FI-54802

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

#### **CB TEST CERTIFICATE**

**Product** 

Name and address of the applicant

Name and address of the manufacturer

Name and address of the factory

Note: When more than one factory, please report on page 2

Ratings and principal characteristics

Trademark / Brand (if any)

Customer's Testing Facility (CTF) Stage used

Model / Type Ref.

Additional information (if necessary may also be reported on page 2)

A sample of the product was tested and found to be in conformity with

As shown in the Test Report Ref. No. which forms part of this Certificate

**LCD** Monitor

TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic & Technological Development Zone, Fuqing, 350301, Fujian, China

TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic & Technological Development Zone, Fuqing, 350301, Fujian, China

See page 2

100 V - 240 V, 50 Hz / 60 Hz, 2,0 A; Class I



AG325QX, AG325Q, AG32\*\*\*\*\*\*\*\* (\* can be A-Z, a-z, 0-9, blank or symbol +, -, /, \, or sign absence or no mark or no symbol)

☐ Additional Information on page 2

IEC 62368-1:2014 National Differences:

EU Group Differences, AU, NZ, JP, US, CA

SZES220910584301

This CB Test Certificate is issued by the National Certification Body

SGS Fimko Ltd Takomotie 8 FI-00380 Helsinki, Finland

Signature:

Mark Lohmann Certification Manager SGS

Date: 2022-11-30



# Name and address of the factories:

1. TPV Electronics (Fujian) Co., Ltd.

Ronggiao Economic & Technological Development Zone, Fuqing, 350301, 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. TREND SMART CE MEXICO S. DE R.L. DE C.V.

Sor Juana, Ines de la Cruz No.19602 Nueva, C.P. 23435, Tijuana, Baja California, Mexico

8. Envision Indústria de Produtos Eletrônicos Ltda.

Av. Torquato Tapajós, 2236, Flores, CEP 69058-830, Manaus, AM, Brazil

9. TPV Technology (Thailand) Co., Ltd.

No. 267 Mu7, Tha Tum Sub- District, Si Maha Pho District, Prachinburi, Thailand

10. GeneTouch Corporation

No. 9, Neixi Rd., Luzhu Dist., Taoyuan City, 338012, Taiwan

11. Dixon Technologies (India) Ltd.

EMC-2, Shed No. 2,4,5,6 & 7, Near Tirupati Airport, Village Govindhavaram, Munagalapalem Post, Revenue Vikruthamala, Yerpedu Mandelam, District-Chittoor, 517526, Andhra Pradesh, India

12. Fábrica Austral de Productos Eléctricos S.A.

Islas Malvinas 1180, Rio Grande (9420), Provincia de, Tierra del Fuego, Antártida e Islas del Atlántico Sur, Argentina

SGS Fimko Ltd Takomotie 8 FI-00380 Helsinki, Finland SGS

Date: 2022-11-30

Signature:

Mark Lohmann Certification Manager





# TEST REPORT IEC 62368-1

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

Report Number .....: SZES220910584301

Date of issue.....: 2022-11-30
Total number of pages .....: 81 Pages

Name of Testing Laboratory SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen

preparing the Report .....: Branch

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

350301, Fujian, China

**Test specification:** 

Standard.....: IEC 62368-1:2014

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\_1D

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

Master TRF.....: Dated 2022-04-14

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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)::		NOC		
Manufacturer:		Same as applicant		
		AG325QX, AG325Q, AG32********		
		(* can be A-Z, a-z, 0-9,	(* 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 / 6	0 Hz, 2,0 A, Class I	
Responsible Testing	Laboratory (as applicable), to	esting procedure and t	esting location(s):	
	boratory:	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch		
Testing location/ address:		No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen 518057, Guangdong, China.		
Tested by (name, fur	nction, signature):	Becky Wang / Project Engineer	Beeky Wang	
Approved by (name,	function, signature):	Emily Wang / Report Reviewer	Beeky Wang Emily Woung	
☐ Testing proced	dure: CTF Stage 1:			
Testing location/ address:				
Tested by (name, function, signature):				
Approved by (name, function, signature):				
☐ Testing proced	dure: CTF Stage 2:			
Testing location/ address:				
Tested by (name, function, signature):				
Witnessed by (name, function, signature):				
Approved by (name, function, signature):				
☐ Testing proced	dure: 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):				

Page 3 o	f 81 Report No. SZES220910584301				
List of Attachments (including a total number of pages in each attachment):					
Attachment 1: 11 pages of Photos.					
Attachment 2: 4 pages of Construction of Transformer;					
Attachment 3: 10 pages of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES;					
Attachment 4: 32 pages of Deviations of Australia and New Zealand;					
Attachment 5: 4 pages of Deviations of Japan;					
Attachment 6: 5 pages of Deviations of United State and Canada.					
Summary of testing:					
The sample(s) tested complies with the requirements of	of IEC 62368-1: 2014.				
Representative model(s) for full testing: AG325QZN.					
Heating test: Tma = 40 °C (Declared by manufacturer)					
T-type thermocouple used for temperature measurement.					
· · · · · · · · · · · · · · · · · · ·	vith three vertical bar products three equidistant vertical				
white bars on a black background and maximum brigh	tness and contrast.				
Tests performed (name of test and test clause):	Testing location:				
	SGS-CSTC Standards Technical Services Co., Ltd.				
	Shenzhen Branch				
☑ 6. Electrically-caused fire	No. 1 Workshop, M-10, Middle section, Science &				
7. Injury caused by hazardous substances	Technology Park, Shenzhen 518057, Guangdong, China.				
8. Mechanically-caused injury	Gillia.				
□ 9. Thermal burn injury					
☐ 10. Radiation					
Annex B. Normal operating condition tests,					
abnormal operating condition tests and single fault condition tests					
<ul><li>☑ Annex F.3.9. Performance of Marking test</li><li>☑ Annex M. Equipment Containing Batteries And</li></ul>					
Their Protection Circuits					
securing parts					
☐ Annex T. Mechanical strength tests					
☐ Annex V. Determination of accessible parts					
Summary of compliance with National Differences	(List of countries addressed):				

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

EU Group difference, AU, NZ, JP, US, CA, GB

☑ The product fulfils the requirements of EN 62368-1:2014 + A11:2017, AS/NZS 62368.1:2018, J62368-1 (2020), UL 62368-1: 2014 Ed.2, CSA C22.2 No. 62368-1: 2014 Ed.2, BS EN 62368-1:2014 + A11:2017.

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.

### For model AG325Q:



#### Remark:

- 1. The Height of CE & UKCA logo shall not be less than 5 mm; Height of WEEE logo shall not be less than 7 mm.
- 2. The marking plates as above of other models are of the same pattern.

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:		
	<u>+20%/-15%</u>	
	<u> </u>	
	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:	16 A; 20A for US/CA Installation location: ⊠ building; □ equipment	
Equipment mobility::	movable hand-held transportable	
	stationary  for building-in direct plug-in rack-mounting wall-mounted	
Over veltere esterem (OVC)		
Over voltage category (OVC)::	☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV ☐ other:	
Class of anningment	☐ Class II ☐ Class III	
Class of equipment:	☐ Class II with functional earthing ☐ Not classifed	
Access location:		
	restricted access area N/A	
Pollution degree (PD):	☐ PD 1	
Manufacturer's specified maxium operating	40 ℃	
ambient:	MIDVO DID	
IP protection class:		
Power Systems::	TN TT IT - V L-L; dc mains	
	□ N/A	
Altitude during operation (m):	☐ 2000 m or less ☐ 5000 m	
ltitude of test laboratory (m): □ 2000 m or less □ <120 m		
Mass of equipment (kg):	: 8,49 kg with base stand, Base stand: 2,29 kg	

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:	2022-09-29		
Date (s) of performance of tests:	2022-09-29 to 2022-10-27		
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.  This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a> . Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.			
Manufacturer's Declaration per sub-clause 4.2.5 of l			
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.
- Rongqiao Economic & Technological Development Zone, Fuqing, 350301, 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,
- 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, TREND SMART CE MEXICO S. DE R.L. DE C.V. Sor Juana, Ines de la Cruz No.19602 Nueva, C.P. 23435, Tijuana, Baja California, Mexico
- 8, Envision Indústria de Produtos Eletrônicos Ltda. Av. Torquato Tapajós, 2236, Flores, CEP 69058-830, Manaus, AM, Brazil
- 9, TPV Technology (Thailand) Co., Ltd.
- No. 267 Mu7, Tha Tum Sub- District, Si Maha Pho District, Prachinburi, Thailand
- 10, GeneTouch Corporation
- No. 9, Neixi Rd., Luzhu Dist., Taoyuan City, 338012, Taiwan
- 11, Dixon Technologies (India) Ltd.
- EMC-2, Shed No. 2,4,5,6 & 7, Near Tirupati Airport, Village Govindhavaram, Munagalapalem Post, Revenue Vikruthamala, Yerpedu Mandelam, District-Chittoor, 517526, Andhra Pradesh, India
- 12, Fábrica Austral de Productos Eléctricos S.A. Islas Malvinas 1180, Rio Grande (9420), Provincia de, Tierra del Fuego, Antártida e Islas del Atlántico Sur, Argentina

# General product information and other remarks:

## **Product Description:**

Product	31,5 inch TFT LCD monitor with LED backlight	
Functions	Monitor, HDMI (Optional), DP (Optional), USB (Optional), USB UP(Optional)), AUDIO OUT (Optional)	
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 No.  For model AG32******* (* can be A-Z, a-z, 0-9, blank or symbol +, -, /,  or sign absence or no mark or no symbol, which is not influencing on safety)	

Model Differences: See above.

Additional application considerations – (Considerations used to test a component or sub-assembly)