

Xingtel (Xiamen) Intelligent Control Technology Co.,Ltd

# RF TEST REPORT

**Report Type:**

FCC Part 15.519 RF report

**Model:**

Forecaddy

**REPORT NUMBER:**

200302211SHA-003

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**Applicant:** Xingtel (Xiamen) Intelligent Control Technology Co.,Ltd  
Xingtel Building, Torch Industrial District, Xiamen 361006, P R China

**Manufacturer:** Xingtel (Xiamen) Intelligent Control Technology Co.,Ltd  
Xingtel Building, Torch Industrial District, Xiamen 361006, P R China

**Factory:** Xingtel (Xiamen) Intelligent Control Technology Co.,Ltd  
Xingtel Building, Torch Industrial District, Xiamen 361006, P R China

**FCC ID:** 2AWAX-FORECADDY

## SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

**47CFR Part 15 (2019):** Radio Frequency Devices (Subpart F)

**ANSI C63.10 (2013):** American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

## PREPARED BY:



Project Engineer  
Nemo Li

## REVIEWED BY:



Reviewer  
Daniel Zhao

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## TEST REPORT

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## Revision History

| Report No.       | Version | Description             | Issued Date    |
|------------------|---------|-------------------------|----------------|
| 200302211SHA-003 | Rev. 01 | Initial issue of report | April 27, 2020 |

## Measurement result summary

| TEST ITEM                   | FCC REFERENCE          | RESULT |
|-----------------------------|------------------------|--------|
| UWB Bandwidth               | 15.503(d)<br>15.519(b) | Pass   |
| Cease transmitting time     | 15.519(a1)             | Pass   |
| Radiated emissions          | 15.519(c)<br>15.209    | Pass   |
| GPS receive band            | 15.519(d)              | Pass   |
| Peak level of the emissions | 15.519(e)              | Pass   |
| Conducted emissions         | 15.207                 | Pass   |
| Antenna requirement         | 15.203                 | Pass   |

Notes: 1: NA =Not Applicable

## 1 GENERAL INFORMATION

### 1.1 Description of Equipment Under Test (EUT)

|                       |   |
|-----------------------|---|
| Product name:         | Smart Golf Cart   |
| Type/Model:           | Forecaddy   |
| Description of EUT:   | EUT is a Smart Golf Cart with UWB function, and has only one model.                   |
| Rating:               | DC 22.2V  |
| EUT type:             | <input type="checkbox"/> Table top <input checked="" type="checkbox"/> Floor standing |
| Software Version:     | /   |
| Hardware Version:     | /   |
| Sample received date: | April 3, 2020   |
| Date of test:         | April 3, 2020 ~ April 26, 2020  |

### 1.2 Technical Specification

|                           |                     |
|---------------------------|---------------------|
| Channel frequency:        | 6489.6MHz           |
| Operating frequency band: | 6240MHz - 6739.2MHz |
| Antenna Information:      | Integrated antenna  |

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### 1.3 Description of Test Facility

|            |  |
|------------|--|
| Name:      | Intertek Testing Services Shanghai                                     |
| Address:   | Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China |
| Telephone: | 86 21 61278200   |
| Telefax:   | 86 21 54262353   |

|   |   |
|---|---|
| The test facility is recognized, certified, or accredited by these organizations: | CNAS Accreditation Lab<br>Registration No. CNAS L0139                         |
|   | FCC Accredited Lab<br>Designation Number: CN1175                              |
|   | IC Registration Lab<br>CAB identifier.: CN0051                                |
|   | VCCI Registration Lab<br>Registration No.: R-14243, G-10845, C-14723, T-12252 |
|   | A2LA Accreditation Lab<br>Certificate Number: 3309.02                         |

## 2 TEST SPECIFICATIONS

### 2.1 Standards or specification

47CFR Part 15 (2019)

ANSI C63.10 (2013)

### 2.2 Mode of operation during the test

While testing transmitting mode of EUT, the normal and continuously transmission was applied. EUT has two UWB module, they are the same, the two modules cannot transmit at the same time. All the two UWB was tested and the worst data was listed in the report.

### 2.3 Test software list

| Test Items         | Software | Manufacturer | Version |
|--------------------|----------|--------------|---------|
| Conducted emission | ESxS-K1  | R&S          | V2.1.0  |
| Radiated emission  | ES-K1    | R&S          | V1.71   |

### 2.4 Test peripherals list

| Item No. | Name | Band and Model | Description |
|----------|------|----------------|-------------|
| 1        | -    | -              | -           |

### 2.5 Test environment condition:

| Test items                  | Temperature | Humidity |
|-----------------------------|-------------|----------|
| UWB Bandwidth               | 18°C        | 52%RH    |
| Cease transmitting time     |             |          |
| Radiated emissions          |             |          |
| GPS receive band            |             |          |
| Peak level of the emissions |             |          |
| Conducted emissions         | 19°C        | 52%RH    |



