       | 54.0              | -6.8           | 2.05 H                   | 133                        | 28.4                   | 18.8                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5310.00       | 107.7 PK                      |                   |                | 2.60 V                   | 55                         | 68.5                   | 39.2                           |
| 2                                                   | *5310.00       | 95.9 AV                       |                   |                | 2.60 V                   | 55                         | 56.7                   | 39.2                           |
| 3                                                   | 5350.00        | 62.7 PK                       | 74.0              | -11.3          | 2.44 V                   | 63                         | 58.6                   | 4.1                            |
| 4                                                   | 5350.00        | 45.0 AV                       | 54.0              | -9.0           | 2.44 V                   | 63                         | 40.9                   | 4.1                            |
| 5                                                   | 10620.00       | 62.3 PK                       | 68.2              | -5.9           | 1.93 V                   | 78                         | 43.5                   | 18.8                           |
| 6                                                   | 10620.00       | 47.7 AV                       | 54.0              | -6.3           | 1.93 V                   | 78                         | 28.9                   | 18.8                           |

Remarks:

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

|                 |                |                      |              |
|-----------------|----------------|----------------------|--------------|
| CHANNEL         | TX Channel 102 | DETECTOR<br>FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                      | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 55.6 PK                       | 74.0              | -18.4          | 2.51 H                   | 359                        | 51.1                   | 4.5                            |
| 2                                                   | 5460.00        | 40.2 AV                       | 54.0              | -13.8          | 2.51 H                   | 359                        | 35.7                   | 4.5                            |
| 3                                                   | #5470.00       | 59.5 PK                       | 68.2              | -8.7           | 2.63 H                   | 350                        | 55.0                   | 4.5                            |
| 4                                                   | *5510.00       | 100.7 PK                      |                   |                | 2.50 H                   | 347                        | 61.0                   | 39.7                           |
| 5                                                   | *5510.00       | 89.1 AV                       |                   |                | 2.50 H                   | 347                        | 49.4                   | 39.7                           |
| 6                                                   | 11020.00       | 60.5 PK                       | 74.0              | -13.5          | 2.13 H                   | 130                        | 41.4                   | 19.1                           |
| 7                                                   | 11020.00       | 46.7 AV                       | 54.0              | -7.3           | 2.13 H                   | 130                        | 27.6                   | 19.1                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 61.2 PK                       | 74.0              | -12.8          | 2.33 V                   | 49                         | 56.7                   | 4.5                            |
| 2                                                   | 5460.00        | 43.5 AV                       | 54.0              | -10.5          | 2.33 V                   | 49                         | 39.0                   | 4.5                            |
| 3                                                   | #5470.00       | 64.1 PK                       | 68.2              | -4.1           | 2.41 V                   | 50                         | 59.6                   | 4.5                            |
| 4                                                   | *5510.00       | 103.1 PK                      |                   |                | 2.26 V                   | 45                         | 63.4                   | 39.7                           |
| 5                                                   | *5510.00       | 91.6 AV                       |                   |                | 2.26 V                   | 45                         | 51.9                   | 39.7                           |
| 6                                                   | 11020.00       | 61.1 PK                       | 74.0              | -12.9          | 1.85 V                   | 59                         | 42.0                   | 19.1                           |
| 7                                                   | 11020.00       | 47.2 AV                       | 54.0              | -6.8           | 1.85 V                   | 59                         | 28.1                   | 19.1                           |

Remarks:

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

|                 |                |                   |              |
|-----------------|----------------|-------------------|--------------|
| CHANNEL         | TX Channel 134 | DETECTOR FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                   | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |             |                         |                |             |                    |                      |                  |                          |
|-----------------------------------------------------|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| NO.                                                 | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1                                                   | *5670.00    | 101.9 PK                |                |             | 2.53 H             | 340                  | 62.1             | 39.8                     |
| 2                                                   | *5670.00    | 90.3 AV                 |                |             | 2.53 H             | 340                  | 50.5             | 39.8                     |
| 3                                                   | #5725.00    | 60.3 PK                 | 68.2           | -7.9        | 2.34 H             | 333                  | 55.6             | 4.7                      |
| 4                                                   | 11340.00    | 60.7 PK                 | 74.0           | -13.3       | 2.13 H             | 130                  | 42.0             | 18.7                     |
| 5                                                   | 11340.00    | 46.8 AV                 | 54.0           | -7.2        | 2.13 H             | 130                  | 28.1             | 18.7                     |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |             |                         |                |             |                    |                      |                  |                          |
| NO.                                                 | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1                                                   | *5670.00    | 104.3 PK                |                |             | 3.17 V             | 43                   | 64.5             | 39.8                     |
| 2                                                   | *5670.00    | 92.6 AV                 |                |             | 3.17 V             | 43                   | 52.8             | 39.8                     |
| 3                                                   | #5725.00    | 64.8 PK                 | 68.2           | -3.4        | 2.81 V             | 55                   | 60.1             | 4.7                      |
| 4                                                   | 11340.00    | 61.3 PK                 | 74.0           | -12.7       | 1.91 V             | 66                   | 42.6             | 18.7                     |
| 5                                                   | 11340.00    | 47.4 AV                 | 54.0           | -6.6        | 1.91 V             | 66                   | 28.7             | 18.7                     |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5615.20       | 54.4 PK                       | 68.2              | -13.8          | 2.44 H                   | 60                         | 49.9                   | 4.5                            |
| 2                                                   | *5755.00       | 95.5 PK                       |                   |                | 2.44 H                   | 60                         | 55.5                   | 40.0                           |
| 3                                                   | *5755.00       | 83.7 AV                       |                   |                | 2.44 H                   | 60                         | 43.7                   | 40.0                           |
| 4                                                   | #5926.40       | 56.4 PK                       | 68.2              | -11.8          | 2.44 H                   | 60                         | 51.1                   | 5.3                            |
| 5                                                   | 11510.00       | 59.5 PK                       | 74.0              | -14.5          | 2.20 H                   | 129                        | 40.6                   | 18.9                           |
| 6                                                   | 11510.00       | 44.6 AV                       | 54.0              | -9.4           | 2.20 H                   | 129                        | 25.7                   | 18.9                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5628.80       | 55.3 PK                       | 68.2              | -12.9          | 2.64 V                   | 277                        | 50.8                   | 4.5                            |
| 2                                                   | *5755.00       | 102.2 PK                      |                   |                | 2.64 V                   | 277                        | 62.2                   | 40.0                           |
| 3                                                   | *5755.00       | 90.2 AV                       |                   |                | 2.64 V                   | 277                        | 50.2                   | 40.0                           |
| 4                                                   | #5931.20       | 56.3 PK                       | 68.2              | -11.9          | 2.64 V                   | 277                        | 51.0                   | 5.3                            |
| 5                                                   | 11510.00       | 59.9 PK                       | 74.0              | -14.1          | 1.89 V                   | 55                         | 41.0                   | 18.9                           |
| 6                                                   | 11510.00       | 45.0 AV                       | 54.0              | -9.0           | 1.89 V                   | 55                         | 26.1                   | 18.9                           |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5602.40       | 55.4 PK                       | 68.2              | -12.8          | 2.45 H                   | 60                         | 50.9                   | 4.5                            |
| 2                                                   | *5795.00       | 95.4 PK                       |                   |                | 2.45 H                   | 60                         | 55.1                   | 40.3                           |
| 3                                                   | *5795.00       | 83.3 AV                       |                   |                | 2.45 H                   | 60                         | 43.0                   | 40.3                           |
| 4                                                   | #5944.00       | 55.5 PK                       | 68.2              | -12.7          | 2.45 H                   | 60                         | 50.2                   | 5.3                            |
| 5                                                   | 11590.00       | 58.5 PK                       | 74.0              | -15.5          | 2.24 H                   | 121                        | 40.1                   | 18.4                           |
| 6                                                   | 11590.00       | 43.6 AV                       | 54.0              | -10.4          | 2.24 H                   | 121                        | 25.2                   | 18.4                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5621.60       | 55.6 PK                       | 68.2              | -12.6          | 2.65 V                   | 277                        | 51.1                   | 4.5                            |
| 2                                                   | *5795.00       | 102.6 PK                      |                   |                | 2.65 V                   | 277                        | 62.3                   | 40.3                           |
| 3                                                   | *5795.00       | 89.9 AV                       |                   |                | 2.65 V                   | 277                        | 49.6                   | 40.3                           |
| 4                                                   | #5925.60       | 56.7 PK                       | 68.2              | -11.5          | 2.65 V                   | 277                        | 51.4                   | 5.3                            |
| 5                                                   | 11590.00       | 59.2 PK                       | 74.0              | -14.8          | 1.97 V                   | 60                         | 40.8                   | 18.4                           |
| 6                                                   | 11590.00       | 44.3 AV                       | 54.0              | -9.7           | 1.97 V                   | 60                         | 25.9                   | 18.4                           |

Remarks:

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

## 802.11ac (VHT80)

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 65.8 PK                       | 74.0              | -8.2           | 2.65 H                   | 350                        | 61.7                   | 4.1                            |
| 2                                                   | 5150.00        | 48.2 AV                       | 54.0              | -5.8           | 2.65 H                   | 350                        | 44.1                   | 4.1                            |
| 3                                                   | *5210.00       | 102.8 PK                      |                   |                | 2.55 H                   | 353                        | 63.6                   | 39.2                           |
| 4                                                   | *5210.00       | 89.7 AV                       |                   |                | 2.55 H                   | 353                        | 50.5                   | 39.2                           |
| 5                                                   | 5350.00        | 56.6 PK                       | 74.0              | -17.4          | 2.51 H                   | 344                        | 52.5                   | 4.1                            |
| 6                                                   | 5350.00        | 43.5 AV                       | 54.0              | -10.5          | 2.51 H                   | 344                        | 39.4                   | 4.1                            |
| 7                                                   | #10420.00      | 59.8 PK                       | 68.2              | -8.4           | 2.23 H                   | 118                        | 42.2                   | 17.6                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 70.7 PK                       | 74.0              | -3.3           | 2.33 V                   | 49                         | 66.6                   | 4.1                            |
| 2                                                   | 5150.00        | 51.9 AV                       | 54.0              | -2.1           | 2.33 V                   | 49                         | 47.8                   | 4.1                            |
| 3                                                   | *5210.00       | 105.0 PK                      |                   |                | 2.27 V                   | 51                         | 65.8                   | 39.2                           |
| 4                                                   | *5210.00       | 92.1 AV                       |                   |                | 2.27 V                   | 51                         | 52.9                   | 39.2                           |
| 5                                                   | 5350.00        | 58.8 PK                       | 74.0              | -15.2          | 2.41 V                   | 48                         | 54.7                   | 4.1                            |
| 6                                                   | 5350.00        | 45.3 AV                       | 54.0              | -8.7           | 2.41 V                   | 48                         | 41.2                   | 4.1                            |
| 7                                                   | #10420.00      | 60.4 PK                       | 68.2              | -7.8           | 1.78 V                   | 67                         | 42.8                   | 17.6                           |

## Remarks:

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

|                 |               |                      |                           |
|-----------------|---------------|----------------------|---------------------------|
| CHANNEL         | TX Channel 58 | DETECTOR<br>FUNCTION | Peak (PK)<br>Average (AV) |
| FREQUENCY RANGE | 1GHz ~ 40GHz  |                      |                           |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 56.2 PK                       | 74.0              | -17.8          | 2.37 H                   | 335                        | 52.1                   | 4.1                            |
| 2                                                   | 5150.00        | 43.0 AV                       | 54.0              | -11.0          | 2.37 H                   | 335                        | 38.9                   | 4.1                            |
| 3                                                   | *5290.00       | 102.9 PK                      |                   |                | 2.55 H                   | 344                        | 63.8                   | 39.1                           |
| 4                                                   | *5290.00       | 89.9 AV                       |                   |                | 2.55 H                   | 344                        | 50.8                   | 39.1                           |
| 5                                                   | 5350.00        | 62.8 PK                       | 74.0              | -11.2          | 2.45 H                   | 340                        | 58.7                   | 4.1                            |
| 6                                                   | 5350.00        | 46.0 AV                       | 54.0              | -8.0           | 2.45 H                   | 340                        | 41.9                   | 4.1                            |
| 7                                                   | #10580.00      | 61.1 PK                       | 68.2              | -7.1           | 2.24 H                   | 120                        | 42.3                   | 18.8                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 58.4 PK                       | 74.0              | -15.6          | 2.47 V                   | 54                         | 54.3                   | 4.1                            |
| 2                                                   | 5150.00        | 45.1 AV                       | 54.0              | -8.9           | 2.47 V                   | 54                         | 41.0                   | 4.1                            |
| 3                                                   | *5290.00       | 105.2 PK                      |                   |                | 2.53 V                   | 49                         | 66.1                   | 39.1                           |
| 4                                                   | *5290.00       | 92.1 AV                       |                   |                | 2.53 V                   | 49                         | 53.0                   | 39.1                           |
| 5                                                   | 5350.00        | 67.5 PK                       | 74.0              | -6.5           | 2.37 V                   | 50                         | 63.4                   | 4.1                            |
| 6                                                   | 5350.00        | 49.6 AV                       | 54.0              | -4.4           | 2.37 V                   | 50                         | 45.5                   | 4.1                            |
| 7                                                   | #10580.00      | 61.8 PK                       | 68.2              | -6.4           | 1.87 V                   | 71                         | 43.0                   | 18.8                           |

Remarks:

