



CE LVD TEST REPORT

For
LED BULB

Model No.: VT-2017, VT-2013, VT-2015, VT-1899, VT-2053, VT-1900, VT-1884D, VT-1864D, VT-2099, VT-2055, VT-2139, VT-2111, VT-2117, VT-2000, VT-2112, VT-2113, VT-2089, VT-2166, VT-2176, VT-245, VT-265, VT-285, VT-295, VT-237, VT-246, VT-209, VT-210, VT-211, VT-212, VT-215, VT-217, VT-263, VT-280, VT-220, VT-230, VT-238, VT-218, VT-216, VT-224, VT-235, VT-240

Applicant : V-TAC EXPORTS LIMITED
ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL,
CENTRAL, HONGKONG

Manufacturer : V-TAC EXPORTS LIMITED
ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL,
CENTRAL, HONGKONG

Issued By : Global-Standard Testing Service Co., Ltd.
Room 1911, 1914, Noble Plaza, Qian Jin 1st Road, Bao An District,
Shenzhen, Guangdong, China.

Tel : +86 755 33603599

Email : market@gstslab.com



Report Number : J02.06.0180S-R2

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Note:

1. The test data and result is based on the tested sample only.
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TEST REPORT
EN 62560:2012
Self-ballasted LED-lamps for general lighting services by voltage > 50 V
– Safety specifications

Report reference No.:	J02.06.0180S-R21
Testing laboratory	Global-Standard Testing Service Co., Ltd.
Location.....:	Room 1911-1914, Noble Plaza, Qian Jin 1st Road, Bao An District, Shenzhen, Guangdong, China.
Applicant.....:	V-TAC EXPORTS LIMITED
Address:.....:	ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG
Manufacturer.....:	V-TAC EXPORTS LIMITED
Address:.....:	ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG
Standards.....:	EN 62560:2012+A1:2015 EN 60061-1:1993+A52:2016 EN 61347-1:2015 EN 61347-2-13:2014 EN 62031:2008+A1:2013+A2:2015 EN 62471:2008 EN 62493:2015
Procedure deviation.....:	N/A
Non-standard test method.....:	N/A
Type of test equipment	LED BULB
Trade mark.....:	
Model/Type designation.....:	VT-2017, VT-2013, VT-2015, VT-1899, VT-2053, VT-1900, VT-1884D, VT-1864D, VT-2099, VT-2055, VT-2139, VT-2111, VT-2117, VT-2000, VT-2112, VT-2113, VT-2089, VT-2166, VT-2176, VT-245, VT-265, VT-285, VT-295, VT-237, VT-246, VT-209, VT-210, VT-211, VT-212, VT-215, VT-217, VT-263, VT-280, VT-220, VT-230, VT-238, VT-218, VT-216, VT-224, VT-235, VT-240
Rating.....:	220-240VAC, 50/60Hz, 0.08A, Max.17W
Copyright blank test report:	Global-Standard Testing Service Co., Ltd.
Test item particulars:	--
Operating Condition	Continuous
Class of equipment	Class II equipment
Protection against ingress of water	IP20

<p>General remarks:</p> <p>“(see remark #)” refers to a remark appended to the report.</p> <p>“(see appended table)” refers to a table appended to the report.</p> <p>Throughout this report a comma is used as the decimal separator.</p> <p>The test results presented in this report relate only to the object tested.</p> <p>This report shall not be reproduced except in full without the written approval of the testing laboratory.</p> <p>Until otherwise specified, all tests are done under normal ambient condition $25^{\circ}\text{C}\pm 10^{\circ}\text{C}$, Max RH: 75% and air pressure of 860 mbar to 1060 mbar.</p>	<p>Attached with:</p>
<p>Brief description of the test sample:</p> <ol style="list-style-type: none"> 1. The equipment with model VT-2017, VT-2013, VT-2015, VT-1899, VT-2053, VT-1900, VT-1884D, VT-1864D, VT-2099, VT-2055, VT-2139, VT-2111, VT-2117, VT-2000, VT-2112, VT-2113, VT-2089, VT-2166, VT-2176, VT-245, VT-265, VT-285, VT-295, VT-237, VT-246, VT-209, VT-210, VT-211, VT-212, VT-215, VT-217, VT-263, VT-280, VT-220, VT-230, VT-238, VT-218, VT-216, VT-224, VT-235, VT-240 are class II LED BULB used for Self-ballasted lamps for general lighting services; 2. The European standard EN 62471 for LED laser product requirement has considered; 3. Clauses 8,10, 11, 12, 14, 16, 17, 18, 19 and 20 of the European standard test EN61347-2-13 used in conjunction with EN 61347-1 for lamp control gear inside INF-9 have been consideration; 4. The Safety specifications of LED modules for general lighting was evaluated with reference to EN 62031; 5. The European standard EN 62493 for requirement has considered. 	

Possible test case verdicts :

test case does not apply to the test object	N(/A.)
test object does meet the requirement	P(ass)
test object does not meet the requirement	F(ail)

Name and address of the testing laboratory :

Global-Standard Testing Service Co., Ltd.
 Room 1911-1914, Noble Plaza, Qian Jin 1st Road, Bao An
 District, Shenzhen, Guangdong, China.

Tested by: Sean Xiao
 Signature


April 20, 2018
 Date

Sean Xiao / Engineer
 Name/title

Witnessed by: Jerry Hu
 Signature

April 24, 2018
 Date

Jerry Hu / Project Engineer
 Name/title

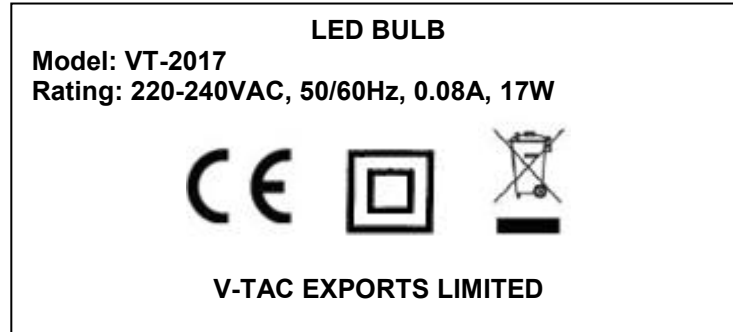
Approved by: 
 Signature

Tim Sun / Manager
 Name/title

April 24, 2018
 Date



Copy of marking plate



Note: Due to similarity of the labels, only above label was listed.



- The above copy of marking plate as an example, All the other models will have the same marking plate except the model name and input rating only and other parameter

-The above markings are the minimum requirements required by the safety standard. For the final productions samples, the additional markings which do not give rise to misunderstanding may be added.

- the height of WEEE directive mark is at least 7mm height.

EN 62560			
Clause	Requirement	Result - Remark	Verd.

4	GENERAL REQUIREMENTS		P
4.1	The lamp shall be so designed and constructed that in normal use cause no danger to the user.		P
4.2	Self-ballasted LED-Lamp are non-repairable.		P

5.	MARKING		P
5.1	Mandatory marking	V-TAC EXPORTS LIMITED	P
	- mark of origin		P
	- rated supply voltage (V).....	See label	P
	- rated wattage (W).....	See label	P
	- rated frequency (Hz).....	See label	P
5.2	Addition marking	See label	P
	- burning position		N
	- rated current (A).....	See label	P
	- weight significantly higher	Warning:increased weight of lamp may reduce the mechanical stability of certain luminaires and lampholders and may impair contact making and lamp retention (inthe instruction manual)	P
	- special conditions or restrictions		N
	Not suitable for dimming;symbol used  		P
	- eye protection	The products are classified as exempt group according to IEC 62471:2006.	P
5.3	Marking durable and legible		P
	rubbing 15 s water, 15 s petroleum; marking legible		P
Addition:	Position of the marking	On the body	P
	Language of instructions	English	P
	Suitability for use indoors		P
	Wireways smooth and free from sharp edges		P

EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict

6	INTERCHANGEABILITY		P
6.1	Cap interchangeability in accordance with IEC 60061-1		P
	Gauge in accordance with IEC 60061-3		P
6.2	Bending moment,axial pull ande mass		P
	Bending moment imparted by the lamp at the lampholder		P
	Lamp construction withstands axial pull (N)	40N	P
	Mass not exceeding value tabel 2 (kg)		P

7.	PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS		P
	Internal, basic insulated or live metal parts not accessible		P
	Tested with a test finger with a force of 10 N		P
	Compliance checked with appropriate gauges		P
Addition:	Live parts not accessible		P
	Protection in any position		P
	Insulation lacquer not reliable		P
	Class II luminaire:		P
	- insulation-encased, reinforced insulation		P
	- glass protective shields not used as supplementary insulation		N
	Covers have adequate strength		P
	Covers reliably secured		P
	Portable plug connected luminaire with capacitor		N

8.	INSULATION RESISTANCE AND ELECTRIC STRENGTH AFTER HUMIDITY TREATMENT		P
8.1	Insulation resistance and electric strength shall be adequate between live parts of the lamp and accessible parts of the lamp.		P
8.2	After storage 48 h at 91-95% relative humidity and 20- 30 °C measuring of insulation resistance with d.c. 500 V (MΩ):		P
	≥ 4 MΩ for double or reinforced insulation :	>100MΩ.	P
8.3	Immediately after clause 8.2 electric strength test for 1 min		P
	Double or reinforced insulation, 4U + 2000 V	2960	P

EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict
	No flashover or breakdown		P
9.	MECHANICAL STRENGTH		P
	Torsion resistance of unused lamps		
9.1	Torque test		P
	B 15 d Cap..... 1,15 Nm		N
	B 22 d Cap..... 3,0 Nm		N
	E 11 Cap..... 0,8 Nm		N
	E 12 Cap..... 0,8 Nm		N
	GU10 Cap 1.15Nn		N
	E 14 Cap..... 1,15 Nm		N
	E 27 Cap..... 1,5 Nm		P
	Cap..... 3,0 Nm		N
	GX 53 Cap..... 3,0 Nm		N
9.2	Torsion resistance of lamps after a defined time of usage		N
	Torsion resistance of used lamp		N
9.3	Repetition of clause 8		P
	Clause 8 shall comply after the mechanical strength test.		P
Addition:	Lampholders		N
	Mounting brackets for Edison screw or bayonet-capped lampholders are subjected to testing for 1min, to the following bending moments:		N
	Locked connections:		N
	- fixed arms; torque (Nm).....:		N
	- lampholder; torque (Nm).....:		N
	- push-button switches; torque (Nm).....:		N
	No sharp point or edges		N
	Impact tests:		N
	- fragile parts; energy (Nm).....:		N
	- other parts; energy (Nm).....:		N
	1) live parts		N
	2) linings		N
	3) protection		N

EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict

	4) covers		N
	Straight test finger		N

10	CAP TEMPERATURE RISE		P
	The cap temperature rise Δt_s of the lamp shall not exceed 120 K.		P
	- B22d..... 125K :		N
	- B15d..... 120K :		N
	- E27..... 120K :	ANNEX 1	P
	- Cap..... 125 K :		N
	- E14..... 125 K :		N
	-GU10..... 100 K		N

11	RESISTANCE TO HEAT		P
	External parts of insulating material providing protection against electric shock, and parts of insulating material retaining live parts in position, ball pressure test:		P
	Part tested; temperature (°C); diameter of impression (≤ 2 mm):	See appended table	P
	Part tested; temperature (°C); diameter of impression (≤ 2 mm):		N
	Part tested; temperature (°C); diameter of impression (≤ 2 mm):		N

12.	RESISTANCE TO FLAME AND IGNITION		P
	Parts of insulating material retaining live parts in position and external parts of insulating material providing protection against electric shock, glow-wire test 650 °C		P
	- no flaming drops igniting tissue paper		P
	- flame extinguished within 30 s		P
	Part tested; temperature (°C).....:	See table 11	P
	No visible flame and no sustained glowing		P

13	FAULT CONDITIONS		P
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EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict

13.2	Extreme electrical conditions (dimmable lamps)		P
	Lamp withstands overpower condition >15 min.		N
	Lamp fails safe after 15 min overpower condition		P
	Lamp with automatic protective device or power limiter, test performed 15 min. At limit.		P
13.3	Extreme electrical conditions (non-dimmable lamps)		P
	Tested according 13.2 (as far as possible)		P
13.4	Short-circuit across capacitors	(see appended table)	P
13.5	Fault conditions: where diagram indicates fault condition impairs safety, electronic components have been short-circuited or disconnected	(see appended table)	P
13.6	When operated under fault conditions the lamp		P
	- does not emit flames or molten material		P
	- does not produce flammable gases or smoke		P
	- live parts not accessible		P
	After the tests the insulation resistance with d.c. 1000 V complies with requirements of Cl. 8.1.....		P

14 (16)	CREEPAGE DISTANCES AND CLEARANCES		P
	Creep age distances and clearances according to Table 3 and 4 of IEC 61347-1, as appropriate		P
	Printed boards see clause 14 of IEC 61347-1		P
	Insulating lining of metallic enclosures		N

TABLE 错误！未指定书签。 List of critical components and materials				
Component	manufacturers / trademark	Type / model	Value / rating	Approval/ Reference
LED PCB	Shikibo Electronics Co Ltd	E4	V-0, 130°C	UL
Diffuser	Celanese International Corp	T140	Min.thickness 0.75mm, HWI 3, HAI 3, RTI 3, V-0, 130°C	UL
Lamp base	V-TAC EXPORTS LIMITED	E27	Medium (E27) base, made of aluminium alloy. Min.thickness 0.24mm.	Appliance of test
PCB of LED driver	Hunan Foundersoonest Electronic Technology Co., Ltd.	FZD02	Min.thickness 0.2mm, HWI 4, HAI 3, RTI 3V-0, 130°C	UL
LED driver	V-TAC EXPORTS LIMITED	V-TAC	220-240VAC, 50/60Hz, 0.08A, Max.17W	Appliance of test
Enclosure	Celanese International Corp	T140	Min.thickness 0.75mm, HWI 3, HAI 3, RTI 3, V-0, 130°C	UL
Internal wire	Dongguan Wenchang Electronic Co., Ltd.	1007	VW-1, 300V, 105°C, 22AWG	UL

Test Data table

13	TABLE: tests of fault conditions						
Part	Simulated fault			Result		Hazard	
C1	Short circuit			Fuse open		No	
L1	Short circuit			Fuse open		No	
BD1	Short circuit			Fuse open		No	
IC(1-4)	Short circuit			Unit shut down, recoverable		No	
Output + and _	Short circuit			Unit shut down, recoverable		No	
11	TABLE: ball pressure test of thermoplastics					P	
Part	Test temperature (°C)		Impression diameter (mm)		Required impression diameter (mm)		
PCB	125		0.87		≤2.0		
Diffuser	125		1.12		≤2.0		
14(16)	TABLE: Clearance And Creep age Distance Measurements					P	
clearance cl and creep age distance decry at/of:	Up (V)	U rams. (V)	Required Cl (mm)	Cl (mm)	required Cr (mm)	Cr (mm)	
L and N on PCB	--	240	3.0	>3.0	5.0	>5.0	
Live parts on driver PCB and accessible part	--	240	3.0	>3.0	5.0	>5.0	
Primary circuit and secondary circuit of LED driver PCB	--	240	3.0	>3.0	5.0	>5.0	
Supplementary information:							
ANNEX 1	TABLE: temperature measurements, thermal tests of Section 12					P	
	Lamp used.....:		VT-2017			—	
	Ballast used.....:					—	
	Mounting position of luminaire.....:		As in normal use			—	
	Supply wattage (W).....:		17.34W			—	
	Supply current (A).....:		0.079A			—	
	Table: measured temperatures corrected for Ta = 25°C:					P	
	- abnormal operating mode.....:		—			—	
	- test 1: rated voltage.....:		—			—	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....:		1.06 *240			—	
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage.....:		—			—	
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage.....:		—			—	

temperature (错误! 未找到引用源。C) of part	clause 12.4 - normal				clause 12.5 - abnormal	
	test 1	test 2	test 3	limits	test 4	limit
C1	---	73.8	---	105	---	---
L1	---	85.2	---	120	---	---
Bobbin of transformer	---	101.1	---	112	---	---
Winding of transformer	---	102.5	---	110	---	---
PCB	---	102.9	---	130	---	---
C2	---	97.8	---	105	---	---
Output wire of LED driver	---	92.0	---	105	---	---
IC	---	103.3	---	Ref.	---	---
LED	---	156.4	---	Ref.	---	---
LED PCB	---	89.6	---	130	---	---
Input wire of LED	---	88.7	---	105	---	---
Diffuser	---	40.9	---	130	---	---
Lamp enclosure	---	55.5	---	90	---	---
Lamp base screws	---	69.0	---	Ref.	---	---
Ambient	---	25.0	---	---	---	---

Attachment –A
Photo Documentation

<p>Photo 1</p> <p>View:</p> <p><input checked="" type="checkbox"/> Front</p> <p><input type="checkbox"/> Rear</p> <p><input type="checkbox"/> Right side</p> <p><input type="checkbox"/> Left side</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Bottom</p> <p><input type="checkbox"/> Internal</p>	 <p>A photograph showing the front view of a white, pear-shaped LED light bulb. The bulb has a silver E27 base and a white, frosted glass envelope. A small black label with the text 'CE XI' is visible on the upper part of the bulb. Below the bulb, a ruler is placed horizontally for scale, showing markings in centimeters and millimeters. The background is a solid blue color.</p>
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<p>Photo 2</p> <p>View:</p> <p><input type="checkbox"/> Front</p> <p><input type="checkbox"/> Rear</p> <p><input checked="" type="checkbox"/> Right side</p> <p><input type="checkbox"/> Left side</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Bottom</p> <p><input type="checkbox"/> Internal</p>	 <p>A photograph showing the right side view of the same white LED light bulb. The bulb is oriented horizontally, showing its profile. The silver E27 base is on the left, and the white, frosted glass envelope is on the right. The 'CE XI' label is visible on the side of the bulb. A ruler is placed horizontally below the bulb for scale. The background is a solid blue color.</p>
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Photo 3

View:

- Front
- Rear
- Right side
- Left side
- Top
- Bottom
- Internal

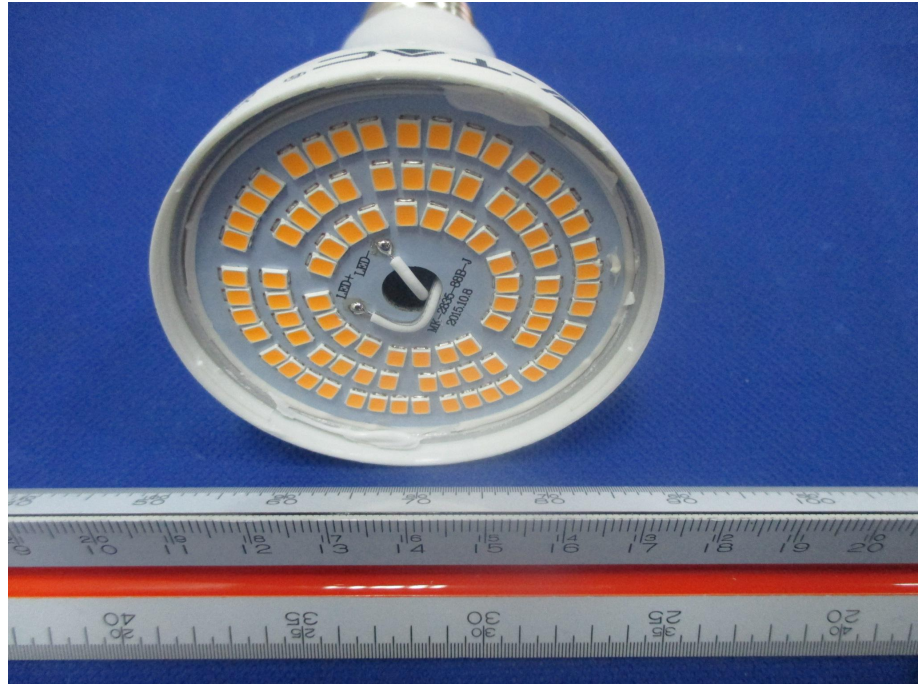


Photo 4

View:

- Front
- Rear
- Right side
- Left side
- Top
- Bottom
- Internal

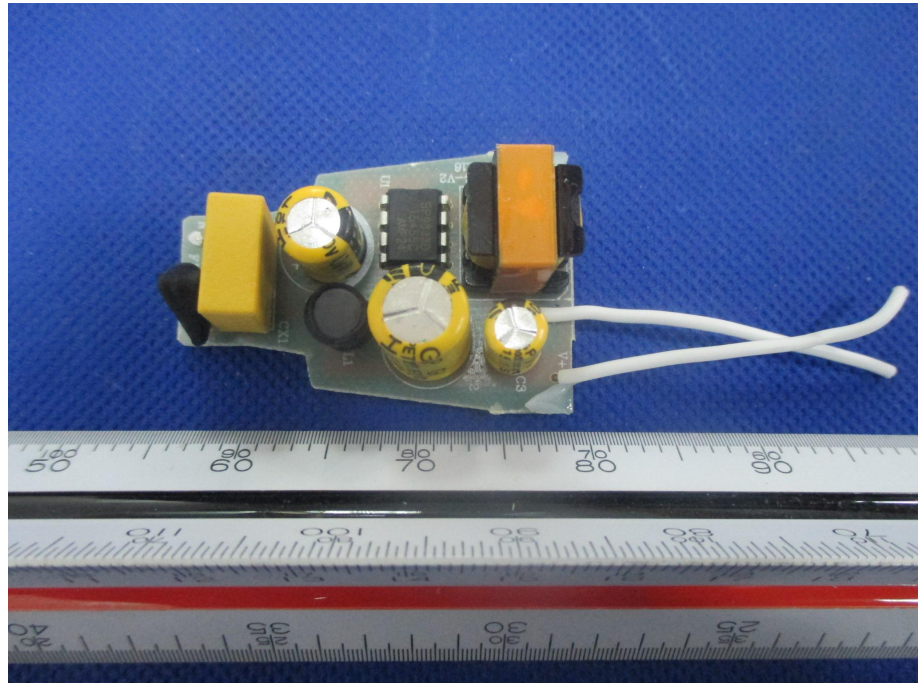
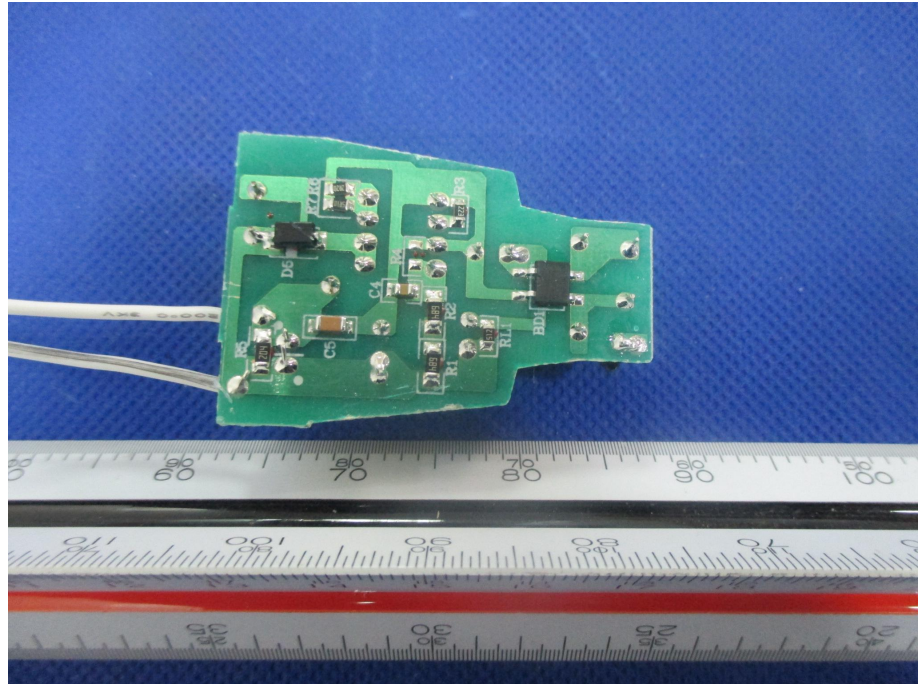


Photo 5

View:

- Front
- Rear
- Right side
- Left side
- Top
- Bottom
- Internal



--END--