Our offer

PC Twin Reader
- USB or serial connection (simply by cable insertion)
- Innovative patented transparent design to highlight the card
- Modular concept through accessories (stand, floppy bay tray) simplifies logistics and inventory

PC USB Reader
- Slim line design
- Secure Pin entry for enhanced security
- Common criteria eAL3+ and tamper evident case by void security sticker

PC Pinpad Reader
- Secure Pin entry for additional security
- Common criteria eAL3+ and tamper evident case by void security sticker

PCMCIA Card Readers
- Compact and lightweight PCMCIA devices
- PC Card type II and ExpressCard 54 format
- Robust metal casing
- Desktop stand for vertical smartcard insertion
- Floppy bay adaptor for 3.5” and 5.25”

Accessories for PC Twin
- Desktop stand for vertical smartcard insertion
- Displays key whether for 3.5” or 5.25”

USB Shell Token v2
- For plug-in SIM card size
- Portable device smaller than a house key
- Slim line design
- Tamper evident casing
- Ideal for graphical customization, i.e. logo

PC-Link smart card readers
Securing network access

www.gemalto.com
Gemalto received the 2007 Frost & Sullivan Market Leadership Award for its significant performance in the smart card readers and chipsets market.

"It has led the market, even in the first half of 2006, through its global presence and an innovative product strategy. No other market participant has been able to replicate the excellent performance in terms of leadership and sustainability in such a market," Frost & Sullivan, 2008.

Why choose Gemalto?

Gemalto, a leader in digital security, has over 10 years of experience in providing high quality smart card interfaces and is why companies such as Microsoft, Boeing, Pfizer, UK Department of Defense and Intel to name a few have relied on our expertise for their network security projects.

Gemalto has been recognized as a world's smart card reader market leader for the last few years and has delivered over three million units to date to thousands of customers worldwide.

The high quality of our readers will contribute to the success of your smart card-based solution.

Working with us means you benefit from:

- Flexible production capabilities, from small quantities to large volumes.
- Best in class supply chain.
- Worldwide market access for smart card supply and distribution sales channels.
- Competitive lead times for delivery.

Technical Specifications

**Host Interface**
- PC Connection port
  - USB
  - Serial
  - PCI
  - EPP
  - ECP

**Human interface**
- LED color (Green), dual state (flashing: reading card insertions; ON: card reading is waiting)
- PC Pinpad
  - Anti-scan alphanumeric display
  - orange LED ON at Secure PIN Entry mode
- Twin-cardreader with 16 bit silicon rubber keys

**Cable/Power Supply**
- USB reader
  - Cable 1.5 in long
  - Serial EPP connector
  - Power supply thru USB port
  - Operating voltage 5 V +/- 10%
  - Operating voltage 5 V +/- 10% (USB Full speed certified)

**Smart Card Interface**
- PC Card interface and firmware architecture:
  - Supports ISO 7816 Class A, B and C cards (5 V, 3 V, 1.8 V)
  - Supports all ISO 7818 TKI parameters (up to 500 kbps, 5V, 3V with a 950 mA master reader)
  - Reads from and writes to all ISO 7816-1,2,3,4 microprocessor cards, T=0 and T=1 protocols
  - Supports memory cards using "Synonymous Card API"
  - Short-circuit detection

**Smart Card Connector**
- 8 pin contact (ISO 7816)
- 100,000 insertion cycles
- EMV Level 1 mechanically compliant
- 9 enhanced smart cards supported

**Standards / Certifications**
- ISO/IEC 7816-3,4: IC Cards with contacts
- EMV Terminal Level 1 version 4.0 for PC Card Twin/Pro/PIM
- Mondex ChipSafe Plus Purse 2 (PC Twin)
- Microsoft Windows Hardware Quality Labs (WHQL), Windows Logo Program WLP 2.0
- PCI 2.2, 2.0, 1.1
- POP (4.0), ORL (4.0)
- ANSI X9.31, FIPS 140-2, 140-1, 140-2, FIPS 186-2
- 2000 Edition of FIPS 140-1
- 2002 Edition of FIPS 140-2
- Windows Vista 32 & 64 bits
- Intel platforms (USB readers)
- Mac OS X 10.3 Panther, 10.4 Tiger, 32 editions on G3, G4, G5
- Linux RedHat WS4.0, Debian Sarge 3.1, Suze 10.0 on x86
- Solaris 10 (USB readers)
- Windows 98, 98SE, Me, 2000, XP, Server 2003, x64 editions, Vista 32 & 64 bits
- Windows 95 OSR2, NT4.00 (for PC Twin in serial mode)
- CT-API (PC Twin, USB, Serial Card)
- Microsoft PC/SC environment with associated drivers
- CT-API (PC Twin, USB, Serial Card)

