

ASIA SAFETY LINK INC.

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LVD Report

CHROMA ATE INC.

PXI-52105



Asia Safety Link Inc.

9F-1, No. 80, Sec. 2, Guang Fu Rd., San Chung City, Taipei Hsien, Taiwan
Tel:+886-2-85123188 Fax:+886-2-29959169

Certificate of Compliance

Low Voltage Directive 73/23/EEC and the Amendment Directive 93/68/EEC

Certificate Number: 93-0947

Manufacturer: CHROMA ATE INC.

43, Wu-Chuan Road, Wu-Ku Industrial Park, Wu-Ku, Taipei Hsien,
Taiwan, R.O.C.

Product : 18-Slot General Purpose Chassis

Model/Type : PXI-52105

Electrical Rating: I/P: 100-240Vac, 50/60Hz, 5A max.

Other Specification:

Standards applied: **IEC 60950-1 : 2001; EN 60950-1: 2001**

The tested samples of the above products are in conformity with the technical provisions of the
Following European Directive -

- Low Voltage Directive 73/23/EEC and the Amendment Directive 93/68/EEC

Date Issued: November 12, 2004

Approve & Authorized Signer: _____

Jeff Chang



EU Declaration of Conformity



According to the Low Voltage Directive 73/23/EEC and the
Amendment Directive 93/68/EEC

For the following equipment:

Product: 18-Solt General Purpose Chassis

Type Designation/Trademark: PXI-52105

Manufacturer's Name: CHROMA ATE INC.

Manufacturer's Address: 43, Wu-Chuan Road, Wu-Ku Industrial
Park, Wu-Ku, Taipei Hsien, Taiwan, R.O.C.

is herewith confirmed to comply with the requirements set out in the Council Directive
73/23/EEC for electrical equipment used within certain voltage limits and the
Amendment Directive 93/68/EEC. For the evaluation of the compliance with this
Directives, the following standards were applied:

IEC 60950-1:2001; EN 60950-1:2001

Responsible for making this declaration is the :

Manufacturer

Authorized representative established within the EU

Authorized representative established within the EU (if applicable) :

Company Name :

Company Address :

Person responsible for making this declaration

Name, Surname :

Position/Title :

(Place)

(Date)

(Company stamp and legal signature)

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ASIA SAFETY LINK INC.

Test Report

CHROMA ATE INC.

PXI-52105

TEST REPORT IEC 60950-1 First Edition Information technology equipment – Safety – Part 1: General requirements	
Order No	93-0947
Tested by (printed name and signature)	Jacky Hsu 
Approved by (printed name and signature)	Jeff Chang 
Date of issue	November 12, 2004
Testing Laboratory Name	ASIA Safety Link Inc.
Address	9F-1, No. 80, Sec. 2, Guang Fu Rd., San Chung City, Taipei Hsien, Taiwan.
Applicant's Name	CHROMA ATE INC.
Address	43, Wu-Chuan Road, Wu-Ku Industrial Park, Wu-Ku, Taipei Hsien, Taiwan, R.O.C.
Test specification	
Standard	IEC 60950-1:2001, EN 60950-1:2001
Test procedure	LVD of CE
Non-standard test method	
Test Report Form No.	IEC60950_1A
TRF originator	SGS Fimko Ltd
Master TRF	dated 2001-12
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Test item description	18-Slot General Purpose Chassis
Trademark	CHROMA
Model and/or type reference	PXI-52105
Serial number	No provided
Rating(s)	100-240Vac, 50/60Hz, 5A max.

Particulars: test item vs. test requirements	
Equipment mobility	Movable Equipment.
Operating condition.....	Continuous
Mains supply tolerance (%).....	-90% of 100Vac and +6% of 240Vac
Tested for IT power systems	No
IT testing, phase-phase voltage (V) :	No
Class of equipment	Class I
Protection against ingress of water	IP00
Test case verdicts	
Test case does not apply to the test object	N/A
Test item does meet the requirement ..	P(ass)
Test item does not meet the requirement	F(ail)
<i>To be evaluated in the end product</i>	<i>E(valuation)</i>
Testing	
Date of receipt of test item	October 28, 2004
Date(s) of performance of test	November 12, 2004
General remarks	
"This report is not valid as a CB Test Report unless appended to a CB Test Certificate issued by a NCB, in accordance with IEC60950-1".	
This report shall not be reproduced except in full without the written approval of the testing laboratory.	
The test results presented in this report relate only to the item(s) tested.	
"(see remark #)" refers to a remark appended to the report.	
"(see Annex #)" refers to an annex appended to the report.	
Throughout this report a <i>period</i> is used as the decimal separator.	
Product description: 4U Form Factor PXI Chassis, High Capacity 3U size Backplane With 18-Slot one system slot and 17 peripheral slots, Accepts both PXI and Compact PCI 3U modules.	

Copy of marking plate and summary of test results (information/comments):

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict

1	GENERAL		P
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1.5	Components		P
1.5.1	General	See as below.	P
	Comply with IEC 60950 or relevant component standard	Components which were found to affect safety aspects comply with the requirements of this standard or within the safety aspects of the relevant IEC component standards. (see appended table 1.5.1)	P
1.5.2	Evaluation and testing of components	Components which are certified to IEC and /or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	P
1.5.3	Thermal controls	No such part.	N
1.5.4	Transformers	Transformers in approved SPS.	N
1.5.5	Interconnecting cables	No interconnecting cable	N
1.5.6	Capacitors in primary circuits	X-capacitor in approved SPS.	N
1.5.7	Double insulation or reinforced insulation bridged by components	Consider to approved power supply.	N
1.5.7.1	General	Ditto.	N
1.5.7.2	Bridging capacitors	Ditto.	N
1.5.7.3	Bridging resistors	Ditto.	N
1.5.7.4	Accessible parts	Ditto.	N
1.5.8	Components in equipment for IT power systems	No connect to IT power system.	N

1.6	Power interface		P
1.6.1	AC power distribution systems NT system.	AC main power only.	P
1.6.2	Input current	Highest load according to 1.2.2.1 for this equipment is the unit was cross reading/ writing in HDD and provided load card in the slot.	P

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
1.6.3	Voltage limit of hand-held equipment	This appliance is not a hand-held equipment.	N
1.6.4	Neutral conductor	Only SELV supply, no connection to mains.	N

1.7	Marking and instructions		P
1.7.1	Power rating	See as below.	P
	Rated voltage(s) or voltage range(s) (V) :	100-240Vac	P
	Symbol for nature of supply, for d.c. only :		N
	Rated frequency or rated frequency range (Hz)	50/60Hz	P
	Rated current (mA or A)	5A max.	P
	Manufacturer's name or trademark or identification mark	CHROMA ATE INC.	P
	Type/model or type reference.....	PXI-52105	P
	Symbol \varnothing for Class II equipment only	Class I equipment.	P
	Other symbols	No provided.	N
	Certification marks	CE	N
1.7.2	Safety instructions	Operating/safety instructions made available to the user.	P
1.7.3	Short duty cycles	Not short duty cycles equipment.	N
1.7.4	Supply voltage adjustment	Full range design.	N
1.7.5	Power outlets on the equipment	No standard power outlets are provided.	N
1.7.6	Fuse identification	Fuse marking on the approved power supply.	P
1.7.7	Wiring terminals	See as below.	P
1.7.7.1	Protective earthing and bonding terminals .. :	CE approved power supply.	N
1.7.7.2	Terminal for a.c. mains supply conductors	The equipment with appliance inlet is intended to be use the detachable type power supply cord.	N
1.7.7.3	Terminals for d.c. mains supply conductors	No connect to DC main power..	N
1.7.8	Controls and indicators	No such part.	N
1.7.8.1	Identification, location and marking	Ditto.	N
1.7.8.2	Colours	No provided.	P
1.7.8.3	Symbols according to IEC 60417	Consider.	P
1.7.8.4	Markings using figures	No such figure.	N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
1.7.9	Isolation of multiple power sources	No provided multiple power.	N
1.7.10	IT power distribution systems	Not intended for use on IT power systems.	N
1.7.11	Thermostats and other regulating devices	No adjustable thermostats or similar regulating devices.	N
1.7.12	Language	English.	—
1.7.13	Durability	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. and then again for 15 sec. with the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling nor lifting of the label edge.	P
1.7.14	Removable parts	No marking is located on (a) removable part(s).	P
1.7.15	Replaceable batteries	No provided replaceable battery.	N
	Language	Ditto.	—
1.7.16	Operator access with a tool.....	Only SELV voltage.	P
1.7.17	Equipment for restricted access locations... :	Equipment not intended for installation in a RESTRICTED ACCESS LOCATION.	N

2	PROTECTION FROM HAZARDS		P
2.1	Protection from electric shock and energy hazards		P
2.1.1	Protection in operator access areas	See as below.	P
2.1.1.1	Access to energized parts	No operator access to energized parts.	P

