# FCC RADIO TEST REPORT

## FCC ID: 2AWC9-EN-J0012W

| | |
|---|---|
| **Product：** | Sensor Adapter |
| **Trade Name：** | ENZD |
| **Model Name：** | EN-J0012W |
| **Serial Model：** | N/A |
| **Report No.：** | HK2004260759-E |

### Prepared for

Zhongshan ENZD Electronics Ltd.

No.4, JuYe Road, Torch Development Zone, Zhongshan, Guangdong, China

### Prepared by

Shenzhen HUAK Testing Technology Co., Ltd.

1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park,
Heping Community, Fuhai Street, Bao'an District, Shenzhen, China

# TEST RESULT CERTIFICATION

| | | |
|---|---|---|
| **Applicant's name** | : | Zhongshan ENZD Electronics Ltd. |
| Address | : | No.4, JuYe Road, Torch Development Zone, Zhongshan, Guangdong, China |
| **Manufacture's Name** | : | Zhongshan ENZD Electronics Ltd. |
| Address | : | No.4, JuYe Road, Torch Development Zone, Zhongshan, Guangdong, China |

**Product description**

| | | |
|---|---|---|
| Product name | : | Sensor Adapter |
| Trade Mark | : | ENZD |
| Model and/or type reference | : | EN-J0012W |
| **Standards** | : | FCC Rules and Regulations Part 15 Subpart C Section 15.249<br>ANSI C63.10: 2013 |

This device described above has been tested by Shenzhen HUAK Testing Technology Co., Ltd., 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 (s) of performance of tests | : | Apr. 17, 2020 ~Apr. 27, 2020 |
| Date of Issue | : | Apr. 27, 2020 |
| Test Result | : | Pass |

Testing Engineer : Gary Qian

(Gary Qian)

Technical Manager : Eden Hu

(Eden Hu)

Authorized Signatory : Jason Zhou

(Jason Zhou)

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**** Modifited History ****

| Revison | Description | Issued Data | Remark |
|---|---|---|---|
| Revsion 1.0 | Initial Test Report Release | Apr. 27, 2020 | Jason Zhou |
| | | | |
| | | | |

# 1 TEST SUMMARY

## 1.1 TEST PROCEDURES AND RESULTS

| DESCRIPTION OF TEST | | RESULT |
|---|---|---|
| AC Power Line Conducted Emission | § 15.207 | COMPLIANT |
| Field Strength of Fundamental | § 15.249 (a) (d)/ §15.209 | COMPLIANT |
| Spurious Emissions | § 15.249 (a) (d)/ §15.209 | COMPLIANT |
| Band Edge | § 15.249 (a) (d)/ §15.209 | COMPLIANT |
| 20dB Occupied Bandwidth | § 15.215 (c) | COMPLIANT |
| Antenna requirement | § 15.203 | COMPLIANT |

## 1.2 TEST FACILITY

Test Firm : Shenzhen HUAK Testing Technology Co., Ltd.

Address : 1/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.The testing quality system of our laboratory meets with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of testing Laboratories.

Designation Number: CN1229

Test Firm Registration Number: 616276

The 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.

## 1.3 MEASUREMENT UNCERTAINTY

Measurement Uncertainty

| | | |
|---|---|---|
| Conducted Emission Expanded Uncertainty | = | 2.23dB, k=2 |
| Radiated emission expanded uncertainty(9kHz-30MHz) | = | 3.08dB, k=2 |
| Radiated emission expanded uncertainty(30MHz-1000MHz) | = | 4.42dB, k=2 |
| Radiated emission expanded uncertainty(Above 1GHz) | = | 4.06dB, k=2 |

# 2 GENERAL INFORMATION

## 2.1 GENERAL DESCRIPTION OF EUT

| | |
|---|---|
| Equipment | Sensor Adapter |
| Trade Mark | ENZD |
| Model Name | EN-J0012W |
| Serial No. | N/A |
| Model Difference | N/A |
| FCC ID | 2AWC9-EN-J0012W |
| Antenna Type | Internal Antenna |
| Antenna Gain | 0dBi |
| Operation frequency | 2480 MHz |
| Number of Channels | 1CH |
| Modulation Type | ASK |
| Battery | AC 100-240V, 50/60Hz |
| Power Source | AC 100-240V, 50/60Hz |

2.2 Carrier Frequency of Channels

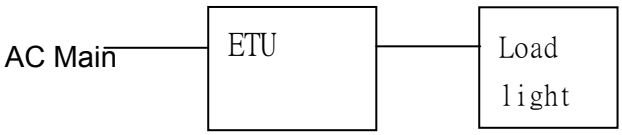
| Operation Frequency each of channel | |
|---|---|
| Channel | Frequency |
| 01 | 2480 MHz |

2.3 Operation of EUT during testing

Operating Mode
The mode is used: Transmitting mode

2.4 DESCRIPTION OF TEST SETUP

Operation of EUT during Conducted, Radiation testing:




Operation of EUT during Above1GHz Radiation testing:


The sample was placed (0.8m below 1GHz, 1.5m above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. The worst case is X position

## 2.5 MEASUREMENT INSTRUMENTS LIST

| Item | Equipment | Manufacturer | Model No. | Serial No. | Calibrated last | Calibrated until |
|---|---|---|---|---|---|---|
| CONDUCTED EMISSIONS TEST | | | | | | |
| 1 | LISN | R&S | ENV216 | HKE-002 | 2019.12.26 | 2020.12.25 |
| 2 | LISN | R&S | ENV216 | HKE-029 | 2019.12.26 | 2020.12.25 |
| 3 | EMI Test Receiver | R&S | ESCI-7 | HKE-010 | 2019.12.26 | 2020.12.25 |
| RADIATED EMISSION TEST | | | | | | |
| 1 | Broadband antenna | Schwarzbeck | VULB 9163 | HKE-012 | 201912.26 | 2020.12.25 |
| 2 | Horn antenna | Schwarzbeck | 9120D | HKE-013 | 2019.12.26 | 2020.12.25 |
| 3 | Receiver | R&S | ESCI 7 | HKE-010 | 2019.12.26 | 2020.12.25 |
| 4 | Position controller | High gain antenna Taiwan MF | MF7802 | HKE-011 | 201912.26 | 2020.12.25 |
| 5 | Preamplifier | EMCI | EMC051845SE | HKE-015 | 2019.12.26 | 2020.12.25 |
| 6 | Preamplifier | Agilent | 83051A | HKE-016 | 2019.12.26 | 2020.12.25 |
| 7 | High pass filter unit | Tonscend | JS0806-F | HKE-055 | 2019.12.26 | 2020.12.25 |
| 8 | Spectrum analyzer | Agilent | N9020A | HKE-048 | 2019.12.26 | 2020.12.25 |
| 9 | Spectrum analyzer | Agilent | N9020A | HKE-048 | 2019.12.26 | 2020.12.25 |
| 10 | Signal generator | Agilent | 83630A | HKE-028 | 2019.12.26 | 2020.12.25 |
| 11 | Signal generator | Agilent | N5182A | HKE-029 | 2019.12.26 | 2020.12.25 |
| 12 | RF automatic control unit | Tonscend | JS0806-2 | HKE-060 | 2019.12.26 | 2020.12.25 |
| 13 | Power meter | Agilent | E4419B | HKE-085 | 2019.12.26 | 2020.12.25 |
| 14 | Horn Antenna | Schewarzbeck | BBHA 9170 | HKE-017 | 2019.12.26 | 2020.12.25 |

