
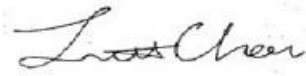
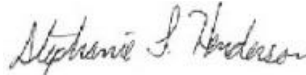


	<p>Test Report issued under the responsibility of:</p> <p>UL International Demko A/S</p>	
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<p>TEST REPORT IEC 60950-1, First Edition Information technology equipment-Safety Part 1:General Requirements</p>	
<p>Report Reference No</p> <p>Date of issue</p> <p>Total number of pages</p>	<p>E142692-A138-CB-2</p> <p>2011-12-06</p> <p>45</p>
<p>CB Testing Laboratory</p> <p>Address</p>	<p>Underwriters Laboratories Taiwan Co., Ltd.</p> <p>260 Da-Yeh Road, 112 Peitou Taipei City, Chinese Taipei</p>
<p>Applicant's name</p> <p>Address</p>	<p>QUANTA COMPUTER INC 188 WEN-HWA 2ND RD KUEI SHAN HSIANG TAOYUAN HSIEN 333 TAIWAN</p>
<p>Test specification:</p> <p>Standard</p> <p>Test procedure</p> <p>Non-standard test method</p>	<p>IEC 60950-1:2001, First Edition</p> <p>CB Scheme</p> <p>N/A</p>
<p>Test Report Form No.</p> <p>Test Report Form originator</p> <p>Master TRF</p>	<p>IEC60950_1B</p> <p>SGS Fimko Ltd</p> <p>dated 2003-03</p>
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<p>If this test Report is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.</p>	
<p>This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.</p>	

Test item description	Laptop Computer (OLPC)
Trade Mark	OLPC
	
Manufacturer	QUANTA COMPUTER INC 188 WEN-HWA 2ND RD KUEI SHAN HSIANG TAOYUAN HSIEN 333 TAIWAN
Model/Type reference	XO-1, XO-1.5, XO-1.75
Ratings	Model: XO-1 12 Vdc, 1.42 A
	Model: XO-1.5, XO-1.75 12 Vdc, 2 A or 13.5Vdc, 1.85A

Testing procedure and testing location:	
<input type="checkbox"/>	CB Testing Laboratory Testing location / address..... :
<input type="checkbox"/>	Associated CB Test Laboratory Testing location / address..... : Tested by (name + signature) : _____ Approved by (name + signature) ... : _____
<input checked="" type="checkbox"/>	Testing Procedure: TMP Tested by (name + signature) : Scott Chen  Approved by (+ signature) : Stephanie Henderson  Testing location / address..... : QUANTA COMPUTER INC. / 211, WEN HWA 2ND RD. KUEI SHAN HSIANG, TAOYUAN SHIEN TAIWAN
<input type="checkbox"/>	Testing Procedure: WMT Tested by (name + signature) : _____ Witnessed by (+ signature)..... : _____ Approved by (+ signature) : _____ Testing location / address..... : _____
<input type="checkbox"/>	Testing Procedure: SMT Tested by (name + signature) : _____ Approved by (+ signature) : _____ Supervised by (+ signature) : _____ Testing location / address..... : _____
<input type="checkbox"/>	Testing Procedure: RMT Tested by (name + signature) : _____ Approved by (+ signature) : _____ Supervised by (+ signature) : _____ Testing location / address..... : _____

List of Attachments	
National Differences (29 pages)	
Enclosures (48 pages)	
Summary Of Testing	
Unless otherwise indicated, all tests were conducted at QUANTA COMPUTER INC. / 211, WEN HWA 2ND RD. KUEI SHAN HSIANG, TAOYUAN SHIEN TAIWAN.	
Tests performed (name of test and test clause)	Testing location / Comments
Input: Single-Phase (1.6.2)	
Limited Power Source Measurements (2.5)	

Lithium Battery Reverse Current Measurement (4.3.8)

Heating (4.5.1, 1.4.12, 1.4.13)

Overload of Operator Accessible Connector (5.3.6)

Summary of Compliance with National Differences:

List of countries addressed: AR, AT, AU, BE, CA, CH, CN, CZ, DE, DK, EU, FI, FR, GB, GR, HU, IL, IN, IT, JP, KE, KR, MY, NL, NO, NZ, PL, SE, SG, SI, SK, US

Copy of Marking Plate - Refer to Enclosure titled Marking Plate for copy.

Test item particulars :	
Equipment mobility	transportable
Operating condition	continuous
Mains supply tolerance (%)	No direct connection
Tested for IT power systems	No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Class III (supplied by SELV)
Mass of equipment (kg)	1.49 (max.)
Protection against ingress of water	IP 20
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(s) of receipt of test item	2011-11-22
Date(s) of Performance of tests	2011-11-22 to 2011-11-24
General remarks:	
<p>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 testing laboratory.</p> <p>"(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a point is used as the decimal separator.</p>	
Manufacturer's Declaration per Sub Clause 6.25 of IEC60950:	
The application for obtaining a CB Test Certificate includes more than one factory and a declaration form the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided	Yes
When differences exist, they shall be identified in the General Product Information section.	
Name and address of Factory(ies):	1. TECH-FULL COMPUTER (CHANGSHU) CO LTD, 8 JINZHOU RD, HIGH-TECH INDUSTRIAL PARK, CHANGSHU ECONOMIC DEVELOPMENT ZONE, CHANGSHU JIANGSU 215500, CHINA 2. TECH-FRONT (SHANGHAI) COMPUTER CO LTD SONGJIANG EXPORT PROCESSING ZONE, 68 SAN-ZHUANG RD, SHANGHAI 201613, CHINA 3. TECH-PRO (SHANGHAI) COMPUTER CO LTD SONGJIANG EXPORT PROCESSING ZONE, 6 LANE 58 SANZHUANG RD, SHANGHAI, CHINA

4. TECH-COM (SHANGHAI) COMPUTER CO LTD
68 SANZHUANG RD,
SONGJIANG EXPORT PROCESSING ZONE,
SHANGHAI 201613, CHINA

GENERAL PRODUCT INFORMATION:

Report Summary

All applicable tests according to the referenced standard(s) have been carried out.

Product Description

Electronic components are mounted on PWB, which is enclosed by plastic enclosure and accompanied with three USB ports, one Card Reader.

The OLPC XO is a laptop computer system consisting of a (a) laptop computer, (b) direct-plug in power supply (power adapter) and (c) removable battery pack. The OLPC XO is intended for use as a child development tool primarily by children five years of age and older. In addition to IEC 60950-1, CSA/UL 60950-1 and EN 60950-1, applicable parts of ASTM F 963, 2007 Edition, Standard Consumer Safety Specification on Toy Safety, were applied to address use of the product by the intended user group.

Model Differences

Model XO-1.5 is similar to Model XO-1 except for rating, motherboard and model designation.

Model XO-1.75 is similar to Model XO-1.5 except for motherboard and model designation.

Additional Information

- Model: XO-1 => CPU information: AMD / LX700
- Model: XO-1.5, XO-1.75 => CPU information: VIA / C7-M / 1.0 GHz.
- Model: XO-1.5, XO-1.75 => CPU information: AMD / Marvell ARMADA 610 / 1.0 GHz.

- The label is a draft of an artwork for marking plate pending approval by National Certification Bodies and it shall not be affixed to products prior to such an approval.

- This Report is a re-issue of CB Test Report Reference number E142692-A138-CB-1 dated 2007-11-06, CB Test Certificate No. DK-12031. During this reissue, the report was also updated to add Model XO-1.75 and its associated mother board. Based upon the tests conducted and a review of previously conducted testing it was determined that the product continues to comply with the standards noted.

Technical Considerations

- The following "D3" deviations from the Standard were applied for the purposes of US/Canada certification: Fault test exemption for LPS-supplied circuits (5.3.6)
- The product was submitted and evaluated for use at the maximum ambient temperature (T_{ma}) permitted by the manufacturer's specification of: 45°C

- The product was investigated to the following additional standards: 1. UL Standard for Safety for Electric Toys, UL 696, Ninth Edition, Dated March 15, 1996, Revisions: This Standard contains revisions through and including June 12, 2006., 2. ASTM F963, 2007 Edition, Standard Consumer Safety Specification on Toy Safety.
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): USB ports, MIC, Head phone
- Technical Considerations - Engineering Considerations: The OLPC XO is a laptop computer system consisting of a (a) laptop computer, (b) direct-plug in power supply (power adapter) and (c) removable battery pack. The OLPC XO is intended for use as a child development tool primarily by children five years of age and older. In addition to IEC 60950-1, CSA/UL 60950-1 and EN 60950-1, applicable parts of ASTM F 963, 2007 Edition, Standard Consumer Safety Specification on Toy Safety, were applied to address use of the product by the intended user group.

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		Pass
1.5	Components		Pass
1.5.1	General		Pass
	Comply with IEC 60950 or relevant component standard	(see appended table 1.5.1)	Pass
1.5.2	Evaluation and testing of components	Certified components are used in accordance with their ratings, certifications and they comply with applicable parts of this Standard. Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component Standard. Components, for which no relevant IEC-Standard exist, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.	Pass
1.5.3	Thermal controls		N/A
1.5.4	Transformers		N/A
1.5.5	Interconnecting cables	Interconnecting cables comply with the relevant requirements of this standard.	Pass
1.5.6	Capacitors in primary circuits		N/A
1.5.7	Double insulation or reinforced insulation bridged by components	Class III product.	N/A
1.5.7.1	General		N/A
1.5.7.2	Bridging capacitors		N/A
1.5.7.3	Bridging resistors		N/A
1.5.7.4	Accessible parts		N/A
1.5.8	Components in equipment for IT power systems		N/A
1.6	Power interface		Pass
1.6.1	AC power distribution systems		N/A
1.6.2	Input current	(see appended table 1.6.2)	Pass
1.6.3	Voltage limit of hand-held equipment	The unit is not a hand-held equipment.	N/A
1.6.4	Neutral conductor	No AC mains direct	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		connection.	
1.7	Marking and instructions		Pass
1.7.1	Power rating	The unit did not provided with means for connection to mains.	Pass
	Rated voltage(s) or voltage range(s) (V)	Optional provided, 12 V dc (XO-1) 12 Vdc or 13.5Vdc (XO-1.5)	Pass
	Symbol for nature of supply, for d.c. only	IEC 60417 No. 5031 provided on marking label (Optional).	Pass
	Rated frequency or rated frequency range (Hz)		N/A
	Rated current (mA or A)	Optional provided, 1.42 A (XO-1) 2 A or 1.85A (XO-1.5, XO-1.75)	Pass
	Manufacturer's name or trademark or identification mark.....	Quanta computer Inc., or OLPC	Pass
	Type/model or type reference	XO-1, XO-1.5, XO-1.75	Pass
	Symbol for Class II equipment only		N/A
	Other symbols	Additional symbols may be provided when submitted for national Approval.	Pass
	Certification marks.....	UL, C-UL.	Pass
1.7.2	Safety instructions	Operating/safety instructions made available to the user.	Pass
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment	Equipment is designed for single voltage operation.	N/A
1.7.5	Power outlets on the equipment.....	No standard power outlets are provided.	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		N/A
1.7.7.2	Terminal for a.c. mains supply conductors		N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators		Pass
1.7.8.1	Identification, location and marking		N/A
1.7.8.2	Colours	Controls are only functional and clearly do not involve	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		safety.	
1.7.8.3	Symbols according to IEC 60417	The stand-by switch is marked with the correct symbol according to 60417-1-IEC-5009.	Pass
1.7.8.4	Markings using figures.....	Figures are not used for indicating different positions of controls.	Pass
1.7.9	Isolation of multiple power sources		N/A
1.7.10	IT power distribution systems		N/A
1.7.11	Thermostats and other regulating devices		N/A
1.7.12	Language.....	May be provided in other languages upon request from the manufacturer. Reviewed only English markings/instructions.	-
1.7.13	Durability	All markings provided on UL Recognized Component labels suitable for surface they are applied upon and meet the durability test.	Pass
1.7.14	Removable parts	No marking is located on removable part(s).	Pass
1.7.15	Replaceable batteries	The required warning is in the service manual.	Pass
	Language.....	May be provided in other languages upon request from the manufacturer. Reviewed only English markings/instructions.	-
1.7.16	Operator access with a tool	No operator access areas require the use of a tool.	Pass
1.7.17	Equipment for restricted access locations		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2	PROTECTION FROM HAZARDS		Pass
2.1	Protection from electric shock and energy hazards		Pass
2.1.1	Protection in operator access areas	All access bare parts are SELV and no bare TNV Circuit.	Pass
2.1.1.1	Access to energized parts	No OPERATOR access to energized parts	Pass
	Test by inspection..... :	The operator has access to bare parts of SELV CIRCUITS.	Pass
	Test with test finger :	The test finger was unable to contact bare hazardous parts, basic insulation, or ELV circuits.	Pass
	Test with test pin..... :	The test pin was unable to contact bare hazardous parts.	Pass
	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); minimum distance (mm) through insulation :		-
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards :	There are no hazardous energy levels in this product.	Pass
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment		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	Class III unit.	Pass
2.2.2	Voltages under normal conditions (V) :	All accessible voltages are less than 42.4 Vp or 60 V dc and are classified as SELV.	Pass
2.2.3	Voltages under fault conditions (V) :		N/A
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)		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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.2.4	Connection of SELV circuits to other circuits	SELV circuits are only connected to other secondary circuits.	Pass
2.3	TNV circuits		N/A
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 (Hz)		-
	Measured current (mA).....		-
	Measured voltage (V)		-
	Measured capacitance (mF).....		-
2.4.3	Connection of limited current circuits to other circuits		N/A
2.5	Limited power sources		Pass
	Inherently limited output	Model XO-1, XO-1.5, XO-1.75 - Following connectors are data ports only and compliance with Table 2B under Maximum V. I. and VA. measurements: - MIC - Head phone	Pass
	Impedance limited output		N/A
	Overcurrent protective device limited output		N/A
	Regulating network limited output under normal operating and single fault condition	See Table 1.5.1 for IC (U56) specifications. ===== Model XO-1.5, XO-1.75	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		- See Table 1.5.1 for details.	
	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):..... :	The USB (CN4, CN5, CN7) outputs complied with the limited power source requirements 1. USB(CN4, CN5, CN7) three ports are used one IC U56 to protector. Max. Uoc = 4.9 V Max. Isc = 1.3 A Max. VA = 5.4VA 2. USB CN4 as representative connector, IC U56 (pin 2, 3 to pin 6,7 short) Max. Uoc = 4.94 V Max. Isc = 1.9 A Max. VA = 8.4VA ===== Model XO-1.5, XO-1.75 (See Enclosures / Miscellaneous Id 7-06 for details.)	-
	Current rating of overcurrent protective device (A) :	--	-
2.6	Provisions for earthing and bonding		N/A
2.6.1	Protective earthing	Class III unit.	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 (mm2), AWG :		-
2.6.3.3	Size of protective bonding conductors		N/A
	Rated current (A), cross-sectional area (mm2), AWG :		-
2.6.3.4	Resistance (Ohm) of earthing conductors and their terminations, test current (A) :		N/A
2.6.3.5	Colour of insulation :		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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 and 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
2.7	Overcurrent and earth fault protection in primary circuits		N/A
2.7.1	Basic requirements	Class III unit.	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	Class III unit.	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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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
2.9	Electrical insulation		Pass
2.9.1	Properties of insulating materials	Natural rubber, materials containing asbestos and hygroscopic materials are not used as insulation.	Pass
2.9.2	Humidity conditioning		N/A
	Humidity (%)		-
	Temperature (°C).....		-
2.9.3	Grade of insulation	Functional insulation.	N/A
2.10	Clearances, creepage distances and distances through insulation		Pass
2.10.1	General	Pollution Degree 2 applicable.	Pass
2.10.2	Determination of working voltage	Evaluated during separate certification of the power supply.	N/A
2.10.3	Clearances	See below.	Pass
2.10.3.1	General	- FUNCTIONAL INSULATION complied with Sub-clause 5.3.4. (see appended table 2.10.3 and 2.10.3.4)	Pass
2.10.3.2	Clearances in primary circuit	Evaluated as part of power supply unit.	N/A
2.10.3.3	Clearances in secondary circuits	See 5.3.4 and appended tables 2.10.3 & 2.10.4 for details.	Pass
2.10.3.4	Measurement of transient voltage levels		N/A
2.10.4	Creepage distances	See appended table 2.10.3 & 2.10.4	Pass
	CTI tests	Material group IIIb assumed; 100 ≤ CTI < 175.	-
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		-

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.3	Printed boards		N/A
	Distance through insulation		N/A
	Electric strength test for thin sheet insulating material :		-
	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 wound 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 :		N/A
	Temperature T1=T2 = Tma - Tamb +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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3	WIRING, CONNECTIONS AND SUPPLY		Pass
3.1	General		Pass
3.1.1	Current rating and overcurrent protection	All wires/conductors possess adequate cross-sectional areas for their intended application and Internal wiring are adequately insulated.	Pass
3.1.2	Protection against mechanical damage	The wires are routed away from sharp edges and parts which could damage insulation.	Pass
3.1.3	Securing of internal wiring	The wires are positioned in such a manner that prevents excessive strain, loosening of terminal connections and damage of conductor insulation	Pass
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.	Pass
3.1.5	Beads and ceramic insulators		N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating 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 an a.c. mains supply or a d.c. mains supply		N/A
3.2.1	Means of connection	Class III unit.	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 (mm) of cable and conduits		-
3.2.4	Appliance inlets		N/A
3.2.5	Power supply cords		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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
	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	Class III product	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		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	Single-phase equipment and d.c. equipment		N/A
3.4.7	Three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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		Pass
3.5.2	Types of interconnection circuits :	Interconnection circuits are SELV CIRCUITS.	Pass
3.5.3	ELV circuits as interconnection circuits		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4	PHYSICAL REQUIREMENTS		Pass
4.1	Stability		N/A
	Angle of 10°	Based on construction, the test was deemed not necessary.	N/A
	Test: force (N)..... :		N/A
4.2	Mechanical strength		N/A
4.2.1	General		N/A
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
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test	No hazardous parts or in the reduction of CREEPAGE DISTANCES or CLEARANCES within subject unit.	N/A
4.2.7	Stress relief test	No hazardous parts or in the reduction of CREEPAGE DISTANCES or CLEARANCES within subject unit.	N/A
4.2.8	Cathode ray tubes	The equipment does not have any CRT's	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)		N/A
4.3	Design and construction		Pass
4.3.1	Edges and corners	All edges and corners are judged to be sufficiently well rounded so as not to constitute a hazard.	Pass
4.3.2	Handles and manual controls; force (N)..... :	No hazardous parts or in the reduction of CREEPAGE DISTANCES or CLEARANCES within subject unit.	N/A
4.3.3	Adjustable controls	The equipment does not have a voltage selector.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.4	Securing of parts	No loosening of parts impairing creepage distances or clearances over supplementary or reinforced insulation is likely to occur.	Pass
4.3.5	Connection of plugs and sockets		N/A
4.3.6	Direct plug-in equipment	Not direct plug-in equipment.	N/A
	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
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	Batteries	Model XO-1, XO-1.5, XO-1.75 See Critical Components Table for RTC protected components details.	Pass
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..... :		N/A
	Quantity of liquid (l)..... :		N/A
	Flash point (°C)..... :		N/A
4.3.13	Radiation; type of radiation	The equipment does not generate ionizing radiation or contain flammable liquids or gases.	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		N/A
	Part, property, retention after test, flammability classification :		N/A
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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.4	Protection against hazardous moving parts		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas		N/A
4.4.3	Protection in restricted access locations		N/A
4.4.4	Protection in service access areas		N/A
4.5	Thermal requirements		Pass
4.5.1	Maximum temperatures	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established. (see appended table 4.5)	Pass
	Normal load condition per Annex L :	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established.	Pass
4.5.2	Resistance to abnormal heat		N/A
4.6	Openings in enclosures		Pass
4.6.1	Top and side openings		Pass
	Dimensions (mm) :	No openings.	-
4.6.2	Bottoms of fire enclosures		Pass
	Construction of the bottom :	No openings.	-
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C)/time (weeks) :		-
4.7	Resistance to fire		Pass
4.7.1	Reducing the risk of ignition and spread of flame	Method 1: Selection and application of components and materials which minimize the possibility of ignition and spread of flame.	Pass
	Method 1, selection and application of components wiring and materials		Pass
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure		Pass
4.7.2.1	Parts requiring a fire enclosure	A fire enclosure covers all	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		parts.	
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		Pass
4.7.3.1	General	See below.	Pass
4.7.3.2	Materials for fire enclosures	Equipment is transportable with mass less than 18 kg. Fire enclosure material is V-1 minimum.	Pass
4.7.3.3	Materials for components and other parts outside fire enclosures	Fire enclosure covers all parts.	Pass
4.7.3.4	Materials for components and other parts inside fire enclosures	PWB are rated minimum V-1 and internal plastics are rated minimum V-2	Pass
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		Pass
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 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
5.1.8	Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks	No telecommunication networks and cable distribution systems.	N/A
5.1.8.1	Limitation of the touch current to a telecommunication network and a cable distribution system		N/A
	Test voltage (V)		-
	Measured touch current (mA).....		-
	Max. allowed touch 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.....	Functional insulation complies with the requirements (c).	Pass
5.3.5	Electromechanical components	The equipment does not have any electromechanical	N/A

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

		components in the secondary.	
5.3.6	Simulation of faults	Connectors overloaded.	Pass
5.3.7	Unattended equipment		N/A
5.3.8	Compliance criteria for abnormal operating and fault conditions	No fire, emission of molten metal or deformation was noted during the tests.	Pass

6	CONNECTION TO TELECOMMUNICATION NETWORKS		N/A
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		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 the telecommunication wiring system from overheating		N/A
	Max. output current (A)	:	-
	Current limiting method	:	-

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

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
7.1	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.2	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.3	Insulation between primary circuits and cable distribution systems		N/A
7.3.1	General		N/A
7.3.2	Voltage surge test		N/A
7.3.3	Impulse test		N/A

IEC 60950-1			
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		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.2.2	Conditioning of samples		N/A
A.2.3	Mounting of samples		N/A
A.2.4	Test flame		N/A
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 60695-2-2, cl. 4, 8		N/A
	Sample 1 burning time (s)		-
	Sample 2 burning time (s)		-
	Sample 3 burning time (s)		-
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A

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

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.7	Locked-rotor overload test for d.c. 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)		-

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

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

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

E	Annex E, TEMPERATURE RISE OF A WINDING		N/A
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F	Annex F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10)		Pass
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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.2.1	AC mains supply		N/A
G.2.2	DC mains supply		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
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J	Annex J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N/A
	Metal used		-

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

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
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 4.5.1)		Pass
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		Pass

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	Ringling 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

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

N	Annex N, IMPULSE TEST GENERATORS (see 2.10.3.4, 6.2.2.1, 7.3.2 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		Pass
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Q	Annex Q, BIBLIOGRAPHY		Pass
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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)		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
 :		-

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

1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (Edition/ year)	mark(s) of conformity ¹	
01 Connectors and Receptacles (secondary ELV/SELV circuits)	--	Metal/Plastic	Copper alloy pins housed in bodies of plastic rated V-2 min.	UL94, UL498, UL1977	UL, --	
02 Insulating Tubing/Sleeving	Various	Various	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; 105 degree C, 300V.	UL224	UL, --	
03 Label	Various	Various	60 degree C if Max. surface temperature not specified	UL969	UL, --	
04. Wiring, internal, secondary	Various	Various	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; min 30 V, 60 degree C, routed away from primary uninsulated live parts, and unless insulated for the highest voltage involved, from insulated primary circuit wiring	UL758	UL, --	
05 Internal Plastic Part Materials	Various	Various	Min. V-2	UL94, UL746C	UL, --	
06 Printed Wiring Board	Various	Various	V-1 min., rated min. 105 degree C	UL796	UL, --	
07 Plastic Material of Flexible Printed Wiring	Various	Various	V-2 min. or VTM-2 min. when no components mounted on surface	UL94, UL746C	UL, --	
08 Enclosure	CHI MEI CORPORATION	PC-540	V-0, 1.5 mm min., 60 degree	UL94, UL746C	UL, ---	

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

1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (Edition/ year)	mark(s) of conformity ¹⁾	
			C, overall 231.0 x 244.0 x 32.8 (with LCD panel) or 231.0 x 244.0 x 22.0 (without LCD panel area)			
09 Power Adaptor (For Rating 12V/1.42A only)	PI Electronics (H.K.) Ltd.	AD5953	INPUT: 100-240Vac 560mA 50/60Hz, OUTPUT: 12Vdc 1.417A.(Class II)	UL60950-1; IEC60950-1:2001	UL, DK-11960	
09a Power Adaptor (Alternate) (For Rating 12V/1.42A only)	Lite-On	PA-1150-05Q1	I/P: 100-240VAC, 0.5A, 50-60HZ; O/P: 12V/1.42A(Class II)	UL60950-1; IEC60950-1:2001	UL, NO45038	
09b Power Adaptor (Alternate) (For Rating 12V/1.42A only)	Delta	ADP-17FB A	I/P: 100-240VAC, 0.8A, 50-60HZ; O/P: 12V/1.42A(Class II)	UL60950-1; IEC60950-1:2001	UL, JPTUV-020617	
09c Power Adaptor (Alternate) (For Rating 12V/2A only)	Bestec Power Electronics Co., Ltd	NA0241WAA (NAwww1WyA)#	I/P: 100-240Vac, 1A, 50/60Hz; O/P: 12Vdc/2A (Class II)	UL60950-1, 2nd Edition; IEC60950-1:2001	UL, JPTUV-024176	
09d Power Adaptor (Alternate) (For Rating 13.5V/1.85A only)	Bestec Power Electronics Co., Ltd	BT-AG250SDFxy (X="-", y=A-Z or blank. For marketing purpose	I/P: 100-240Vac, 50/60 Hz, 0.4A; O/P: 13.5V, 1.85A	UL60950-1, 2nd Edition; IEC60950-1:2001	UL, DK-19690	
10 Battery pack	BYD	CL1	6.5 V, 3,100 mAh (Li-ion)	UL60950-1 UL2054	UL, --	
10a Battery pack (Alternate)	Sylva Industries Ltd Rechargeable Battery Div	NTA2488	6.0 V, 3,000 mAh (Ni-MH)	UL60950-1 UL2054	UL, --	
10b Battery pack (Alternate)	Sylva Industries Ltd Rechargeable Battery Div	NTA2490	7.3 V, 2800 mAh (Li-Fe)	UL60950-1 UL2054	UL, --	
12 Speakers	Various	Various	Rated 8 ohm, max. 1.0 Watt, max. two	--	--, --	

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

1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (Edition/ year)	mark(s) of conformity ¹	
			provided			
13 Keyboard	Various	Various	Min. flame HB	UL94 UL746C	UL, --	
14 LCD panel	Various	Various	7.5" TFT-LCD type, LED backlight module.	--	--, --	
15 Printed wiring board, flexible	Various	Various	Min V-2 or VTM-2, 105 degree C	UL796 UL94	UL, --	
Following Components for Model XO-1 only	--	--	See Enclosure Id 3-13, 3-14, for motherboard and other details.	--	--, --	
16. Mother board (for model XO-1)	Various	Various	--	--	--, --	
16-1 Wireless LAN Card	Various	Various	3.3Vdc	--	--, --	
16-2 R.T.C. Battery	Hitachi Maxell Ltd.	ML1220	3V, 18 mAh rechargeable maximum abnormal charging current 10mA by multiple components Q33, D18 and R275 rated 1kohm	UL1642	UL, --	
16-3-1 R.T.C. Battery (Alternate)	Matsushita Electric Industrial Co Ltd., Panasonic Corp Of North America.	ML1220	3V, 17 mAh rechargeable maximum abnormal charging current 10mA by multiple components Q33, D18 and R275 rated 1kohm	UL1642	UL, --	
16-3-2 Protector IC U56 (for USB use)	RICHTEK	RT9703 series	2.0-5.5Vdc, 3.5A	--	--, --	
16-3-2a Protector IC U56 (for USB use) (Alternate)	GMT	G5282 series	2.0-5.5Vdc, 1.0 A	--	--, --	
Following Components for	--	--	See Enclosure Id 3-24, 3-25, 3-26,	--	--, --	

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

1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (Edition/ year)	mark(s) of conformity ¹	
Model XO-1.5 only			3-27 for motherboard and other details.			
17 Mother board (for model XO-1.5)	Various	Various	--	--	--, --	
17-1 Wireless LAN Card	Various	Various	3.3Vdc	--	--, --	
17-2 R.T.C. Battery	HITACHI MAXELL LTD	ML1220	3 Vdc, Max Charging Voltage 12 Vdc; Max Charging Current 100 mA	UL1642	UL, --	
17-2a R.T.C. Battery (Alternate)	PANASONIC CORPORATION , PANASONIC CORPORATION OF NORTH AMERICA	ML1220	3 Vdc, Max Charging Voltage 12 Vdc; Max Charging Current 300 mA	UL1642	UL, --	
17-2-1 RTC Battery protected components	--	--	The RTC battery is protected by following: resistors (R309, R305/1kohm), a transistor (Q24) and a diode (D20).	--	--, --	
17-3 Protector IC U5 (for USB use)	RICHTEK	RT9703 series	2.0-5.5Vdc, 3.5A	--	--, --	
17-3a Protector IC U5 (for USB use) (Alternate)	GMT	G5282 series	2.0-5.5Vdc, 1.0 A	--	--, --	
Following Components for Model XO-1.75 only	--	--	See Enclosure Id 3-28, 3-29 for motherboard and other details. Use with Battery pack :BYD / CL1 only Use with Adapter (Bestec) only.	--	--, --	
18. Mother board (for model XO-1.75)	Various	Various	--	--	--, --	
18-1 Wireless	Various	Various	3.3Vdc	--	--, --	

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

1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (Edition/ year)	mark(s) of conformity ¹⁾	
LAN Card						
18-2. Protect IC U9 (for USB use)	Diodes Inc	AP2171, AP2161	2.7-5.5Vdc, Cont. Current 1.0A, Prot. Current 2.0A	UL Subject 2367	UL, --	
18-2. R.T.C. Battery (alternate)	HITACHI MAXELL ENERGY LTD	ML1220	3 Vdc; Max Charging Voltage 12 Vdc; Max Charging Current 100 mA	UL1642	UL, --	
18-2-1. RTC Battery protect components	--	--	The RTC battery is protected by following: resistors (R35, R27/1kohm) (R26/4.7Kohm) (R23/1.2Kohm), a transistor (Q1) and a diode (D14).	--	--, --	
Supplementary information: ¹⁾) Provided evidence ensures the agreed level of compliance. See OD-CB2039.						

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

1.6.2	TABLE: electrical data (in normal conditions)						Pass
fuse #	I rated (A)	U (V)	P (W)	I (mA)	I fuse (mA)	condition/status	
--	1.42	12Vdc	17.1	1420	1420	Maximum normal load with empty battery pack , A and D.	
--	1.42	12Vdc	17.2	1430	1430	Maximum normal load with empty battery pack , A and E.	
--	1.42	12Vdc	17.1	1420	1420	Maximum normal load with empty battery pack, B and D.	
--	1.42	12Vdc	17.1	1420	1420	Maximum normal load with empty battery pack , B and E.	
--	1.42	12Vdc	17.1	1420	1420	Maximum normal load with empty battery pack , C and D.	
--	1.42	12Vdc	17.1	1420	1420	Maximum normal load with empty battery pack , C and E.	
--	--	6.5Vdc	7.1	1090	1090	Maximum normal load with system discharge Battery pack power only D	
--	--	6 Vdc	6.9	1070	1070	Maximum normal load with system discharge Battery pack power only E	
---	--	--	--	--	--	Alternate Battery Pack, Sylva Industries Ltd Rechargeable Battery Div., Li-Fe Battery Pack, Model: NTA2490, rated 7.3 Vdc, 2800mAh	
--	1.42	12Vdc	17.1	1440	1440	Maximum normal load with empty battery pack, A and F.	
--	--	7.3 Vdc	11	1500	1500	Maximum normal load with system discharge Battery pack power only F	
--	--	--	--	--	--	Model XO-1.5 (Power Supply: Bestec / NA0241WAA, Battery pack: BYD / CL1)	
--	2	12	23.04	1920	--	Max normal load with empty battery pack.	
--	2	12	20.88	1740	--	System off with empty battery pack charging mode.	
--	--	6.5	12.22	1880	--	System off with empty battery pack charging mode (Measure battery pack connector)	
--	--	6.5	12.48	1920	--	Maximum normal load supplied by battery pack discharge mode (Measure battery pack connector)	
--	1.85	13.5	22.95	1700	--	Maximum normal load with empty battery pack, G and D.	
--	1.85	13.5	20.25	1500	--	Battery charge only,G	

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

-	-	-	-	-	-	Model XO-1.75 with Alternate Mainboard (Test with Battery Pack BYD / CL1 and power supply as noted)
--	2.0	12	17.76	1480	--	Max normal load.(Bestec / NA0241WAAA)
--	2.0	12	16.80	1400	--	Max. normal load with Battery charge only.(Bestec / NA0241WAAA,)
--	--	6.99	10.78	1540	--	System off with empty battery pack charging mode (Measure battery pack connector)
--	--	6.42	13.48	2100	--	Maximum normal load supplied by battery pack discharge mode (Battery pack connector)
--	1.85	13.5	19.98	1480	--	Max normal load. (Bestec / BT-AG250SDFxy)
--	1.85	13.5	17.01	1260	--	Max. Normal load with Battery charge only.(Bestec / BT-AG250SDFxy)
--	--	6.99	10.58	1520	--	System off with empty battery pack charging mode (Measure battery pack connector)
--	--	6.42	13.48	2100	--	Maximum normal load supplied by battery pack discharge mode (Battery pack connector)

supplementary information:

Maximum Normal Load: Max. Brightness and contrast and max. volume of speaker, reading/writing between HDD and playing optical drives, each USB loads 2.5W, charging an empty battery pack Adaptor A. PI adaptor (Model AD5953LF) B. Delta adaptor (Model ADP-17FB A) C. Lite-on adaptor (Model PA-1150-05Q1) G. Bestec adaptor (Model BT-AG250SDFxy) Battery pack model : D. BYD Battery Pack (Model CL1) Maximum Charge Voltage: 7.6 V; Maximum Charge Current: 3100 mA. E. Sylva Industries Ltd Rechargeable Battery Div., Battery Pack (Model NTA2488) F. Sylva Industries Ltd Rechargeable Battery Div., Li-Fe Battery Pack, (Model: NTA2490)

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements						Pass
clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)	
--	--	--	--	-	--	--	
supplementary information:							
Only functional insulation required.							

