



PRECISE TESTING

# FCC TEST REPORT

## FCC ID: 2AQTN-YM-612

|  |   |                                   |
|--|---|-----------------------------------|
| Product Name   | : | Clock Radio Bluetooth             |
| Model Name   | : | YM-612, NEO AIR6, BLP2612-001, W7 |
| Brand Name   | : | N/A                               |
| Report No.   | : | PTC18072617101E-FC02              |
| <b>Prepared for</b>  |   |                                   |
| DONG GUAN YUNMEI ELECTRONICS CO., LTD  |   |                                   |
| F3-4, Dingfeng Commercial Centre, Hengkeng Industrial Zone, Liaobu Town, Dongguan, Guangdong, China                        |   |                                   |
|  |   |                                   |
| <b>Prepared by</b>   |   |                                   |
| Dongguan Precise Testing & Certification Corp., Ltd.   |   |                                   |
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|  |   |                                   |



## 1TEST RESULT CERTIFICATION

Applicant's name : DONG GUAN YUNMEI ELECTRONICS CO., LTD  
Address : F3-4, Dingfeng Commercial Centre, Hengkeng Industrial Zone, Liaobu Town, Dongguan, Guangdong, China  
Manufacture's name : DONG GUAN YUNMEI ELECTRONICS CO., LTD  
Address : F3-4, Dingfeng Commercial Centre, Hengkeng Industrial Zone, Liaobu Town, Dongguan, Guangdong, China  
Product name : Clock Radio Bluetooth  
Model name : YM-612, NEO AIR6, BLP2612-001, W7  
Standards : FCC CFR47 Part 15C  
Test procedure : ANSI C63.10:2013  
Test Date : August 01, 2018 to August 18, 2018  
Date of Issue : August 18, 2018  
Test Result : Pass

This device described above has been tested by PTC, 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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Test Engineer:

Leo Yang / Engineer

Technical Manager:

Chris Du / Manager

## Contents

|   | <b>Page</b> |
|---|-------------|
| <b>1 TEST RESULT CERTIFICATION .....</b>                              | <b>2</b>    |
| <b>2 TEST SUMMARY .....</b>   | <b>4</b>    |
| <b>3 TEST FACILITY .....</b>  | <b>5</b>    |
| <b>4 GENERAL INFORMATION .....</b>                                    | <b>6</b>    |
| 4.1                GENERAL DESCRIPTION OF E.U.T.....                  | 6           |
| 4.2                TEST MODE .....                                    | 7           |
| <b>5 EQUIPMENT DURING TEST .....</b>                                  | <b>8</b>    |
| 5.1                EQUIPMENTS LIST .....                              | 8           |
| 5.2                MEASUREMENT UNCERTAINTY .....                      | 10          |
| 5.3                DESCRIPTION OF SUPPORT UNITS.....                  | 11          |
| <b>6 CONDUCTED EMISSION .....</b>                                     | <b>12</b>   |
| 6.1                E.U.T. OPERATION .....                             | 12          |
| 6.2                EUT SETUP .....                                    | 12          |
| 6.3                TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION) ..... | 13          |
| 6.4                MEASUREMENT PROCEDURE:.....                        | 13          |
| 6.5                CONDUCTED EMISSION LIMIT.....                      | 13          |
| 6.6                MEASUREMENT DESCRIPTION .....                      | 13          |
| 6.7                CONDUCTED EMISSION TEST RESULT.....                | 13          |
| <b>7 RADIATED SPURIOUS EMISSIONS .....</b>                            | <b>16</b>   |
| 7.1                EUT OPERATION.....                                 | 16          |
| 7.2                TEST SETUP .....                                   | 17          |
| 7.3                SPECTRUM ANALYZER SETUP .....                      | 18          |
| 7.4                TEST PROCEDURE.....                                | 19          |
| 7.5                SUMMARY OF TEST RESULTS .....                      | 20          |
| <b>8 ANTENNA REQUIREMENT .....</b>                                    | <b>23</b>   |
| 8.1                ANTENNA REQUIREMENT .....                          | 23          |
| 8.2                RESULT .....                                       | 23          |
| <b>9 TEST PHOTOS.....</b>   | <b>24</b>   |
| <b>10 EUT PHOTOS.....</b>   | <b>26</b>   |



**PRECISE TESTING**

Report No.: PTC18072617101E-FC02

## **2 Test Summary**

| <b>Test Items</b>           | <b>Test Requirement</b> | <b>Result</b> |
|-----------------------------|-------------------------|---------------|
| Radiated Spurious Emissions | 15.209                  | PASS          |
| Conduct Emission            | 15.207                  | PASS          |



**PRECISE TESTING**

Report No.: PTC18072617101E-FC02

### **3 TEST FACILITY**

Dongguan Precise Testing & Certification Corp., Ltd.

Address: Building D, Baoding Technology Park, Guangming Road2, Dongcheng District, Dongguan,  
Guangdong, China

FCC Registration Number: 790290

A2LA Certificate No.: 4408.01

IC Registration Number: 12191A-1

Test Lab: Shenzhen Tongce Testing Lab

Address: 18/F., Building 1, Yibaolai Industrial Park, Qiaotou, Fuyong, Baoan District, Shenzhen,  
Guangdong, China

FCC Registered No.: 645098

Test items: Radiated Spurious Emission(9KHz to 30MHz)



## 4 General Information

### 4.1 General Description of E.U.T.

|                     |   |  |
|---------------------|---|--|
| Product Name        | : | Clock Radio Bluetooth  |
| Model Name          | : | YM-612, NEO AIR6, BLP2612-001, W7<br>(Note: The samples are the same except appearance, model number.) |
| Operating frequency | : | 110-205KHz   |
| Numbers of Channel  | : | 20 Channels  |
| Antenna Type        | : | Inductive Loop Coil Antenna  |
| Antenna Gain        | : | 0dBi   |
| Type of Modulation  | : | MSK  |
| Power supply        | : | For Adapter:<br>Model: BX-0503000<br>Input: AC 100-240V, 50/60Hz<br>Output: DC 5V, 3000mA              |
| Hardware Version    | : | 1.0  |
| Software Version    | : | 1.0  |



## 4.2 Test Mode

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 or test configuration mode mentioned above was evaluated respectively.

| Pretest Mode | Description              |
|--------------|--------------------------|
| Mode 1       | CH01                     |
| Mode 2       | CH10                     |
| Mode 3       | CH20                     |
| Mode 4       | Keeping TX+Charging mode |

| For Conducted Emission |                          |
|------------------------|--------------------------|
| Final Test Mode        | Description              |
| Mode 4                 | Keeping TX+Charging mode |

| For Radiated Emission |             |
|-----------------------|-------------|
| Final Test Mode       | Description |
| Mode 1                | CH01        |
| Mode 2                | CH10        |
| Mode 3                | CH20        |

### Channel List:

| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|
| 1       | 0.110           | 6       | 0.135           | 11      | 0.160           | 16      | 0.185           |
| 2       | 0.115           | 7       | 0.140           | 12      | 0.165           | 17      | 0.190           |
| 3       | 0.120           | 8       | 0.145           | 13      | 0.170           | 18      | 0.195           |
| 4       | 0.125           | 9       | 0.150           | 14      | 0.175           | 19      | 0.200           |
| 5       | 0.130           | 10      | 0.155           | 15      | 0.180           | 20      | 0.205           |



## 5 Equipment During Test

### 5.1 Equipments List

RF Conducted Test

| Name of Equipment   | Manufacturer    | Model  | Serial No. | Characteristics | Calibration Due |
|---------------------|-----------------|--------|------------|-----------------|-----------------|
| MXG Signal Analyzer | Agilent         | N9020A | MY56070279 | 10Hz-30GHz      | Apr 07, 2019    |
| Coaxial Cable       | CDS             | 79254  | 46107086   | 10Hz-30GHz      | Oct 09, 2018    |
| Antenna Connector   | Florida RF Labs | N/A    | RF01#      | N/A             | Aug. 26, 2018   |

Remark: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

Radiated Emissions(Test Frequency from 9KHz-18GHz)

| Name of Equipment            | Manufacturer  | Model      | Serial No.   | Characteristics | Calibration Due |
|------------------------------|---------------|------------|--------------|-----------------|-----------------|
| EMI Test Receiver            | Rohde&Schwarz | ESCI       | 101417       | 9KHz-3GHz       | Sep. 03, 2018   |
| Loop Antenna                 | Schwarzbeck   | FMZB 1519  | 012          | 9 KHz -30MHz    | Aug 31, 2018    |
| Bilog Antenna                | SCHWARZBECK   | VULB9160   | 9160-3355    | 25MHz-2GHz      | Aug 31, 2018    |
| Preamplifier (low frequency) | SCHWARZBECK   | BBV 9475   | 9745-0013    | 1MHz-1GHz       | Sep. 03, 2018   |
| Cable                        | Schwarzbeck   | PLF-100    | 549489       | 9KHz-3GHz       | Sep. 03, 2018   |
| Spectrum Analyzer            | Agilent       | E4407B     | MY45109572   | 9KHz-40GHz      | Oct. 13, 2018   |
| Horn Antenna                 | SCHWARZBECK   | 9120D      | 9120D-1246   | 1GHz-18GHz      | Aug. 31, 2018   |
| Power Amplifier              | LUNAR EM      | LNA1G18-40 | J10100000081 | 1GHz-26.5GHz    | Aug. 31, 2018   |
| Cable                        | H+S           | CBL-26     | N/A          | 1GHz-26.5GHz    | Sep. 03, 2018   |



