

Advanced Card Systems Ltd.



AGR100 SIMFlash



TECHNICAL SPECIFICATIONS

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Unit 1008, 10th Floor, Hongkong International Trade and Exhibition Centre
1 Trademart Drive, Kowloon Bay, Hong Kong

Tel: +852 2796 7873 Fax: +852 2796 1286 Email: info@acs.com.hk Website: www.acs.com.hk

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, the ACR100 series is ideal for GSM solutions such as GSM management software and VoIP applications, electronic payment systems, home banking, 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. It is 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, ACR100 is also a Mass Storage device. Highly **portable** – with a dimension of *77 mm x 23 mm x 10 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 2.0 full speed interface
- No need for separate power supply or battery – *Bus powered*
- Device detectable prior to log-on status, thus supporting computer/network access applications
- USB Compounded Device – works as Mass Storage and Smart Card Reader
- With protective USB cap and Keychain loop
- Compliant with the following International Standards: *ISO7816, PC/SC, and Microsoft WHQL*
- Smart Card Reader:
 - Read and write all microprocessor cards with T=0, T=1 protocols
 - Supports most common memory-based smart cards, including **I2C bus protocol cards** (from 1k bits up to 1024k bits) and secure memory cards (**Amtel AT88SC153 and AT88SC1608**)
 - Supports ISO-7816 Class A, B and C (5V, 3V, 1.8V) cards
 - Supports PPS (Protocol and Parameters Selection) with 1,743 – 250,000 bps in reading and writing smart cards
 - Support GSM card with Spec 11.11
 - Support Plug-in (SIM-sized) card
 - Short Circuit Protection
- Flash Drive:
 - Mass Storage Device Class compatible - no driver needed in Windows 2000 and XP
 - Built-in 256MB flash memory (other memory size is available upon request)

3.0 Typical Applications

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

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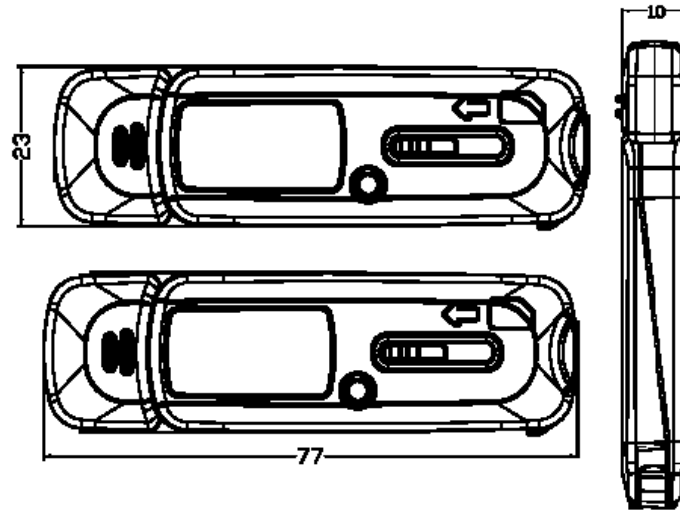
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4.0 OEM possibility

The ACR100 SIMFlash is available for custom branding for promotion purposes. OEM enquiry is welcome.

- Casing color
- Customized logo printing
- Size of flash memory (128MB to 4GB)
- 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
 USB protocol..... USB 2.0

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 voltage..... 5V, 3V, 1.8V
 Smart card read / write speed 1,743 - 250,000 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
 Communication Speed..... max. data rate of 12 Mbps

Flash Memory Interface

Memory size 256Mbyte (other memory sizes available upon request)
 Voltage supply 2.7V ~ 3.6V
 Supply current..... max. 50mA
 Endurance 100K Program/Erase Cycles
 Data retention 10 Years
 Data Writing Speed up to 6 MB/s (Depending on PC system)
 Data Reading Speed up to 10 MB/s (Depending on PC system)

Bicolor LED shows the status of smart card and flash memory

Case

Dimensions 77 mm (L) x 23 mm(W) x 10 mm (H)
 Color Black
 Weight 20g

Operating Conditions

Temperature 0 - 50° C

Standards/Certifications

ISO-7816 Class A, B and C (5V, 3V, 1.8V) cards, PC/SC, Microsoft WHQL, CE/FCC

OS

Win2K SP4 onwards & all Win XP SP versions



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