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# TEST REPORT

## FCC PART 15.247

Report Reference No.: CTL2204142021-WF

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Product Name: Inview smart scale

Model/Type reference: R-A006

List Model(s): R-A005

Trade Mark: RENPHO

FCC ID: 2A26P-RA006

Applicant's name: REESTAR INTERNATIONAL LIMITED

Address of applicant: UNIT 06-07, 28/F CONCORDIA PLAZA, 1 SCIENCE MUSEUM  
RD TST, EAST KLN, HONG KONG

Test Firm: Shenzhen CTL Testing Technology Co., Ltd.

Address of Test Firm: Floor 1-A, Baisha Technology Park, No.3011, Shahexi Road,  
Nanshan District, Shenzhen, China 518055

Test specification:

Standard: FCC Part 15.247: Operation within the bands 902-928 MHz,  
2400-2483.5 MHz and 5725-5850 MHz.

TRF Originator: Shenzhen CTL Testing Technology Co., Ltd.

Master TRF: Dated 2011-01

Date of receipt of test item: Apr. 21, 2022

Date of Test Date: Apr. 21, 2022-May. 10, 2022

Date of Issue: May. 11, 2022

Result: Pass

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# TEST REPORT

|                          |                         |                                |
|--------------------------|-------------------------|--------------------------------|
| <b>Test Report No. :</b> | <b>CTL2204142021-WF</b> | May. 11, 2022<br>Date of issue |
|--------------------------|-------------------------|--------------------------------|

Equipment under Test : Inview smart scale

Sample No : CTL2204142021-S001

Model /Type : R-A006

Listed Models : R-A005

**Applicant** : **REESTAR INTERNATIONAL LIMITED**

Address : UNIT 06-07, 28/F CONCORDIA PLAZA, 1 SCIENCE  
MUSEUM RD TST, EAST KLN, HONG KONG

**Manufacturer** : **Shenzhen Ruiyi Business Technology Co., Ltd**

Address : Qianhai Complex A201, Qianwan Road 1, Qianhai  
Shenzhen-Hong Kong Cooperation Zone, Shenzhen,  
518000 P.R.China

|                    |               |
|--------------------|---------------|
| <b>Test result</b> | <b>Pass *</b> |
|--------------------|---------------|

\* In the configuration tested, the EUT complied with the standards specified page 5.

The device (Product Name: Inview smart scale) Models Name: R-A006, R-A005 have same electrical, PCB and BOM, only the colour and model's names are different for marketing requirements.

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.

### \*\* Modified History \*\*

[illegible]

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# 1. SUMMARY

## 1.1. TEST STANDARDS

The tests were performed according to following standards:

[FCC Rules Part 15.247](#): Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz

[ANSI C63.10: 2013](#): American National Standard for Testing Unlicensed Wireless Devices

[KDB 558074 D01 15.247 Meas Guidance v05r02](#) : Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247

## 1.2. Test Description

| FCC PART 15.247                 |                                |      |
|---------------------------------|--------------------------------|------|
| FCC Part 15.207                 | AC Power Conducted Emission    | N/A  |
| FCC Part 15.247(a)(2)           | 6dB Bandwidth                  | PASS |
| FCC Part 15.247(d)              | Spurious RF Conducted Emission | PASS |
| FCC Part 15.247(b)              | Maximum Conducted Output Power | PASS |
| FCC Part 15.247(e)              | Power Spectral Density         | PASS |
| FCC Part 15.109/ 15.205/ 15.209 | Radiated Emissions             | PASS |
| FCC Part 15.247(d)              | Band Edge                      | PASS |
| FCC Part 15.203/15.247 (b)      | Antenna Requirement            | PASS |

### 1.3. Test Facility

#### 1.3.1 Address of the test laboratory

Shenzhen CTL Testing Technology Co., Ltd.

Floor 1-A, Baisha Technology Park, No. 3011, Shahexi Road, Nanshan, Shenzhen 518055 China

There is one 3m semi-anechoic chamber and two line conducted labs for final test. The Test Sites meet the requirements in documents ANSI C63.4 and CISPR 32/EN 55032 requirements.

#### 1.3.2 Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

##### **CNAS-Lab Code: L7497**

Shenzhen CTL Testing Technology Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

##### **A2LA-Lab Cert. No. 4343.01**

Shenzhen CTL Testing Technology Co., Ltd, EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

##### **IC Registration No.: 9618B**

##### **CAB identifier: CN0041**

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements with Registration No.: 9618B on Jan. 22, 2019.

##### **FCC-Registration No.: 399832**

##### **Designation No.: CN1216**

Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 399832, December 08, 2017.

