Advanced Card Systems Ltd.

acs

ACR100 SIMFlash

TECHNICAL SPECIFICATIONS

Version 1.6   01-2006

ACR100 SIMFlash

1.0 Introduction

More than just a smart card reader, the ACR100 also has a built-in 256MB flash memory. Designed to access SIM-sized smart cards (Plug-in cards) and for data or application storage. It is ideal for GSM solutions such as GSM management software and VoIP applications, electronic payment systems, home banking, computer/network access and transportation.

i) Serves as a Plug-in (SIM-sized) Card Reader:
ACR100 is a reliable and cost-effective smart card reader for security related applications. A USB full speed Plug-in (SIM-sized) card reader that enables you to back-up and manage the information on your SIM card to your PC. It supports MCU cards with T=0 and T=1 protocols and GSM cards conforming to Spec 11.11.

ii) Serves as a Mass Storage Device:
Furthermore, it is a Mass Storage device at the same time. Highly *portable* – with a dimension of 78.73 mm x 21.50 mm x 11.00 mm makes it a perfect companion wherever you go. *Bus powered* – no need for additional cable and power supply. And a *Mass Storage Device Class compatible* – no need for additional drivers.

2.0 Features

- USB full speed interface
- No need for separate power supply or battery – *Bus powered*
- No need to run separate drivers on most Windows version – *CCID and Mass Storage Device Class compatible*
- Automatic driver installation functionality
- USB Composite Device – works as Mass Storage and Smart Card Reader
- With protective USB cap, SIM card slot cover and Keychain loop
- Compliant with the following International Standards: *ISO7816, CE, FCC, PC/SC, and Microsoft WHQL*
- Smart Card Reader:
    - o Read and write all microprocessor cards with T=0, T=1 protocols
    - o Support 5V MCU cards
    - o Support GSM card with Spec 11.11
    - o Support Plug-in (SIM-sized) card
    - o Short Circuit Protection
- Flash Drive:
    - o Mass Storage Device Class compatible - no driver needed in Windows 2000 and XP
    - o Built-in 256MB flash memory (higher memory size is available upon request)
    - o Public *(free read/write area for data storage)* and Private *(protected area for pre-loaded applications)* zones

3.0 Typical Applications

- GSM Management
- Data Storage
- Home Banking
- Electronic Commerce
- Computer/Network access control
- Digital Signature
- Identification
- Ticketing
- Parking and Toll Collection
- Online Gaming

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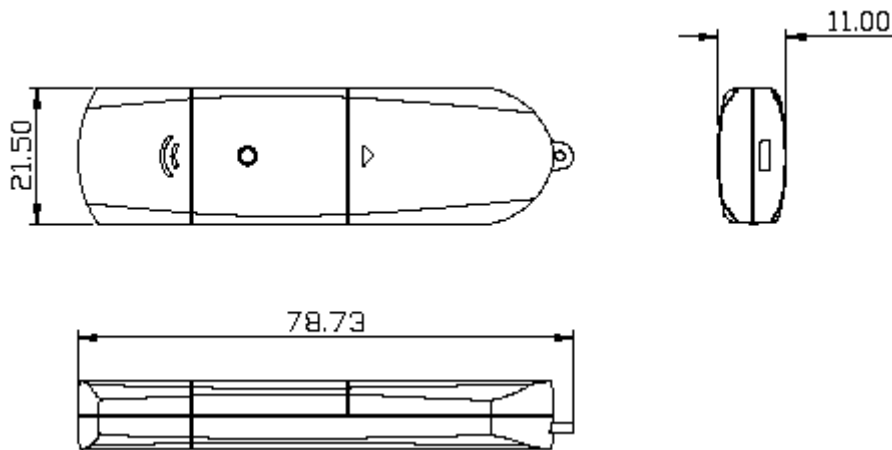Website: www.acs.com.hk   Email: info@acs.com.hk

4.0 OEM possibility

The ACR100 SIMFlash is available for custom branding for promotion purposes. OEM enquiry is welcome.
- Casing color
- Customized logo printing
- Size of flash memory (64MB to 1GB)
- Other adaptations according to your requirements

5.0 Technical Specification

Power supply
Supply voltage .... Regulated 5V DC
Supply current .... < 100mA (without smart card)

Universal Serial Bus Interface
Type... USB, four lines: +5V, GND, D+ and D-
Connector .... Supplied together with the reader
Speed .... Full Speed Device, 12 Mbps

Smart Card Interface
Standard .... ISO7816 Class A and AB (5V, 3-5V), T=0 and T=1
Supply current .... max. 50mA
Smart card voltage 5V
Smart card read / write speed .... 10752 bps
Short circuit protection .... +5V / GND on all pins
CLK frequency...................................... 4 MHz
Card connector .... sliding contacts (8 contacts)
Card insertion cycles .... min. 100,000

Flash Memory Interface
Memory size 256Mbyte
Voltage supply .... 2.7V ~ 3.6V
Supply current .... max. 50mA
Endurance .... 100K Program/Erase Cycles
Data retention .... 10 Years

Bicolor LED shows the status of smart card and flash memory

Case
Dimensions.. 78.73mm (L) x 21.50mm (W) x 11.00mm (H)
Color... Translucent Black
Weight 20g

Operating Conditions
Temperature .... 0 - 50° C

Standards/Certifications
ISO7816 Class A and AB (5V, 3-5V) cards, PC/SC, CE, FCC, Microsoft WHQL

OS
Windows 2000, XP