

## UL TEST REPORT AND PROCEDURE

<b>Standard:</b>	UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements)
<b>Certification Type:</b>	Listing
<b>CCN:</b>	QQGQ, QQGQ7 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
<b>Product:</b>	ITE POWER SUPPLY
<b>Model:</b>	GT-46181-WWVV-X.X-T2, GT-41062-WWVV-X.X-T2, GT-41082-WWVV-X.X-T2, WW denotes the rated output wattage, with a maximum value of 18. VV denotes the standard rated output voltage designation, with a value of 05, 09, 12, 15. -X.X is optional deviation, subtracted from standard output voltage, which is blank.
<b>Rating:</b>	INPUT: 100-240Vac, 50-60Hz, 0.5A max OUTPUT: See Miscellaneous 7-01 for details.
<b>Applicant Name and Address:</b>	GLOBTEK (HONG KONG) LTD UNIT 1402, BENSON TOWER 74 HUNG TO RD KWUN TONG KOWLOON HONG KONG

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

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Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared by: Nat Liu/ Chen Amos

Reviewed by: Kyle Lin

**Supporting Documentation**

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization - The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions -
  - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
  - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
  - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

**Product Description**

Electronic components mounted on PWB and housed in plastic enclosure.

**Model Differences**

- All models are identical except for model designation.
- See Miscellaneous 7-01 for details.

**Technical Considerations**


- Equipment mobility : transportable
- Connection to the mains : pluggable A
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : +10%, -10%
- Tested for IT power systems : No
- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class II (double insulated)
- Considered current rating of protective device as part of the building installation (A) : 20
- Pollution degree (PD) : PD2
- IP protection class : IP X0
- Altitude of operation (m) : 2000 m
- Altitude of test laboratory (m) : less than 2000 meters
- Mass of equipment (kg) : 0.133
- The product was submitted and evaluated for use at the maximum ambient temperature (T<sub>ma</sub>) permitted by the manufacturer's specification of: 40 degree C
- The means of connection to the mains supply is: Pluggable A, Detachable power cord
- The product is intended for use on the following power systems: TN

- The equipment disconnect device is considered to be: Appliance inlet
- The following accessible locations (with circuit/schematic designation) are within a limited current circuit: Bridging Capacitors (CY1 and CY2) Secondary Part.
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): Output ports.
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual

**Additional Information**

N/A

**Markings and instructions**

Clause Title	Marking or Instruction Details
Power rating - Ratings	Ratings (voltage, frequency/dc, current)
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
Power rating - Class II symbol	Symbol for Class II construction <div style="text-align: center;">  </div> (60417-2-IEC-5172)
Fuses - Rating	Rated current and voltage and type located on or adjacent to fuse or fuseholder.

**Special Instructions to UL Representative**

Inspect the transformer (T1) listed in BD1.1 per AA1.1 - (C). When the tests are conducted at other location, inspect test record and specification sheet provided by the component manufacturer. Verify the specification sheet indicates 100% routine test specified in BD1.1 be conducted at the component manufacturer.

<b>Production-Line Testing Requirements</b>						
<b><u>Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.</u></b>						
Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
All Models	T1	--	Primary to Secondary	300 0	4242	1
<b><u>Earthing Continuity Test Exemptions - This test is not required for the following models:</u></b>						
All models						
<b><u>Electric Strength Test Exemptions - This test is not required for the following models:</u></b>						
--						
<b><u>Electric Strength Test Component Exemptions - The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:</u></b>						
N/A						
<b><u>Sample and Test Specifics for Follow-Up Tests at UL</u></b>						
Model	Component	Material	Test	Sample(s)	Test Specifics	
N/A						

1.5.1	TABLE: list of critical components					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
01. Enclosure	SABIC INNOVATIVE PLASTICS	SE1X(GG)(f1)	Two pieces construction, secured together by ultrasonic welding, rated V-1 or better, 130 degree C min. Minimum 2.0 mm thickness. See Enclosure/Diagram ID 4-01 for dimensions	QMFZ2	UL	
02. Appliance Inlet	TECX-UNIONS TECHNOLOGY CORP	SO-222	Rated 250 V, 2.5 A, 105 degree C min. (C8 type)	AXUT2	UL	
02a. Appliance Inlet (alternate)	SUN FAIR ELECTRIC WIRE & CABLE (HK) CO LTD	S-01	Rated 250 V, 2.5 A, 75 degree C min. (C8 type)	AXUT2	UL	
02b. Appliance Inlet (alternate)	ZHEJIANG LECI ELECTRONICS CO LTD	DB-8	Rated 250 V, 2.5 A, 75 degree C min. (C8 type)	AXUT2	UL	
02c. Appliance Inlet (alternate)	ZHE JIANG BEI ER JIA ELECTRONIC CO LTD	ST-A03-005	Rated 250 V, 2.5 A, 75 degree C min. (C8 type)	AXUT2	UL	
03. Fuse (F1)	Various	Various	Listed, T1AL 250Vac	JDYX	UL	
03a. Fuse (F1) (Alternate)	Conquer Electronics Co Ltd	MST	Rated T1AL, 250Vac.	JDYX2	UL	
03b. Fuse (F1) (Alternate)	Ever Island Electric Co Ltd & Walter Electric	2010	Rated T1AL, 250Vac.	JDYX2	UL	
03c. Fuse (F1) (Alternate)	COOPER BUSSMANN LLC	SS-5	Rated T1AL, 250Vac.	JDYX2	UL	
03d. Fuse (F1) (Alternate)	Bel Fuse Inc	RST	Rated T1AL, 250Vac.	JDYX2	UL	
03e. Fuse (F1) (Alternate)	DONGGUAN BETTER ELECTRONIC TECHNOLOGY CO	932	Rated T1AL, 250Vac.	JDYX2	UL	

	LTD					
04. X-Capacitor (CX1)	Cheng Tung Industrial Co Ltd	CTX	Rated max 0.22 uF, min 250 V, X1 or X2 type, 110 degree C. (Compliance with IEC 60384-14)	FOWX2	UL	
04a. X-Capacitor (CX1) (Alternate)	Tenta Electric Industrial Co Ltd	MEX	Rated max 0.22uF, min 250 V, X1 or X2 type, 100 degree C. (Compliance with IEC 60384-14)	FOWX2	UL	
04b. X-Capacitor (CX1) (Alternate)	Ultra Tech Xiphi Enterprise Co Ltd	HQX	Rated max 0.22 uF, min 250 V, X1 or X2 type, 100 degree C. (Compliance with IEC 60384-14)	FOWX2	UL	
04c. X-Capacitor (CX1) (Alternate)	CARLI ELECTRONICS CO LTD	MPX	Rated max 0.22uF, min 250 V, X1 or X2 type, 100 degree C. (Compliance with IEC 60384-14)	FOWX2	UL	
04d. X-Capacitor (CX1) (Alternate)	JOEY ELECTRONICS (DONG GUAN) CO LTD	MPX	Rated max 0.22uF, min 250 V, X1 or X2 type, 105 degree C. (Compliance with IEC 60384-14)	FOWX2	UL	
04e. X-Capacitor (CX1) (Alternate)	XIANGTAI ELECTRONIC (SHENZHEN) CO LTD	MKP/MPX	Rated max 0.22uF, min 250 V, X1 or X2 type, 110 degree C. (Compliance with IEC 60384-14)	FOWX2	UL	
05. Bleeder Resistors (R1, R2)	--	--	Max. 2Mohs, min. 1/4W	--	--	
06. Bridge Diode (BD1)	--	--	Rated 2A, minimum 600 V.	--	--	
07. Storage Capacitor (C1)	--	--	Rated 400 V, max. 33uF, min. 105 degree C, provided with integral pressure relief	--	--	
08. Transistor (Q1)	Various	Various	Rated 4 A, minimum 600 V.	--	--	
09. Bridge Capacitors (CY1,CY2) (optional)	Success Electronics Co Ltd	SE, SB	CY1 rated max. 2200pF, CY2 rated max. 100pF, min. 250 Vac, 125 degree C, Y1 type. (Compliance with IEC 60384-14)	FOWX2	UL	

09a. Bridge Capacitors (CY1,CY2) (optional) (Alternate)	TDK-EPC CORPORATION	CD	CY1 rated max. 2200pF, CY2 rated max. 100pF, min. 250 Vac, 125 degree C, Y1 type. (Compliance with IEC 60384-14)	FOWX2	UL	
09b. Bridge Capacitors (CY1,CY2) (optional) (Alternate)	Walsin Technology Corp	AH	CY1 rated max. 2200pF, CY2 rated max. 100pF, min. 250 Vac, 125 degree C, Y1 type. (Compliance with IEC 60384-14)	FOWX2	UL	
09c. Bridge Capacitors (CY1,CY2) (optional) (Alternate)	Haohua Electronic Co	CT 7	CY1 rated max. 2200pF, CY2 rated max. 100pF, min. 250 Vac, 125 degree C, Y1 type. (Compliance with IEC 60384-14)	FOWX2	UL	
09e. Bridge Capacitors (CY1,CY2) (optional) (Alternate)	XIANGTAI ELECTRONIC (SHENZHEN) CO LTD	YOB YOF YOE	CY1 rated max. 2200pF, CY2 rated max. 100pF, min. 250 Vac, 125 degree C, Y1 type. (Compliance with IEC 60384-14)	FOWX2	UL	
10. Optical Isolator (PC1)	Lite-On Technology Corp	LTV-817	Isolation: 5000 Vac, minimum 100 degree C.	FPQU2	UL	
10a. Optical Isolators (PC1) (Alternate)	Everlight Electronics Co Ltd	EL817	Isolation: 5000 Vac, minimum 110 degree C.	FPQU2	UL	
10b. Optical Isolators (PC1) (Alternate)	COSMO ELECTRONICS CORP	K1010	Isolation voltage minimum 5000 Vac, minimum 115 degree C.	FPQU2	UL	
10c. Optical Isolators (PC1) (Alternate)	BRIGHT LED ELECTRONICS CORP	BPC-817XXXXXX, BPC-817MXXXXXX, BPC-817SXXXXXX, where XXXXXX can be any alphanumeric character or	Isolation voltage minimum 5000 Vac, minimum 100 degree C.	FPQU2	UL	

		blank.				
10d. Optical Isolators (PC1) (Alternate)	RENESAS ELECTRONICS CORPORATION	PS2561-1	Isolation voltage minimum 5000 Vac, minimum 100 degree C.	FPQU2	UL	
11. Line filter (NF1)	Various	NF00030	Open type construction. Rated 105 degree C.	--	--	
11a Core	Various	Various	Ferrite, overall measured overall 15.6 mm by 9.8 mm by 3.0mm	--	--	
11b Coil	Various	Various	Rated minimum 105 degree C.	OBMW2	UL	
12. Transformer (T1) (for GT-46181-1505-T2, GT-46181-1605-T2)		XF00941	Class B, See Enclosure / Diagram ID 4-04 for construction details.	--	--	
12. Transformer (T1) (for GT-46181-1809-T2)		XF00962	Class B, See Enclosure / Diagram ID 4-05 for construction details.	--	--	
12. Transformer (T1) (for GT-46181-1812-T2, GT-46181-1815-T2)		XF00933	Class B, See Enclosure / Diagram ID 4-06 for construction details.	--	--	
12-01. Insulation system for Transformer (T1)		130-1	Insulation system Class B (130 degree C, adapted form GREAT LEOFLON INDUSTRIAL CO LTD, Type GH-130)	OBJY2	UL	
12-02. Core	--	--	EE type, Ferrite, dimension 22.8 mm by 19.2 mm by 5.7 mm	--	--	
12-03. Coil	--	--	130 degree C	OBMW2	UL	
12-04. Bobbin	Chang Chun Plastics Co., Ltd.	T375J	V-0, 150degree C, Phenolic, thickness 0.8mm minimum	QMFZ2	UL	
12-04a. Bobbin (Alternate)	SUMITOMO BAKELITE CO LTD	PM-9820	V-0, 150degree C, Phenolic, thickness 0.71mm minimum	QMFZ2	UL	
12-05. Tubing/Sleeving	Great Holding Industrial Co. Ltd.	TFL, TFS, TFT	Rated 200 degree C, VW-1, 600V max.	YDPU2	UL	
12-06. Triple Insulated Wire	Great Leoflon Industrial Co. Ltd.	TRW(B)	130 degree C	OBJT2	UL	
12-07. Varnish	John C. Dolph Co.	BC-346A	Rated minimum 200 degree C.	OBOR2	UL	



