TEST REPORT

Application No.: SZEMO070501205ET (SGS SZ NO.:SZTYR070501375/EL)

Applicant: Xiongcheng plastic Toys Co. Ltd.

Equipment Under Test (EUT):

EUT Name: TRUCK
Item No.: 38008
Serial No.: Not supplied by client

Standards: EN 55014-1: 2006
EN 55014-2: 1997 + A1: 2001

Date of Receipt: 23 May 2007

Date of Test: 25 May to 21 June 2007

Date of Issue: 29 June 2007

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.

CE

Robinson Lo
Laboratory Manager

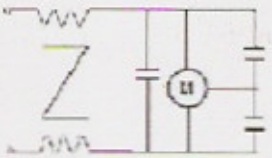
Keith Hutchinson
Operation Manager
SGS UK Ltd (Bowburn)

2 Test Summary

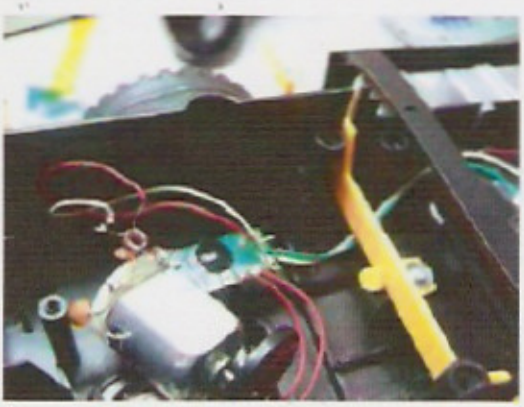
Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (30MHz to 1GHz)	EN 55014-1:2006	EN 55022 :1998 + A1:2000 + A2:2003	Table 3	PASS*
ESD	EN 55014-2 :1997 + A1:2001	EN 61000-4-2 :1995 + A1:1998 + A2:2001	±4 kV Contact ±8 kV Air	PASS

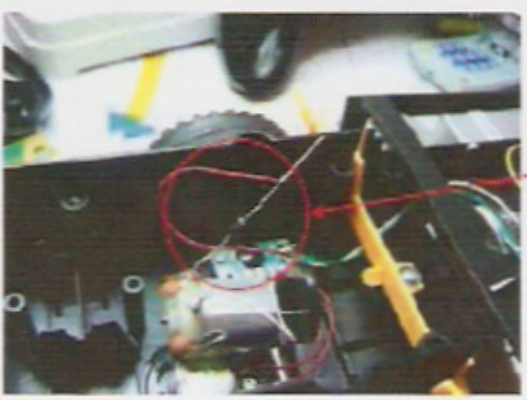
* The EUT passed the RE test after modification as below:

After modify, the circuit is as follow:



L is commond mode inductance, model no: TX240703A138LF, supplier: ROSY ELECTRONIC CO. . All capacitances is the same: C=104pF. The detail information as follow photo:





3 Contents

4 General Information

4.1 Client Information

Applicant: Xiongcheng plastic Toys Co. Ltd.
Address of Applicant: Jinshanding Industrial Park, Chengyanggang, Lianxia Town, Chenghai District, Shantou City

4.2 General Description of E.U.T.

EUT Name: TRUCK
Item No.: 38008
Serial No.: Not supplied by client

4.3 Details of E.U.T.

Power Supply: 7.5V DC (5 * 1.5V 'AA' Size Batteries)
Power Cord: - N/A-

4.4 Description of Support Units

The EUT has been tested as an independent unit.

4.5 Standards Applicable for Testing

The customer requested EMC tests for TRUCK.

The standards used were EN 55014-1 (Emissions) and EN 55014-2 (Immunity).

Table 1 : Tests Carried Out Under EN 55014-1: 2006

Standard		Status
EN 55022:1998 + A1:2000 + A2:2003	Radiated Emissions	√
EN 55014-1:2006	Conducted Emissions on AC	×
EN 55014-1:2006	Radiated Power	×
EN 55014-1:2006	Discontinuous Emissions on AC	×

× Indicates that the test is not applicable.
√ Indicates that the test is applicable.

