ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
UNINTENTIONAL RADIATOR CERTIFICATION TO
FCC PART 18 REQUIREMENT

for

CFLs

M/N: 18W/ELS-M, 18W/ELS-M/50K, 20W/ELS-M, 20W/ELS-M/50K

23W/ELS-M, 23W/ELS-M/50K, 26W/ELS-M

FCC ID: WQD18-26WELS-M

Trade Name: Not Applicable

Report No.: SHEE080331259301-04

Issue Date: Sept. 24, 2008

Prepared for

GREENLITE LIGHTING CORPORATION
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Prepared by

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1. General Information

Applicant:	GREENLITE LIGHTING CORPORATION 102-115 Brunswick Blvd POINTE-CLAIRE, Quebec
Manufacturer:	JIANGXI ELEGANT LIGHTING CO LTD No. 713, Xihou St., Guixi, Jiangxi, China
Trade Name:	Not Applicable
Product Name :	CFLs
M/N:	18W/ELS-M, 18W/ELS-M/50K, 20W/ELS-M, 20W/ELS-M/50K 23W/ELS-M, 23W/ELS-M/50K, 26W/ELS-M
Report No.:	SHEE080331259301-04
Date of Test:	Apr. 01, 2008 to Aug. 31, 2008

We hereby certify that:

The above equipment was tested by Centre Testing International (CTI), The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 18.

The test results of this report relate only to the tested sample identified in this report.

Prepared by : Lily Yan

Inspected by : Christy Chen

Approved by: Jacky Guo
General Manager

Date : Oct. 30, 2008

2. Product Information

Product name:	CFLs
Model name:	18W/ELS-M, 18W/ELS-M/50K, 20W/ELS-M, 20W/ELS-M/50K 23W/ELS-M, 23W/ELS-M/50K, 26W/ELS-M
Trade name:	Not Applicable
Technical data:	Input voltage: AC 120V/50Hz 18W/ELS-M, 18W/ELS-M/50K: T3 Spiral lamp 18W 20W/ELS-M, 20W/ELS-M/50K: T3 Spiral lamp 20W 23W/ELS-M, 23W/ELS-M/50K: T3 Spiral lamp 23W 26W/ELS-M: T3 Spiral lamp 26W
Model difference:	All the models are identical in schematic, PCB layout and appearance except the rated power. The tested models in the report are 18W/ELS-M, 26W/ELS-M.
Function:	Lighting

3. Test Methodology

Both conducted and radiated tests were performed according to the procedures in ANSI C63.4 (2003). Radiated testing was performed at a distance 3 meters from the antenna to EUT.

4. Test Facility

The 3m Semi-Anechoic chamber test site and conducted measurement facility used to collect the radiated data is located on the address:
1F., Building C, Hongwei Industrial Zone 70 District., Baoan, Shenzhen, Guangdong, China.
The Test Sites and the Line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 2003 requirements. The test site Registration Number: 614926

5. Special Accessories

Not available for this EUT intended for grant.

6. Equipment Modifications

Not available for this EUT intended for grant.

7. Test Condition

7.1 Test Configuration

The device was configured for testing in a typical fashion (as a customer would normally use it). During the tests, the EUT and the supported equipments were installed to meet FCC requirement and operated in a manner which tends to maximize its emission level in a typical application.

7.2 Test Procedure

Conducted Emissions:
The EUT is a placed on as turn table which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4-2003.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode.

Radiated Emissions:
The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements in Section 13.1.4.1 of ANSI C63.4-2003.

7.3 EUT operation

EUT was tested according to the following operation modes provided by the specifications given by the manufacturer, and reported the worst emissions.

7.4 Peripherals / Support Equipment Used

Following peripheral devices and interface cables were connected during the measurement:

Type of Peripheral Equipment Used: None

Type of Cables Used: None

7.5 Limit

Conducted Emission:

According to section 18.307(c) Conducted Emission Limits is as following:

Frequency (MHz)	Maximum RF Line Voltage Q.P.(dBuV)
0.45-2.51	48
2.51-3.0	69.5
3.0-30	48

Radiated Emission:

According to section 18.305(c) Radiated Emission Limits is as following:

Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dBuV/m Q.P.)
30-88	3	40.0
88-216	3	43.5
216-1000	3	46.0

Remark:
1. Emission level in dBuV/m=20 log (uV/m)
2. Measurement was performed at an antenna to the closed point of EUT distance of meters.

8. Summary of Test Results

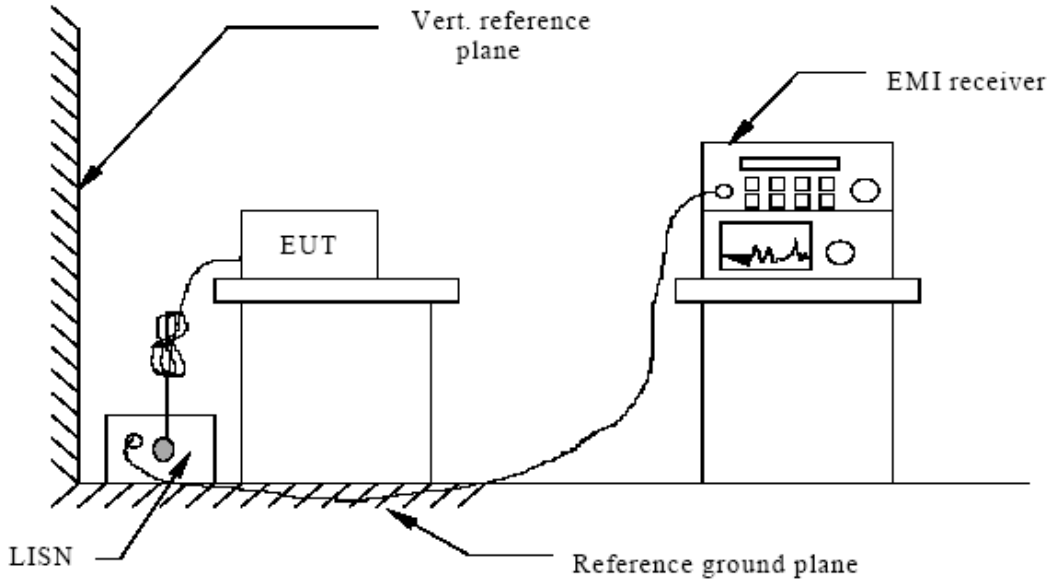
FCC Rules	Description Of Test	Result
§18.307(c)	Conducted Emission	Compliant
§18.305(c)	Radiated Emission	Compliant

9. Conducted Emissions Test

9.1 Measurement Procedure

1. The EUT was placed on a table which is 0.8m above ground plane, connected to the LISN, and worked normally during the whole test.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. If the EUT emission level was less –6dB to the Q.P. limit in Peak mode, then the emission signal was re-checked using Q.P. detector.
4. Repeat above procedures until all frequencies measured were completed.

9.2 Test Set-up (Block Diagram of Configuration)



9.3 Measurement Equipment Used

Equipment Type	Manufacturer	Model Number	Serial Number	Last Calibration	Calibration Due
Receiver	R&S	ESCI	100435	01/29/2008	01/28/2009
LISN	ETS	3816	00060336	06/07/2008	06/06/2009

9.4 Measurement Results

Limit	:	FCC Part 18 Conduction	**Power**	:	AC 120V/60HZ
EUT	:	CFLs	**Temperature**	:	24℃
M/N	:	See belows	**Humidity**	:	53%
Mode	:	Normal	**Tested by**	:	Lily Yan

(The chart below shows the highest readings taken from the final data)

M/N : 18W/ELS-M

FCC Conducted Emission Test Result													
Frequency (MHz)	Reading Level (dBuV)			Correct Factor (dB)	Measurement (dBuV)			Limits (dBuV)		Margin		Result (P/F)	Remarks (L/N)
	Peak	Q.P.	Avg.		Peak	Q.P.	Avg.	Q.P.	Avg.	Q.P.	Avg.		
0.5060	15.27	13.27	--	21.58	36.85	34.85	--	48.00	--	-13.15	--	P	L
0.5299	16.83	15.29	--	21.56	38.39	36.85	--	48.00	--	-11.15	--	P	L
0.6419	15.69	7.61	--	21.53	37.22	29.14	--	48.00	--	-18.86	--	P	L
0.8059	14.63	11.02	--	21.54	36.17	32.56	--	48.00	--	-15.44	--	P	L
0.9620	13.98	9.44	--	21.55	35.53	30.99	--	48.00	--	-17.01	--	P	L
1.1300	13.76	6.66	--	21.46	35.22	28.12	--	48.00	--	-19.88	--	P	L
0.5740	15.68	10.90	--	21.54	37.22	32.44	--	48.00	--	-15.56	--	P	N
0.6300	15.69	12.64	--	21.53	37.22	34.17	--	48.00	--	-13.83	--	P	N
0.7820	15.59	11.62	--	21.54	37.13	33.16	--	48.00	--	-14.84	--	P	N
1.2140	16.47	6.37	--	21.41	37.88	27.78	--	48.00	--	-20.22	--	P	N
1.4500	14.47	7.12	--	21.27	35.74	28.39	--	48.00	--	-19.61	--	P	N
1.6060	14.40	8.67	--	21.17	35.57	29.84	--	48.00	--	-18.16	--	P	N

