



## FCC TEST REPORT

**FCC ID: 2AXY5-M32**

On Behalf of

Shenzhen Yifeng Intelligent Technology Co., Ltd.

Car Magnetic Wireless Charger

Model No.: M32

Prepared for : Shenzhen Yifeng Intelligent Technology Co., Ltd.  
Address : 201, Building 4, Sanwei Chaxi Industrial Zone, Sanwei Community, Hang  
Cheng Street, Bao An District, Shenzhen.

Prepared By : Shenzhen PSI Testing Co., Ltd.  
Address : 1-2/F., Building 5, Yudafu Industrial Park, No.10, Xingye West Road,  
Shajing Subdistrict, Bao'an District, Shenzhen, Guangdong, China

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Date of Receipt : June 26, 2025  
Date of Test : June 26, 2025-Aug. 14, 2025  
Date of Report : Aug. 14, 2025  
Version Number : V0

## TABLE OF CONTENTS

| <b>Description</b>                                                       | <b>Page</b> |
|--------------------------------------------------------------------------|-------------|
| <b>1. Test Result Summary .....</b>                                      | <b>5</b>    |
| <b>2. General Information .....</b>                                      | <b>6</b>    |
| <b>2.1. DESCRIPTION OF DEVICE (EUT) .....</b>                            | <b>6</b>    |
| <b>2.2. ACCESSORIES OF DEVICE (EUT) .....</b>                            | <b>7</b>    |
| <b>2.3. TESTED SUPPORTING SYSTEM DETAILS .....</b>                       | <b>7</b>    |
| <b>2.4. BLOCK DIAGRAM OF CONNECTION BETWEEN EUT AND SIMULATORS .....</b> | <b>7</b>    |
| <b>2.5. DESCRIPTION OF TEST MODES .....</b>                              | <b>8</b>    |
| <b>2.6. TEST CONDITIONS .....</b>                                        | <b>8</b>    |
| <b>2.7. TEST FACILITY .....</b>                                          | <b>9</b>    |
| <b>2.8. MEASUREMENT UNCERTAINTY .....</b>                                | <b>9</b>    |
| <b>2.9. TEST EQUIPMENT LIST .....</b>                                    | <b>10</b>   |
| <b>3. Test Results and Measurement Data .....</b>                        | <b>11</b>   |
| <b>3.1. CONDUCTED EMISSION .....</b>                                     | <b>11</b>   |
| <b>3.2. RADIATED SPURIOUS EMISSION MEASUREMENT .....</b>                 | <b>15</b>   |
| <b>3.3. TEST SPECIFICATION .....</b>                                     | <b>23</b>   |
| <b>4. Photos of test setup .....</b>                                     | <b>25</b>   |
| <b>5. Photos of EUT .....</b>                                            | <b>25</b>   |

## TEST REPORT DECLARATION

Applicant : Shenzhen Yifeng Intelligent Technology Co., Ltd.  
Address : 201, Building 4, Sanwei Chaxi Industrial Zone, Sanwei Community, Hang Cheng Street, Bao An District, Shenzhen.  
Manufacturer : Shenzhen Yifeng Intelligent Technology Co., Ltd.  
Address : 201, Building 4, Sanwei Chaxi Industrial Zone, Sanwei Community, Hang Cheng Street, Bao An District, Shenzhen.  
EUT Description : Car Magnetic Wireless Charger  
(A) Model No. : M32  
(B) Trademark : YFZN

Measurement Standard Used:

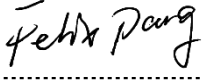
**FCC CFR Title 47 Part 15 Subpart C**

**ANSI C63.10:2013**

**Test Result: PASS**

The device described above is tested by Shenzhen PSI Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen PSI Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the FCC CFR Title 47 Part 15 Subpart C requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen PSI Testing Co., Ltd.

Tested by (name + signature).....: Felix Pang  
Test Engineer 

Approved by (name + signature).....: Simple Guan  
Project Manager 

Date of issue.....: Aug. 14, 2025

**Revision History**

| Revision | Issue Date    | Revisions              | Revised By |
|----------|---------------|------------------------|------------|
| V0       | Aug. 14, 2025 | Initial released Issue | Felix Pang |

## 1. Test Result Summary

| Requirement                      | CFR 47 Section | Result |
|----------------------------------|----------------|--------|
| Antenna requirement              | §15.203        | PASS   |
| AC Power Line Conducted Emission | §15.207        | PASS   |
| Spurious Emission                | §15.209        | PASS   |
| Occupied Bandwidth               | §15.215 (c)    | PASS   |

**Note:**

1. *PASS: Test item meets the requirement.*
2. *Fail: Test item does not meet the requirement.*
3. *N/A: Test case does not apply to the test object.*
4. *The test result judgment is decided by the limit of test standard.*
5. Decision rules for the conclusion of this test report: decision by actual test data without considering measurement uncertainty.

## 2. General Information

### 2.1. Description of Device (EUT)

EUT Name : Car Magnetic Wireless Charger  
Model No. : M32  
DIFF. : /  
Power supply : Input: 9 V  2.66 A  
Output: 15W Max

|                      |                                                                                                                        |
|----------------------|------------------------------------------------------------------------------------------------------------------------|
| Radio Technology     | : Wireless power transmission systems                                                                                  |
| Operation frequency  | : 115-205 KHz(EPP protocol ), 360 KHz (MPP protocol )                                                                  |
| Modulation           | : ASK                                                                                                                  |
| Antenna Type         | : Coil Antenna                                                                                                         |
| Connector cable loss | : 0dBi                                                                                                                 |
| Software version     | : V1.0                                                                                                                 |
| Hardware version     | : V1.0                                                                                                                 |
| Note                 | : Antenna information is provided by applicant.<br>Testing lab is not responsible for the accuracy of the information. |