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

2.10.5	TABLE: distance through insulation measurements			N/A
distance through insulation di at/of:	Up (V)	test voltage (V)	required di (mm)	di (mm)
supplementary information:				

4.5	TABLE: temperature rise measurements					Pass
test voltage (V).....	See below	--	--	--	--	—
t1 (°C).....	--	--	--	--	--	—
t2 (°C).....	--	--	--	--	--	—
maximum temperature T of part/at:	T (°C)					allowed Tmax (°C)
Normal Condition	Condition 1 (Original)	Condition 1 (Shift to 45)	Condition 2 (Original)	Condition 2 (Shift to 45)	--	--
1. Amibent	25	45	25	45	--	--
2. RTC battery	41	61	34	54	--	100
3. CPU near PWB	43	63	38	58	--	105
4. Enclosure inside, top section, near CPU	39	59	36	56	--	70
5. Outside enclosure, top section, near CPU	34	54	32	52	--	95
6. Outside enclosure, top section, front panel LCD	31	51	29	49	--	75
7. Outside enclosure, bottom section, near mouse control board	26	46	26	46	--	75
8. Outside enclosure, bottom surface, battery pack (BYD)	30	50	30	50	--	75
9. Outside enclosure, bottom surface, battery pack (Sylva Industries Ltd Rechargeable Battery Div.,)	27	47	29	49	--	75
10. Enclosure inside near T1 (Adaptor)	35	55	26	46	--	95
Alternate Battery Pack, Sylva Industries Ltd Rechargeable Battery Div., Li-Fe Battery Pack, Model: NTA2490, rated 7.3 Vdc, 2800mAh	Condition 3 (Original)	Condition 3 (Shift to 45)	Condition 4 (Original)	Condition 4 (Shift to 45)	--	--
1. Amibent	25	45	25	45	--	--
2. RTC battery	42	62	39	59	--	100
3. CPU near PWB	42	62	44	64	--	105
4. Enclosure inside, top section, near CPU	39	59	40	60	--	70
5. Outside enclosure, top section, near CPU	35	55	35	55	--	95
6. Outside enclosure, top section, front panel	31	51	30	50	--	75

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

LCD						
7. Outside enclosure, bottom section, near mouse control board	26	46	26	46	--	75
8. Outside enclosure, bottom surface, battery pack (Sylva Industries Ltd Rechargeable Battery Div.,)	27	47	28	48	--	75
9. Enclosure inside near T1 (Adaptor)	48	68	32	52	--	95
For Model XO-1.5	--	--	--	--	--	--
Normal Condition	Maximum Normal Load (Original)	Maximum Normal Load (Shift to 45)	Discharge battery pack only (Original)	Discharge battery pack only (Shift to 45)	--	--
1.U19 near PWB	45.2	66.6	40.8	62.9	--	105
2.U20 near PWB	43.5	64.9	38.5	60.6	--	105
3.RTC battery	42.8	64.2	40.0	62.1	--	100
4.U17 near PWB	39.5	60.9	37.4	59.5	--	105
5.Enclosure inside near U19	35.6	57.0	33.0	55.1	--	60
6.Enclosure outside near U19	28.5	49.9	27.2	49.3	--	60
7.Enclosure outside near mouse control board	23.9	45.3	23.1	45.2	--	60
8.Enclosure outside near battery pack	28.2	49.6	27.0	49.1	--	60
9.Ambient	23.6	45.0	22.9	45.0	--	--
For Model XO-1.75	--	--	--	--	--	--
Normal condition (See Input Table for Max. Load condition, tested w/battery BYD, Model CLI)	Max. normal load	Max. normal load (shift to 45)	Discharge	Discharge (shift to 45)	--	--
1.U19 near PWB	39.5	59.3	38	58.3	--	105
2.U20 near PWB	39.5	59.3	37.5	57.8	--	105
3.RTC battery	36.5	56.3	33.5	53.8	--	100
4.Enclosure inside near U19	34.5	54.3	33.1	53.4	--	60
5.Enclosure outside near U19	34	53.8	33	53.3	--	60
6.Enclosure outside near front panel	31.5	51.3	30.5	50.8	--	60
7.Enclosure outside near mouse control board	31.5	51.3	31.5	51.8	--	60
8.Enclosure outside near battery pack	25.9	45.7	25.3	45.6	--	60
9.Ambient	25.2	45	24.7	45	--	--
temperature T of winding:		R ₁ (Ω)	R ₂ (Ω)	T (°C)	allowed Tmax (°C)	insulation class
--		--	--	--	--	--
supplementary information:						
Test Condition 1: Maximum normal load 12 Vdc, Duration 15hrs.50mins.						
Test Condition 2: Discharge battery pack only, Duration 2hrs.50mins.						
Test Condition 3: Maximum normal load 12 Vdc, Duration 15hrs.50mins.						
Test Condition 4: Discharge battery pack only, Duration 2hrs.50mins.						

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

Comments:
 The temperatures were measured under worst case normal mode defined in 1.2.2.1 load as described in 1.6.2 at voltages as described in 1.4.5.
 With max. ambient temperature specified as 45 degree C, the ore, the maximum temperature rise is calculated as follows:
 Components with:
 Max.temp.of 105 degree C(PWB)
 Max.temp.of 100 degree C(RTC)

User accessible area:
 material is plastic 70 degree C (for Enclosure inside, top section, near CPU)
 material is plastic 75 degree C (for Outside enclosure, top section, front panel LCD)
 material is plastic 75 degree C (for Outside enclosure, bottom section, near mouse control board)
 material is plastic 75 degree C (for Outside enclosure, bottom surface, battery pack (BYD)/ (Sylva Industries Ltd Rechargeable Battery Div.,))
 material is plastic 95 degree C (for Enclosure inside near T1 (Adaptor))

4.5.2	TABLE: ball pressure test of thermoplastics			N/A
	allowed impression diameter (mm)	:		—
part		test temperature (°C)	impression diameter (mm)	
supplementary information:				

4.7	TABLE: resistance to fire				Pass
part	manufacturer of material	type of material	thickness(mm)	flammability class	
--	--	--	--	--	
supplementary information:					
Refer to Table 1.5.1 Critical component list.					

5.2	TABLE: electric strength tests, impulse tests and voltage surge tests			N/A
test voltage applied between:		test voltage (V) a.c./d.c.	breakdown Yes / No	
supplementary information:				

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

5.3	TABLE: fault condition tests					Pass
	ambient temperature (°C)				25 degree C	—
	model/type of power supply				(see appended table 1.5.1)	—
	manufacturer of power supply				(see appended table 1.5.1)	—
	rated markings of power supply				(see appended table 1.5.1)	—
component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result
--	--	--	--	--	--	Clause 4.3.8 -Battery Overcharge/Discharge Tests
Q33 (pin 1-3) (Overcharging Test,)	Short	12Vdc	14 hrs 30mins.	--	--	PA, PB, PC, No hazard., Ambient =29 degree C. Enclosure inside = 29 degree C
D18 D-S (Rapid Discharging Test)	Short	--	14 hrs 30mins.	--	--	PA, PB, PC, No hazard., Ambient =29 degree C. Enclosure inside = 29 degree C
--	--	--	--	--	--	4.3.8 Lithium battery reverse current measurement test
RTC battery reverse current test	Normal	12Vdc	--	--	--	Charging current is 0 mA
RTC battery reverse current test D18	Short	12Vdc	--	--	--	Charging current is 0.56 mA
RTC battery reverse current test Q33 (pin1-3)	Short	12Vdc	--	--	--	Charging current is 0 mA
RTC battery reverse current test Q33 (pin1-2)	Short	12Vdc	--	--	--	Charging current is 0 mA
RTC	Short	12Vdc	--	--	--	Charging current is 0 mA

IEC 60950-1						
Clause	Requirement + Test					Result - Remark
						Verdict
battery reverse current test R275						
--	--	--	--	--	--	5.3.6 Overload of operator accessible connector test:
USB1 (CN7) pin1	Overload	12Vdc	1hrs	--	--	NC,NT Open circuit voltage=4.9Vdc Maximum available current =1210mA
USB1 (CN7) pin2~4	Overload	12Vdc	--	--	--	B Open circuit voltage=0Vdc Maximum available current =0mA
USB2 (CN6) pin1	Overload	12Vdc	1hrs	--	--	NC, NT, Open circuit voltage=4.9Vdc Maximum available current =1220mA
USB2 (CN6) pin2-4	Overload	12Vdc	--	--	--	B, Open circuit voltage=0Vdc ,Maximum available current =0mA
USB3 (CN4) pin1	Overload	12Vdc	1hrs	--	--	NC, NT, Open circuit voltage=4.9Vdc, Maximum available current =1210mA
USB4(CN4) pin2-4	Overload	12Vdc	--	--	--	B, Open circuit voltage=0Vdc, Maximum available current =0mA
--	--	--	--	--	--	For Model XO-1.5
--	--	--	--	--	--	4.3.8 Lithium battery reverse current measurement test
RTC battery reverse current test	Normal	12Vdc	--	--	--	Charging current is 0 mA
RTC battery reverse current test R309	Short	12Vdc	--	--	--	Charging current is 0 mA
RTC battery reverse current test D20	Short	12Vdc	--	--	--	Charging current is 0.56 mA
RTC battery reverse current test	Short	12Vdc	--	--	--	Charging current is 0 mA

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

Q24 (pin1-3)						
RTC battery reverse current test R305	Short	12Vdc	--	--	--	Charging current is 0 mA
--	--	--	--	--	--	For Model XO-1.75
--	--	--	--	--	--	4.3.8 Lithium battery reverse current measurement test
RTC battery reverse current test	Normal	13.5Vdc	--	--	--	Charging current is 2 mA
R26	Short	13.5Vdc	--	--	--	Charging current is 4 mA
R23	Short	13.5Vdc	--	--	--	Charging current is 2 mA
Q1(pin 1-3) short	Short	13.5Vdc	--	--	--	Charging current is 2 mA
D14	Short	13.5Vdc	--	--	--	Charging current is 3 mA
R35	Short	13.5Vdc	--	--	--	Charging current is 3 mA
--	--	--	--	--	--	5.3.6 Overload of operator accessible connector test
USB (CN11), pin 1	Overload	13.5Vdc	--	--	--	NC, NT, Open circuit voltage=4.95Vdc, Maximum available current =1310mA
USB (CN11), Pin 2-4	Overload	13.5Vdc	--	--	--	B
USB (CN9), pin 1	Overload	13.5Vdc	--	--	--	NC, NT, Open circuit voltage=4.95Vdc, Maximum available current =1310mA
USB (CN9), Pin 2-4	Overload	13.5Vdc	--	--	--	B
USB (CN12), pin 1	Overload	13.5Vdc	--	--	--	NC, NT, Open circuit voltage=4.95Vdc, Maximum available current =1310mA
USB (CN12), Pin 2-4	Overload	13.5Vdc	--	--	--	B
MIC (CN3), Pin 1 to 6	Overload	13.5Vdc	--	--	--	B
Headphone (CN4), Pin 1 to 6	Overload	13.5Vdc	--	--	--	B
Card reader (CN19), Pin 4	Overload	13.5Vdc	--	--	--	C

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

Card reader (CN19), Pin 1-3 and 5-13	Overload	13.5Vdc	--	--	--	B
--------------------------------------	----------	---------	----	----	----	---

supplementary information:

Comments Key: (BATTERY OVERCHARGE/ DISCHARGE TESTS) PA = There was no cracking, rupturing or bursting of the battery jacket that could result in user contact with battery electrolyte, PB = There was no explosion of the battery that could result in a risk of injury to persons, PC = There was no emission of flame or expulsion of molten metal outside the battery-operated product (COMPONENT FAILURE TEST; ABNORMAL OPERATION TEST; TRANSFORMER ABNORMAL OPERATION TEST) IP - Internal protection operated (list component), CT - Constant temperatures were obtained, CD - Components damaged (list damaged components), NT - Tissue paper remained intact, NC - Cheesecloth remained intact, (OVERLOAD OF OPERATOR ACCESSIBLE CONNECTOR TEST) B - Circuit measures 0 Volts. C - Less than 12.5mA.

Enclosure
National Differences

Argentina*
Australia / New Zealand
Austria**
Belgium**
China*
Czech Republic**
Denmark
Finland
France**
Germany
Greece**
Group
Hungary*
India*
Israel*
Italy*
Japan*
Kenya*
Korea
Malaysia*
Netherlands**
Norway
Poland*
Singapore*
Slovakia**
Slovenia*
Sweden
Switzerland**
USA / Canada
United Kingdom

* No National Differences Declared

** Only Group Differences

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

Australia / New Zealand - Differences to IEC 60950-1:2001, First Edition																																					
1.2.12.201	<p>Addition: POTENTIAL IGNITION SOURCE Possible fault which can starts a fire if the open-circuit voltage measured across an interruption or faulty contact exceeds a value of 50 V (peak) a.c. or d.c. and the product of the peak value of this voltage and the measured r.m.s. current under normal operating conditions exceeds 15VA. Such a faulty contact or interruption in an electrical connection includes those which may occur in conductive patterns on printed boards. Note 201: An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE. Note 202: This definition is from AS/NZS 60065:2003</p>		N/A																																		
1.5.1	Add to the first paragraph: "or the relevant Australian / New Zealand Standard".		Pass																																		
1.5.2	Add to the first and third dashed items after the words "IEC Component Standard": "or the relevant Australian / New Zealand Standard".		Pass																																		
2.1	Delete the Note	Delete	Pass																																		
3.2.3	Delete Note 2		N/A																																		
3.2.5.1	<p>Substitute for Table 3B: Sizes of Conductors</p> <table border="1"> <thead> <tr> <th>Rated Current of Equipment (A)</th> <th>Nominal cross-sectional area (mm²)</th> </tr> </thead> <tbody> <tr><td>0.2 <= 3</td><td>0.5 1)</td></tr> <tr><td>3 <= 7.5</td><td>0.75</td></tr> <tr><td>7.5 <= 10</td><td>(0.75) 2) 1.00</td></tr> <tr><td>10 <= 16</td><td>(1,0) 3) 1.5</td></tr> <tr><td>16 <= 25</td><td>2.5</td></tr> <tr><td>25 <= 32</td><td>4</td></tr> <tr><td>32 <= 40</td><td>6</td></tr> <tr><td>40 <= 63</td><td>10</td></tr> <tr><td>63 <= 80</td><td>16</td></tr> <tr><td>80 <= 100</td><td>25</td></tr> <tr><td>100 <= 125</td><td>35</td></tr> <tr><td>125 <= 160</td><td>50</td></tr> <tr><td>160 <= 190</td><td>70</td></tr> <tr><td>190 <= 230</td><td>95</td></tr> <tr><td>230 <= 260</td><td>120</td></tr> <tr><td>260 <= 300</td><td>150</td></tr> </tbody> </table>	Rated Current of Equipment (A)	Nominal cross-sectional area (mm ²)	0.2 <= 3	0.5 1)	3 <= 7.5	0.75	7.5 <= 10	(0.75) 2) 1.00	10 <= 16	(1,0) 3) 1.5	16 <= 25	2.5	25 <= 32	4	32 <= 40	6	40 <= 63	10	63 <= 80	16	80 <= 100	25	100 <= 125	35	125 <= 160	50	160 <= 190	70	190 <= 230	95	230 <= 260	120	260 <= 300	150		N/A
Rated Current of Equipment (A)	Nominal cross-sectional area (mm ²)																																				
0.2 <= 3	0.5 1)																																				
3 <= 7.5	0.75																																				
7.5 <= 10	(0.75) 2) 1.00																																				
10 <= 16	(1,0) 3) 1.5																																				
16 <= 25	2.5																																				
25 <= 32	4																																				
32 <= 40	6																																				
40 <= 63	10																																				
63 <= 80	16																																				
80 <= 100	25																																				
100 <= 125	35																																				
125 <= 160	50																																				
160 <= 190	70																																				
190 <= 230	95																																				
230 <= 260	120																																				
260 <= 300	150																																				

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	300 <= 340 185 340 <= 400 240 400 <= 460 300 ----- Replace footnote 1) with the following: 1) This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord or cord guard, enters the appliance, and the entry to the plug, does not exceed 2 m (0.5 mm ² three-core supply flexible cords are not permitted; see S/NZS 3191). Delete Note 1.		
4.1.201	Addition: Display devices used for television purposes Display devices which may be used for television purposes, with a mass of 7 kg or more, shall comply with the requirements for stability and mechanical hazards, including the additional stability requirements for television received, specified in AS/NZS 60065.		N/A
4.3.6	Replace the third paragraph: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112, shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.		N/A
4.3.13.5	Add the following to the end of the first paragraph: "or AS/NZS 2211.1"		N/A
4.7	Add after the clause: For alternative resistance to fire tests, refer to Clause 4.7.201		Pass
4.7.201	Additional after the clause 4.7.3.6: Resistance to fire - Alternative tests		N/A
4.7.201.1	Addition: General Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames originating from inside the apparatus, or the following: (a) Components that are contained in an enclosure having a flammability category of FV-0 according to AS/NZS 4695.707 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1 mm in width		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	<p>regardless of length.</p> <p>(b) The following parts which would contribute negligible fuel to a fire:</p> <ul style="list-style-type: none"> - small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; - small electrical components, such as capacitors with a volume not exceeding 1 750 mm³, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category FV-1, or better, according to AS/NZS 4695.707. <p>NOTE In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating fire from one part to another.</p> <p>Compliance shall be checked by the tests of 4.7.201.2, 4.7.201.3, 4.7.201.4 and 4.7.201.5. For the base material of printed boards, compliance shall be checked by the test of 4.7.201.5.</p> <p>The tests shall be carried out on parts of non-metallic material which have been removed from the apparatus. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use.</p> <p>These tests are not carried out on internal wiring.</p>		
4.7.201.2	<p>Addition: Testing of non-metallic materials Parts of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550°C.</p> <p>Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the sample tested was not thicker than the relevant part.</p>		N/A
4.7.201.3	<p>Addition: Testing of insulating materials Parts of insulating material supporting POTENTIAL IGNITION SOURCES shall be subject to the glow-</p>		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	<p>wire test of AS/NZS 60695.2.11 which shall be carried out at 750°C. The test shall be also carried out on other parts of insulating material which are within a distance of 3mm of the connection.</p> <p>NOTE Contacts in components such as switch contacts are considered to be connections.</p> <p>For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test shall not be tested. The needle-flame test shall be made in accordance with AS/NZS 4695.2.2 with the following modifications:</p> <p>Clause of AS/NZS 4695.2.2 Change</p> <p>5 Severities Replace with: The duration of application of the test flame shall be 30 s +/- 1 s.</p> <p>8 Test procedure</p> <p>8.2 Replace the first sentence with: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1.</p> <p>8.4 The first paragraph does not apply. Addition: If possible, the flame shall be applied at least 10 mm from a corner.</p> <p>8.5 Replace with: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall then withstand the test.</p> <p>10 Evaluation of Replace with:</p>		

