

# FCC Test Report

**Report No.** : 1812C50421112501

**Applicant** : JMTEK TECHNOLOGY(ZHONGSHAN) CO., LTD

**Address** : 3F B3 and 3F B4 Chuangzhi Science Park,  
No.22 Xingpu Avenue East, Huangpu Town,  
Zhongshan City, Guangdong Province,  
528429, China

**Product Name** : 3 in1 Wireless Charger

**Report Date** : 2025-11-28

**Shenzhen Anbotek Compliance Laboratory Limited**



# Contents

|                                                 |    |
|-------------------------------------------------|----|
| 1. General Information .....                    | 5  |
| 1.1. Client Information .....                   | 5  |
| 1.2. Description of Device (EUT) .....          | 5  |
| 1.3. Auxiliary Equipment Used During Test ..... | 6  |
| 1.4. Description of Test Modes .....            | 6  |
| 1.5. Description Of Test Setup .....            | 7  |
| 1.6. Test Equipment List .....                  | 8  |
| 1.7. Measurement Uncertainty .....              | 9  |
| 1.8. Description of Test Facility .....         | 9  |
| 1.9. Disclaimer .....                           | 9  |
| 2. Summary of Test Results .....                | 10 |
| 3. Conducted Emission Test .....                | 11 |
| 3.1. Test Standard and Limit .....              | 11 |
| 3.2. Test Setup .....                           | 11 |
| 3.3. Test Procedure .....                       | 11 |
| 3.4. Test Data .....                            | 11 |
| 4. Radiation Spurious Emission Test .....       | 14 |
| 4.1. Test Standard and Limit .....              | 14 |
| 4.2. Test Setup .....                           | 14 |
| 4.3. Test Procedure .....                       | 15 |
| 4.4. Test Data .....                            | 15 |
| 5. 20dB Occupy Bandwidth Test .....             | 20 |
| 5.1. Test Standard and Limit .....              | 20 |
| 5.2. Test Setup .....                           | 20 |
| 5.3. Test Procedure .....                       | 20 |
| 5.4. Test Data .....                            | 20 |
| 6. Antenna Requirement .....                    | 22 |
| 6.1. Test Standard and Requirement .....        | 22 |
| 6.2. Antenna Connected Construction .....       | 22 |
| APPENDIX I -- TEST SETUP PHOTOGRAPH .....       | 23 |
| APPENDIX II -- EXTERNAL PHOTOGRAPH .....        | 23 |
| APPENDIX III -- INTERNAL PHOTOGRAPH .....       | 23 |

## TEST REPORT

Applicant : JMTEK TECHNOLOGY(ZHONGSHAN) CO., LTD  
Manufacturer : JMTEK TECHNOLOGY(ZHONGSHAN) CO., LTD  
Product Name : 3 in1 Wireless Charger  
Model No. : WPC88  
Trade Mark : N/A  
Input: 5V=2A, 9V=3A  
Wireless Output Power:  
Rating(s) : For Phone: 5W/7.5W/10W/15W  
For Watch: 3W  
For Earphone: 5W

**Test Standard(s) : FCC Part15 Subpart C**

**Test Method(s) : ANSI C63.10: 2020**

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 15 Subpart C requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt 2025-08-18

Date of Test 2025-08-18 to 2025-09-03

Prepared By

*Cecilia Chen*

(Cecilia Chen)

Approved & Authorized Signer

*Hugo Chen*

(Hugo Chen)

Revision History

| Report Version | Description     | Issued Date |
|----------------|-----------------|-------------|
| R00            | Original Issue. | 2025-11-28  |
|                |                 |             |
|                |                 |             |

## 1. General Information

### 1.1. Client Information

|              |   |                                                                                                                                   |
|--------------|---|-----------------------------------------------------------------------------------------------------------------------------------|
| Applicant    | : | JMTEK TECHNOLOGY(ZHONGSHAN) CO., LTD                                                                                              |
| Address      | : | 3F B3 and 3F B4 Chuangzhi Science Park, No.22 Xingpu Avenue East, Huangpu Town, Zhongshan City, Guangdong Province, 528429, China |
| Manufacturer | : | JMTEK TECHNOLOGY(ZHONGSHAN) CO., LTD                                                                                              |
| Address      | : | 3F B3 and 3F B4 Chuangzhi Science Park, No.22 Xingpu Avenue East, Huangpu Town, Zhongshan City, Guangdong Province, 528429, China |
| Factory      | : | JMTEK TECHNOLOGY(ZHONGSHAN) CO., LTD                                                                                              |
| Address      | : | 3F B3 and 3F B4 Chuangzhi Science Park, No.22 Xingpu Avenue East, Huangpu Town, Zhongshan City, Guangdong Province, 528429, China |

### 1.2. Description of Device (EUT)

|                                                                                                                                                                                              |   |                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------|
| Product Name                                                                                                                                                                                 | : | 3 in1 Wireless Charger                          |
| Model No.                                                                                                                                                                                    | : | WPC88                                           |
| Trade Mark                                                                                                                                                                                   | : | N/A                                             |
| Test Power Supply                                                                                                                                                                            | : | DC 9V from adapter input AC 120V/60Hz           |
| Test Sample No.                                                                                                                                                                              | : | 1-2-1(Normal Sample), 1-2-2(Engineering Sample) |
| Adapter                                                                                                                                                                                      | : | N/A                                             |
| <b>RF Specification</b>                                                                                                                                                                      |   |                                                 |
| Operation Frequency                                                                                                                                                                          | : | 112-205kHz                                      |
| Modulation Type                                                                                                                                                                              | : | ASK                                             |
| Antenna Type                                                                                                                                                                                 | : | Inductive loop coil Antenna                     |
| <b>Remark:</b> 1) All of the RF specification are provided by customer. 2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. |   |                                                 |

### 1.3. Auxiliary Equipment Used During Test

| Title                  | Manufacturer                       | Model No.   | Serial No.      |
|------------------------|------------------------------------|-------------|-----------------|
| Apple Phone            | Apple                              | iPhone 12   | DNPDJC7T0DYF    |
| Apple AirPods          | Apple                              | AirPods Pro | /               |
| Xiaomi 33W adapter     | Xiaomi                             | MDY-11-EX   | SA62212LA04358J |
| Wireless charging load | Shenzhen Ouju Technology Co., Ltd. | CD2577      | /               |

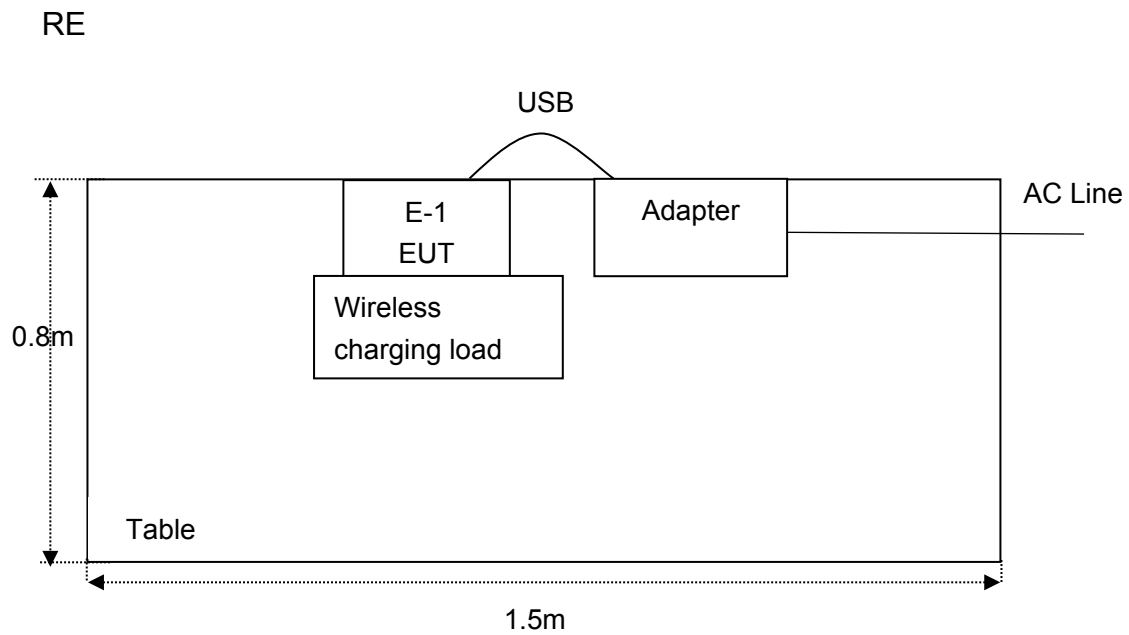
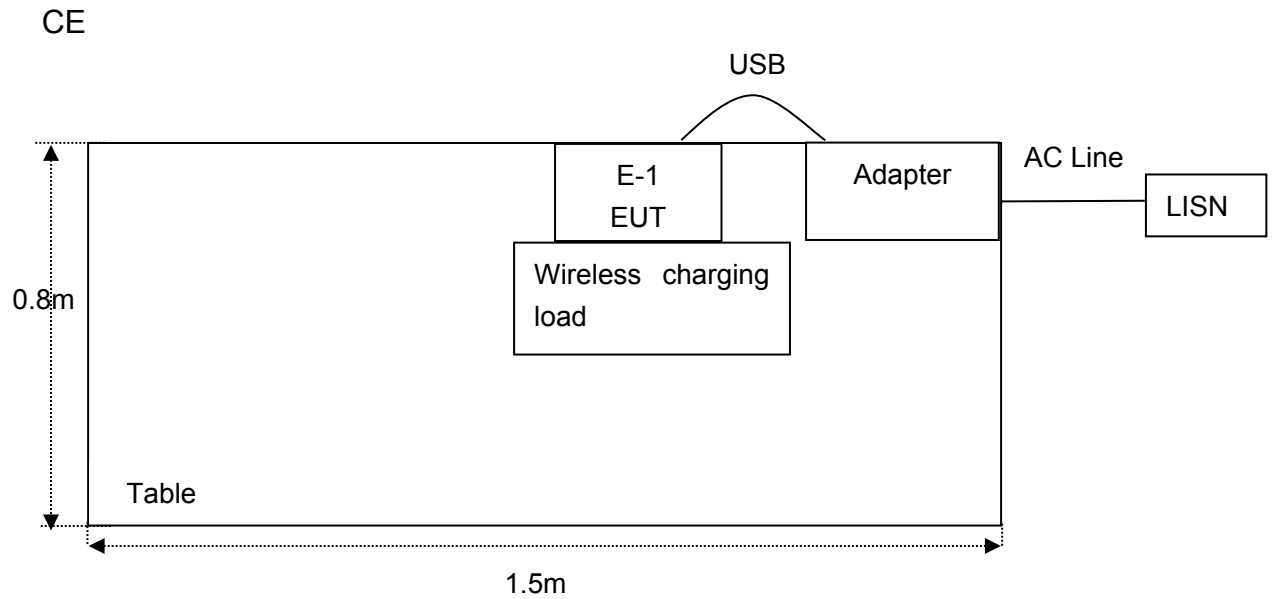
### 1.4. Description of Test Modes

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

| Pretest Modes | Descriptions                                  |
|---------------|-----------------------------------------------|
| TM1           | Adapter+WPT Mode (Phone(15W) + Earphone(5W))  |
| TM2           | Adapter+WPT Mode (Phone(10W) + Earphone(5W))  |
| TM3           | Adapter+WPT Mode (Phone(7.5W) + Earphone(5W)) |
| TM4           | Adapter+WPT Mode (Phone(5W) + Earphone(5W))   |
| TM5           | Adapter+WPT Mode (Phone(15W))                 |
| TM6           | Adapter+WPT Mode (Phone(10W))                 |
| TM7           | Adapter+WPT Mode (Phone(7.5W))                |
| TM8           | Adapter+WPT Mode (Phone(5W))                  |
| TM9           | Adapter+WPT Mode (Earphone(5W))               |
| TM10          | Standby Mode                                  |

Note: Battery Status: <1%, Battery Status: 50%, and Battery Status: >98% load cases(Phone and Earphone) were pre-tested for all modes, but we only recorded the worst case(TM1: WPT Mode (Phone(15W)(Battery Status: <1%) + Earphone(5W)(Battery Status: <1%)) in this report.

