



Test Report issued under the responsibility of:



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

Report Number.....: ATTCB106022-01

Date of issue.....: June 05, 2017

Total number of pages 11

Applicant's name Compal Electronics , Inc.

Address No.581, Ruiguang Rd., Neihu District, Taipei City 11492 Taiwan.

Test specification:

Standard.....: IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013

Test procedure CB Scheme

Non-standard test method N/A

Test Report Form No.: IEC60950_1F

Test Report Form(s) Originator: SGS Fimko Ltd

Master TRF.....: Dated 2014-02

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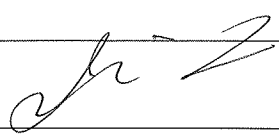
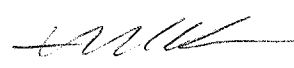
If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

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.

General disclaimer:

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

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Test item description	LCD Monitor	
Trade Mark	NEC	
Manufacturer.....	NEC Display Solutions, Ltd. 4-28, Mita 1-chome, Minato-ku, Tokyo, Japan	
Model/Type reference	PA243W and PA243W-BK	
Ratings	100-240V~, 50/60Hz, 0.95-0.48A (for Mexico 1.3A)	
Testing procedure and testing location:		
☒ CB Testing Laboratory:	AUDIX TECHNOLOGY CORPORATION	
Testing location/ address	8TH FL., NO. 8, LANE 120, SEC. 1, NEI-HU ROAD, TAIPEI, CHINESE TAIPEI	
☐ Associated CB Testing Laboratory:	N/A	
Testing location/ address	N/A	
Tested by (name, function + signature)	Jim Lee Project Handler	
Approved by (name, function + signature) ..	Allen Kao Reviewer	
☐ Testing procedure: TMP/CTF Stage 1:	N/A	
Testing location/ address	N/A	
Tested by (name + signature)		
Approved by (name + signature)		
☐ Testing procedure: WMT/CTF Stage 2:	N/A	
Testing location/ address	N/A	
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
☐ Testing procedure: SMT/CTF Stage 3 or 4:	N/A	
Testing location/ address	N/A	
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature)		

List of Attachments (including a total number of pages in each attachment): N/A	
Summary of testing:	
Tests performed (name of test and test clause): 5.3 Abnormal operating and fault conditions	Testing location: All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 2.

Summary of compliance with National Differences:**List of countries addressed**

Group (EU), Austria (AT), Denmark (DK), Italy (IT), Sweden (SE), United Kingdom (GB), United States of America (US)

☒ **The product fulfils the requirements of EN 60950-1:2006+A11:2009+A1:2010+A12:2011 +A2:2013, IEC 60950-1:2005 + Am 1:2009 + Am 2:2013**

EU Group Differences, EU Special National Conditions, US, CA

Explanation of used codes: US = United States of America, CA = Canada

For client request :

For IEC 60950-1:2005 / EN 60950-1:2006+A11:2009 (per client request):

AU

Explanation of used codes: AU=Australia

For IEC 60950-1:2005 / EN 60950-1:2006+A11:2009+A1:2010 (per client request):

DE, FI, IL, KR, CN

Explanation of used codes: DE = Germany, FI = Finland, IL = Israel, KR = Republic of Korea, CN=China.

For IEC 60950-1:2001 / EN 60950-1:2001+A11:2004 (per client request):

(All CB members countries listed in CB Bulletin No. 112A, dated December 2006)

AR, AT, BE, CZ, FR, GR, HU, IN, IT, JP, KE, MY, NL, PL, SG, SI, SK.

Explanation of used codes: AR=Argentina, AT=Austria, BE=Belgium, CZ=Czech Republic, FR=France, GR=Greece, HU=Hungary, IN=India, IT=Italy, JP=Japan, KE=Kenya, MY=Malaysia, NL=The Netherlands, PL=Poland, SG=Singapore, SI=Slovenia, SK=Slovakia.

For IEC 60950:1999 (3rd Edition) + Corr. Jan. 2000 (per client request):

BR, IE, PT, RU, TR, UA, ZA.

