TEST REPORT

Applicant:	ARTIKA FOR LIVING INC.
Address of Applicant:	1756 50th Avenue, Lachine, QC H8T 2V5 Canada
Manufacturer/Factory:	DIEN QUANG HIGH TECH COMPANY LIMITED
Address of Manufacturer/Factory:	Lot HT-2-2, Street D2, High Tech Park, Tang Nhon Phu B Ward, Thu Duc City, Ho Chi Minh City, Postal code Vietnam

Equipment Under Test (EUT)

Product Name:	LED luminaires Swirl Pendant
Model No.:	PDT-SWR, followed by '-', followed by six characters can be A to Z and/or 0 to 9 and/or blank, which means commercial code
Trade Mark:	ARTIKA
FCC ID:	2AUHG-PDT-SWR

Applicable standards:	FCC CFR Title 47 Part 15 Subpart B
Date of sample receipt:	March 22, 2022
Date of Test:	March 22- April 27, 2022
Date of report issued:	April 27, 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.

2 Version

Version No.	Date	Description
00	April 27, 2022	Original

Prepared by: **Date:** April 27, 2022

Project Engineer

Reviewed by: **Date:** April 27, 2022

Reviewer

3 Contents

1 COVER PAGE 1

2 VERSION 2

3 CONTENTS 3

4 TEST SUMMARY 4

5 GENERAL INFORMATION 5

5.1 GENERAL DESCRIPTION OF EUT 5
5.2 TEST MODE AND TEST VOLTAGE 5
5.3 DESCRIPTION OF SUPPORT UNITS 5
5.4 DEVIATION FROM STANDARDS 5
5.5 ABNORMALITIES FROM STANDARD CONDITIONS 5
5.6 TEST FACILITY 5
5.7 TEST LOCATION 5

6 TEST INSTRUMENTS LIST 6

7 TEST RESULTS AND MEASUREMENT DATA 8

7.1 RADIATED EMISSION 8
7.2 CONDUCTED EMISSIONS 11

8 TEST SETUP PHOTO 14

9 EUT CONSTRUCTIONAL DETAILS 15

4 Test Summary

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

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	30MHz-200MHz	3.8039dB	(1)
Radiated Emission	200MHz-1GHz	3.9679dB	(1)
Radiated Emission	1GHz-18GHz	4.29dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(1)
Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.			

5 General Information

5.1 General Description of EUT

Product Name:	LED luminaires Swirl Pendant
Model No.:	PDT-SWR, followed by '-', followed by six characters can be A to Z and/or 0 to 9 and/or blank, which means commercial code
Test Model No.:	PDT-SWR
Power supply:	AC 100-135V, 50-60Hz, 30W

5.2 Test mode and Test voltage

Test mode:	
Operation mode	Keep the EUT in the operation status.
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

Radiated Emission:						
Item	**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	June. 24 2021	June. 23 2022
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 24 2021	June. 23 2022
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 24 2021	June. 23 2022
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 24 2021	June. 23 2022
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 24 2021	June. 23 2022
9	Coaxial Cable	GTS	N/A	GTS211	June. 24 2021	June. 23 2022
10	Coaxial cable	GTS	N/A	GTS210	June. 24 2021	June. 23 2022
11	Coaxial Cable	GTS	N/A	GTS212	June. 24 2021	June. 23 2022
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 24 2021	June. 23 2022
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 24 2021	June. 23 2022
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 24 2021	June. 23 2022
15	Band filter	Amindeon	82346	GTS219	June. 24 2021	June. 23 2022
16	Power Meter	Anritsu	ML2495A	GTS540	June. 24 2021	June. 23 2022
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 24 2021	June. 23 2022
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 24 2021	June. 23 2022
19	Splitter	Agilent	11636B	GTS237	June. 24 2021	June. 23 2022
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 24 2021	June. 23 2022
21	Breitband hornantenne	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. 24 2021	June. 23 2022

Conducted Emission						
Item	**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.15 2019	May.14 2022
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 24 2021	June. 23 2022
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June. 24 2021	June. 23 2022
4	ENV216 2-L-V-NETZNACHB.DE	ROHDE&SCHWARZ	ENV216	GTS226	June. 24 2021	June. 23 2022
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	KTJ	TA328	GTS233	June. 24 2021	June. 23 2022
8	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	June. 24 2021	June. 23 2022
9	ISN	SCHWARZBECK	NTFM 8158	GTS565	June. 24 2021	June. 23 2022
10	High voltage probe	SCHWARZBECK	TK9420	GTS537	July. 09 2021	July. 08 2022

General used equipment:						
Item	**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	June. 24 2021	June. 23 2022
2	Barometer	ChangChun	DYM3	GTS255	June. 24 2021	June. 23 2022

7 Test Results and Measurement Data

7.1 Radiated Emission

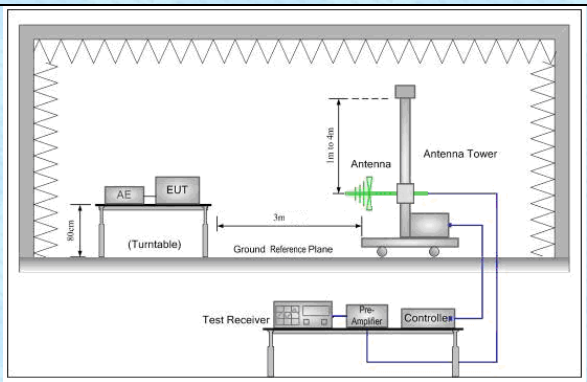
Test Requirement:	FCC Part15 B Section 15.109
Test Method:	ANSI C63.4:2014
Test Frequency Range:	30MHz to 1GHz
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)
Receiver setup:	

Frequency	Detector	RBW	VBW	Value
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak

Limit:

Frequency	Limit (dBµV/m @3m)	Value
30MHz-88MHz	40.00	Quasi-peak
88MHz-216MHz	43.50	Quasi-peak
216MHz-960MHz	46.00	Quasi-peak
960MHz-1GHz	54.00	Quasi-peak

Test setup:



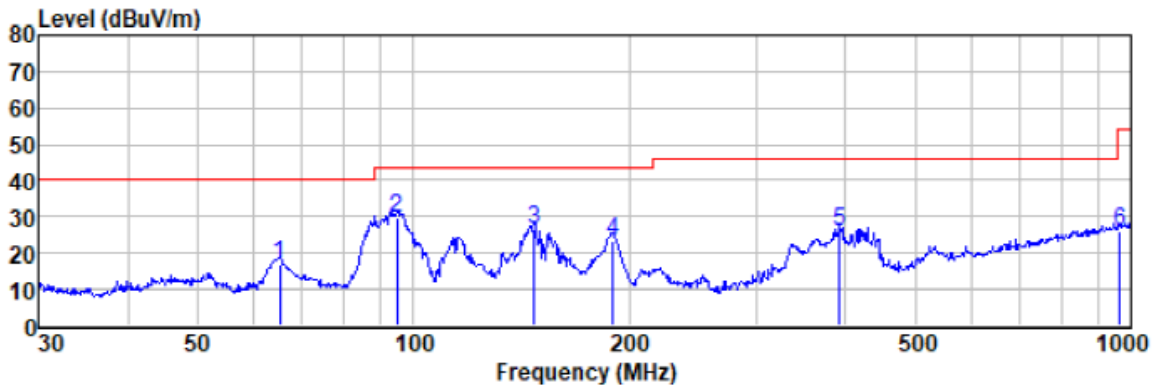
Test Procedure:

1. 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.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. 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.
4. 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.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than

	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					

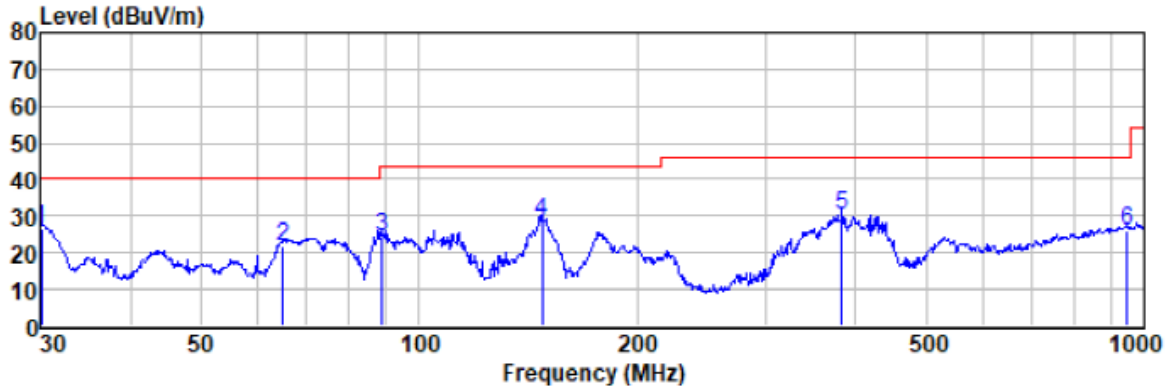
Measurement Data

Test mode:	Operation mode	Antenna Polarity:	Horizontal



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
65.114	34.09	11.49	1.40	29.99	16.99	40.00	-23.01	QP
94.760	49.71	9.14	1.61	30.61	29.85	43.50	-13.65	QP
147.404	43.02	12.48	2.04	30.88	26.66	43.50	-16.84	QP
189.739	42.37	9.75	2.31	30.99	23.44	43.50	-20.06	QP
392.095	38.16	15.47	3.71	31.57	25.77	46.00	-20.23	QP
965.542	26.50	24.43	6.52	31.31	26.14	54.00	-27.86	QP

