Application for FCC Certificate
On Behalf of
Xiamen Wanluda Electronic Co., Ltd.

Self-Ballasted Lamp

Model No.: FE-I 18W, FE-I 20W, FE-I 24W,
FE-IS 15W, FE-IS 20W, FE-IS 23W,
FE-IS 26W, FE-IS 28W, FE-IS 30W,
FE-II 9W, FE-II 11W, FE-II 15W,
FE-IIS 7W, FE-IIS 9W, FE-IIS 11W,
FE-IIS 13W, FE-PL3 15W, FE-PL3 20W,
FE-PL3 24W, FE-PL3 28W, FE-PL3 30W

FCC ID : PKCWLD-LIGHT001

Prepared For : Xiamen Wanluda Electronic Co., Ltd.
Cheng Nan Industrial Zone, Tong An,
Xiamen, China

Prepared By : AUDIX Technology (Shanghai) Co., Ltd.
3 F., 34 Bldg., 680 Guiping Rd.,
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Report No. : ACI-F01027
Date of Test : Mar 15 ~ Apr 12, 2001
Date of Report : Apr 16, 2001

TABLE OF CONTENTS

Page

TEST REPORT FOR FCC CERTIFICATE

Applicant : Xiamen Wanluda Electronic Co., Ltd.

Manufacturer : Xiamen Wanluda Electronic Co., Ltd.

EUT Description : Self-Ballasted Lamp

(A) Model No.: FE-I 18W, FE-I 20W, FE-I -24W,
FE-IS 15W, FE-IS 20W, FE-IS 23W,
FE-IS 26W, FE-IS 28W, FE-IS 30W,
FE-II 9W, FE-II 11W, FE-II 15W,
FE-IIS 7W, FE-IIS 9W, FE-IIS 11W,
FE-IIS 13W, FE-PL3 15W, FE-PL3 20W,
FE-PL3 24W, FE-PL3 28W, FE-PL3 30W

(B) Serial No.: ES20010101 ~ ES20010108

(C) Power Supply: 120V/60Hz

Test Procedure Used:

FCC RULES AND REGULATIONS PART 18 CONSUMER DEVICES (1998) 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 radiated and conducted emissions.

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 15 ~ Apr 12, 2001

Prepared by : (LOUISE LU) Test Engineer : (NILL YI)

Reviewer : (HALL WANG) Approved Signatory : (JEREMY GENG)

For and on behalf of AUDIX TECHNOLOGY (SHANGHAI) CO.,LTD.

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	:	FE-I 18W FE-I 20W FE-I -24W FE-IS 15W FE-IS 20W FE-IS 23W FE-IS 26W FE-IS 28W FE-IS 30W FE-II 9W FE-II 11W FE-II 15W FE-IIS 7W FE-IIS 9W FE-IIS 11W FE-IIS 13W FE-PL3 15W FE-PL3 20W FE-PL3 24W FE-PL3 28W FE-PL3 30W (All samples have been tested, the test results of FE-I 18W, FE-I 20W, FE-I 24W, FE-IS 15W, FE-IS 28W, FE-IS 30W, FE-II 9W, FE-II 11W, FE-II 15W, FE-IIS 7W, FE-IIS 11W, FE-IIS 13W, FE-PL3 15W, FE-PL3 24W, FE-PL3 30W were reported.)
Applicant	:	Xiamen Wanluda Electronic Co., Ltd. Cheng Nan Industrial Zone, Tong An, Xiamen, China
Manufacturer	:	Xiamen Wanluda Electronic Co., Ltd. Cheng Nan Industrial Zone, Tong An, Xiamen, China

M/N	INPUT POWER (VA)	OUTPUT POWER (W)
FE-I 18W	31.0	16.3
FE-I 20W	35.2	20.1
FE-I 24W	40.6	23.9
FE-IS 15W	29.4	15.0
FE-IS 20W	37.1	20.8
FE-IS 23W	41.3	21.9
FE-IS 26W	49.5	24.5
FE-IS 28W	53.8	27.5
FE-IS 30W	57.0	29.5
FE-II 9W	17.6	10.0
FE-II 11W	18.7	10.7
FE-II 15W	26.6	14.8
FE-IIS 7W	12.8	7.8
FE-IIS 9W	17.6	10.1
FE-IIS 11W	20.7	12.2
FE-IIS 13W	22.5	13.6
FE-PL3 15W	30.6	16.1
FE-PL3 20W	34.4	18.9
FE-PL3 24W	46.8	24.9
FE-PL3 28W	51.3	28.1
FE-PL3 30W	50.7	27.5

1.2 Description of Test Facility

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

1.3 Measurement Uncertainty

Conducted Emission Uncertainty	:	U = 2.66dB
Radiated Emission Uncertainty	:	U = 3.90dB

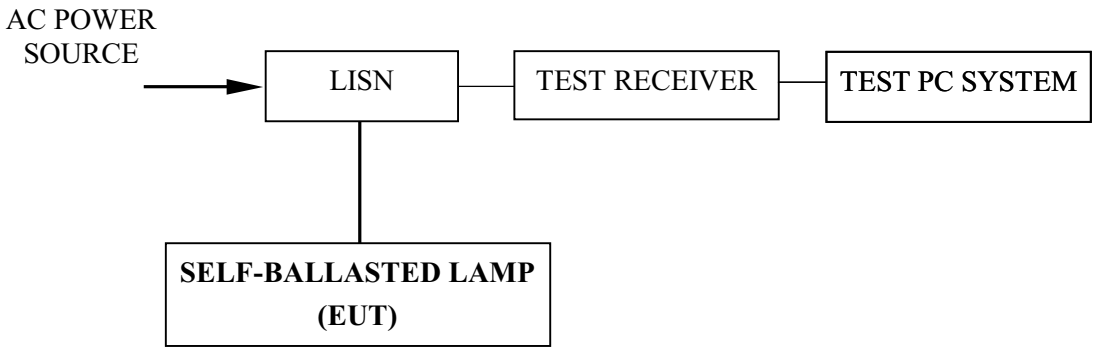
2 AC POWERLINE CONDUCTED EMISSION TEST

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	May 20, 2000	1 Year
2.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Jun. 02, 2000	1 Year

2.2 Block Diagram of Test Setup



—— : SIGNAL LINE
—— : POWER LINE

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)		

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

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 bandwidth of Test Receiver ESHS10 was set at 10 kHz.

The frequency range from 450 kHz to 30 MHz was checked. The test mode (ON) was done on conducted test and the test results of the highest emissions are listed in Sec. 2.7.

2.6 Test Procedures

2.6.1 Setup the EUT as shown in Sec. 2.2.

2.6.2 Turn on the power of all equipment.

2.6.3 The EUT will be operated normally.

2.7 Test Results

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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	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-I 18W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	**0.465**	**0.32**	**44.20**	**44.52**	**48.00**	**3.48**
	0.498	0.31	42.85	43.16	48.00	4.84
	0.551	0.30	42.68	42.98	48.00	5.02
	0.614	0.30	42.37	42.67	48.00	5.33
	0.673	0.29	42.13	42.42	48.00	5.58
	0.797	0.28	41.45	41.73	48.00	6.27
VB	0.473	0.32	40.11	40.43	48.00	7.57
	0.515	0.31	39.79	40.10	48.00	7.90
	0.574	0.30	38.22	38.52	48.00	9.48
	0.729	0.29	37.18	37.47	48.00	10.53
	0.774	0.28	36.31	36.59	48.00	11.41
	0.841	0.28	35.94	36.22	48.00	11.78

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.465 MHz with corrected signal level of 44.52 dB(μV) (limit is 48.00 dB(μV)), when the VA of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-I 20W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	0.458	0.33	42.15	42.48	48.00	5.52
	0.494	0.31	41.93	42.24	48.00	5.76
	0.532	0.31	40.74	41.05	48.00	6.95
	0.579	0.30	37.81	38.11	48.00	9.89
	0.617	0.30	36.59	36.89	48.00	11.11
	1.238	0.27	32.66	32.93	48.00	15.07
VB	**0.475**	**0.32**	**44.30**	**44.62**	**48.00**	**3.38**
	0.528	0.31	43.27	43.58	48.00	4.42
	0.577	0.30	41.62	41.92	48.00	6.08
	0.643	0.29	40.77	41.06	48.00	6.94
	0.688	0.29	40.02	40.31	48.00	7.69
	0.797	0.28	37.92	38.20	48.00	9.80

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.475 MHz with corrected signal level of 44.62 dB(μV) (limit is 48.00 dB(μV)), when the VB of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-I 24W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	**0.473**	**0.32**	**43.60**	**43.92**	**48.00**	**4.08**
	0.506	0.31	41.84	42.15	48.00	5.85
	0.544	0.31	41.20	41.51	48.00	6.49
	0.596	0.30	40.10	40.40	48.00	7.60
	0.754	0.29	37.42	37.71	48.00	10.29
	0.838	0.28	36.01	36.29	48.00	11.71
VB	0.465	0.32	42.97	43.29	48.00	4.71
	0.498	0.31	42.72	43.03	48.00	4.97
	0.537	0.31	42.19	42.50	48.00	5.50
	0.579	0.30	41.63	41.93	48.00	6.07
	0.638	0.30	41.04	41.34	48.00	6.66
	0.705	0.29	38.83	39.12	48.00	8.88

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.473 MHz with corrected signal level of 43.92 dB(μV) (limit is 48.00 dB(μV)), when the VA of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-IS 15W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	0.479	0.32	43.94	44.26	48.00	3.74
	0.515	0.31	41.89	42.20	48.00	5.80
	0.562	0.30	43.10	43.40	48.00	4.60
	0.596	0.30	42.70	43.00	48.00	5.00
	0.654	0.29	40.36	40.65	48.00	7.35
	0.761	0.29	41.60	41.89	48.00	6.11
VB	0.469	0.32	44.19	44.51	48.00	3.49
	0.506	**0.31**	**44.87**	**45.18**	**48.00**	**2.82**
	0.548	0.30	42.84	43.14	48.00	4.86
	0.579	0.30	42.78	43.08	48.00	4.92
	0.643	0.29	42.20	42.49	48.00	5.51
	0.705	0.29	38.83	39.12	48.00	8.88

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.506 MHz with corrected signal level of 45.18 dB(μV) (limit is 48.00 dB(μV)), when the VB of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :		20.8℃
Model No.	:	FE-IS 28W	Humidity	:	53%
Test Mode	:	ON	Date of Test	:	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	0.461	0.33	43.88	44.21	48.00	3.79
	0.491	0.31	42.81	43.12	48.00	4.88
	0.523	0.31	42.93	43.24	48.00	4.76
	0.555	0.30	44.19	44.49	48.00	3.51
	0.617	0.30	41.44	41.74	48.00	6.26
	0.696	0.29	41.59	41.88	48.00	6.12
VB	**0.469**	**0.32**	**44.31**	**44.63**	**48.00**	**3.37**
	0.502	0.31	43.59	43.90	48.00	4.10
	0.535	0.31	43.02	43.33	48.00	4.67
	0.589	0.30	42.44	42.74	48.00	5.26
	0.640	0.30	40.83	41.13	48.00	6.87
	0.729	0.29	41.55	41.84	48.00	6.16

