Lab Code: 200707-0

FCC PART 18
MEASUREMENT AND TEST REPORT

For

Xiamen Topstar Lighting Co., Ltd.

676 Meixi Avenue, Tong'an District,

Xiamen, Fujian, China

FCC ID: ZPD-BLTA26B-T3

Report Type: Original Report	**Product Type:** CFL
Test Engineer:	Phase Zhang
Report Number:	RSZ110613501-00
Report Date:	2011-07-13
Reviewed By:	Lisa Zhu EMC Engineer
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Xiamen Topstar Lighting Co., Ltd.*'s model: *BLTA26B-T3 (FCC ID: ZPD-BLTA26B-T3) (*the "EUT") in this report is a *CFL,* which measure approximately*:* 14.5 cm (L) x 5.2 cm (W) x 5.2 cm (H), rated input voltage: AC 120V/60Hz.

** All measurement and test data in this report was gathered from production sample serial number: 1106005 (Assigned by BACL, Shenzhen). The EUT was received on 2011-06-13.*

Objective

This test report is prepared on behalf of *Xiamen Topstar 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 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 Laboratories Corp. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on 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 Laboratories 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 December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

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 Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 200707-0).

The current scope of accreditations can be found at http://ts.nist.gov/Standards/scopes/2007070.htm

SYSTEM TEST CONFIGURATION

Justification

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

EUT Exercise Software

N/A

Special Accessories

The special accessories were supplied by Bay Area Compliance Laboratories Corp.

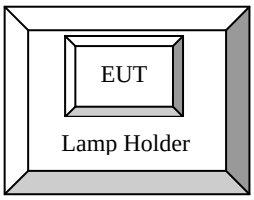
Equipment Modifications

No modifications were made to the unit tested.

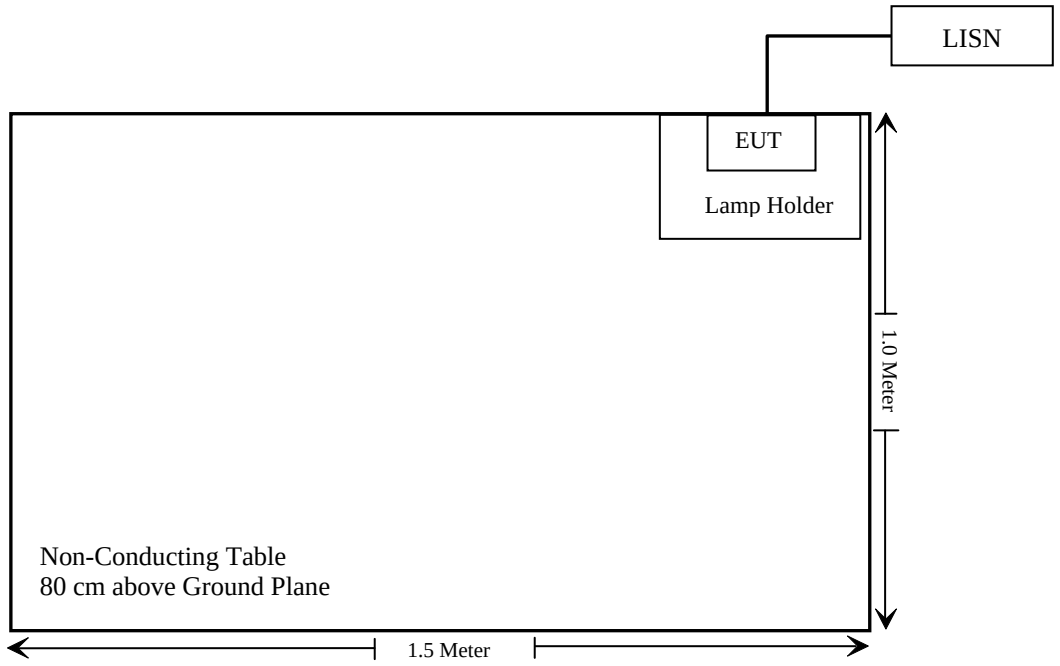
External I/O Cable

Cable Description	Length (m)	From Port	To
Unshielded Detachable AC Power Cable	1.2	EUT	LISN

Configuration of Test Setup



Block Diagram of Test Setup



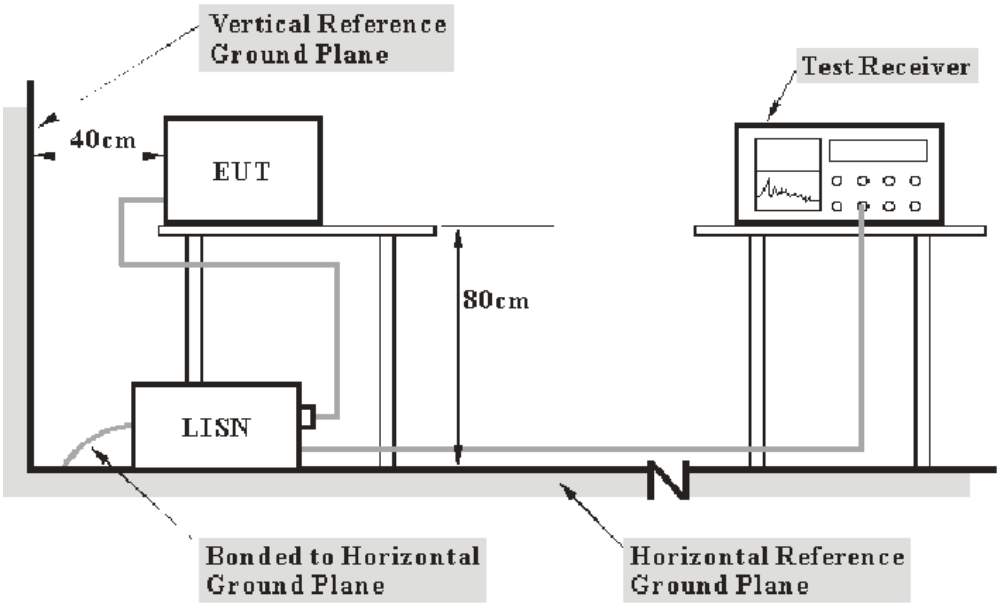
FCC §18.307 - AC LINE CONDUCTED EMISSIONS

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 Laboratories Corp. is ±2.4 dB (k=2, 95% level of confidence).

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 external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

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

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 450 kHz to 30 MHz.

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

Frequency Range	***IFBW***
450 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the EUT was connected to 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	830245/006	2011-03-03	2012-03-02
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2011-03-09	2012-03-08

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

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:

6.13 dB at **0.615 MHz** in the **Line** conducted mode

Test Data

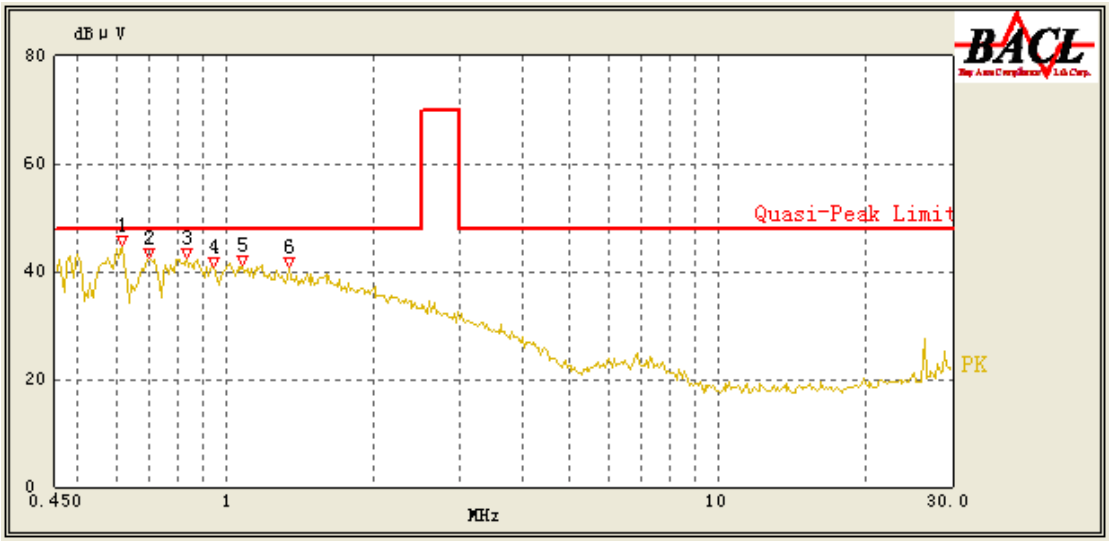
Environmental Conditions

Temperature:	25 °C
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

Testing was performed by Phase Zhang on 2011-06-14.

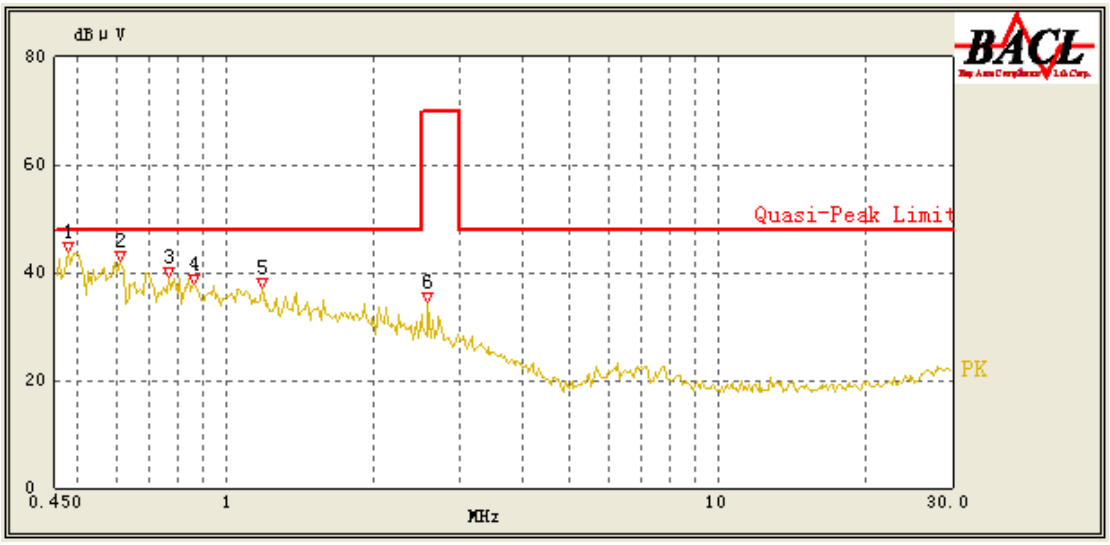
Test Mode: On

AC 120V/60 Hz, Line:



Frequency (MHz)	Corrected Result (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)
0.615	41.87	10.10	48.00	6.13
0.700	38.34	10.10	48.00	9.66
0.835	37.97	10.11	48.00	10.03
0.950	36.73	10.11	48.00	11.27
1.085	36.56	10.11	48.00	11.44
1.345	36.41	10.12	48.00	11.59

AC 120V/ 60 Hz, Neutral:



Frequency (MHz)	Corrected Result (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)
0.480	40.33	10.10	48.00	7.67
0.610	39.27	10.10	48.00	8.73
0.765	35.47	10.11	48.00	12.53
0.865	34.96	10.11	48.00	13.04
1.190	30.98	10.12	48.00	17.02
2.575	27.00	10.15	70.00	43.00

