TÜV Rheinland (China) Ltd. Member of TÜV Rheinland Group



TPV Electronics (Fujian) Co., Ltd. Mr. Xinliang Wu RD-SE Rongqiao Economic and Technological Development Zone Fuqing City, Fujian Province P. R. China Date : 29.09.2019 Our ref. : WangAn SZ Your ref.: 168130618

Ref : CB Certificate Japan

Type of Equipment : LCD Monitor Model Designation : See Certificate Certificate No. : JPTUV-089333-M1 Report No. : 17061237 002

Dear Mr. Xinliang Wu,

Thank you very much for your interest in our services.

Please find enclosed your certification documents.

We appreciate your support and would like to offer our assistance in the approval of your future products through our extensive range of technical services.

Please feel free to contact us whatever your requirements may be.

With kind regards,

Certification Body

Aegean Li

Enclosure

证书的详细资料请登陆www.certipedia.com查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

TÜV Rheinland (China) Ltd. 莱茵检测认证服务(中国)有限公司

Unit 707, AVIC Bldg., No. 10B, Central Road, East 3rd Ring Road, Chaoyang District, Beijing, 100022, P.R.China 北京市朝阳区东三环中路乙10号 艾维克大厦707室 邮编:100022

Tel: (8610)6566 6660 Fax: (8610)6566 6667 e-mail: info@bj.chn.tuv.com Internet: http://www.chn.tuv.com



Ref. Certif. No.

JPTUV-089333-M1

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

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product Produit	LCD Monitor
Name and address of the applicant Nom et adresse du demandeur	TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P. R. China
Name and address of the manufacturer Nom et adresse du fabricant	TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P. R. China
Name and address of the factory Nom et adresse de l'usine	See additional page(s)
Ratings and principal characteristics Valeurs nominales et charactéristiques principales	AC 100-240V; 50/60Hz; 1.5A; Class I
Trademark (if any) Marque de fabrique (si elle existe)	AOC
Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur	N/A
Model / Type Ref. Ref. de type	32G1, **32G1********, 32G2, Q32G2, **32G2******* (* = 0-9, A-Z, a-z, +, -, /, \ or blank)
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiqués sur la 2 ^{ème} page)	For model differences, refer to the test report. Re-issue of JPTUV-089333 dated 10.07.2018, due to first modification.
A sample of the product was tested and found to be in conformity with Un échantillon de ce produit a été essayé et a été considéré conforme à la	IEC 60950-1:2005+A1+A2 See Test Report for National Differences
As shown in the Test Report Ref. No. which forms part of this Certificate Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat	17061237 002
This CB Test Certificate is issued by the National Certification Ce Certificat d'essai OC est établi par l'Organisme National c	n Body le Certification



TÜV Rheinland Japan Ltd. Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021 Japan Phone + 81 45 914-3888 Fax + 81 45 914-3354 Mail: info@jpn.tuv.com Web: www.tuv.com

Signature:

Aegean Li

10/061 CB 05.12

Ref. Certif. No.



JPTUV-089333-M1

PAGE 2 OF 3 1. TPV Display Technology (Wuhan) Co., Ltd. Unique No. 11, Zhuankou Development District of Economic Technological Development Zone, Wuhan City 430056, P. R. China 2. TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road Fuqing City, Fujian Province P. R. China 3. L&T Display Technology (Fujian) Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone Fuqing, Fujian 350301, P. R. China 4. TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone Fuqing City, Fujian Province P. R. China 5. 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 6. 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 7. TPV Technology (Qingdao) Co., Ltd. No.99 Huoju Road, High-tech Industrial Development Zone Qingdao City, Shandong Province, P. R. China TPV Display Technology (China) Co., Ltd.
 No. 106 Jinghai 3 Rd., BDA Beijing City 100176 P. R. China 9. TPV Electronics (Fujian) Co., Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province 350301, P. R. China Additional information (if necessary) Report Ref. No.: 17061237 002 Information complémentaire (si nécessaire) Date: 29.09.2019 Aegean Li Signature:

10/061a 8.06

Ref. Certif. No.



