



TEST REPORT IEC 62368-1

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

 Report Number......:
 CN224XD3 001

 Date of issue:
 Sep.23.2022

Total number of pages: 83

Name of Testing Laboratory

preparing the Report : TÜV Rheinland (Shenzhen) Co., Ltd.

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

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

Copyright © 2022 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System). All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

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 N	Nonitor	
Trad	e Mark(s):	AOC		
Man	ufacturer:	Same	as applicant	
	el/Type reference:	9, A-Z	3X, U32G3******, CU32G3 , a-z, –, /, + or blank for m cal difference.) 10-240V~, 50/60Hz, 1.5A	K, CU32G3******* (* can be 0- arketing purpose only, no
Katii	ngs:	1/2. 10	10-240 V~, 50/00 HZ, 1.5A	
Resp	oonsible Testing Laboratory (as a	pplicat	ole), testing procedure and	d testing location(s):
	CB Testing Laboratory:		TÜV Rheinland (Shenzhen	
Test	ing location/ address	:	1601-1604, 17-18F, Tower International Innovation Va Street, Xili Community, Sho District, China	lley, Dashi 1st Road, Xili
Test	ed by (name, function, signature)	:	Same as below	
App	roved by (name, function, signatu	re) :	Same as below	
	Testing procedure: CTF Stage 1:		TD\/ Flactronics /Fujion\ Co	\ I #d
⊠ Tast	<u> </u>		TPV Electronics (Fujian) Co	
rest	ing location/ address	:	Shangzheng, Yuan Hong F P.R.China	Road Fuqing City, Fujian,
Test	ed by (name, function, signature)	:	Crystal Xu Project Engineer	Grystal Xu
Аррі	roved by (name, function, signatu	re):	Anderson Wang Technical Reviewer	
П	Testing procedure: CTF Stage 2:			
Test	ing location/ address			
Test	ed by (name, function, signature)			
Witn	essed by (name, function, signate	ure).:		
Аррі	roved by (name, function, signatu	re) :		
	Taction was as down OTE Otama 2			
	Testing procedure: CTF Stage 3:			
<u> </u>	Testing procedure: CTF Stage 4:			
Test	ing location/ address	:		
Test	ed by (name, function, signature)	:		
Witn	essed by (name, function, signate	ure).:		
Арр	roved by (name, function, signatu	re):		
Supe	ervised by (name, function, signate	ture) :		

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

- Measurement Section (4 Pages)
- National Differences (33 Pages)
- Other National Requirements (7 Pages)
- Photo documentation (8 Pages)

Summary of testing:

Tests performed (name of test and test clause):

Classification of electrical energy sources Accessibility to electrical energy sources and safeguards (Accessibility test) Maximum operating temperature test Heating test) Determination of working voltage Ball pressure test Minimum Clearances/Creepage distance Humidity test Electric strength test Safeguards against capacitance discharge est Resistance of the protective bonding system (Ground continuity test) Jinearthed accessible parts Electrical Power Source (PS) measurements for classification Top Openings in Fire Enclosure Bottom Openings in Fire Enclosure Safeguards and fault condition tests Annex Electrical Power and fault condition tests Annex Electrical Powermanence of markings	
Asafeguards (Accessibility test) Maximum operating temperature test (Heating test) Determination of working voltage Sall pressure test Minimum Clearances/Creepage distance Humidity test Electric strength test Safeguards against capacitance discharge est Resistance of the protective bonding system (Ground continuity test) Jonearthed accessible parts Electrical Power Source (PS) measurements for classification Fop Openings in Fire Enclosure Stability Mall or ceiling mount loading test Abnormal operating and fault condition tests Annex Entering the stable state of the protective state of the protective bonding system 5.4.2.2 5.4.9 5.4.9 5.5.2.2 6.6.6 6.7.4 6.2.2 6.4.8.3 6.2.2 6.4.8.3 6.4.8.3 6.4.8.3	0.3
Determination of working voltage 5.4.1.8 Ball pressure test Minimum Clearances/Creepage distance Humidity test Electric strength test 5.4.9 Safeguards against capacitance discharge est Resistance of the protective bonding system Ground continuity test) Jonearthed accessible parts Electrical Power Source (PS) measurements or classification Top Openings in Fire Enclosure Stability Wall or ceiling mount loading test Abnormal operating and fault condition tests 5.4.1.10 5.4.1.10 5.4.1.10 5.4.2.5 5.4.2.5 5.4.8 5.4.9 5.5.2.2 6.5.2.2 6.6.6 6.7.4 6.6.6 6.7.5 6.6.6 6.7.5	0.3
Sall pressure test Minimum Clearances/Creepage distance Humidity test Safeguards against capacitance discharge est Resistance of the protective bonding system Ground continuity test) Jonearthed accessible parts Electrical Power Source (PS) measurements for classification Fop Openings in Fire Enclosure Soltom Openings in Fire Enclosure Stability Mall or ceiling mount loading test Abnormal operating and fault condition tests 5.4.2, 5 5.4.8 5.4.9 5.5.2.2 5.5.2.2 6.6.6 6.7.4 6.7.5 6.2.2 6.4.8.3. 6.4.8.3. 6.4.8.3. 6.4.8.3.	
Minimum Clearances/Creepage distance Ground continuity test Electrical Power Source (PS) measurements for classification Top Openings in Fire Enclosure Stability Mall or ceiling mount loading test Abnormal operating and fault condition tests 5.4.2 5.4.8 5.4.8 5.4.9 5.5.2.2 5.5.2.2 5.5.2.2 5.5.2.2 5.6.6 6.2.2 6.4.8.3 6.2.2 6.4.8.3 6.4.8.3 6.4.8.3	
Humidity test Electric strength test Safeguards against capacitance discharge est Resistance of the protective bonding system Ground continuity test) Jnearthed accessible parts Earthed accessible conductive part test Electrical Power Source (PS) measurements for classification Fop Openings in Fire Enclosure Sottom Openings in Fire Enclosure Stability Wall or ceiling mount loading test Abnormal operating and fault condition tests 5.4.8 5.4.9 5.4.9 5.4.9 5.4.9 6.2.2 6.4.8 6.2.2 6.2.2 6.4.8.3 6.4.8.3 6.4.8.3	4.3
Electric strength test Safeguards against capacitance discharge est Resistance of the protective bonding system Ground continuity test) Jonearthed accessible parts Earthed accessible conductive part test Electrical Power Source (PS) measurements or classification Top Openings in Fire Enclosure South Openings in Fire Enclosure Stability Wall or ceiling mount loading test Abnormal operating and fault condition tests 5.4.9 5.4.9 5.4.9 5.4.9 5.4.9 6.4.8.2 6.4.8.3 6.2.2 6.4.8.3 6.4.8.3 6.4.8.3 6.4.8.3 6.4.8.3	
Safeguards against capacitance discharge est Resistance of the protective bonding system Ground continuity test) Jonearthed accessible parts Earthed accessible conductive part test Electrical Power Source (PS) measurements for classification Fop Openings in Fire Enclosure Sottom Openings in Fire Enclosure Stability Wall or ceiling mount loading test Abnormal operating and fault condition tests 5.5.2.2 5.6.6 6.2.2 6.2.2 6.4.8.3. 8.6 8.7 Annex Enclosure Annex Enclosure	
Resistance of the protective bonding system (Ground continuity test) Unearthed accessible parts Earthed accessible conductive part test Electrical Power Source (PS) measurements or classification Top Openings in Fire Enclosure Sottom Openings in Fire Enclosure Stability Wall or ceiling mount loading test Abnormal operating and fault condition tests Annex Enterprise (PS) (PS) (PS) (PS) (PS) (PS) (PS) (PS)	
Ground continuity test) Jonearthed accessible parts Earthed accessible conductive part test Electrical Power Source (PS) measurements or classification Fop Openings in Fire Enclosure Sottom Openings in Fire Enclosure Stability Wall or ceiling mount loading test Abnormal operating and fault condition tests Annex Enterprise 5.7.4 5.7.5 6.2.2 6.4.8.3. 8.6 8.7 Annex Enterprise Annex Ente	
Earthed accessible conductive part test 5.7.5 Electrical Power Source (PS) measurements or classification Fop Openings in Fire Enclosure 6.4.8.3. Bottom Openings in Fire Enclosure 6.4.8.3. Stability 8.6 Wall or ceiling mount loading test Approximate the stable of the stable o	
Electrical Power Source (PS) measurements or classification Fop Openings in Fire Enclosure Bottom Openings in Fire Enclosure 6.4.8.3. Stability 8.6 Wall or ceiling mount loading test Annex Enclosure Abnormal operating and fault condition tests Annex Enclosure	
For classification For Openings in Fire Enclosure 6.4.8.3. Bottom Openings in Fire Enclosure 6.4.8.3. Stability 8.6 Wall or ceiling mount loading test Annex Enclosure Abnormal operating and fault condition tests Annex Enclosure	
Sottom Openings in Fire Enclosure 6.4.8.3. Stability 8.6 Wall or ceiling mount loading test 8.7 nput test Annex II Abnormal operating and fault condition tests Annex II	
Stability 8.6 Wall or ceiling mount loading test 8.7 nput test Abnormal operating and fault condition tests Annex I	3
Wall or ceiling mount loading test 8.7 nput test Abnormal operating and fault condition tests Annex 6	4
nput test Annex E Abnormal operating and fault condition tests Annex E	
Abnormal operating and fault condition tests Annex I	
1 3	3.2.5
Test for permanence of markings Annex I	3.3, B.4
1 9	
Safeguards against entry of foreign object Annex I	3.10
Adhesive test Annex I	
Limited power source test (LPS) Annex (2.2.2
Steady force test, 10N, 30N, 250N Annex	P.2.2 P.4
Enclosure impact test Annex	P.2.2 P.4
Stress relief test Annex	P.2.2 P.4 Q.1 T.2, T.3, T.5

Testing location:

- All tests except Clause 5.4.1.10.3 and Clause 8.7 as described in Test Case and Measurement Sections were performed at the CTF stage 1 described on page 2.
- 2) Clause 5.4.1.10.3 and Clause 8.7 test was performed at CB Testing Laboratory described on page 2.

The EUT passed the test.

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

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

Explanation of used codes: CA=Canada, DK=Demark, FR=France, SG=Singapore, US=United States of America

The product fulfils the requirements of <u>EN IEC 62368-1:2020+ A11:2020</u> and <u>BS EN IEC 62368-1:2020+ A11:2020</u>.

For National Differences see corresponding Attachment.

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.



Note: All models rating label are similar except for type designation. Above labels are representing the other models.