SGS-CSTC Standards Technical Services Co., Ltd.

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TEST REPORT

Application No:	GZEM1409004675HS
Applicant:	
Product Name:	Electric Wine Opener
Product Description:	Electric Wine Opener
Model No:	KB1-60I, KB1-60C, KB1-60E, KB1-60K, KB1-60L2, KB1-60L, KB1-60N, KB1-60M ♣ Please refer to section 3 of this report for further details.
Standards:	EN 55014-1:2006/A2:2011, EN 55014-2:1997/A2:2008.
Date of Receipt:	2014-09-04
Date of Test:	201409-09 to 2014-09-10
Date of Issue:	2014-09-11
Test Result:	**Pass***

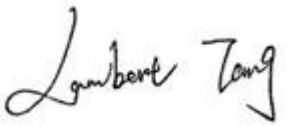
* In the configuration tested, the EUT complied with the standards specified above.

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

2 Version

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
00		2014-09-11		Original

Authorized for issue by:				
Tested By		 **(Lambert Tang) / Project Engineer**		201409-09 to 2014-09-10 **Date**
Prepared By		 **(Liky Chen) / Clerk**		2014-09-11 **Date**
Checked By		 **(Shrek He) / Reviewer**		2014-09-11 **Date**

3 Test Summary

Electromagnetic Interference (EMI)				
Test	**Test Requirement**	**Test Method**	**Class / Severity**	**Result**
Radiated Emission (30MHz to 1GHz)	EN 55014-1:2006 /A2:2011	CISPR 16-2-3:2006	Table 3	PASS
Electromagnetic Susceptibility(EMS) [1)]				
Test	**Test Requirement**	**Test Method**	**Class / Severity**	**Result**
Immunity	EN 55014-2:1997 /A2:2008	EN 55014-2:1997 /A2:2008	Clause 4.1 of EN 55014-2	PASS**
Remark :				
[1)] **:** The EUT belongs to **Category I of EN 55014-2**:1997/A2:2008.				
EUT In this whole report EUT means Equipment Under Test. **; Please refer to Section 8 of this report for details.				
♣ **Model No:** KB1-60I, KB1-60C, KB1-60E, KB1-60K, KB1-60L2, KB1-60L, KB1-60N, KB1-60M According to the declaration of the applicant, the electrical circuit design, layout, components used and internal wiring were identical for all models, with only difference being the model No. and color. Therefore only one model **KB1-60K** was tested in this report.				

4 Contents

5 General Information

5.1 Client Information

Applicant:

Address of Applicant:

5.2 General Description of E.U.T.

Product Name:	Electric Wine Opener
Product Description:	Electric Wine Opener
Model No:	KB1-60K

5.3 Details of E.U.T.

Rated Supply Voltage:	DC 6V= 4 x 1.5V “AA” 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

None.

5.6 General Test Climate During Testing

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

5.7 Abnormalities from Standard Conditions

None.

5.8 Monitoring of EUT for All Immunity Test

Audio: N/A

Visual: Monitor the motor running 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, Scientech 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 accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

  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.

- **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, IECEE 01:2006-10 and Rules of procedure IECEE 02:2006-10, and the relevant IECEE CB-Scheme Operational documents.

6 Equipment Used during Test

RE in Chamber						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. date (YYYY-MM-DD)	Cal.Due date (YYYY-MM-DD)
EMC0525	Compact Semi-Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	2013-12-5	2014-12-5
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100283	2014-04-19	2015-04-19
EMC0056	EMI Test Receiver	Rohde & Schwarz	ESCI	100236	2014-03-03	2015-03-03
EMC0528	RI High frequency Cable	SGS	20 m	N/A	2014-05-09	2015-05-09
EMC2025	Trilog Broadband Antenna 30-1000MHz	SCHWARZBECK MESS-ELEKTRONIK	VULB 9160	9160-3372	2014-07-14	2017-07-14
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	2013-08-31	2016-08-31
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	2014-05-04	2017-05-04
EMC2026	Horn Antenna 1-18GHz	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	9120D-841	2013-08-31	2016-08-31
EMC0518	Horn Antenna	Rohde & Schwarz	HF906	100096	2012-07-01	2015-07-01
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	2014-03-03	2015-03-03
EMC2065	Amplifier	HP	8447F	N/A	2014-08-25	2015-08-25
EMC0075	310N Amplifier	Sonama	310N	272683	2014-03-03	2015-03-03
EMC0523	Active Loop Antenna	EMCO	6502	42963	2014-03-03	2016-03-03
EMC2041	Broad-Band Horn Antenna (14)15-26.5(40)GHz	SCHWARZBECK MESS-ELEKTRONI	BBHA 9170	9170-375	2014-05-26	2017-05-26
EMC2069	2.4GHz filter	Micro-Tronics	BRM 50702	149	2014-04-19	2015-04-19
EMC0530	10m Semi-Anechoic Chamber	ETS	N/A	N/A	2014-05-03	2016-05-03

