



# Test Report

**Applicant:** Zhongshan Gecheng Electronic Co., Ltd.

**Address of Applicant:** Hua Guang Shi Chong Jiao, Dong An Road, Guzhen Town, Zhongshan City, Guangdong, P.R.China

**Equipment Under Test (EUT):**

**EUT Name:** Self Ballasted Lamps

**Model No.:** SLP-9, ELP-9, SLH-13, ELH-13, SLP-13, ELP-13, ELH-18, SLH-18, SLH-26, ELH-26

**Trade Mark:** GECHENG

**Serial No.:** Not supplied by client

**Standards:** FCC PART18: 2007

**Date of Receipt:** Mar 15, 2008

**Date of Test:** Mar 17, 2008

**Date of Issue:** Mar 20, 2008

**Test Result :** **PASS\***

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

  
\_\_\_\_\_  
Henly.xie / Manager

This report refers to the General Conditions for Inspection and Testing Services, printed overleaf

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

All test results in this report can be traceable to National or International Standards.

The test report prepare by:

Guangzhou Huesent Testing Service Co.,Ltd.

Self-ordained 68# courtyard, No.91, Dongguanzhuang Road,Guangzhou,China.

Tel: 86-20-28263298 Fax: 86-20-28263237

<http://www.hst.org.cn> E-mail:hst@hst.org.cn



## 2. Test Summary

Test	Test Requirement	Test Method	Limits	Result
Radiated Emission (30MHz to 1GHz)	FCC PART 18: 2007	ANSI C63.4:2003	Clause 18.305 C) Table: Consumer Equipment	PASS
Conducted Emission (450KHz to 30MHz)	FCC PART 18: 2007	ANSI C63.4:2003	Clause 18.307 C) Table: Consumer Equipment	PASS



### 3. Contents

<b>TITLE PAGE</b>	
<b>1 COVER PAGE</b>	<b>1</b>
<b>2. TEST SUMMARY</b>	<b>2</b>
<b>3. CONTENTS</b>	<b>3</b>
<b>4. GENERAL INFORMATION</b>	<b>4</b>
4.1 CLIENT INFORMATION	4
4.2 GENERAL DESCRIPTION OF E.U.T.	4
4.3 DETAILS OF E.U.T.	4
4.4 DESCRIPTION OF SUPPORT UNITS	4
4.5 STANDARDS APPLICABLE FOR TESTING	4
4.6 TEST LOCATION	4
4.8 DEVIATION FROM STANDARDS	4
4.9 ABNORMALITIES FROM STANDARD CONDITIONS	4
<b>5. EQUIPMENTS USED DURING TEST</b>	<b>5</b>
<b>6. TEST RESULTS</b>	<b>6</b>
6.1 CONDUCTED EMISSIONS MAINS TERMINALS, 450 kHz TO 30MHz	6
6.1.1 <i>E.U.T. Operation</i>	6
6.1.2 <i>Plan View of Test Setup</i>	6
6.1.3 <i>Measurement Data</i>	6
6.2 RADIATED EMISSIONS, 30MHz TO 1GHz	11
6.2.1 <i>E.U.T. Operation</i>	11
6.2.2 <i>Test Setup</i>	11
6.2.3 <i>Measurement Data</i>	11
<b>7. PHOTOGRAPHS</b>	<b>16</b>
7.1 CONDUCTED EMISSION TEST SETUP	16
7.2 RADIATED EMISSION TEST SETUP	17
7.3 EUT CONSTRUCTIONAL DETAILS	18



## 4. General Information

### 4.1 Client Information

Applicant: Zhongshan Gecheng Electronic Co., Ltd.  
Address of Applicant: Hua Guang Shi Chong Jiao, Dong An Road, Guzhen Town, Zhongshan City, Guangdong, P.R.China

### 4.2 General Description of E.U.T.

EUT Name: Self Ballasted Lamps  
Item No.: SLP-9, ELP-9, SLH-13, ELH-13, SLP-13, ELP-13, ELH-18, SLH-18, SLH-26, ELH-26  
Serial No.: Not supplied by client

### 4.3 Details of E.U.T.

Power Supply: Supply on power of AC120VAC/60Hz.  
Power Cord: /

### 4.4 Description of Support Units

Connect the EUT to mains power, and then test the EUT on normal working status.

Models: SLP-9, ELP-9, SLH-13, ELH-13, SLP-13, ELP-13, ELH-18, SLH-18, SLH-26, ELH-26

Only items SLP-9 and SLH-26 were actually tested as all models were electric/ structure/ component and function identical with difference being model number/ rated output power and appearance.

### 4.5 Standards Applicable for Testing

The standard used was FCC PART 18, 2007

The EUT belongs to consumer equipment of RF lighting devices.

### 4.6 Test Location

All tests were subcontract to the laboratory following

CGEL lab.

45 Cunnan Street, Shayongnan, Sanyuanli District, Guangzhou, 510400, P.R.China

FCC- Registratrion No: 597719

### 4.8 Deviation from Standards

None.

### 4.9 Abnormalities from Standard Conditions

None.



