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**INTERNATIONAL ELECTROTECHNICAL
COMMISSION (IEC)**
*COMMISSION ELECTROTECHNIQUE
INTERNATIONALE (CEI)*

Ref. Certif. No.

DK-6471/A1

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

**SYSTEME CEI D'ESSAIS DE CONFORMITE
ET DE CERTIFICATION DES EQUIPEMENTS
ELECTRIQUES (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

Industrial Computer

Advantech Co., Ltd.
4th Fl., No. 108-3, Ming-Chuan Road, Shing-Tien City, Taipei Hsien, Taiwan

Same as applicant

See appendix

115/230 Vac, 60/50 Hz, 9/5 A, IP20 Class I

Advantech

IPC-611XX-XXX, IPC-611XXL-CAN and IPC-610XXX-XXL

IP20. This CB certificate is an appendix to CB certificate No. 6471 issued 2003-04-29 due
to add of new model and change model designation and changed of applicant and factories
address. Type key: Where the X may be any alphanumeric character or blank

PUBLICATION

EDITION

IEC 60950:1999

3rd

E180881-A7-CB-1 with Amendment 1 2003-11-18

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

Date 2003-11-26

Signature

Karina Christiansen
Certification Manager



An Affiliate of
**Underwriters
Laboratories Inc.**

UL International Demko A/S
Lyskaer 8, P.O. Box 514
DK-2730 Herlev, Denmark
Telephone: +45 44856565
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Internal Ref.:
Jakob Pedersen

Appendix to CB-Certificate No. DK-6471/A1

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 231, 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) Bjing Yan Hua Xing Ye Electronic Science & Technology Co., Ltd

No.7, 6th Street, Shang Di Zone, Haidian District, Beijing, P.R.China

Herlev, 2003-11-26


Karina Christiansen
Certification Manager

UL International Demko A/S



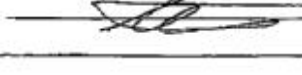

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An Affiliate of
**Underwriters
Laboratories Inc.**

COVER PAGE FOR TEST REPORT

Test Item Description:	Industrial Computer
Model/Type Reference:	IPC-611XX-XXX, IPC-611XXL-CAN and IPC-610XXX-XXL, Where the X may be any alphanumeric character or blank.
Rating(s):	115/230 Vac, 60/50 Hz, 9/5 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 STREET, XI-ZHI TOWN TAIPEI HSIEN, TAIWAN 2) ADVANTECH CO., LTD. 3RD FL, 10 LANE 130, MING CHUAN RD, HSIN-TIEN CITY, TAIPEI HSIEN 231, 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. National Differences	
The original report was modified on 2003-11-18 to include the following changes/additions: - This Test Report shall be read in conjunction with the original report, number: 1. E180881-A7-CB-1, issued April 28, 2003, with CB Certificate (DK- 6471), issued April 29, 2003. - This report has been amended, due to: 1. Add model no. IPC-611XXL-CAN and IPC-610XXX-XXL 2. Add a new Factory: Beijing Yan Hua Xing Ye Electronic Science & Technology Co., Ltd. - No tests were considered necessary.	
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. Written permission from UL International Demko A/S is required if the test report is copied in part.	

TEST REPORT IEC 60950 Safety of information technology equipment	
Report Reference No	E180881-A7-CB-1
Compiled by (+ signature)	Rasul M. Balacu 
Reviewed by (+ signature)	Jakob Petersen 
Approved by (+ signature)	Jakob Petersen 
Date of issue	2003-04-28
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.	I950__F/00-03
TRF originator	FIMKO
Master TRF	dated 00-02
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Test item description	Industrial Computer
Trade Mark	ADVANTECH 
Model/Type reference	IPC-611XX-XXX, IPC-611XXL-CAN and IPC-610XXX-XXL, Where the X may be any alphanumeric character or blank.
Manufacturer	SAME AS APPLICANT
Rating	115/230 Vac, 60/50 Hz, 9/5 A

Issue Date: 2003-04-28
Amendment 1 2003-11-18

Page 2 of 5

Report Reference #

E180881-A7-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): 16.6
Protection against ingress of water.....: IP20

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 2003-11-18 to include the following changes/additions:
- This Test Report shall be read in conjunction with the original report, number:
 1. E180881-A7-CB-1, issued April 28, 2003, with CB Certificate (DK- 6471), issued April 29, 2003.
 - This report has been amended, due to:
 1. Add model no. IPC-611XXL-CAN and IPC-610XXX-XXL
 2. Add a new Factory: Beijing Yan Hua Xing Ye Electronic Science & Technology Co., Ltd.
 - No tests were considered necessary.

Product Description

- Power Supply, motherboard and optional provided HDD, CD-ROM, FDD with CPU housed in metal enclosures.

Model Differences

Models IPC-611XXL-CAN and IPC-610XXX-XXL are identical to original models IPC-611XX-XXX except for SELV circuit, and model designation.

Additional Information

N/A

Engineering Consideration

The product was submitted and tested for use at the manufacturer's recommended ambient temperature (Tmra) of:	40°C
The power supply means are	Detachable power cord, Pluggable A or B
The product is intended for use on the following systems	TN
The equipment disconnect device is considered to be	Appliance inlet

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

1.5.2	Evaluation and testing of components		Pass
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1.7.1	Manufacturer's name/Trademark	Advantech Co., Ltd. / ADVANTECH	Pass
	Type/model.....	IPC-611XX-XXX, IPC-611XXL- CAN and IPC-610XXX-XXL, Where the X may be any alphanumeric character or blank.	Pass
	Certification marks.....	UL, C-UL.	Pass

Enclosure

National Differences

(Total 5 Pages including this Cover Page)

Argentina
Australia / New Zealand
Austria**
Belgium**
China
Czech Republic*
Denmark
Finland
France**
Germany
Greece**
Group
Hungary*
India*
Ireland
Israel*
Italy**
Japan
Korea
Netherlands**
Norway
Poland*
Russia*
Singapore
Slovakia*
Slovenia*
South Africa*
Spain
Sweden
Switzerland
USA / Canada
United Kingdom
Yugoslavia*

* No National Differences Declared

** Only Group Differences

IEC 60950			
SubClause	Difference + Test	Result - Remark	Verdict

China - Differences to IEC60950, Third Edition (1999)			
1.4.5	The tolerance of rated voltage in IEC 60950 from +6% to -10% is changed by GB4943-2001 to tolerance of +10% and -10%		Pass
1.7.1	Markings for supply voltage and frequency shall include China's mains voltage. According to GB4943-2001 a single rated voltage is expressed as 220 V		Pass
1.7.1	- When a rated voltage range is given, the range covers 220 V		Pass
1.7.1	- When a variety of rated voltages or rated voltage ranges are given, one of them is 220 V, and unit shall be set as 220 V when shipped from the factory		Pass
1.7.1	- Rated frequency is 50 Hz or rated frequency range includes 50Hz		Pass
1.7.1	- A unit not provided with a means for direct connection to the AC mains supply does not need not be marked with any electrical rating		N/A
1.7.12	According to GB4943-2001 instructions and equipment markings related to safety are provided in standardized Chinese		N/A
3.2.1	Power supply plugs that are connecting equipment to AC mains supply are in accordance with requirements of Chinese standard GB1002		N/A

Korea - Differences to IEC60950, Third Edition (1999)			
1.5.101	Addition: Plugs for the connection of the apparatus to the supply mains comply with the Korean requirement (KSC 8305)		N/A
7	Addition: EMC. The apparatus shall complies with the relevant CISPR requirements	It should be provided when national approval.	N/A

IEC 60950			
SubClause	Difference + Test	Result - Remark	Verdict

Japan - Differences to IEC60950, Third Edition (1999)			
1.2.4.101	Addition: Definition of CLASS 0I EQUIPMENT		N/A
1.2.12.1	Replacement: FLAMMABILITY CLASSIFICATION OF MATERIALS: "The recognition of the burning behaviour of materials and their ability to extinguish if ignited. Materials are classified as in 1.2.12.2 to 1.2.12.9, and 1.2.12.101 when tested in accordance with annex A"		N/A
1.2.12.101	Addition: Definition of VTM CLASS MATERIAL		N/A
1.7.101	Addition: Marking for CLASS 0I EQUIPMENT The following instruction is indicated on the visible place of the mains plug or the main body: "Provide an earthing connection"		N/A
1.7.101	The following instruction is indicated on the visible place on the main body or written in the operating instructions: "Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains."		N/A
2.1.1.1	Replace: "IEC 60083" by "IEC 60083 or JIS C 8303" in 2.1.1.1 b)		N/A
2.6.3.1	Add the following after 1st paragraph: "This also applies to the conductor of lead wire for protective earthing of CLASS 0I EQUIPMENT"		N/A
2.6.4.1	Replace 2nd sentence in 1st paragraph: "For CLASS I EQUIPMENT with a DETACHABLE POWER SUPPLY CORD, the earthing terminal in the appliance inlet is regarded as the main protective earthing terminal"		Pass
2.6.5.4	Replace 1st sentence: "Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:"		Pass

IEC 60950			
SubClause	Difference + Test	Result - Remark	Verdict
2.6.101	Addition:Earthing of CLASS 0I EQUIPMENT Plugs with a lead wire for earthing not used for equipment having a rated voltage exceeding 150 V		N/A
2.6.101	For plugs with a lead wire for earthing, the lead wire is not earthed by a clip		N/A
2.6.101	CLASS 0I EQUIPMENT provided with an earthing terminal or lead wire for earthing in the external where easily visible		N/A
3.2.5	Delete the following statement from a note 1 in Table 3B: "For RATED CURRENT up to 3A, a nominal cross-sectional area of 0.5 mm ² is permitted in some countries provided that the length of the cord does not exceed 2 m"		N/A
4.2.8	Add the following informative remark after the last sentence: "IEC 61965 is also applicable instead of IEC 60065"		N/A
4.5.1	Add the following to note 5) of Table 4A, Part 2: "With regard to Table 4A, insulating materials complying with Japanese requirements (refer to Japanese differences for IEC 60335-1 3rd Edition in CB Bulletin 101B) are also acceptable"		N/A
4.5.1	Add a note reference 7) to "50", in the right column of Table 4A, Part 1 and add a note 7 to Table 4A, Part 2 as follows: "7) This value apply only to wiring or cords complying with relevant IEC standards. Others comply with Japanese requirements (refer to Japanese differences for IEC 60335-1 3rd Edition in CB Bulletin 101B)"		N/A
4.7.3.2	Add the following in 7th paragraph: "- for thin materials, e.g., flexible printed boards, etc., used inside equipment, be of FLAMMABILITY CLASS VTM-2 or better"		N/A
5.1.6	Replace Table 5A to include maximum TOUCH CURRENT values for CLASS 0I EQUIPMENT		N/A
5.3.8.2	Replace 3rd Item as follows: "- BASIC INSULATION between the PRIMARY CIRCUIT and accessible conductive parts of CLASS I or 0I EQUIPMENT;"		N/A

IEC 60950			
SubClause	Difference + Test	Result - Remark	Verdict
Annex A	Add the subclause A.101 titled: "Flammability tests for classifying materials VTM" and the following: "Thin sheet materials shall comply with ISO 9773"		N/A
Annex G	Add to the Note for Table G.1. "2. In Japan, MAINS TRANSIENT VOLTAGE for equipment with a Nominal AC MAINS SUPPLY VOLTAGE of 100V is to be decided based on the column where Nominal AC MAINS SUPPLY VOLTAGE in Table G.1 is 150V"		N/A
Annex P	Add: "IEC 61965:2000, Mechanical Safety for Cathode Ray Tubes"		N/A
Annex U	Replace 2nd paragraph as follows: "This annex covers to round winding wires having diameters between 0.05 mm and 5.00 mm"		N/A
U.2.1	Replacement: Electric strength "The test sample is prepared per IEC 60851-5:1997, 4.4.1 (for a twisted pair and subjected to the test of 5.2.2, with a test voltage not less than twice the appropriate voltage in table 5B (see 5.2.2) of this standard. However, the minimum values shall be as follows: - for BASIC INSULATION or SUPPLEMENTARY INSULATION, 3000 V, or; - for REINFORCED INSULATION, 6000 V"		Pass
U.2.2	Replacement: Flexibility and adherence Test 8 of IEC 60851-3:1996, 5.1.1, using the mandrel diameter of Table U.1 (mm)		N/A
U.2.2	Test voltage not less than twice the appropriate voltage in table 5B (see 5.2.2) of this standard and not less than: - 1500 V for BASIC INSULATION or SUPPLEMENTARY INSULATION, or; - 3000 V for REINFORCED INSULATION		Pass