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

|                 |                |                      |              |
|-----------------|----------------|----------------------|--------------|
| CHANNEL         | TX Channel 106 | DETECTOR<br>FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                      | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 56.6 PK                       | 74.0              | -17.4          | 2.65 H                   | 347                        | 52.1                   | 4.5                            |
| 2                                                   | 5460.00        | 40.4 AV                       | 54.0              | -13.6          | 2.65 H                   | 347                        | 35.9                   | 4.5                            |
| 3                                                   | #5470.00       | 59.8 PK                       | 68.2              | -8.4           | 2.63 H                   | 341                        | 55.3                   | 4.5                            |
| 4                                                   | *5530.00       | 103.7 PK                      |                   |                | 2.59 H                   | 354                        | 64.0                   | 39.7                           |
| 5                                                   | *5530.00       | 90.7 AV                       |                   |                | 2.59 H                   | 354                        | 51.0                   | 39.7                           |
| 6                                                   | #5725.00       | 56.5 PK                       | 68.2              | -11.7          | 2.75 H                   | 350                        | 51.8                   | 4.7                            |
| 7                                                   | 11060.00       | 60.7 PK                       | 74.0              | -13.3          | 1.99 H                   | 128                        | 41.8                   | 18.9                           |
| 8                                                   | 11060.00       | 46.6 AV                       | 54.0              | -7.4           | 1.99 H                   | 128                        | 27.7                   | 18.9                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 61.5 PK                       | 74.0              | -12.5          | 2.47 V                   | 53                         | 57.0                   | 4.5                            |
| 2                                                   | 5460.00        | 43.8 AV                       | 54.0              | -10.2          | 2.47 V                   | 53                         | 39.3                   | 4.5                            |
| 3                                                   | #5470.00       | 64.5 PK                       | 68.2              | -3.7           | 2.40 V                   | 41                         | 60.0                   | 4.5                            |
| 4                                                   | *5530.00       | 106.0 PK                      |                   |                | 2.51 V                   | 50                         | 66.3                   | 39.7                           |
| 5                                                   | *5530.00       | 92.9 AV                       |                   |                | 2.51 V                   | 50                         | 53.2                   | 39.7                           |
| 6                                                   | #5725.00       | 57.8 PK                       | 68.2              | -10.4          | 2.37 V                   | 54                         | 53.1                   | 4.7                            |
| 7                                                   | 11060.00       | 61.2 PK                       | 74.0              | -12.8          | 1.91 V                   | 78                         | 42.3                   | 18.9                           |
| 8                                                   | 11060.00       | 47.1 AV                       | 54.0              | -6.9           | 1.91 V                   | 78                         | 28.2                   | 18.9                           |

Remarks:

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



|                 |                |                      |                           |
|-----------------|----------------|----------------------|---------------------------|
| CHANNEL         | TX Channel 122 | DETECTOR<br>FUNCTION | Peak (PK)<br>Average (AV) |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                      |                           |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 55.2 PK                       | 74.0              | -18.8          | 2.43 H                   | 339                        | 50.7                   | 4.5                            |
| 2                                                   | 5460.00        | 42.2 AV                       | 54.0              | -11.8          | 2.43 H                   | 339                        | 37.7                   | 4.5                            |
| 3                                                   | #5470.00       | 55.8 PK                       | 68.2              | -12.4          | 2.61 H                   | 357                        | 51.3                   | 4.5                            |
| 4                                                   | *5610.00       | 104.1 PK                      |                   |                | 2.63 H                   | 350                        | 64.3                   | 39.8                           |
| 5                                                   | *5610.00       | 91.6 AV                       |                   |                | 2.63 H                   | 350                        | 51.8                   | 39.8                           |
| 6                                                   | #5725.00       | 55.8 PK                       | 68.2              | -12.4          | 2.50 H                   | 341                        | 51.1                   | 4.7                            |
| 7                                                   | 11220.00       | 60.5 PK                       | 74.0              | -13.5          | 2.09 H                   | 120                        | 41.8                   | 18.7                           |
| 8                                                   | 11220.00       | 46.5 AV                       | 54.0              | -7.5           | 2.09 H                   | 120                        | 27.8                   | 18.7                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 57.6 PK                       | 74.0              | -16.4          | 2.44 V                   | 268                        | 53.1                   | 4.5                            |
| 2                                                   | 5460.00        | 44.4 AV                       | 54.0              | -9.6           | 2.44 V                   | 268                        | 39.9                   | 4.5                            |
| 3                                                   | #5470.00       | 58.2 PK                       | 68.2              | -10.0          | 2.41 V                   | 270                        | 53.7                   | 4.5                            |
| 4                                                   | *5610.00       | 106.5 PK                      |                   |                | 2.52 V                   | 275                        | 66.7                   | 39.8                           |
| 5                                                   | *5610.00       | 93.8 AV                       |                   |                | 2.52 V                   | 275                        | 54.0                   | 39.8                           |
| 6                                                   | #5725.00       | 58.2 PK                       | 68.2              | -10.0          | 2.34 V                   | 266                        | 53.5                   | 4.7                            |
| 7                                                   | 11220.00       | 60.9 PK                       | 74.0              | -13.1          | 1.90 V                   | 75                         | 42.2                   | 18.7                           |
| 8                                                   | 11220.00       | 47.0 AV                       | 54.0              | -7.0           | 1.90 V                   | 75                         | 28.3                   | 18.7                           |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5615.20       | 55.3 PK                       | 68.2              | -12.9          | 2.46 H                   | 61                         | 50.8                   | 4.5                            |
| 2                                                   | *5775.00       | 92.5 PK                       |                   |                | 2.46 H                   | 61                         | 52.4                   | 40.1                           |
| 3                                                   | *5775.00       | 81.2 AV                       |                   |                | 2.46 H                   | 61                         | 41.1                   | 40.1                           |
| 4                                                   | #5957.60       | 56.3 PK                       | 68.2              | -11.9          | 2.46 H                   | 61                         | 51.0                   | 5.3                            |
| 5                                                   | 11550.00       | 59.4 PK                       | 74.0              | -14.6          | 2.31 H                   | 125                        | 40.7                   | 18.7                           |
| 6                                                   | 11550.00       | 44.8 AV                       | 54.0              | -9.2           | 2.31 H                   | 125                        | 26.1                   | 18.7                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5632.00       | 54.8 PK                       | 68.2              | -13.4          | 2.67 V                   | 278                        | 50.3                   | 4.5                            |
| 2                                                   | *5775.00       | 99.8 PK                       |                   |                | 2.67 V                   | 278                        | 59.7                   | 40.1                           |
| 3                                                   | *5775.00       | 88.1 AV                       |                   |                | 2.67 V                   | 278                        | 48.0                   | 40.1                           |
| 4                                                   | #5969.60       | 56.6 PK                       | 68.2              | -11.6          | 2.67 V                   | 278                        | 51.3                   | 5.3                            |
| 5                                                   | 11550.00       | 59.8 PK                       | 74.0              | -14.2          | 2.05 V                   | 56                         | 41.1                   | 18.7                           |
| 6                                                   | 11550.00       | 45.2 AV                       | 54.0              | -8.8           | 2.05 V                   | 56                         | 26.5                   | 18.7                           |

Remarks:

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

# 802.11ax (HE20)

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 64.4 PK                       | 74.0              | -9.6           | 2.63 H                   | 352                        | 60.3                   | 4.1                            |
| 2                                                   | 5150.00        | 46.6 AV                       | 54.0              | -7.4           | 2.63 H                   | 352                        | 42.5                   | 4.1                            |
| 3                                                   | *5180.00       | 110.0 PK                      |                   |                | 2.74 H                   | 353                        | 70.7                   | 39.3                           |
| 4                                                   | *5180.00       | 97.9 AV                       |                   |                | 2.74 H                   | 353                        | 58.6                   | 39.3                           |
| 5                                                   | #10360.00      | 57.5 PK                       | 68.2              | -10.7          | 1.98 H                   | 114                        | 40.3                   | 17.2                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 69.8 PK                       | 74.0              | -4.2           | 2.31 V                   | 52                         | 65.7                   | 4.1                            |
| 2                                                   | 5150.00        | 50.6 AV                       | 54.0              | -3.4           | 2.31 V                   | 52                         | 46.5                   | 4.1                            |
| 3                                                   | *5180.00       | 112.3 PK                      |                   |                | 2.28 V                   | 50                         | 73.0                   | 39.3                           |
| 4                                                   | *5180.00       | 100.3 AV                      |                   |                | 2.28 V                   | 50                         | 61.0                   | 39.3                           |
| 5                                                   | #10360.00      | 58.0 PK                       | 68.2              | -10.2          | 1.87 V                   | 33                         | 40.8                   | 17.2                           |

## Remarks:

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

|                 |               |                      |              |
|-----------------|---------------|----------------------|--------------|
| CHANNEL         | TX Channel 64 | DETECTOR<br>FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz  |                      | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5320.00       | 106.6 PK                      |                   |                | 2.79 H                   | 356                        | 67.4                   | 39.2                           |
| 2                                                   | *5320.00       | 95.2 AV                       |                   |                | 2.79 H                   | 356                        | 56.0                   | 39.2                           |
| 3                                                   | 5350.00        | 57.6 PK                       | 74.0              | -16.4          | 2.58 H                   | 341                        | 53.5                   | 4.1                            |
| 4                                                   | 5350.00        | 41.0 AV                       | 54.0              | -13.0          | 2.58 H                   | 341                        | 36.9                   | 4.1                            |
| 5                                                   | 10640.00       | 59.2 PK                       | 74.0              | -14.8          | 2.23 H                   | 116                        | 40.6                   | 18.6                           |
| 6                                                   | 10640.00       | 43.3 AV                       | 54.0              | -10.7          | 2.23 H                   | 116                        | 24.7                   | 18.6                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5320.00       | 109.1 PK                      |                   |                | 2.53 V                   | 50                         | 69.9                   | 39.2                           |
| 2                                                   | *5320.00       | 97.6 AV                       |                   |                | 2.53 V                   | 50                         | 58.4                   | 39.2                           |
| 3                                                   | 5350.00        | 62.2 PK                       | 74.0              | -11.8          | 2.61 V                   | 61                         | 58.1                   | 4.1                            |
| 4                                                   | 5350.00        | 45.0 AV                       | 54.0              | -9.0           | 2.61 V                   | 61                         | 40.9                   | 4.1                            |
| 5                                                   | 10640.00       | 59.6 PK                       | 74.0              | -14.4          | 1.89 V                   | 55                         | 41.0                   | 18.6                           |
| 6                                                   | 10640.00       | 43.8 AV                       | 54.0              | -10.2          | 1.89 V                   | 55                         | 25.2                   | 18.6                           |

Remarks:

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

|                 |                |                      |              |
|-----------------|----------------|----------------------|--------------|
| CHANNEL         | TX Channel 100 | DETECTOR<br>FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                      | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 55.3 PK                       | 74.0              | -18.7          | 2.53 H                   | 350                        | 50.8                   | 4.5                            |
| 2                                                   | 5460.00        | 38.7 AV                       | 54.0              | -15.3          | 2.53 H                   | 350                        | 34.2                   | 4.5                            |
| 3                                                   | #5470.00       | 57.8 PK                       | 68.2              | -10.4          | 2.61 H                   | 343                        | 53.3                   | 4.5                            |
| 4                                                   | *5500.00       | 105.6 PK                      |                   |                | 2.70 H                   | 352                        | 65.9                   | 39.7                           |
| 5                                                   | *5500.00       | 94.1 AV                       |                   |                | 2.70 H                   | 352                        | 54.4                   | 39.7                           |
| 6                                                   | 11000.00       | 59.9 PK                       | 74.0              | -14.1          | 2.09 H                   | 110                        | 40.6                   | 19.3                           |
| 7                                                   | 11000.00       | 45.1 AV                       | 54.0              | -8.9           | 2.09 H                   | 110                        | 25.8                   | 19.3                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 59.7 PK                       | 74.0              | -14.3          | 2.40 V                   | 53                         | 55.2                   | 4.5                            |
| 2                                                   | 5460.00        | 42.9 AV                       | 54.0              | -11.1          | 2.40 V                   | 53                         | 38.4                   | 4.5                            |
| 3                                                   | #5470.00       | 62.8 PK                       | 68.2              | -5.4           | 2.35 V                   | 43                         | 58.3                   | 4.5                            |
| 4                                                   | *5500.00       | 107.9 PK                      |                   |                | 2.29 V                   | 47                         | 68.2                   | 39.7                           |
| 5                                                   | *5500.00       | 96.6 AV                       |                   |                | 2.29 V                   | 47                         | 56.9                   | 39.7                           |
| 6                                                   | 11000.00       | 60.4 PK                       | 74.0              | -13.6          | 1.93 V                   | 59                         | 41.1                   | 19.3                           |
| 7                                                   | 11000.00       | 45.6 AV                       | 54.0              | -8.4           | 1.93 V                   | 59                         | 26.3                   | 19.3                           |

Remarks:

