



198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technological
Development District, Guangzhou, China 510663
Telephone: +86 (0) 20 82155555
Fax: +86 (0) 20 82075059
Email: ee.guangzhou@sgs.com

Report No.: GZEM121100469801
Page: 1 of 33

TEST REPORT

Application No.:	GZEM1211004698HS
Applicant:	HoMedics Group Ltd
Buyer:	HoMedics
Country of Origin:	China
Country of Destination:	UK and EU
Product Name:	MiBaby Mother & Baby scale
Product Description:	Electronic scale
Model No:	9080
P.O. No.:	PC0001243
Standards:	EN 55014-1:2006+A1:2009+A2:2011, EN 55014-2:1997+A1:2001+A2:2008. EN 55022:2010, EN 55024:2010.
Date of Receipt:	2012-11-08
Date of Test:	2012-11-15 to 2012-12-18
Date of Issue:	2013-01-10
Test Result :	Pass*

* In the configuration tested, the EUT complied with the standards specified above.

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.



The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

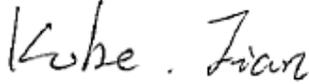
The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00		2013-01-10		Original report

Authorized for issue by:			
Tested By	 <hr/> (Rain Yuan) /Project Engineer	2012-11-15 to 2012-12-18 <hr/> Date	
Prepared By	 <hr/> (Liky Chen) /Clerk	2013-01-10 <hr/> Date	
Checked By	 <hr/> (Kobe Jian) /Reviewer	2013-01-10 <hr/> Date	



3 Test Summary

Electromagnetic Interference (EMI)				
Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission, (30MHz to 1GHz)	EN 55014-1:2006 +A1:2009+A2:2011	CISPR 16-2-3:2006	Table 3	PASS
	EN 55022:2010	EN 55022:2010	Class B	PASS**
Radiated Emission above 1 GHz	EN 55022:2010	N/A	Class B	N/A
Electromagnetic Susceptibility (EMS)				
Test	Test Requirement	Test Method	Class / Severity	Result
ESD (Electrostatic Discharge)	EN 55014-2:1997 +A1:2001+A2:2008	EN 61000-4-2:2009	Contact ± 4 kV Air $\pm 2,4,,8$ kV	PASS
	EN 55024:2010			
Radiated Immunity, (80MHz to 1 GHz)	EN 55024:2010	EN 61000-4-3 :2006 +A1:2008 + A2:2010	3V/m 80%, 1kHz, AM	PASS
Power Frequency Magnetic Field	EN 55024:2010	N/A	50 Hz 1 A/m	N/A
EUT In this whole report EUT means Equipment Under Test.				
Remark : N/A: Not applicable, please refer to section 7.2 & 8.5 of this report for details. **: The EUT passed Radiated Emission (EN 55022) test after the modification carried out by applicant.				



4 Contents

1	COVER PAGE	1
2	VERSION.....	2
3	TEST SUMMARY	3
4	CONTENTS	4
5	GENERAL INFORMATION.....	5
5.1	Client Information.....	5
5.2	General Description of E.U.T.....	5
5.3	Details of E.U.T.....	5
5.4	Description of Support Units.....	5
5.5	Deviation from Standards.....	5
5.6	Abnormalities from Standard Conditions.....	5
5.7	General Test Climate During Testing	5
5.8	Monitoring of EUT for All Immunity Test.....	5
5.9	Test Location	5
5.10	Test Facility.....	6
6	EQUIPMENT USED DURING TEST	7
7	EMISSION TEST RESULTS	9
7.1	Radiated Emissions, 30MHz to 1GHz	9
7.2	Radiated Emissions above 1 GHz.....	15
8	IMMUNITY TEST RESULTS	16
8.1	Performance Criteria Description in Clause 6 of EN 55014-2.....	16
8.2	Performance Criteria Description in Clause 7 of EN 55024.....	17
8.3	ESD.....	18
8.4	Radiated Immunity.....	21
8.5	Power Frequency Magnetic Field Immunity.....	24
9	PHOTOGRAPHS	25
9.1	Radiated Emissions, 30MHz to 1GHz Test Setup	25
9.2	ESD Test Setup	25
9.3	Radiated Immunity Test Setup	26
9.4	EUT Constructional Details	27

5 General Information

5.1 Client Information

Applicant: HoMedics Group Ltd
Address of Applicant: HoMedics House, Somerhill Business Park, Five Oak Green Road,
Tonbridge, Kent TN11 0GP England

5.2 General Description of E.U.T.

Product Name: MiBaby Mother & Baby scale
Product Description: Electronic scale
Model No: 9080

5.3 Details of E.U.T.

Rated Supply (Voltage): DC 9V = 6 x 1.5V "AAA" size batteries
Power Cord: N/A

5.4 Description of Support Units

The EUT has been tested with u-disk for the USB storage mode.

5.5 Deviation from Standards

All Immunity tests to EN 55024 & EN55014-2 were performed in accordance with EN 61000-4-x and not IEC 61000-4-x. (x=2, 3, 8).

5.6 Abnormalities from Standard Conditions

The EUT passed Radiated Emission (EN 55022) test after the modification carried out by applicant.

5.7 General Test Climate During Testing

Temperature: 15-30 °C Humidity: 30~70 %RH Atmospheric Pressure: 860~1060 mbar

5.8 Monitoring of EUT for All Immunity Test

Audio: N/A
Visual: LCD display of the EUT.

5.9 Test Location

All tests were performed at:
SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory,
198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,
Guangzhou, China 510663
Tel: +86 20 82155555 Fax: +86 20 82075059
No tests were sub-contracted.

5.10 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

- **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **CNAS (Lab Code: L0167)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.

- **FCC (Registration No.: 282399)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002.

- **Industry Canada (Registration No.: 4620B-1)**

The 3m/10m Alternate Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering of Industry Canada for radio equipment testing with Registration No. 4620B-1.

- **VCCI (Registration No.: R-2460, C-2584, G-449 and T-1179)**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2460, C-2584, G-449 and T-1179 respectively.

- **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2005, the Basic Rules, IEC 60335-1:2006-10 and Rules of procedure IEC 60335-2-1:2006-10, and the relevant IEC 60335-2-1:2006-10 Scheme Operational documents.

6 Equipment Used during Test

RE in Chamber						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Due date	Calibration Interval
					(YYYY-MM-DD)	
EMC0525	Compact Semi-Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	2014-08-30	2Y
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100283	2013-06-29	1Y
EMC0056	EMI Test Receiver	Rohde & Schwarz	ESCI	100236	2013-03-12	1Y
EMC0528	RI High frequency Cable	SGS	20 m	N/A	2013-06-01	1Y
EMC2025	Trilog Broadband Antenna 30-3000MHz	SCHWARZBECK MESS-ELEKTRONIK	VULB 9163	9163-450	2013-12-17	2Y
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	2013-11-27	2Y
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	2013-03-26	2Y
EMC2026	Horn Antenna 1-18GHz	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	9120D-841	2013-11-28	2Y
EMC0518	Horn Antenna	Rohde & Schwarz	HF906	100096	2014-07-01	2Y
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	2013-03-12	1Y
EMC0049	Amplifier	Agilent	8447D	2944A10862	2013-03-12	1Y
EMC0075	310N Amplifier	Sonama	310N	272683	2013-03-12	1Y
EMC0523	Active Loop Antenna	EMCO	6502	42963	2014-04-07	2Y
EMC2041	Broad-Band Horn Antenna (14)15-26.5(40)GHz	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9170	9170-375	2014-06-01	3Y
EMC0530	10m Semi-Anechoic Chamber	ETS	N/A	N/A	2014-04-27	2Y

Electrostatic Discharge						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Due date	Calibration Interval
					(YYYY-MM-DD)	
EMC0809	ESD Simulator	EM Test AG	Dito	V0735102864	2013-11-5	1Y
EMC0804	ESD Ground Plane	SGS	3m x 3m	N/A	N/A	N/A
EMC0078	Temperature, & Humidity	Shanghai Meteorological Instrument factory Co., Ltd.	ZJ1-2B	709131	2013/11/5	1Y



Radiated Immunity						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Due date	Calibration Interval
					(YYYY-MM-DD)	
EMC0525	Compact 3m Semi-Anechoic Chamber	Changzhou zhongyu	N/A	N/A	2014-08-30	2Y
EMC0516	Signal Generator	Rohde & Schwarz	SMR20	100416	2013-06-17	1Y
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	2013-03-26	2Y
EMC0915	Amplifier	EMPOWER	BBS2E4ALP	1007	2013-03-12	1Y
EMC0914	Amplifier	EMPOWER	BBS3Q5KIN	1006	2013-03-12	1Y
EMC0904	Power Meter	Rohde & Schwarz	NRVS	825770/074	2013-03-12	1Y
EMC0071	URV5-Z2 Insert. Unit	R&S	URV5-Z2	100309	2013-03-12	1Y
EMC0917	Dual Directional Coupler	EMCA	715-10-1.400	70031	2013-09-15	1Y
EMC0907	Electric Field Probe	Wandel & Goltermann	EMC-20	M-0063	2013-06-01	1Y
EMC0908	Oscilloscope	Tektronix	TDS3052C	C011815	2013-03-12	1Y
EMC0909	Monitor System	Mitsubish Corp.	M-0552AB	91510185	N/A	N/A

General used equipment						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Due date	Calibration Interval
					(YYYY-MM-DD)	
EMC0006	DMM	Fluke	73	70681569	2013-11-5	1Y
EMC0007	DMM	Fluke	73	70671122	2013-11-5	1Y



7 Emission Test Results

7.1 Radiated Emissions, 30MHz to 1GHz

Test Requirement: EN 55014-1 & EN 55022
 Test Method: CISPR 16-2-3 & EN 55022
 Test Voltage: DC 9V
 Test Date: **For EN 55014-1:**
 2012-11-15
For EN 55022:
 2012-11-29 (initial test)
 2012-12-18 (final test)

Frequency Range: 30MHz to 1GHz
 Measurement Distance: 10 m
 Detector: Peak for pre-scan
 Quasi-Peak at frequency with maximum peak
 (120 kHz resolution bandwidth)

Class / Limit: Class B

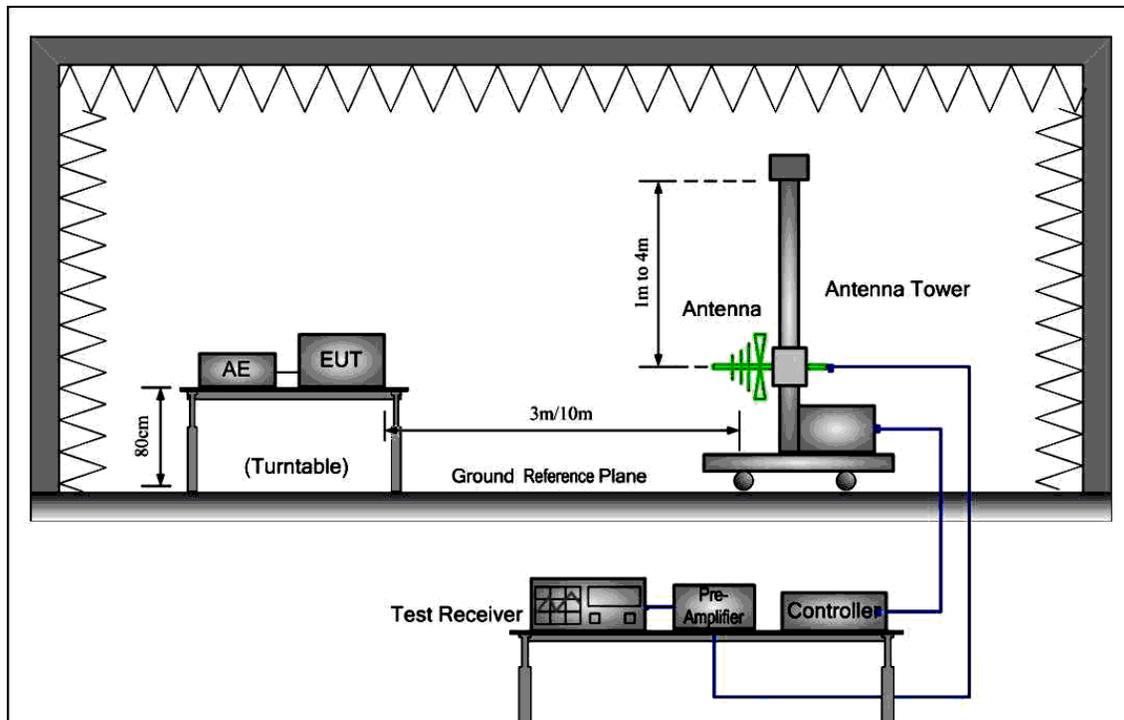
Frequency range MHz	Quasi-peak limits dB (μV/m)
30 to 230	30
230 to 1 000	37
At transitional frequencies the lower limit applies.	

7.1.1 E.U.T. Operation

For EN 55014-1: Test the EUT in weighing mode.

For EN 55022: Test the EUT in USB storage mode.

7.1.2 Test Setup and Procedure



1. The radiated emissions test was conducted in a semi-anechoic chamber.
2. Biconical and log periodic antenna was used for the frequency range from 30MHz to 1GHz
3. The EUT was connected to nominal power supply through a mains power outlet which was bonded to the ground reference plane; The mains cables were draped to the ground reference plane. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4. Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emissions spectrum plots of the EUT.
5. The frequencies of maximum emission were determined in the final radiated emissions measurement. At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization.