# 3 CONDUCTED EMISSION TEST

## 3.1 Test Limit

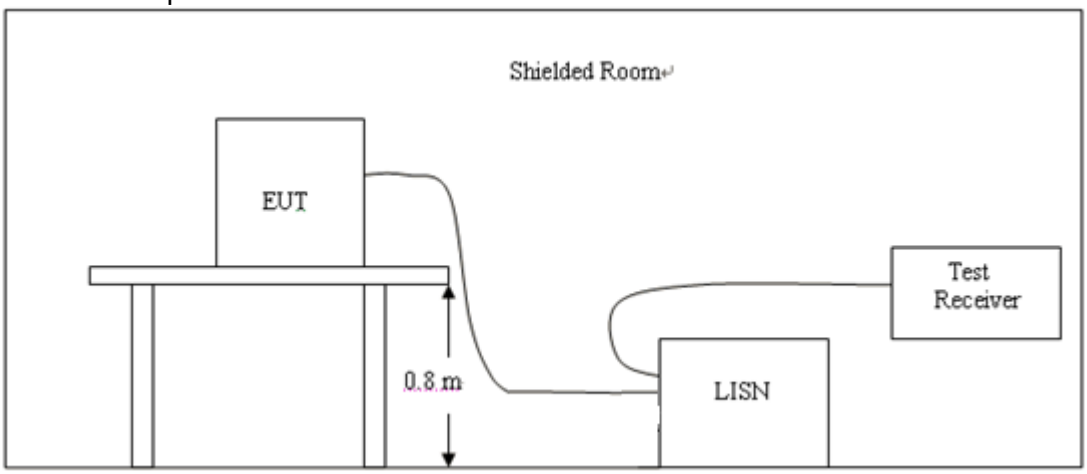
For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following

| Frequency (MHz) | Maximum RF Line Voltage(dBμV) | | | |
|---|---|---|---|---|
| | CLASS A | | CLASS B | |
| | Q.P. | Ave. | Q.P. | Ave. |
| 0.15~0.50 | 79 | 66 | 66~56* | 56~46* |
| 0.50~5.00 | 73 | 60 | 56 | 46 |
| 5.00~30.0 | 73 | 60 | 60 | 50 |

* Decreasing linearly with the logarithm of the frequency

For intentional device, according to §15.207(a) Line Conducted Emission Limit is same as above table.

## 3.2 Test Setup




## 3.3 Test Procedure

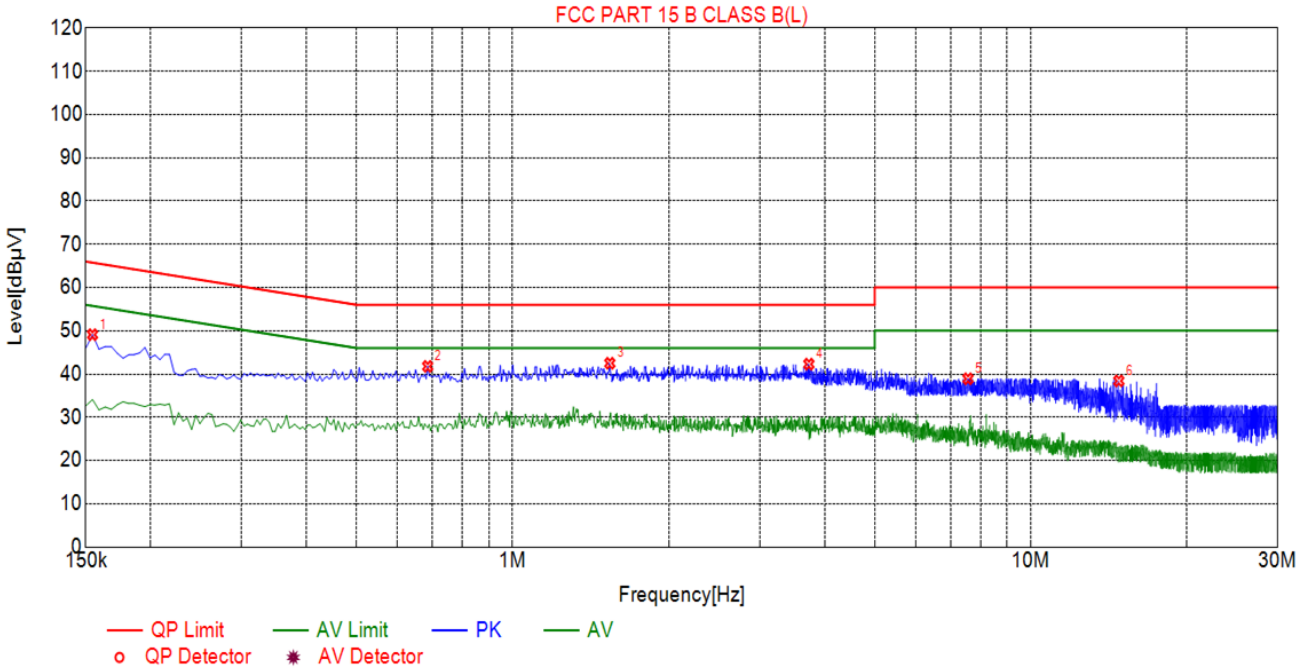
1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. A wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5. All support equipments received AC power from a second LISN, if any.
6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer/Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.

