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| STN | Zobrazovače s tekutými kryštálmi. Časť 10-1: Skúšanie vplyvu prostredia, skúšky odolnosti a mechanické skúšobné metódy. Mechanické skúšobné metódy. | STN EN 61747-10-1 35 8787 |
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Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/14

Obsahuje: EN 61747-10-1:2013, IEC 61747-10-1:2013

English version

**Liquid crystal display devices -
Part 10-1: Environmental, endurance and mechanical test methods -
Mechanical
(IEC 61747-10-1:2013)**

Dispositifs d'affichage à cristaux liquides -
Partie 10-1: Méthodes d'essais
d'environnement, d'endurance et
mécaniques -
Essais mécaniques
(CEI 61747-10-1:2013)

Flüssigkristall-Anzeige-Bauelemente -
Teil 10-1: Umwelt-, Lebensdauer- und
mechanische Prüfverfahren -
Mechanisch
(IEC 61747-10-1:2013)

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Comité Européen de Normalisation Electrotechnique
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CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 110/395/CDV, future edition 1 of IEC 61747-10-1, prepared by IEC TC 110, "Electronic display devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61747-10-1:2013.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-05-14
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-08-14

This document partially supersedes EN 61747-5:1998.

EN 61747-10-1:2013 supersedes Clauses 1 and 2 of EN 61747-5:1998.

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

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Endorsement notice

The text of the International Standard IEC 61747-10-1:2013 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

| | |
|------------------|-------------------------------------|
| IEC 60068-1 | NOTE Harmonised as EN 60068-1. |
| IEC 61747 series | NOTE Harmonised in EN 61747 series. |
| IEC 61747-5-3 | NOTE Harmonised as EN 61747-5-3. |

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|---|---------------|-------------|
| IEC 60068 | Series | Environmental testing | EN 60068 | Series |
| IEC 60068-2-6 | - | Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal) | EN 60068-2-6 | - |
| IEC 60068-2-7 | - | Environmental testing - Part 2: Tests. Test Ga: Acceleration, steady state | EN 60068-2-7 | - |
| IEC 60068-2-20 | - | Environmental testing - Part 2-20: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads | EN 60068-2-20 | - |
| IEC 60068-2-21 | - | Environmental testing - Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices | EN 60068-2-21 | - |
| IEC 60068-2-27 | - | Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock | EN 60068-2-27 | - |
| IEC 60747 | Series | Semiconductor devices | - | - |
| IEC 60748 | Series | Semiconductor devices - Integrated circuits | - | - |
| IEC 60749-14 | - | Semiconductor devices - Mechanical and climatic test methods - Part 14: Robustness of terminations (lead integrity) | EN 60749-14 | - |
| IEC 61747-1 | - | Liquid crystal and solid-state display devices - Part 1: Generic specification | EN 61747-1 | - |



INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Liquid crystal display devices –
Part 10-1: Environmental, endurance and mechanical test methods – Mechanical**

**Dispositifs d'affichage à cristaux liquides –
Partie 10-1: Méthodes d'essais d'environnement, d'endurance et mécaniques –
Essais mécaniques**





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Essais mécaniques**

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CONTENTS

| | |
|--|----|
| FOREWORD..... | 3 |
| 1 Scope..... | 5 |
| 2 Normative references..... | 5 |
| 3 Terms, definitions and letter symbols..... | 6 |
| 4 Standard atmospheric conditions for measurements and tests:..... | 6 |
| 5 Test methods..... | 6 |
| 5.1 General..... | 6 |
| 5.2 Robustness of terminations..... | 6 |
| 5.2.1 Wire terminations, pins or connectors with pins..... | 6 |
| 5.2.2 Flexible terminations..... | 7 |
| 5.3 Soldering..... | 7 |
| 5.4 Vibration (sinusoidal)..... | 7 |
| 5.4.1 Test Fc..... | 7 |
| 5.4.2 Transverse motion..... | 7 |
| 5.4.3 Distortion..... | 7 |
| 5.4.4 Vibration amplitude tolerance..... | 7 |
| 5.4.5 Severities..... | 7 |
| 5.4.6 Vibration amplitude..... | 8 |
| 5.4.7 Duration of endurance..... | 8 |
| 5.5 Shock..... | 9 |
| 5.6 Acceleration, steady state..... | 9 |
| 5.7 Bond strength test..... | 10 |
| 5.7.1 General..... | 10 |
| 5.7.2 General description of the test..... | 10 |
| 5.7.3 Preconditioning..... | 10 |
| 5.7.4 Initial measurements..... | 10 |
| 5.7.5 Test method (see Figure 1)..... | 10 |
| 5.7.6 Information required in the relevant specification..... | 11 |
| Bibliography..... | 12 |
| Figure 1 – Example of bond strength..... | 11 |
| Table 1 – Frequency range – Lower end..... | 7 |
| Table 2 – Frequency range – Upper end..... | 7 |
| Table 3 – Recommended frequency ranges..... | 8 |
| Table 4 – Recommended vibration amplitudes..... | 8 |
| Table 5 – Conditions for shock test..... | 9 |
| Table 6 – Acceleration conditions..... | 10 |

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LIQUID CRYSTAL DISPLAY DEVICES –**Part 10-1: Environmental, endurance and
mechanical test methods – Mechanical**

FOREWORD

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International Standard IEC 61747-10-1 has been prepared by IEC technical committee 110: Electronic display devices.

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

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 text of this standard is based on the following documents:

| CDV | Report on voting |
|-------------|------------------|
| 110/395/CDV | 110/454/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.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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.

LIQUID CRYSTAL DISPLAY DEVICES –

Part 10-1: Environmental, endurance and mechanical test methods – Mechanical

1 Scope

This part of IEC 61747 lists test methods applicable to liquid crystal display devices. It takes into account, wherever possible, the mechanical robustness test methods as 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 mechanical properties of liquid crystal display devices.

In case of contradiction between this standard and a relevant specification, it is the latter that 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 60068-2-6, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-7, *Basic environmental testing procedures – Part 2-7: Tests – Test Ga and guidance: Acceleration, steady state*

IEC 60068-2-20, *Environmental testing – Part 2-20: Tests – Test T: Test methods for solderability and resistance to soldering heat of devices with leads*

IEC 60068-2-21, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 60068-2-27, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60747 (all parts), *Semiconductor devices*

IEC 60748 (all parts), *Semiconductor devices – Integrated circuits*

IEC 60749-14, *Semiconductor devices – Mechanical and climatic test methods – Part 14: Robustness of terminations (lead integrity)*

IEC 61747-1, *Liquid crystal and solid-state display devices – Part 1: Generic specification*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN