

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

Date : 17.06.2016
Our ref. : WangAn ZJ
Your ref.: 1140026686

Ref : CB Certificate Japan

Type of Equipment : LCD Monitor
Model Designation : See Certificate
Certificate No. : JPTUV-073103
Report No. : 17043256 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

Tristan Deng 

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

IEC**IECEE**
CB
SCHEME

Ref. Certif. No.

JPTUV-073103

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST
CERTIFICATES FOR ELECTRICAL EQUIPMENT
(IECEE) CB SCHEMESYSTEME 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 demandeurTPV Electronics (Fujian) Co., Ltd.
Rongqiao Economic and
Technological Development Zone, Fuqing City, Fujian Province, P.R.
ChinaName and address of the manufacturer
Nom et adresse du fabricantTPV Electronics (Fujian) Co., Ltd.
Rongqiao Economic and
Technological Development Zone, Fuqing City, Fujian Province, P.R.
ChinaName 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 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 type320LM000**; *3277*****; **323*****; 315LM000**
(* = 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.

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 laIEC 60950-1:2005+A1+A2
National differences see test reportAs shown in the Test Report Ref. No. which forms part
of this CertificateComme indiqué dans le Rapport d'essais numéro de
référence qui constitue partie de ce Certificat

17043256 002

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de CertificationTUV 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: 17.06.2016

Signature:

Tristan Deng

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.: 17043256 002

Date: 17.06.2016

Signature:



Tristan Deng

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

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

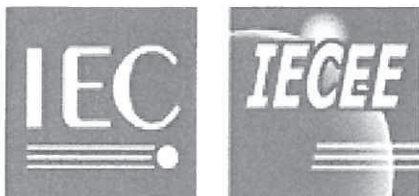
Report Ref. No.: 17043256 002

Date: 17.06.2016

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..... : 17043256 002

Date of issue..... : Jun. 14. 2016

Total number of pages : 10

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.

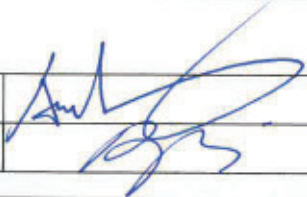
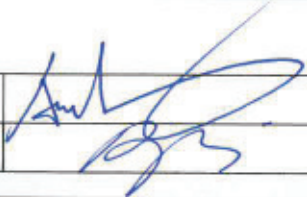
Test item description..... : LCD Monitor

Trade Mark..... : AOC

Manufacturer : Same as applicant

Model/Type reference..... : 320LM000**, *3277*****, **323*****, 315LM000**
(* can be 0-9, A-Z, a-z, -, \, /, + or blank, represent different enclosure color and sales regions for marketing purpose only, no technical difference.)

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

Testing procedure and testing location:	
<input checked="" type="checkbox"/> CB Testing Laboratory:	TÜV Rheinland (Shenzhen) 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
<input type="checkbox"/>	
Testing location/ address	
Tested by (name + signature)	Anderson Wang 
Approved by (name + signature)	Aegean Li 
<input type="checkbox"/> Testing procedure: TMP/CTF Stage 1:	
Testing location/ address	
Tested by (name + signature)	
Approved by (name + signature)	
<input type="checkbox"/> Testing procedure: WMT/CTF Stage 2:	
Testing location/ address	
Tested by (name + signature)	
Witnessed by (name + signature)	
Approved by (name + signature)	
<input type="checkbox"/> 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)	

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):**

Following tests performed during evaluation

name of test	test clause number
Input Current Test	1.6.2
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.

Summary of compliance with National Differences

See original report 17043256 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: U3277PWQU
Model No. : 315LM00017







Power Rating/Tegangan :
100-240V ~ 50/60Hz 1.5A

AOC International (Europe) B.V.
Amstelgebouw, 6th floor
Prins Bernhardplein 200
1097 JB Amsterdam
The Netherlands
www.aoc.com
Made in China/ Buatan China


Laite on liitettävä suojakoskettimilla
varustettuun pistorasiaan
Apparatet må tilkoples jordet stikkontakt
Apparaten skall anslutas till jordat uttag

Warning : Shock Hazard. Do Not Open.


BAR CODE

Q40G032N-615-13A



Bildqualität
ISO 9241-307
www.aoc.com
ID: 2035073500



Type Approved
Safety
Regular Production
Surveillance
www.aoc.com
ID: 203500038

Note: The above labels represent labels for model names other than above covered by the model name. See original report 17043256 001 for others labels.

Test item particulars:	
Equipment mobility:	<input checked="" type="checkbox"/> movable (for unit with base stand) <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input checked="" type="checkbox"/> stationary (for unit without base stand) <input type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in
Connection to the mains	<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
Operating condition:	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> rated operating / resting time:
Access location	<input checked="" type="checkbox"/> operator accessible <input type="checkbox"/> restricted access location
Over voltage category (OVC)	<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:
Mains supply tolerance (%) or absolute mains supply values	±10% according to client's request
Tested for IT power systems	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	<input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Not classified
Considered current rating of protective device as part of the building installation (A)	16A (20A for North America)
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> 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. 11.33kg for 32 inch models (with base); Approx. 10.43kg for 31.5 inch models (with base); For base stand: approx. 3.59kg
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:	15.May.2016
Date(s) of performance of tests	10.Jun.2016
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 <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:

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 17043256 001 for the details.

General product information:

Description of change(s):

1. Change model name “*327*****” to “*3277*****”. No technical difference was existed. No further test was required.
2. Add new model **315LM000****, which is identical to original model 320LM000** except for used with 31.5 inch LCD panel, plastic enclosure type A' and type designation. Meanwhile, original plastic enclosure used for model 320LM000** named as type A.
3. Add 31.5 inch LCD panels: **M315D** -*** (INNOLUX)** and **TPT315B* -***** (TPV)** for models 315LM000** and *3277***** only.
4. Add new main board **715G7271** for all models.
5. Change address of applicant as mentioned on cover page.

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

Change	Testing	Comments
1.-2.	- Maximum Temperature Test	See following pages for the details.
3.	- N/A	Due to the specified power consumption of new panels is not higher than original panel M320QVN**.* (AUO), no further test required. See Table 1.5.1 for the details.
4.	- Input Current Test - Maximum Temperature Test	See following pages for the details.
5.	- N/A	See cover page for the details.

See below table for differences among the models:

Model name	Panel size	Power board	Plasitc enclosure	Main board	USB board
320LM000** *3277***** **323*****	32 inch	715G6395	Type A	715G7106 715G7271	715G6453
315LM000** *3277*****	31.5 inch		Type A'		

Supplementary information:

1. Plastic enclosure type A' is identical to type A except for dimension due to difference panel size.

History of amendments and modifications:

Ref. No. 17043256 001, dated Dec. 18. 2014 (Original test report)

Ref. No. 17043256 002, dated Jun. 14. 2016 (modification)

Abbreviations used in the report:

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

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.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹	
LCD Panel with LED backlight for 32 inch models	AUO	M320DVN**.* (* can be 0-9,a-z A-Z or blank for marketing purpose)	32 inch TFT type, with LED back light, power consumption: 41.3W; LED Array Voltage: 39.6V	--	Tested in equipment	
	TPV	TPT320B*_*_*_*_*_* (* can be 0-9, a- z ,A-Z or blank for marketing purpose)	32 inch TFT type, with LED back light, power consumption: 17.4W; LED Array Voltage: 49V	--	Tested in equipment	
	AUO	M320QVN**.* (* can be 0-9,a-z A-Z or blank for marketing purpose)	32 inch TFT type, with LED back light, power consumption: 45.6W; LED Array Voltage: 39.6V	--	Tested in equipment	
LCD Panel with LED backlight for 31.5 inch models	AUO	M315D**_*_*_* (* can be 0-9,a- z A-Z or blank for marketing purpose)	32 inch TFT type, with LED back light, power consumption: 41.74W; LED Array Voltage: 39.6V	--	Tested in equipment	
	TPV	TPT315B*_*_*_*_*_* (* can be 0-9, a- z ,A-Z or blank for marketing purpose)	32 inch TFT type, with LED back light, power consumption: 39.78W; LED Array Voltage: 25.9V	--	Tested in equipment	

