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INTERNATIONAL STANDARD

**Liquid crystal display devices –
Part 4-1: Matrix colour LCD modules – Essential ratings and characteristics**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LIQUID CRYSTAL DISPLAY DEVICES –

Part 4-1: Matrix colour LCD modules – Essential ratings and characteristics

FOREWORD

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International Standard IEC 61747-4-1 has been prepared by IEC technical committee 110: Electronic display devices.

This second edition cancels and replaces the first edition published in 2004. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition: Adding the contents of the IEC 61747 series, adding the TFT technical kinds, revising the electrical and optical characteristics in Table 1 and correcting some editorial errors.

This standard is to be read in conjunction with IEC 61747-1-1.

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

FDIS	Report on voting
110/589/FDIS	110/611/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.

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- withdrawn,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.

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

The National Committees are requested to note that for this publication the stability date is 2020.

THIS TEXT IS INCLUDED FOR THE INFORMATION OF THE NATIONAL COMMITTEES AND WILL BE DELETED AT THE PUBLICATION STAGE.

INTRODUCTION

IEC 61747 consists of the following parts, under the general title “Liquid crystal display devices”:

- Part 1-1: Generic – Generic specification;
- Part 1-2: Generic – Terminology and letter symbols;
- Part 2: Liquid crystal display modules – Sectional specification¹;
- Part 2-1: Passive matrix monochrome LCD modules – Blank detail specification;
- Part 2-2: Matrix colour LCD modules – Blank detail specification;
- Part 3: Liquid crystal display (LCD) cells – Sectional specification²;
- Part 3-1: Liquid crystal display (LCD) cells – Blank detail specification³;
- Part 4: Liquid crystal display modules and cells – Essential ratings and characteristics;
- Part 4-1: Matrix colour LCD modules – Essential ratings and characteristics;
- Part 10-1: Environmental, endurance and mechanical test methods – Mechanical;
- Part 10-2: Environmental, endurance and mechanical test methods – Environmental and endurance;
- Part 20-1: Visual inspection – Monochrome liquid crystal display cells (excluding all active matrix liquid crystal display cells);
- Part 20-2: Visual inspection – Monochrome matrix liquid crystal display modules (excluding all active matrix liquid crystal display modules)⁴;
- Part 20-3: Visual inspection – Active matrix colour liquid crystal display modules⁵;
- Part 30-1: Functional measurement methods for liquid crystal display modules – Transmissive type;
- Part 30-4: Measuring methods of LCD modules with dynamic backlight units⁶;
- Part 40-1: Mechanical testing guidelines for display cover glass for mobile devices;
- Part 40-2: Mechanical testing of display cover glass for mobile devices – Uni-axial flexural strength (4-point bend)⁷;
- Part 40-3: Mechanical testing of display cover glass for mobile devices – Biaxial flexural energy-to-failure (ball drop)⁸;
- Part 40-4: Mechanical testing of display cover glass for mobile devices – Biaxial flexural strength (ring-on-ring)⁹;

¹ To be published.

² To be published.

³ To be published.

⁴ To be published.

⁵ Under consideration.

⁶ Under consideration.

⁷ To be published.

⁸ To be published.

⁹ To be published.

LIQUID CRYSTAL DISPLAY DEVICES –

Part 4-1: Matrix colour LCD modules – Essential ratings and characteristics

1 Scope

This part of IEC 61747 describes the essential ratings and characteristics of matrix colour liquid crystal display (LCD) modules.

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 61747-1-1, *Liquid crystal display devices – Part 1-1: Generic – Generic specification*