



Advanced Card Systems Ltd.
Card & Reader Technologies

ACR101

SIMicro (CCID)

Smart Card and Micro-SD Reader



Technical Specifications



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1.0. Introduction

The ACR101 SIMicro (CCID) is more than just your ordinary SIM-Sized smart card reader. With the combination of a smart card reader and a Micro-SD card slot in a compact USB token, ACR101 SIMicro (CCID) provides you with complete support for highly-secured mobile applications. Furthermore, it has an embedded Mifare chip that allows the device to be used for contactless applications such as logical and physical access. ACR101 SIMicro (CCID) is also available in HID, bringing you the same plug-and-play convenience, which does not require any special driver installation.



1.1. SIM-Sized Smart Card Reader

ACR101 SIMicro (CCID) is a compact and powerful reader with its reliable support for ISO 7816 microprocessor smart cards. With security as its top priority, the ACR101 SIMicro (CCID) gives you the option to integrate highly-secured technologies, such as Public Key Infrastructure (PKI), into your applications for maximum protection of sensitive data.

1.2. Memory Storage Device

Aside from being a SIM-sized smart card reader, ACR101 SIMicro (CCID) is also a storage device. With a dimension of 72 x 26 mm x 11.7 mm, this USB-powered device can be

brought anywhere and used without any cable. The ACR101 SIMicro (CCID) is also capable of supporting up to 8 GB expandable Micro-SD memory.

1.3. Contactless Feature

The ACR101 SIMicro (CCID) has an embedded Mifare 1K Chip which enables it to act as a contactless card. Its contactless attribute allows flexibility in using this powerful device in a wide array of applications, such as physical and logical access control.

1.4. Plug and Play Feature

ACR101 SIMicro (CCID) supports the Chip/Smart Card Interface Devices (CCID) Standard that allows the user to avoid the hassle of driver installation prior to use, making it easier to integrate into a PC environment.



2.0. Features

- USB combo device – works as smart card reader and mass storage
- USB 2.0 Hi-Speed Interface
- Bus-powered – no need for separate power supply or battery
- Plug-and-play – CCID support brings utmost compatibility and mobility
- With extractable USB cable and keychain loop
- Smart card reader:
 - Supports plug-in (SIM-sized) cards
 - Supports ISO 7816 Classes A, B and C (5 V, 3 V, 1.8 V) cards
 - Reads and writes onto all microprocessor cards with the T=0, T=1 protocol
 - Supports memory cards
 - Supports Spec 11.11 compliant GSM cards
 - Short circuit protection
- Memory Card Support:
 - Supports Micro-SD cards with up to 8 GB memory
- Contactless Feature
 - Features embedded Mifare 1K Chip
- Compliant with the following international standards:
 - PC/SC
 - CCID
 - Microsoft WHQL
 - CE
 - FCC
 - VCCI
 - RoHS

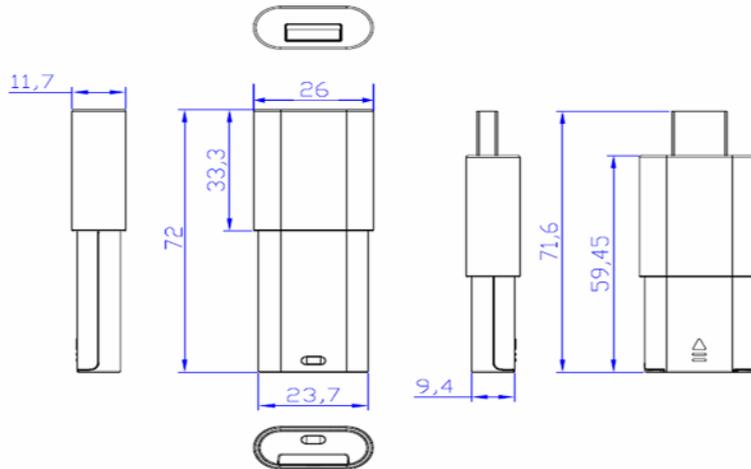


3.0. Typical Applications

- e-Government
- e-Banking and e-Payment
- Public Key Infrastructure
- Network Security
- GSM Management
- VoIP
- Secure Data Storage
- Access Control
- Loyalty Program



4.0. Technical Specifications



Power supply

Supply voltage Regulated 5V DC
Supply current < 300 mA (Without smart card)

Universal Serial Bus Interface

Type USB, four lines: +5V, GND, D+ and D-
Connector Supplied together with the reader
USB protocol USB 2.0
Speed Max. data rate of 480 Mbps

Smart Card Interface

Standard ISO-7816 Class A, B and C (5V, 3V, 1.8V), T=0 and T=1
Supply current Max. 50 mA
Smart card voltage 5V, 3V, 1.8V
Smart card read / write speed 1,953 – 344,086 bps
Short circuit protection +5V / GND on all pins
CLK frequency 4 MHz
Card connector Sliding Contacts (6 Contacts)
Card insertion cycles Min. 2,000

Contactless Feature

Standard Mifare Classic (Embedded Mifare chip inside the device)
Memory size 1K

Flash Memory Interface

Format Micro-SD
Memory size Max. of 8 GB

Physical Specifications

Dimensions 72 mm (L) x 26 mm (W) x 11.7 mm (H)
Color Green and White (Default) - *Other colors available upon request*
Weight 15 g
Status Indicator 2 color LED (Shows the smart card and flash memory status)

Operating Conditions

Temperature 0 - 50° C

Certifications/Compliance

PC/SC, CCID, CE, FCC, RoHS, VCCI, USB Hi-Speed,
Microsoft® WHQL 2000, XP, Vista, 7

Device Driver Operating System Support

Windows® CE, 98, 2000, ME, XP, Vista, 7, Server 2003, Server 2008
Linux, Mac



5.0. How to Open the Card Cover

1. Prior to opening the cover of the SIM-sized smart card and MicroSD slot, make sure that the USB connector cover is closed.



2. To close the cover of the USB connector, pull up the green cap.



3. Place your thumb on the cover of the SIM-sized smart card slot and push up.





4. Slightly pull up the bottom end of the cover to open the smart card slot.



5. Remove the cover to reveal the SIM-sized card and MicroSD slot.

