Application for FCC Certificate
On Behalf of
Fujian Joinluck Electronic Enterprise Co., Ltd.

Electronic Energy Saving Lamp

Model No.: JLS 3-Way 12W/20W/26W

FCC ID: N6AFJEE0210

Prepared For : Fujian Joinluck Electronic Enterprise Co., Ltd.
Cangshan Industrial Area, Cangshan District, Fuzhou,
Fujian, China

Prepared By : Audix Technology (Shanghai) Co., Ltd.
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Report No. : ACI-F02071
Date of Test : Jun 17, 2002
Date of Report : Jun 27, 2002

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TEST REPORT FOR FCC CERTIFICATE

Applicant	:	Fujian Joinluck Electronic Enterprise Co., Ltd.
Manufacturer	:	Fujian Joinluck Electronic Enterprise Co., Ltd.
EUT Description	:	Electronic Energy Saving Lamp (A) Model No.: JLS 3-Way 12W/20W/26W (B) Serial No.: E060201 (C) Power Supply: 120V/60Hz

Test Procedure Used:

FCC RULES AND REGULATIONS PART 18 CONSUMER DEVICES (2000) AND MP-5/1986

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 18 RF Lighting Device limits both conducted emissions and field strength.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

This report must not be used by the applicant to claim product endorsement by NVLAP or any agency of the U.S. Government.

Date of Test : Jun 17, 2002

Prepared by : Yolanda Liu 2002.7.3
YOLANDA LIU
(Assistant)

Test Engineer : Ada Zou
ADA ZOU
(Engineer)

For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Reviewer : Byron Kwo 04 Jul 02
BYRON KWO
(Supervisor)

Approved Signatory : Alex Chiu 08 Jul 02
ALEX CHIU
(Assistant Manager)

Authorized Signature(s)

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test

Description : Electronic Energy Saving Lamp

Type of EUT : ☑ Production ☐ Pre-product ☐ Pro-type

Model Number : JLS 3-Way 12W/20W/26W

Applicant : Fujian Joinluck Electronic Enterprise Co., Ltd.
Cangshan Industrial Area, Cangshan District, Fuzhou, Fujian, .China

Manufacturer : Fujian Joinluck Electronic Enterprise Co., Ltd.
Cangshan Industrial Area, Cangshan District, Fuzhou, Fujian, .China

Test Model	Apparent Power (V • A)	Real Power (W)
26W	47.7	23.5

NOTE: The EUT have only one mode, and its power is shown as above.

1.2 Description of Test Facility

Site Description : Sept. 17, 1998 file on
(Semi-Anechoic Chamber) Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046, USA

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F 34Bldg 680 Guiping Rd,
Caohejing Hi-Tech Park,
Shanghai, China 200233