## 5. Equipments Used during Test

No.	Test Item	Name of Equipment	Model/Type	Equipment No.	Calibrated Valid Duration
1	CE / RE	EMI TEST RECEIVER	R & S ESIB7	70-137	2007.3.30-2008.3.30
2	CE	LISN	R & S ESH3-Z5	37-021	2007.3.30-2008.3.30
3	CE	SHIELDING ROOM	ETS-LINDREN Celltype	70-136	2007.3.30-2008.3.30
4	RE	CHAMBER	ETS-LINDREN CACT-3	74-008	2007.3.30-2008.3.30
5	RE	ULTRALOG ANTENNAS	R & S HL-562	74-007	2007.3.30-2008.3.30

## 6. Test Results

### 6.1 Conducted Emissions Mains Terminals, 450 kHz to 30MHz

Test Requirement:	FCC Part 18
Test Method:	ANSI C63.4
Limits:	Clause 18.307 C) Table: Consumer Equipment
Detector:	Peak for pre-scan (9kHz Resolution Bandwidth)
	Quasi-Peak if maximised peak within 6dB of Quasi-Peak limit
Test Date:	Mar 17, 2008

#### 6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0°C

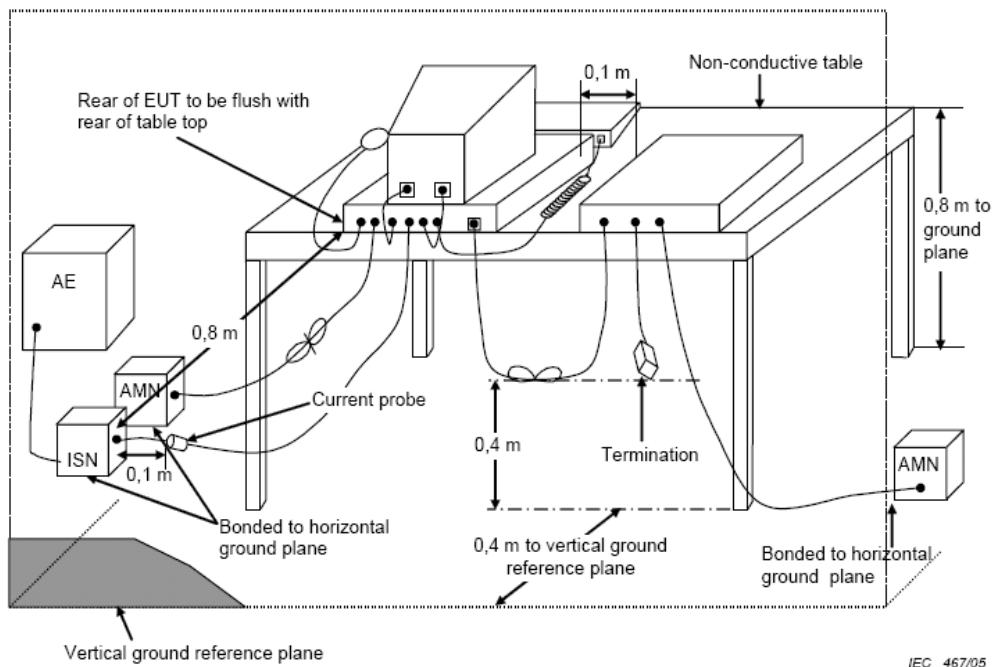
Humidity: 62% RH

Atmospheric Pressure: 1020 mBar

EUT Operation:

EUT supplied on power of AC120VAC/60Hz, and test in normal work mode after connected the main power for 15 minutes.