General used equipment						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. date (YYYY-MM-DD)	Cal.Due date (YYYY-MM-DD)
EMC0006	DMM	Fluke	73	70681569	2013-09-13	2014-09-13
EMC0007	DMM	Fluke	73	70671122	2013-09-13	2014-09-13

7 Electromagnetic Interference Test Results

7.1 Radiated Emissions, 30MHz to 1GHz

Test Requirement: EN 55014-1

Test Method: CISPR 16-2-3, semi-anechoic chamber

Test Date: 2014-09-09

Test Voltage: DC 6V

Frequency Range: 30 MHz to 1GHz

Measurement Distance: 3m

Detector: Peak for pre-scan

Quasi-Peak for final test (120 kHz resolution bandwidth)

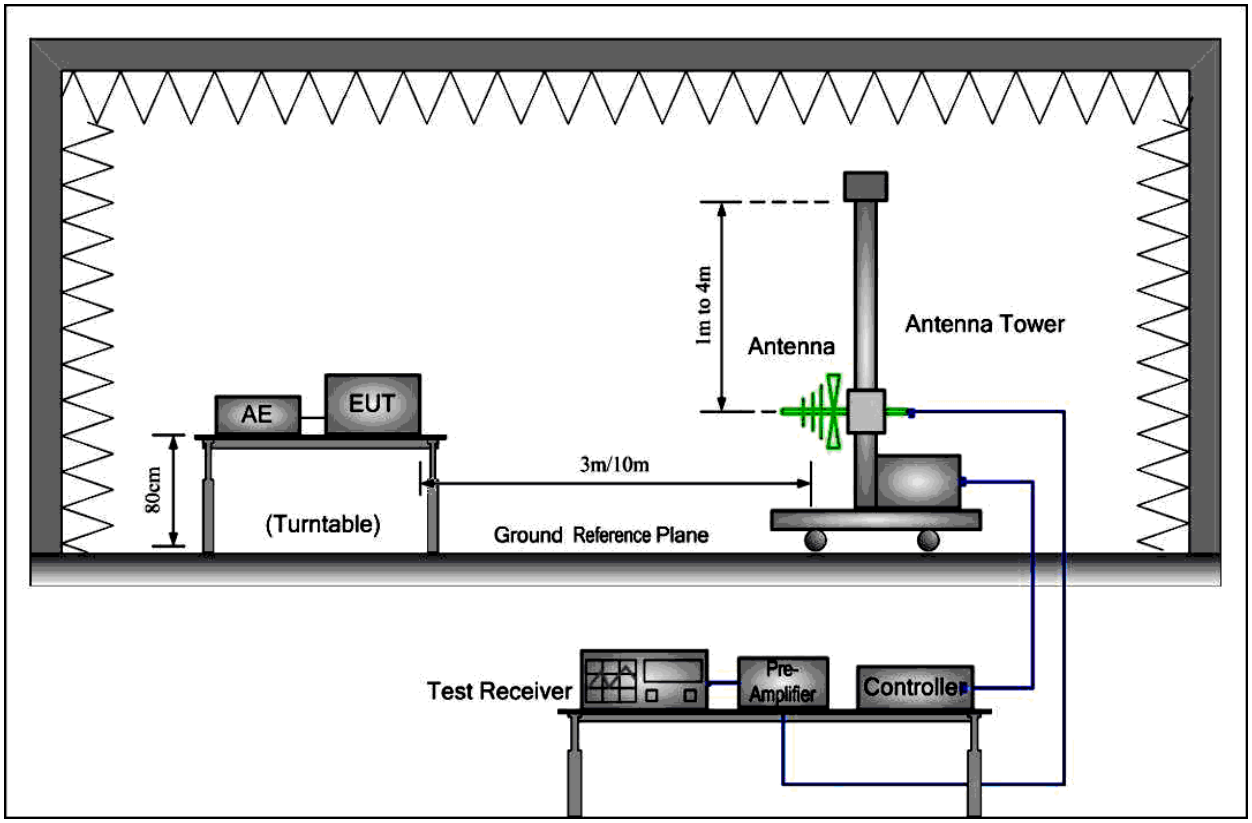
Limit:

Frequency range	Quasi-peak limits
MHz	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

A pre-test was performed on the EUT in motor reverse mode and motor forward mode, compliance test was conducted at motor reverse mode as the worse case.