### 1.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the Shenzhen CTL Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for CTL laboratory is reported:

| Test                                    | Measurement Uncertainty | Notes |
|-----------------------------------------|-------------------------|-------|
| Transmitter power conducted             | $\pm 0.57$ dB           | (1)   |
| Transmitter power Radiated              | $\pm 2.20$ dB           | (1)   |
| Conducted spurious emission 9KHz-40 GHz | $\pm 1.60$ dB           | (1)   |
| Occupied Bandwidth                      | $\pm 0.20$ ppm          | (1)   |
| Radiated Emission 9KHz~30MHz            | $\pm 3.40$ dB           | (1)   |
| Radiated Emission 30~1000MHz            | $\pm 4.10$ dB           | (1)   |
| Radiated Emission Above 1GHz            | $\pm 4.32$ dB           | (1)   |

|                                 |                     |     |
|---------------------------------|---------------------|-----|
| Conducted Disturbance0.15~30MHz | $\pm 3.20\text{dB}$ | (1) |
|---------------------------------|---------------------|-----|

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

## 2. GENERAL INFORMATION

### 2.1. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

|                     |         |
|---------------------|---------|
| Normal Temperature: | 25°C    |
| Relative Humidity:  | 55 %    |
| Air Pressure:       | 101 kPa |

### 2.2. General Description of EUT

|                       |                                          |
|-----------------------|------------------------------------------|
| Product Name:         | Inview smart scale                       |
| Model/Type reference: | R-A006                                   |
| Power supply:         | DC 4.5V (3*AAA Non-rechargeable battery) |
| <b>Bluetooth LE</b>   |                                          |
| Supported type:       | Bluetooth Low Energy                     |
| Modulation:           | GFSK                                     |
| Operation frequency:  | 2402MHz to 2480MHz                       |
| Channel number:       | 40                                       |
| Channel separation:   | 2MHz                                     |
| Antenna type:         | PCB Antenna                              |
| Antenna gain:         | 1.75dBi                                  |

Note 1: For more details, please refer to the user's manual of the EUT.

Note 2: Antenna gain provided by the applicant.

## 2.3. Description of Test Modes and Test Frequency

The EUT was tested under typical operating conditions. The applicant provides drivers to make it work for general use and software to obtain data from it to see if it works as intended during testing.

The Applicant provides communication tools software to control the EUT for staying in continuous transmitting and receiving mode for testing.

There are 40 channels provided to the EUT and Channel 00/19/39 were selected for BLE test.

### Operation Frequency List :

| Channel   | Frequency (MHz) |
|-----------|-----------------|
| <b>00</b> | <b>2402</b>     |
| 02        | 2404            |
| 03        | 2406            |
| ⋮         | ⋮               |
| <b>19</b> | <b>2440</b>     |
| ⋮         | ⋮               |
| 37        | 2476            |
| 38        | 2478            |
| <b>39</b> | <b>2480</b>     |

Note: The line display in grey were the channel selected for testing

## 2.4. Equipments Used during the Test

| Test Equipment                  | Manufacturer         | Model No. | Serial No.   | Calibration Date | Calibration Due Date |
|---------------------------------|----------------------|-----------|--------------|------------------|----------------------|
| LISN                            | R&S                  | ESH2-Z5   | 860014/010   | 2022/05/07       | 2023/05/06           |
| Double cone logarithmic antenna | Schwarzbeck          | VULB 9168 | 824          | 2020/04/07       | 2023/04/06           |
| Horn Antenna                    | Ocean Microwave      | OBH100400 | 26999002     | 2019/11/28       | 2022/11/27           |
| EMI Test Receiver               | R&S                  | ESCI      | 1166.5950.03 | 2022/05/07       | 2023/05/06           |
| Spectrum Analyzer               | Agilent              | E4407B    | MY41440676   | 2022/05/07       | 2023/05/06           |
| Spectrum Analyzer               | Agilent              | N9020A    | US46220290   | 2022/05/07       | 2023/05/06           |
| Spectrum Analyzer               | Keysight             | N9020A    | MY53420874   | 2022/05/07       | 2023/05/06           |
| Horn Antenna                    | Sunol Sciences Corp. | DRH-118   | A062013      | 2021/12/23       | 2024/12/22           |
| Active Loop Antenna             | Da Ze                | ZN30900A  | /            | 2021/05/13       | 2024/05/12           |
| Amplifier                       | Agilent              | 8449B     | 3008A02306   | 2022/05/07       | 2023/05/06           |
| Amplifier                       | Agilent              | 8447D     | 2944A10176   | 2022/05/06       | 2023/05/05           |
| Amplifier                       | Brief&Smart          | LNA-4018  | 2104197      | 2022/05/07       | 2023/05/06           |
| Temperature/Humidity Meter      | Ji Yu                | MC501     | /            | 2022/05/07       | 2023/05/06           |
| Power Sensor                    | Agilent              | U2021XA   | MY55130004   | 2022/05/07       | 2023/05/06           |
| Power Sensor                    | Agilent              | U2021XA   | MY55130006   | 2022/05/07       | 2023/05/06           |
| Power Sensor                    | Agilent              | U2021XA   | MY54510008   | 2022/05/07       | 2023/05/06           |
| Power Sensor                    | Agilent              | U2021XA   | MY55060003   | 2022/05/07       | 2023/05/06           |
| Spectrum Analyzer               | RS                   | FSP       | 1164.4391.38 | 2022/05/07       | 2023/05/06           |
| Test Software                   |                      |           |              |                  |                      |
| Name of Software                |                      |           | Version      |                  |                      |
| TST-PASS                        |                      |           | V1.1.0       |                  |                      |
| EZ_EMC(Below 1GHz)              |                      |           | V1.1.4.2     |                  |                      |
| EZ_EMC((Above 1GHz)             |                      |           | V1.1.4.2     |                  |                      |

The calibration interval was one year

## 2.5. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

## 2.6. Modifications

No modifications were implemented to meet testing criteria.

### 3. TEST CONDITIONS AND RESULTS

#### 3.1. Radiated Emissions and Band Edge

##### Limit

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission out of authorized band shall not exceed the following table at a 3 meters measurement distance.

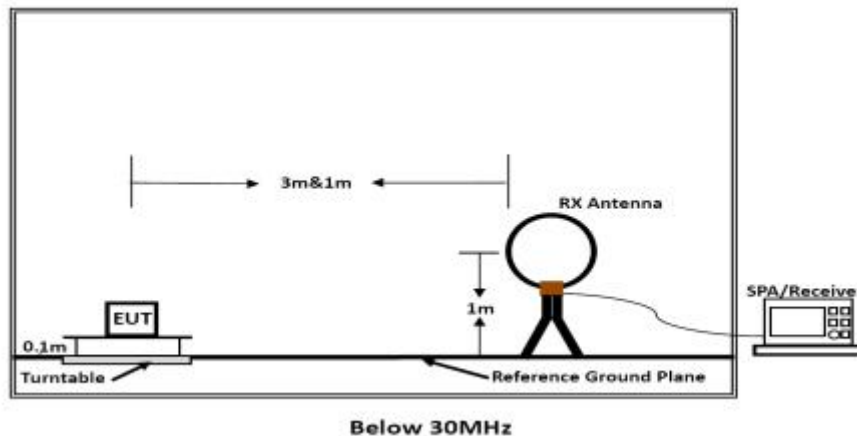
In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Radiated emission limits

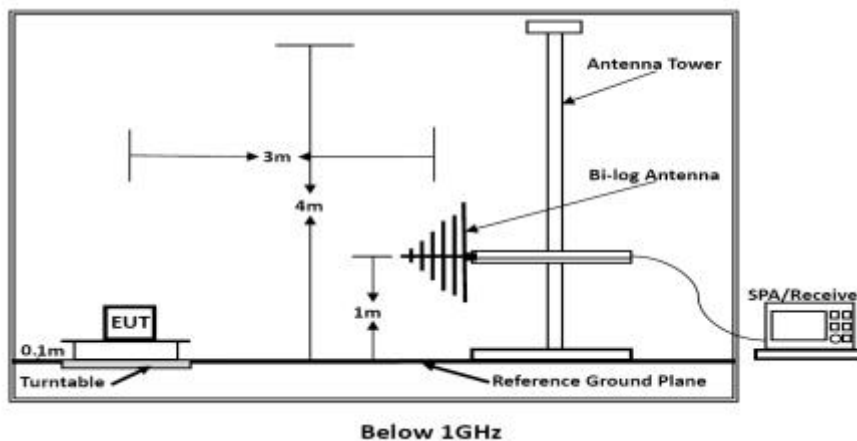
| Frequency (MHz) | Distance (Meters) | Radiated (dBμV/m)                          | Radiated (μV/m)       |
|-----------------|-------------------|--------------------------------------------|-----------------------|
| 0.009-0.49      | 3                 | $20\log(2400/F(\text{KHz}))+40\log(300/3)$ | $2400/F(\text{KHz})$  |
| 0.49-1.705      | 3                 | $20\log(24000/F(\text{KHz}))+40\log(30/3)$ | $24000/F(\text{KHz})$ |
| 1.705-30        | 3                 | $20\log(30)+40\log(30/3)$                  | 30                    |
| 30-88           | 3                 | 40.0                                       | 100                   |
| 88-216          | 3                 | 43.5                                       | 150                   |
| 216-960         | 3                 | 46.0                                       | 200                   |
| Above 960       | 3                 | 54.0                                       | 500                   |

