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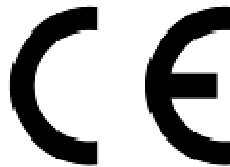
Report No.: GZEM111100453801
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TEST REPORT

Application No:	GZEM1111004538HS
Applicant:	Powell Gifts Co., Ltd
Product Name:	UV pacifier Sanitizer
Product Description:	UV pacifier Sanitizer
Model No:	HH51
Standards:	EN 61000-6-3:2007, EN 61000-6-1:2007.
Date of Receipt:	2011-11-29
Date of Test:	2011-12-12
Date of Issue:	2011-12-15
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.



Richard Li
Manager

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.

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2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00		2011-12-15		Original

Authorized for issue by:				
Tested By		 <hr/> (Jack Liang) / Project Engineer		<hr/> 2011-12-12 Date
Prepared By		 <hr/> (Zoe Yang) / Clerk		<hr/> 2011-12-15 Date
Checked By		 <hr/> (Michael Huang) / Reviewer		<hr/> 2011-12-15 Date

3 Test Summary

Electromagnetic Interference (EMI)				
Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (30MHz to 1GHz)	EN 61000-6-3:2007	CISPR 16-2-3:2006	Table 1 Column 3 of EN61000-6-3	PASS
Electromagnetic Susceptibility (EMS)				
Test	Test Requirement	Test Method	Class / Severity	Result
Electrostatic Discharge (ESD)	EN 61000-6-1:2007	EN 61000-4-2:2009	Contact ± 4 kV Air ±2, 4, 8 kV	PASS
Radiated Immunity	EN 61000-6-1:2007	EN 61000-4-3:2006 + A1:2008+ A2:2010	(80MHz to 1GHz, 1.4GHz to 2GHz) 3V/m, 80%, 1kHz Amp. Mod. (2GHz to 2.7GHz) 1V/m, 80%, 1kHz Amp. Mod.	PASS
Remark : As per client's declaration, the EUT can work with battery as power supply only.				



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5 General Information

5.1 Client Information

Applicant: Powell Gifts Co., Ltd
Address of Applicant: 5 floor on the north side, A building, B zone, the first industrial zone, QianJin 2nd Rd, Bao'an District, Shenzhen, China, PC: 518102

5.2 General Description of E.U.T.

Product Name: UV pacifier Sanitizer
Product Description: UV pacifier Sanitizer
Model No.: HH51

5.3 Details of E.U.T.

Power Supply: DC 4.5V = 3 x 1.5V "AAA" batteries
Power Cable: N/A

5.4 Description of Support Units

The EUT has been tested as an independent unit.

5.5 Deviation from Standards

N/A

5.6 Abnormalities from Standard Conditions

N/A

5.7 Monitoring of EUT for All Immunity Test

Audio: N/A
Visual: Monitor the UV lighting of the EUT.

5.8 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory,
198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District,
Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

5.9 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 and C-2584)**

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 and C-2584 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 60300-1:2006-10 and Rules of procedure IEC 60300-2:2006-10, and the relevant IEC 60300 CB-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	2012-09-06	2Y
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100283	2012-01-17	1Y
EMC0056	EMI Test Receiver	Rohde & Schwarz	ESCI	10036	2012-06-01	1Y
EMC0514	Coaxial cable	SGS	N/A	N/A	2012-12-08	1Y
EMC2025	Trilog Broadband Antenna 30-3000MHz	SCHWARZBECK MESS-ELEKTRONIK	VULB 9163	9163-450	2012-10-20	1Y
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	2012-11-28	1Y
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	2012-11-28	1Y
EMC2026	Horn Antenna 1-18GHz	R&S	BBHA 9120D	9120D-841	2012-10-20	1Y
EMC0518	Horn Antenna	Rohde & Schwarz	HF906	100096	2012-08-29	1Y
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	2012-01-17	1Y
EMC0049	Amplifier	Agilent	8447D	2944A10862	2012-04-21	1Y
EMC0075	310N Amplifier	Sonama	310N	272683	2012-08-29	1Y
EMC0523	Active Loop Antenna	EMCO	6502	42963	2012-11-17	1Y
EMC2041	Broad-Band Horn Antenna(14)15-26.5(40)GHz	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9170	9170-375	2012-06-01	1Y
EMC0530	10m Semi- Anechoic Chamber	ETS	N/A	N/A	2012-05-10	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	2012-10-20	1Y
EMC0804	ESD Ground Plane	SGS	3m x 3m	N/A	N/A	N/A
EMC0077	Temperature, & Humidity	Shanghai Meteorological Instrument factory Co., Ltd.	ZJ1-2B	709151	2012-11-26	1Y
General used equipment						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Due date	Calibration Interval
					(YYYY-MM-DD)	
EMC0006	DMM	Fluke	73	70681569	2012-11-14	1Y
EMC0007	DMM	Fluke	73	70671122	2012-11-14	1Y



7 Emission Test Results

7.1 Radiated Emissions, 30MHz to 1GHz

Test Requirement: EN 61000-6-3
Test Method: CISPR 16-2-3
Test Date: 2011-12-12
Power Supply: DC 4.5V
Frequency Range: 30MHz to 1GHz
Measurement Distance: 3m
Detector: Peak for pre-scan
Quasi-Peak or (and) Average for final measurement
Quasi-Peak if maximised peak within 6dB of limit

Limit:

For 3m

Frequency range MHz	Quasi-peak limits dB (µV/m)
30 to 230	40
230 to 1000	47

At transitional frequencies the lower limit applies.