## 2.6 Instrument list

| Conducted Emission/Disturbance Power/Tri-loop Test/CDN method |                                      |              |                        |              |            |
|---|--------------------------------------|--------------|------------------------|--------------|------------|
| Used  | Equipment                            | Manufacturer | Type                   | Internal no. | Due date   |
| <input checked="" type="checkbox"/>                           | Test Receiver                        | R&S          | ESCS 30                | EC 2107      | 2020-07-14 |
| <input checked="" type="checkbox"/>                           | A.M.N.                               | R&S          | ESH2-Z5                | EC 3119      | 2020-11-10 |
| <input type="checkbox"/>                                      | A.M.N.                               | R&S          | ENV 216                | EC 3393      | 2020-07-14 |
| <input type="checkbox"/>                                      | A.M.N.                               | R&S          | ENV4200                | EC 3558      | 2020-06-11 |
| Radiated Emission   |                                      |              |                        |              |            |
| Used  | Equipment                            | Manufacturer | Type                   | Internal no. | Due date   |
| <input checked="" type="checkbox"/>                           | Test Receiver                        | R&S          | ESIB 26                | EC 3045      | 2020-09-16 |
| <input checked="" type="checkbox"/>                           | Bilog Antenna                        | TESEQ        | CBL 6112D              | EC 4206      | 2020-09-24 |
| <input checked="" type="checkbox"/>                           | Pre-amplifier                        | R&S          | AFS42-00101800-25-S-42 | EC5262       | 2020-06-11 |
| <input checked="" type="checkbox"/>                           | Horn antenna                         | R&S          | HF 906                 | EC 3049      | 2021-1-17  |
| <input type="checkbox"/>                                      | Horn antenna                         | ETS          | 3117                   | EC 4792-1    | 2021-02-25 |
| <input type="checkbox"/>                                      | Horn antenna                         | TOYO         | HAP18-26W              | EC 4792-3    | 2020-07-09 |
| <input type="checkbox"/>                                      | Active loop antenna                  | Schwarzbeck  | FMZB1519               | EC 5345      | 2021-03-14 |
| RF test   |                                      |              |                        |              |            |
| Used  | Equipment                            | Manufacturer | Type                   | Internal no. | Due date   |
| <input checked="" type="checkbox"/>                           | PXA Signal Analyzer                  | Keysight     | N9030A                 | EC 5338      | 2021-03-16 |
| <input type="checkbox"/>                                      | Power sensor                         | Agilent      | U2021XA                | EC 5338-1    | 2021-03-16 |
| <input type="checkbox"/>                                      | Vector Signal Generator              | Agilent      | N5182B                 | EC 5175      | 2021-03-16 |
| <input type="checkbox"/>                                      | Universal Radio Communication Tester | R&S          | CMW500                 | EC5944       | 2020-12-9  |
| <input type="checkbox"/>                                      | MXG Analog Signal Generator          | Agilent      | N5181A                 | EC 5338-2    | 2021-03-16 |
| <input type="checkbox"/>                                      | Mobile Test System                   | Litepoint    | lqxel                  | EC 5176      | 2021-01-16 |
| <input type="checkbox"/>                                      | Test Receiver                        | R&S          | ESCI 7                 | EC 4501      | 2020-09-16 |
| <input type="checkbox"/>                                      | Climate chamber                      | GWS          | MT3065                 | EC 6021      | 2020-07-04 |
| <input type="checkbox"/>                                      | Spectrum Analyzer                    | Keysight     | N9030B                 | EC 6078      | 2020-06-11 |
| Tet Site  |                                      |              |                        |              |            |
| Used  | Equipment                            | Manufacturer | Type                   | Internal no. | Due date   |
| <input checked="" type="checkbox"/>                           | Shielded room                        | Zhongyu      | -                      | EC 2838      | 2021-01-12 |

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| <input type="checkbox"/>            | Shielded room          | Zhongyu           | -               | EC 2839      | 2021-01-12 |
|-------------------------------------|------------------------|-------------------|-----------------|--------------|------------|
| <input checked="" type="checkbox"/> | Semi-anechoic chamber  | Albatross project | -               | EC 3048      | 2020-06-31 |
| <input type="checkbox"/>            | Fully-anechoic chamber | Albatross project | -               | EC 3047      | 2020-06-31 |
| Additional instrument               |                        |                   |                 |              |            |
| Used                                | Equipment              | Manufacturer      | Type            | Internal no. | Due date   |
| <input checked="" type="checkbox"/> | Therom-Hygrograph      | ZJ1-2A            | S.M.I.F.        | EC 3783      | 2021-03-3  |
| <input type="checkbox"/>            | Therom-Hygrograph      | ZJ1-2A            | S.M.I.F.        | EC 3481      | 2021-01-05 |
| <input checked="" type="checkbox"/> | Therom-Hygrograph      | ZJ1-2A            | S.M.I.F.        | EC 3442      | 2021-01-05 |
| <input checked="" type="checkbox"/> | Therom-Hygrograph      | ZJ1-2A            | S.M.I.F.        | EC 3324      | 2020-09-05 |
| <input type="checkbox"/>            | Pressure meter         | YM3               | Shanghai Mengde | EC 3320      | 2020-07-14 |

## 2.7 Measurement uncertainty

The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

| Test item                     | Measurement uncertainty |
|-------------------------------|-------------------------|
| Maximum peak output power     | $\pm 0.74\text{dB}$     |
| Radiated Emissions below 1GHz | $\pm 4.90\text{dB}$     |
| Radiated Emissions above 1GHz | $\pm 5.02\text{dB}$     |
| Power line conducted emission | $\pm 3.19\text{dB}$     |

### 3 UWB bandwidth

Test result: Pass

#### 3.1 Limit

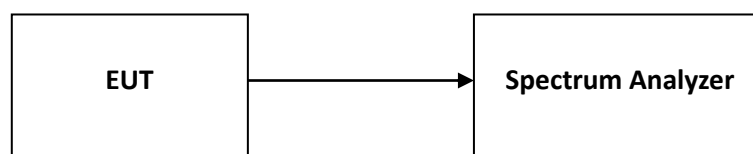
FCC 15.503(d) Has a fractional bandwidth equal to or greater than 0.20 or has a UWB bandwidth equal to or greater than 500 MHz, regardless of the fractional bandwidth.

FCC 15.519(3)(b) The UWB bandwidth of a device operating under the provisions of this section must be contained between 3100 MHz and 10,600 MHz.

#### 3.2 Measurement Procedure

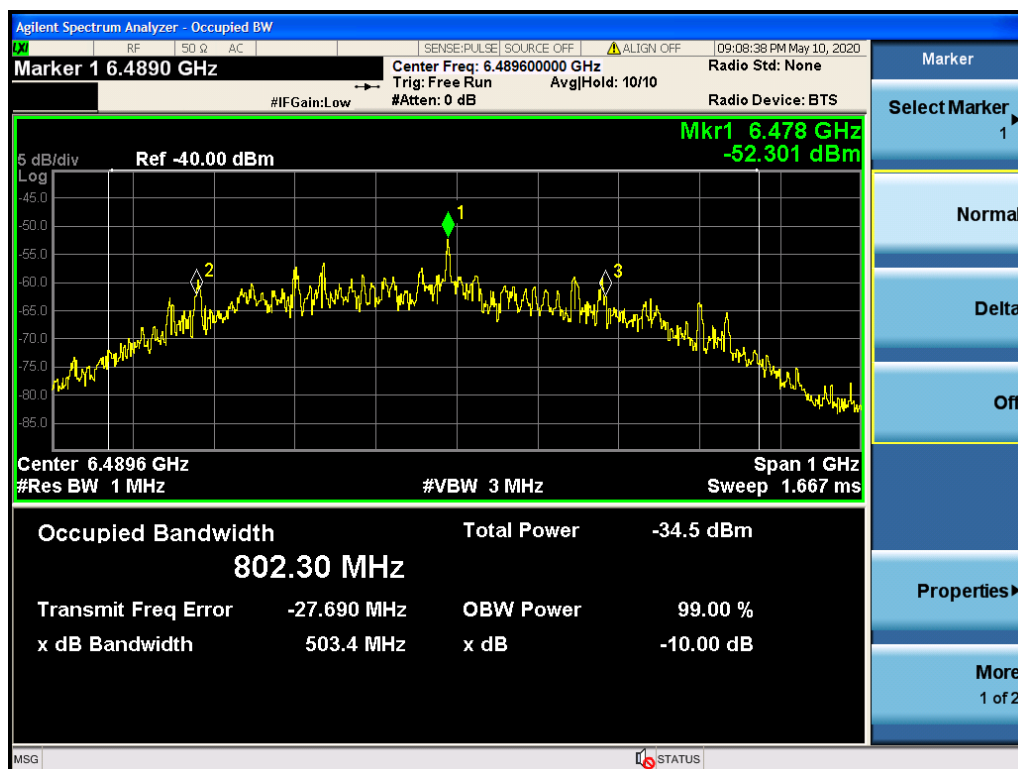
- a) Set the centre frequency of the channel under test
- b) Set RBW = 1MHz.
- c) Set VBW  $\geq 3 \times$  RBW.
- d) Detector = Peak.
- e) Trace mode = max hold.
- f) Sweep = auto couple.
- g) Allow the trace to stabilize.
- h) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 10 dB relative to the maximum level measured in the fundamental emission.

#### 3.3 Test Configuration



### 3.4 Test Results of UWB bandwidth

| Channel Frequency (MHz) | Measured Frequencies |          | 10dB Bandwidth | Limit (MHz)              | Pass/Fail |
|-------------------------|----------------------|----------|----------------|--------------------------|-----------|
|                         | FL (MHz)             | FH (MHz) |                |                          |           |
| 6489.6                  | 6180                 | 6683     | 503            | F. > 3100 and FH < 10600 | Pass      |



## 4 Cease of transmitting time

Test result: Pass

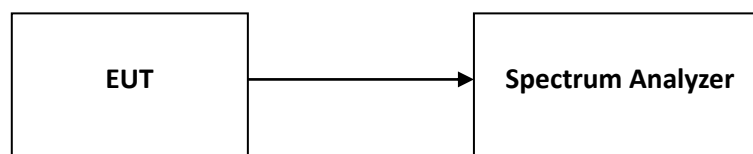
### 4.1 Limit

The UWB intentional radiator shall cease transmission within 10 seconds unless it receives an acknowledgement from the associated receiver that its transmission is being received. An acknowledgment of reception must continue to be received by the UWB intentional radiator at least every 10 seconds or the UWB device must cease transmitting.

### 4.2 Measurement Procedure

- a) EUT was set to normal operation with companion device.
- b) The emission was captured by a spectrum analyzer.
- c) Switching off the companion device.
- d) Measure the time from the moment of switching off the companion device to the moment of stopping transmitting.
- e) Compare the time with the limit.

### 4.3 Test Configuration

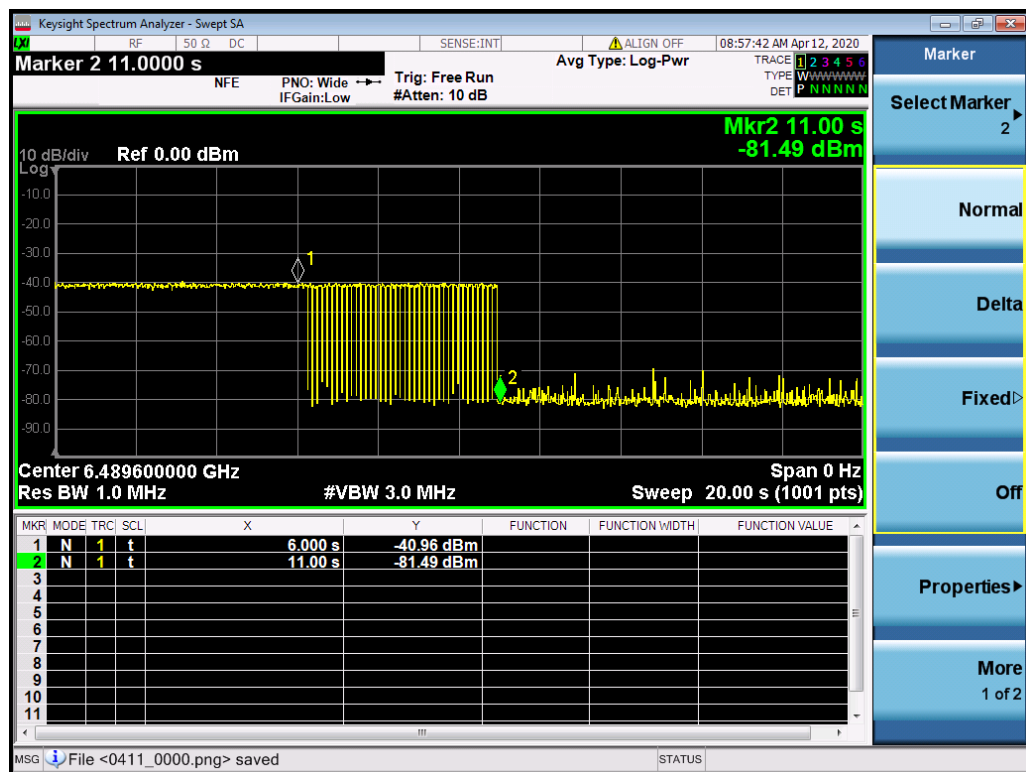


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### 4.4 Test Results of Cease of transmitting time

| Channel Frequency<br>(MHz) | Measurement result<br>(s) | Maximum Limit<br>(s) | Pass/Fail |
|----------------------------|---------------------------|----------------------|-----------|
| 6489.6                     | 5.00                      | 10                   | Pass      |

Marker 1: The moment of switching off the companion.  
Marker 2: The moment of stopping transmitting.



## 5 Peak level of the emissions

Test result: Pass

### 5.1 Limit

There is a limit on the peak level of the emissions contained within a 50 MHz bandwidth centered on the frequency at which the highest radiated emission occurs, fM. That limit is 0 dBm EIRP.

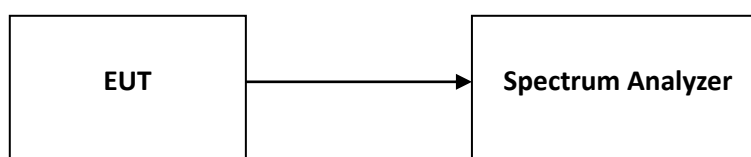
When a peak measurement is required, it is acceptable to use a resolution bandwidth other than the 50 MHz specified in this subpart. This resolution bandwidth shall not be lower than 1 MHz or greater than 50 MHz. If a resolution bandwidth other than 50 MHz is employed, the peak EIRP limit shall be  $20 \log (RBW/50)$  dBm where RBW is the resolution bandwidth in megahertz that is employed. This may be converted to a peak field strength level at 3 meters using:  
 $E(dBuV/m) = P(dBm \text{ EIRP}) + 95.2$ .

