

**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*

LCD Type 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-9xyT-z

IP20. x=5, 2, 15 or 12, y= 0 or 1, z= T, N or blank. This CB certificate is an  
appendix to CB certificate No. 6780 due to add of alternative components.

**PUBLICATION**

**EDITION**

IEC 60950:1999

3<sup>rd</sup>

E180881-A23-CB-1 with Amendment 1 2004-04-01

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 2004-04-02

Signature

Karina Christiansen  
Certification Manager

**UL International Demko A/S**

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

Internal Ref.:

Jakob Petersen

# Appendix to CB Certificate No. 6780/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, 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, 6<sup>th</sup> Street, Shang Di Zone, Haidian District, Beijing, P.R. China

Herlev, 2004-04-02

  
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



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## **COVER PAGE FOR TEST REPORT**

Test Item Description:	LCD Type Computer
Model/Type Reference:	IPPC-9xyT-z (x=5, 2, 15 or 12; y= 0 or 1; z= T, N 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 JIANGSU 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: <ol style="list-style-type: none"><li>1. Specific Technical Criteria</li><li>2. Clause Verdicts</li><li>3. Critical Components</li><li>4. Test Results</li><li>5. National Differences</li><li>6. Enclosures</li></ol>	
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: <ol style="list-style-type: none"><li>1. Alternate LCD panel</li><li>2. Alternate CPU Fan</li><li>3. Alternate Inverter</li><li>4. Alternate Power Supply</li></ol>	
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.	

Issue Date: 2003-07-02  
Amendment 1 2004-04-01

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Report Reference #

E180881-A23-CB-1

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<b>TEST REPORT</b> <b>IEC 60950</b> <b>Safety of information technology equipment</b>	
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
<b>Test specification:</b>	
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 .....	LCD Type Computer
Trade Mark .....	ADVANTECH
	
Model/Type reference .....	IPPC-9xyT-z (x=5, 2, 15 or 12; y= 0 or 1; z= T, N or blank.)
Manufacturer .....	SAME AS APPLICANT
Rating .....	I/P : 100-240Vac, 47-63 Hz, 3.0-1.5 A

Issue Date: 2003-07-02  
Amendment 1 2004-04-01

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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.

<b>General Product Information:</b>	
<b>Report Summary</b>	
<p>The original report was modified on 2004-04-01 to include the following changes/additions:</p> <ul style="list-style-type: none"><li>- 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</li><li>- This test report has been amended, due to:<ol style="list-style-type: none"><li>1. Alternate LCD panel</li><li>2. Alternate CPU Fan</li><li>3. Alternate Inverter</li><li>4. Alternate Power Supply</li></ol></li></ul>	
<b>Product Description</b>	
Power Supply, LCD Panel, H.D.D, CD-ROM, F.D.D and Mainboard with CPU housed in metal enclosure.	
<b>Model Differences</b>	
<p>Models IPPC-9xyT-z, x = 5 or 2 for different LCD type, 15 or 5 is for 15 in. LCD display and 12 or 2 is for 12.1 in. LCD display; y = 0 or 1 for top enclosure material, 0 is for aluminum and 1 is for stainless steel; z = T or N or blank, T or N for touchscreen sensor and control board provided, blank is not provided.</p>	
<b>Additional Information</b>	
N/A	
<b>Engineering Consideration</b>	
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
<b>Engineering Conditions of Acceptability</b>	
When installed in an end-product, consideration must be given to the following:	



