



# SLOVENSKI STANDARD

## SIST EN 61747-2-1:2013

01-september-2013

Nadomešča:

SIST EN 61747-2-1:2002

---

**Prikazovalniki s tekočimi kristali - 2-1. del: Pasivni matrični enobarvni moduli LCD  
- Okvirna podrobna specifikacija**

Liquid crystal display devices - Part 2-1: Passive matrix monochrome LCD modules -  
Blank detail specification

/

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

Dispositifs d'affichage à cristaux liquides - Partie 2-1: Modules d'affichage à cristaux  
liquides (LCD) monochromes à matrice passive - Spécification particulière cadre

<https://standards.iteh.ai/catalog/standards/sist/e2aa24cf-7100-416e-8dd8-afcc881f5bd2/sist-en-61747-2-1-2013>

**Ta slovenski standard je istoveten z: EN 61747-2-1:2013**

---

**ICS:**

31.120	Elektronske prikazovalne naprave	Electronic display devices
--------	-------------------------------------	----------------------------

**SIST EN 61747-2-1:2013**

**en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 61747-2-1:2013](#)

<https://standards.iteh.ai/catalog/standards/sist/e2aa24cf-7100-416e-8dd8-afcc881f5bd2/sist-en-61747-2-1-2013>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61747-2-1**

June 2013

ICS 31.120

Supersedes EN 61747-2-1:2001

English version

**Liquid crystal display devices -  
Part 2-1: Passive matrix monochrome LCD modules -  
Blank detail specification  
(IEC 61747-2-1:2013)**

Dispositifs d'affichage à cristaux liquides -  
Partie 2-1: Modules d'affichage à cristaux  
liquides (LCD) monochromes à matrice  
passive -  
Spécification particulière cadre  
(CEI 61747-2-1:2013)

Flüssigkristall-Anzeige-Bauelemente -  
Teil 2-1: Einfarbige passive Matrix-  
Flüssigkristall-Anzeigemodule (LCD-  
Module) – Vordruck für  
Bauartspezifikation  
(IEC 61747-2-1:2013)

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

This European Standard was approved by CENELEC on 2013-04-22. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 110/371/CDV, future edition 2 of IEC 61747-2-1, prepared by IEC TC 110 "Electronic display devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61747-2-1:2013.

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) 2014-01-22
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-04-22

This document supersedes EN 61747-2-1:2001.

EN 61747-2-1:2013 includes the following significant technical changes with respect to EN 61747-2-1:2001:

– several words and test conditions were added in Clause 7 and Clause 8;

– the new edition was editorially changed according to the current CEN-CENELEC Internal Regulations – Part 3.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

<https://standards.iteh.ai/catalog/standards/sist/e2aa24cf-7100-416e-8dd8-afcc881f5bd2/sist-en-61747-2-1-2013>

## Endorsement notice

The text of the International Standard IEC 61747-2-1:2013 was approved by CENELEC as a European Standard without any modification.

## 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 61747-1 + A1	1998 2003	Liquid crystal and solid-state display devices - Part 1: Generic specification	EN 61747-1 + A1	1999 2003
IEC 61747-2	1998	Liquid crystal and solid-state display devices - Part 2: Liquid crystal display modules - Sectional specification	EN 61747-2	1999
IEC 61747-5	1998	Liquid crystal and solid-state display devices - Part 5: Environmental, endurance and mechanical test methods	EN 61747-5	1998

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 61747-2-1:2013](https://standards.iteh.ai/catalog/standards/sist/e2aa24cf-7100-416e-8dd8-afcc881f5bd2/sist-en-61747-2-1-2013)

<https://standards.iteh.ai/catalog/standards/sist/e2aa24cf-7100-416e-8dd8-afcc881f5bd2/sist-en-61747-2-1-2013>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 61747-2-1:2013](#)

<https://standards.iteh.ai/catalog/standards/sist/e2aa24cf-7100-416e-8dd8-afcc881f5bd2/sist-en-61747-2-1-2013>



