

Application for FCC Certificate
On Behalf of
Xiamen Longstar Lighting Co., Ltd.

Energy Saving Lamp

Model No.:	FE- II SD-9W	FE- II SD-11W	FE- II SD-13W	FE- II SD-15W	FE- II SD-18W
	FE- II SD-20W	FE-USD-13W	FE-USD-15W	FE-USD-18W	FE-USD-20W
	FE-USD-23W	FE-USD-26W	FE-USD-30W	FE- I SD-15W	FE- I SD-18W
	FE- I SD-20W	FE- I SD-23(24)W	FE- I SD-26(25)W	FE- I SD-30W	FE-R20D-9W
	FE-R20D-11W	FE-R25D-11W	FE-R25D-13W	FE-R30D-13W	FE-R30D-15W
	FE-R38D-16W	FE-R38D-20W	FE-R40D-16W	FE-R40-20W	FE-G25DA-9W
	FE-G25DA-11W	FE-G25DB-13W	FE-G25DB-16W	FE-G30DA-15W	FE-G30DA-18W
	FE-G30DB-20W	FE-G30DB-23W	FE-G40D-20W	FE-G40D-23W	FE-G40D-26W
	FE-G40D-32W	FE-ALD-20W	FE-ALD-24W	FE-T9D-22W	FE-T9D-32W

FCC ID: PKCLS0302

Prepared For : Xiamen Longstar Lighting Co., Ltd.
Chengnan Industrial Zone,
Tongan, Xiamen, China
361100

Prepared By : Audix Technology (Shanghai) Co., Ltd.
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Report No. : ACI-F03035
Date of Test : Mar 18-Jun 11, 2003
Date of Report : Jun 20, 2003

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TEST REPORT FOR FCC CERTIFICATE

Applicant : Xiamen Longstar Lighting Co., Ltd.

Manufacturer : Xiamen Longstar Lighting Co., Ltd.

EUT Description : Energy Saving Lamp

(A) Model No.:

FE-II SD-9W, FE-II SD-11, FE-II SD-13W, FE-II SD-15W, FE-II SD-18W,
FE-II SD-20W, FE-USD-13W, FE-USD-15W, FE-USD-18W, FE-USD-20W,
FE-USD-23W, FE-USD-26W, FE-USD-30W, FE-I SD-15W, FE-I SD-18W,
FE-I SD-20W, FE-I SD-23(24)W, FE-I SD-26(25)W, FE-I SD-30W,
FE-R20D-9W, FE-R20D-11W, FE-R25D-11W, FE-R25D-13W, FE-R30D-13W,
FE-R30D-15W, FE-R38D-16W, FE-R38D-20W, FE-R40D-16W, FE-R40-20W,
FE-G25DA-9W, FE-G25DA-11W, FE-G25DB-13W, FE-G25DB-16W,
FE-G30DA-15W, FE-G30DA-18W, FE-G30DB-20W, FE-G30DB-23W,
FE-G40D-20W, FE-G40D-23W, FE-G40D-26W, FE-G40D-32D,
FE-ALD-20W, FE-ALD-24W, FE-T9D-22W, FE-T9D-32W

(B) Power Supply: 120V/60Hz

Test Procedure Used:

FCC RULES AND REGULATIONS PART 18 CONSUMER DEVICES (2002.10)
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 18-Jun 11, 2003

Prepared by :

Cathrin Yin 2003.7.15
CATHRIN YIN
(Assistant)

Test Engineer :

Solon Gong 2003.7.15
SOLON GONG
For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Reviewer :

Sammy Chen 2003.7.15
SAMMY CHEN
(Engineer)

Approved Signatory :

Byron Kwo 2003.7.15
BYRON KWONG
Authorized Signatory(s)
(Assistant Manager)

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test

Description : Energy Saving Lamp

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

Model Number : FE- II SD-9W, FE- II SD-11, FE- II SD-13W, FE- II SD-15W, FE- II SD-18W, FE- II SD-20W, FE-USD-13W, FE-USD-15W, FE-USD-18W, FE-USD-20W, FE-USD-23W, FE-USD-26W, FE-USD-30W, FE- I SD-15W , FE- I SD-18W, FE- I SD-20W, FE- I SD-23(24)W, FE- I SD-26(25)W, FE- I SD-30W, FE-R20D-9W, FE-R20D-11W, FE-R25D-11W, FE-R25D-13W, FE-R30D-13W, FE-R30D-15W, FE-R38D-16W, FE-R38D-20W, FE-R40D-16W, FE-R40-20W, FE-G25DA-9W, FE-G25DA-11W, FE-G25DB-13W, FE-G25DB-16W, FE-G30DA-15W, FE-G30DA-18W, FE-G30DB-20W, FE-G30DB-23W, FE-G40D-20W, FE-G40D-23W, FE-G40D-26W, FE-G40D-32D, FE-ALD-20W, FE-ALD-24W, FE-T9D-22W, FE-T9D-32W

Applicant : Xiamen Longstar Lighting Co., Ltd.
Chengnan Industrial Zone, Tongan,
Xiamen, China 361100

Manufacturer : Xiamen Longstar Lighting Co., Ltd.
Chengnan Industrial Zone, Tongan,
Xiamen, China 361100

(B)					
Test Model	Apparent Power (V • A)	Real Power (W)	Test Model	Apparent Power (V • A)	Real Power (W)
FE- II SD-9W	8.6	8.29	FE- II SD-11W	11.88	10.33
FE- II SD-13W	14.29	12.35	FE- II SD-15W	16.59	13.89
FE- II SD-18W	19.12	16.97	FE- II SD -20W	20.82	18.02
FE-USD-13W	17.67	14.62	FE-USD-15W	19.66	15.06
FE-USD-18W	18.57	16.77	FE-USD-20W	21.23	18.48
FE-USD-23W	27.64	20.79	FE-USD-26W	34.55	24.8
FE-USD-30W	36.23	26.17	FE- I SD-15W	15.72	14.01
FE- I SD-18W	22.14	16.25	FE- I SD-20W	25.11	18.73
FE- I SD-23(24)W	37.6	21.2	FE- I SD-26(25)W	29.58	22.41
FE- I SD-30W	40.8	27.5	FE-R20D-9W	8.08	7.70
FE-R20D-11W	10.24	9.86	FE-R25D-11W	11.67	10.09
FE-R25D-13W	14.11	12.49	FE-R30D-13W	15.79	13.37
FE-R30D-15W	14.86	12.97	FE-R38D-16W	19.63	15.27
FE-R38D-20W	22.51	17.16	FE-R40D-16W	19.38	15.97
FE-R40D-20W	20.12	16.96	FE-G25DA-9W	15.4	8.2
FE-G25DA-11W	13.21	10.52	FE-G25DB-13W	15.03	12.50
FE-G25DB-16W	17.81	13.1	FE-G30DA-15W	15.17	12.21
FE-G30DA-18W	18.00	12.55	FE-G30DB-20W	23.31	18.11
FE-G30DB-23W	29.13	21.65	FE-G40D-20W	25.2	18.74
FE-G40D-23W	28.03	21.06	FE-G40D-26W	28.85	22.71
FE-G40D-32W	34.22	26.84	FE-ALD-20W	32.1	15.8
FE-ALD-24W	31.8	15.4	FE-T9D-22W	17.49	17.10
FE-T9D-32W	32.71	25.1			

1.2 Description of Test Facility

Site Description : Sept. 17, 1998 file on
(Semi-Anechoic Chamber) Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046, USA

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F 34Bldg 680 Guiping Rd,
Caohejing Hi-Tech Park,
Shanghai, China 200233.

NVLAP Lab Code : 200371-0

1.3 Measurement Uncertainty

Conducted Emission Uncertainty : $U = \pm 2.66\text{dB}$

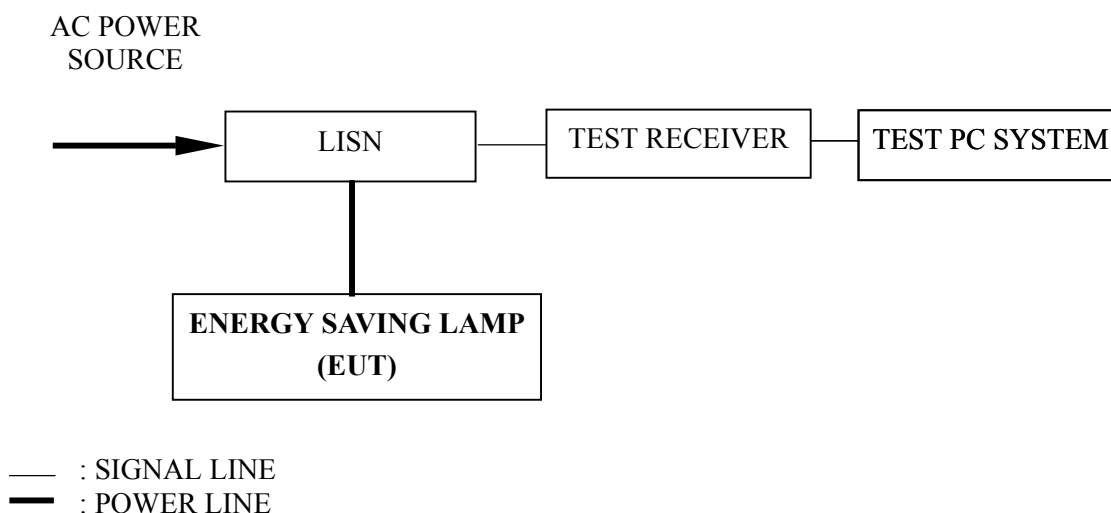
2 AC POWERLINE CONDUCTED EMISSION TEST

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 21, 2003	1 Year
2.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-5	Apr 24, 2003	1 Year

2.2 Block Diagram of Test Setup



2.3 Conducted Emission Limits

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66~56	56~46
0.5 ~ 5	56	46
5 ~ 30	60	50
NOTE 1 - Decreases with the logarithm of the frequency within the band 0.15 MHz to 5 MHz. NOTE 2 - The lower limit applies at the band edges. NOTE 3 - The average should be read if the quasi-peak's margin is below 10 dB.		