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	Test by inspection	The accessibility of hazardous or ELV voltages is prevented with the final system. The inspection with test pin, test finger and test probe should therefore be conducted with the approval of the final system assembly. Installation instruction requires, that the requirements of the IEC 60950-1 must be observed to the installation.	P
	Test with test finger	No access with test finger to any parts with only basic insulation to ELV or hazardous voltage.	P
	Test with test pin	The test pin can not touch hazardous voltage through any openings or seams of the whole enclosure.	P
	Test with test probe	No provided TNV Circuit.	N
2.1.1.2	Battery compartments	No such part.	N
2.1.1.3	Access to ELV wiring	No provided ELV circuit.	N
	Working voltage (V); minimum distance (mm) through insulation	Ditto.	—
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area.	N
2.1.1.5	Energy hazards	No energy hazard in operator access area. The connectors of the equipment only for signal i/p and o/p on a low energy level.	P
2.1.1.6	Manual controls	The equipment does not contain any knobs, handles, levers, or the like.	N
2.1.1.7	Discharge of capacitors in equipment	X-Capacitor in approved power supply.	N
	Time-constant (s); measured voltage (V) :	Ditto.	—
2.1.2	Protection in service access areas	No bare parts operating at HAZARDOUS VOLTAGES in a service access area.	N
2.1.3	Protection in restricted access locations	No provided restricted access locations.	N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict

2.2	SELV circuits		P
2.2.1	General requirements	See as below.	P
2.2.2	Voltages under normal conditions (V) :	42.4V peak or 60Vd.c. are not exceeded in SELV circuit under normal operation or single fault condition	P
2.2.3	Voltages under fault conditions (V) :	Ditto.	P
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)	Considered.	P
2.2.3.2	Separation by earthed screen (method 2)	Not used this method.	N
2.2.3.3	Protection by earthing of the SELV circuit (method 3)	Not used this method.	N
2.2.4	Connection of SELV circuits to other circuits :	The SELV circuits are not connected to other circuits other than protective earth	N

2.3	TNV circuits		N
2.3.1	Limits		N
	Type of TNV circuits :		—
2.3.2	Separation from other circuits and from accessible parts		N
	Insulation employed :		—
2.3.3	Separation from hazardous voltages		N
	Insulation employed :		—
2.3.4	Connection of TNV circuits to other circuits		N
	Insulation employed :		—
2.3.5	Test for operating voltages generated externally		N

2.4	Limited current circuits		N
2.4.1	General requirements	No provided LCC circuit.	N
2.4.2	Limit values	Ditto.	N
	Frequency (Hz)..... :	Ditto.	—
	Measured current (mA)..... :	Ditto.	—
	Measured voltage (V) :	Ditto.	—
	Measured capacitance (μ F)..... :	Ditto.	—

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.4.3	Connection of limited current circuits to other circuits	Ditto.	N

2.5	Limited power sources		N
	Inherently limited output		N
	Impedance limited output		N
	Overcurrent protective device limited output		N
	Regulating network limited output under normal operating and single fault condition		N
	Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition		N
	Output voltage (V), output current (A), apparent power (VA)		—
	Current rating of overcurrent protective device (A)		—

2.6	Provisions for earthing and bonding		P
2.6.1	Protective earthing	The equipment equipped with an approved SPS.	P
2.6.2	Functional earthing	The equipment equipped with an approved SPS.	P
2.6.3	Protective earthing and protective bonding conductors	See as below.	P
2.6.3.1	General	The power supply cord is not provided with this unit.	N
2.6.3.2	Size of protective earthing conductors	See sub-clause 2.6.3.3, rated current below 16A.	N
	Rated current (A), cross-sectional area (mm ²), AWG	Ditto.	—
2.6.3.3	Size of protective bonding conductors	The equipment equipped with an approved SPS.	N
	Rated current (A), cross-sectional area (mm ²), AWG	Ditto.	—
2.6.3.4	Resistance (Ω) of earthing conductors and their terminations, test current (A)	See test result.	P
2.6.3.5	Colour of insulation.....	Green/Yellow wire used from inlet to chassis. (The Green/Yellow wire was installed inside a CE approved SPS).	N
2.6.4	Terminals	See as below.	P

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.6.4.1	General	Ditto.	N
2.6.4.2	Protective earthing and bonding terminals	The equipment with detachable power supply cord, connected on appliance inlet.	N
	Rated current (A), type and nominal thread diameter (mm)	Ditto.	—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Protective earthing conductor is in appliance inlet. Green/yellow wire for protective bonding conductor from ground pin of appliance inlet to metal chassis.	P
2.6.5	Integrity of protective earthing	See as below.	P
2.6.5.1	Interconnection of equipment	This unit has its own earthing connection. Any other units connected via the interconnecting cable to other unit shall provide SELV only. The equipment does not comprise class I and class II.	P
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switches or overcurrent protect device in protective earthing conductor and protective bonding conductor.	P
2.6.5.3	Disconnection of protective earth	It is not possible to disconnect earth without disconnecting mains as an appliance inlet is used.	P
2.6.5.4	Parts that can be removed by an operator	Plug or inlet, earthing connected before and disconnected after hazardous voltage. No other operator removable parts.	P
2.6.5.5	Parts removed during servicing	It is not necessary to disconnect earthing except for the removing of the earthed parts itself.	P
2.6.5.6	Corrosion resistance	All safety earthing connections in compliance with Annex J.	P

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.6.5.7	Screws for protective bonding	No self tapping screws are used. The screws are threaded into metal chassis minimum twice the pitch of screw threads.	P
2.6.5.8	Reliance on telecommunication network or cable distribution system		N

2.7	Overcurrent and earth fault protection in primary circuits		P
2.7.1	Basic requirements	Equipment relies on 16A rated fuse or circuit breaker of the wall outlet installation protection of the building installation in regard to L to N short circuit. Overcurrent protection is provided by the built-in device fuse inside the approved power supply.	P
	Instructions when protection relies on building installation	English.	P
2.7.2	Faults not covered in 5.3	The protection devices are well dimensioned and mounted.	N
2.7.3	Short-circuit backup protection	The equipment is considered to be pluggable equipment type A, the building installation is considered as providing short circuit protection.	N
2.7.4	Number and location of protective devices . :	Overcurrent protection by one built-in fuse, earth fault protection by fuse or circuit breaker in the phase of the building installation.	N
2.7.5	Protection by several devices	Only one protective device.	N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.7.6	Warning to service personnel..... :	With plug to the mains, hazardous voltage may be still presented in the equipment after the internal fuse opens. However, as it is considered that the plug to the mains will be disconnected during service work, no marking were requested.	N

2.8	Safety interlocks		N
2.8.1	General principles	No provided interlock.	N
2.8.2	Protection requirements	Ditto.	N
2.8.3	Inadvertent reactivation	Ditto.	N
2.8.4	Fail-safe operation	Ditto.	N
2.8.5	Moving parts	Ditto.	N
2.8.6	Overriding	Ditto.	N
2.8.7	Switches and relays	Ditto.	N
2.8.7.1	Contact gaps (mm) :	Ditto.	N
2.8.7.2	Overload test	Ditto.	N
2.8.7.3	Endurance test	Ditto.	N
2.8.7.4	Electric strength test	Ditto.	N
2.8.8	Mechanical actuators	Ditto.	N

2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	Natural rubber, asbestos or hygroscopic materials are not used.	P
2.9.2	Humidity conditioning	Humidity treatment performed for 48 hours, 93% R.H. at 25 °C.	P
	Humidity (%) :	95% RH	—
	Temperature (°C) :	25 degree C	—
2.9.3	Grade of insulation	The adequate levels of safety insulation is provided and maintained to comply with the requirements of this standard.	P

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.10	Clearances, creepage distances and distances through insulation (The equipment has adequate clearances and creepage distance which were approved with the approval of the SPS)		P
2.10.1	General	See as below.	P
2.10.2	Determination of working voltage	The rms and the peak voltage were measured on the switching power supply. The unit was connected to a 240V TN power system and secondary ground was maintained during measurement.	P
2.10.3	Clearances	The equipment equipped with an approved SPS.	P
2.10.3.1	General	According to table 2K	P
2.10.3.2	Clearances in primary circuit	The equipment equipped with an approved SPS.	P
2.10.3.3	Clearances in secondary circuits	See sub-clause 5.4.4.	P
2.10.3.4	Measurement of transient voltage levels	No transient voltage across the clearance lower than due or normal.	N
2.10.4	Creepage distances	(See appended table 2.10.3 and 2.10.4)	P
	CTI tests	CTI rating for all materials of minimum 100.	—
2.10.5	Solid insulation	The equipment equipped with an approved SPS.	P
2.10.5.1	Minimum distance through insulation	(See appended table 2.10.5).	P
2.10.5.2	Thin sheet material	The equipment equipped with an approved SPS.	P
	Number of layers (pcs)	Ditto.	—
	Electric strength test	(See appended table 5.2)	—
2.10.5.3	Printed boards	The PWB has a min. thickness of 0.4 mm.	P
	Distance through insulation	Minimum 0.4 mm.	P
	Electric strength test for thin sheet insulating material		—
	Number of layers (pcs)		N
2.10.5.4	Wound components	No such part.	N
	Number of layers (pcs)	Ditto.	N
	Two wires in contact inside wound component; angle between 45° and 90°	Ditto.	N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.10.6	Coated printed boards	No such part.	N
2.10.6.1	General	Ditto.	N
2.10.6.2	Sample preparation and preliminary inspection	Ditto.	N
2.10.6.3	Thermal cycling	Ditto.	N
2.10.6.4	Thermal ageing (°C)	Ditto.	N
2.10.6.5	Electric strength test	Ditto.	—
2.10.6.6	Abrasion resistance test	No such part.	N
	Electric strength test	Ditto.	—
2.10.7	Enclosed and sealed parts	No hermetically sealed components.	N
	Temperature $T_1=T_2 = T_{ma} - T_{amb} +10K$ (°C) ..	Ditto.	N
2.10.8	Spacings filled by insulating compound.....	No such part.	N
	Electric strength test	Ditto.	—
2.10.9	Component external terminations	No such part.	N
2.10.10	Insulation with varying dimensions	Insulation kept homogenous.	N

