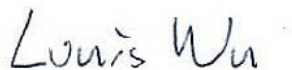


# FCC Test Report

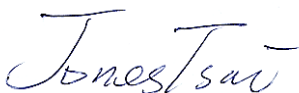
**APPLICANT** : Sony Mobile Communications Inc.  
**EQUIPMENT** : GSM/WCDMA/LTE Phone+Bluetooth,  
DTS/UNII a/b/g/n and NFC  
**BRAND NAME** : Sony  
**FCC ID** : PY7-33681M  
**STANDARD** : FCC 47 CFR FCC Part 15 Subpart B  
**CLASSIFICATION** : FCC CLASS B PERSONAL  
COMPUTERS AND PERIPHERALS

The product was received on Sep. 22, 2016 and testing was completed on Oct. 19, 2016. 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.



Reviewed by: Louis Wu / Manager



Approved by: Jones Tsai / Manager



## **SPORTON INTERNATIONAL INC.**

**No. 52, Hwa Ya 1<sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.**

**SPORTON INTERNATIONAL INC.**

TEL : 886-3-327-3456

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FCC ID : PY7-33681M

Page Number : 1 of 24

Report Issued Date : Feb. 06, 2017

Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.3



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## REVISION HISTORY

| REPORT NO.  | VERSION | DESCRIPTION             | ISSUED DATE   |
|-------------|---------|-------------------------|---------------|
| FC692209-01 | Rev. 01 | Initial issue of report | Feb. 06, 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>11.20 dB at 0.158 MHz  |
| 3.2            | 15.109   | Radiated Emission     | < 15.109 limits | PASS   | Under limit<br>8.36 dB at 171.750 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: Coupling type (LDS) 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                                                 | 0.85       | RQ3002HWM1                                                                                                                           | Conducted Emission         |
|                                                   |            | RQ3002HWM2                                                                                                                           | Radiated Spurious Emission |

| Accessory List |                       |
|----------------|-----------------------|
| Earphone 1     | Model No. : MH410c    |
|                | S/N : 1632A8640000088 |
| Earphone 2     | Model No. : MH410c    |
|                | S/N : N/A             |
| USB Cable      | Model No. : UCB20     |
|                | S/N : 1625A91900007E2 |

**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. TW1022 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

|                           |                                                                                                                                                                  |           |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Test Site</b>          | SPORTON INTERNATIONAL INC.                                                                                                                                       |           |
| <b>Test Site Location</b> | 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 |           |
| <b>Test Site No.</b>      | <b>Sporton Site No.</b>                                                                                                                                          |           |
|                           | 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

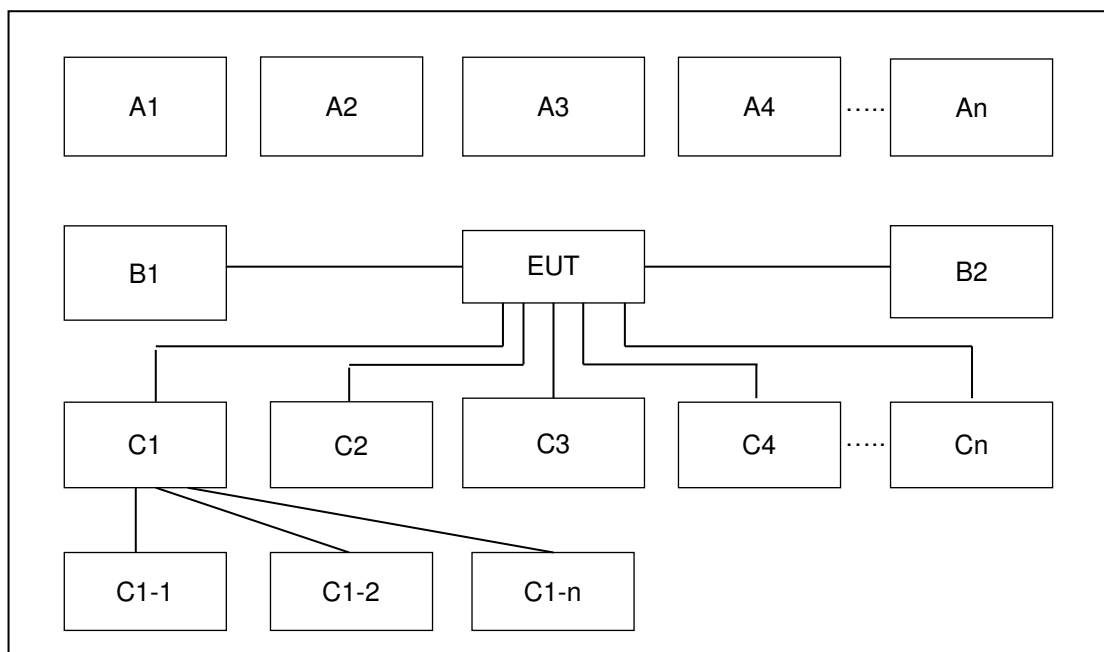
The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

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> <ol style="list-style-type: none"><li>1. The worst case of Radiated Emissions was measured for signal above 1GHz.</li><li>2. Data Link with Notebook means data application transferred mode between EUT and Notebook.</li></ol> |                                                                                   |



## 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       | iPod              | 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.   | iPod      | Apple      | A1285          | FCC DoC                                      | Shielded, 1.0 m | 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.

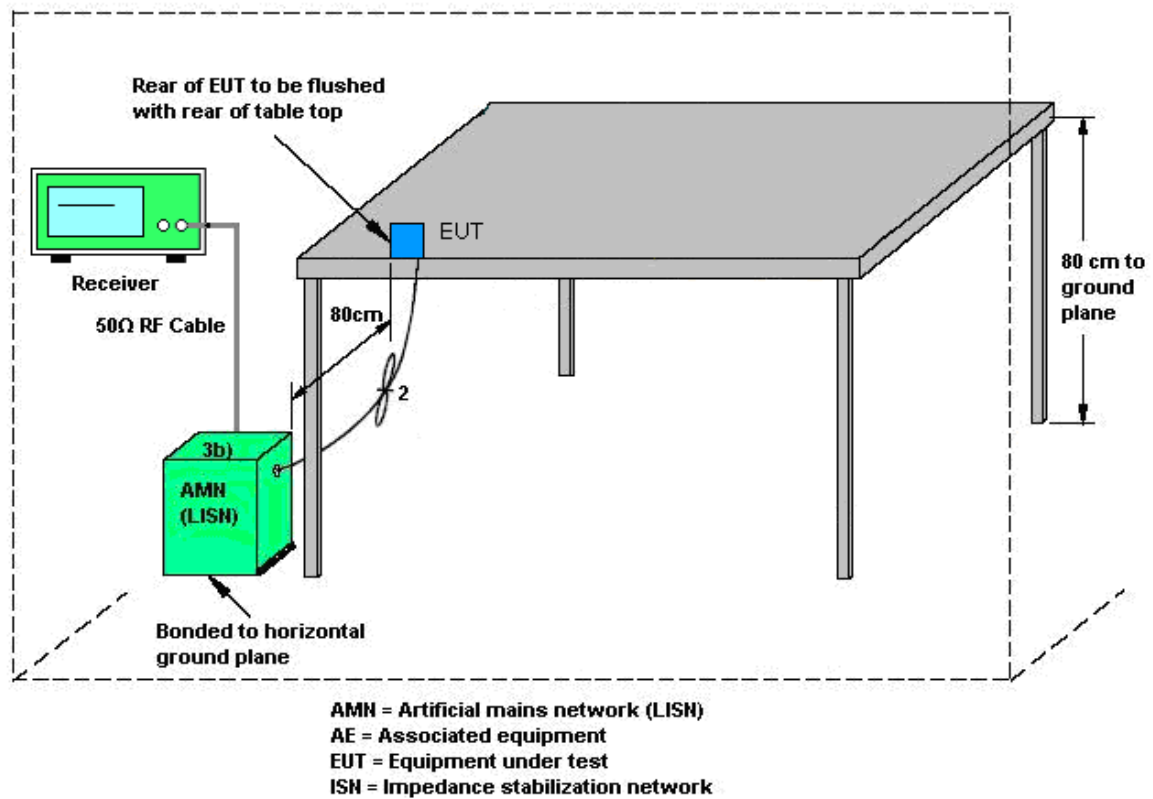
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedure

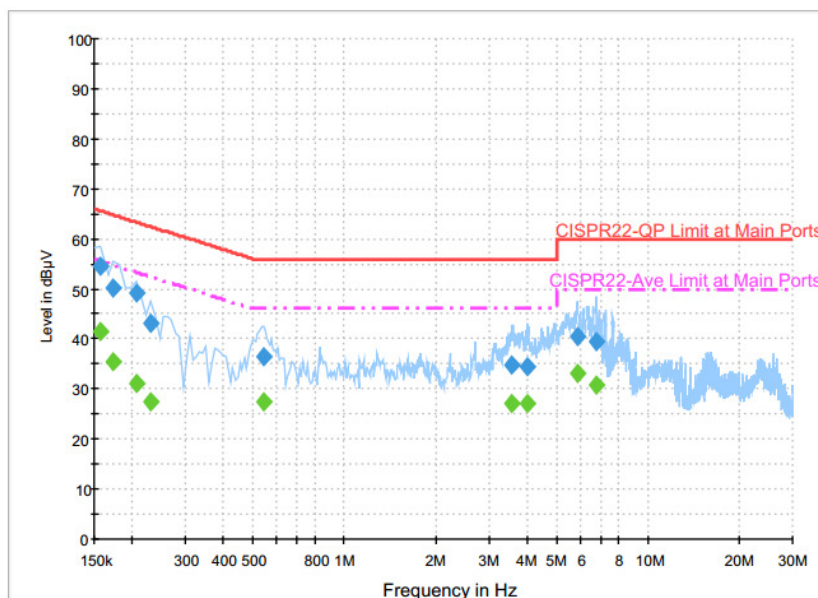
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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



### 3.1.5 Test Result of AC Conducted Emission

|                        |                                                                          |                            |        |
|------------------------|--------------------------------------------------------------------------|----------------------------|--------|
| <b>Test Mode :</b>     | Mode 1                                                                   | <b>Temperature :</b>       | 24~25℃ |
| <b>Test Engineer :</b> | Kai-Chun Chu                                                             | <b>Relative Humidity :</b> | 47~48% |
| <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 |                            |        |



