



Test Report

Product Name : Print Server

Model No. : TEW-P1U

Applicant : TRENDware International Inc.

Address : 3135 Kashiwa Street, Torrance, CA 90505
USA

Date of Receipt : November 10, 2003

Date of Test : September 04, 2003

Report No. : LD920612R03

The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of TRENDware International Inc.



TEST REPORT	
EN 60950	
Safety of information technology equipment including electrical business equipment	
Report	
Reference No.....	LD920612R03
Compiled by (+ signature)	See cover sheet
Approved by (+ signature)	See cover sheet
Date of issue	September 04, 2003
This report is based on a blank test report that was prepared by KEMA using information obtained from the TRF originator (see below).	
Testing laboratory	
Name.....	Advance Data Technology Corporation
Address	No. 46, Lane 504, Chung Hsiao Road, Lin Kou Hsiang, Taipei, Taiwan.
Testing location.....	Advance Data Technology Corporation
Address	No. 46, Lane 504, Chung Hsiao Road, Lin Kou Hsiang, Taipei, Taiwan.
Client	
Name.....	TRENDware International Inc.
Address	3135 Kashiwa Street, Torrance CA 90505 USA
Test specification	
Standard.....	EN 60950:2000
Test procedure	This Test Report is not valid as a CCA Test Report unless signed by a CCA Testing Laboratory and appended to a CCA Test Certificate.
Procedure deviation	N/A.
Non-standard test method.....	N/A.
Test Report Form/blank test report	
Test Report Form No.....	60950__D/97-08
TRF originator.....	FIMKO
Master TRF	Reference No. 60950 D, dated 97-02
Copyright reserved to the bodies participating in the Committee of Certification Bodies (CCB) and/or the bodies participating in the CENELEC Certification Agreement (CCA).	
Test item	
Description	USB Wireless Print Server
Trademark	TRENDnet
Model and/or type reference.....	TEW-P1U
Manufacturer.....	TRENDware International Inc.
Rating(s).....	3.3 Vdc, 2.0A



EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict

Particulars: test item vs. test requirements

Equipment mobility..... : Movable
 Operating condition..... : Continuous
 Mains supply tolerance (%)..... : N/A
 Tested for IT power systems..... : No
 IT testing, phase-phase voltage (V)..... : N/A
 Class of equipment : Class III
 Mass of equipment (kg) : 60 g
 Protection against ingress of water..... : IP20

Test case verdicts

- test case does not apply to the test object : N/A
 - test object does meet the requirement..... : Pass
 - test object does not meet the requirement..... : Fail

Testing

Date of receipt of test item : August 28, 2003
 Date(s) of performance of test..... : August 29, 2003

General remarks

This test 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 tested.
 "(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 comma is used as the decimal separator.

Brief description of the test equipment:

- 1) The equipment is a USB Wireless Print Server. Using radio frequency (RF) technology, transmit and receiver data over air, provide a convenient way to connect to LAN.
- 2) Dimension: Enclosure A= 72 by 61 by 27 mm. Enclosure B= 80 by 65 by 30 mm.
- 3) Maximum operating Temperature: 60 .

Manufacturer Model Number:

TEW-P1U

Test condition:

Temperature : 25 .
 Relative humidity: 60%
 Air pressure: 900 mbar.

The test sample was a pre-production sample without serial number.



EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict

1	GENERAL		
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1.5	Components		
1.5.1	Comply with IEC 60950 or relevant component standard	Components, which were found to affect safety aspects, are complied with the requirements of this standard or within the safety aspects of the relevant IEC component standards. (see appended table 1.5.1)	Pass
1.5.2	Evaluation and testing of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	Pass
	Dimensions (mm) of mains plug for direct plug-in	--	N/A
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N).....	--	N/A
1.5.3	Thermal controls	--	N/A
1.5.4	Transformers	--	N/A
1.5.5	Interconnecting cables	Interconnecting cable for Interconnection is carrying only SELV voltages on an energy level below 240 VA. Except for the insulation material, there is no further requirements to the o/p interconnection cable.	Pass
1.5.6	Capacitors in primary circuits	--	N/A
1.5.7	Double or reinforced insulation bridged by components	--	N/A
1.5.7.1	Bridging capacitors	--	N/A
1.5.7.2	Bridging resistors	--	N/A
1.5.7.3	Accessible parts	--	N/A
1.5.8	Components in equipment for IT power systems	--	N/A

