

TPV Electronics (Fujian) Co., Ltd.  
Mr. Xinliang Wu  
RD-SE  
Rongqiao Economic and  
Technological Development Zone  
Fuqing City, Fujian Province  
P.R. China

Date : 08.05.2017  
Our ref. : WangAn ZJ  
Your ref.: 1140033467

**Ref : CB Certificate Japan**

Type of Equipment : LCD Monitor  
Model Designation : See Certificate  
Certificate No. : JPTUV-078677-M1  
Report No. : 17059636 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

  
Eng. M. Eichenseder

Enclosure

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

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 caractéristiques principales

AC 100-240V; 50/60Hz; 1.5A; Class II

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

238LM000\*\*, PDS241\*\*\*\*\*; 270LM000\*\*, PDS271\*\*\*\*\*  
(\* = 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<sup>ème</sup> page)

For model differences, refer to the test report.  
Re-issue of JPTUV-078677 dated 27.02.2017,  
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

17059636 002

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

Date: 08.05.2017

Signature:

Ing. M. Eichenseder

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. Envision Industry of Electronic Products Ltd.  
Rodovia Anhanguera S/N-KM 49  
Tijuco Preto-Jundiá-SP-  
13 205-700, Brazil
4. L&T Display Technology (Fujian) Ltd.  
Optoelectronic Park, Rongqiao Economic and Technological Development Zone  
Fuqing, Fujian 350301, P.R. China
5. TPV Electronics (Fujian) Co., Ltd.  
Rongqiao Economic and Technological Development Zone  
Fuqing City, Fujian Province  
P.R. China
6. 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
7. 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
8. TPV Technology (Qingdao) Co., Ltd.  
No 99 Huoju Road, High-tech Industrial Development Zone  
Qingdao City, Shandong Province, P.R. China
9. 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.: 17059636 002

Date: 08.05.2017

Signature:

  
Ing. M. Eichenseder

10. Hefei Huntkey Display Technology Co., Ltd.  
South Jinxiu Road, East Qingtan Road  
Economic And Technological  
Development Zone, Hefei, Anhui 230601, P.R. China
11. TPV Electronics (Fujian) Co., Ltd.  
Optoelectronic Park,  
Rongqiao Economic and  
Technological Development Zone,  
Fuqing City, Fujian Province 350301, P.R. China
12. Envision Indústria de Produtos Eletrônicos Ltda.  
Av. Torquato Tapajós, 2236,  
Flores - CEP 69058-830 - Manaus/AM  
Brazil

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

Report Ref. No.: 17059636 002

Date: 08.05.2017

Signature:

  
Ing. M. Eichenseder



Test Report issued under the responsibility of:



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

Report Number..... : 17059636 002  
 Date of issue..... : May. 04. 2017  
 Total number of pages ..... : 8

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

Model/Type reference..... : 238LM000\*\*, PDS241\*\*\*\*\*; 270LM000\*\*, PDS271\*\*\*\*\* (\* can be 0-9, A-Z, a-z, -, \, /, + or blank, represent different enclosure colour for marketing purpose)

Ratings..... : I/P: 100-240Vac, 50/60Hz, 1.5A

<b>Testing procedure and testing location:</b>		
<input checked="" type="checkbox"/>	<b>CB Testing Laboratory:</b>	<b>TÜV Rheinland (Shenzhen) Co., Ltd.</b>
<b>Testing location/ address .....</b>		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
<input type="checkbox"/>	<b>Associated CB Testing Laboratory:</b>	
<b>Testing location/ address .....</b>		
<b>Tested by (name + signature) .....</b>		Anderson Wang Senior Project Manager 
<b>Approved by (name + signature) .....</b>		Aegean Li Technical Reviewer 
<input type="checkbox"/>	<b>Testing procedure: TMP/CTF Stage 1:</b>	
<b>Testing location/ address .....</b>		
<b>Tested by (name + signature) .....</b>		
<b>Approved by (name + signature) .....</b>		
<input type="checkbox"/>	<b>Testing procedure: WMT/CTF Stage 2:</b>	
<b>Testing location/ address .....</b>		
<b>Tested by (name + signature) .....</b>		
<b>Witnessed by (name + signature) .....</b>		
<b>Approved by (name + signature) .....</b>		
<input type="checkbox"/>	<b>Testing procedure: SMT/CTF Stage 3 or 4:</b>	
<b>Testing location/ address .....</b>		
<b>Tested by (name + signature) .....</b>		
<b>Witnessed by (name + signature) .....</b>		
<b>Approved by (name + signature) .....</b>		
<b>Supervised by (name + signature) .....</b>		

