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Project 11CA21105

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REPORT

On

COMPONENT - DRIVERS FOR LIGHT-EMITTING-DIODE ARRAYS,
MODULES AND CONTROLLERS

XP POWER LTD
SINGAPORE, SINGAPORE

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DESCRIPTION

PRODUCT COVERED:

- * **USR, CNR - Component Driver for Light-emitting-diode Arrays, Modules and Controllers, Models DLG50PS12XYZ, DLG75PS12XYZ, DLG50PS24XYZ, DLG75PS24XYZ, DLG75PS30XYZ, DLG50PS36XYZ, DLG75PS36XYZ, DLG50PS48XYZ, DLG75PS48XYZ, DLG75PS54XYZ, XYZ may be any character or number or blank for marketing purpose only.**

Note: USR - United States Standard, Recognized
 CNR - Canadian Standard, Recognized

ELECTRICAL RATINGS:

Model No.	Input Voltage (V)	Input Freq (HZ)	Input Current (A)	Power Factor	Output Voltage (V dc)	Output Current (A)
* DLG50PS12XYZ	100-277	50-60	1.0	> 0.9	12	4.2
* DLG75PS12XYZ	100-277	50-60	1.2	> 0.9	12	4.9
* DLG50PS24XYZ	100-277	50-60	1.0	> 0.9	24	2.1
* DLG75PS24XYZ	100-277	50-60	1.2	> 0.9	24	3.15
* DLG75PS30XYZ	100-277	50-60	1.2	> 0.9	30	2.45
* DLG50PS36XYZ	100-277	50-60	1.0	> 0.9	36	1.4
* DLG75PS36XYZ	100-277	50-60	1.2	> 0.9	36	2.1
* DLG50PS48XYZ	100-277	50-60	1.0	> 0.9	48	1.05
* DLG75PS48XYZ	100-277	50-60	1.2	> 0.9	48	1.4
* DLG75PS54XYZ	100-277	50-60	1.2	> 0.9	54	1.4

All models are similar construction except for model designation, input current and output rating.

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

USR - Indicates investigation to the United States requirements for the Light Emitting Diode Equipment for Use in Lighting Products, UL 8750, 1st Edition, November 18, 2009; and the Standard for UL60950-1, 2nd Edition, Dated March 27, 2007, Information Technology Equipment-Safety-Part 1: General Requirements were considered representative of the same tests required by Canadian Standards.

CNR - Indicates investigation to the Canadian Standard for CAN/CSA C22.2 No.60950-1-07, 2nd Edition, Dated March, 2007, Information Technology Equipment-Safety-Part 1: General Requirements.

Use - For use only in (or with) complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Consideration of Electrical Spacings - These components have been judged on the basis of the required spacings in the Standard for UL60950-1, 2nd Edition, which would cover the component itself if submitted for unrestricted Listing.

The descriptions of certain components in this Report contain the notation "CN". "CN" indicates that the component has been evaluated to Canadian requirements. Whenever "CN" appears, the Field Representative shall confirm that the component has a CSA Certification Mark or an equivalent identifier or a Canadian UL Listing or Recognition Mark if the product described in this Report bears the UL's Classification Mark for Canada.

Condition of Acceptability - When installed in the end use equipment, the following are among the considerations to be made:

1. The LED drivers have been evaluated using a resistive load resulting in an output current and Models see electrical ratings details respectively. The need for repeating tests related to heating shall be considered in the end product if the loads used result in the current exceeding the rated marked current.
2. The LED drivers have been tested in oven at 50°C ambient. The need to repeat the temperature test shall be considered if used in other end products or operation at a higher temperature ambient.
3. The units are intended for factory installation only.
4. The power supply shall be installed in compliance with the enclosure, mounting, spacing, casualty, and segregation requirements of the end product application.
5. The products are intended for use in a damp locations. Other uses shall be considered in the end product.
6. Dielectric voltage withstand test voltage applied between primary circuits and secondary output is 4242 Vdc or primary circuits and Earth is 2644 Vdc.
7. The drivers are provided with isolated output.
8. The suitability of output leads shall be determined in the end-use product.

CONSTRUCTION DETAILS:

If provided and unless otherwise described specifically in the report, the following apply to all products.

Abbreviations - R/C - Recognized Component.

Soldered Connections - All soldered connection are mechanically secured before soldering.

Printed Wiring Board - R/C (ZPMV2), rated V-1 minimum, suitable for the solder time and temperature used by the manufacturer and having an operating temperature rating of at least 105°C.

Electrical Tubing and Sleeving - R/C (YDPU2, YDPU8) or R/C (UZFT2, UZFT8), rated 300 V minimum, 105°C minimum.

Markings - In addition to the Section General, the following markings shall be also marked on the unit. Markings are molded, die-stamped, paint stenciled, or provided on an adhesive-backed label, Recognized Component, Marking and Labeling System (PGDQ2), suitable for the surface and rated 70°C minimum. Markings noted as optional, are applicable but are not required to be on the actual products since the additional markings exceed the minimum requirements for Recognized Components.

1. Company Name, File No., or Trade Mark (if authorized).
2. Model Designation.
3. Date Code.
4. Optional - Electrical Ratings.
5. Optional - Damp Locations.
6. Optional - Maximum Ambient Temperature: 50°C.
7. Optional - Output Type: Isolated.

All MODELS - FIGS. 1 THRU 7

General - The general design, shape and arrangement shall be as illustrated except where variations are specifically described.

Housing - Aluminum, minimum 2.2 mm thick, consists of two parts, top and bottom housing, secured together by screws, See ILL. 1 for dimension details.

Metal Covers (input side/Output side) - Metal with plating nickel, minimum 1.6 mm thick, secured to housing by screws. See ILL. 2 for detail.

Alternate - Metal Covers (input side/Output side) - Metal with plating nickel, minimum 1.6 mm thick, secured to housing by screws. See ILL. 3 for detail.

Printed Wiring Board - See "CONSTRUCTION DETAILS", printed wiring board. The component layout and foil pattern of printed wiring board shall not be changed from that shown in ILL. 4(not to scale).

Fuse (F101) - Listed(JDYX/7), rated 300 V, T2.0 A, mechanically secured on PWB and soldered in series with ungrounded supply. see "CONSTRUCTION DETAILS".

Alternate - Same as above, except for R/C (JDYX2/8), Conquer Electronics Co. Ltd. (E82636), Type MST, rated 300 V, T2.0 A.

Alternate - Same as above, except for R/C (JDYX2/8), Littelfuse Wickmann Werke. (E67006), Type 369, rated 300 V, T2.0 A.

Varistor (D101) (optional)- R/C (VZCA2/8), Thinking Electronic Industrial Co., Ltd.(E314979), Type TVR10561, rated 350Vac/450Vdc.

Potting Compound - R/C (QMFZ2), Fong Yong Chemical Co ltd. (E120665), Type SFY-131, rated V-0, 105°C, covered all components inside housing.

X-Capacitor (C101, C102) (optional) - Line-to-Neutral, rated maximum 0.22 μ F, min. 250 V ac, 85°C. See below table for manufacturers.

Manufacturer	CCN	Type
Chiefcon Electronics Co. Ltd. (E209251)	R/C (FOWX2/8)	CKX
Cheng tung Electronics Co. Ltd. (E193049)	R/C (FOWX2/8)	CTX

Bleeder Resistors (R120,R121) - Rated 1M ohm, minimum 1/4 W.

Y-Capacitors (C112, C113, C117) (optional) - Rated maximum 1000 pF, 250 V ac, 105°C. Comply with IEC 60384-14, rated maximum 300 Vac. See below table for manufacturers.

Manufacturer	CCN	Type
Success Electronics Co., Ltd. (E114280)	R/C (FOWX2/8)	SE, SB
JYA-NAY Co., Ltd. (E201384)	R/C (FOWX2/8)	JN
TDK-EPC CORP. (E37861)	R/C (FOWX2)	CD
Panasonic corporation, panasonic corporation of north america. (E62674)	R/C (FOWX2/8)	NS-A
Murata mfg co ltd. (E37921)	R/C (FOWX2/8)	KX

Optical Isolators (U101) - Primary-to-Secondary, Double protection optical isolator, rated isolation voltage 3000 V ac. See below table for manufacturers.

Manufacturer	CCN	Type	Temp. Rated
Everlight Electronics Co Ltd (E214129)	R/C (FPQU2/8)	EL817	115°C
Lite-on technology corp (E113898)	R/C (FPQU2/8)	LTV-817	115°C
Cosmo electronics corp (E169586)	R/C (FPQU2/8)	K1010	100°C
Sharp corp electronic components and devices group (E64380)	R/C (FPQU2)	PC817	100°C
Vishay infrared components inc (E52744)	R/C (FPQU2/8)	TCET110	110°C

Transistor (Q101) - Rated 11 A, 650 V, secured to heatsink (HS101) by screw and nut.

Bridge Diodes (D102) - Rated 4 A, 600 V.

Electrolytic Capacitors (C122) - Rated 22 uF, 450 V, 105 degree C min.

Insulation Sheet (between top and bottom cover) - R/C (QMFZ2), Sabic Innovative Plastics China Co Ltd.(E205960), Type FR700, rated minimum V-0, 125 degree C minimum, 0.25 mm thickness, See ILL. 5 for dimension detail, fully covered around printed wiring board assembly.

Heatsink (HS101) - Aluminum, overall dimensions see ILL. 6 for details.

Heatsink (HS102) - Aluminum, overall dimensions see ILL. 6 for details.

Diodes (D105, D118) - Rated 10 A, 100 V minimum, secured to heatsink (HS102) by screw and nut.

Thermostat (R145) - R/C (XAPX2/8), Seki Controls Co.(E162183), type ST-22, rated 125/250 V ac, 8/5 A, 100 degree C.

Output leads - R/C (AVLV2/8), rated min. 24 AWG, 60 V, 105 degree C.

Input leads - R/C (AVLV2/8), rated min. 18 AWG, 300 V, 105 degree C.

Grounding - Provided with a lead wire from printed wiring board and bonded to metal housing by a screw and a star washer with engaged min. two complete threads. R/C (AVLV2/8), rated min. No. 18 AWG, 300 V, 105 degree C, insulated with green/yellow color.

Winding Devices - See below for details.

Line Filter (L101) - Open type, Primary, constructed as follows:

Core: Ferrite, overall dimension 21 mm by 20 mm by 10 mm.

Coil: Enameled copper wire, R/C (OBMW2), rated 105°C minimum, see ILL. 7 for details.

Bobbin: PBT, min. 0.75 mm thick.

Ring coil (L102) - Open type, Primary, constructed as follows:

Core: Ferrite, overall 5 (ID) by 13 (OD) by 3 (wide) mm.

Coil: Enameled copper wire, R/C (OBMW2), rated 105°C minimum, see ILL. 8 for details.

Ring coil (L103) - Open type, Primary, constructed as follows:

Core: Ferrite, overall 9.4 (ID) by 17.5 (OD) by 4.83 (HT) mm.

Coil: Enameled copper wire, R/C (OBMW2), rated 105°C minimum, see ILL. 9 for details.

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For Models **DLG50PS12XYZ, DLG75PS12XYZ.**

Transformer (T101) - Class A Completely wrapped by 2 layers of tape. Constructed as follows:

- A. Core: Ferrite, overall dimension 32 mm by 26 mm by 22 mm. Core is considered as primary. Wrapped with 2 layers of tape.
- B. Bobbin - Two flange bobbin, minimum 0.71 mm thick, R/C (QMFZ2), Sumitomo Bakelite Co Ltd (E41429), Type PM-9820 black or brown color, rated V-0, 150°C.
- C. Windings - Layer wound. Enameled copper magnet wire for primary winding, R/C (OBMW2), Copper magnet wire wound concentrically on bobbin, rated 130 degree C. Secondary winding, R/C (OBJT2), Furukawa Electric Co Ltd (E206440), Type TEX-E, rated 130°C; See ILL. 10 for winding information and insulation.

Alternate - Same as above, except for Secondary winding, R/C (OBJT2), Totoku Electric Co Ltd (E166483), Types TIW-2.

- D. Tubing - R/C (YDPU2), Great Holding Industrial Co Ltd (E156256), Type TFL, rated 200°C, VW-1.
- E. Varnish - R/C (OBOR2), Elantas Electrical Insulation Elantas PDG Inc (E75225), Type V1380FC.
- F. Tape - R/C (OANZ2), 3M Company Electrical Markets Div (EMD) (E17385), Type 1350F-1, 1350F-2, rated 130°C, 0.05 mm thick per layer. Also provided as primary cross over insulation.

Alternate - Same as above expect R/C (OANZ2), Symbio Inc (E50292), Type 35660Y.

Alternate - Same as above expect R/C (OANZ2), Jingjiang Yahua Pressure Sensitive Glue Co Ltd (E165111), Types CT, PZ.

- G. Margin Tape - 3M Company Electrical Markets Div (EMD) (E17385), Type 44, 44D-A or 44T-A, rated 130°C, 0.05 mm thick per layer.

Alternate - Same as above expect R/C (OANZ2), Symbio Inc (E50292), Type 35661.

Alternate - Same as above expect R/C (OANZ2), Jingjiang Yahua Pressure Sensitive Glue Co Ltd (E165111), Type WF.

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For Models **DLG50PS24XYZ, DLG75PS24XYZ**

Transformer (T101) - Class A Completely wrapped by 2 layers of tape.
Constructed as follows:

- A. Core: Ferrite, overall dimension 32 mm by 26 mm by 22 mm. Core is considered as primary. Wrapped with 2 layers of tape.
- B. Bobbin - Two flange bobbin, minimum 0.71 mm thick, R/C (QMFZ2), Sumitomo Bakelite Co Ltd (E41429), Type PM-9820 black or brown color, rated V-0, 150°C.
- C. Windings - Layer wound. Enameled copper magnet wire for primary winding, R/C (OBMW2), Copper magnet wire wound concentrically on bobbin, rated 130 degree C. Secondary winding, R/C (OBJT2), Furukawa Electric Co Ltd (E206440), Type TEX-E, rated 130°C; See ILL. 11 for winding information and insulation.

Alternate - Same as above, except for Secondary winding, R/C (OBJT2), Totoku Electric Co Ltd (E166483), Types TIW-2.

- D. Tubing - R/C (YDPU2), Great Holding Industrial Co Ltd (E156256), Type TFL, rated 200°C, VW-1.
- E. Varnish - R/C (OBOR2), Elantas Electrical Insulation Elantas PDG Inc (E75225), Type V1380FC.
- F. Tape - R/C (OANZ2), 3M Company Electrical Markets Div (EMD) (E17385), Type 1350F-1, 1350F-2, rated 130°C, 0.05 mm thick per layer. Also provided as primary cross over insulation.

Alternate - Same as above expect R/C (OANZ2), Symbio Inc (E50292), Type 35660Y.

Alternate - Same as above expect R/C (OANZ2), Jingjiang Yahua Pressure Sensitive Glue Co Ltd (E165111), Types CT, PZ.

- G. Margin Tape - 3M Company Electrical Markets Div (EMD) (E17385), Type 44, 44D-A or 44T-A, rated 130°C, 0.05 mm thick per layer.

Alternate - Same as above expect R/C (OANZ2), Symbio Inc (E50292), Type 35661.

Alternate - Same as above expect R/C (OANZ2), Jingjiang Yahua Pressure Sensitive Glue Co Ltd (E165111), Type WF.

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For Model **DLG75PS30XYZ**

Transformer (T101) - Class A Completely wrapped by 2 layers of tape. Constructed as follows:

- A. Core: Ferrite, overall dimension 32 mm by 26 mm by 22 mm. Core is considered as primary. Wrapped with 2 layers of tape.
- B. Bobbin - Two flange bobbin, minimum 0.71 mm thick, R/C (QMFZ2), Sumitomo Bakelite Co Ltd (E41429), Type PM-9820 black or brown color, rated V-0, 150°C.
- C. Windings - Layer wound. Enameled copper magnet wire for primary winding, R/C (OBMW2), Copper magnet wire wound concentrically on bobbin, rated 130 degree C. Secondary winding, R/C (OBJT2), Furukawa Electric Co Ltd (E206440), Type TEX-E, rated 130°C; See ILL. 12 for winding information and insulation.

Alternate - Same as above, except for Secondary winding, R/C (OBJT2), Totoku Electric Co Ltd (E166483), Types TIW-2.

- D. Tubing - R/C (YDPU2), Great Holding Industrial Co Ltd (E156256), Type TFL, rated 200°C, VW-1.
- E. Varnish - R/C (OBOR2), Elantas Electrical Insulation Elantas PDG Inc (E75225), Type V1380FC.
- F. Tape - R/C (OANZ2), 3M Company Electrical Markets Div (EMD) (E17385), Type 1350F-1, 1350F-2, rated 130°C, 0.05 mm thick per layer. Also provided as primary cross over insulation.

Alternate - Same as above expect R/C (OANZ2), Symbio Inc (E50292), Type 35660Y.

Alternate - Same as above expect R/C (OANZ2), Jingjiang Yahua Pressure Sensitive Glue Co Ltd (E165111), Types CT, PZ.

- G. Margin Tape - 3M Company Electrical Markets Div (EMD) (E17385), Type 44, 44D-A or 44T-A, rated 130°C, 0.05 mm thick per layer.

Alternate - Same as above expect R/C (OANZ2), Symbio Inc (E50292), Type 35661.

Alternate - Same as above expect R/C (OANZ2), Jingjiang Yahua Pressure Sensitive Glue Co Ltd (E165111), Type WF.

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For Models **DLG50PS36XYZ, DLG75PS36XYZ**

Transformer (T101) - Class A Completely wrapped by 2 layers of tape. Constructed as follows:

- A. Core: Ferrite, overall dimension 32 mm by 26 mm by 22 mm. Core is considered as primary. Wrapped with 2 layers of tape.
- B. Bobbin - Two flange bobbin, minimum 0.71 mm thick, R/C (QMFZ2), Sumitomo Bakelite Co Ltd (E41429), Type PM-9820 black or brown color, rated V-0, 150°C.
- C. Windings - Layer wound. Enameled copper magnet wire for primary winding, R/C (OBMW2), Copper magnet wire wound concentrically on bobbin, rated 130 degree C. Secondary winding, R/C (OBJT2), Furukawa Electric Co Ltd (E206440), Type TEX-E, rated 130°C; See ILL. 13 for winding information and insulation.

Alternate - Same as above, except for Secondary winding, R/C (OBJT2), Totoku Electric Co Ltd (E166483), Types TIW-2.

- D. Tubing - R/C (YDPU2), Great Holding Industrial Co Ltd (E156256), Type TFL, rated 200°C, VW-1.
- E. Varnish - R/C (OBOR2), Elantas Electrical Insulation Elantas PDG Inc (E75225), Type V1380FC.
- F. Tape - R/C (OANZ2), 3M Company Electrical Markets Div (EMD) (E17385), Type 1350F-1, 1350F-2, rated 130°C, 0.05 mm thick per layer. Also provided as primary cross over insulation.

Alternate - Same as above expect R/C (OANZ2), Symbio Inc (E50292), Type 35660Y.

Alternate - Same as above expect R/C (OANZ2), Jingjiang Yahua Pressure Sensitive Glue Co Ltd (E165111), Types CT, PZ.

- G. Margin Tape - 3M Company Electrical Markets Div (EMD) (E17385), Type 44, 44D-A or 44T-A, rated 130°C, 0.05 mm thick per layer.

Alternate - Same as above expect R/C (OANZ2), Symbio Inc (E50292), Type 35661.

Alternate - Same as above expect R/C (OANZ2), Jingjiang Yahua Pressure Sensitive Glue Co Ltd (E165111), Type WF.

*For Models **DLG50PS48XYZ, DLG75PS48XYZ**

Transformer (T101) - Class A Completely wrapped by 2 layers of tape. Constructed as follows:

- A. Core: Ferrite, overall dimension 32 mm by 26 mm by 22 mm. Core is considered as primary. Wrapped with 2 layers of tape.
- B. Bobbin - Two flange bobbin, minimum 0.71 mm thick, R/C (QMFZ2), Sumitomo Bakelite Co Ltd (E41429), Type PM-9820 black or brown color, rated V-0, 150°C.
- C. Windings - Layer wound. Enameled copper magnet wire for primary winding, R/C (OBMW2), Copper magnet wire wound concentrically on bobbin, rated 130 degree C. Secondary winding, R/C (OBJT2), Furukawa Electric Co Ltd (E206440), Type TEX-E, rated 130°C; See ILL. 14 for winding information and insulation.

Alternate - Same as above, except for Secondary winding, R/C (OBJT2), Totoku Electric Co Ltd (E166483), Types TIW-2.

- D. Tubing - R/C (YDPU2), Great Holding Industrial Co Ltd (E156256), Type TFL, rated 200°C, VW-1.
- E. Varnish - R/C (OBOR2), Elantas Electrical Insulation Elantas PDG Inc (E75225), Type V1380FC.
- F. Tape - R/C (OANZ2), 3M Company Electrical Markets Div (EMD) (E17385), Type 1350F-1, 1350F-2, rated 130°C, 0.05 mm thick per layer. Also provided as primary cross over insulation.

Alternate - Same as above expect R/C (OANZ2), Symbio Inc (E50292), Type 35660Y.

Alternate - Same as above expect R/C (OANZ2), Jingjiang Yahua Pressure Sensitive Glue Co Ltd (E165111), Types CT, PZ.

- G. Margin Tape - 3M Company Electrical Markets Div (EMD) (E17385), Type 44, 44D-A or 44T-A, rated 130°C, 0.05 mm thick per layer.

Alternate - Same as above expect R/C (OANZ2), Symbio Inc (E50292), Type 35661.

Alternate - Same as above expect R/C (OANZ2), Jingjiang Yahua Pressure Sensitive Glue Co Ltd (E165111), Type WF.

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For Model **DLG75PS54XYZ**

Transformer (T101) - Class A Completely wrapped by 2 layers of tape. Constructed as follows:

- A. Core: Ferrite, overall dimension 32 mm by 26 mm by 22 mm. Core is considered as primary. Wrapped with 2 layers of tape.
- B. Bobbin - Two flange bobbin, minimum 0.71 mm thick, R/C (QMFZ2), Sumitomo Bakelite Co Ltd (E41429), Type PM-9820 black or brown color, rated V-0, 150°C.
- C. Windings - Layer wound. Enameled copper magnet wire for primary winding, R/C (OBMW2), Copper magnet wire wound concentrically on bobbin, rated 130 degree C. Secondary winding, R/C (OBJT2), Furukawa Electric Co Ltd (E206440), Type TEX-E, rated 130°C; See ILL. 15 for winding information and insulation.

Alternate - Same as above, except for Secondary winding, R/C (OBJT2), Totoku Electric Co Ltd (E166483), Types TIW-2.

- D. Tubing - R/C (YDPU2), Great Holding Industrial Co Ltd (E156256), Type TFL, rated 200°C, VW-1.
- E. Varnish - R/C (OBOR2), Elantas Electrical Insulation Elantas PDG Inc (E75225), Type V1380FC.
- F. Tape - R/C (OANZ2), 3M Company Electrical Markets Div (EMD) (E17385), Type 1350F-1, 1350F-2, rated 130°C, 0.05 mm thick per layer. Also provided as primary cross over insulation.

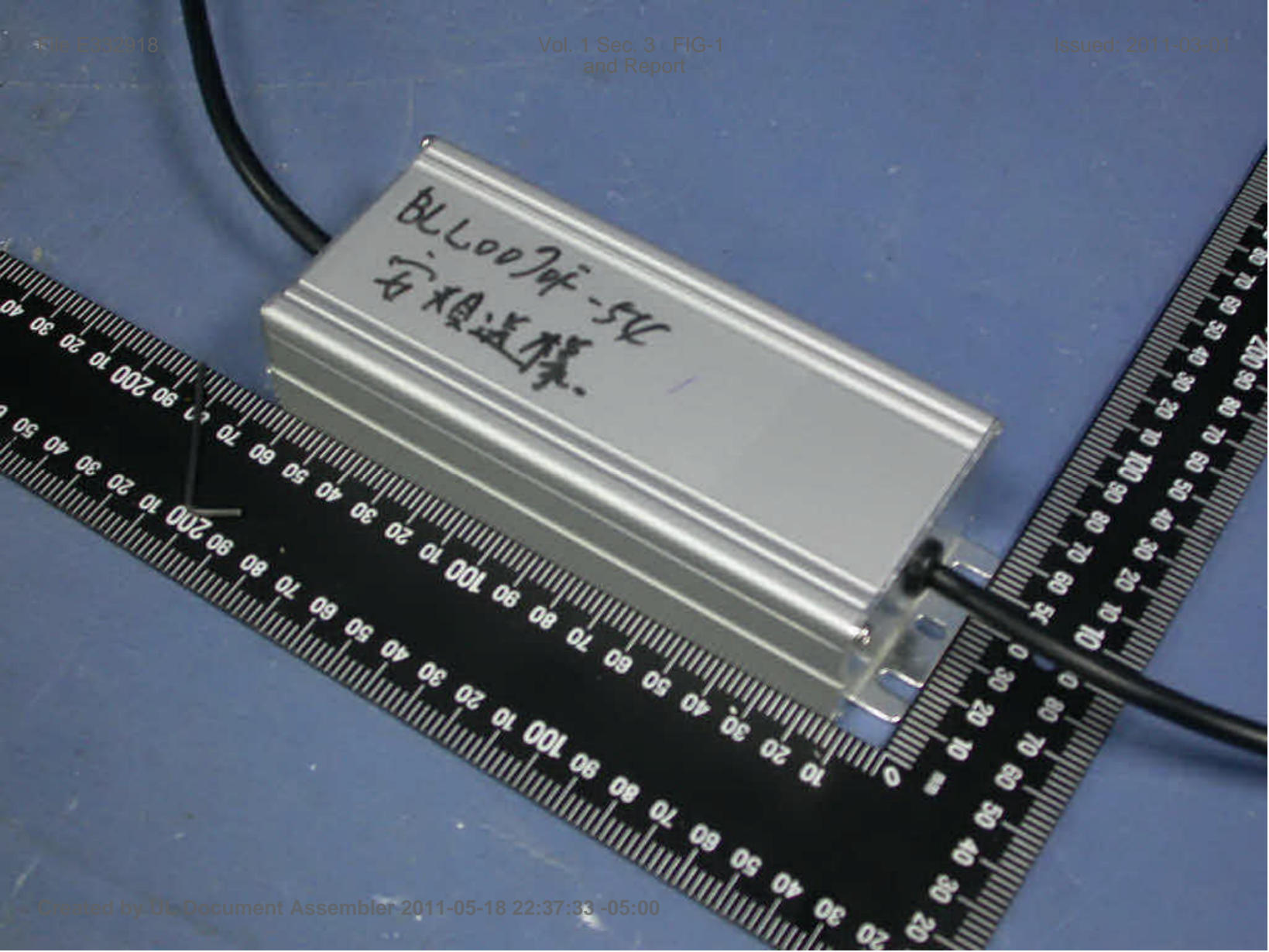
Alternate - Same as above expect R/C (OANZ2), Symbio Inc (E50292), Type 35660Y.

Alternate - Same as above expect R/C (OANZ2), Jingjiang Yahua Pressure Sensitive Glue Co Ltd (E165111), Types CT, PZ.

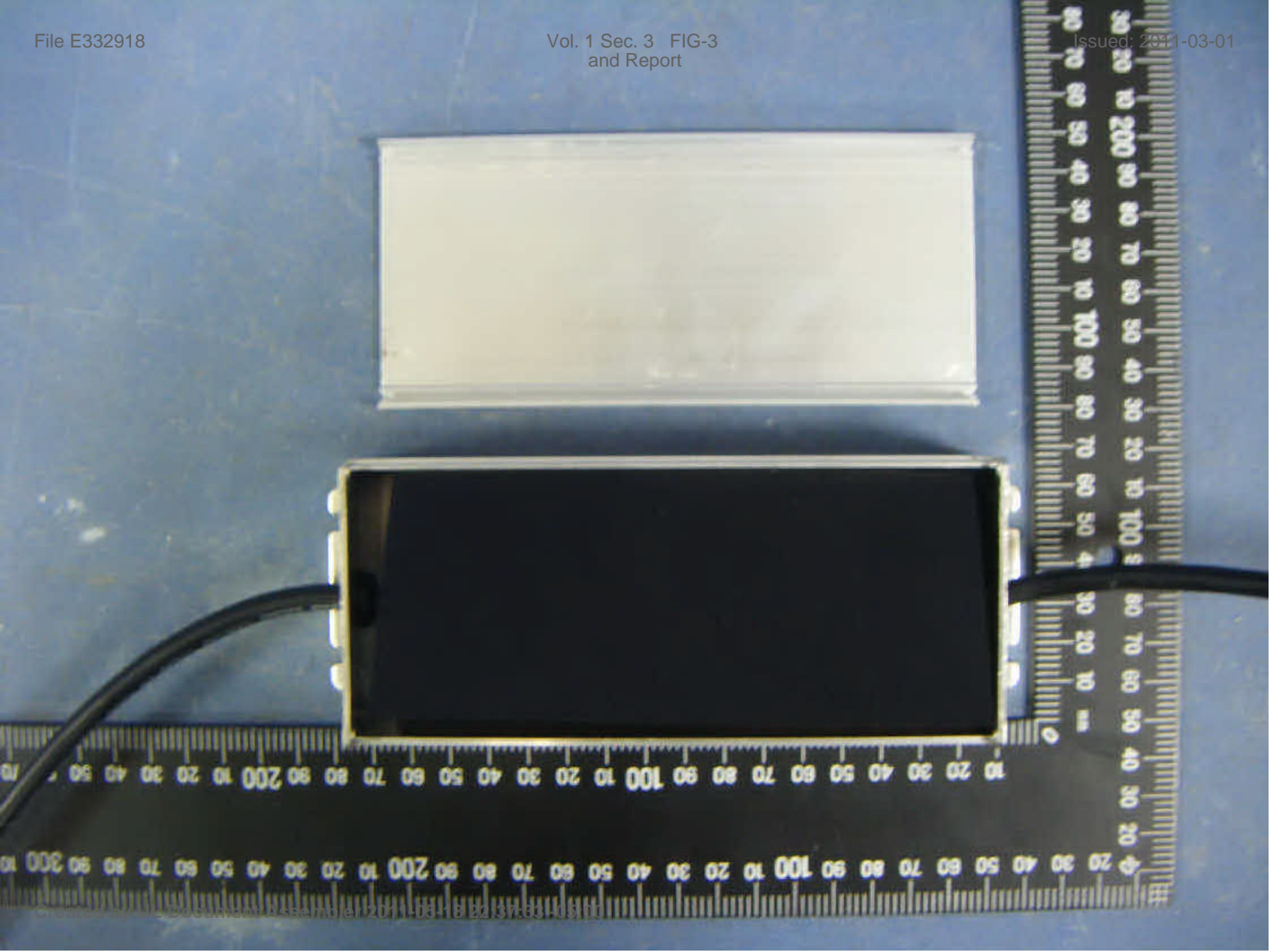
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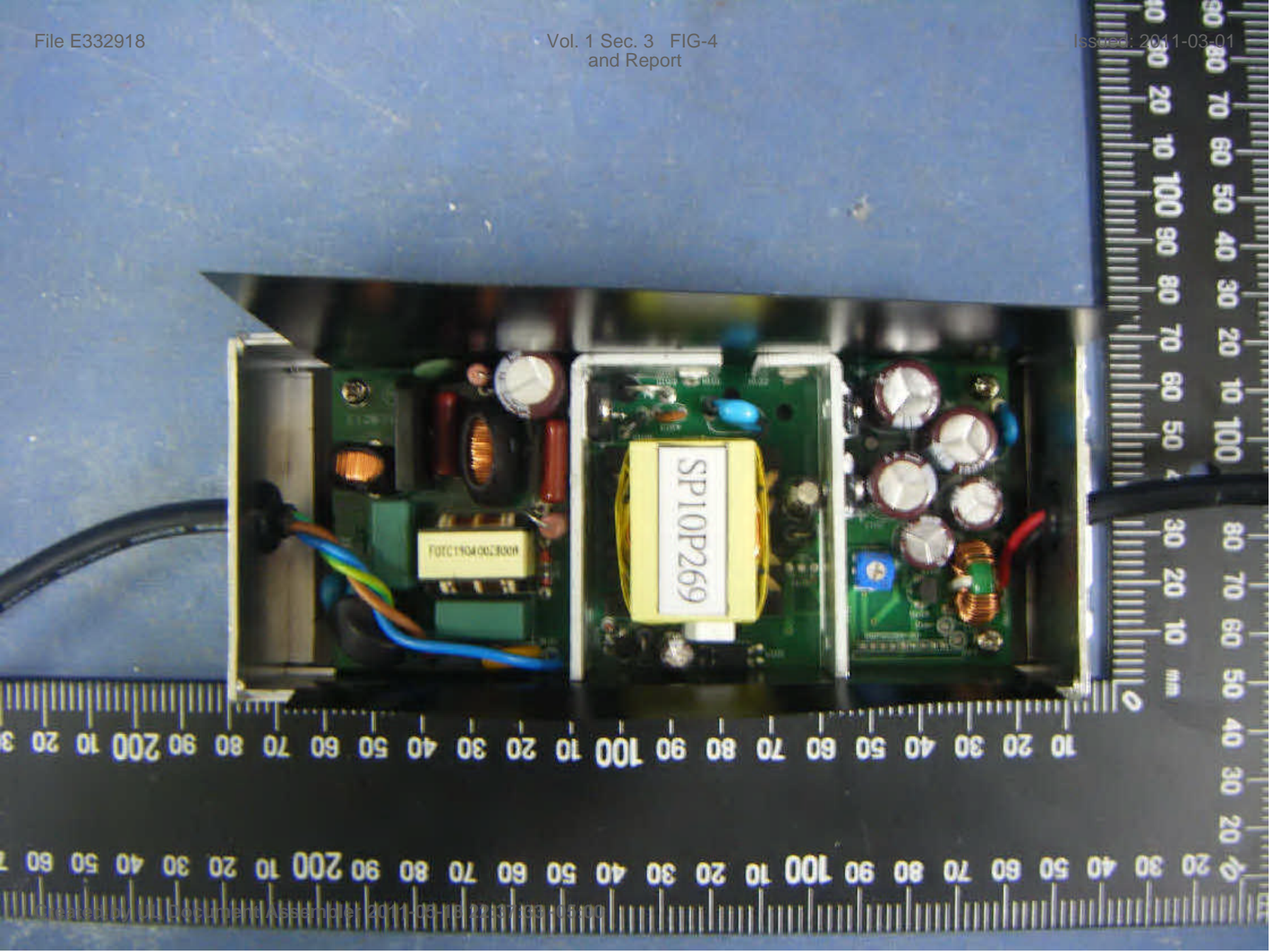
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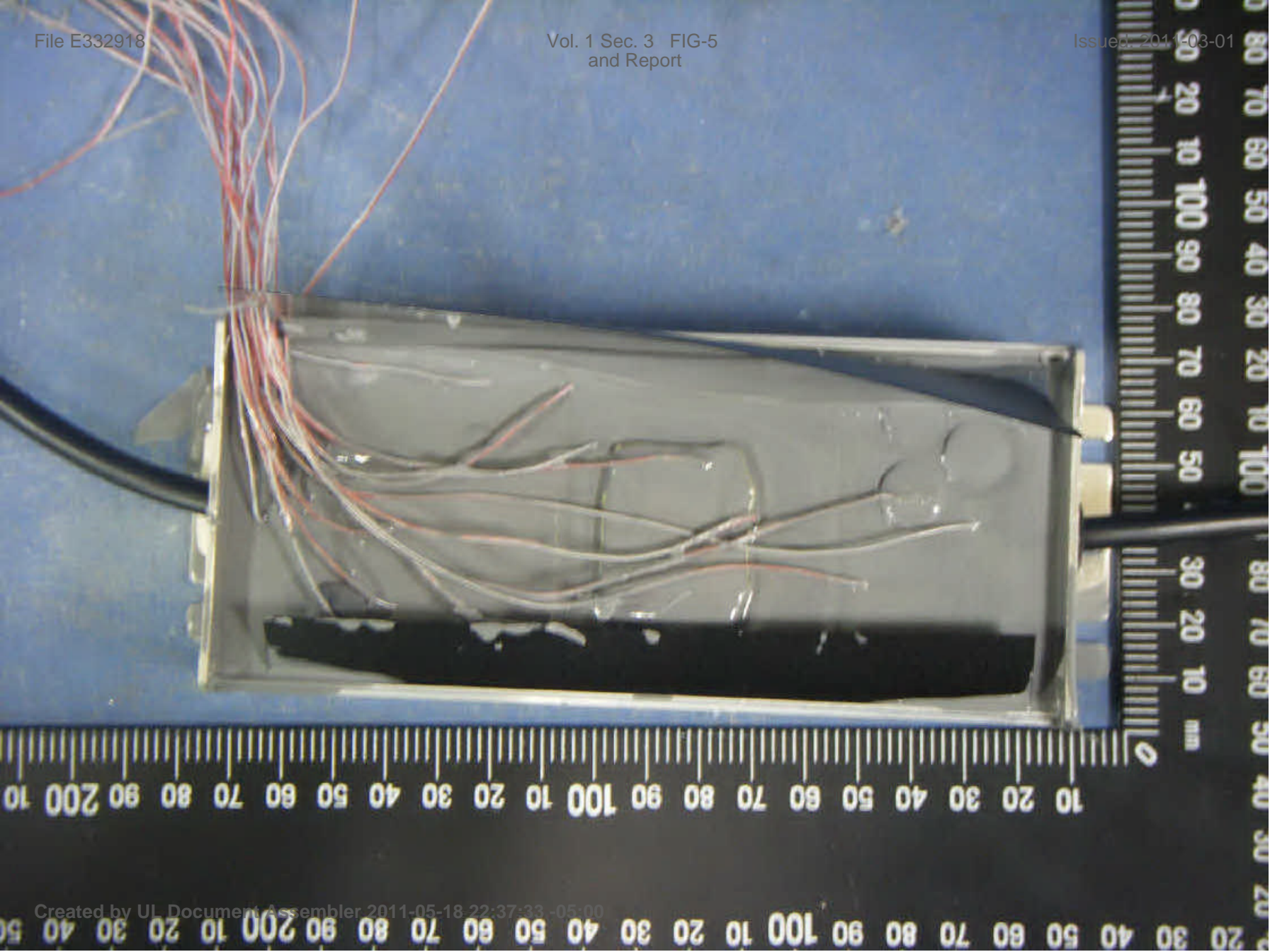
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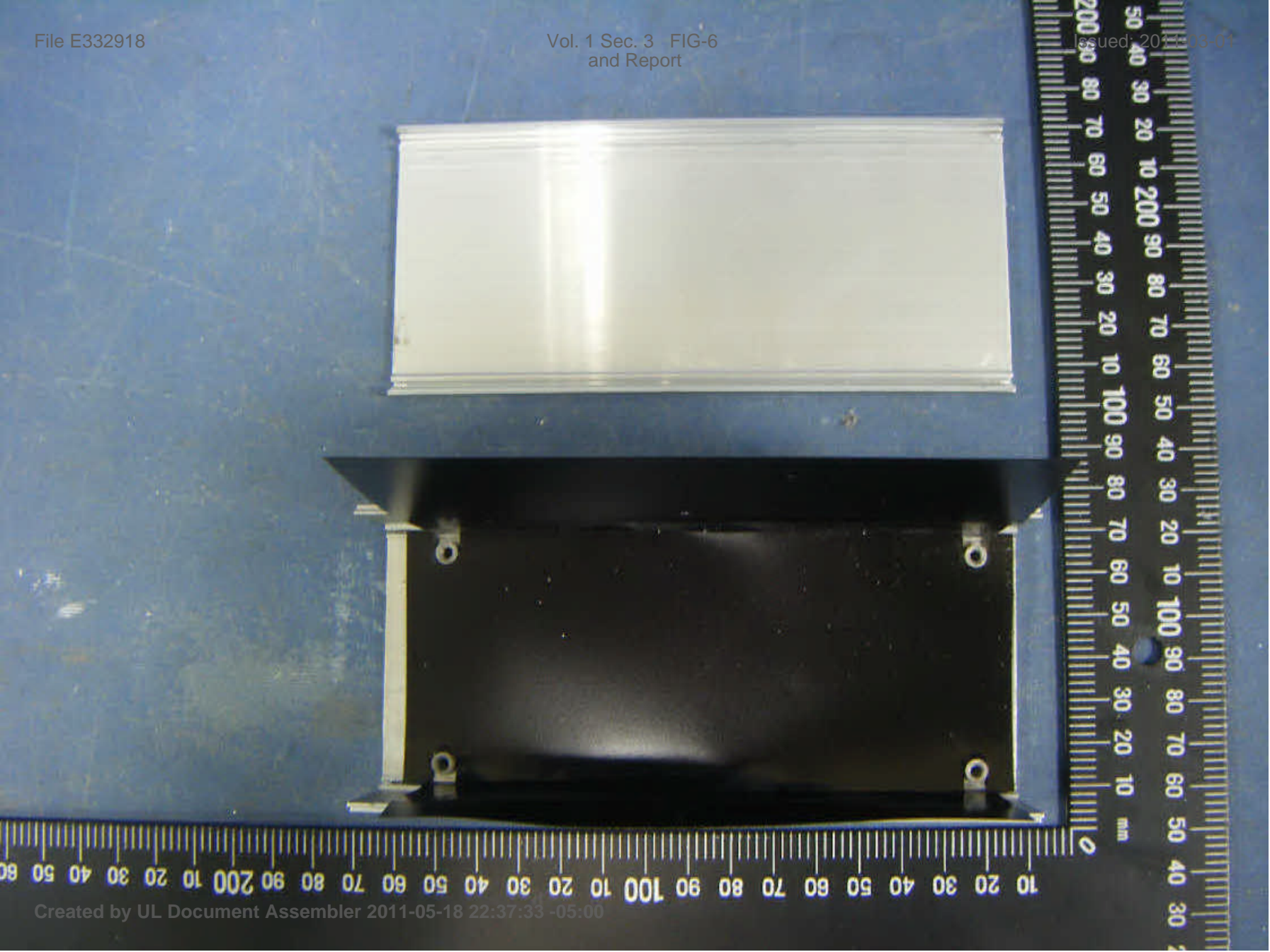


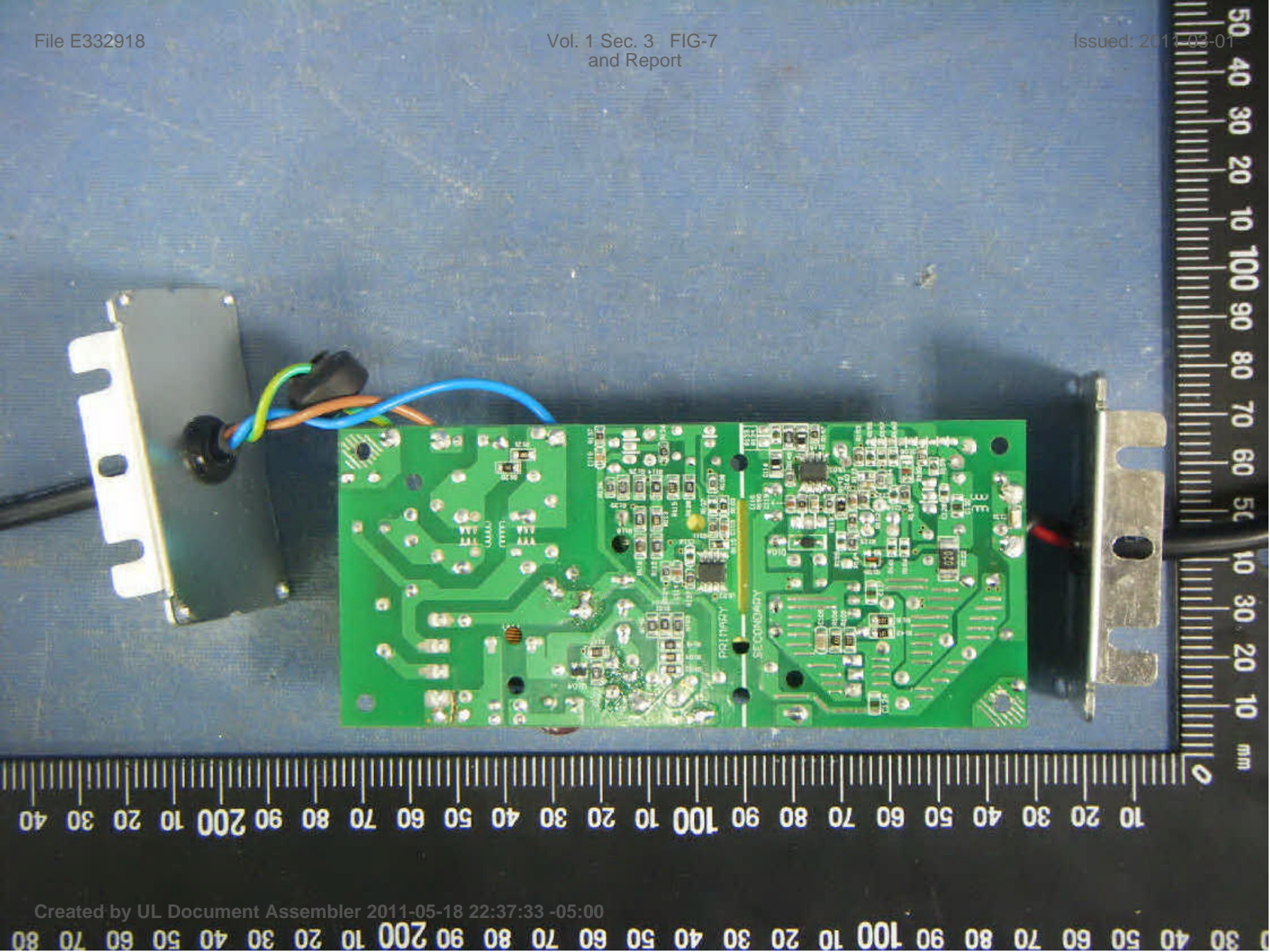


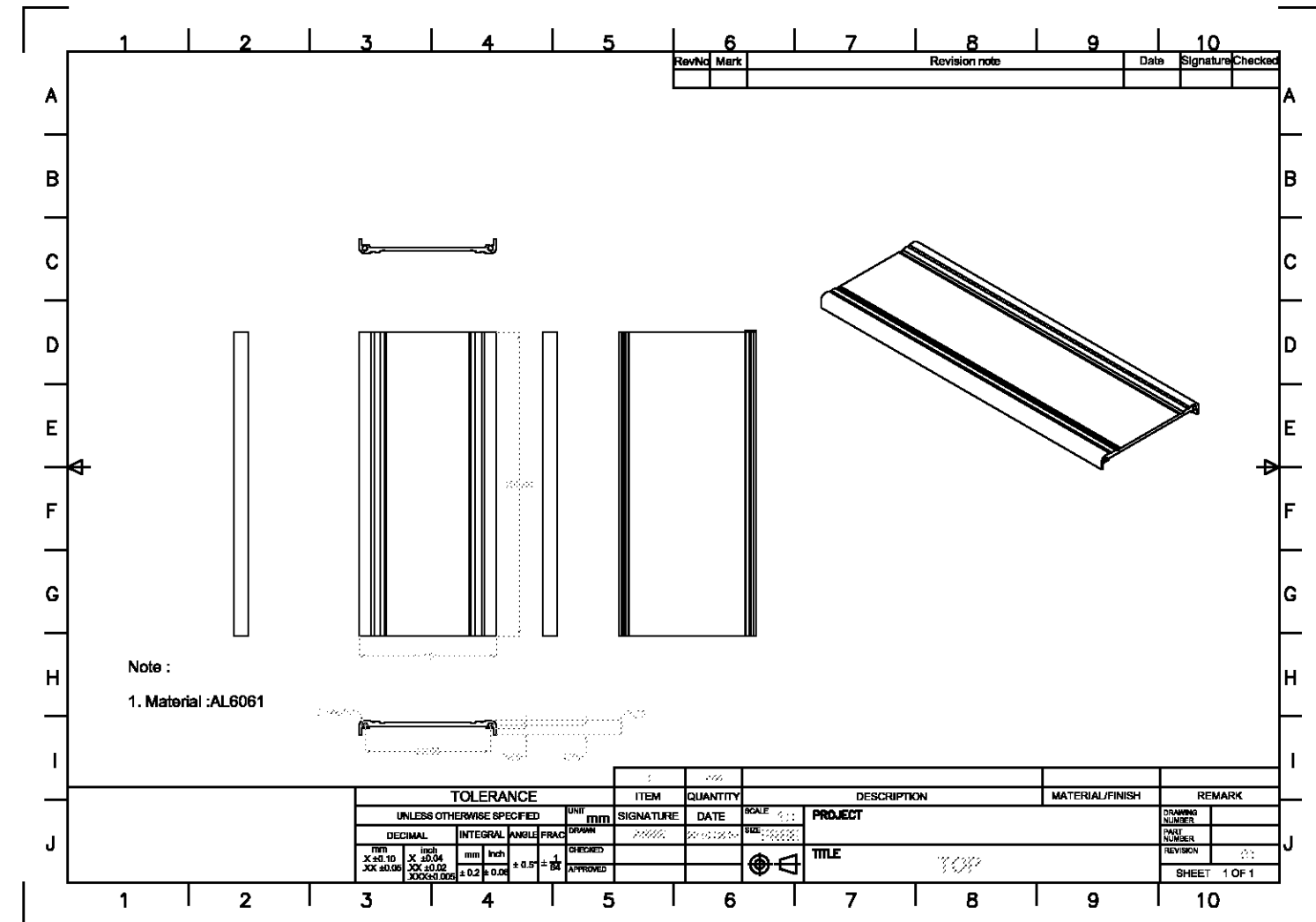
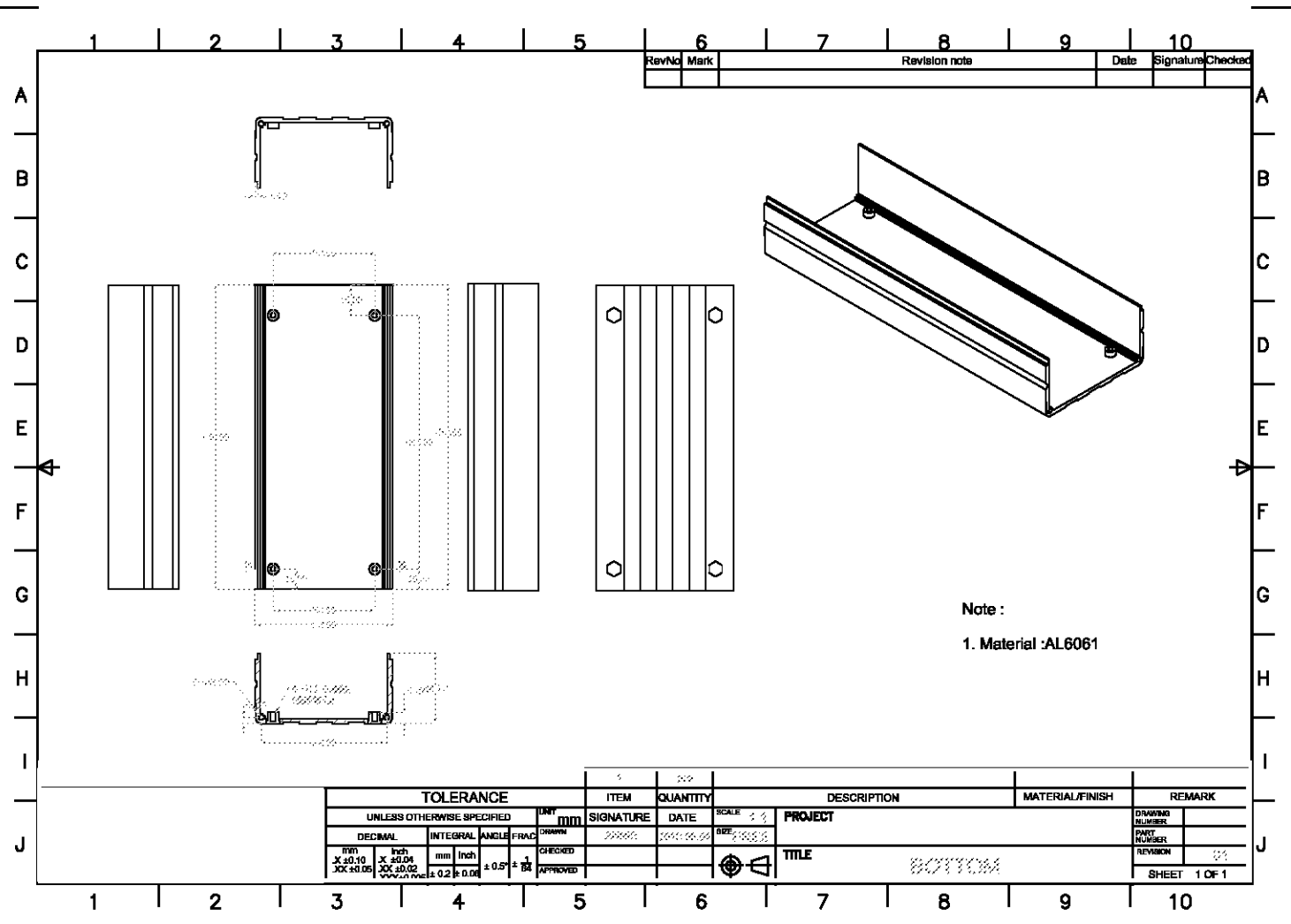




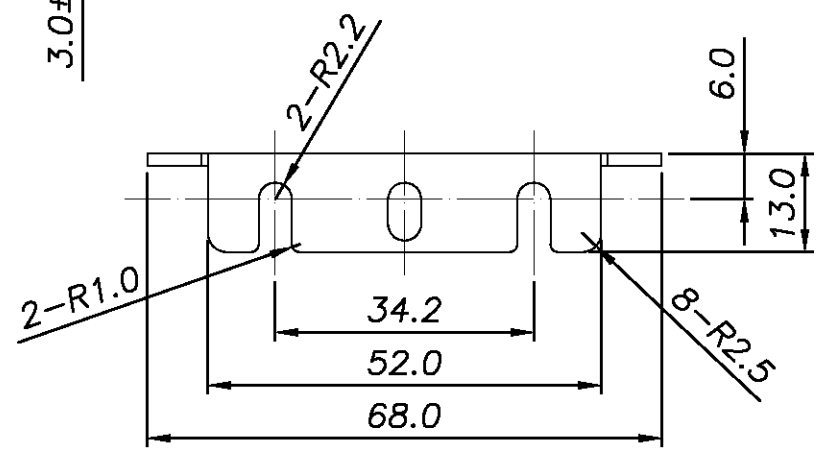
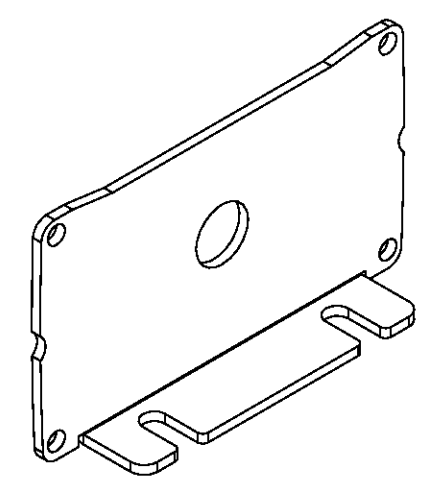
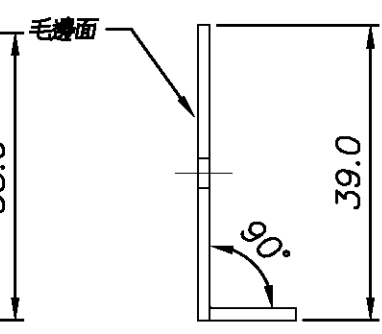
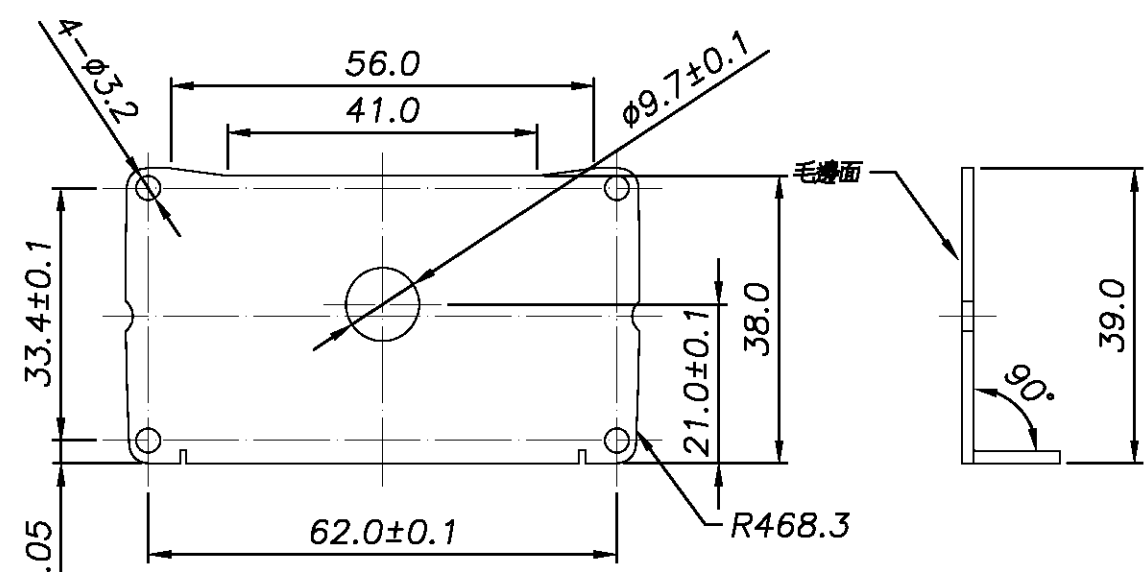
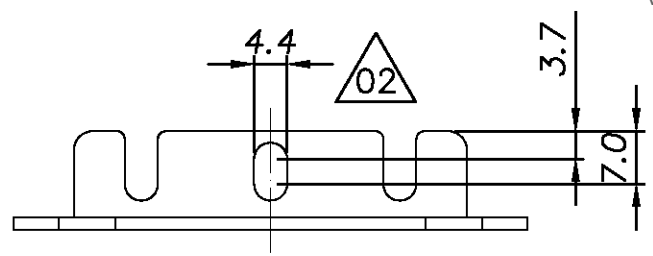




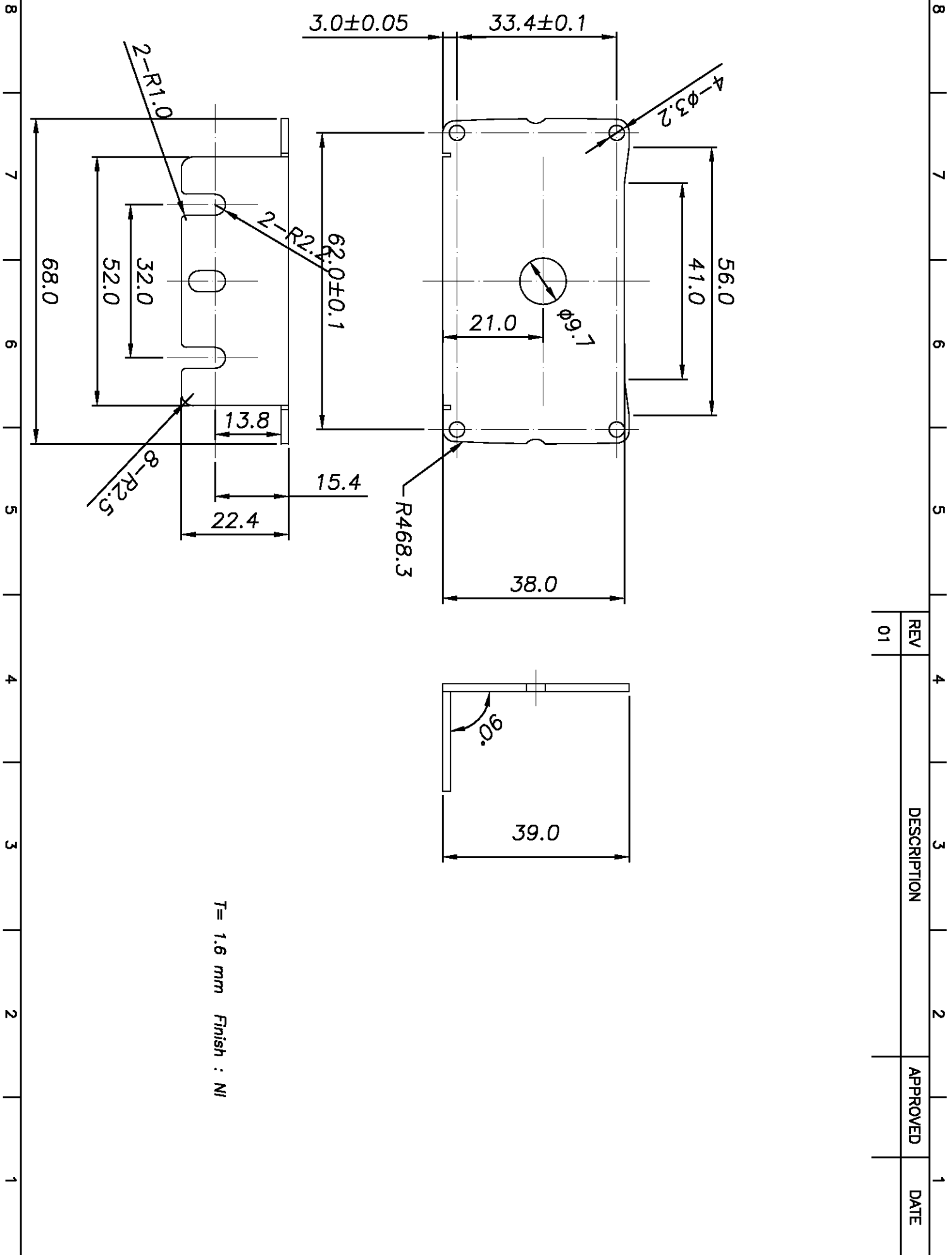




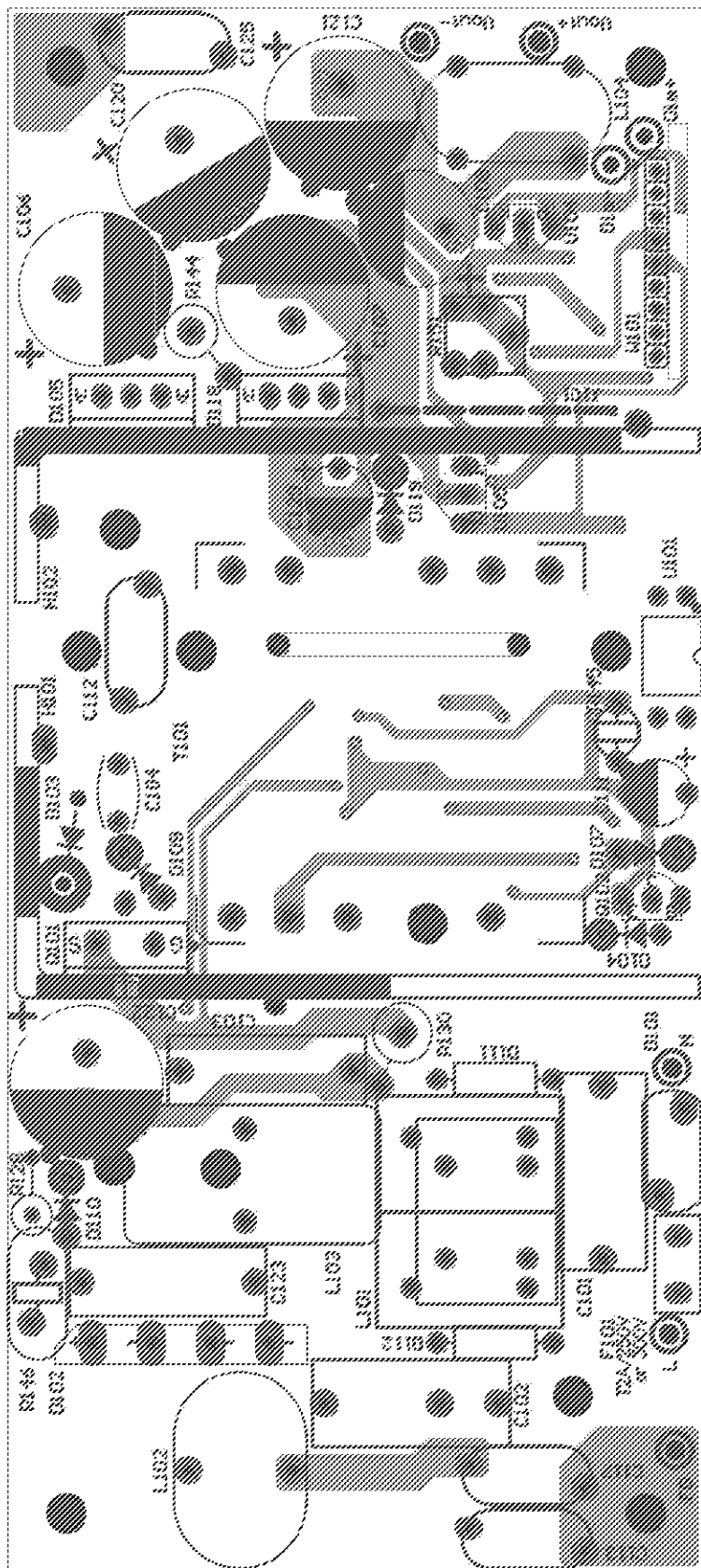
REV	DESCRIPTION	APPROVED	DATE
02			

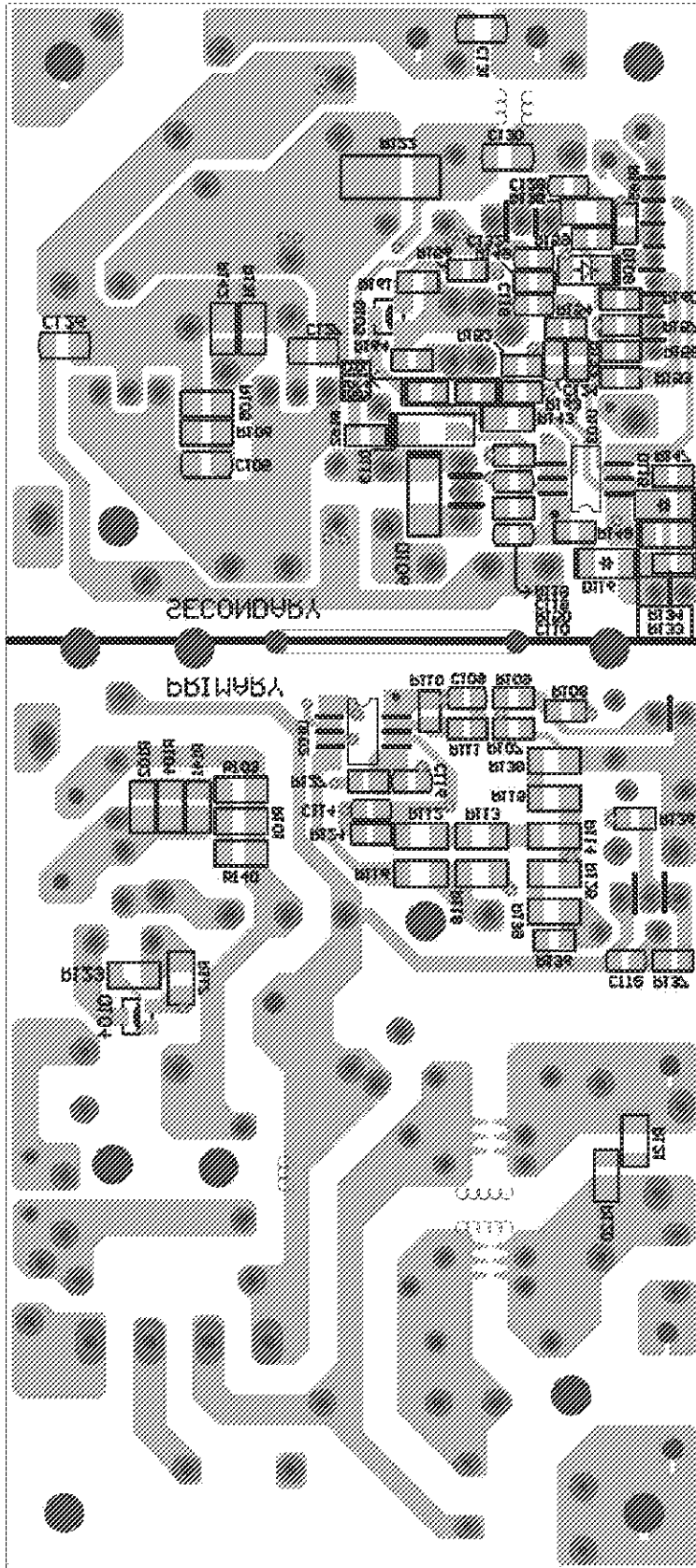


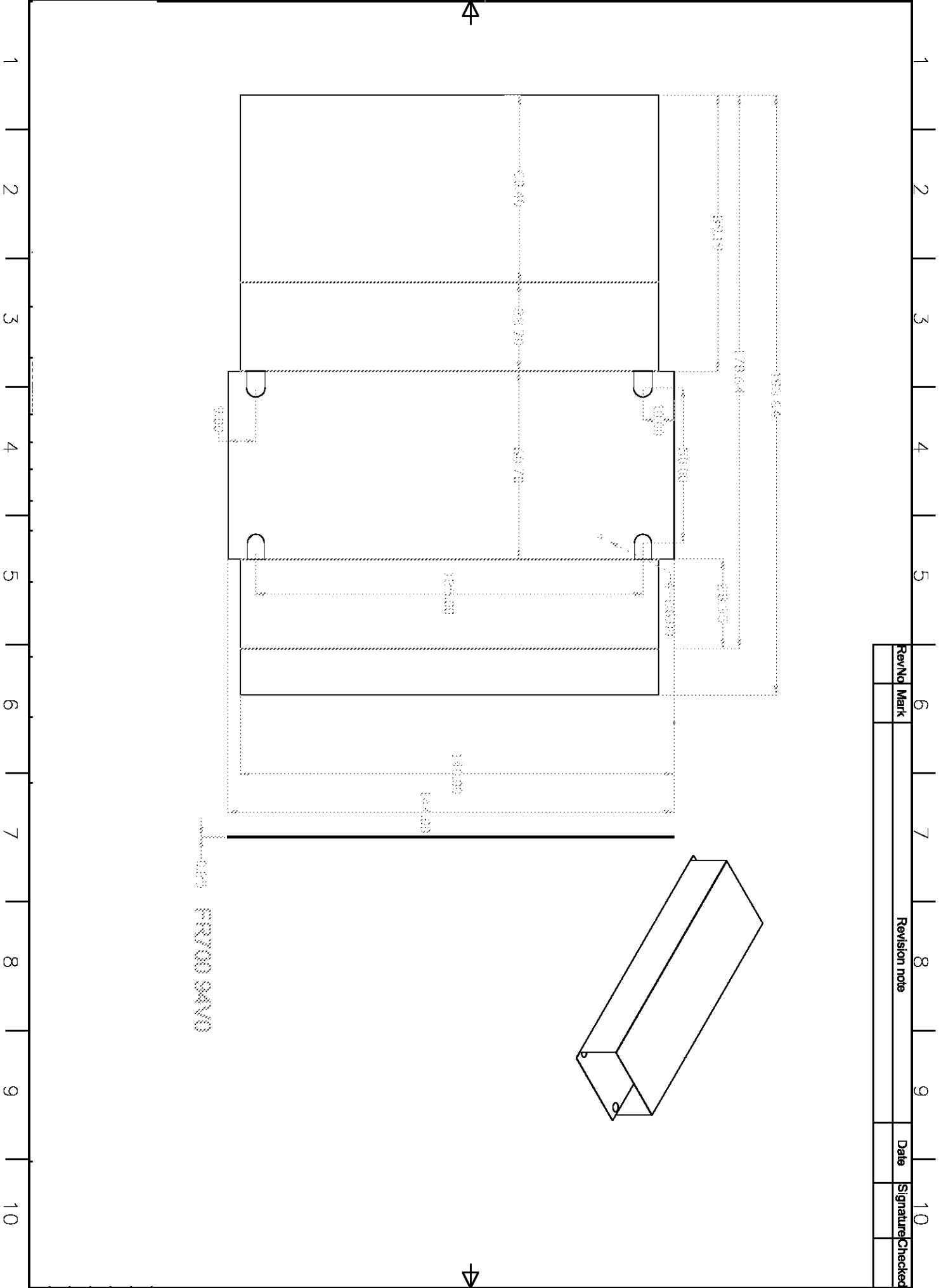
T= 1.6 mm Finish : NI



REV	DESCRIPTION	APPROVED	DATE
01			

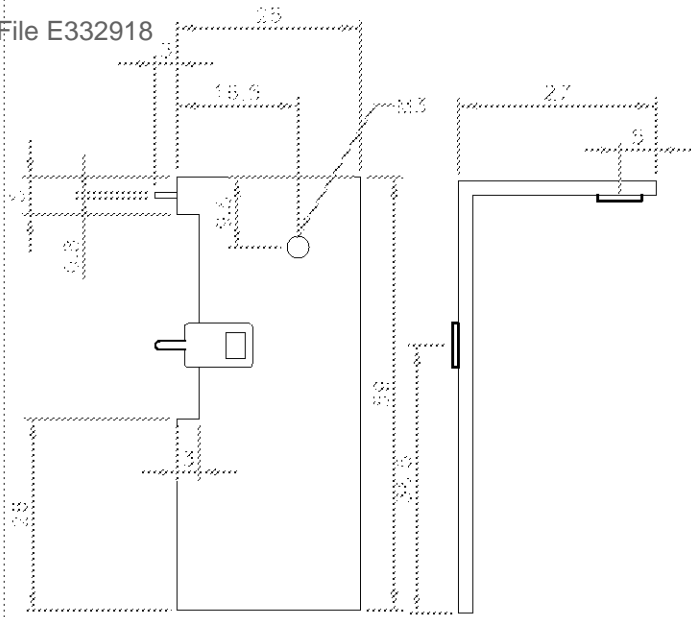






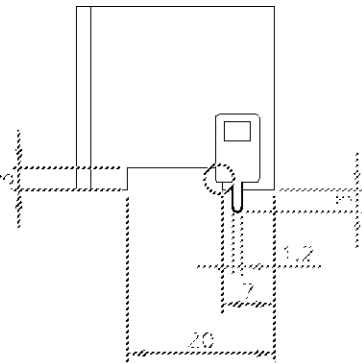
PR700 SAVO

RevNd	Mark	Revision note	Date	Signature	Checked

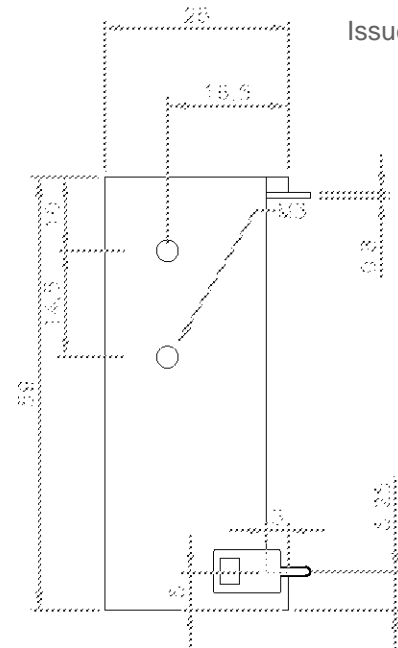
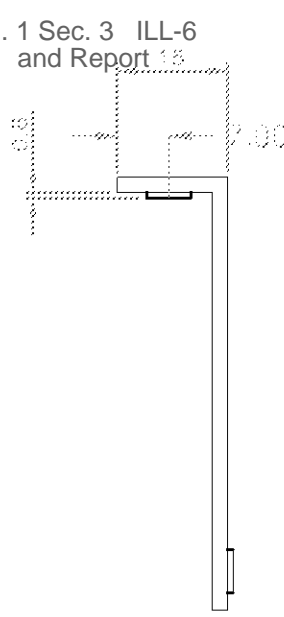


Note :

1. Material :AL
2. Thickness : 2.0 mm

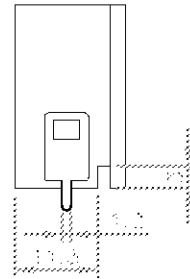


H101



Note :

1. Material :AL
2. Thickness : 2.0 mm



H102



SPECIFICATION

CUSTOMER	盛達	PART NO.	A0LI0T1928M0XXXBD1	DESCRIPTION	OTC-19 V/2S	
MODEL NO.	OTC192SVC33	DATE	2010.08.26	REV.	1.0	SHEET 2 OF 5

1. PIN LOCATION AND CONNECTION

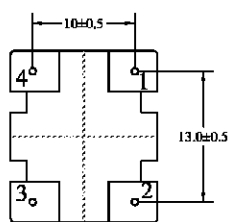


FIGURE-1

CONNECTION (●:POLARITY)

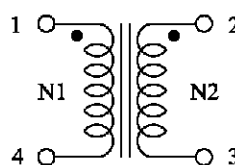


FIGURE-2

2. ELECTRICAL SPECIFICATION

2-1 INDUCTANCE, WIND, NUMBER OF TURNS, DCR. AND WINDING MATERIALS, TEST INSTRUCTION AND CONDITION

ZENTECH : 3200B , 502A , F = 20KHz V = 0.1V AT 25°C

WINDING	NUMBER OF TURNS	WIRE		INDUCTANCE	DCR (mΩ)	REMARK
		TYPE	φ			
N1 (1 - 4)	78 Ts (Ref)	MW75	0.40	28.0 mH Min	450 Max	
N2 (2 - 3)	78 Ts (Ref)	MW75	0.40	28.0 mH Min	450 Max	

2-2 INDUCTANCE WILL BE CHANGED BY ENVIRONMENT TEMPERATURE TEST INSTRUCTION AND CONDITION

ZENTECH:3200B,502A,F=20KHz V=0.1V AT:20°C INDUCTANCE=23mH MIN
AT:15°C INDUCTANCE=20mH MIN
AT:10°C INDUCTANCE=17mH MIN

NOTICE:SAMPLES NEED TO BE PUT IN TESTING ROOM OVER 2 HOURS

2-2 INSULATION RESISTANCE SHALL BE 100 M OHMS OR MORE WHEN DC 500V IS APPLIED TO THE FOLLOWING WINDING AND CORE.

- A. MEASUREMENT POINTS 1. BETWEEN ALL WINDING.
2. BETWEEN ALL WINDING AND CORE.

B. DIELECTRIC STRENGTH

NO ABNORMALITIES SHALL DEVELOP AFTER APPLICATION OF A VOLTAGE FOR ONE SECOND IN THE FOLLOWING MANNER.

HI-POT TEST 100%

TEST POINTS	APPLIED VOLTAGE
N1 TO N2	AC 1.5KV 50/60Hz
N1 , N2 TO CORE	AC 1.5KV 50/60Hz

NOTE:1. THE CUTOFF CURRENT OF THE WITHSTANDING VOLTAGE TESTED SHALL 3.0mA ONE SECOND OR LESS.

2. MEASUREMENT SHALL BE TAKEN UNDER NORMAL TEMPERATURE AND HUMIDITY.



SPECIFICATION

CUSTOMER	盛達	PART NO.	A0LI0T1928M0XXXBD1	DESCRIPTION	OTC-19 V/2S		
MODEL NO.	OTC192SVC33	DATE	2010.08.26	REV.	1.0	SHEET	3 OF 5

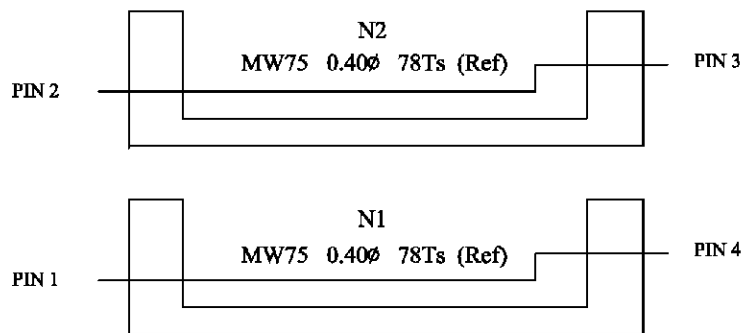
3.NOTE FOR FIGURE-1

THE PIN NUMBERS IN FIGURE-1 CORRESPOND TO INDICATEED NUMBERS ON THE BOBBIN.

4.NOTE FOR FIGURE-2

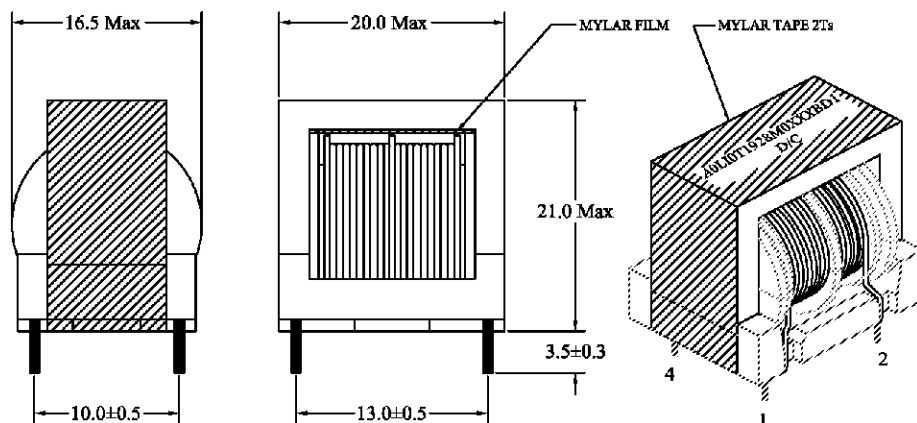
4-1 THE POLARITY IN FIGURE-2 INDICATEED THE DTART PIN OF BACH WINDINGS.
4-2 INDICATEED NUMBERS IN FIGURE-2 CORRESPOND TO PIN NUMBERS ON THE BOBBIN (WIRE SHALL BE WOUND AROUND PIN)
INDICATEED ALPHABETS MEAN LEAD WIRES.(NOT WOUND AROUND PIN)

5.CONSTRUCTION DETAIL OF INSULATION



6.ADHESIVE, IDENTIFICATION MARKING & DIMENSION

外觀圖: Unit(mm)





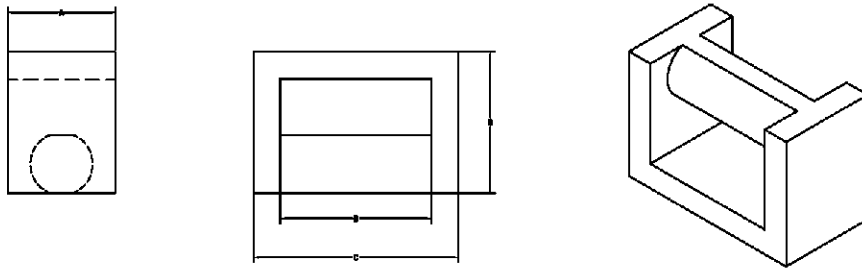
SPECIFICATION

CUSTOMER	盛達	PART NO.	A0L10T1928M0XXXBD1	DESCRIPTION	OTC-19 V/2S		
MODEL NO.	OTC192SVC33	DATE	2010.08.26	REV.	1.0	SHEET	4 OF 5

7.VARNISHING

VACUUM IMPREGNATION OF VARNISH SHALL BE PERFORMED AFTER ADHESION PROCESS.

8.FERRITE CORE DIMENSIONS



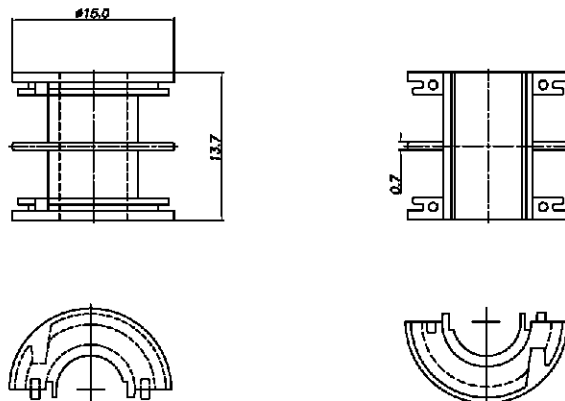
CORES OTC-19	DIMENSIONS(mm)			
	A	B	C	D
	10.0±0.5	14.0±0.2	19±0.5	13.2±0.5

MAATERIAL:NO GAP
AL = 5000 MIN

ZL 98 2 47324.9
PAT. US 6,121,696
J 3060520
新型第 164060 號

9.BOBBIN CONSTRUCTION: YJ-005

MATERIAL:PBT



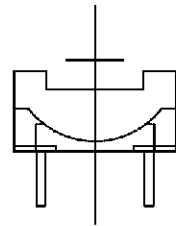
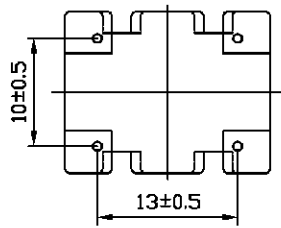
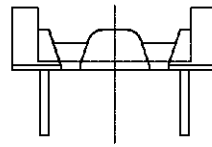
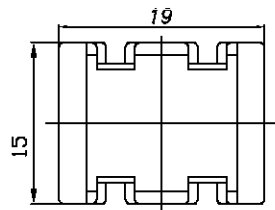


SPECIFICATION

CUSTOMER	盛達	PART NO.	A0LI0T1928M0XXXBD1	DESCRIPTION	OTC-19 V/2S	
MODEL NO.	OTC192SVC33	DATE	2010.08.26	REV.	1.0	SHEET 5 OF 5

10.BASE CONSTRUCTION: YJ-006-3

MATERIAL: T375J



SPECIFICATION FOR APPROVAL

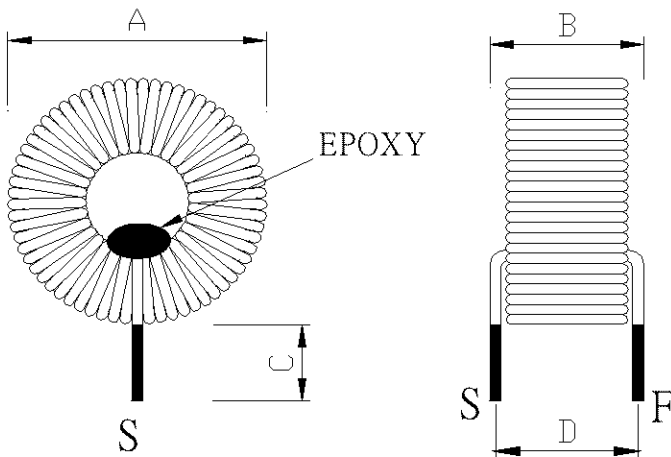


CUSTOMER NAME: 盛 達 CUSTOMER PT/NO: A0LIRN17400UXXXBD0

DESCRIPTION: CHOKCOIL SPT/NO. _____

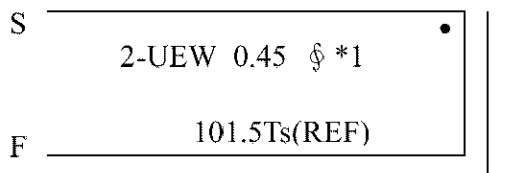
SAMPLE SUBMIT NO.: SP09P117 ISSUE DATE Oct 29, 2009 REV: 00

(1) CONFIGURATION&DESCRIPTION UNIT : mm



A	17.0MAX
B	11.5MAX
C 4.0	±0.5
D 9.0±1.0	
E	
G	
H	

(2) SCHEMATIC



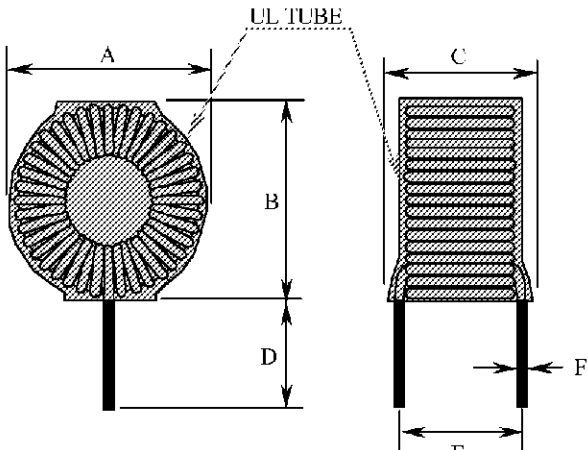
(3) ELECTRICAL CHARACTERISTICS

NO.	PARAMETER	TERMINAL SPECIFICATION	TEST INSTRUMENTS
1.	INDUCATANCE	S - F	400uH MIN DELTA UNITED 6021 or EQU. @1 KHz, 1Vrms.
2.	DRESISTANCE	S - F	0.336Ω MAX DELTA UNITED 5010 or EQU. @25°C

APPROVED BY : 	CHECKED BY : 	PREPARED BY :
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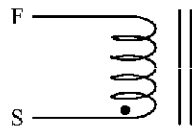


SPECIFICATION FOR APPROVAL

CUSTOMER	ITEM	T68-26	COIL	P/N	
Mechanical Assembly :					
 <p style="text-align: center;">NOTE : 產品需套 UL-TUBE(BLACK)-18 φ x21mmREF :</p>				A	23.0 MAX mm
				B	22.0 MAX mm
				C	12.0 MAX mm
				D	3.3 ± 0.5 mm
				E	7.5 ± 0.5 mm
				F	0.7 φ ± 0.1 mm
				G	mm
				H	mm
				I	mm
				J	mm
				K	mm
				L	mm
				ELECTRICAL REQUIREMENTS	
	L (uH)	Q(MIN.)	DCR(mOHM)	(1) HP- 4284A @ 1KHz / 0.25V At25°C (2) TF-6881A	
S- F	340 MIN		130.0 MAX		
				APPROVED BY	MODEL NO.
				Li Xiao Jun	
				CHECKED BY	
				Li Jing Po	CORMEX NO.
				REPORTED BY	E-12418A
				Han Yong Sheng	(TE12418A00)
				Nong Jin Lian	

DATE : DEC,23,2005

1. CORE : KST68-26, T68-75, CA68-26



2. WINDING :

S-F : CU-0.7 ϕ (2UFW-Y) x 1P x 93T₈ (RFF)

3. CHARACTERISTICS : @ 1KHz/0.25V AT 25°C

L(S-F) : 340 μ H MIN

DCR(S-F) : 130.0m Ω MAX

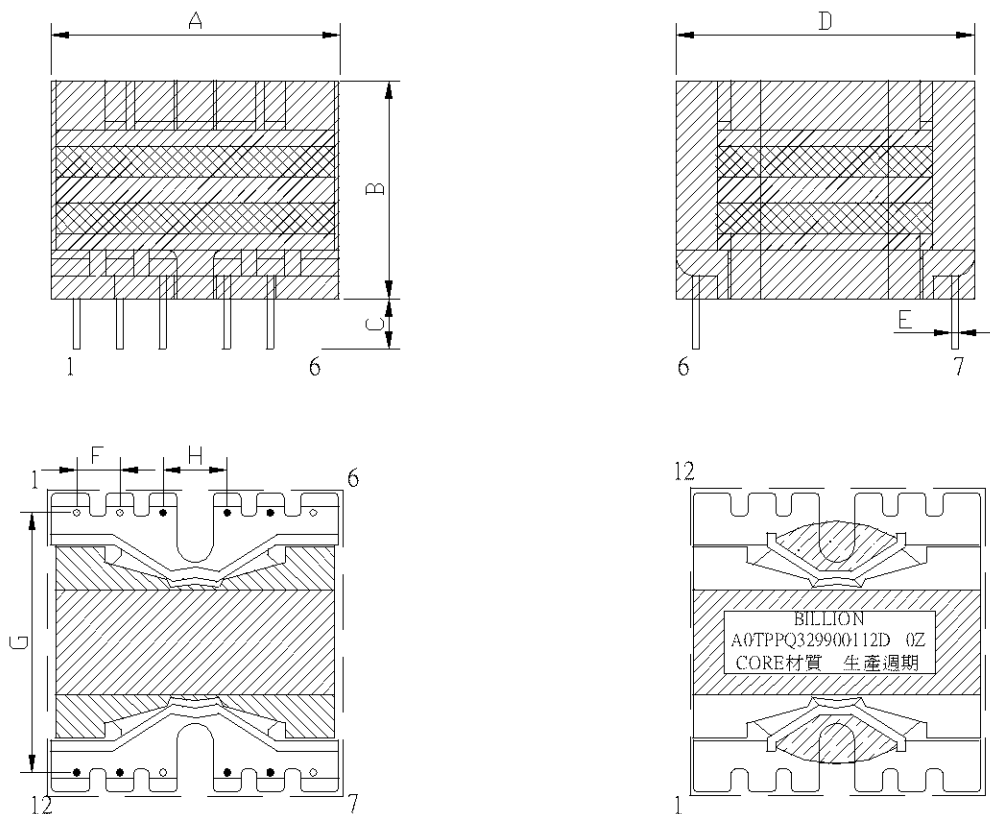
SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900112D0Z
 DESCRIPTION: TRANSFORMER SP PT/NO. _____
 SAMPLE SUBMIT NO.: SP10P267 ISSUE DATE Nov 22,2010 REV: 00

(1) CONFIGURATION & DESCRIPTION

UNIT : m/m



- ※ PIN 6,10 CUT OFF,PIN 4 CUT OFF 2/3
- ※ 產品外圍須加 E1 外背膠銅箔 0.05T*10mm*1Ts,引線 0.3 § 加 TFL TUBE 接 PIN3,焊銅箔前後包 TAPE 各 2Ts
- ※ 成品後在最外層加一層膠帶完整包覆整顆變壓器
- ※ PIN 端 CORE 組裝前先反折 TAPE 一層.

NO.	A	B	C	D	E	F	G	H			
SPECIFICATION	36.0	27.5	3.5	36.0	0.8 §	5.0	30.0	7.4			
TOLERANCE	MAX	MAX	±0.5	MAX	±0.1	±0.5	±0.5	±0.5			

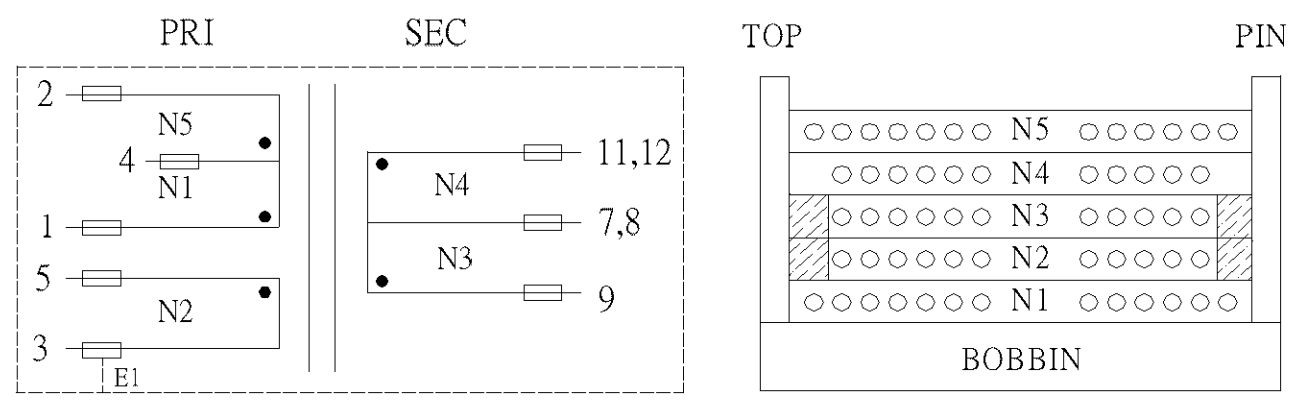
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SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900112D0Z
 DESCRIPTION: TRANSFORMER SP PT/NO. _____
 SAMPLE SUBMIT NO.: SP10P267 ISSUE DATE Nov 22,2010 REV: 00

(2)SCHEMATIC



※NOTE ● START; TEFLON TUBE.

MARGIN TAPE4.0mm

(3)WINDING CONSTRUCTION

WINDING ORDER	TERMINAL NO. START - FINISH	WINDING SPECIFICATION	MYLAR TAPE	REMARK
#1	N1 1 - 4	UEW/U 0.75 ϕ *1*16Ts	1 Ts	密繞
#2	N2 5 - 3	UEW/U 0.30 ϕ *1*5Ts	1 Ts	中間密繞
#3	N3 9 - 7,8	TEX-E 0.2 ϕ *1*6Ts	1 Ts	中間密繞
#4	N4 11,12 - 7,8	TEX-E 0.6 ϕ *6*4Ts	1 Ts	密繞
#5	N5 4 - 2	UEW/U 0.75 ϕ *1*16Ts	3 Ts	密繞

APPROVED BY :	CHECKED BY :	PREPARED BY :
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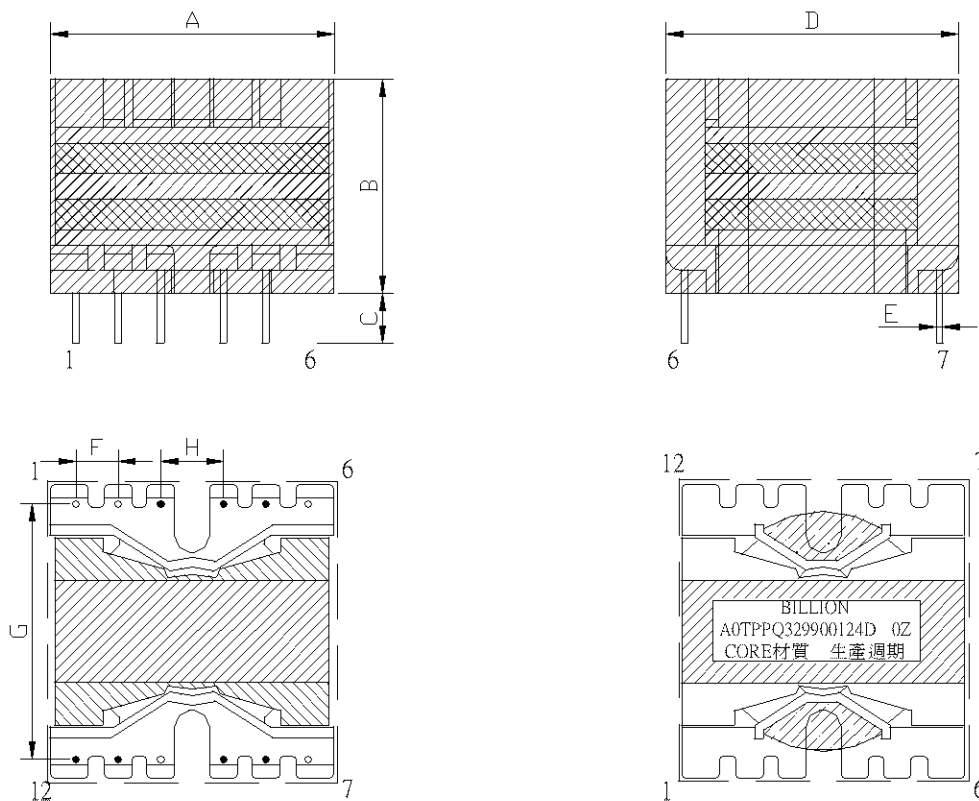
SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900124D0Z
 DESCRIPTION: TRANSFORMER SP PT/NO. _____
 SAMPLE SUBMIT NO.: SP10P269 ISSUE DATE Nov 22,2010 REV: 00

(1) CONFIGURATION & DESCRIPTION

UNIT : m/m



- ※ PIN 6,10 CUT OFF,PIN 4 CUT OFF 2/3
- ※ 產品外圍須加 E1 外背膠銅箔 0.05T*10mm*1Ts,引線 0.3 \$ 加 TFL TUBE 接 PIN3,焊銅箔前後包 TAPE 各 2Ts
- ※ 成品後在最外層加一層膠帶完整包覆整顆變壓器
- ※ PIN 端 CORE 組裝前先反折 TAPE 一層.

NO.	A	B	C	D	E	F	G	H			
SPECIFICATION	36.0	27.5	3.5	36.0	0.8 \$	5.0	30.0	7.4			
TOLERANCE	MAX	MAX	±0.5	MAX	±0.1	±0.5	±0.5	±0.5			

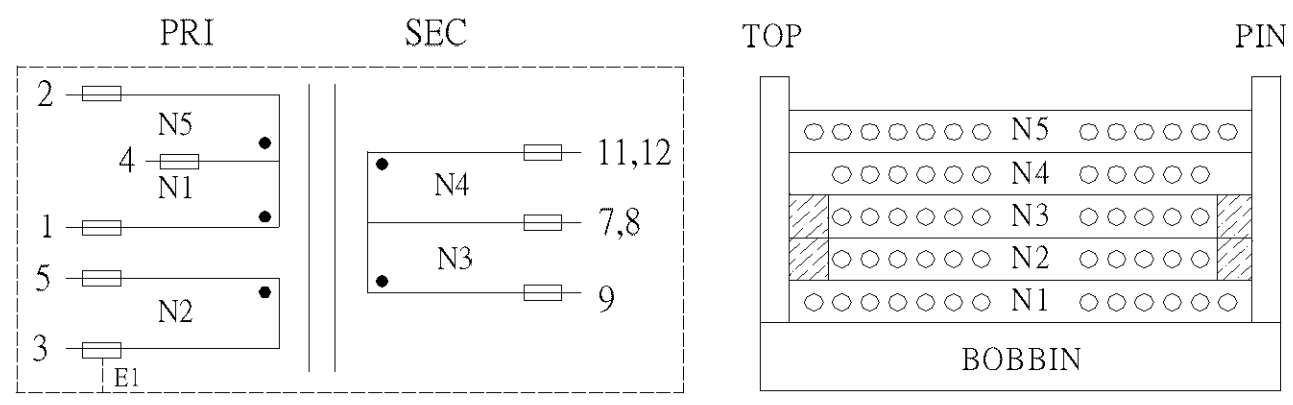
APPROVED BY : 陳 99.12.24 淑芬	CHECKED BY : 陳 99.12.24 淑芬	PREPARED BY : 陳 99.12.24 淑芬
--	---	--

SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900124D0Z
 DESCRIPTION: TRANSFORMER SPPT/NO. _____
 SAMPLE SUBMIT NO.: SP10P269 ISSUE DATE Nov 22,2010 REV: 00

(2)SCHEMATIC



※NOTE ● START; TEFLON TUBE.

(3)WINDING CONSTRUCTION

WINDING ORDER	TERMINAL NO. START - FINISH	WINDING SPECIFICATION	MYLAR TAPE	REMARK
#1	N1 1 - 4	UEW/U 0.75 ϕ *1*16Ts	1 Ts	密繞
#2	N2 5 - 3	UEW/U 0.30 ϕ *1*5Ts	1 Ts	中間密繞
#3	N3 9 - 7,8	TEX-E 0.2 ϕ *1*6Ts	1 Ts	中間密繞
#4	N4 11,12 - 7,8	TEX-E 0.6 ϕ *4*7Ts	1 Ts	密繞
#5	N5 4 - 2	UEW/U 0.75 ϕ *1*16Ts	3 Ts	密繞

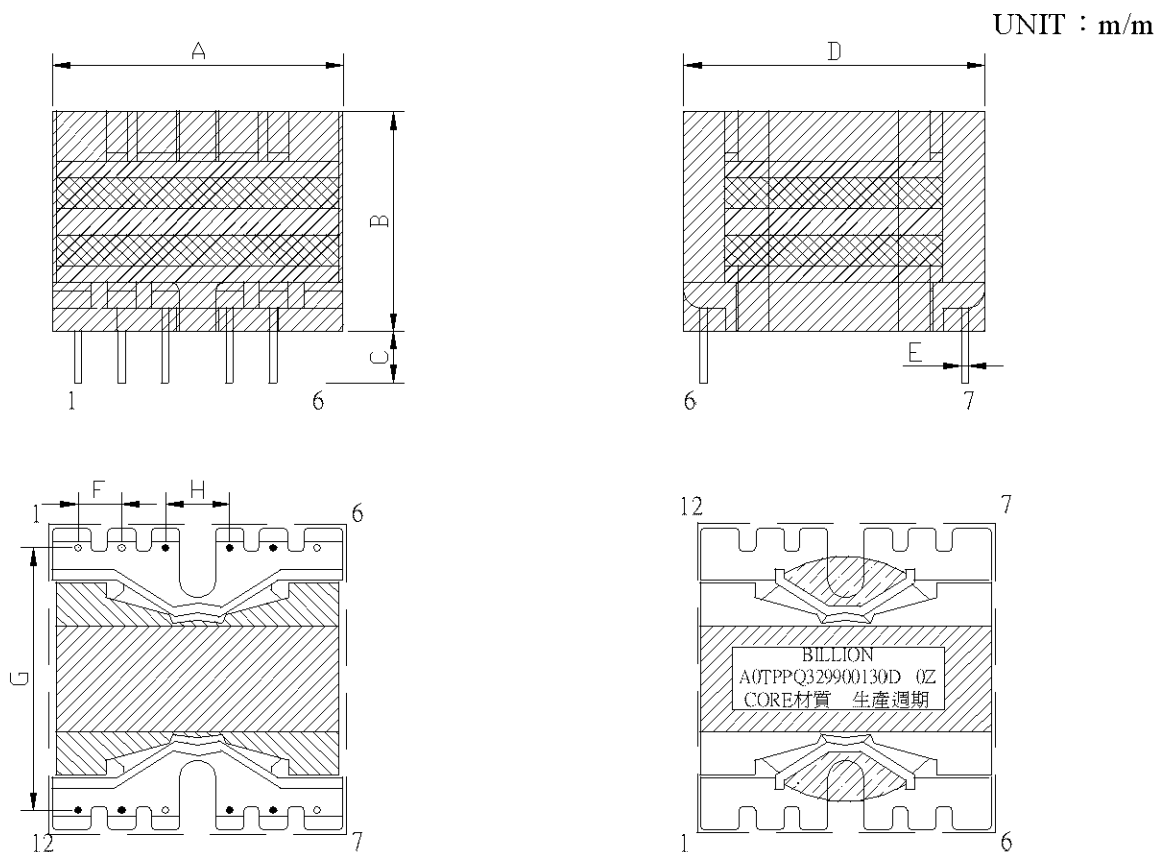
APPROVED BY : CHECKED BY : PREPARED BY :

SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900130D0Z
 DESCRIPTION: TRANSFORMER SP PT/NO. _____
 SAMPLE SUBMIT NO.: SP10P276 ISSUE DATE Nov 22,2010 REV: 00

(1) CONFIGURATION & DESCRIPTION



- ※ PIN 6,10 CUT OFF,PIN 4 CUT OFF 2/3
- ※ 產品外圍須加 E1 外背膠銅箔 0.05T*10mm*1Ts,引線 0.3 § 加 TFL TUBE 接 PIN3,焊銅箔前後包 TAPE 各 2Ts
- ※ 成品後在最外層加一層膠帶完整包覆整顆變壓器
- ※ PIN 端 CORE 組裝前先反折 TAPE 一層.

NO.	A	B	C	D	E	F	G	H			
SPECIFICATION	36.0	27.5	3.5	36.0	0.8 §	5.0	30.0	7.4			
TOLERANCE	MAX	MAX	±0.5	MAX	±0.1	±0.5	±0.5	±0.5			

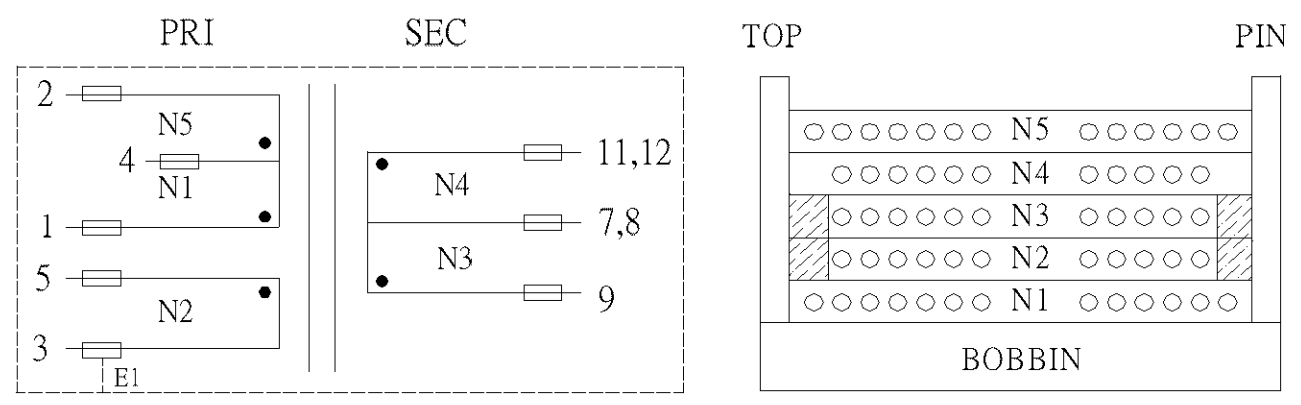
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SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900130D0Z
 DESCRIPTION: TRANSFORMER SP PT/NO. _____
 SAMPLE SUBMIT NO.: SP10P276 ISSUE DATE Nov 22,2010 REV: 00

(2)SCHEMATIC



※NOTE ● START; TEFLON TUBE.

MARGIN TAPE4.0mm

(3)WINDING CONSTRUCTION

WINDING ORDER	TERMINAL NO. START - FINISH	WINDING SPECIFICATION	MYLAR TAPE	REMARK
#1	N1 1 - 4	UEW/U 0.75 ϕ *1*16Ts	1 Ts	密繞
#2	N2 5 - 3	UEW/U 0.30 ϕ *1*5Ts	1 Ts	中間密繞
#3	N3 9 - 7,8	TEX-E 0.2 ϕ *1*7Ts	1 Ts	中間密繞
#4	N4 11,12 - 7,8	TEX-E 0.55 ϕ *4*9Ts	1 Ts	密繞
#5	N5 4 - 2	UEW/U 0.75 ϕ *1*16Ts	3 Ts	密繞

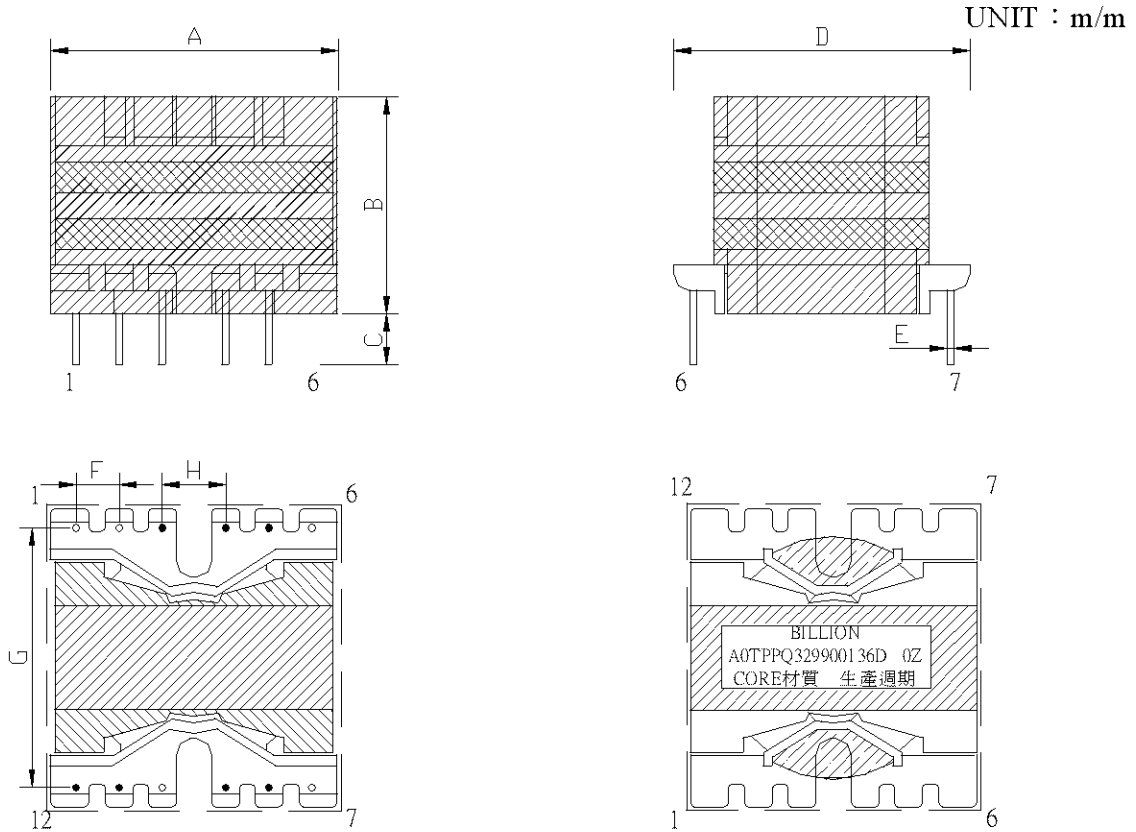
APPROVED BY :	CHECKED BY :	PREPARED BY :
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SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900136D0Z
 DESCRIPTION: TRANSFORMER SP PT/NO. _____
 SAMPLE SUBMIT NO.: SP10P271 ISSUE DATE JAN 06,2011 REV: 00

(1) CONFIGURATION & DESCRIPTION



- ※ PIN 6,10 CUT OFF,PIN 4 CUT OFF 2/3
- ※ 產品外圍須加 E1 外背膠銅箔 0.05T*10mm*1Ts,引線 0.3 ϕ 加 TFL TUBE 接 PIN3,焊銅箔前後包 TAPE 各 2Ts
- ※ 成品後在最外層加一層膠帶完整包覆整顆變壓器
- ※ PIN 端 CORE 組裝前先反折 TAPE 一層.

NO.	A	B	C	D	E	F	G	H			
SPECIFICATION	36.0	27.5	3.5	36.0	0.8 ϕ	5.0	30.0	7.4			
TOLERANCE	MAX	MAX	±0.5	MAX	±0.1	±0.5	±0.5	±0.5			

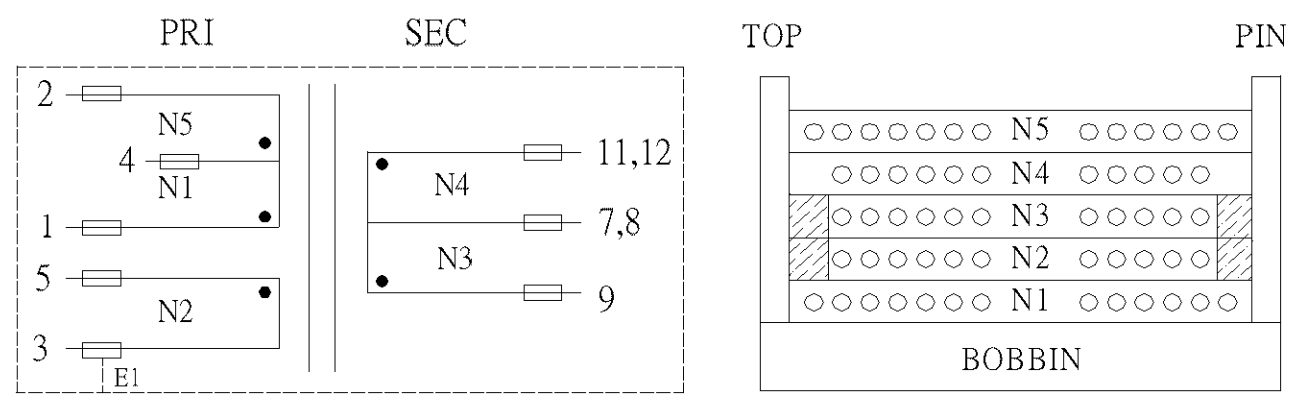
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SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900136D0Z
 DESCRIPTION: TRANSFORMER SP PT/NO. _____
 SAMPLE SUBMIT NO.: SP10P271 ISSUE DATE JAN 06,2011 REV: 00

(2)SCHEMATIC



※NOTE ● START; TEFLON TUBE.

MARGIN TAPE 4.0mm

(3)WINDING CONSTRUCTION

WINDING ORDER	TERMINAL NO. START - FINISH	WINDING SPECIFICATION	MYLAR TAPE	REMARK
#1	N0	繞線前先在 BOBBIN 上包 TAPE	1 Ts	
#2	N1	UEW/U 0.75 ϕ *1*16Ts	1 Ts	密繞
#3	N2	UEW/U 0.30 ϕ *1*5Ts	1 Ts	中間密繞
#4	N3	TEX-E 0.2 ϕ *1*6Ts	1 Ts	中間密繞
#5	N4	TEX-E 0.45 ϕ *4*11Ts	1 Ts	
#6	N5	UEW/U 0.75 ϕ *1*16Ts	3 Ts	密繞

APPROVED BY : CHECKED BY : PREPARED BY :

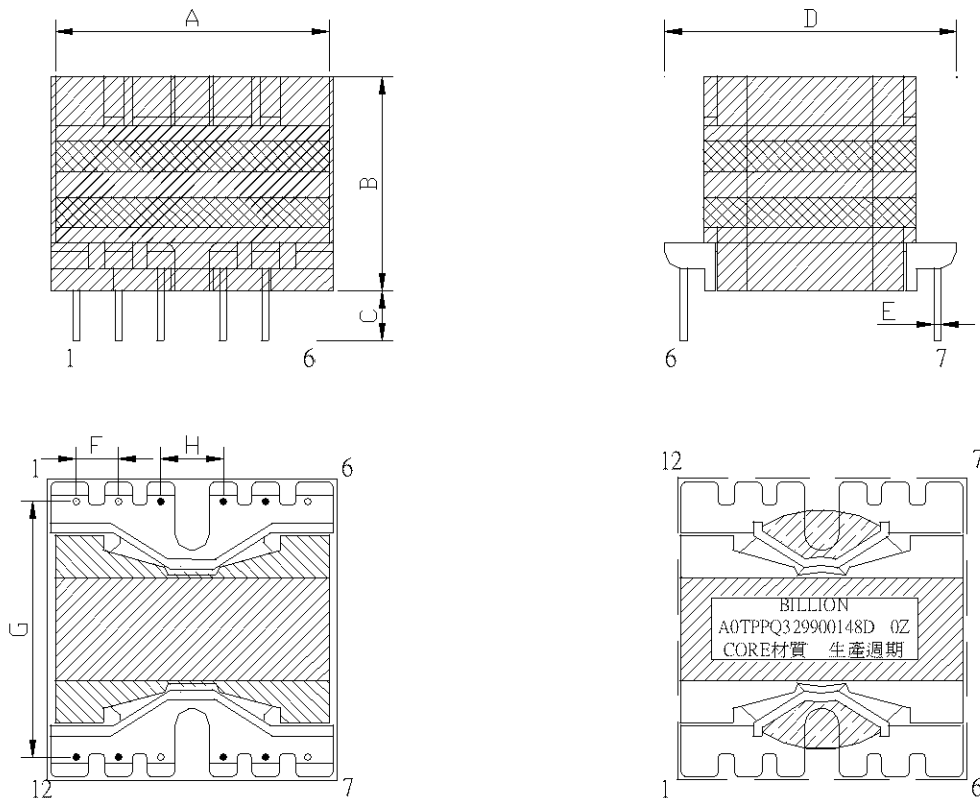
SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900148D0Z
 DESCRIPTION: TRANSFORMER SP PT/NO. _____
 SAMPLE SUBMIT NO.: SP10P274 ISSUE DATE Nov 10,2010 REV: 00

(1) CONFIGURATION & DESCRIPTION

UNIT : m/m



- ※ PIN 6,10 CUT OFF,PIN 4 CUT OFF 2/3
- ※ 產品外圍須加 E1 外背膠銅箔 0.05T*10mm*1Ts,引線 0.3 ϕ 加 TFL TUBE 接 PIN3,焊銅箔前後包 TAPE 各 2Ts
- ※ 成品後在最外層加一層膠帶完整包覆整顆變壓器
- ※ PIN 端 CORE 組裝前先反折 TAPE 一層.

NO.	A	B	C	D	E	F	G	H			
SPECIFICATION	36.0	27.5	3.5	36.0	0.8 ϕ	5.0	30.0	7.4			
TOLERANCE	MAX	MAX	±0.5	MAX	±0.1	±0.5	±0.5	±0.5			

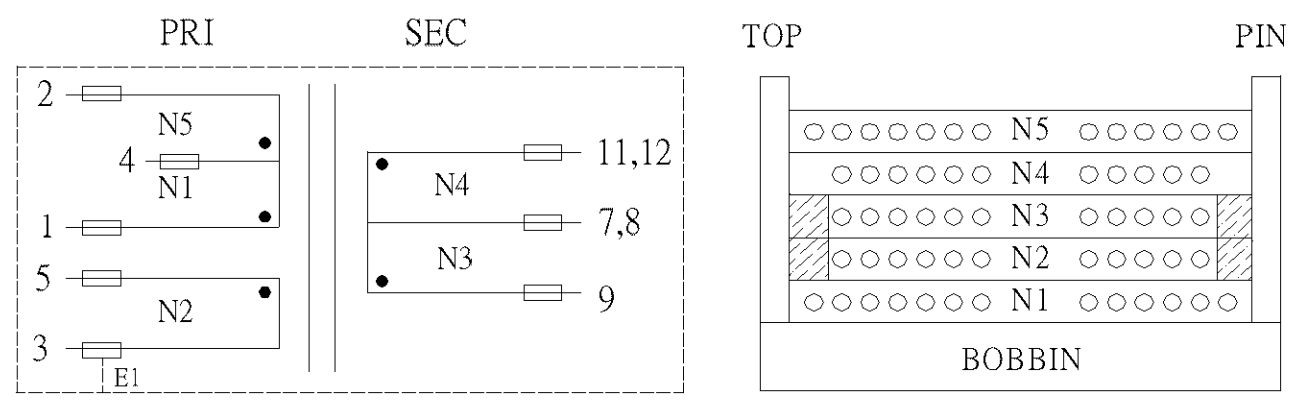
APPROVED BY : <div style="text-align: center;"> </div>	CHECKED BY : <div style="text-align: center;"> </div>	PREPARED BY : <div style="text-align: center;"> </div>
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SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900148D0Z
 DESCRIPTION: TRANSFORMER SP PT/NO. _____
 SAMPLE SUBMIT NO.: SP10P274 ISSUE DATE Nov 10,2010 REV: 00

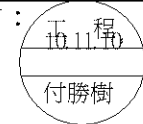


(2)SCHEMATIC



※NOTE ● START; TEFLON TUBE.

(3)WINDING CONSTRUCTION

WINDING ORDER	TERMINAL NO. START - FINISH	WINDING SPECIFICATION	MYLAR TAPE	REMARK
#1	N0	繞線前先在 BOBBIN 上包 TAPE	1 Ts	
#2	N1	UEW/U 0.75 ϕ *1*16Ts	1 Ts	密繞
#3	N2	UEW/U 0.30 ϕ *1*5Ts	1 Ts	中間密繞
#4	N3	TEX-E 0.3 ϕ *1*7Ts	1 Ts	中間密繞
#5	N4	TEX-E 0.55 ϕ *2*16Ts	1 Ts	
#6	N5	UEW/U 0.75 ϕ *1*16Ts	3 Ts	密繞

APPROVED BY :  付勝樹	CHECKED BY :  卜海橋	PREPARED BY :  吳曉艷
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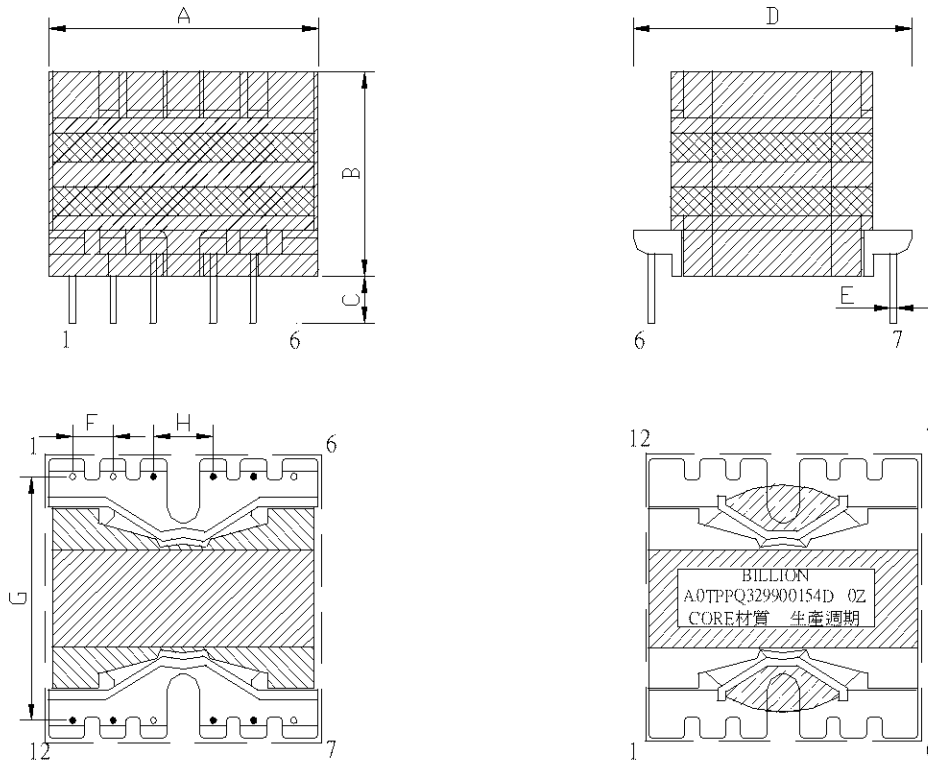
SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900154D0Z
 DESCRIPTION: TRANSFORMER SP PT/NO. _____
 SAMPLE SUBMIT NO.: SP10P277 ISSUE DATE JAN 05,2011 REV: 00

(1) CONFIGURATION & DESCRIPTION

UNIT : m/m



- ※ PIN 6,10 CUT OFF,PIN 4 CUT OFF 2/3
- ※ 產品外圍須加 E1 外背膠銅箔 0.05T*10mm*1Ts,引線 0.3 ϕ 加 TFL TUBE 接 PIN3,焊銅箔前後包 TAPE 各 2Ts
- ※ 成品後在最外層加一層膠帶完整包覆整顆變壓器
- ※ PIN 端 CORE 組裝前先反折 TAPE 一層.

NO.	A	B	C	D	E	F	G	H			
SPECIFICATION	36.0	27.5	3.5	36.0	0.8 ϕ	5.0	30.0	7.4			
TOLERANCE	MAX	MAX	±0.5	MAX	±0.1	±0.5	±0.5	±0.5			

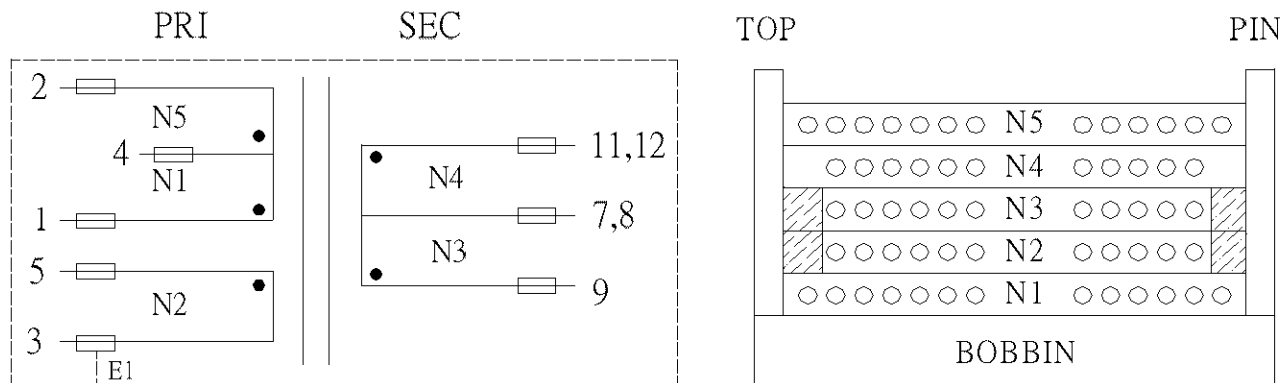
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SPECIFICATION FOR APPROVAL



CUSTOMER NAME: 盛達電業股份有限公司 CUSTOMER PT/NO: A0TPPQ329900154D0Z
 DESCRIPTION: TRANSFORMER SP PT/NO. _____
 SAMPLE SUBMIT NO.: SP10P277 ISSUE DATE JAN 05,2011 REV: 00

(2)SCHEMATIC



※NOTE ● START; TEFLON TUBE.

MARGIN TAPE 4.0mm

(3)WINDING CONSTRUCTION

WINDING ORDER	TERMINAL NO. START - FINISH	WINDING SPECIFICATION	MYLAR TAPE	REMARK
#1	N0	繞線前先在 BOBBIN 上包 TAPE	1 Ts	
#2	N1 1 - 4	UEW/U 0.75 ϕ *1*16Ts	1 Ts	密繞
#3	N2 5 - 3	UEW/U 0.30 ϕ *1*5Ts	1 Ts	中間密繞
#4	N3 9 - 7,8	TEX-E 0.3 ϕ *1*6Ts	1 Ts	中間密繞
#5	N4 11,12 - 7,8	TEX-E 0.55 ϕ *2*16Ts	1 Ts	
#6	N5 4 - 2	UEW/U 0.75 ϕ *1*16Ts	3 Ts	密繞

APPROVED BY :	CHECKED BY :	PREPARED BY :
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TEST RECORD NO. 1

SAMPLES:

No test were considered necessary as this report was copied for Models GP-LS050P-12XYZ, GP-LS070P-12XYZ, GP-LS050P-24XYZ, GP-LS070P-24XYZ, GP-LS070P-30XYZ, GP-LS050P-36XYZ, GP-LS070P-36XYZ, GP-LS050P-48XYZ, GP-LS070P-48XYZ, GP-LS070P-54XYZ, XYZ may be any character or number or blank for marketing purpose only from the Applicants existing report dated: 2011-03-01, E341495, Volume 1, Section 1.

TEST RECORD SUMMARY:

The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements in the standards noted below and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Standard	Title	Edition or Publication Date	Latest Revision Date
UL 8750	Light Emitting Diode (LED) Equipment for Use in Lighting Products	1 st edition	November 18, 2009
UL 60950 / CSA C22.2 NO. 60950-1-07	Information Technology FORMATION TECHNOLOGY EQUIPMENT - SAFETY - PART 1: GENERAL REQUIREMENTS	2 nd edition	March 27, 2007

TEST RECORD NO. 2

TEST CONDITIONS

No samples and tests were considered necessary for Component Driver for Light-emitting-diode Arrays, Modules and Controllers, Models DLG50PS12XYZ, DLG50PS24XYZ, DLG50PS36XYZ, DLG50PS48XYZ, DLG75PS12XYZ, DLG75PS24XYZ, DLG75PS30XYZ, DLG75PS36XYZ, DLG75PS48XYZ, DLG75PS54XYZ, XYZ may be any character or number or blank for marketing purpose only, due to change model designations only and the construction was not revised.

TEST RECORD SUMMARY:

The results of this investigation indicate that the products evaluated comply with the applicable requirements in the United States requirements for the Light Emitting Diode Equipment for Use in Lighting Products, UL 8750, 1st Edition, November 18, 2009; and the Standard for UL60950-1, 2nd Edition, Dated March 27, 2007, Information Technology Equipment-Safety-Part 1: General Requirements were considered representative of the same tests required by Canadian Standards; Canadian Standard for CAN/CSA C22.2 No.60950-1-07, 2nd Edition, Dated March, 2007, Information Technology Equipment-Safety-Part 1: General Requirements, and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Test Record by:
ANN LIN
Project Handler
Conformity Assessment Service

Reviewed by:
RICK LI
Project Engineer
Conformity Assessment Services

Any information and documentation provided to you involving UL Mark services are provided on behalf of Underwriters Laboratories Inc.

CONCLUSION

Samples of the components covered by this Report have been found to comply with the requirements covering the category and the components are found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the sample(s) investigated by UL and does not signify the product(s) described as being covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the Recognized Marking on such products which comply with UL's Follow-Up Service Procedure and any other applicable requirements of Underwriters Laboratories Inc. The Recognized Component Mark of Underwriters Laboratories Inc. on the product, or the Recognized Marking symbol on the product and the Recognized Component Mark on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Recognition and Follow-Up Service.

This Report is intended solely for the use of UL and the Applicant for establishment of UL certification coverage of the product under UL's Follow-Up Service. Any use of the Report other than to indicate that the sample(s) of the product covered by the Report has been found to comply with UL's applicable requirements is not authorized and renders the Report null and void. UL shall not incur any obligation or liability for any loss, expense, or punitive damages, arising out of or in connection with the use or reliance upon the contents of this Report to anyone other than the Applicant as provided in the agreement between UL and Applicant. Any use or reference to UL's name or certification mark(s) by anyone other than the Applicant in accordance with the agreement is prohibited without the express written approval of UL. Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

Report by:

KEVIN HSU
Associate Project Engineer
UL Taiwan Co., Ltd.

Reviewed by:

GHASSAN K MASRI
Engineering Associate Lead

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Component Recognition
CCN:	QQGQ2, QQGQ8 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
Product:	Switching Power Supply
Model:	DLG100PSVVXYZ □ DLG150PSVVXYZ (DLG100PSVVXYZ □ VV can be 12, 15, 24, 30, 36, 48, 57 □ DLG150PSVVXYZ □ VV can be 12, 13, 15, 24, 30, 32, 36, 48, 54 for output voltage, XYZ can be any alphanumeric or blank for marketing purpose only)
Rating:	For Model DLG100PSVVXYZ: I/P: 100-277 Vac , 1.4A, 50/60 Hz, For Model DLG150PSVVXYZ: I/P: 100-277 Vac , 2A, 50/60 Hz, O/P: See Enclosure 7-01 details.
Applicant Name and Address:	XP POWER INC SUITE 150 1241 E DYER RD SANTA ANA CA 92705 UNITED STATES

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 Underwriters Laboratories Inc. ('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.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.


UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

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

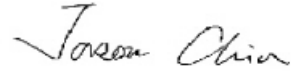
Issue Date: 2011-12-08 Page 2 of 17

Report Reference # E317867-A59-UL

Prepared by: Wen Su
Underwriters Laboratories Inc.



Reviewed by: Jason Chiu
Underwriters Laboratories Inc.



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

- Electrical components are mounted on PWB and enclosed in Metal enclosure.
- The metal enclosure is secured together by screws.

Model Differences

See Enclosure 7-01 details.

Technical Considerations

- Equipment mobility : for building-in
- Connection to the mains : N/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 I (earthed)
- Considered current rating (A) : 20 A

- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m) : up to 3048 m (10,000 ft)
- Altitude of test laboratory (m) : Below 2000m
- Mass of equipment (kg) : 1.005 Kg
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 50 degree C
- The product is intended for use on the following power systems: TN
- The product was investigated to the following additional standards: This equipment is intended to be operated under altitude up to 10,000 ft (3048 m), so the clearance is multiplied by the altitude correction factor (1.15, linear interpolation used), specified in table A.2 of IEC 60664-1, 1992+A1:2000.
- The following accessible locations (with circuit/schematic designation) are within a limited current circuit: CY5, CY1, CY3, CY6, CY7 secondary pin to earth

Engineering Conditions of Acceptability

For use only in or with complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc. When installed in an end-product, consideration must be given to the following:

- The following Production-Line tests are conducted for this product: Electric Strength, Earthing Continuity
- The end-product Electric Strength Test is to be based upon a maximum working voltage of: T1: 748 Vpk, 438 Vrms
- The following secondary output circuits are SELV: Output
- The following secondary output circuits are at non-hazardous energy levels: Output
- The following secondary output circuits are Limited Current Circuits: CY5, CY1, CY3, CY6, CY7 secondary pin to earth
- The power supply terminals and/or connectors are: suitable for field wiring and All outputs are

suitable for factory wiring only.

- The maximum investigated branch circuit rating is: 20 A
- The investigated Pollution Degree is: 2
- Proper bonding to the end-product main protective earthing termination is: Not required
- An investigation of the protective bonding terminals has: Been conducted
- The following magnetic devices (e.g. transformers or inductor) are provided with an OBJY2 insulation system with the indicated rating greater than Class A (105°C): Transformers T1 (Class B)
- The following end-product enclosures are required: Mechanical, Electrical, Fire
- The equipment is suitable for direct connection to: AC mains supply
- The power supply shall be installed in compliance with the enclosure, mounting, spacing, casualty, and segregation requirements of the end product application.
- The suitability of output leads shall be determined in the end-use product.

Additional Information

N/A

Additional Standards

The product fulfills the requirements of: 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
Fuses - Rating	Rated current and voltage and type located on or adjacent to fuse or fuseholder.