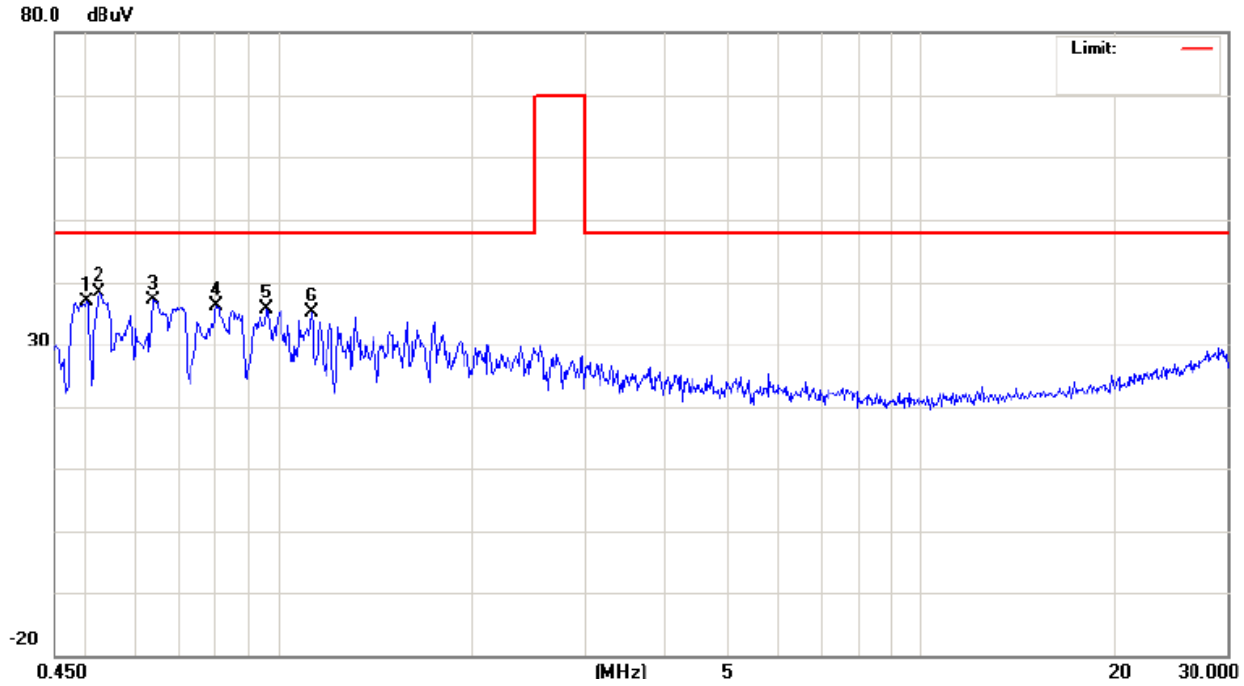
M/N : 26W/ELS-M

FCC Conducted Emission Test Result													
Frequency (MHz)	Reading Level (dBuV)			Correct Factor (dB)	Measurement (dBuV)			Limits (dBuV)		Margin		Result (P/F)	Remarks (L/N)
	Peak	Q.P.	Avg.		Peak	Q.P.	Avg.	Q.P.	Avg.	Q.P.	Avg.		
0.4820	18.88	16.49	--	21.60	40.48	38.09	--	48.00	--	-9.91	--	P	L
0.5300	22.36	14.25	--	21.56	43.92	35.81	--	48.00	--	-12.19	--	P	L
0.9840	25.71	14.69	--	21.55	47.26	36.24	--	48.00	--	-11.76	--	P	L
1.0660	24.12	12.97	--	21.50	45.62	34.47	--	48.00	--	-13.53	--	P	L
1.2760	24.60	10.06	--	21.37	45.97	31.43	--	48.00	--	-16.57	--	P	L
1.3280	25.37	10.08	--	21.34	46.71	31.42	--	48.00	--	-16.58	--	P	L
0.4660	17.21	16.10	--	21.61	38.82	37.71	--	48.00	--	-10.29	--	P	N
0.5620	19.78	16.44	--	21.55	41.33	37.99	--	48.00	--	-10.01	--	P	N
0.7260	19.54	17.55	--	21.53	41.07	39.08	--	48.00	--	-8.92	--	P	N
0.8900	18.30	16.05	--	21.58	39.88	37.63	--	48.00	--	-10.37	--	P	N
1.1700	19.76	10.94	--	21.44	41.20	32.38	--	48.00	--	-15.62	--	P	N
1.2140	22.14	12.28	--	21.41	43.55	33.69	--	48.00	--	-14.31	--	P	N

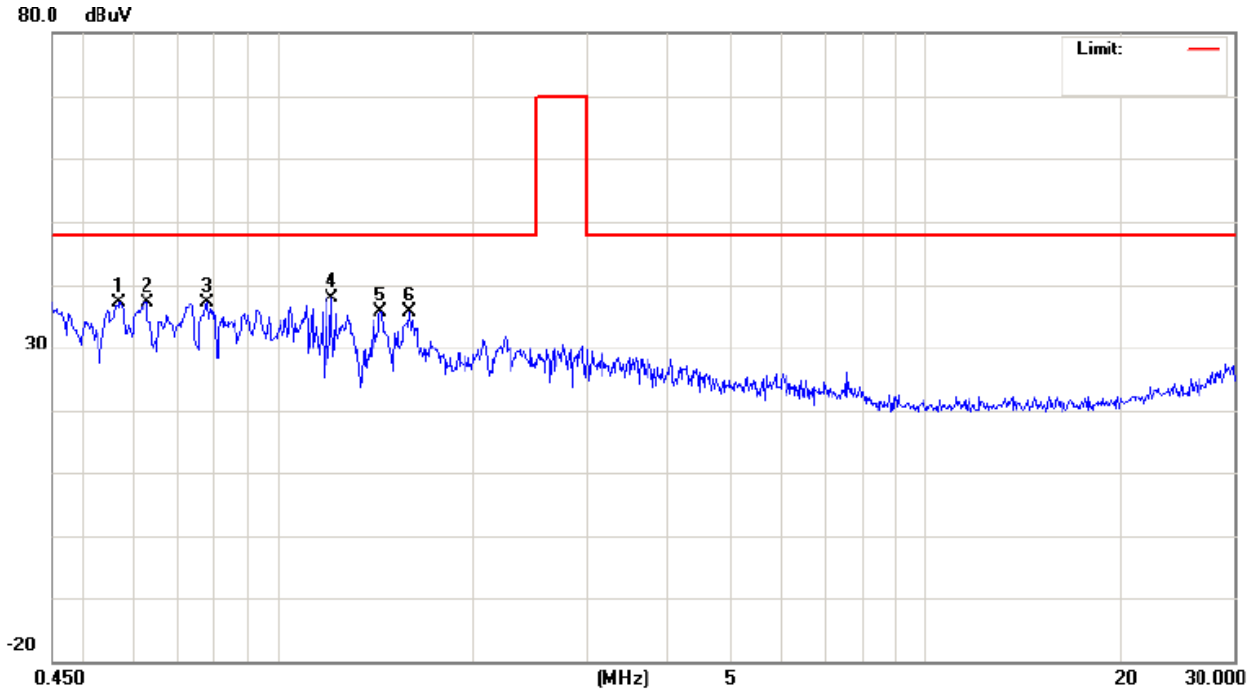
Freq.	= Emission frequency in MHz
Reading level	= Uncorrected Analyzer/Receiver reading
Factor	= Cable loss + insertion loss
Emission level	= Reading level + Factor
Limit	= Limit stated in standard
Margin	= Reading in reference to limit

Graph of Conducted Emissions:

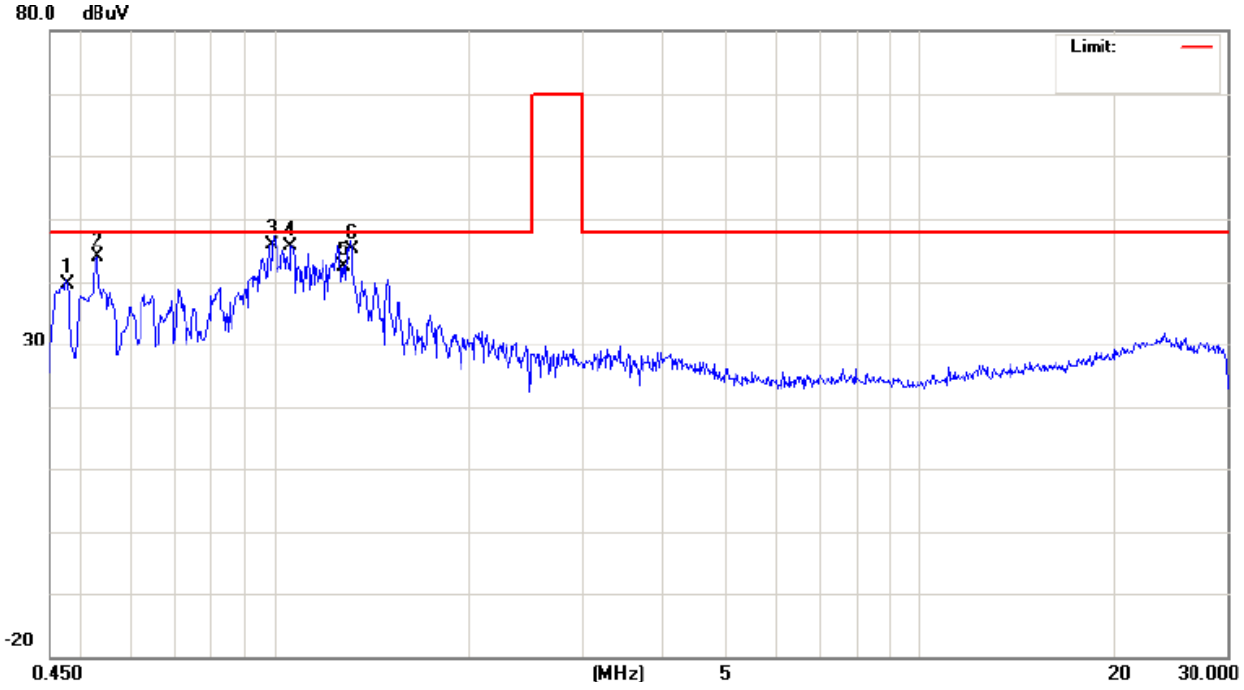
L: (normal Mode for 18W/ELS-M)



N: (normal Mode for 18W/ELS-M)



L: (normal Mode for 26W/ELS-M)



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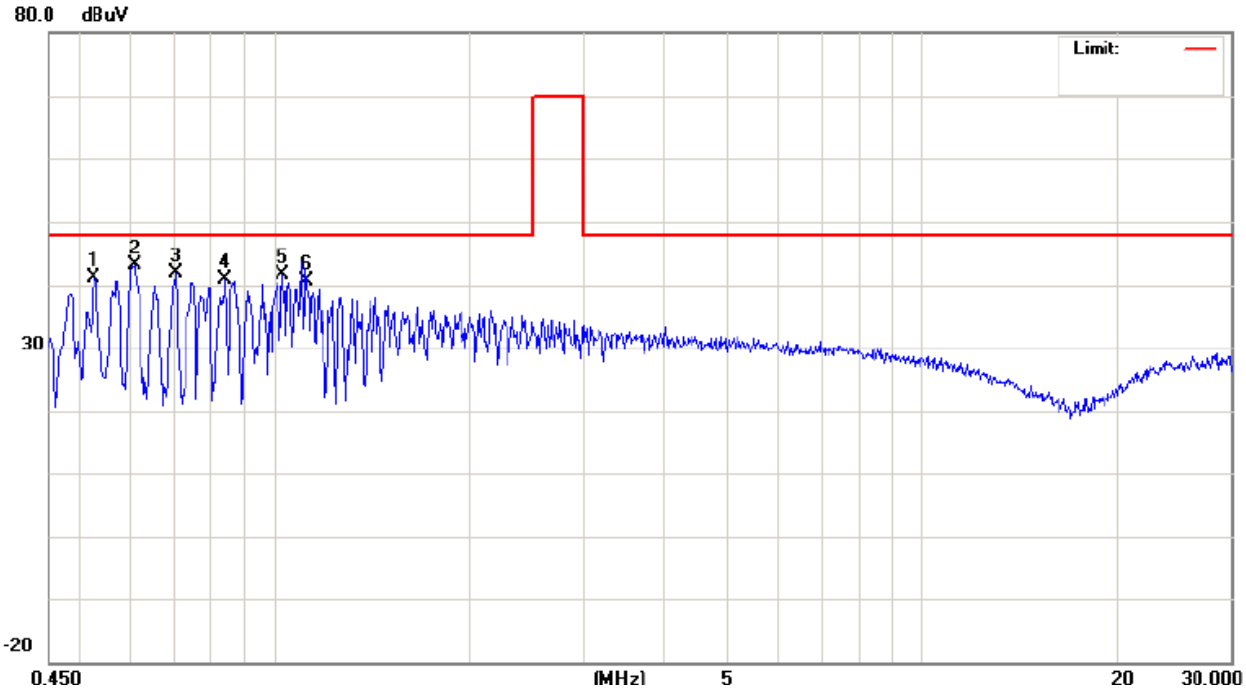


