# FCC TEST REPORT

Report No:STS1804223W01

Issued for

Risco Ltd.

14 Hachoma Street,Rishon Lezion,75655,Israel

| | |
|---|---|
| **Product Name:** | 32 Zone Wireless Receive 915 |
| **Brand Name:** | RISCO |
| **Model Name:** | RP432EW9 |
| **Series Model:** | N/A |
| **FCC ID:** | JE4RP432EW9 |
| **Test Standard:** | FCC Part 15.249 |



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## TEST RESULT CERTIFICATION

| | |
|---|---|
| **Applicant's name** : | Risco Ltd. |
| Address : | 14 Hachoma Street,Rishon Lezion,75655,Israel |
| **Manufacture's Name** : | RISCO LTD. |
| Address : | Sderot Yahalom 6 Kiryat Gat, Israel |

**Product description**

| | |
|---|---|
| Product Name .....: | 32 Zone Wireless Receive 915 |
| Brand Name .....: | RISCO |
| Model Name .....: | RP432EW9 |
| Series Model .....: | N/A |
| **Test Standards**.....: | FCC Part15.249 |
| Test procedure : | ANSI C63.4-2014 and ANSI C63.10-2013 |

This device described above has been tested by STS, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
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| | |
|---|---|
| Date of Test : | |
| Date of performance of tests : | 25 Apr. 2018 ~05 May. 2018 |
| Date of Issue : | 11 May. 2018 |
| Test Result : | **Pass** |

Testing Engineer : Chris chen

( Chris chen )

Technical Manager : Sean She

( Sean she )

Authorized Signatory : Vita Li

(Vita Li)

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## Revision History

| Rev. | Issue Date | Report NO. | Effect Page | Contents |
|---|---|---|---|---|
| 00 | 11 May. 2018 | STS1804223W01 | ALL | Initial Issue |
| | | | | |

# 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

| FCC Part 15.249,Subpart C | | | |
|---|---|---|---|
| Standard Section | Test Item | Judgment | Remark |
| 15.207 | Conducted Emission | Pass | |
| 15.203 | Antenna Requirement | Pass | |
| 15.249 | Radiated Emission | Pass | |
| 15.249 | 20dB Bandwidth | Pass | |

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

(2)All tests are according to ANSI C63.4-2014 and ANSI C63.10-2013

1.1 TEST FACTORY

Shenzhen STS Test Services Co., Ltd.
Add. : 1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road,
Fuyong Street, Bao'an District, Shenzhen, Guangdong,China
CNAS Registration No.: L7649; FCC Registration No.: 625569
IC Registration No.: 12108A; A2LA Certificate No.: 4338.01;

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**，where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**，providing a level of confidence of approximately **95** %。

| No. | Item | Uncertainty |
|---|---|---|
| 1 | Conducted Emission (9KHz-150KHz) | ±2.88dB |
| 2 | Conducted Emission (150KHz-30MHz) | ±2.67dB |
| 3 | RF power,conducted | ±0.71dB |
| 4 | Spurious emissions,conducted | ±0.63dB |
| 5 | All emissions,radiated (9KHz-30MHz) | ±3.02dB |
| 6 | All emissions,radiated (30MHz-200MHz) | ±3.80dB |
| 7 | All emissions,radiated (200MHz-1000MHz) | ±3.97dB |

# 2. GENERAL INFORMATION

## 2.1 GENERAL DESCRIPTION OF EUT

| | |
|---|---|
| Product Name | 32 Zone Wireless Receive 915 |
| Trade Name | RISCO |
| Model Name | RP432EW9 |
| Series Model | N/A |
| Model Difference | N/A |
| Product Description | The EUT is a 32 Zone Wireless Receive 915<br><br>Operation Frequency: 915MHz<br>Modulation Type: OOK<br>Antenna Designation: Integral Antenna<br>Antenna Gain(Peak) 3 dBi<br><br>Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual. |
| Power Rating | DC 12V |

| Model | Description | PCB P/N | Hardware Version | Software Version |
|---|---|---|---|---|
| RP432EW9 | 32 Zone Wireless Receiver, 915 | 1PC432EW0000D | A | V1.40 |

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. 

| Channel | Frequency (MHz) |
|---|---|
| 01 | 915 |

3. Table for Filed Antenna

| Ant | Brand | Model Name | Antenna Type | Connector | Gain (dBi) | NOTE |
|---|---|---|---|---|---|---|
| 1 | RISCO | RP432EW9 | Integral Antenna | NA | 3 | Antenna |

The EUT antenna is spring loaded Antenna. No antenna other than that furnished by the responsible party shall be used with the device.

## 2.2 DESCRIPTION OF TEST MODES

For conducted test items and radiated spurious emissions
Each of these EUT operation mode(s) or test configuration mode(s) mentioned below was evaluated respectively..

| Worst Mode | Description | Data/Modulation |
|---|---|---|
| Mode 1 | TX CH01 | 1 MHz/OOK |

Note:

(1) All above mode have been measurement, only worst data was reported.

(2) New Battery is used during all test.

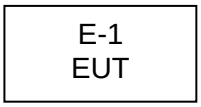
(3) We have be tested for all avaiable U.S. voltage and frequencies(For 120V,50/60Hz) for which the device is capable of operation, and the worst case of 120V,50/60Hz is shown in the report

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

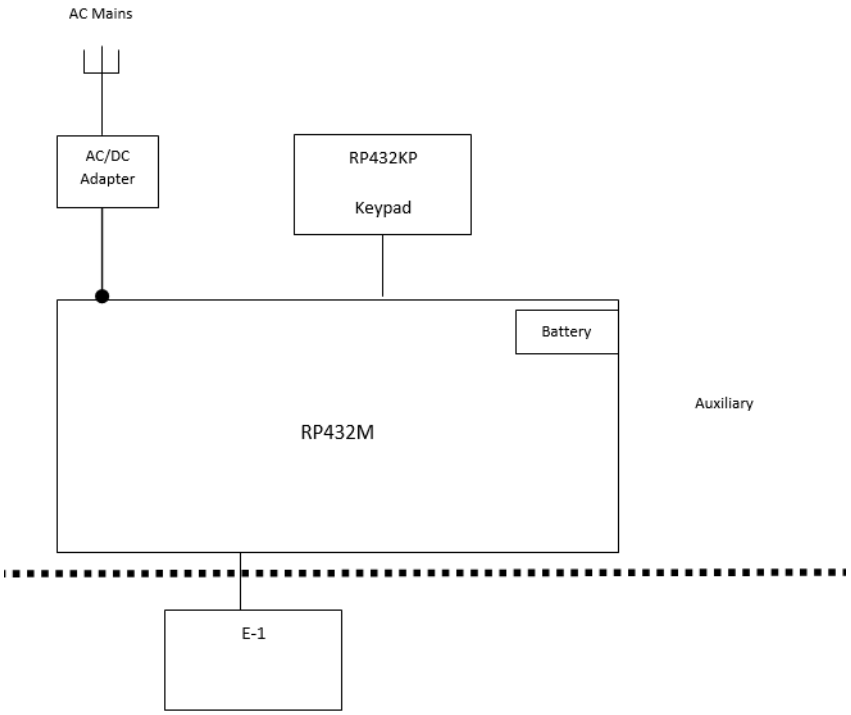
2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters

Radiated Spurious Emission Test




conduction Test Set



2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| Item | Equipment | Mfr/Brand | Model/Type No. | Serial No. | Note |
|---|---|---|---|---|---|
| E-1 | 32 Zone Wireless Receive 915 | RISCO | RP432EW9 | N/A | N/A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Item | Shielded Type | Ferrite Core | Length | Note |
|---|---|---|---|---|
| E-1 | No | No | >30m | N/A |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in『Length』column.

## 2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

| Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until |
|---|---|---|---|---|---|
| EMI Test Receiver | R&S | ESW | 101535 | 2017.06.01 | 2018.05.31 |
| Bilog Antenna | TESEQ | CBL6111D | 34678 | 2017.11.02 | 2018.11.01 |
| Horn Antenna | Schwarzbeck | BBHA 9120D(1201) | 9120D-1343 | 2017.10.27 | 2018.10.26 |
| Passive Loop (9K--30MHz) | ZHNAN | ZN3090C | 16035 | 2018.03.11 | 2019.03.10 |
| Pre-mplifier (0.1M-3GHz) | EM | EM330 | 60538 | 2018.03.11 | 2019.03.10 |
| PreAmplifier | Agilent | 8449B | 60538 | 2017.10.15 | 2018.10.14 |
| USB RF power sensor | DARE | RPR3006W | 15I00041SNO03 | 2017.10.15 | 2018.10.14 |
| Semi-anechoic chamber | Changling | 966 | N/A | 2017.10.15 | 2018.10.14 |

Conduction Test equipment

| Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until |
|---|---|---|---|---|---|
| Test Receiver | R&S | ESCI | 101427 | 2017.10.15 | 2018.10.14 |
| LISN | R&S | ENV216 | 101242 | 2017.10.15 | 2018.10.14 |
| conduction Cable | EM | C01 | N/A | 2018.03.11 | 2019.03.10 |
| Temperature & Humitidy | Mieo | HH660 | N/A | 2017.10.15 | 2018.10.14 |

# 3. EMC EMISSION TEST

## 3.1 CONDUCTED EMISSION MEASUREMENT

### 3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

Operating frequency band. In case the emission fall within the restricted band specified on Part 15.249 limit in the table below has to be followed.

| FREQUENCY (MHz) | Quasi-peak | Average |
|---|---|---|
| 0.15 -0.5 | 66 - 56 * | 56 - 46 * |
| 0.50 -5.0 | 56.00 | 46.00 |
| 5.0 -30.0 | 60.00 | 50.00 |

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

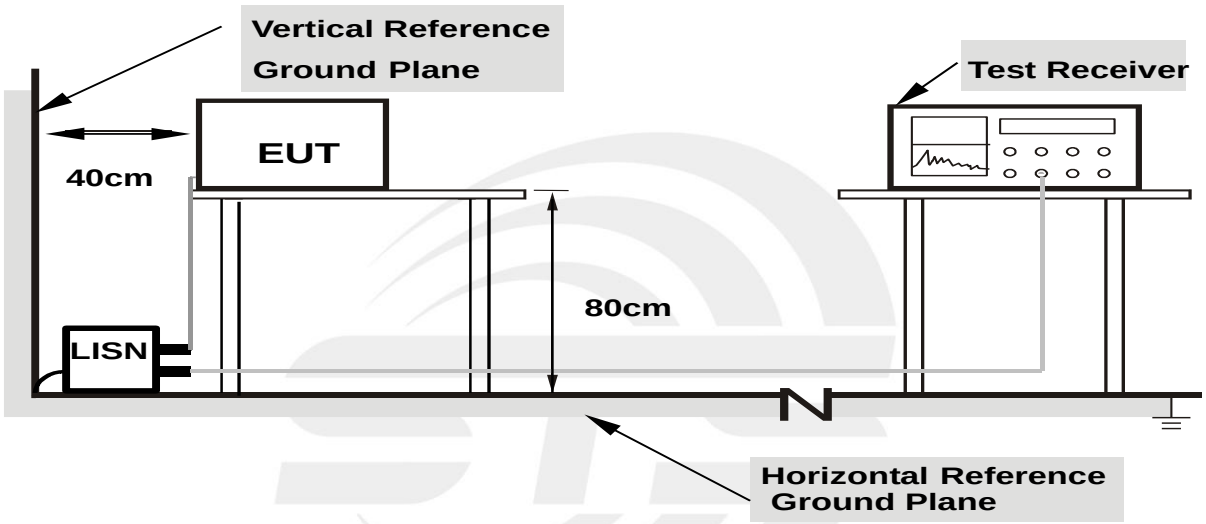
The following table is the setting of the receiver

| **Receiver Parameters** | **Setting** |
|---|---|
| Attenuation | 10 dB |
| Start Frequency | 0.15 MHz |
| Stop Frequency | 30 MHz |
| IF Bandwidth | 9 kHz |

3.1.2 TEST PROCEDURE

a. The EUT was 0.8 meters from the horizontal ground plane and 0.4 meters from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP




**Note: 1.Support units were connected to second LISN.**
**2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**

3.1.4 EUT OPERATING CONDITIONS

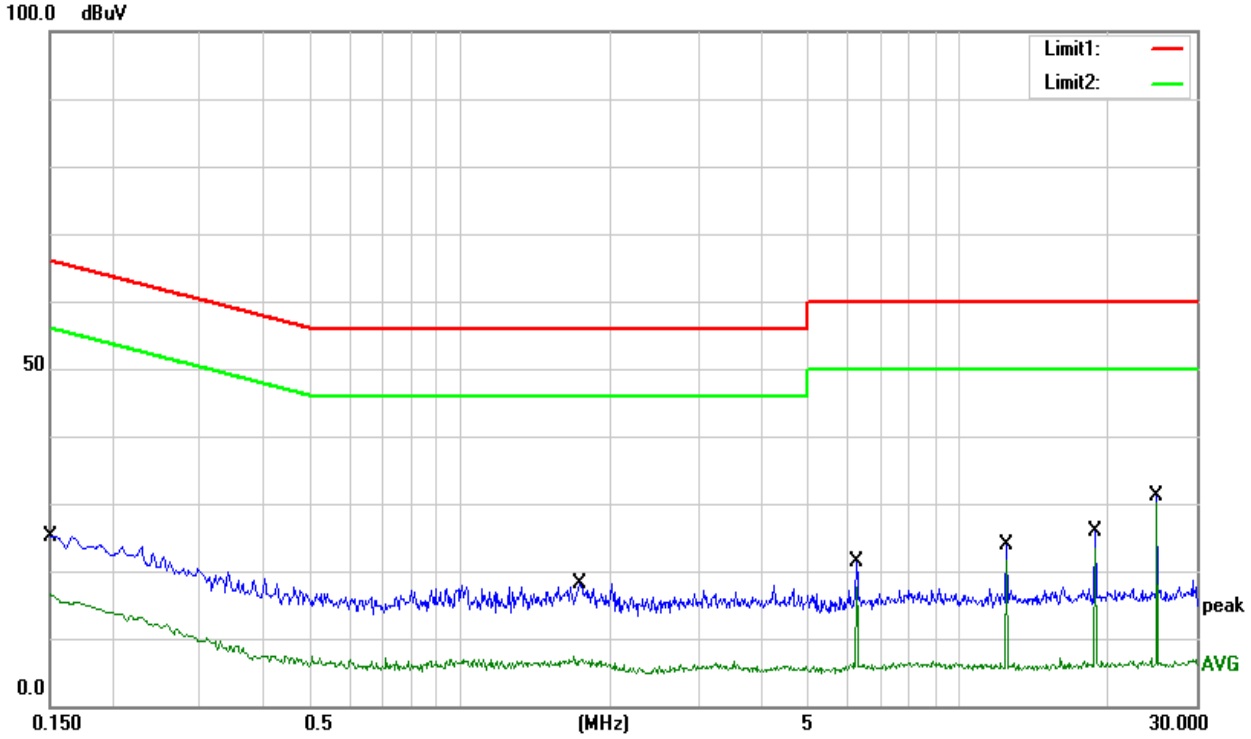
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.5 TEST RESULTS

| Temperature: | 24 ℃ | Relative Humidity: | 60% |
|---|---|---|---|
| Test Voltage: | AC 120V/60Hz | Phase: | L |
| Test Mode: | Mode 1 | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|
| 0.1500 | 15.45 | 9.79 | 25.24 | 66.00 | -40.76 | QP |
| 0.1500 | 6.75 | 9.79 | 16.54 | 56.00 | -39.46 | AVG |
| 1.7420 | 8.39 | 9.79 | 18.18 | 56.00 | -37.82 | QP |
| 1.7420 | -2.97 | 9.79 | 6.82 | 46.00 | -39.18 | AVG |
| 6.2500 | 11.39 | 9.87 | 21.26 | 60.00 | -38.74 | QP |
| 6.2500 | 7.67 | 9.87 | 17.54 | 50.00 | -32.46 | AVG |
| 12.4980 | 13.69 | 10.23 | 23.92 | 60.00 | -36.08 | QP |
| 12.4980 | 11.34 | 10.23 | 21.57 | 50.00 | -28.43 | AVG |
| 18.7500 | 15.42 | 10.40 | 25.82 | 60.00 | -34.18 | QP |
| 18.7500 | 12.91 | 10.40 | 23.31 | 50.00 | -26.69 | AVG |
| 24.9980 | 21.09 | 10.15 | 31.24 | 60.00 | -28.76 | QP |
| 24.9980 | 19.97 | 10.15 | 30.12 | 50.00 | -19.88 | AVG |

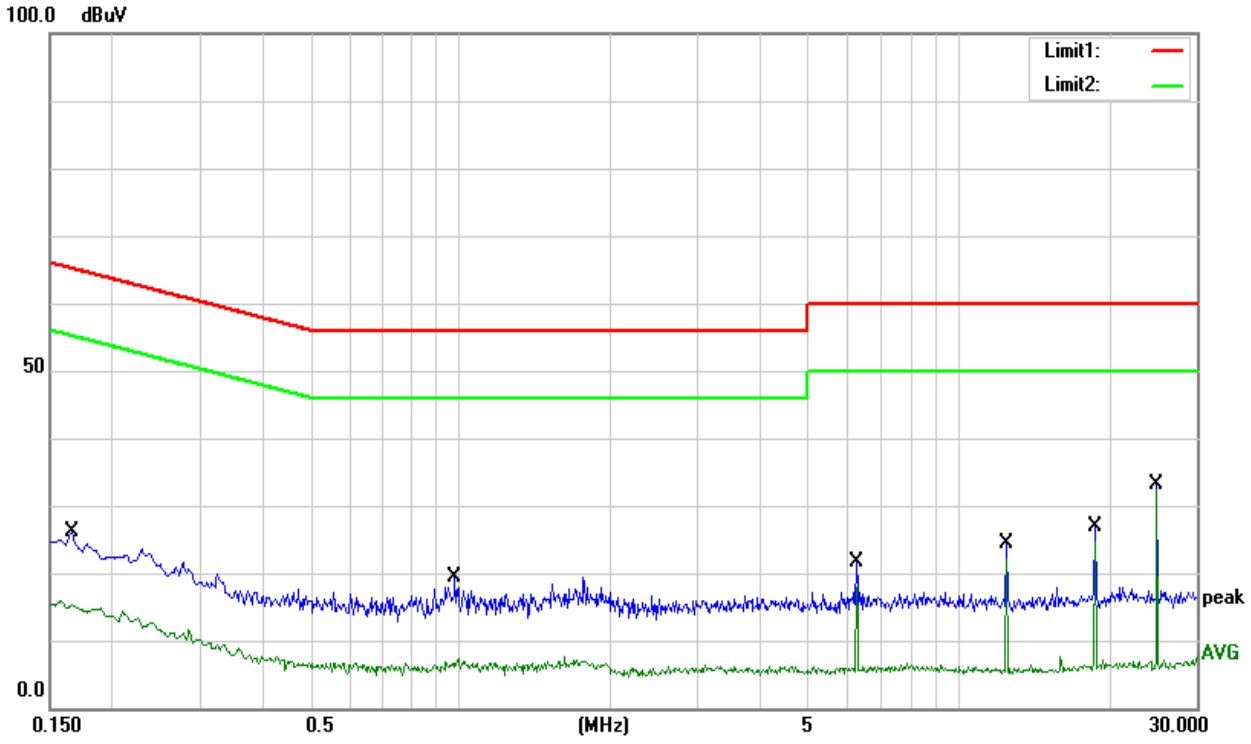
Remark:
1. Margin = Result (Result =Reading + Factor )–Limit