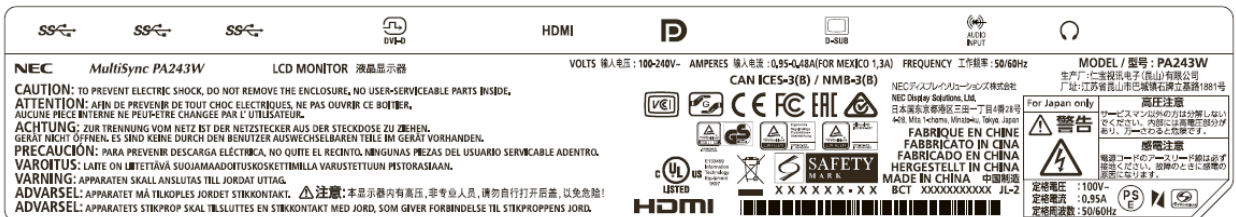
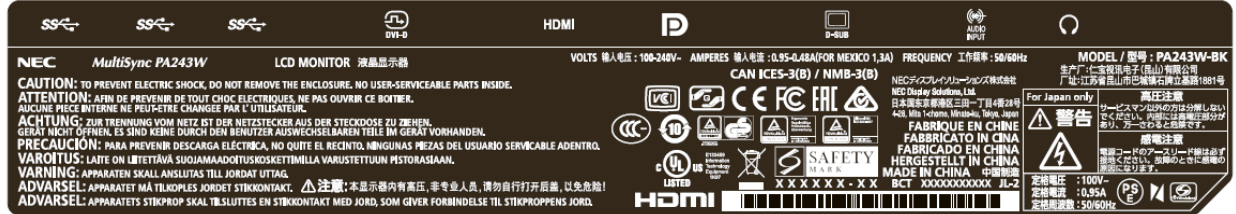
Explanation of used codes: BR=Brazil, IE=Ireland, PT=Portugal, RU=Russian Federation, TR=Turkey, UA=Ukraine, ZA=South Africa.

The manufacturer declared that the product also fulfilled of the requirements of SANS 60950-1: 2014 (Edition 2.2 / IEC 60950-1: 2013 (Edition 2.2)

For National Differences see corresponding Attachment.

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Notes:

The above labels are 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.

Test item particulars.....:	
Equipment mobility.....:	☒ movable ☐ hand-held ☐ transportable ☐ stationary ☐ for building-in ☐ direct plug-in
Connection to the mains.....:	☒ pluggable equipment ☒ type A ☐ type B ☐ permanent connection ☒ detachable power supply cord ☐ non-detachable power supply cord ☐ not directly connected to the mains
Operating condition.....:	☒ continuous ☐ rated operating / resting time:
Access location	☒ operator accessible ☐ restricted access location
Over voltage category (OVC)	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other:
Mains supply tolerance (%) or absolute mains supply values	±10
Tested for IT power systems	☒ Yes ☐ No
IT testing, phase-phase voltage (V)	230 for Norway
Class of equipment	☒ Class I ☐ Class II ☐ Class III ☐ Not classified
Considered current rating of protective device as part of the building installation (A)	16 (20 for North America)
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
IP protection class	IPX0
Altitude during operation (m)	Up to 5000
Altitude of test laboratory (m)	Less than 2000
Mass of equipment (kg)	Weight of equipment : Approx. 7.87 kg (include Stand base : Approx. 2.82 kg)
Possible test case verdicts:	
- test case does not apply to the test object..... : N/A	
- test object does meet the requirement..... : P (Pass)	
- test object does not meet the requirement..... : F (Fail)	
Testing.....:	
Date of receipt of test item	2017-05-31
Date (s) of performance of tests	2017-05-31 to 2017-06-01
General remarks:	
"(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 ☐ comma / ☒ point is used as the decimal separator.	

