

SLOVENSKI STANDARD

SIST-TS CEN ISO/TS 14907-2:2017

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**Elektronsko pobiranje pristojbin - Postopki za preskušanje opreme - 2. del:
Preskus skladnosti za aplikacijski vmesnik vgrajene enote za elektronsko
cestninjenje (ISO/TS 14907-2:2016)**

Electronic fee collection - Test procedures for user and fixed equipment - Part 2:
Conformance test for the on-board unit application interface (ISO/TS 14907-2:2016)

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Elektronische Gebührenerhebung - Testverfahren für straßenseitige und fahrzeugseitige
Einrichtungen - Teil 2: Konformitätsprüfungen für die Anwendungsschnittstelle der
fahrzeugeitigen Einrichtung (ISO/TS 14907-2:2016)

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Perception du télépéage - Modes opératoires relatifs aux équipements embarqués et aux
équipements fixes - Partie 2: Essai de conformité de l'interface d'application de l'unité
embarquée (ISO/TS 14907-2:2016)

Ta slovenski standard je istoveten z: CEN ISO/TS 14907-2:2016

ICS:

35.240.60	Uporabniške rešitve IT v prometu	IT applications in transport
43.040.15	Avtomobilska informatika. Vgrajeni računalniški sistemi	Car informatics. On board computer systems

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Supersedes CEN ISO/TS 14907-2:2011

English Version

Electronic fee collection - Test procedures for user and fixed equipment - Part 2: Conformance test for the on-board unit application interface (ISO/TS 14907-2:2016)

Perception du télépéage - Modes opératoires relatifs aux équipements embarqués et aux équipements fixes -
Partie 2: Essai de conformité de l'interface d'application de l'unité embarquée (ISO/TS 14907-2:2016)

Elektronische Gebührenerhebung - Testverfahren für straßenseitige und fahrzeugseitige Einrichtungen - Teil 2: Konformitätsprüfungen für die Anwendungsschnittstelle der fahrzeugseitigen Einrichtung (ISO/TS 14907-2:2016)

This Technical Specification (CEN/TS) was approved by CEN on 26 June 2016 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (CEN ISO/TS 14907-2:2016) 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.

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

This document supersedes CEN ISO/TS 14907-2:2011.

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

Endorsement notice

The text of ISO/TS 14907-2:2016 has been approved by CEN as CEN ISO/TS 14907-2:2016 without any modification.

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

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*Perception du télépéage — Modes opératoires relatifs aux
équipements embarqués et aux équipements fixes —*

*Partie 2: Essai de conformité de l'interface d'application de l'unité
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ISO/TS 14907-2:2016(E)

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword — Supplementary information](http://www.iso.org/foreword).

The committee responsible for this document is ISO/TC 204, *Intelligent transport systems*.

This third edition cancels and replaces the second edition (ISO/TS 14907-2:2011), which has been technically revised with the following changes:

- updated references to clauses and annexes in accordance with ISO 14906:2011/Amd1:2015;
- updated [Annex D](#) to reflect current situation in Japan.

ISO/TS 14907 consists of the following parts, under the general title *Electronic fee collection — Test procedures for user and fixed equipment*:

- *Part 1: Description of test procedures*
- *Part 2: Conformance test for the on-board unit application interface*

Introduction

This part of ISO/TS 14907 describes tests that verify on-board unit (OBU) conformance of implementations of functions and data structures for electronic fee collection (EFC) applications.

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Electronic fee collection — Test procedures for user and fixed equipment —

Part 2: Conformance test for the on-board unit application interface

1 Scope

This part of ISO/TS 14907 describes tests that verify on-board unit (OBU) conformance of implementations of functions and data structures, as defined in the implementation conformance statement based on ISO 14906:2011/Amd1:2015, for electronic fee collection (EFC) applications. After the tests of isolated data items and functions ([C.2](#) to [C.4](#)), an example is given for testing of a complete EFC transaction ([C.3](#)).