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.469 MHz with corrected signal level of 44.63 dB(μV) (limit is 48.00 dB(μV)), when the VB of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-IS 30W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	0.489	0.31	42.42	42.73	48.00	5.27
	0.532	0.31	42.97	43.28	48.00	4.72
	0.569	0.30	39.31	39.61	48.00	8.39
	0.614	0.30	42.41	42.71	48.00	5.29
	0.714	0.29	41.28	41.57	48.00	6.43
	0.983	0.27	40.56	40.83	48.00	7.17
VB	**0.530**	**0.31**	**44.34**	**44.65**	**48.00**	**3.35**
	0.569	0.30	40.36	40.66	48.00	7.34
	0.604	0.30	43.51	43.81	48.00	4.19
	0.691	0.29	42.10	42.39	48.00	5.61
	0.885	0.28	43.21	43.49	48.00	4.51
	1.038	0.27	41.27	41.54	48.00	6.46

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.530 MHz with corrected signal level of 44.65 dB(μV) (limit is 48.00 dB(μV)), when the VB of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-II 9W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	0.494	0.31	42.80	43.11	48.00	4.89
	0.577	0.30	42.35	42.65	48.00	5.35
	0.627	0.30	40.88	41.18	48.00	6.82
	0.673	0.29	37.95	38.24	48.00	9.76
	0.810	0.28	37.09	37.37	48.00	10.63
	0.942	0.27	35.20	35.47	48.00	12.53
VB	**0.477**	**0.32**	**43.00**	**43.32**	**48.00**	**4.68**
	0.567	0.30	41.94	42.24	48.00	5.76
	0.617	0.30	39.65	39.95	48.00	8.05
	0.665	0.29	38.16	38.45	48.00	9.55
	0.714	0.29	36.88	37.17	48.00	10.83
	0.841	0.28	35.17	35.45	48.00	12.55

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.477 MHz with corrected signal level of 43.32 dB(μV) (limit is 48.00 dB(μV)), when the VB of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-II 11W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	0.469	0.32	42.21	42.53	48.00	5.47
	0.541	0.31	43.42	43.73	48.00	4.27
	0.638	0.30	43.03	43.33	48.00	4.67
	0.729	0.29	42.41	42.70	48.00	5.30
	0.838	0.28	40.67	40.95	48.00	7.05
	1.016	0.27	39.00	39.27	48.00	8.73
VB	0.483	0.32	37.78	38.10	48.00	9.90
	0.530	**0.31**	**44.31**	**44.62**	**48.00**	**3.38**
	0.619	0.30	42.39	42.69	48.00	5.31
	0.751	0.29	41.29	41.58	48.00	6.42
	1.029	0.27	40.43	40.70	48.00	7.30
	1.119	0.27	39.01	39.28	48.00	8.72

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.530 MHz with corrected signal level of 44.62 dB(μV) (limit is 48.00 dB(μV)), when the VB of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-II 15W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	0.506	0.31	41.63	41.94	48.00	6.06
	0.567	0.30	43.29	43.59	48.00	4.41
	0.657	**0.29**	**43.84**	**44.13**	**48.00**	**3.87**
	0.714	0.29	42.32	42.61	48.00	5.39
	0.845	0.28	41.21	41.49	48.00	6.51
	0.999	0.27	42.92	43.19	48.00	4.81
VB	0.465	0.32	41.37	41.69	48.00	6.31
	0.506	0.31	42.85	43.16	48.00	4.84
	0.553	0.30	42.21	42.51	48.00	5.49
	0.594	0.30	38.56	38.86	48.00	9.14
	0.646	0.29	38.01	38.30	48.00	9.70
	0.679	0.29	39.87	40.16	48.00	7.84

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.657 MHz with corrected signal level of 44.13 dB(μV) (limit is 48.00 dB(μV)), when the VA of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-IIS 7W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	0.502	0.31	35.72	36.03	48.00	11.97
	0.539	0.31	31.50	31.81	48.00	16.19
	0.574	0.30	33.40	33.70	48.00	14.30
	0.609	0.30	31.12	31.42	48.00	16.58
	0.720	0.29	33.74	34.03	48.00	13.97
	0.783	0.28	30.13	30.41	48.00	17.59
VB	**0.510**	**0.31**	**37.29**	**37.60**	**48.00**	**10.40**
	0.544	0.31	33.77	34.08	48.00	13.92
	0.584	0.30	33.04	33.34	48.00	14.66
	0.622	0.30	33.81	34.11	48.00	13.89
	0.659	0.29	32.00	32.29	48.00	15.71
	0.729	0.29	30.88	31.17	48.00	16.83

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.530 MHz with corrected signal level of 44.62 dB(μV) (limit is 48.00 dB(μV)), when the VB of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-IIS 11W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	0.463	0.33	43.34	43.67	48.00	4.33
	0.504	0.31	42.08	42.39	48.00	5.61
	0.596	0.30	41.50	41.80	48.00	6.20
	0.696	0.29	41.21	41.50	48.00	6.50
	0.797	0.28	39.41	39.69	48.00	8.31
	0.896	0.28	38.02	38.30	48.00	9.70
VB	**0.491**	**0.31**	**43.96**	**44.27**	**48.00**	**3.73**
	0.535	0.31	42.87	43.18	48.00	4.82
	0.581	0.30	42.31	42.61	48.00	5.39
	0.673	0.29	41.41	41.70	48.00	6.30
	0.774	0.28	39.77	40.05	48.00	7.95
	0.814	0.28	39.21	39.49	48.00	8.51