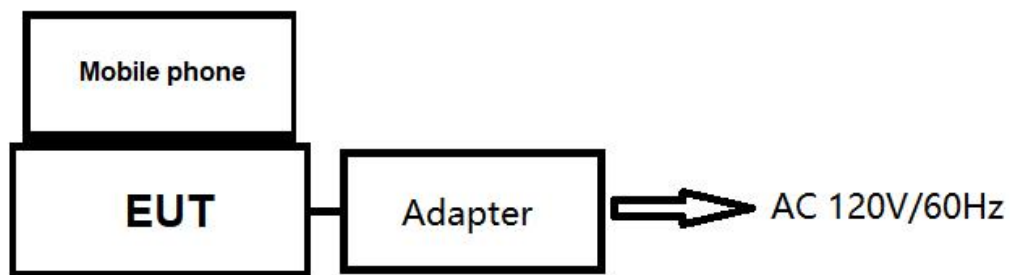
## 2.2. Accessories of Device (EUT)

|                |   |     |
|----------------|---|-----|
| Accessories    | : | N/A |
| Manufacturer   | : | N/A |
| Model          | : | N/A |
| specifications | : | N/A |

## 2.3. Tested Supporting System Details

| No. | Description  | Manufacturer                                    | Model          | Serial Number | Certification |
|-----|--------------|-------------------------------------------------|----------------|---------------|---------------|
| 1   | AC Adapter   | Huizhou Jinhui Industrial Development Co., Ltd. | VCBAJACH       | /             | /             |
| 2   | Mobile phone | Xiaomi Communications Co., Ltd.                 | Xiaomi 12S Pro | /             | /             |
| 3   | Mobile phone | Apple Inc.                                      | iPhone 15 Pro  | /             | /             |

## 2.4. Block Diagram of connection between EUT and simulators



## 2.5. Description of Test Modes

| Number                                                                                     | Modes                                                              |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 1                                                                                          | AC Mains + Phone charging port (EPP protocol: Battery Status:≤1%)  |
| 2                                                                                          | AC Mains + Phone charging port (EPP protocol: Battery Status:50%)  |
| 3                                                                                          | AC Mains + Phone charging port (EPP protocol: Battery Status:≥98%) |
| 4                                                                                          | AC Mains + Phone charging port (MPP protocol: Battery Status:≤1%)  |
| 5                                                                                          | AC Mains + Phone charging port (MPP protocol: Battery Status:50%)  |
| 6                                                                                          | AC Mains + Phone charging port (MPP protocol: Battery Status:≥98%) |
| 7                                                                                          | Standby                                                            |
| Note:1. All test modes has been tested, this report only reflected the model 1 worst mode. |                                                                    |

## 2.6. Test Conditions

| Items              | Required  |
|--------------------|-----------|
| Temperature range: | 15-35℃    |
| Humidity range:    | 25-75%    |
| Pressure range:    | 86-106kPa |

## 2.7. Test Facility

Shenzhen PSI Testing Co., Ltd.

1-2/F., Building 5, Yudafu Industrial Park, No.10, Xingye West Road, Shajing Subdistrict, Bao'an District, Shenzhen, Guangdong, China

September 13, 2023 File on Federal Communication Commission

Registration Number: 916281

## 2.8. Measurement Uncertainty

(95% confidence levels, k=2)

| Item                                                                   | Uncertainty          |
|------------------------------------------------------------------------|----------------------|
| Uncertainty for Power Line Conducted Emissions Test                    | 2.17dB               |
| Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)    | 3.5dB                |
| Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)  | 2.74dB(Polarize: V)  |
|                                                                        | 2.76dB(Polarize: H)  |
| Uncertainty for Radiation Emission test in 3m chamber (1GHz to 18GHz)  | 4.29dB(Polarize: V)  |
|                                                                        | 4.82dB(Polarize: H)  |
| Uncertainty for Radiation Emission test in 3m chamber (18GHz to 40GHz) | 4.31 dB(Polarize: V) |
|                                                                        | 4.30 dB(Polarize: H) |
| Uncertainty for radio frequency                                        | 48.24KHz             |
| Uncertainty for conducted RF Power                                     | 0.41dB               |
| Occupied Bandwidth                                                     | 968Hz                |

## 2.9. Test Equipment List

| Item | Equipment                 | Manufacturer  | Model No.         | Serial No.               | Firmware Version | Last Cal.  | Cal. Interval |
|------|---------------------------|---------------|-------------------|--------------------------|------------------|------------|---------------|
| 1.   | 9*6*6 anechoic chamber    | SKET          | 9*6*6             | N/A                      | /                | 2022.12.20 | 3 Year        |
| 2.   | Test Receiver             | Rohde&Schwarz | ESCI 7            | 101032/003               | 4.42 SP3         | 2024.12.18 | 1 Year        |
| 3.   | L.I.S.N.#1                | Rohde&Schwarz | ENV216            | 102282                   | /                | 2024.12.18 | 1 Year        |
| 4.   | L.I.S.N.#2                | RFT           | NNB111            | 13835240                 | /                | 2024.12.18 | 1 Year        |
| 5.   | Loop Antenna              | Schwarz beck  | FMZB 1519B        | 00128                    | /                | 2025.01.02 | 2 Year        |
| 6.   | Bilog Antenna             | Schwarz beck  | VULB 9168         | 01448                    | /                | 2025.01.02 | 2 Year        |
| 7.   | Spectrum Analyzer         | Rohde&Schwarz | FSV-40N           | 101648                   | 3.70             | 2024.12.18 | 1 Year        |
| 8.   | Horn Antenna              | Schwarz beck  | BBHA 9120 D       | 02706                    | /                | 2025.01.02 | 2 Year        |
| 9.   | Amplifier                 | SKET          | LAPA_01G1 8G-45dB | SK20220329 01            | /                | 2024.12.18 | 1 Year        |
| 10.  | Horn Antenna              | Schwarz beck  | BBHA 9170         | 00946                    | /                | 2024.12.31 | 2 Year        |
| 11.  | Amplifier                 | SKET          | LNPA_0118 G-45    | SK20200108 01            | /                | 2024.12.18 | 1 Year        |
| 12.  | RF Power Probe            | Rohde&Schwarz | NRP-Z11           | 1138.3004.02 -1111533-Fz | /                | 2024.12.18 | 1 Year        |
| 13.  | RF Sensor Unit            | Tachoy        | TR1029-2          | 20220428P0 08            | /                | 2024.12.18 | 1 Year        |
| 14.  | Spectrum Analyzer         | Agilent       | N9020A            | MY51281067               | A.14.03          | 2024.12.18 | 1 Year        |
| 15.  | Temp. & Humid Chamber     | Auchno        | 9606              | /                        | /                | 2024.12.18 | 1 Year        |
| 16.  | Regulated DC Power Supply | Xinouhua      | ADC120V10 A       | 20221125163 8            | /                | 2024.12.18 | 1 Year        |
| 17.  | Cable                     | SKET          | Cable-RE-1        | #02/#03                  | /                | 2024.12.18 | 1 Year        |
| 18.  | Cable                     | SKET          | Cable-RE-2        | #01                      | /                | 2024.12.18 | 1 Year        |
| 19.  | Cable                     | SKET          | Cable-RE-3        | #04                      | /                | 2024.12.18 | 1 Year        |
| 20.  | Cable                     | SKET          | Cable-CE-1        | A-E-24                   | /                | 2024.12.18 | 1 Year        |
| 21.  | 6dB Attenuator            | Schwarzbeck   | DGA 9552N 6dB     | CK4186                   | /                | 2024.12.18 | 1 Year        |
| 22.  | Power meter               | Agilent       | E4419B            | GB40202121               | /                | 2024.12.18 | 1 Year        |

### For Test Software Information

| Item | Software Name | Manufacturer | Version |
|------|---------------|--------------|---------|
| RE   | EZ EMC        | Farad        | PSI-3A1 |
| CE   | EZ EMC        | Farad        | PSI-3A1 |
| RF   | RTS           | TACHOY       | V1.0.0  |

### 3. Test Results and Measurement Data

#### 3.1. Conducted Emission

##### 3.1.1. Test Specification

| Test Requirement:     | FCC Part15 C Section 15.207                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |              |  |            |         |          |           |           |       |    |    |      |    |    |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------|--|------------|---------|----------|-----------|-----------|-------|----|----|------|----|----|
| Test Method:          | ANSI C63.10:2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                       |              |  |            |         |          |           |           |       |    |    |      |    |    |
| Frequency Range:      | 150 kHz to 30 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |              |  |            |         |          |           |           |       |    |    |      |    |    |
| Receiver setup:       | RBW=9 kHz, VBW=30 kHz, Sweep time=auto                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |              |  |            |         |          |           |           |       |    |    |      |    |    |
| Limits:               | <table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBuV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>5-30</td><td>60</td><td>50</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                            | Frequency range (MHz) | Limit (dBuV) |  | Quasi-peak | Average | 0.15-0.5 | 66 to 56* | 56 to 46* | 0.5-5 | 56 | 46 | 5-30 | 60 | 50 |
| Frequency range (MHz) | Limit (dBuV)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |              |  |            |         |          |           |           |       |    |    |      |    |    |
|                       | Quasi-peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Average               |              |  |            |         |          |           |           |       |    |    |      |    |    |
| 0.15-0.5              | 66 to 56*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 56 to 46*             |              |  |            |         |          |           |           |       |    |    |      |    |    |
| 0.5-5                 | 56                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 46                    |              |  |            |         |          |           |           |       |    |    |      |    |    |
| 5-30                  | 60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50                    |              |  |            |         |          |           |           |       |    |    |      |    |    |
| Test Setup:           | <div><p><b>Reference Plane</b></p><p>Remark:<br/>E.U.T: Equipment Under Test<br/>LISN: Line Impedance Stabilization Network<br/>Test table height=0.8m</p></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                       |              |  |            |         |          |           |           |       |    |    |      |    |    |
| Test Mode:            | Transmitting Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |              |  |            |         |          |           |           |       |    |    |      |    |    |
| Test Procedure:       | <div><div>1. The E.U.T is connected to an adapter through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.</div><div>2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</div><div>3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.</div></div> |                       |              |  |            |         |          |           |           |       |    |    |      |    |    |
| Test Result:          | PASS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |              |  |            |         |          |           |           |       |    |    |      |    |    |

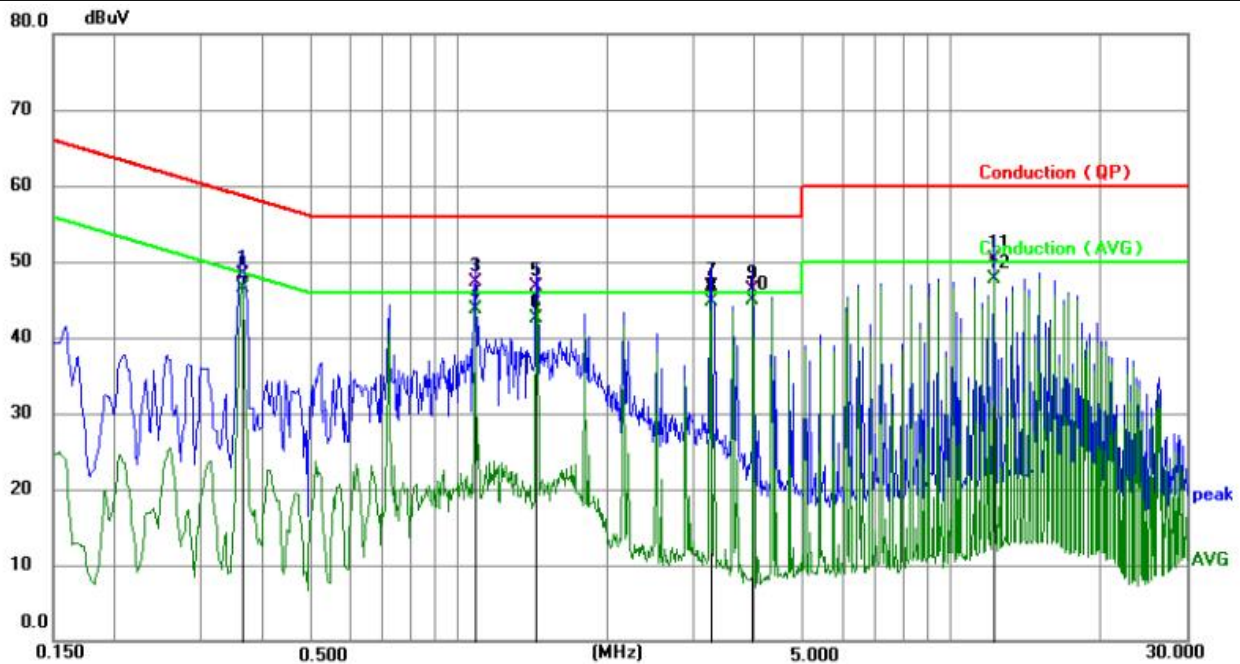
## 3.1.2. Test data

Please refer to following diagram for individual

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Mode    | : Mode 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Test Results | : <b>PASS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Note:        | <ol style="list-style-type: none"><li>1. The test results are listed in next pages.</li><li>2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector and quasi-peak detector need not be carried out.</li><li>3. If the limits for the measurement with the average detector are met when using a receiver with a quasi-peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.</li></ol> |

Mode 1:

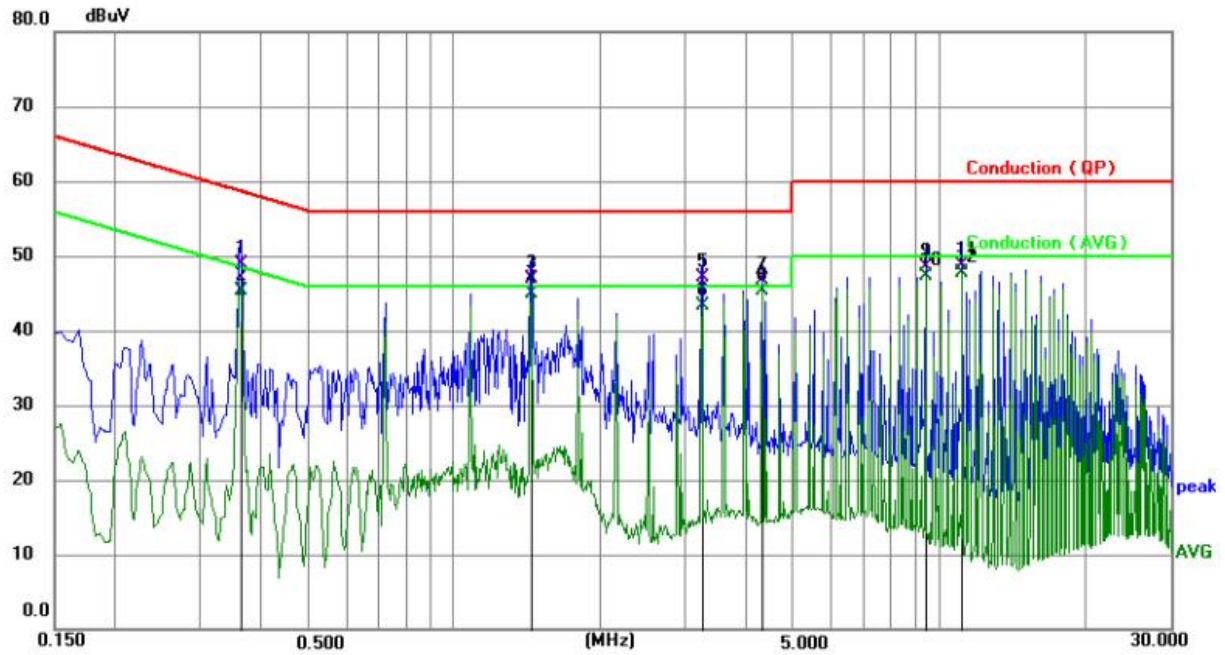
|             |      |          |              |
|-------------|------|----------|--------------|
| Temperature | 26℃  | Humidity | 54%          |
| Pol         | Line |          | AC 120V/60Hz |



| No.  | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|------|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1    | 0.3615          | 38.35          | 9.97        | 48.32        | 58.69        | -10.37      | QP       | P   |        |
| 2    | 0.3615          | 36.52          | 9.97        | 46.49        | 48.69        | -2.20       | AVG      | P   |        |
| 3    | 1.0815          | 37.32          | 10.06       | 47.38        | 56.00        | -8.62       | QP       | P   |        |
| 4    | 1.0815          | 33.71          | 10.06       | 43.77        | 46.00        | -2.23       | AVG      | P   |        |
| 5    | 1.4370          | 36.60          | 10.07       | 46.67        | 56.00        | -9.33       | QP       | P   |        |
| 6    | 1.4370          | 32.49          | 10.07       | 42.56        | 46.00        | -3.44       | AVG      | P   |        |
| 7    | 3.2415          | 36.62          | 10.08       | 46.70        | 56.00        | -9.30       | QP       | P   |        |
| 8    | 3.2415          | 34.69          | 10.08       | 44.77        | 46.00        | -1.23       | AVG      | P   |        |
| 9    | 3.9615          | 36.19          | 10.09       | 46.28        | 56.00        | -9.72       | QP       | P   |        |
| 10 * | 3.9615          | 34.76          | 10.09       | 44.85        | 46.00        | -1.15       | AVG      | P   |        |
| 11   | 12.2415         | 40.22          | 10.09       | 50.31        | 60.00        | -9.69       | QP       | P   |        |
| 12   | 12.2415         | 37.54          | 10.09       | 47.63        | 50.00        | -2.37       | AVG      | P   |        |

