# FCC Part 15, Subpart B, Class B

## ARTIKA FOR LIVING INC.

## Horizon CCT

#### Test Model: FM-HOC-C

## Additional Model No.: FM-HOC-XXXXXX

("X" can be A to Z and/or 0 to 9 and/or blank (commercial code))

Prepared for	<ul> <li>ARTIKA FOR LIVING INC.</li> <li>1756 50th avenue, Lachine, Qc, CanadaH8T 2V5</li></ul>
Address	Lachine Canada
Prepared by Address	<ul> <li>Shenzhen LCS Compliance Testing Laboratory Ltd.</li> <li>101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China</li> </ul>
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Date of receipt of test sample Number of tested samples Sample number Serial number Date of Test Date of Report	<ul> <li>November 05, 2021</li> <li>1</li> <li>211105008A</li> <li>Prototype</li> <li>November 05, 2021 ~ November 10, 2021</li> <li>November 10, 2021</li> </ul>

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## FCC Part 15, Subpart B, Class B FCC 47 CFR Part 15 Subpart B, Class B, ANSI C63.4 -2014

Report Reference No	<sup>:</sup> LCS211105008AE			
Date Of Issue	<sup>:</sup> November 10, 2021	November 10, 2021		
Testing Laboratory Name	: Shenzhen LCS Compliance Testir	ng Laboratory Ltd.		
	<ul> <li>101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park</li> <li>Yabianxueziwei, Shajing Street, Baoan District, Shenzhen,</li> <li>518000, China</li> <li>Full application of Harmonised standards</li> <li>Partial application of Harmonised standards □</li> </ul>			
	Other standard testing method			
Applicant's Name	<sup>:</sup> ARTIKA FOR LIVING INC.			
Address	<sup>:</sup> 1756 50th avenue, Lachine, Qc, Ca Canada	nadaH8T 2V5 Lachine		
Test Specification				
Standard	<sup>:</sup> FCC 47 CFR Part 15 Subpart B, Cla	ass B, ANSI C63.4 -2014		
	Form No			
	· LUSEMU-1.0			
Test Report Form No	: Shenzhen LCS Compliance Testing	J Laboratory Ltd.		
Test Report Form No TRF Originator Master TRF	: Shenzhen LCS Compliance Testing : Dated 2011-03	- -		
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Test Report Form No TRF Originator Master TRF SHENZHEN LCS COMPLIANC This publication may be reprod as the SHENZHEN LCS COMP copyright owner and source of LABORATORY LTD. takes no resulting from the reader's inter context. Test Item Description Test Model Trade Mark Ratings Result	: Shenzhen LCS Compliance Testing : Dated 2011-03 <b>CE TESTING LABORATORY LTD. AI</b> luced in whole or in part for non-comm PLIANCE TESTING LABORATORY L the material. SHENZHEN LCS COMF responsibility for and will not assume rpretation of the reproduced material of <b>: Horizon CCT</b> : FM-HOC-C : Artika, ECOE, ODEER : AC 120V, 60Hz, 24W <b>: Positive</b>	II rights reserved. nercial purposes as long .TD. is acknowledged as PLIANCE TESTING liability for damages due to its placement and		

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SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCCID: 2AYFP-FM-HOC Report No.: LCS211105008AE	08AE
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#### **FCC -- TEST REPORT**

Test Report No. :	LCS211105008AE	-
•		

November 10, 2021 Date of issue

Test Model	: FM-HOC-C
EUT	: Horizon CCT
Applicant	: ARTIKA FOR LIVING INC.
Addross	: 1756 50th avenue, Lachine, Qc, CanadaH8T 2V5
Address	Lachine Canada
Telephone	:/
Fax	
	ZHONGSHAN ODEER ELECTRONICS LIGHTING CO.,
Manufacturer	LTD
Address	: No.4, North Industrial Road, Xiaolan Town, Zhongshan
	City, Guangdong, China
Telephone	
Fax	
Factoria	ZHONGSHAN ODEER ELECTRONICS LIGHTING CO.,
Factory	LTD
Address	: No.4, North Industrial Road, Xiaolan Town, Zhongshan
	City, Guangdong, 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**

Revision	Issue Date	Revisions	Revised By
000	November 10, 2021	Initial Issue	Gavin Liang

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## **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	Lighting	Record
***Note: All test modes were tested, but we only recorded the worst case in this		
report.		