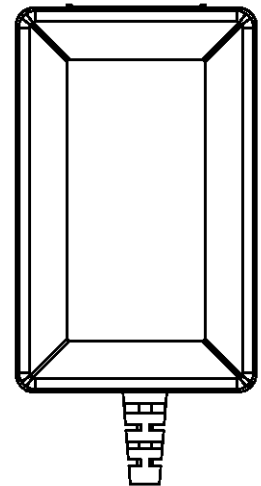
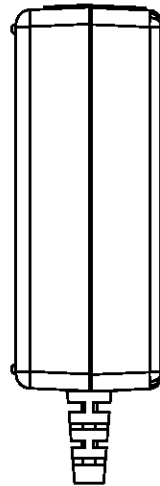
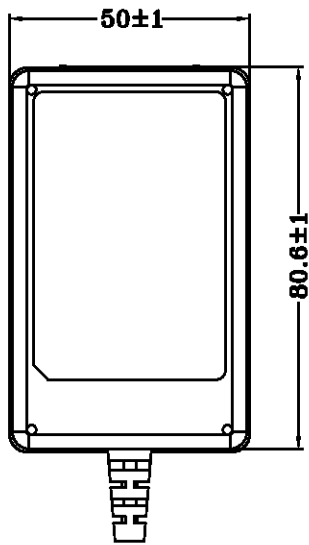
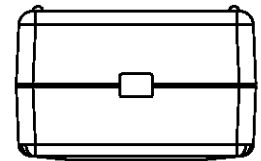
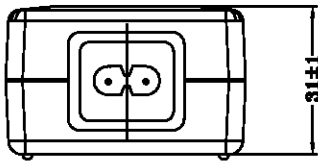
12-07a. Varnish (Alternate)	Elantas Electrical Insulation Elantas Pdg Inc	V1630FS	Rated minimum 130 degree C.	OBOR2	UL	
12-08. Insulation Tape	3M Company	1350F-(#)	130 degree C.	OANZ2	UL	
12-08a. Insulation Tape (Alternate)	3M Company	1350T-1	130 degree C.	OANZ2	UL	
12-08b. Insulation Tape (Alternate)	BONDTEC PACIFIC CO LTD	370S	130 degree C.	OANZ2	UL	
13. Internal Glue Materials	--	--	Rated V-2 minimum.	QMFZ2	UL	
14. Internal Plastic Part Materials	--	--	Rated minimum V-2.	QMFZ2	UL	
15. Strain Relief Of Output Cord	Various	Various	Minimum 300 V, 80 degree C, maximum 3.05 m, marked VW-1 or FT-1. Suitable for external use. Refer to Enclosure/Diagram 4-09 for strain relief dimension details.	QMFZ2	UL	
16. PWB	Various	Various	V-0 or better, minimum 105 degree C.	ZPMV2	--	
17. Label	Various	Various	Minimum 70 degree C. if maximum surface temperature not specified.	PGDQ2, PGJI2	UL	
18. Heat Sink (HS1 ) (Consideration as Primary )	Various	Various	Aluminum, minimum 2.0 mm thick. See Enclosure for detailed dimensions.	--	--	
19. Heat Sink (HS2 ) (Consideration as Secondary )	Various	Various	Aluminum, minimum 1.0 mm thick. See Enclosure for detailed dimensions.	--	--	
20. Current sense resistor (R10) (for GT-46181-1605-T2)	--	--	1.1 ohm, 1W.	--	--	
20. Current sense resistor (R10) (for GT-46181-1505-T2)	--	--	1.2 ohm, 1W.	--	--	

20. Current sense resistor (R10) (for GT-46181-1809-T2, GT-46181-1812-T2 or GT-46181-1815-T2)	--	--	1.0 ohm, 1W.	--	--	
21. Secondary Capacitor (C8)	Various	Various	Min. 105°C	--	--	

## **Enclosures**

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Diagrams	4-01	Enclosure drawing
Diagrams	4-03	Choke NF1
Diagrams	4-04	Transformer T1 (XF00941)
Diagrams	4-05	Transformer T1 (XF00962)
Diagrams	4-06	Transformer T1 (XF00933)
Diagrams	4-07	Heatsink (HS1)
Diagrams	4-08	Heatsink (HS2)
Diagrams	4-09	Strain relief dimension
Schematics + PWB	5-01	PCB Layout
Miscellaneous	7-01	Models, Ratings and the Differences Table

Att.2



TOLERANCE				

DESIGNED	CHECKED	APPROVED			TITLE	DATE
Hump	Zhou jg	Zhurg	UNITS	mm	OUTDRAWING	07/10/30
SCALE					DRAWING No.	REVISION
					060211-003	01
					DRAWING NAME	
					060211	



# SPECIFICATION

## 3. MATERIAL LIST:

ITEM	MATERIAL	SUPPLIER	UL No.
COPE ULB. 8	R10K	Acme	
WIRE	UEWU	Pacific electric wire & cable co., ltd	E201757
	UEWU		
	UEW4	Jung Shing wire co., ltd	E174837
	UEY-2		
BOBBIN	T375J	CHANG CHUN PLASTICS CO., LTD.	E59481
	PMØ820	SUMITOMO BAKELITE	E211989
TAPE	1350F- (#)	3M COMPANY ELECTRICAL PRODUCTS DIV	E17385
	1350T- 1		
	370S	BONDTEC PACIFIC CO., LTD	E175868
VARNISH	V1630FS	VI KING PRODUCTS	E60614
	BC-346A	JOHN G. DOLPH CO	E76517

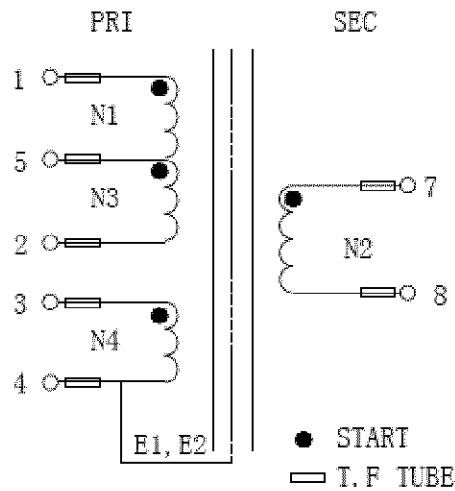
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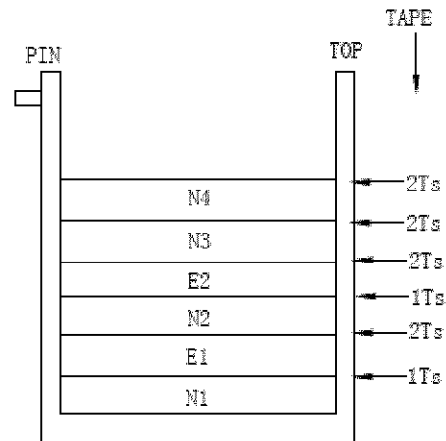


# SPECIFICATION

## SCHEMATIC:



## WINDING CONSTRUCTION:



## 4. WINDING TABLE

WINDING	MARGIN TAPE PIN/TOP	START	FINISH	WIRE SIZE	TURNS	TAPE	I. F. TUBE		NOTES
							START	FINISH	
N1	0/0	1	5	Φ0.18*2P	60Ts	1Ts	✓	✓	密繞三層
E1	0/0	4	CU	0.025T*7W	0.9Ts	2Ts	✓		層中
N2	0/0	7	8	Φ0.4*4P TRW(B)	6Ts	1Ts	✓	✓	密繞
E2	0/0	4	CU	0.025T*7W	0.9Ts	2Ts	✓		層中
N3	0/0	5	2	Φ0.18*2P	30Ts	2Ts	✓	✓	密+疏繞
N4	0/0	3	4	Φ0.18*1P	1Ts	2Ts	✓	✓	中密繞

### NOTE:

- PIN 朝外, 機器順時針繞制。
- E1, E2 為內銅箔(背膠一層反折 2MM MIN), 接引線 Φ0.20\*1P 於 PIN4 腳。
- N1 關繞線前在 PIN6-10 側 PIN 端貼 7.6MM/W 的 L 型膠布, 待 E1 繞完后反折回線包內 3MM MIN。
- E2 關繞線前在 PIN6-10 側 PIN 端貼 17MM/W 的 L 型膠布, 待 N4 繞完后反折回線包內 3MM MIN。

DESCRIPTION	TRANSFORMER	Customer P/N	XF00941	DATE	2015/7/15
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# SPECIFICATION

## 5. ELECTRICAL CHARACTERISTIC: (電器特性)

1) INDUCTANCE: (TEST AT @1KHz, 0.25V BY ZENTECH 1062)

LX(1-2): 1.6mH $\pm$ 5%

2) LEAKAGE INDUCTANCE (TEST AT @1KHz, 0.25V)

LK(1-2): 200uH MAX (SHORT OTHER PIN)

3) DC RESISTANCE (AT 25°C BY ZENTECH 502AC)

R(1-2): 1.6  $\Omega$  MAX

4) HI-POT: (TOPWARD CS2670A)

P-S: AC 3.75KV 50/60Hz 5mA 3SEC

W-C: AC 1.0KV 50/60Hz 5mA 3SEC

5). INSULATION TEST (DC 500V)

BETWEEN PRI. TO SEC. & PRI. TO CORE AND SEC TO CORE THE RESISTANCE MORE 100M ohm.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00941	DATE	2015/7/15
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RDS041.0307

# SPECIFICATION

## 6. MATERIAL LIST:

ITEM	MATERIAL	SUPPLIER	UL No.	TEMP RATING
1 CORE (EE22)	BP4A	※BDK		
	JP4	SHENZHEN JLW ELECTRONIC CO.,LTD		
	JPP-4	A-CORE		
2 BOBBIN (EE22)	T375J	CHANG CHUN PLASTCS CO.,LTD.	E59481	
	PM9820	SUMITOMO BAKELITE	E41429	
3 WIRE	UEWN/U	PACIFIC ELECTRIC WIRE&CABLE CO.,LTD	E201757	130°C
	UEWS/U			
	UEW-4	JUNG SHING WIRE CO.,LTD	E174837	130°C
	UEY-2			
4 TAPE	1350F-(#)	3M COMPANY ELECTRICAL PRODUCTS DIV	E17385	
	1350T-1			
	370S	BONDTEC PACIFIC CO.,LTD	E175868	
5 VARNISH	V1630FS	ELANTAS ELECTRICAL INSULATION ELANTAS PDG INC	E75225	
	BC-346A	JOHN C.DOLPH.CO.	E317427	
6 TUBE	TFL	GREAT HOLDING INDUSTRIAL CO.,LTD	E156256	200°C
	TFS			
	TFT			
7 TRIPLE WIRE	TRW(B)	GREAT LEOFLON INDUSTRIAL CO.,LTD	E211989	
8 COPPER	0.025mmX7mm(背膠)	DONGGUAN YUAN YANG PLAS TIC PRODUCTS CO.,LTD		

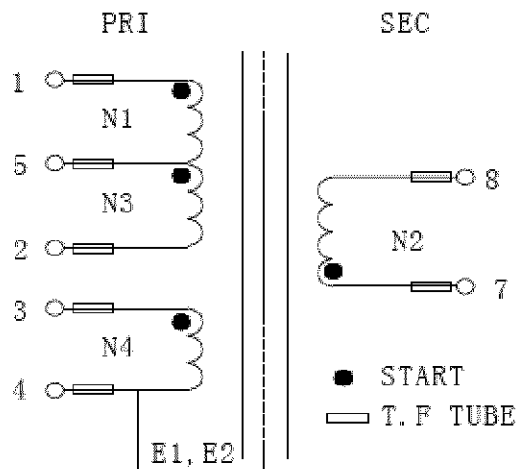
DESCRIPTION	TRANSFORMER	Customer P/N	XF00941	DATE	2015/7/15
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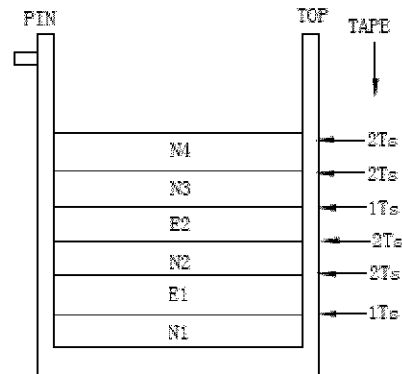


# SPECIFICATION

## SCHEMATIC:



## WINDING CONSTRUCTION:



## 4. WINDING TABLE

WINDING	MARGIN TAPE PIN/TOP	START	FINISH	WIRE SIZE	TURNS	TAPE	T. F. TUBE		NOTES
							START	FINISH	
N1	0/0	1	5	$\Phi 0.18*2P$	60Ts	1Ts	✓	✓	密繞三层
E1	0/0	4	CU	0.025T*7W	0.9Ts	2Ts	✓		居中
N2	0/0	7	8	$\Phi 0.45*2P$ TRW(B)	10Ts	2Ts	✓	✓	密繞
E2	0/0	4	CU	0.025T*7W	0.9Ts	1Ts	✓		居中
N3	0/0	5	2	$\Phi 0.18*2P$	30Ts	2Ts	✓	✓	密+疏繞
N4	0/0	3	4	$\Phi 0.2*1P$	13Ts	2Ts	✓	✓	中密繞

### NOTE:

- PIN 朝外, 机器顺时针绕制.
- E1, E2 為內銅箔(背膠一层反折 2MM MIN), 接引線  $\Phi 0.20*1P$  於 PIN4 腳.
- N1 关绕线前在 PIN6-10 側 PIN 端貼 7.6MM/W 的 L 型胶布, 待 E1 绕完后反折回线包内 3MM MIN.
- E2 关绕线前在 PIN6-10 側 PIN 端貼 17MM/W 的 L 型胶布, 待 N4 绕完后反折回线包内 3MM MIN.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00962	DATE	2015/7/15
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RDS041.0307

# SPECIFICATION

## 5. ELECTRICAL CHARACTERISTIC: (電器特性)

1) INDUCTANCE: (TEST AT @10KHz, 0.25V BY ZENTECH 1062)

LX(1-2): 1.4mH+/-5%

2) LEAKAGE INDUCTANCE (TEST AT @10KHz, 0.25V)

LK(1-2): 100uH MAX (SHORT OTHER PIN)

3) DC RESISTANCE (AT 25°C BY ZENTECH 502AC)

R(1-2): 1.6 Ω MAX

4) HI-POT: (TOPWARD CS2670A)

P-S: AC 3.75KV 50/60Hz 5mA 3SEC

W-C: AC 1.0KV 50/60Hz 5mA 3SEC

5). INSULATION TEST (DC 500V)

BETWEEN PRI. TO SEC. & PRI. TO CORE AND SEC TO CORE THE RESISTANCE  
MORE 100M ohm.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00962	DATE	2015/7/15
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RDS041.0307

# SPECIFICATION

## 6. MATERIAL LIST:

ITEM	MATERIAL	SUPPLIER	UL No.	TEMP RATING
1 CORE (EE22)	BP4A	※BDK		
	JP4	SHENZHEN JLW ELECTRONIC CO.,LTD		
	JPP-4	A-CORE		
2 BOBBIN (EE22)	T375J	CHANG CHUN PLASTCS CO.,LTD.	E59481	
	PM9820	SUMITOMO BAKELITE	E41429	
3 WIRE	UEWN/U	PACIFIC ELECTRIC WIRE&CABLE CO.,LTD	E201757	130°C
	UEWS/U			
	UEW-4	JUNG SHING WIRE CO.,LTD	E174837	130°C
	UEY-2			
4 TAPE	1350F-(#)	3M COMPANY ELECTRICAL PRODUCTS DIV	E17385	
	1350T-1			
	370S	BONDTEC PACIFIC CO.,LTD	E175868	
5 VARNISH	V1630FS	ELANTAS ELECTRICAL INSULATION ELANTAS PDG INC	E75225	
	BC-346A	JOHN C.DOLPH.CO.	E317427	
6 TUBE	TFL	GREAT HOLDING INDUSTRIAL CO.,LTD	E156256	200°C
	TFS			
	TFT			
7 TRIPLE WIRE	TRW(B)	GREAT LEOFロン INDUSTRIAL CO.,LTD	E211989	
8 COPPER	0.025mmX7mm(背膠)	DONGGUAN YUAN YANG PLAS TIC PRODUCTS CO.,LTD		

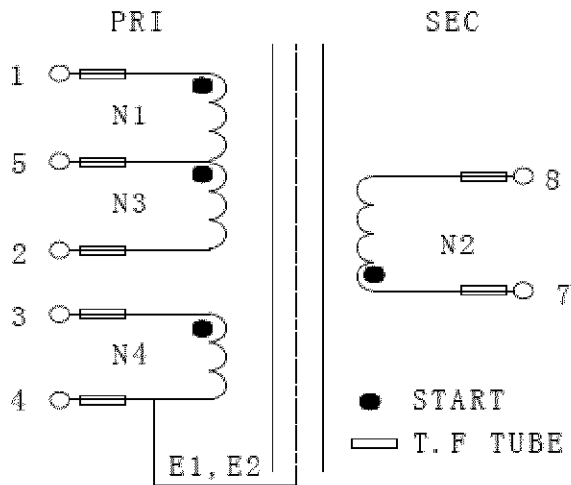
DESCRIPTION	TRANSFORMER	Customer P/N	XF00962	DATE	2015/7/15
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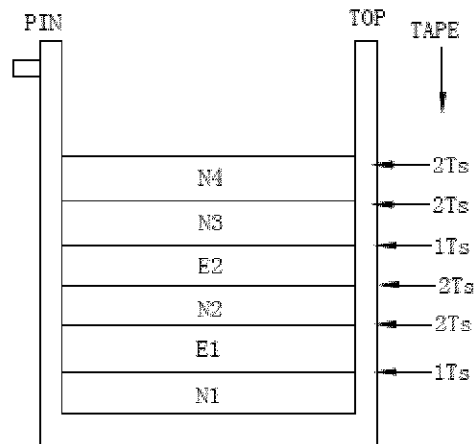


# SPECIFICATION

## SCHEMATIC:



## WINDING CONSTRUCTION:



## 4. WINDING TABLE

WINDING	MARGIN TAPE PIN/TOP	START	FINISH	WIRE SIZE	TURNS	TAPE	I. F TUBE		NOTES
							START	FINISH	
N1	0/0	1	5	Φ0.18*2P 2UEW-N	60Ts	1Ts	✓	✓	密繞三层
E1	0/0	4	CU	0.025T*7W	0.9Ts	2Ts	✓		居中
N2	0/0	7	8	Φ0.35*2P TRW(B)	12Ts	2Ts	✓	✓	密繞
E2	0/0	4	CU	0.025T*7W	0.9Ts	1Ts	✓		居中
N3	0/0	5	2	Φ0.18*2P 2UEW-N	30Ts	2Ts	✓	✓	密+疏繞
N4	0/0	3	4	Φ0.2*1P 2UEW-N	14Ts	2Ts	✓	✓	中密繞

### NOTE:

- PIN 朝外, 机器顺时针绕制.
- E1, E2 為內銅箔(背膠一层反折 2MM MIN), 接引線 Φ0.20\*1P 於 PIN4 腳.
- N1 关绕线前在 PIN6-10 側 PIN 端貼 7.6MM/W 的 L 型胶布, 待 E1 绕完后反折回线包内 3MM MIN.
- E2 关绕线前在 PIN6-10 側 PIN 端貼 17MM/W 的 L 型胶布, 待 N4 绕完后反折回线包内 3MM MIN.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00933	DATE	2015/7/15
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RDS041.0307



# SPECIFICATION

## 5. ELECTRICAL CHARACTERISTIC: (電器特性)

1) INDUCTANCE: (TEST AT @10KHz, 0.25V BY ZENTECH 1062)

LX(1-2): 1.4mH+/-5%

2) LEAKAGE INDUCTANCE (TEST AT @10KHz, 0.25V)

LK(1-2): 100uH MAX (SHORT OTHER PIN)

3) DC RESISTANCE (AT 25°C BY ZENTECH 502AC)

R(1-2): 1.6 Ω MAX

4) HI-POT: (TOPWARD CS2670A)

P-S: AC 3.75KV 50/60Hz 5mA 3SEC

W-C: AC 1.0KV 50/60Hz 5mA 3SEC

5). INSULATION TEST (DC 500V)

BETWEEN PRI. TO SEC. & PRI. TO CORE AND SEC TO CORE THE RESISTANCE  
MORE 100M ohm.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00933	DATE	2015/7/15
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RDS041.0307

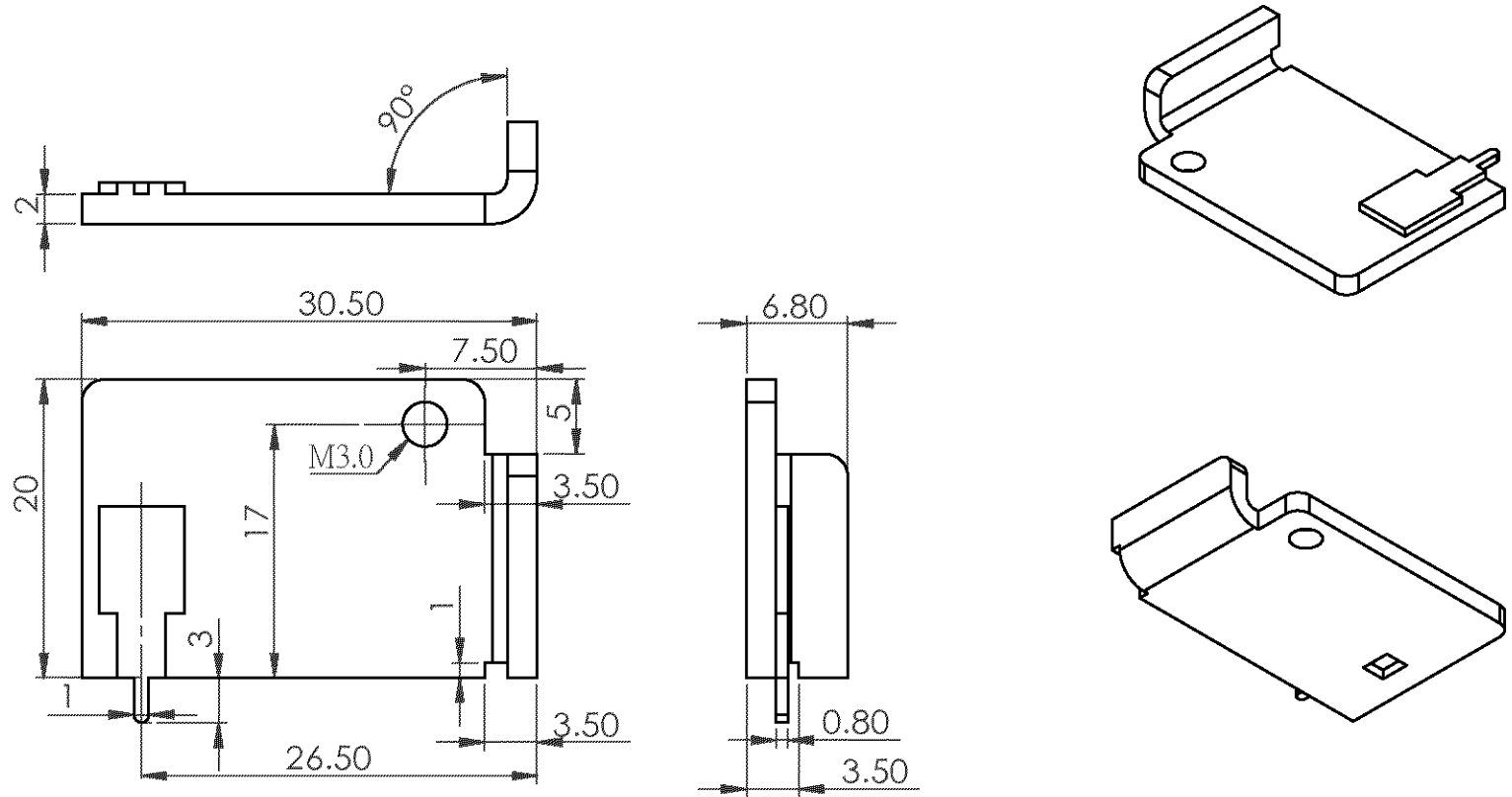
# SPECIFICATION

## 6. MATERIAL LIST:

ITEM	MATERIAL	SUPPLIER	UL No.	TEMP RATING
1 CORE (EE22)	BP4A	※BDK		
	JP4	SHENZHEN JLW ELECTRONIC CO.,LTD		
	JPP-4	A-CORE		
2 BOBBIN (EE22)	T375J	CHANG CHUN PLASTCS CO.,LTD.	E59481	
	PM9820	SUMITOMO BAKELITE	E41429	
3 WIRE	UEWN/U	PACIFIC ELECTRIC WIRE&CABLE CO.,LTD	E201757	130°C
	UEWS/U			
	UEW-4	JUNG SHING WIRE CO.,LTD	E174837	130°C
	UEY-2			
4 TAPE	1350F-(#)	3M COMPANY ELECTRICAL PRODUCTS DIV	E17385	
	1350T-1			
	370S	BONDTEC PACIFIC CO.,LTD	E175868	
5 VARNISH	V1630FS	ELANTAS ELECTRICAL INSULATION ELANTAS PDG INC	E75225	
	BC-346A	JOHN C.DOLPH.CO.	E317427	
6 TUBE	TFL	GREAT HOLDING INDUSTRIAL CO.,LTD	E156256	200°C
	TFS			
	TFT			
7 TRIPLE WIRE	TRW(B)	GREAT LEOFロン INDUSTRIAL CO.,LTD	E211989	
8 COPPER	0.025mmX7mm(背膠)	DONGGUAN YUAN YANG PLAS TIC PRODUCTS CO.,LTD		

DESCRIPTION	TRANSFORMER	Customer P/N	XF00933	DATE	2015/7/15
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RDS041.0307

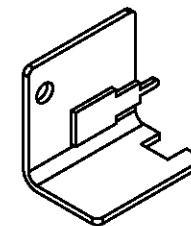
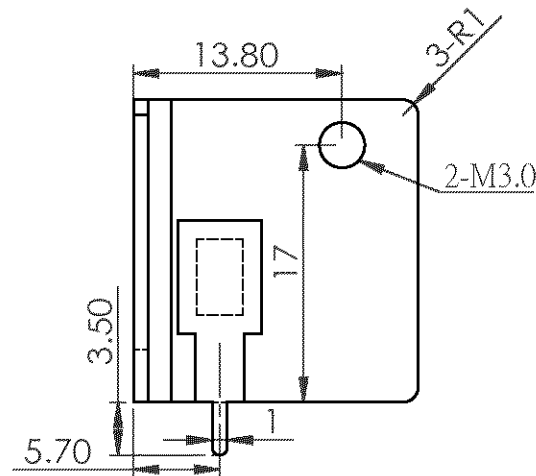
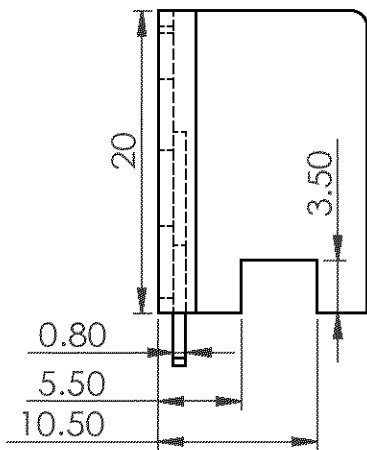
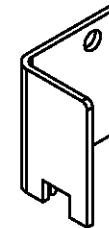
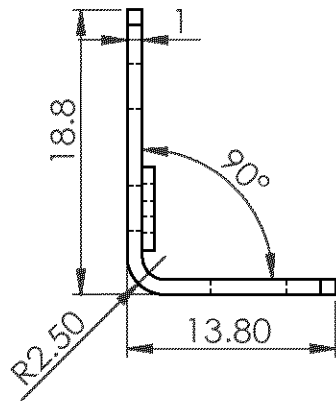


材質和顏色以BOM為準，帶\*為重點尺寸

TOLERANCE				
>0.5~<3.0	3.0~<6.0	6.0~<30	30~<120	120~<400
±0.05	±0.1	±0.15	±0.2	±0.3

- 注意事項：  
 1. 材質：鋁  
 2. 產品表面：不能有毛邊；  
 3. 未注公差按公差表執行。  
 4. 打樣數量：20pcs

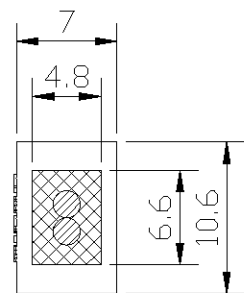
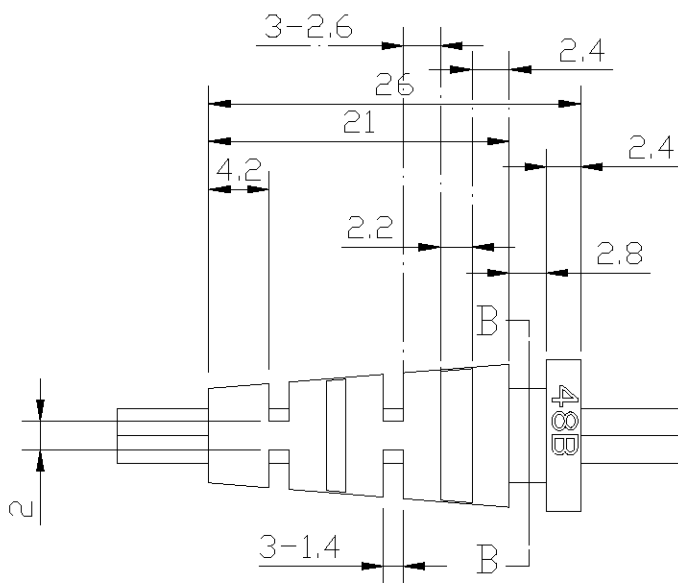
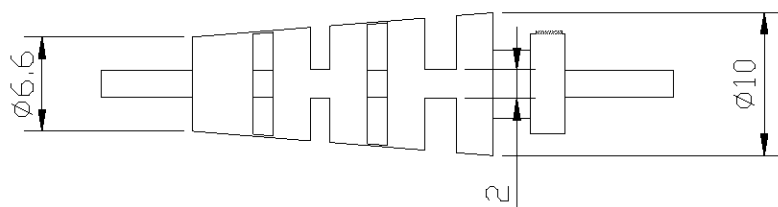
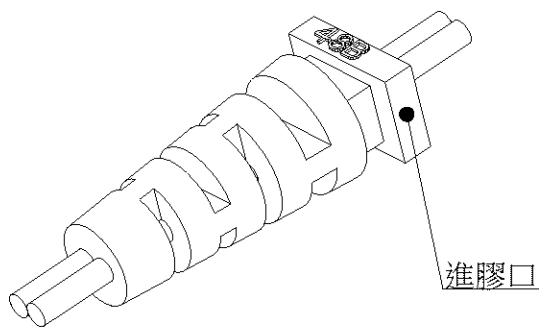
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			SCALE	1:1	DRAWING No.	DATE
SPF	LBM	LNB			H02-201821-002	14.11.24
					DRAWING NAME	REVISION
					201821	01



TOLERANCE				
>0.5~<3.0	3.0~<6.0	6.0~<30	30~<120	120~<400
±0.05	±0.1	±0.15	±0.2	±0.3

- 注意事項：  
 1.材質：鋁(T:1mm)  
 2.產品表面：不能有毛邊；  
 3.未注公差按公差表執行。  
 4.打樣數量：

DESIGNED	CHECKED	APPROVED		TITLE	
				散熱片	
			UNITS	mm	DRAWING No.
SPF	LBM	LNB	SCALE	1:1	H02-181827-002
				DRAWING NAME	DATE
				181827	15.03.26
				DRAWING NAME	REVISION
				181827	01



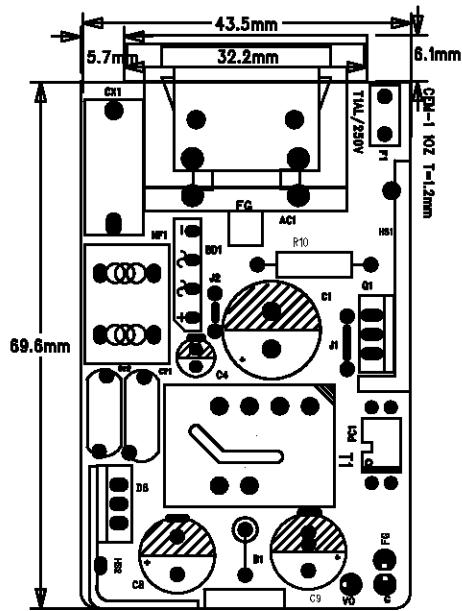
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 $\phi 1.8 \times 3.6$ ;  $\phi 1.9 \times 3.8$

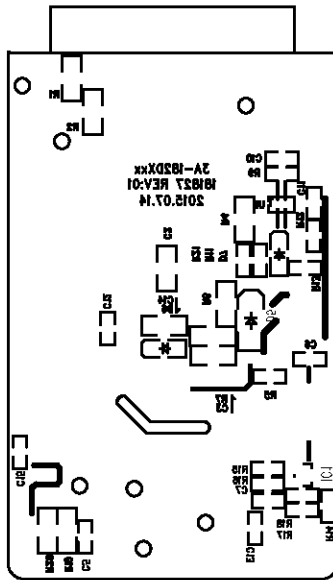
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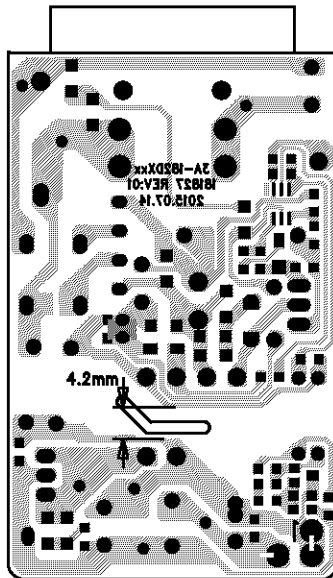
模具要求刻字

TOLERANCE				
>0.5~<3.0	3.0~<6.0	6.0~<30	30~<120	120~<400
$\pm 0.1$	$\pm 0.15$	$\pm 0.2$	$\pm 0.3$	$\pm 0.4$

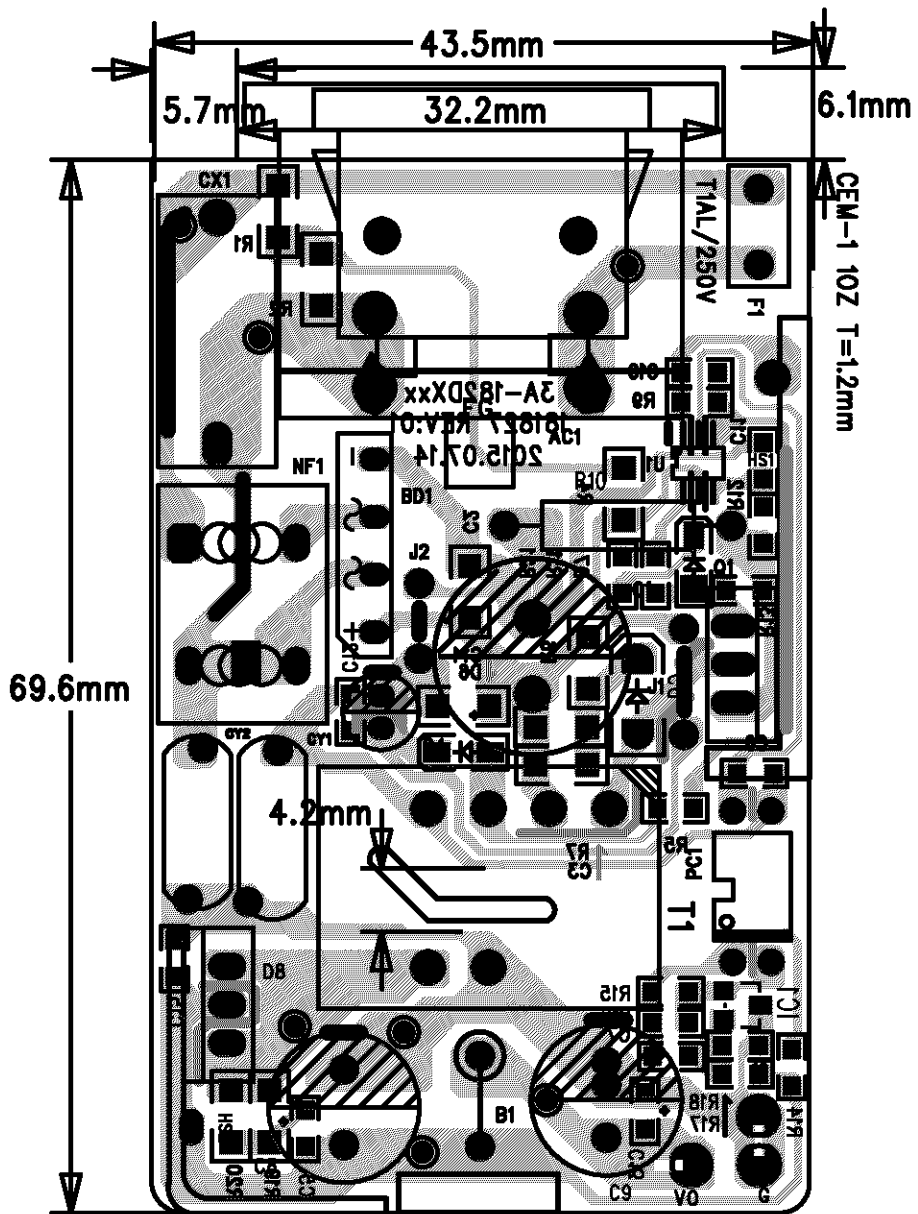
DESIGNED	CHECKED	APPROVED		TITLE	SR	DATE
<i>lily.cai</i>	<i>liu min</i>	<i>zhu rg</i>		UNITS \$ mm	DRAWING No.	R48B
SCALE				DRAWING NAME	48B	REVISION
						01











<b>GT model name</b>	<b>Output voltage</b>	<b>Output current</b>	<b>Max.W</b>	<b>Transformer</b>
GT-46181-1505-T2	5V	3.0A	15W	XF00941
GT-46181-1605-T2	5V	3.2A	16W	
GT-46181-1809-T2	9V	2A	18W	XF00962
GT-46181-1812-T2	12V	1.5A	18W	XF00933
GT-46181-1815-T2	15V	1.2A	18W	

**Test Record No. 1**

Tests on Model GT-46181-WWVV-X.X-T2 are not required due to copy file