7.1.1 E.U.T. Operation

Operating Environment:

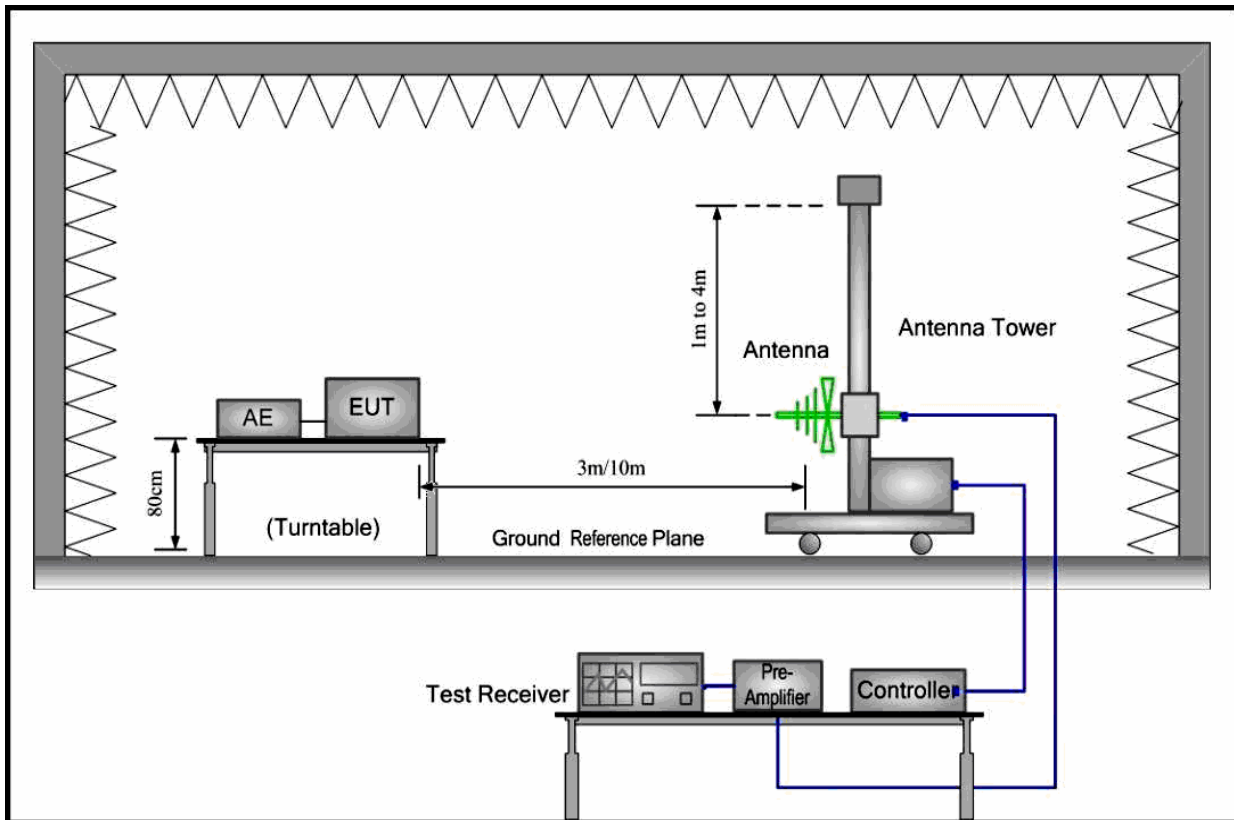
Temperature: 20°C

Humidity: 57% RH

Atmospheric Pressure: 1006 mbar

EUT Operation: Test the EUT in UV lighting mode.

