

FCC - TEST REPORT

Report Number : **60.790.16.007.01** Date of Issue : February 20, 2016

Model : **RDWL515P**

Product Type : **Doorbell**

Applicant : Honeywell International Inc.

Address : 1985 Douglas Drive North, Golden Valley, U.S.A

Production Facility : Ansen Electronics Company

Address : Chen Tung Industrial Zone, Ning Tau Administrative District,
Qiao Tau Zhen, Dongguan, Guangdong, China

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including Appendices : 22

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2 Description of Equipment Under Test

Description of the Equipment Under Test

Product: Doorbell

Model no.: RDWL515P

FCC ID: HS9-RDWL515P

Rating: 100-240VAC, 50-60Hz, 300mA

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 Federal Communications Commission, PART 15 — Radio Frequency Devices, 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
FCC Part 15 Subpart B	
FCC Title 47 Part 15.109 Radiated Emission 30MHz-1000MHz	Site 2
FCC Title 47 Part 15.107 Conduct Emission 150kHz-30MHz	Site 2

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

Conducted Emission Test – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	101782	17-Aug-16
LISN	Rohde & Schwarz	ENV4200	100249	17-Aug-16
LISN	Rohde & Schwarz	ENV216	100326	17-Aug-16
ISN	Rohde & Schwarz	ENY81	100177	17-Aug-16
ISN	Rohde & Schwarz	ENY81-CAT6	101664	17-Aug-16
High Voltage Probe	Rohde & Schwarz	TK9420(VT9420)	9420-58	17-Aug-16
RF Current probe	Rohde & Schwarz	EZ-17	100816	17-Aug-16

4.2 Measurement System Uncertainty

Measurement System Uncertainty Emissions

System Measurement Uncertainty	
Items	Extended Uncertainty
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.83dB; Vertical: 4.91dB;
Uncertainty for Conducted Emission 150kHz-30MHz	3.50dB

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 Radiated Emission 30MHz-1000MHz	10-11	☒	☐	☐
FCC Title 47 Part 15.107 Conduct Emission 150kHz-30MHz	12-13	☒	☐	☐

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.

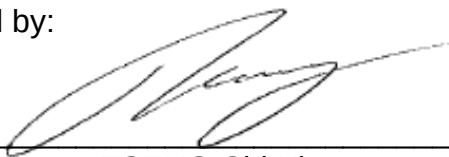
Sample Received Date: January 26, 2016

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

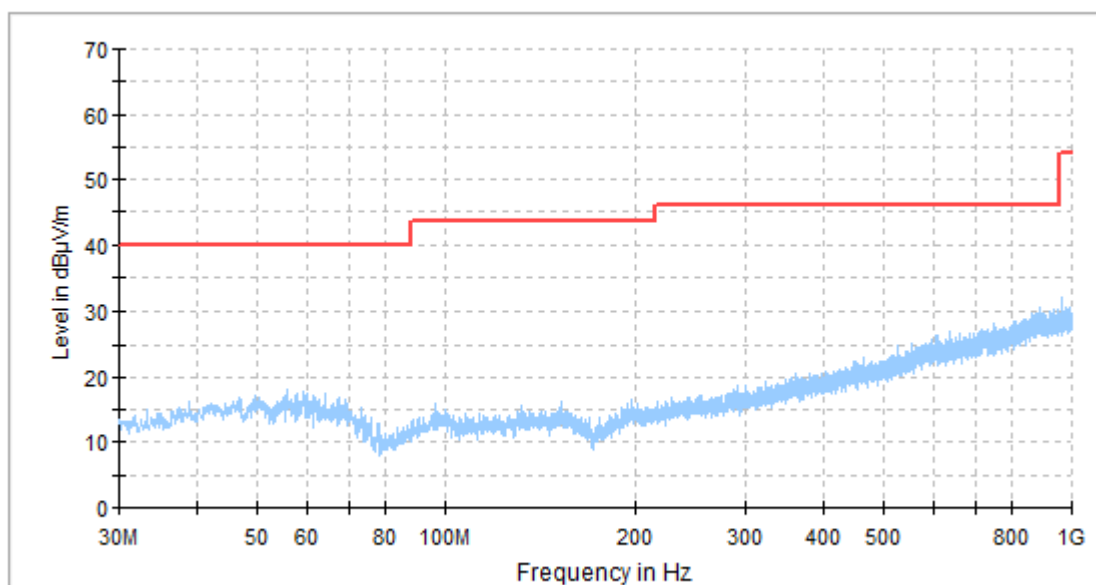
7.1 Radiated Emission

EUT: RDWL515P
 Op Condition: Operating, Normal Link
 Test Specification: Antenna: Horizontal
 Comment: 120VAC, 60Hz

