FCC PART 18

MEASUREMENT AND TEST REPORT

For

TDC Power Products Co., Ltd

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DongHang 3rd Industrial District, Dong Hang, Dong Guan City, GuangDong, China

FCC ID: R8OBT5L2-A

June 16, 2004

This Report Concerns:	**Equipment Type:**
☒ Original Report	Electronic Ballast

Test Engineer:	Lisa Zhu
Report Number	RSZ04060205
Test Date:	May 14, 2004
Reviewed By:	Chris Zheng
Prepared By:	Bay Area Compliance Lab Corp. ShenZhen Suite C, 41-D Electronics Science & Technology Building, No. 2070 Shennanzhong Rd ShenZhen, Guandong 518031, P.R. China Tel: 86-755- 83296449 Fax: 86-755- 83273756

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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The *TDC Power Products Co., Ltd.*'s model *EBA-013L2A-T5,EBA-008L2A-T5,EBA-008013L1A-T5* or the "EUT" as referred to in this report is a *Electronic Ballast* which measures approximately 8.7cm L x 2.4cm W x 2.0cm H, rated input voltage: AC 120 V/60Hz.

** The test data gathered are from production sample, serial number: 040550, provided by the manufacturer.*

Objective

The following test report is prepared on behalf of *TDC Power Products 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 is to determine compliance with FCC rules.

Related Submittal(s)/Grant(s)

No Related Submittals.

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 radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratory Corp. The radiated testing was performed at an antenna-to-EUT distance of 3 Meters.

Test Facility

Test site at Bay Area Compliance Laboratory Corporation has been fully described in reports submitted to the Federal Communication Commission (FCC) and Voluntary Control Council for Interference (VCCI). The details of these reports has been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 11 and December 10, 1997 and Article 8 of the VCCI regulations on December 25, 1997. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2001 and FCC MP-5.

The Federal Communications Commission and Voluntary Control Council for Interference has the reports on file and is listed under FCC file 31040/SIT 1300F2 and VCCI Registration No.: C-1298 and R-1234. The test site has been approved by the FCC and VCCI for public use and is listed in the FCC Public Access Link (PAL) database.

External Cable

Cable Description	Length (M)	From/Port	To
Unshielded AC Power Cable	1.2	AC Mains	EUT

SYSTEM TEST CONFIGURATION

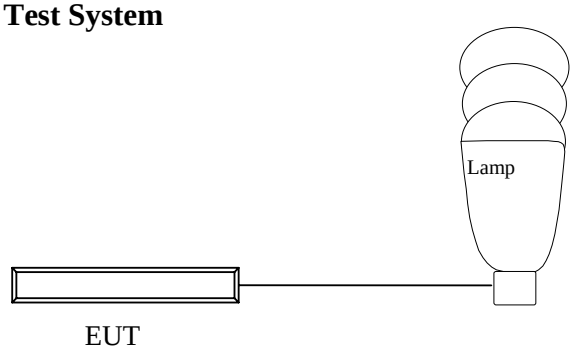
Justification

The EUT was tested under the normal operating conditions stated in the instructions by the manufacturer

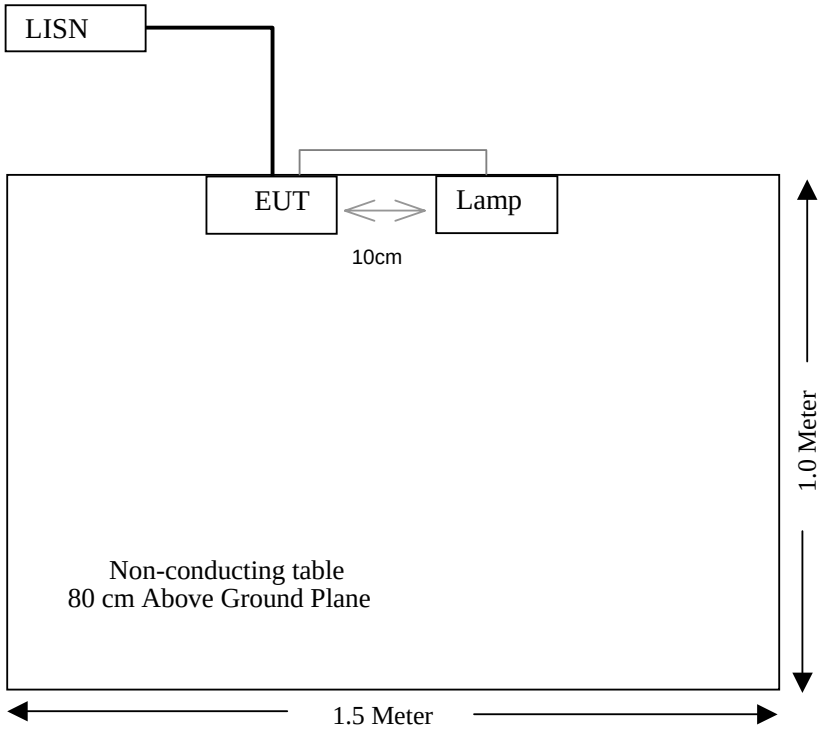
Equipment Modifications

The EUT samples provided were reported by the manufacturer to be unmodified production samples