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

|                 |                |                      |              |
|-----------------|----------------|----------------------|--------------|
| CHANNEL         | TX Channel 140 | DETECTOR<br>FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                      | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5700.00       | 107.9 PK                      |                   |                | 2.75 H                   | 354                        | 68.1                   | 39.8                           |
| 2                                                   | *5700.00       | 95.6 AV                       |                   |                | 2.75 H                   | 354                        | 55.8                   | 39.8                           |
| 3                                                   | #5725.00       | 61.6 PK                       | 68.2              | -6.6           | 2.51 H                   | 348                        | 56.9                   | 4.7                            |
| 4                                                   | 11400.00       | 58.7 PK                       | 74.0              | -15.3          | 1.99 H                   | 109                        | 40.2                   | 18.5                           |
| 5                                                   | 11400.00       | 42.9 AV                       | 54.0              | -11.1          | 1.99 H                   | 109                        | 24.4                   | 18.5                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5700.00       | 110.3 PK                      |                   |                | 2.55 V                   | 281                        | 70.5                   | 39.8                           |
| 2                                                   | *5700.00       | 97.9 AV                       |                   |                | 2.55 V                   | 281                        | 58.1                   | 39.8                           |
| 3                                                   | #5725.00       | 65.7 PK                       | 68.2              | -2.5           | 2.65 V                   | 277                        | 61.0                   | 4.7                            |
| 4                                                   | 11400.00       | 59.3 PK                       | 74.0              | -14.7          | 1.84 V                   | 55                         | 40.8                   | 18.5                           |
| 5                                                   | 11400.00       | 43.6 AV                       | 54.0              | -10.4          | 1.84 V                   | 55                         | 25.1                   | 18.5                           |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5630.40       | 55.8 PK                       | 68.2              | -12.4          | 2.25 H                   | 59                         | 51.3                   | 4.5                            |
| 2                                                   | *5745.00       | 99.8 PK                       |                   |                | 2.25 H                   | 59                         | 59.8                   | 40.0                           |
| 3                                                   | *5745.00       | 87.2 AV                       |                   |                | 2.25 H                   | 59                         | 47.2                   | 40.0                           |
| 4                                                   | #5964.00       | 57.5 PK                       | 68.2              | -10.7          | 2.25 H                   | 59                         | 52.2                   | 5.3                            |
| 5                                                   | 11490.00       | 56.8 PK                       | 74.0              | -17.2          | 2.39 H                   | 131                        | 38.0                   | 18.8                           |
| 6                                                   | 11490.00       | 42.9 AV                       | 54.0              | -11.1          | 2.39 H                   | 131                        | 24.1                   | 18.8                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5645.60       | 55.1 PK                       | 68.2              | -13.1          | 2.70 V                   | 279                        | 50.6                   | 4.5                            |
| 2                                                   | *5745.00       | 107.5 PK                      |                   |                | 2.70 V                   | 279                        | 67.5                   | 40.0                           |
| 3                                                   | *5745.00       | 93.3 AV                       |                   |                | 2.70 V                   | 279                        | 53.3                   | 40.0                           |
| 4                                                   | #5956.00       | 56.4 PK                       | 68.2              | -11.8          | 2.70 V                   | 279                        | 51.1                   | 5.3                            |
| 5                                                   | 11490.00       | 57.1 PK                       | 74.0              | -16.9          | 1.97 V                   | 60                         | 38.3                   | 18.8                           |
| 6                                                   | 11490.00       | 43.2 AV                       | 54.0              | -10.8          | 1.97 V                   | 60                         | 24.4                   | 18.8                           |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5635.20       | 56.5 PK                       | 68.2              | -11.7          | 2.25 H                   | 58                         | 52.0                   | 4.5                            |
| 2                                                   | *5825.00       | 98.0 PK                       |                   |                | 2.25 H                   | 58                         | 57.6                   | 40.4                           |
| 3                                                   | *5825.00       | 85.4 AV                       |                   |                | 2.25 H                   | 58                         | 45.0                   | 40.4                           |
| 4                                                   | #5930.40       | 57.1 PK                       | 68.2              | -11.1          | 2.25 H                   | 58                         | 51.8                   | 5.3                            |
| 5                                                   | 11650.00       | 56.3 PK                       | 74.0              | -17.7          | 2.20 H                   | 123                        | 37.8                   | 18.5                           |
| 6                                                   | 11650.00       | 42.6 AV                       | 54.0              | -11.4          | 2.20 H                   | 123                        | 24.1                   | 18.5                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5641.60       | 55.4 PK                       | 68.2              | -12.8          | 2.69 V                   | 277                        | 50.9                   | 4.5                            |
| 2                                                   | *5825.00       | 105.0 PK                      |                   |                | 2.69 V                   | 277                        | 64.6                   | 40.4                           |
| 3                                                   | *5825.00       | 91.9 AV                       |                   |                | 2.69 V                   | 277                        | 51.5                   | 40.4                           |
| 4                                                   | #5927.20       | 56.3 PK                       | 68.2              | -11.9          | 2.69 V                   | 277                        | 51.0                   | 5.3                            |
| 5                                                   | 11650.00       | 56.7 PK                       | 74.0              | -17.3          | 1.80 V                   | 63                         | 38.2                   | 18.5                           |
| 6                                                   | 11650.00       | 42.9 AV                       | 54.0              | -11.1          | 1.80 V                   | 63                         | 24.4                   | 18.5                           |

Remarks:

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



# 802.11ax (HE40)

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 65.4 PK                       | 74.0              | -8.6           | 2.53 H                   | 339                        | 61.3                   | 4.1                            |
| 2                                                   | 5150.00        | 48.2 AV                       | 54.0              | -5.8           | 2.53 H                   | 339                        | 44.1                   | 4.1                            |
| 3                                                   | *5190.00       | 105.6 PK                      |                   |                | 2.63 H                   | 354                        | 66.3                   | 39.3                           |
| 4                                                   | *5190.00       | 93.9 AV                       |                   |                | 2.63 H                   | 354                        | 54.6                   | 39.3                           |
| 5                                                   | #10380.00      | 59.7 PK                       | 68.2              | -8.5           | 2.10 H                   | 118                        | 42.3                   | 17.4                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 70.7 PK                       | 74.0              | -3.3           | 2.50 V                   | 253                        | 66.6                   | 4.1                            |
| 2                                                   | 5150.00        | 51.9 AV                       | 54.0              | -2.1           | 2.50 V                   | 253                        | 47.8                   | 4.1                            |
| 3                                                   | *5190.00       | 107.9 PK                      |                   |                | 2.41 V                   | 53                         | 68.6                   | 39.3                           |
| 4                                                   | *5190.00       | 96.2 AV                       |                   |                | 2.41 V                   | 53                         | 56.9                   | 39.3                           |
| 5                                                   | #10380.00      | 60.5 PK                       | 68.2              | -7.7           | 1.84 V                   | 61                         | 43.1                   | 17.4                           |

## Remarks:

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

|                 |               |                      |              |
|-----------------|---------------|----------------------|--------------|
| CHANNEL         | TX Channel 62 | DETECTOR<br>FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz  |                      | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5310.00       | 105.5 PK                      |                   |                | 2.61 H                   | 358                        | 66.3                   | 39.2                           |
| 2                                                   | *5310.00       | 94.0 AV                       |                   |                | 2.61 H                   | 358                        | 54.8                   | 39.2                           |
| 3                                                   | 5350.00        | 58.2 PK                       | 74.0              | -15.8          | 2.54 H                   | 349                        | 54.1                   | 4.1                            |
| 4                                                   | 5350.00        | 41.8 AV                       | 54.0              | -12.2          | 2.54 H                   | 349                        | 37.7                   | 4.1                            |
| 5                                                   | 10620.00       | 61.6 PK                       | 74.0              | -12.4          | 2.23 H                   | 123                        | 42.8                   | 18.8                           |
| 6                                                   | 10620.00       | 46.7 AV                       | 54.0              | -7.3           | 2.23 H                   | 123                        | 27.9                   | 18.8                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | *5310.00       | 108.0 PK                      |                   |                | 2.68 V                   | 47                         | 68.8                   | 39.2                           |
| 2                                                   | *5310.00       | 96.2 AV                       |                   |                | 2.68 V                   | 47                         | 57.0                   | 39.2                           |
| 3                                                   | 5350.00        | 63.0 PK                       | 74.0              | -11.0          | 2.53 V                   | 55                         | 58.9                   | 4.1                            |
| 4                                                   | 5350.00        | 45.3 AV                       | 54.0              | -8.7           | 2.53 V                   | 55                         | 41.2                   | 4.1                            |
| 5                                                   | 10620.00       | 62.0 PK                       | 68.2              | -6.2           | 1.88 V                   | 69                         | 43.2                   | 18.8                           |
| 6                                                   | 10620.00       | 47.2 AV                       | 54.0              | -6.8           | 1.88 V                   | 69                         | 28.4                   | 18.8                           |

Remarks:

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

|                 |                |                      |              |
|-----------------|----------------|----------------------|--------------|
| CHANNEL         | TX Channel 102 | DETECTOR<br>FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                      | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 56.6 PK                       | 74.0              | -17.4          | 2.63 H                   | 340                        | 52.1                   | 4.5                            |
| 2                                                   | 5460.00        | 39.9 AV                       | 54.0              | -14.1          | 2.63 H                   | 340                        | 35.4                   | 4.5                            |
| 3                                                   | #5470.00       | 59.7 PK                       | 68.2              | -8.5           | 2.58 H                   | 333                        | 55.2                   | 4.5                            |
| 4                                                   | *5510.00       | 101.0 PK                      |                   |                | 2.58 H                   | 350                        | 61.3                   | 39.7                           |
| 5                                                   | *5510.00       | 89.1 AV                       |                   |                | 2.58 H                   | 350                        | 49.4                   | 39.7                           |
| 6                                                   | 11020.00       | 60.8 PK                       | 74.0              | -13.2          | 1.93 H                   | 109                        | 41.7                   | 19.1                           |
| 7                                                   | 11020.00       | 46.6 AV                       | 54.0              | -7.4           | 1.93 H                   | 109                        | 27.5                   | 19.1                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 61.0 PK                       | 74.0              | -13.0          | 2.59 V                   | 60                         | 56.5                   | 4.5                            |
| 2                                                   | 5460.00        | 43.4 AV                       | 54.0              | -10.6          | 2.59 V                   | 60                         | 38.9                   | 4.5                            |
| 3                                                   | #5470.00       | 64.4 PK                       | 68.2              | -3.8           | 2.50 V                   | 54                         | 59.9                   | 4.5                            |
| 4                                                   | *5510.00       | 103.4 PK                      |                   |                | 2.39 V                   | 49                         | 63.7                   | 39.7                           |
| 5                                                   | *5510.00       | 91.4 AV                       |                   |                | 2.39 V                   | 49                         | 51.7                   | 39.7                           |
| 6                                                   | 11020.00       | 61.3 PK                       | 74.0              | -12.7          | 1.91 V                   | 55                         | 42.2                   | 19.1                           |
| 7                                                   | 11020.00       | 47.1 AV                       | 54.0              | -6.9           | 1.91 V                   | 55                         | 28.0                   | 19.1                           |

Remarks:

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

|                 |                |                   |              |
|-----------------|----------------|-------------------|--------------|
| CHANNEL         | TX Channel 134 | DETECTOR FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                   | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |             |                         |                |             |                    |                      |                  |                          |
|-----------------------------------------------------|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| NO.                                                 | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1                                                   | *5670.00    | 102.4 PK                |                |             | 2.61 H             | 349                  | 62.6             | 39.8                     |
| 2                                                   | *5670.00    | 90.8 AV                 |                |             | 2.61 H             | 349                  | 51.0             | 39.8                     |
| 3                                                   | #5725.00    | 60.7 PK                 | 68.2           | -7.5        | 2.44 H             | 339                  | 56.0             | 4.7                      |
| 4                                                   | 11340.00    | 60.8 PK                 | 74.0           | -13.2       | 2.10 H             | 121                  | 42.1             | 18.7                     |
| 5                                                   | 11340.00    | 47.0 AV                 | 54.0           | -7.0        | 2.10 H             | 121                  | 28.3             | 18.7                     |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |             |                         |                |             |                    |                      |                  |                          |
| NO.                                                 | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1                                                   | *5670.00    | 104.6 PK                |                |             | 2.97 V             | 48                   | 64.8             | 39.8                     |
| 2                                                   | *5670.00    | 92.9 AV                 |                |             | 2.97 V             | 48                   | 53.1             | 39.8                     |
| 3                                                   | #5725.00    | 65.2 PK                 | 68.2           | -3.0        | 2.88 V             | 50                   | 60.5             | 4.7                      |
| 4                                                   | 11340.00    | 61.5 PK                 | 74.0           | -12.5       | 1.84 V             | 58                   | 42.8             | 18.7                     |
| 5                                                   | 11340.00    | 47.7 AV                 | 54.0           | -6.3        | 1.84 V             | 58                   | 29.0             | 18.7                     |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5627.20       | 55.0 PK                       | 68.2              | -13.2          | 2.46 H                   | 61                         | 50.5                   | 4.5                            |
| 2                                                   | *5755.00       | 95.9 PK                       |                   |                | 2.46 H                   | 61                         | 55.9                   | 40.0                           |
| 3                                                   | *5755.00       | 83.4 AV                       |                   |                | 2.46 H                   | 61                         | 43.4                   | 40.0                           |
| 4                                                   | #5933.60       | 56.0 PK                       | 68.2              | -12.2          | 2.46 H                   | 61                         | 50.7                   | 5.3                            |
| 5                                                   | 11510.00       | 59.6 PK                       | 74.0              | -14.4          | 2.13 H                   | 119                        | 40.7                   | 18.9                           |
| 6                                                   | 11510.00       | 44.8 AV                       | 54.0              | -9.2           | 2.13 H                   | 119                        | 25.9                   | 18.9                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5605.60       | 54.8 PK                       | 68.2              | -13.4          | 2.62 V                   | 276                        | 50.3                   | 4.5                            |
| 2                                                   | *5755.00       | 102.6 PK                      |                   |                | 2.62 V                   | 276                        | 62.6                   | 40.0                           |
| 3                                                   | *5755.00       | 90.3 AV                       |                   |                | 2.62 V                   | 276                        | 50.3                   | 40.0                           |
| 4                                                   | #5959.20       | 55.6 PK                       | 68.2              | -12.6          | 2.62 V                   | 276                        | 50.3                   | 5.3                            |
| 5                                                   | 11510.00       | 60.1 PK                       | 74.0              | -13.9          | 1.97 V                   | 50                         | 41.2                   | 18.9                           |
| 6                                                   | 11510.00       | 45.2 AV                       | 54.0              | -8.8           | 1.97 V                   | 50                         | 26.3                   | 18.9                           |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5605.60       | 55.2 PK                       | 68.2              | -13.0          | 2.46 H                   | 58                         | 50.7                   | 4.5                            |
| 2                                                   | *5795.00       | 94.8 PK                       |                   |                | 2.46 H                   | 58                         | 54.5                   | 40.3                           |
| 3                                                   | *5795.00       | 82.5 AV                       |                   |                | 2.46 H                   | 58                         | 42.2                   | 40.3                           |
| 4                                                   | #5980.80       | 55.9 PK                       | 68.2              | -12.3          | 2.46 H                   | 58                         | 50.5                   | 5.4                            |
| 5                                                   | 11590.00       | 58.7 PK                       | 74.0              | -15.3          | 2.30 H                   | 128                        | 40.3                   | 18.4                           |
| 6                                                   | 11590.00       | 44.0 AV                       | 54.0              | -10.0          | 2.30 H                   | 128                        | 25.6                   | 18.4                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5631.20       | 55.3 PK                       | 68.2              | -12.9          | 2.56 V                   | 277                        | 50.8                   | 4.5                            |
| 2                                                   | *5795.00       | 102.7 PK                      |                   |                | 2.56 V                   | 277                        | 62.4                   | 40.3                           |
| 3                                                   | *5795.00       | 89.9 AV                       |                   |                | 2.56 V                   | 277                        | 49.6                   | 40.3                           |
| 4                                                   | #5988.80       | 56.3 PK                       | 68.2              | -11.9          | 2.56 V                   | 277                        | 50.9                   | 5.4                            |
| 5                                                   | 11590.00       | 59.2 PK                       | 74.0              | -14.8          | 1.90 V                   | 63                         | 40.8                   | 18.4                           |
| 6                                                   | 11590.00       | 44.4 AV                       | 54.0              | -9.6           | 1.90 V                   | 63                         | 26.0                   | 18.4                           |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 65.6 PK                       | 74.0              | -8.4           | 2.49 H                   | 339                        | 61.5                   | 4.1                            |
| 2                                                   | 5150.00        | 48.1 AV                       | 54.0              | -5.9           | 2.49 H                   | 339                        | 44.0                   | 4.1                            |
| 3                                                   | *5210.00       | 102.5 PK                      |                   |                | 2.53 H                   | 344                        | 63.3                   | 39.2                           |
| 4                                                   | *5210.00       | 89.3 AV                       |                   |                | 2.53 H                   | 344                        | 50.1                   | 39.2                           |
| 5                                                   | 5350.00        | 55.2 PK                       | 74.0              | -18.8          | 2.77 H                   | 359                        | 51.1                   | 4.1                            |
| 6                                                   | 5350.00        | 42.9 AV                       | 54.0              | -11.1          | 2.77 H                   | 359                        | 38.8                   | 4.1                            |
| 7                                                   | #10420.00      | 59.6 PK                       | 68.2              | -8.6           | 2.08 H                   | 125                        | 42.0                   | 17.6                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 70.9 PK                       | 74.0              | -3.1           | 2.27 V                   | 51                         | 66.8                   | 4.1                            |
| 2                                                   | <b>5150.00</b> | <b>52.0 AV</b>                | <b>54.0</b>       | <b>-2.0</b>    | <b>2.27 V</b>            | <b>51</b>                  | <b>47.9</b>            | <b>4.1</b>                     |
| 3                                                   | *5210.00       | 104.9 PK                      |                   |                | 2.35 V                   | 53                         | 65.7                   | 39.2                           |
| 4                                                   | *5210.00       | 91.7 AV                       |                   |                | 2.35 V                   | 53                         | 52.5                   | 39.2                           |
| 5                                                   | 5350.00        | 58.9 PK                       | 74.0              | -15.1          | 2.22 V                   | 50                         | 54.8                   | 4.1                            |
| 6                                                   | 5350.00        | 45.3 AV                       | 54.0              | -8.7           | 2.22 V                   | 50                         | 41.2                   | 4.1                            |
| 7                                                   | #10420.00      | 60.2 PK                       | 68.2              | -8.0           | 1.84 V                   | 70                         | 42.6                   | 17.6                           |

## Remarks:

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

|                 |               |                      |                           |
|-----------------|---------------|----------------------|---------------------------|
| CHANNEL         | TX Channel 58 | DETECTOR<br>FUNCTION | Peak (PK)<br>Average (AV) |
| FREQUENCY RANGE | 1GHz ~ 40GHz  |                      |                           |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 54.2 PK                       | 74.0              | -19.8          | 2.66 H                   | 350                        | 50.1                   | 4.1                            |
| 2                                                   | 5150.00        | 41.8 AV                       | 54.0              | -12.2          | 2.66 H                   | 350                        | 37.7                   | 4.1                            |
| 3                                                   | *5290.00       | 103.1 PK                      |                   |                | 2.53 H                   | 349                        | 64.0                   | 39.1                           |
| 4                                                   | *5290.00       | 89.6 AV                       |                   |                | 2.53 H                   | 349                        | 50.5                   | 39.1                           |
| 5                                                   | 5350.00        | 62.9 PK                       | 74.0              | -11.1          | 2.37 H                   | 339                        | 58.8                   | 4.1                            |
| 6                                                   | 5350.00        | 46.2 AV                       | 54.0              | -7.8           | 2.37 H                   | 339                        | 42.1                   | 4.1                            |
| 7                                                   | #10580.00      | 61.1 PK                       | 68.2              | -7.1           | 2.20 H                   | 127                        | 42.3                   | 18.8                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5150.00        | 58.7 PK                       | 74.0              | -15.3          | 2.61 V                   | 47                         | 54.6                   | 4.1                            |
| 2                                                   | 5150.00        | 45.3 AV                       | 54.0              | -8.7           | 2.61 V                   | 47                         | 41.2                   | 4.1                            |
| 3                                                   | *5290.00       | 105.4 PK                      |                   |                | 2.50 V                   | 49                         | 66.3                   | 39.1                           |
| 4                                                   | *5290.00       | 91.9 AV                       |                   |                | 2.50 V                   | 49                         | 52.8                   | 39.1                           |
| 5                                                   | 5350.00        | 67.8 PK                       | 74.0              | -6.2           | 2.41 V                   | 52                         | 63.7                   | 4.1                            |
| 6                                                   | 5350.00        | 49.9 AV                       | 54.0              | -4.1           | 2.41 V                   | 52                         | 45.8                   | 4.1                            |
| 7                                                   | #10580.00      | 61.9 PK                       | 68.2              | -6.3           | 1.91 V                   | 69                         | 43.1                   | 18.8                           |

Remarks:

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



|                 |                |                      |                           |
|-----------------|----------------|----------------------|---------------------------|
| CHANNEL         | TX Channel 106 | DETECTOR<br>FUNCTION | Peak (PK)<br>Average (AV) |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                      |                           |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 56.8 PK                       | 74.0              | -17.2          | 2.60 H                   | 351                        | 52.3                   | 4.5                            |
| 2                                                   | 5460.00        | 40.6 AV                       | 54.0              | -13.4          | 2.60 H                   | 351                        | 36.1                   | 4.5                            |
| 3                                                   | #5470.00       | 60.2 PK                       | 68.2              | -8.0           | 2.53 H                   | 350                        | 55.7                   | 4.5                            |
| 4                                                   | *5530.00       | 103.8 PK                      |                   |                | 2.63 H                   | 344                        | 64.1                   | 39.7                           |
| 5                                                   | *5530.00       | 90.9 AV                       |                   |                | 2.63 H                   | 344                        | 51.2                   | 39.7                           |
| 6                                                   | #5725.00       | 55.8 PK                       | 68.2              | -12.4          | 2.63 H                   | 339                        | 51.1                   | 4.7                            |
| 7                                                   | 11060.00       | 60.9 PK                       | 74.0              | -13.1          | 2.15 H                   | 109                        | 42.0                   | 18.9                           |
| 8                                                   | 11060.00       | 46.6 AV                       | 54.0              | -7.4           | 2.15 H                   | 109                        | 27.7                   | 18.9                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 61.7 PK                       | 74.0              | -12.3          | 2.53 V                   | 54                         | 57.2                   | 4.5                            |
| 2                                                   | 5460.00        | 44.1 AV                       | 54.0              | -9.9           | 2.53 V                   | 54                         | 39.6                   | 4.5                            |
| 3                                                   | #5470.00       | 64.7 PK                       | 68.2              | -3.5           | 2.61 V                   | 50                         | 60.2                   | 4.5                            |
| 4                                                   | *5530.00       | 106.2 PK                      |                   |                | 2.56 V                   | 52                         | 66.5                   | 39.7                           |
| 5                                                   | *5530.00       | 93.3 AV                       |                   |                | 2.56 V                   | 52                         | 53.6                   | 39.7                           |
| 6                                                   | #5725.00       | 58.0 PK                       | 68.2              | -10.2          | 2.43 V                   | 56                         | 53.3                   | 4.7                            |
| 7                                                   | 11060.00       | 61.4 PK                       | 74.0              | -12.6          | 1.84 V                   | 71                         | 42.5                   | 18.9                           |
| 8                                                   | 11060.00       | 47.2 AV                       | 54.0              | -6.8           | 1.84 V                   | 71                         | 28.3                   | 18.9                           |

Remarks:

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

|                 |                |                      |                           |
|-----------------|----------------|----------------------|---------------------------|
| CHANNEL         | TX Channel 122 | DETECTOR<br>FUNCTION | Peak (PK)<br>Average (AV) |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                      |                           |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 56.5 PK                       | 74.0              | -17.5          | 2.58 H                   | 347                        | 52.0                   | 4.5                            |
| 2                                                   | 5460.00        | 43.3 AV                       | 54.0              | -10.7          | 2.58 H                   | 347                        | 38.8                   | 4.5                            |
| 3                                                   | #5470.00       | 56.8 PK                       | 68.2              | -11.4          | 2.53 H                   | 341                        | 52.3                   | 4.5                            |
| 4                                                   | *5610.00       | 104.3 PK                      |                   |                | 2.71 H                   | 357                        | 64.5                   | 39.8                           |
| 5                                                   | *5610.00       | 91.2 AV                       |                   |                | 2.71 H                   | 357                        | 51.4                   | 39.8                           |
| 6                                                   | #5725.00       | 57.2 PK                       | 68.2              | -11.0          | 2.60 H                   | 349                        | 52.5                   | 4.7                            |
| 7                                                   | 11220.00       | 60.2 PK                       | 74.0              | -13.8          | 2.19 H                   | 118                        | 41.5                   | 18.7                           |
| 8                                                   | 11220.00       | 46.3 AV                       | 54.0              | -7.7           | 2.19 H                   | 118                        | 27.6                   | 18.7                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | 5460.00        | 57.9 PK                       | 74.0              | -16.1          | 2.61 V                   | 279                        | 53.4                   | 4.5                            |
| 2                                                   | 5460.00        | 44.6 AV                       | 54.0              | -9.4           | 2.61 V                   | 279                        | 40.1                   | 4.5                            |
| 3                                                   | #5470.00       | 58.5 PK                       | 68.2              | -9.7           | 2.53 V                   | 277                        | 54.0                   | 4.5                            |
| 4                                                   | *5610.00       | 106.6 PK                      |                   |                | 2.58 V                   | 266                        | 66.8                   | 39.8                           |
| 5                                                   | *5610.00       | 93.6 AV                       |                   |                | 2.58 V                   | 266                        | 53.8                   | 39.8                           |
| 6                                                   | #5725.00       | 58.6 PK                       | 68.2              | -9.6           | 2.41 V                   | 269                        | 53.9                   | 4.7                            |
| 7                                                   | 11220.00       | 60.7 PK                       | 74.0              | -13.3          | 1.86 V                   | 70                         | 42.0                   | 18.7                           |
| 8                                                   | 11220.00       | 46.9 AV                       | 54.0              | -7.1           | 1.86 V                   | 70                         | 28.2                   | 18.7                           |

Remarks:

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

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

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5608.00       | 55.3 PK                       | 68.2              | -12.9          | 2.02 H                   | 56                         | 50.8                   | 4.5                            |
| 2                                                   | *5775.00       | 91.9 PK                       |                   |                | 2.02 H                   | 56                         | 51.8                   | 40.1                           |
| 3                                                   | *5775.00       | 80.1 AV                       |                   |                | 2.02 H                   | 56                         | 40.0                   | 40.1                           |
| 4                                                   | #5943.20       | 56.1 PK                       | 68.2              | -12.1          | 2.02 H                   | 56                         | 50.8                   | 5.3                            |
| 5                                                   | 11550.00       | 59.3 PK                       | 74.0              | -14.7          | 2.23 H                   | 123                        | 40.6                   | 18.7                           |
| 6                                                   | 11550.00       | 44.8 AV                       | 54.0              | -9.2           | 2.23 H                   | 123                        | 26.1                   | 18.7                           |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                |                               |                   |                |                          |                            |                        |                                |
| NO.                                                 | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                   | #5640.80       | 55.2 PK                       | 68.2              | -13.0          | 2.68 V                   | 280                        | 50.7                   | 4.5                            |
| 2                                                   | *5775.00       | 99.8 PK                       |                   |                | 2.68 V                   | 280                        | 59.7                   | 40.1                           |
| 3                                                   | *5775.00       | 87.6 AV                       |                   |                | 2.68 V                   | 280                        | 47.5                   | 40.1                           |
| 4                                                   | #5951.20       | 56.3 PK                       | 68.2              | -11.9          | 2.68 V                   | 280                        | 51.0                   | 5.3                            |
| 5                                                   | 11550.00       | 59.7 PK                       | 74.0              | -14.3          | 1.99 V                   | 59                         | 41.0                   | 18.7                           |
| 6                                                   | 11550.00       | 45.2 AV                       | 54.0              | -8.8           | 1.99 V                   | 59                         | 26.5                   | 18.7                           |

