Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT
IEC 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements

Report Number..... :	**60445700 001**
Date of issue ..... :	Nov. 01, 2021
Total number of pages ..... :	77
Name of Testing Laboratory preparing the Report ..... :	**TÜV Rheinland (Shenzhen) Co., Ltd.**
Applicant's name..... :	**TPV Electronics (Fujian) Co., Ltd.**
Address ..... :	Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian, P.R.China
Test specification:	
Standard ..... :	IEC 62368-1:2018
Test procedure..... :	CB Scheme
Non-standard test method..... :	N/A
TRF template used ..... :	IECEE OD-2020-F1:2020, Ed.1.3
Test Report Form No. ..... :	IEC62368_1E
Test Report Form(s) Originator.... :	UL(US)
Master TRF ..... :	Dated 2021-02-04

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.
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Test item description .....:	LCD MONITOR (LED backlight)
Trade Mark(s) .....:	AOC
Manufacturer.....:	Same as applicant
Model/Type reference .....:	AG275******** (* can be 0-9, A-Z, a-z, – , \ , / , + or blank, represent different enclosure color for marketing purpose only, no technical difference.)
Ratings .....:	I/P: 100-240V~, 50/60Hz, 1.5A

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☒	**CB Testing Laboratory:**	TÜV Rheinland (Shenzhen) Co., Ltd.	
Testing location/ address ..... :		1601-1604, 17-18F, Tower A Building 2, Shenzhen International Innovation Valley, Dashi 1st Road, Xili Street, Xili Community, Nanshan Distrit, Shenzhen 518052, China	
Tested by (name, function, signature) ..... :		Steven Lin Project Handler	
Approved by (name, function, signature) .. :		Anderson Wang Technical Reviewer	
☐	**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: Measurement Section (4 Pages)
- Attachment 2: National Differences (30 Pages)
- Attachment 3: Photo documentation (12 Pages)

Summary of testing:

Tests performed (name of test and test clause):

name of test	test clause number
Classification of electrical energy sources	5.2
Accessibility to electrical energy sources and safeguards (Accessibility test)	5.3.2
Maximum operating temperature test (Heating test)	5.4.1.4, 9.3, B.1.5, B.2.6
Determination of working voltage	5.4.1.8
Ball pressure test	5.4.1.10.3
Minimum Clearance/Creepage distance	5.4.2 and 5.4.3
Humidity test	5.4.8
Electric strength test	5.4.9
Safeguards against capacitance discharge test	5.5.2.2
Resistance of the protective bonding system (Ground continuity test)	5.6.6.2
Earthed accessible conductive part test	5.7.2.2, 5.7.4
Top Openings in Fire Enclosure	6.4.8.3.3
Bottom Openings in Fire Enclosure	6.4.8.3.4
Stability	8.6
Wall or ceiling mount loading test	8.7
Input test	Annex B.2.5
Simulated abnormal operating and single fault conditions	B.3, B.4
Test for permanence of markings	Annex F.3.10
Transformer insulation	G.5.3.2
Transformer overload	G.5.3.3
Safeguards against entry of foreign object	Annex P.2.2
Adhesive test	Annex P.4
Limited power source test (LPS)	Annex Q.1
Steady force test, 10N, 30N, 250N	Annex T.2, T.3, T.5
Enclosure impact test	Annex T.6
Stress relief test	Annex T.8

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 (List of countries addressed):

EU Group Differences, EU Special National Conditions, CA, DK, US

Explanation of used codes: CA=Canada, DK=Demark, US=United States of America

☒ **The product fulfils the requirements of EN IEC 62368-1:2020+ A11:2020 and BS EN IEC 62368-1:2020+ A11:2020.**

For National Differences see corresponding attachment.

Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

☐ **Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:**

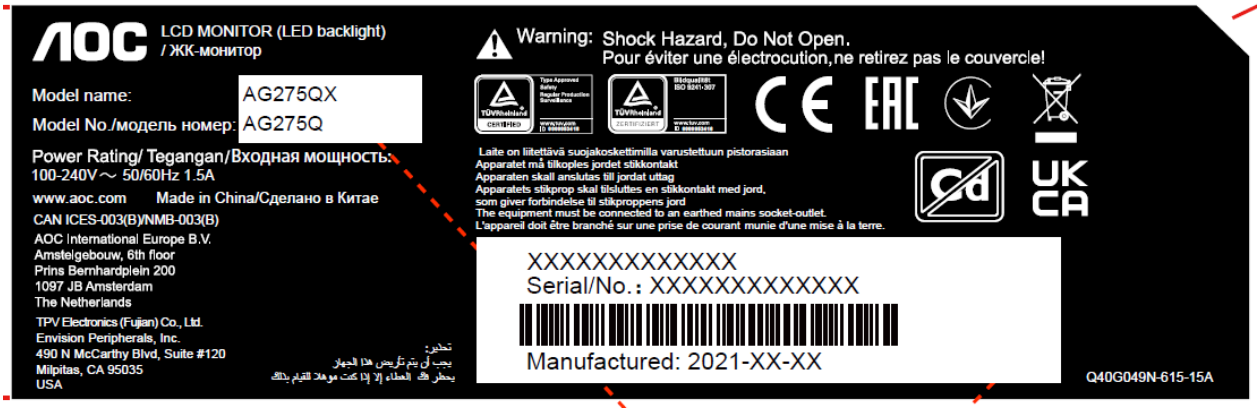
Procedure number, issue date and title:

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

☒ **Statement not required by the standard used for type 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.



Note:
All models' rating labels are in the same design except for type designation. Above labels are representing the other models.

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.....:	☒ 16A (20A for USA and Canada, 13A for British); 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 ☐ m
Mass of equipment (kg) .....:	6.53kg with base type A (base type A weight 1.44kg); 7.74kg with base type B (base type B weight 2.65kg).

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 .....: Aug. 02, 2021

Date (s) of performance of tests.....: Aug. 10, 2021 – Oct. 20, 2021

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**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) ..... :

1 TPV Display Technology (Wuhan) Co., Ltd
Unique No.11 Zhuankou Development District of Economic Technological Development Zone , 430056 Wuhan City, P. R. China

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

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

4 TPV Electronics (Fujian) Co., Ltd.
Rongqiao Economic and Technological Development Zone Fuqing City, Fujian, P.R.China

5 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

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

7 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

8 TPV Technology(Qingdao) Co.,Ltd.
NO.99 Huoju Road, High-tech Industrial Development Zone, Qingdao City, Shandong, P. R. China

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

10 Pro Concept Manufacturer Co., Ltd.
88/1 Moo 12, Soi Phetkasem 120, Phetkasem Road, Omnoi, Krathumbaen, Samutsakhon 74130, Thailand

11 TPV Technology (Thailand) Co., Ltd.
No.267 Mu7, Tha Tum Sub- District, Si Maha Pho District,Prachin Buri Province, Thailand
12 TPV Electronics (Fujian) Co., Ltd.
Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing City, 350301, Fujian, P. R. China
13 GeneTouch Corp.
No. 9 Neixi Rd., Luzhu Dist., Taoyuan City, 33852 Taiwan
14 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, Andhra Pradesh, 517526, India

General product information and other remarks:

Product Description –

The model is an LCD monitor intended for general office use and has following features:

1. LCD Type: 27 inch TFT LCD with LED backlight;
2. Building-in power supply board 715GA321;
3. Main board 715GB818 with HDMI x2, DP x2, Earphone and Quick Switch port, which is supplied by +19V from power board;
4. USB board 715GC428 with USB 3.2 upstream port, USB 3.2 downstream port x3 and USB fast charging port, which is all secondary circuits;
5. LED lamp board (two provided), which is all secondary circuits;
6. The internal metal chassis is considered as fire enclosure and mechanical enclosure, and the external plastic enclosure is regarded as electrical enclosure and mechanical enclosure, made of min. HB material;
7. Base stand (optional use), made of metal and min. HB material;
8. Two speaker sets (optional use), each max. 8Ω, 10W;
9. Maximum declared ambient: 40°C.