| | | | |
|---|---|---|---|
| Temperature: | 26 ℃ | Relative Humidity: | 60% |
| Test Voltage: | AC 120V/60Hz | Phase: | N |
| Test Mode: | Mode 1 | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|
| 0.1660 | 16.43 | 9.79 | 26.22 | 65.16 | -38.94 | QP |
| 0.1660 | 5.50 | 9.79 | 15.29 | 55.16 | -39.87 | AVG |
| 0.9780 | 9.51 | 9.81 | 19.32 | 56.00 | -36.68 | QP |
| 0.9780 | -3.51 | 9.81 | 6.30 | 46.00 | -39.70 | AVG |
| 6.2500 | 11.76 | 9.90 | 21.66 | 60.00 | -38.34 | QP |
| 6.2500 | 8.05 | 9.90 | 17.95 | 50.00 | -32.05 | AVG |
| 12.4980 | 14.45 | 10.00 | 24.45 | 60.00 | -35.55 | QP |
| 12.4980 | 12.09 | 10.00 | 22.09 | 50.00 | -27.91 | AVG |
| 18.7500 | 16.45 | 10.37 | 26.82 | 60.00 | -33.18 | QP |
| 18.7500 | 14.18 | 10.37 | 24.55 | 50.00 | -25.45 | AVG |
| 24.9980 | 22.85 | 10.27 | 33.12 | 60.00 | -26.88 | QP |
| 24.9980 | 22.11 | 10.27 | 32.38 | 50.00 | -17.62 | AVG |

Remark:
1. Margin = Result (Result =Reading + Factor )–Limit



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on Part 15.205(a), then the Part 15.209(a)and Part 15.231(b) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (0.009MHz - 1000MHz)

| Frequencies (MHz) | Field Strength (micorvolts/meter) | Measurement Distance (meters) |
|---|---|---|
| 0.009~0.490 | 2400/F(KHz) | 300 |
| 0.490~1.705 | 24000/F(KHz) | 30 |
| 1.705~30.0 | 30 | 30 |
| 30~40.66 | 100 | 3 |
| 40.70~70 | 100 | 3 |

LIMITS OF RADIATED EMISSION MEASUREMENT ( FCC 15.249)

| **Frequency of Emission (MHz)** | **Field Strength of fundamental ((millivolts /meter)** | **Field Strength of Harmonics (microvolts/meter)** |
|---|---|---|
| 902-928 | 50 | 500 |

Notes:

(1) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

| Spectrum Parameter | Setting |
|---|---|
| Detector | Peak |
| Attenuation | Auto |
| Start Frequency | 1000 MHz |
| Stop Frequency | 10th carrier harmonic |
| RB / VB (emission in restricted band) | RB>20BW,VB=20xRB |

| **Receiver Parameter** | **Setting** |
|---|---|
| Start ~ Stop Frequency | 9kHz~90kHz / RB 200Hz for PK-AV |
| | 90kHz~110kHz / RB 200Hz for QP |
| | 110kHz~490KHz / RB 9kHz for PK-AV |
| | 490kHz~30MHz / RB 9kHz for QP |
| | 30MHz~1000MHz / RB 100kHz for QP-PK |

3.2.2 TEST PROCEDURE

a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit,
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

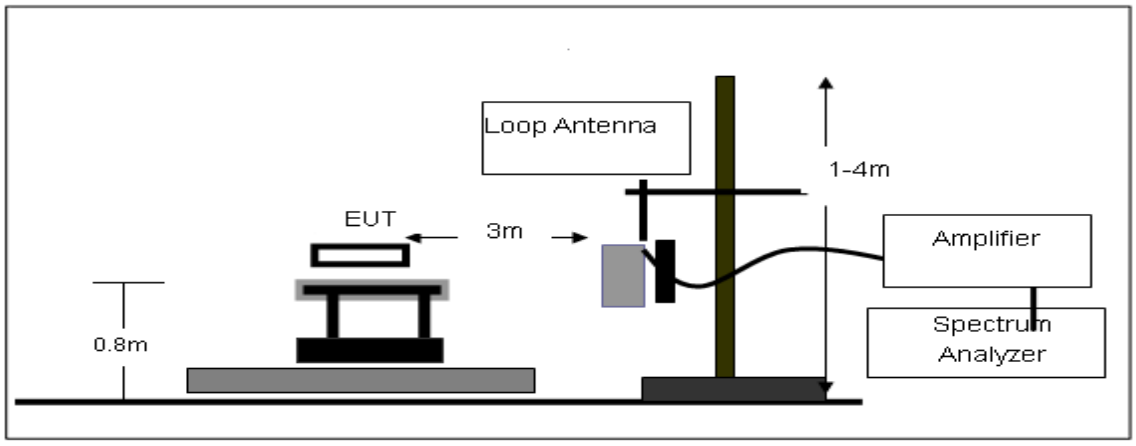
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