When the test RBW=3 MHz, the EIRP limit should be  $0+20\log(3/50) = -24.44$  dBm

### 5.2 Measurement Procedure

1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
4. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
5. Find the maximum emission and compare to the limit.

### 5.3 Test Configuration





## 5.4 Peak level of the emissions

| Channel Frequency (MHz) | Antenna polarization | Power (dBm EIRP) | Limit (dBm EIRP) | Margin (dBm) |
|-------------------------|----------------------|------------------|------------------|--------------|
| 6489.6                  | Horizontal           | -5.50            | 0                | 5.50         |
| 6489.6                  | Vertical             | -7.50            | 0                | 7.50         |

## 6 Radiated Emissions

Test result: Pass

### 6.1 Limit

- a) The radiated emissions at or below 960 MHz from a device operating under the provisions of this section shall not exceed the emission levels in §15.209.

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

- b) The radiated emissions above 960 MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz:

| Frequencies (MHz) | EIRP (dBm) |
|-------------------|------------|
| 960-1610          | -75.3      |
| 1610-1990         | -63.3      |
| 1990-3100         | -61.3      |
| 3100-10600        | -41.3      |
| Above 10600       | -61.3      |

- c) The In addition to the radiated emission limits specified in the table in paragraph (a) (b) of this section, UWB transmitters operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of no less than 1 kHz:

| Frequencies (MHz) | EIRP (dBm) |
|-------------------|------------|
| 1164-1240         | -85.3      |
| 1559-1610         | -85.3      |

**TEST REPORT****6.2 Measurement Procedure**

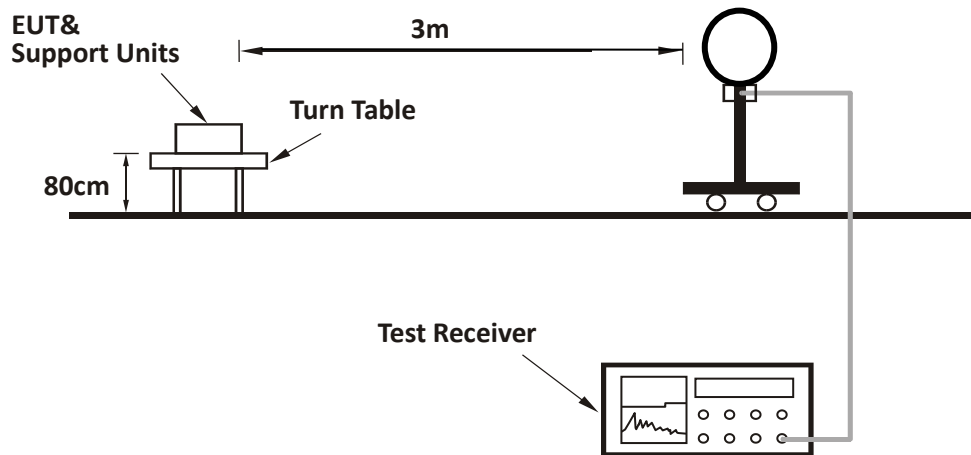
1. The EUT was placed on the top of a rotating table 0.8 meters (below 960MHz) and 1.5 meters (above 960MHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. For below 30MHz, a loop antenna with its vertical plane is placed 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.
7. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables. The turntable was rotated to maximize the emission level.

**NOTE:**

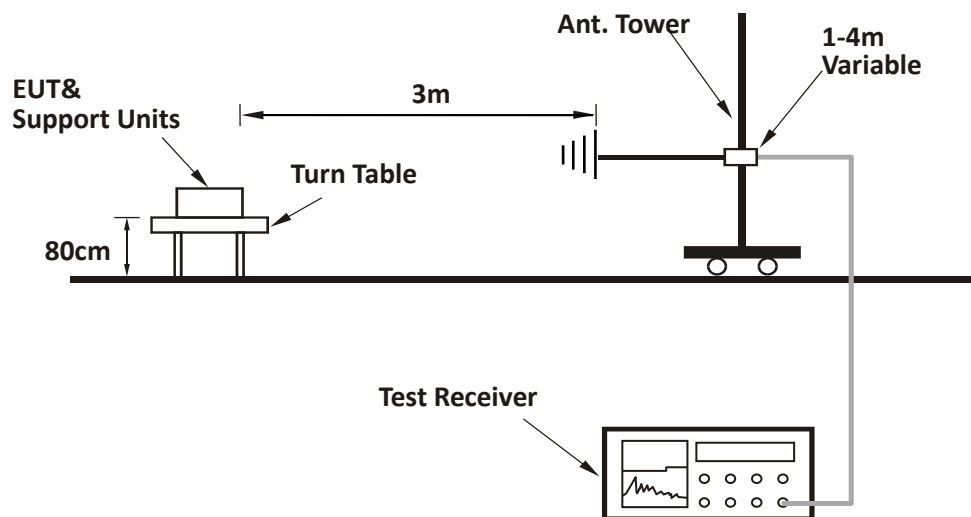
1. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Quasi-peak detection at frequency below 960MHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Average detection at frequency above 960MHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1kHz and the video bandwidth is 3KHz for Average detection at frequency range from 1164-1240MHz & 1559-1610MHz.