NVLAP Lab Code : 200371-0

1.3 Measurement Uncertainty

Conducted Emission Uncertainty : U = ±2.66dB

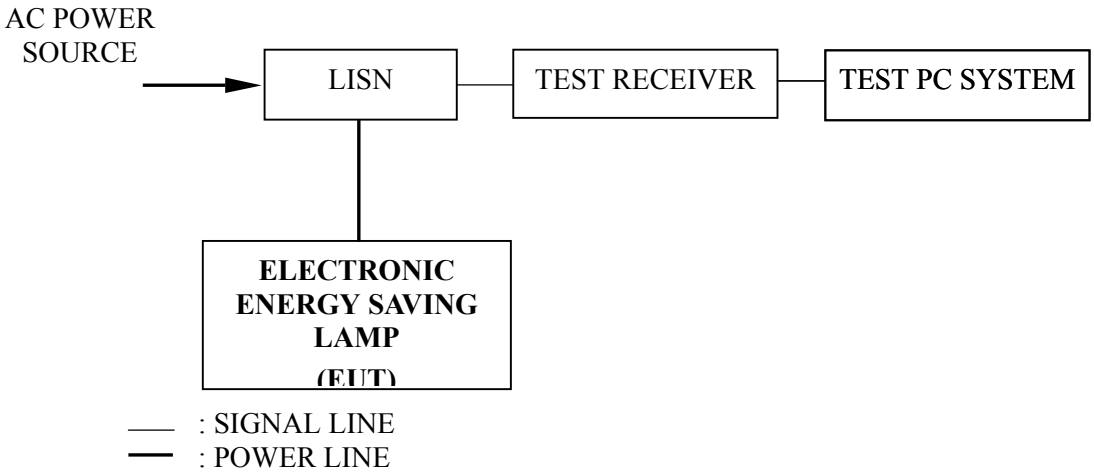
2 AC POWERLINE CONDUCTED EMISSION TEST

2.1 Test Equipment

The following test equipment are used during the powerline conducted emission test in a shielded room:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	844077/020	Apr 25, 2002	1 Year
2.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-5	May 09, 2002	1 Year

2.2 Block Diagram of Test Setup



2.3 Conducted Emission Limits

Frequency (MHz)	Maximum RF Line Voltage	
	(μV)	dB(μV)
0.45 ~ 2.51	250	48
2.51 ~ 3	3000	70
3 ~ 30	250	48

NOTE 1 – RF Line Voltage dB (μV) = 20 log RF Line Voltage (μV)
NOTE 2 – The tighter limits shall apply at the boundary between two frequency ranges.

2.4 Test Configuration

The EUT (listed in Sec. 1.1) was installed as shown on Sec. 2.2 to meet FCC requirement and operating in a manner which tends to maximize its emission level in a normal application.

2.5 Operating Condition of EUT

2.5.1 Setup the EUT as shown in Sec. 2.2.

2.5.2 Turn on the power of all equipment.

2.5.3 The EUT will be operated normally.

2.6 Test Procedures

The EUT was connected to the power mains through a Line Impedance Stabilization Network (LISN). This provided a 50 ohm coupling impedance for the measuring equipment.

Both sides of AC line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed or manipulated according to MP-5/1986 during conducted emission test.

The IF bandwidth of Test Receiver ESHS10 was set at 10 kHz.

The frequency range from 450 kHz to 30 MHz was checked.

The test mode (26W) was done on conducted test and the test results of the highest emissions are listed in Sec. 2.7.

2.7 Test Results

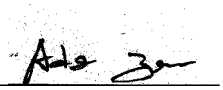
< PASS >

The frequency and amplitude of the highest AC powerline conducted emissions relative to the limit is reported. All emissions not reported below are too low against the prescribed limits.

EUT	:	Electronic Energy Saving Lamp	Temperature :	21.8℃
Model No.	:	JLS 3-Way 12W/20W/26W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Jun 17, 2002

Test Line	Frequency (MHz)	Factor (dB)	Emission Level dB(μV)	Read Level dB(μV)	Limit Line dB(μV)	Over limit (dB)
VA	**0.467**	**0.06**	**38.21**	**38.15**	**48.00**	**9.79**
	0.665	0.03	35.94	35.91	48.00	12.06
	0.729	0.03	35.18	35.15	48.00	12.82
	0.797	0.04	34.30	34.26	48.00	13.70
	0.995	0.05	37.47	37.42	48.00	10.53
	1.932	0.05	31.58	31.53	48.00	16.42
VB	0.463	0.09	35.35	35.26	48.00	12.65
	0.530	0.09	34.54	34.45	48.00	13.46
	0.665	0.08	34.74	34.66	48.00	13.26
	0.729	0.08	35.37	35.29	48.00	12.63
	0.797	0.08	34.10	34.02	48.00	13.90
	0.995	0.09	37.12	37.04	48.00	10.88

NOTE 1 – Emission Level = Read Level+ Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.467 MHz with corrected signal level of 38.21dB(μV) (limit is 48.00 dB(μV)), when the VA of the EUT is connected to LISN.

