

# TEST REPORT

**Product Name** : 2 in 1 Wireless Charger  
**Model Number** : WS0613A, TSPB4  
**FCC ID** : ZBC-WS0613A

**Prepared for** : SHENZHEN DNS INDUSTRIES CO., LTD.  
**Address** : 23/F Building A, Shenzhen International Innovation Center,  
No.1006 Shennan Road, Futian, Shenzhen, China

**Prepared by** : EMTEK (DONGGUAN) CO., LTD.  
**Address** : -1&2/F., Building 2, Zone A, Zhongda Marine Biotechnology  
Research and Development Base, No.9, Xincheng Avenue,  
Songshanhu High-technology Industrial Development Zone,  
Dongguan, Guangdong, China

**TEL:** +86-0769-22807078  
**FAX:** +86-0769-22807079

**Report Number** : EDG2409120084E00101R  
**Date(s) of Tests** : Sep 12, 2024 to Oct 09, 2024  
**Date of issue** : Oct 10, 2024

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## 1. TEST REPORT DESCRIPTION

Applicant : SHENZHEN DNS INDUSTRIES CO., LTD.  
Address : 23/F Building A, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian, Shenzhen, China  
Manufacturer : SHENZHEN DNS INDUSTRIES CO., LTD.  
Address : 23/F Building A, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian, Shenzhen, China  
Factory1 : HUIZHOU DNS TECHNOLOGY CO., LTD.  
Address1 : 5 Dongshun South Road, Dongjiang Hi-tech Industrial Park, Zhongkai Hi-tech Zone, Huizhou City, Guangdong, China  
Factory2 : D AND S INDUSTRIES (PHILIPPINES) CORPORATION  
Address2 : 1 to 5 Orient Goldcrest Suntrust Ecotown Building 2, Lot 8 Block 8, Sahud Ulan, Tanza, Region IV-A, Cavite, Philippines  
EUT : 2 in 1 Wireless Charger  
Model Name : WS0613A, TSPB4  
Trademark : DNS, TRAVELSMART

Measurement Procedure Used:

| APPLICABLE STANDARDS                                          |             |
|---------------------------------------------------------------|-------------|
| STANDARD                                                      | TEST RESULT |
| FCC 47 CFR Part 2, Subpart J<br>FCC 47 CFR Part 15, Subpart C | PASS        |

The above equipment was tested by DONGGUAN EMTEK CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15C

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

Date of Test :

Sep 12, 2024 to Oct 09, 2024

Prepared by :

Jessica Zhang

Jessica Zhang /Editor

Reviewer :

Warren Deng

Warren Deng /Supervisor

Approve & Authorized Signer :

Sam Lv / Manager



## Modified History

| Version | Report No.           | Revision Date | Summary         |
|---------|----------------------|---------------|-----------------|
|         | EDG2409120084E00101R | /             | Original Report |
|         |                      |               |                 |
|         |                      |               |                 |



## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

| Characteristics           | Description                                                                                                        |
|---------------------------|--------------------------------------------------------------------------------------------------------------------|
| Product Name              | 2 in 1 Wireless Charger                                                                                            |
| Model number              | WS0613A, TSPB4<br>(Note: These models are the same, except for the model names;WS0613Awas selected for full test.) |
| Power Supply              | Input: 5.0V= 3.0A, 9.0V= 2.2A                                                                                      |
| Operating Frequency Range | Coil 1: 111KHz-205KHz<br>Coil 2: 111KHz-205KHz                                                                     |
| Modulation Technique      | FSK                                                                                                                |
| Wireless Output Power     | Coil1:5.0W Max<br>Coil2:15.0W Max<br>Total Output:5W+10W,15W Max                                                   |
| Antenna Type              | Induction Coil antenna                                                                                             |
| Temperature Range         | -10°C ~ +45°C                                                                                                      |

Note: The EUT is so small that the Section 15.19(a) statement placed in the user manual.

## 2.2. Input / Output Ports

| Port #                                                                                                                                                                                                                                          | Name      | Type* | Cable Max. >3m | Cable Shielded | Comments |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|----------------|----------------|----------|
| 1                                                                                                                                                                                                                                               | Enclosure | N/E   | --             | --             | None     |
| 2                                                                                                                                                                                                                                               | USB port  | DC    | No             | Unshielded     | 1 port   |
| * Note: For the purposes of the present document, the following symbols apply:<br>AC AC Power Port<br>DC DC Power Port<br>N/E Non-Electrical<br>I/O Signal Input or Output Port (Not Involved in Process Control)<br>TP Telecommunication Ports |           |       |                |                |          |

## 2.3. Independent Operation Modes

- A ON
- Coil1 Wireless 5W (100% load)
  - Coil1 Wireless 5W (50% load)
  - Coil1 Wireless 5W (10% load)
  - Coil2 Wireless 15W(100% load)
  - Coil2 Wireless 15W(50% load)
  - Coil2 Wireless 15W(10% load)
  - Coil1+Coil2 Wireless(100% load)
  - Coil1+Coil2 Wireless(50% load)
  - Coil1+Coil2 Wireless(10% load)
- Note: The mode 7 is the worst mode

## 2.4. Test Manner

| Test Items         | Test Voltage | Operation Modes |
|--------------------|--------------|-----------------|
| Conducted Emission | AC 120V/60Hz | Mode A.7        |
| Radiated Emission  | AC 120V/60Hz | Mode A.7        |

## 2.5. Description of Test Facility

### Site Description

#### EMC Lab.

#### : Accredited by CNAS

The Laboratory has been assessed and proved to be in compliance with CNAS/CL01:2018

