



# FCC Test Report

APPLICANT : Sony Mobile Communications Inc.  
EQUIPMENT : GSM/WCDMA/LTE Phone+Bluetooth, DTS/UNII  
a/b/g/n and NFC  
BRAND NAME : Sony  
FCC ID : PY7-44253G  
STANDARD : FCC 47 CFR FCC Part 15 Subpart B  
CLASSIFICATION : FCC Class B personal computers and peripherals

The product was received on May 01, 2017 and testing was completed on Jul. 19, 2017. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2014 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

*Louis Wu*

Reviewed by: Louis Wu / Manager

*Jones Tsai*

Approved by: Jones Tsai / Manager



## SPORTON INTERNATIONAL INC.

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FCC ID : PY7-44253G

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## REVISION HISTORY

| REPORT NO.  | VERSION | DESCRIPTION             | ISSUED DATE   |
|-------------|---------|-------------------------|---------------|
| FC742208-01 | Rev. 01 | Initial issue of report | Jul. 19, 2017 |
|             |         |                         |               |
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|             |         |                         |               |



## SUMMARY OF TEST RESULT

| Report Section | FCC Rule | Description           | Limit           | Result | Remark                                 |
|----------------|----------|-----------------------|-----------------|--------|----------------------------------------|
| 3.1            | 15.107   | AC Conducted Emission | < 15.107 limits | PASS   | Under limit<br>12.60 dB at 0.158 MHz   |
| 3.2            | 15.109   | Radiated Emission     | < 15.109 limits | PASS   | Under limit<br>10.09 dB at 176.070 MHz |



## 1. General Description

### 1.1. Applicant

**Sony Mobile Communications Inc.**

4-12-3 Higashi-Shinagawa, Shinagawa-ku, Tokyo, 140-0002, Japan

### 1.2. Manufacturer

**Sony Mobile Communications Inc.**

4-12-3 Higashi-Shinagawa, Shinagawa-ku, Tokyo, 140-0002, Japan

### 1.3. Product Feature of Equipment Under Test

GSM/WCDMA/LTE, Bluetooth, DTS/UNII a/b/g/n, NFC, and GPS

| Product Specification subjective to this standard |            |                                                                                                                         |                                                  |
|---------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Antenna Type                                      |            | WWAN: C-feed Antenna<br>WLAN: PIFA Antenna<br>Bluetooth: PIFA Antenna<br>GPS/Glonass: PIFA Antenna<br>NFC: Loop Antenna |                                                  |
| EUT Information List                              |            |                                                                                                                         |                                                  |
| HW Version                                        | SW Version | S/N                                                                                                                     | Performed Test Item                              |
| A                                                 | 0.32       | RQ3004UPAF                                                                                                              | Conducted Emission<br>Radiated Spurious Emission |



| Accessory List |                       |
|----------------|-----------------------|
| Earphone 1     | Model No. : MH410c    |
|                | S/N : 1632A86600000E0 |
| Earphone 2     | Model No. : MH410c    |
|                | S/N : N/A             |
| USB Cable      | Model No. : UCB20     |
|                | S/N : 1625A9100003A98 |

**Note:**

1. Above EUT list and accessory list used are electrically identical per declared by manufacturer.
2. Above the accessories list are used to exercise the EUT during test.
3. For other wireless features of this EUT, test report will be issued separately.

## 1.4. Modification of EUT

No modifications are made to the EUT during all test items.

## 1.5. Test Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

|                    |                                                                                                                                                                  |           |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Test Site          | SPORTON INTERNATIONAL INC.                                                                                                                                       |           |
| Test Site Location | No. 52, Hwa Ya 1 <sup>st</sup> Rd., Hwa Ya Technology Park,<br>Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.<br>TEL: +886-3-327-3456<br>FAX: +886-3-328-4978 |           |
| Test Site No.      | Sporton Site No.                                                                                                                                                 |           |
|                    | CO05-HY                                                                                                                                                          | 03CH06-HY |

## 1.6. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC 47 CFR FCC Part 15 Subpart B
- ♦ ANSI C63.4-2014

### Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. For FCC 15 Subpart B - Unintentional Radiators, device supporting USB interface or similar peripherals (defined as the Section 15.3 (r) Peripheral device) acting as a peripheral for personal computers shall be authorized as "The Class B personal computers and peripherals" per the Section 15.101 (a) Equipment authorization of unintentional radiators.
3. For other Unintentional Radiators features of this EUT, test reports are be issued separately.  
Per the Note of the Section 15.101, when device supports features (USB, FM Radio, digital devices...etc) more than one category of authorization, type of authorization shall be appropriately chosen for FCC 15B compliance rule, and the Section 15.101 (b), only those receivers that operate (tune) within the frequency range of 30-960 MHz, CB receivers and radar detectors are subject to the authorizations shown in paragraph (a) of the Section 15.101. However, receivers indicated as being subject to Declaration of Conformity that are contained within a transceiver, the transmitter portion of which is subject to certification, shall be authorized under the verification procedure.

## 2. Test Configuration of Equipment Under Test

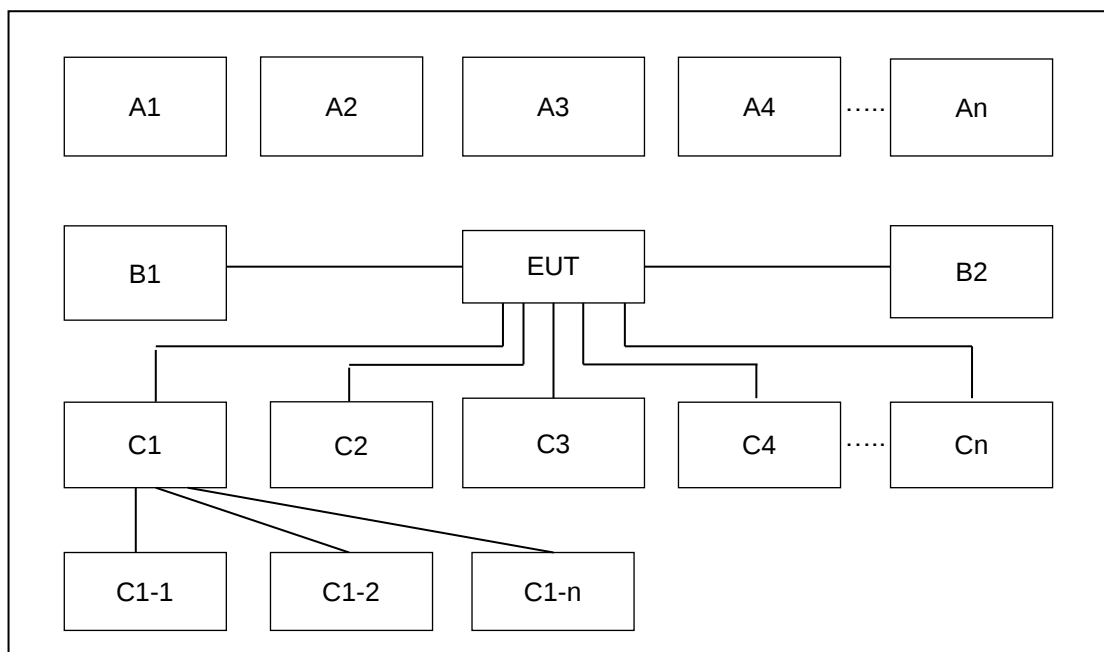
### 2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

| Test Items                                                                                               | Function Type                                                                    |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| AC Conducted Emission                                                                                    | Mode 1: Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 |
|                                                                                                          | Mode 2: Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 |
| Radiated Emissions                                                                                       | Mode 1: Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 |
|                                                                                                          | Mode 2: Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 |
| <b>Remark:</b> Data Link with Notebook means data application transferred mode between EUT and Notebook. |                                                                                  |

