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**Calibration Specification for Color Doppler Ultrasound
Diagnostic Equipments. Blood Flow Measurement
(English Translation)**

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Introduction

According to the requirements of this specification JJF 1071-2010 "National Calibration Specifications writing rules," the preparation. This specification parameters Exam YY0593-2005 "transcranial Doppler ultrasound blood analyzer", YY0767-2009 "ultrasound color flow into Imaging system. " the specification of color Doppler ultrasound blood flow measuring part is provided a calibration method.

This specification is the first release.

Color Doppler ultrasonography (Blood flow measuring part) calibration specification

1 Scope

This standard applies to the nominal frequency of not more than 15MHz of color Doppler ultrasound blood flow measuring part calibration.

2. References

This specification references the following documents.

JJF 1001 common measurement terms and definitions JJF 1034 acoustic measurement terminology and definitions Methods of measurement GB/T 15261-2008 ultrasound tissue mimicking material acoustic properties YY0593-2005 transcranial Doppler ultrasound blood analyzer YY0767-2009 ultrasound color flow imaging system IEC 61685-2001 ultrasonic blood flow measuring blood flow test piece (Ultrasonics-Flow measurementsystems-Flowtestobject) for dated references, only the dated edition applies to this specification; undated reference documents Member, the latest edition (including any amendments) applies to this specification.

3 terminology and units of measurement JJF 1001-2011 and JJF 1034-2005 defined and the following terms and definitions apply to this specification; this Specification uses the unit of measure specified in GB 3100.

3.1 ultrasound tissue mimicking material ultrasonicallytissue-mimicking (TM) material Mimic human soft tissue material in the ultrasonic wave propagation characteristics, referred to as TM material.

3.2 imitation blood blood-mimickingfluid (BMF) Analog acoustic characteristics of blood, and to set the flow rate of the liquid flowing through the blood flow Doppler specimen.

3.3 Doppler blood specimen flowDopplertestobject Simulation of soft tissue and blood vessels within the period of a physical model of vascular flow of blood. The test piece by the tissue mimicking material and driven therethrough imitation blood components.

3.4 Doppler angle Dopplerangle Doppler blood flow measurement, ultrasonic beam axis at an acute angle with the axis of the blood vessel formation.

3.5 the ability to identify the direction of blood flow directional discrimination Color Doppler ultrasound to identify the direction of blood flow and blood flow color and (or) Doppler spectrum relative to the base Line position to be the ability to express.

3.6 Doppler flow detection depth penetration depth of Doppler in imitation of tissue material, over the depth that is no longer able to detect Doppler signals at the maximum depth.

Note: The Doppler signal can be expressed in three ways. color flow images, spectrogram and audio output.