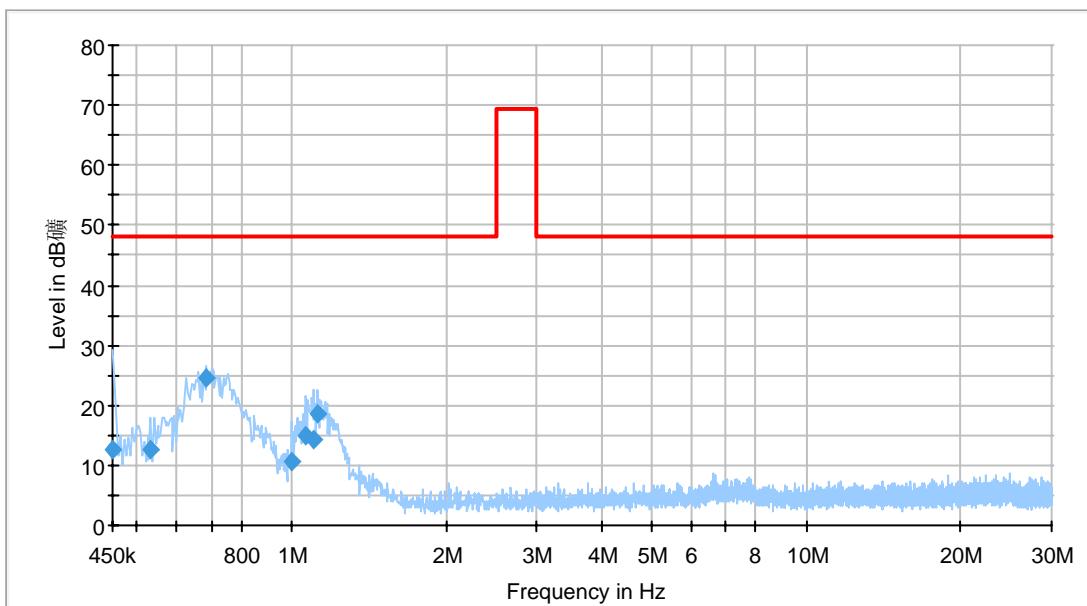
#### 6.1.2 Plan View of Test Setup



#### 6.1.3 Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

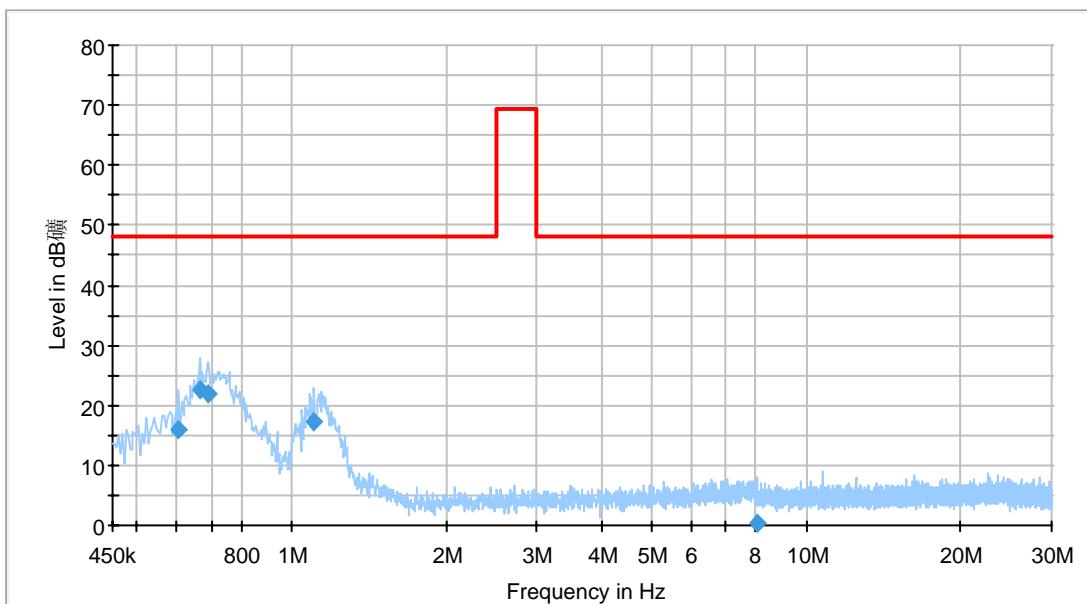
Quasi-Peak and Average measurement were performed at the frequencies with maximized emission were detected when Peak measurement level is over Average Limit.

**EUT: SLP-9****Live Line- normal working mode****Peak Scan****Quasi-peak measurement**

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Line
0.450	12.7	10.1	48.0	35.3	L1
0.534	12.8	10.1	48.0	35.2	L1
0.686	24.7	10.1	48.0	23.3	L1
1.002	10.8	10.1	48.0	37.2	L1
1.070	15.1	10.1	48.0	32.9	L1
1.106	14.3	10.1	48.0	33.7	L1
1.130	18.6	10.1	48.0	29.4	L1
6.630	-0.8	10.2	48.0	48.8	L1
18.81	-1.0	10.5	48.0	49.0	L1
24.92	-0.3	10.7	48.0	48.3	L1

Note:

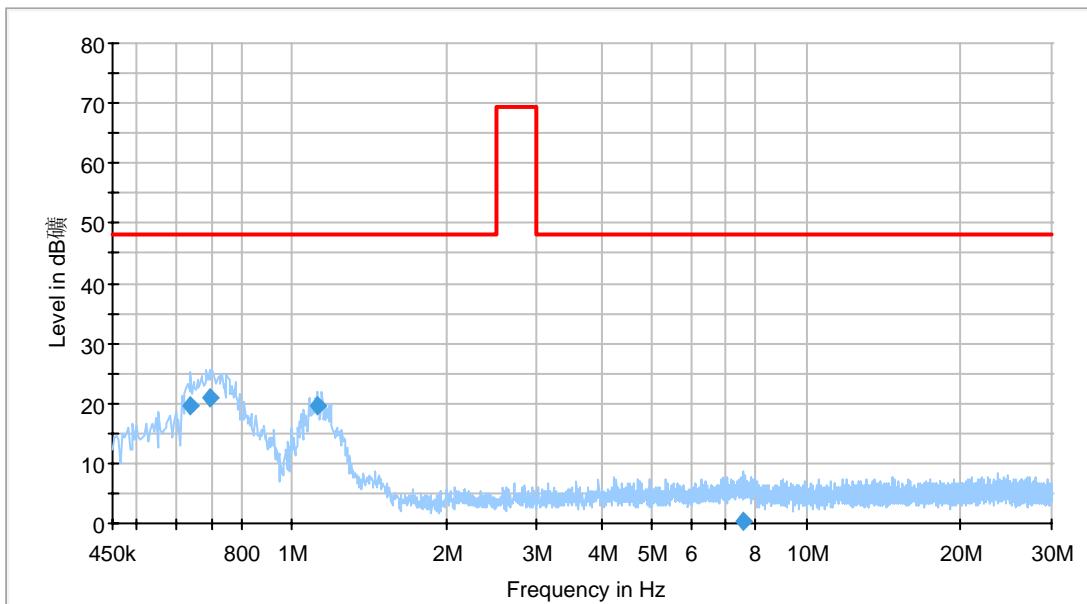
EUT was measured on the worst emission status.

**EUT: SLP-9****Neutral Line- normal working mode****Peak Scan****Quasi-peak measurement**

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Line
0.606	16.1	10.1	48.0	31.9	N
0.666	22.7	10.1	48.0	25.3	N
0.690	21.9	10.1	48.0	26.1	N
1.110	17.2	10.1	48.0	30.8	N
3.498	-1.9	10.1	48.0	49.9	N
5.314	-1.3	10.1	48.0	49.3	N
8.014	0.2	10.2	48.0	47.8	N
10.81	-1.3	10.2	48.0	49.3	N
16.21	-1.1	10.4	48.0	49.1	N
22.55	-1.0	10.4	48.0	49.0	N

**Note:**

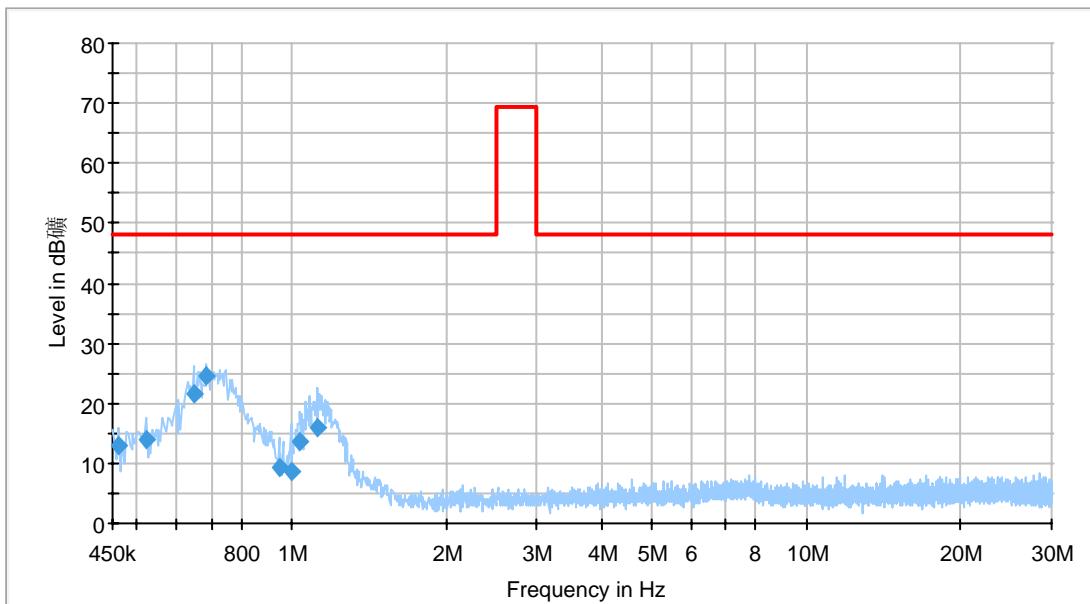
EUT was measured on the worst emission status.

**EUT: SLH-26****Live Line- normal working mode****Peak Scan****Quasi-peak measurement**

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Line
0.638	19.6	10.1	48.0	28.4	L1
0.694	21.1	10.1	48.0	26.9	L1
1.126	19.7	10.1	48.0	28.3	L1
2.078	-1.4	10.1	48.0	49.4	L1
3.590	-1.9	10.1	48.0	49.9	L1
4.250	-1.4	10.1	48.0	49.4	L1
7.554	0.2	10.2	48.0	47.8	L1
9.018	-1.8	10.2	48.0	49.8	L1
14.79	-0.5	10.4	48.0	48.5	L1
23.59	-0.5	10.5	48.0	48.5	L1

**Note:**

EUT was measured on the worst emission status.

**EUT: SLH-26****Neutral Line- normal working mode****Peak Scan****Quasi-peak measurement**

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Line
0.462	13.1	10.1	48.0	34.9	N
0.522	14.0	10.1	48.0	34.0	N
0.646	21.6	10.1	48.0	26.4	N
0.686	24.7	10.1	48.0	23.3	N
0.946	9.3	10.1	48.0	38.7	N
0.998	8.7	10.1	48.0	39.3	N
1.038	13.7	10.1	48.0	34.3	N
1.126	16.1	10.1	48.0	31.9	N
14.13	-0.6	10.3	48.0	48.6	N
28.48	-0.8	10.7	48.0	48.8	N

**Note:**

EUT was measured on the worst emission status.

## 6.2 Radiated Emissions, 30MHz to 1GHz

Test Requirement: FCC Part18  
Test Method: ANSI C63.4  
Limits: Clause 18.307 C) Table: Consumer Equipment  
Detector: Peak for pre-scan (120kHz resolution bandwidth)  
Quasi-Peak if maximised peak within 6dB of limit  
Test Date: Mar 17, 2007

### 6.2.1 E.U.T. Operation

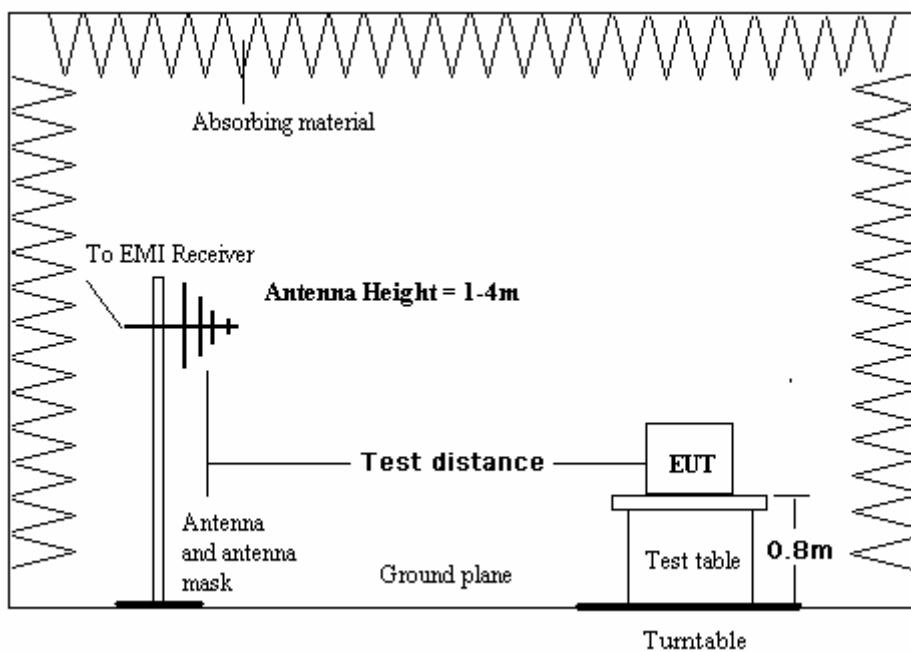
Operating Environment:

Temperature: 23°C      Humidity: 62% RH      Atmospheric Pressure: 1020mBar

EUT Operation:

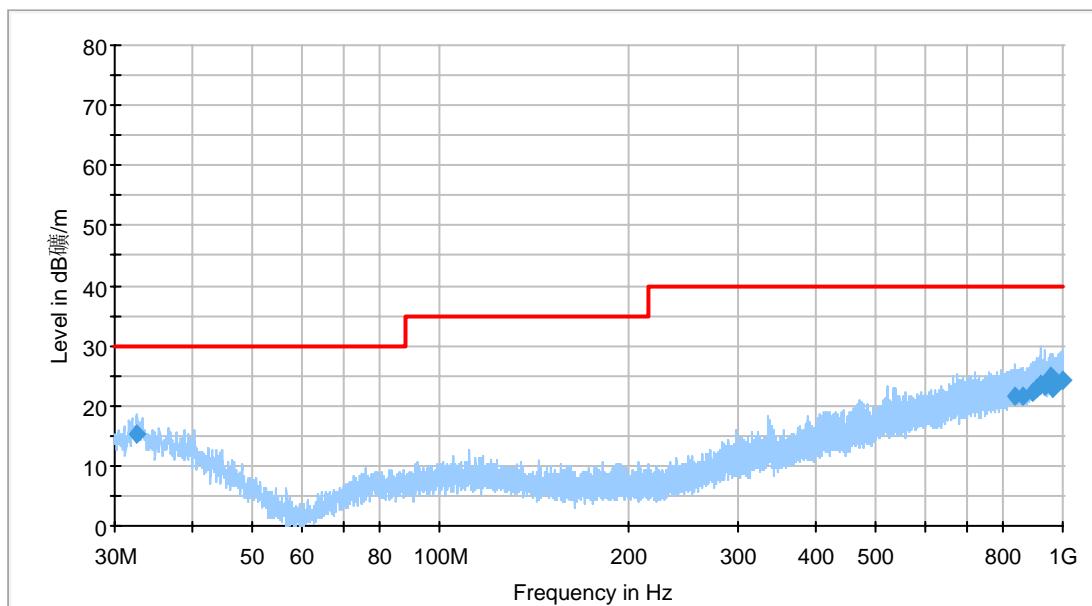
EUT supplied on power of AC120VAC/60Hz, and test in normal work mode after connected the main power for 15 minutes.

### 6.2.2 Test Setup

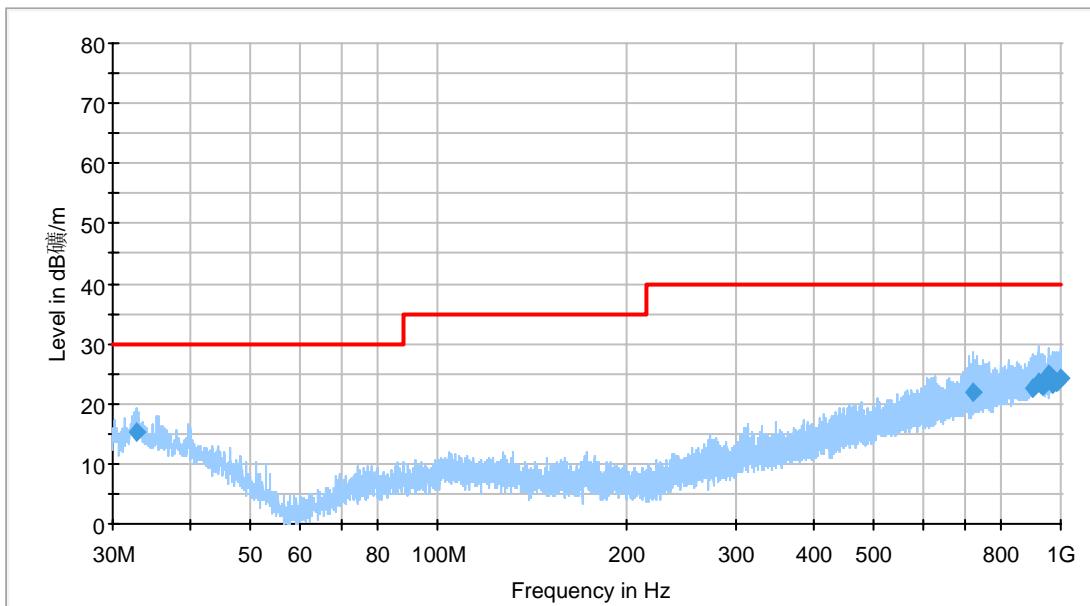


### 6.2.3 Measurement Data

An initial pre-scan was performed in the 3m chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bilog antenna with 2 orthogonal polarities

**EUT: SLP-9****Horizontal - normal working mode****Peak Scan****Quasi-peak measurement**

Frequency	Level	Transducer Factor	Limit	Margin
MHz	dBuV/m	dB	dBuV/m	dB
32.64	15.3	20.7	30.0	14.7
837.76	21.4	26.0	40.0	18.6
860.48	21.5	26.0	40.0	18.5
893.52	22.2	26.6	40.0	17.8
906.08	22.9	27.2	40.0	17.1
923.56	23.7	28.0	40.0	16.3
937.20	23.2	27.3	40.0	16.8
957.16	24.8	27.2	40.0	15.2
961.52	22.9	27.3	40.0	17.1
999.88	24.2	28.3	40.0	15.8

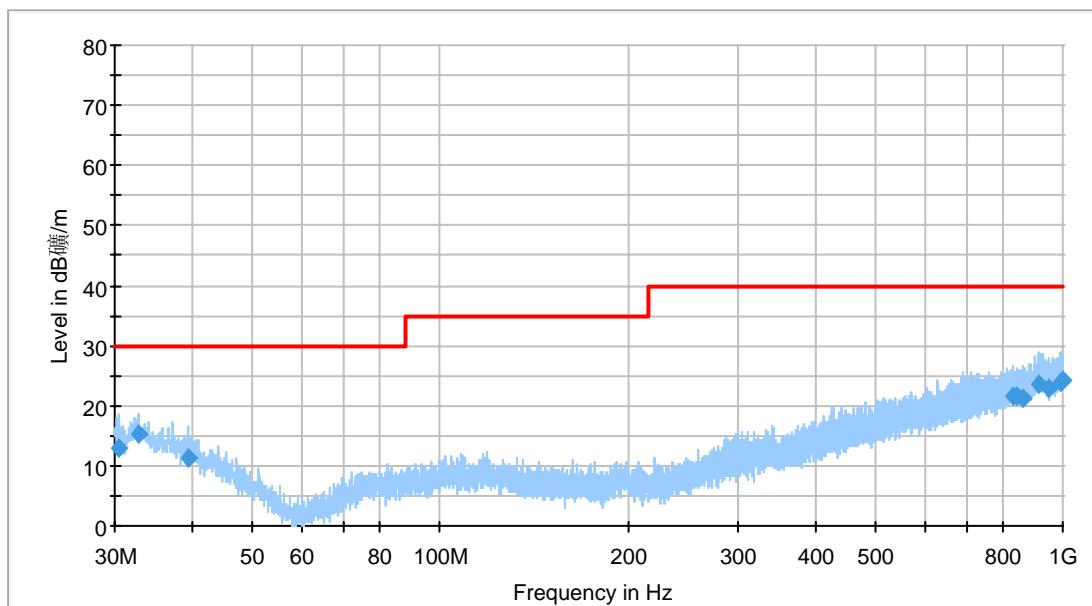
**EUT: SLP-9****Vertical – normal working mode****Peak Scan****Quasi-peak measurement**