#### TEST CONFIGURATION

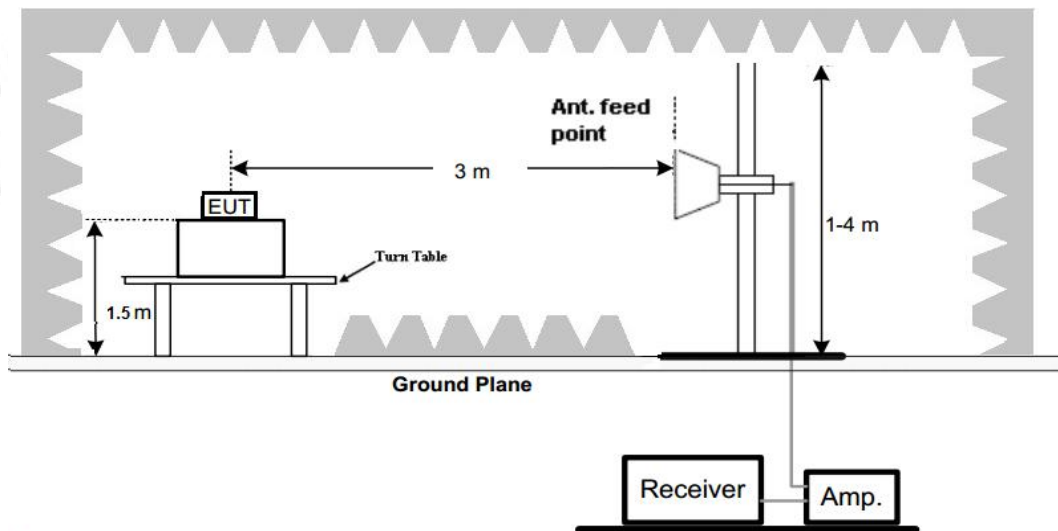
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



### **Test Procedure**

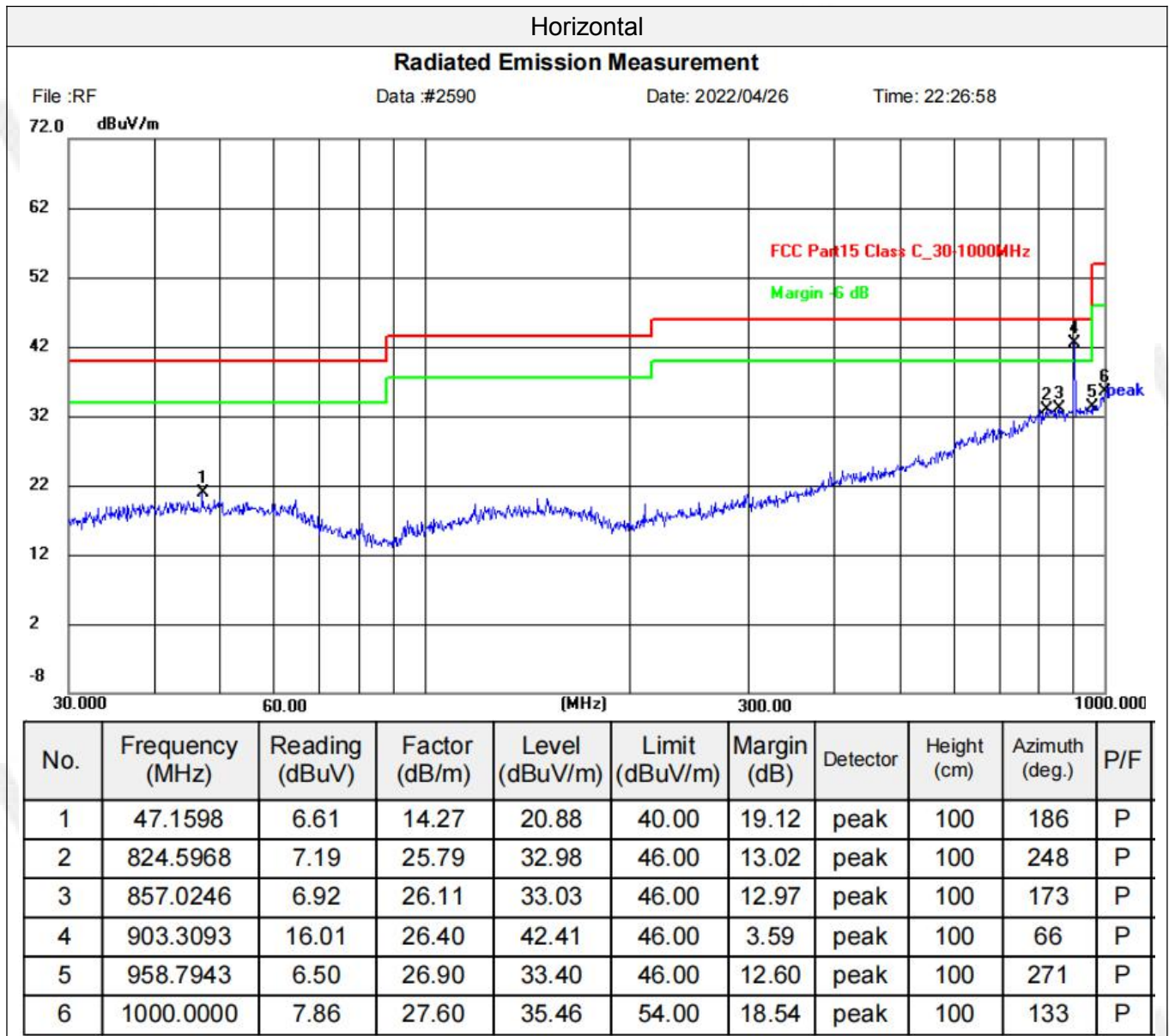
1. Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane, and above 1GHz measurement EUT was placed on a low permittivity and low loss tangent turn table which is 1.5m above ground plane.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0° to 360° to acquire the highest emissions from EUT
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.
5. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement –X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.

