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 ..... :	CN210AKB 004
Date of issue ..... :	22.Jun.2022
Total number of pages ..... :	49
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-F1:2021, 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 (LED backlight)
Trade Mark(s) .....:	AOC
Manufacturer.....:	Same as applicant
Model/Type reference .....:	U34P2*******, Q34P2********, 34P2********, U34E2*******, Q34E2********, 34E2********, C*34E2*********, C34E2********* , C*34P2*********, C34P2*********, U34G3********, Q34G3********, 34G3********, C*34G3********; U32P2********, Q32P2********, 32P2********, C*32P2*********, C32P2*********, U32E2********, Q32E2********, 32E2********, C*32E2*********, C32E2*********, U32G3********, Q32G3********, 32G3********, C*32G3********, U32N3********, Q32N3********, 32N3******** (* can be 0-9, A-Z, a-z, –, \, /, + or blank for marketing purpose only, no technical difference.)
Ratings .....:	I/P: 100-240V~, 50/60Hz, 1.5A or 2.0A

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☐	**CB Testing Laboratory:**	TÜV Rheinland (Shenzhen) Co., Ltd.	
Testing location/ address ..... :		CTF Stage 1 procedure used. For address of testing location see “Test procedure: CTF Stage 1” below.	
Tested by (name, function, signature) ..... :			
Approved by (name, function, signature) .. :			
☒	**Testing procedure: CTF Stage 1:**	TPV Electronics (Fujian) Co., Ltd.	
Testing location/ address ..... :		Shangzheng, Yuan Hong Road Fuqing City, Fujian, P.R.China	
Tested by (name, function, signature) ..... :		Crystal Xu Project Engineer	Crystal Xu
Approved by (name, function, signature) .. :		Anderson Wang Technical Reviewer	
☐	**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):

- Photo documentation (1 Page)
- Measurement Section (3 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
Minimum Clearances/Creepage distance	5.4.2, 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
Unearthed accessible conductive part test	5.7.4
Earthed accessible conductive part test	5.7.5
Electrical Power Source (PS) measurements for classification	6.2.2
Input test	Annex B.2.5
Abnormal operating and fault condition tests	Annex B.3, B.4
Adhesive test	Annex P.4
Limited power source test (LPS)	Annex Q.1
Steady force test, 10N	Annex T.2

The EUT passed the test.

Testing location:

1) All tests as described in Test Case and Measurement Sections were performed at the CTF stage 1 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.

See original report CN210AKB 001 for the details.

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:

See original report CN210AKB 001 for the details.

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 ..... :	☒ 20 A; 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) ..... :	For 34.0 inch models with base type A: 9.85kg; For 31.5 inch models with base type A: 9.63kg; Base stand type A: 3.16kg; Base stand type B: 1.48kg; Base stand type C: 1.66kg; Base stand type D: 2.77kg; Base stand type E: 3.07kg.

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 .....: 23.May.2022

Date (s) of performance of tests .....: 07.Jun.2022 - 16.Jun.2022

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) ..... : See original report CN210AKB 003 for the details.

General product information and other remarks:

Description of change(s):

1. Add new power board 715GA864 for 34.0 inch models, which is used with main board 715GA661 and 715GD177;
2. Add information of metal enclosure in "Table 2: Construction details" as mentioned below, due to missing in original report CN210AKB 001-003;
3. Correct "Base type C can be rotated clockwise and anti-clockwise" to "Base type C is height adjustable only" due to typing error in original report CN210AKB 001.

Table 1: For the above described change(s) the following was considered to be necessary :

Change	Testing	Comments
1.	- See Summary of testing on Page 3 for the details.	See following pages for the details.
2.	- N/A	See Page 7 for the details
3.	-N/A	See below table 2 for the details.

Table 2: Construction details

Models	Power board	Main board	USB board	Base	Metal enclosure
U34P2*******, Q34P2********, 34P2********, U34E2*******, Q34E2********, 34E2********, C*34E2*********, C34E2*********, C*34P2*********, C34P2*********, U34G3********, Q34G3********, 34G3********, C*34G3********	715GB321	715GA732	N/A	Type A Type B Type C	Type A Type B Type C
	715GB240	715G9485 715G9823 715G9584	N/A		
	715GB314	715GB273 715GB058	715GB001		
		715GA661	715GB017		
	715GC894	715GA661 715GD177	715GB017	Type C Type E	Type D
	715GC778	715GB058	715GB001	Type E	Type E
	715GA864	715GA661 715GD177	N/A	Type B Type C	Type C
U32P2********, Q32P2********, 32P2********, C*32P2*********, C32P2*********, U32E2********, Q32E2********, 32E2********, C*32E2*********, C32E2*********, U32G3********, Q32G3********, 32G3********, C*32G3********. U32N3********, Q32N3********, 32N3********	715GB240	715G9823	N/A	Type A Type B Type C Type D	Type A Type B Type C
	715GB314	715GA732	N/A		
		715G9823 715GA732	715GB017		
		715GA987 715GB058	715GB001		
Note: The USB board and speakers are optional used.					

History of amendments and modifications:
Ref. No. CN210AKB 001, dated 12.Jul.2021 (Original report)
Ref. No. CN210AKB 002, dated 18.Feb.2022 (Modification)
Ref. No. CN210AKB 003, dated 06.May.2022 (Modification)
Ref. No. CN210AKB 004, dated 22.Jun.2022 (Modification)

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
ES3: L/N pin of appliance inlet	Ordinary	--	--	Bleeder resistors
ES3: Primary circuit	Ordinary	Air gap	Plastic enclosure	Transformer, Y-caps, Photo Couplers
ES1: +19V output of SPS	Ordinary	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
PS3: >100 watt circuit	Combustible materials inside power board	Ignition not occur	Fire enclosure	--
PS2: <100 Watt circuit	Combustible materials supplied by +19V outputs of SPS	Ignition not occur	Mounted on V-1 min. PCB	--
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
MS3: Wall mount	Ordinary	--	--	Compliance with test 8.7.2
MS2: Equipment mass	Ordinary	N/A	N/A	Compliance with test 8.6
MS1: Edges and corners	Ordinary	N/A	N/A	N/A
9	Thermal burn			
Class and Energy Source (e.g. TS1: Keyboard caps)	Body Part (e.g., Ordinary)	Safeguards		
		B	S	R
TS1: Accessible parts	Ordinary	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
RS1: Indicating lights	Ordinary	N/A	N/A	N/A
RS1: LED backlight of LCD	Ordinary	N/A	N/A	N/A