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:		
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided	☐ Yes ☒ Not applicable	
When differences exist; they shall be identified in the General product information section.		
Name and address of factory (ies)		
1) COMPAL DISPLAY ELECTRONICS (KUNSHAN) CO., LTD. No. 1881 Liji Road Shipai Bacheng Town, Kunshan, Jiangsu, P.R.China		
General product information:		
The equipment models which see cover page is LCD Monitor intended for information technology equipment scope of this standard use. The equipment consists of the following critical components: • LCD panel (LED backlight type) • Building-in type switching power supply (incorporated with LED driver circuit, evaluated within the equipment, refer to appended table 1.5.1 for the source details). • SELV boards (Main board) • Metal enclosure • Plastic enclosure • Internal speaker		
Maximum Normal load condition for this equipment is to operate at maximum backlight, brightness and contrast of LED backlight, and adjust to max. volume of speakers with 1KHz sine waveform, 5V/0.9A for USB3.0 port.		
The Clearances and Creepage Distances have additionally been assessed for suitability up to 5,000 m elevation. The required clearance is multiplied by the altitude correction factor (1.48) as specified in Table A.2 of IEC 60664-1		
The product was submitted and evaluated for use at the maximum ambient temperature (T _{ma}) permitted by the manufacturer's specification of: 40 °C		
The LCD Monitor can be adjustment monitor's height and operated in landscape (0 °) to portrait mode (90 °) when main board downward.		
Additional Information		
History of amendments and modifications:		
CB report no / issued date	CB Certificate no. / issued date	Comments
ATTCB106022 / 2017-05-19	DK-63564-UL / 2017-05-22	Original test report
Description of change: 1. Correct typing error of Bleeder resistors (SR801, SR802, SR803, SR804) technical data: 1MΩ, 1/4 W to 1.5MΩ, 1/4 W. 2. Correct typing error of Thermistor (SRT801, SRT802) technical data: 1Ω at 25°C to 1Ω at 25°C, I_{max} 5A. 3. Add Fuse (F1) source: Conquer / UDA-P series. 4. Cancel Fuse (F1) source: Conquer / MST series.		
Markings and Instructions		

N/A

Abbreviations used in the report:

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

Indicate used abbreviations (if any)

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

1	GENERAL		P
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1.5	Components		P
1.5.1	General	See below	P
	Comply with IEC 60950-1 or relevant component standard	(see appended tables 1.5.1.)	P
1.5.2	Evaluation and testing of components	Components certified to IEC standards and/or their harmonized standards, are used within their ratings and are checked for correct application. Non-certified components are checked for correct application, used within their ratings, tested as part of the equipment and subjected to applicable tests of the component standard. Components, which no relevant IEC-Standard exists, are used within their ratings and are tested under the conditions occurring in the equipment.	P

5.3	Abnormal operating and fault conditions		P
5.3.7	Simulation of faults	Complied.	P
5.3.9	Compliance criteria for abnormal operating and fault conditions	See appended table 5.3.	P
5.3.9.1	During the tests	Neither fire burns the equipment nor molten metal.	P
5.3.9.2	After the tests	Electric strength test made.	P

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

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾	
Fuse (SF801, SF802)	Conquer	UDA-P series	T3.15AH, 250Vac	IEC/EN 60127-2	VDE, S, UL, CSA	
Bleeder Resistors (SR801, SR802, SR803, SR804)	--	--	1.5MΩ, 1/4 W	--	--	
Thermistor (SRT801, SRT802) (optional)	--	--	1Ω at 25°C, I _{max} 5A.	--	--	

Supplementary information:

¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039.

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				40, if no otherwise specified	—
	Power source for EUT: Manufacturer, model/type, output rating				See appended table 1.5.1	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
SBD801 Pin 1-4	Short	240Vac	1Sec	SF801, SF802	--	SF801, SF802 opened immediately, no hazards.
SC806	Short	240Vac	1Sec	SF801, SF802	--	SF801, SF802 opened immediately, no hazards.
SQ801 Pin D-S	Short	240Vac	1Sec	SF801, SF802	--	SF801, SF802 opened immediately, no hazards.
SQ801 Pin G-D	Short	240Vac	1Sec	SF801, SF802	--	SF801, SF802 opened immediately, no hazards.

Supplementary information:

- For output not mentioned above were all under condition of "output could not be loaded" during measurement.
- For fuse opened conditions, same result came out for each source of fuse. See Critical components table for fuse sources details.

List of test equipment used:

(Note: This is an example of the required attachment. Other forms with a different layout but containing similar information are also acceptable.)

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Calibration date

No listing of test equipment used necessary for chosen test procedure.