3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P
3.1.1	Current rating and overcurrent protection	All internal wiring used in the distribution of primary power protected against overcurrent and short circuit by suitably rated protective devices.	P
3.1.2	Protection against mechanical damage	The wires are routed away from sharp edges and parts which could damage insulation.	P
3.1.3	Securing of internal wiring	All wiring is reliably routed or seperated and secured.	P
3.1.4	Insulation of conductors	Uninsulated conductors have been adequately fixed to prevent, in normal use, any reduction of creepage or clearance distances below those prescribed by in 2.9.	P
3.1.5	Beads and ceramic insulators	The equipment does not have any beads or similar insulators.	N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
3.1.6	Screws for electrical contact pressure	The equipment does not have any screw-type connections.	N
3.1.7	Insulating materials in electrical connections	The equipment does not have any electrical connections that rely on insulating material for adequate contact pressure.	N
3.1.8	Self-tapping and spaced thread screws	Thread-cutting or space thread screws are not used for electrical connections. Machine screws only.	P
3.1.9	Termination of conductors	All conductors are reliably secured.	P
	10 N pull test	After 10N, distance still according to 2.10	P
3.1.10	Sleeving on wiring	Sleeves used as supplementary insulation on internal wiring are retained in position by cable tie.	P

3.2	Connection to an a.c. mains supply or a d.c. mains supply		P
3.2.1	Means of connection	See as below.	P
3.2.1.1	Connection to an a.c. mains supply	Appliance inlet.	P
3.2.1.2	Connection to a d.c. mains supply		N
3.2.2	Multiple supply connections	Each individual SPS has only one supply from the mains.	P
3.2.3	Permanently connected equipment	The unit is not a permanent connected equipment.	N
	Number of conductors, diameter (mm) of cable and conduits	Ditto.	—
3.2.4	Appliance inlets	The appliance inlet complies with IEC 60320. The power cord can be inserted without difficulties and does not support the unit.	P
3.2.5	Power supply cords		N
3.2.5.1	AC power supply cords		N
	Type		—
	Rated current (A), cross-sectional area (mm ²), AWG		—
3.2.5.2	DC power supply cords		N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
3.2.6	Cord anchorages and strain relief		N
	Mass of equipment (kg), pull (N)		—
	Longitudinal displacement (mm)		—
3.2.7	Protection against mechanical damage	No parts under this unit likely to damage the power supply cord. No sharp edges.	P
3.2.8	Cord guards	Appliance inlet is used.	N
	D (mm); test mass (g)		—
	Radius of curvature of cord (mm)		—
3.2.9	Supply wiring space		N

3.3	Wiring terminals for connection of external conductors		N
3.3.1	Wiring terminals	The equipment is not permanently equipment and not with ordinary non-detachable power supply cord.	N
3.3.2	Connection of non-detachable power supply cords		N
3.3.3	Screw terminals		N
3.3.4	Conductor sizes to be connected		N
	Rated current (A), cord/cable type, cross-sectional area (mm ²)		—
3.3.5	Wiring terminal sizes		N
	Rated current (A), type and nominal thread diameter (mm)		—
3.3.6	Wiring terminals design		N
3.3.7	Grouping of wiring terminals		N
3.3.8	Stranded wire		N

3.4	Disconnection from the mains supply		P
3.4.1	General requirement	The appliance inlet is considered to be the disconnect device.	P
3.4.2	Disconnect devices	Appliance inlet.	P
3.4.3	Permanently connected equipment	The unit is not a permanently connected equipment.	N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
3.4.4	Parts which remain energized	When disconnect device is disconnected no remaining parts with hazardous voltage in the equipment.	P
3.4.5	Switches in flexible cords	No isolation switch provided.	N
3.4.6	Single-phase equipment and d.c. equipment	The disconnect device disconnects both poles simultaneously.	P
3.4.7	Three-phase equipment	Equipment is single phase.	N
3.4.8	Switches as disconnect devices	No switch or the switch is not a disconnect device.	N
3.4.9	Plugs as disconnect devices	The appliance inlet is considered to be the disconnect device.	N
3.4.10	Interconnected equipment	No interconnections using hazardous voltages.	N
3.4.11	Multiple power sources	Only one supply connection provided.	N

3.5	Interconnection of equipment		P
3.5.1	General requirements	See as below.	P
3.5.2	Types of interconnection circuits	Interconnection circuits of SELV through the output connectors. No ELV interconnection circuits.	P
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection.	N

4	PHYSICAL REQUIREMENTS		P
4.1	Stability		P
	Angle of 10°	This appliance is of a stable mechanical construction and does not overbalance when tilted to an angle of 10 degrees from its normal upright position.	P
	Test: force (N)	Equipment is not a floor standing unit.	N

4.2	Mechanical strength		P
4.2.1	General	See as below.	P

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
4.2.2	Steady force test, 10 N	10 N were applied to components. No energy or other hazards.	P
4.2.3	Steady force test, 30 N	The equipment does not have any internal enclosures.	N
4.2.4	Steady force test, 250 N	No hazards as a result of the 250 N test. See enclosed test record.	P
4.2.5	Impact test	No hazards as a result of the impact test.	P
	Fall test	Ditto.	N
	Swing test	Ditto.	N
4.2.6	Drop test	Not Hand hold equipment	N
4.2.7	Stress relief test	See test result.	P
4.2.8	Cathode ray tubes	No such part.	N
	Picture tube separately certified	Ditto.	N
4.2.9	High pressure lamps	The equipment does not have any high pressure lamps.	N
4.2.10	Wall or ceiling mounted equipment; force (N)	No such part.	N

4.3	Design and construction		P
4.3.1	Edges and corners	All edges and corners are rounded and smooth.	P
4.3.2	Handles and manual controls; force (N)	No provided any handles and manual controls.	N
4.3.3	Adjustable controls	The equipment does not have a voltage selector	N
4.3.4	Securing of parts	No loosening of parts impairing creepage distances or clearances over supplementary or reinforced insulation is likely to occur.	P
4.3.5	Connection of plugs and sockets	No such part.	N
4.3.6	Direct plug-in equipment	According to the standard.	P
	Dimensions (mm) of mains plug for direct plug-in	Ditto.	P
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N)	Ditto.	P

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
4.3.7	Heating elements in earthed equipment	The equipment does not have any heating elements.	N
4.3.8	Batteries	No such part.	N
4.3.9	Oil and grease	The insulation of the internal wiring is not exposed to oil, grease, etc.	N
4.3.10	Dust, powders, liquids and gases	The equipment does not produce dust or employ powders, liquids or gases.	N
4.3.11	Containers for liquids or gases	The equipment does not contain liquids.	N
4.3.12	Flammable liquids	The equipment does not use any flammable liquids.	N
	Quantity of liquid (l)	Ditto.	N
	Flash point (°C)	Ditto.	N
4.3.13	Radiation; type of radiation	The equipment does not generate ionizing radiation or contain flammable liquids or gases.	N
4.3.13.1	General	Ditto.	N
4.3.13.2	Ionizing radiation	Ditto.	N
	Measured radiation (pA/kg)	Ditto.	—
	Measured high-voltage (kV)	Ditto.	—
	Measured focus voltage (kV)	Ditto.	—
	CRT markings	Ditto.	—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	Ditto.	N
4.3.13.4	Human exposure to ultraviolet (UV) radiation	Ditto.	N
	Part, property, retention after test, flammability classification	Ditto.	N
4.3.13.5	Laser (including LEDs)	Ditto.	N
	Laser class	Ditto.	—
4.3.13.6	Other types	Ditto.	N
4.4	Protection against hazardous moving parts		P
4.4.1	General	Resetting of internal components during operation does not present a risk of personal injury.	P

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
4.4.2	Protection in operator access areas	Equipment does not have any hazardous moving parts.	N
4.4.3	Protection in restricted access locations	Equipment does not have any hazardous moving parts.	N
4.4.4	Protection in service access areas	Equipment does not have any hazardous moving parts in the service access areas.	N

4.5	Thermal requirements		P
4.5.1	Maximum temperatures	See test result.	P
	Normal load condition per Annex L :	Annex L.7 applies	P
4.5.2	Resistance to abnormal heat	The transformer bobbin has been tested during the approval evaluation of power supply.	P

4.6	Openings in enclosures		P
4.6.1	Top and side openings	Openings above hazardous parts are provided with louvers, baffles, etc., which preclude the entry of objects.	P
	Dimensions (mm) :	See enclosure drawing.	—
4.6.2	Bottoms of fire enclosures	Provided metal bottom screens having a mesh with nominal openings not greater than 2 mm between centre lines and with wire diameters of not less than 0,45 mm. See drawing in photo	P
	Construction of the bottom :	See enclosure drawing.	—
4.6.3	Doors or covers in fire enclosures	No such part.	N
4.6.4	Openings in transportable equipment	Not transportable equipment.	N
4.6.5	Adhesives for constructional purposes	Adhesives not used for securement of internal barriers or screens.	N
	Conditioning temperature (°C)/time (weeks) :	Ditto.	—

