RECOGNIZED COMPONENT
Constructional Data Report (CDR)

1.0 Reference and Address					
Report Number	140900435SHA-002	Original Issued:	10-Nov-2014	Revised:	None
Standard(s)	Standard for Safety for Information Technology Equipment Safety Part 1: General Requirements: (UL 60950-1 Issued: 2007/03/27 Ed:2 Rev: 2014/10/14 & CAN/CSA C22.2 No.60950-1 Issued: 2007/03/27 Ed:2 (R 2012) Rev: 2011/12/19)				

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	ITE Power Supply
Brand name	GlobTek
Description	Product covered by this report is I.T.E. power supply module, which is open frame type for indoor use only. The product is designed to be operated at max. 5000m above sea level. The installation and use for the insulation construction shall be finally determined in the end product.
Models	GT*43007-***** (The 1st "*" can be 'M' or '-' or 'H'; the 2nd "*" can 'A', 'B' or 'C'; the 3rd "*" can be "01" to "60" with interval of 1. The 4th "*" can be "05", "07", "09", "12", "15", "18", "24", "36" or "48"; The 5th "*" can be "-0.1" to "-11.9" with interval of 0.1 or blank; The 6th "*" can be "-F" or "-FW".)
Model Similarity	GT*43007-***** The 1st "*" can be 'M' or '-'or 'H' for market identification and not related to safety. The 2nd "*" is A, B, or C and is related to PCB size: A= 2"x3", B=2"x4", C=3"x5". The different PCB sizes are only for installation purpose in end product with no safety spacing modification. The 3rd "*" denote the rated output wattage designation, which can be "01" to "60", with interval of 1. The 4th "*" denote the standard rated output voltage designation, which can be "05", "07", "09", "12", "15", "18", "24", "36" or "48". Each standard rated output voltage designation corresponds to a transformer model. Each transformer model is identical in insulation construction including clearance and creepage except number of turns per coil. The 5th "*" is optional deviation, subtracted from standard output voltage, which can be "-0.1" to "-11.9" with interval of 0.1, or blank to indicate no voltage different. The 4th and 5th asterisks together denote the output voltage with a range of 5-48 volts. The 6th "*" can be "-F" or "-FW". "-F" represents Class I model and "-FW" represents Class II model. Due to the diffrerent power comsuption, the sizes of heat sink may be two alternative types.
Ratings	Input: 100-240V~, 50-60Hz, 1.5A; Output: Refer to illustration No.1 for details.
Other Ratings	N/A
Conditions of Acceptability	The products covered in this Report are incomplete in construction features or limited in performance capabilities and are intended for use and evaluation in other products. Consideration should be given to the following when the component is used in or with another product. (Typical Conditions of Acceptability to be considered for recognized component products follow:) 1. Suitability of the enclosure should be evaluated when installed in the end product including access to energized parts, clearance & creepage distance measurement and mechanical strength. 2. Temperature Testing should be performed on this component when installed in the end product. 3. Safety instruction should be evaluated within the end product.

