

FCC PART 18



EMI MEASUREMENT AND TEST REPORT

For

JiangXi Supersun Technology Lighting Co., Ltd.

Supersun park, Wannian Industrial Zone, Wannian Country, Jiangxi Province, China.

FCC ID: WL820080801

Product Name:	CFL
Model No:	SPS T2 11SM/SPS T2 13SM/SPS T2 13S/SPS T2 15S/SPS T3 13S/SPS T3 15S/SPS T2 18S/SPS R30/SPS R40
Sample Received Date:	Aug 06, 2008
Test Performed Date:	Aug 13, 2008
Test Engineer:	Paul Tan 
Reviewed By:	Chris Zeng 
Prepared By:	BEST Test Service (Shenzhen) Co., Ltd Flat 11E, Xinhaofang Building, 11018, Shennan Road, Nanshan District, Shenzhen, 518057, China Tel: +86-755-86182350 Fax: +86-755-86182353

Note: The test report is specially limited to the above company and the product model only, it may not be duplicated without prior written consent of Best Test Service (Shenzhen) Co., Ltd.

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The JiangXi Supersun Technology Lighting Co., Ltd. 's model SPS T2 11SM/SPS T2 13SM/SPS T2 13S/SPS T2 15S/SPS T3 13S/SPS T3 15S/SPS T2 18S/SPS R30/SPS R40 or the "EUT" as referred to in this report is CFL, rated input voltage: AC 120V/60Hz, operation frequency is from 40KHz to 50KHz.

The test data was only good for the test sample. It may have deviation for other test sample.

Objective

The following test report is prepared on behalf of JiangXi Supersun Technology Lighting Co., Ltd.. in accordance with Part 2, Subpart J, and Part 18, Subparts A, B, and C of the Federal Communication Commissions rules and regulations.

The objective of the manufacturer is to demonstrate compliance with FCC Part 18 limit requirements for Industrial, Scientific, and Medical Equipment.

Related Submittal(s)/Grant(s)

No Related Submittals.

Test Methodology

All measurements contained in this report were conducted with MP-5 1986, FCC Method of measurements of radio noise emission from Industrial, Scientific and Medical equipments.

Test Facility

All measurement facilities used to collect the data are located at Huatongwei Building , Keji Rd, 12 S, high-Tech Park, Nanshan District, Shenzhen, China.

The sites are constructed in conformance with the requirements of ANSI C63.7/634 and CISPR 22, The site was accredited by FCC (662850), A2LA(2243.01) and CNAL (L1225)

SYSTEM TEST CONFIGURATION

Justification

The EUT was tested under normal mode as used by a common (typical) user.

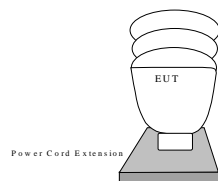
Schematics / Block Diagram

N/A.

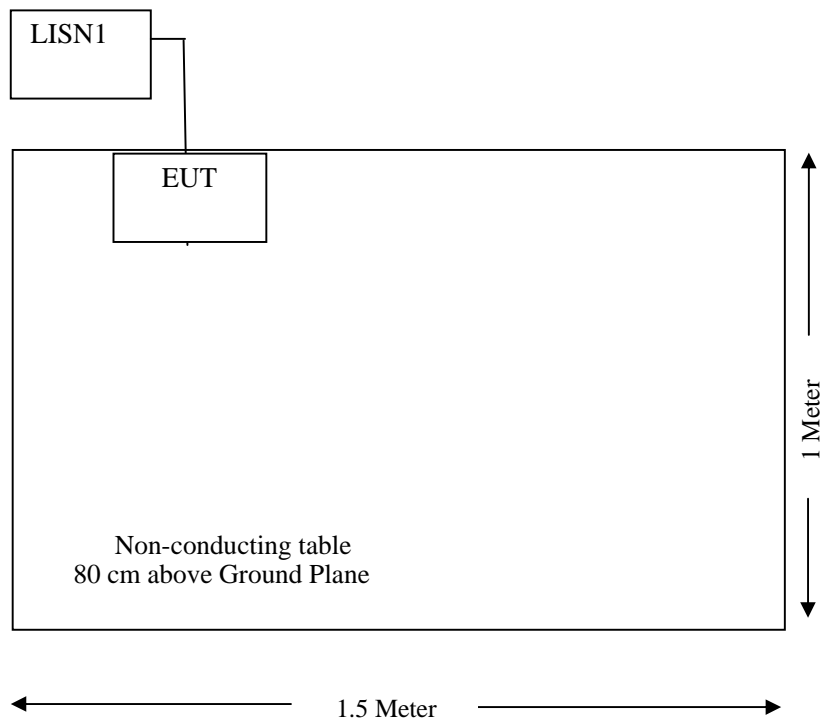
Equipment Modifications

No modifications were made by BEST TEST SERVICE (SHENZHEN) CO., LTD. to ensure the EUT to comply with the application limits and requirements.

Configuration of Test System



Test Setup Block Diagram



CONDUCTED EMISSIONS TEST DATA

Applicable Standard

For the following equipment, when designed to be connected to the public utility (AC) power line the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies shall not exceed the limits in the following tables. Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal using a 50 μ H/50 ohms line impedance stabilization network (LISN).

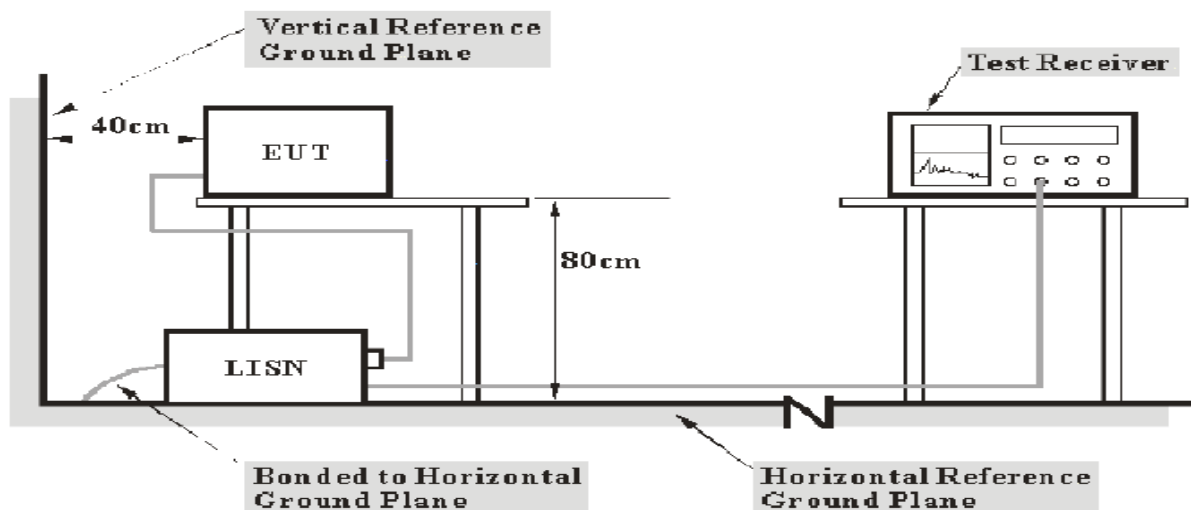
Frequency Range (MHz)	Max RF Voltage (μ V)	Max RF Voltage (dB μ V)
Non-consumer equipment		
0.45 to 1.6	1,000	60.0
1.6 to 30	3,000	69.0
Consumer equipment		
0.45 to 2.51	250	48.0
2.51 to 3.0	3000	69.0
3.0 to 30	250	48.0