4.7	Resistance to fire		P
-----	--------------------	--	---

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
4.7.1	Reducing the risk of ignition and spread of flame	Method 1: Selection and application of components and materials which minimize the possibility of ignition and spread of flame.	P
	Method 1, selection and application of components wiring and materials	Consider.	P
	Method 2, application of all of simulated fault condition tests		N
4.7.2	Conditions for a fire enclosure	With having the following components: - components with windings - wiring - semiconductor devices, transistors, diodes, integrated circuits - resistors, capacitors, inductors. The fire enclosure is required.	P
4.7.2.1	Parts requiring a fire enclosure	A fire enclosure covers all parts.	P
4.7.2.2	Parts not requiring a fire enclosure	Fire enclosure covers all parts.	P
4.7.3	Materials		P
4.7.3.1	General	The propagation of fire is minimized through the fire enclosure construction.	P
4.7.3.2	Materials for fire enclosures	Min. V-1 or better.	P
4.7.3.3	Materials for components and other parts outside fire enclosures	Decorative parts and parts outside of the fire enclosure are made of minimum HB material.	P
4.7.3.4	Materials for components and other parts inside fire enclosures	PWBs are rated min. V-1.	P
4.7.3.5	Materials for air filter assemblies	The equipment does not have any air filters.	N
4.7.3.6	Materials used in high-voltage components	No high-voltage components.	N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
5.1	Touch current and protective conductor current		P
5.1.1	General	The touch current was measured from primary to chassis.	P
5.1.2	Equipment under test (EUT)	Each individual SPS has only one supply from the mains and four SPS should be operated together when perform touch current test.	P
5.1.3	Test circuit	Using figure 5A	P
5.1.4	Application of measuring instrument	Using measuring instruments as in annex D.1.	P
5.1.5	Test procedure	The touch current was measured from primary to chassis.	P
5.1.6	Test measurements	See test result.	P
	Test voltage (V)		—
	Measured touch current (mA)		—
	Max. allowed touch current (mA)		—
	Measured protective conductor current (mA)		—
	Max. allowed protective conductor current (mA).....	Touch current does not exceed 3.5mA.	—
5.1.7	Equipment with touch current exceeding 3.5 mA		N
5.1.8	Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks		N
5.1.8.1	Limitation of the touch current to a telecommunication network and a cable distribution system		N
	Test voltage (V)		—
	Measured touch current (mA)		—
	Max. allowed touch current (mA)		—
5.1.8.2	Summation of touch currents from telecommunication networks		N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
5.2	Electric strength		P
5.2.1	General	Based on the electric strength test the use of the insulating materials within the equipment is satisfactory.	P
5.2.2	Test procedure	See test result.	P

5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation	See test result.	P
5.3.2	Motors	The equipment does not have any motors.	N
5.3.3	Transformers	The protection of the SPS and transformer are approved with the approval of the SPS.	P
5.3.4	Functional insulation..... :	Power supply is approved component; the over-current protection of the power supply ensures that no hazard occurs if there is short circuit in the SELV circuit.	P
5.3.5	Electromechanical components	No electromechanical component.	N
5.3.6	Simulation of faults	Faults in primary and secondary components and operational insulation were already considered during the approval of the SPS.	P
5.3.7	Unattended equipment	The equipment does not have any thermostats, temperature limiters, or thermal cut-outs.	N
5.3.8	Compliance criteria for abnormal operating and fault conditions	No fire propagated beyond the equipment. No molten metal was emitted.	P

6	CONNECTION TO TELECOMMUNICATION NETWORKS		N
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N
6.1.1	Protection from hazardous voltages		N
6.1.2	Separation of the telecommunication network from earth		N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
6.1.2.1	Requirements		N
	Test voltage (V)		—
	Current in the test circuit (mA)		—
6.1.2.2	Exclusions		N

6.2	Protection of equipment users from overvoltages on telecommunication networks		N
6.2.1	Separation requirements		N
6.2.2	Electric strength test procedure		N
6.2.2.1	Impulse test		N
6.2.2.2	Steady-state test		N
6.2.2.3	Compliance criteria		N

6.3	Protection of the telecommunication wiring system from overheating		N
	Max. output current (A).....		—
	Current limiting method		—

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N
7.1	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment	No provided cable distribution system.	N
7.2	Protection of equipment users from overvoltages on the cable distribution system	Ditto.	N
7.3	Insulation between primary circuits and cable distribution systems	Ditto.	N
7.3.1	General	Ditto.	N
7.3.2	Voltage surge test	Ditto.	N
7.3.3	Impulse test	Ditto.	N

A	Annex A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N
A.1.1	Samples		—
	Wall thickness (mm)		—
A.1.2	Conditioning of samples; temperature (°C) . :		N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
A.1.3	Mounting of samples		N
A.1.4	Test flame		N
A.1.5	Test procedure		N
A.1.6	Compliance criteria		N
	Sample 1 burning time (s)		—
	Sample 2 burning time (s)		—
	Sample 3 burning time (s)		—
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N
A.2.1	Samples, material.....		—
	Wall thickness (mm)		—
A.2.2	Conditioning of samples		N
A.2.3	Mounting of samples		N
A.2.4	Test flame		N
A.2.5	Test procedure		N
A.2.6	Compliance criteria		N
	Sample 1 burning time (s)		—
	Sample 2 burning time (s)		—
	Sample 3 burning time (s)		—
A.2.7	Alternative test acc. to IEC 60695-2-2, cl. 4, 8		N
	Sample 1 burning time (s)		—
	Sample 2 burning time (s)		—
	Sample 3 burning time (s)		—
A.3	Hot flaming oil test (see 4.6.2)		N
A.3.1	Mounting of samples		N
A.3.2	Test procedure		N
A.3.3	Compliance criterion		N

B	Annex B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N
B.1	General requirements	No provided motot.	N
	Position		—
	Manufacturer		—
	Type		—

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	Rated values		—
B.2	Test conditions		N
B.3	Maximum temperatures		N
B.4	Running overload test		N
B.5	Locked-rotor overload test		N
	Test duration (days)		—
	Electric strength test: test voltage (V)		—
B.6	Running overload test for d.c. motors in secondary circuits		N
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N
B.7.1	Test procedure	.	N
B.7.2	Alternative test procedure; test time (h).....		N
B.7.3	Electric strength test		N
B.8	Test for motors with capacitors		N
B.9	Test for three-phase motors		N
B.10	Test for series motors		N
	Operating voltage (V)		—

C	Annex C, TRANSFORMERS (see 1.5.4 and 5.3.3)		N
	Position		—
	Manufacturer		—
	Type		—
	Rated values		—
	Method of protection.....		—
C.1	Overload test		N
C.2	Insulation		P
	Protection from displacement of windings....		N

D	Annex D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS		P
D.1	Measuring instrument		P
D.2	Alternative measuring instrument		N

E	Annex E, TEMPERATURE RISE OF A WINDING		N
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IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
F	Annex F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10)		P

G	Annex G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N
G.1	Summary of the procedure for determining minimum clearances		N
G.2	Determination of mains transient voltage (V):		N
G.2.1	AC mains supply		N
G.2.2	DC mains supply		N
G.3	Determination of telecommunication network transient voltage (V)		N
G.4	Determination of required withstand voltage (V).....		N
G.5	Measurement of transient levels (V).....		N
G.6	Determination of minimum clearances		N

H	Annex H, IONIZING RADIATION (see 4.3.13)		N
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J	Annex J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N
	Metal used		—

K	Annex K, THERMAL CONTROLS (see 1.5.3 and 5.3.7)		N
K.1	Making and breaking capacity		N
K.2	Thermostat reliability; operating voltage (V) :		N
K.3	Thermostat endurance test; operating voltage (V)		N
K.4	Temperature limiter endurance; operating voltage (V)		N
K.5	Thermal cut-out reliability		N
K.6	Stability of operation	(see appended table 5.3)	N

L	Annex L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)		P
L.1	Typewriters		N
L.2	Adding machines and cash registers		N
L.3	Erasers		N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
L.4	Pencil sharpeners		N
L.5	Duplicators and copy machines		N
L.6	Motor-operated files		N
L.7	Other business equipment		N

M	Annex M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N
M.1	Introduction		N
M.2	Method A		N
M.3	Method B		N
M.3.1	Ringling signal		N
M.3.1.1	Frequency (Hz)		—
M.3.1.2	Voltage (V)		—
M.3.1.3	Cadence; time (s), voltage (V)		—
M.3.1.4	Single fault current (mA).....		—
M.3.2	Tripping device and monitoring voltage.....		N
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N
M.3.2.2	Tripping device		N
M.3.2.3	Monitoring voltage (V)		N

N	Annex N, IMPULSE TEST GENERATORS (see 2.10.3.4, 6.2.2.1, 7.3.2 and clause G.5)		N
N.1	ITU-T impulse test generators		N
N.2	IEC 60065 impulse test generator		N

P	Annex P, NORMATIVE REFERENCES		N
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Q	Annex Q, BIBLIOGRAPHY		N
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R	Annex R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6)		N
R.2	Reduced clearances (see 2.10.3)		N

IEC 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
S	Annex S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N
S.1	Test equipment		N
S.2	Test procedure		N
S.3	Examples of waveforms during impulse testing		N
T	Annex T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N
		See separate test report	—
U	Annex U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N
		See separate test report	—

1.5.1		TABLE: list of critical components				
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾	
PWB	--	--	V-1 min., 105°C min.	--	UL	
Power supply (max. provided four)	Chroma Ate Inc.	cPWR-1500A	I/P:100- 240Vac, 50- 60Hz, 5A O/P:5Vdc, 25A, 3.3V, 25A, 12V, 3A, - 12V, 1A	EN 60950	TUV, UL	
Inlet	--	--	Min. 10A, 250V	IEC 60320	VDE	
Circuit Breaker	--	--	Min. 15A, 250V	IEC 60934	VDE	
Fan	NMB	3610KL-04W- B50	12Vdc, 0.43A	IEC 60950	CE, UL	
¹⁾ an asterisk indicates a mark which assures the agreed level of surveillance						

ASIA SAFETY LINK INC.