## 6.3 Test Configuration

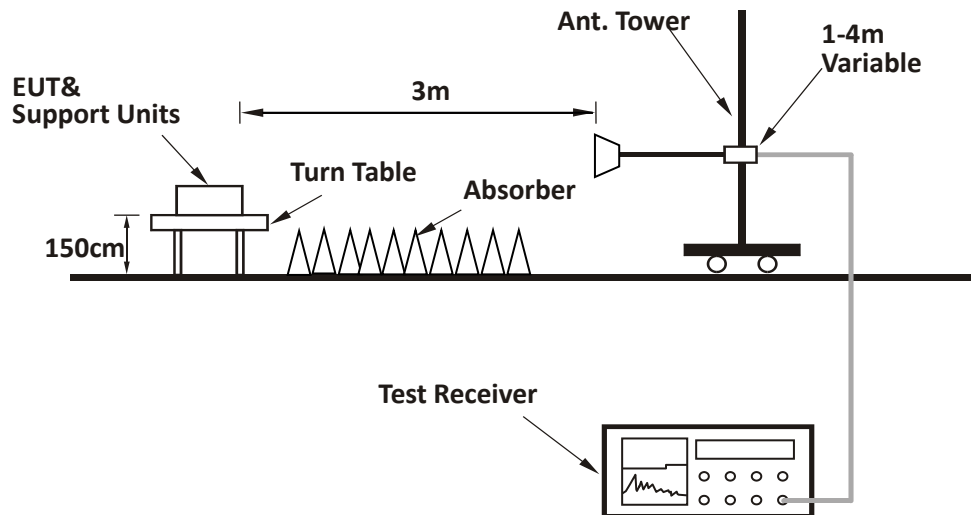
For Radiated emission below 30MHz:



For Radiated emission 30MHz to 1GHz:



**For Radiated emission above 1GHz:**



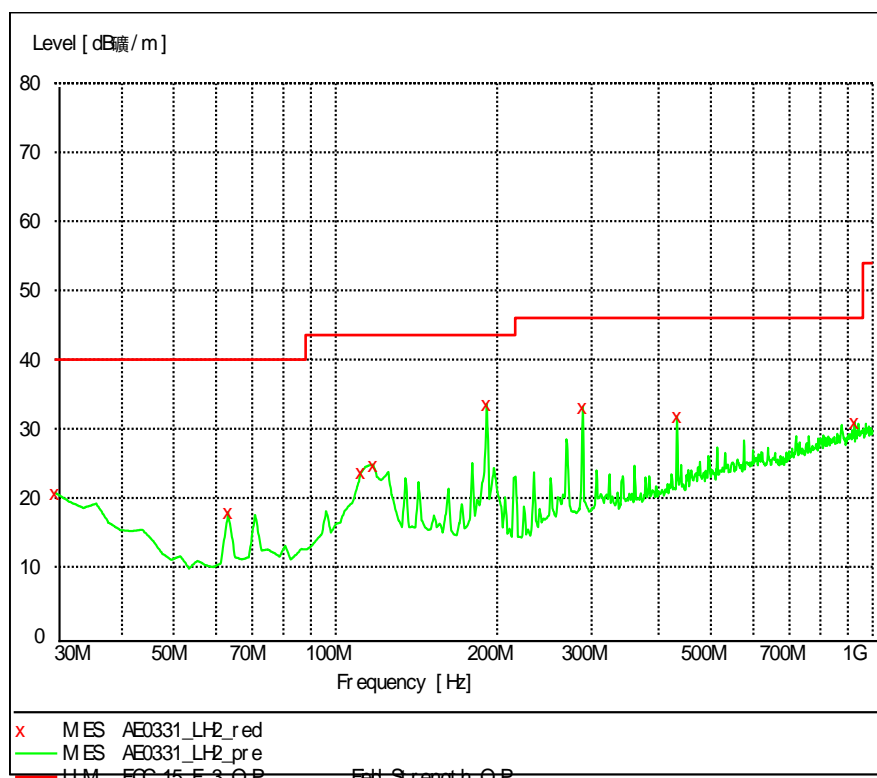
## 6.4 Test Results of Radiated Emissions

