



Summary of Project

Report No. 157995

Subject:

Order No. 157995, Requires Nemko certificate, based on:

Safety: Intertek CB report Reference No. TS10070129-ST. CB certificate Ref. Certif. No. SG ITS-2392;

EMC: EMC test report No. CP970602A29A, issued by Advance Data Technology Corporation.

General product information:

The equipment is a class I switching power adaptor for ITE and indoor use only.

Type of product: Power supply for business machine

Model/Type reference: GT-41069P****-*. *-T3**

Trade Mark: GlobTek

Ratings: Input: 1.5A 100-240Vac 50-60Hz

Output: Max. 7.5A, 12-24Vdc, max. 90W.

Explanation of model designation GT-41069P****-*. *-T3**:

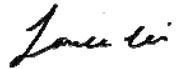
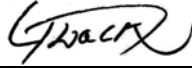
The 1st and 2nd "**" denotes the output watt, which can be 01-90, max. 90W

The 3rd and 4th "*" denotes the output voltage, which can be "12" (12Vdc), to "24" (24Vdc).

The 5th and 6th "*" denotes the optional deviation, subtracted from standard output voltage in 0.1 volt increments or blank to indicate the no voltage different.

The 7th "*" denotes the inlet type designation, which can be "blank" or "A", "blank" comply with standard sheet C14 of IEC 60320; "A" comply with standard sheet C6 of IEC 60320

The last "*" denotes 0-9, A-Z, "-", "_", "." or blank for marketing purpose.

Prepared by		
	signature	date
	Lance Lei	2010-10-13
	name in block letters	
Verified by		
	signature	date
	Sam Geun Gwack	2010-10-13
	name in block letters	

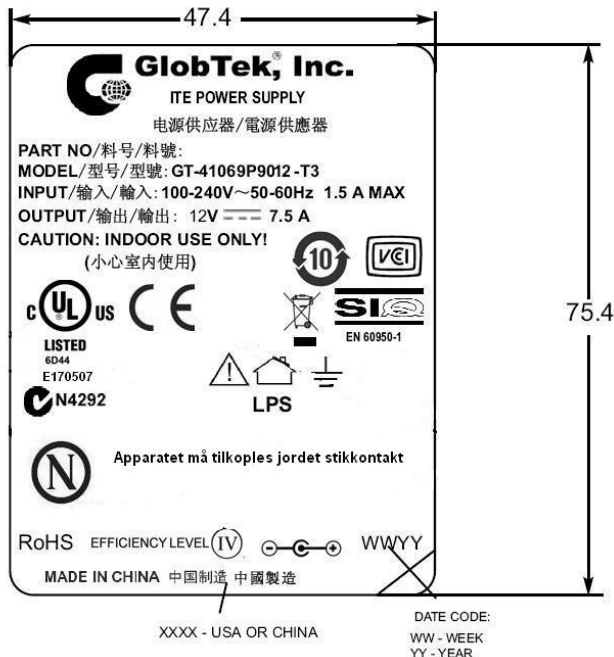


Summary of Project

Report No. 157995

Intertek CB report Reference No. TS10070129-ST:

1. Page 5, Copy of marking plate:



(Representative of all models)

2. Page 9, clause 1.5.2: for the components, which are not certified to IEC and/or national standards, are used correctly within their ratings and comply with applicable parts of IEC 60950-1 and relevant component standard.

3. Page 10, clause 1.7.2: S (FI, NO, SE): CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet.

The following text will be applied when the product is put in those markets:

FI: "Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan"

SE: "Apparaten skall anslutas till jordat uttag"

NO: "Apparatet må tilkoples jordet stikkontakt"

4. Page 10, clause 1.7.2.4: The following or similar information should be given in the installation instruction: "This product is also designed for IT power distribution system with phase-to-phase voltage 230 V".