Test mode:	Operation mode	Antenna Polarity:	Vertical



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
30.105	41.90	12.11	1.05	28.72	26.34	40.00	-13.66	QP
64.887	38.85	11.53	1.40	29.99	21.79	40.00	-18.21	QP
88.964	44.43	8.63	1.58	30.51	24.13	43.50	-19.37	QP
147.921	44.79	12.48	2.05	30.88	28.44	43.50	-15.06	QP
382.588	42.91	15.19	3.64	31.53	30.21	46.00	-15.79	QP
948.761	26.74	24.30	6.43	31.31	26.16	46.00	-19.84	QP

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

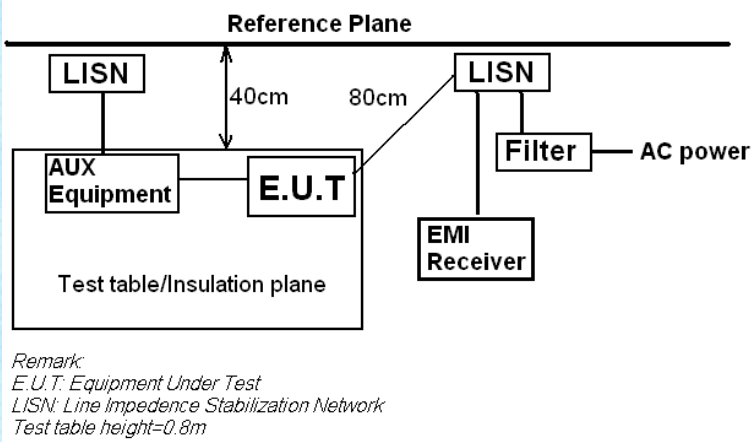
7.2 Conducted Emissions

Test Requirement:	FCC Part15 B Section 15.107
Test Method:	ANSI C63.4:2014
Test Frequency Range:	150kHz to 30MHz
Class / Severity:	Class B
Receiver setup:	RBW=9kHz, VBW=30kHz
Limit:	

Frequency range (MHz)	Limit (dBµV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

Test setup:



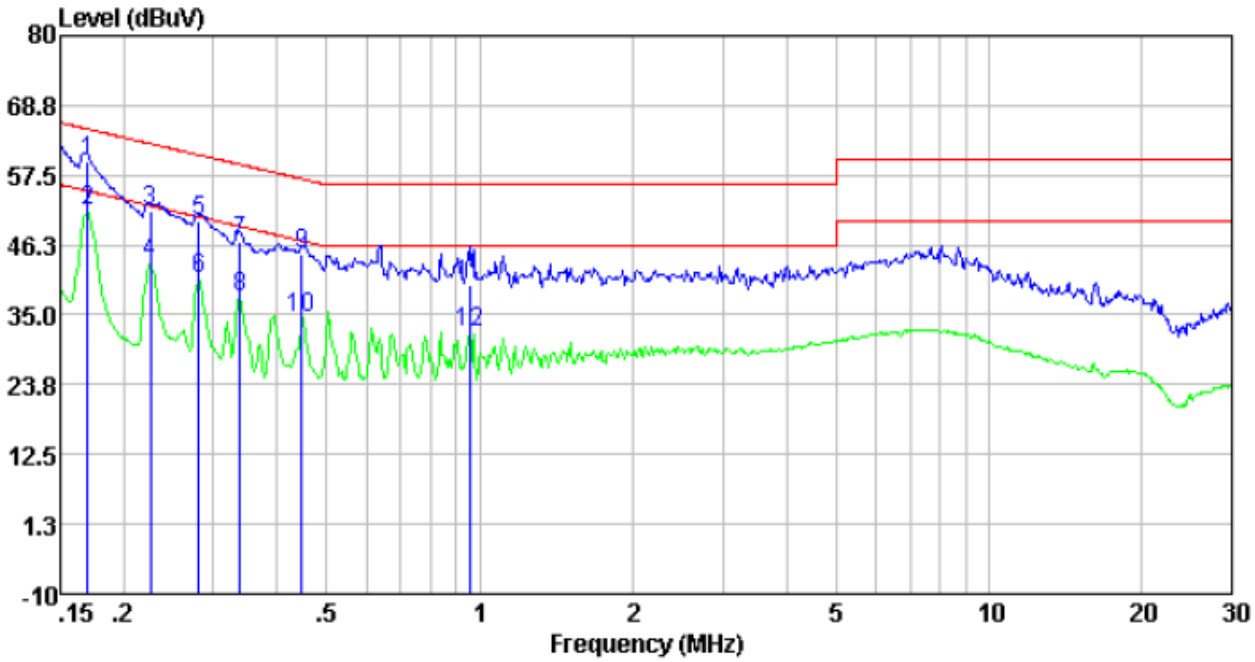
Test procedure

1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment.
2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs).
3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.