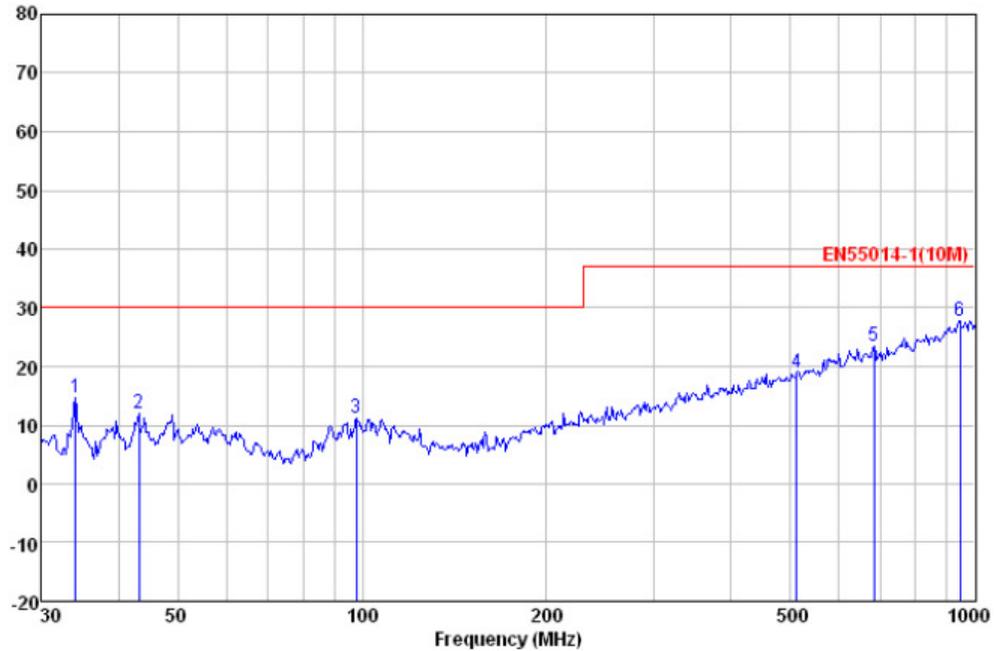
7.1.3 Measurement Data

For EN 55014-1:

Vertical:

Peak scan

Level (dBμV/m)



Quasi-peak measurement

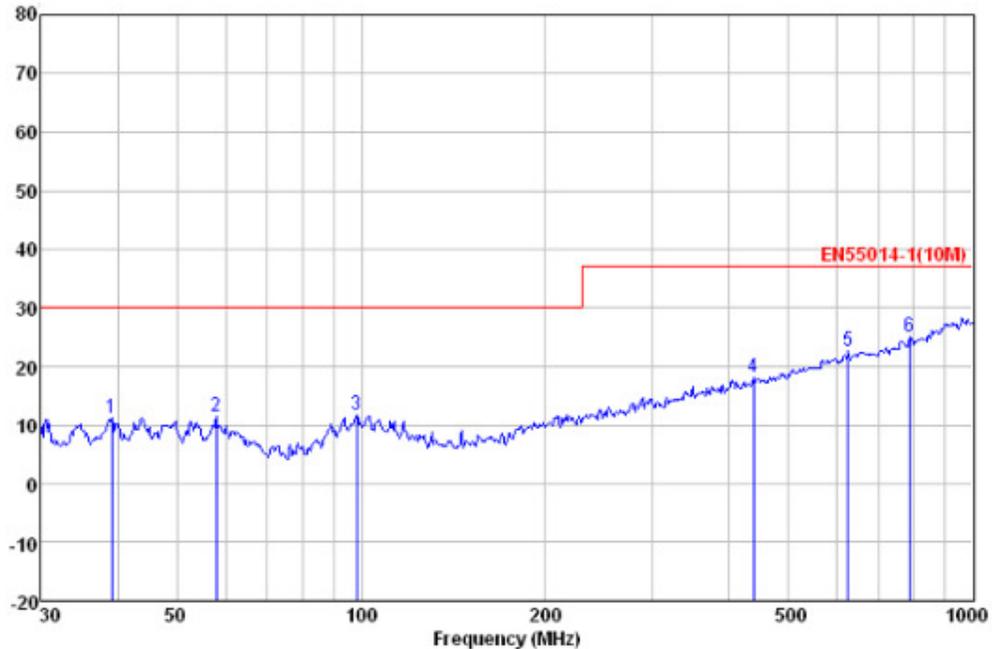
Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Over Limit	Limit	Remark
MHz	dBμV	dB/m	dB	dB	dBμV/m	dB	dBμV/m	
34.037	31.89	11.45	0.87	29.50	14.71	-15.29	30.00	QP
43.202	27.91	12.70	0.95	29.50	12.06	-17.94	30.00	QP
97.798	27.33	12.17	1.41	29.69	11.22	-18.78	30.00	QP
511.835	27.84	17.37	3.09	29.49	18.81	-18.19	37.00	QP
684.745	29.76	19.42	3.51	29.31	23.38	-13.62	37.00	QP
945.440	29.48	22.17	4.12	27.92	27.85	-9.15	37.00	QP

Level = Read Level + Antenna Factor + Cable Loss – Preamp Factor.

Horizontal:

Peak scan

Level (dBμV/m)



Quasi-peak measurement

Freq MHz	Read Level dBμV	Antenna Factor dB/m	Cable Loss dB	Preamp Factor dB	Level dBμV/m	Over Limit dB	Limit dBμV/m	Remark
39.162	27.20	12.49	0.92	29.50	11.11	-18.89	30.00	QP
57.999	27.99	11.96	1.10	29.54	11.51	-18.49	30.00	QP
98.487	27.68	12.20	1.42	29.70	11.60	-18.40	30.00	QP
437.120	28.87	16.01	2.88	29.56	18.20	-18.80	37.00	QP
625.078	29.38	19.17	3.37	29.37	22.55	-14.45	37.00	QP
787.851	29.76	20.63	3.87	29.21	25.05	-11.95	37.00	QP

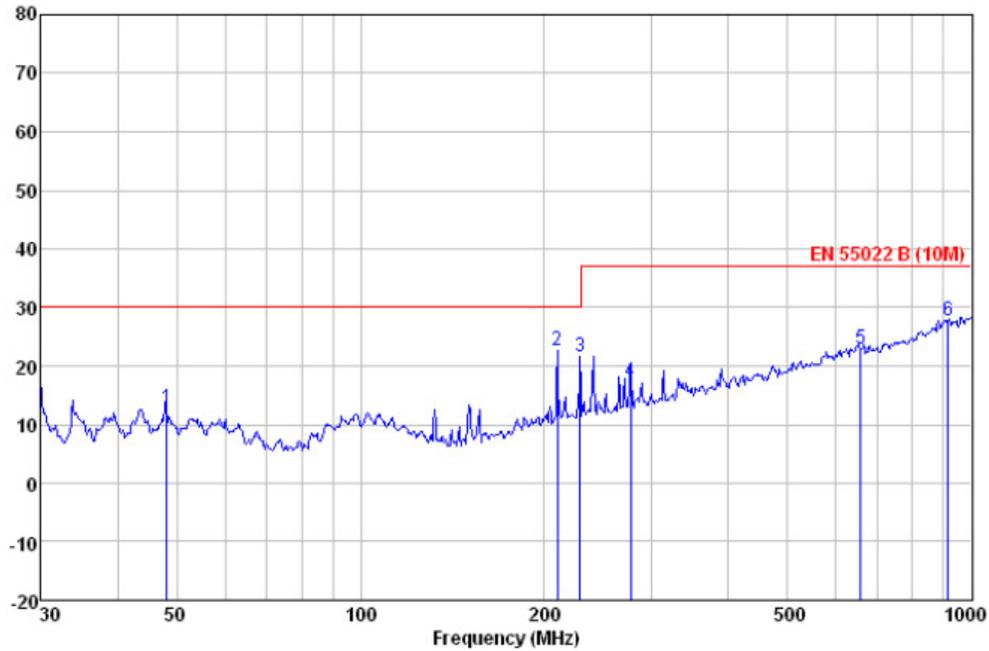
Level = Read Level + Antenna Factor + Cable Loss – Preamp Factor.

For EN 55022:

Vertical:

Peak scan

Level (dBμV/m)



Quasi-peak measurement

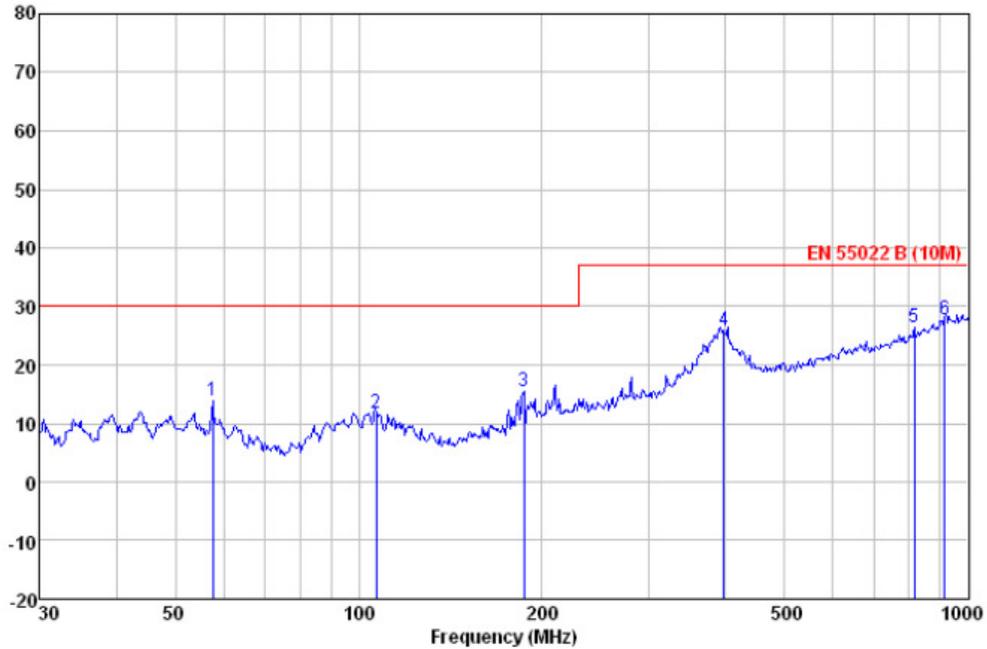
Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Over Limit	Limit Line	Remark
MHz	dBμV	dB/m	dB	dB	dBμV/m	dB	dBμV/m	
48.163	28.70	12.50	0.99	29.50	12.69	-17.31	30.00	QP
210.048	39.58	10.74	1.94	29.51	22.75	-7.25	30.00	QP
228.490	37.56	11.52	2.04	29.53	21.59	-8.41	30.00	QP
277.094	31.92	12.72	2.26	29.58	17.32	-19.68	37.00	QP
658.836	29.48	19.32	3.47	29.34	22.93	-14.07	37.00	QP
916.069	29.65	21.98	4.16	28.16	27.63	-9.37	37.00	QP

Level = Read Level + Antenna Factor + Cable Loss – Preamp Factor.

Horizontal:

Peak scan

Level (dB μ V/m)



Quasi-peak measurement

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Over Limit	Limit Line	Remark
MHz	dB μ V	dB/m	dB	dB	dB μ V/m	dB	dB μ V/m	
57.594	30.37	12.00	1.09	29.54	13.92	-16.08	30.00	QP
106.759	28.25	11.68	1.48	29.70	11.71	-18.29	30.00	QP
186.441	33.23	9.98	1.84	29.55	15.50	-14.50	30.00	QP
397.633	37.23	15.41	2.70	29.60	25.74	-11.26	37.00	QP
815.968	30.52	20.97	3.93	29.04	26.38	-10.62	37.00	QP
916.069	29.79	21.98	4.16	28.16	27.77	-9.23	37.00	QP

Level = Read Level + Antenna Factor + Cable Loss – Preamp Factor.



7.2 Radiated Emissions above 1 GHz

Test Requirement: EN 55022
Frequency Range: 1 GHz to 6 GHz
Measurement Distance: 3 m
Class / Limit: Class B
Test Date: N/A: See Remark Below

Remark:

There is no need for Radiated Emissions (above 1G) test to be performed on this product in accordance with EN 55022:2010 because the highest internal source is less than 108 MHz.

For further details, please refer to Clause 6.2 of EN 55022 which states:

If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz.

8 Immunity Test Results

8.1 Performance Criteria Description in Clause 6 of EN 55014-2

<p>Criterion A:</p>	<p>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.</p>
<p>Criterion B:</p>	<p>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.</p>
<p>Criterion C:</p>	<p>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.</p>



8.2 Performance Criteria Description in Clause 7 of EN 55024

Criterion A:	The equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. 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 by what the user may reasonably expect from the equipment if used as intended.
Criterion B:	After the test, the equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacturer, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is allowed. However, no change of operating state or stored data is allowed to persist after the test. 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 by what the user may reasonably expect from the equipment if used as intended.
Criterion C:	Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