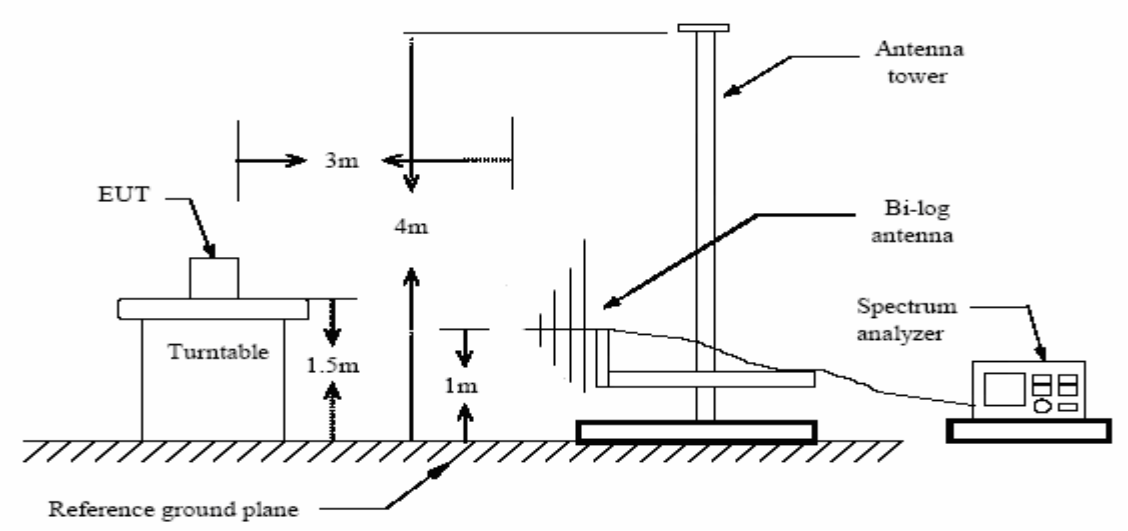
10. Radiated Emission Test

10.1 Measurement Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane, and worked normally during the whole test.
2. Maximum procedure was performed on the twelve highest emissions to ensure EUT compliance.
3. If the EUT emission level was less –6dB to the Q.P. limit in Peak mode, then the emission signal was re-checked using Q.P. detector.
4. Repeat above procedures until all frequencies measured were completed.

10.2 Test Set-up (Block Diagram of Configuration)

Radiated Emission Test Set-Up, Frequency below 1000MHz



10.3 Measurement Equipment Used

Equipment Type	Manufacturer	Model Number	Serial Number	Last Calibration	Calibration Due
Spectrum Analyzer	Agilent	E4443A	MY46185649	06/29/2008	06/28/2009
Biconilog Antenna	ETS	3142C	920250	05/30/2008	05/29/2009
ETS Horn Antenna	ETS	3117	57410	05/30/2008	05/29/2009
Multi device Controller	ETS	2090	00057230	06/07/2008	06/06/2009

10.4 Measurement Results

Limit	:	FCC Part 18 Radiation	**Power**	:	AC 120V/60Hz
EUT	:	CFLs	**Temperature**	:	26℃
M/N	:	See belows	**Humidity**	:	60%
Mode	:	Normal	**Tested by**	:	Lily Yan

(The chart below shows the highest readings taken from the final data)

M/N : 18W/ELS-M

FCC Radiated Emission Test Result													
Frequency (MHz)	Reading Level (dBuv)			Correct Factor (dB)	Measurement (dBuV/m)			Limit (dBuV/m)		Margin (dB)		Result (P/F)	Remarks (H/V)
	Peak	Q.P.	Avg.		Peak	Q.P.	Avg.	Q.P.	Avg.	Q.P.	Avg.		
30.0000	7.46	--	--	17.63	25.09	--	--	40.00	--	<-10	--	P	H
102.7500	8.24	--	--	10.24	18.48	--	--	43.50	--	<-10	--	P	H
251.4833	8.51	--	--	14.18	22.69	--	--	46.00	--	<-10	--	P	H
358.1833	9.04	--	--	17.75	26.79	--	--	46.00	--	<-10	--	P	H
518.2333	9.23	--	--	20.57	29.80	--	--	46.00	--	<-10	--	P	H
650.8000	9.32	--	--	23.34	32.66	--	--	46.00	--	<-10	--	P	H
30.0000	8.88	--	--	17.63	26.51	--	--	40.00	--	<-10	--	P	V
59.1000	18.88	15.37	--	8.42	27.30	23.79	--	40.00	--	-16.21	--	P	V
114.0667	15.58	11.96	--	9.53	25.11	21.49	--	40.00	--	-18.51	--	P	V
298.3667	8.29	--	--	15.76	24.05	--	--	43.50	--	<-10	--	P	V
477.8167	9.35	--	--	20.08	29.43	--	--	46.00	--	<-10	--	P	V
553.8000	9.10	--	--	21.46	30.56	--	--	46.00	--	<-10	--	P	V

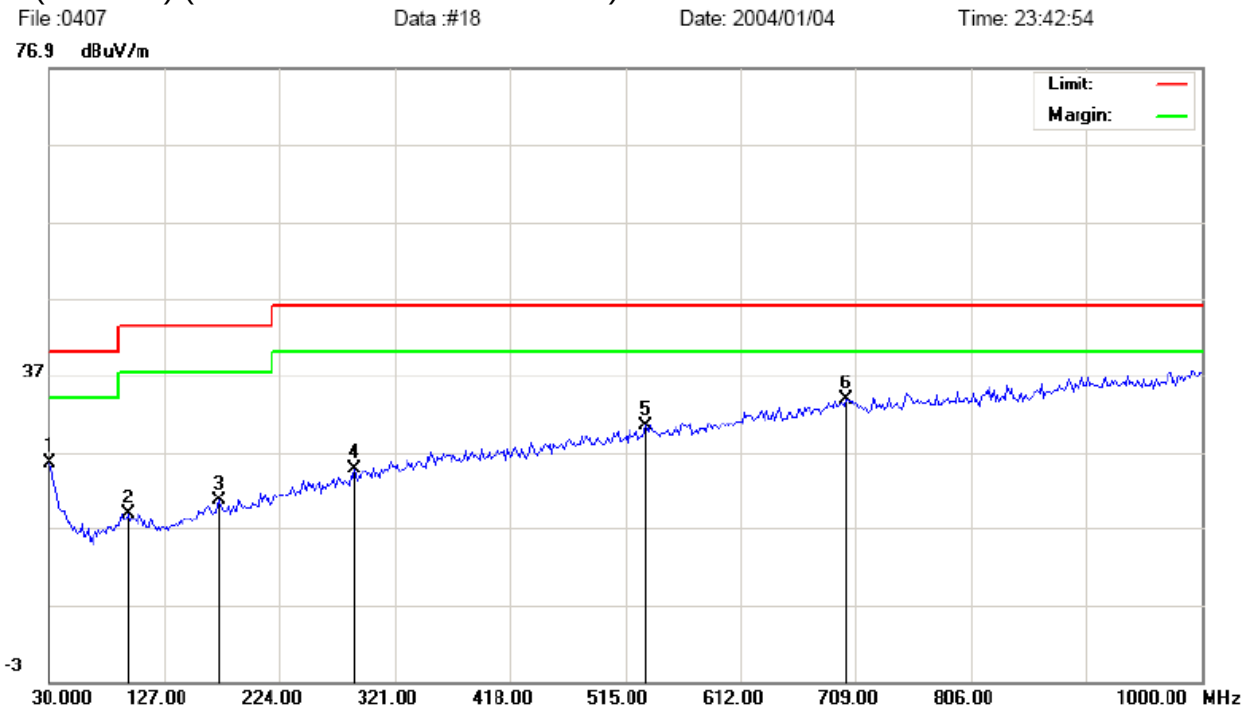
M/N : 26W/ELS-M

FCC Radiated Emission Test Result													
Frequency (MHz)	Reading Level (dBuv)			Correct Factor (dB)	Measurement (dBuV/m)			Limit (dBuV/m)		Margin (dB)		Result (P/F)	Remarks (H/V)
	Peak	Q.P.	Avg.		Peak	Q.P.	Avg.	Q.P.	Avg.	Q.P.	Avg.		
30.0000	8.23	7.39	--	17.63	25.86	25.02	--	40.00	--	-14.98	--	P	H
97.9000	9.22	--	--	10.33	19.55	--	--	43.50	--	<-10	--	P	H
251.4833	10.01	--	--	14.18	24.19	--	--	46.00	--	<-10	--	P	H
333.9332	9.67	--	--	17.12	26.79	--	--	46.00	--	<-10	--	P	H
594.2166	10.38	--	--	22.01	32.39	--	--	46.00	--	<-10	--	P	H
776.8999	9.91	--	--	24.90	34.81	--	--	46.00	--	<-10	--	P	H
31.6167	12.75	10.59	--	16.67	29.42	27.26	--	40.00	--	-12.74	--	P	V
59.1000	20.85	--	--	8.42	29.27	--	--	40.00	--	<-10	--	P	V
160.9500	9.16	--	--	11.27	20.43	--	--	40.00	--	<-10	--	P	V
287.0500	9.79	--	--	15.30	25.09	--	--	43.50	--	<-10	--	P	V
616.8500	10.09	--	--	22.91	33.00	--	--	46.00	--	<-10	--	P	V
846.4167	10.10	--	--	25.61	35.71	--	--	46.00	--	<-10	--	P	V

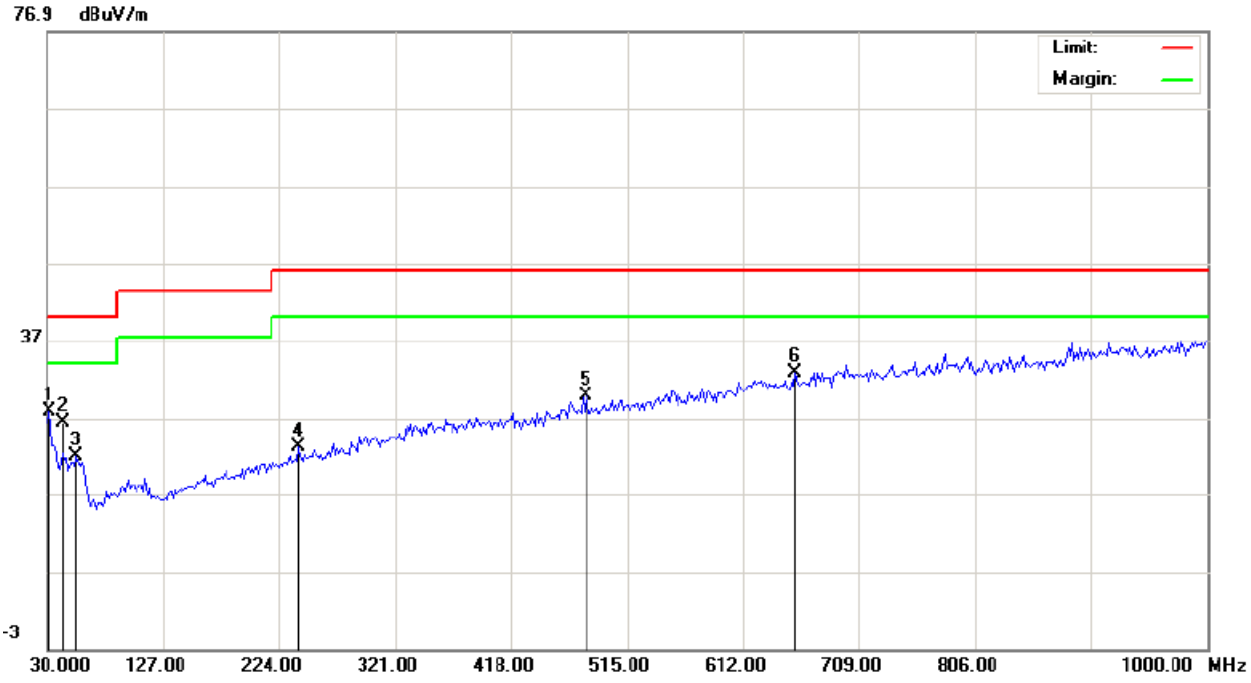
Freq.	=	Emission frequency in MHz
Raw Data (dBuV/m)	=	Uncorrected Analyzer / Receiver reading
Corr. Factor (dB)	=	Correction factors of antenna factor and cable loss
Emiss. Leve	=	Raw reading converted to dBuV/m and CF added
Limit dBuV/m	=	Limit stated in standard
Margin dB	=	Reading in reference to limit
PK	=	Peak Reading
QP	=	Quasi-peak

Graph of Radiated Emissions:

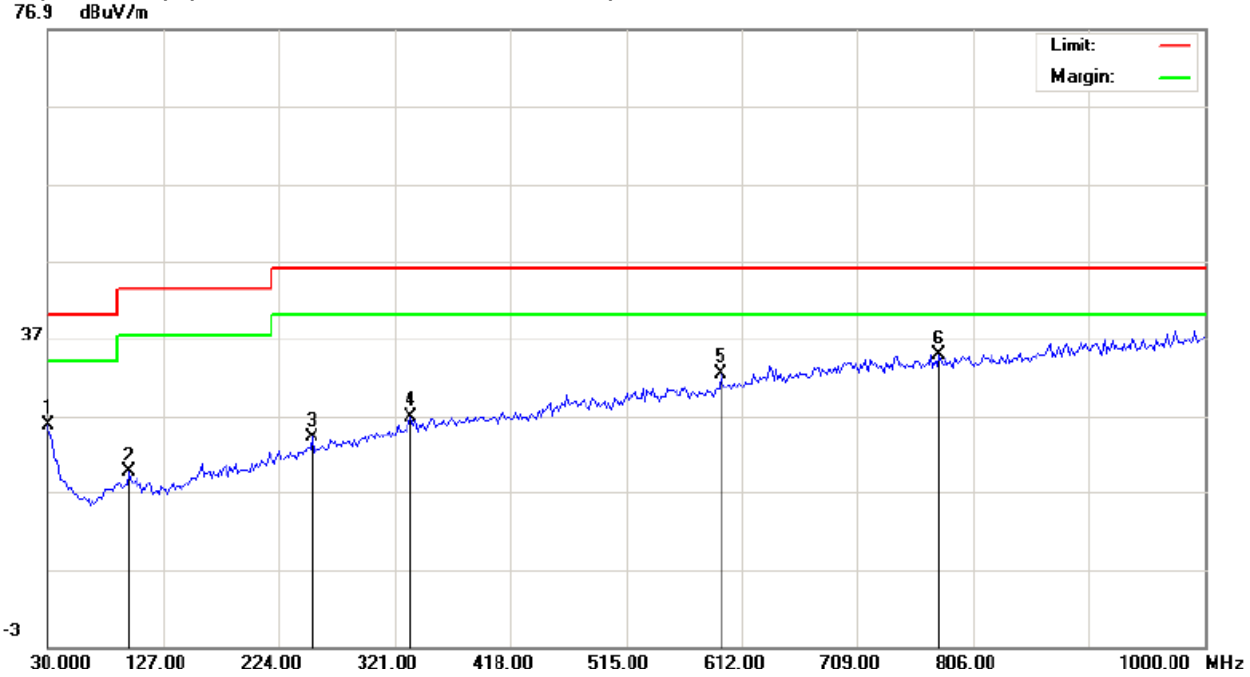
H:(Antenna) (normal mode for 18W/ELS-M)



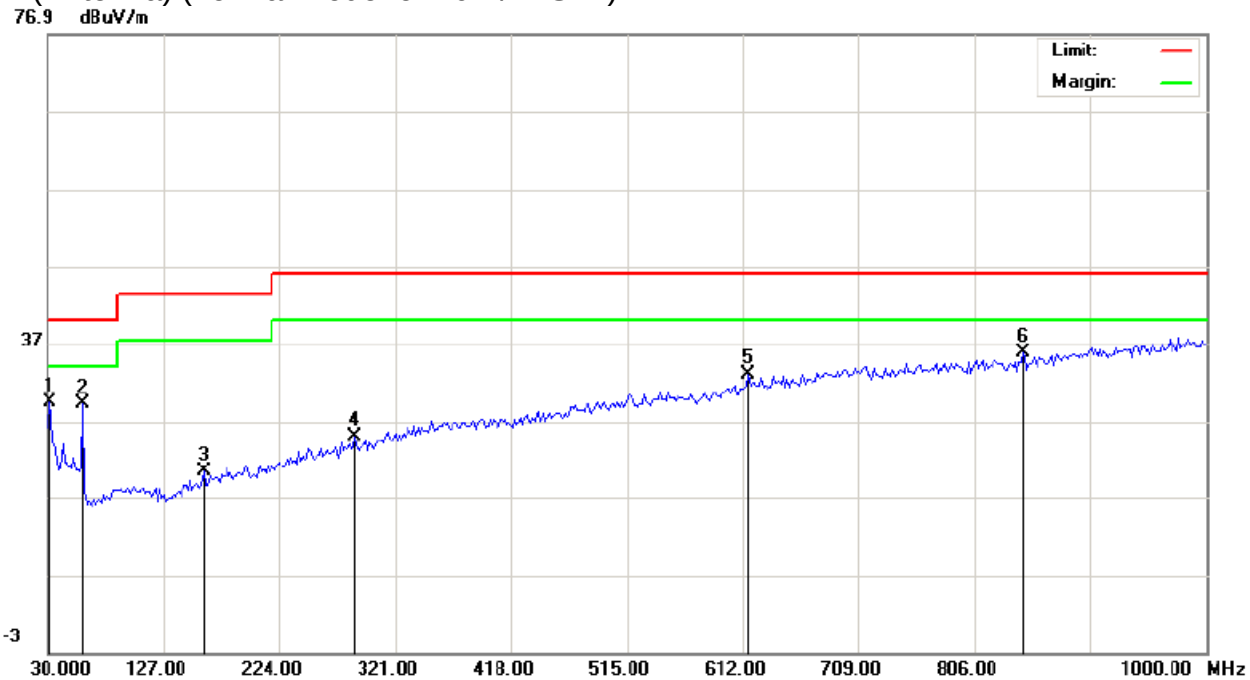
V:(Antenna) (normal mode for 18W/ELS-M)



H:(Antenna) (normal mode for 26W/ELS-M)



V:(Antenna) (normal mode for 26W/ELS-M)



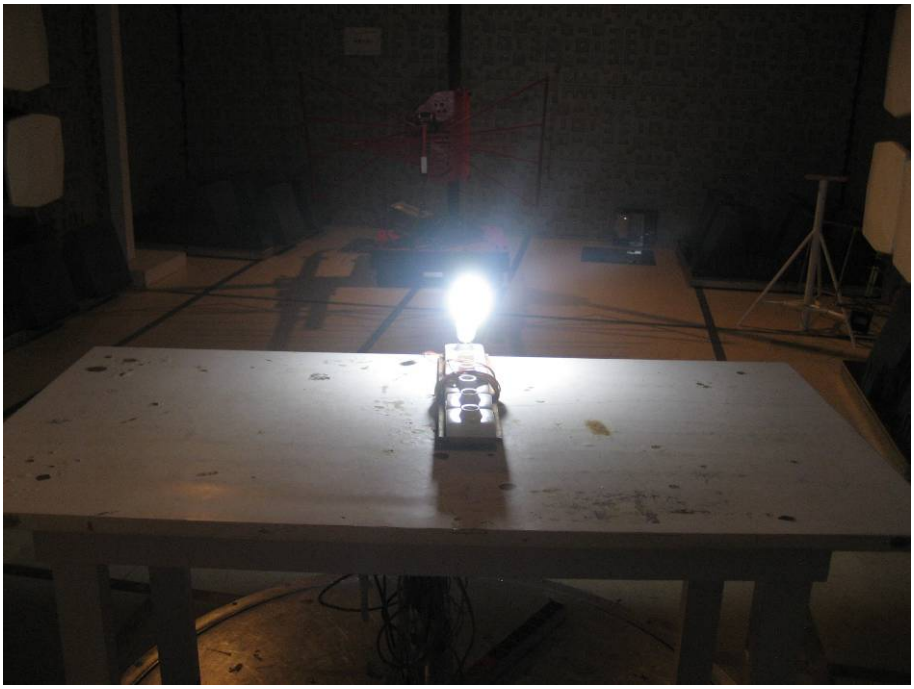
11. Measurement Uncertainty

Conduction Uncertainty : ± 2.7dB
Radiation Uncertainty : ± 3.8dB

APPENDIX 1 PHOTOGRAPHS OF TEST SETUP

CONDUCTED EMISSION TEST

RADIATED EMISSION TEST



APPENDIX 2 EXTERNAL PHOTOGRAPHS OF EUT

Whole View of EUT-18W/ELS-M & 18W/ELS-M/50K

Whole View of EUT-20W/ELS-M & 20W/ELS-M/50K

Whole View of EUT-23W/ELS-M & 23W/ELS-M/50K

Whole View of EUT-26W/ELS-M

----End of the report----