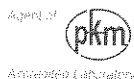




國際電器認證中心有限公司 International Electrical Certification Centre Ltd.

提供電器產品測試國際認證及諮詢服務 Technical Services in Electrical Product Testing, International Certification & Information



F C C -

TEST REPORT

REPORT NO.: 50229

Address 地址 Units 602-605, 6/F., 31 Lok Yip Rd., On Lok Tsuen, Fanling, N.T., Hong Kong.
香港新界粉嶺安樂村樂業路31號6樓602-605室
China 中國 IECC (Guangzhou) Services Co., Ltd. 廣州時並進技術服務有限公司
Address 地址 Flat A, 2/F., Block 3, 56 Shuiyin Road, Guangzhou, P.R. of China
廣州市水蔭路56號3棟2A室 Postcode 郵政編碼 510075

Tel 電話: (852) 2305 2570
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E-mail 電子郵件: info@iecc.net.cn
Home Page 網頁: <http://www.iecc.net.cn>

FCC – Test Report**No. 50229**

Date: 2008-07-04

Page 2 of 24

**FCC listed testlab
acc. to Section 2.948 of the FCC - Rules****Product** : Electronic Ballast**Product Class** : Part 18 Consumer Device**Brand Name** : --**Model** : DC-NXU-6101-A**Importer** : ZHONGSHAN DICHENG ILLUMINATION
ELECTRICAL DEVICES MANUFACTURING
CO., LTD.

FCC – Test Report**No. 50229**

Date: 2008-07-04

Page 3 of 24

TABLE OF CONTENTS

1. Cover sheet
2. Introduction
3. Table of Contents
4. Laboratory Report
5. Test Location and Summary of Test Results
6. Test Equipment List
- 7-8. Radiated Emission Test Setup
9. Conducted Emission Test Setup
10. Test Procedure
11. Test Results
- 12-17. Measurement Data – Radiated Emission
- 18-23. Measurement Data – Conducted Emission
24. Photograph of the Sample

FCC – Test Report**No. 50229**

Date: 2008-07-04

Page 4 of 24

LABORATORY - REPORT

APPLICANT: ZHONGSHAN DICHENG ILLUMINATION ELECTRICAL DEVICES
ADDRESS: MANUFACTURING CO., LTD.
Ya Gang Industrial Zone
San Xiang Town, Zhongshan City
Guang Dong, China

DATE OF SAMPLE RECEIVED: 2008-04-17

DATE OF TESTING: 2008-05-07, 2008-07-03 to 04

DESCRIPTION OF SAMPLE:

Product: Electronic Ballast
(Connected to one or two fluorescent lamps type : T9 32W, T9 40W,
T9 32W + T9 40W)

Product class: Part 18 Consumer Device

Model no.: DC-NXU-6101-A

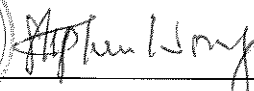
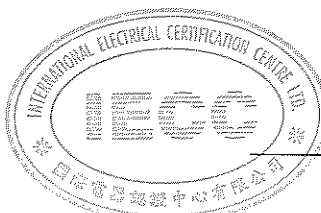
Rating: AC 120V 60Hz

CONDITION OF TEST SAMPLE: The received samples were under good condition.

INVESTIGATIONS REQUESTED: Measurements to the relevant clauses of F.C.C. Rules and Regulations
Part 18 – Industrial, Scientific, and Medical Equipment

RESULTS: See the attached test sheets

CONCLUSIONS: From the measurement data obtained, the tested sample was
considered to have **COMPLIED** with the requirements for the relevant
clauses of Federal Communications Commission Rules as specified
above.



Authorized Signature

FCC – Test Report

No. 50229

Date: 2008-07-04

Page 5 of 24

Test Location

International Electrical Certification Centre Ltd.
Unit 602-605, 31 Lok Yip Road, On Lok Tsuen, Fanling, N.T., Hong Kong
Tel : +852 23052570
Fax : +852 27564480
Email : info@iecc.com.hk

Summary of Test Results

Radiated Emission:

Test result: O.K.
Test data: See attached data sheet

Conducted Emission:

Test result: O.K.
Test data: See attached data sheet

FCC – Test Report

No. 50229

Date: 2008-07-04

Page 6 of 24

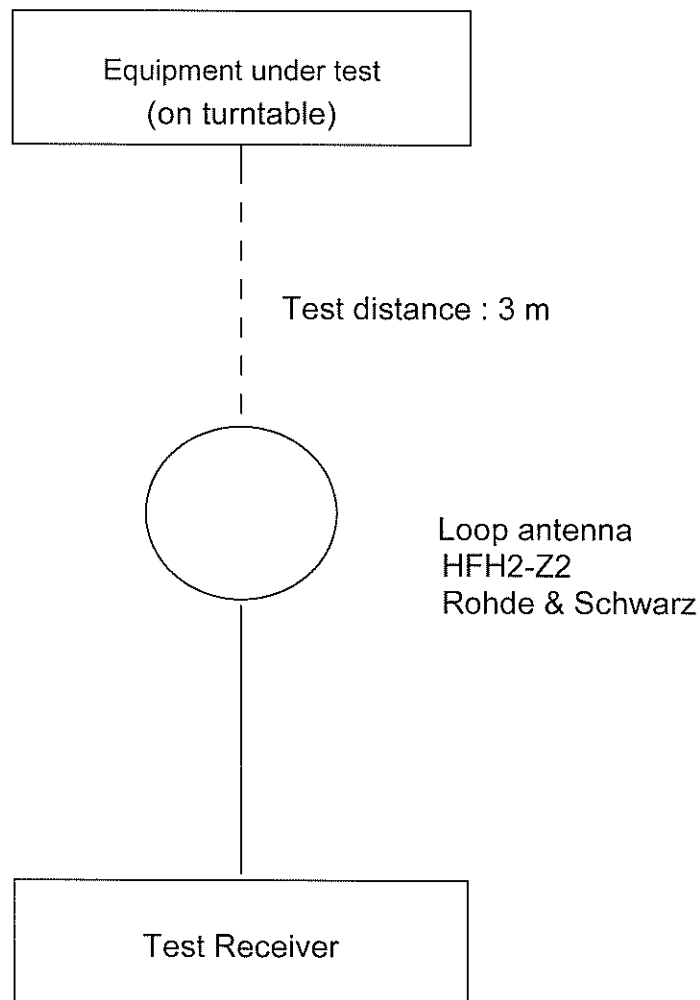
TEST EQUIPMENT LIST

Equipment	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Date
Test Receiver	Rohde & Schwarz	ESVS 30	100388	12/4/2007	29/11/2008
Antenna	Schaffner	CBL6111C	2791	25/05/2005	30/07/2008
Antenna Mast System	Schwarzbeck	AM9104	--	--	--
Loop Antenna	Rohde & Schwarz	HFH2-Z2	871336/48	18/11/2006	17/11/2009
Turntable with Controller	Drehtisch	DT312	--	--	--
Test Receiver	Rohde & Schwarz	ESHS 30	839667/002	22/10/2007	21/10/2008
Artificial Mains Network (LISN)	Schwarzbeck	NSLK 8127 / NNLA 8119	8127312	02/11/2007	01/11/2008
Impulse Limiter	Rohde & Schwarz	ESH-3-Z2	--	30/03/2007	29/03/2009

