GTS Global United Technology Services Co., Ltd.

Report No.: GTS202209000159F01

TEST REPORT

Applicant:	ARTIKA FOR LIVING INC
Address of Applicant:	1756 50th avenue, Lachine Quebec, Canada H8T 2V5
Manufacturer/ Factory:	ZHONGSHAN WEIHUA LIGHTING TECHNOLGY CO .,LTD.
Address of Manufacturer/ Factory:	No.13 YOUNG YI 2RD HENGLAN TOWN ZHONGSHAN CITY GUANGDONG PROVINCE CHINA
Equipment Under Test (E	UT)
Product Name:	OUTDOOR LIGHT
Model No.:	OUT-C7LC-XXXXX
	(The suffix "XXXXX" can be two to five character denotes product color or customer code.)
FCC ID:	2AUHG-OUT-C7LC
Applicable standards:	FCC CFR Title 47 Part 15 Subpart B
Date of sample receipt:	September 30, 2022
Date of Test:	September 30, 2022-October 08, 2022
Date of report issued:	October 09, 2022
Test Result :	Pass *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Robinson Luo Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.



Version 2

Version No.	Date	Description
00	October 09, 2022	Original
3.000		

Prepared by:

Date:

Opinson lund

Date:

October 09, 2022

Project Engineer

Reviewer

October 09, 2022

Reviewed by:

Global United Technology Services Co., Ltd. No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

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4 Test Summary

Test Item	Test Requirement	Test Method	Class / Severity	Result
Conducted Emission	FCC Part15.107	ANSI C63.4a	Class B	PASS
Radiated Emissions #	FCC Part15.109	ANSI C63.4a	Class B	PASS

Remark:

1. Pass: The EUT complies with the essential requirements in the standard.

2. # Refer to FCC Part 15.33 (b)(1) conditional testing procedure :

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower.

Measurement Uncertainty

3.8039dB (1) 3.9679dB (1)
3.9679dB (1)
4.29dB (1)
3.44dB (1)

5 General Information

5.1 General Description of EUT

Product Name:	OUTDOOR LIGHT			
Model No.:	OUT-C7LC-XXXXX (The suffix "XXXXX" can be two to five character denotes product color or customer code.)			
Remark:	All above models are identical in the same PCB layout, interior structure and electrical circuits. The differences are product color and model name for commercial purpose.			
Power supply:	110-135Vac, 50/60Hz			
5.2 Test mode and Test voltage				

5.2 Test mode and Test voltage

l'est mode:	
Operation mode	Keep the EUT in lighting mode.
Test voltage:	
AC 120V/60Hz	

5.3 Description of Support Units

None.

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• FCC — Registration No.: 381383

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.

• IC — Registration No.: 9079A

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

• NVLAP (LAB CODE:600179-0)

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.7 Test Location

Tests were performed at:

Global United Technology Services Co., Ltd. Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Tel: 0755-27798480 Fax: 0755-27798960

6 Test Instruments list

Rad	Radiated Emission:							
ltem	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July 02, 2020	July 01, 2025		
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A		
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	April 22, 2022	April 21, 2023		
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	March 21, 2022	March 20, 2023		
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June 12, 2022	June 11, 2023		
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June 23, 2022	June 22, 2023		
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A		
8	Coaxial Cable	GTS	N/A	GTS213	April 22, 2022	April 21, 2023		
9	Coaxial Cable	GTS	N/A	GTS211	April 22, 2022	April 21, 2023		
10	Coaxial cable	GTS	N/A	GTS210	April 22, 2022	April 21, 2023		
11	Coaxial Cable	GTS	N/A	GTS212	April 22, 2022	April 21, 2023		
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	April 22, 2022	April 21, 2023		
13	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 23, 2022	June 22, 2023		
14	Band filter	Amindeon	82346	GTS219	June 23, 2022	June 22, 2023		
15	Power Meter	Anritsu	ML2495A	GTS540	June 23, 2022	June 22, 2023		
16	Power Sensor	Anritsu	MA2411B	GTS541	June 23, 2022	June 22, 2023		
17	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	April 22, 2022	April 21, 2023		
18	Splitter	Agilent	11636B	GTS237	June 23, 2022	June 22, 2023		
19	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov. 30, 2021	Nov. 29, 2022		
20	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	April 22, 2022	April 21, 2023		
21	Breitband hornantenna	SCHWARZBECK	BBHA 9170	GTS579	Oct. 17, 2021	Oct. 16, 2022		
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 17, 2021	Oct. 16, 2022		
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 17, 2021	Oct. 16, 2022		
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June 23, 2022	June 22, 2023		
25	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	April 22, 2022	April 21, 2023		



Con	Conducted Emission								
ltem	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)			
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May 14, 2022	May 13, 2025			
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 24, 2022	April 23, 2023			
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June 23, 2022	June 22, 2023			
4	ENV216 2-L-V- NETZNACHB.DE	ROHDE&SCHWARZ	ENV216	GTS226	April 22, 2022	April 21, 2023			
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A			
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A			
7	Thermo meter	JINCHUANG	GSP-8A	GTS639	April 28, 2022	April 27, 2023			
8	Absorbing clamp	Elektronik- Feinmechanik	MDS21	GTS229	April 15, 2022	April 14, 2023			
9	ISN	SCHWARZBECK	NTFM 8158	GTS565	April 22, 2022	April 21, 2023			
10	High voltage probe	SCHWARZBECK	TK9420	GTS537	April 22, 2022	April 21, 2023			

G	eneral used equipment:						
lter	n Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)	
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	April 25, 2022	April 24, 2023	
2	Barometer	KUMAO	SF132	GTS647	July 26, 2022	July 25, 2023	



7 Test Results and Measurement Data

7.1 Radiated Emission

Test Requirement:	FCC Part15 B Sec	tion 15.109				
Test Method:	ANSI C63.4a:2017	7				
Test Frequency Range:	30MHz to 1GHz					
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)					
Receiver setup:	FrequencyDetectorRBWVBWValue30MHz-1GHzQuasi-peak120kHz300kHzQuasi-peak					
Limit:	FrequencyLimit (dBµV/m @3m)Value30MHz-88MHz40.00Quasi-peak88MHz-216MHz43.50Quasi-peak216MHz-960MHz46.00Quasi-peak960MHz-1GHz54.00Quasi-peak					
Test setup:	Antenna Tower Test Receiver Plane Test Receiver					
Test Procedure:	 The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10dB lower than 					

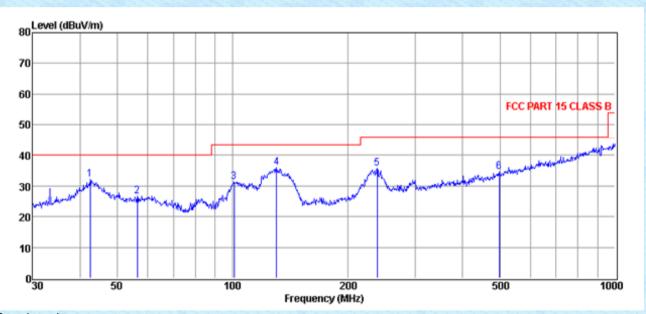
Global United Technology Services Co., Ltd. No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



	the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.						
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1 012mbar						
Test Instruments:	Refer to section 6 for details						
Test mode:	Refer to section 5.2 for details.						
Test results:	Pass						

Measurement Data

Test mode:	Operation mode	Antenna Polarity:	Horizontal



Qu	Quasi-peak measurement:									
Item	Freq	Read Level	Antenna Factor	PRM Factor	Cabl e Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	42.45	15.65	15.90	0.00	0.64	32.19	40.00	-7.81	Peak	HORIZONTAL
2	56.40	13.81	12.22	0.00	0.71	26.74	40.00	-13.26	Peak	HORIZONTAL
3	100.93	18.82	11.75	0.00	0.83	31.40	43.50	-12.10	Peak	HORIZONTAL
4	130.38	24.32	10.69	0.00	1.08	36.09	43.50	-7.41	Peak	HORIZONTAL
5	239.15	20.21	13.78	0.00	1.82	35.81	46.00	-10.19	Peak	HORIZONTAL
6	497.68	13.18	17.95	0.00	3.48	34.61	46.00	-11.39	Peak	HORIZONTAL



est mode:	Operation mode Antenna Polarit		rity: Vertical		
80_Level (dBuV/m)					
80					
70				+	
60					
50			FCC PART 15 CLAS	SB	
40				- www	
	2 3 4	5 6	hardan madan da andar an		
30	m Martine V	manger and the had a server of		+	
20				+	
10				+	
030 50		200 equency (MHz)	500	1000	
uasi-peak measurem	oont:				

Item	Freq	Read Level	Antenna Factor	PRM Factor	Cabl e	Result Level	Limit Line	Over Limit	Detector	Polarization
		Level	ractor	ractor	Loss	Level	Line	Linit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	42.60	20.50	16.00	0.00	0.64	37.14	40.00	-3.26	QP	VERTICAL
2	62.21	21.20	11.84	0.00	0.65	33.69	40.00	-6.31	Peak	VERTICAL
3	104.54	21.28	12.68	0.00	0.81	34.77	43.50	-8.73	Peak	VERTICAL
4	138.87	21.90	10.91	0.00	1.20	34.01	43.50	-9.49	Peak	VERTICAL
5	232.53	17.42	13.65	0.00	1.71	32.78	46.00	-13.22	Peak	VERTICAL
6	354.18	14.32	15.68	0.00	2.66	32.66	46.00	-13.34	Peak	VERTICAL