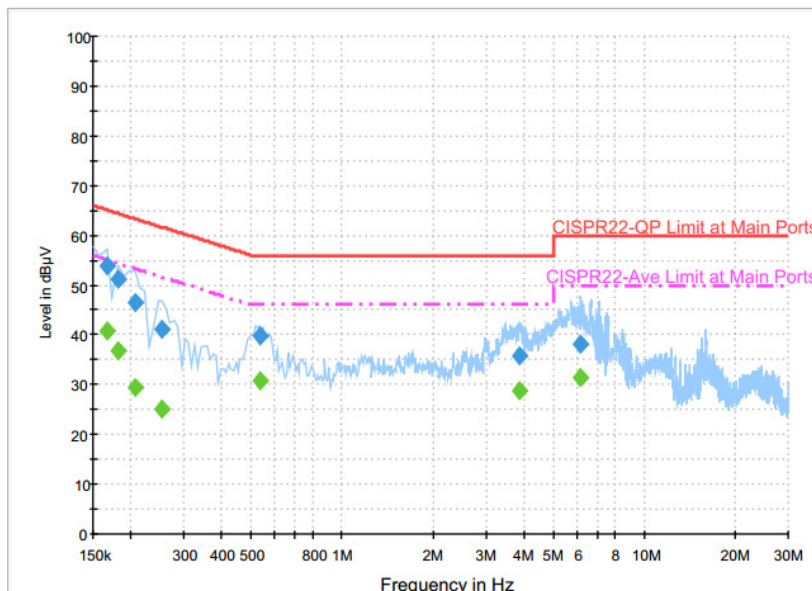
#### Final Result : Quasi-Peak

| Frequency (MHz) | Quasi-Peak (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|-------------------|--------|------|------------|-------------|--------------|
| 0.158000        | 54.4              | Off    | L1   | 19.6       | 11.2        | 65.6         |
| 0.174000        | 50.1              | Off    | L1   | 19.6       | 14.7        | 64.8         |
| 0.206000        | 49.1              | Off    | L1   | 19.6       | 14.3        | 63.4         |
| 0.230000        | 43.1              | Off    | L1   | 19.6       | 19.3        | 62.4         |
| 0.542000        | 36.6              | Off    | L1   | 19.6       | 19.4        | 56.0         |
| 3.574000        | 34.8              | Off    | L1   | 19.6       | 21.2        | 56.0         |
| 4.006000        | 34.6              | Off    | L1   | 19.7       | 21.4        | 56.0         |
| 5.854000        | 40.4              | Off    | L1   | 19.7       | 19.6        | 60.0         |
| 6.758000        | 39.4              | Off    | L1   | 19.7       | 20.6        | 60.0         |

#### Final Result : Average

| Frequency (MHz) | Average (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|----------------|--------|------|------------|-------------|--------------|
| 0.158000        | 41.4           | Off    | L1   | 19.6       | 14.2        | 55.6         |
| 0.174000        | 35.6           | Off    | L1   | 19.6       | 19.2        | 54.8         |
| 0.206000        | 31.2           | Off    | L1   | 19.6       | 22.2        | 53.4         |
| 0.230000        | 27.4           | Off    | L1   | 19.6       | 25.0        | 52.4         |
| 0.542000        | 27.4           | Off    | L1   | 19.6       | 18.6        | 46.0         |
| 3.574000        | 27.1           | Off    | L1   | 19.6       | 18.9        | 46.0         |
| 4.006000        | 27.2           | Off    | L1   | 19.7       | 18.8        | 46.0         |
| 5.854000        | 33.1           | Off    | L1   | 19.7       | 16.9        | 50.0         |
| 6.758000        | 30.9           | Off    | L1   | 19.7       | 19.1        | 50.0         |

|                        |                                                                          |                            |         |
|------------------------|--------------------------------------------------------------------------|----------------------------|---------|
| <b>Test Mode :</b>     | Mode 1                                                                   | <b>Temperature :</b>       | 24~25°C |
| <b>Test Engineer :</b> | Kai-Chun Chu                                                             | <b>Relative Humidity :</b> | 47~48%  |
| <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 |                            |         |

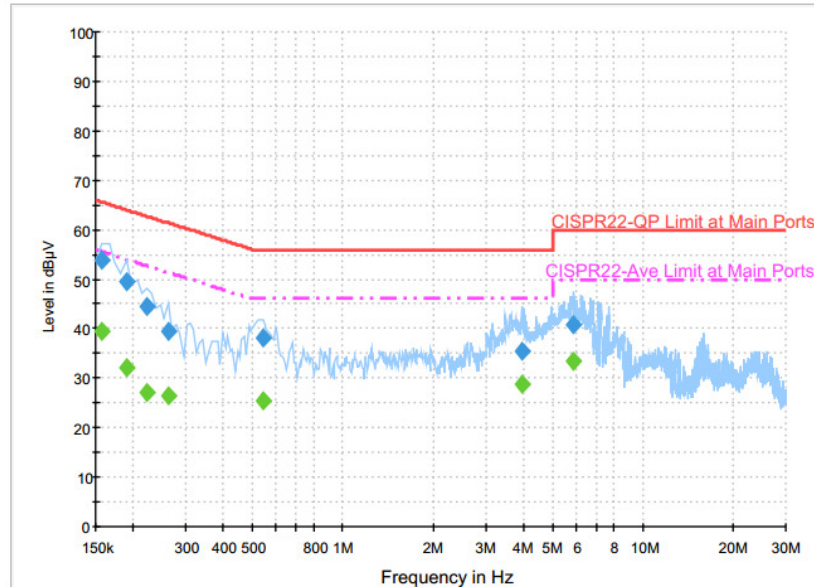

**Final Result : Quasi-Peak**

| Frequency (MHz) | Quasi-Peak (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|-------------------|--------|------|------------|-------------|--------------|
| 0.166000        | 53.8              | Off    | N    | 19.6       | 11.4        | 65.2         |
| 0.182000        | 51.1              | Off    | N    | 19.6       | 13.3        | 64.4         |
| 0.206000        | 46.4              | Off    | N    | 19.6       | 17.0        | 63.4         |
| 0.254000        | 41.0              | Off    | N    | 19.6       | 20.6        | 61.6         |
| 0.534000        | 39.7              | Off    | N    | 19.6       | 16.3        | 56.0         |
| 3.886000        | 35.6              | Off    | N    | 19.6       | 20.4        | 56.0         |
| 6.182000        | 38.0              | Off    | N    | 19.7       | 22.0        | 60.0         |

**Final Result : Average**

| Frequency (MHz) | Average (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|----------------|--------|------|------------|-------------|--------------|
| 0.166000        | 40.7           | Off    | N    | 19.6       | 14.5        | 55.2         |
| 0.182000        | 36.9           | Off    | N    | 19.6       | 17.5        | 54.4         |
| 0.206000        | 29.4           | Off    | N    | 19.6       | 24.0        | 53.4         |
| 0.254000        | 25.2           | Off    | N    | 19.6       | 26.4        | 51.6         |
| 0.534000        | 30.9           | Off    | N    | 19.6       | 15.1        | 46.0         |
| 3.886000        | 28.8           | Off    | N    | 19.6       | 17.2        | 46.0         |
| 6.182000        | 31.5           | Off    | N    | 19.7       | 18.5        | 50.0         |

|                        |                                                                          |                            |         |
|------------------------|--------------------------------------------------------------------------|----------------------------|---------|
| <b>Test Mode :</b>     | Mode 2                                                                   | <b>Temperature :</b>       | 24~25°C |
| <b>Test Engineer :</b> | Kai-Chun Chu                                                             | <b>Relative Humidity :</b> | 47~48%  |
| <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 |                            |         |

