



Ref. Certif. No.

JPTUV-038323-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

TPV Electronics (Fujian) Co., Ltd.
Yuan Hong Rd., Shang-Zheng Hong-Lu
Fuqing City Fujian 350301, P.R. China

Name and address of the manufacturer
Nom et adresse du fabricant

NEC Display Solutions, Ltd.
4-13-23 Shibaura
Minato-ku, Tokyo, 108-0023 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

DC 19V; 2.1A; Class III

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

NEC

Model/type Ref.
Ref. de type

L230UH, EX231Wp-BK-G1(C), L200UF

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

For model differences, refer to the test report.
Re-issue of JPTUV-038323 dated 04.05.2011,
due to first modification

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

17020128 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
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Mail: info@jpn.tuv.com
Web: www.tuv.com

Signature:

Ing. M. Eichenseder

Date: 01.06.2011

1. TPV Technology (Beijing) Co., Ltd.
No. 10, Jiu Xian Qiao Rd.
Chao Yang District, Beijing 100016
P.R. China
2. Tatung Mexico S.A. de C.V.
Ave. Rosa Ma. Fuentes #7050
Complejo Industrial Fuentes
C.P. 32320, Cd. Juarez. Chih.
MEXICO
3. TPV Display Technology (Wuhan)
Co., Ltd.
Unique No. 11, Zhuankou Development
District of Economic Technological
Development Zone, Wuhan City 430056, P.R. China
4. TPV Electronics (Fujian) Co., Ltd.
Yuan Hong Rd., Shang-Zheng Hong-Lu
Fuqing City Fujian 350301
P.R. China
5. Envision Industry of Electronic
Products Ltd.
895, Joao Marcos Pozzetti Street,
Industrial District II,
69 075-215 Manaus, Am. Brazil
6. Tatung Czech s.r.o
U Nove Hospody 4
30100 Plzen
Czech Republic
7. TPV Technology (Suzhou) Co., Ltd.,
Zhujiang Branch
No. 161, Zhujiang Road, Suzhou
New District, Suzhou City, Jiangsu
Province, P.R. China
8. Envision Industry of Electronic
Products Ltd.
Rodovia Anhanguera S/N-KM 49
Tijuco Preto-Jundiaí-SP
Brazil
9. TPV Displays Polska Sp. z o.o.
ul. Zlotego Smoka 9
66-400 Gorzów Wlkp.
Poland

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

Date: 01.06.2011

Signature:

Ing. M. Eichenseder

10. L&T Display Technology (Fujian) Ltd.
Optoelectronic Park, Rongqiao
Economic and Technological
Development Zone
Fuqing, Fujian 350301, P.R. China

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

Date: 01.06.2011

Signature:

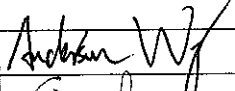
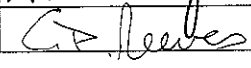

Ing. M. Eichenseder



Test Report issued under the responsibility of:



TEST REPORT IEC 60950-1 Information technology equipment – Safety – Part 1: General requirements	
Report Number.: 17020128 002 Date of issue: 30.May.2011 Total number of pages: 9 pages	
CB Testing Laboratory: TÜV Rheinland (Shenzhen) Co., Ltd. Address: 34/F Tower A, World Finance Centre, Shennan East Road 4003, Luohu District 518001 Shenzhen, P.R. China	
Applicant's name: TPV Electronics (Fujian) Co., Ltd. Address: Yuan Hong Rd., Shang-Zheng Hong-Lu, Fuqing City Fujian 350301 P.R. China	
Manufacturer's name: Same as applicant Address: Same as applicant	
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(s) Originator: SGS Fimko Ltd Master TRF: Dated 2010-04	
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Test item description: Trade Mark: Manufacturer: Model/Type reference: Ratings:	LCD MONITOR NEC Same as applicant L230UH, EX231Wp-BK-G1(C), L200UF I/P: 19Vdc, 2.1A

Testing procedure and testing location:		
☒	CB Testing Laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd
Testing location/ address		Unit B, 1F, 2nd Building, Shenzhen Cyber-Tech Zone, 7th High-Tech South Avenue, High-Tech Industrial Park, Shenzhen 518057, P.R. China
☐	Associated CB Laboratory:	N/A
Testing location/ address		N/A
Tested by (name + signature)		Anderson Wang 
Approved by (name + signature)		Chris Reeves 
☐	Testing procedure: TMP	N/A
Testing location/ address		N/A
Tested by (name + signature)		
Approved by (name + signature)		
☐	Testing procedure: WMT	N/A
Testing location/ address		N/A
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
☐	Testing procedure: SMT	N/A
Testing location/ address		N/A
Tested by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature)		
☐	Testing procedure: RMT	N/A
Testing location/ address		N/A
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 (3 pages)

Summary of testing:

Tests performed (name of test and test clause):

The tests were carried out under the most unfavorable combination within the manufacturer's operating specifications of the following parameters:

- supplied by approved switching adapter;
- operating temperature, Max. ambient temperature 40°C declared by the client
- operating mode: continuous
- operating load: maximum brightness, maximum contrast, full white screen; USB port was loaded 5V/0.5A.

The critical tests were performed for this equipment included clauses:

name of test	test clause number
Input Current Test	1.6.2
Maximum Temperature Test	4.5.2

The EUT passed the test.

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

See original report 17020128 001.

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.

NEC MultiSync EX201W LCD MONITOR

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

ATTENTION: AFIN DE PREVENIR DE TOUT CHOC ELECTRIQUES, 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 quite EL RECIENTO. NINGUNAS PIEZAS DEL USUARIO SERVICABLE ADENTRO.

VARNING: APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG.

VAROITUS: LAITE ON LITETTÄVÄ SUOJAMAADOITUSKOSKETTIMILLA VARUSTETTUUN PISTORASIAAN.

ADVARSEL: APPARATET MÅ TILKOPLES JORDET STIKKONTAKT.

For applicable power supplies see use instructions.

ACアダプタは必ず付属の物をご使用ください。

For Japan only

警告

高圧注意
サービスマン以外の方は分解しないでください。内部には高電圧部分があり、万一さわると危険です。

感電注意
電源コードのアースリード線は必ず接地ください。故障のときに感電の原因になります。

VOLTS 定格電圧: DC19V ー, AMPERES 定格電流: 2.1A (Model: L200UF)

FC CE **TUV** **GS** **ISO 9241-307** **UL** **N56** **PC** **BZ02** **ENERGY STAR** **UL LISTED**

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 BROUILLER DU CANADA.

NEC Display Solutions, Ltd. 4-13-23 Shibaura, Minato-ku, Tokyo, 108-0023, Japan

MADE IN CHINA
Fabriqué en Chine
Fabricado en China

See original report 17020128 001 for other rating labels.

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	Not connected to mains
Tested for IT power systems	☐ Yes (only for Norway) ☒ No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	☐ Class I ☐ Class II ☒ Class III ☐ Not classified
Considered current rating of protective device as part of the building installation (A)	N/A
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
IP protection class	IP20
Altitude during operation (m)	≤2000
Altitude of test laboratory (m)	<2000
Mass of equipment (kg)	Whole unit: 4.03kg for L230UH, EX231Wp-BK-G1(C) 3.64kg for L200UF
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	16.May.2011
Date(s) of performance of tests	20.May.2011 - 21.May.2011
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 IEC 60950-1:

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 TPV Electronics (Fujian) Co., Ltd.
Yuan Hong Rd., Shang-Zheng Hong-Lu
Fuqing City Fujian 350301 P.R. China
- 2 TPV Technology (Beijing) Co., Ltd.
No.10, Jiu Xian Qiao Rd., Chao Yang
District, Beijing 100016 P.R. China
- 3 TPV Display Technology (Wuhan) Co., Ltd.
Unique No. 11, Zhuankou Development
District of Economic Technological
Development Zone, Wuhan City 430056,
P.R. China
- 4 TPV Technology (Suzhou) Co., Ltd.,
Zhujiang Branch
No. 161, Zhujiang Road, Suzhou New
District, Suzhou City, Jiangsu Province,
P.R. China
- 5 TPV Displays Polska Sp. z o.o.
ul. Zlotego Smoka 9 66-400 Gorzów Wlkp.
Poland
- 6 Envision Industry of Electronic Products
Ltd.
895, Joao Marcos Pozzetti Street,
Industrial District II, 69.075-215 Manaus,
Am, Brazil
- 7 Envision Industry of Electronic Products
Ltd.
Rodovia Anhanguera S/N-KM 49 Tijuco
Preto-Jundiaí-SP Brazil
- 8 Tatung Czech s.r.o.
U Nove Hospody 4 30100 Plzen Czech
Republic
- 9 Tatung Mexico S.A. de C.V.
Ave. Rosa Ma. Fuentes #7050 Complejo
Industrial Fuentes C.P. 32320, Cd. Juarez.
Chih, MEXICO
- 10 L&T Display Technology (Fujian) Ltd.
Optoelectronic Park, Rongqiao Economic
and Technological Development Zone
Fuqing, Fujian 350301, P.R. China