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	<p>test results The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.</p> <p>The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to IEC 60695-11-10, provided that the sample tested was not thicker than the relevant part.</p>		
4.7.201.4	<p>Addition: Testing in the event of non-extinguishing material</p> <p>If parts, other than enclosures, do not withstand the glow wire tests of 4.7.201.3, by failure to extinguish within 30 s after the removal of the glow-wire tip, the needle-flame test detailed in 4.7.201.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of 4.7.201.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested.</p> <p>NOTE 1 - If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing.</p> <p>NOTE 2 - If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing.</p> <p>NOTE 3 - Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections.</p>		N/A
4.7.201.5	<p>Addition: Testing of printed boards</p> <p>The base material of printed boards shall be subjected to the needle-flame test of Clause 4.7.201.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of</p>		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	<p>broken perforations, unless the edge is less than 3 mm from a POTENTIAL IGNITION SOURCE.</p> <p>The test is not carried out if the</p> <ul style="list-style-type: none"> - Printed board does not carry any POTENTIAL IGNITION SOURCE; - Base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category FV-1 or better according to AS/NZS 4695.707, or the printed boards are protected by an enclosure meeting the flammability category FV-0 according to AS/NZS 4695.707, or made of metal, having openings only for connecting wires which fill the openings completely; or - Base material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category FV-0 according to AS/NZS 4695.707 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. <p>Compliance shall be determined using the smallest thickness of the material.</p> <p>NOTE – Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximise the apparent power for more than 2 min when the circuit supplied is disconnected.</p>		
6.2.2	Add the following after the first paragraph: In Australia (not in New Zealand), compliance with 6.2.2 is checked by the tests of both 6.2.2.1 and 6.2.2.2.		N/A
6.2.2.1	Delete Note 2. Add the following after the first paragraph: In Australia (not in New Zealand), the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator of Annex N for 10/700µs impulses. The		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	<p>interval between successive impulses is 60 s and the initial voltage, Uc is:</p> <ul style="list-style-type: none"> - for 6.2.1a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment and - for 6.2.1b) and 6.2.1c): 1.5 kV. <p>NOTE 201 - The 7 kV impulse is to simulate lightning surges on typical rural and semi-rural network lines. NOTE 202 - The value of 2.5 kV for 6.2.1a) was chosen to ensure adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.</p>		
6.2.2.2	<p>Delete the Note. Add the following after the first paragraph: In Australia (not New Zealand), the a.c. test voltage is:</p> <ul style="list-style-type: none"> - for 6.2.1a) 3 kV; and - for 6.2.1b) and 6.2.1c) 1.5 kV <p>NOTE 201 - Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 202 - The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.</p>		N/A
7.2	<p>Add the following before the first paragraph: Equipment providing functions that fall only within the scope of AS/NZS 60065 and that incorporate a PSTN interface, are not required to comply with this Clause where the only ports provided on the equipment, in addition to a coaxial cable connection and a PSTN interface, are audio or video ports and analogue or data ports not intended to be used for telecommunication purposes.</p>		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
Denmark - Differences to IEC 60950-1:2001, First Edition			
1.2.4.1	Certain types of Class I appliances (see sub-clause 3.2.1.1) may be provided with plug not establishing earthing continuity when inserted into Danish socket-outlets.		N/A
1.7.2	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 (IEC 417, No. 5019) eller (IEC 417, No. 5017)." 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
1.7.5	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
1.7.5	Class II equipment shall not be fitted with socket-outlets for providing power to other equipment.		N/A
3.2.1.1	Supply cord 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 contact 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
Finland - Differences to IEC 60950-1:2001, First Edition			

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
1.7.2	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 shall be: "Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan"		N/A
6.1.2.1	Add the following text between the first and second paragraph: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0.4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition: - passes the tests and inspection criteria of IEC 60950-1, 2.10.8 with an electric strength test of 1.5 kV multiplied by 1.6 (the electric strength test of 2.10.7 shall be performed using 1.5 kV), and - is subject to 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 IEC 60384-14:1993, subclass Y2. A capacitor classified Y3 according to IEC 60384-14:1993, may bridge this insulation under the following conditions: - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by IEC 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950:2000, subclause 6.2.2.1; - the additional testing shall be performed on all the		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	test specimens as described in IEC 60384-14; - the impulse test of 2,5 kV is to be performed before the endurance test in IEC 60384-14, in the sequence of tests as described in IEC 60384-14.		
6.1.2.2	The exclusions are applicable for permanently connected equipment and pluggable equipment type B and equipment intended to be used in a restricted access location where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected protective earthing conductor and is provided with instructions for the installation of that conductor by a service person.		N/A
7.1	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term telecommunication network in 6.1.2 being replaced by the term cable distribution system.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

Germany - Differences to IEC 60950-1:2001, First Edition			
1.7.12	<p>(Gesetz uber technische Arbeitsmittel (Geratesicherheitsgesetz) [Law of technical labour equipment {Equipment safety law}], of 23rd October 1992, Article 3, 3rd paragraph, 2nd sentence, together with the "Allgemeine Verwaltungsvorschrift zur Durchfuhrung des Zweiten Abschnitts des Geratesicherheitsgesetzes" [General administrative regulation on the execution of the Second Section of the Equipment safety law], of 10th January 1996, article 2, the paragraph, item 2).</p> <p>Directions for use with rules to prevent certain hazards for (among others) maintenance of the technical labour equipment, also for imported technical labour equipment shall be written in the German language.</p> <p>NOTE: Of this requirement, rules for use even only by service personnel are not exempted.</p>		N/A
H	<p>(Regulation on protection against hazards by X-ray, of 8th January 1987, Article 5 [operation of X-ray emission source], clauses 1 to 4)</p> <p>a) A licence is required by those who operate an X-ray emission source.</p> <p>b) A licence in accordance with Cl. 1 is not required by those who operate an X-ray emission source on which the electron acceleration voltage does not exceed 20 kV if</p> <ol style="list-style-type: none"> 1) the local dose rate at a distance of 0,1 m from the surface does not exceed 1 µSv/h and 2) it is adequately indicated on the X-ray emission source that <ol style="list-style-type: none"> i) X-rays are generated, and ii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer. <p>c) A licence in accordance with Cl. 1 is also not required by persons who operate an X-ray emission source on which the electron acceleration voltage exceeds 20 kV if</p> <ol style="list-style-type: none"> 1) the X-ray emission source has been granted a type approval, and 2) it is adequately indicated on the X-ray emission source that <ol style="list-style-type: none"> i) X-rays are generated, ii) the device stipulated by the manufacturer or importer guarantees that the maximum permissible local dose rate in accordance with the type 		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	<p>approval is not exceeded, and</p> <p>iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.</p> <p>d) Furthermore, a licence in accordance with Cl. 1 is also not required by persons who operate X-ray emission sources on which the electron acceleration voltage does not exceed 30 kV if</p> <p>1) the X-rays are generated only by intrinsically safe CRTs complying with Enclosure III, No. 6,</p> <p>2) the values stipulated in accordance with Enclosure III, No. 6.2 are limited by technical measures and specified in the device and</p> <p>3) it is adequately indicated on the X-ray emission source that the X-rays generated are adequately screened by the intrinsically safe CRT.</p>		

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

Group - Differences to IEC 60950-1:2001, First Edition												
2.7.1	<p>Replace the subclause as follows:</p> <p>Basic requirements</p> <p>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):</p> <p>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;</p> <p>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;</p> <p>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.</p> <p>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>		N/A									
2.7.2	Void		N/A									
2.10.2	Replace the first line "(see also 1.4.7)" by "(see also 1.4.8)".		N/A									
3.2.3	Delete NOTE 1, and in table 3A delete the conduit sizes in parentheses.		N/A									
3.2.5.1	<p>Replace:</p> <p>"60245 IEC 53" by "H05 RR-F"</p> <p>"60227 IEC 52" by "H03 VV-F or H03 VVH2-F"</p> <p>"60227 IEC 53" by "H05 VV-F or H05 VVH2-F2"</p> <p>In table 3B, replace the first four lines by the following:</p> <table> <tr> <td>Up to and including 6</td> <td>0.75¹</td> <td></td> </tr> <tr> <td>Over 6 up to and including 10</td> <td>(0.75)²</td> <td>1.0</td> </tr> <tr> <td>Over 10 up to and including 16</td> <td>(1.0)³</td> <td>1.5</td> </tr> </table> <p>In the Conditions applicable to table 3B, delete the words "in some countries" in condition¹.</p>	Up to and including 6	0.75 ¹		Over 6 up to and including 10	(0.75) ²	1.0	Over 10 up to and including 16	(1.0) ³	1.5		N/A
Up to and including 6	0.75 ¹											
Over 6 up to and including 10	(0.75) ²	1.0										
Over 10 up to and including 16	(1.0) ³	1.5										

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	In Note 1, delete the second sentence.		
3.3.4	In table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: "Over 10 up to and including 16 1.5 to 2.5 1.5 to 4" Delete the fifth line: conductor sizes for 13 to 16A.		N/A
4.3.13.6	Add the following note: NOTE - Attention is drawn to 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz. Standards taking into account this recommendation are currently under development.		N/A
General	Delete all the "country" notes in the reference document according to the following list: 1.5.1 Note 2 1.5.8 Note 2 1.6.1 Note 1.7.2 Note 4 1.7.12 Note 2 2.1 Note 2.2.3 Note 2.2.4 Note 2.3.2 Note 2, 7, 8 2.3.3 Note 1, 2 2.3.4 Note 2,3 2.7.1 Note 2.10.3.1 Note 4 3.2.1.1 Note 3.2.3 Note 1, 2 3.2.5.1 Note 2 4.3.6 Note 1,2 4.7.2.2 Note 4.7.3.1 Note 2 6.1.2.1 Note 6.1.2.2 Note 6.2.2 Note 6.2.2.1 Note 2 6.2.2.2 Note 7 Note 4 7.1 Note G2.1 Note 1, 2 H Note 2		N/A
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 μ Sv/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
P	Replace the text of this annex by: See annex ZA		Pass
Q	Replace the title of IEC 61032 by "Protection of persons and equipment by enclosures - Probes for verification". Add the following notes for the standards indicated: IEC 60127 NOTE Harmonized as EN 60127 (Series) (not modified) IEC 60269-2-1 NOTE Harmonized as HD		Pass

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	630.2.1 S4:2000 (modified) IEC 60529 NOTE Harmonized as EN 60529:1991 (not modified) IEC 61032 NOTE Harmonized as EN 61032:1998 (not modified) IEC 61140 NOTE Harmonized as EN 61140:2001 (not modified) ITU-T Recommendation K.31 NOTE in Europe, the suggested document is EN 50083-1.		
Korea - Differences to IEC 60950-1:2001, First Edition			
1.5.101	Addition: Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305).		N/A
7	Addition: EMC - The apparatus shall comply with the relevant CISPR standards.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

Norway - Differences to IEC 60950-1:2001, First Edition			
1.5.8	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
1.7.2	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 shall be: "Apparatet må tilkoples jordet stikkontakt"		N/A
2.2.4	Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		Pass
2.3.2	Requirements according to this annex, 6.1.2.1 apply.		N/A
2.3.3	Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		N/A
2.3.4	Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		N/A
2.10.3.1	Due to the IT power distribution system used (see annex V, figure V.7), the A.C. mains supply voltage is considered to be equal to the line-to-line voltage, and will remain at 230 V in case of a single earth fault.		N/A
6.1.2.1	Add the following text between the first and second paragraph: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0.4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition:		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	<p>- passes the tests and inspection criteria of IEC 60950-1, 2.10.8 with an electric strength test of 1.5 kV multiplied by 1.6 (the electric strength test of 2.10.7 shall be performed using 1.5 kV), and</p> <p>- is subject to routine testing for electric strength during manufacturing, using a test voltage of 1.5 kV.</p> <p>It is permitted to bridge this insulation with a capacitor complying with IEC 60384-14:1993, subclass Y2.</p> <p>A capacitor classified Y3 according to IEC 60384-14:1993, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by IEC 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950:2000, subclause 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in IEC 60384-14; - the impulse test of 2,5 kV is to be performed before the endurance test in IEC 60384-14, in the sequence of tests as described in IEC 60384-14. 		
6.1.2.2	The exclusions are applicable for permanently connected equipment and pluggable equipment type B and equipment intended to be used in a restricted access location where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected protective earthing conductor and is provided with instructions for the installation of that conductor by a service person.		N/A
7.1	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term telecommunication network in 6.1.2 being replaced by the term cable distribution system.		N/A
G.2.1	Due to the IT power distribution system used (see annex V, figure V.7), the A.C. mains supply voltage is considered to be equal to the line-to-line voltage, and will remain at 230 V in case of a single earth fault.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

Sweden - Differences to IEC 60950-1:2001, First Edition			
1.5.1	(Ordinance (1990:944)) Add NOTE: Switches containing mercury such as thermostats, relays and level controllers are not allowed.		N/A
1.7.2	Add NOTE: 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 shall be: "Apparaten skall anslutas till jordat uttag"		N/A
6.1.2.1	<p>Add the following text between the first and second paragraph:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> - 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. <p>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:</p> <ul style="list-style-type: none"> - passes the tests and inspection criteria of IEC 60950-1, 2.10.8 with an electric strength test of 1.5 kV multiplied by 1.6 (the electric strength test of 2.10.7 shall be performed using 1.5 kV), and - is subject to routine testing for electric strength during manufacturing, using a test voltage of 1.5 kV. <p>It is permitted to bridge this insulation with a capacitor complying with IEC 60384-14:1993, subclass Y2.</p> <p>A capacitor classified Y3 according to IEC 60384-14:1993, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by IEC 		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950:2000, subclause 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in IEC 60384-14; - the impulse test of 2,5 kV is to be performed before the endurance test in IEC 60384-14, in the sequence of tests as described in IEC 60384-14.		
6.1.2.2	The exclusions are applicable for permanently connected equipment and pluggable equipment type B and equipment intended to be used in a restricted access location where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected protective earthing conductor and is provided with instructions for the installation of that conductor by a service person.		N/A
7.1	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term telecommunication network in 6.1.2 being replaced by the term cable distribution system.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

USA / Canada - Differences to IEC 60950-1:2001, First Edition			
1.1	Equipment able to be installed in accordance with the National Electrical Code ANSI/NFPA 70 and the Canadian Electrical Code, Part1, and when applicable, the National Electrical Safety Code, IEEE C2.		Pass
1.1.1	Equipment able to be installed in accordance with ANSI/NFPA 75 and NEC Art. 645 unless intended for use outside of computer room and provided with such instructions.		Pass
1.1.2	Equipment in wire-line communication facilities serving high-voltage electric power stations operating at greater than 1kV are excluded.		N/A
1.1.2	Special requirements apply to equipment intended for use outdoors.		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20 A.		N/A
1.5.1	All IEC standards for components identified in Annex P.1 replaced by the relevant requirements of CSA and UL component standards in Annex P.1.		Pass
1.5.1	All IEC standards for components identified in Annex P.2 alternatively satisfied by the relevant requirements of CSA and UL component standards in Annex P.2.		Pass
1.5.5	Interconnecting cables acceptable for the application regarding voltage, current, temperature, flammability, mechanical serviceability and the like.		Pass
1.5.5	For other than limited power and TNV circuits, the type of output circuit identified for output connector.		N/A
1.5.5	External cable assemblies that exceed 3.05 m in length to be types specified in the NEC and CEC.		N/A
1.5.5	Detachable external interconnecting cables 3.05 m or less in length and provided with equipment marked to identify the responsible organization and the designation for the cable.		N/A
1.5.5	Building wiring and cable for use in ducts, plenums and other air handling space subject to special requirements and excluded from scope.		N/A
1.5.5	Telephone line and extension cords and the like comply with UL 1863 and CSA C22.2 No. 233.		N/A
1.6.1.2	Equipment intended for connection to a d.c. power (mains) distribution system is subject to special circuit classification requirements (e.g., TNV-2)		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
1.6.1.2	Earthing of d.c. powered equipment provided.		N/A
1.7	Lamp replacement information indicated on lampholder in operator access area.		N/A
1.7.1	Special marking format for equipment intended for use on a supply system with an earthed neutral and more than one phase conductor.		N/A
1.7.1	Equipment voltage rating not higher than rating of the plug except under special conditions.		N/A
1.7.6	Special fuse replacement marking for operator accessible fuses.		N/A
1.7.7	Identification of terminal connection of the equipment earthing conductor.		N/A
1.7.7	Connectors and field wiring terminals for external Class 2 or Class 3 circuits provided with marking indicating minimum Class of wiring to be used.		N/A
1.7.7	Marking located adjacent to terminals and visible during wiring.		N/A
2.1.1	Screw shell of Edison-base lampholder tied to the neutral conductor.		N/A
2.1.1.1	Bare TNV conductive parts in the interior of equipment normally protected against contact by a cover intended for occasional removal are exempt provided instructions include directions for disconnection of TNV prior to removal of the cover.		N/A
2.3.1.b	Other telecommunication signaling systems (e.g., message waiting) than described in 2.3.1(b) are subject to M.4.		N/A
2.3.1.b	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vp or 60 V d.c., the maximum current limit through a 2000 Ohm or greater resistor with loads disconnected is 7.1 mA peak or 30 mA d.c. under normal conditions.		N/A
2.3.1.b	Limits for measurements across 5000 ohm resistor in the event of a single fault are replaced after 200 ms with the limits of M.3.1.4.		N/A
2.3.2	Enamel coating on signal transformer winding wire allowed as an alternative to Basic insulation in specific telecommunication applications when subjected to special construction requirements and routine testing.		N/A
2.3.2	In the event of a single fault, the limits of 2.2.3 apply to SELV circuits and accessible conductive		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	parts.		
2.5	Overcurrent protection device required for Class 2 and Class 3 limiting in accordance with the NEC, or for a Limited Power Source, not interchangeable with devices of higher ratings if operator replaceable.		N/A
2.6	Equipment having receptacles for output a.c. power connectors generated from an internal separately derived source have the earthed (grounded) circuit conductor suitably bonded to earth.		N/A
2.6.3.3	For Pluggable Equipment Type A, if neither a) or b) are applicable, the current rating of the circuit is taken as 20 A.		N/A
2.6.3.4	Capacity of connection between earthing terminal and parts required to be earthed subject to special conditions based on the current rating of the circuit.		N/A
2.6.3.4	Protective bonding conductors and their terminals of non-standard constructions (e.g. PWB traces) evaluated to limited short-circuit test of CSA C22.2 No.0.4.		N/A
2.6.4.1	Field wiring terminals for earthing conductors suitable for wire sizes (gauge) used in US and Canada.		N/A
2.7.1	Data for selection of special external branch circuit overcurrent devices marked on the equipment.		N/A
2.7.1	Standard supply outlets protected by overcurrent device in accordance with the NEC, and CEC, Part 1.		N/A
2.7.1	Overcurrent protection for individual transformers that distribute power to other units over branch circuit wiring.		N/A
2.7.1	Additional requirements for overcurrent protection apply to equipment provided with panelboards.		N/A
2.7.1	Non-motor-operated equipment requiring special overcurrent protective device marked with device rating.		N/A
2.10.5.4	Multi-layer winding wire subject to UL component wire requirements in addition to 2.10.5.4 and Annex U.		N/A
3.1.1	Permissible combinations of internal wiring/external cable sizes for overcurrent and short circuit protection.		Pass
3.1.1	All interconnecting cables protected against		Pass

