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

GB/T 46456.3-2025

**Interconnection of information technology equipment -
Interconnection and intercommunication of smart home - Part
3: General requirements for local interconnection**

信息技术设备互连 智能家居互联互通 第3部分：局域互联通用要求

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Table of Contents

1.Scope	1
2 Normative References	1
3.Terms and Definitions	1
4.Abbreviations	1
5.Local Area Networking Rules	2
6.Equipment Discovery	2
7 Device Connection	3
8.Equipment Collaboration	4
8.1 Basic Requirements	4
8.2 Discovery of Collaborative Devices	4
8.3 Selection of Collaborative Equipment	4
8.4 Communication between Collaborating Devices	5
9 Device subscriptions	5
10 Equipment Notifications	6
7 References	8

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. This document is Part 3 of GB/T 46456 "Interconnection of Information Technology Equipment and Interoperability of Smart Homes". GB/T 46456 has been... The following sections were published.

1.Architecture and General Requirements;

2.Test Methodology;

3.General Requirements for Local Area Networking Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the National Information Technology Standardization Technical Committee (SAC/TC28). This document was drafted by: Guangdong Midea Refrigeration Equipment Co., Ltd., China Electronics Technology Standardization Institute, and Haier U+ Smart Technology. (Beijing) Co., Ltd., CESI (Shenzhen) Electronic Information Products

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GB/T 46456 "Interconnection of Information Technology Devices and Interoperability of Smart Homes" specifies the architecture and general requirements for interoperability of smart homes. This document covers topics such as data classification and description, testing and evaluation methods, aiming to provide a framework for information equipment between different brands and between different product categories within the same brand. This will provide a basis and guidance for the interconnection and interoperability of home products such as communication equipment, household and similar appliances, audio and video equipment, and security equipment. It consists of seven parts.

1. Architecture and General Requirements. The aim is to provide the architecture for smart home interconnectivity, as well as the implementation devices and control systems. The general requirements for interconnection and interoperability of equipment, gateways, service platforms, etc.
2. Test Methodology. The aim is to provide execution devices, control devices, gateways, and service platforms that conform to the requirements of Part 1. Methods for testing and verifying interoperability functions.
3. General Requirements for Local Area Networking. The purpose is to provide the functional requirements and message parameter requirements for implementing local area network interconnection.
4. Local Area Network (LAN) Interconnection Testing Methods. The purpose is to provide testing and verification methods for LANs that meet the requirements of Part 3.
5. Classification and Description of Sensing Data. The aim is to provide data for classifying and describing the home environment and family needs to support smart home

interconnectivity. Classification and description methods of smart home sensing data, including user data and data on non-device items.

6. System Intelligence Hierarchy. The aim is to provide principles for the intelligence hierarchy of interconnected smart home systems. And the basis.

7. General Requirements for Scenarios. The purpose is to provide the components, classifications, and descriptions of scenarios that support smart home interconnectivity. Requirements, etc. Interconnection of information technology devices and smart home interconnection Part

1 Scope

GB/T 46456.3-2025 is the Chinese national standard covering smart home devices talking to each other on the local network without going through a cloud - the discovery and pairing, the message format and the device model, the security of the local link, and the behaviour when the internet is down. Part 3 of the series, first edition. In force from 1 February 2026. Issued on 5 October 2025, it has been in force since 1 February 2026.

This document specifies the device discovery, device connection, device collaboration, device subscription, device notification, and device control for smart home local area interconnection. Functional requirements and corresponding message parameter requirements. This document applies to the design, research and development, and production of smart home interconnection systems in a local area network environment.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 46456.1-2025 Information technology equipment interconnection and smart home interconnection and interoperability - Part

3 Terms and Definitions

The terms and definitions defined in GB/T 46456.1-2025, as well as the following terms and definitions, apply to this document.

3.1 source device Smart home devices that proactively send status information or request commands.

Note. The source device is the execution device, control device or gateway as defined in GB/T 46456.1-2025.

3.2 target device Smart home devices that receive information or respond to requests and instructions.

Note. The target device is the execution device, control device or gateway as defined in GB/T 46456.1-2025.

3.3 collaboration device Smart home devices with protocol conversion and message forwarding capabilities.

Note. The cooperating device is the gateway defined in GB/T 46456.1-2025, or the execution device or control device that supports protocol conversion and message forwarding.

4. Abbreviations The following abbreviations apply to this document.