### 1.5. Description Of Test Setup



## 1.6. Test Equipment List

| Item | Equipment                                          | Manufacturer    | Model No.         | Serial No.       | Last Cal.  | Cal. Interval |
|------|----------------------------------------------------|-----------------|-------------------|------------------|------------|---------------|
| 1.   | L.I.S.N.<br>Artificial Mains<br>Network            | Rohde & Schwarz | ENV216            | 100055           | 2024-09-09 | 1 Year        |
| 2.   | Three Phase V-<br>type Artificial<br>Power Network | CYBERTEK        | EM5040DT          | E215040DT00<br>1 | 2025-01-13 | 1 Year        |
| 3.   | EMI Test Receiver                                  | Rohde & Schwarz | ESCI              | 100627           | 2025-01-13 | 1 Year        |
| 4.   | EMI Test Receiver                                  | Rohde & Schwarz | ESR26             | 101481           | 2025-01-14 | 1 Year        |
| 5.   | MXA Spectrum<br>Analysis                           | Agilent         | N9020A            | MY51170037       | 2024-09-09 | 1 Year        |
| 6.   | EMI Preamplifier                                   | SKET Electronic | LNPA-0118G-<br>45 | SKET-PA-002      | 2025-01-13 | 1 Year        |
| 7.   | Double Ridged<br>Horn Antenna                      | SCHWARZBECK     | BBHA 9120D        | 02555            | 2022-10-16 | 3 Year        |
| 8.   | Bilog Broadband<br>Antenna                         | Schwarzbeck     | VULB9163          | 345              | 2022-10-13 | 3 Year        |
| 9.   | Loop Antenna(9K-<br>30M)                           | Schwarzbeck     | FMZB1519B         | 00053            | 2024-09-12 | 1 Year        |
| 10.  | Horn Antenna                                       | A-INFO          | LB-180400-KF      | J211060628       | 2024-01-22 | 3 Year        |
| 11.  | Pre-amplifier                                      | SONOMA          | 310N              | 186860           | 2025-01-14 | 1 Year        |
| 12.  | EMI Test Software<br>EZ-EMC                        | SHURPLE         | N/A               | N/A              | N/A        | N/A           |
| 13.  | MXA Spectrum<br>Analysis                           | KEYSIGHT        | N9020A            | MY53280032       | 2024-09-09 | 1 Year        |
| 14.  | MXG RF Vector<br>Signal Generator                  | Agilent         | N5182A            | MY47420647       | 2025-01-14 | 1 Year        |
| 15.  | Signal Generator                                   | Agilent         | E4421B            | MY41000743       | 2025-02-21 | 1 Year        |
| 16.  | DC Power Supply                                    | IVYTECH         | IV3605            | 1804D360510      | 2024-09-09 | 1 Year        |
| 17.  | Constant<br>Temperature<br>Humidity Chamber        | ZHONGJIAN       | ZJ-KHWS80B        | N/A              | 2024-10-14 | 1 Year        |
| 18.  | Spectrum<br>Analyzer                               | Rohde & Schwarz | FSV40-N           | 102150           | 2025-04-25 | 1 Year        |
|      |                                                    |                 |                   |                  | 2024-05-06 | 1 Year        |

### 1.7. Measurement Uncertainty

| Parameter                                                                                                                                                                                                                    | Uncertainty                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Conducted emissions (AMN 150kHz~30MHz)                                                                                                                                                                                       | 3.2dB                                |
| Occupied Bandwidth                                                                                                                                                                                                           | 925Hz                                |
| Radiated spurious emissions (Below 30MHz)                                                                                                                                                                                    | 3.26dB                               |
| Radiated spurious emissions (30MHz~1GHz)                                                                                                                                                                                     | Horizontal: 3.70dB; Vertical: 4.42dB |
| The measurement uncertainty and decision risk evaluated according to AB/WI-RF-F-032. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2. |                                      |

### 1.8. Description of Test Facility

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

#### FCC-Registration No.: 279531

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 279531.

#### Test Location

Shenzhen Anbotek Compliance Laboratory Limited.

Sogood Industrial Zone Laboratory & 1/F. of Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Subdistrict, Bao'an District, Shenzhen, Guangdong, China.

### 1.9. Disclaimer

1. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
2. The test report is invalid if there is any evidence and/or falsification.
3. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
4. This document may not be altered or revised in any way unless done so by Anbotek and all revisions are duly noted in the revisions section.
5. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
6. The authenticity of the information provided by the customer is the responsibility of the customer and the laboratory is not responsible for its authenticity.
7. The data in this report will be synchronized with the corresponding national market supervision and management departments and cross-border e-commerce platforms as required by regulatory agencies.

The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

2. Summary of Test Results

| Standard Section | Test Item               | Result |
|------------------|-------------------------|--------|
| 15.203           | Antenna Requirement     | PASS   |
| 15.207           | Conducted Emission Test | PASS   |
| 15.205/15.209    | Spurious Emission       | PASS   |
| 15.215(c)        | 20dB Occupy Bandwidth   | PASS   |

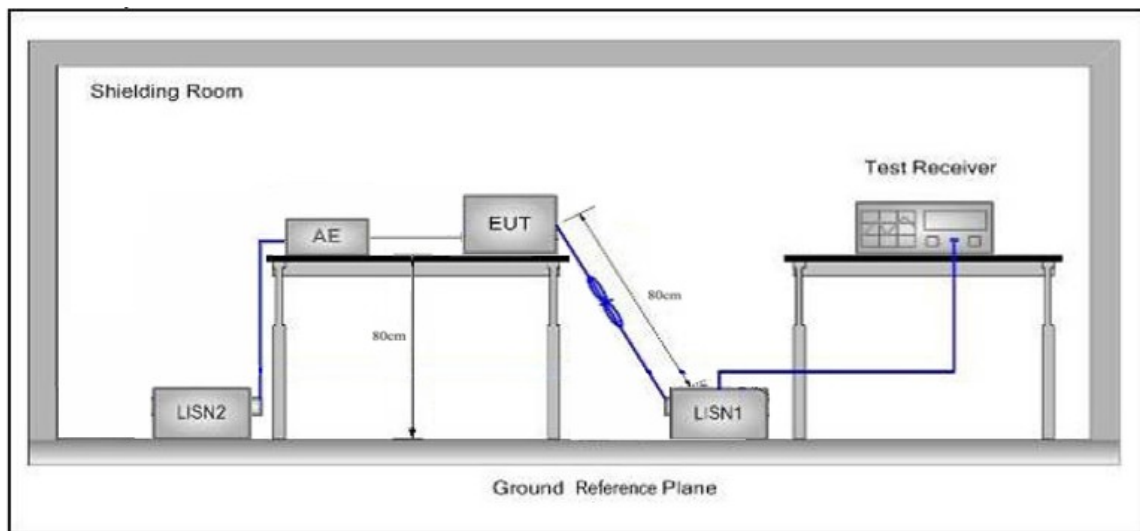
Note: N/A” denotes test is not applicable in this Test Report

### 3. Conducted Emission Test

#### 3.1. Test Standard and Limit

| Test Standard                                                                                                                            | FCC Part15 Section 15.207 |                                |               |
|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------|---------------|
| Test Limit                                                                                                                               | Frequency                 | Maximum RF Line Voltage (dBuV) |               |
|                                                                                                                                          |                           | Quasi-peak Level               | Average Level |
|                                                                                                                                          | 150kHz~500kHz             | 66 ~ 56 *                      | 56 ~ 46 *     |
|                                                                                                                                          | 500kHz~5MHz               | 56                             | 46            |
|                                                                                                                                          | 5MHz~30MHz                | 60                             | 50            |
| <b>Remark:</b> (1) *Decreasing linearly with logarithm of the frequency.<br>(2) The lower limit shall apply at the transition frequency. |                           |                                |               |

#### 3.2. Test Setup



#### 3.3. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.10: 2020 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

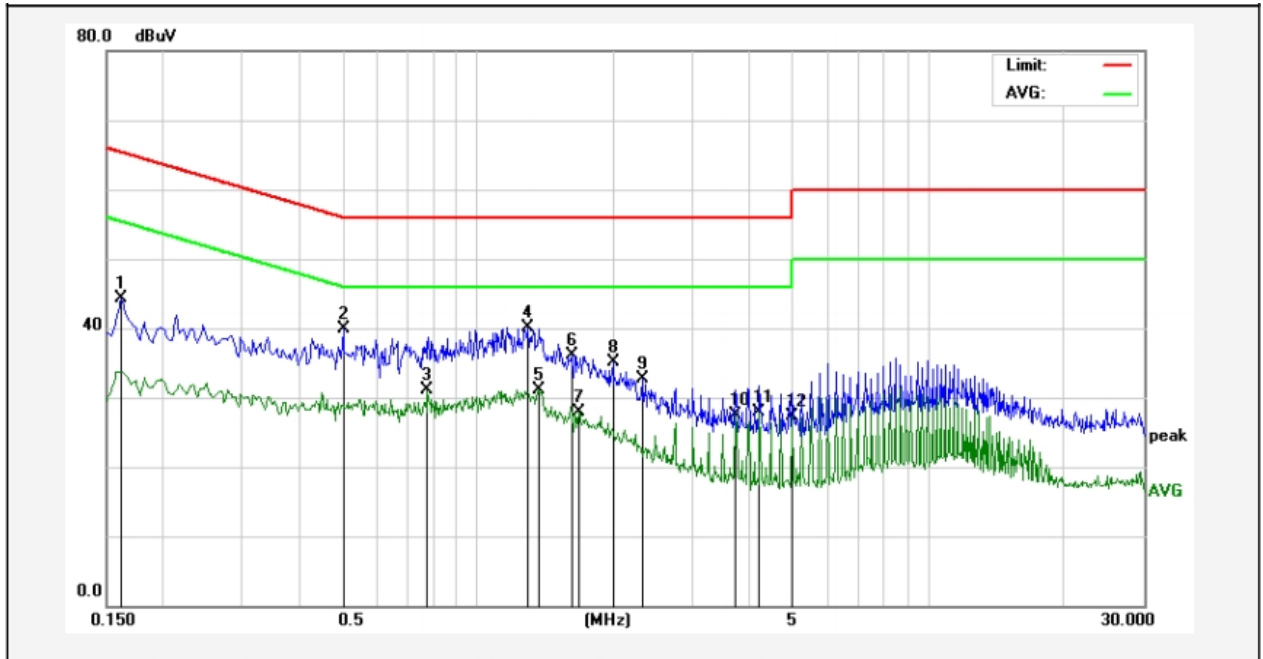
#### 3.4. Test Data

##### PASS

During the test, pre-scan all modes, only the worst case is recorded in the report.  
Please to see the following pages.

### Conducted Emission Test Data

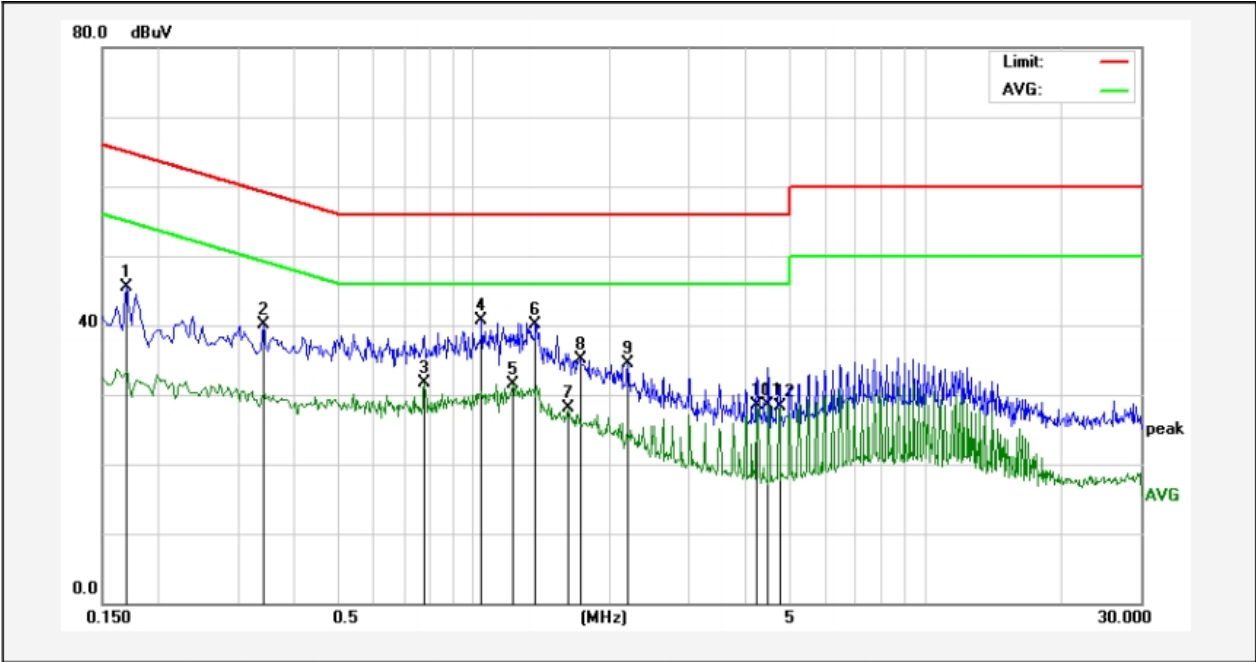
Test Site: 1# Shielded Room  
Operating Condition: TM1  
Test Specification: AC 120V, 60Hz  
Comment: Live Line  
Temp.(°C)/Hum.(%RH): 23.6°C/59%RH



| No. | Freq. (MHz) | Reading (dBuV) | Factor (dB) | Result (dBuV) | Limit (dBuV) | Over Limit (dB) | Detector | Remark |
|-----|-------------|----------------|-------------|---------------|--------------|-----------------|----------|--------|
| 1   | 0.1620      | 26.54          | 17.83       | 44.37         | 65.36        | -20.99          | QP       |        |
| 2   | 0.5020      | 21.98          | 17.85       | 39.83         | 56.00        | -16.17          | QP       |        |
| 3   | 0.7740      | 13.27          | 17.87       | 31.14         | 46.00        | -14.86          | AVG      |        |
| 4   | 1.2940      | 22.29          | 17.84       | 40.13         | 56.00        | -15.87          | QP       |        |
| 5   | 1.3700      | 13.33          | 17.84       | 31.17         | 46.00        | -14.83          | AVG      |        |
| 6   | 1.6180      | 18.35          | 17.84       | 36.19         | 56.00        | -19.81          | QP       |        |
| 7   | 1.6740      | 10.08          | 17.84       | 27.92         | 46.00        | -18.08          | AVG      |        |
| 8   | 1.9980      | 17.21          | 17.83       | 35.04         | 56.00        | -20.96          | QP       |        |
| 9   | 2.3140      | 14.84          | 17.83       | 32.67         | 56.00        | -23.33          | QP       |        |
| 10  | 3.7380      | 9.67           | 17.85       | 27.52         | 46.00        | -18.48          | AVG      |        |
| 11  | 4.2220      | 10.15          | 17.84       | 27.99         | 46.00        | -18.01          | AVG      |        |
| 12  | 4.9820      | 9.49           | 17.85       | 27.34         | 46.00        | -18.66          | AVG      |        |

**Conducted Emission Test Data**

Test Site: 1# Shielded Room  
Operating Condition: TM1  
Test Specification: AC 120V, 60Hz  
Comment: Neutral Line  
Temp.(°C)/Hum.(%RH): 23.6°C/59%RH



| No. | Freq. (MHz) | Reading (dBuV) | Factor (dB) | Result (dBuV) | Limit (dBuV) | Over Limit (dB) | Detector | Remark |
|-----|-------------|----------------|-------------|---------------|--------------|-----------------|----------|--------|
| 1   | 0.1700      | 27.77          | 17.83       | 45.60         | 64.96        | -19.36          | QP       |        |
| 2   | 0.3420      | 22.31          | 17.82       | 40.13         | 59.15        | -19.02          | QP       |        |
| 3   | 0.7780      | 13.76          | 17.86       | 31.62         | 46.00        | -14.38          | AVG      |        |
| 4   | 1.0420      | 22.87          | 17.85       | 40.72         | 56.00        | -15.28          | QP       |        |
| 5   | 1.2180      | 13.71          | 17.84       | 31.55         | 46.00        | -14.45          | AVG      |        |
| 6   | 1.3700      | 22.36          | 17.84       | 40.20         | 56.00        | -15.80          | QP       |        |
| 7   | 1.6140      | 10.34          | 17.84       | 28.18         | 46.00        | -17.82          | AVG      |        |
| 8   | 1.7180      | 17.21          | 17.84       | 35.05         | 56.00        | -20.95          | QP       |        |
| 9   | 2.1900      | 16.58          | 17.83       | 34.41         | 56.00        | -21.59          | QP       |        |
| 10  | 4.2460      | 10.65          | 17.84       | 28.49         | 46.00        | -17.51          | AVG      |        |
| 11  | 4.4860      | 10.67          | 17.84       | 28.51         | 46.00        | -17.49          | AVG      |        |
| 12  | 4.7619      | 10.54          | 17.85       | 28.39         | 46.00        | -17.61          | AVG      |        |

## 4. Radiation Spurious Emission Test

### 4.1. Test Standard and Limit

| Test Standard | FCC Part15 C Section 15.209 and 15.205 |                                  |                |            |                          |
|---------------|----------------------------------------|----------------------------------|----------------|------------|--------------------------|
| Test Limit    | Frequency (MHz)                        | Field strength (microvolt/meter) | Limit (dBuV/m) | Remark     | Measurement distance (m) |
|               | 0.009MHz~0.490MHz                      | 2400/F(kHz)                      | -              | -          | 300                      |
|               | 0.490MHz~1.705MHz                      | 24000/F(kHz)                     | -              | -          | 30                       |
|               | 1.705MHz~30MHz                         | 30                               | -              | -          | 30                       |
|               | 30MHz~88MHz                            | 100                              | 40.0           | Quasi-peak | 3                        |
|               | 88MHz~216MHz                           | 150                              | 43.5           | Quasi-peak | 3                        |
|               | 216MHz~960MHz                          | 200                              | 46.0           | Quasi-peak | 3                        |
|               | 960MHz~1000MHz                         | 500                              | 54.0           | Quasi-peak | 3                        |
|               | Above 1000MHz                          | 500                              | 54.0           | Average    | 3                        |
|               |                                        | -                                | 74.0           | Peak       | 3                        |

**Remark:**

(1)The lower limit shall apply at the transition frequency.

(2) 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

### 4.2. Test Setup

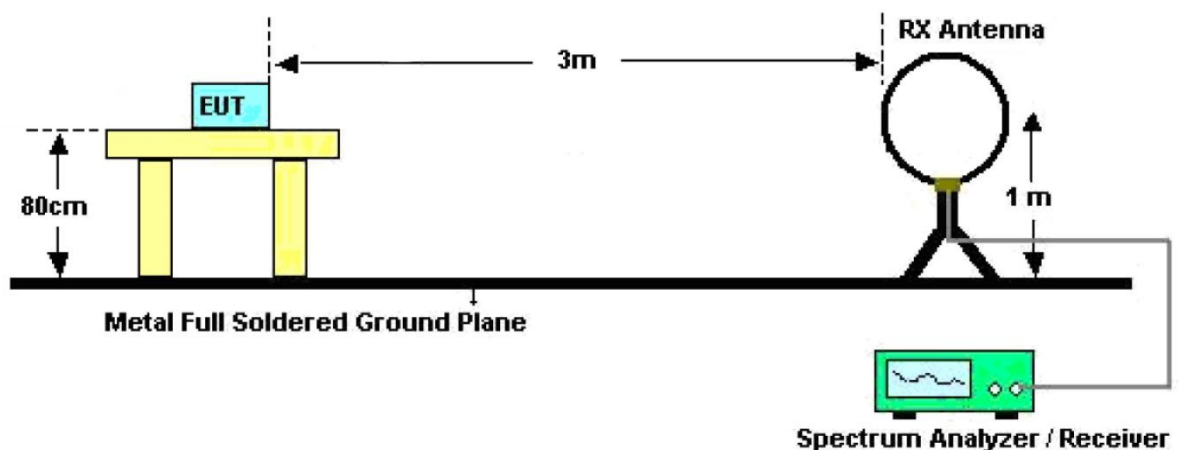


Figure 1. Below 30MHz

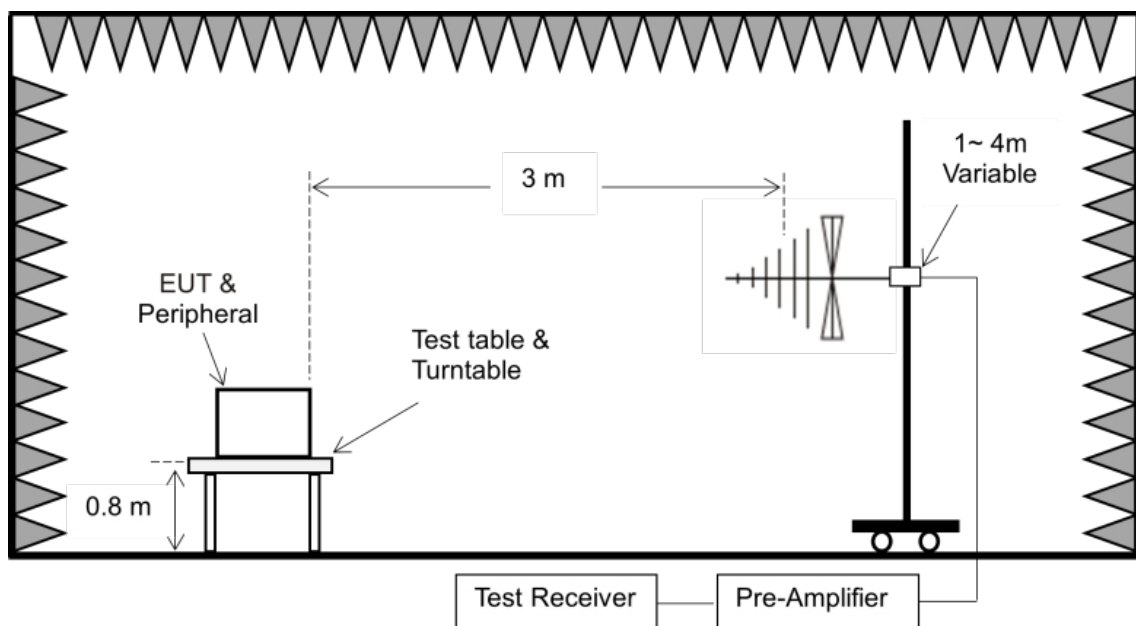


Figure 2. 30MHz to 1GHz

### 4.3. Test Procedure

For below 1GHz: The EUT is placed on a turntable, which is 0.8m above the ground plane. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Rotated the EUT through three orthogonal axes to determine the maximum emissions, both horizontal and vertical polarization of the antenna are set on test. The EUT is tested in 9\*6\*6 Chamber. The device is evaluated in xyz orientation.

For 9kHz to 150kHz, Set the spectrum analyzer as:

RBW = 200Hz, VBW =1kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 150kHz to 30MHz, Set the spectrum analyzer as:

RBW = 9KHz, VBW =30kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 30MHz to 1000MHz, Set the spectrum analyzer as:

RBW = 100kHz, VBW =300kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

### 4.4. Test Data

#### PASS

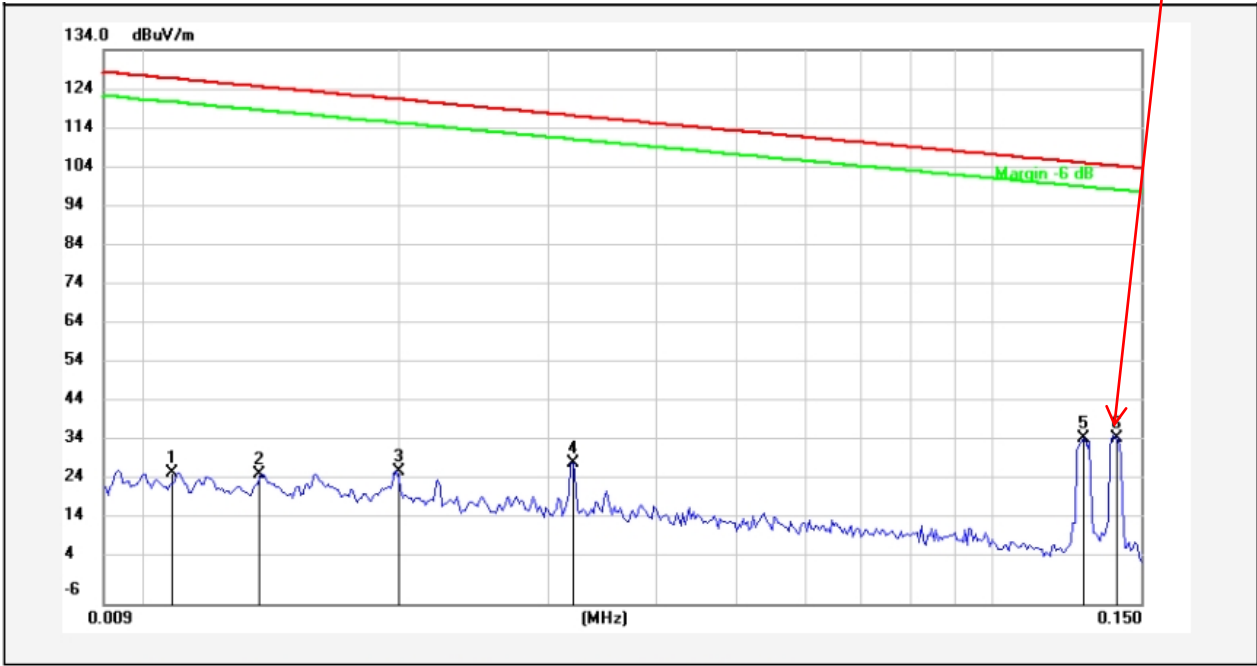
During the test, pre-scan all modes, only the worst case is recorded in the report.

Please to see the following pages.

**Test Results (Between 9KHz – 150KHz)**

Test Mode: TM1  
Distance: 3m  
Power Source: AC 120V, 60Hz  
Polarization: Coplane  
Temp.(°C)/Hum.(%RH): 25.1°C/49%RH