7.1.2 Test Setup and Procedure



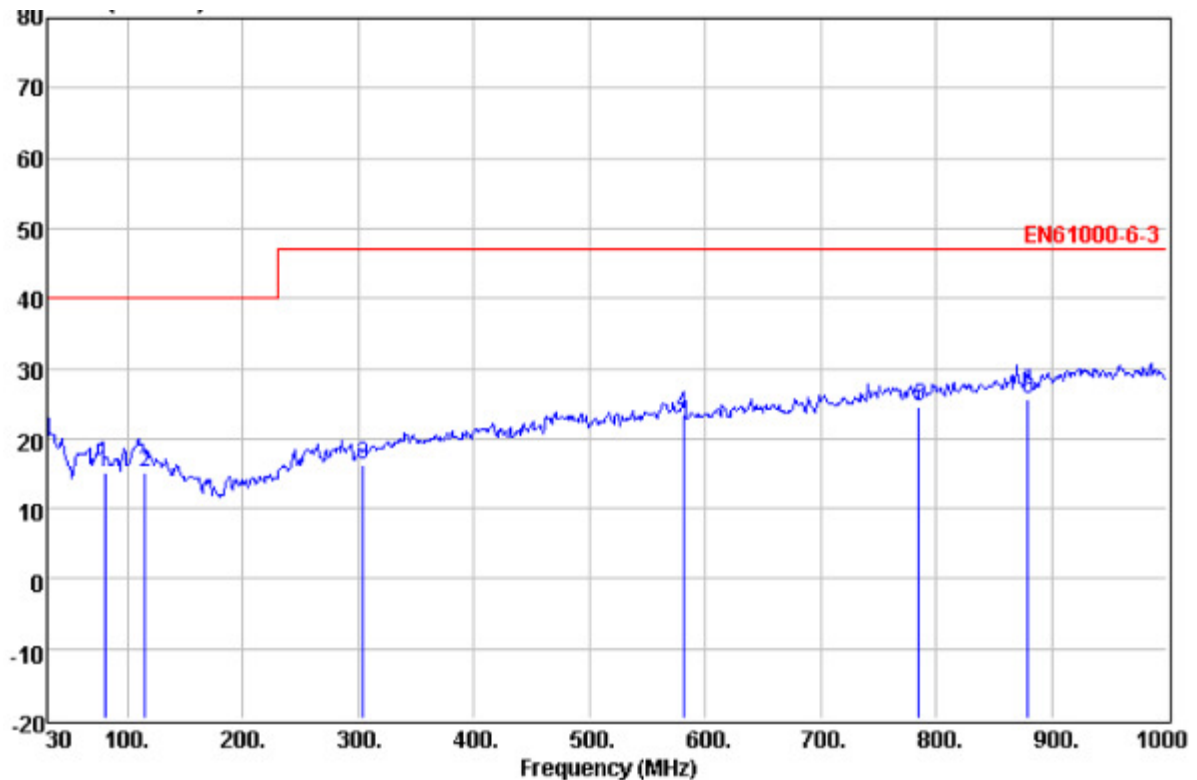
1. The radiated emissions test was conducted in a semi-anechoic chamber.
2. The mains cables shall drape to the ground reference plane.
3. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal 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 emission spectrum signature data plots of the EUT.
5. The frequencies of maximum emission were determined in the final radiated emissions measurement, the physical arrangement of the test system and associated cabling was varied in order to determine the effect on the EUT's emissions in amplitude, direction and frequency. 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

Vertical:

Peak scan

Level (dB μ V/m)



