Certificate of Compliance

with
European Low Voltage Directive
No. 10001 469 001

Type of equipment:	**Embedded Controller**
Certificate holder:	**AAEON Technology Inc.**
Trademark:	**AAEON Technology Inc. or AAEON**
Type designation:	**AEC-6920-XX (X=0-9,A-Z or Blank)**
Technical data:	**Rating (s) :DC 9-30V, 7-2A**

A sample of the equipment has been tested for CE-marking according to the EC Low Votlage Directive, 2006/95/EC

Standard used for showing compliance with the essential requirements of the directive:

Standard(s):	*Test report(s):*	*Issued by:*	*Date(s):*
IEC 60950-1:2001 EN 60950-1:2001+ A11:2004	10001 469 001	Cerpass	21/Mar/07

The referred test report(s) show that the product fulfills the requirements in the EC Low Voltage Directive for CE marking. On this basis, together with the manufacturer's own documented production control, the manufacturer (or his European authorized representative) can in his EC Declaration of Comformity verify compliance with the EC Low Voltage Directive.

CE

Jackie Lin
Testing Department

Eric Chiu
Certification Department

TEST REPORT
IEC 60950-1 and/or EN 60950-1
Information technology equipment – Safety –
Part 1: General requirements

Report reference No	<10001 469 001>
Tested by (printed name and signature)	Miller Chang
Approved by (printed name and signature)	Edward Lin
Date of issue	March 21, 2007
Testing Laboratory Name	Cerpass Technology Corp.
Address	9F, No. 200, Gangcian Rd., Neihu District, Taipei City 114, Taiwan
Testing location	Same as above
Applicant's Name	AAEON Technology Inc.
Address	5th Fl 135 Lane 235 Pao Chiao Rd Hsin-Tien, Taipei Taiwan
Test specification	
Standard	IEC 60950-1:2001 EN 60950-1:2001+A11:2004
Test procedure	Service of CE Marking in LVD
Non-standard test method	N/A
Test item description	Embedded Controller
Manufacturer	Same as applicant
Trademark	AAEON Technology Inc. or AAEON
Model and/or type reference	AEC-6920-XX (X=0-9,A-Z or Blank)
Serial number	Pre-production samples w/o serial numbers
Rating(s)	DC 9-30V, 7-2A

Particulars: test item vs. test requirements	
Equipment mobility	Component Type, building
Operating condition	Continuous
Mains supply tolerance (%)	N/A
Tested for IT power systems	N/A
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Class III
Mass of equipment (kg)	5.63
Protection against ingress of water	IPX0

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)

Testing	
Date of receipt of test item	March 03, 2007
Date(s) of performance of test	March 05, 2007

General remarks

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 point is used as the decimal separator.

Factories:

AAEON Technology Inc.

5th Fl 135 Lane 235 Pao Chiao Rd Hsin-Tien, Taipei Taiwan

General description:

This equipment, model AEC-6920-XX, is a component type of Embedded Controller for general office use, and final end-use installation might be checked with the relevant safety concerns.

The ”X” in the model designation: AEC-6920-XX, X can be 0-9, A-Z or blank for market purpose.

The equipment consists of HDD and mother board housed with metallic enclosure, and no operator accessible area inside declared by manufacturer.

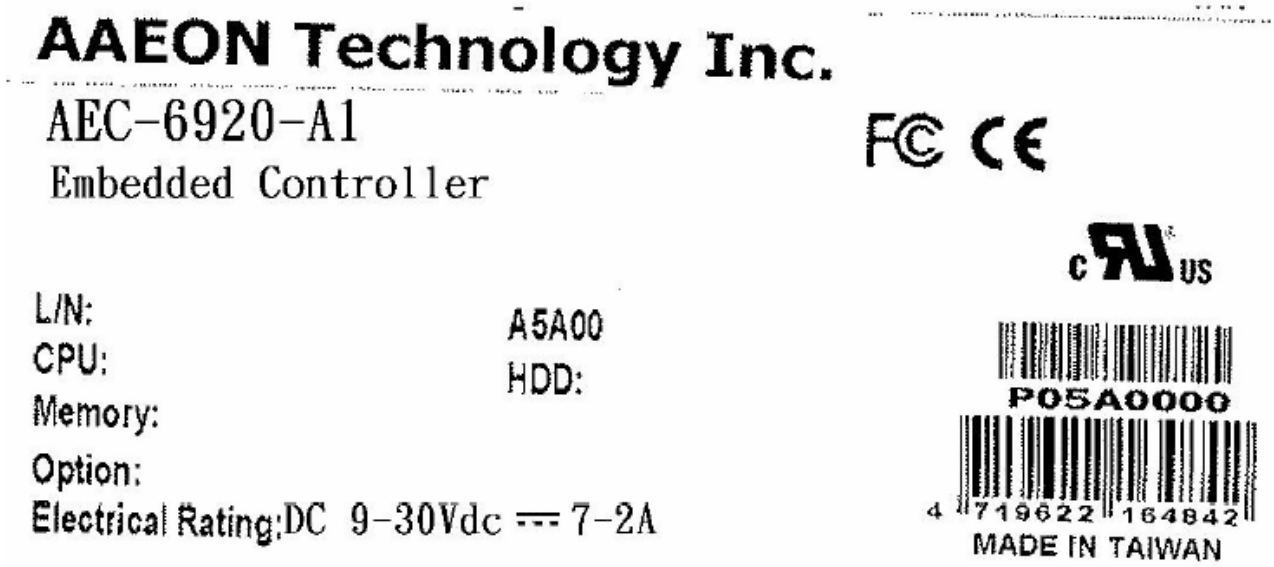
The following circuit locations were investigated as a limited power source:
USB ports and PS/2 port.

Other remarks:

Maximum specified ambient temperature: 45°C.

The equipment is power supplied from the external AC power adaptor. Otherwise, the adaptor which is intended to be used with this equipment in the regional market should be stated in the specified type in the instruction by suitable regional languages.

Copy of marking plate(s):



IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
1	GENERAL		**P**
1.5	Components		**P**
1.5.1	General	See 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 with the safety aspects of the relevant IEC/EN component standards (see appended table 1.5.1).	**P**
1.5.2	Evaluation and testing of components	Components that 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 thermal control.	**N**
1.5.4	Transformers	In approved switching power adaptor.	**P**
1.5.5	Interconnecting cables	Interconnecting cables comply with the relevant requirements of this standard.	**P**
1.5.6	Capacitors in primary circuits .....:	Class III equipment.	**N**
1.5.7	Double insulation or reinforced insulation bridged by components		**N**
1.5.7.1	General		**N**
1.5.7.2	Bridging capacitors		**N**
1.5.7.3	Bridging resistors		**N**
1.5.7.4	Accessible parts		**N**
1.5.8	Components in equipment for IT power systems	Class III equipment.	**N**

1.6	Power interface		**P**
1.6.1	AC power distribution systems	Equipment is not directly connected to the AC mains supply.	**N**
1.6.2	Input current	Highest load according to 1.2.2.1 for this equipment is cross reading/writing data in HDD, VGA port and S-Video connected to monitor, the dummy loads of 2.5W in each USB ports (four provided). (see appended table)	**P**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
1.6.3	Voltage limit of hand-held equipment	This appliance is not hand-held equipment.	**N**
1.6.4	Neutral conductor	Equipment is not directly connected to the AC mains supply.	**N**
1.7	Marking and instructions		**P**
1.7.1	Power rating	See below.	**P**
	Rated voltage(s) or voltage range(s) (V) .....:	DC 9-30V	**P**
	Symbol for nature of supply, for d.c. only.....:	⎓	**P**
	Rated frequency or rated frequency range (Hz) ..:	Supplied by DC voltage only.	**P**
	Rated current (mA or A) .....:	7-2A	**P**
	Manufacturer's name or trademark or identification mark .....:	AAEON Technology Inc. or AAEON	**P**
	Type/model or type reference .....:	AEC-6920-XX (X= A-Z, 0-9 or blank)	**P**
	Symbol for Class II equipment only .....:	Class III equipment.	**N**
	Other symbols .....:	Additional symbols or markings do not give rise to misunderstanding.	**P**
	Certification marks .....:	No such mark.	**N**
1.7.2	Safety instructions	The user's manual contains information for operation, installation, servicing, transport, storage and technical data. The operation guide is provided to the user.	**P**
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	**N**
1.7.4	Supply voltage adjustment .....:	No voltage adjustment device provided.	**N**
	Methods and means of adjustment; reference to installation instructions .....:		**N**
1.7.5	Power outlets on the equipment .....:	No outlets.	**N**
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) .....:	In approved switching power adaptor.	**P**
1.7.7	Wiring terminals	See below.	**N**
1.7.7.1	Protective earthing and bonding terminals .....:	Class III equipment.	**N**
1.7.7.2	Terminal for a.c. mains supply conductors	Class III equipment.	**N**
1.7.7.3	Terminals for d.c. mains supply conductors	Class III equipment.	**N**
1.7.8	Controls and indicators	See below.	**P**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
1.7.8.1	Identification, location and marking .....:	The marking and indication of the stand-by switch is located that indication of function clearly.	**P**
1.7.8.2	Colours .....:	No safety relevant control or indicator.	**N**
1.7.8.3	Symbols according to IEC 60417.....:	Stand-by type switch is marked with symbol according to 60417-1-IEC-5009.	**P**
1.7.8.4	Markings using figures .....:	No indicators for different positions.	**N**
1.7.9	Isolation of multiple power sources .....:	Single supply source.	**N**
1.7.10	IT power distribution systems	Class III equipment.	**N**
1.7.11	Thermostats and other regulating devices	No thermostats provided.	**N**
1.7.12	Language(s) .....:	User manual and marking label are in English. Versions of other languages will be provided when submitted for national approval.	—
1.7.13	Durability	The labels were subjected to the permanence of marking test. The labels were rubbed with cloth soaked with water for 15 s and then again for 15 s with the cloth soaked with petroleum spirit. After this test there was no damage to the labels. The marking on the labels did not fade. There was no curling or lifting of the label's edges.	**P**
1.7.14	Removable parts	No removable parts provided.	**N**
1.7.15	Replaceable batteries	Lithium battery for real time clock is exchangeable. Warning sentence is printed in manual.	**P**
	Language(s) .....:	English. Versions in other languages have to be provided during the corresponding national approvals.	—
1.7.16	Operator access with a tool.....:	Only SELV inside.	**N**
1.7.17	Equipment for restricted access locations.....:	No restricted access location.	**N**

