

ICS 03.180

JY

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

JY/T 0456-2013

**2013 Interactive Whiteboard
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

Please note that some content of this standard may involve patents, and the issuing authority of this standard is not responsible for identifying these patents.

This standard was proposed by the Ministry of Education of the People's Republic of China.

This standard is under the jurisdiction of the National Technical Committee for Standardization of Teaching Instruments (SAC/TC 125).

1 Scope

This standard specifies the terms and definitions, classification and naming, requirements, test methods, inspection rules, signs, and packages of interactive electronic whiteboards.

Loading, transportation and storage.

This standard applies to all kinds of interactive electronic whiteboards for teaching.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this document.

GB/T 2424.1 Guidelines for high-temperature and low-temperature experiments of environmental tests for electric and electronic products GB/T 13982 reflection and transmission screen GB/T 16260.1 Software engineering product quality-Part 1. Quality model GB/T 16260.2 Software engineering product quality-Part 2. External metrics GB/T 16260.3 Software engineering product quality-Part 3. Internal metrics GB/T 16260.4 Software engineering product quality-Part 4. Measurement of use quality GB 18584 Limits of harmful substances in wood furniture for interior decoration materials GB/T 18905.5 Evaluation of software engineering products. Part 5. Process for evaluators GB 21748-2008 Safety requirements for teaching instruments and equipment JY 0001-2003 General quality requirements for teaching instruments and equipment products JY 0002-2003 Inspection rules for teaching instruments and equipment products JY 0009-1990 Environmental requirements and test methods for electronic equipment for teaching JY 0026-1991 teaching instrument and teaching equipment product model naming method

3 Terms and definitions

The following terms and definitions apply to this document.

Interactive electronic whiteboard the interactive electronic whiteboard is an operation board composed of digital control and multimedia support software. It is completed with a computer and a projector.

Complete interactive system.

Positioning error

The distance from the center of the pen-down point to the display point.

Maximum effective area the effective writing range in the projection area on the white board.

4.1 Product Classification

The interactive whiteboard is divided into the following categories according to the working principle. infrared, electromagnetic induction, pressure sensitive, optical imaging and other

categories.

Represented by the letters H, D, Y, G, Q, respectively. According to the function, it can be divided into basic type and extended type, which are represented by J and K respectively. Basic type power it shall meet 5.2.2.1, and extended functions shall meet 5.2.2.1 and 5.2.2.2.

4.2 Model Nomenclature

The composition and form of product model naming follow the relevant regulations in JY 0026-1991.

4.3 Naming rules

The name of the interactive whiteboard is.

D - JHDB - H/J - 1500/16. 9 Product specifications (diagonal length (in mm)/projection ratio) Product Category Code Working Principle/Function Product name Pinyin prefix is JHDB (Interactive Electronic Whiteboard) Product classification code is D (code of audio-visual equipment) Model example.

D-JHDB-H/J-1500/4. 3 means an infrared, basic interactive whiteboard with a diagonal length of 1500mm and a projection ratio of 4. 3.

Audio-visual equipment.

5.1.1 Appearance requirements

The surface of the board should be clean and flat, and there should be no defects such as scratches, unevenness, pits, damage, etc. There should be no sharp edges and sharp edges and corners Corner, the rest of the appearance should comply with the relevant provisions of JY 0001.

5.1.2 Structural requirements

5.1.2.1

Any function key, control key, switch and other movable parts shall be properly tightened and used normally without damage. Writing pad border should play the function of clamping and compacting the writing panel, the backing plate and the back plate does not loosen.

The assembly gap is uniform, the transition is smooth, and there are no obvious steps. The rest of the structure should Meet the relevant regulations of JY 0001.

5.1.2.2

When the whiteboard is mounted on a wall, it shall have anti-falling devices.

5.1.2.3

The whiteboard is connected to the computer through the USB interface, and the USB directly supplies power. The length of the external USB cable is not less than 5m.

5.1.3.1 Positioning error

The positioning error should be no more than 2mm (reference. projection resolution is 1024 x 768).

5.1.3.2 Writing requirements

5.1.3.2.1

Writing should be smooth, uniform and continuous, without broken pens, burrs, jumpers, and no obvious delay.

No significant difference.

5.1.3.2.2

The life of the electronic pen should not be less than 2400 hours.

5.1.3.3 Resolution

When the projection resolution used is 1024 x 768, the resolution of the whiteboard should not be less than 98% of the projection resolution.

5.1.3.4 Board surface

5.1.3.4.1

The surface of the board shall be soft, with uniform reflection and no bright spots.

5.1.3.4.2

The board surface of pressure-sensitive and electromagnetic whiteboards shall be capable of withstanding 5000 normal writing tests and 100 impact tests.

It should work.

5.1.3.4.3 Brightness coefficient $\beta = (L_y/L_x)$

b). β

β should be less than 1.75.

5.1.3.4.4 The effective scattering angle 2α shall not be less than 120°.

5.1.3.4.5 The comprehensive index should be between 60 and 120.

5.1.3.4.6 The resolution of the screen should be greater than 63 line pairs/mm.