

ICS 33.160.25

CCS M74



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

GB/T 15609-2008

Replacing GB/T 15609-1995

Measurement methods for the chromaticity of color displays

彩色显示器色度测量方法

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Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Test Conditions

Foreword

This standard replaces GB/T 15609-1995 "color television color measurement method."

This standard and GB/T 15609-1995 compared to the main changes are as follows:

- For the name of GB/T 15609-1995 standard was changed;
- Increase the spectral radiometer and the photoelectric colorimeter technical requirements of the regulations;
- Increase the measurement display color and viewing angle relationship;
- Increase in the optical axis perpendicular to the center of the display screen, the display of the measurement and reference white balance requirements;
- Increase the measurement of the color gamut coverage. The standard color by the National Standardization Technical Committee. This standard color by the National Standardization Technical Committee. This standard was drafted. Shenzhen Ocean Power Industrial Co., Ltd., Shenzhen Haichuan Color Technology Co., Ltd. The main drafters of this standard. He Weiping, Huang Yongheng, Tang Hui Gong, high sword, Nimeng Lin. This standard replaces the standards previously issued as follows:
 - GB/T 15609-1995. Color display color measurement methods

1 Scope

GB/T 15609-2008 is the Chinese national standard on measurement methods for the chromaticity of color displays, in the field of telecommunications and audio-video engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 26 May 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 November 2008. Classification: ICS 33.160.25, CCS M74. This page is published from the official record of the standard held by the Chinese standards

administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the color display color test conditions, measurement classification, spectrophotometric color measurement method, tristimulus value direct reading method, display Measuring color measurement results Fig. This standard applies to the measurement of the color display color.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 5698-2001 term color

GB/T 17309.1-1998 television broadcast receiver measuring methods - Part 1. General considerations electrical measurements at radio and video frequencies And display performance measurements (

IEC 60107-1.1995, IDT) SJ/T 11348-2006 Methods of measurement of digital TV flat panel display

IEC 60107-1.1997 Measurement method of transmitting television broadcast receivers - Part 1. General requirements for radio and television frequencies was Measurement shown

3 Terms and Definitions

The standard terms and definitions should be consistent with GB/T 5698-2001 requirements.

4 Test Conditions

4.1 standard light source, the light source and the display to be measured with a calibration should be preheated to light stability.

4.2 should be under the same geometrical conditions on the standard light source, the light source and the display to be measured with a calibration test.

4.3 Test Site should not affect the test results of the ambient light, stray light is less than or equal to 1lx. Measure the luminance, chrominance, should be Darkroom.

4.4 Test Site should not significantly affect the results of the external electric and magnetic fields.

4.5 Main test instruments must be regularly calibrated. Measurement Category 5

5.1 In general, you should use tristimulus value direct reading method.

5.2 pairs of test accuracy requirements of high, or as a reference standard transmission, you should use spectrophotometric color measurement method.

6 spectrophotometric color measurement method

6.1 spectroradiometer requirements

6.1.1 Wavelength range. 380nm ~ 780nm, generally not less than 400nm ~ 700nm.

6.1.2 Wavelength Accuracy. Error $\leq 0.5\text{nm}$.

6.1.3 interval and the pass bandwidth of the wavelength. for the reference measurement $< 2\text{nm}$, for general measurement $< 5\text{nm}$.

6.1.4 When measuring LCD monitor, PDP display, when the DLP monitor, select spectral radiometer with a telephoto lens.

6.1.5 Metering repeatability should be within 1%.