

NO94440/M1

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

Ce Certificat dessai OC est établi par l'Organisme National de Certification

SYSTEME CEI DACCEPTATION MUTUELLE DE CERTIFICATS DESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE CERTIFICAT D	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. Rongqiao Economic and Technological Development Zone, Fuqing City Fujian Province China		
Name and address of the manufacturer Nom et adresse du fabricant	TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City Fujian Province China		
Name and address of the factory Nom et adresse de l'usine			
Note: When more than one factory, please report on page 2 Note: Lorsque il y plus d'une usine, veuillez utiliser la deuxième page	Additional information on page 2		
Ratings and principal characteristics Valeurs nominales et caractéristiques principales	4.5A or 3.25A, DC 20V Cl. III		
Trademark (if any) Marque de fabrique (si elle existe)	AOC		
Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur			
Model / Type Ref. Ref. De type	**251*******; 250LM000**		
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiqués sur la deuxième page	The * in the model name can be 0 to 9, A to Z or blank for marketing use only.		
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, IEC 60950-1:2005/AMD1:2009, IEC 60950-1:2005/ AMD2:2013		
As shown in the Test Report Ref. No. which forms part of this Certificate Comme indiqué dans le Rapport dessais numéro de référence qui constitue partie de ce Certificat	326961 This certificate replaces the certificate NO94440, due to technical modification.		
This CB Test Certificate is issued by the National Certification Body			



Gaustadalléen 30 NO-0373 Oslo, Norway

OK hyun Jean

Signature: Okhyun Jeon Certification Department

Date: 10-03-2017





TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuanhong Road Fuqing City Fujian Province China	TPV Display Technology (Wuhan) Co. Ltd. Unique No. 11, Zhuankou Development, District of Economic Technological Development Zone, Wuhan City 430056 China
Envision Industry of Electronic Products Ltd. Rodovia Anhanguera S/N-KM 49, Tijuco Preto-Jundiaí- SP- 13.205-700 Brazil TREND SMART CE MEXICO S. DE R.L. DE C.V. Avenida Sor Juana Ines de la Cruz No. 19602 Parque Industrial la Frontera Fracc. CP. 22500, Nueva Tijuana (Otay) Tijuana B.C. Mexico Envision Industry of Electronic Products Ltd. Av Torquato Tapajós 7503, Galpão : II Bloco: B- Condomínio de Galpões-Tarumã-Manaus AM Brazil TPV Display Technology (China) Co., Ltd. No.106 Jinghai 3 Rd., BDA Beijing City 100176 China TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province China	L&T Display Technology (Fujian) Ltd. Optoelectronic Park, Rongqiao Economic and Technological, Development Zone, Fuqing City, Fujian 350301 China
	TPV Display Technology (Beihai) Co., Ltd. China Electronic Beihai Industry Park, Northeast of the Crossing, Between Taiwan Road and Jilin Road, Beihai City Guangxi
	China TPV Technology (Qingdao) Co., Ltd. NO.99 Huoju Road, High-tech Industrial Development Zone, Qingdao City Shandong Province China
	Hefei Huntkey Display Technology Co., Ltd. South Jinxiu Road, East Qingtan Road, Economic And Technological Development Zone, Hefei Anhui 230601 China
	TPV Electronics (Fujian) Co., Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing City Fujian Province China



Gaustadalleen 30 NO-0373 Oslo, Norway

10-03-2017 Date:

OK hyun Jeon

Signature: Okhyun Jeon Certification Department





www.nemko.com

Amendment to Test Report		
This Amendment is valid only together with the main Test Report		
Report No:		
Main Report No	317933	
Date of issue:	2017-03-10	
Total number of pages::	Refer to page 4	
Name of Testing Laboratory preparing the Report:	Nemko Shanghai Ltd. Shenzhen Branch Unit C & D, Floor 2&Floor 10, Tower 2, Kefa Road #8, Hi-Technology Park, Nanshan District, 518057 Shenzhen, CHINA	
Applicant's Name:	TPV Electronics (Fujian) Co., Ltd.	
Address:	Rongqiao Economic and Technological Development Zone, FUQING CITY FUJIAN PROVINCE, CHINA	
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		
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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. This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.		

Nemko Rev. 2015-09





Test item description:	LCD Monitor
Trade Mark:	AOC
Manufacturer:	Same as applicant
Model/Type reference: :	**251*******;250LM000** (The * in the model name can be 0 to 9, A to Z or blank for marketing use only.)
Ratings:	4.5A or <b>3.25A</b> , 20 V DC



Res	Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
$\boxtimes$	CB Testing Laboratory:	Nemko Shanghai Ltd. S	Shenzhen Branch	
Testing location/ address:		Unit C & D, Floor 2 & Floor 10, Tower 2, Kefa Road #8 Hi- Technology Park Nanshan District 518057 Shenzhen CHINA		
Associated CB Testing Laboratory:				
Testing location/ address:				
Tested by (name + function + signature) :		Bill Yang (Project handler)	Bill Jane Sun	
Approved by (name + function + signature) :		Jane Sun (Verificator)	Jane Sun	
	Testing procedure: CTF Stage 1:			
Test	ing location/ address			
Test	ed by (name, function, signature) :			
Approved by (name, function, signature) :				
Testing procedure: CTF Stage 2:				
Testing location/ address:				
Tested by (name + signature)				
Witnessed by (name, function, signature).:				
Арр	roved by (name, function, signature) :			
	Testing procedure: CTF Stage 3:			
	Testing procedure: CTF Stage 4:			
Test	ing location/ address			
Test	ed by (name, function, signature) :			
Witr	essed by (name, function, signature). :			
	roved by (name, function, signature) :			
Sup	ervised by (name, function, signature) :			



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

-. Main report (12 pages)

-. Photos (2 pages )

## Summary of testing:

#### Tests performed (name of test and test clause):

Clause	Test(s)
1.6	Input Current Test
1.7	Marking and instructions

See page 3

**Testing location:** 

# 1.7 Marking and instructions

## Summary of compliance with National Differences

List of countries addressed:

Modified products still complies with previously evaluated National Differences.

The product fulfils the requirements of IEC 60950-1: 2005 (2nd Edition); Am1: 2009; Am2: 2013 and all CENELEC members as listed in EN 60950-1: 2006 +A11: 2009+A1: 2010+A12: 2011+ A2: 2013.



## Copy of marking plates:

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)

Product Name: Model No.:	AG251FG 250LM00005		c N <sup>217188</sup> 60950-1 US	State		CE	F©	EHE 🕱
	le in China r supplies see user manual isateur pour les courants cables IB-3(B)	Amstelge Prins Be 1097 JB The Neth Envision 47490 S	emational Europe B.V. sbouw, 6th 10or mhardplein 200 Amsterdam terlands n Peripherals, Inc. eabridge Drive tabridge Drive	Ser	中名:XXXX ial/No.:XXX nufactured:			

Calibration:	All instruments used in the tests given in this test report are calibrated and traceable to national or international standards.
	Further information about traceability will be given on request.
Measurement uncertainty:	Measurement uncertainties are calculated for all instruments and instrument set-ups given in this report. Calculations are based on the principles given in the standard EA-4/02 (Dec. 1999), IEC Guide 115:2007, Nemko routine L227 and other relevant internal Nemko-procedures.
	Further information about measurement uncertainties will be given on request.
Evaluation of results:	If not explicitly stated otherwise in the standard, the test is passed if the measured value is equal to or below (above) the limit line, regardless of the measurement uncertainty. If the measured value is above (below) the limit line, the test is not passed – ref IEC Guide 115:2007, and Nemko routine L220. The instrumentation accuracy is within limits agreed by IECEE-CTL (ref. Nemko routine L227).



Test item particulars:		
Classification of installation and use	Movable	
Supply Connection	Cl. III, not direct plug-in the equipment.	
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	2017-03-01	
Date(s) of performance of tests	2017-03-01 to 2017-03-08	
General remarks:		
The test results presented in this report relate only to th	e 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  $\Box$  comma /  $\boxtimes$  point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 4.2.5 c	f 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):	<ol> <li>TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R.China</li> <li>TPV Display Technology (China) Co., Ltd. No.106 Jinghai 3 Rd., BDA, BEIJING CITY 100176, CHINA</li> <li>L&amp;T Display Technology (Fujian) Ltd. Optoelectronic Park, Rongqiao Economic and Technological, Development Zone, Fuqing City, Fujian 350301, CHINA</li> <li>TDV Display Technology (Muhan) Co. Ltd.</li> </ol>
	<ol> <li>TPV Display Technology (Wuhan) Co. Ltd.</li> <li>Unique No. 11, Zhuankou Development, District of Economic Technological Development Zone, WUHAN CITY 430056, CHINA</li> </ol>
	5. Hefei Huntkey Display Technology Co., Ltd. South Jinxiu Road, East Qingtan Road, Economic And Technological Development Zone, HEFEI ANHUI 230601, CHINA

6. TREND SMART CE MEXICO S. DE R.L. DE C.V. Avenida Sor Juana Ines de la Cruz No. 19602 Parque Industrial la Frontera Fracc. CP. 22500, NUEVA TIJUANA (OTAY) TIJUANA B.C., MEXICO
7. Envision Industry of Electronic Products Ltd. Rodovia Anhanguera S/N-KM 49, Tijuco Preto- Jundiaí-SP- 13.205-700, BRAZIL
8. Envision Industry of Electronic Products Ltd. Av Torquato Tapajós 7503, Galpão : II Bloco: B- Condomínio de Galpões-Tarumã-Manaus AM, BRAZIL
9. TPV Display Technology (Beihai) Co., Ltd. China Electronic Beihai Industry Park, Northeast of the Crossing, Between Taiwan Road and Jilin Road, BEIHAI CITY GUANGXI, CHINA
10. TPV Technology (Qingdao) Co., Ltd. NO.99 Huoju Road, High-tech Industrial Development Zone, QINGDAO CITY SHANDONG PROVINCE, CHINA
11. TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuanhong Road, FUQING CITY FUJIAN PROVINCE, CHINA
12. TPV Electronics (Fujian) Co., Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone, FUQING CITY FUJIAN 350301, CHINA



#### General product information:

This Amendment report No. 326961 always be enclosed with main Test Report No. 317933.

#### The updates concerned in this test report are as follows:

-.Add one alternative mainboard (type B) .

-.Add one alternative adapter.

Alternaitve adapter:

Power adapter CB test report with IEC 60950-1:2005 (2nd Edition);am1: 2009,am2:2013; and/or EN60950-1:2006; A11:2009; A1:2010; A12:2011,A2:2013, CB issued by TUV RH Cert No.JPTUV-074918 (3 pages) and report No.17061539 001(total 129 pages including photos ).

Model difference:

All models are the same, except model name.

Model name	Adapter	Mainboard
**251******;	ADPC2090	Туре А,
250LM000**	ADPC2065****	Туре А,
	(*=0-9,A-Z,a-z,-,/,+ or	Туре В
	blank)	

Load condition: Full white display with Max. Brightness and contrast, picture provided from a computer. Maximum volume with a 1KHz sinusoidal input signal (optional),and load 0.9A for each USB 3.0.

With adapter ADPC2065\*\*\*\* and mainboard type B, under DP mode represent the worst condition for all tests.



Project history:	Project history:				
Nemko Report / Order No.:	Modification to the appliances:	Changes/ Modifications in clause(s):			
317933	Main Test Report	N/A			
326961	Add one alternative mainboard (type B) . Add one alternative adapter.	General product information cl.1.5,1.6,1.7and photos			



Verdict

IEC 60950-1

Clause	Requirement + Test	Result - Remark

1	GENERAL	_

1.5	Components		
1.5.1	General		Р
	Comply with IEC 60950-1 or relevant component standard	(see appended tables 1.5.1)	Р
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 exists, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.	Ρ

1.6 Power interface			
1.6.1	AC power distribution systems	DC supplied	—
1.6.2	Input current	(see appended table 1.6.2)	Р

1.7	Marking and instructions				
1.7.1	Power rating and identification markings	The required marking is located on the outside surface of the equipment.	Р		
1.7.1.1	Power rating marking	See below	Р		
	Multiple mains supply connections:	Only one mains supply connections.	N/A		
	Rated voltage(s) or voltage range(s) (V):	20V DC	Р		
	Symbol for nature of supply, for d.c. only:	IEC 60417, symbol No. 5031, is used.	Р		
	Rated frequency or rated frequency range (Hz) :	DC supplied	—		
	Rated current (mA or A):	4.5A or <b>3.25A</b>	—		
1.7.11	Durability	The marking withstands required tests.	Р		



1.5.1 T/	TABLE: list of critical components					
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity <sup>1</sup> )	
AC/DC adapter	(Fujiang) Co., Ltd       V~, 50-60 Hz, 1:2005+A1:200 F         1.3 A       9+ A2:2013 (         Output: 20 Vdc, 4.5 A, SELV       EN 60950-1:2006+A11:20 F		CB by TUV RH (17038425 001 and 17038425 002)			
Alt.)	TPV Electronics (Fujiang) Co., Ltd	ADPC2065**** (*=0-9,A-Z,a-z,- ,/,+ or blank)	Input : 100-240 V~, 50-60 Hz, 1.5 A Output: 20 Vdc, 3.25 A, SELV, LPS	IEC60950- 1:2005+A1:200 9+ A2:2013 EN 60950- 1:2006+A11:20 09+A1:2010+ A12:2011+A2: 2013	CB by TUV RH (17061539 001)	
Supplementary information:						
<sup>1</sup> )an asterisk indicates a mark which assures the agreed level of surveillance. The bold parts indicated the added source.						



1.6.2     TABLE: electrical data (in normal conditions)				Р			
fuse #	Irated (A)	U ( V / Hz)	P (W)	I (A)	Ifuse (A)	condition/status	
	3.25 20V dc 41.0 2.05 Normal load						
Supplem	Supplementary information:						
Maximum normal load refer to general product information.							



Photos



The internal view with mainboard type B

Note: The mylar sheet was used for preventing the internal wire to be scratched



The internal view with mainboard type B





The components side of mainboard type B



The solder side of mainboard type B -- End of report --