WISeKey’s comprehensive Smart Card Reader IC portfolio enables customers to obtain high-performance ICs for virtually any market segment from a single vendor. WISeKey offers hardware platforms alone and with integrated third-party applications, allowing customers to quickly build smart card readers without requiring custom development.

A wide range of 8-bit CISC and 8/16-bit RISC processors meet a variety of performance criteria and price points for reader solutions in smart card and e-ID applications. Turnkey versions provide pre-integrated solutions for accelerated time to market. Developed in partnership with industry leaders, WISeKey single-chip smart card reader ICs can address any application using a serial, USB, smart card reader, including keyboards, set top boxes, POS terminals, laptops, PDAs, mobile phones FemtoCells, and energy meters. WISeKey also offers standalone smart card interface chips to complete its reader solutions.
Key Features

Contact Smart Card Readers
- ROM and Flash-based from 16KB to 64 KB
- USB Device and Host Interface
- High Speed SPI up to 24 Mbps, GPIOs, UART Synchronous,
- Smart Card Interface (3 cycles/ETU)
- Compliant with EMV, PC/SC, WHQL, USB
- Pre-certified Turnkey Solutions
- Remote Wake-up Functionality
- Cryptographic Capability
- FSL, Bootloader, Demo

Contactless Smart Card Readers
- Standalone RF Front end
- Combined with Contact IC for Dual Readers

Contact Reader ICs

8/16-bit RISC Core Smart Card Reader ICs
This new ready-to-use family of smart card reader solutions is tailored to accelerate development of a variety of high-volume contact and contactless applications. Based on advanced 0.15-micron technology, WISeKey AT90SCR100, AT90SCR200 and AT90SCR050 microcontrollers are pre-certified to all relevant industry standards, including EMV, PC/SC, ISO 7816, WHQL, USB, and are able to slash customer development times from about a year to just two to four weeks.

Ready-to-use Solutions
Developers preferring a bundled solution can rely on:
- 8051-based controllers pre-configured with GemCore software from Gemalto, or OmniKey from HID Global
- 8-/16-bit RISC controllers pre-configured with WISeKey Software

Smart Card Interfaces
The AT83C26 is a multiple (up to 5) smart card reader interface IC for smart card reader/writer applications such as EFT/POS terminals and set top boxes. It enables the management of any type of smart card from any kind of host. Up to 4 AT83C26 can be connected in parallel thanks to the programmable TWI address.

Reference Designs and Tools
For 8051 microcontrollers, reference design kits developed with Omnikey® and Gemalto®, enable the easy implementation of pre-certified and ready-to-use solutions AT89RFD-02 (USB interface) and AT89RFD-05 (Serial Interface).

For 8-/16-bit RISC microcontrollers, the AT90SCR100MEB allows you to quickly interface with the AT90SCR products in various host environments. It includes high-level software libraries and a powerful scripting tool to easily design and integrate your smart card reader application. Application note for easy integration (PCB layout recommendation) is available from WISeKey Website.
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* depending on housing refer to datasheet for details
Contactless Reader ICs

The pico\textsuperscript{read}\textsuperscript{®} product suite represents the next contactless chips that enable any consumer electronic device to function as a reader. The pico\textsuperscript{read}\textsuperscript{®} chip’s small footprint simplifies integration with host devices, reducing development costs and accelerating time to market for new services and applications.

\begin{itemize}
\item Cryptographic security management
\item Plug-and-play capability
\item Serial host interface UART/ISO 7816
\item 250-byte communication buffer
\item Additional memory for application download
\end{itemize}

**pico\textsuperscript{read}\textsuperscript{®} ChipSet Features**

- Interoperable with ISO 14443 A&B and ISO 15693 (including SONY protocol)
- Operating distance up to 10cm, depending on antenna
- Baud rates: 106kbps to 424kbps
- Low power consumption: 20mA in active mode, 50\mu A in standby mode
- Small footprint (SSOP16)
- Automatic card detection in standby mode (using a few external components)
- Evaluation kit available

For more information about WISeKey Smart Card Readers, please visit www.wisekey.com

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