2.4 EUT Configuration on Test

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 150 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.

The waveform is attached in APPENDIX I.

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 – Probe Factor means insertion loss of LISN

NOTE 2 – Level = Read Level + Factor

NOTE 3 – Factor = Cable Loss + Probe Factor

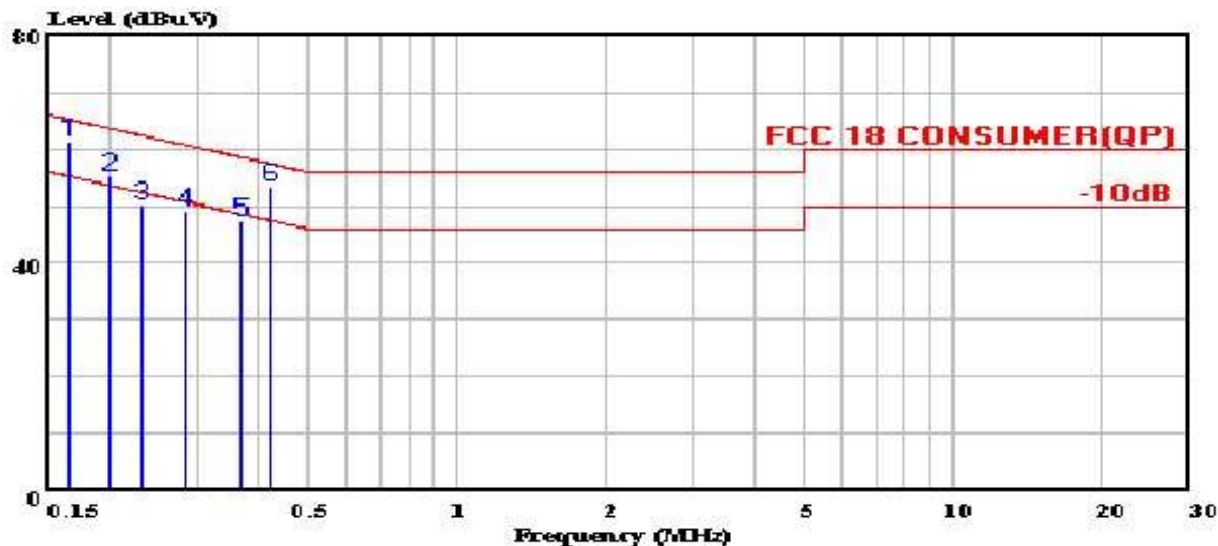
NOTE 4 – QP means Quasi-Peak Values, AV means Average Values.



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Data#: 887 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 00:00:50



Site : Conducted emission
Condition : FCC 18 CONSUMER(QP) KNW-407 VA
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-9W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : on
Test Engineer:

Solon Gong

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	Freq	Read Level	Limit Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1 !	0.165	61.21	61.43	65.19	-3.76	0.22	0.03	0.19
2 !	0.198	55.01	55.23	63.69	-8.46	0.22	0.04	0.18
3	0.231	50.17	50.38	62.42	-12.04	0.21	0.04	0.17
4	0.284	49.07	49.23	60.69	-11.46	0.16	0.04	0.12
5	0.367	47.39	47.52	58.57	-11.05	0.13	0.04	0.09
6 !	0.423	53.15	53.28	57.40	-4.12	0.13	0.04	0.09

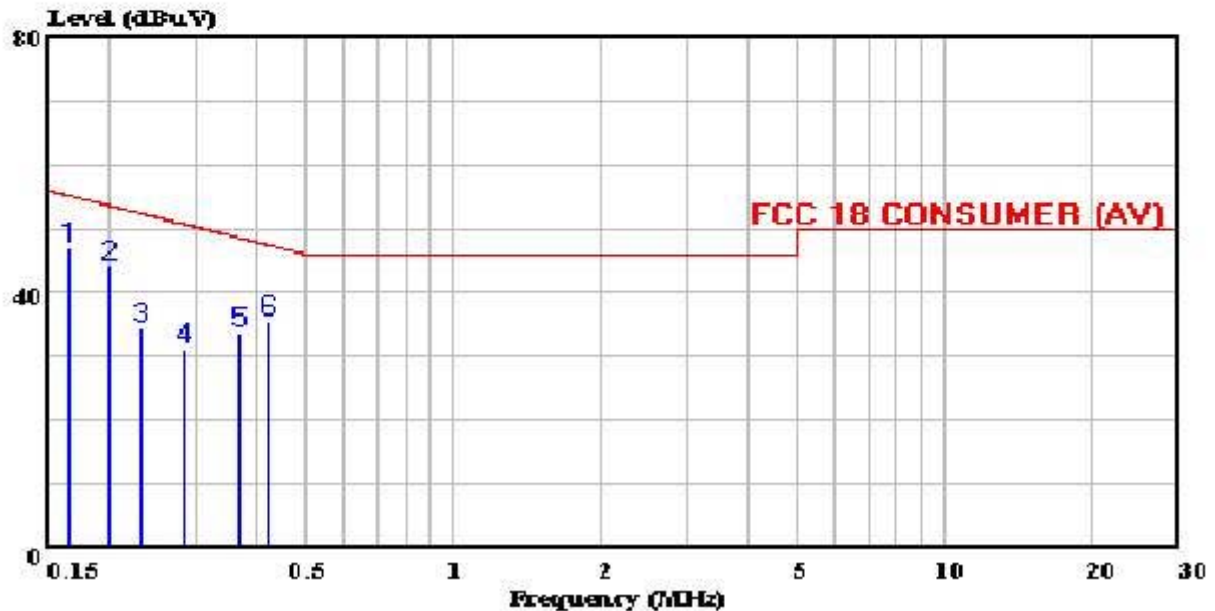
NOTE – The worst emission is detected at 0.165 MHz with corrected signal level of 61.43dB(μV) (limit is 65.19 dB(μV)), when the VA of the EUT is connected to LISN.



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Data#: 888 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 00:00:50



Site : Conducted emission
Condition : FCC 18 CONSUMER (AV) KNW-407 VA
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-9W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : on
Test Engineer:

Solon Gong

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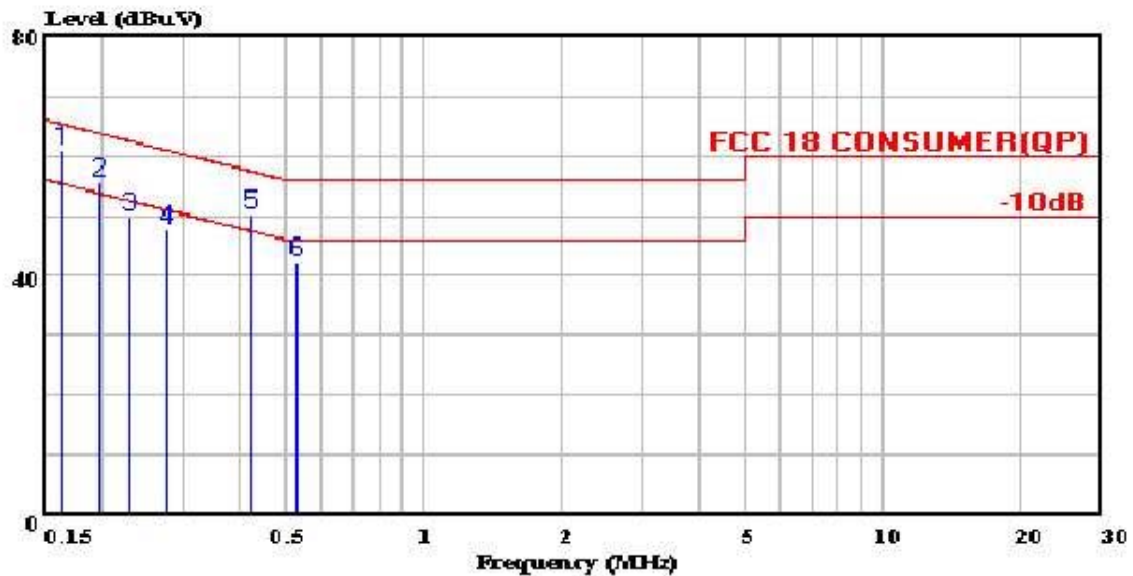
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.165	46.76	46.98	55.19	-8.21	0.22	0.03	0.19
2	0.199	43.76	43.98	53.67	-9.69	0.22	0.04	0.18
3	0.231	34.18	34.39	52.42	-18.03	0.21	0.04	0.17
4	0.284	31.09	31.25	50.69	-19.44	0.16	0.04	0.12
5	0.367	33.61	33.74	48.57	-14.83	0.13	0.04	0.09
6	0.423	35.50	35.63	47.40	-11.77	0.13	0.04	0.09



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Date: 2003-05-10 Time: 00:10:47



Site : Conducted emission
Condition : FCC 18 CONSUMER(QP) KNW-407 VB
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-9W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode :
Test Engineer: *Solon Gong*

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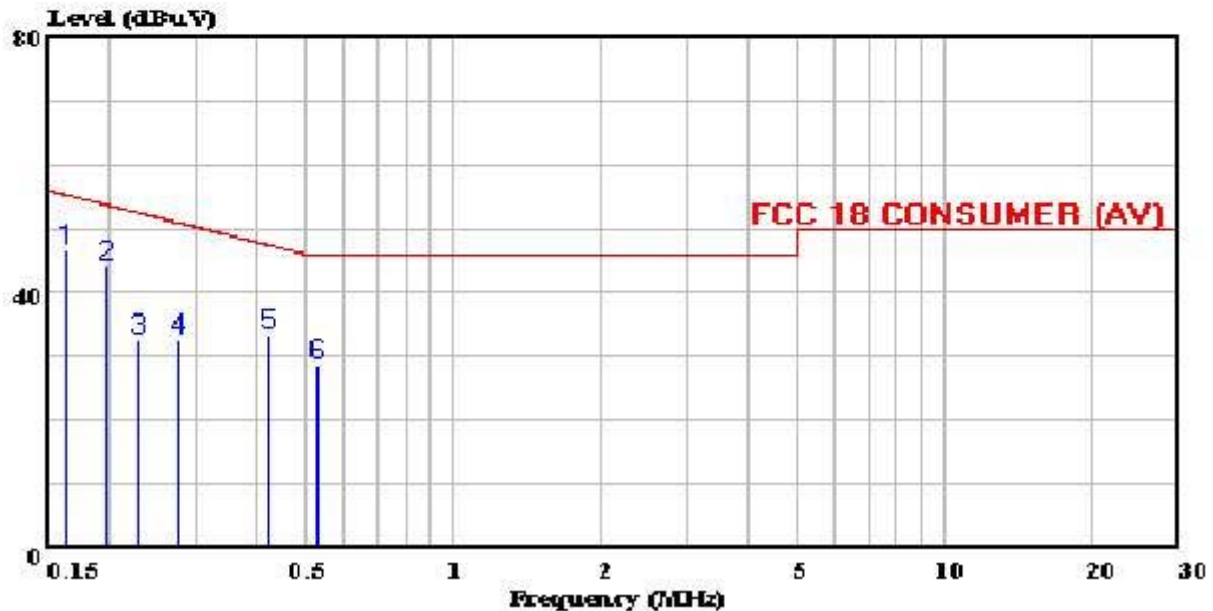
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.162	60.78	61.02	65.34	-4.32	0.24	0.03	0.21
2	0.198	55.35	55.55	63.70	-8.15	0.20	0.04	0.16
3	0.230	49.75	49.95	62.46	-12.51	0.20	0.04	0.16
4	0.277	47.57	47.77	60.91	-13.14	0.20	0.04	0.16
5	0.421	50.23	50.40	57.44	-7.04	0.17	0.04	0.13
6	0.530	42.20	42.35	56.00	-13.65	0.15	0.04	0.11



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Date: 2003-05-10 Time: 00:10:47



Site : Conducted emission
Condition : FCC 18 CONSUMER (AV) KNW-407 VB
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-9W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : on
Test Engineer:

Solon Gong

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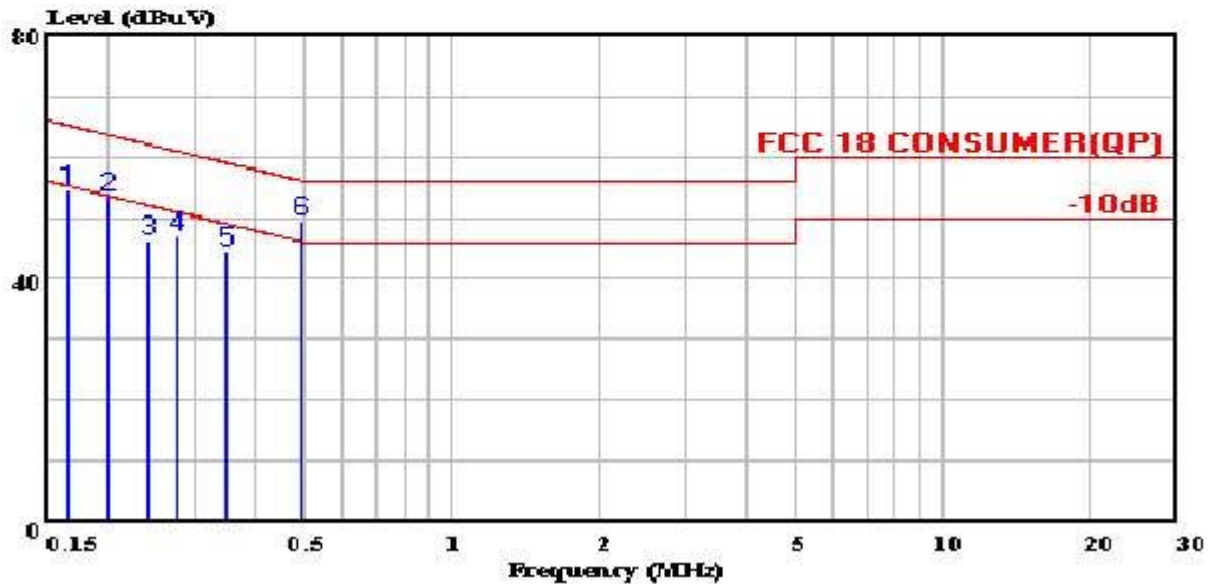
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.162	46.22	46.46	55.34	-8.88	0.24	0.03	0.21
2	0.198	43.97	44.17	53.70	-9.53	0.20	0.04	0.16
3	0.230	32.33	32.53	52.46	-19.93	0.20	0.04	0.16
4	0.277	32.39	32.59	50.91	-18.32	0.20	0.04	0.16
5	0.421	33.08	33.25	47.44	-14.19	0.17	0.04	0.13
6	0.530	28.72	28.87	46.00	-17.13	0.15	0.04	0.11



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Date: 2003-05-10 Time: 05:18:02



Site : Conducted emission
Condition : FCC 18 CONSUMER(QP) KNW-407 VA
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-11W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : on
Test Engineer:

Solon Gong

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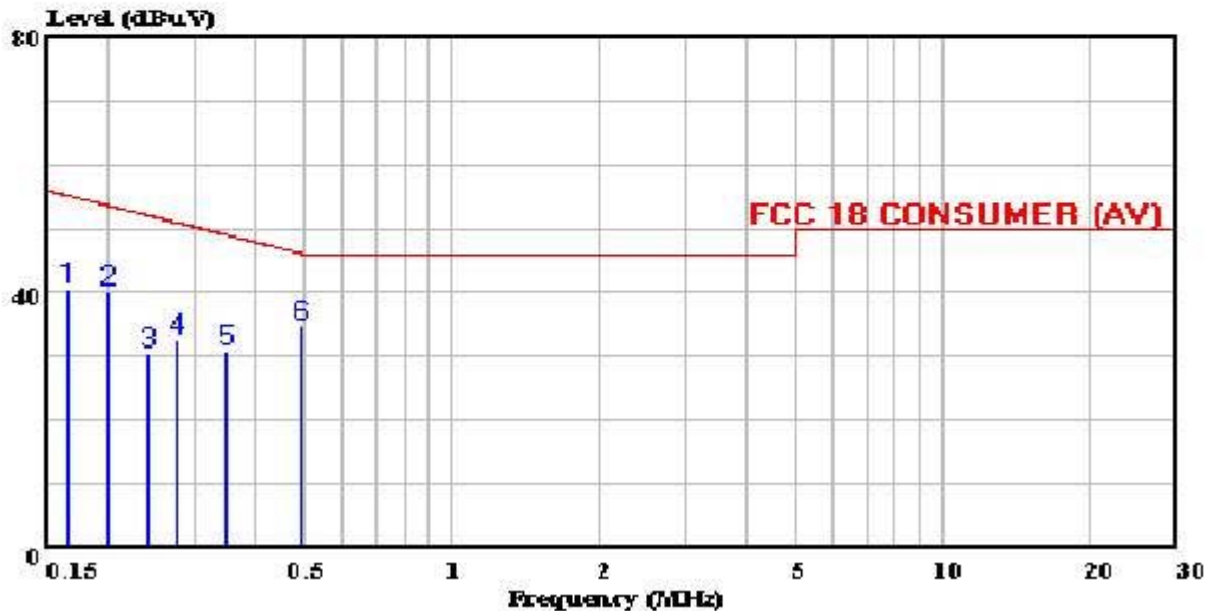
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.165	54.30	54.52	65.20	-10.68	0.22	0.03	0.19
2	0.201	53.13	53.35	63.58	-10.23	0.22	0.04	0.18
3	0.241	45.90	46.10	62.07	-15.97	0.20	0.04	0.16
4	0.277	46.85	47.02	60.89	-13.87	0.17	0.04	0.13
5	0.350	44.40	44.53	58.97	-14.44	0.13	0.04	0.09
6	0.492	49.25	49.37	56.14	-6.77	0.12	0.04	0.08



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Date: 2003-05-10 Time: 05:18:02



Site : Conducted emission
Condition : FCC 18 CONSUMER (AV) KNW-407 VA
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-11W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : on
Test Engineer:

Solon Gong

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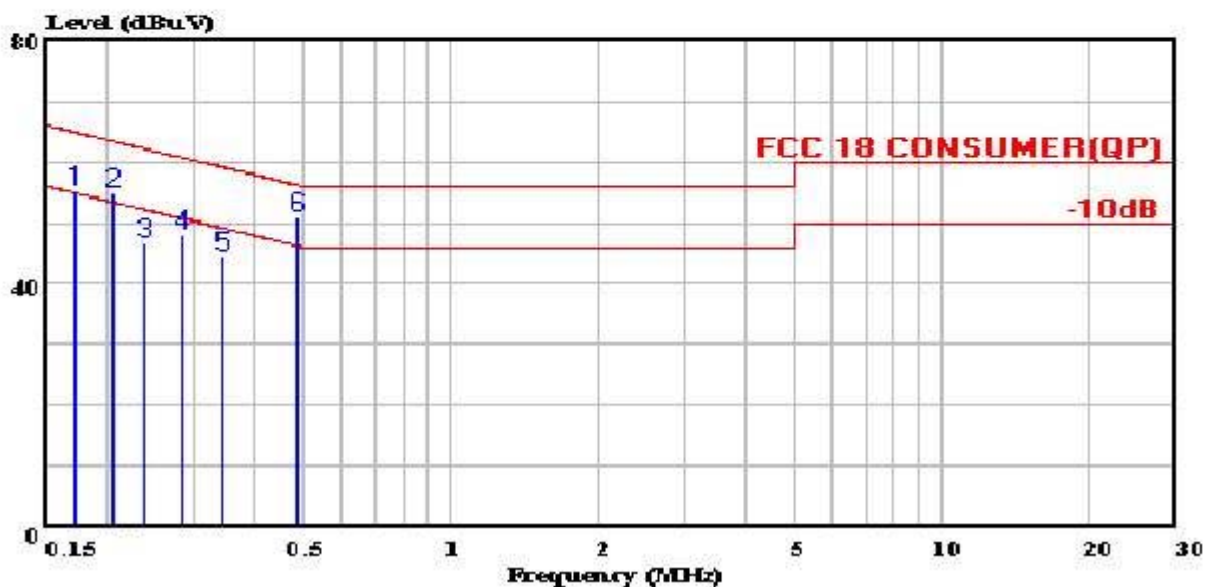
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.165	40.47	40.69	55.20	-14.51	0.22	0.03	0.19
2	0.201	39.98	40.20	53.58	-13.38	0.22	0.04	0.18
3	0.241	30.44	30.64	52.07	-21.43	0.20	0.04	0.16
4	0.277	32.55	32.72	50.89	-18.17	0.17	0.04	0.13
5	0.350	30.55	30.68	48.97	-18.29	0.13	0.04	0.09
6	0.492	34.60	34.72	46.14	-11.42	0.12	0.04	0.08



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Date: 2003-05-10 Time: 05:25:06



Site : Conducted emission
Condition : FCC 18 CONSUMER(QP) KNW-407 VB
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-11W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : on
Test Engineer:

Solon Gong

Page: 1

	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1 !	0.171	54.89	55.12	64.92	-9.80	0.23	0.03	0.20
2 !	0.206	54.64	54.84	63.37	-8.53	0.20	0.04	0.16
3	0.239	46.53	46.73	62.12	-15.39	0.20	0.04	0.16
4	0.284	47.93	48.13	60.70	-12.57	0.20	0.04	0.16
5	0.343	44.34	44.53	59.14	-14.61	0.19	0.04	0.15
6 !	0.491	50.69	50.84	56.16	-5.32	0.15	0.04	0.11

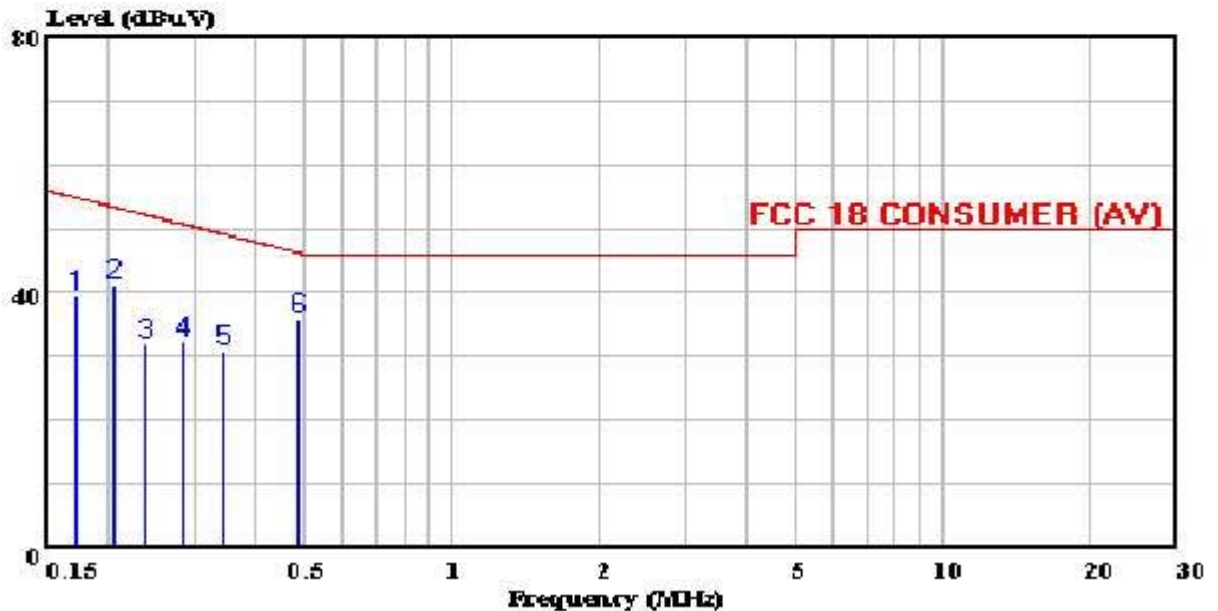
NOTE – The worst emission is detected at 0.491 MHz with corrected signal level of 50.84dB(μV) (limit is 56.16 dB(μV)), when the VB of the EUT is connected to LISN.



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Data#: 920 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 05:25:06



Site : Conducted emission
Condition : FCC 18 CONSUMER (AV) KNW-407 VB
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IIISD-11W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : on
Test Engineer: *Solon Gong*

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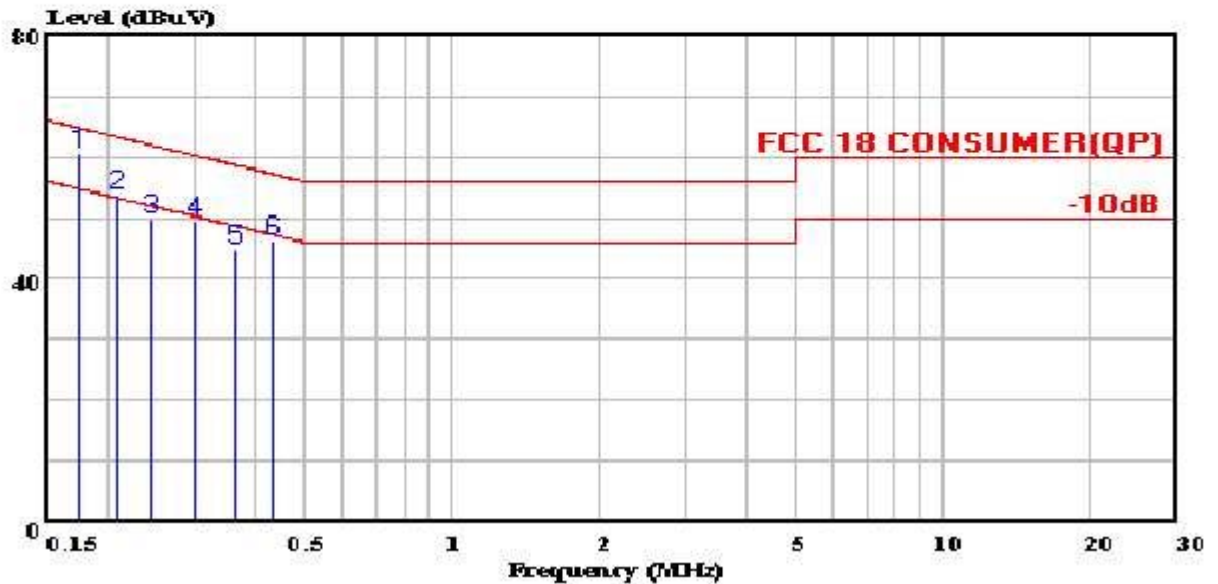
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.171	39.12	39.35	54.92	-15.57	0.23	0.03	0.20
2	0.206	41.12	41.32	53.37	-12.05	0.20	0.04	0.16
3	0.239	31.64	31.84	52.12	-20.28	0.20	0.04	0.16
4	0.284	32.22	32.42	50.70	-18.28	0.20	0.04	0.16
5	0.343	30.67	30.86	49.14	-18.28	0.19	0.04	0.15
6	0.491	35.78	35.93	46.16	-10.23	0.15	0.04	0.11



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Data#: 976 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 07:42:17



Site : Conducted emission
Condition : FCC 18 CONSUMER(QP) KNW-407 VA
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-13W
S/N :
Power Supply : 120V/60Hz
Ambient : 23°C 56%RH
Test line : VA
Test Mode : on
Test Engineer:

Solon Gong

Page: 1

	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1 !	0.174	60.38	60.60	64.77	-4.17	0.22	0.04	0.18
2 !	0.209	53.58	53.80	63.26	-9.46	0.22	0.04	0.18
3	0.245	49.80	50.00	61.93	-11.93	0.20	0.04	0.16
4	0.298	49.22	49.36	60.29	-10.93	0.14	0.04	0.10
5	0.361	44.83	44.96	58.71	-13.75	0.13	0.04	0.09
6	0.431	46.14	46.27	57.23	-10.96	0.13	0.04	0.09

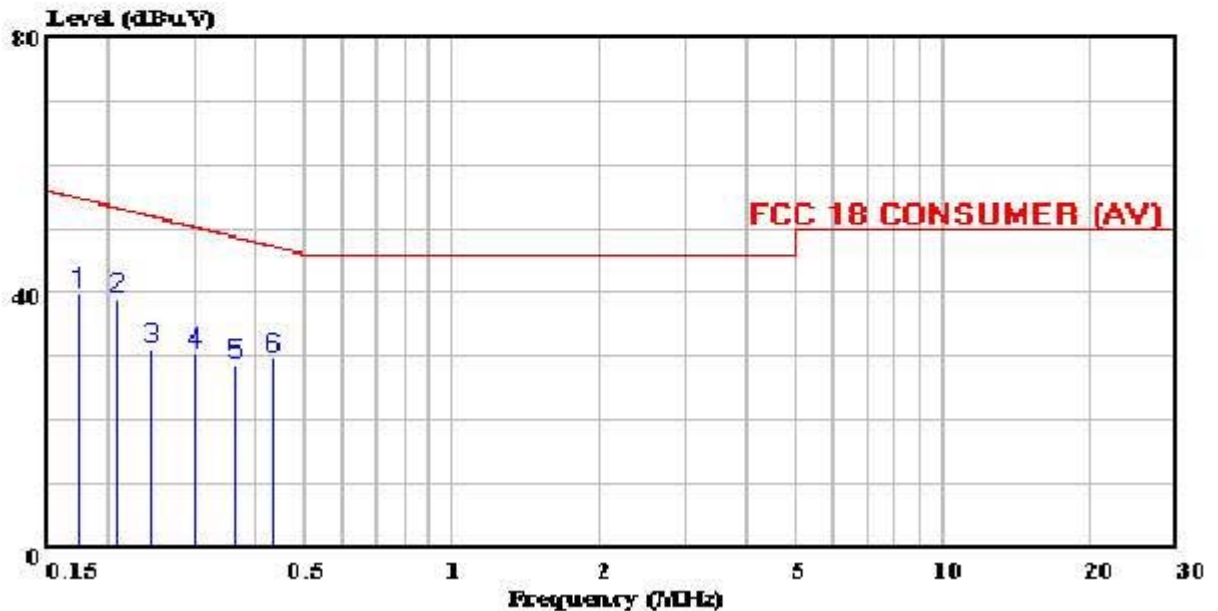
NOTE – The worst emission is detected at 0.174 MHz with corrected signal level of 60.60dB(μV) (limit is 64.77 dB(μV)), when the VA of the EUT is connected to LISN.



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Data#: 977 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 07:42:17



Site : Conducted emission
Condition : FCC 18 CONSUMER (AV) KNW-407 VA
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IIISD-13W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode :
Test Engineer: *Solon Gong*

Page: 1

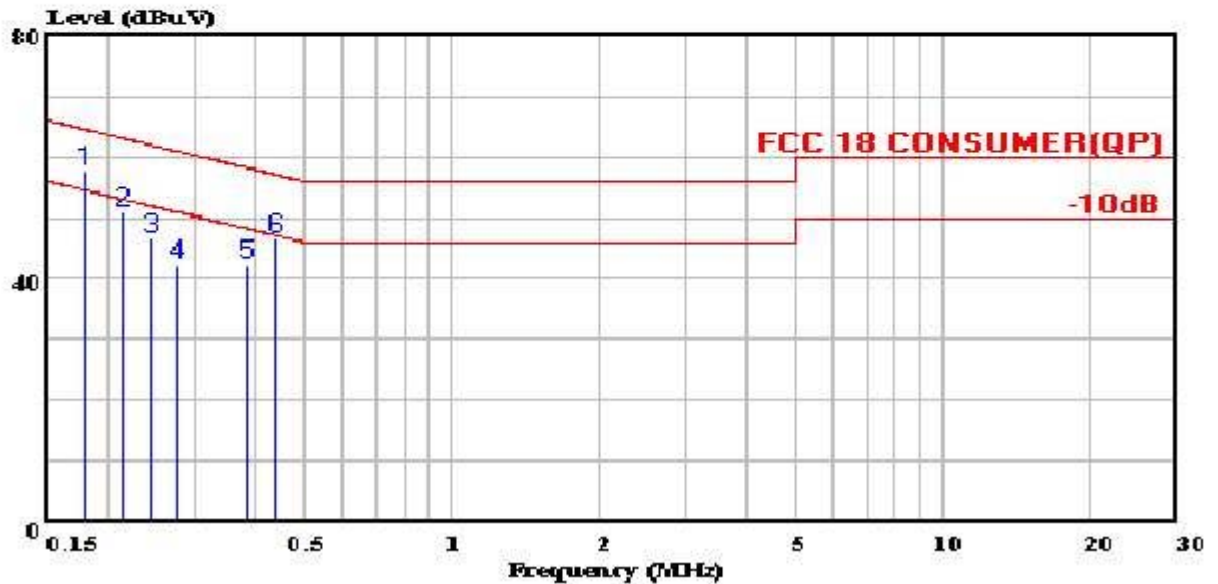
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.174	39.75	39.97	54.77	-14.80	0.22	0.04	0.18
2	0.209	38.72	38.94	53.26	-14.32	0.22	0.04	0.18
3	0.245	30.99	31.19	51.93	-20.74	0.20	0.04	0.16
4	0.298	30.18	30.32	50.29	-19.97	0.14	0.04	0.10
5	0.361	28.61	28.74	48.71	-19.97	0.13	0.04	0.09
6	0.431	29.54	29.67	47.23	-17.56	0.13	0.04	0.09



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Data#: 973 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 07:37:19



Site : Conducted emission
Condition : FCC 18 CONSUMER(QP) KNW-407 VB
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-13W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : on
Test Engineer:

Solon Gong

Page: 1

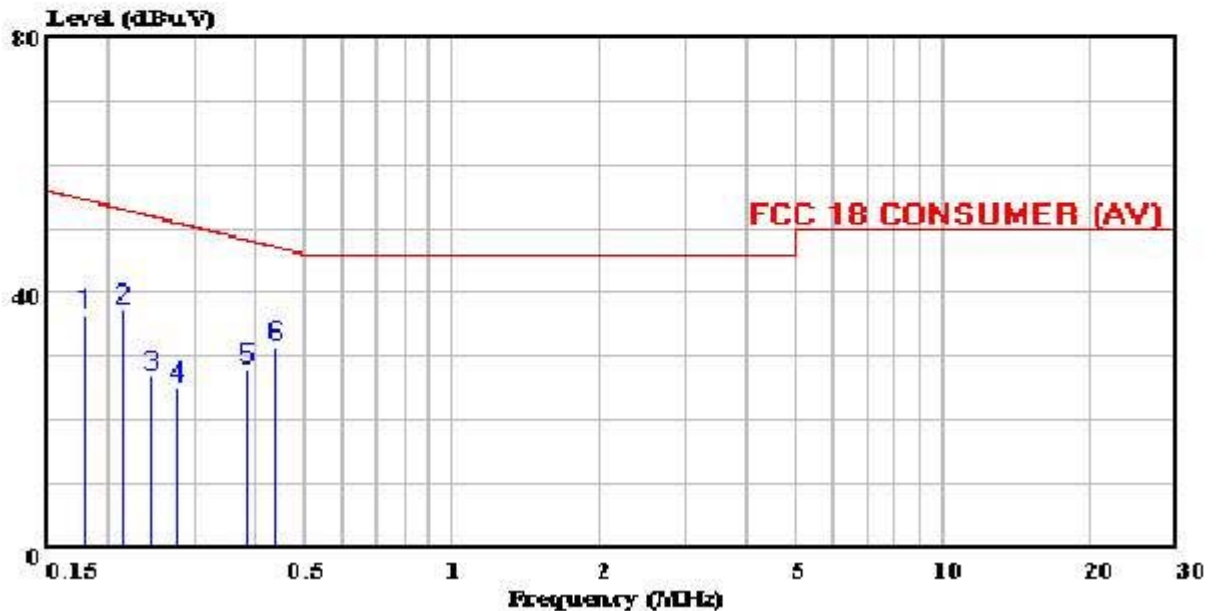
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.178	57.59	57.82	64.58	-6.76	0.23	0.04	0.19
2	0.212	50.84	51.04	63.12	-12.08	0.20	0.04	0.16
3	0.244	46.42	46.62	61.96	-15.34	0.20	0.04	0.16
4	0.278	41.97	42.17	60.88	-18.71	0.20	0.04	0.16
5	0.382	42.21	42.39	58.23	-15.84	0.18	0.04	0.14
6	0.436	46.62	46.78	57.14	-10.36	0.16	0.04	0.12



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Data#: 974 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 07:37:19



Site : Conducted emission
Condition : FCC 18 CONSUMER (AV) KNW-407 VB
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-13W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : on
Test Engineer:

Solon Gong

Page: 1

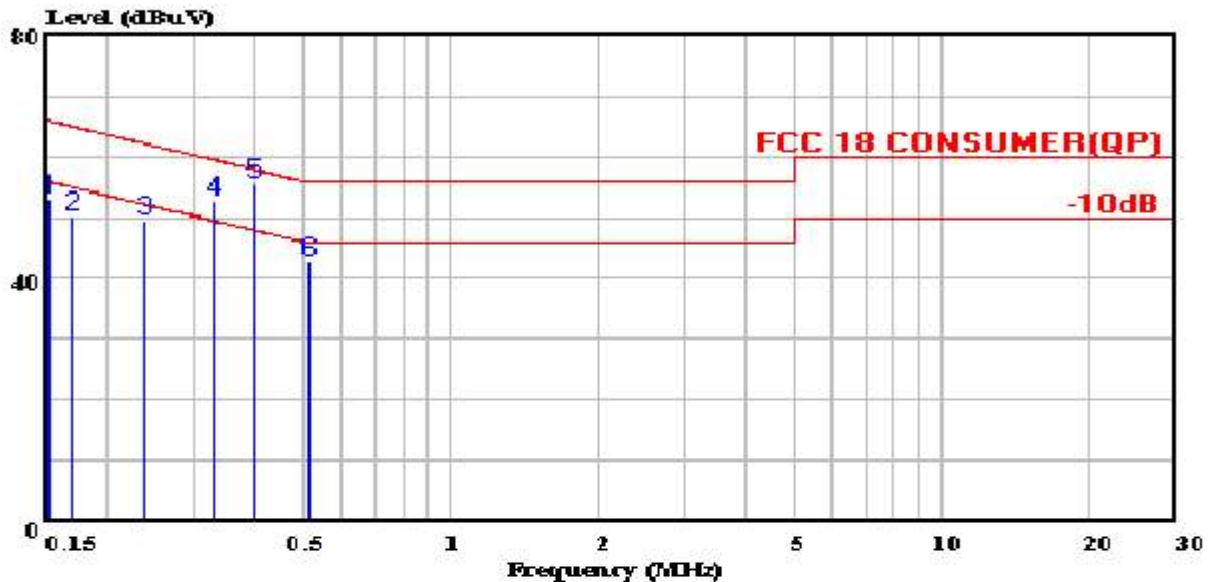
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.178	36.18	36.41	54.58	-18.17	0.23	0.04	0.19
2	0.212	37.22	37.42	53.12	-15.70	0.20	0.04	0.16
3	0.244	26.72	26.92	51.96	-25.04	0.20	0.04	0.16
4	0.278	25.09	25.29	50.88	-25.59	0.20	0.04	0.16
5	0.382	27.70	27.88	48.23	-20.35	0.18	0.04	0.14
6	0.436	31.50	31.66	47.14	-15.48	0.16	0.04	0.12



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Data#: 896 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 00:24:03



Site : Conducted emission
Condition : FCC 18 CONSUMER(QP) KNW-407 VA
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : ing Lamp
M/N : 120V/60Hz W
S/N : E03033145
Power Supply : 120V/50Hz
Ambient : 23°C 56%RH
Test line :
Test Mode : *Solon Gong*
Test Engineer:

Page: 1

	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.152	52.83	53.05	65.90	-12.85	0.22	0.03	0.19
2	0.170	49.91	50.13	64.97	-14.84	0.22	0.03	0.19
3	0.238	49.13	49.33	62.17	-12.84	0.20	0.04	0.16
4 !	0.331	52.47	52.61	59.43	-6.82	0.14	0.04	0.10
5 !	0.398	55.33	55.46	57.90	-2.44	0.13	0.04	0.09
6	0.518	42.42	42.54	56.00	-13.46	0.12	0.04	0.08

NOTE 1 – The worst emission is detected at 0.398 MHz with corrected signal level of 55.46dB(μV) (limit is 57.90 dB(μV)), when the VA of the EUT is connected to LISN.

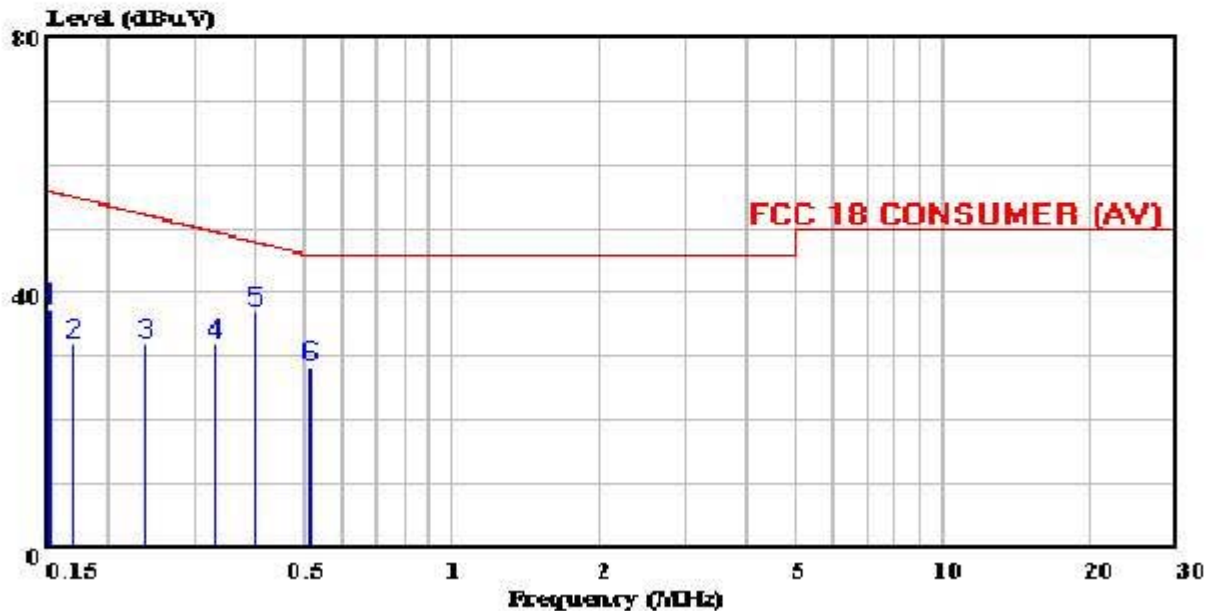
NOTE 2 –At the frequency 0.398 MHz the measured result is below the specification limit by a margin less than the measurement uncertainty, it is not therefore possible to determine compliance at a level of confidence of 95%. However, the measured result indicates a higher probability that the product tested complies with the specification limit.



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Data#: 897 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 00:24:03



Site : Conducted emission
Condition : FCC 18 CONSUMER (AV) KNW-407 VA
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-15W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : on
Test Engineer: *Solon Gong*

Page: 1

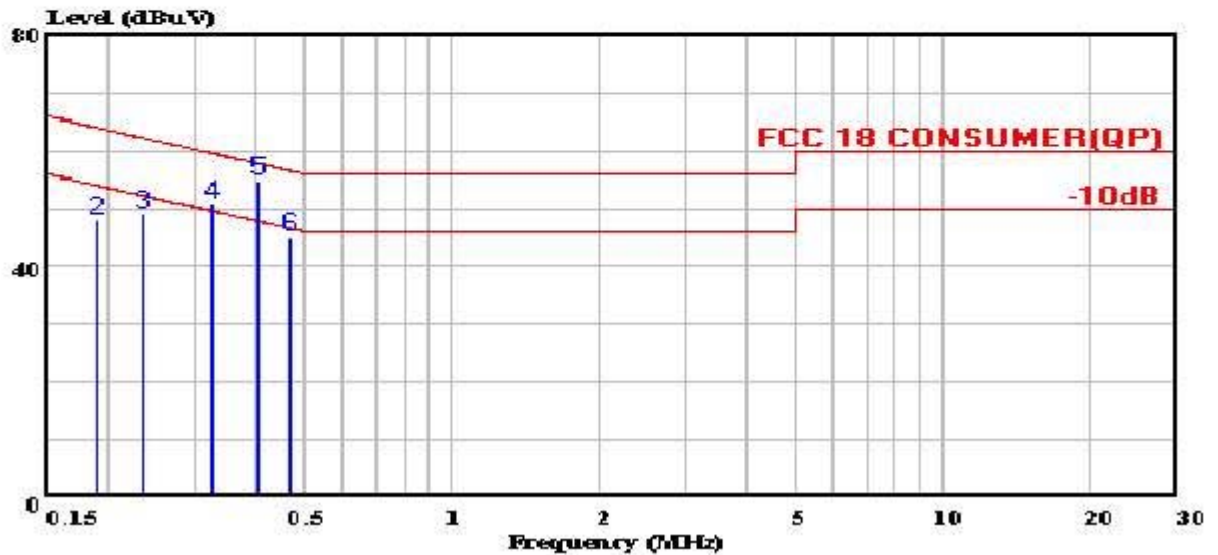
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.152	36.94	37.16	55.90	-18.74	0.22	0.03	0.19
2	0.170	31.84	32.06	54.97	-22.91	0.22	0.03	0.19
3	0.238	31.85	32.05	52.17	-20.12	0.20	0.04	0.16
4	0.331	31.88	32.02	49.43	-17.41	0.14	0.04	0.10
5	0.398	36.76	36.89	47.90	-11.01	0.13	0.04	0.09
6	0.518	28.27	28.39	46.00	-17.61	0.12	0.04	0.08



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Data#: 893 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 00:17:39



Site : Conducted emission
Condition : FCC 18 CONSUMER(QP) KNW-407 VB
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-15W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VB
Test Mode : on
Test Engineer:

Salon Gong

Page: 1

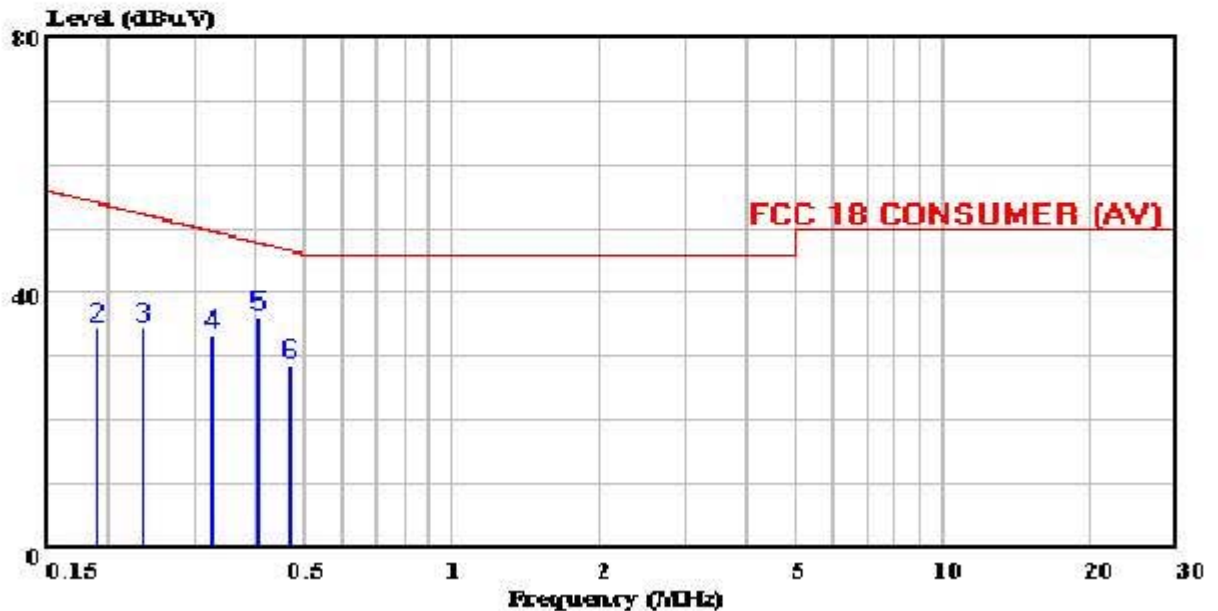
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.150	53.21	53.47	65.98	-12.51	0.26	0.03	0.23
2	0.189	47.87	48.08	64.08	-16.00	0.21	0.04	0.17
3	0.235	49.00	49.20	62.27	-13.07	0.20	0.04	0.16
4 !	0.326	50.75	50.94	59.55	-8.61	0.19	0.04	0.15
5 !	0.403	54.62	54.79	57.79	-3.00	0.17	0.04	0.13
6	0.465	45.00	45.16	56.60	-11.44	0.16	0.04	0.12



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Data#: 894 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 00:17:39



Site : Conducted emission
Condition : FCC 18 CONSUMER (AV) KNW-407 VB
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-15W
S/N :
Power Supply : 120V/60Hz
Ambient : 23°C 56%RH
Test line : VB
Test Mode : on
Test Engineer: *Solon Gong*

Page: 1

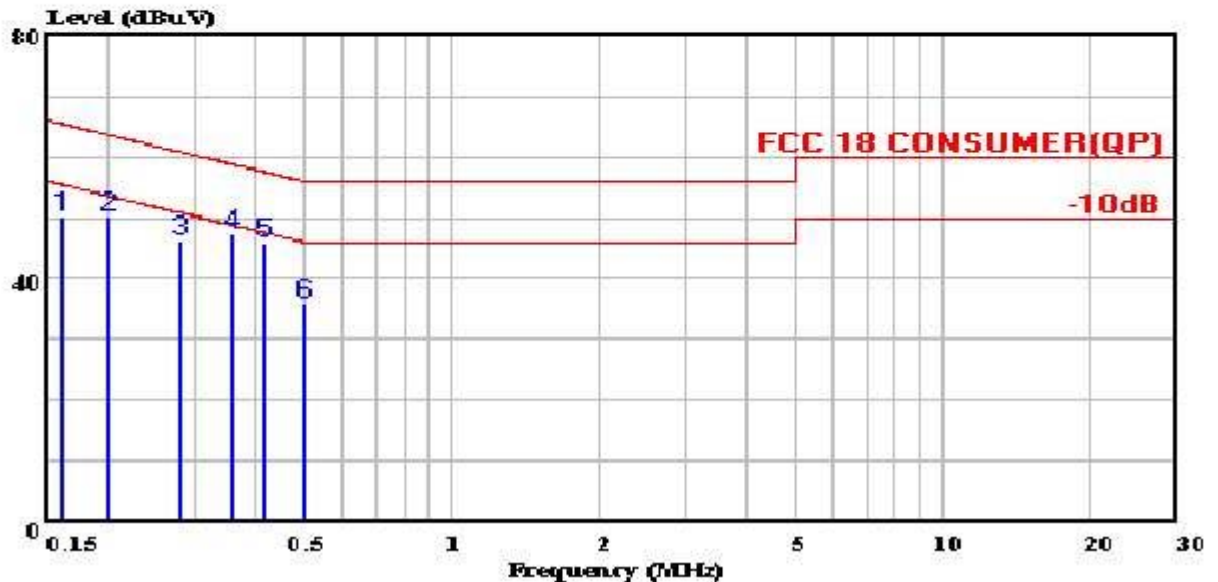
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.150	36.03	36.29	55.98	-19.69	0.26	0.03	0.23
2	0.189	34.08	34.29	54.08	-19.79	0.21	0.04	0.17
3	0.235	34.32	34.52	52.27	-17.75	0.20	0.04	0.16
4	0.326	33.07	33.26	49.55	-16.29	0.19	0.04	0.15
5	0.403	36.16	36.33	47.79	-11.46	0.17	0.04	0.13
6	0.465	28.60	28.76	46.60	-17.84	0.16	0.04	0.12



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Data#: 1160 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-06-09 Time: 10:20:05



Site : Conducted emission
Condition : FCC 18 CONSUMER(QP) KNW-407 VA
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-18W
S/N :
Power Supply : 120V/60Hz
Ambient : 23'C 56%RH
Test line : VA
Test Mode : ON
Test Engineer:

Salon Gong

Page: 1

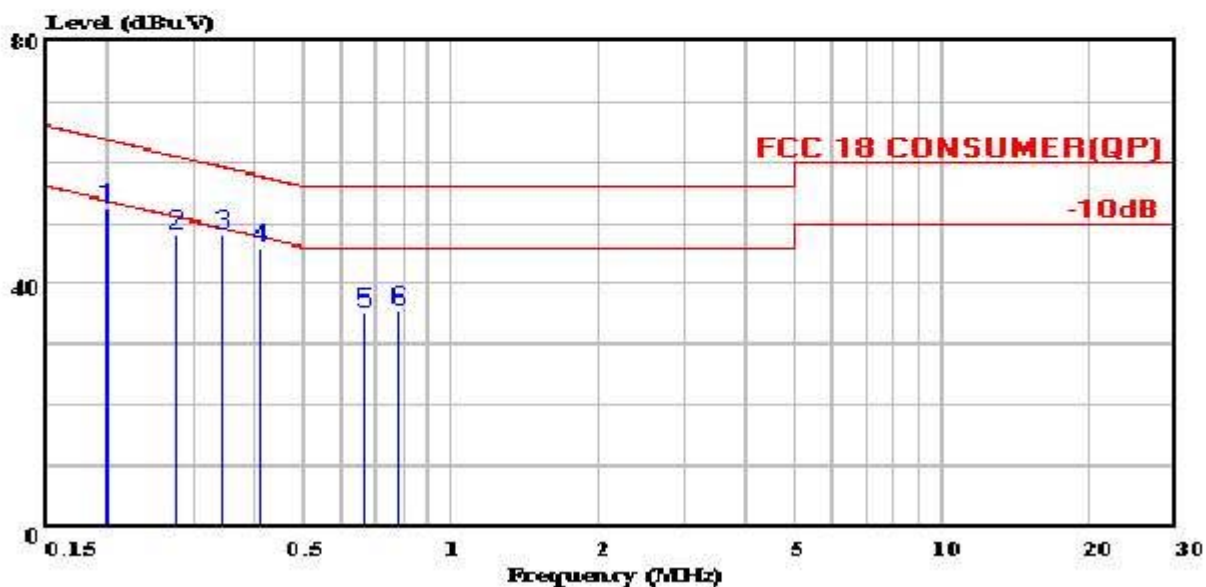
	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.161	49.95	50.17	65.43	-15.26	0.22	0.03	0.19
2	0.199	49.92	50.14	63.67	-13.53	0.22	0.04	0.18
3	0.280	46.15	46.31	60.81	-14.50	0.16	0.04	0.12
4	0.356	47.16	47.29	58.83	-11.54	0.13	0.04	0.09
5	0.417	45.95	46.08	57.51	-11.43	0.13	0.04	0.09
6	0.502	35.68	35.80	56.00	-20.20	0.12	0.04	0.08



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Data#: 1162 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-06-09 Time: 10:23:32



Site : Conducted emission
Condition : FCC 18 CONSUMER(QP) KNW-407 VB
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : Energy Saving Lamp
M/N : FE-IISD-18W
S/N :
Power Supply : 120V/60Hz
Ambient : 23°C 56%RH
Test line : VB
Test Mode : ON
Test Engineer:

Solon Gong

Page: 1

	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.199	52.08	52.28	63.67	-11.39	0.20	0.04	0.16
2	0.274	47.75	47.95	60.98	-13.03	0.20	0.04	0.16
3	0.343	47.95	48.14	59.13	-10.99	0.19	0.04	0.15
4	0.408	45.65	45.82	57.68	-11.86	0.17	0.04	0.13
5	0.665	35.18	35.34	56.00	-20.66	0.16	0.05	0.11
6	0.783	35.41	35.57	56.00	-20.43	0.16	0.05	0.11

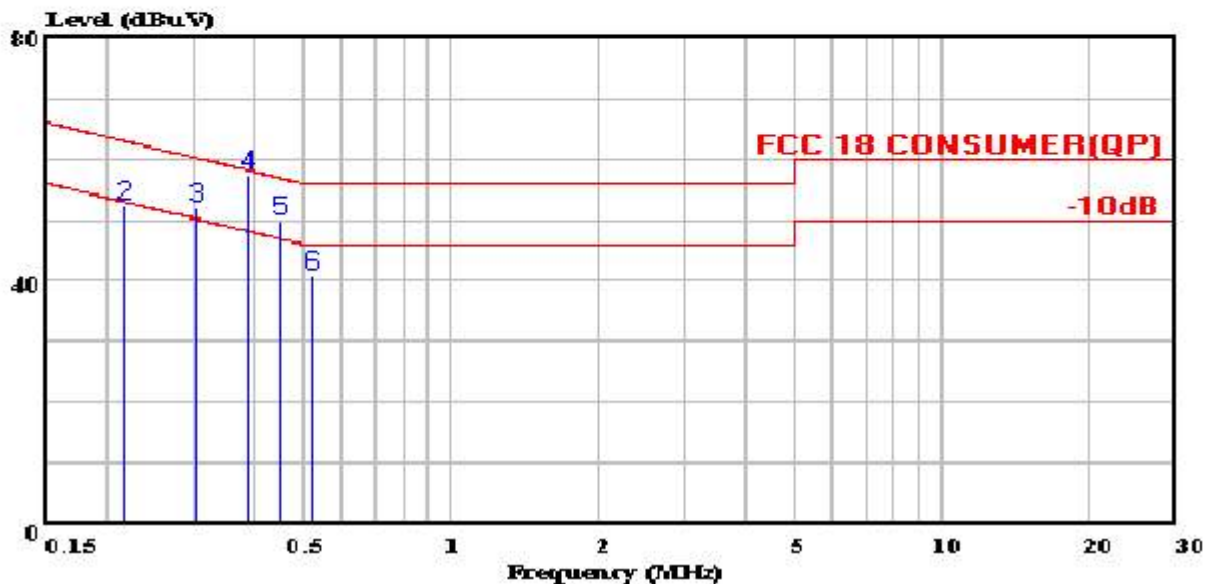
NOTE – The worst emission is detected at 0.343 MHz with corrected signal level of 48.14dB(μV) (limit is 59.13 dB(μV)), when the VB of the EUT is connected to LISN.



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Data#: 907 File#: C:\emivm\TEST\L\longstar.EMI

Date: 2003-05-10 Time: 01:51:53



Site : Conducted emission
Condition : FCC 18 CONSUMER(QP) KNW-407 VA
Project No. : AOE-000368
Applicant : XIAMEN LONGSTAR LIGHTING CO.,LTD
EUT : ~~Fluorescent~~ Ceiling Lamp
M/N : 120V/60Hz W
S/N : EU3U33147
Power Supply : 120V/50Hz
Ambient : 23°C 56%RH
Test line : VA
Test Mode :
Test Engineer: *Solon Gong*

Page: 1

	Freq	Read Level	Level	Limit Line	Over Limit	Factor	Cable Loss	Probe Factor
	MHz	dBuV	dBuV	dBuV	dB	dB	dB	dB
1	0.151	52.24	52.46	65.97	-13.51	0.22	0.03	0.19
2	0.216	52.04	52.25	62.96	-10.71	0.21	0.04	0.17
3 !	0.304	51.90	52.04	60.14	-8.10	0.14	0.04	0.10
4 !	0.389	57.13	57.26	58.08	-0.82	0.13	0.04	0.09
5 !	0.448	49.76	49.88	56.92	-7.04	0.12	0.04	0.08
6	0.521	40.71	40.83	56.00	-15.17	0.12	0.04	0.08

NOTE 1 – The worst emission is detected at 0.389 MHz with corrected signal level of 57.26dB(μV) (limit is 58.08 dB(μV)), when the VA of the EUT is connected to LISN.

NOTE 2 –At the frequency 0.389 MHz the measured result is below the specification limit by a margin less than the measurement uncertainty, it is not therefore possible to determine compliance at a level of confidence of 95%. However, the measured result indicates a higher probability that the product tested complies with the specification limit.