FCC TEST REPORT

FCC ID: EB3LR1G30FBRP

Equipment under test(EUT):

LED LAMP

Model No.:

LR1G30/F/B/RP, LR1G30/F/G/RP, LR1G30/F/Y/RP, LR1G30/F/R/RP

Applicant:

OSRAM SYLVANIA INC

100 Endicott St. Danvers, MA 01923 United States

Date of Test:

May 5, 2008

Test Standards

FCC PART 18

The device described above is tested by ***ANKEL TESTING (DONG GUAN) CO., LTD.*** to determine the maximum emission levels emanating from the device, the severe levels which the device can endure and performance criterion. The sample detailed above has been tested to the requirements of Council Directives ANSI C63.4:2003. The test results have been reviewed against the Directives above and found to meet their essential requirements

PREPARED BY:

ANKEL TESTING (DONG GUAN) CO., LTD.

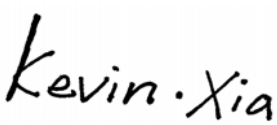
B401, KaiGao South Piazza, XinXiBian, GuanChang Road, DongCheng District, DongGuan City, Guangdong, China

Tel: 86-769-23110518

Fax: 86-769-23110519

Approved By:

Tested By:



1 Contents

2 EUT(Equipment Under Test) Information

2.1 Client Information

Applicant : OSRAM SYLVANIA INC

Address of Applicant: 100 Endicott St. Danvers, MA 01923 United States

2.2 Description of E.U.T.

Product Name: LED LAMP

Model No.: LR1G30/F/B/RP, LR1G30/F/G/RP, LR1G30/F/Y/RP, LR1G30/F/R/RP

2.3 Power Supply of E.U.T.

Input Voltage: AC 120V, 60Hz

2.4 Description of Support Units

The EUT has been tested as an independent unit.

2.5 Standards Applicable for Testing

The customer requested FCC tests for a LED LAMP. The applicable standards used were FCC CFR 47 – PART 18.

2.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

Name of Facility : Solid Industrial (Shenzhen) Co., Ltd. EMC Laboratory

Location : Solid Industrial (Shenzhen) Co., Ltd. at 333 Bulong Highway Buji Longgang, Shenzhen, Guangdong, China.

Site Description :April 06. 2004 accredited by Voluntary Control Council for Interference by information Technology Equipment for Laboratories Registration Number:2153

Solid Industrial (Shenzhen) Co., Ltd. EMC 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 our files. Registration **759397**, December 28, 2006.

3 Test Results Summary

Test Items	Test Requirement	Test Method	Class / Severity	Result
Conducted Emission (150kHz to 30MHz)	FCC Part 18 Subpart C Consumer Equipment 120V/60Hz	ANSI C63.4: 2003	Class B	PASS
Radiated Emission (30MHz to 1GHz)	FCC Part 18 Subpart C Consumer Equipment 120V/60Hz	ANSI C63.4: 2003	Class B	N/A

Note: Above test marking “N/A” is not applicable.

4 Test Instrument During Test

Equipment	Brand Name	Model	Cal. Int Months	Last Cal. Date
Spectrum analyzer	ADVANTEST	R3261C	12	2007-08
EMI Test Receiver	R&S	ESS	12	2007-08
Pre Amplifier	Anritsu	MH648A	12	2007-08
LISN	Kyoritsu	KNW-403D	12	2007-08
Distortion Meter	MEGURO	MAK-6578A	12	2007-08