Test Results and Calculations

Test data report IEC/EN 60950-1

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TEST DATA REPORT FOR IEC/EN 60 950-1

Compiled by (+ signature): Jacky Hsu



Approved by (+ signature): Jeff Chang



Date of issue: November 12, 2004

Testing laboratory: ASIA Safety Link Inc.

Address: 9F-1, No. 80, Sec. 2, Guang Fu Rd., San Chung City, Taipei Hsien, Taiwan.

Applicant: CHROMA ATE INC.

Address: 43, Wu-Chuan Road, Wu-Ku Industrial Partk, Wu-Ku, Taipei Hsien, Taiwan, R.O.C.

Type of test object: 18-Slot General Purpose Chassis

Model/type reference: PXI-52105

Standard: IEC 60950-1; 2001; EN 60950-1: 2001

Application for:

TÜV/GS-approval:

CB-approval:

National Deviation:

Service for CE marking (LVD):

Nordic Approvals:

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Tables for test results

TABLE: electrical data (in normal conditions)

Power supply AC input							
fuse #	I rated (A)	U (V)	P (W)	I (A)	I fuse (A)	condition/status	
--	--	90/50Hz	346	3.884	3.884	Max. normal load.	
--	5	100V/50Hz	340	3.432	3.432	Max. normal load.	
--	5	240V/50Hz	324	1.414	1.414	Max. normal load.	
--	--	254V/50Hz	324	1.351	1.351	Max. normal load.	
--	--	264V/50Hz	330	1.333	1.333	Max. normal load.	
--	--	90/60Hz	347	3.885	3.885	Max. normal load.	
--	5	100V/60Hz	341	3.435	3.435	Max. normal load.	
--	5	240V/60Hz	324	1.416	1.416	Max. normal load.	
--	--	254V/60Hz	323	1.353	1.353	Max. normal load.	
--	--	264V/60Hz	329	1.335	1.335	Max. normal load.	

Maximum normal load' was defined as follows: [Link mode](#)

TABLE: Enclosure Push Test:

Part/ Location	Thickness	Fore	Observations
Enclosure / TOP	--	250N	See below
Enclosure / Bottom	--	250N	See below
Enclosure / Right	--	250N	See below

During the application of the test force, clearances behind earthed or unearthed conductive enclosures were not reduced to a level that would result in an energy.

Provided for four difference enclosure.

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TABLE: IMPACT test		
Material	Impact Area	Observations
Metal	Top	See below
Metal	Left	See below
Metal	Right	See below

It was not possible to access hazardous parts.
 There was no indication of a dielectric breakdown.
 Provided for four difference enclosure.

TABLE: temperature rise measurements		P
test voltage (V)	90/264Vac, 50Hz	—
t1 (°C)	--	—
t2 (°C)	--	—
temperature rise dT of part/at:	(°C)	(°C)
1. C102 Body	49.3/46.3	
2. C104 Body	55.1/50.6	
3. T101 Coil	60.3/61.3	
4. PCB Under BD101	49.2/39.5	
5. L101 Coil	70.3/55.0	
6. PCB Under Q102	50.2/42.8	
7. C107 Body	50.8/40.2	
8. PCB Under Q207	40.8/35.9	
9. T201 Top Side Coil	56.2/50.3	
10. T201 Bottom Side Coil	50.3/48.6	
11. T201 Core	48.3/44.9	
12. U302 Body	44.9/40.6	
13. T102 Primary Side Coil	49.7/40.7	
14. T102 Core	46.0/38.5	
15. PCB Under Q201	41.7/39.5	
16. L208 Coil	55.8/49.7	
17. PCB Under Q211	50.3/44.0	
18. U1 Body	59.6/49.6	
19. Battery Body	34.2/30.2	

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20. Hard Disk Driver Body		31.7/30.2			
21. Inlet Body		45.0/44.1			
22. Circuit Breaker Body		29.1/30.2			
23. Surface of Top Enclosure		40.2/39.5			
24. Surface of Side Enclosure.		43.1/40.7			
20. Ambient Air		25.1/25.3			
temperature rise dT of winding:	R ₁ (?)	R ₂ (?)	Dt (K)	required dT (K)	insulation class
<p>Comments:</p> <p>The temperatures were measured under worst case normal mode defined in 1.2.2.1 and as described in 1.6.1 at voltages as described in 1.6.5.</p> <p>With a specified ambient temperature of 50°C for all models, the max. temperature rise is calculated as follows:</p> <p>winding components:</p> <p>- class A → dT_{max} = 75K - 10K - (50-25) = 40K</p> <p>Electrolyte capacitor or components with:</p> <p>- max. absolute temp. of 80°C → Dt_{max} = (80-50) K = 30K</p> <p>- max. absolute temp. of 105°C → dT_{max} = (105-50) K = 55K</p>					

TABLE: Touch current measurement			P
Condition	current L→accessible part (mA)	current N→accessible part (mA)	Comments
System On	0.84	0.56	To metal chassis
System On	0.70	0.70	To metal chassis
Input voltage: 264V			
Input frequency: 60Hz			

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2.1.10	TABLE: discharge test			P
Condition	37% (V)	37% (ms)	comments	
L -N	142	963		

TABLE: electric strength measurements		
test voltage applied between:	test voltage (V)	breakdown
Unit Primary to Secondary	DC 4240	No
Unit Primary to GND	DC 3000	No

5.4	TABLE: fault condition tests						P
	ambient temperature (°C)					25°C	—
	model/type of power supply					PXI-52105	—
	manufacturer of power supply					Chroma Ate Inc.	—
	rated markings of power supply						—
No.	component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result
1.	Vent	Block	240	1.5 Hours	--	1.4	Temperature stable, no danger, no damaged, transformer max. 93.3°C
2.	Fan	Stalled	240	2 Hours	--	1.4	Temperature stable, no danger, no damaged, transformer max. 106.2°C
supplementary information							

Asia Safety Link Inc.

***Measuring and Test Instruments**

Applied For Safety Inspection

Company/Test Institute: Product Safety Engineering, Inc.

Address of Test Site : 9Fl-1.,No. 80,Sec.2, Kuang Fu , Road, San Chung City, Taipei Hsien, Taiwan, R.O.C.

Person responsible for

Maintenance & Calibration : Roger Huang

Division/Department : Testing Department Leader

Date and Signature :