### **TEST RESULTS**

Remark:

1. For below 1GHz testing recorded worst at BLE low channel.
2. Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, Found the emission level are attenuated 20dB below the limits from 9 kHz to 30MHz, so it does not recorded in report.

## For 30MHz-1GHz



## Vertical

## Radiated Emission Measurement

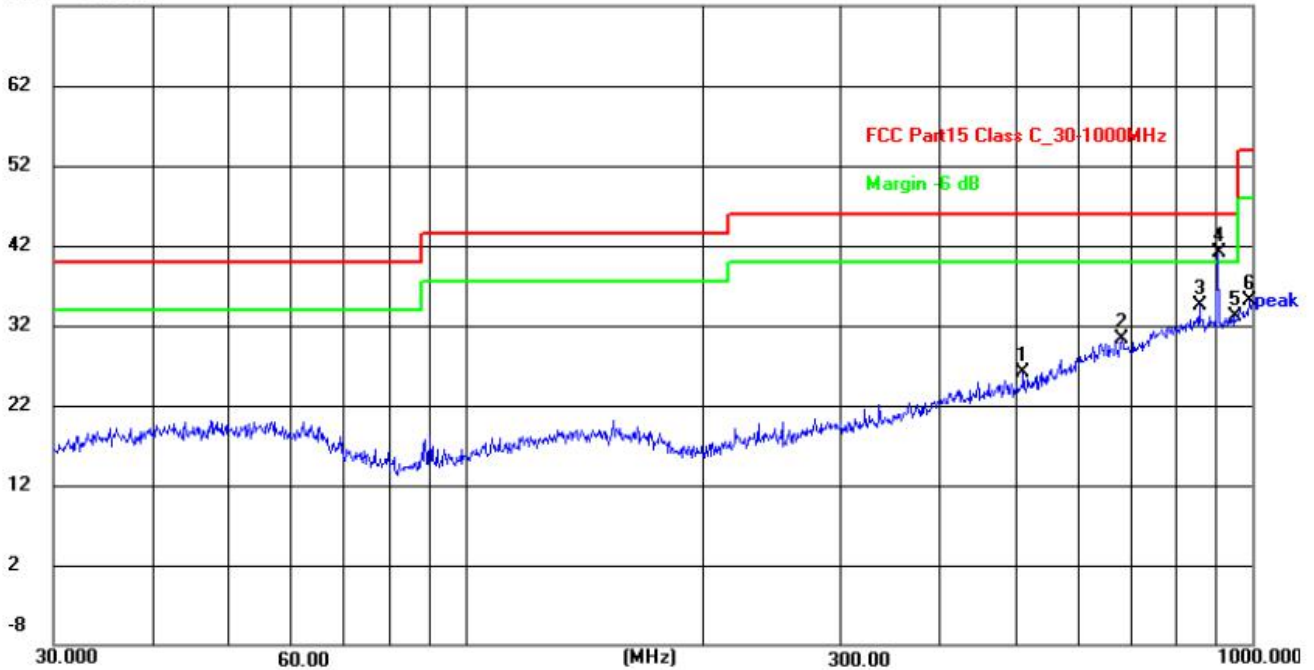
File :RF

Data :#2591

Date: 2022/04/26

Time: 22:28:14

72.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|
| 1   | 511.8352        | 6.90           | 19.29         | 26.19          | 46.00          | 19.81       | peak     | 100         | 273            | P   |
| 2   | 682.3484        | 7.69           | 22.56         | 30.25          | 46.00          | 15.75       | peak     | 100         | 7              | P   |
| 3   | 857.0247        | 8.40           | 26.11         | 34.51          | 46.00          | 11.49       | peak     | 100         | 107            | P   |
| 4   | 903.3094        | 14.75          | 26.40         | 41.15          | 46.00          | 4.85        | peak     | 100         | 114            | P   |
| 5   | 948.7610        | 6.41           | 26.78         | 33.19          | 46.00          | 12.81       | peak     | 100         | 213            | P   |
| 6   | 993.0114        | 7.75           | 27.35         | 35.10          | 54.00          | 18.90       | peak     | 100         | 67             | P   |