5. Page 12, clause 2.1.1.5: No energy hazard in operator access area.

6. Page 18, clause 2.10.5.4: The verdict should be "N/A"

7. Page 19, clause 2.10.11: The verdict should be "N/A" since no test needed.

Prepared by		
	signature Lance Lei name in block letters	date 2010-10-13
Verified by		
	signature Sam Geun Gwack name in block letters	date 2010-10-13



Summary of Project

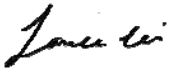
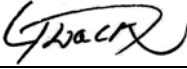
Report No. 157995

8. Page 20, clause 3.1.4: The verdict should be "P". Insulation on internal conductors is considered to be of adequate quality and suitable for the application and the working voltage involved.
9. Page 20, clause 3.2.5: The equipment must be provided with a cord set complying with the national regulation of the countries intended for sale.
10. Page 21, clause 3.2.7: The verdict should be "P". The equipment provided with an appliance inlet and smooth external surface does not damage power cord.
11. Page 24, clause 4.3.4: The enclosures are fixed together by screws. No loosening of parts impairing creepage distances or clearances is likely to occur.
12. Page 26, clause 4.7.3.4: Other materials inside fire enclosure are minimum V-2 material.
13. Page 51, appended table 1.5.1: add the following line.

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition)	Mark(s) of conformity ¹⁾
Bobbin of C. M. choke (L1)	Chang Chun Plastics Co., Ltd.	T375J	Phenolic, V-0, 150°C	UL 94	UL
Alternative	Sumitomo Bakelite Co Ltd	PM-9820	Phenolic, V-0, 150°C	UL 94	UL

14. Page 58, appended table 2.10.2: add the following line. (Tested on model GT-41069P9024- . -T3)

Location	RMS voltage (V)	Peak voltage (V)	Comments
CY1 pin 1 / pin 2	130	224	--

Prepared by		
	signature Lance Lei name in block letters	date 2010-10-13
Verified by		
	signature Sam Geun Gwack name in block letters	date 2010-10-13



Summary of Project

Report No. 157995

15. Page 60, appended table 2.10.3 and 2.10.4: part of the table modified as follows (denoted in bold).

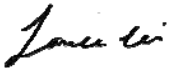
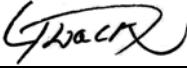
2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
On PCB solder side							
RI: Primary to secondary (under U1)	378	240	4.0	7.6	5.0	7.6	
On PCB component side							
RI: Primary to secondary (under U1)	378	240	4.0	6.0	5.0	6.0	
Transformer (T1)							
RI: Primary winding to secondary winding	572	377	4.6	8.6	7.6	8.6	
RI: Secondary winding to core ²⁾	572	377	4.6	9.0	7.6	9.0	
RI: Secondary components (CY1) to core	572	377	4.6	8.5	7.6	8.5	
Supplementary information:							
Linear interpolation used.							
²⁾ The core of transformer (T1) is considered as primary winding, the TIW is used in secondary winding of transformer (T1).							

Delete the following line, due to no distance under shelter between primary and secondary is less than 7.3mm.

RI: Primary to secondary (under shelter)	340	240	4.0	5.5	5.0	5.5	
--	-----	-----	-----	-----	-----	-----	--

Delete the following line.

Primary to user accessible parts (RI)	340	240	4.0	5.5	5.0	5.5	
---------------------------------------	-----	-----	-----	-----	-----	-----	--

Prepared by		
	signature Lance Lei name in block letters	date 2010-10-13
Verified by		
	signature Sam Geun Gwack name in block letters	date 2010-10-13



Summary of Project

Report No. 157995

Additional test per customer's request:

The additional test is only for reference, and the Nemko certificate does not cover the additional test.

Test item: De-rating test

Test sample: Type GT-41069P9012-T3

Input: 1.5A, 100-240Vac, 50-60Hz

Output: 12Vdc, 7.5A

Test condition: 60°C ambient temperature; Output loaded to 12V / 4A.

Pre-condition: EUT pre-conditioned at an ambient of 60°C, 50%RH for 1 hour.

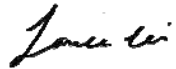
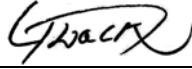
Test procedure:

1. EUT continuously operated at an input voltage of 240Vac 50Hz, until the temperature stabilized. Test lasted for 2.5 hours. Input test and Temperature test data were recorded. Then,
2. EUT continuously operated at an input voltage of 100Vac 60Hz, until the temperature stabilized again. Test lasted for 1 hour. Input test and Temperature test data were recorded, refer to Test result.

Test result: The test lasted for 3.5 hours, and the EUT functioned well during the test.

1. Input test

		TABLE: electrical data					
fuse #	Irated (A)	U (V) / F (Hz)	P (W)	I (A)	Ifuse (A)	condition/status	
FS1	—	100, 60Hz	55.0	0.55	0.55	Refer to Test condition	
FS1	—	240, 50Hz	55.4	0.25	0.25		
Supplementary information:							

Prepared by		
	signature Lance Lei name in block letters	date 2010-10-13
Verified by		
	signature Sam Geun Gwack name in block letters	date 2010-10-13



Summary of Project

Report No. 157995

2. Temperature test

TABLE: Thermal requirements								
Supply voltage (V):				100, 60Hz		240, 50Hz		—
Ambient T _{amb1} (°C)				--		--		—
Ambient T _{amb2} (°C)				--		--		
Maximum measured temperature T of part/at::				T (°C)				Allowed T _{max} (°C)
LF1				90		85		
LF2				90		89		
PFC wire				87		89		
PFC diode				94		96		
Q1 FET				91		95		
Q2 FET				91		94		
BD1				98		90		
C10				89		91		
Bulk capacitor				92		94		
T1 wire				94		96		
T1 core				90		91		
PCB near T1				91		93		
Output diode				86		88		
Inlet body				71		70		
Case top				82		83		
Case bottom				80		81		
Ambient				60		60		
Temperature T of winding:			t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)
No ‘Rise of Resistance’ measurements.								
Supplementary information:								

Prepared by

signature

Lance Lei

name in block letters

date

2010-10-13

Verified by

signature

Sam Geun Gwack

name in block letters

date

2010-10-13

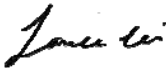
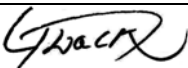


Summary of Project

Report No. 157995

Photos:

