

## RF Test Report

Applicant : Ring LLC

Product Type : Door View Cam

Trade Name : Ring

Model Number : G63R9A

Test Specification : FCC 47 CFR PART 15 SUBPART C  
ANSI C63.10:2013

Receive Date : Apr. 08, 2019

Test Period : May 13 ~ May 15, 2019

Issue Date : Jun. 13, 2019

### Issue by

A Test Lab Techno Corp.  
No. 140-1, Changan Street, Bade District,  
Taoyuan City 33465, Taiwan (R.O.C.)  
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330

Test Firm MRA designation number: TW0010

**Note:** This report shall not be reproduced except in full, without the written approval of A Test Lab Techno Corp. This document may be altered or revised by A Test Lab Techno Corp. personnel only, and shall be noted in the revision section of the document. The client should not use it to claim product endorsement by TAF, or any government agencies. The test results in the report only apply to the tested sample.



### **Revision History**

| Rev. | Issue Date    | Revisions                            | Revised By |
|------|---------------|--------------------------------------|------------|
| 00   | May 20, 2019  | Initial Issue.                       | Nina Lin   |
| 01   | Jun. 13, 2019 | Page 17 & 18 Added Test Photographs. | Nina Lin   |
|      |               |                                      |            |
|      |               |                                      |            |

## Verification of Compliance

Issued Date: Jun. 13, 2019

Applicant : Ring LLC

Product Type : Door View Cam

Trade Name : Ring

Model Number : G63R9A

FCC ID : 2AEUPBHADV001

EUT Rated Voltage : DC 3.6 V or DC 3.65 V, 6040 mAh

Test Voltage : DC 3.65 V

Applicable Standard : FCC 47 CFR PART 15 SUBPART C  
ANSI C63.10:2013

Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.  
No. 140-1, Changan Street, Bade District,  
Taoyuan City 33465, Taiwan (R.O.C.)  
Tel : +886-3-2710188 / Fax : +886-3-2710190  
Taiwan Accreditation Foundation accreditation number: 1330  
<http://www.atl-lab.com.tw/e-index.htm>



A Test Lab Techno Corp. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by A Test Lab Techno Corp. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

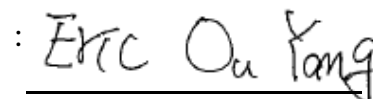
Approved By



(Manager)

(Fly Lu)

Reviewed By



(Testing Engineer)

(Eric Ou Yang)

## TABLE OF CONTENTS

|          |                                                 |           |
|----------|-------------------------------------------------|-----------|
| <b>1</b> | <b>General Information .....</b>                | <b>5</b>  |
| 1.1.     | Summary of Test Result .....                    | 5         |
| 1.2.     | Measurement Uncertainty .....                   | 6         |
| <b>2</b> | <b>EUT Description.....</b>                     | <b>7</b>  |
| <b>3</b> | <b>Test Methodology.....</b>                    | <b>8</b>  |
| 3.1.     | Mode of Operation.....                          | 8         |
| 3.2.     | EUT Test Step.....                              | 8         |
| 3.3.     | Configuration of Test System Details.....       | 9         |
| 3.4.     | Test Instruments .....                          | 10        |
| 3.5.     | Test Site Environment.....                      | 10        |
| <b>4</b> | <b>Measurement Procedure.....</b>               | <b>11</b> |
| 4.1.     | Radiated Emission Measurement.....              | 11        |
| 4.2.     | Maximum Conducted Output Power Measurement..... | 15        |
| 4.3.     | Antenna Measurement .....                       | 15        |
| <b>5</b> | <b>Test Results .....</b>                       | <b>16</b> |
|          | Annex A. Conducted Test Results .....           | 16        |
|          | Annex B. Radiated Emission Measurement .....    | 17        |



## 1 General Information

### 1.1. Summary of Test Result

| Standard     | Item                                    | Result | Remark |
|--------------|-----------------------------------------|--------|--------|
| FCC          |                                         |        |        |
| 15.207       | AC Power Conducted Emission             | N/A    | Note1  |
| 15.247(d)    | Transmitter Radiated Emissions          | PASS   | Note2  |
| 15.247(b)(3) | Max. Output Power                       | PASS   | -----  |
| 15.247(a)(2) | 6 dB RF Bandwidth                       | N/A    | Note1  |
| 15.247(e)    | Maximum Power Spectral Density          | N/A    | Note1  |
| 15.247(d)    | Out of Band Conducted Spurious Emission | N/A    | Note1  |
| 15.203       | Antenna Requirement                     | PASS   | -----  |

The test results of this report relate only to the tested sample(s) identified in this report.

Note1: C2PC No need for verification.

Note2: Transmitter Radiated Emissions is tested using the Harmonic worst Mode 2(2480 MHz).

| Standard                                      | Description                                                                                                                                                                              |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CFR47, Part 15, Subpart C                     | Intentional Radiators                                                                                                                                                                    |
| ANSI C63. 10: 2013                            | American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices                                                                                           |
| KDB 558074 D01 15.247<br>Meas Guidance v05r02 | GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES |

## 1.2. Measurement Uncertainty

| Test Item              | Frequency Range       | Uncertainty (dB) |
|------------------------|-----------------------|------------------|
| Conducted Emission     | 9 kHz ~ 150 kHz       | 2.7              |
|                        | 150 kHz ~ 30 MHz      | 2.7              |
| Radiated Emission      | 9 kHz ~ 30 MHz        | 1.7              |
|                        | 30 MHz ~ 1000 MHz     | 5.7              |
|                        | 1000 MHz ~ 18000 MHz  | 5.5              |
|                        | 18000 MHz ~ 26500 MHz | 4.8              |
|                        | 26500 MHz ~ 40000 MHz | 4.8              |
| Conducted Output Power | +0.27 dB / -0.28 dB   |                  |
| RF Bandwidth           | 4.96 %                |                  |
| Power Spectral Density | +0.71 dB / -0.77 dB   |                  |



## 2 EUT Description

|                            |                                                                     |                 |
|----------------------------|---------------------------------------------------------------------|-----------------|
| Applicant                  | Ring LLC<br>1523 26th Street, Santa Monica CA 90404, United States  |                 |
| Manufacturer               | Ring Inc.<br>1523 26th Street, Santa Monica CA 90404, United States |                 |
| Product Type               | Door View Cam                                                       |                 |
| Trade Name                 | Ring                                                                |                 |
| Model No.                  | G63R9A                                                              |                 |
| FCC ID                     | 2AEUPBHADV001                                                       |                 |
| Class II Permissive Change | Change the main board, camera board and the appearance.             |                 |
| Frequency Range            | 2402 ~ 2480 MHz                                                     |                 |
| Modulation Type            | GFSK                                                                |                 |
| Operate Temp. Range        | -20 ~ +50 °C                                                        |                 |
| Antenna information        | Type                                                                | Max. Gain (dBi) |
|                            | PIFA Antenna                                                        | 1.94            |
| RF Output Power            | LE, GFSK: 0.00076 W                                                 |                 |
|                            | 2LE, GFSK: 0.00077 W                                                |                 |

### 3 Test Methodology

#### 3.1. Mode of Operation

Decision of Test ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

| Test Mode                            |
|--------------------------------------|
| Mode 1: Transmit mode                |
| Mode 2: LE, GFSK Continuous TX Mode  |
| Mode 3: 2LE, GFSK Continuous TX Mode |

| Final-Test Mode                      |
|--------------------------------------|
| Mode 1: Transmit Mode                |
| Mode 2: LE, GFSK Continuous TX Mode  |
| Mode 3: 2LE, GFSK Continuous TX Mode |

Software used to control the EUT for staying in continuous transmitting mode was programmed.

After verification, all tests were carried out with the worst case test modes.

By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that "X axis" position was the worst, then the final test was executed the worst condition and test data were recorded in this report.

Note: The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98 %.

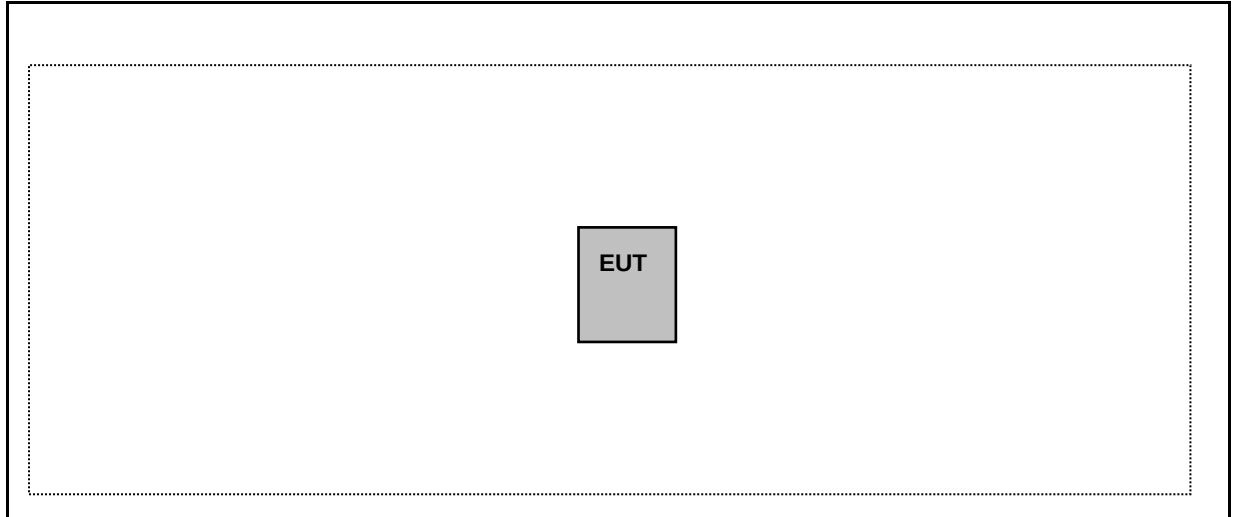
#### 3.2. EUT Test Step

|   |                                                                |
|---|----------------------------------------------------------------|
| 1 | Setup the EUT shown on "Configuration of Test System Details". |
| 2 | Turn on the power of all equipment.                            |
| 3 | Turn on TX function.                                           |
| 4 | EUT run test program.                                          |

| Measurement Software |                   |          |         |
|----------------------|-------------------|----------|---------|
| No.                  | Description       | Software | Version |
| 1                    | Radiated Emission | EZ EMC   | 1.1.4.4 |

