

SHAOXING SIYUAN KEJI CO.,LTD

The wireless receiving controller

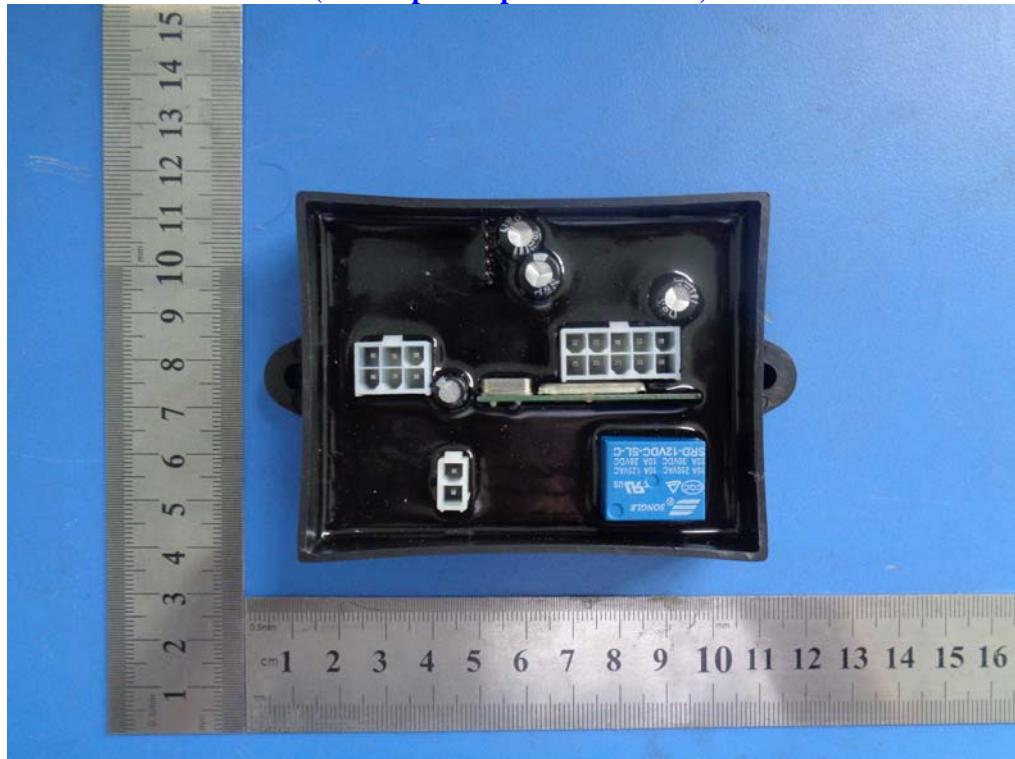
Main Model: WR0702

Serial Model: N/A

June 24, 2014

Report No.: 14020545-FCC-E

(This report supersedes NONE)



Modifications made to the product : None

This Test Report is Issued Under the Authority of:

Ted Ge	Alex Liu	
Ted Ge Compliance Engineer	Alex Liu Technical Manager	

This test report may be reproduced in full only.
Test result presented in this test report is applicable to the representative sample only.

EMC Test Report

To:FCC Part 15 Subpart B Class B; 2013, ANSI C63.4; 2009

SIEMIC, INC.
Accessing global markets

**SIEMIC, INC.**

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Laboratory Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management through out a project. Our extensive experience with China, Asia Pacific, North America, European, and international compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC , RF/Wireless , Telecom
Canada	EMC, RF/Wireless , Telecom
Taiwan	EMC, RF, Telecom , Safety
Hong Kong	RF/Wireless ,Telecom
Australia	EMC, RF, Telecom , Safety
Korea	EMI, EMS, RF , Telecom, Safety
Japan	EMI, RF/Wireless, Telecom
Singapore	EMC , RF , Telecom
Europe	EMC, RF, Telecom , Safety



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1 EXECUTIVE SUMMARY & EUT INFORMATION

The purpose of this test programme was to demonstrate compliance of the SHAOXING SIYUAN KEJI CO.,LTD, The wireless receiving controller and Model: WR0702 against the current Stipulated Standards. The The wireless receiving controller has demonstrated compliance with the FCC Part 15 Subpart B Class B: 2013, ANSI C63.4: 2009.

EUT Information

EUT Description	The wireless receiving controller
Main Model	WR0702
Serial Model	N/A
Input Power	12V/300mA
Classification Per Stipulated Test Standard	Class B Emission Product Per FCC Part 15 Subpart B Class B: 2013, ANSI C63.4: 2009

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2 TECHNICAL DETAILS

Purpose	Compliance testing of The wireless receiving controller with stipulated standards
Applicant / Client	SHAOXING SIYUAN KEJI CO.,LTD The Cross Of Yueying Road And Qisheng Road,Paojiang Industrial Commercial Park,ShaoXing City
Manufacturer	SHAOXING SIYUAN KEJI CO.,LTD The Cross Of Yueying Road And Qisheng Road,Paojiang Industrial Commercial Park,ShaoXing City
Laboratory performing the tests	SIEMIC (Nanjing-China) Laboratories NO.2-1,Longcang Dadao, Yuhua Economic Development Zone, Nanjing, China Tel: +86(25)86730128/86730129 Fax: +86(25)86730127 Email: China@siemic.com.cn
Test report reference number	14020545-FCC-E
Date EUT received	June 11, 2014
Standard applied	FCC Part 15 Subpart B Class B: 2013, ANSI C63.4: 2009
Dates of test (from – to)	June 17 to June 19, 2014
Equipment Category	Class B Emission Product
No of Units	#1
Operated Frequency	RX: 433.776 MHz
Trade Name	N/A
FCC ID	RKWWR0702



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3 MODIFICATION

NONE

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4 TEST SUMMARY

The product was tested in accordance with the following specifications.
All testing has been performed according to below product classification:

Class B Emission Product

Test Results Summary

Emissions			
Test Standard	Description	Product Class	Pass / Fail
FCC Part 15 Subpart B Class B: 2013, ANSI C63.4: 2009	Conducted Emissions	See Above	Pass
FCC Part 15 Subpart B Class B: 2013, ANSI C63.4: 2009	Radiated Emissions	See Above	Pass

All measurement uncertainty is not taken into consideration for all presented test result.



