

INTERNATIONAL STANDARD

ISO/IEC 15693-3

Second edition
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Identification cards — Contactless integrated circuit cards — Vicinity cards —

Part 3: Anticollision and transmission protocol

*Cartes d'identification — Cartes à circuit(s) intégré(s) sans contact —
Cartes de voisinage —*

Partie 3: Anticollision et protocole de transmission

Reference number
ISO/IEC 15693-3:2009(E)



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Contents

Page

Foreword.....	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms, definitions, symbols and abbreviated terms.....	2
3.1 Terms and definitions.....	2
3.2 Abbreviated terms	2
3.3 Symbols	2
4 Definition of data elements	3
4.1 Unique identifier (UID)	3
4.2 Application family identifier (AFI)	3
4.3 Data storage format identifier (DSFID)	6
4.4 CRC	6
5 VICC memory organization.....	6
6 Block security status	7
7 Overall protocol description.....	7
7.1 Protocol concept.....	7
7.2 Modes.....	8
7.2.1 Addressed mode.....	8
7.2.2 Non-addressed mode	8
7.2.3 Select mode	8
7.3 Request format.....	9
7.3.1 Request flags	9
7.4 Response format.....	10
7.4.1 Response flags	11
7.4.2 Response error code	11
7.5 VICC states	12
7.5.1 Power-off state	12
7.5.2 Ready state.....	12
7.5.3 Quiet state	12
7.5.4 Selected state.....	12
8 Anticollision	14
8.1 Request parameters	14
8.2 Request processing by the VICC	15
8.3 Explanation of an anticollision sequence	17
9 Timing specifications	19
9.1 VICC waiting time before transmitting its response after reception of an EOF from the VCD.....	19
9.2 VICC modulation ignore time after reception of an EOF from the VCD	19
9.3 VCD waiting time before sending a subsequent request	19
9.4 VCD waiting time before switching to the next slot during an inventory process	20
9.4.1 When the VCD has started to receive one or more VICC responses	20
9.4.2 When the VCD has received no VICC response	20
10 Commands	21
10.1 Command types	21
10.1.1 Mandatory.....	21
10.1.2 Optional	21

10.1.3	Custom	21
10.1.4	Proprietary	21
10.2	Command codes	22
10.3	Mandatory commands	22
10.3.1	Inventory	22
10.3.2	Stay quiet	23
10.4	Optional commands.....	24
10.4.1	Read single block.....	24
10.4.2	Write single block	25
10.4.3	Lock block.....	26
10.4.4	Read multiple blocks	26
10.4.5	Write multiple blocks	28
10.4.6	Select.....	29
10.4.7	Reset to ready.....	29
10.4.8	Write AFI.....	30
10.4.9	Lock AFI.....	31
10.4.10	Write DSFID command	32
10.4.11	Lock DSFID	32
10.4.12	Get system information	33
10.4.13	Get multiple block security status	35
10.5	Custom commands.....	36
10.6	Proprietary commands	37
Annex A	(informative) Compatibility with other card standards	38
Annex B	(informative) VCD pseudo-code for anticollision	39
Annex C	(informative) Cyclic Redundancy Check (CRC).....	40
C.1	The CRC error detection method.....	40
C.2	CRC calculation example	41
Bibliography	43

WITHDRAWN

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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 and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 15693-3 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Cards and personal identification*.

This second edition cancels and replaces the first edition (ISO/IEC 15693-3:2001), Table 1 and 9.4.2 of which have been technically revised and Figure 10 redrawn for clarity.

ISO/IEC 15693 consists of the following parts, under the general title *Identification cards — Contactless integrated circuit cards — Vicinity cards*:

- *Part 1: Physical characteristics*
- *Part 2: Air interface and initialization*
- *Part 3: Anticollision and transmission protocol*

Introduction

ISO/IEC 15693 is one of a series of International Standards describing the parameters for identification cards as defined in ISO/IEC 7810 and the use of such cards for international interchange.

This part of ISO/IEC 15693 describes the anticollision and transmission protocols.

This part of ISO/IEC 15693 does not preclude the incorporation of other standard technologies on the card.

Contactless card standards cover a variety of types as embodied in ISO/IEC 10536 (close-coupled cards), ISO/IEC 14443 (proximity cards) and ISO/IEC 15693 (vicinity cards). These are intended for operation when very near, nearby and at a longer distance from associated coupling devices, respectively.

The International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) draw attention to the fact that it is claimed that compliance with this document may involve the use of patents.

ISO and IEC take no position concerning the evidence, validity and scope of these patent rights.

The holders of these patent rights have assured ISO and IEC that they are willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statements of the holders of these patent rights are registered with ISO and IEC. Information may be obtained from:

JP 2561051 - Circuit Structure of Inductive Contactless Responding Unit

OMRON Corporation
Intellectual Property Group
20 Igadera, Shimokaiinji
Nagaokakyo-City
Kyoto 617-8510
Japan

JP 2981517, JP 2129209 – Read to Verify Written Data

US5793324

Texas Instruments Deutschland GMBH
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EP831618

EP837412

EP845751

The subject matter of these patents is anticollision, affecting Clause 8 of this part of ISO/IEC 15693.

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Identification cards — Contactless integrated circuit cards — Vicinity cards

Part 3: Anticollision and transmission protocol

1 Scope

This part of ISO/IEC 15693 specifies:

- protocol and commands,
- other parameters required to initialize communications between a vicinity integrated circuit card and a vicinity coupling device,
- methods to detect and communicate with one card among several cards ("anticollision"),
- optional means to ease and speed up the selection of one among several cards based on application criteria.

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 7816-6:2004, *Identification cards — Integrated circuit cards — Part 6: Interindustry data elements for interchange*

ISO/IEC 13239, *Information technology — Telecommunications and information exchange between systems — High-level data link control (HDLC) procedures*

ISO/IEC 15693-1, *Identification cards — Contactless integrated circuit(s) cards — Vicinity cards — Part 1: Physical characteristics*

ISO/IEC 15693-2, *Identification cards — Contactless integrated circuit cards — Vicinity cards — Part 2: Air interface and initialization*