2	PROTECTION FROM HAZARDS	**P**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.1	Protection from electric shock and energy hazards *The unit is supplied from DC connector that provides SELV. No risk of electrical shock or energy hazards.*		**P**
2.1.1	Protection in operator access areas		**P**
2.1.1.1	Access to energized parts	See below.	**P**
	Test by inspection .....:	EUT with SELV circuits. For details see below.	**P**
	Test with test finger .....:	Ditto.	**P**
	Test with test pin .....:	Ditto.	**P**
	Test with test probe .....:	No TNV.	**N**
2.1.1.2	Battery compartments .....:	No battery compartments and TNV circuits.	**N**
2.1.1.3	Access to ELV wiring	No ELV wiring in operator accessible area.	**N**
	Working voltage (Vpeak or Vrms); 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.	**P**
2.1.1.6	Manual controls	No conductive shafts of operating knobs and handles.	**N**
2.1.1.7	Discharge of capacitors in equipment	In approved switching power adaptor.	**P**
	Time-constant (s); measured voltage (V).....:		—
2.1.2	Protection in service access areas	No maintenance work in operation mode necessary.	**N**
2.1.3	Protection in restricted access locations	It is not intended to use in restricted locations.	**N**

2.2	SELV circuits		**P**
2.2.1	General requirements	See below.	**P**
2.2.2	Voltages under normal conditions (V) .....:	Between any conductor of the SELV circuits 42.4 V peak or 60 V d.c. are not exceeded.	**P**
2.2.3	Voltages under fault conditions (V) .....:	Single fault did not cause excessive voltage in accessible SELV circuits. Limits of 71 V peak and 120 V d.c. were not exceed and SELV limits not for longer than 0.2 s.	**P**
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.2.3.2	Separation by earthed screen (method 2)		**N**
2.2.3.3	Protection by earthing of the SELV circuit (method 3)		**N**
2.2.4	Connection of SELV circuits to other circuits .....:	See 2.2.2 and 2.2.3. No direct connection between SELV and any primary circuits.	**P**
2.3	TNV circuits *No TNV circuit within this equipment.*		**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 *No such circuit within this equipment.*		**N**
2.4.1	General requirements		**N**
2.4.2	Limit values		**N**
	Frequency (Hz).....:		**—**
	Measured current (mA) .....:		—
	Measured voltage (V) .....:		—
	Measured capacitance (μF).....:		—
2.4.3	Connection of limited current circuits to other circuits		**N**
2.5	Limited power sources		**P**
	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**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition	See appended table 2.5.	**P**
	Output voltage (V), output current (A), apparent power (VA).....:	See appended table 2.5.	—
	Current rating of overcurrent protective device (A)		—
2.6	Provisions for earthing and bonding *Class III equipment.*		**N**
2.6.1	Protective earthing		**N**
2.6.2	Functional earthing		**N**
2.6.3	Protective earthing and protective bonding conductors		**N**
2.6.3.1	General		**N**
2.6.3.2	Size of protective earthing conductors		**N**
	Rated current (A), cross-sectional area (mm2), AWG .....:		—
2.6.3.3	Size of protective bonding conductors		—
	Rated current (A), cross-sectional area (mm2), AWG .....:		—
2.6.3.4	Resistance (Ω) of earthing conductors and their terminations, test current (A) .....:		—
2.6.3.5	Colour of insulation.....:		**N**
2.6.4	Terminals		**N**
2.6.4.1	General		**N**
2.6.4.2	Protective earthing and bonding terminals		**N**
	Rated current (A), type and nominal thread diameter (mm) .....:		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		**N**
2.6.5	Integrity of protective earthing		**N**
2.6.5.1	Interconnection of equipment		**N**
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		**N**
2.6.5.3	Disconnection of protective earth		**N**
2.6.5.4	Parts that can be removed by an operator		**N**
2.6.5.5	Parts removed during servicing		**N**
2.6.5.6	Corrosion resistance		**N**
2.6.5.7	Screws for protective bonding		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.6.5.8	Reliance on telecommunication network or cable distribution system		**N**
2.7	Overcurrent and earth fault protection in primary circuits *Class III equipment.*		**N**
2.7.1	Basic requirements		**N**
	Instructions when protection relies on building installation		**N**
2.7.2	Faults not covered in 5.3		**N**
2.7.3	Short-circuit backup protection		**N**
2.7.4	Number and location of protective devices .....:		**N**
2.7.5	Protection by several devices		**N**
2.7.6	Warning to service personnel.....:		**N**
2.8	Safety interlocks *No such device within this equipment.*		**N**
2.8.1	General principles		**N**
2.8.2	Protection requirements		**N**
2.8.3	Inadvertent reactivation		**N**
2.8.4	Fail-safe operation		**N**
2.8.5	Moving parts		**N**
2.8.6	Overriding		**N**
2.8.7	Switches and relays		**N**
2.8.7.1	Contact gaps (mm) .....:		**N**
2.8.7.2	Overload test		**N**
2.8.7.3	Endurance test		**N**
2.8.7.4	Electric strength test		**N**
2.8.8	Mechanical actuators		**N**
2.9	Electrical insulation *The unit is supplied from DC connector that provides SELV. Only SELV inside the unit. No electrical shock hazard.*		**N**
2.9.1	Properties of insulating materials		**N**
2.9.2	Humidity conditioning		**N**
	Humidity (%) .....:		—
	Temperature (°C) .....:		—
2.9.3	Grade of insulation		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.10	Clearances, creepage distances and distances through insulation *The unit is supplied from DC connector that provides SELV. Only SELV inside the unit. See also 5.3.4.*		**P**
2.10.1	General	Functional insulation only.	**P**
2.10.2	Determination of working voltage		**N**
2.10.3	Clearances		**N**
2.10.3.1	General		**N**
2.10.3.2	Clearances in primary circuits		**N**
2.10.3.3	Clearances in secondary circuits		**N**
2.10.3.4	Measurement of transient voltage levels		**N**
2.10.4	Creepage distances		**N**
	CTI tests .....:		—
2.10.5	Solid insulation		**N**
2.10.5.1	Minimum distance through insulation		**N**
2.10.5.2	Thin sheet material		**N**
	Number of layers (pcs) .....:		—
	Electric strength test		—
2.10.5.3	Printed boards		**N**
	Distance through insulation		**N**
	Electric strength test for thin sheet insulating material		—
	Number of layers (pcs) .....:		**N**
2.10.5.4	Wound components		**N**
	Number of layers (pcs) .....:		**N**
	Two wires in contact inside wound component; angle between 45° and 90° .....:		**N**
2.10.6	Coated printed boards		**N**
2.10.6.1	General		**N**
2.10.6.2	Sample preparation and preliminary inspection		**N**
2.10.6.3	Thermal cycling		**N**
2.10.6.4	Thermal ageing (°C) .....:		**N**
2.10.6.5	Electric strength test		—
2.10.6.6	Abrasion resistance test		**N**
	Electric strength test		—
2.10.7	Enclosed and sealed parts .....:		**N**
	Temperature T1=T2 + Tma – Tamb +10K (°C)....:		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.10.8	Spacings filled by insulating compound .....:		**N**
	Electric strength test		—
2.10.9	Component external terminations		**N**
2.10.10	Insulation with varying dimensions		**N**
3	WIRING, CONNECTIONS AND SUPPLY		**P**
3.1	General		**P**
3.1.1	Current rating and overcurrent protection	All internal wires are UL recognized. Cross-sectional area of internal wiring is suitable for current intended to be carried.	**P**
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges or heat sinks, which could damage insulation and cause hazard.	**P**
3.1.3	Securing of internal wiring	Internal wiring is secured reliable so that loosening of terminal connections is unlikely.	**P**
3.1.4	Insulation of conductors	Insulation of the conductor is suitable for the application. For insulation material see sub-clause 3.1.1.	**P**
3.1.5	Beads and ceramic insulators	Not used.	**N**
3.1.6	Screws for electrical contact pressure	No such screws provided.	**N**