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5 MEASUREMENTS, EXAMINATION AND DERIVED RESULTS

5.1 Conducted Emissions Test Result

Note:

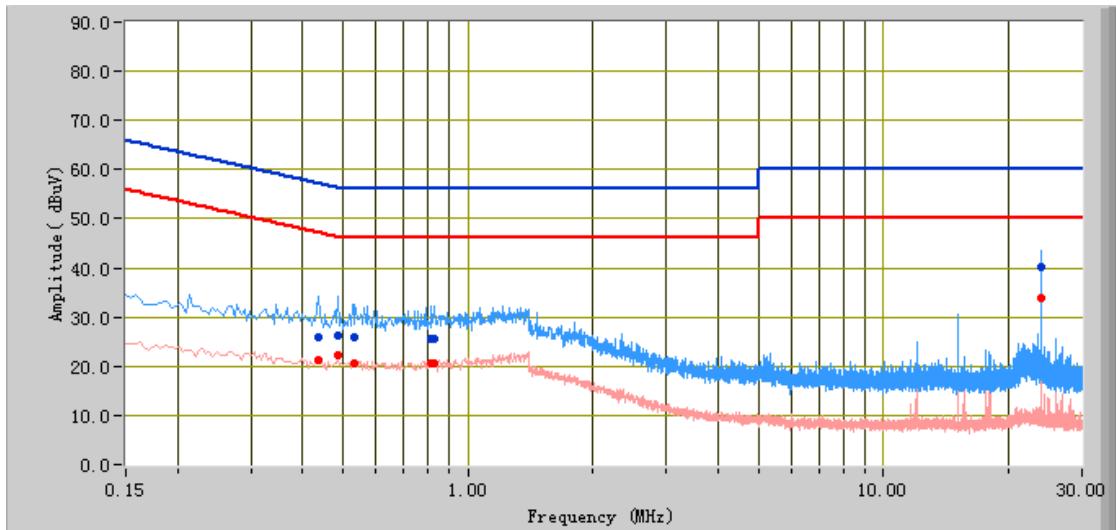
1. All possible modes of operation were investigated. Only the several worst case emissions measured, using the correct CISPR and Average detectors, are reported. All other emissions were relatively insignificant.
2. A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
3. Conducted Emissions Measurement Uncertainty
All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2, in the range 9kHz – 30MHz (Average & Quasi-peak) is ± 3.86 dB.
4. Environmental Conditions Temperature 20°C
 Relative Humidity 50%
 Atmospheric Pressure 1009mbar
5. Test date : June 19, 2014
Tested By : Ted Ge

Test Result: Pass

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Test Mode:**Receiving Mode****Peak Detector****Quasi Peak Limit****Average Detector****Average Limit**

Test Data

Phase Line Plot at 120V AC, 60Hz

Frequency (MHz)	Quasi Peak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Factors (dB)
24.01	40.26	60.00	-19.74	33.97	50.00	-16.03	11.67
0.49	26.20	56.24	-30.03	22.16	46.24	-24.07	11.11
0.43	26.01	57.18	-31.16	21.22	47.18	-25.96	11.18
0.53	25.77	56.00	-30.23	20.73	46.00	-25.27	11.06
0.81	25.45	56.00	-30.55	20.61	46.00	-25.39	10.83
0.83	25.54	56.00	-30.46	20.59	46.00	-25.41	10.82

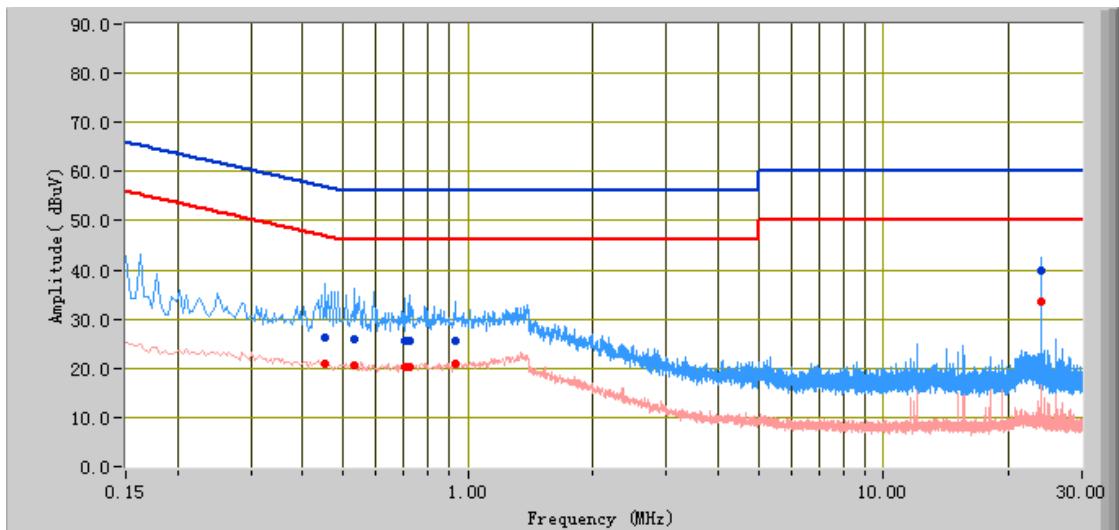
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Test Mode:**Receiving Mode**

Peak Detector Quasi Peak Limit
Average Detector Average Limit



Test Data

Phase Natural Plot at 120V AC, 60Hz

Frequency (MHz)	Quasi Peak (dB μ V/m)	Limit (dB μ V/m))	Margin (dB)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Factors (dB)
24.01	39.74	60.00	-20.26	33.56	50.00	-16.44	11.70
0.45	26.09	56.80	-30.71	20.96	46.80	-25.85	11.13
0.53	25.86	56.00	-30.14	20.66	46.00	-25.34	11.03
0.73	25.43	56.00	-30.57	20.39	46.00	-25.61	10.90
0.70	25.43	56.00	-30.57	20.40	46.00	-25.60	10.91
0.93	25.60	56.00	-30.40	20.78	46.00	-25.22	10.75



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5.2 Radiated Emissions Test Result

Note:

Test Result: Pass

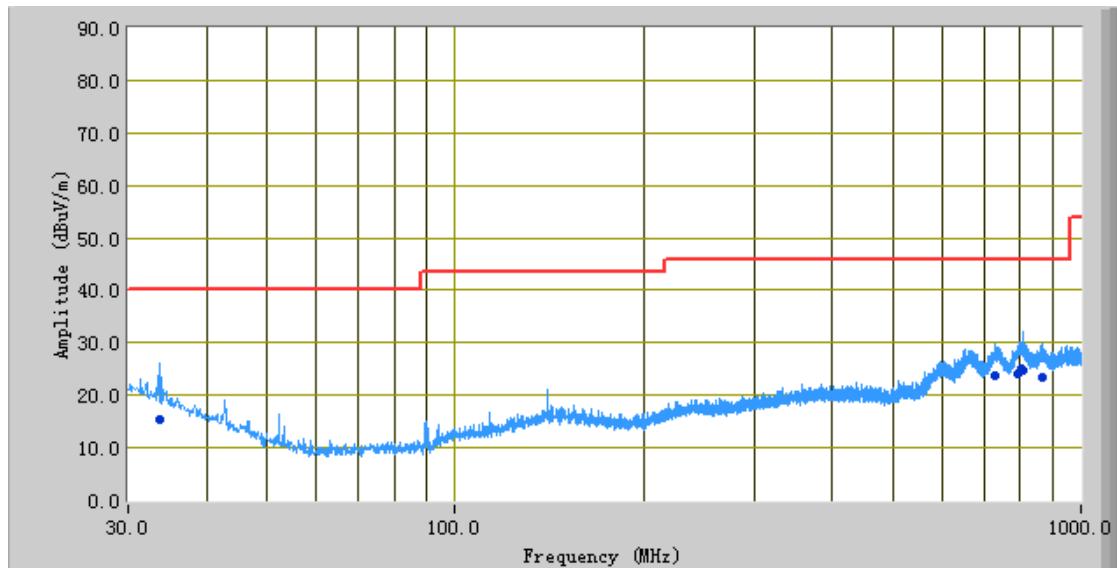
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Test Mode:**Receiving Mode****Below 1GHz**