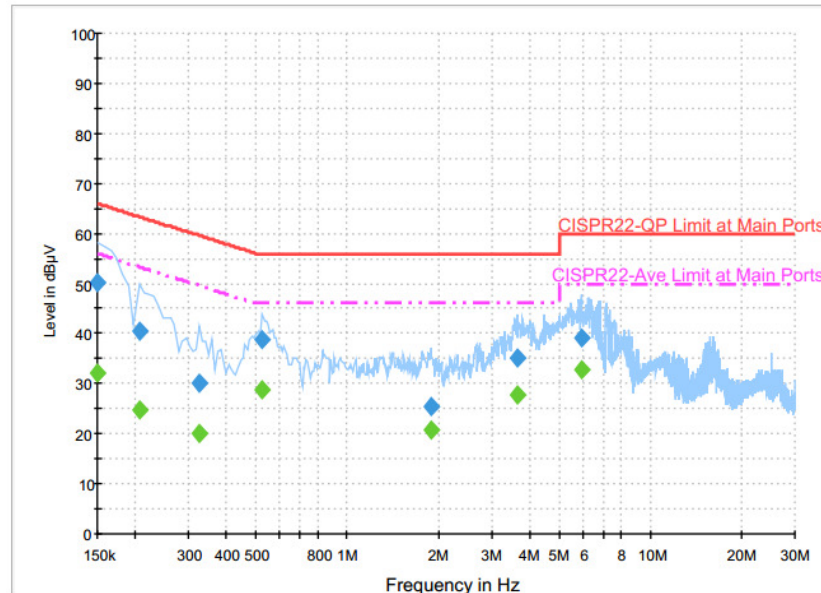

**Final Result : Quasi-Peak**

| Frequency (MHz) | Quasi-Peak (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|-------------------|--------|------|------------|-------------|--------------|
| 0.158000        | 53.9              | Off    | L1   | 19.6       | 11.7        | 65.6         |
| 0.190000        | 49.4              | Off    | L1   | 19.6       | 14.6        | 64.0         |
| 0.222000        | 44.4              | Off    | L1   | 19.6       | 18.3        | 62.7         |
| 0.262000        | 39.4              | Off    | L1   | 19.6       | 22.0        | 61.4         |
| 0.542000        | 38.1              | Off    | L1   | 19.6       | 17.9        | 56.0         |
| 3.942000        | 35.5              | Off    | L1   | 19.7       | 20.5        | 56.0         |
| 5.902000        | 40.7              | Off    | L1   | 19.7       | 19.3        | 60.0         |

**Final Result : Average**

| Frequency (MHz) | Average (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|----------------|--------|------|------------|-------------|--------------|
| 0.158000        | 39.3           | Off    | L1   | 19.6       | 16.3        | 55.6         |
| 0.190000        | 32.2           | Off    | L1   | 19.6       | 21.8        | 54.0         |
| 0.222000        | 27.0           | Off    | L1   | 19.6       | 25.7        | 52.7         |
| 0.262000        | 26.3           | Off    | L1   | 19.6       | 25.1        | 51.4         |
| 0.542000        | 25.3           | Off    | L1   | 19.6       | 20.7        | 46.0         |
| 3.942000        | 28.7           | Off    | L1   | 19.7       | 17.3        | 46.0         |
| 5.902000        | 33.6           | Off    | L1   | 19.7       | 16.4        | 50.0         |

|                        |                                                                          |                            |         |
|------------------------|--------------------------------------------------------------------------|----------------------------|---------|
| <b>Test Mode :</b>     | Mode 2                                                                   | <b>Temperature :</b>       | 24~25°C |
| <b>Test Engineer :</b> | Kai-Chun Chu                                                             | <b>Relative Humidity :</b> | 47~48%  |
| <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) |
|-----------------|-------------------|--------|------|------------|-------------|--------------|
| 0.150000        | 50.0              | Off    | N    | 19.6       | 16.0        | 66.0         |
| 0.206000        | 40.4              | Off    | N    | 19.6       | 23.0        | 63.4         |
| 0.326000        | 30.0              | Off    | N    | 19.6       | 29.6        | 59.6         |
| 0.526000        | 38.9              | Off    | N    | 19.6       | 17.1        | 56.0         |
| 1.894000        | 25.4              | Off    | N    | 19.6       | 30.6        | 56.0         |
| 3.630000        | 35.2              | Off    | N    | 19.6       | 20.8        | 56.0         |
| 5.910000        | 39.1              | Off    | N    | 19.7       | 20.9        | 60.0         |

**Final Result : Average**

| Frequency (MHz) | Average (dBμV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) |
|-----------------|----------------|--------|------|------------|-------------|--------------|
| 0.150000        | 32.1           | Off    | N    | 19.6       | 23.9        | 56.0         |
| 0.206000        | 24.7           | Off    | N    | 19.6       | 28.7        | 53.4         |
| 0.326000        | 20.0           | Off    | N    | 19.6       | 29.6        | 49.6         |
| 0.526000        | 28.9           | Off    | N    | 19.6       | 17.1        | 46.0         |
| 1.894000        | 20.7           | Off    | N    | 19.6       | 25.3        | 46.0         |
| 3.630000        | 27.7           | Off    | N    | 19.6       | 18.3        | 46.0         |
| 5.910000        | 32.6           | Off    | N    | 19.7       | 17.4        | 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

