

FCC - TEST REPORT

Report Number : **60.790.16.008.01** Date of Issue : February 20, 2016

Model : **RDWL313P**

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 : 21

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2 Description of Equipment Under Test

Description of the Equipment Under Test

Product: Doorbell

Model no.: RDWL313P

FCC ID: HS9-RDWL313P

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

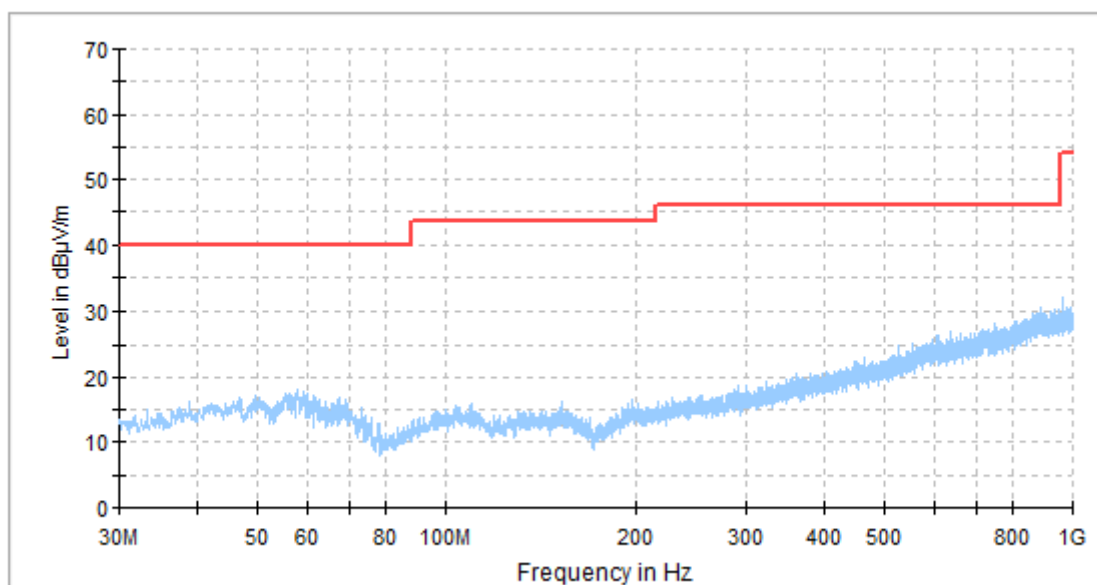
7 Emission Test Results

7.1 Radiated Emission

EUT: RDWL313P
 Op Condition: Operating, Normal Link
 Test Specification: Antenna: Horizontal
 Comment: 120VAC, 60Hz

Test Result

☒ Passed

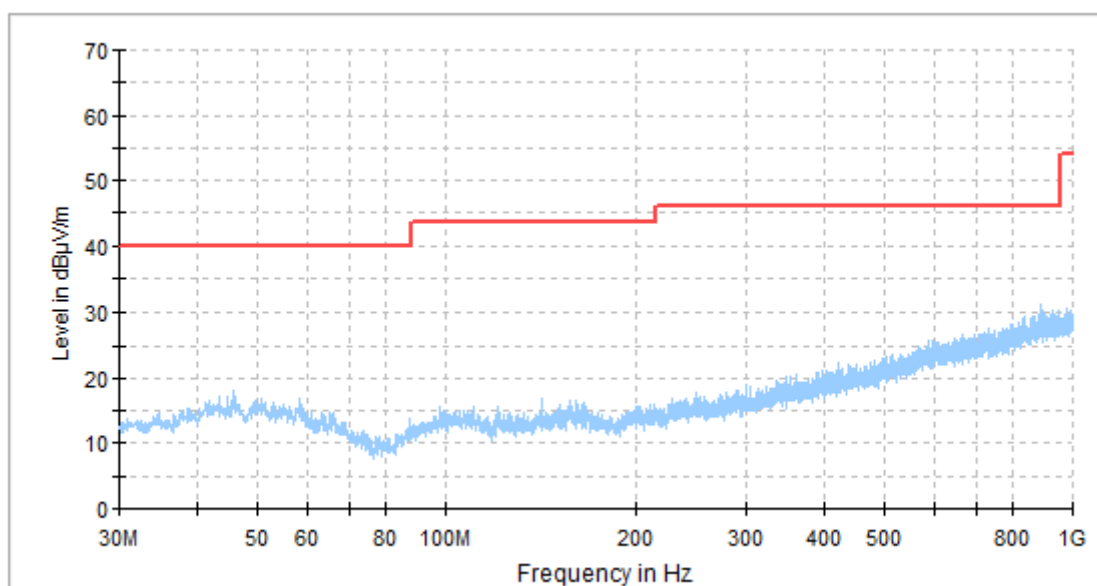
☐ Not Passed


Frequency MHz	QP dBμV/m	Limit dBμV/m	Margin dB
58.650	17.03	40	-22.97
163.370	15.55	43.5	-27.95

Radiated Emission

EUT: RDWL313P
 Op Condition: Operated, Normal Link
 Test Specification: Antenna: Vertical
 Comment: 120VAC, 60Hz

