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

GB/T 21231.2-2018

**Acoustics -- Measurement of airborne noise emitted and
structure-borne vibration induced by small air-moving devices
-- Part 2: Structure-borne vibration measurements**

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Foreword

GB/T 21231 "Measurement of Airborne Noise and Structural Vibration Caused by Acoustic Small Ventilation Devices" consists of the following two parts.

--- Part 1. Measurement of airborne noise;

--- Part 2. Structural vibration measurements.

This part is part 2 of GB/T 21231.

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

This section uses the translation method equivalent to the use of ISO 10302-2:2011 "Acoustic small-scale ventilation device emission of air noise and structural vibration

Measurement Part 2. Structural Vibration Measurement."

The Chinese documents that have a consistent correspondence with the normatively quoted international documents in this section are as follows.

---GB/T 3240-1982 Frequently used frequencies in acoustic measurements (neq ISO 266:1975)

---GB/T 3241-2010 Electroacoustic octave and fractional octave filters (IEC 61260:1995, MOD)

---GB/T 14412-2005 Mechanical Installation of Mechanical Vibration and Impact Accelerometers (ISO 5348:1998, IDT)

---GB/T 20485.11-2006 Vibration and Shock Sensor Calibration Methods Part 11. Laser Interferometry Absolute Calibration

(ISO 16063-11:1999, IDT)

---GB/T 20485.21-2007 Vibration and shock sensor calibration method Part 21. Calibration of vibration comparison method

(ISO 16063-21:2003, IDT).

This section was proposed by the Chinese Academy of Sciences.

This part is under the jurisdiction of the National Acoustical Standardization Technical Committee (SAC/TC17).

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1 Scope

This part of GB/T 21231 applies to the vibration level measurement of small ventilation devices, according to the provisions of GB/T 21231.1-2018,

The installation area of the full-size test box for this type of small ventilation device is less than 0.48mx0.90m, and the installation area of the scaled-1/2 test box is less than 0.18mx0.3m.

This section applies to each test box that can be installed in compliance with the provisions of GB/T 21231.1-2018, with self-supporting and inlet and outlet faces.

Small ventilation devices.

The procedures specified in this section specify the measurement of vibration levels caused by the common structure of small ventilation units used in information and communication equipment.

Quantity method. The method specified in this part can be used to determine the vibration level of a single small ventilation unit. If the vibration level is given by a series of

These data are used to determine the vibration level statistics of the series of small ventilation units.

2 Normative references

The following documents are indispensable for the application of this document. For dated

references, only dated versions apply to this article

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

GB/T 21231.1-2018 Acoustics Measurement of airborne noise and induced structural vibration of small ventilation installations Part 1

Points. Air Noise Measurement (ISO 10302-1:2011, IDT)

ISO 266 Acoustics-Preferred frequencies

ISO 5348 Mechanical Vibration and Impact Accelerometer Mechanical Installation (Mechanical vibration and shock-Mechanical Mounting of accelerometers)

ISO 16063-11 Vibration and Shock Sensor Calibration Methods Part 11. Laser Interferometry Absolute Calibration (Methods for the calibration of vibration and shock transducers-Part 11. Primary vibration calibration by laser interferometry)

ISO 16063-21 Calibration methods for vibration and shock sensors - Part 21. Vibration calibration for comparison with reference sensors (Methods for calibration of vibration and shock transducers-Part 21. Vibration calibration by comparison with a reference transducer)

IEC 61260 Electroacoustic octave band and fractional octave band filters (Electroacoustics-Octave-band and fractional-Octave-band filters)

ISO /IEC Guide 98-3 Measurement uncertainty - Part 3. Guidance for the expression of measurement uncertainty (GUM:1995) (Uncertainty in measurement-Part 3. Guide to the expression of uncertainty in measurement (GUM:1995))

3 Terms and definitions

The terms and definitions defined in GB/T 21231.1-2018 and the following apply to this document.