FCC Part 18.307

Measurement and Test Report

For

Jiande Zhongya Elecetric Appliance Factory

No.45 Sanhe Road, Xin'anjiang, Jiande, Zhejiang, China

FCC ID: VVIHZJDZY11-13

Report Concerns: Original Report	**Equipment Type:** Electronic Self-ballast Lamp
Model:	ZY2U-13W
Report No.:	STR07118127I
Test/Witness Engineer:	Lahm Peng
Test Date:	2007-12-03 to 2007-12-05
Prepared By:	**Shenzhen SEM.Test Compliance Service Co., Ltd** Room 609-610, Baotong Building, Baomin 1st Road, Baoan District, Shenzhen, Guangdong, P.R.C. (518133)
Approved & Authorized By:	Jandy So / PSQ Manager

Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by SEM.Test Compliance Service Co., Ltd.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	Jiande Zhongya Elecetric Appliance Factory
Address of applicant:	No.45 Sanhe Road, Xin'anjiang, Jiande, Zhejiang, China
Manufacturer:	Jiande Zhongya Elecetric Appliance Factory
Address of applicant:	No.45 Sanhe Road, Xin'anjiang, Jiande, Zhejiang, China

General Description of E.U.T

Items	Description
EUT Description:	Electronic Self-ballast Lamp
Trade Name:	/
Model No.:	ZY2U-13W, ZY2U-11W, ZY3U-11W, ZY3U-13W, ZYHS-11W, ZYHS-13W,
Rated Voltage:	120V/60Hz
Operation Frequency:	39.0kHz
Rated Power:	13W/11W
Size:	16.0x4.5x4.5cm

Note: The test data is gathered from a production sample, model is ZY2U-13W and ZY2U-11W, provided by the manufacturer. The other models listed in the report have different appearance and power without electronic construction and circuit changed.

1.2 Test Standards

The following report is prepared on behalf of Jiande Zhongya Elecetric Appliance Factory in accordance with FCC Part 18, Subpart C, and section 18.307 and 18.311 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 18, Subpart C, and section 18.307 and 18.311 of the Federal Communication Commissions rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Related Submittal(s)/Grant(s)

No Related Submittal(s).

1.4 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted with Low Power and High Power, accordingly in reference to the Operating Instructions.

1.5 Test Facility

The 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 files which the Registration No.: **759397**. Measurement required was performed at laboratory of Solid Industrial Co., Ltd. at 333 Bulong Highway Buji Longgang, Shenzhen, Guangdong, China.

1.6 EUT Exercise Software

The EUT exercise program used is started while the EUT powered on.

1.7 Accessories Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/

1.8 EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
/	/	/	/

2. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§ 18.307(c)	Conducted Emission	Compliant

3. §18.307 (c)- CONDUCTED EMISSION

3.1 Standard Applicable

According to FCC 18.307(c), the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies shall not exceed the limits in the following tables:

Frequency (MHz)	Maximum RF line voltage measured with a 50 uH/50 ohm LISN (uV)
Non-consumer equipment	
0.45 to 1.6	1,000
1.6 to 30	3,000
Consumer equipment:	
0.45 to 2.51	250
2.51 to 3.0	3,000
3.0 to 30	250

3.2 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 1.5dB.

3.3 Test Equipment List and Details

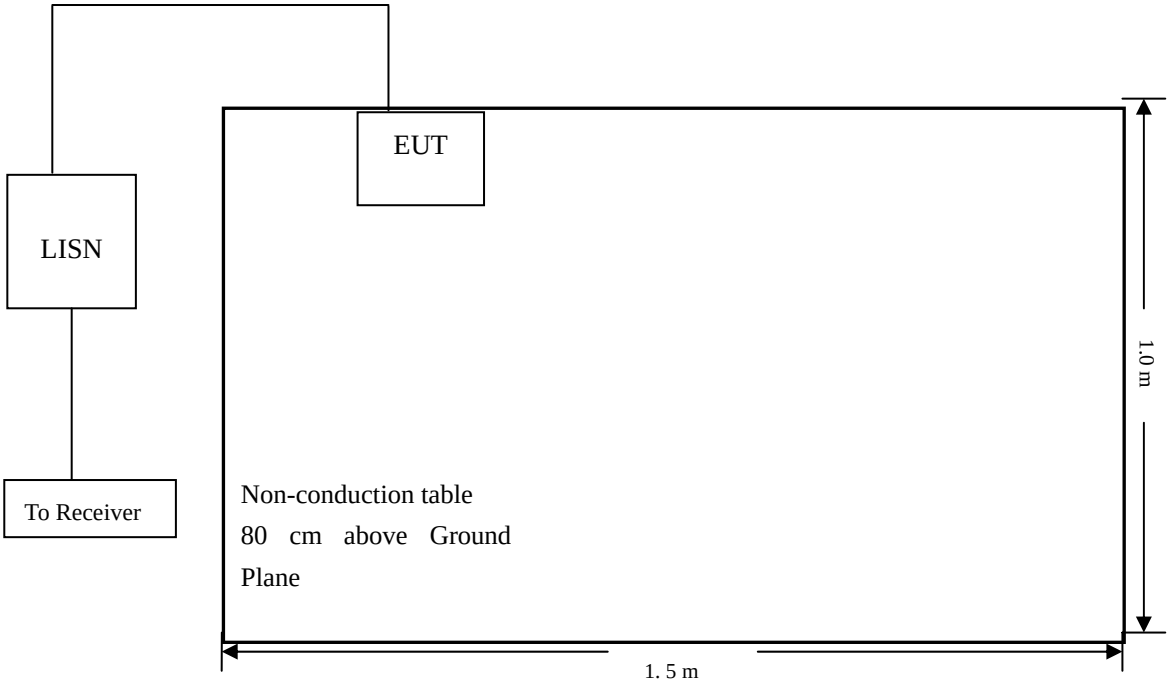
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESCS30	830245/009	2007-1-16	2008-1-15
AMN	Rohde & Schwarz	ESH2-Z5	100002	2007-1-16	2008-1-15
Spectrum Analyzer	Aglient	E4402B-ESA	US41192821	2007-1-26	2008-1-25
Limiter	Rohde & Schwarz	ESH3-Z2	357.8810.52	2007-1-16	2008-1-15
AMN	Rohde & Schwarz	ESH3-Z5	828304/014	2007-1-16	2008-1-15

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

3.4 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 18.307 Limit.
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.
The spacing between the peripherals was 10 cm.

3.5 Basic Test Setup Block Diagram



3.6 Environmental Conditions

Temperature:	26° C
Relative Humidity:	52%
ATM Pressure:	1020 mbar

3.7 Test Receiver Setup

During the conducted emission test, the test receiver was set with the following configurations:

Start Frequency ..... 450 kHz
Stop Frequency..... 30 MHz
Sweep Speed ..... Auto
IF Bandwidth..... 10 kHz
Quasi-Peak Adapter Bandwidth ..... 9 kHz
Quasi-Peak Adapter Mode ..... Normal

3.8 Summary of Test Results/Plots

According to the data in section 3.9, the EUT complied with the FCC 18C Conducted margin for a Class B device, with the *worst* margin reading of:

-10.80 dBμV at **0.45 MHz** in the **Neutral** mode, 0.15-30MHz, Model: ZY2U-13W
-21.00 dBμV at **0.56 MHz** in the **Neutral** mode, 0.15-30MHz, Model: ZY2U-11W

3.9 Conducted Emissions Test Data

LINE CONDUCTED EMISSIONS				FCC PART18 CLASS B	
Frequency	Amplitude	Detector	Phase	Limit	Margin
MHz	dBμV	QP/Ave/Pk	Line/Neutral	dBμV	dB
Model: ZY2U-13W					
0.45	37.24	Pk	Neutral	48	-10.8
0.48	31.38	Pk	Line	48	-16.6
0.51	30.15	Pk	Neutral	48	-17.9
0.56	28.21	Pk	Line	48	-19.8
0.59	28.10	Pk	Neutral	48	-19.9
0.81	27.11	Pk	Line	48	-20.9
Model: ZY2U-11W					
0.56	27.03	Pk	Neutral	48	-21.0
0.49	24.76	Pk	Line	48	-23.2
0.91	24.38	Pk	Neutral	48	-23.6
0.62	23.83	Pk	Line	48	-24.2
0.46	23.71	Pk	Neutral	48	-24.3
0.86	23.32	Pk	Line	48	-24.7

The peak reading is below the AV limit, so the AV reading can be omitted.

Plot of Conducted Emissions Test Data

Conducted Disturbance

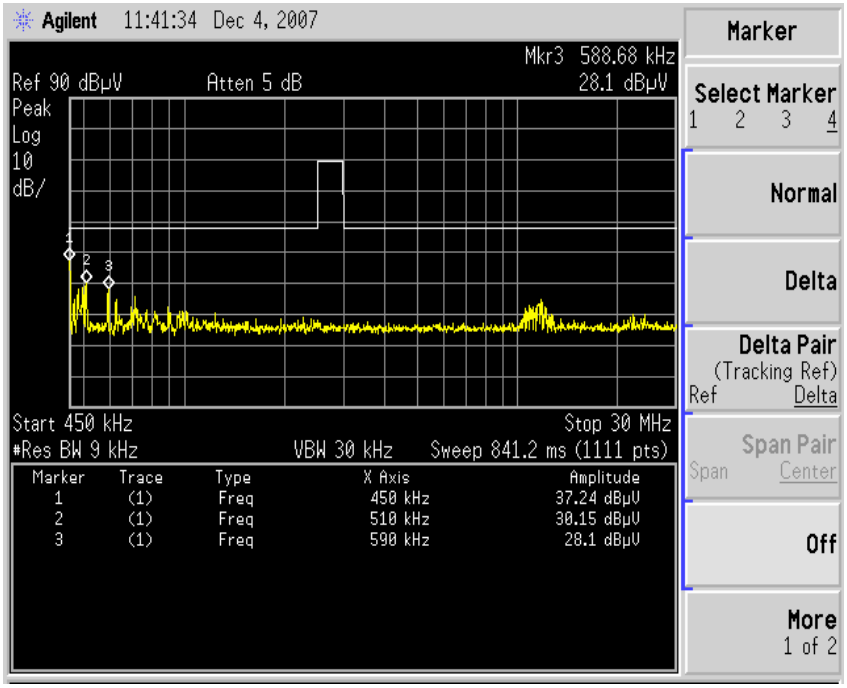
EUT: Electronic Self-ballast Lamp

M/N: ZY2U-13W

Operating Condition: On

Test Specification: N

Comment: AC120V/60Hz



Plot of Conducted Emissions Test Data

Conducted Disturbance

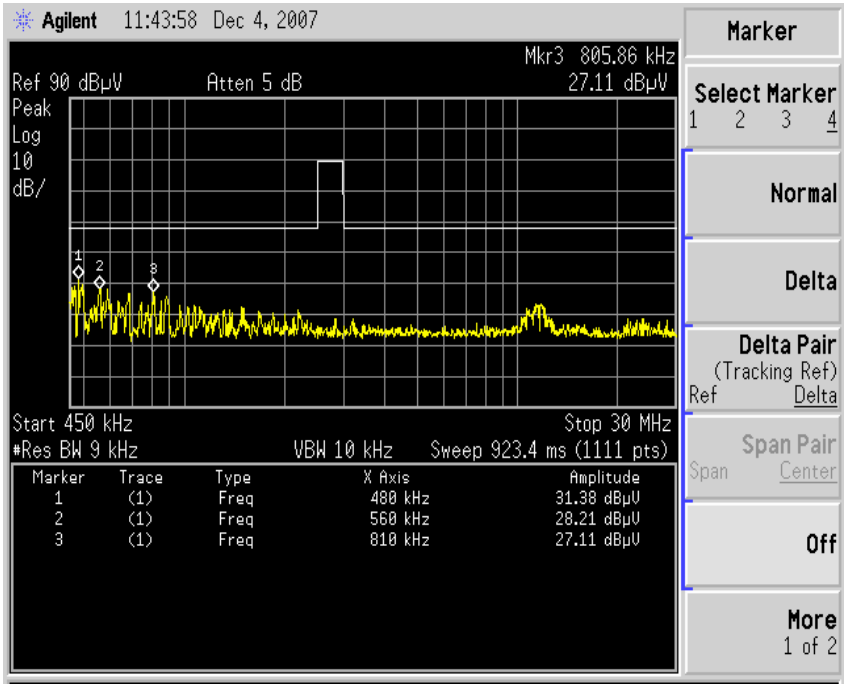
EUT: Electronic Self-ballast Lamp

M/N: ZY2U-13W

Operating Condition: On

Test Specification: L

Comment: AC120V/60Hz



Plot of Conducted Emissions Test Data

Conducted Disturbance

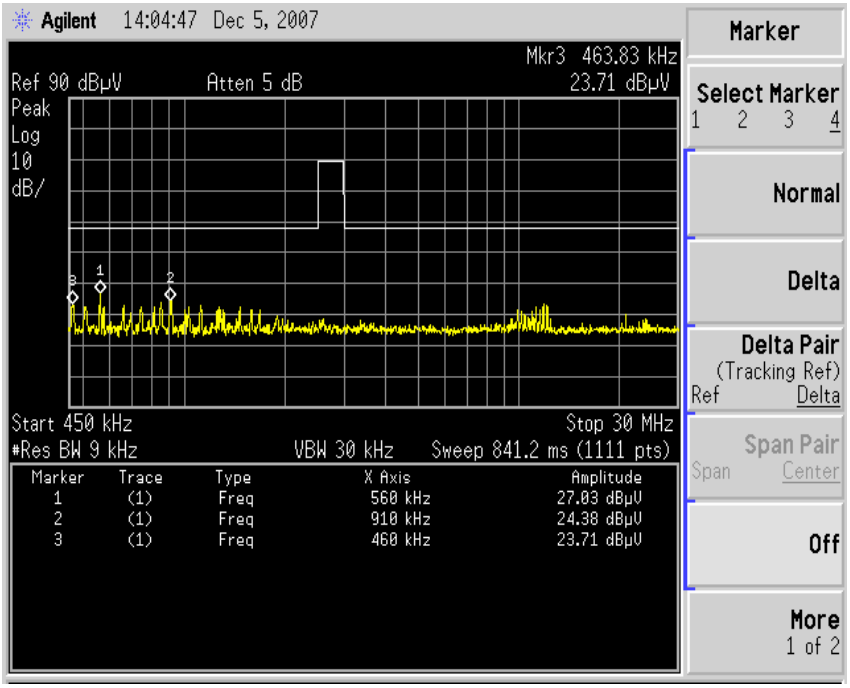
EUT: Electronic Self-ballast Lamp

M/N: ZY2U-11W

Operating Condition: On

Test Specification: N

Comment: AC120V/60Hz



Plot of Conducted Emissions Test Data

Conducted Disturbance

EUT: Electronic Self-ballast Lamp

M/N: ZY2U-11W

Operating Condition: On

Test Specification: L

Comment: AC120V/60Hz