

Application for FCC Certificate  
On Behalf of  
Bright Beginning Electrical Products Co., Ltd.

Fluorescent Lamp Ballast

Model No. :	BEB/120/232	BEB/120/32
Serial No. :	E1112130-01/01	--

FCC ID : A6H1202132

Prepared For : Bright Beginning Electrical Products Co., Ltd.  
A Part Dacheng Industrial Area Anzhen, Xishan,  
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Report No. : ACI-F11174  
Date of Test : Dec 10, 2011  
Date of Report : Dec 12, 2011

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## TEST REPORT FOR FCC CERTIFICATE

Applicant : Bright Beginning Electrical Products Co., Ltd.  
 Manufacturer : Bright Beginning Electrical Products Co., Ltd.  
 EUT Description : Fluorescent Lamp Ballast

(A) Model No.	BEB/120/232	BEB/120/32
(B) Serial No.	E1112130-01/01	--
(C) Power Supply		120V/60Hz

Test Procedure Used:

**FCC RULES AND REGULATIONS PART 18 SUBPART C RF LIGHTING DEVICES**  
**OCTOBER 2010 AND MP-5/1986**

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 18 Subpart C (RF Lighting Devices) limits both radiated and conducted emissions.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report shows that the EUT which was tested in 3m anechoic chamber on Dec 10, 2011 is technically compliance with the FCC official limits also.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

This report contains data that are not covered by the NVLAP accreditation.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Dec 10, 2011 Date of Report : Dec 12, 2011

Producer : Kathy Wang  
KATHY WANG/ Assistant

Review : Dio Yang  
DIO YANG / Assistant Manager

**AUDIX®** For and on behalf of  
 Audix Technology (Shanghai) Co., Ltd.

Signatory : Sammy Chen  
 Authorized Signature EMC SAMMY CHEN / Deputy Manager

# 1 SUMMARY OF STANDARDS AND RESULTS

## 1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

Description / Test Item	Test Standard	Meets Limit	Results
<b>EMISSION</b>			
Conducted Disturbance at the Mains Terminals	FCC RULES AND REGULATIONS PART 18 SUBPART C OCTOBER 2010 AND MP-5/1986	18.307(c) Consumer Equipment	Pass
Magnetic Field Strength	FCC RULES AND REGULATIONS PART 18 SUBPART C OCTOBER 2010 AND MP-5/1986	18.305(b) Any type, Non-ISM Frequency	Pass
Radiated Emission	FCC RULES AND REGULATIONS PART 18 SUBPART C OCTOBER 2010 AND MP-5/1986	18.305(c) Consumer Equipment	Pass

## 2 GENERAL INFORMATION

### 2.1 Description of Equipment Under Test

Description : Fluorescent Lamp Ballast  
Type of EUT :  Production  Pre-product  Pro-type

Model No.	:	BEB/120/232	BEB/120/32
Serial No.	:	E1112130-01/01	--
Rated Power	:	59W	35W

Note #1 : The above two models are same product with different model no. and label.  
The BEB/120/232 be used with 2 lamps while the BEB/120/32 be used with 1 lamp.

Note #2 : The model BEB/120/232 was tested and recorded in the report.

Applicant : Bright Beginning Electrical Products Co., Ltd.  
A Part Dacheng Industrial Area Anzhen, Xishan,  
Wuxi, Jiangsu, China

Manufacturer : Bright Beginning Electrical Products Co., Ltd.  
A Part Dacheng Industrial Area Anzhen, Xishan,  
Wuxi, Jiangsu, China

### 2.2 Peripherals

#### 2.2.1 Lamp\*2

Manufacturer : Philips  
Model Number : T8  
Rate Power : 35W

#### 2.2.2 Lamp\*1

Manufacturer : Philips  
Model Number : T8  
Rate Power : 17W

## 2.3 Description of Test Facility

Site Description : Sept. 17, 1998 file on  
(Semi-Anechoic Chamber) Apr 29, 2009 Renewed  
Federal Communications Commission  
FCC Engineering Laboratory  
7435 Oakland Mills Road  
Columbia, MD 21046, USA

