# Application for FCC Certificate
# On Behalf of
# Shanghai Junsun Lighting Co., Ltd.

## Self-Ballasted Lamp

| | | | | |
|---|---|---|---|---|
| Model No.: | JAD-5 | JAD-7 | JAD-9 | JAD-11 |
| | JAD-13 | JAD-15 | JAD-18 | |
| | JBT-11 | JBT-13 | JBT-15 | JBT-18 |
| | JBT-20 | JBT-23 | JBT-25 | |
| | JBS-15 | JBS-18 | JBS-20 | JBS-23 |
| | JBS-25 | | | |

FCC ID: P97JUNSUN0208

Prepared For : Shanghai Junsun Lighting Co., Ltd.
Beiguan, Malu Town, Jiading,
Shanghai, China

Prepared By : Audix Technology (Shanghai) Co., Ltd.
3F 34Bldg 680 Guiping Rd,
Caohejing Hi-Tech Park,
Shanghai, China 200233

Tel : +86-21-64955500
Fax : +86-21-64955491

Report No. : ACI-F02031
Date of Test : Mar 13 ~ Mar 18, 2002
Date of Report : Mar 26, 2002

# TABLE OF CONTENTS

Page

**1 GENERAL INFORMATION ..... 4**
1.1 Description of Equipment Under Test ..... 4
1.2 Description of Test Facility ..... 5
1.3 Measurement Uncertainty ..... 5
**2 AC POWERLINE CONDUCTED EMISSION TEST ..... 6**
2.1 Test Equipment ..... 6
2.2 Block Diagram of Test Setup ..... 6
2.3 Conducted Emission Limits ..... 6
2.4 Test Configuration ..... 7
2.5 Operating Condition of EUT ..... 7
2.6 Test Procedures ..... 7
2.7 Test Results ..... 7
**3 FIELD STRENGTH TEST ..... 26**
3.1 Test Equipment ..... 26
3.2 Block Diagram of Test Setup ..... 26
3.3 Test Configuration ..... 26
3.4 Operating Condition of EUT ..... 26
3.5 Test Procedure ..... 27
3.6 Test Result ..... 27

# TEST REPORT FOR FCC CERTIFICATE

Applicant : Shanghai Junsun Lighting Co., Ltd.

Manufacturer : Shanghai Junsun Lighting Co., Ltd.

EUT Description : Self-Ballasted Lamp

(A) Model No.:

| | | | |
|---|---|---|---|
| JAD-5 | JAD-7 | JAD-9 | JAD-11 |
| JAD-13 | JAD-15 | JAD-18 | |
| JBT-11 | JBT-13 | JBT-15 | JBT-18 |
| JBT-20 | JBT-23 | JBT-25 | |
| JBS-15 | JBS-18 | JBS-20 | JBS-23 |
| JBS-25 | | | |

(B) Serial No.:
N/A

(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 : Mar 13 ~ Mar 18, 2002

Prepared by : CASPER LEI (Assistant)

Test Engineer : WINSTON HUA (Engineer) on behalf of Audix Technology (Shanghai) Co., Ltd.

Reviewer : BYRON KWO (Supervisor)

Approved Signatory : ALEX CHU (Assistant Manager)
Authorized Signature(s)

# 1 GENERAL INFORMATION

## 1.1 Description of Equipment Under Test

Description : Self-Ballasted Lamp

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

Model Number : JAD-5 JAD-7 JAD-9 JAD-11 JAD-13
JAD-15 JAD-18 JBT-11 JBT-13 JBT-15
JBT-18 JBT-20 JBT-23 JBT-25 JBS-15
JBS-18 JBS-20 JBS-23 JBS-25
(All the above models were tested, and only the test data of JAD-5, JAD-11, JAD-18, JBT-11, JBT-18, JBT-25, JBS-15, JBS-20, JBS-25 are recorded in this report.)

Applicant : Shanghai Junsun Lighting Co., Ltd.
Beiguan, Malu Town, Jiading,
Shanghai, China

Manufacturer : Shanghai Junsun Lighting Co., Ltd.
Beiguan, Malu Town, Jiading,
Shanghai, China

| M/N | Apparent Power (VA) | Real Power (W) |
|---|---|---|
| JAD-5 | 13.1 | 6.0 |
| JAD-7 | 14.6 | 7.0 |
| JAD-9 | 17.4 | 8.7 |
| JAD-11 | 19.4 | 10.1 |
| JAD-13 | 22.6 | 11.8 |
| JAD-15 | 25.2 | 13.1 |
| JAD-18 | 34.2 | 18.4 |
| JBT-11 | 20.0 | 10.6 |
| JBT-13 | 22.6 | 11.3 |
| JBT-15 | 25.9 | 13.6 |
| JBT-18 | 32.2 | 17.0 |
| JBT-20 | 38.0 | 20.2 |
| JBT-23 | 38.3 | 20.4 |
| JBT-25 | 40.8 | 22.6 |
| JBS-15 | 26.1 | 13.9 |
| JBS-18 | 30.5 | 15.8 |
| JBS-20 | 34.4 | 18.5 |
| JBS-23 | 38.9 | 20.9 |
| JBS-25 | 42.9 | 24.1 |

## 1.2 Description of Test Facility

| | | |
|---|---|---|
| Site Description (Semi-Anechoic Chamber) | : | Sept. 17, 1998 file on<br>Federal Communications Commission<br>FCC Engineering Laboratory<br>7435 Oakland Mills Road<br>Columbia, MD 21046, USA |
| Name of Firm | : | Audix Technology (Shanghai) Co., Ltd. |
| Site Location | : | 3F 34Bldg 680 Guiping Rd,<br>Caohejing Hi-Tech Park,<br>Shanghai, China 200233 |
| NVLAP Lab Code | : | 200371-0 |

## 1.3 Measurement Uncertainty

Conducted Emission Uncertainty : U = ±2.66dB

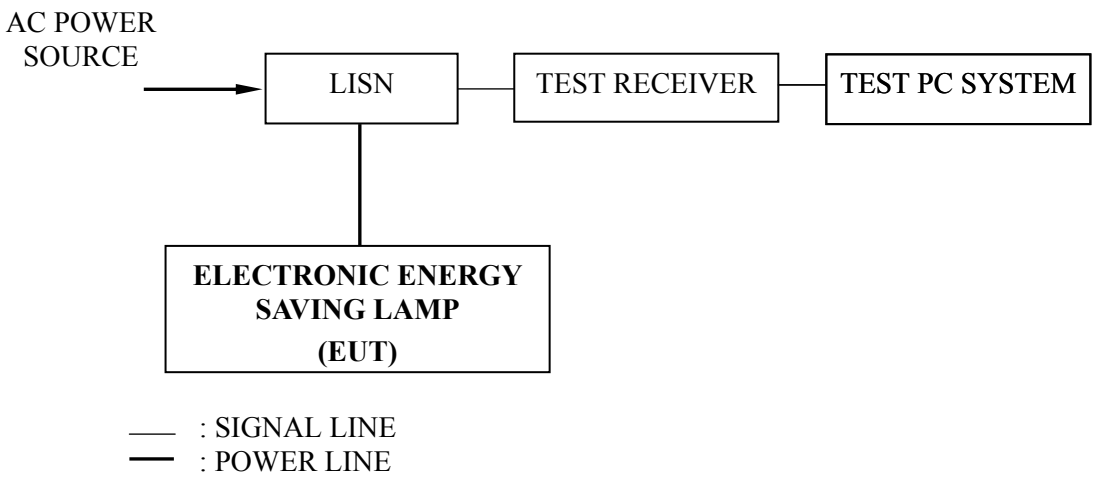
# 2 AC POWERLINE CONDUCTED EMISSION TEST

## 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 24, 2001 | 1 Year |
| 2. | Line Impedance Stabilization Network (LISN) | Kyoritsu | KNW-407 | 8-1280-5 | May 08, 2001 | 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 (Lighting) was done on conducted test and the test results of the highest emissions are listed in Sec. 2.7.

## 2.7 Test Results

**< PASS >**

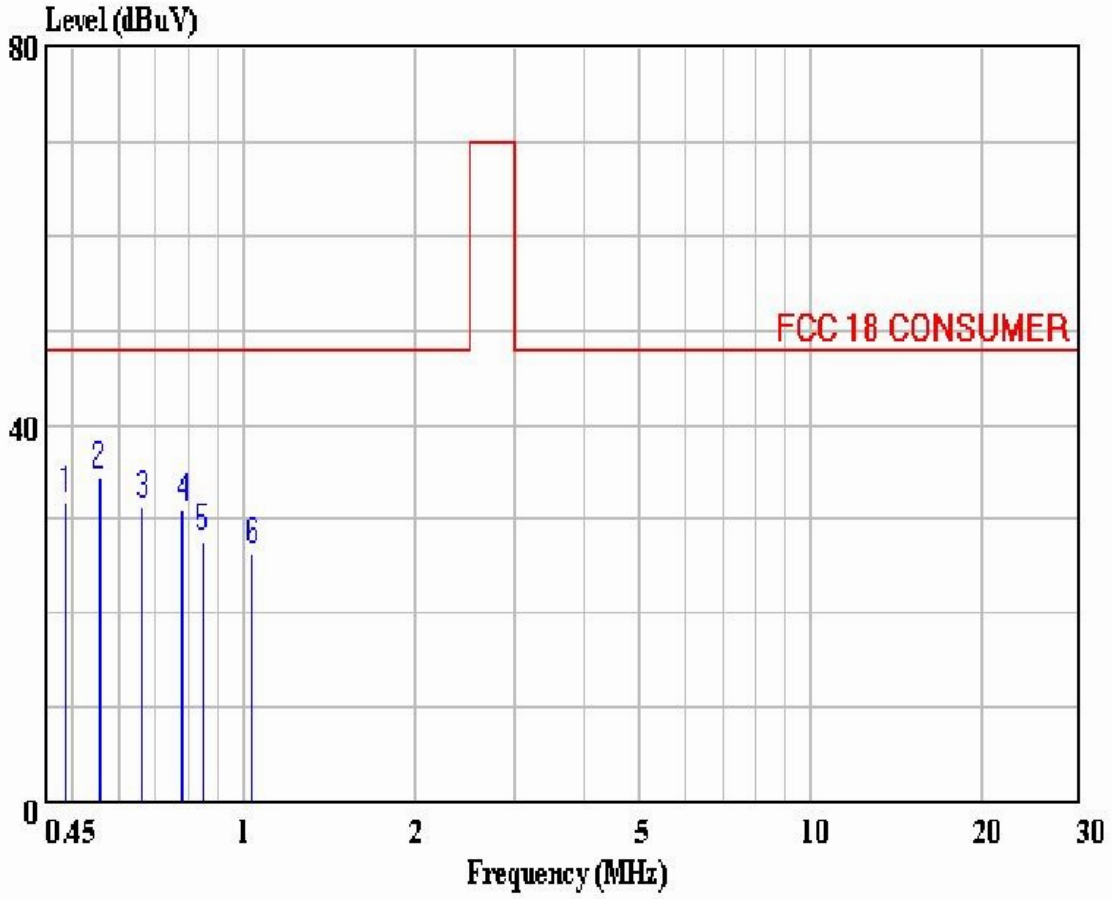
The frequency and amplitude of the highest AC powerline conducted emissions relative to the limit is reported. All emissions not reported below are too low against the prescribed limits.

NOTE 1 – Emission Level = Read Level + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 171 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 16:06:02




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JAD-5W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : On
Test Engineer: Winston Hua

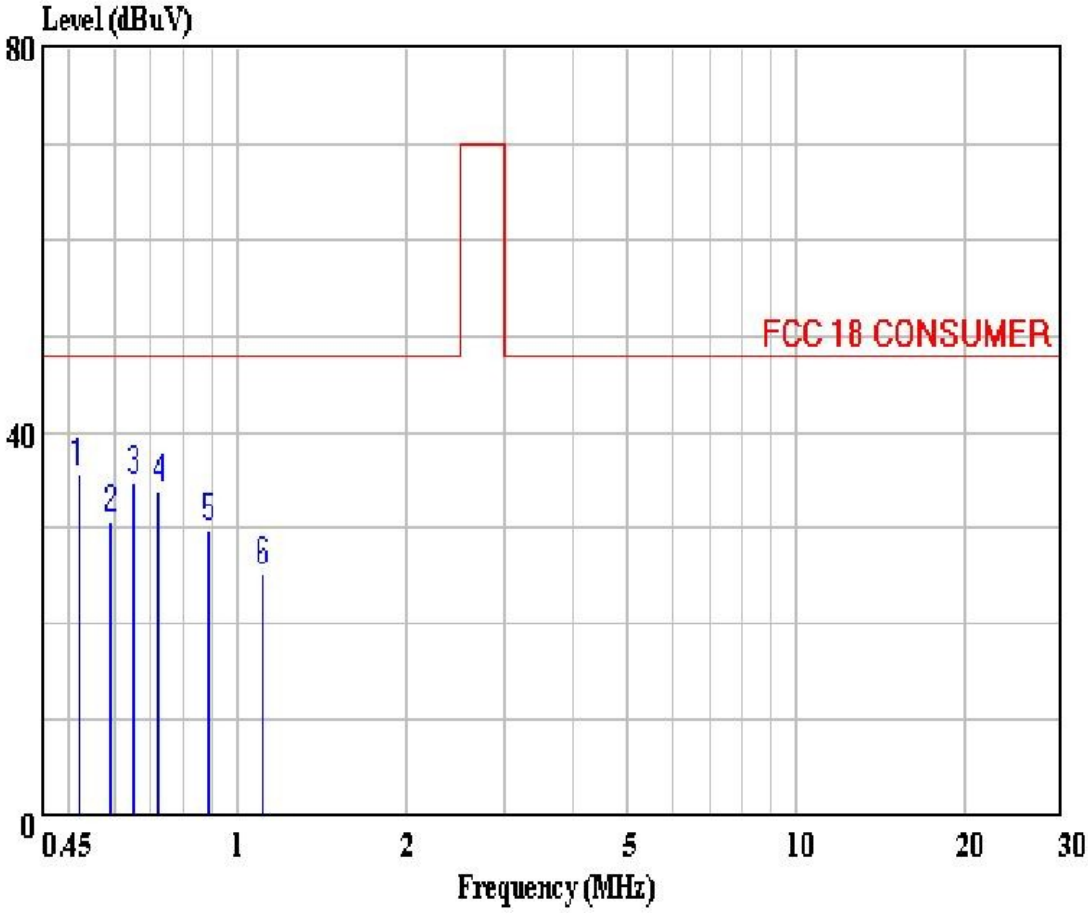
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.487 | 31.72 | 31.78 | 48.00 | -16.22 | 0.06 |
| 2 | 0.557 | 34.34 | 34.39 | 48.00 | -13.61 | 0.05 |
| 3 | 0.662 | 31.30 | 31.34 | 48.00 | -16.66 | 0.04 |
| 4 | 0.780 | 30.93 | 30.97 | 48.00 | -17.03 | 0.04 |
| 5 | 0.848 | 27.82 | 27.86 | 48.00 | -20.14 | 0.04 |
| 6 | 1.038 | 26.40 | 26.45 | 48.00 | -21.55 | 0.05 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 172 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 16:07:01




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JAD-5W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : On
Test Engineer: Winston Hua

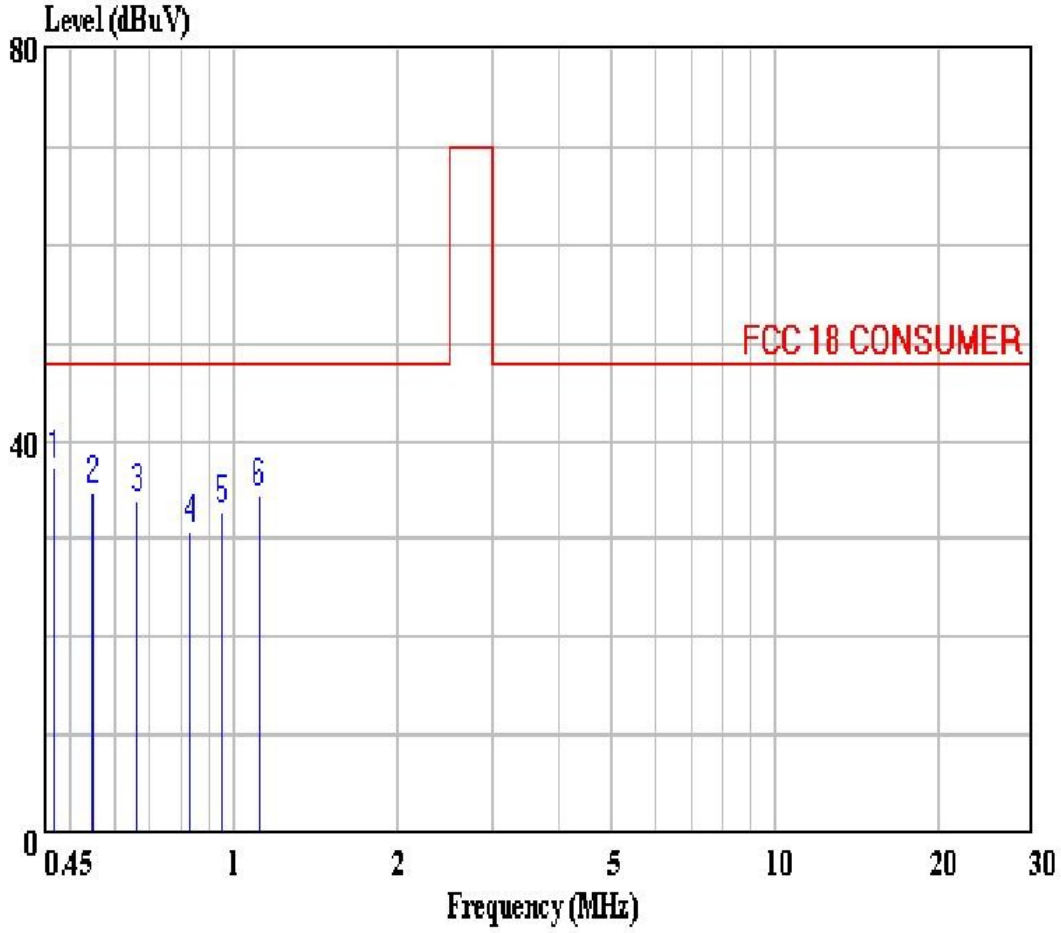
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.519 | 35.35 | 35.44 | 48.00 | -12.56 | 0.09 |
| 2 | 0.594 | 30.57 | 30.65 | 48.00 | -17.35 | 0.08 |
| 3 | 0.651 | 34.66 | 34.74 | 48.00 | -13.26 | 0.08 |
| 4 | 0.723 | 33.71 | 33.79 | 48.00 | -14.21 | 0.08 |
| 5 | 0.889 | 29.87 | 29.95 | 48.00 | -18.05 | 0.08 |
| 6 | 1.110 | 25.30 | 25.38 | 48.00 | -22.62 | 0.08 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 174 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:57:42