IEC 61747-2-1

Edition 2.0 2013-03

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Liquid crystal display devices –**  
**Part 2-1: Passive matrix monochrome LCD modules – Blank detail specification**

**Dispositifs d'affichage à cristaux liquides –**  
**Partie 2-1: Modules d'affichage à cristaux liquides (LCD) monochromes à**  
**matrice passive – Spécification particulière cadre**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

PRICE CODE  
CODE PRIX

**N**

ICS 31.120

ISBN 978-2-83220-689-8

**Warning! Make sure that you obtained this publication from an authorized distributor.**  
**Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

## CONTENTS

FOREWORD.....	3
1 General .....	5
1.1 Scope.....	5
1.2 Normative references .....	5
2 Guidance for preparation of a detail specification .....	5
3 Marking .....	7
4 Ordering information .....	7
5 Limiting values (absolute maximum rating system) .....	7
6 Operating range and electrical and optical characteristics .....	9
6.1 Recommended operating range .....	9
6.2 Electrical and optical characteristics.....	10
7 Test conditions and inspection requirements .....	11
8 Qualification approval test (group D) .....	13
9 Additional information .....	13
Annex A (informative) Additional information items .....	14
Figure 1 – Block diagram examples for explanation of supply voltages .....	9
Table 1 – Limiting values .....	8
Table 2 – Recommended operating range.....	10
Table 3 – Electrical and optical characteristics .....	11
Table 4 – Group A – Lot-by-lot inspection .....	12
Table 5 – Group B – Lot-by-lot inspection .....	12
Table 6 – Group C – Periodic tests .....	12



## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## LIQUID CRYSTAL DISPLAY DEVICES –

**Part 2-1: Passive matrix monochrome LCD modules –  
Blank detail specification**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61747-2-1 has been prepared by IEC technical committee 110: Electronic display devices.

This second edition of IEC 61747-2-1 cancels and replaces the first edition published in 1998, and constitutes a technical revision. The main changes from the previous edition are as follows:

- several words and test conditions were added in Clause 7 and Clause 8;
- the new edition was editorially changed according to the current ISO/IEC Directives – Part 2.

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

CDV	Report on voting
110/371/CDV	110/446/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 the parts in the IEC 61747 series, under the general title *Liquid crystal display devices*, can be found on the IEC website.

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.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 61747-2-1:2013](#)

<https://standards.iteh.ai/catalog/standards/sist/e2aa24cf-7100-416e-8dd8-afcc881f5bd2/sist-en-61747-2-1-2013>

## LIQUID CRYSTAL DISPLAY DEVICES –

### Part 2-1: Passive matrix monochrome LCD modules – Blank detail specification

## 1 General

### 1.1 Scope

This part of IEC 61747 serves as a Blank Detail Specification (BDS) for a high quality approval system and contains requirements for style and layout and minimum content of detail specifications. These requirements are applicable when the detail specification is published (e.g. for standard product).

### 1.2 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 61747-1:2003, *Liquid crystal and solid-state display devices – Part 1: Generic specification*

IEC 61747-2:1998, *Liquid crystal and solid-state display devices – Part 2: Liquid crystal display modules – Sectional specification*

IEC 61747-5:1998, *Liquid crystal and solid-state display devices – Part 5: Environmental, endurance and mechanical test methods*

## 2 Guidance for preparation of a detail specification

The front page layout is illustrated. When the detail specifications for customer circuits are not published, the layout requirements of the blank detail specification are optional. A suggested front page layout is also illustrated. An example of a Customer Detail Specification (CDS) is also given.

The numbers between square brackets on the front page of the blank detail specification illustrated correspond to the following indications which should be given:

- [1] The name of the National Standards Organization under whose authority the detail specification is issued.
- [2] The IECQ number of the detail specification.
- [3] The numbers and issue numbers of the generic and sectional specifications.
- [4] The national number of the detail specification, date of issue and any further information, if required by the national system.
- [5] Type number(s) of component.
- [6] Information on typical construction and applications. If a device is designed to satisfy several applications, this shall be stated here. Characteristics, limits and inspection