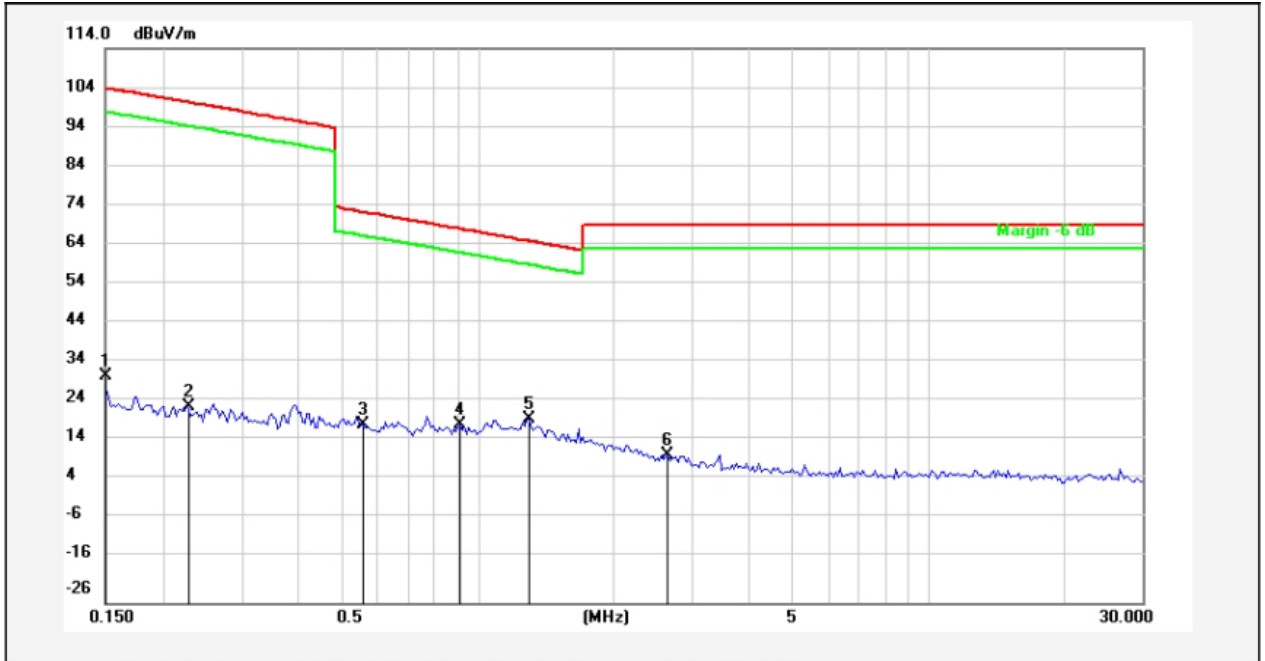
Fundamental



| No. | Freq. (MHz) | Reading (dBuV) | Factor () | Result (dBuV/m) | Limit (dBuV/m) | Over Limit (dB) | Detector | Remark |
|-----|-------------|----------------|-----------|-----------------|----------------|-----------------|----------|--------|
| 1   | 0.0108      | 6.99           | 20.06     | 27.05           | 126.73         | -99.68          | peak     |        |
| 2   | 0.0137      | 6.40           | 20.17     | 26.57           | 124.68         | -98.11          | peak     |        |
| 3   | 0.0200      | 7.05           | 20.29     | 27.34           | 121.41         | -94.07          | peak     |        |
| 4   | 0.0320      | 9.02           | 20.56     | 29.58           | 117.36         | -87.78          | peak     |        |
| 5   | 0.1280      | 15.47          | 20.34     | 35.81           | 105.39         | -69.58          | peak     |        |
| 6   | 0.1402      | 15.59          | 20.33     | 35.92           | 104.60         | -68.68          | peak     |        |

**Test Results (Between 0.15MHz – 30MHz)**

Test Mode: TM1  
Distance: 3m  
Power Source: AC 120V, 60Hz  
Polarization: Coplane  
Temp.(°C)/Hum.(%RH): 25.1°C/49%RH

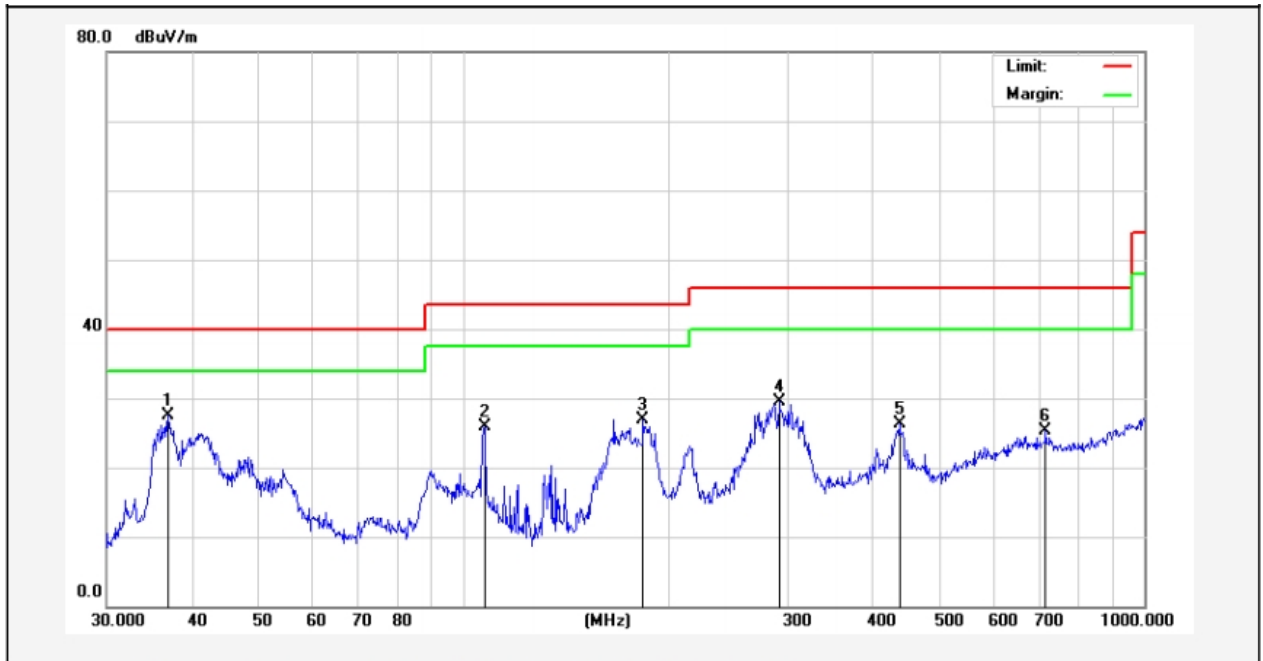


| No. | Freq. (MHz) | Reading (dBuV) | Factor (°) | Result (dBuV/m) | Limit (dBuV/m) | Over Limit (dB) | Detector | Remark |
|-----|-------------|----------------|------------|-----------------|----------------|-----------------|----------|--------|
| 1   | 0.1500      | 10.96          | 20.33      | 31.29           | 104.02         | -72.73          | peak     |        |
| 2   | 0.2268      | 3.21           | 20.31      | 23.52           | 100.45         | -76.93          | peak     |        |
| 3   | 0.5581      | -1.40          | 20.28      | 18.88           | 72.67          | -53.79          | QP       |        |
| 4   | 0.9184      | -1.17          | 20.26      | 19.09           | 68.36          | -49.27          | QP       |        |
| 5   | 1.3029      | 0.10           | 20.26      | 20.36           | 65.33          | -44.97          | QP       |        |
| 6   | 2.6500      | -8.86          | 20.29      | 11.43           | 69.50          | -58.07          | QP       |        |

**Remark:** According to FCC PART 15.209 (d), the emission limits 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.

**Test Results (Between 30MHz –1000 MHz)**

Test Mode: TM1  
Distance: 3m  
Power Source: AC 120V, 60Hz  
Polarization: Horizontal  
Temp.(°C)/Hum.(%RH): 22.5°C/55%RH



| No. | Freq. (MHz) | Reading (dBuV) | Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Over Limit (dB) | Detector | Remark |
|-----|-------------|----------------|---------------|-----------------|----------------|-----------------|----------|--------|
| 1   | 36.8953     | 45.00          | -17.46        | 27.54           | 40.00          | -12.46          | QP       |        |
| 2   | 107.5101    | 44.98          | -18.99        | 25.99           | 43.50          | -17.51          | QP       |        |
| 3   | 183.8440    | 47.91          | -21.05        | 26.86           | 43.50          | -16.64          | QP       |        |
| 4   | 291.0360    | 46.42          | -17.01        | 29.41           | 46.00          | -16.59          | QP       |        |
| 5   | 437.1199    | 39.20          | -12.85        | 26.35           | 46.00          | -19.65          | QP       |        |
| 6   | 716.6820    | 34.06          | -8.71         | 25.35           | 46.00          | -20.65          | QP       |        |

Test Mode: TM1  
Distance: 3m  
Power Source: AC 120V, 60Hz  
Polarization: Vertical  
Temp.(°C)/Hum.(%RH): 22.5°C/55%RH



