

IEC SYSTEM FOR CONFORMITY TESTING
AND CERTIFICATION OF ELECTRICAL
EQUIPMENT (IECEE)
CB SCHEME

SYSTÈME CEI D'ESSAIS DE CONFORMITÉ
ET DE CERTIFICATION DES ÉQUIPEMENTS
ÉLECTRIQUES (IECEE)
METHODE OC

CB TEST CERTIFICATE
CERTIFICAT D'ESSAI OC

Product
Produit

Name and address of the applicant
Nom et adresse du demandeur

Name and address of the manufacturer
Nom et adresse du fabricant

Name and address of the factory
Nom et adresse de l'usine

Rating and principal characteristics
Valeurs nominales et caractéristiques principales

Trade mark (if any)
Marque de fabrique (si elle existe)

Model/type Ref.
Ref. de type

Additional information (if necessary)
Information complémentaire (si nécessaire)

A sample of the product was tested and found
to be in conformity with
*Un échantillon de ce produit a été essayé et a été
considéré conforme à la*

as shown in the Test Report Ref. No.
which form part of this certificate
*comme indiqué dans le Rapport d'essais numéro
de référence*
qui constitue une partie de ce certificat

Personal Computer

Advantech Co Ltd
4th Fl, 108-3 Ming-Chuan Rd
Shing-Tien City, Taipei Hsien Taiwan

Advantech Co Ltd
4th Fl, 108-3 Ming-Chuan Rd
Shing-Tien City, Taipei Hsien Taiwan

See Appendix

100-240 Vac, 47-63 Hz, 3.0-1.5 A, Class I

ADVANTECH

IPPC-9120xx-xx, IPPC-9150xx-xx, IPPC-95xxx-xx, IPPC-92xxx-xx

IP20. Where the X can be any alphanumeric character or blank. This CB certificate is an
appendix to CB certificate No. 6780/A1 issued 2004-04-02 due to change of new models,
change of product description and due to add with alternative components

PUBLICATION

EDITION

IEC 60950:1999

3rd

E180881-A23-CB-1 with Amendment 2 2004-09-09

This CB Test Certificate is issued by the National Certification Body
Ce Certificate d'essai OC est établi par l'Organisme National de Certification

Date 2004-09-16

Signature

Karina Christiansen
Certification Manager

UL International Demko A/S

Lyskaer 8, P.O. Box 514
DK-2730 Herlev, Denmark
Telephone: +45 44856565
Fax: +45 44856500



An Affiliate of
**Underwriters
Laboratories Inc.®**

Internal Ref.:
Jakob Petersen

Appendix to CB Certificate No. 6780/A2

Production Site:

- 1) Advantech Co., Ltd.
5th, Fl. 1, Lane 169 Kang-Ning Street, Xi-Zhi Town Taipei Hsien, Taiwan.
- 2) Advantech Co., Ltd.
3rd Fl, 10 Lane 130, Ming Chuan Rd, Hsin-Tien City, Taipei Hsien, Taiwan.
- 3) Superior Co., Ltd.
Tiensong Area, Qingxing Town, Dongguan, Guangdong, China.
- 4) Advantech Co., Ltd.
No. 600, Han-Pu Road, Yu-Shan, Kun-Shan, Jiang Su, China.
- 5) Beijing Yan Hua Xing Ye Electronic Science & Technology Co., Ltd.
No. 7, 6th Street, Shang Di Zone, Haidian District, Beijing, P.R. China

Herlev, 2004-09-16


Karina Christiansen
Certification Manager

UL International Demko A/S

Lyskaer 8, P.O. Box 514
DK-2730, Herlev, Denmark
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Fax: +45 44856500



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COVER PAGE FOR TEST REPORT

Test Item Description:	Personal Computers
Model/Type Reference:	IPPC-9120xx-xx, IPPC-9150xx-xx, IPPC-95xxx-xx, IPPC-92xxx-xx (where the X can be any alphanumeric character or blank).
Rating(s):	I/P : 100-240Vac, 47-63 Hz, 3.0-1.5 A
Standards:	IEC60950, Third Edition (1999)
Applicant Name and Address:	ADVANTECH CO LTD 4TH FL 108-3 MING-CHUAN RD SHING-TIEN CITY TAIPEI HSIEN TAIWAN
Factory Location(s):	(1) ADVANTECH CO LTD 5TH FL 1 LANE 169 KANG-NING ST., XI-ZHI TOWN, TAIPEI HSIEN TAIWAN (2) ADVANTECH CO LTD 3RD FL 10 LANE 130 MING CHUAN RD HSIN-TIEN TAIPEI HSIEN TAIWAN (3) SUPERIOR CO LTD TIENSONG AREA QINGXING TOWN DONGGUAN GUANGDONG CHINA (4) ADVANTECH CO LTD NO. 600 HAN-PU ROAD YU-SHAN KUN-SHAN JIANG SU CHINA (5) BEIJING YAN HUA XING YE ELECTRONIC SCIENCE & TECHNOLOGY CO., LTD. NO.7, 6TH STREET, SHANG DI ZONE, HAIDIAN DISTRICT, BEIJING, P.R.CHINA.

This Report includes the following parts, in addition to this cover page:

1. Specific Technical Criteria
2. Clause Verdicts
3. Critical Components

The original report was modified on 2004-09-10 to include the following changes/additions:

- This test report shall be read in conjunction with the original report, number:
 1. E180881-A23-CB-1, issued 2003-07-02, with CB Certificate (DK-6780), issued 2003-07-02.
 2. E180881-A23-CB-1 Amendment 1, issued 2004-04-01, with CB Certificate (DK-6780/A1), issued 2004-04-02.
- This test report has been amended, due to:
 1. Alternate LCD panel and RTC Batteries.
 2. Change model name to IPPC-9120xx-xx, IPPC-9150xx-xx, IPPC-95xxx-xx, IPPC-92xxx-xx (where the X can be any alphanumeric character or blank) from IPPC-9xyT-z.
 3. Change Product description: Personal Computers from LCD Type Computer.
- No tests need to be conducted.

All applicable tests according to the above standard(s) have been carried out.

Test results are valid only for the tested equipment.

This Test Report can be reproduced only in whole.

Amendments and corrections can be reproduced only with the original CB Test Report.

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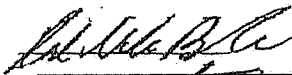


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Issue Date: 2003-07-02
Amendment 2 2004-09-09

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Report Reference #

E180881-A23-CB-1

TEST REPORT IEC 60950 Safety of information technology equipment	
Report Reference No	E180881-A23-CB-1
Compiled by (+ signature)	Rasul M. Balacu 
Reviewed by (+ signature)	Jakob Petersen 
Approved by (+ signature)	Jakob Petersen 
Date of issue	2003-07-02
CB Testing Laboratory	UL International Demko A/S
Address	Lyskaer 8, 2730, Herlev, Denmark
Testing location/procedure	CBTL <input checked="" type="checkbox"/> SMT <input type="checkbox"/> TMP <input type="checkbox"/> WMT <input type="checkbox"/>
Address	UL International Demko A/S, Lyskaer 8, 2730, Herlev, Denmark
Applicant's name	ADVANTECH CO LTD
Address	4TH FL 108-3 MING-CHUAN RD SHING-TIEN CITY TAIPEI HSIEN TAIWAN
Test specification:	
Standard	IEC60950, Third Edition (1999)
Test procedure	CB Scheme
Non-standard test method	N/A
Test Report Form No.	1950__F/00-03
TRF originator	FIMKO
Master TRF	dated 00-02
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Test item description	Personal Computers
Trade Mark	ADVANTECH
	
Model/Type reference	IPPC-9120xx-xx, IPPC-9150xx-xx, IPPC-95xxx-xx, IPPC-92xxx-xx (where the X can be any alphanumeric character or blank).
Manufacturer	SAME AS APPLICANT
Rating	I/P : 100-240Vac, 47-63 Hz, 3.0-1.5 A

TRF No.: 1950__F

UL International Demko A/S

TRF originator: FIMKO

Issue Date: 2003-07-02
Amendment 2 2004-09-09

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Report Reference #

E180881-A23-CB-1

Marking Plate - Refer to Enclosure titled Miscellaneous for copy.

Particulars: test item vs. test requirements

Equipment mobility.....: movable
Operating condition.....: continuous
Mains supply tolerance (%)......: +10%, -10%
Test for IT power systems.....: No
IT testing, phase-phase voltage (V).....: N/A
Class of equipment: Class I (earthed).
Mass of equipment (kg): 9.8
Protection against ingress of water.....: IP 20

Possible test case verdicts:

- test case does not apply to the test object: N / A
- test object does meet the requirement: P(Pass)
- test object does not meet the requirement: F(Fail)

General remarks:

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by a NCB in accordance with IEC 60335-1.

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.

"(see appended table)" refers to a table appended to the report.

Throughout this report a point is used as the decimal separator.

General Product Information:

Report Summary

The original report was modified on 2004-04-01 to include the following changes/additions:
- This test report shall be read in conjunction with the original report, number: E180881-A23-CB-1, issued 2003-07-02, with CB Certificate (DK-6780), issued 2003-07-02

- This test report has been amended, due to:

1. Alternate LCD panel
2. Alternate CPU Fan
3. Alternate Inverter
4. Alternate Power Supply

The original report was modified on 2004-09-10 to include the following changes/additions:

- This test report shall be read in conjunction with the original report, number:

1. E180881-A23-CB-1, issued 2003-07-02, with CB Certificate (DK-6780), issued 2003-07-02.
2. E180881-A23-CB-1 Amendment 1, issued 2004-04-01, with CB Certificate (DK-6780/A1), issued 2004-04-02.

- This test report has been amended, due to:

1. Alternate LCD panel and RTC Batteries.
 2. Change model name to IPPC-9120xx-xx, IPPC-9150xx-xx, IPPC-95xxx-xx, IPPC-92xxx-xx (where the X can be any alphanumeric character or blank) from IPPC-9xyT-z.
 3. Change Product description: Personal Computers from LCD Type Computer.
- No tests need to be conducted.

Product Description

Power Supply, LCD Panel, H.D.D, CD-ROM, F.D.D and Mainboard with CPU housed in metal enclosure.

Model Differences

All models are identical except for model designation, LCD display, top enclosure material, control board provided and as described in report.

Additional Information

N/A

Technical Considerations

The product was submitted and tested for use at the manufacturer's recommended ambient temperature (Tmra) of:

50°C

The power supply means are:

Pluggable A or B, Detachable power cord

The product is intended for use on the following systems:

TN

The equipment disconnect device is considered to be:

Appliance inlet

The following accessible locations (with circuit/schematic designation) are within a limited current circuit:	Secondary side of D/A inverter.
The following circuit locations (with circuit/schematic designation) were investigated as a limited power source:	USB and PS/2 connectors
Engineering Conditions of Acceptability	
When installed in an end-product, consideration must be given to the following:	

IEC 60950			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.1	Comply with IEC 950 or relevant component standard	(see appended table 1.5.1)	Pass
1.7.1	Type/model..... :	IPPC-9120xx-xx, IPPC-9150xx-xx, IPPC-95xxx-xx, IPPC-92xxx-xx (where the X can be any alphanumeric character or blank)	Pass

IEC 60950			
Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾	
LCD Panel	Toshiba	LTM12C275A, LTM12C275C	12"	--	--, --	
LCD Panel	Toshiba	LTM15C151A	15"	--	--, --	
LCD Panel	Acer Display Technology Inc.	L150X1M-1	15"	--	--, --	
LCD Panel	Chunghwa Picture Tubes Ltd.	CLAA150XA03	15"	--	--, --	
LCD Panel	Chunghwa Pictures Tubes Ltd.	CLAA150XG	15"	--	--, --	
Appliance Inlet	Rong Feng	SS-120, SS-130, SS- 7B	250V, 6A min.	VDE 0625-1	--, VDE, UL	
Appliance Inlet	Supercom	SC-8, SC-9	250V, 6A min.	VDE 0625-1	--, VDE, UL	
Appliance Inlet	Inalways	0711	250V, 6A min.	VDE 0625-1	--, VDE, UL	
Power Switch	Fima (Marquardt)	1852	250V, 5A min.	IEC 601058-1	--, VDE, UL	
Power Supply	Skynet	SNP-8086	Class I I/p: 100-250V, 3A, 47-63Hz DC O/P: +5Vdc/12A or 17A, +12Vdc/1A or 1.5A	EN 60950 IEC 60950 UL 1950	--, TUV, UL, CB No.: US/4206/UL	
DC Fan (Two provided for system)	Motor-One	N6010B2-8	12Vdc, 0.1A, 15.6CFM	EN 60950	--, TUV, UL	
DC Fan (Two provided for system)	ACT-RX Technology Corporation	FD1260-A2012A0J	12Vdc, 0.16A, 15.5CFM	EN 60950	--, TUV, UL	
DC Fan (For CPU)	Aavid	11-5200-68	12Vdc, 0.1A, 9.18CFM	EN 60950	--, TUV, UL	
DC Fan (For CPU)	Aavid	FAAC501512H31170	12Vdc, 1.92W, 12.4CFM	EN 60950	--, TUV, UL	
DC Fan (For CPU)	Aavid	1455223	12Vdc, 0.16A, 12.4CFM	EN 60950	--, TUV, UL	
DC Fan (For CPU)	Delta	AFB0512MA	12Vdc, 0.15A, 8.47CFM	IEC 60950 EN 60335-1	--, VDE, UL	
FDD Drive (Optional)	Y-E Data	YD-702J-6637J	5Vdc/0.6A max.	EN 60950	--, TUV, UL	
HDD Drive (Optional)	--	--	5Vdc/1.0A max., 12Vdc/1.2A max.	EN 60950	--, TUV, UL	

IEC 60950					
Clause	Requirement + Test		Result - Remark		Verdict
CD-ROM Drive (Optional)	Toshiba	XM-1702B	5Vdc/0.6A max.	EN 60950, EN 60825-1	--, TUV, UL
Lithium Battery (BT1) (optional)	Rayovac	BR2032	3V, 300 mAh. Max. Abnormal Charging Current 4 mA	--	--, UL
RTC Battery	SGS-Thomson	M4T28	5V, 50mAh, Reverse charging protected by IC.	--	--, UL
Poly-switch (for keyboard/ mouse and USB connectors protection)	Raychem	miniSMDC110	1.1 A, 6 V	--	--, UL
Inverter	Lecerf Technology Co., Ltd.	LV-1201 series	I/p: 12V, 1.2A O/p: 1500V, 12mA max.	--	--, --
- Transformer (T1)	--	--	Class A	--	--, --
- Thermal Cutoff (F2, F3)	Uchihashi Estec Co., Ltd.	122	2A, 250V	--	--, --
Inverter	Lecerf Technology Co., Ltd.	LV-1501-FA	I/p: 12V, 1.2A O/p: 750V, 8.5mA max.	--	--, --
- Transformer (T1, T2)	--	--	Class A	--	--, --
- Thermal Cutoff (F1)	--	--	2A, 125V	--	--, --
PWB	--	--	V-1 or better, 105°C min.	UL796	--, UL
Front Enclosure	--	--	Aluminum or stainless steel, minimum 8 mm thick, overall 405 by 302 by 100 mm.	--	--, --
Rear Enclosure	--	--	Aluminum or stainless steel, Shaped as shown. Overall dimensions 271 mm by 371 mm, minimum 1.0 mm thick	--	--, --
--	Components appended below on Mar. 2004	--	--	--	--, --

IEC 60950					
Clause	Requirement + Test		Result - Remark		Verdict
LCD Panel	AU Optonics Corp	M150XN07C	15"	--	--, --
DC Fan (For CPU)	Bi-Sonic Technology Corp.	BP601012H	12Vdc, 0.21A, 23.3CFM	EN 60950	UL, TUV
Inverter	HOSONIC Co., Ltd.	122M017	I/p: 13.2V, 1.35A O/p: 1400V, 9.0mA max.	--	--, --
- Transformer (T1, T2)	Taiwan Volt Electronic Co., Ltd.	TF-UI150-001	Class B	--	--, --
- Thermal Cutoff (F1)	Cooper Industries Inc Bussmann Div	3216FF	2A, 63V	--	--, --
Alternate	Daito	KE20	2A, 24V	--	--, --
Alternate	KOA	CCP2E50TE	2A, 63V	--	--, --
Power Supply	Skynet Electronics Co., Ltd.	SNP-Z101	Class I I/p: 100-250V, 2.0A maximum, 47-63Hz Dc o/p: 5V/14A, +12V/4A, -12V/0.5A or 5V/15A, +12V/5A, -12V/0.5A or 5V/14A, +12V/4A, -12V/0.5A, 5V+12V total 94W	EN 60950 IEC 60950 UL 60950	UL, TUV, CB No.: DE 2-004900
Alt. Comp. Without Tests below on Sep. 2004	--	--	--	--	--, --
LCD Panel	Tottori SANYO Electric Co., Ltd.	TM121SV-02L11	12"	--	--, --
Lithium Battery	Toshiba Battery Co., Ltd.	CR2032	3V, Maximum abnormal charging current 10 mA	UL 1642	UL, --
RTC Battery	Rayovac	BR2032	3V, Maximum abnormal charging current 5 mA	UL 1642	UL, --

Issue Date: 2003-07-02
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Report Reference #

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IEC 60950			
Clause	Requirement + Test	Result - Remark	Verdict

Alternate RTC Battery	Toshiba Battery Co., Ltd.	CR2032	3V, Maximum abnormal charging current 10 mA	UL 1642	UL, --
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¹) an asterisk indicates a mark which assures the agreed level of surveillance