

42020



Certificate of Compliance

EMC Directive 2014/30/EU

Registration No.: ATL20171113834

Product: CAR SIREN 12V 15W 6TONS
Brand Name: N/A
Applicant: Shenzhen A.T.R. Industry Co., Ltd.
Address: Rm808, Lijing Bldg., Hongling Zhong Rd., Shenzhen, China
Manufacturer: Shenzhen A.T.R. Industry Co., Ltd.
Address: Rm808, Lijing Bldg., Hongling Zhong Rd., Shenzhen, China
Model No: 57492

The test sample of product has been passed, the test according to requirements of the following standards:

Standard(s):

Test report(s) No.:

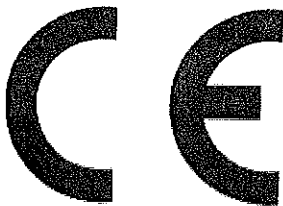
EN 61000-6-1:2007;

ATL20171113834E

EN 61000-6-3:2007+A1:2011.

Based on the voluntary assessment of the product sample and technical file, we confirm that the above-mentioned product meets the requirements of the EC directive.

The CE mark as show below can be used, under the responsibility of the manufacturer or the importer, after completion of an EC declaration of conformity and compliance with all relevant EC directives.



Approved by/Date:

Jeynman

Nov. 17, 2017

Department Manager



Shenzhen ATL Testing Technology Co., Ltd.

Web: <http://www.atllab.org>

Mail: atl@atllab.org

EMC TEST REPORT
For
SHENZHEN A.T.R. INDUSTRY CO., LTD.
CAR SIREN 12V 15W 6TONS
Model No.: 57492

Prepared for : Shenzhen A.T.R. Industry Co., Ltd.
Address : Rm808, Lijing Bldg., Hongling Zhong Rd., Shenzhen, China

Prepared by : Shenzhen ATL Testing Technology Co., Ltd.
Address : Floor 1, Xuyuan Vice-building, No. 2107, Bixin Road, Nanlian
Community, Longgang Street, Longgang District, Shenzhen
City

Web : www.atllab.org
Mail : atllab@atllab.org

Date of receipt of test sample : Nov. 13, 2017
Number of tested samples : 1
Serial number : Prototype
Date of Test : Nov. 13, 2017 - Nov. 16, 2017
Date of Report : Nov. 16, 2017



EMC TEST REPORT**EN 61000-6-3: 2007+A1: 2011**

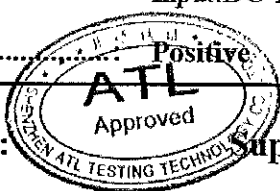
Emission standard for residential, commercial and light-industrial environments

EN 61000-6-1: 2007

Immunity for residential, commercial and light-industrial environments

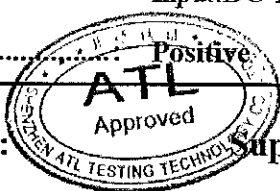
Report Reference No.: ATL20171113834E**Date Of Issue**.....: Nov. 16, 2017**Testing Laboratory Name**.....: Shenzhen ATL Testing Technology Co., Ltd.**Address**.....: Floor 1, Xuyuan Vice-building, No. 2107, Bixin Road, Nanlian Community, Longgang Street, Longgang District, Shenzhen City**Testing Location/ Procedure**: Full application of Harmonised standards ☒
Partial application of Harmonised standards ☐
Other standard testing method ☐**Applicant's Name**.....: Shenzhen A.T.R. Industry Co., Ltd.**Address**.....: Rm808, Lijing Bldg., Hongling Zhong Rd., Shenzhen, China**Test Specification:****Standard**: EN 61000-6-3: 2007+A1: 2011
EN 61000-6-1: 2007**Test Report Form No.**.....: ATLEMC-1.0**TRF Originator**.....: Shenzhen ATL Testing Technology Co., Ltd.**Master TRF**: Dated 2015-03**SHENZHEN ATL TESTING TECHNOLOGY CO., LTD. All rights reserved.**

This publication may be reproduced in whole or in part for non-commercial purposes as long as the SHENZHEN ATL TESTING TECHNOLOGY CO., LTD. is acknowledged as copyright owner and source of the material. SHENZHEN ATL TESTING TECHNOLOGY CO., LTD. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Test Item Description.....: CAR SIREN 12V 15W 6TONS**Trade Mark**.....: N/A**Model/ Type Reference**: 57492**Ratings**: Input:DC 12V**Result**:  Positive**Compiled by:**

Si feifei

Si feifei / File administrators

**Supervised by:**

Xie Lingling

Xie Lingling / Technique principal

Approved by:

Xu Peng

Xu Peng / Manager

EMC -- TEST REPORT**Test Report No. : ATL20171113834E**Nov. 16, 2017

Date of issue

Type / Model..... : 57492

EUT..... : CAR SIREN 12V 15W 6TONS

Applicant..... : Shenzhen A.T.R. Industry Co., Ltd.

Address..... : Rm808, Lijing Bldg., Hongling Zhong Rd., Shenzhen, China

Manufacturer..... : Shenzhen A.T.R. Industry Co., Ltd.

Address..... : Rm808, Lijing Bldg., Hongling Zhong Rd., Shenzhen, China

Factory..... : Shenzhen A.T.R. Industry Co., Ltd.

Address..... : Rm808, Lijing Bldg., Hongling Zhong Rd., Shenzhen, China

Test Result according to the standards on page 6: **Positive**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