Issue Date: 2003-07-02  
Amendment 1 2004-04-01

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Report Reference #

E180881-A23-CB-1

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
1.6.2	Input current	The steady state input current of the equipment did not exceed the RATED CURRENT by more than 10% under NORMAL LOAD.(see appended table 1.6.2).	Pass
1.7.1	Certification marks.....:	UL, C-UL	Pass
2.4.2	Limit values	For frequencies above 1 kHz, the limit of 0.7 mA is multiplied by the value of the frequency in kilohertz but shall not exceed 70 mA peak.	Pass
	Measured current (mA).....:	For Inverter: Bally Normal: Max. 37mA (T1 pin7 to earth) L2 short: Max. 35.6mA (T1 pin7 to earth) Q3 (C-E) short: Max. 40mA (T1 pin7 to pin11) D3 short: Max. 24 mA (T1 pin7 to earth) For Inverter: Lecerf Normal: Max. 0mA (T1 pin7 to pin9) D8 short: Max. 0mA (T1 pin7 to pin9) Q4 (C-E) short: Max. 0mA (T1 pin7 to pin9) Q2 (D-G) short: Max. 32 mA (T1 pin7 to pin9) For Inverter: Hosonic (T1 pin1,2 to pin3,4) Normal: Max. 0.58mA L1 short: Max. 0.53mA Q3 (D-S) short: Max. 51mA	-
	Measured voltage (V).....:	For parts not exceeding 450 V peak or d.c., the circuit capacitance shall not exceed 0.1 µF	-

IEC 60950			
Clause	Requirement + Test	Result - Remark	Verdict

4.5.1	Temperature rises	(see appended table).	Pass
-------	-------------------	-----------------------	------

5.1.6	Test measurements	See below	Pass
	Measured current (mA).....:	Max. 1.48mA.	-
	Max. allowed current (mA).....:	3.5mA	-

IEC 60950			
Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	<b>TABLE: list of critical components</b>					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity <sup>1)</sup>	
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 Optronics 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

<sup>1)</sup> an asterisk indicates a mark which assures the agreed level of surveillance

IEC 60950			
Clause	Requirement + Test	Result - Remark	Verdict

1.6.2	<b>TABLE: electrical data (in normal conditions)</b>						Pass
fuse #	I rated (A)	U (V)	P (W)	I (mA)	I fuse (mA)	condition/status	
--	--	--	--	--	--	Test appended below on Mar, 2004	
--	--	90V/47Hz	127.8	1425	1425	Max. normal load	
--	--	90V/63Hz	127.7	1424	1424	Max. normal load	
--	3	100V/47Hz	126.5	1275	1275	Max. normal load	
--	3	100V/63Hz	126.5	1271	1271	Max. normal load	
--	1.5	240V/47Hz	125	615	615	Max. normal load	
--	1.5	240V/63Hz	124	593	593	Max. normal load	
--	--	264V/47Hz	125	559	559	Max. normal load	
--	--	264V/63Hz	125	550	550	Max. normal load	
supplementary information:							
"Maximum normal load" was defined as follows: H.D.D, CD-ROM and F.D.D were seeking, each USB port load 0.5A and dummy load to 80% full load of power supply, full raster, maximum contrast and brightness.							

4.5	<b>TABLE: temperature rise measurements</b>						Pass
	test voltage (V) .....	:	90V/264V				—
	t1 (°C) .....	:	--				—
	t2 (°C) .....	:	--				—
temperature rise dT of part/at:				dT (K)		required dT (K)	
--				--		--	
Location 1-6 for power supply, Location 7-14 for system				90V/63Hz, 1hr 30min / 264V/47Hz, 4hr 25min		Test appended below on Mar, 2004	
1. L1 coil				13/8		55	
2. L2 coil				34/24		55	
3. L3 coil				49/26		55	
4. L5 coil				65/62		55	
5. T1 coil				57/54		60	
6. T1 core				56/55		60	
7. T1 coil (inverter)				10/9		55	
8. PCB near CPU				12/11		55	
9. PCB near U12				12/11		55	
10. CD-ROM body				5/4		--	
11. FDD board				3/2		--	
12. HDD board				6/5		--	
13. Panel				3/1		20	
14. AC inlet				3/1		70	
15. Ambient				22°C/25°C		--	

IEC 60950			
Clause	Requirement + Test	Result - Remark	Verdict

temperature rise dT of winding:	R <sub>1</sub> (Ω)	R <sub>2</sub> (Ω)	dT (K)	required dT (K)	insulation class
supplementary information:					