Level = Reading + Factor Margin = Level - Limit

|     |         |
|-----|---------|
| Pol | Neutral |
|-----|---------|

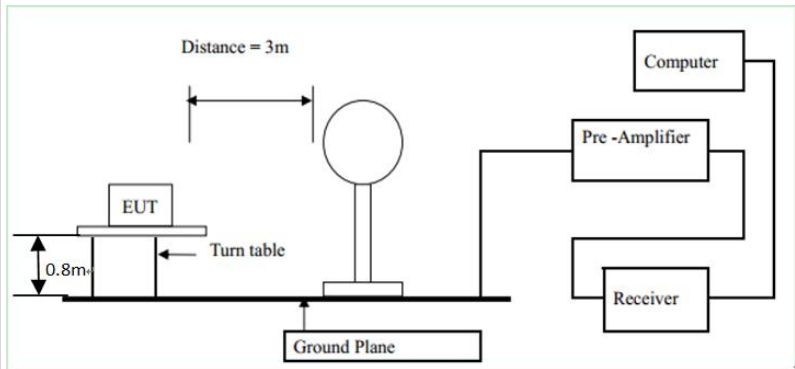


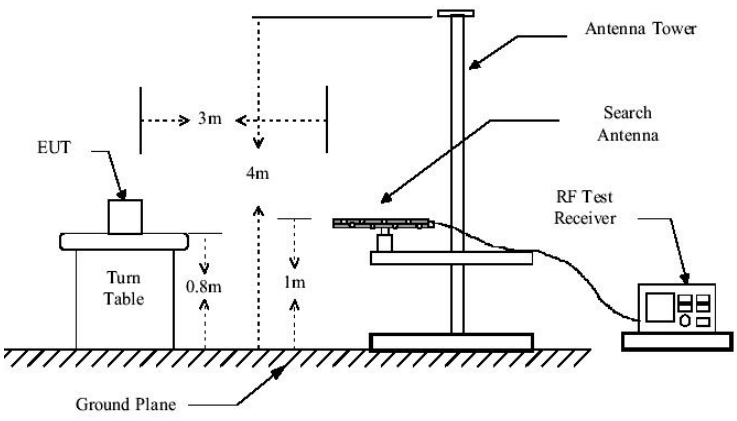
| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1   | 0.3614          | 38.90          | 9.97        | 48.87        | 58.70        | -9.83       | QP       | P   |        |
| 2   | 0.3614          | 35.39          | 9.97        | 45.36        | 48.70        | -3.34       | AVG      | P   |        |
| 3   | 1.4415          | 36.81          | 10.07       | 46.88        | 56.00        | -9.12       | QP       | P   |        |
| 4   | 1.4415          | 34.90          | 10.07       | 44.97        | 46.00        | -1.03       | AVG      | P   |        |
| 5   | 3.2414          | 37.10          | 10.08       | 47.18        | 56.00        | -8.82       | QP       | P   |        |
| 6   | 3.2414          | 33.19          | 10.08       | 43.27        | 46.00        | -2.73       | AVG      | P   |        |
| 7   | 4.3215          | 36.68          | 10.10       | 46.78        | 56.00        | -9.22       | QP       | P   |        |
| 8 * | 4.3215          | 35.25          | 10.10       | 45.35        | 46.00        | -0.65       | AVG      | P   |        |
| 9   | 9.3614          | 38.39          | 10.08       | 48.47        | 60.00        | -11.53      | QP       | P   |        |
| 10  | 9.3614          | 37.26          | 10.08       | 47.34        | 50.00        | -2.66       | AVG      | P   |        |
| 11  | 11.1615         | 38.68          | 10.08       | 48.76        | 60.00        | -11.24      | QP       | P   |        |
| 12  | 11.1615         | 37.64          | 10.08       | 47.72        | 50.00        | -2.28       | AVG      | P   |        |

Level = Reading + Factor Margin = Level - Limit

### 3.2. Radiated Spurious Emission Measurement

#### 3.2.1. Test Specification

|                                                                                      |                                                                                                                                                                                                                                                                                                    |                                    |                                      |        |                                  |
|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------|--------|----------------------------------|
| Test Requirement:                                                                    | FCC Part15 C Section 15.209                                                                                                                                                                                                                                                                        |                                    |                                      |        |                                  |
| Test Method:                                                                         | ANSI C63.10: 2013                                                                                                                                                                                                                                                                                  |                                    |                                      |        |                                  |
| Frequency Range:                                                                     | 9 kHz to 1 GHz                                                                                                                                                                                                                                                                                     |                                    |                                      |        |                                  |
| Measurement Distance:                                                                | 3 m                                                                                                                                                                                                                                                                                                |                                    |                                      |        |                                  |
| Antenna Polarization:                                                                | Coaxial & Coplanar(9KHz-30MHz)<br>Horizontal & Vertical(30MHz-1GHz)                                                                                                                                                                                                                                |                                    |                                      |        |                                  |
| Operation mode:                                                                      | Refer to item 4.1                                                                                                                                                                                                                                                                                  |                                    |                                      |        |                                  |
| Receiver Setup:                                                                      | Frequency                                                                                                                                                                                                                                                                                          | Detector                           | RBW                                  | VBW    | Remark                           |
|                                                                                      | 9kHz- 150kHz                                                                                                                                                                                                                                                                                       | Quasi-peak                         | 200Hz                                | 1kHz   | Quasi-peak Value                 |
|                                                                                      | 150kHz-30MHz                                                                                                                                                                                                                                                                                       | Quasi-peak                         | 9kHz                                 | 30kHz  | Quasi-peak Value                 |
|                                                                                      | 30MHz-1GHz                                                                                                                                                                                                                                                                                         | Quasi-peak                         | 100KHz                               | 300KHz | Quasi-peak Value                 |
|                                                                                      | Note: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 KHz, 110-490 KHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector. |                                    |                                      |        |                                  |
| Limit:                                                                               | Frequency                                                                                                                                                                                                                                                                                          |                                    | Field Strength<br>(microvolts/meter) |        | Measurement<br>Distance (meters) |
|                                                                                      | 0.009-0.490                                                                                                                                                                                                                                                                                        |                                    | 2400/F(KHz)                          |        | 300                              |
|                                                                                      | 0.490-1.705                                                                                                                                                                                                                                                                                        |                                    | 24000/F(KHz)                         |        | 30                               |
|                                                                                      | 1.705-30                                                                                                                                                                                                                                                                                           |                                    | 30                                   |        | 30                               |
|                                                                                      | 30-88                                                                                                                                                                                                                                                                                              |                                    | 100                                  |        | 3                                |
|                                                                                      | 88-216                                                                                                                                                                                                                                                                                             |                                    | 150                                  |        | 3                                |
|                                                                                      | 216-960                                                                                                                                                                                                                                                                                            |                                    | 200                                  |        | 3                                |
|                                                                                      | Above 960                                                                                                                                                                                                                                                                                          |                                    | 500                                  |        | 3                                |
|                                                                                      | Test setup:                                                                                                                                                                                                                                                                                        | For radiated emissions below 30MHz |                                      |        |                                  |
|  |                                                                                                                                                                                                                                                                                                    |                                    |                                      |        |                                  |
| 30MHz to 1GHz                                                                        |                                                                                                                                                                                                                                                                                                    |                                    |                                      |        |                                  |