TABLE OF CONTENT

Test Report Description	Page
1. SUMMARY OF STANDARDS AND RESULTS	6
1.1. Description of Standards and Results	6
1.2. Description of Performance Criteria	7
2. GENERAL INFORMATION	8
2.1. Description of Device (EUT)	8
2.2. Description of Test Facility	8
2.3. Statement of the measurement uncertainty	8
2.4. Measurement Uncertainty	8
3. MEASURING DEVICE AND TEST EQUIPMENT	9
3.1. Conducted Disturbance	9
3.2. Disturbance Power	9
3.3. Radiated Electromagnetic Disturbance	9
3.4. Radiated Disturbance (Electric Field)	9
3.5. Harmonic Current	9
3.6. Voltage fluctuation and Flicker	9
3.7. Electrostatic Discharge	10
3.8. RF Field Strength Susceptibility	10
3.9. Electrical Fast Transient/Burst	10
3.10. Surge	10
3.11. Conducted Susceptibility	10
3.12. Power Frequency Magnetic Field Susceptibility	10
3.13. Voltage Dips	11
3.14. Voltage Short Interruptions	11
4. RADIATED EMISSION MEASUREMENT	12
4.1. Block Diagram of Test Setup	12
4.2. Test Standard	12
4.3. Radiated Emission Limits	12
4.4. EUT Configuration on Test	13
4.5. Operating Condition of EUT	13
4.6. Test Procedure	13
4.7. Test Results	13
5. ELECTROSTATIC DISCHARGE IMMUNITY TEST	16
5.1. Block Diagram of Test Setup	16
5.2. Test Standard	16
5.3. Severity Levels and Performance Criterion	16
5.4. EUT Configuration on Test	16
5.5. Operating Condition of EUT	16
5.6. Test Procedure	17
5.7. Test Results	17
6. RF FIELD STRENGTH SUSCEPTIBILITY TEST	19
6.1. Block Diagram of Test	19
6.2. Test Standard	19
6.3. Severity Levels and Performance Criterion	19
6.4. EUT Configuration on Test	20
6.5. Operating Condition of EUT	20
6.6. Test Procedure	20
6.7. Test Results	20
7. MAGNETIC FIELD SUSCEPTIBILITY TEST	22
7.1. Block Diagram of Test Setup	22
7.2. Test Standard	22
7.3. Severity Levels and Performance Criterion	22
7.4. EUT Configuration on Test	22
7.5. Test Procedure	23

7.6. Test Results	23
8. PHOTOGRAPH	25
8.1.Photo of Radiated Measurement	25
9. EXTERNAL AND INTERNAL PHOTOS OF THE EUT	26
10. MANUFACTURER/ APPRVAL HOLDER DECLARATION	30

1. SUMMARY OF STANDARDS AND RESULTS

1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION (EN 61000-6-3: 2007+A1: 2011)			
Description of Test Item	Standard	Limits	Results
Conducted disturbance at mains terminals	EN 55032:2015	Class B	N/A
Conducted disturbance at telecommunication port	EN 55032:2015	Class B	N/A
Radiated disturbance	EN 55032:2015	Class B	PASS
Harmonic current emissions	EN 61000-3-2: 2006+A1: 2009+A2: 2009	Class A	N/A
Voltage fluctuations & flicker	EN 61000-3-3: 2013	-----	N/A
IMMUNITY (EN 61000-6-1: 2007)			
Description of Test Item	Basic Standard	Performance Criteria	Results
Electrostatic discharge (ESD)	EN 61000-4-2: 2009	B	PASS
Radio-frequency, Continuous radiated disturbance	EN 61000-4-3: 2006+A1: 2008	A	PASS
Electrical fast transient (EFT)	EN 61000-4-4: 2004+A1: 2010	B	N/A
Surge (Input a.c. power ports)	EN 61000-4-5: 2006	B	N/A
Radio-frequency, Continuous conducted disturbance	EN 61000-4-6: 2009	A	N/A
Power frequency magnetic field	EN 61000-4-8: 2010	A	PASS
Voltage dips, >95% reduction	EN 61000-4-11: 2004	B	N/A
Voltage dips, 30% reduction		C	N/A
Voltage interruptions		C	N/A
N/A is an abbreviation for Not Applicable.			

1.2. Description of Performance Criteria

General Performance Criteria

Examples of functions defined by the manufacturer to be evaluated during testing include, but are not limited to, the following:

- essential operational modes and states;
- tests of all peripheral access (hard disks, floppy disks, printers, keyboard, mouse, etc.);
- quality of software execution;
- quality of data display and transmission;
- quality of speech transmission.

1.2.1. Performance 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 manufacture 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.

1.2.2. Performance 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 manufacture, 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 operation 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.

1.2.3. Performance 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 manufacture's instructions.

Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT : CAR SIREN 12V 15W 6TONS

Model Number : 57492

Power Supply : Input: DC 12V

EUT CAR SIREN : $\leq$ 108MHz
12V 15W 6TONS
Frequency

2.2. Description of Test Facility

Site Description

Test Lab. : Shenzhen ATL Testing Technology Co., Ltd.
Add. : Floor 1, Xuyuan Vice-building, No. 2107, Bixin Road, Nanlian Community, Longgang Street, Longgang District, Shenzhen City
Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.
FCC Registration Number: 802773;
IC Registration Number: 010276817-001

2.3. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the ATL quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

2.4. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Radiation Uncertainty :	30MHz~200MHz	$\pm 2.96\text{dB}$	(1)
	200MHz~1000MHz	$\pm 3.10\text{dB}$	(1)
Conduction Uncertainty :	150kHz~30MHz	$\pm 1.63\text{dB}$	(1)
Power disturbance :	30MHz~300MHz	$\pm 1.60\text{dB}$	(1)

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

3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. Conducted Disturbance

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101142	2017/06/18
2	EMI Test Receiver	ROHDE & SCHWARZ	ESPI	101840	2017/06/18
3	Artificial Mains	ROHDE & SCHWARZ	ENV216	101288	2017/06/18
4	EMI Test Software	AUDIX	E3	N/A	2017/06/18

3.2. Disturbance Power

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101142	2017/06/18
2	EMI Test Receiver	ROHDE & SCHWARZ	ESPI	101840	2017/06/18
3	Absorbing clamp	ROHDE & SCHWARZ	MDS 21	4033	2017/06/19
4	EMI Test Software	AUDIX	E3	N/A	2017/06/18

3.3. Radiated Electromagnetic Disturbance

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101142	2017/06/18
2	Triple-loop Antenna	EVERFINE	LLA-2	11050003	2017/06/18
3	EMI Test Receiver	ROHDE & SCHWARZ	ESPI	101840	2017/06/18
4	EMI Test Software	AUDIX	E3	N/A	2017/06/18

3.4. Radiated Disturbance (Electric Field)

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101142	2017/06/18
2	EMI Test Receiver	ROHDE & SCHWARZ	ESPI	101840	2017/06/18
3	Log per Antenna	SCHWARZBECK	VULB9163	9163-470	2017/06/21
4	Amplifier	Compliance Direction	PAP-0102	21001	2017/06/18
5	Spectrum Analyzer	Agilent	E4407B	MY41440754	2017/07/16
6	Horn Antenna	ETS.LINDGREN	3115	00034771	2017/12/11
7	EMI Test Software	AUDIX	E3	N/A	2017/06/18

3.5. Harmonic Current

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Power Analyzer Test System	Voltech	PM6000	20000670053	2017/06/18

3.6. Voltage fluctuation and Flicker

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Power Analyzer Test System	Voltech	PM6000	20000670053	2017/06/18

3.7. Electrostatic Discharge

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	ESD Simulator	KIKUSUI	KC001311	KES4021	2017/06/19