## 2.2. Connection Diagram of Test System



| Test Setup |                   |                                |           |   |   |   |   |   |   |
|------------|-------------------|--------------------------------|-----------|---|---|---|---|---|---|
| No.        | Setup Peripherals | Connection Type                | Test Mode |   |   |   |   |   |   |
|            |                   |                                | 1         | 2 | - | - | - | - | - |
| C1         | Notebook          | USB cable                      | X         | X |   |   |   |   |   |
| C1-2       | Music Player      | USB Cable to C1                | X         | X |   |   |   |   |   |
| C1-3       | AP Router         | RJ-45 Cable to C1              | X         | X |   |   |   |   |   |
| C2         | Earphone          | Earphone jack                  | X         | X |   |   |   |   |   |
| C3         | SD card           | SD I/O interface without cable | X         | X |   |   |   |   |   |

## 2.3. Support Unit used in test configuration and system

| Item | Equipment    | Trade Name | Model Name     | FCC ID                                       | Data Cable | Power Cord                                                 |
|------|--------------|------------|----------------|----------------------------------------------|------------|------------------------------------------------------------|
| 1.   | WLAN AP      | ASUS       | RT-AC66U       | MSQ-RTAC66U                                  | N/A        | Unshielded, 1.8 m                                          |
| 2.   | Notebook     | DELL       | Latitude E6320 | FCC DoC/<br>Contains FCC ID:<br>QDS-BRCM1054 | N/A        | AC I/P:<br>Unshielded, 1.2 m<br>DC O/P:<br>Shielded, 1.8 m |
| 3.   | Music Player | N/A        | N/A            | N/A                                          | N/A        | N/A                                                        |
| 4.   | SD Card      | SanDisk    | MicroSD HC     | FCC DoC                                      | N/A        | N/A                                                        |

## 2.4. EUT Operation Test Setup

The data application (each file size is greater than 30Mbytes) is continuously transferred between the EUT and Notebook connected via USB cable, while Flight mode.

### 3. Test Result

#### 3.1. Test of AC Conducted Emission Measurement

##### 3.1.1 Limits of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

| Frequency of emission<br>(MHz) | Conducted limit (dBuV) |           |
|--------------------------------|------------------------|-----------|
|                                | Quasi-peak             | Average   |
| 0.15-0.5                       | 66 to 56*              | 56 to 46* |
| 0.5-5                          | 56                     | 46        |
| 5-30                           | 60                     | 50        |

\*Decreases with the logarithm of the frequency.

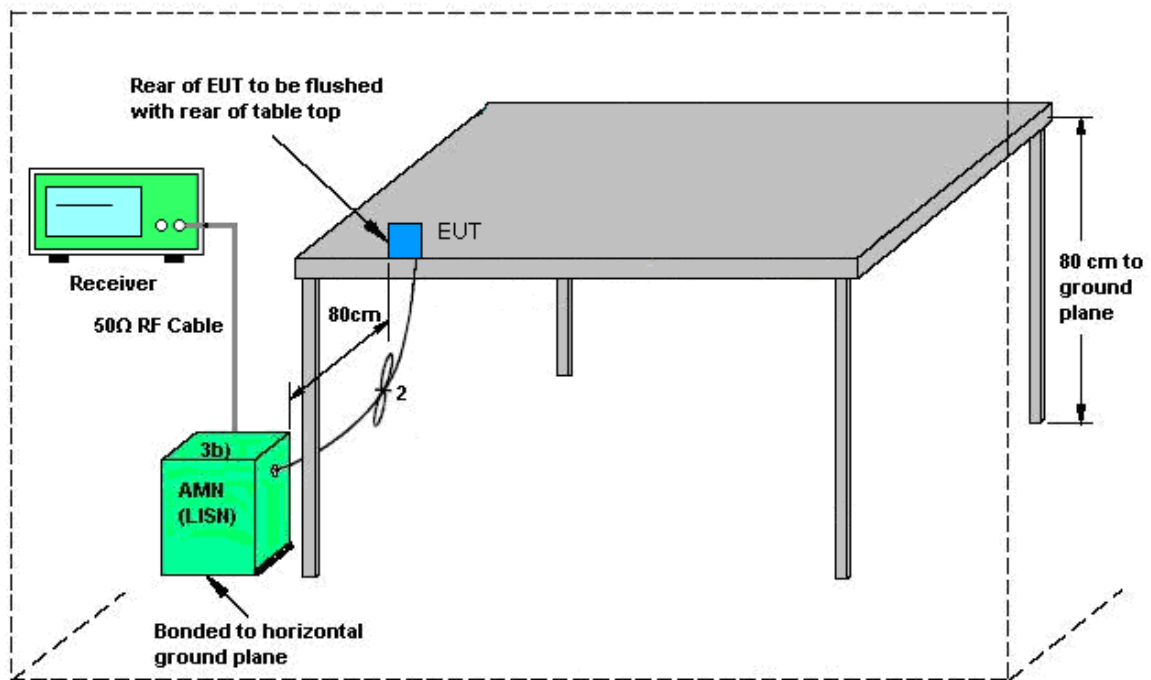
##### 3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

##### 3.1.3 Test Procedure

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

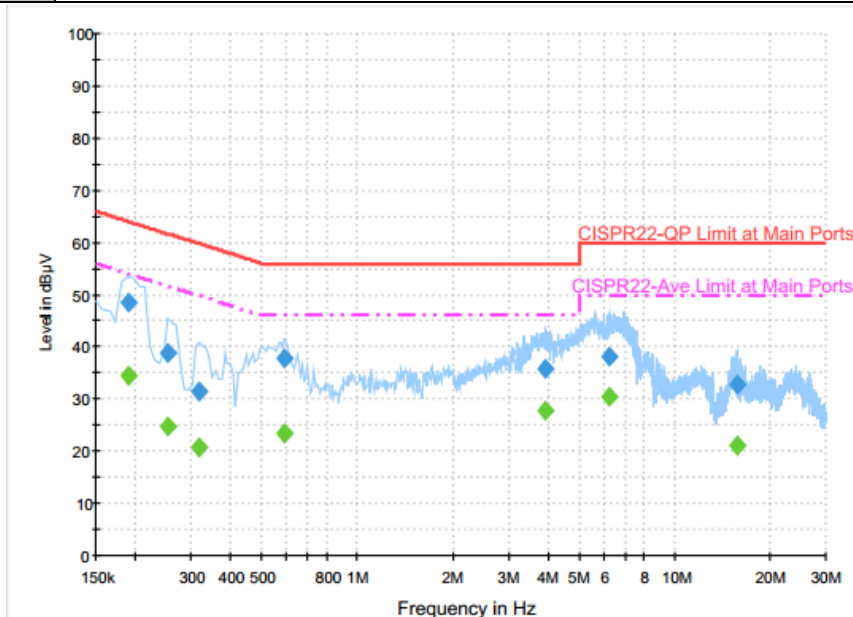
### 3.1.4 Test Setup



AMN = Artificial mains network (LISN)  
 AE = Associated equipment  
 EUT = Equipment under test  
 ISN = Impedance stabilization network

### 3.1.5 Test Result of AC Conducted Emission

|                        |                                                                          |                            |        |
|------------------------|--------------------------------------------------------------------------|----------------------------|--------|
| <b>Test Mode :</b>     | Mode 1                                                                   | <b>Temperature :</b>       | 23~24℃ |
| <b>Test Engineer :</b> | Kai-Chun Chu                                                             | <b>Relative Humidity :</b> | 52~53% |
| <b>Test Voltage :</b>  | 120Vac / 60Hz                                                            | <b>Phase :</b>             | Line   |
| <b>Function Type :</b> | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 |                            |        |