3.1.7	Insulating materials in electrical connections	All connections are metal to metal.	**N**
3.1.8	Self-tapping and spaced thread screws	No self-tapping screws are used.	**N**
3.1.9	Termination of conductors	All conductors are reliable secured.	**P**
	10 N pull test	Break away or pivot on its terminal is unlikely.	**P**
3.1.10	Sleeving on wiring	No sleeving on wiring used as supplementary insulation.	**N**
3.2	Connection to an a.c. mains supply or a d.c. mains supply *Class III equipment. No direct connection to mains supply.*		**N**
3.2.1	Means of connection .....:		**N**
3.2.1.1	Connection to an a.c. mains supply		**N**
3.2.1.2	Connection to a d.c. mains supply		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
3.2.2	Multiple supply connections		**N**
3.2.3	Permanently connected equipment		**N**
	Number of conductors, diameter (mm) of cable and conduits .....:		—
3.2.4	Appliance inlets		**N**
3.2.5	Power supply cords		**N**
3.2.5.1	AC power supply cords		**N**
	Type.....:		—
	Rated current (A), cross-sectional area (mm2), AWG .....:		—
3.2.5.2	DC power supply cords		**N**
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		**N**
3.2.8	Cord guards		**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 *Class III equipment.*		**N**
3.3.1	Wiring terminals		**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 (mm2).....:		—
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 *Class III equipment. No direct connection to mains supply.*	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
3.4.1	General requirement		**N**
3.4.2	Disconnect devices		**N**
3.4.3	Permanently connected equipment		**N**
3.4.4	Parts which remain energized		**N**
3.4.5	Switches in flexible cords		**N**
3.4.6	Single-phase equipment and d.c. equipment		**N**
3.4.7	Three-phase equipment		**N**
3.4.8	Switches as disconnect devices		**N**
3.4.9	Plugs as disconnect devices		**N**
3.4.10	Interconnected equipment		**N**
3.4.11	Multiple power sources		**N**
3.5	Interconnection of equipment		**P**
3.5.1	General requirements	See below.	**P**
3.5.2	Types of interconnection circuits.....:	Interconnection circuits of SELV through sec connector.	**P**
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection.	**N**
4	PHYSICAL REQUIREMENTS		**N**
4.1	Stability		**N**
	Angle of 10°	Component type, It's should be evaluate in end product.	**N**
	Test: force (N).....:	Equipment is not a floorstanding unit.	**N**
4.2	Mechanical strength *The unit is supplied from DC connector that provides SELV. Only SELV inside the unit.*		**N**
4.2.1	General		**N**
4.2.2	Steady force test, 10 N		**N**
4.2.3	Steady force test, 30 N		**N**
4.2.4	Steady force test, 250 N		**N**
4.2.5	Impact test		**N**
	Fall test		**N**
	Swing test		**N**
4.2.6	Drop test		**N**
4.2.7	Stress relief test		**N**
4.2.8	Cathode ray tubes		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	Picture tube separately certified .....:		**N**
4.2.9	High pressure lamps		**N**
4.2.10	Wall or ceiling mounted equipment; force (N) .....:	Component type, It's should be evaluate in end product.	**N**
4.3	Design and construction		**P**
4.3.1	Edges and corners	Edges and corners of the enclosure are rounded.	**P**
4.3.2	Handles and manual controls; force (N).....:	No handles or controls used.	**N**
4.3.3	Adjustable controls	No control device.	**N**
4.3.4	Securing of parts	Mechanical fixings are reliable designed to withstand mechanical stress occurring during normal use.	**P**
4.3.5	Connection of plugs and sockets	No misconnection of plugs, connections or sockets possible.	**P**
4.3.6	Direct plug-in equipment	EUT not of direct plug-in type.	**N**
	Dimensions (mm) of mains plug for direct plug-in:		**—**
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N).....:		**—**
4.3.7	Heating elements in earthed equipment	No heating elements.	**N**
4.3.8	Batteries	For RTC battery: Prevent from force charging by series circuit of a diode (D12) with a 1 K ohm resistor (R121).	**P**
4.3.9	Oil and grease	Insulation in intended use not considered to be exposed to oil and grease.	**N**
4.3.10	Dust, powders, liquids and gases	EUT in intended use does not produce dust or use powders, liquids or gases.	**N**
4.3.11	Containers for liquids or gases	No such containers provided.	**N**
4.3.12	Flammable liquids.....:	No flammable liquids used.	**N**
	Quantity of liquid (l).....:		**N**
	Flash point (°C).....:		**N**
4.3.13	Radiation; type of radiation .....:	No concerned radiation within this equipment.	**P**
4.3.13.1	General	Ditto.	**P**
4.3.13.2	Ionizing radiation	No ionizing radiation or flammable liquids present.	**N**
	Measured radiation (pA/kg) .....:	Ditto.	**—**

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Clause	Requirement – Test	Result – Remark	Verdict
	Measured high-voltage (kV) .....:	Ditto.	—
	Measured focus voltage (kV) .....:	Ditto.	—
	CRT markings .....:	Ditto.	—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	No UV presents.	**N**
	Part, property, retention after test, flammability classification .....:	Ditto.	**N**
4.3.13.4	Human exposure to ultraviolet (UV) radiation .....:	Ditto.	**N**
4.3.13.5	Laser (including LEDs)	AEL of LED far below the limiting values for LED Class 1.	**P**
	Laser class .....:	Below Class 1.	—
4.3.13.6	Other types .....:	No other type.	**N**
4.4	Protection against hazardous moving parts		**N**
4.4.1	General	See below.	**N**
4.4.2	Protection in operator access areas	No hazardous moving parts in operator access areas.	**N**
4.4.3	Protection in restricted access locations	Not limited for restricted access locations.	**N**
4.4.4	Protection in service access areas	No hazardous moving parts.	**N**
4.5	Thermal requirements		**P**
4.5.1	Maximum temperatures	See appended table 4.5.1.	**P**
	Normal load condition per Annex L .....:	See appended table 1.6.2.	**P**
4.5.2	Resistance to abnormal heat	Class III equipment.	**N**
4.6	Openings in enclosures		**N**
4.6.1	Top and side openings	See below. Component type, It's should be evaluate in end product.	**N**
	Dimensions (mm) .....:	See appended table 4.6.1.	—
4.6.2	Bottoms of fire enclosures	Component type, It's should be evaluate in end product.	**N**
	Construction of the bottom .....:	See appended table 4.6.1.	—
4.6.3	Doors or covers in fire enclosures	No doors or covers provided.	**N**
4.6.4	Openings in transportable equipment	Not a transportable equipment.	**N**
4.6.5	Adhesives for constructional purposes		**N**
	Conditioning temperature (°C)/time (weeks).....:		—

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Clause	Requirement – Test	Result – Remark	Verdict
4.7	Resistance to fire		**N**
4.7.1	Reducing the risk of ignition and spread of flame	Use of materials with the required flammability classes. Component type, It's should be evaluate in end product.	**N**
	Method 1, selection and application of components wiring and materials		**N**
	Method 2, application of all of simulated fault condition tests		**N**
4.7.2	Conditions for a fire enclosure	See below.	**N**
4.7.2.1	Parts requiring a fire enclosure	See below.	**N**
4.7.2.2	Parts not requiring a fire enclosure	Component type, It's should be evaluate in end product.	**N**
4.7.3	Materials		**P**
4.7.3.1	General	PCB rated accordingly. For details see table 1.5.1.	**P**
4.7.3.2	Materials for fire enclosures	Metallic enclosure used. Component type, It's should be evaluate in end product.	**N**
4.7.3.3	Materials for components and other parts outside fire enclosures	Decorative enclosure rated accordingly. For details see table 1.5.1.	**P**
4.7.3.4	Materials for components and other parts inside fire enclosures	Internal components except small parts are V-2 or better.	**P**
4.7.3.5	Materials for air filter assemblies	No air filter provided.	**N**
4.7.3.6	Materials used in high-voltage components	No high voltage components provided.	**N**