# 2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT	: Horizon CCT
Trade Mark	: Artika, ECOE, ODEER
Test Model	: FM-HOC-C
Additional Model	: FM-HOC-XXXXXX ("X" 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

Power Supply : AC 120V, 60Hz,24W

Highest internal frequency (Fx) Highest measured frequency		
Fx ≤ 108 MHz	1 GHz	
108 MHz < Fx ≤ 500 MHz 2 GHz		
500 MHz < Fx $\leq$ 1 GHz 5 GHz		
Fx > 1 GHz 5 × Fx 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 evoluting the level excillator and tuned		

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

Name	Manufacturers	M/N	S/N

## 2.3. Description of Test Facility

Site Description

EMC Lab.

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

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## 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.

Test	Parameters	Expanded Uncertainty (Ulab)	Expanded Uncertainty (Ucispr)	
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 (30MHz to 1000MHz)	$\pm$ 3.48 dB	$\pm$ 5.3 dB	
Radiated Emission	Level accuracy (above 1000MHz)	$\pm$ 3.90 dB	$\pm$ 5.2 dB	

#### 2.5. Measurement Uncertainty

(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**

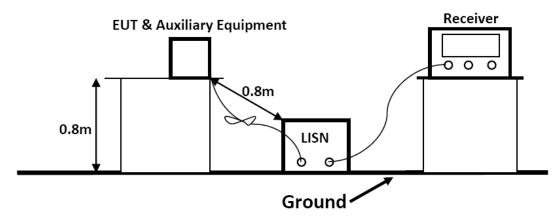
## 3.1. POWER LINE CONDUCTED EMISSION MEASUREMENT

#### 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	EZ	EZ-EMC	/	N/A	N/A
2	EMI Test Receiver	R&S	ESPI	101840	2021-06-22	2022-06-21
3	Artificial Mains	SCHWARZBECK	NSLK8127	8127716	2021-06-22	2022-06-21
4	10dB Attenuator	SCHWARZBECK	MTS-IMP-136	261115-001-0032	2021-06-22	2022-06-21
5	Impedance Stabilization Network	TESEQ	ISN T800	45130	2021-10-19	2022-10-18

3.1.2.Block Diagram of Test Setup



#### 3.1.3.Test Standard

Power Line Conducted Emission Limits (Class B)

Frequency			Limit (dBµV)			
(MHz)		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	1	30.00	60.0	50.0		
NOTE1-The lower limit shall apply at the transition frequencies.						

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.

This report shall not be reproduced except in full, without the written approval of Shenzhen LCS Compliance Testing Laboratory Ltd. Page 9 of 17 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 Lighting 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.

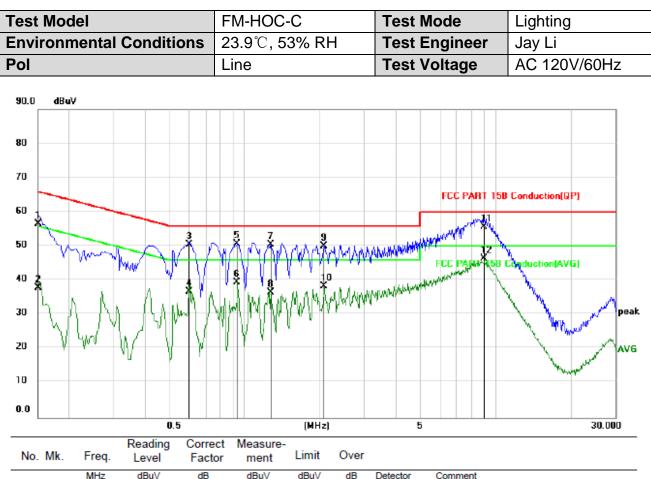
The bandwidth of the test receiver is set at 9kHz.

The frequency range from 150kHz to 30MHz is investigated

3.1.7.Test Results

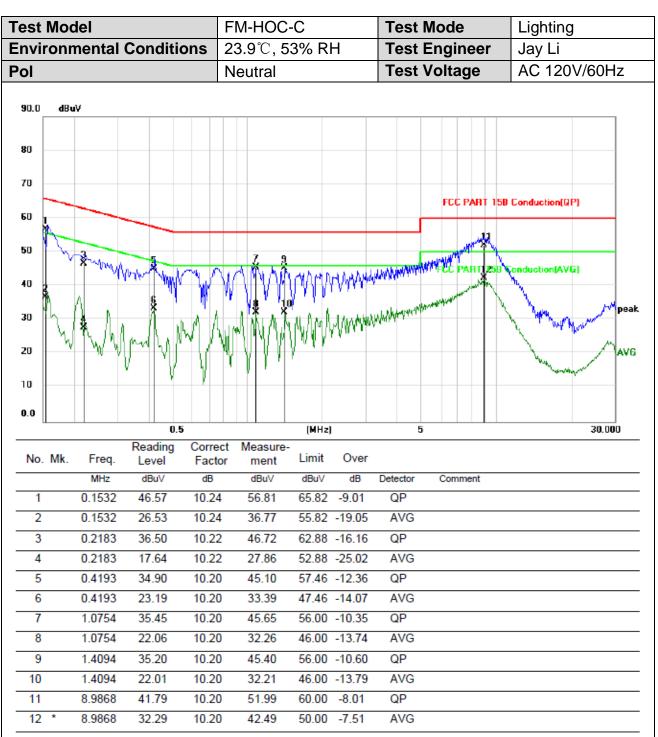
#### PASS.

The test result please refer to the next page.



NO. MK.	Freq.	Level	Factor	ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1500	46.36	10.24	56.60	66.00	-9.40	QP	
2	0.1500	27.66	10.24	37.90	56.00	-18.10	AVG	
3	0.6018	40.37	10.20	50.57	56.00	-5.43	QP	
4	0.6018	26.70	10.20	36.90	46.00	-9.10	AVG	
5	0.9336	40.46	10.20	50.66	56.00	-5.34	QP	
6	0.9336	29.30	10.20	39.50	46.00	-6.50	AVG	
7	1.2671	40.35	10.20	50.55	56.00	-5.45	QP	
8	1.2671	26.40	10.20	36.60	46.00	-9.40	AVG	
9	2.0674	39.90	10.20	50.10	56.00	-5.90	QP	
10	2.0674	28.22	10.20	38.42	46.00	-7.58	AVG	
11	8.9986	45.38	10.20	55.58	60.00	-4.42	QP	
12 *	8.9986	36.15	10.20	46.35	50.00	-3.65	AVG	

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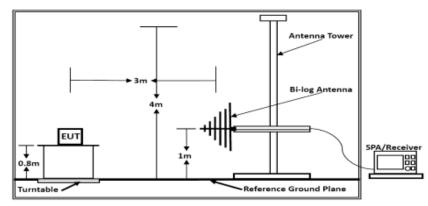
## 3.2. Radiated emission Measurement

#### 3.2.1. Test Equipment

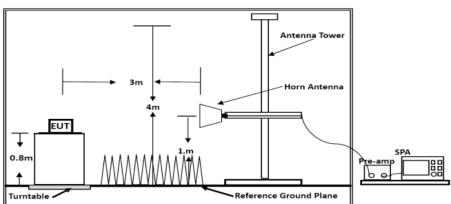
# The following test equipments are used during the radiated emission measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Software	EZ	EZ-EMC	/	N/A	N/A
2	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	2020-08-05	2022-08-04
3	Positioning Controller	MF	MF7082	MF78020803	2021-06-22	2022-06-21
4	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2020-07-26	2022-07-25
5	Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2021-07-02	2022-07-01
6	EMI Test Receiver	R&S	ESR 7	101181	2021-06-22	2022-06-21
7	RS SPECTRUM ANALYZER	R&S	FSP40	100503	2020-11-22	2021-11-21
8	Broadband Preamplifier	/	BP-01M18G	P190501	2021-06-22	2022-06-21
9	RF Cable-R03m	Jye Bao	RG142	CB021	2021-06-22	2022-06-21
10	RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	2021-06-22	2022-06-21
11	EMI Test Software	AUDIX	E3	/	N/A	N/A

#### 3.2.2. Block Diagram of Test Setup



Below 1GHz



Above 1GHz

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Limits for Radiated Disturbance Below 1GHz

FREQUENCY	DISTANCE	FIELD STREN	NGTHS LIMIT					
MHz	Meters	μV/m	dB(µV)/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 I	Remark: (1) Emission level (dB) $\mu$ V = 20 log Emission level $\mu$ V/m							
(2) The smaller limit shall apply at the cross point between two								
frequency	frequency bands.							
(3) Distance is	(3) Distance is the distance in meters between the measuring							
instrument, a	antenna and the cl	osest point of any	part of the					
device or system.								
Limits for Radiated Emission Above 1GHz								
Frequency	Distance	Peak Limit	Average Limit					
(MHz)	(Meters)	(dBµV/m)	(dBµV/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 Lighting 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.

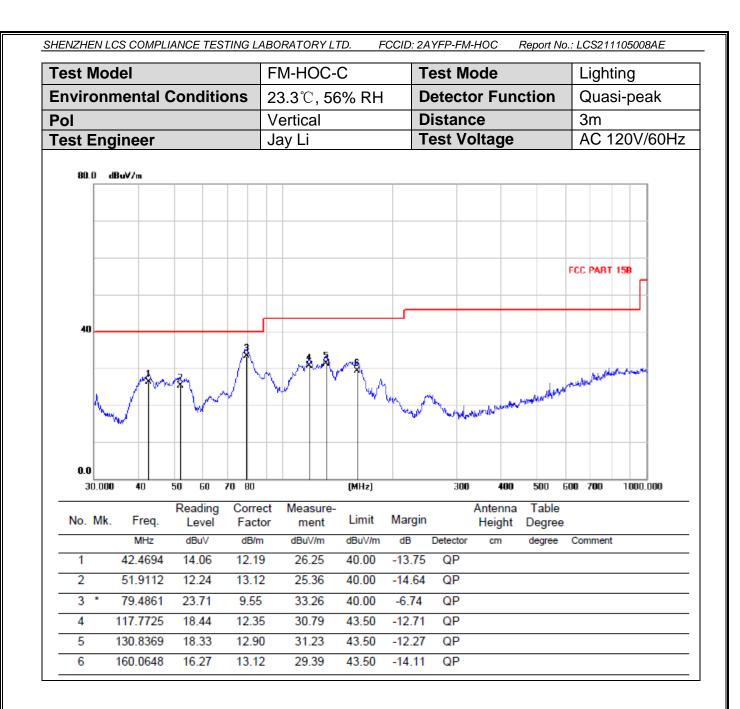
The bandwidth of the EMI test receiver is set at 120kHz, 300kHz. The frequency range from 30MHz to 1000MHz is checked.

3.2.7. Radiated Emission Noise Measurement Result

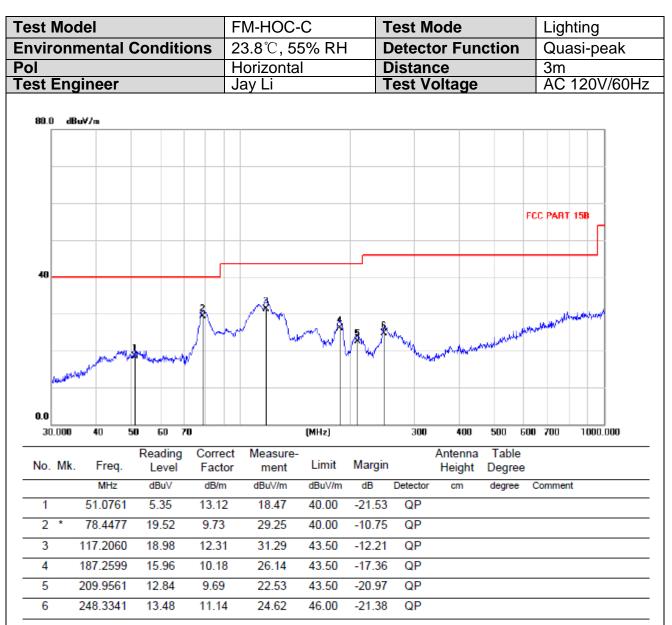
#### PASS.

The scanning waveforms please refer to the next page.

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## 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------