Jarby W. Sun

Date : 31. AUG. 04

CALIBRATION RECORD

NO	MANUF.	DESCRIPTION	MODEL NO.	SERIAL NO.	CAL. DATE	DUE DATE
1	IDRC	Power Meter	CP-350	355920	02-JUN-04	01-JUN-05
2	CHROMA	Electronic Load	6312	63120271	05-JUN-04	04-JUN-05
3	MULTI	AC/DC Clamp Meter	230	96834	16-JUL-03	15-JUL-04
4	ED&D	Test Wire	TRP-02	20915	15-DEC-03	14-DEC-04
5	Vibration Source	Reactive type vibration test	VS-5060M	2090	17-JUN-04	16-JUN-05
6	SEW	DC Ammeter	ST-2000	PSE 6	02-APR-04	01-APR-05
7	SEW	DC Ammeter	ST-2000	PSE 7	02-APR-04	01-APR-05
8	EXTECH	HIPOT, GND, INSULATION	7440	E190075	18-MAR-04	17-MAR-05
9	SEW	DC Ammeter	ST-2000	PSE 9	02-APR-04	01-APR-05
10	YOKOGAWA	Thermocouple Meter	UR1000	12V510639	08-SEP-03	07-SEP-04
11	FLUKE	Dual Display Meter	45	5865114	24-OCT-03	23-OCT-04
12	YOKOGAWA	Thermocouple Meter	UR1000	12V510633	08-SEP-03	07-SEP-04
13	FLUKE	DMM	77	40000838	02-APR-04	01-APR-05
14	FLUKE	DMM	77	53611260	11-DEC-03	10-DEC-04
15	SIMPSON	Leakage Current Meter	228	PSE 15	18-NOV-03	17-NOV-04
16	YOKOGAWA	Thermocouple Meter	UR1000	12V510637	31-AUG-04	30-AUG-05
17	SEW	DC Ammeter	ST-2000	PSE 17	02-APR-04	01-APR-05
18	ED&D	Test Hook	TH-01	20918	15-DEC-03	14-DEC-04
19	SEW	DC Ammeter	ST-2000	PSE 19	02-APR-04	01-APR-05
20	ISUZU	Thermo-Hygrograph	3-3122-01	10160772	12-AUG-04	11-AUG-05
21	YOKOGAWA	Thermocouple Meter	UR1000	12V510638	31-AUG-04	30-AUG-05
22	TOYOTA	DC Ammeter	SPC	880953	26-FEB-04	25-FEB-05
23	ED&D	Test Pin	HLP-01	20916	15-DEC-03	14-DEC-04
24	TOYOTA	DC Ammeter	SPC	880958	26-FEB-04	25-FEB-05
25	TEKTRONIX	Oscilloscope	TDS 320	B020889	04-DEC-03	03-DEC-04
26	YOKOGAWA	Thermocouple Meter	DR130	12W512516	01-JUN-04	31-MAY-05
27	PSE	Test Finger	PSE-TF01	PSE 27	28-MAY-04	27-MAY-05
28	TOYOTA	DC Ammeter	SPC	880957	02-APR-04	01-APR-05
29	ED&D	Test Rod	TRP-01	20917	15-DEC-03	14-DEC-04
30	CHROMA	Electronic Load	6314	63141170	03-JUN-04	02-JUN-05
31	TOHNICHI	TORQUE DRIVER	RTD260CN	413344N	25-JUN-04	24-JUN-05
32	IDRC	Power Meter	CP-350	355918	02-JUN-04	01-JUN-05
33	IDRC	Power Meter	CP-350	355919	03-JUN-04	02-JUN-05
34	SEW	DC Ammeter	ST-2000	PSE 34	02-APR-04	01-APR-05
35	CHROMA	Electronic Load	6314	63141173	05-JUN-04	04-JUN-05
36	SEW	DC Ammeter	ST-2000	PSE 36	02-APR-04	01-APR-05
37	PRODIGIT	Electronic Load	3301A	40601A037	21-JUL-04	20-JUL-05
38	SEW	DC Ammeter	ST-2000	PSE 38	26-FEB-04	25-FEB-05
39	PTL	Impact-Test Apparatus	F 22.50	5021025	28-JAN-04	27-JAN-05
40	SEW	DC Ammeter	ST-2000	PSE 40	26-FEB-04	25-FEB-05
41	YOKOGAWA	Thermocouple Meter	DR231-00-32-1D	12B823473	08-SEP-03	07-SEP-04
42	ED&D	Test Finger	ULP-01	20920	15-DEC-03	14-DEC-04
43	SEW	AC Ammeter	ST-2000	PSE 43	21-NOV-03	20-NOV-04
44	SEW	AC Ammeter	ST-2000	PSE 44	21-NOV-03	20-NOV-04
45	SEW	AC Ammeter	ST-2000	PSE 45	21-NOV-03	20-NOV-04

Asia Safety Link Inc.