5.2	TABLE: electric strength tests and impulse tests		Pass
test voltage applied between:		test voltage (V)	breakdown Yes / No
Test appended below on Mar, 2004		--	--
Primary to Secondary		DC 4242	No
Primary to Earth		DC 2799	No
supplementary information:			

5.3	<b>TABLE: fault condition tests</b>					Pass
	ambient temperature (°C) ..... :				25	—
	model/type of power supply ..... :				--	—
	manufacturer of power supply ..... :				--	—
	rated markings of power supply ..... :				--	—
component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result
--	--	--	--	--	--	Test appended below on Mar, 2004
Unit	Locked fans	240	25 min	--	--	Unit shut down, max. temp. power supply T1 coil = 114 degree C, input current = 0.045A, NB, NC, NT
Unit	Blocked openings	240	2 hrs	--	--	Temp was stable, power supply T1 coil = 86 degree C input current = 0.612A, NB, NC, NT
supplementary information:						



## **Enclosure**

### **National Differences**

(Total 7 Pages including this Cover Page)

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

\* No National Differences Declared

\*\* Only Group Differences

IEC 60950			
SubClause	Difference + Test	Result - Remark	Verdict

Singapore - Differences to IEC60950, Third Edition (1999)			
2.9.2	<p>(a) After the first paragraph, insert the following: Under tropical conditions, the duration of the humidity conditioning is 5 days (120h) at a temperature: <math>40 \pm 2^{\circ}\text{C}</math> with relative humidity: 90% to 95%.</p> <p>Conditions described in IEC Publications 60068-2-3: 1969 - "Test Ca: Damp Heat, Steady State" (temperature: <math>40 \pm 2^{\circ}\text{C}</math>, relative humidity: 90% to 95 %) apply to insulation to be used under tropical conditions. The additional requirement on humidity conditioning is drawn from Clause 10.2 of IEC 60065: 1998</p>		N/A
2.10.6.5	<p>Delete "(48 h)"</p> <p>Explanation: To be consistent with 2.9.2</p>		N/A
3.2.8	Replace " $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ " by " $27^{\circ}\text{C} \pm 2^{\circ}\text{C}$ "		N/A
General	<p>IT Power Systems are not allowed in the Republic of Singapore and all clauses related to IT Power Systems are not applicable.</p> <p>For a.c. power distribution systems, only TN-S and TT systems are allowed</p>		N/A

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%		N/A
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		N/A
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		N/A
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		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	The unit cannot use in the Class 0I application.	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	The unit cannot use in the Class 0I application.	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"		N/A
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:"		N/A

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		Pass
2.6.101	For plugs with a lead wire for earthing, the lead wire is not earthed by a clip		Pass
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 <sup>2</sup> 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"		N/A
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		N/A