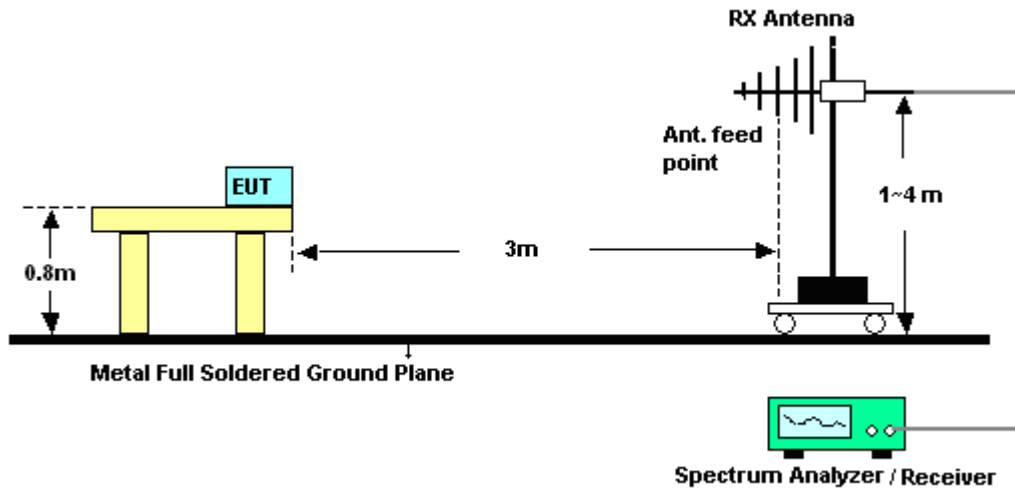
The measuring equipment is listed in the section 4 of this test report.

### 3.2.3. Test Procedures

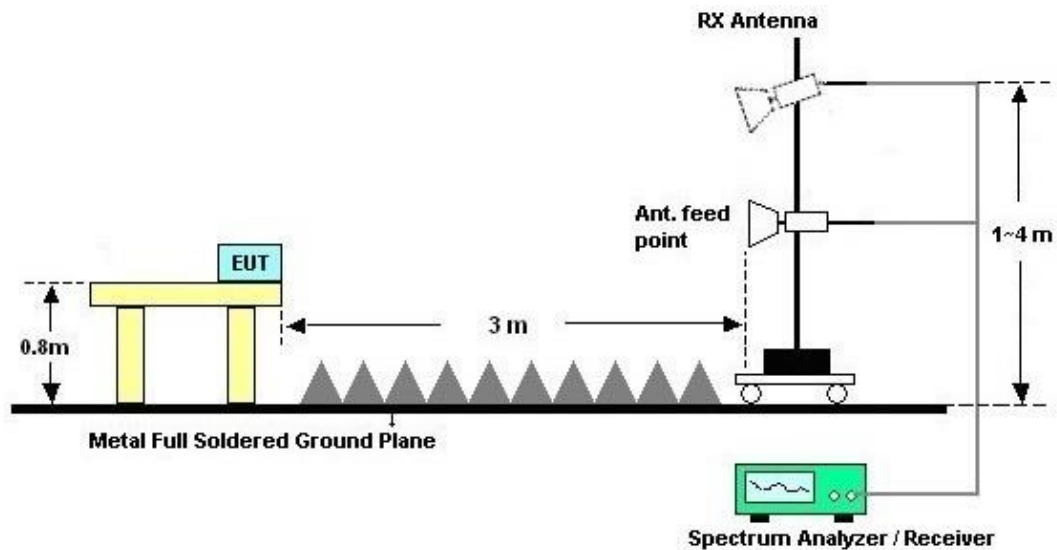
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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 - Preamplifier Factor = Level.

### 3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



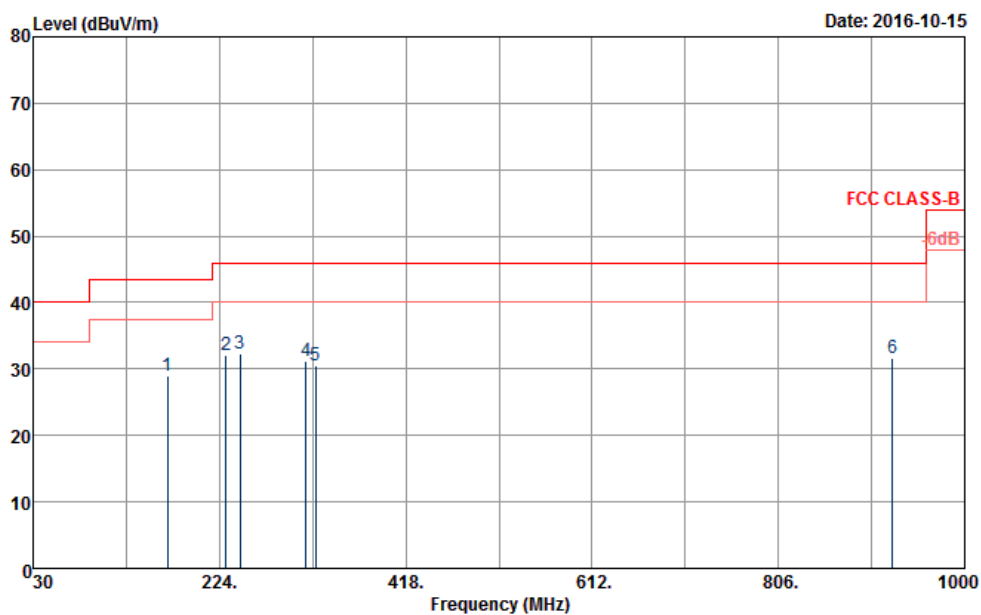
For radiated emissions above 1GHz





## 3.2.5. Test Result of Radiated Emission

|                 |                                                                          |                     |            |
|-----------------|--------------------------------------------------------------------------|---------------------|------------|
| Test Mode :     | Mode 1                                                                   | Temperature :       | 24~26°C    |
| Test Engineer : | Derreck Chen                                                             | Relative Humidity : | 58~60%     |
| Test Distance : | 3m                                                                       | Polarization :      | Horizontal |
| Function Type : | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 |                     |            |

