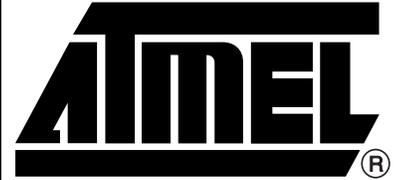# Features

- **Smart Card Interface**
  - **Smart Card Interface Compliant with ISO 7816 and EMV 2000**
  - **Support of T=0, T=1, TWI (S=8), 2-wire: SLE 4432/42 (S=10), 3-wire: SLE4418/28 (S=9), others on request**
  - **High Performance Smart Card Interface**
  - **Supports 5V, 3V and 1,8V Smart Cards**
  - **Supply Current 60 mA to Power the Smart Card**
  - **Smart Card Movement Detection with Auto Power-off**
  - **Automatic Detection of Smart Card Type**
  - **Short Circuit and Thermal Protection**
  - **8-pin Handling (C4/C8 Supported)**
- **Host Interface**
  - **USB (Compliant with USB 1.1 and 2.0, CCID Supported)**
  - **Transmission Speed: USB: 12 MBit/sec**
  - **Customer Specific USB-descriptors**
- **Compliance**
  - **WHQL (Microsoft) Certified**
  - **EMV 2000 (Europay, Mastercard, Visa) Certified**
  - **USB 1.1 and 2.0**
  - **USB CCID**
  - **ISO 7816**
  - **HBCI**
- **Other Features**
  - **Fast and Easy Certification Process**
  - **Supports LED Status Indicator (Green: ready; Red: busy)**
  - **Secure Pin Entry (SPE)**
- **PC/SC Driver support**
  - **Windows 98/ME®**
  - **Windows 2000®**
  - **Windows XP®**
  - **Windows CE 3.0®/CE.NET (Depending on Hardware)**
  - **Windows NT® 4.0 (On Request)**
  - **Linux®**
  - **MacOS X®**
- **Deliverables**
  - **32-pin VQFP (or 28-pin PLCC) Chip (Including Firmware and Drivers) on a Per-unit License Fee**
- **Development**
  - **Design-In Kit Containing:**
    - **3 CardMan® Smart@Link Chips**
    - **Ready-to-use sample PCB**
    - **CD with Drivers and Documentation**

**CardMan®
Smart@Link**

AT83C23OK

Summary

Preliminary

This is a summary Document. A complete document is available on the Omnikey Web site. www.omnikey.com

Description

Smart Cards are increasingly being used for Payments, Home-Banking, Access Control, Internet Security, PKItokens, Health Care, Loyalty, etc.

The CardMan Smart@Link chip set is a ready to use precertified smart card reader interface to be implemented into USB hosts. It facilitates the hardware integrators in reducing time-to-market and offers a unique opportunity to quickly and easily include smart card reader functionality in systems like PCs, Notebooks, Keyboards, Smart Card based Dongles, Monitors, Mice, PDAs, Thin Clients, Biometric devices etc. The already existing certifications and compliances guarantee a fast and easy certification process.

With its high performance Smart Card Interface CardMan Smart@Link supports smart-card technology of the future.

The integration in any USB system can be easily done without any firmware or software (driver) development, simply by embedding the CardMan Smart@Link design and chipset into the target system. The USB CCID support makes this process the easiest ever by connecting host and Smart Card Reader systems without the need of additional drivers.

CardMan Smart@Link is based on Atmel's AT83C5123 microcontroller. The above features make the CardMan Smart@Link the perfect answer to the increasing demands of many applications.

Ordering information

Part Number	Voltage Range (V)	Temperature Range	Package	Packing
AT83C23OKxxx-SISIM	3.0 - 5.5	Industrial	PLCC28	Stick
AT83C23OKxxx-SIRIM	3.0 - 5.5	Industrial	PLCC28	Tape & Reel
AT83C23OKxxx-RATIM	3.0 - 5.5	Industrial	VQFP32	Tray
AT83C23OKxxx-RARIM	3.0 - 5.5	Industrial	VQFP32	Tape & Reel
AT83C23OKxxx-RATUM	3.0 - 5.5	Industrial & Green	VQFP32	Tray
AT83C23OKxxx-RARUM	3.0 - 5.5	Industrial & Green	VQFP32	Tape & Reel
AT83C23OKxxx-PUTUM	3.0 - 5.5	Industrial & Green	QFN32	Tray
AT83C23OKxxx-PURUM	3.0 - 5.5	Industrial & Green	QFN32	Tape & Reel

xxx: Firmware version

Atmel Corporation

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 487-2600

Regional Headquarters

Europe

Atmel Sarl
Route des Arsenaux 41
Case Postale 80
CH-1705 Fribourg
Switzerland
Tel: (41) 26-426-5555
Fax: (41) 26-426-5500

Asia

Room 1219
Chinachem Golden Plaza
77 Mody Road Tsimshatsui
East Kowloon
Hong Kong
Tel: (852) 2721-9778
Fax: (852) 2722-1369

Japan

9F, Tonetsu Shinkawa Bldg.
1-24-8 Shinkawa
Chuo-ku, Tokyo 104-0033
Japan
Tel: (81) 3-3523-3551
Fax: (81) 3-3523-7581

Atmel Operations

Memory

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 436-4314

Microcontrollers

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 436-4314

La Chantrerie
BP 70602
44306 Nantes Cedex 3, France
Tel: (33) 2-40-18-18-18
Fax: (33) 2-40-18-19-60

ASIC/ASSP/Smart Cards

Zone Industrielle
13106 Rousset Cedex, France
Tel: (33) 4-42-53-60-00
Fax: (33) 4-42-53-60-01

1150 East Cheyenne Mtn. Blvd.
Colorado Springs, CO 80906, USA
Tel: 1(719) 576-3300
Fax: 1(719) 540-1759

Scottish Enterprise Technology Park
Maxwell Building
East Kilbride G75 0QR, Scotland
Tel: (44) 1355-803-000
Fax: (44) 1355-242-743

RF/Automotive

Theresienstrasse 2
Postfach 3535
74025 Heilbronn, Germany
Tel: (49) 71-31-67-0
Fax: (49) 71-31-67-2340

1150 East Cheyenne Mtn. Blvd.
Colorado Springs, CO 80906, USA
Tel: 1(719) 576-3300
Fax: 1(719) 540-1759

Biometrics/Imaging/Hi-Rel MPU/
High Speed Converters/RF Datacom

Avenue de Rochepleine
BP 123
38521 Saint-Egreve Cedex, France
Tel: (33) 4-76-58-30-00
Fax: (33) 4-76-58-34-80

Literature Requests
www.atmel.com/literature

Printed on recycled paper.