

APPLICATION FOR CERTIFICATION
On Behalf of

XIAMEN LEEDARSON IMPORT & EXPORT CO., LTD.

Compact Fluorescent Lamp

Model Number: NHST07, NHST09, NHST11, NHST13, NHST15

Prepared for : XIAMEN LEEDARSON IMPORT & EXPORT CO., LTD..
6B, JINSHAN BUILDING, NO.862 XIAHE ROAD,
XIAMEN, CHINA

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
No. 6 Ke Feng Rd., 52 Block,
Shenzhen Science & Industrial Park,
Nantou, Shenzhen, Guangdong, China

Tel: (0755) 26639496

Report Number : ACS-F07287
Date of Test : Jun.28~29, 2007
Date of Report : Jul.04, 2007

TABLE OF CONTENTS

Description	Page
Test Report Certification	
1. SUMMARY OF STANDARDS AND RESULTS	1-1
1.1. Description of Standards and Results.....	1-1
2. GENERAL INFORMATION.....	2-1
2.1. Description of Device (EUT)	2-1
2.2. Test Facility.....	2-6
2.3. Measurement Uncertainty	2-6
3. POWER LINE CONDUCTED EMISSION TEST.....	3-1
3.1. Test Equipment	3-1
3.2. Block Diagram of Test Setup	3-1
3.3. Power Line Conducted Emission Test Limit	3-1
3.4. Configuration of EUT on Test	3-1
3.5. Operating Condition of EUT.....	3-2
3.6. Test Procedure.....	3-2
3.7. Power Line Conducted Emission Test Results.....	3-2
4. MAGNETIC FIELD EMISSION TEST.....	4-1
4.1. Test Equipment	4-1
4.2. Block Diagram of Test Setup	4-1
4.3. Magnetic Field Emission Limit.....	4-2
4.4. EUT Configuration on Test.....	4-2
4.5. Operating Condition of EUT.....	4-2
4.6. Test Procedure.....	4-2
4.7. Magnetic Field Emission Test Results	4-3
5. DEVIATION TO TEST SPECIFICATIONS	5-1
6. PHOTOGRAPH	6-1
6.1. Photos of Power Line Conducted Emission Test	6-1
6.2. Photo of Magnetic Field Emission test	6-1

TEST REPORT CERTIFICATION

Applicant : XIAMEN LEEDARSON IMPORT & EXPORT CO., LTD.
Manufacturer : LEEDARSON LIGHTING CO., LTD.
EUT Description : Compact Fluorescent Lamp
(A) MODEL NO. : NHST07, NHST09, NHST11,
NHST13, NHST15
(B) SERIAL NO. : N/A
(C) POWER SUPPLY : AC 120V/60Hz

Test Procedure Used:

FCC RULES AND REGULATIONS PART 18 SUBPART C RF LIGHTING DEVICES
CONSUMER (1998) AND MP-5/1986

The device described above is tested by Audix Technology (Shenzhen) 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 limits for radiation and conduction emissions. The test results are contained in this test report and Audix Technology (Shenzhen) Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT is technically compliant with FCC requirements.

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

Date of Test : Jun.28~29, 2007

Prepared by : YoYo Wang / Assistant

Reviewer : Iceman Hu / Senior Engineer

Approved & Authorized Signer : Ken Lu / 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.

EMISSION		
Description of Test Item	Standard	Results
Conducted Emission Test	FCC Part 18C ANSI C63.4: 2003	PASS
Magnetic Field Emission Test	FCC Part 18C	PASS

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Description	:	Compact Fluorescent Lamp
Model Number	:	NHST07, NHST09, NHST11, NHST13, NHST15
Applicant	:	XIAMEN LEEDARSON IMPORT & EXPORT CO., LTD. 6B, JINSHAN BUILDING, NO.862 XIAHE ROAD, XIAMEN, CHINA
Manufacturer	:	LEEDARSON LIGHTING CO., LTD. BAOSHUI ROAD, XINGTAI INDUSTRIAL ZONE, CHANGTAI COUNTY, ZHANGZHOU FUJIAN, CHINA
Date of Test	:	Jun.28~29, 2007

Remark:

Electrical Rating

model	input voltage(V)	frequency(HZ)	wattage(W)	current(A)
NHST15	120	60	15	0.25
NHST13	120	60	13	0.22
NHST11	120	60	11	0.19
NHST09	120	60	9	0.15
NHST07	120	60	7	0.12

Dissimilarity Between Same Series

Location	Name	NHST15	NHST13	NHST11	NHST09	NHST07
C2	Electrolytic Capacitor	15u/200V 105℃	10u/200V 105℃	10u/200V 105℃	8.2u/200V 105℃	6.8u/200V 105℃
C6	Capacitor	222J/1200V	222J/1200V	222J/1200V	272J/1200V	332J/1200V
C7	Capacitor	402J/1200V	402J/1200V	332J/1200V	272J/1200V	102J/1200V
V1 V2	Transistor	13003 TO-92	13003 TO-92	13002 TO-92	13002 TO-92	13002 TO-92
L3	Chock	E13 1.9mH	E13 1.7mH	E13 1.9mH	E13 2.2mH	E13 2.2mH
	Core Ring Wire	03:06:03	03:08:03	03:08:03	03:08:03	03:11:03
	Tube	D52 3T or D45 3.5T	D=45mm 3T	D=45mm 2.5T	D=45mm 2T	D=45mm 1.5T

Model:NHST07

120V 60Hz E26

Serial No.	Location	Name	Specification	Manufacturer	File No.	Remark
1	C2	Electrolytic Capacitor	6.8u/200V 105℃	Any		
2	C1	Capacitor	473J/250V	Any		
3	C3	Capacitor	22nJ/50V	Any		
4	C4	Capacitor	1n0J/1200V	Any		
5	C5	Capacitor	473J/250V	Any		
6	C6	Capacitor	332J/1200V	Any		
7	C7	Capacitor	102J/1200V	Any		
8	D1~D5	Diode	1N4007	Any		
9	DB3	Diac	DB3	Any		
10	R1 R2	Resistor	560K Ω 1206	Any		
11	R3 R5	Resistor	10 Ω 1206	Any		
12	R4 R6	Resistor	0.5 Ω 1206	Any		
13	V1 V2	Transistor	13002 T0-92	WUXI HUAJING MICROELECTRONICS CO., LTD.		
14	L3	Inductor/Chock	E13 2.2mH±5%	SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	WIRE MW79# 155℃
				JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO., LTD.	E165111	Polyester tape PZ280
				GUANGZHOU KINGFA SCIENCE & TECHNOLOGY CO., LTD.	E171666	BOBIN PBT 130℃
15	S2	Fuse	1.5A/250V . 32S	HOLLYLAND CO., LTD.	E156471	
			1W-1R1-K, RXF21	ANHUI CHANGSHENG ELECTRONICS CO LTD	E306095	
16		Extruded Tubing	Φ4mm UL 125℃	DONGGUAN LIAOBU SANLIAN PLASTIC CO., LTD.	E209436	
17	L1	Inductor	Φ6.0*8 1mH	DONGGUAN LIAOBU SANLIAN PLASTIC CO., LTD.	E209436	Heat-shrinkable Tube/125℃
				SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	WIRE MW79# 155℃
18	L2	Ring Magnet	9×5×3	Any		
19		Ring Magnet Wire	WIRE 2UEW155℃	SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	
20		PCB	TS-002,TS-003/ 94V0 130℃	XIAMEN TOPSUN ELECTRONIC TECHNOLOGY	E252242	
21		Sleeving	Φ1	SHENZHEN WAHCHANGWEI INDUSTRIAL CO., LTD.	E233803	
22	S1	Wire	1430#,600V,105℃ 24AWG	SHENZHEN QIFURUI ELECTRONICS CO., LTD.	E211048	
23		Plastic	PBT-RG301(r1) V-0 130℃	GUANGZHOU KINGFA SCIENCE & TECHNOLOGY CO., LTD.	E171666	
24		Base	E26	Any		
25	F1 F2	Needle	3PIN	Any		
26		Tube	D45 1.5T	Any		

Model:NHST09

120V 60Hz E26

Serial No.	Location	Name	Specification	Manufacturer	File No.	Remark
1	C2	Electrolytic Capacitor	8.2u/200V 105℃	Any		
2	C1	Capacitor	473J/250V	Any		
3	C3	Capacitor	22nJ/50V	Any		
4	C4	Capacitor	1n0J/1200V	Any		
5	C5	Capacitor	473J/250V	Any		
6	C6	Capacitor	272J/1200V	Any		
7	C7	Capacitor	272J/1200V	Any		
8	D1~D5	Diode	1N4007	Any		
9	DB3	Diac	DB3	Any		
10	R1 R2	Resistor	560K Ω 1206	Any		
11	R3 R5	Resistor	10 Ω 1206	Any		
12	R4 R6	Resistor	0.5 Ω 1206	Any		
13	V1 V2	Transistor	13002 T0-92	WUXI HUAJING MICROELECTRONICS CO., LTD.		
14	L3	Inductor/Chock	E13 2.2mH±5%	SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	WIRE MW79# 155℃
				JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO., LTD.	E165111	Polyester tape PZ280
				GUANGZHOU KINGFA SCIENCE & TECHNOLOGY CO., LTD.	E171666	BOBIN PBT 130℃
15	S2	Fuse	1.5A/250V . 32S	HOLLYLAND CO., LTD.	E156471	
			1W-1R1-K, RXF21	ANHUI CHANGSHENG ELECTRONICS CO LTD	E306095	
16		Extruded Tubing	Φ4mm UL 125℃	DONGGUAN LIAOBU SANLIAN PLASTIC CO., LTD.	E209436	
17	L1	Inductor	Φ6.0*8 1mH	DONGGUAN LIAOBU SANLIAN PLASTIC CO., LTD.	E209436	Heat-shrinkable Tube/125℃
				SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	WIRE MW79# 155℃
18	L2	Ring Magnet	9×5×3	Any		
19		Ring Magnet Wire	WIRE 2UEW155℃	SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	
20		PCB	TS-002,TS-003/ 94V0 130℃	XIAMEN TOPSUN ELECTRONIC TECHNOLOGY	E252242	
21		Sleeving	Φ1	SHENZHEN WAHCHANGWEI INDUSTRIAL CO., LTD.	E233803	
22	S1	Wire	1430#,600V,105℃ 24AWG	SHENZHEN QIFURUI ELECTRONICS CO., LTD.	E211048	
23		Plastic	PBT-RG301(r1) V-0 130℃	GUANGZHOU KINGFA SCIENCE & TECHNOLOGY CO., LTD.	E171666	
24		Base	E26	Any		
25	F1 F2	Needle	3PIN	Any		
26		Tube	D45 2T	Any		

Model:NHST11

120V 60Hz E26

Serial No.	Location	Name	Specification	Manufacturer	File No.	Remark
1	C2	Electrolytic Capacitor	10u/200V 105℃	Any		
2	C1	Capacitor	473J/250V	Any		
3	C3	Capacitor	22nJ/50V	Any		
4	C4	Capacitor	1n0J/1200V	Any		
5	C5	Capacitor	473J/250V	Any		
6	C6	Capacitor	222J/1200V	Any		
7	C7	Capacitor	332J/1200V	Any		
8	D1~D5	Diode	1N4007	Any		
9	DB3	Diac	DB3	Any		
10	R1 R2	Resistor	560K Ω 1206	Any		
11	R3 R5	Resistor	10 Ω 1206	Any		
12	R4 R6	Resistor	0.5 Ω 1206	Any		
13	V1 V2	Transistor	13002 T0-92	WUXI HUAJING MICROELECTRONICS CO., LTD.		
14	L3	Inductor/Chock	E13 1.9mH±5%	SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	WIRE MW79# 155℃
				JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO., LTD.	E165111	Polyester tape PZ280
				GUANGZHOU KINGFA SCIENCE & TECHNOLOGY CO., LTD.	E171666	BOBIN PBT 130℃
15	S2	Fuse	1.5A/250V . 32S	HOLLYLAND CO., LTD.	E156471	
			1W-1R1-K, RXF21	ANHUI CHANGSHENG ELECTRONICS CO LTD	E306095	
16		Extruded Tubing	Φ4mm UL 125℃	DONGGUAN LIAOBU SANLIAN PLASTIC CO., LTD.	E209436	
17	L1	Inductor	Φ6.0*8 1mH	DONGGUAN LIAOBU SANLIAN PLASTIC CO., LTD.	E209436	Heat-shrinkable Tube/125℃
				SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	WIRE MW79# 155℃
18	L2	Ring Magnet	9×5×3	Any		
19		Ring Magnet Wire	WIRE 2UEW155℃	SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	
20		PCB	TS-002,TS-003/ 94V0 130℃	XIAMEN TOPSUN ELECTRONIC TECHNOLOGY	E252242	
21		Sleeving	Φ1	SHENZHEN WAHCHANGWEI INDUSTRIAL CO., LTD.	E233803	
22	S1	Wire	1430#,600V,105℃ 24AWG	SHENZHEN QIFURUI ELECTRONICS CO., LTD.	E211048	
23		Plastic	PBT-RG301(r1) V-0 130℃	GUANGZHOU KINGFA SCIENCE & TECHNOLOGY CO., LTD.	E171666	
24		Base	E26	Any		
25	F1 F2	Needle	3PIN	Any		
26		Tube	D45 2.5T	Any		

Model:NHST13

120V 60Hz E26

Serial No.	Location	Name	Specification	Manufacturer	File No.	Remark
1	C2	Electrolytic Capacitor	10u/200V 105℃	Any		
2	C1	Capacitor	473J/250V	Any		
3	C3	Capacitor	22nJ/50V	Any		
4	C4	Capacitor	1n0J/1200V	Any		
5	C5	Capacitor	473J/250V	Any		
6	C6	Capacitor	222J/1200V	Any		
7	C7	Capacitor	402J/1200V	Any		
8	D1~D5	Diode	1N4007	Any		
9	DB3	Diac	DB3	Any		
10	R1 R2	Resistor	560K Ω 1206	Any		
11	R3 R5	Resistor	10 Ω 1206	Any		
12	R4 R6	Resistor	0.5 Ω 1206	Any		
13	V1 V2	Transistor	13003 T0-92	WUXI HUAJING MICROELECTRONICS CO., LTD.		
14	L3	Inductor/Chock	E13 1.7mH±5%	SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	WIRE MW79# 155℃
				JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO., LTD.	E165111	Polyester tape PZ280
				GUANGZHOU KINGFA SCIENCE & TECHNOLOGY CO., LTD.	E171666	BOBIN PBT 130℃
15	S2	Fuse	1.5A/250V . 32S	HOLLYLAND CO., LTD.	E156471	
			1W-1R1-K, RXF21	ANHUI CHANGSHENG ELECTRONICS CO LTD	E306095	
16		Extruded Tubing	Φ4mm UL 125℃	DONGGUAN LIAOBU SANLIAN PLASTIC CO., LTD.	E209436	
17	L1	Inductor	Φ6.0*8 1mH	DONGGUAN LIAOBU SANLIAN PLASTIC CO., LTD.	E209436	Heat-shrinkable Tube/125℃
				SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	WIRE MW79# 155℃
18	L2	Ring Magnet	9×5×3	Any		
19		Ring Magnet Wire	WIRE 2UEW155℃	SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	
20		PCB	TS-002,TS-003/ 94V0 130℃	XIAMEN TOPSUN ELECTRONIC TECHNOLOGY	E252242	
21		Sleeving	Φ1	SHENZHEN WAHCHANGWEI INDUSTRIAL CO., LTD.	E233803	
22	S1	Wire	1430#,600V,105℃ 24AWG	SHENZHEN QIFURUI ELECTRONICS CO., LTD.	E211048	
23		Plastic	PBT-RG301(r1) V-0 130℃	GUANGZHOU KINGFA SCIENCE & TECHNOLOGY CO., LTD.	E171666	
24		Base	E26	Any		
25	F1 F2	Needle	3PIN	Any		
26		Tube	D45 3T	Any		

Model:NHST15

120V 60Hz E26

Serial No.	Location	Name	Specification	Manufacturer	File No.	Remark
1	C2	Electrolytic Capacitor	15u/200V 105℃	Any		
2	C1	Capacitor	473J/250V	Any		
3	C3	Capacitor	22nJ/50V	Any		
4	C4	Capacitor	1n0J/1200V	Any		
5	C5	Capacitor	473J/250V	Any		
6	C6	Capacitor	222J/1200V	Any		
7	C7	Capacitor	402J/1200V	Any		
8	D1~D5	Diode	1N4007	Any		
9	DB3	Diac	DB3	Any		
10	R1 R2	Resistor	560K Ω 1206	Any		
11	R3 R5	Resistor	10 Ω 1206	Any		
12	R4 R6	Resistor	0.5 Ω 1206	Any		
13	V1 V2	Transistor	13003 T0-92	WUXI HUAJING MICROELECTRONICS CO., LTD.		
14	L3	Inductor/Chock	E13 1.9mH±5%	SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	WIRE MW79# 155℃
				JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO., LTD.	E165111	Polyester tape PZ280
				GUANGZHOU KINGFA SCIENCE & TECHNOLOGY CO., LTD.	E171666	BOBIN PBT 130℃
15	S2	Fuse	1.5A/250V . 32S	HOLLYLAND CO., LTD.	E156471	
			1W-1R1-K, RXF21	ANHUI CHANGSHENG ELECTRONICS CO LTD	E306095	
16		Extruded Tubing	Φ4mm UL 125℃	DONGGUAN LIAOBU SANLIAN PLASTIC CO., LTD.	E209436	
17	L1	Inductor	Φ6.0*8 1mH	DONGGUAN LIAOBU SANLIAN PLASTIC CO., LTD.	E209436	Heat-shrinkable Tube/125℃
				SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	WIRE MW79# 155℃
18	L2	Ring Magnet	9×5×3	Any		
19		Ring Magnet Wire	WIRE 2UEW155℃	SHANGHAI ASIA PACIFIC ELECTRIC CO., LTD.	E214423	
20		PCB	TS-002,TS-003/ 94V0 130℃	XIAMEN TOPSUN ELECTRONIC TECHNOLOGY	E252242	
21		Sleeving	Φ1	SHENZHEN WAHCHANGWEI INDUSTRIAL CO., LTD.	E233803	
22	S1	Wire	1430#,600V,105℃ 24AWG	SHENZHEN QIFURUI ELECTRONICS CO., LTD.	E211048	
23		Plastic	PBT-RG301(r1) V-0 130℃	GUANGZHOU KINGFA SCIENCE & TECHNOLOGY CO., LTD.	E171666	
24		Base	E26	Any		
25	F1 F2	Needle	3PIN	Any		
26		Tube	D52 3I or D45 3.5I	Any		

2.2. Test Facility

Site Description

3m Anechoic Chamber : Jun.13, 2006 File on Federal Communication Commission
Registration Number: 90454

3m & 10m Anechoic Chamber : Jan.31, 2007 File on Federal Communication Commission
Registration Number: 794232

EMC Lab. : Accredited by DATech, German
Registration Number: DAT-P-091/99-01
Feb. 02, 2004

Accredited by NVLAP, USA
NVLAP Code: 200372-0
Apr.01, 2006

2.3. Measurement Uncertainty

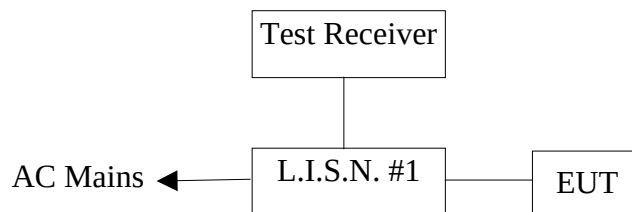
No.	Item	Uncertainty	Remark
1.	Uncertainty for Conducted Emission Test	1.22dB	
2.	Uncertainty for Radiated Emission Test	3.14dB	3m Chamber
3.	Uncertainty for Radiated Emission Test	3.18dB	10m Chamber
4.	Uncertainty for Power Clamp Test	1.38dB	

3. POWER LINE CONDUCTED EMISSION TEST

3.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	May 11, 07	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	May 11, 07	1 Year
3.	Terminator	Hubersuhner	50Ω	No. 1	May 11, 07	1 Year
4.	RF Cable	MIYAZAKI	5D-2W	LISN Cable 1#	Aug.16, 06	1/2 Year
5.	Coaxial Switch	Anritsu	MP59B	M55367	Aug.16, 06	1/2 Year
6.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100340	Aug.16, 06	1/2 Year

3.2. Block Diagram of Test Setup



(EUT: Compact Fluorescent Lamp)

3.3. Power Line Conducted Emission Test Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
450kHz ~ 2.51kHz	48	N/A
2.51kHz ~ 3MHz	70	N/A
3MHz ~ 30MHz	48	N/A

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.4. 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.

3.4.1. Compact Fluorescent Lamp (EUT)

Model Number : NHST07, NHST09, NHST11, NHST13, NHST15
 Serial Number : N/A
 Manufacturer : LEEDARSON LIGHTING CO., LTD.

3.5. Operating Condition of EUT

3.5.1. Setup the EUT and simulator as shown on Section 3.2..

3.5.2. Turn on the power of all equipment.

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

3.6. Test Procedure

The EUT is connected to the power mains through a line impedance stabilization network (L.I.S.N.#1). This provides a 50 ohm 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 C63.4-2003 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 10kHz.

The frequency range from 450kHz to 30MHz is checked.

The test result are reported on Section 3.7

3.7. Power Line Conducted Emission Test Results

PASS.

The EUT with the following test modes was tested and all the test results are listed in next pages.

EUT: Compact Fluorescent Lamp

Model No. : NHST07, NHST09, NHST11, NHST13, NHST15

Test Date: Jun.29, 2007 Temperature: 23°C Humidity: 54%

The details of test models are as follows :

No.	Test Mode	Model No.	Reference Test Data No.	
			VA	VB
1.	ON	NHST07	#2	#1
2.		NHST09	#3	#4
3.		NHST11	#6	#5
4.		NHST13	#7	#8
5.		NHST15	#10	#9

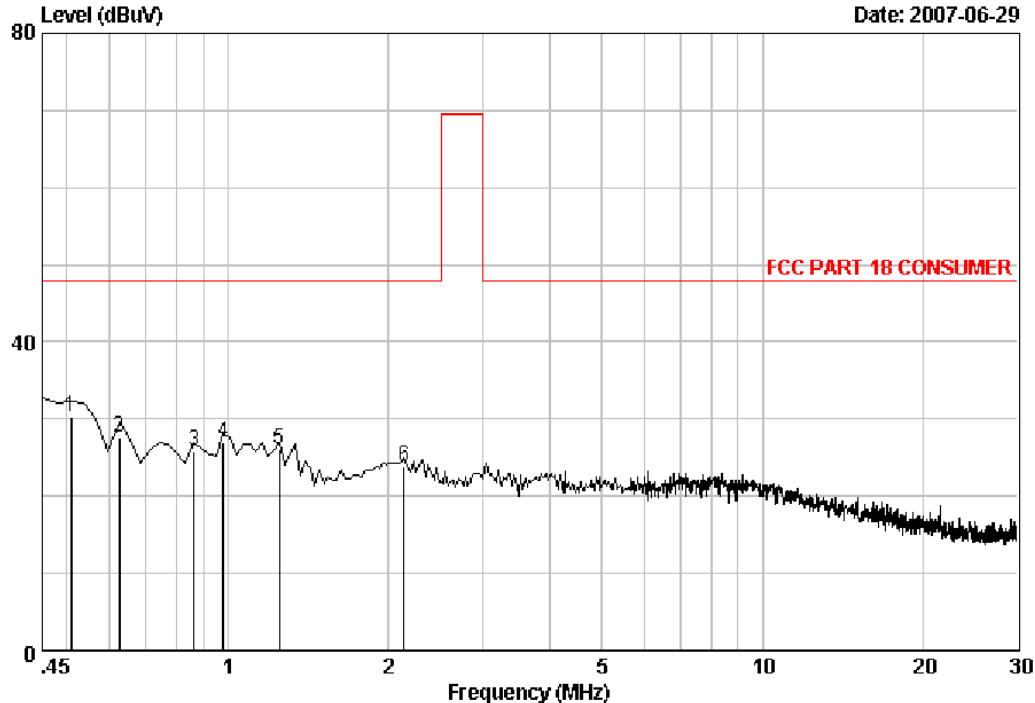


No.6 ke Feng Road ,Block 52,
Shenzhen Science & Industry Park
Nantou, Shenzhen, Guangdong, China
Tel: +86-755-26639495-7
Fax: +86-755-26632877
Postcode: 518057

Data: 2

File: D:\DATA\2007 Report\LEEDARSON\ACS7Q853-1.EMI (10)

Date: 2007-06-29



Site no. : Audix 1# Conduction Data no. : 2
Dis. / Ant. : -- KMW407 VA (1#) LISN Phase :
Limit : FCC PART 18 CONSUMER
Env. / Ins. : Temp:23° Humi:54% ESHS10 Engineer : ChinaLee
EUT : Compact Fluorescent Lamp M/N:NHST07
Power Rating : AC 120V/60Hz
Test Mode : ON

	Freq. (MHz)	LISN. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.51	0.05	10.14	20.21	30.40	48.00	17.60	QP
2	0.63	0.05	10.14	17.39	27.58	48.00	20.42	QP
3	0.86	0.04	10.15	15.67	25.86	48.00	22.14	QP
4	0.98	0.04	10.15	16.81	27.00	48.00	21.00	QP
5	1.25	0.04	10.15	15.78	25.97	48.00	22.03	QP
6	2.13	0.05	10.15	13.70	23.90	48.00	24.10	QP

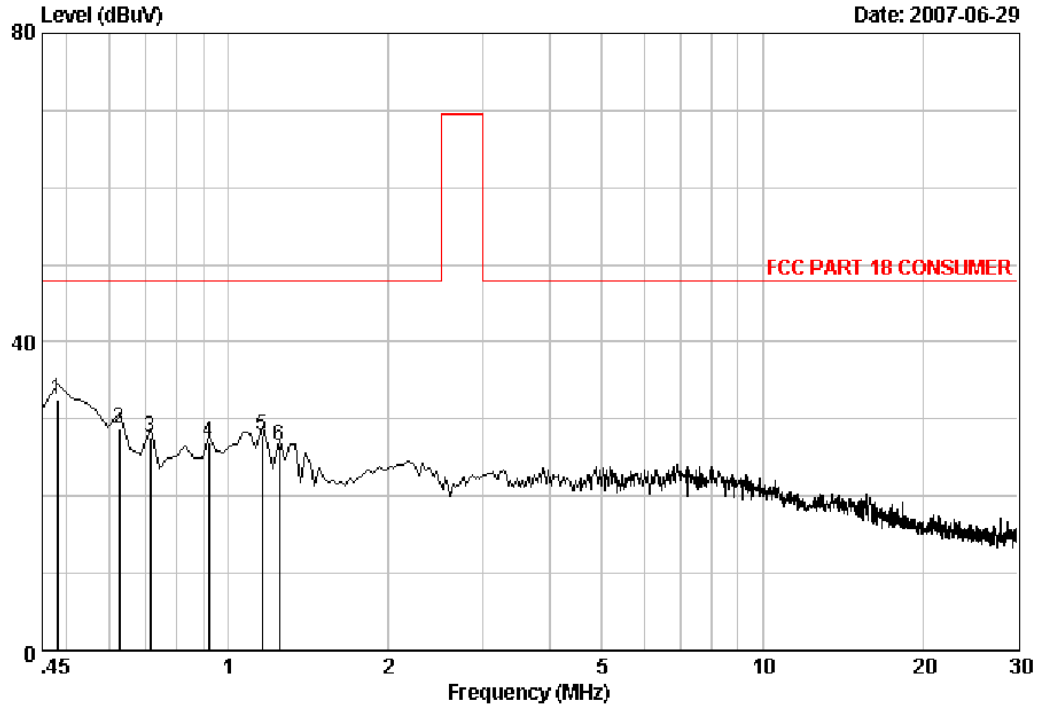
Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector,
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.