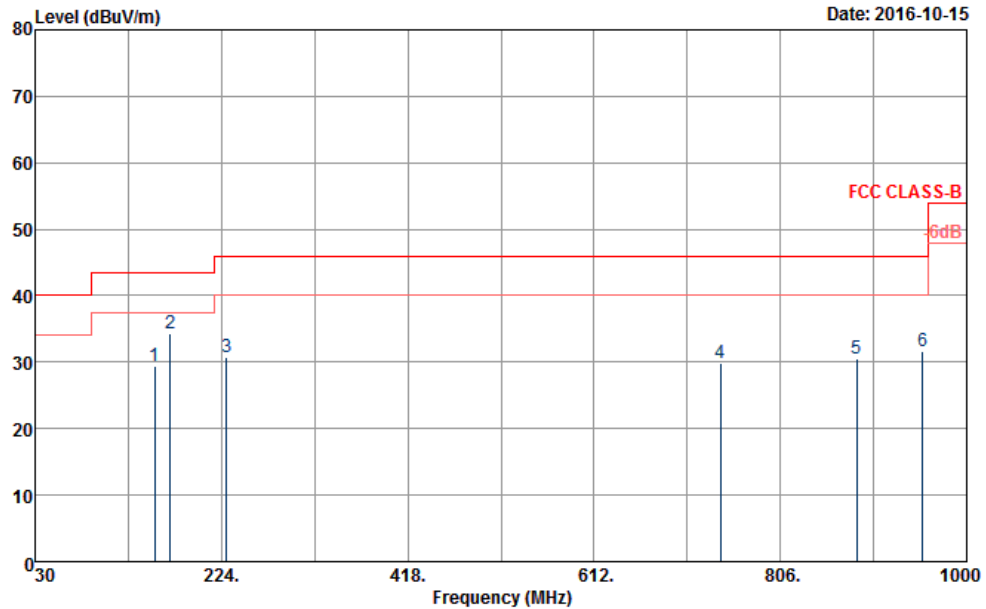


Site : 03CH06-HY  
Condition : FCC CLASS-B 3m LF\_ANT\_2725 HORIZONTAL  
Project : 692209-01  
Power : From System

|   | 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 | 170.13 | 28.96  | -14.54     | 43.50      | 42.82             | 15.80        | 2.06        | 31.72 | ---   | ---    | Peak |
| 2 | 230.61 | 32.04  | -13.96     | 46.00      | 44.75             | 16.89        | 2.11        | 31.71 | ---   | ---    | Peak |
| 3 | 245.73 | 32.31  | -13.69     | 46.00      | 43.58             | 18.25        | 2.19        | 31.71 | 100   | 108    | Peak |
| 4 | 314.00 | 31.17  | -14.83     | 46.00      | 40.64             | 19.96        | 2.27        | 31.70 | ---   | ---    | Peak |
| 5 | 323.80 | 30.53  | -15.47     | 46.00      | 39.70             | 20.27        | 2.26        | 31.70 | ---   | ---    | Peak |
| 6 | 925.10 | 31.63  | -14.37     | 46.00      | 29.65             | 30.06        | 3.22        | 31.30 | ---   | ---    | Peak |



|                 |                                                                          |                     |          |
|-----------------|--------------------------------------------------------------------------|---------------------|----------|
| Test Mode :     | Mode 1                                                                   | Temperature :       | 24~26°C  |
| Test Engineer : | Derreck Chen                                                             | Relative Humidity : | 58~60%   |
| Test Distance : | 3m                                                                       | Polarization :      | Vertical |
| Function Type : | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 |                     |          |

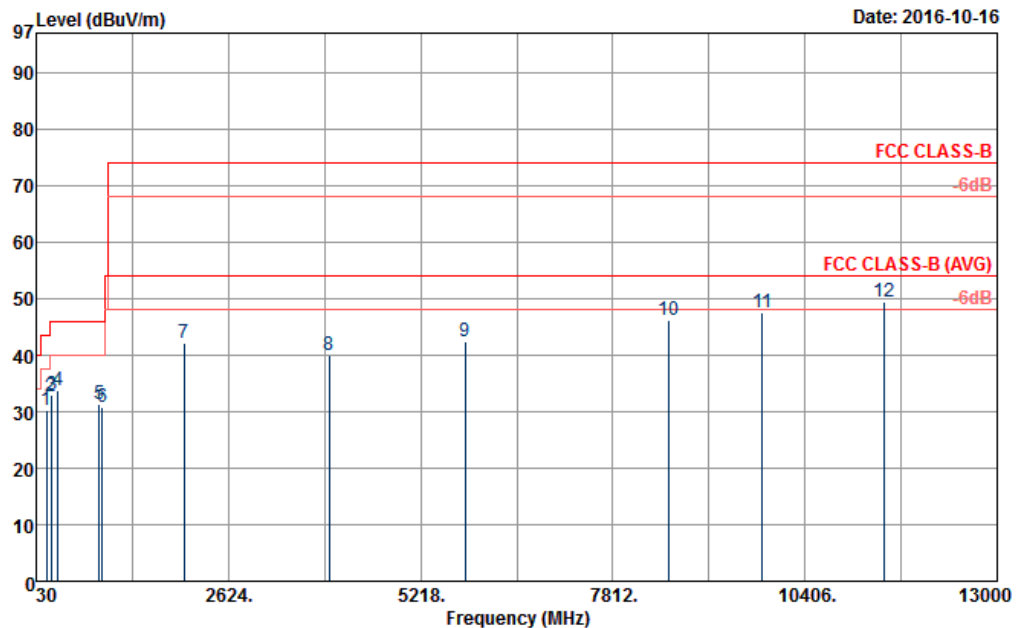


Site : 03CH06-HY  
Condition : FCC CLASS-B 3m LF\_ANT\_2725 VERTICAL  
Project : 692209-01  
Power : From System

|   | Freq   | Level  | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamplifier Factor | A/Pos | T/Pos | Remark |
|---|--------|--------|------------|------------|-------------------|----------------|------------|---------------------|-------|-------|--------|
|   | MHz    | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m           | dB         | dB                  | cm    | deg   |        |
| 1 | 154.47 | 29.52  | -13.98     | 43.50      | 41.99             | 17.12          | 2.13       | 31.72               | ---   | ---   | Peak   |
| 2 | 170.40 | 34.41  | -9.09      | 43.50      | 48.32             | 15.75          | 2.06       | 31.72               | 100   | 77    | Peak   |
| 3 | 229.53 | 30.85  | -15.15     | 46.00      | 43.66             | 16.80          | 2.10       | 31.71               | ---   | ---   | Peak   |
| 4 | 743.80 | 29.80  | -16.20     | 46.00      | 30.75             | 27.67          | 3.41       | 32.03               | ---   | ---   | Peak   |
| 5 | 885.20 | 30.58  | -15.42     | 46.00      | 29.49             | 29.31          | 3.37       | 31.59               | ---   | ---   | Peak   |
| 6 | 954.50 | 31.59  | -14.41     | 46.00      | 28.85             | 30.70          | 3.06       | 31.02               | ---   | ---   | Peak   |