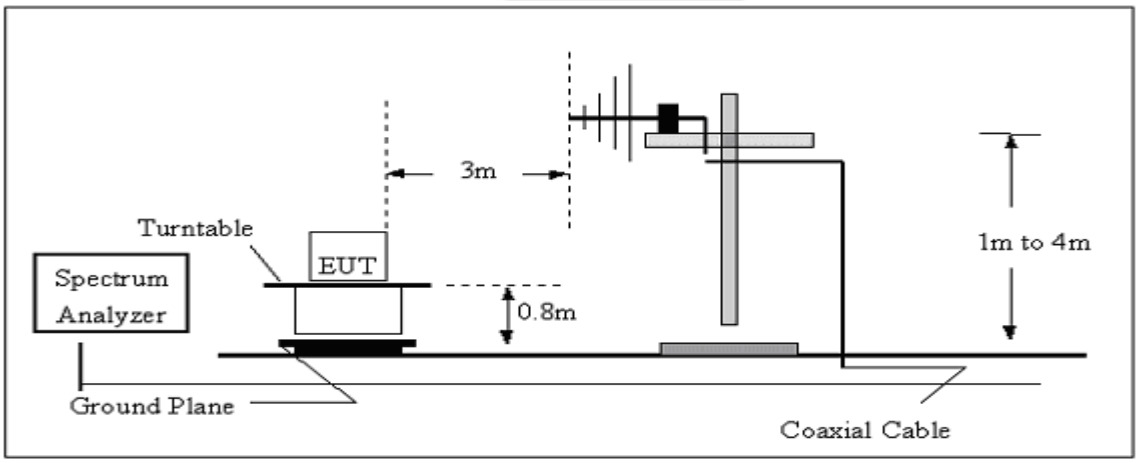
No deviation

3.2.4 TEST SETUP

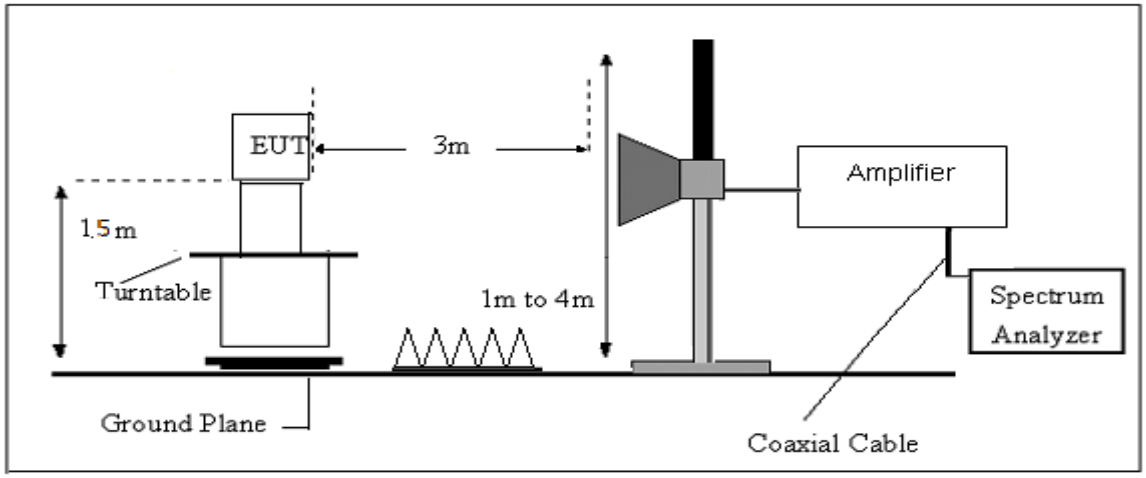
（A）Radiated Emission Test-Up Frequency Below 30MHz




（B）Radiated Emission Test-Up Frequency 30MHz~1GHz




（C）Radiated Emission Test-Up Frequency Above 1GHz



3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

For example

| Frequency | FS | RA | AF | CL | AG | Factor |
|---|---|---|---|---|---|---|
| (MHz) | (dBμV/m) | (dBμV/m) | (dB) | (dB) | (dB) | (dB) |
| 300 | 40 | 58.1 | 12.2 | 1.6 | 31.9 | -18.1 |

Factor=AF+CL-AG

3.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

Below 30 MHz

| | | | |
|---|---|---|---|
| Temperature: | 24 ℃ | Relative Humidity: | 60% |
| Test Voltage: | DC 12V | Polarization: | --- |
| Test Mode: | TX Mode | | |

| Freq. | Reading | Limit | Margin | State |
|---|---|---|---|---|
| (MHz) | (dBuV/m) | (dBuV/m) | (dB) | P/F |
| -- | -- | -- | -- | PASS |
| -- | -- | -- | -- | PASS |

**NOTE:**

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =40 log (specific distance/test distance)(dB);

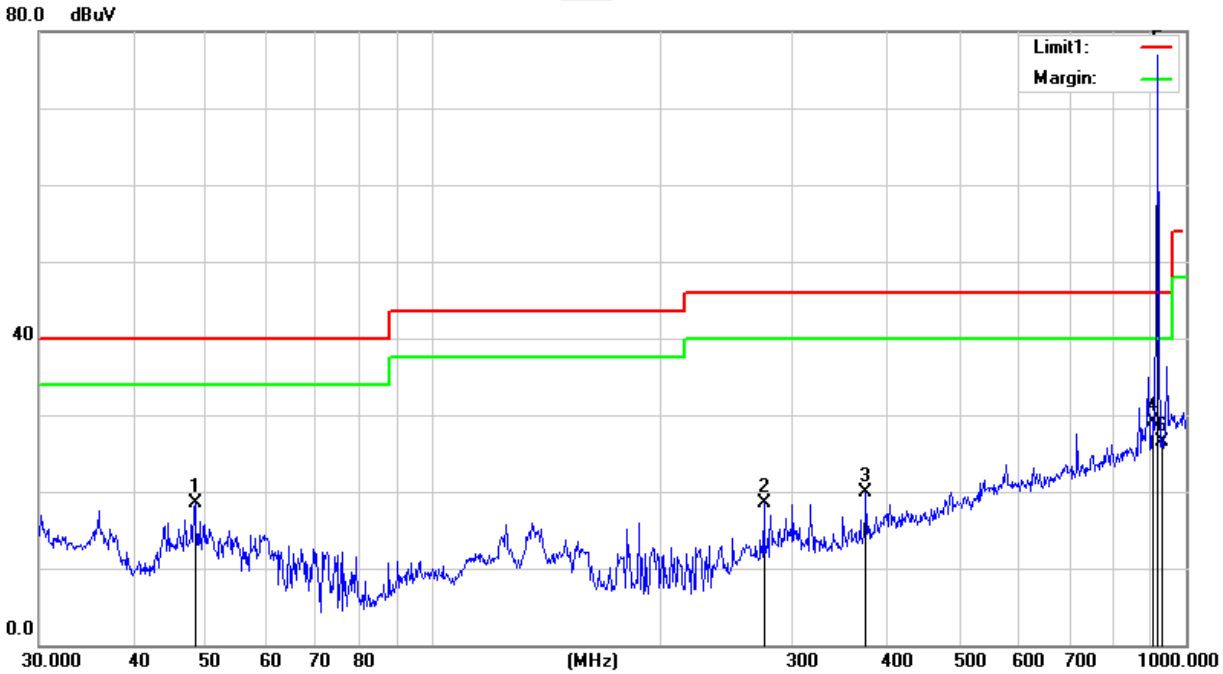
Limit line = specific limits(dBuv) + distance extrapolation factor.

Between 30MHz – 1000 MHz Radiation Spurious

| | | | |
|---|---|---|---|
| Temperature: | 24.2 ℃ | Relative Humidity: | 61% |
| Test Voltage: | DC 12V | Phase: | Horizontal |
| Test Mode: | Model 1 | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|
| 48.3318 | 39.14 | -20.62 | 18.52 | 40.00 | -21.48 | QP |
| 275.1570 | 34.11 | -15.65 | 18.46 | 46.00 | -27.54 | QP |
| 375.9384 | 32.70 | -12.73 | 19.97 | 46.00 | -26.03 | QP |
| 902.0000 | 31.21 | -2.20 | 29.01 | 46.00 | -16.99 | QP |
| 915.0000 | 78.68 | -1.71 | 76.97 | 94.00 | -17.03 | peak |
| 928.0000 | 27.74 | -1.23 | 26.51 | 46.00 | -19.49 | QP |

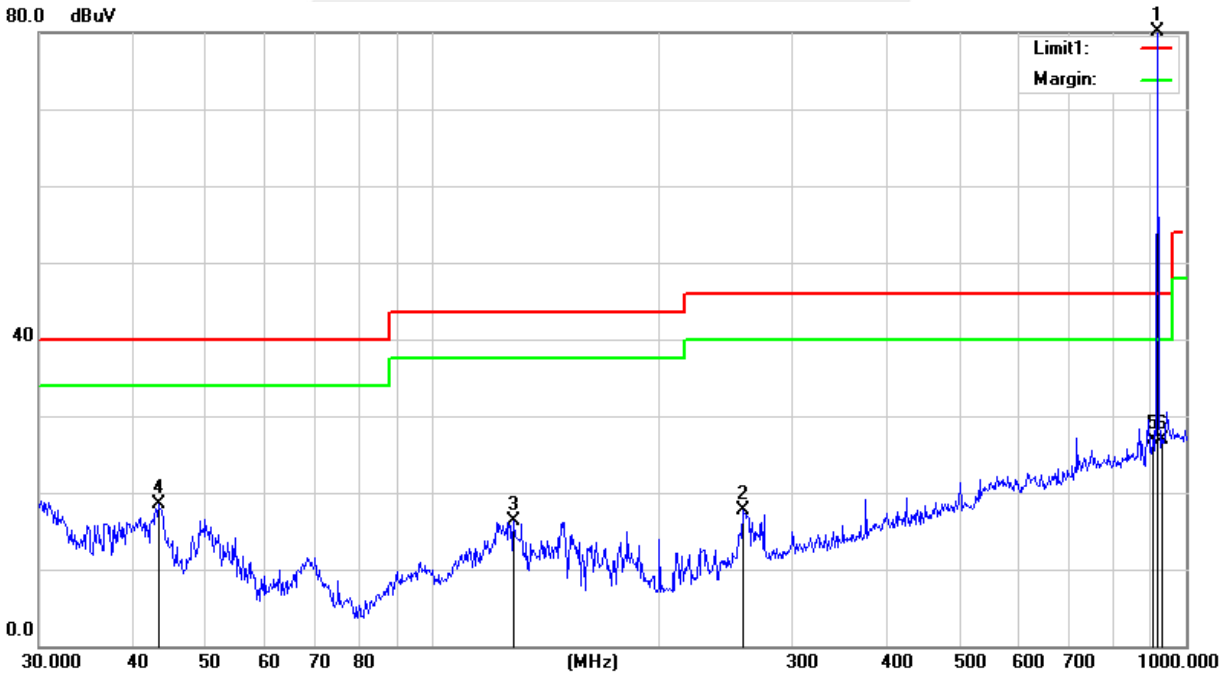
Remark:
1. Margin = Result (Result =Reading + Factor )–Limit



| Temperature: | 22.4 ℃ | Relative Humidity: | 61% |
|---|---|---|---|
| Test Voltage: | DC 12V | Phase: | Vertical |
| Test Mode: | Model 1 | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|
| 915.0000 | 81.79 | -1.71 | 80.08 | 94.00 | -13.92 | peak |
| 258.3263 | 32.92 | -15.27 | 17.65 | 46.00 | -28.35 | QP |
| 128.1130 | 33.96 | -17.58 | 16.38 | 43.50 | -27.12 | QP |
| 43.2017 | 36.42 | -17.97 | 18.45 | 40.00 | -21.55 | QP |
| 902.0000 | 29.05 | -2.20 | 26.85 | 46.00 | -19.15 | QP |
| 928.0000 | 28.07 | -1.23 | 26.84 | 46.00 | -19.16 | QP |