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F 34Bldg 680 Guiping Rd,  
Caohejing Hi-Tech Park,  
Shanghai 200233, China

NVLAP Lab Code : 200371-0

## 2.4 Measurement Uncertainty

Conducted Emission Expanded Uncertainty:  $U = 3.38 \text{ dB}$

Radiated Emission Expanded Uncertainty (30-200MHz):

$U = 4.58 \text{ dB}$  (horizontal)  
 $U = 4.70 \text{ dB}$  (vertical)

Radiated Emission Expanded Uncertainty (200M-1GHz):

$U = 4.84 \text{ dB}$  (horizontal)  
 $U = 4.70 \text{ dB}$  (vertical)

### 3 CONDUCTED EMISSION TEST

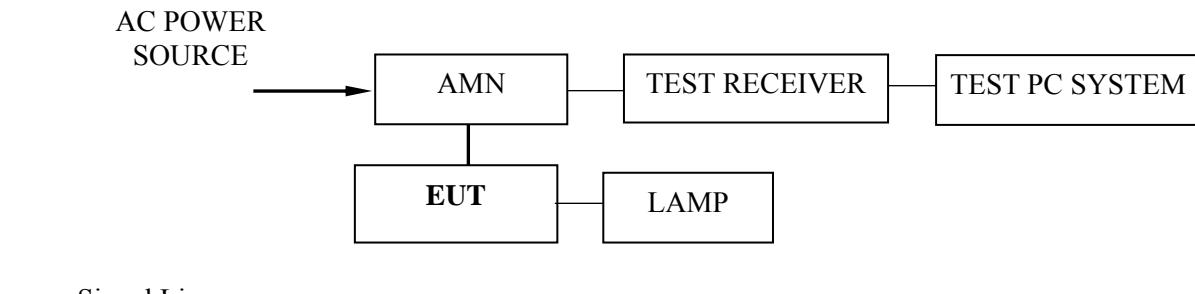
#### 3.1 Test Equipment

The following test equipments are used during the conducted emission test in a shielded room:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	100841	Mar 22, 2011	Mar 22, 2012
2.	Artificial Mains Network (AMN)	R&S	ENV4200	100125	Mar 22, 2011	Mar 22, 2012
3.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Sep 18, 2011	Mar 18, 2012
4.	Software	Audix	E3	SET00200 9804M592	--	--

#### 3.2 Block Diagram of Test Setup

##### 3.2.1 Conducted Disturbance Test Setup



#### 3.3 Conducted Emission Limits (FCC Part 18 Consumer Equipment)

Frequency (MHz)	Maximum RF Line Voltage	
	(μV)	dB(μV)
0.45 ~ 2.51	250	48
2.51 ~ 3.0	3000	70
3.0 ~ 30	250	48

NOTE 1 – RF Line Voltage dB (μV) = 20 log RF Line Voltage (μV)  
 NOTE 2 – The tighter limits shall apply at the boundary between two frequency ranges.

#### 3.4 Test Configuration

The EUT (listed in Sec.2.1) was installed as shown on Sec.3.2 to meet FCC requirement and operating in a manner that tends to maximize its emission level in a normal application.

### 3.5 Operating Condition of EUT

- 3.5.1 Setup the EUT as shown in Sec. 3.2.
- 3.5.2 Turn on the power of EUT.
- 3.5.3 The EUT will be operated normally.
- 3.5.4 Set the EUT on the lighting test mode, and then test.

### 3.6 Test Procedures

The EUT was connected to the power mains through a Artificial Mains Network (AMN). This provided a 50 ohm coupling impedance for the measuring equipment.

Both sides of AC line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed or manipulated according to MP-5/1986 during conducted emission test.

The I.F bandwidth of Test Receiver ESCI was set at 9 kHz.

The frequency range from 450 kHz to 30 MHz for Lighting mode was checked.

The test modes were done on conducted test and the test results of the highest emissions are listed in Sec. 3.7.

### 3.7 Test Results

**< PASS >**

The frequency and amplitude of the highest conducted emission relative to the limit is reported. All emissions not reported below are too low against the prescribed limits.