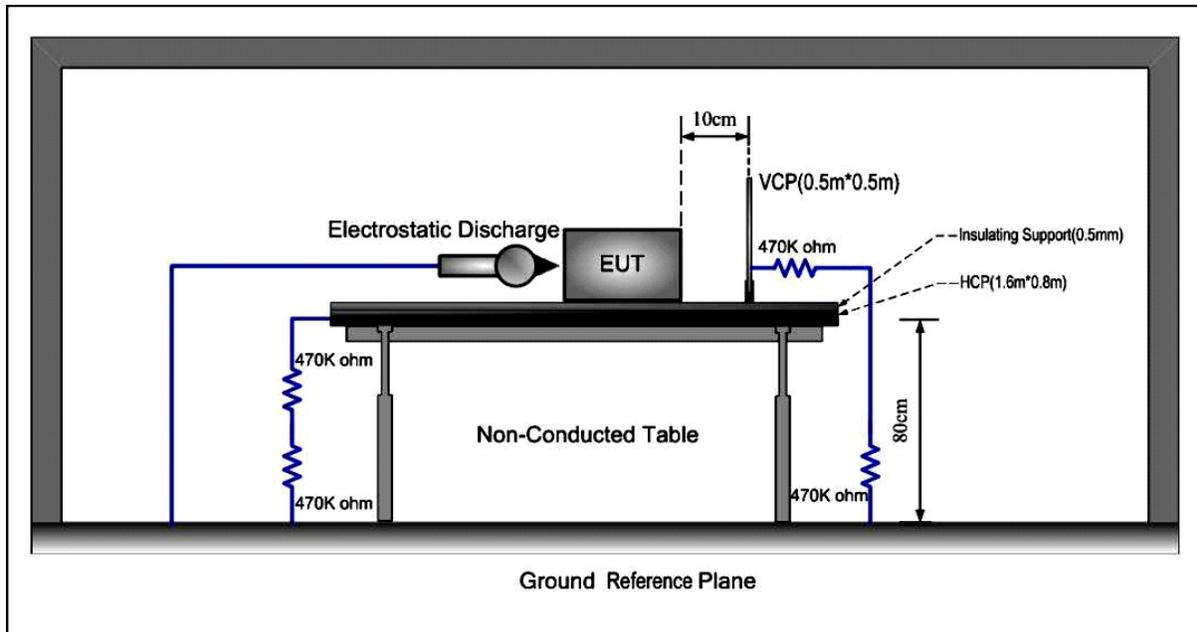
8.3 ESD

Test Requirement: EN 55014-2 & EN 55024
 Test Method: EN 61000-4-2
 Test Voltage: DC 9V
 Criterion Required: B
 Test Date: **For EN 55014-2:**
 2012-11-15
For EN 55024:
 2012-11-29
 Discharge Impedance: 330 Ω / 150 pF
 Discharge Voltage: Air Discharge: 2, 4, 8 kV
 VCP, HCP: 4 kV
 Contact Discharge: 4 kV
 Polarity: Positive & Negative
 Number of Discharge: Minimum 10 times at each test point
 Discharge Mode: Single Discharge
 Discharge Period: 1 second minimum

8.3.1 E.U.T. Operation

Operating Environment:
 Temperature: 21 °C Humidity: 57 %RH Atmospheric Pressure: 1009 mbar
 EUT Operation: **For EN 55014-2:** Test the EUT in weighing mode and idle mode.
For EN 55024: Test the EUT in USB storage mode.

8.3.2 Test Setup and Procedure





1. Contact discharges to the conductive surfaces and to coupling planes:

The EUT was exposed to at least 200 discharges, 100 each at negative and positive polarity, at a minimum of four test points (a minimum of 50 discharges at each point). One of the test points was subjected to at least 50 indirect discharges (contact) to the centre of the front edge of the horizontal coupling plane. The remaining three test points shall each receive at least 50 direct contact discharges.

If no direct contact test points were available, then at least 200 indirect discharges were applied in the indirect mode. Tests were performed at a maximum repetition rate of one discharge per second.

Air discharge at slots and apertures, and insulating surfaces:

On those parts of the EUT where it was not possible to perform contact discharge testing, the equipment was investigated to identify user accessible points where breakdown may occur. This investigation was restricted to those areas normally handled by the user. A minimum of 10 single air discharges were applied to the selected test point for each such area.

The application of electrostatic discharges to the contacts of open connectors was not required by this standard.

2. The EUT was put on a 0.8m high wooden table for table-top equipment or 0.1m high for floor standing equipment standing on the ground reference plane (GRP).
3. A horizontal coupling plane(HCP) 1.6m by 0.8m in size was placed on the table, and the EUT with its cables were isolated from the HCP by an insulating support thick than 0.5mm. The VCP 0.5m by 0.5m in size while HCP were constructed from the same material type and thickness as that of the GRP, and connected to the GRP via a 470k Ω resistor at each end. The distance between EUT and any of the other metallic surfaces except the GRP, HCP and VCP was greater than 1m.
4. During the contact discharges, the tip of the discharge electrode was touched the EUT before the discharge switch is operated. During the air discharges, the round discharge tip of the discharge electrode was approached as fast as possible to touch the EUT.
5. After each discharge, the ESD generator was removed from the EUT, the generator was then retrIGGERED for a new single discharge. For ungrounded product, a discharge cable with two resistances was used after each discharge to remove remnant electrostatic voltage. 10 times of each polarity single discharge were applied to HCP and VCP.



8.3.3 Test Results

◆ Direct Application Test Results

- Observations: Test Point: 1. All insulated enclosure & seams.
 2. All accessible metal parts of the enclosure with discharge resistor used.

Direct Application			Test Results	
Discharge Level (kV)	Polarity (+/-)	Test Point	Contact Discharge	Air Discharge
2, 4, 8	+/-	1	N/A	A
4	+/-	2	A	N/A

◆ Indirect Application Test Results

- Observations: Test Point: 1. All sides.

Indirect Application			Test Results	
Discharge Level (kV)	Polarity (+/-)	Test Point	Horizontal Coupling	Vertical Coupling
4	+/-	1	A	A

Remarks:

A: No degradation in the performance of the EUT was observed.

N/A: Not Applicable (not required by Standard).

The EUT does meet the Electric-Static Discharge requirements of Standard.

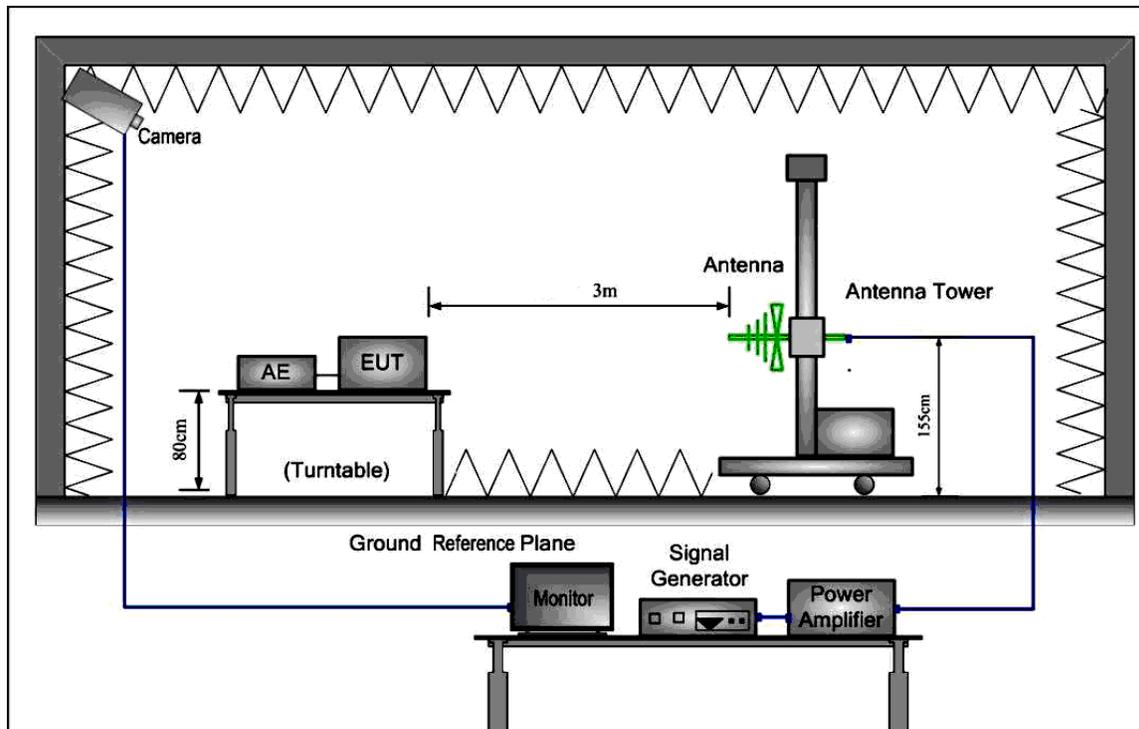
8.4 Radiated Immunity

Test Requirement:	EN 55024
Test Method:	EN 61000-4-3
Test Voltage:	DC 9V
Criterion Required:	A
Test Date:	2012-12-06
Frequency Range:	80MHz to 1GHz
Antenna Polarization:	Horizontal & Vertical
Test level:	3 V/m on enclosure
Modulation:	80 %, 1 kHz Amplitude Modulation

8.4.1 E.U.T. Operation

Test the EUT in USB storage mode.