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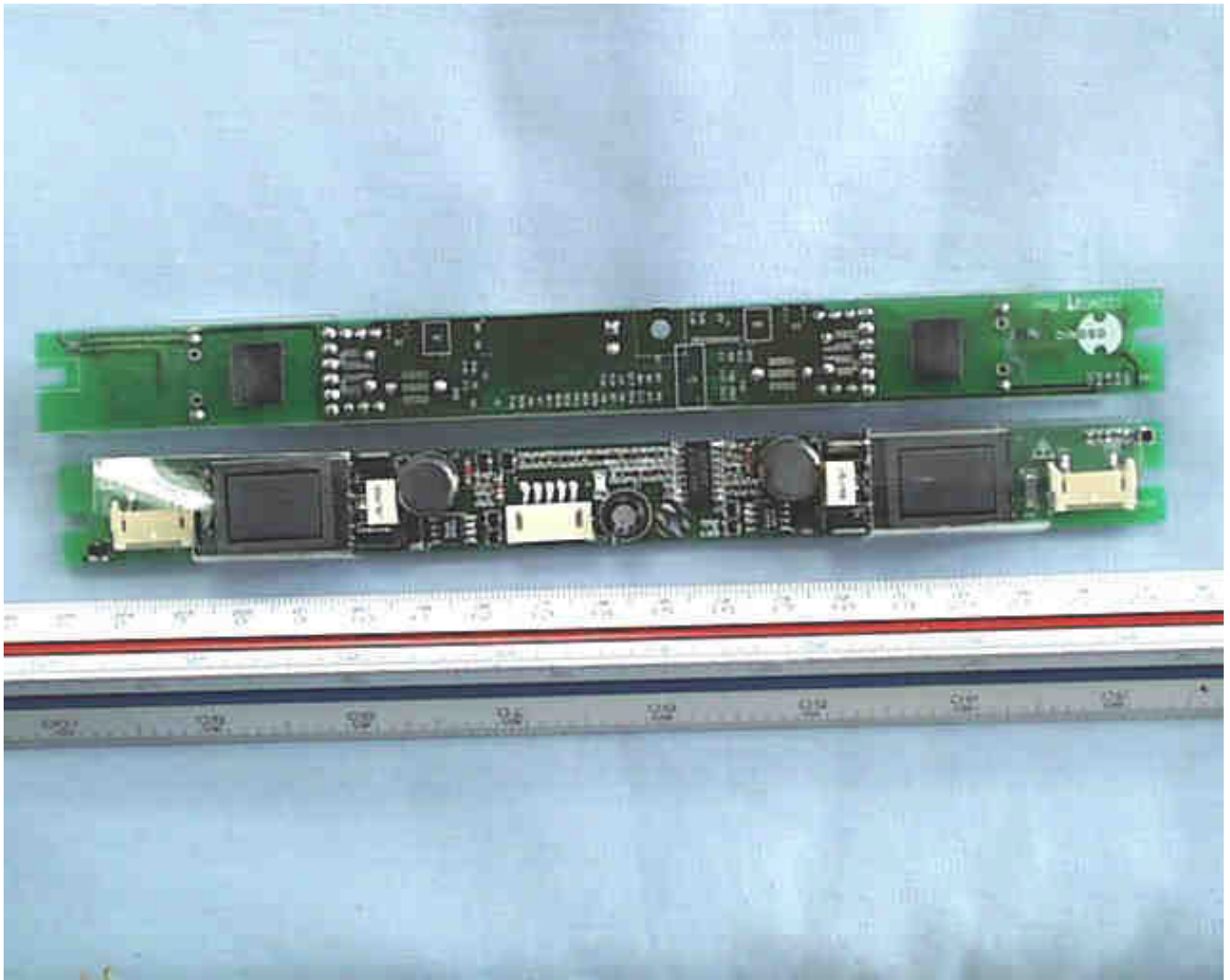
Report Reference #

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## **Enclosure** **Photographs**

(Total 4 Pages including this Cover Page)

Supplement Id	Description
3-06	View of Hosonic Inverter





## **Enclosure** **Diagrams**

(Total 2 Pages including this Cover Page)

Supplement Id	Description
4-01	T1 constructure of Hosonic Inverter

TAIWAN VOLT ELECTRONIC CO., LTD  
SPECIFICATION FOR APPROVAL

REV.A 2/7

CUSTOMER	鑫汎	CUSTOMER'S P/N	
ISSUE DATE	MAR-17-2003	OUR P/N	TF-UI150-001

1.DIMENSION:

SEE NOTE 2

NOTE:

- 線包包#92 TAPE 1TS.
- 產品須點EPOXY: CORE "U" 与 "I" 片接觸處, CORE 与 BOBBIN 接觸處, 共六點,
- 高壓側出入線須點EPOXY.
- "xxxx"表示年和周期.

UNIT: mm

A	16.5 MAX
B	24.0 MAX
C	8.5 MAX
D	2.8± 0.5
E	12.5± 0.5
F	2.5± 0.5
G	0.4± 0.1
H	22.2± 1.0
I	1.0± 0.1

REPORTED BY		CHECKED BY		APPROVED BY	
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Issue Date: 2003-07-02  
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**Enclosure**  
**Schematics + PWB**

(Total 3 Pages including this Cover Page)

Supplement Id	Description
5-03	PWB Layout of Hosonic Inverter
5-04	Schematic of Hosonic Inverter