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					

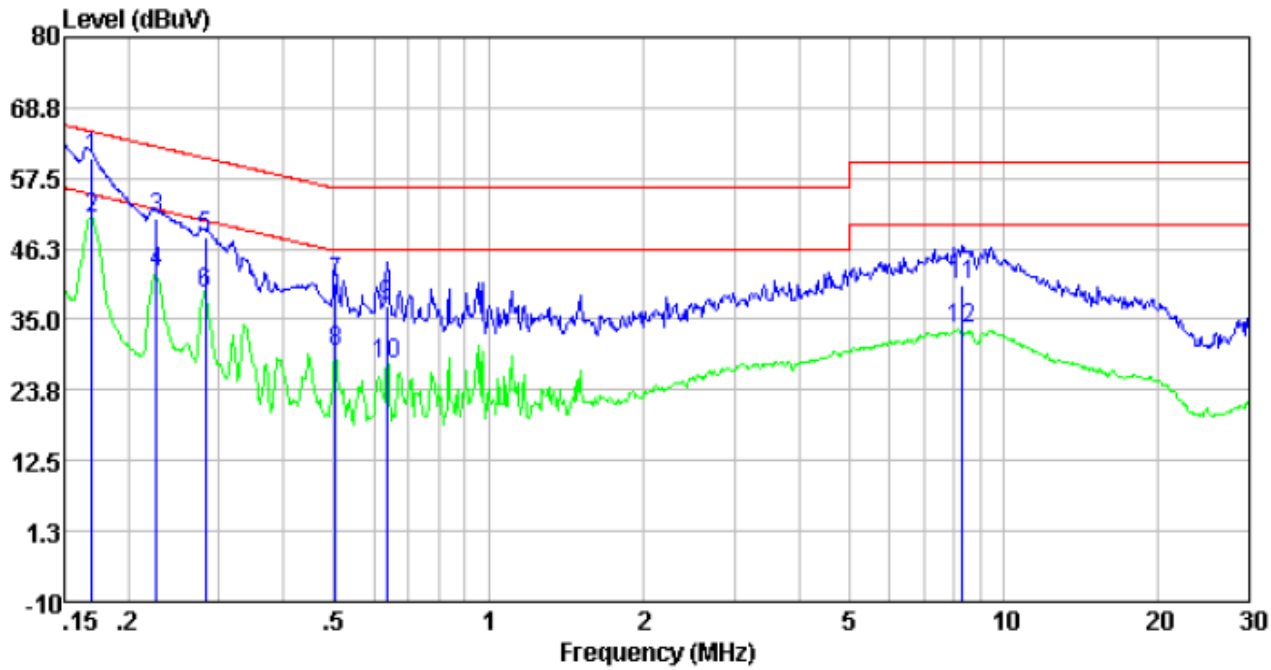
Measurement Data

Test mode:	Operation mode	Phase Polarity:	Line



Freq	Reading level	LISN/ISN factor	Cable loss	Level	Limit level	Over limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.17	49.37	10.40	0.01	59.78	64.99	-5.21	QP
0.17	41.45	10.40	0.01	51.86	54.99	-3.13	Average
0.23	41.48	10.40	0.01	51.89	62.61	-10.72	QP
0.23	32.98	10.40	0.01	43.39	52.61	-9.22	Average
0.28	39.77	10.40	0.01	50.18	60.81	-10.63	QP
0.28	30.39	10.40	0.01	40.80	50.81	-10.01	Average
0.34	36.48	10.38	0.01	46.87	59.27	-12.40	QP
0.34	27.33	10.38	0.01	37.72	49.27	-11.55	Average
0.45	34.42	10.33	0.01	44.76	56.93	-12.17	QP
0.45	24.00	10.33	0.01	34.34	46.93	-12.59	Average
0.95	29.74	10.21	0.03	39.98	56.00	-16.02	QP
0.95	22.02	10.21	0.03	32.26	46.00	-13.74	Average

