


1.0 Reference and Address			
Report Number	170500747SHA-001	Original Issued:	27-Jun-2017
		Revised:	None
Standard(s)	Class 2 Power Units [UL 1310:2011 Ed.6+R:01Feb2017]		
	Power Supplies With Extra-Low Voltage Class 2 Outputs [CSA C22.2#223:2015 Ed.3]		
Applicant	GlobTek, Inc.	Manufacturer	GlobTek (Suzhou) Co., Ltd.
Address	186 Veterans Dr. Northvale, NJ 07647 USA	Address	Building 4. No 76 JinLing East Road, Suzhou Industrial Park, Suzhou, JiangSu, 215021
Country	USA	Country	China
Contact	Hans Moritz	Contact	Demon Zhou
Phone	(201)784-1000 Ext.253	Phone	86 512 6279 0301 Ext.189
FAX	(201)784-0111	FAX	86 512 6279 0355
Email	Moritzh@globtek.com	Email	demon.zhou@globtek.cn

2.0 Product Description	
Product	Class 2 Power Supply
Brand name	
Description	Product covered by this report is Class 2 power supply module, for indoor use only. The power supplies which have an output current rating of 3.2A or less are all rated for Limited Power Source (LPS) application. Direct Plug-in power supply is provided with suitable external enclosure, which is Class II apparatus. Two pieces of outer enclosure are enclosed with ultrasonic welding without screw. The product is not intended to use in the environment which altitude exceed 5000m.
Models	GT followed by M, - or H; followed by 46161-; followed by 01 to 16; followed by 5.0 to 5.5 or 05 to 05.5; followed by -USB.
Model Similarity	GT*46161-**-USB The 1st "*" can be "M" or "-" or "H" for market identification and not related to safety. The 2nd "*" denote the rated output wattage designation, which can be "01" to "16", with interval of 1. The 3rd "*" denote the standard rated output voltage designation, which can be "5.0" to "5.5" or "05" to "05.5" with interval of 0.1. All models have the same circuit diagram, PCB layout and enclosure size.
Ratings	Input:100-240V~, 50-60Hz, 0.45A Output: 5.0-5.5VDC, Max. 3.2A
Other Ratings	N/A

3.0 Product Photographs

Photo 1 - External view

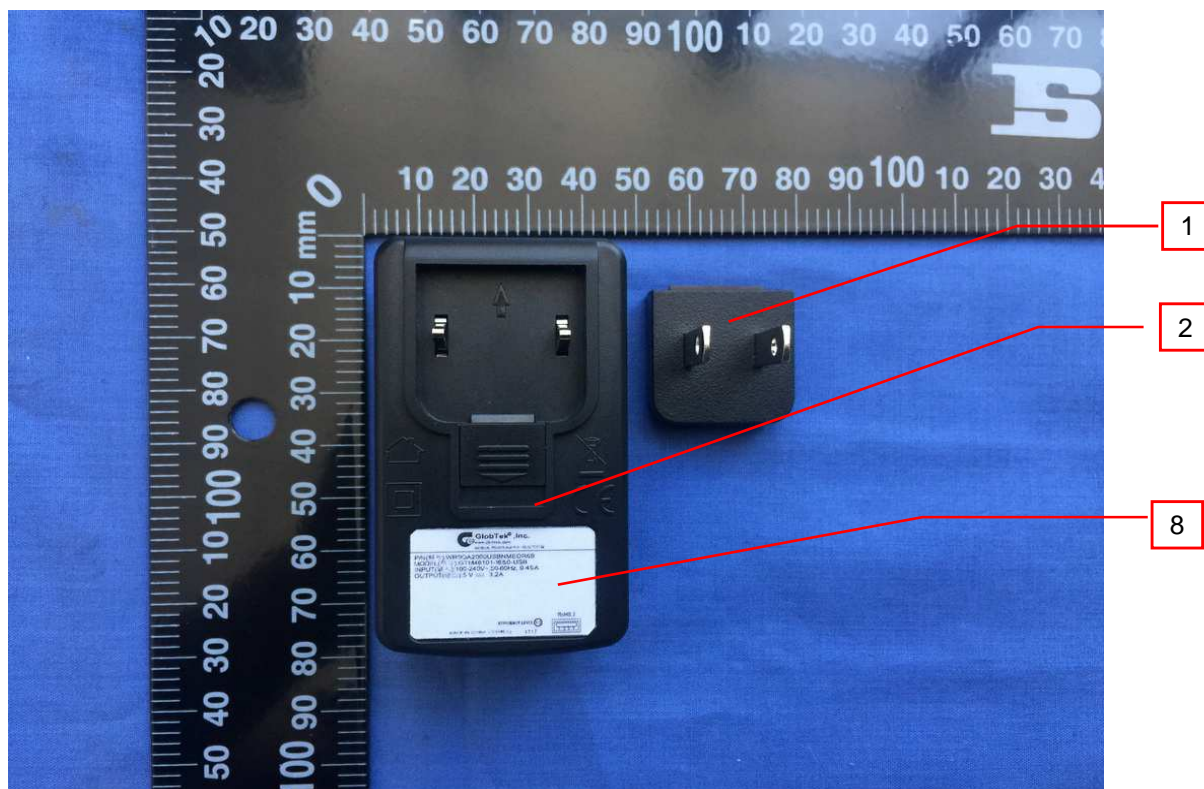
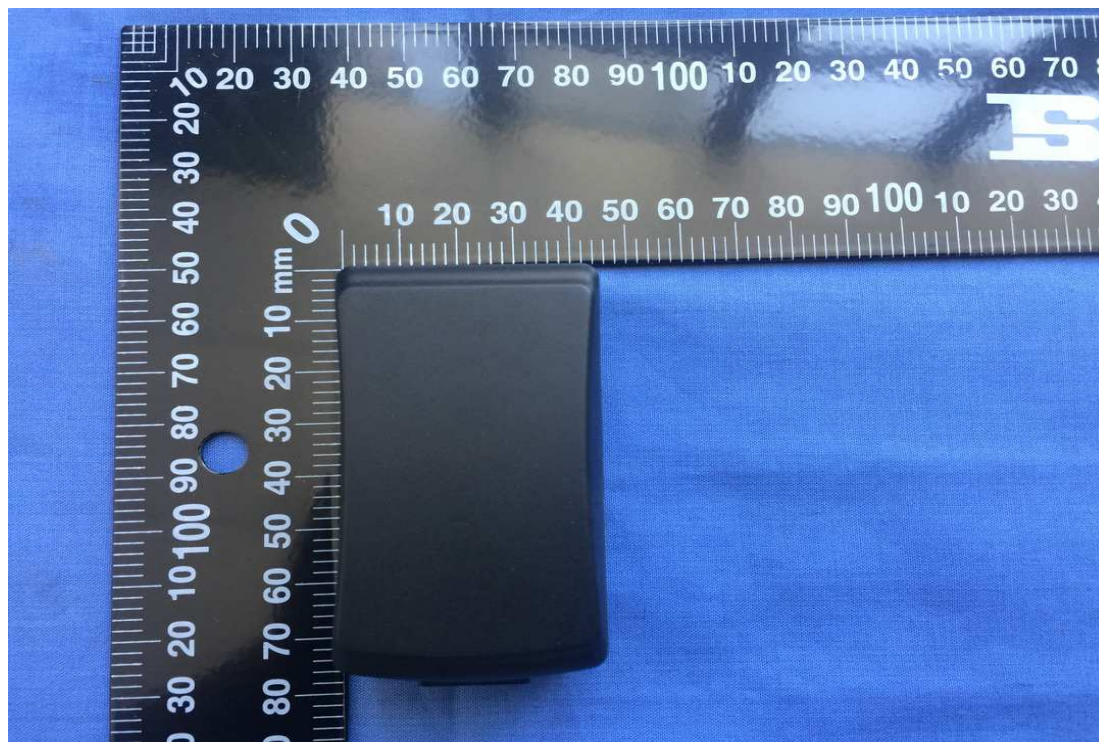