Note:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows: Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

7.2 Conducted Emissions

Test Requirement:	FCC Part15 B Section 15.107	,							
Test Method:	ANSI C63.4a:2017								
Test Frequency Range:	150kHz to 30MHz	150kHz to 30MHz							
Class / Severity:	Class B								
Receiver setup:	RBW=9kHz, VBW=30kHz								
Limit:		Limit (c							
	Frequency range (MHz)	Quasi-peak	Average						
	0.15-0.5	66 to 56*	56 to 46*						
	0.5-5	56	46						
	5-30	60	50						
Test setup:	* Decreases with the logarithm Reference								
Test procedure	LISN 40cm AUX Equipment Equipment E.U.T Test table/Insulation plane Remark: E.U.T: Equipment Under Test LISN: Line Impedence Stabilization Netw Test table height=0.8m 1.		- AC power						
rest procedure	a line impedance stabiliz								
	 50ohm/50uH coupling im The peripheral devices a through a LISN that provwith 50ohm termination. test setup and photograp Both sides of A.C. line ar interference. In order to f positions of equipment a changed according to AM measurement. 	pedance for the measure re also connected to the ides a 500hm/50uH co (Please refers to the blochs). The checked for maximum re checked for maximum re all of the interface c	uring equipment. The main power upling impedance ock diagram of the m conducted sion, the relative ables must be						
Test environment:	 The peripheral devices a through a LISN that provwith 50ohm termination. test setup and photograp Both sides of A.C. line an interference. In order to f positions of equipment a changed according to AN 	pedance for the measure re also connected to the ides a 50ohm/50uH co (Please refers to the block) whs). The checked for maximum rind the maximum emisure and all of the interface co NSI C63.4a:2017 on co	uring equipment. le main power upling impedance ock diagram of the m conducted sion, the relative ables must be nducted						
Test environment: Test Instruments:	 The peripheral devices a through a LISN that provwith 50ohm termination. test setup and photograp Both sides of A.C. line ar interference. In order to f positions of equipment a changed according to Al measurement. 	pedance for the measure re also connected to the ides a 50ohm/50uH co (Please refers to the block) whs). The checked for maximum rind the maximum emisure and all of the interface co NSI C63.4a:2017 on co	uring equipment. the main power upling impedance ock diagram of the m conducted sion, the relative ables must be nducted						
	 The peripheral devices a through a LISN that provwith 50ohm termination. test setup and photograp Both sides of A.C. line ar interference. In order to f positions of equipment a changed according to AM measurement. Temp.: 25 °C Hum 	pedance for the measure also connected to the ides a 500hm/50uH co (Please refers to the blohs). The checked for maximum emis and all of the interface constrained the maximum emis nd all of the interface construction construction id.: 52% Pre	uring equipment. the main power upling impedance ock diagram of the m conducted sion, the relative ables must be nducted						

Measurement Data

GTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1500	49.96	9.73	59.69	66.00	-6.31	QP
2	0.1500	29.37	9.73	39.10	56.00	-16.90	AVG
3	0.1860	48.55	9.76	58.31	64.21	-5.90	QP
4	0.1860	19.95	9.76	29.71	54.21	-24.50	AVG
5	0.2232	46.95	9.80	56.75	62.70	-5.95	QP
6	0.2232	17.96	9.80	27.76	52.70	-24.94	AVG
7	0.2860	44.39	9.89	54.28	60.64	-6.36	QP
8	0.2860	15.93	9.89	25.82	50.64	-24.82	AVG
9	0.3500	40.86	9.98	50.84	58.96	-8.12	QP
10	0.3500	13.52	9.98	23.50	48.96	-25.46	AVG
11	3.5380	34.32	10.39	44.71	56.00	-11.29	QP
12	3.5380	23.70	10.39	34.09	46.00	-11.91	AVG



est mode:	Operation mode	Phase Polarity:	Neutral
0 dBuV			
10.0 dBu¥		Lim	it1: —
		Lin	it2:
3 5 7			
C C C C C C C C C C C C C C C C C C C			
	M. MAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	Mr. MM	n peak
40		No and Market	
	1 to the sta Million Marine and	we want MA /	AVG
	1. N. M.		
- UNING A A		Manufana M	w 🛛
W WU C W	W		
0.0 0.150 0.5	(MHz)	5	30.000
uasi-peak and Average n			30.000

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1500	49.95	9.73	59.68	66.00	-6.32	QP
2	0.1500	24.57	9.73	34.30	56.00	-21.70	AVG
3	0.1860	48.57	9.76	58.33	64.21	-5.88	QP
4	0.1860	19.73	9.76	29.49	54.21	-24.72	AVG
5	0.2180	47.37	9.80	57.17	62.89	-5.72	QP
6	0.2180	18.46	9.80	28.26	52.89	-24.63	AVG
7	0.2380	46.59	9.82	56.41	62.17	-5.76	QP
8	0.2380	17.36	9.82	27.18	52.17	-24.99	AVG
9	0.3020	43.50	9.91	53.41	60.19	-6.78	QP
10	0.3020	15.19	9.91	25.10	50.19	-25.09	AVG
11	3.0860	34.50	10.29	44.79	56.00	-11.21	QP
12	3.0860	23.02	10.29	33.31	46.00	-12.69	AVG

Notes:

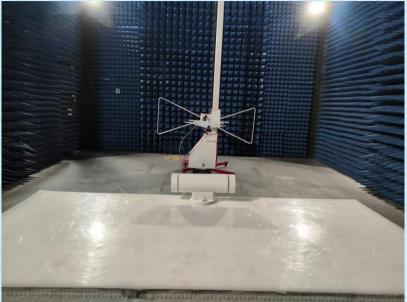
- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

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Report No.: GTS202209000159F01

8 Test Setup Photo

Radiated Emission

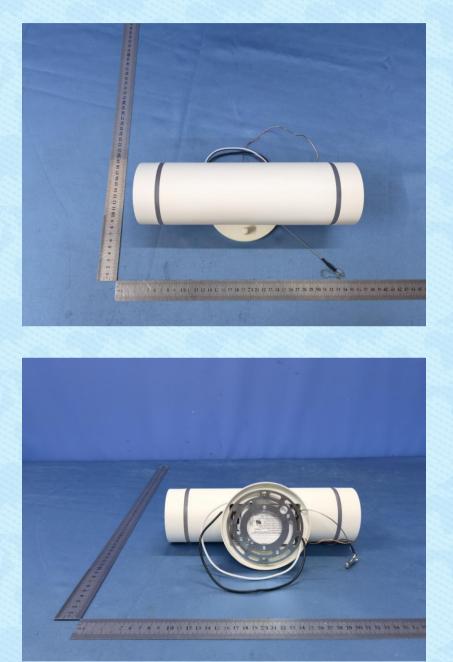


Conducted Emission





9 EUT Constructional Details

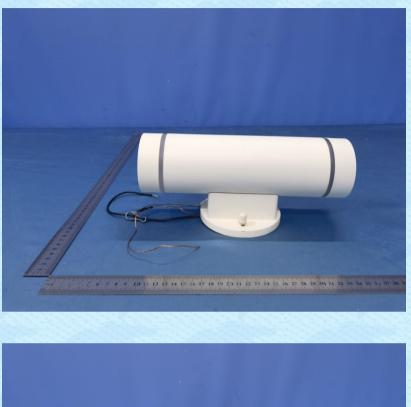


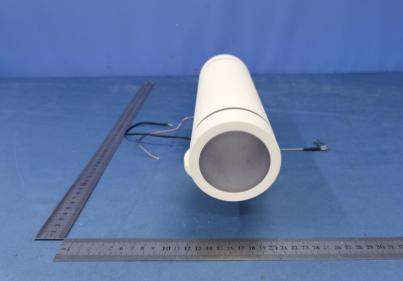






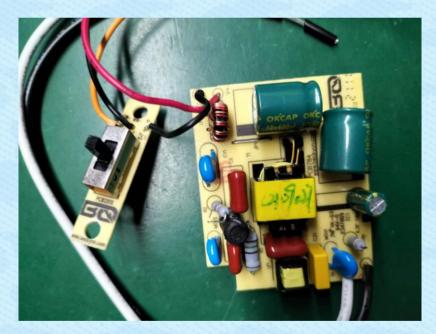




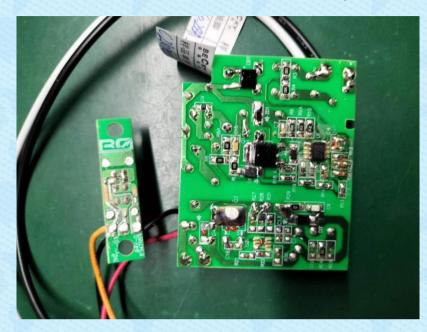












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