3.8. RF Field Strength Susceptibility

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	SIGNAL GENERATOR	HP	8648A	625U00573	2017/06/17
2	Amplifier	AR	500A100	17034	2017/06/18
3	Amplifier	AR	100W/1000M 1	17028	2017/06/18
4	Isotropic Field Monitor	AR	FM2000	16829	2017/06/18
5	Isotropic Field Probe	AR	FP2000	16755	2017/06/18
6	Bi-conic Antenna	EMCO	3108	9507-2534	2017/06/19
7	By-log-periodic Antenna	AR	AT1080	16812	2017/06/19
8	EMS Test Software	ROHDE & SCHWARZ	ESK1	N/A	2017/06/19

3.9. Electrical Fast Transient/Burst

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Electrical fast transient(EFT)generator	3CTEST	EFT-4021	EC0461044	2017/06/18
2	Coupling Clamp	3CTEST	EFTC	EC0441098	2017/06/18

3.10. Surge

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Surge test system	3CTEST	SG-5006G	EC5581070	2017/06/18
2	Coupling/decoupling network	3CTEST	SGN-5010G	ECS5591033	2017/06/18

3.11. Conducted Susceptibility

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Conducted Immunity Test System	FRANKONIA	CIT-10	126A1195	2017/06/18
2	Coupling/decoupling network	FRANKONIA	CDN-M2+M3	A2210177	2017/06/18

3.12. Power Frequency Magnetic Field Susceptibility

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Power frequency mag-field generator System	EVERFINE	EMS61000-8 K	906003	2017/06/18

3.13. Voltage Dips

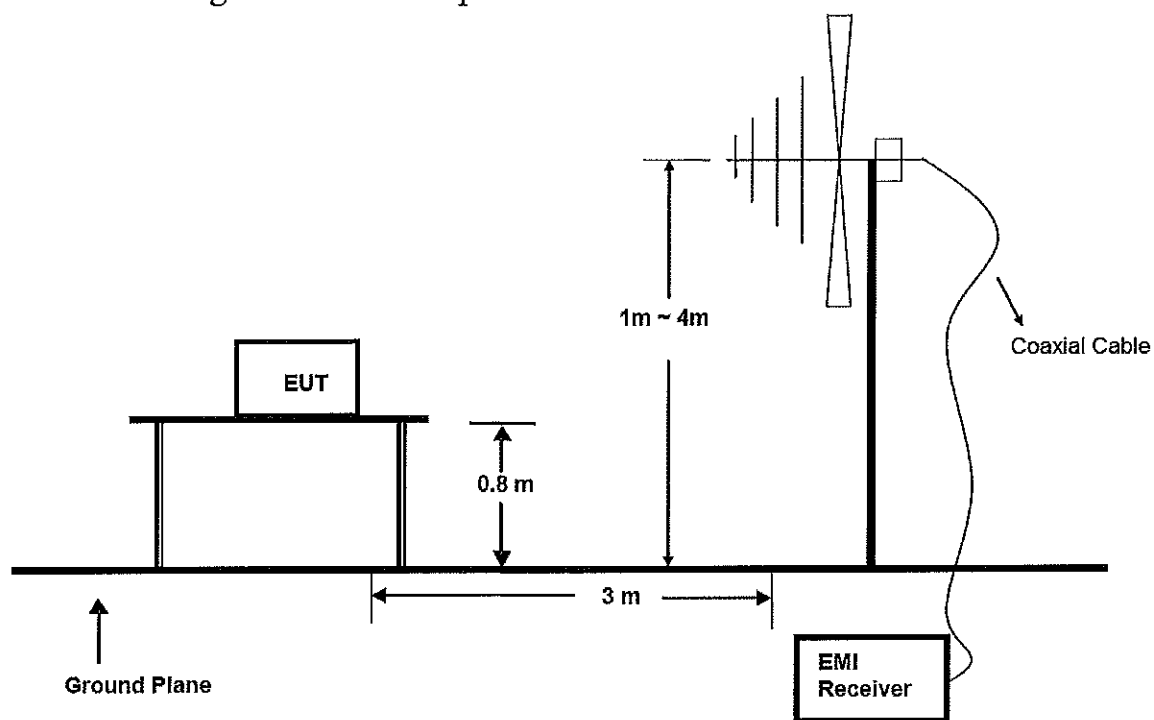
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Voltage dips and up generator	3CTEST	VDG-1105G	EC0171014	2017/06/18

3.14. Voltage Short Interruptions

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Voltage dips and up generator	3CTEST	VDG-1105G	EC0171014	2017/06/18

4. RADIATED EMISSION MEASUREMENT

4.1. Block Diagram of Test Setup



4.2. Test Standard

EN 61000-6-3: 2007+A1: 2011 (EN 55032:2015)

4.3. Radiated Emission Limits

EN 55022 Limits:

All emanations from a class B device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMIT (dB μ V/m)
30 ~ 230	3	40
230 ~ 1000	3	47

Note: (1) The smaller limit shall apply at the combination point between two frequency bands.

(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.

4.4. EUT Configuration on Test

The EN 55022 regulations test method must be used to find the maximum emission during radiated emission measurement.

4.5. Operating Condition of EUT

4.5.1. Turn on the power.

4.5.2. After that, let the EUT work in test mode (ON) and measure it.

4.6. Test Procedure

The EUT is placed on a turntable, which is 0.8 meter high above the ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. By-log antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarization of the antenna is set on test.

The bandwidth of the Receiver is set at 120kHz.

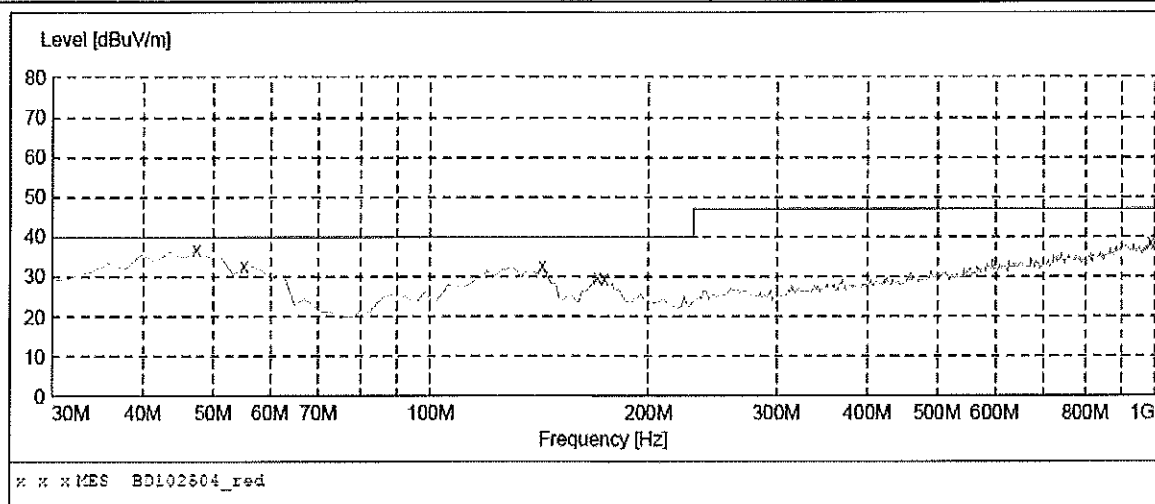
The frequency range from 30MHz to 1000MHz is investigated.

