



# TEST REPORT

**Reference No.**..... : WTF20S04016457E  
**Applicant**..... : Shenzhen Pingdi Aolq Bathroom supply Co., Ltd  
**Address**..... : NO.50 Nipo Village Pingdi Community Longgang District, Shenzhen  
**Manufacturer** ..... : Shenzhen Pingdi Aolq Bathroom supply Co., Ltd  
**Address**..... : NO.50 Nipo Village Pingdi Community Longgang District, Shenzhen  
**Product**..... : Sensor Soap Dispenser  
**Model(s)** ..... : BQ-7960A  
**Standards**..... : EN 61000-6-1: 2007  
                              : EN 61000-6-3: 2007+A1: 2011  
**Date of Receive sample**... : 2011-12-20  
**Date of Test**..... : 2011-12-20 to 2011-12-22  
**Date of Issue**..... : 2020-04-08  
**Test Result**..... : **Pass**

**Remarks:**

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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## 2 Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WT11127204-S-E-E	2011-12-20	2011-12-20 to 2011-12-22	2011-12-30	Original	-	Replaced
WTF20S04016457E	2011-12-20	2011-12-20 to 2011-12-22	2020-04-08	Supplement (1)	Update the EMC Directive	Valid

**Remark:**

(1) This report (WTF20S04016457E) is based on Project No. WT11127204-S-E-E for updated, the update does not affect the EMC test, therefore the EUT is no further test has been performed.



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### 3 General Information

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

Product..... : Sensor Soap Dispenser

Model(s)..... : BQ-7960A

#### 3.2 Details of E.U.T.

Ratings..... : DC 9V by 6\*AA batteries, 800mA

#### 3.3 Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

Yes       No

If Yes, list the related test items and lab information:

Test Lab:      N/A

Lab address:      N/A

Test items:      N/A

#### 3.4 Abnormalities from Standard Conditions

None.

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## 4 Test Summary

EMISSION		
Test Item	Test Standard	Result
Conducted Disturbance at Mains Terminal(AC), 150kHz to 30MHz	EN 61000-6-3	N/A
Conducted Disturbance at Mains Terminal (DC), 150kHz to 30MHz	EN 61000-6-3	N/A
Conducted Common Mode Disturbance at Telecommunication Ports	EN 61000-6-3	N/A
Discontinuous Disturbance(Click)	EN 61000-6-3	N/A
Radiated Emission, 30MHz to 1000MHz	EN 61000-6-3	Pass
Radiated Emission, Above 1GHz	EN 61000-6-3	N/A
IMMUNITY		
Test Item	Test Method	Result
Electrostatic Discharge(ESD)	IEC 61000-4-2	Pass
Radiated Immunity (80 to 1000MHz)	IEC 61000-4-3	Pass
Radiated Immunity (1.4 to 2.0GHz)		Pass
Radiated Immunity (2.0 to 2.7GHz)		Pass
Electrical Fast Transients (EFT)	IEC 61000-4-4	N/A
Surges	IEC 61000-4-5	N/A
Injected Currents, 0.15MHz to 80MHz	IEC 61000-4-6	N/A
Voltage Dips	IEC 61000-4-11	N/A
Voltage Interruptions	IEC 61000-4-11	N/A

Remark:

Pass

Test item meets the requirement

Fail

Test item does not meet the requirement

N/A

Test case does not apply to the test object



## 5 Equipment Used during Test

### 5.1 Equipment List

Conducted Emission					
Item	Equipment	Manufacturer	Model No.	Serial No.	Calibration Status
1	Test Receiver	ROHDE&SCHWARZ	ESCI	101155	Valid
2	Two-Line V-Network	ROHDE&SCHWARZ	ENV216	100115	Valid
3m Semi-anechoic Chamber for Radiation					
Item	Equipment	Manufacturer	Model No.	Serial No.	Calibration Status
1	EMC Analyzer	Agilent	E7405A	MY45114943	Valid
2	Trilog Broadband Antenne	SCHWARZBECK	VULB9163	336	Valid
3	Broad-bandHorn Antenna	SCHWARZBECK	VULB9163	667	Valid
4	Broadband Preamplifier	SCHWARZBECK	BBV 9718	9718-148	Valid
5	10m Coaxia Cable with N- plug	SCHWARZBECK	AK 9515 H	-	Valid
6	10m 50 Ohm Coaxial Cable with N-plug	SCHWARZBECK	AK 9513	-	Valid
7	Positioning Controller	C&C LAB	CC-C-IF	-	Valid
8	Color Monitor	SUNSP0	SP-14C	-	Valid
Harmonic/ Flicker					
Item	Equipment	Manufacturer	Model No.	Serial No.	Calibration Status
1	Digital Power Analyzer	Em Test AG	ADP500	V0745103095	Valid
2	Power Source	Em Test AG	ACS500	V0745103096	Valid
Electrostatic Discharge					
Item	Equipment	Manufacturer	Model No.	Serial No.	Calibration Status
1	Electrostatic Discharge Simulator	Em Test	DITO	V0745103094	Valid
Conducted Immunity					
Item	Equipment	Manufacturer	Model No.	Serial No.	Calibration Status
1	RF Generator	TESEQ	HSG4070	25781	Valid
2	CDN M-Type	TESEQ	CDN M016	25112	Valid
3	EM-Clamp	TESEQ	KEMZ 801	25453	Valid
4	Attenuator 6dB	TESEQ	ATN6050	25365	Valid



Surge, EFT, Voltage dips and Interruption					
Item	Equipment	Manufacturer	Model No.	Serial No.	Calibration Status
1	All Modules Generator	SCHAFFNER	6150	34579	Valid
2	Capacitive Coupling Clamp	SCHAFFNER	CDN 8014	25311	Valid
3	Signal and Data Line Coupling Network	SCHAFFNER	CDN 117	25627	Valid
4	AC Power Supply	TONGYUN	DTDGC-4	-	Valid
General used equipment					
Item	Equipment	Manufacturer	Model No.	Serial No.	Calibration Status
1	Exposure Level Tester	Narda Safety TEST Solutions/2304/03	ELT400	M-0155	Valid
2	Magnetic Field Probe 100cm <sup>2</sup>	Narda Safety TEST	-	M-1070	Valid

## 5.2 Description of Support Units

Equipment	Manufacturer	Model No.	Series No.
/	/	/	/

## 5.3 Measurement Uncertainty

Parameter	Uncertainty (Note 1)
Temperature	±1°C
Humidity	±5%
DC and low frequency voltages	±3%
Radiated Emission (30MHz-1000MHz)	±5.03dB
Radiated Emission(1GHz~18GHz)	±5.47dB

Note 1: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

## 5.4 Test Equipment Calibration

All the test equipments used are valid and calibrated by GUANG ZHOU GRG METROLOGY & TEST CO., LTD. address is No.163, Pingyun Rd. West of Huangpu Ave, Tianhe District, Guangzhou, Guangdong, China.



## 6 Emission Test Results

### 6.1 Radiation Emission, 30MHz to 1000MHz

Test Requirement .....	: EN 61000-6-3
Test Method .....	: CISPR 16-2-3
Test Result .....	: Pass
Frequency Range .....	: 30MHz to 1000MHz
Class/Severity .....	: Table 1 of EN 61000-6-3