Test Result

☒ Passed

☐ Not Passed

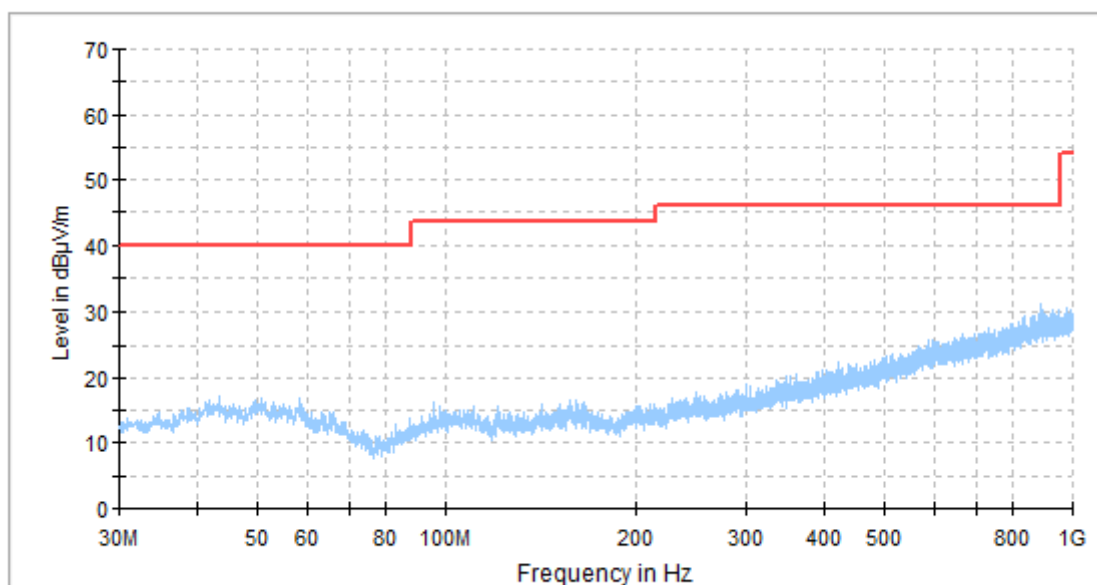


Frequency MHz	QP dBμV/m	Limit dBμV/m	Margin dB
92.463	15.32	43.5	-28.18
161.430	15.36	43.5	-28.14

Radiated Emission

EUT: RDWL515P
 Op Condition: Operated, Normal Link
 Test Specification: Antenna: Vertical
 Comment: 120VAC, 60Hz

Test Result
☒ Passed
☐ Not Passed

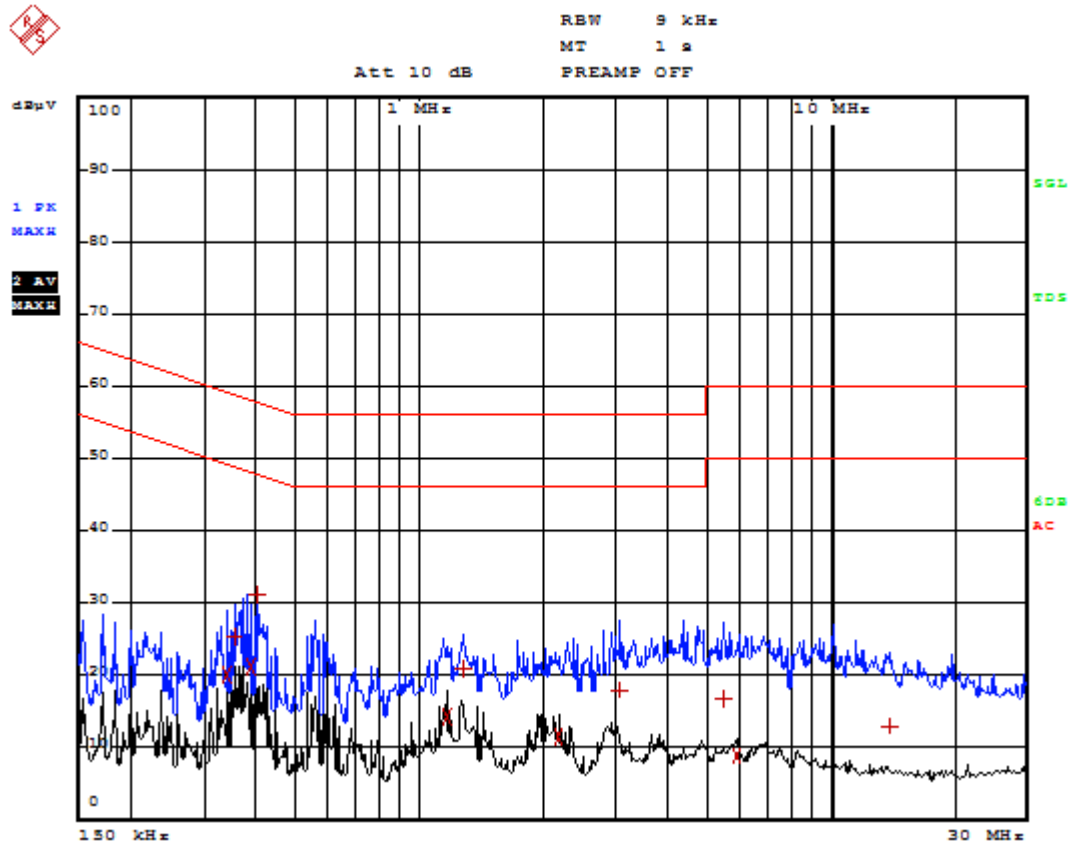


Frequency MHz	QP dBμV/m	Limit dBμV/m	Margin dB
93.120	15.66	43.5	-27.84
160.472	15.70	43.5	-27.80