Test Result
☒ Passed
☐ Not Passed

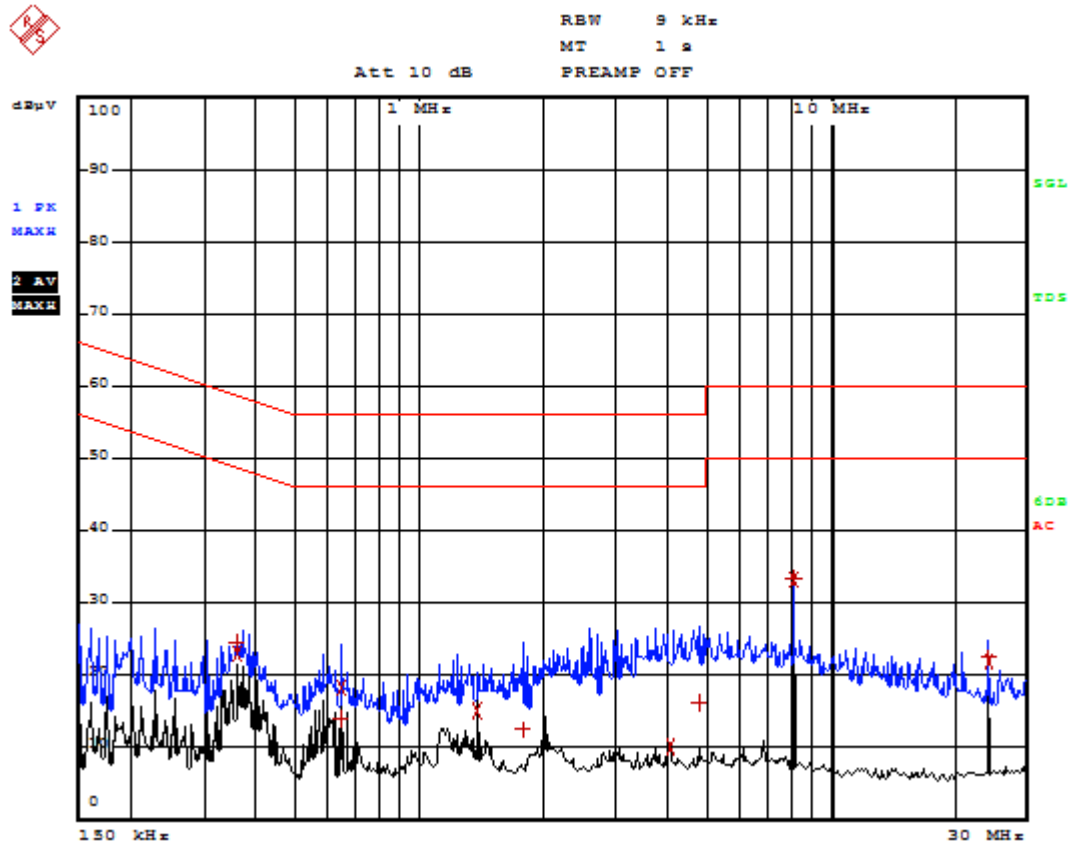


Frequency MHz	QP dBμV/m	Limit dBμV/m	Margin dB
46.720	17.43	40	-22.57
152.430	16.12	43.5	-27.38

7.2 Conducted Emission

EUT: RDWL313P
Op Condition: Operated, Normal Link
Test Specification: AC Mains, L Line
Comment: 120VAC, 60Hz