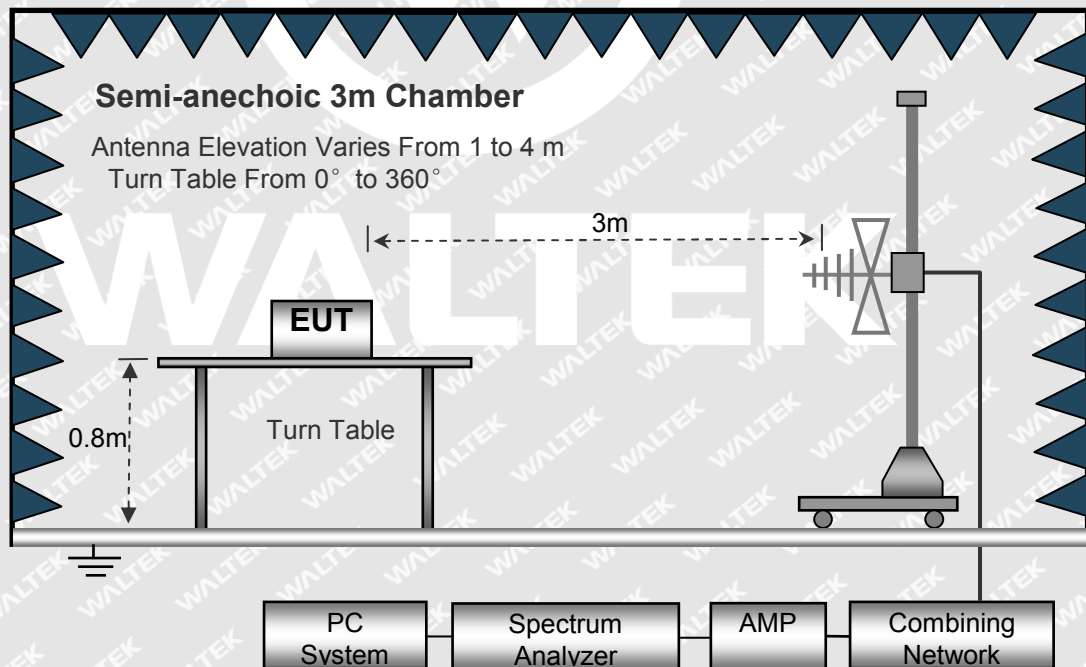
#### 6.1.1 E.U.T. Operation

Operating Environment:

Temperature .....	: 23.1°C
Humidity .....	: 54.8%RH
Atmospheric Pressure .....	: 101.5kPa
EUT Operation .....	: Compliance test was performed in working mode .

#### 6.1.2 Block Diagram of Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the CISPR 16-2-3..



#### 6.1.3 Measurement Data

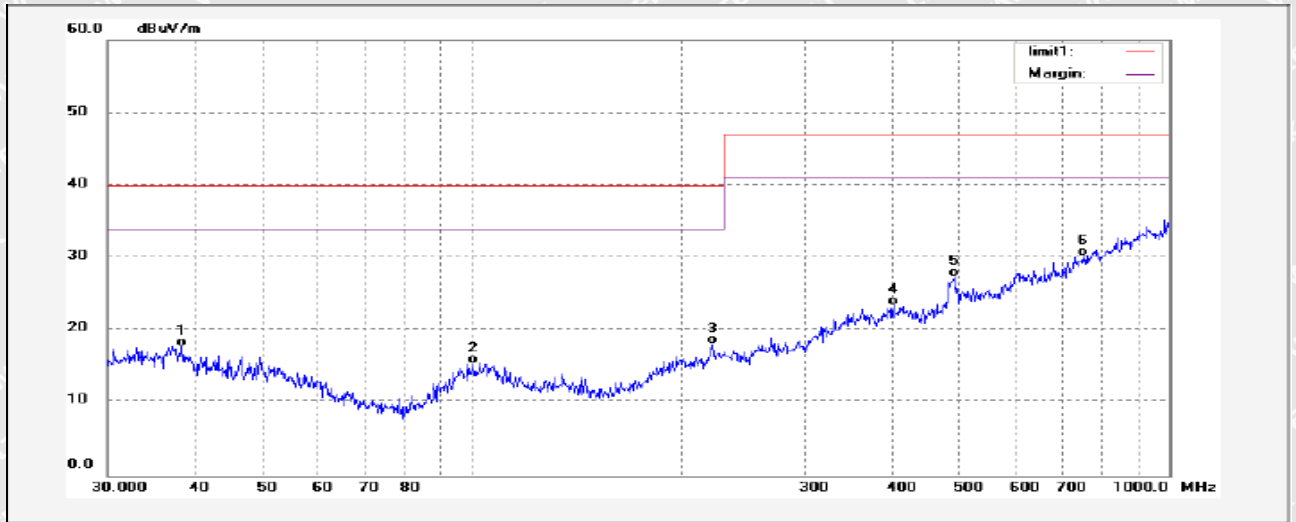
The maximised peak emissions from the EUT was scanned and measured for both the Antenna Vertical Polarization and Antenna Horizontal Polarization. Quasi-peak measurements were performed if peak emissions were within 6dB of the Quasi-peak limit line.





