



Advanced Card Systems Ltd.
Card & Reader Technologies

ACR122U NFC READER



Technical Specifications



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1.0. Introduction



The ACR122U is a PC-linked contactless smart card reader/writer developed on the 13.56 MHz contactless technology. It is the world's first CCID-compliant contactless card reader/writer that follows both ISO 14443 and ISO 18092. This device is designed to support not only Mifare and ISO 14443 Type A and B cards but also FeliCa and NFC tags.

By making use of up to 424 kbps for NFC tag access and full USB speed of up to 12 Mbps, ACR122U can read and write faster and more efficiently. Furthermore, ACR122U is also PC/SC-compliant which allows interoperability across different applications and platforms. You can experience the convenience in using ACR122U, with its compact size and the various features it offers, for applications such as payment, access control, time and attendance, and mass transit.



2.0. Features

- CCID-compliant
- PC/SC-compliant
- Read/write speed up to 424 kbps
- Built-in antenna for contactless tag access, with card reading distance of up to 50 mm (depending on tag type)
- Supports ISO 14443 Type A and B, Mifare, FeliCa, and all 4 types of NFC (ISO/IEC 18092) tags
- Supports new Mifare Ultralight C (for non-PC/SC version) and Mifare Plus SL1
- Supports all 3 modes of NFC: reader, card emulation and peer-to-peer modes
- Built-in anti-collision feature (at least 1 card is detected when multiple cards are presented)
- USB PnP
- User-controllable bi-color LED
- Compact size: 98 mm (L) x 65 mm (W) x 12.8 mm (H)
- Light Weight: 70 g
- User-controllable buzzer (optional)



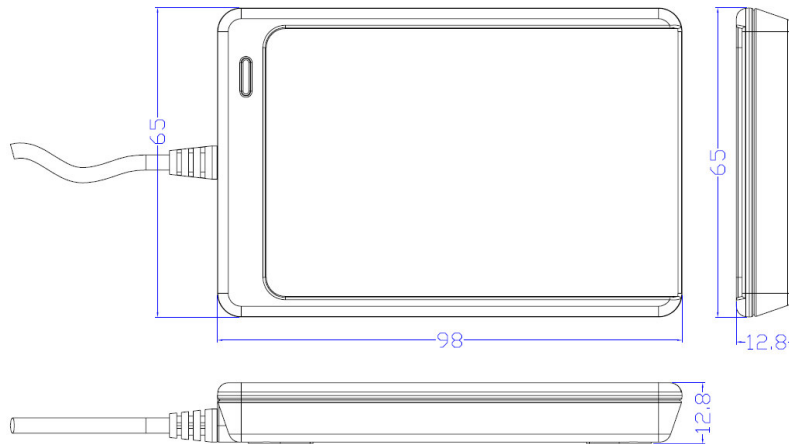
3.0. Typical Applications

- Network access control
- Micro-payment
- NFC mobile tag
- Public transportation terminals
- Automatic fare collection
- Physical access control
- Customer loyalty
- Time and attendance
- Contactless public phones
- Vending machines





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 A and B, FeliCa, MiFare
 Protocol..... FeliCa protocol, T=CL protocol
 Operating Frequency 13.56 MHz
 Smart card read / write speed 106 kbps, 212 kbps, 424 kbps

Casing

Dimensions 98 mm (L) x 65 mm (W) x 12.8 mm (H)
 Weight..... 70 grams
 Material Polycarbonate (PC)
 Color Pearl White
 Antenna Size..... 50 mm x 40 mm
 Operating distance..... Up to 50 mm (depending on tag type)

Built-In Peripherals

Bi-Color LED Bi-color LED, red and green
 Buzzer Monotone (optional)

Operating Conditions

Temperature..... 0 - 50° C
 Humidity 10% - 80%

Cable Connector

Length..... 1.0 M (USB)

Certifications/Compliance

PC/SC, CCID, CE, FCC, VCCI, RoHS Compliant, USB Full Speed
 Microsoft @ WHQL 2000, XP, Vista, 7

Device Driver Operating System Support

Windows @ 98, ME, 2000, Server 2003, XP, Vista, Server 2008, Server 2008 R2, 7
 Windows @ CE 5.0
 Linux, Mac

