

			Test Report issued under the responsibility of: NCB TÜV SÜD PSB Pte Ltd 1 Science Park Drive, Singapore 118221  PSB Singapore
TEST REPORT IEC 60950-1: 2005 (2nd Edition) and/or EN 60950-1:2006 Information technology equipment – Safety – Part 1: General requirements			
Report Reference No. 081-100802-000 Date of issue 2010-08-05 Total number of pages 57			
CB/CCA Testing Laboratory TÜV SÜD Asia Ltd. Taiwan Branch Address 7F., No.37, Sec. 2, Zhongyang S., Rd., Beitou District, Taipei City, 11270, Taiwan.			
Applicant's name Pegatron Corporation Address 5F, No. 76, Ligong St., Beitou District, 112 Taipei, Taiwan			
Manufacturer's name Pegatron Corporation Address 5F, No. 76, Ligong St., Beitou District, 112 Taipei, Taiwan			
Factory's name See page 5 for details Address See page 5 for details			
Test specification: Standard ☒ IEC 60950-1:2005 (2nd Edition) and/or ☒ EN 60950-1:2006+A11:2009 Test procedure CB / CCA Non-standard test method N/A			
Test Report Form No. IECEN60950_1C Test Report Form(s) Originator SGS Fimko Ltd Master TRF Dated 2007-06			
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Test item description : Tablet PC	
Trade Mark : MEDION	
Manufacturer : Same as applicant	
Model/Type reference : S2011, S2012, S2013, S2213, S2214, S2215, TT116A01, TT116B01	
Ratings : 19 Vdc, 2.37 A	
Testing procedure and testing location:	
☒ CB/CCA Testing Laboratory:	TÜV SÜD Asia Ltd. Taiwan Branch
Testing location/ address	7F., No.37, Sec. 2, Zhongyang S., Rd., Beitou District, Taipei City, 11270, Taiwan.
☐ Associated CB Laboratory:	N/A
Testing location/ address	N/A
Tested by (name + signature)	Mr. Watson Yang
Approved by (+ signature)	Mr. Larry Lai
☐ Testing procedure: TMP	N/A
Tested by (name + signature)	
Approved by (+ signature)	
Testing location/ address	N/A
☐ Testing procedure: WMT	N/A
Tested by (name + signature)	
Witnessed by (+ signature)	
Approved by (+ signature)	
Testing location/ address	N/A
☐ Testing procedure: SMT	N/A
Tested by (name + signature)	
Approved by (+ signature)	
Supervised by (+ signature)	
Testing location/ address	N/A
☐ Testing procedure: RMT	N/A
Tested by (name + signature)	
Approved by (+ signature)	
Supervised by (+ signature)	
Testing location/ address	N/A



Tests performed (name of test and test clause):

Testing location:

All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 2.

National Differences for Austria (AT), Canada (CA), Germany (DE), Denmark (DK), Finland (FI), France (FR), United Kingdom (GB), Italy (IT), Japan (JP), Korea (KR), The Netherlands (NL), Norway (NO), Poland (PL), Sweden (SE), Slovenia (SI), United States of America (US). Group Differences as listed in the CB Bulletin No. 112A. (December 2006) are recorded at the end of this Report.

**See attachment No. 2
(Total 2 pages)**



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Test item particulars	
Equipment mobility	☐ movable ☐ hand-held ☒ transportable ☐ stationary ☐ for building-in ☐ direct plug-in
Connection to the mains	☐ pluggable equipment ☐ type A ☐ type B ☐ permanent connection ☐ detachable power supply cord ☐ non-detachable power supply cord ☒ not directly connected to the mains.
Operating condition	☒ continuous ☐ rated operating / resting time:
Access location	☒ operator accessible ☐ restricted access location
Over voltage category (OVC)	☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV ☒ other: not directly connected to AC or DC mains.
Mains supply tolerance (%) or absolute mains supply values	N/A
Tested for IT power systems	☐ Yes ☒ No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	☐ Class I ☐ Class II ☒ Class III ☐ Not classified
Considered current rating (A)	N/A
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
IP protection class	Ordinary
Altitude during operation (m)	Up to 2000
Altitude of test laboratory (m)	below 2000
Mass of equipment (kg)	Approx. <u>1.02</u>
Possible test case verdicts:	
- test case does not apply to the test object	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
Testing	
Date of receipt of test item	2010-07-20
Date(s) of performance of tests	2010-07-20 to 2010-08-02



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General remarks:

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(See Enclosure #)" refers to additional information appended to the report.

"(See appended table)" refers to a table appended to the report.

Note: This TRF includes EN Group Differences together with National Differences and Special National Conditions, if any. All Differences are located in the Appendix to the main body of this TRF.

Throughout this report a point is used as the decimal separator.

Factory:

1. ProTek (Shanghai) Ltd. (ID No.: 61019)

No.3768, Xiu Yan Road, Kang Qiao Town, 201319 Pu Dong New District, Shanghai,

People's Republic of China

Attachments:

Attachment No. 1	National Deviations	19 pages
Attachment No. 2	Marking Plate	2 pages
Attachment No. 3	Photo	7 pages

General product information:

The equipment is a Tablet PC for use in information technology equipment.

All models are identical except for model designation.

The external power adapter is a CB approved component, see Table 1.5.1 for details.

The external power adapter is in accordance with the Limited Power Source (Clause 2.5).

The maximum ambient temperature specified by manufacturer is 35 °C.

Unless otherwise specified, all tests were performed on model S2011 to represent the other models.