No.6 ke Feng Road ,Block 52,
Shenzhen Science & Industry Park
Nantou, Shenzhen, Guangdong, China
Tel: +86-755-26639495-7
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Data: 1 File: D:\DATA\2007 Report\LEEDARSON\ACS70853-1.EMI (10)

Date: 2007-06-29



Site no. : Audix 1# Conduction Data no. : 1
Dis. / Ant. : -- KMW407 VB (1#) LISM Phase :
Limit : FCC PART 18 CONSUMER
Env. / Ins. : Temp:23° Humi:54% ESHS10 Engineer : Chinalee
EUT : Compact Fluorescent Lamp M/N:NHST07
Power Rating : AC 120V/60Hz
Test Mode : ON

	Freq. (MHz)	LISM. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.48	0.06	10.14	22.26	32.46	48.00	15.54	QP
2	0.63	0.04	10.14	18.54	28.72	48.00	19.28	QP
3	0.72	0.04	10.14	17.52	27.70	48.00	20.30	QP
4	0.92	0.04	10.15	16.68	26.87	48.00	21.13	QP
5	1.16	0.04	10.15	17.71	27.90	48.00	20.10	QP
6	1.25	0.04	10.15	16.25	26.44	48.00	21.56	QP

Remarks: 1. Emission Level= LISM Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector,
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

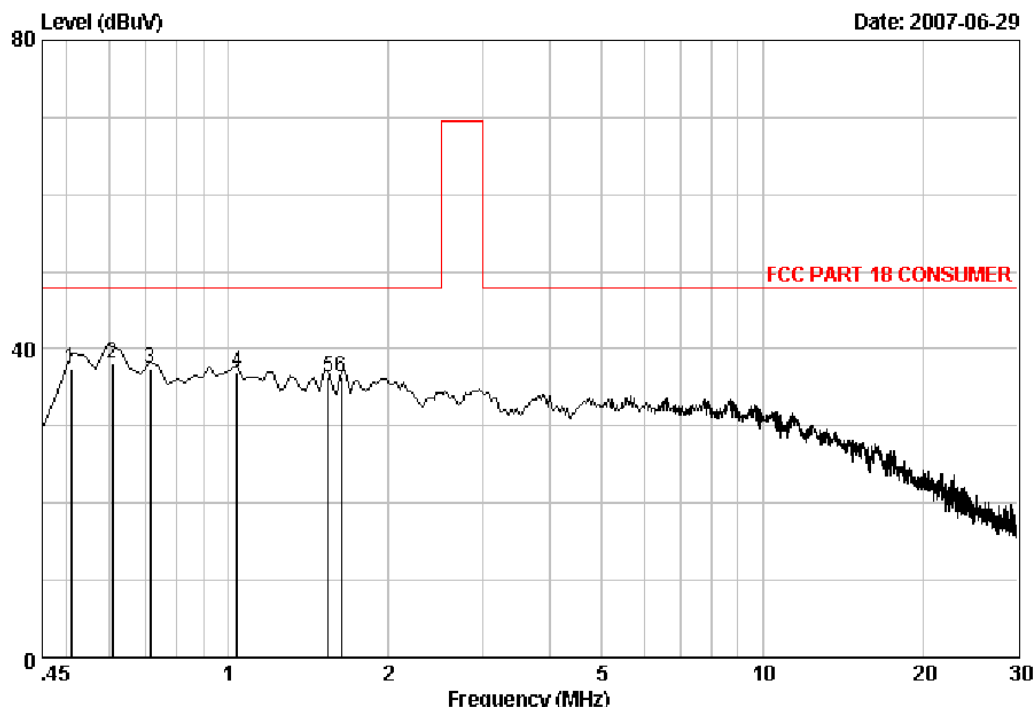


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Data: 3

File: D:\DATA\2007 Report\LEEDARSON\ACS7Q853-1.EMI (10)

Date: 2007-06-29



Site no. : Audix 1# Conduction Data no. : 3
Dis. / Ant. : -- KMW407 VA (1#) LISN Phase :
Limit : FCC PART 18 CONSUMER
Env. / Ins. : Temp:23° Humi:54% ESHS10 Engineer : ChinaLee
EUT : Compact Fluorescent Lamp M/N:NHST09
Power Rating : AC 120V/60Hz
Test Mode : ON

	Freq. (MHz)	LISN. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.51	0.05	10.14	27.22	37.41	48.00	10.59	QP
2	0.61	0.05	10.14	28.00	38.19	48.00	9.81	QP
3	0.72	0.05	10.14	27.21	37.40	48.00	10.60	QP
4	1.04	0.04	10.15	26.76	36.95	48.00	11.05	QP
5	1.54	0.05	10.15	26.12	36.32	48.00	11.68	QP
6	1.63	0.05	10.15	26.10	36.30	48.00	11.70	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.

2. If the average limit is met when using a quasi-peak detector,
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

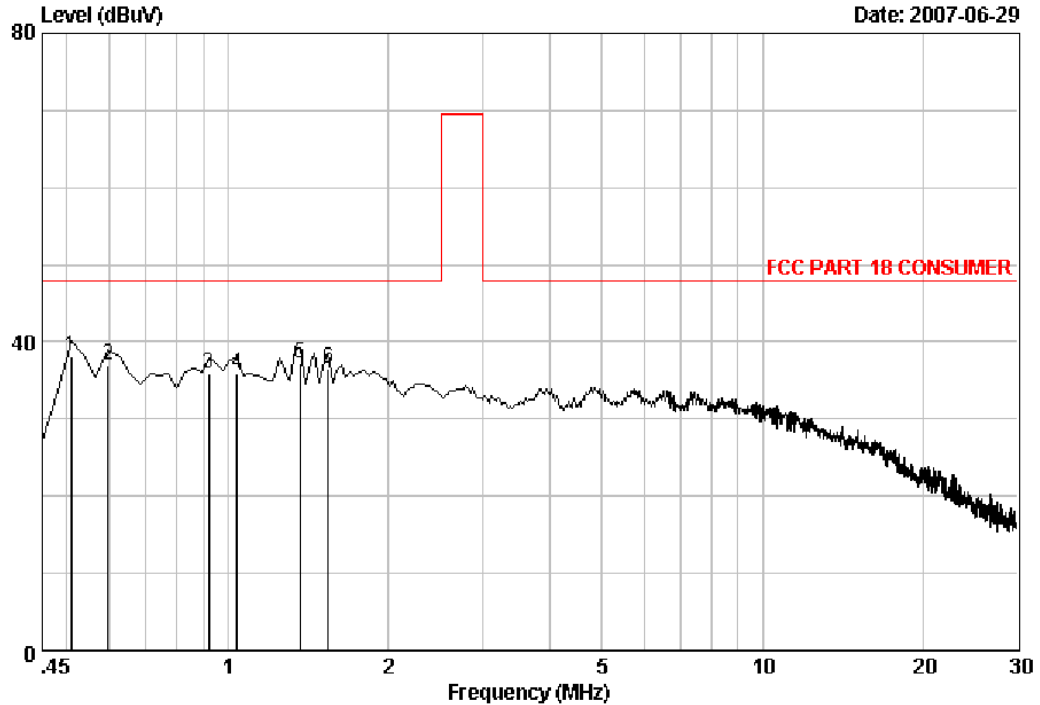


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Nantou, Shenzhen, Guangdong, China
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Data: 4

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Date: 2007-06-29



Site no. : Audix 1# Conduction Data no. : 4
Dis. / Ant. : -- KMW407 VB (1#) LISN Phase :
Limit : FCC PART 18 CONSUMER
Env. / Ins. : Temp:23° Humi:54% ESHS10 Engineer : Chinalee
EUT : Compact Fluorescent Lamp M/N:NHST09
Power Rating : AC 120V/60Hz
Test Mode : ON

		LISN.	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.51	0.05	10.14	27.89	38.08	48.00	9.92	QP
2	0.60	0.05	10.14	26.84	37.03	48.00	10.97	QP
3	0.92	0.04	10.15	25.80	35.99	48.00	12.01	QP
4	1.04	0.04	10.15	25.66	35.85	48.00	12.15	QP
5	1.37	0.04	10.15	26.98	37.17	48.00	10.83	QP
6	1.54	0.05	10.15	26.31	36.51	48.00	11.49	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

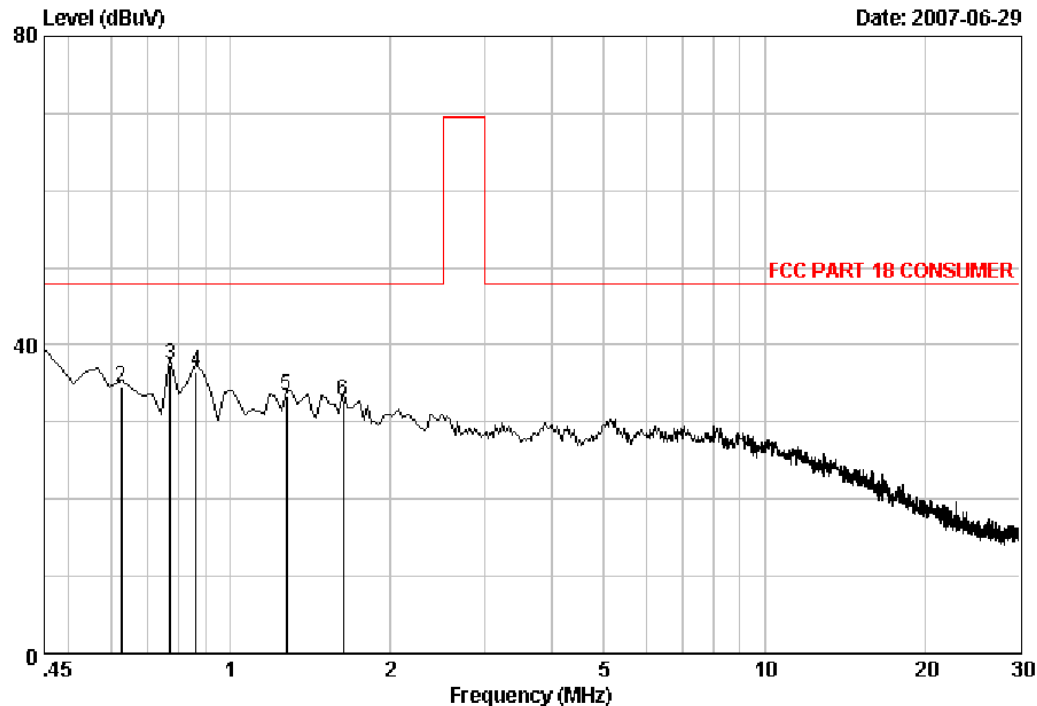


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Data: 6

File: D:\DATA\2007 Report\LEEDARSON\ACS7Q853-1.EMI (10)

Date: 2007-06-29



Site no. : Audix 1# Conduction Data no. : 6
Dis. / Ant. : -- KNW407 VA (1#) LISN Phase :
Limit : FCC PART 18 CONSUMER
Env. / Ins. : Temp:23° Humi:54% ESHS10 Engineer : Chinalee
EUT : Compact Fluorescent Lamp M/N:NHST11
Power Rating : AC 120V/60Hz
Test Mode : ON

		LISN.	Cable		Emission			
Freq.		Factor	Loss	Reading	Level	Limits	Margin	Remark
(MHz)		(dB)	(dB)	(dBUV)	(dBUV)	(dBUV)	(dB)	
1	0.45	0.07	10.14	28.34	38.55	48.00	9.45	QP
2	0.63	0.05	10.14	24.27	34.46	48.00	13.54	QP
3	0.78	0.05	10.14	27.19	37.38	48.00	10.62	QP
4	0.86	0.04	10.15	26.38	36.57	48.00	11.43	QP
5	1.28	0.04	10.15	23.17	33.36	48.00	14.64	QP
6	1.63	0.05	10.15	22.60	32.80	48.00	15.20	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector,
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

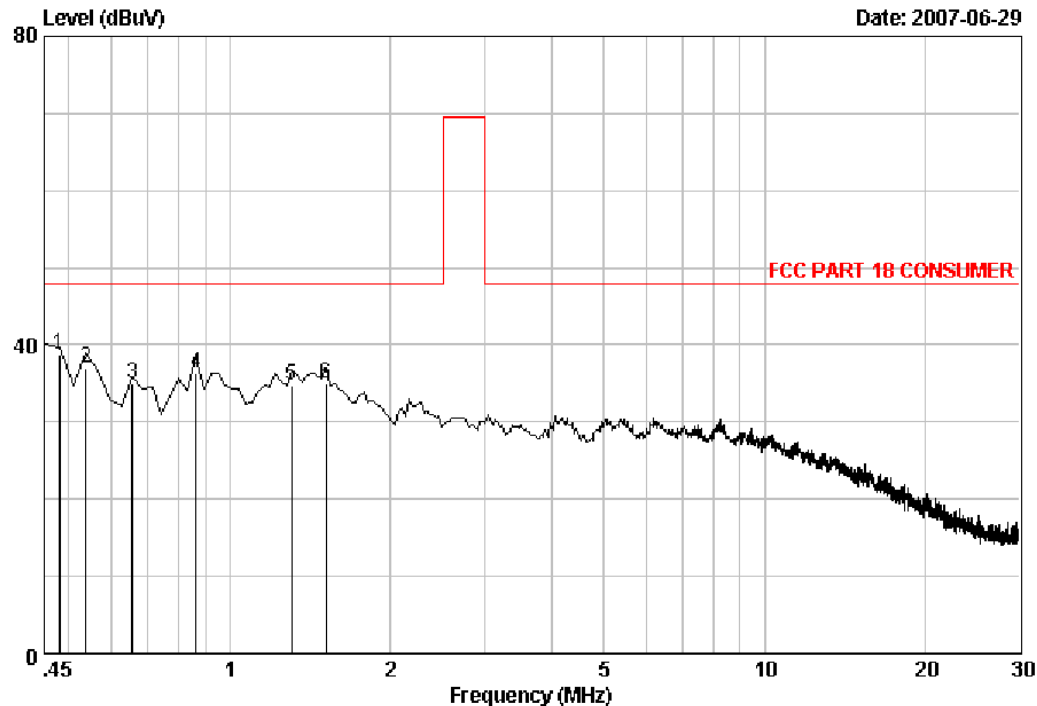


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Shenzhen Science & Industry Park
Nantou, Shenzhen, Guangdong, China
Tel: +86-755-26639495-7
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Data: 5

File: D:\DATA\2007 Report\LEEDARSON\ACS7Q853-1.EMI (10)

Date: 2007-06-29



Site no. : Audix 1# Conduction Data no. : 5
Dis. / Ant. : -- KMW407 VB (1#) LISN Phase :
Limit : FCC PART 18 CONSUMER
Env. / Ins. : Temp:23° Humi:54% ESHS10 Engineer : ChinaLee
EUT : Compact Fluorescent Lamp M/N:NHST11
Power Rating : AC 120V/60Hz
Test Mode : ON

		LISN.	Cable		Emission			
Freq.		Factor	Loss	Reading	Level	Limits	Margin	Remark
(MHz)		(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.48	0.06	10.14	28.53	38.73	48.00	9.27	QP
2	0.54	0.05	10.14	26.90	37.09	48.00	10.91	QP
3	0.66	0.04	10.14	24.72	34.90	48.00	13.10	QP
4	0.86	0.04	10.15	26.23	36.42	48.00	11.58	QP
5	1.31	0.04	10.15	24.54	34.73	48.00	13.27	QP
6	1.51	0.05	10.15	24.79	34.99	48.00	13.01	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector,
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

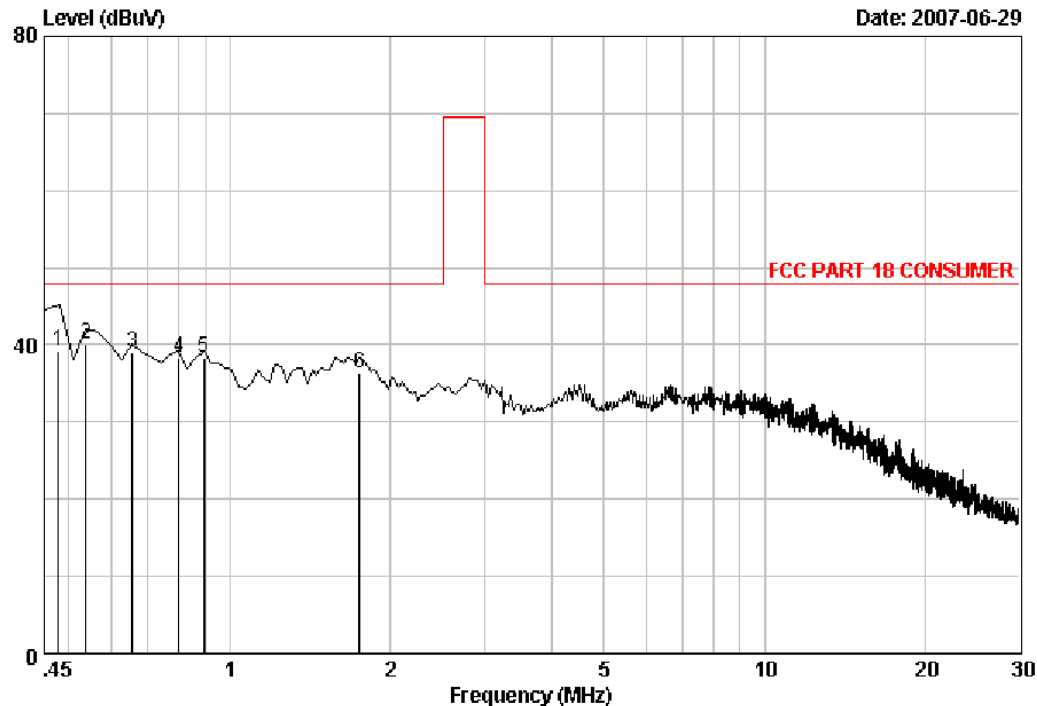


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Shenzhen Science & Industry Park
Nantou, Shenzhen, Guangdong, China
Tel: +86-755-26639495-7
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Data: 7

File: D:\DATA\2007 Report\LEEDARSON\ACS7Q853-1.EMI (10)

Date: 2007-06-29



Site no. : Audix 1# Conduction Data no. : 7
Dis. / Ant. : -- KMW407 VA (1#) LISN Phase :
Limit : FCC PART 18 CONSUMER
Env. / Ins. : Temp:23° Humi:54% ESHS10 Engineer : ChinaLee
EUT : Compact Fluorescent Lamp M/N:NHST13
Power Rating : AC 120V/60Hz
Test Mode : ON

		LISN.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)		
1	0.48	0.06	10.14	29.00	39.20	48.00	8.80	QP
2	0.54	0.05	10.14	29.89	40.08	48.00	7.92	QP
3	0.66	0.05	10.14	28.83	39.02	48.00	8.98	QP
4	0.80	0.05	10.14	28.14	38.33	48.00	9.67	QP
5	0.89	0.04	10.15	28.08	38.27	48.00	9.73	QP
6	1.75	0.05	10.15	26.22	36.42	48.00	11.58	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.

2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

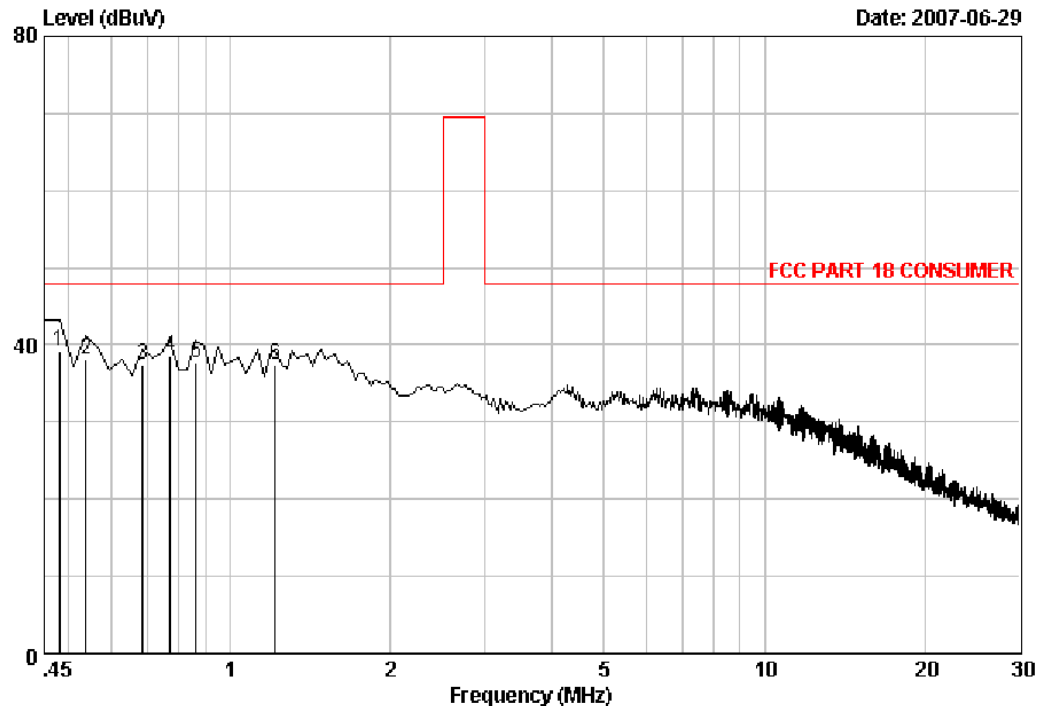


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Shenzhen Science & Industry Park
Nantou, Shenzhen, Guangdong, China
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Data: 8

File: D:\DATA\2007 Report\LEEDARSON\ACS7Q853-1.EMI (10)

Date: 2007-06-29



Site no. : Audix 1# Conduction Data no. : 8
Dis. / Ant. : -- KNW407 VB (1#) LISN Phase :
Limit : FCC PART 18 CONSUMER
Env. / Ins. : Temp:23° Humi:54% ESHS10 Engineer : ChinaLee
EUT : Compact Fluorescent Lamp M/N:NHST13
Power Rating : AC 120V/60Hz
Test Mode : ON

	Freq. (MHz)	LISN. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.48	0.06	10.14	28.95	39.15	48.00	8.85	QP
2	0.54	0.05	10.14	27.93	38.12	48.00	9.88	QP
3	0.69	0.04	10.14	27.32	37.50	48.00	10.50	QP
4	0.78	0.04	10.14	28.48	38.66	48.00	9.34	QP
5	0.86	0.04	10.15	27.44	37.63	48.00	10.37	QP
6	1.22	0.04	10.15	27.32	37.51	48.00	10.49	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector,
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

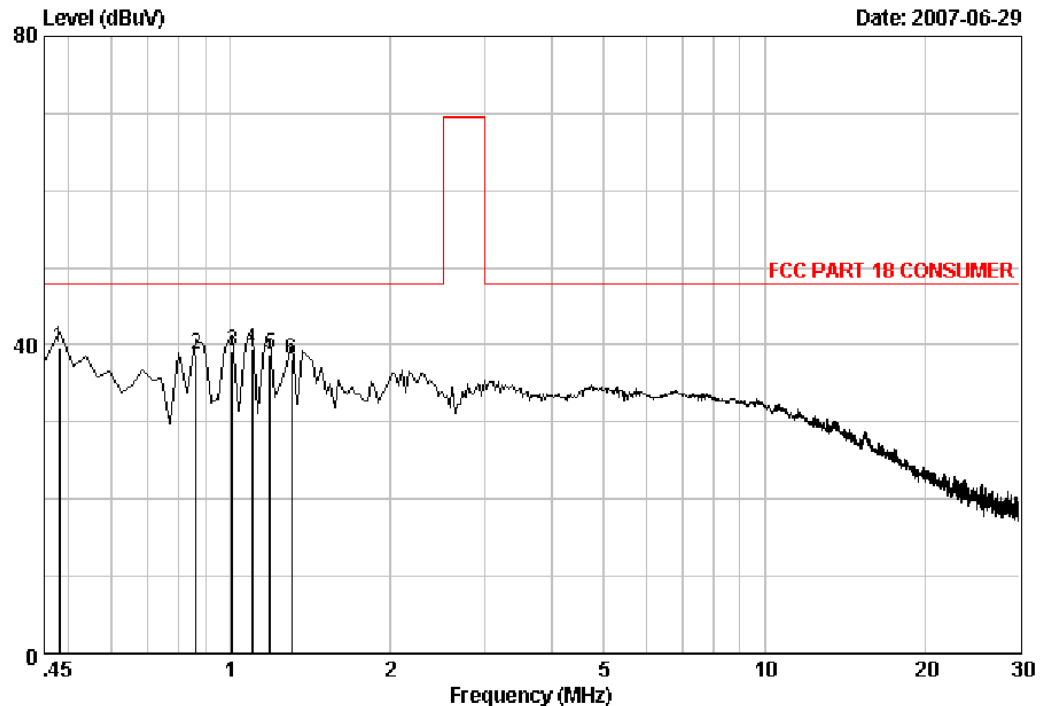


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Shenzhen Science & Industry Park
Nantou, Shenzhen, Guangdong, China
Tel: +86-755-26639495-7
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Data: 10

File: D:\DATA\2007 Report\LEEDARSON\ACS7Q853-1.EMI (10)

Date: 2007-06-29



Site no. : Audix 1# Conduction Data no. : 10
Dis. / Ant. : -- KNW407 VA (1#) LISN Phase :
Limit : FCC PART 18 CONSUMER
Env. / Ins. : Temp:23° Humi:54% ESHS10 Engineer : ChinaLee
EUT : Compact Fluorescent Lamp M/N:NHST15
Power Rating : AC 120V/60Hz
Test Mode : ON

	Freq. (MHz)	LISN. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.48	0.06	10.14	29.53	39.73	48.00	8.27	QP
2	0.86	0.04	10.15	28.64	38.83	48.00	9.17	QP
3	1.01	0.04	10.15	29.09	39.28	48.00	8.72	QP
4	1.10	0.04	10.15	29.16	39.35	48.00	8.65	QP
5	1.19	0.04	10.15	28.60	38.79	48.00	9.21	QP
6	1.31	0.04	10.15	27.90	38.09	48.00	9.91	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector,
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

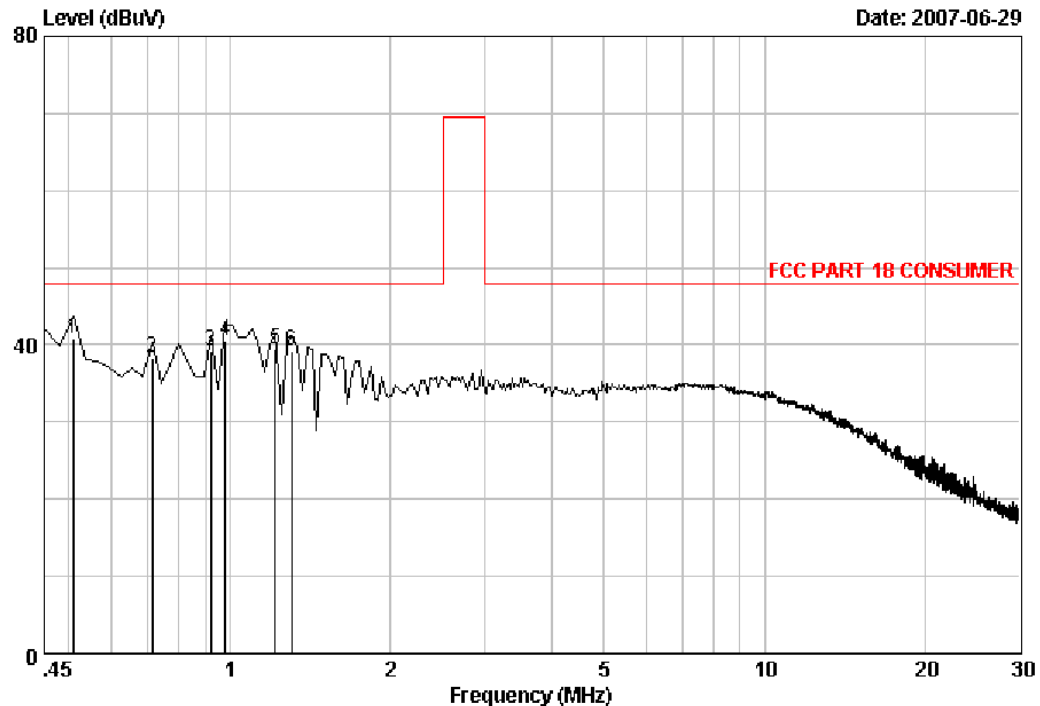


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Shenzhen Science & Industry Park
Nantou, Shenzhen, Guangdong, China
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Data: 9

File: D:\DATA\2007 Report\LEEDARSON\ACS7Q853-1.EMI (10)

Date: 2007-06-29



Site no. : Audix 1# Conduction Data no. : 9
Dis. / Ant. : -- KMW407 VB (1#) LISM Phase :
Limit : FCC PART 18 CONSUMER
Env. / Ins. : Temp:23° Humi:54% ESHS10 Engineer : ChinaLee
EUT : Compact Fluorescent Lamp M/N:NHST15
Power Rating : AC 120V/60Hz
Test Mode : ON

	Freq. (MHz)	LISM. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.51	0.05	10.14	30.53	40.72	48.00	7.28	QP
2	0.72	0.04	10.14	28.10	38.28	48.00	9.72	QP
3	0.92	0.04	10.15	29.11	39.30	48.00	8.70	QP
4	0.98	0.04	10.15	30.29	40.48	48.00	7.52	QP
5	1.22	0.04	10.15	29.29	39.48	48.00	8.52	QP
6	1.31	0.04	10.15	29.00	39.19	48.00	8.81	QP

Remarks: 1. Emission Level= LISM Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector,
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

4. MAGNETIC FIELD EMISSION TEST

4.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS20	836600/006	May 11, 07	1 Year
2.	Triple-loop Antenna	Rohde & Schwarz	HM020	843885/002	May 11, 07	1 Year
3.	RF Cable	MIYAZAKI	5D-2W	Power Clamp Cable	June.20, 07	1/2 Year
4.	Coaxial Switch	Anritsu	MP59B	M55367	Feb. 16, 07	1/2 Year

4.2. Block Diagram of Test Setup

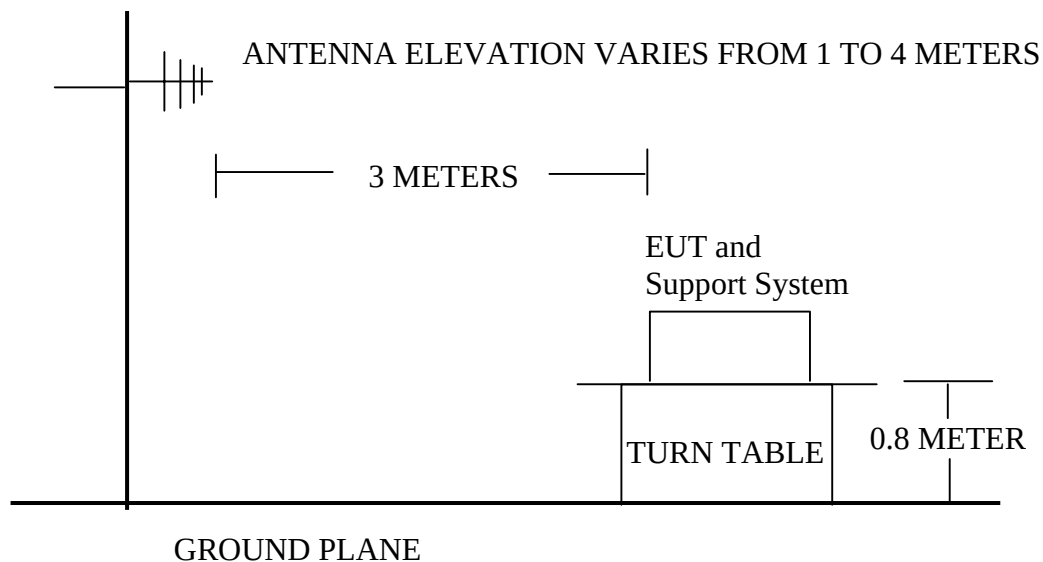
4.2.1. Block Diagram of connection between the EUT and simulators



(EUT: Compact Fluorescent Lamp)

4.2.2. In Anechoic Chamber

ANTENNA TOWER



4.3. Magnetic Field Emission Limit

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

Frequency band	Quasi-peak Electric Field Test Distance
MHz	3m dB(μ V/m)
0.009 - 30	63.5

Note: (1) The limit shall decreasing linearly with logarithm of frequency.
 (2) Distance refers to the distance in meters between the test instrument antenna and the closed point of any part of the E.U.T.

4.4. EUT Configuration on Test

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

The configuration of 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 and the simulators 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 (ON) and test it.

4.6. Test Procedure

The EUT is placed on a turn table which is 0.8 meter above ground. Measurements are performed at 3m distance with a 0.6m loop antenna as described in MP-5. The antenna shall be vertically installed, with the lower edge of the loop at 2m height above the floor.

The bandwidth setting on the test receiver (R&S TEST RECEIVER ESVS20) is 200Hz. The EUT is tested in Chamber. The test result are reported on Section 4.7

4.7. Magnetic Field Emission Test Results

PASS.

The EUT with the following test modes was tested and all the test results are listed in next pages.

EUT: Compact Fluorescent Lamp

Model No. : NHST07, NHST09, NHST11, NHST13, NHST15

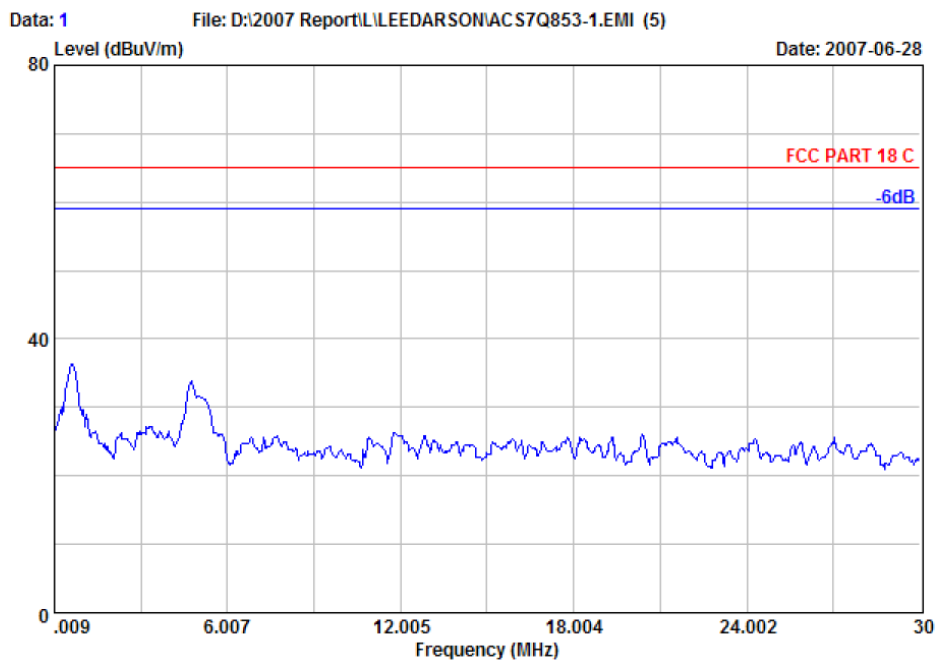
Test Date: Jun.28, 2007 Temperature: 25℃ Humidity: 54%

The details of test models are as follows :

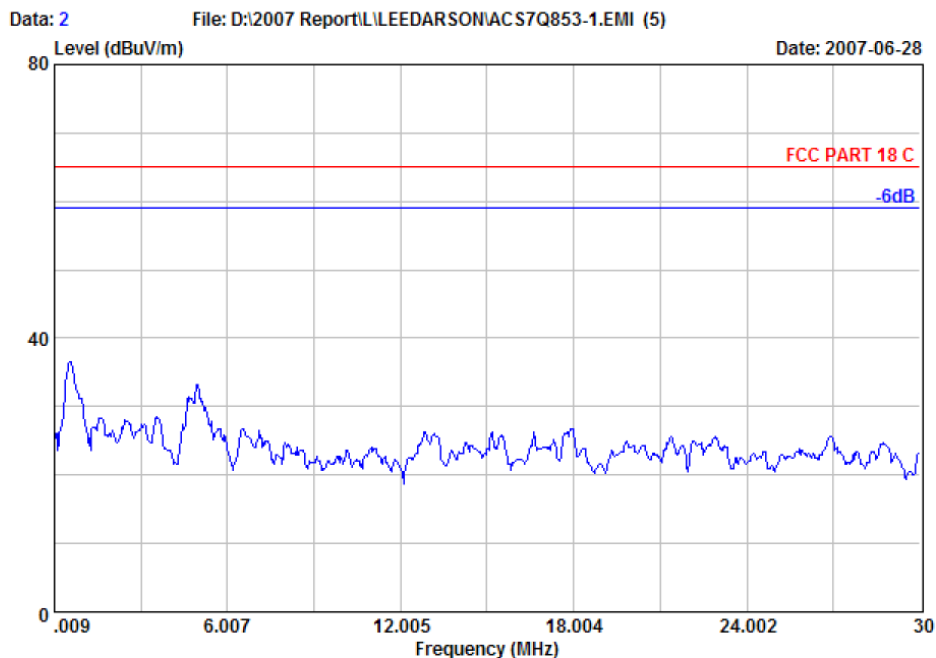
No.	Test Mode	Model No.	Reference Test Data No.
1.	ON	NHST07	#1
2.		NHST09	#2
3.		NHST11	#3
4.		NHST13	#4
5.		NHST15	#5



No.6 Ke Feng Road,B1;ck 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
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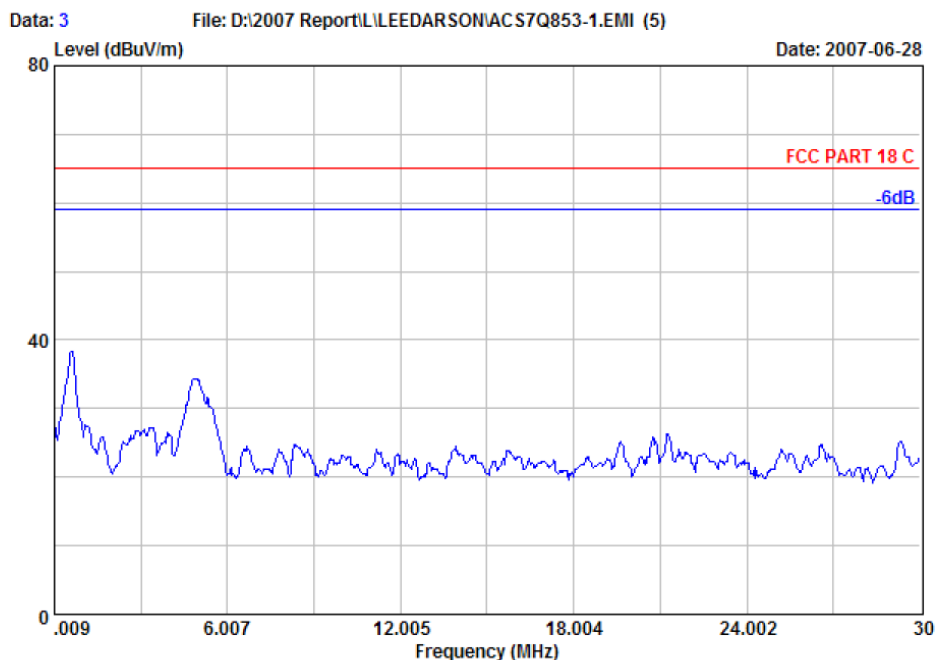
Site no. : Audix No.1 Chamber Data no. : 1
Dis. / Ant. : 3m HLA6120 (3M) Ant. pol. :
Limit : FCC PART 18 C
Env. / Ins. : 25°C/54% Engineer : skyler
EUT : Compact Fluorescent Lamp M/N:NHST07
Power Rating : AC 120V/60Hz
Test Mode : ON



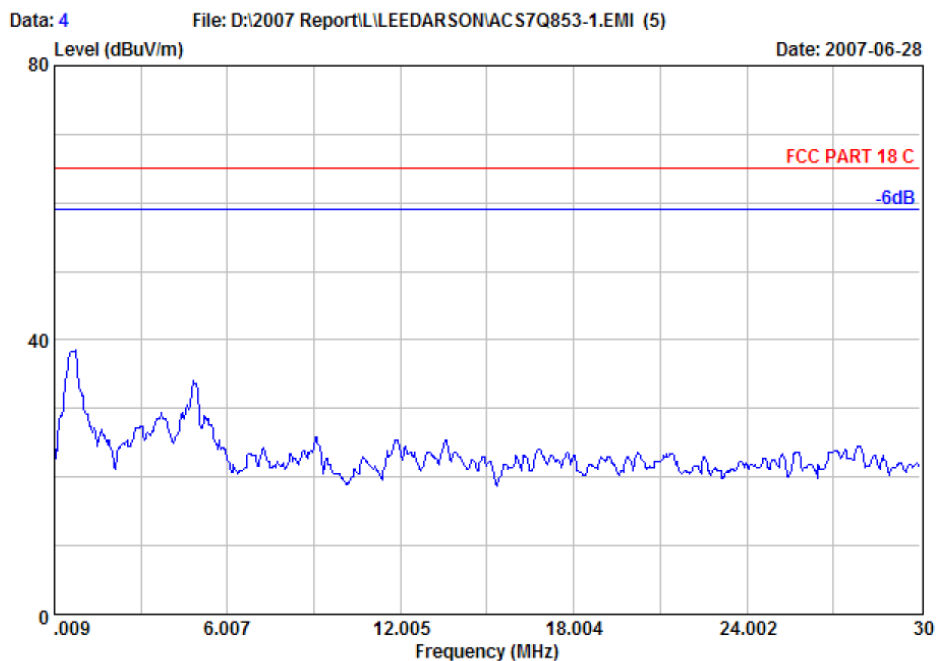
Site no. : Audix No.1 Chamber Data no. : 2
Dis. / Ant. : 3m HLA6120 (3M) Ant. pol. :
Limit : FCC PART 18 C
Env. / Ins. : 25°C/54% Engineer : skyler
EUT : Compact Fluorescent Lamp M/N:NHST09
Power Rating : AC 120V/60Hz
Test Mode : ON



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ShenZhen Science & Industry Park
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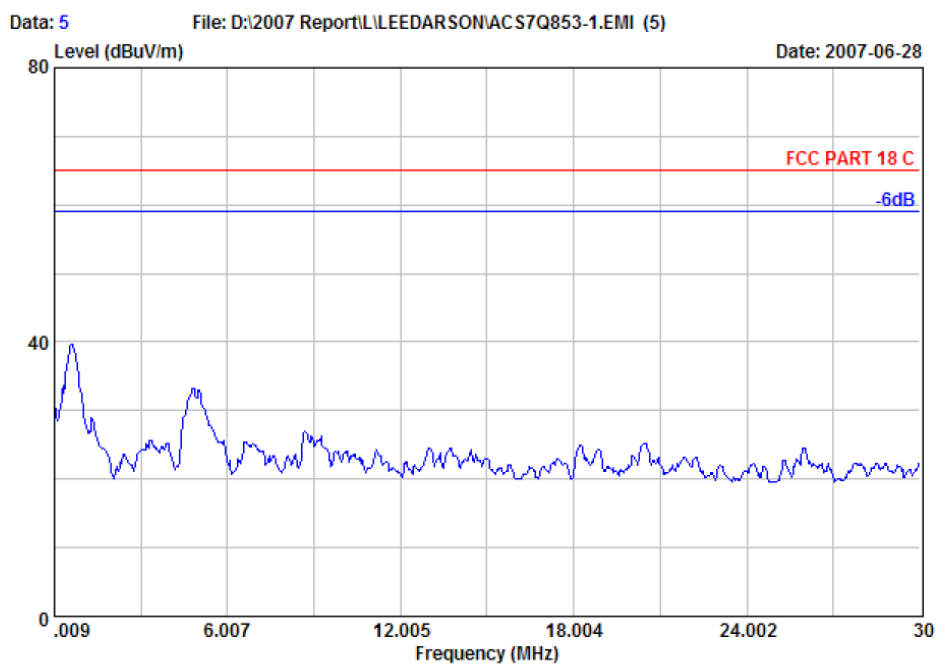
Site no. : Audix No.1 Chamber Data no. : 3
Dis. / Ant. : 3m HLA6120 (3M) Ant. pol. :
Limit : FCC PART 18 C
Env. / Ins. : 25°C/54% Engineer : skyler
EUT : Compact Fluorescent Lamp M/N:NHST11
Power Rating : AC 120V/60Hz
Test Mode : ON



Site no. : Audix No.1 Chamber Data no. : 4
Dis. / Ant. : 3m HLA6120 (3M) Ant. pol. :
Limit : FCC PART 18 C
Env. / Ins. : 25°C/54% Engineer : skyler
EUT : Compact Fluorescent Lamp M/N:NHST13
Power Rating : AC 120V/60Hz
Test Mode : ON



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Tel:+86-755-26639495-7
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Site no.	: Audix No.1 Chamber	Data no.	: 5
Dis. / Ant.	: 3m HLA6120 (3M)	Ant. pol.	:
Limit	: FCC PART 18 C		
Env. / Ins.	: 25°C/54%	Engineer	: skyler
EUT	: Compact Fluorescent Lamp	M/N:	NHST15
Power Rating	: AC 120V/60Hz		
Test Mode	: ON		

5. DEVIATION TO TEST SPECIFICATIONS

[NONE]