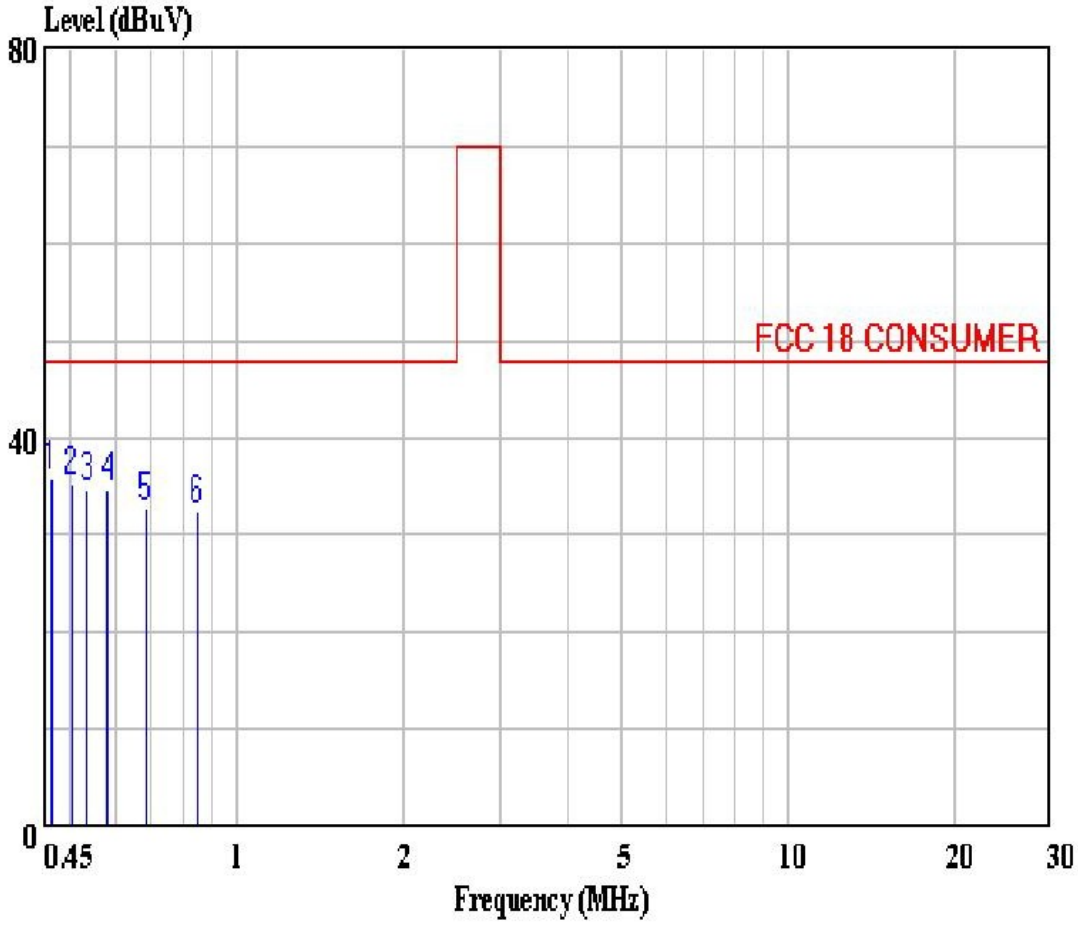

Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JAD-11W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : On
Test Engineer: Winston Hua

Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.467 | 37.10 | 37.16 | 48.00 | -10.84 | 0.06 |
| 2 | 0.548 | 34.66 | 34.71 | 48.00 | -13.29 | 0.05 |
| 3 | 0.662 | 33.69 | 33.73 | 48.00 | -14.27 | 0.04 |
| 4 | 0.831 | 30.74 | 30.78 | 48.00 | -17.22 | 0.04 |
| 5 | 0.950 | 32.76 | 32.81 | 48.00 | -15.19 | 0.05 |
| 6 | 1.115 | 34.24 | 34.29 | 48.00 | -13.71 | 0.05 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司
3F #34Bldg. No.880 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 173 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:56:58




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JAD-11W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : On
Test Engineer: Winston Hua

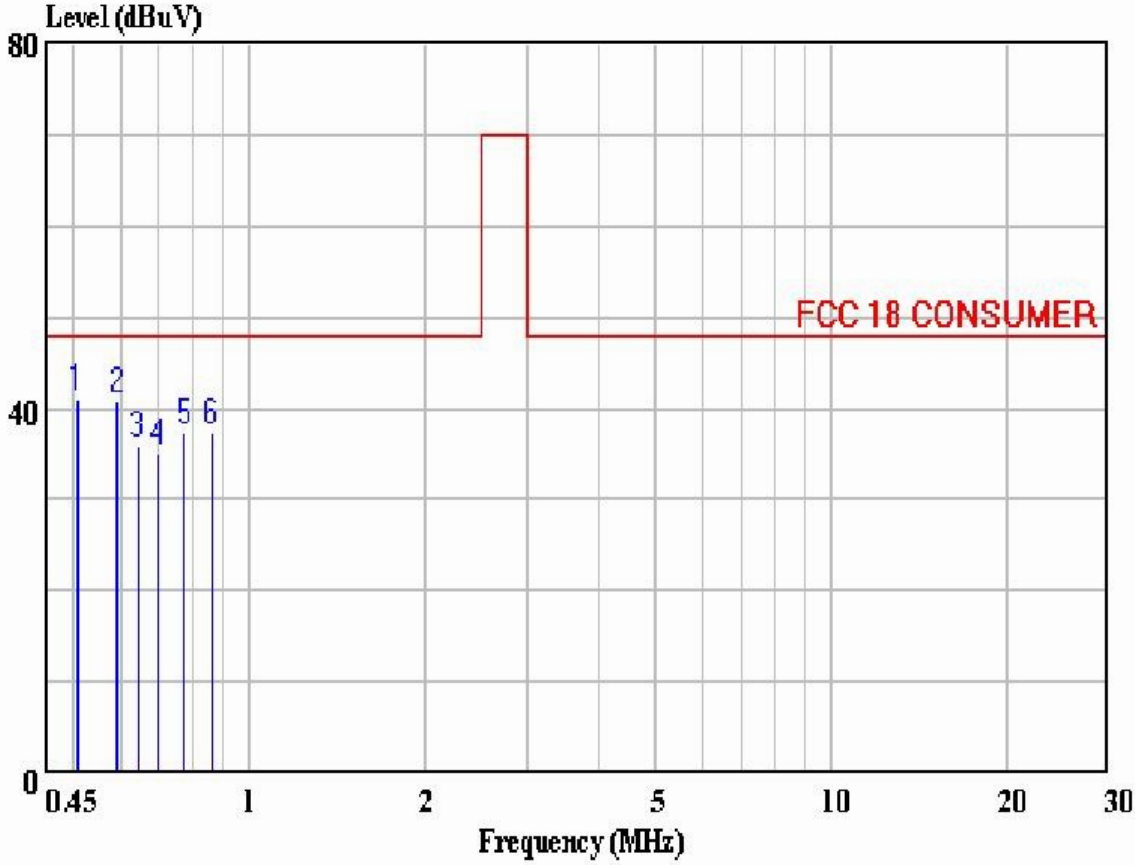
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.461 | 35.74 | 35.83 | 48.00 | -12.17 | 0.09 |
| 2 | 0.502 | 35.09 | 35.18 | 48.00 | -12.82 | 0.09 |
| 3 | 0.535 | 34.70 | 34.79 | 48.00 | -13.21 | 0.09 |
| 4 | 0.584 | 34.64 | 34.73 | 48.00 | -13.27 | 0.09 |
| 5 | 0.685 | 32.59 | 32.67 | 48.00 | -15.33 | 0.08 |
| 6 | 0.848 | 32.27 | 32.35 | 48.00 | -15.65 | 0.08 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 169 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:32:28




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JAD-18W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : On
Test Engineer: Winston Hua

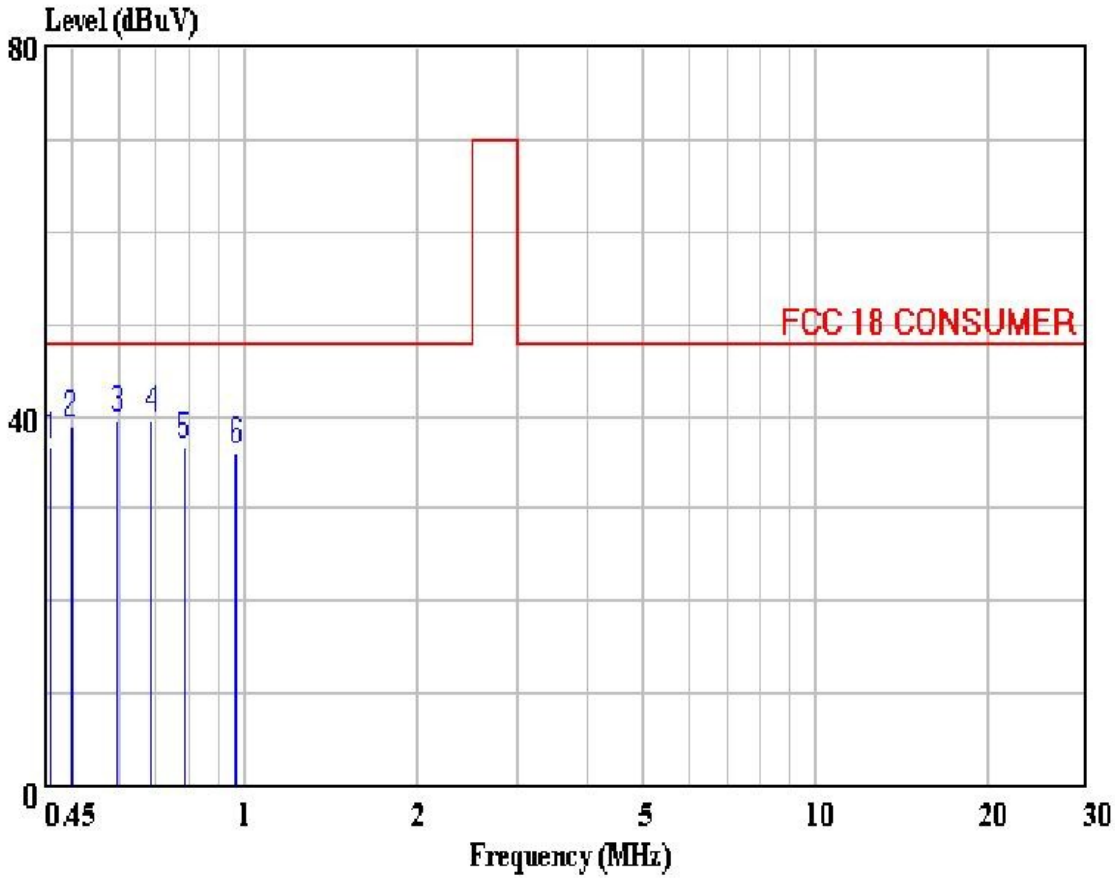
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.506 | 40.85 | 40.91 | 48.00 | -7.09 | 0.06 |
| 2 | 0.594 | 40.82 | 40.86 | 48.00 | -7.14 | 0.04 |
| 3 | 0.643 | 35.93 | 35.97 | 48.00 | -12.03 | 0.04 |
| 4 | 0.696 | 35.08 | 35.11 | 48.00 | -12.89 | 0.03 |
| 5 | 0.774 | 37.25 | 37.29 | 48.00 | -10.71 | 0.04 |
| 6 | 0.863 | 37.16 | 37.20 | 48.00 | -10.80 | 0.04 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 170 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:31:33




