

# AT83C220K/AT83C230K with OMNIKEY Firmware PRE-CERTIFIED SMART CARD READER SOLUTIONS FOR **USB LINK**

AT83C220K and AT83C230K are based on Atmel C51 MCUs and include OMNIKEY® firmware. These single-chip turnkey solutions can be quickly and easily integrated into any USB smart card keyboard or peripheral.



## Key Features & Benefits

- Single-Chip Solution
- Quick Time-to-Market
- Fast & Easy EMVCo Certification
- Supports all Smart Cards
- USB 2.0 Full-speed: 12 Mbits/sec
- CCID Compliant Interface

## Compliance with:



## Applications

- Smart Card Reader Keyboard
- Dongle
- Smart Card Reader



## AT83C22OK/23OK USB SMART CARD READER SOLUTIONS

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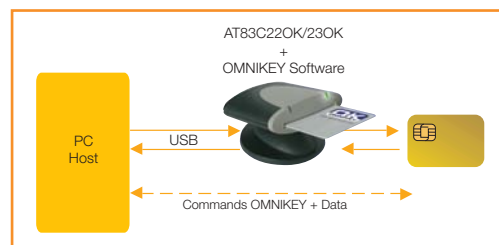
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AT83C22OK and AT83C23OK are two highly integrated solutions, including OMNIKEY firmware and associated drivers, for any smart card reader using a USB link.

The USB Smart Card Reader Solutions allow customers to reduce time-to-market as they are compliant with ISO 7816, USB CCID standards, and EMV 2000 and WHQL certified.

They combine Atmel and OMNIKEY's expertise in smart card reader development and in-system integration.

To implement these turnkey solutions, customers only have to include the appropriate drivers in their host software (PC/SC, Microsoft® CCID, Linux®).



### Product Features

- **Host Interface**
  - USB 2.0 Full-speed: 12 Mbits/sec
  - PC/SC Compliant
- **Supported Smart Cards**
  - Asynchronous & Synchronous
- **Smart Card Power Supply**
  - 1.8V (20 mA), 3 or 5V (60 mA)
  - Short Circuit Current Limitation
  - Power Up/Power Down Management
- **Smart Card Management**
  - Presence and Insertion/Extraction Detection
- **4 kV ESD Protection on Card Pins**
- **Up to 5 LEDs Management**
- **AT83C22OK/23OK Power Supply**
  - 3.6 to 5.5 Volts
  - 100 µA Standby Mode (USB-compatible)
- **Temperature Range**
  - -40 to +85°C

### AT83C22OK/23OK Reference Design (AT89RFD-02)



Technical Package Available on CD-ROM

- Specifications
- Schematics & Bill of Material
- Software Drivers
- Test Utilities



AT83C22OK/23OK Reference Design

### Contact Information

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### Ordering Information

Part Numbers	Description
<b>Development Tools</b>	
AT89RFD-02	AT83C22OK/23OK Reference Design with Samples
<b>Devices</b>	
AT83C22OK100-RDTIL	VQFP64 in Tray
AT83C22OK100-RDRIL	VQFP64 in Reel
AT83C23OK100-SISIL	PLCC28 in Stick
AT83C23OK100-SIRIL	PLCC28 in Reel
AT83C23OK100-RATIL	VQFP32 in Tray
AT83C23OK100-RARIL	VQFP32 in Reel