4.7. Test Results

PASS

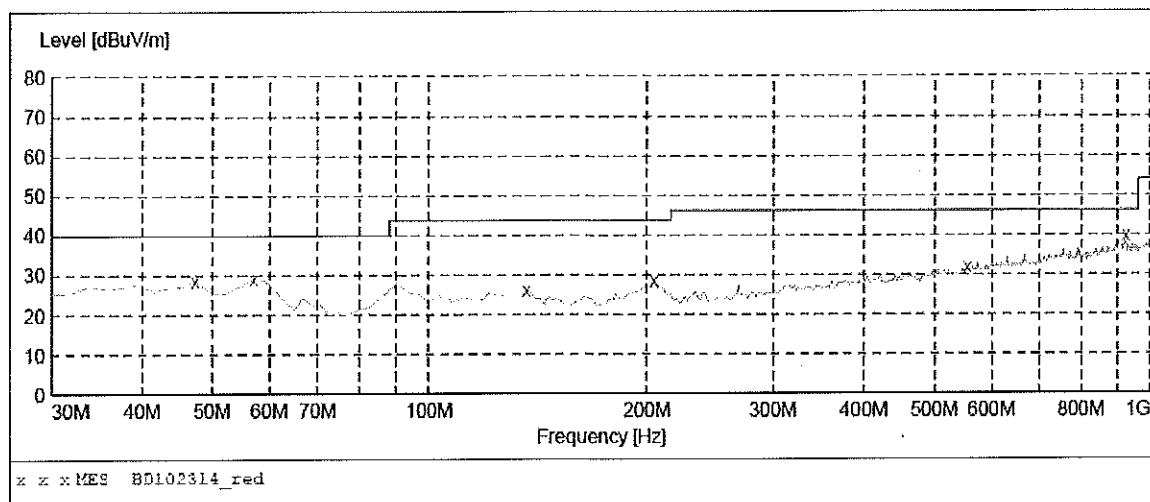
The test result please refer to the next page.

Model No.	57492	Test Date	Nov 13, 2017
Environmental Conditions	24°C, 56% RH	Test Mode	ON
Pol	Vertical	Detector Function	Quasi-peak
Test Engineer	Kano	Distance	3m



Frequency MHz	Level dBuV/m	Transd dB	Limit dBuV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
47.460000	36.80	16.7	40.0	3.2	---	100.0	0.00	VERTICAL
55.220000	32.80	15.1	40.0	7.2	---	100.0	0.00	VERTICAL
142.520000	32.80	12.3	40.0	7.2	---	100.0	0.00	VERTICAL
169.680000	29.80	12.6	40.0	10.2	---	100.0	0.00	VERTICAL
173.560000	29.20	12.4	40.0	10.8	---	100.0	0.00	VERTICAL
984.480000	38.60	25.8	47.0	8.4	---	100.0	0.00	VERTICAL

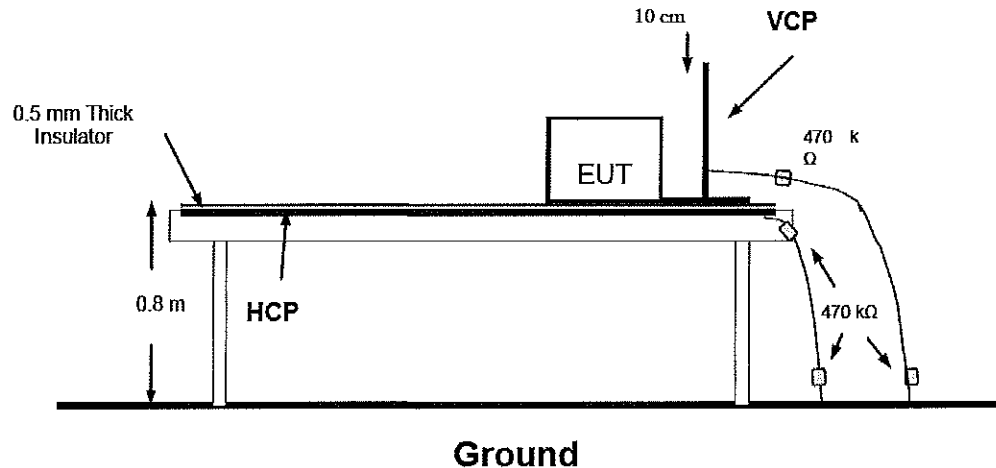
Model No.	57492	Test Date	Nov 13, 2017
Environmental Conditions	24°C, 56% RH	Test Mode	ON
Pol	Horizontal	Detector Function	Quasi-peak
Test Engineer	Kano	Distance	3m



Frequency MHz	Level dBuV/m	Transd dB	Limit dBuV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
47.460000	28.40	16.7	40.0	11.6	---	100.0	0.00	HORIZONTAL
57.160000	28.90	15.7	40.0	11.1	---	100.0	0.00	HORIZONTAL
136.700000	25.90	12.6	43.5	17.6	---	100.0	0.00	HORIZONTAL
204.600000	28.40	14.1	43.5	15.1	---	100.0	0.00	HORIZONTAL
555.740000	32.00	20.4	46.0	14.0	---	100.0	0.00	HORIZONTAL
924.340000	39.70	25.8	46.0	6.3	---	100.0	0.00	HORIZONTAL

5. ELECTROSTATIC DISCHARGE IMMUNITY TEST

5.1. Block Diagram of Test Setup



5.2. Test Standard

EN 61000-6-1: 2007 (EN 61000-4-2: 2009,
Severity Level: 3 / Air Discharge: $\pm 8\text{KV}$, Level: 2 / Contact Discharge: $\pm 4\text{KV}$)

5.3. Severity Levels and Performance Criterion

5.3.1. Severity level

Level	Test Voltage Contact Discharge (KV)	Test Voltage Air Discharge (KV)
1.	± 2	± 2
2.	± 4	± 4
3.	± 6	± 8
4.	± 8	± 15
X	Special	Special

5.3.2. Performance Criterion: B

5.4. EUT Configuration on Test

The configuration of EUT is listed in Section 3.7.