Remarks:

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

Below 1GHz Worst-Case Data:

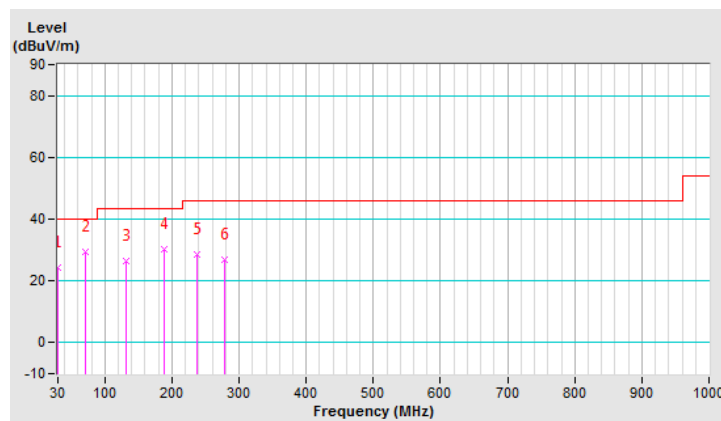
802.11ax (HE20)

|                 |               |                   |                 |
|-----------------|---------------|-------------------|-----------------|
| CHANNEL         | TX Channel 36 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz   |                   |                 |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |             |                         |                |             |                    |                      |                  |                          |
|-----------------------------------------------------|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| NO.                                                 | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1                                                   | 30.00       | 24.5 QP                 | 40.0           | -15.5       | 2.00 H             | 177                  | 34.9             | -10.4                    |
| 2                                                   | 70.77       | 29.2 QP                 | 40.0           | -10.8       | 2.00 H             | 120                  | 40.1             | -10.9                    |
| 3                                                   | 131.22      | 26.6 QP                 | 43.5           | -16.9       | 1.50 H             | 101                  | 36.5             | -9.9                     |
| 4                                                   | 187.45      | 30.1 QP                 | 43.5           | -13.4       | 1.00 H             | 269                  | 40.9             | -10.8                    |
| 5                                                   | 238.06      | 28.7 QP                 | 46.0           | -17.3       | 1.00 H             | 112                  | 38.8             | -10.1                    |
| 6                                                   | 278.83      | 26.8 QP                 | 46.0           | -19.2       | 1.00 H             | 354                  | 34.8             | -8.0                     |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

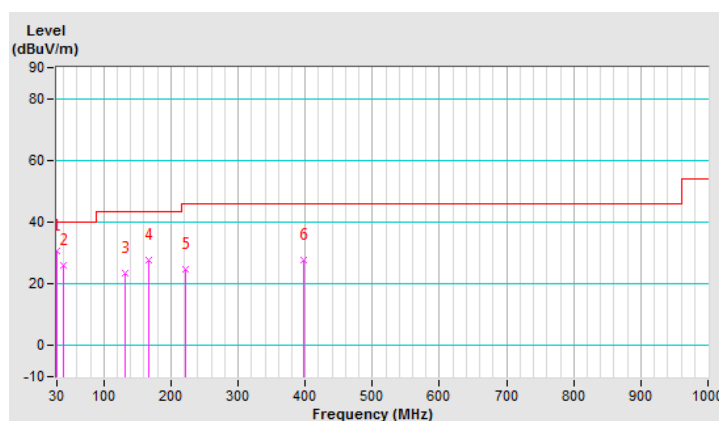


|                 |               |                      |                 |
|-----------------|---------------|----------------------|-----------------|
| CHANNEL         | TX Channel 36 | DETECTOR<br>FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz   |                      |                 |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M |                |                               |                   |                |                          |                            |                        |                                |
|---------------------------------------------------|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| NO.                                               | FREQ.<br>(MHz) | EMISSION<br>LEVEL<br>(dBuV/m) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>HEIGHT<br>(m) | TABLE<br>ANGLE<br>(Degree) | RAW<br>VALUE<br>(dBuV) | CORRECTION<br>FACTOR<br>(dB/m) |
| 1                                                 | 30.00          | 30.6 QP                       | 40.0              | -9.4           | 1.01 V                   | 342                        | 41.0                   | -10.4                          |
| 2                                                 | 39.84          | 25.9 QP                       | 40.0              | -14.1          | 1.01 V                   | 220                        | 35.4                   | -9.5                           |
| 3                                                 | 131.22         | 23.4 QP                       | 43.5              | -20.1          | 1.01 V                   | 16                         | 33.3                   | -9.9                           |
| 4                                                 | 167.77         | 27.7 QP                       | 43.5              | -15.8          | 1.01 V                   | 16                         | 36.4                   | -8.7                           |
| 5                                                 | 222.59         | 24.8 QP                       | 46.0              | -21.2          | 1.01 V                   | 13                         | 36.0                   | -11.2                          |
| 6                                                 | 396.91         | 27.6 QP                       | 46.0              | -18.4          | 1.01 V                   | 16                         | 32.2                   | -4.6                           |

#### Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



## 4.2 Conducted Emission Measurement

### 4.2.1 Limits of Conducted Emission Measurement

| Frequency (MHz) | Conducted Limit (dBuV) |         |
|-----------------|------------------------|---------|
|                 | Quasi-peak             | Average |
| 0.15 - 0.5      | 66 - 56                | 56 - 46 |
| 0.50 - 5.0      | 56                     | 46      |
| 5.0 - 30.0      | 60                     | 50      |

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

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

### 4.2.2 Test Instruments

| Description & Manufacturer              | Model No.                | Serial No.     | Cal. Date     | Cal. Due      |
|-----------------------------------------|--------------------------|----------------|---------------|---------------|
| Test Receiver<br>ROHDE & SCHWARZ        | ESCI                     | 100613         | Dec. 11, 2019 | Dec. 10, 2020 |
| RF signal cable<br>Woken                | 5D-FB                    | Cable-cond1-01 | Sep. 05, 2019 | Sep. 04, 2020 |
| LISN<br>ROHDE & SCHWARZ<br>(EUT)        | ENV216                   | 101826         | Feb. 21, 2019 | Feb. 20, 2020 |
| LISN<br>ROHDE & SCHWARZ<br>(Peripheral) | ESH3-Z5                  | 100311         | Aug. 22, 2019 | Aug. 21, 2020 |
| Software<br>ADT                         | BV ADT_Cond_<br>V7.3.7.4 | NA             | NA            | NA            |

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

2. The test was performed in HwaYa Shielded Room 1.

3. The VCCI Site Registration No. is C-12040.

#### 4.2.3 Test Procedures

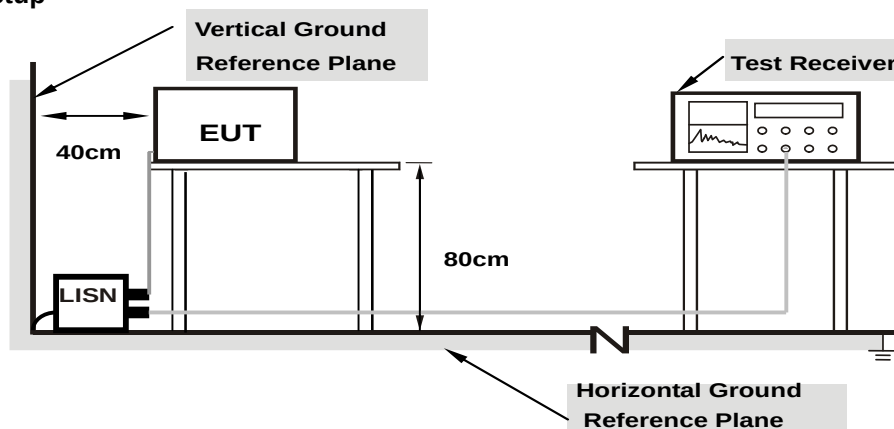
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

#### 4.2.4 Deviation from Test Standard

No deviation.

#### 4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

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

#### 4.2.6 EUT Operating Conditions

Same as 4.1.6.

## 4.2.7 Test Results

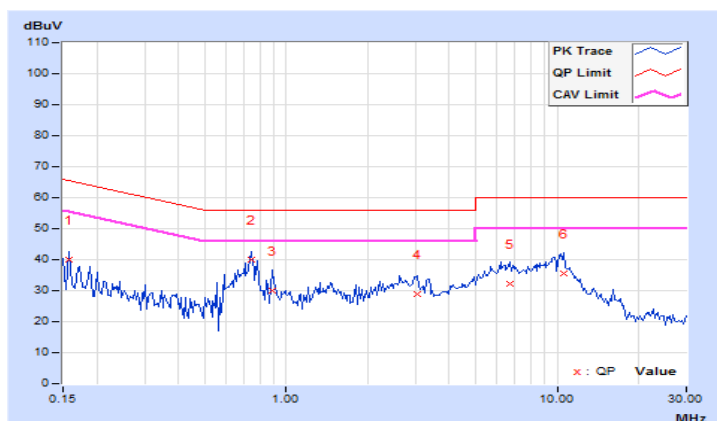
802.11ax (HE20)

| Phase | Line (L) | Detector Function | Quasi-Peak (QP) / Average (AV) |
|-------|----------|-------------------|--------------------------------|
|-------|----------|-------------------|--------------------------------|

| No | Freq.<br>[MHz] | Corr.<br>Factor<br>(dB) | Reading Value |       | Emission Level |       | Limit     |       | Margin |        |
|----|----------------|-------------------------|---------------|-------|----------------|-------|-----------|-------|--------|--------|
|    |                |                         | [dB (uV)]     |       | [dB (uV)]      |       | [dB (uV)] |       | (dB)   |        |
|    |                |                         | Q.P.          | AV.   | Q.P.           | AV.   | Q.P.      | AV.   | Q.P.   | AV.    |
| 1  | 0.15781        | 9.67                    | 30.38         | 15.48 | 40.05          | 25.15 | 65.58     | 55.58 | -25.53 | -30.43 |
| 2  | 0.73984        | 9.71                    | 30.34         | 22.98 | 40.05          | 32.69 | 56.00     | 46.00 | -15.95 | -13.31 |
| 3  | 0.88828        | 9.72                    | 20.29         | 15.67 | 30.01          | 25.39 | 56.00     | 46.00 | -25.99 | -20.61 |
| 4  | 3.06250        | 9.81                    | 19.15         | 12.40 | 28.96          | 22.21 | 56.00     | 46.00 | -27.04 | -23.79 |
| 5  | 6.67188        | 9.88                    | 22.20         | 16.18 | 32.08          | 26.06 | 60.00     | 50.00 | -27.92 | -23.94 |
| 6  | 10.60938       | 9.93                    | 25.75         | 18.37 | 35.68          | 28.30 | 60.00     | 50.00 | -24.32 | -21.70 |

### REMARKS:

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



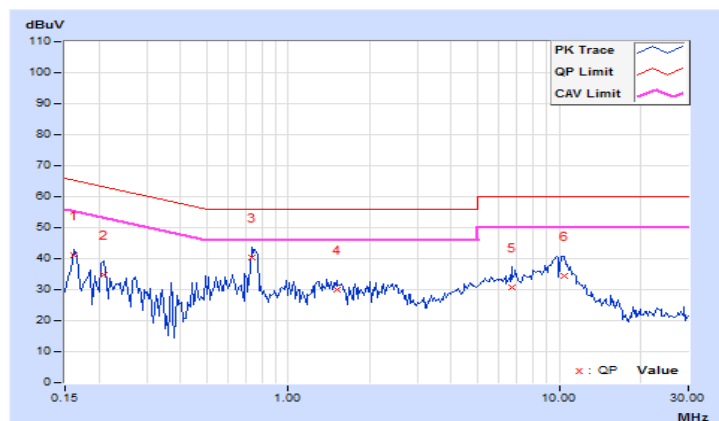


|       |             |                   |                                   |
|-------|-------------|-------------------|-----------------------------------|
| Phase | Neutral (N) | Detector Function | Quasi-Peak (QP) /<br>Average (AV) |
|-------|-------------|-------------------|-----------------------------------|

| No | Freq.<br>[MHz] | Corr.<br>Factor<br>(dB) | Reading Value<br>[dB (uV)] |       | Emission Level<br>[dB (uV)] |       | Limit<br>[dB (uV)] |       | Margin<br>(dB) |        |
|----|----------------|-------------------------|----------------------------|-------|-----------------------------|-------|--------------------|-------|----------------|--------|
|    |                |                         |                            |       |                             |       |                    |       |                |        |
|    |                |                         | Q.P.                       | AV.   | Q.P.                        | AV.   | Q.P.               | AV.   | Q.P.           | AV.    |
| 1  | 0.16172        | 9.64                    | 31.33                      | 18.01 | 40.97                       | 27.65 | 65.38              | 55.38 | -24.41         | -27.73 |
| 2  | 0.20859        | 9.64                    | 25.15                      | 15.51 | 34.79                       | 25.15 | 63.26              | 53.26 | -28.47         | -28.11 |
| 3  | 0.73203        | 9.68                    | 30.84                      | 21.97 | 40.52                       | 31.65 | 56.00              | 46.00 | -15.48         | -14.35 |
| 4  | 1.51563        | 9.73                    | 20.28                      | 13.44 | 30.01                       | 23.17 | 56.00              | 46.00 | -25.99         | -22.83 |
| 5  | 6.67578        | 9.85                    | 20.96                      | 14.49 | 30.81                       | 24.34 | 60.00              | 50.00 | -29.19         | -25.66 |
| 6  | 10.38672       | 9.92                    | 24.60                      | 18.14 | 34.52                       | 28.06 | 60.00              | 50.00 | -25.48         | -21.94 |

#### REMARKS:

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



### 4.3 Transmit Power Measurement

#### 4.3.1 Limits of Transmit Power Measurement

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

\*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for  $N_{ANT} \leq 4$ ;

Array Gain = 0 dB (i.e., no array gain) for channel widths  $\geq 40$  MHz for any  $N_{ANT}$ ;

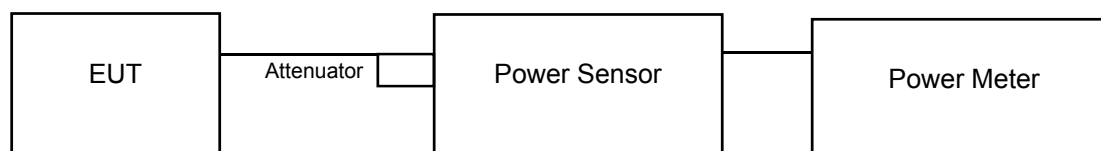
Array Gain =  $5 \log(N_{ANT}/N_{SS})$  dB or 3 dB, whichever is less for 20-MHz channel widths with  $N_{ANT} \geq 5$ .

For power measurements on all other devices: Array Gain =  $10 \log(N_{ANT}/N_{SS})$  dB.

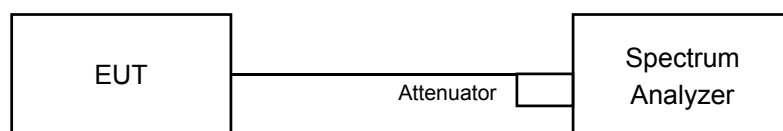
#### 4.3.2 Test Setup

For Power Output

802.11a, 802.11ac (VHT20), 802.11ac (VHT40), 802.11ax (HE20), 802.11ax (HE40)



802.11ac (VHT80), 802.11ax (HE80)



#### 4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

#### 4.3.4 Test Procedure

##### For Average Power Measurement

For 802.11a, 802.11ac (VHT20), 802.11ac (VHT40), 802.11ax (HE20), 802.11ax (HE40):

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

For 802.11ac (VHT80), 802.11ax (HE80):

- a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
- b. Set sweep trigger to "free run".
- c. Set RBW = 1 MHz
- d. Set VBW  $\geq$  3 MHz
- e. Number of points in sweep  $\geq$  2 Span / RBW
- f. Sweep time  $\leq$  (number of points in sweep) \* T
- g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
- h. Detector = RMS
- i. Trace mode = max hold
- j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
- k. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

#### 4.3.5 Deviation from Test Standard

No deviation.

#### 4.3.6 EUT Operating Conditions

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

#### 4.3.7 Test Result

Power Output:

802.11a

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 36    | 5180           | 13.52                         | 13.86   | 46.813                 | 16.70                   | 24.00                   | Pass        |
| 40    | 5200           | 13.54                         | 13.93   | 47.311                 | 16.75                   | 24.00                   | Pass        |
| 48    | 5240           | 13.56                         | 13.94   | 47.473                 | 16.76                   | 24.00                   | Pass        |
| 52    | 5260           | 14.62                         | 14.78   | 59.034                 | 17.71                   | 24.00                   | Pass        |
| 60    | 5300           | 14.56                         | 14.84   | 59.055                 | 17.71                   | 24.00                   | Pass        |
| 64    | 5320           | 14.54                         | 14.93   | 59.562                 | 17.75                   | 24.00                   | Pass        |
| 100   | 5500           | 15.35                         | 15.29   | 68.083                 | 18.33                   | 24.00                   | Pass        |
| 116   | 5580           | 15.47                         | 15.28   | 68.966                 | 18.39                   | 24.00                   | Pass        |
| 140   | 5700           | 15.39                         | 15.07   | 66.731                 | 18.24                   | 24.00                   | Pass        |
| 144   | 5720           | 15.46                         | 15.12   | 67.665                 | 18.30                   | 24.00                   | Pass        |
| 149   | 5745           | 14.96                         | 14.63   | 60.373                 | 17.81                   | 30.00                   | Pass        |
| 157   | 5785           | 14.99                         | 14.62   | 60.523                 | 17.82                   | 30.00                   | Pass        |
| 165   | 5825           | 14.88                         | 14.60   | 59.601                 | 17.75                   | 30.00                   | Pass        |

## 802.11ac (VHT20)

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 36    | 5180           | 13.55                         | 13.97   | 47.592                 | 16.78                   | 24.00                   | Pass        |
| 40    | 5200           | 13.56                         | 13.92   | 47.359                 | 16.75                   | 24.00                   | Pass        |
| 48    | 5240           | 13.61                         | 13.90   | 47.508                 | 16.77                   | 24.00                   | Pass        |
| 52    | 5260           | 14.58                         | 14.60   | 57.548                 | 17.60                   | 24.00                   | Pass        |
| 60    | 5300           | 14.57                         | 14.92   | 59.688                 | 17.76                   | 24.00                   | Pass        |
| 64    | 5320           | 14.53                         | 14.95   | 59.640                 | 17.76                   | 24.00                   | Pass        |
| 100   | 5500           | 15.06                         | 15.10   | 64.422                 | 18.09                   | 24.00                   | Pass        |
| 116   | 5580           | 15.46                         | 15.48   | <b>70.474</b>          | 18.48                   | 24.00                   | Pass        |
| 140   | 5700           | 15.49                         | 15.07   | 67.537                 | 18.30                   | 24.00                   | Pass        |
| 144   | 5720           | 15.44                         | 15.05   | 66.984                 | 18.26                   | 24.00                   | Pass        |
| 149   | 5745           | 14.66                         | 14.60   | 58.082                 | 17.64                   | 30.00                   | Pass        |
| 157   | 5785           | 14.90                         | 14.74   | 60.688                 | 17.83                   | 30.00                   | Pass        |
| 165   | 5825           | 14.89                         | 14.80   | <b>61.032</b>          | 17.86                   | 30.00                   | Pass        |

## 802.11ac (VHT40)

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 38    | 5190           | 14.56                         | 14.87   | 59.266                 | 17.73                   | 24.00                   | Pass        |
| 46    | 5230           | 14.58                         | 14.89   | <b>59.540</b>          | 17.75                   | 24.00                   | Pass        |
| 54    | 5270           | 14.63                         | 14.92   | 60.086                 | 17.79                   | 24.00                   | Pass        |
| 62    | 5310           | 14.60                         | 14.72   | 58.488                 | 17.67                   | 24.00                   | Pass        |
| 102   | 5510           | 13.62                         | 13.79   | 46.947                 | 16.72                   | 24.00                   | Pass        |
| 110   | 5550           | 15.05                         | 15.09   | 64.274                 | 18.08                   | 24.00                   | Pass        |
| 134   | 5670           | 15.27                         | 15.08   | 65.862                 | 18.19                   | 24.00                   | Pass        |
| 142   | 5710           | 15.36                         | 15.10   | 66.715                 | 18.24                   | 24.00                   | Pass        |
| 151   | 5755           | 14.94                         | 14.58   | 59.897                 | 17.77                   | 30.00                   | Pass        |
| 159   | 5795           | 14.88                         | 14.52   | 59.075                 | 17.71                   | 30.00                   | Pass        |

# 802.11ac (VHT80)

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 42    | 5210           | 14.06                         | 14.47   | 53.458                 | 17.28                   | 24.00                   | Pass        |
| 58    | 5290           | 14.52                         | 14.92   | 59.360                 | 17.73                   | 24.00                   | Pass        |
| 106   | 5530           | 14.74                         | 14.96   | 61.118                 | 17.86                   | 24.00                   | Pass        |
| 122   | 5610           | 15.19                         | 15.04   | 64.952                 | 18.13                   | 24.00                   | Pass        |
| 138   | 5690           | 15.33                         | 15.12   | 66.628                 | 18.24                   | 24.00                   | Pass        |
| 155   | 5775           | 14.90                         | 14.63   | 59.943                 | 17.78                   | 30.00                   | Pass        |

## 802.11ax (HE20)

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 36    | 5180           | 13.54                         | 13.95   | 47.425                 | 16.76                   | 24.00                   | Pass        |
| 40    | 5200           | 13.52                         | 13.90   | 47.038                 | 16.72                   | 24.00                   | Pass        |
| 48    | 5240           | 13.56                         | 13.88   | 47.133                 | 16.73                   | 24.00                   | Pass        |
| 52    | 5260           | 14.62                         | 14.86   | 59.593                 | 17.75                   | 24.00                   | Pass        |
| 60    | 5300           | 14.55                         | 14.85   | 59.059                 | 17.71                   | 24.00                   | Pass        |
| 64    | 5320           | 14.59                         | 14.89   | 59.606                 | 17.75                   | 24.00                   | Pass        |
| 100   | 5500           | 15.12                         | 15.40   | 67.183                 | 18.27                   | 24.00                   | Pass        |
| 116   | 5580           | 15.48                         | 15.45   | 70.393                 | 18.48                   | 24.00                   | Pass        |
| 140   | 5700           | 15.38                         | 15.19   | 67.551                 | 18.30                   | 24.00                   | Pass        |
| 144   | 5720           | 15.46                         | 15.01   | 66.852                 | 18.25                   | 24.00                   | Pass        |
| 149   | 5745           | 14.92                         | 14.68   | 60.422                 | 17.81                   | 30.00                   | Pass        |
| 157   | 5785           | 14.94                         | 14.56   | 59.765                 | 17.76                   | 30.00                   | Pass        |
| 165   | 5825           | 14.72                         | 14.63   | 58.688                 | 17.69                   | 30.00                   | Pass        |

## 802.11ax (HE40)

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 38    | 5190           | 14.60                         | 14.57   | 57.482                 | 17.60                   | 24.00                   | Pass        |
| 46    | 5230           | 14.55                         | 14.89   | 59.342                 | 17.73                   | 24.00                   | Pass        |
| 54    | 5270           | 14.60                         | 14.95   | <b>60.101</b>          | 17.79                   | 24.00                   | Pass        |
| 62    | 5310           | 14.52                         | 14.93   | 59.431                 | 17.74                   | 24.00                   | Pass        |
| 102   | 5510           | 13.56                         | 13.67   | 45.980                 | 16.63                   | 24.00                   | Pass        |
| 110   | 5550           | 15.10                         | 15.18   | 65.320                 | 18.15                   | 24.00                   | Pass        |
| 134   | 5670           | 15.44                         | 15.11   | 67.429                 | 18.29                   | 24.00                   | Pass        |
| 142   | 5710           | 15.36                         | 15.06   | 66.419                 | 18.22                   | 24.00                   | Pass        |
| 151   | 5755           | 14.73                         | 14.51   | 57.966                 | 17.63                   | 30.00                   | Pass        |
| 159   | 5795           | 14.94                         | 14.57   | 59.831                 | 17.77                   | 30.00                   | Pass        |

# 802.11ax (HE80)

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 42    | 5210           | 14.18                         | 14.15   | 52.184                 | 17.18                   | 24.00                   | Pass        |
| 58    | 5290           | 14.57                         | 14.86   | 59.262                 | 17.73                   | 24.00                   | Pass        |
| 106   | 5530           | 14.90                         | 14.95   | 62.164                 | 17.94                   | 24.00                   | Pass        |
| 122   | 5610           | 15.13                         | 15.08   | 64.795                 | 18.12                   | 24.00                   | Pass        |
| 138   | 5690           | 15.14                         | 15.16   | 65.469                 | 18.16                   | 24.00                   | Pass        |
| 155   | 5775           | 14.93                         | 14.57   | 59.759                 | 17.76                   | 30.00                   | Pass        |



## 802.11ax (HE20\_RU26)

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 36    | 5180           | 6.83                          | 6.97    | 9.796                  | 9.91                    | 24.00                   | Pass        |
| 40    | 5200           | 6.75                          | 6.95    | 9.687                  | 9.86                    | 24.00                   | Pass        |
| 48    | 5240           | 6.73                          | 6.96    | 9.676                  | 9.86                    | 24.00                   | Pass        |
| 52    | 5260           | 13.01                         | 13.23   | 41.037                 | 16.13                   | 24.00                   | Pass        |
| 60    | 5300           | 13.05                         | 13.28   | 41.465                 | 16.18                   | 24.00                   | Pass        |
| 64    | 5320           | 13.04                         | 13.27   | 41.369                 | 16.17                   | 24.00                   | Pass        |
| 100   | 5500           | 11.65                         | 11.56   | 28.944                 | 14.62                   | 24.00                   | Pass        |
| 116   | 5580           | 11.76                         | 11.81   | 30.168                 | 14.80                   | 24.00                   | Pass        |
| 140   | 5700           | 11.88                         | 11.52   | 29.608                 | 14.71                   | 24.00                   | Pass        |
| 144   | 5720           | 12.08                         | 12.06   | 32.213                 | 15.08                   | 24.00                   | Pass        |
| 149   | 5745           | 14.60                         | 14.56   | 57.416                 | 17.59                   | 30.00                   | Pass        |
| 157   | 5785           | 14.73                         | 14.60   | 58.557                 | 17.68                   | 30.00                   | Pass        |
| 165   | 5825           | 14.68                         | 14.63   | 58.416                 | 17.67                   | 30.00                   | Pass        |