|                 |                                                                          |                     |            |
|-----------------|--------------------------------------------------------------------------|---------------------|------------|
| Test Mode :     | Mode 2                                                                   | Temperature :       | 24~26°C    |
| Test Engineer : | Derreck Chen                                                             | Relative Humidity : | 58~60%     |
| Test Distance : | 3m                                                                       | Polarization :      | Horizontal |
| Function Type : | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 |                     |            |

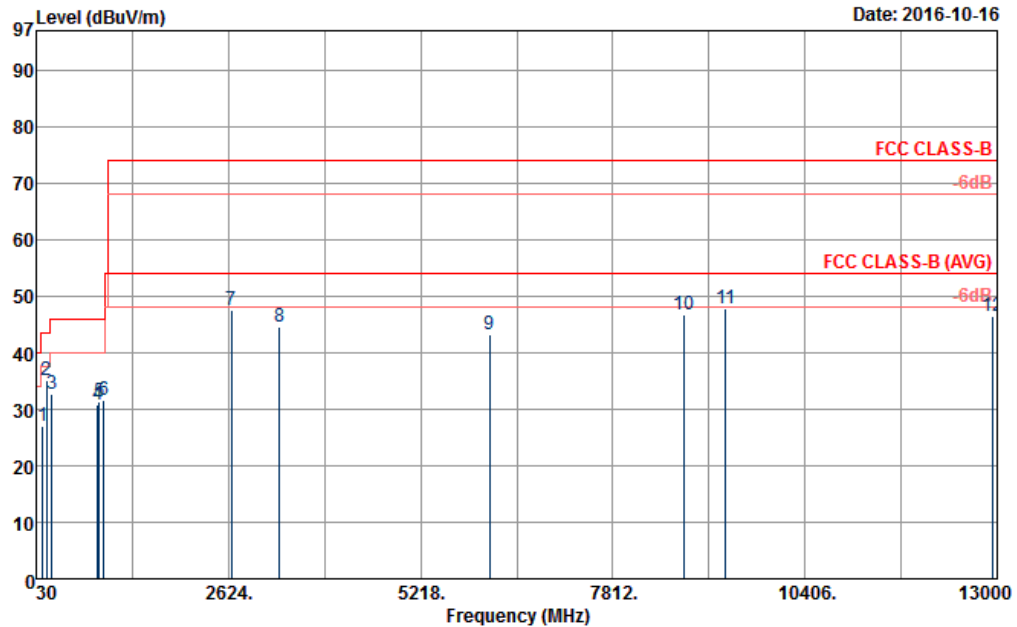


Site : 03CH06-HY  
Condition : FCC CLASS-B 3m 9120D\_1156\_160817 HORIZONTAL  
Project : 692209-01  
Power : From System

|    | 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  | 173.91   | 30.14  | -13.36     | 43.50      | 44.25             | 15.58        | 2.03        | 31.72 | ---   | ---    |
| 2  | 227.91   | 32.73  | -13.27     | 46.00      | 45.71             | 16.64        | 2.09        | 31.71 | ---   | ---    |
| 3  | 240.06   | 32.97  | -13.03     | 46.00      | 44.73             | 17.79        | 2.16        | 31.71 | ---   | ---    |
| 4  | 318.90   | 33.73  | -12.27     | 46.00      | 43.05             | 20.12        | 2.26        | 31.70 | 100   | 47     |
| 5  | 882.40   | 31.23  | -14.77     | 46.00      | 30.17             | 29.30        | 3.36        | 31.60 | ---   | ---    |
| 6  | 925.10   | 30.93  | -15.07     | 46.00      | 28.95             | 30.06        | 3.22        | 31.30 | ---   | ---    |
| 7  | 2024.00  | 42.15  | -31.85     | 74.00      | 69.45             | 26.71        | 6.39        | 60.40 | ---   | ---    |
| 8  | 3986.00  | 39.93  | -34.07     | 74.00      | 60.62             | 30.80        | 10.01       | 61.50 | ---   | ---    |
| 9  | 5824.00  | 42.30  | -31.70     | 74.00      | 55.47             | 34.19        | 11.26       | 58.62 | ---   | ---    |
| 10 | 8558.00  | 46.27  | -27.73     | 74.00      | 53.17             | 38.45        | 13.94       | 59.29 | ---   | ---    |
| 11 | 9830.00  | 47.68  | -26.32     | 74.00      | 53.13             | 40.64        | 14.51       | 60.60 | ---   | ---    |
| 12 | 11478.00 | 49.32  | -24.68     | 74.00      | 49.02             | 42.40        | 15.95       | 58.05 | 100   | 0      |



|                        |                                                                          |                            |          |
|------------------------|--------------------------------------------------------------------------|----------------------------|----------|
| <b>Test Mode :</b>     | Mode 2                                                                   | <b>Temperature :</b>       | 24~26°C  |
| <b>Test Engineer :</b> | Derreck Chen                                                             | <b>Relative Humidity :</b> | 58~60%   |
| <b>Test Distance :</b> | 3m                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Function Type :</b> | Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 |                            |          |



Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m 9120D\_1156\_160817 VERTICAL  
 Project : 692209-01  
 Power : From System

|    | 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  | 113.97   | 26.89  | -16.61     | 43.50      | 39.15             | 17.43        | 2.02        | 31.71 | ---   | ---    |
| 2  | 171.75   | 35.14  | -8.36      | 43.50      | 49.13             | 15.69        | 2.04        | 31.72 | 100   | 47     |
| 3  | 240.06   | 32.69  | -13.31     | 46.00      | 44.45             | 17.79        | 2.16        | 31.71 | ---   | ---    |
| 4  | 864.90   | 30.77  | -15.23     | 46.00      | 29.92             | 29.19        | 3.33        | 31.67 | ---   | ---    |
| 5  | 883.10   | 31.39  | -14.61     | 46.00      | 30.33             | 29.30        | 3.36        | 31.60 | ---   | ---    |
| 6  | 943.30   | 31.66  | -14.34     | 46.00      | 29.14             | 30.55        | 3.10        | 31.13 | ---   | ---    |
| 7  | 2662.00  | 47.48  | -26.52     | 74.00      | 72.90             | 27.77        | 7.34        | 60.53 | ---   | ---    |
| 8  | 3318.00  | 44.47  | -29.53     | 74.00      | 68.97             | 28.48        | 8.07        | 61.05 | ---   | ---    |
| 9  | 6154.00  | 43.28  | -30.72     | 74.00      | 56.11             | 34.90        | 11.61       | 59.34 | ---   | ---    |
| 10 | 8778.00  | 46.66  | -27.34     | 74.00      | 53.51             | 38.27        | 14.48       | 59.60 | ---   | ---    |
| 11 | 9330.00  | 47.72  | -26.28     | 74.00      | 54.99             | 38.95        | 14.14       | 60.36 | 100   | 0      |
| 12 | 12942.00 | 46.35  | -27.65     | 74.00      | 49.87             | 41.74        | 14.77       | 60.03 | ---   | ---    |



## 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              | Oct. 19, 2016                 | N/A           | Conduction (CO05-HY)  |
| EMI Test Receiver | Rohde & Schwarz | ESCI 7                  | 100724        | 9kHz~7GHz                     | Aug. 30, 2016    | Oct. 19, 2016                 | Aug. 29, 2017 | Conduction (CO05-HY)  |
| Hygrometer        | Testo           | 608-H1                  | 34913912      | N/A                           | Apr. 19, 2016    | Oct. 19, 2016                 | Apr. 18, 2017 | Conduction (CO05-HY)  |
| LISN              | Rohde & Schwarz | ENV216                  | 100080        | 9kHz~30MHz                    | Dec. 02, 2015    | Oct. 19, 2016                 | Dec. 01, 2016 | Conduction (CO05-HY)  |
| LISN              | Rohde & Schwarz | ENV216                  | 100081        | 9kHz~30MHz                    | Dec. 14, 2015    | Oct. 19, 2016                 | Dec. 13, 2016 | Conduction (CO05-HY)  |
| LF Cable          | HUBER + SUHNER  | RG-214/U                | LF01          | N/A                           | Jan. 06, 2016    | Oct. 19, 2016                 | Jan. 05, 2017 | Conduction (CO05-HY)  |
| Test Software     | N/A             | EMC32                   | 8.40.0        | N/A                           | N/A              | Oct. 19, 2016                 | N/A           | Conduction (CO05-HY)  |
| Bilog Antenna     | Schaffner       | CBL6111C&N-6-06         | 2725&AT-N0601 | 30MHz~1GHz                    | Nov. 17, 2015    | Oct. 15, 2016 ~ Oct. 16, 2016 | Nov. 16, 2016 | Radiation (03CH06-HY) |
| EMI Test Receiver | Rohde & Schwarz | ESU26                   | 100472        | 20Hz~26.5GHz                  | Jan. 07, 2016    | Oct. 15, 2016 ~ Oct. 16, 2016 | Jan. 06, 2017 | Radiation (03CH06-HY) |
| Horn Antenna      | SCHWARZBECK     | BBHA 9120 D             | 9120D-1156    | 1GHz~18GHz                    | Aug. 05, 2016    | Oct. 15, 2016 ~ Oct. 16, 2016 | Aug. 04, 2017 | Radiation (03CH06-HY) |
| Preamplifier      | SONOMA          | 310N                    | 186713        | 9kHz~1GHz                     | Apr. 19, 2016    | Oct. 15, 2016 ~ Oct. 16, 2016 | Apr. 18, 2017 | Radiation (03CH06-HY) |
| Preamplifier      | MITEQ           | AMF-7D-0010 1800-30-10P | 1850117       | 1GHz ~ 18GHz                  | Jun. 22, 2016    | Oct. 15, 2016 ~ Oct. 16, 2016 | Jun. 21, 2017 | Radiation (03CH06-HY) |
| RF Cable          | HUBER + SUHNER  | RG_142_B/U              | NA            | 30MHz ~ 1GHz                  | Nov. 16, 2015    | Oct. 15, 2016 ~ Oct. 16, 2016 | Nov. 15, 2016 | Radiation (03CH06-HY) |
| RF Cable          | HUBER + SUHNER  | RG_142_B/U              | NA            | 1GHz ~ 26GHz                  | Nov. 16, 2015    | Oct. 15, 2016 ~ Oct. 16, 2016 | Nov. 15, 2016 | Radiation (03CH06-HY) |
| Controller        | INN-CO          | EM1000                  | 060782        | Control Turn table & Ant Mast | N/A              | Oct. 15, 2016 ~ Oct. 16, 2016 | N/A           | Radiation (03CH06-HY) |
| Antenna Mast      | MF              | MF-7802                 | MF780208212   | 1m~4m                         | N/A              | Oct. 15, 2016 ~ Oct. 16, 2016 | N/A           | Radiation (03CH06-HY) |
| Turn Table        | INN-CO          | DS2000                  | 420/650/00    | 0-360 degree                  | N/A              | Oct. 15, 2016 ~ Oct. 16, 2016 | N/A           | Radiation (03CH06-HY) |
| Hygrometer        | WISEWIND        | 410                     | BU5004        | N/A                           | May 03, 2016     | Oct. 15, 2016 ~ Oct. 16, 2016 | May 02, 2017  | Radiation (03CH06-HY) |
| Test Software     | Audix           | E3                      | 6.2009-8-24   | N/A                           | N/A              | Oct. 15, 2016 ~ Oct. 16, 2016 | 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 ~ 18000 MHz)

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