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JAD-18W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : On
Test Engineer: Winston Hua

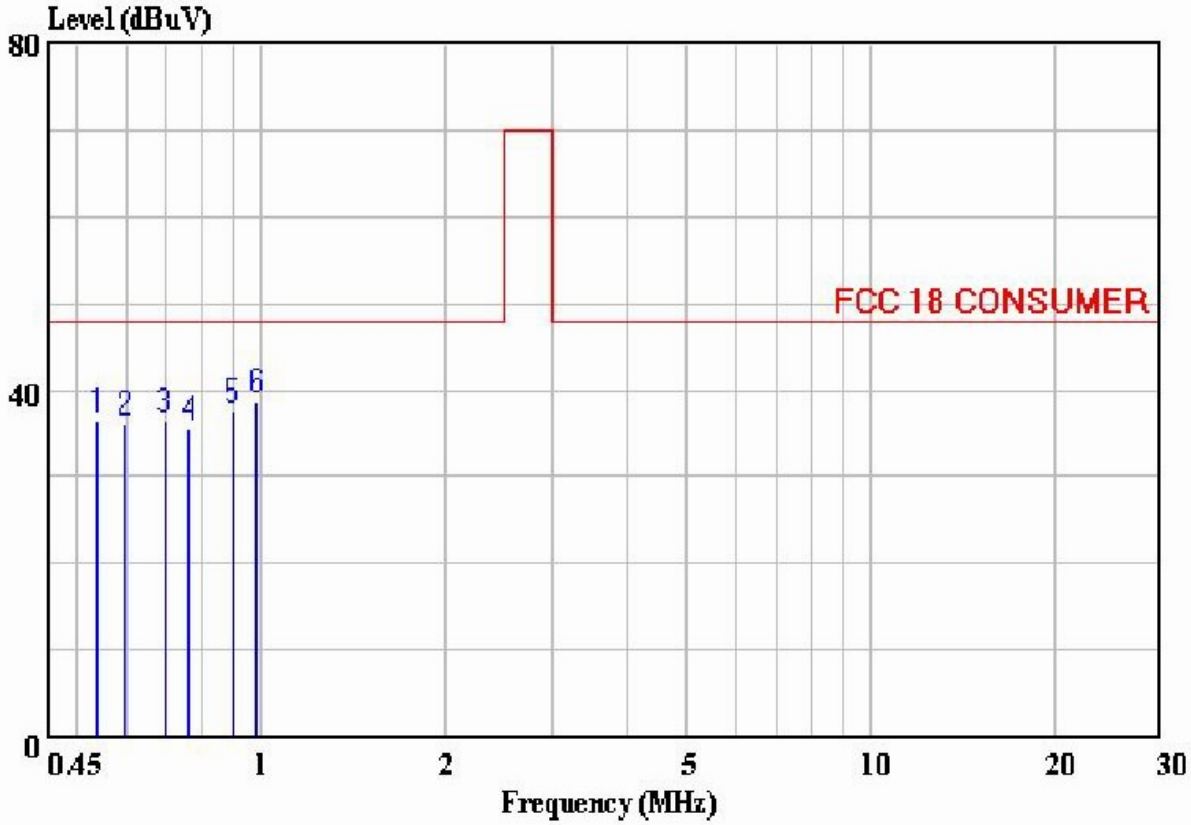
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.460 | 36.58 | 36.64 | 48.00 | -11.36 | 0.06 |
| 2 | 0.498 | 38.98 | 39.04 | 48.00 | -8.96 | 0.06 |
| 3 | 0.599 | 39.62 | 39.66 | 48.00 | -8.34 | 0.04 |
| 4 | 0.688 | 39.55 | 39.58 | 48.00 | -8.42 | 0.03 |
| 5 | 0.783 | 36.71 | 36.75 | 48.00 | -11.25 | 0.04 |
| 6 | 0.966 | 36.13 | 36.18 | 48.00 | -11.82 | 0.05 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 166 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 16:04:04




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBT-11W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : On
Test Engineer: Winston Hua

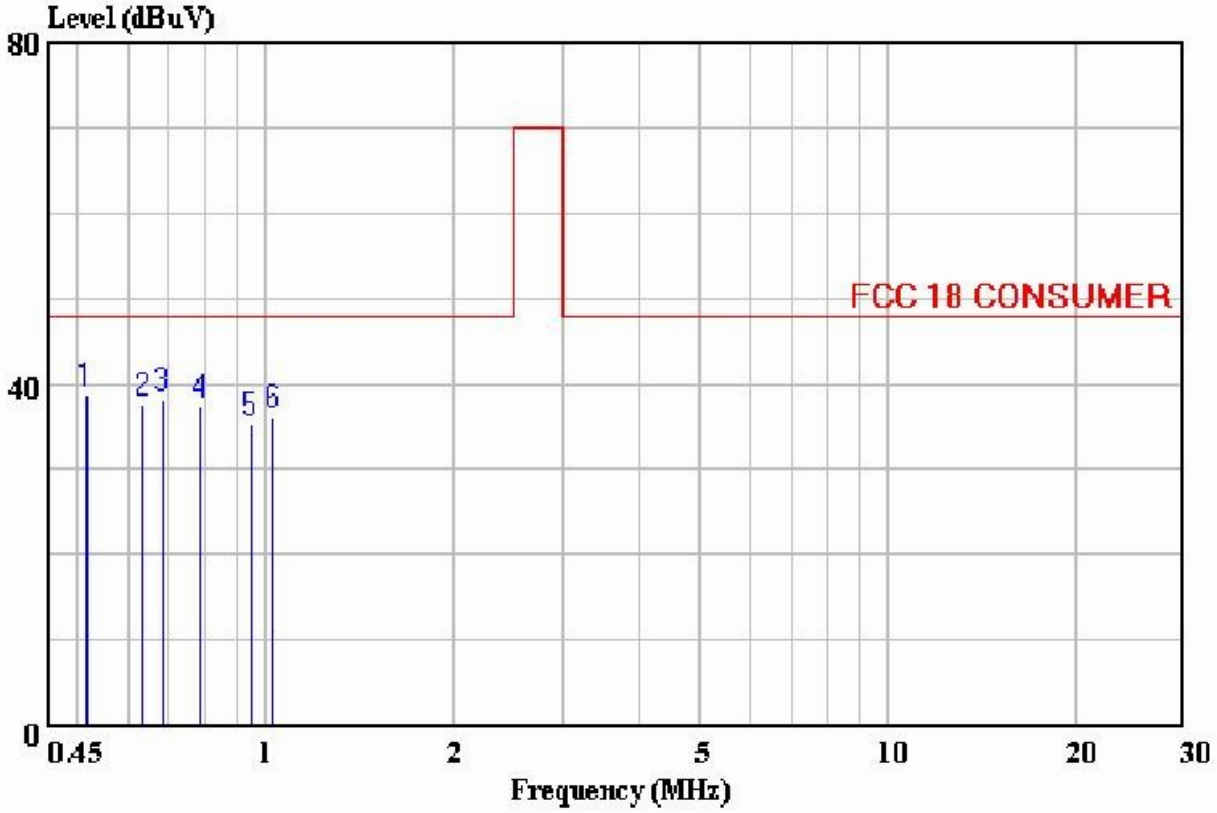
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.539 | 36.28 | 36.33 | 48.00 | -11.67 | 0.05 |
| 2 | 0.599 | 36.23 | 36.27 | 48.00 | -11.73 | 0.04 |
| 3 | 0.696 | 36.48 | 36.51 | 48.00 | -11.49 | 0.03 |
| 4 | 0.761 | 35.39 | 35.42 | 48.00 | -12.58 | 0.03 |
| 5 | 0.900 | 37.47 | 37.51 | 48.00 | -10.49 | 0.04 |
| 6 | 0.987 | 38.72 | 38.77 | 48.00 | -9.23 | 0.05 |

AUDIX®
Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 165 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 16:03:05




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBT-11W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : On
Test Engineer: Winston Hua

