

## UL TEST REPORT AND PROCEDURE

<b>Standard:</b>	UL 60950-1, 2nd Edition, 2011-12-19 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12 (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>	SWITCHING POWER ADAPTER
<b>Model:</b>	GT-41133-WWVV-X.X-AB
	"WW" is the rated output wattage designation, with a maximum value of 90. "VV" is the standard rated output voltage designation, with a maximum value of 48. "-X.X" is optional or blank and denotes the output voltage differentiator, subtracting or adding X.X volts from standard output voltage VV in 0.1V increments. "VV-X.X" together denotes a voltage range of "12-48" Vdc. A=T; B= 2 or 3 or 3A,"2" means class II, 3 or 3A means Class I, where"3" presents C14 type inlet, "3A" presents C6 type inlet."2 " means C8 type inlet.
<b>Rating:</b>	- Input: 100-240 Vac, 1.5 A, 50-60 Hz.  - Output: 12 Vdc, 7.5 A for GT-41133-9015-3.0-T2 19 Vdc, 4.74 A for GT-41133-9028-9.0-T2 24 Vdc, 3.75 A for GT-41133-9028-4.0-T2 48 Vdc, 1.875 A for GT-41133-9048-T2  - Output:  12 Vdc, 7.5 A for GT-41133-9015-3.0-T3, GT-41133-9015-3.0-T3A 19 Vdc, 4.74 A for GT-41133-9028-9.0-T3 , GT-41133-9028-9.0-T3A 24 Vdc, 3.75 A for GT-41133-9028-4.0-T3, GT-41133-9028-4.0-T3A 48 Vdc, 1.875 A for GT-41133-9048-T3, GT-41133-9048-T3A

<b>Applicant Name and Address:</b>	GLOBTEK (HONG KONG) LTD UNIT 1402, BENSON TOWER 74 HUNG TO RD KWUN TONG KOWLOON HONG KONG
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Issue Date: 2011-12-14  
2014-10-30

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Report Reference #

E341351-A33-UL

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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Prepared by: Karrie Lau

Reviewed by: Tim Geiger

### 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

Portable AC to DC power supply, for I.T.E. usages, is consisting of electronic components mounted on PWB and housed in a plastic enclosure. Reinforced Insulation is kept between the Primary AC mains input and Secondary SELV output; Accessible Enclosure.

### Model Differences

Models GT-41133-9015-3.0-T2, GT-41133-9028-9.0-T2, GT-41133-9028-4.0-T2, GT-41133-9048-T2 are identical to each other except for transformer, output rating, and model designation.

GT-41133-WWVV-X.X-T3 and GT-41133-WWVV-X.X-T3A series models are identical with GT-41133-WWVV-X.X-T2 series models respectively except the appliance inlet earth pin of GT-41133-WWVV-X.X-T3 and GT-41133-WWVV-X.X-T3A is connected to the secondary output via green/yellow conductor; Appliance inlet of GT-41133-WWVV-X.X-T2 has no earth pin.

Models GT-41133-WWVV-X.X-T3 are similar to models GT-41133-WWVV-X.X-T3A except for inlet type.

### 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) for model series GT-41133-WWVV-X.X-T2; Special Application - Functional Earthing for model series GT-41133-WWVV-X.X-T3 and GT-41133-WWVV-X.X-T3A
- Considered current rating of protective device as part of the building installation (A) : 1.5A
- Pollution degree (PD) : PD 2 or PD 3

- IP protection class : IP X0
- Altitude of operation (m) :  $\leq 3000$
- Altitude of test laboratory (m) :  $\leq 2000$
- Mass of equipment (kg) : 0.45
- The means of connection to the mains supply is: Detachable power cord, Pluggable A
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40°C for models except GT-41133-9028-4.0-T3, 50°C for model GT-41133-9028-4.0-T3
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: Appliance inlet
- The following are available from the Applicant upon request: Specific data sheets for LED indicators that are class I and operate at wavelength in the 400-710 nm range. Installation (Safety) Instructions / Manual
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): model: GT-41133-9028-4.0-T3, GT-41133-9028-4.0-T3A ( Secondary output connector:V+ to V-), GT-41133-9048-T3, GT-41133-9048-T3A (Secondary output connector:V+ to V- ) Refer to E341351-A42.

#### **Additional Information**

Revision (Project 13CA34516)

- Addition of the PCB Layout for pollution degree 3 construction.

Revision (Project 4786174781)

- Upgrade the standard to UL60950-1, 2nd Edition + Am: 1, 2011-12-19; CSA C22.2 No.60950-1-07, 2nd Edition + Am: 1, 2011-12-19.

- Revise to the Pollution Degree 3.

- Addition of the model series as follows:

GT-41133-WWVV-X.X-AB

where A=T; B= 3 or 3A,

3 or 3A means Class I, where "3" presents C14 type inlet, "3A" presents C6 type inlet.

Refer to E341351-A42.

Revision: SR8227620-T001

Transfer File from the File E336418, Vol. X7, E336418-A32 into the File E341351, Vol. X8, E341351-A33.

Revision (Project 4786546855)

- Revise the ambient of model GT-41133-9028-4.0-T3 to 50 deg C

- Add alternate fuse types MST from Conquer and SMT from Lanson

- Add alternate Varistor types JVR14N471K from Joyin, CNR14D471K from Centra, GNR14D471K from Ceramate, TVR14D471K from thinking, SVR14D471K from Success, 14D471K from Guangxi

- Correct typo mistakes

#### **Additional Standards**

The product fulfills the requirements of: N/A

Markings and instructions	
Clause Title	Marking or Instruction Details
Fuses	Rated current and voltage and type located on or adjacent to fuse or fuseholder or Unambiguous reference to service documentation for instructions for replacement of fuses replaceable only by service personnel.
1.7.1 Power rating - Ratings	Ratings (voltage, frequency/dc, current)
1.7.1 Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
1.7.1 Power rating - Model	Model Number
1.7.1 Power rating - Class II symbol	Symbol for Class II construction
<b>Special Instructions to UL Representative</b> N/A	

Production-Line Testing Requirements						
<u>Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.</u>						
Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
N/A						
<u>Earthing Continuity Test Exemptions - This test is not required for the following models:</u>						
all models						
<u>Electric Strength Test Exemptions - This test is not required for the following models:</u>						
<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>						
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<u>Sample and Test Specifics for Follow-Up Tests at UL</u>						
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
1. Enclosure	Sabic Innovative Plastics B V	SE1	Overall approximate 150 by 62 by 34 mm. Rated V-1, 105 degree C, minimum 1.5mm thickness.	QMFZ2	UL	
2A. Appliance Inlet for model series GT-41133-WWVV-X.X-T2	TECX-UNIONS TECHNOLOGY CORP	SO-222	Rated 2.5 A, 250 Vac.	AXUT2	UL	
2B. Appliance Inlet for model series GT-41133-WWVV-X.X-T2 (Alternate)	ZHEJIANG LECI ELECTRONICS CO LTD	DB-8	Rated 2.5 A, 250 Vac.	AXUT2, AXUT8	UL, C-UL	
2C. Appliance Inlet for model series GT-41133-WWVV-X.X-T2 (Alternate)	SUN FAIR ELECTRIC WIRE & CABLE (HK) CO LTD	S-01	Rated 2.5 A, 250 Vac.	AXUT2, AXUT8	UL, C-UL	
2D. Appliance Inlet for model series GT-41133-WWVV-X.X-T2 (Alternate)	RICH BAY CO LTD	R-201SN90	Rated 2.5 A, 250 Vac.	AXUT2, AXUT8	UL, C-UL	
2E. Appliance Inlet for model series GT-41133-WWVV-X.X-T2 (Alternate)	SHENZHEN DELIKANG ELECTRONICS TECHNOLOGY CO LTD	CDJ-8	Rated 2.5 A, 250 Vac.	AXUT2, AXUT8	UL, C-UL	
2F. Appliance Inlet for model series GT-41133-WWVV-X.X-T2 (Alternate)	INALWAYS CORP	0721	Rated 2.5 A, 250 Vac.	AXUT2, AXUT8	UL, C-UL	
3A. Appliance Inlet for model series GT-41133-WWVV-X.X-T3A	ZHEJIANG LECI ELECTRONICS CO LTD	DB-6	Min. 2.5 A, 250 Vac.	AXUT2, AXUT8	UL,C-UL	
3B. Appliance Inlet for model series GT-41133-	SUN FAIR ELECTRIC WIRE &	S-02	Min. 2.5 A, 250 Vac	AXUT2, AXUT8	UL, C-UL	

WWWV-X.X-T3A (Alternate)	CABLE (HK) CO LTD					
3C. Appliance Inlet for model series GT-41133- WWWV-X.X-T3A (Alternate)	TECX-UNIONS TECHNOLOGY CORP	TU-333 series	Min. 2.5 A, 250 Vac	AXUT2, AXUT8	UL, C-UL	
3D. Appliance Inlet for model series GT-41133- WWWV-X.X-T3A (Alternate)	INALWAYS CORP	0724	Min. 2.5 A, 250 Vac	AXUT2, AXUT8	UL, C-UL	
3E. Appliance Inlet for model series GT-41133- WWWV-X.X-T3A (Alternate)	RICH BAY CO LTD	R-30790	Min. 2.5 A, 250 Vac	AXUT2, AXUT8	UL, C-UL	
3F. Appliance Inlet for model series GT-41133- WWWV-X.X-T3A (Alternate)	SHENZHEN DELIKANG ELECTRONICS TECHNOLOGY CO LTD	CDJ-2	Min. 2.5 A, 250 Vac	AXUT2, AXUT8	UL, C-UL	
4A. Appliance Inlet for model series GT-41133- WWWV-X.X-T3	TECX-UNIONS TECHNOLOGY CORP	TU-301 series	Min. 10 A, 250 Vac	AXUT2, AXUT8	UL, C-UL	
4B. Appliance Inlet for model series GT-41133- WWWV-X.X-T3 (Alternate)	ZHEJIANG LECI ELECTRONICS CO LTD	DB-14	Min. 10 A, 250 Vac	AXUT2, AXUT8	UL, C-UL	
4C. Appliance Inlet for model series GT-41133- WWWV-X.X-T3 (Alternate)	SUN FAIR ELECTRIC WIRE & CABLE (HK) CO LTD	S-03	Min. 10 A, 250 Vac	AXUT2, AXUT8	UL, C-UL	
4D. Appliance Inlet for model series GT-41133- WWWV-X.X-T3 (Alternate)	INALWAYS CORP	0711	Min. 10 A, 250 Vac	AXUT2, AXUT8	UL, C-UL	
4E. Appliance Inlet for model series GT-41133- WWWV-X.X-T3	RICH BAY CO LTD	R-301SN	Min. 10 A, 250 Vac	AXUT2, AXUT8	UL, C-UL	



(Alternate)						
4F. Appliance Inlet for model series GT-41133-WWVV-X.X-T3 (Alternate)	SHENZHEN DELIKANG ELECTRONICS TECHNOLOGY CO LTD	CDJ-3	Min. 10 A, 250 Vac	AXUT2, AXUT8	UL, C-UL	
5. Output Cord Strain Relief	--	--	PVC bushing integrally molded on output cord.	--	--	4-09
6. Output Cord	Various	Various	Rated 60°C min., 60V min., 3.05 m long max., jacketed, VW-1 or FT-1, terminates with a polarized connector outside enclosure.	AVLV2, ZJCZ	UL	
7. Insulating Tubing/Sleeving	Various	Various	FEP, PTFE, PVC, TFE, neoprene, or marked VW-1; 105 degree C, 300 V or better. See Table 2.10.3, Supplementary Info, for safety relevant locations.	UZFT2, YDPU2, YDRY2, YDTU2	UL	
8. Printed Wiring Board	Various	Various	Rated minimum V-1, 130 degree C.	ZPMV2	UL	
9A. Fuse (FS1) (Optional)	Various	Various	T 3.15A, 250 Vac.	JDYX, JDYX7	UL, C-UL	
9B. Fuse (FS1) (Optional) (Alternate)	WALTER ELECTRONIC CO LTD	ICP	T 3.15A, 250 Vac	JDYX2, JDYX8	UL, C-UL	
9C. Fuse (FS1) (Optional) (Alternate)	DAS & SONS INTERNATIONAL LTD	385T1315	T 3.15A, 250 Vac	JDYX2, JDYX8	UL, C-UL	
9D. Fuse (FS1) (Optional) (Alternate)	CONQUER ELECTRONICS CO LTD	MST	T 3.15A, 250 Vac	JDYX2, JDYX8	UL, C-UL	
9E. Fuse (FS1) (Optional) (Alternate)	Shenzhen Lanson Electronics Co Ltd	SMT	T 3.15A, 250 Vac	JDYX2, JDYX8	UL, C-UL	
10A. Varistor (MOV1) (Optional) (Alternate)	JOYIN CO LTD	JVR07N471K, JVR10N471K, JVR14N471K	Rated minimum 300 Vac, minimum 385 Vdc.	VZCA2, VZCA8	UL, CSA	

10B. Varistor (MOV1) (Optional) (Alternate)	CENTRA SCIENCE CORP	CNR07D471K, CNR10D471K, CNR14D471K	Rated minimum 300 Vac, minimum 385 Vdc.	VZCA2, VZCA8	UL, C-UL	
10C. Varistor (MOV1) (Optional) (Alternate)	CERAMATE TECHNICAL CO LTD	GNR07D471K, GNR10D471K, GNR14D471K	Rated minimum 300 Vac, minimum 385 Vdc.	VZCA2, VZCA8	UL, C-UL	
10D. Varistor (MOV1) (Optional) (Alternate)	THINKING ELECTRONIC INDUSTRIAL CO LTD	TVR07471K, TVR10471K, TVR14D471K	Rated minimum 300 Vac, minimum 385 Vdc.	VZCA2, VZCA8	UL, C-UL	
10E. Varistor (MOV1) (Optional) (Alternate)	SUCCESS ELECTRONICS CO LTD	SVR07D471K, SVR10D471K, SVR14D471K	Rated minimum 300 Vac, minimum 385 Vdc.	VZCA2, VZCA8	UL, C-UL	
10F. Varistor (MOV1) (Optional) (Alternate)	GUANGXI NEW FUTURE INFORMATION INDUSTRY CO LTD	07D471K, 10D471K, 14D471K	Rated minimum 300 Vac, minimum 385 Vdc.	VZCA2, VZCA8	UL, C-UL	
11. Bleeder Resistors (RS1, RS2)	Various	Various	Each rated max.1Mohm, min.1/4 W.	--	--	
12A. X-Capacitor (CX1) (Optional)	Various	Various	Rated maximum 0.47 uF, minimum 250 Vac, minimum 100 degree C. Class X1 or X2.	FOWX2, FOWX8	UL, C-UL	
12B. X-Capacitor (CX1) (Optional) (Alternate)	CHENG TUNG INDUSTRIAL CO LTD	CTX	Rated maximum 0.47 uF, minimum 250 Vac, minimum 100 degree C. Class X1 or X2.	FOWX2, FOWX8	UL, C-UL	
12C. X-Capacitor (CX1) (Optional) (Alternate)	ULTRA TECH XIPHI ENTERPRISE CO LTD	HQX	Rated maximum 0.47 uF, minimum 250 Vac, minimum 100 degree C. Class X1 or X2.	FOWX2, FOWX8	UL, C-UL	
12D. X-Capacitor (CX1) (Optional) (Alternate)	TENTA ELECTRIC INDUSTRIAL CO LTD	MEX	Rated maximum 0.47 uF, minimum 250 Vac, minimum 100 degree C. Class X1 or X2.	FOWX2, FOWX8	UL, C-UL	
13. Line filter (LF1) (Optional)	--	--	Open type construction. Rated 105 degree C.	--	--	4-06
13-1 Core	Various	Various	Ferrite, toroidal, measured overall 9 by 5 by 3 mm.	--	--	
13-2 Coil	Various	Various	Rated minimum 105 degree C.	OBMW2	UL	
13-3A Triple wire	FURUKAWA	TEX-E	Rated minimum 130 degree C.	OBJT2	UL	

	ELECTRIC CO LTD					
13-3B Triple wire (Alternate)	GREAT LEOFLON INDUSTRIAL CO LTD	TRW(B)	Rated minimum 130 degree C.	OBJT2	UL	
13-3C Triple wire (Alternate)	TOTOKU ELECTRIC CO LTD	TIW-2	Rated minimum 130 degree C.	OBJT2	UL	
13-3D Triple wire (Alternate)	COSMOLINK CO LTD	TIW-M	Rated minimum 130 degree C	OBJT2	UL	
13-4 Varnish	Various	Various	Rated minimum 105 degree C.	--	--	
14. Line Filter (LF2) (Optional)	--	--	Open type construction. Rated 105 degree C.	--	--	
14-1 Core	Various	Various	Ferrite, toroidal, measured overall 16 by 12 by 8 mm.	--	--	
14-2 Coil	Various	Various	Rated minimum 105 degree C.	OBMW2	UL	
14-4 Varnish	Various	Various	Rated minimum 105 degree C.	--	--	
15 Bridge Rectifier (BD1)	Various	Various	Rated minimum 4 A, minimum 600 V.	--	--	
16. Line Filter (L1) (Optional)	Various	RC00134	Open type construction. Rated 105 degree C.	--	--	
16-1 Core	Various	Various	Ferrite, toroidal, measured overall 16.1 mm OD by 11.6 mm ID by 2.3 mm wide.	--	--	
16-2 Coil	Various	Various	Rated minimum 105 degree C.	OBMW2	UL	
17-4 Varnish	Various	Various	Rated minimum 105 degree C.	OBOR2	UL	
17. Line filter (L2) (Optional)	Various	RC00145	Open type construction. Rated 105 degree C.	--	--	
17-1 Core	Various	Various	Ferrite, toroidal, measured overall 15.3 mm OD by 8.2 mm ID by 3.5 mm wide.	--	--	
17-2 Coil	Various	Various	Rated minimum 105 degree C.	OBMW2	UL	
17-3 Varnish	Various	Various	Rated minimum 105 degree C.	OBOR2	UL	
18 Electrolytic Capacitor (C4)	Various	Various	Integral pressure relief, rated maximum 120 $\mu$ F, minimum 400V, minimum 105 degree C.	--	--	
19 Transistor (Q1)	Various	Various	Rated minimum 12A, minimum 500 V.	--	--	
19-1 Transistor (Q2)	Various	Various	Rated minimum 10A, minimum	--	--	

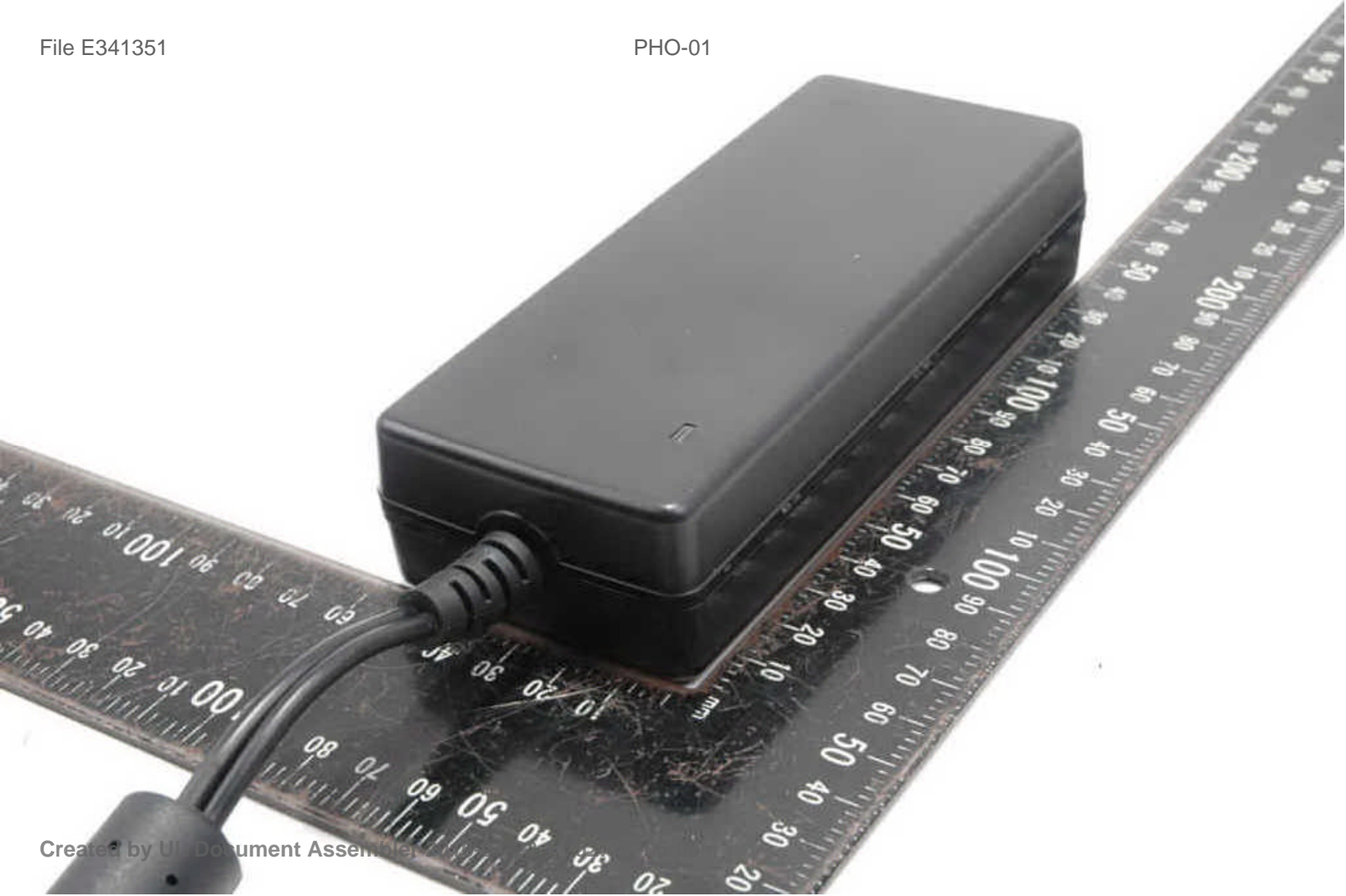
			600 V.			
20A. Bridge Capacitor (CY1)	Various	Various	Rated maximum 2200 pF, minimum 250 Vac, minimum 100 degree C. Class Y1.	FOWX2, FOWX8	UL, C-UL	
20B. Bridge Capacitor (CY1) (Optional) (Alternate)	TDK CORP	CD	Rated maximum 2200 pF, minimum 250 Vac, minimum 100 degree C. Class Y1.	FOWX2	UL, CSA	
20C. Bridge Capacitor (CY1) (Optional) (Alternate)	SUCCESS ELECTRONICS CO LTD	SE, SB	Rated maximum 2200 pF, minimum 250 Vac, minimum 100 degree C. Class Y1.	FOWX2, FOWX8	UL, C-UL	
20D. Bridge Capacitor (CY1) (Optional) (Alternate)	WALSIN TECHNOLOGY CORP	AH	Rated maximum 2200 pF, minimum 250 Vac, minimum 100 degree C. Class Y1.	FOWX2, FOWX8	UL, C-UL	
21A. Optical Isolator (U1)	Sharp Corp., Electronic Components Group	PC817	Minimum 3000 V ac isolation. Double protection.	FPQU2	UL	
21B. Optical Isolator (U1) (Alternate)	BRIGHT LED ELECTRONICS CORP	BPC-817XXXXXX	Minimum 3000 V ac isolation. Double protection.	FPQU2, FPQU8	UL, C-UL	
21C. Optical Isolator (U1) (Alternate)	Lite-On Technology Corp.	LTV-817	Minimum 3000 V ac isolation. Double protection.	FPQU2, FPQU8	UL, C-UL	
21D. Optical Isolator (U1) (Alternate)	Everlight Electronics Co., Ltd.	EL817	Minimum 3000 V ac isolation. Double protection.	FPQU2, FPQU8	UL, C-UL	
22. Thermistor (RH1) (optional)	Various	Various	NTC, rated maximum 470K ohms, at 25°C.	XGPU2	UL	
23. Transformer (T1) (for model GT-41133-9015-3.0-T2)		XF00524	--	--	--	
23-1 Insulation system		130-1	Class B, See below	OBJY2	UL	
23-1-1 Core	Various	Various	Ferrite, measured overall 33.4 by 23.8 by 3.3 mm.	--	--	
23-1-2 Coil (Primary)	Various	Various	Rated minimum 130 degree C.	OBMW2	UL	
23-1-3 Bobbin	SUMITOMO BAKELITE CO LTD	PM-9820	Phenolic Molding Compound Rated V-0, 150 degree C, minimum 0.70 mm thick	QMFZ2	UL	

23-1-4 Triple Insulated Winding Wire (Secondary)	Great Leoflon Industrial Co., Ltd.	TRW(B)	Rated minimum 130 degree C.	OBJT2	UL	
23-1-5 Insulating Tape	3M Company	1350F-1, 1350T-1	Polyester tape, 0.05 mm thick, rated 130 degree C.	OANZ2	UL	
23-1-6A Varnish (T1)	PD George/Viking	V1630FS	Rated minimum 130 degree C.	OBOR2	UL	
23-1-6B Varnish (T1) (Alternate)	John C Dolph Co.	BC-346A	Rated minimum 130 degree C.	OBOR2	UL	
23-1-7 Tubing (T1)	Great Holding Industrial Co., Ltd.	TFT, TFL	Rated minimum 130 degree C. Provided on all exit leads.	YDPU2	UL	
24. Transformer (T1) (for model GT-41133-9028-9.0-T2 and GT-41133-9028-4.0-T2)		XF00528	--	--	--	
24-1 Insulation system		130-1	Class B, See below	OBJY2	UL	
24-1-1 Core	Various	Various	Ferrite, measured overall 33.4 by 23.8 by 3.3 mm.	--	--	
24-1-2 Coil (Primary)	Various	Various	Rated minimum 130 degree C.	OBMW2	UL	
24-1-3 Bobbin	SUMITOMO BAKELITE CO LTD	PM-9820	Phenolic Molding Compound Rated V-0, 150 degree C, minimum 0.70 mm thick	QMFZ2	UL	
24-1-4 Triple Insulated Winding Wire (Secondary)	Great Leoflon Industrial Co., Ltd.	TRW(B)	Rated minimum 130 degree C.	OBJT2	UL	
24-1-5 Insulating Tape	3M Company	1350F-1, 1350T-1	Polyester tape, 0.05 mm thick, rated 130 degree C.	OANZ2	UL	
24-1-6A Varnish (T1)	PD George/Viking	V1630FS	Rated minimum 130 degree C.	OBOR2	UL	
24-1-6B Varnish (T1) (Alternate)	John C Dolph Co.	BC-346A	Rated minimum 130 degree C.	OBOR2	UL	
24-1-7 Tubing (T1)	Great Holding Industrial Co., Ltd.	TFT, TFL	Rated minimum 130 degree C. Provided on all exit leads.	YDPU2	UL	
25 Transformer (T1) (for model GT-41133-9048-T2)		XF00529	--	--	--	
25-1 Insulation system		130-1	Class B, See below	OBJY2	UL	

25-1-1 Core	Various	Various	Ferrite, measured overall 33.4 by 23.8 by 3.3 mm.	--	--	
25-1-2 Coil (Primary)	Various	Various	Rated minimum 130 degree C.	OBMW2	UL	
25-1-3 Bobbin	SUMITOMO BAKELITE CO LTD	PM-9820	Phenolic Molding Compound Rated V-0, 150 degree C, minimum 0.70 mm thick	QMFZ2	UL	
25-1-4 Triple Insulated Winding Wire (Secondary)	Great Leoflon Industrial Co., Ltd.	TRW(B)	Rated minimum 130 degree C.	OBJT2	UL	
25-1-5 Insulating Tape	3M Company	1350F-1, 1350T-1	Polyester tape, 0.05 mm thick, rated 130 degree C.	OANZ2	UL	
25-1-6A Varnish (T1)	PD George/Viking	V1630FS	Rated minimum 130 degree C.	OBOR2	UL	
25-1-6B Varnish (T1) (Alternate)	John C Dolph Co.	BC-346A	Rated minimum 130 degree C.	OBOR2	UL	
25-1-7 Tubing (T1)	Great Holding Industrial Co., Ltd.	TFT, TFL	Rated minimum 130 degree C. Provided on all exit leads.	YDPU2	UL	
26. Heat Sink (HS1)	Various	Various	Aluminum, minimum 0.7 mm thick. See Enclosure for detailed dimensions.	--	--	4-08
27. Heat Sink (HS2)	Various	Various	Aluminum, minimum 0.7 mm thick. See Enclosure for detailed dimensions.	--	--	4-08
28. Heat Sink (HS3)	Various	Various	Aluminum, minimum 0.7 mm thick. See Enclosure for detailed dimensions.	--	--	4-08
29. Heat Sink (top)	Various	Various	Aluminum, minimum 0.9thick. See Enclosure for detailed dimensions.	--	--	4-08
30 Label	Various	Various	Rated minimum 75 degree C.	PGDQ2	UL	
31 Adhesive	Various	Various	Rated V-0, Min. 105 degree C.	QMFZ2	UL	

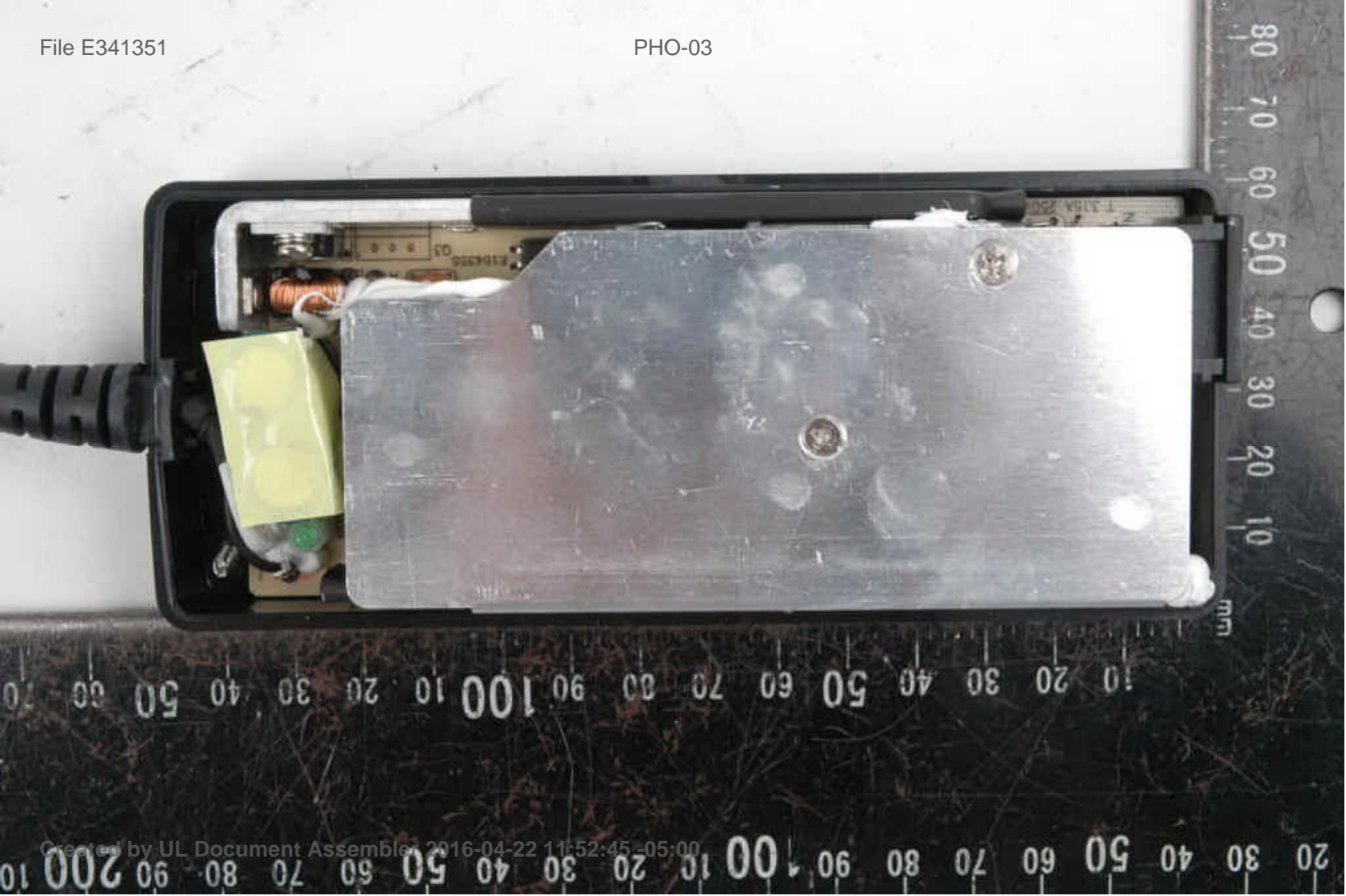
## Enclosures

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Photographs	3-01	Model Series GT-41133-WWVV-X.X-T2: Top View
Photographs	3-02	Model Series GT-41133-WWVV-X.X-T2: Rear View
Photographs	3-03	Model Series GT-41133-WWVV-X.X-T2: Top Cover Removed
Photographs	3-04	Model Series GT-41133-WWVV-X.X-T2: PCB with Heatsink
Photographs	3-05	Model Series GT-41133-WWVV-X.X-T2: PCB Bottom View
Photographs	3-06	Model Series GT-41133-WWVV-X.X-T2: PCB Heat sink removed
Photographs	3-07	Model Series GT-41133-WWVV-X.X-T3 and GT-41133-WWVV-X.X-T3A: Top View
Photographs	3-08	Model Series GT-41133-WWVV-X.X-T3: Rear View
Photographs	3-09	Model Series GT-41133-WWVV-X.X-T3A: Rear View
Photographs	3-10	Model Series GT-41133-WWVV-X.X-T3 and GT-41133-WWVV-X.X-T3A: Top Cover Removed
Photographs	3-11	Model Series GT-41133-WWVV-X.X-T3 and GT-41133-WWVV-X.X-T3A: PCB with heatsink
Photographs	3-12	Model Series GT-41133-WWVV-X.X-T3 and GT-41133-WWVV-X.X-T3A: PCB Bottom View
Photographs	3-13	Model Series GT-41133-WWVV-X.X-T3 and GT-41133-WWVV-X.X-T3A: PCB heatsink removed
Diagrams	4-01	T1 specification for GT-41133-9015-3.0-TB
Diagrams	4-02	T1 Specification for GT-41133-9028-9.0-TB and GT-41133-9028-4.0-TB
Diagrams	4-03	T1 specification for GT-41133-9048-TB
Diagrams	4-04	L1
Diagrams	4-05	L2
Diagrams	4-06	LF1
Diagrams	4-07	LF2
Diagrams	4-08	Heat sinks
Diagrams	4-09	Output power cord
Diagrams	4-11	Enclosure Bottom
Diagrams	4-12	Enclosure Top
Schematics + PWB	5-01	Circuit Schematic
Schematics + PWB	5-02	PCB Layout (for Pollution Degree 2)
Schematics + PWB	5-03	PCB Layout (for Pollution Degree 3)
Miscellaneous	7-01	Marking Label Artworks



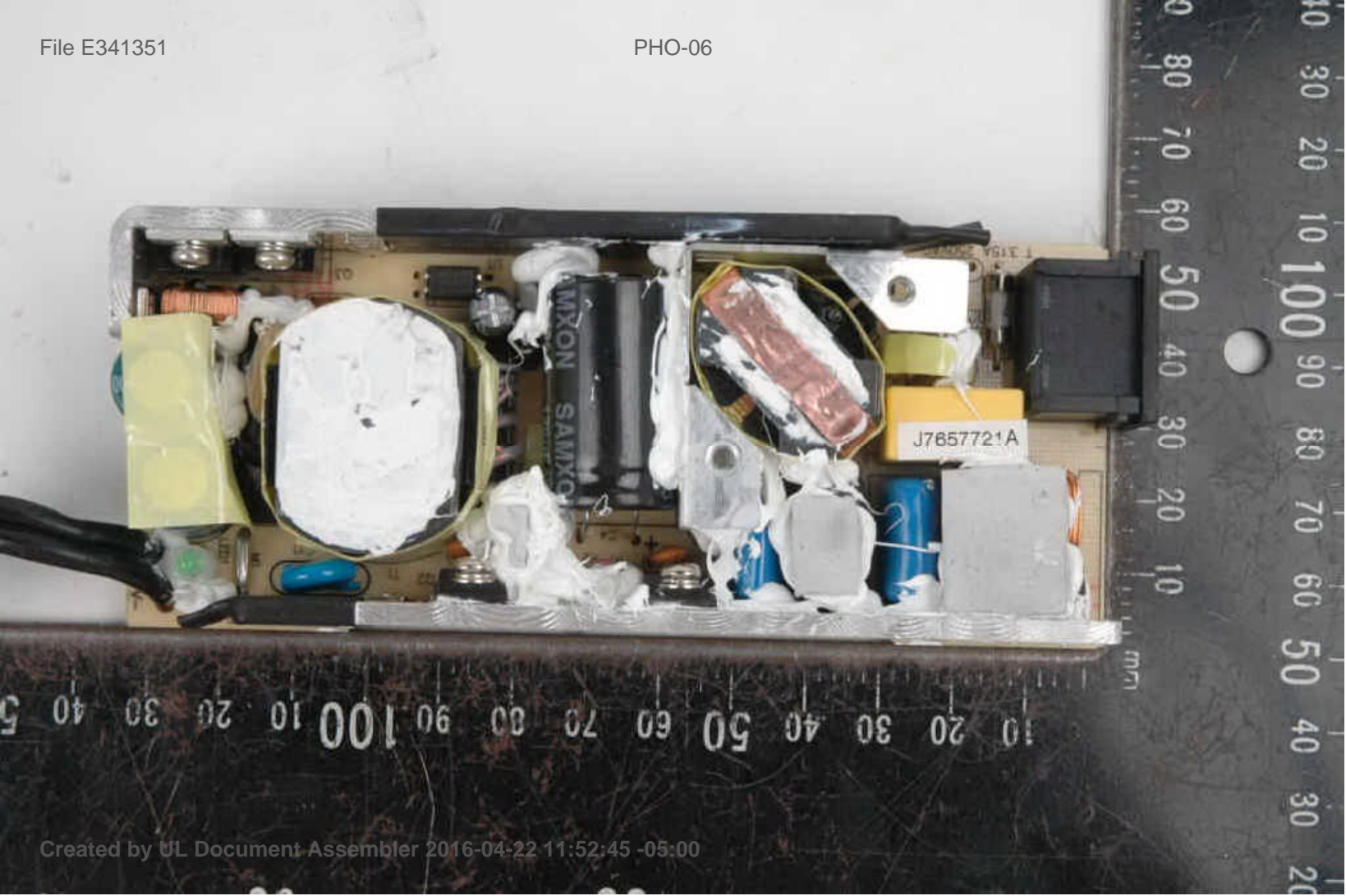




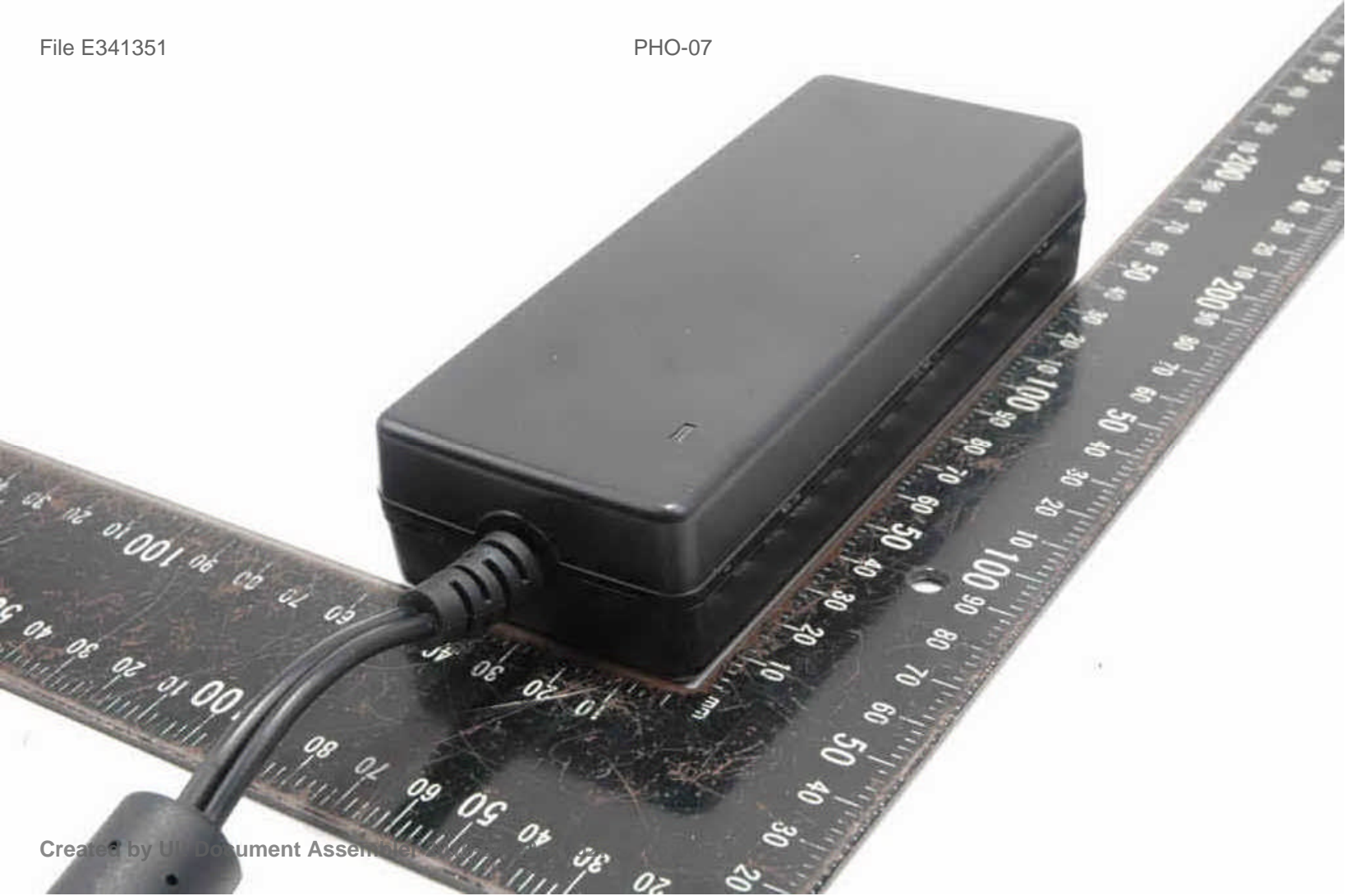








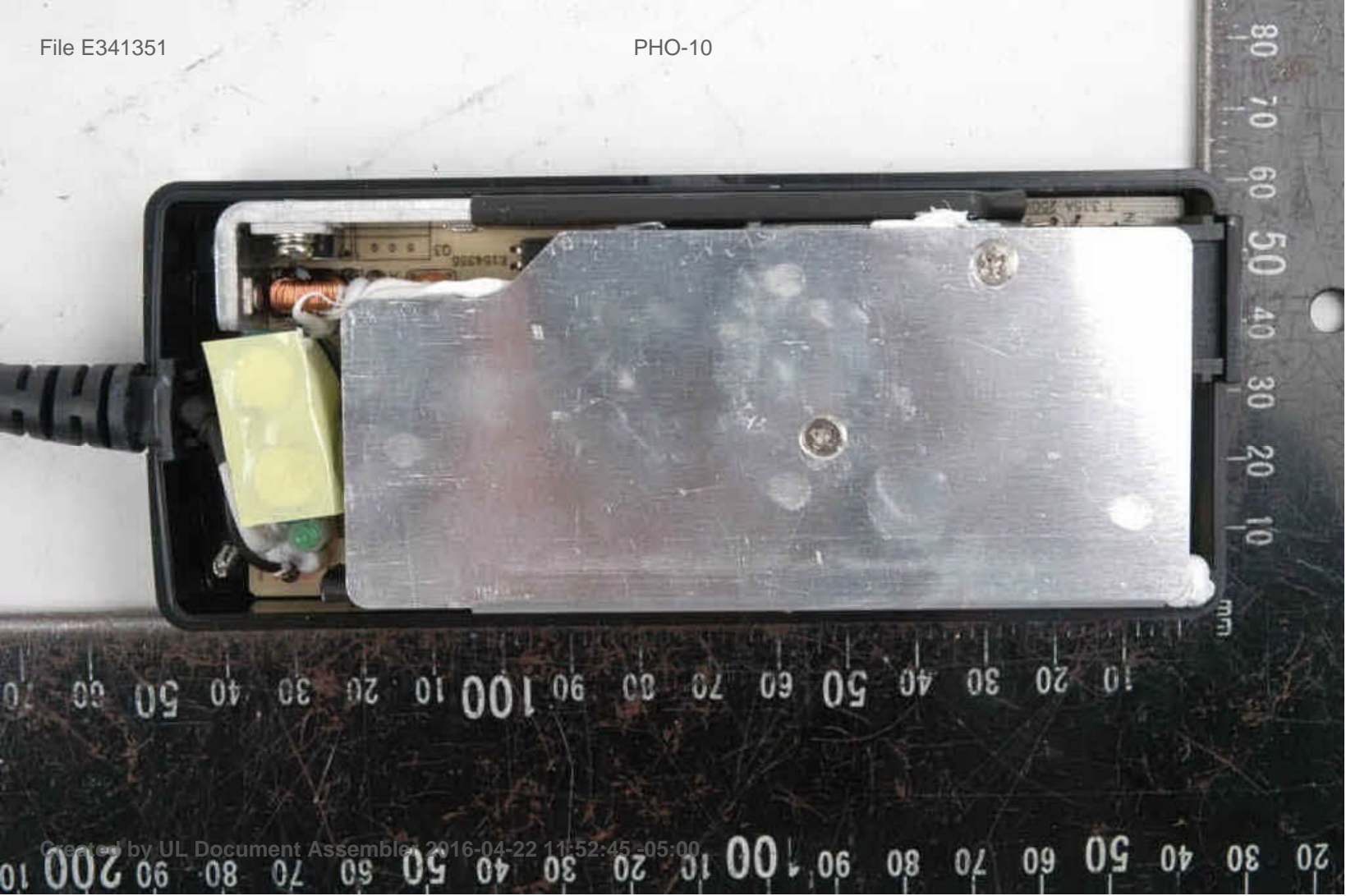


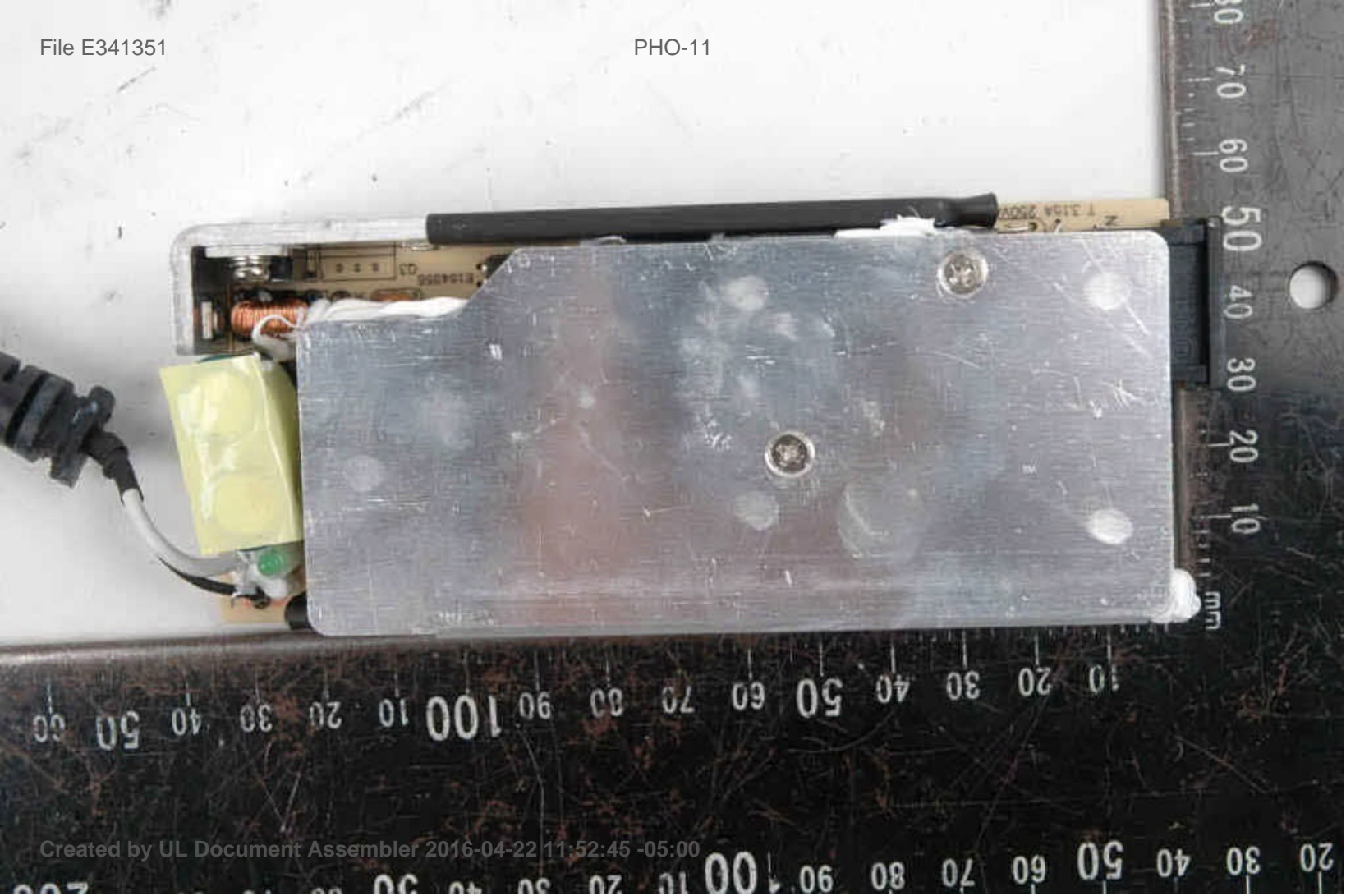




















SPECIFICATION FOR APPROVAL

REV.B

CUSTOMER	英格爾	CUSTOMER'S P/N	XF00524	
ISSUE DATE	08.10.15	OUR P/N	A9111-1449020011(1.0)	
SOURCE CONTROL DRAWING				
REVISIONS				
REV.	DESCRIPTION	DATE	MADE BY	CHKD BY
A	送承認	08.08.11	肖金連	張志鋒
B	依客戶要求,修改料號(含標籤).重送承認.	08.10.15	徐金梁	張志鋒



銳普電子股份有限公司

XEPEX ELECTRONICS CO., LTD.

料號	XF00524	送樣次數	2	版本	
項次	文件內容				頁次
1	超信規格書封面				1
2	承認書變更說明頁				2
3	承認書內容摘要				3
4	產品成品圖(線線結構及電器特性)				4-7
5	材料總表				8
6	CPK 測試報告				9
7	安規 UL 卡				10-19
8	環境不使用物質申明書				20
9	CORE SGS				21~24
10	BOBBIN SGS				25~29
11	銅線 SGS				30~38
12	三層絕緣線 SGS				39~47
13	3M 1350F-1 TAPE SGS				48~53
14	TUBE SGS				54~58
15	EPOXY SGS				59~64
16	VARNISH SGS				65~71
17	銅箔 SGS				72~75
18	銅箔 SGS				76~78
19	標籤 SGS				79~83
20	油墨 SGS				84~89
21	錫 SGS				90~95













SPECIFICATION FOR APPROVAL

REV.A

CUSTOMER	英格爾	CUSTOMER'S P/N	POT3319(19V)	
ISSUE DATE	08.09.22	OUR P/N	A9111-1449020810(1.0)	
SOURCE CONTROL DRAWING				
REVISIONS				
REV.	DESCRIPTION	DATE	MADE BY	CHKD BY
A	送承認	08.09.22	肖金連	張志鋒













## SPECIFICATION FOR APPROVAL

REV.B

[illegible]



銳普電子股份有限公司

XEPEX ELECTRONICS CO., LTD.

料號	XF00529	送樣次數	2	版本	
項次	文件內容				頁次
1	超信規格書封面				1
2	承認書變更說明頁				2
3	承認書內容摘要				3
4	產品成品圖(線線結構及電器特性)				4-7
5	材料總表				8
6	CPK 測試報告				9
7	安規 UL 卡				10-19
8	環境不使用物質申明書				20
9	CORE SGS				21~25
10	BOBBIN SGS				26~30
11	銅線 SGS				31~39
12	三層絕緣線 SGS				40~48
13	3M 1350F-1 TAPE SGS				49~54
14	3M 1350T-1 TAPE SGS				55~60
15	TUBE SGS				61~65
16	EPOXY SGS				66~71
17	VARNISH SGS				72~78
18	銅箔 SGS				78~82
19	銅箔 SGS				83~85
20	標籤 SGS				86~90
21	油墨 SGS				91~96
22	錫 SGS				97~102













SPECIFICATION FOR APPROVAL

REV. A

CUSTOMER	英格爾	CUSTOMER'S P/N	RC00134	
ISSUE DATE	08.03.27	OUR P/N	A9121-1449005110(1.0)	
SOURCE CONTROL DRAWING				
REVISIONS				
REV.	DESCRIPTION	DATE	MADE BY	CHKD BY
A	ISSUE SPEC	08.03.27	劉 華	張志鋒











## SPECIFICATION FOR APPROVAL

REV.A

CUSTOMER		英格爾	CUSTOMER'S P/N		RM-10(360uH)	
ISSUE DATE		08.09.25	OUR P/N		A9111-1449019911(1.0)	
SOURCE CONTROL DRAWING						
REVISIONS						
REV.	DESCRIPTION			DATE	MADE BY	CHKD BY
A	送承認			08.08.11	肖金連	張志鋒
	依客戶郵件通知,修改料號(含標籤),修改電感 由原 420uH+/-5%改為 360uH+/-10%,修改 N1 繞組圈數由原 54TS 改為 48TS,重送承認.			08.09.25	肖金連	張志鋒















SPECIFICATION FOR APPROVAL

REV.A

CUSTOMER	英格爾	CUSTOMER'S P/N	NF00081	
ISSUE DATE	08.03.27	OUR P/N	A9121-1449005210(1.0)	
SOURCE CONTROL DRAWING				
REVISIONS				
REV.	DESCRIPTION	DATE	MADE BY	CHKD BY
A	ISSUE SPEC	08.03.27	劉 華	張志鋒













SPECIFICATION FOR APPROVAL

REV. A

CUSTOMER	英格爾	CUSTOMER'S P/N	NF00083	
ISSUE DATE	08.03.29	OUR P/N	A9121-1449005510(1.0)	
SOURCE CONTROL DRAWING				
REVISIONS				
REV.	DESCRIPTION	DATE	MADE BY	CHKD BY
A	送承認	08.03.29	石元愛	張志鋒

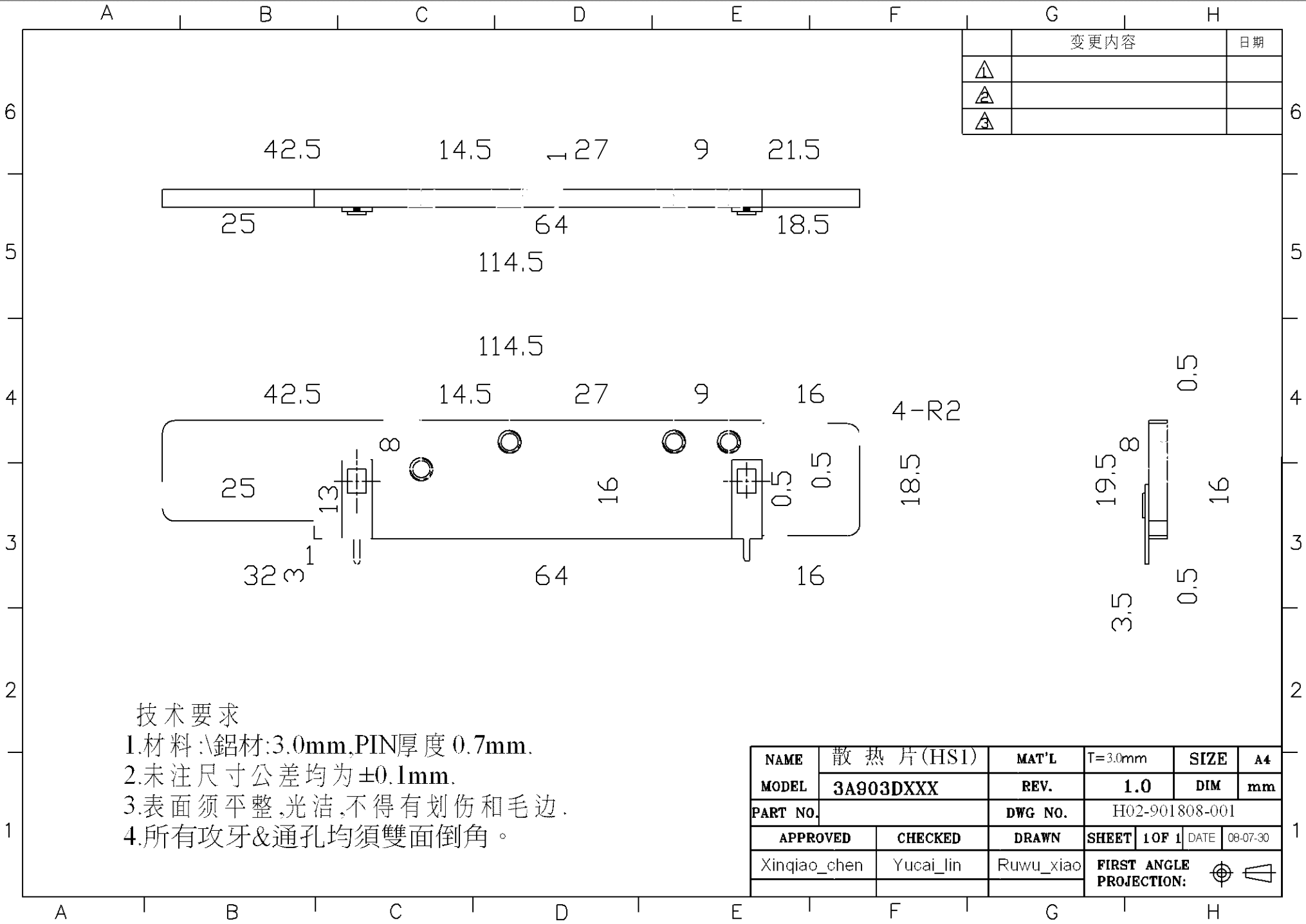


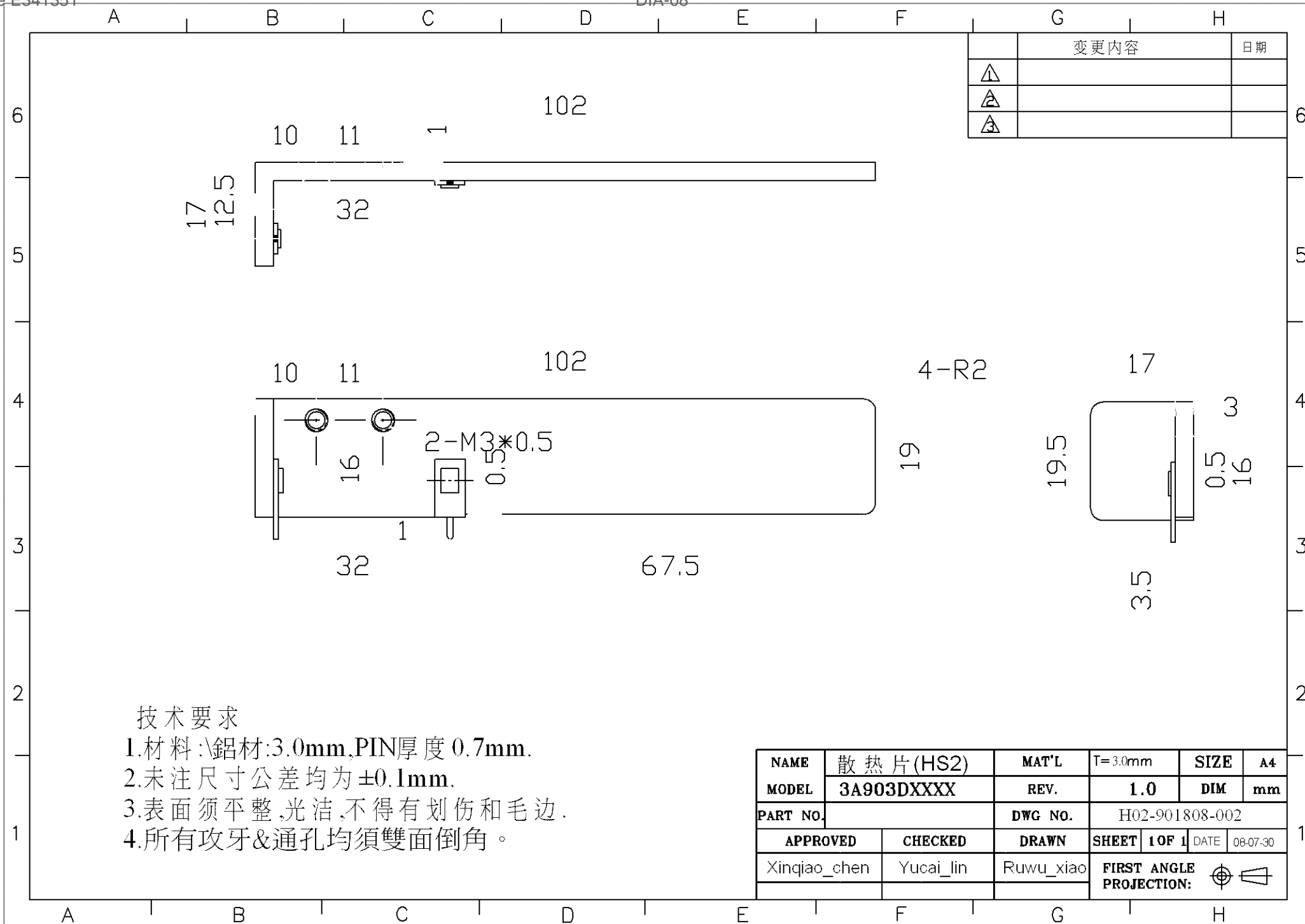




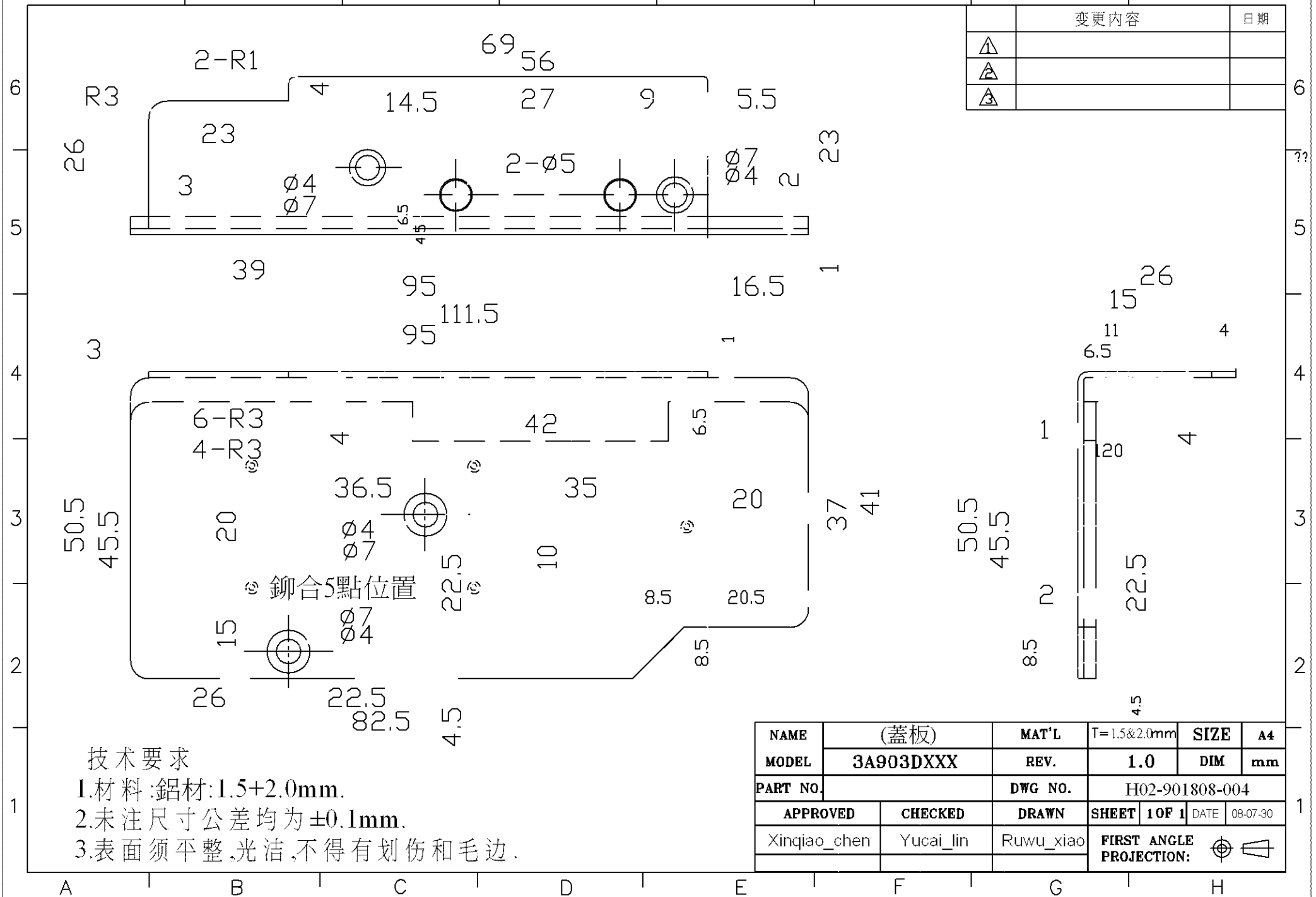




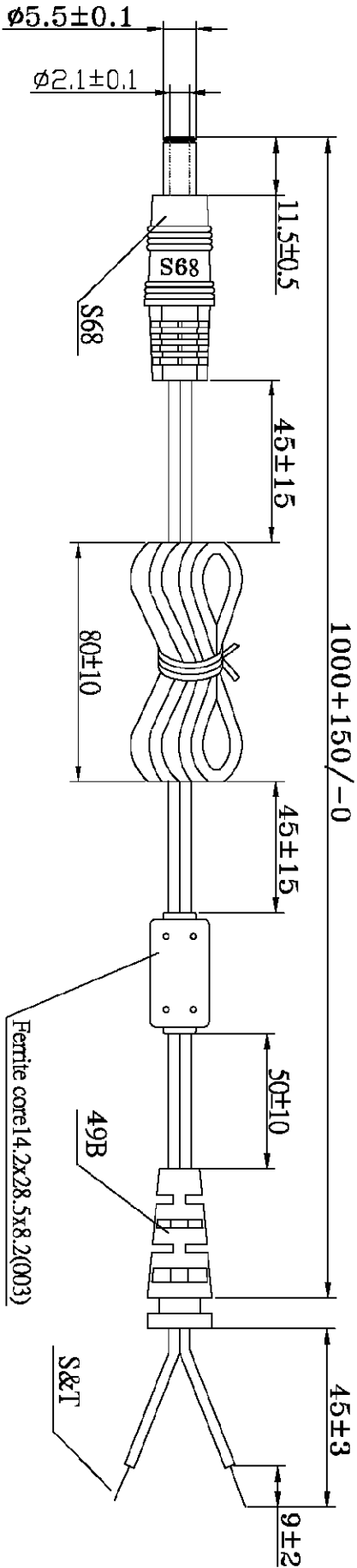









Alt.4



#16AWG X2C SPT-2 105°C HAVE ON WORD WIRE IN OUTER, NO WORD WIRE IN INNER  
OD:  $\phi 3.7 \times 7.4$

Parameter request	
VIBRATION TEST	a. 150°
	b. WEIGHT 200g
	c. 40 ROUND/MINUTE
	d. OVER 1000 COUNT MIN

DESIGNED	CHECKED	APPROVED			TITLE	DATE
Dragon	Hu XR	Bi 11	UNITS	mm	DC CORD	
			SCALE		DRAWING No. 63-49BS68-XXX-00	08-03-21
SHENZHEN ENG ELECTRONICS CO., LTD.			DRAWING NAME @3A-903DA12-000		REVISION 01	

TOLERANCE									

RTS-041 07 03

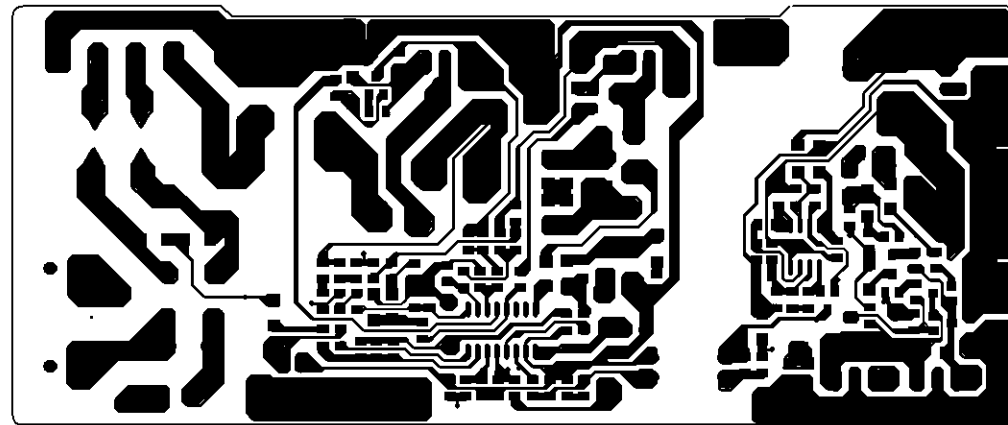


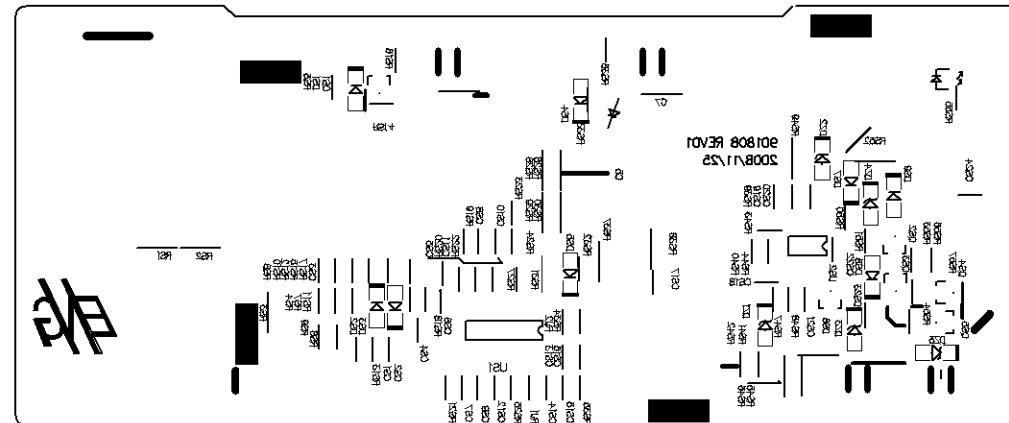


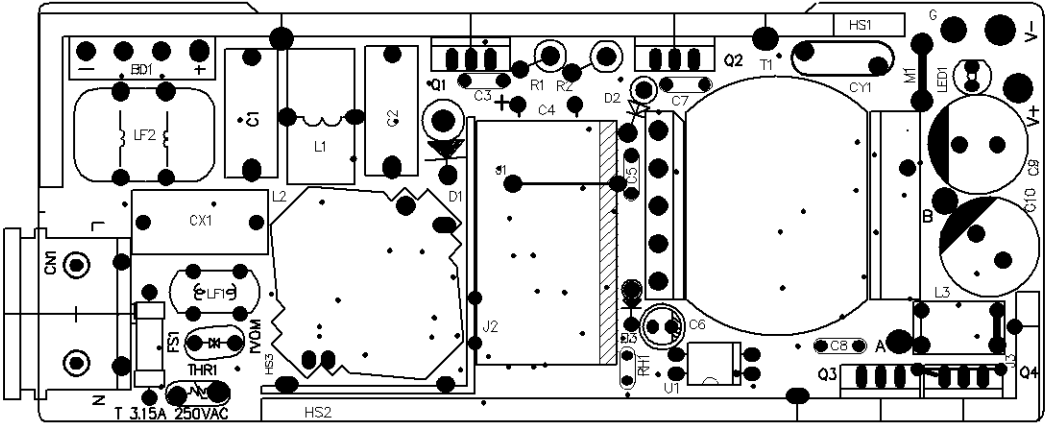


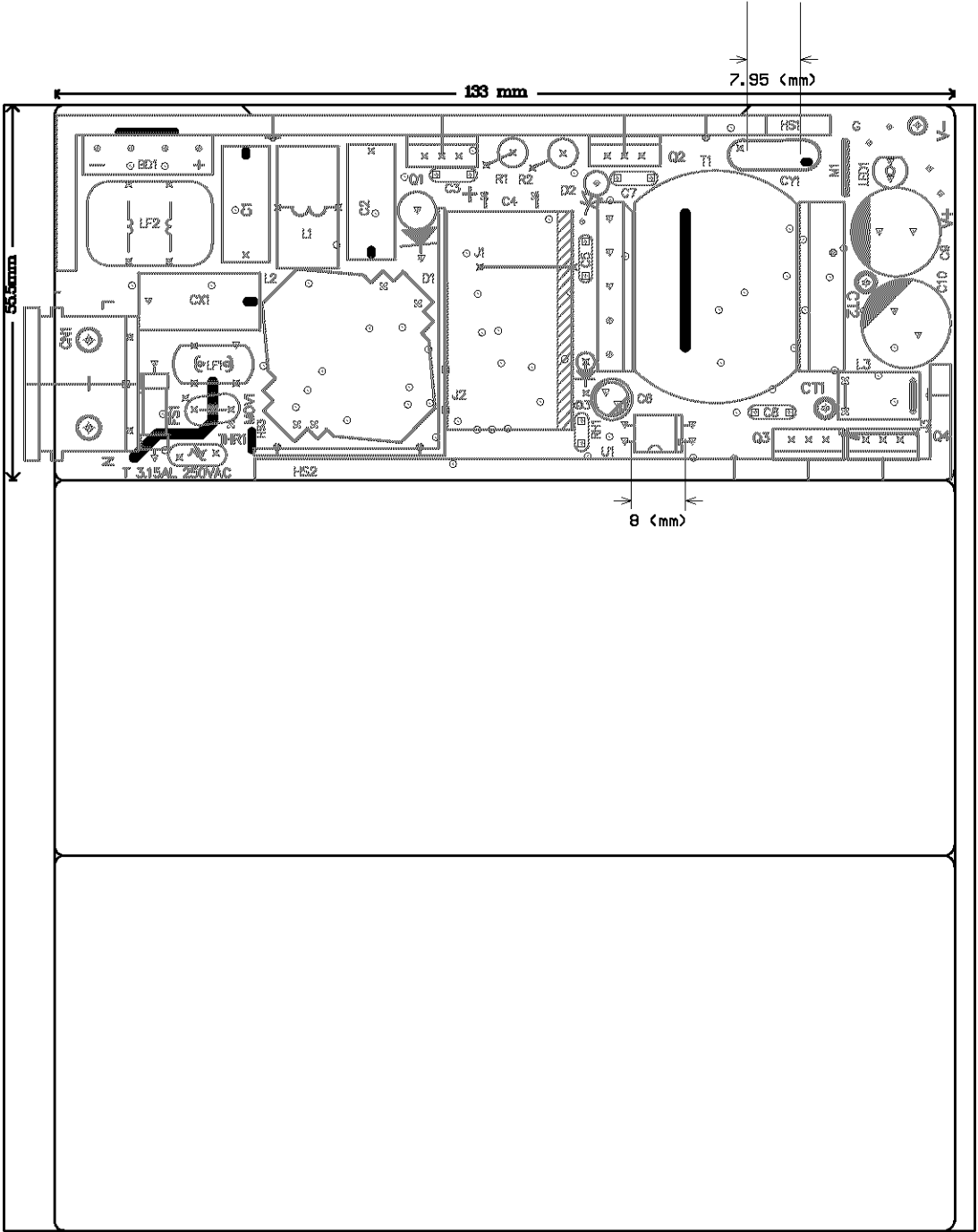


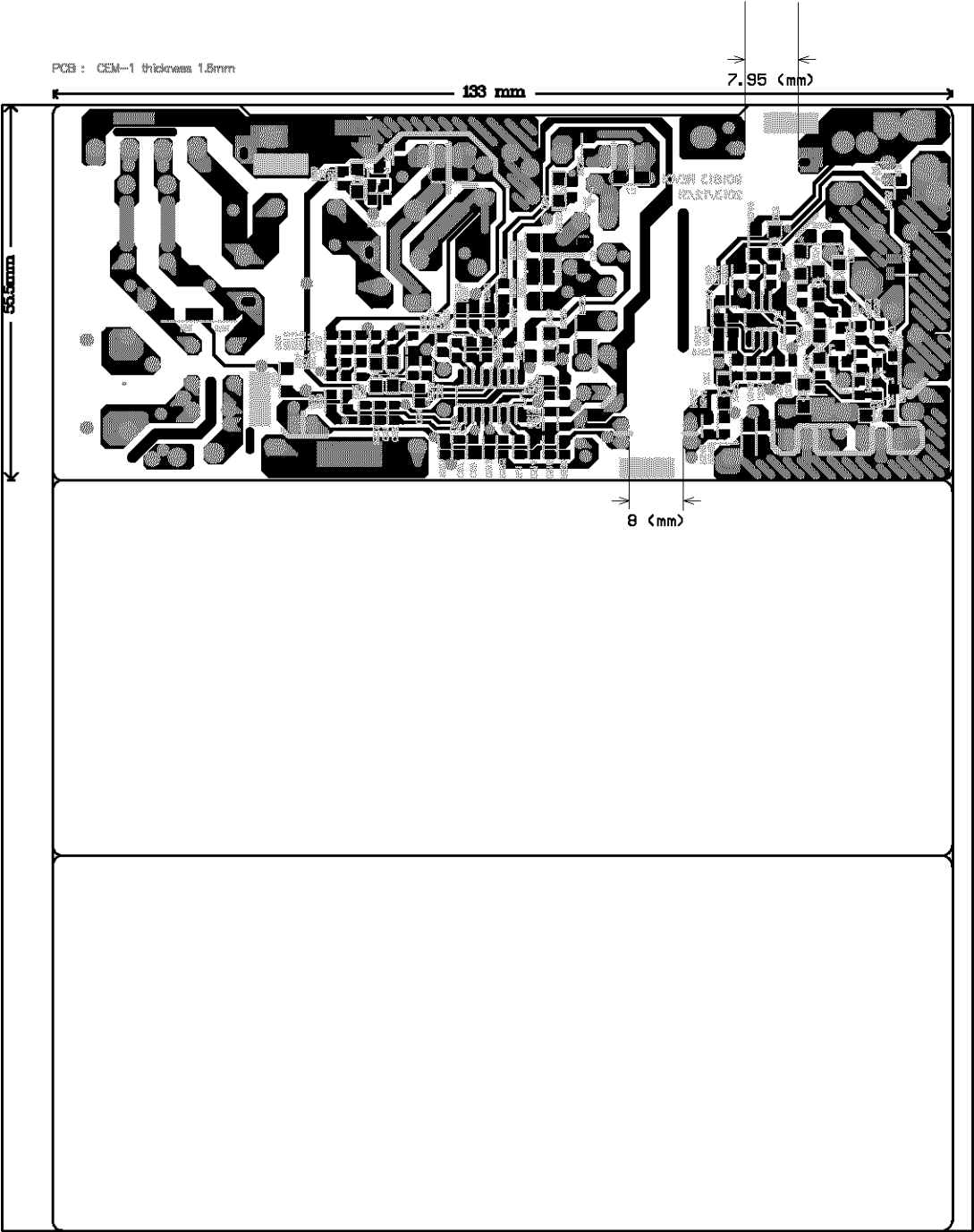





















**GlobTek, Inc.**  
www.globtek.com


ITE POWER SUPPLY 电源供应器


P/N (料号):  
MODEL (型号): GT-41133-9015-3.0-T3  
INPUT/ (输入): 100-240V, 50-60Hz, 1.5A  
OUTPUT/ (输出): 12 V === 7.5 A

ITE power supply also listed






EFFICIENCY LEVEL 

 RoHS 2





WWYY      MADE IN CHINA 中国制造





**GlobTek, Inc.**  
www.globtek.com


ITE POWER SUPPLY 电源供应器


P/N (料号):  
MODEL (型号): GT-41133-9015-3.0-T3A  
INPUT/ (输入): 100-240V, 50-60Hz, 1.5A  
OUTPUT/ (输出): 12 V === 7.5 A

ITE power supply also listed






EFFICIENCY LEVEL 

 RoHS 2





WWYY      MADE IN CHINA 中国制造





**GlobTek, Inc.**  
www.globtek.com


ITE POWER SUPPLY 电源供应器


P/N (料号):  
MODEL (型号): GT-41133-9015-3.0-T2  
INPUT/ (输入): 100-240V, 50-60Hz, 1.5A  
OUTPUT/ (输出): 12 V === 7.5 A

ITE power supply also listed





EFFICIENCY LEVEL 

 RoHS 2

WWYY      MADE IN CHINA 中国制造



Issue Date: 2011-12-14

Page 1 of 4

Report Reference #

E341351-A33-UL

Revision Date: 2014-10-30

Test Record

### **Test Record No. 1**

Tests on all models are not required due to transferring file from Applicant Globtek (Suzhou) Co Ltd., File E336418, Vol. X7, E336418-A32.

**Test Record No. 2**

No tests were considered for the following revisions employed:

- Upgrade the standard to UL60950-1, 2nd Edition + Am: 1, 2011-12-19; CSA C22.2 No.60950-1-07, 2nd Edition + Am: 1, 2011-12-19.

- Revise to the Pollution Degree 3.

- Addition of the model series as follows:

GT-41133-WWVV-X.X-AB

where A=T; B= 3 or 3A,

3 or 3A means Class I, where "3" presents C14 type inlet, "3A" presents C6 type inlet.

And the newly added model series were previously certified under E341351-A42.

Issue Date: 2011-12-14

Page 3 of 4

Report Reference #

E341351-A33-UL

Revision Date: 2014-10-30

Test Record

### **Test Record No. 3**

No tests were considered since only include the PCB layout for pollution degree 3 construction.

**Test Record No. 4**

Only limited tests were considered necessary for the following revisions:

- Revise the ambient of model GT-41133-9028-4.0-T3 to 50 deg C
- Add alternate fuse types MST from Conquer and SMT from Lanson
- Add alternate Varistor types JVR14N471K from Joyin, CNR14D471K from Centra, GNR14D471K from Ceramtec, TVR14D471K from thinking, SVR14D471K from Success, 14D471K from Guangxi
- Correct typo mistakes

The tests were conducted in UL HK lab.

The following tests were conducted:

Test	Testing Location/Comments
End Product Reference Page	
General Guidelines	
Power Supply Reference Page	
Strain Relief (3.2.6, 4.2.1, 4.2.7)	
Stress Relief (4.2.7, 4.2.1)	
Heating (4.5.1, 1.4.12, 1.4.13)	

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

Type	Supplement Id	Description
Datasheet	2-01	Datasheet
Attachment	2-02	CRD

Project No. 4786546855

File E341351

Page 1

Compliance

Review

Conducted

by:

Karrie LauKarrie LauDate 2014-10-21

Printed Name

Signature

When a measurement is needed to determine compliance with a clause the actual measured value must be recorded in the space provided. A simple 'Yes' / 'No' response is not sufficient. (See 'UL Certification Program - Work Instructions for Completion of Construction Review Datasheets (CRD) For C-UL Mark' (00-OP-W0038) for details).

## CONSTRUCTION COMPLIANCE REVIEW RECORD

## Sample Identification -

Sample Card No.	Date Received	Sample No.	Manufacturer, Product Identification and Ratings
N/A			

## Measurement Instrument Information -

Inst. ID No.	Instrument Type	Function/Range	Last Cal. Date	Next Cal. Date
N/A				

The following additional information is required when using client's or rented equipment, or when a UL ID Number for an instrument number is not used. The Inst. ID No. below corresponds to the Inst. ID No. above.

Inst. ID No.	Make/Model/Serial Number/Asset No.

☐ Measurement instrument information is recorded on UL's Laboratory Project Management (LPM) database. (This statement may be selected only if CRDs are completed at a UL facility)

No construction review was conducted due to the following changes:

- Revise the ambient of model GT-41133-9028-4.0-T3 to 50 deg C
- Add alternate fuse types MST from Conquer and SMT from Lanson
- Add alternate Varistor types JVR14N471K from Joyin, CNR14D471K from Centra, GNR14D471K from Ceramate, TVR14D471K from thinking, SVR14D471K from Success, 14D471K from Guangxi
- Correct typo mistakes

ULS-02377-AAAG-ConstructionReview-2004

Form Issued: 2004-12-21

Form Page 1

Form Revised: 2008-07-08

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Only those products bearing the UL Mark should be considered as being covered by UL.

Project No. 4786546855  
Compliance  
Review  
Conducted

File E341351

Page 2

by:

Karrie Lau

Karrie Lau

Date 2014-10-21

Printed Name

Signature

CONSTRUCTION COMPLIANCE REVIEW:

The sample was reviewed for compliance with the construction requirements in the standard indicated below and a complete record including measurements to support compliance with those requirements is detailed in Report Reference No. E341351-A33 .

Standard	CAN/CSA-C22.2 No. 60950-1-07- CAN/CSA Information Technology Equipment Safety Part 1: General Requirements	Edition/ Revision Date	2 <sup>th</sup> Edition, Revision Date 2011-12-19
----------	---	---------------------------	---

[ ] The following Construction Requirements were not covered by the above-mentioned Report.

[illegible]

ULS-02377-AAAG-ConstructionReview-2004  
Form Page 2

Form Issued: 2004-12-21  
Form Revised: 2008-07-08

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