PD CEN/TS 16794-1:2017

BSI Standards Publication

Public transport - Communication between contactless readers and fare media

Part 1: Implementation requirements for ISO/IEC 14443

bsi.

National foreword

This Published Document is the UK implementation of CEN/TS 16794-1:2017. It supersedes PD CEN/TS 16794-1:2015, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee EPL/278, Intelligent transport systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

Public transport - Communication between contactless readers and fare media - Part 1: Implementation requirements for ISO/IEC 14443

Transport Public - Système billettique interopérable - Communication entre terminaux et objets sans contact - Partie 1: Exigences d'implémentation pour l'ISO/IEC 14443

Öffentlicher Verkehr - Kommunikation zwischen berührungslosen Lesegeräten und Fahrscheinmedien - Teil 1: Implementierungsanforderungen zur ISO/IEC 14443

This Technical Specification (CEN/TS) was approved by CEN on 17 April 2017 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.

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European foreword

This document (CEN/TS 16794-1:2017) has been prepared by 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/TS 16794-1:2015.

This version updates the requirements applicable to the contactless interface of PT readers and objects to introduce interoperability with NFC mobile devices compliant to NFC Forum specifications.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This Technical Specification constitutes the 2nd edition of CEN/TS 16794-1. It sets out the technical requirements to be met by contactless Public Transport (PT) devices in order to be able to interface together using the ISO/IEC 14443 standard contactless communications protocol.

This Technical Specification applies to PT devices:

PT readers which are contactless fare management system terminals acting as a PCD contactless reader based on ISO/IEC 14443 standard series;

PT objects which are contactless fare media acting as a PICC contactless object based on ISO/IEC 14443 standard series.

This new version also addresses interoperability of consumer-market NFC mobile devices, compliant to NFC Forum specifications, with above mentioned PT devices.

An interface–oriented test approach is used to evaluate the conformity of PT devices and is defined in CEN/TS 16794-2.

Application-to-application exchanges executed once contactless communication has been established at RF level fall outside the scope of this document. In line with the rules on independency between OSI protocol layers, this document works on the assumption that application-to-application exchanges are not contingent on the type of contactless communication established or by the parameters used for the low-level protocol layers that serve as the platform for these application-to-application exchanges.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CEN/TS 16794-2, *Public transport - Communication between contactless readers and fare media - Part 2: Test plan for ISO/IEC 14443*

ISO/IEC 10373-6, *Identification cards - Test methods - Part 6: Proximity cards*

ISO/IEC 14443 (all parts), *Identification cards - Contactless integrated circuit cards - Proximity cards*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 14443-1, ISO/IEC 14443-2, ISO/IEC 14443-3, ISO/IEC 14443-4, ISO/IEC 10373-6 and the following apply.

3.1
common reader
PT reader used in interoperable fare management system terminals with reduced performance requirements

Note 1 to entry: See 8.2.

3.2
IFM reader
PT reader used in interoperable fare management system terminals

Note 1 to entry: See 8.2.