# 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)
  - On Request: 2nd Smart Card Interface
- Host Interface
  - PCMCIA
  - Transmission Speed: 16 MBit/sec
- Compliance
  - WHQL (Microsoft) Certified
  - EMV 2000 (Europay, Mastercard, Visa) Certified
  - PCMCIA
  - ISO 7816
  - HBCI
- Other Features
  - Fast and Easy Certification Process
- PC/SC Driver Support
  - Windows 98<sup>®</sup>
  - Windows ME<sup>®</sup>
  - Windows NT<sup>®</sup>4.0
  - Windows 2000<sup>®</sup>
  - Windows XP®
  - Windows CE® 3.0 / CE.NET (Depending on Hardware)
  - Linux®
  - MacOS X<sup>®</sup>
- Deliverables
  - 64-PIN VQFP Chip (Including Firmware and Drivers) On a Per-unit License Fee
- Development
  - Design-In Kit Containing:
    - 3 CardMan® Smart@ Bus Chips
    - Ready to use sample PCB
    - CD with Drivers and Documentation



CardMan<sup>®</sup> Smart@Bus

# AT83C25OK

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@Bus chip set is a ready to use precertified smart card reader interface to be implemented into PCMCIA hosts. It facilitates the hardware integrators in reducing time-to-market and offers a unique opportunity to quickly and easily include smart cardreader functionality in their systems. The already existing certifications and compliances guarantee a fast and easy certification process.

With its high performance Smart Card Interface CardMan Smart@Bus supports smartcard technology of the future.

The PCMCIA support makes the CardManSmart@Bus the preferred solution for the integration into Notebooks or PC-Bus systems. This can be easily done without any firmware or software (driver) development, simply by embedding the CardMan<sub>®</sub> Smart@Bus design and chipset into the target system.

CardMan Smart@Bus is based on Atmel's AT83C5122 microcontroller. the above features make the CardMan Smart@Bus the perfect answer to the increasing demands of many applications.





# **Ordering information**

Part Number	Temperature Range	Package	Packing
AT83C25OKxxx-RDTIM	Industrial	VQFP64	Tray
AT83C25OKxxx-RDRIM	Industrial	VQFP64	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

Disclaimer: Atmel Corporation makes no warranty for the use of its products, other than those expressly contained in the Company's standard warranty which is detailed in Atmel's Terms and Conditions located on the Company's web site. The Company assumes no responsibility for any errors which may appear in this document, reserves the right to change devices or specifications detailed herein at any time without notice, and does not make any commitment to update the information contained herein. No licenses to patents or other intellectual property of Atmel are granted by the Company in connection with the sale of Atmel products, expressly or by implication. Atmel's products are not authorized for use as critical components in life support devices or systems.

© Atmel Corporation 2004. All rights reserved. Atmel<sup>®</sup> and combinations thereof are the trademarks of Atmel Corporation or its subsidiaries. Microsoft Windows 98/ME/ NT/2000/XP/CE<sup>®</sup> are trademarks and/or registered trademarks of Microsoft Corporation. Linux<sup>®</sup> is a registered trademark of Linus Torvalds. CardMan<sup>®</sup> is a registered trademark of Omnikey AG. Mac OS X<sup>®</sup> is a registered trademark of Apple corporation. Other terms and product names may be the trademarks of others.