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.491 MHz with corrected signal level of 44.27 dB(μV) (limit is 48.00 dB(μV)), when the VB of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-IIS 13W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	0.477	0.32	38.34	38.66	48.00	9.34
	0.548	0.30	42.75	43.05	48.00	4.95
	0.648	0.29	42.46	42.75	48.00	5.25
	0.767	0.28	40.90	41.18	48.00	6.82
	0.834	0.28	40.31	40.59	48.00	7.41
	0.987	0.27	38.98	39.25	48.00	8.75
VB	**0.465**	**0.32**	**42.95**	**43.27**	**48.00**	**4.73**
	0.544	0.31	41.20	41.51	48.00	6.49
	0.643	0.29	42.38	42.67	48.00	5.33
	0.761	0.29	41.03	41.32	48.00	6.68
	0.838	0.28	38.65	38.93	48.00	9.07
	0.907	0.28	40.30	40.58	48.00	7.42

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.465 MHz with corrected signal level of 43.27 dB(μV) (limit is 48.00 dB(μV)), when the VB of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-PL3 15W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	0.461	0.33	41.54	41.87	48.00	6.13
	0.496	0.31	38.76	39.07	48.00	8.93
	0.535	0.31	40.87	41.18	48.00	6.82
	0.574	0.30	39.44	39.74	48.00	8.26
	0.614	0.30	35.83	36.13	48.00	11.87
	0.648	0.29	38.09	38.38	48.00	9.62
VB	**0.456**	**0.33**	**43.47**	**43.80**	**48.00**	**4.20**
	0.494	0.31	42.00	42.31	48.00	5.69
	0.530	0.31	38.10	38.41	48.00	9.59
	0.569	0.30	37.20	37.50	48.00	10.50
	0.604	0.30	36.67	36.97	48.00	11.03
	0.648	0.29	37.51	37.80	48.00	10.20

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.456 MHz with corrected signal level of 43.80 dB(μV) (limit is 48.00 dB(μV)), when the VB of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-PL3 24W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	**0.458**	**0.33**	**43.51**	**43.84**	**48.00**	**4.16**
	0.489	0.31	37.31	37.62	48.00	10.38
	0.546	0.30	40.66	40.96	48.00	7.04
	0.617	0.30	36.45	36.75	48.00	11.25
	0.777	0.28	37.52	37.80	48.00	10.20
	0.942	0.27	36.96	37.23	48.00	10.77
VB	0.458	0.33	40.92	41.25	48.00	6.75
	0.510	0.31	39.91	40.22	48.00	7.78
	0.537	0.31	36.95	37.26	48.00	10.74
	0.572	0.30	37.92	38.22	48.00	9.78
	0.619	0.30	37.46	37.76	48.00	10.24
	0.892	0.28	38.47	38.75	48.00	9.25

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.458 MHz with corrected signal level of 43.84 dB(μV) (limit is 48.00 dB(μV)), when the VA of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-PL3 30W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 15, 2001

Test Line	Frequency (MHz)	Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)
VA	**0.450**	**0.33**	**42.23**	**42.56**	**48.00**	**5.44**
	0.489	0.31	40.92	41.23	48.00	6.77
	0.579	0.30	40.45	40.75	48.00	7.25
	0.676	0.29	39.67	39.96	48.00	8.04
	0.877	0.28	36.62	36.90	48.00	11.10
	1.021	0.27	33.98	34.25	48.00	13.75
VB	0.473	0.32	41.99	42.31	48.00	5.69
	0.508	0.31	39.57	39.88	48.00	8.12
	0.569	0.30	40.23	40.53	48.00	7.47
	0.617	0.30	38.31	38.61	48.00	9.39
	0.736	0.29	38.82	39.11	48.00	8.89
	0.838	0.28	36.26	36.54	48.00	11.46

NOTE 1 – Emission Level = Meter Reading + Factor
NOTE 2 – Factor = Insertion Loss + Cable Loss
NOTE 3 – All reading are Quasi-Peak Values.
NOTE 4 – The worst emission is detected at 0.450 MHz with corrected signal level of 42.56 dB(μV) (limit is 48.00 dB(μV)), when the VA of the EUT is connected to LISN.

TEST ENGINEER: (NILL YI)