Test Result

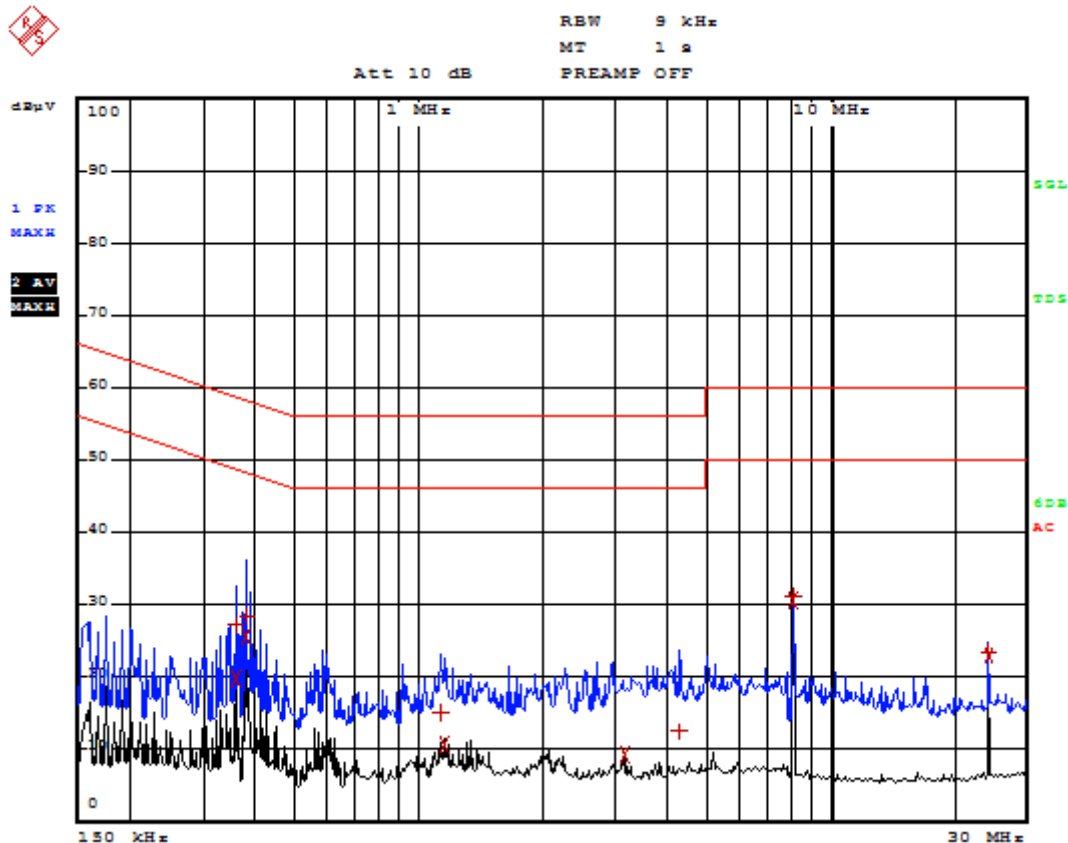
☒ Passed☐ Not Passed

TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Quasi Peak	358 kHz	24.42	-34.35
2 Average	358 kHz	22.99	-25.77
1 Quasi Peak	646 kHz	14.12	-41.87
2 Average	646 kHz	18.24	-27.75
2 Average	1.386 MHz	15.21	-30.78
1 Quasi Peak	1.79 MHz	12.52	-43.47
2 Average	4.106 MHz	10.14	-35.85
1 Quasi Peak	4.818 MHz	16.13	-39.86
1 Quasi Peak	8.11 MHz	33.56	-26.43
2 Average	8.11 MHz	33.18	-16.81
1 Quasi Peak	24.334 MHz	22.50	-37.49
2 Average	24.334 MHz	21.92	-28.08

Conducted Emission

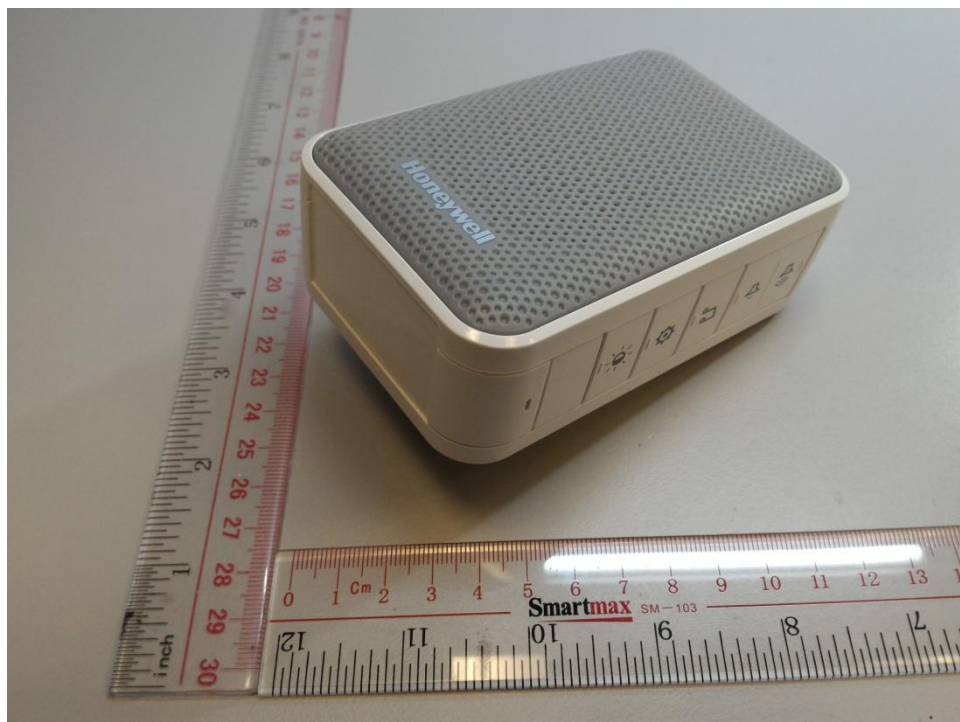
EUT: RDWL313P
Op Condition: Operated, Normal Link
Test Specification: AC Mains, N Line
Comment: 120VAC, 60Hz