Photo 2 - External view



3.0 Product Photographs

Photo 3 - External view

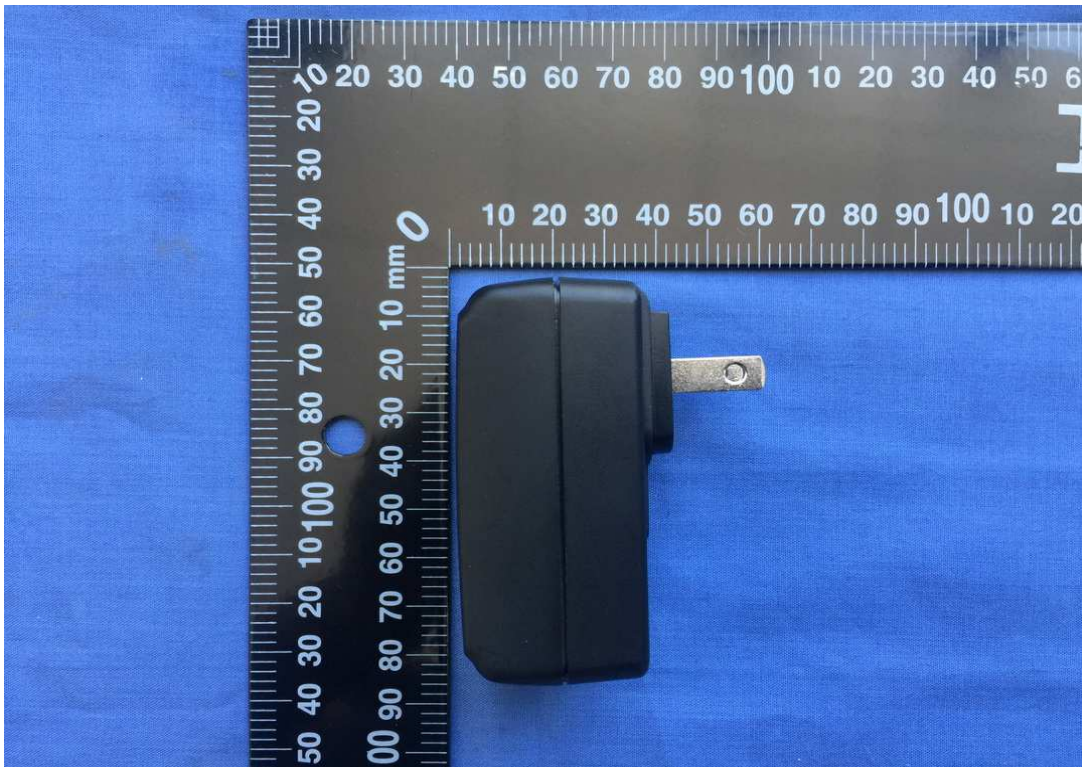
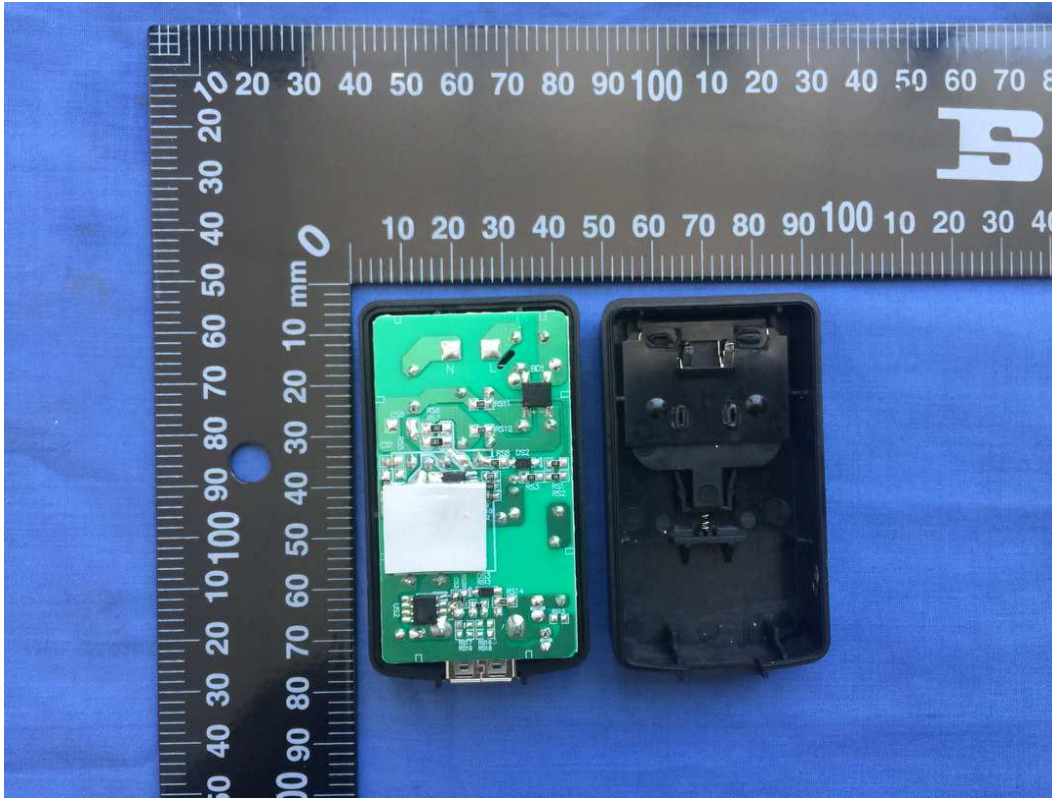