**Operating Systems**
- Windows 95/98/NT4.0 for (PC Twin in serial mode)
- Windows 98, Me, 2000, XP, Server 2003, x64 editions, Vistas 32 & 64 bits
- WiN CE 4.1, 6.0, 6.0 (5.00 drivers)
- Linux RedHat WS4.0, Debian Sarge 4.1, 6.0 on x86
- Solaris 10.5.10 drivers
- Mac OS X 10.3.1, Mach 10.4.1 Tiger, 24 editions on G2, G4, G5 and interim platforms 5.5.6 drivers

**Environmental**
- CE, FCC part 15 Class B
- VCCI - Class A
- RoHS compliant
- WEEE marking

**Weight and size**

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Weight (grams)</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC Card Reader</td>
<td>292</td>
<td>121 x 79 x 49</td>
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<tr>
<td>PC Pinpad</td>
<td>9</td>
<td>64 x 16 x 8</td>
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<tr>
<td>USB Reader</td>
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<td>75 x 54 x 5</td>
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<tr>
<td>PC Twin</td>
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<td>85 x 54 x 5</td>
</tr>
<tr>
<td>PC Twin (Serial)</td>
<td>76</td>
<td>9</td>
</tr>
<tr>
<td>PC Twin (USB)</td>
<td>75</td>
<td>105 x 70 x 12</td>
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<tr>
<td>PC USB-SL</td>
<td>29</td>
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</tr>
<tr>
<td>PC USB-SL</td>
<td>29</td>
<td>85 x 54 x 5</td>
</tr>
<tr>
<td>USB Shell Token</td>
<td>4</td>
<td>85 x 54 x 5</td>
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</tbody>
</table>

Uncertainties, Risks, and Assumptions:

- The data presented is for information purposes only.
- The data is subject to change without notice.
- The data is accurate to the best of our knowledge.
- The data is intended for use in a safe and responsible manner.
- The data is not intended for resale.

As the rate of identity theft increases, more and more companies are turning to smart technology to secure their networks.

Grist, governments and financial institutions are rapidly deploying a smart card technology for logistics access and protecting the privacy of on-line bank customers and web shoppers.

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This document contains information of interest to the reader, including technical specifications, product features, and market analysis. It is intended for use in understanding the capabilities and benefits of smart card technology, and should be used in conjunction with other resources to make informed decisions.
PC-Link smart card readers
Securing network access

Our offer

PC Twin Reader
- USB or serial connection
- Simply by cable insertion
- Innovative patented transparent design to highlight the card
- Modular concept through accessories: stand, floppy disk tray, 8" simplifies logistics and inventory

PC USB Reader
- Slim line design
- Secure Padlock for enhanced security
- Common criteria eal3+ and tamper evident case by void security sticker

PC Pinpad Reader
- Secure Pin entry for enhanced security
- Common criteria eal3+ and tamper evident case by void security sticker

USB Shell Token v2
- For Plug-in SIMM card size
- Portable device smaller than a house key

PCMCIA Card Readers
- Compact and lightweight PCMCIA devices for laptop computers
- PC Card type II and ExpressCard 54 format

PCMCIA Card Readers
- Desktop stand for vertical smart card insertion
- Floppy bay adaptor for 3.5" and 5.25"

Accessories for PC Twin
- Stand
- Floppy disk tray
- 8" stand
- Laptop stand
- Plug-in (SIMM) card size
**Smart card readers**

**From the industry leader**

As the rates of identity theft increase, more and more companies are turning to smart technology to secure their networks.

Gleanings, governments and financial institutions are rapidly deploying a smart card infrastructure for logical access and protecting the privacy of on-line bank customers and web shoppers.

Gemalto’s diversified series includes readers for desktops, laptops, for SIM size card and ensuring easy deployment.

**Why choose Gemalto?**

Gemalto, a leader in digital security, has over 15 years of experience in providing high quality smart card interfaces and TC is why companies such as Microsoft, Boeing, Pfizer, US Department of Defense and Intel to name a few have relied on our expertise for their network security projects.

Gemalto has been recognized as a world’s smart card reader market leader for the last few years and has delivered over three million units to date to thousands of customers around the world.

The high quality of our readers will contribute to the success of your smart card-based solution.

Working with us means you benefit from:

- Flexible production capabilities, for small quantities to large volumes;
- Best in class supply chain;
- Worldwide market access for smart card supply and distribution sales channels;
- Competitive lead times for delivery;
- Competitive prices that fit your budget;
- Easy integration into your systems;
- Ongoing support;
- Competitive funding opportunities.

