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Intelligent transport systems (ITS) — Guidance protocol via personal ITS station for advisory safety systems —

Part 3: Road guidance protocol (RGP) conformance test specification

Systèmes intelligents de transport — Protocole d'orientation par station ITS personnelle pour systèmes à avis de sécurité —

Partie 3: Spécification d'essai de conformité du protocole d'orientation routière

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by ISO/TC 204, *Intelligent transport systems*.

A list of all the parts in the ISO 13184 series, can be found on the ISO website.

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Introduction

This document specifies a real-time decision support system for guidance information, designed to enhance mobility and vehicle safety and to provide a parking guide service using the Personal-ITS-Station (P-ITS-S). The purpose of the system is to transmit guidance or warning messages to drivers and pedestrians in real-time, enhance the user's convenience and avoid congestion in parking facilities by preventing accidents and enabling easy parking.

This document covers subjects related to traffic safety including pedestrians in addition to vehicle drivers. This Data eXchange Message (DXM) implementation describes how the safety-related services are provided using the P-ITS-S.

This system is based on the following assumptions:

— The P-ITS-S has limited resources and the implementation design considers these limitations.

— Use cases related to the safety warning and parking guide service can be classified in various ways. These use cases can be added or deleted frequently depending on the specific circumstances of roads and parking spaces. Therefore, the DXM implementation needs to be designed to be flexible and extendable, which enables the addition or deletion of the use cases conveniently.

— The DXM implementation of road guidance contains data elements to configure the message transmitted between the ITS Stations.

— The major use cases include safety warnings at roads and parking guide services to be used between the Roadside ITS Station (R-ITS-S) and the P-ITS-S.

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Intelligent transport systems (ITS) — Guidance protocol via personal ITS station for advisory safety systems —

Part 3:
Road guidance protocol (RGP) conformance test specification

1 Scope

This document specifies conformance tests for a self-conformance assessment of the supplier's P-ITS-S system. The conformance test cases follow the use case definition of ISO/TR 13184-1 and the requirements stated in ISO 13184-2 based on the Data eXchange Message (DXM) at the application level regarding the safety warning and parking guide services between

— the Vehicle ITS Station (V-ITS-S) installed in the vehicle, or

— a Personal ITS Station (P-ITS-S), e.g. Nomadic Device, in a vehicle or used by a pedestrian, and

— a Roadside ITS Station (R-ITS-S) installed at the roadside.

The primary but not exclusive purpose of this document is to provide information to the P-ITS-S system provider to build and test the P-ITS-S system against the conformance test cases. This final step in the development process of the P-ITS-S system ensures providers that their P-ITS-S system meets a high degree of functional requirements expected by the end user.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/TR 13184-1, *Intelligent transport systems (ITS) — Guidance protocol via personal ITS station for advisory safety systems — Part 1: General information and use case definitions*

ISO 13184-2, *Intelligent transport systems (ITS) — Guidance protocol via personal ITS station for advisory safety systems — Part 2: Road guidance protocol (RGP) requirements and specification*

ISO/TS 17419, *Intelligent transport systems — Cooperative systems — Classification and management of ITS applications in a global context*

ISO/TS 17423, *Intelligent transport systems — Cooperative systems — ITS application requirements and objectives for selection of communication profiles*

ISO 21217, *Intelligent transport systems — Communications access for land mobiles (CALM) — Architecture*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/TR 13184-1, ISO 13184-2, ISO/TS 17419, ISO/TS 17423 and ISO 21217 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

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