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1	GENERAL		P
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1.5	Components		P
1.5.1	General		P
	Comply with IEC 60950-1 or relevant component standard	Components which were found to affect safety aspects comply with the requirements of this standard or within the safety aspects of the relevant IEC component standards. (see appended table 1.5.1).	P
1.5.2	Evaluation and testing of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	P
1.5.3	Thermal controls	No thermal control.	N/A
1.5.4	Transformers	Transformer in approved power adaptor.	N/A
1.5.5	Interconnecting cables	Interconnection cable for signal output to monitor and signal from keyboard is carrying only SELV voltages on an energy level below 240 VA. →Except for the insulation material, there are no further requirements to the interconnection cable.	P
1.5.6	Capacitors bridging insulation	No bridge components used.	N/A
1.5.7	Resistors bridging insulation	Ditto.	N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Ditto.	N/A
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits	Ditto.	N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable	Ditto.	N/A
1.5.8	Components in equipment for IT power systems	Only SELV inside, no connection to mains.	N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1.5.9	Surge suppressors	Only SELV circuit in this equipment.	N/A
1.5.9.1	General		N/A
1.5.9.2	Protection of VDRs		N/A
1.5.9.3	Bridging of functional insulation by a VDR		N/A
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A

1.6	Power interface		P
1.6.1	AC power distribution systems	Equipment is not directly connected to the AC mains supply.	N/A
1.6.2	Input current	The definition for highest load according to 1.2.2.1, for this equipment is the continuously. Results see appended table.	P
1.6.3	Voltage limit of hand-held equipment	This equipment is not hand-held equipment.	N/A
1.6.4	Neutral conductor	Only SELV supply, no connection to mains.	N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1.7	Marking and instructions		P
1.7.1	Power rating	See below.	P
	Rated voltage(s) or voltage range(s) (V)	19 Vdc	P
	Symbol for nature of supply, for d.c. only	---	P
	Rated frequency or rated frequency range (Hz) :	DC Source.	N/A
	Rated current (mA or A)	2.37 A	P
	Manufacturer's name or trademark or identification mark	MEDION	P
	Model identification or type reference	S2011, S2012, S2013, S2213, S2214, S2215, TT116A01, TT116B01	P
	Symbol for Class II equipment only	Class III equipment.	N/A
	Other markings and symbols	Additional symbols or markings that do not give rise to misunderstanding.	P
1.7.2	Safety instructions and marking	See below.	P
1.7.2.1	General	The user's manual contains information for operation, installation, servicing, transport, storage and technical data. The operation guide is provided to the user. No other special installation instruction required as the equipment is Class III.	P
1.7.2.2	Disconnect devices		N/A
1.7.2.3	Overcurrent protective device		N/A
1.7.2.4	IT power distribution systems	Only SELV inside, no connection to mains.	N/A
1.7.2.5	Operator access with a tool		N/A
1.7.2.6	Ozone		N/A
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	N/A
1.7.4	Supply voltage adjustment	No voltage/frequency setting.	N/A
	Methods and means of adjustment; reference to installation instructions		—
1.7.5	Power outlets on the equipment	No power outlet provided.	N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	Class III equipment, such device in approved power adapter.	N/A
1.7.7	Wiring terminals	See below.	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	Not applied for.	N/A
1.7.7.3	Terminals for d.c. mains supply conductors	Ditto.	N/A
1.7.8	Controls and indicators	See below.	P
1.7.8.1	Identification, location and marking	The marking of stand-by switch is located on switch so that indication of function is clear.	P
1.7.8.2	Colours	No safety involved colour identification	N/A
1.7.8.3	Symbols according to IEC 60417	The stand-by switch marked with the correct symbol (60417-1-IEC-5009).	P
1.7.8.4	Markings using figures	No indicators for different positions.	N/A
1.7.9	Isolation of multiple power sources	Class III equipment not connected to the mains.	N/A
1.7.10	Thermostats and other regulating devices	No thermostats used.	N/A
1.7.11	Durability	The label was subjected to the permanence of marking test. The label was rubbed with cloth for 15 s and then again for 15 s with the cloth soaked with Petroleum Ether. After this test there was no damage to the label. The marking on the label did not fade. There was no curling or lifting of the label edge.	P
1.7.12	Removable parts	Marking is not placed on removable part.	P



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Clause	Requirement + Test	Result - Remark	Verdict
1.7.13	Replaceable batteries	The equipment contains replaceable lithium battery pack, user replaceable type; The following warning in user manual and service instructions: (CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer instructions).	P
	Language	English.	—
1.7.14	Equipment for restricted access locations	No restricted access location.	N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2	PROTECTION FROM HAZARDS		P
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2.1	Protection from electric shock and energy hazards		P
2.1.1	Protection in operator access areas	The equipment is supplied from an approved power adaptor that provides only SELV voltages. Furthermore there are no hazardous voltages generated internally. Therefore there are no protective measures required for the protection against electrical shock.	P
2.1.1.1	Access to energized parts	There are no energized parts inside of equipment. The equipment is supplied from SELV voltage only.	P
	Test by inspection	Ditto.	N/A
	Test with test finger (Figure 2A)	Ditto.	N/A
	Test with test pin (Figure 2B)	Ditto.	N/A
	Test with test probe (Figure 2C)	No TNV circuits.	N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring	No ELV wiring in operator accessible area.	N/A
	Working voltage (V_{peak} or V_{rms}); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area.	N/A
2.1.1.5	Energy hazards	No energy hazard in operator access area. The connectors of the equipment below 240 VA.	P
2.1.1.6	Manual controls	No manual controls.	N/A
2.1.1.7	Discharge of capacitors in equipment	No connected to the mains.	N/A
	Measured voltage (V); time-constant (s)		—

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Clause	Requirement + Test	Result - Remark	Verdict

2.1.1.8	Energy hazards – d.c. mains supply		N/A
	a) Capacitor connected to the d.c. mains supply . :		N/A
	b) Internal battery connected to the d.c. mains supply :		N/A
2.1.1.9	Audio amplifiers :		N/A
2.1.2	Protection in service access areas	No maintenance work in operation mode necessary.	N/A
2.1.3	Protection in restricted access locations	No restricted access locations.	N/A

2.2	SELV circuits		P
2.2.1	General requirements	42.4 V peak or 60 VDC are not exceeded in outputs of power supply under normal operation or single fault condition.	P
2.2.2	Voltages under normal conditions (V) :	The equipment supplied from SELV only.	P
2.2.3	Voltages under fault conditions (V)..... :	The equipment supplied from SELV only.	P
2.2.4	Connection of SELV circuits to other circuits..... :	No direct connection between SELV and any primary circuits.	N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2.3	TNV circuits		N/A
2.3.1	Limits	See below.	N/A
	Type of TNV circuits :	No TNV circuits provided.	—
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions :		N/A
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	TFT-LCD type with LED backlight provided.	N/A
2.4.2	Limit values		N/A
	Frequency (Hz) :		—
	Measured current (mA)..... :		—
	Measured voltage (V) :		—
	Measured circuit capacitance (nF or μ F)..... :		—
2.4.3	Connection of limited current circuits to other circuits		N/A