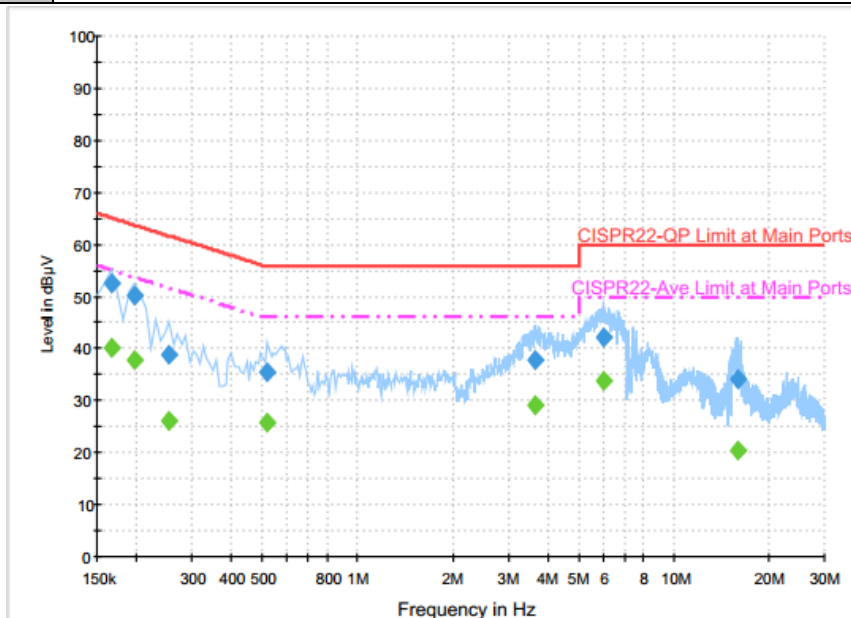
#### Final Result : Quasi-Peak

| Frequency (MHz) | Quasi-Peak (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|-------------------|--------|------|------------|-------------|--------------|
| 0.190000        | 48.4              | Off    | L1   | 19.5       | 15.6        | 64.0         |
| 0.254000        | 38.7              | Off    | L1   | 19.5       | 22.9        | 61.6         |
| 0.318000        | 31.4              | Off    | L1   | 19.5       | 28.4        | 59.8         |
| 0.590000        | 37.8              | Off    | L1   | 19.5       | 18.2        | 56.0         |
| 3.926000        | 35.6              | Off    | L1   | 19.6       | 20.4        | 56.0         |
| 6.246000        | 38.2              | Off    | L1   | 19.6       | 21.8        | 60.0         |
| 15.822000       | 32.8              | Off    | L1   | 19.7       | 27.2        | 60.0         |

#### Final Result : Average

| Frequency (MHz) | Average (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|----------------|--------|------|------------|-------------|--------------|
| 0.190000        | 34.6           | Off    | L1   | 19.5       | 19.4        | 54.0         |
| 0.254000        | 24.9           | Off    | L1   | 19.5       | 26.7        | 51.6         |
| 0.318000        | 20.7           | Off    | L1   | 19.5       | 29.1        | 49.8         |
| 0.590000        | 23.5           | Off    | L1   | 19.5       | 22.5        | 46.0         |
| 3.926000        | 27.9           | Off    | L1   | 19.6       | 18.1        | 46.0         |
| 6.246000        | 30.4           | Off    | L1   | 19.6       | 19.6        | 50.0         |
| 15.822000       | 20.9           | Off    | L1   | 19.7       | 29.1        | 50.0         |

|                        |                                                                          |                            |         |
|------------------------|--------------------------------------------------------------------------|----------------------------|---------|
| <b>Test Mode :</b>     | Mode 1                                                                   | <b>Temperature :</b>       | 23~24°C |
| <b>Test Engineer :</b> | Kai-Chun Chu                                                             | <b>Relative Humidity :</b> | 52~53%  |
| <b>Test Voltage :</b>  | 120Vac / 60Hz                                                            | <b>Phase :</b>             | Neutral |
| <b>Function Type :</b> | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 |                            |         |

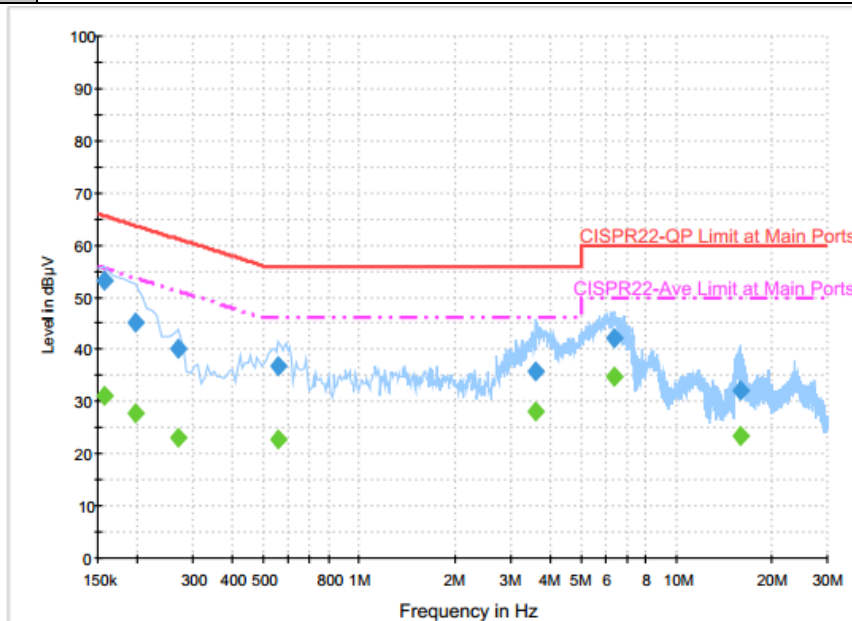

**Final Result : Quasi-Peak**

| Frequency (MHz) | Quasi-Peak (dBµV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|-------------------|--------|------|------------|-------------|--------------|
| 0.166000        | 52.4              | Off    | N    | 19.5       | 12.8        | 65.2         |
| 0.198000        | 50.1              | Off    | N    | 19.5       | 13.6        | 63.7         |
| 0.254000        | 38.7              | Off    | N    | 19.5       | 22.9        | 61.6         |
| 0.518000        | 35.4              | Off    | N    | 19.5       | 20.6        | 56.0         |
| 3.630000        | 37.9              | Off    | N    | 19.5       | 18.1        | 56.0         |
| 6.046000        | 42.1              | Off    | N    | 19.6       | 17.9        | 60.0         |
| 15.942000       | 34.2              | Off    | N    | 19.8       | 25.8        | 60.0         |

**Final Result : Average**

| Frequency (MHz) | Average (dBµV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|----------------|--------|------|------------|-------------|--------------|
| 0.166000        | 40.0           | Off    | N    | 19.5       | 15.2        | 55.2         |
| 0.198000        | 37.9           | Off    | N    | 19.5       | 15.8        | 53.7         |
| 0.254000        | 26.1           | Off    | N    | 19.5       | 25.5        | 51.6         |
| 0.518000        | 25.6           | Off    | N    | 19.5       | 20.4        | 46.0         |
| 3.630000        | 29.1           | Off    | N    | 19.5       | 16.9        | 46.0         |
| 6.046000        | 33.9           | Off    | N    | 19.6       | 16.1        | 50.0         |
| 15.942000       | 20.4           | Off    | N    | 19.8       | 29.6        | 50.0         |

|                        |                                                                          |                            |        |
|------------------------|--------------------------------------------------------------------------|----------------------------|--------|
| <b>Test Mode :</b>     | Mode 2                                                                   | <b>Temperature :</b>       | 23~24℃ |
| <b>Test Engineer :</b> | Kai-Chun Chu                                                             | <b>Relative Humidity :</b> | 52~53% |
| <b>Test Voltage :</b>  | 120Vac / 60Hz                                                            | <b>Phase :</b>             | Line   |
| <b>Function Type :</b> | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 |                            |        |