**For 1GHz to 25GHz****BLE 1M Mode (above 1GHz)**

| Frequency(MHz): |                         |    | 2402           |             | Polarity:        |                       |                   | HORIZONTAL         |                          |
|-----------------|-------------------------|----|----------------|-------------|------------------|-----------------------|-------------------|--------------------|--------------------------|
| Frequency (MHz) | Emission Level (dBuV/m) |    | Limit (dBuV/m) | Margin (dB) | Raw Value (dBuV) | Antenna Factor (dB/m) | Cable Factor (dB) | Pre-amplifier (dB) | Correction Factor (dB/m) |
| 4804.00         | 54.81                   | PK | 74.00          | 19.19       | 50.30            | 33.49                 | 6.91              | 35.89              | 4.51                     |
| 4804.00         | 49.27                   | AV | 54.00          | 4.73        | 44.76            | 33.49                 | 6.91              | 35.89              | 4.51                     |
| 5154.00         | 48.52                   | PK | 74.00          | 25.48       | 41.31            | 34.38                 | 7.10              | 34.27              | 7.21                     |
| 5154.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |
| 7206.00         | 51.35                   | PK | 74.00          | 22.65       | 40.25            | 36.95                 | 9.18              | 35.03              | 11.10                    |
| 7206.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |

| Frequency(MHz): |                         |    | 2402           |             | Polarity:        |                       |                   | VERTICAL           |                          |
|-----------------|-------------------------|----|----------------|-------------|------------------|-----------------------|-------------------|--------------------|--------------------------|
| Frequency (MHz) | Emission Level (dBuV/m) |    | Limit (dBuV/m) | Margin (dB) | Raw Value (dBuV) | Antenna Factor (dB/m) | Cable Factor (dB) | Pre-amplifier (dB) | Correction Factor (dB/m) |
| 4804.00         | 55.72                   | PK | 74.00          | 18.28       | 51.21            | 33.49                 | 6.91              | 35.89              | 4.51                     |
| 4804.00         | 50.81                   | AV | 54.00          | 3.19        | 46.30            | 33.49                 | 6.91              | 35.89              | 4.51                     |
| 5632.00         | 45.47                   | PK | 74.00          | 28.53       | 37.91            | 34.69                 | 7.23              | 34.36              | 7.56                     |
| 5632.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |
| 7206.00         | 48.32                   | PK | 74.00          | 25.68       | 37.22            | 36.95                 | 9.18              | 35.03              | 11.10                    |
| 7206.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |

| Frequency(MHz): |                         |    | 2440           |             | Polarity:        |                       |                   | HORIZONTAL         |                          |
|-----------------|-------------------------|----|----------------|-------------|------------------|-----------------------|-------------------|--------------------|--------------------------|
| Frequency (MHz) | Emission Level (dBuV/m) |    | Limit (dBuV/m) | Margin (dB) | Raw Value (dBuV) | Antenna Factor (dB/m) | Cable Factor (dB) | Pre-amplifier (dB) | Correction Factor (dB/m) |
| 4880.00         | 54.95                   | PK | 74.00          | 19.05       | 48.70            | 33.60                 | 6.95              | 34.30              | 6.25                     |
| 4880.00         | 49.54                   | AV | 54.00          | 4.46        | 43.29            | 33.60                 | 6.95              | 34.30              | 6.25                     |
| 5948.00         | 46.17                   | PK | 74.00          | 27.83       | 38.54            | 34.57                 | 7.16              | 34.10              | 7.63                     |
| 5948.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |
| 7320.00         | 48.26                   | PK | 74.00          | 25.74       | 36.57            | 37.46                 | 9.23              | 35.00              | 11.69                    |
| 7320.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |

| Frequency(MHz): |                         |    | 2440           |             | Polarity:        |                       |                   | VERTICAL           |                          |
|-----------------|-------------------------|----|----------------|-------------|------------------|-----------------------|-------------------|--------------------|--------------------------|
| Frequency (MHz) | Emission Level (dBuV/m) |    | Limit (dBuV/m) | Margin (dB) | Raw Value (dBuV) | Antenna Factor (dB/m) | Cable Factor (dB) | Pre-amplifier (dB) | Correction Factor (dB/m) |
| 4880.00         | 55.72                   | PK | 74.00          | 18.28       | 49.47            | 33.60                 | 6.95              | 34.30              | 6.25                     |
| 4880.00         | 51.23                   | AV | 54.00          | 2.77        | 44.98            | 33.60                 | 6.95              | 34.30              | 6.25                     |
| 5684.00         | 48.84                   | PK | 74.00          | 25.16       | 41.20            | 34.58                 | 7.16              | 34.10              | 7.64                     |
| 5684.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |
| 7320.00         | 49.33                   | PK | 74.00          | 24.67       | 37.64            | 37.46                 | 9.23              | 35.00              | 11.69                    |
| 7320.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |

| Frequency(MHz): |                         |    | 2480           |             | Polarity:        |                       |                   | HORIZONTAL         |                          |
|-----------------|-------------------------|----|----------------|-------------|------------------|-----------------------|-------------------|--------------------|--------------------------|
| Frequency (MHz) | Emission Level (dBuV/m) |    | Limit (dBuV/m) | Margin (dB) | Raw Value (dBuV) | Antenna Factor (dB/m) | Cable Factor (dB) | Pre-amplifier (dB) | Correction Factor (dB/m) |
| 4960.00         | 57.35                   | PK | 74.00          | 16.65       | 52.43            | 33.84                 | 7.00              | 35.92              | 4.92                     |
| 4960.00         | 52.24                   | AV | 54.00          | 1.76        | 47.32            | 33.84                 | 7.00              | 35.92              | 4.92                     |
| 5169.00         | 47.83                   | PK | 74.00          | 26.17       | 40.29            | 34.67                 | 7.22              | 34.35              | 7.54                     |
| 5169.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |
| 7440.00         | 48.74                   | PK | 74.00          | 25.26       | 36.79            | 37.64                 | 9.28              | 34.97              | 11.95                    |
| 7440.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |

| Frequency(MHz): |                         |    | 2480           |             | Polarity:        |                       |                   | VERTICAL           |                          |
|-----------------|-------------------------|----|----------------|-------------|------------------|-----------------------|-------------------|--------------------|--------------------------|
| Frequency (MHz) | Emission Level (dBuV/m) |    | Limit (dBuV/m) | Margin (dB) | Raw Value (dBuV) | Antenna Factor (dB/m) | Cable Factor (dB) | Pre-amplifier (dB) | Correction Factor (dB/m) |
| 4960.00         | 56.14                   | PK | 74.00          | 17.86       | 51.22            | 33.84                 | 7.00              | 35.92              | 4.92                     |
| 4960.00         | 49.53                   | AV | 54.00          | 4.47        | 44.61            | 33.84                 | 7.00              | 35.92              | 4.92                     |
| 6258.00         | 48.84                   | PK | 74.00          | 25.16       | 41.65            | 34.36                 | 7.10              | 34.27              | 7.19                     |
| 6258.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |
| 7440.00         | 47.63                   | PK | 74.00          | 26.37       | 35.68            | 37.64                 | 9.28              | 34.97              | 11.95                    |
| 7440.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |

## REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
3. Margin value = Limit value- Emission level.
4. -- Mean the PK detector measured value is below average limit.
5. RBW 1MHz VBW 3MHz Peak detector is for PK value; RBW 1MHz VBW 10Hz Peak detector is for AV value.
6. Other emissions are attenuated 20dB below the limits from 9kHz to 30MHz, so it does not recorded in report.

**Results of Band Edges Test (Radiated)****BLE 1M Mode**

| Frequency(MHz): |                         |    | 2402           |             | Polarity:        |                       |                   | HORIZONTAL         |                          |
|-----------------|-------------------------|----|----------------|-------------|------------------|-----------------------|-------------------|--------------------|--------------------------|
| Frequency (MHz) | Emission Level (dBuV/m) |    | Limit (dBuV/m) | Margin (dB) | Raw Value (dBuV) | Antenna Factor (dB/m) | Cable Factor (dB) | Pre-amplifier (dB) | Correction Factor (dB/m) |
| 2402.00         | 90.76                   | PK | --             | --          | 57.37            | 28.78                 | 4.61              | 0.00               | 33.39                    |
| 2402.00         | 86.37                   | AV | --             | --          | 52.98            | 28.78                 | 4.61              | 0.00               | 33.39                    |
| 2384.00         | 46.84                   | PK | 74.00          | 27.16       | 13.76            | 28.52                 | 4.56              | 0.00               | 33.08                    |
| 2384.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |
| 2390.00         | 58.11                   | PK | 74.00          | 15.89       | 24.79            | 28.72                 | 4.60              | 0.00               | 33.32                    |
| 2390.00         | 53.24                   | AV | 54.00          | 0.76        | 19.92            | 28.72                 | 4.60              | 0.00               | 33.32                    |
| 2440.00         | --                      | PK | 74.00          | --          | --               | --                    | --                | --                 | --                       |
| 2440.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |

| Frequency(MHz): |                         |    | 2402           |             | Polarity:        |                       |                   | VERTICAL           |                          |
|-----------------|-------------------------|----|----------------|-------------|------------------|-----------------------|-------------------|--------------------|--------------------------|
| Frequency (MHz) | Emission Level (dBuV/m) |    | Limit (dBuV/m) | Margin (dB) | Raw Value (dBuV) | Antenna Factor (dB/m) | Cable Factor (dB) | Pre-amplifier (dB) | Correction Factor (dB/m) |
| 2402.00         | 91.55                   | PK | --             | --          | 58.16            | 28.78                 | 4.61              | 0.00               | 33.39                    |
| 2402.00         | 87.91                   | AV | --             | --          | 54.52            | 28.78                 | 4.61              | 0.00               | 33.39                    |
| 2378.00         | 45.60                   | PK | 74.00          | 28.40       | 12.52            | 28.52                 | 4.56              | 0.00               | 33.08                    |
| 2378.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |
| 2390.00         | 58.35                   | PK | 74.00          | 15.65       | 25.03            | 28.72                 | 4.60              | 0.00               | 33.32                    |
| 2390.00         | 53.46                   | AV | 54.00          | 0.54        | 20.14            | 28.72                 | 4.60              | 0.00               | 33.32                    |
| 2440.00         | --                      | PK | 74.00          | --          | --               | --                    | --                | --                 | --                       |
| 2440.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |

| Frequency(MHz): |                         |    | 2480           |             | Polarity:        |                       |                   | HORIZONTAL         |                          |
|-----------------|-------------------------|----|----------------|-------------|------------------|-----------------------|-------------------|--------------------|--------------------------|
| Frequency (MHz) | Emission Level (dBuV/m) |    | Limit (dBuV/m) | Margin (dB) | Raw Value (dBuV) | Antenna Factor (dB/m) | Cable Factor (dB) | Pre-amplifier (dB) | Correction Factor (dB/m) |
| 2480.00         | 92.74                   | PK | --             | --          | 59.12            | 28.92                 | 4.70              | 0.00               | 33.62                    |
| 2480.00         | 88.41                   | AV | --             | --          | 54.79            | 28.92                 | 4.70              | 0.00               | 33.62                    |
| 2483.50         | 49.93                   | PK | 74.00          | 24.07       | 16.30            | 28.93                 | 4.70              | 0.00               | 33.63                    |
| 2483.50         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |
| 2489.00         | 55.21                   | PK | 74.00          | 18.79       | 21.55            | 28.95                 | 4.71              | 0.00               | 33.66                    |
| 2489.00         | 50.85                   | AV | 54.00          | 3.15        | 17.19            | 28.95                 | 4.71              | 0.00               | 33.66                    |
| 2500.00         | 48.53                   | PK | 74.00          | 25.47       | 14.85            | 28.96                 | 4.72              | 0.00               | 33.68                    |
| 2500.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |

| Frequency(MHz): |                         |    | 2480           |             | Polarity:        |                       |                   | VERTICAL           |                          |
|-----------------|-------------------------|----|----------------|-------------|------------------|-----------------------|-------------------|--------------------|--------------------------|
| Frequency (MHz) | Emission Level (dBuV/m) |    | Limit (dBuV/m) | Margin (dB) | Raw Value (dBuV) | Antenna Factor (dB/m) | Cable Factor (dB) | Pre-amplifier (dB) | Correction Factor (dB/m) |
| 2480.00         | 93.64                   | PK | --             | --          | 60.02            | 28.92                 | 4.70              | 0.00               | 33.62                    |
| 2480.00         | 89.17                   | AV | --             | --          | 55.55            | 28.92                 | 4.70              | 0.00               | 33.62                    |
| 2483.50         | 50.85                   | PK | 74.00          | 23.15       | 17.22            | 28.93                 | 4.70              | 0.00               | 33.63                    |
| 2483.50         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |
| 2492.00         | 54.73                   | PK | 74.00          | 19.27       | 21.07            | 28.95                 | 4.71              | 0.00               | 33.66                    |
| 2492.00         | 49.81                   | AV | 54.00          | 4.19        | 16.15            | 28.95                 | 4.71              | 0.00               | 33.66                    |
| 2500.00         | 47.32                   | PK | 74.00          | 26.68       | 13.64            | 28.96                 | 4.72              | 0.00               | 33.68                    |
| 2500.00         | --                      | AV | 54.00          | --          | --               | --                    | --                | --                 | --                       |

## REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) - Pre-amplifier Factor
3. Margin value = Limit value - Emission level.
4. -- Mean the PK detector measured value is below average limit.
5. RBW 1MHz VBW 3MHz Peak detector is for PK value; RBW 1MHz VBW 10Hz Peak detector is for AV value.
6. For fundamental frequency, RBW 3MHz VBW 3MHz Peak detector is for PK Value; RMS detector is for AV value.
7. Other emissions are attenuated 20dB below the limits from 9kHz to 30MHz, so it does not recorded in report.

### 3.2. Maximum Conducted Output Power

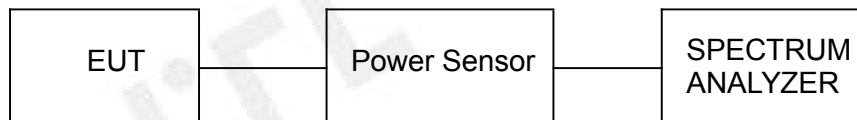
#### Limit

The Maximum Peak Output Power Measurement is 30dBm.

#### Test Procedure

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power sensor.

#### Test Configuration



#### Test Results

Raw data reference to Section 3 from Appendix.

### 3.3. Power Spectral Density

#### Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

#### Test Procedure

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
2. Set the RBW  $\geq 3$  kHz.
3. Set the VBW  $\geq 3 \times$  RBW.
4. Set the span to 1.5 times the DTS channel bandwidth.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum power level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
11. The resulting peak PSD level must be 8dBm.

#### Test Configuration



#### Test Results

Raw data reference to Section 4 from Appendix.