General product information:

Description of change(s):

1. Adding new model: **L200UF**, which is identical to original model L230UH except for smaller plastic enclosure and panel due to different panel size (only 20 inch panel).
2. Adding new enclosure for L200UF only as described above. Materials used are same as previous.
3. Adding new 20 inch panel: **BM200WD*(L&T)** for L200UF only.

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

Change	Testing	Comments
1.	N/A	N/A
2-3	• Input test • Maximum Temperature Test	See Table 1.5.1 for updated components information. See pages 7 to 9 for details.

Other comments:History of amendments and modifications:

Ref. No. 17020128 001, dated Apr.13, 2011 (original test report)

Ref. No. 17020128 002, dated May.30, 2011 (1st 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

1.5.1		TABLE: list of critical components				P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹ .	
LCD Panel	L&T	BM200WD* (*can be 0-9, A-Z or blank). The declared power consumption in specification is 11.65W.	20.0 inch TFT-LCD (LED backlight type)	--	--	

1.6.2		TABLE: electrical data (in normal conditions)					P
U (V)	I (A)	I _{rated} (A)	P (W)	Fuse #	I _{fuse} (A)	Condition/status	
DVI mode							
19.0	0.67	2.1	12.8	--	--	Maximum normal load	
DP mode							
19.0	0.69	2.1	13.1	--	--	Maximum normal load	
Note(s):							
1. Maximum normal load: maximum brightness, maximum contrast, full white screen; USB port was loaded 5V/0.5A.							

4.5	TABLE: maximum temperatures		P
	test voltage (V)	19Vdc	—
	t1 (°C)	--	—
	t2 (°C)	--	—
Maximum temperature T of part/at:		T (°C)	allowed T _{max} (°C)
At horizontal orientation			
DC inlet body CN703 (on main board)		38.3	52.7
PCB near U801 (on main board)		40.0	87.7
PCB near L801 (on main board)		43.2	87.7
C708 body (on main board)		53.5	67.7
PCB near U702 (on main board)		56.8	87.7
PCB near U400 (on main board)		50.0	87.7
PCB near U705 (on main board)		48.1	87.7
PCB near L700 (on main board)		56.6	87.7
Plastic enclosure inside		39.8	--
Plastic enclosure outside		31.0	77.7
Metal enclosure		36.2	52.7
Panel		31.2	77.7
Ambient		22.7	--
At vertical orientation			
DC inlet body CN703 (on main board)		37.9	52.1
PCB near U801 (on main board)		39.8	87.1
PCB near L801 (on main board)		44.2	87.1
C708 body (on main board)		54.9	67.1
PCB near U702 (on main board)		57.7	87.1
PCB near U400 (on main board)		49.8	87.1

PCB near U705 (on main board)		48.8		87.1	
PCB near L700 (on main board)		56.1		87.1	
Plastic enclosure inside		40.1		--	
Plastic enclosure outside		32.1		77.1	
Metal enclosure		40.0		52.1	
Panel		34.1		77.1	
Ambient		22.1		--	
Temperature T of winding:	R ₁ (Ω)	R ₂ (Ω)	T (°C)	allowed T _{max} (°C)	insulation class
Note(s): 1. The temperatures were measured under the worse case normal mode defined in 1.2.2.1 and as described in sub-clause 1.6.2 at voltages as described above. 2. With a specified ambient temperature of 40°C. Temperature limits are calculated as follows: - $T_{max} = T_{max \text{ of component}} - 40 + T_{amb}$					

Type Designation: L200UF (NEC)
Report Number: 17020128 002



Figure 1 Front view at horizontal orientation



Figure 2 Rear view at horizontal orientation

Type Designation: L200UF (NEC)
Report Number: 17020128 002



Figure 3 Front view at vertical orientation



Figure 4 Rear view at vertical orientation

Type Designation: L200UF (NEC)
Report Number: 17020128 002



Figure 5 Side view at vertical orientation