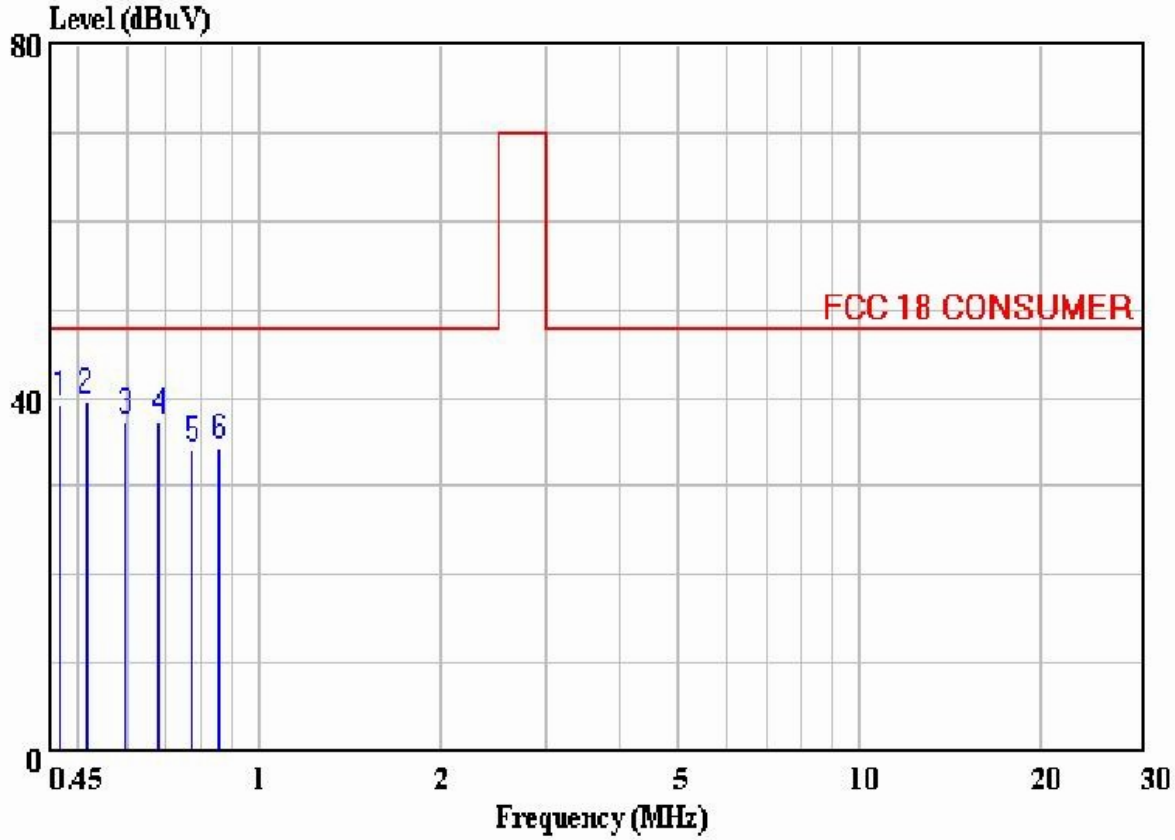
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.515 | 38.64 | 38.73 | 48.00 | -9.27 | 0.09 |
| 2 | 0.635 | 37.37 | 37.45 | 48.00 | -10.55 | 0.08 |
| 3 | 0.685 | 37.97 | 38.05 | 48.00 | -9.95 | 0.08 |
| 4 | 0.783 | 37.33 | 37.41 | 48.00 | -10.59 | 0.08 |
| 5 | 0.946 | 35.30 | 35.38 | 48.00 | -12.62 | 0.08 |
| 6 | 1.029 | 36.20 | 36.28 | 48.00 | -11.72 | 0.08 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 167 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:51:14




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBT-18W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : On
Test Engineer: Winston Hua

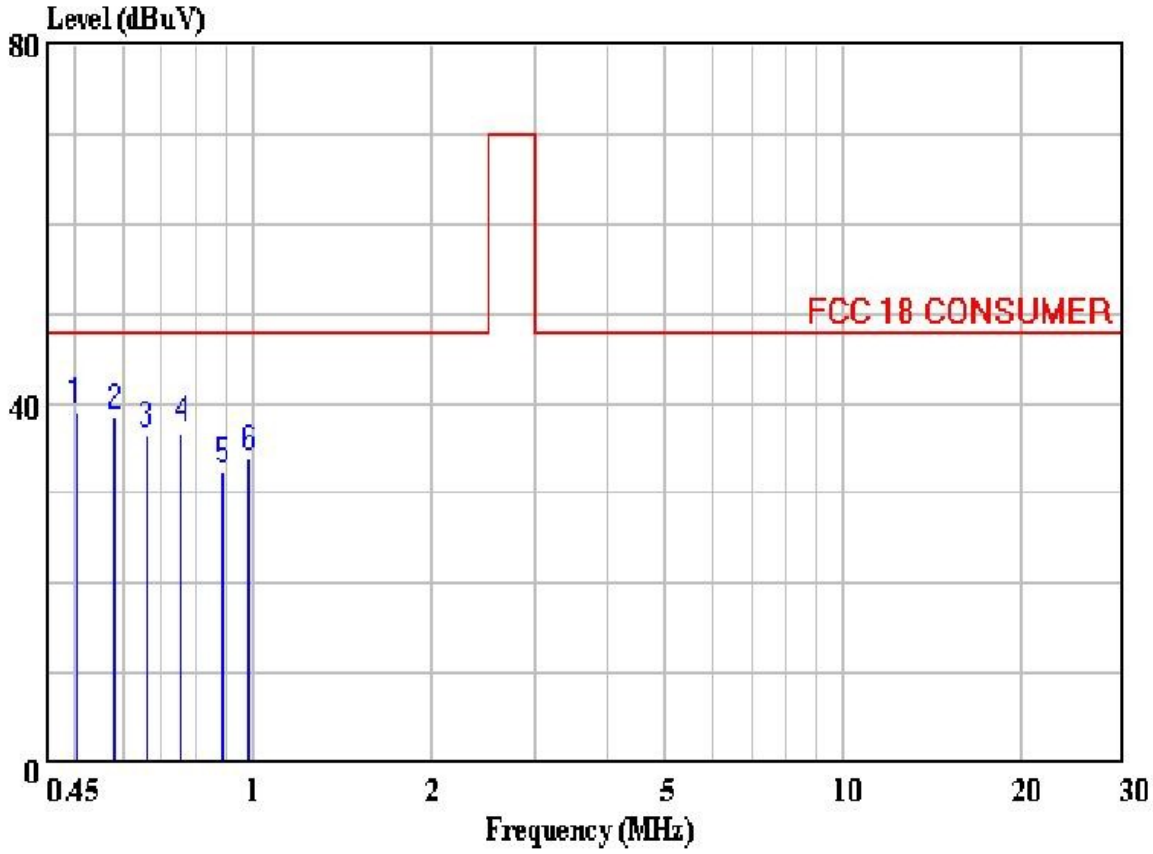
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.467 | 39.14 | 39.20 | 48.00 | -8.80 | 0.06 |
| 2 | 0.515 | 39.54 | 39.60 | 48.00 | -8.40 | 0.06 |
| 3 | 0.599 | 37.33 | 37.37 | 48.00 | -10.63 | 0.04 |
| 4 | 0.682 | 37.35 | 37.38 | 48.00 | -10.62 | 0.03 |
| 5 | 0.774 | 34.16 | 34.20 | 48.00 | -13.80 | 0.04 |
| 6 | 0.859 | 34.42 | 34.46 | 48.00 | -13.54 | 0.04 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 168 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:54:55




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBT-18W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : On
Test Engineer: Winston Hua

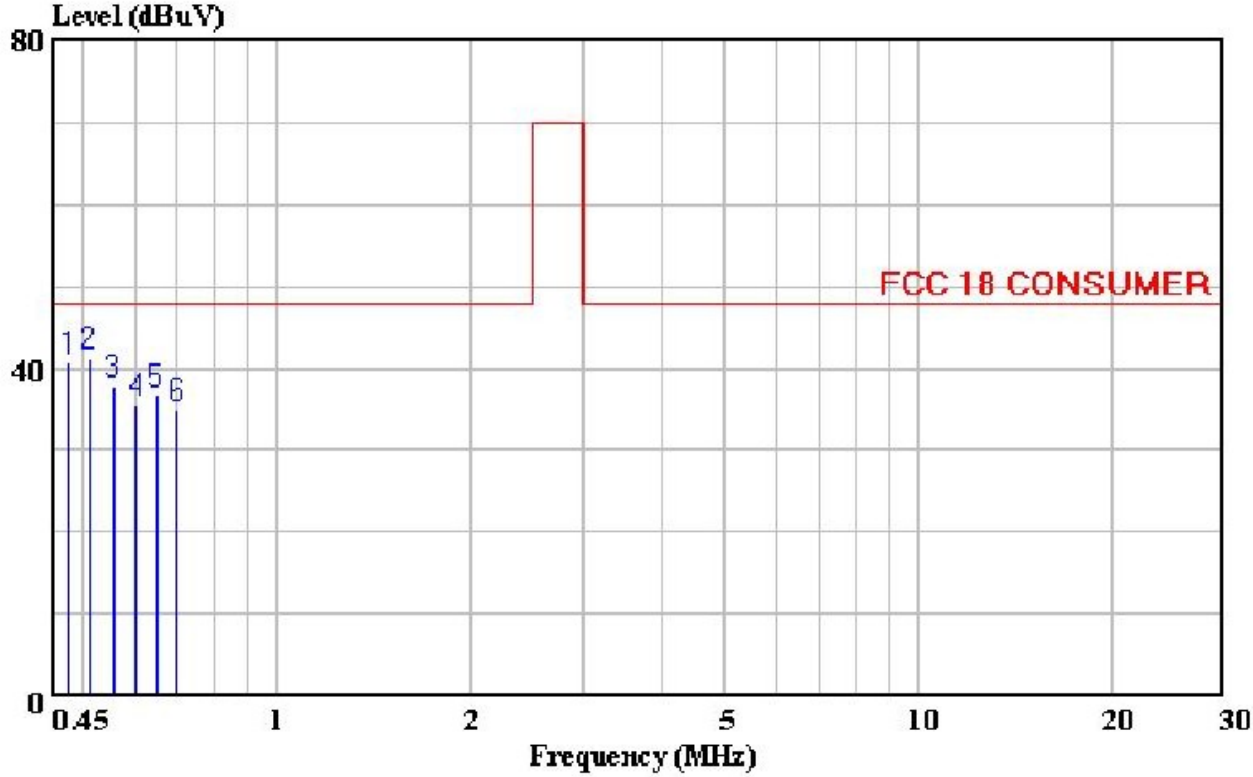
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.502 | 38.80 | 38.89 | 48.00 | -9.11 | 0.09 |
| 2 | 0.584 | 38.37 | 38.46 | 48.00 | -9.54 | 0.09 |
| 3 | 0.659 | 36.25 | 36.33 | 48.00 | -11.67 | 0.08 |
| 4 | 0.754 | 37.02 | 37.10 | 48.00 | -10.90 | 0.08 |
| 5 | 0.889 | 32.30 | 32.38 | 48.00 | -15.62 | 0.08 |
| 6 | 0.987 | 33.80 | 33.88 | 48.00 | -14.12 | 0.08 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 163 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:44:34




