


1.0 Reference and Address					
Report Number	200300135TWN-001	Original Issued:	20-Jul-2020	Revised:	None
Standard(s)	Class 2 Power Units [UL 1310:2018 Ed.7] 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	Address	Building 4, No.76 JinLing East Road, Suzhou Industrial Park, Suzhou, Jiangsu, 215021		
Country	USA	Country	China		
Contact	Michael Krakovyak	Contact	Demon.Zhou		
Phone	+1-201-784-1000 #106	Phone	86 512 6279 0301169		
FAX	+1-201-784-0111	FAX	NA		
Email	krakovyakm@globtek.us	Email	demon.zhou@globtek.cn		

2.0 Product Description	
Product	Class 2 Power Supply
Brand name	
Description	<p>The equipment is a class 2 power supply unit for used in a general household environment and for indoor use only.</p> <p>The equipment is considered as portable and Class I equipment.</p> <p>The enclosure is fixed together by mechanical and epoxy potting compound.</p> <p>The equipment is filled with epoxy potting compound.</p> <p>The equipment is submitted and evaluated for max. manufacturer's recommended ambient of 40 °C.</p>
Models	<p>GTM96600-6036-P3.</p> <p>GT followed by one character; followed by 96600-; followed by two characters; may be followed by 36-P3; followed by one character.</p>
Model Similarity	<p>Explanation for model GT*96600-*36-P3*:</p> <p>The 1st symbol "*" can be "M" or "-" or "H" for market identification and not related to safety.</p> <p>The 2nd symbol "*" denotes the rated output watt designation, which can be "01" to "54", with interval of 1.</p> <p>P3 means Encapsulated Class I.</p> <p>The last symbol "*" denotes any six characters = 0-9 or A-Z or () [] or – or blank for marketing purposes.</p>
Ratings	<p>Input: 100-240 Vac, 50-60 Hz, 1.5 A</p> <p>Output: 36 Vdc, max. 1.5 A, max. 54 W</p>
Other Ratings	NA