The scope of this part of ISO/TS 14907 comprises definitions of OBU conformance assessment tests of

- basic dedicated short-range communication (DSRC) L7 functionality,
- EFC application functions,
- EFC attributes (i.e. EFC application information),
- the addressing procedures of EFC attributes and (hardware) components [e.g. integrated circuit cards (ICC) and man-machine interfaces (MMI)],
- the EFC transaction model, which defines the common elements and steps of any EFC transaction, and
- the behaviour of the interface so as to support interoperability on an EFC-DSRC application interface level, see [Figure 1](#).

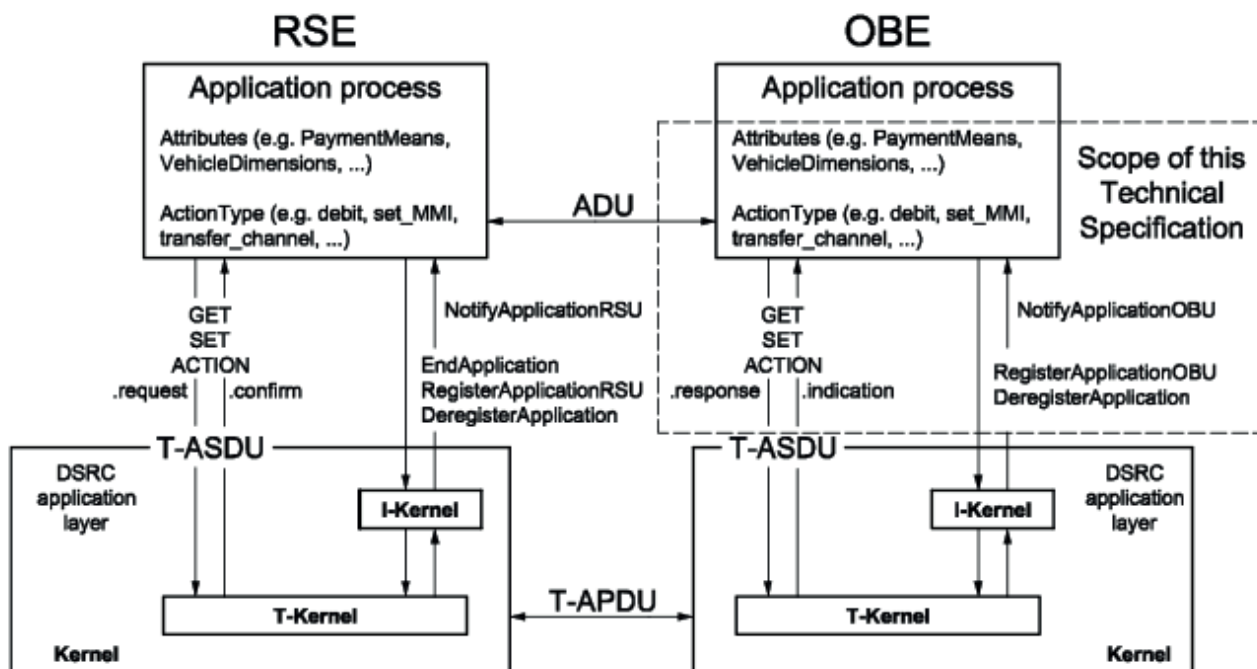


Figure 1 — The EFC application interface

The purpose of this part of ISO/TS 14907 is to define tests that

- assess OBU capabilities,
- assess OBU behaviour,
- serve as a guide for OBU conformance evaluation and type approval,
- achieve comparability between the results of the corresponding tests applied in different places at different times, and
- facilitate communications between parties.

Whereas, this part of ISO/TS 14907 defines examples of test cases for DSRC and EFC functionality in [Annex C](#), it does not intend to specify a complete test suite for a certain implementation. To compose a test suite for a specific EFC implementation, the test cases may have to be modified and new test cases may have to be defined and added in order for the conformance test to be complete. It can be useful to take into account the following considerations when defining a complete test suite

- small range: “exhaustive testing” of critical interoperability/compatibility features,
- large range: testing of boundaries and random values, and
- composite types: testing of individual items in sequence or parallel.

[Figure 2](#) shows the overall procedure of conformance testing.