3.4 Test Result

PASS

All the test modes completed for test. only the worst result of of AC240V/60Hz was reported as below:

Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



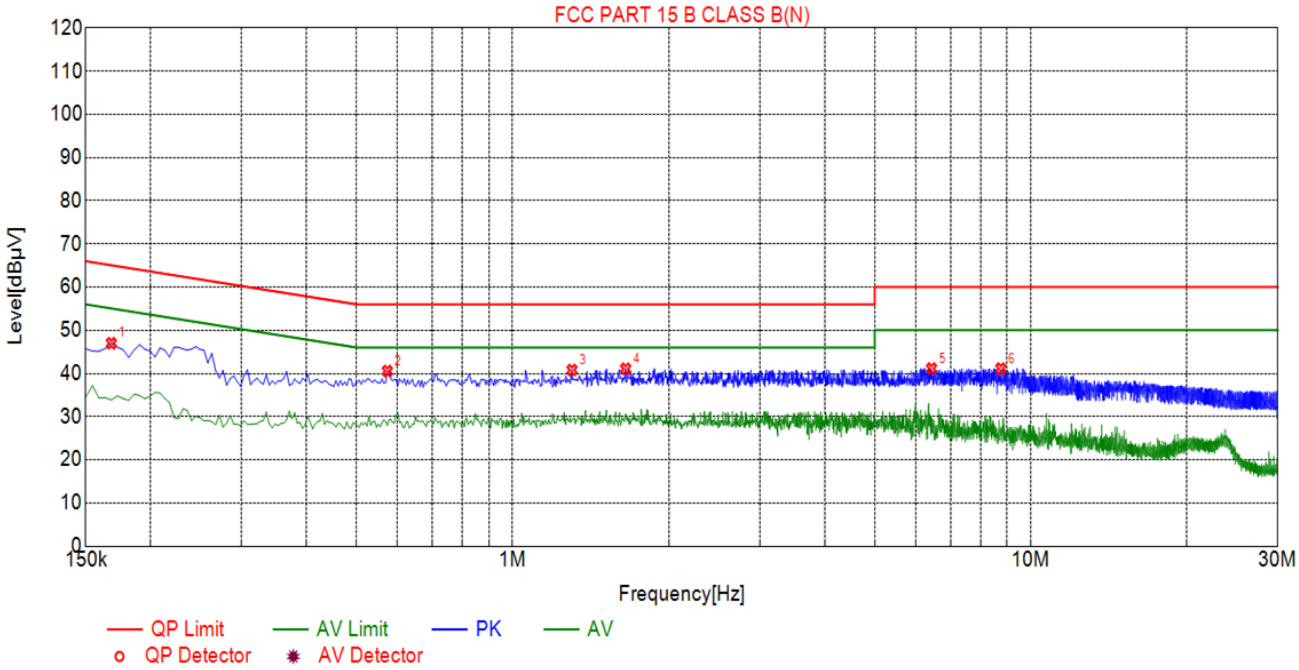

| Suspected List | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | Freq. [MHz] | Level [dBµV] | Factor [dB] | Limit [dBµV] | Margin [dB] | Reading [dBµV] | Detector | Type |
| 1 | 0.1545 | 49.10 | 10.03 | 65.75 | 16.65 | 39.07 | PK | L |
| 2 | 0.6855 | 41.77 | 10.05 | 56.00 | 14.23 | 31.72 | PK | L |
| 3 | 1.5405 | 42.49 | 10.11 | 56.00 | 13.51 | 32.38 | PK | L |
| 4 | 3.7320 | 42.29 | 10.25 | 56.00 | 13.71 | 32.04 | PK | L |
| 5 | 7.5705 | 38.90 | 10.17 | 60.00 | 21.10 | 28.73 | PK | L |
| 6 | 14.8020 | 38.41 | 9.95 | 60.00 | 21.59 | 28.46 | PK | L |

Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor

Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)




| Suspected List | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | Freq. [MHz] | Level [dBµV] | Factor [dB] | Limit [dBµV] | Margin [dB] | Reading [dBµV] | Detector | Type |
| 1 | 0.1680 | 46.99 | 10.01 | 65.06 | 18.07 | 36.98 | PK | N |
| 2 | 0.5730 | 40.57 | 10.05 | 56.00 | 15.43 | 30.52 | PK | N |
| 3 | 1.3020 | 40.81 | 10.10 | 56.00 | 15.19 | 30.71 | PK | N |
| 4 | 1.6530 | 41.08 | 10.12 | 56.00 | 14.92 | 30.96 | PK | N |
| 5 | 6.4365 | 41.14 | 10.22 | 60.00 | 18.86 | 30.92 | PK | N |
| 6 | 8.7585 | 41.13 | 10.12 | 60.00 | 18.87 | 31.01 | PK | N |

Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor

# 4 RADIATED EMISSION TEST

## 4.1 Test Limit

1. Limit (Field strength of the fundamental signal):

| Frequency | Limit(dBuV/m@3m) | Remark |
|---|---|---|
| 902MHz-928MHz | 94.00 | Average Value |
| | 114.00 | Peak Value |