### 3.3. Configuration of Test System Details

#### Radiated Emissions



| Devices Description |         |              |              |               |            |
|---------------------|---------|--------------|--------------|---------------|------------|
|                     | Product | Manufacturer | Model Number | Serial Number | Power Cord |
| (1)                 | ---     | ---          | ---          | ---           | ---        |



### 3.4. Test Instruments

For Radiated Emissions

Test Period: May 13, 2019

| Equipment                           | Manufacturer                   | Model Number           | Serial Number | Cal. Date  | Cal. Period |
|-------------------------------------|--------------------------------|------------------------|---------------|------------|-------------|
| Spectrum Analyzer<br>(10 Hz~44 GHz) | Keysight                       | N9010A                 | MY52221312    | 01/14/2019 | 1 year      |
| Pre Amplifier<br>(1~26.5 GHz)       | Agilent                        | 8449B                  | 3008A02237    | 10/16/2018 | 1 year      |
| Pre Amplifier<br>(100 kHz~1.3 GHz)  | Agilent                        | 8447D                  | 2944A11119    | 01/14/2019 | 1 year      |
| Broadband Antenna                   | Schwarzbeck                    | VULB9168               | 416           | 10/19/2018 | 1 year      |
| Horn Antenna<br>(1~18 GHz)          | SCHWARZBECK<br>MESS-ELEKTRONIK | BBHA9120D              | 9120D-550     | 08/23/2018 | 1 year      |
| Horn Antenna<br>(18~40 GHz)         | SCHWARZBECK<br>MESS-ELEKTRONIK | BBHA9170               | 9170-320      | 08/07/2018 | 1 year      |
| Loop Antenna                        | COM-POWER<br>CORPORATION       | AL-130                 | 121014        | 03/29/2019 | 1 year      |
| RF Cable                            | EMCI                           | EMC104-N-N-6000        | TE01-1        | 02/20/2019 | 1 year      |
| Microwave Cable                     | EMCI                           | EMC104-SM-SM-130<br>00 | 170814        | 10/30/2018 | 1 year      |
| Microwave Cable                     | EMCI                           | EMC102-KM-KM-140<br>00 | 151001        | 02/20/2019 | 1 year      |

For Conducted

Test Period: May 15, 2019

| Equipment       | Manufacturer | Model Number     | Serial Number | Cal. Date  | Cal. Period |
|-----------------|--------------|------------------|---------------|------------|-------------|
| Power Sensor    | Anritsu      | MA2411B          | 1126022       | 08/29/2018 | 1 year      |
| Power Meter     | Anritsu      | ML2495A          | 1135009       | 08/29/2018 | 1 year      |
| Microwave Cable | EMCI         | EMC102-SM-SM1500 | 001           | 11/21/2018 | 1 year      |
| Test Site       | ATL          | TE05             | TE05          | N.C.R.     | -----       |

Note: N.C.R. = No Calibration Request.

### 3.5. Test Site Environment

| Items                      | Required (IEC 60068-1) | Actual |
|----------------------------|------------------------|--------|
| Temperature (°C)           | 15-35                  | 26     |
| Humidity (%RH)             | 25-75                  | 60     |
| Barometric pressure (mbar) | 860-1060               | 990    |

## 4 Measurement Procedure

### 4.1. Radiated Emission Measurement

#### ■ Limit

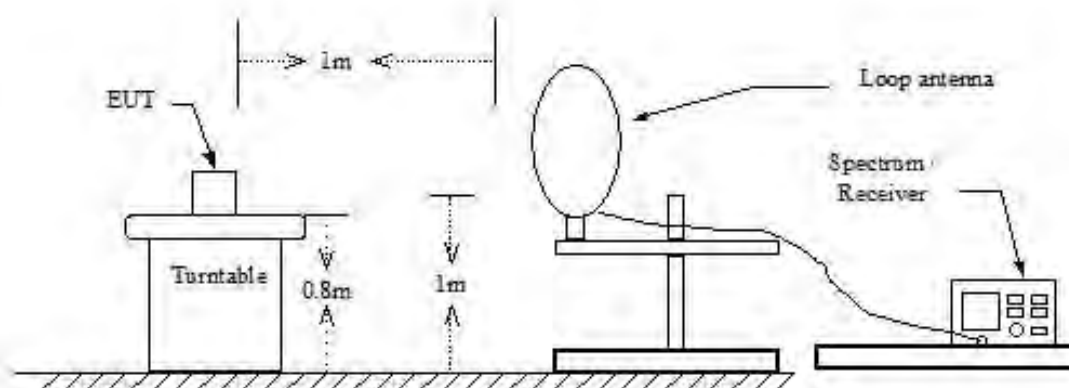
According to §15.209(a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

| Frequency<br>(MHz) | Field Strength<br>( $\mu\text{V/m}$ at meter) | Measurement Distance<br>(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                                |
| Above 960          | 500                                           | 3                                |

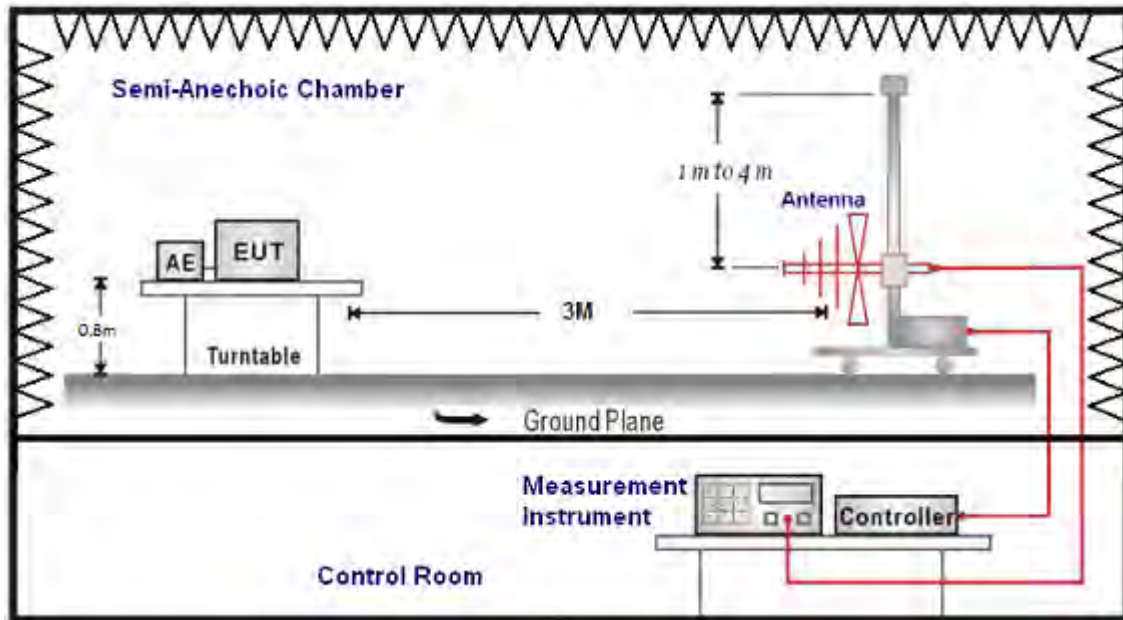
\*\* Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

#### ■ Setup

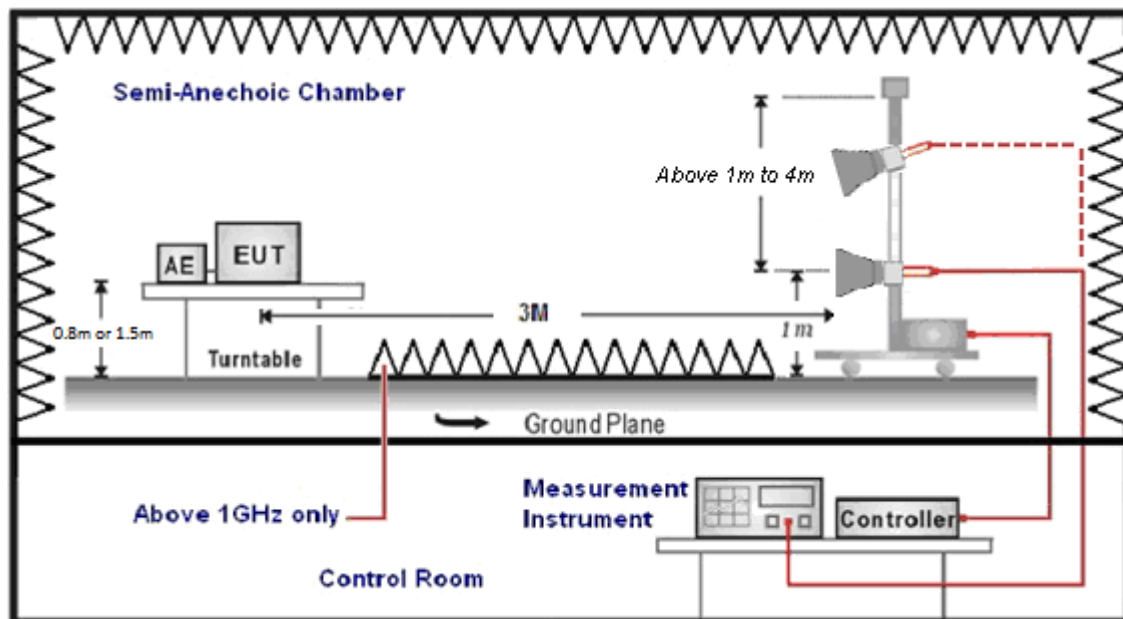
9 kHz ~ 30 MHz



Below 1 GHz



Above 1 GHz



## ■ Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 or 1.5 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 9 kHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 3 MHz for peak measurements and 10 Hz for average measurements when Duty cycle  $>0.98$  /  $1/T$  for average measurements when Duty cycle  $<0.98$ . A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna was used in frequencies 1 –26.5 GHz at a distance of 3 meter. The antenna at an angle toward the source of the emission. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20 dB/decade).

For testing above 1 GHz, the emission level of the EUT in peak mode was 20 dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts pre meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro volts per meter (dBuV/m).

The actual field is intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

$$(1) \text{ Amplitude (dBuV/m) = FI (dBuV) + AF (dBuV) + CL (dBuV) - Gain (dB)}$$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

$$(2) \text{ Actual Amplitude (dBuV/m) = Amplitude (dBuV) - Dis(dB)}$$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

(a) For fundamental frequency : Transmitter Output < +30 dBm

(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

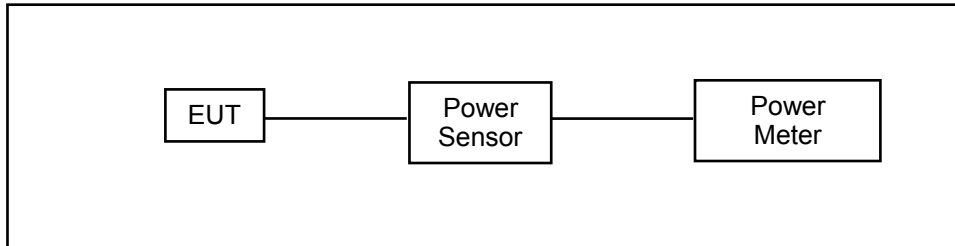
Data of measurement within this frequency range without mark in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.

## 4.2. Maximum Conducted Output Power Measurement

### ■ Limit

For systems using digital modulation in the 2400-2483.5 MHz, the limit for peak output power is 30 dBm.

### ■ Test Setup



### ■ Test Procedure

The testing follows the Measurement Procedure of ANSI C63.10:2013 section 11.9.2.3.2 Method AVGPM.

The tests below are run with the EUT's transmitter set at high power in TX mode. The EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to power sensor..

## 4.3. Antenna Measurement

### ■ Limit

For intentional device, according to 15.203, 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.

And According to 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### ■ Antenna Connector Construction

See section 2 – antenna information.

## 5 Test Results

### Annex A. Conducted Test Results

#### Maximum Conducted Output Power Measurement

| Test Mode       | Mode 2        |         |              |                |             |
|-----------------|---------------|---------|--------------|----------------|-------------|
| Frequency (MHz) | Average Power |         | Peak Power   |                | Limit (dBm) |
|                 | (dBm)         | (W)     | (dBm)        | (W)            |             |
| 2402            | -1.62         | 0.00069 | -1.48        | 0.00071        | ≤ 30        |
| 2440            | -1.53         | 0.00070 | -1.39        | 0.00073        | ≤ 30        |
| 2480            | -1.33         | 0.00074 | <b>-1.17</b> | <b>0.00076</b> | ≤ 30        |

| Test Mode       | Mode 3        |         |              |                |             |
|-----------------|---------------|---------|--------------|----------------|-------------|
| Frequency (MHz) | Average Power |         | Peak Power   |                | Limit (dBm) |
|                 | (dBm)         | (W)     | (dBm)        | (W)            |             |
| 2402            | -1.57         | 0.00070 | -1.45        | 0.00072        | ≤ 30        |
| 2440            | -1.47         | 0.00071 | -1.33        | 0.00074        | ≤ 30        |
| 2480            | -1.26         | 0.00075 | <b>-1.16</b> | <b>0.00077</b> | ≤ 30        |