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Clause	Requirement + Test	Result - Remark	Verdict

2.5	Limited power sources		P
	a) Inherently limited output	The output of external power adapter complied with the limited power sources inherently.	P
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition	The output ports are limited to the values of table 2B. (results see appended table)	P
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :	Result see appended table.	—
	Current rating of overcurrent protective device (A) ..	No overcurrent protective device.	—

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Clause	Requirement + Test	Result - Remark	Verdict

2.6	Provisions for earthing and bonding		N/A
2.6.1	Protective earthing	Class III equipment, no such concern.	N/A
2.6.2	Functional earthing		N/A
2.6.3	Protective earthing and protective bonding conductors		N/A
2.6.3.1	General		N/A
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm ²), AWG :		—
2.6.3.3	Size of protective bonding conductors		N/A
	Rated current (A), cross-sectional area (mm ²), AWG		—
	Protective current rating (A), cross-sectional area (mm ²), AWG.....		—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min).....		N/A
2.6.3.5	Colour of insulation		N/A
2.6.4	Terminals		N/A
2.6.4.1	General		N/A
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type, nominal thread diameter (mm).....		—
2.6.4.3	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		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 or cable distribution system		N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2.7	Overcurrent and earth fault protection in primary circuits		N/A
2.7.1	Basic requirements	Class III equipment.	N/A
	Instructions when protection relies on building installation		—
2.7.2	Faults not simulated in 5.3.7		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	No safety interlock provided.	N/A
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	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches and relays		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		N/A
2.8.8	Mechanical actuators		N/A



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Clause	Requirement + Test	Result - Remark	Verdict

2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	Natural rubber, asbestos or hygroscopic materials are used as insulation.	P
2.9.2	Humidity conditioning	Class III equipment.	N/A
	Relative humidity (%), temperature (°C) :		—
2.9.3	Grade of insulation	The adequate levels of safety insulation is provided and maintained to comply with the requirements of this standard.	P
2.9.4	Separation from hazardous voltages		N/A
	Method(s) used :		—

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Clause	Requirement + Test	Result - Remark	Verdict

2.10	Clearances, creepage distances and distances through insulation		N/A
2.10.1	General	Class III equipment. See 2.10.3 and 2.10.4.	N/A
2.10.1.1	Frequency		N/A
2.10.1.2	Pollution degrees		N/A
2.10.1.3	Reduced values for functional insulation		N/A
2.10.1.4	Intervening unconnected conductive parts		N/A
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses		N/A
2.10.2	Determination of working voltage	It has been evaluated in approved external power adapter.	N/A
2.10.2.1	General		N/A
2.10.2.2	RMS working voltage		N/A
2.10.2.3	Peak working voltage		N/A
2.10.3	Clearances	Provided by the approved external power adapter.	N/A
2.10.3.1	General		N/A
2.10.3.2	Mains transient voltages		N/A
	a) AC mains supply		N/A
	b) Earthed d.c. mains supplies		N/A
	c) Unearthed d.c. mains supplies		N/A
	d) Battery operation		N/A
2.10.3.3	Clearances in primary circuits		N/A
2.10.3.4	Clearances in secondary circuits		N/A
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply		N/A
2.10.3.7	Transients from d.c. mains supply		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.3.9	Measurement of transient voltage levels		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network :		N/A
2.10.4	Creepage distances	Provided by the approved external power adapter	N/A
2.10.4.1	General		N/A
2.10.4.2	Material group and comparative tracking index		N/A
	CTI tests		—
2.10.4.3	Minimum creepage distances		N/A
2.10.5	Solid insulation		N/A
2.10.5.1	General		N/A
2.10.5.2	Distances through insulation		—
2.10.5.3	Insulating compound as solid insulation		N/A
2.10.5.4	Semiconductor devices		N/A
2.10.5.5	Cemented joints		N/A
2.10.5.6	Thin sheet material – General		N/A
2.10.5.7	Separable thin sheet material		N/A
	Number of layers (pcs)		—
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material – standard test procedure		N/A
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure		N/A
	Electric strength test		—
2.10.5.11	Insulation in wound components		N/A
2.10.5.12	Wire in wound components		N/A
	Working voltage		N/A
	a) Basic insulation not under stress		N/A
	b) Basic, supplementary, reinforced insulation		N/A
	c) Compliance with Annex U		N/A
	Two wires in contact inside wound component; angle between 45° and 90°		—

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.13	Wire with solvent-based enamel in wound components		N/A
	Electric strength test		—
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		N/A
	Working voltage		N/A
	- Basic insulation not under stress		N/A
	- Supplementary, reinforced insulation		N/A
2.10.6	Construction of printed boards		N/A
2.10.6.1	Uncoated printed boards		N/A
2.10.6.2	Coated printed boards	No coated printed board.	N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs)		N/A
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		—
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts	No hermetically sealed components.	N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

3	WIRING, CONNECTIONS AND SUPPLY		P
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3.1	General		P
3.1.1	Current rating and overcurrent protection	All internal wires are UL recognized wiring that is PVC insulated, rated VW-1, min. 60°C, 300V.	P
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges which could damage the insulation and cause hazard.	P
3.1.3	Securing of internal wiring	The wires are secured by solder so that a loosening of the terminal connection is unlikely.	P
3.1.4	Insulation of conductors	The insulation of the individual conductors is suitable for the application and the working voltage. For the insulation material see 3.1.1.	P
3.1.5	Beads and ceramic insulators	Not used.	N/A
3.1.6	Screws for electrical contact pressure	Electrical connections screwed two or more complete threads into metal. No screws of insulating material for electrical connection, or where supplementary or reinforced insulation could be impaired by a metal replacement.	P
3.1.7	Insulating materials in electrical connections	All current carrying connection is metal to metal.	P
3.1.8	Self-tapping and spaced thread screws	No self tapping screws are used.	N/A
3.1.9	Termination of conductors		N/A
	10 N pull test		—
3.1.10	Sleeving on wiring	Sleevings on wiring reliable kept in position by cable ties or by the use of heatshrink sleeving.	P

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Clause	Requirement + Test	Result - Remark	Verdict

3.2	Connection to a mains supply		N/A
3.2.1	Means of connection	Class III equipment, no connection to mains directly.	N/A
3.2.1.1	Connection to an a.c. mains supply		N/A
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm)		—
3.2.4	Appliance inlets		N/A
3.2.5	Power supply cords		N/A
3.2.5.1	AC power supply cords		N/A
	Type		—
	Rated current (A), cross-sectional area (mm ²), AWG		—
3.2.5.2	DC power supply cords		N/A
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
	Diameter or minor dimension D (mm); test mass (g)		—
	Radius of curvature of cord (mm)		—
3.2.9	Supply wiring space		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

3.3	Wiring terminals for connection of external conductors		N/A
3.3.1	Wiring terminals		N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²)		—
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type and nominal thread diameter (mm)		—
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 mains supply		N/A
3.4.1	General requirement	Class III equipment, no connection to mains directly.	N/A
3.4.2	Disconnect devices		N/A
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized		N/A
3.4.5	Switches in flexible cords		N/A
3.4.6	Number of poles - single-phase and d.c. equipment		N/A
3.4.7	Number of poles - 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



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Clause	Requirement + Test	Result - Remark	Verdict

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 the connectors. No ELV interconnection circuits.	P
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection.	N/A
3.5.4	Data ports for additional equipment	The output of data ports are comply with limited power source, refer also appended table 2.5.	P



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Clause	Requirement + Test	Result - Remark	Verdict

4	PHYSICAL REQUIREMENTS		P
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4.1	Stability		P
	Angle of 10°	This equipment is less than 7 kg.	P
	Test: force (N)..... :	Equipment is not a floor standing unit.	N/A

4.2	Mechanical strength		P
4.2.1	General	After the tests, the equipment is still complying with relevant requirements of this standard. See below.	P
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	250 N applied to outer enclosure. No energy or other hazards.	P
4.2.5	Impact test	Not apply for.	N/A
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test; height (mm).....:	The equipment is subjected to three impacts that result from being dropped onto a horizontal surface. The height of drop: 1,000 mm ± 10 mm.	P
4.2.7	Stress relief test	After 7h at 70°C and cooling down to room temperature, no shrinkage, distortion or losing of enclosure parts.	P
4.2.8	Cathode ray tubes	No cathode ray tube.	N/A
	Picture tube separately certified		—

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Clause	Requirement + Test	Result - Remark	Verdict

4.2.9	High pressure lamps	No high pressure lamp provided.	N/A
4.2.10	Wall or ceiling mounted equipment; force (N) ... :	Not wall or ceiling mounted equipment.	N/A

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) :		N/A
4.3.3	Adjustable controls	None that would cause hazard.	N/A
4.3.4	Securing of parts	No connections likely to be exposed to mechanical stress are provided in unit.	P
4.3.5	Connection of plugs and sockets	Only SELV connector.	N/A
4.3.6	Direct plug-in equipment	The equipment is not a direct plug-in unit.	N/A
	Torque :		—
	Compliance with the relevant mains plug standard :		—
4.3.7	Heating elements in earthed equipment	No heating elements.	N/A
4.3.8	Batteries	Battery pack is approval component, perform test for RTC battery. (see appended table 5.3).	P
	- Overcharging of a rechargeable battery	See appended table 5.3 for details.	P
	- Unintentional charging of a non-rechargeable battery	Not apply for.	N/A
	- Reverse charging of a rechargeable battery	See appended table 5.3 for details.	P
	- Excessive discharging rate for any battery	See appended table 5.3 for details.	P

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Clause	Requirement + Test	Result - Remark	Verdict

4.3.9	Oil and grease	Insulation not in contact with oil or grease.	N/A
4.3.10	Dust, powders, liquids and gases	Equipment in intended use not considered to be exposed to these.	N/A
4.3.11	Containers for liquids or gases	The equipment does not contain liquid.	N/A
4.3.12	Flammable liquids	No flammable liquids in this unit.	N/A
	Quantity of liquid (l)		—
	Flash point (°C)		—
4.3.13	Radiation; type of radiation	No radiation.	N/A
4.3.13.1	General		N/A
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg)		—
	Measured high-voltage (kV)		—
	Measured focus voltage (kV)		—
	CRT markings		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	No UV radiation.	N/A
	Part, property, retention after test, flammability classification		—
4.3.13.4	Human exposure to ultraviolet (UV) radiation		N/A
4.3.13.5	Laser (including LEDs)		N/A
	Laser class		—
4.3.13.6	Other types		N/A

4.4	Protection against hazardous moving parts		P
4.4.1	General	See below.	P
4.4.2	Protection in operator access areas	No hazardous moving part in access area. The DC fan was not accessible.	P
4.4.3	Protection in restricted access locations	The equipment is not intended to be used in restricted locations.	N/A
4.4.4	Protection in service access areas	Unintentional contact is not possible.	P

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	Thermal requirements		P
4.5.1	General	See below.	P
4.5.2	Temperature tests	(see appended table 4.5)	P
	Normal load condition per Annex L :	Maximum normal load which specified by manufacturer.	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat :	Only SELV circuit.	N/A

4.6	Openings in enclosures		P
4.6.1	Top and side openings	Refer to 4.6.4.	P
	Dimensions (mm) :		—
4.6.2	Bottoms of fire enclosures	Refer to 4.6.4.	P
	Construction of the bottom..... :		—
4.6.3	Doors or covers in fire enclosures	No door or cover.	N/A
4.6.4	Openings in transportable equipment	See appended table.	P
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) :		—
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C)/time (weeks) :		—

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Clause	Requirement + Test	Result - Remark	Verdict

4.7	Resistance to fire		P
4.7.1	Reducing the risk of ignition and spread of flame	Use of materials with the required flammability classes.	P
	Method 1, selection and application of components wiring and materials	Selection and application of components and materials which minimize the possibility of ignition and spread of flame.	P
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure	See below.	P
4.7.2.1	Parts requiring a fire enclosure	With having the following components: - components with windings - semiconductor devices, transistors, diodes, integrated circuits - resistors, capacitors, inductors the fire enclosure is required.	P
4.7.2.2	Parts not requiring a fire enclosure	See 4.7.2.1.	N/A
4.7.3	Materials		P
4.7.3.1	General	Integrated circuits and small electrical parts mounted on a printed wiring board min. rated V-1.	P
4.7.3.2	Materials for fire enclosures	See appended table 1.5.1.	P
4.7.3.3	Materials for components and other parts outside fire enclosures	No components or parts outside fire enclosures.	N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	Internal components except small parts are V-2, HF-2 or better.	P
4.7.3.5	Materials for air filter assemblies	No air filters assemblies.	N/A
4.7.3.6	Materials used in high-voltage components	No high voltage component used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
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5.1	Touch current and protective conductor current		N/A
5.1.1	General	Class III equipment with approved external power adapter.	N/A
5.1.2	Configuration of equipment under test (EUT)		N/A
5.1.2.1	Single connection to an a.c. mains supply		N/A
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		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
	Supply voltage (V)		—
	Measured touch current (mA)		—
	Max. allowed touch current (mA)		—
	Measured protective conductor current (mA)		—
	Max. allowed protective conductor current (mA) ..		—
5.1.7	Equipment with touch current exceeding 3,5 mA		N/A
5.1.7.1	General		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		N/A
	Supply voltage (V)		—
	Measured touch current (mA)		—
	Max. allowed touch current (mA)		—

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Clause	Requirement + Test	Result - Remark	Verdict

5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports :		N/A
	b) EUT whose telecommunication ports have no reference to protective earth		N/A

5.2	Electric strength		N/A
5.2.1	General	Class III equipment.	N/A
5.2.2	Test procedure		N/A

5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation	Blocked openings and stalled fan test, results see appended table.	P
5.3.2	Motors	Approved DC fan used. See appended table 5.3	P
5.3.3	Transformers	The safety isolation transformer is inside the approved external power adapter.	N/A
5.3.4	Functional insulation		N/A
5.3.5	Electromechanical components	No electromechanical components.	N/A
5.3.6	Audio amplifiers in ITE		N/A
5.3.7	Simulation of faults	Result see appended table.	P
5.3.8	Unattended equipment	None of them are used.	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	No fire propagated beyond the equipment. No molten metal was emitted.	P
5.3.9.1	During the tests	Ditto.	P
5.3.9.2	After the tests	Ditto.	P

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Clause	Requirement + Test	Result - Remark	Verdict

6	CONNECTION TO TELECOMMUNICATION NETWORKS		N/A
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6.1	Protection of telecommunication network service persons, 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	Not direct connection to TELECOMMUNICATION NETWORK.	N/A
	Supply 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 the telecommunication wiring system from overheating		N/A
	Max. output current (A)		—
	Current limiting method		—



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Clause	Requirement + Test	Result - Remark	Verdict

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
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7.1	General	No connection to CABLE DISTRIBUTION SYSTEMS.	N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A
7.4.1	General		N/A
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A



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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		—
	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 (see IEC 60695-11-3)		N/A
	Flame A, B, C or D		—
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.2.2	Conditioning of samples; temperature (°C)		N/A
A.2.3	Mounting of samples		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A
	Flame A, B or C		—
A.2.5	Test procedure		N/A
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 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s).....		—
	Sample 2 burning time (s).....		—
	Sample 3 burning time (s).....		—



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Clause	Requirement + Test	Result - Remark	Verdict

A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A

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 d.c. motors in secondary circuits		N/A
B.6.1	General		N/A
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V)		N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
B.7.1	General		N/A
B.7.2	Test procedure		N/A
B.7.3	Alternative test procedure		N/A
B.7.4	Electric strength test; test voltage (V)		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

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Clause	Requirement + Test	Result - Remark	Verdict

D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		N/A
D.1	Measuring instrument		N/A
D.2	Alternative measuring instrument		N/A

E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
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F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		P
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G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1	Clearances		N/A
G.1.1	General		N/A
G.1.2	Summary of the procedure for determining minimum clearances		N/A
G.2	Determination of mains transient voltage (V)		N/A
G.2.1	AC mains supply		N/A
G.2.2	Earthed d.c. mains supplies		N/A
G.2.3	Unearthed d.c. mains supplies		N/A
G.2.4	Battery operation		N/A
G.3	Determination of telecommunication network transient voltage (V)		N/A
G.4	Determination of required withstand voltage (V)		N/A
G.4.1	Mains transients and internal repetitive peaks		N/A
G.4.2	Transients from telecommunication networks		N/A
G.4.3	Combination of transients		N/A
G.4.4	Transients from cable distribution systems		N/A
G.5	Measurement of transient voltages (V)		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		N/A
G.6	Determination of minimum clearances		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
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J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N/A
	Metal(s) used		—

K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		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
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A

L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		P
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment		P

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Clause	Requirement + Test	Result - Remark	Verdict

M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
M.1	Introduction		N/A
M.2	Method A		N/A
M.3	Method B		N/A
M.3.1	Ringing signal		N/A
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/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

N	ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A

P	ANNEX P, NORMATIVE REFERENCES		—
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Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		N/A
	a) Preferred climatic categories		N/A
	b) Maximum continuous voltage		N/A
	c) Pulse current		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A

S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A

T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A
			—

U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N/A
			—

V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		N/A
V.1	Introduction	Class III equipment.	N/A
V.2	TN power distribution systems		N/A
V.3	TT power systems		N/A
V.4	IT power systems		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
W.1	Touch current from electronic circuits		N/A
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A

X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N/A
X.1	Determination of maximum input current		N/A
X.2	Overload test procedure		N/A

Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N/A
Y.1	Test apparatus		N/A
Y.2	Mounting of test samples		N/A
Y.3	Carbon-arc light-exposure apparatus		N/A
Y.4	Xenon-arc light exposure apparatus		N/A

Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		N/A
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AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A
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BB	ANNEX BB, CHANGES IN THE SECOND EDITION		—
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IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