Frequency	Level	Transducer Factor	Limit	Margin
MHz	dBuV/m	dB	dBuV/m	dB
32.76	15.3	20.5	30.0	14.7
725.48	22.1	24.3	40.0	17.9
903.48	22.6	27.0	40.0	17.4
925.28	23.7	27.9	40.0	16.3
930.36	23.3	27.6	40.0	16.7
936.12	23.1	27.3	40.0	16.9
957.12	25.0	27.2	40.0	15.0
972.24	23.3	27.6	40.0	16.7
985.08	23.7	27.8	40.0	16.3
999.92	24.3	28.3	40.0	15.7

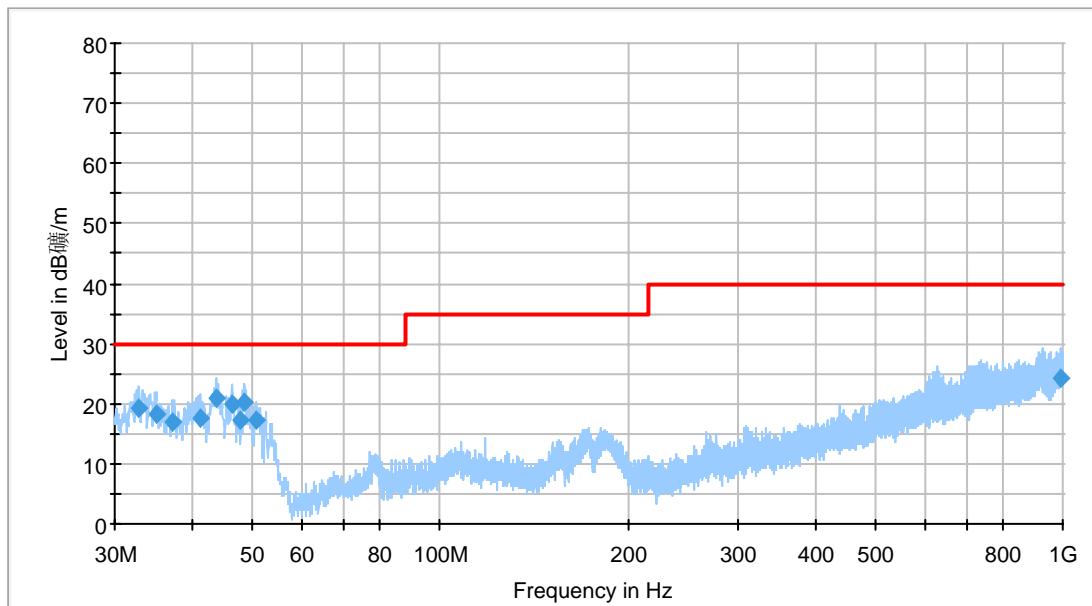
**Note:**

The transducer factor includes antenna factor and cable loss. EUT was measured on the worst emission status.

Test distance from the EUT and antenna is 3 meters, Field strength limits at 3 meters are 20dB greater than those at 30 meters.

**EUT: SLH-26****Horizontal - normal working mode****Peak Scan****Quasi-peak measurement**

Frequency	Level	Transducer Factor	Limit	Margin
MHz	dBuV/m	dB	dBuV/m	dB
30.52	12.9	18.3	30.0	17.1
32.80	15.2	20.4	30.0	14.8
39.28	11.3	16.5	30.0	18.7
829.00	21.5	26.0	40.0	18.5
843.20	21.5	26.0	40.0	18.5
862.80	21.4	26.0	40.0	18.6
917.48	23.6	27.9	40.0	16.4
951.28	22.8	27.1	40.0	17.2
989.48	23.9	27.9	40.0	16.1
997.80	24.2	28.2	40.0	15.8

**EUT: SLH-26****Vertical – normal working mode****Peak Scan****Quasi-peak measurement**

Frequency	Level	Transducer Factor	Limit	Margin
MHz	dBuV/m	dB	dBuV/m	dB
32.88	19.1	20.3	30.0	10.9
35.00	18.4	17.8	30.0	11.6
37.24	16.9	17.2	30.0	13.1
41.24	17.6	15.0	30.0	12.4
43.72	20.9	13.6	30.0	9.1
46.20	20.0	12.1	30.0	10.0
47.64	17.1	11.1	30.0	12.9
48.52	20.3	10.4	30.0	9.7
50.64	17.2	8.9	30.0	12.8
995.68	24.1	28.2	40.0	15.9