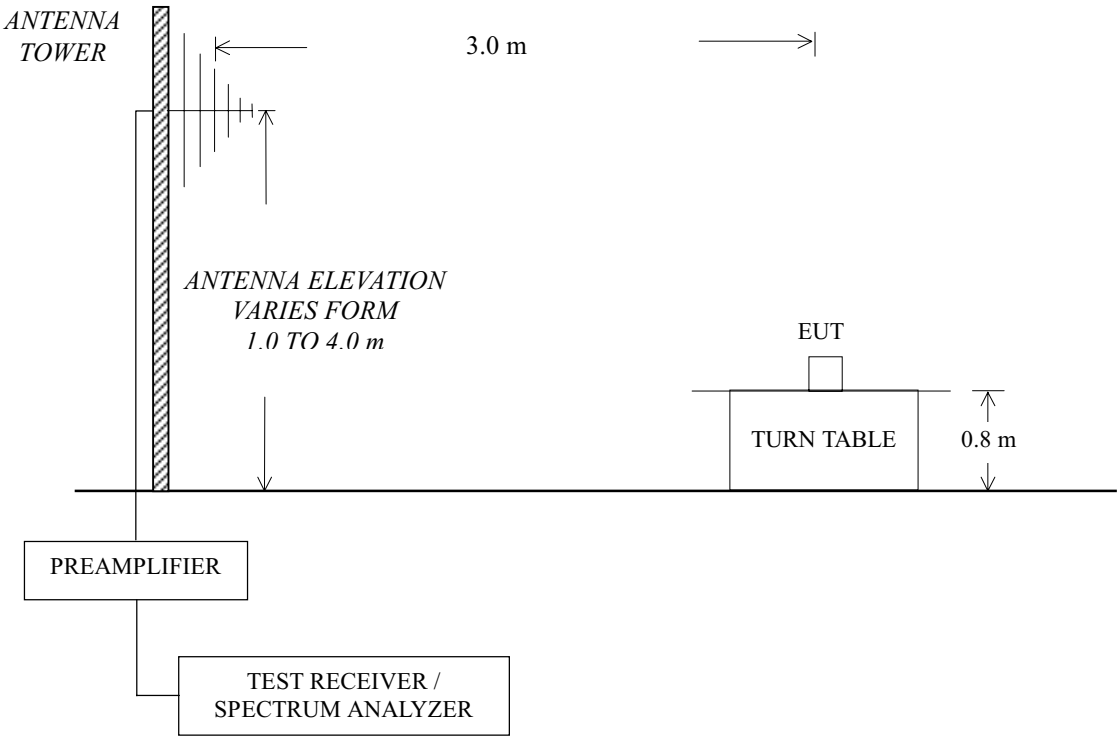
3 RADIATED EMISSION TEST

3.1 Test Equipment

The following test equipment are used during the radiated emission test in a semi-anechoic chamber:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	HP	8593EM	3628A00167	May 20, 2000	1 Year
2.	Preamplifier	HP	8447D	2944A06849	Dec 10, 2000	1/2 Year
3.	Bilog Antenna	Chase	CBL6111	1146	Dec 10, 2000	1/2 Year
4.	Test Receiver	Rohde & Schwarz	ESVS10	844594/001	May 20, 2000	1 Year

3.2 Block Diagram of Test Setup



3.3 Radiated Emission Limits

Frequency (MHz)	Distance (m)	Field strength limits (μV/m)	Converted Field Strengths Limits By 3 meters Measuring Distance	
			μV/m	dB(μV/m)
30 ~ 88	30	10	100	40.0
88 ~ 216	30	15	150	43.5
216 ~ 1000	30	20	200	46.0

NOTE 1 - Emission Level dB(μV/m) = 20 log Emission Level (μV/m)
NOTE 2 - The tighter limit applies at the band edges.
NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
NOTE 4 - The measurements are made at 3 meters distance, then the permissible field strength limits be adjusted using 1/d as an attenuation factor.

3.4 Test Configuration

The configuration of the EUT is same as those used in conducted emission test.

Please refer to Sec. 2.4.

3.5 Operating Condition of EUT

The EUT was placed on a turn table which is 0.8 meter above ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (Calibrated Bilog Antenna) or dipole antenna were used as receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to MP-5/1986 requirements during radiated test.

The bandwidth setting on Test Receiver ESVS10 was 120 kHz.

The frequency range from 30 MHz to 1000 MHz was checked. The test mode (ON) was done on radiated emission test and the test results of the highest emissions are listed in Sec. 3.7.

3.6 Test Procedures

Same as conducted emission test which is listed in Sec. 2.6, except the test set up replaced by Sec. 3.2.

3.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emissions relative the limit is reported. All the emissions not reported below are too low against the FCC Part 18 limit.

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-I 18W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	**33.880**	**16.50**	**0.72**	**25.52**	**26.95**	**18.65**	**40.00**	**21.35**
	109.540	11.79	1.29	25.10	26.64	14.62	43.50	28.88
	127.000	11.68	1.47	25.10	26.38	14.43	43.50	29.07
	167.740	10.15	1.80	25.10	29.11	15.96	43.50	27.54
	458.740	18.56	3.32	26.43	27.26	22.71	46.00	23.29
	573.200	20.40	3.75	26.70	27.18	24.63	46.00	21.37
Vertical	**32.910**	**16.92**	**0.71**	**25.53**	**32.52**	**24.62**	**40.00**	**15.38**
	53.280	7.39	0.91	25.34	33.57	16.53	40.00	23.47
	118.270	13.01	1.38	25.10	27.20	16.49	43.50	27.01
	160.950	10.75	1.75	25.10	31.06	18.46	43.50	25.04
	212.360	10.27	2.08	25.10	27.40	14.65	43.50	28.85
	453.890	18.42	3.30	26.40	25.29	20.61	46.00	25.39

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 33.880 MHz with corrected signal level of 31.78 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 56°.
NOTE 4 – The worst emission at vertical polarization was detected at 32.910 MHz with corrected signal level of 24.62 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 170°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-I 20W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	33.880	16.50	0.72	25.52	26.95	18.65	40.00	21.35
	144.460	11.22	1.62	25.10	29.69	17.43	43.00	26.07
	159.010	10.84	1.74	25.10	28.06	15.54	43.50	27.96
	366.590	15.95	2.88	25.74	25.97	19.06	46.00	26.94
	506.270	19.81	3.52	26.70	27.54	24.17	46.00	21.83
	655.650	**21.03**	**4.02**	**26.70**	**27.10**	**25.45**	**46.00**	**20.55**
Vertical	**32.910**	**16.92**	**0.71**	**25.53**	**32.52**	**24.62**	**40.00**	**15.38**
	58.130	6.00	0.95	25.31	35.63	17.27	40.00	22.73
	142.520	11.38	1.60	25.10	35.61	23.49	43.50	20.01
	155.130	10.82	1.71	25.10	30.69	18.12	43.50	25.38
	267.650	13.33	2.36	25.10	27.76	18.35	46.00	37.65
	297.720	14.26	2.48	25.10	29.44	21.08	46.00	24.92

