



# LVD Test Report

Project No. 50310201-LV  
Equipment Panel PC  
Trade Name AAEON  
Model No. APC-8122HTX-YY  
Issued Date May, 04, 2005

**Issued to**

AAEON Technology Inc  
5F,No.135,Lane 235, Pao Chiao Rd.,Hsin-Tien  
City,Taipei,Taiwan,R.O.C.

**Declaration :**

CCS represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (NML) of R.O.C., or National Institute of Standards and Technology (NIST) of U.S.A.

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\_\_\_\_\_  
(Tested By): Safety Engineer

\_\_\_\_\_  
(Reviewed By) : Reviewer

\_\_\_\_\_  
(Authorized Signature) : Safety Lab. Supervisor

**Compliance Certification Services Inc.**

No.11, Wu-Gong 6th Rd, Wu Gu Industrial Park,  
Taipei Hsien, Taiwan

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<b>TEST REPORT</b>	
<b>EN 60950</b>	
<b>Safety of Information Technology Equipment including Electrical Business Equipment</b>	
Report reference No. ....	50310201-LV
Tested by ( + signature) .....	See Cover Sheet
Approved by ( + signature) .....	See Cover Sheet
Date of issue .....	See Cover Sheet
Date of receipt	2005-04-29
Testing laboratory .....	Compliance Certification Services Inc.
Location.....	No.11, Wu-Gong 6th Rd, Wu Gu Industrial Park, Taipei Hsien, Taiwan
Applicant.....	AAEON Technology Inc
Address:.....	5F,No.135,Lane 235, Pao Chiao Rd.,Hsin-Tien City,Taipei,Taiwan,R.O.C
Standards.....	73/23/EEC IEC 60950-1:2001 EN 60950-1:2001
Procedure deviation.....	N/A
Non-standard test method.....	N/A
Type of test equipment .....	Panel PC
Trade mark.....	AAEON
Model/Type designation.....	APC-8122HTX-YY
Manufacturer.....	AAEON Technology Inc 5F,No.135,Lane 235, Pao Chiao Rd.,Hsin-Tien City,Taipei,Taiwan,R.O.C
Rating.....	100-240Vac, 50-60Hz,5-3A
Copyright TRF.....	This test report is based on a blank TRF(Test Report Form Ref. No. 1950 C, dated 95-10) that was prepared by KEMA. The copyright of blank test report is belong to the CCB body of KEMA.



Test item particulars:	
Equipment mobility .....	Movable equipment
Operating Condition.....	Continuous
Tested for IT power systems.....	No
IT testing, phase-phase voltage ( V).....	N/A
Class of equipment.....	Class I
Mass of equipment.(Kg).....	8.86kg
Protection against ingress of water.....	IPX0
Possible test case verdicts:	
-Test case does not apply to the test object.	N(.A.)
-Test object does meet the requirement.	P(ass)
-Test object does not meet the requirement.	F(ail)
General Remarks:	
"(see remark #) refers to a remark 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	
The test results presented in this report relate only to the object tested.	



Comments:

Brief description of the test sample:

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This equipment model APC-8122HTX-YY is a Panel PC for general office use. Supplies approval built-in switching power supply, model:FSP250-50PLB by FSP Group Inc

All models are identical to each other except for model name only

All tests were performed by model APC-8122HTX-YY to represent the other identical models. The test sample were pre-production sample without serial numbers.

Model designation: APC-8122HTX-YY

Where X = T, touch panel function. YY = 0~9, A~Z, system version No.

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Unless otherwise specified, all tests were performed on model QSentia to represent other similar models. The test sample is pre-production without serial numbers.



<b>1</b>	<b>GENERAL</b>		<b>P</b>
1.5	Components		<b>P</b>
1.5.1	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 tables)	<b>P</b>
1.5.2	Evaluation and testing 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.	<b>P</b>
	Dimensions (mm) of mains plug for direct plug-in...:	Not direct plug in.	<b>N</b>
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N)	Not direct plug in.	<b>N</b>
1.5.3	Transformers	Transformer used is suitable for their intended application and comply with the relevant requirements of the standard.	<b>P</b>
1.5.4	Flammability class of high voltage components (component; manufacturer; flammability) ...:	No high voltage components used.	<b>N</b>
1.5.5	Interconnecting cables	Interconnecting cables comply with the relevant requirements of this standard	<b>P</b>
1.5.6	Capacitors	X capacitor meets the applicable requirements tested in IEC 60384-14:1993. Y capacitor comply with IEC 60384-14:1993	<b>P</b>

1.6	Power interface	Class I equipment	<b>N</b>
1.6.1	Input current	The steady state input current of the equipment did not exceed the rated current by more than 10% under normal load	<b>P</b>
1.6.2	Rated voltage of hand-held equipment	Movable equipment	<b>N</b>
1.6.3	Neutral conductor insulated from earth	Neutral is insulated from earth with basic insulation	<b>P</b>
1.6.4	Components connected between phase and earth in equipment intended for IT power system	Equipment was not applied for the IT power system.	<b>N</b>
1.6.5	Rated supply tolerance (V) ...:		<b>N</b>

1.7	Marking and instructions		<b>P</b>
1.7.1	Rated voltage (V)...:	100-240Vac	<b>P</b>



	Symbol of nature of supply for dc ...:	Supply AC source	<b>P</b>
	Rated frequency (Hz) ...:	50-60Hz	<b>P</b>
	Rated current (A) .....	100Vac 5A 240Vac 3A	<b>P</b>
	Manufacturer .....	AAEON Technology Inc	<b>P</b>
	Trademark .....	AAEON	<b>P</b>
	Type/model .....	APC-8122HTX-YY	<b>P</b>
	Symbol of Class II	Class I equipment	<b>N</b>
	Certification marks. ....:	CE	<b>P</b>
1.7.2	Safety instructions	Installation instruction with directions to maintain the requirements of IEC 60950 with installation in the final system assembly.	<b>P</b>
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	<b>N</b>
1.7.4	Marking for voltage setting/frequency Setting	Approval Built in switching power supply mark voltage setting	<b>P</b>
1.7.5	Marking at outlets .....	No outlet	<b>N</b>
1.7.6	Marking at fuse-holders .....	Marking adjacent to fuse on PWB by Built in power supply comply with standard	<b>P</b>
1.7.7.1	Protective earth terminals	Appliance inlet used	<b>P</b>
1.7.7.2	Terminal for external primary power supply conductors	The equipment with appliance inlet, which is intended to use the detachable type power supply cord	<b>N</b>
1.7.8.1	Identification and location of switches and controls .....	No display on switch	<b>N</b>
1.7.8.2.	Colors of controls and indicators .....	See below.	<b>P</b>
1.7.8.3	Symbols according to IEC 60417.....:	Marking for stand-by type switch according IEC 60417, No.5009(Line half inside circle)	<b>P</b>
1.7.8.4	Figures used for marking.....:	Figures are not used for indicating different positions of controls.	<b>P</b>
1.7.8.5	Location of markings and indications for switches and controls .....	The marking of the switch in located near above the switch knob..	<b>P</b>
1.7.9	Supply when more than one power supply .....	Only operated on one power source	<b>N</b>
1.7.10	Instructions for installation to IT power system	For compliance has to be evaluated during the national approved.	<b>N</b>
1.7.11	Instructions when protection relies on building installation	Dto.	<b>N</b>
1.7.12	Marking when leakage current is more than 3.5mA	Equipment no exceed 3.5mA	<b>P</b>
1.7.13	Marking at thermostats	No thermostats.	<b>N</b>
1.7.14	Language of safety marking/instructions	Installation instruction in English, marking	<b>P</b>



		in English.	
	Language .....	English	--
1.7.15	Durability and legibility	The label was subjected to the permanence of marking test. The label was rubbed with cloth for 15sec. and then again for 15sec. with the cloth soaked with HEXANE. After this test there was no damage to the label. The marking on the label did not fade. There was not curling nor lifting of the label edge.	<b>P</b>
1.7.16	Removable parts	No markings placed on removable parts.	<b>P</b>
1.7.17	Warning text for replaceable lithium batteries	Provide warning text in safety instruction	<b>N</b>
	Language .....		--
1.7.18	Operator access with a tool .....	There is no hazard that can be touched by operator access with a tool.	<b>P</b>
1.7.19	Equipment for restricted access locations .....	No restricted access locations	<b>N</b>