**Note:**

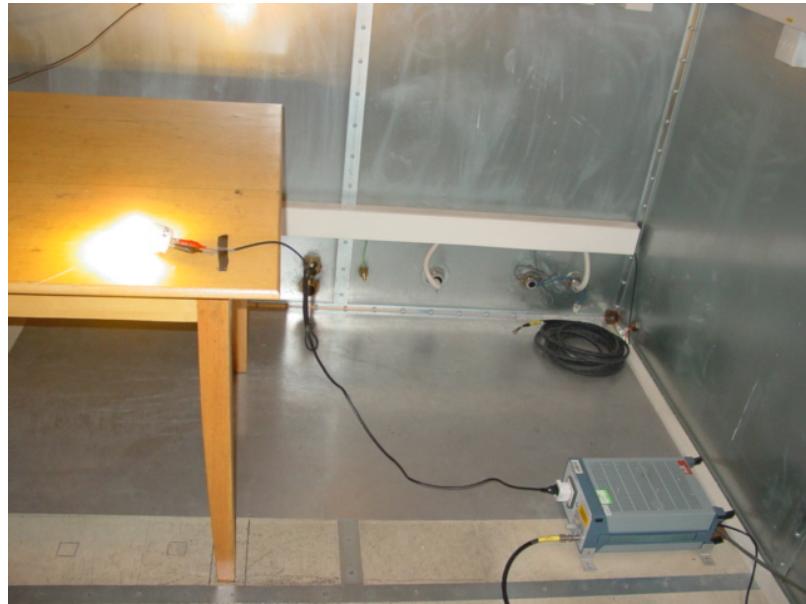
The transducer factor includes antenna factor and cable loss. EUT was measured on the worst emission status.

Test distance from the EUT and antenna is 3 meters, Field strength limits at 3 meters are 20dB greater than those at 30 meters.