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMI. The factors contributing to uncertainties are EMI Test Receiver, cable loss, and LISN.

Based on NIS 81, The Treatment of Uncertainty in EMI Measurements, the best estimate of the uncertainty of any conducted emissions measurement at BEST TEST SERVICE (SHENZHEN) CO., LTD. is ± 2.0 dB.

EUT Setup



- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with MP-5 measurement procedure. The specification used was the FCC Part 18 limits.

The EUT was connected to the power cord extension and placed on the left of the back edge on the test table.

The power cord extension was connected with 120 VAC/60 Hz power source.

Test Equipments

Manufacturer	Description	Model	Serial Number	Cal. Date	Cal. Due.Date
ROHDE & SCHWARZ	EMI TEST RECEIVER	ESCS30	100038	2008-08-05	2009-08-05
ROHDE & SCHWARZ	L.I.S.N	ESH2-Z5	100028	2008-08-05	2009-08-05
ROHDE & SCHWARZ	Pulse Limiter	ESHSZ2	100044	2008-08-05	2009-08-05

Statement of traceability: BEST attests that all calibrations have been performed per the CNAL /A2LA requirements, traceable to NIM China

Test Procedure

During the conducted emission test, the power cord of the power cord extension was connected to the auxiliary outlet of the first LISN.

Maximizing procedure was performed on the six (6) highest emissions to ensure that the EUT is compliant with all installation combination.

All data was recorded in the peak detection mode. Quasi-peak readings were only performed when an emission was found to be marginal (within 4 dB μ V of specification limits). Quasi-peak readings are distinguished with a "Qp".

The EUT was tested under the normal modes during the final qualification test to represent the worst-case results.

Summary of Test Results

Pass

The EUT complied with the FCC 18 Conducted margin for industry, scientific and medical device, and with the worst margin reading of:

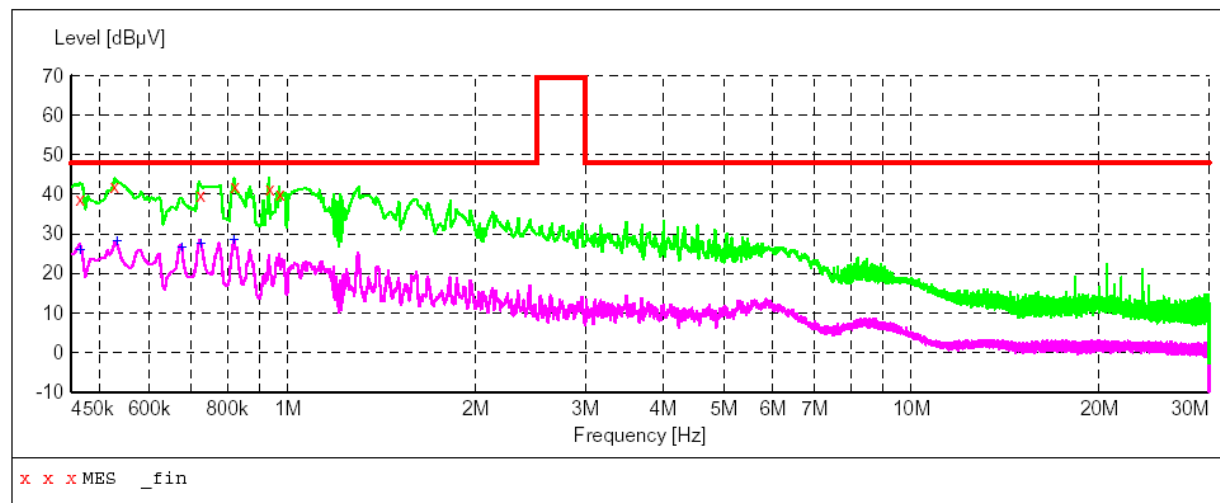
Conducted Emissions Test Data and Plots

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS R40
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

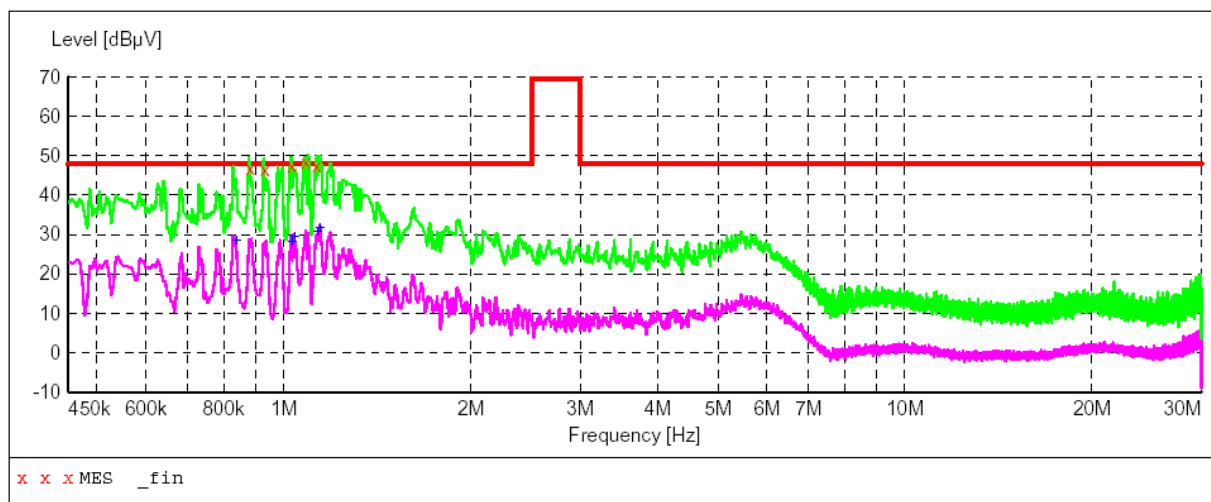
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.465000	38.80	10.1	48	9.1	QP	N	GND
0.528000	42.00	10.1	48	5.9	QP	N	GND
0.726000	39.60	10.1	48	8.3	QP	N	GND
0.825000	42.10	10.1	48	5.8	QP	N	GND
0.937500	41.50	10.1	48	6.4	QP	N	GND
0.973500	40.20	10.2	48	7.7	QP	N	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS R40
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