**PRECISE TESTING**

Report No.: PTC18072617101E-FC02

Conducted Emissions

| Name of Equipment        | Manufacturer  | Model  | Serial No. | Characteristics | Calibration Due |
|--------------------------|---------------|--------|------------|-----------------|-----------------|
| EMI Test Receiver        | Rohde&Schwarz | ESCI   | 101417     | 9KHz-3GHz       | Sep. 03, 2018   |
| Artificial Mains Network | Rohde&Schwarz | L2-16B | 000WX31025 | 9KHz-300MHz     | Sep. 03, 2018   |
| Artificial Mains Network | Rohde&Schwarz | ENV216 | 101342     | 9KHz-300MHz     | Sep. 03, 2018   |



## 5.2 Measurement Uncertainty

| Parameter   | Uncertainty              |
|---|--------------------------|
| RF output power, conducted  | $\pm 1.0\text{dB}$       |
| Power Spectral Density, conducted   | $\pm 2.2\text{dB}$       |
| Radio Frequency   | $\pm 1 \times 10^{-6}$   |
| Bandwidth   | $\pm 1.5 \times 10^{-6}$ |
| Time  | $\pm 2\%$                |
| Duty Cycle  | $\pm 2\%$                |
| Temperature   | $\pm 1^{\circ}\text{C}$  |
| Humidity  | $\pm 5\%$                |
| DC and low frequency voltages   | $\pm 3\%$                |
| Conducted Emissions (150kHz~30MHz)  | $\pm 3.64\text{dB}$      |
| Radiated Emission(30MHz~1GHz)   | $\pm 5.03\text{dB}$      |
| Radiated Emission(1GHz~25GHz)   | $\pm 4.74\text{dB}$      |
| Remark: The coverage Factor (k=2), and measurement Uncertainty for a level of Confidence of 95% |                          |



**PRECISE TESTING**

Report No.: PTC18072617101E-FC02

### **5.3 Description of Support Units**

| Equipment    | Model No.  | Series No. |
|--------------|------------|------------|
| Mobile Phone | Samsung S9 | N/A        |



## 6 Conducted Emission

Test Requirement: : FCC CFR 47 Part 15 Section 15.207  
Test Method: : ANSI C63.10:2013  
Test Result: : PASS  
Frequency Range: : 150kHz to 30MHz  
Class/Severity: : Class B  
Detector: : Peak for pre-scan (9kHz Resolution Bandwidth)

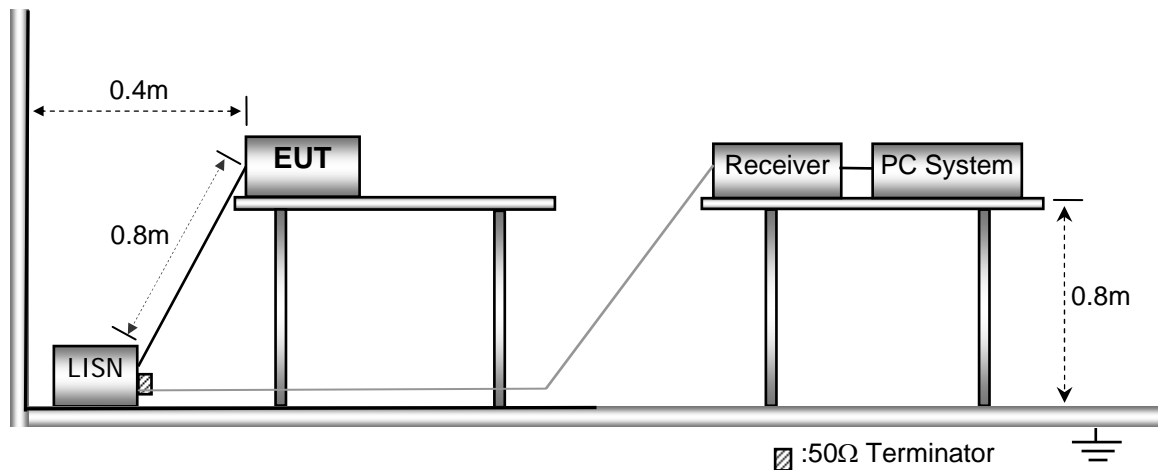
### 6.1 E.U.T. Operation

Operating Environment :

Temperature: : 25.5 °C  
Humidity: : 51 % RH  
Atmospheric Pressure: : 101.2kPa  
Test Voltage : AC 120V/60Hz

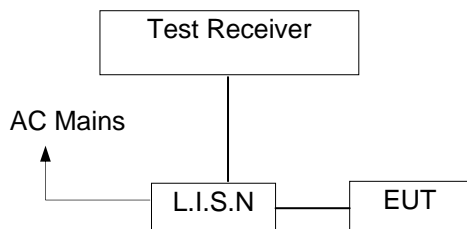
### 6.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.10: 2013





### 6.3 Test SET-UP (Block Diagram of Configuration)



### 6.4 Measurement Procedure:

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured was complete.

### 6.5 Conducted Emission Limit

#### Conducted Emission

| Frequency(MHz) | Quasi-peak | Average |
|----------------|------------|---------|
| 0.15-0.5       | 66-56      | 56-46   |
| 0.5-5.0        | 56         | 46      |
| 5.0-30.0       | 60         | 50      |

#### Note:

1. The lower limit shall apply at the transition frequencies
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

### 6.6 Measurement Description

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

### 6.7 Conducted Emission Test Result

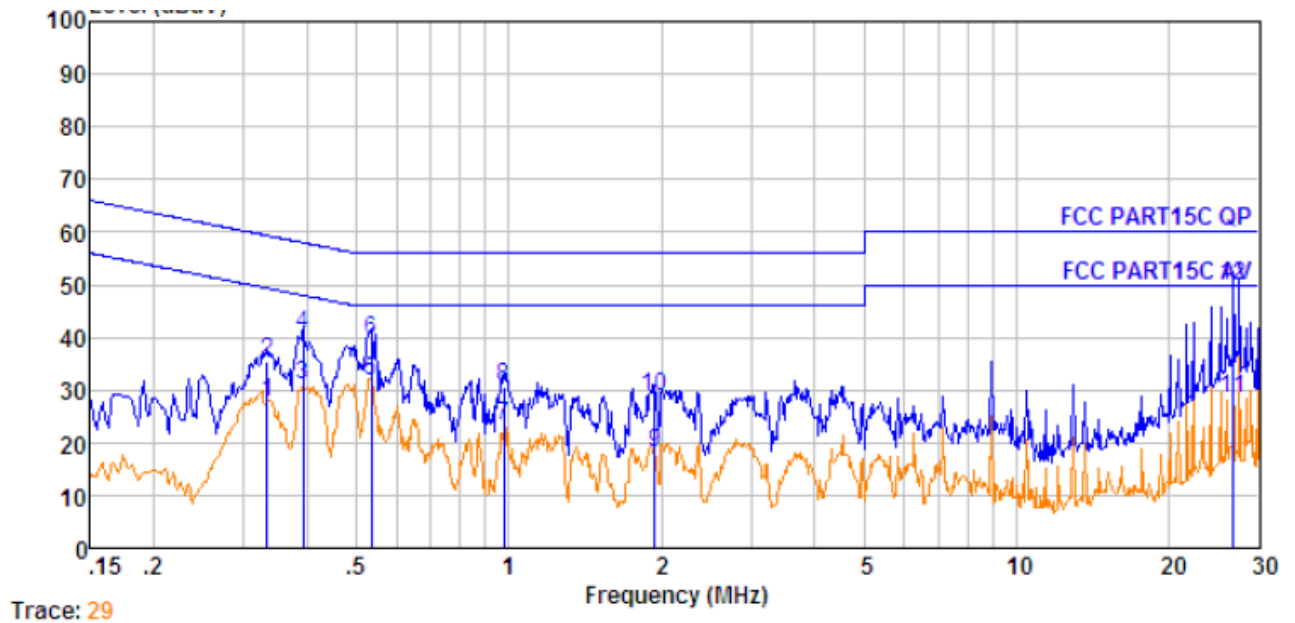
Pass.



# PRECISE TESTING

Report No.: PTC18072617101E-FC02

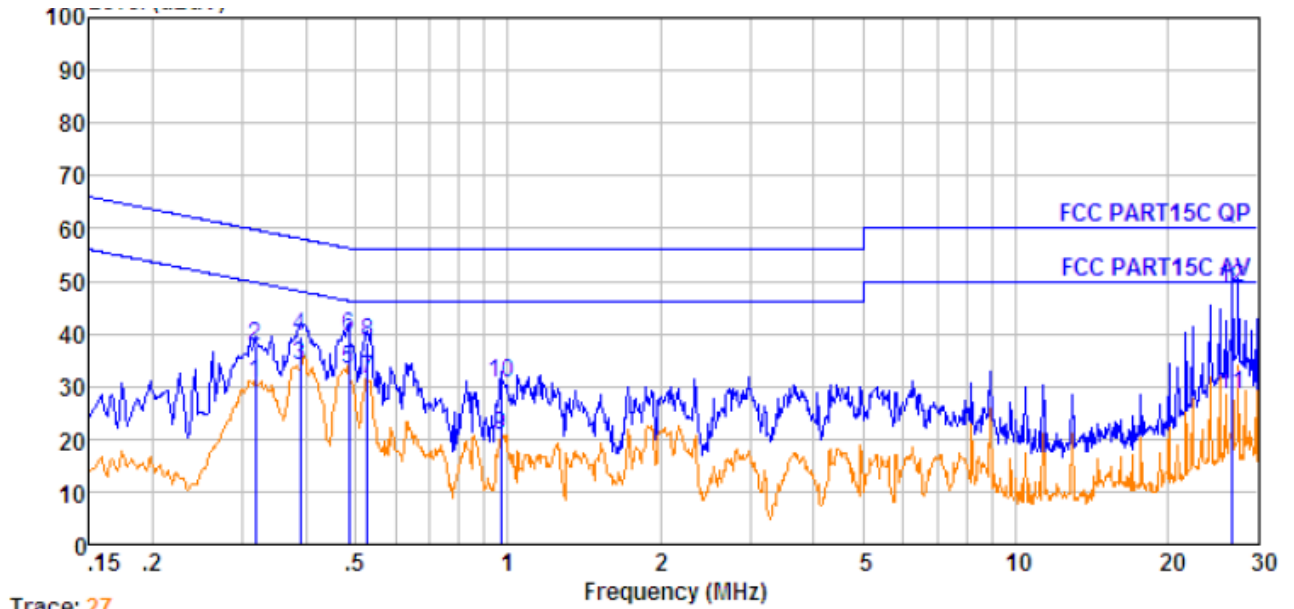
Line -120V/60Hz:



| No. | Freq MHz | Cable Loss dB | AMN Factor dB | Receiver Reading dBuV | Emission Level dBuV | Limit dBuV | Over Limit dB | Remark  |
|-----|----------|---------------|---------------|-----------------------|---------------------|------------|---------------|---------|
| 1.  | 0.334    | 0.38          | 9.70          | 17.51                 | 27.59               | 49.35      | -21.76        | Average |
| 2.  | 0.334    | 0.38          | 9.70          | 25.32                 | 35.40               | 59.35      | -23.95        | QP      |
| 3.  | 0.393    | 0.40          | 9.73          | 21.03                 | 31.16               | 47.99      | -16.83        | Average |
| 4.  | 0.393    | 0.40          | 9.73          | 30.36                 | 40.49               | 57.99      | -17.50        | QP      |
| 5.  | 0.535    | 0.43          | 9.78          | 21.40                 | 31.61               | 46.00      | -14.39        | Average |
| 6.  | 0.535    | 0.43          | 9.78          | 29.34                 | 39.55               | 56.00      | -16.45        | QP      |
| 7.  | 0.979    | 0.46          | 9.82          | 12.95                 | 23.23               | 46.00      | -22.77        | Average |
| 8.  | 0.979    | 0.46          | 9.82          | 20.38                 | 30.66               | 56.00      | -25.34        | QP      |
| 9.  | 1.939    | 0.47          | 9.85          | 7.82                  | 18.14               | 46.00      | -27.86        | Average |
| 10. | 1.939    | 0.47          | 9.85          | 18.35                 | 28.67               | 56.00      | -27.33        | QP      |
| 11. | 26.699   | 0.51          | 9.91          | 18.00                 | 28.42               | 50.00      | -21.58        | Average |
| 12. | 26.699   | 0.51          | 9.91          | 39.55                 | 49.97               | 60.00      | -10.03        | QP      |



Neutral -120V/60Hz:



Trace: 27

| No. | Freq<br>MHz | Cable<br>Loss<br>dB | AMN<br>Factor<br>dB | Receiver<br>Reading<br>dBuV | Emission<br>Level<br>dBuV | Limit<br>dBuV | Over<br>Limit<br>dB | Remark  |
|-----|-------------|---------------------|---------------------|-----------------------------|---------------------------|---------------|---------------------|---------|
| 1.  | 0.318       | 0.38                | 9.72                | 20.47                       | 30.57                     | 49.75         | -19.18              | Average |
| 2.  | 0.318       | 0.38                | 9.72                | 27.53                       | 37.63                     | 59.75         | -22.12              | QP      |
| 3.  | 0.389       | 0.40                | 9.76                | 23.74                       | 33.90                     | 48.08         | -14.18              | Average |
| 4.  | 0.389       | 0.40                | 9.76                | 29.35                       | 39.51                     | 58.08         | -18.57              | QP      |
| 5.  | 0.486       | 0.43                | 9.80                | 22.91                       | 33.14                     | 46.23         | -13.09              | Average |
| 6.  | 0.486       | 0.43                | 9.80                | 29.35                       | 39.58                     | 56.23         | -16.65              | QP      |
| 7.  | 0.529       | 0.43                | 9.81                | 21.27                       | 31.51                     | 46.00         | -14.49              | Average |
| 8.  | 0.529       | 0.43                | 9.81                | 28.16                       | 38.40                     | 56.00         | -17.60              | QP      |
| 9.  | 0.968       | 0.46                | 9.85                | 10.52                       | 20.83                     | 46.00         | -25.17              | Average |
| 10. | 0.968       | 0.46                | 9.85                | 20.21                       | 30.52                     | 56.00         | -25.48              | QP      |
| 11. | 26.699      | 0.51                | 10.09               | 17.85                       | 28.45                     | 50.00         | -21.55              | Average |
| 12. | 26.699      | 0.51                | 10.09               | 38.22                       | 48.82                     | 60.00         | -11.18              | QP      |



## 7 Radiated Spurious Emissions

Test Requirement : FCC CFR47 Part 15 Section 15.209  
 Test Method : ANSI C63.10:2013  
 Test Result : PASS  
 Measurement Distance : 3m  
 Limit : See the follow table

| Frequency (MHz) | Field Strength        |              | Field Strength Limit at 3m Measurement Dist |                                       |
|-----------------|-----------------------|--------------|---|---------------------------------------|
|                 | uV/m                  | Distance (m) | uV/m  | dBuV/m                                |
| 0.009 ~ 0.490   | $2400/F(\text{kHz})$  | 300          | $10000 * 2400/F(\text{kHz})$                | $20\log^{(2400/F(\text{kHz}))} + 80$  |
| 0.490 ~ 1.705   | $24000/F(\text{kHz})$ | 30           | $100 * 24000/F(\text{kHz})$                 | $20\log^{(24000/F(\text{kHz}))} + 40$ |
| 1.705 ~ 30      | 30                    | 30           | $100 * 30$                                  | $20\log^{(30)} + 40$                  |
| 30 ~ 88         | 100                   | 3            | 100   | $20\log^{(100)}$                      |
| 88 ~ 216        | 150                   | 3            | 150   | $20\log^{(150)}$                      |
| 216 ~ 960       | 200                   | 3            | 200   | $20\log^{(200)}$                      |
| Above 960       | 500                   | 3            | 500   | $20\log^{(500)}$                      |

### 7.1 EUT Operation

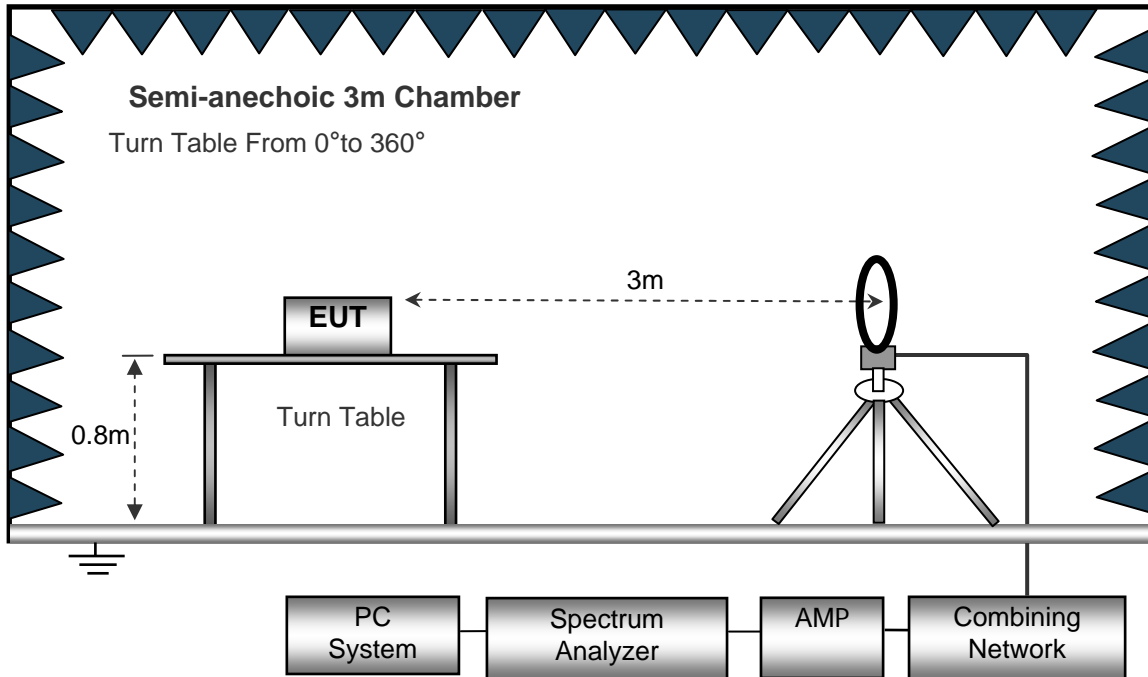
Operating Environment :

