

## FCC - TEST REPORT

Report Number : **60.790.16.009.01** Date of Issue : February 20, 2016Model : **RDWL515A**Product Type : **Doorbell**Applicant : Honeywell International Inc.Address : 1985 Douglas Drive North, Golden Valley, U.S.AProduction Facility : Ansen Electronics CompanyAddress : Chen Tung Industrial Zone, Ning Tau Administrative District,  
Qiao Tau Zhen, Dongguan, Guangdong, ChinaTest Result : ☒ **Positive** ☐ **Negative**Total pages  
including  
Appendices : 20

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## 2 Description of Equipment Under Test

### Description of the Equipment Under Test

Product: Doorbell

Model no.: RDWL515A

FCC ID: HS9-RDWL515A

Rating: 4.5VDC (3 x 1.5VDC size "AA" Batteries)

Description: The EUT is considered as Superheterodyne Receiver, the operating frequency is 916.8MHz. More details of EUT technical specification please refer to the User's Manual.

### 3 Summary of Test Standards

| Test Standards |
|----------------|
|----------------|

|                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| FCC Part 15 Subpart B 10-1-14 Edition<br>Federal Communications Commission, PART 15 — Radio Frequency Devices,<br>Subpart B — Unintentional Radiators |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|

## 4 Details about the Test Laboratory

### Site 1

Company name: TÜV SÜD Hong Kong Ltd.  
3/F, West Wing, Lakeside 2,  
10 Science Park West Avenue,  
Science Park, Shatin, Hong Kong

### Site 2

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch  
Building 12&13 Zhiheng Wisdomland Business Park,  
Nantou Checkpoint Road 2,  
Shenzhen 518052, P.R.China  
FCC Registration Number: 502708

| Emission Tests                                           |           |
|----------------------------------------------------------|-----------|
| Test Item                                                | Test Site |
| <b>FCC Part 15 Subpart B</b>                             |           |
| FCC Title 47 Part 15.109 Radiated Emission 30MHz-1000MHz | Site 2    |
| FCC Title 47 Part 15.107 Conduct Emission 150kHz-30MHz   | NIL       |

## 4.1 Test Equipment Site List

### Radiated emission Test – Site 2

| DESCRIPTION                         | MANUFACTURER    | MODEL NO. | SERIAL NO. | CAL. DUE DATE |
|-------------------------------------|-----------------|-----------|------------|---------------|
| EMI Test Receiver                   | Rohde & Schwarz | ESR 26    | 101269     | 17-Aug-16     |
| Trilog Super Broadband Test Antenna | Schwarzbeck     | VULB 9163 | 707        | 17-Aug-17     |
| Horn Antenna                        | Rohde & Schwarz | HF907     | 102294     | 17-Aug-17     |
| Pre-amplifier                       | Rohde & Schwarz | SCU 18    | 102230     | 17-Aug-16     |
| 3m Semi-anechoic chamber            | TDK             | 9X6X6     | ----       | 29-May-19     |

## 4.2 Measurement System Uncertainty

### Measurement System Uncertainty Emissions

| System Measurement Uncertainty                                   |                                          |
|------------------------------------------------------------------|------------------------------------------|
| Items                                                            | Extended Uncertainty                     |
| Uncertainty for Radiated Emission in 3m chamber<br>30MHz-1000MHz | Horizontal: 4.83dB;<br>Vertical: 4.91dB; |

## 5 Summary of Test Results

| Emission Tests                                              |       |                                     |                          |                                     |
|-------------------------------------------------------------|-------|-------------------------------------|--------------------------|-------------------------------------|
| FCC Part 15 Subpart B                                       |       |                                     |                          |                                     |
| Test Condition                                              | Pages | Test Result                         |                          |                                     |
|                                                             |       | Pass                                | Fail                     | N/A                                 |
| FCC Title 47 Part 15.109<br>Radiated Emission 30MHz-1000MHz | 10-11 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| FCC Title 47 Part 15.107<br>Conduct Emission 150kHz-30MHz   | NIL   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## 6 General Remarks

### Remarks

NIL

### SUMMARY:

- All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

- The Equipment Under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

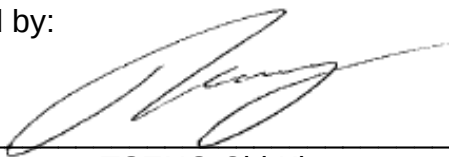
Sample Received Date: January 26, 2016

Testing Start Date: January 27, 2016

Testing End Date: February 1, 2016

- TÜV SÜD HONG KONG LTD. -

Reviewed by:



TSENG Chi Kit  
EMC Project Engineer



Prepared by:



CHAN Kwong Ngai  
EMC Test Engineer

## 7 Emission Test Results

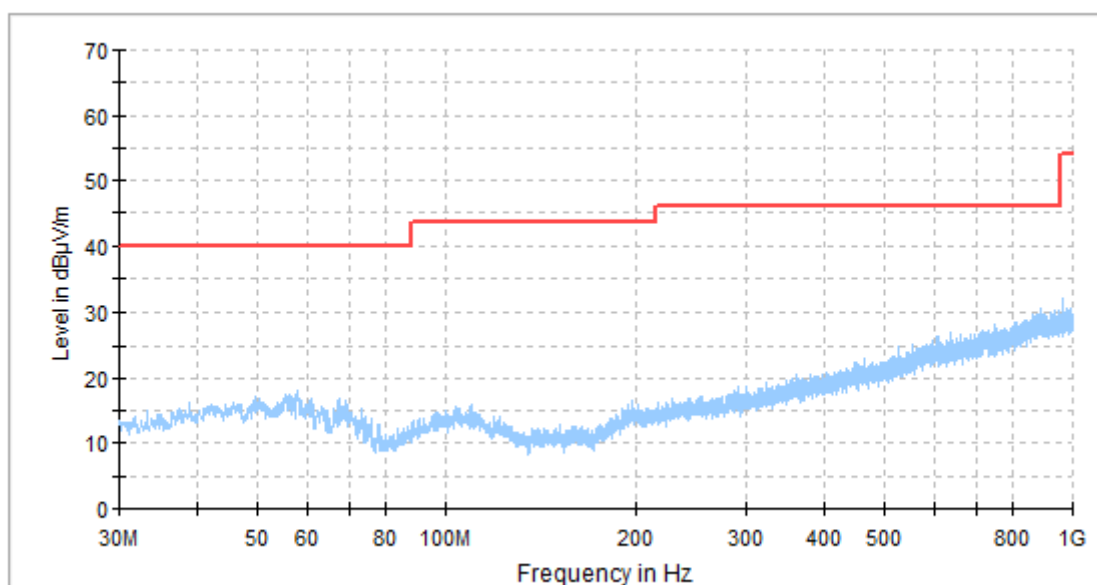
### 7.1 Radiated Emission

EUT: RDWL515A  
 Op Condition: Operating, Normal Link  
 Test Specification: Antenna: Horizontal  
 Comment: 4.5VDC

Test Result

☒ Passed

☐ Not Passed

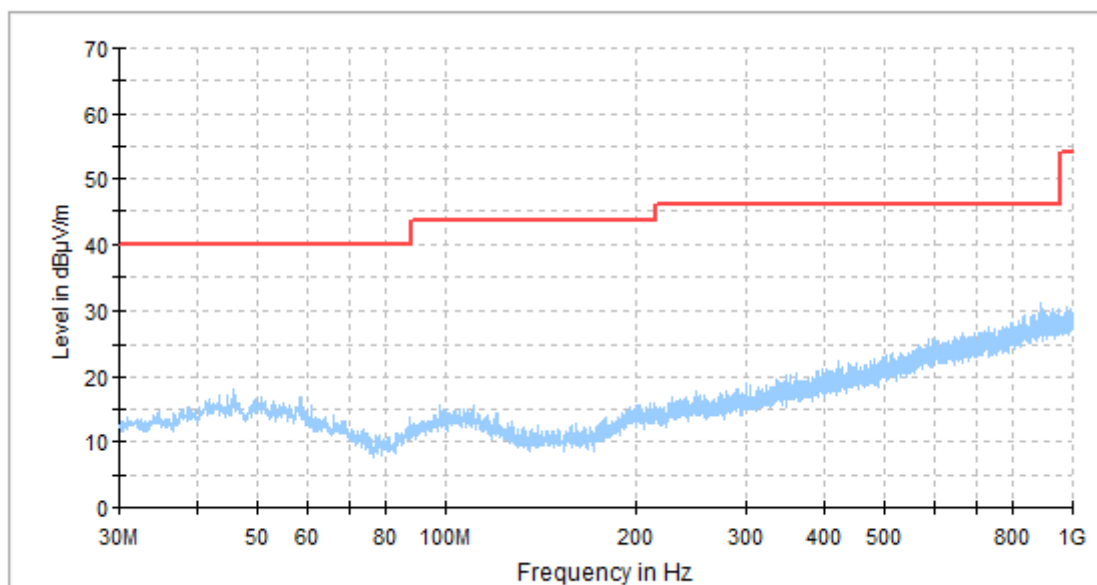


| Frequency<br>MHz | QP<br>dBμV/m | Limit<br>dBμV/m | Margin<br>dB |
|------------------|--------------|-----------------|--------------|
| 55.430           | 16.38        | 40              | -23.62       |
| 66.873           | 15.97        | 40              | -24.03       |

## Radiated Emission

EUT: RDWL515A  
 Op Condition: Operated, Normal Link  
 Test Specification: Antenna: Vertical  
 Comment: 4.5VDC

| Test Result                         |            |
|-------------------------------------|------------|
| <input checked="" type="checkbox"/> | Passed     |
| <input type="checkbox"/>            | Not Passed |



| Frequency<br>MHz | QP<br>dBμV/m | Limit<br>dBμV/m | Margin<br>dB |
|------------------|--------------|-----------------|--------------|
| 45.782           | 16.89        | 40              | -23.11       |
| 56.940           | 15.01        | 40              | -24.99       |

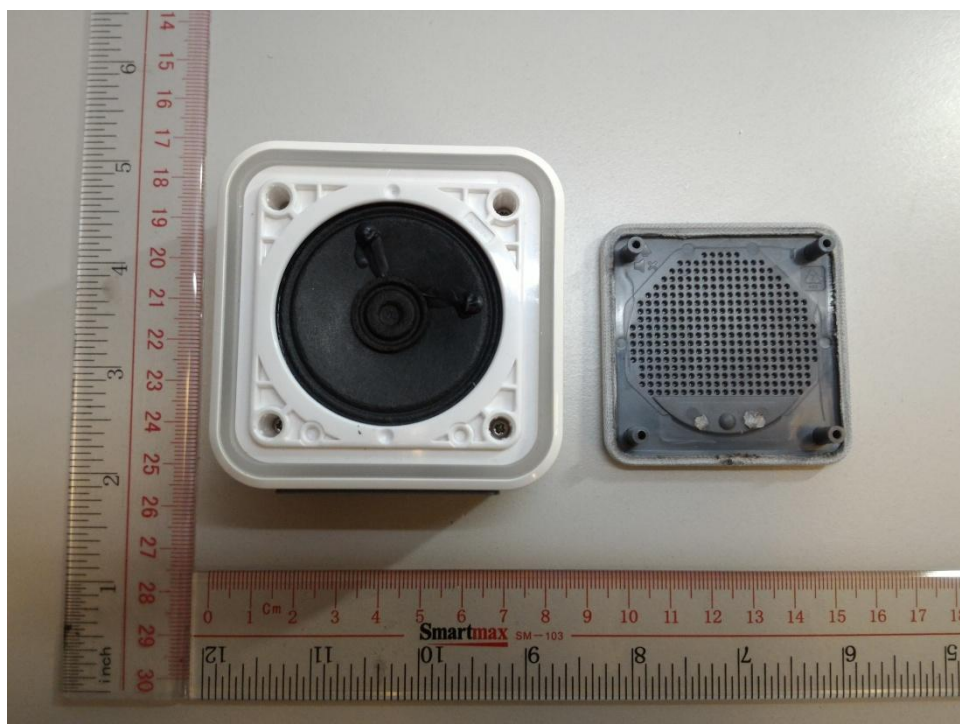
## 8 Appendix A - Photographs of EUT



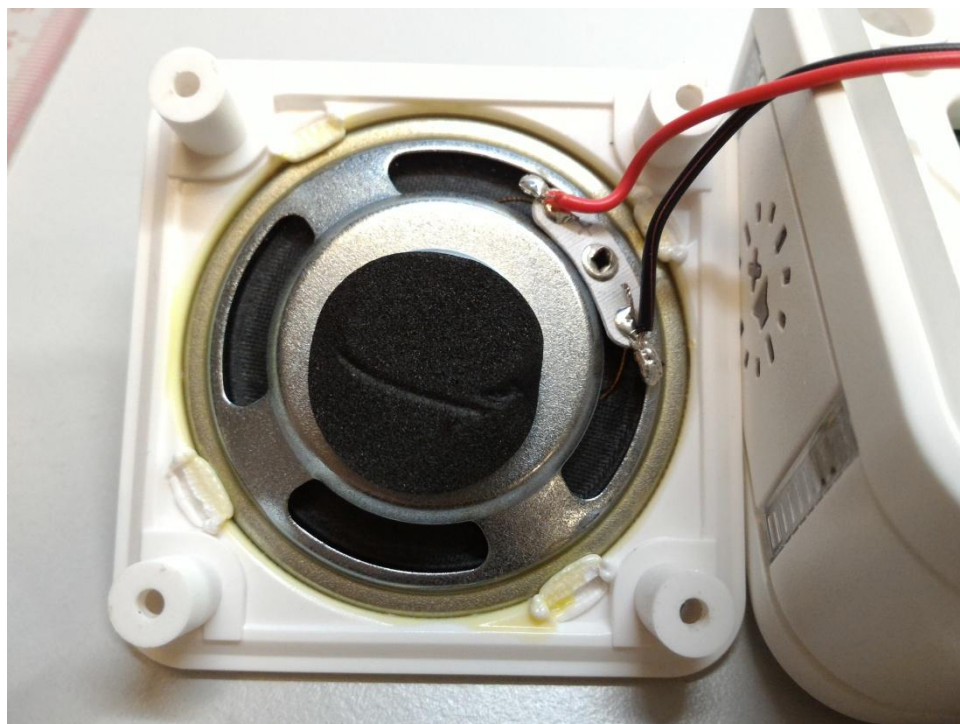
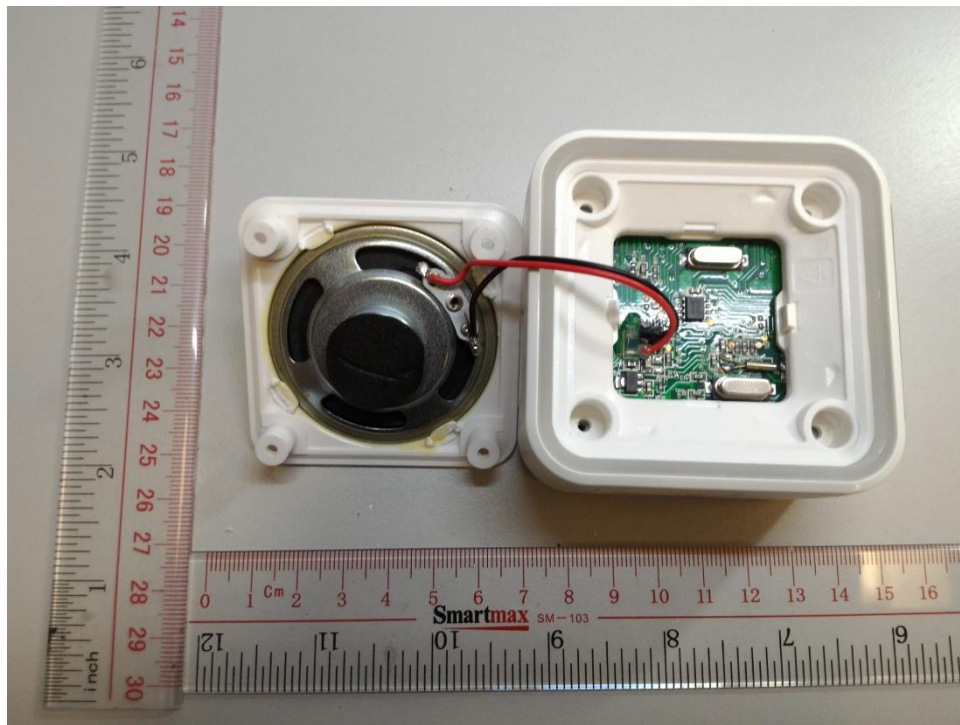
## Appendix A



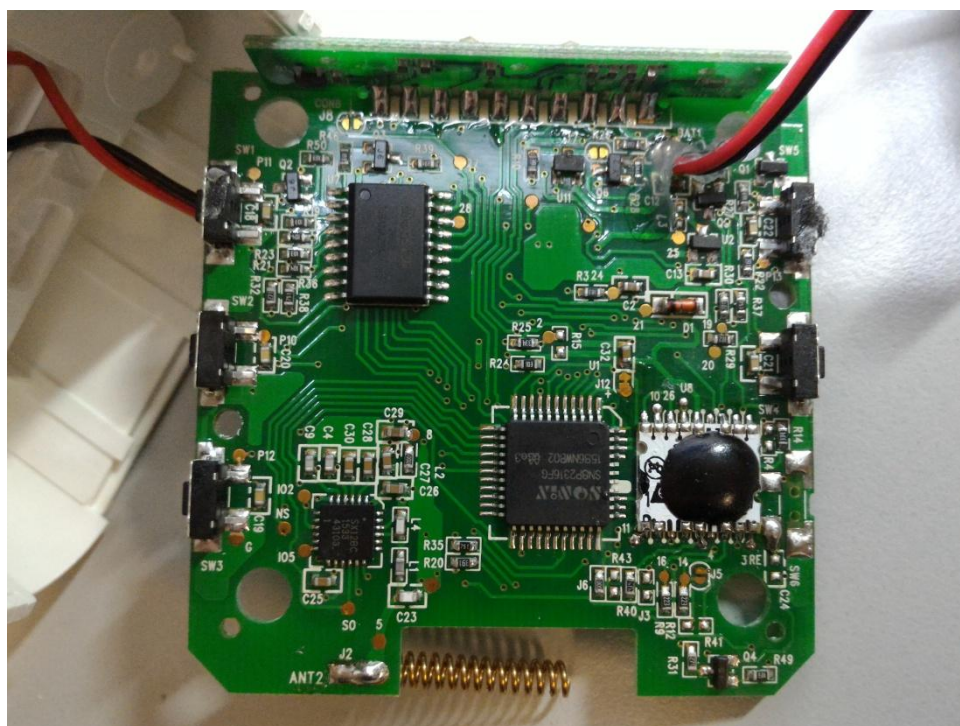
## Appendix A



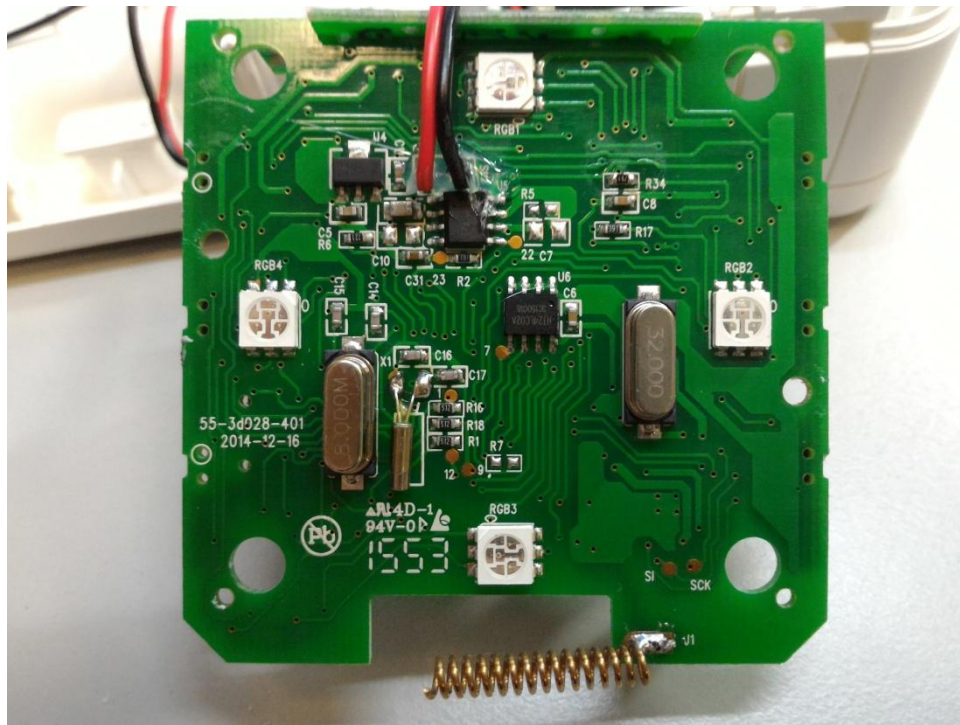
## Appendix A



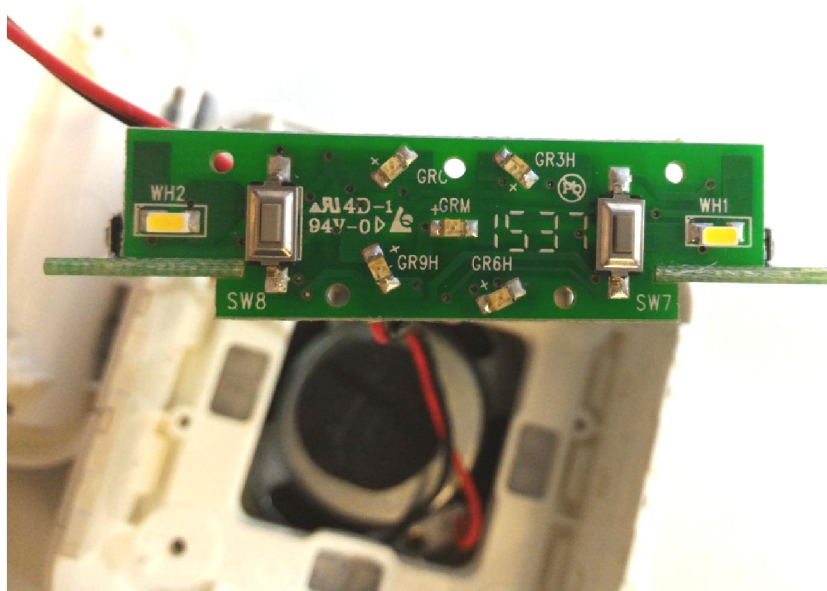
## A photograph of a disassembled white plastic enclosure. The left half shows a green printed circuit board (PCB) populated with various electronic components, including two large black integrated circuits, a black push-button, and several smaller surface-mount components. The right half shows two AA batteries held in place by the enclosure's internal structure. Two wires, one red and one black, connect the battery terminals to the PCB. A ruler is placed horizontally below the enclosure, and a vertical ruler is placed to the left, providing a scale for the device's dimensions.



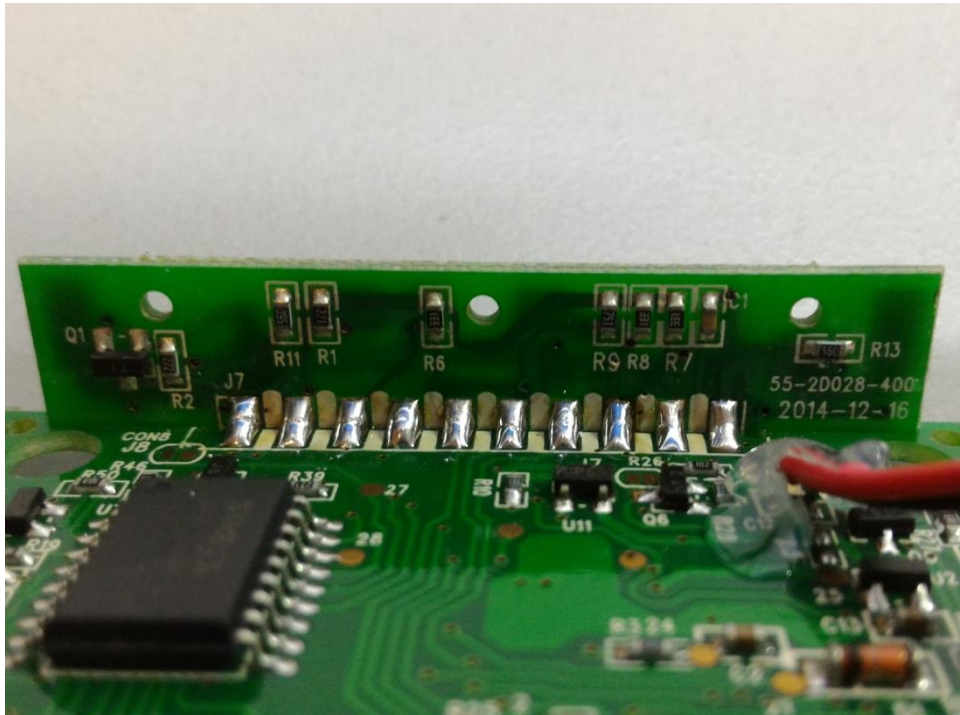
## Appendix A



## Appendix A



## Appendix A



## 9 Appendix B - Setup Photographs of EUT

### Radiated Emission