7.1.2 Test Setup and Procedure



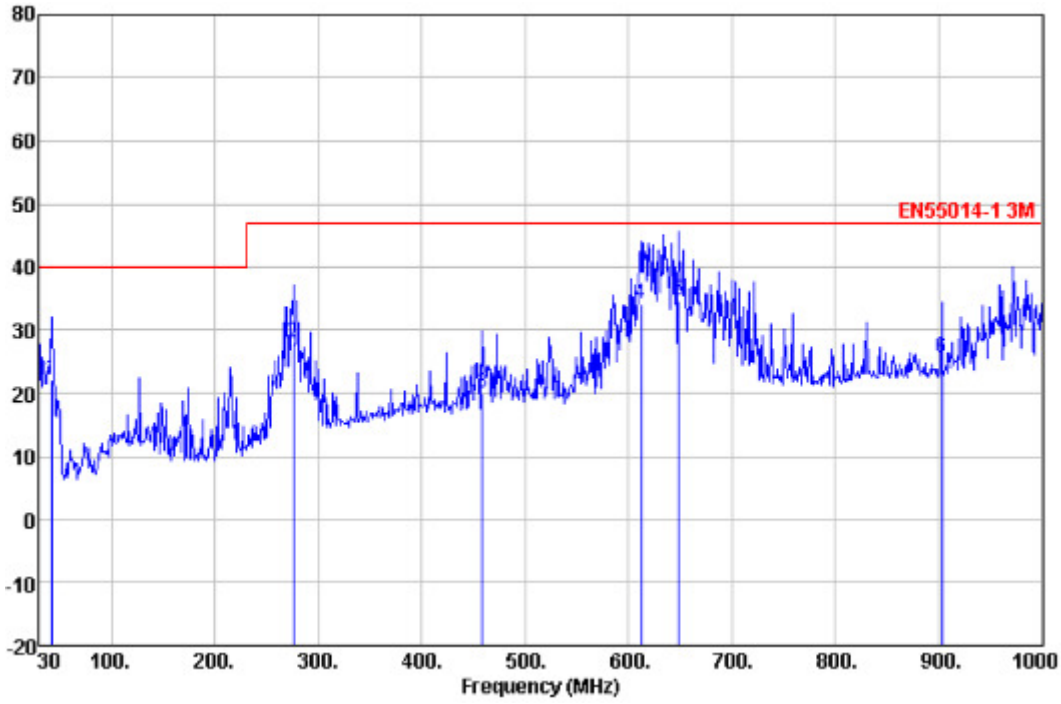
1. The radiated emissions test was conducted in a semi-anechoic chamber.
2. The mains cables shall drape to the ground reference plane.
3. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal 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 (dBµV/m)