## 802.11ax (HE20\_RU52)

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 36    | 5180           | 9.06                          | 9.46    | 16.885                 | 12.28                   | 24.00                   | Pass        |
| 40    | 5200           | 9.12                          | 9.43    | 16.936                 | 12.29                   | 24.00                   | Pass        |
| 48    | 5240           | 9.07                          | 9.45    | 16.882                 | 12.27                   | 24.00                   | Pass        |
| 52    | 5260           | 14.60                         | 14.80   | 59.040                 | 17.71                   | 24.00                   | Pass        |
| 60    | 5300           | 13.10                         | 13.32   | 41.895                 | 16.22                   | 24.00                   | Pass        |
| 64    | 5320           | 14.57                         | 14.79   | 58.772                 | 17.69                   | 24.00                   | Pass        |
| 100   | 5500           | 14.01                         | 14.03   | 50.470                 | 17.03                   | 24.00                   | Pass        |
| 116   | 5580           | 14.18                         | 14.05   | 51.592                 | 17.13                   | 24.00                   | Pass        |
| 140   | 5700           | 13.95                         | 13.70   | 48.273                 | 16.84                   | 24.00                   | Pass        |
| 144   | 5720           | 13.88                         | 13.71   | 47.930                 | 16.81                   | 24.00                   | Pass        |
| 149   | 5745           | 14.78                         | 14.53   | 58.440                 | 17.67                   | 30.00                   | Pass        |
| 157   | 5785           | 14.82                         | 14.59   | 59.113                 | 17.72                   | 30.00                   | Pass        |
| 165   | 5825           | 14.88                         | 14.24   | 57.307                 | 17.58                   | 30.00                   | Pass        |

## 802.11ax (HE20\_RU106)

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 36    | 5180           | 12.03                         | 12.15   | 32.365                 | 15.10                   | 24.00                   | Pass        |
| 40    | 5200           | 12.09                         | 12.13   | 32.512                 | 15.12                   | 24.00                   | Pass        |
| 48    | 5240           | 12.11                         | 12.20   | 32.851                 | 15.17                   | 24.00                   | Pass        |
| 52    | 5260           | 14.59                         | 14.80   | 58.974                 | 17.71                   | 24.00                   | Pass        |
| 60    | 5300           | 13.06                         | 13.42   | 42.209                 | 16.25                   | 24.00                   | Pass        |
| 64    | 5320           | 14.67                         | 14.72   | 58.957                 | 17.71                   | 24.00                   | Pass        |
| 100   | 5500           | 14.56                         | 14.75   | 58.430                 | 17.67                   | 24.00                   | Pass        |
| 116   | 5580           | 15.26                         | 15.36   | 67.930                 | 18.32                   | 24.00                   | Pass        |
| 140   | 5700           | 15.37                         | 15.08   | 66.646                 | 18.24                   | 24.00                   | Pass        |
| 144   | 5720           | 15.13                         | 15.10   | 64.943                 | 18.13                   | 24.00                   | Pass        |
| 149   | 5745           | 14.68                         | 14.50   | 57.560                 | 17.60                   | 30.00                   | Pass        |
| 157   | 5785           | 14.70                         | 14.52   | 57.826                 | 17.62                   | 30.00                   | Pass        |
| 165   | 5825           | 14.73                         | 14.57   | 58.359                 | 17.66                   | 30.00                   | Pass        |

## 802.11ax (HE20\_RU242)

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 36    | 5180           | 13.52                         | 13.88   | 46.925                 | 16.71                   | 24.00                   | Pass        |
| 40    | 5200           | 13.60                         | 13.65   | 46.083                 | 16.64                   | 24.00                   | Pass        |
| 48    | 5240           | 13.54                         | 13.80   | 46.582                 | 16.68                   | 24.00                   | Pass        |
| 52    | 5260           | 14.53                         | 14.86   | 58.999                 | 17.71                   | 24.00                   | Pass        |
| 60    | 5300           | 13.06                         | 13.42   | 42.209                 | 16.25                   | 24.00                   | Pass        |
| 64    | 5320           | 14.62                         | 14.58   | 57.681                 | 17.61                   | 24.00                   | Pass        |
| 100   | 5500           | 14.74                         | 14.69   | 59.229                 | 17.73                   | 24.00                   | Pass        |
| 116   | 5580           | 15.44                         | 15.38   | 69.509                 | 18.42                   | 24.00                   | Pass        |
| 140   | 5700           | 15.37                         | 15.12   | 66.944                 | 18.26                   | 24.00                   | Pass        |
| 144   | 5720           | 15.35                         | 15.06   | 66.340                 | 18.22                   | 24.00                   | Pass        |
| 149   | 5745           | 14.62                         | 14.55   | 57.483                 | 17.60                   | 30.00                   | Pass        |
| 157   | 5785           | 14.88                         | 14.49   | 58.880                 | 17.70                   | 30.00                   | Pass        |
| 165   | 5825           | 14.75                         | 14.55   | 58.364                 | 17.66                   | 30.00                   | Pass        |

## 802.11ax (HE40\_RU484)

| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 38    | 5190           | 11.25                         | 11.37   | 27.044                 | 14.32                   | 24.00                   | Pass        |
| 46    | 5230           | 11.55                         | 11.68   | 29.120                 | 14.63                   | 24.00                   | Pass        |
| 54    | 5270           | 11.60                         | 11.78   | 29.520                 | 14.70                   | 24.00                   | Pass        |
| 62    | 5310           | 11.06                         | 11.45   | 26.728                 | 14.27                   | 24.00                   | Pass        |
| 102   | 5510           | 9.40                          | 9.38    | 17.380                 | 12.40                   | 24.00                   | Pass        |
| 110   | 5550           | 15.12                         | 15.09   | 64.794                 | 18.12                   | 24.00                   | Pass        |
| 134   | 5670           | 15.24                         | 15.23   | 66.763                 | 18.25                   | 24.00                   | Pass        |
| 142   | 5710           | 15.10                         | 15.06   | 64.422                 | 18.09                   | 24.00                   | Pass        |
| 151   | 5755           | 14.92                         | 14.64   | 60.153                 | 17.79                   | 30.00                   | Pass        |
| 159   | 5795           | 14.96                         | 14.57   | 59.975                 | 17.78                   | 30.00                   | Pass        |

## 802.11ax (HE80\_RU996)

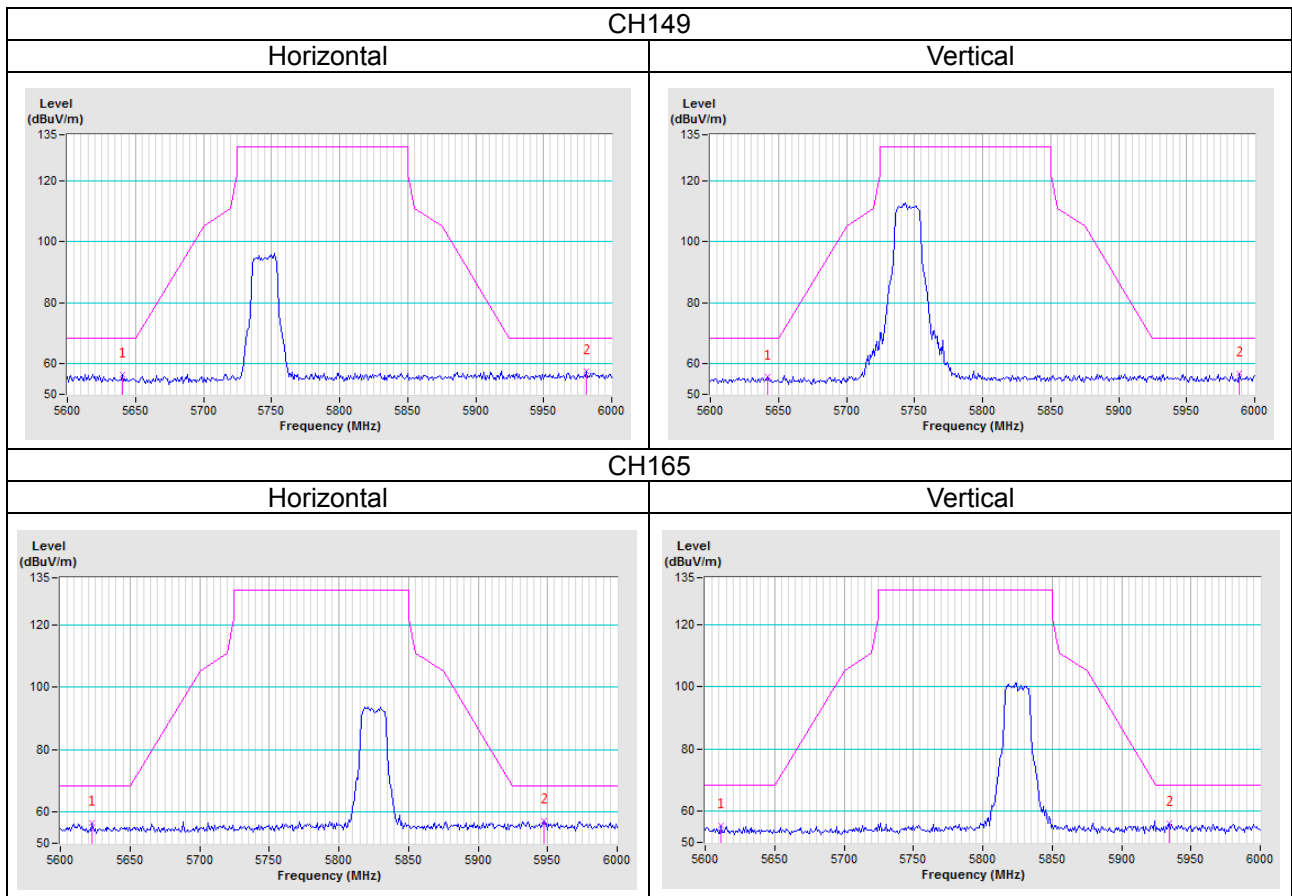
| Chan. | Freq.<br>(MHz) | Maximum Conducted Power (dBm) |         | Total<br>Power<br>(mW) | Total<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Pass / Fail |
|-------|----------------|-------------------------------|---------|------------------------|-------------------------|-------------------------|-------------|
|       |                | Chain 0                       | Chain 1 |                        |                         |                         |             |
| 42    | 5210           | 14.18                         | 14.10   | 51.886                 | 17.15                   | 24.00                   | Pass        |
| 58    | 5290           | 14.70                         | 14.62   | 58.485                 | 17.67                   | 24.00                   | Pass        |
| 106   | 5530           | 11.20                         | 11.24   | 26.488                 | 14.23                   | 24.00                   | Pass        |
| 122   | 5610           | 15.08                         | 15.03   | 64.053                 | 18.07                   | 24.00                   | Pass        |
| 138   | 5690           | 15.06                         | 15.08   | 64.274                 | 18.08                   | 24.00                   | Pass        |
| 155   | 5775           | 14.62                         | 14.62   | 57.946                 | 17.63                   | 30.00                   | Pass        |

## 5 Pictures of Test Arrangements

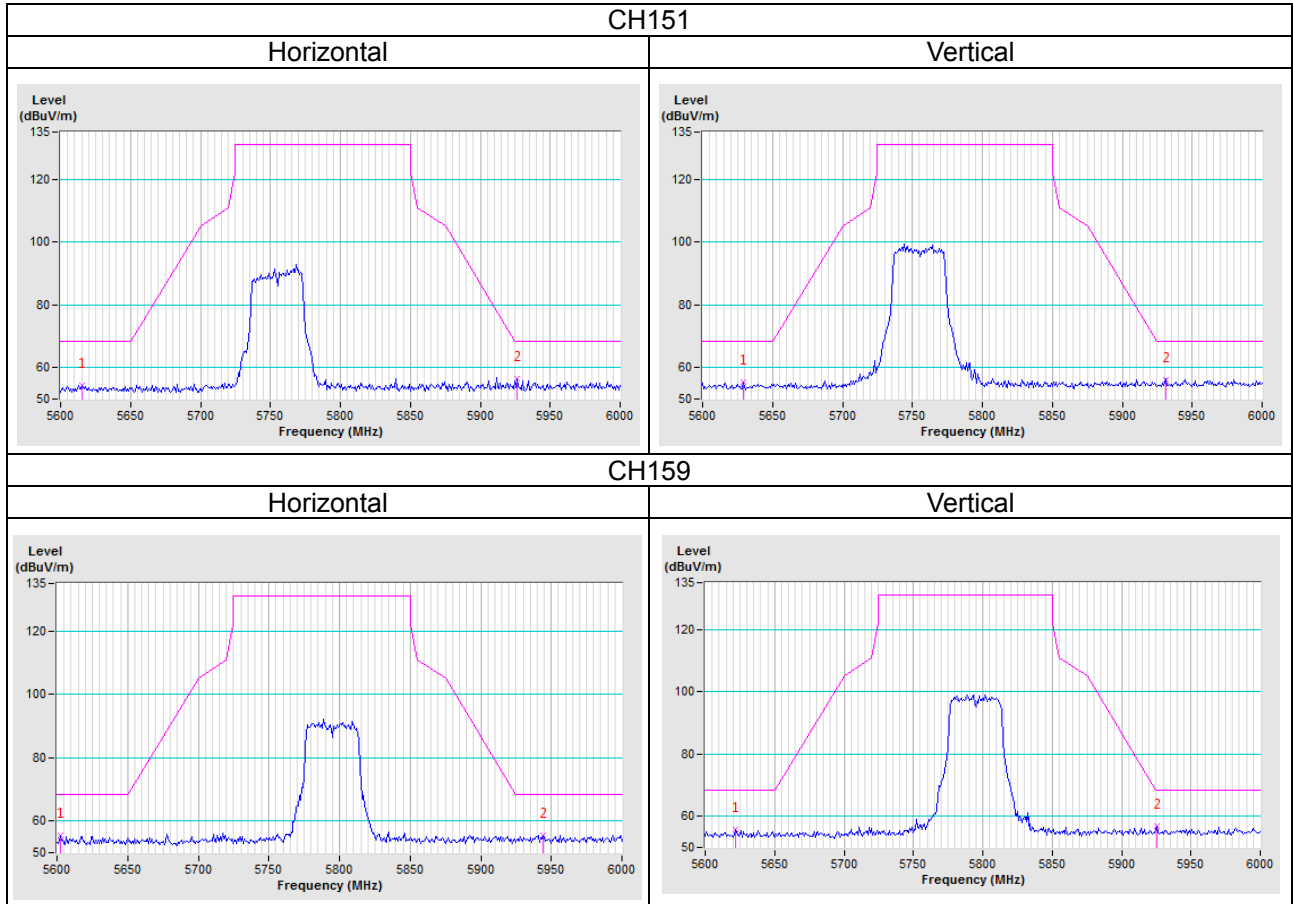
Please refer to the attached file (Test Setup Photo).

## Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

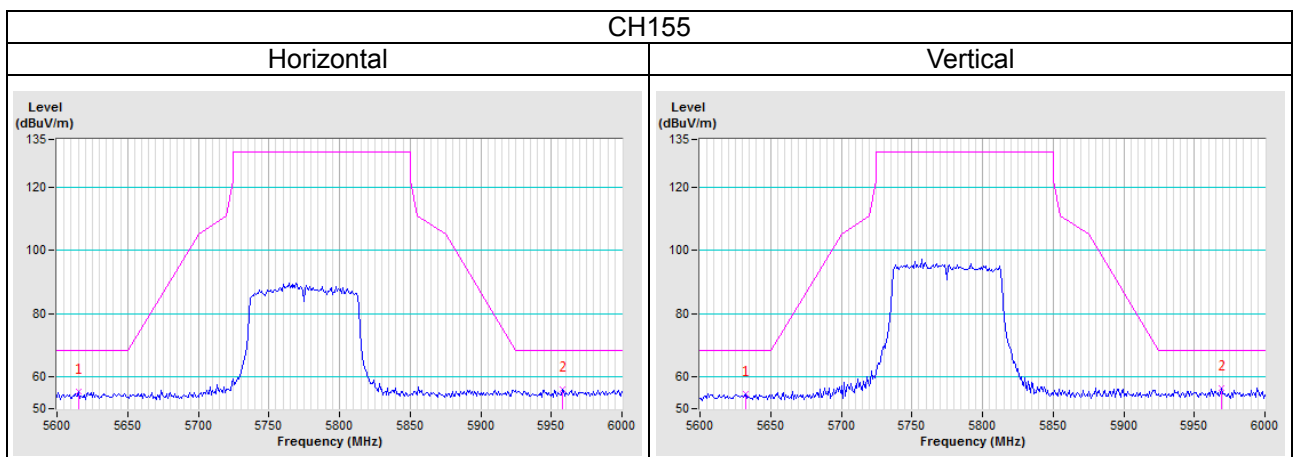
802.11ac (VHT20)



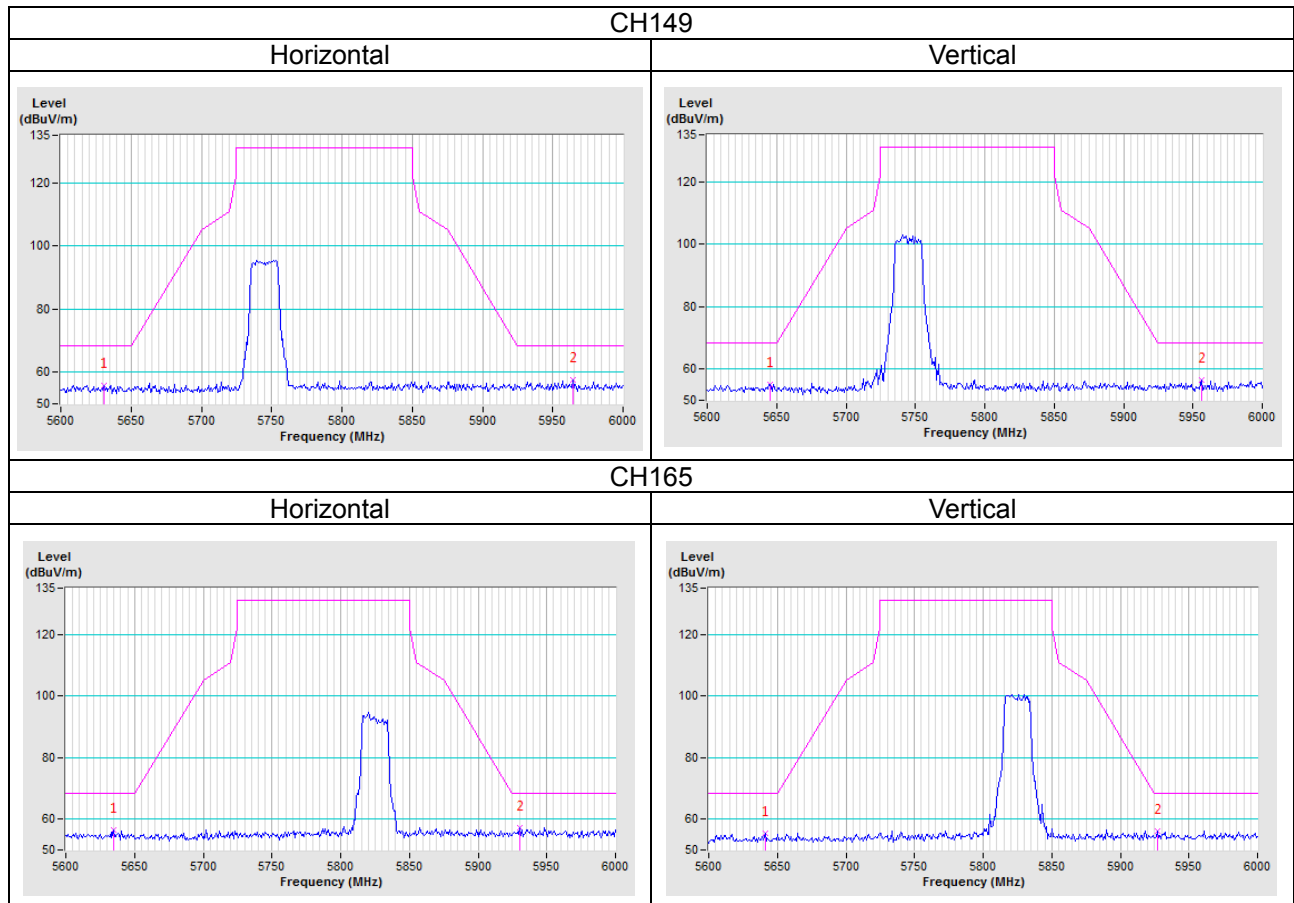
## 802.11ac (VHT40)



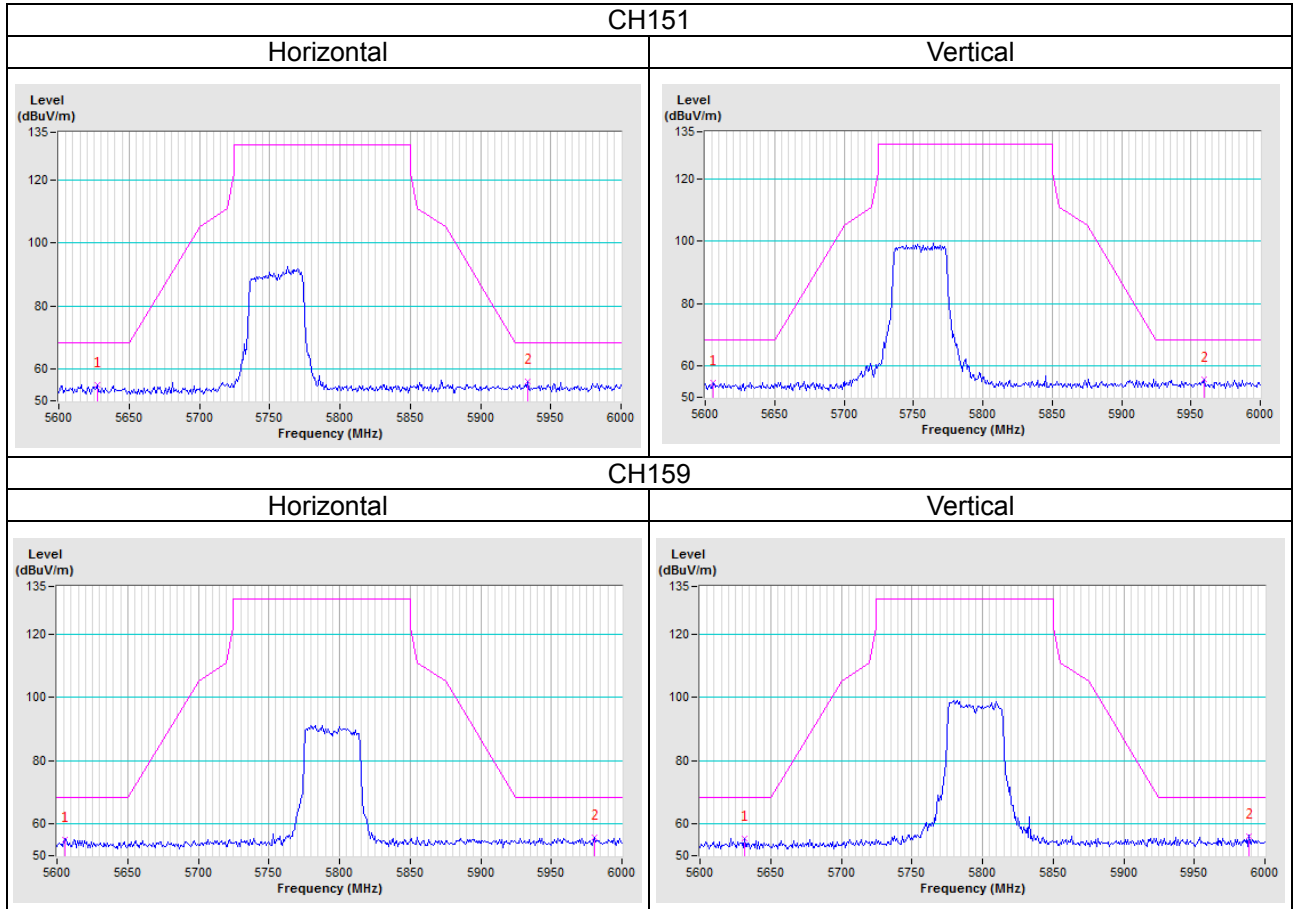
## 802.11ac (VHT80)



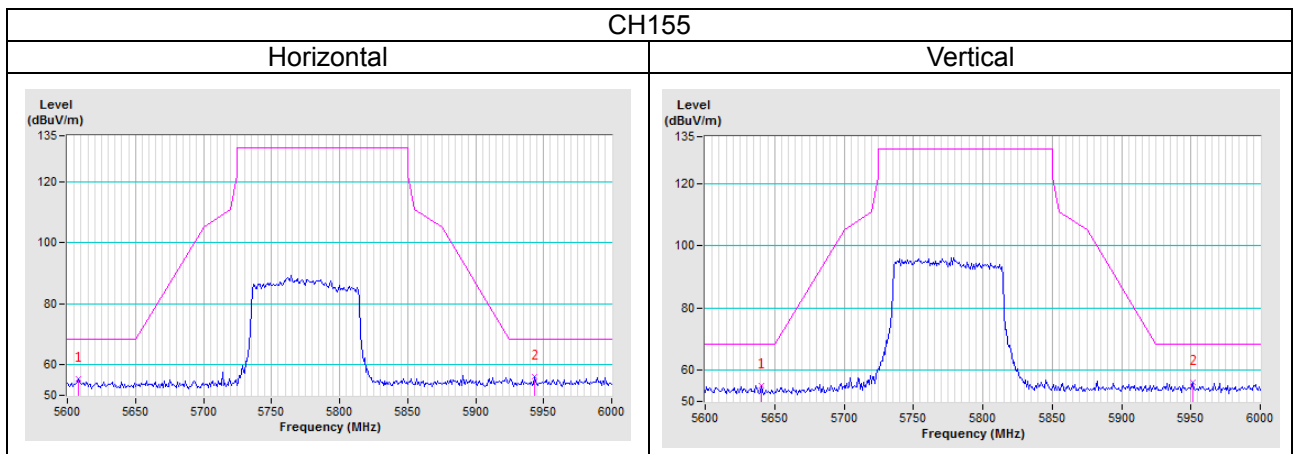
# 802.11ax (HE20)



## 802.11ax (HE40)



## 802.11ax (HE80)





## Appendix – Information of the Testing Laboratories

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

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

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