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

- Photo documentation
- National Differences
- Appendix ZZ

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

**Summary of testing:**

<p><b>Tests performed (name of test and test clause):</b> Following tests performed during evaluation</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">name of test</th> <th style="text-align: left;">test clause number</th> </tr> </thead> <tbody> <tr> <td>Input Current Test</td> <td>1.6.2</td> </tr> <tr> <td>SELV limits for Normal Conditions</td> <td>2.2.2</td> </tr> <tr> <td>SELV limits for Abnormal Conditions</td> <td>2.2.3</td> </tr> <tr> <td>Maximum Temperature Test</td> <td>4.5.2</td> </tr> <tr> <td colspan="2">Note:</td> </tr> </tbody> </table>	name of test	test clause number	Input Current Test	1.6.2	SELV limits for Normal Conditions	2.2.2	SELV limits for Abnormal Conditions	2.2.3	Maximum Temperature Test	4.5.2	Note:		<p><b>Testing location:</b></p> <p>All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 2.</p>
name of test	test clause number												
Input Current Test	1.6.2												
SELV limits for Normal Conditions	2.2.2												
SELV limits for Abnormal Conditions	2.2.3												
Maximum Temperature Test	4.5.2												
Note:													

**Summary of compliance with National Differences**

See original report 17059636 001 for the details.

**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.

**AOC** LCD monitor (LED Backlight)  
 Product Name/Nama Produk: PDS271  
 Model No. 270LM00040  
 Power Rating/Tegangan: 100-240V~ 50/60Hz 1.5A

AOC International Europe B.V.  
 Amstelgebouw, 8th floor  
 Prins Bernhardplein 200  
 1097 JB Amsterdam  
 The Netherlands  
 Envision Peripherals, Inc.  
 47490 Seabridge Drive  
 Fremont, CA 94538  
 USA

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.  
 CAN ICES-3(B)/NMB-3(B)

HXXXXXXXXXXXX.LF  
 Serial NO.:XXXXXXXXXXXXXXXXXX

Warning: Shock Hazard, Do Not Open.  
 Pour éviter une électrocution, ne retirez pas le couvercle!

www.aoc.com    Made in China    F40G270W61545A

Note: The above labels represent labels for model names other than above covered by the model name. See original report 17059636 001 for original rating label.

<b>Test item particulars</b> .....:	
<b>Equipment mobility</b> .....:	<input checked="" type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in
<b>Connection to the mains</b> .....	<input checked="" type="checkbox"/> pluggable equipment <input checked="" type="checkbox"/> type A <input type="checkbox"/> type B <input type="checkbox"/> permanent connection <input checked="" type="checkbox"/> detachable power supply cord <input type="checkbox"/> non-detachable power supply cord <input type="checkbox"/> not directly connected to the mains
<b>Operating condition</b> .....:	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> rated operating / resting time:
<b>Access location</b> .....	<input checked="" type="checkbox"/> operator accessible <input type="checkbox"/> restricted access location
<b>Over voltage category (OVC)</b> .....	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other:
<b>Mains supply tolerance (%) or absolute mains supply values</b> .....	±10% according to client's request
<b>Tested for IT power systems</b> .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>IT testing, phase-phase voltage (V)</b> .....	N/A
<b>Class of equipment</b> .....	<input type="checkbox"/> Class I <input checked="" type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Not classified
<b>Considered current rating of protective device as part of the building installation (A)</b> .....	N/A
<b>Pollution degree (PD)</b> .....	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
<b>IP protection class</b> .....	IPX0
<b>Altitude during operation (m)</b> .....	Up to 5000
<b>Altitude of test laboratory (m)</b> .....	Less than 2000
<b>Mass of equipment (kg)</b> .....	For 23.8 inch monitor only: 3.15kg; For 27.0 inch monitor only: 4.15kg; for AC/DC adapter: 0.57 kg
<b>Possible test case verdicts:</b>	
- 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)
<b>Testing</b> .....:	
<b>Date of receipt of test item</b> .....:	Mar.09.2017
<b>Date(s) of performance of tests</b> .....	Apr.21.2017-May.03.2017
<b>General remarks:</b>	
“(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 <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.	



**Manufacturer's Declaration per sub-clause 4.2.5 of IEC60950-1:**

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 for factory list.