### 6.1.4 Test Data

Antenna polarization: Vertical

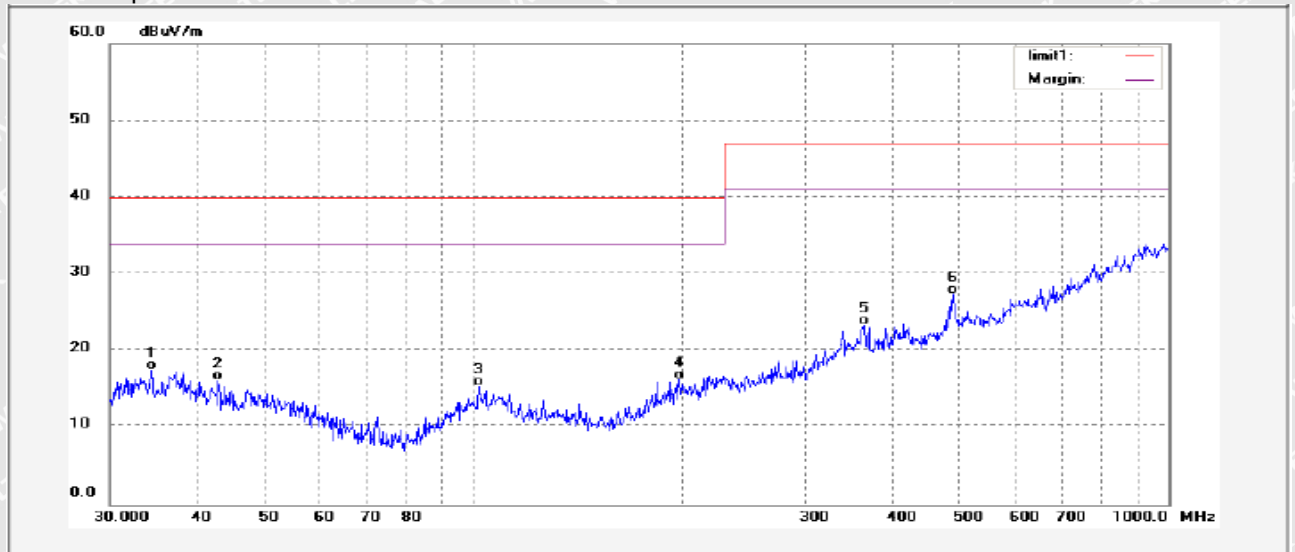


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	38.3651	1.26	16.58	17.84	40.00	-22.16	QP	
2	100.4712	1.39	14.01	15.40	40.00	-24.60	QP	
3	221.5010	1.84	16.20	18.04	40.00	-21.96	QP	
4	402.5168	2.46	21.06	23.52	47.00	-23.48	QP	
5	491.7700	2.13	25.29	27.42	47.00	-19.58	QP	
6	752.3148	2.23	27.94	30.17	47.00	-16.83	QP	

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Antenna polarization: Horizontal



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	34.4059	1.05	16.49	17.54	40.00	-22.46	QP	
2	42.9305	0.77	15.30	16.07	40.00	-23.93	QP	
3	101.8932	1.26	14.09	15.35	40.00	-24.65	QP	
4	197.9457	1.05	15.20	16.25	40.00	-23.75	QP	
5	364.8026	2.68	20.67	23.35	47.00	-23.65	QP	
6	490.0451	1.56	25.75	27.31	47.00	-19.69	QP	

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## 7 Immunity Test Results

### 7.1 Performance Criteria

**Performance criterion A:** The apparatus shall continue to operate as intended during the test.

No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.

**Performance criterion B:** The apparatus shall continue to operate as intended after the test.

No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. During the test, degradation of performance is allowed, however, no change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.

**Performance criterion C:** Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls, or by any operation specified in the instructions for use.

For further details, please refer to EN 61000-6-1.



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## 7.2 Electrostatic Discharge (ESD)

