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

GB/T 22351.2-2010

**Identification cards -- Contactless integrated circuit(s) cards --
Vicinity cards -- Part 2: Air interface and initialization**

识别卡 无触点的集成电路卡 邻近式卡 第2部分：空中接口和初始化

(English Translation)

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Foreword

GB/T 22351 in the "Identification cards - Contactless integrated circuit cards Proximity card" always be entitled divided into the following four parts.

- Part 1. Physical characteristics
- Part 2. Air Interface and Initialization
- Part 3. Anti-collision and transmission protocol
- Part 4. Extended command set and security features this section GB/T 22351 Part 2.

This section identical with 15693-2 international standard ISO/IEC .2000 "Part 2 Identification cards - Contactless integrated circuit cards Proximity cards Score. Air Interface and Initialization "(in English).

For ease of use, the ISO/IEC 15693-2:2000 This part made the following editorial changes.

- a) instead of as a decimal by decimal comma ",", ".", ";";
- b) Remove the preface to international standards by modifying the ISO/IEC 15693-2:2000 Introduction.

Appendix A of this section is informative appendix.

This part is proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This part of the National Information Technology Standardization Technical Committee (SAC/TC28) centralized.

Introduction

GB/T 22351 series of standards is one of the identification cards used are described GB/T 14916-defined parameters and identification card of international exchange.

This section GB/T 22351 describes Proximity card air interfaces and initialization.

This section GB/T 22351 standard does not exclude other technical cards, such as A standard referenced in the data appendix.

Non-contact IC card standard covers ISO/IEC 14443 (proximity cards) and GB/T 22351 (proximity cards) included in each Types of cards. They are associated with work in the case of close coupling devices and more distant.

This part of the release mechanism to draw attention to the fact that, when you declare compliance with this section, related patents may be used in this section involved.

This part of the release mechanism for the patent scope, validity and verification of data is not made any comments.

The patent holder has to ensure that international standards of the issuing authority, he is willing to reasonable and non-discriminatory terms and conditions with any applicant, Authorization for Use on license negotiations. In this regard, the patent holder has filed a statement published in the international standards bodies. Relevant information Material can be obtained from the following address.

Terms 7.2 data rate and data encoding Infineon Technologies AG PO Box 800949
D-81609 Munich Germany Koninklijke Philips Electronics N.V.

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Clause 8.2 subcarrier Texas Instruments Terms 8.3 data rate Deutschland GmbH

D-85350 Freising Germany Please note that in addition to the already identified patents, some of the contents of this section may involve patents. This part of the body should not release Bear the responsibility to identify these patents.

Identification cards - Contactless integrated circuit cards Proximity cards Part 2. Air Interface and Initialization

1 Scope

This section GB/T 22351 specifies the coupling between adjacent devices (VCD) and proximity cards (VICC) provides power and two-way the nature and characteristics of the field of communication.

This part should the rest of GB/T 22351 combine them to use.

This section does not specify the means to produce coupling field, nor the means in line with the provisions of human exposure to electromagnetic radiation, and the rules and regulations, the regulations may in accordance with national regulations and standards change.

2 Normative references

The following documents contain provisions which, through reference GB/T 22351 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 22351.1-2008 Identification cards - Contactless integrated circuit cards Proximity cards - Part 1. Physical characteristics (ISO/IEC 15693-1:2000, IDT) GB/T 22351.3-2008 Identification cards - Contactless integrated circuit cards Proximity cards - Part 3. Anti-collision and transmission protocol (ISO/IEC 15693-3:2001, IDT) ISO/IEC 10373-7:2001 Identification cards - Test methods - Part 7. Proximity card

3 Terms and Definitions

GB/T 22351.1-2008 and established the following terms and definitions apply to this section.

Modulation index Index is equal to $[ab]/[ab]$, where a, b are respectively the minimum value and the peak signal amplitude.

Note: The index value can be expressed as a percentage.

Subcarrier F_s frequency signal used to modulate the carrier frequency f_c .

Byte byte

Eight bytes of data from the specified composition $b_1 \sim b_8$, from the most significant bit (MSB, b_8) to the least significant bit (LSB, b_1).

4.1 Acronyms

ASK amplitude shift keying Frame end EOF LSB Least Significant Bit