**General product information:**

Description of change(s):

1. Add new model **270LM000\*\***, **PDS271\*\*\*\*\***, which is identical to original model 238LM000\*\* except for:
  - 1) used with 27 inch LCD panel only;
  - 2) used with main board 715G8806 only;
  - 3) used with bigger plastic enclosure due to different panel size.

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

Change	Testing	Comments
1.	See "summary of testing" in page 3.	See following pages for details. See also photo documentation for 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. 17059636 001 dated Feb. 22. 2017 (original test report)

Ref. No. 17059636 002 dated May. 04. 2017 (modification)

**Abbreviations used in the report:**

- normal conditions	<b>N.C.</b>	- single fault conditions	<b>S.F.C</b>
- functional insulation	<b>OP</b>	- basic insulation	<b>BI</b>
- double insulation	<b>DI</b>	- supplementary insulation	<b>SI</b>
- between parts of opposite polarity	<b>BOP</b>	- reinforced insulation	<b>RI</b>

**Indicate used abbreviations (if any)**

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

1.5.1	TABLE :list of critical components				P
Object/part no.	Manufacture/ trademark	Type/model	Technical data	standard	Mark(s) of conformity <sup>1)</sup>
LCD Panel for 23.8 inch models	L&T	LM238***_**** (* can be 0-9, A-Z or blank for marketing purpose only)	23.8 inch TFT type, with LED back light, power consumption: 11.4W; LED Array Voltage: 50.0V	IEC 60950-1	Tested in equipment
LCD Panel for 27.0 inch models	L&T	LM270***_**** (* can be 0-9, A-Z or blank for marketing purpose only)	27.0 inch TFT type, with LED back light, power consumption: 14.9W; LED Array Voltage: 47.3V	IEC 60950-1	Tested in equipment

1.6.2	TABLE: electrical data (in normal conditions)						P
U (V)	I (A)	I rated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status	
90/50	0.48	--	26.4	F901	0.48	Maximum normal load	
90/60	0.48	--	26.2	F901	0.48	Maximum normal load	
100/50	0.43	1.5	26.1	F901	0.43	Maximum normal load	
100/60	0.44	1.5	26.0	F901	0.44	Maximum normal load	
240/50	0.27	1.5	25.9	F901	0.27	Maximum normal load	
240/60	0.29	1.5	25.9	F901	0.29	Maximum normal load	
264/50	0.26	--	25.8	F901	0.26	Maximum normal load	
264/60	0.27	--	26.1	F901	0.27	Maximum normal load	

Supplementary information:

2.2	TABLE: Hazardous voltage measurement				P
Transformer	Location	max. Voltage		Voltage Limitation Component	
		V peak	V d.c.		
--	L8801 (on main board)	--	23.2		
--	D8801 (on main board)	--	41.4		
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)			
L8801 (s-c)		0V (for +19V output)			

Note(s): Input Voltage is 240Vac, 60Hz, s-c=short circuit.

IEC 60950-1						
Clause	Requirement + Test	Result - Remark				Verdict
4.5	TABLE: Thermal requirements					<b>P</b>
	Supply voltage (V) .....	Test A: 90V, 60Hz Label down (for adapter) Test B: 90V, 60Hz label up (for adapter) Test C: 264V,60Hz label down (for adapter) Test D: 264V,60Hz label up (for adapter)				—
	Ambient T <sub>min</sub> (°C) .....	--	--	--	--	—
	Ambient T <sub>max</sub> (°C) .....	--	--	--	--	—
Maximum measured temperature T of part/at::		T (°C)				Allowed T <sub>max</sub> (°C)
Location		A	B	C	D	--
AC Inlet near L pin		42.7	45.8	36.3	38.3	50.5
U902 Body		51.7	55.0	48.9	52.5	80.5
PCB near TH901		57.6	59.9	49.3	49.0	85.5
PCB near D909		62.8	62.9	63.0	67.4	85.5
C912 body		54.5	58.0	52.6	54.0	65.5
C907 body		55.2	60.2	51.5	58.6	65.5
C901		58.4	64.2	51.0	53.2	85.5
L901 body		56.1	60.4	44.1	48.6	110.5
PCB near Q901		69.1	74.2	68.3	72.5	85.5
T901 coil		64.3	68.5	62.5	66.0	90.5
T901 core		68.7	74.9	67.3	74.6	90.5
PCB near BD901		57.8	59.7	38.7	33.5	85.5
output wire		24.5	23.8	24.9	25.0	60.5
PCB near IC401 (main board)		53.9	52.2	51.8	52.7	85.5
PCB near U801 (main board)		39.0	40.4	38.6	37.0	85.5
Plastic enclosure inside near T901		51.2	54.8	50.4	53.6	--
Plastic enclosure outside		39.2	39.4	37.3	37.6	75.5
Ambient(°C)		20.5	21.1	21.5	21.6	--

