

EXHIBIT 5

Test Report

APPLICATION FOR CERTIFICATION

On Behalf of

Everbright Lighting Ltd.

Energy Saving Lamp

Model Number : EBU-5W, 7W, 11W, 13W, 15W

Prepared for : Everbright Lighting Ltd.
13/F., Universal Industrial Center, 19-21 Shan Mei
Street, Fo Tan, Shatin, N.T., Hong Kong

Prepared by : Shenzhen EMTEK Co., Ltd.
Bldg 69, Majialong, Taipinyang Industrial Zone,
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Report No. : AT03282-3

Date of Test : July 30 – August 5, 2003

Date of Report : August 6, 2002

TABLE OF CONTENTS

Description	
	Page
Test Report Declaration	
EXHIBIT 5	1
1. GENERAL INFORMATION	5
1.1 Description of Device (EUT)	5
1.2 Test Facility	6
1.3 Test Uncertainty	6
2. POWER LINE CONDUCTED EMISSION TEST	7
2.1 Test Equipment	7
2.2 Block Diagram of Test Setup	7
2.3 Power Line Conducted Emission Test Limits	7
2.4 Configuration of EUT on Test	7
2.5 Operating Condition of EUT	8
2.6 Test Procedure	8
2.7 Power Line Conducted Emission Test Results	8
3. MODIFICATION TO TEST SPECIFICATIONS	12
Appendix I: Power Line Conduction Emission Test Data	

TEST REPORT DECLARATION

Applicant : Everbright Lighting Ltd.
Manufacturer : City Bright Lighting (Shenzhen) Co., Ltd
EUT Description : Energy Saving Lamp
(A) Model No. : EBU-5/7/11/13/15W
(B) Serial No. : F20030806003
(C) Power Supply : AC120V /60Hz

Test Procedure Used:

FCC Rules and Regulations Part 18 Subpart B Class B October 1998.

The devices described above have been tested by Shenzhen EMTEK Co., Ltd to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 18 Subpart B Class B limits conducted. The test results are contained in this test report and Shenzhen EMTEK Co., Ltd is responsible for the accuracy and completeness of these tests. Also, this report shows that the EUT (Equipment Under Test) is complies with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen EMTEK Co., Ltd.

Date of Test:

July 30 – August 5, 2003

Prepared by:



Engineer

Reviewer:



Quality Manager

Approved & Authorized Signer:



Manager

1. GENERAL INFORMATION

1.1 Description of Device (EUT)

Description	: Energy Saving Lamp
Model Number	: EBU-5W, 7W, 11W, 13W, 15W
Applicant	: Everbright Lighting Ltd. 13/F., Universal Industrial Center, 19-21Shan Mei Street, Fo Tan, Shatin, N.T., Hong Kong
Manufacturer	: City Bright Lighting (Shenzhen) Co., Ltd Fuchengao Village, Pinghu Town, Longgang Region, Shenzhen, Guangdong, China
Date of Receipt	: July 10, 2003
Date of Test	: July 30 – August 5, 2003

1.2 Test Facility

Site Description

EMC Laboratory : Accredited by FCC, December 09,2002
The Certificate Registration No. is 709623.
: Accredited by Industry Canada, January 8,2003
The Certificate Registration No. is 46405-4480
: Accredited by TUV Rheinland Guangdong
March 26, 2001
The Certificate Registration No. is G2130000

Name of Firm : Shenzhen EMTEK Co., Ltd.

Site Location : Bldg 69, Taipinyang Industrial Zone, Majialong,
Nanshan, Shenzhen, Guangdong, China

1.3 Test Uncertainty

Conducted Emission Uncertainty = $\pm 2.66\text{dB}$

2. POWER LINE CONDUCTED EMISSION TEST

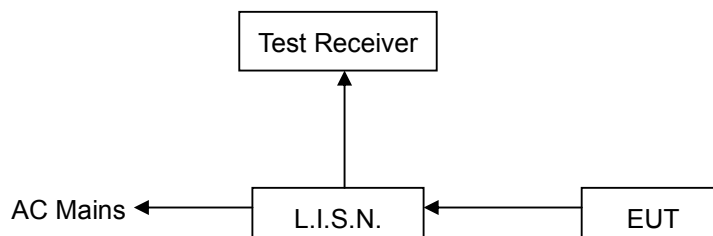
2.1 Test Equipment

The following test equipments are used during the power line conducted emission test:

Item	Equipment	Manufacturer	Model No	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	1102.4500	May 30, 03	1 Year
2.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100007	May 30, 03	1 Year
3.	L.I.S.N	Kyoritsu Corp.	KNW407	8-1492-9	May 30, 03	1 Year
4.	50Ω Coaxial Switch	Anritsu Corp.	MP59B	61002175589	May 30, 03	1 Year

2.2 Block Diagram of Test Setup

Block diagram of connection between the EUT and simulators



(EUT: Energy Saving Lamp)

2.3 Power Line Conducted Emission Test Limits

Frequency MHz	Test Limits dB μ V
0.45 ~ 2.51	48
2.51-3.0	70
3.0-30	48

2.4 Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

2.4.1 Energy Saving Lamp (EUT)

Model No.	:	EBU-5W, 7W, 11W, 13W, 15W
Serial No.	:	F20030806003
Manufacturer	:	City Bright Lighting (Shenzhen) Co., Ltd

2.5 Operating Condition of EUT

2.5.1 Setup the EUT and simulator as shown as Section 2.2.

2.5.2 Turn on the power of all equipment.

2.5.3 Let the EUT work in test mode (ON) and test it.

2.6 Test Procedure

2.6.1 The EUT is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohms coupling impedance for the EUT. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission levels. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4-2000 on Conducted Emission Test.