Configuration of Test System



Test Setup Block Diagram



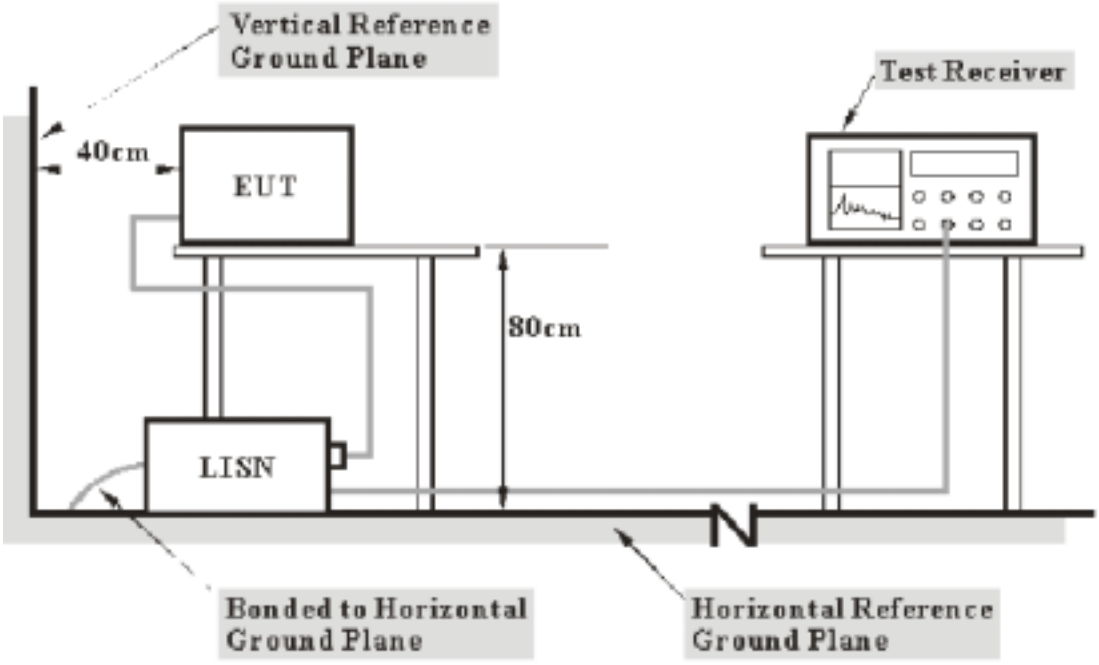
CONDUCTED EMISSION

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 BACL is ±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 measurement procedure. The specification used was the FCC Part 18 limits.

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

Spectrum Analyzer Setup

The spectrum analyzer was set to investigate the spectrum from 450 KHz to 30MHz.

During the conducted emission test, the spectrum analyzer was set with the following configurations:

Frequency Range	***RBW***	***Video B/W***
450KHz - 30MHz	10KHz	10KHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
COM Power	LISN	LI-200	12208	2003-10-30	2004-10-29
COM Power	LISN	LI-200	12005	2003-10-30	2004-10-29
R/S	Spectrum Analyzer	FSEM	849720/019	2003-10-30	2004-10-29
FLUKE	True RMS Multimeter	187	78540402	2004-3-23	2005-3-22

*** Statement of Traceability: BACL Corp.** attested that all calibrations had 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 were performed on the six (6) highest emissions of the EUT.

All data was recorded in the peak detection mode.

Test Data

Date of Test	:	May 14, 2004	Temperature	:	25℃
EUT	:	Electronic Ballast	Humidity	:	70%
M/N	:	EBA-013L2A-T5,	Operating Mode	:	On
S/N	:	040550	Test Engineer:		Lisa Zhu

LINE CONDUCTED EMISSIONS				FCC PART 18	
Frequency MHz	Amplitude dBμV	Detector QP/AV/Peak	Phase Line/Neutral	Limit dBμV	Margin dB
0.469	45.72	QP	Line	48.00	-2.28
0.582	45.01	QP	Line	48.00	-2.99
0.491	43.39	QP	Line	48.00	-4.61
0.485	42.54	QP	Neutral	48.00	-5.46
0.450	41.68	QP	Neutral	48.00	-6.32
0.501	41.23	QP	Neutral	48.00	-6.77

Date of Test	:	May 14, 2004	Temperature	:	25℃
EUT	:	Electronic Ballast	Humidity	:	70%
M/N	:	EBA-008L2A-T5	Operating Mode	:	On
S/N	:	040550	Test Engineer:		Lisa Zhu

LINE CONDUCTED EMISSIONS				FCC PART 18	
Frequency MHz	Amplitude dBμV	Detector QP/AV/Peak	Phase Line/Neutral	Limit dBμV	Margin dB
0.453	42.41	QP	Line	48.00	-5.59
0.473	40.77	QP	Neutral	48.00	-7.23
0.450	40.11	QP	Neutral	48.00	-7.89
0.470	40.11	QP	Line	48.00	-7.89
0.560	39.91	QP	Line	48.00	-8.09
0.520	38.36	QP	Neutral	48.00	-9.64

Date of Test	:	May 14, 2004	Temperature	:	25℃
EUT	:	Electronic Ballast	Humidity	:	70%
M/N	:	EBA-008013L1A-T5	Operating Mode	:	On
S/N	:	040550	Test Engineer:		Lisa Zhu

LINE CONDUCTED EMISSIONS				FCC PART 18	
Frequency MHz	Amplitude dBμV	Detector QP/AV/Peak	Phase Line/Neutral	Limit dBμV	Margin dB
0.450	41.91	QP	Neutral	48.00	-6.09
0.450	41.84	QP	Line	48.00	-6.16
0.480	40.91	QP	Line	48.00	-7.09
0.470	40.62	QP	Neutral	48.00	-7.38
0.520	40.01	QP	Line	48.00	-7.99
0.490	39.15	QP	Neutral	48.00	-8.85

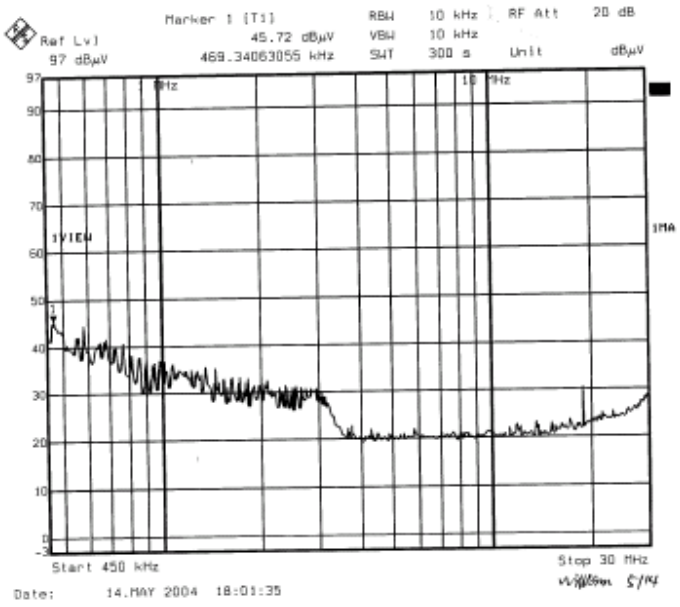
Test Result: Pass

Plot(s) of Test Data

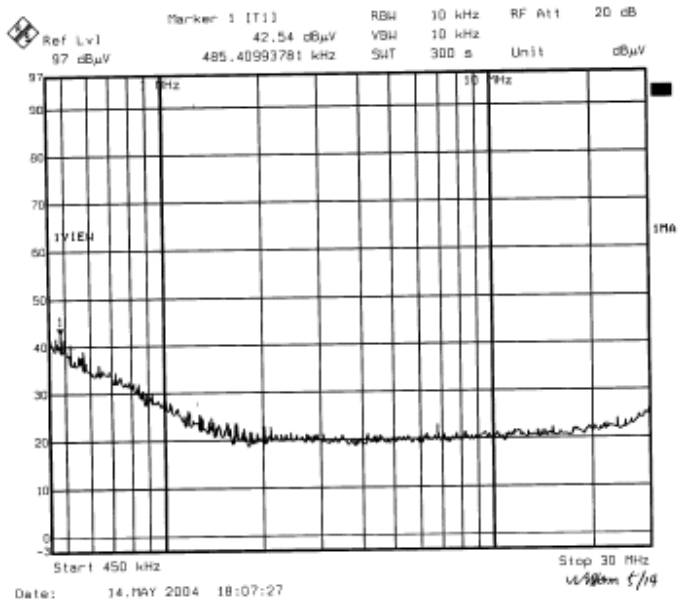
Plot(s) of Test Data is presented hereinafter as reference.

EBA-013L2A-T5

Line:



Neutral:



EBA-008L2A-T5

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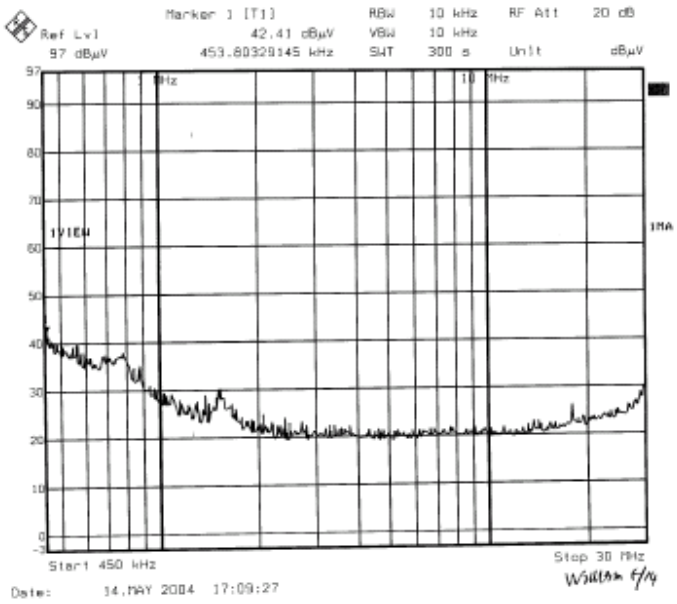

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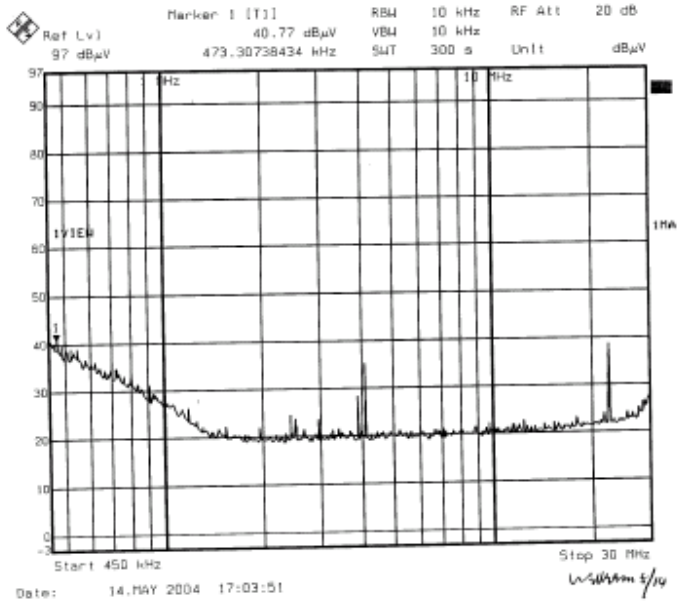
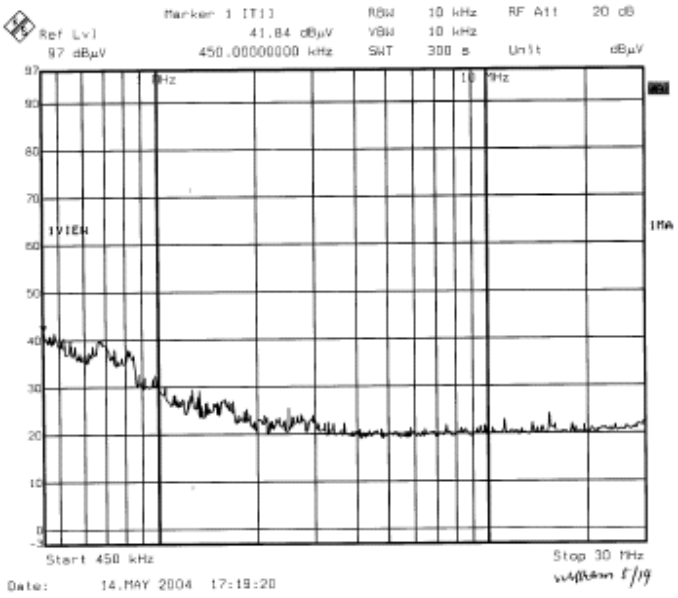


EBA-008013L1A-T5

Line:



Neutral: