



FCC Part 15, Subpart B, Class B

ARTIKA FOR LIVING INC.

LED Luminaire

Test Model: PDT-GL

Additional Model No.: Please Refer to Page 7

Prepared for : ARTIKA FOR LIVING INC.
Address : 1756 50th avenue, Lachine, Qc, Canada H8T 2V5

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
Address : 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park
Yabianxueziwei, Shajing Street, Baoan District,
Shenzhen, 518000, China

Tel : (+86)755-82591330
Fax : (+86)755-82591332
Web : www.LCS-cert.com
Mail : webmaster@LCS-cert.com

Date of receipt of test sample : May 05, 2022
Number of tested samples : 2
Serial number : Prototype
Date of Test : May 05, 2022 ~ June 02, 2022
Date of Report : June 06, 2022
Sample No. : A050522252-1





FCC TEST REPORT FCC 47 CFR Part 15 Subpart B, Class B, ANSI C63.4 -2014	
Report Reference No. : LCSA050522252E	
Date Of Issue..... : June 06, 2022	
Testing Laboratory Name..... : Shenzhen LCS Compliance Testing Laboratory Ltd.	
Address..... : 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China	
Testing Location/ Procedure.... : Full application of Harmonised standards ■ Partial application of Harmonised standards □ Other standard testing method □	
Applicant's Name..... : ARTIKA FOR LIVING INC.	
Address..... : 1756 50th avenue, Lachine, Qc, Canada H8T 2V5	
Test Specification	
Standard..... : FCC 47 CFR Part 15 Subpart B, Class B, ANSI C63.4 -2014	
Test Report Form No..... : LCSEMC-1.0	
TRF Originator..... : Shenzhen LCS Compliance Testing Laboratory Ltd.	
Master TRF..... : Dated 2011-03	
SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. All rights reserved. This publication may be reproduced in whole or in part for non-commercial purposes as long as the SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. is acknowledged as copyright owner and source of the material. SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.	
Test Item Description..... : LED Luminaire	
Trade Mark..... : ARTIKA	
Test Model : PDT-GL	
Ratings..... : Input: AC 120V, 60Hz, Max 18W	
Result : Positive	

Compiled by:

Rory Huang/ Administrator

Supervised by:

Cary Luo/ Technique principal

Approved by:

Gavin Liang/ Manager



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen,
518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

**FCC -- TEST REPORT**

Test Report No. :	LCSA050522252E	<u>June 06, 2022</u> Date of issue
--------------------------	-----------------------	---------------------------------------

Test Model	: PDT-GL
EUT.....	: LED Luminaire
Applicant.....	: ARTIKA FOR LIVING INC.
Address.....	: 1756 50th avenue, Lachine, Qc, Canada H8T 2V5
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: RISING-SUN LIGHTING Co., Ltd
Address.....	: "San Shi Liu Lang" Industrial Area, Shilong Village Group, Langxin Village, Danzao Town, Nanhai District, Foshan Guangdong 528216 China
Telephone.....	: /
Fax.....	: /
Factory.....	: RISING-SUN LIGHTING Co., Ltd
Address.....	: "San Shi Liu Lang" Industrial Area, Shilong Village Group, Langxin Village, Danzao Town, Nanhai District, Foshan Guangdong 528216 China
Telephone.....	: /
Fax.....	: /

Test Result according to the standards on page 6: **Positive**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.





Revision History

Report Version	Issue Date	Revision Content	Revised By
000	June 06, 2022	Initial Issue	--





TABLE OF CONTENTS

Test Report Description	Page
1. SUMMARY OF STANDARDS AND RESULTS	6
1.1. Description of Standards and Results	6
2. GENERAL INFORMATION	7
2.1. Description of Device (EUT)	7
2.2. Support Equipment List	8
2.3 External I/O Cable	8
2.4. Description of Test Facility	8
2.4. Statement of the Measurement Uncertainty	9
2.5. Measurement Uncertainty	9
3. TEST RESULTS	10
3.1. POWER LINE CONDUCTED EMISSION MEASUREMENT	10
3.2. Radiated emission Measurement	14
4. TEST SETUP PHOTOGRAPHS OF EUT	19
5. EXTERIOR PHOTOGRAPHS OF THE EUT	19
6. INTERIOR PHOTOGRAPHS OF THE EUT	19





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	Limits	Results
Conducted disturbance at mains terminals	FCC 47 CFR Part 15 Subpart B, Class B, ANSI C63.4 -2014	Class B	PASS
Radiated disturbance	FCC 47 CFR Part 15 Subpart B, Class B, ANSI C63.4 -2014	Class B	PASS
N/A is an abbreviation for Not Applicable.			

Test mode:

Mode 1	Normal operation	Record
--------	------------------	--------





2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT : LED Luminaire

Trade Mark : ARTIKA

Additional Model No. : PDT-GL-XXXXXX ("XXXXXX" can be A to Z and/or 0 to 9 and/or blank (commercial code))

Model Declaration : PCB board, structure and internal of these model(s) are the same, So no additional models were tested

Test Model : PDT-GL

Power Supply : Input: AC 120V, 60Hz, Max 18W

Highest internal frequency (Fx) : $F_x \leq 108 \text{ MHz}$

Highest internal frequency (Fx)	Highest measured frequency
$F_x \leq 108 \text{ MHz}$	1 GHz
$108 \text{ MHz} < F_x \leq 500 \text{ MHz}$	2 GHz
$500 \text{ MHz} < F_x \leq 1 \text{ GHz}$	5 GHz
$F_x > 1 \text{ GHz}$	$5 \times F_x$ up to a maximum of 6 GHz

NOTE 1 For FM and TV broadcast receivers, Fx is determined from the highest frequency generated or used excluding the local oscillator and tuned frequencies.
Where Fx is unknown, the radiated emission measurements shall be performed up to 6 GHz.





2.2. Support Equipment List

Manufacturer	Description	Model	Serial Number	Certificate
--	--	--	--	--

2.3 External I/O Cable

I/O Port Description	Quantity	Cable
--	--	--

2.4. Description of Test Facility

Site Description
EMC Lab.

: NVLAP Accreditation Code is 600167-0.
FCC Designation Number is CN5024.
CAB identifier is CN0071.
CNAS Registration Number is L4595.
Test Firm Registration Number: 254912.





2.4. Statement of the Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

2.5. Measurement Uncertainty

Test	Parameters	Expanded Uncertainty (Ulab)	Expanded Uncertainty (Ucisp)
Conducted Emission	Level accuracy (9kHz to 150kHz) (150kHz to 30MHz)	± 2.63 dB ± 2.35 dB	± 3.8 dB ± 3.4 dB
Radiated Emission	Level accuracy (9kHz to 30MHz)	± 3.68 dB	N/A
Radiated Emission	Level accuracy (30MHz to 1000MHz)	± 3.48 dB	± 5.3 dB
Radiated Emission	Level accuracy (above 1000MHz)	± 3.90 dB	± 5.2 dB

(1) Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus.

(2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.





3. TEST RESULTS

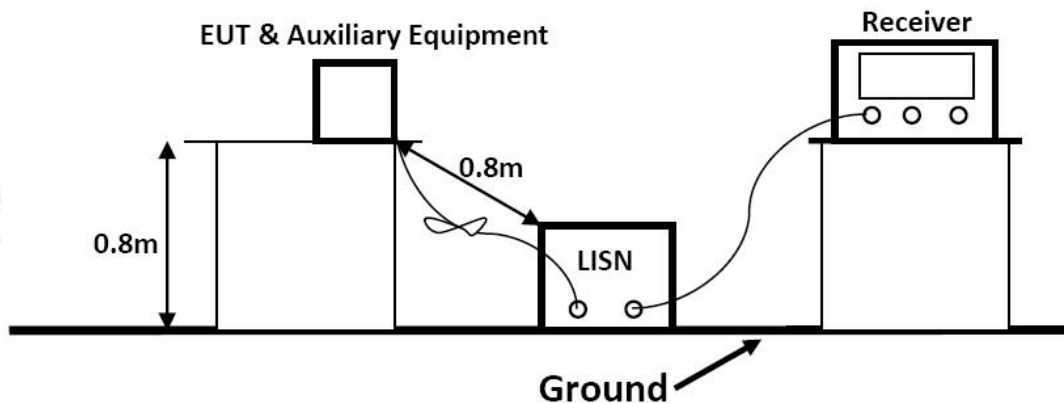
3.1. POWER LINE CONDUCTED EMISSION MEASUREMENT

3.1.1. Test Equipment

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

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Software	AUDIX	E3	/	N/A	N/A
2	EMI Test Receiver	R&S	ESR3	102311	2022-03-15	2023-03-14
3	Artificial Mains	R&S	ENV216	101288	2021-06-21	2022-06-20
4	10dB Attenuator	SCHWARZBECK	MTS-IMP-136	261115-001-0032	2021-06-21	2022-06-20
5	Impedance Stabilization Network	TESEQ	ISN T800	45130	2021-12-01	2022-11-30

3.1.2. Block Diagram of Test Setup



3.1.3. Test Standard

Power Line Conducted Emission Limits (Class B)

Frequency (MHz)			Limit (dB μ V)	
			Quasi-peak Level	Average Level
0.15	~	0.50	66.0 ~ 56.0 *	56.0 ~ 46.0 *
0.50	~	5.00	56.0	46.0
5.00	~	30.00	60.0	50.0

NOTE1-The lower limit shall apply at the transition frequencies.

NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

3.1.4. EUT Configuration on Test

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



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



3.1.5. Operating Condition of EUT

3.1.5.1. Setup the EUT as shown on Section 3.1.2

3.1.5.2. Turn on the power of all equipments.

3.1.5.3. Let the EUT work in measuring Mode 1 and measure it.

3.1.6. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides 50ohm coupling impedance for the EUT system. 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. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC/ANSI C63.4-2014 on Conducted Emission Measurement.

The bandwidth of the test receiver is set at 9kHz.

The frequency range from 150kHz to 30MHz is investigated

3.1.7. Test Results

PASS.

The test result please refer to the next page.



Shenzhen LCS Compliance Testing Laboratory Ltd.

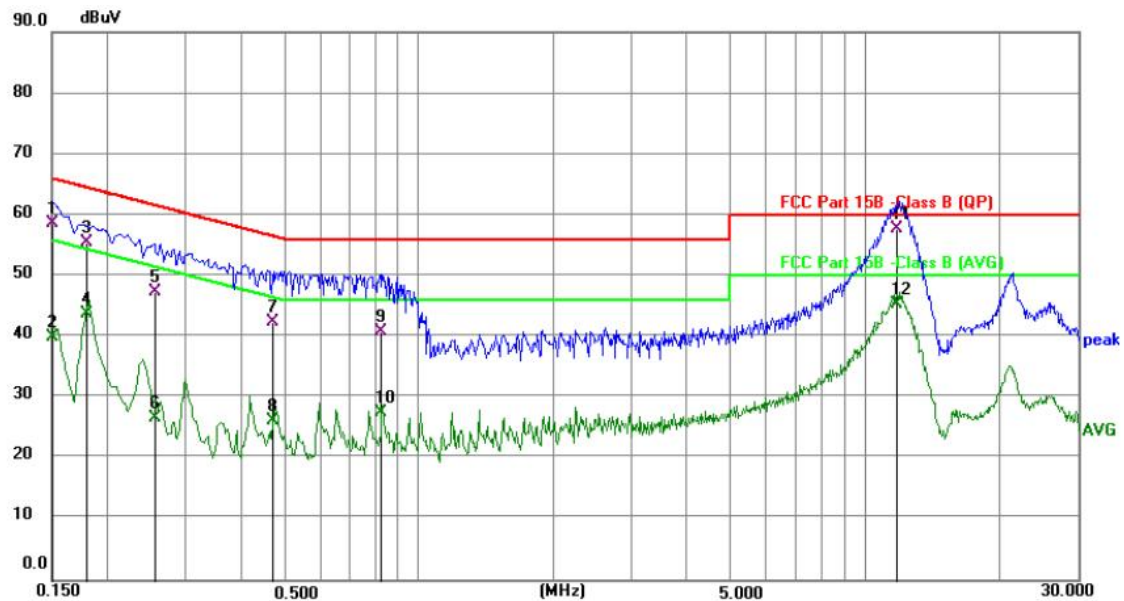
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Test Model	PDT-GL	Test Mode	Mode 1
Environmental Conditions	24.1°C, 55% RH	Test Engineer	Monkey Li
Pol	Line	Test Voltage	AC 120V/60Hz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1501	48.36	10.24	58.60	65.99	-7.39	QP
2		0.1501	29.70	10.24	39.94	55.99	-16.05	AVG
3		0.1802	45.31	10.23	55.54	64.48	-8.94	QP
4		0.1802	33.56	10.23	43.79	54.48	-10.69	AVG
5		0.2565	37.15	10.21	47.36	61.54	-14.18	QP
6		0.2565	16.34	10.21	26.55	51.54	-24.99	AVG
7		0.4692	32.11	10.20	42.31	56.53	-14.22	QP
8		0.4692	15.90	10.20	26.10	46.53	-20.43	AVG
9		0.8279	30.58	10.20	40.78	56.00	-15.22	QP
10		0.8279	17.44	10.20	27.64	46.00	-18.36	AVG
11	*	11.7714	47.46	10.20	57.66	60.00	-2.34	QP
12		11.7714	35.20	10.20	45.40	50.00	-4.60	AVG



Shenzhen LCS Compliance Testing Laboratory Ltd.

