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**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**GB/T 42756.3-2023**

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**Cards and security devices for personal identification -  
Contactless proximity objects - Part 3: Initialization and  
anticollision**

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## foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents"

drafting:

This document is part 3 of GB/T 42756 "Card and Identification Security Equipment Contactless Proximity Object": GB/T 42756 has

The following parts have been published:

- Part 1: Physical characteristics;
- Part 2: RF power and signal interface;
- Part 3: Initialization and anti-collision;
- Part 4: Transmission protocol:

This document is equivalent to ISO /IEC 14443-3:2018 "Card and Identification Security Equipment Contactless Proximity Object Part 3

Part: Initialization and Anticollision":

The following editorial changes have been made to this document:

- Included in the amendments of ISO /IEC 14443-3:2018/Amd:1:2021, ISO /IEC 14443-3:2018/Amd:2:2020

Content and technical corrigenda of ISO /IEC 14443-3:2018/Cor:1:2022, the outer margins of the terms involved

are marked with a vertical double line (||);

- List the abbreviation "EMD" that is used multiple times in the text but not listed in 4:1 in 4:1;

--- Adjust the informative reference to ISO /IEC 7816-4 in the text to the reference:

Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents:

## Introduction

Contactless card standards include ISO /IEC 10536 (tightly coupled card), GB/T 42756 (proximity card) and GB/T 22351 (all parts

Points) (proximity card) and other types: These types of equipment are used for very close, close and long distances from the associated coupling device, respectively:

to operate:

GB/T 42756 "Card and Identity Recognition Security Equipment Contactless Proximity Object" stipulates that identification cards and identification cards in accordance with GB/T 14916

The technical requirements for flexible thin cards complying with GB/T 28177:1, and how to use these cards for information exchange: This technique provides the standard

Forms other than quasi-card formats offer the possibility to approach type objects: Also, it does not preclude the use of other technologies on the card, such as

The technology in GB/T 42756:1-2023 references:

GB/T 42756 consists of four parts:

--- Part 1: Physical properties: The purpose is to specify the physical characteristics of proximity objects:

--- Part 2: RF power and signal interface: The purpose is to specify the Proximity Coupling Device (PCD) and the Proximity Card or Object

(PICC) provides the characteristics of the field of energy and two-way communication:

--- Part 3: Initialization and anti-collision: The purpose is to specify requirements for contactless proximity object initialization and anti-collision:

--- Part 4: Transmission protocol: The purpose is to establish a half-duplex block transfer protocol required for a contactless environment and to specify activation and deactivation

A step of:

Contactless Proximity for Card and Identification Security Devices

Objects Part 3: Initialization and Anticollision

## 1 Scope

This document specifies:

- Polling of a proximity card or object (PICC) entering the field of a proximity coupling device (PCD);
- The character format, frame and timing of the communication initialization phase between PCD and PICC;
- Contents of initial request and request response;
- Detect and select one of the multiple PICCs for communication (anti-collision);
- Other parameters required for initial communication between PICC and PCD;
- A method for simply and quickly selecting a PICC from multiple PICCs based on application standards;
- The ability to allow the device to switch between PICC and PCD functions and communicate with PCD or PICC respectively: have

Devices of this capability are called PXDs:

The protocols and commands used by the upper layers and applications after the initialization phase are described in ISO /IEC 14443-4:

This document applies to TypeAPICC and TypeBPICC (as described in ISO /IEC 14443-2), and PCD (as described in ISO /IEC

IEC 14443-2) and PXD:

Note 1: The timing part of data communication is defined in ISO /IEC 14443-2:

Note 2: The test methods of this document are defined in ISO /IEC 10373-6:

## 2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document:

Note: GB/T 16649:6-2001 Identification cards IC cards with contacts Part 6: Inter-industry data elements (idtISO /IEC 7816-6:1996)

ISO /IEC 13239 High-level data link control (HDLC) procedures for telecommunication and information exchange between information technology systems [In-