

# INTERNATIONAL STANDARD



**Eyewear display –  
Part 21-20: Specific measurement methods for V<sub>1</sub> image quality – Screen door  
effect**



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**Eyewear display –  
Part 21-20: Specific measurement methods for image quality – Screen door  
effect**

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## EYEWEAR DISPLAY –

Part 21-20: Specific measurement methods  
for VR image quality – Screen door effect

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The text of this International Standard is based on the following documents:

Draft	Report on voting
110/1433/FDIS	110/1444/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

A list of all parts in the IEC 63145 series, published under the general title *Eyewear display*, can be found on the IEC website.

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## EYEWEAR DISPLAY –

### Part 21-20: Specific measurement methods for VR image quality – Screen door effect

#### 1 Scope

This part of IEC 63145 specifies the standard measurement conditions and measurement methods for determining the screen door effect (SDE), which is one of the image quality aspects of eyewear displays of virtual reality (VR) type.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 63145-1-2, *Eyewear display – Part 1-2: Generic – Terminology*

IEC 63145-20-10:2019, *Eyewear display – Part 20-10: Fundamental measurement methods – Optical properties*

IEC 63145-20-20, *Eyewear display – Part 20-20: Fundamental measurement methods – Image quality*

#### 3 Terms, definitions and abbreviated terms

##### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 63145-1-2 and the following apply.

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

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

##### 3.1.1

##### screen door effect

SDE

visibility of inter-pixel areas due to a spatial display resolution lower than that of the human visual system or to an insufficient pixel fill-factor/aperture ratio