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		**N**
5.1	Touch current and protective conductor current *Class III equipment without TNV circuit.*		**N**
5.1.1	General		**N**
5.1.2	Equipment under test (EUT)		**N**
5.1.3	Test circuit		**N**
5.1.4	Application of measuring instrument		**N**
5.1.5	Test procedure		**N**
5.1.6	Test measurements		**N**
	Test voltage (V) .....:		—
	Measured touch current (mA) .....:		—
	Max. allowed touch current (mA) .....:		—
	Measured protective conductor current (mA) .....:		—

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Clause	Requirement – Test	Result – Remark	Verdict
	Max. allowed protective conductor current (mA) .:		—
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**
5.2	Electric strength *Class III equipment.*		**N**
5.2.1	General		**N**
5.2.2	Test procedure		**N**
5.3	Abnormal operating and fault condition		**P**
5.3.1	Protection against overload and abnormal operation	See below.	**P**
5.3.2	Motors	None of the listed components provided.	**N**
5.3.3	Transformers	No safety isolation transformer in this equipment.	**N**
5.3.4	Functional insulation.....:	Method c). See appended table 5.3.	**P**
5.3.5	Electromechanical components	No electromechanical components.	**N**
5.3.6	Simulation of faults	Ventilation openings blocked tested. See appended table 5.3.	**P**
5.3.7	Unattended equipment	None of the listed components provided.	**N**
5.3.8	Compliance criteria for abnormal operating and fault conditions	No fire occurs, no emit molten metal, no hazardous.	**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**

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Clause	Requirement – Test	Result – Remark	Verdict
6.1.1	Protection from hazardous voltages		**N**
6.1.2	Separation of the telecommunication network from earth		**N**
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		**N**
7.2	Protection of equipment users from overvoltages on the cable distribution system		**N**
7.3	Insulation between primary circuits and cable distribution systems		**N**
7.3.1	General		**N**
7.3.2	Voltage surge test		**N**
7.3.3	Impulse test		**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**
A.1.3	Mounting of samples .....:		**N**

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Clause	Requirement – Test	Result – Remark	Verdict
A.1.4	Test flame (see IEC 60695-11-3)		**N**
	Flame A, B, C or D .....:		—
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 (see IEC 60695-11-4)		**N**
	Flame A, B or C .....:		—
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 and 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		**N**
	Position .....:		—
	Manufacturer .....:		—
	Type .....:		—
	Rated values .....:		—

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Clause	Requirement – Test	Result – Remark	Verdict
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		**N**
	Protection from displacement of windings.....:		**N**
D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		**N**
D.1	Measuring instrument		**N**
D.2	Alternative measuring instrument		**N**
E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		**N**
F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10)		**N**

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Clause	Requirement – Test	Result – Remark	Verdict
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**
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		**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**
L.4	Pencil sharpeners		**N**
L.5	Duplicators and copy machines		**N**
L.6	Motor-operated files		**N**
L.7	Other business equipment	See 1.6.2.	**P**

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Clause	Requirement – Test	Result – Remark	Verdict
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	Ringing 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		**P**
Q	ANNEX Q, BIBLIOGRAPHY		**P**
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**
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**
			—

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Clause	Requirement – Test	Result – Remark	Verdict
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		**N**
			—
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		**N**
V.1	Introduction		**N**
V.2	TN power distribution systems		**N**
V.3	TT power systems		**N**
V.4	IT power systems		**N**
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		**N**
W.1	Touch current from electronic circuits		**N**
W.1.2	Earthed circuits		**N**
W.2	Interconnection of several equipments		**N**
W.2.1	Isolation		**N**
W.2.2	Common return, isolated from earth		**N**
W.2.3	Common return, connected to protective earth		**N**
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		**N**
X.1	Determination of maximum input current		**N**
X.2	Overload test procedure		**N**
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		**N**
Y.1	Test apparatus .....:		**N**
Y.2	Mounting of test samples .....:		**N**
Y.3	Carbon-arc light-exposure apparatus .....:		**N**
Y.4	Xenon-arc light exposure apparatus .....:		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
CENELEC COMMON MODIFICATIONS [C], SPECIAL NATIONAL CONDITIONS [S] AND A-DEVIATIONS (NATIONAL DEVIATIONS) [A] (EN 60950-1:2001, Annex ZB and Annex ZC)			**P**
General	C: Delete all the "country" notes in the reference document according to the following list: 1.1.5 Note 2, 1.5.8 Note 2, 1.6.1 Note 1.7.2 Note 4, 1.7.12 Note 2, 2.6 Note 2.2.3 Note, 2.2.4 Note, 2.3.2 Note 2, 7, 8 2.3.3 Note 1, 2, 2.3.4 Note 2,3, 2.7.1 Note 2.10.3.1 Note 4, 3.2.1.1 Note, 3.2.3 Note 1, 2 3.2.5.1 Note 2, 4.3.6 Note 1,2, 4.7.2.2 Note 4.7.3.1 Note 2, 6.1.2.1 Note, 6.1.2.2 Note 6.2.2 Note, 6.2.2.1 Note 2, 6.2.2.2 Note 7 Note 4, 7.1 Note G2.1 Note 1, 2, Annex H Note 2	Deleted.	**N**
1.2.4.1	S (DK): Certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.	No direct mains connection.	**N**
1.5.1	A (SE, Ordinance 1990:944 and CH, Ordinance on environmentally hazardous substances SR 814.013, Annex 3.2, Mercury): Add NOTE – Switches containing mercury such as thermostats, relays and level controllers are not allowed.	No such switches.	**N**
1.5.8	S (NO): Due to the IT power system used (see annex V, Fig. V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).	Class III equipment.	**N**
1.7.2	S (FI, NO, SE): CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows:	Ditto.	**N**
	FI: "Laite on liitettävä suojamaadoitus-koskettimilla varustettuun pistorasiaan"	Ditto.	**N**
	NO: "Apparatet må tilkoples jordet stikkontakt"	Ditto.	**N**
	SE: "Apparaten skall anslutas till jordat uttag"	Ditto.	**N**
	A (DK, Heavy Current Regulations): Supply cords of class I equipment, which is delivered without a plug, must be provided with a visible tag with the following text: Vigtigt! Lederen med grøn/gul isolation må kun tilsluttes en klemme mærket  eller 	Ditto.	**N**

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Clause	Requirement – Test	Result – Remark	Verdict
	If essential for the safety of the equipment, the tag must in addition be provided with a diagram which shows the connection of the other conductors, or be provided with the following text: "For tilslutning af de øvrige ledere, se medfølgende instalationsvejledning."		
1.7.5	S (DK): Socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For stationary equipment the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a.	Class III equipment. No socket-outlets.	**N**
1.7.5	A (DK, Heavy Current Regulations): CLASS II EQUIPMENT shall not be fitted with socket-outlets for providing power to other equipment.	Class III equipment.	**N**
1.7.12	A (DE, Gesetz über technische Arbeitsmittel (Gerätesicherheitsgesetz) [Law on technical labour equipment {Equipment safety law}], of 23rd October 1992, Article 3, 3rd paragraph, 2nd sentence, together with the "Allgemeine Verwaltungsvorschrift zur Durchführung des Zweiten Abschnitts des Gerätesicherheitsgesetzes" [General administrative regulation on the execution of the Second Section of the Equipment safety law], of 10th January 1996, article 2, 4th paragraph item 2): Directions for use with rules to prevent certain hazards for (among others) maintenance of the technical labour equipment, also for imported technical labour equipment shall be written in the German language. NOTE: Of this requirement, rules for use even only by service personnel are not exempted.	Shall be evaluated when submitted to national approval.	**N**
1.7.15	A (CH, Ordinance on environmentally hazardous substances SR 814.013): Annex 4.10 of SR 814.013 applies for batteries.	RTC battery in compliance with requirements of IEC 60950-1. Overall compliance needs to be evaluated during the national approval process.	**N**
	A (DE, Regulation on protection against hazards by X-ray, of 8th January 1987, Article 5 [Operation of X-ray emission source], clauses 1 to 4): a) A licence is required by those who operate an X-ray emission source. b) A licence in accordance with Cl. 1 is not required by those who operate an X-ray emission source on which the electron acceleration voltage does not exceed 20 kV if 1) the local dose rate at a distance of 0,1 m from the surface does not exceed 1 µSv/h and 2) it is adequately indicated on the X-ray	This national difference was deleted by A11 of EN 60950-1.	**N**

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Clause	Requirement – Test	Result – Remark	Verdict
	emission source that i) X-rays are generated and ii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer. c) A licence in accordance with Cl. 1 is also not required by persons who operate an X-ray emission source on which the electron acceleration voltage exceeds 20 kV if 1) the X-ray emission source has been granted a type approval and 2) it is adequately indicated on the X-ray emission source that i) X-rays are generated ii) the device stipulated by the manufacturer or importer guarantees that the maximum permissible local dose rate in accordance with the type approval is not exceeded and iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer. d) Furthermore, a licence in accordance with Cl. 1 is also not required by persons who operate X-ray emission sources on which the electron acceleration voltage does not exceed 30 kV if 1) the X-rays are generated only by intrinsically safe CRTs complying with Enclosure III, No. 6, 2) the values stipulated in accordance with Enclosure III, No. 6.2 are limited by technical measures and specified in the device and 3) it is adequately indicated on the X-ray emission source that the X-rays generated are ade-quately screened by the intrinsically safe CRT.		
2.2.4	S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.	No TNV.	**N**
2.3.2	S (NO): Requirements according to this annex, 6.1.2.1 apply.	Ditto.	**N**
2.3.3 and 2.3.4	S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.	Ditto.	**N**
2.6.3.3	S (GB): The current rating of the circuit shall be taken as 13 A, not 16 A.	Class III equipment.	**N**
2.7.1	C: Replace the subclause as follows: *Basic requirements* To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a),	Replaced.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		
	S (GB): To protect against excessive currents and short-circuits in the PRIMARY CIRCUIT OF DIRECT PLUG-IN EQUIPMENT, protective device shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT.	Not direct plug-in equipment.	**N**
2.7.2	C: Void.	Void.	**N**
2.10.2	C: Replace in the first line "(see also 1.4.7)" by "(see also 1.4.8)".	Replaced.	**P**
2.10.3.1	S (NO): Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage and will remain at 230 V in case of a single earth fault	No direct mains connection.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
3.2.1.1	S (CH): Supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: SEV 6532-2.1991, Plug type 15, 3P+N+PE 250/400 V, 10 A SEV 6533-2.1991, Plug type 11, L+N 250 V, 10 A SEV 6534-2.1991, Plug type 12, L+N+PE 250 V, 10 A In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998: SEV 5932-2.1998, Plug type 25, 3L+N+PE 230/400 V, 16 A SEV 5933-2.1998, Plug type 21, L+N 250 V, 16 A SEV 5934-2.1998, Plug type 23, L+N+PE 250 V, 16 A	Class III equipment.	**N**
	S (DK): Supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If ply-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.	Ditto.	**N**
	S (ES): Supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.	Ditto.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	S (GB): Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 – The Plugs and Socket etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE – 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.	Ditto.	**N**
	S (IE): Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 – National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.	Ditto.	**N**
3.2.3	C: Delete Note 1 and in Table 3A, delete the conduit sizes in parentheses.	Deleted.	**N**
3.2.5.1	C: Replace "60245 IEC 53" by "H05 RR-F"; "60227 IEC 52" by "H03 VV-F or H03 VVH2-F"; "60227 IEC 53" by "H05 VV-F or H05 VVH2-F2". In Table 3B, replace the first four lines by the following: Up to and including 6 0,75[1)] Over 6 up to and including 10 (0,75)[2)] 1,0 Over 10 up to and including 16 (1,0)[3)] 1,5 In the Conditions applicable to Table 3B delete the words "in some countries" in condition [1)]. In Note 1, applicable to Table 3B, delete the second sentence.	Replaced.	**N**
3.2.5.1	S (GB): A power supply cord with conductor of 1,25 mm^2 is allowed for equipment with a rated current over 10 A and up to and including 13 A.	Class III equipment.	**N**
3.3.4	C: In table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: "Over 10 up to and including 16 | | Delete the fifth line: conductor sizes for 13 to 16 A.	Deleted.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
3.3.4	S (GB): The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: - 1,25 mm^2 to 1,5 mm^2 nominal cross-sectional area.	Class III equipment.	**N**
4.3.6	S (GB): The torque test is performed using a socket outlet complying with BS 1363 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C.	Not direct plug-in equipment.	**N**
	S (IE): DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 – National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.	Ditto.	**N**
4.3.13.6	C: Add the following note: NOTE Attention is drawn to 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz. Standards taking into account this recommendation are currently under development.	Added.	**N**
6.1.2.1	S (FI, NO, SE): Add the following text between the first and second paragraph: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES AND CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - passes the tests and inspection criteria of 2.10.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.7 shall be performed using 1,5 kV), and - is subject to ROUTINGE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.	No TNV.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2. A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions: - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950:2000, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400, in the sequence of tests as described in EN 132400.		
6.1.2.2	S (FI, NO, SE): The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a service person.	Ditto.	**N**
7.1	S (FI, NO, SE): Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.	Not such equipment.	**N**
G.2.1	S (NO): Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage, and will remain at 230 V in case of a single earth fault.	Annex G not applied for.	**N**
Annex H	C: Replace the last paragraph of this annex by: At any point 10 cm from the surface of the operator access area, the dose rate shall not exceed 1 μSv/h (0,1 mR/h) (see note). Account is taken of the background level. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete Note 2.	Replaced.	**N**
Annex P	C: Replace the text of this annex by: See annex ZA.	Replaced.	**P**
Annex Q	C: Replace the title of IEC 61032 by "Protection of persons and equipment by enclosures – Probes for verification".		**P**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	Add the following notes for the standards indicated: IEC 60127 NOTE Harmonized as EN 60127 (Series) (not modified) IEC 60269-2-1 NOTE Harmonized as HD 630.2.1 S4:2000 (modified) IEC 60529 NOTE Harmonized as EN 60529:1991 (not modified) IEC 61032 NOTE Harmonized as EN 61032:1998 (not modified) IEC 61140 NOTE Harmonized as EN 61140:2001 (not modified) ITU-T Recommendation K.31 NOTE in Europe, the suggested document is EN 50083-1.		
Annex ZA	C: NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR RELEVANT EUROPEAN PUBLICATIONS This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments). NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies. — IEC 60050-151 — IEC 60050-195 EN 60065:1998 + corr. June 1999 IEC 60065 (mod):1998 EN 60073:1996 IEC 60073:1996 HD 566 S1:1990 IEC 60085:1984 HD 214 S2:1980 IEC 60112:1979 HD 611.4.1.S1:1992 IEC 60216-4-1:1990 HD 21 [1)] Series IEC 60227 (mod) Series HD 22 [2)] Series IEC 60245 (mod) Series EN 60309 Series IEC 60309 Series EN 60317-43:1997 IEC 60317-43:1997 EN 60320 Series IEC 60320 (mod) Series HD 384.3 S2:1995 IEC 60364-3 (mod):1993 HD 384.4.41 S2:1996 IEC 60364-4-41 (mod):1992 [3)] EN 132400:1994 [4)] IEC 60384-14:1993 + A2:1998 + A3:1998 + A4:2001 EN 60417-1 IEC 60417-1 HD 625.1 S1:1996 + corr. Nov. 1996 IEC 60664-1 (mod):1992 EN 60695-2-2:1994 IEC 60695-2-2:1991 EN 60695-2-11:2001 IEC 60695-2-11:2000 — IEC 60695-2-20:1995 — IEC 60695-10-2:1995 — IEC 60695-11-3:2000 — IEC 60695-11-4:2000 EN 60695-11-10:1999 IEC 60695-11-10:1999 EN 60695-11-20:1999 IEC 60695-11-20:1999 EN 60730-1:2000 IEC 60730-1:1999 (mod) EN 60825-1:1994 + corr. Febr. 1995 + IEC 60825-1:1993 A11:1996 + corr. July 1997 EN 60825-2:2000 IEC 60825-2:2000 — IEC 60825-9:1999 EN 60851-3:1996 IEC 60851-3:1996 EN 60851-5:1996 IEC 60825-5:1996 EN 60851-6:1996 IEC 60851-6:1996		**P**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	—	IEC 60885-1:1987	
	EN 60990:1999	IEC 60990:1999	
	—	IEC 61058-1:2000	
	EN 61965:2001	IEC 61965:2000	
	EN ISO 178:1996	ISO 178:1993	
	EN ISO 179 Series	ISO 179 Series	
	EN ISO 180:2000	ISO 180:1993	
	—	ISO 261:1998	
	—	ISO 262:1998	
	EN ISO 527 Series	ISO 527 Series	
	—	ISO 386:1984	
	EN ISO 4892 Series	ISO 4892 Series	
	—	ISO 7000:1989	
	EN ISO 8256:1996	ISO 8256:1990	
	—	ISO 9772:1994	
	EN ISO 9773:1998	ISO 9773:1998	
	—	ITU-T:1988 Recommendation K.17	
	—	ITU-T:2000 Recommendation K.21	
	1) The HD 21 series is related to, but not directly equivalent with the IEC 60227 series 2) The HD 22 series is related to, but not directly equivalent with the IEC 60245 series 3) IEC 60364-4-41:1992 is superseded by IEC 60364-4-41:2001 4) EN 132400, Sectional Specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains (Assessment level D), and its amendments are related to, but not directly equivalent to IEC 60384-14		

1.5.1	TABLE: list of critical components				**P**
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity [1.]
Metallic enclosure	--	--	1mm thickness minimum.	--	--
PCB	--	--	V-1 min. 130°C min.	UL 796	UL
Power Adaptor	--	--	O/P: 9-30Vdc, 7-2.1A, Ambient: 45 degree C	IEC 60950-1:2001	CB or TUV
Hard Disk Drive (Optional)	--	--	5Vdc, 1.5A max.	EN 60950-1:2001	TÜV
RTC Battery (BAT)	Hitachi Maxell Ltd.	CR2032	3Vdc, 210mAh, max. abnormal charging current 10mA.	UL 1642	UL
Note(s):					

1.6.2	TABLE: electrical data (in normal conditions)					**P**
Fuse #	Irated (A)	U (V)	P (W)	I (A)	Ifuse (A)	Condition/status
--	7.0	9Vdc	63.54	7.06	--	Maximum Normal Load
--	2.0	30Vdc	61.8	2.06	--	Maximum Normal Load
Note(s): Maximum normal load: Cross reading/writing data in HDD, VGA port and S-Video connected to monitor, the dummy loads of 2.5W in each USB ports (four provided).						

2.1.1.5	TABLE: max. V, A, VA test				**N**
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
Note(s):					

2.1.1.7	TABLE: discharge test				**N**
Condition	τ calculated (s)	τ measured (s)	t u→ 0V (s)	Comments	
Note(s):					

Transformer	Location	max. Voltage		Voltage Limitation Component
		V peak	V d.c.	
Note(s):				

2.2.3	TABLE: SEL voltage measurement		**N**
Location		Voltage measured (V)	Comments
Note(s):			

2.4.2	TABLE: limited current circuit measurement					**N**
Location	Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)	Comments	
Note(s):						

2.5	TABLE: limited power source measurement		**P**
	Limits	Measured	Verdict
According to Table 2B (normal condition) (USB port: USB1) Uoc = 5.05Vdc			
current (in A)	8	1.4	**P**
apparent power (in VA)	5 x Uoc = 25.25	6.55	**P**
According to Table 2B (normal condition) (USB port: USB2) Uoc = 5.05Vdc			
current (in A)	8	1.4	**P**
apparent power (in VA)	5 x Uoc = 25.25	6.53	**P**
According to Table 2B (normal condition) (PS/2 port: CN4) Uoc = 5.05Vdc			
current (in A)	8	1.4	**P**
apparent power (in VA)	5 x Uoc = 25.25	6.03	**P**
According to Table 2B (fault condition) (USB port: USB1, U5 Pin1-2 short) Uoc = 5.05Vdc			
current (in A)	8	5	**P**
apparent power (in VA)	5 x Uoc = 25.25	1.65	**P**
According to Table 2B (fault condition) (USB port: USB2, U9 Pin1-2 short) Uoc = 5.05Vdc			
current (in A)	8	5	**P**
apparent power (in VA)	5 x Uoc = 25.25	1.65	**P**

According to Table 2B (fault condition) (PS/2 port: CN4, U3 Pin1-2 short) Uoc = 5.05Vdc			
current (in A)	8	5	**P**
apparent power (in VA)	5 x Uoc = 25.25	1.73	**P**
Note(s):			

2.6.3.3	TABLE: ground continue test		**N**
Location	Resistance measured (mΩ)	Comments	
Note(s):			

2.10.2	Table: working voltage measurement			**N**
Location	RMS voltage (V)	Peak voltage (V)	Comments	
Note(s):				

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements					**N**
Clearance cl and creepage distance dcr at/of:	U p (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required dcr (mm)	dcr (mm)
Note(s):						

2.10.5	TABLE: distance through insulation measurements				**N**
Distance through insulation di at/of:	U r.m.s. (V)	Test voltage (V)	Required di (mm)	di (mm)	
Note(s):					

4.5.1	TABLE: maximum temperatures			**P**
	test voltage (V) .....:	a) 9Vdc, b) 30Vdc		—
	t1 (°C) .....:	--		—
	t2 (°C) .....:	--		—
Maximum temperature T of part/at:		T (°C)	allowed T_{max} (°C)	

Test condition:	a)	b)	--
PCB near CPU	129.3	129.6	130
PCB near U4	126.2	127.2	130
PCB near U36	109.7	111.3	130
RTC Battery	70.5	72.5	--
H.D.D	73.1	75.2	--
PCB near U34	82.2	85.9	130
PCB near L7	78.4	81.6	130
Enclosure outside near memory	60.6	62.3	--
Enclosure outside near CPU	65.0	67.2	--
Ambient	45.0	45.0	--

Temperature T of winding:	R_1 (Ω)	R_2 (Ω)	T (°C)	allowed T_{max} (°C)	insulation class

Note(s):

1. The temperatures were measured under worst normal mode defined in 1.2.2.1 and as described in sub-clause 1.6.2 and at voltages as described above.
2. The user's manual defines the T_{mra} at 45°C. Therefore the maximum permitted temperatures are recalculated for the worst T_{amb} at 45°C.
3. Abnormal condition has no temperature limits.

4.5.2	TABLE: ball pressure test of thermoplastic parts		**N**
	allowed impression diameter (mm) .....:	≤ 2 mm	—

Part	Test temperature (°C)	Impression diameter (mm)

Note(s):

4.6.1, 4.6.2	Table: enclosure openings	**N**

Location	Size (mm)	Comments
Top side	--	No openings.
Front side	--	No openings.
Left side	--	No openings.
Right side	--	No openings.
Rear side	--	No openings.

Bottom side	Φ 3.78mm 88.6 x 2.3mm x 2 areas	Numerous circle openings. One rectangle openings Component type, It's should be evaluate in end product.
Note(s):		

4.7	Table: resistance to fire			**N**
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class
Note(s):				

5.1.6	TABLE: touch current measurement			**N**
Condition	L→ terminal A (mA)	N → terminal A (mA)	Limit (mA)	Comments
Note(s):				

5.2	TABLE: electric strength tests and impulse tests		**N**
Test voltage applied between:		Test voltage (V)	Breakdown
Note(s):			

5.3	TABLE: fault condition tests		**P**
	ambient temperature (°C) ..... :	25°C if no otherwise specified.	—
	model/type of power supply ..... :	See appended table 1.5.1	—
	manufacturer of power supply ..... :	See appended table 1.5.1	—
	rated markings of power supply ..... :	See appended table 1.5.1	—

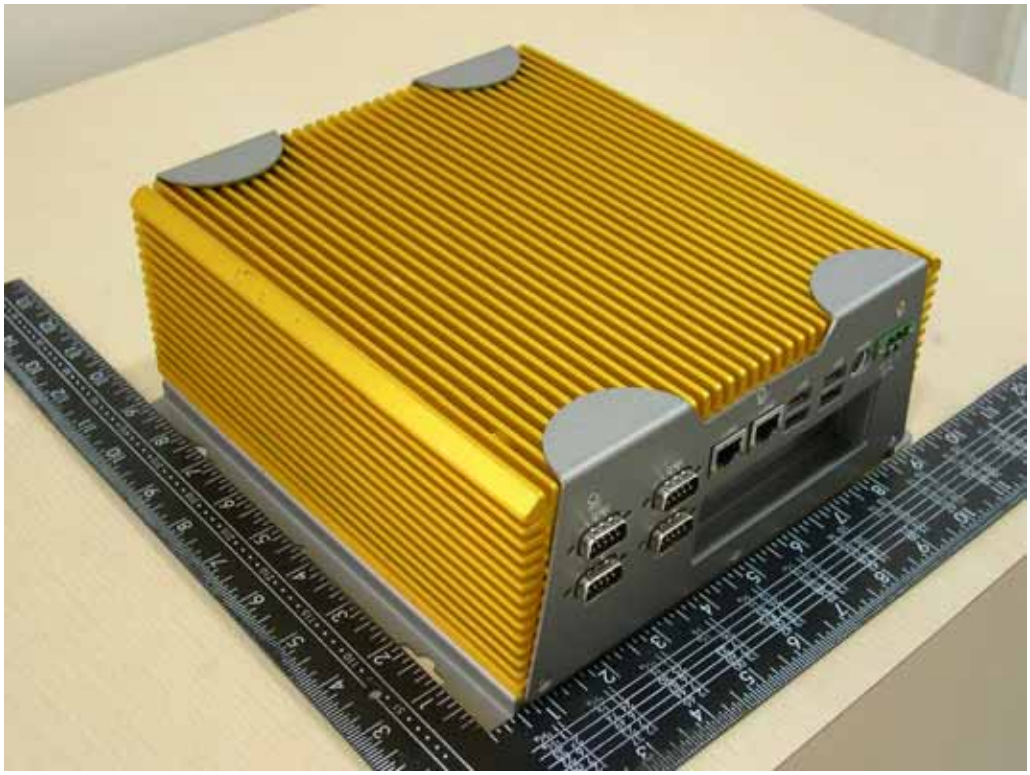
No.	Component no.	Fault	Test voltage (V)	Test time	Fuse no.	Fuse current (A)	Result
1	D12, Pin 1-2 (For RTC battery charging)	s-c	--	10 min	--	--	No hazards. Current = 3.25mA.
2	Ventilation openings	Block	30Vdc	3 h	--	--	Unit operated normally. No damage, no hazard.