2. Limit (Spurious Emissions):

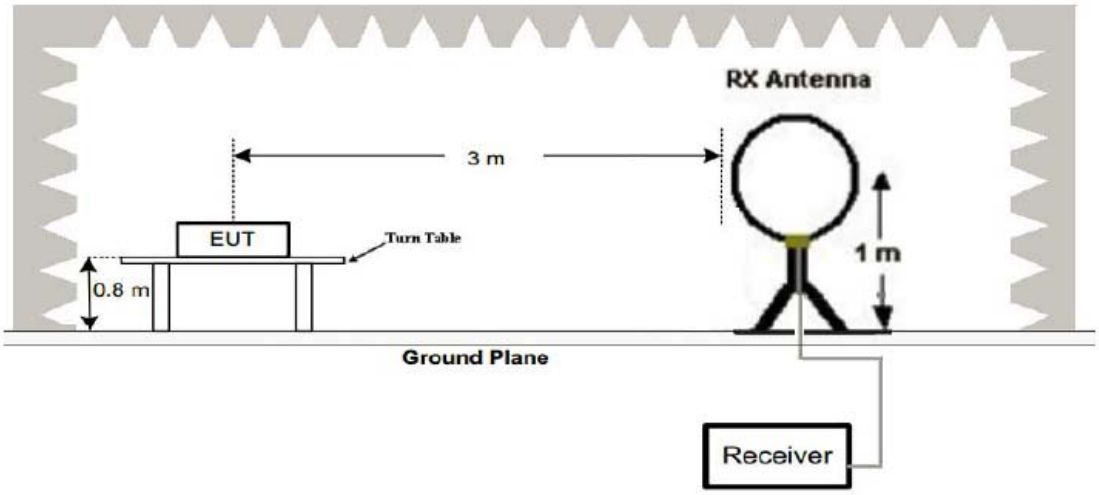
| Frequency | Limit(dBuV/m@3m) | Remark |
|---|---|---|
| 0.009-0.490 | 2400/F(KHz) | Quasi-peak Value |
| 0.490-1.705 | 24000/F(KHz) | Quasi-peak Value |
| 1.705-30 | 30 | Quasi-peak Value |
| 30MHz-88MHz | 40.0 | Quasi-peak Value |
| 88MHz-216MHz | 43.5 | Quasi-peak Value |
| 216MHz-960MHz | 46.0 | Quasi-peak Value |
| 960MHz-1GHz | 54.0 | Quasi-peak Value |
| Above 1GHz | 54.0 | Average Value |
| | 74.0 | Peak Value |

3. Limit (Band edge):

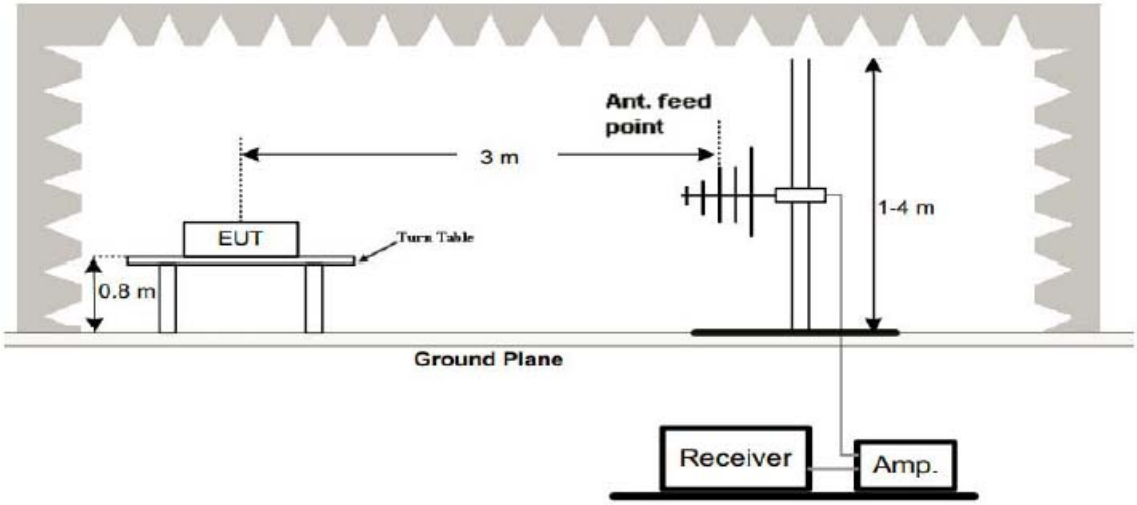
Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

4.2 Test Setup

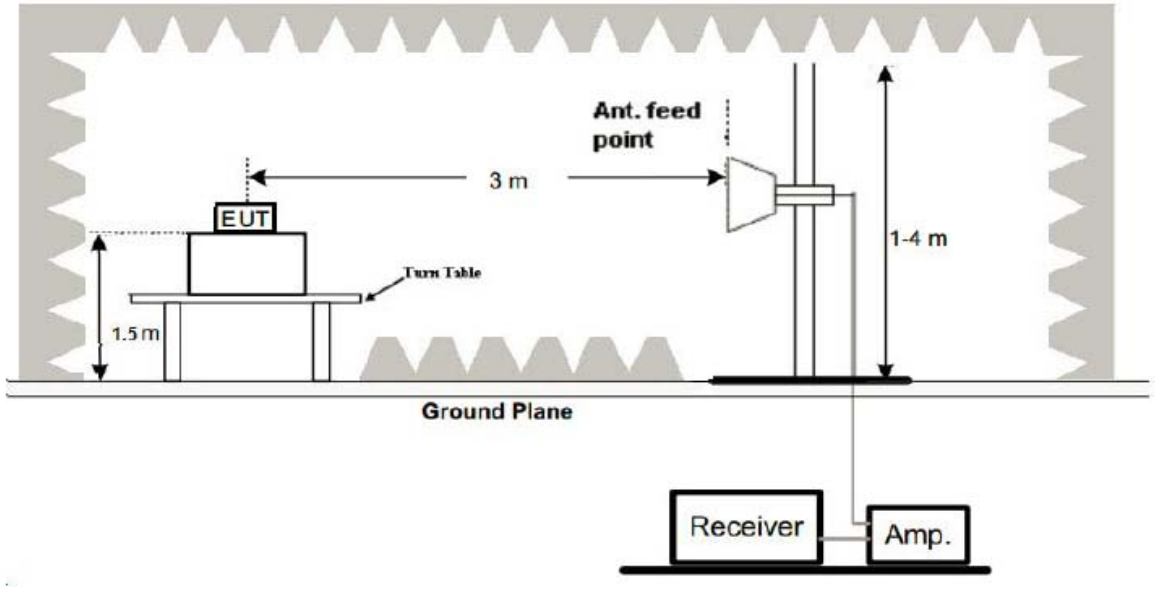
1. Radiated Emission Test-Up Frequency Below 30MHz




2. Radiated Emission Test-Up Frequency 30MHz~1GHz



3. Radiated Emission Test-Up Frequency Above 1GHz




4. Receiver Setup:

| Frequency | Detector | RBW | VBW | Remark |
|---|---|---|---|---|
| 9kHz- 150kHz | Quasi-peak | 200Hz | 1kHz | Quasi-peak Value |
| 150kHz-30MHz | Quasi-peak | 9kHz | 30kHz | Quasi-peak Value |
| 30MHz-1GHz | Quasi-peak | 120kHz | 300kHz | Quasi-peak Value |
| Above 1GHz | Peak | 1MHz | 3MHz | Peak Value |
| | Peak | 1MHz | 10Hz | Average Value |