## 7. Photographs

### 7.1 Conducted Emission Test Setup

EUT: SLP-9

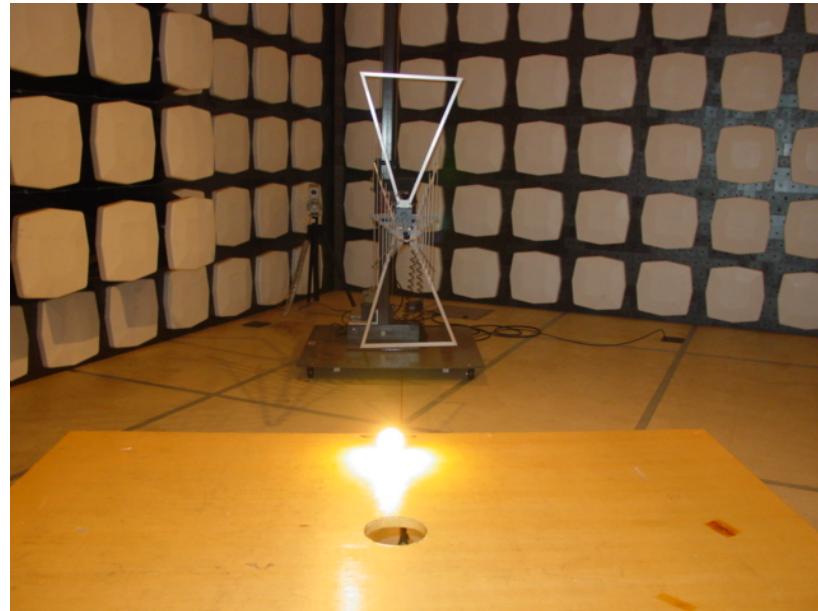


EUT: SLH-26

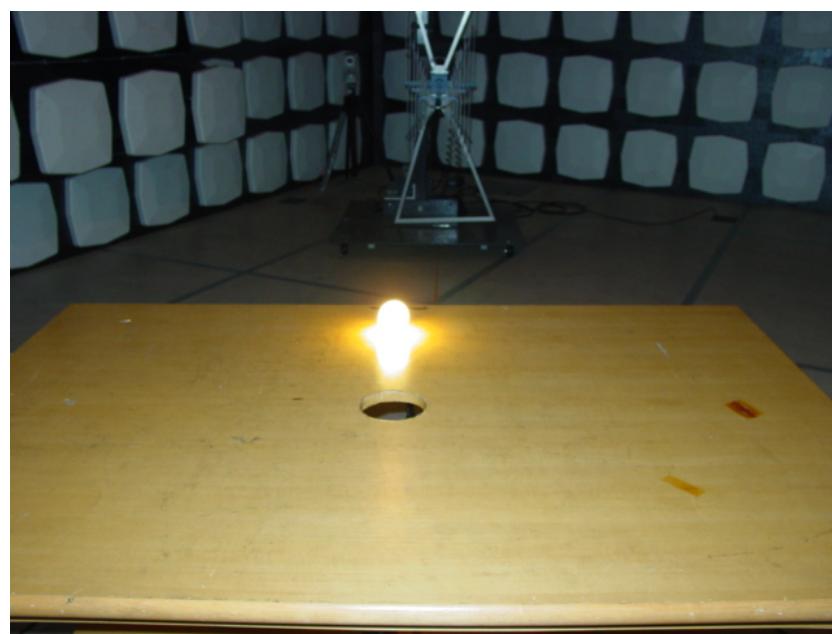


## 7.2 Radiated Emission Test Setup

EUT: SLP-9



EUT: SLH-26



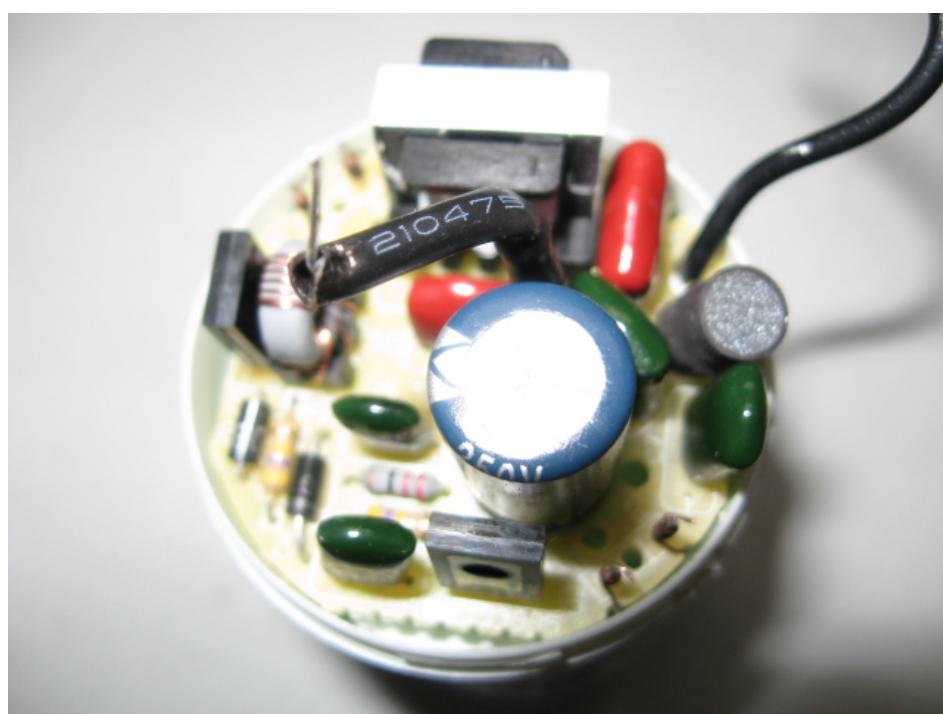


FCCID: V6EGCJX62585

Report Number: HST0803FCC0002E

### 7.3 EUT Constructional Details

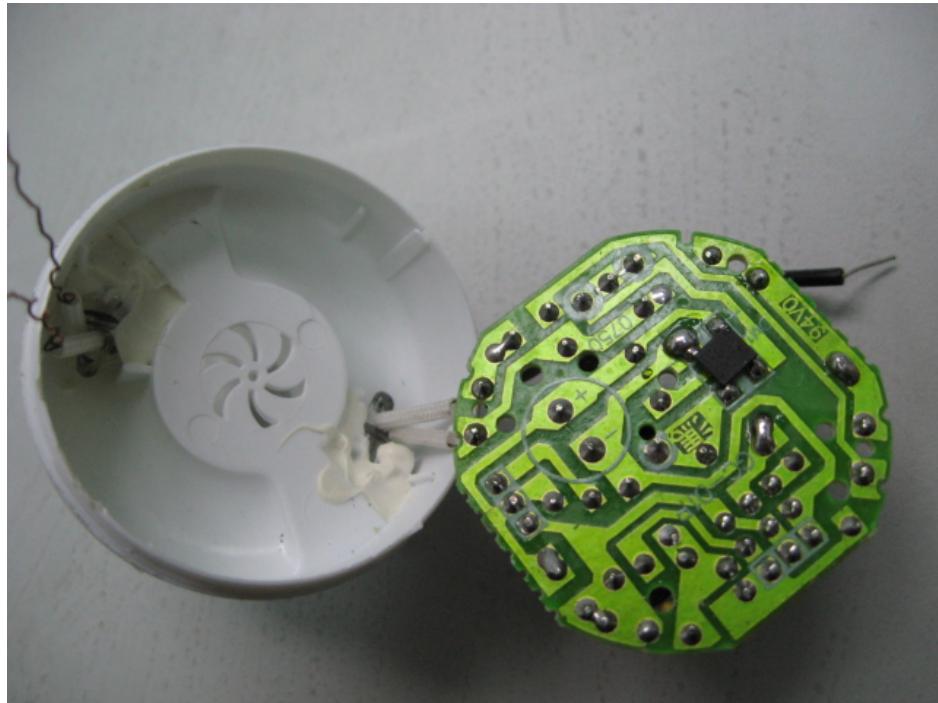
**EUT: SLP-9**





FCCID: V6EGCJX62585

Report Number: HST0803FCC0002E



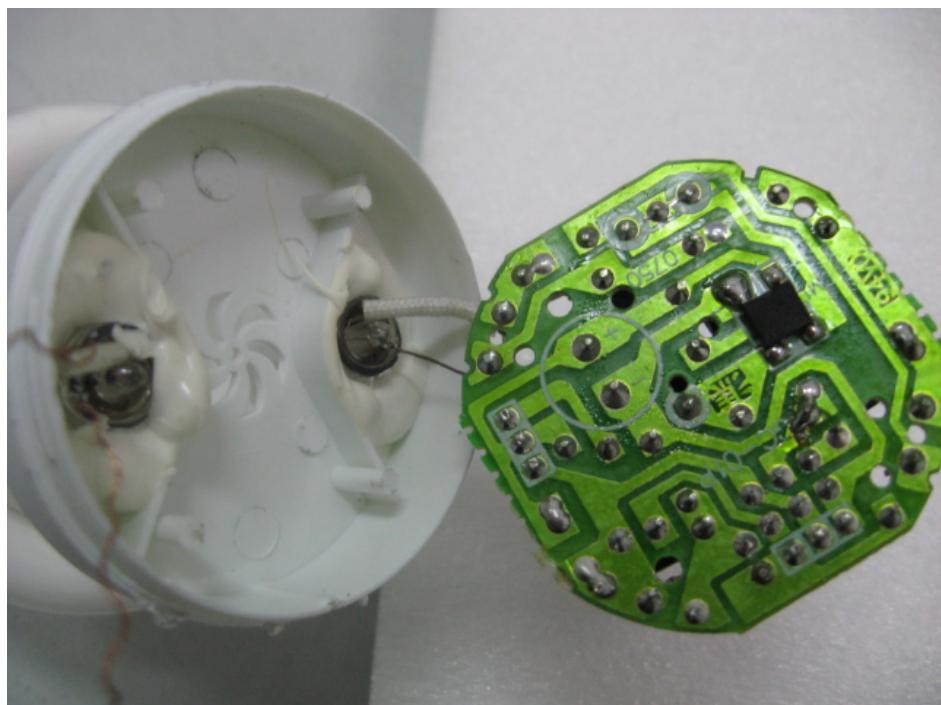
**EUT: SLH-26**





FCCID: V6EGCJX62585

Report Number: HST0803FCC0002E



\*\*\*End of Report\*\*\*