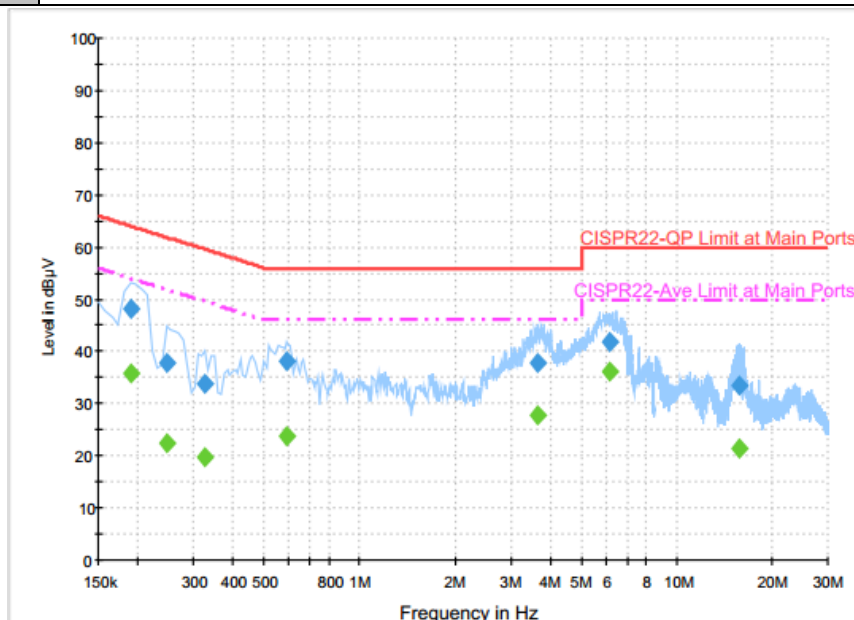

**Final Result : Quasi-Peak**

| Frequency (MHz) | Quasi-Peak (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|-------------------|--------|------|------------|-------------|--------------|
| 0.158000        | 53.0              | Off    | L1   | 19.5       | 12.6        | 65.6         |
| 0.198000        | 45.3              | Off    | L1   | 19.5       | 18.4        | 63.7         |
| 0.270000        | 40.1              | Off    | L1   | 19.5       | 21.0        | 61.1         |
| 0.558000        | 36.9              | Off    | L1   | 19.5       | 19.1        | 56.0         |
| 3.614000        | 35.9              | Off    | L1   | 19.6       | 20.1        | 56.0         |
| 6.366000        | 42.2              | Off    | L1   | 19.6       | 17.8        | 60.0         |
| 15.926000       | 32.0              | Off    | L1   | 19.7       | 28.0        | 60.0         |

**Final Result : Average**

| Frequency (MHz) | Average (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|----------------|--------|------|------------|-------------|--------------|
| 0.158000        | 31.0           | Off    | L1   | 19.5       | 24.6        | 55.6         |
| 0.198000        | 27.6           | Off    | L1   | 19.5       | 26.1        | 53.7         |
| 0.270000        | 23.0           | Off    | L1   | 19.5       | 28.1        | 51.1         |
| 0.558000        | 22.9           | Off    | L1   | 19.5       | 23.1        | 46.0         |
| 3.614000        | 28.0           | Off    | L1   | 19.6       | 18.0        | 46.0         |
| 6.366000        | 34.7           | Off    | L1   | 19.6       | 15.3        | 50.0         |
| 15.926000       | 23.2           | Off    | L1   | 19.7       | 26.8        | 50.0         |

|                        |                                                                          |                            |         |
|------------------------|--------------------------------------------------------------------------|----------------------------|---------|
| <b>Test Mode :</b>     | Mode 2                                                                   | <b>Temperature :</b>       | 23~24℃  |
| <b>Test Engineer :</b> | Kai-Chun Chu                                                             | <b>Relative Humidity :</b> | 52~53%  |
| <b>Test Voltage :</b>  | 120Vac / 60Hz                                                            | <b>Phase :</b>             | Neutral |
| <b>Function Type :</b> | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 |                            |         |


**Final Result : Quasi-Peak**

| Frequency (MHz) | Quasi-Peak (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|-------------------|--------|------|------------|-------------|--------------|
| 0.190000        | 48.3              | Off    | N    | 19.5       | 15.7        | 64.0         |
| 0.246000        | 37.6              | Off    | N    | 19.5       | 24.3        | 61.9         |
| 0.326000        | 33.7              | Off    | N    | 19.5       | 25.9        | 59.6         |
| 0.590000        | 38.1              | Off    | N    | 19.5       | 17.9        | 56.0         |
| 3.646000        | 37.9              | Off    | N    | 19.5       | 18.1        | 56.0         |
| 6.190000        | 41.8              | Off    | N    | 19.6       | 18.2        | 60.0         |
| 15.734000       | 33.6              | Off    | N    | 19.8       | 26.4        | 60.0         |

**Final Result : Average**

| Frequency (MHz) | Average (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|----------------|--------|------|------------|-------------|--------------|
| 0.190000        | 35.8           | Off    | N    | 19.5       | 18.2        | 54.0         |
| 0.246000        | 22.5           | Off    | N    | 19.5       | 29.4        | 51.9         |
| 0.326000        | 19.7           | Off    | N    | 19.5       | 29.9        | 49.6         |
| 0.590000        | 23.7           | Off    | N    | 19.5       | 22.3        | 46.0         |
| 3.646000        | 27.9           | Off    | N    | 19.5       | 18.1        | 46.0         |
| 6.190000        | 36.0           | Off    | N    | 19.6       | 14.0        | 50.0         |
| 15.734000       | 21.3           | Off    | N    | 19.8       | 28.7        | 50.0         |

## 3.2. Test of Radiated Emission Measurement

### 3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

| Frequency<br>(MHz) | Field Strength<br>(microvolts/meter) | Measurement Distance<br>(meters) |
|--------------------|--------------------------------------|----------------------------------|
| 30 – 88            | 100                                  | 3                                |
| 88 – 216           | 150                                  | 3                                |
| 216 - 960          | 200                                  | 3                                |
| Above 960          | 500                                  | 3                                |

### 3.2.2. Measuring Instruments

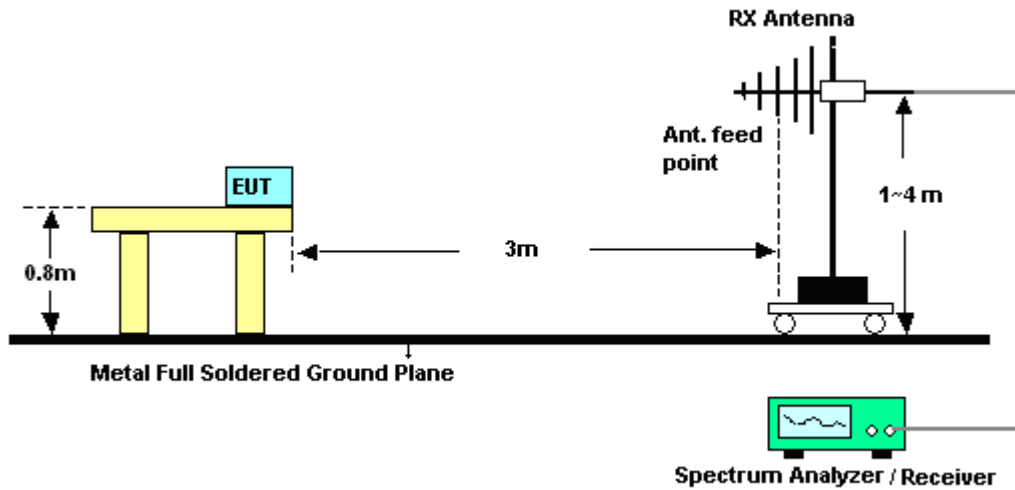
The measuring equipment is listed in the section 4 of this test report.

### 3.2.3. Test Procedures

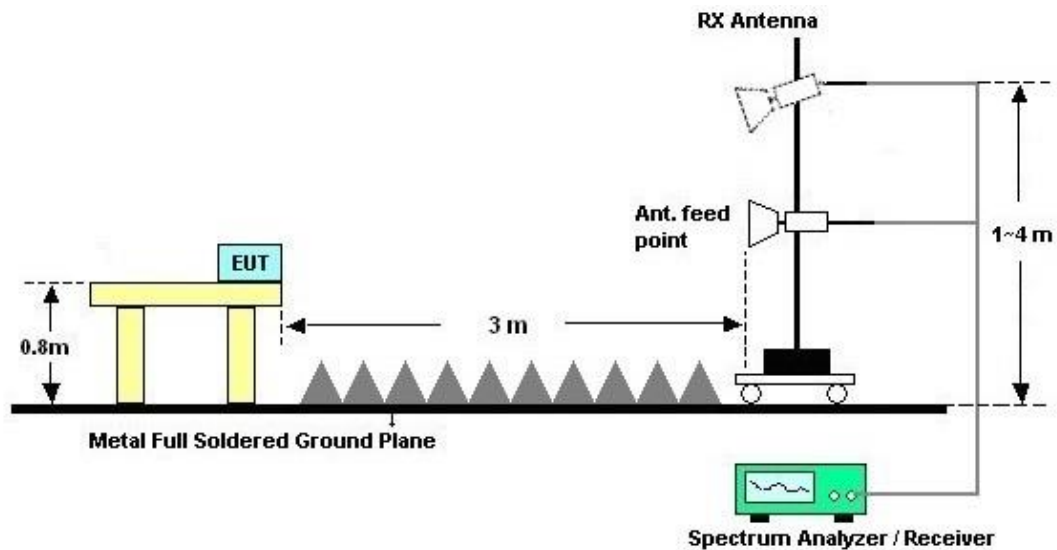
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
8. Emission level (dBμV/m) = 20 log Emission level (μV/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

### 3.2.4. Test Setup of Radiated Emission

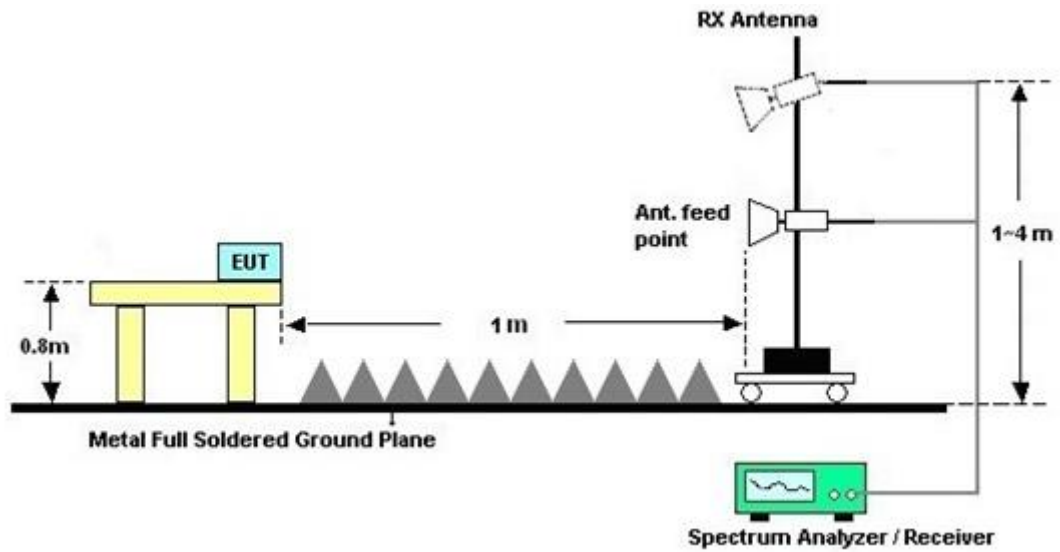
For radiated emissions from 30MHz to 1GHz



For radiated emissions from 1GHz to 18GHz

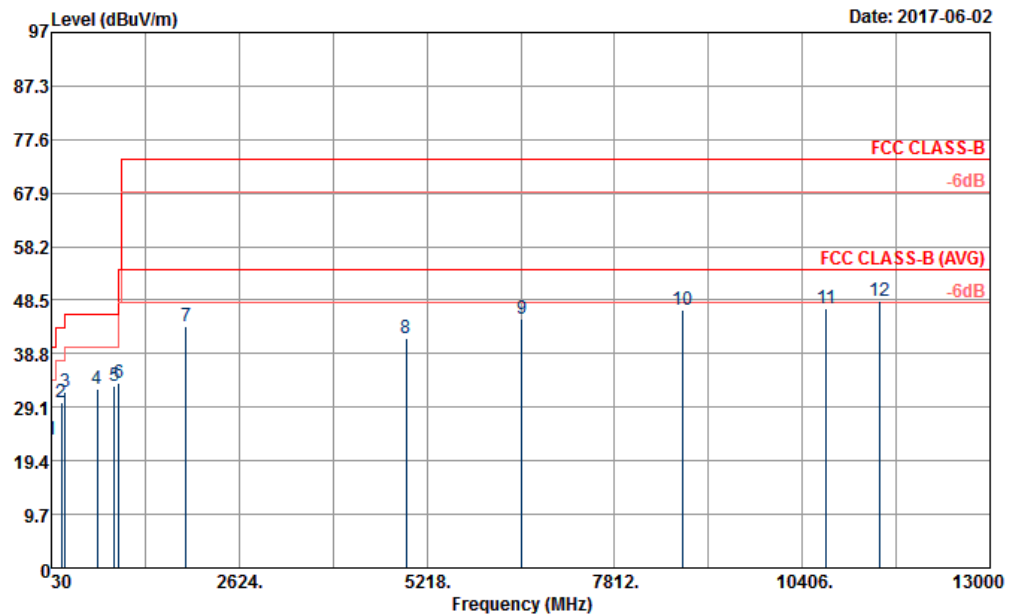


For radiated emissions above 18GHz



**3.2.5. Test Result of Radiated Emission**

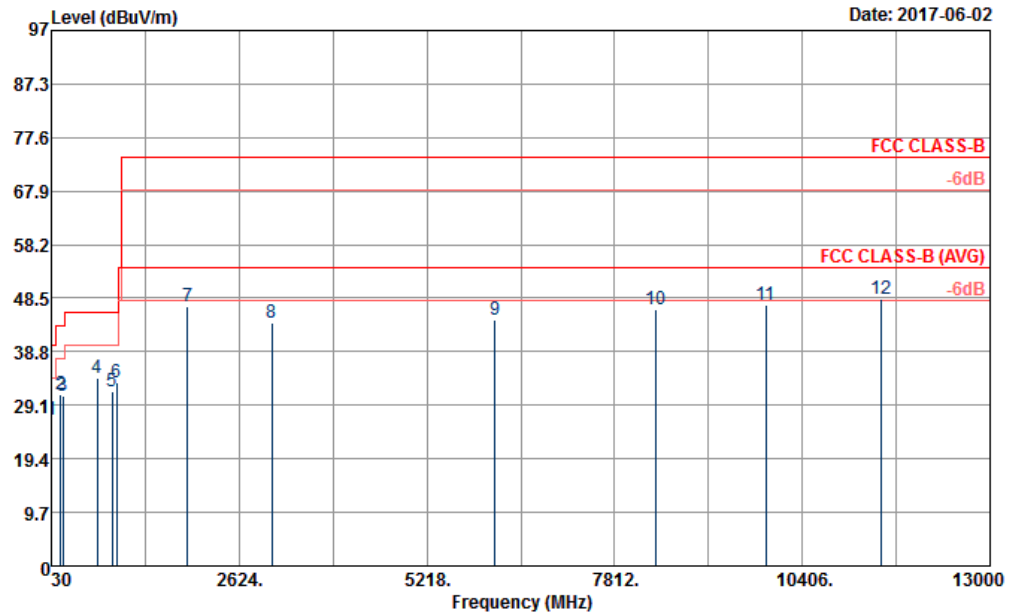
|                        |                                                                          |                            |            |
|------------------------|--------------------------------------------------------------------------|----------------------------|------------|
| <b>Test Mode :</b>     | Mode 1                                                                   | <b>Temperature :</b>       | 22~25°C    |
| <b>Test Engineer :</b> | Donny Tang                                                               | <b>Relative Humidity :</b> | 51~55%     |
| <b>Test Distance :</b> | 3m                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Function Type :</b> | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 |                            |            |



|    | Freq     | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Loss | Preamp Factor | A/Pos | T/Pos | Remark |      |
|----|----------|--------|------------|------------|-------------------|------------|---------------|-------|-------|--------|------|
|    | MHz      | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m       | dB            | dB    | cm    | deg    |      |
| 1  | 30.00    | 23.21  | -16.79     | 40.00      | 28.85             | 24.30      | 1.90          | 31.84 | ---   | ---    | Peak |
| 2  | 171.48   | 30.03  | -13.47     | 43.50      | 44.42             | 15.34      | 2.05          | 31.78 | ---   | ---    | Peak |
| 3  | 225.75   | 31.86  | -14.14     | 46.00      | 45.78             | 15.76      | 2.08          | 31.76 | ---   | ---    | Peak |
| 4  | 664.70   | 32.33  | -13.67     | 46.00      | 34.67             | 26.42      | 3.33          | 32.09 | ---   | ---    | Peak |
| 5  | 897.80   | 32.97  | -13.03     | 46.00      | 31.63             | 29.51      | 3.39          | 31.56 | ---   | ---    | Peak |
| 6  | 958.00   | 33.63  | -12.37     | 46.00      | 30.55             | 31.06      | 3.06          | 31.04 | 100   | 137    | Peak |
| 7  | 1894.00  | 43.74  | -30.26     | 74.00      | 72.15             | 26.42      | 6.15          | 60.98 | ---   | ---    | Peak |
| 8  | 4928.00  | 41.52  | -32.48     | 74.00      | 57.86             | 31.68      | 11.17         | 59.19 | ---   | ---    | Peak |
| 9  | 6530.00  | 44.99  | -29.01     | 74.00      | 56.48             | 35.63      | 12.27         | 59.39 | ---   | ---    | Peak |
| 10 | 8762.00  | 46.65  | -27.35     | 74.00      | 51.99             | 38.29      | 14.48         | 58.11 | ---   | ---    | Peak |
| 11 | 10732.00 | 46.95  | -27.05     | 74.00      | 48.93             | 41.00      | 14.67         | 57.65 | ---   | ---    | Peak |
| 12 | 11480.00 | 48.26  | -25.74     | 74.00      | 46.42             | 42.40      | 15.95         | 56.51 | 100   | 174    | Peak |



|                 |                                                                          |                     |          |
|-----------------|--------------------------------------------------------------------------|---------------------|----------|
| Test Mode :     | Mode 1                                                                   | Temperature :       | 22~25°C  |
| Test Engineer : | Donny Tang                                                               | Relative Humidity : | 51~55%   |
| Test Distance : | 3m                                                                       | Polarization :      | Vertical |
| Function Type : | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 |                     |          |



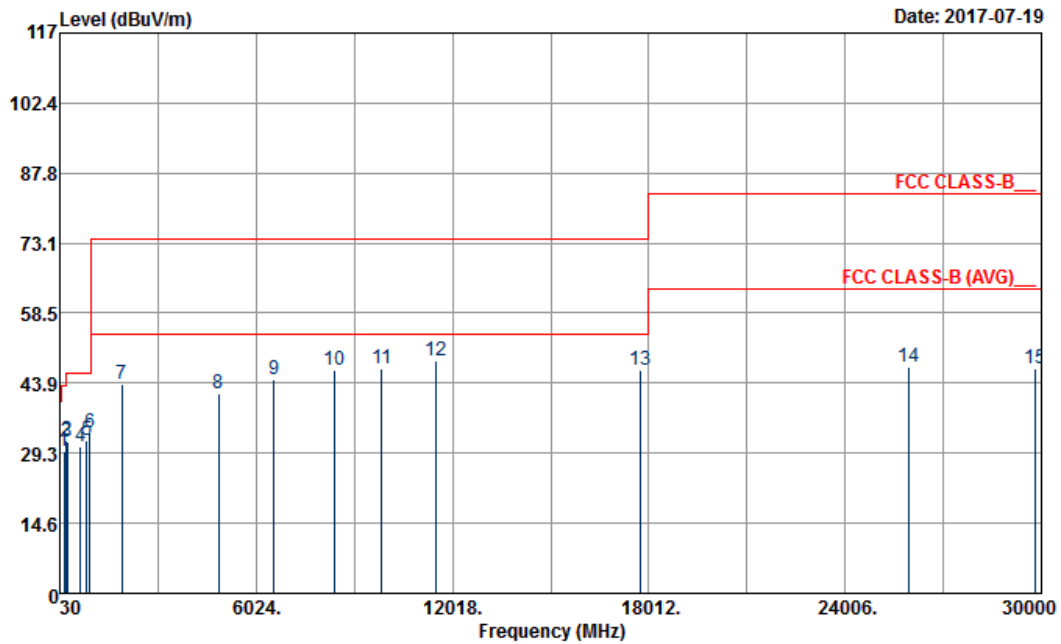
Site : 03CH06-HY  
Condition : FCC CLASS-B 3m 9120D\_1156\_160817 VERTICAL

Power : From System  
Memo : Mode 1

|    | Freq     | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Factor | Preamp Loss | A/Pos | T/Pos | Remark |
|----|----------|--------|------------|------------|-------------------|--------------|-------------|-------|-------|--------|
|    | MHz      | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m         | dB          | dB    | cm    | deg    |
| 1  | 33.78    | 26.50  | -13.50     | 40.00      | 34.24             | 22.18        | 1.92        | 31.84 | ---   | ---    |
| 2  | 163.65   | 31.15  | -12.35     | 43.50      | 44.88             | 15.95        | 2.10        | 31.78 | ---   | ---    |
| 3  | 193.35   | 30.75  | -12.75     | 43.50      | 45.81             | 14.76        | 1.95        | 31.77 | ---   | ---    |
| 4  | 666.10   | 33.95  | -12.05     | 46.00      | 36.27             | 26.44        | 3.33        | 32.09 | 100   | 106    |
| 5  | 867.00   | 31.59  | -14.41     | 46.00      | 30.59             | 29.35        | 3.34        | 31.69 | ---   | ---    |
| 6  | 927.90   | 33.12  | -12.88     | 46.00      | 30.79             | 30.43        | 3.20        | 31.30 | ---   | ---    |
| 7  | 1910.00  | 47.13  | -26.87     | 74.00      | 75.49             | 26.47        | 6.15        | 60.98 | ---   | ---    |
| 8  | 3078.00  | 43.94  | -30.06     | 74.00      | 68.47             | 28.96        | 7.82        | 61.31 | ---   | ---    |
| 9  | 6162.00  | 44.46  | -29.54     | 74.00      | 56.99             | 34.93        | 11.61       | 59.07 | ---   | ---    |
| 10 | 8382.00  | 46.44  | -27.56     | 74.00      | 52.33             | 38.36        | 13.67       | 57.92 | ---   | ---    |
| 11 | 9898.00  | 47.25  | -26.75     | 74.00      | 51.16             | 40.91        | 14.06       | 58.88 | ---   | ---    |
| 12 | 11504.00 | 48.44  | -25.56     | 74.00      | 46.49             | 42.50        | 15.95       | 56.50 | 100   | 156    |



|                 |                                                                          |                     |            |
|-----------------|--------------------------------------------------------------------------|---------------------|------------|
| Test Mode :     | Mode 2                                                                   | Temperature :       | 22~25°C    |
| Test Engineer : | Donny Tang                                                               | Relative Humidity : | 51~55%     |
| Test Distance : | 3m                                                                       | Polarization :      | Horizontal |
| Function Type : | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 |                     |            |



