

Second edition
2012-07-01

**Information technology —
Telecommunications and information
exchange between systems — Near
Field Communication Interface and
Protocol -2 (NFCIP-2)**

*Technologies de l'information — Télécommunications et échange
d'information entre systèmes — Interface et protocole -2 en
communication de champ proche (NFCIP-2)*

Reference number
ISO/IEC 21481:2012(E)



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Published in Switzerland

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote. 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.

ISO/IEC 21481 was prepared by Ecma International (as ECMA-352) and was adopted, under a special "fast-track procedure", by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

This second edition cancels and replaces the first edition (ISO/IEC 21481:2005), which has been technically revised.

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Introduction

In 2002, Ecma International formed Task Group 19 of Technical Committee 32 to specify Near Field Communication (NFC) signal interfaces and protocols. The NFC devices are wireless closely coupled devices communicating at 13,56 MHz.

Although ISO/IEC 18092 (NFCIP-1), ISO/IEC 14443 and ISO/IEC 15693 all specify 13,56 MHz as their working frequency, they specify distinct communication modes. These are defined as NFC, PCD, and VCD communication modes, respectively.

This International Standard (NFCIP-2) specifies the mechanism to detect and select one communication mode out of those three possible communication modes. Furthermore, NFCIP-2 requires that subsequent behaviour be as specified in the standard specifying the selected communication mode.

In 2009, JTC 1/SC 6 and JTC 1/SC 17 studied together for improving interoperability between ISO/IEC 21481 and ISO/IEC 14443. This second edition of ISO/IEC 21481 is revised based on the study, and the PICC mode is added to the existing three modes.