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	overcurrent and short circuit.		
3.2	Wiring methods permit connection of equipment to primary power supply in accordance with the NEC and CEC, Part 1.		N/A
3.2.1	Permitted use for flexible cords and plugs.		N/A
3.2.1	Flexible cords provided with attachment plug rated 125% of equipment current rating.		N/A
3.2.1	Any Class II equipment provided with 15 or 20 A standard supply outlets, Edison-base lampholders or single pole disconnect device provided with a polarized type attachment plug.		N/A
3.2.1.2	Equipment intended for connection to DC mains supply power systems complies with special wiring requirements (e.g., no permanent connection to supply by flexible cord).		N/A
3.2.1.2	Equipment with one pole of the DC mains supply connected to both the equipment mains input terminal and the main protective earthing terminal provided with special instructions and construction provisions for earthing		N/A
3.2.1.2	Equipment with means for connecting supply to earthing electrode conductor has no switches or protective devices between supply connection and earthing electrode connection.		N/A
3.2.1.2	Special markings and instructions for equipment with provisions to connect earthed conductor of a DC supply circuit to earthing conductor at the equipment.		N/A
3.2.1.2	Special markings and instructions for equipment with earthed conductor of a DC supply circuit connected to the earthing conductor at the equipment.		N/A
3.2.1.2	Terminals and leads provided for permanent connection of DC powered equipment to supply marked to indicate polarity if reverse polarity may result in a hazard.		N/A
3.2.3	Permanently connected equipment has provision for connecting and securing a field wiring system (i.e. conduit, or leads etc.) per the NEC and CEC, Part 1.		N/A
3.2.3	Permanently connected equipment may have terminals or leads not smaller than No. 18 AWG (0.82 mm ²) and not less than 152 mm in length for		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	connection of field installed wiring.		
3.2.3	If supply wires exceed 60 °C, marking indicates use of 75 °C or 90 °C wiring for supply connection as appropriate.		N/A
3.2.3	Equipment compatible with suitable trade sizes of conduits and cables.		N/A
3.2.5	Length of power supply cord limited to between 1.5 and 4.5 m unless shorter length used when intended for a special installation.		N/A
3.2.5	Conductors in power supply cords sized according to NEC and CEC, Part I.		N/A
3.2.5	Power supply cords and cord sets incorporate flexible cords suitable for the particular application.		N/A
3.2.6	Strain relief provided for non-detachable interconnecting cables not supplied by a limited power source.		N/A
3.2.9	Adequate wire bending space and volume of field wiring compartment required to properly make the field connections.		N/A
3.2.9	Equipment intended solely for installation in Restricted Access Locations using low voltage d.c. systems may not need provision for connecting and securing a field wiring system. A method of securing wiring or instructions provided to ensure the wiring is protected from abuse.		N/A
3.3	Field wiring terminals provided for interconnection of units for other than LPS or Class 2 circuits also comply with 3.3.		N/A
3.3	Interconnection of units by LPS or Class 2 conductors may have field wiring connectors other than those specified in 3.3 if wiring is reliably separated.		N/A
3.3.1	Terminals for the connection of neutral conductor identified by a distinctive white marking or other equally effective means.		N/A
3.3.3	Wire binding screw terminal permitted for connection of No. 10 AWG (5.3 mm ²) or smaller conductor if provided with upturned lugs, cupped washer or equivalent retention.		N/A
3.3.4	Terminals accept wire sizes (gauge) used in the U.S. and Canada.		N/A
3.3.4	Terminals accept current-carrying conductors rated 125% of the equipment current rating.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
3.3.6	Field wiring terminals marked to indicate the material(s) of the conductor appropriate for the terminals used.		N/A
3.3.6	Connection of an aluminum conductor not permitted to terminal for equipment earthing conductor.		N/A
3.3.6	Field wiring connections made through the use of suitable pressure connectors (including set screw type), solder lugs or splices to flexible leads.		N/A
3.4.2	Separate motor control device(s) required for cord-connected equipment rated more than 12 A, or with motor rated more than 1/3 hp or more than 120 V.		N/A
3.4.8	Vertically mounted disconnect devices oriented so up position of handle is "on".		N/A
3.4.11	For computer-room applications, equipment with battery systems capable of supplying 750 VA for 5 min require battery disconnect means.		N/A
4.2.8.1	Special opening restrictions for enclosures around CRTs with face dimension of 160 mm or more.		N/A
4.2.9	Compartment housing high-pressure lamp marked to indicate risk of explosion.		N/A
4.3.2	Loading test for equipment with handle(s) used to support more than 9 kg tested at four times the weight of the unit.		N/A
4.3.6	In addition to the IEC requirements, Direct Plug-in Equipment complies with UL 1310 or CSA 223 mechanical assembly requirements.		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with ANSI/NFPA 30(Table NAE.6).		N/A
4.3.12	Equipment using replenishable liquids marked to indicate type of liquid to be used.		N/A
4.3.13.2	Equipment that produces x-radiation and does not comply with 4.3.12 under all conditions of servicing marked to indicate the presence of radiation where readily visible.		N/A
4.3.13.5	Requirements contained in the applicable national codes and regulations apply to lasers (21 CFR 1040 and REDR C1370).		N/A
4.7	Automated information storage equipment intended to contain more than 0.76 m ³ of combustible media requires provision for automatic sprinklers or a gaseous agent extinguishing system.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
4.7.3.1	Equipment for use in environmental air space other than ducts or plenums provided with metal enclosure or with non-metallic enclosure having adequate fire-resistance and low smoke producing characteristics. Low smoke-producing characteristics evaluated according to UL 2043. Equipment for installation in space used for environmental air as described in Sec. 300-22(c) of the NEC provided with instructions indicating suitability for installation in such locations.		N/A
4.7.3.1	Flame spread rating for external surface of combustible material with exposed area greater than 0.93 m ² or a single dimension greater than 1.8 m; 50 or less for computer room applications or 200 or less for other applications.		N/A
4.7.3.4	Wire marked "VW-1" or "FT-1" considered equivalent.		Pass
5.1.8.2	Special earthing provisions and instructions for equipment with high touch current due to telecommunication network connections.		N/A
5.1.8.3	Touch current due to ringing voltage for equipment containing telecommunication network leads.		N/A
5.3.6	Overloading of SELV connectors and printed wiring board receptacles accessible to the operator.		Pass
5.3.6	Tests interrupted by opening of a component repeated two additional times.		N/A
5.3.8.1	Test interrupted by opening of wire or trace subject to certain conditions.		N/A
6	Specialized instructions provided for telephones that may be connected to a telecommunications network.		N/A
6	Marking identifying function of telecommunication type connectors not used for connection to a telecommunication network.		N/A
6.2.1	Special requirements for enameled wiring used as electrical separation provided between parts connected to telecommunication network and telecommunication circuitry intentionally isolated from network.		N/A
6.2.1	Digital line termination equipment (e.g., NCTE) subject to separation requirements.		N/A
6.3	Equipment remotely powered over telecommunication wiring systems provided with		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	specialized markings adjacent to the connection.		
6.3	Overcurrent protection incorporated into equipment to provide power over telecommunication wiring system not interchangeable with devices of higher ratings if operator replaceable.		N/A
6.4	Additional requirements for equipment intended for connection to a telecommunication network using cable subject to overvoltage from power line failures (Fig. 6C).		N/A
6.4	Where 26 AWG line cord required by Fig. 6C, either the cord is provided with the equipment or described in the safety instructions.		N/A
6.5	Acoustic pressure from an ear piece less than 136 dBA for short duration disturbances, and less than 125 dBA for handsets, 118 dBA for headsets, and 121 dBA for insert earphones, for long duration disturbances.		N/A
7	Equipment associated with the cable distribution system may need to be subjected to applicable parts of Chapter 8 of the NEC.		N/A
H	Ionizing radiation measurements made under single fault conditions in accordance with the requirements of the Code of Federal Regulations 21 CFR 1020 and the Canadian Radiation Emitting Devices Act, REDR C1370.		N/A
M.2	Continuous ringing signals evaluated to Method A subjected to special accessibility considerations.		N/A
M.4	Special requirements for message waiting and similar telecommunications signals.		N/A
NAC	Equipment intended for use with a generic secondary protector marked with suitable instructions.		N/A
NAC	Equipment intended for use with a specific primary or secondary protector marked with suitable instructions.		N/A
NAF	Household/Home Office Document Shredders		N/A
NAF.1.7	Markings and instructions alert the user to key safety considerations related to use of shredders, including not intended to be used by children, avoid touching document feed opening, avoid clothes and hair entanglement, and avoid aerosol products.		N/A
NAF.2.8.3	Safety interlock cannot be inadvertently activated by the articulated accessibility probe (figure		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

	NAF.1).		
NAF.3.4	Provided with an isolating switch complying with 3.4.2, including 3 mm contact gap, with appropriate markings associated with the switch.		N/A
NAF.4.4	Hazardous moving parts are not accessible to the user, as determined using the articulated accessibility probe (figure NAF.1) and the accessibility probe/wedge (figures NAF.2/NAF.3).		N/A

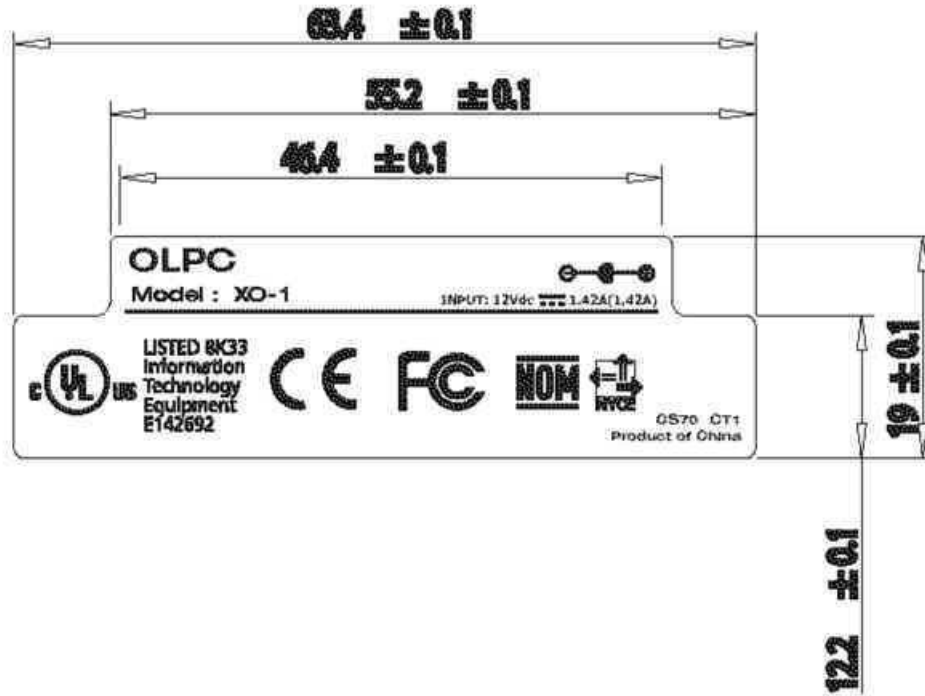
United Kingdom - Differences to IEC 60950-1:2001, First Edition			
2.6.3.3	The current rating of the circuit shall be taken as 13 A, not 16 A.		N/A
2.7.1	To protect against excessive currents and short-circuits in the primary circuit of direct plug-in equipment, protective device shall be included as integral parts of the direct plug-in equipment.		N/A
3.2.1.1	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
3.2.5.1	A power supply cord with conductor of 1.25 mm ² is allowed for equipment with a rated current over 10A and up to and including 13A.		N/A
3.3.4	The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current of over 10 A up to and including 13 A is 1.25 mm ² to 1.5 mm ² nominal cross-sectional area.		N/A
4.3.6	The torque test is performed using a socket outlet complying with BS 1363 and the plug part of Direct Plug-In Equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C.		N/A

Enclosures

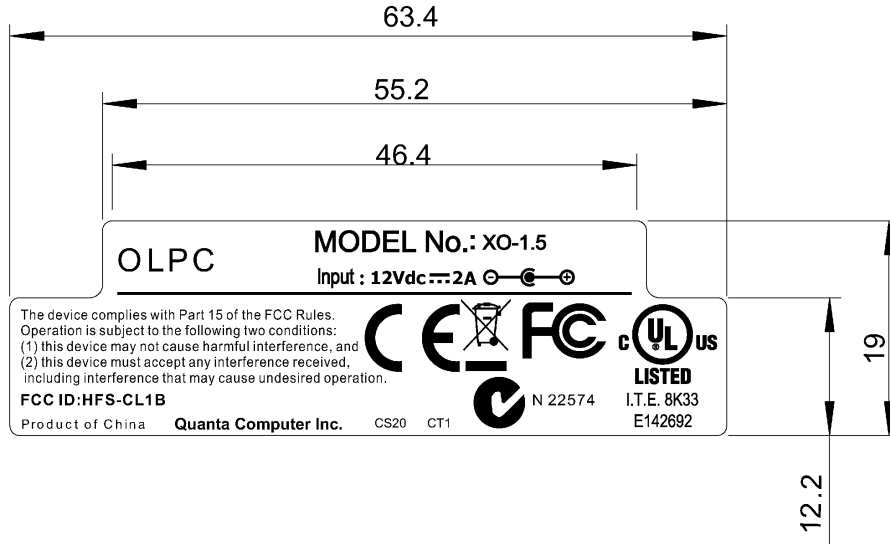
Enclosures

Type	Supplement Id	Description
Photographs	3-06	NB top view
Photographs	3-07	NB front open view
Photographs	3-08	NB left side view
Photographs	3-09	NB right side view
Photographs	3-10	NB bottom view with battery pack A32-V2
Photographs	3-12	NB bottom internal view
Photographs	3-13	PCB top view
Photographs	3-14	PCB bottom view
Photographs	3-24	(XO-1.5) Internal -1
Photographs	3-25	(XO-1.5) Internal -2
Photographs	3-26	(XO-1.5) Motherboard -1
Photographs	3-27	(XO-1.5) Motherboard -2
Photographs	3-28	(XO-1.75) Motherboard-1
Photographs	3-29	(XO-1.75) Motherboard-2
Photographs	3-30	NB bottom internal view(alternate)
Diagrams		
Schematics + PWB		
Manuals		
Miscellaneous	7-04	Datasheets for UL 696
Miscellaneous	7-05	Datasheets ASTM F963
Miscellaneous	7-06	Table 2.5 - Limited Power Source Measurement (Not for FUS investigation)
Miscellaneous	7-07	Client Instrument list
Miscellaneous	7-08	Multi-factories Declaration
Licenses		
Marking Plate	13-01	Label (XO-1)
Marking Plate	13-02	Label (XO-1.5)
Marking Plate	13-03	Label (XO-1.5)-Alternate
Marking Plate	13-04	Label (XO-1.75)

