

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. : Wangwend ZJ  
Your ref.: 1140026496

**Ref : CB Certificate Japan**

Type of Equipment : LCD MONITOR  
Model Designation : See Certificate  
Certificate No. : JPTUV-067398-M2  
Report No. : 17051179 003

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](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 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 type270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*,  
\*2475\*\*\*\*\*, \*247\*\*\*\*\*, 215LM000\*\*, \*\*2275\*\*\*\*\*,  
230LM000\*\*, \*\*2375\*\*\*\*\*,  
(\* = 0-9, A-Z, a-z, -, \, /, + or blank)Additional information (if necessary may also be  
reported on page 2)For model difference, refer to the test report.  
Re-issue of JPTUV-067398-M1 dated 18.01.2016,  
due to second modification.Les informations complémentaires (si nécessaire,  
peuvent être indiqués sur la 2<sup>ème</sup> 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 laIEC 60950-1:2005+A1+A2  
National differences see test reportAs shown in the Test Report Ref. No. which forms part  
of this Certificate

17051179 003

Comme indiqué dans le Rapport d'essais numéro de  
référence qui constitue partie de ce CertificatThis CB Test Certificate is issued by the National Certification Body  
Ce Certificat d'essai OC est établi par l'Organisme National de Certification

TÜVRheinland®

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: 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.: 17051179 003

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
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.: 17051179 003



Date: 17.06.2016

Signature:

Tristan Deng



Test Report issued under the responsibility of:



<b>TEST REPORT</b>	
<b>IEC 60950-1</b>	
<b>Information technology equipment – Safety – Part 1: General requirements</b>	
<b>Report Number</b> .....	17051179 003
<b>Date of issue</b> .....	Jun. 13, 2016
<b>Total number of pages</b> .....	19
<b>Applicant's name</b> .....	<b>TPV Electronics (Fujian) Co., Ltd.</b>
<b>Address</b> .....	Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R.China
<b>Test specification:</b>	
<b>Standard</b> .....	IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
<b>Test procedure</b> .....	CB Scheme
<b>Non-standard test method</b> .....	N/A
<b>Test Report Form No.</b> .....	IEC60950_1F
<b>Test Report Form(s) Originator</b> ....	SGS Fimko Ltd
<b>Master TRF</b> .....	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.	
<b>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.</b>	
<b>General disclaimer:</b>	
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.	
<b>Test item description</b> .....	LCD MONITOR
<b>Trade Mark</b> .....	AOC
<b>Manufacturer</b> .....	Same as applicant.
<b>Model/Type reference</b> .....	270LM000**, *2775****, *277****, 236LM000**, *2475****, *247****, <b>215LM000**</b> , <b>**2275****</b> , <b>230LM000**</b> , <b>**2375****</b> (See page 6 for definition of "**")
<b>Ratings</b> .....	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>
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"/>	<b>Associated CB Testing Laboratory:</b>	
Testing location/ address .....		
Tested by (name + signature) .....		Wendy Wang 
Approved by (name + signature) .....		Anderson Wang 
<input type="checkbox"/>	<b>Testing procedure: TMP/CTF Stage 1:</b>	
Testing location/ address .....		
Tested by (name + signature) .....		
Approved by (name + signature) .....		
<input type="checkbox"/>	<b>Testing procedure: WMT/CTF Stage 2:</b>	
Testing location/ address .....		
Tested by (name + signature) .....		
Witnessed by (name + signature) .....		
Approved by (name + signature) .....		
<input type="checkbox"/>	<b>Testing procedure: SMT/CTF Stage 3 or 4:</b>	
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

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

**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
SELV limits for Normal Conditions	2.2.2
SELV limits for Abnormal Conditions	2.2.3
Limited power source	2.5
Stability test	4.1
Wall mounting test	4.2.10
Maximum Temperature Test	4.5.2
Fault condition	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 CB report 17051179 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.



Note: The above label represents labels for model names other than above covered by the model name. See original CB report 17051179 001-002 for others labels.

<b>Test item particulars.....:</b>	
<b>Equipment mobility.....:</b>	<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
<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>	$\pm 10\%$ 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>	
<b>Class of equipment .....</b>	<input checked="" type="checkbox"/> Class I <input 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>	16A (20A for North America)
<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>	IP20
<b>Altitude during operation (m) .....</b>	$\leq 5000$
<b>Altitude of test laboratory (m) .....</b>	$< 2000$
<b>Mass of equipment (kg) .....</b>	For 27 inch models without base: 4.21kg; For 23.6 inch models without base: 3.15kg; For 23 inch models without base: 3.08kg; For 21.5 inch models without base: 2.73kg; Base type A: 3.59kg; Base type B: 0.46kg; Base type A': 2.01kg; Base type B': 0.36kg.
<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>	May 09, 2016
<b>Date(s) of performance of tests .....</b>	May 09, 2016 to May 15, 2016
<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 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 .....

 **Yes** **Not applicable****When differences exist; they shall be identified in the General product information section.**

Name and address of factory (ies)..... :	
	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-Jundiaí-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 Tijuans 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.
	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, P.R. China
	12 Envision Indústria de Produtos Eletrônicos Ltda. Av. Torquato Tapajós, 2236, Flores - CEP 69058-830 - Manaus/AM Brasil

**General product information:**

## Description of change(s):

- 1) Update factory list according to client's request, see page 5 for the details.
- 2) Add 21.5 inch models **215LM000\*\***, **\*\*2275\*\*\*\*\***, add 23 inch models **230LM000\*\***, **\*\*2375\*\*\*\*\***. See following model difference table for combination details.
- 3) Add new USB board **715G8319** only used in new added models.
- 4) Add new power board **715G7775 type B** only used in new added models, meanwhile name original power board 715G7775 as type A.  
715G7775 type B is identical to type A except for add a new +16V output by-pass (+16V1), fuse F801 used for +16V1, add fuse F902 for +16V, and secondary circuit and layout after +16V output slightly changed.
- 5) Add new panel **LM215WF\*\*\*\*\* (L&T)** only for new added 21.5 inch models;  
Add new panel **LM230WF\*\*\*\*\* (L&T)** only for new added 23 inch models.

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

Change	Testing	Comments
1)	N/A	See page 5 for the details.
2)-5)	1.6.2, 2.2.2, 2.2.3, 2.5, 4.1, 4.2.10, 4.5.2, 5.3	See appended tables and also see attached photos for details. Due to normal heating temperature of 23 inch model is higher than that of 21.5 inch model, so only tested abnormal/fault condition heating of 23 inch model.

See below table for differences among models:

Model name	Panel size	Power board	Plastic enclosure	Metal enclosure	Main board	USB board	Base
270LM000**, *2775*****, *277*****	27 inch	715G7760	Type A	Type A	715G7742, 715G7762	715G7743	Type A Type B
		715G7775 type A			715G5436, 715G7612	N/A	
236LM000**, *2475*****, *247*****	23.6 inch	715G7775 type A	Type A'	Type B	715G5436, 715G7970	N/A	Type A' Type B'
<b>215LM000**</b> , <b>**2275*****</b>	<b>21.5 inch</b>	<b>715G7775 type B</b>	Type A''	Type A, Type B	715G7762	<b>715G8319</b>	Type A' Type B'
<b>230LM000**</b> , <b>**2375*****</b>	<b>23 inch</b>	<b>715G7775 type B</b>	Type A'''	Type A, Type B	715G7762	<b>715G8319</b>	Type A' Type B'

## Supplementary information:

1. Metal enclosure type B is identical to type A except for adding some circle opening near secondary circuit of power board;
2. Plastic enclosure type A', A'', A''' is identical to type A except for dimension due to difference panel size.
3. Base type A', B' are similar to type A, B except for smaller dimension.

## Definition of variable(s):

Variable:	Range of variable:	Content:

*	A-Z, a-z, 0-9, +, -, /, \ or blank	For marketing use only; No constructional differences. Models differ only in model name and marking label.																
<p><u>History of amendments and modifications:</u>          Ref. No. 17051179 001 dated Nov. 10. 2015 (original test report)          Ref. No. 17051179 002 dated Jan. 12. 2016 (1<sup>st</sup> modification)          Ref. No. 17051179 003 dated Jun. 13. 2016 (2<sup>nd</sup> modification)</p>																		
<p><b>Abbreviations used in the report:</b></p> <table border="0" data-bbox="261 616 1417 772"> <tr> <td>- normal conditions</td> <td><b>N.C.</b></td> <td>- single fault conditions</td> <td><b>S.F.C</b></td> </tr> <tr> <td>- functional insulation</td> <td><b>OP</b></td> <td>- basic insulation</td> <td><b>BI</b></td> </tr> <tr> <td>- double insulation</td> <td><b>DI</b></td> <td>- supplementary insulation</td> <td><b>SI</b></td> </tr> <tr> <td>- between parts of opposite polarity</td> <td><b>BOP</b></td> <td>- reinforced insulation</td> <td><b>RI</b></td> </tr> </table> <p>Indicate used abbreviations (if any)</p>			- 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>
- 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>															

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>2.2</b>	<b>SELV circuits</b>		<b>P</b>
2.2.1	General requirements	The secondary circuits were tested as SELV. See sub-clauses 2.2.1 to 2.2.4.	<b>P</b>
2.2.2	Voltages under normal conditions (V) .....	42.4V peak or 60V d.c. are not exceeded in SELV circuit under normal operation.	<b>P</b>
2.2.3	Voltages under fault conditions (V) .....	Single fault did not cause excessive voltage in accessible SELV circuits. Limits of 71V peak and 120V d.c. were not exceeded within 0.2 sec. and limits 42.4V peak and 60V d.c. were not exceeded for longer than 0.2 sec., see appended tables 2.2 and 5.3.	<b>P</b>
2.2.4	Connection of SELV circuits to other circuits .....	See sub-clauses 2.2.2 and 2.2.3.  No direct connection between SELV and any primary circuits.	<b>P</b>

<b>2.5</b>	<b>Limited power sources</b>		<b>P</b>
	a) Inherently limited output		<b>N/A</b>
	b) Impedance limited output		<b>N/A</b>
	c) Regulating network limited output under normal operating and single fault condition		<b>N/A</b>
	d) Overcurrent protective device limited output	(see appended table 2.5)	<b>P</b>
	Max. output voltage (V), max. output current (A), max. apparent power (VA).....:	(see appended table 2.5)	—
	Current rating of overcurrent protective device (A) ..	See Table 1.5.1	—
	Use of integrated circuit (IC) current limiters		—

<b>4</b>	<b>PHYSICAL REQUIREMENTS</b>		<b>P</b>
4.1	<b>Stability</b>		<b>P</b>
	Angle of 10°	No overturn. (Test by client's request)	<b>P</b>
	Test force (N) .....	Equipment is not a floor standing unit.	<b>N/A</b>

<b>IEC 60950-1</b>			
Clause	Requirement + Test	Result - Remark	Verdict
4.2.10	Wall or ceiling mounted equipment; force (N) ..... :	<p>For 23 inch model: An additional force 90.55N</p> <p>For 21.5 inch model: An additional force 80.26N applied downwards through the centre of gravity of the equipment for 1 min when mounted on wall according to client's instruction.</p> <p>After the test, the equipment was not damaged. (90.55N = 3 x 3.08 x 9.8N 80.26N = 3 x 2.73 x 9.8N)</p>	<b>P</b>

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 <sup>1)</sup>	
LCD Panel with LED backlight for 21.5 inch models	L&T	LM215WF***** (*can be 0~9, A~Z, "-" or blank for marking purpose)	21.5 inch panel with LED backlight.  The declared power consumption is 14.45W and backlight input voltage is 50.9V in specification.	IEC 60950-1	Tested in equipment	
LCD Panel with LED backlight for 23.0 inch models	L&T	LM230WF***** (*can be 0~9, A~Z, "-" or blank for marking purpose)	23.0 inch panel with LED backlight.  The declared power consumption is 16.7W and backlight input voltage is 54.1V in specification.	IEC 60950-1	Tested in equipment	
Fuse (F902) at +16V output on power board 715G7775 type B	Conquer	MET, MST, PTU	T2AL, 250Vac	IEC/ EN 60127-1, IEC/ EN 60127-3, UL 248	VDE, UL	
Alternative	Littelfuse, Inc. Wickmann	392, 382-series	T2AL, 250Vac	IEC/ EN 60127-1, IEC/ EN 60127-3, UL 248	VDE, UL	
Alternative	Cooper Bussmann	SR-5, SS-5	T2AL, 250Vac	IEC/ EN 60127-1, IEC/ EN 60127-3, UL 248	VDE, UL	
Alternative	Ever Island Electric Co. ltd and Walter electric	2000, 2010 serie(s)	T2AL, 250Vac	IEC/ EN 60127-1, IEC/ EN 60127-3, UL 248	VDE, UL	
Fuse (F801) at +16V1 output on power board 715G7775 type B	Conquer	MET, MST, PTU	T2AL, 250Vac	IEC/ EN 60127-1, IEC/ EN 60127-3, UL 248	VDE, UL	
Alternative	Littelfuse, Inc. Wickmann	392, 382-series	T2AL, 250Vac	IEC/ EN 60127-1, IEC/ EN 60127-3, UL 248	VDE, UL	

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
Alternative	Cooper Bussmann	SR-5, SS-5	T2AL, 250Vac	IEC/ EN 60127-1, IEC/ EN 60127-3, UL 248	VDE, UL
Alternative	Ever Island Electric Co. ltd and Walter electric	2000, 2010 serie(s)	T2AL, 250Vac	IEC/ EN 60127-1, IEC/ EN 60127-3, UL 248	VDE, UL
<b>Supplementary information:</b>					
1. Provided evidence ensures the agreed level of compliance.					

1.6.2	TABLE: Electrical data (in normal conditions)						P
U (V/Hz)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status	
<b>21. 5 inch model with power board 715G7775 type B, main board 715G7762, panel LM215WF***** (L&amp;T)</b>							
<b>VGA mode</b>							
90/50	0.64	--	34.6	F9901	0.64	Maximum normal load.	
90/60	0.65	--	34.5	F9901	0.65	Maximum normal load.	
100/50	0.58	1.5	34.0	F9901	0.58	Maximum normal load.	
100/60	0.58	1.5	33.9	F9901	0.58	Maximum normal load.	
240/50	0.33	1.5	34.3	F9901	0.33	Maximum normal load.	
240/60	0.33	1.5	34.5	F9901	0.33	Maximum normal load.	
264/50	0.31	--	34.9	F9901	0.31	Maximum normal load.	
264/60	0.31	--	35.1	F9901	0.31	Maximum normal load.	
<b>DP mode</b>							
90/50	0.65	--	34.7	F9901	0.65	Maximum normal load.	
90/60	0.66	--	34.6	F9901	0.66	Maximum normal load.	
100/50	0.59	1.5	34.3	F9901	0.59	Maximum normal load.	
100/60	0.60	1.5	34.0	F9901	0.60	Maximum normal load.	
240/50	0.35	1.5	34.5	F9901	0.35	Maximum normal load.	
240/60	0.35	1.5	34.4	F9901	0.35	Maximum normal load.	
264/50	0.33	--	35.0	F9901	0.33	Maximum normal load.	
264/60	0.33	--	35.1	F9901	0.33	Maximum normal load.	
<b>HDMI mode</b>							
90/50	0.65	--	34.8	F9901	0.65	Maximum normal load.	
90/60	0.66	--	34.7	F9901	0.66	Maximum normal load.	
100/50	0.59	1.5	34.3	F9901	0.59	Maximum normal load.	

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
100/60	0.60	1.5	34.1	F9901	0.60	Maximum normal load.
240/50	0.35	1.5	34.6	F9901	0.35	Maximum normal load.
240/60	0.35	1.5	34.5	F9901	0.35	Maximum normal load.
264/50	0.33	--	35.2	F9901	0.33	Maximum normal load.
264/60	0.33	--	35.0	F9901	0.33	Maximum normal load.
<b>DVI mode</b>						
90/50	0.64	--	34.9	F9901	0.64	Maximum normal load.
90/60	0.64	--	34.7	F9901	0.64	Maximum normal load.
100/50	0.58	1.5	34.4	F9901	0.58	Maximum normal load.
100/60	0.58	1.5	34.1	F9901	0.58	Maximum normal load.
240/50	0.34	1.5	35.1	F9901	0.34	Maximum normal load.
240/60	0.34	1.5	34.9	F9901	0.34	Maximum normal load.
264/50	0.32	--	35.0	F9901	0.32	Maximum normal load.
264/60	0.32	--	35.2	F9901	0.32	Maximum normal load.
<b>23 inch model with power board 715G7775 type B, main board 715G7762, panel LM230WF***** (L&amp;T)</b>						
<b>VGA mode</b>						
90/50	0.82	--	44.7	F9901	0.82	Maximum normal load.
90/60	0.83	--	44.8	F9901	0.83	Maximum normal load.
100/50	0.75	1.5	44.3	F9901	0.75	Maximum normal load.
100/60	0.75	1.5	44.4	F9901	0.75	Maximum normal load.
240/50	0.42	1.5	43.4	F9901	0.42	Maximum normal load.
240/60	0.42	1.5	43.5	F9901	0.42	Maximum normal load.
264/50	0.39	--	43.5	F9901	0.39	Maximum normal load.
264/60	0.39	--	43.8	F9901	0.39	Maximum normal load.
<b>DP mode</b>						
90/50	0.84	--	45.4	F9901	0.84	Maximum normal load.
90/60	0.84	--	45.2	F9901	0.84	Maximum normal load.
100/50	0.76	1.5	44.9	F9901	0.76	Maximum normal load.
100/60	0.77	1.5	45.0	F9901	0.77	Maximum normal load.
240/50	0.44	1.5	44.2	F9901	0.44	Maximum normal load.
240/60	0.43	1.5	44.1	F9901	0.43	Maximum normal load.
264/50	0.41	--	44.5	F9901	0.41	Maximum normal load.
264/60	0.40	--	44.4	F9901	0.40	Maximum normal load.
<b>HDMI mode</b>						



IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
90/50	0.75	--	39.8	F9901	0.75	Maximum normal load.
90/60	0.75	--	39.9	F9901	0.75	Maximum normal load.
100/50	0.69	1.5	39.6	F9901	0.69	Maximum normal load.
100/60	0.70	1.5	39.4	F9901	0.70	Maximum normal load.
240/50	0.40	1.5	38.9	F9901	0.40	Maximum normal load.
240/60	0.40	1.5	38.7	F9901	0.40	Maximum normal load.
264/50	0.37	--	39.0	F9901	0.37	Maximum normal load.
264/60	0.36	--	39.2	F9901	0.36	Maximum normal load.
<b>DVI mode</b>						
90/50	0.82	--	44.7	F9901	0.82	Maximum normal load.
90/60	0.83	--	44.7	F9901	0.83	Maximum normal load.
100/50	0.76	1.5	44.3	F9901	0.76	Maximum normal load.
100/60	0.77	1.5	44.5	F9901	0.77	Maximum normal load.
240/50	0.44	1.5	43.6	F9901	0.44	Maximum normal load.
240/60	0.44	1.5	43.8	F9901	0.44	Maximum normal load.
264/50	0.41	--	43.7	F9901	0.41	Maximum normal load.
264/60	0.40	--	43.9	F9901	0.40	Maximum normal load.
Note(s): 1. Maximum normal load: maximum brightness, maximum contrast, full white screen; speakers were loaded with 1KHz sinusoidal signal and turned to maximum volume, USB 2.0 port loaded with 5V/0.5A, USB 3.0 port loaded with 5V/0.9A, USB fast charging port loaded with 5V/1.5A .						

2.2	TABLE: Hazardous voltage measurement			P
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components	
	V peak	V d.c.		
T901 pin 6, 7-8	23.1	--	--	
After C914	--	5.2	--	
T901 pin 10-8	68.4	--	--	
After R915	64.0	--	R915	
After C912	33.6	--	C912	
After C913	--	16.7	C913	
After L801	--	30.9	--	
Converter board-Earth	--	41.4	--	
Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)			

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
R915 (s-c)		16.2V (+16V output)	
C912(s-c)		16.3V (+16V output)	
C913(s-c)		16.3V (+16V output)	
L801 (s-c)		0V (+16V output)	
C804(s-c)		0V (+16V output)	
D801 (s-c)		0V (+16V output)	
Supplementary information: Input Voltage is 240Vac, 60Hz			

2.5	TABLE: Limited power sources				P
Circuit output tested: <b>+16V output</b>					
Note: Measured Uoc (V) with all load circuits disconnected:					
	Uoc (V)	I <sub>sc</sub> (A)		VA	
		Meas.	Limit	Meas.	Limit
Normal condition	16.3	3.3	62.5(20)	51	250
Circuit output tested: <b>+16V1 output</b>					
Note: Measured Uoc (V) with all load circuits disconnected:					
	Uoc (V)	I <sub>sc</sub> (A)		VA	
		Meas.	Limit	Meas.	Limit
Normal condition	16.3	3.3	62.5(20)	51	250
<b>Supplementary information:</b>					
1. Input Voltage is 240Vac, 60Hz.					
2. +16V outputs with fuses F801, F902 that will break the circuit within 120s with a current equal to 210%. Current limit of table 2C reduced to breaking capacity of the fuse (20A).					

IEC 60950-1				
Clause	Requirement + Test	Result - Remark		Verdict
<b>4.5</b>	<b>TABLE: Thermal requirements</b>			<b>P</b>
	Supply voltage (V) .....	90V/60Hz	264V/60Hz	—
	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)
<b>21. 5 inch model with power board 715G7775 type B, main board 715G7762, panel LM215WF***** (L&amp;T)</b>				
<b>Horizontal position</b>				
	AC Inlet body CN901(on power board)	33.2	33.0	55.8
	Switch body(on power board)	33.4	33.1	65.8
	C9901 body (on power board)	38.3	37.2	70.8
	C9903 (on power board)	39.3	38.8	70.8
	C901 (on power board)	40.7	39.9	90.8
	L9901 coil (on power board)	49.8	48.3	90.8
	PCB near BD9901(on power board)	43.7	42.2	90.8
	C9904 body (on power board)	43.8	42.9	70.8
	T901 coil (on power board)	63.8	62.5	95.8
	T901 core (on power board)	60.4	58.7	95.8
	U902 body (on power board)	48.3	46.5	85.8
	PCB near Q901 (on power board)	50.5	48.8	90.8
	PCB near Main IC (main board)	46.8	45.7	90.8
	PCB near L801 (on power board)	45.5	44.6	90.8
	Plastic enclosure inside near T901	38.3	37.5	Ref.
	Plastic enclosure outside	35.6	35.1	80.8
	Panel surface	37.5	37.1	80.8
	Metal enclosure	37.1	36.7	55.8
	Ambient	26.1	25.8	--
<b>Vertical position</b>				
	AC Inlet body CN901(on power board)	32.9	32.4	55.6
	Switch body(on power board)	33.3	33.1	65.6
	C9901 body (on power board)	38.6	37.7	70.6
	C9903 (on power board)	39.9	37.8	70.6
	C901 (on power board)	41.3	40.9	90.6
	L9901 coil (on power board)	48.6	47.8	90.6

<b>IEC 60950-1</b>			
Clause	Requirement + Test	Result - Remark	Verdict
PCB near BD9901 (on power board)	42.6	42.9	90.6
C9904 body (on power board)	43.3	42.5	70.6
T901 coil (on power board)	63.3	61.8	95.6
T901 core (on power board)	61.4	57.7	95.6
U902 body (on power board)	47.8	46.3	85.6
PCB near Q901 (on power board)	49.5	48.5	90.6
PCB near Main IC (main board)	46.3	45.2	90.6
PCB near L801 (on power board)	45.8	44.9	90.6
Plastic enclosure inside near T901	37.8	37.3	Ref.
Plastic enclosure outside	35.3	35.2	80.6
Panel surface	36.7	36.6	80.6
Metal enclosure	36.9	36.3	55.6
Ambient	25.8	25.6	--
<b>23 inch model with power board 715G7775 type B, main board 715G7762, panel LM230WF***** (L&amp;T)</b>			
<b>Horizontal position</b>			
AC Inlet body CN901 (on power board)	35.2	35.4	56.1
Switch body (on power board)	34.3	33.9	66.1
C9901 body (on power board)	41.4	41.2	71.1
C9903 (on power board)	43.3	41.8	71.1
C901 (on power board)	43.7	42.9	91.1
L9901 coil (on power board)	51.8	50.3	91.1
PCB near BD9901 (on power board)	44.7	44.2	91.1
C9904 body (on power board)	44.5	43.6	71.1
T901 coil (on power board)	68.2	65.1	96.1
T901 core (on power board)	64.4	62.7	96.1
U902 body (on power board)	50.2	48.4	86.1
PCB near Q901 (on power board)	52.6	51.2	91.1
PCB near Main IC (main board)	48.1	47.3	91.1
PCB near L801 (on power board)	47.7	46.1	91.1
Plastic enclosure inside near T901	39.6	37.7	Ref.
Plastic enclosure outside	36.2	35.3	81.1
Panel surface	38.2	38.5	81.1
Metal enclosure	37.6	37.4	56.1
Ambient	26.4	26.1	--

IEC 60950-1							
Clause	Requirement + Test				Result - Remark		Verdict
<b>Vertical position</b>							
AC Inlet body CN901(on power board)	35.0				34.5		55.6
Switch body(on power board)	33.3				32.1		65.6
C9901 body (on power board)	42.7				41.4		70.6
C9903 (on power board)	41.4				40.2		70.6
C901 (on power board)	43.2				42.4		90.6
L9901 coil (on power board)	50.8				49.3		90.6
PCB near BD9901(on power board)	43.7				42.2		90.6
C9904 body (on power board)	43.2				42.7		70.6
T901 coil (on power board)	66.9				65.7		95.6
T901 core (on power board)	63.2				62.3		95.6
U902 body (on power board)	49.9				48.7		85.6
PCB near Q901 (on power board)	51.8				50.5		90.6
PCB near Main IC (main board)	49.6				47.7		90.6
PCB near L801 (on power board)	47.1				46.2		90.6
Plastic enclosure inside near T901	38.7				37.6		Ref.
Plastic enclosure outside	35.9				34.7		80.6
Panel surface	37.8				37.3		80.6
Metal enclosure	36.1				35.2		55.6
Ambient	25.8				25.6		--
<b>Supplementary information:</b>							
Temperature T of winding:	$t_1$ (°C)	$R_1$ (Ω)	$t_2$ (°C)	$R_2$ (Ω)	T (°C)	Allowed $T_{max}$ (°C)	Insulation class
<b>Supplementary information:</b>							
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, and the minimum ambient temperature during test $T_{amb}$ , Temperature is calculated as follows:							
Winding components providing safety isolation:							
- T901, Class B → $T_{max} = 120°C - 10°C - 40°C + T_{amb}$ .							
Components with maximum absolute temperature of others:							
- $T_{max} = T_{max} \text{ of component} - 40 + T_{amb}$ .							

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
<b>5.3</b>	<b>TABLE: Fault condition tests</b>					<b>P</b>
	Ambient temperature (°C) .....				See below	—
	Power source for EUT: Manufacturer, model/type, output rating .....					—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
<b>23 inch model with power board 715G7775 type B, main board 715G7762, panel LM230WF***** (L&amp;T)</b>						
Ventilation opening	Blocked	264	2hrs	F9901	0.40	Max. measured temp in T901 coil =70.3°C, T901 core=66.5°C, U902 body =51.7°C, Ambient= 26.1 °C, no damage, no hazards.
+16V output	o-l	264	8hrs	F9901	0.52	Max. measured temp in T901 coil =107.1°C, T901 core=101.7°C, U902 body =74.8°C, Ambient= 25.8°C, max. loaded to 3.5A, no damage, no hazards.
+5V output	o-l	264	7hrs	F9901	0.51	Max. measured temp in T901 coil=103.6°C, T901 core=98.7°C, U902 body=72.5°C, Ambient= 25.7°C, max. loaded to 7.1A, no damage, no hazards.
USB 3.0	o-l	264	7hrs	F9901	0.43	Max. measured temp in T901 coil=74.6°C, T901 core=72.7°C, U902 body=57.5°C, Ambient= 25.6°C, max. loaded to 2.8A, no damage, no hazards.
USB 2.0	o-l	264	7hrs	F9901	0.42	Max. measured temp. in T901 coil =72.4°C, T901 core=69.4°C, U902 body=55.5°C, ambient= 25.9°C, max. loaded to 1.5A, no damage, no hazards.
USB 3.0 fast charging output	o-l	264	8hrs	F9901	0.44	Max. measured temp. in T901 coil =76.6°C, T901 core=73.8°C, U902 body=58.9°C, Ambient= 25.8°C, max. loaded to 3.1A, no damage, no hazards.

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

**Supplementary information:**

1. The unit passed 3000V hi-pot test between primary and accessible output connector after single fault test above.
2. In fault column, where s-c=short-circuited, o-c=open-circuited, o-l = overload.
3. For fuse opened conditions were tested with each source of fuse.
4. For component damaged conditions have been repeated twice (three tests total) with same result.
5. Temp. limit of transformer according to table C.1 is 175°C -10°C-(40°C –Tamb).

Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*\*, \*247\*\*\*\*\*,  
215LM000\*\*, \*\*2275\*\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*\*



Figure 1. Front view of 21.5 inch model (Horizontal position)



Figure 2. Rear view of 21.5 inch model (Horizontal position)



Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*\*, \*247\*\*\*\*\*,  
215LM000\*\*, \*\*2275\*\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*\*



Figure 3. Side view of 21.5 inch model (Horizontal position)



Figure 4. Side view of 21.5 inch model (Horizontal position)

Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*, \*277\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*, \*247\*\*\*\*, 215LM000\*\*, \*\*2275\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*



Figure 5. Front view of 21.5 inch model (Vertical position)



Figure 6. Rear view of 21.5 inch model (Vertical position)

Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*\*, \*247\*\*\*\*\*,  
215LM000\*\*, \*\*2275\*\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*\*



Figure 7. Side view of 21.5 inch model (Vertical position)



Figure 8. Side view of 21.5 inch model (Vertical position)

Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*\*, \*247\*\*\*\*\*,  
215LM000\*\*, \*\*2275\*\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*\*



Figure 9. Front view of 23 inch model (Horizontal position)



Figure 10. Rear view of 23 inch model (Horizontal position)

Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*\*, \*247\*\*\*\*\*,  
215LM000\*\*, \*\*2275\*\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*\*



Figure 11. Side view of 23 inch model (Horizontal position)



Figure 12. Side view of 23 inch model (Horizontal position)

Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*\*, \*247\*\*\*\*\*,  
215LM000\*\*, \*\*2275\*\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*\*



Figure 13. Front view of 23 inch model (Vertical position)



Figure 14. Rear view of 23 inch model (Vertical position)

Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*\*, \*247\*\*\*\*\*,  
215LM000\*\*, \*\*2275\*\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*\*



Figure 15. Side view of 23 inch model (Vertical position)



Figure 16. Side view of 23 inch model (Vertical position)

Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*\*, \*247\*\*\*\*\*,  
215LM000\*\*, \*\*2275\*\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*\*

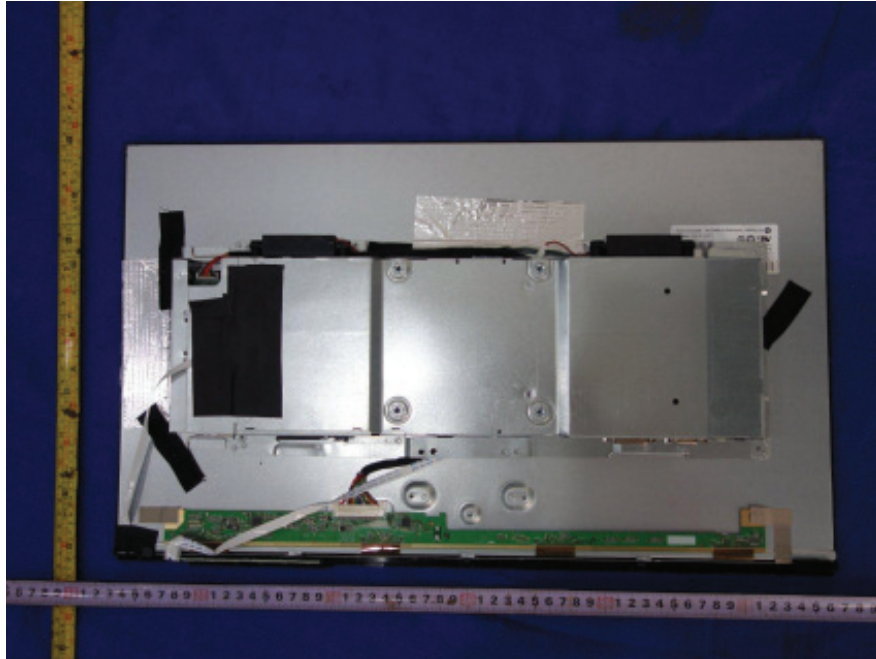


Figure 17. Internal view

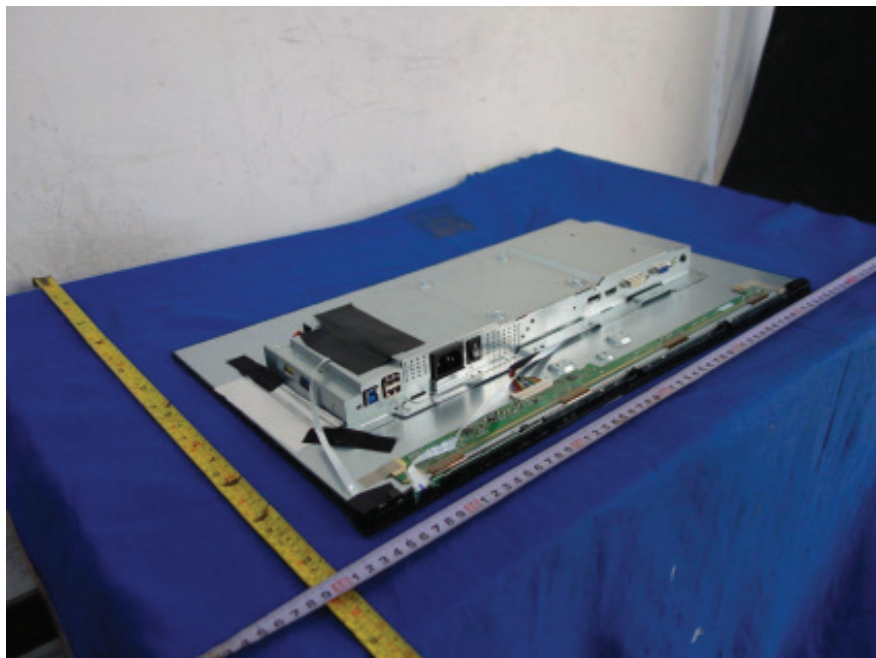


Figure 18. Internal view



Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*\*, \*247\*\*\*\*\*,  
215LM000\*\*, \*\*2275\*\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*\*

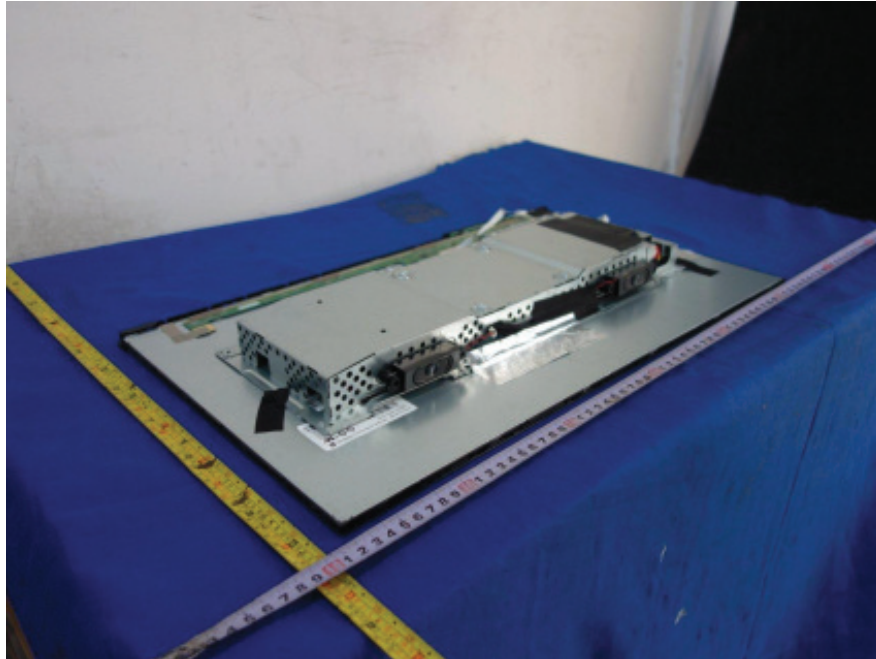


Figure 19. Internal view

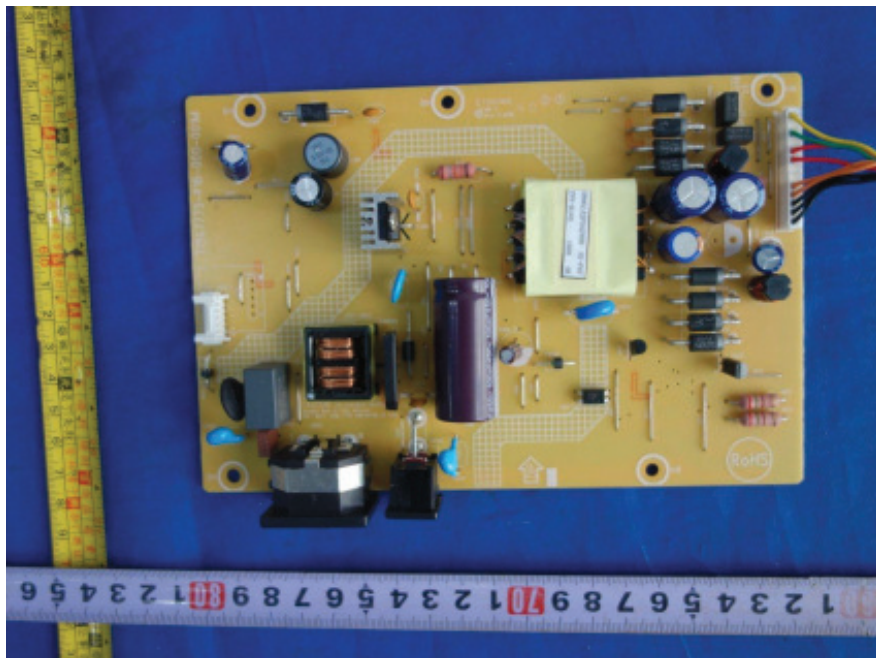


Figure 20. Power board 715G7775 type B

Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*\*, \*247\*\*\*\*\*,  
215LM000\*\*, \*\*2275\*\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*\*

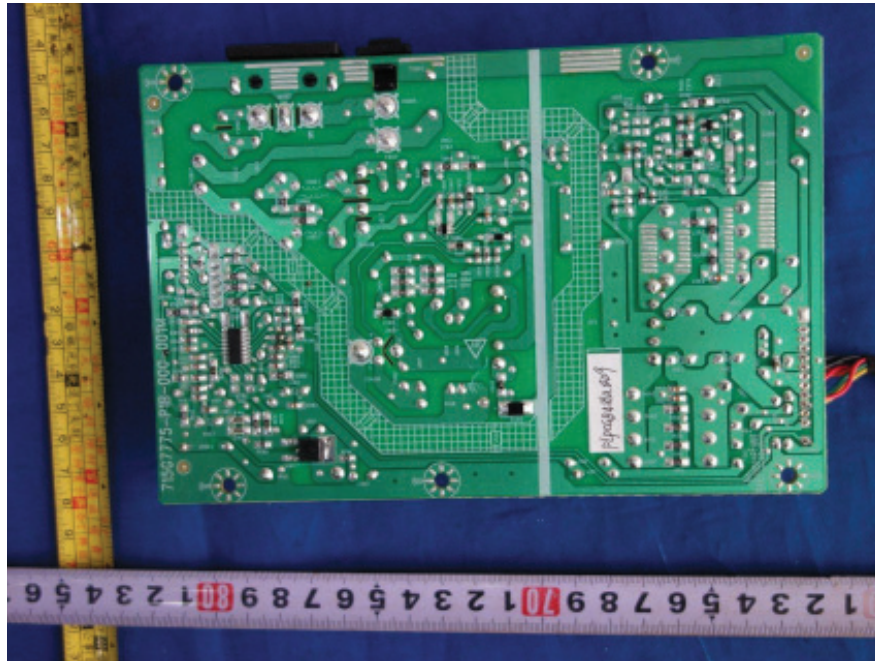


Figure 21. Power board 715G7775 type B

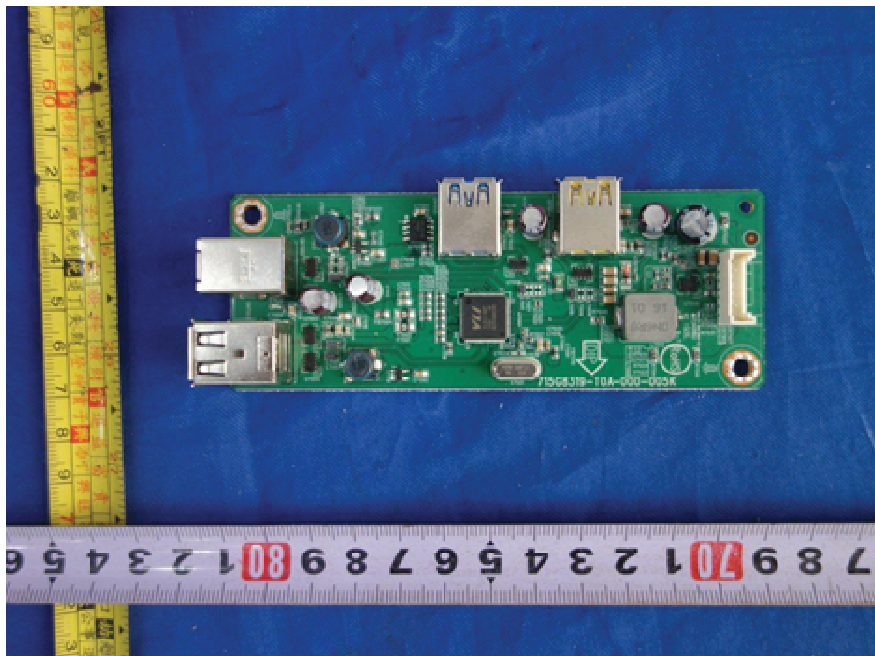


Figure 22. USB board 715G8319

Product: LCD MONITOR

Type Designation: 270LM000\*\*, \*2775\*\*\*\*\*, \*277\*\*\*\*\*, 236LM000\*\*, \*2475\*\*\*\*\*, \*247\*\*\*\*\*,  
215LM000\*\*, \*\*2275\*\*\*\*\*, 230LM000\*\*, \*\*2375\*\*\*\*\*

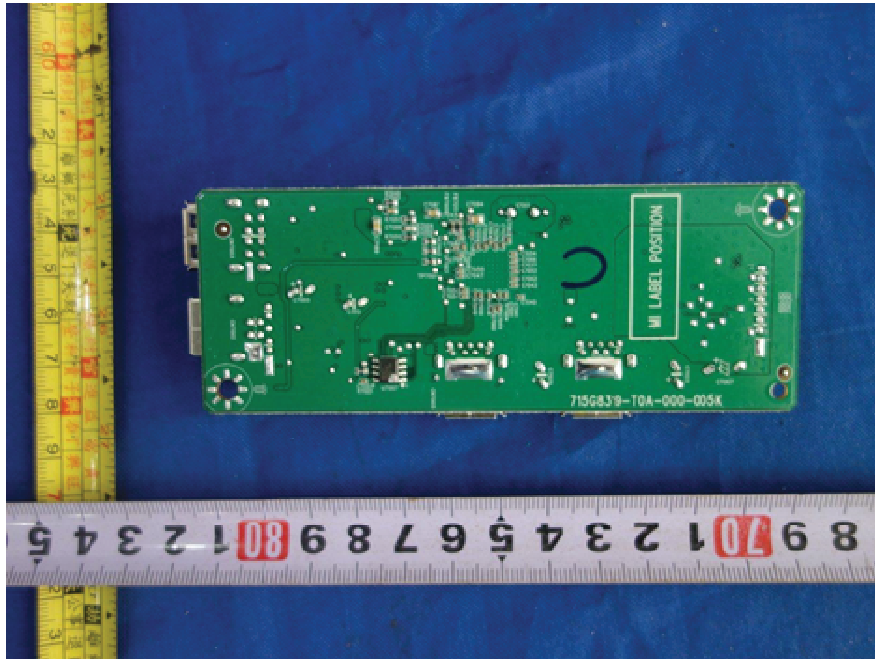


Figure 23. USB board 715G8319