Note(s): In fault column: s-c=short-circuited.

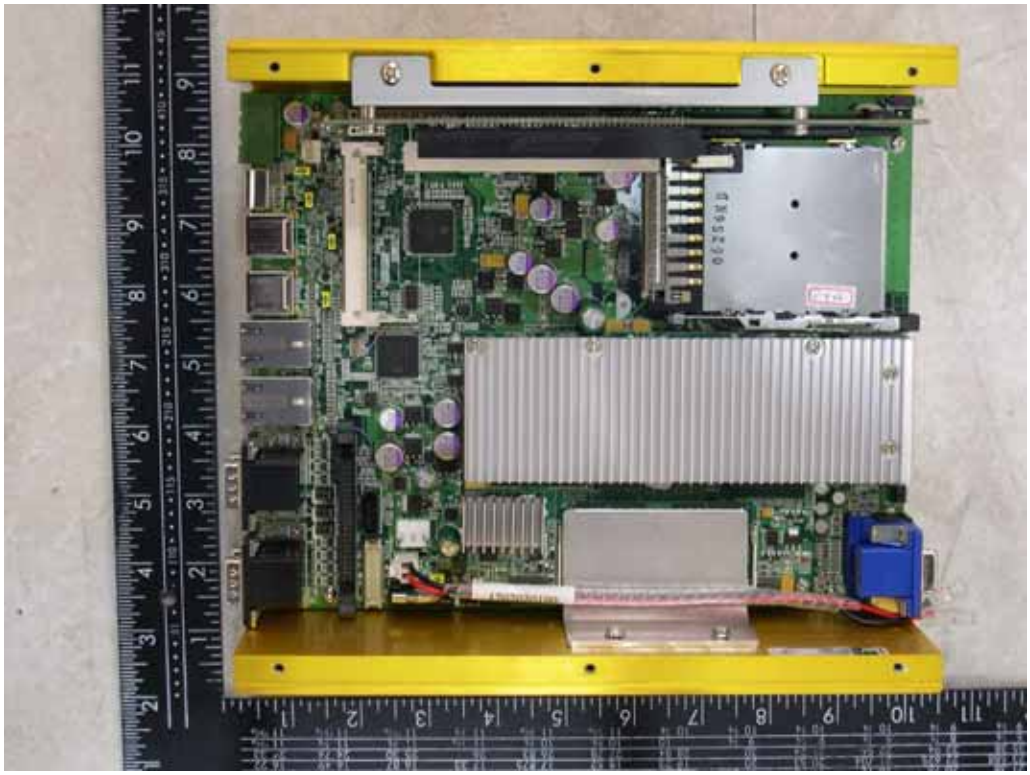
C.2	Safety isolation transformer	**N**
	Construction details:	
Transformer part name:		
Manufacturer:		
Type:		
Recurring peak voltage		
Required clearance for reinforced insulation (from table 2H and 2J)		
Effective voltage rms		
Required creepage distance for reinforced insulation (from table 2L)		
Measured min. creepage distance		
Location	inside (mm)	outside (mm)
Measured min. clearances		
Location	inside (mm)	outside (mm)
Construction:		
Pin numbers		
Prim.		
Sec.		
Bobbin		
Material		

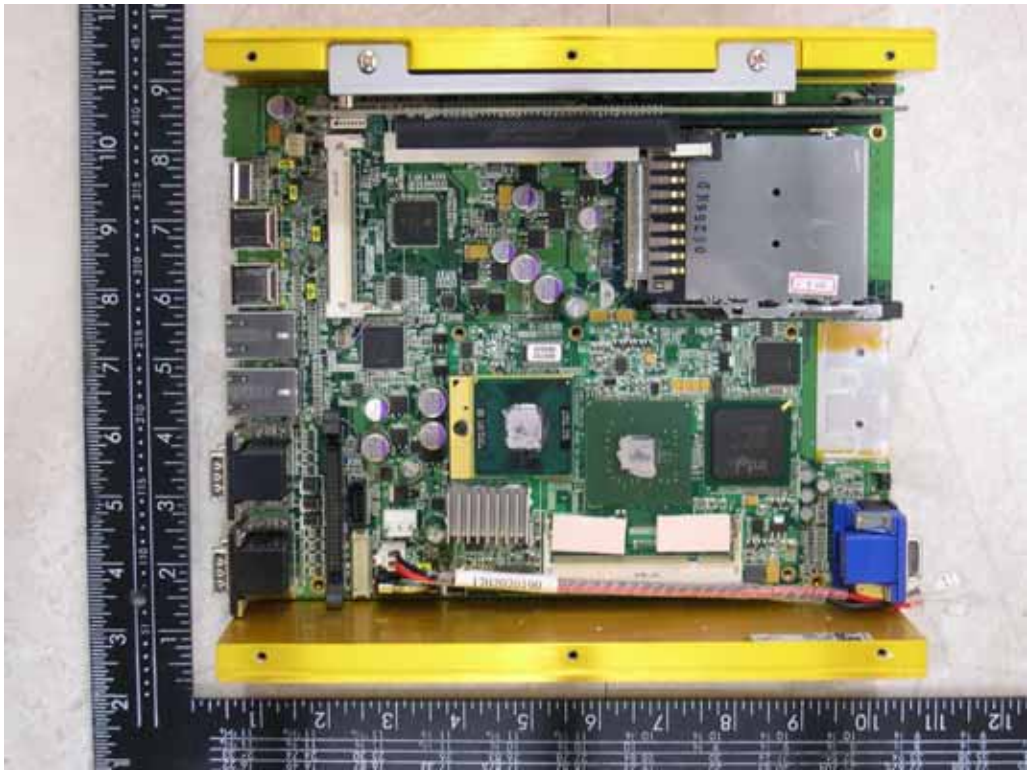
Thickness	
Electric strength test	
With 3000 V a.c. after humidity treatment	
Result	

