Rundown

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Product Overview
ACR122S Serial NFC Reader

The ACR122 Series is a family of Contactless Smart Card Readers sharing the same core. The readers are developed based on the 13.56 MHz RFID technology and the ISO/IEC 18092 NFC standard.

ACR122S, the serial interface extension of the ACR122 Series, is especially designed for embedded systems and POS terminals employing different smart card applications.
Product Features
What are the Key Features of ACR122S?

- **Smart Card Interface**
  - PICC (Contactless)
  - SAM
- **Access Speed**
  - Up to 424 Kbps (for FeliCa Tags)
- **Supported Card Types**
  - ISO 14443 Type A & B
  - MIFARE
  - FeliCa
  - NFC Tags
- **RS-232 for Data Transmission**
- **USB for Power Supply**
- **Driverless Operation**
- **User-controllable Peripherals**
  - LEDs
  - Buzzer
- **Certifications/Compliance**
  - ISO 18092
  - ISO 14443
  - CE, FCC, KC, VCCI
  - ROHS 2
- **Supported Operating Systems**
  - Windows® 98, Windows® ME,
  - Windows® 2000, Windows® XP,
  - Windows® Vista, Windows® 7,
  - Windows® Server 2003,
  - Windows® Server 2008,
  - Windows® Server 2008 R2,
  - Linux®
NFC Technology-enabled

NFC Tag Support

- Tag 1: based on ISO 14443 A (96 bytes) e.g., Topaz
- Tag 2: based on ISO 14443 A (48 bytes) e.g., MIFARE Ultralight
- Tag 3: based on Japanese Industrial Standard e.g., FeliCa
- Tag 4: based on ISO 14443 A and B e.g., MIFARE DESFire

Source: http://www.nfc-forum.org/specs/
Product Features

Responding to the Growing Demand for Contactless Applications

Recognizing the growing use of contactless smart card technology globally, ACR122S embraces different card types, common user scenarios and application environments.

- ACR122S supports a wide range of cards and phones (e.g., ISO 14443 Type A & B, MIFARE, FeliCa, NFC).
- ACR122S supports anti-collision and direct polling on specific card type (e.g., Works with FeliCa card only even when both FeliCa and Type A cards are presented).
- ACR122S' serial interface and PCBA module availability facilitates integration into embedded systems and POS terminals.
- ACR122S comes with a built-in SAM slot to secure the overall contactless operation.
ACR122S Architecture

- **Host**
- **DLL API Layer**
  - **Peripherals** (LED and Buzzer)
  - **ACR122S**
  - **ISO 7816 Parts 1-3 + T=0 SAM Interface**
  - **Protocol Conversion + ISO 14443, MIFARE, FeliCa, and ISO 18092**
  - **SAM (Socket)**
  - **Contactless Tag/NFC Device (Built-in Antenna)**
- **Serial RS-232 Interface**
- **RF Interface**
Product Value
What are the Key Benefits of ACR122S?

1. **Ease of Integration**
   ACR122S’ serial interface and PCBA module availability, along with its driverless operation facilitates its integration into different platforms.

2. **Great Convenience to Consumers**
   ACR122S supports anti-collision and direct polling on specific card type. Users just have to tap their purses even when they have several cards inside.

3. **Multi-protocol Support**
   ACR122S works with a wide range of contactless tags and cards. Merchants do not need another reader for different cards and applications in most cases.

4. **Great Convenience to Developers**
   ACR122S supports advanced settings by direct commands (i.e. Reduce antenna field strength to reduce card reading distance).

5. **NFC-enabled**
   Supports NFC tags Type 1 to Type 4 for different applications.
Product Application
In what areas can we apply ACR122S?

- Automatic Fare Collection
- Smart Posters
- Cashless Payment
- Vending Machines
- Network Access
- Physical Access Control
Thank You!

For more information, visit:
www.acr122s.com