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友達光電股份有限公司

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AU OPTRONICS CORP
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300 TAIWAN

Date: 2017/07/06
Subscriber: 331388003
PartySite: 119984
File No: E204356
Project No: 4788046298
PD No: 17030334
Type: R
PO Number: AU-UL1731

Subject: **Procedure And/Or Report Material**

The following material resulting from the investigation under the above numbers is enclosed.

Issue

<u>Date</u>	<u>Vol</u>	<u>Sec</u>	<u>Pages</u>	<u>Revised Date</u>
2011/07/05	X1	A218	Revised Proc/Rpt Section	

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Please file revised pages and illustrations in place of material of like identity. New material should be filed in its proper numerical order.

NOTE: Follow-Up Service Procedure revisions DO NOT include Cover Pages, Test Records and Conclusion Pages. Report revisions DO NOT include Authorization Pages, Indices, Section General Pages and Appendixes.

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TPI File

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2011-12-19 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Component Recognition
CCN:	NWQG2, NWQG8 (Information Technology Equipment Including Electrical Business Equipment)
Product:	LCD Panel (LED backlight)
Model:	G240HWZZ (where Z may be any alphanumeric character or blank)
Rating:	12Vdc, 2.9 A max. (optional)
Applicant Name and Address:	AU OPTRONICS CORP 1 LI-HSIN RD 2 HSINCHU SCIENCE PARK HSINCHU 300 TAIWAN

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared by: David Tseng

Reviewed by: Josh Huang

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization - The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions -
 - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
 - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
 - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

(TFT) LCD Panel secured on metal chassis and supplied by SELV.

Model Differences

N/A

Technical Considerations

- Equipment mobility : for building-in
- Connection to the mains : No direct connection
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : Not directly connect to mains
- Mains supply tolerance (%) or absolute mains supply values : No direct connection
- Tested for IT power systems : No
- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class III (supplied by SELV)
- Considered current rating of protective device as part of the building installation (A) : N/A
- Pollution degree (PD) : PD 3
- IP protection class : IP X0
- Altitude of operation (m) : Up to 2,000m
- Altitude of test laboratory (m) : Up to 2,000m
- Mass of equipment (kg) : 2.3
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 50°C

Engineering Conditions of Acceptability

For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC. When installed in an end-product, consideration must be given to the following:

- The component is evaluated for use in SELV circuits.
- Safety Instruction should be considered in end-product evaluation

- The following secondary output circuits are SELV: - After LED drive board(P/N: 24G01-D01): J1
- The power supply terminals and/or connectors are: Suitable for factory wiring only
- The investigated Pollution Degree is: 2
- The following end-product enclosures are required: Electrical, Fire, Mechanical

Additional Information

N/A

Markings and instructions

Clause Title	Marking or Instruction Details
1.7.1 Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
1.7.1 Power rating - Model	Model Number

Special Instructions to UL Representative

N/A

Production-Line Testing Requirements

Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.

Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
--	--	--	--	--	--	--

Earthing Continuity Test Exemptions - This test is not required for the following models:

All Models.

Electric Strength Test Exemptions - This test is not required for the following models:

All Models.

Electric Strength Test Component Exemptions - The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:

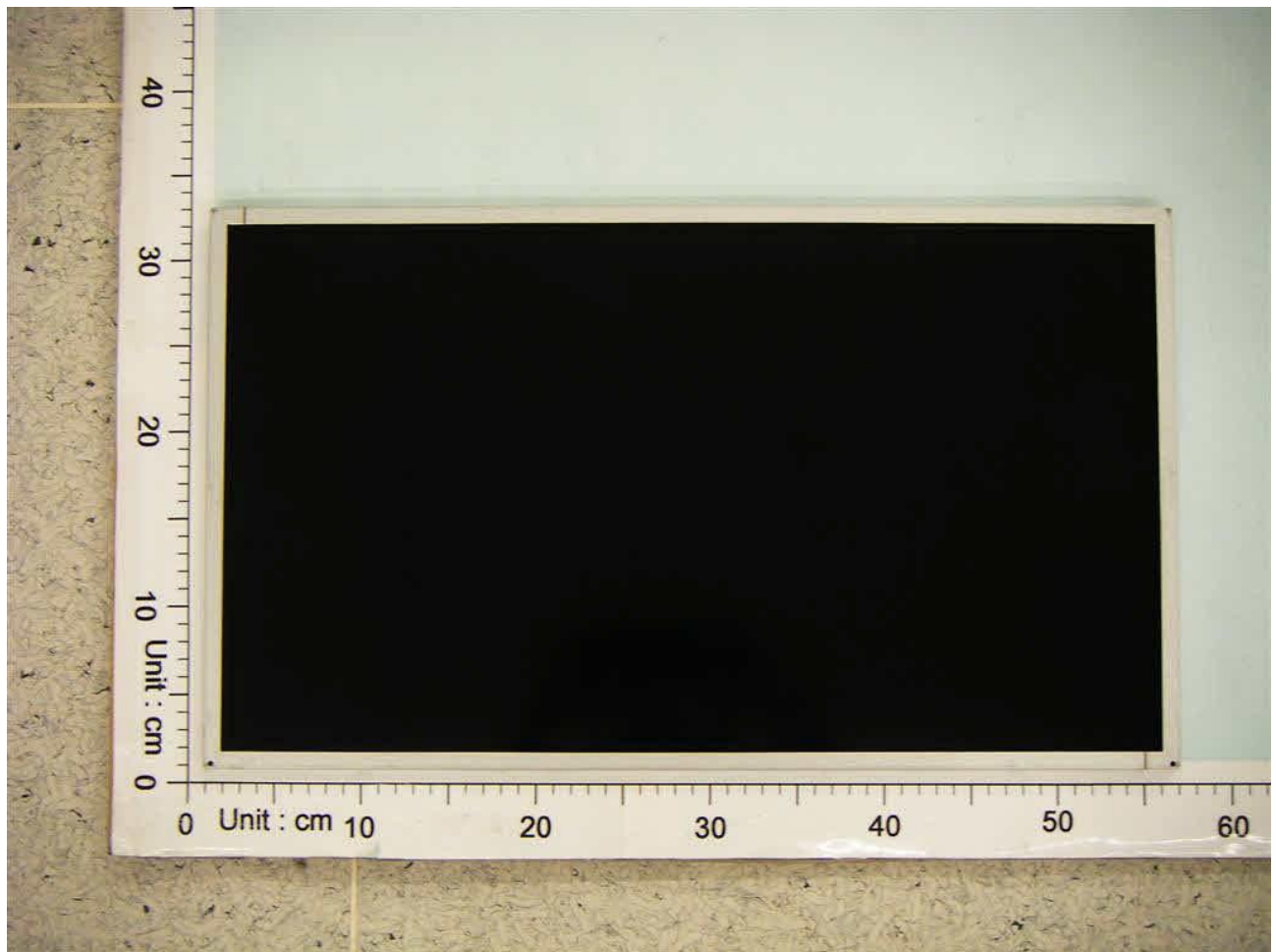
Sample and Test Specifics for Follow-Up Tests at UL