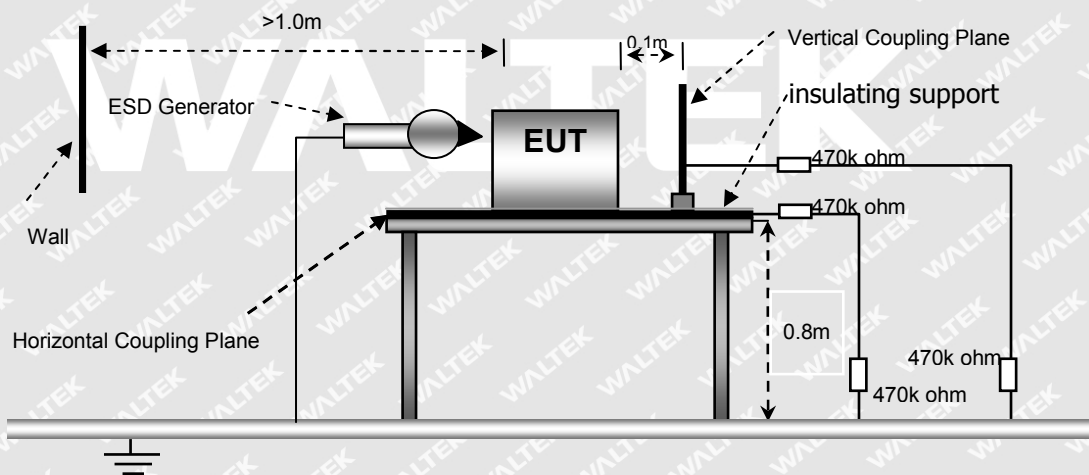
Test Requirement .....	: EN 61000-6-1
Test Method .....	: IEC 61000-4-2
Test Result .....	: Pass
Discharge Impedance .....	: 330Ω / 150pF
Discharge Voltage .....	: Air Discharge: ±8kV Contact Discharge: ±4kV HCP & VCP: ±4kV
Polarity .....	: Positive & Negative
Number of Discharge .....	: Minimum 10 times at each test point
Discharge Mode .....	: Single Discharge
Discharge Period .....	: 1 second minimum

### 7.2.1 E.U.T. Operation

Operating Environment:	
Temperature .....	: 22.3°C
Humidity .....	: 52.4%RH
Atmospheric Pressure .....	: 101.6kPa
EUT Operation	: Compliance test was performed in working mode .

### 7.2.2 Block Diagram of Setup

The ESD test was performed in accordance with the IEC 61000-4-2.





### 7.2.3 Direct Discharge Test Results

Observations: Test points: 1. All Exposed Surface & Seams;  
2. All metallic part

Direct Discharge			Test Results	
Applied Voltage (kV)	Performance Criterion	Test Point	Contact Discharge	Air Discharge
±8	B	1	N/A	Pass
±4	B	2	Pass	N/A

### 7.2.4 Indirect Discharge Test Results

Observations: Test points: 1. All sides.

Indirect Discharge			Test Results	
Applied Voltage (kV)	Performance Criterion	Test Point	Horizontal Coupling	Vertical Coupling
±4	B	1	Pass	Pass

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### 7.3 Radio-frequency electromagnetic fields

Test Requirement .....	: EN 61000-6-1
Test Method .....	: IEC 61000-4-3
Test Result .....	: Pass
Frequency Range .....	: 80MHz-1000MHz,3V/m,80% 1.4-2.0GHz,3V/m,80% 2.0-2.7GHz,1V/m,80%
Modulation .....	: 80%, 1kHz Amplitude Modulation.
Face of EUT.....	: Front, Back, Left, Right
Antenna polarisation.....	: Horizontal & Vertical

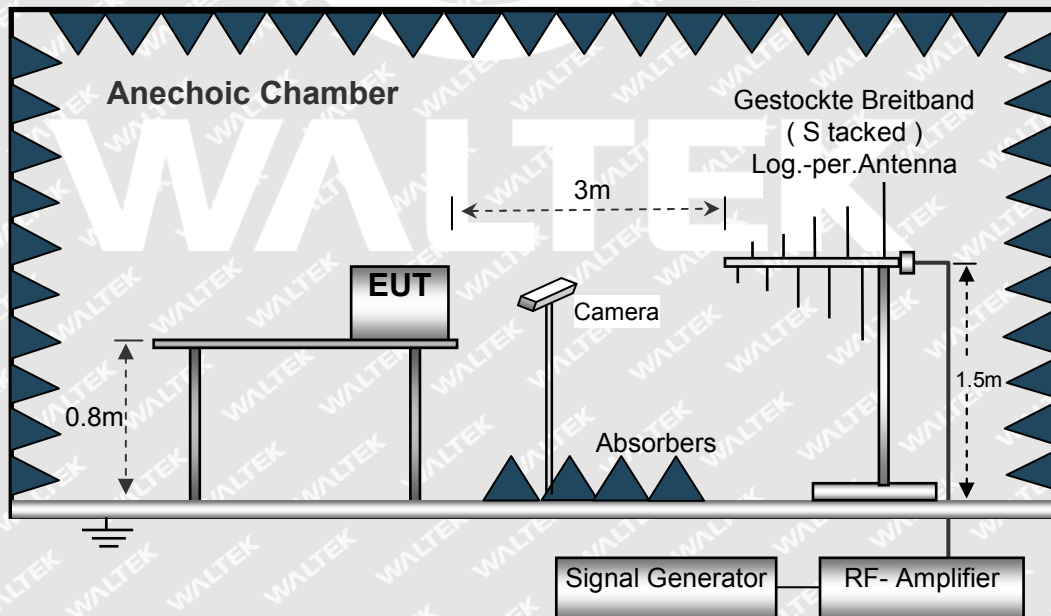
#### 7.3.1 E.U.T. Operation

Operating Environment:

Temperature.....	: 21.7°C
Humidity.....	: 52.4% RH
Barometric Pressure.....	: 102.4kPa
EUT Operation.....	: Compliance test was performed in working mode.

#### 7.3.2 Block Diagram of Setup

The Radio-frequency electromagnetic fields Immunity test was performed in accordance with the IEC 61000-4-3.





### 7.3.3 Test Results

Frequency	Face of EUT	Antenna polarisation	Test Level	Step Size	Dwell Time	Performance Criterion	Result
80 to 1000MHz	Front, Back, Left, Right	Horizontal	3V/m	1%	1s	A	Pass
	Front, Back, Left, Right	Vertical	3V/m	1%	1s	A	Pass

Frequency	Face of EUT	Antenna polarisation	Test Level	Step Size	Dwell Time	Performance Criterion	Result
1.4 to 2.0GHz	Front, Back, Left, Right	Horizontal	3V/m	1%	1s	A	Pass
	Front, Back, Left, Right	Vertical	3V/m	1%	1s	A	Pass

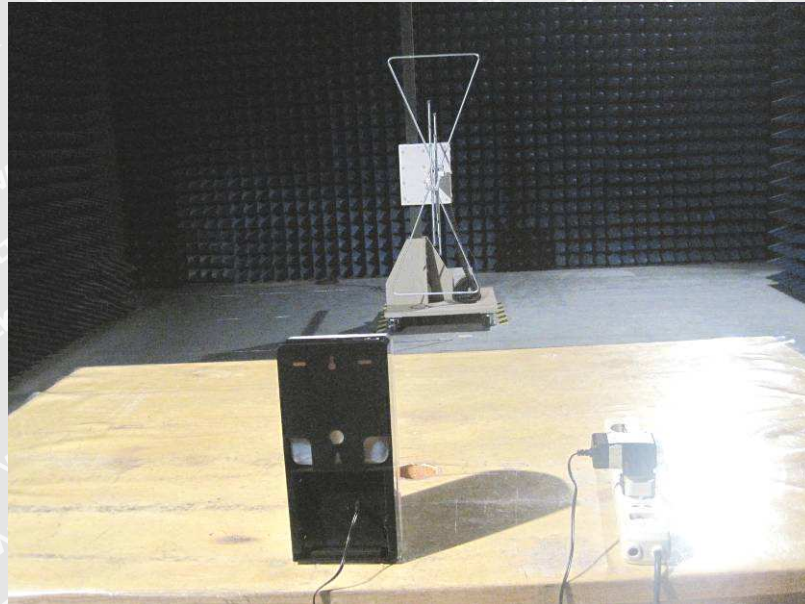
Frequency	Face of EUT	Antenna polarisation	Test Level	Step Size	Dwell Time	Performance Criterion	Result
2.0 to 2.7GHz	Front, Back, Left, Right	Horizontal	1V/m	1%	1s	A	Pass
	Front, Back, Left, Right	Vertical	1V/m	1%	1s	A	Pass

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## 8 Photographs – Test Setup