3.0 Product Photographs

Photo 1 - External view of EUT

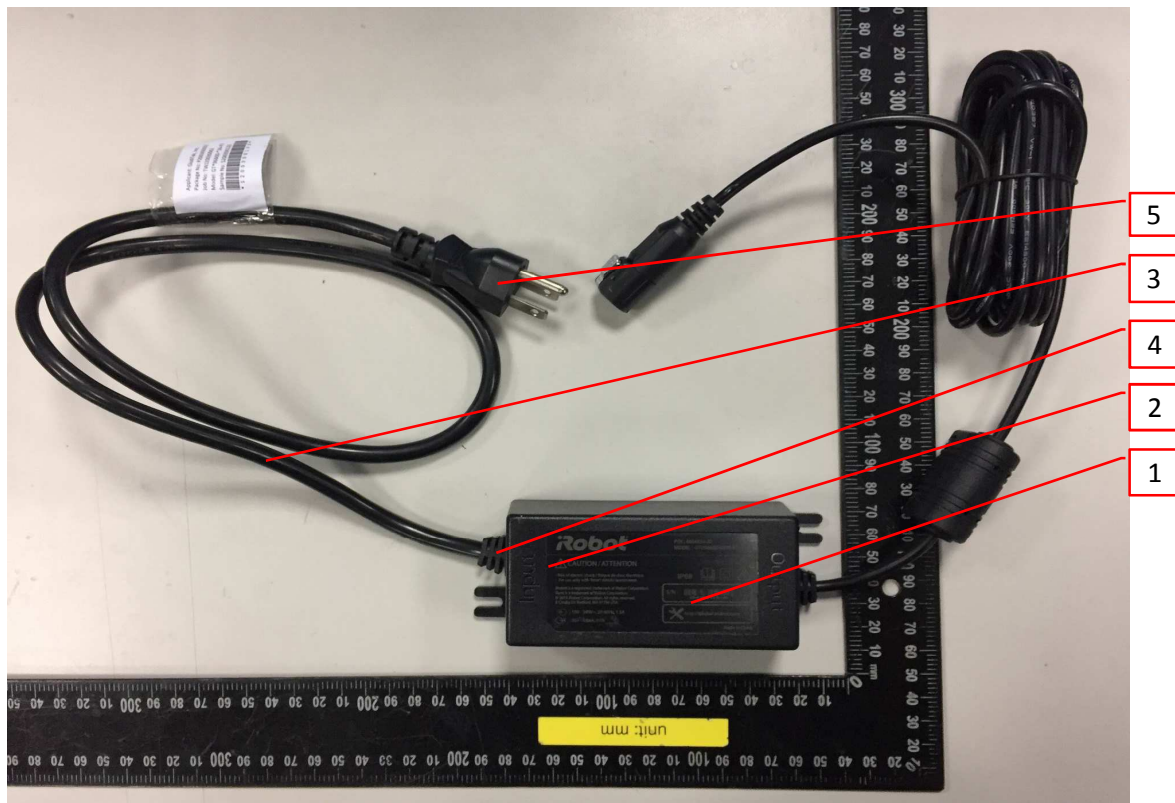
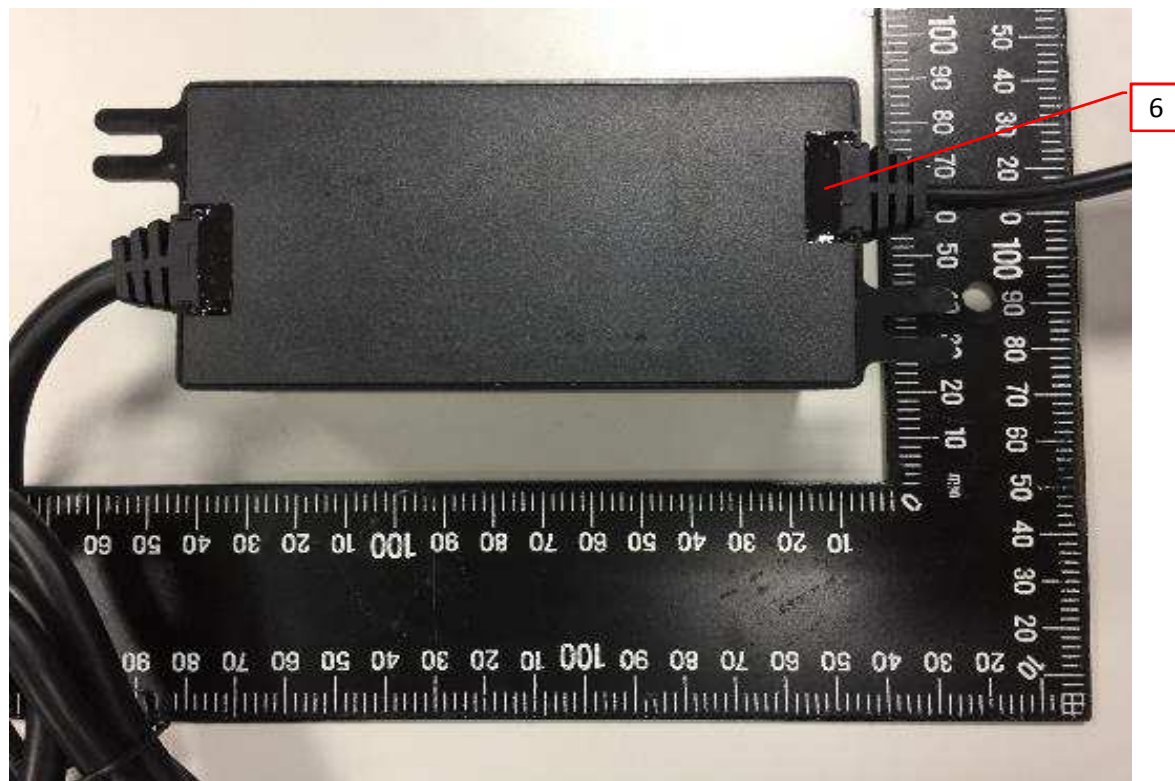


