Ref. Certif. No.

FI-58290/M1

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

CB TEST CERTIFICATE

Product	LCD Monitor
Name and address of the applicant	TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic & Technological Development Zone, Fuqing, Fujian, China
Name and address of the manufacturer	TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic & Technological Development Zone, Fuqing, Fujian, China
Name and address of the factory	See page 2
Note: *When more than one factory, please report on page 2*	☒ Additional Information on page 2
Ratings and principal characteristics	100 V - 240 V~; 50 Hz / 60 Hz; 1,5 A; Class I
Trademark / Brand (if any)	AOC
Customer's Testing Facility (CTF) Stage used	-
Model / Type Ref.	27B3CA2, 27B3CF2, Q27B3CF2, 27B3HA2, **27B********** (* can be A-Z, a-z, 0-9, blank or symbol +, -, /, \, or sign absence or no mark or no symbol)
Additional information (if necessary may also be reported on page 2)	Modification of FI-58290 dated 2023-11-17, additional of a new model No., power board and main board. Other rating: IPX0; Tma: 40 °C; Max. altitude: 5000 m ☐ Additional Information on page 2
A sample of the product was tested and found to be in conformity with	IEC 62368-1:2018 National Differences: EU Group Differences, AU, NZ, US, CA, SG, SA, CN
As shown in the Test Report Ref. No. which forms part of this Certificate	SZES230900597801, SZES230900597801A1

This CB Test Certificate is issued by the National Certification Body

SGS Fimko Ltd
Takomotie 8
FI-00380 Helsinki, Finland

Date: 2024-01-10

Signature:

Ralf Klingberg
Certification Manager

Ref. Certif. No.

FI-58290/M1

Name and address of the factories:

1. TPV Electronics (Fujian) Co., Ltd.
Rongqiao Economic & Technological Development Zone, Fuqing, Fujian, China

2. TPV Electronics (Fujian) Co., Ltd.
Shangzheng, Yuan Hong Road, Fuqing, Fujian, China

3. TPV Electronics (Fujian) Co., Ltd.
Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing, Fujian, China

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

5. TPV Display Technology (China) Co., Ltd.
No.106 Jinghai 3 Rd., BDA, Beijing, 100176, China

6. TPV Display Technology (Wuhan) Co., Ltd.
Unique No. 11 Zhuankou Development District of Economic Technological Development Zone, Wuhan, Hubei, China

7. Envision Indústria de Produtos Eletrônicos Ltda.
Av. Torquato Tapajós, 2236, Flores, CEP 69058-830, Manaus, AM, Brazil

8. TPV Technology (Thailand) Co., Ltd.
No. 267 Mu7, Tha Tum Sub- District, Si Maha Pho District, Prachinburi, Thailand

SGS Fimko Ltd
Takomotie 8
FI-00380 Helsinki, Finland

Date: 2024-01-10

Signature:

Ralf Klingberg
Certification Manager

Test Report issued under the responsibility of:

TEST REPORT

IEC 62368-1

Audio/video, information and communication technology equipment Part 1: Safety requirements

Report Number. .....:	SZES230900597801A1
Date of issue .....:	2023-11-17; Amendment-1: 2024-01-10
Total number of pages.....:	59 Pages
Name of Testing Laboratory preparing the Report.....:	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch
Applicant's name .....:	TPV Electronics (Fujian) Co., Ltd.
Address .....:	Rongqiao Economic & Technological Development Zone, Fuqing, Fujian, China
Test specification:	
Standard.....:	IEC 62368-1:2018
Test procedure .....:	CB Scheme
Non-standard test method .....:	N/A
TRF template used.....:	IECEE OD-2020-F1:2021, Ed.1.4
Test Report Form No. .....:	IEC62368_1E
Test Report Form(s) Originator ....:	UL(US)
Master TRF.....:	Dated 2022-04-14

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(s) .....:	AOC
Manufacturer.....:	Same as Applicant
Model/Type reference .....:	27B3CA2, 27B3CF2, Q27B3CF2, 27B3HA2, **27B********** (* can be A-Z, a-z, 0-9, blank or symbol +, -, /, \, or sign absence or no mark or no symbol)
Ratings .....:	100 - 240 V ~, 50 / 60 Hz, 1,5 A, Class I

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☒	**CB Testing Laboratory:**	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch	
Testing location/ address..... :		No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China	
Tested by (name, function, signature) ..... :		Emily Wang / Project Engineer	Emily Wang
Approved by (name, function, signature) .. :		Ruby Yan / Report Reviewer	Ruby Yan
☐	**Testing procedure: CTF Stage 1:**		
Testing location/ address..... :			
Tested by (name, function, signature) ..... :			
Approved by (name, function, signature) .. :			
☐	**Testing procedure: CTF Stage 2:**		
Testing location/ address..... :			
Tested by (name, function, signature)			
Witnessed by (name, function, signature). :			
Approved by (name, function, signature) .. :			
☐	**Testing procedure: CTF Stage 3:**		
☐	**Testing procedure: CTF Stage 4:**		
Testing location/ address..... :			
Tested by (name, function, signature) ..... :			
Witnessed by (name, function, signature). :			
Approved by (name, function, signature) .. :			
Supervised by (name, function, signature) :			

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

Attachment 1: 6 pages of Photos.

Attachment 2: 4 pages of Construction of Transformer.

Summary of testing:

The sample(s) tested complies with the requirements of IEC 62368-1:2018.

Representative model(s) for full testing: 27B3CA2.

Heating test: Tma = 40 °C (Declared by manufacturer).

T-type thermocouple used for temperature measurement.

Operation mode under test: Unless otherwise specified, all tests were carried out with three vertical bar products three equidistant vertical white bars on a black background and maximum brightness and contrast.

Tests performed (name of test and test clause):	**Testing location:**
☐ 4. General requirements	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch
☒ 5. Electrically-caused injury	No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China
☒ 6. Electrically-caused fire	
☐ 7. Injury caused by hazardous substances	
☐ 8. Mechanically-caused injury	
☒ 9. Thermal burn injury	
☐ 10. Radiation	
☒ Annex B. Normal operating condition tests, abnormal operating condition tests and single fault condition tests	
☐ Annex F.3.9. Performance of Marking test	
☐ Annex M. Equipment Containing Batteries And Their Protection Circuits	
☐ Annex P.4 Metallized coatings and adhesive securing parts	
☒ Annex Q. Limited Power Source	
☐ Annex T. Mechanical strength tests	
☒ Annex V. Determination of accessible parts	

Summary of compliance with National Differences (List of countries addressed):

EU Group Differences, AU, NZ, US, CA, SG, SA, CN, GB

☒ **The product fulfils the requirements of EN IEC 62368-1:2020+A11:2020, AS/NZS 62368.1:2022, UL 62368-1: 2019 Ed.3, CSA C22.2 No. 62368-1: 19 Ed.3, SASO-IEC 62368-1:2020, GB 4943.1-2022, BS EN IEC 62368-1: 2020 + A11: 2020.**

The product fulfils the above requirements, which were considered in original report SZES230900597801.

Use of uncertainty of measurement for decisions on conformity (decision rule) :

☒ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

☐ Other:… (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

Information on uncertainty of measurement:

The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.

IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

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.

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Test item particulars:	
Product group .....:	☒ end product ☐ built-in component
Classification of use by .....:	☒ Ordinary person ☒ Children likely present ☐ Instructed person ☐ Skilled person
Supply connection.....:	☒ AC mains ☐ DC mains ☐ 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 ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector☐ other:
Considered current rating of protective device ..... :	☒ 16 A; 20A for US/CA Location: ☒ building ☐ equipment ☐ N/A
Equipment mobility ..... :	☒ movable ☐ hand-held ☐ transportable ☐ direct plug-in ☐ stationary ☐ for building-in ☒ wall/ceiling-mounted ☐ SRME/rack-mounted ☐ other:
Overvoltage category (OVC) ..... :	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other:
Class of equipment ..... :	☒ Class I ☐ Class II ☐ Class III ☐ Not classified ☐
Special installation location ..... :	☒ N/A ☐ restricted access area ☐ outdoor location☐
Pollution degree (PD) ..... :	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified T_{ma} ..... :	40 °C ☐ Outdoor: minimum °C
IP protection class ..... :	☒ IPX0 ☐ IP___
Power systems ..... :	☒ TN ☒ TT ☐ IT - V_{L-L} ☐ not AC mains
Altitude during operation (m) ..... :	☐ 2000 m or less ☒ 5000 m
Altitude of test laboratory (m) ..... :	☐ 2000 m or less ☒ <120 m
Mass of equipment (kg) ..... :	5,51 kg Max.

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 .....:	Amendment-1: 2023-12-01
Date (s) of performance of tests.....:	Amendment-1: 2023-12-02 to 2023-12-21
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** **Factory declaration letter.pdf, dated on 2023-12-07**
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. Rongqiao Economic & Technological Development Zone, Fuqing, Fujian, China 2. TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road, Fuqing, Fujian, China 3. TPV Electronics (Fujian) Co., Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing, Fujian, China 4. L&T Display Technology (Fujian) Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing, Fujian, China 5. TPV Display Technology (China) Co., Ltd. No.106 Jinghai 3 Rd., BDA, Beijing, 100176, China 6. TPV Display Technology (Wuhan) Co., Ltd. Unique No. 11 Zhuankou Development District of Economic Technological Development Zone, Wuhan, Hubei, China 7. Envision Indústria de Produtos Eletrônicos Ltda. Av. Torquato Tapajós, 2236, Flores, CEP 69058-830, Manaus, AM, Brazil 8. TPV Technology (Thailand) Co., Ltd. No. 267 Mu7, Tha Tum Sub- District, Si Maha Pho District, Prachinburi, Thailand

General product information and other remarks:

Product	27 inch TFT LCD monitor with LED backlight
Functions	Monitor, HDMI, DP, Earphone out, USB ports
Power source	AC mains
Material of enclosure	Plastic enclosure and metallic enclosure covered main board
Other features	Indoor use only
Model Differences:	All models are identical except for model name.

Amendment -1:

The original Test Report Ref. No. SZES230900597801, dated 2023-11-17 was modified on 2024-01-10 to include the following changes and/or additions:

- Added new models “27B3HA2”, which is identical with original model No. 27B3CA2 except for model name;

- Added a new power board(715GE360), see photos for detail;

- Added a new main board (715GE394), see photos for detail.

After comparison, additional tests clause 5.2.2, 5.4, 5.6, 5.7, 6.4.8, 9, Annex B, Annex Q, Annex V were considered necessarily, and still complied with the requirement of standard covered in this report.

CB Test Report Ref. No. SZES230900597801A1, dated 2024-01-10 is valid in use with the original CB Test Report Ref. No. SZES230900597801, dated 2023-11-17 at same time.

Construction	Power board	Main board	Metal enclosure	Stand base
1	715GC478	715GD815 or 715GE394	Type A	Type A or Type B
2	715GE360		Type B	