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 655.650 MHz with corrected signal level of 25.45dB(μV/m) (limit is 46.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 55°.
NOTE 4 – The worst emission at vertical polarization was detected at 32.910 MHz with corrected signal level of 24.62 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 72°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-I 24W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	32.910	16.92	0.71	25.53	27.03	19.13	40.00	20.87
	144.460	11.22	1.62	25.10	29.69	17.43	40.00	26.07
	155.130	10.82	1.71	25.10	29.87	17.30	43.50	26.20
	547.980	20.18	3.66	26.70	227.25	24.39	46.00	21.61
	621.700	20.78	3.91	26.70	27.65	25.64	46.00	20.36
	750.710	**22.10**	**4.28**	**26.62**	**27.60**	**27.36**	**46.00**	**18.64**
Vertical	**31.940**	**17.30**	**0.70**	**25.54**	**35.76**	**28.22**	**40.00**	**11.78**
	144.460	11.22	1.62	25.10	36.93	24.67	40.00	18.83
	153.190	10.81	1.69	25.10	34.46	21.86	40.00	21.64
	164.830	10.40	1.78	25.10	35.04	22.12	43.50	21.38
	272.500	13.48	2.38	25.10	30.16	20.92	43.50	25.08
	442.250	18.02	3.25	26.32	29.04	23.99	46.00	22.01

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 750.710 MHz with corrected signal level of 27.36 dB(μV/m) (limit is 46.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 108°.
NOTE 4 – The worst emission at vertical polarization was detected at 31.940 MHz with corrected signal level of 28.22 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 54°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-IS 15W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Mar 19, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	**34.850**	**16.12**	**0.74**	**25.51**	**26.64**	**17.99**	**40.00**	**22.01**
	100.810	10.51	1.20	25.10	26.72	13.33	43.50	30.17
	115.360	12.62	1.35	25.10	25.99	14.86	43.50	28.64
	163.860	10.50	1.77	25.10	27.42	14.59	43.50	28.91
	325.850	15.00	2.65	25.37	25.82	18.10	46.00	27.90
	479.110	19.15	3.41	26.56	26.81	22.81	46.00	23.19
Vertical	**33.880**	**16.50**	**0.72**	**25.52**	**27.13**	**18.83**	**40.00**	**21.17**
	48.430	9.05	0.87	25.38	31.88	16.42	40.00	23.58
	110.510	11.95	1.30	25.10	26.73	14.88	43.50	28.62
	140.580	11.53	1.59	25.10	31.36	19.38	43.50	24.12
	160.950	10.75	1.75	25.10	31.67	19.07	43.50	24.43
	519.850	19.93	3.57	26.70	27.50	24.30	46.00	21.70

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 34.850 MHz with corrected signal level of 17.99dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 97°.
NOTE 4 – The worst emission at vertical polarization was detected at 33.880 MHz with corrected signal level of 18.83 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 32°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-IS 28W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	**31.940**	**17.30**	**0.70**	**25.54**	**27.93**	**20.39**	**40.00**	**19.61**
	131.850	11.64	1.51	25.10	27.57	15.62	43.50	27.88
	144.460	11.22	1.62	25.10	29.45	17.19	43.50	26.31
	510.150	19.84	3.53	26.70	27.77	24.44	46.00	21.56
	579.020	20.45	3.78	26.70	27.01	24.54	46.00	21.46
	750.710	22.10	4.28	26.62	26.52	26.28	46.00	19.72
Vertical	**32.910**	**16.92**	**0.71**	**25.53**	**30.45**	**22.55**	**40.00**	**17.45**
	53.280	7.39	0.91	25.34	33.99	16.95	40.00	23.05
	94.990	9.03	1.16	25.12	33.29	18.36	43.50	25.14
	144.460	11.22	1.62	25.10	37.81	25.55	43.50	17.95
	164.830	10.40	1.78	25.10	32.25	19.33	43.50	24.17
	306.450	14.52	2.53	25.18	25.87	17.74	46.00	28.26

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 31.940 MHz with corrected signal level of 20.39 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 83°.
NOTE 4 – The worst emission at vertical polarization was detected at 32.910 MHz with corrected signal level of 22.55 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 115°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-IS 30W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	31.940	17.30	0.70	25.54	27.93	20.39	40.00	19.61
	144.460	11.22	1.62	25.10	29.45	17.19	43.50	26.31
	515.000	19.89	3.55	26.70	27.04	23.78	46.00	22.22
	655.650	21.03	4.02	26.70	26.52	24.87	46.00	21.13
	806.000	22.90	4.42	26.54	26.59	27.37	46.00	18.63
	873.900	**23.91**	**4.58**	**26.45**	**26.40**	**28.44**	**46.00**	**17.56**
Vertical	**31.940**	**17.30**	**0.70**	**25.54**	**33.87**	**26.33**	**40.00**	**13.67**
	124.090	11.96	1.44	25.10	35.21	23.51	43.50	19.99
	144.460	11.22	1.62	25.10	37.81	25.55	43.50	17.95
	153.190	10.81	1.69	25.10	36.97	24.37	43.50	19.13
	167.740	10.15	1.80	25.10	35.91	22.76	43.50	20.74
	652.740	21.00	4.01	26.70	33.50	31.81	46.00	14.19

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 873.900 MHz with corrected signal level of 28.44 dB(μV/m) (limit is 46.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 133°.
NOTE 4 – The worst emission at vertical polarization was detected at 31.940 MHz with corrected signal level of 26.33 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 90°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-II 9W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	33.880	16.50	0.72	25.52	26.36	18.06	40.00	21.94
	111.480	12.07	1.31	25.10	27.69	15.97	43.50	27.53
	128.940	11.66	1.48	25.10	29.34	17.38	43.50	26.12
	155.130	10.82	1.71	25.10	29.54	16.99	43.50	26.51
	386.960	16.37	2.99	25.90	26.16	19.62	46.00	26.38
	519.850	**19.93**	**3.57**	**26.70**	**27.62**	**24.42**	**46.00**	**21.58**
Vertical	**32.910**	**16.92**	**0.71**	**25.53**	**27.82**	**19.92**	**40.00**	**20.08**
	55.220	6.84	0.93	25.33	28.02	10.46	40.00	29.54
	96.930	9.50	1.17	25.11	30.14	15.70	43.50	27.80
	117.300	12.90	1.37	25.10	28.39	17.56	43.50	25.94
	272.500	13.48	2.38	25.10	30.30	21.06	46.00	24.94
	383.080	16.29	2.97	25.87	29.05	22.44	46.00	23.56

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 519.850 MHz with corrected signal level of 24.42 dB(μV/m) (limit is 46.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 88°.
NOTE 4 – The worst emission at vertical polarization was detected at 32.910 MHz with corrected signal level of 19.92 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 117°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-II 11W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	32.910	16.92	0.71	25.53	26.59	18.69	40.00	21.31
	127.000	11.68	1.47	25.10	27.47	15.52	43.50	27.98
	152.220	10.80	1.68	25.10	29.82	17.20	43.50	26.30
	389.870	16.43	3.00	25.92	26.21	19.72	46.00	26.28
	506.270	19.81	3.52	26.70	26.64	23.27	46.00	22.73
	685.720	**21.22**	**4.10**	**26.70**	**26.61**	**25.23**	**46.00**	**20.77**
Vertical	**32.910**	**16.92**	**0.71**	**25.53**	**27.82**	**19.92**	**40.00**	**20.08**
	49.400	8.68	0.88	25.37	31.75	15.94	40.00	24.06
	97.900	9.78	1.17	25.11	30.80	16.64	43.50	26.86
	152.220	10.80	1.68	25.10	33.68	21.06	43.50	22.44
	247.280	12.58	2.26	25.10	25.90	15.64	46.00	30.36
	605.210	20.67	3.87	26.70	26.98	24.84	46.00	21.18

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 685.720 MHz with corrected signal level of 25.23dB(μV/m) (limit is 46.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 97°.
NOTE 4 – The worst emission at vertical polarization was detected at 32.910 MHz with corrected signal level of 19.92 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 121°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-II 15W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	**32.910**	**16.92**	**0.71**	**25.53**	**26.59**	**18.69**	**40.00**	**21.31**
	112.450	12.23	1.32	25.10	27.42	15.87	43.50	27.63
	128.940	11.66	1.48	25.10	29.34	17.38	43.50	26.12
	150.280	10.79	1.67	25.10	26.60	13.96	43.50	29.54
	353.010	15.64	2.81	25.62	25.52	18.35	46.00	27.65
	479.110	19.15	3.41	26.56	27.21	23.21	46.00	22.79
Vertical	31.940	17.30	0.70	25.54	28.82	21.28	40.00	18.72
	142.520	**11.38**	**1.60**	**25.10**	**37.19**	**25.07**	**43.50**	**18.43**
	153.190	10.81	1.69	25.10	37.24	24.64	43.50	18.86
	166.770	10.25	1.79	25.10	35.67	22.61	43.50	20.89
	573.200	20.40	3.75	26.70	26.53	23.98	46.00	22.02
	649.830	20.98	4.00	26.70	26.27	24.55	46.00	21.45

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 32.910 MHz with corrected signal level of 18.69 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 109°.
NOTE 4 – The worst emission at vertical polarization was detected at 142.520 MHz with corrected signal level of 25.07 dB(μV/m) (limit is 43.50 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 192°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-IIS 7W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	36.790	15.29	0.76	25.49	26.45	17.01	40.00	22.99
	85.290	7.56	1.11	25.16	30.88	14.39	40.00	25.61
	132.820	11.63	1.52	25.10	30.46	18.51	43.50	24.99
	155.130	10.82	1.71	25.10	30.46	17.89	46.00	25.61
	267.650	13.33	2.36	25.10	27.98	18.57	46.00	27.43
	533.430	**20.06**	**3.62**	**26.70**	**26.80**	**23.78**	**46.00**	**22.22**
Vertical	**35.820**	**15.68**	**0.75**	**25.50**	**26.77**	**17.70**	**40.00**	**22.30**
	52.310	7.67	0.91	25.35	31.00	14.23	40.00	25.77
	101.780	10.62	1.20	25.10	29.11	15.83	43.50	27.67
	216.240	10.54	2.10	25.10	30.85	18.39	43.50	27.61
	383.080	16.29	2.97	25.87	28.79	22.18	46.00	23.82
	483.960	19.30	3.43	26.60	27.21	23.34	46.00	22.66

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 533.430 MHz with corrected signal level of 23.78dB(μV/m) (limit is 46.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 35°.
NOTE 4 – The worst emission at vertical polarization was detected at 35.820 MHz with corrected signal level of 17.70 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 310°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-IIS 11W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	34.850	16.12	0.74	25.51	26.98	18.33	40.00	21.67
	127.000	**11.68**	**1.47**	**25.10**	**35.69**	**23.74**	**43.50**	**19.76**
	142.520	11.38	1.60	25.10	34.32	22.20	43.50	21.30
	242.430	12.27	2.24	25.10	33.42	22.83	46.00	23.17
	446.130	18.17	3.27	26.35	26.99	22.08	46.00	23.92
	655.650	21.03	4.02	26.70	26.84	25.19	46.00	20.81
Vertical	**33.880**	**16.50**	**0.72**	**25.52**	**28.14**	**19.84**	**40.00**	**20.16**
	51.340	8.00	0.90	25.36	34.43	17.97	40.00	22.03
	117.300	12.90	1.37	25.10	29.84	19.01	43.50	24.49
	151.250	10.80	1.68	25.10	34.71	22.09	43.50	21.41
	443.220	18.07	3.25	26.33	28.02	23.01	46.00	22.99
	655.650	21.03	4.02	26.70	26.88	25.23	46.00	20.77