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
1.6.2	TABLE: Electrical data (in normal conditions)					P
Fuse #	U (V)	I (A)	Irated (A)	P (W)	Ifuse (A)	Condition/status
Tested with power board: 715G6395, main board: 715G7271 and panel M320QVN**.*, VGA mode						
F901	90V/50Hz	0.85	--	73.5	0.85	Normal load condition
F901	90V/60Hz	0.84	--	73.5	0.84	Normal load condition
F901	100V/50Hz	0.75	1.5	73.2	0.75	Normal load condition
F901	100V/60Hz	0.75	1.5	73.2	0.75	Normal load condition
F901	240V/50Hz	0.34	1.5	70.8	0.34	Normal load condition
F901	240V/60Hz	0.34	1.5	70.8	0.34	Normal load condition
F901	264V/50Hz	0.33	--	70.6	0.33	Normal load condition
F901	264V/60Hz	0.32	--	70.6	0.32	Normal load condition
Tested with power board: 715G6395, main board: 715G7271 and panel M320QVN**.*, DVI Mode						
F901	90V/50Hz	0.84	--	73.2	0.84	Normal load condition
F901	90V/60Hz	0.84	--	73.2	0.84	Normal load condition
F901	100V/50Hz	0.75	1.5	72.6	0.75	Normal load condition
F901	100V/60Hz	0.75	1.5	72.6	0.75	Normal load condition
F901	240V/50Hz	0.34	1.5	70.6	0.34	Normal load condition
F901	240V/60Hz	0.34	1.5	70.6	0.34	Normal load condition
F901	264V/50Hz	0.32	--	70.3	0.32	Normal load condition
F901	264V/60Hz	0.32	--	70.3	0.32	Normal load condition
Tested with power board: 715G6395, main board: 715G7271 and panel M320QVN**.*, HDMI mode						
F901	90V/50Hz	0.77	--	68.7	0.77	Normal load condition
F901	90V/60Hz	0.77	--	68.7	0.77	Normal load condition
F901	100V/50Hz	0.68	1.5	68.2	0.68	Normal load condition
F901	100V/60Hz	0.68	1.5	68.2	0.68	Normal load condition
F901	240V/50Hz	0.33	1.5	66.7	0.33	Normal load condition
F901	240V/60Hz	0.33	1.5	66.7	0.33	Normal load condition
F901	264V/50Hz	0.31	--	66.4	0.31	Normal load condition
F901	264V/60Hz	0.31	--	66.4	0.31	Normal load condition
Tested with power board: 715G6395, main board: 715G7271 and panel M320QVN**.*, DP mode						
F901	90V/50Hz	0.84	--	73.2	0.84	Normal load condition
F901	90V/60Hz	0.84	--	73.2	0.84	Normal load condition
F901	100V/50Hz	0.75	1.5	73.1	0.75	Normal load condition
F901	100V/60Hz	0.74	1.5	73.1	0.74	Normal load condition

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
F901	240V/50Hz	0.34	1.5	70.5	0.34	Normal load condition
F901	240V/60Hz	0.34	1.5	70.5	0.34	Normal load condition
F901	264V/50Hz	0.32	--	70.5	0.32	Normal load condition
F901	264V/60Hz	0.32	--	70.5	0.32	Normal load condition
<p>Note(s):</p> <p>1. Operated under 100% brightness, 100% contrast, full white screen, optimal resolution@60Hz, 2 pieces of speakers were loaded with 1 KHz noise and turned to maximum volume, two USB 2.0 type A ports loaded with 5V/0.5A, one USB 3.0 port loaded with 5V/0.9A, one USB port with fast charging function loaded 5V/1.5A, HDMI with MHL port loaded with 5V/1.5A (if applicable), which consumed maximum output power.</p> <p>2. Tested with panel mentioned above, due to it has the highest power consumption declared in specification. See Table 1.5.1 for the details.</p>						

4.5	TABLE: Thermal requirements			P
	Supply voltage (V)	90V/60Hz	264V/60Hz	—
	Ambient T _{min} (°C)	--	--	—
	Ambient T _{max} (°C)	--	--	—
Maximum measured temperature T of part/at.....:		T (°C)		Allowed T _{max} (°C)
Tested for 31.5 inch models with power board: 715G6395, main board: 715G7271 and panel M320QVN**.*, VGA mode				
Vertical position				
Line pin of AC Inlet CN901 (on power board)		38.7	37.6	54.0
C924 body (on power board)		40.9	40.8	69.0
C927 body (on power board)		50.3	49.9	69.0
PCB near TH901 (on power board)		54.0	52.9	89.0
C901 body (on power board)		43.8	42.6	69.0
C904 body (on power board)		49.3	45.2	69.0
L901 coil (on power board)		52.6	51.0	89.0
L902 coil (on power board)		57.2	57.7	89.0
L906 coil (on power board)		55.0	54.2	89.0
PCB near BD901 (on power board)		54.8	52.3	89.0
C920 body (on power board)		51.5	50.4	89.0
T901 coil (on power board)		75.2	70.2	94.0
T901 core (on power board)		64.7	62.1	94.0
T903 coil (on power board)		66.8	63.2	94.0
T903 core (on power board)		57.2	55.4	94.0

IEC 60950-1								
Clause	Requirement + Test					Result - Remark	Verdict	
U9101 body (on power board)						57.4	54.2	84.0
U950 body (on power board)						55.5	53.6	84.0
U951 body (on power board)						55.1	52.1	84.0
PCB near Q901 (on power board)						55.4	51.4	89.0
PCB near D9113 (on power board)						55.2	50.6	89.0
PCB near Main IC (main board)						56.2	52.3	89.0
PCB near L801 (on power board)						57.7	52.0	89.0
PCB near L802 (on power board)						54.3	50.8	89.0
Metal enclosure						41.8	41.2	54.0
Plastic enclosure inside near T901						44.2	42.2	--
Plastic enclosure outside						37.1	34.7	44.0
Panel surface						45.0	44.9	79.0
Ambient						24.0	24.8	--
Supplementary information:								
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:								
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 T_{amb} , Temperature is calculated as follows:								
Winding components providing safety isolation:								
- T901 Class B → $T_{max} = 120\text{ °C} - 10\text{ °C} - 40\text{ °C} + T_{amb}$								
Components with maximum absolute temperature of others:								
- $T_{max} = T_{max\text{ of component}} - 40 + T_{amb}$.								
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: 320LM000**; *3277*****; **323*****; 315LM000**
(* can be 0-9, A-Z, a-z, -, \, /, + or blank, represent different enclosure color and sales regions for marketing purpose only, no technical difference.)

Report Number: 17043256 002

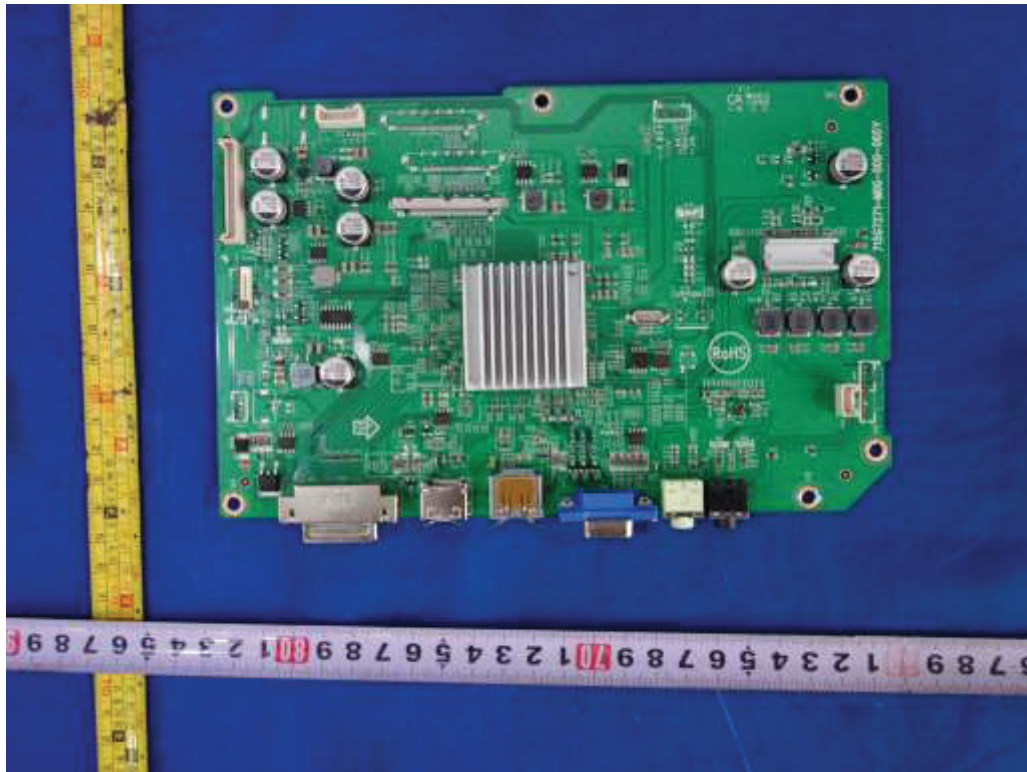


Figure 1. Main board 715G7271

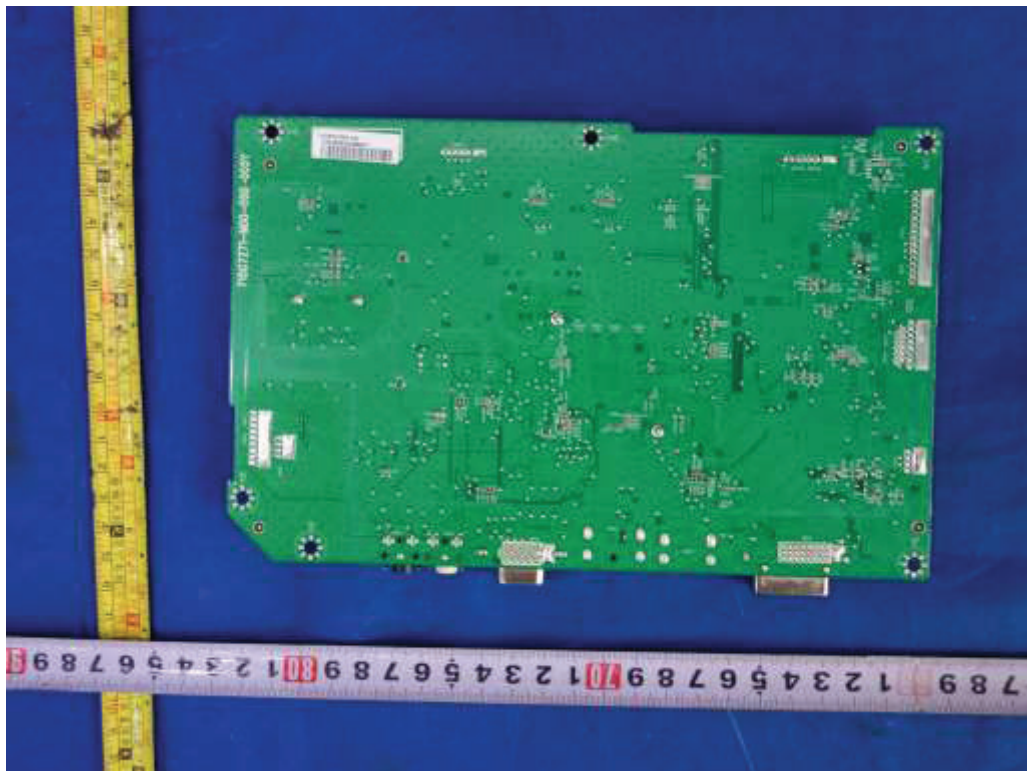


Figure 2. Main board 715G7271