Quasi-peak measurement

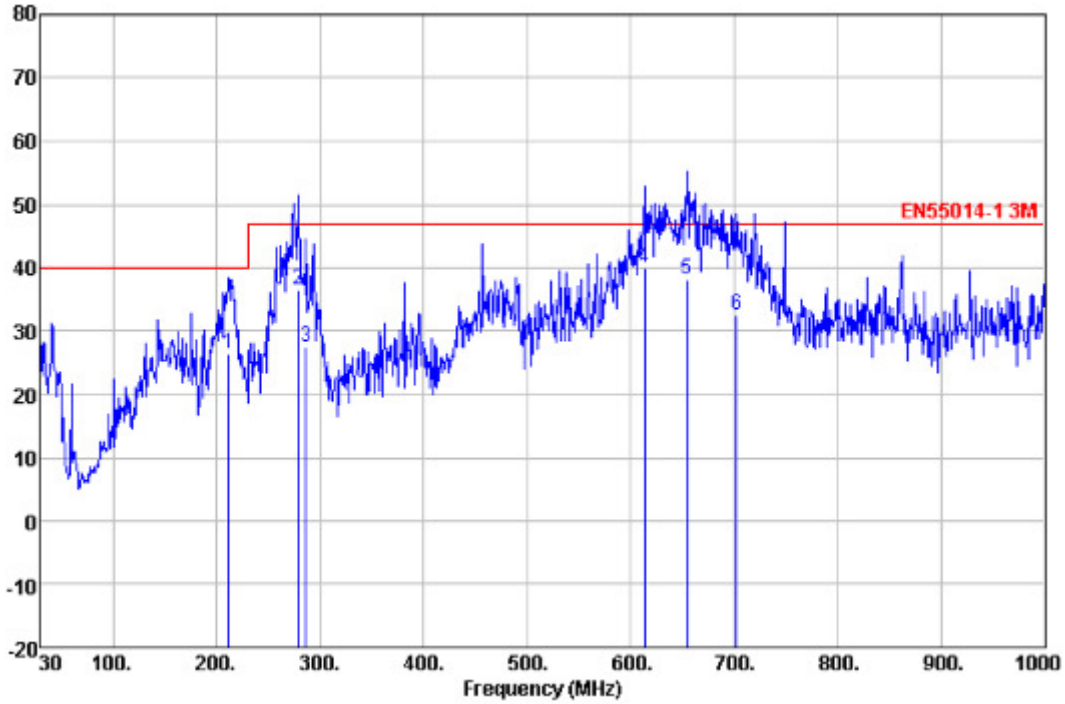
Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
41.640	35.77	12.90	0.19	26.76	22.10	40.00	-17.90	QP
275.410	40.92	12.10	0.89	25.90	28.01	47.00	-18.99	QP
458.740	29.02	16.46	1.34	26.90	19.92	47.00	-27.08	QP
612.000	41.28	18.50	1.58	27.23	34.13	47.00	-12.87	QP
648.860	41.36	18.70	1.80	27.20	34.66	47.00	-12.34	QP
903.000	29.60	20.77	1.94	26.78	25.53	47.00	-21.47	QP

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

Horizontal:

Peak scan

Level (dBμV/m)



Quasi-peak measurement

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
211.390	42.63	9.19	0.74	26.08	26.48	40.00	-13.52	QP
279.290	49.25	12.26	0.91	25.88	36.54	47.00	-10.46	QP
286.080	39.95	12.38	0.95	25.85	27.43	47.00	-19.57	QP
613.940	47.02	18.50	1.59	27.22	39.89	47.00	-7.11	QP
654.680	44.96	18.66	1.80	27.19	38.23	47.00	-8.77	QP
702.210	38.81	18.98	1.87	27.07	32.59	47.00	-14.41	QP

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

8 Electromagnetic Susceptibility Test Results

Test Requirement: EN 55014-2

Test Method: N/A: See Remark Below

There is no need for immunity tests to be performed on this product in accordance with clause 7.2.1 of EN 55014-2 which states:

“Category I apparatus is deemed to fulfil the relevant immunity requirement without testing.”

For further details, please refer to clause 4.1 of EN 55014-2 which states:

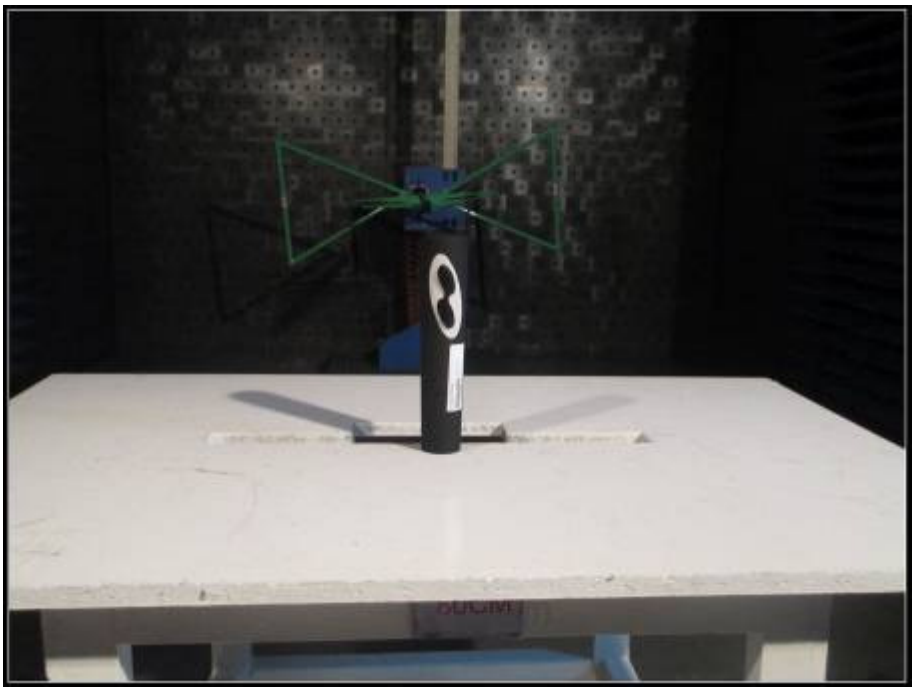
“Category I: apparatus containing no electronic control circuitry.

Example: motor operated appliances, lighting toys, track sets without electronic control units, tools, heating appliances UV and IR radiators and apparatus containing components such as electromechanical switches and thermostats.

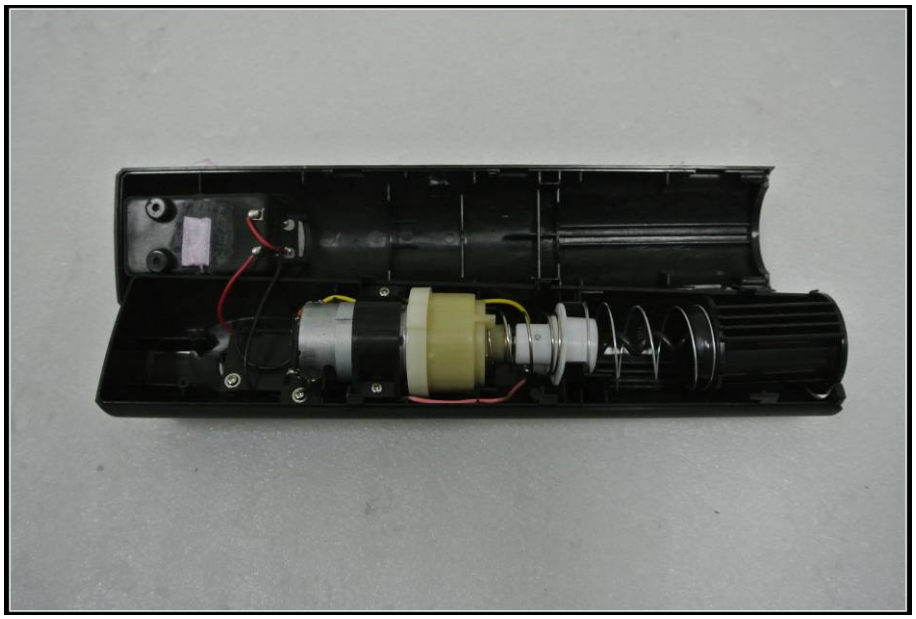
Electric circuits consisting of passive components (such as radio interference suppression capacitors or inductors, mains transformers and mains frequency rectifiers) are not considered to be electronic control circuitry.”