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 127.000 MHz with corrected signal level of 23.74 dB(μV/m) (limit is 43.50 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 175°.
NOTE 4 – The worst emission at vertical polarization was detected at 33.880 MHz with corrected signal level of 19.84 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 215°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-IIS 13W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	33.880	16.50	0.72	25.52	27.30	19.00	40.00	21.00
	127.000	11.68	1.47	25.10	35.69	23.74	43.50	19.76
	142.520	11.38	1.60	25.10	34.32	22.20	43.50	21.30
	167.740	10.15	1.80	25.10	35.93	22.798	43.50	20.72
	651.770	**21.00**	**4.01**	**26.70**	**32.22**	**30.53**	**46.00**	**15.47**
	772.050	22.42	4.34	26.59	27.41	27.58	46.00	18.42
Vertical	49.400	8.68	0.88	25.37	35.06	19.25	40.00	20.75
	145.430	**11.14**	**1.63**	**25.10**	**40.09**	**27.76**	**43.50**	**15.74**
	152.220	10.80	1.68	25.10	35.23	22.61	43.50	20.89
	159.980	10.84	1.74	25.10	35.10	22.58	43.50	20.92
	166.770	10.25	1.79	25.10	35.56	22.50	43.50	21.00
	650.800	21.00	4.01	26.70	31.55	29.86	46.00	16.14

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 651.770 MHz with corrected signal level of 30.53 dB(μV/m) (limit is 46.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 243°.
NOTE 4 – The worst emission at vertical polarization was detected at 145.430 MHz with corrected signal level of 27.76 dB(μV/m) (limit is 43.50 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 72°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-PL3 15W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	32.910	16.92	0.71	25.53	26.01	18.11	40.00	21.89
	119.240	13.18	1.39	25.10	27.58	17.05	43.50	26.45
	153.190	10.81	1.69	25.10	31.48	18.88	43.50	24.62
	644.010	20.95	3.99	26.70	26.34	24.58	46.00	21.42
	724.520	21.71	4.22	26.66	25.89	25.16	46.00	20.82
	813.760	**23.03**	**4.44**	**26.53**	**26.84**	**27.78**	**46.00**	**18.22**
Vertical	**30.970**	**17.73**	**0.68**	**25.56**	**31.75**	**24.60**	**40.00**	**15.40**
	44.550	10.88	0.84	25.41	33.21	19.52	40.00	20.48
	58.130	6.00	0.95	25.31	36.86	18.50	40.00	21.50
	115.360	12.62	1.35	25.10	30.12	18.99	43.50	24.51
	144.460	11.22	1.62	25.10	38.16	25.90	43.50	17.60
	152.220	10.80	1.68	25.10	36.64	24.02	43.50	19.48

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 813.760 MHz with corrected signal level of 27.78 dB(μV/m) (limit is 46.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 151°.
NOTE 4 – The worst emission at vertical polarization was detected at 30.970 MHz with corrected signal level of 24.60 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 223°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-PL3 24W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	34.850	16.12	0.74	25.51	26.26	17.61	40.00	22.39
	155.130	10.82	1.71	25.10	30.74	18.17	43.50	25.33
	599.390	20.62	3.85	26.70	26.13	23.90	46.00	22.10
	649.830	20.98	4.00	26.70	25.87	24.15	46.00	21.85
	806.000	**22.90**	**4.42**	**26.54**	**26.50**	**27.28**	**46.00**	**18.72**
Vertical	**32.910**	**16.92**	**0.71**	**25.53**	**31.10**	**23.20**	**40.00**	**16.80**
	61.040	5.68	0.97	25.29	38.84	20.20	40.00	19.80
	141.550	11.46	1.60	25.10	33.78	21.74	43.50	21.76
	155.130	10.82	1.71	25.10	32.29	19.72	43.50	23.78
	219.150	10.75	2.12	25.10	31.89	19.66	46.00	26.34
	450.010	18.27	3.28	26.37	26.27	21.45	46.00	24.55

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 806.000 MHz with corrected signal level of 27.28 dB(μV/m) (limit is 46.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 310°.
NOTE 4 – The worst emission at vertical polarization was detected at 32.910 MHz with corrected signal level of 23.20 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 150°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)

EUT	:	Self-Ballasted Lamp	Temperature :	20.8℃
Model No.	:	FE-PL3 30W	Humidity :	53%
Test Mode	:	ON	Date of Test :	Apr 12, 2001

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	30.970	17.73	0.68	25.56	26.48	19.33	40.00	20.67
	32.910	16.93	0.71	25.53	26.59	18.69	40.00	21.31
	145.430	11.14	1.63	25.10	31.23	18.90	43.50	24.60
	150.280	10.79	1.67	25.10	33.28	20.64	43.50	22.86
	737.130	21.91	4.25	26.64	28.04	27.56	46.00	18.44
	905.910	**24.25**	**4.65**	**26.41**	**27.12**	**29.61**	**46.00**	**16.39**
Vertical	30.970	17.73	0.68	25.56	26.38	19.23	40.00	20.77
	145.430	**11.14**	**1.63**	**25.10**	**36.19**	**23.86**	**43.50**	**19.64**
	153.190	10.81	1.69	25.10	32.42	19.82	43.50	23.68
	164.830	10.40	1.78	25.10	26.54	23.62	43.50	19.88
	216.240	10.54	2.10	25.10	33.42	20.96	46.00	25.04
	281.230	13.76	2.41	25.10	31.18	22.25	46.00	23.75

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor
NOTE 2 – All reading are Quasi-Peak values.
NOTE 3 – The worst emission at horizontal polarization was detected at 905.910 MHz with corrected signal level of 29.61 dB(μV/m) (limit is 46.00 dB(μV/m)), when the antenna was 1.50m height and the turn table was at 216°.
NOTE 4 – The worst emission at vertical polarization was detected at 145.430 MHz with corrected signal level of 23.86 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.00 m height and the turn table was at 172°.
NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: (NILL YI)