4.3 Test Procedure

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber in below 1GHz, 1.5m above the ground in above 1GHz. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

4.4 Test Result

Field Strength of Fundamental:

| Frequency (MHz) | Emission (dBuV/m) | Ant. Pol. | Limits PK/AV (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|
| 2480 | 94.32 | H | 114 | -19.68 | PK |
| 2480 | 81.55 | H | 94 | -12.45 | AV |
| 2480 | 94.84 | V | 114 | -19.16 | PK |
| 2480 | 82.11 | V | 94 | -11.89 | AV |

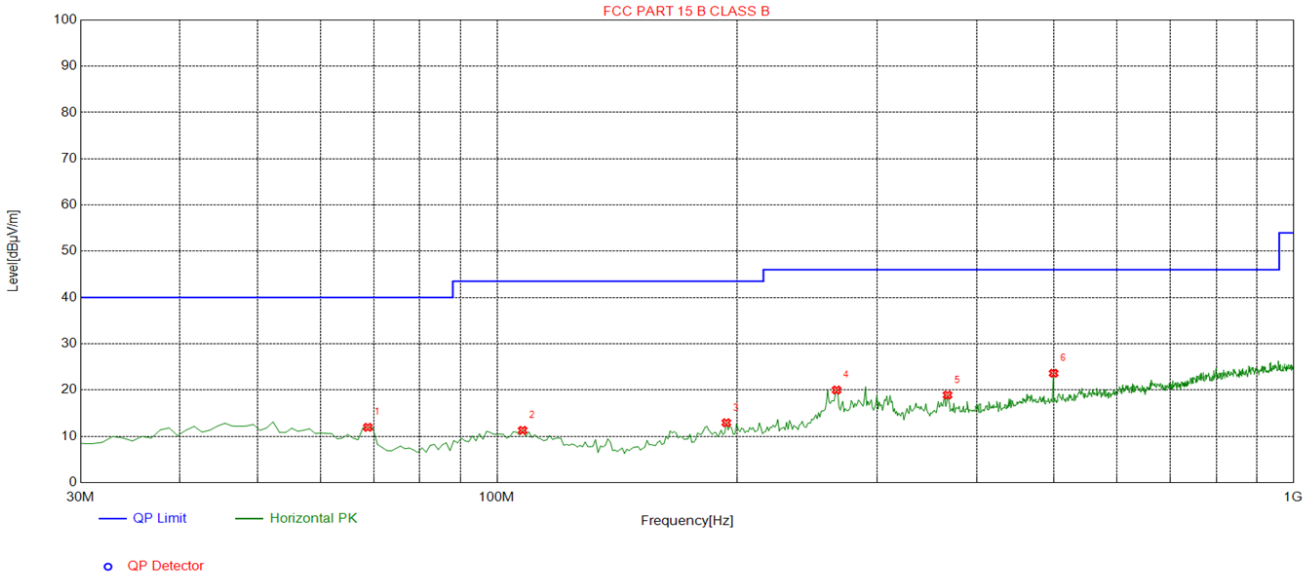
Spurious Emissions:

For 9 kHz-30MHz Test Results:

Note: The emission levels are 20 dB below the limit value, which are not reported. It is deemed to comply with the requirement.

For 30MHz-1GHz Test Results:
All the test modes completed for test. The worst case of Radiated Emission is 2480MHz; the test data of this mode was reported.

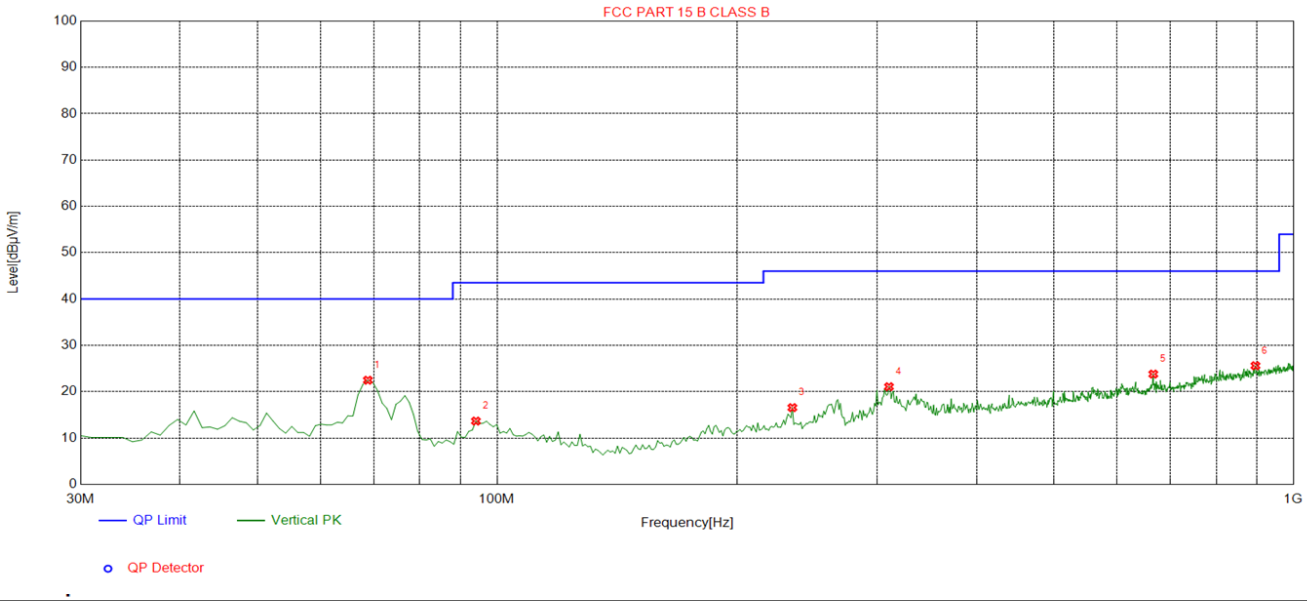
| | | | |
|---|---|---|---|
| Temperature: | 22℃ | Relative Humidity: | 46% |
| Test Date: | Apr. 24, 2020 | Pressure: | 1010hPa |
| Test Voltage: | AC 100-240V, 50/60Hz | Polarization: | Horizontal |
| Test Mode: | Transmitting mode | | |




| Suspected List | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NO. | Freq. [MHz] | Factor [dB] | Reading [dBµV/m] | Level [dBµV/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1 | 68.8388 | -17.38 | 29.31 | 11.93 | 40.00 | 28.07 | 100 | 336 | Horizontal |
| 2 | 107.6777 | -15.42 | 26.69 | 11.27 | 43.50 | 32.23 | 100 | 188 | Horizontal |
| 3 | 194.0941 | -15.62 | 28.54 | 12.92 | 43.50 | 30.58 | 100 | 116 | Horizontal |
| 4 | 266.9169 | -13.62 | 33.62 | 20.00 | 46.00 | 26.00 | 100 | 312 | Horizontal |
| 5 | 367.8979 | -11.07 | 29.98 | 18.91 | 46.00 | 27.09 | 100 | 348 | Horizontal |
| 6 | 499.9500 | -8.30 | 31.92 | 23.62 | 46.00 | 22.38 | 100 | 1 | Horizontal |