FCC – Test Report**No. 50229**

Date: 2008-07-04

Page 7 of 24

Radiated Emission Test Setup (3 m distance) (9kHz - 30MHz)

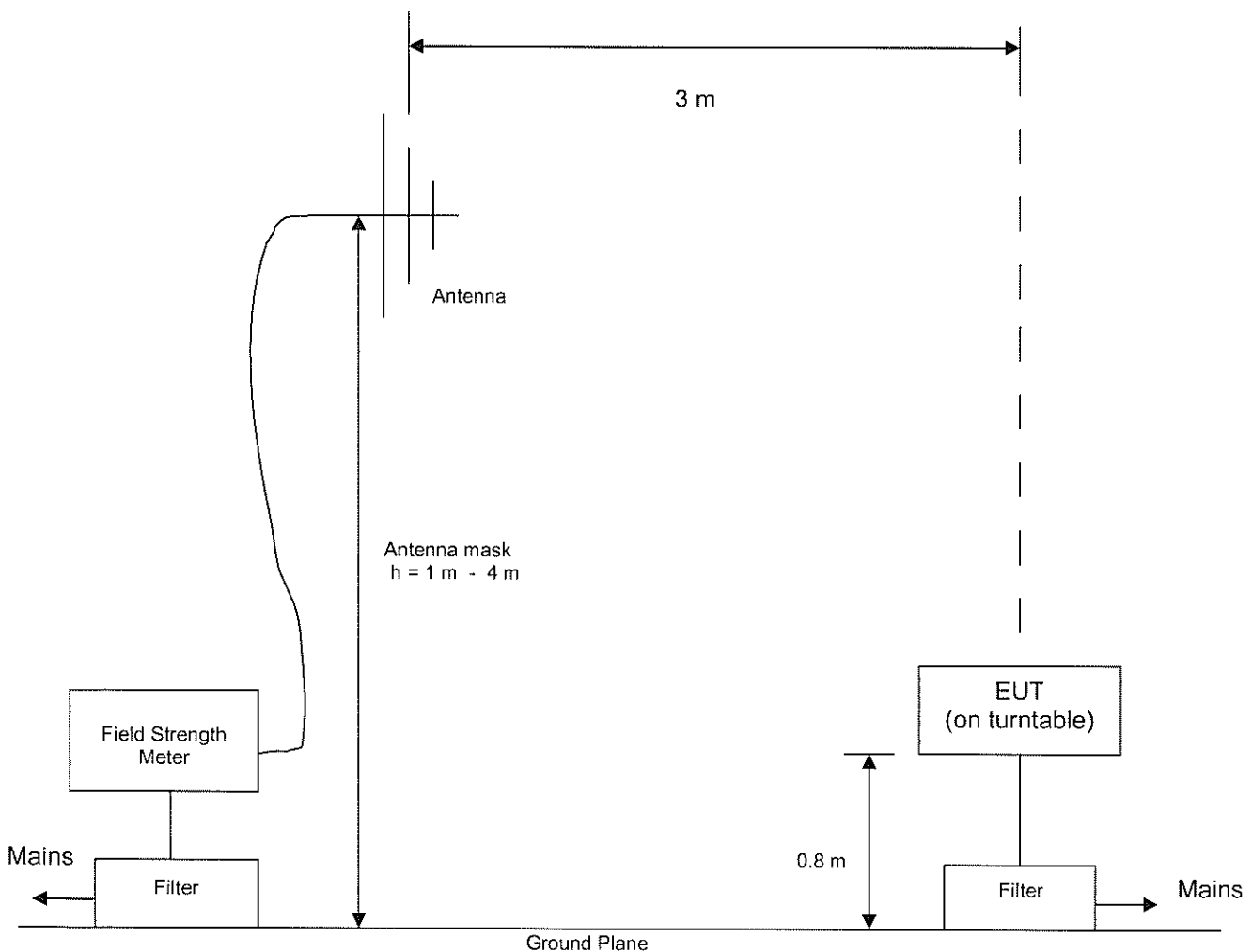
FCC – Test Report

No. 50229

Date: 2008-07-04

Page 8 of 24

Radiated Emission Test Setup (3 m distance) (> 30MHz)

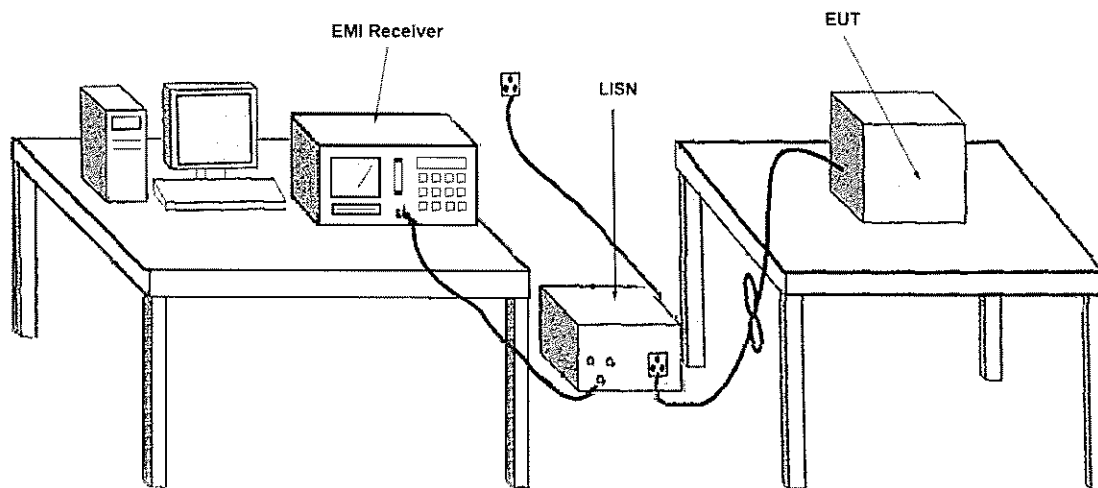


FCC – Test Report

Date: 2008-07-04

No. 50229

Page 9 of 24

Conducted Emission Test Setup

1. The above measurement is made in a shielded room.
2. The EUT is placed on a wooden table (0.8 m high) which is located in front of an earth grounded conducting wall over 2 meters square.
3. The EUT is placed 40 cm from the earth grounded conducting wall and at least 80 cm from any other earthed conducting surface.
4. The flexible power cable of the EUT is plugged into the LISN for measurement.
5. The length of the power cable in excess of 80 cm separating the EUT from the LISN is folded back and forth so as to form a bundle not exceeding 30 to 40 cm in length.
6. The LISN ground is adequately bonded to the earth grounded conducting wall.

FCC – Test Report

Date: 2008-07-04

No. 50229

Page 10 of 24

Test Procedure

Radiated Emission :

The EUT was tested according to FCC Measurement Procedure MP-5 for the requirements of FCC Part 18 Subpart C Section 18.305 and 18.309.

1. Measurement Frequencies 9kHz – 30MHz :

During the test, the sample was placed on a turn table and operated with one or two fluorescent lamps (T9 32W, T9 40W, T9 32W + T9 40W) in turn with supply at rated AC voltage (i.e AC120V 60Hz). The table is 0.8 meter and can rotate 360 degrees to determine the position of the maximum emission level. A loop antenna for the frequency range 9kHz - 30MHz, connected with 10 meters coaxial cable to the test receiver was used for measurement. The center of the loop 1 m above the floor, positioned with its plane vertical at the specified distance and rotated about its vertical axis and placed horizontal for maximum response at each azimuth about the EUT.

An initial pre-scan was performed to find out the maximum emission level of the sample placed at 3 orthogonal planes. Final measurement was then performed to record the data for emission (9kHz – 30MHz) under worst-case condition for combination of the antenna orientation and turn table position.

2. Measurement Frequencies 30MHz – 1000 MHz :

During the test, the sample was also placed on a turn table and operated with one or two fluorescent lamps (T9 32W, T9 40W, T9 32W + T9 40W) in turn with supply at rated AC voltage (i.e AC120V 60Hz). The table is 0.8 meter above the reference ground plane on the Open Area Test Site and can rotate 360 degrees to determine the position of the maximum emission level. A broad-band antenna for the frequency range 30 - 1000 MHz, connected with 10 meters coaxial cable to the test receiver was used for measurement. The antenna is capable of measuring both horizontal and vertical polarizations. The antenna was raised from 1 to 4 meters to find out the maximum emission level from the EUT.

An initial pre-scan was performed to find out the maximum emission level of the sample placed at 3 orthogonal planes. Final measurement was then performed to record the data for emissions (30 MHz – 1000 MHz) under worst-case condition for combination of the antenna orientation / height and turn table position.

Note : The Open Area Test Site located at IECC was placed on file with the FCC Pursuant to Section 2.948 of the FCC Rules (FCC Registration No. : 97774).

Conducted Emission :

The EUT was tested according to FCC Measurement Procedure MP-5 for the requirements of FCC Part 18 Subpart C Section 18.307.

During the test, the sample was placed on a wooden table and operated with one or two fluorescent lamps (T9 32W, T9 40W, T9 32W + T9 40W) in turn with supply at rated AC voltage (i.e AC120V 60Hz) via the LISN. The table is 0.8 meter above the floor. The LISN was connected to the test receiver for conducted emission measurement (450kHz – 30MHz). The measurement was conducted after the fluorescent lamps were turned on for more than 30 minutes for warm up purpose.

FCC – Test Report**No. 50229**

Date: 2008-07-04

Page 11 of 24

Test Results**Radiated Emission :**

Test Requirement: FCC Part 18 Subpart C Section 18.305 and 18.309
Test Method: FCC Measurement Procedure MP-5
Frequency Range: 9kHz – 30MHz, 30MHz – 1000MHz
Detector: Quasi-Peak

Refer to page 12 - 17 for measurement data.

Conducted Emission :

Test Requirement: FCC Part 18 Subpart C Section 18.307
Test Method: FCC Measurement Procedure MP-5
Frequency Range: 450kHz – 30MHz
Detector: Quasi-Peak

Refer to page 18 - 23 for measurement data.

IT 5/6

Date : 2008-07-04

Page 12 of 24

Radiated Emission
Acc: FCC Part 18 Subpart 18.305

IECC Ref: 50229
 Model: DC-NXU-6101-A
 Applicant: ZHONGSHAN DICHENG ILLUMINATION ELECTRICAL
 DEVICES MANUFACTURING CO., LTD.
 Ser.Nr.: --
 Set under test: Electronic Ballast
 Connected sets: -
 Operating mode: Light ON (Tested with fluorosecent Lamp T9 32W)

Test Equipment
 Receiver: Rohde & Schwarz ESVS 30
 Antenna: Rohde & Schwarz HFH2-Z2

Frequency (MHz)	Horz. Reading dB(μV)	Vert. Reading dB(μV)	Limit * dB(μV)
0.009	37.0	41.0	-
0.028	56.0	68.0	-
0.15	33.0	33.0	-
0.197	37.0	41.0	-
0.310	37.0	37.0	-
0.367	38.0	30.0	-
1.000	20.0	20.0	-
5.000	17.0	17.0	-
10.000	17.0	17.0	-
20.000	17.0	17.0	-
30.000	17.0	17.0	-

* No limit is specified for measurement below 30MHz

Note :

1. The above measured data are in Quasi-Peak values.
2. The above results were the worst case results with the sample positioned in all 3 axis during the test. The worst case data were obtained with the sample placed normally on the table.

Operator : RT

IT 5/6

Date : 2008-07-04

Page 13 of 24

Radiated Emission
Acc: FCC Part 18 Subpart 18.305

IECC Ref: 50229
Model: DC-NXU-6101-A
Applicant: ZHONGSHAN DICHENG ILLUMINATION ELECTRICAL
DEVICES MANUFACTURING CO., LTD.
Ser.Nr.: --
Set under test: Electronic Ballast
Connected sets: -
Operating mode: Light ON (Tested with fluorosecent Lamp T9 40W)

Test Equipment
Receiver: Rohde & Schwarz ESVS 30
Antenna: Rohde & Schwarz HFH2-Z2

Frequency (MHz)	Horz. Reading dB(μV)	Vert. Reading dB(μV)	Limit * dB(μV)
0.009	34.0	42.0	-
0.032	58.0	67.0	-
0.098	41.0	47.0	-
0.150	34.0	33.0	-
0.162	43.0	48.0	-
0.200	36.0	31.0	-
0.220	43.0	36.0	-
0.358	41.0	40.0	-
0.500	27.0	26.0	-
1.000	20.0	22.0	-
5.000	18.0	17.0	-
10.000	18.0	17.0	-
20.000	17.0	17.0	-
30.000	17.0	17.0	-

* No limit is specified for measurement below 30MHz

Note :

1. The above measured data are in Quasi-Peak values.
2. The above results were the worst case results with the sample positioned in all 3 axis during the test. The worst case data were obtained with the sample placed normally on the table.

Operator : RT

IT 5/6

Date : 2008-07-04

Page 14 of 24

Radiated Emission
Acc: FCC Part 18 Subpart 18.305

IECC Ref: 50229
 Model: DC-NXU-6101-A
 Applicant: ZHONGSHAN DICHENG ILLUMINATION ELECTRICAL
 DEVICES MANUFACTURING CO., LTD.
 Ser.Nr.: --
 Set under test: Electronic Ballast
 Connected sets: -
 Operating mode: Light ON (Tested with fluorosecent Lamps T9 32W + T9 40W)

Test Equipment
 Receiver: Rohde & Schwarz ESVS 30
 Antenna: Rohde & Schwarz HFH2-Z2

Frequency (MHz)	Horz. Reading dB(μV)	Vert. Reading dB(μV)	Limit * dB(μV)
0.009	34.0	41.0	-
0.036	59.0	72.0	-
0.152	34.0	34.0	-
0.183	40.0	50.0	-
0.200	31.0	31.0	-
0.220	40.0	34.0	-
0.290	35.0	34.0	-
0.360	31.0	34.0	-
0.540	32.0	24.0	-
0.730	30.0	23.0	-
1.000	20.0	20.0	-
5.000	19.0	18.0	-
10.000	17.0	17.0	-
20.000	17.0	17.0	-
30.000	17.0	17.0	-

* No limit is specified for measurement below 30MHz

Note :

1. The above measured data are in Quasi-Peak values.
2. The above results were the worst case results with the sample positioned in all 3 axis during the test. The worst case data were obtained with the sample placed normally on the table.

Operator : RT

IT 5/6

Date : 2008-07-04

Page 15 of 24

Radiated Emission

Acc: FCC Part 18 Subpart 18.305

IECC Ref: 50229
 Model: DC-NXU-6101-A
 Applicant: ZHONGSHAN DICHENG ILLUMINATION ELECTRICAL
 DEVICES MANUFACTURING CO., LTD.
 Ser.Nr.: --
 Set under test: Electronic Ballast
 Connected sets: -
 Operating mode: Light ON (Tested with fluorescent Lamp T9 32W)

Test Equipment
 Receiver: Rohde & Schwarz ESVS 30
 Antenna: Schaffner CBL6111C

Frequency (MHz)	Horz. Reading dB(μV)	Vert. Reading dB(μV)	Corr. Factor (dB)	Horiz. Test Result dB(μV/m)	Vert. Test Result dB(μV/m)	Limit dB(μV/m)
30	17.0	17.0	17.7	34.7	34.7	40.0
50	< 16.0	< 16.0	8.7	< 24.7	< 24.7	40.0
100	< 16.0	< 16.0	10.1	< 26.1	< 26.1	43.5
300	< 16.0	< 16.0	13.9	< 29.9	< 29.9	46.0
500	< 16.0	< 16.0	19.1	< 35.1	< 35.1	46.0
700	< 16.0	< 16.0	22.3	< 38.3	< 38.3	46.0
1000	< 16.0	< 16.0	27.2	< 43.2	< 43.2	46.0

The measurement results indicate that the test unit meets the FCC requirements.

Note :

1. The above measured data are in Quasi-Peak values.
2. No significant data were measured with the sample positioned in all 3 axis during the test.

Operator : RT

IT 5/6

Date : 2008-07-04

Page 16 of 24

Radiated Emission
Acc: FCC Part 18 Subpart 18.305

IECC Ref: 50229
 Model: DC-NXU-6101-A
 Applicant: ZHONGSHAN DICHENG ILLUMINATION ELECTRICAL
 DEVICES MANUFACTURING CO., LTD.
 Ser.Nr.: --
 Set under test: Electronic Ballast
 Connected sets: -
 Operating mode: Light ON (Tested with fluorescent Lamp T9 40W)

Test Equipment
 Receiver: Rohde & Schwarz ESVS 30
 Antenna: Schaffner CBL6111C

Frequency (MHz)	Horz. Reading dB(μV)	Vert. Reading dB(μV)	Corr. Factor (dB)	Horiz. Test Result dB(μV/m)	Vert. Test Result dB(μV/m)	Limit dB(μV/m)
30	17.0	17.0	17.7	34.7	34.7	40.0
50	< 16.0	< 16.0	8.7	< 24.7	< 24.7	40.0
100	< 16.0	< 16.0	10.1	< 26.1	< 26.1	43.5
300	< 16.0	< 16.0	13.9	< 29.9	< 29.9	46.0
500	< 16.0	< 16.0	19.1	< 35.1	< 35.1	46.0
700	< 16.0	< 16.0	22.3	< 38.3	< 38.3	46.0
1000	< 16.0	< 16.0	27.2	< 43.2	< 43.2	46.0

The measurement results indicate that the test unit meets the FCC requirements.

Note :

1. The above measured data are in Quasi-Peak values.
2. No significant data were measured with the sample positioned in all 3 axis during the test.

Operator : RT

IT 5/6

Date : 2008-07-04

Page 17 of 24

Radiated Emission

Acc: FCC Part 18 Subpart 18.305

IECC Ref: 50229
 Model: DC-NXU-6101-A
 Applicant: ZHONGSHAN DICHENG ILLUMINATION ELECTRICAL
 DEVICES MANUFACTURING CO., LTD.
 Ser.Nr.: --
 Set under test: Electronic Ballast
 Connected sets: -
 Operating mode: Light ON (Tested with fluorescent Lamps T9 32W + T9 40W)

Test Equipment
 Receiver: Rohde & Schwarz ESVS 30
 Antenna: Schaffner CBL6111C

Frequency (MHz)	Horz. Reading dB(μV)	Vert. Reading dB(μV)	Corr. Factor (dB)	Horiz. Test Result dB(μV/m)	Vert. Test Result dB(μV/m)	Limit dB(μV/m)
30	17.0	17.0	17.7	34.7	34.7	40.0
50	< 16.0	< 16.0	8.7	< 24.7	< 24.7	40.0
100	< 16.0	< 16.0	10.1	< 26.1	< 26.1	43.5
300	< 16.0	< 16.0	13.9	< 29.9	< 29.9	46.0
500	< 16.0	< 16.0	19.1	< 35.1	< 35.1	46.0
700	< 16.0	< 16.0	22.3	< 38.3	< 38.3	46.0
1000	< 16.0	< 16.0	27.2	< 43.2	< 43.2	46.0

The measurement results indicate that the test unit meets the FCC requirements.

Note :

1. The above measured data are in Quasi-Peak values.
2. No significant data were measured with the sample positioned in all 3 axis during the test.

Operator : RT



ISM 1/2

Interference Voltage 450 KHz - 30 MHz

acc. FCC PART 18 Subpart C Section 18.307 (c)

Cabin 1

Model: DC-NXU-6101-A

Sp1./Ser.No.: 01/--

Client : ZHONGSHAN DICHENG ILLUMINATION

Product: ELECTRONIC BALLAST

IECC-No.: 50229

Date: 07 May 08

Test equipment:

Rohde & Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

TEST W/ ONE FLUORESCENT LAMP
T9 32W

--

Operating mode:

OPERATE (LIGHT ON)

(L)

TEST W/ GND CONNECTION

--

RFI suppression parts:

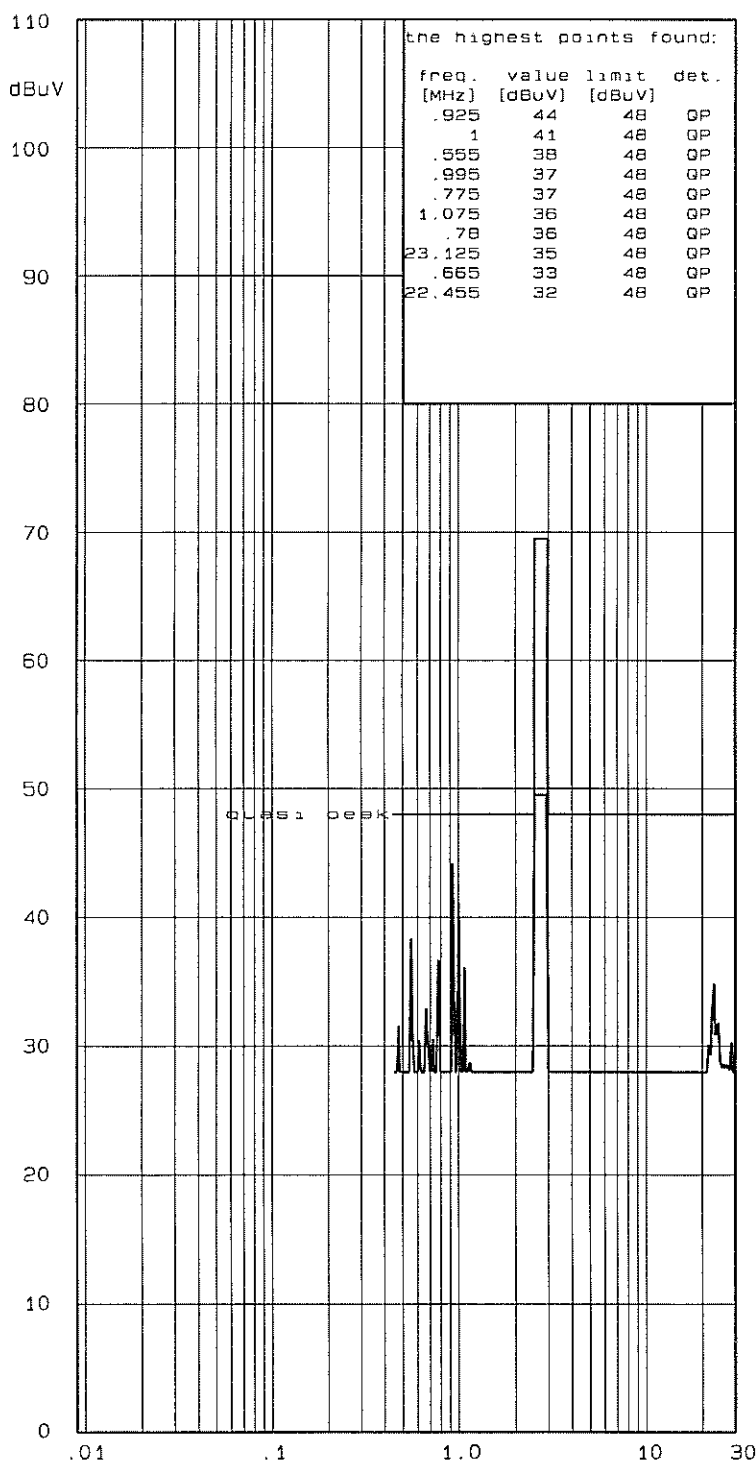
--

* two dB safety margin for
type approval necessary

Operator: ED.

Result: OK

IECC





ISM 1 / 2

Interference Voltage 450 KHz - 30 MHz

acc. FCC PART 18 Subpart C Section 18.307 (c)

Cabin 1

Model: DC-NXU-6101-A

Spl./Ser.No.: 01/--

Client : ZHONGSHAN DICHENG ILLUMINATION

Product: ELECTRONIC BALLAST

IECC-No.: 50229

Date: 07 May 08

Test equipment:

Rohde & Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

TEST W/ ONE FLUORESCENT LAMP
T9 32W

Operating mode:

OPERATE (LIGHT ON)
(N)
TEST W/ GND CONNECTION
--

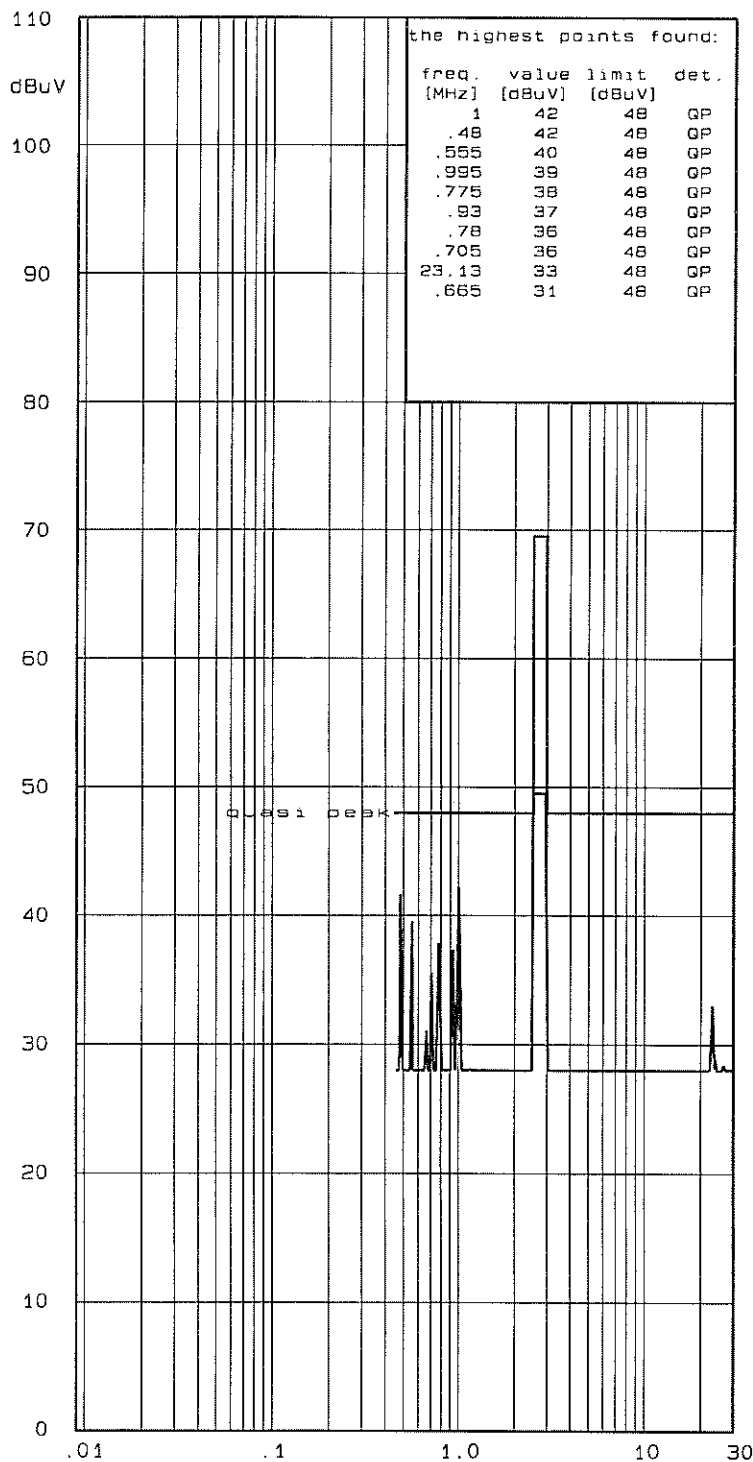
RFI suppression parts:
--

* two dB safety margin for
type approval necessary

Operator: ED.

Result: OK

IECC





ISM 1 / 2

Interference Voltage 450 KHz - 30 MHz

acc. FCC PART 18 Subpart C Section 18.307 (c)

Cabin 1

Model: DC-NXU-6101-A

Spl./Ser.No.: 01/--

Client : ZHONGSHAN DICHENG ILLUMINATION

Product: ELECTRONIC BALLAST

IECC-No.: 50229

Date: 07 May 08

Test equipment:

Rohde & Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

TEST W/ ONE FLUORESCENT LAMP
T9 40W
--

Operating mode:

OPERATE (LIGHT ON)
(L)
TEST W/ GND CONNECTION
--

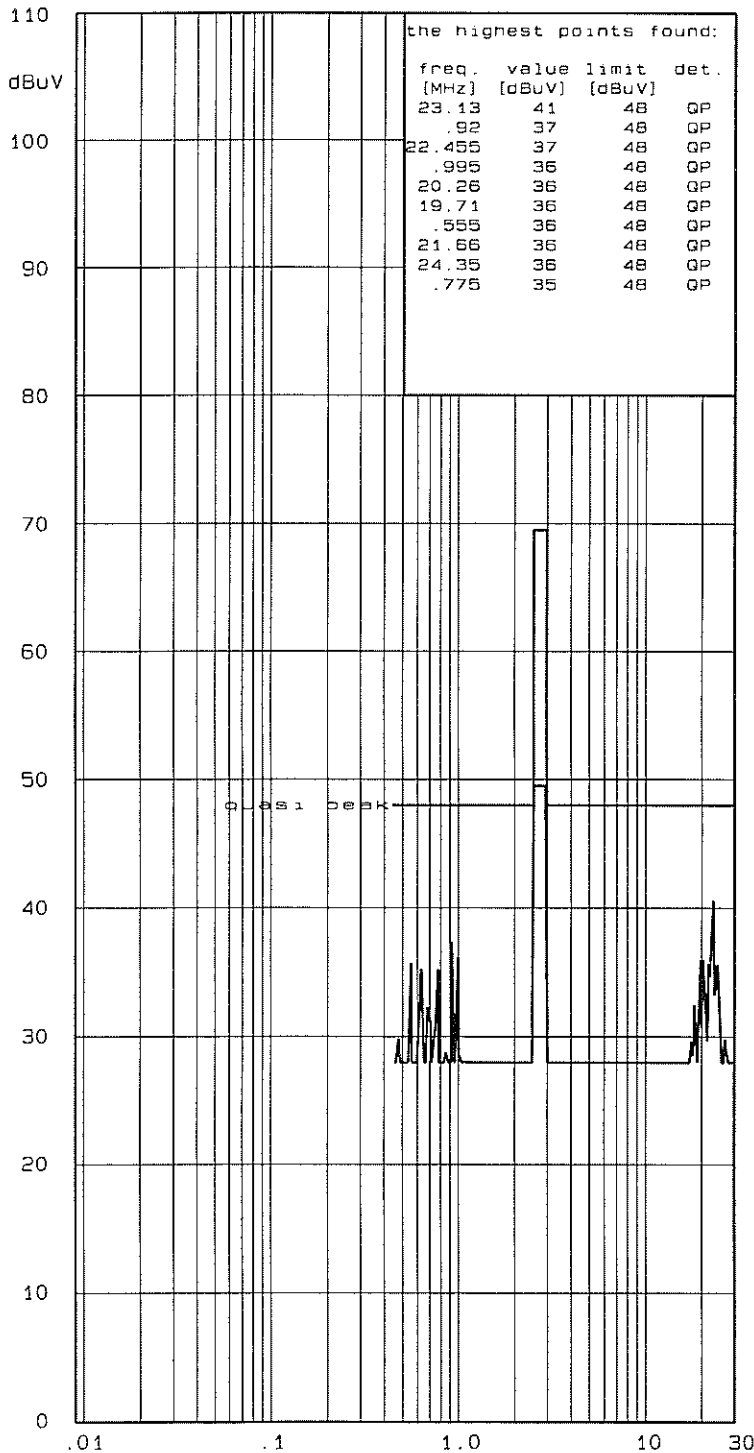
RFI suppression parts:
--

* two dB safety margin for
type approval necessary

Operator: ED.

Result: OK

IECC





ISM 1 / 2

Interference Voltage 450 KHz - 30 MHz

acc. FCC PART 18 Subpart C Section 18.307 (c)

Cabin 1

Model: DC-NXU-6101-A

Spl./Ser.No.: 01/--

Client : ZHONGSHAN DICHENG ILLUMINATION

Product: ELECTRONIC BALLAST

IECC-No.: 50229

Date: 07 May 08

Test equipment:

Rohde & Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

TEST W/ ONE FLUORESCENT LAMP
T9 40W

Operating mode:

OPERATE (LIGHT ON)
(N)
TEST W/ GND CONNECTION
--

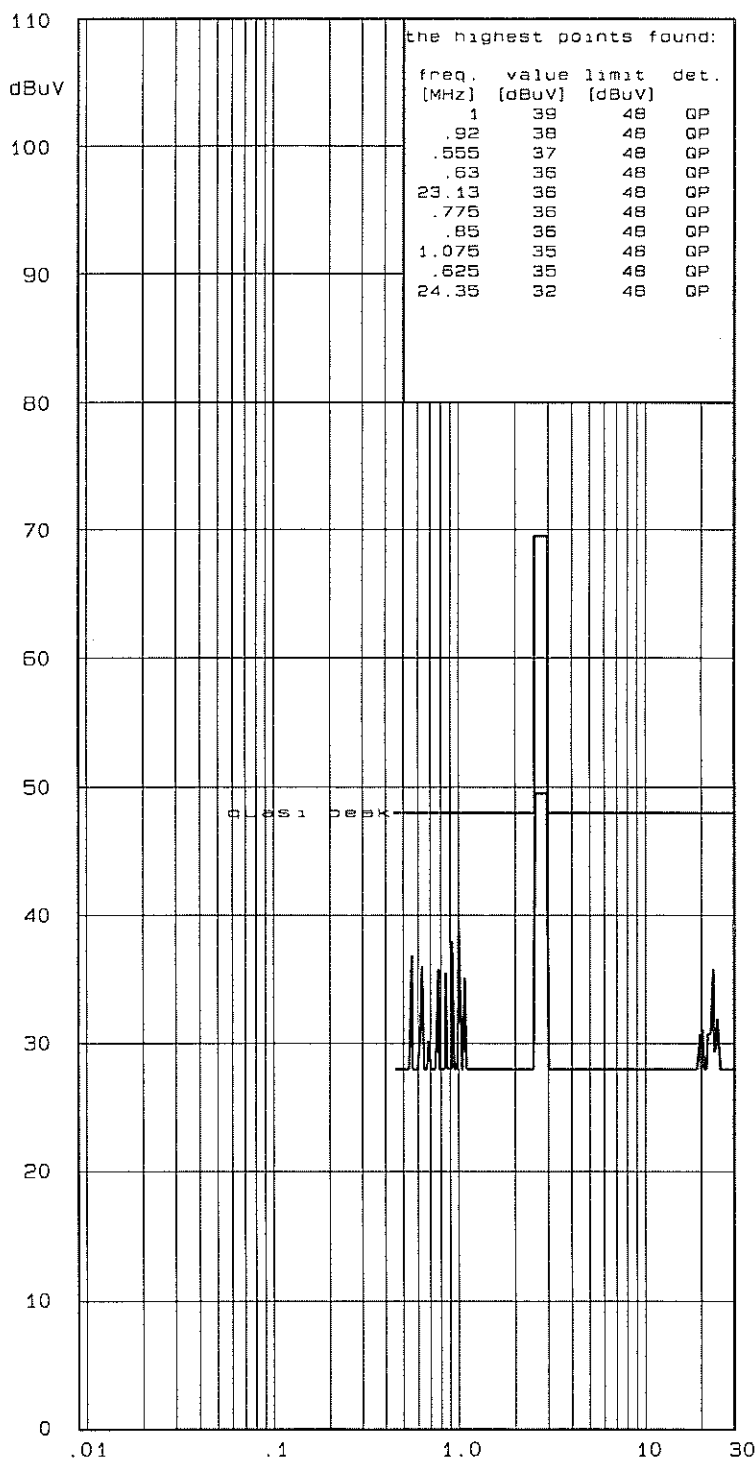
RFI suppression parts:

* two dB safety margin for
type approval necessary

Operator: ED.

Result: OK

IECC



ISM 1 / 2

Interference Voltage 450 KHz - 30 MHz

acc. FCC PART 18 Subpart C Section 18.307 (c)

Cabin 1

Model: DC-NXU-6101-A

Spl./Ser.No.: 01/--

Client : ZHONGSHAN DICHENG ILLUMINATION

Product: ELECTRONIC BALLAST

IECC-No.: 50229

Date: 07 May 08

Test equipment:

Rohde & Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

TEST W/ TWO FLUORESCENT LAMPS
T9 40W + T9 32W
--

Operating mode:

OPERATE (LIGHT ON)

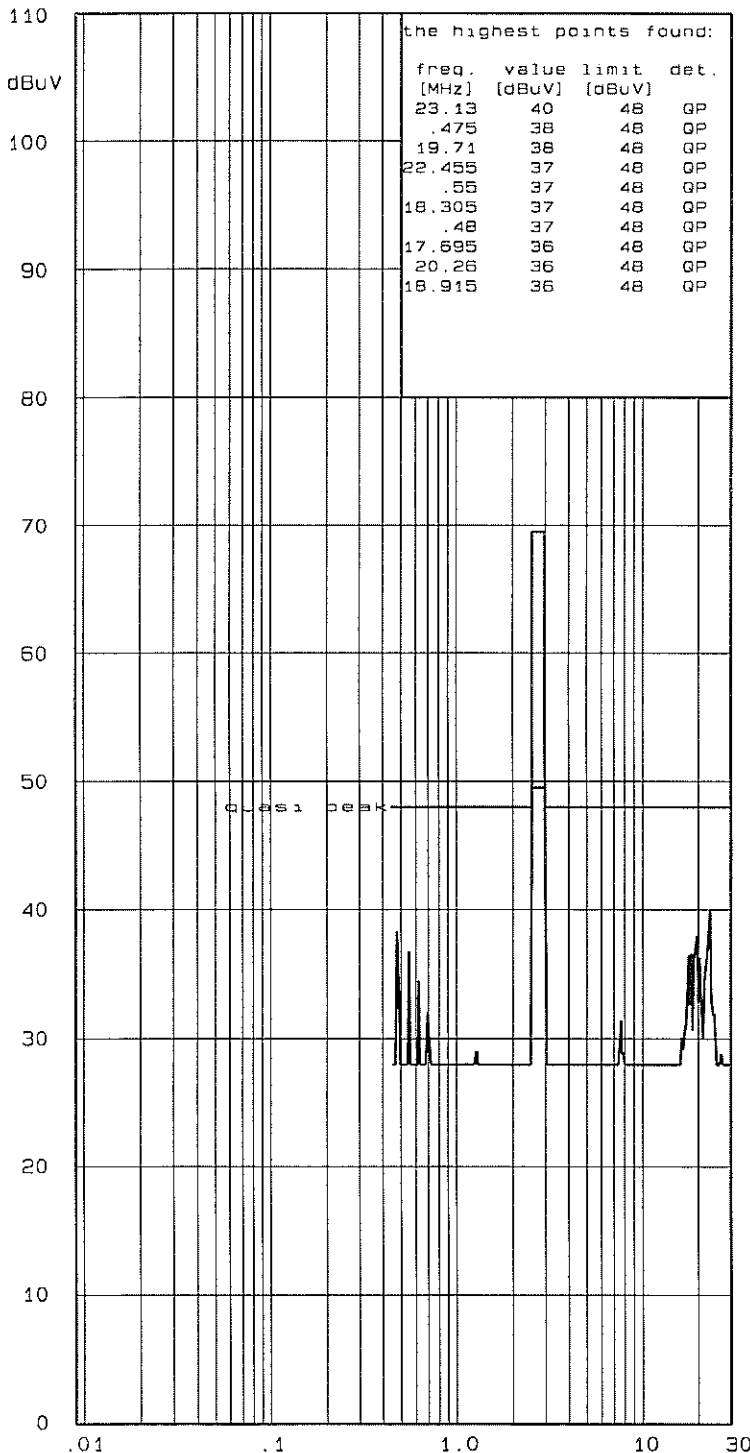
(L)

TEST W/ GND CONNECTION
--RFI suppression parts:
--* two dB safety margin for
type approval necessary

Operator: ED.

Result: OK

IECC





ISM 1/2

Interference Voltage 450 KHz - 30 MHz
acc. FCC PART 18 Subpart C Section 18.307 (c)

Cabin 1

Model: DC-NXU-6101-A

Sp1./Ser.No.: 01/--

Client : ZHONGSHAN DICHENG ILLUMINATION

Product: ELECTRONIC BALLAST

IECC-No.: 50229

Date: 07 May 08

Test equipment:

Rohde & Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

TEST W/ TWO FLUORESCENT LAMPS
T9 40W + T9 32W
--

Operating mode:

OPERATE (LIGHT ON)
(N)
TEST W/ GND CONNECTION
--

RFI suppression parts:

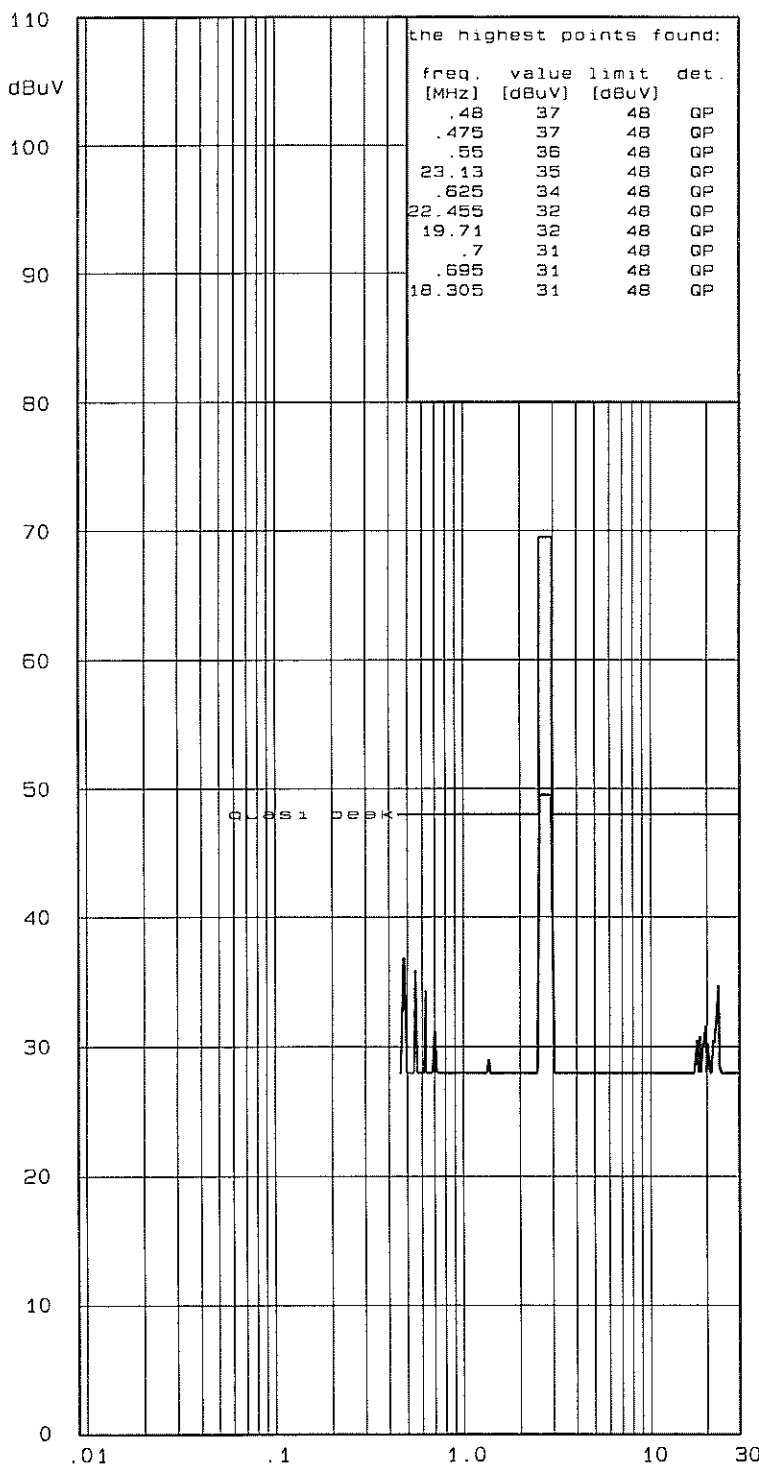
--

* two dB safety margin for
type approval necessary

Operator: ED.

Result: OK

IECC



FCC – Test Report**No. 50229**

Date: 2008-07-04

Page 24 of 24

PHOTOGRAPH OF THE SAMPLE