7.2 Conducted Emission

EUT: RDWL515P
 Op Condition: Operated, Normal Link
 Test Specification: AC Mains, L Line
 Comment: 120VAC, 60Hz

Test Result

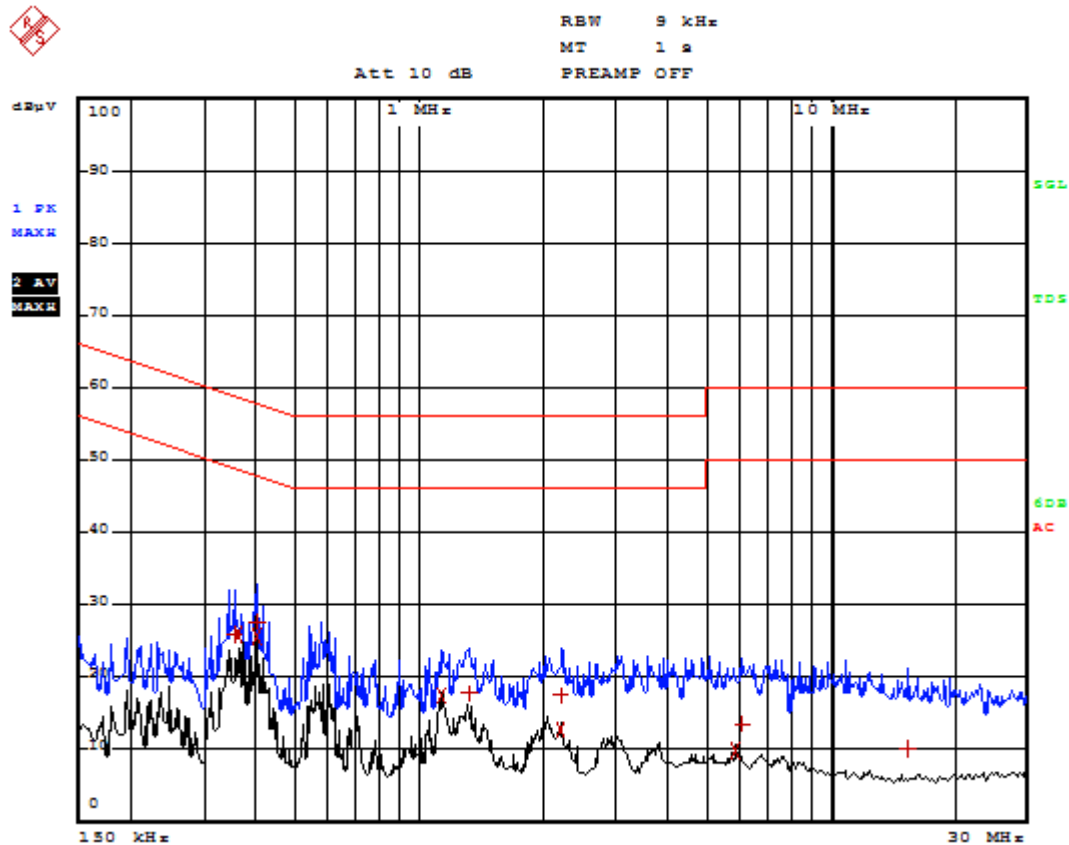
☒ Passed☐ Not Passed

TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
2 Average	338 kHz	19.95	-29.29
1 Quasi Peak	354 kHz	25.25	-33.60
2 Average	390 kHz	21.00	-27.05
1 Quasi Peak	402 kHz	31.13	-26.67
2 Average	1.166 MHz	14.23	-31.76
1 Quasi Peak	1.282 MHz	20.74	-35.25
2 Average	2.178 MHz	11.47	-34.52
1 Quasi Peak	3.074 MHz	17.90	-38.10
1 Quasi Peak	5.482 MHz	16.57	-43.42
2 Average	5.938 MHz	8.81	-41.19
1 Quasi Peak	14.014 MHz	12.91	-47.08

Conducted Emission

EUT: RDWL515P
Op Condition: Operated, Normal Link
Test Specification: AC Mains, N Line
Comment: 120VAC, 60Hz