The Certificate Registration Number is L3150

#### Accredited by FCC

Designation Number: CN1300

Test Firm Registration Number: 945551

#### Accredited by A2LA

The Certificate Registration Number is 4321.02

#### Accredited by Industry Canada

The Certificate Registration Number is CN0113

Site Location : -1&2/F.,Buiding 2,Zone A,Zhongda Marine Biotechnology Research and Development Base,N.9,Xincheng Avenue,Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China

| No. | Equipment     | Trade name | Model | S/N | Power Cord |
|-----|---------------|------------|-------|-----|------------|
| 1.  | Wireless Load | N/A        | 15W   | N/A | N/A        |
| 2.  | Wireless Load | N/A        | 5W    | N/A | N/A        |

| Test Item                                     | Uncertainty                                                                       |
|-----------------------------------------------|-----------------------------------------------------------------------------------|
| Conducted Emission Uncertainty                | 3.16dB(9k~150kHz Conduction 2#)<br>2.90dB(150k-30MHz Conduction 2#)               |
| Radiated Emission Uncertainty<br>(3m Chamber) | 3.78dB (30M~1GHz Polarize: H)<br>4.27dB (30M~1GHz Polarize: V)<br>4.46dB (1~6GHz) |
| Radiated Emission Uncertainty<br>(Loop)       | 2.54dB                                                                            |

### 3. SUMMARY OF TEST RESULTS

| EMISSION                                         |                                                                |         |
|--------------------------------------------------|----------------------------------------------------------------|---------|
| Description of Test Item                         | Standard & Limits                                              | Results |
| 20DB BANDWIDTH                                   | FCC Part 15, Subpart C- Section 15.217-257<br>ANSI C63.10-2013 | Pass    |
| Conducted Emission                               | FCC Part 15, Subpart C- Section 15.207<br>ANSI C63.10-2013     | Pass    |
| Radiated Emission                                | FCC Part 15, Subpart C- Section 15.209<br>ANSI C63.10-2013     | Pass    |
| Antenna requirement                              | FCC Part 15, Subpart C- Section 15.203<br>ANSI C63.10-2013     | Pass    |
| Note: N/A is an abbreviation for Not Applicable. |                                                                |         |

## 4. MEASURING DEVICE AND TEST EQUIPMENT

### Conducted Emission Test Equipment

| Equipment                  | Manufacturer         | Model No.    | Serial No. | Last Cal. | Cal. Interval |
|----------------------------|----------------------|--------------|------------|-----------|---------------|
| EMI Test Receiver          | Rohde&Schwarz        | ESCI         | 100137     | 2024/4/29 | 1Year         |
| AMN                        | Rohde&Schwarz        | ENV216       | 101209     | 2024/4/28 | 1Year         |
| AMN                        | Rohde&Schwarz        | ENV216       | 100017     | 2024/4/28 | 1Year         |
| RF Switching Unit          | CDS                  | RSU-M2       | 38401      | 2024/4/28 | 1Year         |
| AMN                        | Schwarzbeck          | NNLK8121     | 8121-641   | 2024/4/28 | 1Year         |
| AMN                        | Rohde&Schwarz        | ESH3-Z6      | 101101     | 2024/4/28 | 1Year         |
| AMN                        | Rohde&Schwarz        | ESH3-Z6      | 101102     | 2024/4/28 | 1Year         |
| Power Splitters & Dividers | Weinschel Associates | WA1506A      | A1066      | 2024/4/28 | 1Year         |
| Current Probe              | FCC                  | F-52         | 8377       | 2024/4/28 | 1Year         |
| Passive voltage probe      | Rohde&Schwarz        | ESH2-Z3      | 100122     | 2024/4/28 | 1Year         |
| Test Software              | Farad                | Ver.CON-03A1 | --         | N/A       | N/A           |

### For Spurious Emissions Test

| Equipment             | Manufacturer  | Model No.   | Serial No.   | Last Cal. | Cal. Interval |
|-----------------------|---------------|-------------|--------------|-----------|---------------|
| EMI Test Receiver     | Rohde&Schwarz | ESCI        | 101415       | 2024/4/28 | 1Year         |
| Bi-log Hybrid Antenna | Schwarzbeck   | VULB9163    | 141          | 2024/5/5  | 1Year         |
| Pre-Amplifie          | HP            | 8447F       | OPTH64       | 2024/4/28 | 1 Year        |
| Signal Analyzer       | R&S           | FSV30       | 103039       | 2024/4/28 | 1 Year        |
| Horn Antenna          | Schwarzbeck   | BBHA9120D   | 1272         | 2024/5/5  | 1Year         |
| Horn Antenna          | Schwarzbeck   | BBHA9170    | 9170-567     | 2024/5/5  | 1Year         |
| Pre-Amplifie          | LUNAR EM      | PM1-18-40   | J10100000081 | 2024/4/28 | 1Year         |
| Loop antenna          | Schwarzbeck   | FMZB1519    | 1519-012     | 2024/5/5  | 1Year         |
| Test Software         | Farad         | Ver.RA-03A1 | --           | N/A       | N/A           |

### For other test items:

| Equipment                         | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|-----------------------------------|--------------|-----------|------------|-----------|---------------|
| Wireless Connectivity Tester      | R&S          | CMW270    | 102543     | 2024/4/29 | 1Year         |
| Automatic Control Unit            | Tonscend     | JS0806-2  | 2118060480 | 2024/4/29 | 1Year         |
| Signal Analyzer                   | KEYSIGHT     | N9010B    | MY60242456 | 2024/4/29 | 1Year         |
| Analog Signal Generator           | KEYSIGHT     | N5173B    | MY61252625 | 2024/4/29 | 1Year         |
| UP/DOWN-Converter                 | R&S          | CMW-Z800A | 100274     | 2024/4/29 | 1Year         |
| Vector Signal Generator           | KEYSIGHT     | N5182B    | MY61252674 | 2024/4/29 | 1Year         |
| Frequency Extender                | KEYSIGHT     | N5182BX07 | MY59362541 | 2024/4/29 | 1Year         |
| Temperature&Humidity test chamber | ESPEC        | EL-02KA   | 12107166   | 2024/4/29 | 1 Year        |