JPTUV-089333-M1

PAGE 3 OF 3

- Envision Indústria de Produtos Eletrônicos Ltda.
 Av. Torquato Tapajós, 2236, Flores - CEP 69058-830 - Manaus/AM Brazil
- Pro Concept Manufacturer Co., Ltd 88/1 Moo 12, Soi Phetkasem120, Phetkasem Road, Omnoi, Krathumbaen, Samutsakhon 74130, Thailand
- Treeview Co., Ltd. 106/29 Moo 8, Sukhumvit Road, T.Banglamung, A.Banglamung, Chonburi 20150 Thailand
- TPV Technology (Thailand) Co., Ltd. Tambon Tha Turn, Amphoe Si Maha Phot, Chang Wat Prachin Buri 25140 Thailand

Additional information (if necessary) Information complémentaire (si nécessaire)

Report Ref. No.: 17061237 002

8.06

10/061a

Aegean Li



Test Report issued under the responsibility of:



TEST REPORT

IEC 60950-1 Information technology equipment – Safety – Part 1: General requirements

Report Number	17061237 002
Date of issue	27.Sep.2019
Total number of pages	9 pages

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 Province, P.R. China
Test specification:	
Standard	IEC 60950-1:2005, AMD1:2009, AMD2:2013
Test procedure:	CB Scheme

 Non-standard test method......
 N/A

 Test Report Form No......
 IEC60950_1G

 Test Report Form(s) Originator.....:
 SGS Fimko Ltd

Master TRF: Dated 2019-07-02

Copyright © 2019 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 Monitor
Trade Mark	AOC
Manufacturer	Same as applicant
Model/Type reference:	32G1, **32G1*******, 32G2, Q32G2, **32G2 ******* (* can be 0-9, A-Z, a-z, "+", "-", "/", "\" or blank, Represent different enclosure color and sales region for marketing purpose. No technology differences)
Ratings:	I/P: 100-240V∼, 50/60Hz, 1.5A

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):					
СВТ	esting Laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Testing lo	cation/ address:	East of F/1, F/2~F/4, Building 1, Cybio Technology Building No. 6 Langshan No.2 Road, North Hi-tech Industry Park 518057 Shenzhen Nanshan District CHINA			
Tested by	(name, function, signature) :	Anderson Wang Senior Project Manager	And		
Approved	by (name, function, signature) :	Steven Lin Technical Reviewer	Gen Ci		
Teeti	na naooduro. CTE Store 1.				
	ng procedure: CTF Stage 1:				
Testing lo	cation/ address:				
Tested by	(name, function, signature) :				
Approved	by (name, function, signature) :				
Testi	ng procedure: CTF Stage 2:				
Testing lo	cation/ address:				
Tested by	(name + signature):				
Witnessed	I by (name, function, signature). :				
Approved	by (name, function, signature) :				
		1			
L Testi	ng procedure: CTF Stage 3:				
Testi	ng procedure: CTF Stage 4:				
Testing lo	cation/ address:				
Tested by	(name, function, signature):				
Witnessed	I by (name, function, signature) . :				
Approved	by (name, function, signature) :				
Supervise	d by (name, function, signature) :				

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

- Photo documentation (1 Page)

Summary of testing:

Tests performed (name of test and test clause):				
	name of test	test clause number		
	Input Current Test	1.6.2		
	Stability test	4.1		
	Maximum Temperature Test	4.5.2		

Testing location:

All tests as described in Test Case and Measurement Sections were performed at the 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, EU A-Deviations, AT, AU, BE, CA, CH, CN, CZ, DE, DK, FI, FR, GB, GR, HU, IT, IL*, JP, KR*, NL, NO, PL, SE, SI, SK, US

Explanation of used codes: AT=Austria, AU=Australia, BE=Belgium, CA=Canada, CH=Switzerland, CN=China, CZ=Czech Republic, DE=Germany, DK=Denmark, FI=Finland, FR=France, GB=United Kingdom, GR=Greece, HU=Hungary, IT=Italy, IL=Israel, JP=Japan, KR=Korea, NL=The Netherlands, NO=Norway, PL=Poland, SE=Sweden, SI=Slovenia, SK=Slovakia, US=United States of America

For National Differences see end of this test report.

* National differences to IEC 60950-1:2005 (Second Edition) + Am 1:2009 evaluated.

The product fulfils the requirements of EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013.

For National Differences see corresponding Attachment of original report 17061237 001.

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.

LCD MONITOR (LED backlight) /ЖК-монитор	Warning: Shock Hazard, Do Not Open. Pour éviter une électrocution, ne retirez pas le couvercle!				
- Product No.: CQ32G2E - Model No./модель номер: Q32G2					
Power Rating/ Tegangan/Bxoдµaя мощность: 100-240V ~ 50/601Fz 1.5A www.aoc.com Made in China/Cделано в Китае CAN ICES-3(B)/NMB-3(B) Late on litettavia suojakoskettimila varustettuun pistorasiaan Apparaten skall ansktas till jorda utag Apparates silarop skall utag Apparates silarop skall utag Apparates silarop skall utag Apparates silarop skall solutes en situkontakt med jord, som giver forbindebe til sitäproppens jord The equipment must be connected to an earthed mains socket-outlet. L'apparate doit être branché sur une prise de courant munie d'une mise à la tere. Q4060032N-815-73A	Envision Peripherals, Inc. 490 N McCarthy Blvd, Suite #120 Mipitas, CA 95035 USA TPV Electronics (Fujian) Co, Ltd. AOC International Europe B.V. Arnsteigebouw, 6th floor Prins Bernhardpielin 200 1097 JB Amster The Netherlands Manufactured: 201X-XX-XX				
See original report 17061237 001 for original rating label.					

Test item particulars:	
Equipment mobility:	 [x] movable (for unit with base stand) [] hand-held [] transportable [x] stationary (for unit without base stand) [] for building-in [] direct plug-in
Connection to the mains:	 [x] pluggable equipment [x] type A [] type B [] permanent connection [x] detachable power supply cord [] non-detachable power supply cord [] not directly connected to the mains
Operating condition:	[x] continuous [] rated operating / resting time:
Access location:	[x] operator accessible [] restricted access location
Over voltage category (OVC):	[] OVC I [x] OVC II [] OVC III [] OVC IV [] other:
Mains supply tolerance (%) or absolute mains	
supply values:	$\pm 10\%$ according to client's request
Tested for IT power systems:	[] Yes [x] No
IT testing, phase-phase voltage (V):	N/A
Class of equipment:	[x] Class I [] Class II [] Class III [] Not classified
Considered current rating of protective device as	
part of the building installation (A)	16A (20A for North America)
Pollution degree (PD)	[] PD 1 [x] PD 2 [] PD 3
IP protection class	IPX0
Altitude during operation (m):	Up to 5000
Altitude of test laboratory (m):	Less than 2000
Mass of equipment (kg):	Approx. 6.96kg (whole unit); For base stand: approx. 1.31kg
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:	04.Sep.2019
Date(s) of performance of tests:	20.Sep.2019 – 21.Sep.2019
General remarks:	
"(see Enclosure #)" refers to additional information ap "(see appended table)" refers to a table appended to th	pended to the report. e report.
Throughout this report a 🗌 comma / 🔀 point is u	sed as the decimal separator.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:					
The application for obtaining a CB Test Yes Certificate includes more than one factory ocation 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 Not applicable					
When differences exist; they shall be identified in the General product information section.					
Name and address of factory (ies)					
 TPV Display Technology (Wuhan) Co., Ltd. Unique No. 11, Zhuankou Development District of Economic Technological Development Zone, Wuhan City 430056, P.R. China 					
2 TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road, Fuqing City, Fujian Province, P.R. China					
3 L&T Display Technology (Fujian) Ltd. Optoelectronic Park, Rongqiao Economic and Technological, Development Zone, Fuqing, Fujian 350301, P.R. China					
4 TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R. China					
 5 Trend Smart CE Mexico S de RL de CV Avenida Sor Juana Ines de la Cruz de 19602 Nueva Tijuana, 22435 Tijuans Baja California, MEXICO 					
6 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					
 7 TPV Technology (Qingdao) Co., Ltd. No.99 Huoju Road, High-tech Industrial Development Zone, Qingdao City, Shandong Province, P.R. China 					
8 TPV Display Technology (China) Co., Ltd. No.106 Jinghai 3 Rd., BDA, Beijing City 100176, P.R. China.					
9 TPV Electronics (Fujian) Co., Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R. China					
 Envision Indústria de Produtos Eletrônicos Ltda. Av. Torquato Tapaiós, 2236, Flores - CEP 69058-830 - Manaus/AM Brasil 					
 Pro Concept Manufacturer Co., Ltd. 88/1 Moo 12, Soi Phetkasem 120, Phetkasem Road, Omnoi, Krathumbaen, Samutsakhon 74130, Thailand 					
12 Treeview Co., Ltd. 106/29 Moo 8, Sukhumvit Road, T.Banglamung, A.Banglamung, Chonburi 20150 Thailand					
13 TPV Technology (Thailand) Co., Ltd. Tambon Tha Turn, Amphoe Si Maha Phot, Chang Wat Prachin Buri 25140 Thailand					