Test Result

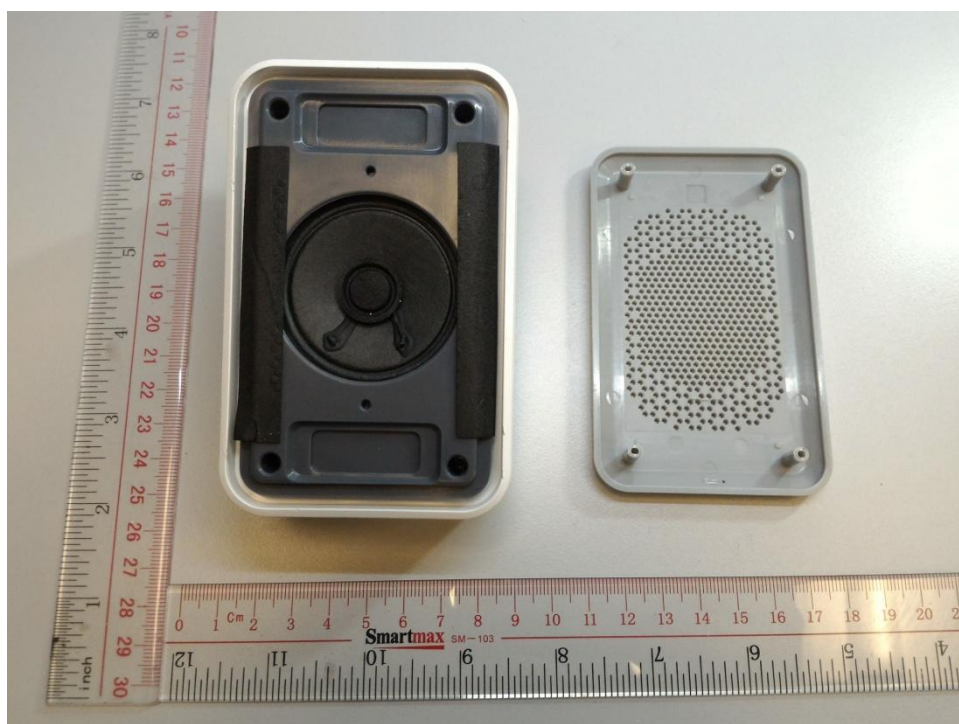
☒ Passed☐ Not Passed

TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Quasi Peak	358 kHz	27.07	-31.70
2 Average	358 kHz	19.79	-28.98
1 Quasi Peak	382 kHz	28.50	-29.73
2 Average	382 kHz	25.71	-22.52
1 Quasi Peak	1.13 MHz	15.02	-40.97
2 Average	1.158 MHz	10.54	-35.45