Test Result

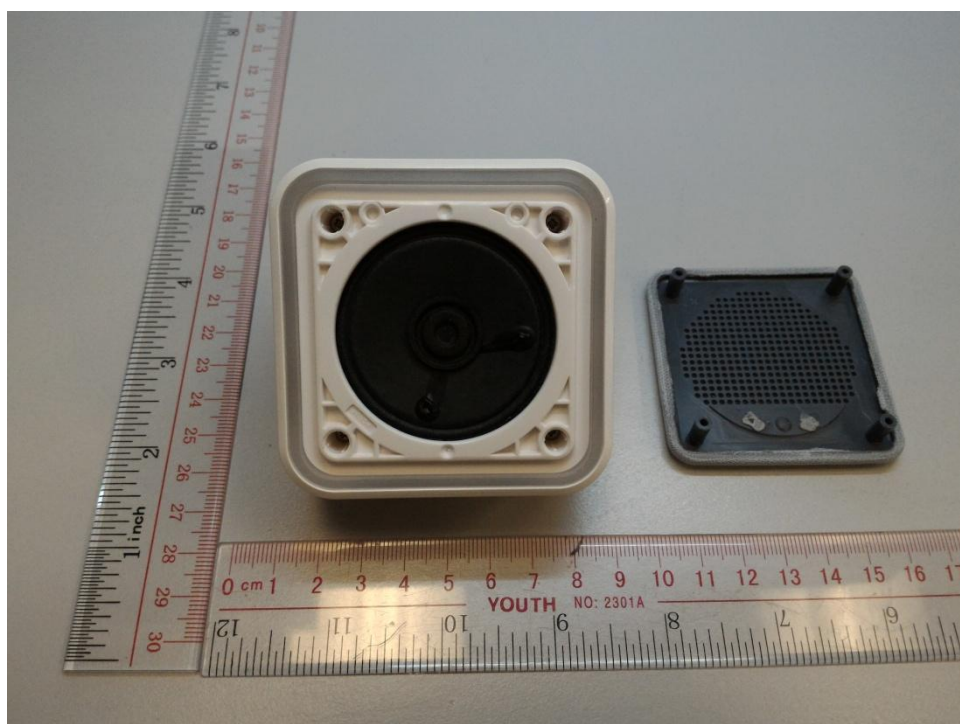
☒ Passed☐ Not Passed

TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Quasi Peak	354 kHz	25.73	-33.13
2 Average	362 kHz	25.97	-22.70
1 Quasi Peak	402 kHz	27.79	-30.02
2 Average	402 kHz	25.50	-22.30
2 Average	1.126 MHz	17.54	-28.45
1 Quasi Peak	1.33 MHz	17.83	-38.17
1 Quasi Peak	2.198 MHz	17.38	-38.61
2 Average	2.198 MHz	12.75	-33.24
2 Average	5.858 MHz	9.75	-40.24
1 Quasi Peak	6.142 MHz	13.46	-46.53
1 Quasi Peak	15.406 MHz	10.18	-49.81

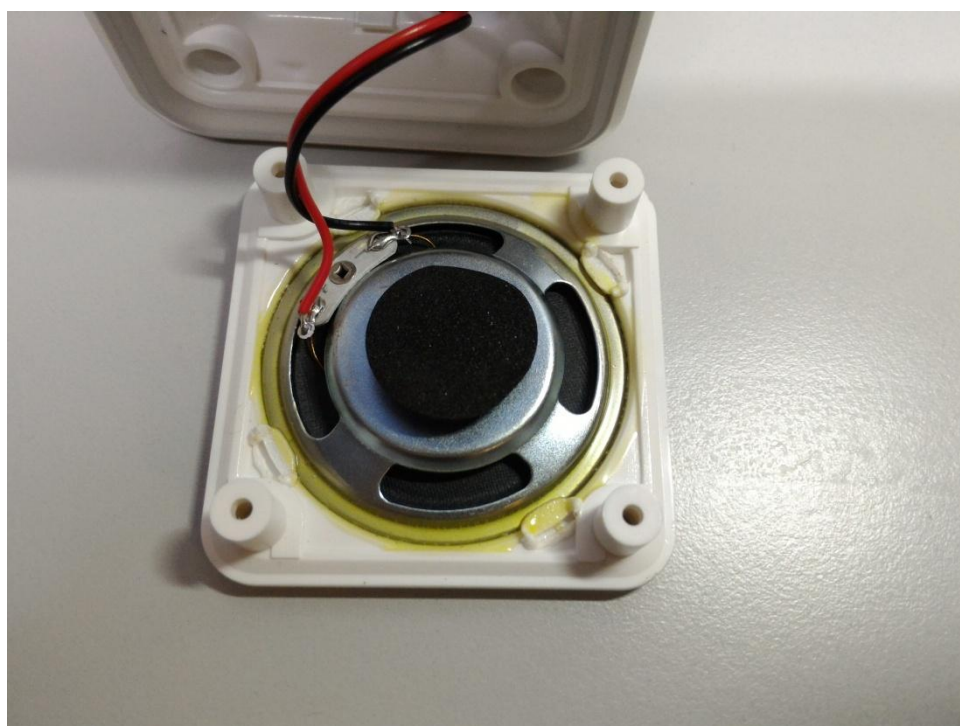
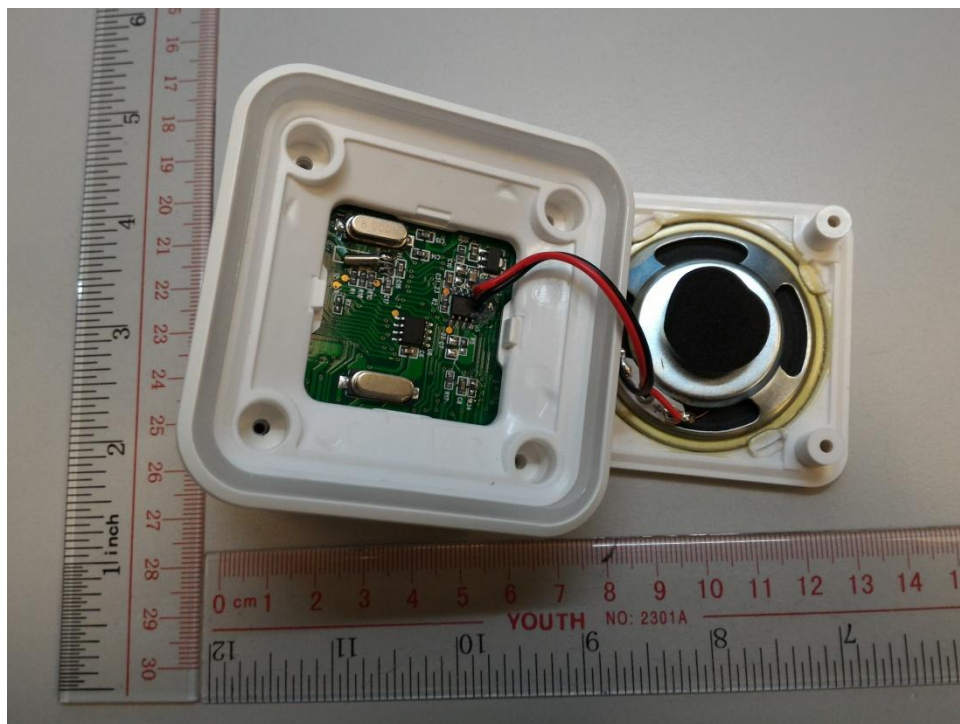
8 Appendix A - Photographs of EUT



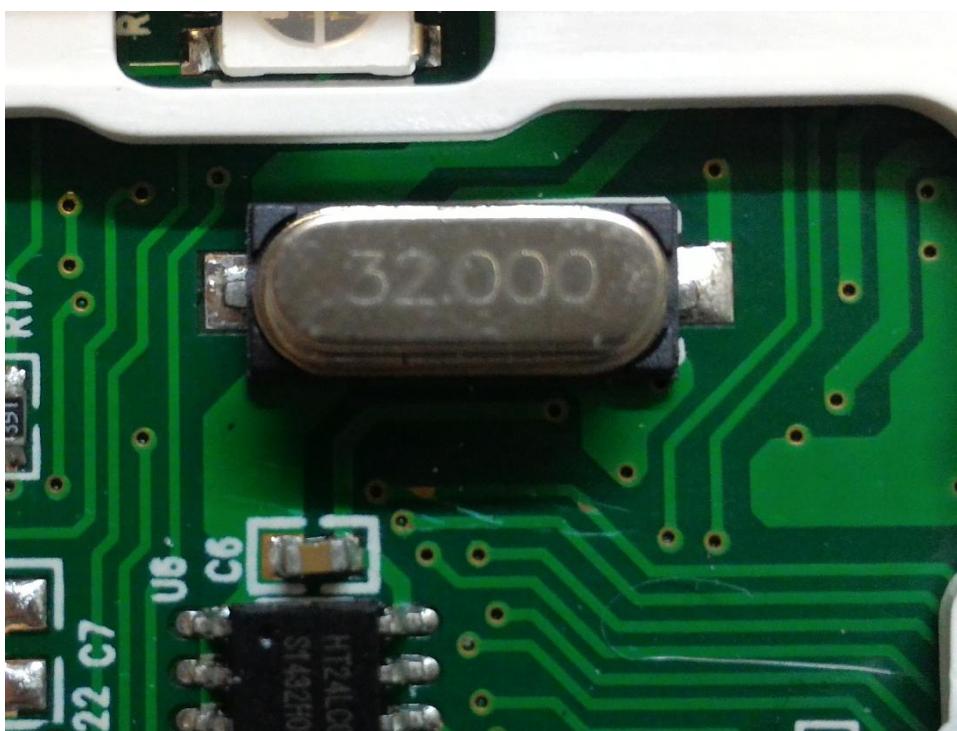
Appendix A



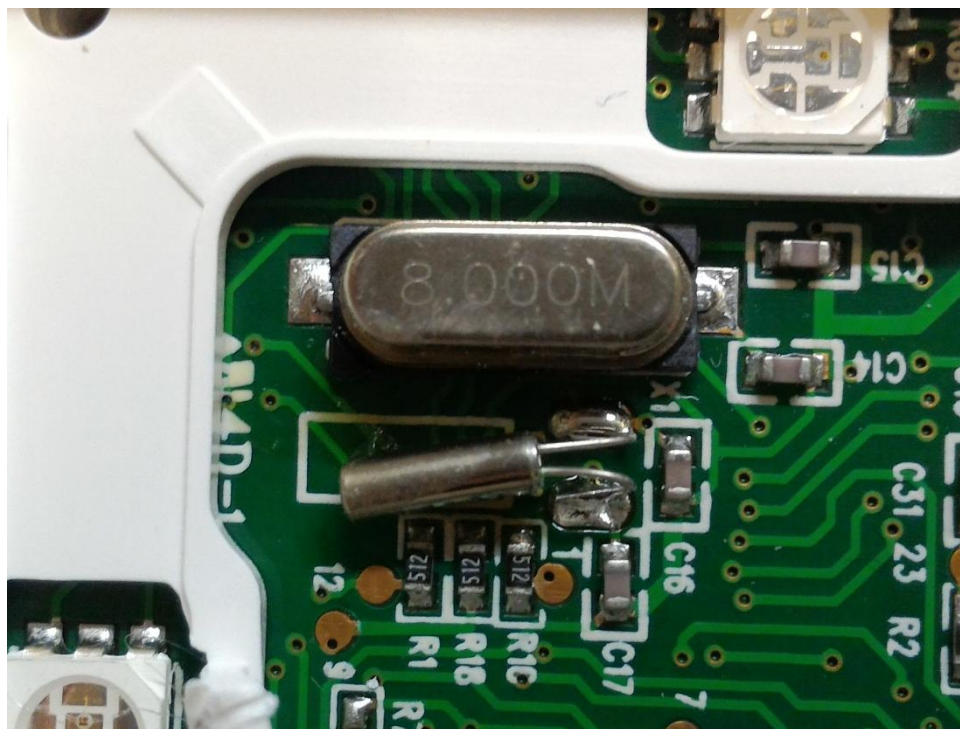
Appendix A