3.0 Product Photographs

Photo 1 - Component side view of board with small size heatsink

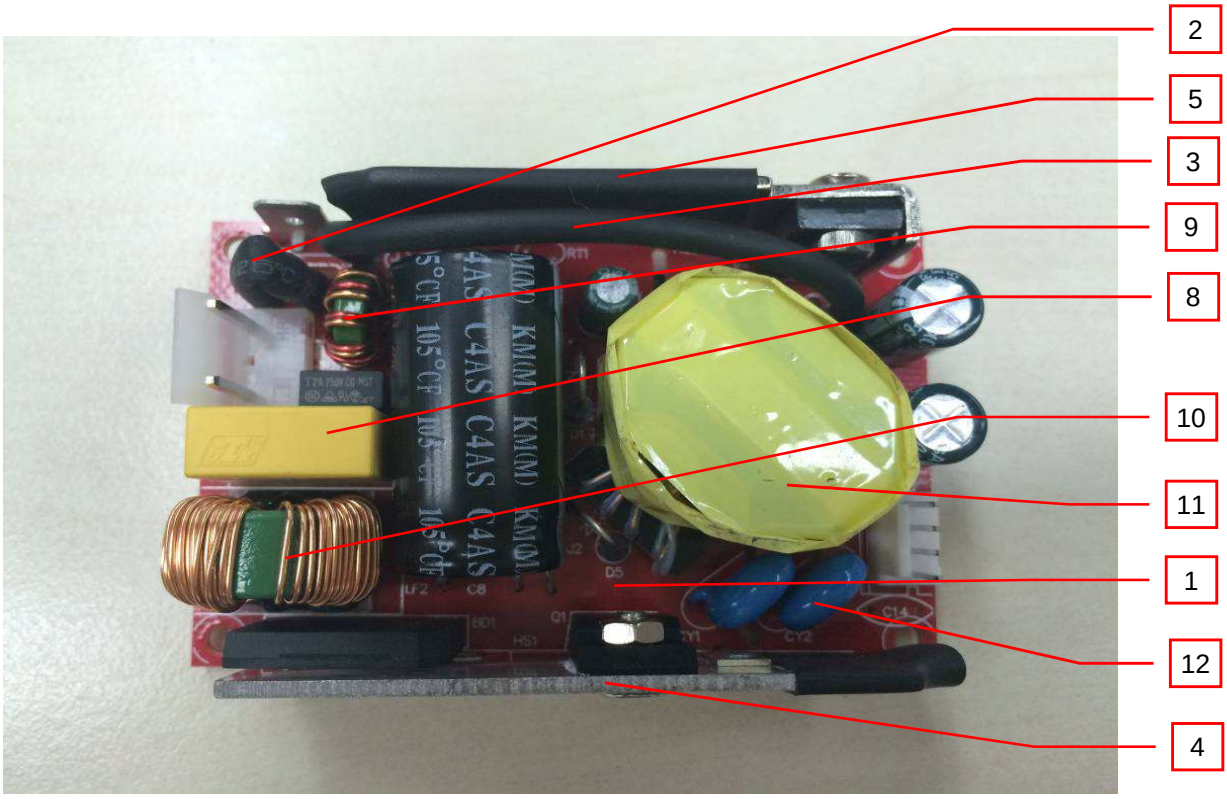
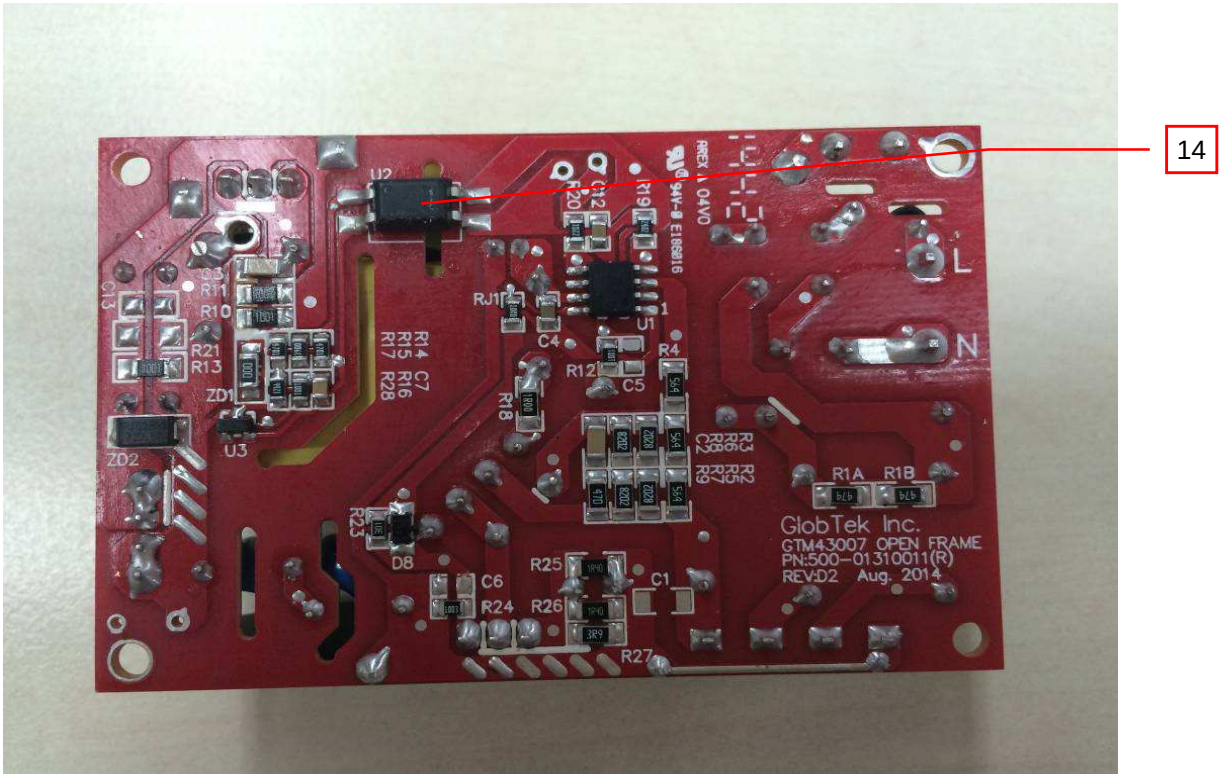


