



Ref. Certif. No.

JPTUV-101945-A1

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.
Rongqiao Economic and
Technological Development Zone, Fuqing City, Fujian Province, P. R.
China

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)

Ratings and principal characteristics
Valeurs nominales et caractéristiques principales

a) AC 100-240V, 50/60Hz, 0.40-0.20A (1.5A for Mexico) or
AC 100V, 50/60Hz, 0.40A; b) AC 100-240V, 50/60Hz, 0.40-0.25A
(1.5A for Mexico); c) AC 100-240V, 50/60Hz, 0.45-0.25A
(1.5A for Mexico) or AC 100V, 50/60Hz, 0.45A; Class I

Trademark (if any)
Marque de fabrique (si elle existe)

NEC

Type of Manufacturer's Testing Laboratories used
Type de programme du laboratoire d'essais constructeur

N/A

Model / Type Ref.
Ref. de type

a) M179E7; b) M179E9; c) M199E8

Additional information (if necessary may also be
reported on page 2)
Les informations complémentaires (si nécessaire,
peuvent être indiqués sur la 2^{ème} page)

For model differences, refer to the test report.
Re-issue of JPTUV-101945 dated 04.11.2019,
due to non-technical change.

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 62368-1:2014
See Test Report for National Differences

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 partie de ce Certificat

50306772 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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Fax + 81 45 914-3354
Mail: info@jpn.tuv.com
Web: www.tuv.com

Date: 20.11.2019

Signature:

Aegean Li

1. TPV Display Technology (Wuhan)
Co., Ltd.
Unique No. 11, Zhuankou Development
District of Economic Technological
Development Zone, Wuhan City 430056, P. R. China
2. TPV Electronics (Fujian) Co., Ltd.
Shangzheng, Yuan Hong Road
Fuqing City, Fujian Province
P. R. China
3. L&T Display Technology (Fujian) Ltd.
Optoelectronic Park, Rongqiao
Economic and Technological
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4. TPV Electronics (Fujian) Co., Ltd.
Rongqiao Economic and
Technological Development Zone
Fuqing City, Fujian Province
P. R. China
5. Trend Smart CE Mexico S de RL de CV
Avenida Sor Juana Ines de la Cruz
de 19602 Nueva Tijuana,
22435 Tijuana Baja California
MEXICO
6. TPV Display Technology (Beihai)
Co., Ltd.
China Electronic Beihai Industry
Park, Northeast of the Crossing
Between Taiwan Road and Jilin Road, Beihai City, Guangxi, P. R. China
7. TPV Technology (Qingdao)
Co., Ltd.
No.99 Huoju Road, High-tech
Industrial Development Zone
Qingdao City, Shandong Province, P. R. China
8. TPV Display Technology (China)
Co., Ltd.
No. 106 Jinghai 3 Rd., BDA
Beijing City 100176
P. R. China
9. TPV Electronics (Fujian) Co., Ltd.
Optoelectronic Park,
Rongqiao Economic and
Technological Development Zone,
Fuqing City, Fujian Province 350301, P. R. China

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

Report Ref. No.: 50306772 002

Date: 20.11.2019

Signature:



Aegean Li

10. Envision Indústria de Produtos Eletrônicos Ltda.
Av. Torquato Tapajós, 2236,
Flores - CEP 69058-830 - Manaus/AM
Brazil
11. Pro Concept Manufacturer Co., Ltd
88/1 Moo 12, Soi
Phetkasem120, Phetkasem
Road, Omnoi, Krathumbaen,
Samutsakhon 74130, Thailand
12. Treeview Co., Ltd.
106/29 Moo 8, Sukhumvit Road, T.Banglamung,
A.Banglamung, Chonburi 20150
Thailand
13. TPV Technology (Thailand) Co., Ltd.
Tambon Tha Turn,
Amphoe Si Maha Phot,
Chang Wat Prachin Buri 25140
Thailand

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

Report Ref. No.: 50306772 002

Date: 20.11.2019

Signature:


Aegean Li



TEST REPORT

IEC 62368-1

Audio/video, information and communication technology equipment

Part 1: Safety requirements

Report Number: 50306772 002

Date of issue: Nov. 18. 2019

Total number of pages: 9

Applicant's name.....: **TPV Electronics (Fujian) Co., Ltd.**

Address: Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R.China

Test specification:

Standard: IEC 62368-1:2014 (Second Edition)

Test procedure: CB Scheme

Non-standard test method.....: N/A

Test Report Form No.: IEC62368_1B

Test Report Form(s) Originator: UL(US)

Master TRF: 2014-03

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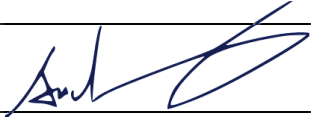
If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

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.