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBT-25W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : On
Test Engineer: Winston Hua

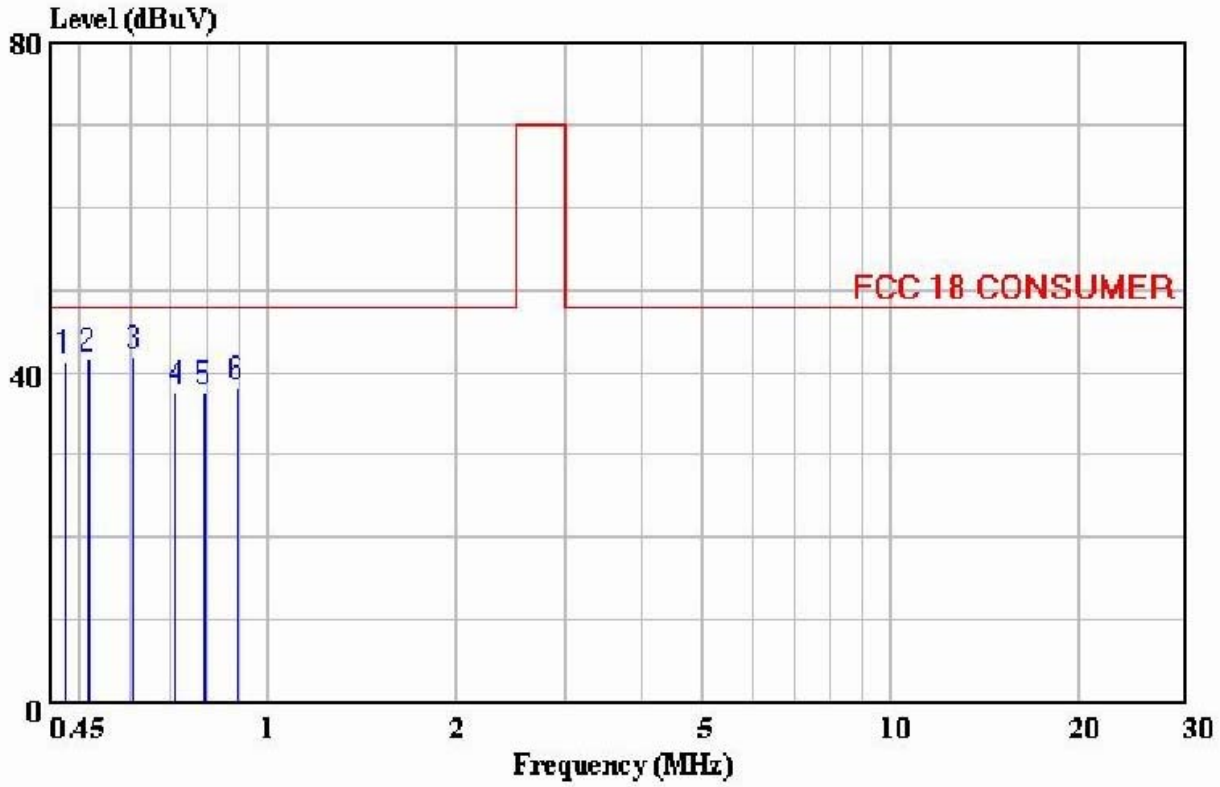
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.475 | 40.71 | 40.77 | 48.00 | -7.23 | 0.06 |
| 2 | 0.510 | 41.11 | 41.17 | 48.00 | -6.83 | 0.06 |
| 3 | 0.557 | 37.73 | 37.78 | 48.00 | -10.22 | 0.05 |
| 4 | 0.604 | 35.39 | 35.43 | 48.00 | -12.57 | 0.04 |
| 5 | 0.648 | 36.59 | 36.63 | 48.00 | -11.37 | 0.04 |
| 6 | 0.699 | 34.89 | 34.92 | 48.00 | -13.08 | 0.03 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 164 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:43:39




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBT-25W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : On
Test Engineer: Winston Hua

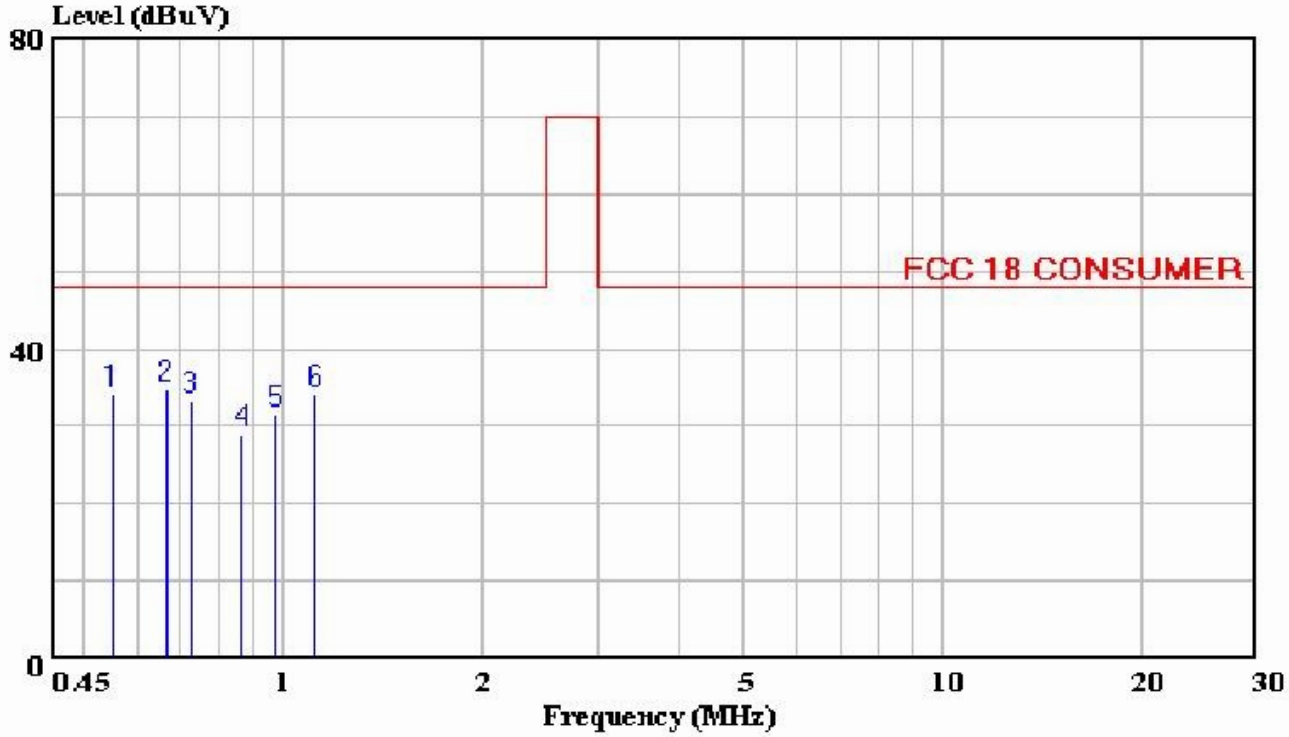
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.473 | 41.12 | 41.21 | 48.00 | -6.79 | 0.09 |
| 2 | 0.515 | 41.47 | 41.56 | 48.00 | -6.44 | 0.09 |
| 3 | 0.609 | 41.86 | 41.94 | 48.00 | -6.06 | 0.08 |
| 4 | 0.711 | 37.36 | 37.44 | 48.00 | -10.56 | 0.08 |
| 5 | 0.790 | 37.54 | 37.62 | 48.00 | -10.38 | 0.08 |
| 6 | 0.892 | 38.01 | 38.09 | 48.00 | -9.91 | 0.08 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 161 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:59:48




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBS-15W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : On
Test Engineer: Winston Hua