8.4.2 Test Setup and Procedure





1. For table-top equipment, the EUT was placed in the chamber on a non-conductive table 0.8m high. For arrangement of floor-standing equipment, the EUT was mounted on a non-conductive support 0.1m above the supporting plane. For human body-mounted equipment, the EUT may be tested in the same manner as table top items.
2. If possible, a minimum of 1 m of cable is exposed to the electromagnetic field. Excess length of cables interconnecting units of the EUT shall be bundled low-inductively in the approximate center of the cable to form a bundle 30 cm to 40 cm in length.
3. The EUT was initially placed with one face coincident with the calibration plane. The EUT face being illuminated was contained within the UFA (Uniform Field Area).
4. The frequency ranges to be considered were swept with the signal modulated and pausing to adjust the RF signal level or to switch oscillators and antennas as necessary. Here the frequency range was swept incrementally, the step size was not exceed 1 % of the preceding frequency value.
5. The dwell time of the amplitude modulated carrier at each frequency was not be less than the time necessary for the EUT to be exercised and to respond, and was not less than 0.5 s.
6. The test normally was performed with the generating antenna facing each side of the EUT.
7. The polarization of the field generated by each antenna necessitates testing each selected side twice, once with the antenna positioned vertically and again with the antenna positioned horizontally.
8. The EUT was performed in a configuration to actual installation conditions, a video camera and/or a audio monitor were used to monitor the performance of the EUT.

8.4.3 Test Results

Frequency	Level	Modulation	Antenna Polarization	EUT Face	Result / Observations
80 MHz-1 GHz	3 V/m	1 kHz, 80 % Amp. Mod, 1 % increment	V	Front	A
			H		A
			V	Rear	A
			H		A
			V	Left	A
			H		A
			V	Right	A
			H		A
			V	Top	N/A
			H		N/A
			V	Bottom	N/A
			H		N/A

Remarks:

Front: the front of the EUT faces to transmitting antenna (refer to Radiated Immunity test setup photo)

A: No degradation in the performance of the E.U.T. was observed.

N/A: Not applicable

The EUT does meet the Radiated Immunity requirements of Standard.



8.5 Power Frequency Magnetic Field Immunity

Test Requirement: EN 55024

Criterion Required: A

Test Date: N/A: See Remark Below

Remark:

There is no need for Power Frequency Magnetic Field Immunity test to be performed on this product in accordance with EN 55024: 2010 because this product does not contain any devices susceptible to magnetic fields .

9 Photographs

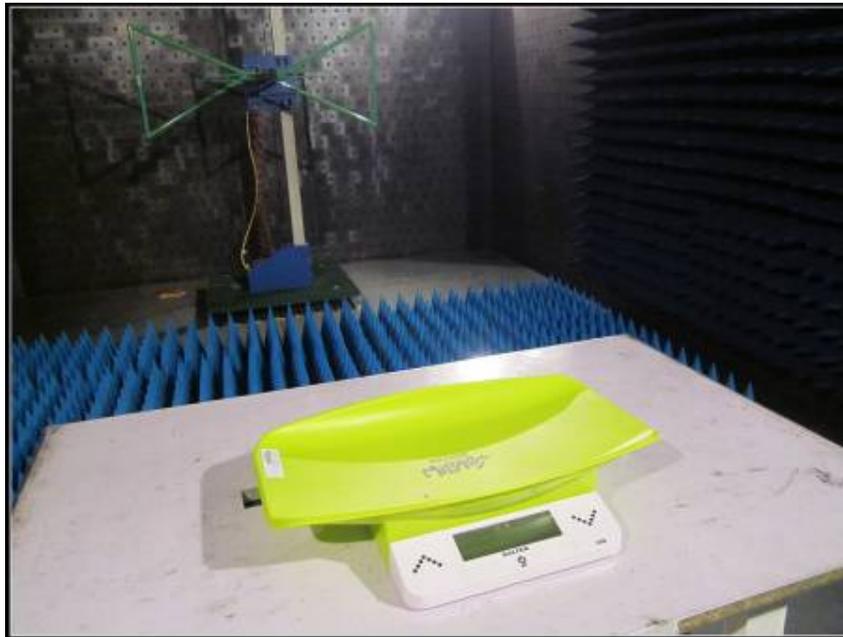
9.1 Radiated Emissions, 30MHz to 1GHz Test Setup



9.2 ESD Test Setup

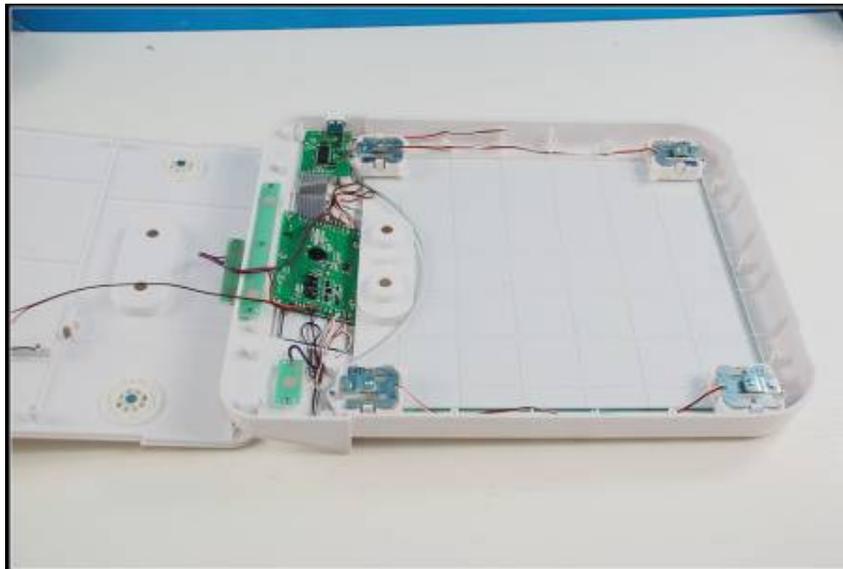
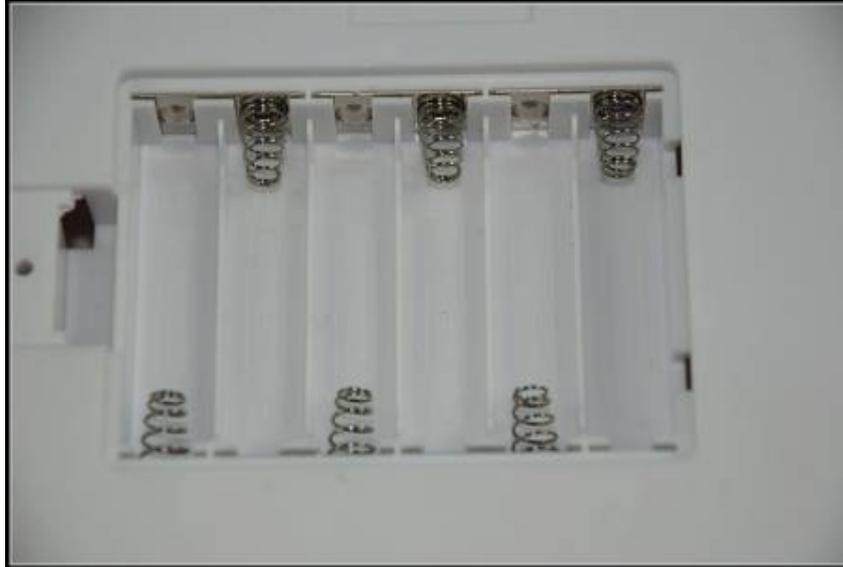