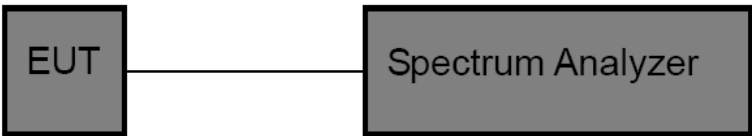
| No. | Freq. (MHz) | Reading (dBuV) | Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Over Limit (dB) | Detector | Remark |
|-----|-------------|----------------|---------------|-----------------|----------------|-----------------|----------|--------|
| 1   | 38.6818     | 53.52          | -16.60        | 36.92           | 40.00          | -3.08           | QP       |        |
| 2   | 48.3318     | 49.19          | -17.06        | 32.13           | 40.00          | -7.87           | QP       |        |
| 3   | 88.6524     | 47.67          | -20.17        | 27.50           | 43.50          | -16.00          | QP       |        |
| 4   | 131.2965    | 49.57          | -22.44        | 27.13           | 43.50          | -16.37          | QP       |        |
| 5   | 167.2368    | 50.13          | -21.65        | 28.48           | 43.50          | -15.02          | QP       |        |
| 6   | 313.2760    | 42.96          | -16.11        | 26.85           | 46.00          | -19.15          | QP       |        |

## 5. 20dB Occupy Bandwidth Test

### 5.1. Test Standard and Limit

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Standard | FCC Part15 C Section 15.215(c)                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Test Limit    | Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. |

### 5.2. Test Setup



### 5.3. Test Procedure

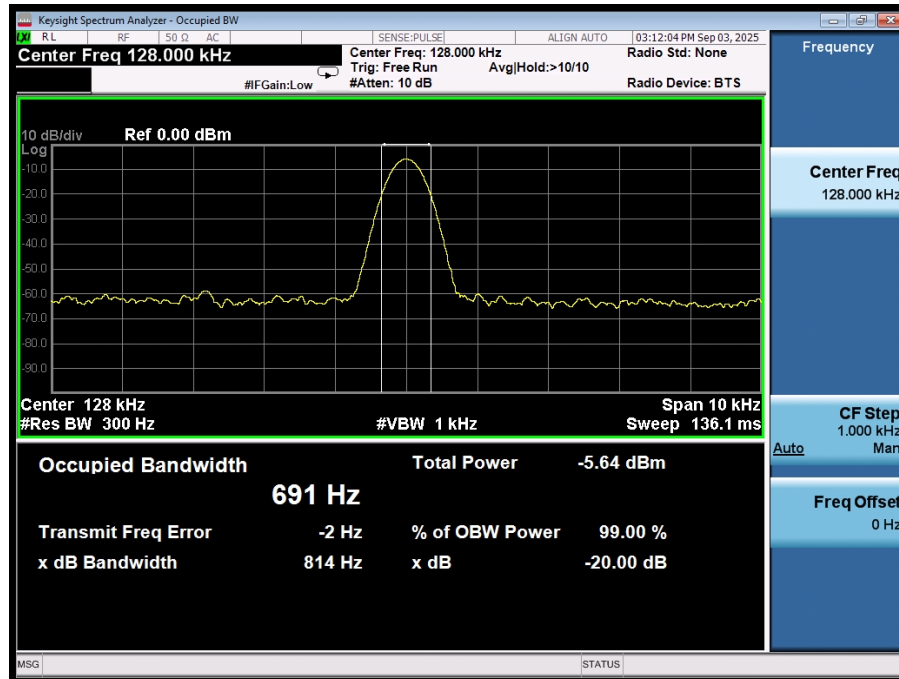
The bandwidth of the fundamental frequency was measured by spectrum analyzer with RBW=1%-5%OBW, VBW≥3\*RBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

### 5.4. Test Data

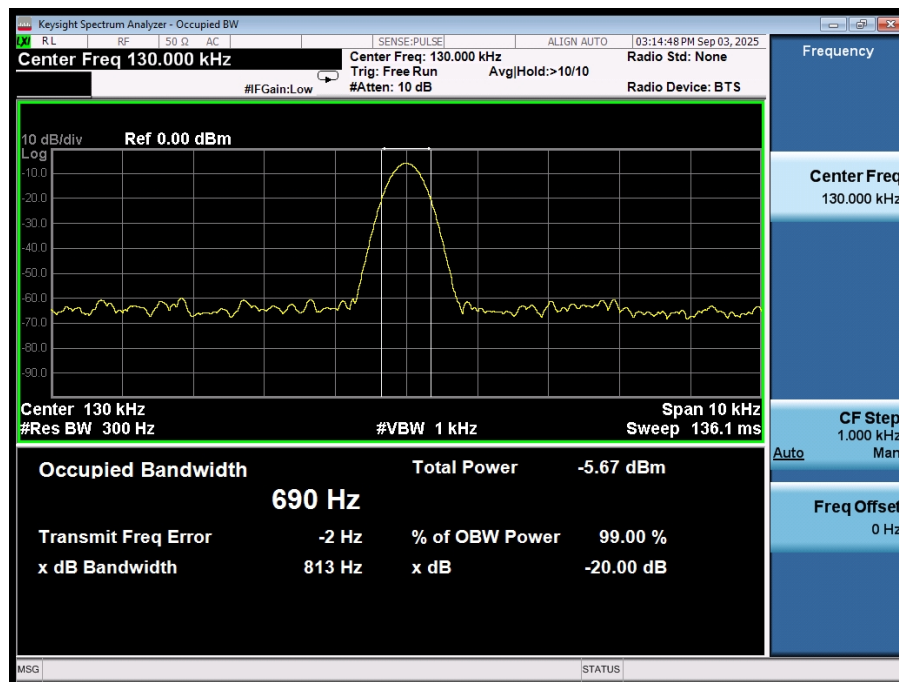
|              |         |           |      |                       |         |
|--------------|---------|-----------|------|-----------------------|---------|
| Temperature: | 25.7 °C | Humidity: | 56 % | Atmospheric Pressure: | 101 kPa |
|--------------|---------|-----------|------|-----------------------|---------|

| Freq. (MHz)  |       | Bandwidth (kHz) | Results |
|--------------|-------|-----------------|---------|
| for Earphone | 0.128 | 0.814           | PASS    |
| for Phone    | 0.130 | 0.813           | PASS    |

for Earphone



for Phone



Note: The measured signal is Cw-like, adjusting the RBW per C63.10 would not be practical since measurement bandwidth will always follow the RBW. The RBW is set to 300 Hz to perform the occupied bandwidth test.

## 6. Antenna Requirement

### 6.1. Test Standard and Requirement

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Standard | FCC Part15 Section 15.203                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Requirement   | 1) 15.203 requirement:<br>An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. |

### 6.2. Antenna Connected Construction

The antenna is a Inductive loop coil Antenna which permanently attached. It complies with the standard requirement.

## **APPENDIX I -- TEST SETUP PHOTOGRAPH**

Please refer to separated files Appendix I -- Test Setup Photograph\_RF

## **APPENDIX II -- EXTERNAL PHOTOGRAPH**

Please refer to separated files Appendix II -- External Photograph

## **APPENDIX III -- INTERNAL PHOTOGRAPH**

Please refer to separated files Appendix III -- Internal Photograph

----- End of Report -----