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Test Procedure:</b> | <ol style="list-style-type: none"> <li>1. For the radiated emission test below 1GHz:<br/>The EUT was placed on a turntable with 0.8 meter above ground. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high PASS filter are used for the test in order to get better signal level.</li> <li>2. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level</li> <li>3. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.</li> <li>4. Use the following spectrum analyzer settings:<br/>(1) Span shall wide enough to fully capture the emission being measured;<br/>(2) Set RBW=100 kHz for <math>f &lt; 1</math> GHz; VBW <math>\geq</math> RBW; Sweep = auto; Detector function = peak; Trace = max hold;<br/>For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW <math>\geq 1/T</math>, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.</li> </ol> |
| <b>Test mode:</b>      | Refer to section 4.1 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Test results:</b>   | PASS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

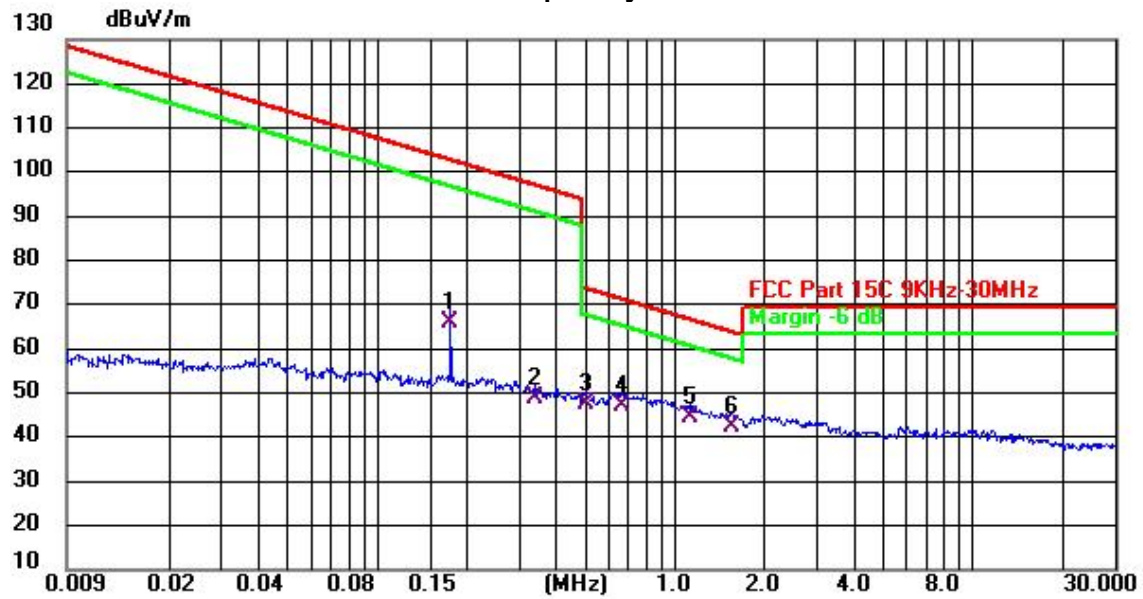
### 3.2.2. Test Data

Please refer to following diagram for individual

|                 |                                                                                                                                                                                                                                                                                                                                                      |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range | : 9KHz~30MHz                                                                                                                                                                                                                                                                                                                                         |
| Test Mode       | : Mode 1                                                                                                                                                                                                                                                                                                                                             |
| Test Results    | : <b>PASS</b>                                                                                                                                                                                                                                                                                                                                        |
| Note:           | <ol style="list-style-type: none"><li>1. The test results are listed in next pages.</li><li>2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the quasi-peak detector need not be carried out.</li></ol> |

Mode 1:

Antenna polarity: Coaxial

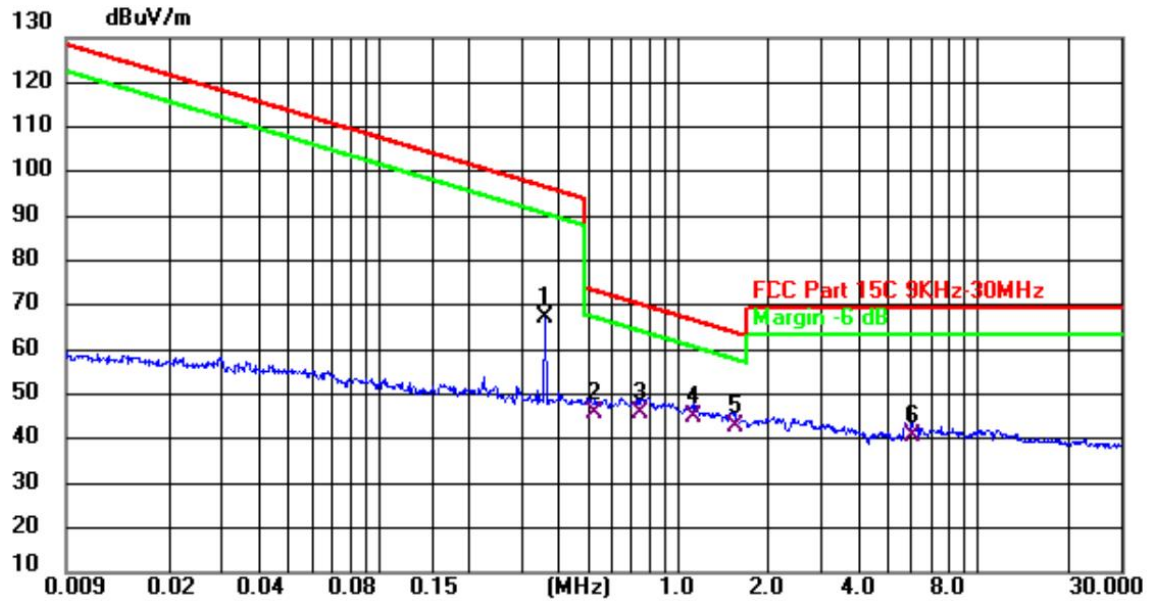


| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|
| 1   | 0.1753          | 65.79          | 0.15          | 65.94          | 102.73         | -36.79      | Peak     |
| 2   | 0.3351          | 47.93          | 0.81          | 48.74          | 97.10          | -48.36      | Peak     |
| 3   | 0.5030          | 46.31          | 1.10          | 47.41          | 73.57          | -26.16      | QP       |
| 4   | 0.6572          | 45.48          | 1.42          | 46.90          | 71.25          | -24.35      | QP       |
| 5   | 1.1130          | 42.07          | 2.34          | 44.41          | 66.67          | -22.26      | QP       |
| 6 * | 1.5403          | 39.23          | 3.22          | 42.45          | 63.85          | -21.40      | QP       |

1. Level = Reading + Factor Margin = Level – Limit

Mode 4:

Antenna polarity: Coaxial



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|
| 1   | 0.3600          | 66.29          | 0.84          | 67.13          | 96.48          | -29.35      | peak     |
| 2   | 0.5237          | 44.58          | 1.14          | 45.72          | 73.22          | -27.50      | QP       |
| 3   | 0.7485          | 44.36          | 1.60          | 45.96          | 70.12          | -24.16      | QP       |
| 4   | 1.1130          | 42.57          | 2.34          | 44.91          | 66.67          | -21.76      | QP       |
| 5 * | 1.5403          | 39.73          | 3.22          | 42.95          | 63.85          | -20.90      | QP       |
| 6   | 6.0200          | 28.19          | 12.35         | 40.54          | 69.54          | -29.00      | QP       |

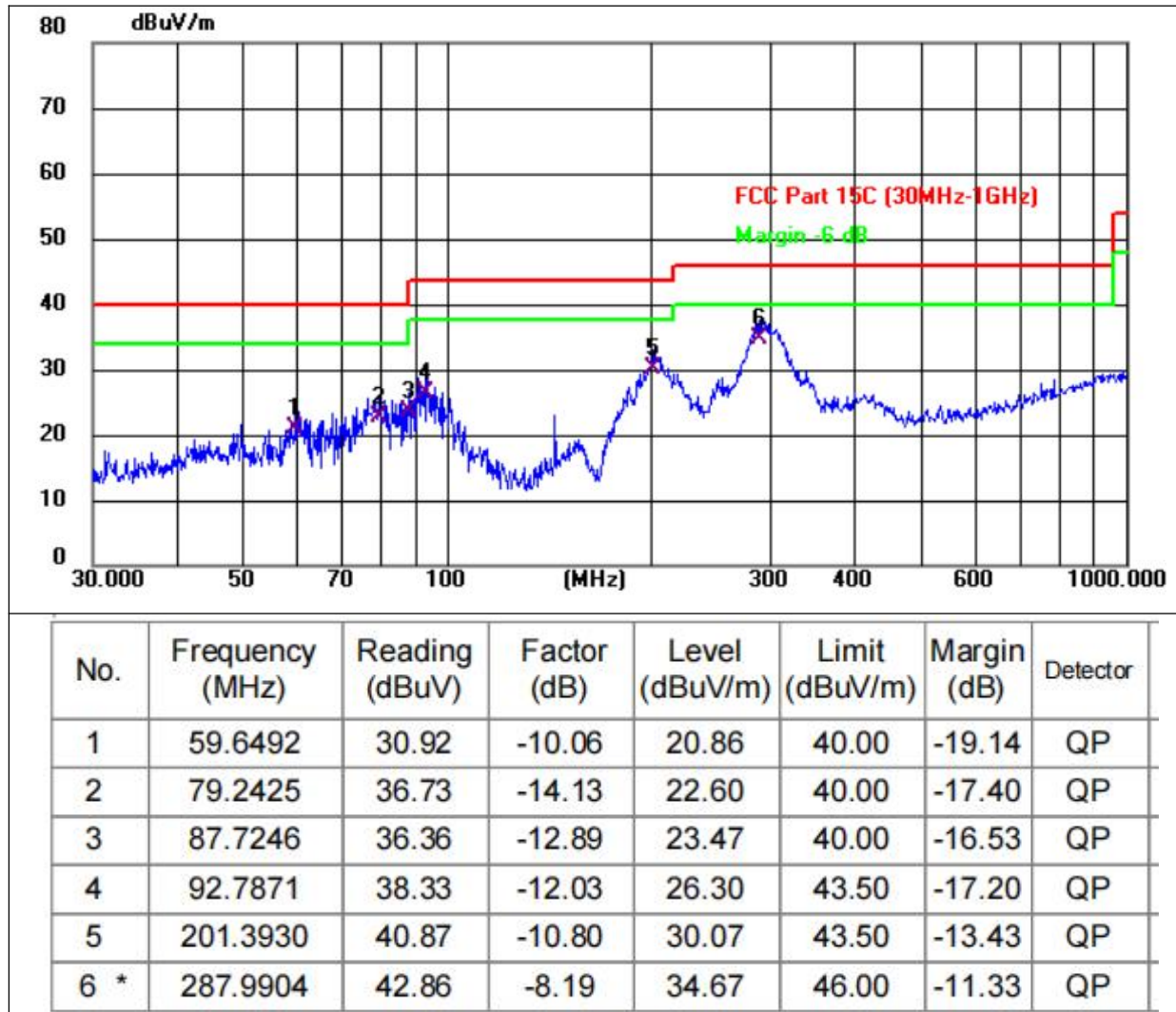
1. Level = Reading + Factor Margin = Level – Limit

|                 |                                                                                                                                                                                                                                                                                                                                                      |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range | : 30MHz~1000MHz                                                                                                                                                                                                                                                                                                                                      |
| Test Mode       | : Mode 1                                                                                                                                                                                                                                                                                                                                             |
| Test Results    | : <b>PASS</b>                                                                                                                                                                                                                                                                                                                                        |
| Note:           | <ol style="list-style-type: none"><li>1. The test results are listed in next pages.</li><li>2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the quasi-peak detector need not be carried out.</li></ol> |