Model No	Test Mode	Data Page
BEB/120/232	Lighting (2*32W)	P9
	Lighting (1*32W)	P10
	Lighting (1*17W)	P11

NOTE 1 – Factor = Cable Loss + AMN Factor.

NOTE 2 – Emission Level = Meter Reading + Factor.

NOTE 3 – All readings are Quasi-Peak values. (QP)

NOTE 4 – The worst test mode is for Lighting (1\*17W). The worst emission is detected at 17.379 MHz with corrected signal level of 43.70 dB ( $\mu$ V) (limit is 48.00 dB ( $\mu$ V)), when the Neutral of the EUT is connected to AMN.

EUT : Fluorescent Lamp Ballast Temperature : 22°C  
 Model No. : BEB/120/232 Humidity : 52%RH  
 Serial No. : E1112130-01/01 Date of Test : Dec 10, 2011  
 Test Mode : Lighting (2\*32W)

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.517	23.51	9.76	33.27	48.00	14.73	QP
	0.611	22.35	9.98	32.33	48.00	15.67	
	0.702	21.23	10.07	31.30	48.00	16.70	
	1.025	14.67	10.20	24.87	48.00	23.13	
	<b>15.912</b>	<b>31.20</b>	<b>10.27</b>	<b>41.47</b>	<b>48.00</b>	<b>6.53</b>	
	20.386	29.18	10.25	39.43	48.00	8.57	
Neutral	0.517	27.52	9.75	37.27	48.00	10.73	QP
	0.611	22.53	9.80	32.33	48.00	15.67	
	0.702	24.47	9.83	34.30	48.00	13.70	
	1.212	16.84	9.93	26.77	48.00	21.23	
	16.386	30.45	10.18	40.63	48.00	7.37	
	22.738	27.54	10.23	37.77	48.00	10.23	

TEST ENGINEER: WENCY YANG

EUT : Fluorescent Lamp Ballast Temperature : 22°C  
 Model No. : BEB/120/232 Humidity : 52%RH  
 Serial No. : E1112130-01/01 Date of Test : Dec 10, 2011  
 Test Mode : Lighting (1\*32W)

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.517	25.51	9.76	35.27	48.00	12.73	QP
	0.611	23.35	9.98	33.33	48.00	14.67	
	0.702	21.23	10.07	31.30	48.00	16.70	
	0.800	18.39	10.11	28.50	48.00	19.50	
	15.193	31.40	10.28	41.68	48.00	6.32	
	16.386	32.26	10.27	42.53	48.00	5.47	
Neutral	0.517	25.52	9.75	35.27	48.00	12.73	QP
	0.611	24.53	9.80	34.33	48.00	13.67	
	0.702	21.47	9.83	31.30	48.00	16.70	
	0.800	20.63	9.87	30.50	48.00	17.50	
	14.386	30.06	10.21	40.27	48.00	7.73	
	<b>16.386</b>	<b>32.45</b>	<b>10.18</b>	<b>42.63</b>	<b>48.00</b>	<b>5.37</b>	

TEST ENGINEER: WENCY YANG

EUT : Fluorescent Lamp Ballast Temperature : 22°C  
 Model No. : BEB/120/232 Humidity : 52%RH  
 Serial No. : E1112130-01/01 Date of Test : Dec 10, 2011  
 Test Mode : Lighting (1\*17W)

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.525	27.50	9.77	37.27	48.00	10.73	QP
	0.609	24.99	9.98	34.97	48.00	13.03	
	0.800	20.39	10.11	30.50	48.00	17.50	
	1.212	14.58	10.19	24.77	48.00	23.23	
	14.386	31.99	10.28	42.27	48.00	5.73	
	18.200	32.13	10.25	42.38	48.00	5.62	
Neutral	0.513	26.30	9.75	36.05	48.00	11.95	QP
	0.606	25.82	9.80	35.62	48.00	12.38	
	0.797	21.28	9.87	31.15	48.00	16.85	
	1.025	18.95	9.92	28.87	48.00	19.13	
	15.257	32.94	10.20	43.14	48.00	4.86	
	<b>17.379</b>	<b>33.54</b>	<b>10.16</b>	<b>43.70</b>	<b>48.00</b>	<b>4.30</b>	