1.6	Power interface		N/A
1.6.1	AC power distribution systems	--	N/A
1.6.2	Input current	--	N/A



EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict
1.6.3	Voltage limit of hand-held equipment	This appliance is not a hand-held equipment.	N/A
1.6.4	Neutral conductor	--	N/A
1.7	Marking and instructions		Pass
1.7.1	Power rating	Optional	Pass
	Rated voltage(s) or voltage range(s) (V)	Optional, 3.3V	Pass
	Symbol for nature of supply for d.c.	Optional, (60417-1-IEC-5031)	Pass
	Rated frequency or frequency range (Hz)	DC	N/A
	Rated current (A)	Optional, 2.0A	N/A
	Manufacturer's name/Trademark	TRENDware International Inc. TRENDnet, more information please refer to appendix table	Pass
	Type/model	USB Wireless Print Server / TEW-P1U, more information please refer to appendix table	Pass
	Symbol of Class II	Class III equipment.	N/A
	Other symbols	--	N/A
	Certification marks	CE	Pass
1.7.2	Safety instructions	The users manual provided.	Pass
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	N/A
1.7.4	Supply voltage adjustment	--	N/A
1.7.5	Power outlets on the equipment	--	N/A
1.7.6	Fuse identification	--	N/A
1.7.7	Wiring terminals	--	N/A
1.7.7.1	Protective earthing and bonding terminals	Class III equipment	N/A
1.7.7.2	Terminal for a.c. mains supply conductors	--	N/A
1.7.8	Controls and indicators	--	N/A
1.7.8.1	Identification, location and marking	--	N/A
1.7.8.2	Colours	--	N/A
1.7.8.3	Symbols according to IEC 60417	--	N/A
1.7.8.4	Markings using figures	--	N/A
1.7.9	Isolation of multiple power sources	--	N/A
1.7.10	IT power system	--	N/A
1.7.11	Thermostats and other regulating devices	--	N/A
1.7.12	Language	English	--



EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.13	Durability	The label was subjected to the test for permanence of marking. The label was rubbed with cloth for 15 sec. And then rubbed by the cloth soaked with Naphtha for 15 sec. After this test there was no damage to the label. The marking on the label did not fade. There was no curling nor lifting on the label edge.	Pass
1.7.14	Removable parts	--	N/A
1.7.15	Replaceable batteries	No batteries provided	N/A
	Language	--	--
1.7.16	Operator access with a tool.....	--	N/A
1.7.17	Equipment for restricted access locations	--	N/A



EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict

2	PROTECTION FROM HAZARDS		Pass
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2.1	Protection from electric shock and energy hazards		N/A
2.1.1	Protection in OPERATOR access areas	No energized parts	N/A
2.1.1.1	Access to energized parts	--	N/A
	Test by inspection	--	N/A
	Test with test finger	--	N/A
	Test with test pin	--	N/A
	Test with test probe	--	N/A
2.1.1.2	Battery compartments	--	N/A
2.1.1.3	Access to ELV wiring	--	N/A
	Working voltage (V); distance (mm) through insulation	--	--
2.1.1.4	Access to hazardous voltage circuit wiring	--	N/A
2.1.1.5	Energy hazards	--	N/A
2.1.1.6	Manual controls	--	N/A
2.1.1.6	Manual controls	--	N/A
2.1.1.7	Discharge of capacitors in the primary circuit	--	N/A
	Time-constant (s); measured voltage (V)	--	--
2.1.1.7	Discharge of capacitors in the primary circuit	--	N/A
	Time-constant (s); measured voltage (V)	--	--
2.1.2	Protection in service access areas	--	N/A
2.1.3	Protection in restricted access locations	--	N/A

2.2	SELV circuits		pass
2.2.1	General requirements	Supply for SELV and no hazardous voltage generated	pass
2.2.2	Voltages under normal conditions (V)	--	N/A
2.2.3	Voltages under fault conditions (V)	--	N/A
2.2.3.1	Separation by double or reinforced insulation (method 1)	Class III equipment	N/A
2.2.3.2	Separation by earthed screen (method 2)	--	N/A
2.2.3.3	Protection by earthing of the SELV circuit (method 3)	--	N/A
2.2.4	Connection of SELV circuits to other circuits	--	N/A

2.3	TNV circuits		N/A
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EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict

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

2.4	Limited current circuits		N/A
2.4.1	General requirements	--	N/A
2.4.2	Limit values	--	N/A
	Frequency (kHz)..... :	--	--
	Measured current (mA) :	-	--
	Measured voltage (V)..... :	--	--
	Measured capacitance (µF) :	--	--
2.4.3	Connection of limited current circuits to other circuits	--	N/A

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

2.6	Provisions for earthing and bonding		N/A
2.6.1	Protective earthing	--	N/A
2.6.2	Functional earthing	--	N/A
2.6.3	Protective earthing and protective bonding conductors	--	N/A
2.6.3.1	Size of protective earthing conductors	--	N/A

EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict

	Rated current (A), cross-sectional area (mm ²), AWG	--	--
2.6.3.2	Size of protective bonding conductors	--	N/A
	Rated current (A), cross-sectional area (mm ²), AWG	--	--
2.6.3.3	Rated current (A), type and nominal thread diameter (mm).....	--	N/A
	Resistance (Ω) of earthing conductors and their terminations, test current (A).....	--	N/A
2.6.3.4	Colour of insulation	--	N/A
2.6.4	Terminals	--	N/A
2.6.4.1	Protective earthing and bonding terminals	--	N/A
	Rated current (A), type and nominal thread diameter (mm).....	--	--
2.6.4.2	Separation of the protective earthing conductor from protective bonding conductors	--	N/A
2.6.5	Integrity of protective earthing	--	N/A
2.6.5.1	Interconnection of equipment	No any other of interconnection of equipent.	N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	--	N/A
2.6.5.3	Disconnection of protective earth	--	N/A
2.6.5.4	Parts that can be removed by an operator	--	N/A
2.6.5.5	Parts removed during servicing	--	N/A
2.6.5.6	Corrosion resistance	--	N/A
2.6.5.7	Screws for protective bonding	--	N/A
2.6.5.8	Reliance on telecommunication network	--	N/A

2.7	Overcurrent and earth fault protection in primary circuits		N/A
2.7.1	Basic requirements	--	N/A
	Instructions when protection relies on building installation	--	N/A
2.7.2	Faults not covered in 5.3	--	N/A
2.7.3	Short-circuit backup protection	--	N/A
2.7.4	Number and location of protective devices	--	N/A
2.7.5	Protection by several devices	--	N/A
2.7.6	Warning to service personnel	--	N/A

2.8	Safety interlocks		N/A
2.8.1	General principles	--	N/A



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2.8.2	Protection requirements	--	N/A
2.8.3	Inadvertent reactivation	--	N/A
2.8.4	Fail-safe operation	--	N/A
2.8.5	Interlocks with moving parts	--	N/A
2.8.6	Overriding an interlock	--	N/A
2.8.7	Switches and relays in interlock systems	--	N/A
2.8.7.1	Contact gaps (mm) :	--	N/A
2.8.7.2	Overload test	--	N/A
2.8.7.3	Endurance test	--	N/A
2.8.7.4	Electric strength test (V)	--	N/A
2.8.8	Mechanical actuators	--	N/A

2.9	Electrical insulation		N/A
2.9.1	Properties of insulating materials	--	N/A
2.9.2	Humidity conditioning	--	N/A
2.9.3	Requirements for insulation	--	N/A
2.9.4	Insulation parameters	--	N/A
2.9.5	Categories of insulation	--	N/A

2.10	Clearances, creepage distances and distances through insulation		N/A
2.10.1	General	--	N/A
2.10.2	Determination of working voltage	--	N/A
2.10.3	Clearances	--	N/A
2.10.3.1	General	--	N/A
2.10.3.2	Clearances in primary circuit	--	N/A
2.10.3.3	Clearances in secondary circuits	--	N/A
2.10.3.4	Measurement of transient levels	--	N/A
2.10.4	Creepage distances	--	N/A
	CTI tests..... :	--	--
2.10.5	Solid insulation	--	N/A
2.10.5.1	Minimum distance through insulation	--	N/A
2.10.5.2	Thin sheet material	--	N/A
	Number of layers (pcs)..... :	--	--
	Electric strength test	--	--
2.10.5.3	Printed boards	--	N/A
	Distance through insulation	--	N/A
	Electric strength test for thin sheet insulating material	--	--



EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict
	Number of layers (pcs)..... :	--	N/A
2.10.5.4	Wound components	--	N/A
	Number of layers (pcs)..... :	--	N/A
	Two wires in contact inside component; angle between 45° and 90°	--	N/A
2.10.6	Coated printed boards	--	N/A
2.10.6.1	General	--	N/A
2.10.6.2	Sample preparation and preliminary inspection	--	N/A
2.10.6.3	Thermal cycling	--	N/A
2.10.6.4	Thermal ageing (°C)..... :	--	N/A
2.10.6.5	Electric strength test	--	--
2.10.6.6	Abrasion resistance test	--	N/A
	Electric strength test	--	--
2.10.7	Enclosed and sealed parts..... :	No hermetically sealed components.	N/A
	Temperature $T_1=T_2 = T_{mra} - T_{amb} + 10K$ (°C)..... :	--	N/A
2.10.8	Spacings filled by insulating compound..... :	--	N/A
	Electric strength test	--	--
2.10.9	Component external terminations	--	N/A
2.10.10	Insulation with varying dimensions	--	N/A

EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict

3	WIRING, CONNECTIONS AND SUPPLY		Pass
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3.1	General		N/A
3.1.1	Current rating and overcurrent protection	--	N/A
3.1.2	Protection against mechanical damage	--	N/A
3.1.3	Securing of internal wiring	--	N/A
3.1.4	Insulation of conductors	--	N/A
3.1.5	Beads and ceramic insulators	--	N/A
3.1.6	Screws for electrical contact pressure	--	N/A
3.1.7	Non-metallic materials in electrical connections	--	N/A
3.1.8	Self-tapping and spaced thread screws	--	N/A
3.1.9	Termination of conductors	--	N/A
	10 N pull test	--	N/A
3.1.10	Sleeving on wiring	--	N/A

3.2	Connection to a.c. mains supplies		N/A
3.2.1	Means of connection	--	N/A
3.2.2	Multiple supply connections	--	N/A
3.2.3	Permanently connected equipment	--	N/A
	Number of conductors, diameter (mm) of cable and conduits	--	--
3.2.4	Appliance inlets	--	N/A
3.2.5	Power supply cords	--	N/A
	Type	--	--
	Rated current (A), cross-sectional area (mm ²), AWG	--	--
3.2.6	Cord anchorages and strain relief	--	N/A
	Mass of equipment (kg), pull (N)	--	--
	Longitudinal displacement (mm)	--	--
3.2.7	Protection against mechanical damage	--	N/A
3.2.8	Cord guards	--	N/A
	D (mm); test mass (g)	--	--
	Radius of curvature of cord (mm)	--	--
3.2.9	Supply wiring space	--	N/A

3.3	Wiring terminals for connection of external conductors		N/A
3.3.1	Wiring terminals	--	N/A

EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict

3.3.2	Connection of non-detachable power supply cords	--	N/A
3.3.3	Screw terminals	--	N/A
3.3.4	Rated current (A), cord/cable type, cross-sectional area (mm ²)..... :	--	N/A
3.3.5	Rated current (A), type and nominal thread diameter (mm)..... :	--	N/A
3.3.6	Wiring terminals design	--	N/A
3.3.7	Grouping of wiring terminals	--	N/A
3.3.8	Stranded wire	--	N/A

3.4	Disconnection from the a.c. mains supply		N/A
3.4.1	General requirement	--	N/A
3.4.2	Disconnect devices	DC power source used	N/A
3.4.3	Permanently connected equipment	Moveable equipment	N/A
3.4.4	Parts which remain energized	--	N/A
3.4.5	Switches in flexible cords	--	N/A
3.4.6	Single-phase equipment	--	N/A
3.4.7	Three-phase equipment	--	N/A
3.4.8	Switches as disconnect devices	--	N/A
3.4.9	Plugs as disconnect devices	--	N/A
3.4.10	Interconnected equipment	--	N/A
3.4.11	Multiple power sources	--	N/A

3.5	Interconnection of equipment		Pass
3.5.1	General requirements	--	N/A
3.5.2	Types of interconnection circuits..... :	Interconnection circuits of SELV through Sec. O/p cable. No ELV interconnection circuits.	Pass
3.5.3	ELV circuits as interconnection circuits	--	N/A

EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict

4	PHYSICAL REQUIREMENTS		Pass
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4.1	Stability		N/A
	Angle of 10°	--	N/A
	Test: force (N)	Not floor standing	N/A

4.2	Mechanical strength		Pass
4.2.1	General	--	Pass
4.2.2	Steady force test, 10 N	--	N/A
4.2.3	Steady force test, 30 N	--	N/A
4.2.4	Steady force test, 250 N	--	N/A
4.2.5	Impact test	--	N/A
4.2.6	Drop test	Not hand-held equipment	N/A
4.2.7	Stress relief	--	N/A
4.2.8	Cathode ray tubes	--	N/A
	Picture tube separately certified	--	N/A
4.2.9	High pressure lamps	--	N/A
4.2.10	Wall or ceiling mounted equipment; force (N)	The equipment and its associated mounting means remain secure during the test, 50N force applied.	Pass

4.3	Design and construction		Pass
4.3.1	Edges and corners	Edges and corners are rounded.	Pass
4.3.2	Handles and manual controls; force (N)	--	N/A
4.3.3	Adjustable controls	--	N/A
4.3.4	Securing of parts	--	N/A
4.3.5	Connection of plugs and sockets	--	Pass
4.3.6	Direct plug-in equipment	Not direct plug-in equipment	N/A
	Torque (Nm).....	--	--
4.3.7	Heating elements in earthed equipment	--	N/A
4.3.8	Batteries	No batteries used.	N/A
4.3.9	Oil and grease	--	N/A
4.3.10	Dust, powders, liquids and gases	--	N/A
4.3.11	Containers for liquids or gases	--	N/A
4.3.12	Flammable liquids	No flammable liquids in the equipment.	N/A