Note: The EUT is powered by dc batteries and without external electric connection. Hence the EUT falls in Category B and RE test is applicable only.

Table 2 : Tests Carried Out Under EN 55014-2: 1997 + A1: 2001

TEST		Cat I	Cat II	Cat III	Cat IV
EN 61000-4-2: 1995 + A1:1998 + A2:2001	ESD		o	√	o
EN 61000-4-4: 1995 + A1:2001 + A2:2001	Fast transients		o		o
EN 61000-4-6: 1996 + A1:2001	Injection currents up to 230 MHz				
EN 61000-4-5: 1995 + A1:2001	Surge		o		o
EN 61000-4-11: 1994 + A1:2001	Voltage dips		o		o
EN 61000-4-6: 1996 + A1:2001	Injection currents up to 80 MHz				o
EN 61000-4-3: 2002 + A1:2002	Radio frequency EM fields			×	o
EN 55014-2: 1997 + A1:2001	None	o			

o Indicates the testing requirements for each category of equipment
× Indicates that the test is not applicable
√ Indicates that the test is applicable
Note: The EUT is powered by DC batteries and the maximum clock / oscillator frequency is less than 15MHz. Hence the EUT falls in Category III and ESD test is applicable only.

4.6 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory, No.198 Kezhu Road, Science Town Economic& Technology Development District Guangzhou, China 510663

Tel: +86 20 8215 5555 Fax: +86 20 8207 5059

No tests were sub-contracted.

4.7 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.

- **ACA**

  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.

- **VCCI**

  The 3m Semi-anechoic chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197 and C-2383 respectively.

  Date of Registration: September 29, 2005. Valid until September 28, 2008.

- **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 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.: 556682**

  SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen 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 556682, Aug. 04, 2005

- **Industry Canada (IC)**

  The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada forradio equipment testing with Registration No.: 6002.

4.8 Deviation from Standards

A GTEM was used for the radiated emission measurements, which are required by EN 55014-1: EN 55022.

4.9 Abnormalities from Standard Conditions

None.

4.10 Monitoring of EUT for All Immunity Test

Visual: Monitored the movement of the EUT.
Audio: Monitored the sound of the EUT.

5 Equipments Used during Test

RE in GTEM						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	GTEM	Lindgreen-Rayproof	1750	EMC0401	28-08-2005	27-08-2007
2	Spectrum Analyzer	Advantest	R3261C	81720265	20-10-2006	19-10-2007
3	EMI receiver	SCHAFFNER MEB	SCR3101	117	24-10-2006	23-10-2007
4	Pre-Amplifier	Advantest	R14601	83120042	21-08-2006	20-08-2007
5	Cable (N/N Male plug 4 meter)	W.H. Westlake	M17/75	SEL0030	30-05-2007	29-05-2008
6	Cable (N/N Male plug 1 meter)	W.H. Westlake	M17/75	SEL0029	30-05-2007	29-05-2008
7	RF Switch	Radiall	UHF	EMC0408	21-08-2006	20-08-2007

ESD						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	ESD Simulator	KIKUSUI	KES4021	LJ003478	21-03-2007	20-03-2008
2	ESD Ground Plane	SGS(3m * 3m)	N/A	SEL0004	N/A	N/A

General used equipment						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	Thermo-/Hygrometer	N/A	TH01	SEL0032 to SEL0034	22-06-2006	21-06-2008
2	Barometer	ChangChun	DYM3	0026	22-06-2006	21-06-2008

6 Emission Test Results

6.1 Radiated Emissions, 30MHz to 1GHz

Test Requirement:	EN 55014-1
Test Method:	EN 55022
Test Date:	25 May 2007(Initial Test)
	21 June 2007(Test after Modification)
Frequency Range:	30MHz to 1GHz
Measurement Distance:	10m (GTEM equivalent)
Limit:	30.0 dBμV/m between 30MHz & 230MHz
	37.0 dBμV/m between 230MHz & 1GHz
Detector:	Peak for pre-scan (120kHz resolution bandwidth)
	Quasi-Peak if maximised peak within 6dB of limit

6.1.1 E.U.T. Operation

Operating Environment:
Temperature: 25.0°C Humidity: 50% RH Atmospheric Pressure: 1010 mbar

EUT Operation: Test the EUT in On Mode (keep the EUT sounding and motor running) and scan from 30MHz to 1GHz.