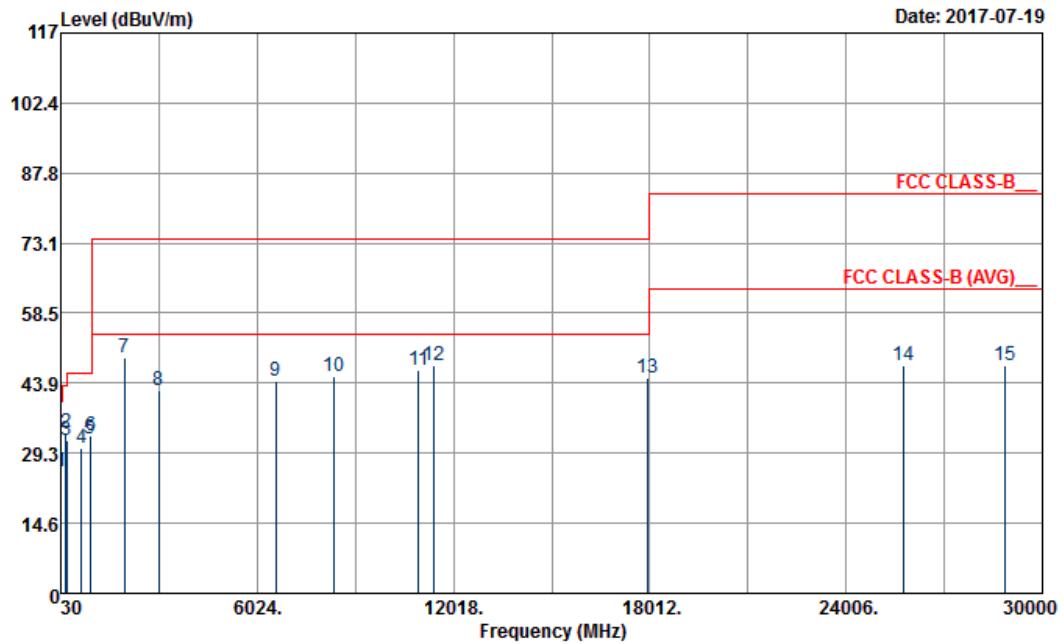
Site : 03CH06-HY  
Condition : FCC CLASS-B\_\_1m 9120D\_1156\_160817 HORIZONTAL

Power : From System  
Memo : Mode 2

|    | Freq     | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Loss | Preamp Factor | A/Pos | T/Pos | Remark   |
|----|----------|--------|------------|------------|-------------------|------------|---------------|-------|-------|----------|
|    | MHz      | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m       | dB            | dB    | cm    | deg      |
| 1  | 167.97   | 29.81  | -13.69     | 43.50      | 43.88             | 15.64      | 2.07          | 31.78 | ---   | Peak     |
| 2  | 222.24   | 32.10  | -13.90     | 46.00      | 46.45             | 15.35      | 2.06          | 31.76 | ---   | Peak     |
| 3  | 250.86   | 31.58  | -14.42     | 46.00      | 42.37             | 18.75      | 2.21          | 31.75 | ---   | Peak     |
| 4  | 666.80   | 30.72  | -15.28     | 46.00      | 33.03             | 26.44      | 3.34          | 32.09 | ---   | Peak     |
| 5  | 844.60   | 32.06  | -13.94     | 46.00      | 31.09             | 29.44      | 3.32          | 31.79 | ---   | Peak     |
| 6  | 937.70   | 33.73  | -12.27     | 46.00      | 31.12             | 30.70      | 3.13          | 31.22 | 100   | 127 Peak |
| 7  | 1924.00  | 43.64  | -30.36     | 74.00      | 71.93             | 26.47      | 6.23          | 60.99 | ---   | Peak     |
| 8  | 4882.00  | 41.79  | -32.21     | 74.00      | 58.45             | 31.58      | 11.11         | 59.35 | ---   | Peak     |
| 9  | 6574.00  | 44.63  | -29.37     | 74.00      | 55.95             | 35.71      | 12.34         | 59.37 | ---   | Peak     |
| 10 | 8408.00  | 46.77  | -27.23     | 74.00      | 52.38             | 38.40      | 13.89         | 57.90 | ---   | Peak     |
| 11 | 9860.00  | 47.06  | -26.94     | 74.00      | 50.87             | 40.78      | 14.28         | 58.87 | ---   | Peak     |
| 12 | 11508.00 | 48.55  | -25.45     | 74.00      | 46.63             | 42.50      | 15.95         | 56.53 | 100   | 145 Peak |
| 13 | 17748.00 | 46.45  | -27.55     | 74.00      | 42.01             | 46.79      | 14.90         | 57.25 | ---   | Peak     |
| 14 | 25944.00 | 47.36  | -36.18     | 83.54      | 74.41             | 0.00       | 26.92         | 53.97 | ---   | Peak     |
| 15 | 29832.00 | 47.02  | -36.52     | 83.54      | 72.13             | 0.00       | 29.33         | 54.44 | ---   | Peak     |



|                 |                                                                          |                     |          |
|-----------------|--------------------------------------------------------------------------|---------------------|----------|
| Test Mode :     | Mode 2                                                                   | Temperature :       | 22~25°C  |
| Test Engineer : | Donny Tang                                                               | Relative Humidity : | 51~55%   |
| Test Distance : | 3m                                                                       | Polarization :      | Vertical |
| Function Type : | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 |                     |          |