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	Quantity of liquid (l)	--	N/A
	Flash point (°C)	--	N/A
4.3.13	Radiation; type of radiation	--	N/A
	Equipment using lasers	No laser used	N/A

4.4	Protection against hazardous moving parts		N/A
4.4.1	General	--	N/A
4.4.2	Protection in operator access areas	No hazardous moving part in operator access areas.	N/A
4.4.3	Protection in restricted access locations	No hazardous moving part in restricted access areas.	N/A
4.4.4	Protection in service access areas	--	N/A

4.5	Thermal requirements		Pass
4.5.1	Temperature rises	--	Pass
	Normal load condition per Annex L	--	N/A
4.5.2	Resistance to abnormal heat	--	N/A

4.6	Openings in enclosures		N/A
4.6.1	Top and side openings	Several openings provide on the top and both side.	N/A
	Dimensions (mm)	Enclosure A: Eight vertical openings provided on the top, cover two identical areas, overall measured 14 by 4.6 mm. The biggest opening measured 2.4 by 4.2 mm. Enclosure B: Six of vertical openings provided on the top, cover two identical areas, overall measured 12.5 by 7.6 mm. The biggest opening measured 7.3 by 1.6 mm	--

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4.6.2	Bottoms of fire enclosures	Enclosure A: Four openings at bottom side, cover two identical areas, overall measured 7 by 3.1 mm. Each opening measured 3.1 by 1.6 mm. Also provided with a key hole of 10.4 by 7.8 mm Enclosure B: Twelve openings at bottom side, cover four identical areas, overall measured 10.7 by 4.35 mm. Each opening measured 4.2 by 3.8 mm. Also provided with a key hole of 10.4 by 7.8 mm	N/A
	Construction of the bottom..... :		--
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment	Not transportable equipment.	N/A
4.6.5	Adhesives for constructional purposes	--	N/A
	Conditioning temperature/time..... :	--	--

4.7	Resistance to fire		Pass
4.7.1	Reducing the risk of ignition and spread of flame	Use of materials with the required flammability classes.	Pass
4.7.2	Conditions for a fire enclosure	With having the following components: - components with windings -wiring - Semiconductor devices, transistors, diodes, integrated circuits. - Resistors, capacitors, inductors. - The fire enclosure is required.	Pass
4.7.2.1	Parts requiring a fire enclosure	--	N/A
4.7.2.2	Parts not requiring a fire enclosure	--	N/A
4.7.3	Materials		Pass
4.7.3.1	General	--	Pass
4.7.3.2	Materials for fire enclosures	HB or better	Pass
4.7.3.3	Materials for components and other parts outside fire enclosures	--	N/A



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4.7.3.4	Materials for components and other parts inside fire enclosures	HB or better	pass
4.7.3.5	Materials for air filter assemblies	--	N/A
4.7.3.6	Materials used in high-voltage components	--	N/A

EN 60950			
Clause	Requirement + Test	Result - Remark	Verdict

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		Pass
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5.1	Touch current and protective conductor current		N/A
5.1.1	General	--	N/A
5.1.2	Equipment under test (EUT)	--	N/A
5.1.3	Test circuit	--	N/A
5.1.4	Application of measuring instrument	--	N/A
5.1.5	Test procedure	--	N/A
5.1.6	Test measurements	--	N/A
	Test voltage (V)	--	--
	Measured current (mA)	--	--
	Max. allowed current (mA)	--	--
5.1.7	Equipment with touch current exceeding 3.5 mA	--	N/A
5.1.8	Touch currents to and from telecommunication networks	--	N/A
5.1.8.1	Limitation of the touch current to a telecommunication network	--	N/A
	Test voltage (V)	--	--
	Measured current (mA)	--	--
	Max. allowed current (mA)	--	--
5.1.8.2	Summation of touch currents from telecommunication networks.....	--	N/A

5.2	Electric strength		N/A
5.2.1	General	--	N/A
5.2.2	Test procedure	--	N/A

5.3	Abnormal operating and fault conditions		Pass
5.3.1	Protection against overload and abnormal operation	--	N/A
5.3.2	Motors	--	N/A
5.3.3	Transformers	--	N/A
5.3.4	Functional insulation	--	N/A
5.3.5	Electromechanical components	--	N/A
5.3.6	Simulation of faults	Ventilation opening blocked.	Pass
5.3.7	Unattended equipment	--	N/A



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Clause	Requirement + Test	Result - Remark	Verdict