2.6.2 The bandwidth of test receiver(R & S ESCS30) is set at 9KHz.

2.6.3 The frequency range from 450KHz to 30MHz is checked.

2.6.4 The test results are reported on Section 2.7, all the scanning waveforms for Conducted Emission Test are attached in Appendix I.

2.7 Power Line Conducted Emission Test Results

PASS.

The frequency range from 450KHz to 30 MHz is investigated.

All emissions not reported below are too low against the prescribed limits.

Date of Test: July 31, 2003 Temperature: 25□
 EUT: Energy Saving Lamp Humidity: 58%
 M/N: EBU-5W Test Engineer: Mike Yang

■ Va □ Neutral □ Other			■ Vb □ Live □ Other		
Frequency (MHz)	QP (dBuV)	Limit	Frequency (MHz)	QP (dBuV)	Limit
0.465	29.4	48.00	0.465	33.6	48.00
0.525	25.4	48.00	0.525	29.6	48.00
0.590	27.9	48.00	0.650	30.4	48.00
0.775	23.7	48.00	0.775	26.8	48.00
1.250	18.8	48.00	0.960	23.7	48.00
1.425	27.8	48.00	1.250	21.9	48.00

Date of Test: July 31, 2003 Temperature: 25□
 EUT: Energy Saving Lamp Humidity: 58%
 M/N: EBU-7W Test Engineer: Mike Yang

■ Va □ Neutral □ Other			■ Vb □ Live □ Other		
Frequency (MHz)	QP (dBuV)	Limit	Frequency (MHz)	QP (dBuV)	Limit
0.460	23.6	48.00	0.455	18.7	48.00
0.530	17.8	48.00	0.485	30.5	48.00
0.600	13.1	48.00	0.610	31.5	48.00
0.670	21.1	48.00	0.755	24.7	48.00
0.745	18.8	48.00	1.060	31.7	48.00
0.885	20.9	48.00	1.315	30.7	48.00

Date of Test: July 31, 2003 Temperature: 25°C
 EUT: Energy Saving Lamp Humidity: 58%
 M/N: EBU-11W Test Engineer: Mike Yang

■ Va □ Neutral □ Other			■ Vb □ Live □ Other		
Frequency (MHz)	QP (dBuV)	Limit	Frequency (MHz)	QP (dBuV)	Limit
0.500	31.5	48.00	0.510	28.6	48.00
0.975	22.1	48.00	0.780	25.6	48.00
1.050	20.7	48.00	0.915	22.8	48.00
1.165	24.8	48.00	10.700	25.1	48.00
1.245	25.3	48.00	1.145	24.7	48.00
1.325	27.7	48.00	1.225	25.6	48.00

Date of Test: July 31, 2003 Temperature: 25°C
 EUT: Energy Saving Lamp Humidity: 58%
 M/N: EBU-13W Test Engineer: Mike Yang

■ Va □ Neutral □ Other			■ Vb □ Live □ Other		
Frequency (MHz)	QP (dBuV)	Limit	Frequency (MHz)	QP (dBuV)	Limit
0.480	29.0	48.00	0.460	32.6	48.00
0.625	26.5	48.00	0.670	26.5	48.00
0.690	23.5	48.00	0.735	29.1	48.00
0.795	26.1	48.00	0.770	29.9	48.00
1.060	23.1	48.00	1.050	30.6	48.00
1.445	28.6	48.00	1.195	32.6	48.00

Date of Test: July 31, 2003 Temperature: 25°C
 EUT: Energy Saving Lamp Humidity: 58%
 M/N: EBU-15W Test Engineer: Mike Yang

■ Va □ Neutral □ Other			■ Vb □ Live □ Other		
Frequency (MHz)	QP (dBuV)	Limit	Frequency (MHz)	QP (dBuV)	Limit
0.455	32.6	48.00	0.450	30.40	48.00
0.600	28.5	48.00	0.530	29.25	48.00
0.680	30.6	48.00	0.625	23.47	48.00
0.760	28.6	48.00	0.650	23.25	48.00
0.840	30.0	48.00	0.825	25.46	48.00
1.420	29.1	48.00	0.905	24.89	48.00

3. MODIFICATION TO TEST SPECIFICATIONS

[NONE]

APPENDIX I

Power Line Conduction Emission Test Data

CONDUCTION EMISSION STANDARD FCC PART18

EUT: Energy saving lamp M/N:EBU-5W
Manuf: EVERBRIGHT
Op Cond: ON
Operator: MIKE YANG
Test Spec: Va 120V/60Hz
Comment: Tem22C Humi50%
Date: 31. Jul 03 17:23

Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

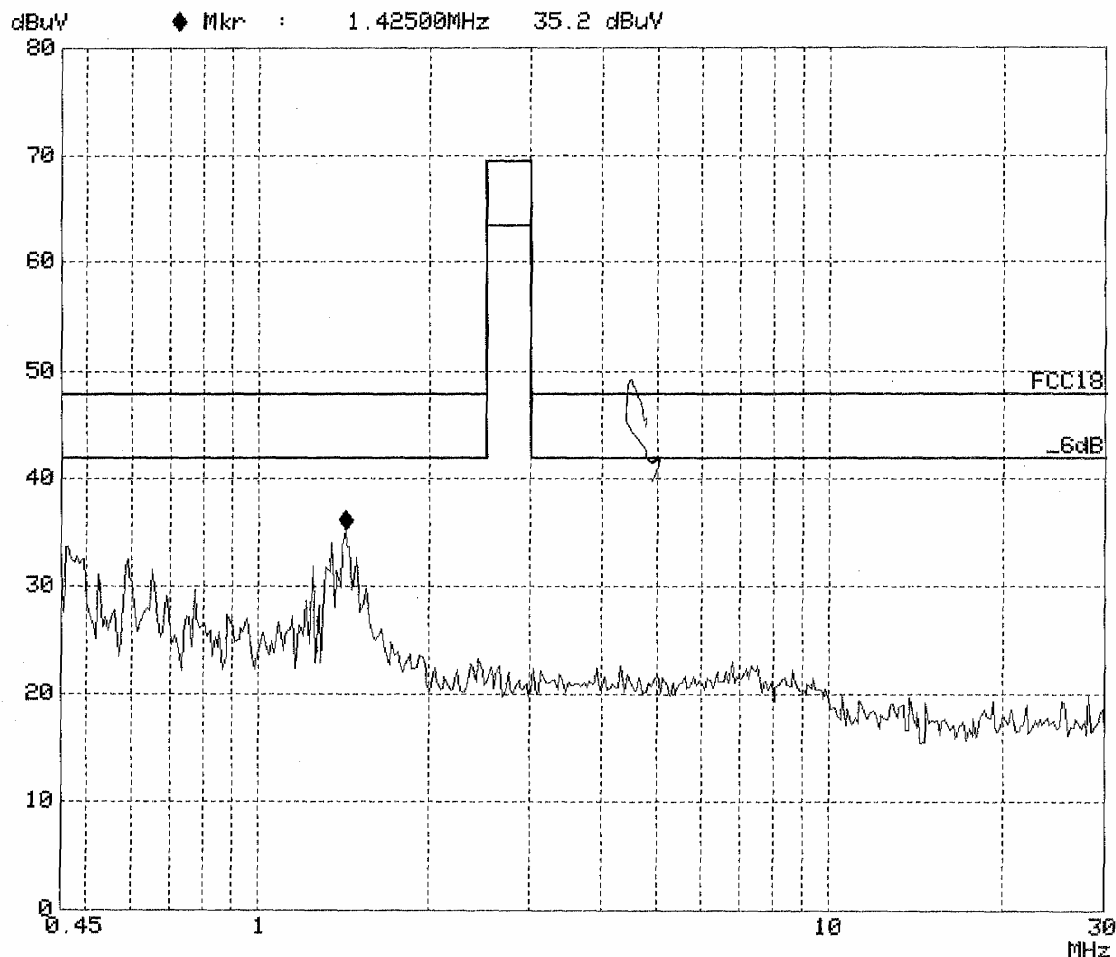
Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC3

Final Measurement: x QP

Meas Time: 1 s

Subranges: 25

Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

EUT: Energy saving lamp M/N:EBU-5W
Manuf: EVERBRIGHT
Op Cond: ON
Operator: MIKE YANG
Test Spec: Vb 120V/60Hz
Comment: Tem22C Humi50%
Date: 31. Jul 03 17:20

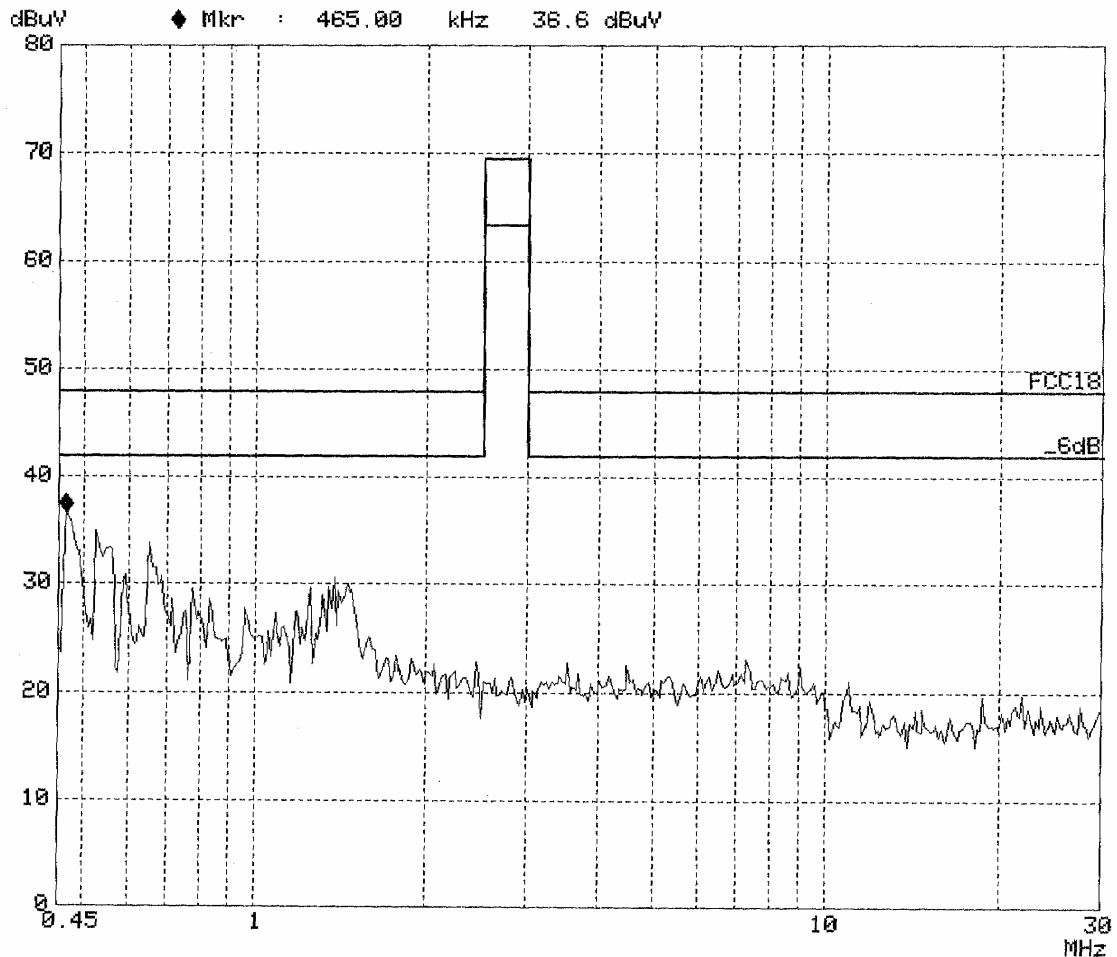
Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC3

