

INTERNATIONAL STANDARD

IEC
61747-3

QC 720200

First edition
1998-02

**Liquid crystal and solid state display devices –
Part 3:
Sectional specification for liquid crystal
display (LCD) cells**

*Dispositifs d'affichage à cristaux liquides
et à semi-conducteurs –*

*Partie 3:
Spécification intermédiaire pour les cellules
pour dispositifs d'affichage à cristaux liquides*



Reference number
IEC 61747-3:1998(E)

Numbering

As from 1 January 1997 all IEC publications are issued with a designation in the 60000 series.

Consolidated publications

Consolidated versions of some IEC publications including amendments are available. For example, edition numbers 1.0, 1.1 and 1.2 refer, respectively, to the base publication, the base publication incorporating amendment 1 and the base publication incorporating amendments 1 and 2.

Validity of this publication

The technical content of IEC publications is kept under constant review by the IEC, thus ensuring that the content reflects current technology.

Information relating to the date of the reconfirmation of the publication is available in the IEC catalogue.

Information on the revision work, the issue of revised editions and amendments may be obtained from IEC National Committees and from the following IEC sources:

- **IEC Bulletin**
- **IEC Yearbook**
On-line access*
- **Catalogue of IEC publications**
Published yearly with regular updates
(On-line access)*

Terminology, graphical and letter symbols

For general terminology, readers are referred to IEC 60050: *International Electrotechnical Vocabulary (IEV)*.

For graphical symbols, and letter symbols and signs approved by the IEC for general use, readers are referred to publications IEC 60027: *Letter symbols to be used in electrical technology*, IEC 60417: *Graphical symbols for use on equipment. Index, survey and compilation of the single sheets* and IEC 60617: *Graphical symbols for diagrams*.

IEC publications prepared by the same technical committee

The attention of readers is drawn to the end pages of this publication which list the IEC publications issued by the technical committee which has prepared the present publication.

* See web site address on title page.

INTERNATIONAL STANDARD

IEC 61747-3

QC 720200

First edition
1998-02

Liquid crystal and solid state display devices –

Part 3: Sectional specification for liquid crystal display (LCD) cells

*Dispositifs d'affichage à cristaux liquides
et à semiconducteurs –*

*Partie 3:
Spécification intermédiaire pour les cellules
pour dispositifs d'affichage à cristaux liquides*

© IEC 1998 Copyright - all rights reserved — Droits de reproduction réservés

Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'éditeur.

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission
Telefax: +41 22 919 0300

3, rue de Varembe Geneva, Switzerland
e-mail: inmail@iec.ch IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE **M**

For price, see current catalogue

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LIQUID CRYSTAL AND SOLID-STATE DISPLAY DEVICES –

Part 3: Sectional specification for liquid crystal display (LCD) cells

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61747-3 has been prepared by subcommittee 47C: Optoelectronic, display and imaging devices, of IEC technical committee 47: Semiconductor devices.

This part of IEC 61747 is a sectional specification for liquid crystal display cells. It should be read together with the generic specification to which it refers.

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

FDIS	Report on voting
47C/196/FDIS	47C/201/RVD

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

The QC number that appears on the front cover of this publication is the specification number in the IECQ Quality Assessment System for Electronic Components (IECQ).

LIQUID CRYSTAL AND SOLID-STATE DISPLAY DEVICES –

Part 3: Sectional specification for liquid crystal display (LCD) cells

1 Scope

This sectional specification applies to liquid crystal cells of the segment type monochrome liquid crystal display cells. It gives details of the quality assessment procedures, the inspection requirements, screening sequences, sampling requirements and test and measurement procedures required for the assessment of liquid crystal display cells.

Instead of the qualification approval procedure, it is allowed to apply the capability approval procedure (see rules of procedure QC 001002, subclause 11.7, but at present capability approval procedure for the liquid crystal display cells is under consideration) for all products manufactured in a defined process.

All the requirements of this specification remain valid, unless modified by the requirements set out in 4.7.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this part of IEC 61747. At the time of publication, the edition indicated was valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 61747 are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

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

3 Definitions (related to manufacturing operations)

For the purpose of this part of IEC 61747, the following definitions apply.

3.1 production line

a single set of process operations including one or several of the following manufacturing phases:

- a) electrode patterning process;
- b) alignment treatment process;
- c) assembly process;
- d) liquid crystal material filling process;
- e) finishing process;
- f) inspection process.

NOTE – Quality assessment procedures are not included in these phases.

¹⁾ To be published.