Remark:
1. Margin = Result (Result =Reading + Factor )–Limit



Above 1G Radiation Spurious

| Frequency (MHz) | Reading (dBμV) | Amplifier （dB） | Loss （dB） | Antenna Factor （dB/m） | Corrected Factor （dB） | Emission Level (dBμV/m) | Limits (dBμV/m) | Margin (dB) | Detector Type | Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| 915 MHz | | | | | | | | | | |
| 1099.84 | 67.32 | 46.30 | 3.70 | 24.30 | -18.30 | 49.02 | 74 | -24.98 | PK | Horizontal |
| 1099.84 | 49.93 | 46.30 | 3.70 | 24.30 | -18.30 | 31.63 | 54 | -22.37 | AV | Horizontal |
| 1100.29 | 68.52 | 46.30 | 3.70 | 24.30 | -18.30 | 50.22 | 74 | -23.78 | PK | Vertical |
| 1100.29 | 49.38 | 46.30 | 3.70 | 24.30 | -18.30 | 31.08 | 54 | -22.92 | AV | Vertical |
| 1830.51 | 80.01 | 44.10 | 5.30 | 25.00 | -13.80 | 66.21 | 74 | -7.79 | PK | Horizontal |
| 1830.51 | 62.15 | 44.10 | 5.30 | 25.00 | -13.80 | 48.35 | 54 | -5.65 | AV | Horizontal |
| 1829.80 | 79.77 | 44.10 | 5.30 | 25.00 | -13.80 | 65.97 | 74 | -8.03 | PK | Vertical |
| 1829.80 | 60.17 | 44.10 | 5.30 | 25.00 | -13.80 | 46.37 | 54 | -7.63 | AV | Vertical |
| 2745.50 | 74.19 | 44.40 | 6.20 | 27.60 | -10.60 | 63.59 | 74 | -10.41 | PK | Horizontal |
| 2745.50 | 54.30 | 44.40 | 6.20 | 27.60 | -10.60 | 43.70 | 54 | -10.30 | AV | Horizontal |
| 2744.89 | 73.41 | 44.40 | 6.20 | 27.60 | -10.60 | 62.81 | 74 | -11.19 | PK | Vertical |
| 2744.89 | 53.34 | 44.40 | 6.20 | 27.60 | -10.60 | 42.74 | 54 | -11.26 | AV | Vertical |
| 3999.98 | 65.56 | 44.20 | 7.90 | 29.70 | -6.60 | 58.96 | 74 | -15.04 | PK | Horizontal |
| 3999.98 | 47.37 | 44.20 | 7.90 | 29.70 | -6.60 | 40.77 | 54 | -13.23 | AV | Horizontal |
| 3999.81 | 67.57 | 44.20 | 7.90 | 29.70 | -6.60 | 60.97 | 74 | -13.03 | PK | Vertical |
| 3999.81 | 49.24 | 44.20 | 7.90 | 29.70 | -6.60 | 42.64 | 54 | -11.36 | AV | Vertical |
| 7236.09 | 55.33 | 43.50 | 11.40 | 35.50 | 3.40 | 58.73 | 74 | -15.27 | PK | Horizontal |
| 7236.09 | 38.32 | 43.50 | 11.40 | 35.50 | 3.40 | 41.72 | 54 | -12.28 | AV | Horizontal |
| 7235.91 | 56.00 | 43.50 | 11.40 | 35.50 | 3.40 | 59.40 | 74 | -14.60 | Pk | Vertical |
| 7235.91 | 39.16 | 43.50 | 11.40 | 35.50 | 3.40 | 42.56 | 54 | -11.44 | AV | Vertical |

Note:

1) Factor = Antenna Factor + Cable Loss – Pre-amplifier.
Emission Level = Reading + Factor

2) The frequency emission of peak points that did not show above the forms are below the limit, the frequency emission is mainly from the environment noise.

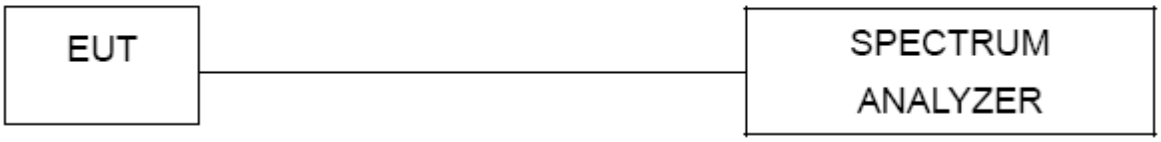
# 4. BANDWIDTH TEST

## 4.1 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b. Spectrum Setting : RBW= 100KHz, VBW≧RBW, Sweep time = Auto.

## 4.2 TEST SETUP



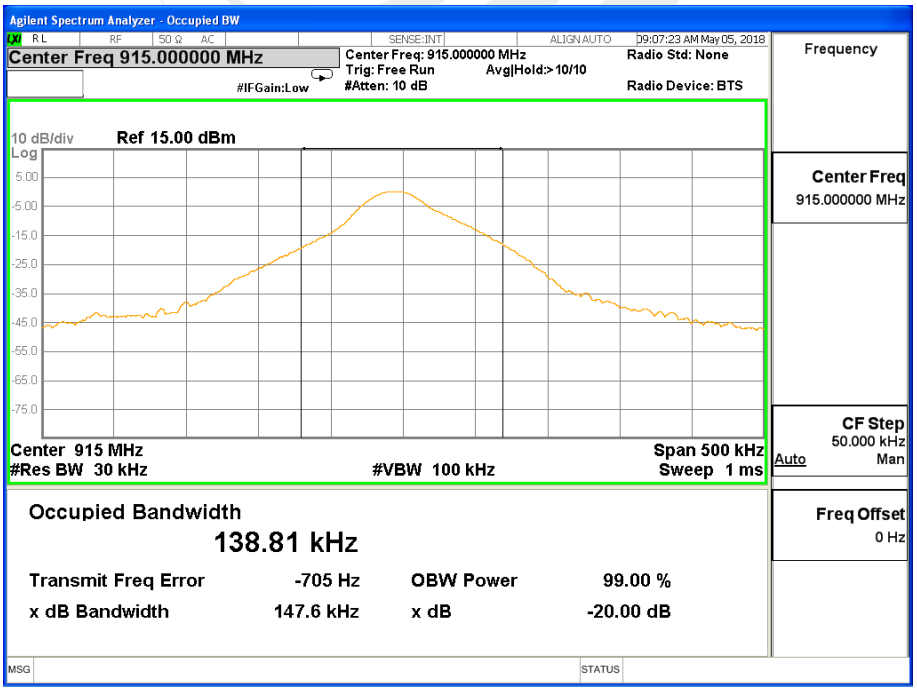

## 4.3 EUT OPERATION CONDITIONS

TX mode.