TEST ENGINEER: 
(ADA ZOU)

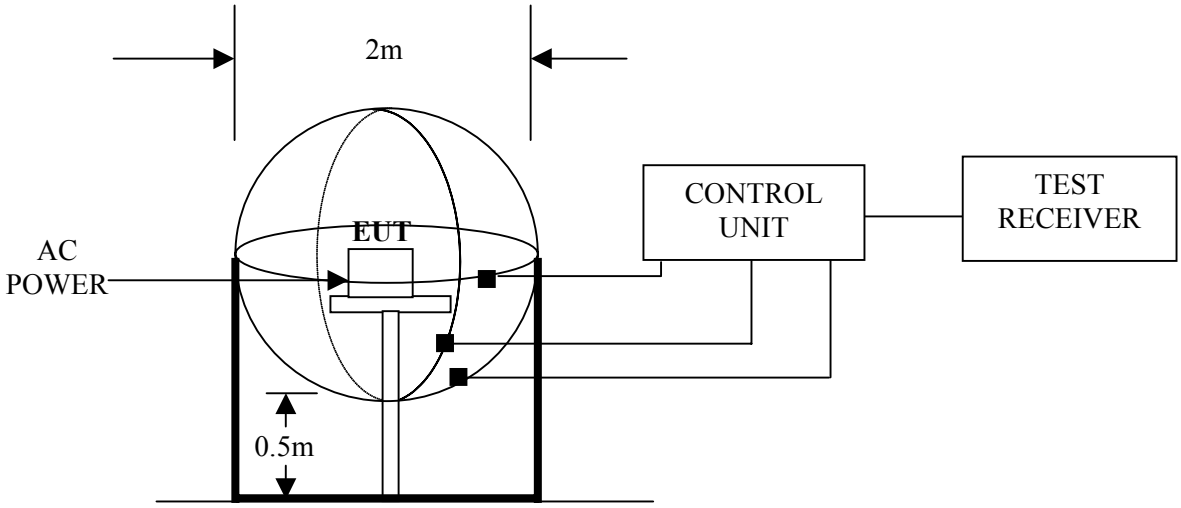
3 FIELD STRENGTH TEST

3.1 Test Equipment

The following test equipment are used during the field strength test in a shielded room:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Loop Antenna	Laplace	RF300	5001	Apr 24, 2002	1/2 Year
2.	Test Receiver	Rohde & Schwarz	ESHS10	844077/020	Apr 25, 2002	1 Year

3.2 Block Diagram of Test Setup



EUT : Electronic Energy Saving Lamp

3.3 Test Configuration

The configuration of the EUT is same as those used in conducted emission test. Refer to Sec. 2.4, except the test setup replaced by Sec. 3.2.

3.4 Operating Condition of EUT

Same as conducted emission test which is listed in Sec. 2.5, except the test setup replaced by Sec. 3.2.

3.5 Test Procedure

The EUT was placed on a wooden table, which is in the center of the loop antenna. The loop antenna is 0.5 meters above the ground. Each side had one sensor. The three sensors were through the control unit to connect the Test receiver, which receiving the emission and find out the maximum emission of each side of the loop antenna.

The IF bandwidth of R&S Test Receiver ESHS10 was set at 200 Hz from 9kHz to 150kHz and 10kHz from 150 kHz to 30 MHz.

The IF frequency range from 9 kHz to 30 MHz was checked.

The test mode (26W) was done on field strength test and all the test results are listed in Sec. 3.6.

3.6 Test Result

<**PASS**>

Refer to the following pages.