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

Supplementary information:

**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:

Winding components providing safety isolation:

1. Class B →  $T_{max} = 120 - 10 - 40 + T_{amb}$

Components with maximum absolute temperature of others:

2.  $T_{max} = T_{max} \text{ of component} - 40 + T_{amb}$

Temperature T of winding:	$t_1$ (°C)	$R_1$ (Ω)	$t_2$ (°C)	$R_2$ (Ω)	T (°C)	Allowed $T_{max}$ (°C)	Insulation class

Supplementary information:

**Type Designation:** 238LM000\*\*, PDS241\*\*\*\*\*, 270LM000\*\*,  
PDS271\*\*\*\*\* (\* can be 0-9, A-Z, a-z, -, \, /, + or  
blank, represent different enclosure colour for  
marketing purpose)

**Report Number:** 17059636 002



Figure 1. Front view of 27 inch models



Figure 2. Rear view of 27 inch models

**Type Designation:** 238LM000\*\*, PDS241\*\*\*\*\*, 270LM000\*\*,  
PDS271\*\*\*\*\* (\* can be 0-9, A-Z, a-z, -, \, /, + or  
blank, represent different enclosure colour for  
marketing purpose)

**Report Number:** 17059636 002

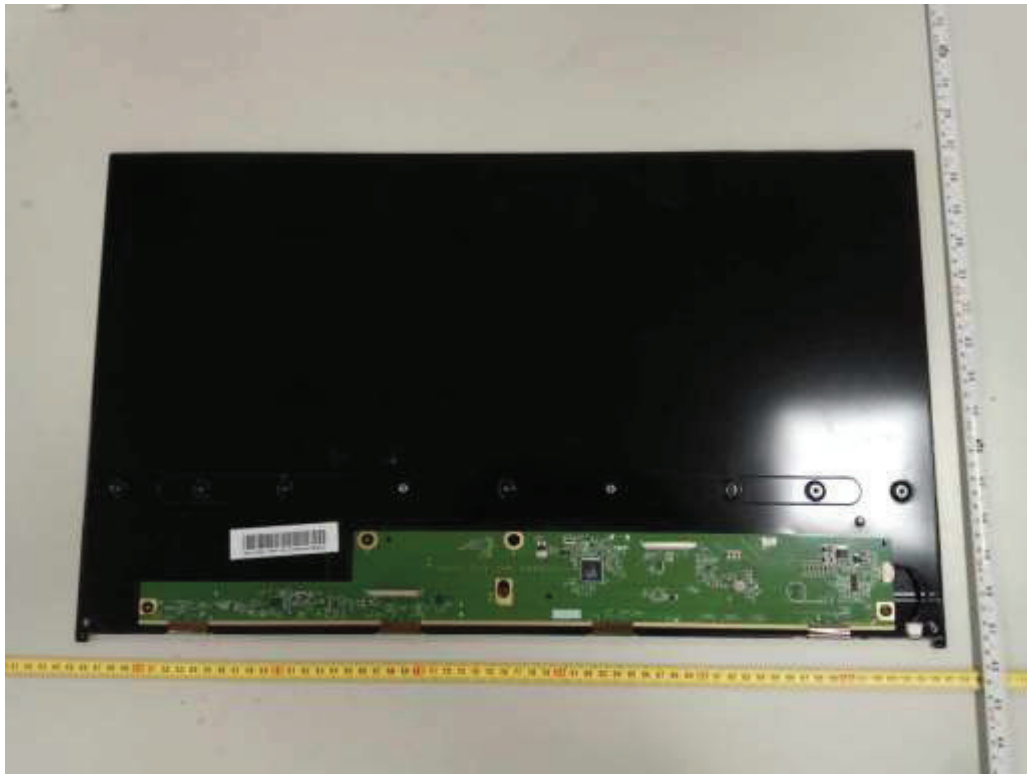


Figure 3. Interview of LCD monitor with main board 715G8806