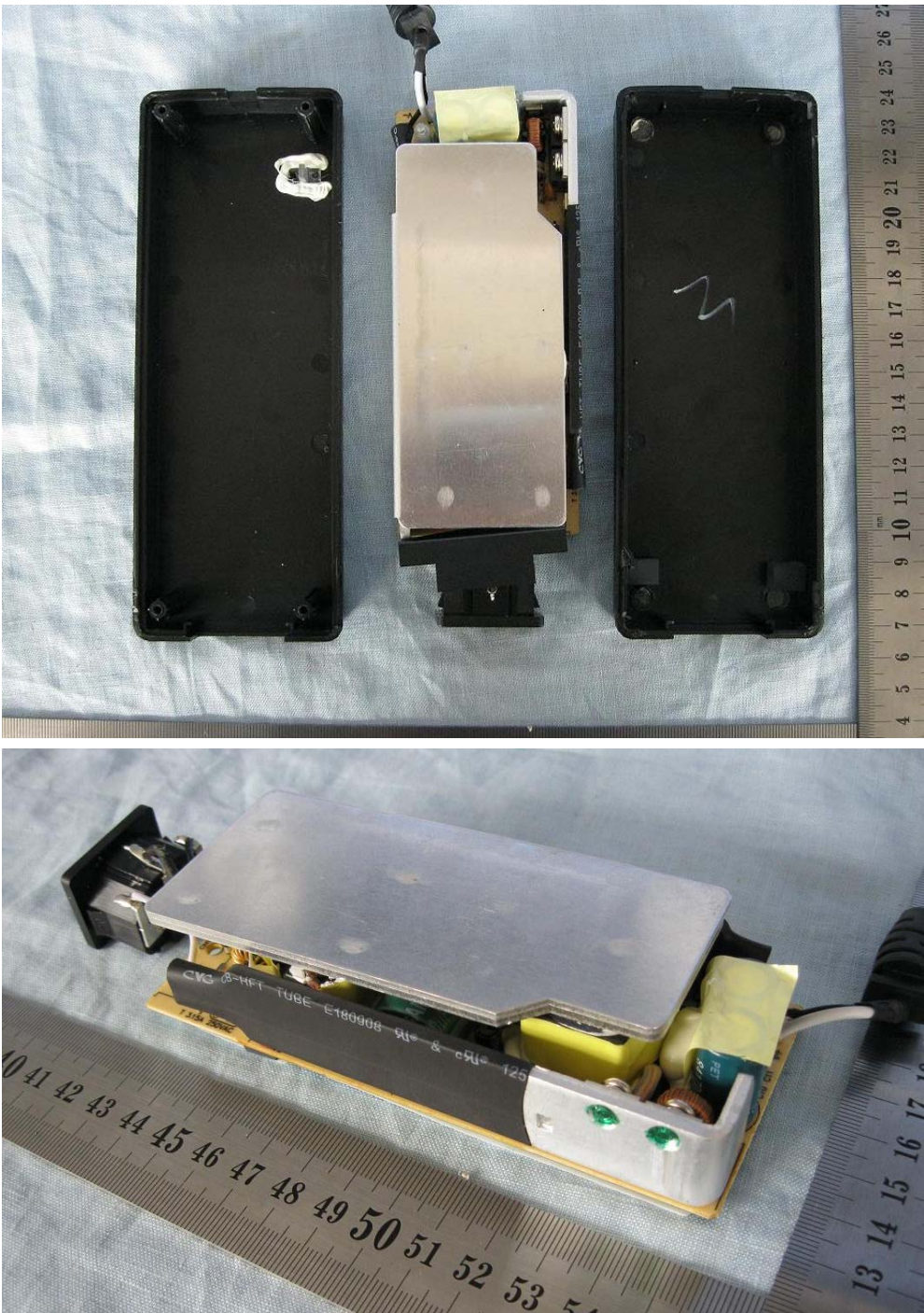


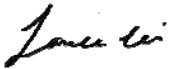
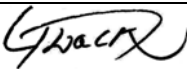
Prepared by		
	signature Lance Lei name in block letters	date 2010-10-13
Verified by		
	signature Sam Geun Gwack name in block letters	date 2010-10-13



Summary of Project

Report No. 157995

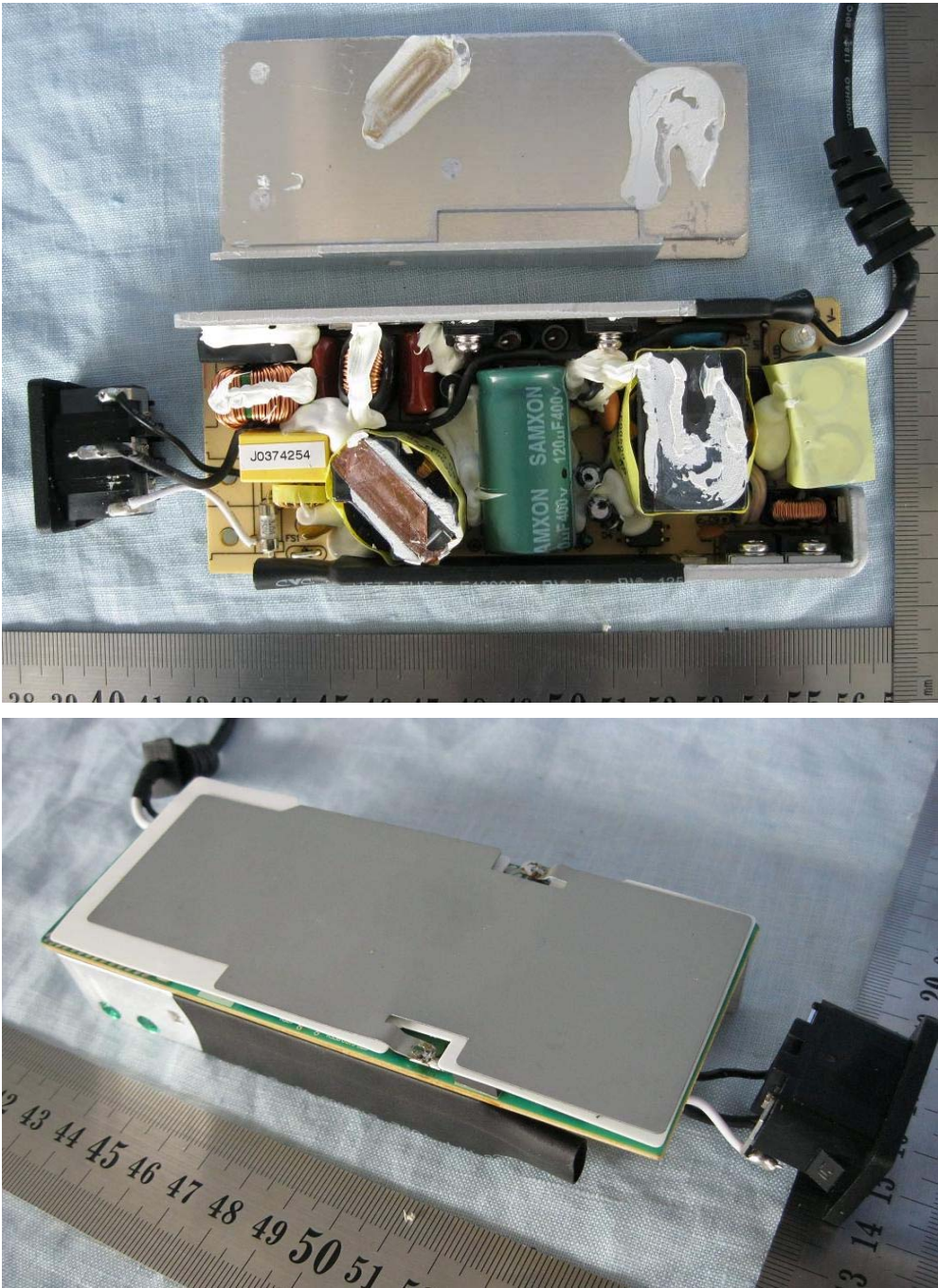


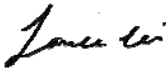
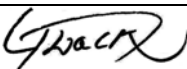
Prepared by		
	signature Lance Lei name in block letters	date 2010-10-13
Verified by		
	signature Sam Geun Gwack name in block letters	date 2010-10-13



Summary of Project

Report No. 157995

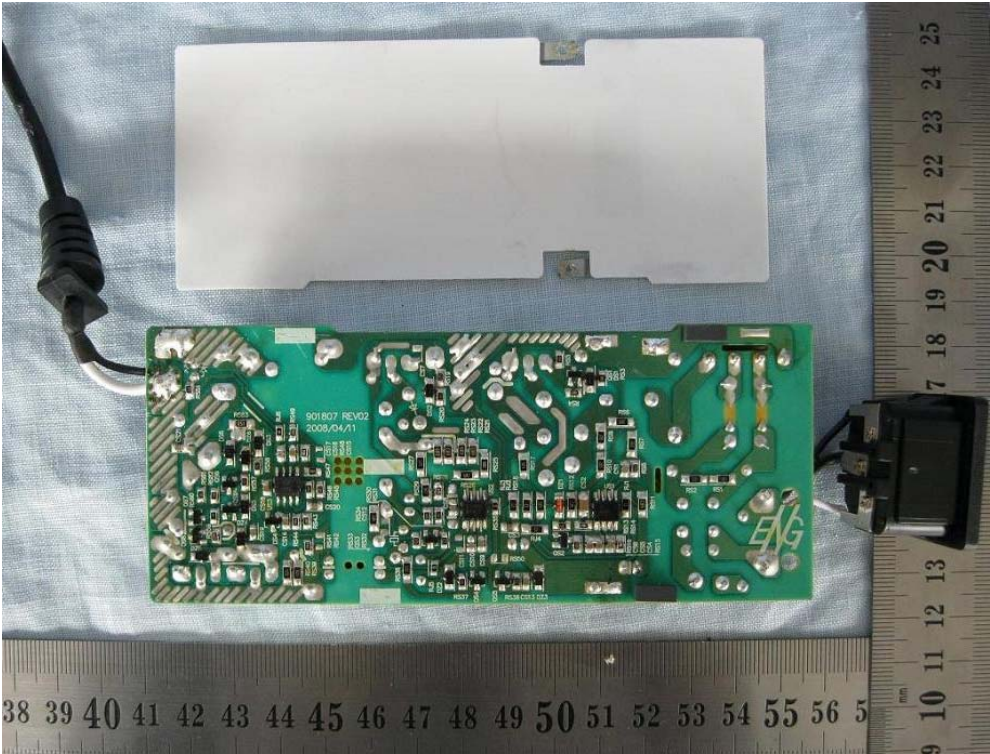


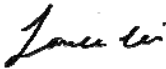
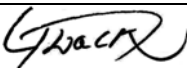
Prepared by		
	signature Lance Lei name in block letters	date 2010-10-13
Verified by		
	signature Sam Geun Gwack name in block letters	date 2010-10-13



Summary of Project

Report No. 157995



Prepared by		
	signature Lance Lei name in block letters	date 2010-10-13
Verified by		
	signature Sam Geun Gwack name in block letters	date 2010-10-13