Peak Detector 
Quasi Peak Limit 

**Test Data****Vertical & Horizontal Polarity Plot at 3m**

Frequency (MHz)	Quasi Peak (dB μ V/m)	Azimuth	Polarity (H/V)	Height (cm)	Factors (dB)	Limit (dB μ V/m)	Margin (dB)
33.62	15.55	48.00	H	336.00	-26.04	40.00	-24.45
806.60	24.81	141.00	V	261.00	-17.50	46.00	-21.19
801.19	25.05	336.00	H	164.00	-17.47	46.00	-20.95
865.24	23.44	94.00	V	364.00	-18.11	46.00	-22.56
726.62	23.64	304.00	H	286.00	-19.40	46.00	-22.36
790.92	24.09	104.00	H	181.00	-17.74	46.00	-21.91

Note: The data above 1 GHz which below 20 dB to the limit was not recorded.

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Annex A. TEST INSTRUMENTATION

Annex A.i. TEST INSTRUMENTATION

Instrument	Model	Serial #	Calibration Date	Calibration Due Date
AC Line Conducted Emissions				
R&S EMI Test Receiver	ESPI3	101216	09/27/2013	09/26/2014
ROHDE&SCHWARZ V-LISN	ESH3-Z5	838979/005	09/27/2013	09/26/2014
Com-Power Transient Limiter	LIT-153	531021	09/27/2013	09/26/2014
SIEMIC Labview Conducted Emissions software	V1.0	N/A	N/A	N/A
Radiated Emissions				
Hp Spectrum Analyzer	8563E	3821A09023	09/27/2013	09/26/2014
R&S EMI Receiver	ESPI3	101216	09/27/2013	09/26/2014
Antenna (30MHz~6GHz)	JB6	A121411	04/15/2014	04/14/2015
ETS-Lindgren Antenna (1 ~18GHz)	3115	N/A	10/09/2013	10/08/2014
A-INFOMW Antenna (1 ~18GHz)	JXTXLB-10180	J2031081120 092	10/09/2013	10/08/2014
Hp Agilent Pre-Amplifier	8447F	1937A01160	10/27/2013	10/26/2014
MITEQ Pre-Amplifier (0.1 ~ 18GHz)	AMF-7D-00101800-30-10P	1451709	10/27/2013	10/26/2014
Chamber	3m	N/A	04/13/2014	04/12/2015
SIEMIC Labview Radiated Emissions software	V1.0	N/A	N/A	N/A



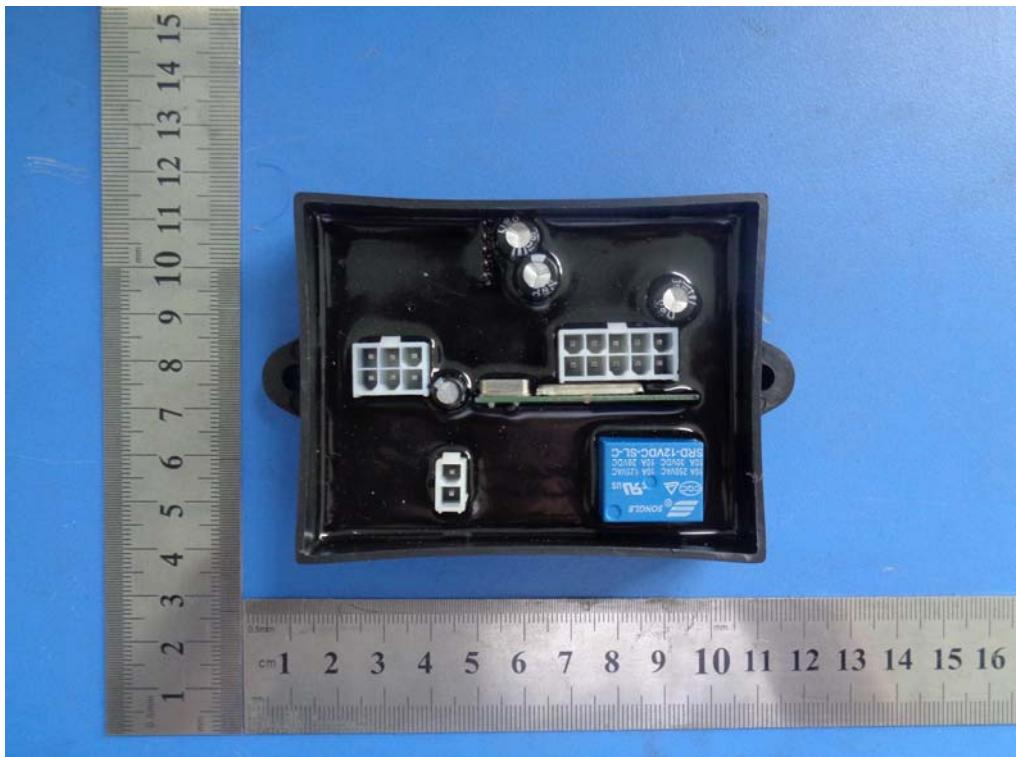
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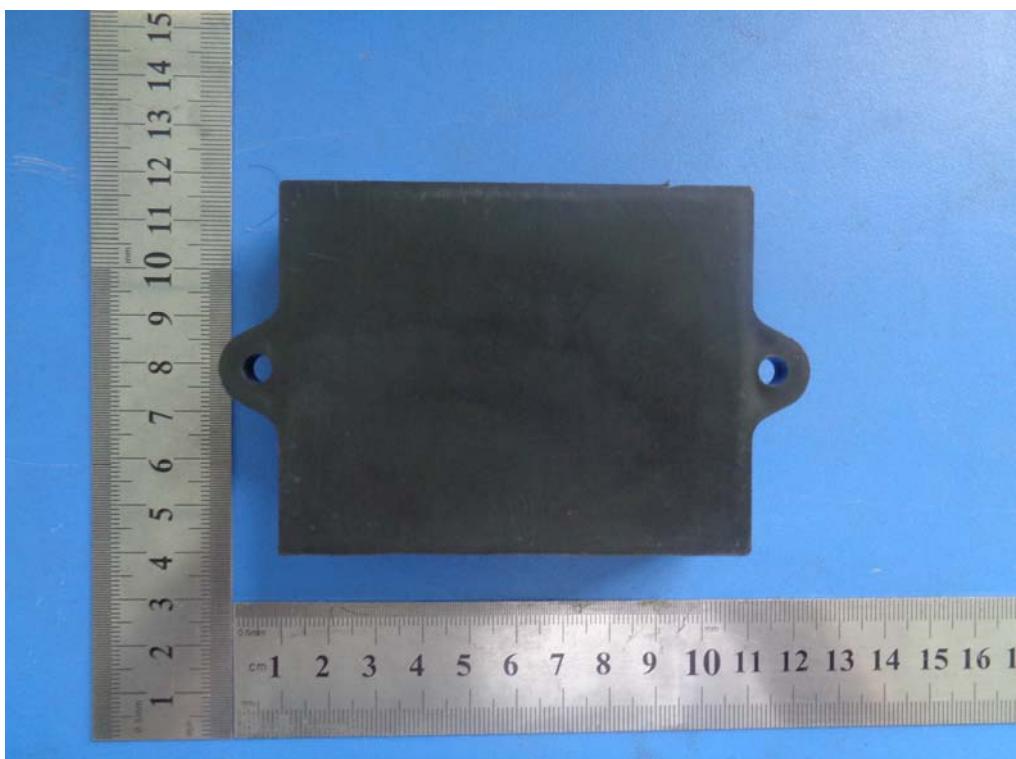
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Annex B. EUT AND TEST SETUP PHOTOGRAPHS