5 Conducted Emission Test

5.1 Test Standard

FCC Part 18

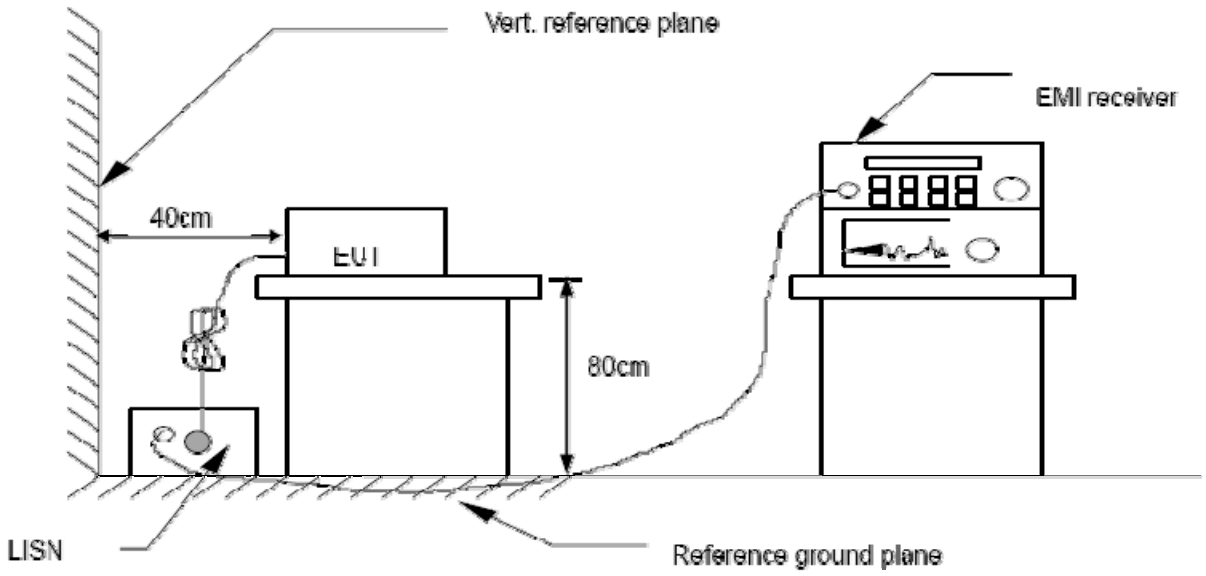
5.2 Limits for Conducted Emission

Frequency range MHz	Limits dB(μV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

NOTE 1 At the transition frequency, the lower limit applies.
NOTE 2 The limit decreasing linearly with the logarithm of the frequency in range 0.15MHz to 0.50MHz.

5.3 Test Set-up

The conducted emission tests were performed using the setup accordance with the FCC MP-5 measurement procedure.
The EUT is tested independently.
The power supply used by the EUT is connected to a 120VAC / 60Hz power source.



5.4 Test Procedure

a. The EUT was placed on a desk 0.8 meter height from the metal ground plane and 0.4 meter from the conducting wall of the shielding room and it was kept at least 0.8 meter from any other grounded conducting surface.
b. The EUT was tested according to FCC MP-5. The frequency spectrum from 150kHz to 30MHz was investigated.
c. Connect EUT to the power mains through a line impedance stabilization network(LISN).
d. All the support units are connect to the other LISN.
e. The LISN provides 50 ohm coupling impedance for the measuring instrument.
f. The CISPR states that a 50ohm, 50 microhenry LISN should be used.
g. Both sides of AC line were checked for maximum conducted interference.
h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maxium Hold Mode. The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

5.5 Spectrum Analyzer

The spectrum analyzer is configured during the conduction test is as follows:

Start Frequency ····· 150 kHz
Stop Frequency ····· 30 MHz
Sweep Speed ····· Auto
IF Bandwidth ····· 9 kHz
Video Bandwidth ····· 100 kHz
Quasi-Peak Adaptor Bandwidth ····· 9 kHz
Quasi-Peak Adaptor Mode ····· Normal

5.6 Frequency Range Of Measurements

Frequency band in which device operates (MHz)	Range of frequency measurements	
	Lowest frequency	Highest frequency
Below 1.705	Lowest frequency generated in the device, but not lower than 9 kHz.	30MHz.
1.705 to 30	Lowest frequency generated in the device, but not lower than 9 kHz.	400MHz.
30 to 500	Lowest frequency generated in the device or 25MHz, whichever is lower.	Tenth harmonic or 1,000MHz, whichever is higher.
500 to 1,000	Lowest frequency generated in the device or 100MHz, whichever is lower.	Tenth harmonic.
Above 1,000	do	Tenth harmonic or highest detectable emission.

5.7 Operating Condition of EUT

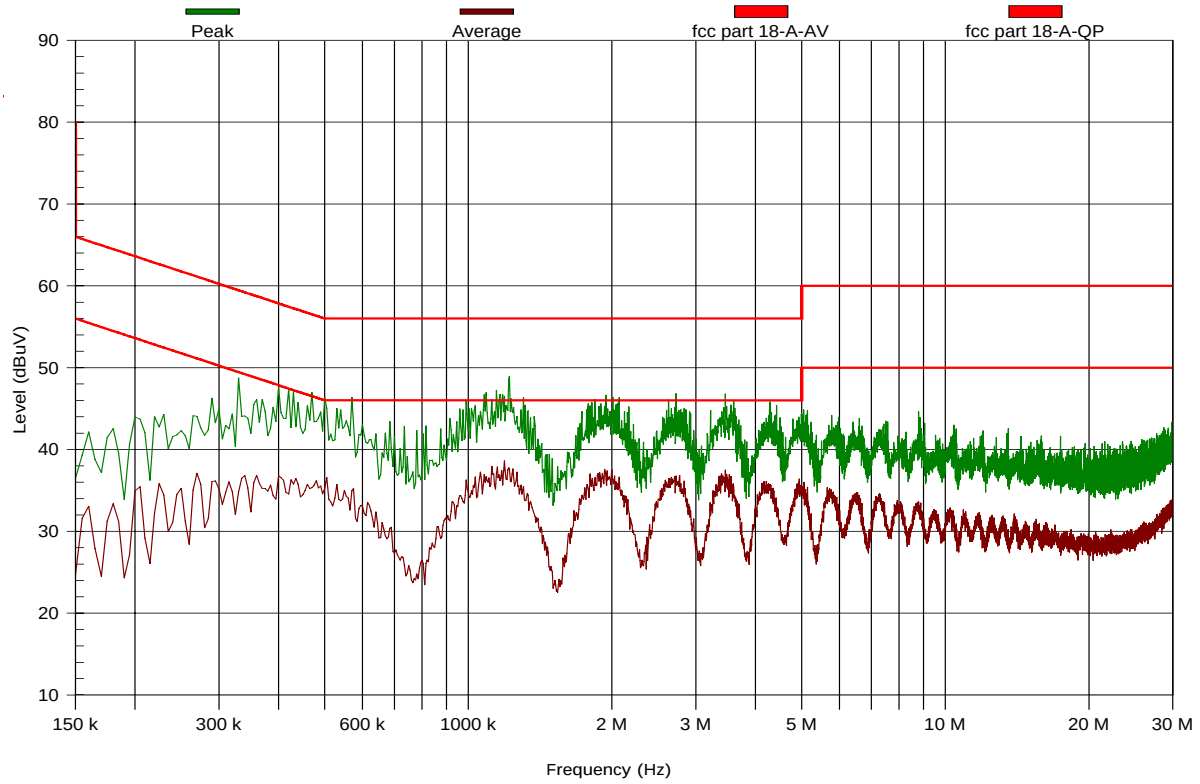
Operating Environment:
Temperature: 24.0°C
Humidity: 54 % RH
Barometric Pressure: 1012 mbar
EUT Operation:
Compliance test was performed in ON mode.

1:Setup the EUT and simulators as shown in Section 5.3.
2:Turn on the power of all equipments.
3:Let the EUT work in test modes and test it.