General product information:

Description of change(s):

- 1. Add new models **32G2**, **Q32G2**, ****32G2*********, which is identical to original model except type designation;
- 2. Add new alternative main board 715GA531;
- 3. Update factory list by client's request.

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

Change	Testing	Comments
1.	N/A	See new rating label on Page 3 for the details.
2.	See Summary of testing on Page 3 for the details.	See following pages for the details.
3.	- N/A	See bold information of Table 1.5.1 for the details.

Other comments:

Declaration of the manufacturer: the sample(s) submitted for evaluation is (are) representative of the products from each factory.

History of amendments and modifications:

Ref. No. 50278509 001 dated Jul. 09, 2018 (original test report) Ref. No. 50278509 002 dated Sep. 27. 2019 (modification)

Abbreviations used in the report:					
 normal conditions functional insulation double insulation between parts of opposite 	N.C. OP DI	- single fault conditions - basic insulation - supplementary insulation	S.F.C BI SI		
polarity	BOP	- reinforced insulation	RI		
Indicate used abbreviations (if any)					

Page 7 of 9

Report No. 17061237 002

IEC 60950-1

Clause Requirement + Test

Result - Remark

Verdict

1.6.2	TABLE: Electrical data (in normal conditions)				Р		
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status	3
Tested with main board 715GA531							
VGA mode		·			•		
90V/50Hz	0.814		44.6	F901	0.814	Normal load condition	
90V/60Hz	0.800		44.6	F901	0.800	Normal load condition	
100V/50Hz	0.721	1.5	44.3	F901	0.721	Normal load condition	
100V/60Hz	0.735	1.5	44.2	F901	0.735	Normal load condition	
240V/50Hz	0.364	1.5	43.8	F901	0.364	Normal load condition	
240V/60Hz	0.359	1.5	43.8	F901	0.359	Normal load condition	
264V/50Hz	0.341		44.1	F901	0.341	Normal load condition	
264V/60Hz	0.337		44.1	F901	0.337	Normal load condition	
DP Mode		•					
90V/50Hz	0.809		44.6	F901	0.809	Normal load condition	
90V/60Hz	0.796		44.6	F901	0.796	Normal load condition	
100V/50Hz	0.741	1.5	44.3	F901	0.741	Normal load condition	
100V/60Hz	0.727	1.5	44.3	F901	0.727	Normal load condition	
240V/50Hz	0.364	1.5	43.5	F901	0.364	Normal load condition	
240V/60Hz	0.361	1.5	43.8	F901	0.361	Normal load condition	
264V/50Hz	0.341		43.8	F901	0.341	Normal load condition	
264V/60Hz	0.337		43.6	F901	0.337	Normal load condition	
HDMI Mode		•					
90V/50Hz	0.815		45.2	F901	0.815	Normal load condition	
90V/60Hz	0.801		45.0	F901	0.801	Normal load condition	
100V/50Hz	0.741	1.5	44.9	F901	0.741	Normal load condition	
100V/60Hz	0.728	1.5	44.8	F901	0.728	Normal load condition	