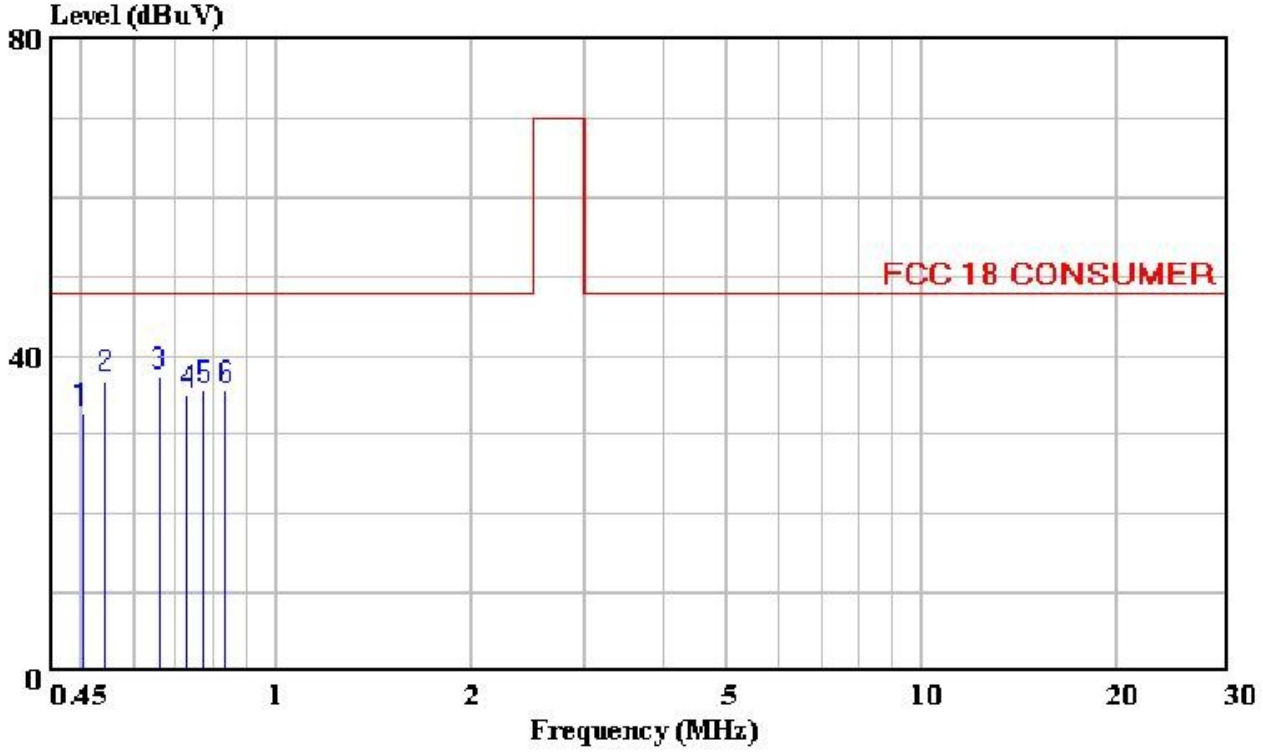
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.551 | 33.98 | 34.03 | 48.00 | -13.97 | 0.05 |
| 2 | 0.665 | 34.63 | 34.66 | 48.00 | -13.34 | 0.03 |
| 3 | 0.726 | 33.25 | 33.28 | 48.00 | -14.72 | 0.03 |
| 4 | 0.866 | 28.98 | 29.02 | 48.00 | -18.98 | 0.04 |
| 5 | 0.975 | 31.46 | 31.51 | 48.00 | -16.49 | 0.05 |
| 6 | 1.119 | 34.14 | 34.19 | 48.00 | -13.81 | 0.05 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 162 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 16:00:56




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBS-15W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : On
Test Engineer: Winston Hua

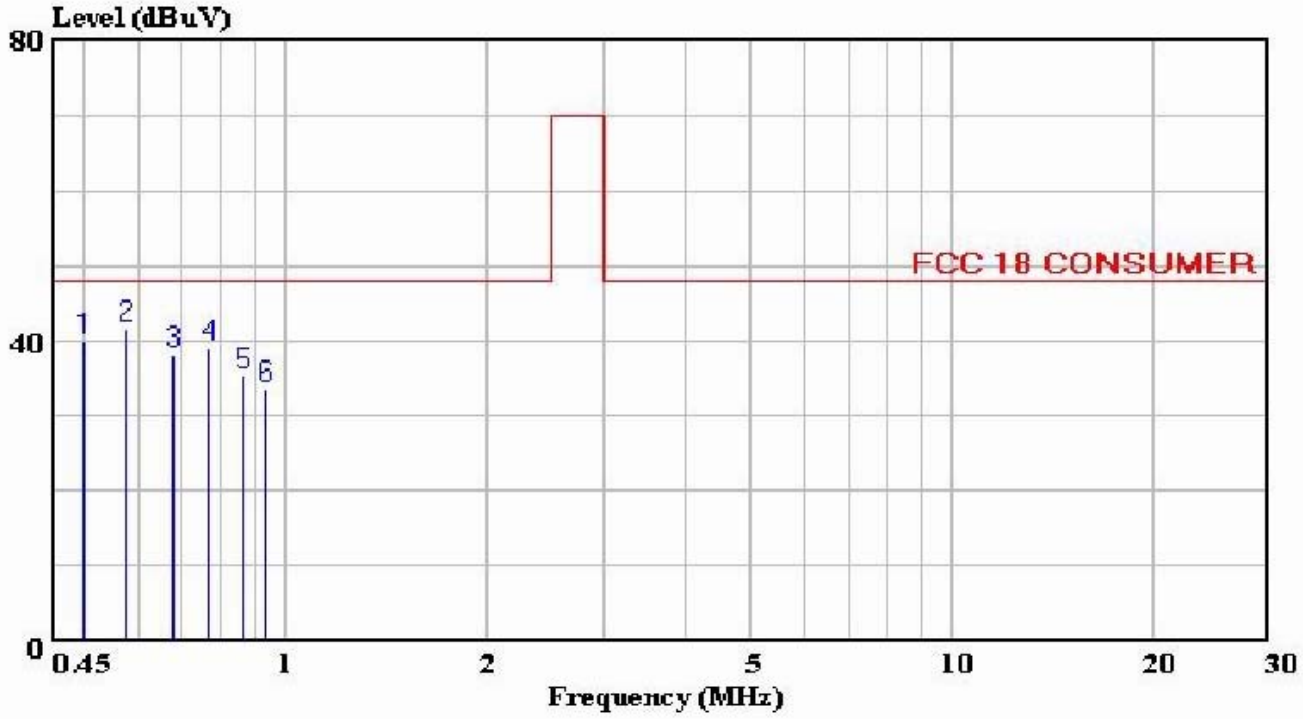
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.502 | 32.62 | 32.71 | 48.00 | -15.29 | 0.09 |
| 2 | 0.544 | 36.84 | 36.93 | 48.00 | -11.07 | 0.09 |
| 3 | 0.659 | 37.31 | 37.39 | 48.00 | -10.61 | 0.08 |
| 4 | 0.729 | 34.94 | 35.02 | 48.00 | -12.98 | 0.08 |
| 5 | 0.774 | 35.37 | 35.45 | 48.00 | -12.55 | 0.08 |
| 6 | 0.838 | 35.58 | 35.66 | 48.00 | -12.34 | 0.08 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 160 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:46:58




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBS-20W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : On
Test Engineer: Winston Hua

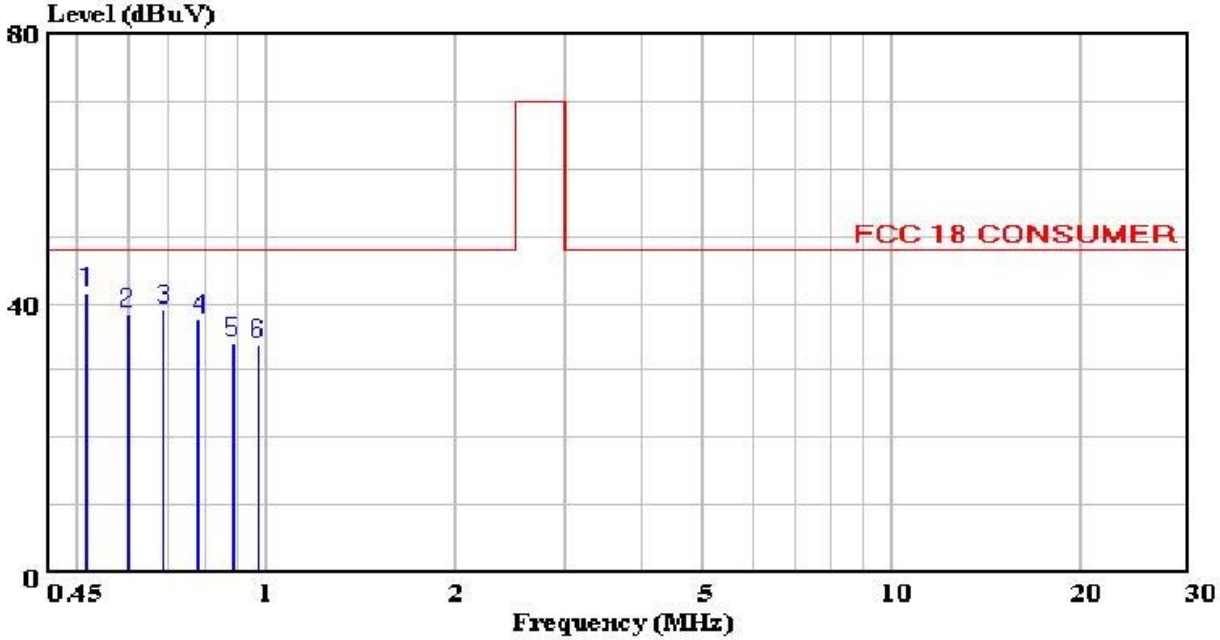
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.500 | 39.78 | 39.84 | 48.00 | -8.16 | 0.06 |
| 2 | 0.579 | 41.56 | 41.61 | 48.00 | -6.39 | 0.05 |
| 3 | 0.682 | 38.16 | 38.19 | 48.00 | -9.81 | 0.03 |
| 4 | 0.767 | 38.84 | 38.88 | 48.00 | -9.12 | 0.04 |
| 5 | 0.866 | 35.27 | 35.31 | 48.00 | -12.69 | 0.04 |
| 6 | 0.934 | 33.46 | 33.51 | 48.00 | -14.49 | 0.05 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 159 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:48:15




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBS-20W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : On
Test Engineer: Winston Hua

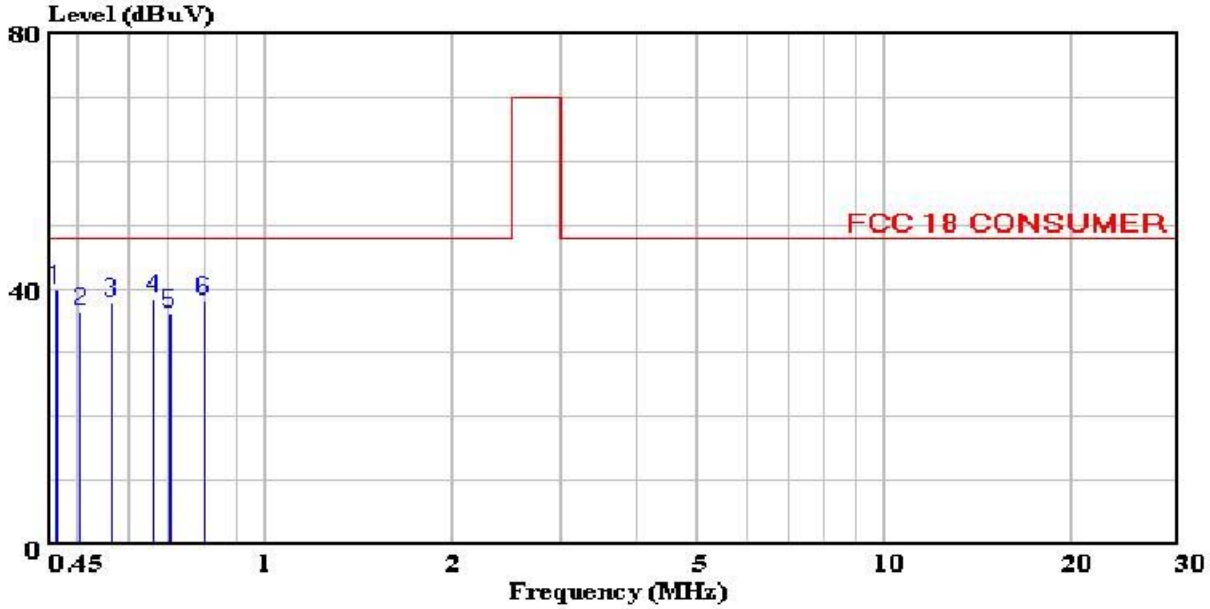
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.517 | 41.48 | 41.57 | 48.00 | -6.43 | 0.09 |
| 2 | 0.601 | 38.27 | 38.35 | 48.00 | -9.65 | 0.08 |
| 3 | 0.688 | 38.79 | 38.87 | 48.00 | -9.13 | 0.08 |
| 4 | 0.780 | 37.61 | 37.69 | 48.00 | -10.31 | 0.08 |
| 5 | 0.885 | 34.05 | 34.13 | 48.00 | -13.87 | 0.08 |
| 6 | 0.970 | 33.74 | 33.82 | 48.00 | -14.18 | 0.08 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 158 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:36:52




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBS-25W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : On
Test Engineer: Winston Hua

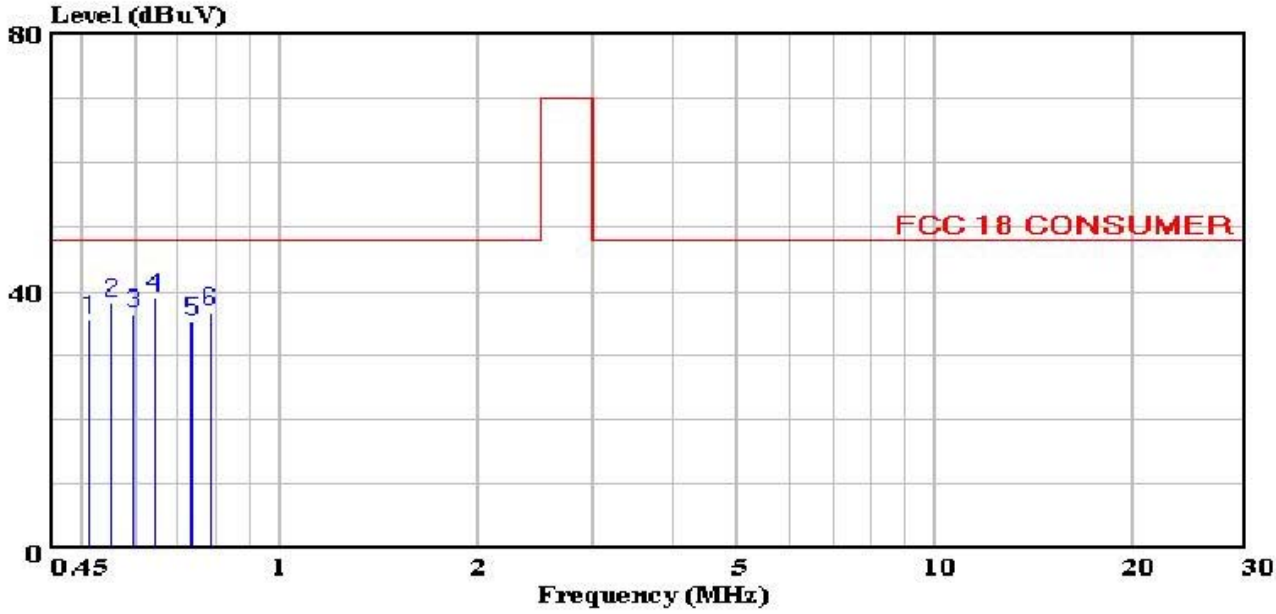
Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.461 | 39.86 | 39.92 | 48.00 | -8.08 | 0.06 |
| 2 | 0.504 | 36.35 | 36.41 | 48.00 | -11.59 | 0.06 |
| 3 | 0.567 | 37.71 | 37.76 | 48.00 | -10.24 | 0.05 |
| 4 | 0.659 | 38.32 | 38.36 | 48.00 | -9.64 | 0.04 |
| 5 | 0.702 | 36.24 | 36.27 | 48.00 | -11.73 | 0.03 |
| 6 | 0.797 | 38.14 | 38.18 | 48.00 | -9.82 | 0.04 |

Audix Technology (Shanghai) Co., Ltd.
敦吉電子(上海)有限公司

3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai, China
Tel:+86-21-64955500
Fax:+86-21-64955491
aciemc@audix.com

Data#: 157 File#: D:\EMIVM\TEST\J\Junsun.EMI Date: 2002-03-13 Time: 15:40:04




Site : audix-aci Conducted Emission
Condition : FCC 18 CONSUMER
Project No. :
Applicant : Junsun
EUT : Self-ballasted lamp
M/N : JBS-25W
S/N : #1
Power Supply : 120V~/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : On
Test Engineer: Winston Hua

Page: 1

| | Freq | Read Level | Level | Limit Line | Over Limit | Factor |
|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dBuV | dB | dB |
| 1 | 0.513 | 35.36 | 35.45 | 48.00 | -12.55 | 0.09 |
| 2 | 0.555 | 38.00 | 38.09 | 48.00 | -9.91 | 0.09 |
| 3 | 0.599 | 36.47 | 36.55 | 48.00 | -11.45 | 0.08 |
| 4 | 0.643 | 39.04 | 39.12 | 48.00 | -8.88 | 0.08 |
| 5 | 0.736 | 35.16 | 35.24 | 48.00 | -12.76 | 0.08 |
| 6 | 0.783 | 36.73 | 36.81 | 48.00 | -11.19 | 0.08 |

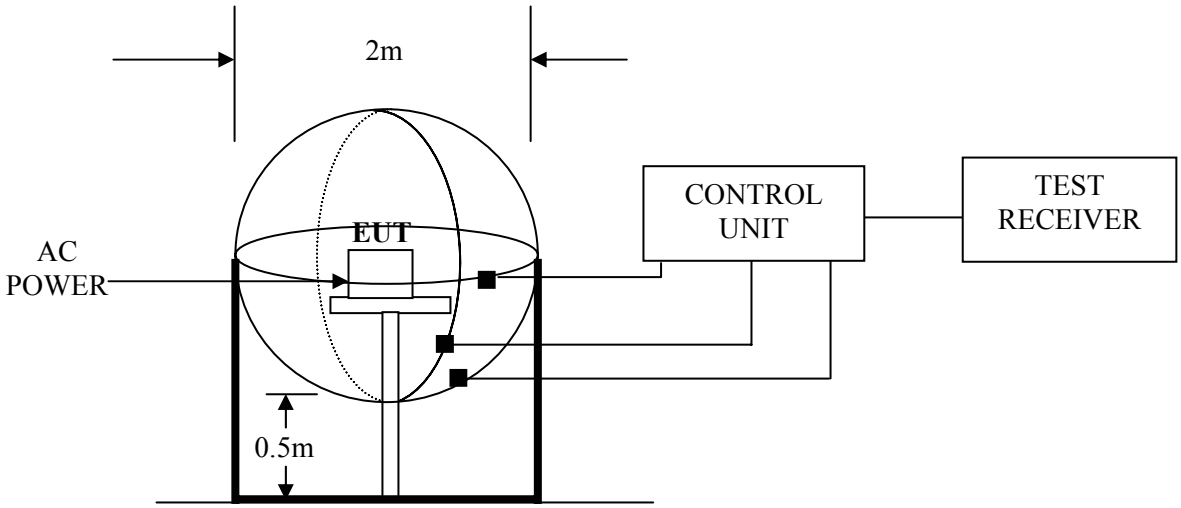
# FIELD STRENGTH TEST

## 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 | Oct 25, 2001 | 1/2 Year |
| 2. | Test Receiver | Rohde & Schwarz | ESHS10 | 844077/020 | Apr 24, 2001 | 1 Year |

## 3.2 Block Diagram of Test Setup




EUT : Self-Ballasted 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 (Lighting) 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.