2 Average	3.154 MHz	9.21	-36.78
1 Quasi Peak	4.31 MHz	12.44	-43.55
1 Quasi Peak	8.11 MHz	31.13	-28.86
2 Average	8.11 MHz	30.70	-19.29
1 Quasi Peak	24.33 MHz	23.56	-36.43
2 Average	24.33 MHz	22.95	-27.04

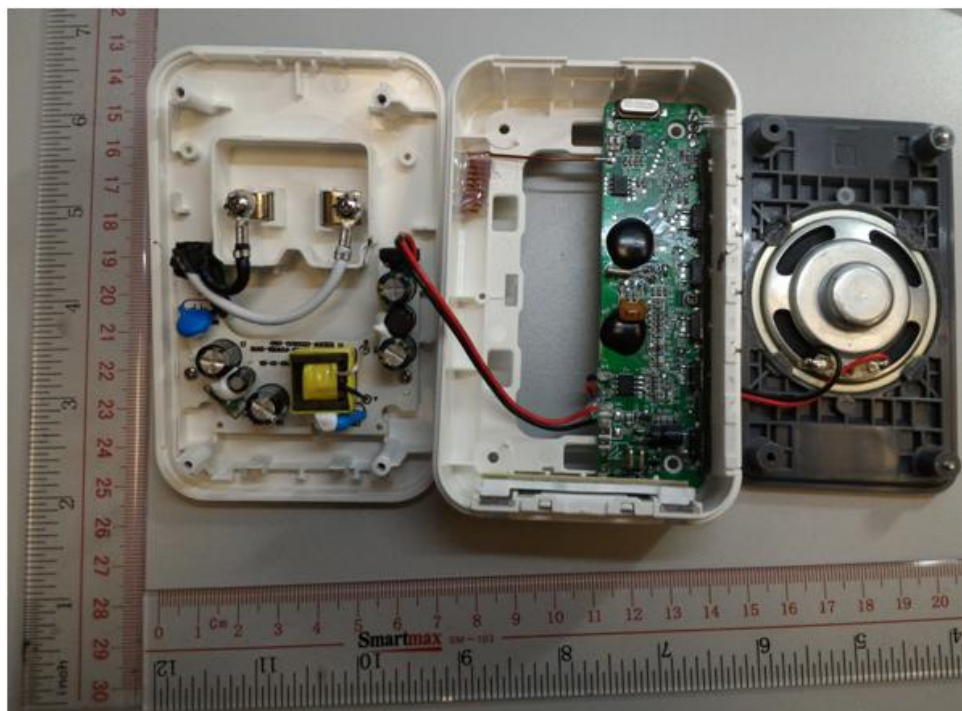
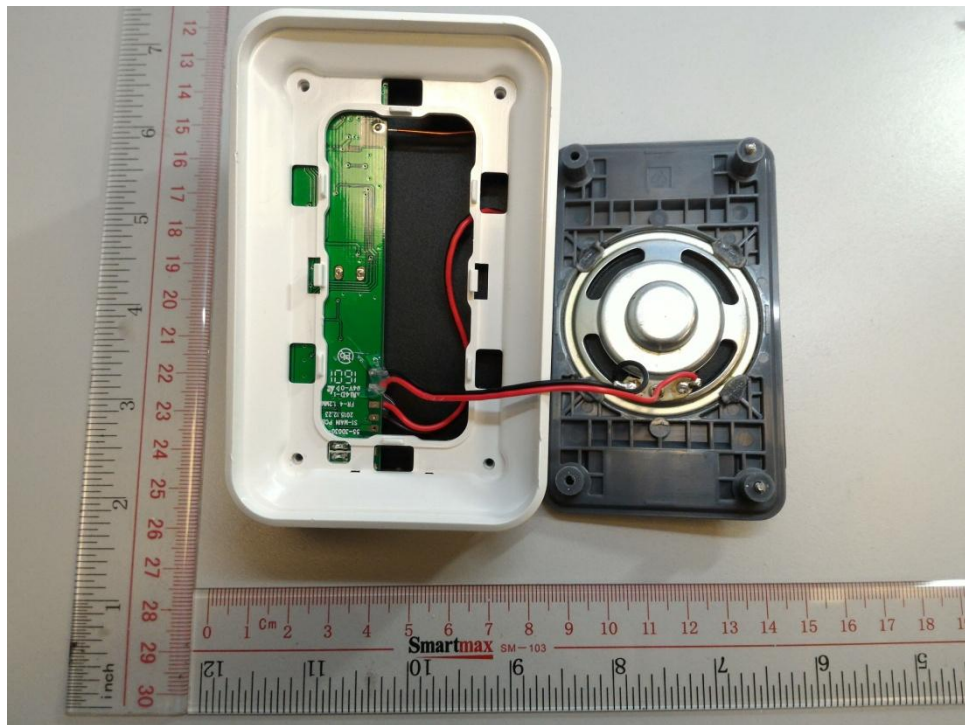
8 Appendix A - Photographs of EUT



