



# FCC Test Report

**APPLICANT** : HTC Corporation  
**EQUIPMENT** : VIVE Controller  
**MODEL NAME** : IHM100  
**FCC ID** : NM8IHM100  
**STANDARD** : FCC 47 CFR FCC Part 15 Subpart B  
**CLASSIFICATION** : Certification

The product was received on Feb. 12, 2018 and testing was completed on Feb. 22, 2018. 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.**

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FCC ID : NM8IHM100

Page Number : 1 of 15

Report Issued Date : Apr. 17, 2017

Report Version : Rev. 01

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### REVISION HISTORY

| REPORT NO. | VERSION | DESCRIPTION             | ISSUED DATE   |
|------------|---------|-------------------------|---------------|
| FC821217   | Rev. 01 | Initial issue of report | Apr. 17, 2017 |
|            |         |                         |               |
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### SUMMARY OF TEST RESULT

| Report Section | FCC Rule | Description           | Limit           | Result       | Remark   |
|----------------|----------|-----------------------|-----------------|--------------|--|
| -              | 15.107   | AC Conducted Emission | < 15.107 limits | Not Required | -  |
| 3.1            | 15.109   | Radiated Emission     | < 15.109 limits | PASS         | Under limit<br>3.50 dB at<br>252.750 MHz<br>for Quasi-Peak |

**Note:** Not required means after assessing, test items are not necessary to carry out.



# 1. General Description

## 1.1. Applicant

**HTC Corporation**

88 Section 3, Zhongxing Road, Xindian District, New Taipei City 231, Taiwan

## 1.2. Manufacturer

**Finch Technologies Ltd**

33 Porter Road, P.O.Box 3169 PMB103, Road Town, Tortola, BVI

## 1.3. Product Feature of Equipment Under Test

Bluetooth

| Product Specification subjective to this standard |                         |
|---|-------------------------|
| Antenna Type                                      | Bluetooth: PIFA Antenna |

## 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. TW1093 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><br>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:** All test items were verified and recorded according to the standards and without any deviation during the test.

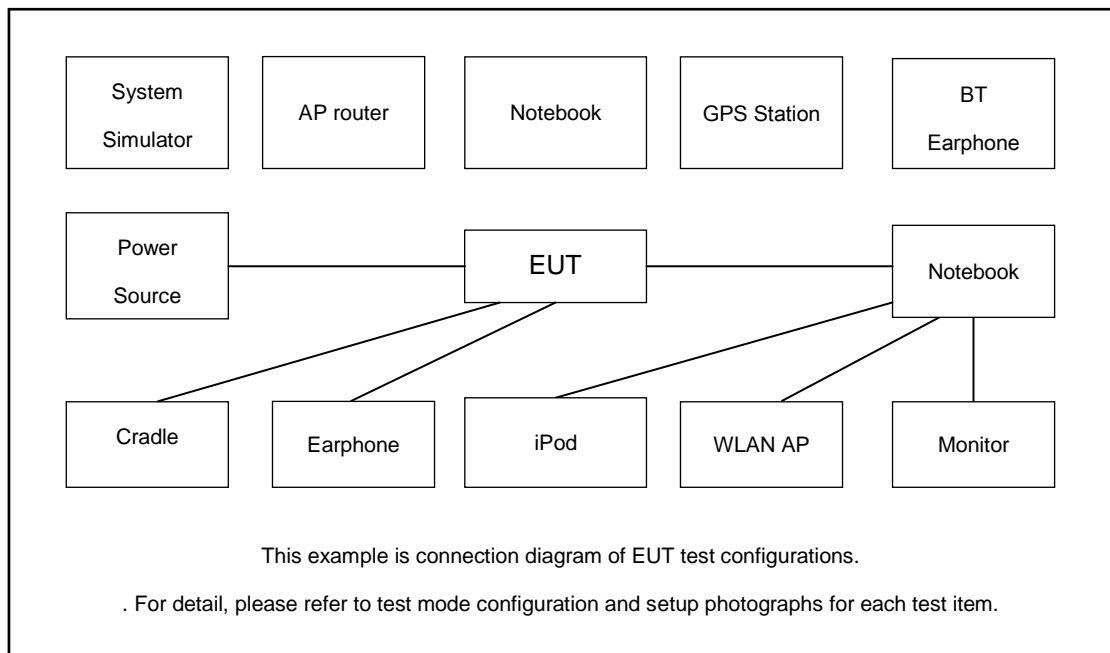
## 2. Test Configuration of Equipment Under Test

