

ICS 31.120
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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 48019.131-2026

**3D display devices - Part 13-1: Visual inspection methods for
stereoscopic displays using glasses - Ghost image**

立体显示器件 第13-1部分：眼镜式立体显示器件目检方法 鬼影

(English Translation)

Issued on: July 30, 2026

Implemented on: November 1, 2026

Issued by: State Administration for Market Regulation

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

---Part 12-2.Measurement Methods for Motion Blur in Glasses-Based Stereoscopic Display

Devices;

---Part 13-1. Visual Inspection Methods for Ghosting in Glasses-Based Stereoscopic Display Devices this document is equivalent to IEC 62629-13-1:2017 "Stereoscopic display devices - Part 13-1. Visual inspection method for glasses-type stereoscopic display devices".

"The Shadow of the Law".

The following minimal editorial changes have been made to this document.

---Add captions to Figure 2 explaining the meaning of the characters;

---In the last sentence of the third paragraph of section 4.5.2, change the unit of BD from "rad" to "°", and change the calculation result in the note from "2.4cm" to "°".

It should be "2.3cm";

---Based on the content of paragraph 4.5.2, supplement the grayscale levels of category 2 in Table 1, and add equivalent modulation values for other grayscale display devices.

Complete notes;

---Correct "window image in Figure 4" to "window image in Figure 3" in Figure 4a).

---Add a header "Grayscale Level" to the column "Internal Ghosting. Gb" in Table 2, and change the grayscale level from "4" in the "Internal Ghosting. Gb" row.

All corrected to "3";

---The introductory text for the supplementary item in A.4 is. "The method for measuring ghosting using a two-dimensional LMD is as follows."

---Move "(see Table A.1)" in A.4e) to the first sentence of A.5 to maintain consistency with the content of A.5;

---In Table A.1, change all instances of grayscale level "4" to "3" in the rows "Left-Inner.Gb" and "Right-Inner.Gb", and change all instances of grayscale level "8".

The part should be corrected to "7".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

Introduction

The new display industry is a strategic, fundamental, and pioneering industry for national economic and social development. Stereoscopic display devices, as a new type of display...

One of the important development directions of the display industry is its immersive, realistic, and highly realistic stereoscopic visual experience, which is used in 3D film and television, virtual reality, and digital media.

It is widely used in fields such as digital twins and metaverse. This is to meet the needs of my country's production, manufacturing, inspection, and import/export trade of 3D display devices.

We request the development of a series of standards for stereoscopic displays. GB/T 48019, "Stereoscopic Display Devices," is proposed to consist of the following parts.

---Part 1-1.General Specifications. The purpose is to establish general specifications applicable to the classification and quality assessment of stereoscopic display devices.

---Part 1-2.Terms and Definitions. The purpose is to define the terminology and definitions for stereoscopic display devices.

---Part 4-1-1.Measurement Methods for Glasses-Based Stereoscopic Display Devices (Optics and Optoelectronics). The aim is to establish the measurement methods for glasses-based stereoscopic displays.

Optical and photoelectric measurement methods for devices.

---Part 4-2-1.Measurement Methods for Free-Form Stereoscopic Display Devices (Optics and Optoelectronics). The aim is to establish the measurement methods for free-form stereoscopic display devices.

Optical and photoelectric measurement methods.

---Part 12-2.Measurement Methods for Glasses-Based Stereoscopic Display Devices - Motion Blur. The aim is to establish the measurement methods for glasses-based stereoscopic display devices.

---Part 13-1.Ghosting Inspection Methods for Glasses-Based Stereoscopic Displays. The aim is to establish ghosting detection methods for glasses-based stereoscopic display devices.

Visual inspection methods.

Stereoscopic display devices, Part 13-1.

Ghosting in 3D Glasses Display Devices

1 Scope

This document describes the visual inspection method for ghosting.

This document applies to glasses-type stereoscopic display devices.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 20871.63-2021 Organic light-emitting diode display devices - Part 6-3. Image quality test methods (IEC 62341-6-3:2017, IDT) Note. The content referenced in GB/T 20871.63-2021 has no technical differences from the content referenced in IEC 62341-6-3:2012.

IEC 61747-30-1:2012 Liquid crystal display devices - Part 30-1. Test methods for transmission characteristics of liquid crystal display modules (sivetype) Note. GB/T 18910.61-2021 Liquid Crystal Display Devices - Part 6-1. Test Methods for Liquid Crystal Display Devices - Photoelectric Parameters (IEC 61747-30-1) 2012, NEQ) IEC 61988-2-1:2012 Plasma display devices - Part 2-1. Measurement methods - Optics and photoelectricity

3 Terms and Definitions

The terms and definitions defined in IEC 62629-1-2 and the following terms and definitions apply to this document.

The URLs for the terminology databases maintained by ISO and IEC for standardization are as follows.

Ghostimage

Image artifacts are perceived by the observer due to the incomplete separation of the left and right images on the glasses-type stereoscopic display device.

4.1 Environmental Conditions

Visual inspection should be conducted under the following standard environmental conditions.