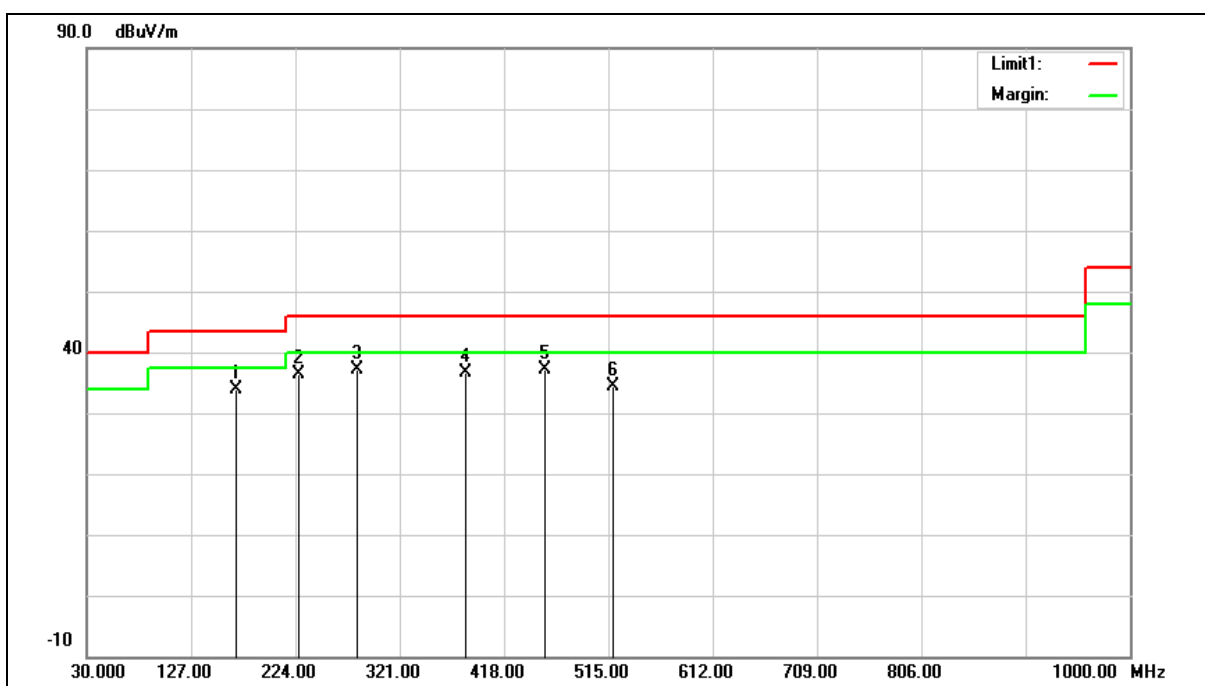
Note: The relevant measured result has the offset with cable loss already.

## Annex B. Radiated Emission Measurement

### Harmonic

Below 1 GHz

|             |                 |                       |               |
|-------------|-----------------|-----------------------|---------------|
| Standard:   | FCC Part 15.247 | Test Distance:        | 3 m           |
| Test item:  | Harmonic        | Power:                | DC 3.65 V     |
| Frequency:  | 2480 MHz        | Temp.(°C)/Hum. (%RH): | 26(°C)/60 %RH |
| Mode:       | Mode 2          |                       |               |
| Ant.Polar.: | Horizontal      |                       |               |



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 1   | 168.7100        | 40.01          | -6.01                 | 34.00           | 43.50          | -9.50       | QP     |
| 2   | 226.9100        | 43.78          | -7.33                 | 36.45           | 46.00          | -9.55       | QP     |
| 3   | 281.2300        | 41.73          | -4.63                 | 37.10           | 46.00          | -8.90       | QP     |
| 4   | 382.1100        | 39.21          | -2.60                 | 36.61           | 46.00          | -9.39       | QP     |
| 5   | 455.8300        | 38.11          | -0.88                 | 37.23           | 46.00          | -8.77       | QP     |
| 6   | 518.8800        | 34.38          | 0.00                  | 34.38           | 46.00          | -11.62      | QP     |

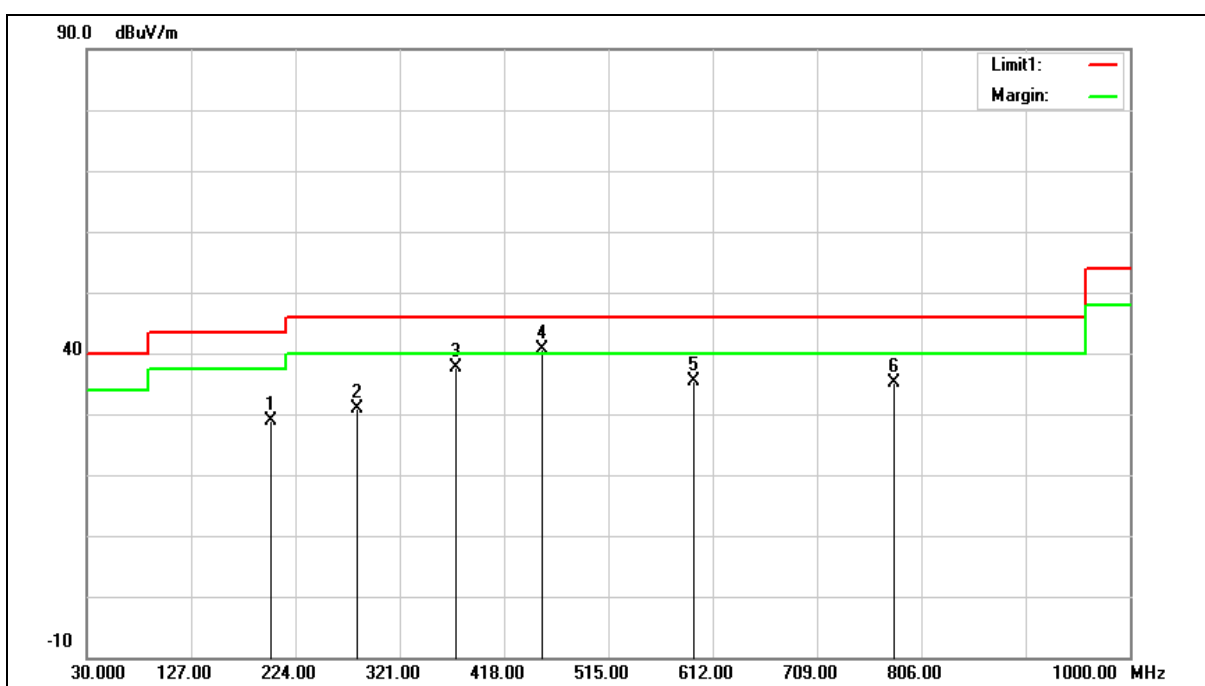
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