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

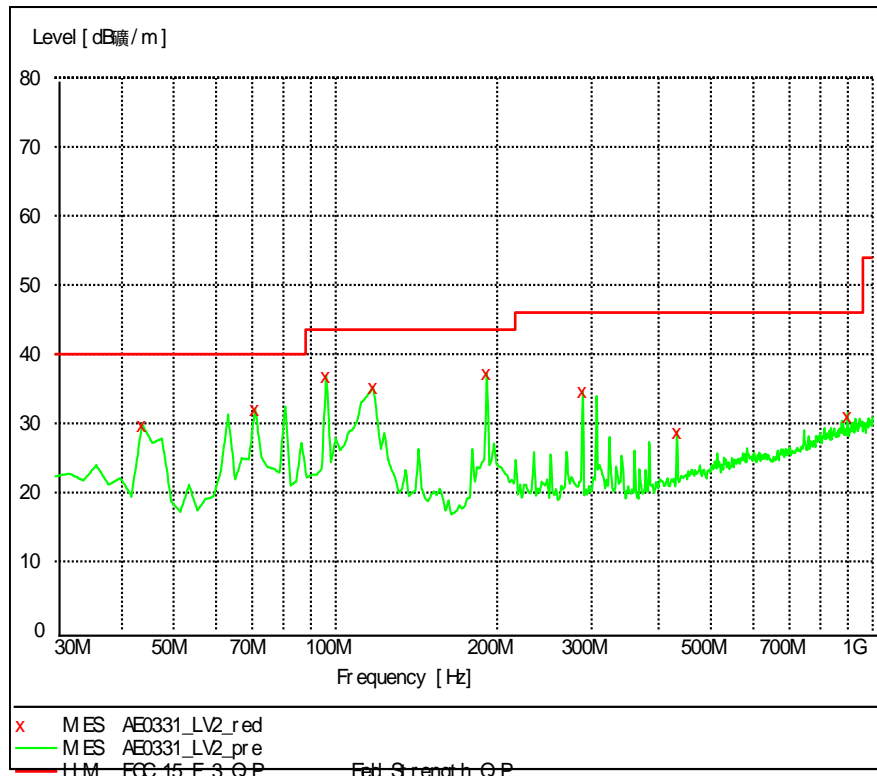
EUT was tested with X, Y, Z direction and the worst data was listed in the report.

### Test data below 960MHz

#### Horizontal



Vertical



| Antenna | Frequency (MHz) | Corrected Reading (dBuV/m) | Correct Factor (dB/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|---------|-----------------|----------------------------|-----------------------|----------------|-------------|----------|
| H       | 30.00           | 20.70                      | 18.80                 | 40             | 19.30       | PK       |
| H       | 117.47          | 24.80                      | 13.20                 | 43.5           | 18.70       | PK       |
| H       | 191.34          | 33.60                      | 10.90                 | 43.5           | 9.90        | PK       |
| H       | 288.54          | 33.20                      | 14.80                 | 46             | 12.80       | PK       |
| H       | 432.38          | 31.80                      | 18.40                 | 46             | 14.20       | PK       |
| H       | 926.13          | 30.90                      | 24.00                 | 46             | 15.10       | PK       |
| V       | 43.61           | 29.80                      | 11.70                 | 40             | 10.20       | PK       |
| V       | 70.82           | 32.10                      | 7.40                  | 40             | 7.90        | PK       |
| V       | 96.09           | 36.90                      | 11.30                 | 43.5           | 6.60        | PK       |
| V       | 117.47          | 35.30                      | 13.20                 | 43.5           | 8.20        | PK       |
| V       | 191.34          | 37.30                      | 10.90                 | 43.5           | 6.20        | PK       |
| V       | 288.54          | 34.60                      | 14.80                 | 46             | 11.40       | PK       |

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### Test result above 960MHz:

The emission was conducted from 960MHz to 40GHz:

| Channel Frequency (MHz) | Antenna | Emission Frequency (MHz) | Emission Level (dBm) | Limit (dBuV/m) | Margin (dB) | Detector |
|-------------------------|---------|--------------------------|----------------------|----------------|-------------|----------|
| 6489.6                  | H       | 1007.50                  | -75.90               | -75.3          | 0.90        | RMS      |
| 6489.6                  | H       | 1980.32                  | -73.60               | -63.3          | 10.30       | RMS      |
| 6489.6                  | H       | 2508.50                  | -71.50               | -61.3          | 10.20       | RMS      |
| 6489.6                  | H       | 6450.50                  | -54.30               | -41.3          | 13.00       | RMS      |
| 6489.6                  | H       | 6557.25                  | -54.60               | -41.3          | 13.30       | RMS      |
| 6489.6                  | H       | 11375.26                 | -67.90               | -61.3          | 6.60        | RMS      |
| 6489.6                  | V       | 1106.80                  | -76.80               | -75.3          | 1.50        | RMS      |
| 6489.6                  | V       | 1980.20                  | -73.90               | -63.3          | 10.60       | RMS      |
| 6489.6                  | V       | 2585.20                  | -71.50               | -61.3          | 10.20       | RMS      |
| 6489.6                  | V       | 6450.20                  | -56.60               | -41.3          | 15.30       | RMS      |
| 6489.6                  | V       | 6558.20                  | -56.40               | -41.3          | 15.10       | RMS      |
| 6489.6                  | V       | 12315.28                 | -67.90               | -61.3          | 6.60        | RMS      |