Mode 1:

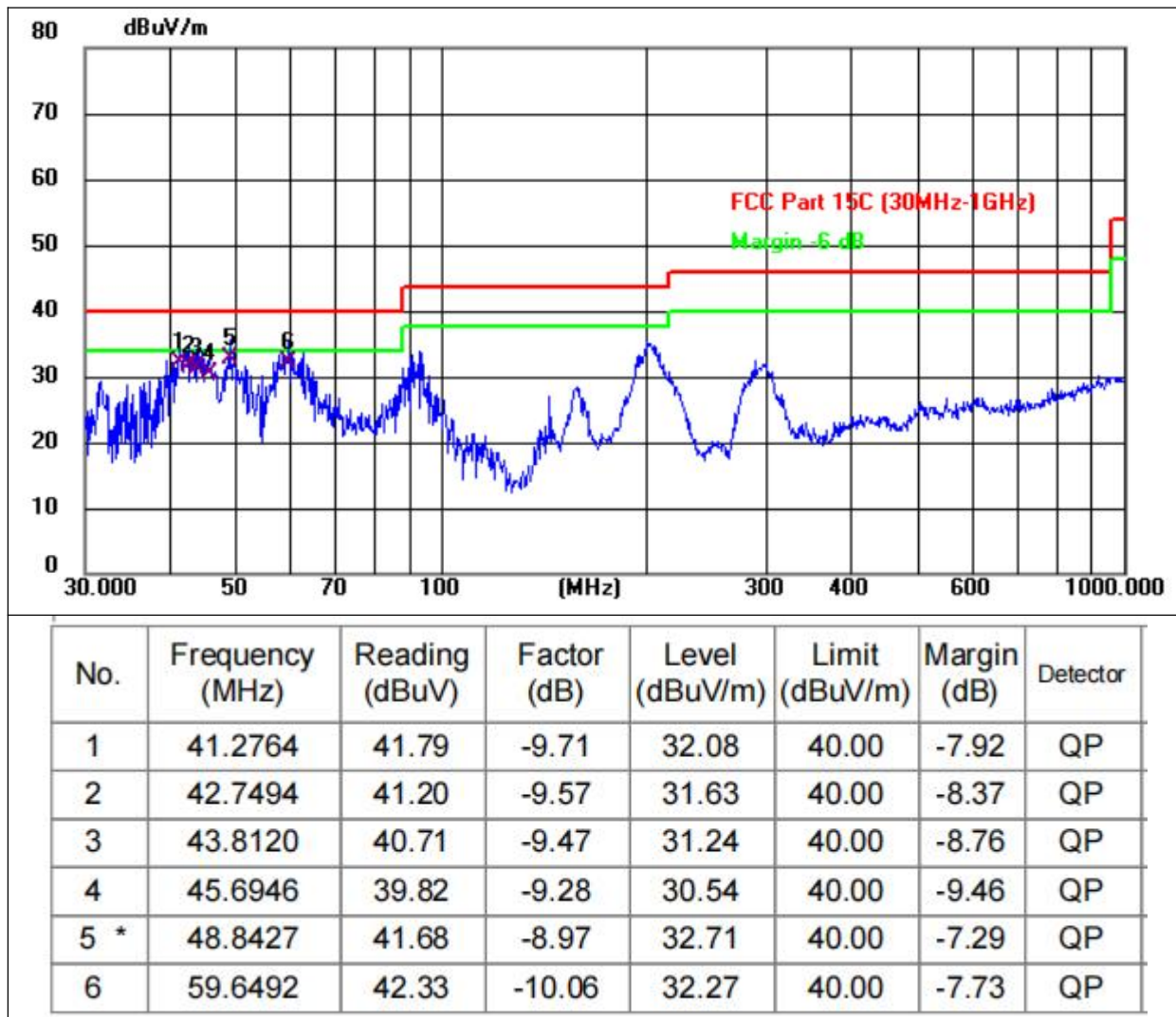
## 30MHz-1GHz

|             |          |              |              |
|-------------|----------|--------------|--------------|
| Temperature | 26℃      | Humidity     | 54%          |
| Pol         | Vertical | Test Voltage | AC 120V/60Hz |



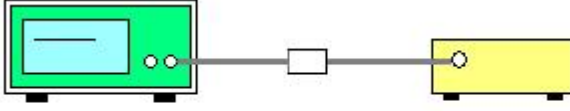
Note: 1.Level = Reading + Factor Margin = Level - Limit

|     |            |
|-----|------------|
| Pol | Horizontal |
|-----|------------|



Note: 1.Level = Reading + Factor Margin = Level - Limit

### 3.3. Test Specification

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Requirement:</b> | FCC Part15 C Section 15.215(c)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Test Method:</b>      | ANSI C63.10: 2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Limit:</b>            | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Test Procedure:</b>   | <ol style="list-style-type: none"> <li>1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT.</li> <li>2. Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>3. Use the following spectrum analyzer settings for 20dB Bandwidth measurement.<br/>Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel; RBW<math>\geq</math>1% of the 20 dB bandwidth; VBW<math>\geq</math>RBW; Sweep = auto; Detector function = peak; Trace = max hold.</li> <li>4. Measure and record the results in the test report.</li> </ol> |
| <b>Test setup:</b>       |  <p style="text-align: center;">Spectrum Analyzer                      EUT</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Test Mode:</b>        | Refer to section 4.1 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Test results:</b>     | PASS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## 3.3.1. Test data

|              |         |                    |       |
|--------------|---------|--------------------|-------|
| Temperature: | 25.5 °C | Relative Humidity: | 56.1% |
| Pressure:    | 101kPa  |                    |       |

| Frequency (KHz) | 20dB bandwidth (KHz) | Result |
|-----------------|----------------------|--------|
| 175.3           | 0.098                | Pass   |
| 360             | 0.298                | Pass   |



#### **4. Photos of test setup**

Reference to the **appendix I Test Setup Photo** for details.

#### **5. Photos of EUT**

Reference to the **appendix II external photos** and **appendix III internal photos** for details.

----- END OF REPORT-----