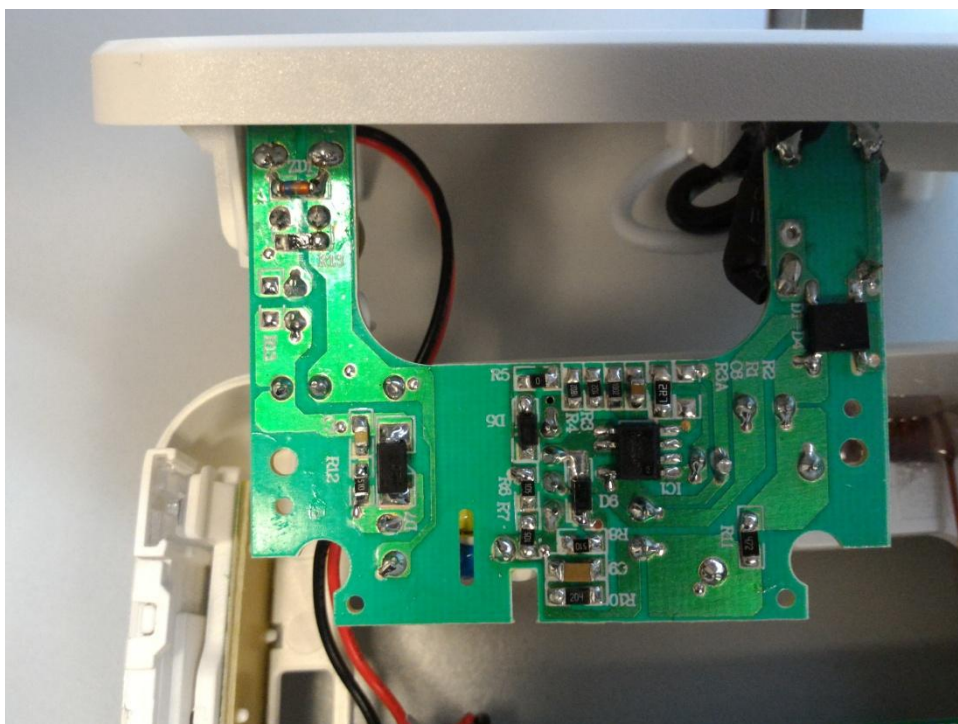
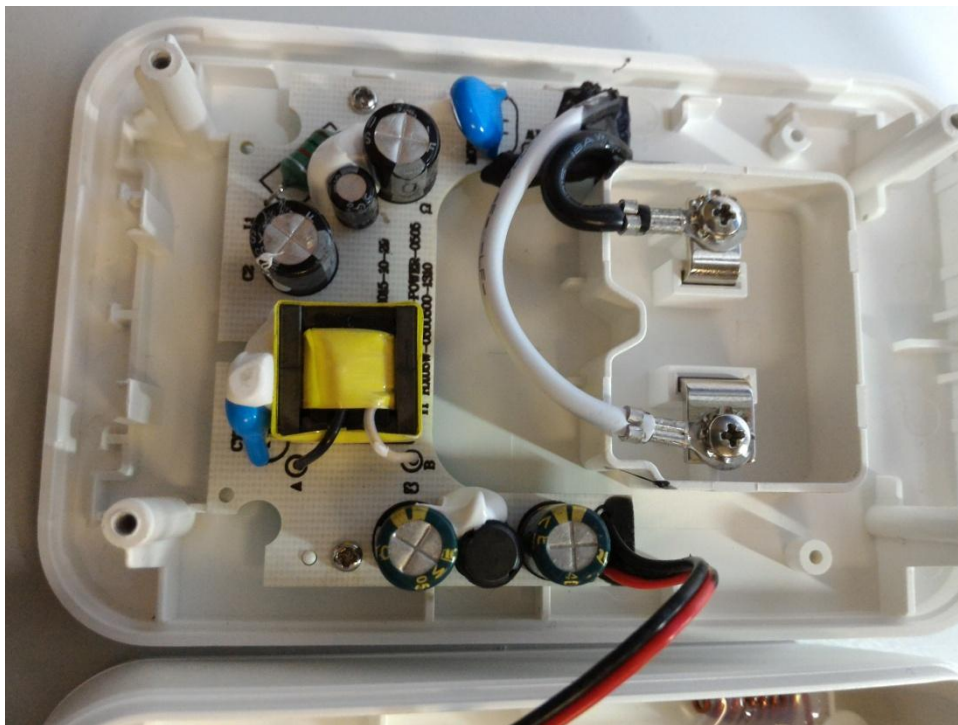
Appendix A



