
**Cards and security devices
for personal identification —
Communication between contactless
readers and fare media used in public
transport —**

Part 1:
**Implementation requirements for
ISO/IEC 14443 (all parts)**

*Cartes et dispositifs de sécurité pour l'identification personnelle —
Communication entre terminaux et objets sans contact utilisés en
transport public —*

*Partie 1: Exigences d'implémentation pour l'ISO/IEC 14443 (toutes les
parties)*





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Foreword

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A list of all parts in the ISO/IEC TS 24192 series can be found on the ISO and IEC website.

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 and www.iec.ch/national-committees.

Introduction

This document defines the requirements related to the use of ISO/IEC 14443 (all parts) to ensure interoperability between fare management system terminals and multiple-form-factor contactless fare media (smartcards, e-tickets, mobile phones, USB keys, tablets, etc.).

These implementation requirements are not designed to repeat or duplicate the referenced specifications, essentially ISO/IEC 14443 (all parts) and ISO/IEC 10373-6, but to complement those specifications with public transport specific considerations.

Cards and security devices for personal identification — Communication between contactless readers and fare media used in public transport —

Part 1: Implementation requirements for ISO/IEC 14443 (all parts)

1 Scope

This document defines 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 (all parts) contactless communications protocol.

This document applies to PT devices:

- PT readers which are contactless fare management system terminals acting as a PCD contactless reader based on ISO/IEC 14443 (all parts);
- PT objects which are contactless fare media acting as a PICC contactless object based on ISO/IEC 14443 (all parts).

This document addresses interoperability of consumer-market NFC mobile devices, compliant to NFC Forum specifications, with above mentioned PT devices, aligns with ISO/IEC 14443 (all parts) and does not seek to limit compliance for PT readers with EMV Contactless Interface Specification.

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/IEC/TS 24192-2, *Cards and security devices for personal identification — Communication between contactless readers and fare media used in public transport — Part 2: Test plan for ISO/IEC 14443 (all parts)*

ISO/IEC 10373-6, *Cards and security devices for personal identification — Test methods — Part 6: Contactless proximity objects*

ISO/IEC 14443 (all parts), *Cards and security devices for personal identification — Contactless proximity objects*

ISO/IEC 15693-2, *Cards and security devices for personal identification — Contactless vicinity objects — Part 2: Air interface and initialization*

ISO/IEC 18092, *Information technology — Telecommunications and information exchange between systems — Near Field Communication — Interface and Protocol (NFCIP-1)*