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	a) M179E7; b) M179E9 ; c) M199E8	
Ratings	a) 100-240V~, 50/60Hz, 0.40-0.20A (1.5A for Mexico) or 100V~, 50/60Hz, 0.40A; b) 100-240V~, 50/60Hz, 0.40- 0.25A (1.5A for Mexico); c) 100-240V~, 50/60Hz, 0.45-0.25A (1.5A for Mexico) or 100V~, 50/60Hz, 0.45A;	
Testing procedure and testing location:		
☒ CB Testing Laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.	
Testing location/ address	1F East & 2-4F, Cybio Technology Building No. 1, No. 16 Kejibei 2nd Road, High-Tech Industrial Park North, Nanshan District 518057, Shenzhen, China	
☐ Associated CB Testing Laboratory:		
Testing location/ address		
Tested by (name + signature)	Anderson Wang Senior Project Manager	
Approved by (name + signature)	Steven Lin Technical Reviewer	
☐ Testing procedure: TMP/CTF Stage 1		
Testing location/ address		
Tested by (name + signature)		
Approved by (name + signature)		
☐ Testing procedure: WMT/CTF Stage 2		
Testing location/ address		
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
☐ Testing procedure: SMT/CTF Stage 3 or 4		
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):	
- N/A	
Summary of testing:	
Tests performed (name of test and test clause):	Testing location:
- N/A	N/A
Summary of compliance with National Differences:	
List of countries addressed	
EU Group Differences, EU Special National Conditions, AU, DE, DK, FI, IT, NO, SE	
Explanation of used codes: AU=Australia, CA=Canada, DE=Germany, DK=Denmark, FI=Finland, IT=Italy, NO=Norway, SE=Sweden.	
☒ The product fulfils the requirements of <u>EN 62368-1:2014 + A11:2017</u>	
See original report 50306772 001 for the details.	

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 E172M LCD MONITOR / ЖК-МОНИТОР (Model/Модель: M179E9)

VOLTS / Вольт : 100-240V ~, AMPERES / Ампер : 0.40-0.25A (1.5A FOR MEXICO)
FREQUENCY / Частота : 50/60Hz

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 recinto. NINGUNAS PIEZAS DEL USUARIO SERVICABLE ADENTRO.
VAROITUS: LAITE ON LIITETTÄVÄ SUOJAKOSKETTIMILLA VARUSTETTUUN PISTORASIAAN.
VARNING: APPARATEN SKALL ANSLUTAS TILL JORDAT UTGÅG. ADVARSEL: APPARATET MÅ TILKOPLES JORDET STIKKONTAKT.
ADVARSEL: APPARATETS STIKPROP SKAL TILSLUTTES EN STIKKONTAKT MED JORD SOM GIVER FORBINDELSE TIL STIKPROPPENS JORD.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED,
INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

CAN ICES-3(B) / NMB-3(B)
изготовитель : TPV Electronics (Fujian) Co., Ltd.
NEC Display Solutions, Ltd. 4-28, Mita 1-chome, Minato-ku, Tokyo, Japan

FC **UL** **E135689**
LISTED **I.T.E.**
1K81

SAFETY MARK **HDMI**

MADE IN CHINA
FABRIQUE EN CHINE
FABRICADO EN CHINA
Сделано в Китае

XXXXXX XXXXXX-XXX-XX XX

See original report 50306772 001 for original rating labels.

TEST ITEM PARTICULARS:	
Classification of use by	☒ Ordinary person ☐ Instructed person ☐ Skilled person ☒ Children likely to be present
Supply Connection	☒ AC Mains ☐ DC Mains ☐ External Circuit - not Mains connected - ☐ ES1 ☐ ES2 ☐ ES3
Supply % Tolerance	☒ +10%/-10% ☐ +20%/-15% ☐ + ____ % / - ____ % ☐ None
Supply Connection – Type	☒ pluggable equipment type A - ☐ non-detachable supply cord ☒ appliance coupler ☐ direct plug-in ☐ mating connector ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☐ other: _____
Considered current rating of protective device as part of building or equipment installation	<u>20</u> A; Installation location: ☒ building; ☐ equipment
Equipment mobility.....	☒ movable ☐ hand-held ☐ transportable ☐ stationary ☐ for building-in ☐ direct plug-in ☐ rack-mounting ☒ wall-mounted
Over voltage category (OVC)	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other: _____
Class of equipment	☒ Class I ☐ Class II ☐ Class III
Access location	☐ restricted access location ☒ N/A
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maximum operating ambient:	<u>40</u> °C
IP protection class	☒ IPX0 ☐ IP____
Power Systems	☒ TN ☐ TT ☐ IT - <u>230</u> V L-L (For Norway only)
Altitude during operation (m)	☐ 2000 m or less ☒ <u>5000</u> m
Altitude of test laboratory (m)	☒ 2000 m or less ☐ _____ m
Mass of equipment (kg)	☒ Unit without base stand: Max. 2.75kg for 17 inch models; Max. 3.05kg for 19 inch model; Base stand: 1.13kg for type A; 0.43kg for type B.
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)	
- test object not yet conducted	N/T	
TESTING:		
Date of receipt of test item	19.Sep.2019	
Date (s) of performance of tests	N/A	
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 IEC 60335-1:		
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)	See original report 50306772 001 for the details.	
GENERAL PRODUCT INFORMATION:		
Product Description –		
Description of change(s):		
1. Change model name from “E179E9” to “M179E9” by client’s request; 2. Change rating of model mentioned above to “100-240V~, 50/60Hz, 0.40-0.25A (1.5A for Mexico)” by client’s request.		
For the above described change(s) the following was considered to be necessary :		
Change	Testing	Comments
1.	- N/A	New model M179E9 is identical to model E179E9 except for type designation. No further test was required.
2.	- N/A	New current rating is great than original one, no further test was required.
<u>Other comments:</u>		
Declaration of the manufacturer: the sample(s) submitted for evaluation is (are) representative of the products from each factory.		
History of amendments and modifications:		
Ref. No. 50306772 001 dated Nov. 01, 2019 (original test report)		
Ref. No. 50306772 002 dated Nov. 18, 2019 (amendment)		

Model Differences – see below table for difference among models

Model	Panel size	Power board	Main board	Plastic enclosure and metal enclosure	Stand base
M179E7	17 inch	715G6503	715GA757 with audio-out port	Type A	Type A
M179E9			715GA757 without audio-out port	Type B	Type B
M199E8	19 inch		715GA757 with audio-out port	Type C	Type A

