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

GB/T 30001.3-2013

**Information technology - Mobile payment based on radio
frequency - Part 3: Device technical requirements**

信息技术 基于射频的移动支付 第3部分：设备技术要求

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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 3. This section drafted in accordance with GB/T 1.1-2009 given rules. Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents. 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., Beijing Watchdata System Co. Secretary, Shanghai Fudan Microelectronics Group 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. Geng force, Xu Yanjun, Zhao Bo, Yan Guangwen, Chai Hongfeng, Li Wei, Sun Xi, Qian Jin, Feng Jing, Gao Lin, Li Wei, Ding Yimin, Dongfeng Hua, Liu Wenli. IT RF-based mobile payment Part 3. Technical Requirements

1 Scope

China's national standard for the device technical requirements of radio frequency mobile payment. It is Part 3 of GB/T 30001 and specifies the requirements for the mobile device that carries the payment function - the handset itself, as distinct from the secure element

inside it and from the radio interface it presents. A phone is a hostile environment for a contactless payment. It contains a battery, a metal frame, a camera, a speaker, a wireless charging coil and several radios, and the payment antenna has to work in the middle of all of that while the device is held against a reader in whatever orientation the user chooses. The antenna position and its interaction with the rest of the handset determine whether the payment works at the first tap or the third, and that is a device requirement rather than an interface one: the interface standard specifies what a compliant field looks like, and this part specifies what the device must do to produce or respond to it in a real phone. Beyond the radio, the device has requirements that follow from what it is. It hosts the user interface through which a person authorises a payment, so it has to present that interface unambiguously and it has to behave predictably when the battery is flat - a contactless card works without power, and a phone that stops working when discharged has a different failure mode from the card it replaced. It carries the connection between the secure element and the application processor, which is a security boundary. And it has to be testable, since a handset maker has to demonstrate compliance before shipping millions of units. Issued on 10 October 2013 and in force since 1 May 2014.

This section GB/T 30001 specifies the technical requirements for RF-based mobile payment devices (desktop equipment, handheld devices, etc.). This section applies to RF-based mobile payment equipment 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.

GB 4208-2008 housing protection (IP Code) (IEC 60529.2001, IDT)

GB 4943.1-2011 Safety of information technology equipment - Part 1. General requirements (IEC 60950.2005, MOD)

GB/T 6107-2000 using serial binary data interchange data terminal equipment and data circuit terminating equipment interfaces between (IdtEIA/T IA-232E) GB radio disturbance characteristics - Limits and methods of measurement 9254-2008 information technology equipment (CISPR22.2006, IDT)

GB/T 9969-2008 General Industrial Product Manual

GB/T 11460-2009 Information technology Chinese character font requirements and test methods

GB/T 17618-1998 Information technology equipment - Immunity characteristics - Limits and methods of measurement (idtCISPR24.1997)

GB 18030-2005 Information technology - Chinese coded character set

GB 19966-2005 Information technology - Universal Multiple-Octet Coded Character Set (Basic Multilingual Plane) - 16 dot matrix characters

GB 19967.1-2005 Information technology - Universal Multiple-Octet Coded Character Set (Basic Multilingual Plane) 24 dot matrix font of Chinese characters Part 1. Arial

GB 19967.2-2010 Information technology - Universal Multiple-Octet Coded Character Set (Basic Multilingual Plane) 24 dot matrix font of Chinese characters Part 2. blackbody

GB/T 26572 Limited restricted substances in electrical and electronic equipment requirements

GB/T 30001.1 IT to pay part of the first RF-based mobile. RF interface SJ11295-2003 Information technology - Universal Multiple-Octet Coded Character Set (Basic Multilingual Plane) 12 dot matrix Chinese character fonts SJ11296-2003 Information technology - Universal Multiple-Octet Coded Character Set (Basic Multilingual Plane) 14 dot Kanji fonts

3 Terms and Definitions

Terms and definitions GB/T 30001.1 defined apply to this document.

4 Abbreviations

The following abbreviations apply to this document.