## 4.4 TEST RESULTS

| Temperature: | 25 ℃ | Relative Humidity: | 50% |
|---|---|---|---|
| Test Voltage: | DC 12V | | |
| Test Channel | Frequency (MHz) | 20 dB Bandwidth (KHz) | 99% Bandwidth (KHz) |
| CH01 | 915 | 147.6 | 138.81 |

**CH01**



# 5. ANTENNA REQUIREMENT

## 5.1 STANDARD REQUIREMENT

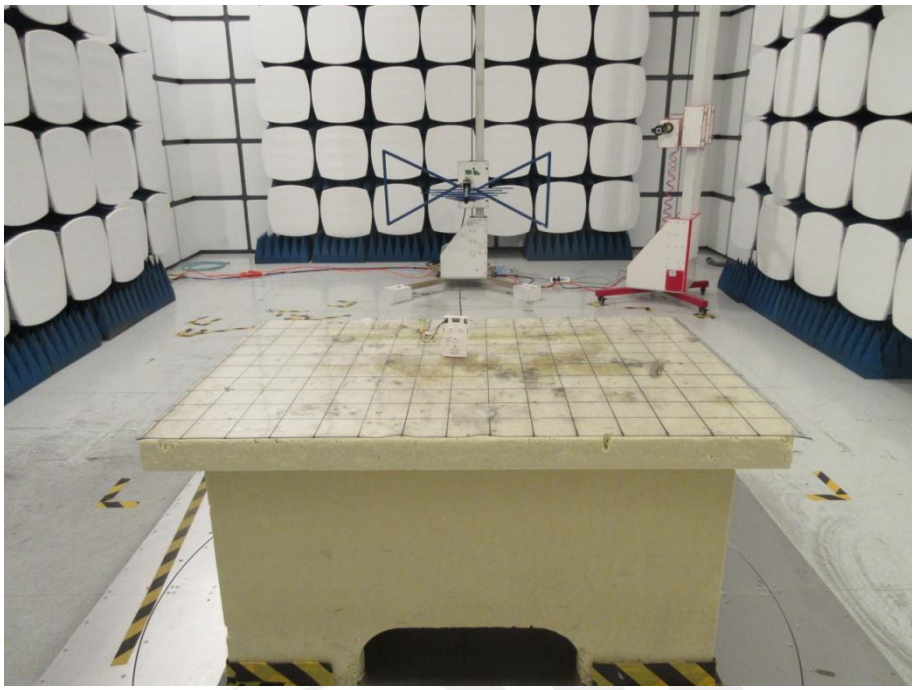
According to the FCC Part 15 Paragraph 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

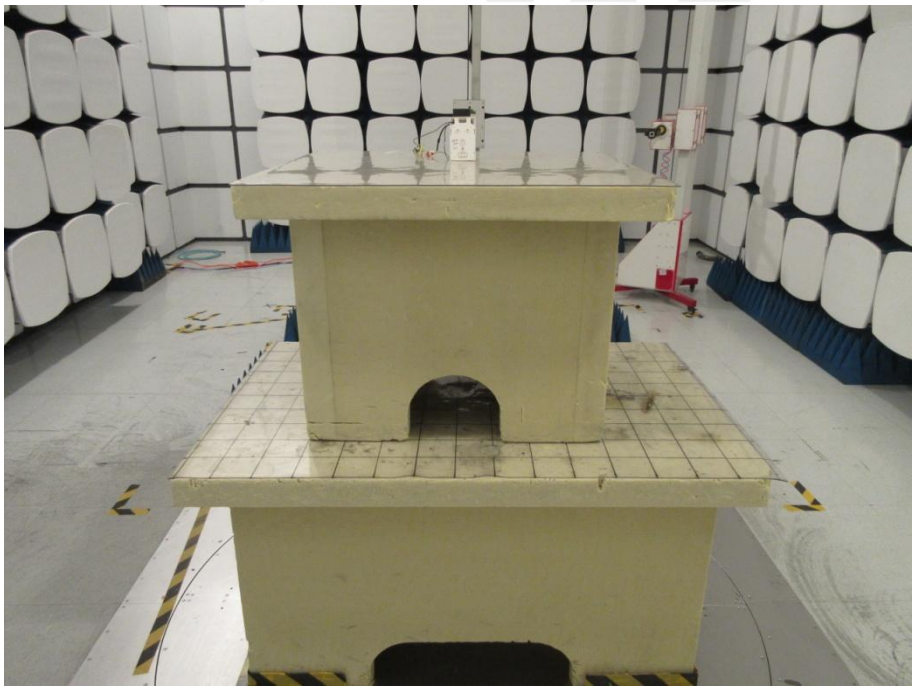
## 5.2 EUT ANTENNA

The EUT antenna is Integral Antenna.It conforms to the standard requirements.

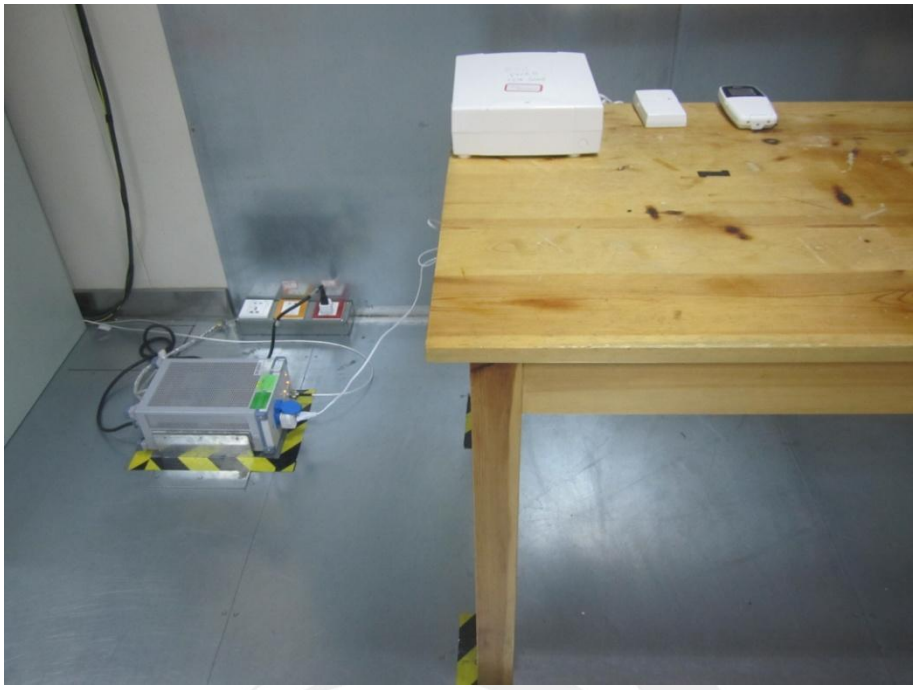
## APPENDIX I- PHOTOS OF TEST SETUP

### Radiated Measurement Photos





## Conducted Measurement Photos



※※※※※END OF THE REPORT※※※※※