Temperature : 23.5 °C  
 Humidity : 51.1 % RH  
 Atmospheric Pressure : 101.2kPa

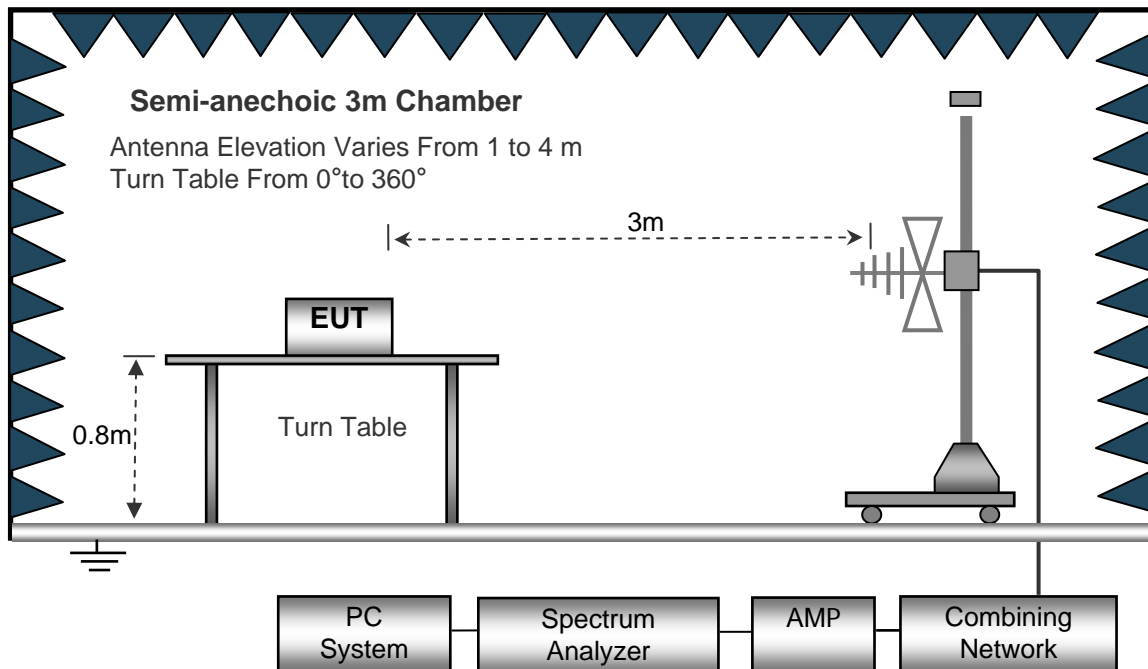
## 7.2 Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site

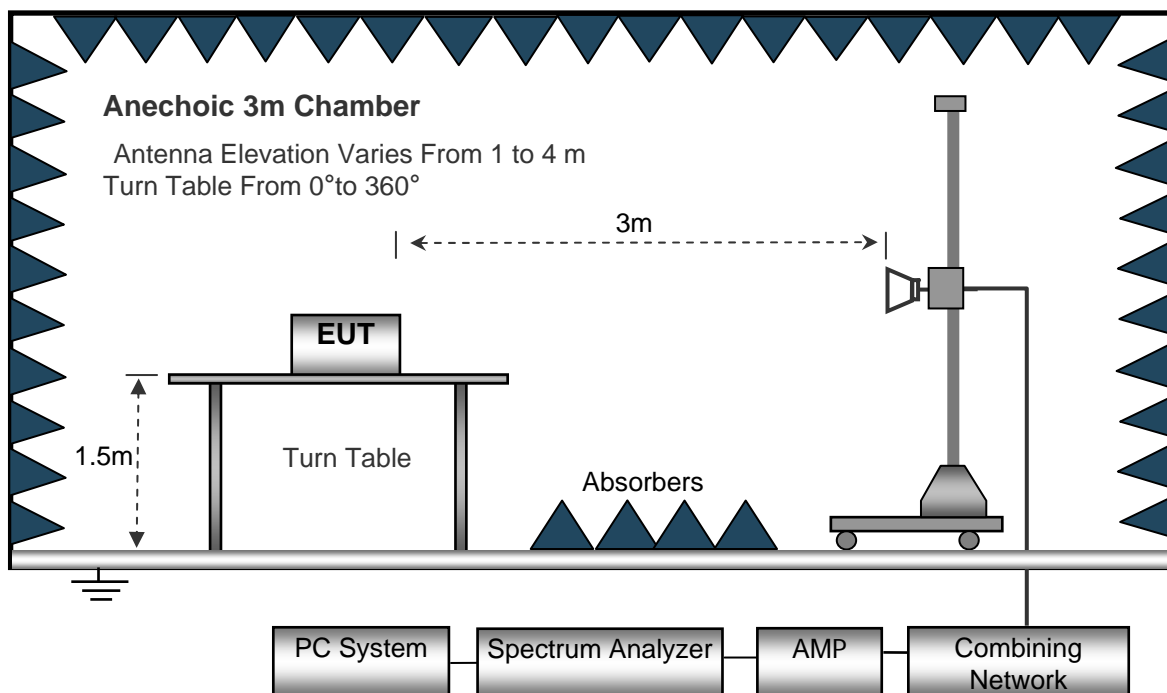
The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz.



### 7.3 Spectrum Analyzer Setup

| Spectrum Parameter                    | Setting  |
|---------------------------------------|--|
| Attenuation                           | Auto   |
| Start Frequency                       | 1000 MHz   |
| Stop Frequency                        | 10th carrier harmonic                            |
| RB / VB (emission in restricted band) | 1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average |

| Receiver Parameter     | Setting                          |
|------------------------|----------------------------------|
| Attenuation            | Auto                             |
| Start ~ Stop Frequency | 9kHz~150kHz / RB 200Hz for QP    |
| Start ~ Stop Frequency | 150kHz~30MHz / RB 9kHz for QP    |
| Start ~ Stop Frequency | 30MHz~1000MHz / RB 120kHz for QP |



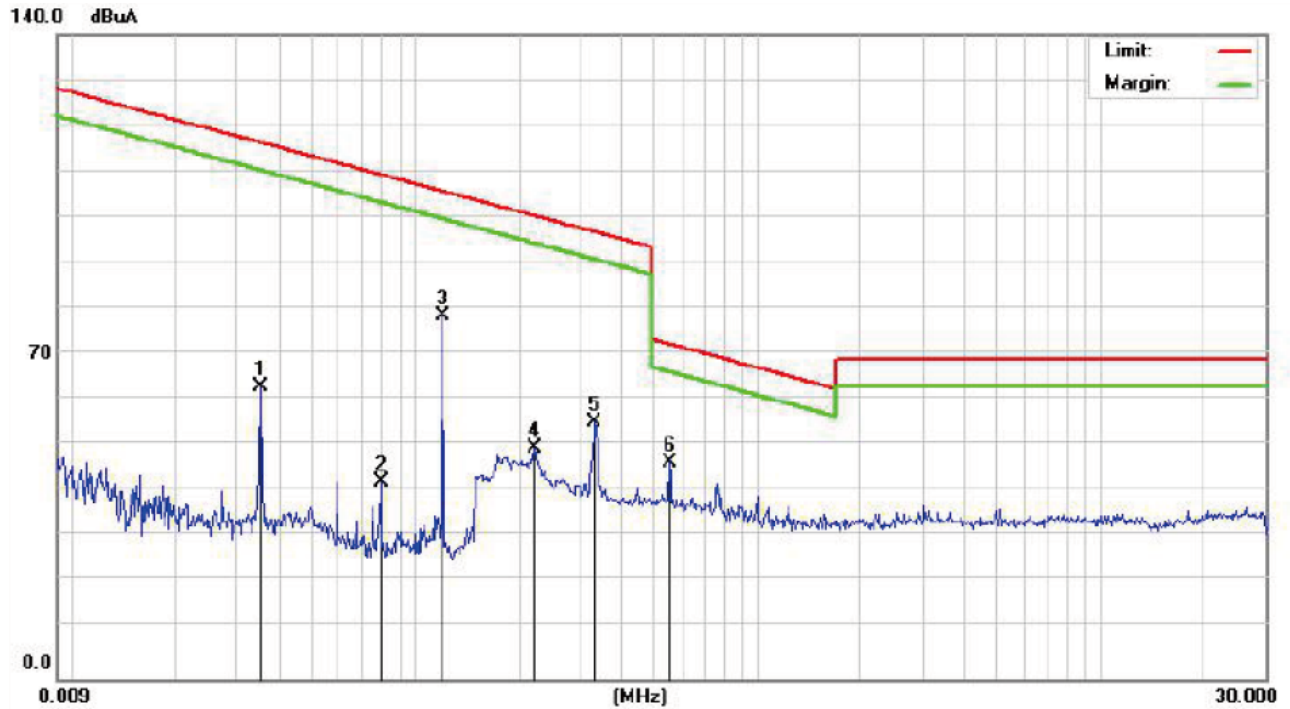
## **7.4 Test Procedure**

1. The testing follows the guidelines in Spurious Radiated Emissions of ANSI C63.10-2013.
2. Below 1000MHz, The EUT was placed on a turn table which is 0.8m above ground plane. And above 1000MHz, The EUT was placed on a styrofoam table which is 1.5m above ground plane.
3. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (From 1m to 4m) and turntable (from 0 degree to 360 degree) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Final measurement (Above 1GHz): The frequency range will be divided into different sub ranges depending of the frequency range of the used horn antenna. The EMI Receiver set to peak and average mode and a resolution bandwidth of 1MHz. The measurement will be performed in horizontal and vertical polarization of the measuring antenna and while rotating the EUT in its vertical axis in the range of 0 degree to 360 degree in order to have the antenna inside the cone of radiation.
7. Test Procedure of measurement (For Above 1GHz):
  - 1) Monitor the frequency range at horizontal polarization and move the antenna over all sides of the EUT(if necessary move the EUT to another orthogonal axis).
  - 2) Change the antenna polarization and repeat 1) with vertical polarization.
  - 3) Make a hardcopy of the spectrum.
  - 4) Measure the frequency of the detected emissions with a lower span and resolution bandwidth to increase the accuracy and note the frequency value.
  - 5) Change the analyser mode to Clear/ Write and found the cone of emission.
  - 6) Rotate and move the EUT, so that the measuring distance can be enlarged to 3m and the antenna will be still inside the cone of emission.
  - 7) Measure the level of the detected frequency with the correct resolution bandwidth, with the antenna polarization and azimuth and the peak and average detector, which causes the maximum emission.
  - 8) Repeat steps 1) to 7) for the next antenna spot if the EUT is larger than the antenna beamwidth.
7. The radiation measurements are tested under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.