Photo 2 - Component side view of board with large size heatsink

3.0 Product Photographs

Photo 3 - Soldering side view of 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	PCB material	PACIFIC WIN INDUSTRIAL LTD	PW-02 PW-03	Min. V-0, min 1.6 mm thickness, 130℃	cURus
			YILIHUA	YLH-1 YLH-2		
			AREX	02V0 04V0		
			BRITE PLUS ELECTRONICS (SUZHOU) CO LTD	DKV0-3A, DGV0-3A		
			SHENZHEN TONGCHUANGXIN ELECTRONICS CO LTD	TCX		
			Various	Various		
1	2	Fuse (F1, F2) (F2 is optional.)	CONQUER ELECTRONICS CO LTD	MST	T2A, 250V, Rated breaking capacity 50A	cURus
			EVER ISLAND ELECTRIC CO LTD & WALTER	2010	T2A, 250V, Rated breaking capacity 130A	
			BEL FUSE INC	5ST	T2A, 250V, Rated breaking capacity 100A	
			COOPER BUSSMANN LLC	SS-5	T2A, 250V, Rated breaking capacity 35A	
			DAS & SONS INTERNATIONAL LTD	385T series	T2A, 250V, Rated breaking capacity 35A	
			WALTER ELECTRONIC CO LTD	ICP series	T2A, 250V, Rated breaking capacity 50A	
			SUN ELECTRIC CO	5T	T2A, 250V, Rated breaking capacity 100A	
			SHENZHEN LANSON ELECTRONICS CO LTD	SMT	T2A, 250V, Rated breaking capacity 35A	
1	3	Earthing wire for class I model	KUNSHAN NEW ZHICHENG ELECTRONICS TECHNOLOGIES CO LTD	1007 1015	Min. 18AWG, min. 300Vac, min. 80℃	cURus
			SUZHOU YEMAO ELECTRONIC CO LTD	1007 1015		
			ZHUANG SHAN CHUAN ELECTRICAL PRODUCTS (KUNSHAN) CO LTD	1007 1015		
			GLOBTEK INC	1007 1015		
			Various	Various		
1	4	Heatsink (HS1)	Various	Various	Aluminum. Approximate overall dimension 60mm by 15mm, min.1.5mm thick, secured to PWB by soldering	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]
1	5	Heatsink (HS2) (for 9.1-48V)	Various	Various	Aluminum. Approximate overall dimension 50mm by 6mm by 18mm, min.1.4mm thick, secured to PWB by soldering	NR
1	6	Insulation tape provided on heatsink[4] (Not shown)	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	130℃	cURus
			3M COMPANY	1350F-1 1350T-1		
			BONDTEC PACIFIC CO.,LTD	370S		
			JINGJIANG YAHUA	PZ series CT series WF series		
			JINGJIANG JINGYI	JY25-A		
1	7	Insulation tubing provided on heatsink or fuse or class I earth wire[4] (Not shown)	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR RSFR-H RSFR-HPF	600V, 125℃	cURus
			QIFURUI ELECTRONICS CO	QFR-h	600V, 125℃	
			DONGGUAN SALIPT CO LTD	SALIPT S-901-300 SALIPT S-901-600	Min. 300V, 125℃	
			SHENZHEN WOLIDA TRADING CO LTD	RSFR-H	600V, 125℃	
			GUANGZHOU KAIHENG ENTERPRISE GROUP	K-2 (+) K-2 (CB)	Min. 300V, 125℃	
			CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-HFT	Min. 300V, 125℃	
1	8	X capacitor (CX1) (Optional)	Cheng Tung Industrial Co., Ltd.	CTX	Max. 0.33uF, 310Vac, 110℃, type X1 or X2	cURus
			Ultra Tech Xiphi Enterprise Co. Ltd.	HQX	Max. 0.33uF, 275Vac, 110℃, type X2	
			Dain Electronics Co., Ltd.	MPX, MEX and NPX	Max. 0.33uF, 275Vac, 100℃, type X2	
			Sinhua Electronics (Huzhou) Co., Ltd.	MPX	Max. 0.33uF, 300Vac, 110℃, type X2	
			Jiangsu Xinghua Huayu Co., Ltd.	MPX	Max. 0.33uF, 275Vac, 100℃, type X2	
			Hongzhi Enterprises Ltd.	MPX	Max. 0.33uF, 275Vac, 100℃, type X2	
1	9	Line filter (LF1) (optional)	GlobTek/HAOPUWEI /HEJIA/BOAM	LF019	130℃	NR
1	10	Line filter (LF2) (optional)	GlobTek/HAOPUWEI /HEJIA/BOAM	LF018	130℃	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]
1	11	Transformer (T1)	GlobTek/BOAM/ HAOPUWEI	TF024 for 5-6.5V TF025 for 6.6-8.9V TF026 for 9-13V TF027 for 13.1-17V TF028 for 17.1-24.9V TF029 for 25-34.9V TF032 for 35-48V	Class B, with insulation system listed below	NR
1	11a	-Insulation system	GLOBTEK INC	GTX-130-TM	Class B	cURus
			SHAN DONG BOAM ELECTRIC CO LTD	BOAM-01		
			WUXI HAOPUWEI ELECTRONICS CO LTD	ZT-130		
1	12	Y-Capacitor (CY1, CY2) (Optional)	TDK-EPC CORPORATION	CD	Type Y1, max. 2200pF, min. 250V, min. 125℃	cURus
			SUCCESS ELECTRONICS CO LTD	SE SB		
			MURATA MFG CO LTD	KX		
			WALSIN TECHNOLOGY CORP	AH		
			JYA-NAY CO LTD	JN		
			HAOHUA ELECTRONIC CO	CT7		
			JERRO ELECTRONICS CORP	JX-series		
			WELSON INDUSTRIAL CO LTD	WD		
2	13	Heatsink (HS2) (for 5-9V)	Various	Various	Aluminum. Approximate overall dimension 50mm by 22mm by 38mm, min.1.0mm thick, secured to PWB by soldering	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]
3	14	Optocoupler (U3, U4, U5)	LITE-ON Technology Corporation	LTV-817	Ext. Cr: min. 8.0 mm; DTI: min. 0.6 mm; Thermal cycling test. Max. operating temp.: 115℃.	cURus
			Fairchild Semiconductor Pte. Ltd.	FOD817B	Ext. Cr: min. 7.8 mm; DTI: min. 0.6 mm; Thermal cycling test. Max. operating temp.: 115℃	
			Bright Led Electronics Corp.	BPC-817 BPC-817 M BPC-817 S	Ext. Cr: min. 7.0 mm; DTI: min. 0.4 mm; Thermal cycling test. Max. operating temp.: 100℃.	
			Everlight Electronics Co., Ltd.	EL817	Ext. Cr: min. 7.7 mm; DTI: min. 0.5 mm; Thermal cycling test. Max. operating temp.: 110℃.	

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.
4) 2 layers of insulating tape or 1 layer of min. 0.4 mm thickness insulating tube can be used alternatively for wrapping around heatsink.

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 between current-carrying parts of opposite polarity and 6.0 mm minimum between such current-carrying parts and dead-metal parts or low voltage isolated circuits. In primary circuits, 3.0 mm minimum spacing are maintained over surfaces of insulating material between current-carrying parts of opposite polarity and 6.0 mm minimum between such current-carrying parts and dead-metal parts or low voltage isolated circuits. With the product to be operated at max. 5000m above sea level, the minimum clearances shall be multiplied by the factor 1.48.
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 - All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the grounding lead of the power supply cord and the equipment grounding terminal.
6. Polarized Connection - This product is provided with a polarized power supply connection.
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 pointswhere internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets. UL approved wiring is used as secondary output lead wire of SELV circuits.
8. Schematics - Refer to Illustration No(s). 2, 3a-3c for schematics & PCB layout requiring verification during Field Representative Inspection Audits.
9. Markings - The product is marked as follows: brand name, model number, electrical ratings, manufacturer. Refer to Illustration No. 4 for details.
10. Cautionary Markings - Refer to illustrations No. 4 for details.
11. Safety Instructions - Accompanying Documents are provided for some critical issue like technical data, safety warnings, necessary information to set up, but further evaluation is needed on end product level. Instructions for installation and use of this product are kept in file and not shown in this report.

7.0 Illustrations

Illustration 1 - Model list

Model	Output Voltage	Max. output current	Max. output power	Transformer
GT*43007-**05*	5	6A	30W	TF024 for 5-6.5Vdc TF025 for 6.6-8.9Vdc TF026 for 9-13Vdc TF027 for 13.1-17Vdc TF028 for 17.1-24.9Vdc TF029 for 25-34.9Vdc TF032 for 35-48Vdc
GT*43007-**07**	5.1-7V	6A	30W	
GT*43007-**09**	7,1-9V	5A	45W	
GT*43007-**12**	9,1-12V	5.0A	45W	
GT*43007-**15**	12,1-15V	5.0A	60W	
GT*43007-**18**	15.1-18V	4.0A	60W	
GT*43007-**24**	18.1-24V	3.31A	60W	
GT*43007-**36**	24.1-36V	2.50A	60W	
GT*43007-**48**	36.1-48V	1.66A	60W	

7.0 Illustrations

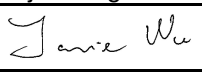
Illustration 4 - Marking
The marking plates of the other models listed in this report are identical with below except model name and output parameter.

For Class I model

For Class II model

8.0 Test Summary					
Evaluation Period	2014-10-21 ~ 2014-11-10			Project No.	140900435SHA
Sample Rec. Date	21-Oct-2014	Condition	Prototype	Sample ID.	0141021-12-001
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	Standard for Safety for Information Technology Equipment Safety Part 1: General Requirements: (UL 60950-1 Issued: 2007/03/27 Ed:2 Rev: 2014/10/14 & CAN/CSA C22.2 No.60950-1 Issued: 2007/03/27 Ed:2 (R 2012) Rev: 2011/12/19) Clause
Input current test	1.6.2
Marking durability test	1.7.11
Energy hazard test	2.1.1.1
Voltages under normal conditions test	2.2.2
Voltages under fault conditions test	2.2.3
Limited current circuit test	2.4
Limited power source test	2.5
Humidity test	2.9.2
Working voltage measurement	2.10.2
Clearances and creepage distances	2.10.3/2.10.4
Distance through insulation measurement	2.10.5
Mechanical strength - steady force test, 10 N	4.2.2
Temperature test	4.5.1
Ball pressure test of thermoplastic parts	4.5.5
Touch current & protective conductor current test	5.1
Electric strength test	5.2
Abnormal operating and fault conditions test	5.3

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:	Jamie Wu	Reviewed by:	Justin Yu
Title:	Project engineer	Title:	Reviewer
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	ITE 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. Dansy Xu
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

Grounding Continuity 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:

Product	Test Voltage	Test Time
Between L/N and accessible enclosure with metal foil	1500Vac	1 s
Between L/N and secondary output for Class II models only	3000Vac	1 s

11.2 Grounding Continuity Test

Method

Each product listed below shall be subjected to a test to determine that there is continuity between accessible dead-metal parts of the product and the grounding pin or blade of the attachment plug.

If all accessible dead metal is connected, only a single test need be performed. A visual or audible device (ohmmeter, buzzer, etc.) may be used to indicate grounding continuity.

Products Requiring Grounding Continuity Test:

Class I models covered by this Report.

12.0 Revision Summary				
The following changes are in compliance with the declaration of Section 8.1:				
Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
				None