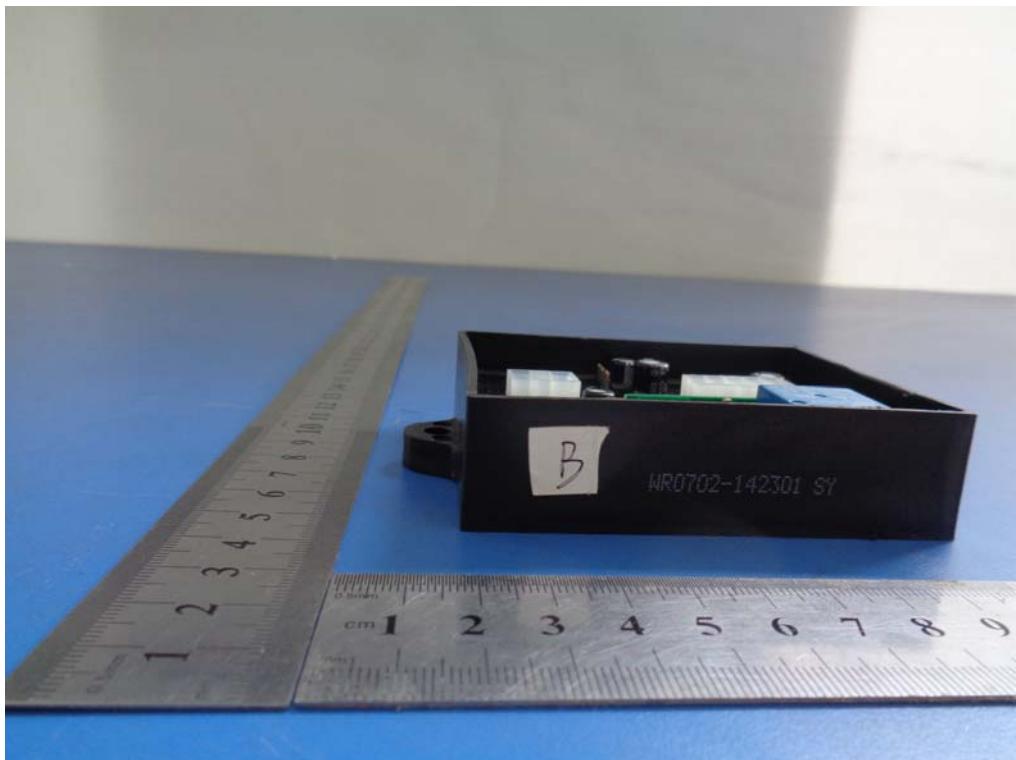
Annex B.i. Photograph : EUT External Photos