## 7.5 Summary of Test Results

Test Frequency: 9KHz-30MHz



| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit (dBuV/m) | Over Limit (dB) | Detector | degree (dgc) |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|----------------|-----------------|----------|--------------|
| 0.0352          | 48.84             | 19.28                 | 2.53            | 0                        | 70.65          | 136.55         | -65.90          | Peak     | 12           |
| 0.0352          | 41.75             | 19.28                 | 2.53            | 0                        | 63.56          | 116.55         | -52.99          | AV       | 12           |
| 0.0792          | 37.78             | 19.32                 | 2.55            | 0                        | 59.65          | 129.54         | -69.89          | Peak     | 45           |
| 0.0792          | 21.10             | 19.32                 | 2.55            | 0                        | 42.97          | 109.54         | -66.57          | AV       | 45           |
| 0.1199          | 66.67             | 19.36                 | 2.62            | 0                        | 88.65          | 125.96         | -37.31          | Peak     | 147          |
| 0.1199          | 56.93             | 19.36                 | 2.62            | 0                        | 78.91          | 105.96         | -27.05          | AV       | 147          |
| 0.2220          | 48.23             | 19.38                 | 2.63            | 0                        | 70.24          | 120.64         | -50.40          | Peak     | 120          |
| 0.2220          | 28.15             | 19.38                 | 2.63            | 0                        | 50.16          | 100.64         | -50.48          | AV       | 120          |
| 0.3339          | 47.78             | 19.38                 | 2.63            | 0                        | 69.79          | 117.11         | -47.32          | Peak     | 354          |
| 0.3339          | 33.65             | 19.38                 | 2.63            | 0                        | 55.66          | 97.11          | -41.45          | AV       | 354          |
| 0.5540          | 25.22             | 19.38                 | 2.63            | 0                        | 47.23          | 72.73          | -25.50          | QP       | 180          |

Remark: According to FCC Part 15.209(d), the emission limits for the frequency bands 9-90KHz, 110-490KHz and above 1000MHz. Radiated emission limits in these three bans are based on measurements employing an average detector.

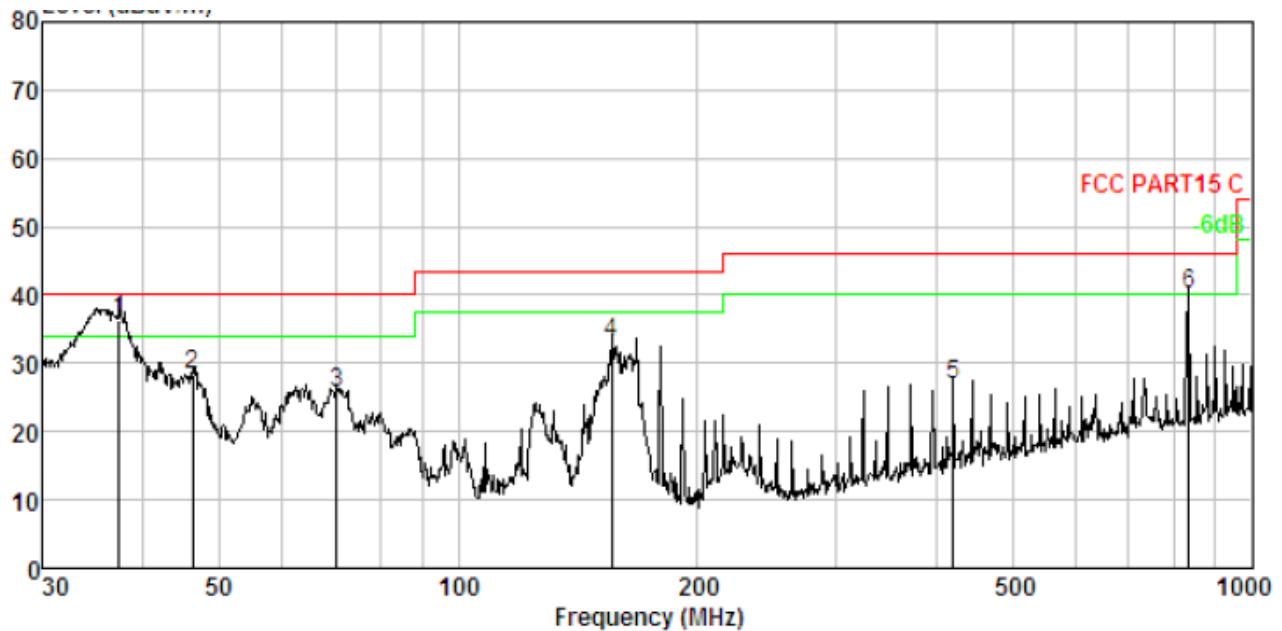


## PRECISE TESTING

Report No.: PTC18072617101E-FC02

Test Frequency: 30MHz ~ 1GHz

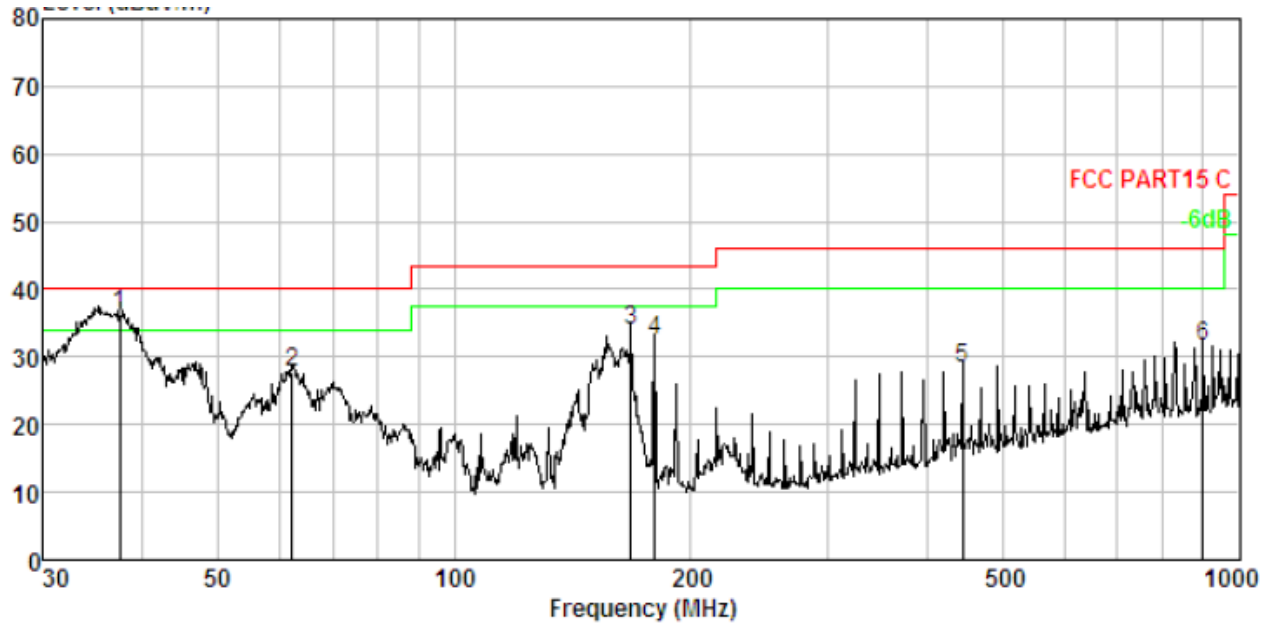
Horizontal:



| No. | Freq<br>MHz | Cable<br>Loss<br>dB | ANT<br>Factor<br>dB/m | Receiver<br>Reading<br>dBuV | Preamp<br>Factor<br>dB | Emission<br>Level<br>dBuV/m | Limit<br>dBuV/m | Over<br>Limit<br>dB | Remark |
|-----|-------------|---------------------|-----------------------|-----------------------------|------------------------|-----------------------------|-----------------|---------------------|--------|
| 1.  | 37.416      | 1.26                | 13.51                 | 51.67                       | 30.05                  | 36.39                       | 40.00           | -3.61               | QP     |
| 2.  | 46.340      | 1.45                | 12.98                 | 43.95                       | 30.12                  | 28.26                       | 40.00           | -11.74              | QP     |
| 3.  | 70.337      | 1.83                | 9.98                  | 44.28                       | 30.27                  | 25.82                       | 40.00           | -14.18              | QP     |
| 4.  | 155.910     | 2.55                | 13.89                 | 47.22                       | 30.54                  | 33.12                       | 43.50           | -10.38              | QP     |
| 5.  | 420.580     | 3.45                | 15.72                 | 38.61                       | 30.89                  | 26.89                       | 46.00           | -19.11              | QP     |
| 6.  | 833.317     | 4.06                | 21.97                 | 45.15                       | 31.13                  | 40.05                       | 46.00           | -5.95               | QP     |



Vertical:



| No. | Freq<br>MHz | Cable<br>Loss<br>dB | ANT<br>Factor<br>dB/m | Receiver<br>Reading<br>dBuV | Preamp<br>Factor<br>dB | Emission<br>Level<br>dBuV/m | Limit<br>dBuV/m | Over<br>Limit<br>dB | Remark |
|-----|-------------|---------------------|-----------------------|-----------------------------|------------------------|-----------------------------|-----------------|---------------------|--------|
| 1.  | 37.548      | 1.26                | 13.51                 | 51.47                       | 30.05                  | 36.19                       | 40.00           | -3.81               | QP     |
| 2.  | 62.213      | 1.72                | 12.02                 | 44.16                       | 30.22                  | 27.68                       | 40.00           | -12.32              | QP     |
| 3.  | 167.824     | 2.61                | 13.45                 | 48.49                       | 30.57                  | 33.98                       | 43.50           | -9.52               | QP     |
| 4.  | 180.017     | 2.68                | 12.44                 | 47.89                       | 30.59                  | 32.42                       | 43.50           | -11.08              | QP     |
| 5.  | 444.851     | 3.50                | 16.28                 | 39.39                       | 30.91                  | 28.26                       | 46.00           | -17.74              | QP     |
| 6.  | 900.147     | 4.13                | 22.58                 | 35.93                       | 31.15                  | 31.49                       | 46.00           | -14.51              | QP     |



## **8 Antenna Requirement**

### **8.1 Antenna Requirement**

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.

