



**Advanced Card Systems Ltd.**  
Card & Reader Technologies

# ACR122T USB Token NFC Reader



Technical Specifications V2.03



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## 1.0. Introduction

The ACR122T is the token version of the ACR122U, the world's first NFC card reader compliant with the CCID standard, is developed based on the 13.56 MHz RFID technology and the ISO/IEC 18092 NFC standard. It supports not only MIFARE® and ISO 14443 Type A and B cards but also FeliCa and NFC tags.

Because of its compact size and great portability, you can bring the ACR122T and conveniently use it in public areas – a coffee shop, for example – or use it at home to securely log on to your notebook, load your e-Purse, check your balance, and pay for a product or service you ordered.

You can view a demonstration of a sample application employing ACR122T at:

<http://www.youtube.com/advancedcardsystems>





## 2.0. Features

- USB 2.0 Full Speed Interface
- CCID Compliance
- Smart Card Reader:
  - Read/Write speed of up to 424 Kbps
  - Built-in antenna for contactless tag access, with card reading distance of up to 30 mm (depending on tag type)
  - Support for ISO 14443 Part 4 Type A and B cards, MIFARE, FeliCa, and all four types of NFC (ISO/IEC 18092 tags)
  - Built-in anti-collision feature (only one tag is accessed at any time)
- Application Programming Interface:
  - Supports PC/SC
  - Supports CT-API (through wrapper on top of PC/SC)
- Built-in Peripheral:
  - User controllable bi-color LED
- Supports Android™ 3.1 and above
- Compliant with the following standards:
  - ISO 14443
  - CE
  - FCC
  - VCCI
  - PC/SC
  - CCID
  - Microsoft® WHQL
  - RoHS



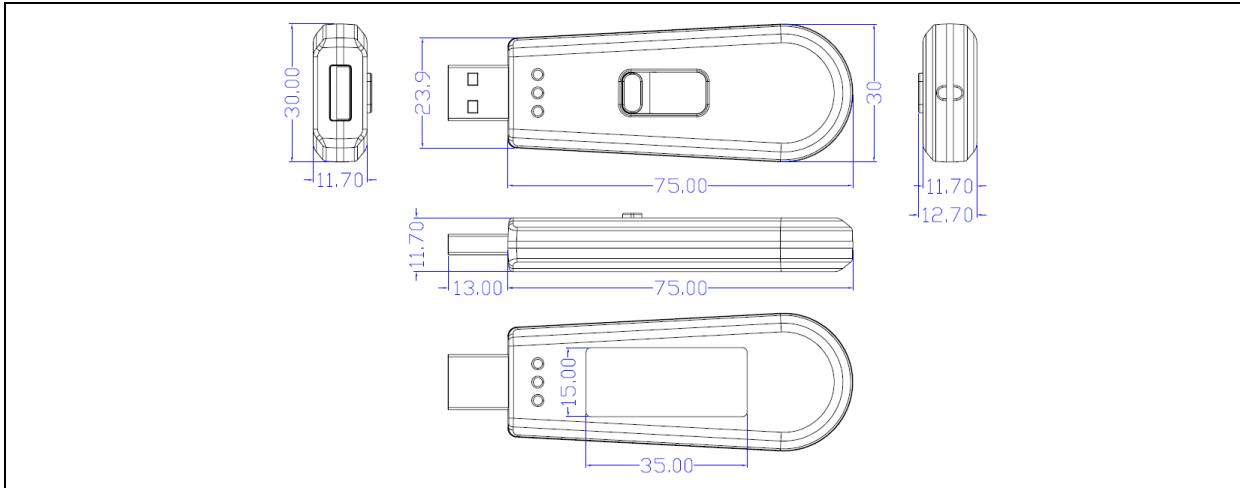
### 3.0. Typical Applications

- e-Government
- e-Banking and e-Payment
- e-Healthcare
- Transportation
- Network Security
- Access Control
- Loyalty Program





## 4.0. Technical Specifications



### Universal Serial Bus Interface

Power Source..... From USB  
 Speed..... 12 Mbps (Full Speed)  
 Supply Voltage..... Regulated 5 V DC  
 Supply Current ..... 200 mA (maximum); 50 mA (standby); 100 mA (normal)

### Contactless Smart Card Interface

Standard ..... ISO/IEC 18092 NFC, ISO 14443 Part 1-4 Type A and B, FeliCa, MIFARE  
 Protocol..... FeliCa protocol, T=CL protocol  
 Operating Frequency ..... 13.56 MHz  
 Operating Distance ..... Up to 30 mm (depending on tag type)  
 Smart Card Read/Write Speed..... 106 Kbps, 212 Kbps, 424 Kbps

### Physical Specifications

Dimensions ..... 75.0 mm (L) x 30.0 mm (W) 12.7 mm (H)  
 Weight..... 15 g  
 Material ..... Polycarbonate (PC)  
 Color ..... Pearl White  
 Casing..... Extractable USB plug

### Built-in Peripherals

Bi-color LED ..... Red and Green

### Operating Conditions

Temperature ..... 0 °C – 50 °C  
 Humidity..... 10% – 90%

### Application Programming Interface

PC/SC  
 CT-API (through wrapper on top of PC/SC)

### Certifications/Compliance

ISO 14443, CE, FCC, VCCI, PC/SC, CCID, RoHS, USB Full Speed  
 Microsoft® WHQL for Windows® 2000, Windows® XP, Window Vista®, Windows® 7, Windows® 8, Windows® Server 2003, Windows® Server 2008, Windows® Server 2008 R2, Windows® Server 2012

### Device Driver Operating System Support

Windows® 2000, Windows® XP, Window Vista®, Windows® 7, Windows® 8, Windows® Server 2003, Windows® Server 2008, Windows® Server 2008 R2, Windows® Server 2012, Windows® CE 5.0 and 6.0, Linux®, Mac OS®, Android™ 3.1 and above