### 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: radiation emission (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

| Test Items         | Function Type   |
|--------------------|---|
| Radiated Emissions | Mode 1: Bluetooth Idle + WLAN Idle + MPEG4 + Earphone + USB Cable (Charging from Adapter 2) |

### 2.2. Connection Diagram of Test System





### 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,1.8m |
| 2.   | iPhone Earphone | Apple      | N/A        | Verification | Unshielded, 1.2m | N/A             |
| 3.   | SD Card         | SanDisk    | MicroSD HC | FCC DoC      | N/A              | N/A             |

### 2.4. EUT Operation Test Setup

The EUT was attached to the VIVE Controller or WLAN AP, and the following programs installed in the EUT were programmed during the test.

1. Execute “Video player” to play MPEG4 files.





### 3. Test Result

#### 3.1. Test of Radiated Emission Measurement

##### 3.1.1. Limit of Radiated Emission

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

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

##### 3.1.2. Measuring Instruments

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

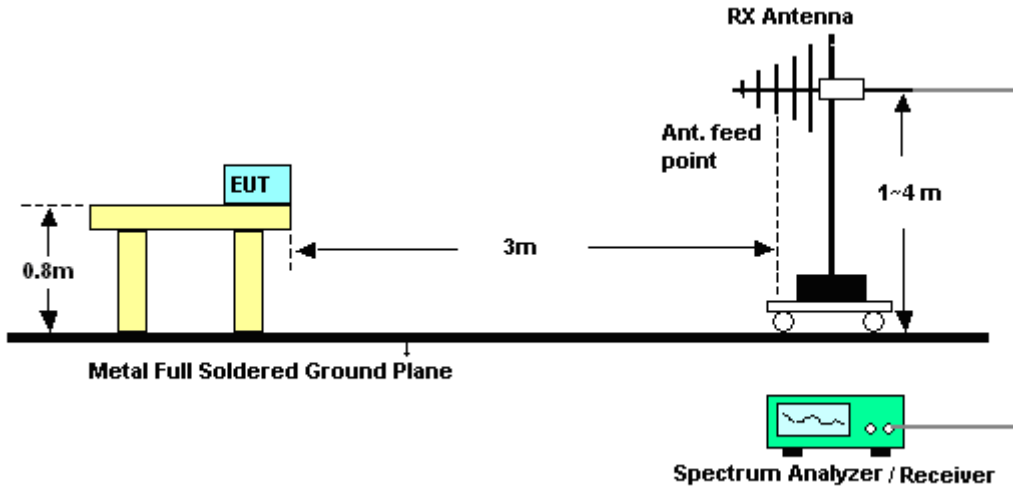


### **3.1.3. Test Procedures**

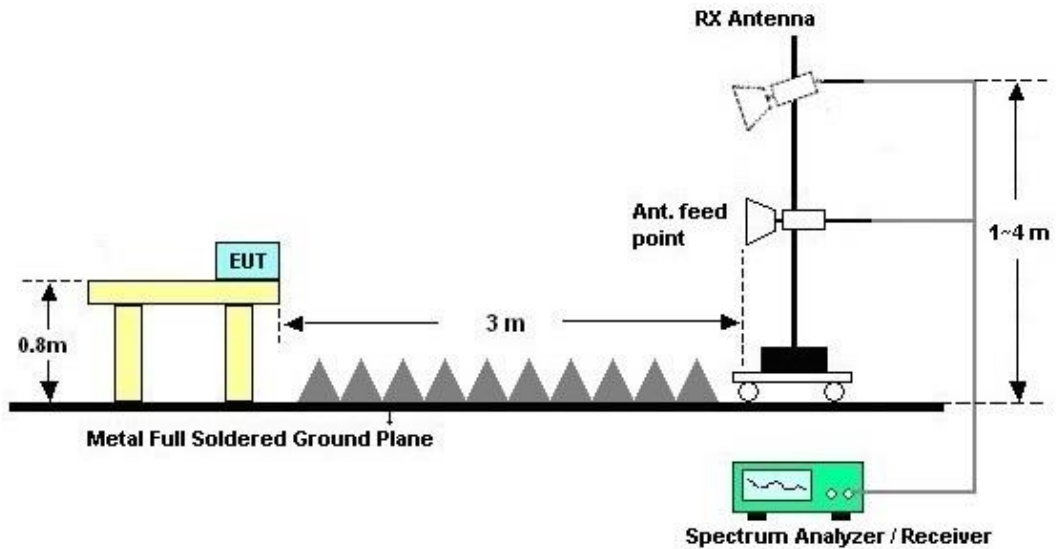
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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 (dB $\mu$ V/m) = 20 log Emission level ( $\mu$ V/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