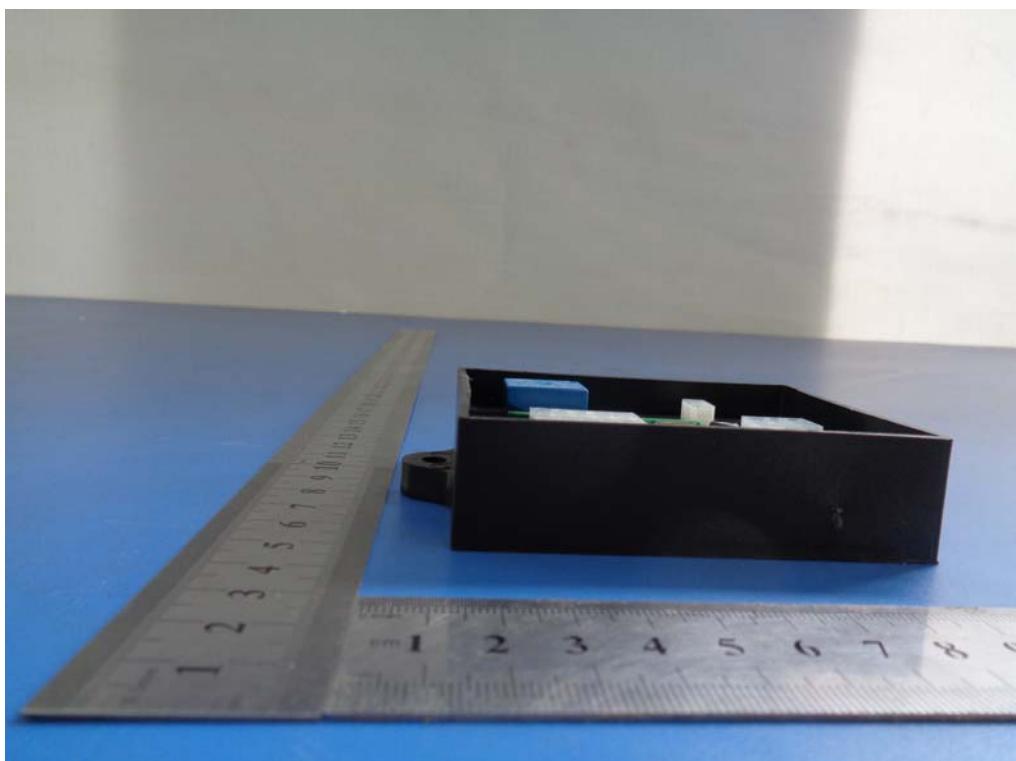
EUT – Front View



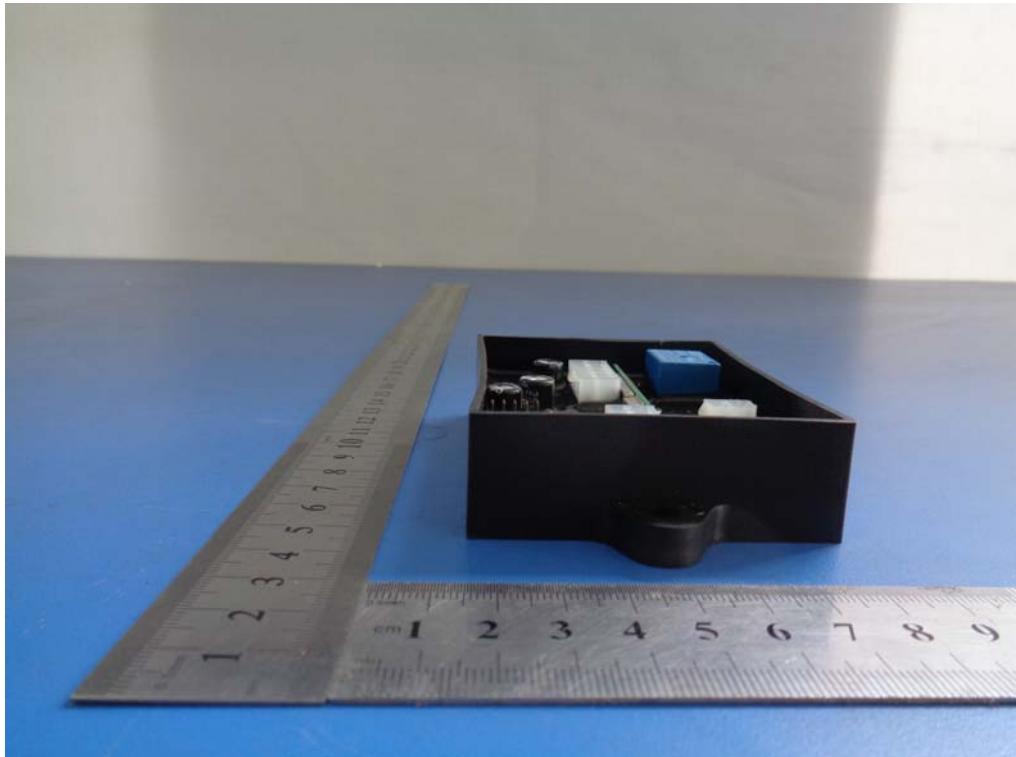
EUT – Rear View



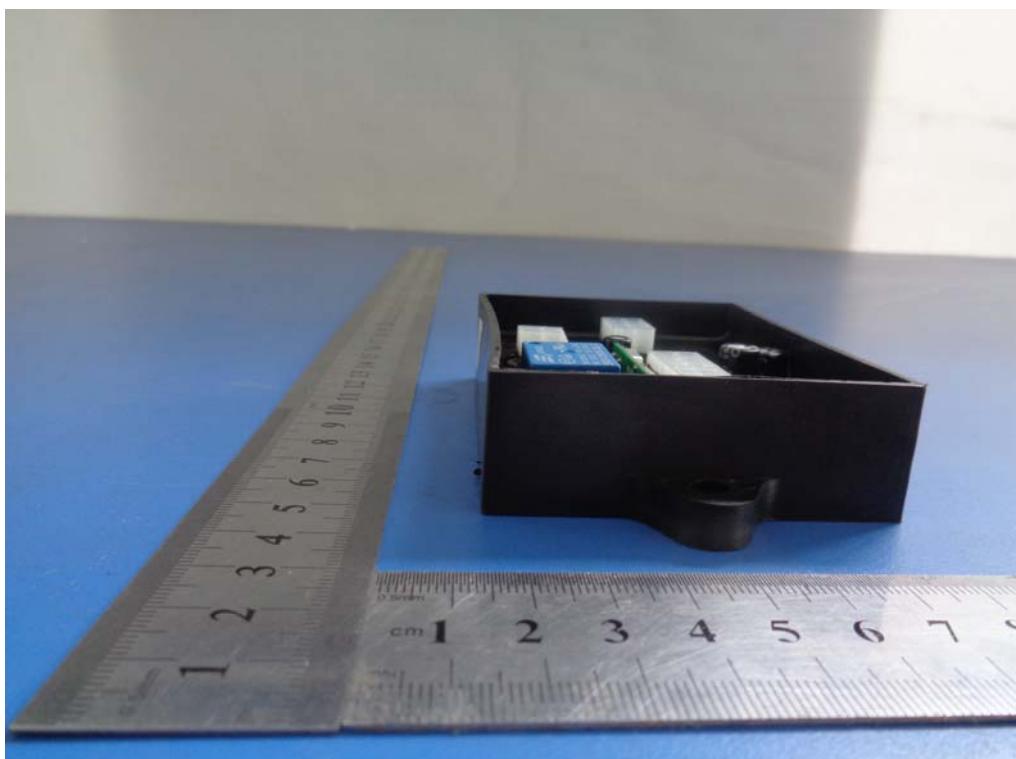
EUT – Top View



EUT – Bottom View



EUT – Left View



EUT – Right View

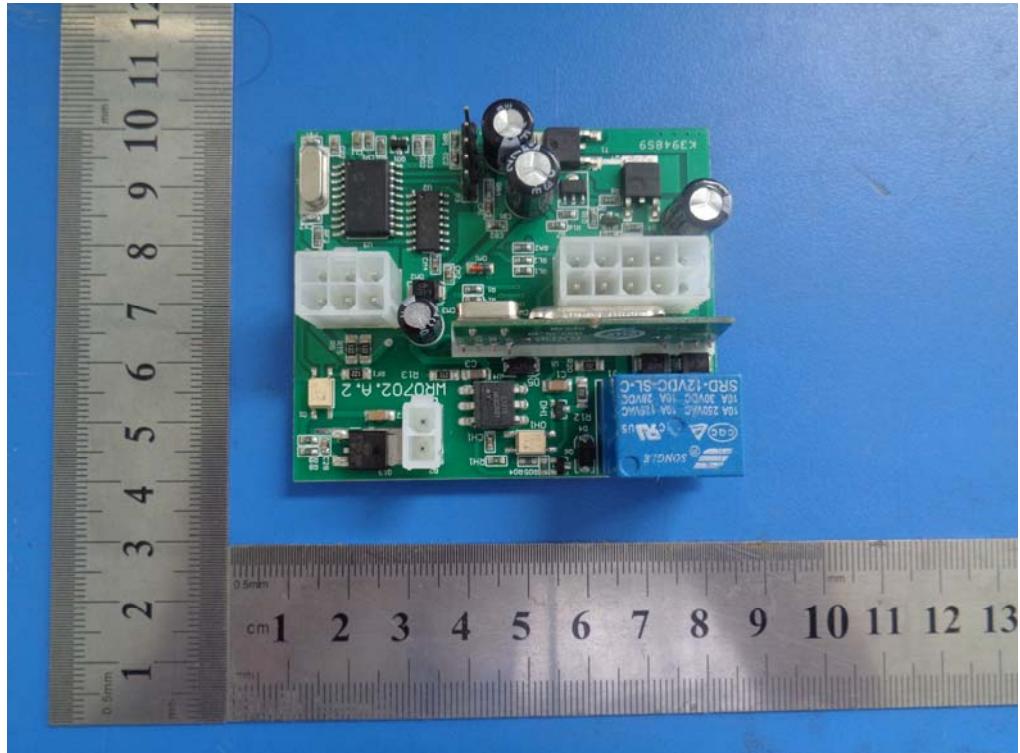


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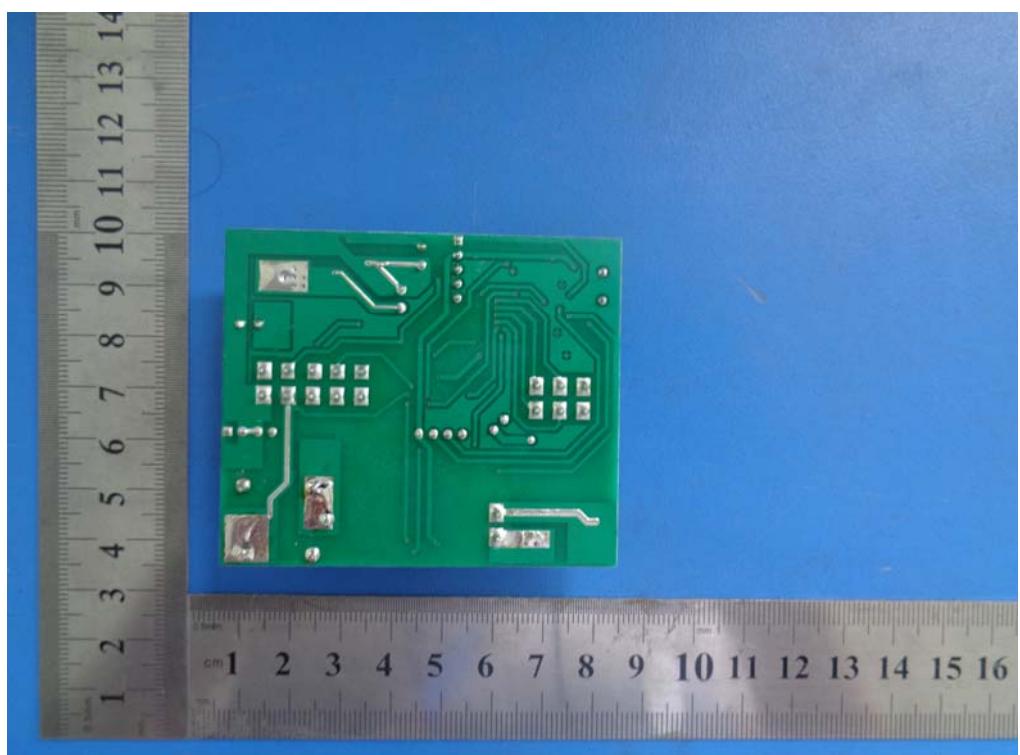
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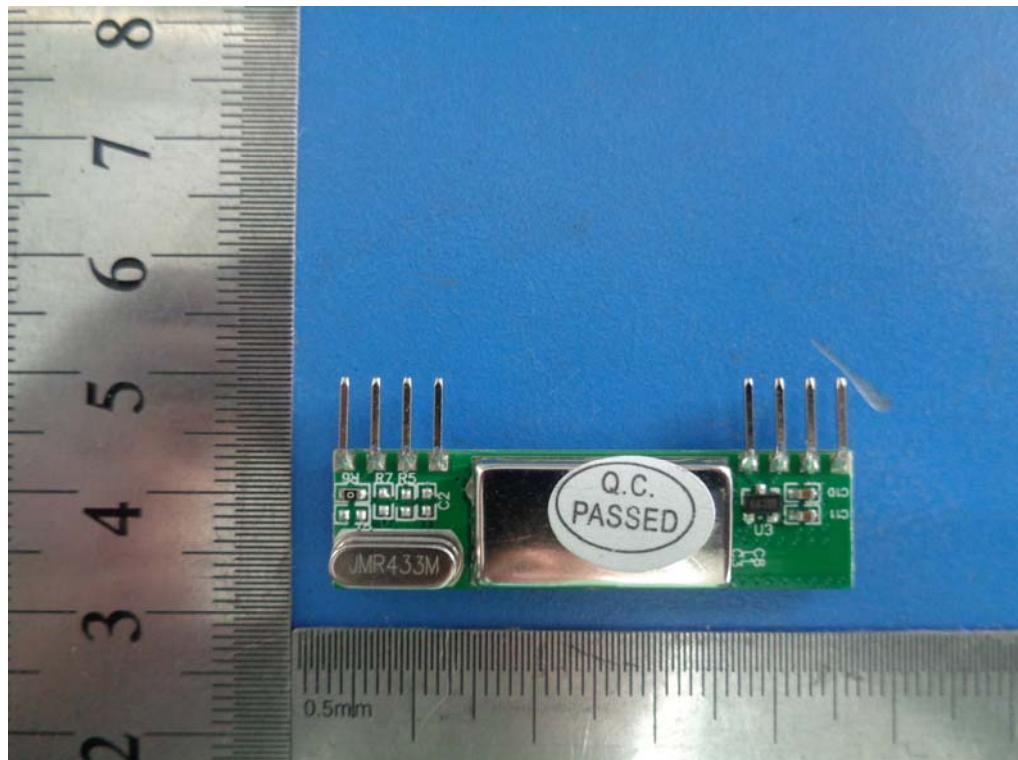
Annex B.ii. Photograph : Internal Photos