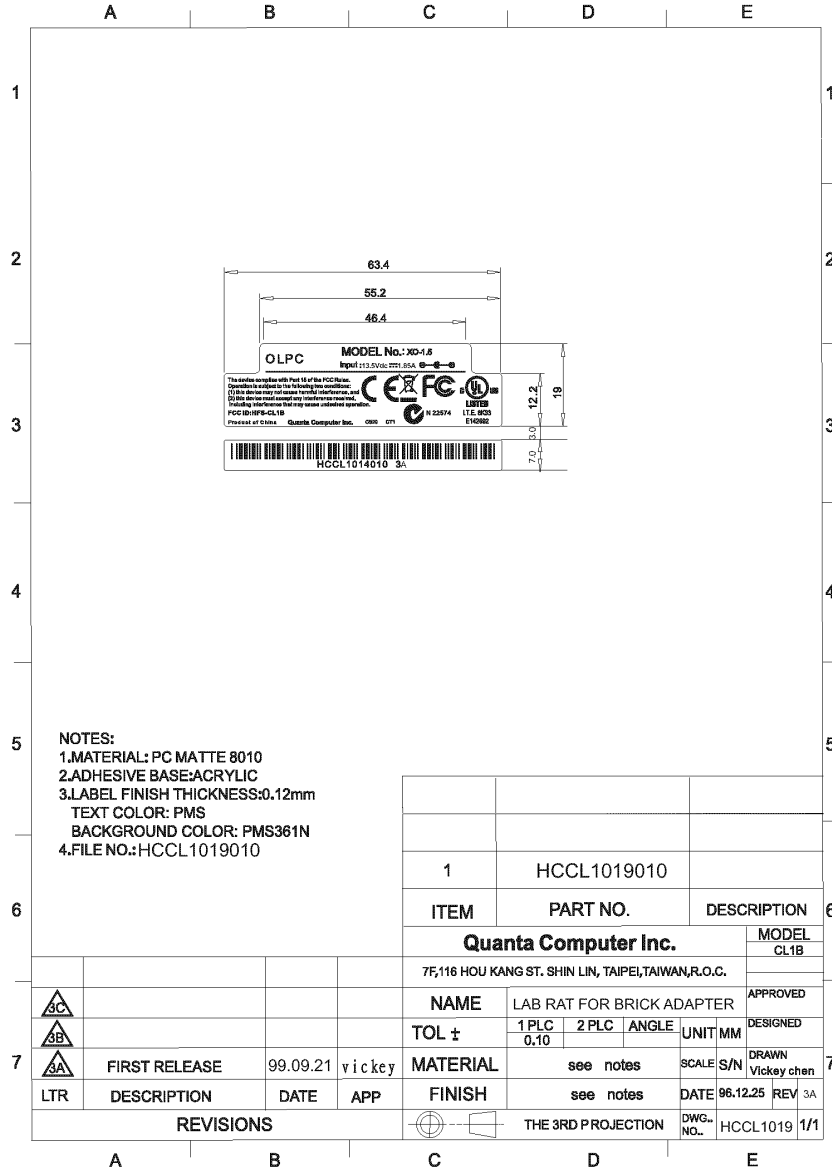
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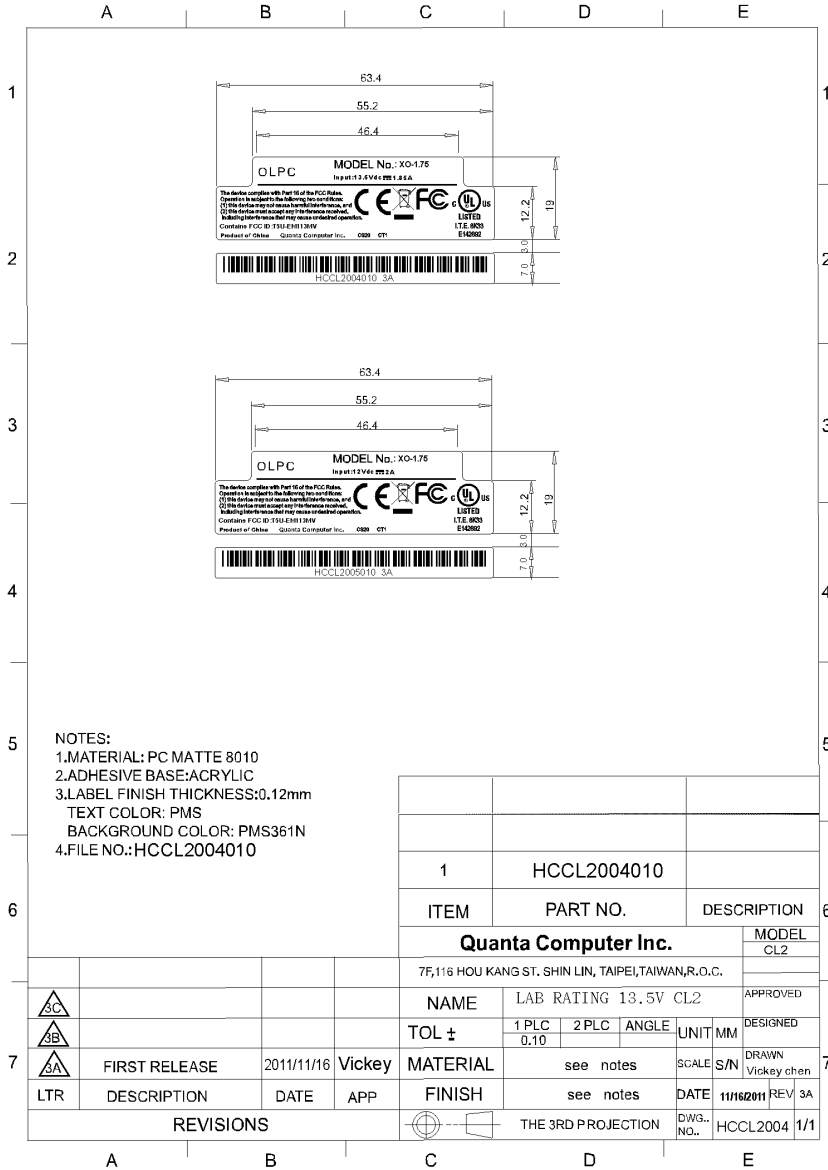
MarkingPlate ID 13-02



MarkingPlate ID 13-03



MarkingPlate ID 13-04



Photographs ID 3-06



Photographs ID 3-07



Photographs ID 3-08



Photographs ID 3-09



Photographs ID 3-10



Photographs ID 3-12



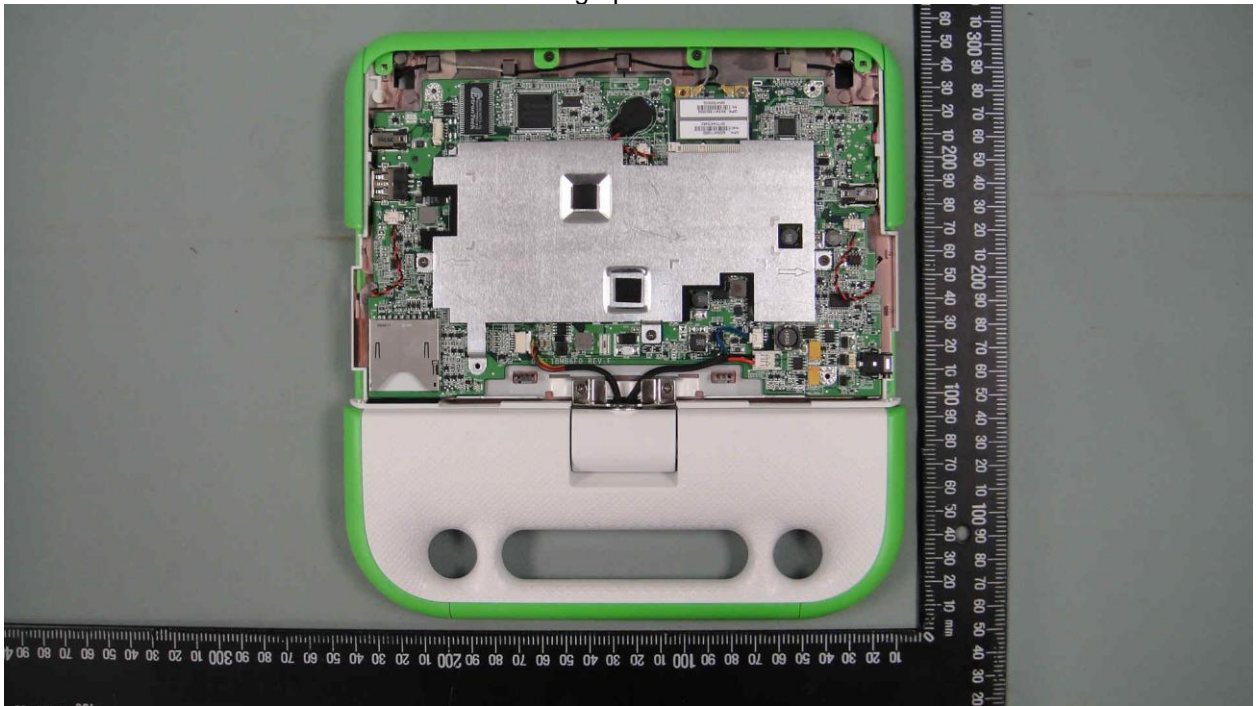
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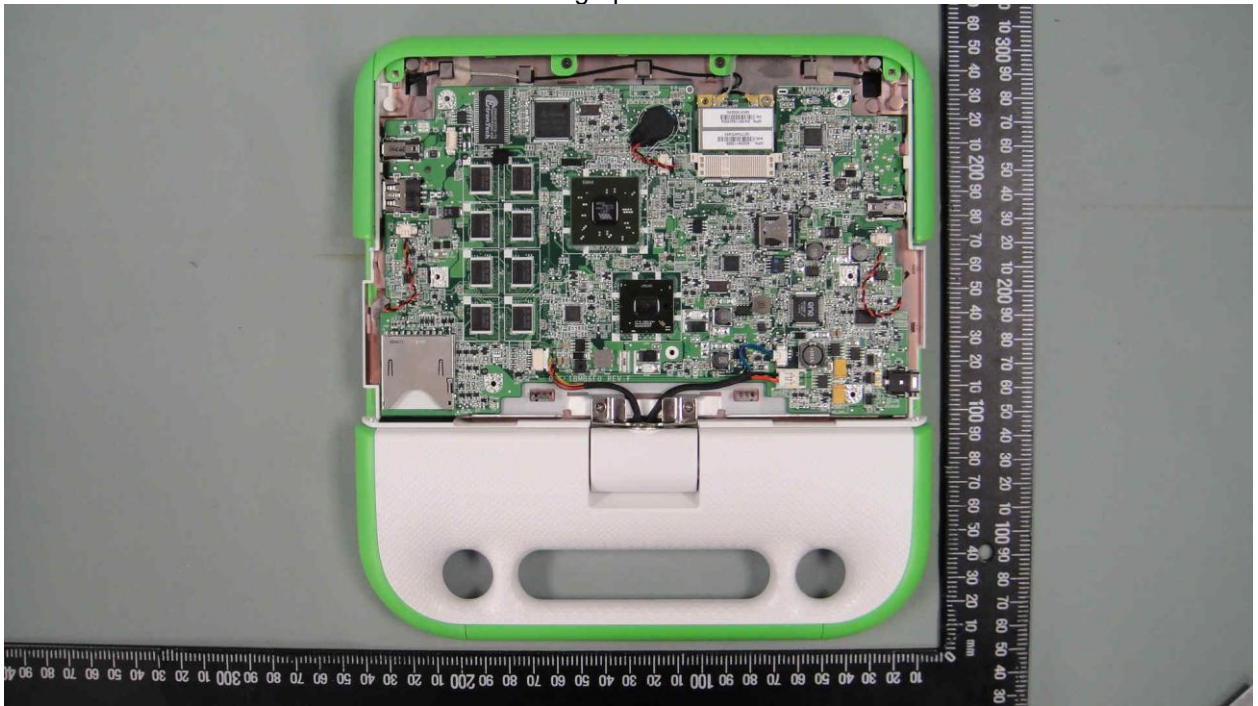
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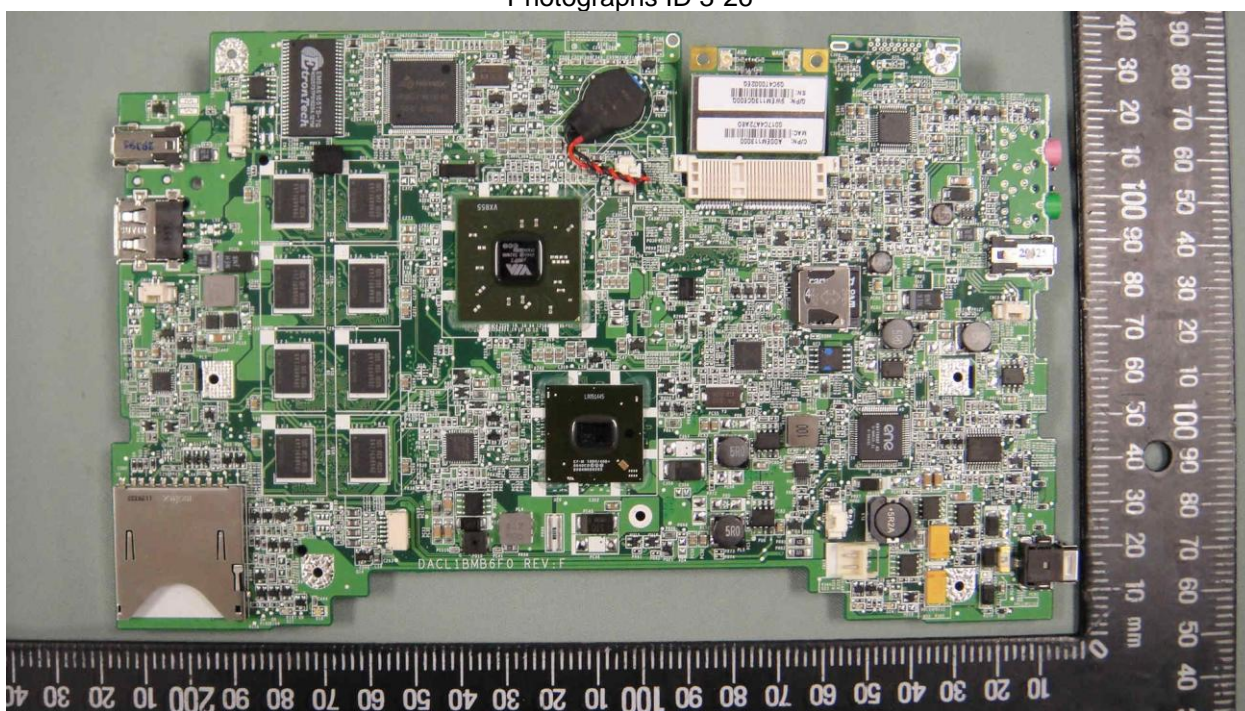
Photographs ID 3-24



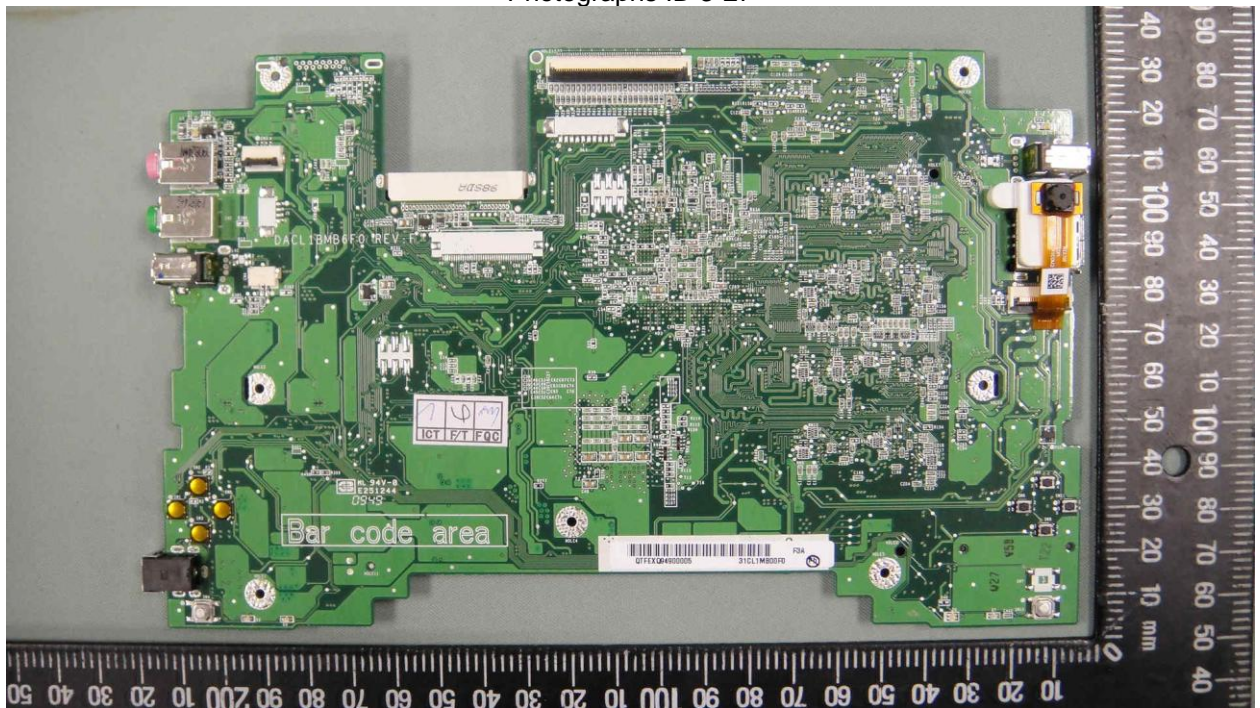
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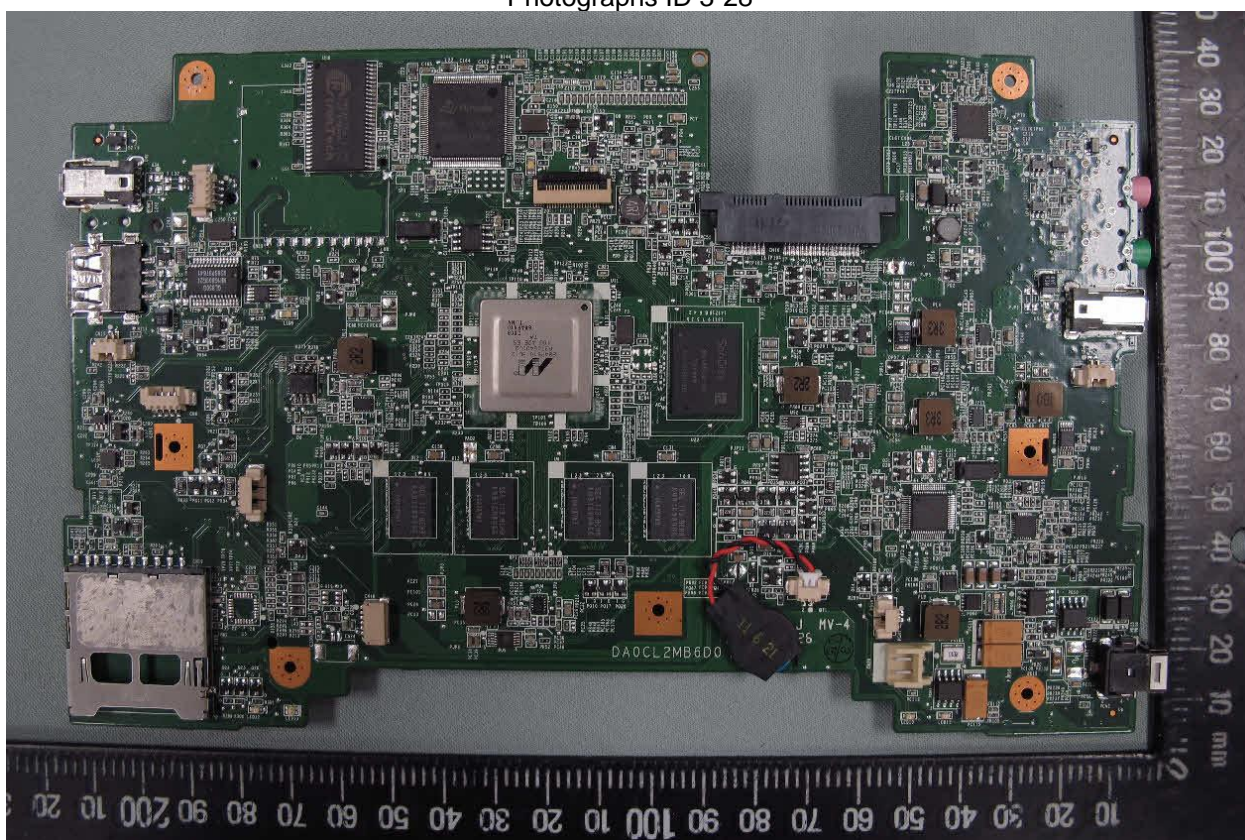
Photographs ID 3-26