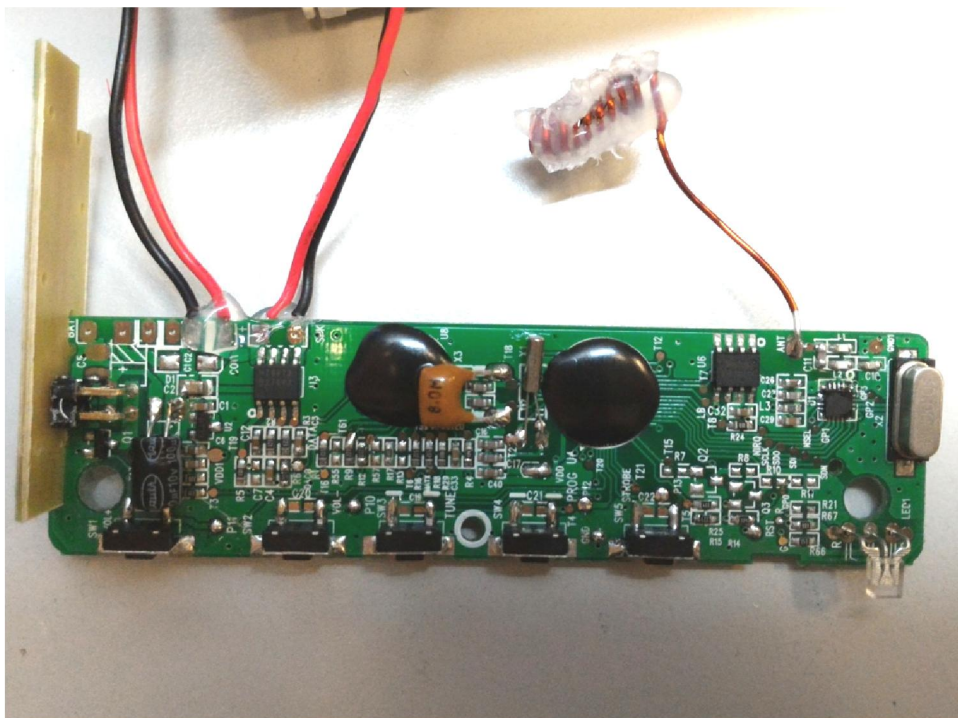
Appendix A



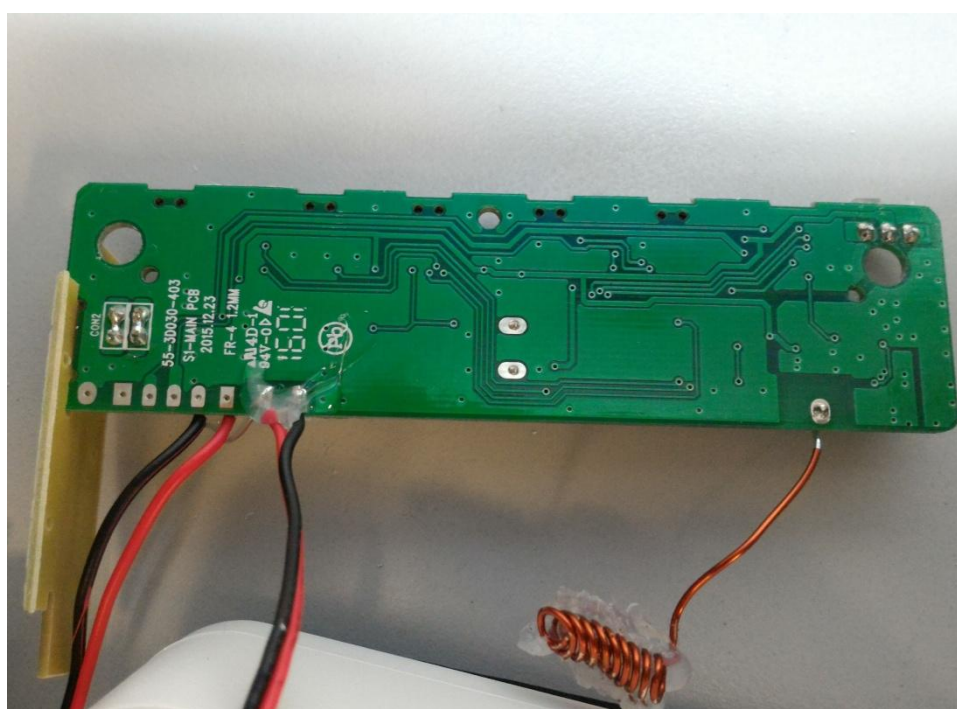
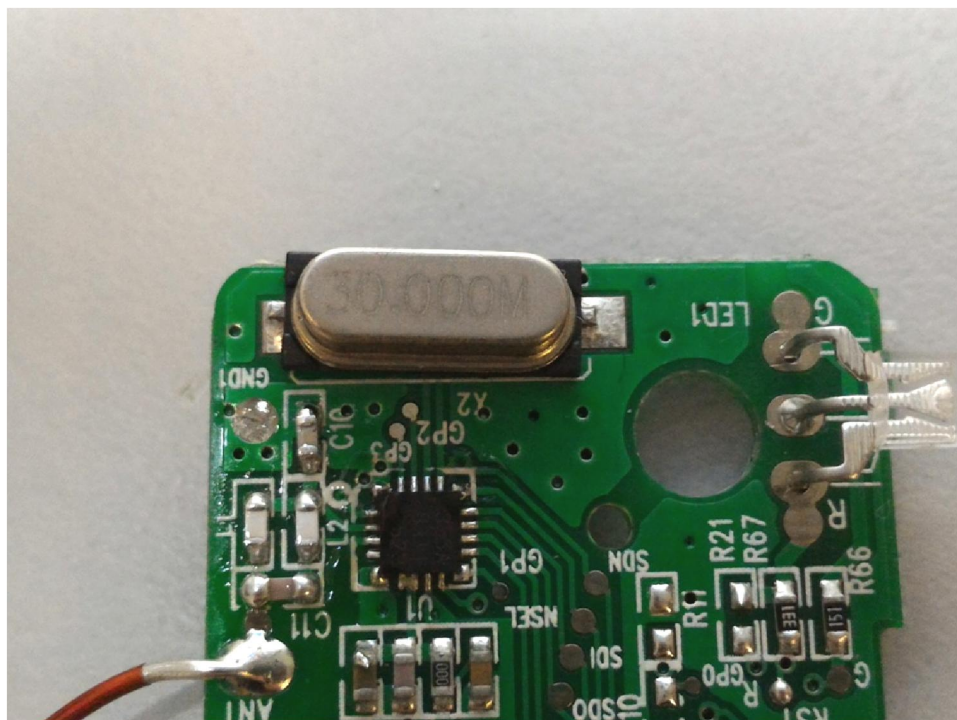
Appendix A