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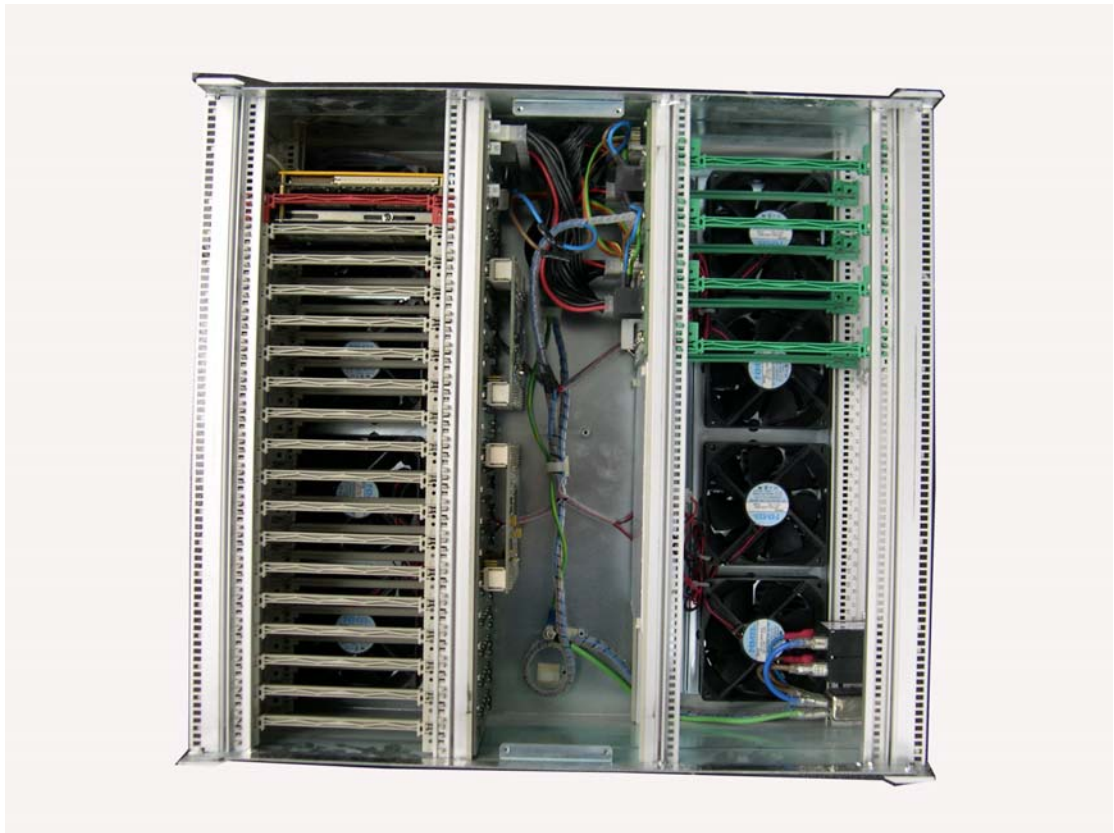
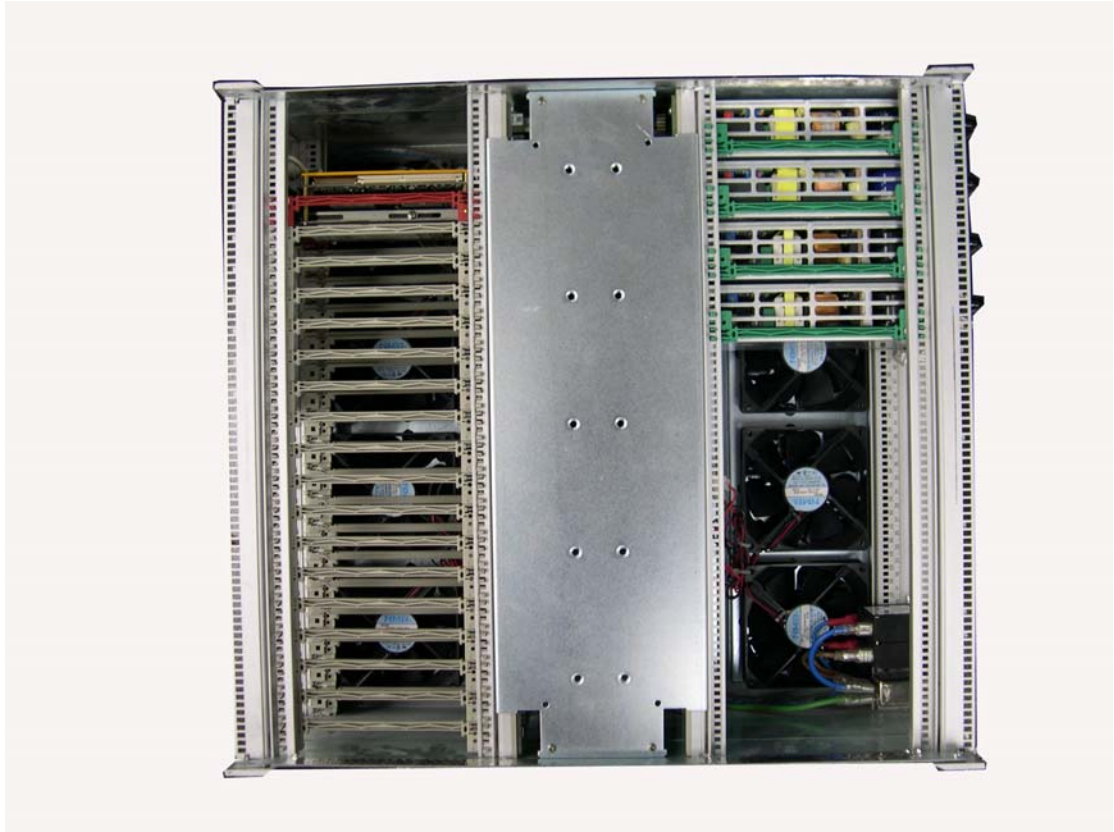
NO	MANUF.	DESCRIPTION	MODEL NO.	SERIAL NO.	CAL. DATE	DUE DATE
46	SEW	AC Ammeter	ST-2000	PSE 46	02-APR-04	01-APR-05
47	TOHNICHI	TORQUE DRIVER	RTD60CN	433336Q	25-JUN-04	24-JUN-05
48	ED&D	Test Probe	TTP-01	20919	15-DEC-03	14-DEC-04
49	SEW	DC Ammeter	ST-2000	PSE 49	26-FEB-04	25-FEB-05
50	SEW	DC Ammeter	ST-2000	PSE 50	25-JUN-04	24-JUN-05
51	IDRC	Power Meter	CP-350	355921	03-JUN-04	02-JUN-05
52	CHROMA	Electronic Load	6312	63120244	02-JUN-04	01-JUN-05
53	SEW	DC Ammeter	ST-2000	PSE 53	26-FEB-04	25-FEB-05
54	PSE	Steel Ball	PSE-BO1	PSE-54	28-MAY-04	27-MAY-05
55	CHROMA	Electronic Load	6312	63120268	01-JUN-04	31-MAY-05
56	CHUYI	IMPULSE	IEC-950	91005	26-FEB-04	25-FEB-05
57	PLT	SURGE	H 06e	5011395	08-JUL-04	07-JUL-05
58	ALGOL	Push Pull Gauge	HF-50	HF-104872	16-JUN-04	15-JUN-05
59	CHROMA	Electronic Load	6314	63141181	11-JUN-04	10-JUN-05
60	GIANT FORCE	Chamber	GTH-225-40-1P-U	MAA0406-19	27-MAY-04	26-MAY-05
61	TEKTRONIX	Oscilloscope	TDS-3032B	B015275	28-NOV-03	27-NOV-04
62	SIMPSON	Leakage Current Meter	229-2	PSE 62	01-DEC-03	30-NOV-04
63	CHROMA	Electronic Load	6312	63120269	01-JUN-04	31-MAY-05
64	YOKOGAWA	Thermocouple Meter	DR130	47JE0095	01-JUN-04	31-MAY-05
65	LUTRON	Milliohm Meter	MO-2001	L093865	10-MAR-04	09-MAR-05
66	CHROMA	Electronic Load	6314	63141179	01-JUN-04	31-MAY-05
67	SEW	DC Ammeter	ST-2000	PSE 67	07-JUL-04	06-JUL-05
68	PSE	Ball-Pressure apparatus	PSE-B02	PSE 68	28-MAY-04	27-MAY-05
69	CHROMA	Electronic Load	6304	63042081	02-JUN-04	01-JUN-05
70	PSE	Test Pin	PSE-TP01	PSE 70	02-JUN-04	01-JUN-05
71	CHROMA	Electronic Load	6312	63120257	05-JUN-04	04-JUN-05
72	OSK	Caliper	DC-6"	060286	08-SEP-03	07-SEP-04
73	CHROMA	Electronic Load	6314	63141184	01-JUN-04	31-MAY-05
74	YOKOGAWA	Thermocouple Meter	DR130	7700GC390	24-OCT-03	23-OCT-04
75	YOKOGAWA	Thermocouple Meter	DR130	7700GC387	10-NOV-03	09-NOV-04
76	POLYCAST	Pitch Angle Calculator	PATENT 4125490	PSE 76	27-JAN-04	26-JAN-05
77	CHROMA	Electronic Load	6304	63042076	02-JUN-04	01-JUN-05
78	YOKOGAWA	Power Meter	2433	69LD0026	17-AUG-04	16-AUG-05
79	PRODIGIT	Electronic Load	3302	108020118	26-AUG-04	25-AUG-05
80	PRODIGIT	Electronic Load	3301A	10701A071	04-SEP-03	03-SEP-04
81	PRODIGIT	Electronic Load	3301A	10701A074	26-AUG-04	25-AUG-05
82	PRODIGIT	Electronic Load	3302	108020107	26-AUG-04	25-AUG-05
83	PRODIGIT	Electronic Load	3302	108020106	26-AUG-04	25-AUG-05
84	PRODIGIT	Electronic Load	3302	108020104	26-AUG-04	25-AUG-05
85	PRODIGIT	Electronic Load	3302	108020105	26-AUG-04	25-AUG-05
86	PRODIGIT	Electronic Load	3302	108020099	27-AUG-04	26-AUG-05
87	PRODIGIT	Electronic Load	3301A	10801A078	15-SEP-03	14-SEP-04
88	PRODIGIT	Electronic Load	3301A	10801A079	08-SEP-03	07-SEP-04
89	PRODIGIT	Electronic Load	3301A	10801A077	15-SEP-03	14-SEP-04
90	PRODIGIT	Electronic Load	3301A	10801A076	08-SEP-03	07-SEP-04
91	CASIO	Timekeeper	HS-5	1B02P291	05-NOV-03	04-NOV-04
92	YOKOGAWA	THERMQ RECORDER	DR 130	12W512515	26-JUN-04	25-JUN-05
93	PSE	Over Voltage Machine	CS90104	IJ-0354,IJ-0434	28-APR-04	27-APR-05
94	YOKOGAWA	THERMQ RECORDER	DR 130	27D518761	16-JUN-04	15-JUN-05
95	YOKOGAWA	THERMQ RECORDER	DR 130	27D236826	16-JUN-04	15-JUN-05
96	YOKOGAWA	THERMQ RECORDER	DR 130	27D236828	16-JUN-04	15-JUN-05
97	PRODIGIT	Electronic Load	3302	406020122	02-JUL-04	01-JUL-05
98	PRODIGIT	Electronic Load	3302	406020129	02-JUL-04	01-JUL-05
99	PRODIGIT	Electronic Load	3302	406020125	02-JUL-04	01-JUL-05
100	PRODIGIT	Electronic Load	3302	406020119	02-JUL-04	01-JUL-05
101	PRODIGIT	Electronic Load	3301A	40201A027	02-JUL-04	01-JUL-05
102	YOKOGAWA	THERMQ RECORDER	DR230	27D631525	02-JUL-04	01-JUL-05
103	PRODIGIT	Electronic Load	3301A	40601A035	21-JUL-04	20-JUL-05
104	PRODIGIT	Electronic Load	3301A	40601A036	21-JUL-04	20-JUL-05
105	PRODIGIT	Electronic Load	3301A	40601A038	21-JUL-04	20-JUL-05
106	PRODIGIT	Electronic Load	3302	405020066	21-JUL-04	20-JUL-05
107	PRODIGIT	Electronic Load	3302	405020080	21-JUL-04	20-JUL-05