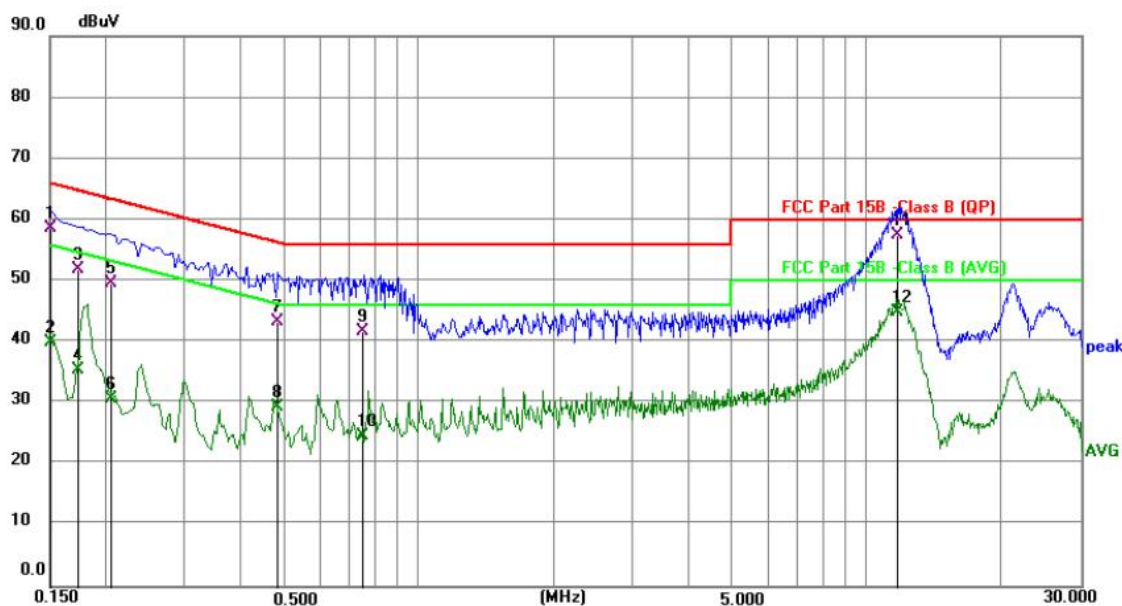
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Test Model	PDT-GL	Test Mode	Mode 1
Environmental Conditions	24.1°C, 55% RH	Test Engineer	Monkey Li
Pol	Neutral	Test Voltage	AC 120V/60Hz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1500	48.42	10.24	58.66	66.00	-7.34	QP
2		0.1500	29.71	10.24	39.95	56.00	-16.05	AVG
3		0.1724	41.56	10.23	51.79	64.84	-13.05	QP
4		0.1724	25.17	10.23	35.40	54.84	-19.44	AVG
5		0.2047	39.50	10.22	49.72	63.42	-13.70	QP
6		0.2047	20.57	10.22	30.79	53.42	-22.63	AVG
7		0.4824	33.06	10.20	43.26	56.30	-13.04	QP
8		0.4824	19.24	10.20	29.44	46.30	-16.86	AVG
9		0.7504	31.52	10.20	41.72	56.00	-14.28	QP
10		0.7504	14.35	10.20	24.55	46.00	-21.45	AVG
11	*	11.7698	47.33	10.20	57.53	60.00	-2.47	QP
12		11.7698	34.67	10.20	44.87	50.00	-5.13	AVG

Note: Pre-Scan all mode, Thus record worse case mode result in this report.





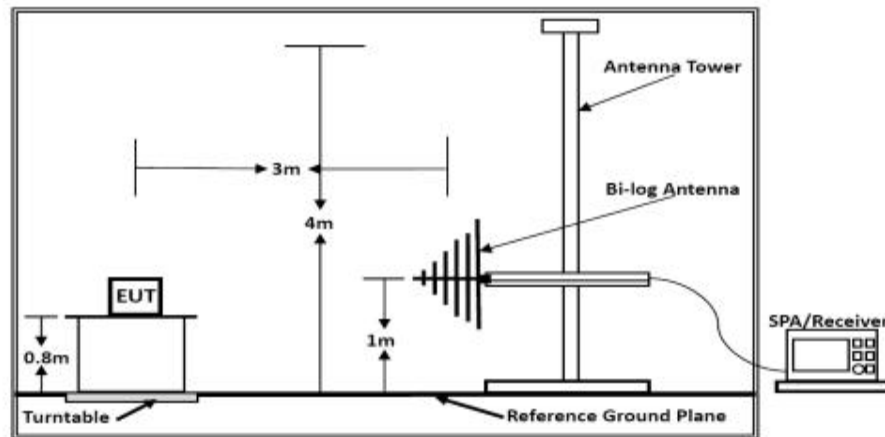
3.2. Radiated emission Measurement

3.2.1. Test Equipment

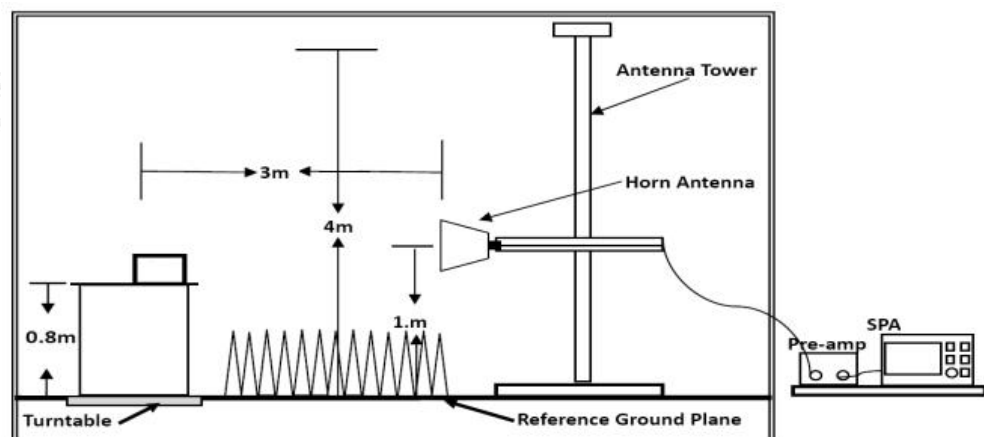
The following test equipments are used during the radiated emission measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Software	AUDIX	E3	/	N/A	N/A
2	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	2021-06-21	2022-06-20
3	Positioning Controller	MF	MF7082	MF78020803	2021-06-21	2022-06-20
4	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2021-07-25	2024-07-24
5	Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2021-07-01	2024-06-30
6	EMI Test Receiver	R&S	ESR3	102312	2021-06-21	2022-06-20
7	RS SPECTRUM ANALYZER	R&S	FSP40	100503	2021-11-16	2022-11-15
8	Broadband Preamplifier	/	BP-01M18G	P190501	2021-06-21	2022-06-20

3.2.2. Block Diagram of Test Setup



Below 1GHz



Above 1GHz



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



3.2.3. Radiated Emission Limit (Class B)

Limits for Radiated Disturbance Below 1GHz

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46
960 ~ 1000	3	500	54
Remark: (1) Emission level $(\text{dB})\mu\text{V} = 20 \log$ Emission level $\mu\text{V/m}$ (2) The smaller limit shall apply at the cross point between two frequency bands. (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.			
Limits for Radiated Emission Above 1GHz			
Frequency (MHz)	Distance (Meters)	Peak Limit ($\text{dB}\mu\text{V/m}$)	Average Limit ($\text{dB}\mu\text{V/m}$)
Above 1000	3	74	54
***Note: The lower limit applies at the transition frequency.			

3.2.4. EUT Configuration on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

3.2.5. Operating Condition of EUT

3.2.5.1. Setup the EUT as shown in Section 3.2.2.

3.2.5.2. Let the EUT work in test Mode 1 and measure it.

3.2.6. Test Procedure

EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated by-log antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2014 on radiated emission measurement.

3.2.7. Measuring Instruments and Setting

Please refer to equipment list in this report. The following table is the setting of spectrum analyzer and receiver



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB/VB 200Hz/1KHz for QP/AVG
Start ~ Stop Frequency	150kHz~30MHz / RB/VB 9kHz/30KHz for QP/AVG
Start ~ Stop Frequency	30MHz~1000MHz / RB/VB 120kHz/1MHz for QP

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 1/B kHz for Average
RB / VB (Emission in non-restricted band)	1MHz / 1MHz for Peak, 1 MHz / 1/B kHz for Average

The frequency range from 30MHz to 1000MHz and above 1000MHz is checked.

3.2.8. Radiated Emission Noise Measurement Result

PASS.

The scanning waveforms please refer to the next page.





Test Model	PDT-GL	Test Mode	Mode 1
Environmental Conditions	22.9°C, 53% RH	Detector Function	Quasi-peak
Pol	Vertical	Distance	3m
Test Engineer	Monkey Li	Test Voltage	AC 120V/60Hz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Antenna Height cm	Table Degree	Comment
1	*	55.0516	13.81	13.34	27.15	40.00	-12.85	QP			
2		73.1987	16.37	10.26	26.63	40.00	-13.37	QP			
3		103.8055	11.17	11.13	22.30	43.50	-21.20	QP			
4		148.9625	12.20	9.20	21.40	43.50	-22.10	QP			
5		171.0174	10.42	10.47	20.89	43.50	-22.61	QP			
6		330.7742	6.95	14.52	21.47	46.00	-24.53	QP			



Shenzhen LCS Compliance Testing Laboratory Ltd.

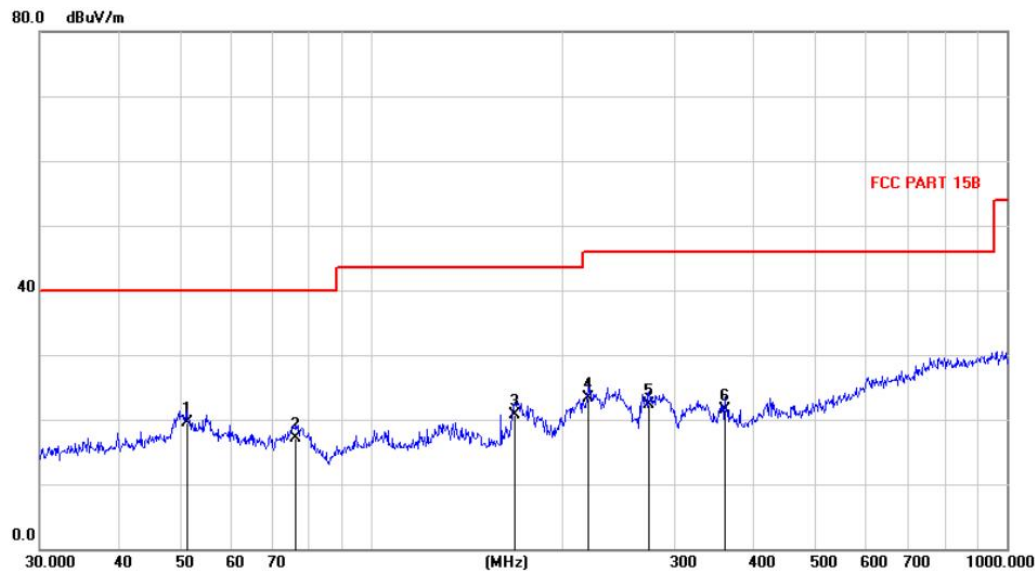
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Test Model	PDT-GL	Test Mode	Mode 1
Environmental Conditions	22.9°C, 53% RH	Detector Function	Quasi-peak
Pol	Horizontal	Distance	3m
Test Engineer	Monkey Li	Test Voltage	AC 120V/60Hz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	51.1658	5.31	14.23	19.54	40.00	-20.46	QP		
2		76.2108	7.36	9.83	17.19	40.00	-22.81	QP		
3		167.8978	10.34	10.32	20.66	43.50	-22.84	QP		
4		219.5560	10.86	12.35	23.21	46.00	-22.79	QP		
5		273.7136	8.93	13.35	22.28	46.00	-23.72	QP		
6		359.3435	6.54	14.97	21.51	46.00	-24.49	QP		

Note: 1. Pre-Scan all mode, Thus record worse case mode result in this report.





4. TEST SETUP PHOTOGRAPHS OF EUT

Please refer to separated files for Test Setup Photos of the EUT.

5. EXTERIOR PHOTOGRAPHS OF THE EUT

Please refer to separated files for External Photos of the EUT.

6. INTERIOR PHOTOGRAPHS OF THE EUT

Please refer to separated files for Internal Photos of the EUT.

-----THE END OF TEST REPORT-----