6.1.2 Measurement Data

An initial pre-scan was performed in the GTEM using the spectrum analyser in peak detection mode. The EUT was measured for 3 orthogonal polarities and peak emissions from the EUT were detected within 6dB of the limit line.

The following quasi-peak measurements were performed on the EUT on 21 June 2007:

Frequency (MHz)	Quasi-Peak Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
135.50	15.7	37.0	21.3
309.24	20.5	37.0	16.5
401.38	19.4	37.0	17.6
679.90	15.0	37.0	22.0
763.24	21.4	37.0	15.6
834.04	24.9	37.0	12.1

The EUT passed the RE test after modification.

7 Immunity Test Results

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

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.

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.

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.

7.2 ESD

Test Requirement:	EN 55014-2	
Test Method:	EN 61000-4-2	
Performance Criterion:	C	
Test Date:	25 May 2007	
Discharge Impedance:	330 Ω / 150 pF	
Discharge Voltage:	Air Discharge:	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	

7.2.1 E.U.T. Operation

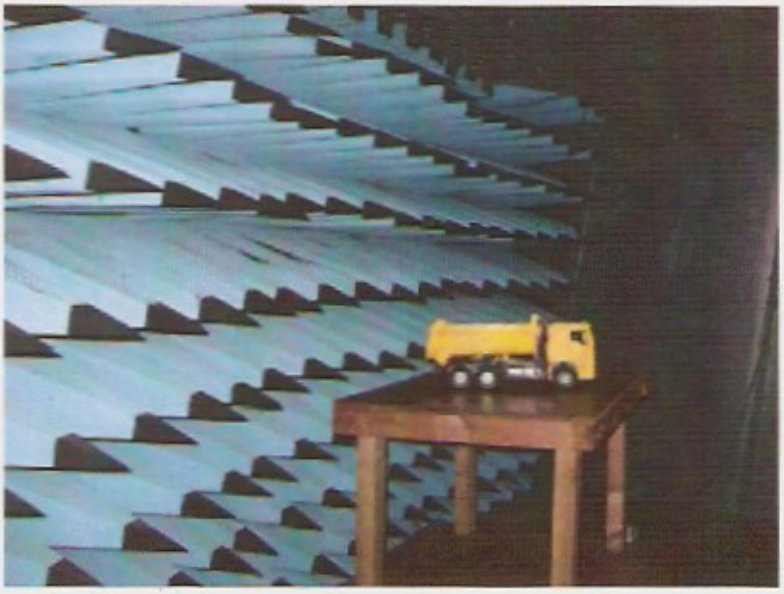
Operating Environment:

Temperature: 24.0°C Humidity: 53% RH Atmospheric Pressure: 1010 mbar

EUT Operation: Test the EUT in On Mode (keep the EUT sounding and motor running) and Idle Mode.

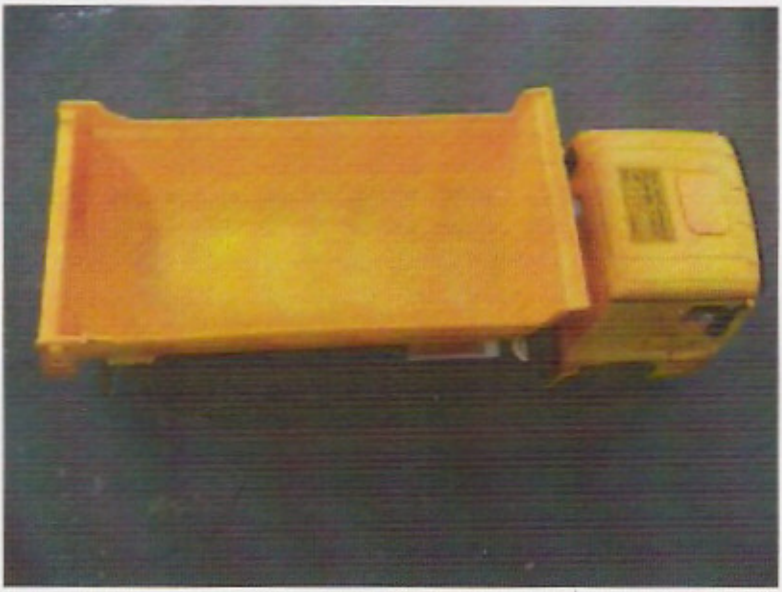
8 Photographs

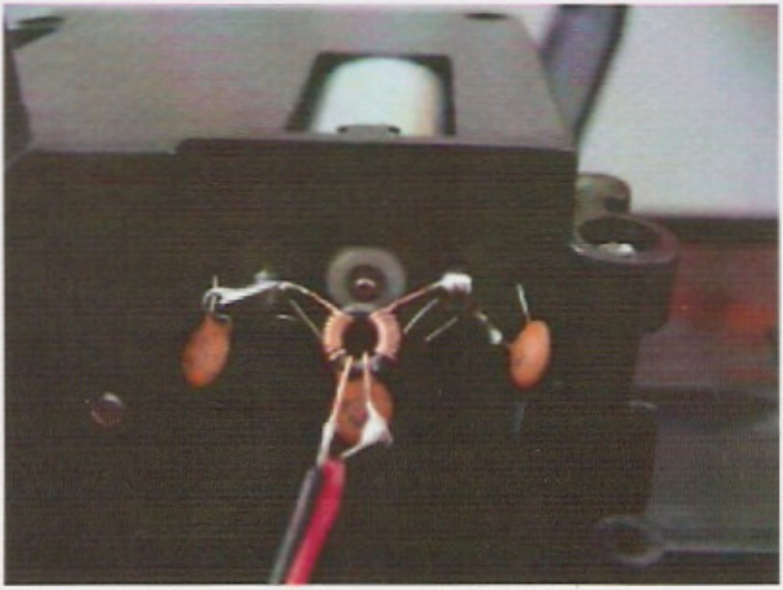
8.1 Radiated Emission Test Setup in GTEM

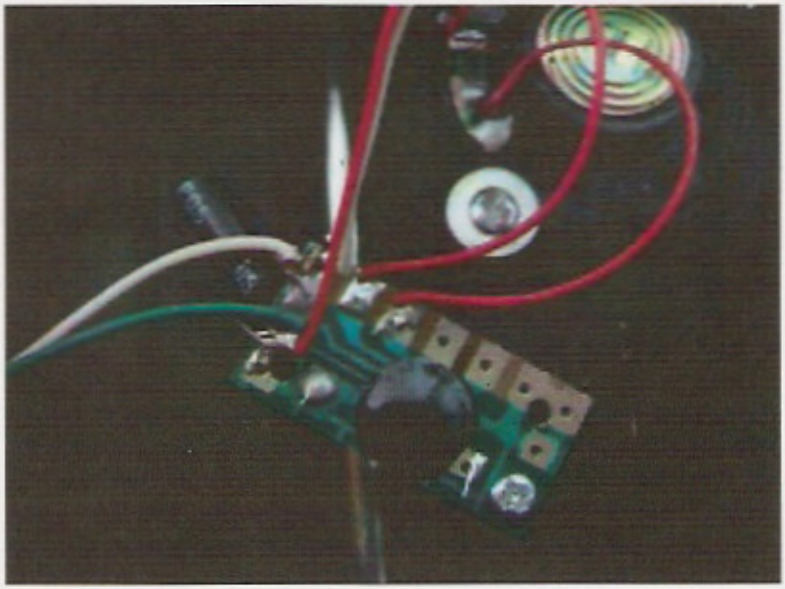


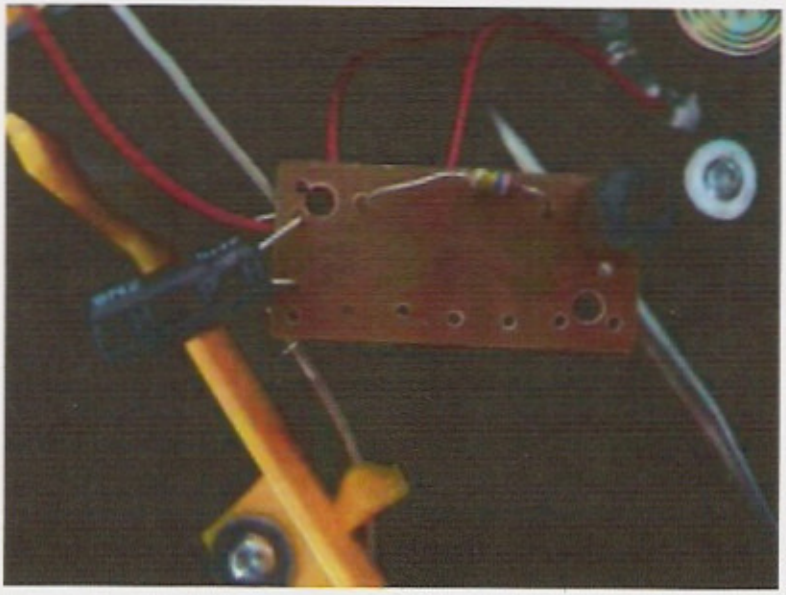
8.2 ESD Test Setup

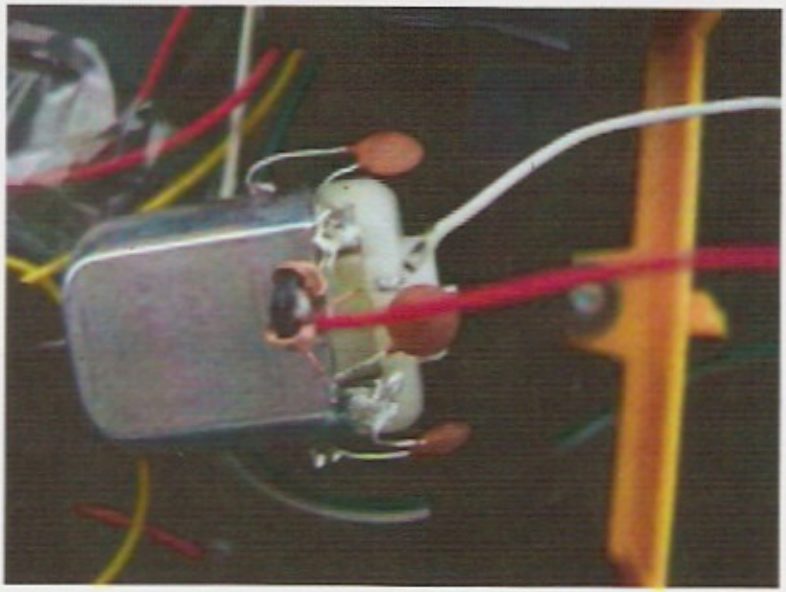
8.3 EUT Constructional Details











EC Declaration of Conformity

Council Directive 2004/108/EC on Electromagnetic Compatibility

We, Xiongcheng plastic Toys Co. Ltd.
Jinshanding Industrial Park, Chengyanggang, Lianxia Town,
Chenghai District, Shantou City

Certify that the product described is in conformity with the
Directive 2004/108/EC as last amended by Directive 93/68/EEC

Product Name: TRUCK
Item No.: 38008

The product has been assessed by the application of the following standards:

EN 55014-1: 2006
EN 55014-2: 1997 + A1: 2001.

Issue date

Company stamp and Signature
of authorized personnel