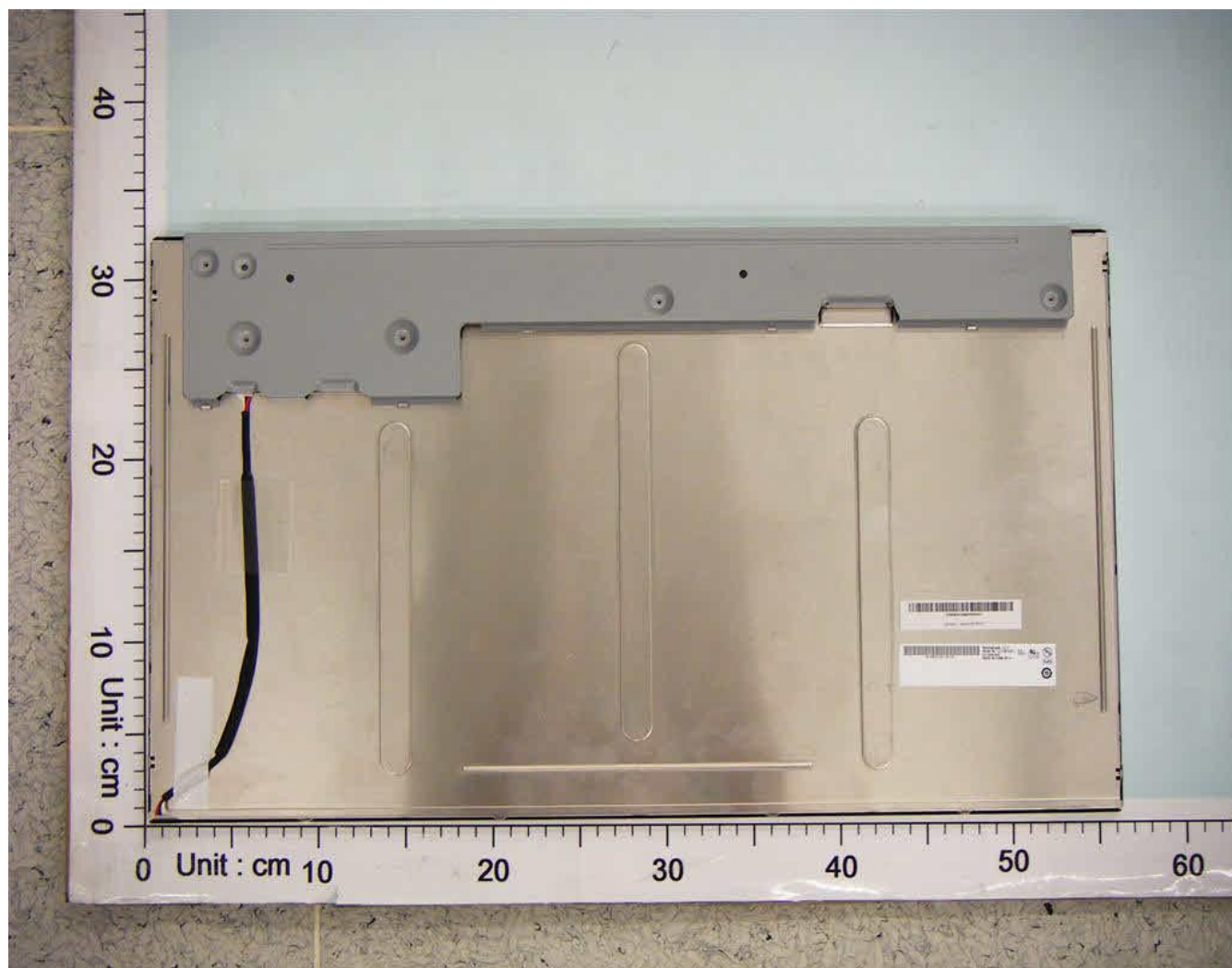
Model	Component	Material	Test	Sample(s)	Test Specifics
N/A					

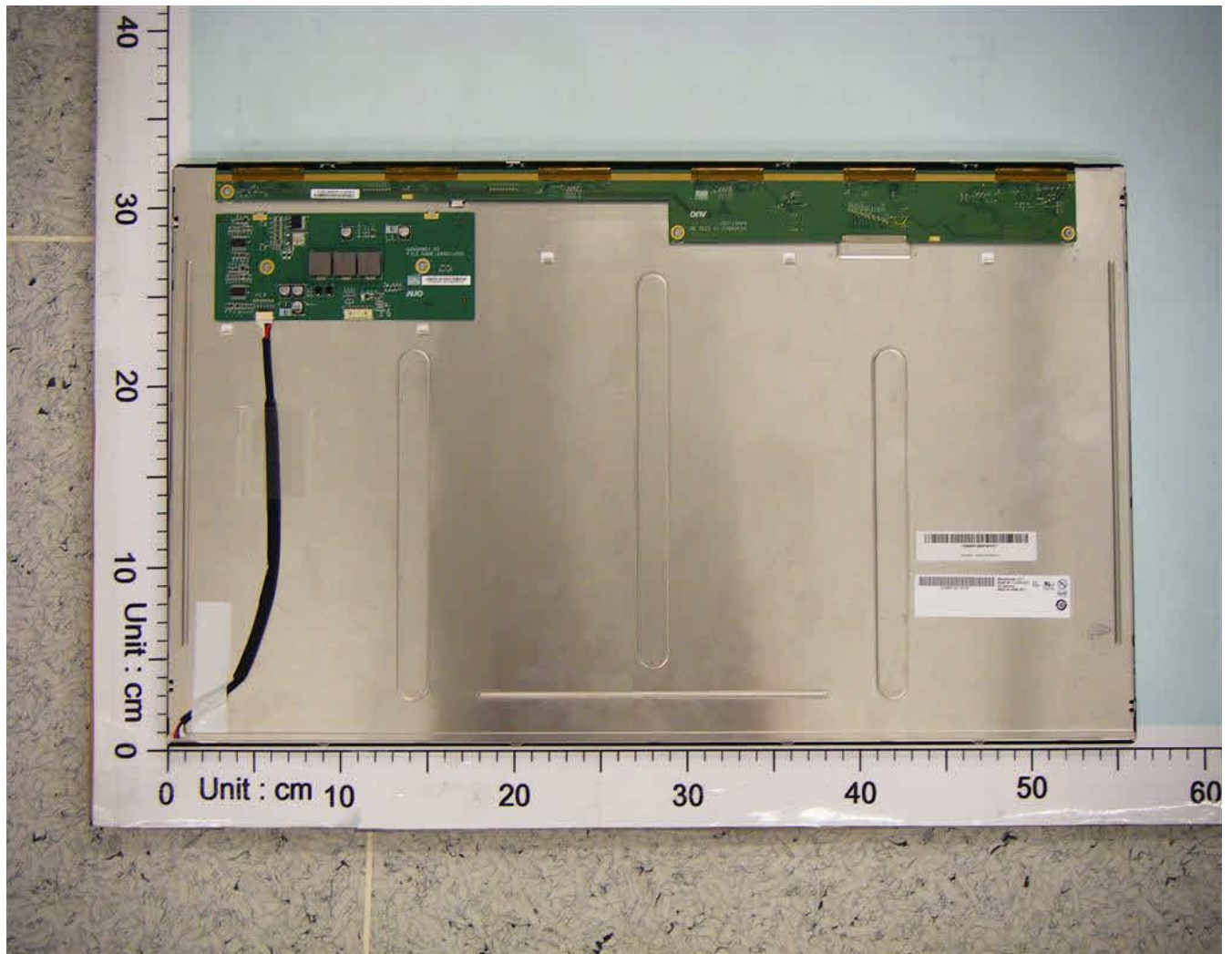
1.5.1	TABLE: list of critical components					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
01. Panel	AU Optronics Corp.	G240HWZZ (Z may be 0-9, A-Z or blank)	TFT Type, 24 inch, with LED backlight.	--	--	
02. Chassis	--	--	Sheet metal.	--	--	
03. PWB	Various	Various	Minimum V-1 or better, 105 degree C.	ZPMV2	UL	
04. Internal Wiring (Optional)	Various	Various	FEP, PTFE, PVC, TFE, neoprene, polyimide or rated VW-1; minimum 30 V, 105 degree C.	AVLV2	UL	
05. Connectors and Receptacles (Secondary ELV/SELV circuits)	Various	Various	--	ECBT2, RTRT2	UL	
05a. Connectors and Receptacles (Secondary ELV/SELV circuits)(alternate)	--	--	Metal/ Plastic. Copper alloy pins housed in bodies of plastic rated V-2 min.	QMFZ2	UL	
06. Flexible PWBs (Optional)	Various	Various	Min V-1 or VTM-1, 80 degree C for component mounted. Min V-2 or VTM-2, 80 degree C for no component mounted.	ZPKX2 or ZPMV2 or QMFZ2 or QMTS2	UL	
07. Label	Various	Various	Min. 60 degree C. Suitable for applied surface.	PGDQ2 or PGJ12	UL	
08. Metal Cover for drive board (Optional)	--	--	Sheet metal	--	--	
09. LED Drive Board	AU Optronics Corp.	G240HW%% (% may be 0-9, A-Z or blank)	12V , 2.9 Amax	--	--	

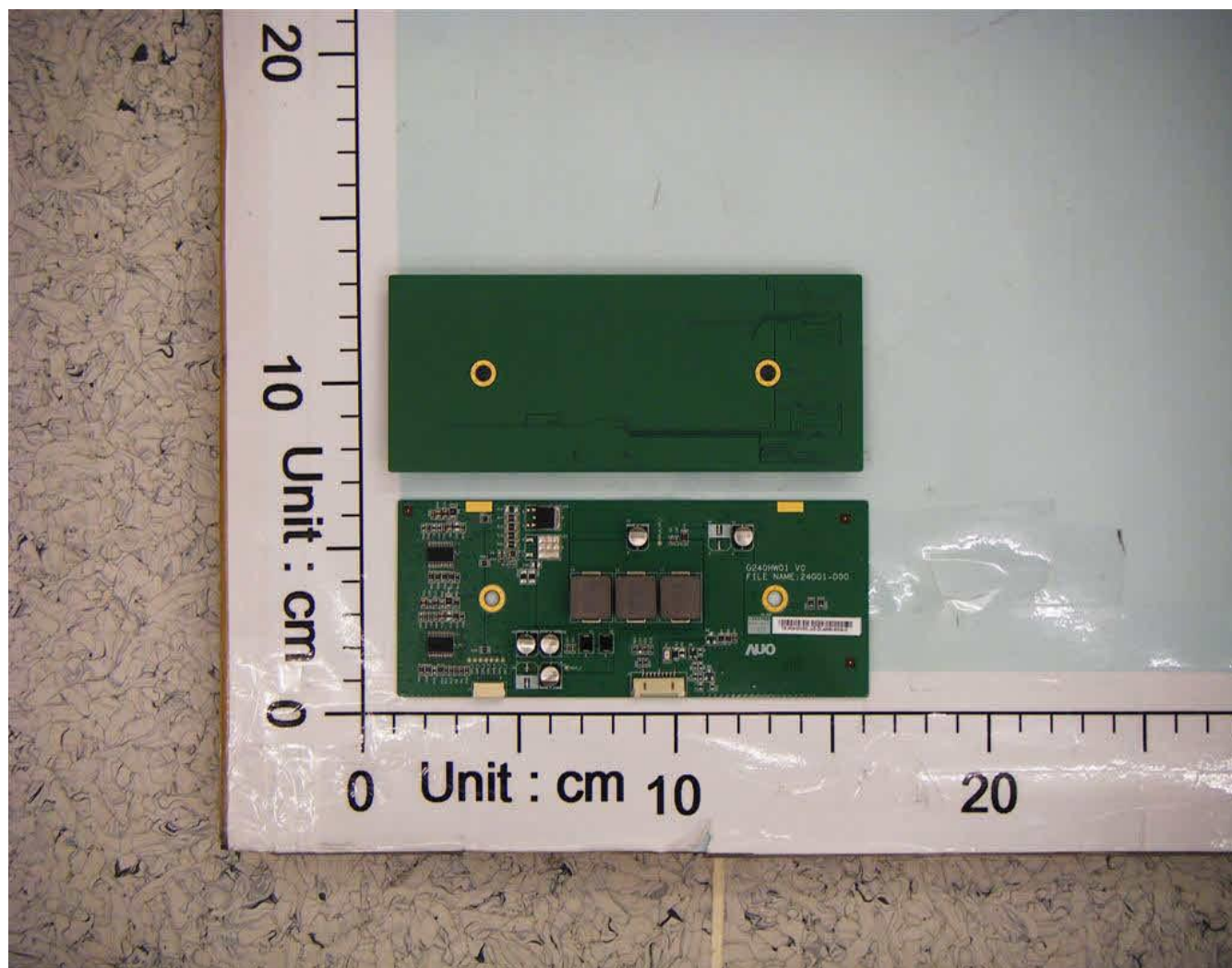
Enclosures

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Photographs	3-01	Front View
Photographs	3-02	Internal View - 1
Photographs	3-03	Internal View - 2
Photographs	3-04	LED Drive Board (P/N: G240HW%% (% may be 0-9, A-Z or blank))









Test Record No. 1

- The manufacturer submitted a sample representing product of LCD Panel (LED backlight), Model G240HWZZ (where Z may be any alphanumeric character or blank) with LED drive board, Mfr.: AU OPTRONICS CORP. P/N: P/N:24G01-D01.

- Tests were conducted by AU OPTRONICS CORP./ No. 23, Li-Hsin Road, Hsinchu Science Park, Hsinchu 300, Taiwan R.O.C. under WTDP program and witnessed by a member of UL staff.

- Test results reported relate only to the items tested.

The following tests were conducted:

Test	Testing Location/Comments
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Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

Type	Supplement Id	Description
Attachment	2-01	CRD
Datasheet	2-02	Test Datasheet

Issue Date: 2011-07-05

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Report Reference #

E204356-A218-UL

Revision Date: 2017-07-04

Test Record

Test Record No. 2

- No any tests were deemed necessary, due to change P/N. of LED Drive Board from 24G01-DXX (X=0-9, A-Z or blank) to G240HW%% (% may be 0-9, A-Z or blank)

Issue Date: 2011-07-05

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Report Reference #

E204356-A218-UL

Revision Date: 2017-07-04

Test Record

Test Record No. 3

- No any tests were deemed necessary, due to upgrade standard.