



Ref. Certif. No.

JPTUV-042073-M1

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST
CERTIFICATES FOR ELECTRICAL EQUIPMENT
(IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE
CERTIFICATS D'ESSAIS DES EQUIPEMENTS
ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

Product
Produit

LCD Monitor

Name and address of the applicant
Nom et adresse du demandeur

Compal Electronics, Inc.
No.581, Ruiguang Rd.
Neihu District, Taipei City 11492 Taiwan

Name and address of the manufacturer
Nom et adresse du fabricant

NEC Display Solutions, Ltd.
4-28, Mita 1-chome, Minato-ku
Tokyo, 108-0073 JAPAN

Name and address of the factory
Nom et adresse de l'usine

See additional page(s)

Rating and principal characteristics
Valeurs nominales et caractéristiques principales

AC 100-240V; 50/60Hz; 1) 0.75A-0.4A (1.3A for Mexico) or
0.45A-0.25A (1.3A for Mexico);
2), 3) 0.75A-0.4A (1.3A for Mexico); Class I

NEC

Trade mark (if any)
Marque de fabrique (si elle existe)

1) L221V3, 2) EA223WM (C), 3) EA223WM-BK(C)

Model/type Ref.
Ref. de type

For model differences, refer to the test report.
Re-issue of JPTUV-042073 dated 17.01.2012,
due to first modification.

Additional information (if necessary)
Information complémentaire (si nécessaire)

A sample of the product was tested and found
to be in conformity with
Un échantillon de ce produit a été essayé et a été
considéré conforme à la

IEC 60950-1:2005+A1
National differences see test report

As shown in the Test Report Ref. No. which forms part
of this Certificate
Comme indiqué dans le Rapport d'essais numéro de
référence qui constitue une partie de ce Certificat

11027458 002

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de Certification



TÜVRheinland®

TÜV Rheinland Japan Ltd.
Global Technology Assessment Center
4-25-2 Kita-Yamata, Tsuzuki-ku
Yokohama 224-0021 Japan
Phone + 81 45 914-3888
Fax + 81 45 914-3354
Mail: info@jpn.tuv.com
Web: www.tuv.com

Signature:

Dipl.-Ing. B. Stöelzel

Date: 16.11.2012

1. Compal Electronics (China)
Co., Ltd.
No. 988, TongFeng East Road,
Kunshan Development Zone
KunShan, JiangSu 215335, P.R. China

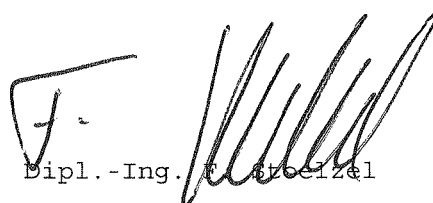
2. Compal Optoelectronics (Kunshan)
Co., Ltd.
No. 988, TongFeng East Road,
Kunshan Development Zone,
KunShan, JiangSu 215335, P.R. China

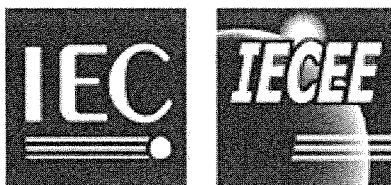
Additional information (if necessary)
Information complémentaire (si nécessaire)

Report Ref. No.: 11027458 002

Date: 16.11.2012

Signature:


Dipl.-Ing. F. Stoeckel



Test Report issued under the responsibility of:



TEST REPORT IEC 60950-1 Information technology equipment – Safety – Part 1: General requirements	
Report Number	11027458 002
Date of issue	16, Nov., 2012
Total number of pages	9
CB Testing Laboratory	TÜV Rheinland Taiwan Ltd., Taichung Laboratory
Address	No. 9, Ln. 36, Sec. 3, Minsheng Rd., Daya District, Taichung City 428, Taiwan
Applicant's name	Compal Electronics, Inc.
Address	No.581, Ruiguang Rd., Neihu District, Taipei City 11492 Tawian
Manufacturer's name	NEC Display Solutions, Ltd.
Address	4-28, Mita 1-chome, Minato-ku, Tokyo, 108-0073 JAPAN
Test specification:	
Standard	IEC 60950-1:2005 (Second Edition) + Am 1:2009
Test procedure	CB Scheme
Non-standard test method	N/A
Test Report Form No.	IEC60950_1C
Test Report Form(s) Originator	SGS Fimko Ltd
Master TRF	Dated 2012-08
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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.	
Test item description	LCD Monitor
Trade Mark	NEC
Manufacturer	See above manufacturer
Model/Type reference	1) L221V3, 2) EA223WM(C), 3)EA223WM-BK(C)
Ratings	100-240Vac, 50/60Hz, 1) 0.75A-0.4A (1.3A for Mexico) or 0.45A – 0.25A (1.3A for Mexico); 2), 3) 0.75A-0.4A (1.3A for Mexico)

Testing procedure and testing location:		
☒	CB Testing Laboratory:	
Testing location/ address..... :		
☐	Associated CB Laboratory:	
Testing location/ address..... :		
Tested by (name + signature).....:		Nai-Shuan Jin
Approved by (name + signature)		Jackey Chen
☐	Testing procedure: TMP	
Testing location/ address..... :		
Tested by (name + signature).....:		
Approved by (name + signature)		
☐	Testing procedure: WMT	
Testing location/ address..... :		
Tested by (name + signature).....:		
Witnessed by (name + signature).....:		
Approved by (name + signature)		
☐	Testing procedure: SMT	
Testing location/ address..... :		
Tested by (name + signature).....:		
Approved by (name + signature)		
Supervised by (name + signature).....:		
☐	Testing procedure: RMT	
Testing location/ address..... :		
Tested by (name + signature).....:		
Approved by (name + signature)		
Supervised by (name + signature).....:		

List of Attachments (including a total number of pages in each attachment):

- Photo documentation (4 pages)

Summary of testing:**Tests performed (name of test and test clause):**

All applicable tests as described in Test Case and Measurement Sections were performed.

- The maximum operating ambient is 40°C.
- The load conditions used during testing as below:
 - video signal provided
 - maximum brightness and contrast
 - continuous operation
 - 1kHz sin wave signal with maximum volume for speakers.
 - 0.5A load for each USB ports.
- Tests were performed on model L221V3 to represent other similar models.

Testing location:

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

Summary of compliance with National Differences

List of countries addressed:

EU Group Differences, EU Special National Conditions, CA, DE, FI, KR, US*.

Explanation of used codes: CA = Canada, DE = Germany, FI = Finland, IL = Israel, KR = Republic of Korea, US = United States.

* National differences to IEC 60950-1:2005 evaluated.

☒ The product fulfils the requirements of A11:2009, A1:2010 and A12:2011 of EN 60950-1:2006.

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.

(Additional requirements for markings. See 1.7 NOTE)

NEC MultiSync E223W LCD MONITOR VOLTS 定格電圧 :100-240V ~ , AMPERES 定格電流 :0.45-0.25A (1.3A for Mexico), FREQUENCY 定格周波数 :50/60Hz (Model: L221V3)

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE ENCLOSURE.
NO USER-SERVICEABLE PARTS INSIDE.

ATTENTION: AFIN DE PREVENIR DE TOUT CHOC ELECTRIQUE, NE PAS OUVRIR CE BOITIER. AUCUNE PIECE INTERNE NE PEUT-ETRE CHANGEE PAR L'UTILISATEUR.

ACHTUNG: ZUR TRENNUNG VOM NETZ IST DER NETZSTECKER AUS DER STECKDOSE ZU ZIEHEN. GERÄT NICHT ÖFFNEN, ES SIND KEINE DURCH DEN BENUTZER AUSWECHSELBAREN TEILE IM GERÄT VORHANDEN.

PRECAUCIÓN: PARA PREVENIR DESCARGA ELÉCTRICA, NO QUITÉ EL RECIENTO. NINGUNAS PIEZAS DEL USUARIO SERVICABLE ADENTRO.

VAROITUS: LAITE ON LITETTÄVÄ SUOJAMAADOITUSKOSKETTIMILLA VARUSTETTUUN PISTORASMAAN.

VARNING: APPARATEN SKALL ANSLUTAS TILL JORDAT UTGÅG.

ADVARSEL: APPARATET MÅ TILKOPLES JORDET STIKKONTAKT.

NEC Display Solutions, Ltd. 4-28, Miya 1-chome, Minato-ku, Tokyo, Japan

  
120197-11

THIS CLASS B DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.
CET APPAREIL NUMÉRIQUE DE LA CLASSE B RESPECTE TOUTES LES EXIGENCES DU RÈGLEMENT SUR LE MATÉRIEL BRUYANT DU CANADA.

Fabrique en Chine
Fabricado en China
MADE IN CHINA
XXXXXXXX-XXXXXX ☐

NEC MultiSync E223W LCD MONITOR VOLTS 定格電圧 :100-240V ~ , AMPERES 定格電流 :0.45-0.25A (1.3A for Mexico), FREQUENCY 定格周波数 :50/60Hz (Model: L221V3)

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VAROITUS: LAITE ON LITETTÄVÄ SUOJAMAADOITUSKOSKETTIMILLA VARUSTETTUUN PISTORASMAAN.

