ICS 03.220.20, 35.240.60 SLOVENSKÁ TECHNICKÁ NORMA Jún 2025

STN	**Elektronický výber poplatkov Hodnotenie zhody palubného a postranného cestného zariadenia s ISO 12813 (ISO 13143: 2025)**	**STN EN ISO 13143** 01 8585

Electronic fee collection - Evaluation of on-board and roadside equipment for conformity to ISO 12813 (ISO 13143:2025)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 05/25

Obsahuje: EN ISO 13143:2025, ISO 13143:2025

Oznámením tejto normy sa ruší
STN EN ISO 13143-1 (01 8585) z júna 2021

140453

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 13143

March 2025

ICS 03.220.20; 35.240.60 Supersedes EN ISO 13143-1:2020

English Version

Electronic fee collection - Evaluation of on-board and roadside equipment for conformity to ISO 12813 (ISO 13143:2025)

Perception de télépéage - Évaluation des équipements embarqués et en bord de route quant à la conformité avec l'ISO 12813 (ISO 13143:2025)

Elektronische Gebührenerhebung - Bewertung der Konformität fahrzeuginterner und straßenseitiger Ausrüstung nach ISO 12813 (ISO 13143:2025)

This European Standard was approved by CEN on 25 January 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN ISO 13143:2025 E

EN ISO 13143:2025 (E)

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European foreword

This document (EN ISO 13143:2025) has been prepared by Technical Committee ISO/TC 204 "Intelligent transport systems" in collaboration with Technical Committee CEN/TC 278 “Intelligent transport systems” the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2025, and conflicting national standards shall be withdrawn at the latest by September 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 13143-1:2020.

Any feedback and questions on this document should be directed to the users’ national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 13143:2025 has been approved by CEN as EN ISO 13143:2025 without any modification.

International Standard

ISO 13143

Electronic fee collection — Evaluation of on-board and roadside equipment for conformity to ISO 12813

Perception de télépéage — Évaluation des équipements embarqués et en bord de route quant à la conformité avec l'ISO 12813

First edition
2025-02

Reference number
ISO 13143:2025(en)

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Published in Switzerland

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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 document 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 of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 278, *Intelligent transport systems,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO 13143 cancels and replaces the second edition of ISO 13143-1:2020, which has been technically revised.

The main changes are as follows:

— updates have been made to reflect changes in the underlying normative references, in particular ISO 12813, in which data and coding specifications have been revised;

— the terms and definitions have been updated and ISO 17573-2:—[1)] has been included as the primary source for harmonized terminology across electronic fee collection (EFC) standards;

— references to underlying standards have been updated.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

1) Under preparation. Stage at the time of publication: ISO/DIS 17573-2:2025.

Introduction

On-board equipment (OBE) that uses satellite-based positioning technology to collect data required for charging for the use of roads operates in an autonomous way (i.e. without relying on dedicated roadside infrastructure). The OBE records the amount of road usage in all toll charging systems it passes through.

This document specifies the process and tests for evaluation of OBE and roadside equipment (RSE) for conformity to ISO 12813.

ISO 12813 specifies requirements for dedicated short-range communication (DSRC) between OBE and an interrogator for the purpose of checking conformance of road use with a local toll regime. It assumes an electronic fee collection (EFC) services architecture according to ISO 17573-1.

This document is intended to:

— assess OBE and RSE capabilities;

— assess OBE and RSE behaviour;

— serve as a guide for OBE and RSE conformance evaluation and type approval;

— achieve comparability between the results of the corresponding tests applied in different places at different times; and

— facilitate communication between parties.

International Standard **ISO 13143:2025(en)**

Electronic fee collection — Evaluation of on-board and roadside equipment for conformity to ISO 12813

1 Scope

This document specifies the test suite structure (TSS) and test purposes (TPs) for evaluating the conformity of on-board equipment (OBE) and roadside equipment (RSE) to ISO 12813.

It provides a basis for conformance tests for dedicated short-range communication (DSRC) OBE and RSE to support interoperability between different equipment supplied by different manufacturers.

ISO 12813 specifies requirements for the compliance check communication (CCC) interface level, but not for the OBE or RSE internal functional behaviour. Consequently, tests regarding OBE and RSE functional behaviour remain outside the scope of this document.

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 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country code*

ISO 12813:2024, *Electronic fee collection — Compliance check communication for autonomous systems*

ISO 14816, *Road transport and traffic telematics — Automatic vehicle and equipment identification — Numbering and data structure*

ISO 14907-2:2021, *Electronic fee collection — Test procedures for user and fixed equipment — Part 2: Conformance test for the on-board unit application interface*

ISO 17573-2[2)], *Electronic fee collection — System architecture for vehicle related tolling — Part 2: Vocabulary*

EN 12834:2003, *Road transport and traffic telematics — Dedicated Short Range Communication (DSRC) — DSRC application layer*

EN 13372:2004, *Road Transport and Traffic Telematics (RTTT) — Dedicated short-range communication — Profiles for RTTT applications*

EN 15509:2023, *Electronic fee collection — Interoperability application profile for DSRC*

EN 15876, *Electronic fee collection — Conformity evaluation of on-board and roadside equipment to EN 15509*

ETSI/TS 102 486-2-2:2008, *Intelligent Transport Systems (ITS); Road Transport and Traffic Telematics (RTTT); Test specifications for Dedicated Short Range Communication (DSRC) transmission equipment; Part 2: DSRC application layer; Sub-Part 2: Test Suite Structure and Test Purposes (TSS & TP)*