Example: 34.00 = -6.01 + 40.01.

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

|             |                 |                      |               |
|-------------|-----------------|----------------------|---------------|
| Standard:   | FCC Part 15.247 | Test Distance:       | 3 m           |
| Test item:  | Harmonic        | Power:               | DC 3.65 V     |
| Frequency:  | 2480 MHz        | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH |
| Mode:       | Mode 2          |                      |               |
| Ant.Polar.: | Vertical        |                      |               |



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 1   | 200.7200        | 36.88          | -7.91                 | 28.97           | 43.50          | -14.53      | QP     |
| 2   | 281.2300        | 35.49          | -4.63                 | 30.86           | 46.00          | -15.14      | QP     |
| 3   | 373.3800        | 40.39          | -2.76                 | 37.63           | 46.00          | -8.37       | QP     |
| 4   | 453.8900        | 41.64          | -0.91                 | 40.73           | 46.00          | -5.27       | QP     |
| 5   | 594.5400        | 33.48          | 2.01                  | 35.49           | 46.00          | -10.51      | QP     |
| 6   | 780.7800        | 29.77          | 5.48                  | 35.25           | 46.00          | -10.75      | QP     |

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

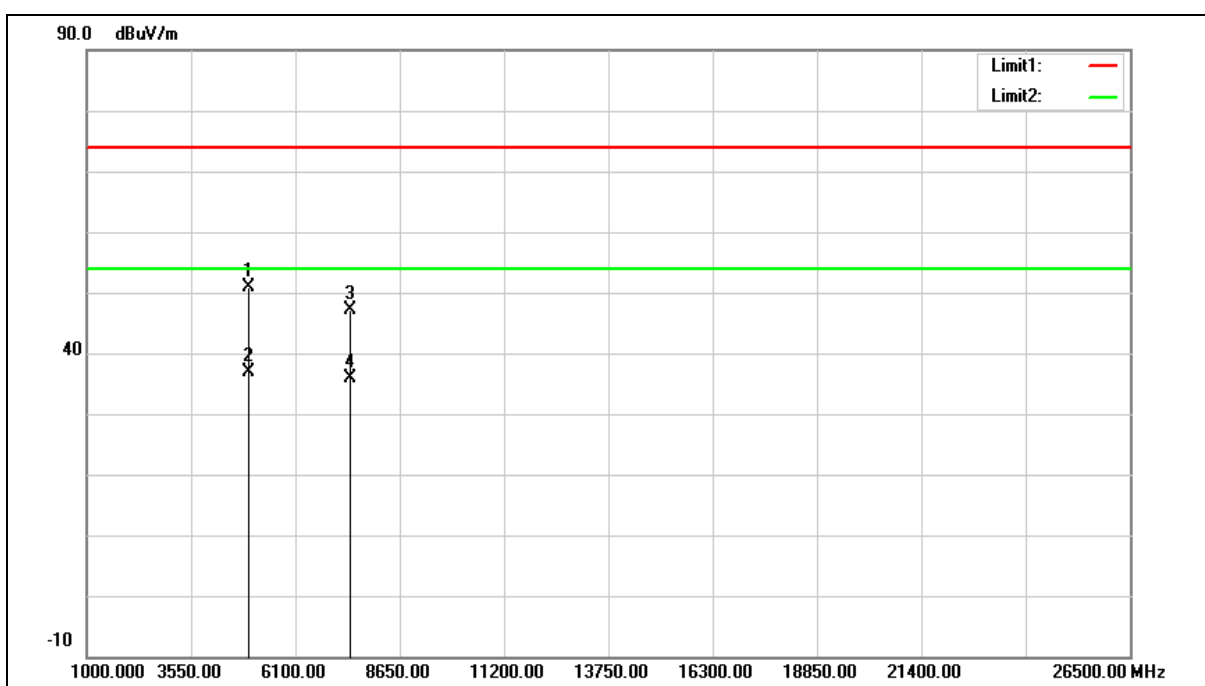
Example: 28.97 = -7.91 + 36.88.

