# FCC PART 18 EMI MEASUREMENT AND TEST REPORT

For

# Foshan Shi Shunde District Yongtong Electonics Co., Ltd

Xinyong Beihe Industrial Zone, Xingtan Town Shunde District Foshan Shi, Guangdong Province China

FCC ID: W8BGX-06

Mar. 18, 2009

This Report Concerns: Equipment Type:
Original Report Pest Repeller

7

Test Engineer: Eric Li

Report No.: F09031301A

Receive EUT

Date/Test Date: Mar.13,2009/ Mar.13-18,2009

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#### 1. GENERAL INFORMATION

#### 1.1. Report information

- 1.1.1. This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that BST approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that BST in any way guarantees the later performance of the product/equipment.
- 1.1.2. The sample/s mentioned in this report is/are supplied by Applicant, BST therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through BST, unless the applicant has authorized BST in writing to do so.

Test Facility -

The test site used to collect the radiated data is located on the address of Solid Industrial Co., Ltd. (FCC Registered Test Site Number: 759397) on 333 Bulong Highway Buji, Longgang Shenzhen, Guangdong, China

The Test Site is constructed and calibrated to meet the FCC requirements.

#### 1.2. Measurement Uncertainty

Available upon request.

#### 2. PRODUCT DESCRIPTION

#### 2.1. EUT Description

Description : Pest Repeller

Applicant : Foshan Shi Shunde District Yongtong Electonics Co., Ltd

Xinyong Beihe Industrial Zone, Xingtan Town Shunde

District Foshan Shi, Guangdong Province China

Model Number : GX-06

**Additional Information** 

Frequency : 25KHz/41KHz

Power Supply : 120VAC Maximum : N/A

Range

Transmitter : -

Antenna

Current N/A

Consumption

## 2.2. Block Diagram of EUT Configuration



#### 2.3. Support Equipment List

#### 2.4. Test Conditions

Temperature: 23~25

Relative Humidity: 55~63 %

## 3. FCC ID LABEL

FCC ID: W8BGX-06

#### **Label Location on EUT**

**EUT Bottom View/ FCC ID Label Location** 



# 4. TEST RESULTS SUMMARY

Test Standards	Test Items	Test Results
FCC 18	Conducted test	Pass
FCC 18	Radiated Emission	Pass

Remark: "N/A" means "Not applicable."

## **Modifications**

No modification was made.

# 5. TEST EQUIPMENT USED

Equipment/Facilities	Manufacturer	Model #	Serial no.	Date of Cal.	Cal. Interval
Cable	Resenberger	N/A	NO.1	Mar 10, 2009	1 Year
Cable	SCHWARZBECK	N/A	NO.2	Mar 10 , 2009	1 Year
Cable	SCHWARZBECK	N/A	NO.3	Mar 10 , 2009	1 Year
LISN	Rohde & Schwarz	ESH3-Z5	100305	Mar 10 , 2009	1 Year
50 Coaxial Switch	ANRITSU CORP	MP59B	6200283933	Mar 10, 2009	1 Year
EMI Test Receiver	Rohde & Schwarz	ESP13	100180	Oct.18,2008	1 Year
Spectrum Analyzer	Rohde & Schwarz	FSP40	100273	Sep.10,2008	1 Year
3m Semi-Anechoic Chamber	Albatross Projects	9m×6m×6m	N/A	Feb.20,2009	1 Year
Signal Generator	FLUKE	PM5418 + Y/C	LO747012	Feb.20,2009	1 Year
Signal Generator	FLUKE	PM5418TX	LO738007	Feb.20,2009	1 Year
Loop Antenna	SCHWARZBECK	FMZB1516	113	Jan.30,2009	1 Year
Trilog-Super Broadband Antenna	SCHWARZBECK	VULB9161	9161-4079	Sep.22,2008	1 Year
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-564	Sep.22,2008	1 Year
Ultra Broadband Antenna	Rohde & Schwarz	HL-562	100110	June.15,2008	1 Year
AMN	Rohde & Schwarz	ESH3-Z5	100196	Oct.11,2008	1 Year
AMN	Rohde & Schwarz	ESH3-Z5	100197	Oct.11,2008	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	N/A	N/A	N/A
Power Meter	Rohde & Schwarz	NRVD	100041	Feb.20,2009	1 Year
EMI Test Receiver	Rohde & Schwarz	ESCS30	100003	Feb.20,2009	1 Year
Coaxial Cable with N-connectors	SCHWARZBECK	AK9515H	95549	Sep.22,2008	1 Year
Radio Communication Test Set	Rohde & Schwarz	CMS 54	846621/024	Feb.20,2009	1 Year
Modulation Analyzer	Hewlett-Packard	8901B	2303A00362	Feb.20,2009	1 Year
Absorbing clamp	Rohde & Schwarz	MDS-21	N/A	Oct.29,2008	1 Year

#### 6. CONDUCTED POWER LINE TEST

#### 6.1. Test Equipment

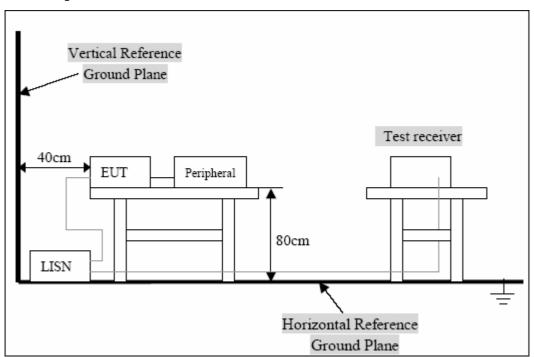
Please refer to section 4 this report.

#### 6.2. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 500hm/50uh coupling inpedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 500hm/50uh coupling inpedance with 500hm termination.

Both sides of A.C. Line are check for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to PART 18 on conducted measurement. Conducted emissions were invested over the frequency range from 0.009MHz to 30MHz using a receiver bandwidth of 9Khz.

#### 6.3. Test Setup



For the actual test configuration, Please refer to the related items-Photos of testing

#### 6.4. Configurating of the EUT

The EUT was configured according to PART 18. Enable the signal transmitted from the external antenna from EUT to receiver. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

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#### A.EUT

Device	Manufacturer	Model#	FCC ID
Pest Repeller	FOSHAN SHI SHUNDE DISTRICT YONGTONG ELECTONICS CO., LTD	GX-06	W8BGX-06

#### **B.Internal Devices**

Device	Manufacturer	Model#	FCC ID
N/A			

C.Peripherals

Device	Manufacturer	Model # Serial #	FCC ID/Doc	Cable
N/A				

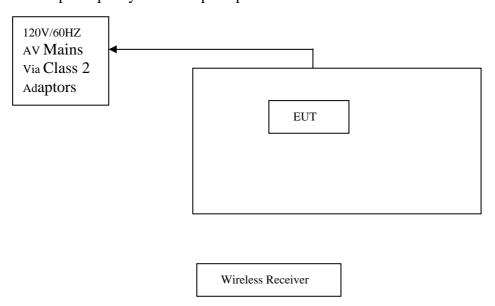
#### **6.5. EUT Operating Condition**

Operating condition is according to PART 18.

Setup the EUT and simulators as shown on follow.

Enable RF signal and confirm EUT active.

Modulate output capacity of EUT up to specification.



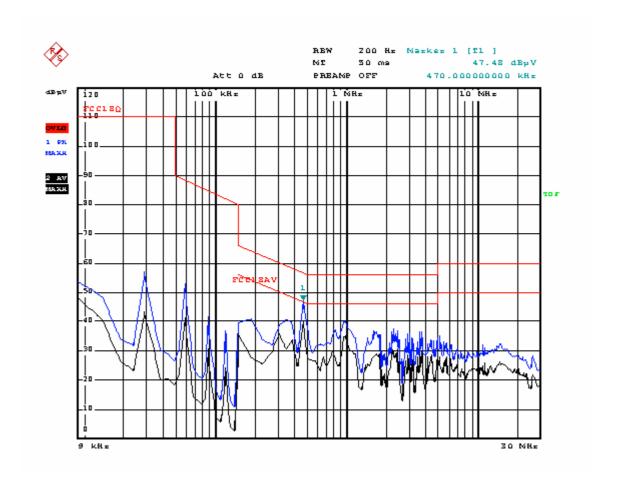
#### **6.6. Conducted Power line Emission Limits**