### **8.2 Result**

The antenna is inductive loop coil antenna which permanently attached, and the best case gain of the antenna is 0dBi and meets the requirement.

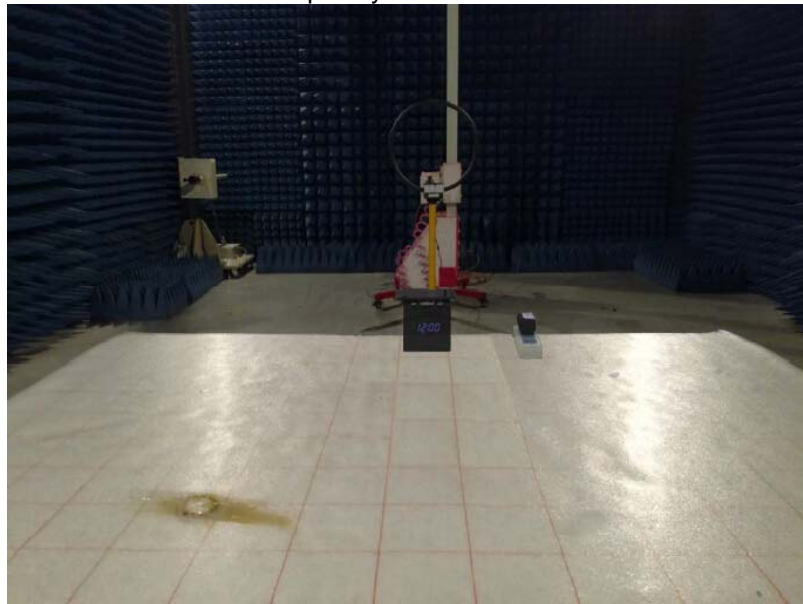


## 9 TEST PHOTOS

Conducted Emissions



Radiated Spurious Emissions  
Test Frequency From 9KHz-30MHz

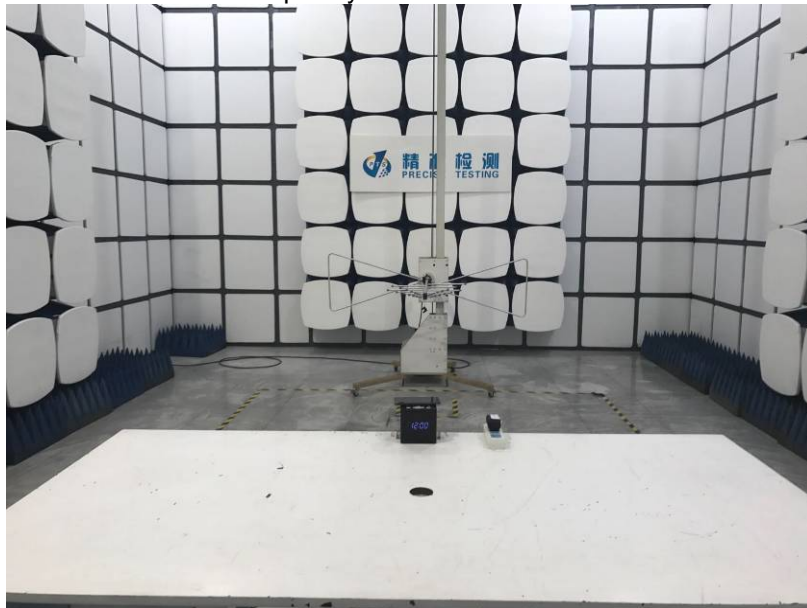




**PRECISE TESTING**

Report No.: PTC18072617101E-FC02

Test frequency from 30MHz-1000MHz

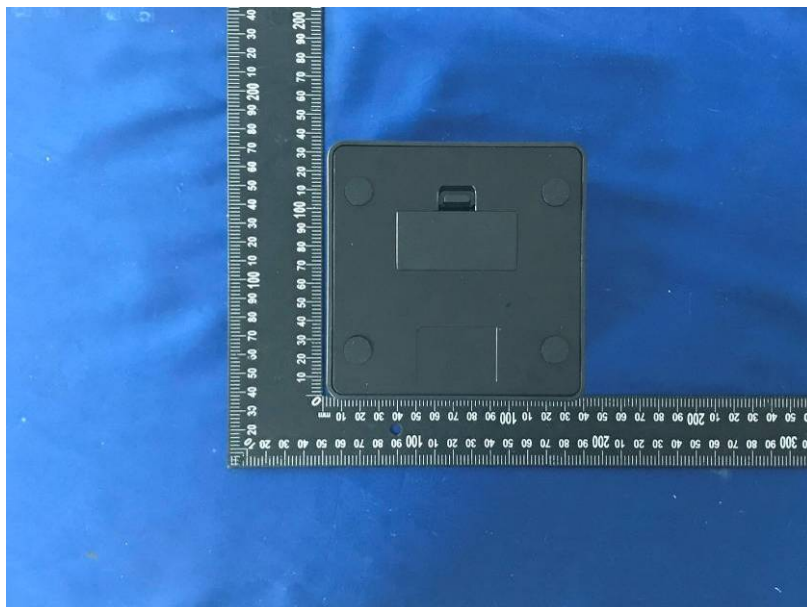
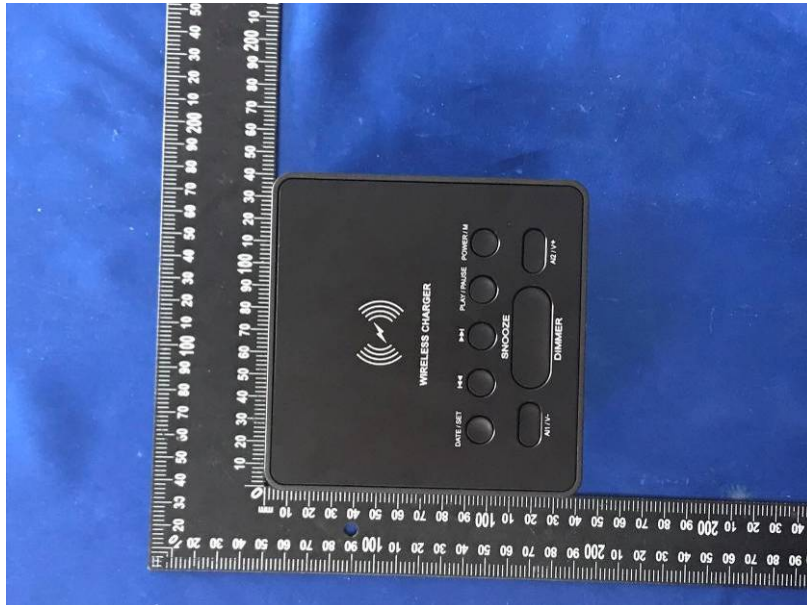




PRECISE TESTING

Report No.: PTC18072617101E-FC02

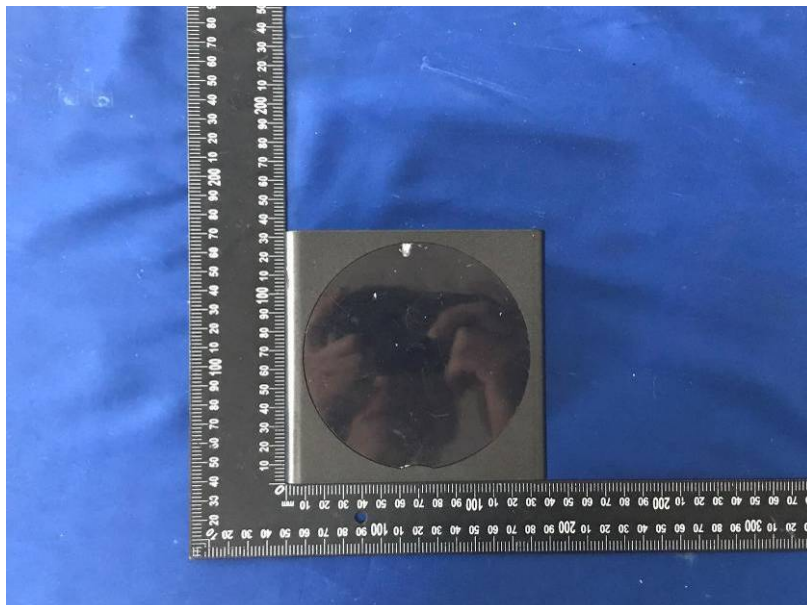
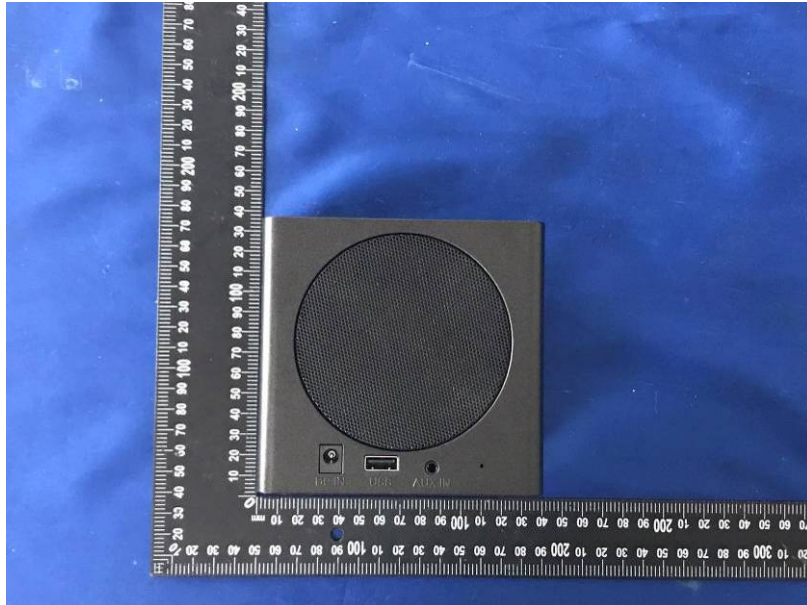
## 10 EUT PHOTOS





PRECISE TESTING

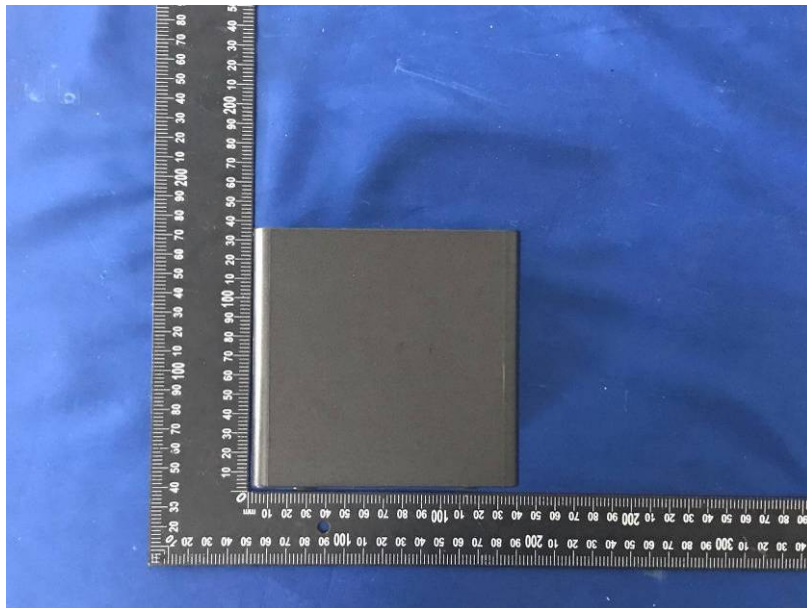
Report No.: PTC18072617101E-FC02

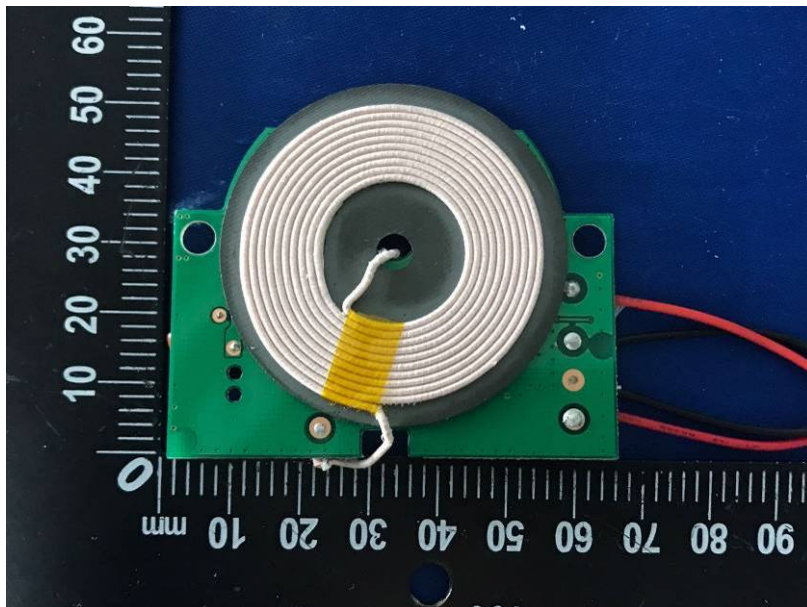
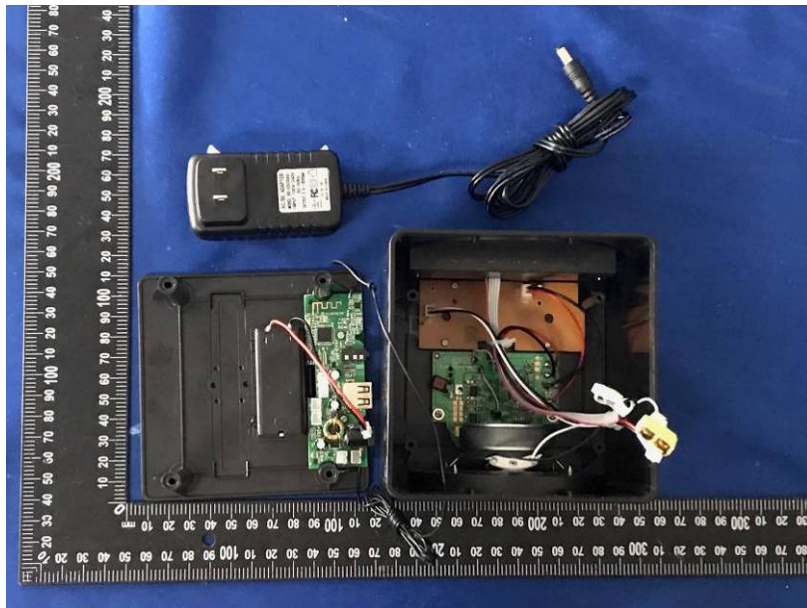


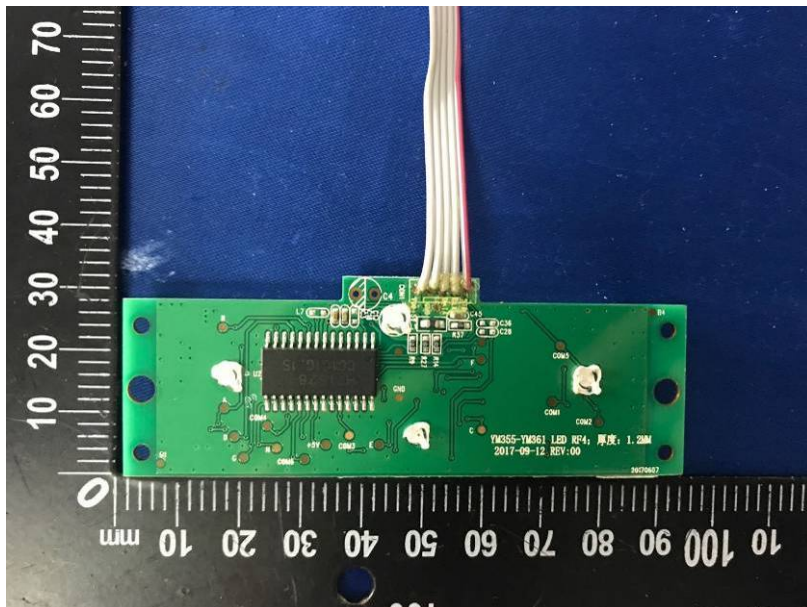
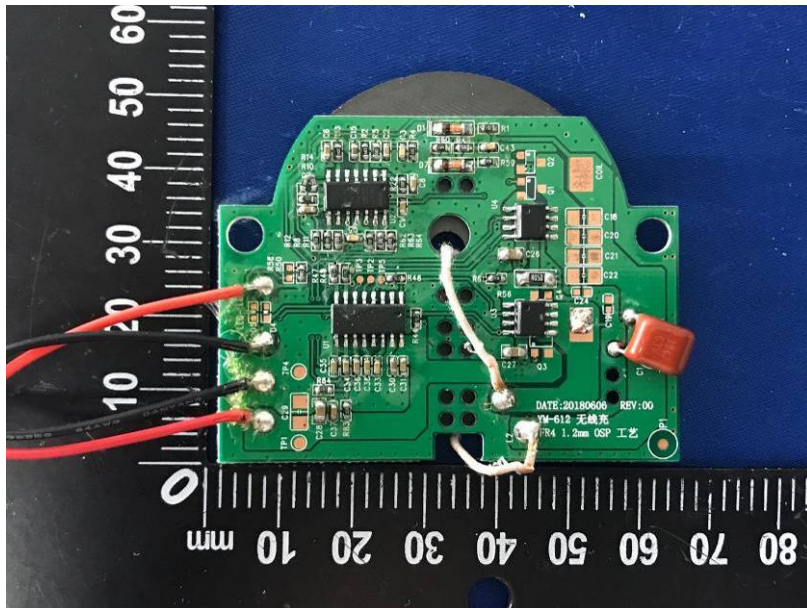


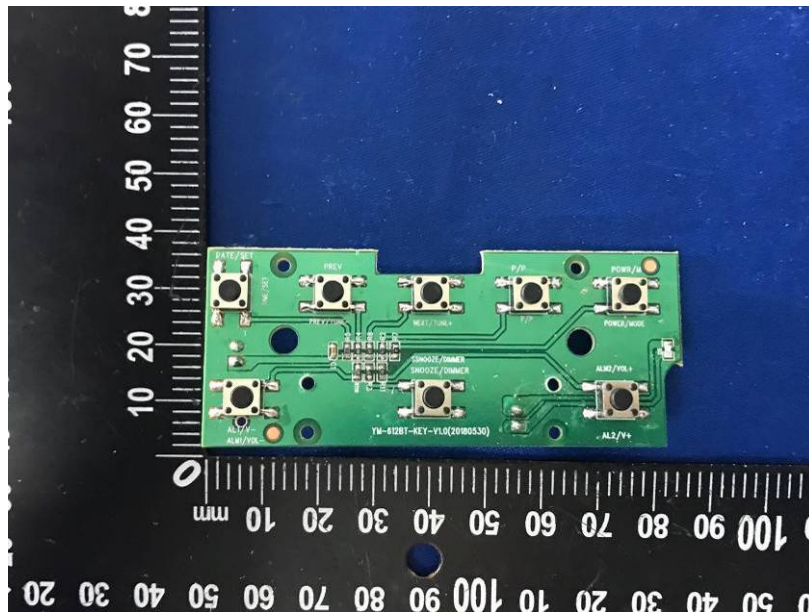
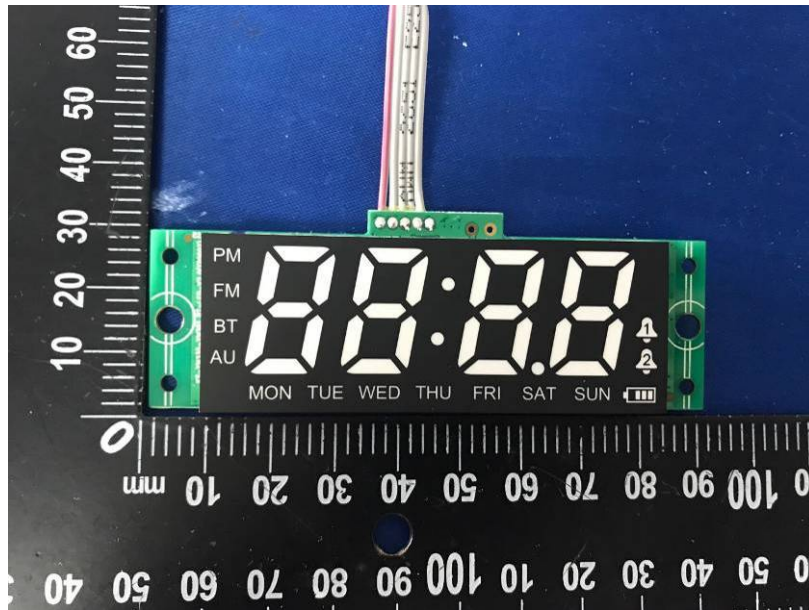
PRECISE TESTING

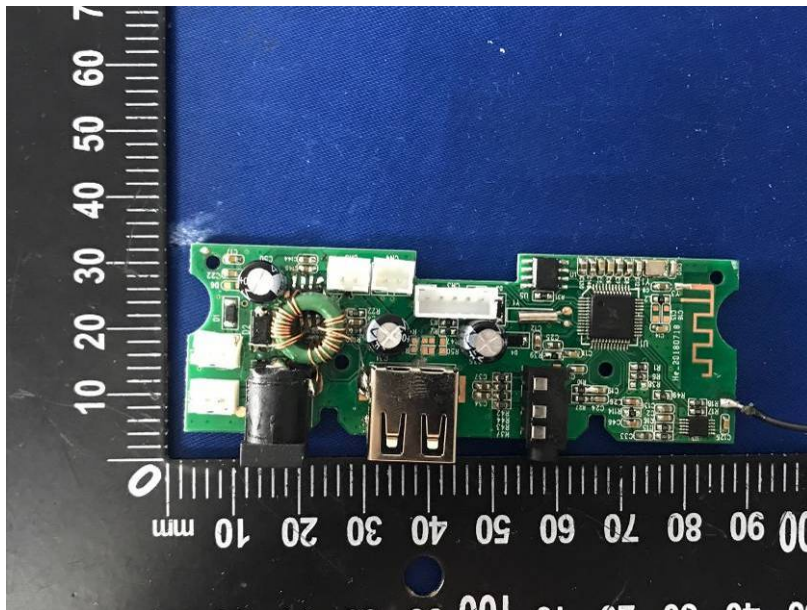
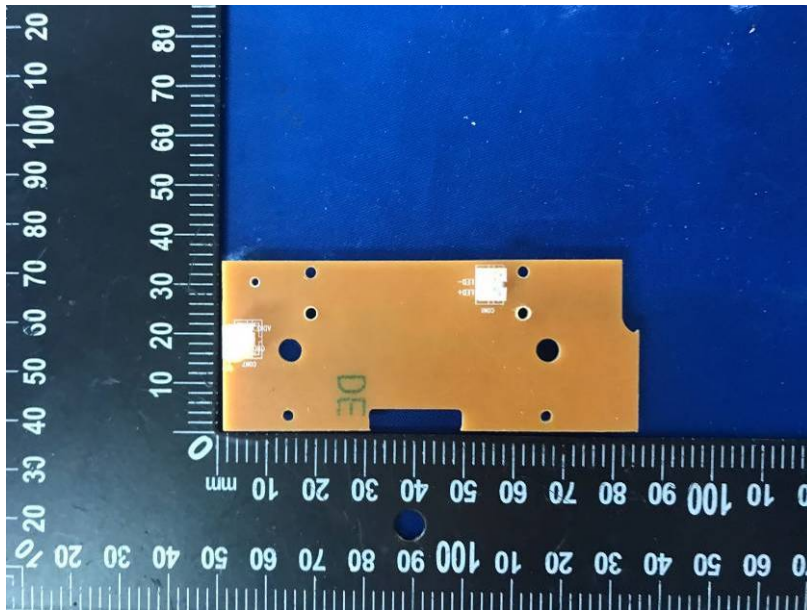
Report No.: PTC18072617101E-FC02

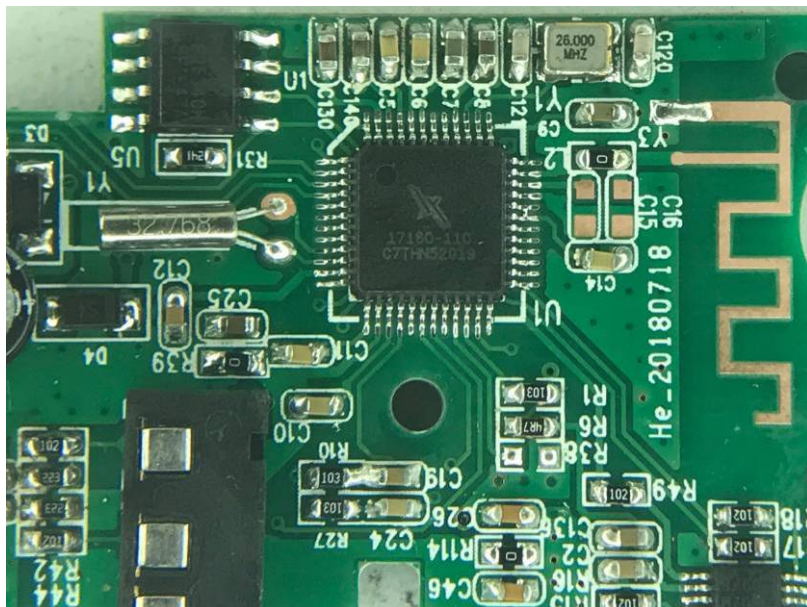
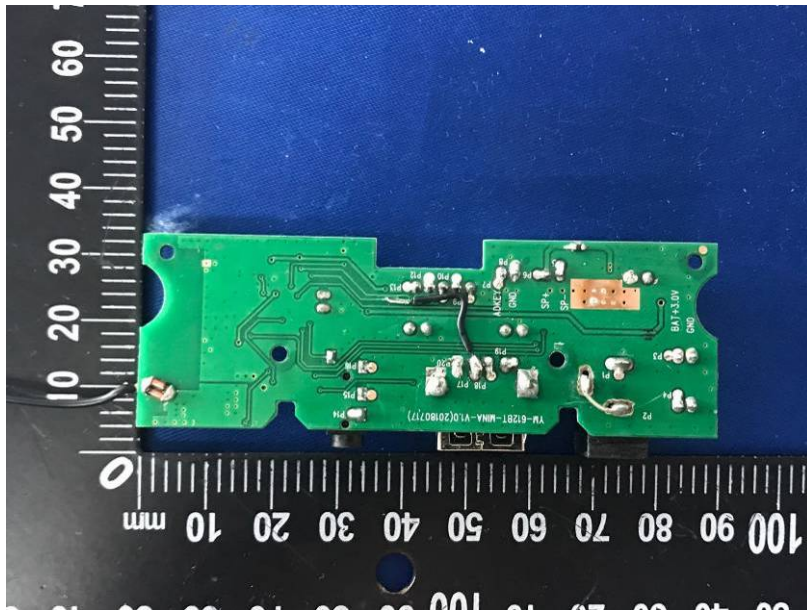














PRECISE TESTING

Report No.: PTC18072617101E-FC02



\*\*\*\*\*THE END REPORT\*\*\*\*\*