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# NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

# GB/T 46923-2025

## Professional digital trunking communication systems based on 12.5 kHz TDMA channels - General technical requirements

基于12.5kHz信道的时分多址（TDMA）专用数字集群通信系统 总体技术要求

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**Issued by: State Administration for Market Regulation;**
**Standardization Administration of the PRC**

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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 one of a series of standards for dedicated digital trunking communication systems based on a 12.5kHz channel for Time Division Multiple Access (TDMA). The standards have been published as follows:

---GB/T 46923 General Technical Specifications for Dedicated Digital Trunking Communication Systems Based on 12.5kHz Channel Time Division Multiple Access (TDMA) beg";

---GB/T 34991 Air Interface Material for Dedicated Digital Trunking Communication Systems Based on 12.5kHz Channel for Time Division Multiple Access (TDMA) "Technical Specifications for Data Link Layer and Data Layer";

---GB/T 34992 Air Interface Call for a Dedicated Digital Trunking Communication System Based on a 12.5kHz Channel for Time Division Multiple Access (TDMA) Called the "Control Layer Technical Specification";

---GB/T 46920 Security Technical Requirements for Dedicated Digital Trunking Communication Systems Based on Time Division Multiple Access (TDMA) Channels (12.5kHz) beg";

---GB/T 46922 Interconnection Technology for Dedicated Digital Trunking Communication Systems Based on 12.5kHz Channel (Time Division Multiple Access (TDMA)) Technical Specifications;

---GB/T 46919 Mobile Station Technology for Time Division Multiple Access (TDMA) Dedicated Digital Trunking Communication Systems Based on 12.5kHz Channel specification";

---GB/T 46921 Compatibility of Time Division Multiple Access (TDMA) Dedicated Digital Trunking Communication Systems Based on 12.5kHz Channels test". 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 is under the jurisdiction of the National Telecommunications Standardization Technical Committee (SAC/TC485). This document was drafted by: the Science and Technology Information Bureau of the Ministry of Public Security, Sichuan Haige Hengtong Private Network Technology Co., Ltd., and Hytera Communications Corporation Limited. Company, Hangzhou YouNeng Communication Systems Co., Ltd., First Research Institute of the Ministry of Public Security, Beijing Wange Digital Communication Technology Co., Ltd., Guangzhou Weide Technology Limited Liability Company, Eastcom Co., Ltd., Beijing ZTE Gaoda Communication Technology Co., Ltd., Beijing Huatong Professional Digital Trunking Standard Innovation alliance. The main drafters of this document are. Mi Lei, Fan Zhai, Yuan Yifang, Song Feihao, Zhang Lihua, Sun Pengfei, Song Zhensu, Rong Jun, Liu Qingjiang, and Jiang Qingsheng. Wang Weimin, Zhu Zhenrong, Liang Yansheng, Liu Jun, Zhang Zongjun, Wang Qiang, Tang Pengcheng. Time Division Multiple Access (TDMA) based on a 12.5kHz channel General Technical Requirements for Dedicated Digital Trunking Communication Systems



## 1 Scope

GB/T 46923-2025 is the Chinese national standard covering the digital trunked radio used by police, fire, transport and utilities - the two-slot TDMA channel that doubles capacity in the same bandwidth, the group calls and priority, the encryption and the direct mode when the infrastructure is gone. First edition. It was issued on 31 December 2025 and has been in force since 1 April 2026, as a first edition. The document is under the responsibility of the Ministry of Industry and Information Technology. 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 technical characteristics and system architecture of a dedicated digital trunking communication system based on a 12.5kHz channel for Time Division Multiple Access (TDMA). Functional requirements, operating frequency band, address and identification code, network management, basic performance indicators of channel equipment, AC power supply system, information security and Overall requirements include confidentiality, environmental and electromagnetic compatibility, and reliability. This document applies to the planning, design, and implementation of dedicated

digital trunking communication systems based on a 12.5kHz channel for Time Division Multiple Access (TDMA). acceptance.

## 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 4208 Degrees of protection provided by enclosures (IP code)

GB/T 9254.1-2021 Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers - Part

## 3 Terms, Definitions and Abbreviations

3.1 Terms and Definitions The following terms and definitions apply to this document.

3.1.1 sudden burst A finite number of consecutive bits in a physical channel.