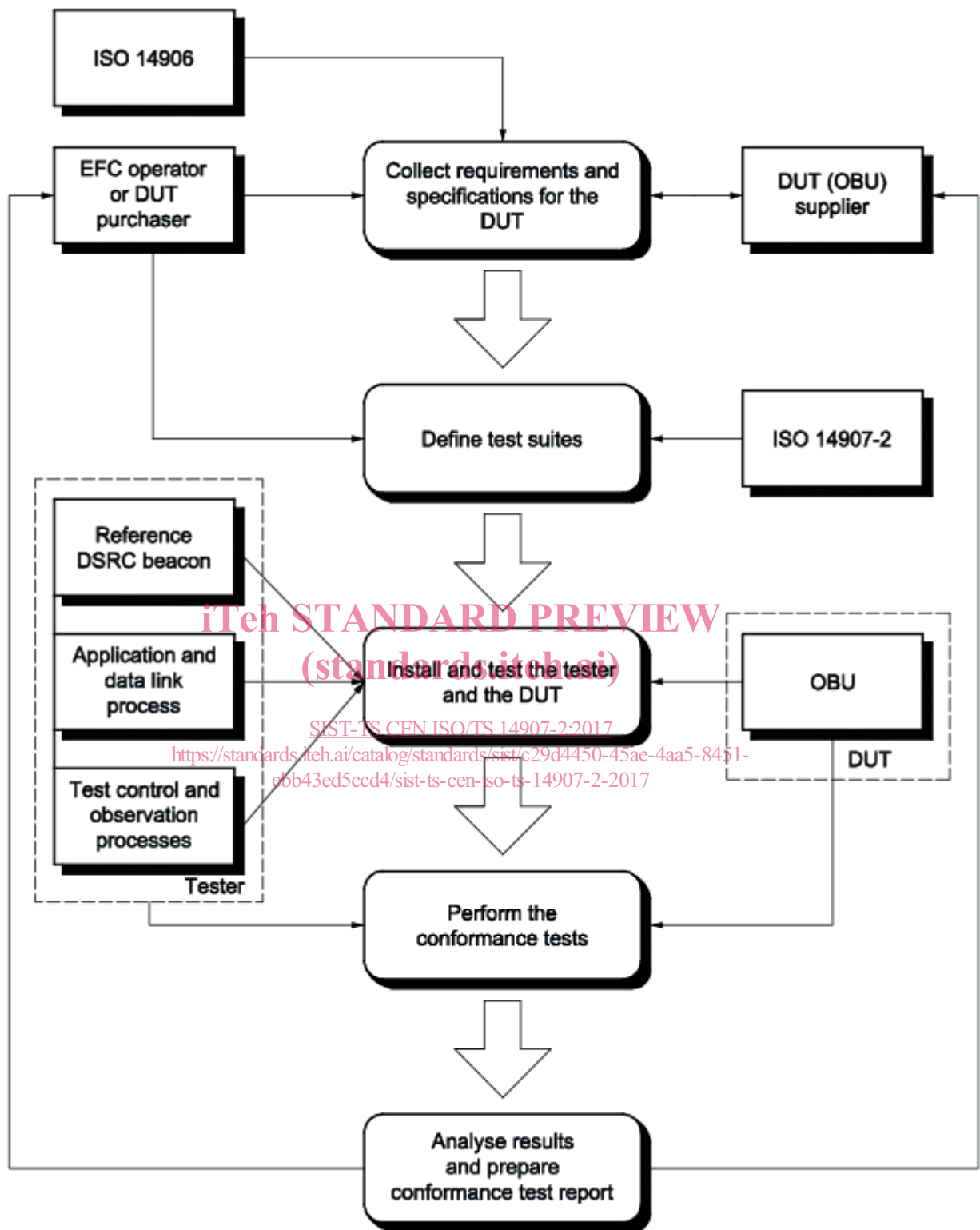


Figure 2 — Conformance testing process

Figure 3 gives a more detailed picture of the interface between the entity performing the conformance test and the supplier of the Device Under Test (DUT). By the EFC application specification, the implementation conformance statement proforma and the implementation extra information for testing proforma the supplier is requested to provide the DUT (OBU), containing the Implementation