Photo 4 - External view

3.0 Product Photographs

Photo 5 - Internal view



3.0 Product Photographs

Photo 7 - Internal view

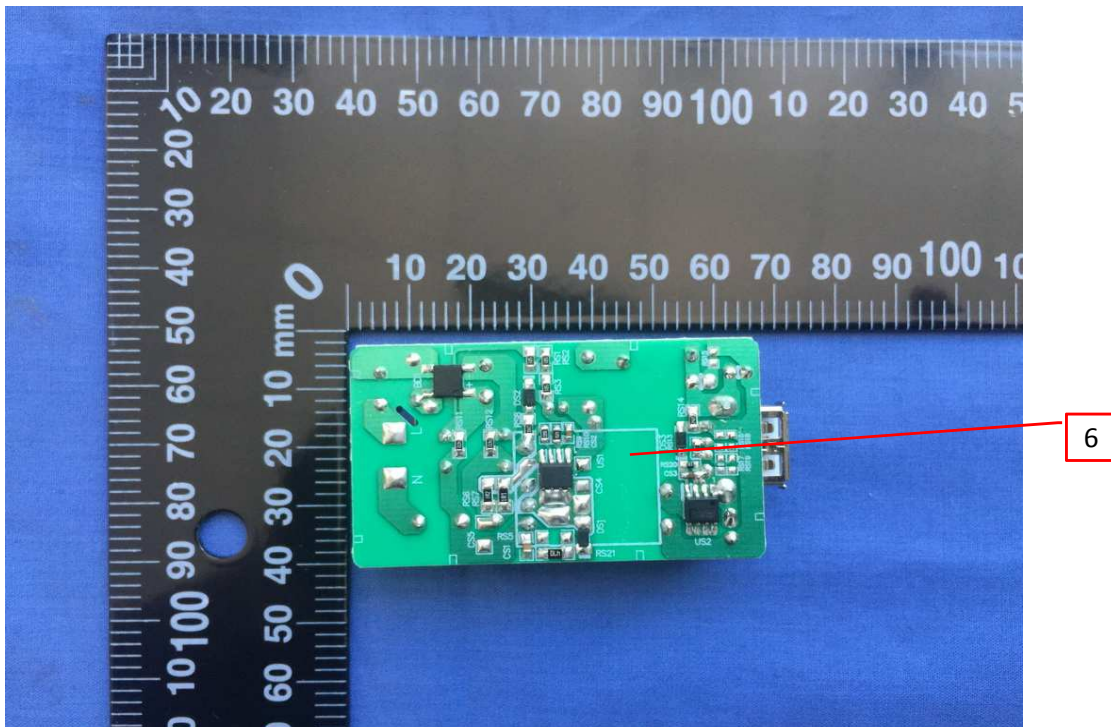


Photo 8 - Transformer

3.0 Product Photographs

Photo 9 - Transformer

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
1	1	Changeable Plug holder	SABIC INNOVATIVE PLASTICS B V	SE1X	PPE+PS, V-1, HWI 0, HAI 0, 105°C , min thickness:1.5 mm; Fixed by ultrasonic welding and without opening;	cURus
				SE1	PPE+PS, V-1, HWI 1, HAI 2, 105°C , min thickness:1.5 mm; Fixed by ultrasonic welding and without opening;	cURus
				SE100	PPE+PS, Min. V-1, HWI 2, HAI 0, 95°C , min thickness:1.5 mm; Fixed by ultrasonic welding and without opening;	cURus
				C2950	PC/ABS, V-1, HWI 3, HAI 0, 75°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
				CX7211	PC/ABS, V-0, 5VB, HWI 2, HAI 0, 90°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
				EXCY0098	PC/ABS, V-0, 5VB, HWI 2, HAI 0, 90°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
			TEIJIN CHEMICALS LTD	945	PC, V-0, HWI 3, HAI 3, 120°C, min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
				LN-1250P	PC, V-0, HWI 3, HAI 0, 115°C , min thickness: 2.0mm; Fixed by ultrasonic welding and without opening;	cURus
			FORMOSA CHEMICALS & FIBRE CORP PLASTICS DIV	LN-1250G	PC, V-0, HWI 3, HAI 0, 115°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
				AC310(+)	PC/ABS, V-0, HWI 3, HAI 0, 85°C , min thickness: 2.0mm; Fixed by ultrasonic welding and without opening;	cURus
			CHI MEI Corporation	PA-765A	ABS, V-0, 5VB, HWI 3, HAI 0, 80°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
				PC-540	PC/ABS, V-0, HWI 3, HAI 3, 70°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
				SE1X	PPE+PS, V-1, HWI 0, HAI 0, 105°C , min thickness:1.5 mm; Fixed by ultrasonic welding and without opening;	cURus
				SE1	PPE+PS, V-1, HWI 1, HAI 2, 105°C , min thickness:1.5 mm; Fixed by ultrasonic welding and without opening;	cURus

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
1	2	Enclosure	SABIC INNOVATIVE PLASTICS B V	SE100	PPE+PS, Min. V-1, HWI 2, HAI 0, 95°C , min thickness:1.5 mm; Fixed by ultrasonic welding and without opening;	cURus
				C2950	PC/ABS, V-1, HWI 3, HAI 0, 75°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
				CX7211	PC/ABS, V-0, 5VB, HWI 2, HAI 0, 90°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
				EXCY0098	PC/ABS, V-0, 5VB, HWI 2, HAI 0, 90°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
				945	PC, V-0, HWI 3, HAI 3, 120°C, min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
			TEIJIN CHEMICALS LTD	LN-1250P	PC, V-0, HWI 3, HAI 0, 115°C , min thickness: 2.0mm; Fixed by ultrasonic welding and without opening;	cURus
				LN-1250G	PC, V-0, HWI 3, HAI 0, 115°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
			FORMOSA CHEMICALS & FIBRE CORP PLASTICS DIV	AC310(+)	PC/ABS, V-0, HWI 3, HAI 0, 85°C , min thickness: 2.0mm; Fixed by ultrasonic welding and without opening;	cURus
			CHI MEI Corporation	PA-765A	ABS, V-0, 5VB, HWI 3, HAI 0, 80°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
				PC-540	PC/ABS, V-0, HWI 3, HAI 3, 70°C , min thickness: 1.5mm; Fixed by ultrasonic welding and without opening;	cURus
6	3	Fuse (FS1)	CONQUER ELECTRONICS CO LTD	MST series	T1A, 250V	cURus
			EVER ISLAND ELECTRIC CO LTD & WALTER ELECTRIC	2010	T1A, 250V	cURus
			EVER ISLAND ELECTRIC CO LTD & WALTER ELECTRIC	ICP series	T1A, 250V	cURus
			BEL FUSE INC	RST series	T1A, 250V	cURus
			COOPER BUSSMANN LLC	SS-5	T1A, 250V	cURus

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
6			SHENZHEN LANSO ELECTRONICS CO LTD	SMT	T1A, 250V	cURus
			DAS & SONS INTERNATIONAL LTD	385T series	T1A, 250V	cURus
	4	Fuse resistor (RF1) (optional)	ANHUI CHANGSHENG ELECTRONICS CO LTD	RXF21-1W	1Ω, 1W	cURus
			SHENZHEN GREAT ELECTRONICS CO LTD	RXF-1W	1Ω, 1W	cURus
			JIANGSU XINYANG ELECTRONIC COMPONENT CO LTD	RF10-1W	1Ω, 1W	cURus
			SHENZHEN KAYOCOTA ELECTRONICS CO LTD	FRKNP-1WS	1Ω, 1W	cURus
			ANHUI CHANGSHENG ELECTRONICS CO LTD	FRT-1W	1Ω, 1W	cURus
			TZAI YUAN ENTERPRISE CO LTD	KNF1W	1Ω, 1W	cURus
	5	Y capacitor (CY1, CY2) (Optional)	TDK CORPORATION	CD	Y1, Min. AC250V, max 1000pF, -25~+85°C	cURus
			SUCCESS ELECTRONICS CO LTD	SE	Y1, Min. AC250V, max 1000pF, -40~+125°C	cURus
			SUCCESS ELECTRONICS CO LTD	SB	Y1, Min. AC250V, max 1000pF, -40~+125°C	cURus
			MURATA MFG CO LTD	KX	Y1, Min. AC250V, max 1000pF, -40~+125°C	cURus
			WALSIN TECHNOLOGY CORP	AH series	Y1, Min. AC250V, max 1000pF, -40~+125°C	cURus
			JYA-NAY CO LTD	JN	Y1, Min. AC250V, max 1000pF, -25~+125°C	cURus
			HAOHUA ELECTRONIC CO	CT7	Y1, Min. AC250V, max 1000pF, -30~+125°C	cURus
			JERRO ELECTRONICS CORP	JX	Y1, Min. AC250V, max 1000pF, -40~+125°C	cURus
			WELSON INDUSTRIAL CO LTD	Y	Y1, Min. AC250V, max 1000pF, -55~+125°C	cURus

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
7	6	PCB	Various	Various	Min. 1.6 mm thickness, min. V-0, 130°C, Fully comply with UL 796	cURus
6	7	Transformer (T1)	GlobTek/ BOAM/ HAOPUWEI	XF01036	Output voltage range:5.0V-5.5VDC; Class B with insulation system below.	NR
6	7a	Insulation system (Not shown)			Class B	cURus
			GLOBTEK INC	GTX-130-TM	Class B	cURus
			SHAN DONG BOAM ELECTRIC CO LTD	BOAM-01	Class B	cURus
			WUXI HAOPUWEI ELECTRONICS CO LTD	ZT-130	Class B	cURus
6	7b	Bobbin (Not shown)	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C, thickness 0.45 mm min.	cURus
			CHANG CHUN PLASTICS CO LTD	T375HF	V-0, 150°C, thickness 0.45 mm min.	cURus
			SUMITOMO BAKELITE CO LTD	PM-9820	V-0, 150°C, thickness 0.45 mm min.	cURus
			HITACHI CHEMICAL CO LTD	CP-J-8800	V-0, 150°C, thickness 0.45 mm min.	cURus
6	7c	Magnet wire (Not shown)	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWN/U	MW28-C, 130°C	cURus
			PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWS/U	MW75-C, 130°C	cURus
			JUNG SHING WIRE CO LTD	UEW-4	MW75-C, 130°C	cURus
			JUNG SHING WIRE CO LTD	UEY-2	MW28-C, 130°C	cURus
			JIANGSU HONGLIU MAGNET WIRE TECHNOLOGY CO LTD	2UEW/130	MW75-C, 130°C	cURus
			CHANGZHOU DAYANG WIRE & CABLE CO LTD	2UEW/130	MW75-C, 130°C	cURus
			WUXI JUFENG COMPOUND LINE CO LTD	2UEWB	MW75#, 130°C	cURus

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
			JIANGSU DARTONG M & E CO LTD	UEW	MW75-C, 130°C	cURus
			SHANDONG SAINT ELECTRIC CO LTD	UEW/130	MW75#, 130°C	cURus
			ZHEJIANG LANGLI ELECTRIC EQUIPMENTS CO LTD	UEW	MW79#, 130°C	cURus
6	7d	Triple-insulated wire (Not shown)	GREAT LEOFLON INDUSTRIAL CO LTD	TRW(B)	Reinforced Insulation, rated 130°C (Class B), 1.41 kVolts peak for Information Technology;	cURus
			COSMOLINK CO LTD	TIW-M(B)	Reinforced Insulation, rated 130°C (Class B), 1.41 kVolts peak for Information Technology;	cURus
			FURUKAWA ELECTRIC CO LTD	TEX-E	Reinforced Insulation, rated 130°C (Class B), 1.41 kVolts peak for Information Technology;	cURus
			TOTOKU ELECTRIC CO LTD	TIW-2	Reinforced Insulation, rated 130°C (Class B), 1.40 kVolts peak for Information Technology;	cURus
			SUZHOU JIN YOU YU ELECTRONIC CO LTD	TAW-B	Reinforced Insulation, rated 130°C (Class B), 1.40 kVolts peak for Information Technology;	cURus
			E&B TECHNOLOGY CO LTD	E&B-XXXB	Reinforced Insulation, rated 130°C (Class B), 1.40 kVolts peak for Information Technology;	cURus
			E&B TECHNOLOGY CO LTD	E&B-XXXB-1	Reinforced Insulation, rated 130°C (Class B), 1.40 kVolts peak for Information Technology;	cURus
			CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-TIW	Reinforced Insulation, rated 130°C (Class B), 1.41 kVolts peak for Information Technology;	cURus
			SHENZHEN JIUDING NEW MATERIAL CO LTD	DTIW-B	Reinforced Insulation, rated 130°C (Class B), 1.40 kVolts peak for Information Technology;	cURus
			3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1	130°C	cURus
			3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350T-1	130°C	cURus
			3M COMPANY ELECTRICAL MARKETS DIV (EMD)	44	130°C	cURus
			BONDTEC PACIFIC CO LTD	370S	130°C	cURus

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
6	7e	Insulating tape (Not shown)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ	130°C	cURus
			JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT	130°C	cURus
			JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	WF	130°C	cURus
			JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A	130°C	cURus
			CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	130°C	cURus
			SHENZHEN WEICHUANGDA PACKAGING MATERIALS CO LTD	W-001	130°C	cURus
6	7f	PTFE tubing (Not shown)	GREAT HOLDING INDUSTRIAL CO LTD	TFT	300V, 200°C	cURus
			GREAT HOLDING INDUSTRIAL CO LTD	TFS	600V, 200°C	cURus
			SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	WF	600V, 200°C	cURus
			CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-TT-T	300V, 200°C	cURus
			CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-TT-S	600V, 200°C	cURus
			DONGGUAN XIANGQUAN PRINTING CO LTD	XQ03	Temperature range: -40~+80°C;	cURus
			FAN JA PAPER PRINTING CO LTD	FJ-03-3	Temperature range: -40~+80°C;	cURus

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
1	8	Adhesive-Type Label	FAN JA PAPER PRINTING CO LTD	FJ07	Temperature range: -40~+80°C;	cURus
			E-LIN ADHESIVE LABEL CO LTD	EL-15	Temperature range: -40~+80°C;	cURus
			SHENZHEN CORWIN PRINTING CO LTD	CW-01	Temperature range: -40~+80°C;	cURus
			YUEN CHANG SPECIAL PRINTING (SHENZHEN) CO LTD	JL-08	Temperature range: 0~+80°C;	cURus
			GlobTek	Various	Permanently secured Engraving or Silkscreen or Laser printing	NR
			Various	Various	Temperature range: min. -40 ~+80°C; Certified according UL 969.	cURus

NOTES:

- 1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.
- 2) "Various" means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.
- 3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.

5.0 Critical Unlisted CEC Components
No Unlisted CEC components are used in this report.

6.0 Critical Features

Recognized Component - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.

Listed Component - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.

Unlisted Component - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.

Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

Construction Details - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.

1. Spacing - In primary circuits, 4.8 mm minimum spacing are maintained through air and over surfaces of insulating material between current-carrying parts of opposite polarity and 4.8 mm minimum between such current-carrying parts and low voltage isolated circuits.
2. Mechanical Assembly - Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.
3. Corrosion Protection - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.
4. Accessibility of Live Parts - For adapter models, all uninsulated live parts in primary circuitry are housed within a non-metallic enclosure constructed with no openings and metal enclosure earthed with ventilation holes other than those specifically described in Sections 4 and 5.
5. Grounding - This product is not provided with a means of grounding.
6. Polarized Connection - This product is not provided with a polarized power supply connection.
7. Internal Wiring - No internal wiring
8. Schematics - Refer to Illustration No(s). 2, 3 for schematics & PCB layout requiring verification during Field Representative Inspection Audits.
9. Transformer- Refer to Illustration No. 4 for transformer construction requiring verification during Field Representative Inspection Audits.
10. Markings - The product is marked as follows: brand name, model number, electrical ratings, manufacturer. Refer to Illustration No. 5 for details.
11. Cautionary Markings - Refer to illustrations No. 5 for details.
12. Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer. They are kept in file and need not be repeated here.

Illustration 1 - Model list

Model ↕	Output Voltage ↕	Max. output current ↕	Max. output power ↕
GT*46161-*5.0-USB↕	5 ↕	3.2A ↕	16W ↕
GT*46161-**-USB↕	5.1-5.5V ↕	3.14A ↕	16W ↕

Illustration 2 - Schematics

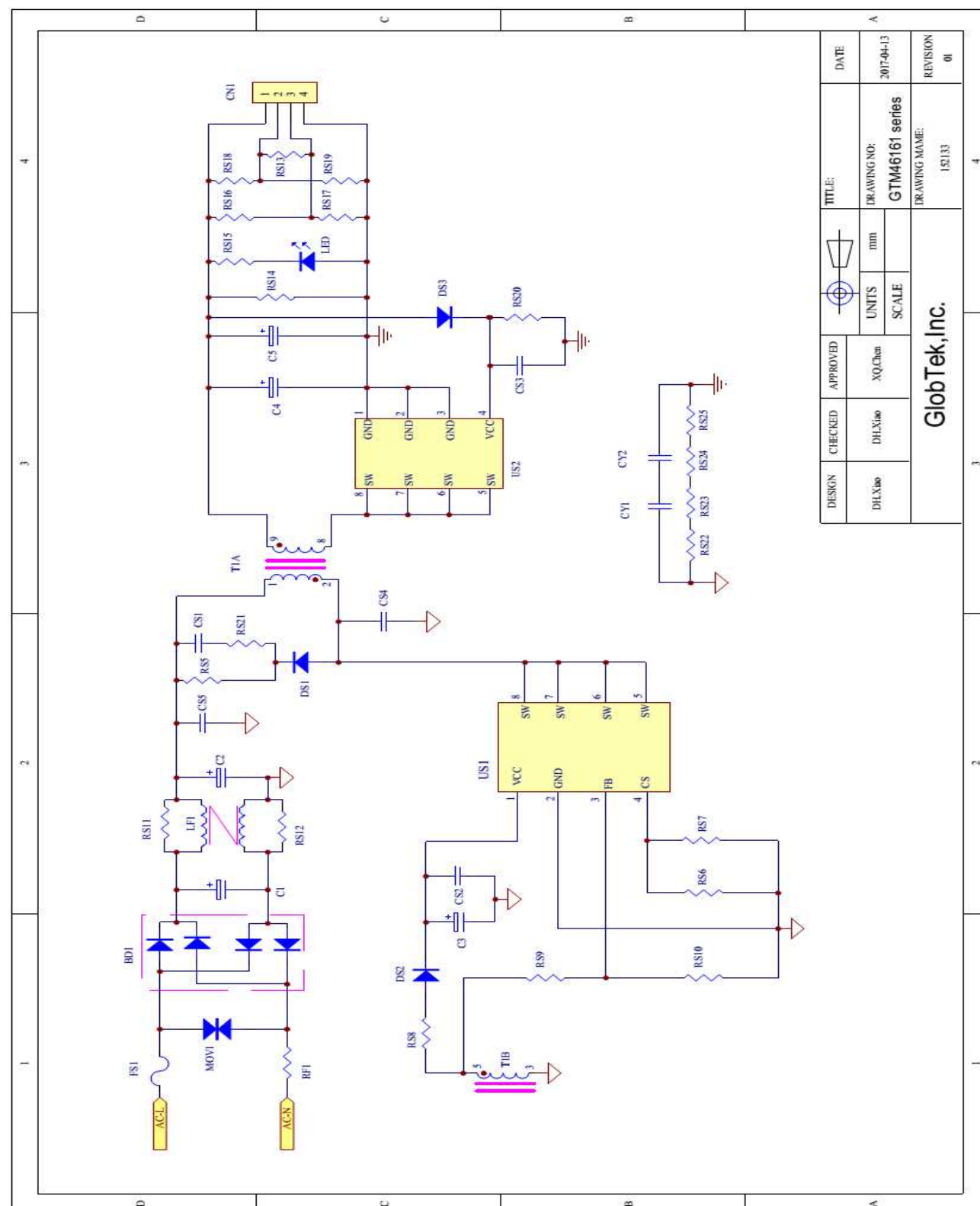
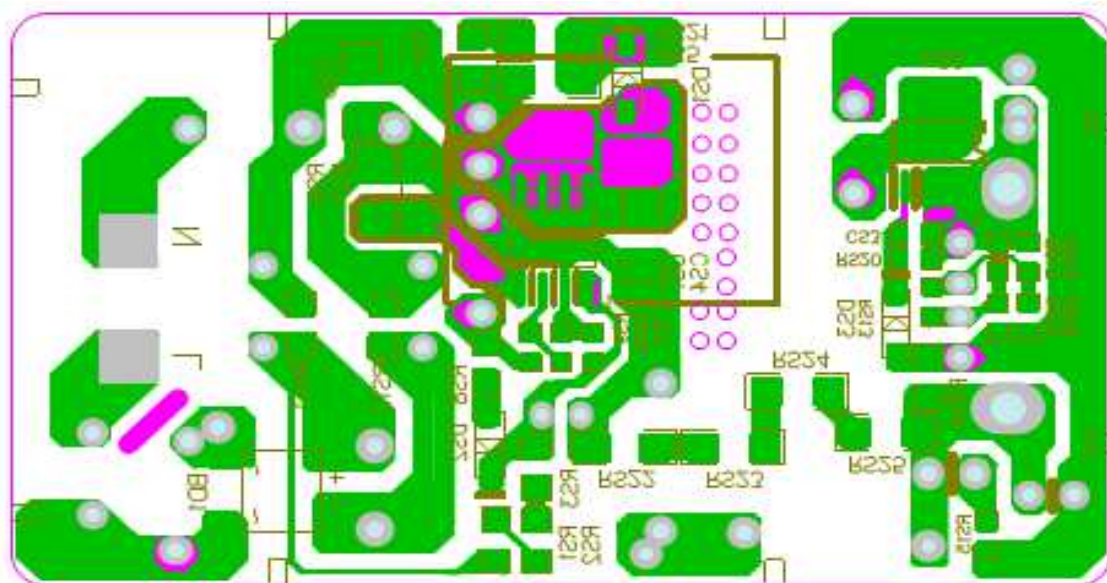
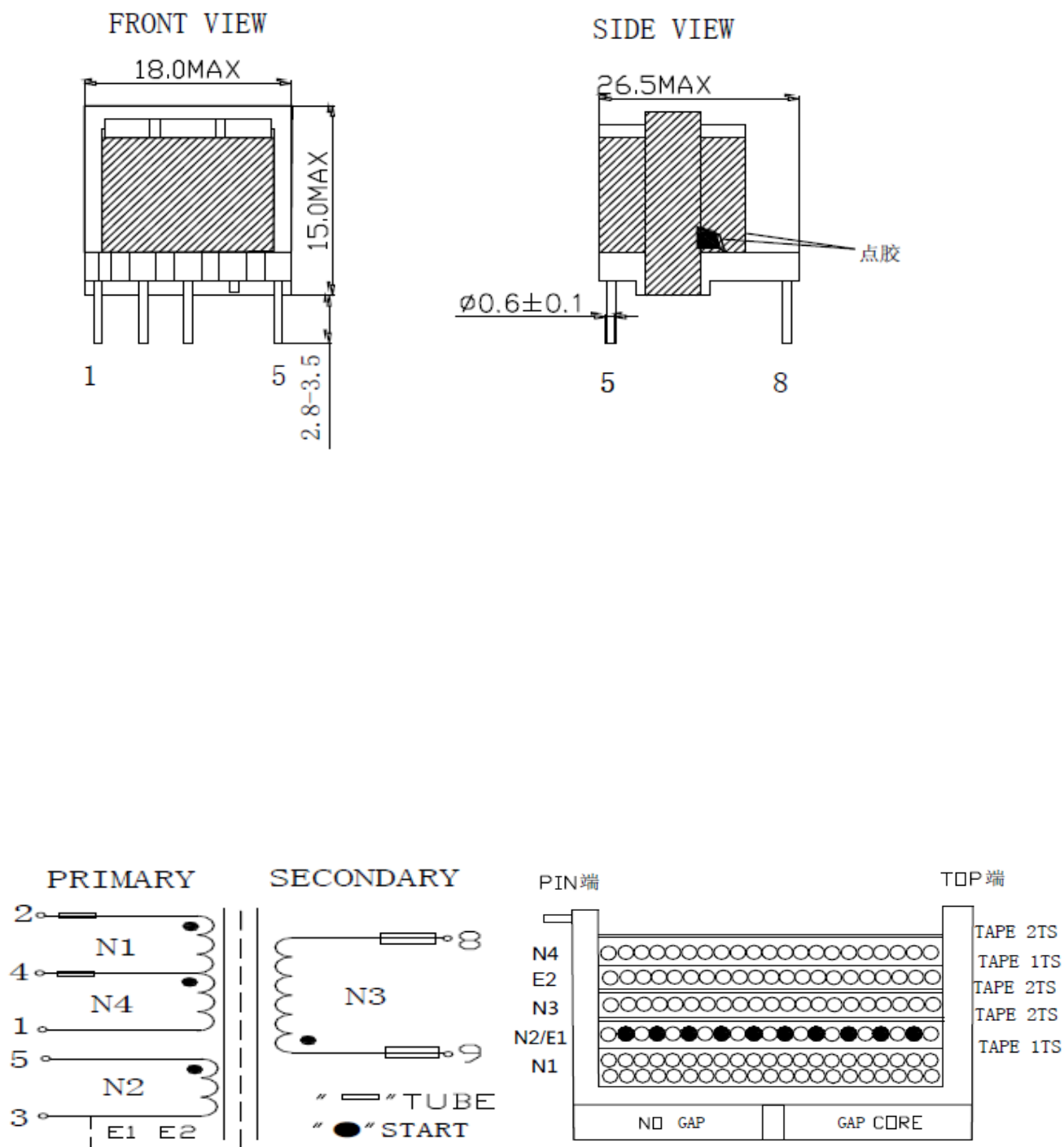


Illustration 3 - PCB LAYOUT



7.0 Illustrations

Illustration 4 - Construction of transformer



LAYER S	START- END	WIRE TYPE COPPER FOIL	TRUNS	LAYER TAPE	TUBE		WINDING
					S	F	
N1	2~4	2UEW-Φ 0.25*1P	45TS	7.0mm*1TS	28L	28L	密绕二层
N2	5~3	2UEW-Φ 0.17*1P	13TS	7.0mm*2TS	/	/	双线并绕 一层
E1	3~	2UEW (RED) -Φ 0.17*1P			/	/	
N3	9~8	TAW-B-Φ 0.80*1P	5TS	7.0mm*2TS	17L	17L	密绕一层
E2	3~	2UEW-Φ 0.22*1P	20TS	7.0mm*1TS	/	/	密绕一层
N4	4~1	2UEW-Φ 0.22*1P	20TS	7.0mm*2TS	/	/	密绕一层

7.0 Illustrations

Illustration 5 - Marking



Note:

1. The marking plates of the other models listed in this report are identical with below except model name and output parameter.
2. The date code of manufacturing is presented as WWYY, YY = manufacturing year, WW = the week of the manufacturing year, e.g. 0217 = The second week of 2017.

8.0 Test Summary

Evaluation Period	8-May-2017 to 8-June-2017			Project No.	170500747SHA
Sample Rec. Date	8-May-2017	Condition	Prototype	Sample ID.	0170508-32-001-006
Test Location	Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China				
Test Procedure	Testing Lab				

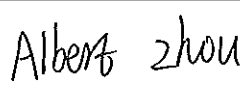

Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.

The following tests were performed:

Test Description	Class 2 Power Units [UL 1310:2011 Ed.6 +R:01Feb2017]	Power Supplies With Extra-Low Voltage Class 2 Outputs [CSA C22.2 No.223:2015 Ed.3]	-
Integral plug dimension check	14.1.1	4.6.1.1	-
Maximum moment measurement	7.11	4.2.5	-
Plug Discharge and Plug Energy Stored Test	-	4.6.2.7	-
Insulating Materials	21	-	-
Leakage Current Test	26	6.6	-
Leakage Current Test and Dielectric Voltage Withstand Test After Humidity Exposure	27	-	-
Maximum Output Voltage Test	28	6.3.1	-
Maximum Input Test	29	6.3.2	-
Output Current and Power Test	30	6.3.4	-
Full-Load Output Current Test	32	6.3.3	-
Normal Temperature Test	33	6.4	-
Dielectric Voltage-Withstand Test	34	6.5	-
Abnormal Tests	39	6.8	-
Tests on Insulating Materials	40	4.9	-
Direct Plug-In Blade Secureness Test	43	-	-
Direct Plug-In Security of Input Contacts Test	44.1	-	-
Abuse Tests	46	-	-
Secondary Circuit Protection	-	6.7	-
Drop and Impact	-	6.9	-
Strain Relief and Blade Retention	-	6.10	-
Securement of components	-	6.12	-
Insulating Material	-	6.14	-
Deformation (non-metallic enclosures)	-	6.16	-

8.1 Signatures

A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.

Completed by:	Albert Zhou	Reviewed by:	Will Wang
Title:	Engineer	Title:	Supervisor
Signature:		Signature:	

9.0 Correlation Page For Multiple Listings

The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.

BASIC LISTEE	GlobTek, Inc.
Address	186 Veterans Dr. Northvale, NJ 07647 USA
Country	USA
Product	Class 2 Power Supply

MULTIPLE LISTEE 1	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	
MULTIPLE LISTEE 1 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 2	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	
MULTIPLE LISTEE 2 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 3	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	
MULTIPLE LISTEE 3 MODELS	BASIC LISTEE MODELS

10.0 General Information

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

COMPONENTS

Components used shall be those itemized in this Intertek report covering the product, including any amendments and/or revisions.

LISTING MARK

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

- 1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
- 2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
- 3) a control number issued by Intertek
- 4) a product descriptor that identifies the standards used for certification. Example:

For US standards, the words, "Conforms to" shall appear with the standard number along with the word, "Standard" or "Std." Example: "Conforms to ANSI/UL Std. XX."

For Canadian standards, the words "Certified to CAN/CSA Standard CXX No. XX." shall be used, or abbreviated, "Cert. to CAN/CSA Std. CXX No. XX."

Can be used together when both standards are used.

Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use.

The facsimile need not have a control number. A control number will be issued **after signed Certification Agreements** have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

FOLLOW-UP SERVICE

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the issuing product safety evaluation center for instructions.

10.1 Evaluation of Unlisted Components

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

Note to Intertek Follow Up Inspector: The Component Evaluation Center, CEC, will notify you in writing when these components must be selected and sent to the CEC for re-evaluation

Ship the samples to:
Intertek Testing Services Shanghai Limited
ETL Component Evaluation Center
Building No. 86, 1198 Qinzhou Road (North)
Shanghai 200233, China
Attn: Ms. Angela Han

Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

11.0 Manufacturing and Production Tests

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

Required Tests

Dielectric Voltage Withstand Test

11.1 Dielectric Voltage Withstand Test

Method

One hundred percent of production of the products covered by this Report shall be subjected to a routine production line dielectric withstand test.

The test shall be conducted on products, which are fully assembled. Prior to applying the test potential, all switches, contactors, relays, etc., should be closed so that all primary circuits are energized by the test potential. If all primary circuits cannot be tested at one time, then separate applications of the test potential shall be made.

The test voltage specified below shall be applied between primary circuits and accessible dead-metal parts. The test voltage may be gradually increased to the specified value but must be maintained at the specified value for one second or one minute as required.

Test Equipment

The test equipment shall incorporate a transformer with an essentially sinusoidal output, a means to indicate the applied test potential, and an audible and/or visual indicator of dielectric breakdown.

The test equipment shall incorporate a voltmeter in the output circuit to indicate directly the applied test potential if the rated output of the test equipment is less than 500VA.

If the rated output of the test equipment is 500VA or more, the applied test potential may be indicated by either:

- 1 - a voltmeter in the primary circuit;
- 2 - a selector switch marked to indicate the test potential; or
- 3 - a marking in a readily visible location to indicate the test potential for test equipment having a single test potential output.

In cases 2 and 3, the test equipment shall include a lamp or other visual means to indicate that the test potential is present at the test equipment output. All test equipment shall be maintained in current calibration.

Products Requiring Dielectric Voltage Withstand Test:

<u>Product</u>	<u>Test Voltage</u>	<u>Test Time</u>
Between L/N and secondary output	3000Vac	1 s

The following changes are in compliance with the declaration of Section 8.1:

ED 16.3.15 (20-Apr-17) Mandatory