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Telecommunications and information exchange between systems — Near Field Communication Interface and Protocol (NFCIP-1) — RF interface test methods

Télécommunications et échange d'information entre systèmes — Interface et protocole de communication en champ proche (NFCIP-1) — Méthodes d'essai pour interface RF

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Foreword

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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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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*.

This third edition cancels and replaces the second edition (ISO/IEC 22536:2013), which has been technically revised.

The main changes are as follows:

— alignment with the latest edition of ISO/IEC 18092 (the base standard);

— editorial improvements.

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.

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Telecommunications and information exchange between systems — Near Field Communication Interface and Protocol (NFCIP-1) — RF interface test methods

1 Scope

This document is part of a suite of standards that specify tests for ISO/IEC 18092. It defines test methods for the RF-interface. This document specifies RF-test methods for NFCIP-1 devices with antennas fitting within the rectangular area of 50 mm by 40 mm.

This test standard, the first of two parts, specifies compliance tests for the RF interface of ISO/IEC 18092 devices. The companion test standard ISO/IEC 23917 specifies protocol tests for ISO/IEC 18092.

2 Normative references

The following referenced documents are indispensable for the application 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 18092:2023, *Telecommunications and information exchange between systems — Near Field Communication Interface and Protocol 1 (NFCIP-1)*

ISO/IEC 10373-6:2020, *Cards and security devices for personal identification — Test methods — Part 6: Contactless proximity objects*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 18092 and ISO/IEC 10373-6 apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

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

4 Symbols and abbreviated terms

The abbreviated terms in ISO/IEC 18092 and the following apply.

DUT	Device Under Test
f_C	Frequency of the operating field (carrier frequency)
f_S	Frequency of subcarrier at 106 kbit/s in passive communication mode
H_m	Maximum external field strength for not preventing the Initiator to switch on its RF field
H_{max}	Maximum field strength of the Initiator antenna field
H_{min}	Minimum field strength of the Initiator antenna field

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