Photo

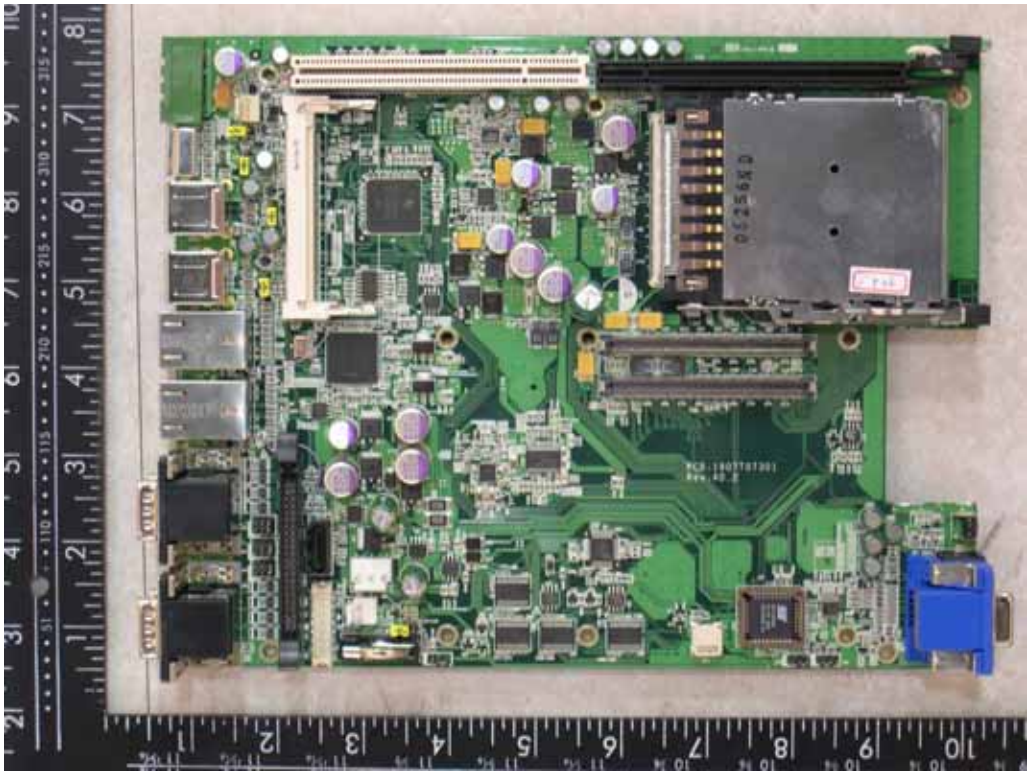


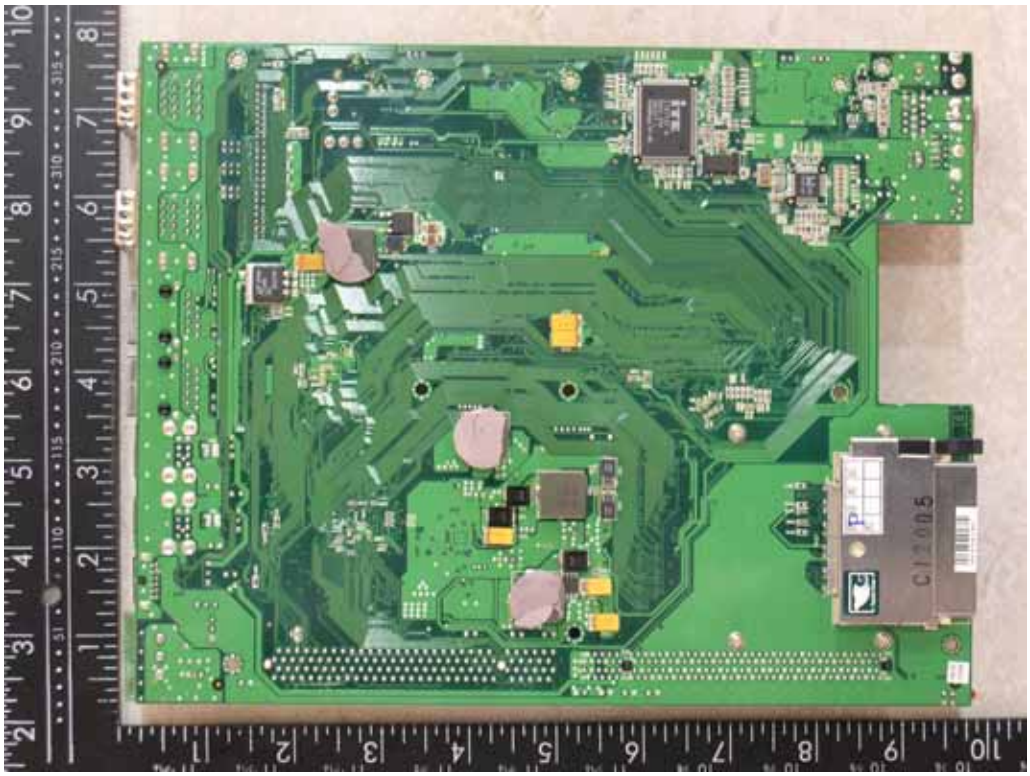
Photo

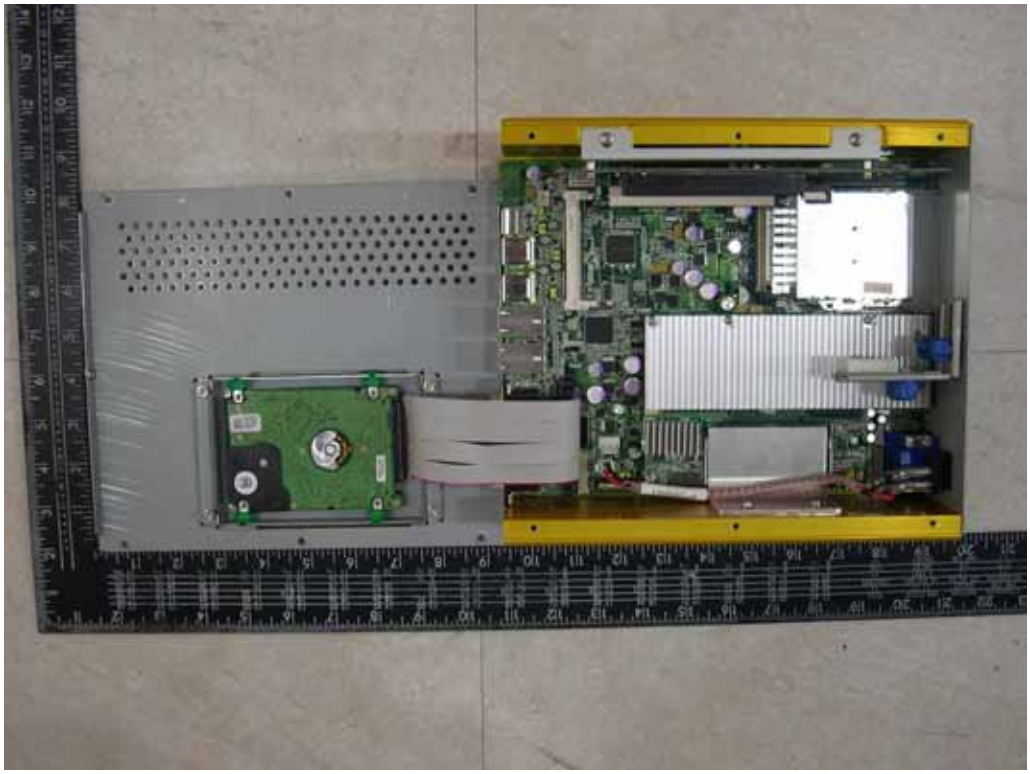




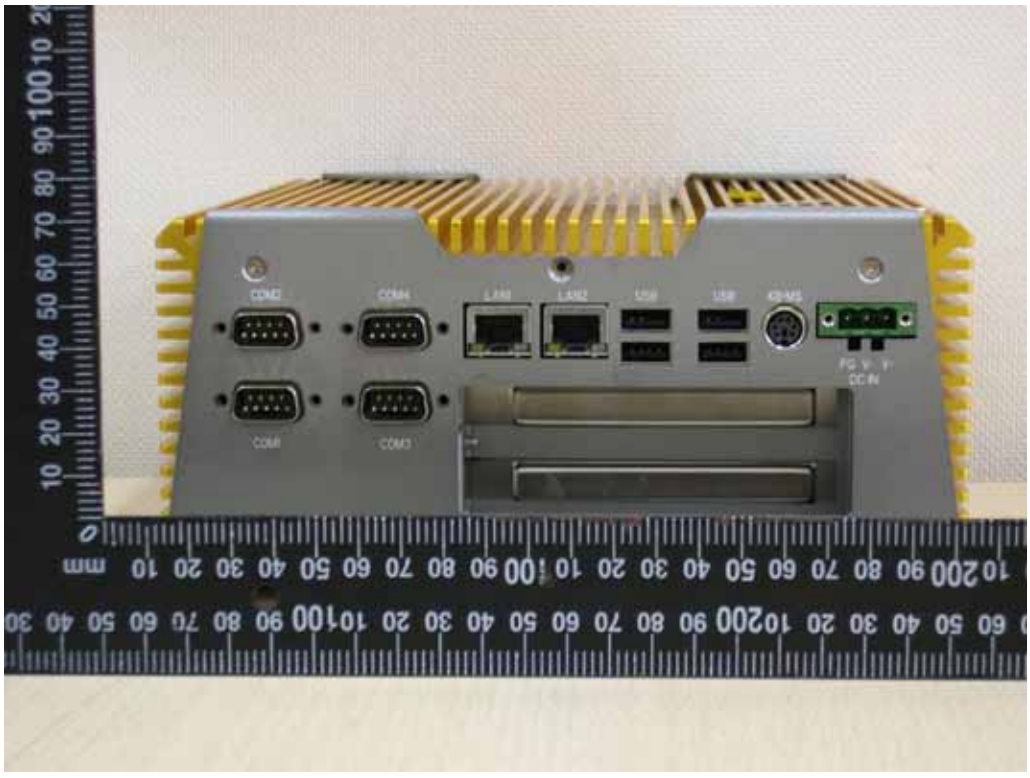
Photo








HDD
SYS
RESET
AUDIO
TV OUT
VGA


COM2
COM4
LAN1
LAN2
USB
USB
KB/MS
COM1
COM3
DC IN