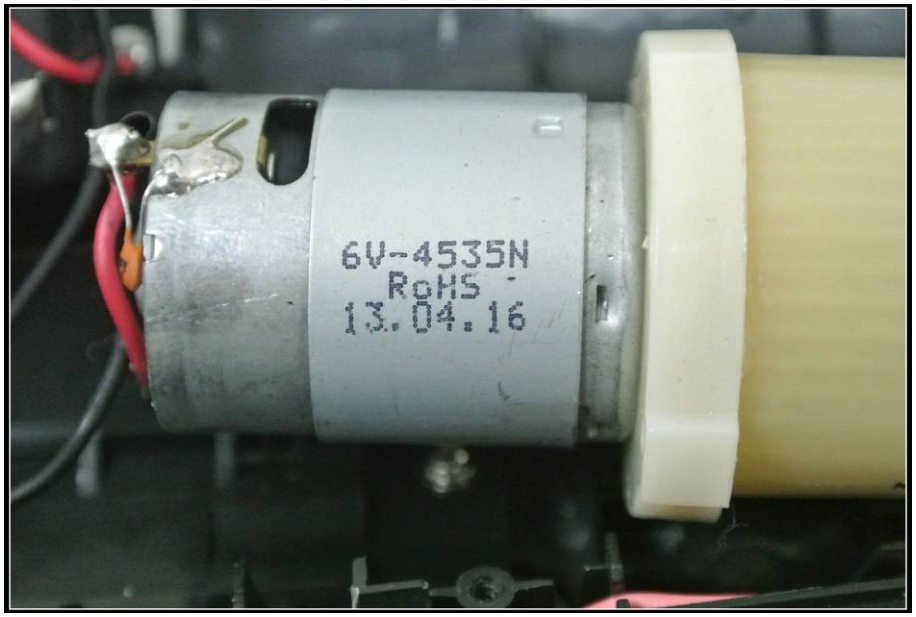
9 Photographs

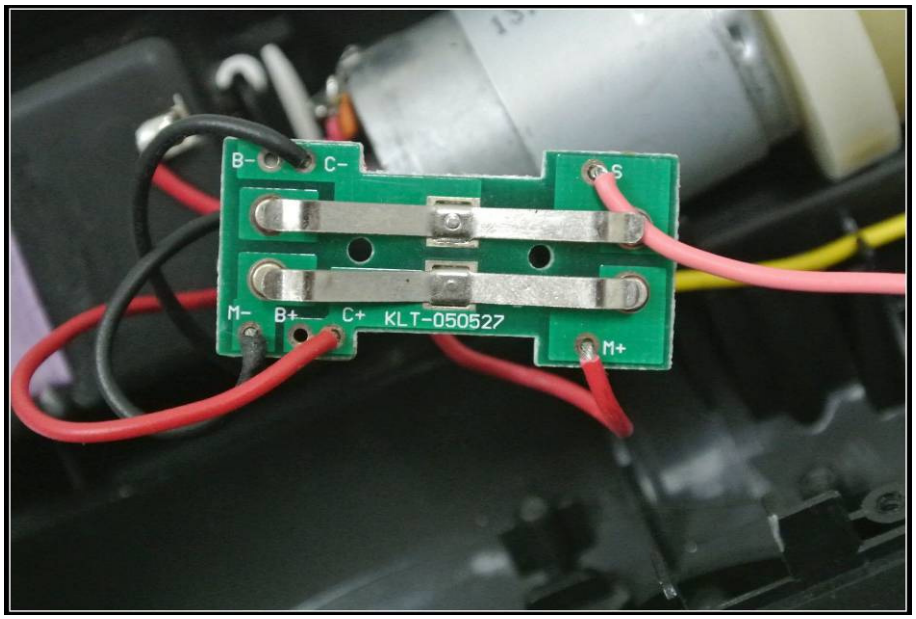
9.1 Radiated Emission Test Setup

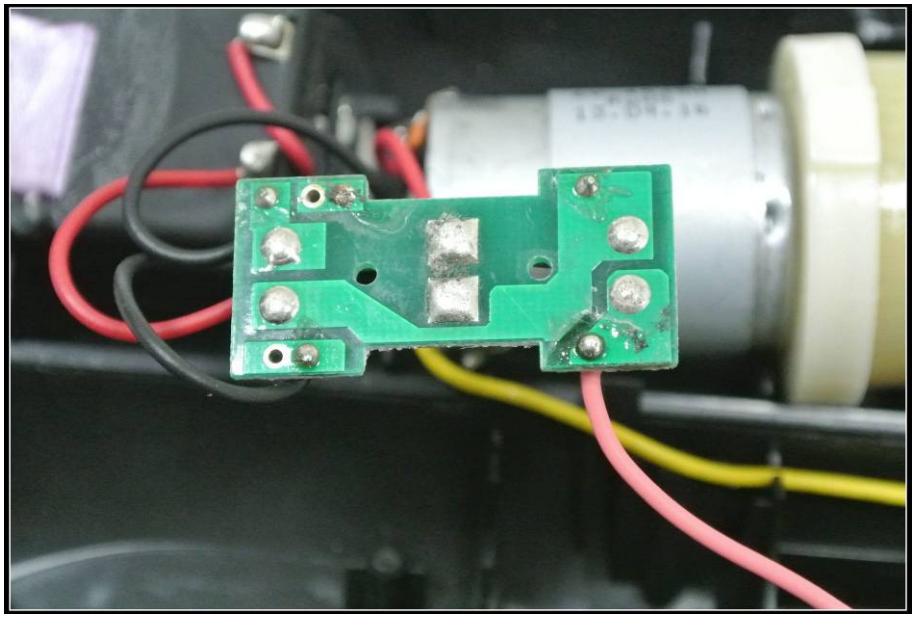


9.2 EUT Constructional Details









9.3 Series Model Appearance

--End of Report--