### 8.1 Photograph – Radiated Emission Test Setup for Below 1GHz



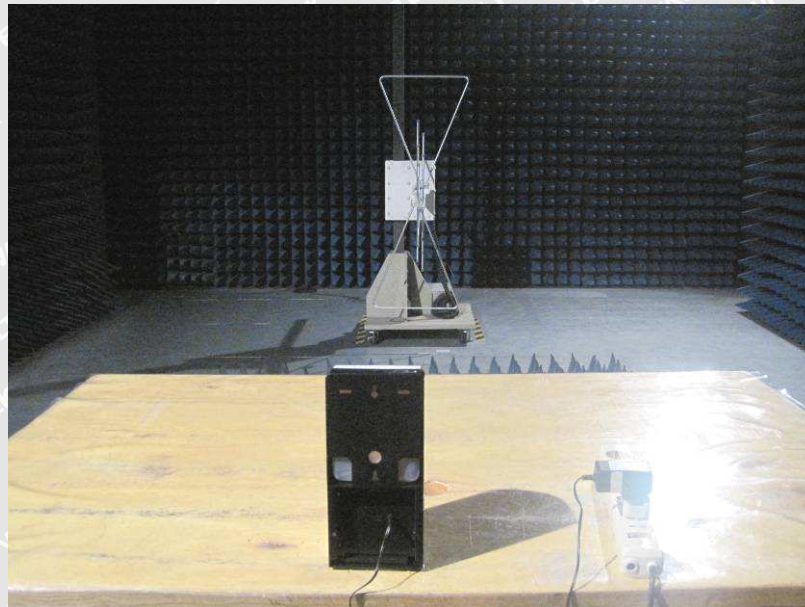
### 8.2 Photograph – ESD Immunity Test Setup







### 8.3 Photograph – Radio-frequency electromagnetic fields Test Setup

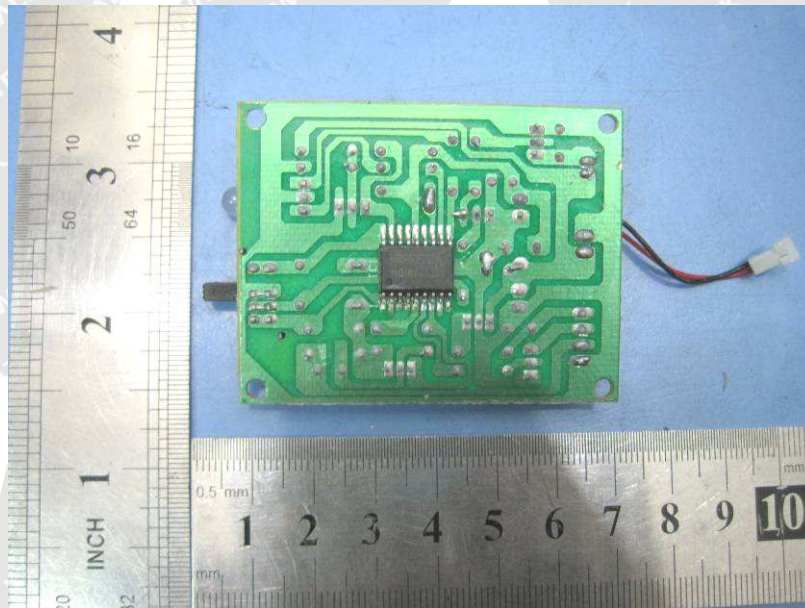
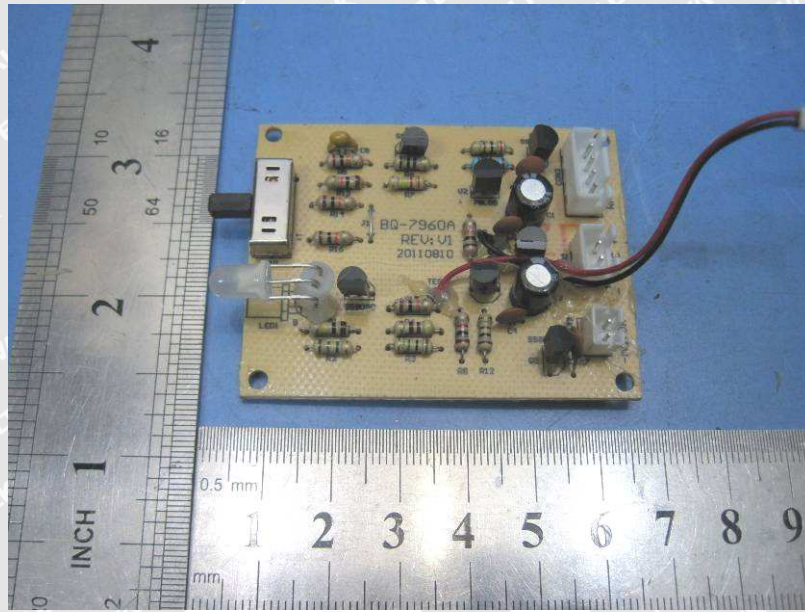




## 9 Photographs – Constructional Details







====End of Report====