Test mode:	Operation mode	Phase Polarity:	Neutral

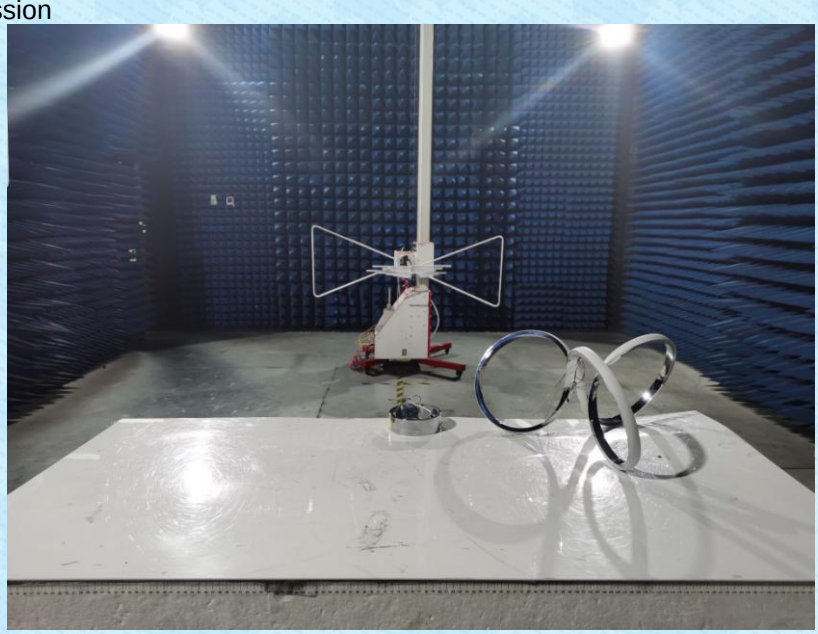


Freq	Reading level	LISN/ISN factor	Cable loss	Level	Limit level	Over limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.17	50.45	10.40	0.01	60.86	64.99	-4.13	QP
0.17	40.60	10.40	0.01	51.01	54.99	-3.98	Average
0.23	40.60	10.40	0.01	51.01	62.57	-11.56	QP
0.23	31.90	10.40	0.01	42.31	52.57	-10.26	Average
0.28	37.72	10.40	0.01	48.13	60.76	-12.63	QP
0.28	28.87	10.40	0.01	39.28	50.76	-11.48	Average
0.50	30.54	10.31	0.01	40.86	56.00	-15.14	QP
0.50	19.50	10.31	0.01	29.82	46.00	-16.18	Average
0.63	27.02	10.28	0.02	37.32	56.00	-18.68	QP
0.63	17.65	10.28	0.02	27.95	46.00	-18.05	Average
8.32	30.23	10.20	0.10	40.53	60.00	-19.47	QP
8.32	23.17	10.20	0.10	33.47	50.00	-16.53	Average

