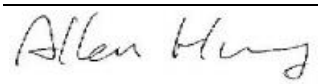
Test Report issued under the responsibility of:

TEST REPORT
IEC 60950-1
Information technology equipment - Safety - Part 1: General requirements

Report Reference No ..... :	E142692-A138-CB-3
Date of issue ..... :	2012-08-06
Total number of pages ..... :	10
CB Testing Laboratory ..... :	Underwriters Laboratories Taiwan Co., Ltd.
Address ..... :	260 Da-Yeh Road, 112 Peitou Taipei City, Chinese Taipei
Applicant's name ..... :	QUANTA COMPUTER INC
Address ..... :	188 WEN-HWA 2ND RD KUEI SHAN HSIANG TAOYUAN HSIEN 333 TAIWAN
Test specification:	
Standard ..... :	IEC 60950-1:2005 (2nd Edition); Am 1:2009
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC60950_1B
Test Report Form originator ..... :	SGS Fimko Ltd
Master TRF ..... :	2010-04

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.

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-1.75
Ratings	:	Model: XO-1.75 12 Vdc, 2 A or 13.5Vdc, 1.85A

Testing procedure and testing location:			
[x]	**CB Testing Laboratory**		
	Testing location / address..... :	Underwriters Laboratories Taiwan Co., Ltd. 260 Da-Yeh Road, 112 Peitou Taipei City, Chinese Taipei	
[ ]	**Associated CB Test Laboratory**		
	Testing location / address..... :		
	Tested by (name + signature) ..... :	Charlie Chou	
	Approved by (name + signature) ... :	Allen Huang	
[ ]	**Testing Procedure: TMP**		
	Tested by (name + signature) ..... :		
	Approved by (+ signature) ..... :		
	Testing location / address..... :		
[ ]	**Testing Procedure: WMT**		
	Tested by (name + signature) ..... :		
	Witnessed by (+ signature)..... :		
	Approved by (+ signature) ..... :		
	Testing location / address..... :		
[ ]	**Testing Procedure: SMT**		
	Tested by (name + signature) ..... :		
	Approved by (+ signature) ..... :		
	Supervised by (+ signature) ..... :		
	Testing location / address..... :		
[ ]	**Testing Procedure: RMT**		
	Tested by (name + signature) ..... :		
	Approved by (+ signature) ..... :		
	Supervised by (+ signature) ..... :		
	Testing location / address..... :		

List of Attachments

National Differences (0 pages)

Enclosures (0 pages)

Summary of Testing:

No tests were conducted

Summary of Compliance with National Differences:

Countries outside the CB Scheme membership may also accept this report.

List of countries addressed: AT, BE, BG, BY, CA, CH, CN, CZ, DE, DK, EU, FI, FR, GB, GR, HU, IT, JP, KR,

NL, NO, PL, RO, SE, SG, SI, SK, UA, US
The product fulfills the requirements of: NA

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

Test item particulars :	
Equipment mobility .....:	transportable
Connection to the mains .....:	not directly connected to the mains
Operating condition .....:	continuous
Access location .....:	operator accessible
Over voltage category (OVC) .....:	OVC I
Mains supply tolerance (%) or absolute mains supply values .....:	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)
Considered current rating of protective device as part of the building installation (A) .....:	20A
Pollution degree (PD) .....:	PD 2
IP protection class .....:	IP 20
Altitude of operation (m) .....:	less than 2000 meters
Altitude of test laboratory (m) .....:	less than 2000 meters
Mass of equipment (kg) .....:	1.49 (max.)
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 .....:	N/A
Date(s) of Performance of tests .....:	N/A

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

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

Manufacturer's Declaration per Sub Clause 6.25 of IECEE 02:

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

The original report was modified on 2012-10-12 to include the following changes/additions:
- This test report shall be read in conjunction with the original report no.:
1. E142692-A138-CB-3 Reissue, issue date: 2012-08-06, with CB Certificate no.: DK-27461, issued date: 2012-08-07

- This test report has been amendment due to: Alternate one R/C adapter, Darfon Electronics Corp., model BX24-1203 (Where X may be U or P to denote different plug type), the rating is identical to the adapter in original report.

- No tests were deemed necessary.

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

NA

Additional Information

- 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.

- Model: XO-1.75 => CPU information: VIA / C7-M / 1.0 GHz.
- Model: XO-1.75 => CPU information: Marvell ARMADA 610 / 1.0 GHz.

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) 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
- The power supply in this equipment was: Investigated to IEC/UL 60950-1 2nd edition. As part of the investigation of this product, the power supply and its test report were reviewed and found to comply with IEC/UL 60950-1 2nd edition, amendment 1.
- 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. --

Abbreviations used in the report:

- normal condition	N.C.	- single fault condition	S.F.C
- operational insulation	OP	- basic insulation	BI
- basic insulation between parts of opposite polarity:	BOP	- supplementary insulation	SI
- double insulation	DI	- reinforced insulation	RI

Indicate used abbreviations (if any)

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 or 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	PC-540	V-0, 1.5 mm	UL94, UL746C	UL, ---

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

	CORPORATION		min., 60 degree 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 (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
09a 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
09b. Power Adaptor (Alternate) (For Rating 13.5V/1.85A only)	Darfon Electronics Corp.	BB0J-C	I/P: 100-240Vac, 50/60 Hz, 1A; O/P: 13.5V, 1.85A	UL60950-1, 2nd Edition; IEC60950-1/A1:2009	UL, CBTC(SG-OF-05619) & CBTR(081-110404-000)
09c. Power Adaptor (Alternate) (For Rating 12V/2A only)	Darfon Electronics Corp.	BX24-1203 (Where X may be U or P to denote different plug type)	I/P: 100-240Vac, 0.7A, 50/60Hz; O/P: 12Vdc/2A (Class II)	IEC60950-1/A1:2009(evaluated at end product)	--, CBTC(SG-OF-06622) & CBTR(081-111126-000)
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 provided	--	--, --
13 Keyboard	Various	Various	Min. flame HB	UL94 UL746C	UL, --
14 LCD panel	Various	Various	7.5" TFT-LCD type, LED backlight module.	--	--, --

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

15 Printed wiring board, flexible	Various	Various	Min V-2 or VTM-2, 105 degree C	UL796 UL94	UL, --
Following Components for Model XO-1.75 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.	--	--, --
16. Mother board (for model XO-1.75)	Various	Various	--	--	--, --
16-1 Wireless LAN Card	Various	Various	3.3Vdc	--	--, --
16-2. Protect IC U9 (for USB use)	Diodes Inc	AP2171, AP2161	2.7-5.5Vdc, Cont. Current 1.0A, Prot. Current 2.0A	UL 2367, IEC 60950-1 2nd +A1	UL, CBTC(NO62499) with CBTR (168141)
16-2. R.T.C. Battery (alternate)	HITACHI MAXELL ENERGY LTD	ML1220	3 Vdc; Max Charging Voltage 12 Vdc; Max Charging Current 100 mA	UL1642	UL, --
16-2-1. 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.					