Model Differences –

All models are identical except for different enclosure color and type designation.

Definition of variable(s):

Variable:	Range of variable:	Content:
*	0-9, A-Z, a-z, – , \ , / , + or blank	represent different enclosure color for marketing purpose only, no technical difference.

Additional information:
All data ports on main board are optional use, and at least one of HDMI or DP was used.

OVERVIEW OF ENERGY SOURCES AND SAFEGUARDS				
Clause	**Possible Hazard**			
5	Electrically-caused injury			
Class and Energy Source (e.g. ES3: Primary circuit)	Body Part (e.g. Ordinary)	Safeguards		
		B	S	R
Ordinary	ES3: L/N pin of appliance inlet	--	--	Discharge IC
Ordinary	ES3: Primary circuit	Air gap	Earthed metal enclosure	Transformer, photo coupler, Y1 capacitor
Ordinary	ES1: +19V output of power board	N/A	N/A	N/A
Ordinary	ES1: Plastic/Metal enclosure	N/A	N/A	N/A
6	Electrically-caused fire			
Class and Energy Source (e.g. PS2: 100 Watt circuit)	Material part (e.g. Printed board)	Safeguards		
		B	1st S	2nd S
Combustible materials within equipment	PS3: > 100 Watt circuit (Primary circuits)	Ignition not occur	Fire enclosure	--
	PS2: < 100 Watt circuit (Secondary circuits)	Ignition not occur	Mounted on V-1 min. PCB	--
Internal wiring material	PS3: > 100 Watt circuit (Primary circuits) PS2: < 100 Watt circuit (Secondary circuits)	Ignition not occur	see sub-clause 6.5 for detail	N/A
7	Injury caused by hazardous substances			
Class and Energy Source (e.g. Ozone)	Body Part (e.g., Skilled)	Safeguards		
		B	S	R
N/A	N/A	N/A	N/A	N/A
8	Mechanically-caused injury			
Class and Energy Source (e.g. MS3: Plastic fan blades)	Body Part (e.g. Ordinary)	Safeguards		
		B	S	R
Ordinary	MS3: Wall mount	--	--	Compliance with test 8.7.2
Ordinary	MS1: Edges and corners	N/A	N/A	N/A
Ordinary	MS2: Equipment mass	N/A	N/A	Compliance with test 8.6
9	Thermal burn			
Class and Energy Source	Body Part	Safeguards		

(e.g. TS1: Keyboard caps)	(e.g., Ordinary)	B	S	R
Ordinary	TS1: Accessible parts	N/A	N/A	N/A
10	Radiation			
Class and Energy Source (e.g. RS1: PMP sound output)	Body Part (e.g., Ordinary)	Safeguards		
		B	S	R
Ordinary	RS1: Indicating lights	N/A	N/A	N/A
Ordinary	RS1: LED backlight of LCD panel	N/A	N/A	N/A
Ordinary	RS1: LED lamp bead	N/A	N/A	N/A
Supplementary Information: “B” – Basic Safeguard; “S” – Supplementary Safeguard; “R” – Reinforced Safeguard				

ENERGY SOURCE DIAGRAM
Optional. Manufacturers are to provide the energy sources diagram identify declared energy sources and identifying the demarcations are between power sources. Recommend diagram be provided included in power supply and multipart systems. Insert diagram below. Example diagram designs are; Block diagrams; image(s) with layered data; mechanical drawings
See table “OVERVIEW OF ENERGY SOURCES AND SAFEGUARDS” on previous page for details ☒ **ES** ☒ **PS** ☒ **MS** ☒ **TS** ☒ **RS**