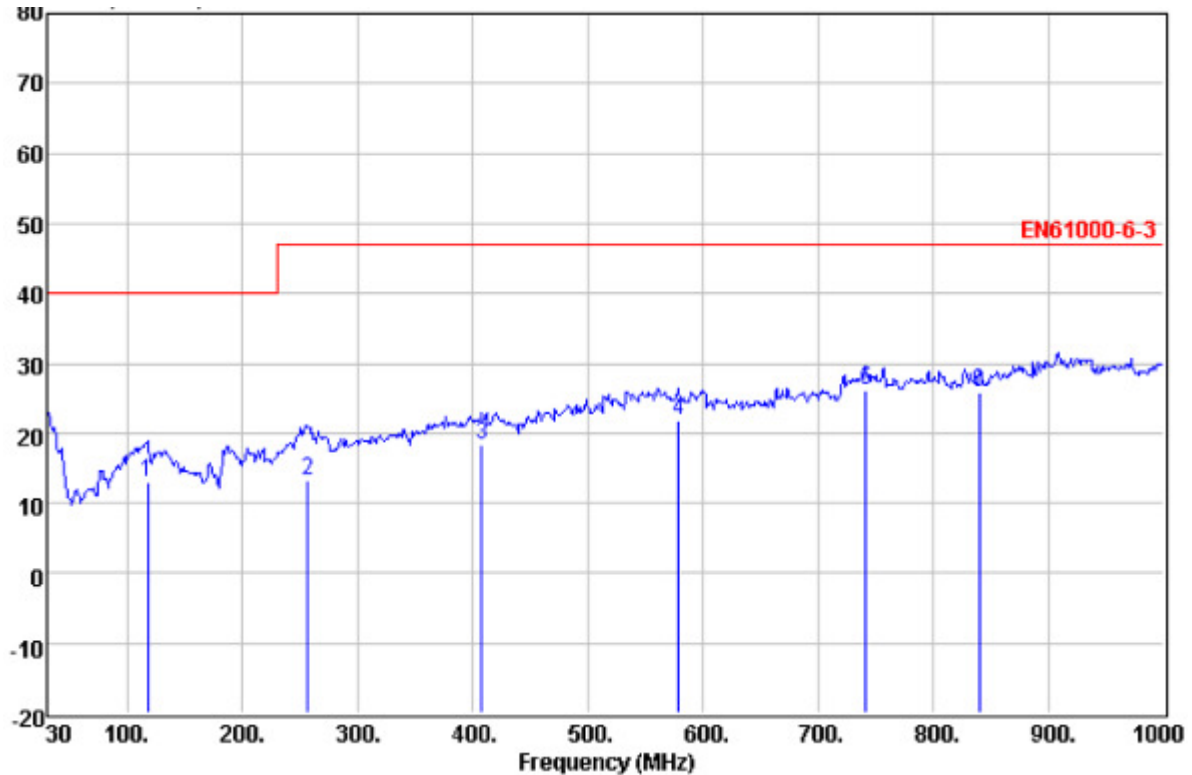
Quasi-peak measurement

Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Over Limit	Limit	Remark
MHz	dB μ V	dB/m	dB	dB	dB μ V/m	dB	dB μ V/m	
80.440	35.47	6.38	0.90	27.75	15.00	-25.00	40.00	QP
115.360	29.92	11.71	1.07	27.59	15.11	-24.89	40.00	QP
303.540	28.63	12.80	1.82	27.10	16.15	-30.85	47.00	QP
580.960	30.62	18.50	2.56	28.32	23.36	-23.64	47.00	QP
785.630	29.18	19.85	3.05	27.67	24.41	-22.59	47.00	QP
879.720	28.39	20.77	3.41	26.91	25.66	-21.34	47.00	QP

Horizontal:

Peak scan

Level (dBµV/m)



Quasi-peak measurement

Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Over Limit	Limit	Line	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dB	dBuV/m		
117.300	27.83	11.75	1.08	27.58	13.08	-26.92	40.00		QP
256.980	26.48	12.20	1.63	27.13	13.18	-33.82	47.00		QP
408.300	27.62	16.34	2.11	27.79	18.28	-28.72	47.00		QP
579.020	29.13	18.48	2.56	28.31	21.86	-25.14	47.00		QP
741.980	30.92	20.08	2.88	27.77	26.11	-20.89	47.00		QP
839.950	29.48	20.40	3.25	27.27	25.86	-21.14	47.00		QP

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



8 Immunity Test Results

8.1 Performance Criteria Description in Clause 5 of EN 61000-6-1

Criterion A:
The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus 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, either of these may be derived from the product description and documentation and what the user may reasonably expect from the apparatus if used as intended.
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 specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed. 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, either of these may be derived from the product description and documentation and what the user may reasonably expect from the apparatus if used as intended.
Criterion C:
Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.



8.2 Electrostatic Discharge (ESD)

Test Requirement:	EN 61000-6-1	
Test Method:	EN 61000-4-2	
Criterion Required:	B	
Test Date:	2011-12-12	
Power Supply:	DC 4.5V	
Discharge Impedance:	330 Ω / 150 pF	
Discharge Voltage:	Air Discharge:	2, 4, 8 kV
	Contact Discharge:	4 kV
	VCP / HCP:	4 kV
Polarity:	Positive & Negative	
Number of Discharge:	Minimum 10 times at each test point	
Discharge Mode:	Single Discharge	
Discharge Period:	1 second minimum	

8.2.1 E.U.T. Operation

Operating Environment:

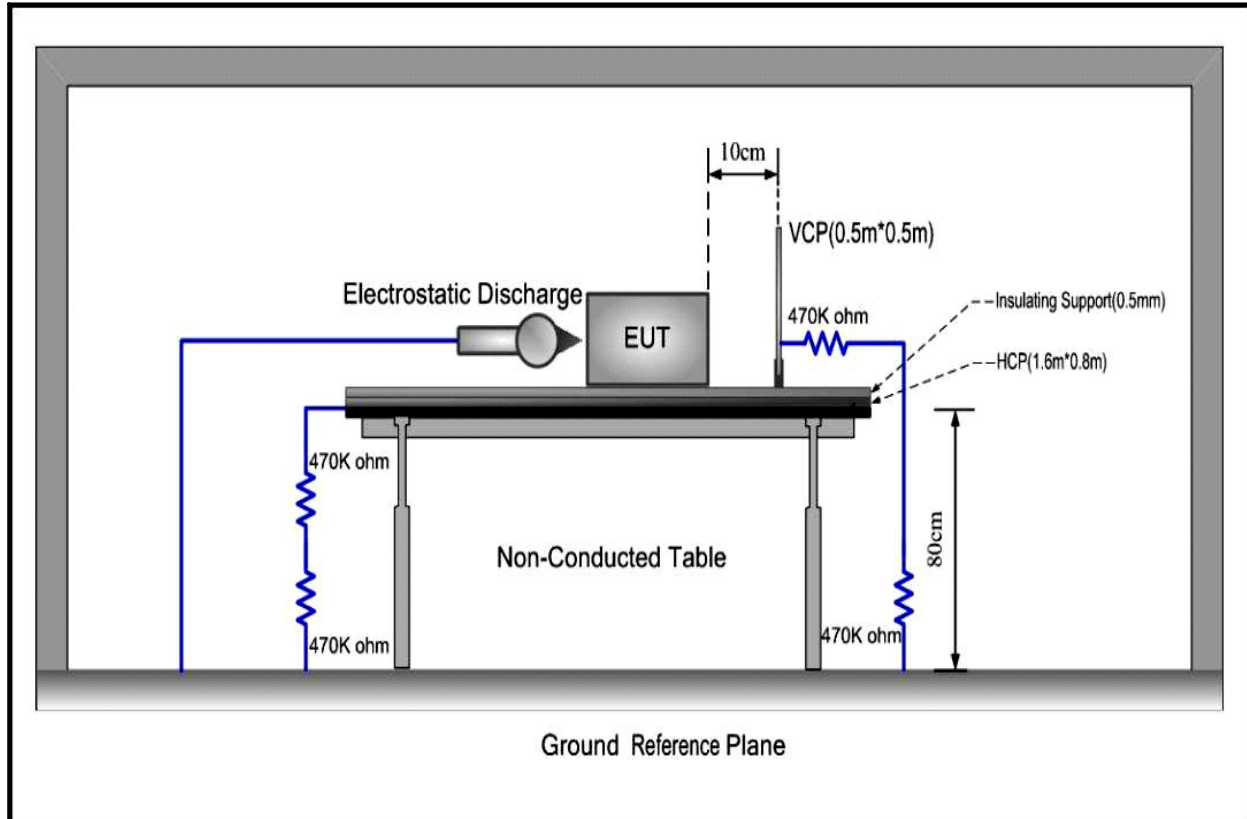
Temperature: 24°C

Humidity: 52% RH

Atmospheric Pressure: 1006 mbar

EUT Operation: Test the EUT in lighting mode and idle mode.

8.2.2 Test Setup and Procedure



1. Contact discharge was applied only to conductive surfaces of the EUT. Air discharge was applied only to non-conducted surfaces of the EUT.
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 470kΩ 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 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 is 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.

8.2.3 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

Results:

- A: No degradation in the performance of the EUT was observed.
 N/A: Not Applicable (not required by Standard).



8.3 Radiated Immunity

Test Requirement:	EN 61000-6-1
Test Method:	EN 61000-4-3
Criterion Required:	A
Test Date:	2011-12-12
Power Supply:	DC 4.5V
Frequency Range:	80MHz to 1GHz 1.4GHz to 2.7GHz
Antenna Polarization:	Horizontal & Vertical
Test level:	3 V/m & 1 V/m
Modulation:	80% 1kHz Amplitude Modulated

8.3.1 E.U.T. Operation

Operating Environment:

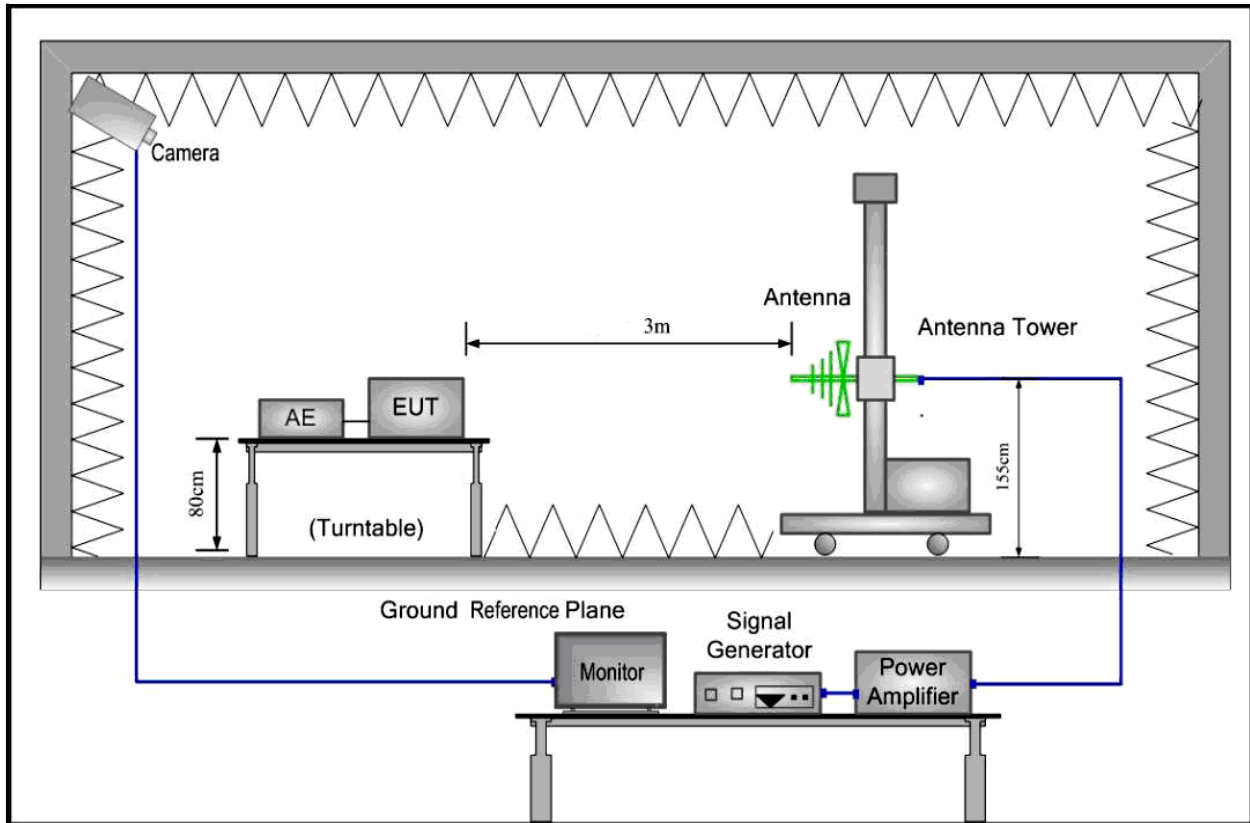
Temperature: 21°C

Humidity:56% RH

Atmospheric Pressure:1007 mbar

EUT Operation: Test the EUT in UV lighting mode and idle mode.

8.3.2 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. Where the frequency range was swept incrementally, the step size was not exceeded 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 an audio monitor were used to monitor the performance of the EUT.

8.3.3 Test Results:

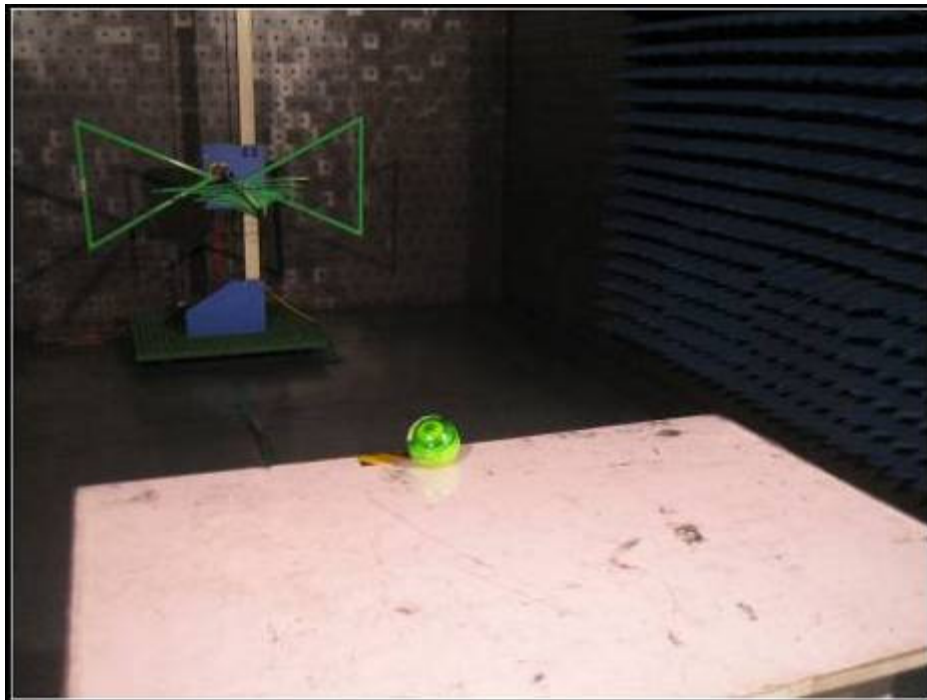
Frequency	Level	Modulation	EUT Face	Result / Observations
80MHz-1.0GHz 1.4GHz-2.0GHz	3 V/m	1kHz, 80% Amp. Mod, 1% increment	0°V	A
			0°H	
			90°V	A
			90°H	
			180°V	A
			180°H	
			270°V	A
			270°H	
2.0GHz -2.7GHz	1 V/m	1kHz, 80% Amp. Mod, 1% increment	0°V	A
			0°H	
			90°V	A
			90°H	
			180°V	A
			180°H	
			270°V	A
			270°H	

Remarks:

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

9 Photographs

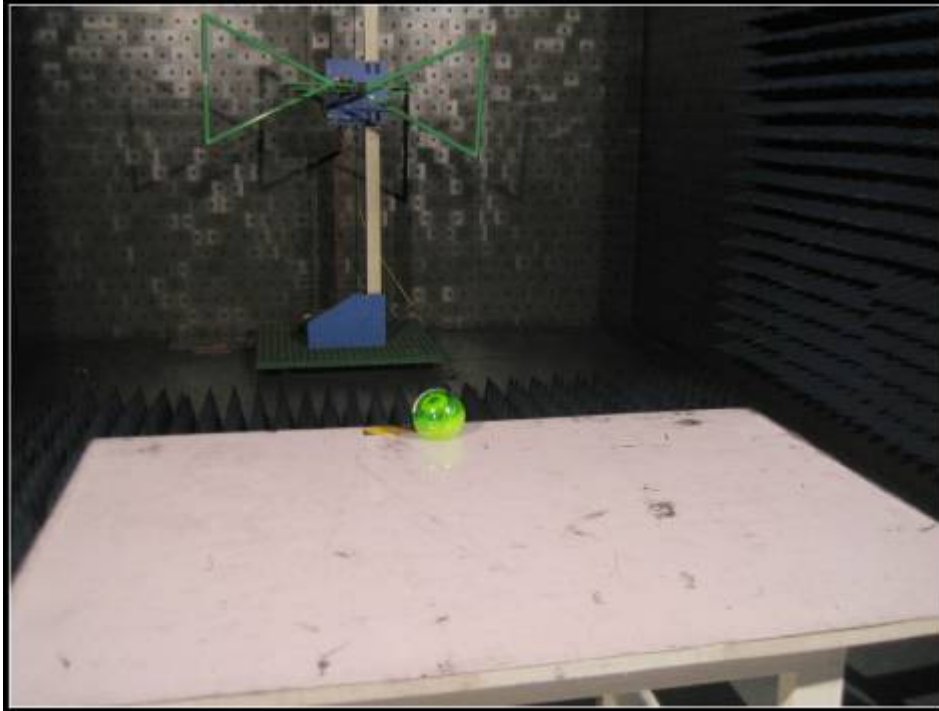
9.1 Radiated Emission Test Setup



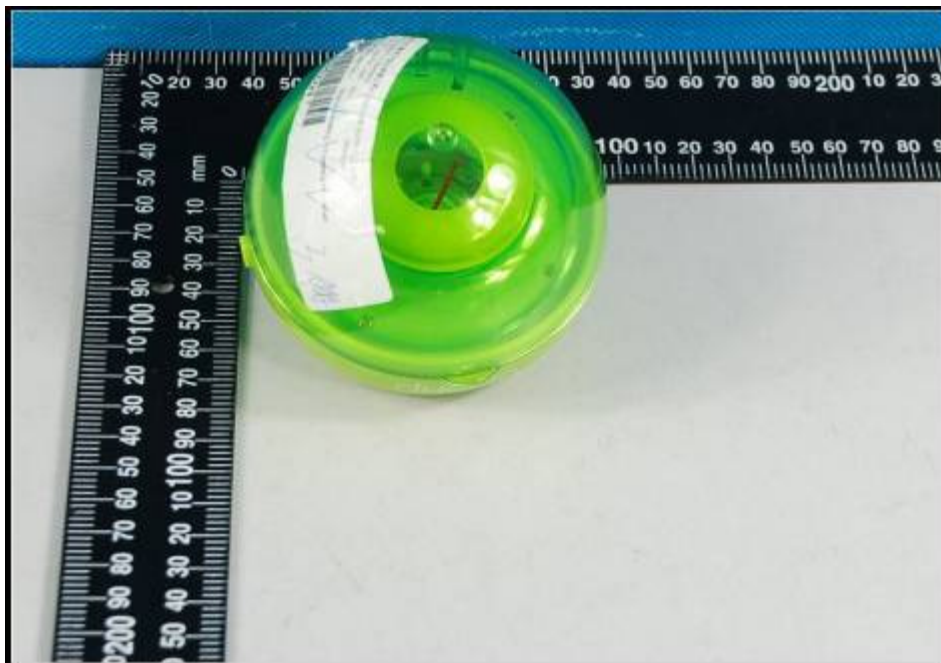
9.2 ESD Test Setup