### Test result in GPS Bands:

| Channel Frequency (MHz) | Antenna | Emission Frequency (MHz) | Emission Level (dBm) | Limit (dBuV/m) | Margin (dB) | Detector |
|-------------------------|---------|--------------------------|----------------------|----------------|-------------|----------|
| 6489.6                  | H       | 1190.60                  | -94.20               | -85.3          | 8.90        | RMS      |
| 6489.6                  | H       | 1600.25                  | -93.10               | -85.3          | 7.80        | RMS      |
| 6489.6                  | V       | 1198.20                  | -95.10               | -85.3          | 9.80        | RMS      |
| 6489.6                  | V       | 1608.26                  | -94.40               | -85.3          | 9.10        | RMS      |

- Remark: 1. Correct Factor = Antenna Factor + Cable Loss (+ Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.  
2. Corrected Reading = Original Receiver Reading + Correct Factor  
3. Margin = Limit - Corrected Reading  
4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

Example: Assuming Antenna Factor = 30.20dB/m, Cable Loss = 2.00dB,  
Gain of Preamplifier = 32.00dB, Original Receiver Reading = 10.00dBuV,  
Limit = 40.00dBuV/m.  
Then Correct Factor = 30.20 + 2.00 – 32.00 = 0.20dB/m;



## TEST REPORT

Corrected Reading =  $10\text{dBuV} + 0.20\text{dB/m} = 10.20\text{dBuV/m}$ ;

Margin =  $40.00\text{dBuV/m} - 10.20\text{dBuV/m} = 29.80\text{dB}$ .

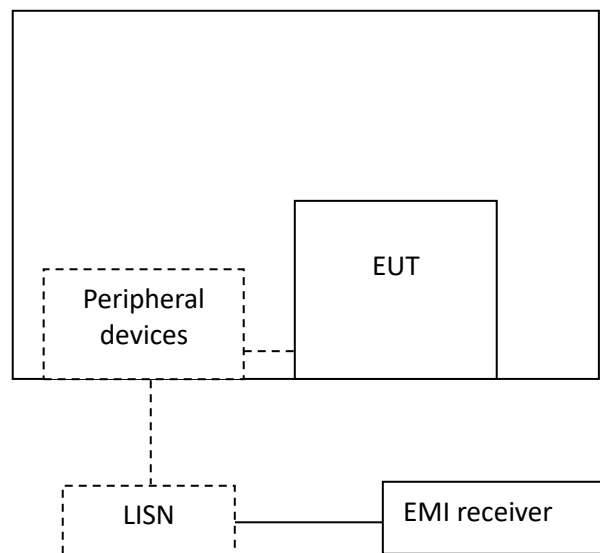
## 7 Power line conducted emission

Test result: NA

### 7.1 Limit

| Frequency of Emission (MHz)                      | Conducted Limit (dBuV) |            |
|--|------------------------|------------|
|  | QP                     | AV         |
| 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. |                        |            |

### 7.2 Test Configuration



**TEST REPORT****7.3 Measurement Procedure**

Measured levels of ac power-line conducted emission shall be the emission voltages from the voltage probe, where permitted, or across the 50  $\Omega$  LISN port (to which the EUT is connected), where permitted, terminated into a 50  $\Omega$  measuring instrument. All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer. For those measurements using a LISN, the 50  $\Omega$  measuring port is terminated by a measuring instrument having 50  $\Omega$  input impedance. All other ports are terminated in 50  $\Omega$  loads.

Tabletop devices shall be placed on a platform of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The vertical conducting plane or wall of an RF-shielded (screened) room shall be located 40 cm to the rear of the EUT. Floor-standing devices shall be placed either directly on the reference ground-plane or on insulating material as described in ANSI C63.4. All other surfaces of tabletop or floor-standing EUTs shall be at least 80 cm from any other grounded conducting surface, including the case or cases of one or more LISNs.

The bandwidth of the test receiver is set at 9 kHz.

## 7.4 Test Results of Power line conducted emission

L Line

N Line

*Remark: 1. Correct Factor = LISN Factor + Cable Loss, the value was added to Original Receiver Reading by the software automatically.  
2. Corrected Reading = Original Receiver Reading + Correct Factor  
3. Margin = Limit - Corrected Reading  
4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.*

## 8 Antenna requirement

**Requirement:**

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

**Result:**

EUT uses permanently attached antenna to the intentional radiator, so it can comply with the provisions of this section.

\*\*\*\*\* END \*\*\*\*\*