TEST ENGINEER: WENCY YANG

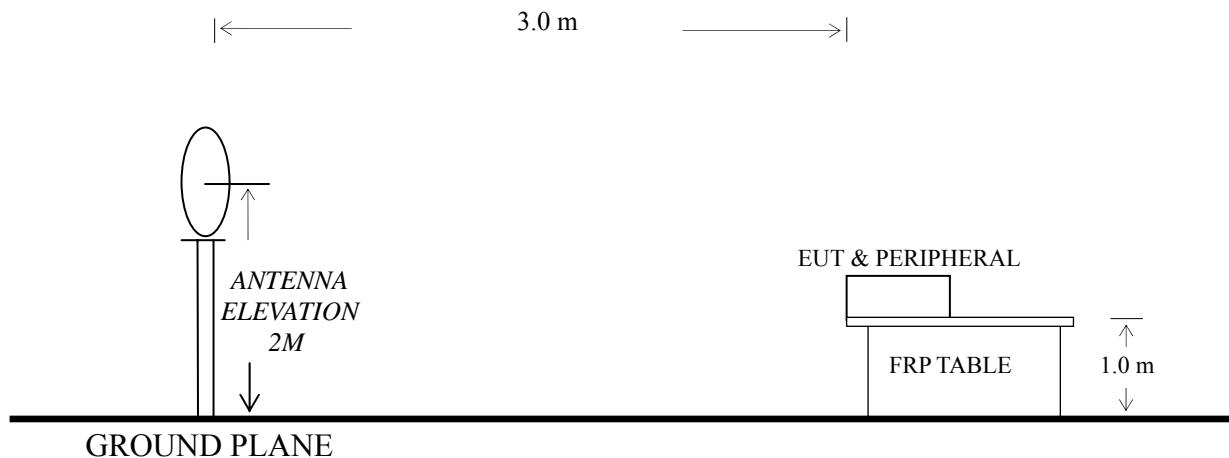
## 4 MAGNETIC FIELD EMISSION TEST

### 4.1 Test Equipment

The following test equipments are used during the field strength test in a shielded room:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Loop Antenna	Schaffner	HLA6120	1193	Jun 12, 2011	Jun 12, 2012
2.	Test Receiver	R&S	ESHS10	830223/007	Mar 22, 2011	Mar 22, 2012
3.	50Ω Coaxial Switch	ANRITSU	MP59B	6200426390	Sep 18, 2011	Mar 18, 2012
4.	Software	Audix	E3	SET00200 9912M295-2	--	--

### 4.2 Block Diagram of Test Setup



### 4.3 Magnetic Field Emission Limit (FCC Part 18 305(b))

All emanations from Non-ISM frequency devices or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

Frequency (MHz)	Distance (m)	Field Strength Limits ( $\mu$ V/m)	Converted Field Strength Limits By 3 Meters Measuring Distance dB ( $\mu$ V/m)
0.009~30	300	15	63.5

NOTE 1 - Distance refers to the distance in meters between the test antenna and the closed point of any part of the EUT.

NOTE 2 - Audix Technology (Shanghai) Co., Ltd. only has a 3 meters Semi-anechoic Chamber to do the radiated disturbance test, therefore, Audix Shanghai used 3 meters measuring distance and converted limits to judge the EUT compliance with or not.

### 4.4 Test Configuration

The FCC part 18 regulations test method must be used to find the maximum emission during Radiated Emission test.

The configuration of the EUT is same as used in conducted emission test. Please Refer to Section 3.4.

### 4.5 Operating Condition of EUT

- 4.5.1 Setup the EUT as shown on Section 4.2.
- 4.5.2 Turn on the power of all equipments.
- 4.5.3 Let the EUT work in test mode and test it.

### 4.6 Test Procedures

The EUT was placed on a table, which is 1.0 meter above ground. Measurements are performed at distance 3.0m with a 0.6m loop antenna as described in 2.2.4 of MP-5. The antenna shall be with the lower edge of the loop at height 2m above the floor.

The bandwidth setting on the test receiver (R&S Test Receiver ESHS10) is 200Hz from 9kHz to 150kHz and 10kHz from 150kHz to 30MHz. The EUT is tested in a semi-anechoic chamber.

All the test results are attached within Sec. 4.7.

## 4.7 Test Results

<PASS>

Refer to the following pages.

Model No	Test Mode	Data Page
BEB/120/232	Lighting (2*32W)	P15
	Lighting (1*32W)	P16
	Lighting (1*17W)	P17

NOTE 1 – Factor = Antenna Factor + Cable Loss

Emission Level = Meter Reading + Factor

NOTE 2 – All reading are Quasi-Peak Values.

NOTE 3 – The worst test mode is Lighting (1\*17W). The worst emission at horizontal polarization was detected at 0.267 MHz with corrected signal level of 53.10 dB ( $\mu$ V/m) (limit is 63.50 dB ( $\mu$ V/m)). The worst emission at vertical polarization was detected at 0.010 MHz with corrected signal level of 54.90 dB ( $\mu$ V/m) (limit is 63.50 dB ( $\mu$ V/m)).

EUT : Fluorescent Lamp Ballast Temperature : 22°C  
 Model No. : BEB/120/232 Humidity : 52%RH  
 Serial No. : E1112130-01/01 Date of Test : Dec 10, 2011  
 Test Mode : Lighting (2\*32W)

Polarization	Frequency (MHz)	Meter Reading dB ( $\mu$ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB ( $\mu$ V/m)	Limits dB ( $\mu$ V/m)	Margin (dB)
Horizontal	<b>0.028</b>	<b>24.92</b>	<b>20.85</b>	<b>0.06</b>	<b>45.83</b>	<b>63.50</b>	<b>17.67</b>
	0.043	16.05	20.65	0.06	36.76	63.50	26.74
	0.696	21.41	19.52	0.06	40.99	63.50	22.51
	1.480	12.90	19.66	0.16	32.72	63.50	30.78
	6.854	12.46	20.00	0.54	33.00	63.50	30.50
	7.616	12.53	20.16	0.54	33.23	63.50	30.27
Vertical	<b>0.020</b>	<b>32.29</b>	<b>20.99</b>	<b>0.06</b>	<b>53.34</b>	<b>63.50</b>	<b>10.16</b>
	0.261	33.26	19.60	0.06	52.92	63.50	10.58
	0.361	24.88	19.60	0.06	44.54	63.50	18.96
	1.268	13.36	19.45	0.12	32.93	63.50	30.57
	6.269	12.98	19.87	0.54	33.39	63.50	30.11
	8.743	12.96	20.34	0.55	33.85	63.50	29.65

TEST ENGINEER: RAVEN JIN

EUT : Fluorescent Lamp Ballast Temperature : 22°C  
 Model No. : BEB/120/232 Humidity : 52%RH  
 Serial No. : E1112130-01/01 Date of Test : Dec 10, 2011  
 Test Mode : Lighting (1\*32W)

Polarization	Frequency (MHz)	Meter Reading dB ( $\mu$ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB ( $\mu$ V/m)	Limits dB ( $\mu$ V/m)	Margin (dB)
Horizontal	<b>0.020</b>	<b>27.29</b>	<b>20.99</b>	<b>0.06</b>	<b>48.34</b>	<b>63.50</b>	<b>15.16</b>
	0.047	10.88	20.62	0.06	31.56	63.50	31.94
	0.261	28.26	19.60	0.06	47.92	63.50	15.58
	0.611	9.28	19.55	0.06	28.89	63.50	34.61
	3.468	7.92	19.80	0.43	28.15	63.50	35.35
	8.743	7.96	20.34	0.55	28.85	63.50	34.65
Vertical	<b>0.020</b>	<b>31.51</b>	<b>20.99</b>	<b>0.06</b>	<b>52.56</b>	<b>63.50</b>	<b>10.94</b>
	0.028	18.92	20.85	0.06	39.83	63.50	23.67
	0.151	27.90	19.70	0.06	47.66	63.50	15.84
	0.696	15.41	19.52	0.06	34.99	63.50	28.51
	1.480	6.90	19.66	0.16	26.72	63.50	36.78
	7.616	6.53	20.16	0.54	27.23	63.50	36.27

TEST ENGINEER: RAVEN JIN

EUT : Fluorescent Lamp Ballast Temperature : 22°C  
 Model No. : BEB/120/232 Humidity : 52%RH  
 Serial No. : E1112130-01/01 Date of Test : Dec 10, 2011  
 Test Mode : Lighting (1\*17W)

Polarization	Frequency (MHz)	Meter Reading dB ( $\mu$ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB ( $\mu$ V/m)	Limits dB ( $\mu$ V/m)	Margin (dB)
Horizontal	0.010	27.17	20.91	0.06	48.14	63.50	15.36
	<b>0.267</b>	<b>33.44</b>	<b>19.60</b>	<b>0.06</b>	<b>53.10</b>	<b>63.50</b>	<b>10.40</b>
	0.385	21.25	19.60	0.06	40.91	63.50	22.59
	3.172	11.51	19.86	0.41	31.78	63.50	31.72
	5.462	12.19	19.70	0.53	32.42	63.50	31.08
	11.426	10.99	20.29	0.57	31.85	63.50	31.65
Vertical	<b>0.010</b>	<b>33.93</b>	<b>20.91</b>	<b>0.06</b>	<b>54.90</b>	<b>63.50</b>	<b>8.60</b>
	0.015	26.39	20.97	0.06	47.42	63.50	16.08
	0.177	20.59	19.67	0.06	40.32	63.50	23.18
	0.248	25.85	19.60	0.06	45.51	63.50	17.99
	2.349	12.33	19.96	0.32	32.61	63.50	30.89
	4.317	12.44	19.67	0.49	32.60	63.50	30.90

TEST ENGINEER: RAVEN JIN

## 5 RADIATED EMISSION TEST

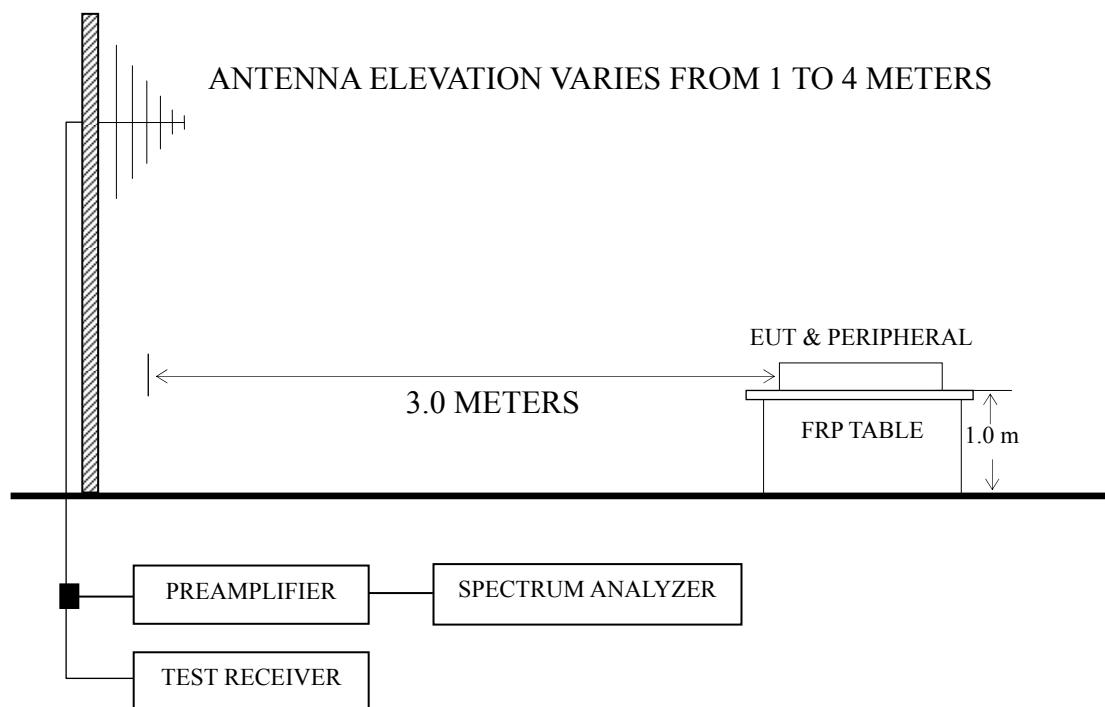
### 5.1 Test Equipment

The following test equipments are used during the radiated emission test in a semi-anechoic chamber:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESVS10	844594/001	Mar 22, 2011	Mar 22, 2012
2.	Preamplifier	Agilent	8447D	2944A10548	Sep 18, 2011	Mar 18, 2012
3.	Bi-log Antenna	TESEQ	CBL6112D	23192	Dec 01, 2011	Dec 01, 2012
4.	Spectrum	Agilent	E7405A	MY45106600	Mar 22, 2011	Mar 22, 2012
5.	Software	Audix	E3	SET00200 9912M295-2	--	--

### 5.2 Block Diagram of Test Setup

#### 5.2.1 Radiated emission test setup



### 5.3 Radiated Emission Limit (FCC Part 18.305(c) Consumer Equipment)

Frequency (MHz)	Distance (m)	Field strength limits		Converted Field Strength Limits By 3 Meters Measuring Distance
		( $\mu$ V/m)	dB ( $\mu$ V/m)	dB ( $\mu$ V/m)
30 ~ 88	30	10	20.0	40.0
88 ~ 216	30	15	23.5	43.5
216 ~ 1000	30	20	26.0	46.0

NOTE 1 - The lower limit shall apply at the transition frequency.  
 NOTE 2 - Measuring distance of 30 m is a primary requirement.  
 However, 3 m (instead of 30 m) distance maybe allowed. In this case, the limits with measuring distance of 3 m shall be the above limit value increased  $20\lg(30/3)=20$ dB.  
 NOTE 3 - 1  $\mu$ V/m is regarded as 0 dB $\mu$ V/m.

### 5.4 Test Configuration

The configuration of the EUT and peripherals are same as those used in conducted emission test.

Please refer to Sec.3.4.

### 5.5 Operating Condition of EUT

Same as conducted emission test which is listed in Sec.3.5, except for the test setup replaced by Sec.5.2.

### 5.6 Test Procedures

The EUT was placed on a turntable that is 1.0 meter above ground. The turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (Calibrated Bilog Antenna) was used as receiving antenna. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to FCC MP-5: 1986 requirements during radiated emission test.

The bandwidth of Test Receiver R&S ESVS10 was set at 120 kHz.

The frequency range from 30 MHz to 1000 MHz was checked.

The test mode was done on radiated disturbance test and all the test results are listed in Sec.5.7.

## 5.7 Test Results

**<PASS>**

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Model No	Test Mode	Data Page
BEB/120/232	Lighting (2*32W)	P21
	Lighting (1*32W)	P22
	Lighting (1*17W)	P23

NOTE 1 – Emission Level = Antenna Factor + Cable Loss + Meter Reading.

NOTE 2 – The emission levels that are 20dB below the official limit are not reported.

NOTE 3 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

NOTE 4 – The worst test mode is for Lighting (1\*17W). The worst emission at horizontal polarization was detected at 75.590 MHz with corrected signal level of 30.08 dB ( $\mu$ V/m) (limit is 40.00 dB ( $\mu$ V/m)), when the antenna was 1.00 m height and the turntable was at 145°. The worst emission at vertical polarization was detected at 80.440 MHz with corrected signal level of 32.46 dB ( $\mu$ V/m) (limit is 40.00 dB ( $\mu$ V/m)), when the antenna was 1.00 m height and the turntable was at 220°.

EUT : Fluorescent Lamp Ballast Temperature : 22°C  
 Model No. : BEB/120/232 Humidity : 60%RH  
 Serial No. : E1112130-01/01 Date of Test : Dec 10, 2011  
 Test Mode : Lighting (2\*32W)

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	41.640	9.73	11.78	0.88	22.39	40.00	17.61
	61.040	16.23	9.21	1.21	26.65	40.00	13.35
	<b>86.260</b>	<b>14.89</b>	<b>10.83</b>	<b>1.68</b>	<b>27.40</b>	<b>40.00</b>	<b>12.60</b>
	164.830	9.73	10.18	2.30	22.21	43.50	21.29
	376.290	3.86	15.79	2.93	22.58	46.00	23.42
	701.240	4.68	19.50	3.68	27.86	46.00	18.14
Vertical	<b>38.730</b>	<b>17.90</b>	<b>13.40</b>	<b>0.86</b>	<b>32.16</b>	<b>40.00</b>	<b>7.84</b>
	58.130	20.29	9.02	1.14	30.45	40.00	9.55
	85.290	16.03	10.80	1.66	28.49	40.00	11.51
	247.280	4.49	11.85	2.60	18.94	46.00	27.06
	429.640	4.55	16.69	3.08	24.32	46.00	21.68
	712.880	8.20	19.63	3.70	31.53	46.00	14.47

TEST ENGINEER: RAVEN JIN

EUT : Fluorescent Lamp Ballast Temperature : 22°C  
 Model No. : BEB/120/232 Humidity : 60%RH  
 Serial No. : E1112130-01/01 Date of Test : Dec 10, 2011  
 Test Mode : Lighting (1\*32W)

Polarization	Frequency (MHz)	Meter Reading dB ( $\mu$ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB ( $\mu$ V/m)	Limits dB ( $\mu$ V/m)	Margin (dB)
Horizontal	41.640	36.24	11.78	0.88	20.77	40.00	19.23
	<b>61.040</b>	<b>45.44</b>	<b>9.21</b>	<b>1.21</b>	<b>27.96</b>	<b>40.00</b>	<b>12.04</b>
	90.140	41.40	11.00	1.73	26.24	43.50	17.26
	164.830	37.11	10.18	2.30	22.12	43.50	21.38
	310.330	32.01	13.97	2.78	21.81	46.00	24.19
	672.140	33.14	19.15	3.62	27.75	46.00	18.25
Vertical	<b>41.640</b>	<b>19.12</b>	<b>11.78</b>	<b>0.88</b>	<b>31.78</b>	<b>40.00</b>	<b>8.22</b>
	58.130	18.30	9.02	1.14	28.46	40.00	11.54
	85.290	16.09	10.80	1.66	28.55	40.00	11.45
	184.230	5.14	9.95	2.37	17.46	43.50	26.04
	421.880	4.32	16.57	3.04	23.93	46.00	22.07
	778.840	5.09	20.37	3.86	29.32	46.00	16.68

TEST ENGINEER: RAVEN JIN

EUT : Fluorescent Lamp Ballast Temperature : 22°C  
 Model No. : BEB/120/232 Humidity : 52%RH  
 Serial No. : E1112130-01/01 Date of Test : Dec 10, 2011  
 Test Mode : Lighting (1\*17W)

Polarization	Frequency (MHz)	Meter Reading dB ( $\mu$ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB ( $\mu$ V/m)	Limits dB ( $\mu$ V/m)	Margin (dB)
Horizontal	38.730	13.30	13.40	0.86	27.56	40.00	12.44
	<b>75.590</b>	<b>18.28</b>	<b>10.27</b>	<b>1.53</b>	<b>30.08</b>	<b>40.00</b>	<b>9.92</b>
	164.830	11.99	10.18	2.30	24.47	43.50	19.03
	227.880	12.79	10.97	2.53	26.29	46.00	19.71
	281.230	9.95	13.17	2.70	25.82	46.00	20.18
	353.980	7.23	15.25	2.89	25.37	46.00	20.63
Vertical	72.680	20.50	10.08	1.47	32.05	40.00	7.95
	<b>80.440</b>	<b>20.31</b>	<b>10.56</b>	<b>1.59</b>	<b>32.46</b>	<b>40.00</b>	<b>7.54</b>
	167.740	18.62	10.14	2.31	31.07	43.50	12.43
	213.330	18.67	10.33	2.47	31.47	43.50	12.03
	250.190	16.14	11.99	2.61	30.74	46.00	15.26
	395.690	11.50	16.20	2.98	30.68	46.00	15.32

TEST ENGINEER: RAVEN JIN

## 6 DEVIATION TO TEST SPECIFICATIONS

None.