



SLOVENSKI STANDARD
SIST EN 62629-1-2:2014

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3D-prikazovalniki - 1-2. del: Generično - Terminologija in črkovni simboli (IEC 62629-1-2:2013)

3D Display devices - Part 1-2: Generic - Terminology and letter symbols

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Dispositifs d'affichage 3D - Partie 1-2 : Généralités - Terminologie et symboles littéraux

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ICS:

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33.160.99	Druga avdio, video in avdiovizuelna oprema	Other audio, video and audiovisual equipment

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**3D Display devices -
Part 1-2: Generic -
Terminology and letter symbols
(IEC 62629-1-2:2013)**

Dispositifs d'affichage 3D -
Partie 1-2 : Généralités -
Terminologie et symboles littéraux
(CEI 62629-1-2:2013)

3D-Anzeigen – Teil 1-2: Allgemein –
Terminologie und Buchstabensymbole
(IEC 62629-1-2:2013)

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 110/470/FDIS, future edition 1 of IEC 62629-1-2, prepared by IEC/TC 110 "Electronic display devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62629-1-2:2013.

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) 2014-05-01
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-08-01

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The text of the International Standard IEC 62629-1-2:2013 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

		<u>SIST EN 62629-1-2:2014</u>
IEC 62629-12-1	NOTE	Harmonised as EN 62629-12-1.17ba-4355-af6c-
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3D display devices – Part 1-2: Generic – Terminology and letter symbols
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

3D DISPLAY DEVICES –**Part 1-2: Generic –
Terminology and letter symbols**

FOREWORD

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International Standard IEC 62629-1-2 has been prepared by IEC technical committee 110: Electronic display devices.

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

FDIS	Report on voting
110/470/FDIS	110/479/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 the parts in the IEC 62629 series, under the general title *3D 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.

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3D DISPLAY DEVICES –

Part 1-2: Generic – Terminology and letter symbols

1 Scope

This part of IEC 62629 provides a list of the terminologies that are frequently used in describing 3D display technologies in the IEC 62629 series. Terms for various 3D display technologies on stereoscopic, autostereoscopic, volumetric, and holographic displays are included.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1 General terms

2.1.1

3D display

display device giving depth perception with physiological depth cues

Note 1 to entry: Physiological depth cues include accommodation, convergence, binocular parallax, and motion parallax. The 3D display provides users with all or some of the physiological depth cues so that they can perceive depth. Physiological depth cues should be distinguished from pictorial depth cues which can also be provided by the usual 2D displays. Pictorial depth cues are features in an image that give a hint of the depth. Examples of pictorial depth cues are texture gradient, shadow, occlusion, and vanishing lines.

2.1.2

stereoscopic display

3D display providing binocular parallax

Note 1 to entry: See “autostereoscopic display”. For classification of the 3D displays, see Annex B.

2.1.3

autostereoscopic display

stereoscopic display that requires no viewing aids

Note 1 to entry: See “stereoscopic display”. For classification of the 3D displays, see Annex B.

2.1.4

two-view display

two-view autostereoscopic display

autostereoscopic display providing one stereoscopic view

Note 1 to entry: See “multi-view display”.

2.1.5

multi-view display

multi-view autostereoscopic display

autostereoscopic display providing multiple stereoscopic views

Note 1 to entry: See “two-view display”.

2.1.6**integral imaging display****integral imaging autostereoscopic display**

autostereoscopic display that reproduces ray space

2.1.7**volumetric display**

autostereoscopic display which forms a set of pixels distributed in space

2.1.8**stereoscopic image**

pair of images with parallax shown on a stereoscopic display

Note 1 to entry: Stereoscopic images are made by capturing images of an object from slightly different positions and they are used as output of a stereoscopic display. See Annex A.

2.1.9**stereoscopic view**

pair of sights provided by a stereoscopic display, which induce stereopsis

Note 1 to entry: Stereoscopic view is generally not the same as stereoscopic image. In some cases more than a single monocular image is projected on the retina of an eye. See Annex A.

2.1.10**monocular image**

one part of a stereoscopic image

Note 1 to entry: See A.2.2.

2.1.11**monocular view**

one part of a stereoscopic view

Note 1 to entry: See A.2.2.

2.1.12**designed viewing distance**

viewing distance recommended by the manufacturer of the 3D display

Note 1 to entry: For a detailed measurement procedure, see IEC 62629-22-1.

2.1.13**lobe**

space wherein one or multiple stereoscopic images are projected in correct angular order by an autostereoscopic display

Note 1 to entry: See Annex D.

2.1.14**ray space**

spatial and angular distribution of light reflected from the surface of an object

2.2 Terms related to components**2.2.1****active glasses**

glasses whose left and right lenses alternate their optical characteristics, synchronizing with displayed sequential images on a stereoscopic display (e.g. synchronizing with TV fields, TV frame, etc.) to separate the displayed images into left and right monocular views

Note 1 to entry: Usually left and right images are displayed alternately on a screen. When a left image is displayed, the left lens of the active glasses is turned on to transmit the image and the right lens is turned off to cut off the image. The lenses do not need a function for focusing light.

2.2.2

passive glasses

glasses whose left and right lenses have complementary but fixed optical characteristics to separate displayed images on a stereoscopic display into left and right monocular views

Note 1 to entry: Usually spatially divided left and right images are displayed at the same time on a screen; each divided segment in the screen emits polarized light to display the images and the left and right segments have orthogonal polarization. The left lens of the passive glasses has a polarization to pass the emitted light of the left images and to cut off that of the right images, while the right lens passes the right images and cuts off the left images.

2.2.3

polarized glasses

passive glasses equipped with two polarizers whose polarization properties are opposite to each other

Note 1 to entry: See “linearly polarized glasses” and “circularly polarized glasses”.

2.2.4

linearly polarized glasses

passive glasses equipped with two linear polarizers whose polarizing directions are orthogonal to each other

Note 1 to entry: See “polarized glasses” and “circularly polarized glasses”.

2.2.5

circularly polarized glasses

passive glasses equipped with two circular polarizers whose rotational directions of circular polarization are orthogonal to each other

Note 1 to entry: See “polarized glasses” and “linearly polarized glasses”.

2.2.6

patterned retarder

array of two kinds of optical phase retarders arranged alternatively in a plane

2.2.7

parallax barrier

barrier with an array of slits for providing one or multiple stereoscopic views

2.2.8

lenticular lens

lenticular sheet

set of semi-cylindrical lenses that are arranged side by side in a plane

2.2.9

fly-eye lens

set of lenslets that are arranged in a plane

2.3 Terms related to performance specifications

2.3.1

interocular chromatic difference

difference in chromaticity between left and right monocular views

Note 1 to entry: For a detailed measurement procedure, see IEC 62629-12-1.