## 5. 20DB BANDWIDTH

### 5.1. Test Procedure

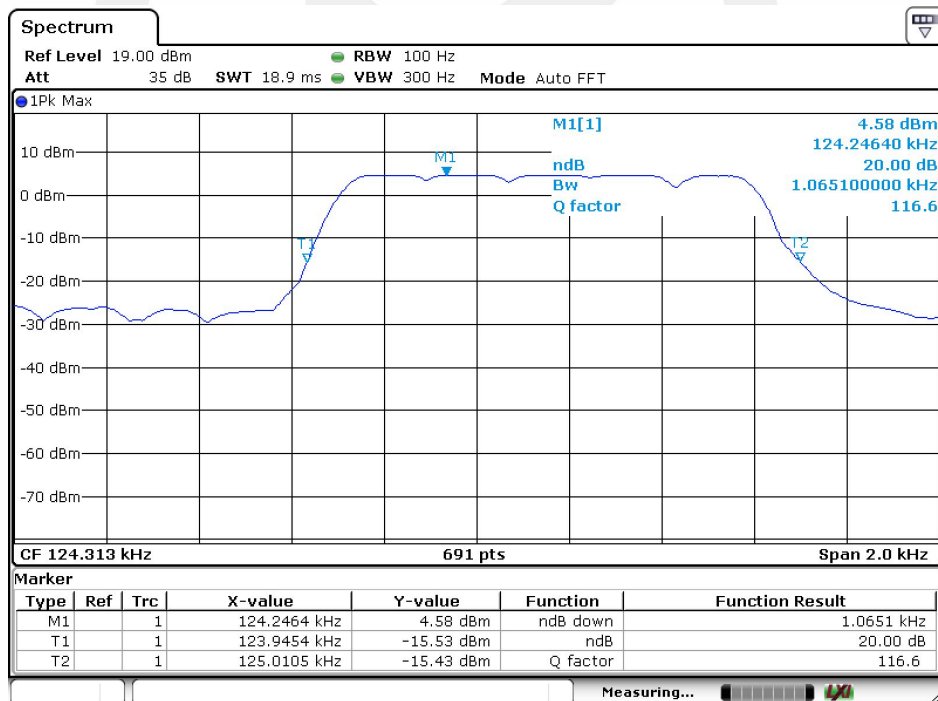
Set to the maximum power setting and enable the EUT transmit continuously  
Set RBW = 100Hz.  
Set the video bandwidth (VBW) =300Hz.  
Set Span= 2 KHz  
Set Detector = Peak.  
Set Trace mode = max hold.  
Set Sweep = auto couple.  
Measure and record the results in the test report.

### 5.2. Test Results

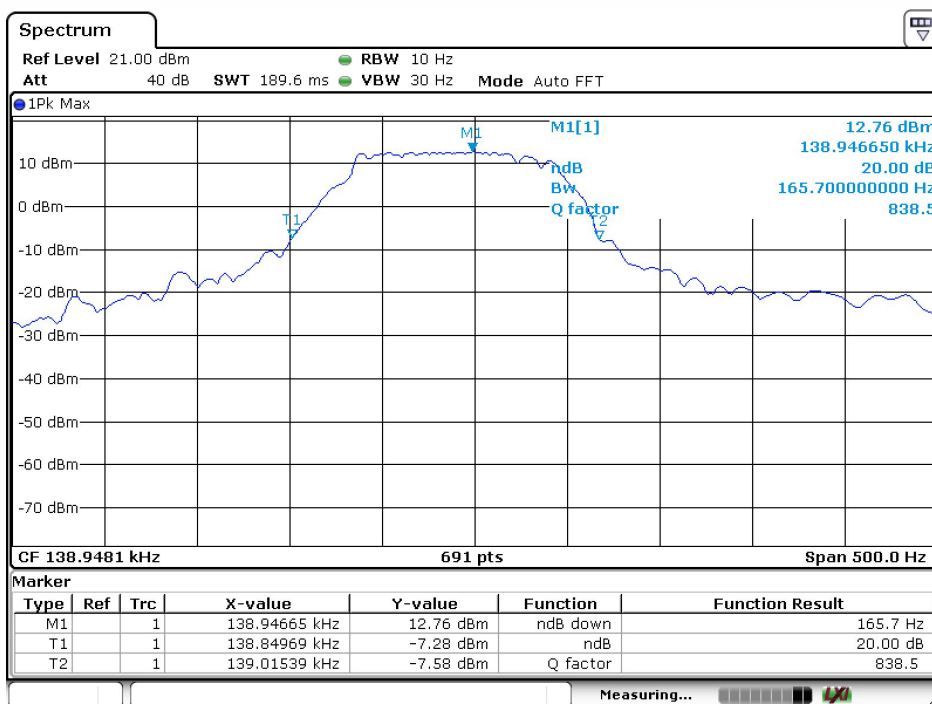
Temperature: 25°C  
Humidity: 57 %

Test Date: 2024.09.30  
Test By: Calvin

Coil1 20dB Band=1.0651 KHz

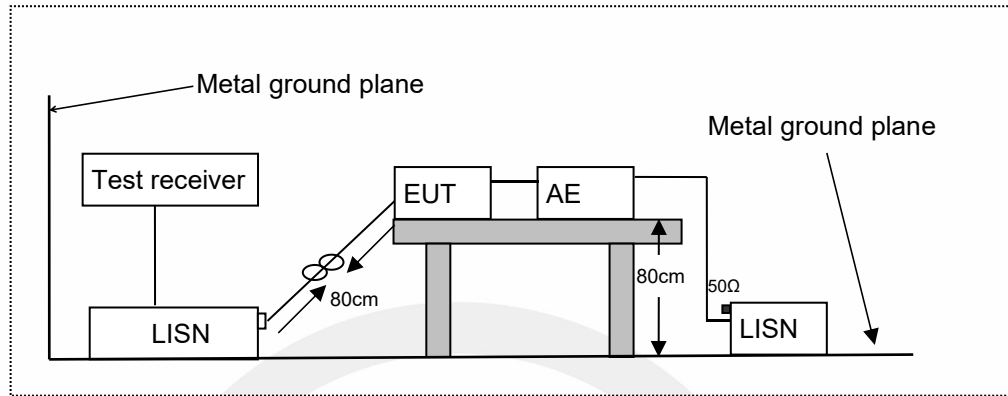


Coil2 20dB Band=165.7 Hz



## 6. POWER LINE CONDUCTED EMISSION MEASUREMENT

### 6.1. Block Diagram of Test Setup



LISN: Line Impedance Stabilization Network  
AE: Associated equipment  
EUT: Equipment under test

### 6.2. Limits

FCC Part 15.207

| Frequency (MHz) |   |       | Limit (dBμV)     |               |
|-----------------|---|-------|------------------|---------------|
|                 |   |       | Quasi-peak Level | Average Level |
| 0.15            | ~ | 0.50  | 66.0 ~ 56.0 *    | 56.0 ~ 46.0 * |
| 0.50            | ~ | 5.00  | 56.0             | 46.0          |
| 5.00            | ~ | 30.00 | 60.0             | 50.0          |

NOTE1-The lower limit shall apply at the transition frequencies.  
NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

### 6.3. Test Procedure

The EUT was placed on a desk 0.8 m height from the metal ground plane and 0.4 m from the conducting wall of the shielding room and it was kept at least 0.8 m from any other grounded conducting surface. The size of the table will nominally be 1.5 m x1.0 m.

The rear of the arrangement shall be flush with the back of the supporting tabletop unless that would not be possible or typical of normal use.

All units of equipment forming the system under test (includes the EUT as well as connected peripherals and associated equipment or devices) shall be arranged such that a nominal 0.1 m separation is achieved between the neighboring units.

Connect EUT to the power mains through a line impedance stabilization network (LISN). Where the mains cable supplied by the manufacturer is longer than 1 m, the excess should be folded at the centre into a bundle no longer than 0.4 m, so that its length is shortened to 1 m.

All the support units are connecting to the other LISN.

The LISN provides 50 ohm coupling impedance for the measuring instrument.

Both sides of AC line were checked for maximum conducted interference.

The frequency range from 150 kHz to 30 MHz was sweep.

Set the test-receiver system to quasi peak detect function and average detect function, and to measure the conducted emissions values.

Test results were obtained from the following equation:

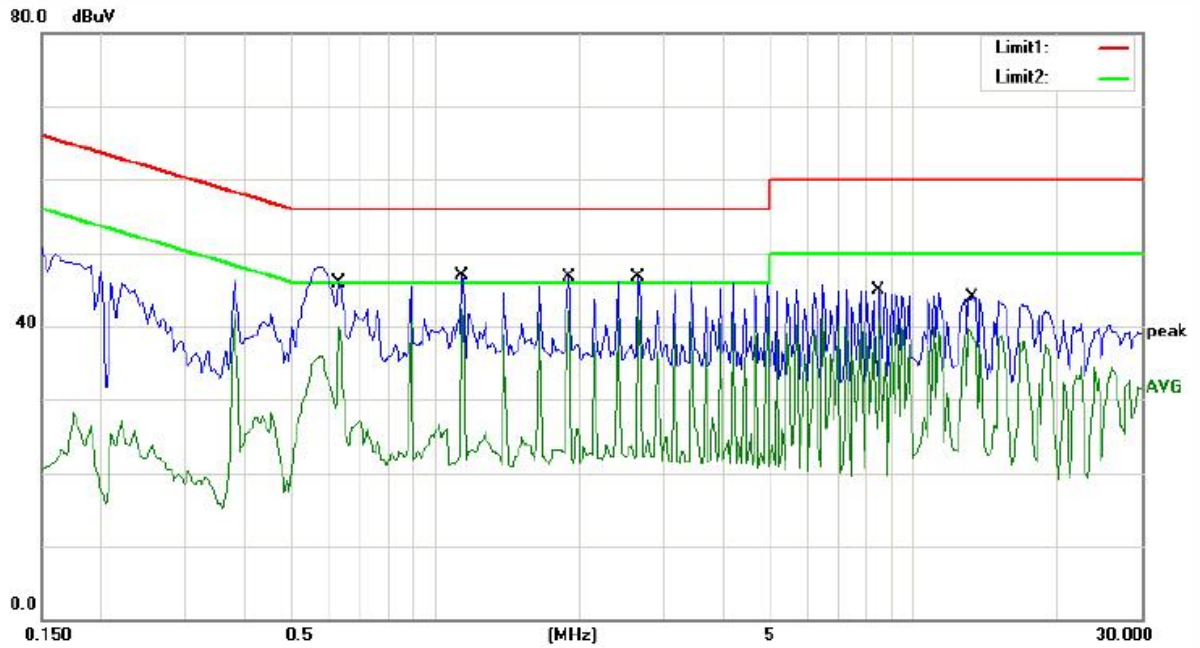
Emission Level (dBμV) = LISN Factor (dB) + Cable Loss (dB) + Reading (dBμV)

Margin (dB) = Emission Level (dBμV) - Limit (dBμV)