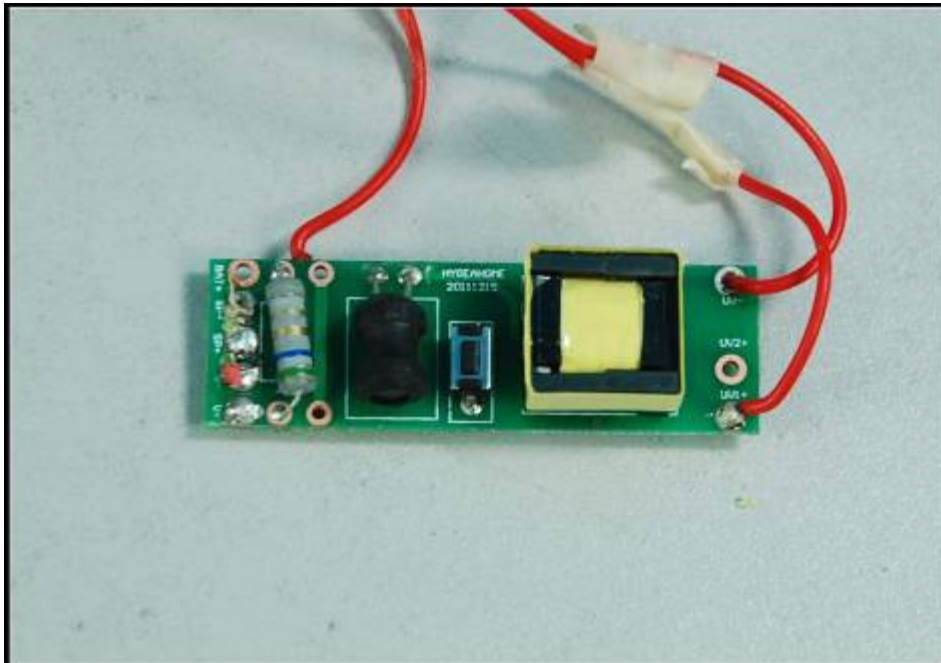
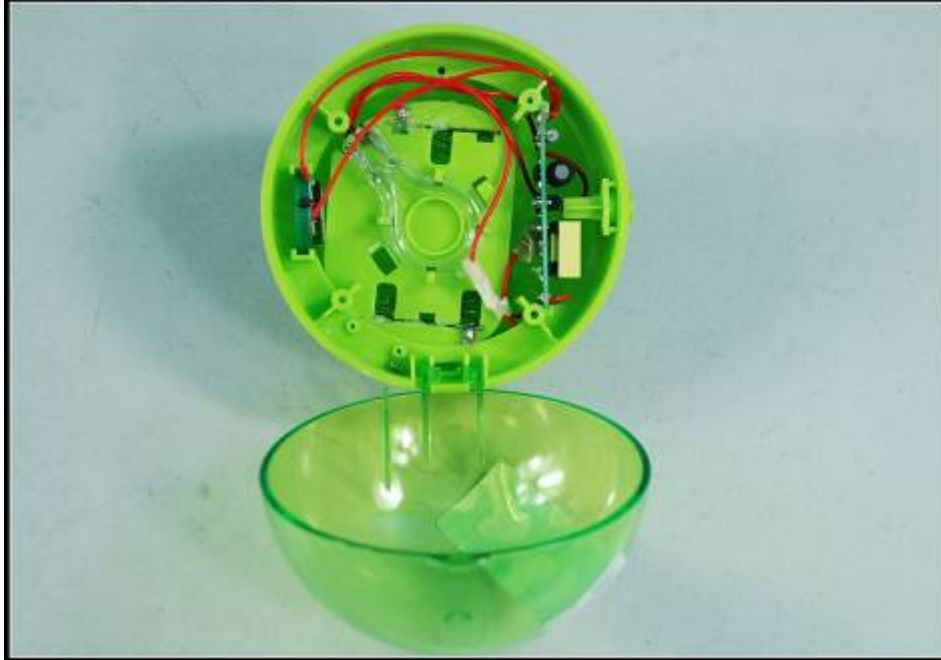


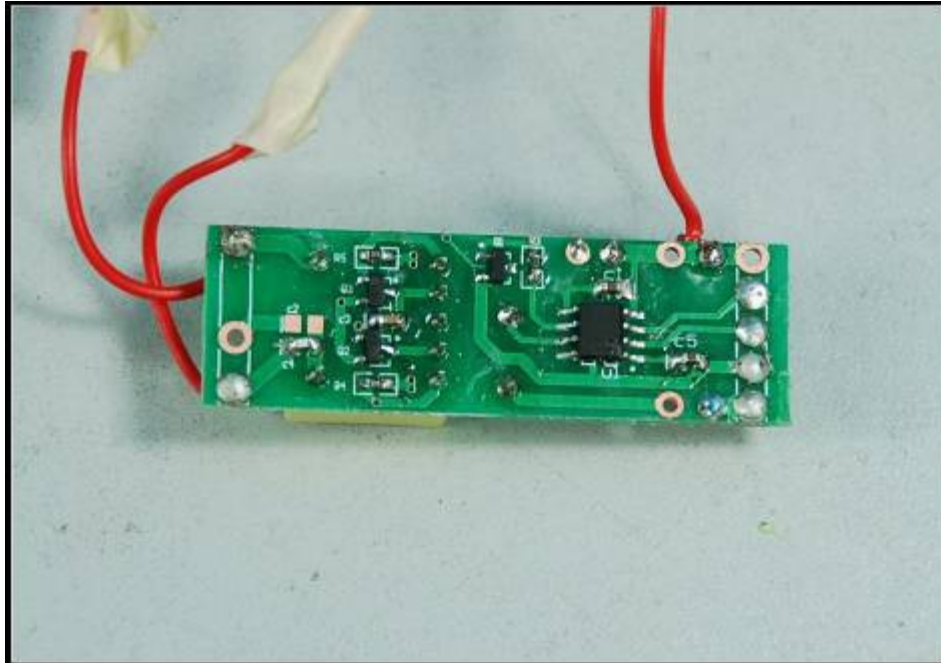
9.3 Radiated Immunity Test Setup



9.4 EUT Constructional Details







--End of Report--