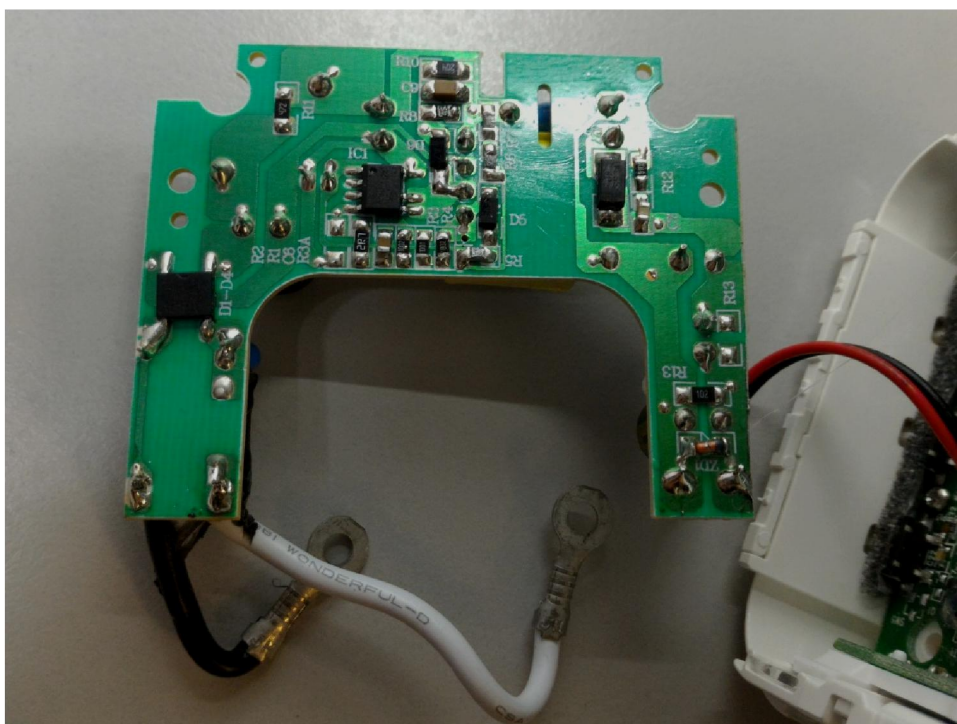
Appendix A



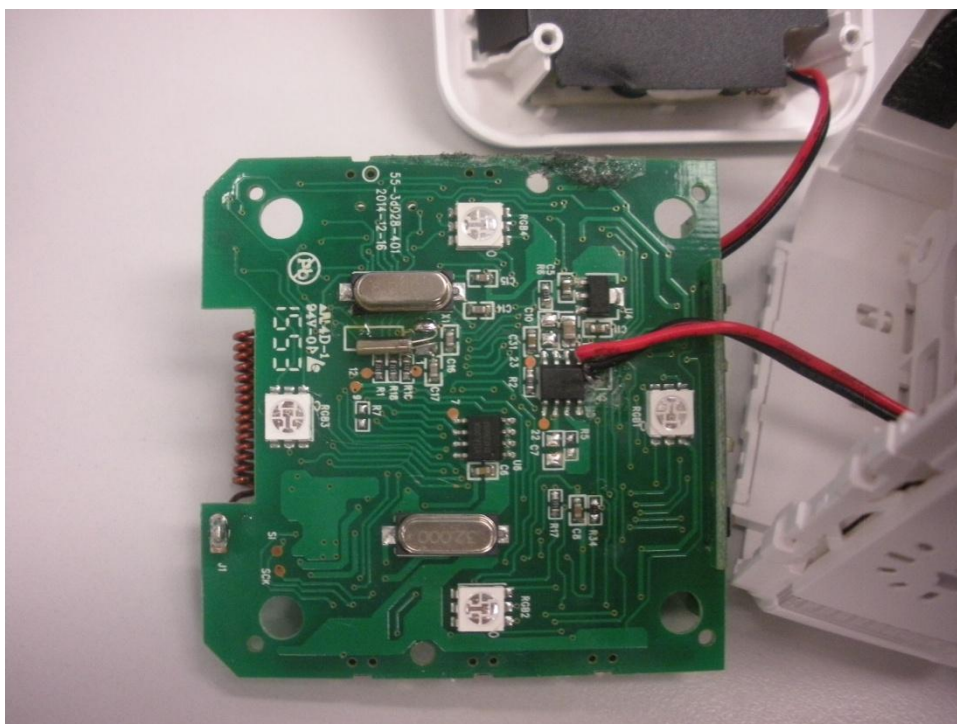
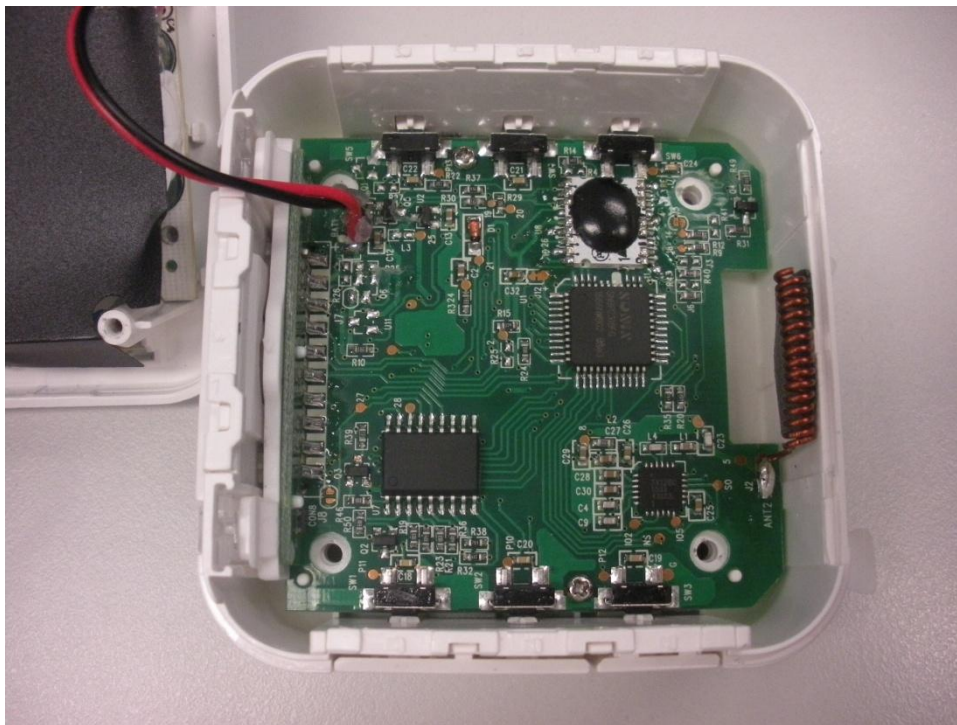
Appendix A