## 6.4. Measuring Results

**PASS.**





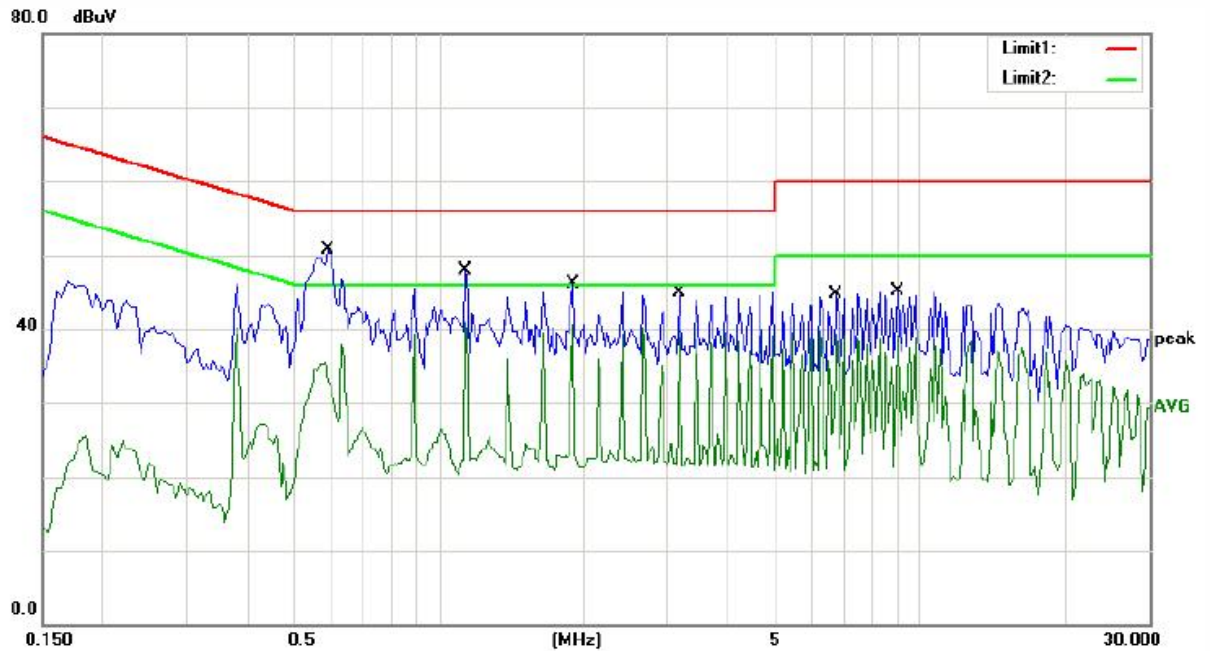
Site site #1

Phase: L1

Temperature: 24.1

| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV | Limit<br>dBuV | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|----------|---------|
| 1   |     | 0.6300       | 45.81                    | 0.00                    | 45.81                    | 56.00         | -10.19     | QP       |         |
| 2   |     | 0.6300       | 39.94                    | 0.00                    | 39.94                    | 46.00         | -6.06      | AVG      |         |
| 3   |     | 1.1400       | 46.94                    | 0.00                    | 46.94                    | 56.00         | -9.06      | QP       |         |
| 4   | *   | 1.1400       | 42.32                    | 0.00                    | 42.32                    | 46.00         | -3.68      | AVG      |         |
| 5   |     | 1.9000       | 46.77                    | 0.00                    | 46.77                    | 56.00         | -9.23      | QP       |         |
| 6   |     | 1.9000       | 42.05                    | 0.00                    | 42.05                    | 46.00         | -3.95      | AVG      |         |
| 7   |     | 2.6600       | 46.75                    | 0.00                    | 46.75                    | 56.00         | -9.25      | QP       |         |
| 8   |     | 2.6600       | 41.80                    | 0.00                    | 41.80                    | 46.00         | -4.20      | AVG      |         |
| 9   |     | 8.4900       | 44.98                    | 0.00                    | 44.98                    | 60.00         | -15.02     | QP       |         |
| 10  |     | 8.4900       | 40.66                    | 0.00                    | 40.66                    | 50.00         | -9.34      | AVG      |         |
| 11  |     | 13.3000      | 43.93                    | 0.00                    | 43.93                    | 60.00         | -16.07     | QP       |         |
| 12  |     | 13.3000      | 39.63                    | 0.00                    | 39.63                    | 50.00         | -10.37     | AVG      |         |

\*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator:



Site site #1

Phase: N

Temperature: 24.1

| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV | Limit<br>dBuV | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|----------|---------|
| 1   |     | 0.5900       | 50.68                    | 0.00                    | 50.68                    | 56.00         | -5.32      | QP       |         |
| 2   |     | 0.5900       | 35.43                    | 0.00                    | 35.43                    | 46.00         | -10.57     | AVG      |         |
| 3   |     | 1.1400       | 47.91                    | 0.00                    | 47.91                    | 56.00         | -8.09      | QP       |         |
| 4   | *   | 1.1400       | 40.98                    | 0.00                    | 40.98                    | 46.00         | -5.02      | AVG      |         |
| 5   |     | 1.9000       | 46.01                    | 0.00                    | 46.01                    | 56.00         | -9.99      | QP       |         |
| 6   |     | 1.9000       | 40.42                    | 0.00                    | 40.42                    | 46.00         | -5.58      | AVG      |         |
| 7   |     | 3.1700       | 44.85                    | 0.00                    | 44.85                    | 56.00         | -11.15     | QP       |         |
| 8   |     | 3.1700       | 39.72                    | 0.00                    | 39.72                    | 46.00         | -6.28      | AVG      |         |
| 9   |     | 6.7200       | 44.65                    | 0.00                    | 44.65                    | 60.00         | -15.35     | QP       |         |
| 10  |     | 6.7200       | 39.28                    | 0.00                    | 39.28                    | 50.00         | -10.72     | AVG      |         |
| 11  |     | 9.0000       | 45.05                    | 0.00                    | 45.05                    | 60.00         | -14.95     | QP       |         |
| 12  |     | 9.0000       | 39.05                    | 0.00                    | 39.05                    | 50.00         | -10.95     | AVG      |         |

\*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator:

## Remark:

1. Measurement (dBμV) = AMN Factor (dB) + Cable Loss (dB) + Reading (dBμV)
2. Over (dB) = Measurement (dBμV) - Limit (dBμV)

