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Display technologies – LCD, PDP and OLED – Overview and explanation of differences in terminology

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

DISPLAY TECHNOLOGIES – LCD, PDP AND OLED – OVERVIEW AND EXPLANATION OF DIFFERENCES IN TERMINOLOGY

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IEC 62728, which is a technical report, has been prepared by IEC technical committee 110: Flat panel display devices.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
110/301/DTR	110/320/RVC

Full information on the voting for the approval of this technical report 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.

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- withdrawn,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.

INTRODUCTION

Traditionally each display technology (LCD, PDP and OLED) has developed its standards independently. However because of the common applications for these technologies (e.g. TV), the differences in the terms and measurement methods used by the different technologies are causing confusion.

In 2007, TC110 decided to establish a study group to address these issues. This group decided to initially address the differences in terminology. Experts representing each working group (working group No.2: LCD, No.4: PDP, and No.5: OLED) agreed to work toward harmonizing their terminology standards at the maintenance time.

Cases were found where a standard term differed from International Electrotechnical Vocabulary (IEV), which is used by IEC for basic definitions.

In the case where agreement on harmonization could not be reached the study group decided to explain the reason for the disagreement.

This technical report explains the differences of the definitions for 10 terms and the reasons why they are different. It is expected that this report will help consumers to understand these differences and to use these technical terms without confusion.

DISPLAY TECHNOLOGIES – LCD, PDP AND OLED – OVERVIEW AND EXPLANATION OF DIFFERENCES IN TERMINOLOGY

1 Scope

This technical report explains differences in definitions of the terms used in the flat panel display field such as liquid crystal displays (LCD), plasma displays (PDP), and organic light emitting diode displays (OLED). The definitions of technical terms are individually specified in the different standards:

– Liquid crystal display: IEC 61747-1

– Plasma display: IEC 61988-1

– Organic light emitting diode display: IEC 62341-1-2.

This report explains the background and reasons for the differences, but does not introduce new definitions or terms.

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 60050-845:1987, *International Electrotechnical Vocabulary. Lighting*

IEC 61747-1:1998, *Liquid crystal and solid-state display devices – Part 1: Generic specification*
Amendment 1 (2003)

IEC 61988-1:2003, *Plasma display panels – Part 1: Terminology and letter symbols*

IEC 62341-1-2:2007, *Organic light emitting diode displays – Part 1-2: Terminology and letter symbols*