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

GB/T 20643.2-2025

Replacing GB/T 20643.2-2008

**Specific environmental condition - Environmental test method - Part 2:
Artificial environment test method and guidance - Electric and
electronic products (including communication products)**

特殊环境条件 环境试验方法 第2部分：人工模拟试验方法及导则 电工电子产品（
含通信产品）

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is Part 2 of GB/T 20643 "Environmental test methods for special environmental conditions". GB/T 20643 has been published in Lower part.

- Part 1: General provisions;
- Part 2: Artificial simulation test methods and guidelines for electrical and electronic products (including communication products);
- Part 3: Artificial simulation test methods and guidelines for polymer materials.

This document replaces GB/T 20643.2-2008 "Special environmental conditions environmental test methods Part 2: Artificial simulation test method" Compared with GB/T 20643.2-2008, in addition to structural adjustments and editorial changes, the main changes are The main technical changes are as follows.

- a) The content of "Scope" has been changed to include humid heat, humid heat ocean, and cold special environmental conditions (see Chapter 1, 2008 edition, Section 1). chapter);
- b) The content of "Environmental Conditions of Use" has been modified (see Chapter 4, Chapter 3 of the 2008 edition);

- c) Modified the content of "Artificial simulation test items for products under special environmental conditions" (see Table 1, Table 4 of the 2008 edition);
- d) Deleted "4.3 Recommended selection of test severity levels" (see 4.3 of the 2008 edition);
- e) "Test equipment" has been deleted (see Chapter 5 of the 2008 edition).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed and coordinated by the China Electrical Equipment Industry Association.

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The previous versions of this document and the documents it replaces are as follows.

- First published in 2008 as GB/T 20643.2-2008;
- This is the first revision.

Introduction

GB/T 20643 "Environmental test methods for special environmental conditions" covers the test methods of products in China's dry heat, dry hot desert, plateau, damp heat, damp heat Artificial simulation test methods and guidelines for special climates such as ocean and cold. Currently, GB/T 20643 consists of three parts.

- Part 1: General. The purpose is to propose general rules for natural atmosphere exposure tests and artificial simulation tests under special environmental conditions.

and gives general guidelines for environmental testing.

- Part 2: Artificial simulation test methods and guidelines for electrical and electronic products (including communication products). The purpose is to propose Artificial simulation test methods and guidelines for products (including communication products) under special environmental conditions.

- Part 3: Artificial simulation test methods and guidelines for polymer materials. The purpose is to propose the test methods and guidelines for polymer materials under special environmental conditions.

Artificial simulation test methods and guidelines.

"Special environmental conditions test" is to expose the sample to natural or artificial simulated dry heat, dry hot desert, plateau, damp heat, wet The special climate conditions of hot ocean, cold and other regions, thus affecting the storage, transportation and use of the products in actual use.

If required by the relevant standards, these test methods can also be used for type testing, batch sampling testing, quality control, etc.

Quantity inspection test and other types of tests.

Environmental test methods for special environmental conditions Part 2: Artificial simulation test methods and guidelines Electrical and electronic products (including communication products)

1 Scope

This document specifies the requirements for electrical and electronic products (including communications equipment) under special environmental conditions such as dry heat, dry hot desert, plateau, humid heat, humid hot ocean, cold, etc.

product) operating environment conditions and artificial simulated environment test items.

This document is applicable to the assessment of the environmental conditions of electrical and electronic products (including communication products) (hereinafter referred to as

"products") used under special environmental conditions. Adaptability.

The communication products involved in this document are communication network equipment.

2 Normative references

GB/T 2423.1

GB/T 2423.2

GB/T 2423.3

GB/T 2423.4

GB/T 2423.5

GB/T 2423.16

GB/T 2423.17

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GB/T 17626.2

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