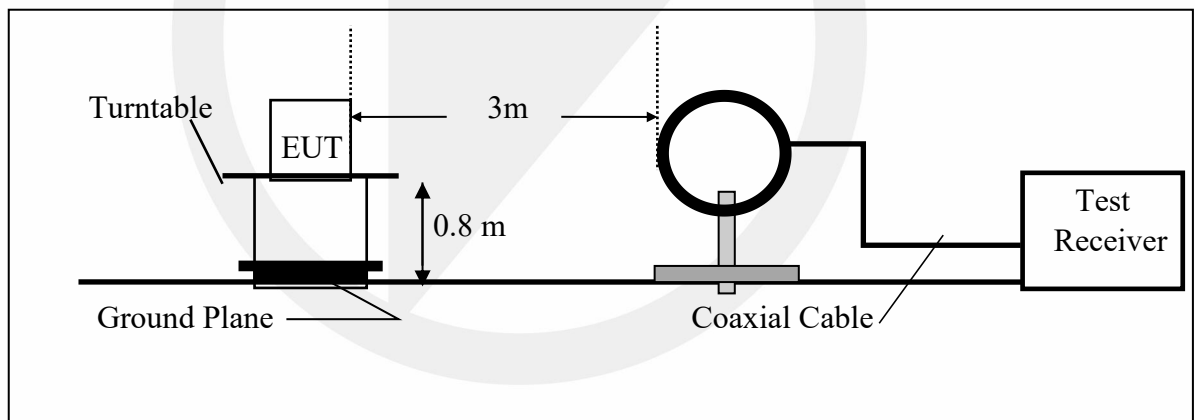
## 7. RADIATED EMISSION TEST

### 7.1.Measurement Procedure

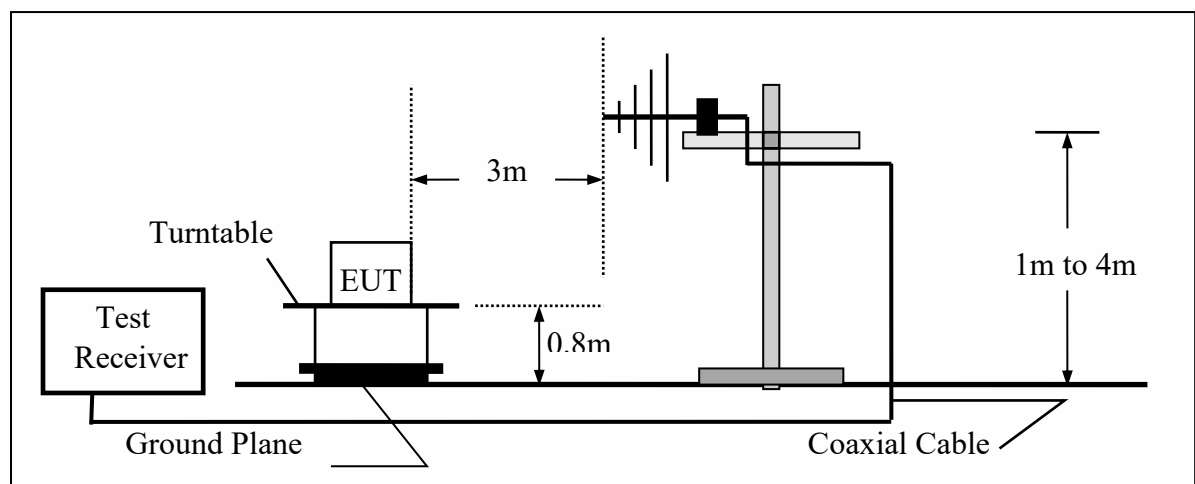
1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measured were complete.
5. Use the following receiver/spectrum analyzer settings:  
Span = wide enough to fully capture the emission being measured  
RBW=200Hz for 9KHz to 150KHz,  
RBW=9kHz for 150KHz to 30MHz,  
RBW=120KHz for 30MHz to 1GHz  
VBW  $\geq 3 \times$  RBW  
Sweep = auto  
Detector function = QP  
Trace = max hold

### 7.2.Test SET-UP (Block Diagram of Configuration)

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



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



### 7.3.Radiated Emission Limit

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table 15.209(a):

| FCC Part 15.209    |                              |      |                                                                    |                         |
|--------------------|------------------------------|------|--------------------------------------------------------------------|-------------------------|
| Frequency<br>(MHz) | Field Strength<br>Limitation |      | Field Strength Limitation Frequency tion at 3m<br>Measurement Dist |                         |
|                    | (uV/m)                       | Dist | (uV/m)                                                             | (dBuV/m)                |
| 0.009 – 0.490      | 2400 / F(KHz)                | 300m | 10000 * 2400/F(KHz)                                                | 20log 2400/F(KHz) + 80  |
| 0.490 – 1.705      | 24000 / F(KHz)               | 30m  | 100 * 24000/F(KHz)                                                 | 20log 24000/F(KHz) + 40 |
| 1.705 – 30.00      | 30                           | 30m  | 100* 30                                                            | 20log 30 + 40           |
| 30.0 – 88.0        | 100                          | 3m   | 100                                                                | 20log 100               |
| 88.0 – 216.0       | 150                          | 3m   | 150                                                                | 20log 150               |
| 216.0 – 960.0      | 200                          | 3m   | 200                                                                | 20log 200               |
| Above 960.0        | 500                          | 3m   | 500                                                                | 20log 500               |

### 15.205 Restricted bands of operation

| MHz                        | MHz                   | MHz             | GHz              |
|----------------------------|-----------------------|-----------------|------------------|
| 0.090 - 0.110              | 16.42 - 16.423        | 399.9 - 410     | 4.5 - 5.15       |
| <sup>1</sup> 0.495 - 0.505 | 16.69475 - 16.69525   | 608 - 614       | 5.35 - 5.46      |
| 2.1735 - 2.1905            | 16.80425 - 16.80475   | 960 - 1240      | 7.25 - 7.75      |
| 4.125 - 4.128              | 25.5 - 25.67          | 1300 - 1427     | 8.025 - 8.5      |
| 4.17725 - 4.17775          | 37.5 - 38.25          | 1435 - 1626.5   | 9.0 - 9.2        |
| 4.20725 - 4.20775          | 73 - 74.6             | 1645.5 - 1646.5 | 9.3 - 9.5        |
| 6.215 - 6.218              | 74.8 - 75.2           | 1660 - 1710     | 10.6 - 12.7      |
| 6.26775 - 6.26825          | 108 - 121.94          | 1718.8 - 1722.2 | 13.25 - 13.4     |
| 6.31175 - 6.31225          | 123 - 138             | 2200 - 2300     | 14.47 - 14.5     |
| 8.291 - 8.294              | 149.9 - 150.05        | 2310 - 2390     | 15.35 - 16.2     |
| 8.362 - 8.366              | 156.52475 - 156.52525 | 2483.5 - 2500   | 17.7 - 21.4      |
| 8.37625 - 8.38675          | 156.7 - 156.9         | 2690 - 2900     | 22.01 - 23.12    |
| 8.41425 - 8.41475          | 162.0125 - 167.17     | 3260 - 3267     | 23.6 - 24.0      |
| 12.29 - 12.293             | 167.72 - 173.2        | 3332 - 3339     | 31.2 - 31.8      |
| 12.51975 - 12.52025        | 240 - 285             | 3345.8 - 3358   | 36.43 - 36.5     |
| 12.57675 - 12.57725        | 322 - 335.4           | 3600 - 4400     | ( <sup>2</sup> ) |

- Remark:
1. Emission level in dBuV/m=20 log (uV/m)
  2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
  3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of § 15.205, and the emissions located in restricted bands also comply with 15.209 limit.

