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JJF

NATIONAL METROLOGY TECHNICAL SPECIFICATION OF THE

PEOPLE'S REPUBLIC OF CHINA

JJF 1954-2021

Calibration Specification for Volume Sound Sources

体积声源校准规范

(English Translation)

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Introduction

This specification is compiled according to the rules given in JJF 1071-2010 "Rules for Compilation of National Metrology Calibration Specifications".

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This specification gives the measurement of sound power level according to JJF 1059.1-2012 "Measurement Uncertainty Evaluation and Representation"

Example of the evaluation of uncertainty.

This specification is published for the first time.

Volume Sound Source Calibration Specification

1 Scope

This specification applies to the calibration of the acoustic performance of volume sound sources.

2 Reference documents this specification references the following documents.

JJG175 Working Standard Microphone (Electrostatic Exciter Method) JJG176 Acoustic Calibrator JJG277 standard sound source JJG449 Octave and Fractional Octave Filters JJF 1001 General Metrology Terms and Definitions JJF 1034 Acoustic Metrology Terms and Definitions JJF 1288 Calibration Specification for Multi-Channel Acoustic Analyzers GB/T 3102.7 Acoustic Quantities and Units GB/T 3785.1 Electroacoustic Sound Level Meter Part 1: Specification for dated references, only the dated version applies to this specification; for undated references the latest version (including all amendments) applies to this specification.

3 Terminology and units of measurement this specification adopts the quantities and units specified in GB/T 3102.7.

Terms and definitions defined in JJF 1001, JJF 1034 and JJG277 and the following apply to this specification.

volume acceleration Qac the particle normal acceleration of the sound source sound hole is multiplied by the area of the sound hole.

Note: The unit is cubic meters per second squared (m3/s2).

Sva

The output voltage value of the volume sound source under the unit volume acceleration.

1 The voltage value is given by the voltage measured by the built-in sensor of the volume sound source. The internal sensor of the volume sound source may be a microphone, or Possibly an accelerometer.

2 The unit is volts squared per cubic meter [V/(m3/s2)].

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