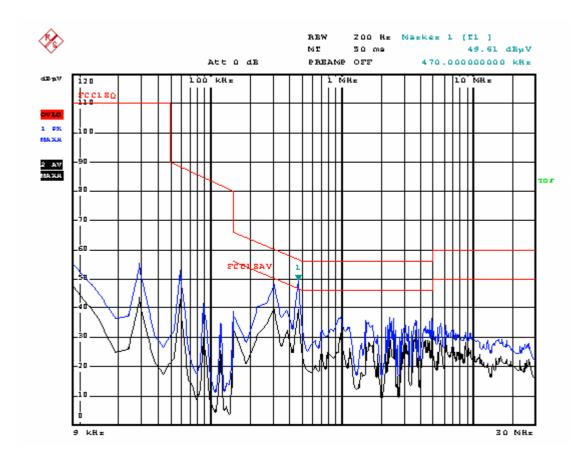
Frequency Range (MHZ)	QP	AV
0.009-0.05	110	-
0.05-0.15	90-80	-
0.15-0.5	65-56	56-46
0.5-5.0	56	46
5.0-30	60	50

**Note:** In the above table, the tighter limit applies at the band edges.

#### 6.7. Conducted Emission Data

The Data on the following page lists the significant emission frequencies, the level and the limit of compliance.





#### 7. RADIATION EMISSIONS

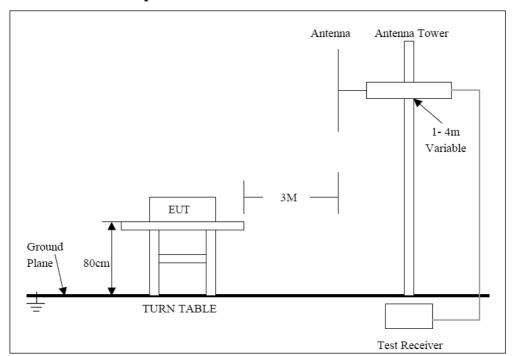
#### 7.1. Test Equipment

Please refer to section 4 this report.

#### 7.2. Test Procedure

The emission tests were performed in the 3-meter chamber test site, using the setup accordance with the PART 18. The specification used was the FCC Part 18 limits. through three orthogonal axes to determine which attitude and equipment arrangement produces the highest emission relative to the limit.

#### 7.3. Radiated Test Setup



Setup below 3mMHz,refer to 7.3;For the accrual test configuration, pleas refer to the related items-photos of Testing.

#### 7.4. Radiated Emission Limit

According to PART 18, the field strength of emissions from intentional radiators operated under this section shall not exceed the following:

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Equipment	Operating frequency	RF Power gen- erated by equip- ment (watts)	Field strength limit (uV/m)	Distance (meters)
Any type unless otherwise specified (miscellaneous).	Any ISM frequency	Below 500 500 or more	l .	300 1300
	Any non-ISM frequency	Below 500 500 or more		300 1300
Industrial heaters and RF stabilized arc welders.	On or below 5,725 MHz Above 5,725 MHz	Any	10(2)	1,600 (²)
Medical diathermy	Any ISM frequency Any non-ISM frequency	Any	25 15	300 300
Ultrasonic	Below 490 kHz	Below 500 500 or more	_,,	300 3300
	490 to 1,600 kHz Above 1,600 kHz	Any	24,000/F(kHz) 15	30 30
Induction cooking ranges	Below 90 kHz On or above 90 kHz	Any	1,500	430 430

 $<sup>^{1}</sup>$  Field strength may not exceed 10  $\mu$ V/m at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

#### 7.5. Radiated Emission Data

The Measured Signal level was at or below noise floor.

The spectrum was scanned from 10 kHz to 1000 MHz and no emissions were found.

<sup>&</sup>lt;sup>2</sup>Reduced to the greatest extent possible.

<sup>&</sup>lt;sup>3</sup> Field strength may not exceed 10 μV/m at 1600 meters. Consumer equipment is not permitted the increase in field strength otherwise permitted here for over 500 watts.

<sup>4</sup> Induction cooking ranges manufactured prior to February 1, 1980, shall be subject to the field strength limits for miscellaneous ISM equipment.