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

GB/T 31455.3-2025

Replacing GB/T 31455.3-2015

**Intelligent system of bus rapid transit (BRT) - Part 3: Technical
requirements for on-board intelligent terminals and peripheral
equipment**

快速公交（BRT）智能系统 第3部分：车载智能终端及车载外围设备技术要求

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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 31455 "Intelligent Systems for Bus Rapid Transit (BRT)". GB/T 31455 has the following publications. part.

- 1.General Technical Requirements;
 - 2.Technical Requirements for the Dispatch Center System;
 - 3.Technical Requirements for Vehicle-Mounted Intelligent Terminals and Peripheral Equipment;
 - 4.Technical Requirements for Station Platform Control Systems and Peripheral Equipment;
 - 5.Communication Data Interface Specification between Dispatch Center and Vehicle-Mounted Intelligent Terminal;
 - 6.Communication Data Interface Specification between Dispatch Center and Station Platform Control System;
 - 7.Specification for Communication Data Interface between Bus Priority Equipment and Traffic Signal Controllers This document replaces GB/T 31455.3-2015 "BRT Intelligent Systems - Part
- 3.Onboard Information Terminals and Onboard External Devices". Compared with GB/T 31455.3-2015, the main technical changes in the "Technical Requirements for Enclosure Equipment" are as follows, except for structural adjustments and editorial modifications.

- a) The introductory texts for terms and definitions have been changed (see Chapter 3, Chapter 3 of the 2015 edition);
- b) The overall framework of the in-vehicle system has been changed (see 5.1, 2015 version 5.1);
- c) The general rules for hardware interfaces and the requirements for RS485 bus interfaces and CAN bus interfaces have been changed (see 5.2.1~5.2.3, 2015 edition). (5.2.1~5.2.3)
- d) Increased requirements for Ethernet hardware interfaces (see 5.2.4);

1 Scope

GB/T 31455.3-2025 is the Chinese national standard covering the equipment on a BRT bus - the intelligent terminal, the positioning and communication, the passenger information displays and announcements, the door and passenger counting sensors and the driver interface. Part 3 of the series, 25,000 words. It replaces GB/T 31455.3-2015. It was issued on 31 December 2025 and has been in force since 1 July 2026, replacing GB/T 31455.3-2015. The document is under the responsibility of the Standardization Administration of China. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the general requirements, technical requirements, and interface specifications for onboard intelligent terminals and onboard peripheral equipment of the Bus Rapid Transit (BRT) intelligent system. This document applies to the construction and management of onboard systems in intelligent bus rapid transit systems.

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 2312 Basic Set of Chinese Character Coded Character Set for Information Interchange

GB/T 4208-2017 Degrees of protection provided by enclosures (IP code)

GB/T 19056 Vehicle Driving Recorder

GB/T 19951 Test methods for the immunity of electrical/electronic components of road vehicles to electrostatic discharge

GB/T 21437.2-2021 Test methods for electrical/electronic interference caused by conduction and coupling in road vehicles - Part

3 Terms and Definitions

Terms defined in GB/T 31455.1, GB/T 31455.2-2025, GB/T 32852.1, GB/T 32852.2 and JT/T 1059.1 The definitions apply to this document.

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