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

### Above 1 GHz

|             |                 |                      |               |
|-------------|-----------------|----------------------|---------------|
| Standard:   | FCC Part 15.247 | Test Distance:       | 3 m           |
| Test item:  | Harmonic        | Power:               | DC 3.65 V     |
| Frequency:  | 2480 MHz        | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH |
| Mode:       | Mode 2          |                      |               |
| Ant.Polar.: | Horizontal      |                      |               |



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 1   | 4960.000        | 44.97          | 5.83                  | 50.80           | 74.00          | -23.20      | peak   |
| 2   | 4960.000        | 31.04          | 5.83                  | 36.87           | 54.00          | -17.13      | AVG    |
| 3   | 7440.000        | 34.70          | 12.47                 | 47.17           | 74.00          | -26.83      | peak   |
| 4   | 7440.000        | 23.42          | 12.47                 | 35.89           | 54.00          | -18.11      | AVG    |

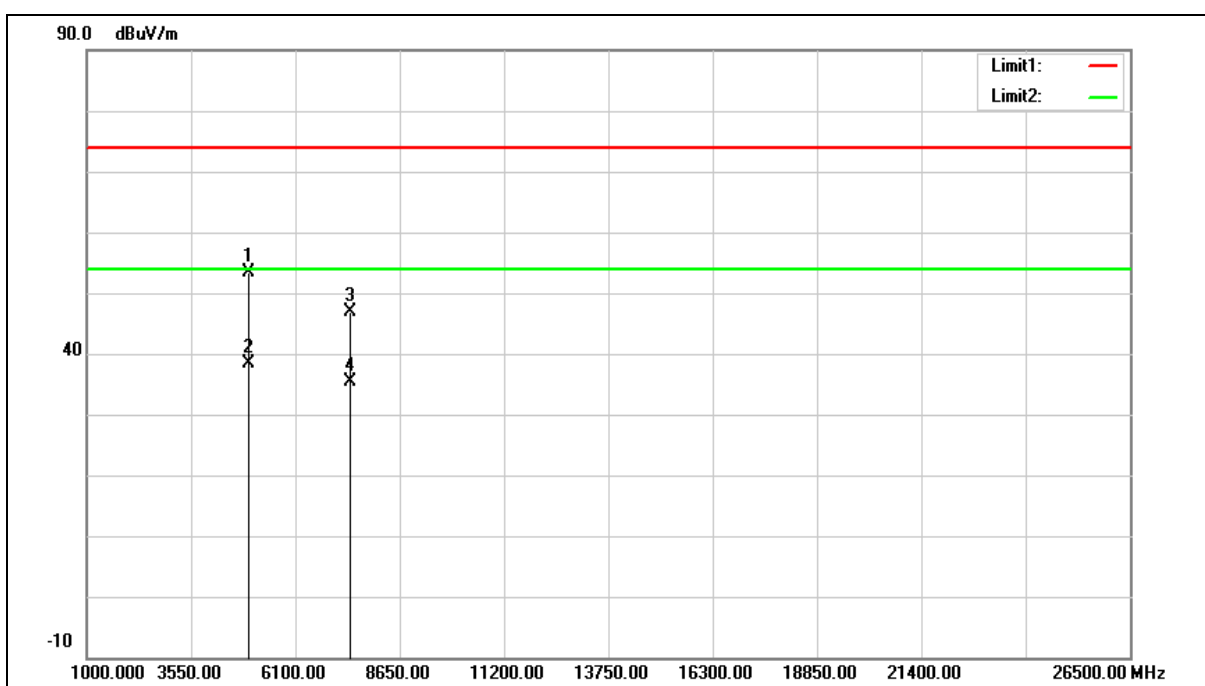
Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

Example: 50.80 = 5.83 + 44.97.

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

|             |                 |                      |               |
|-------------|-----------------|----------------------|---------------|
| Standard:   | FCC Part 15.247 | Test Distance:       | 3 m           |
| Test item:  | Harmonic        | Power:               | DC 3.65 V     |
| Frequency:  | 2480 MHz        | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH |
| Mode:       | Mode 2          |                      |               |
| Ant.Polar.: | Vertical        |                      |               |



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 1   | 4960.000        | 47.56          | 5.83                  | 53.39           | 74.00          | -20.61      | peak   |
| 2   | 4960.000        | 32.49          | 5.83                  | 38.32           | 54.00          | -15.68      | AVG    |
| 3   | 7440.000        | 34.36          | 12.47                 | 46.83           | 74.00          | -27.17      | peak   |
| 4   | 7440.000        | 22.90          | 12.47                 | 35.37           | 54.00          | -18.63      | AVG    |

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

Example: 53.39 = 5.83 + 47.56.

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.