5.3.8	Compliance criteria for abnormal operating and fault conditions	See appended table 5.3.1.	Pass
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6	CONNECTION TO TELECOMMUNICATION NETWORKS		N/A
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6.1	Protection of telecommunication network service personnel, and users of other equipment connected to the network, from hazards in the equipment		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements	--	N/A
	Test voltage (V)	--	--
	Current in the test circuit (mA)	--	--
6.1.2.2	Exclusions	--	N/A

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

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

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Clause	Requirement + Test	Result - Remark	Verdict

A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
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
A.1.1	Samples, material	--	--
	Wall thickness (mm)	--	--
A.1.2	Conditioning of samples; temperature (°C).....	--	N/A
A.1.3	Mounting of samples	--	N/A
A.1.4	Test flame	--	N/A
A.1.5	Test procedure	--	N/A
A.1.6	Compliance criteria	--	N/A
	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
A.2.1	Samples, material	--	--
	Wall thickness (mm)	--	--
A.2.6	Compliance criteria	--	N/A
	Sample 1 burning time (s).....	--	--
	Sample 2 burning time (s).....	--	--
	Sample 3 burning time (s).....	--	--
A.2.7	Alternative test acc. to IEC 60695-2-2, cl. 4, 8	--	N/A
	Sample 1 burning time (s).....	--	--
	Sample 2 burning time (s).....	--	--
	Sample 3 burning time (s).....	--	--
A.3	High current arcing ignition test (see 4.7.3.2)		N/A
A.3.1	Samples, material	--	--
	Wall thickness (mm)	--	--
A.3.5	Compliance criteria	--	N/A
	Sample 1 number of arcs to ignition (pcs)	--	--
	Sample 2 number of arcs to ignition (pcs)	--	--
	Sample 3 number of arcs to ignition (pcs)	--	--
	Sample 4 number of arcs to ignition (pcs)	--	--
	Sample 5 number of arcs to ignition (pcs)	--	--
A.4	Hot wire ignition test (see 4.7.3.2)		N/A
A.4.1	Samples, material	--	--

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Clause	Requirement + Test	Result - Remark	Verdict
	Wall thickness (mm)	--	--
A.4.5	Compliance criteria	--	N/A
	Sample 1 ignition time (s).....	--	--
	Sample 2 ignition time (s).....	--	--
	Sample 3 ignition time (s).....	--	--
	Sample 4 ignition time (s).....	--	--
	Sample 5 ignition time (s).....	--	--
A.5	Hot flaming oil test (see 4.6.2)		N/A
A.6	Flammability tests for classifying materials V-0, V-1 or V-2		N/A
A.6.1	Samples, material	--	--
	Wall thickness (mm)	--	--
A.6.5	Compliance criteria	--	N/A
A.6.6	Permitted re-test	--	N/A
A.7	Flammability test for classifying foamed materials HF-1, HF-2 or HFB		N/A
A.7.1	Sample, material	--	--
	Wall thickness (mm)	--	--
A.7.4	Compliance criteria	--	N/A
A.7.5	Compliance criteria, HF-2	--	N/A
A.7.6	Compliance criteria, HF-1	--	N/A
A.7.7	Compliance criteria, HBF	--	N/A
A.7.8	Permitted re-test, HF-1 or HF-2	--	N/A
A.7.9	Permitted re-test, HBF	--	N/A
A.8	Flammability test for classifying materials HB		N/A
A.8.1	Samples, material	--	--
	Sample thickness (mm)	--	--
A.8.2	Conditioning of samples; temperature (°C).....	--	N/A
A.8.4	Test procedure	--	N/A
A.8.5	Compliance criteria	--	N/A
A.8.6	Permitted re-test	--	N/A
A.9	Flammability test for classifying materials 5V		N/A
A.9.1	Samples, material	--	--
	Sample thickness (mm)	--	--
A.9.4	Test procedure, test bars	--	N/A
A.9.5	Test procedure, test plaques	--	N/A
A.9.6	Compliance criteria	--	N/A
A.9.7	Permitted re-test	--	N/A
A.10	Stress relief conditioning (see 4.2.7)		N/A



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Clause	Requirement + Test	Result - Remark	Verdict

	Temperature (°C)..... :	--	--
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B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N/A
B.1	General requirements	--	N/A
	Position	--	--
	Manufacturer	--	--
	Type	--	--
	Rated values	--	--
B.2	Test conditions	--	N/A
B.3	Maximum temperatures	--	N/A
B.4	Running overload test	--	N/A
B.5	Locked-rotor overload test	--	N/A
	Test duration (days)	--	--
	Electric strength test: test voltage (V)	--	--
B.6	Running overload test for DC motors in secondary circuits	--	N/A
B.7	Locked-rotor overload test for DC motors in secondary circuits		N/A
B.7.1	Test procedure	--	N/A
B.7.2	Alternative test procedure; test time (h)	--	N/A
B.7.3	Electric strength test	--	N/A
B.8	Test for motors with capacitors	--	N/A
B.9	Test for three-phase motors	--	N/A
B.10	Test for series motors	--	N/A
	Operating voltage (V)	--	--

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Clause	Requirement + Test	Result - Remark	Verdict

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

G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1	Summary of the procedure for determining minimum clearances	--	N/A
G.2	Determination of mains transient voltage (V)..... :	--	N/A
G.3	Determination of telecommunication network transient voltage (V)	--	N/A
G.4	Determination of required withstand voltage (V) .:	--	N/A
G.5	Measurement of transient levels (V)	--	N/A
G.6	Determination of minimum clearances	--	N/A

H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
	Ionizing radiation		N/A
	Measured radiation (mR/h)	--	--
	Measured high-voltage (kV)	--	--
	Measured focus voltage (kV)	--	--
	CRT markings	--	--

J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N/A
	Metal used	--	--

K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.7)		N/A
K.1	Making and breaking capacity	--	N/A
K.2	Thermostat reliability; operating voltage (V)..... :	--	N/A
K.3	Thermostat endurance test; operating voltage (V)	--	N/A
K.4	Temperature limiter endurance; operating voltage (V)	--	N/A



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Clause	Requirement + Test	Result - Remark	Verdict

K.5	Thermal cut-out reliability	--	N/A
K.6	Stability of operation	--	N/A

M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
M.2	Method A	--	N/A
M.3	Method B	--	N/A
M.3.1	Ringling signal	--	N/A
M.3.1.1	Frequency (f)..... :	--	--
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/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage	--	N/A
M.3.2.2	Tripping device	--	N/A
M.3.2.3	Monitoring voltage (V) :	--	N/A

U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N/A
	Separate test report	--	N/A



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1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	Standard	mark(s) of conformity ¹⁾	
1. PWB	Various	Various	V-1 min. 105	UL94	UL	
2. Enclosure Material	Various	Various	HB min, 1.5 mm thick minimum.	UL94	UL	
3. Adapter (LPS)	UNIFIVE	USE300320	I/P: 100-240 Vac, 0.3 A, 50-60 Hz O/P: 3.3Vdc, 2.0A	EN 60950	TUV	

1.6.2	TABLE: electrical data (in normal conditions)						Pass
fuse #	I rated (A)	U (V)	P (W)	I (mA)	I fuse (A)	condition/status	
--	2.0	3.3	2.1	628	--	Maximum Normal load	
supplementary information:							



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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: temperature rise measurements		Pass
	test voltage (V)	3.3Vdc / 3.3Vdc blocked openings	--
	t1 (°C)		--
	t2 (°C)		--
temperature rise dT of part/at:		dT (K)	Required dT (K)
Ambient		27.2°C /27.7°C	--
PWB near D3 body		35.3/48.8	45
PWB near U3 body		32.9/41.2	45
PWB near U6 body		23.4/38.6	45
PWB near U7 body		25.5/40.9	45
PWB near U1 body on RF board		29.3/38.8	45
PWB near U5 body on RF board		38.5/44.1	45
Enclosure inside near RF board		31.3/45.8	--
Enclosure outside near RF board		25.8/35.5	35
<p>comments:</p> <p>The temperatures were measured under worst case normal mode defined in 1.2.2.1 and described in 1.6.2 at voltages as described in 1.4.5</p> <p>Without specified ambient temperature in users manual, therefore the ambient temperature assumed as 60 , the max. temperature rise is calculated as follows:</p> <p>Components:</p> <p>Max. absolute temp. 105 $dT_{max}=(105-60)K = 45K$</p> <p>Enclosure temp. 95 $dT_{max} = (95-60)K = 35 K$</p>			



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Clause	Requirement + Test	Result - Remark	Verdict

5.3.1	TABLE: fault condition tests					Pass
	ambient temperature (°C)		27.7 °C		--	
	model/type of power supply		USE300320		--	
	manufacturer of power supply		UNIFIVE		--	
	rated markings of power supply		I/P: 100-240 Vac, 0.3 A, 50-60 Hz. O/P: 3.3Vdc, 2.0A		--	
component No.	fault	test voltage (V)	test time	fuse No.	fuse current (mA)	result
Ventilation openings	Blocked	3.3	2.5 hrs	--	--	Unit operated normally, no damage, No hazard.

