Advanced Card Systems Ltd.

acs

CCID USB SMART CARD READER/WRITER

TECHNICAL SPECIFICATIONS

Version 1.4 03-2006

ACR38U-CCID USB Smart Card Reader/Writer

1.0 Introduction

Due to the rising demand of e-working methods (remote office, intranet, extranet and home office) and the increasing risk of unauthorized access to private network, it is time to properly secure access to PCs, desktops, and the Intranet and Extranet networks. ACR38 offers solutions based on smart card readers (connected to PCs) for access control.

Now, reinforced with **CCID** compliance, the ACR38U-CCID offers a driverless solution saving you the hassle of driver installation and driver-system compliance checking.

This CCID compliant smart card reader/writer is a **USB full speed** device which is the interface for the communication between a computer and a smart card. It is designed for the PC environment, and is the ultimate smart card peripheral for a PC.

ACR38U-CCID is a key partner of the PC as smart card is becoming an essential component in network security and electronic payment system. It is a low cost, yet reliable and effective smart card-to-PC interface with design focusing on convenient use and harmony with other PC peripherals in shape and color. It also provides the solution where the security of a smart card is required. It can be used as access control to a computer or network, authentication for e-commerce (B to B, B to C). It is also very simple to use and install. It is ideal for electronic commerce, home banking or e-purse facilities, secure computer access or any of a multitude of other applications.

2.0 Features

- **USB full speed** interface to PC with simple command structure
- Read and write all microprocessor cards with T=0 or T=1 protocols
- Short Circuit Protection
- Conform with: EN 60950/IEC 60950, ISO-7816, PC/SC, CE, FCC, USB Full Speed, Microsoft WHQL, EMV Level 1
- Support ISO-7816 Class A, B and C (**5V, 3V, 1.8V**) cards
- Support PPS (Protocol and Parameters Selection) with 1,743 – 250,000 bps in reading and writing smart cards
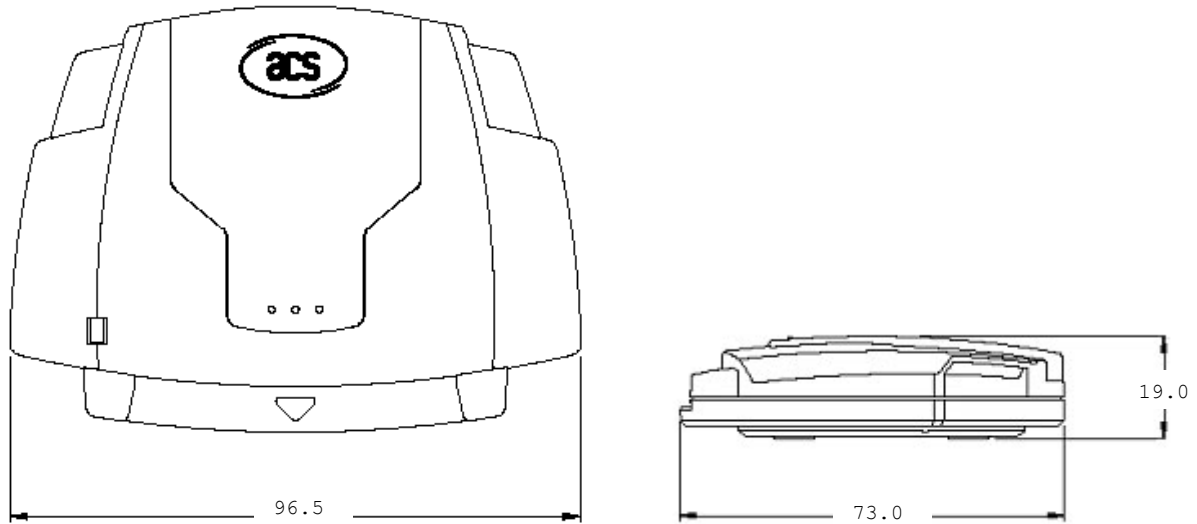
3.0 Supported Card Types

3.1 MCU Cards
The ACR38U-CCID can operate MCU cards with T=0 and T=1 protocol.

4.0 Typical Applications

- Home Banking and Home Shopping
- Electronic Commerce
- Checking the balance of account of re-loading an electronic purses
- Network access control
- S/W locking
- Digital signature
- Loyalty and promotions
- Stored value
- Identification
- Ticketing
- Parking and toll collection
- Online gaming

5.0 Technical Specification

Universal Serial Bus Interface
Type.. USB full speed, four lines: +5V, GND, D+ and D-
Power source... From USB
Speed .... 12 Mbps

Smart Card Interface
Standard .... ISO-7816 Class A, B and C (5V, 3V, 1.8V), T=0 and T=1
Supply current .... max. 50mA
Smart card read / write speed .... 1,743 – 250,000 bps
Short circuit protection .... +5V / GND on all pins
　　　　The presence of the smart card power supply voltage is indicated through a green LED on the reader
CLK frequency...................................... 4 MHz
Card connector .... Contact
Card insertion cycles .... min. 100,000

Physical Specifications
Dimensions... 73.0mm (L) x 96.5mm (W) x 19.0mm (H)
Color .... Silver
Weight .... 95g (± 5g allowance for cable) - Spaceship casing
Cable length, cord, connector................ 1.5 meters, Fixed (non-detachable), USB A

Operating Conditions
Temperature .... 0 - 50° C
Humidity.. 40% - 80%

Standard/Certifications
EN 60950/IEC 60950, CCID, EMV Level 1, ISO-7816, PC/SC, CE, FCC, USB Full Speed, Microsoft WHQL 2K, XP

OS
Windows 2K, XP (Can be used on Windows 98, ME, coupled with the drivers downloadable from our website)

OEM
OEM-Logo possible, customer-specific colors, casing and card connector

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