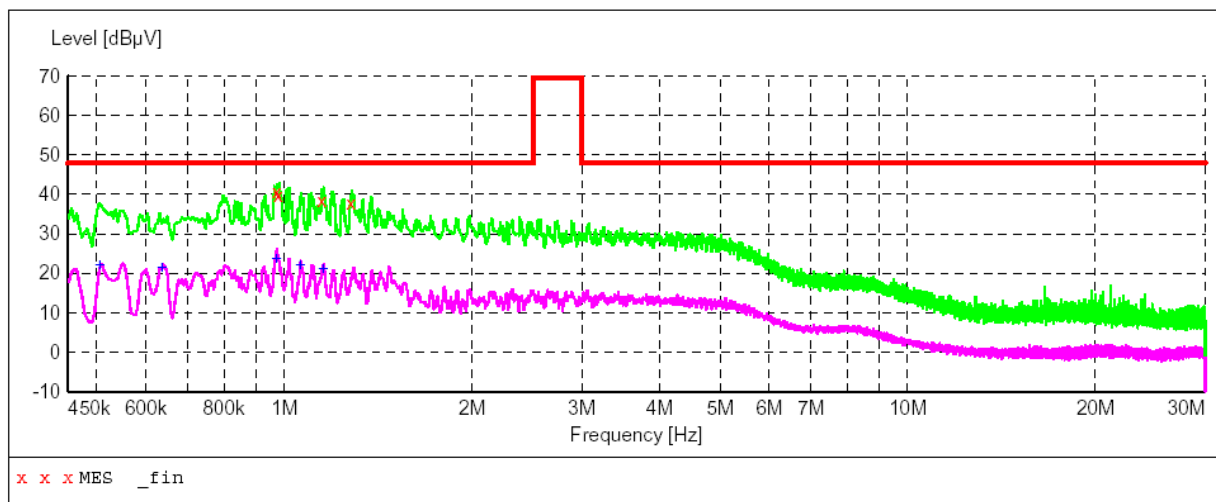
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.883500	46.70	10.1	48	1.2	QP	L1	GND
0.933000	46.50	10.1	48	1.4	QP	L1	GND
1.032000	47.40	10.2	48	0.6	QP	L1	GND
1.086000	47.60	10.2	48	0.4	QP	L1	GND
1.131000	47.50	10.2	48	0.5	QP	L1	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS R30
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

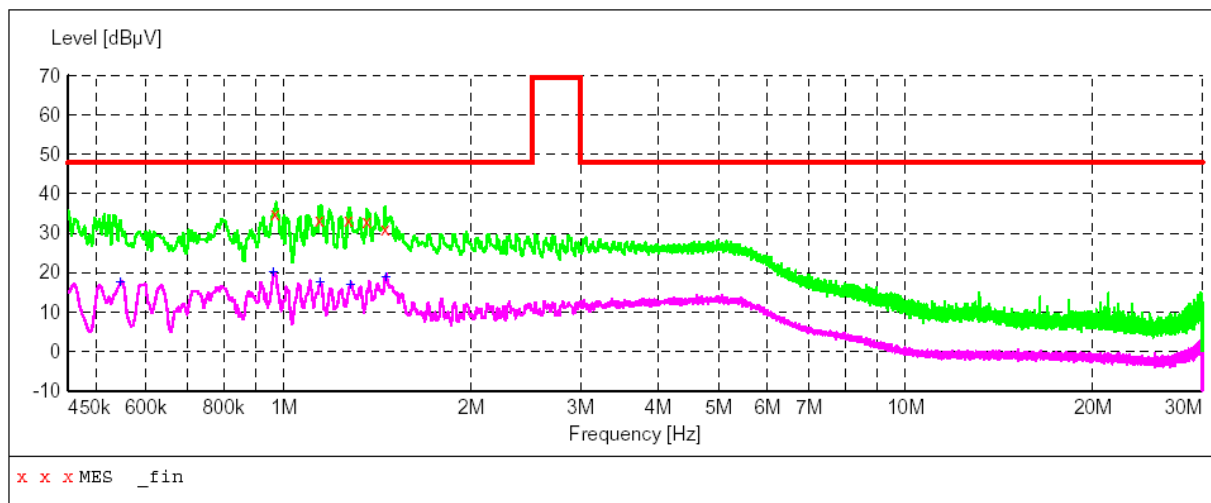
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.973500	40.80	10.2	48	7.1	QP	N	GND
0.978000	39.60	10.2	48	8.3	QP	N	GND
1.149000	38.40	10.2	48	9.5	QP	N	GND
1.279500	37.70	10.2	48	10.2	QP	N	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS R30
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

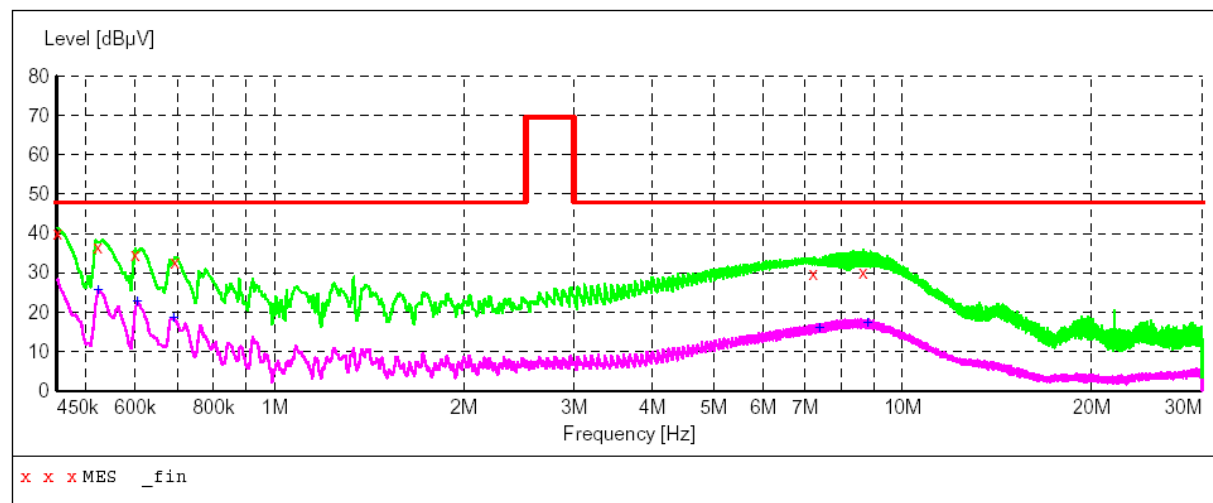
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.969000	34.80	10.2	48	13.1	QP	L1	GND
1.140000	33.40	10.2	48	14.5	QP	L1	GND
1.270500	33.20	10.2	48	14.7	QP	L1	GND
1.360500	32.90	10.2	48	15.0	QP	L1	GND
1.455000	31.10	10.2	48	16.8	QP	L1	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS T3 13S
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

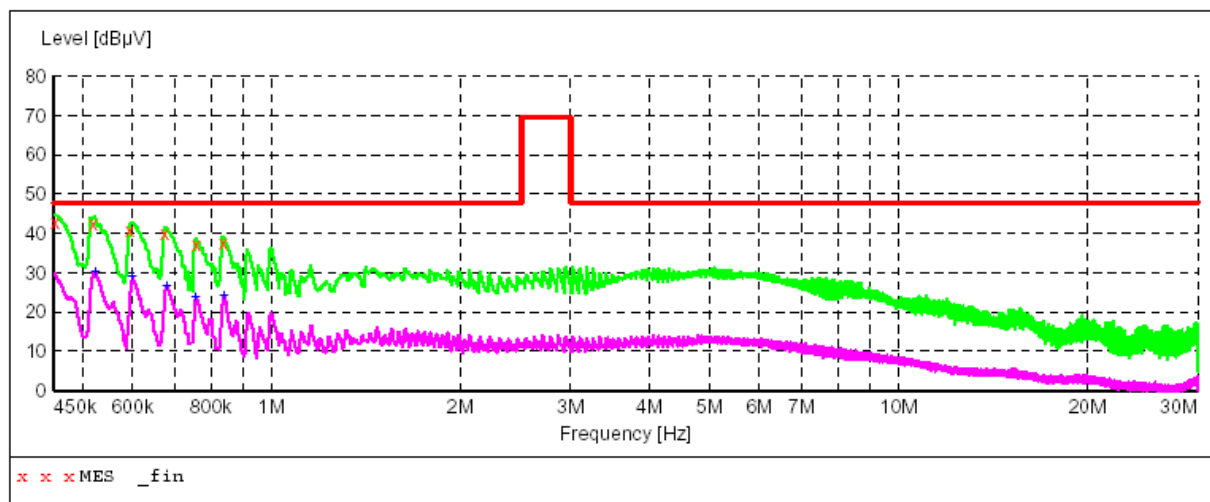
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.451500	40.00	10.1	48	7.9	QP	N	GND
0.523500	36.40	10.1	48	11.5	QP	N	GND
0.600000	34.70	10.1	48	13.2	QP	N	GND
0.694500	32.60	10.1	48	15.3	QP	N	GND
7.215000	29.80	10.4	48	18.1	QP	N	GND
8.650500	30.10	10.5	48	17.8	QP	N	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS T3 13S
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

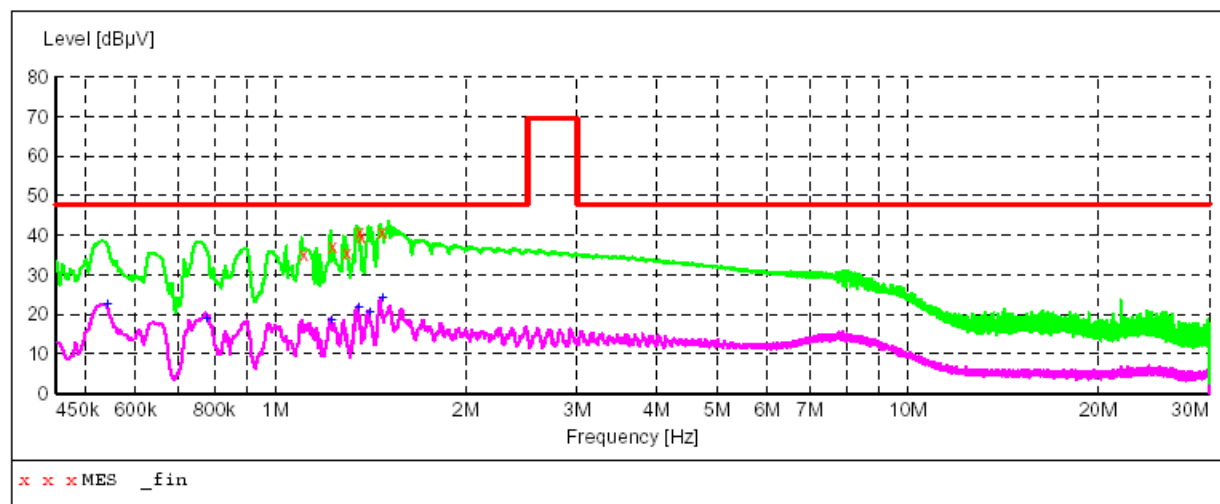
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.451500	42.70	10.1	48	5.2	QP	L1	GND
0.519000	42.60	10.1	48	5.3	QP	L1	GND
0.595500	40.90	10.1	48	7.0	QP	L1	GND
0.676500	40.20	10.1	48	7.7	QP	L1	GND
0.757500	37.20	10.1	48	10.7	QP	L1	GND
0.838500	37.50	10.1	48	10.4	QP	L1	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS T2 13S
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

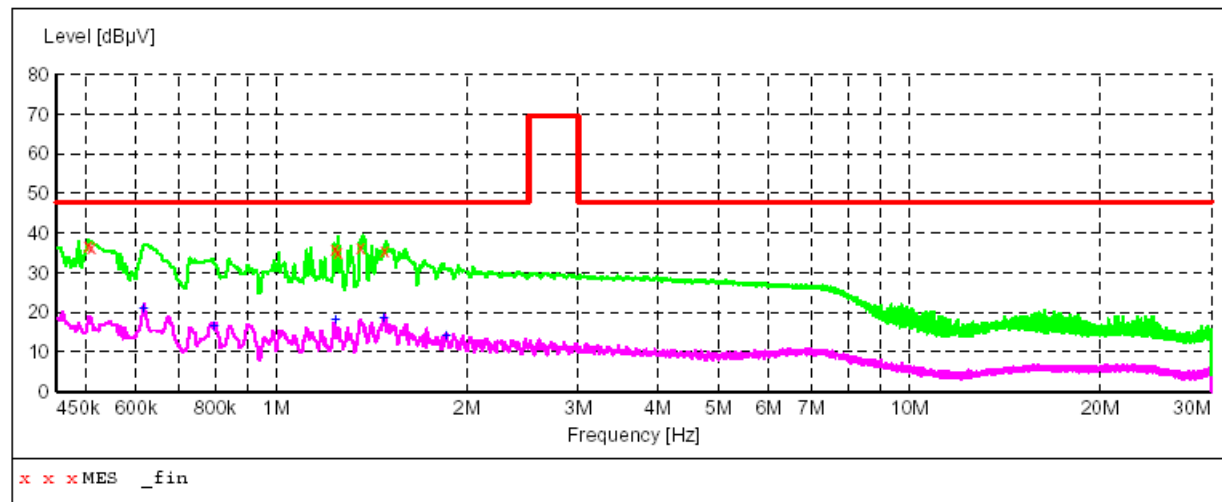
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
1.108500	35.10	10.2	48	12.8	QP	N	GND
1.230000	37.30	10.2	48	10.6	QP	N	GND
1.297500	35.40	10.2	48	12.5	QP	N	GND
1.356000	40.90	10.2	48	7.0	QP	N	GND
1.369500	39.60	10.2	48	8.3	QP	N	GND
1.477500	40.90	10.2	48	7.0	QP	N	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS T2 13S
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

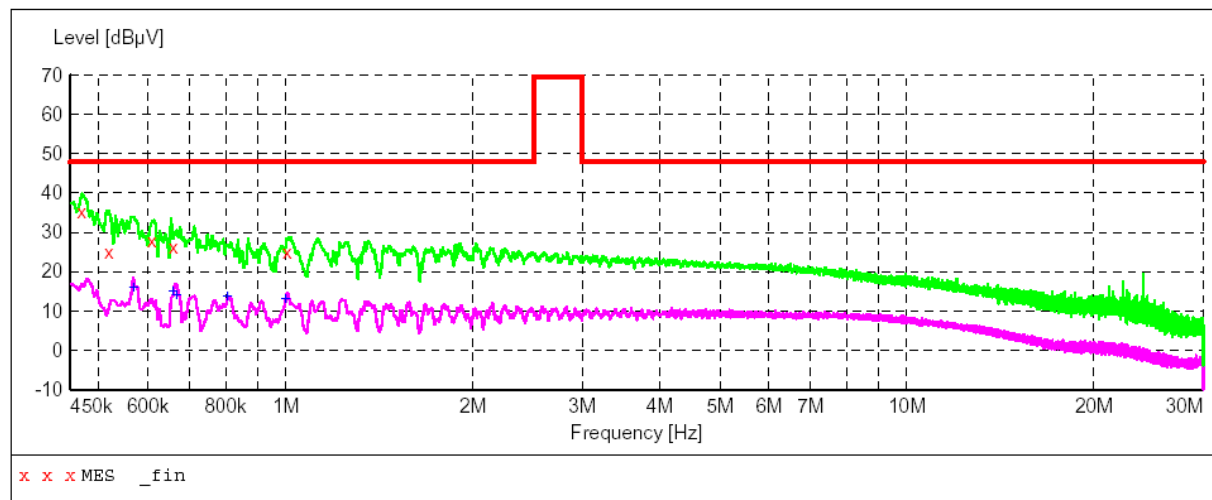
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.505500	36.70	10.1	48	11.2	QP	L1	GND
0.510000	36.50	10.1	48	11.4	QP	L1	GND
1.239000	36.00	10.2	48	11.9	QP	L1	GND
1.252500	35.00	10.2	48	12.9	QP	L1	GND
1.360500	36.40	10.2	48	11.5	QP	L1	GND
1.486500	35.40	10.2	48	12.5	QP	L1	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS T2 15S
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

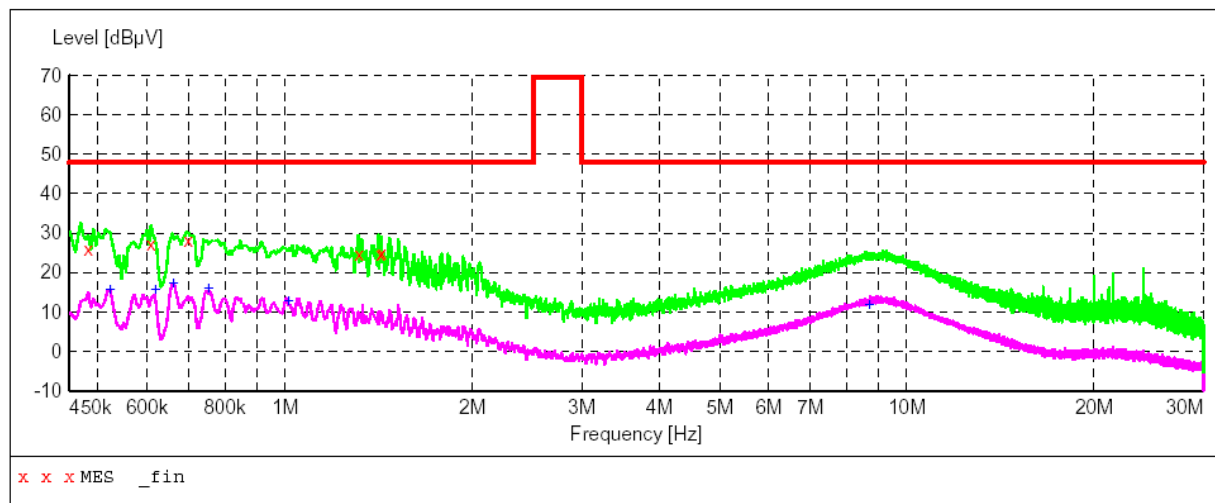
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.469500	35.20	10.1	48	12.7	QP	L1	GND
0.519000	25.00	10.1	48	22.9	QP	L1	GND
0.609000	28.00	10.1	48	19.9	QP	L1	GND
0.658500	26.10	10.1	48	21.8	QP	L1	GND
1.005000	25.00	10.2	48	22.9	QP	L1	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N:SPS T2 15S
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

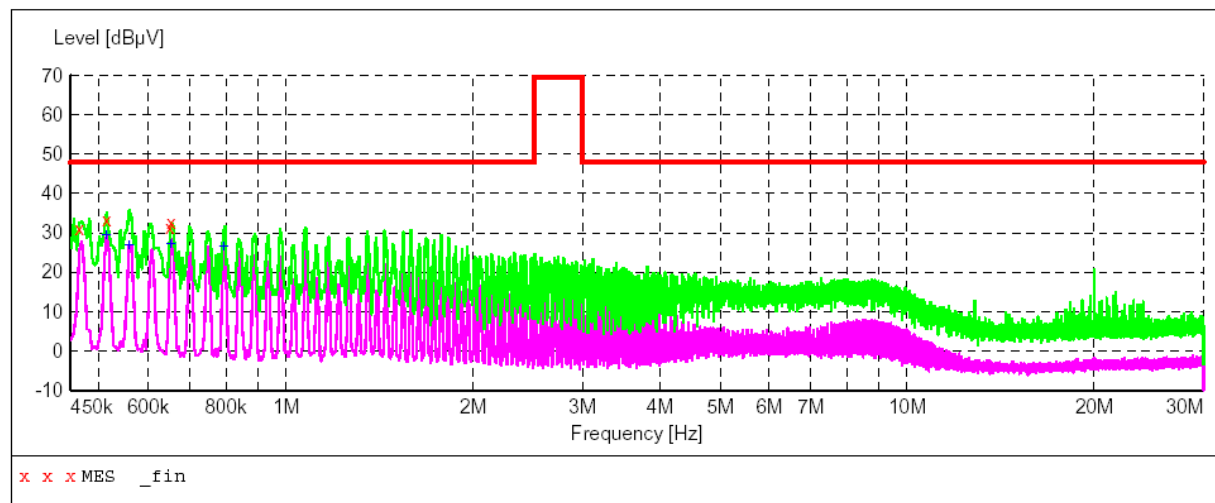
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.483000	25.80	10.1	48	22.1	QP	N	GND
0.609000	27.10	10.1	48	20.8	QP	N	GND
0.699000	28.30	10.1	48	19.6	QP	N	GND
1.315500	24.60	10.2	48	23.3	QP	N	GND
1.423500	24.70	10.2	48	23.2	QP	N	GND
1.432500	24.80	10.2	48	23.1	QP	N	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N:SPS T3 15S
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

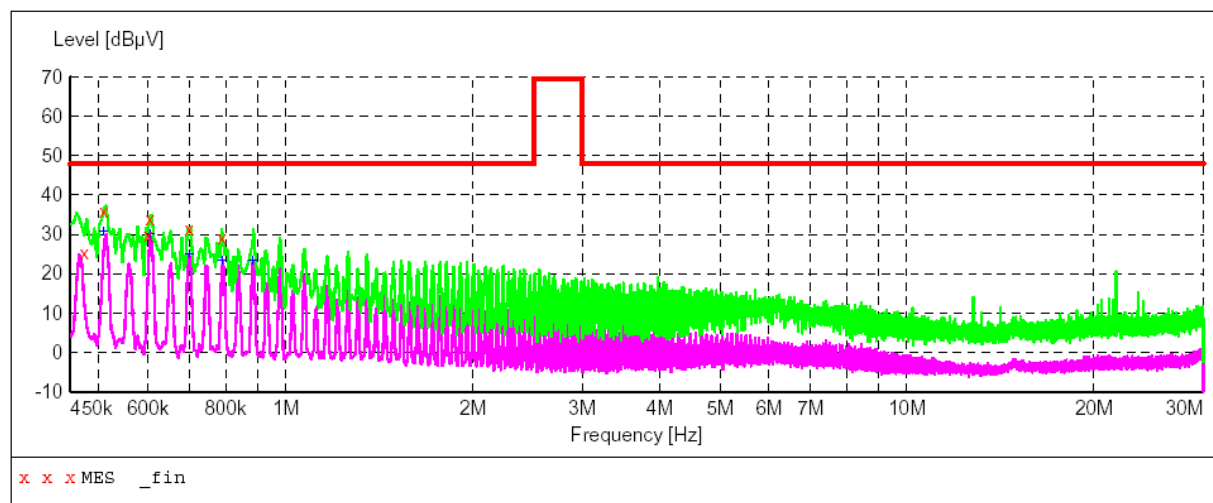
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.465000	31.20	10.1	48	16.7	QP	N	GND
0.514500	33.20	10.1	48	14.7	QP	N	GND
0.649500	31.30	10.1	48	16.6	QP	N	GND
0.654000	32.70	10.1	48	15.2	QP	N	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N:SPS T3 15S
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

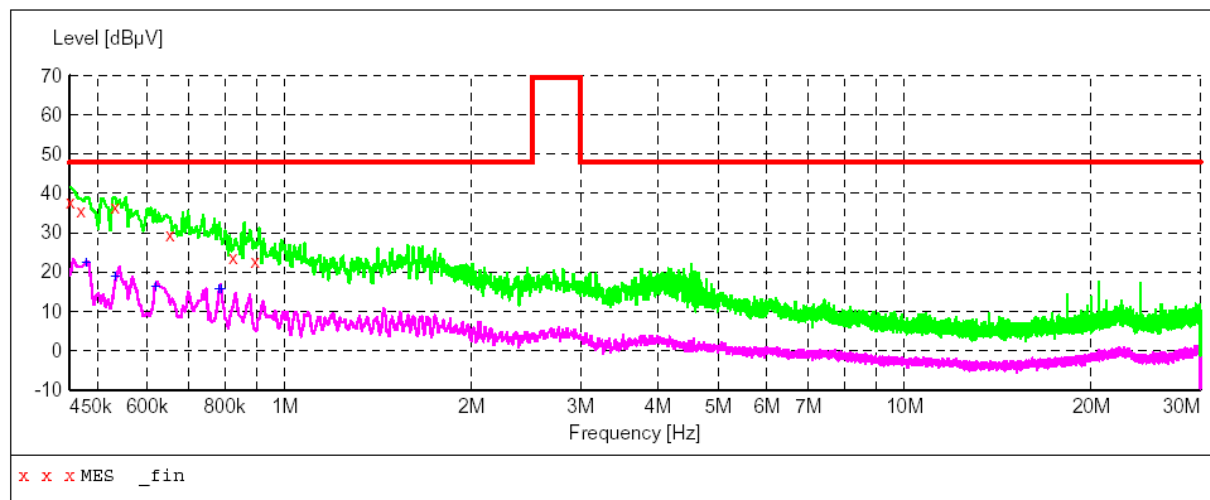
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.474000	25.40	10.1	48	22.5	QP	L1	GND
0.510000	36.00	10.1	48	11.9	QP	L1	GND
0.600000	29.80	10.1	48	18.1	QP	L1	GND
0.604500	33.80	10.1	48	14.1	QP	L1	GND
0.699000	31.30	10.1	48	16.6	QP	L1	GND
0.789000	29.00	10.1	48	18.9	QP	L1	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS T2 11SM
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

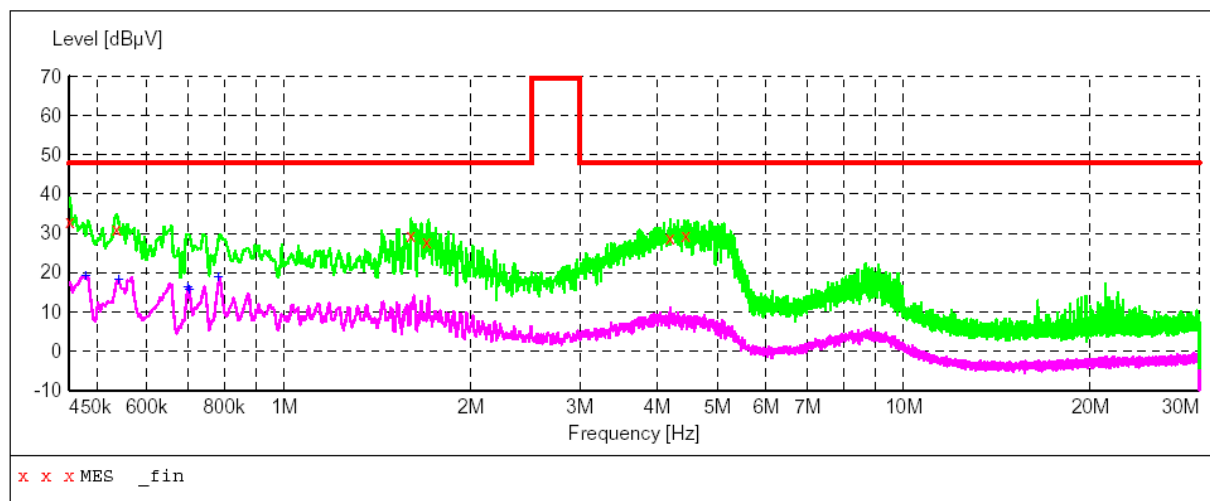
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.451500	37.70	10.1	48	10.2	QP	L1	GND
0.469500	35.40	10.1	48	12.5	QP	L1	GND
0.532500	36.60	10.1	48	11.3	QP	L1	GND
0.654000	29.50	10.1	48	18.4	QP	L1	GND
0.825000	23.60	10.1	48	24.3	QP	L1	GND
0.897000	22.60	10.1	48	25.3	QP	L1	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS T2 11SM
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

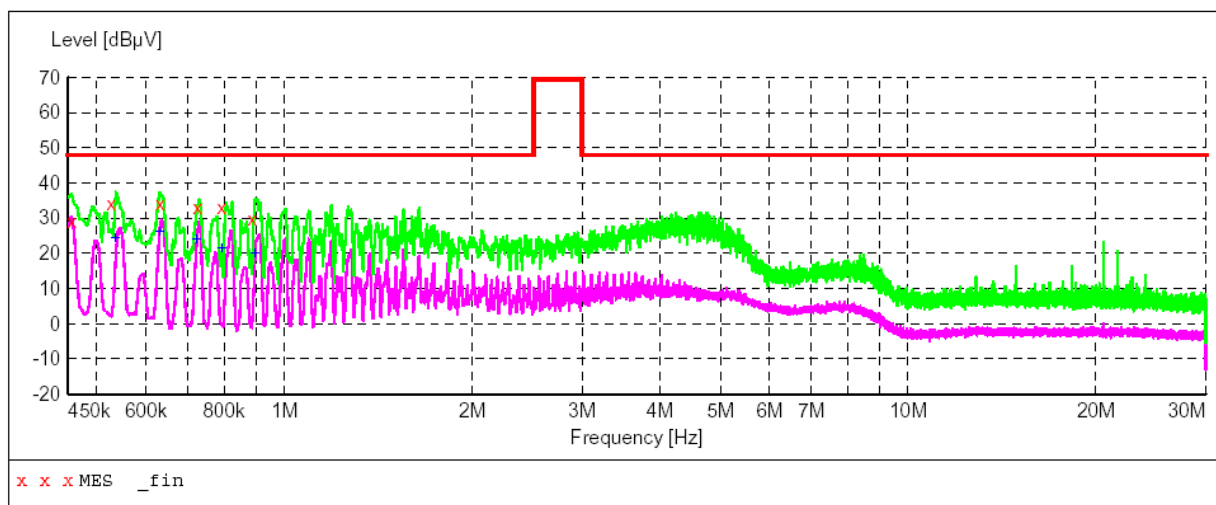
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.451500	33.00	10.1	48	14.9	QP	N	GND
0.537000	31.10	10.1	48	16.8	QP	N	GND
1.603500	29.30	10.2	48	18.6	QP	N	GND
1.698000	27.80	10.2	48	20.1	QP	N	GND
4.195500	28.80	10.3	48	19.1	QP	N	GND
4.443000	29.60	10.3	48	18.3	QP	N	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS T2 13SM
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

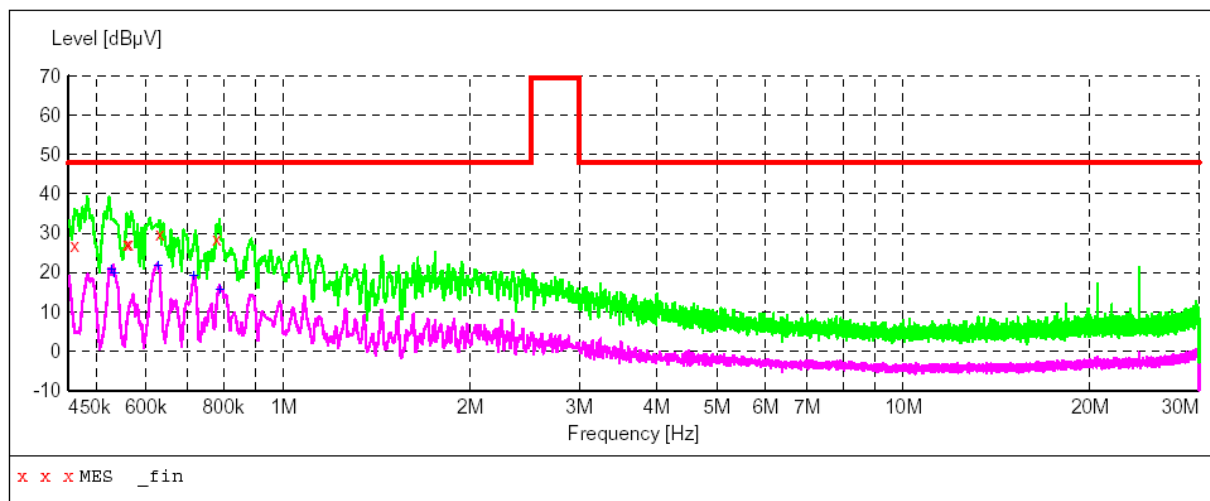
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.456000	28.90	10.1	48	19.0	QP	N	GND
0.528000	34.10	10.1	48	13.8	QP	N	GND
0.631500	34.30	10.1	48	13.6	QP	N	GND
0.726000	33.00	10.1	48	14.9	QP	N	GND
0.793500	33.20	10.1	48	14.7	QP	N	GND
0.888000	29.80	10.1	48	18.1	QP	N	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC 18**

EUT: CFL M/N: SPS T2 13SM
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

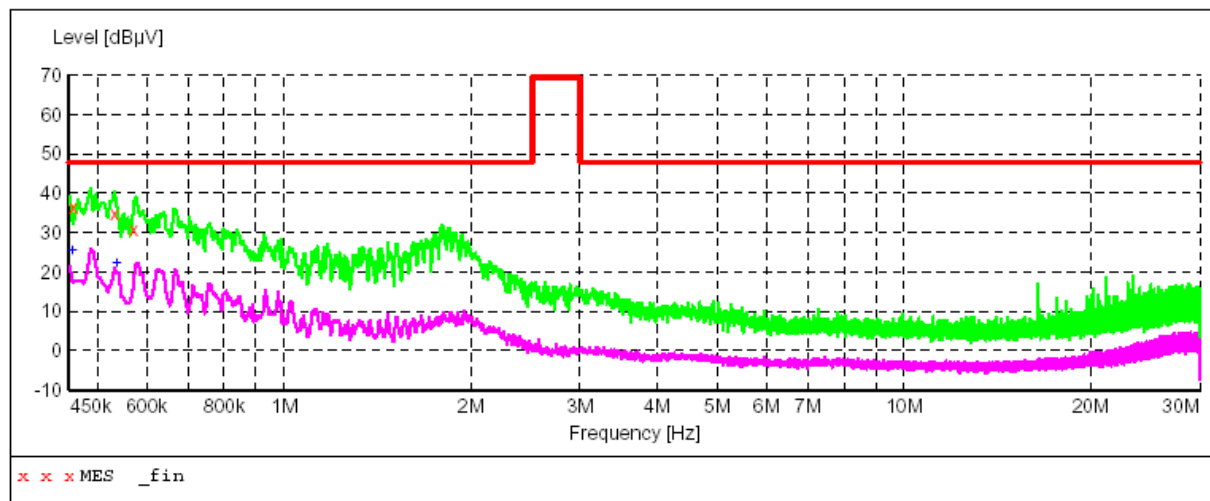
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.460500	26.80	10.1	48	21.1	QP	L1	GND
0.559500	27.30	10.1	48	20.6	QP	L1	GND
0.564000	27.20	10.1	48	20.7	QP	L1	GND
0.631500	29.70	10.1	48	18.2	QP	L1	GND
0.780000	28.50	10.1	48	19.4	QP	L1	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC Part 18**

EUT: CFL M/N: SPS T2 18S
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: SAM
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

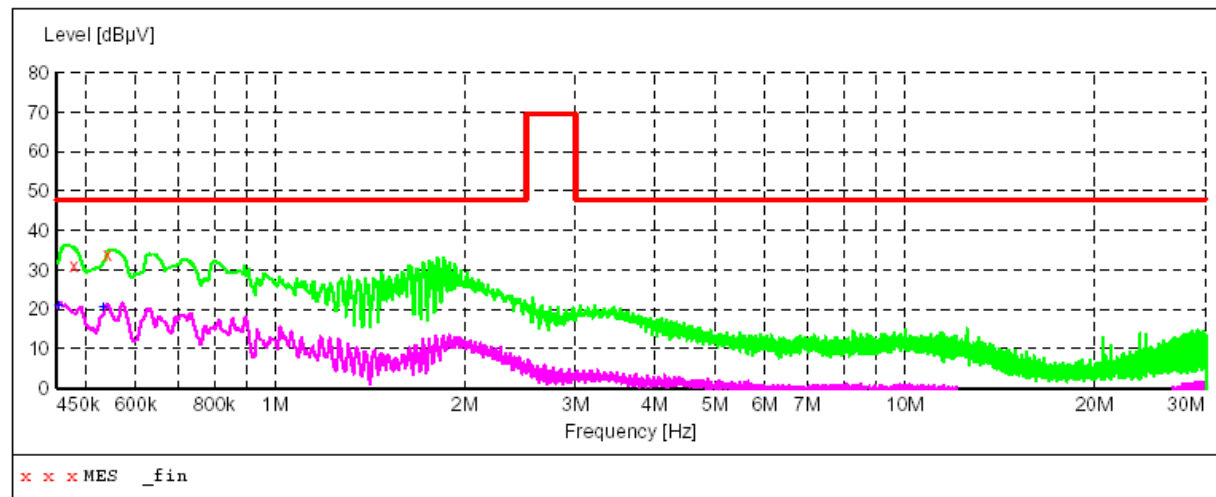
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.456000	36.30	10.5	48	11.6	QP	N	GND
0.532500	34.90	10.5	48	13.0	QP	N	GND
0.573000	30.70	10.5	48	17.2	QP	N	GND

BEST TEST SERVICE SHENZHEN CO.,LTD**Voltage Mains Test FCC Part 18**

EUT: CFL M/N:SPS T2 18S
Manufacturer: SUPERSUN
Operating Condition: ON
Test Site: 3# SHIELDED ROOM
Operator: IVAN
Test Specification: AC 120V/60Hz
Comment:
Start of Test: 8/13/2008

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage

**MEASUREMENT RESULT:**

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.478500	31.20	10.5	48	16.7	QP	L1	GND
0.541500	34.10	10.5	48	13.8	QP	L1	GND