EN 60950-1:2006 – CENELEC COMMON MODIFICATIONS			
Contents	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations		P
General	Delete all the “country” notes in the reference document according to the following list: 1.4.8 Note 2 1.5.1 Note 2 & 3 1.5.7.1 Note 1.5.8 Note 2 1.5.9.4 Note 1.7.2.1 Note 4, 5 & 6 2.2.3 Note 2.2.4 Note 2.3.2 Note 2.3.2.1 Note 2 2.3.4 Note 2 2.6.3.3 Note 2 & 3 2.7.1 Note 2.10.3.2 Note 2 2.10.5.13 Note 3 3.2.1.1 Note 3.2.4 Note 3. 2.5.1 Note 2 4.3.6 Note 1 & 2 4.7 Note 4 4.7.2.2 Note 4.7.3.1 Note 2 5.1.7.1 Note 3 & 4 5.3.7 Note 1 6 Note 2 & 5 6.1.2.1 Note 2 6.1.2.2 Note 6.2.2 Note 6. 2.2.1 Note 2 6.2.2.2 Note 7.1 Note 3 7.2 Note 7.3 Note 1 & 2 G.2.1 Note 2 Annex H Note 2		P
1.3.Z1	Add the following subclause: 1.3.Z1 Exposure to excessive sound pressure The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for “one package equipment”, and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.		P
1.5.1	Add the following NOTE: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC		N/A
1.7.2.1	Add the following NOTE: NOTE Z1 In addition, the instructions shall include, as far as applicable, a warning that excessive sound pressure from earphones and headphones can cause hearing loss		N/A

IEC/EN 60950-1															
Clause	Requirement + Test	Result - Remark	Verdict												
2.7.1	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), 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.		P												
2.7.2	This subclause has been declared 'void'.		N/A												
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.		N/A												
3.2.5.1	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: <table><tr><td> Up to and including 6</td><td> </td><td>0,75^{a)}</td><td> </td></tr><tr><td> Over 6 up to and including 10</td><td> (0,75)^{b)}</td><td>1,0</td><td> </td></tr><tr><td> Over 10 up to and including 16</td><td> (1,0)^{c)}</td><td>1,5</td><td> </td></tr></table> In the conditions applicable to Table 3B delete the words "in some countries" in condition^{a)}. In NOTE 1, applicable to Table 3B, delete the second sentence.	Up to and including 6		0,75 ^{a)}		Over 6 up to and including 10	(0,75) ^{b)}	1,0		Over 10 up to and including 16	(1,0) ^{c)}	1,5			N/A
Up to and including 6		0,75 ^{a)}													
Over 6 up to and including 10	(0,75) ^{b)}	1,0													
Over 10 up to and including 16	(1,0) ^{c)}	1,5													
3.3.4	In Table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: <table><tr><td> Over 10 up to and including 16</td><td> 1,5 to 2,5</td><td> 1,5 to 4</td><td> </td></tr></table> Delete the fifth line: conductor sizes for 13 to 16 A.	Over 10 up to and including 16	1,5 to 2,5	1,5 to 4			N/A								
Over 10 up to and including 16	1,5 to 2,5	1,5 to 4													
4.3.13.6	Add the following NOTE: NOTE Z1 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 which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A												

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

Annex H	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.		N/A
Bibliography	Additional EN standards.		—

ZA	NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS		—
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ZB	SPECIAL NATIONAL CONDITIONS		N/A
1.2.4.1	In Denmark , 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.		N/A
1.5.7.1	In Finland, Norway and Sweden , resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2.		N/A
1.5.8	In Norway , due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).		N/A
1.5.9.4	In Finland, Norway and Sweden , the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A
1.7.2.1	In Finland, Norway and Sweden, 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: In Finland: "Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan" In Norway: "Apparatet må tilkoples jordet stikkontakt" In Sweden: "Apparaten skall anslutas till jordat uttag"		N/A
1.7.5	In Denmark , 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.		N/A

IEC/EN 60950-1																											
Clause	Requirement + Test	Result - Remark	Verdict																								
2.2.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		N/A																								
2.3.2	In Finland, Norway and Sweden there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.		N/A																								
2.3.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		N/A																								
2.6.3.3	In the United Kingdom , the current rating of the circuit shall be taken as 13 A, not 16 A.		N/A																								
2.7.1	In the United Kingdom , to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.		N/A																								
2.10.5.13	In Finland, Norway and Sweden , there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.		N/A																								
3.2.1.1	In Switzerland, 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: <table> <tr> <td>SEV 6532-2.1991</td><td>Plug Type 15</td><td>3P+N+PE</td><td>250/400 V, 10 A</td></tr> <tr> <td>SEV 6533-2.1991</td><td>Plug Type 11</td><td>L+N</td><td>250 V, 10 A</td></tr> <tr> <td>SEV 6534-2.1991</td><td>Plug Type 12</td><td>L+N+PE</td><td>250 V, 10 A</td></tr> </table> 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: <table> <tr> <td>SEV 5932-2.1998</td><td>Plug Type 25</td><td>3L+N+PE</td><td>230/400 V, 16 A</td></tr> <tr> <td>SEV 5933-2.1998</td><td>Plug Type 21</td><td>L+N</td><td>250 V, 16 A</td></tr> <tr> <td>SEV 5934-2.1998</td><td>Plug Type 23</td><td>L+N+PE</td><td>250 V, 16 A</td></tr> </table>	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	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		N/A
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																								
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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																								
3.2.1.1	In Denmark, 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 poly-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.		N/A																								

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In Spain, 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.		N/A
3.2.1.1	In the United Kingdom, 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 Sockets 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.		N/A
3.2.1.1	In Ireland, 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.		N/A
3.2.4	In Switzerland , for requirements see 3.2.1.1 of this annex.		N/A
3.2.5.1	In the United Kingdom , 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.		N/A
3.3.4	In the United Kingdom, 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 mm² to 1,5 mm² nominal cross-sectional area.		N/A
4.3.6	In the United Kingdom, the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 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, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N/A
4.3.6	In Ireland, 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.		N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.1.7.1	In Finland, Norway and Sweden TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment: • STATIONARY PLUGGABLE EQUIPMENT TYPE A that ○ is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and ○ has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and ○ is provided with instructions for the installation of that conductor by a SERVICE PERSON; • STATIONARY PLUGGABLE EQUIPMENT TYPE B; • STATIONARY PERMANENTLY CONNECTED EQUIPMENT.		N/A
6.1.2.1	In Finland, Norway and Sweden, add the following text between the first and second paragraph of the compliance clause: 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 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. 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 60950-1:2006, 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.		N/A



PSB Singapore

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.2	In Finland, Norway and Sweden , the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, 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.		N/A
7.2	In Finland, Norway and Sweden , for requirements see 6.1.2.1 and 6.1.2.2 of this annex. The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N/A
7.3	In Norway and Sweden , there are many buildings where the screen of the coaxial cable is normally not connected to the earth in the building installation.		N/A
7.3	In Norway , for installation conditions see EN 60728-11:2005.		N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
ZC	A-DEVIATIONS (informative)		N/A
1.5.1	Sweden (Ordinance 1990:944) Add the following: NOTE In Sweden, switches containing mercury are not permitted.		N/A
1.5.1	Switzerland (Ordinance on environmentally hazardous substances SR 814.081, Annex 1.7, Mercury - Annex 1.7 of SR 814.81 applies for mercury.) Add the following: NOTE In Switzerland, switches containing mercury such as thermostats, relays and level controllers are not allowed.		N/A
1.7.2.1	Denmark (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  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 installationsvejledning.”		N/A
1.7.2.1	Germany (Gesetz über technische Arbeitsmittel und Verbraucherprodukte (Geräte- und Produktsicherheitsgesetz – GPSG) [Law on technical labour equipment and consumer products], of 6th January 2004, Section 2, Article 4, Clause (4), Item 2). If for the assurance of safety and health certain rules during use, amending or maintenance of a technical labour equipment or readymade consumer product are to be followed, a manual in German language has to be delivered when placing the product on the market. Of this requirement, rules for use even only by SERVICE PERSONS are not exempted.		N/A
1.7.5	Denmark (Heavy Current Regulations) With the exception of CLASS II EQUIPMENT provided with a socket outlet in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-4a, CLASS II EQUIPMENT shall not be fitted with socket-outlets for providing power to other equipment.		N/A
1.7.13	Switzerland (Ordinance on chemical hazardous risk reduction SR 814.81, Annex 2.15 Batteries) Annex 2.15 of SR 814.81 applies for batteries.		N/A
5.1.7.1	Denmark (Heavy Current Regulations, Chapter 707, clause 707.4) TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B.		N/A

1.5.1	TABLE: List of critical components				P
object/part No.	manufacturer/ trademark	type/model	technical data	Standard (Edition / year)	mark(s) of conformity ¹⁾
Power Adapter	FSP Group Inc.	FSP045-RHC	I/P: 100-240 Vac, 50-60 Hz, 1.2A-0.6 A O/P: 19 Vdc, 2.37 A (LPS), Tma: 40 °C	EN 60950-1: 2006+A11 IEC 60950-1:2005	TUV, CB by TUV/Rh
Enclosure	SABIC INNOVATIVE PLASTICS CHINA CO., LTD.	C6600(GG)(X)(V S)	V-1, min 1.34 mm. thickness. 60 °C	UL 94	UL
Enclosure (for bottom case)	Various	AZ91D	Magnesium-Alloy	--	--
LCD Panel	InfoVision Optoelectronics (Kunshan) Co., LTD.	M116NWR1 R0	11.6" TFT-LCD type (LED Backlight)	--	--
	AU Optronics Corp.	B116XW03 V0	11.6" TFT-LCD type (LED Backlight)	--	--
	Wintek Corporation	JA-DA0181- AGN-B	11.6" TFT-LCD type	--	--
	Young Fast Optoelectronics Co., Ltd.	H010A	11.6" TFT-LCD type	--	--
Hard Disk Drive (optional)	Various	Various	5 Vdc, 1.5 A maximum	IEC/EN 60950-1	TUV
Speakers (two provided)	Various	Various	Rated 4 ohm, 2 Watt max.	--	--
DC Fan	Techcious Co., Limited	HY45T-05A	5 Vdc, 0.15 A., 1.3 CFM	EN60950-1	TUV
Battery Pack	Gallopwire Enterprise Co., Ltd.	8299- PRLUCMD5000 4	7.4 Vdc, 5000 mAh. Tma: 45 °C	IEC 60950-1:2005 Evaluated in appliance for EN 60950-1/A11:2009	CB by TUV/SUD
	Pegatron Corporation	GG99-0150	7.4 Vdc, 37 Wh. Tma: 45 °C	IEC 60950-1:2005 Evaluated in appliance for EN 60950-1/A11:2009	CB by TUV/SUD

object/part No.	manufacturer/ trademark	type/model	technical data	Standard (Edition / year)	mark(s) of conformity ¹⁾
Main board	Pegatron Corporation	M11JB	--	--	--
-R.T.C Battery (Lithium type)	VIC-DAWN ENTERPRISE CO., LTD. / KTS	CR2032	3 Vdc, max. abnormal charging current 10 mA	UL 1642	UL
-PTC Polyswitch for HDMI port (MF1)	Raychem Corporation	miniSMDC110F	6 Vdc, 1.1 A	EN 60730-1	TUV
	Bourns Inc.	MF-MSMF110	6 Vdc, 1.1 A	EN 60730-1	TUV
	Polytronics Technology Corp.	SMD1812P110T F	8 Vdc, 1.1 A	EN 60730-1 EN 60738-1	TUV
-PTC Polyswitch for USB port (UF4)	Raychem Corporation	MINISMD260F	6 Vdc, 2.6 A	EN 60730-1	TUV
	Bourns Inc.	MF-MSMF260	6 Vdc, 2.6 A	EN 60730-1	TUV
	Littelfuse Inc.	1812L260	6 Vdc, 2.6 A	EN 60730-1 EN 60738-1	TUV
	Polytronics Technology Corp.	SMD1812P260T FT	8 Vdc, 2.6 A	EN 60730-1 EN 60738-1 EN 60738-1-1	TUV
-PCB	Various	Various	V-1 min., 105 °C	UL 796	UL
¹⁾ an asterisk indicates a mark which assures the agreed level of surveillance					
Supplementary information:					