<b>2</b>	<b>Protect From Hazards</b>		<b>P</b>
2.1	Protection against electric shock and energy hazards	Supply from the approved power which is considered to carry SELV at below 240VA only. No risk of electrical shock or energy hazards.	<b>P</b>
2.1.1	Access to energized	See below	<b>P</b>
2.1.2	Protection in operating access areas	The accessibility of TNV-voltages is prevented within the final system. The inspection with test pin and test finger should therefore be conducted with the approval of the end system.	<b>P</b>
	Test by inspection.....:	Operator can not contact with any parts with only basic insulation to ELV or hazardous voltage	<b>P</b>
	Test with test finger.....:	The test finger was unable to contact bare hazardous parts, basic insulation, or ELV Circuits.	<b>P</b>
	Test with test pin.....:	The test pin was unable to contact bare hazardous parts	<b>P</b>
2.1.3.1	Insulation of internal wiring in an ELV circuit accessible to operator	Internal wiring in an ELV circuit is not user accessible	<b>N</b>
	Working voltage (V); distance (mm) through insulation .....		--
2.1.3.2	Operator accessible insulation of internal wiring at hazardous voltage	operator accessible insulation of internal wiring not hazardous voltage	<b>N</b>
2.1.4.1	Protection in service access areas	No bare parts operating at Hazardous voltages in a service access area.	<b>N</b>
2.1.4.2	Protection in restricted access	The unit is not intended to be used in restricted locations	<b>N</b>



	locations		
2.1.5	Energy hazard in operator access area	The output of the power supply is not an energy hazard.	<b>N</b>
2.1.6	Clearances behind conductive enclosures	Equipment for building-in	<b>N</b>
2.1.7	Shafts of manual controls.	None at ELV or hazardous voltage.	<b>N</b>
2.1.8	Insulation of manual controls.		<b>N</b>
2.1.9	Conductive casings of capacitors	Casings of capacitors are considered as if directly connected to the respective circuitry. None at hazardous voltage accessible.	<b>N</b>
2.1.10	Risk of electric shock from stored charge on capacitor connected to mains circuit	No risk of electric shock	<b>P</b>
	Time-constant (s); measured voltage (V):	Time constant less than 1 second.	--

2.2	Insulation	Insulation The unit is supplied from approved power supply that provides SELV.	<b>P</b>
2.2.1	Methods of insulation	The insulation materials provided in the equipment with adequate thickness and adequate creepage distance over their surface and clearance distance through air.	<b>P</b>
2.2.2	Insulation materials	Natural rubber, asbestos or hygroscopic materials are not used.	<b>P</b>
2.2.3	Humidity treatment	Total time elapsed: 48h	<b>P</b>
	Humidity (%)	93% R.H.	--
	Temperature (°C)	28°C	--
2.2.4	Requirements for insulation	Please refer to 5.3,2.9 and 5.1	<b>P</b>
2.2.5	Insulation parameters	Both parameters were considered.	<b>P</b>
2.2.6	Categories of insulation	The adequate levels of safety insulation is provided and maintained to comply with the requirements of this standard.	<b>P</b>
2.2.7.1	General rules for working voltage		<b>N</b>
2.2.7.2	Clearances in primary circuits	No primary circuits.	<b>N</b>
2.2.7.3	Clearances in secondary circuits	Considered	<b>P</b>
2.2.7.4	Creepage distances	Considered	<b>P</b>
2.2.7.5	Electric strength tests	Considered	<b>P</b>
2.2.8	Double or reinforced insulation bridged by components	No bridging components.	<b>N</b>
2.2.8.1	Bridging capacitors		<b>N</b>
2.2.8.2	Bridging resistors		<b>N</b>
2.2.8.3	Accessible parts		<b>N</b>





2.3	Safety extra-low voltage (SELV) circuits		<b>P</b>
2.3.1	Voltage (V) of SELV circuits under normal operating conditions and after a single fault .....	See 2.3.2 and 2.3.3.	--
2.3.2	Voltage (V) between any two parts of SELV circuit(s) and for Class I equipment between any parts of SELV circuit any protective earthing terminal.....:	All accessible voltages are less than 42.4V peak or 60Vdc are classified as SELV.	<b>P</b>
2.3.3	Voltage(V) of SELV in the event of a single failure of basic or supplementary insulation or of a component.....:	Under fault conditions voltages never exceed 71Vpeak and 120Vdc and do not exceed 42.4 Vpeak or 60V dc for more than 0.2Sec	<b>P</b>
	Method used for separation.....:	Hazardous voltage wiring which	<b>P</b>
2.3.4	Additional constructional requirements	IEC 60083d IEC 60320 connectors are not used in SELV.	<b>N</b>
2.3.5	Connection of SELV circuits to other circuits	No direct connection between SELV and any primary circuits	<b>P</b>

2.4	Limited current circuits		<b>P</b>
	Test voltage (V).....:	Input: 254Vac /60Hz	<b>P</b>
2.4.2	Measured current (mA).....:	See append table	<b>P</b>
2.4.3	Measured capacitance (uF):		<b>N</b>
2.4.4	Measured charge (uC).....:		<b>N</b>
2.4.5	Measured energy (mJ).....:		<b>N</b>

2.5	Provisions for protective earthing		<b>P</b>
2.5.1	Class I equipment.	Accessible part are earthed	<b>P</b>
	Warning label in service personnel	No service works	<b>N</b>
2.5.2	Protective earthing in Class II equipment	Class I equipment	<b>N</b>
2.5.3	Switches/fuses in earthing conductors	No earthing conductor.	<b>N</b>
2.5.4	Assured earthing connection for Class I equipment in systems comprising Class I and Class II equipment	Approval Power supply comply with requirement	<b>N</b>
2.5.5	Green/yellow insulation		<b>N</b>
2.5.6	Continuity of earth connection		<b>N</b>
2.5.7	Marking and breaking of protective earthing connections.		<b>N</b>
2.5.8	Disconnection protective earthing connections	.	<b>N</b>
2.5.9	Protective earthing terminals for fixed supply conductors for non-detachable power supply cords		<b>N</b>
2.5.10	Corrosion resistance		<b>N</b>



2.5.11	Earth connector resistance < 0.1Ω	<100mΩ	<b>P</b>
	Test current (A).....:		--

2.6	Primary power isolation	The unit is supplied from approved power supply that provide SELV.	<b>N</b>
2.6.1	Disconnect device		<b>N</b>
2.6.2	Type of disconnect device:		<b>N</b>
2.6.3	Disconnect device in permanently connected equipment		<b>N</b>
2.6.4	Protection of service personal		<b>N</b>
2.6.5	Isolating switch in a flexible cord		<b>N</b>
2.6.6	Disconnection of both poles simultaneously for single-phase equipment		<b>N</b>
2.6.7	Disconnection of all phases for three-phase equipment		<b>N</b>
2.6.8	Marking of switch acting as disconnect Device.		<b>N</b>
2.6.9	Installation instructions if plug on power supply cord acts as disconnect device		<b>N</b>
	Language -----:		--
2.6.11	Disconnection of group of units.		<b>N</b>
2.6.12	Marking at each disconnect device		<b>N</b>

2.7	Over current and earth fault protection in primary circuits		<b>P</b>
2.7.1	Basic requirements	Protective devices are integrated in the equipment	<b>P</b>
2.7.2	Protection against faults not covered in 5.4	The protection devices are well dimensioned and mounted	<b>P</b>
2.7.3	Adequate breaking capacity .....		<b>N</b>
2.7.4	Number and location .....	Only one protective device in the "LIVE" phase	<b>P</b>
2.7.5	Protection by several devices	Only one protective device is provide	<b>N</b>
2.7.6	Warning to service personnel	No service works	<b>N</b>

2.8	Need of safety interlock	No operator accessible areas which presents hazards in the meaning of this standard	<b>N</b>
2.8.2	Design		<b>N</b>
2.8.3	Protection against inadvertent reactivation		<b>N</b>
2.8.4	Reliability		<b>N</b>



2.8.5	Override system		N
2.8.6.1	Contact gap (m).....:		N
2.8.6.2	Switch performing 50 cycles		N
2.8.6.3	Electric strength test: test voltage (V)..:		N
2.8.7	Protection against overstress		N

2.9	Clearance, creepage distances and distance through insulation	Power supply from approved power source which consider carry SELV at. No risk of electrical shock or energy hazards.	P
	Nominal voltage(V).....:		--
2.9.2	Clearances		N
2.9.2.1	Clearances in primary circuits		N
2.9.2.2	Clearances in secondary circuits		N
2.9.3	Creepage distances		N
	CTI tests.....:		--
2.9.4.1	Distances through insulation		N
2.9.4.2	Thin sheet material		N
	number of layers (PCS)..:		N
	Electrical strength test: voltage(V):		N
2.9.4.3	Printed boards		N
	Distance (mm) through insulation..:		N
	Electric strength test at voltage (V) for thin sheet insulating material.:		N
	Number of layers (pcs)		N
2.9.4.4	Wound components without interleaved insulation		N
	Electric strength test at voltage (V) for accessible insulation of wire .....		N
	Test for additional thin film or other insulation		N
	Two wires in contact inside component; angle > 45°		N
	Routine testing for finished component		N
2.9.5	Distances (mm) on coated printed boards .....	No coated printed wiring boards	N
	Routine testing for electric strength		N
2.9.6	Internal creepage distance in hermetically sealed components	No hermetically sealed components.	N
2.9.7	Internal distances in potted components		N
2.9.8	Spacings between external terminations of components		N



2.9.9	Insulation with varying dimensions		<b>N</b>
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2.10	Interconnection of equipment		<b>P</b>
2.10.1	Connection of SELV and TNV circuits...:	This unit is not considered for connection to TNV	<b>N</b>
2.10.2	Type of interconnection circuits...:	Interconnection circuits of SELV through the connector. No ELV interconnection circuits.	<b>P</b>
2.10.3	Connection to host equipment	No ELV interconnection	<b>P</b>

2.11	Limited power source		<b>N</b>
	Use of limited power source...:		<b>N</b>

<b>3</b>	<b>WIRING, CONNECTIONS AND SUPPLY</b>		<b>P</b>
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3.1	General		<b>P</b>
3.1.1	Cross-sectional area of internal wiring/interconnecting cables	Internal wiring marking VW-1 300V 80	<b>P</b>
	Protection of internal wiring and interconnection cables	Primary power distribution comply with clearance clepage distance requirement	<b>P</b>
3.1.2	Wire-ways	Wires do not touch sharp edges and heat sinks which could damage the insulation and cause hazard.	<b>N</b>
3.1.3	Fixing of internal wiring	Internal wiring marking VW-1 300V 80	<b>P</b>
3.1.4	Fixing of uninsulated conductors	Securely held on PCB. No hazard.	<b>P</b>
3.1.5	Insulation of internal wiring		<b>N</b>
3.1.6	Wires colored green/yellow only protective earth connection	Approval power supply wires colored green/yellow	<b>N</b>
3.1.7	Fixing of beads and similar ceramic insulators	Not used.	<b>N</b>
3.1.8	Required electrical contact pressure	No requirements for electrical contact pressure.	<b>N</b>
3.1.9	Reliable electrical connections	All current carrying connections are metal to metal.	<b>P</b>
3.1.10	End of stranded conductor	No soft soldered wires under contact pressure.	<b>N</b>
3.1.11	Use of spaced thread screws/thread-cutting screws	No self-tapping screws are used.	<b>P</b>

3.2	Connection to primary power	Supply from approve power source	<b>N</b>
3.2.1	Type of connection .....	Powered by battery and serial port	<b>N</b>
	Design of product with more than one supply connection.....:	Only one supply connection.	<b>N</b>



3.2.2	Provision for permanent connection.....:	See clause 3.2.1	<b>N</b>
	Size (mm) of cables and conduits..:		<b>N</b>
3.2.3	Appliance inlet	The appliance inlet complies with IEC 60320. The power cord can be inserted without difficulties and does not support the Unit	<b>N</b>
3.2.4	Type and cross-sectional area (mm <sup>2</sup> ) of power supply cord.....:		<b>N</b>
3.2.5	Cord anchorage	Appliance inlet is used	<b>N</b>
	Test: 25 times; 1 s; pull (N).....:		<b>N</b>
	Longitudinal displacement 2 mm...:		--
3.2.6	Protection of power supply cord	Power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer	<b>P</b>
3.2.7	Cord guard	No cord guard	<b>N</b>
	D (mm).....:		--
	Test: mass (g).....:		--
	Radius of curvature of the cord 1.5 D		<b>N</b>
3.2.8	Supply wiring space		<b>N</b>

3.3	Wiring terminals for external power supply conductors		<b>N</b>
3.3.1	Terminals		<b>N</b>
3.3.2	Special non-detachable cord		<b>N</b>
	Type of connection.....:		--
	Pull test at 5 N		<b>N</b>
3.3.3	Screws and nuts		<b>N</b>
3.3.4	Fixing of conductors		<b>N</b>
3.3.5	Connection of connectors		<b>N</b>
3.3.6	Size of terminals		<b>N</b>
	Nominal thread diameter (mm)..:		<b>N</b>
3.3.7	Protection against damage of conductors		<b>N</b>
3.3.8	Terminal location		<b>N</b>
3.3.9	Test with 8 mm stranded wire		<b>N</b>



<b>4</b>	<b>PHYSICAL REQUIREMENTS</b>		<b>P</b>
4.1	Stability and mechanical hazards	See below	<b>P</b>
4.1.1	Stability tests	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	<b>P</b>
	Angle of 10	The unit is intended to use on desktop and is a stable mechanical Construction and does not overbalance.	<b>P</b>
	Test: force (N).....:	Equipment is not a floor-standing unit.	<b>N</b>
4.1.2	Protection against personal injury	No moving parts.	<b>N</b>
4.1.3	Warning and means provided for stopping the moving part .....	No accessible moving parts.	<b>N</b>
4.1.4	Edges and corners	Edges and corners of the enclosure are rounded	<b>N</b>
4.1.5	Enclosure of a high pressure lamp	No lamp with cold pressure of 0.2MPa or hot pressure 0.4MPa.	<b>N</b>

4.2	Mechanical strength and stress relief Built-in component, no enclosure, no cathode ray tube.		<b>P</b>
4.2.2	Internal enclosures 30 ± 3 N ; 5 S		<b>N</b>
4.2.3	External enclosures 250 ± 10 N; 5 S	250N were applied to the outer enclosure. No energy or other hazards.	<b>P</b>
4.2.4	Steel ball tests		<b>P</b>
	Fall test	500g steel sphere ball fall, from 1.3m high onto outer plastic enclosure near power supply circuit.	<b>P</b>
	Swing test	500g steel sphere ball as pendulum onto outer plastic enclosure near power supply circuit	<b>P</b>
4.2.5	Drop test		<b>N</b>
4.2.6	Heat test for enclosures of moulded or formed thermoplastic materials: 7 h; T ( C ) .....	After 7hours at 70 and cooling down to room temperature, no shrinkage, distortion or loosening any enclosure part was noticeable on the equipment. The tests were done for all enclosure materials	<b>P</b>
4.2.7	Compliance		<b>N</b>
4.2.8	Mechanical strength of cathode ray tubes		<b>N</b>

4.3	Construction details		<b>P</b>
4.3.1	Changing of setting for different power supply voltages	Power settings device built in the approval power supply .	<b>N</b>
4.3.2	Adjustment of accessible control devices		<b>N</b>
4.3.4	Prevention of dangerous concentration of		<b>N</b>
		Equipment in intended use not considered	<b>N</b>



	dust, powder, liquid and gas	to be exposed to these.	
4.3.5	Fixing of knobs, grils, handles, levers		<b>P</b>
	Test:force (N).....:	Knob clamped on front bezel. Test with 30N passed	<b>P</b>
4.3.6	Driving belts/couplings shall not ensure electrical insulation	Not used for insulation	<b>N</b>
4.3.7	Rataining of sleeves	No sleeves.	<b>N</b>
4.3.9	Protection of loosening parts	Electrical connection can be expected to withstand usual mechanical stress.	<b>P</b>
4.3.11	Resistance to oil and grease	Insulation not in contact with oil or grease.	<b>N</b>
4.3.12	Protection against harmful concentration of ionizing radiation, ultraviolet light, laser or flammable gases (for laser see IEC 825-1)	No ionizing radiation, UV light, LED, laser or flammable gases presents.	<b>N</b>
4.3.13	Securing of screwed connections	No connection likely to be exposed to mechanical stress provided in unit.	<b>P</b>
4.3.15	Openings in the top of enclosure	Top openings in which vertical entry is prevented	<b>P</b>
	Dimensions (mm).....:		--
4.3.16	Openings in the sides of enclosure	Side openings provided with louvers that are shaped to deflect outwards an external vertically falling object.	<b>P</b>
	Dimensions (mm).....:		--
4.3.17	Interchangeable plugs and sockets	No interchangeable plugs or sockets.	<b>N</b>
4.3.18	Torque test for direct plug-in equipment	Not intended to plug directly to wall socket-outlet.	<b>N</b>
	Additional torque (Nm)....:		<b>N</b>
4.3.19	Protection against excessive pressure	The terminal does not contain liquid.	<b>N</b>
4.3.20	Protection of heating elements in Class I equipment	No heating elements.	<b>N</b>
4.3.21	Protection of lithium batteries		<b>N</b>
	Construction of protection circuit.:		<b>N</b>
4.3.22	Aging of barrier/screen secured with adhesive		<b>N</b>
	Day 1: temperature ( C); time (weeks):		<b>N</b>
	Day 8/22/57: a) temperature ( C) for 1h b) temperature ( C) for 4h c) temperature ( C) over 8h		<b>N</b>
	Day 9/23/58: a) relative humidity (%) for 72h b) temperature ( C) for 1h c) temperature ( C) for 4h d) temperature ( C) over 8h		<b>N</b>



4.4	Resistance to fire		<b>P</b>
4.4.1	Methods of achieving resistance to fire	Use of materials with the required flammability classes.	<b>P</b>
4.4.2	Minimizing the risk of ignition	Electrical parts are not likely to ignite nearby materials. Parts not protected against overheating under fault conditions. Temperatures see 5.1.	<b>P</b>
	Printed board: manufacturer; flammability. ....:	Parts are not protected against overheating under fault conditions are mounted on PCB of V-0.	<b>P</b>
4.4.3	Flammability of materials and components	Internal components except small parts are V-2, HF-2 or better.	<b>P</b>
4.4.3.2	Material and component; manufacturer; flammability..:	Considered.	<b>P</b>
4.4.3.3	Exemptions	No wiring.	<b>N</b>
4.4.3.4	Wiring harnesses: manufacturer; flammability.....:	No cord anchorage.	<b>N</b>
4.4.3.5	Cord anchorage bushings; manufacturer; flammability.....:	No air filter assemblies.	<b>N</b>
4.4.3.6	Air filter assemblies; manufacturer; flammability.....:	No enclosure.	<b>N</b>
4.4.4	Enclosure and decorative parts; manufacturer; flammability.....:	No enclosure and decorative part.	<b>N</b>
4.4.5.1	Components which require fire enclosure: manufacturer; flammability.....:	Class I equipment.	<b>N</b>
4.4.6	Fire enclosure construction	Class I equipment.	<b>N</b>
4.4.7	Doors and covers	No door or cover.	<b>N</b>
4.4.8	Protection against spreading of flammable liquids	No flammable liquids in this unit.	<b>N</b>

<b>5</b>	<b>THERMAL AND ELECTRICAL REQUIREMENTS</b>		<b>P</b>
5.1	Heating		<b>P</b>
	Heating tests	See append table.	<b>P</b>

5.2	Earth leakage current		<b>N</b>
5.2.2	Leakage current	The touch current was measured from primary to enclosure and SELV	<b>P</b>
	Test voltage (V).....:	254V/50Hz	<b>P</b>
	Measured current (mA).....:	Max 0.95mA(SELV) Max0.01mA (Enclosure)	--
	Max. allowed current (mA):	3.5mA (SELV) 0.25mA(Enclosure)	--





5.2.4	Three-phase equipment		<b>N</b>
	Test voltage (V).....:		--
	Measured current (mA).....:		--
	Max. allowed current (mA):		--
5.2.5	Equipment with earth leakage current exceeding 3.5 mA	Leakage current does not exceed 3.5mA	<b>P</b>
	Test voltage (V)....:		--
	Measured current (mA).....:		--
	Max. allowed current (mA):		--
	Cross-sectional area (mm <sup>2</sup> ) of internal protective earthing conductor....:		--
	Warning label		<b>N</b>

5.3	Electric strength		<b>P</b>
	Electric strength test	See append table	<b>P</b>

5.4	Abnormal operating and fault conditions		<b>N</b>
5.4.2	Motors	No motors.	<b>N</b>
5.4.3	Transformers	Transformers are constructed in accordance with the applicable	<b>P</b>
5.4.4	Compliance of operational insulation		<b>P</b>
	Method used.....:		<b>N</b>
5.4.5	Electromechanical components in secondary circuits	No electromechanical components	<b>N</b>
5.4.6	Other components and circuits	No other abnormal tests considered.	<b>N</b>
5.4.7	Test in excepted condition and foreseeable misuse	There is no foreseeable misuse likely to happen.	<b>N</b>
5.4.8	Unattended use of equipment having thermostats, temperature limiters etc.	None of them are used.	<b>N</b>
5.4.9	Compliance	No fire propagated beyond the equipment. No molten metal was emitted.	<b>P</b>
5.4.10	Ball-presure test of thermoplastic parts; impression shall not exceed 2 mm	Only SELV and TNV-circuits.	<b>N</b>

<b>6</b>	<b>CONNECTION TO TELECOMMUNICATION NETWORKS</b>		<b>N</b>
	Equipment is not intended to be connected to TNV		
6.2	TNV circuits and protection against shock.		<b>N</b>
6.2.1.1	Limits of the TNV circuits		<b>N</b>
6.2.1.1 (a)	voltages (V) other than telephone ringing signals.....:		<b>N</b>



6.2.1.1 (b)	telephone ringing signals.....:		<b>N</b>
6.2.1.1(c)	telegraph or teletypewriter signals		<b>N</b>
6.2.1.2	Insulation (mm) between TNV circuits and unearthed operator-accessible conductive parts.....:		<b>N</b>
	Insulation (mm) between TNV circuits and unearthed SELV circuits.....:		<b>N</b>
	Voltage (V) in TNV circuit in the event of a single insulation fault or component failure.....:		<b>N</b>
6.2.1.3	Insulation (mm) between TNV circuit connected to an SELV circuit that has one pole connected to earth..:		<b>N</b>
6.2.1.4	Insulation (mm)between TNV circuit and circuit at hazardous voltages.....:		<b>N</b>
	Method used.....:		<b>N</b>
6.2.1.5	Connection of TNV circuits to other circuits		<b>N</b>
	TNV circuit supplied conductively from a secondary circuit.....:		<b>N</b>
6.2.2.1	Protection against contact with TNV circuits		<b>N</b>
6.2.2.2	Battery compartments		<b>N</b>

6.3	Protection of telecommunication network service personnel, and other users of the telecommunication network, from hazards in the equipment		<b>N</b>
6.3.1	Protection from hazardous voltages		<b>N</b>
6.3.2	Use of protective earthing		<b>N</b>
	Language of installation instructions.....:		<b>N</b>
6.3.3	Separation of telecommunication network from earth. Insulation(mm) between TNV circuit and circuitry that may be earthed.		<b>N</b>

6.4	Protection of the equipment user from voltages on the telecommunication network		<b>N</b>
6.4.2.1	Impulse test: separation between telecommunication network conductors and:		<b>N</b>
6.4.2.1(a)	Unearthed conductive parts/non-conductive parts of the equipment which are held or touched during normal use; test at 2.5 KV		<b>N</b>
6.4.2.1(b)	Parts and circuitry that can be touched by the test finger; test at 1.5 KV		<b>N</b>



6.4.2.1(c)	Circuitry which is provided for connection of other equipment; test at 1.5 KV		N
6.4.2.2	Electric strength test: separation between telecommunication network conductors and:		N
6.4.2.2(a)	Unearthed conductive parts/non-conductive parts of the equipment which are held or touched during normal use; test at 1.5 KV		N
6.4.2.2(b)	Parts and circuitry that can be touched by the test finger; test at 1.0 KV		N
6.4.2.2(c)	Circuitry which is provided for connection of other equipment; test at 1.0 KV		N
6.4.2.3	Compliance criteria		N

<b>A</b>	<b>ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE</b>		<b>N</b>
A.1	Flammability test for fire enclosures of moveable equipment having a total mass exceeding 18 kg, and of stationary equipment		N
A.2	Flammability test for fire enclosures of moveable equipment having a total mass not exceeding 18 kg, and for material located within fire enclosures		N
A.3	Tested material		N
	Preconditioning: 7 days (168 h); temperature ( C):		--
	Mounting of samples during test...:		--
	Wall thickness...:		--
	Sample 1 burning time....:		N
	Sample 2 burning time....:		N
	Sample 3 burning time....:		N
	Material: compliance with the requirements .....		N
	Manufacturer of tested material....:		--
	Type of tested material...:		--
	Additional information...:		--

<b>B</b>	<b>ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS see 5.4.2.</b>		<b>N</b>
	Position.....:		--
	Manufacturer.....:		--
	Type.....:		--
	Rated voltage (V) or current (A)...:		--
B.2	Temperatures		N
B.4	Running overload test		N



B.5	Locked-rotor overload test		<b>N</b>
	Test duration (days).....:		--
	Electric strength test: test voltage (V):		--
B.6	Running overload test for DC motor in secondary circuits		<b>N</b>
B.7	Locked-rotor overload test for DC motor in secondary circuits		<b>N</b>
B.7.2	Test time (h).....:		<b>N</b>
B.7.3	Test time (h).....:		<b>N</b>
B.8	Test for motors with capacitor		<b>N</b>
B.9	Test for three-phase motors		<b>N</b>
B.10	Test for series motors		<b>N</b>
	Test voltage (V)		--

<b>C</b>	<b>ANNEX C, TRANSFORMERS</b>	<b>Approval power supply</b>	<b>P</b>
	Position.....:		<b>N</b>
	Manufacturer.....:		<b>N</b>
	Type.....:		<b>N</b>
	Rated values.....:		--
	Temperatures		<b>N</b>
C.1	Overload test		<b>N</b>
	Conventional transformer		<b>N</b>
C.2	Insulation		<b>N</b>
	Precautions..:		<b>N</b>
	Retaining of end turns of all windings		<b>N</b>
	Earthing test at 25 A		<b>N</b>
C.3	Electric strength test		<b>N</b>
<b>H</b>	<b>ANNEX H, IONIZING RADIATION</b>		<b>N</b>
	Ionizing radiation		<b>N</b>
	Measured radiation.....:		--
	Measured high-voltage (KV).....:		--
	Measured focus vlotage (KV).....:		--
	CRT markings.....:		--
	Certified by.....:		--
	Standard used.....:		--



<b>U</b>	<b>ANNEX U, INSULATED WINDING WIRES FOR USE AS MULTIPLE PLAYER INSULATION</b>		<b>N</b>
U.1	Wire construction		<b>N</b>
	Number of spirally wrapped layers of polyimide tape.:		--
U2	Conformance tests		<b>N</b>
	Temperature ( C); Humidity (%) .....		--
U.2.1	Electric strength		<b>N</b>
	Test voltage (V) .....		--
U.2.2	Adherence and flexibility		<b>N</b>
	Electric strength test: test voltage (V), temperature ( C)..:		--
U.2.3	Heat shock		<b>N</b>
	Electric strength test: test voltage (V).		--
U.2.4	Retention of electric strength after bending....:		--
	Electric strength test: test voltage (V).....:		--
U.2.5	Resistance to abrasion		<b>N</b>
U.3	Production line test		<b>N</b>
	Routine testing for electric strength: test voltage (V).....:		--



Appended					
1.5.1	Table: List of critical components				<b>P</b>
Object/Part No.	Manufacturer	Type/Model	Technical Data	Standard	Approved By
Switching Power Supply(Built In)	FSP Group Inc	FSP250-50PLB	100-240Vac 5-3A,50-60Hz	IEC/EN60950	TUV
DC/AC Inverter	Chi Sam Electronic Co.,Ltd	DAC-2084A00011	+12Vdc 0.16A	--	--
--Transformer (T1)	Polaris Electronic (Dong Guan) Co.,Ltd	UI-25	130 Wiring Pin 2-3: Diameter: 0.35Φ Turns:11 Pin 3-4: Diameter: 0.35Φ Turns:11 Pin 5-1: Diameter: 0.35Φ Turns:3 Pin 6-7: Diameter: 0.07Φ Turns:345	--	--
--Capacitor (C6,C6A)	--	--	22pF 3KV (Maximum)	--	--
System Fan	SUNON	GM1206PHV2-A	12Vdc, 1.0W	UL 507	UL/TUV/CE
CPU Fan	Bi-Sonic Technology Corp	BS701512H	12Vdc, 0.28A	UL 507	UL/TUV/CE
LCD Panel	Toshiba Matsushita Display Technology Co.,Ltd	LTD121C30S-12	VDD=3.3V 6.0mA(rms)	--	--
CD-Rom Drive	Quanta Storage Inc	SCR-242	5Vdc,1.5A	IEC60950	TUV
RTC Battery	SONY	CR2032	+3Vdc	--	UL
Hard Disk	FUJITSU LTD	MHT2040AT	+5V 0.55A	IEC60950	UL/TUV/CE
Enclosure Material	--	--	94V-1 or better	UL94	UL
P.C.B.	--	--	94V-0	UL796	UL



1.6.2	Table: Input current test data					<b>P</b>
Rating	Voltage	Frequency	Ampere	Watts	Note	
--	90V	50	0.93A	81W	Normal operation	
--	90V	60	0.93A	81W	Normal operation	
5	100V	50	0.83A	80W	Normal operation	
5	100V	60	0.83A	80W	Normal operation	
3	240V	50	0.37A	79W	Normal operation	
3	240V	60	0.38A	79W	Normal operation	
--	254V	50	0.36A	79W	Normal operation	
--	254V	60	0.37A	79W	Normal operation	

2.4.1, 2.4.2	Table: LIMITED CURRENT CIRCUIT MEASUREMENTS					<b>P</b>
JP2 Pin1 to Pin4						
Fault	Volts, Peak	Volts dc	mAp	mA, dc	Frequency kHz	
None	25.8	--	12.9	--	36	
L3 Shorted	22.6	--	11.3	--	73	
C6 Shorted	33.6	--	16.8	--	83.8	
JP2 Pin1 to Earth						
Fault	Volts, Peak	Volts dc	mAp	mA, dc	Frequency kHz	
None	31.0	--	15.5	--	34.3	
L3 Shorted	37.2	--	18.6	--	44.11	
C6 Shorted	0	--	0	--	0(Unit shut down)	
JP2 Pin4 to Earth						
Fault	Volts, Peak	Volts dc	mAp	mA, dc	Frequency kHz	
None	7.6	--	3.8	--	36.4	
L3 Shorted	7.6	--	3.8	--	38.2	
C6 Shorted	7.4	--	3.7	--	82.3	

2.6.4	Table: protect earthing test		<b>P</b>
	Test Ampere(A)	Impedence	
	40A	12mΩ	

4.5.1	Table: temperature rise test			<b>P</b>
	Test voltage(V)	90Vac/60Hz	254Vac/60Hz	



Temperature rise dT of part/at	T( )	DT(K)	T( )	DT(K)	Require dT(K)
T1 Coil of Inverter(Low)	52.2	29.7	52.4	29.9	50
T1 Coil of Inverter(High)	50.5	28.0	50.6	28.1	50
T01 Core of Inverter	52.3	29.8	52.4	29.9	50
L3 Coil of Inverter	45.6	23.1	45.7	23.2	50
C1 Coil of Inverter	41.4	18.9	41.5	19.0	65
PWB near T1 of Inverter	49.3	26.8	49.4	26.9	65
PWB near CPU of Main board	34.9	12.4	34.8	12.3	65
U2 heat sink	31.9	9.4	31.7	9.2	65
U8 body	36.5	14.0	36.4	13.9	65
HDD body	33.9	11.4	34.1	11.6	65
CD-Rom body	28.1	5.6	28.1	5.6	65
Enclosure inside near power supply	30.0	7.5	29.9	7.4	30
Enclosure of outside near CPU	25.8	3.3	25.6	3.1	30
Enclosure of outside near Power	25.6	3.1	25.7	3.2	30
Ambient	22.5	--	22.5	--	--

**Comment:**

The measure were measured under worst case normal mode as described in 1.2.2.1 and described in 1.6.1 at voltage as described in 1.6.5.

With specified ambient temperature of 40° C the max.temperature rise was caculatated as follow  
 Clase A --> dTmax = 75K-10K-(40-25)K = 50K

Electrolyte capacitor or components with:

Max. absolute temperature of 105° C → dTmax =( 105 – 40)K = 65K

Max. absolute temperature of 105° C → dTmax =( 105 – 40)K = 65K

User accessible area:

- max. temp. rise of 70°C (Plastic) -> dTmax = 70K - (40-25)K = 55K

- max. temp. rise of 45°C (Metal) -> dTmax = 45K - (40-25)K = 30K

5.1	TABLE: Touch current test					P
Terminal A (Switch "s") of Measuring Instrument Connected to:	Switch "e" Position	Component Disconnected	Touch Current (mA r.m.s.)			
			Polarity P1/Primary Switch Condition			
			Normal/On	Normal/Off	Reverse/On	Reverse/Off
Metal Enclosure	open	--	0.95	--	0.95	--





5.2	TABLE: electric strength measurements			<b>P</b>
.test voltage applied between:		test voltage (V)	Breakdown	
Primary to SELV		DC 4242V	No	
Primary to Enclosure		DC 3000V	No	

5.3	TABLE: fault condition tests						<b>P</b>
No.	Component No.	Fault	test voltage	test time	fuse No.	fuse current (A)	Result
1	Ventilation openings	Blocked	240Vac	3hr 8min	--	--	Normal operation, No Fire, No damage
2	CPU Fan	locked	240Vac	1hr 44min	--	--	Normal operation, No Fire, No damage
3	System Fan	locked	240Vac	2hr 24min	--	--	Normal operation, No Fire, No damage

5.3	Table: temperature rise test						<b>P</b>	
Test voltage(V):240V/60Hz		Ventilation Openings Blocked		CPU Fan lock		System Fan Lock		
Temperature rise dT of part/at		T( )	DT(K)	T( )	DT(K)	T( )	DT(K)	Require dT(K)
T1 Coil of Inverter(Low)		70.2	47.0	53.1	30.0	60.4	37.8	--
T1 Coil of Inverter(High)		68.1	44.9	50.9	27.8	58.3	35.7	--
T01 Core of Inverter		69.9	46.7	50.2	27.1	63.9	41.3	--
L3 Coil of Inverter		63.4	40.2	40.4	17.3	35.4	12.8	--
C1 Coil of Inverter		60.8	37.6	46.8	23.7	39.5	16.9	--
PWB near T1 of Inverter		66.9	43.7	47.6	24.5	50.4	27.8	--
PWB near CPU of Main board		68.5	45.3	37.5	14.4	39.9	17.3	--
U2 heat sink		66.2	43.0	35.3	12.2	36.9	14.3	--
U8 body		69.3	46.1	36.9	13.8	41.2	18.6	--
HDD body		61.6	38.4	35.0	11.9	39.0	16.4	--
CD-Rom body		51.8	28.6	24.6	1.5	32.9	10.3	--
Enclosure inside near power supply		73.8	50.6	28.7	5.6	34.7	12.1	--
Enclosure of outside near CPU		48.2	25.0	25.2	2.1	29.7	7.1	--
Enclosure of outside near Power		47.5	24.3	24.7	1.6	30.0	7.4	--
Ambient		23.2	--	23.1	--	22.6	--	--



## **Attachment**

Attachment - A.	EUT Photos
Attachment - B.	Product ID Label
Attachment - C.	Measuring Instrument List
Attachment - D.	Sample of CE Declaration



## **Attachment –A.**

### **EUT Photos**

This Appendix-A. attached with total 2 pages EUT photograph, not including this page. EUT photos exhibition are follows

- Photo # 1. Front View
- Photo # 2. Real View
- Photo # 3 Unit Partially Disassembled View
- Photo # 4 Inverter View (Front View)
- Photo # 5 Inverter View (Real View)