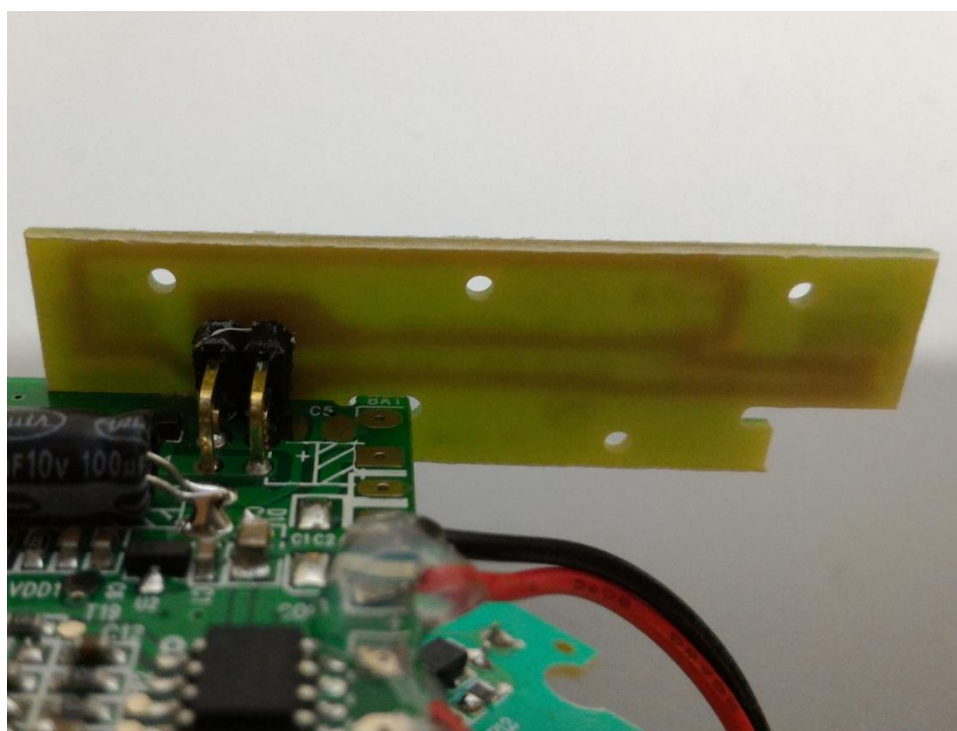
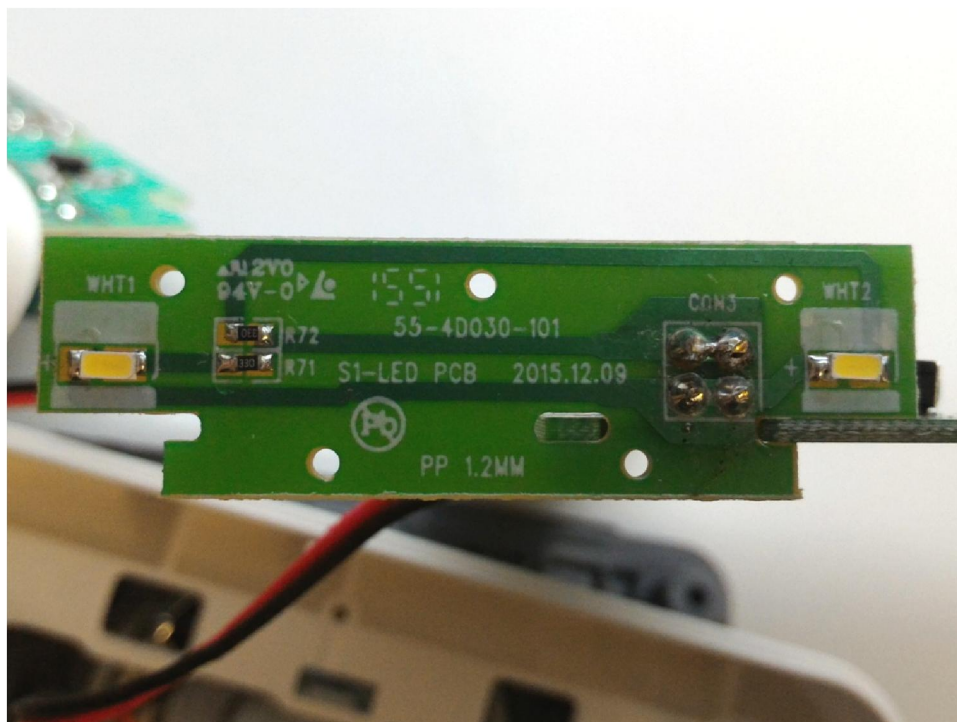
Appendix A



Appendix A

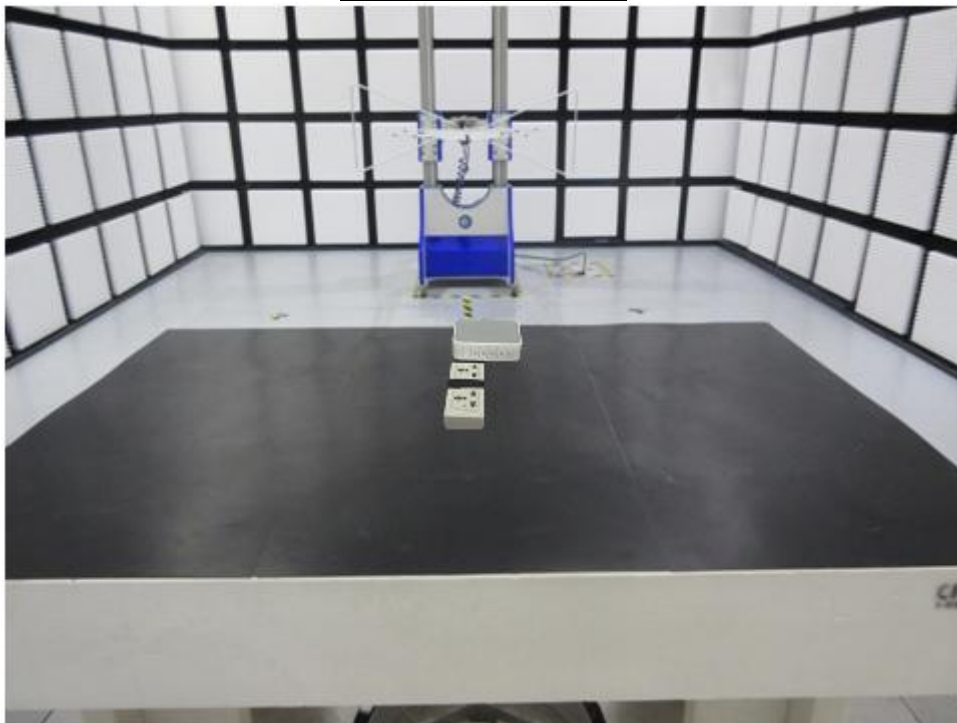


Appendix A



9 Appendix B - Setup Photographs of EUT

Radiated Emission



Conducted Emission