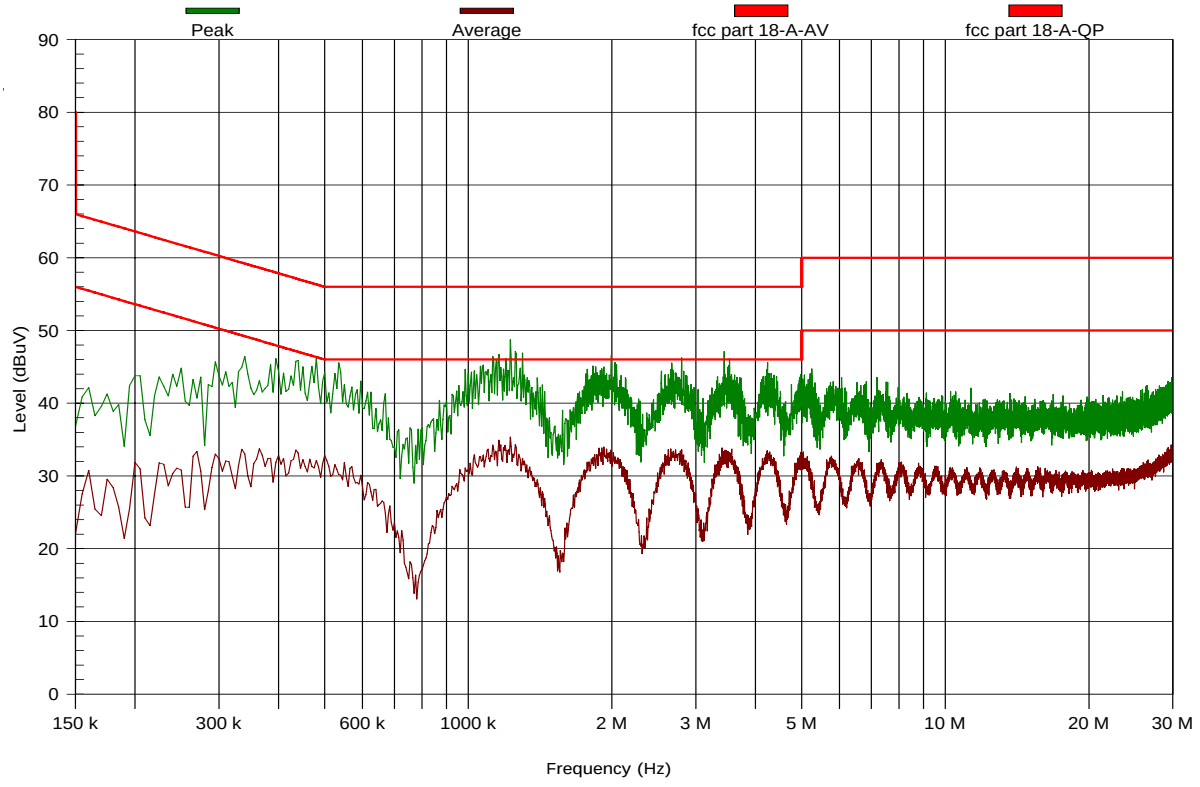
5.8 Test Results and Data

Test Date: May 5, 2008
PASS.
The frequency spectrum from 150 kHz to 30 MHz is investigated.

Live Line for LR1G30/F/B/RP:



Neutral Line for LR1G30/F/B/RP:

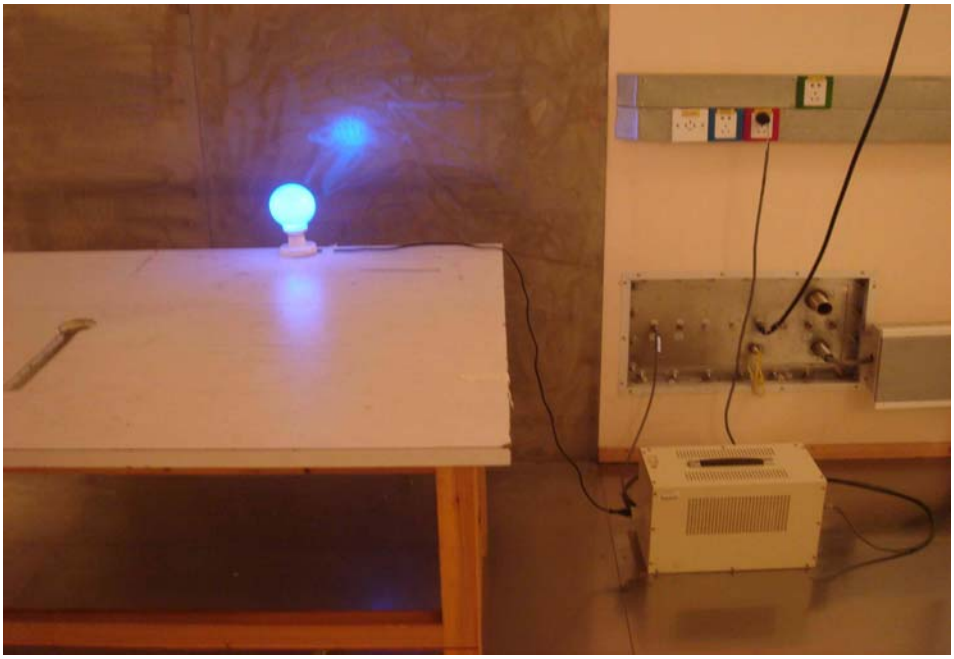


Conducted Test Data

NO.	Frequency [MHz]	QP Level [dBµV]	AV Level [dBµV]	QP Limit [dBµV]	AV Limit [dBµV]	QP margin [dB]	AV margin [dB]	Line
1	0.518	41.5	35.0	56.0	46.0	14.5	11.0	Live
2	1.150	42.8	35.5	56.0	46.0	13.2	10.5	Live
3	1.215	42.6	35.8	56.0	46.0	13.4	10.2	Live
4	1.906	42.3	35.4	56.0	46.0	13.7	10.6	Live
5	2.754	42.2	35.9	56.0	46.0	13.8	10.1	Live
6	3.567	42.5	36.0	56.0	46.0	13.5	10.0	Live
7	0.533	37.2	30.4	56.0	46.0	18.8	15.6	Neutral
8	1.225	40.0	32.8	56.0	46.0	16.0	13.2	Neutral
9	1.255	39.6	31.9	56.0	46.0	16.4	14.1	Neutral
10	1.875	39.5	31.8	56.0	46.0	16.5	14.2	Neutral
11	2.783	39.6	31.4	56.0	46.0	16.4	14.6	Neutral
12	3.624	39.8	31.5	56.0	46.0	16.2	14.5	Neutral

6 Test Photographs

Conducted Emission Test Photographs

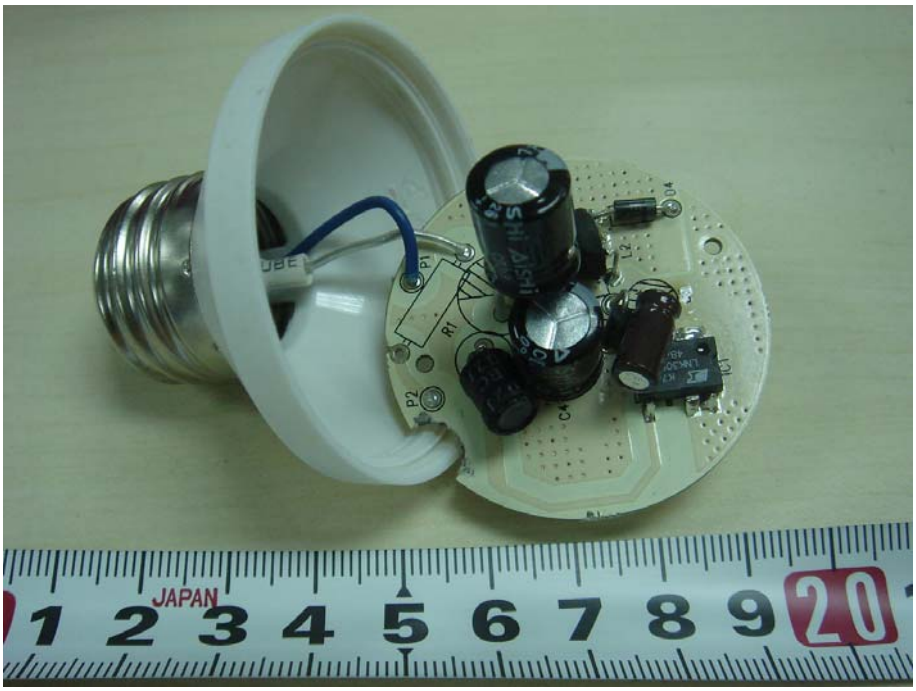


7 Photographs - Constructional Details

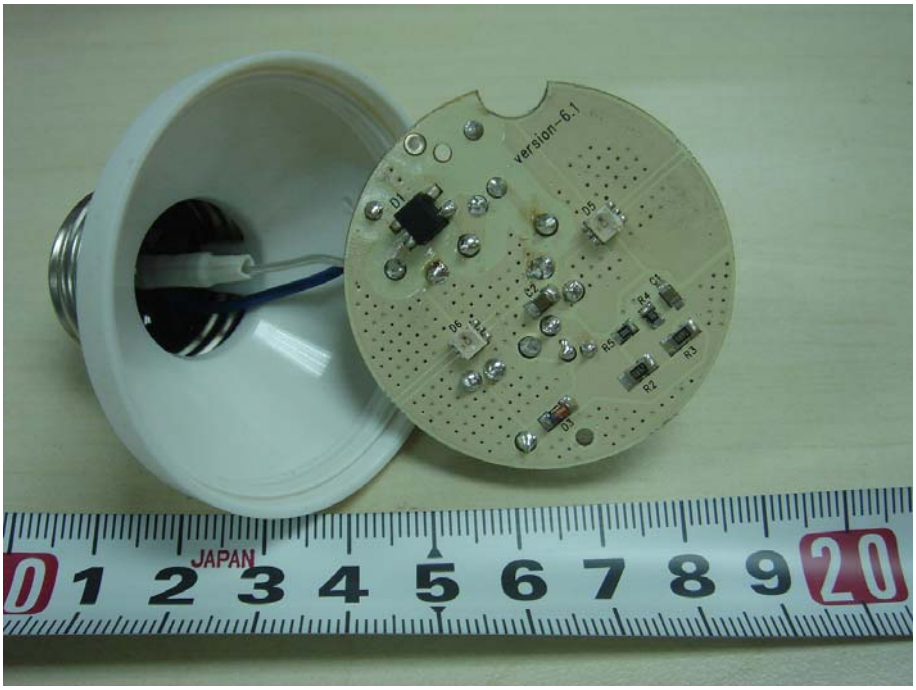
7.1 EUT (LR1G30/F/B/RP)- External View(1)

7.2 EUT (LR1G30/F/B/RP)- External View(2)

7.3 PCB - Front View



7.4 PCB - Back View



8 FCC ID Label

This device complies with Part 18 of the FCC Rules. Operation is subject to the following two conditions:(1)this device may not cause harmful interference,and (2) this device must accept any interference received, including interference that may cause undesired operation.
The Label must not be a stick-on paper. The Label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Proposed Label Location on EUT
EUT Top View/ proposed FCC Mark Location

---------- **END** ----------