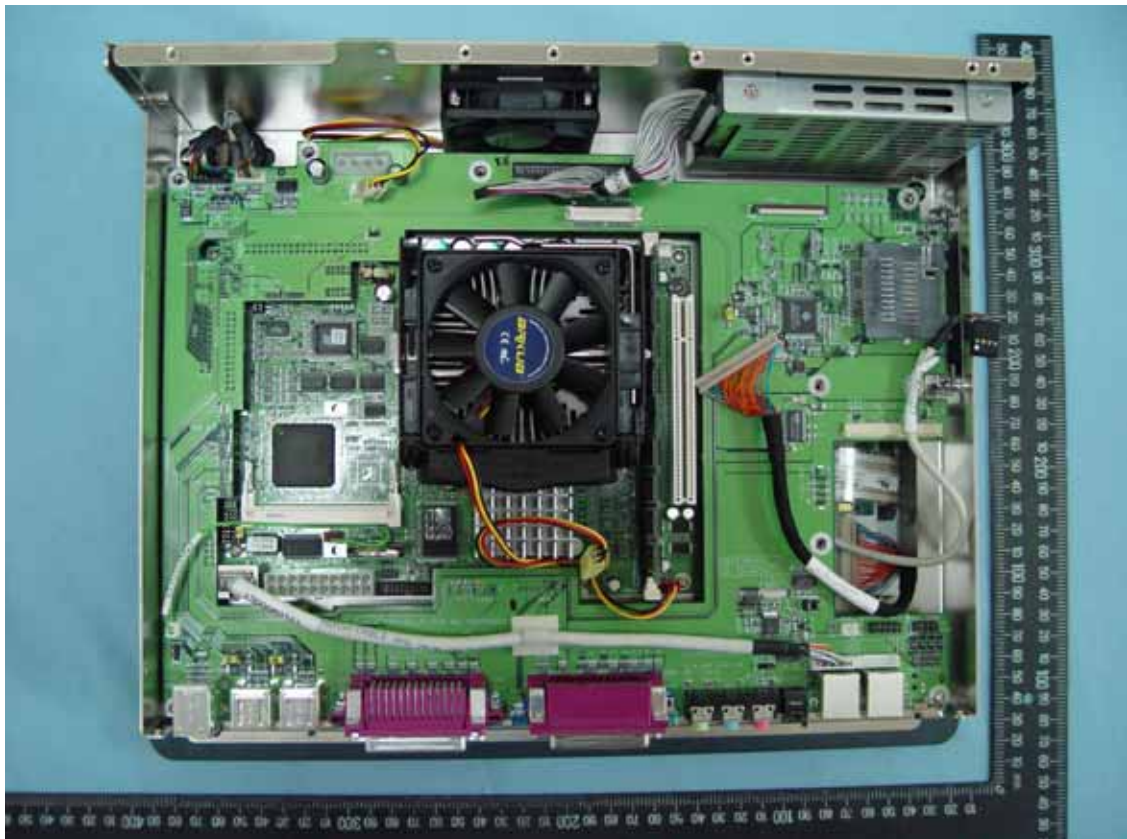
Photo # 1. Front View



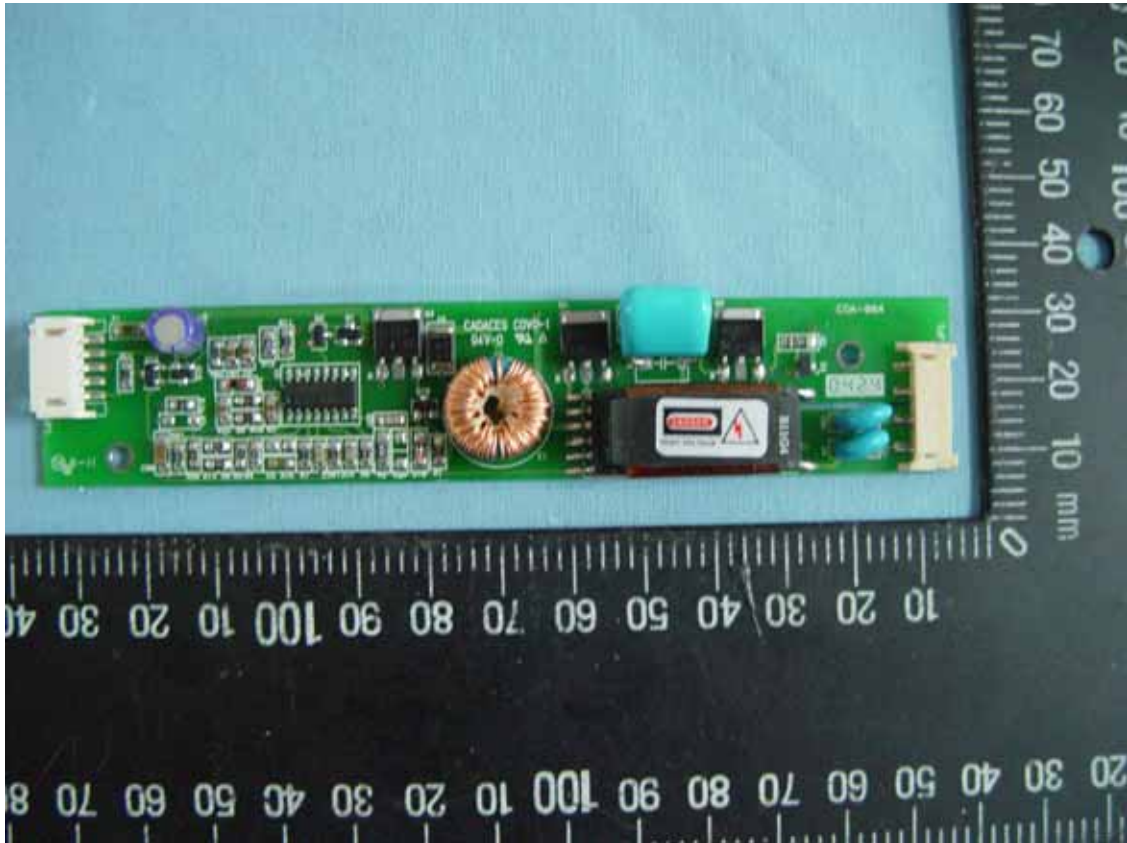
Photo # 2. Rear View



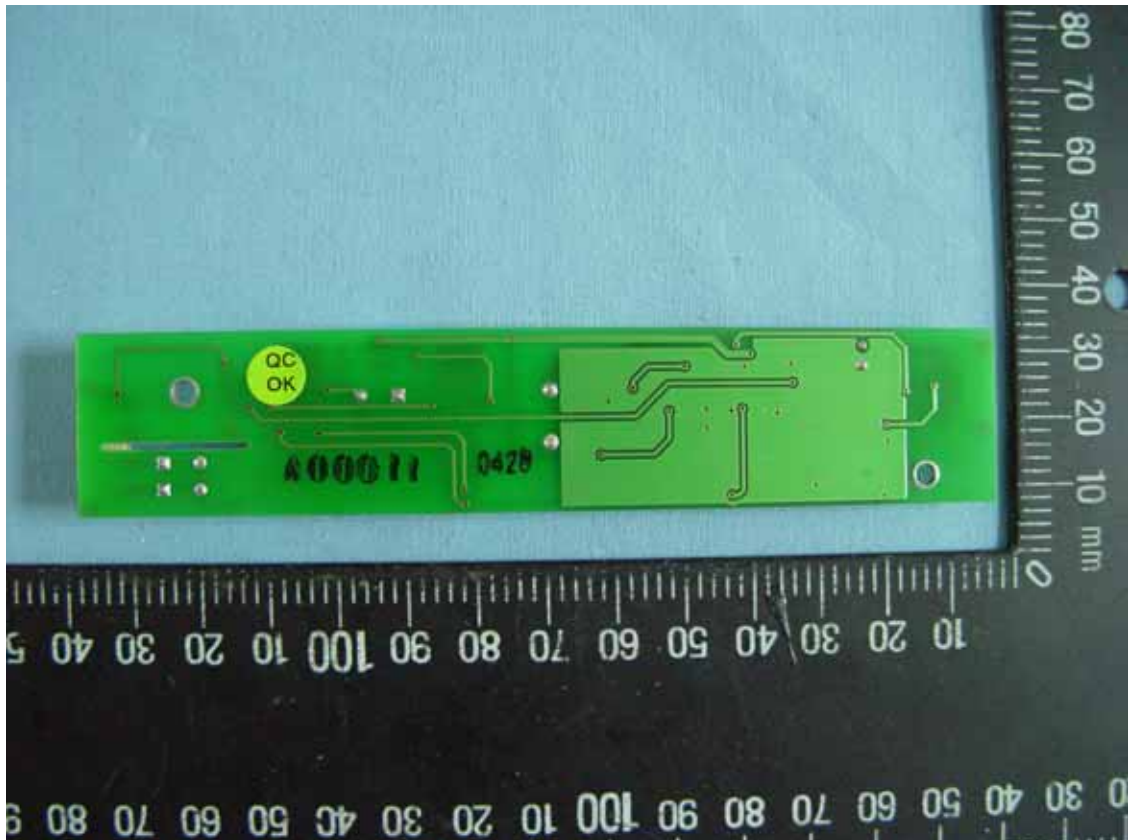
Photo # 3 Unit Partially Disassembled View



Photo# 4 Inverter View (Front View)



Photo# 5 Inverter View (Real View)





## **Attachment - B.**

### Product ID Label

This Appendix-B. attached with total 1 page Product ID Label drawing/sample, not including this page.



**APC-8122HTT-A1**  
Robust Panel PC.Pentium 4-D Processor.12.1" T  
FT.2P.AC.R-TS



AC POWER:100-240 Vac 50-60Hz,5-3A

L/N : A05A00

CPU : HDD :

Memory :

Option :



**P05A0000**



4 7 19622 162961

MADE IN TAIWAN





## **Attachment - C.**

### **Measuring Instrument List**

This Appendix-C. attached with total 3 page(s) Measuring Instrument List, not including this page.



ID NO	Instrument Type	Manufacture	Model Series No.	Scope	Calibration Date	Due Date
CR01	Hybrid Recorder	YOKOGAWA	437024 12B418988	-200~400 24 Chance	22.Mar.2005	21.Mar.2006
CR02	Hybrid Recorder	YOKOGAWA	437024 12B418986	-200~400 24 Chance	02.Jun.2004	01.Jun.2005
CR03	Hybrid Recorder	YOKOGAWA	437024 12B418984	-200~400 24 Chance	22.Mar.2005	21.Mar.2006
CR04	Hybrid Recorder	YOKOGAWA	437012 47YP0020	-200~400 12 Chance	02.Jun.2004	01.Jun.2005
CR05	Hybrid Recorder	YOKOGAWA	DR130-02-24-1D 27D839890	-200~400 20 Chance	12.Jan.2005	11.Jan.2006
CR06	Hybrid Recorder	YOKOGAWA	DR130-02-24-1D 27D839892	-200~400 20 Chance	12.Jan.2005	11.Jan.2006
CR07	Hybrid Recorder	YOKOGAWA	DR130-02-24-1D 27DB45797	-200~400 20 Chance	12.Jan.2005	11.Jan.2006
CR08	Hybrid Recorder	YOKOGAWA	DR231-02-34-1D 27DB28062	-200~500 30 Chance	12.Jan.2005	11.Jan.2006
CR09	Hybrid Recorder	YOKOGAWA	DR231-02-34-1D 27DB45802	-200~500 30Chance	12.Jan.2005	11.Jan.2006
CR10	Humility Recorder	TOP	20-A (7023)	15~40 /0~100%RH	03.May.2005	02.May.2006
EL01	DC. ELE Load Current Voltage	PRODIGIT	3301A 112010A093	<input type="checkbox"/> 60V/60A <input type="checkbox"/> 250V/10A	31.May.2004	30.May.2005
EL02	DC. ELE Load Current Voltage	PRODIGIT	3321A 411020207	60V/60A	25.Jan.2005	24.Jan.2006
EL03	DC. ELE Load Current Voltage	PRODIGIT	3321A 411020208	60V/60A	25.Jan.2005	24.Jan.2006
EL04	DC. ELE Load Current Voltage	PRODIGIT	3321A 411020209	60V/60A	25.Jan.2005	24.Jan.2006
EL05	DC. ELE Load Current Voltage	PRODIGIT	3321A 411020210	60V/60A	25.Jan.2005	24.Jan.2006
EL06	DC. ELE Load Current Voltage	PRODIGIT	3321A 411020211	60V/60A	25.Jan.2005	24.Jan.2006
EL07	DC. ELE Load Current Voltage	PRODIGIT	3321A 411020212	60V/60A	25.Jan.2005	24.Jan.2006
EL08	DC. ELE Load Current Voltage	PRODIGIT	3321A 411020213	60V/60A	25.Jan.2005	24.Jan.2006
EL09	DC. ELE Load Current Voltage	PRODIGIT	3321A 411020215	60V/60A	25.Jan.2005	24.Jan.2006
RT01	Earth Continuity Test	EXTECH	7315 1360004	30A/0~ 510m	15.Feb.2005	14.Feb.2006
RT02	AC Ground Bond Tester	EXTECH	7306 1260133	40A/0~510m	21.May.2004	20.May.2005
RT03	Insulation Meter	Toptek	CP-1050	5M-500M /5000	21.May.2004	20.May.2005
HV01	AC/DC/Withstand Voltage Tester	EXTECH	7140 1990602	AC5000V 20ma/DC 6000V	22.Mar.2005	21.Mar.2006
HV02	Surge Test Apparatus	TESTING	T3-05 16/05	24Vac 15s~60min.	--	--
HV03	DC Power Source	SYT	S94-003	12KVdc 2mA	15.Apr. 2005	14.Apr. 2006
LC01	Leakage Current Tester	SIMPSON	228 20468	10 mA	16.Mar.2005	15.Mar.2006



LC02	Leakage Current Tester	SIMPSON	229	10 mA	25.Jan.2005	24.Jan.2006
LC03	Line Leakage Tester	EXTECH	7611 1330411		02.Feb.2005	01.Feb.2006
VM01	Multi-Meter	BRYMEN	BM817 044470022	DC / AC 10Hz~125KHz/10 A	10.Jan.2005	09.Jan.2006
MD01	Caliper	MITUTOYO	500-196 02057850	0~150mm	08.Mar.2005	07.Mar.2006
MF01	Push Pull Gauge	ALGOL	NK-300 39403	0~30Kg	23.Mar.2005	22.Mar.2006
MF02	Push Pull Gauge	OHBA STKI	4319P407	10000g	23.Mar.2005	22.Mar.2006
MB01	Steel Ball	-	H910502201	500g	18.Mar.2005	17.Mar.2006
MB02	Ball Pressure Tester	-	-	R=2.5mm, 20N	08.Mar.2005	07.Mar.2006
MB03	Ball Pressure Tester	-	-	R=2.5mm, 20N	08.Mar.2005	07.Mar.2006
MT01	Torque Screw Tester	Kanon	3Ltdk	0.2 ~ 3kgf/cm	24.May.2004	23.May.2005
MT02	Direct Plug-in Equipment	PTL	F37.16 5050141	8mm	23.Mar.2005	22.Mar.2006
MT03	Direct Plug-in	PTL	F37.52 6050085	8mm	--	--
ML01	Lever Meter	Niigata	A7028-J	0°~90°	20.May.2004	19.May.2005
MI01	Impact tester	PTL	F22.50 5050078	0.20J 0.35J 0.50J 0.70J 1.00J	15.Feb.2005	14.Feb.2006
MV01	Vibration generator	VIBRATION SOURCE	VS-5060L 0194	5-100Hz 0-2.8mm 50kgw	07.Mar.2005	06.Mar.2006
TP01	Test Pin	-	4319P321	3mm/4mm ±0.05	08.Mar.2005	07.Mar.2006
TP02	Test hook		TH-1	--	15.Jan.2005	14.Jan.2006
TP03	Test Pin		HLP-1	4*100mm	15.Jan.2005	14.Jan.2006
TP04	Test Pin C		TRP-1	2.5*100mm	15.Jan.2005	14.Jan.2006
TP05	Test Pin D		TRP-2	1*100mm	15.Jan.2005	14.Jan.2006
TP06	Rigid Test finger N/A	-	-	IEC 950	08.Mar.2005	07.Mar.2006
TP07	Test Finger N/A	-	4319P409	1 × 40 × 70	08.Mar.2005	07.Mar.2006
CM01	Clamp Meter	PROVA	CM-07 601751	DC/AC 40Hz~1KHz/400A	16.Mar.2005	15.Mar.2006
OS01	Digital Phosphor Oscilloscope	Tektronix	TDS3032 HV03F2GXJR	2.5GS/s/300M Hz	31.May.2004	30.May.2005
OS02	Differential Probe	BRYMEN	LDP-6002 031414	25 MHz 140V ±1400V	14.Feb.2005	13.Feb.2006
OS03	Hi Voltage Probe	Fluke	80K-40 82610132	1000 : 1	21.May.2004	20.May.2005
SG01	Signal Generator	Topward	8110 713292	1 ~ 1MHz	20.May.2004	19.May.2005
SG02	Pink Noise Generator	Intertek Semko	NG8280 107			
LE01	440RF/D Low Energy RF Shielded Survey Meter	GCL	106196	1-100mR/hr	26.May.2004	25.May.2005
WT01	Electric Scale	EXCELL	DSB-931	5g-20Kg	23.May.2004	22.May.2005
DM01	Dual Display Multimeter	ESCORT	3146A	DC / AC 10Hz~125KHz/10	27.Jan.2005	26.Jan.2006



				A		
DM02	4 1/2Digital Miliohmmeter	Usertek	UT-4110A	20m ~ 20K	11.Jun.2004	10.Jun.2005
PM01	Power Meter	YOKO GAWA	WT130 12B415314	20A / 600V	24.Mar.2005	23.Mar.2006
PM02	Power Meter	Protronix	1201 908462	20A ; 300V 40~1000Hz	01.Jun.2004	31.May.2005
PM03	Power Meter	Protronix	1201 908458	20A ; 300V 40~1000Hz	21.May.2004	20.May.2005
PM04	Power Meter	Protronix	1201 908499	20A ; 300V 40~1000Hz	01.Jun.2004	31.May.2005
PM05	Power Meter	Protronix	1201 908447	20A ; 300V 40~1000Hz	21.May.2004	20.May.2005
PM06	Optical Power Meter	ADVANTEST	TQ8210 120100808	DC 40~400A AC 4~400A	25.Jun.2004	24.Jun.2005
PM07	Power Meter	IDRC	CP-240 240709	30A ; 600V 18KW 10Hz~10KHz	25.Mar.2005	24.Mar.2006
PM08	Power Meter	IDRC	CP-240 240710	30A ; 600V 18KW 10Hz~10KHz	25.Mar.2005	24.Mar.2006
PM09	Power Meter	IDRC	CP-240 240711	30A ; 600V 18KW 10Hz~10KHz	25.Mar.2005	24.Mar.2006
PM10	Power Meter	IDRC	CP-240 240712	30A ; 600V 18KW 10Hz~10KHz	25.Mar.2005	24.Mar.2006
PM11	Power Meter	IDRC	CP-240 240713	30A ; 600V 18KW 10Hz~10KHz	25.Mar.2005	24.Mar.2006
TC01	Tem & Hummi. Chamber	TAICHY	MHG-700QR 910388	-20 ~+150 98% RH	29.July.2004	28.July.2005
TC02	Oven	TAICHY	CK-50	+50 ~+200	01.Mar.2005	28.Feb.2006
TC03	Oven (Fan of control system)	TAICHY	RU0-58S	+30 ~+200	01.Mar.2005	28.Feb.2006
TM01	Timer	TOPPA	2617P162 4519P607	1/1000 SEC	25.Mar.2005	24.Mar.2006
FC01	AC Source	EXTECH	6210 1150380	1KV		
FC02	AC Source	EXTECH	6210 1150381	1KV		
FC03	AC Source	EXTECH	6220 1160285	2KV		



**Attachment - D.**  
**Sample of CE Declaration**

**Company Letter Head**

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**CE Declaration of Conformity**

For the following equipment:	
<b>(Product Name)</b>	
<b>(Model Designation)</b>	
<p>is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (89/336/EEC), Low-voltage Directive (73/23/EEC) and the Amendment Directive (93/68/EEC). For the evaluation regarding the Directives, the following standards were applied:</p> <p>_____</p> <p>_____</p>	
The following importer/manufacture is responsible for this declaration:	
_____	_____
<b>(Company Name, Importer)</b>	<b>(Company Name, Manufacturer)</b>
_____	_____
<b>(Company Address, Importer)</b>	<b>(Company Address, Manufacturer)</b>
Person responsible for this declaration:	<b>Person responsible for this declaration:</b>
_____	_____
<b>(Name, Surname, Importer)</b>	<b>(Name, Surname, Manufacturer)</b>
_____	_____
<b>(Position/Title)</b>	<b>(Position/Title)</b>
_____	_____
<b>(Legal Signature)</b>	<b>(Legal Signature)</b>
_____	_____
<b>(Place)</b>	<b>(Place)</b>
_____	_____
<b>(Date)</b>	<b>(Date)</b>
_____	_____