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IEC 61747-10-2

Edition 1.0 2014-09

INTERNATIONAL STANDARD

**Liquid crystal display devices –
Part 10-2: Environmental, endurance and mechanical test methods –
Environmental and endurance**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

PRICE CODE



ICS 31.120

ISBN 978-2-8322-1846-4

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LIQUID CRYSTAL DISPLAY DEVICES –

Part 10-2: Environmental, endurance and mechanical test methods – Environmental and endurance

FOREWORD

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International Standard IEC 61747-10-2 has been prepared by IEC technical committee 110: Electronic display devices.

This first edition of IEC 61747-10-2 cancels and replaces Clauses 1 and 3 of the first edition of IEC 61747-5 published in 1998. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Examples of the test conditions have been added to each test method;
- b) References cited have been updated.

The text of this standard is based on the following documents:

CDV	Report on voting
110/528/CDV	110/575A/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61747 series, published under the general title *Liquid crystal display devices*, can be found on the IEC website.

NOTE It is intended that the other clauses of IEC 61747-5:1998 will be replaced by new parts in the IEC 61747 series. The details of the intended changes are given in Annex D of IEC 61747-30-1:2012.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

LIQUID CRYSTAL DISPLAY DEVICES –

Part 10-2: Environmental, endurance and mechanical test methods – Environmental and endurance

1 Scope and object

This part of IEC 61747 lists test methods applicable to liquid crystal display devices. It takes into account, wherever possible, the environmental test methods outlined in IEC 60068.

NOTE Devices include cells and modules.

The object of this standard is to establish uniform preferred test methods with preferred values for stress levels for judging the environmental properties of liquid crystal display devices.

In case of contradiction between this standard and a relevant specification, the latter should govern.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60068 (all parts), *Environmental testing*

IEC 60068-2-1, *Environmental testing – Part 2-1: Tests – Test A: Cold*

IEC 60068-2-2, *Environmental testing – Part 2-2: Tests – Test B: Dry heat*

IEC 60068-2-5, *Environmental testing – Part 2-5: Tests – Test Sa: Simulated solar radiation at ground level and guidance for solar radiation testing*

IEC 60068-2-13, *Basic environmental testing procedures – Part 2-13: Tests – Test M: Low air pressure*

IEC 60068-2-14:1984, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

IEC 60068-2-30, *Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle)*

IEC 60068-2-38:2009, *Environmental testing – Part 2-38: Tests – Test Z/AD: Composite temperature/humidity cyclic test*

IEC 60068-2-78, *Environmental testing – Part 2-78: Tests – Test Cab: Damp heat, steady state*

IEC 60747 (all parts), *Semiconductor devices*

IEC 60747-1, *Semiconductor devices – Part 1: General*

IEC 60748-1, *Semiconductor devices – Integrated circuits – Part 1: General*

ISO 18909:2006, *Photography – Processed photographic colour films and paper prints – Methods for measuring image stability*