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

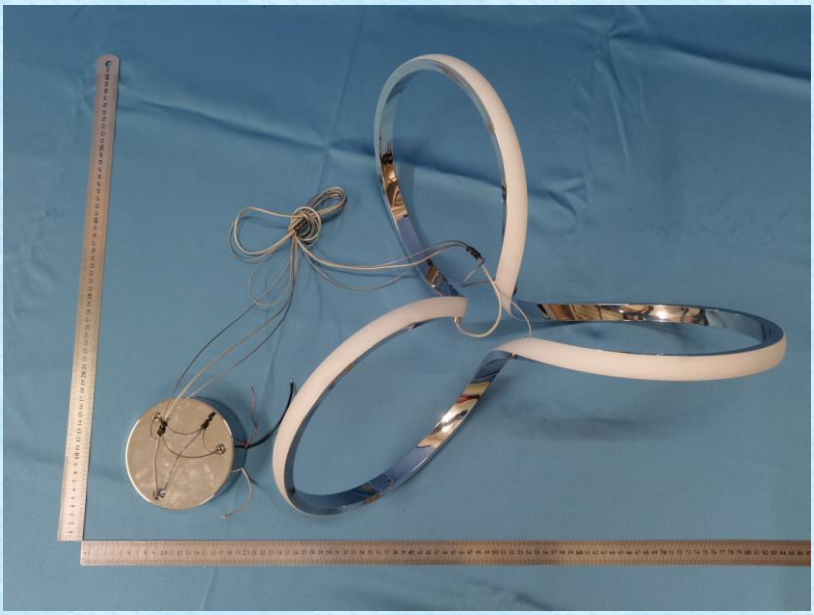
8 Test Setup Photo

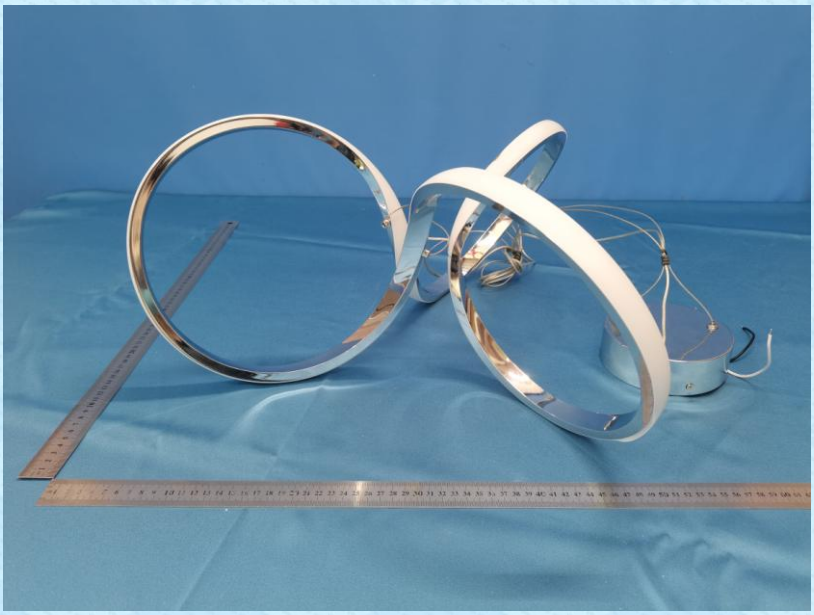
Radiated Emission

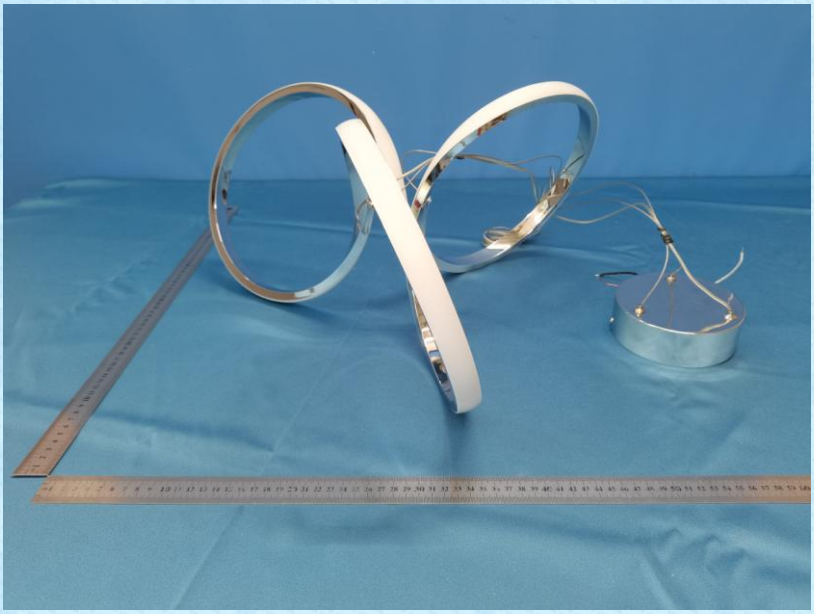


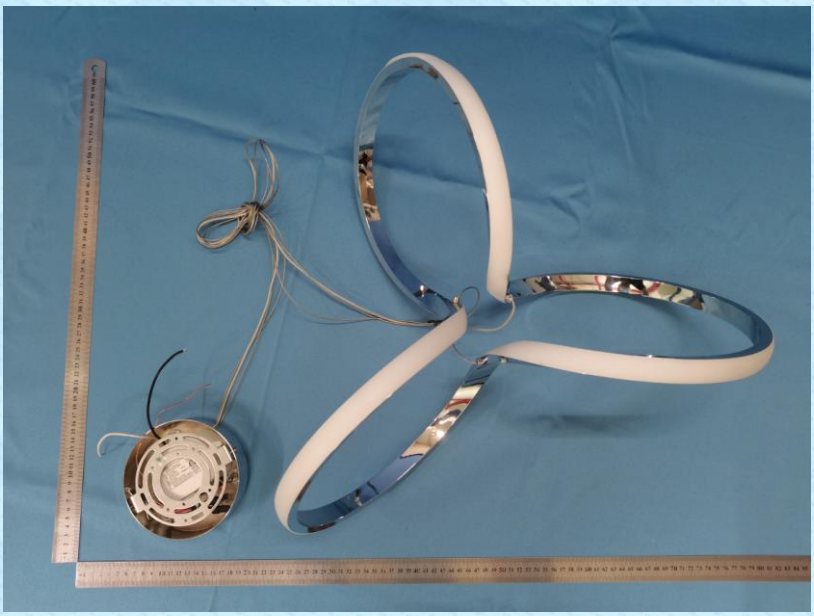
Conducted Emission

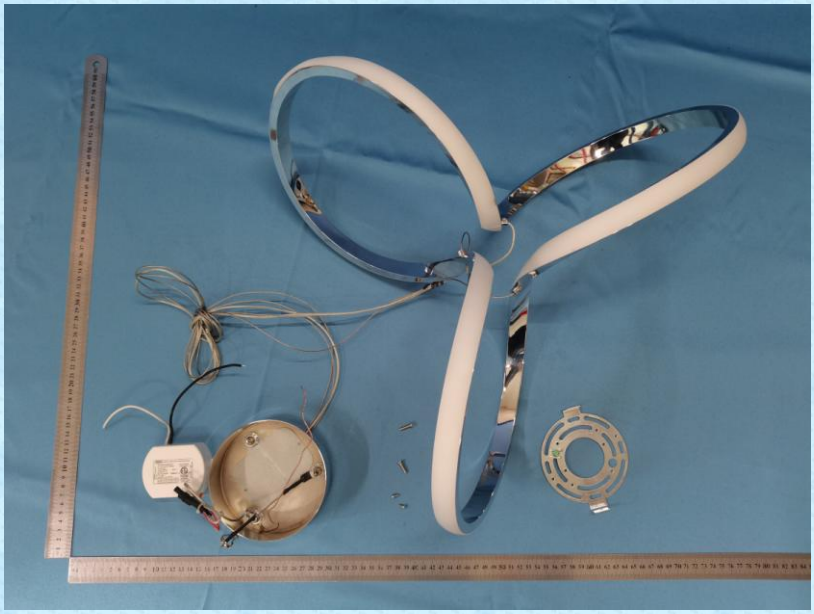
9 EUT Constructional Details

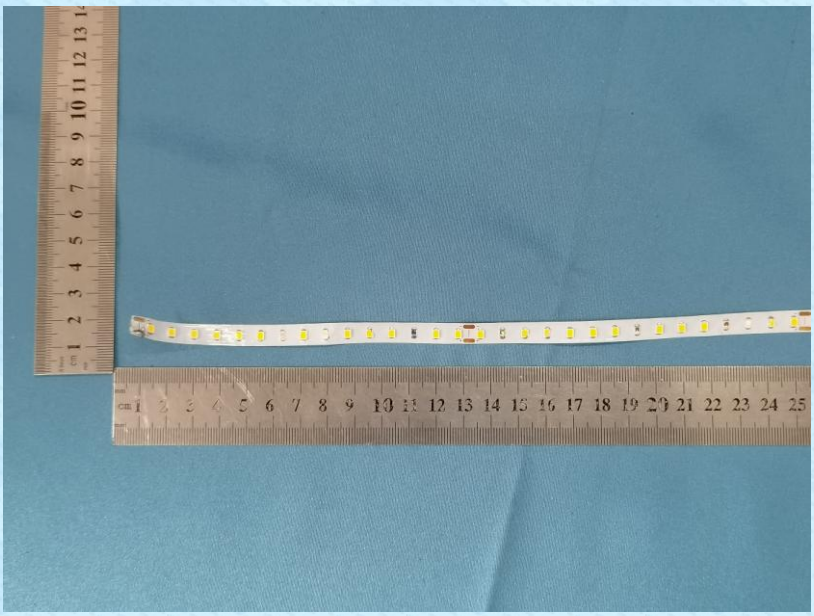


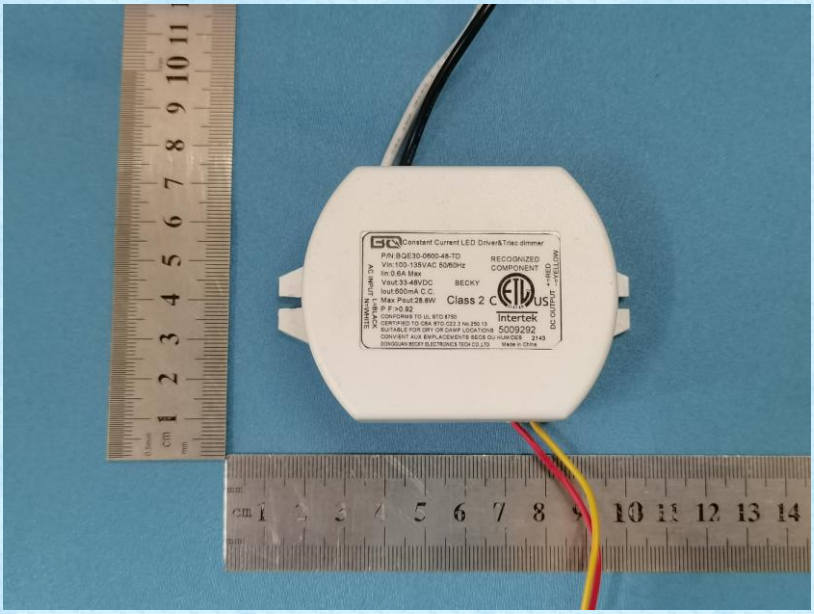


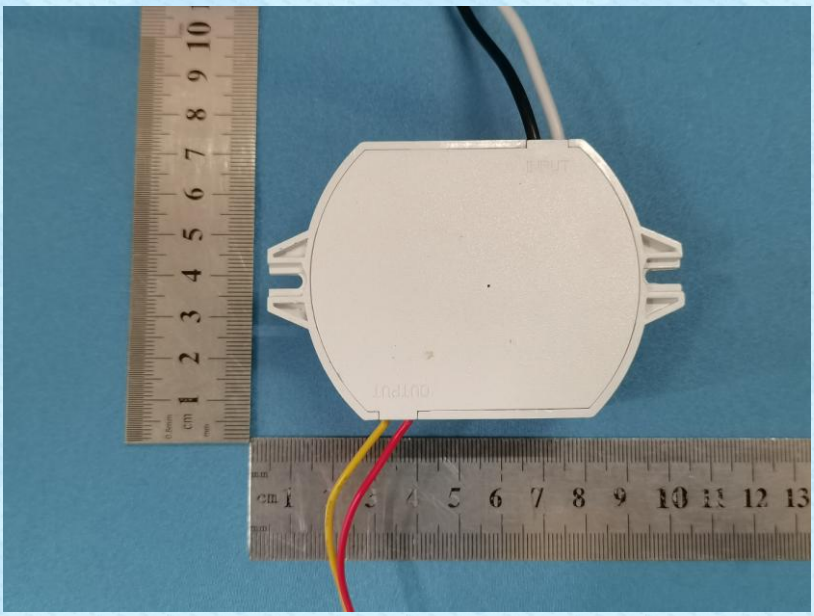


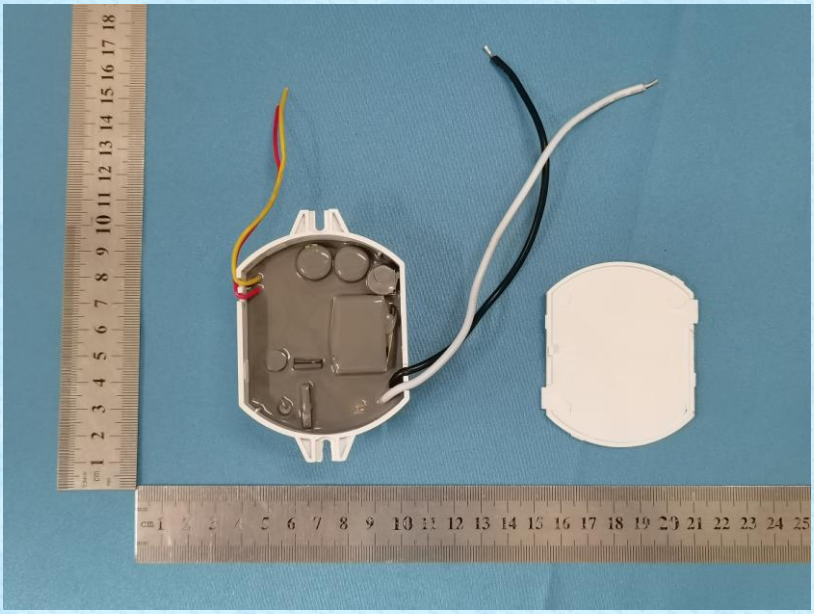


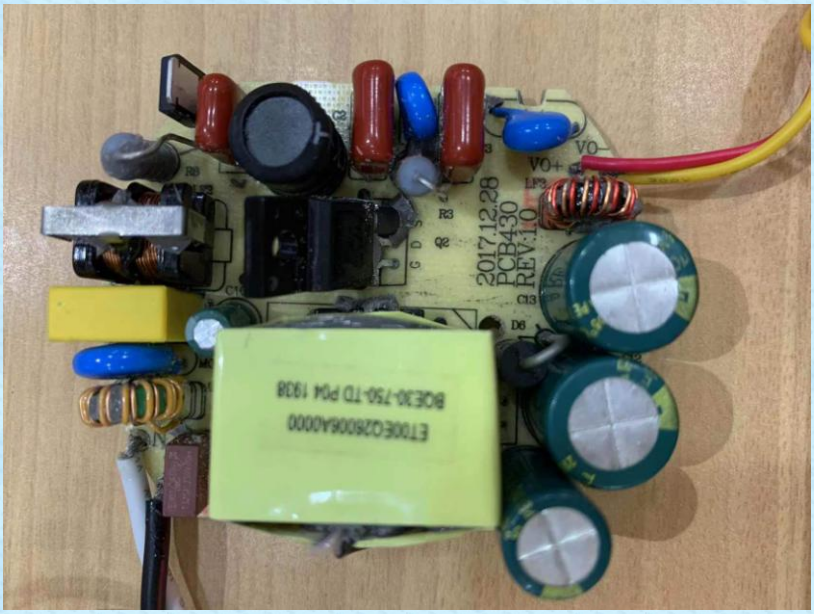


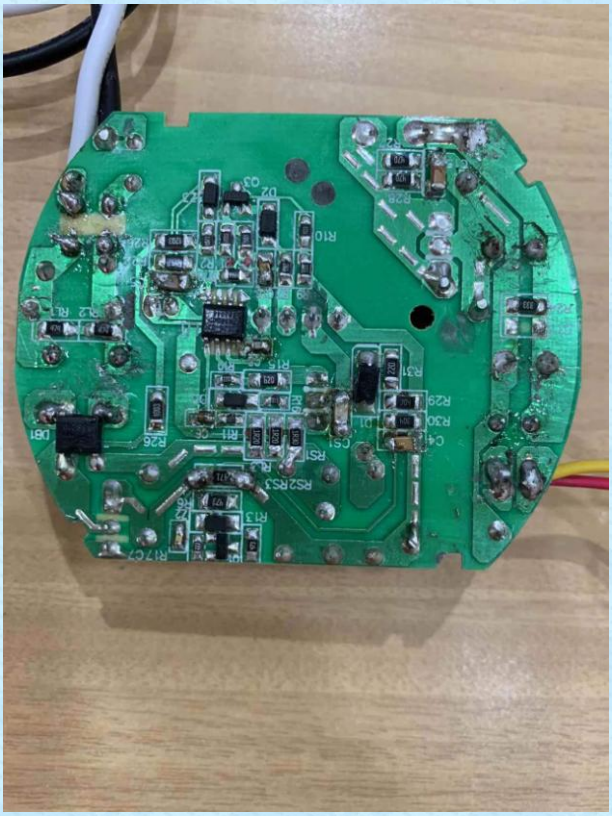



Constant Current LED Driver&Triac dimmer
P/N:BQE30-0600-48-TD
Vin:100-135VAC 50/60Hz
Iin:0.6A Max
Vout:33-48VDC
Iout:600mA C.C.
Max Pout:28.8W
P.F.:>0.92
RECOGNIZED COMPONENT
BECKY
Class 2
Intertek
5009292
Made in China


INPUT
OUTPUT




VO+
VO-
2017.12.28
PCB430
REV:1.0



------End------