Final Measurement: x QP

Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

EUT: Energy saving lamp M/N:EBU-7W
Manuf: EVERBRIGHT
Op Cond: ON
Operator: MIKE YANG
Test Spec: Vb 120V/60Hz
Comment: Tem22C Humi50%
Date: 31. Jul 03 17:17

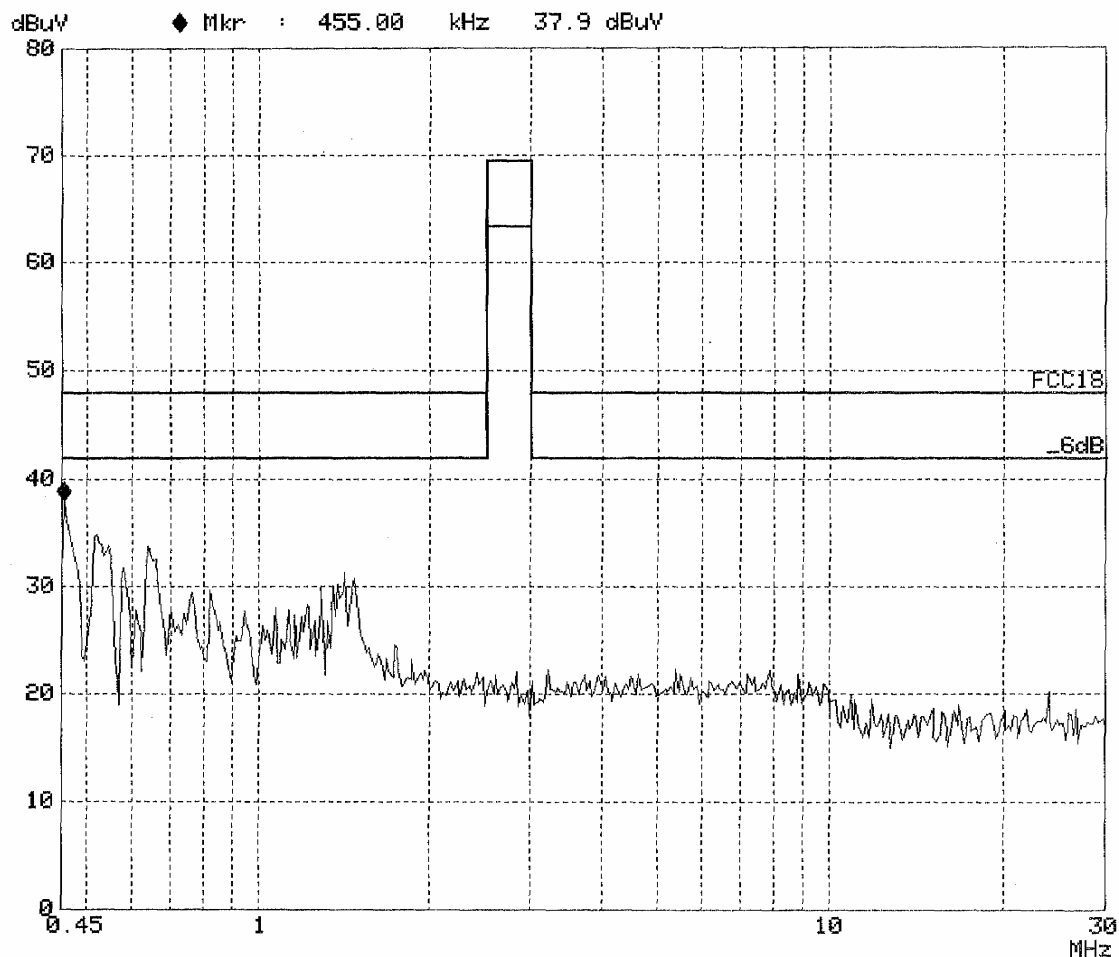
Scan Settings (3 Ranges)

----- Frequencies -----			----- Receiver Settings -----				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC3

Final Measurement: x QP

Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

EUT: Energy saving lamp M/N:EBU-7W
Manuf: EVERBRIGHT
Op Cond: ON
Operator: MIKE YANG
Test Spec: Va 120V/60Hz
Comment: Tem22C Humi50%
Date: 31. Jul 03 17:11

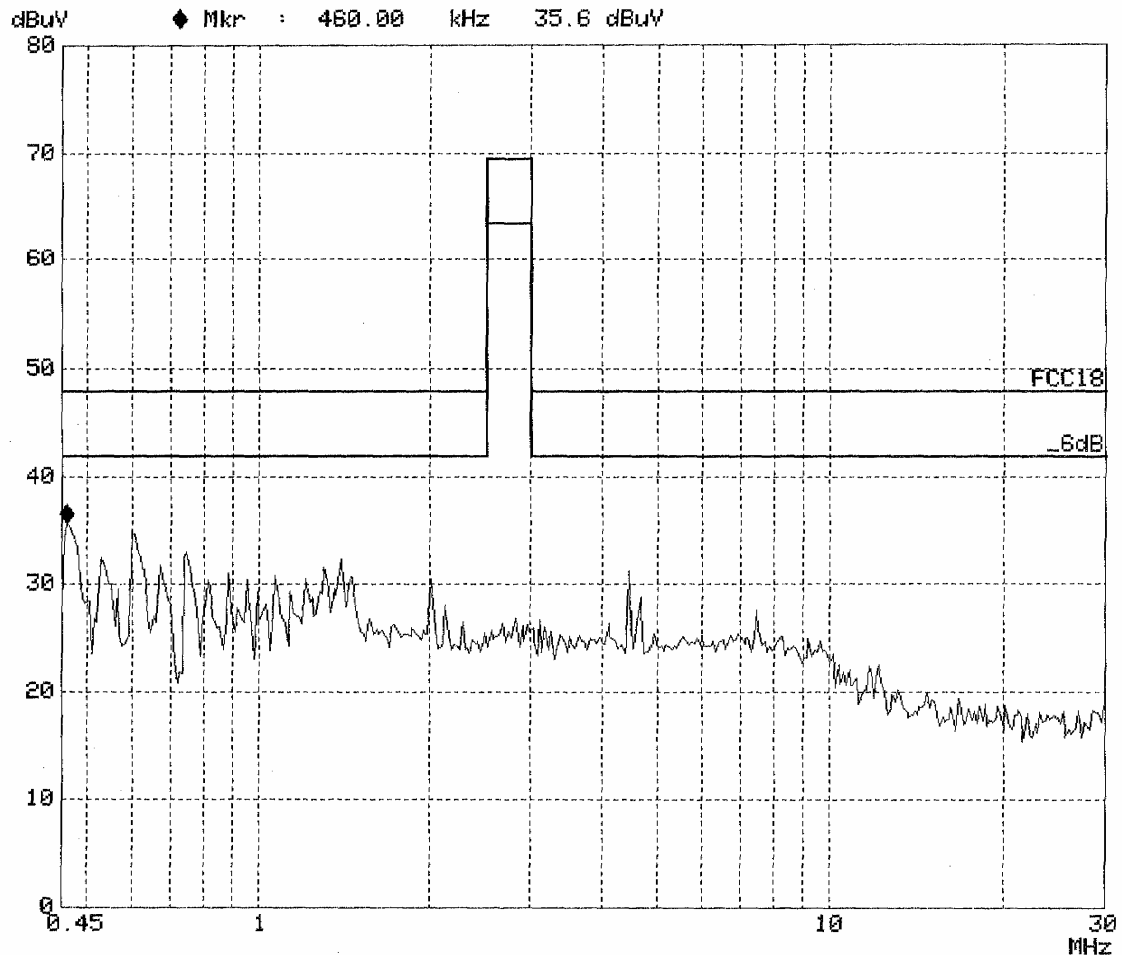
Scan Settings (3 Ranges)

----- Frequencies -----			----- Receiver Settings -----				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC3

Final Measurement: x QP

Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

EUT: Energy saving lamp M/N:EBU-11W
Manuf: EVERBRIGHT
Op Cond: ON
Operator: MIKE YANG
Test Spec: Vb 120V/60Hz
Comment: Tem22C Humi50%
Date: 31. Jul 03 17:05

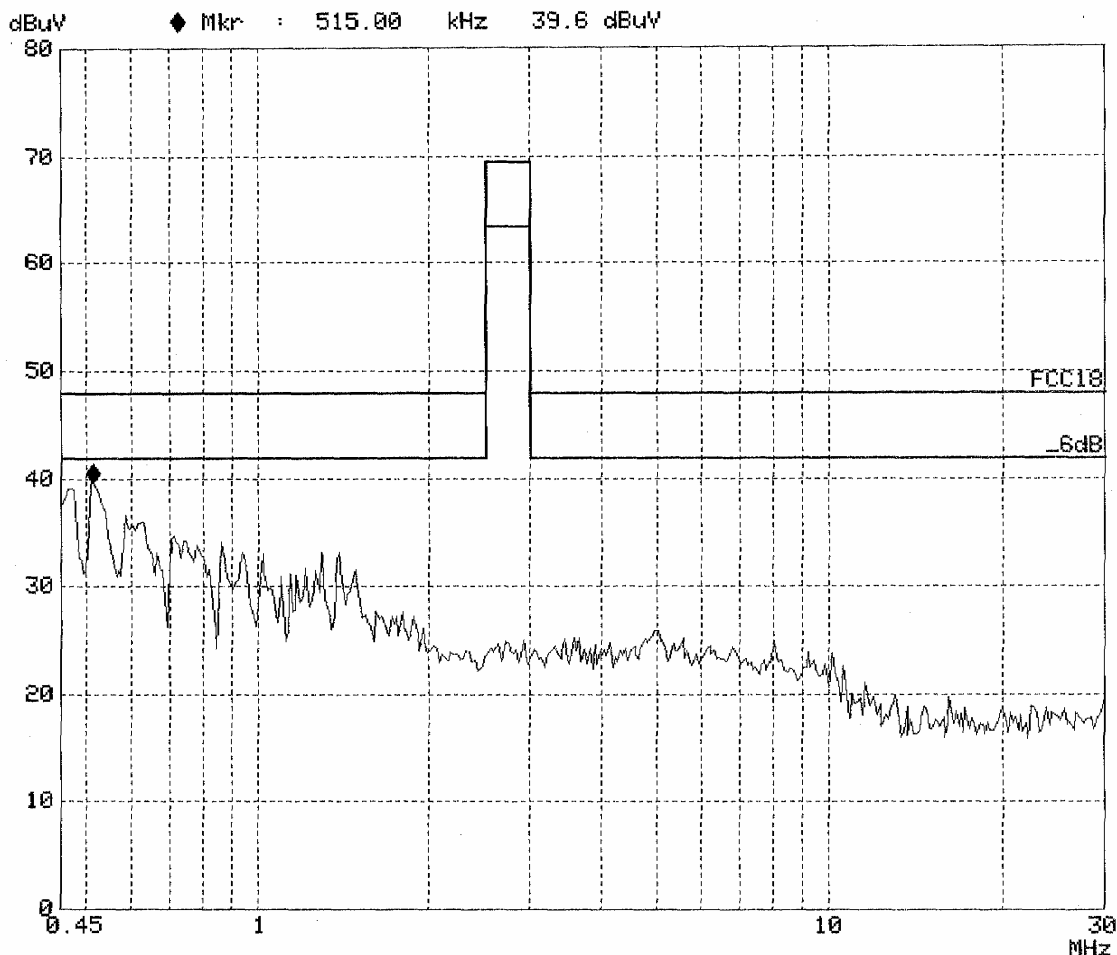
Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC3

Final Measurement: x QP

Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

EUT: Energy saving lamp M/N:EBU-11W
Manuf: EVERBRIGHT
Op Cond: ON
Operator: MIKE YANG
Test Spec: Va 120V/60Hz
Comment: Tem22C Humi50%
Date: 31. Jul 03 17:08

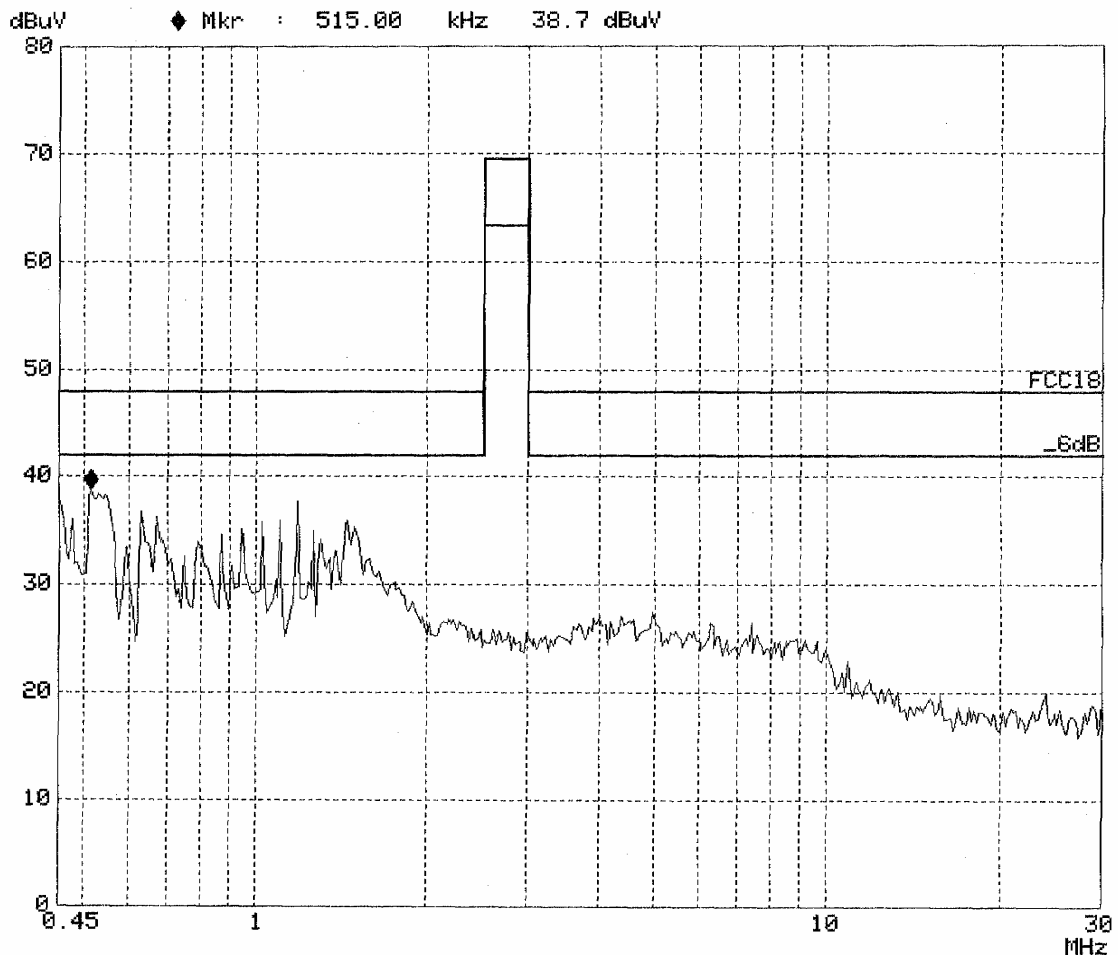
Scan Settings (3 Ranges)

----- Frequencies -----			----- Receiver Settings -----					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF	
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF	
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF	

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC3

Final Measurement: x QP

Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

EUT: Energy saving lamp M/N:EBU-13W
Manuf: EVERBRIGHT
Op Cond: ON
Operator: MIKE YANG
Test Spec: Vb 120V/60Hz
Comment: Tem22C Humi50%
Date: 31. Jul 03 17:02

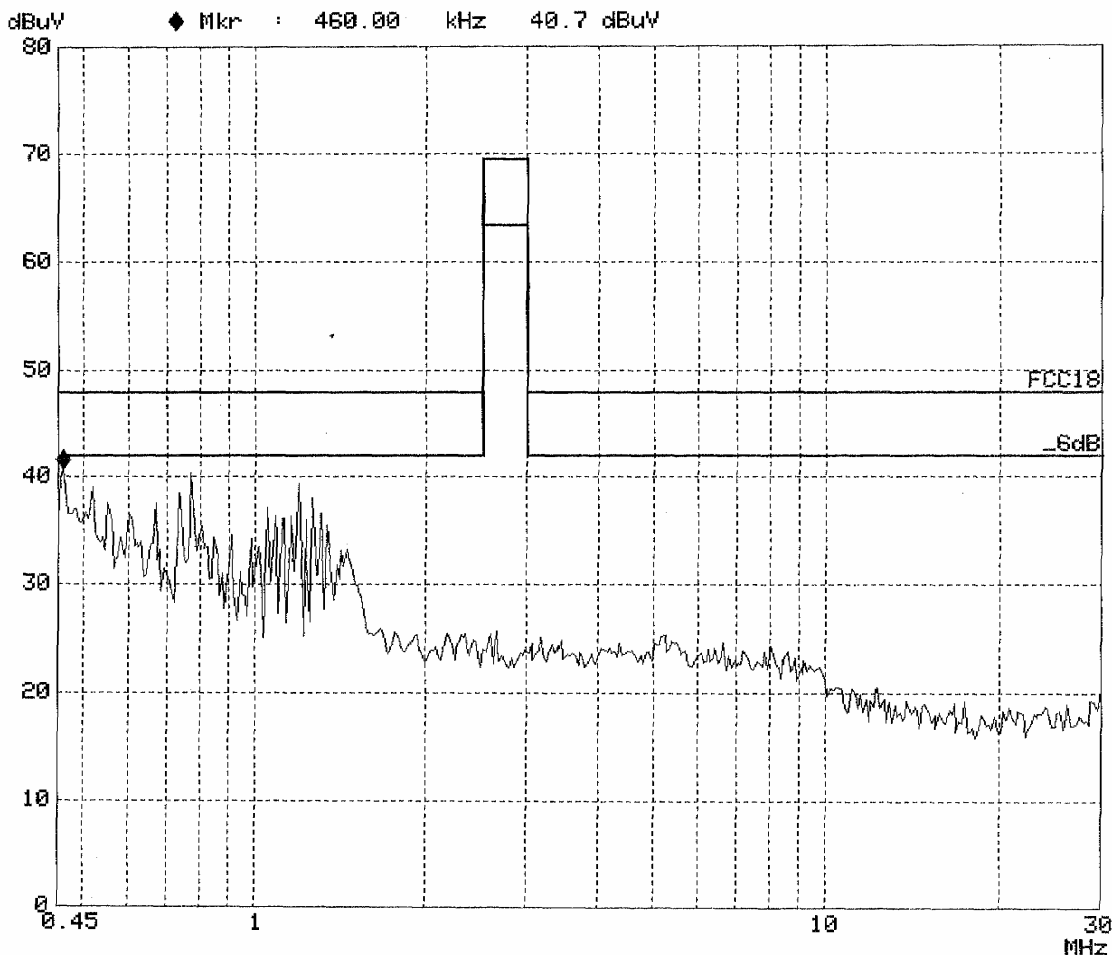
Scan Settings (3 Ranges)

----- Frequencies -----			----- Receiver Settings -----				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC3

Final Measurement: x QP

Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

EUT: Energy saving lamp M/N:EBU-13W
Manuf: EVERBRIGHT
Op Cond: ON
Operator: MIKE YANG
Test Spec: Va 120V/60Hz
Comment: Tem22C Humi50%
Date: 31. Jul 03 16:58

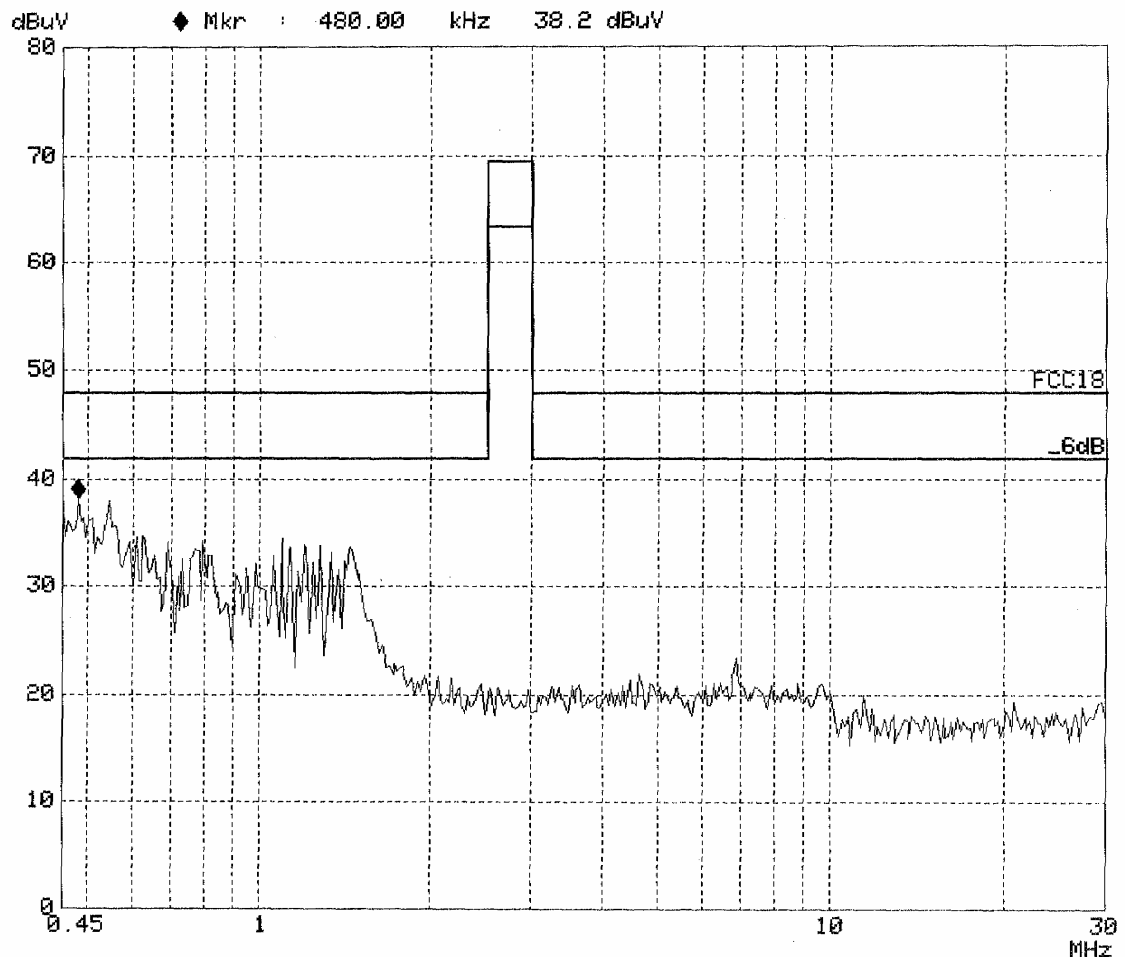
Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC3

Final Measurement: x QP

Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

EUT: Energy saving lamp M/N:EBU-15W
Manuf: EVERBRIGHT
Op Cond: ON
Operator: MIKE YANG
Test Spec: Vb 120V/60Hz
Comment: Tem22C Humi50%
Date: 31. Jul 03 16:50

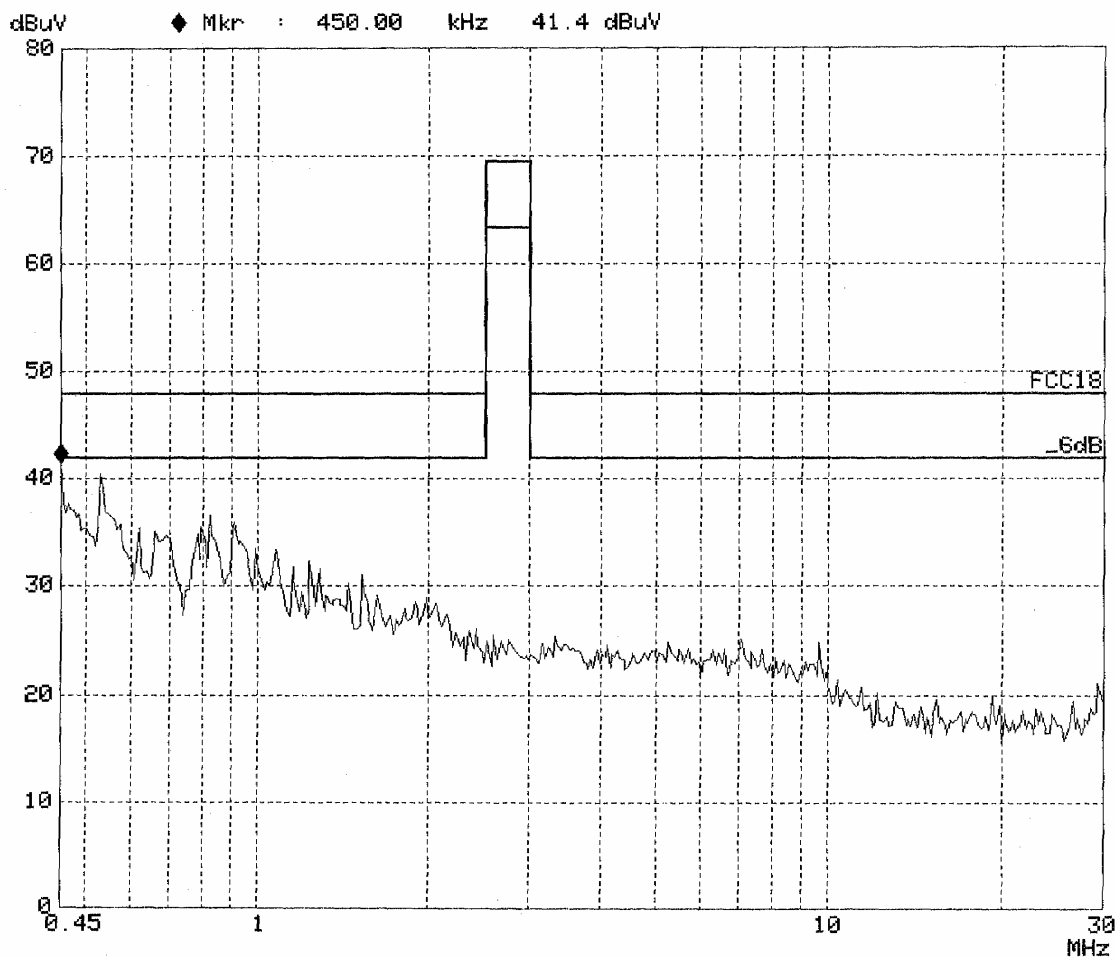
Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC3

Final Measurement: x QP

Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

EUT: Energy saving lamp M/N:EBU-15W
Manuf: EVERBRIGHT
Op Cond: ON
Operator: MIKE YANG
Test Spec: Va 120V/60Hz
Comment: Tem22C Humi50%
Date: 31. Jul 03 16:55

Scan Settings (3 Ranges)

----- Frequencies -----			----- Receiver Settings -----				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC3

Final Measurement: x QP

Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB