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Fabrique en Chine
Fabricado en China
MADE IN CHINA
XXXXXXXX-XXXXXX ☐

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%, -10%
Tested for IT power systems	☒ Yes ☐ No
IT testing, phase-phase voltage (V)	230
Class of equipment	☒ Class I ☐ Class II ☐ Class III ☐ Not classified
Considered current rating of protective device as part of the building installation (A)	20 (for North America)
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
IP protection class	IPX0
Altitude during operation (m)	Up to 2000
Altitude of test laboratory (m)	200
Mass of equipment (kg)	5.34 (With base), 3.06 (Without base)
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	: Oct., 2012
Date(s) of performance of tests.....	: Oct. – Nov., 2012
General remarks:	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a ☐ comma / ☒ point is used as the decimal separator.	

Manufacturer's Declaration per sub-clause 6.2.5 of IEC60950-1:

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 Electronics (China) Co., Ltd.
No. 988, TongFeng East Road, Kunshan Development Zone, Kunshan, JiangSu 215335, P.R. China

2. Compal Optoelectronics (Kunshan) Co., Ltd.
No. 988, TongFeng East Road, Kunshan Development Zone, Kunshan, JiangSu 215335, P.R. China

General product information:**Description of change(s):**

1. Add alternative main-board type B for model L221V3 use only which is similar to original type A except for the rating and the new type of main-board only with DVI connector, D-Sub connector and Display connector.
2. Add alternative stand base design and back plastic enclosure design.
3. Revised factory address of Compal Electronics (China) Co., Ltd. and Compal Optoelectronics (Kunshan) Co., Ltd

For the above described change(s) the following was considered to be necessary:

Change	Testing	Comments
1.	• Input test	Due to lower input results being measured, no further tests considered to be necessary. See input results in appended table. And due to the main-board type B without some connectors, the bottom side of internal metal enclosure for type B will also seal those locations (without openings). For new rating label and marking information, refer to sub-clause 1.7.1.
2.	• N/A	For new designs refer to photo documentation, the new back plastic enclosure is to accompany the alternative stand base design only, no further tests considered to be necessary.
3.	• N/A	No safety impact, no further testing considered as necessary. For factory details, see page 6 of bold type.

History of amendments and modifications:

Ref. No. 11027458 001, dated 16th Jan., 2012 (original test report)
 Ref. No. 11027458 002, dated 16th Nov., 2012 (modification)

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/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1	Power rating and identification markings	The power rating marking is visible after the equipment has been installed as in normal use.	P
1.7.1.1	Power rating marking	See below	P
	Multiple mains supply connections.....:		N/A
	Rated voltage(s) or voltage range(s) (V)	See copy of marking plate.	P
	Symbol for nature of supply, for d.c. only		N/A
	Rated frequency or rated frequency range (Hz)	See copy of marking plate.	P
	Rated current (mA or A)	See copy of marking plate.	P
1.7.1.2	Identification markings	See below	P
	Manufacturer's name or trade-mark or identification mark	See copy of marking plate.	P
	Model identification or type reference	See copy of marking plate.	P
	Symbol for Class II equipment only	Class I equipment	N/A
	Other markings and symbols	Other markings and symbols do not give rise to misunderstanding.	P

IEC 60950-1/Am1			
Clause	Requirement + Test	Result - Remark	Verdict

1.6.2	TABLE: Electrical data (in normal conditions)						P
U/F (V/Hz)	I (A)	I _{rated} (A)	P (W)	Fuse #	I _{fuse} (A)	Condition/status	
D-Sub mode							
90V/50Hz	0.33	--	16.8	SF801	0.33	Maximum normal load.	
100V/50Hz	0.31	0.45	16.8	SF801	0.31	Maximum normal load.	
240V/50Hz	0.17	0.25	16.95	SF801	0.17	Maximum normal load.	
254V/50Hz	0.16	--	16.90	SF801	0.16	Maximum normal load.	
264V/50Hz	0.16	--	16.94	SF801	0.16	Maximum normal load.	
90V/60Hz	0.33	--	16.8	SF801	0.33	Maximum normal load.	
100V/60Hz	0.31	0.45	16.8	SF801	0.31	Maximum normal load.	
240V/60Hz	0.17	0.25	16.96	SF801	0.17	Maximum normal load.	
254V/60Hz	0.16	--	16.95	SF801	0.16	Maximum normal load.	
264V/60Hz	0.16	--	17.02	SF801	0.16	Maximum normal load.	
Supplementary information:							