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

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**Application data exchange protocol to support ITS service
provision for personal intelligent transport system station**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafting method with reference to ISO 13111-1.2017 "Intelligent Transportation System (ITS) portable terminal supporting ITS services)

Application Part 1. General Information and Use Cases, and the degree of conformity with ISO 13111-1.2017 is not equivalent.

This standard is proposed and managed by the National Intelligent Transportation System Standardization Technical Committee (SAC/TC268).

This standard was drafted. Highway Science Research Institute of the Ministry of Transport, Beijing Zhongjiao Guotong Intelligent Transportation System Technology Co., Ltd., Zhongguancun

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Company, Beijing Shenzhou Space Information Technology Co., Ltd., Sanya Phoenix International Airport Co., Ltd.

Introduction

This standard defines intelligent transportation information service applications for mobile portable terminals. The preparation of this standard refers to international standards.

Relevant definitions of ISO 21217 and ISO 13185.

ISO 21217 defines the framework and four components of cooperative intelligent transportation (Co-operativeITS), namely in-vehicle intelligent transportation

VehicleITSStation, Roadside Intelligent Transportation Equipment (RoadsideITSStation),

Intelligent Transportation Center Equipment (CentralITS)

Station), as well as personal intelligent transportation equipment (PersonalITSStation).

In the context of international standards, the Personal Intelligent Transportation Device (Personal ITSStation) expresses a platform with communication capabilities, also

Said its physical properties (the other expression is the mobile portable terminal NomadicDeviceND), because ISO 21217 has not been adopted in China

Mark, so some relevant definitions and descriptions are given in the framework of this standard.

ISO 13185 is an application standard for personal intelligent transportation equipment based on ISO 21217, focusing on the definition of in-vehicle intelligent transportation equipment.

(VehicleITSStation) Communication protocol and gateway with personal intelligent transportation devices. The relevant content of this standard and communication with in-vehicle equipment, and

ISO 13185 is consistent.

The intelligent transportation information service application for mobile portable terminals (personal intelligent transportation devices) defined in this standard focuses on

Traveler's intelligent transportation information service, including the transportation required for travel modes such as slow traffic, multi-mode traffic and self-driving travel

Translate relevant information, such as vehicle information, road car information, bus hub transfer information and parking lot information, emergency rescue and sharing information, etc.

Scenery and related services.

Intelligent transportation for personal mobile portable terminals

Information Service Application Data Exchange Protocol

1 Scope

This standard specifies the intelligent transportation system architecture and intelligent transportation portable terminal configuration, definition of use cases, and points for personal mobile portable terminals.

Classes and information, data elements, and data transfer protocols.

This standard applies to transportation information services for smartphones, portable navigation devices and other mobile devices that meet the relevant communication requirements.

And the service interfaces of intelligent transportation vehicle equipment and application platforms that support these services.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

ISO / T R13185-1 Intelligent transport systems - Vehicle interface for the provision and support of ITS services - Part 1. General information and use cases

Definition

(Intelligent transportsystems-VehicleinterfaceforprovisioningandsupportofITSservices-
Part 1. Generalinformationandusecasedefination)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Land mobile communication access protocol communicationaccessforlandmobile

A specification that defines common architectures, network protocols, and communication interfaces to support continuous or quasi-connections between vehicles or between vehicles and infrastructure

Continue communication. Such communication can be implemented using a wireless communication medium at any particular location and can be automatically switched to available as needed

Communication medium.

3.2

Intelligent transportation center equipment centralintelligenttransportsystemstation

A central device for collaborative smart transportation services and applications.

Note. Intelligent Transportation Center equipment is usually placed in the data service platform of the Internet data center (consisting of servers, databases and application systems).

3.3

Intelligent transportation equipment application inteligenttransportsystems-serviceapplication

An application function that connects one or more intelligent transportation devices (ITS-S) based on intelligent transportation services.

3.4

Intelligent transportation information service intelligenttransportsystemservice; ITSservice

Communication functions and related services provided for applications between intelligent transportation devices.

3.5

Multi-modal navigation multi-modalnavigation

The process of moving from one place to another in multiple modes of transportation.