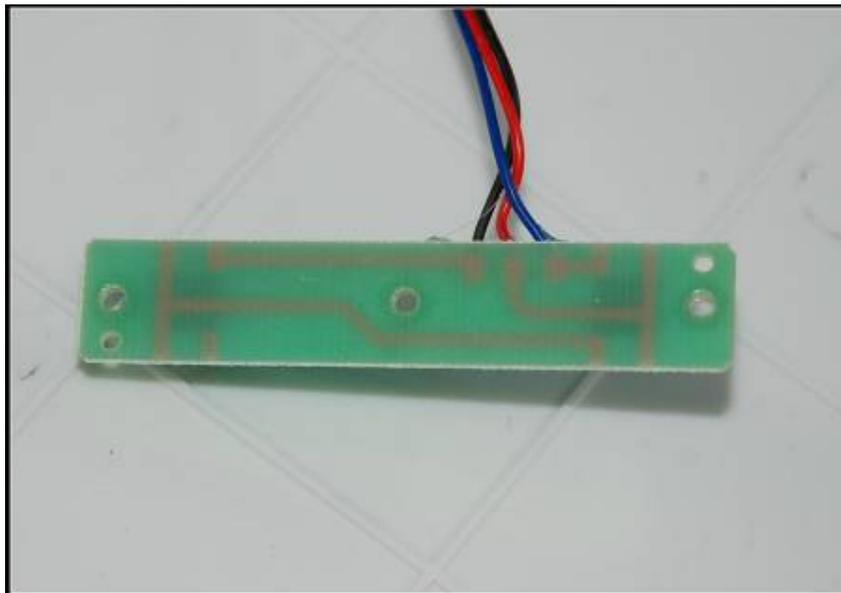
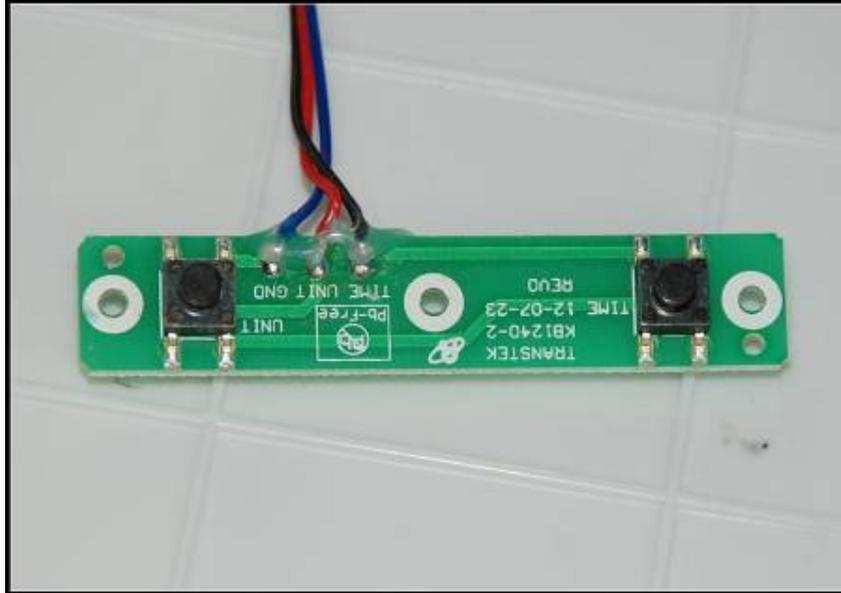
9.3 Radiated Immunity Test Setup

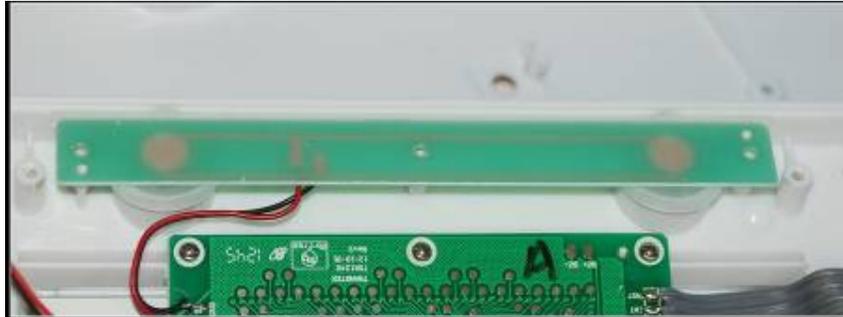


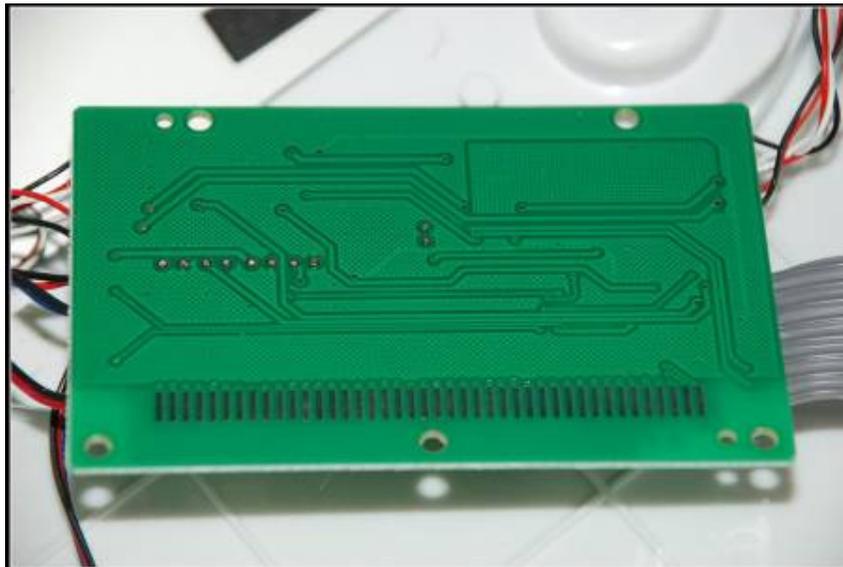
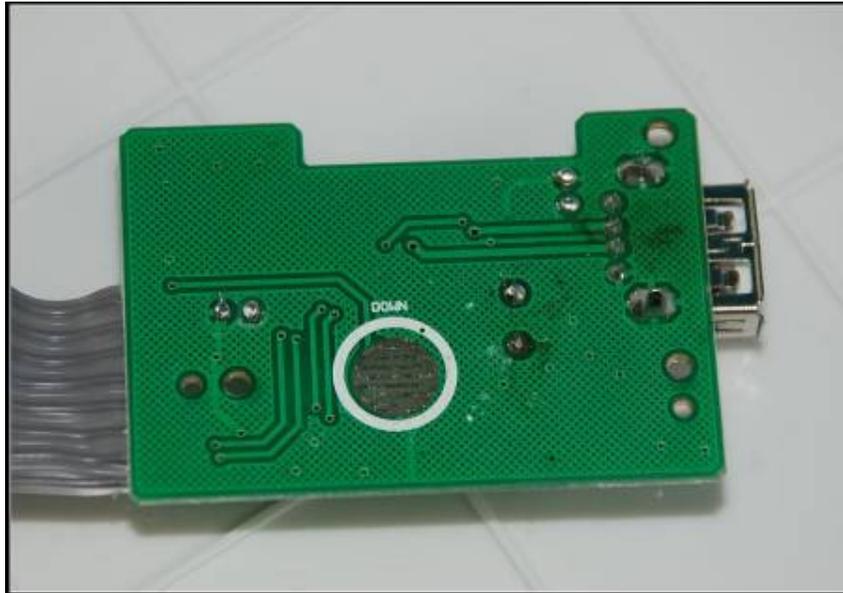
9.4 EUT Constructional Details

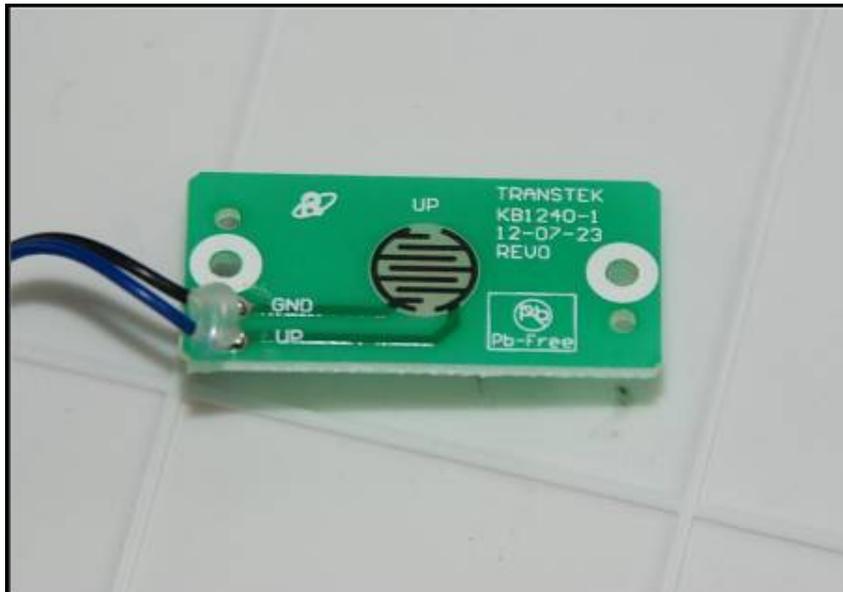
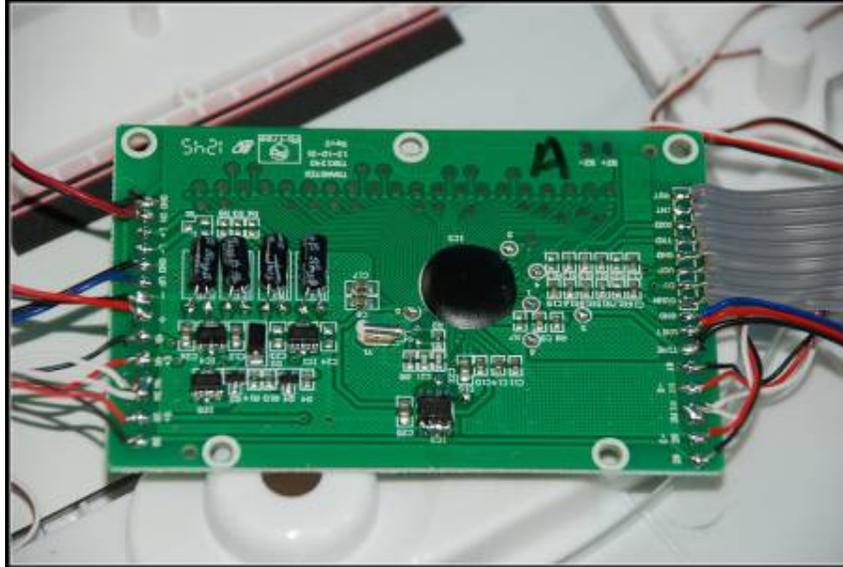


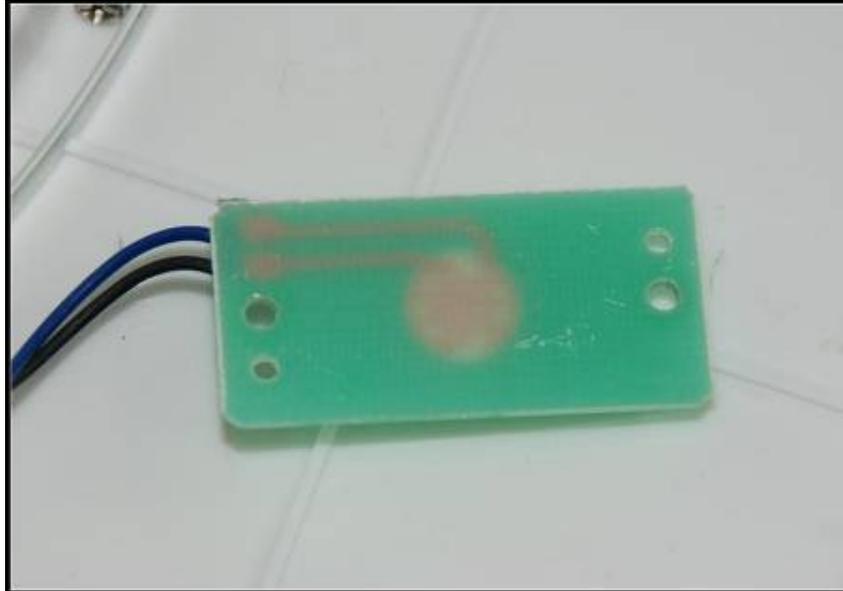












--End of Report--