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



TPV Electronics (Fujian) Co., Ltd. Mr. Winter Feng Safety Dept. R&D Div. Rongqiao Economic and Technological Development Zone Fuqing City, Fujian Province P.R. China

Date : 25.05.2016 Our ref. : LINSTE ZJ Your ref.: 1140026496

Ref : CB Certificate Japan

Type of Equipment : LCD MONITOR
Model Designation : See Certificate
Certificate No. : JPTUV-063953-M2
Report No. : 17048811 003

Dear Mr. Winter Feng,

Thank you very much for your interest in our services.

Please find enclosed your certification documents.

Trucan

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

Tristan Deng

Enclosure

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





JPTUV-063953-M2

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

Name and address of the applicant Nom et adresse du demandeur

Name and address of the manufacturer Nom et adresse du fabricant

Name and address of the factory Nom et adresse de l'usine

Ratings and principal characteristics Valeurs nominales et charactéristiques principales

Trademark (if any) Marque de fabrique (si elle existe)

Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur

Model / Type Ref. Ref. de type

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

Les informations complémentaires (si nécessaire, peuvent être indiqués sur la 2^{ème} page)

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

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

LCD MONITOR

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

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

See additional page(s)

DC 12V, 3.75A or DC 19V, 2A or 19V, 2.37A; Class III

AOC

N/A

270LM00005, *2757***, 270LM000**, **2781*********** (* can be 0-9, A-Z, a-z, -, \, /, + or blank)

For model differences, refer to the test report. Re-issue of JPTUV-063953-M1 dated 12.10.2015, due to second modification.

IEC 60950-1:2005+A1+A2 National differences see test report

17048811 003

This CB Test Certificate is issued by the National Certification Body Ce Certificat d'essai OC est établi par l'Organisme National de Certification



25.05.2016

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 45 914-3888 Fax + 81 45 914-3354 Mail: info@jpn.tuv.com Web: www.tuv.com

Signature:

Tristan Deng

1 votas

Date:



JPTUV-063953-M2

PAGE 2 OF 3

- TPV Display Technology (Wuhan)
 Co., Ltd.
 Unique No. 11, Zhuankou Development
 District of Economic Technological
 Development Zone, Wuhan City 430056, P.R. China
- TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road Fuqing City, Fujian Province P.R. China
- Envision Industry of Electronic Products Ltd.
 Rodovia Anhanguera S/N-KM 49 Tijuco Preto-Jundiaí-SP-13.205-700, Brazil
- L&T Display Technology (Fujian) Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone Fuqing, Fujian 350301, P.R. China
- TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone Fuqing City, Fujian Province P.R. China
- 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
- 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
- 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

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

Report Ref. No.: 17048811 003

Tritan

Date: 25.05.2016

Signature:

Tristan Deng



JPTUV-063953-M2

PAGE 3 OF 3

 Hefei Huntkey Display Technology Co., Ltd.
 South Jinxiu Road, East Qingtan Road Economic And Technological Development Zone, Hefei, Anhui 230601, P.R. China

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) Information complémentaire (si nécessaire)

Report Ref. No.: 17048811 003

Date: 25.05.2016

Signature:

Tristan Deng



Test Report issued under the responsibility of:



TEST REPORT

IEC 60950-1

Information technology equipment – Safety – Part 1: General requirements

 Report Number.
 17048811 003

 Date of issue
 24.May.2016

Total number of pages 11 pages

Fuqing City, Fujian Province, P.R.China

Test specification:

Standard: IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013

Test procedure...... CB Scheme

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

Test Report Form No...... IEC60950_1F

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

Master TRF...... Dated 2014-02

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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.

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Report No. 17048811 003

Test item description:	LCD MOI	NITOR		
Trade Mark:	AOC			
Manufacturer Same as		applicant		
Model/Type reference:	270LM00 (see page	005 , *2757***, 270LM00 e 5 for variables)	00**, **2781******	
Ratings:	I/P: 12Vd	c, 3.75A or 19Vdc, 2A or	19V, 2.37A	
Testing procedure and testing loca	ition:			
		TÜV Rheinland (Shenz	then) Co., Ltd.	
Testing location/ 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		
Associated CB Testing Labor	ratory:			
Testing location/ address	:		\sim	
Tested by (name + signature)	:	Steven Lin	Sul-	
Approved by (name + signature)	:	Aegean Li	3/5	
			1	
☐ Testing procedure: TMP/CTF				
Testing location/ address	:			
Tested by (name + signature)	:			
Approved by (name + signature)	:			
A SOURCE DOLLARS IN SECURITION OF THE SEC	DE ET DESE			
☐ Testing procedure: WMT/CTF	Stage 2:			
Testing location/ address	:			
Tested by (name + signature)	:			
Witnessed by (name + signature)	:			
Approved by (name + signature)	:			
Testing procedure: SMT/CTF Stage 3 or 4:				
Testing location/ address	:			
Tested by (name + signature)	:			
Witnessed by (name + signature)	:			
Approved by (name + signature)	:			
Supervised by (name + signature).	:			
	and the			

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

- Photo documentation

Total number of pages in each attachment is indicated in individual attachment.

Summary of testing:

Tests performed (name of test and test clause):

name of test	test clause number
Input Current Test	1.6.2
SELV Test	2.2
Maximum Temperature Test	4.5.2
Fault Condition Test	5.3

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

See original report 17048811 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.



See others in original reports 17048811 001-002.

Note: The above label represents label for model names other than above covered by the model name.

Test item particulars			
Equipment mobility:	[x] movable [] hand-held [] transportable [] stationary [] for building-in [] direct plug-in		
Connection to the mains:	[] pluggable equipment [] type A [] type B [] permanent connection [] detachable power supply cord [] non-detachable power supply cord [x] 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 [] OVC II [] OVC III [] OVC IV [x] other: not directly connected to the mains.		
Mains supply tolerance (%) or absolute mains	N/A		
supply values			
Tested for IT power systems:	[] Yes [x] No		
IT testing, phase-phase voltage (V)	N/A		
Class of equipment:	[] Class I [] Class II [x] Class III [] Not classified		
Considered current rating of protective device as	N/A		
part of the building installation (A)			
Pollution degree (PD)	[] PD 1 [x] PD 2 [] PD 3		
IP protection class	IP20		
Altitude during operation (m)	≤5000		
Altitude of test laboratory (m)	<2000		
Mass of equipment (kg)	5.92kg (base weight 1.20kg)		
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:	May.06.2016		
Date(s) of performance of tests:	May.07.2016 - May.10.2016		
General remarks:			
"(see Enclosure #)" refers to additional information ap "(see appended table)" refers to a table appended to the			
Throughout this report a \square comma / \boxtimes point is us	sed as the decimal separator.		

Re	port I	No. 1	17048	811	003
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Manufacturer's Declaration per sub-clause 4.2	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	
When differences exist; they shall be identified	d in the General product information section.
Name and address of factory (ies):	See original report 17048811 001.

General product information:

Description of change(s):

- 1. Add alternative panel LM270WQ* (LG Display);
- 2. Add alternative approved adapter ADPC1945EX;
- 3. Add alternative input rating 19Vdc, 2.37A, used only with new adapter ADPC1938EX;
- 4. Add alternative main board 715G8207;
 Above mentioned new main board 715G8207 and new adapter are used together only;
- 5. Add alternative metal enclosure for main board 715G8207 only.

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

Change	Testing	Comments
1.	N/A	See page 3 for rating label.
25. See page 3 for test clauses		See following pages for details.
	performed.	See also photo documentation for details.

See below table for further information:

	19Vdc, 2.37A	ADPC1945EX	715G8207
2781****	19Vdc, 2A	ADPC1938EX	715G7580; 715G7581
270LM00005 , *2757***, 270LM000**,	12Vdc, 3.75A	ADPC1245****; ADS-65LSI-12-1 12045G	715G5240; 715G7639
Model name	I/P Rating	External Adapter	Main board

Definition of variable(s):

Variable:	Range of variable:	Content:
*	blank	represent different enclosure colour for marketing purpose. Model 270LM00005 is one of the specific model name of 270LM000**, listed by client's request.

History of amendments and modifications:

Ref. No.17048811 001, dated 11.Jun.2015 (original report) Ref. No.17048811 002, dated 10.Oct.2015 (modification) Ref. No.17048811 003, dated 24.May.2016 (modification)

Abbreviations used in the report:

normal conditions
 functional insulation
 double insulation
 between parts of opposite
 N.C.
 single fault conditions
 basic insulation
 supplementary insulation
 SI

- between parts of opposite

polarity BOP - reinforced insulation RI

Indicate used abbreviations (if any)

			<u> </u>	
		IEC 60950-1		
Clause	Requirement + Test		Result - Remark	Verdict

1.5.1	ΓABLE: List of critic	al components				Р
Object/part N	o. Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mar confo	k(s) of ormity ¹)
LCD Panel	L&T	LM270WF*-**** (*can be 0-9, A-Z or blank, not safety related.)	27 inch panel with LED backlight The declared power consumption is 23.08W and backlight input voltage is 44.1V in specification.	IEC 60950-1	Tested equipm	
	AUO	M270HW** (*can be 0-9, A-Z or blank, not safety related.)	27 inch panel with LED backlight The declared power consumption is 29.1W and backlight input voltage is 52.8V in specification.	IEC 60950-1	Tested equipm	
	CHIMEI	M270HG*-*** (*can be 0-9, A-Z or blank, not safety related.)	27 inch panel with LED backlight The declared power consumption is 23.83W and backlight input voltage is 34.1V in specification.	IEC 60950-1	Tested equipm	
	LG Display	LM270WF*-**** (*can be 0-9, A-Z or blank, not safety related.)	27 inch panel with LED backlight The declared power consumption is 26.46W and backlight input voltage is 51.2V in specification.	IEC 60950-1	Tested equipm	

IEC 60950-1				
Clause	Requirement + Test	Result - Remark	Verdict	

	LG Display	LM270WQ* (*can be 0-9, A-Z or blank, not safety related.)	27 inch panel with LED backlight The declared power consumption is 21.9W and backlight input voltage is 46.6V in specification.	IEC 60950-1	Tested in equipment
AC/DC Adapter	Top Victory Electronics (Taiwan) Co., Ltd.	ADPC1245**** (* = A-Z, a-z, 0- 9, +, -, \ or blank)	I/P: 100-240Vac, 1.5A, 50-60Hz; O/P: DC 12V, 3.75A; 40°C, 5000m Comply with LPS	IEC 60950- 1:2005+A1, EN 60950- 1:2006+A11+A1	TUV CB (Certif. No. JPTUV- 039282-M1) *
	Shenzhen HONOR Electronic Co., Ltd.	ADS-65LSI-12-1 12045G	I/P: 100-240Vac, 50-60Hz, Max.1.5A; O/P: DC 12V, 3.75A; 40°C, 5000m Comply with LPS	IEC 60950- 1:2005+A1, EN 60950- 1:2006+A11+A1	TUV CB (Certif. No. JPTUV- 041117) *
	TPV Electronic (Fujian) Co., Ltd.	ADPC1938EX	I/P: 100-240Vac, 1.3A, 50-60Hz; O/P: DC 19V, 2.00A; 40°C, 5000m Comply with LPS	IEC 60950- 1:2005+A1+ A2, EN 60950- 1:2006+A11+A1 +A12+A2	Nemko CB (Certif. No. NO83042) *
	TPV Electronic (Fujian) Co., Ltd.	ADPC1945EX	I/P: 100-240Vac, 1.3A, 50-60Hz; O/P: DC 19V, 2.37A; 40°C, 5000m Comply with LPS	IEC 60950- 1:2005+A1+ A2, EN 60950- 1:2006+A11+A1 +A12+A2	Nemko CB (Certif. No. NO83042) *

Supplementary information:

- 1. Provided evidence ensures the agreed level of compliance.
- 2. * indicates compliance to National requirements need to be evaluated during the National approval for this product.

	IEC 60950-1		
Clause	Requirement + Test	Result - Remark	Verdict

TABL	TABLE: electrical data (in normal conditions)				Р		
I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status		
Test with adapter ADPC1945EX, main board 715G8207							
е							
1.68	2.37	31.3			Maximum normal load		
HDMI mode							
1.67	2.37	31.2			Maximum normal load		
1.62	2.37	30.3			Maximum normal load		
	I (A) adapter AD e 1.68 de 1.67	I (A) Irated (A) adapter ADPC1945EX, I e 1.68 2.37 de 1.67 2.37	I (A) Irated (A) P (W) adapter ADPC1945EX, main board 7 e 1.68 2.37 31.3 de 1.67 2.37 31.2	I (A) Irated (A) P (W) Fuse # adapter ADPC1945EX, main board 715G8207 e 1.68 2.37 31.3 de 1.67 2.37 31.2	I (A) Irated (A) P (W) Fuse # Ifuse (A) adapter ADPC1945EX, main board 715G8207 e 1.68 2.37 31.3 de 1.67 2.37 31.2	I (A) Irated (A) P (W) Fuse # Ifuse (A) Condition/status adapter ADPC1945EX, main board 715G8207 e Maximum normal load de 1.68 2.37 31.3 Maximum normal load de 1.67 2.37 31.2 Maximum normal load	

Supplementary information:

- Maximum normal load: maximum brightness, maximum contrast, full white screen; speakers were loaded with 1KHz sinusoidal signal and turned to maximum volume.
- 2. Panel M270HW** (AUO) is chosen for the test, due to it has highest power consumption specified in panel specification among all the panels.