Photographs ID 3-27



Photographs ID 3-28



Photographs ID 3-29



Enclosures

Photographs ID 3-30



Enclosures


Misc ID 7-04

Project No. OLPC File NA Page 1
 LABORATORY DATA PACKAGE Date 10-19-07

Number of pages in this package __7__

TEST LOCATION:			
<input checked="" type="checkbox"/> UL or Affiliate	<input type="checkbox"/> WTDP	<input type="checkbox"/> CTDP	<input type="checkbox"/> OTHER
Company Name UL			
Address NBK			

CLIENT INFORMATION	
Company Name	OLPC
Address	

AUDIT INFORMATION:			
Description of Tests	Per Standard No.	UL 696	Edition Ninth
Standard Title	Electric Toys	Rev Date	June 12, 2006
		ASTM F963	Edition 2007
<input checked="" type="checkbox"/> Tests Conducted by			
+	Steve Modlin	Steve Modlin	
	Printed name	Signature	
<input type="checkbox"/> UL Staff witnessing testing (WTDP only)			
		Printed name	Signature
Reviewed and accepted by qualified Project Handler			
	W. Alfred Fung		
	Printed Name	Signature	

TESTS TO BE CONDUCTED:			
Test No.	Done	Test Name	<input checked="" type="checkbox"/> Comments/Parameters <input type="checkbox"/> Tests Conducted by ++
		0.010 INCH WIRE ACCESSIBILITY TEST:	
		1/4 INCH ROD ACCESSIBILITY TEST:	
1	10-19-07	COATINGS AND PLATINGS:	Laptop and accessories
		PACKAGING FILM THICKNESS TEST:	
		ATTACHMENT PLUG TEST:	
		ENCLOSURE ABUSE TESTS:	
		HANDLES AND KNOBS ABUSE TESTS:	
		LEAKAGE CURRENT TEST:	
		HUMIDITY CONDITIONING TEST:	
		STRAIN RELIEF TESTS:	

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 Form Page 1 Form Revised: 2006-09-19
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Misc ID 7-04

Project No. OLPC File NA Page 2
 LABORATORY DATA PACKAGE Date 10-19-07

TESTS TO BE CONDUCTED:			
Test No.	Done	Test Name	<input checked="" type="checkbox"/> Comments/Parameters <input type="checkbox"/> Tests Conducted by ++
		POWER INPUT TEST:	
		TEMPERATURE TEST:	
		DIELECTRIC VOLTAGE WITHSTAND TEST:	
		SWITCH OVERLOAD TEST:	
		ABNORMAL OPERATION TEST:	
		STEAM ENGINE TESTS:	
		STABILITY TEST:	
		PERMANENCE OF MARKING TEST:	

The test facility was was not deemed to have the environment and capabilities necessary to perform the tests included in this data package. (WTDP Only)

Tests conducted in accordance with _____ that were considered representative of the same tests required by _____ are identified with dual paragraph/clause references in the title of each test on the individual datasheets. Where test names differ or additional test were conducted in accordance with _____, they are identified by the standard and paragraph/clause information enclosed by parenthesis.

Test Equipment- See "TEST EQUIPMENT INFORMATION"
 Samples - See "TEST SAMPLE IDENTIFICATION"

Instructions -
 + - When all tests are conducted by one person, printed name and signature can be inserted here instead of including printed name and signature on each page containing data. Must indicate number of pages in the data package.
 ++ - When test conducted by more than one person, printed name and signature of person conducting the test can be inserted next to the test name instead of including printed name and signature on each page containing data. Must indicate number of pages in the data package.

Special Instructions -

Unless specified otherwise in the individual Methods, the tests shall be conducted under the following ambient conditions. Confirmation of these conditions shall be recorded at the time the test is conducted.

Ambient	Relative	Barometric
Temperature, C	Humidity, %	Pressure, mBar
N/A	N/A	N/A

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 Form Page 2 Form Revised: 2006-09-19
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Misc ID 7-04

Project No. OLPC File NA Page 3
 Tested by: _____ Date _____
Printed Name Signature

TEST EQUIPMENT INFORMATION

Inst. ID No.	Instrument Type	Test Number +, Test Title or Conditioning	Function /Range	Last Cal. Date	Next Cal. Date

+ - If Test Number is used, the Test Number must be identified on the data sheet pages or on the Data Sheet Package cover page.
 The following additional information is required when using client's or rented equipment, or when a UL ID Number for an instrument number is not used. The Inst. ID No. below corresponds to the Inst. ID No. above.

Inst. ID No.	Make/Model/Serial Number/Asset No.

The M&TE used for tests have do not have minimum required accuracy and range/functions, and were were not calibrated to assure these levels.
 Test equipment information is recorded on UL's Laboratory Project Management (LPM)/Laboratory Equipment Management (LEM) database. (This statement may be selected only if datasheets are completed electronically at a UL facility)

Enclosures

Misc ID 7-04

Project No. OLPC File NA Page 4
 Tested by: _____ Date _____
 Printed Name Signature

TEST SAMPLE IDENTIFICATION:

The table below is provided to provide correlation of sample numbers to specific product related information. Refer to this table when a test identifies a test sample by "Sample No." only.

Sample Card No.	Date Received	[x] Test No.	Sample No.	Manufacturer, Product Identification and Ratings
954029-001	8-28-07	1	1	Laptop Computer, Battery, Power Supply
959690-001	9-13-07			(2) Batteries, (2) Sets of Labels, Sylva Industries, Ltd.
956629-001	9-5-07			(1) Battery, Shanghai BYD Co. Ltd.
934828-001	7-5-07			(1) Battery, (Unidentified purple bar code label) - GP
959838-001	9-13-07			(4) Adaptors (Power Supplies), Delta Electronics, Inc.
961240-001	9-18-07			(7) Adaptors (Power Supplies), PI Electronics, Ltd.
FedEx Pkg				(3) Labels "OLPC XO-1" & (3) Labels "Attention"
FedEx Pkg				(24) Adaptor Labels
DHL Pkg				(1) Battery, (Unidentified white bar code label) - GP

+ - If Test Number is used, the Test Number or Numbers the sample was used in must be identified on the data sheet pages or on the Data Sheet Package cover page.

[1] Sampling Procedure -

Enclosures

Misc ID 7-04

Project No. OLPC File NA Page 5
 Tested by: _____ Date _____
 Printed Name Signature

COATINGS AND PLATINGS: Section 7

METHOD

The accessible liquid coating materials (such as paint, enamel, lacquer, ink, and the like) applied to a toy were evaluated for lead, antimony, arsenic, barium, cadmium, chromium, mercury, or selenium. A liquid coating material is considered to be accessible if it can be contacted by persons before or after compliance with the performance requirements described in Abuse Tests

RESULTS

The surface coatings [exceeded] [did not exceed] total levels of Pb (600 ppm), and did (not) exceed soluble levels of the following elements:

Pb (90 mg/kg), As (25 mg/kg), Sb (60mg/kg), Ba (500 mg/k), Cd (75 mg/kg), Cr (60 mg/kg), Hg (60 mg/kg) or Se (500 mg/kg)

as specified in paragraph 4.3.5 of the Consumer Safety Specification on Toy Safety, ASTM F963.

Notes:

- The requirements for a liquid coating material do not apply to ink applied to a container or packing material.
- From ASTM F963 - 4.3.5.1 The regulation prohibits the use of paints or similar surface-coating materials that contain lead or lead compounds and in which the lead content (calculated as lead metal [Pb]) is in excess of 0.06 % (600 ppm) of the weight of the total nonvolatile content of the paint or the weight of the dried paint film.
- From ASTM F963 - Table 1 - the total Maximum Soluble Migrated Element in ppm (mg/kg):

Antimony,	Arsenic,	Barium,	Cadmium,	Chromium,	Lead,	Mercury,	Selenium,
(Sb)	(As)	(Ba)	(Cd)	(Cr)	(Pb)	(Hg)	(Se)
60	25	1000	75	60	90	60	500

RESULTS -

*** NO TOXICOLOGY TESTING IS NEEDED. See explanations below. ***

Enclosures

Misc ID 7-04

Project No. OLPC File NA Page 6
Tested by: _____ Date _____
Printed Name Signature

+ Sample preparation for the Laptop, battery and power supply involves scraping the various colors on the machine to remove the paint/ink. However, there appears to be no surface coatings on the laptop for any of the colors. All colors appear to be embedded into the plastic and are therefore considered not to be surface coatings, therefore testing is not necessary.

++ Sample preparation for labels involves scraping the labels to remove the paint/ink. If the amount of sample scraped is less than 10 mg then testing is not performed. Also, if the paint is unable to be scraped off due to a coating over the paints then testing is not performed. In the case of the labels for this project, there is a clear coating over the ink/paint on the labels and after attempting to scrape the samples the paint could not be scraped off and in one case 10 mg of sample could not be obtained, therefore testing is not necessary.

The areas scraped (color) are as follows:

Laptop -

- Body (White)
- Body Edges (Green)
- The "X" on the Body Top (Orange)
- The "Circle/Dot" on the Body Top (Yellow)
- The Key Pad (Green)
- The Key Pad Lettering (Black)
- The Edges around the Screen (White)
- The "Mouse" area by the Key Pad (White)
- Label "Bar Code/SN" inside the Battery Compartment (Black & White)
- Label "C-Test Sample" inside the Battery Compartment (Black & White)

AC Adaptor -

- The AC Adaptor Body (Green)
- The Barcode Label attached to the Cord (Black)
- The Label on the AC Adaptor Body (Green, Black, White)

Battery Pack -

- Body (White)
- Labels "OLPC XO-1" & "Attention" (Black & White)
- Label "Bar Code & S/N" (Yellow & Black)

Misc ID 7-04

Project No.	OLPC	File	NA	Page	<u>7</u>
Tested by:	_____			Date	_____
	Printed Name		Signature		

END OF DATASHEET PACKAGE. THIS PAGE INTENTIONALLY LEFT BLANK

ULS-00696-XNII-Datasheet-2001
Form Page 7

Form Issued: 2002-12-18
Form Revised: 2006-09-19

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Enclosures

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 1
 LABORATORY DATA PACKAGE Date 2007-10-2

Number of pages in this package 17

TEST LOCATION:			
<input checked="" type="checkbox"/> UL or Affiliate	<input type="checkbox"/> WTDP	<input type="checkbox"/> CTDP	<input type="checkbox"/> OTHER
Company Name ULC - Vancouver, LES			
Address			

CLIENT INFORMATION	
Company Name	OLPC
Address	XXXX

AUDIT INFORMATION:			
Description of Tests	Per Standard No.	ASTM F963	Edition 2007
<input checked="" type="checkbox"/> Tests Conducted by	W. Alfred Fung	<i>A. Fung</i>	
+	Printed name	Signature	
<input type="checkbox"/> UL Staff witnessing testing (WTDP only)	Printed name	Signature	
Reviewed and accepted by qualified Project Handler	W. Alfred Fung	<i>A. Fung</i>	
	Printed Name	Signature	

TESTS TO BE CONDUCTED:			
Test No.	Done	Test Name	<input type="checkbox"/> Comments/Parameters <input checked="" type="checkbox"/> Tests Conducted by ++
		MATERIAL QUALITY / HAZARDOUS SUBSTANCES	
1		FLAMMABILITY - COMPLETE PRODUCTS	
		FLAMMABILITY - REMOVABLE FABRICS	
		TOXICOLOGY - SURFACE COATINGS	
		TOXICOLOGY - STUFFING MATERIALS	
		ELECTRIC/THERMAL ENERGY	
		IMPULSIVE NOISES	
2		ABUSE TESTS	
3		IMPACT TESTS	
4		COMPONENT TORQUE TEST	
5		COMPONENT TENSION TEST	
		SEAM TENSION TEST	

ULS-01967-XNFX-DataSheet-2001 Form Issued: 2000-03-11
 Form Page 1 Form Revised: 2005-06-02
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Enclosures

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 2
 LABORATORY DATA PACKAGE Date 2007-10-2

TESTS TO BE CONDUCTED:			
Test No.	Done	Test Name	<input type="checkbox"/> Comments/Parameters <input type="checkbox"/> Tests Conducted by ++
6		COMPRESSION TEST	
7		PACKAGING FILM	
		CORDS AND ELASTICS	
		WHEELS, TIRES OR AXLES	
		FOLDING MECHANISMS	
		SIMULATED PROTECTIVE DEVICES	
8		BATTERY OPERATED TOYS	

The test facility was was not deemed to have the environment and capabilities necessary to perform the tests included in this data package. (WTDP Only)

Tests conducted in accordance with _____ that were considered representative of the same tests required by _____ are identified with dual paragraph/clause references in the title of each test on the individual datasheets. Where test names differ or additional test were conducted in accordance with _____, they are identified by the standard and paragraph/clause information enclosed by parenthesis.

Test Equipment- See "TEST EQUIPMENT INFORMATION"
 Samples - See "TEST SAMPLE IDENTIFICATION"

Instructions -
 + - When all tests are conducted by one person, printed name and signature can be inserted here instead of including printed name and signature on each page containing data. Must indicate number of pages in the data package.
 ++ - When test conducted by more than one person, printed name and signature of person conducting the test can be inserted next to the test name instead of including printed name and signature on each page containing data. Must indicate number of pages in the data package.

Special Instructions -

Unless specified otherwise in the individual Methods, the tests shall be conducted under the following ambient conditions. Confirmation of these conditions shall be recorded at the time the test is conducted.

Ambient Temperature, C N/A Relative Humidity, % N/A Barometric Pressure, mBar N/A

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 Form Page 2 Form Revised: 2005-06-02
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Project No. 07NB48870 File XXXX Page 3
 Tested by: _____ Date _____
Printed Name Signature

TEST EQUIPMENT INFORMATION

Inst. ID No.	Instrument Type	Test Number +, Test Title or Conditioning	Function /Range	Last Cal. Date	Next Cal. Date

+ - If Test Number is used, the Test Number must be identified on the data sheet pages or on the Data Sheet Package cover page.
 The following additional information is required when using client's or rented equipment, or when a UL ID Number for an instrument number is not used. The Inst. ID No. below corresponds to the Inst. ID No. above.

Inst. ID No.	Make/Model/Serial Number/Asset No.

The M&TE used for tests [have] [do not have] minimum required accuracy and range/functions, and [were] [were not] calibrated to assure these levels.

Test equipment information is recorded on UL's Laboratory Project Management (LPM)/Laboratory Equipment Management (LEM) database. (This statement may be selected only if datasheets are completed electronically at a UL facility)

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 4
 Tested by: _____ Date _____
 Printed Name Signature

TEST SAMPLE IDENTIFICATION:

The table below is provided to provide correlation of sample numbers to specific product related information. Refer to this table when a test identifies a test sample by "Sample No." only.

Sample Card No.	Date Received	[X] Test No.	Sample No.	Manufacturer, Product Identification and Ratings
954524001	2007-08-29	8	9	OLPC Laptop
954524001	2007-08-29	2,4,5,6	12	OLPC Laptop
954524001	2007-08-29	3	9	OLPC Laptop
954524001	2007-08-29	8	01	Adaptor
959798001	2007-09-13	2,3,8	02	Battery, GF, model number is NTA2490 LiFe, (weighted 293 gm) S/N 10102070802200000002, 6Vdc, 3.0Ah
954524001	2007-08-29	1	11	OLPC Laptop
954524001	2007-08-29	7	13	Bag size 345 x 150 mm
954524001	2007-08-29	7	14	Bag size 335 x 275 mm

+ - If Test Number is used, the Test Number or Numbers the sample was used in must be identified on the data sheet pages or on the Data Sheet Package cover page.

Issue Date: 2011-12-06

Page 32 of 48
Enclosures

Report Reference #

E142692-A138-CB-2

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 5
Tested by: _____ Date _____
Printed Name Signature

Sampling Procedure -

ULS-01967-XNFY-DataSheet-2001
Form Page 5

Form Issued: 2000-03-11
Form Revised: 2005-06-02

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Enclosures

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 6
 Tested by: _____ Date _____
 Printed Name Signature

FLAMMABILITY - COMPLETE PRODUCTS

METHOD

Per Section 4.2 and Title 16 CFR 1500.3(c) (6) (vi), complete products were subjected to the Title 16 CFR 1500.44 Flame Test.

RESULTS

Date: 2007-10-05
 The test shall be conducted under the following ambient conditions.

Ambient Temperature, C	20-30	Relative Humidity, %	20-70	Barometric Pressure, mBar	N/A
------------------------	-------	----------------------	-------	---------------------------	-----

Lab Ambient:

Ambient Temperature, C	24	Relative Humidity, %	34	Barometric Pressure, mBar	-
------------------------	----	----------------------	----	---------------------------	---

1500.44 Flame Test

Model/ Sample #	Ignite Point	Unburned Length (mm)	Burned Length (mm)	Burn Time (Second)	Burn Rate (mm/Sec)
11	Left side antenna end, antenna open	290	30	60	0.5
11	Main housing, right side antenna end, antenna close	310	-	-	-
11	Handle corner at foot	310	-	-	-

For complete products, the burn rate did ~~not~~ exceed 2.5 mm/sec.

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 7
 Tested by: _____ Date _____
 Printed Name Signature

ABUSE TESTS

METHOD

Per Section 8.6, each toy was subjected to the appropriate Abuse Test(s) listed below as required for the toy type and age grade, followed by visual inspection for Small Parts, Sharp Edges, Sharp Points, Projections or other Hazards.

SMALL PARTS Per Section 4.6 - Before and after the applicable Use and Abuse Tests, the toy and any detached parts or components of the toy were evaluated for small parts with the small parts cylinder (Fig 7).

SHARP EDGES Per Section 4.7 - Before and after the applicable Use and Abuse Tests, the toy and any detached parts or components of the toy were evaluated for sharp edges with the sharp edge tester (Fig 8).

SHARP POINTS Per Section 4.8 - Before and after the applicable Use and Abuse Tests the toy and any detached parts or components of the toy were evaluated for sharp points with the sharp point tester (Fig 9).

PROJECTIONS Per Section 4.9 - Before and after the applicable Use and Abuse Tests, the toy and any detached parts or components of toys which contain rigid projections were evaluated for puncture hazards.

RESULTS

Lab Ambient:

Ambient Temperature, C 23 Relative Humidity, % 35 Barometric Pressure, mBar -

Toy Model/ Sample #	Required Abuse Tests	Small Parts	Sharp Edges	Sharp Points	Projection Points
9	DR, IM	No	No	No	No
12	TO,CT,CO	No	No	No	No

There were ~~no~~ small parts, sharp edges, sharp points, projections or other hazards before and after the Abuse Tests. See each individual test for details.

Abuse Test Codes - DR = Drop, TI = Tip, TU = Tumble, IM = Impact, TO = Torque, CT = Component Tension, ST = Seam Tension, CO = Compression

Enclosures

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 8
 Tested by: _____ Date _____
 Printed Name Signature

IMPACT TEST

METHOD

Per Sec 8.7, each toy was subjected to each of the appropriate type impact test(s), then subjected to a visual exam for hazards per Section 4.6, 4.7, 4.8, 4.9 or any other hazard.

Drop - Per Sec 8.7.1 toys less than ~~(3)~~ (4) ~~(10)~~ lbs were dropped ~~(10)~~ (4) times in a random orientation from ~~(4.5)~~ (3.0) ft onto a 2.5" thick concrete floor covered with 1/8" type IV tile. The toy was allowed to come to rest before inspection.

RESULTS

Date: 2007-10-05
 Lab Ambient:

Ambient Temperature, C 23 Relative Humidity, % 31 Barometric Pressure, mBar -

Toy Model/ Sample #	Required Abuse Tests	Small Parts	Sharp Edges	Sharp Points	Projection Points
9 (first drop)	Left side antenna, antenna open	No	No	No	No
9 (second drop)	Right side antenna corner, antenna close	No	No	No	No
9 (third drop)	Handle	No	No	No	No
9 (fourth drop)	Screen & keyboard open face	No	No	No	No

There were ~~4 no~~ hazards per Section 4.6, 4.7, 4.8, 4.9 or any other hazard.

Note: After third drop the top handle cover came over from the laptop, no hazard was found.

Tip Over - Per Sec 8.7.2 (10), large bulky toys with (projected area > 400 in² or volume > 3 ft³) were tipped over 3 times in the worst orientation onto a 2.5" concrete floor covered with 1/8" type IV tile. The toy was allowed to come to rest before inspection.

ULS-01967-XNPY-DataSheet-2001
 Form Page 8

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 Form Revised: 2005-06-02

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Misc ID 7-05

Project No. 07NB48870 File XXXX Page 9
 Tested by: _____ Date _____
 Printed Name Signature

RESULTS

Toy Model/ Sample #	Required				
	Abuse Tests	Small Parts	Sharp Edges	Sharp Points	Projection Points

~~There were (no) hazards per Section 4.6, 4.7, 4.8, 4.9 or any other hazard.~~

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 10
 Tested by: _____ Date _____
 Printed Name Signature

COMPONENT TORQUE TEST

METHOD

Per Sec 8.8, toys with component capable of being grasped by the thumb and forefinger or teeth was subjected to a torque of ~~(2) (3)~~ (4) inlb in clockwise and counterclockwise directions applied within 5 sec to 180 degrees or the specified value (except for screws), and held for an additional 10 sec. After the torque application, the toy was then subjected to a visual exam for hazards per Section 4.6, 4.7, 4.8, 4.9 or any other hazard.

RESULTS

Date: 2007-10-04
 Lab Ambient:

Ambient Temperature, C 24 Relative Humidity, % 33 Barometric Pressure, mBar -

Toy Model/ Sample #	Required Abuse Tests	Small Parts	Sharp Edges	Sharp Points	Projection Points
12	Antenna, right	No	No	No	No

There were ~~(no)~~ hazards per Section 4.6, 4.7, 4.8, 4.9 or any other hazard.

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 11
 Tested by: _____ Date _____
Printed Name Signature

COMPONENT TENSION TEST

METHOD

Per Sec 8.9, toys with components capable of being grasped by the thumb and forefinger or teeth was subjected to a tensile load of ~~10~~ (15) lbf applied perpendicular to the components securement within 5 sec. and held for an additional 10 sec. After the tensile load application, the toy was then subjected to a visual exam for hazards per Section 4.6, 4.7, 4.8, 4.9 or any other hazard.

RESULTS

Date: 2007-10-04
 Lab Ambient:

Ambient Temperature, C 23 Relative Humidity, % 33 Barometric Pressure, mBar -

Toy Model/ Sample #	Required Abuse Tests	Small Parts	Sharp Edges	Sharp Points	Projection Points
12	Antenna, left	No	No	No	No

There were ~~no~~ hazards per Section 4.6, 4.7, 4.8, 4.9 or any other hazard.

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 12
 Tested by: _____ Date _____
 Printed Name Signature

COMPRESSION TEST

METHOD

Per Section 8.10, parts which are accessible to the user, but not to the Impact Test, were subject to a compression load of ~~(20) (25)~~ (30) lbf, applied perpendicular to the part with a weight scale using a 1.125" od, 0.375" thick rigid metal disk with a 1/32" radius edge within 5 sec and held for an additional 10 sec. After the compression load application, the toy was then subjected to a visual exam for hazards per Section 4.6, 4.7, 4.8, 4.9 or any other hazard.

RESULTS

Date: 2007-10-04
 Lab Ambient:

Ambient Temperature, C 22 Relative Humidity, % 34 Barometric Pressure, mBar -

Toy Model Sample #	Required Abuse Tests	Small Parts	Sharp Edges	Sharp Points	Projection Points
12	Touch pad	No	No	No	No
12	Keyboard pad	No	No	No	No

There were ~~no~~ hazards per Section 4.6, 4.7, 4.8, 4.9 or any other hazard.

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 13
Tested by: _____ Date _____
Printed Name Signature

PACKAGING FILM ASTM F963 - Sections 4.12, 8.22

METHOD

A measuring device (dial-type thickness gage or equivalent) capable of measuring thickness to an accuracy of 4 µm was used. Measurements were taken at 10 equidistant points across the diagonal of any 3.94 by 3.94-in. (100 by 100-mm) area of the film. For plastic bags, the sample was prepared by cutting the sides, without stretching, into two single sheets.

RESULTS

Date: 2007-10-05
Lab Ambient:

Ambient Relative Barometric
Temperature, C 24 Humidity, % 31 Pressure, mBar -

	Sample 13	Sample 14
	Bag size 345 x 150 mm	Bag size 335 x 275 mm
	Thickness (mm)	Thickness (mm)
1	0.051	0.056
2	0.050	0.056
3	0.048	0.055
4	0.050	0.056
5	0.049	0.055
6	0.048	0.055
7	0.049	0.054
8	0.050	0.053
9	0.052	0.053
10	0.051	0.053
Average thickness	0.0498	0.0546
Minimum thickness	0.048	0.053

The average thickness of the ten measurements ~~twere~~ [were not] less than 0.00150 inch (0.03810 mm).

[None] ~~twere~~ of the measurements were below the 0.00125 inch (0.03175 mm) minimum thickness.

ULS-01967-MXPY-DataSheet-2001
Form Page 13

Form Issued: 2000-03-11
Form Revised: 2005-06-02

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Project No.	07NB48870	File	XXXX	Page	<u>14</u>
Tested by:	_____			Date	_____
	Printed Name		Signature		

This requirement does not apply to the following:

Shrink film in the form of an over wrap that would normally be destroyed when the package is opened by a consumer.

Bags or plastic film with a minor dimension of 3.94 inch (100 mm) or less. Bag dimensions were measured while in the form of a bag not cut open into a single thickness sheet.

Misc ID 7-05

Project No.	07NB48870	File	XXXX	Page	15
Tested by:	_____			Date	_____
	Printed Name		Signature		

BATTERY OPERATED TOYS

METHOD

Per Section 4.27, toys or components of toys which contain batteries were evaluated for potential electric shock, thermal hazards, toxicity, fire, explosion or other hazards associated with batteries in normal and reasonable foreseeable use before and after Use and Abuse Tests.

RESULTS

Date: 2007-10-04/05
Lab Ambient:

Ambient	Relative	Barometric	
Temperature, C	Humidity, %	Pressure, mBar	-
22	37		

~~The battery compartment was (not) marked to show the battery type, rating and the correct position and did (not) allow for the escape of emitted gases.~~
Battery is special made for OLPC.

~~The max measured voltage between two accessible points was (not) greater than 24 V dc, and the only point of contact was (not) at the battery terminals.~~
Point of contact is not accessible.

There was ~~(no)~~ adequate protection (by physical or electrical design) to prevent charging rechargeable batteries in the wring position (polarity).

There was ~~(no)~~ access of batteries without the use of tools (coin or common tools) for toys intended for children < 36 months.

There was ~~(no)~~ accesses of batteries without the use of tools (coin or common tools) for toys intended for children < 36 months before/after Abuse Tests.

Misc ID 7-05

Project No.	07NB48870	File	XXXX	Page	<u>16</u>
Tested by:	_____			Date	_____
	Printed Name		Signature		

BATTERY OPERATED TOYS (Continued)

There was ~~no~~ access of batteries without the use of tools (coin or common tools) any toys before/after the Abuse Tests using the recommended batteries.

There was ~~no~~ mixing of battery types, potentials or capacities in a single electric circuit or which provide different functions.

The battery surface did ~~not~~ exceed 71C during normal/abnormal, or short circuit conditions, and did ~~not~~ explode or leak. See UL696 and 697 test.

Max Measured Temperature: 32.7°C

Issue Date: 2011-12-06

Page 44 of 48
Enclosures

Report Reference #

E142692-A138-CB-2

Misc ID 7-05

Project No. 07NB48870 File XXXX Page 17
Tested by: _____ Date _____
Printed Name Signature

END OF DATASHEET PACKAGE. THIS PAGE INTENTIONALLY LEFT BLANK

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Misc ID 7-06

2.5 - LIMITED POWER SOURCE MEASUREMENTS

RESULTS

Test Voltage: 12 [Vac, ___ Hz] [Vdc]

Output Tested	Measured		Single Fault Condition	Maximum		
	From	To		U _{oc}	I _{sc} 60s	VA 60 s
USB 1 (CN14)	1	Earth	Normal	4.98	1.02	4.60
USB 2 (CN9)	1	Earth	Normal	4.98	1.02	4.60
USB 3 (CN8)	1	Earth	Normal	4.98	1.04	4.76
USB 1 (CN14)	1	Earth	U5 pin 2-7 short	4.98	3.58	11.41
USB 2 (CN9)	1	Earth	U5 pin 2-7 short	4.98	3.61	12.35
USB 3 (CN8)	1	Earth	U5 pin 2-7 short	4.98	3.63	12.21
MIC (CN1)	1	Earth	Normal	0	0	0
Head phone (CN2)	1	Earth	Normal	0	0	0

Misc ID 7-06

Output Tested	Measured		Single Fault Condition	Maximum			Comments
	From	To		U _{oc}	I _{sc} 5s	VA 5s	
Model XO-1.75							
USB (CN11)	Pin 1	Earth	Normal	4.95	1.31	5.28	Protect by U9
USB (CN9)	Pin 1	Earth	Normal	4.95	1.31	5.28	Protect by U9
USB (CN12)	Pin 1	Earth	Normal	4.95	1.31	5.18	Protect by U9
Card Reader (CN19)	Pin 4	Earth	Normal	2.22	0	0	signal
MIC (CN3)	Pin 1	Earth	Normal	0	0	0	signal
Earphone (CN4)	Pin 1	Earth	Normal	0	0	0	signal

Enclosures

Misc ID 7-07

File E142692

Project 11CA59312

Page 5 of 22

TEST INSTRUMENTS REFERENCE LIST

No.	Article	Manufacturer	Model	Asset no.	Use Range	Date	Calibrated Due
6	ELECTRONIC LOAD	PRODIGIT	PAL200	5020008 (88351)	50Vdc,40A	2011/05/19	2012/05/18
7	ELECTRONIC LOAD	PRODIGIT	3311C	890800174 (00900C137)	60Vdc,50A	2011/05/19	2012/05/18
15	HYBRID RECORDER	YOKOGAWA	HR1300	B8510057 (45VH0692)	Type: J 0-100°C ; 0-24hrs; CH20	2011/05/13	2012/05/12
25	ELECTRONIC SCALE (Balance)	TSCALE	AHW-30+	0316007002	30 Kg (MAX)	2011/05/16	2012/05/15
27	Timer	CASIO	HS-3V	710Q03R	Full Range	2011/05/13	2012/05/12
34	DIGITAL MULTIMETER	FLUKE	87V	13920329 (990102397)	1000Vac/Vdc,10A, 10Mohm	2010/09/06	2011/09/05
C1	Tissue Paper	ED&D	ATP-01	--	Soft and strong, light weight wrapping paper of grammage generally between 12 g-m ² and 30 g-m ² . (UL - IEC 60950-1)		
C2	Cheesecloth	ED&D	ACC-01	--	Bleached cotton cloth approx. 40 g-m ² (UL - IEC 60950-1)		
22	DIGIMATIC CALIPER	MITUTOYO	500-197	0082066	0-200 mm	2011/05/17	2012/05/16

Enclosures

Misc ID 7-08

Multiple factory confirmation letter

Product	OLPC
Name and address of the Applicant	QUANTA COMPUTER INC 188 WEN-HWA 2ND RD KUEI SHAN HSIANG TAOYUAN HSIEN 333 TAIWAN
Name and address of the Manufacturer	QUANTA COMPUTER INC 188 WEN-HWA 2ND RD KUEI SHAN HSIANG TAOYUAN HSIEN 333 TAIWAN
Name and address of the Factory(ies)	1. TECH-FULL COMPUTER (CHANGSHU) CO LTD, 8 JINZHOU RD, HIGH-TECH INDUSTRIAL PARK, CHANGSHU ECONOMIC DEVELOPMENT ZONE, CHANGSHU JIANGSU 215500, CHINA 2. TECH-FRONT (SHANGHAI) COMPUTER CO LTD SONGJIANG EXPORT PROCESSING ZONE, 68 SAN-ZHUANG RD, SHANGHAI 201613, CHINA 3. TECH-PRO (SHANGHAI) COMPUTER CO LTD SONGJIANG EXPORT PROCESSING ZONE, 6 LANE 58 SANZHUANG RD, SHANGHAI, CHINA 4. TECH-COM (SHANGHAI) COMPUTER CO LTD 68 SANZHUANG RD, SONGJIANG EXPORT PROCESSING ZONE, SHANGHAI 201613, CHINA

This form is to acknowledge that the above information has been reviewed and the material has been found to be accurate as stated. This is also to record client's confirmation that above factories manufacture product(s) that are equal to those submitted for testing and certification. (Refer to IECEE 02, Sub-clause 6.2.5: "When the application covers more than one factory, the address of each factory shall be stated in the CB Test Certificate and the NCB shall take steps to ensure that the products from all the factories are equal. That shall be confirmed in the Test Report.")

Signed: 

Dated: 2011-11-22

*Definitions per IECEE 02 (<http://www.iecee.com/cbscheme/pdf/IECEE02.pdf>):
 Applicant: A firm or a person who applies to an NCB for obtaining a CB Test Certificate.
 Manufacturer: An organization, situated at a stated location or locations, that carries out or controls such stages in the manufacture, assessment, handling and storage of a product that enables it to accept responsibility for continued compliance of the product with the relevant requirements and undertakes all obligations in that connection.
 Factory: The location(s) at which the product is produced or assembled and follow-up service is established by the NCB.