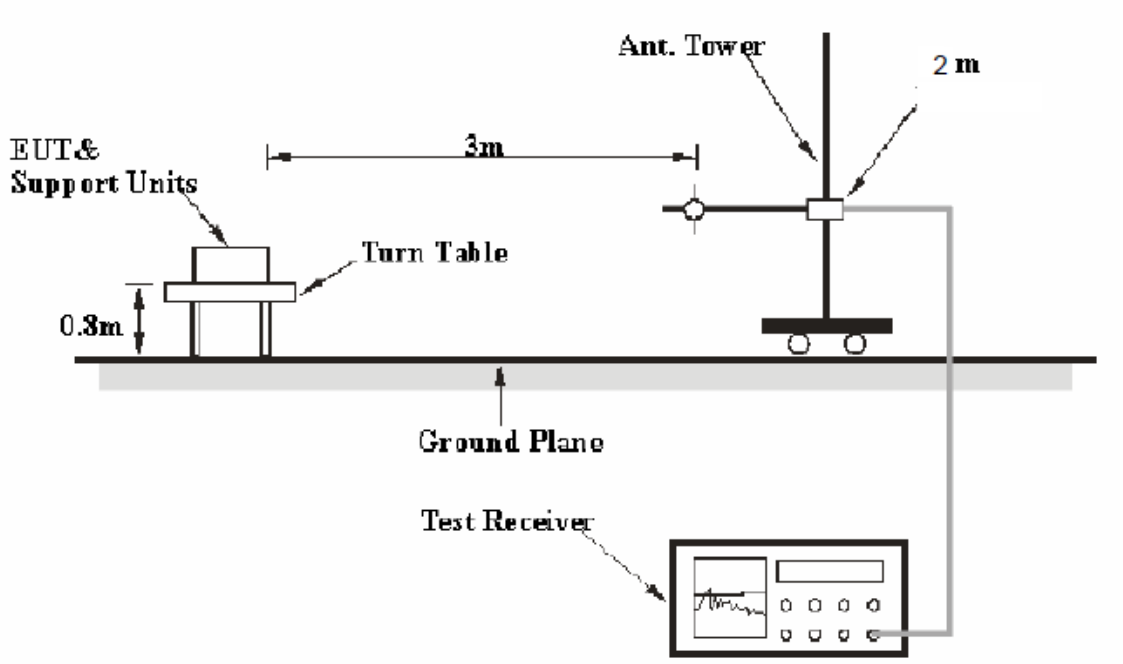
FCC §18.305 – FIELD STRENGTH

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is ±4.0 dB (k=2, 95% level of confidence).

EUT Setup



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the FCC MP - 5.

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

EMI Test Receiver Setup and Spectrum Analyzer Setup

The system was investigated from 9 kHz to 30 MHz.

During the radiated emission test, the EMI test receiver and Spectrum Analyzer were set with the following configurations:

Frequency Range	***R B/W***	***Video B/W***	***IF B/W***
9kHz– 150kHz	300 Hz	1 kHz	200Hz
150kHz– 30 MHz	10 kHz	30 kHz	9 kHz

Test Procedure

During the conducted emission test, the EUT was connected to 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
ETS-LINDGREN	Passive Loop Antenna	6512	00029604	2010-07-14	2011-07-13
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2010-11-11	2011-11-10

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

Corrected Amplitude Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

The testing was performed by Phase Zhang on 2011-06-14.

Test Mode: On

Frequency (MHz)	Receiver Reading (dBμA/m)	Detector (PK/QP/Ave.)	Direction (Degree)	Antenna Height (m)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Amplitude	
							(dBμA/m)	(dBμV/m)
13.516	-20.68	QP	169	2	-19.7	0.1	-40.28	11.22
8.002	-20.73	QP	118	2	-18.8	0.1	-39.43	12.07
2.66735	-20.96	QP	193	2	-12.6	0.1	-33.46	18.04
0.033252	-33.81	QP	19	2	26.7	0.1	-7.01	44.49
2.66735	-19.66	QP	271	2	15.3	0.1	-4.26	47.24
0.009846	-32.12	QP	86	2	35.6	0.1	3.58	55.08

Note: dBμV/m= dBμA/m+51.5 dB

******* END OF REPORT *******