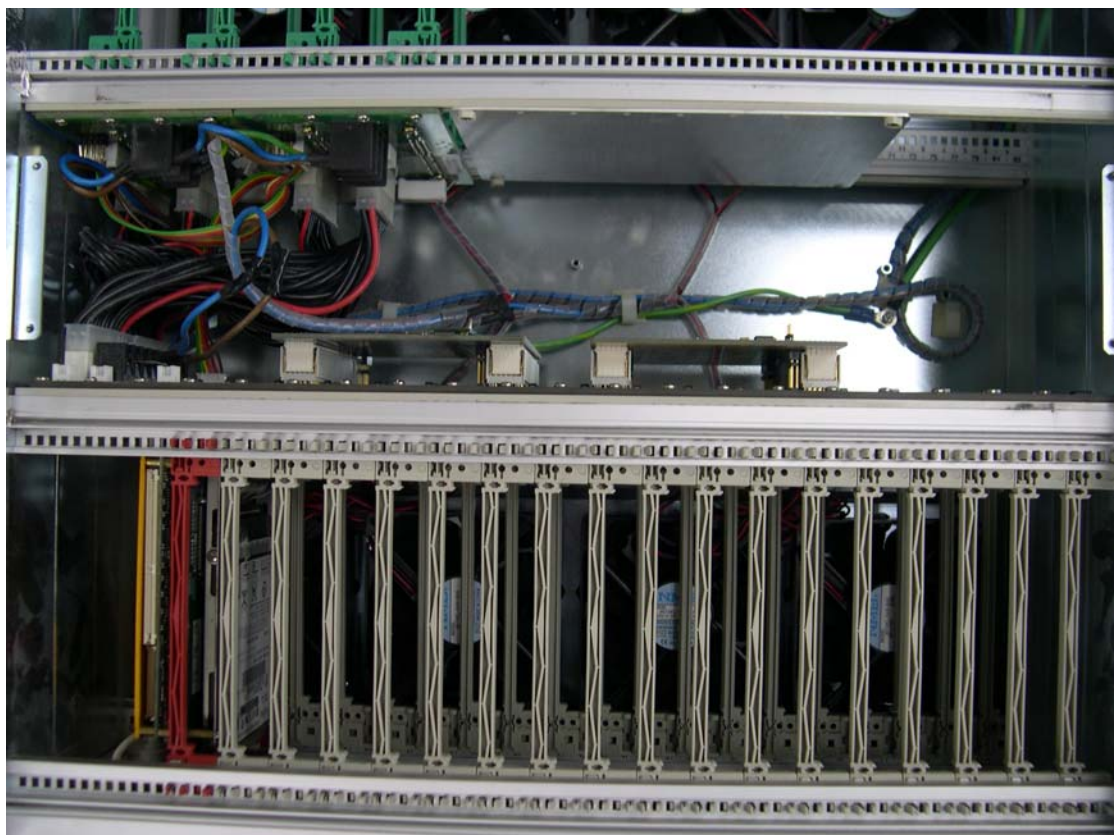
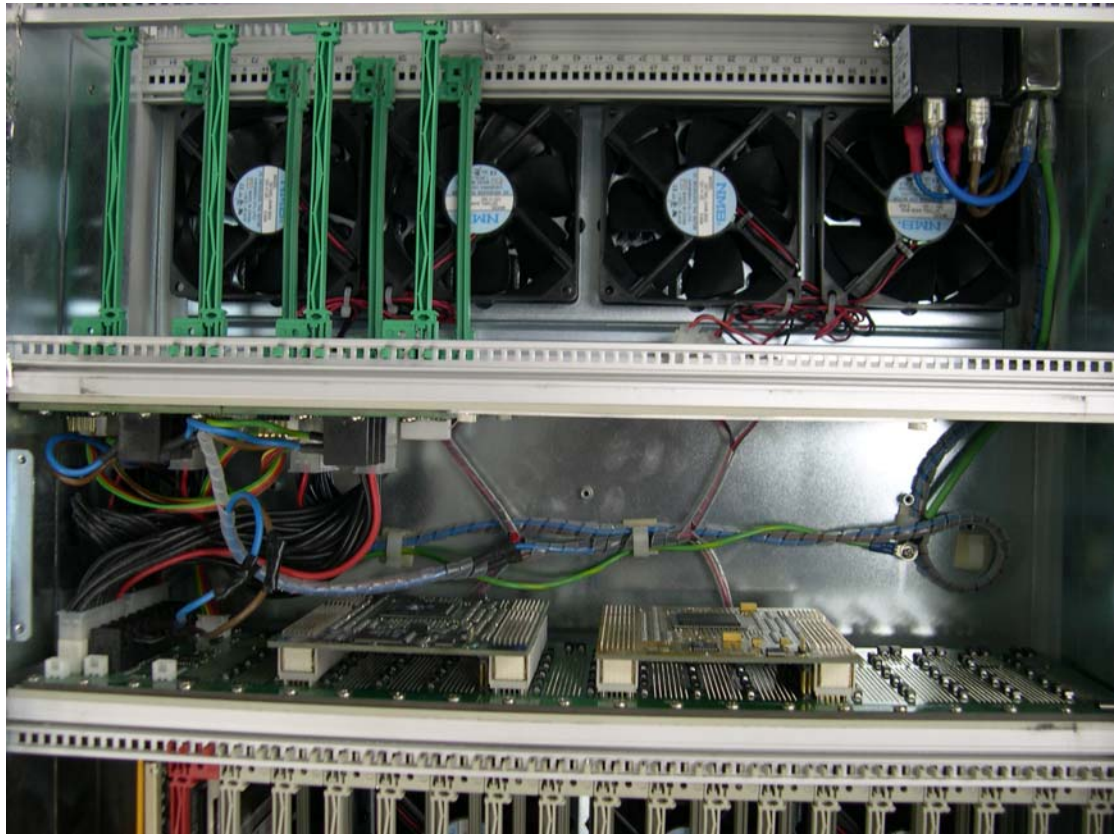
ASIA SAFETY LINK INC.

User's Instruction and Photos



93-0947







DC Output : 175 W
+5V/25A +3.3V/25A +12V/3A -12V/1A

3603

CAUTION

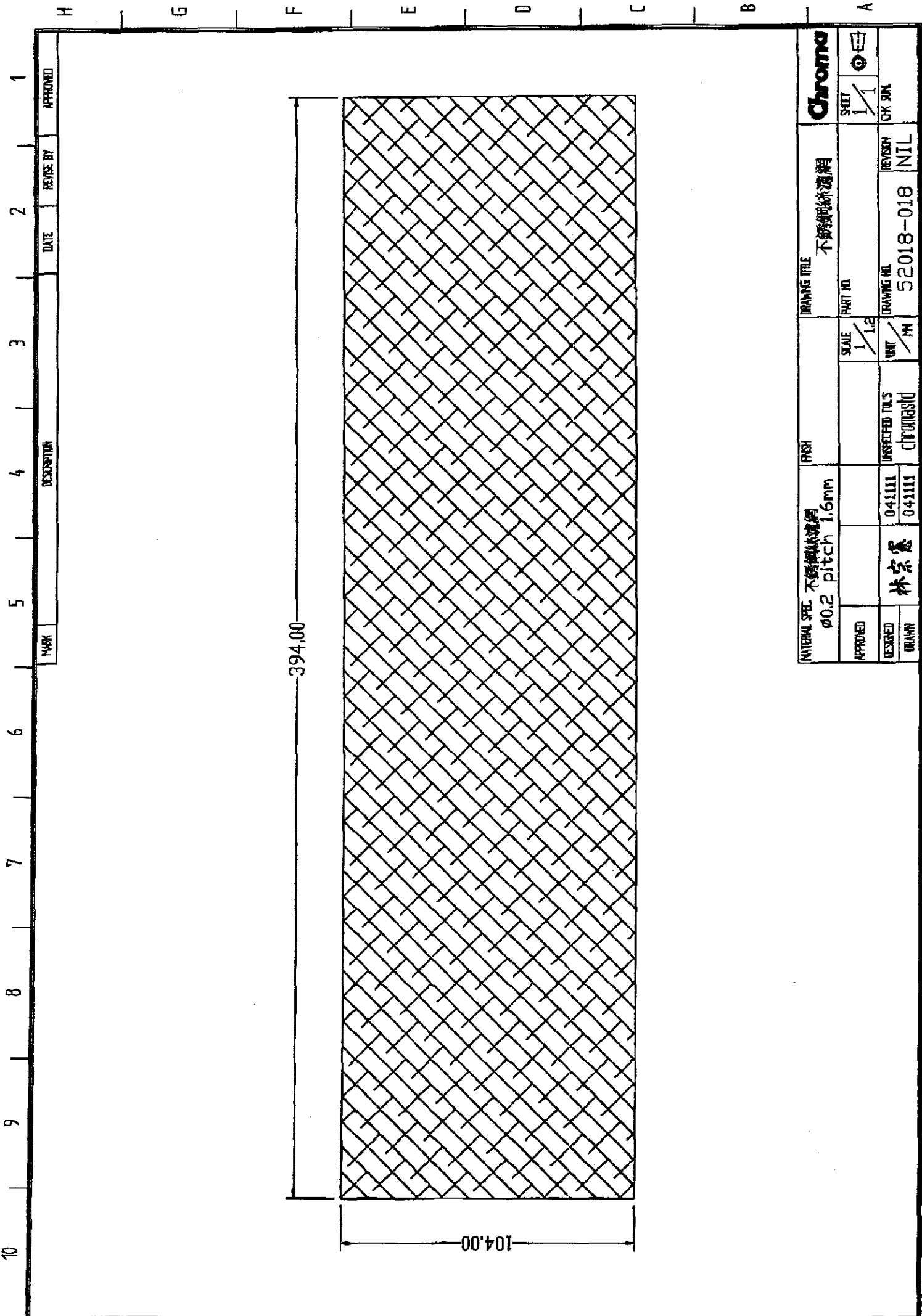


Be sure that the socket of the backplane on the chassis is Positronic PCIH47F300A1 PCI47F300A1 defined by PICMG before inserting the power supply to the chassis if the power supply is forcibly inserted, it and its connector of the chassis will be damaged. There are no serviceable components inside. Serious shock hazards are present inside the power supply case, even with the power switch off.



c **FAI** US **FC** **CE**

MADE IN TAIWAN



APPROVED

REVISE BY

DATE

DESCRIPTION

MARK

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INTERNAL SPEC. 不銹鋼網 Ø0.2 pitch 1.6mm		DRAWING TITLE 不銹鋼網		Chroma	
APPROVED	SCALE 1/1.2	PART NO.	SHEET 1/1	CHK SUN	
DESIGNED 林宗憲	UNSELECTED TOLS CT0018510	DRAWING NO. 52018-018	REVISION		
DRAWN	041111 041111	UNIT /M	NIL		

999-9169

CHROMA ATE INC.

PXI-52105

Wichtige Sicherheitshinweise

- 1. Bitte lesen Sie diese Hinweise sorgfältig durch**
- 2. Heben Sie diese Anleitung für den späteren Gebrauch auf.**
- 3. Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie keine Flüssig-oder Aerosolreiniger. Am besten eignet sich ein angefeuchtetes Tuch zur Reinigung.**
- 4. Das Gerät ist vor Feuchtigkeit zu schützen.**
- 5. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Beschädigungen hervorrufen.**
- 6. Die Belüftungsöffnungen dienen der Luftzirkulation, die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.**
- 7. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.**
- 8. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.**
- 9. Alle Hinweise und Warnungen, die sich am Gerät befinden, sind zu beachten.**
- 10. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.**
- 11. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.**
- 12. Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von autorisiertem Servicepersonal geöffnet werden.**
- 13. Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:**
 - a - Netzkabel oder Netzstecker sind beschädigt.**
 - b - Flüssigkeit ist in das Gerät eingedrungen.**
 - c - Das Gerät war Feuchtigkeit ausgesetzt.**
 - d - Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.**
 - e - Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.**
 - f - Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.**
- 14. Der arbeitsplatzbezogene Schalldruckpegel nach DIN 45 645 beträgt 70dB(A) oder weniger.**

ASIA SAFETY LINK INC.

Design and Technical Construction