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NATIONAL METROLOGY TECHNICAL SPECIFICATION OF THE PEOPLE'S REPUBLIC OF CHINA

JJF 1746-2019

Calibration Specification for Medical Imaging Diagnosis Display Systems

医学影像诊断显示系统校准规范

(English Translation)

Implemented on: December 27, 2019

Issued by: State Administration for Market Regulation

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Introduction

JJF 1071-2010 "Rules for the Compilation of National Metrology and Calibration Specifications", JJF 1001-2011 "General Metrology Terms and Definition" and JJF 1059.1-2012 "Evaluation and Expression of Measurement Uncertainty" together constitute the support for the formulation of this calibration specification Basic series of documents for work.

This specification is released for the first time.

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Calibration specification for medical imaging diagnostic display system

1 Scope

This specification is applicable to grayscale display systems and color display systems for medical imaging diagnostic purposes such as radiology and MRI (Grayscale part) calibration.

2 Reference documents this specification refers to the following documents.

JJF 1032-2005 Terms and definitions of optical radiation measurement YY/T 0910.1-2013 Medical electrical equipment medical imaging display system Part 1: Evaluation method SJ/T 11292-2016 General Specification for Liquid Crystal Displays for Computers DICOM-14 gray scale standard display function [DigitalImagingandCommunicationsinMedicine (DICOM)Part 14: GrayscaleStandardDisplayFunction] AAPMReportNo.03.2005 Medical Image System Display Performance Evaluation (Assessment of Display PerformanceforMedicalImagingSystems) JESRAX-0093*B.2017 Medical Image Display System Quality Assurance Guidelines [QualityAssurance (QA)GuidelineforMedicalImagingDisplaySystems] DIN6868-157-2014 X-ray diagnostic image quality assurance Part 157: X-ray images in the environment Display system compliance and stability test regulations (ImagequalityassuranceindiagnosticX-raydepart-ments-Part 157: X-rayordinanceacceptanceandconstancytestofimagedisplay systemsintheirenvironment) ISO 11664-1:2007 Colorimetry Method Part 1: CIE Standard Colorimetry Observer (Colorimetry-Part 1: CIEstandardcolorimetricobservers) for dated reference documents, only the dated version applies to this specification; for undated references the latest version (including all amendments) is applicable to this specification.

3 Terms and units of measurement

3.1 Image display imagedisplaydevice Special hardware/medium used to display images through analog or digital interfaces.

3.2 Medical imaging diagnosis display system it consists of an image display, a display controller, and computer hardware and software, and is used for display images for medical diagnostic purposes.

Like a workstation.

3.3 [Light] brightness the luminous flux entering the surface area in the specified direction and the illuminated solid angle and the plane perpendicular to the viewing direction the ratio of the product of the projection of the surface area, in candela per square meter (cd/m2).

3.4 maximumluminance

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