## 7.4.Measurement Result

|                    |               |               |            |
|--------------------|---------------|---------------|------------|
| Operation Mode:    | Low frequency | Test Date :   | 2024.09.21 |
| Frequency Range:   | 9KHz~30MHz    | Temperature : | 23.7℃      |
| Test Result:       | PASS          | Humidity :    | 67 %       |
| Measured Distance: | 3m            | Test By:      | Ccyf       |

| Freq.<br>(MHz) | Ant.Pol.<br>H/V | Emission Level<br>(dBuV/m) | Limit 3m<br>(dBuV/m) | Over<br>(dB) | Note |
|----------------|-----------------|----------------------------|----------------------|--------------|------|
| 0.1207         | H               | 72.73                      | 105.96               | -33.23       | PK   |
| 0.1696         | H               | 77.88                      | 103.01               | -25.13       | PK   |
| 0.2993         | H               | 62.67                      | 98.08                | -35.41       | PK   |
| 0.4008         | H               | 62.34                      | 95.54                | -33.20       | PK   |
| 0.4990         | H               | 60.37                      | 73.64                | -13.27       | PK   |
| 0.8454         | H               | 49.55                      | 69.08                | -19.53       | PK   |
| 0.1150         | V               | 89.07                      | 106.38               | -17.31       | PK   |
| 0.1642         | V               | 85.55                      | 103.29               | -17.74       | PK   |
| 0.3464         | V               | 64.90                      | 96.81                | -31.91       | PK   |
| 0.4990         | V               | 63.19                      | 73.64                | -10.45       | PK   |
| 0.8251         | V               | 55.27                      | 69.29                | -14.02       | PK   |
| 1.1694         | V               | 48.84                      | 66.27                | -17.43       | PK   |

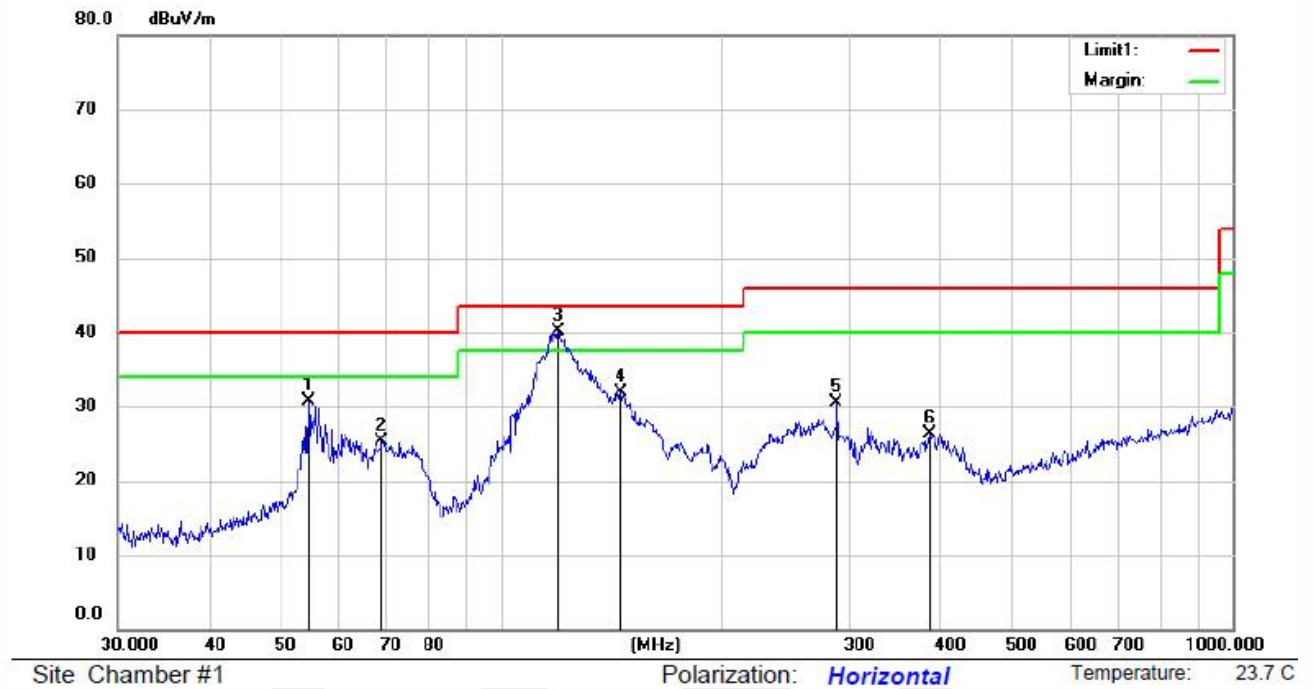
**Note:** (1) All Readings are Peak Value.

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

(3) The average measurement was not performed when the peak measured data under the limit of average detection.

(4) EUT lying on the table position is the worst case result in the report.