2.2	TABLE: Hazardous voltage measu	age measurement				
Component (measured between)			ltage (V) operation)	Voltage Limit Components		
		V peak	V d.c.			
Test with m	ain board 715G8207					
LED driver output to earth			47.3			
Fault test performed on voltage limiting components		Voltaç	ge measured (V) (V peak or \		its	
D801	0 (unit shut down)					
Supplement	tary information:					

	I	EC 60950-1		
Clause	Requirement + Test		Result - Remark	Verdict

4.5	TABLE: Thermal requirements			Р					
	Supply voltage (V)			19V	dc				_
	Ambient T _{min} (°C)								_
	Ambient T _{max} (°C)								_
Maximum r part/at:	neasured temperature T	of				T (°0	C)		Allowed T _{max} (°C)
Test with m	ain board 715G8207								
DC inlet bo	dy CN701 (on main boa	rd)				42.	3		53.3
PCB near U701 (on main board)			46.8						
PCB near L701 (on main board)		49.2					88.3		
PCB near U	J801 (on main board)					56.4	4		88.3
PCB near U	J401 (on main board)					72.4	4		88.3
PCB near U	J402 (on main board)					57.	5		88.3
PCB near L	.801 body (on main boar	rd)		65.2					88.3
Plastic enclosure inside		36.8							
Plastic enclosure outside		34.7				78.3			
Metal enclo	sure			38.9				53.3	
Panel surface		36.5				78.3			
Ambient		23.3							
Supplemen	ntary information:								•
Temperatui	re T of winding:	t ₁ (°C)	R ₁	(Ω)	t ₂ (°C)	$R_2(\Omega)$	T (°C)	Allowed T _{max} (°C)	Insulation class

Supplementary information:

- 1. The temperatures were measured under the worst 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. Temperature limits are calculated as follows: Components with maximum absolute temperature of others:
 - Tmax = Tmax of component 40 + Tamb

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Report	NO. I	7 U488 I	1 003

	IEC 60950-1		
Clause	Requirement + Test	Result - Remark	Verdict

cturer, model/type,	.: 25 —
	·
Test Fuse # time	Fuse Observation current (A)
5min	Unit shut down, no hazard.
5min	Unit shut down, no hazard.
5min	Unit shut down, no hazard.
5min	Unit shut down, no hazard.
5min	Unit shut down, no hazard.
5	min

^{1.} In fault column, where s-c=short-circuited.

ATTACHMENT

Photo Documentation

TÜVRheinland®

17048811 003

Report No.:

Page 1 of 2

Product: LCD MONITOR

<u>Type Designation:</u> 270LM00005 , *2757***, 270LM000**, **2781*******

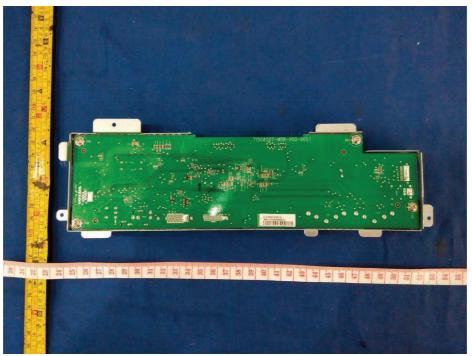


Figure 1. Internal view with main board 715G8207

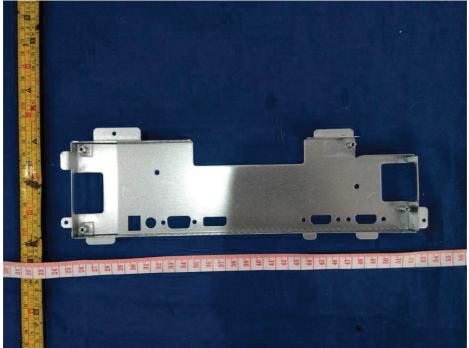


Figure 2. Metal enclosure for main board 715G8207

ATTACHMENT

Photo Documentation

TÜVRheinland®

17048811 003

Report No.:

Page 2 of 2

Product: LCD MONITOR

<u>Type Designation:</u> 270LM00005 , *2757***, 270LM000**, **2781*******

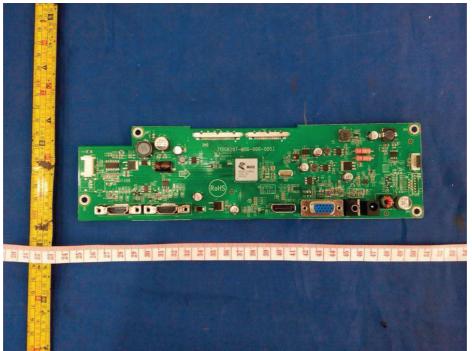


Figure 3. Main board 715G8207

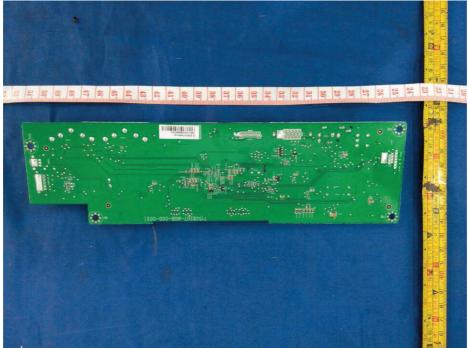


Figure 4. Main board 715G8207