Remark: Factor = Cable loss + Antenna factor – Preamplifier; Level = Reading + Factor; Margin = Limit – Level

| | | | |
|---|---|---|---|
| Temperature: | 22℃ | Relative Humidity: | 46% |
| Test Date: | Apr. 24, 2020 | Pressure: | 1010hPa |
| Test Voltage: | AC 100-240V, 50/60Hz | Polarization: | Vertical |
| Test Mode: | Transmitting mode | | |




| Suspected List | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NO. | Freq. [MHz] | Factor [dB] | Reading [dBµV/m] | Level [dBµV/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1 | 68.8388 | -17.38 | 39.85 | 22.47 | 40.00 | 17.53 | 100 | 86 | Vertical |
| 2 | 94.0841 | -16.39 | 30.04 | 13.65 | 43.50 | 29.85 | 100 | 35 | Vertical |
| 3 | 234.8749 | -14.09 | 30.64 | 16.55 | 46.00 | 29.45 | 100 | 209 | Vertical |
| 4 | 310.6106 | -12.58 | 33.65 | 21.07 | 46.00 | 24.93 | 100 | 225 | Vertical |
| 5 | 666.9570 | -4.75 | 28.54 | 23.79 | 46.00 | 22.21 | 100 | 180 | Vertical |
| 6 | 896.1061 | -1.82 | 27.42 | 25.60 | 46.00 | 20.40 | 100 | 163 | Vertical |

Remark: Factor = Cable loss + Antenna factor – Preamplifier; Level = Reading + Factor; Margin = Limit – Level

For Above 1GHz Test Results:

| Frequency (MHz) | Ant. Pol. | PK Reading (dBμV) | AV Reading (dBμV) | Correction Factor (dB/m) | Emission Level | | Peak limit (dBμV/m) | AV limit (dBμV/m) | Margin Peak(dB) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Peak (dBμV/m) | AV (dBμV/m) | | | |
| 4960 | H | 50.84 | --- | -4.12 | 46.72 | --- | 74.00 | 54.00 | -27.28 |
| 7740 | H | 50.63 | --- | -0.58 | 50.05 | --- | 74.00 | 54.00 | -23.95 |
| 4960 | V | 55.36 | --- | -4.17 | 51.19 | --- | 74.00 | 54.00 | -22.81 |
| 7740 | V | 51.22 | --- | -0.58 | 50.64 | --- | 74.00 | 54.00 | -23.36 |

Note:
1. Emission Level = Peak Reading + Correction Factor; Correction Factor = Antenna Factor + Cable loss – Pre-amplifier
2. Margin = Emission - Limit
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency.
5. Data of measurement shown “---“ in the above table mean that the reading of emissions is attenuated more than 20dB below the limits or the field strength is too small to be measured.

Band Edge Requirement:

Horizontal (Worst case)

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|---|---|---|---|---|---|---|
| (MHz) | (dBμV) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | |
| 2310 | 58.22 | -5.81 | 52.41 | 74 | -21.59 | peak |
| 2310 | / | -5.81 | / | 54 | / | AVG |
| 2390 | 52.67 | -5.84 | 46.83 | 74 | -27.17 | peak |
| 2390 | / | -5.84 | / | 54 | / | AVG |
| 2400 | 51.42 | -5.84 | 45.58 | 74 | -28.42 | peak |
| 2400 | / | -5.84 | / | 54 | / | AVG |
| Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. | | | | | | |

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|---|---|---|---|---|---|---|
| (MHz) | (dBμV) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | |
| 2310 | 55.63 | -5.81 | 49.82 | 74 | -24.18 | peak |
| 2310 | / | -5.81 | / | 54 | / | AVG |
| 2390 | 52.57 | -5.84 | 46.73 | 74 | -27.27 | peak |
| 2390 | / | -5.84 | / | 54 | / | AVG |
| 2400 | 55.51 | -5.84 | 49.67 | 74 | -24.33 | peak |
| 2400 | / | -5.84 | / | 54 | / | AVG |
| Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. | | | | | | |

Horizontal (Worst case)

| Frequency | Reading Result | Factor | Emission Level | Limits | Margin | Detector Type |
|---|---|---|---|---|---|---|
| (MHz) | (dBμV) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | |
| 2483.50 | 56.58 | -5.65 | 50.93 | 74 | -23.07 | peak |
| 2483.50 | / | -5.65 | / | 54 | / | AVG |
| 2500.00 | 53.46 | -5.65 | 47.81 | 74 | -26.19 | peak |
| 2500.00 | / | -5.65 | / | 54 | / | AVG |
| Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. | | | | | | |

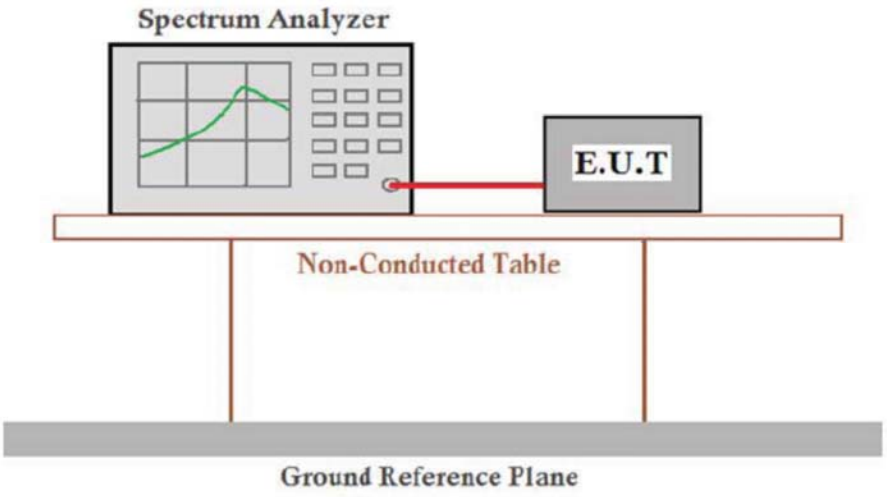
Vertical:

| Frequency | Reading Result | Factor | Emission Level | Limits | Margin | Detector Type |
|---|---|---|---|---|---|---|
| (MHz) | (dBμV) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | |
| 2483.50 | 56.43 | -5.65 | 50.78 | 74 | -23.22 | peak |
| 2483.50 | / | -5.65 | / | 54 | / | AVG |
| 2500.00 | 52.61 | -5.65 | 46.96 | 74 | -27.04 | peak |
| 2500.00 | / | -5.65 | / | 54 | / | AVG |
| Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. | | | | | | |
| Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | |

Note:
1. Emission Level = Peak Reading + Correction Factor; Correction Factor = Antenna Factor + Cable loss – Pre-amplifier
2. Margin = Emission - Limit
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency.
5. Data of measurement shown "---" in the above table mean that the reading of emissions is attenuated more than 20dB below the limits or the field strength is too small to be measured.

# 5 OCCUPIED BANDWIDTH TEST

## 5.1 Test Setup




## 5.2 Rules and specifications

CFR 47 Part 15.215(c)

ANSI C63.10: 2013

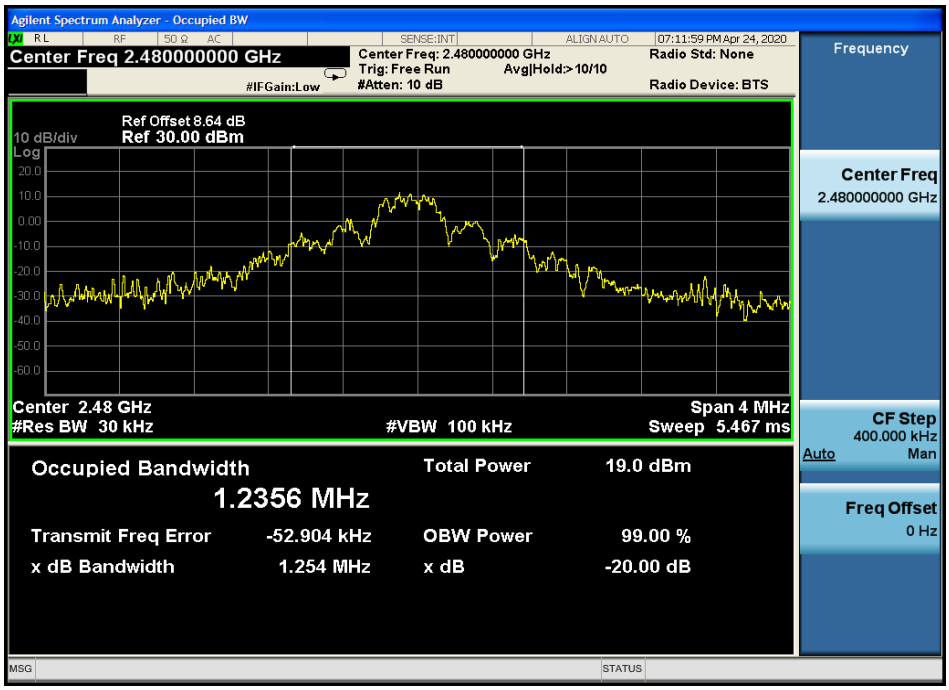
## 5.3 Test Procedure

1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings for 20dB Bandwidth measurement.
   Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel; RBW≥1% of the 20dB bandwidth; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold.
4. Measure and record the results in the test report.

5.4 Test Result

PASS

| Mode | Frequency(MHz) | 20dB Bandwidth (KHz) | Limit (kHz) | Conclusion |
|---|---|---|---|---|
| TX | 2480 | 1254 | / | PASS |

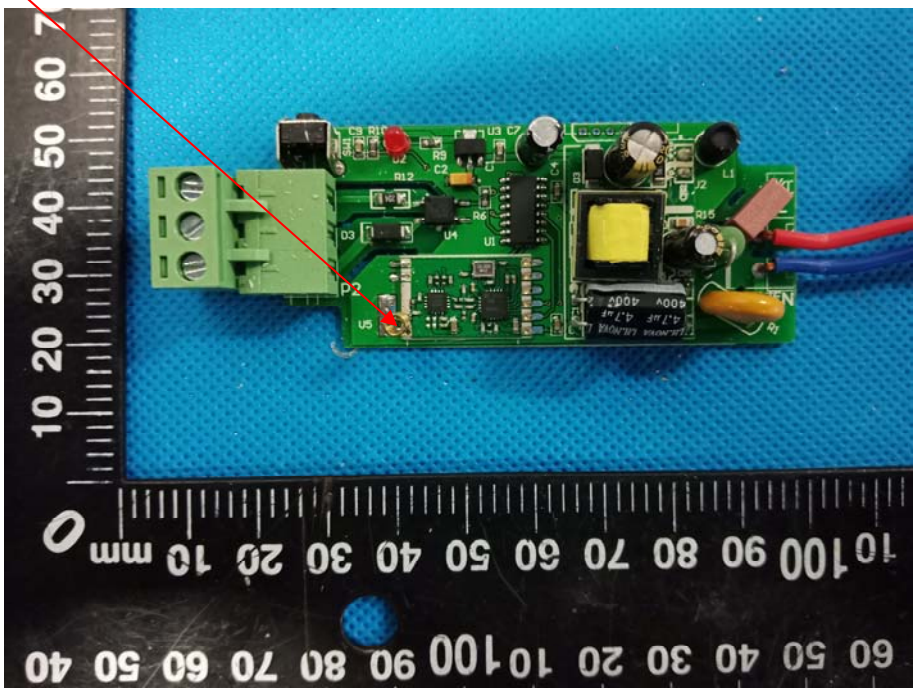


# 6 ANTENNA REQUIREMENT

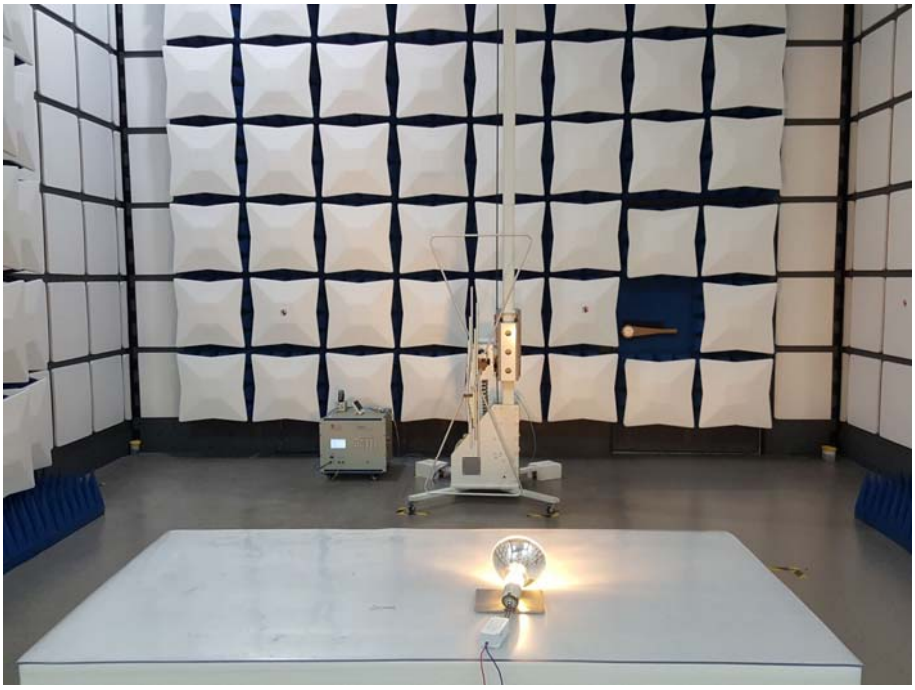
Standard Applicable:
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

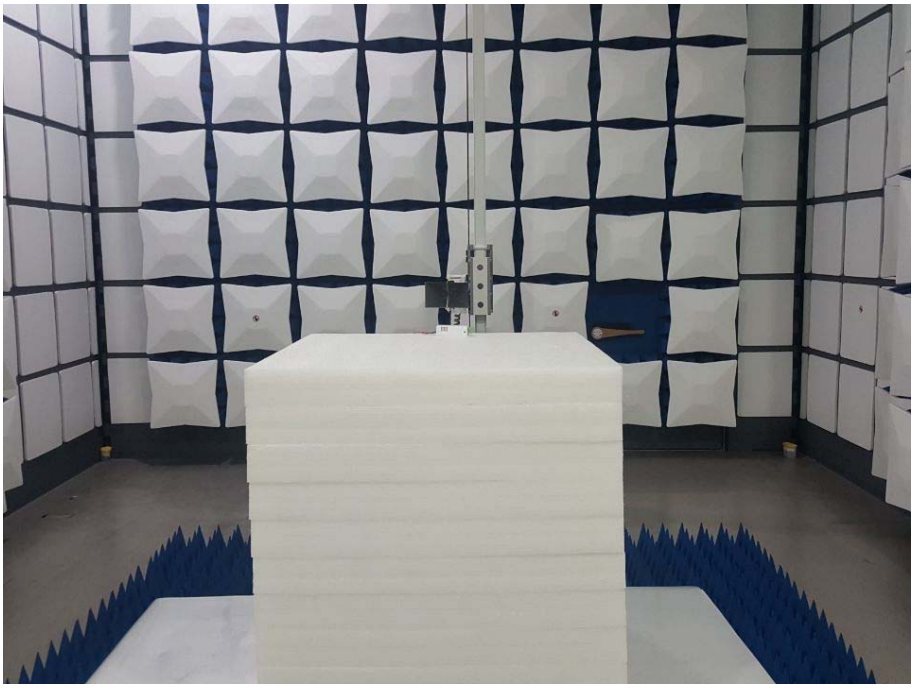
Antenna Connected Construction
The antenna used in this product is a Internal Internal, The directional gains of antenna used for transmitting is 0dBi.

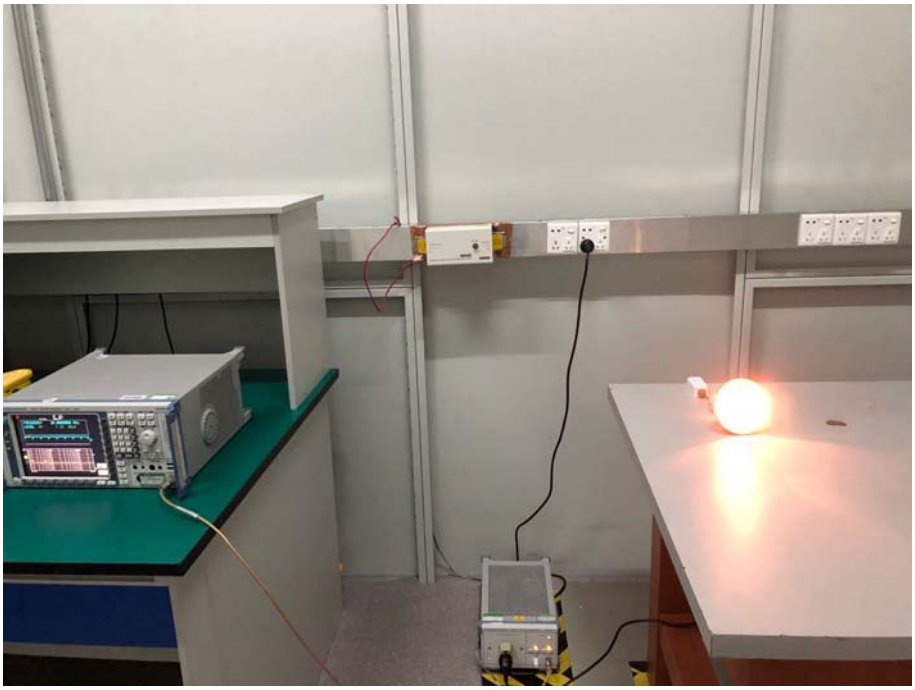
ANTENNA



# 7 PHOTOGRAPH OF TEST







## 8 PHOTOS OF THE EUT

Reference to the reporter : ANNEX A of external photos and ANNEX B of internal photos

---------End of test report---------