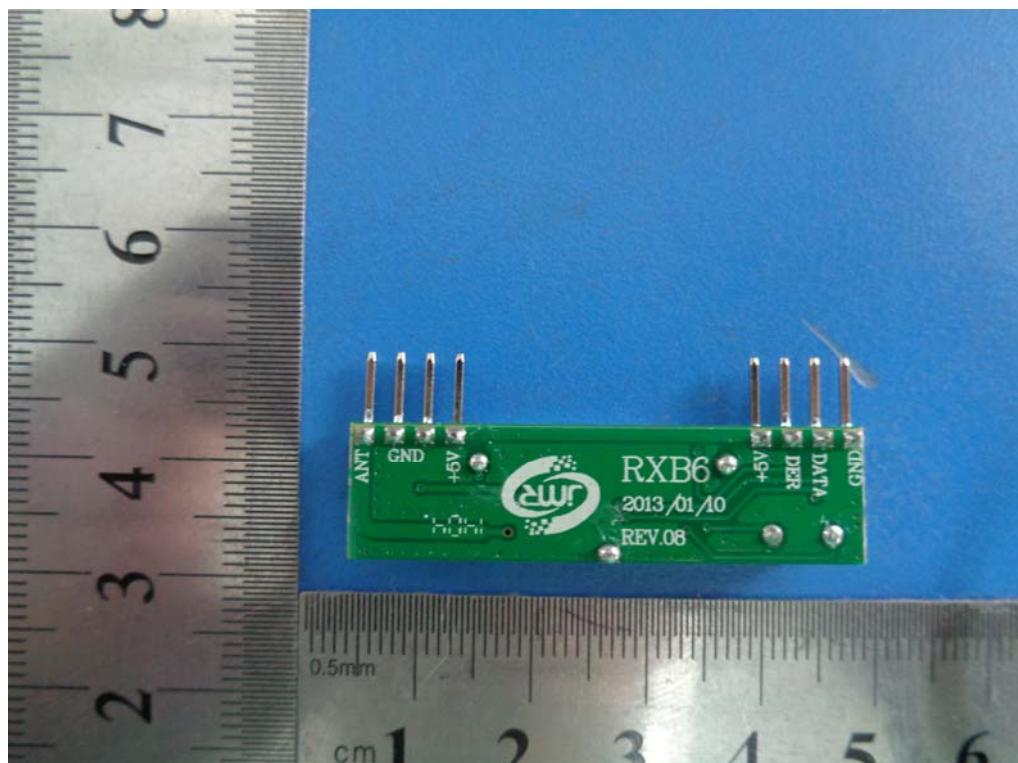
EUT -PCB 1 Front View



EUT -PCB 1 Rear View



EUT –PCB 2 Front View



EUT –PCB 2 Rear View



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Annex B.iii. Photograph 3: Test Setup Photo



Conducted Emissions Test Setup Front View



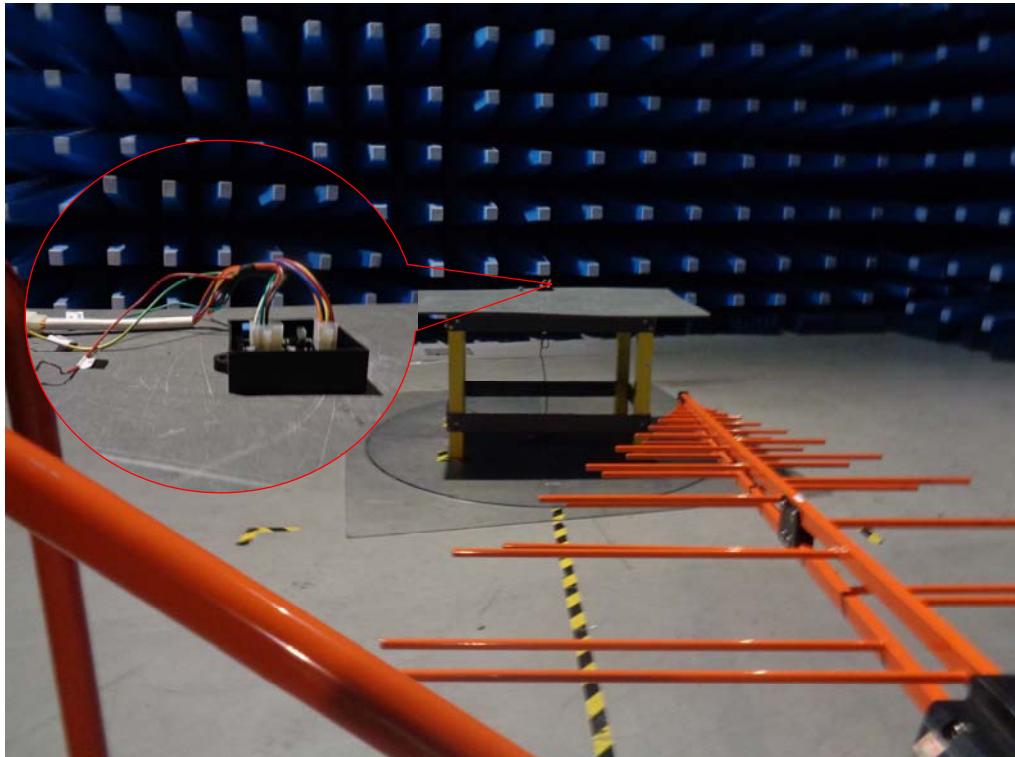
Conducted Emissions Test Setup Side View



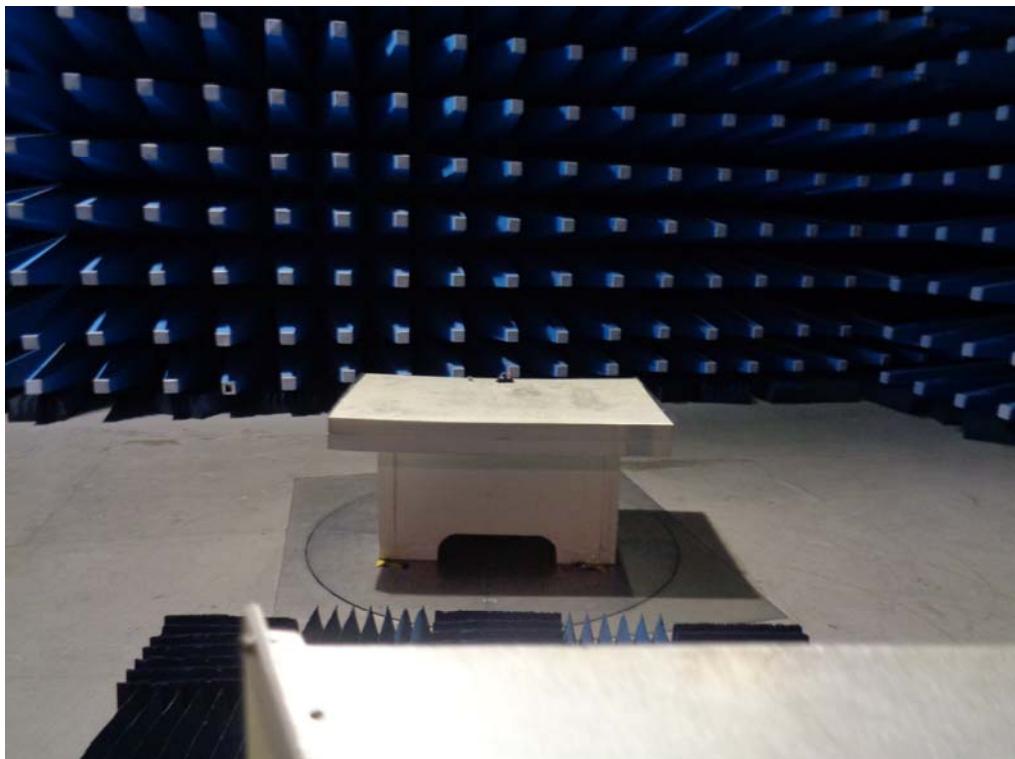
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Radiated Emissions Test Setup Below 1GHz - Front View