Photo 2 - External view of EUT



3.0 Product Photographs

Photo 3 - Internal view of EUT

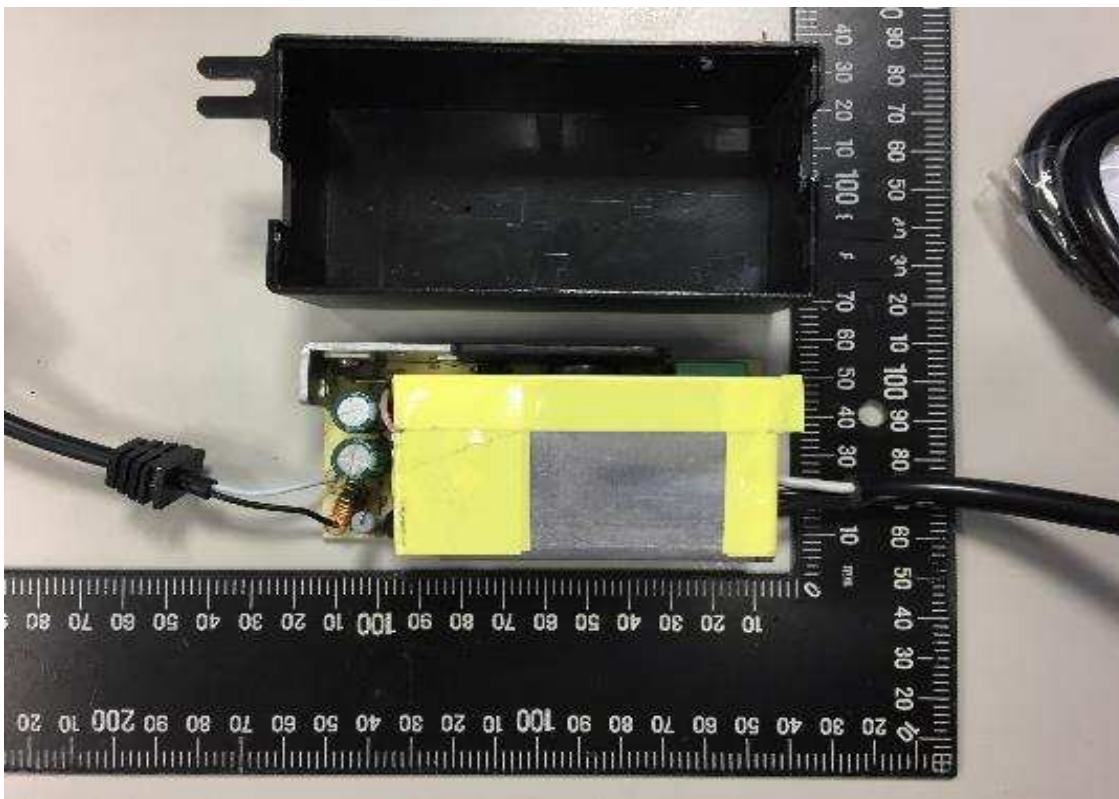
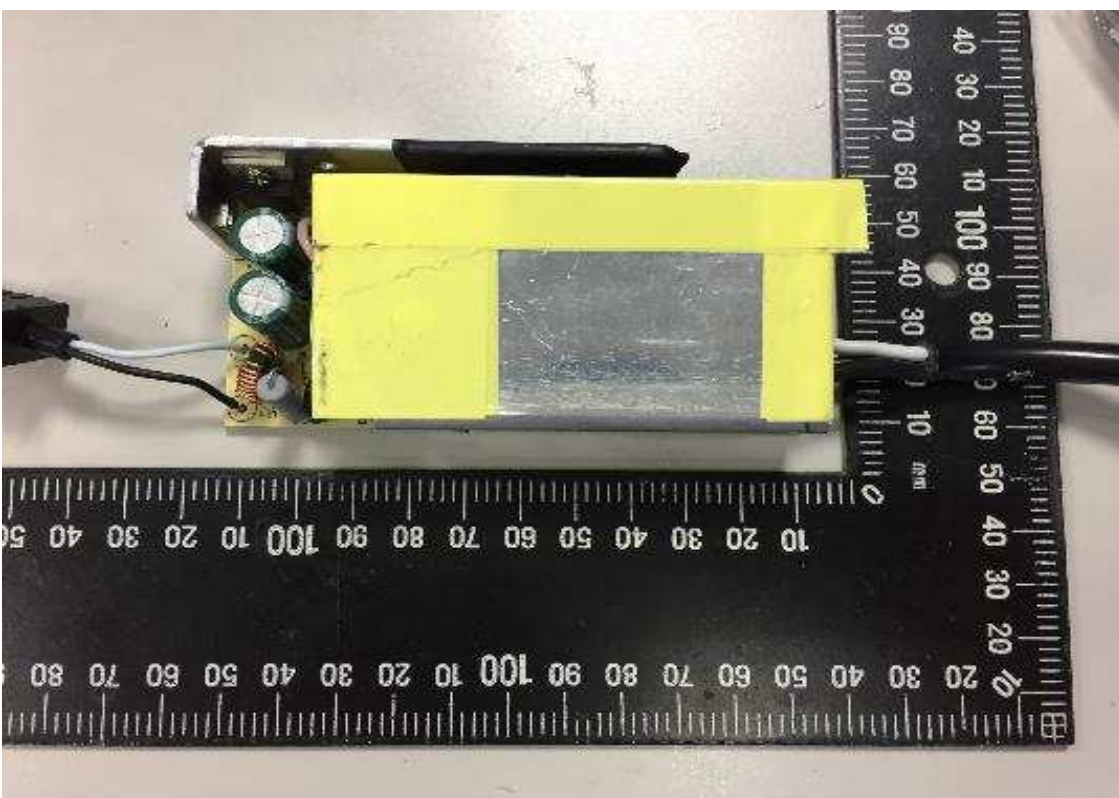


Photo 4 - Internal view of EUT



3.0 Product Photographs

Photo 5 - Top view of power board

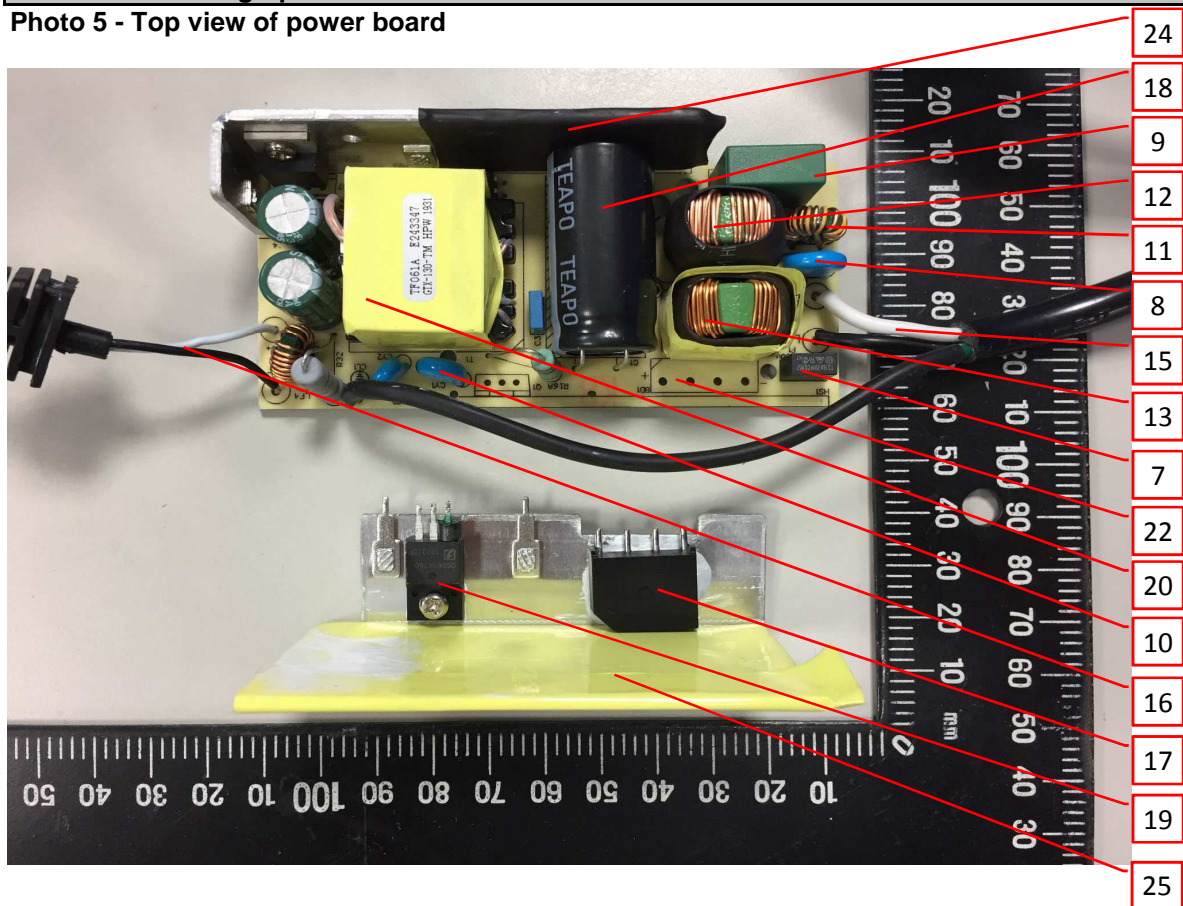
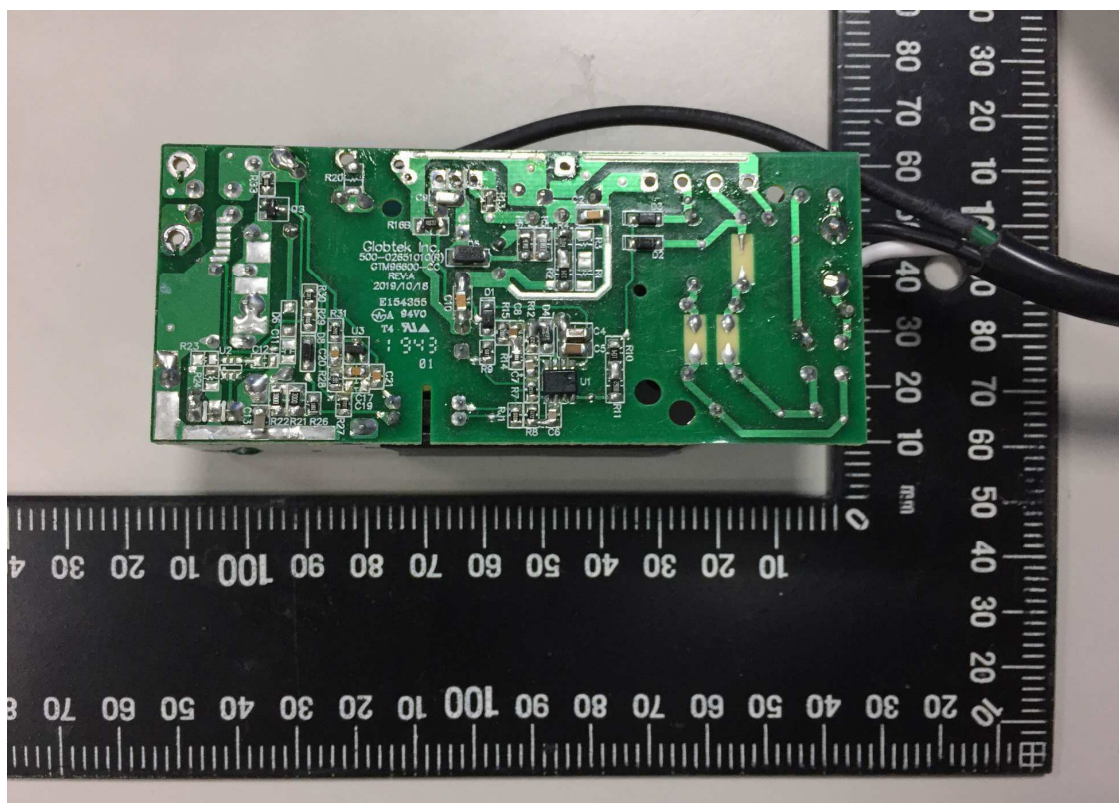