Additional application considerations –

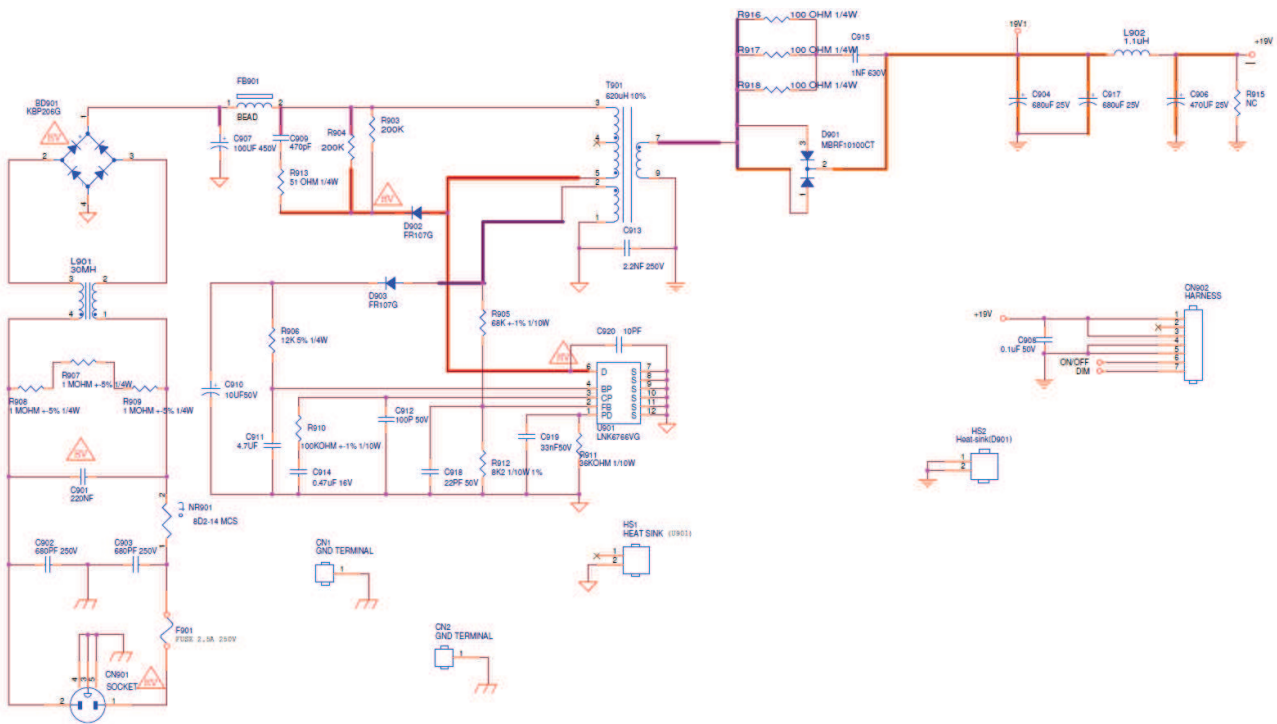
- The product was submitted and tested for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40 °C

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:	
(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.) (Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.)	
Electrically-caused injury (Clause 5): (Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification) Example: +5 V dc input ES1	
Source of electrical energy	Corresponding classification (ES)
Live pin of appliance inlet	ES3
Primary circuit	ES3
+19V, 19V1 outputs of power board	ES1
Electrically-caused fire (Clause 6): (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts): PS2	
Source of power or PIS	Corresponding classification (PS)
Primary circuit	PS3
+19V, 19V1 outputs of power board	PS2
Injury caused by hazardous substances (Clause 7) (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component Glycol	
Source of hazardous substances	Corresponding chemical
N/A	N/A
Mechanically-caused injury (Clause 8) (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.) Example: Wall mount unit MS2	
Source of kinetic/mechanical energy	Corresponding classification (MS)
Sharp edges and corners	MS1
Equipment mass	MS1
Wall mount	MS3
Thermal burn injury (Clause 9) (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure TS1	
Source of thermal energy	Corresponding classification (TS)
Accessible parts	TS1
Radiation (Clause 10) (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1	
Type of radiation	Corresponding classification (RS)
Indicating lights	RS1
Backlight of LCD panel	RS1

ENERGY SOURCE DIAGRAM

Indicate which energy sources are included in the energy source diagram. Insert diagram below

ES3, PS3 (on the left side of T901),
ES1 (on the right side of T901 after D901)
PS2 (+19V/19V1 output)



OVERVIEW OF EMPLOYED SAFEGUARDS

Clause	Possible Hazard			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary person	ES3: L/N pin of appliance inlet	--	--	Bleeder Resistors
Ordinary person	ES3: primary circuit	--	--	Transformers, Y-caps
Ordinary person	ES1: +19V/+19V1 output of SPS	N/A	N/A	N/A
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
Combustible materials inside primary circuit	PS3	Ignition not occur	Fire enclosure	--
Combustible materials supplied by +19V/19V1 output of SPS	PS2	Ignition not occur	Mounted on V-1 min. PCB	--
7.1	Injury caused by hazardous substances			
Body Part	Energy Source	Safeguards		

(e.g., skilled)	(hazardous material)	Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	MS3: Wall mount	--	--	Compliance with test 8.7.2
Ordinary	MS1: Equipment mass	N/A	N/A	N/A
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	TS1: Accessible parts	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	RS1: Indicating lights	N/A	N/A	N/A
Ordinary	RS1: LED backlight of LCD panel	N/A	N/A	N/A
Supplementary Information: (1) See attached energy source diagram for additional details. (2) "N" – Normal Condition; "A" – Abnormal Condition; "S" Single Fault				