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Enclosure A

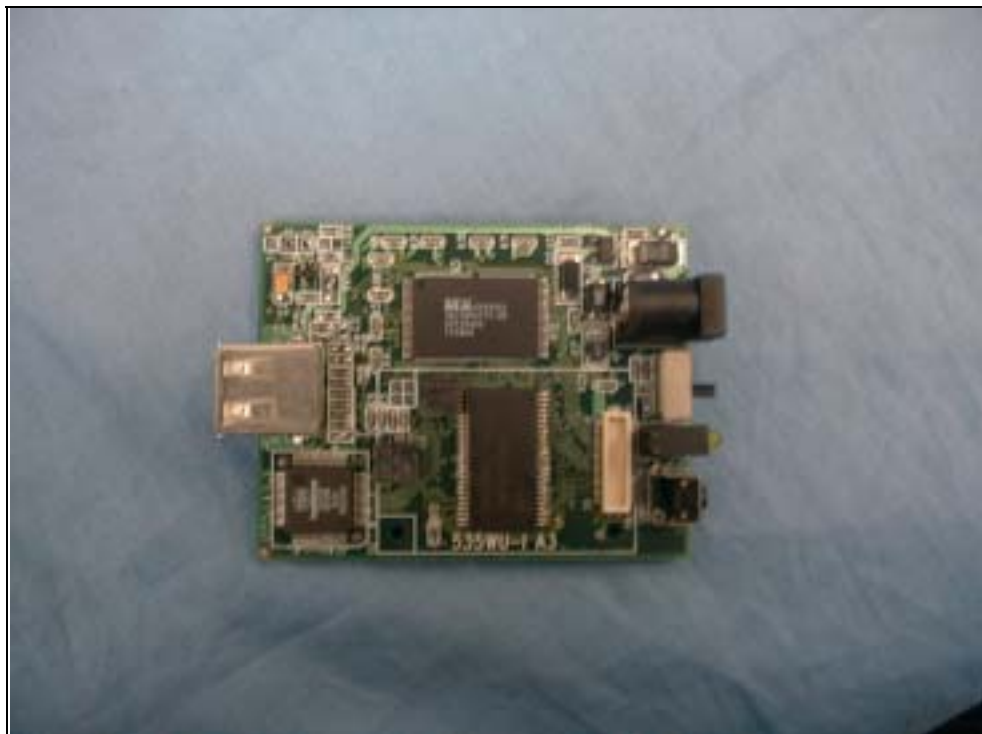


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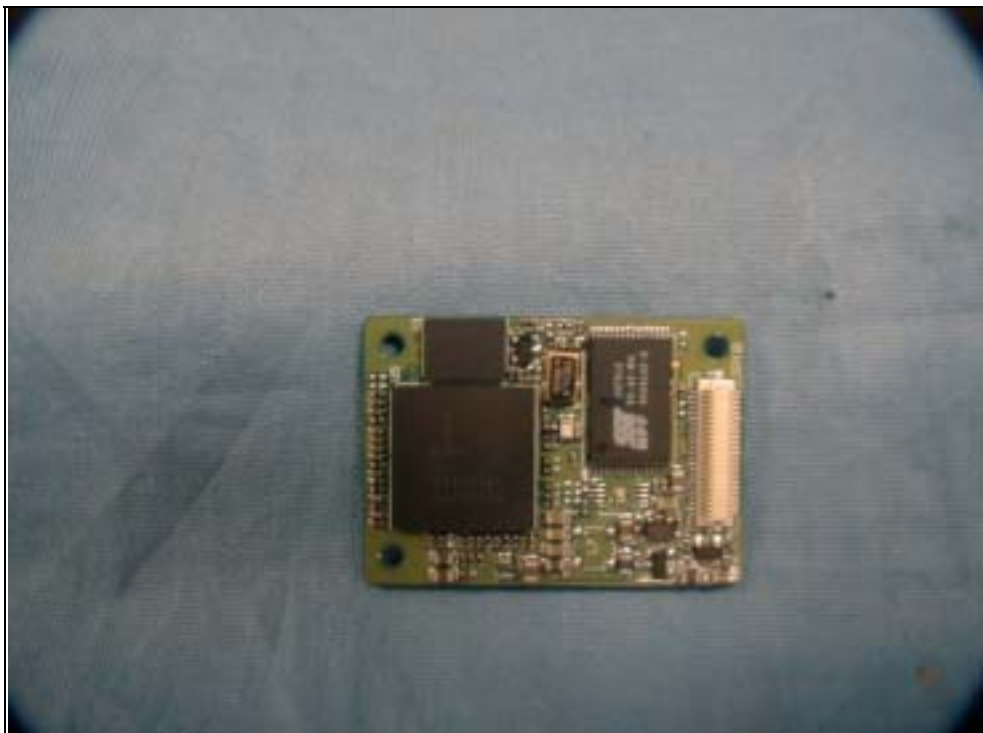
Enclosure B



Clause	Requirement + Test	Result - Remark	Verdict
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Clause	Requirement + Test	Result - Remark	Verdict
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Clause	Requirement + Test	Result - Remark	Verdict