240V/50Hz	0.366	1.5	44.5	F901	0.366	Normal load condition	
240V/60Hz	0.362	1.5	44.4	F901	0.362	Normal load condition	
264V/50Hz	0.348		44.7	F901	0.348	Normal load condition	
264V/60Hz	0.341		44.4	F901	0.341	Normal load condition	
Supplementary information:							
1. Maximum normal load: maximum brightness, maximum contrast, full white screen.							

Page 8 of 9

Report No. 17061237 002

IEC 60950-1

Clause Requirement + Test

Result - Remark

Verdict

4.5	TABLE: Thermal req	uirements							Р
	Supply voltage (V)	:	90V/ 60Hz		26 6	64V/ 0Hz			
	Ambient Tmin (°C)	:	26.6		2	26.4			
	Ambient Tmax (°C)	:	26.6		2	26.4			
Maximum measured temperature T of part/at:			T (°C)					Allowed T _{max} (°C)	
Tested with	n main board 715GA53								
Line pin of AC Inlet CN9901 (on power board)			41.0		3	9.9			56.4
C920 body (on power board)		47.3		4	2.6			71.4	
PCB near TH901 (on power board)		54.6		4	8.8			91.4	
C900 body (on power board)			52.4		5	60.6			71.4
L901 coil (on power board)			42.6		42.4				91.4
PCB near BD901 (on power board)			53.1		47.2				91.4
U902 body (on power board)		48.8		52.1				86.4	
T901 coil (on power board)		60.9	60.9 61.5		51.5			96.4	
T901 core (on power board)		65.3		67.2				96.4	
C914 body (on power board)		58.2		56.1				71.4	
C902 body (on power board)		51.9		47.8				86.4	
PCB near D901 (on power board)		69.4		71.1				91.4	
PCB near U401 body (main board)		70.3		68.9				91.4	
PCB near C916 (on power board)		26.8		25.4				91.4	
PCB near U901 (power board)		59.1		59.1				91.4	
PCB near L801 (on power board)		62.3		60.5				91.4	
Metal enclosure		39.5		39.0					
Plastic enclosure inside near T901		35.3		34.7				81.4	
Plastic enclosure outside		26.6		26.3				81.4	
Panel surface		35.0		34.8				81.4	
Supplementary information:									
Temperatur	e T of winding:	t ₁ (°C)	R1 (Ω)	t2 ((°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class

Page 9 of 9

Report No. 17061237 002

IEC 60950-1

Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:

1. The temperatures were measured under the worse case normal mode defined in 1.2.2.1 and as described in sub-clause 1.6.2 at voltages as described above.

2. With a specified ambient temperature of 40°C, and the minimum ambient temperature during test Tam, Temperature is calculated as follows:

Winding components providing safety isolation:

- T901 Class B \rightarrow T_{max} = 120 °C - 10 °C - 40 °C + Tamb

Components with maximum absolute temperature of others:

- Tmax= Tmax of component – 40+Tamb.



Type Designation: Report Number: 32G1, **32G1*******, 32G2, Q32G2, **32G2******* 17061237 002



Figure 1. Main board 715GA531



Figure 2. Main board 715GA531