



NVLAP LAB CODE 200707-0



## FCC PART 18

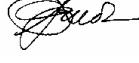
### EMI MEASUREMENT AND TEST REPORT

For

**SHUNDE CORSO ELECTRONICS CO., LTD**

DAMEN QU, DALIANG, SHUNDE DISTRICT, FOSHAN CITY,  
GUANGDONG PROVINCE, CHINA

**FCC ID: N3WCORCPTL**

<b>This Report Concerns:</b> <input checked="" type="checkbox"/> Original Report	<b>Equipment Type:</b> CFL
<b>Test Engineer:</b> Henry Yang 	
<b>Report Number:</b> RSZ07012351	
<b>Test Date:</b> 2007-01-26	
<b>Report Date:</b> 2007-02-01	
<b>Reviewed By:</b> EMC Manager: Boni Baniquid 	
<b>Prepared By:</b> Bay Area Compliance Laboratory Corp. (Shenzhen). 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008	

**Note:** This test report is for the customer shown above and their specific product only. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratory Corp. (Shenzhen). This report **must not** be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the Federal Government.

**TABLE OF CONTENTS**

<b>GENERAL INFORMATION</b> .....	<b>3</b>
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....	3
OBJECTIVE .....	3
RELATED SUBMITTAL(S)/GRANT(S).....	3
TEST METHODOLOGY .....	3
TEST FACILITY .....	3
EXTERNAL I/O CABLE.....	4
<b>SYSTEM TEST CONFIGURATION</b> .....	<b>5</b>
JUSTIFICATION .....	5
EQUIPMENT MODIFICATIONS .....	5
CONFIGURATION OF TEST SETUP .....	5
BLOCK DIAGRAM OF TEST SETUP .....	5
<b>CONDUCTED EMISSIONS</b> .....	<b>6</b>
MEASUREMENT UNCERTAINTY .....	6
EUT SETUP .....	6
TEST EQUIPMENT LIST AND DETAILS.....	7
TEST PROCEDURE .....	7
TEST RESULTS SUMMARY .....	7
TEST DATA .....	8
PLOT(S) OF TEST DATA.....	9

## GENERAL INFORMATION

### Product Description for Equipment under Test (EUT)

The *SHUNDE CORSO ELECTRONICS CO., LTD*'s model: *CPTL*, or the "EUT" as referred to in this report is a *CFL* which measures approximately: CPTL 13W: 12.0 cm L x 5.6 cm W x 5.6 cm H, CPTL 20W: 14.0 cm L x 5.7 cm W x 5.7 cm H, CPTL 25W: 15.5 cm L x 5.7 cm W x 5.7 cm H rated input voltage: AC 120V/60Hz.

*\* The test data gathered are from production sample, serial number: 0701114. Provided by the manufacturer, we received EUT on 2007-01-23.*

### Objective

The following test report is prepared on behalf of *SHUNDE CORSO ELECTRONICS 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 determine compliance with FCC Part 18 limits.

### Related Submittal(s)/Grant(s)

No related submittal(s).

### Test Methodology

All measurements contained in this report were conducted with MP-5, FCC Methods of Measurements of Radio Noise Emissions from ISM Equipment, February 1986. All measurement was performed at Bay Area Compliance Laboratory Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

### Test Facility

The Test site used by Bay Area Compliance Laboratory Corp. (Shenzhen) to collect radiated and conducted emission measurement data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, GuangDong, China.

Test site at Bay Area Compliance Laboratory Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on November 04, 2004. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003 and FCC MP-5.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Laboratory Corp. (Shenzhen) is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0). The current scope of accreditations can be found at <http://ts.nist.gov/ts/htdocs/210/214/scopes/2007070.htm>

**External I/O Cable**

Cable Description	Length (M)	From/Port	To
Unshielded Detachable Power Cable	1.5	EUT	LISN

## SYSTEM TEST CONFIGURATION

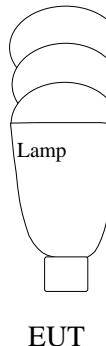
### Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

### Equipment Modifications

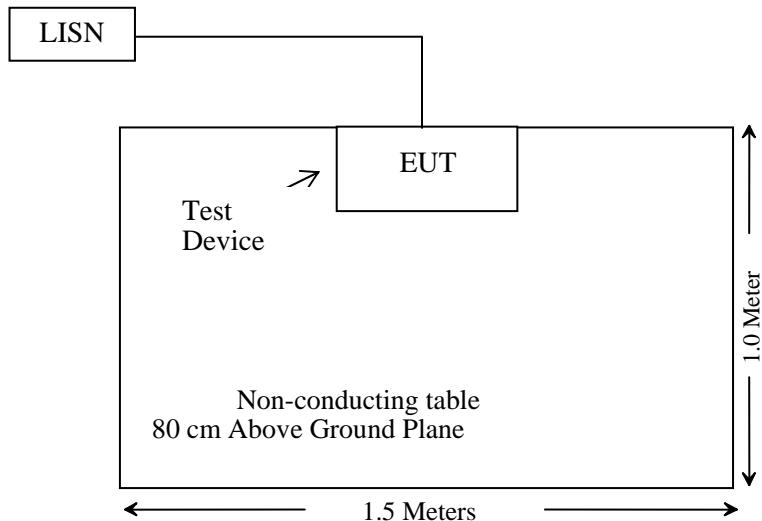
Bay Area Compliance Laboratory Corp. (Shenzhen) has not done any modification on the EUT.

### Configuration of Test Setup



EUT

### Block Diagram of Test Setup



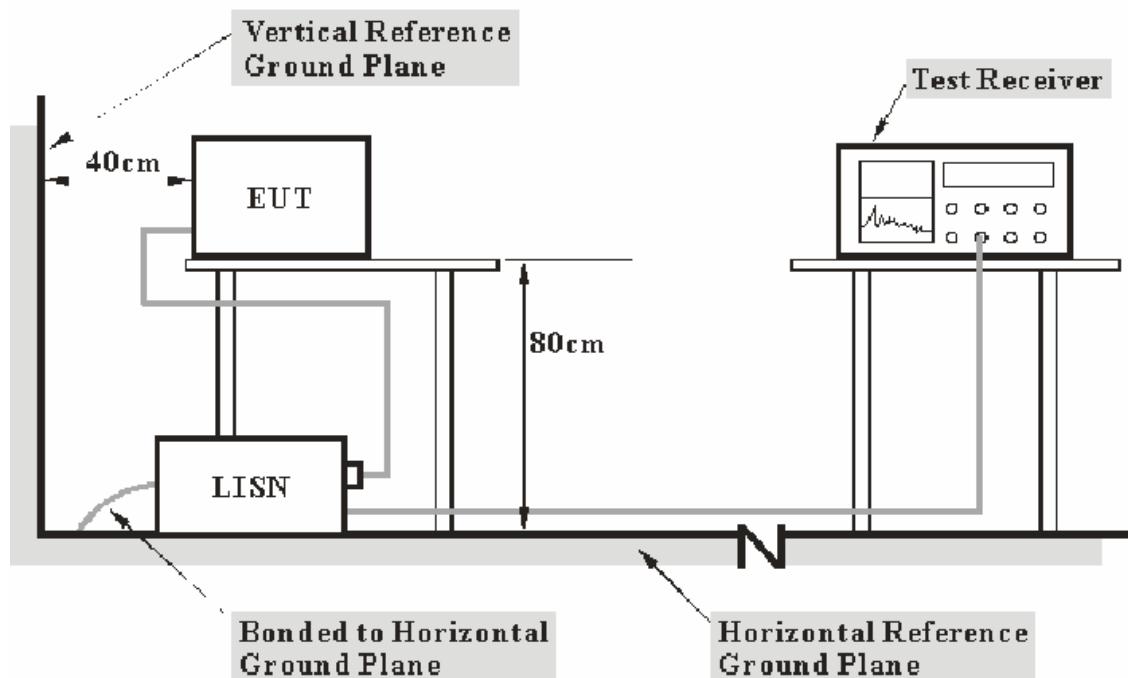
## CONDUCTED EMISSIONS

### Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratory Corp. (Shenzhen) is  $\pm 2.4$  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: 1986 measurement procedure. Specification used was with the FCC Part 18 limits.

The EUT was connected to a 120 VAC/ 60Hz power source.

### EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

<b><i>Frequency Range</i></b>	<b><i>IFBW</i></b>
150 kHz – 30 MHz	9 kHz

### Test Equipment List and Details

<b>Manufacturer</b>	<b>Description</b>	<b>Model</b>	<b>Serial Number</b>	<b>Calibration Date</b>	<b>Calibration Due Date</b>
Com-Power	L.I.S.N.	LI-200	12005	N/A	N/A
Com-Power	L.I.S.N.	LI-200	12208	N/A	N/A
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2006-09-29	2007-09-29
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2006-03-01	2007-03-01

\* Com-Power's LISN were used as the supporting equipment.

\* **Statement of Traceability:** Bay Area Compliance Laboratory Corp. (Shenzhen). attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

### Test Procedure

During the conducted emission test, the EUT power cord was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak detection mode.

### Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 18, with the worst margin reading of:

**CPTL 13W: 9.60 at 1.000 MHz** in the **Neutral** conductor mode.

**CPTL 20W: 9.00 dB at 0.640 MHz** in the **Neutral** conductor mode.

**CPTL 25W: 5.80 dB at 29.930 MHz** in the **Live** conductor mode.

**Test Data****Environmental Conditions**

Temperature:	26° C
Relative Humidity:	54%
ATM Pressure:	940mbar

Testing was performed by Henry Yang on 2007-01-26.

Test mode: Running (CPTL13W)

LINE CONDUCTED EMISSIONS				FCC Part 18.307	
Frequency (MHz)	Amplitude (dB $\mu$ V)	Detector (PK/QP/AV)	Phase Neutral/Live	Limit (dB $\mu$ V)	Margin (dB)
1.000	38.40	QP	Neutral	48.00	9.60
0.735	37.90	QP	Neutral	48.00	10.10
0.690	37.40	QP	Neutral	48.00	10.60
1.835	37.40	QP	Live	48.00	10.60
0.645	37.20	QP	Live	48.00	10.80
0.795	37.20	QP	Live	48.00	10.80
1.950	37.10	QP	Neutral	48.00	10.90
0.550	36.70	QP	Neutral	48.00	11.30
2.135	36.60	QP	Live	48.00	11.40
0.720	36.10	QP	Live	48.00	11.90
1.155	35.60	QP	Neutral	48.00	12.40
0.975	35.20	QP	Live	48.00	12.80

Test mode: Running (CPTL20W)

LINE CONDUCTED EMISSIONS				FCC Part 18.307	
Frequency (MHz)	Amplitude (dB $\mu$ V)	Detector QP/AV	Phase Neutral/Live	Limit (dB $\mu$ V)	Margin (dB)
0.640	39.00	QP	Neutral	48.00	9.00
0.735	38.50	QP	Neutral	48.00	9.50
0.645	38.10	QP	Live	48.00	9.90
0.680	38.10	QP	Live	48.00	9.90
0.855	38.00	QP	Live	48.00	10.00
0.930	37.50	QP	Neutral	48.00	10.50
1.205	37.40	QP	Live	48.00	10.60
0.870	37.30	QP	Neutral	48.00	10.70
0.525	37.20	QP	Live	48.00	10.80
1.025	37.20	QP	Neutral	48.00	10.80
0.480	37.00	QP	Neutral	48.00	11.00
1.120	35.90	QP	Live	48.00	12.10

*Test mode: Running (CPTL25W)*

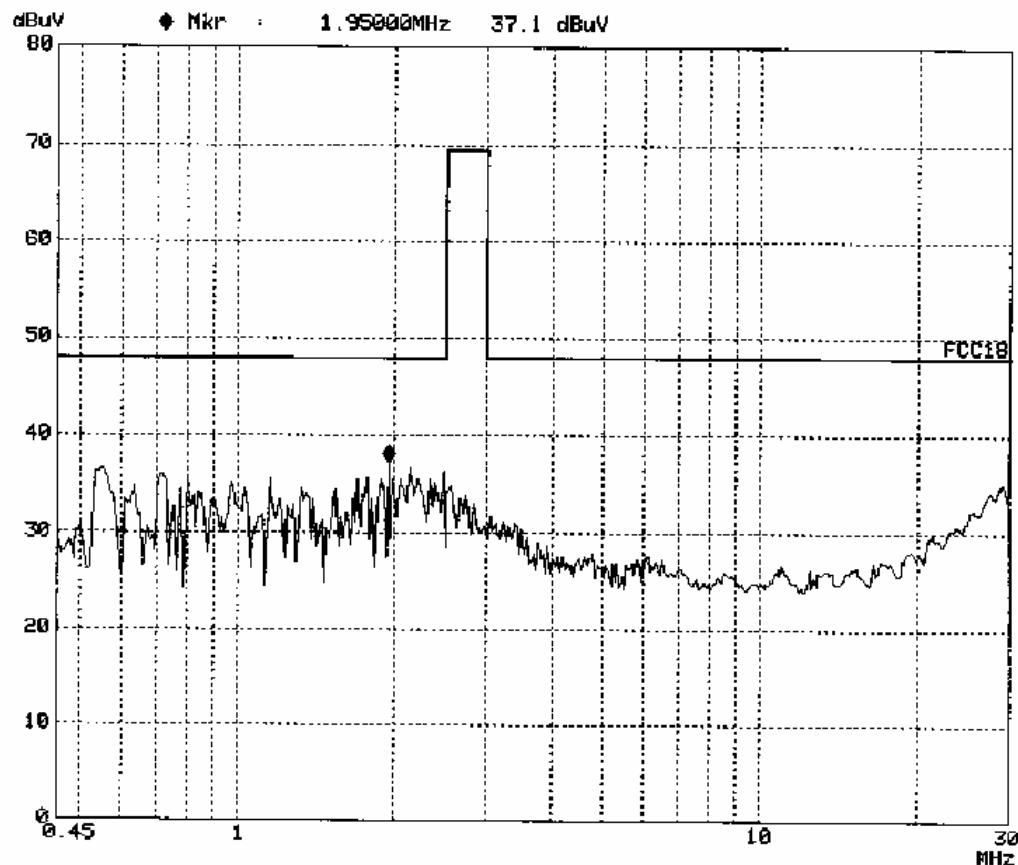
LINE CONDUCTED EMISSIONS				FCC Part 18.307	
Frequency (MHz)	Amplitude (dB $\mu$ V)	Detector PK/QP/AV	Phase Neutral/Live	Limit (dB $\mu$ V)	Margin (dB)
29.930	42.20	QP	Live	48.00	5.80
0.590	37.20	QP	Neutral	48.00	10.80
1.035	36.20	QP	Neutral	48.00	11.80
0.705	35.10	QP	Live	48.00	12.90
29.385	41.90	QP	Live	48.00	6.10
0.745	37.50	QP	Live	48.00	10.50
0.860	35.90	QP	Live	48.00	12.10
0.925	35.70	QP	Neutral	48.00	12.30
1.000	34.60	QP	Neutral	48.00	13.40
1.345	33.60	QP	Neutral	48.00	14.40
1.745	33.60	QP	Neutral	48.00	14.40
1.625	33.50	QP	Live	48.00	14.50

### Plot(s) of Test Data

Plot(s) of Test Data is presented hereinafter as reference.

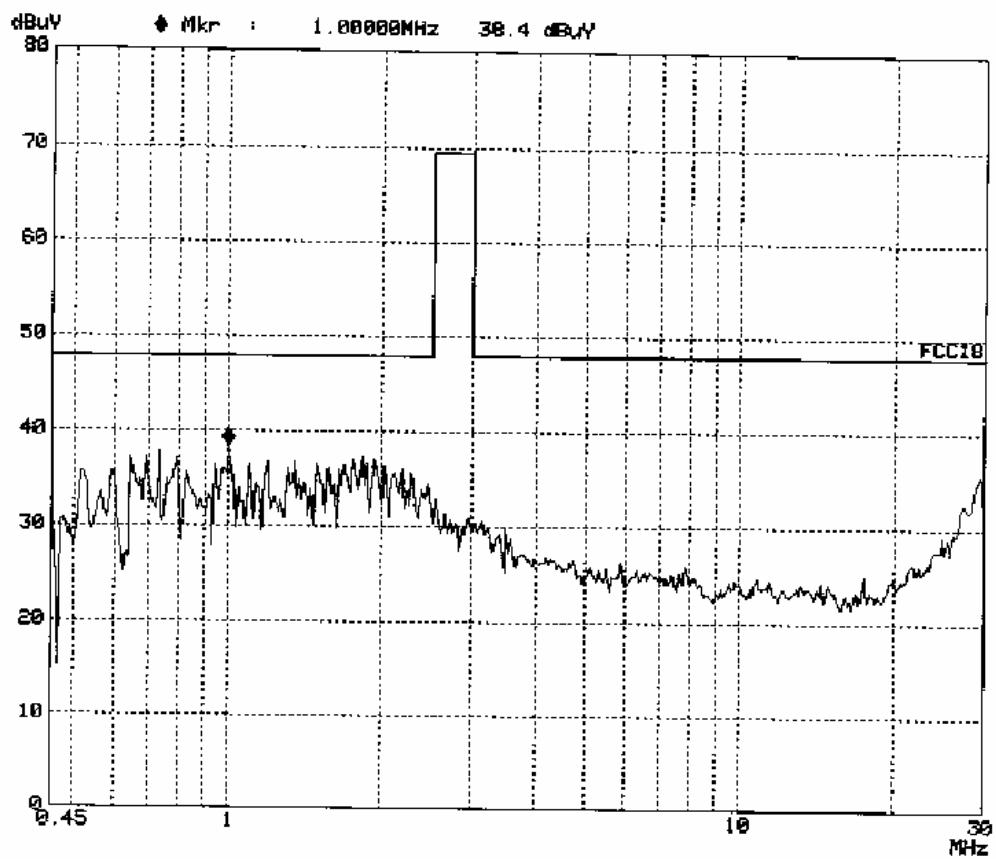
## Conducted Emission Test FCC Part 18

EUT: CFL M/N:CPTL13W 5950K  
Manuf: Corso  
Op Cond: Running  
Operator: Henry.Yang  
Test Spec: AC 120V/60Hz L  
Comment: Temp:25'C Humi:56%  
Date: 26. Jan 07 18:05



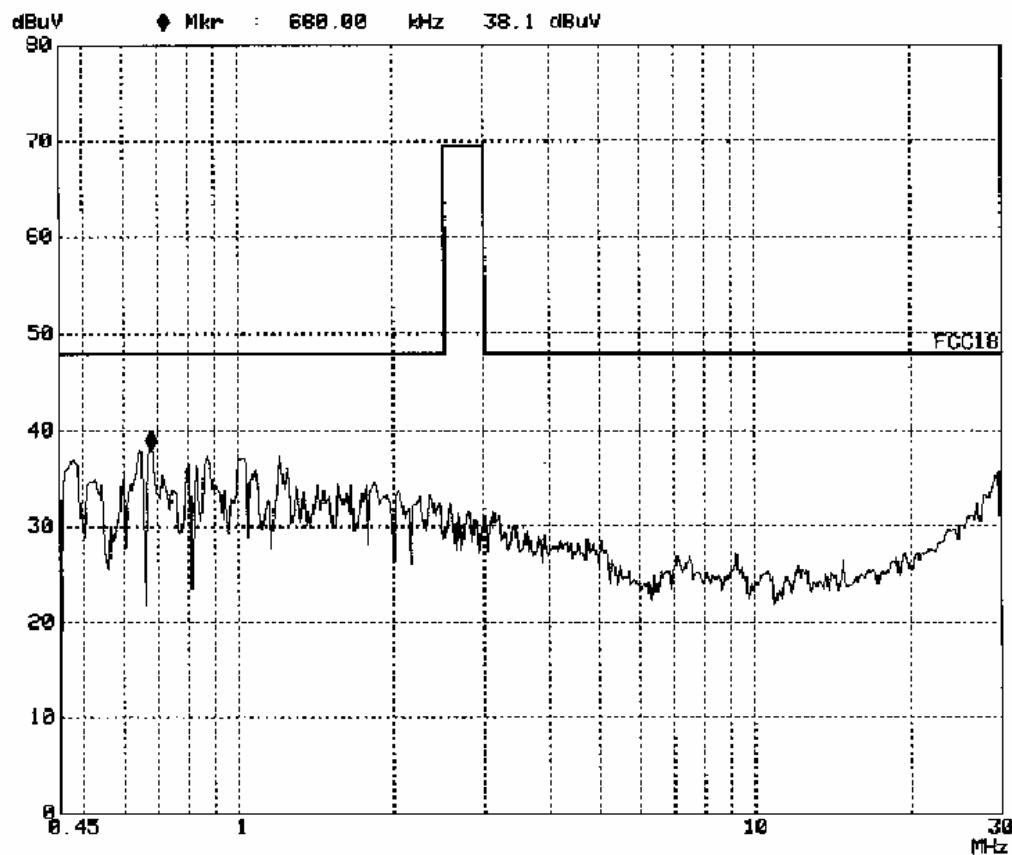
## Conducted Emission Test FCC Part 18

EUT: CFL M/N:CPTL13W 5950K  
Manuf: Corsc  
Op Cond: Running  
Operator: Henry.Yang  
Test Spec: AC 120V/60Hz N  
Comment: Temp:25'C Humi:56%  
Date: 26. Jan 07 20:02



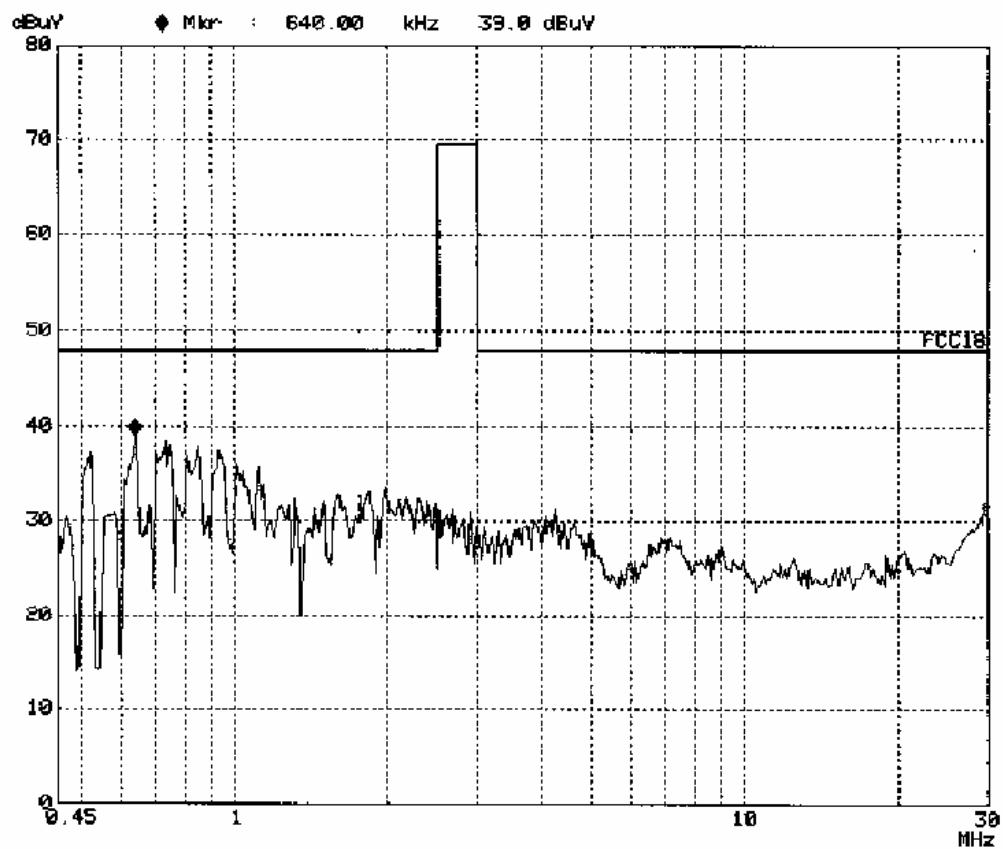
## Conducted Emission Test FCC Part 18

BUT: CFL M/N:CPTL 20W 5950K  
Manuf: Corso  
Op Cond: Running  
Operator: Henry.Yang  
Test Spec: AC 120V/60Hz L  
Comment: Temp:25'C Humi:56%  
Date: 26. Jan 07 20:39



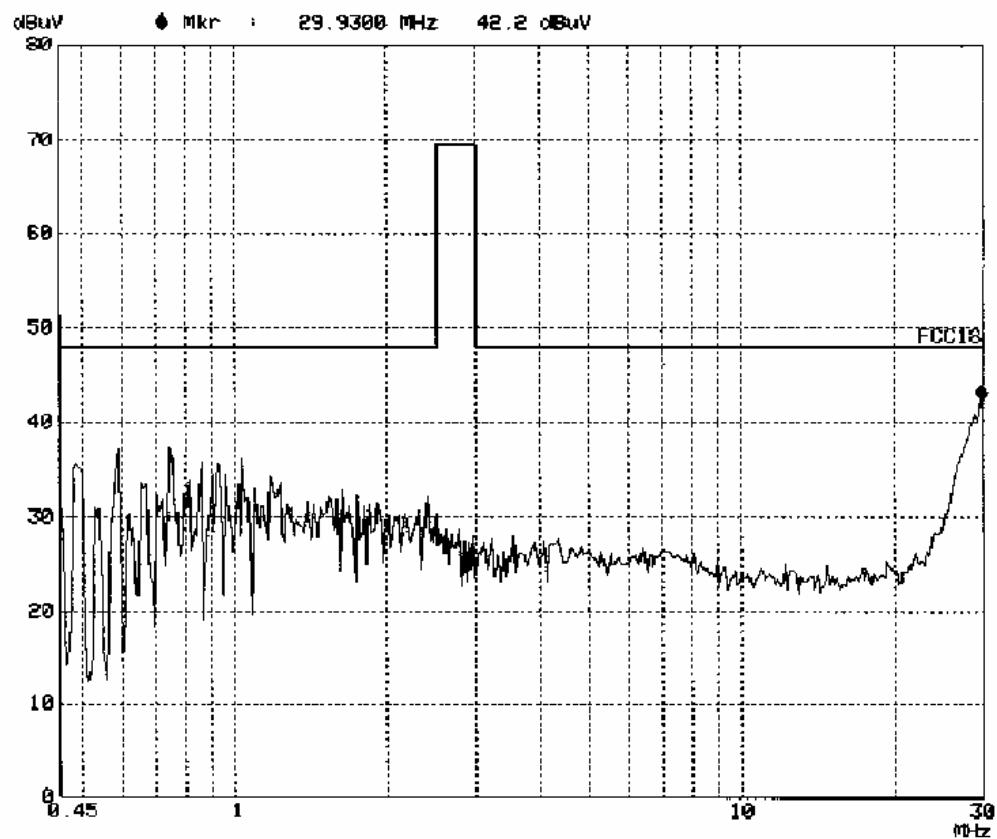
## Conducted Emission Test FCC Part 18

BUT: CFL M/N:CPTL 20W 5950K  
Manuf: Corso  
Op Cond: Running  
Operator: Henry.Yang  
Test Spec: AC 120V/60Hz N  
Comment: Temp:25'C Humi:56%  
Date: 26. Jan 07 20:43



## Conducted Emission Test FCC Part 18

EUT: CFL M/N:CPTL 25W 5950K  
Manuf: Corso  
Op Cond: Running  
Operator: Henry.Yang  
Test Spec: AC 120V/60Hz L  
Comment: Temp:25'C Humi:56%  
Date: 26. Jan 07 20:34



## Conducted Emission Test FCC Part 18

BUT: CFL M/N:CPTL 25W 5950K  
Manuf: Corso  
Op Cond: Running  
Operator: Henry.Yang  
Test Spec: AC 120V/60Hz N  
Comment: Temp:25'C Humi:56%  
Date: 26. Jan 07 20:29