Photo 6 - Bottom view of power board



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	Marking	various	various	Engraving, silkscreen or using lasers to engrave on enclosure, as well as ETL and ETLc marking. Contains minimum the following information: Control No., Model No. and Input rating. Refer to Illustration 1 for details.	NR
			DONGGUAN XIANGQUAN PRINTING CO LTD	XQ03	Rated min. 80 °C. Suitable for use on the plastic enclosure	cURus
				XQ004-B		
			FAN JA PAPER PRINTING CO LTD	FJ-03-3	Rated min. 80 °C. Suitable for use on the plastic enclosure	cURus
				FJ-07		
			E-LIN ADHESIVE LABEL CO LTD	EL-15	Rated min. 80 °C. Suitable for use on the plastic enclosure	cURus
			YUEN CHANG SPECIAL PRINTING (SHENZHEN) CO LTD	JL-02	Rated min. 80 °C. Suitable for use on the plastic enclosure	cURus
				JL-08		
			SHENZHEN CORWIN PRINTING CO LTD	CW-01	Rated min. 80 °C. Suitable for use on the plastic enclosure	cURus
			SUZHOU HAIRONG PACKING PRODUCTION CO LTD	HR-01	Rated min. 80 °C. Suitable for use on the plastic enclosure	cURus
	HR-04					
DONGGUAN SHANGMAO PRINTING CO LTD	C-004	Rated min. 80 °C. Suitable for use on the plastic enclosure	cURus			
	C-019					

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	SE1X	PPE+PS, Min. V-1, min. 2.0 mm thick, 105 °C. Measured overall 114.8 by 57.11 by 39.0 mm high, filled with Epoxy Potting Compound.	cURus
				SE1		
				SE100	PPE+PS, Min. V-1, min. 2.0 mm thick, 90 °C, filled with Epoxy Potting Compound.	
				C2950	PC/ABS, Min. V-0, min. 2.0 mm thick, 85 °C, filled with Epoxy Potting Compound.	
				CX7211(GG)	PC/ABS, Min. V-1, min. 2.0 mm thick, 90 °C, filled with Epoxy Potting Compound.	
				EXCY0098(GG)		
				945	PC, Min. V-0, min. 2.0 mm thick, 120 °C, filled with Epoxy Potting Compound.	
			HF500R	PC, Min. V-0, min. 2.0 mm thick, 125 °C, filled with Epoxy Potting Compound.		
			SABIC JAPAN L L C	SE1X	PPE+PS, Min. V-1, min. 2.0 mm thick, 105 °C. Measured overall 114.8 by 57.11 by 39.0 mm high, filled with Epoxy Potting Compound.	
				SE1		
				SE100	PPE+PS, Min. V-1, min. 2.0 mm thick, 90 °C, filled with Epoxy Potting Compound.	
				C2950	PC/ABS, Min. V-0, min. 2.0 mm thick, 85 °C, filled with Epoxy Potting Compound.	
				CX7211(GG)	PC/ABS, Min. V-1, min. 2.0 mm thick, 90 °C, filled with Epoxy Potting Compound.	
				EXCY0098(GG)		
945	PC, Min. V-0, min. 2.0 mm thick, 120 °C, filled with Epoxy Potting Compound.					
HF500R	PC, Min. V-0, min. 2.0 mm thick, 125 °C, filled with Epoxy Potting Compound.					
TEIJIN CHEMICALS LTD	LN-1250P	PC, Min. V-0, min. 2.0 mm thick, 115 °C, filled with Epoxy Potting Compound.				
	LN-1250G					
CHI MEI CORPORATION	PA-765A	ABS, Min. V-0, min. 2.0 mm thick, 85 °C, filled with Epoxy Potting Compound.				
	PC-540	PC/ABS, Min. V-0, min. 2.0 mm thick, 70 °C, filled with Epoxy Potting Compound.				
1	3	Supply cord	various	SJTW	Non-detachable type, min.18 AWG, 105 °C, VW-1, with Regular USA Plug, NEMA 5-15P.	cURus
				SVT		
1	4	Strain relief bushing	various	various	Measured overall 2.05 by 14.5 by 8.2 mm high.	cURus
1	5	Attachment plug	various	various	Rated 125 V, 10 A	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
2	6	Epoxy potting compound	SUZHOU POCHELY ELECTRONIC MATERIAL CO LTD	HB-5225A/B	Epoxy Potting Resin (EP-potting), V-0, 90 °C	cURus
			DONGGUAN EATTO ELECTRONIC MATERIAL CO LTD	3300A/B	Epoxy Potting Resin (EP-potting), V-0, 90 °C	cURus
5	7	Fuse (F1)	various	various	Rated T3.15 A, 250 V	cURus
5	8	Varistor (MOV1)	THINKING ELECTRONIC INDUSTRIAL CO LTD	TVR10471K	Rated Min. 300 Vac, min. 385 Vdc, coating V-1 or better, 85 °C, optional	cURus
				TVR14471K		
			CENTRA SCIENCE CORP.	CNR-10D471K		
				CNR-14D471K		
			Success Electronics Co Ltd	SVR10D471K		
				SVR14D471K		
			Walsin Technology Corp	VZ10D471K		
				VZ14D471K		
			Lien Shun Electronics Co., Ltd.	10D471K		
				14D471K		
CERAMATE TECHNICAL CO LTD	GNR10D471K					
	GNR14D471K					
BRIGHTKING (SHENZHEN) CO LTD	10D471K					
	14D471K					
Joyin Co., Ltd.	JVT10N471K					
	JVT14N471K					
5	9	X capacitor (CX1)	various	various	Rated Max. 0.47 uF, min. 250 V, 100 °C, X1 or X2, optional	cURus
5	10	Bridging capacitor (CY1, CY2)	various	various	Rated Min. 250 V, min. 125 °C, max. 2200 pF, Y1, optional	cURus
5	11	Choke (LF1)	Globtek (suzhou) co. ltd	LF046	Min. 130 °C	NR
			WUXI HAOPUWEI ELECTRONICS CO.,LTD.			
			SHANDONG BOAM ELECTRIC CO.,LTD			
			SUZHOU INDUSTRIAL PARK HEJIA ELECTRONICS CO LTD			

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
5	12	Choke (LF2)	Globtek (suzhou) co. ltd	LF025	Min. 130 °C	NR
			WUXI HAOPUWEI ELECTRONICS CO.,LTD.			
			SHANDONG BOAM ELECTRIC CO.,LTD			
			SUZHOU INDUSTRIAL PARK HEJIA ELECTRONICS CO LTD			
5	13	Choke (LF3)	Globtek (suzhou) co. ltd	LF050	Min. 130 °C	NR
			WUXI HAOPUWEI ELECTRONICS CO.,LTD.			
			SHANDONG BOAM ELECTRIC CO.,LTD			
			SUZHOU INDUSTRIAL PARK HEJIA ELECTRONICS CO LTD			
1	14	Photo coupler (U4)(Not shown)	LITE-ON TECHNOLOGY CORP	LTV-817	Rated 5000 V insulation.	cURus
			EVERLIGHT ELECTRONICS CO LTD	EL817		
			ON Semiconductor	H11A817B FOD817B		
			SHARP CORPORATION	PC817		
			BRIGHT LED ELECTRONICS CORP	BPC-817 A/B/C/D/L BPC-817 M BPC-817 S		
			Toshiba Electronic Devices & Storage Corporation	TLP781F		
			COSMO Electronics Corporation	K1010 KP1010		
			5	15		
5	16	Secondary lead wire	various	various	PVC, VW-1, 80 °C, 300 V, Min. 24 AWG	cURus
5	17	Bridge Rectifier (BD1)	various	various	Rated Min. 4 A, min. 600 V	NR

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
5	18	Electrolytic capacitor (C1)	various	various	Rated Min. 120 µF, min. 400 V, min. 105 °C	NR
5	19	MOSFET (Q1)	various	various	Rated Min. 7 A, min. 650 V	NR
5	20	Transformer (T1)	Globtek (suzhou) co. ltd SHANDONG BOAM ELECTRIC CO.,LTD WUXI HAOPUWEI ELECTRONICS CO.,LTD. ENG ELECTRIC CO LTD	TF064	Class B, Refer to Illustration 5 for details	NR
1	21a	Insulation system (Not shown)	Globtek (suzhou) co. ltd WUXI HAOPUWEI ELECTRONICS CO.,LTD. SHAN DONG BOAM ELECTRIC CO LTD ENG ELECTRIC CO LTD	GTX-130-TM ZT-130 BOAM-01 B1 ENG130-1	Class 130 (B)	cURus
5	22	PCB	WALEX ELECTRONIC (WUXI) CO LTD various	T2 various	Min. 1.6 mm thick, min. V-0, 130 °C	cURus
1	23	Earthing wire (Not shown)	various	various	PVC, VW-1, 80 °C, 300 V, Min. 18 AWG	cURus
5	24	Insulation tubing provided on heatsink (HS2) and earthed wire	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD QIFURUI ELECTRONICS CO DONGGUAN SALIPT CO LTD GUANGZHOU KAIHENG ENTERPRISE GROUP CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD SHENZHEN WOLIDA TRADING CO	RSFR RSFR-H RSFR-HPF QFR-h SALIPT S-901-300 SALIPT S-901-600 K-2 (+) K-2 (CB) CB-HFT RSFR-H	Rated 600 V, 125 °C Rated 600 V, 125 °C Rated Min. 300 V, 125 °C Rated Min. 300 V, 125 °C Rated Min. 300 V, 125 °C Rated 600 V, 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
5	25	Insulation tap provided on heatsink (HS1)	various	various	Rated 125 °C.	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.

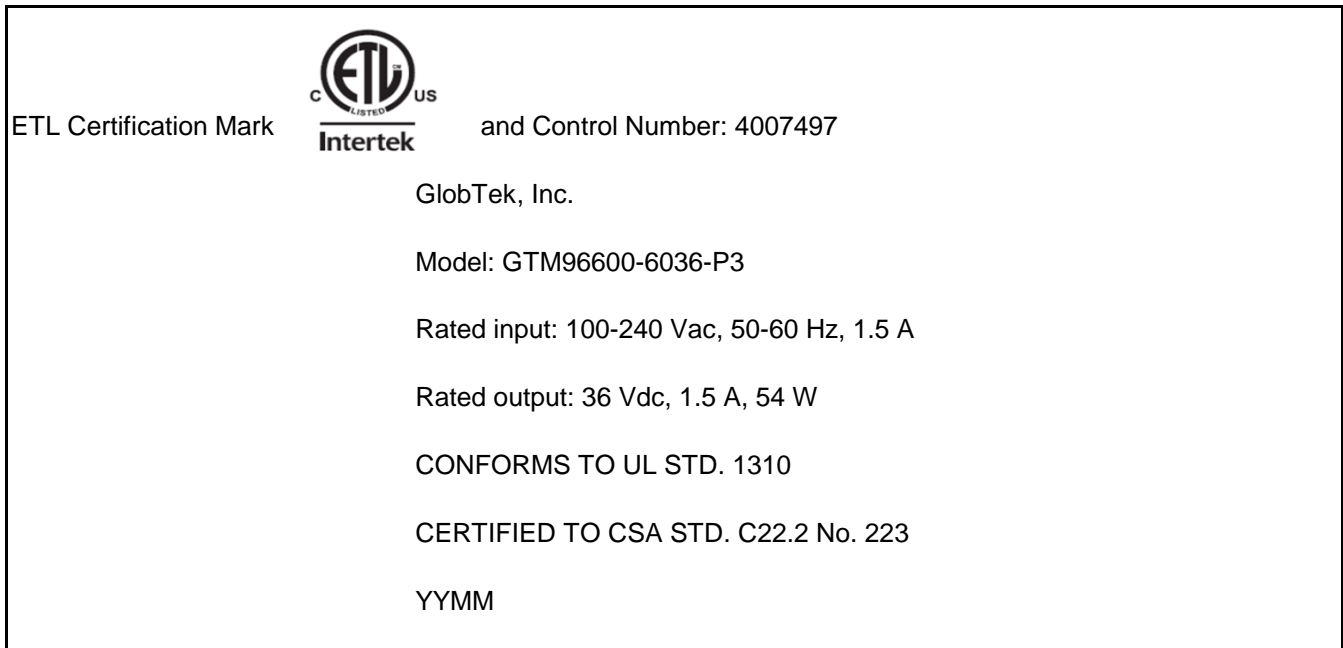
Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

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, 3.0 mm minimum spacing are maintained through air and over surfaces of insulating material between current-carrying parts of opposite polarity and 3.0 mm minimum between such current-carrying parts and dead-metal parts or 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 - All uninsulated live parts in primary circuitry are housed within a plastic enclosure constructed with no openings other than those specifically described in Sections 4 and 5.
5. Grounding - N/A
6. Polarized Connection - All single pole switches and fuses are connected only to the ungrounded supply circuit conductor.
7. Internal Wiring - Internal wiring is routed away from sharp or moving parts. Internal wiring leads terminating in soldered connections are made mechanically secure prior to soldering. Recognized Component separable (quick disconnect) connectors of the positive detent type, closed loop connectors, or other types specifically described in the text of this report are also acceptable as internal wiring terminals. At points where internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets.
8. Schematics - Refer to Illustration 2 for details.
9. Markings - The product is marked on a component labeling system the with trade name, trademark or other descriptive marking, catalog or model number, electrical rating. Refer to item 1 of section 4 and Illustration 1 of section 7 for details.
10. Cautionary Markings - N/A
11. Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer.

7.0 Illustrations

Illustration 1 - Markings



Remark:

1. "CONFORMS TO UL STD. 1310" and "CERTIFIED TO CSA STD. C22.2 NO. 223" shall be marked near the ETL listed mark with letters min. 1.5 mm high.
2. Date code in form of MMYT where MM is month and YY is year.
3. Other text is at least 1.6 mm high and contrasting in color to the background.
4. A marking shall be legible and visible during installation.
5. Other models (ref. Sec 2.0) have similar labels except the electrical specification and model name.

8.0 Test Summary			
Evaluation Period	2020/03/09-2020/06/05		Project No. TWJ20030062
Sample Rec. Date	2020/03/09	Condition Prototype	Sample ID. P200300032
Test Location	Intertek Testing Services Taiwan Ltd. (Taipei office) address: 5F, No. 423, Ruiguang Rd., Neihu District, Taipei 114, Taiwan		
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	UL 1310:2018 Ed.7 Clause	CSA C22.2#223: 2015 Ed.3 Clause	
Leakage current test	26	6.6	—
Dielectric voltage withstand test following leakage current test	27	—	—
Maximum output voltage test	28	6.3	—
Normal input test	—	6.3	—
Maximum input test	29	—	—
Transformer characteristics test	—	6.3	—
Output current and power test	30	6.3	—
Dielectric voltage withstand test after output current and power test	—	6.3.4.5.3	—
Full-load output current test	32	—	—
Normal temperature test	33	6.4	—
Dielectric voltage withstand test	34.1	6.5	—
Dielectric voltage withstand test after output loading test	—	6.5	—
Abnormal - Output loading test	39.2	—	—
Abnormal - Transformer burnout test (Switch Mode Designs)	39.4.4	—	—
Abnormal - Component breakdown test	39.7	6.8	—
Transformer insulating materials test	40.2	—	—
Impact test	46.2	6.9	—
Dielectric voltage withstand test after ball impact test	46.2.3	6.9.1	—
Non-metallic distrotrion test	—	6.16.2	—

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:	Joe Chen	Reviewed by:	Allen Huang
Title:	Project Engineer	Title:	Chief Engineer
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
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 Taiwan Limited
ETL Component Evaluation Center
5/F., No. 423, Ruiguang Road, Neihu District
Taipei 114, Taiwan
Attn: Sample Room

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

Products Requiring Dielectric Voltage Withstand Test:

<u>Product</u>	<u>Test Voltage</u>	<u>Test Time</u>
All products covered by this Report.		
Between input circuits and accessible part/secondary circuit	1200 Vac or 1000 Vac	1 s 60 s