1.6.2	TABLE: Electrical data (in normal conditions)					P
U (Vdc)	I (A)	I _{rated} (A)	P (W)	Fuse #	I _{fuse} (A)	Condition/status
With Battery Pack, Model GG99-0150						
19	1.95	2.37	37.05	--	--	Maximum normal load with charging empty battery pack.
19	1.33	2.37	25.27	--	--	System off with battery pack charging mode
7.87	2.93	--	23.06	--	--	Maximum normal load with battery pack discharge
7.04	2.95	--	20.77	--	--	System off with only Battery charging from system
With Battery Pack, Model 8299-PRLUCMD50004						
19	1.95	2.37	37.05	--	--	Maximum normal load with charging empty battery pack.
19	1.35	2.37	25.65	--	--	System off with battery pack charging mode
7.83	2.97	--	23.26	--	--	Maximum normal load with battery pack discharge
7.1	2.95	--	20.95	--	--	System off with only Battery charging from system
Supplementary information:						

2.5	TABLE: Limited power source measurement					P
1. According to Table 2B with normal condition for J11 (USB near audio) pin 1 to pin 4						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	5.12	≤8.0	5.2	≤100	17.24
2. According to Table 2B with normal condition for J12 (USB near HDMI) pin1 to pin 4						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	5.12	≤8.0	5.2	≤100	17.24
3. According to Table 2B with normal condition for J124 (HDMI) pin 12 to pin 1						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	3.22	≤8.0	0	≤100	0
4. According to Table 2B with normal condition for J124 (HDMI) pin 18 to pin 1						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	5.08	≤8.0	2.2	≤100	8.23
5. According to Table 2B with normal condition for AJ1 (Audio) pin 1,2 to Earth						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	0	≤8.0	0	≤100	0
6. According to Table 2B with normal condition for WWJ2 (SIM card) pin P1-P3,P6,P7 to pin P5						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	0	≤8.0	0	≤100	0
7. According to Table 2B with normal condition for SBJ1 (Docking) pin 6,7 to pin 9						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	3.31	≤8.0	0	≤100	0
Supplementary information:						

8. According to Table 2B with normal condition for SBJ1 (Docking) pin 8 to pin 9						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	8.97	≤8.0	0	≤100	0
9. According to Table 2B with normal condition for SBJ1 (Docking) pin 16 to pin 9						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	2.2	≤8.0	0	≤100	0
10. According to Table 2B with normal condition for SBJ1 (Docking) pin 17 to pin 9						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	2.04	≤8.0	0	≤100	0
11. According to Table 2B with normal condition for SBJ1 (Docking) pin 24 to pin 9						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	3.35	≤8.0	0	≤100	0
12. According to Table 2B with normal condition for SBJ1 (Docking) pin 25 to pin 9						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	2.26	≤8.0	0	≤100	0
13. According to Table 2B with normal condition for SBJ1 (Docking) pin 26 to pin 9						
Output Voltage (Voc)			Output Current (Isc)		VA	
V ac	V dc	Measured	Max Allowed	Measured	Max Allowed	Measured
≤30	≤30	3.37	≤8.0	0	≤100	0
Supplementary information:						

4.5	TABLE: Thermal requirements			P			
	Supply voltage (V) :	A: Normal Heating (19 Vdc) B: Battery Pack discharging only		—			
	Ambient T _{min} (°C) :	--		—			
	Ambient T _{max} (°C) :	--		—			
Maximum measured temperature T of part/at::		T (°C)		Allowed T _{max} (°C)			
Test Voltage		A	B	--			
1.Ambient		35.0	35.0	--			
2.PWB near HU1		67.8	68.8	105			
3.PWB near North chip		60.5	60.8	105			
4.RTC body		40.6	42.8	100			
5.UF4 body		53.2	53.8	85			
6.Battery body		46.0	48.8	100			
7.Enclosure (plastic) inside near Heat sink		52.6	53.8	60			
8.Enclosure (metal) outside near Heat sink		51.3	51.8	55			
9.Panel body		43.1	45.8	75			
Supplementary information:							
Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--
Supplementary information:							
The temperatures were measured by thermal couple (type K) method under worst case normal mode as described in 1.6.2 at voltage described in 1.4.5. The worst case normal mode is defined with max load of the adaptor.							
With max. ambient temperature specified as 35 °C, therefore, the maximum temperature rise is calculated as follows:							
Components with:							
- max. temp. of 105 °C (PWB)							
- max. temp. of 100 °C (RTC, Battery)							
- max. temp. of 85 °C (UF4)							
- max. temp. of 60 °C (Plastic Enclosure)							
User accessible area:							
- continuously held in normal use for metal material (55 °C)							



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4.6.1 & 4.6.2	TABLE: Enclosure openings		P
Location	Size (mm)	Comments	
Top	Several slot openings, each measured max. 9.5 mm by 1.0 mm width, see photo for the covering areas.	No hazardous parts within 5 degrees of projection area. Openings do not exceed 1 mm in width regardless of length.	
Side	--	No side openings.	
Bottom	Several slot openings, each measured max. 9.0 mm by 1.0 mm width, see photo for the covering areas.	Openings do not exceed 1 mm in width regardless of length.	
Supplementary information:			

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				25 °C or see below	—
	Power source for EUT: Manufacturer, model/type, output rating				See Table 1.5.1 for detail	—
Component No.	Fault	Supply voltage (Vdc)	Test time	Fuse #	Fuse current (A)	Observation
CPU Fan	Stalled	19	2 h 54 min	--	--	Unit normal operating, no hazard, no damage, Max. temp. as below: Ambient: 26.6 °C, PWB near HU1: 79.0 °C Enclosure outside near Heatsink: 54.1 °C
Openings	Blocked	19	4 h 38 min	--	--	Unit normal operating, no hazard, no damage, Max. temp. as below: Ambient: 27.1 °C, PWB near HU1: 76.6 °C Enclosure outside near Heatsink: 57.1 °C
For RTC reverse test						
SD1 Pin 1 to Pin 2	s-c	19	--	--	--	Measured abnormal reverse current = 3.2 mA
SD1 Pin 2 to Pin 3	s-c	19	--	--	--	Measured abnormal reverse current = 3.0 mA
SR1	s-c	19	--	--	--	Measured abnormal reverse current = 0.01 mA
For Audio port (according to EN 50332-2)						
Audio output	Normal	19	--	--	--	Output voltage measured 115 mV
Supplementary information:						
Fault: s-c = short circuit, o-c = open circuit, o-l = over load						
Note: The maximum abnormal charging current of RTC battery is 10 mA.						