Radiated Emissions Test Setup Above 1GHz-Front View

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Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

EUT TEST CONDITIONS

Annex C. i. SUPPORTING EQUIPMENT DESCRIPTION

The following is a description of supporting equipment and details of cables used with the EUT.

Manufacturer	Equipment Description (Including Brand Name)	Model	Calibration Date	Calibration Due Date
BK PRECISION	DC Power Supply	1786B	N/A	N/A

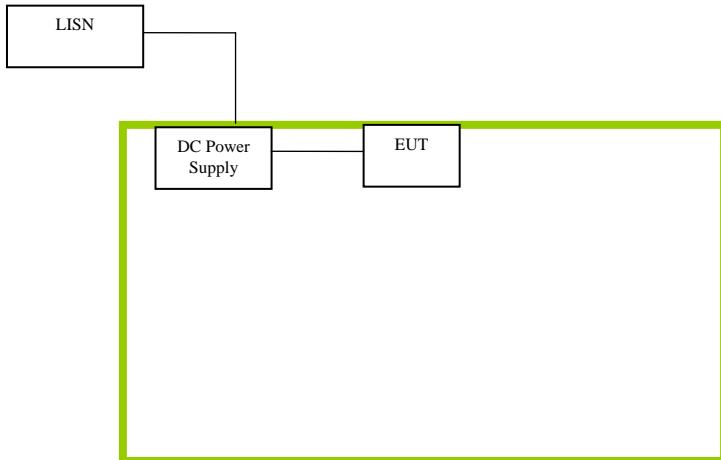


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Block Configuration Diagram for Conducted Emissions



Wooden/non-conductive table,
80cm above ground plane

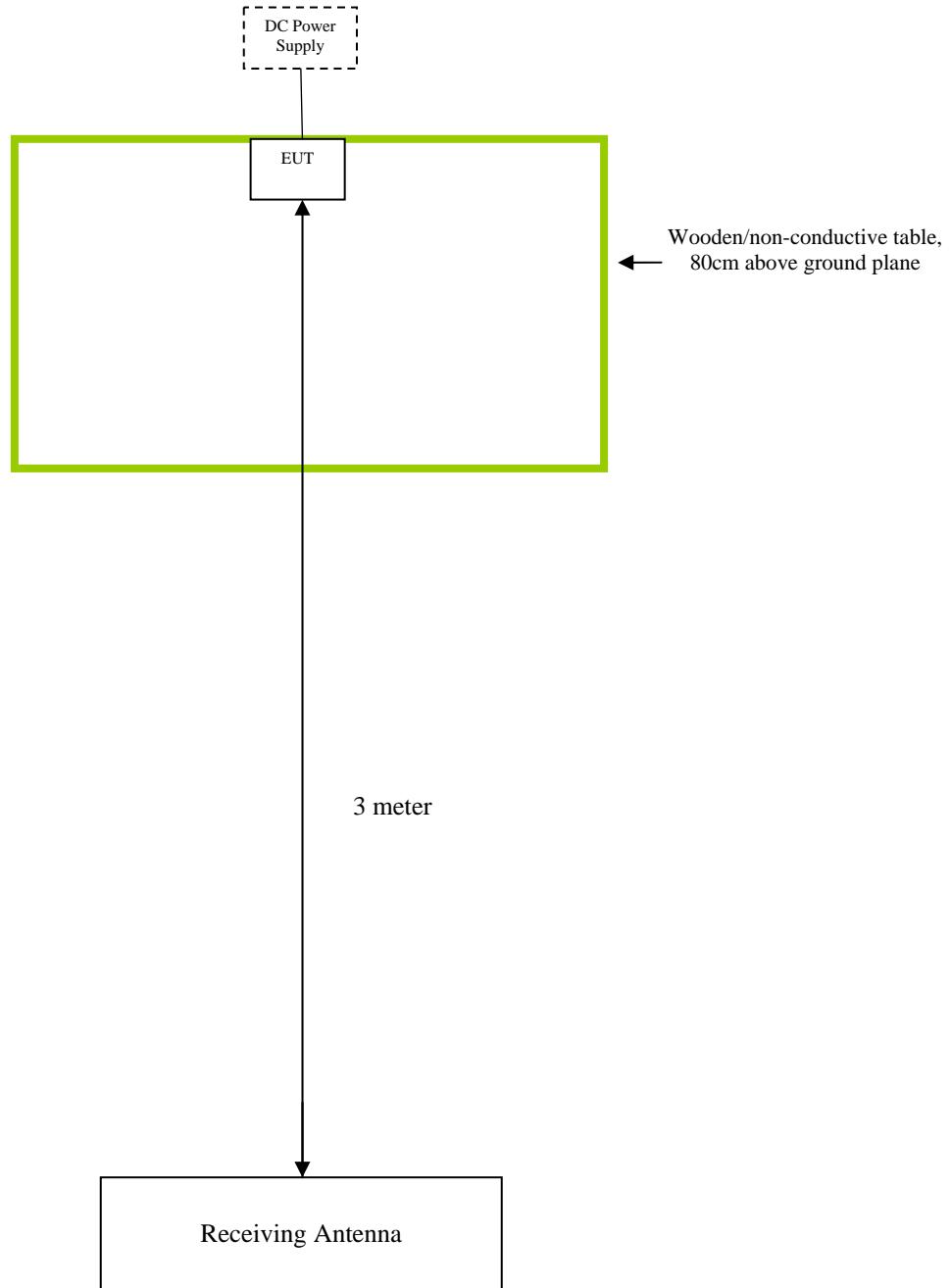


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Block Configuration Diagram for Radiated Emissions



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Annex C.ii. EUT OPERATING CONDITIONS

The following is the description of how the EUT is exercised during testing.

Test	Description Of Operation
Emissions	Receiving Mode



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Annex D. USER MANUAL / BLOCK DIAGRAM / SCHEMATICS / PART LIST

Please see attachment



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Annex E. DECLARATION OF SIMILARITY

N/A