### 3.1.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz

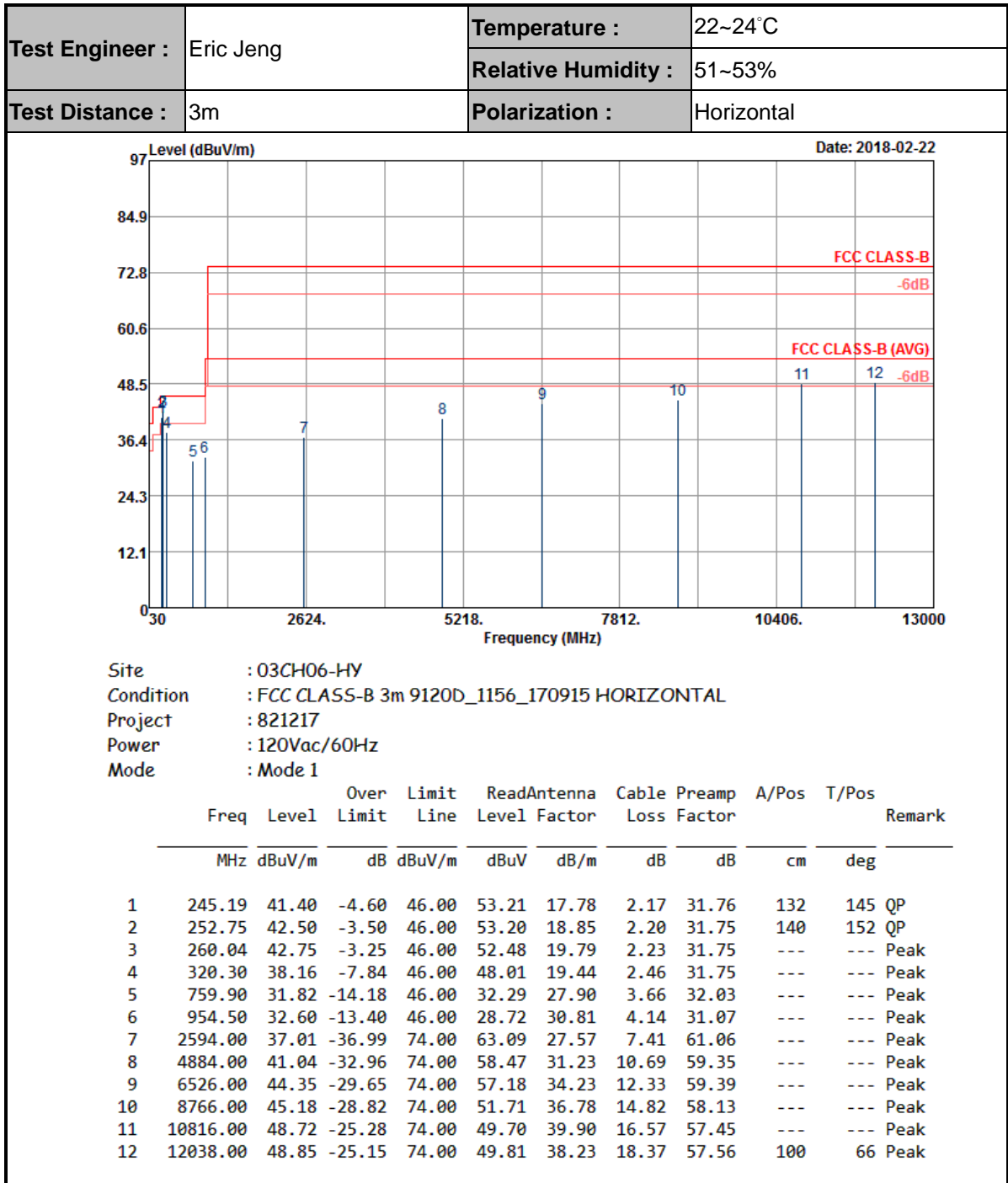


For radiated emissions above 1GHz



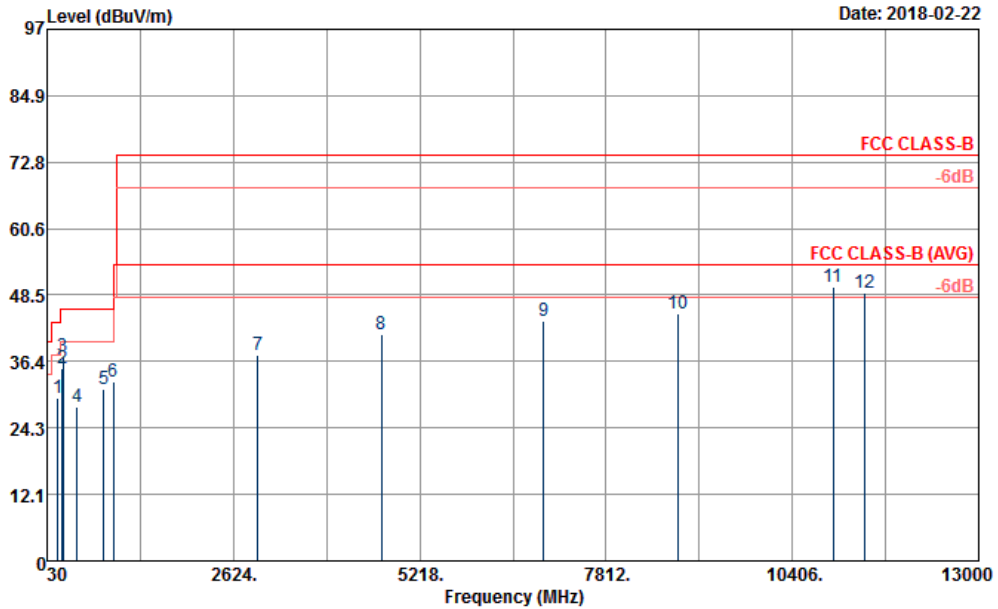


3.1.5. Test Result of Radiated Emission





|                 |           |                     |          |
|-----------------|-----------|---------------------|----------|
| Test Engineer : | Eric Jeng | Temperature :       | 22~24°C  |
|                 |           | Relative Humidity : | 51~53%   |
| Test Distance : | 3m        | Polarization :      | Vertical |



Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m 9120D\_1156\_170915 VERTICAL  
 Project : 821217  
 Power : 120Vac/60Hz  
 Mode : 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  | 175.53   | 29.85  | -13.65     | 43.50      | 44.81             | 14.96        | 1.86        | 31.78 | ---   | ---    | Peak |
| 2  | 245.19   | 35.20  | -10.80     | 46.00      | 47.01             | 17.78        | 2.17        | 31.76 | ---   | ---    | Peak |
| 3  | 252.48   | 37.23  | -8.77      | 46.00      | 48.06             | 18.72        | 2.20        | 31.75 | 100   | 0      | Peak |
| 4  | 443.50   | 28.14  | -17.86     | 46.00      | 34.29             | 22.84        | 2.86        | 31.85 | ---   | ---    | Peak |
| 5  | 818.70   | 31.33  | -14.67     | 46.00      | 31.65             | 27.78        | 3.80        | 31.90 | ---   | ---    | Peak |
| 6  | 957.30   | 32.63  | -13.37     | 46.00      | 28.57             | 30.97        | 4.14        | 31.05 | ---   | ---    | Peak |
| 7  | 2962.00  | 37.49  | -36.51     | 74.00      | 62.15             | 28.59        | 8.02        | 61.27 | ---   | ---    | Peak |
| 8  | 4684.00  | 41.25  | -32.75     | 74.00      | 59.95             | 30.86        | 10.33       | 59.89 | ---   | ---    | Peak |
| 9  | 6948.00  | 43.76  | -30.24     | 74.00      | 54.74             | 35.36        | 12.88       | 59.22 | ---   | ---    | Peak |
| 10 | 8820.00  | 45.01  | -28.99     | 74.00      | 51.55             | 36.81        | 14.84       | 58.19 | ---   | ---    | Peak |
| 11 | 10970.00 | 49.89  | -24.11     | 74.00      | 50.08             | 40.09        | 16.79       | 57.07 | 100   | 66     | Peak |
| 12 | 11408.00 | 48.86  | -25.14     | 74.00      | 48.54             | 39.49        | 17.43       | 56.60 | ---   | ---    | Peak |



### 4. List of Measuring Equipment

| Instrument        | Manufacturer    | Model No.                  | Serial No.      | Characteristics | Calibration Date | Test Date     | Due Date      | Remark                |
|-------------------|-----------------|----------------------------|-----------------|-----------------|------------------|---------------|---------------|-----------------------|
| Bilog Antenna     | Schaffner       | CBL6111C&N-6-06            | 2725&AT-N0601   | 30MHz~1GHz      | Oct. 14, 2017    | Feb. 22, 2018 | Oct. 13, 2018 | Radiation (03CH06-HY) |
| EMI Test Receiver | Rohde & Schwarz | ESU26                      | 100472          | 20Hz~26.5GHz    | Jan. 04, 2018    | Feb. 22, 2018 | Jan. 03, 2019 | Radiation (03CH06-HY) |
| Horn Antenna      | SCHWARZBECK     | BBHA 9120 D                | 9120D-1156      | 1GHz~18GHz      | Aug. 08, 2017    | Feb. 22, 2018 | Aug. 07, 2018 | Radiation (03CH06-HY) |
| Preamplifier      | SONOMA          | 310N                       | 186713          | 9kHz~1GHz       | Apr. 25, 2017    | Feb. 22, 2018 | Apr. 24, 2018 | Radiation (03CH06-HY) |
| Preamplifier      | MITEQ           | AMF-7D-0010<br>1800-30-10P | 1850117         | 1GHz ~ 18GHz    | May 22, 2017     | Feb. 22, 2018 | May 21, 2018  | Radiation (03CH06-HY) |
| Antenna Mast      | MF              | MF-7802                    | MF78020821<br>2 | 1m~4m           | N/A              | Feb. 22, 2018 | N/A           | Radiation (03CH06-HY) |
| Turn Table        | INN-CO          | DS2000                     | 420/650/00      | 0-360 degree    | N/A              | Feb. 22, 2018 | N/A           | Radiation (03CH06-HY) |



## 5. Uncertainty of Evaluation

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

|   |     |
|---|-----|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 3.9 |
|---|-----|

### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

|   |     |
|---|-----|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 4.7 |
|---|-----|