Audix Technology (Shanghai) Co., Ltd.
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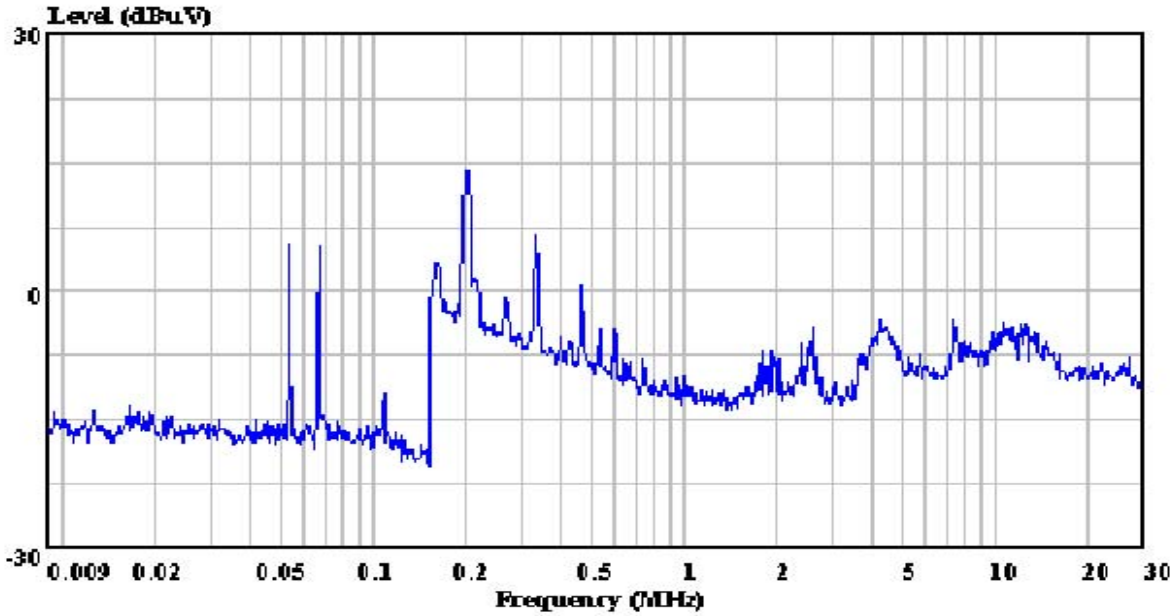

Site : audix-aci Conducted Emission
Condition :
Project No. : AOE-000123
Applicant : Fujian Joinluck Electronic Enterprise
: Co.,Ltd
EUT : Electronic Energy Saving Lamp
M/N : JLS 3-Way 12W/20W/26W
S/N : E060201
Power Supply : 120V/60Hz
Ambient : 21.8'C 53%
Test Line : A
Test Mode : ON
Test Engineer:

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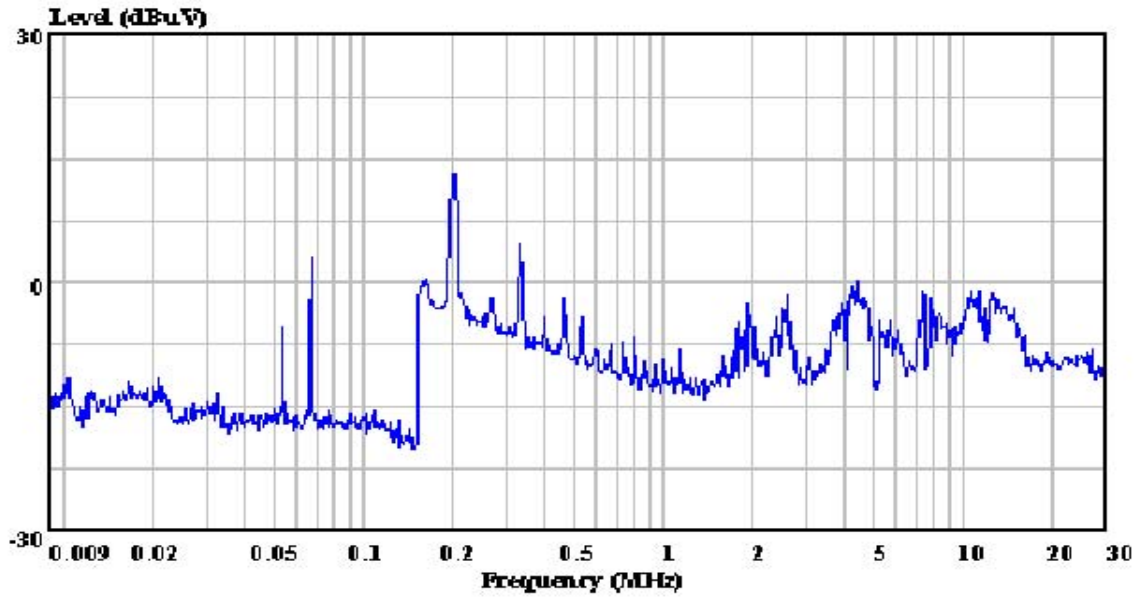