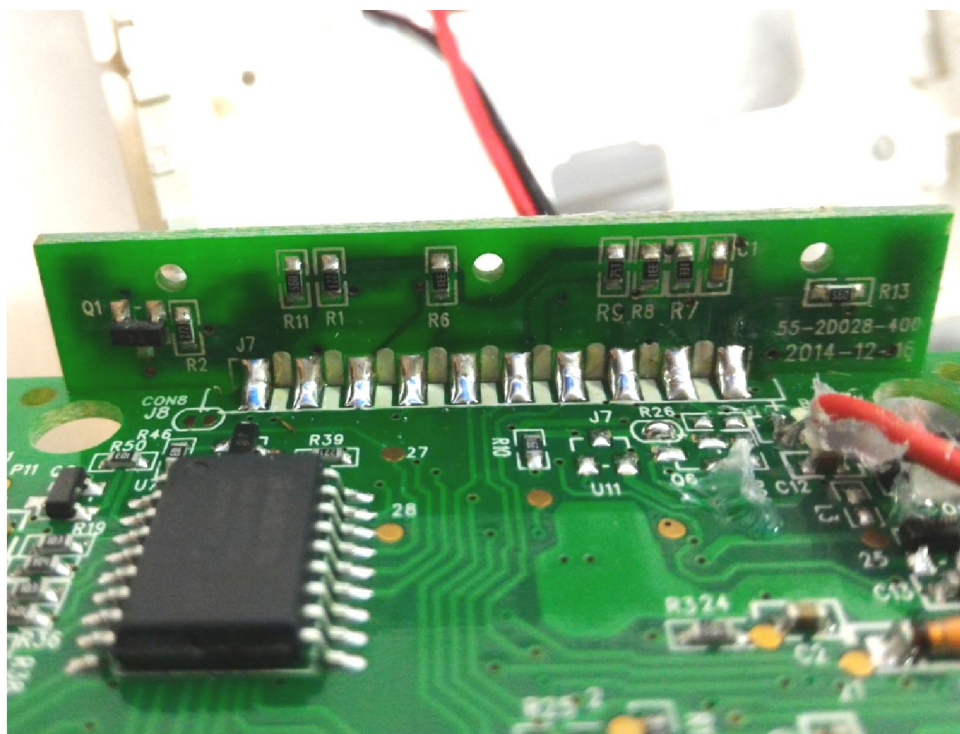
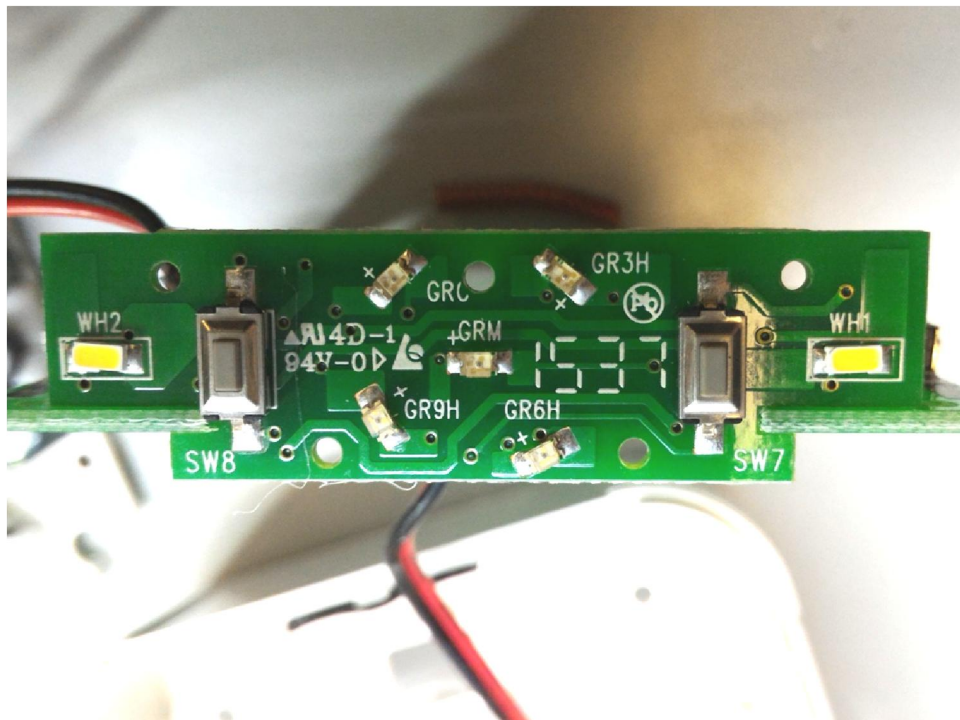
Appendix A



Appendix A

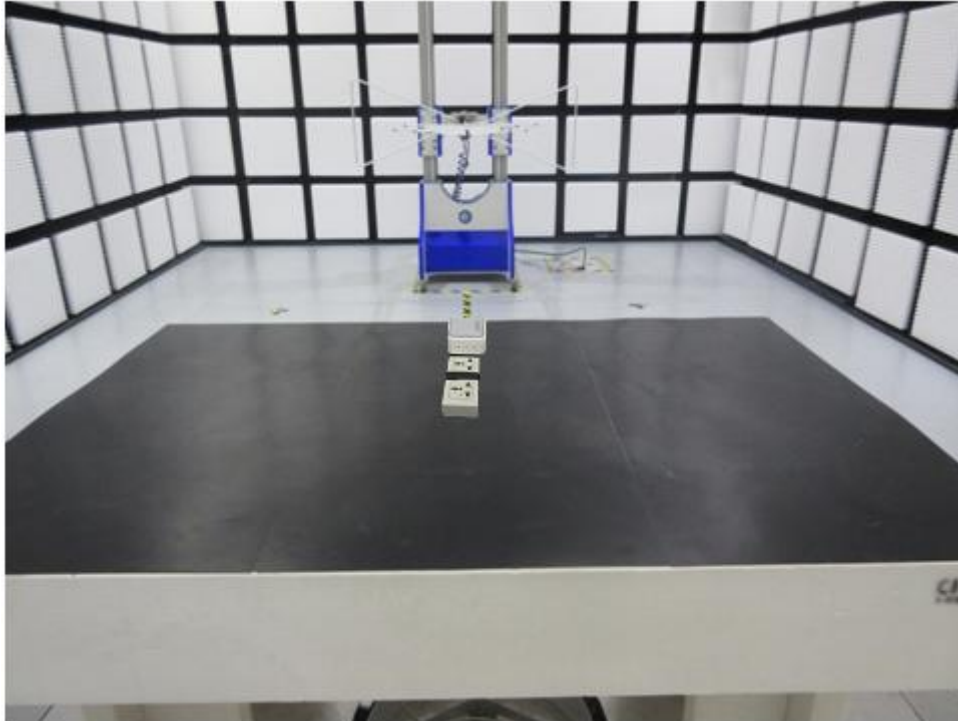


Appendix A



9 Appendix B - Setup Photographs of EUT

Radiated Emission



Conducted Emission

