
Prikazalniki s plazmo – 2-2. del: Merilne metode – Optoelektrične (IEC 61988-2-2:2003)

Plasma display panels – Part 2-2: Measuring methods – Optoelectrical (IEC 61988-2-2:2003)

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EUROPEAN STANDARD

EN 61988-2-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2003

ICS 31.260

English version

Plasma display panels
Part 2-2: Measuring methods -
Optoelectrical
(IEC 61988-2-2:2003)

Panneaux d'affichage à plasma
Partie 2-2: Méthodes de mesure -
Méthodes opto-électriques
(CEI 61988-2-2:2003)

Plasmabildschirme
Teil 2-2: Messverfahren -
Opto-Elektrisch
(IEC 61988-2-2:2003)

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This European Standard was approved by CENELEC on 2003-04-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 47C/286/FDIS, future edition 1 of IEC 61988-2-2, prepared by SC 47C, Flat panel display devices, of IEC TC 47, Semiconductor devices, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61988-2-2 on 2003-04-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2004-01-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-04-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61988-2-2:2003 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 61988-1	- ¹⁾	Plasma display panels Part 1: Terminology and letter symbols	EN 61988-1	- ¹⁾
IEC 60068-1	- ²⁾	Environmental testing Part 1: General and guidance	EN 60068-1	1994 ³⁾
IEC 60107-1	- ²⁾	Methods of measurement on receivers for television broadcast transmissions Part 1: General considerations - Measurements at radio and video frequencies	EN 60107-1	1997 ³⁾

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1) To be published.

2) Undated reference.

3) Valid edition at date of issue.

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CEI
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61988-2-2

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First edition
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Panneaux d'affichage à plasma –

**Partie 2-2:
Méthodes de mesure –
Méthodes opto-électriques**

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Plasma display panels –

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**Measuring methods –
Optoelectrical**

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International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



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International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

PLASMA DISPLAY PANELS –

Part 2-2: Measuring methods – Optoelectrical

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 published International Standards. Their preparation is entrusted to technical committees; any 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 specifications, technical reports or guides and they are accepted by the National Committees in that sense.
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- (5) The IEC provides no making 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 61988-2-2 has been prepared by subcommittee 47C: Flat panel display devices, of IEC technical committee 47: Semiconductor devices.

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

FDIS	Report on voting
47C/286/FDIS	47C/293/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.

IEC 61988 consists of the following parts, under the general title *Plasma display panels*:

Part 1: Terminology and letter symbols ¹

Part 2-1: Measuring methods – Optical

Part 2-2: Measuring methods – Optoelectrical

Part 3: Guidelines of mechanical interface ²

Part 4: Environmental, endurance and mechanical test methods ³

The committee has decided that the contents of this publication will remain unchanged until 2009. At this date, the publication will be

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

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¹ To be published.

² Under consideration.

³ Under consideration.

PLASMA DISPLAY PANELS –

Part 2-2: Measuring methods – Optoelectrical

1 Scope

This part of IEC 61988 determines the following measuring methods for characterising the performance of colour plasma display modules:

- a) bright-room contrast ratio;
- b) module power and current consumption;
- c) module luminous efficacy.

2 Normative references

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

IEC 61988-1:—, *Plasma display panels – Part 1: Terminology and letter symbols* ⁴

IEC 60068-1, *Environmental testing – Part 1: General and guidance*

IEC 60107-1, *Methods of measurement on receivers for television broadcast transmissions – Part 1: General considerations – Measurement at radio and video frequencies*

3 Definitions

For the purposes of this document, the terms and definitions given in IEC 61988-1, IEC 60068-1 and IEC 60107-1 apply.

4 Structure of measuring equipment

The system diagrams and/or driving conditions of the measuring equipment shall comply with the structure specified in each item.

5 Standard measuring conditions

5.1 Environmental conditions

Measurements shall be carried out at the standard measuring position (refer to Figure 1) after sufficient warm-up time under the standard environmental conditions, e.g. at a temperature of $25\text{ °C} \pm 3\text{ °C}$, a relative humidity of 25 % to 85 %, and pressure of 86 kPa to 106 kPa. When different environmental conditions are used, these shall be noted on the report.

⁴ To be published.