Site : audix-aci Conducted Emission
Condition :
Project No. : AOE-000123
Applicant : Fujian Joinluck Electronic Enterprise
: Co.,Ltd
EUT : Electronic Energy Saving Lamp
M/N : JLS 3-Way 12W/20W/26W
S/N : E060201
Power Supply : 120V/60Hz
Ambient : 21.8'C 53%
Test Line : B
Test Mode : ON
Test Engineer:

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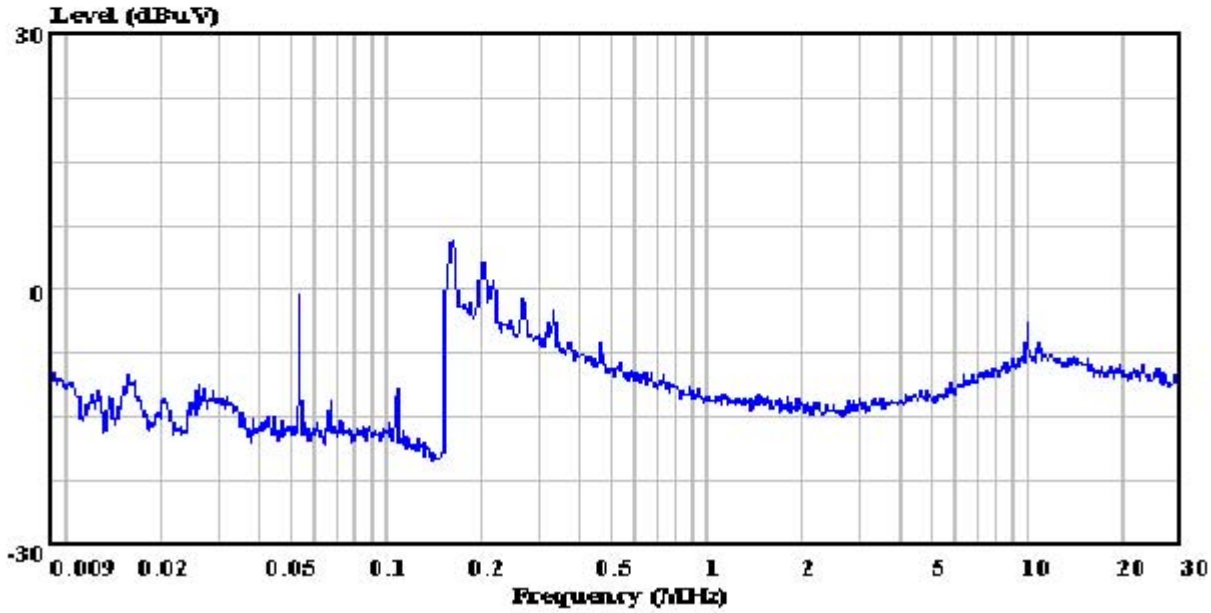

Site : audix-aci Conducted Emission
Condition :
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Applicant : Fujian Joinluck Electronic Enterprise
: Co.,Ltd
EUT : Electronic Energy Saving Lamp
M/N : JLS 3-Way 12W/20W/26W
S/N : E060201
Power Supply : 120V/60Hz
Ambient : 21.8'C 53%
Test Line : C
Test Mode : ON
Test Engineer: