

ICS 35.240.15

CCS L 64



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

GB/T 30001.2-2013

**Information technology - Mobile payment based on radio
frequency - Part 2: Card technical requirements**

信息技术 基于射频的移动支付 第2部分：卡技术要求

Issued on: October 10, 2013

Implemented on: May 1, 2014

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

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Foreword

GB/T 30001 "Information technology based on radio frequency mobile payment" is divided into five parts.

- Part 1. RF interface;
- Part 2. card technology requirements;
- Part 3. Technical Requirements;
- Part 4. Card application management and security;
- Part 5. RF interface test methods. This section GB/T 30001 Part 2. This section drafted in accordance with GB/T 1.1-2009 given rules. This part of the National Information Technology Standardization Technical Committee (SAC/TC28) and focal points. This section drafted by: China Electronics Standardization Institute, China UnionPay Co., Ltd., Shanghai Fudan Microelectronics Group Co. Co., Ltd., Beijing Watchdata System Co., Ltd., Beijing Tongfang Microelectronics Co., Ltd., Wuhan Tianyu Information Industry Co., Ltd., China China Mobile Communications Corporation, China Telecommunications Corporation, China United Network Communications Group Company Limited, Putian Information Technology Research Institute. The main drafters of this section. Chai Hongfeng, Zhao Bo, Geng force, Li Wei, Xu Yanjun, Tan Ying, Qian Jin, Feng Jing, Gao Lin, Yan Guangwen, Ding Yimin, Liu Wenli, Dong Fenghua.

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4 Contact. Li Wei Phone. 021-65655050 Please note that in addition to the above patents, some of the contents of this document may still involve patents. The issuing authority of this document does not undertake to recognize these special Lee responsibility. IT RF-based mobile payment Part 2. Technical requirements for card

1 Scope

China's national standard for the card technical requirements of radio frequency mobile payment. It is Part 2 of GB/T 30001 and specifies the requirements for the card that holds the payment credential in a mobile payment system. The card in mobile payment is not necessarily a card. It is the secure element: the tamper-resistant chip that holds the payment application, the keys and the credential, and that performs the cryptographic operations a transaction requires. In a mobile system it may be a SIM card issued by the mobile operator, a secure element embedded in the handset by the manufacturer, or a separate card in a slot - and which of those it is was, when this standard was written, the central commercial question in Chinese mobile payment. Whoever owns the secure element controls who can put a payment application on it, and that is the difference between a bank offering a mobile product and a mobile operator doing so. That is the context, but the requirements themselves are about the chip doing its job. It has to hold the credential securely against an attacker who has physical possession of it and unlimited time - side channel analysis, fault injection, physical probing - because a secure element that yields its keys is a cloned card. It has to perform the transaction cryptography within the time the radio interface allows, on the power the field provides. It has to support multiple applications from different issuers without one being able to reach another's data. And it has to work across the lifetime of the device it is in. So the part specifies the electrical and functional requirements, the command set, the file and application structure, the security requirements and the performance. Issued on 10 October 2013 and in force since 1 May 2014.

This section GB/T 30001 specifies the RFMPC technical requirements, including RFMPC structure and interface methods. This section applies to RFMPC design, production and testing.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document. Between

GB/T 7421-2008 Information technology - Telecommunications and information exchange between high-level data link control (HDLC) procedures (ISO / IEC 13239.2002, IDT)

GB/T 16649.3-2006 Identification cards Contact IC card - Part 3. Electronic signals and transmission protocol (ISO / IEC 7816-3.1997, IDT)

GB/T 30001.1 IT to pay part of the first RF-based mobile. RF interface

3 Terms and Definitions

GB/T 30001.1 defined and the following terms and definitions apply to this document.

3.1 Payment terminals RF-based mobile payment terminal RF-based mobile Support RFMPC enabled mobile communication terminal device can communicate via radio frequency interface RFMPD, non-contact support Pay feature.

4 Symbols and Abbreviations

4.1 Symbol The following symbols apply to this document. fc. workplace frequency (carrier frequency). fss. single-wire interface signal carrier frequency.

4.2 Acronyms The following abbreviations apply to this document. ACT. activation protocol (ActivationProtocol) CLF. Non-contact tip (ContactlessFrontend) CLT. Non-contact channel (ContactlessTunneling) MicroSD. Micro Secure Digital memory card (MicroSecureDigitalMemoryCard)