5.5. Operating Condition of EUT

5.5.1. Setup the EUT as shown in Section 5.1.

5.5.2. Turn on the power of all equipments.

5.5.3. Let the EUT work in test mode (On) and measure it.

5.6. Test Procedure

5.6.1. Air Discharge

This test is done on a non-conductive surface. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT. After each discharge, the discharge electrode shall be removed from the EUT. The generator is then re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed

5.6.2. Contact Discharge

All the procedure shall be same as Section 5.6.1. Except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

5.6.3. Indirect Discharge For Horizontal Coupling Plane

At least 10 single discharges (in the most sensitive polarity) shall be applied at the front edge of each HCP opposite the center point of each unit (if applicable) of the EUT and 0.1m from the front of the EUT. The long axis of the discharge electrode shall be in the plane of the HCP and perpendicular to its front edge during the discharge.

5.6.4. Indirect Discharge For Vertical Coupling Plane

At least 10 single discharge (in the most sensitive polarity) shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

5.7. Test Results

PASS

Please refer to the following pages

Electrostatic Discharger Test Results

Standard	☐ IEC 61000-4-2 ☒ EN 61000-4-2		
Applicant	SHENZHEN A.T.R. INDUSTRY CO., LTD.		
EUT	CAR SIREN 12V 15W 6TONS	Temperature	24℃
M/N	57492	Humidity	53%
Criterion	B	Pressure	1021mbar
Test Mode	ON	Test Date	Nov 13, 2017
Test Engineer	Kano		

Air Discharge

Test Points	Test Levels			Results		
	± 2KV	± KV	± 8KV	Passed	Fail	Performance Criterion
Front	☒	☒	☒	☒	☐	☐ A ☒ B
Back	☒	☒	☒	☒	☐	☐ A ☒ B
Left	☒	☒	☒	☒	☐	☐ A ☒ B
Right	☒	☒	☒	☒	☐	☐ A ☒ B
Top	☒	☒	☒	☒	☐	☐ A ☒ B
Bottom	☒	☒	☒	☒	☐	☐ A ☒ B

Contact Discharge

Test Points	Test Levels		Results		
	± 2 KV	±4 KV	Passed	Fail	Performance Criterion
Front	☒	☒	☒	☐	☐ A ☒ B
Back	☒	☒	☒	☐	☐ A ☒ B
Left	☒	☒	☒	☐	☐ A ☒ B
Right	☒	☒	☒	☐	☐ A ☒ B
Top	☒	☒	☒	☐	☐ A ☒ B
Bottom	☒	☒	☒	☐	☐ A ☒ B

Discharge To Horizontal Coupling Plane

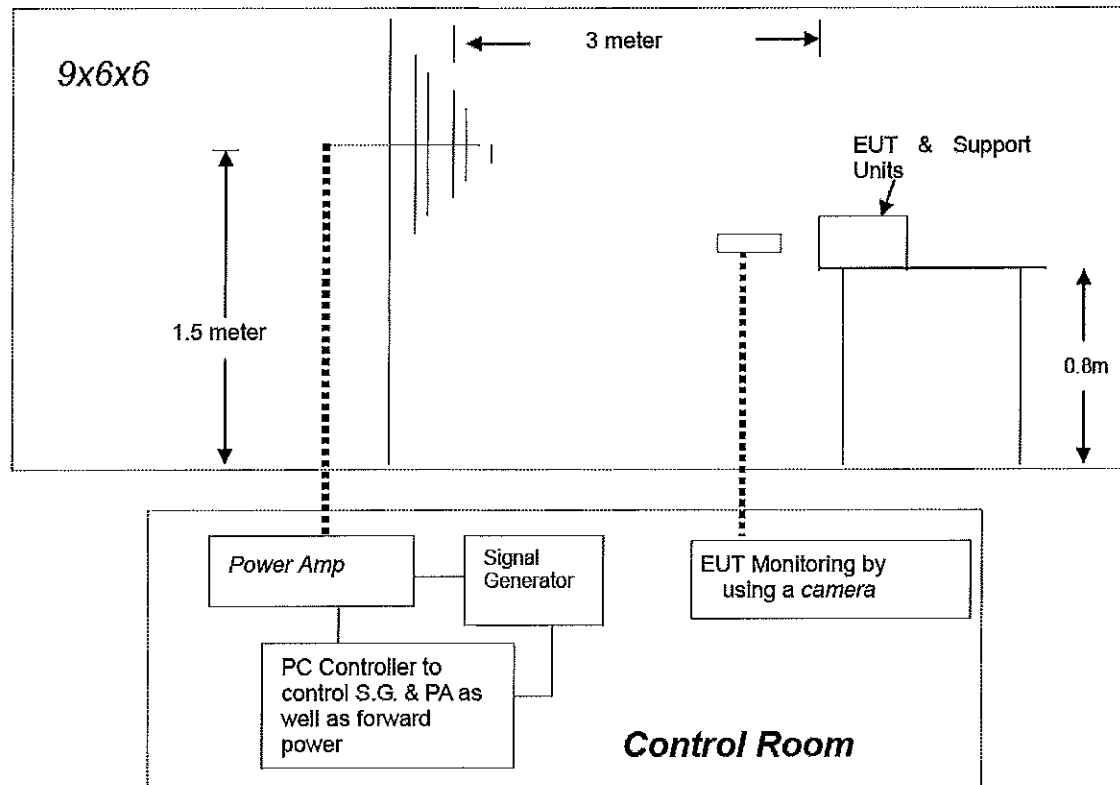
Side of EUT	Test Levels		Results		
	± 2 KV	± 4 KV	Passed	Fail	Performance Criterion
Front	☒	☒	☒	☐	☐ A ☒ B
Back	☒	☒	☒	☐	☐ A ☒ B
Left	☒	☒	☒	☐	☐ A ☒ B
Right	☒	☒	☒	☐	☐ A ☒ B

Discharge To Vertical Coupling Plane

Side of EUT	Test Levels		Results		
	± 2 KV	± 4 KV	Passed	Fail	Performance Criterion
Front	☒	☒	☒	☐	☐ A ☒ B
Back	☒	☒	☒	☐	☐ A ☒ B
Left	☒	☒	☒	☐	☐ A ☒ B
Right	☒	☒	☒	☐	☐ A ☒ B

6. RF FIELD STRENGTH SUSCEPTIBILITY TEST

6.1. Block Diagram of Test



6.2. Test Standard

EN 61000-6-1: 2007

(EN 61000-4-3: 2006+A1: 2008 Severity Level: 2, 3V / m)

6.3. Severity Levels and Performance Criterion

6.3.1. Severity Levels

Level	Field Strength (V/m)
1.	1
2.	3
3.	10
X.	Special

6.3.2. Performance Criterion: A

6.4. EUT Configuration on Test

The configuration of the EUT is same as Section 3.8.

6.5. Operating Condition of EUT

Same as radiated emission measurement, which is listed in Section 5.5, except the test setup replaced as Section 6.1.

6.6. Test Procedure

The EUT are placed on a table, which is 0.8 meter high above the ground. The EUT is set 3 meters away from the transmitting antenna, which is mounted on an antenna tower. Both horizontal and vertical polarization of the antenna is set on test. Each of the four sides of the EUT must be faced this transmitting antenna and measured individually. In order to judge the EUT performance, a CCD Recording is used to monitor its screen. All the scanning conditions are as following:

Condition of Test	Remark
1. Fielded Strength	3V/m (Severity Level 2)
2. Radiated Signal	Unmodulated
3. Scanning Frequency	80-1000MHz
4. Sweep time of radiated	0.0015 Decade/s
5. Dwell Time	3 Sec.

6.7. Test Results

PASS

Please refer to the following page.

RF Field Strength Susceptibility Test Results

Standard	☐ IEC 61000-4-3 ☒ EN 61000-4-3		
Applicant	SHENZHEN A.T.R. INDUSTRY CO., LTD.		
EUT	CAR SIREN 12V 15W 6TONS	Temperature	24℃
M/N	57492	Humidity	53%
Field Strength	3 V/m	Criterion	A
Test Mode	ON	Test Engineer	Kano
Frequency Range	80 MHz to 1000 MHz	Test Date	Nov 13, 2017
Modulation	☐ None ☐ Pulse ☒ AM 1KHz 80%		
Steps	1%		

	Horizontal	Vertical
Front	PASS	PASS
Right	PASS	PASS
Rear	PASS	PASS
Left	PASS	PASS

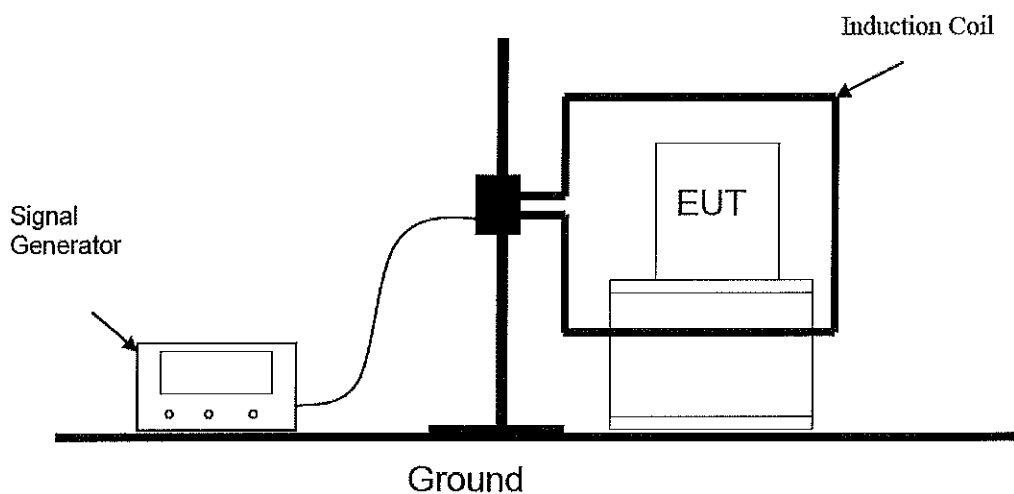
Test Equipment:

1. Signal Generator: 2031 (MARCONI)
2. Power Amplifier: 500A100 & 100W/1000M1 (A&R)
3. Power Antenna: 3108 (EMCO) & AT1080 (A&R)
4. Field Monitor: FM2000 (A&R)

Note:

7. MAGNETIC FIELD SUSCEPTIBILITY TEST

7.1. Block Diagram of Test Setup



7.2. Test Standard

EN 61000-6-1: 2007

(EN 61000-4-8: 2010, Severity Level: Level 2, 3A / m)

7.3. Severity Levels and Performance Criterion

7.3.1. Severity Levels

Level	Field Strength (A/m)
1	1
2	3
3	10
4	30
5	100
X	Special

7.3.2. Performance Criterion: A

7.4. EUT Configuration on Test

The configuration of the EUT is same as Section 3.12.

7.5. Test Procedure

The EUT is placed in the middle of a induction coil (1*1m), under which is a 1*1*0.1m (high) table, this small table is also placed on a larger table, 0.8 m above the ground. Both horizontal and vertical polarization of the induction coil is set on test, so that each side of the EUT is affected by the magnetic field. Also can reach the same aim by change the position of the EUT.

7.6. Test Results

PASS.

Please refer to the following page.

Magnetic Field Immunity Test Result

Standard	☐ IEC 61000-4-8 ☒ EN 61000-4-8		
Applicant	SHENZHEN A.T.R. INDUSTRY CO., LTD.		
EUT	CAR SIREN 12V 15W 6TONS	Temperature	24℃
M/N	57492	Humidity	53%
Test Mode	ON	Criterion	A
Test Engineer	Kano	Test Date	Nov 13, 2017

Test Level (A/M)	Testing Duration	Coil Orientation	Criterion	Result
3	5 mins	X	A	PASS
3	5 mins	Y	A	PASS
3	5 mins	Z	A	PASS

Note:

8. PHOTOGRAPH

8.1.Photo of Radiated Measurement



9. EXTERNAL AND INTERNAL PHOTOS OF THE EUT



Fig. 1

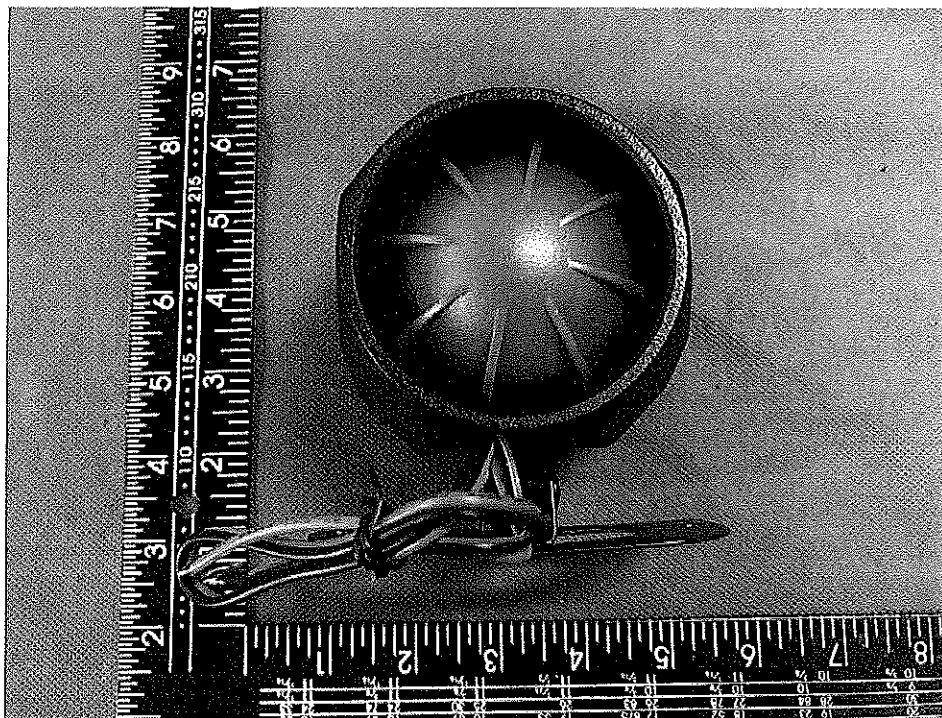


Fig. 2

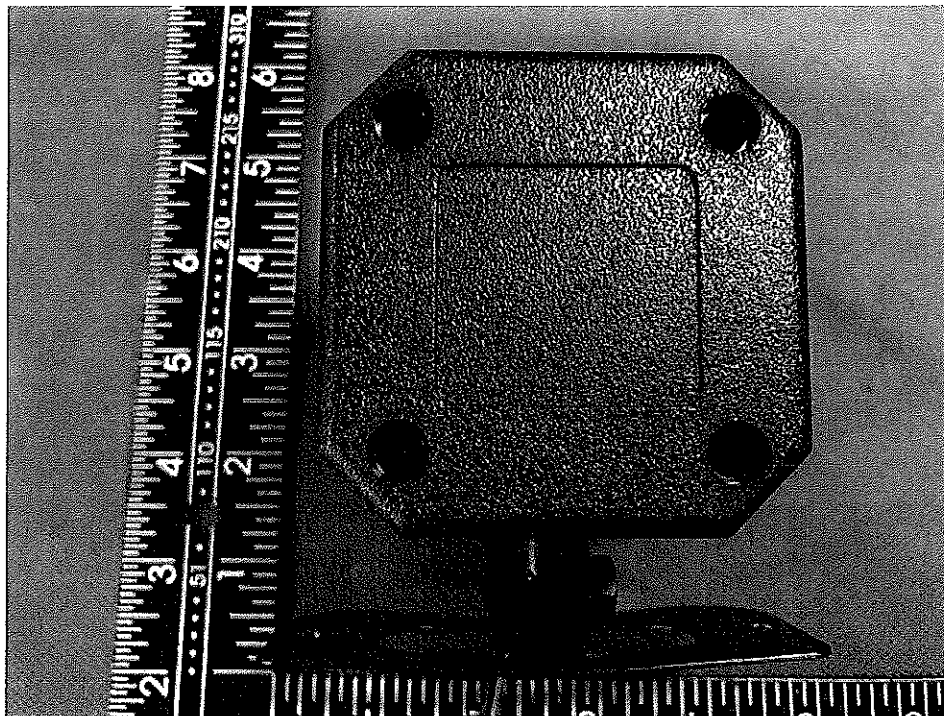


Fig. 3

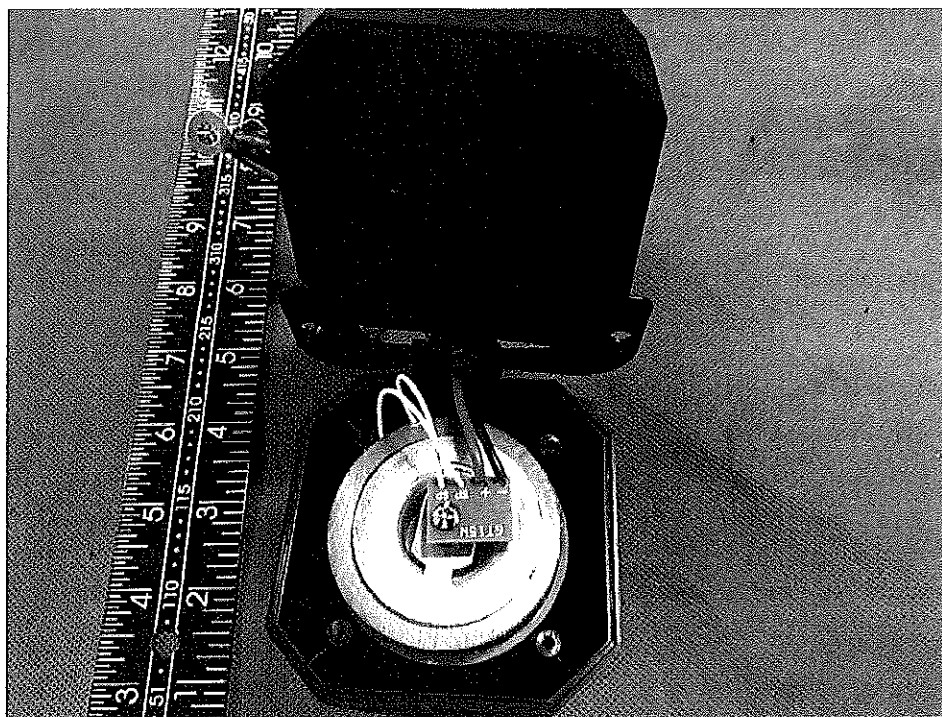


Fig. 4

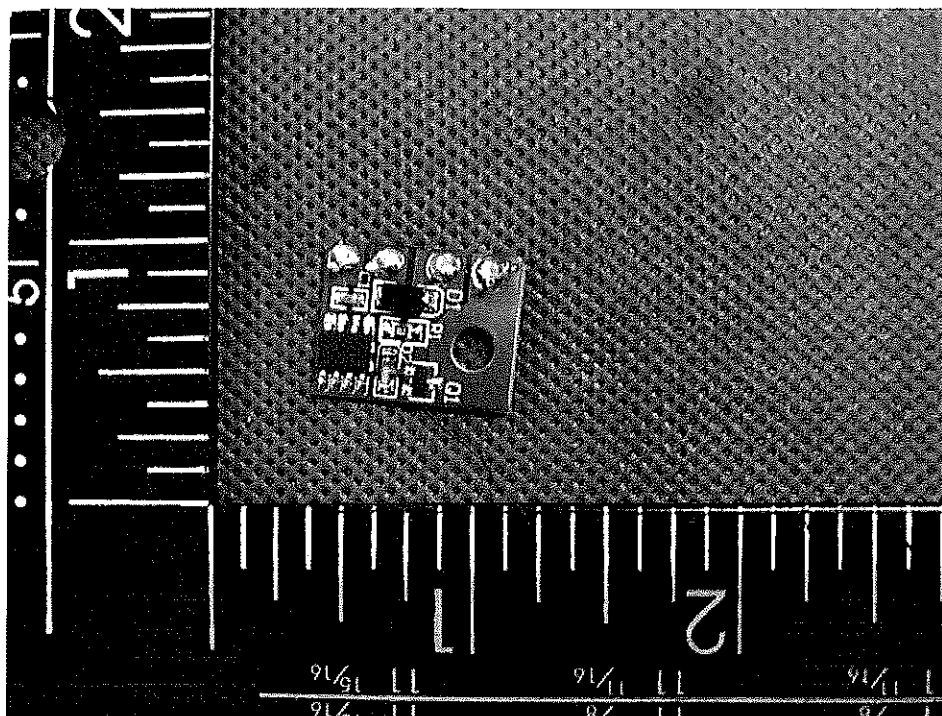


Fig. 5

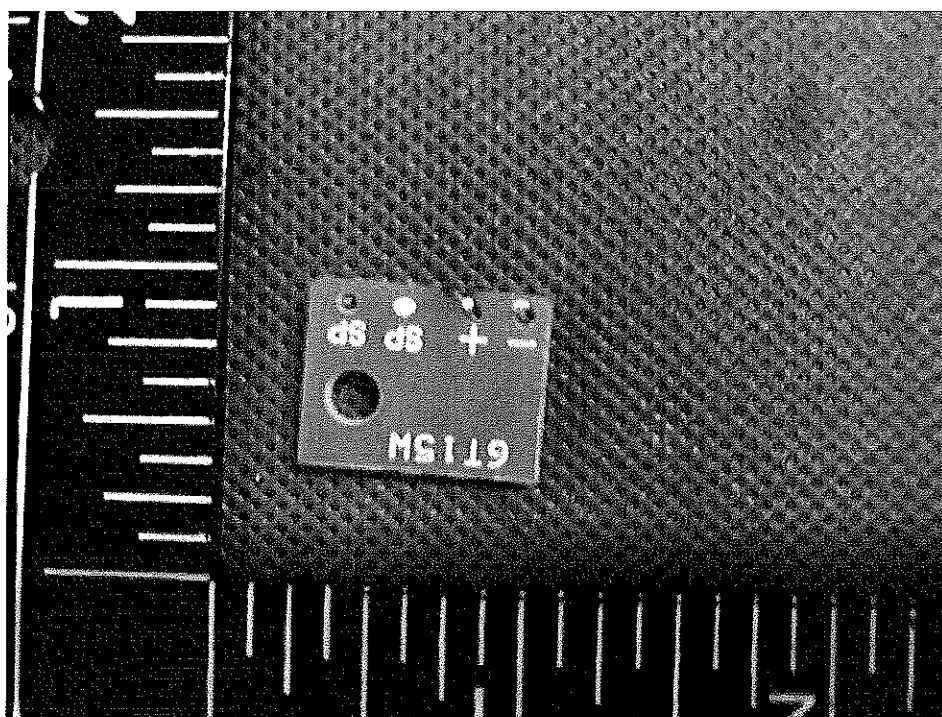


Fig. 6

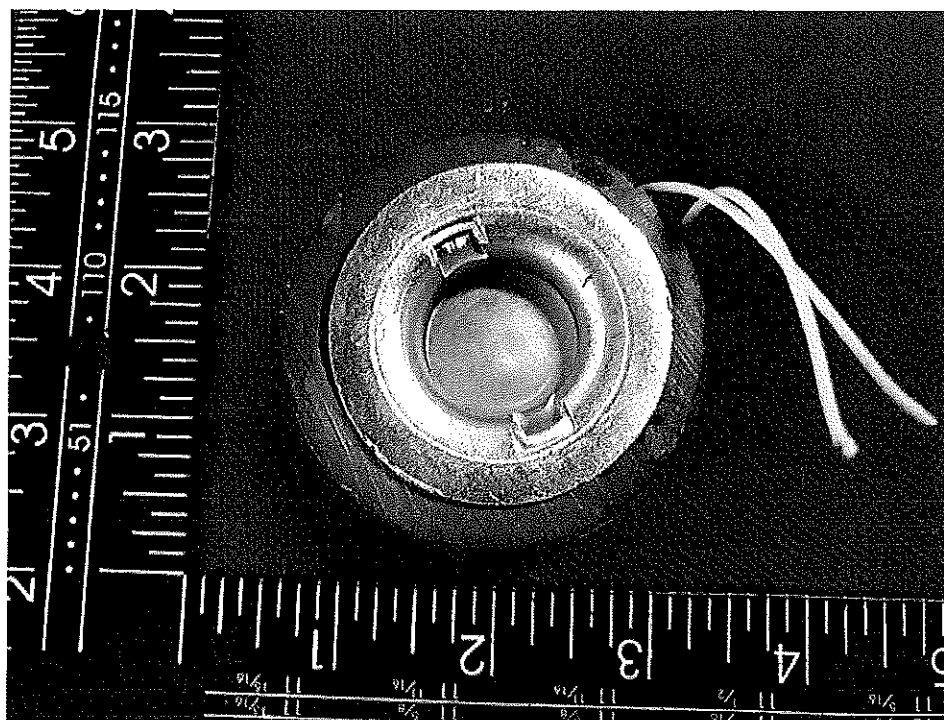


Fig. 7

10. MANUFACTURER/ APPROVAL HOLDER DECLARATION

The following identical model(s)

---	---	---	---
-----	-----	-----	-----

Belong to the tested device :

Product description : CAR SIREN 12V 15W 6TONS

Model name : 57492

Remark: PCB board, structure and internal of these model(s) are the same,
So no additional models were tested.

-----THE END OF REPORT-----