Site : 03CH06-HY  
Condition : FCC CLASS-B\_\_1m SHF-EHF HORN VERTICAL

Power : From System  
Memo : Mode 2

|    |  | Freq     | Level  | Over Limit | Limit Line | ReadAntenna Level | Cable Factor | Preamp Loss | A/Pos | T/Pos | Remark |      |
|----|--|----------|--------|------------|------------|-------------------|--------------|-------------|-------|-------|--------|------|
|    |  | MHz      | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m         | dB          | dB    | cm    | deg    |      |
| 1  |  | 33.78    | 25.41  | -14.59     | 40.00      | 33.15             | 22.18        | 1.92        | 31.84 | ---   | ---    | Peak |
| 2  |  | 176.07   | 33.41  | -10.09     | 43.50      | 48.14             | 15.04        | 2.01        | 31.78 | 100   | 109    | Peak |
| 3  |  | 199.02   | 31.86  | -11.64     | 43.50      | 46.82             | 14.87        | 1.94        | 31.77 | ---   | ---    | Peak |
| 4  |  | 666.10   | 30.26  | -15.74     | 46.00      | 32.58             | 26.44        | 3.33        | 32.09 | ---   | ---    | Peak |
| 5  |  | 911.80   | 32.22  | -13.78     | 46.00      | 30.43             | 29.92        | 3.31        | 31.44 | ---   | ---    | Peak |
| 6  |  | 953.10   | 32.90  | -13.10     | 46.00      | 29.95             | 30.98        | 3.05        | 31.08 | ---   | ---    | Peak |
| 7  |  | 1976.00  | 49.12  | -24.88     | 74.00      | 77.20             | 26.61        | 6.31        | 61.00 | 100   | 188    | Peak |
| 8  |  | 3008.00  | 42.45  | -31.55     | 74.00      | 66.95             | 29.10        | 7.70        | 61.30 | ---   | ---    | Peak |
| 9  |  | 6602.00  | 44.27  | -29.73     | 74.00      | 55.46             | 35.77        | 12.40       | 59.36 | ---   | ---    | Peak |
| 10 |  | 8368.00  | 45.42  | -28.58     | 74.00      | 51.36             | 38.33        | 13.67       | 57.94 | ---   | ---    | Peak |
| 11 |  | 10958.00 | 46.50  | -27.50     | 74.00      | 47.60             | 41.00        | 15.00       | 57.10 | ---   | ---    | Peak |
| 12 |  | 11432.00 | 47.63  | -26.37     | 74.00      | 46.08             | 42.30        | 15.82       | 56.57 | ---   | ---    | Peak |
| 13 |  | 17928.00 | 44.87  | -29.13     | 74.00      | 39.40             | 47.70        | 15.06       | 57.29 | ---   | ---    | Peak |
| 14 |  | 25740.00 | 47.59  | -35.95     | 83.54      | 35.34             | 39.55        | 26.60       | 53.90 | ---   | ---    | Peak |
| 15 |  | 28836.00 | 47.43  | -36.11     | 83.54      | 32.67             | 40.18        | 28.91       | 54.33 | ---   | ---    | Peak |



## 4. List of Measuring Equipment

| Instrument           | Manufacturer    | Model No.               | Serial No.                         | Characteristics               | Calibration Date | Test Date                  | Due Date      | Remark                |
|----------------------|-----------------|-------------------------|------------------------------------|-------------------------------|------------------|----------------------------|---------------|-----------------------|
| AC Power Source      | ChainTek        | APC-1000W               | N/A                                | N/A                           | N/A              | May 28, 2017               | N/A           | Conduction (CO05-HY)  |
| EMI Test Receiver    | Rohde & Schwarz | ESCI 7                  | 100724                             | 9kHz~7GHz                     | Aug. 30, 2016    | May 28, 2017               | Aug. 29, 2017 | Conduction (CO05-HY)  |
| Hygrometer           | Testo           | 608-H1                  | 34913912                           | N/A                           | May 02, 2017     | May 28, 2017               | May 01, 2018  | Conduction (CO05-HY)  |
| LISN                 | Rohde & Schwarz | ENV216                  | 100080                             | 9kHz~30MHz                    | Nov. 29, 2016    | May 28, 2017               | Nov. 28, 2017 | Conduction (CO05-HY)  |
| LISN                 | Rohde & Schwarz | ENV216                  | 100081                             | 9kHz~30MHz                    | Dec. 06, 2016    | May 28, 2017               | Dec. 05, 2017 | Conduction (CO05-HY)  |
| LF Cable             | HUBER + SUHNER  | RG-214/U                | LF01                               | N/A                           | Jan. 05, 2017    | May 28, 2017               | Jan. 04, 2018 | Conduction (CO05-HY)  |
| Test Software        | N/A             | EMC32                   | 8.40.0                             | N/A                           | N/A              | May 28, 2017               | N/A           | Conduction (CO05-HY)  |
| Bilog Antenna        | Schaffner       | CBL6111C&N-6-06         | 2725&AT-N0601                      | 30MHz~1GHz                    | Oct. 15, 2016    | May 30, 2017~Jun. 02, 2017 | Oct. 14, 2017 | Radiation (03CH06-HY) |
| EMI Test Receiver    | Rohde & Schwarz | ESU26                   | 100472                             | 20Hz~26.5GHz                  | Dec. 29, 2016    | May 30, 2017~Jun. 02, 2017 | Dec. 28, 2017 | Radiation (03CH06-HY) |
| Spectrum Analyzer    | Keysight        | N9010A                  | MY54200485                         | 10Hz ~ 44GHz                  | Oct. 17, 2016    | Jul. 19, 2017              | Oct. 16, 2017 | Radiation (03CH06-HY) |
| Horn Antenna         | SCHWARZBECK     | BBHA 9120 D             | 9120D-1156                         | 1GHz~18GHz                    | Aug. 05, 2016    | May 30, 2017~Jun. 02, 2017 | Aug. 04, 2017 | Radiation (03CH06-HY) |
| SHF-EHF Horn Antenna | SCHWARZBECK     | BBHA 9170               | BBHA9170584                        | 18GHz- 40GHz                  | Nov. 08, 2016    | May 30, 2017~Jul. 19, 2017 | Nov. 07, 2017 | Radiation (03CH06-HY) |
| Preamplifier         | SONOMA          | 310N                    | 186713                             | 9kHz~1GHz                     | Apr. 25, 2017    | May 30, 2017~Jun. 02, 2017 | Apr. 25, 2018 | Radiation (03CH06-HY) |
| Preamplifier         | MITEQ           | AMF-7D-0010 1800-30-10P | 1850117                            | 1GHz ~ 18GHz                  | Apr. 25, 2017    | May 30, 2017~Jun. 02, 2017 | Apr. 24, 2018 | Radiation (03CH06-HY) |
| Preamplifier         | MITEQ           | TTA 1840-35-HG          | 1887435                            | 18GHz~40GHz                   | Oct. 13, 2016    | May 30, 2017~Jul. 19, 2017 | Oct. 12, 2017 | Radiation (03CH06-HY) |
| RF Cable             | HUBER + SUHNER  | SUCOFLEX 104            | MY249564<br>MY249524<br>MY283184   | 30MHz~1GHz                    | Sep. 30, 2016    | May 30, 2017~Jun. 02, 2017 | Sep. 29, 2017 | Radiation (03CH06-HY) |
| RF Cable             | HUBER + SUHNER  | SUCOFLEX 104            | MY9837/4<br>MY28419/4M<br>Y28654/4 | 9KHz~40GHz                    | Sep. 12, 2016    | May 30, 2017~Jul. 19, 2017 | Sep. 11, 2017 | Radiation (03CH06-HY) |
| Controller           | INN-CO          | EM1000                  | 060782                             | Control Turn table & Ant Mast | N/A              | May 30, 2017~Jul. 19, 2017 | N/A           | Radiation (03CH06-HY) |
| Antenna Mast         | MF              | MF-7802                 | MF780208212                        | 1m~4m                         | N/A              | May 30, 2017~Jul. 19, 2017 | N/A           | Radiation (03CH06-HY) |
| Turn Table           | INN-CO          | DS2000                  | 420/650/00                         | 0-360 degree                  | N/A              | May 30, 2017~Jul. 19, 2017 | N/A           | Radiation (03CH06-HY) |
| Hygrometer           | WISEWIND        | 410                     | BU5004                             | N/A                           | Mar. 20, 2017    | May 30, 2017~Jul. 19, 2017 | Mar. 19, 2018 | Radiation (03CH06-HY) |
| Test Software        | Audix           | E3                      | 6.2009-8-24                        | N/A                           | N/A              | May 30, 2017~Jul. 19, 2017 | N/A           | Radiation (03CH06-HY) |



## 5. Uncertainty of Evaluation

### Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

|                                                                         |      |
|-------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 2.70 |
|-------------------------------------------------------------------------|------|

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

|                                                                         |      |
|-------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 3.90 |
|-------------------------------------------------------------------------|------|

### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 30000 MHz)

|                                                                         |      |
|-------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 4.70 |
|-------------------------------------------------------------------------|------|