

TECHNICAL REPORT



3D display devices –
Part 51-1: Generic introduction of aerial display



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

3D DISPLAY DEVICES –

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FOREWORD

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IEC TR 62629-51-1, which is a Technical Report, has been prepared by IEC technical committee 110: Electronic displays.

The text of this Technical Report is based on the following documents:

Draft TR	Report on voting
110/1178/DTR	110/1190/RVDTR

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 document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62629 series, published under the general title *3D display devices*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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- withdrawn,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

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INTRODUCTION

This document intends to gather technical information on aerial displays, and to clarify the relationship to normative aspects of the standardization in this technology area.

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3D DISPLAY DEVICES –

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1 Scope

This part of IEC 62629, which is a Technical Report, provides general information for the standardization of aerial displays. This document includes an overview of the technology, critical performance characteristics, issues of optical measurements, and other information.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1.1

aerial display

display that forms a real image in mid-air by use of an incoherent light-source display and a passive optical component to converge diverging light from the light-source display

Note 1 to entry: See 4.1 and 4.2.

3.2 Abbreviated terms

AIRR	aerial imaging by retro-reflection
BS	beam splitter
CMA	crossed-mirror array
CTF	contrast transfer function
DCRA	dihedral-corner-reflector array
DFD	depth-fused 3D
FPD	flat-panel display
FPGA	field programmable gate array
GPU	graphics processing unit
HMD	head-mounted display
HOE	holographic optical element
HUD	head-up display
LCD	liquid-crystal display
LED	light-emitting diode