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NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

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GB/T 2423.10-2019 / IEC 60068-2-6:2007

Replacing GB/T 2423.10-2008

Environmental Testing - Part 2: Test

Methods - Test Fc: Vibration (Sinusoidal)

[IEC 60068-2-6:2007, Environmental Testing -

Part 2-6: Tests - Test Fc: Vibration (Sinusoidal), IDT]

环境试验 第2部分：试验方法 试验Fc：振动（正弦）

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Foreword

GB/T 2423 *Environmental Testing – Part 2: Test Methods* can be divided into several parts according to the test method.

This Part belongs to Part 10 of GB/T 2423.

This Standard was drafted as per the rules specified in GB/T 1.1-2009.

This Standard replaced GB/T 2423.10-2008 *Environmental Testing for Electric and Electronic Products - Part 2: Tests Methods - Test Fc: Vibration (Sinusoidal)*. Compared with GB/T 2423.10-2008, this Part has the major technical changes as follows:

- Add the test contents on the package sample;
- Make more detailed provisions on the selection of severity level parameters (see Clause 5 of this Edition; Clause 5 of 2008 Edition);
- Add the specification and description for the control strategy (see 4.2 of this Edition);
- Add the requirements for test report (see Clause 13 of this Edition).

This Part used the translation method to equivalently adopt IEC 60068-2-6:2007 *Environmental Testing – Part 2-6: Tests – Test Fc: Vibration (Sinusoidal)*.

The Chinese documents that have a consistent correspondence with the international documents quoted in the Normative References of this Part are as follows:

- GB/T 2298-2010 Mechanical Vibration, Shock and Condition Monitoring – Vocabulary (ISO 2041:2009, IDT);
- GB/T 2421.1-2008 Environmental Testing for Electric and Electronic Products — General and Guidance (IEC 60068-1:1988, IDT);
- GB/T 2423.43-2008 Environmental Testing for Electric and Electronic Products - Part 2: Test Methods - Mounting of Specimens for Vibration Impact and Similar Dynamic Tests (IEC 60068-2-47:2005, IDT)
- GB/T 4798 (all parts) Environmental Conditions Existing in the Application of Electric and Electronic Products [IEC 60721-3 (all parts)]; the consistence all parts between the two standards can see Annex NA.

For the benefit of use, this Part made the following editorial change:

--- Modify the standard name.

This Part was proposed by and under the jurisdiction of National Technical Committee on Environmental Conditions of Electric and Electronic Products and Environment at Test of Standardization Administration of China (SAC/TC 8).

Drafting organizations of this Part: The Fifth Research Institute of MIIT; Shanghai Institute of Quality Inspection and Technical Research Institute; Beihang University; and Shanghai Institute of Process Automation Instrumentation.

Chief drafting staffs of this Part: Chang Shaoli, Lu Zhaoming, Li Chuanri, Ji Chunyang, Jiang Can, Xu Zhonggen, and Shi Xiaowen.

The historical editions replaced by this Standard are as follows:

--- GB/T 2423.10-1981, GB/T 2423.10-1995, GB/T 2423.10-2008;

--- GB/T 2423.7-1981.

Environmental Testing - Part 2: Test Methods – Test Fc: Vibration (Sinusoidal)

1 Scope

This Part of GB/T 2423 gives a method of test which provides a standard procedure to determine the ability of components, equipment and other articles (hereinafter referred to as specimens) to withstand specified severities of sinusoidal vibration. If an item is to be tested in an unpackaged form, that is without its packaging, it is referred to as a test specimen. However, if the item is packaged then the item itself is referred to as a product and the item and its packaging together are referred to as a test specimen.

The purpose of this test is to determine any mechanical weakness and/or degradation in the specified performance of specimens and to use this information, in conjunction with the relevant specification, to decide upon the acceptability of the specimens. In some cases, the test method may also be used to demonstrate the mechanical robustness of specimens and/or to study their dynamic behavior. Categorization of components can also be made on the basis of a selection from within the severities quoted in the test.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this document.

GB/T 27025-2008 General Requirements for the Competence of Testing and Calibration Laboratories (ISO/IEC 17025:2005, IDT)

IEC 60068-1 Environmental Testing – Part 1: General and Guidance

IEC 60068-2-47 Environmental Testing – Part 2-47: Tests – Mounting of Specimens for Vibration, Impact and Similar Dynamic Tests

IEC 60721-3 (all parts) Classification of Environmental Conditions – Part 3: Classification of Groups of Environmental Parameters and Their Severities

ISO 2041 Vibration and Shock – Vocabulary

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