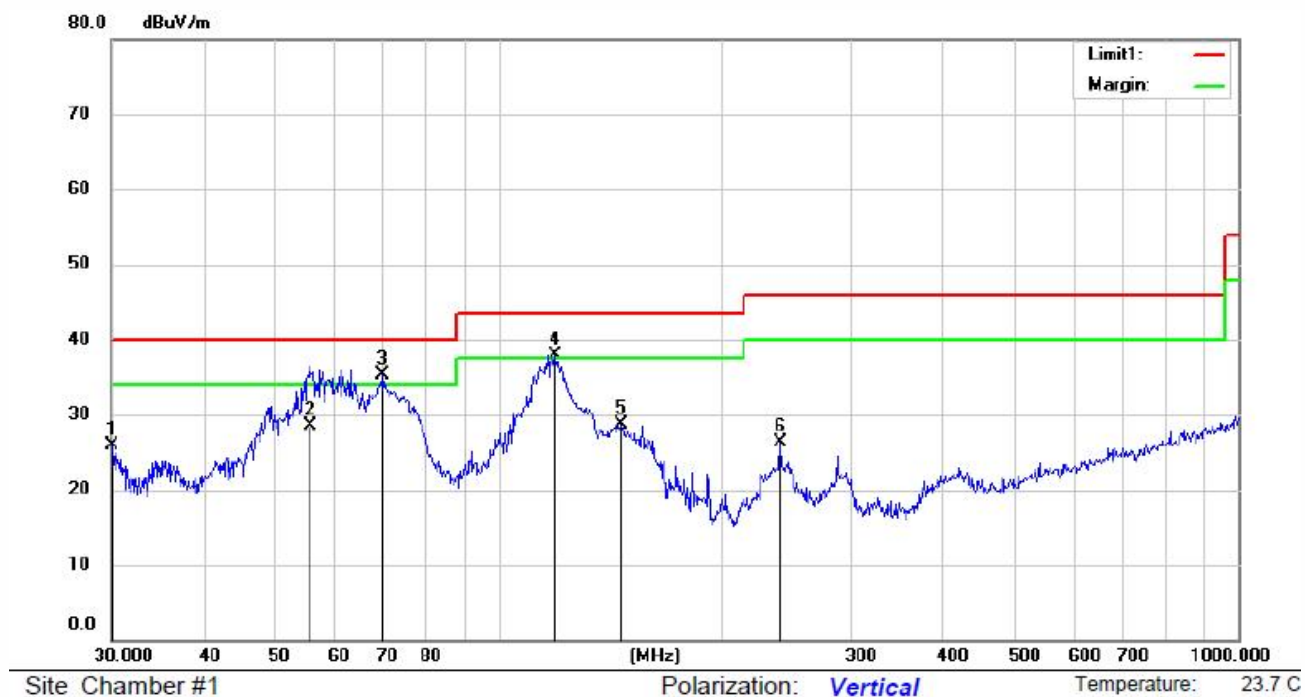
30MHz-1GHz:



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Ant.<br>Factor<br>dB/m | Pre Amp<br>Gain<br>dB | Cable<br>loss<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | HI | Degree | Comment |
|-----|-----|--------------|--------------------------|------------------------|-----------------------|---------------------|----------------------------|-----------------|------------|----|--------|---------|
| 1   |     | 54.6430      | 46.77                    | 13.54                  | 30.5                  | 0.91                | 30.72                      | 40.00           | -9.28      | QP |        |         |
| 2   |     | 68.8721      | 44.59                    | 10.13                  | 30.55                 | 1.1                 | 25.27                      | 40.00           | -14.73     | QP |        |         |
| 3   | *   | 119.8556     | 59.90                    | 9.82                   | 30.78                 | 1.22                | 40.16                      | 43.50           | -3.34      | QP |        |         |
| 4   |     | 145.8611     | 52.80                    | 8.42                   | 30.65                 | 1.41                | 31.98                      | 43.50           | -11.52     | QP |        |         |
| 5   |     | 287.9904     | 44.64                    | 13.68                  | 29.89                 | 2.15                | 30.58                      | 46.00           | -15.42     | QP |        |         |
| 6   |     | 385.2805     | 36.99                    | 15.92                  | 29.82                 | 3.31                | 26.40                      | 46.00           | -19.60     | QP |        |         |

\*:Maximum data x:Over limit !:over margin

Operator: Ccyf



| No. | Mk. | Freq.    | Reading Level | Ant. Factor | Pre Amp Gain | Cable loss | Measure-ment | Limit  | Over   | HI       | Degree |      |         |
|-----|-----|----------|---------------|-------------|--------------|------------|--------------|--------|--------|----------|--------|------|---------|
|     |     | MHz      | dBuV          | dB/m        | dB           | dB         | dBuV/m       | dBuV/m | dB     | Detector | cm     | deg. | Comment |
| 1   |     | 30.1054  | 44.67         | 11.21       | 30.57        | 0.58       | 25.89        | 40.00  | -14.11 | QP       |        |      |         |
| 2   |     | 55.6094  | 44.82         | 13.35       | 30.5         | 0.93       | 28.60        | 40.00  | -11.40 | QP       |        |      |         |
| 3   | *   | 69.8450  | 54.83         | 9.93        | 30.55        | 1.11       | 35.32        | 40.00  | -4.68  | QP       |        |      |         |
| 4   | !   | 119.4361 | 57.61         | 9.89        | 30.79        | 1.22       | 37.93        | 43.50  | -5.57  | QP       |        |      |         |
| 5   |     | 146.3735 | 49.44         | 8.43        | 30.64        | 1.41       | 28.64        | 43.50  | -14.86 | QP       |        |      |         |
| 6   |     | 240.8304 | 41.74         | 12.74       | 30.14        | 2.05       | 26.39        | 46.00  | -19.61 | QP       |        |      |         |

\*:Maximum data x:Over limit !:over margin

Operator: Ccyf

## Remark:

- Measurement (dBuV/m) = Antenna Factor(dB) -Amp Factor(dB) +Cable Loss(dB) + Reading(dBuV/m)
- Over (dB) = Measurement (dBuV/m) - Limit (dBuV/m)

## 8. ANTENNA REQUIREMENT

The EUT's antenna, permanent attached antenna, used an Induction coil, The antenna's gain meets the requirement.



\*\*\* End of Report \*\*\*

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