**Technical Specifications**

**Host Interface**

- **PC Connection port**
  - USB Port: x 1
  - Serial Port: x 1
  - FPOCA: x 1

**Smart Card Interface**

PC Core hardware and firmware architecture:

- Supports US 7816 Class A, B, and C cards (5 V, 3 V, 1.8 V)
- Supports all US 7816 TrK parameters up to 100 kbps, 96 kbps with a 68660 master card.
- Results from and offers to all US 7816 TrK, 1.2, 4, microprocessor cards, Tr, and Tr1, protocols.
- Supports memory cards using “Synchronous Card API”
- Short Circuit detection

**Smart Card Reader**

- 8 button controls (128x128)
- 100,000 insertion cycles
- EMV Level 1 mechanically compliant
- Enhanced smart card supported

**Human interface**

- LED color (green), dual state (blinking reading card insertion, 0 card readin)
- LED display
- 8x3 character display
- LED one color (Green), dual state (blinking: waiting card insertion; ON: Card ready: 0 setting)
- “PinPad”:
  - 3x2 alphanumeric display
  - Orange LED on at Secure PIN Entry mode
  - Tactile keypads with 16 (4x4) silicon rubber keys

**Cable/Power Supply**

- **USB reader**
  - Cable: 1.5 m long
  - USB 2.0 type A connector
  - USB 1.1 full speed (12 Mbps)
  - Max power consumption 150 mA
  - Operating voltage 5 V +/- 10%
- **Serial reader**
  - Cable: 1.5 m long
  - Serial DB9 connector
  - Operating voltage 5 V +/- 10%
  - Operating voltage 5 V +/- 10%

**Standards / Certifications**

- ISO/IEC 7819-12,3,4,5,6: TC cards with contacts
- EMV Terminal level 1 version 4.0 for PC Card Twin Pro/FM
- Mondex ChipSafe Plus Option 2 (PC Twin)
- Microsoft Windows Hardware Quality Labs (WHQL), Windows Logo Program WLP 2.0
- USB 2.0 Full Speed certified (USB readers listed on usb.org website)
- CCO Chip Card Interface Device 1.0 (5V & ExpressCard readers)
- PCSC (PC Twin, USB, Serial Card)

**Operating Systems**

- Windows 95OSR2, NT4.00 (for PC Twin in serial mode)
- Win CE 4.2, 6.2, 7.0, 8.0 (USB readers)
- Linux RedHat 9.0, Debian LiME 4.1, RHEL 9.0 on x86
- Mac OS X 10.5-10.9
- Mac OS X 10.9, Mac OS X 10.10
- Windows CE, Symbian, Linux, Windows Mobile, Android, Symbian
- QL PC Core Twin Pro IFM

**Environmental**

- CE, FCC part 15 Class A
- WEEE compliant
- RoHS compliant
- Windows compliant

**Weight and size**

<table>
<thead>
<tr>
<th>Product</th>
<th>Weight (g)</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC Twin</td>
<td>95</td>
<td>85 x 54 x 5</td>
</tr>
<tr>
<td>PC Twin (Serial)</td>
<td>95</td>
<td>64 x 16 x 8</td>
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<tr>
<td>PC PinPad</td>
<td>76</td>
<td>95 x 75 x 13</td>
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<td>PC Card</td>
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<tr>
<td>PC Twin (Express)</td>
<td>76</td>
<td>95 x 75 x 13</td>
</tr>
<tr>
<td>PC MCX Card</td>
<td>29</td>
<td>75 x 54 x 5</td>
</tr>
</tbody>
</table>

**Frost & Sullivan Grants Prize to Gemalto**

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“It has led the market, even in the first half of 2006, through its global presence and an innovative product strategy. No other market participant has been able to replicate its excellent performance in terms of leadership and sustainability in such a manner,” Frost & Sullivan, 2006.
### Smart Card Readers from the Industry Leader

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### Why choose Gemalto?

- **Competitive lead times for delivery**
- **Worldwide market access for smart card technologies**
- **Best-in-class supply chain**
- **Working with us means you benefit from:**
  - Flexible production capabilities, from small quantities to large volumes.
  - Back to back supply chain.
  - Worldwide market access for smart card supply and distribution sales channels.
  - Competitive lead times for delivery.

### Technical Specifications

#### Host Interface
- **PC Connection port**
  - USB
  - Serial
  - PCMCIA

#### Human Interface
- **LED**
  - Blue color (Serial), dual state (Serial) reading/writing card insertions;
  - On card reading (PCMCIA)

- **PC Pnipad**
  - Eeprom alphanumeric display
  - Tactile keypads with 16 buttons silicon rubber keys

- **USB Reader**
  - Tablet/Laptop: 16 Ku (USB 2.0 Full speed 480 Mbps)

#### Cable/Power Supply
- **USB reader**
  - Power supply: thru USB port
  - USB 2.0 Full Speed (12 Mbps)

- **PCMCIA PC Card reader**
  - Operating voltage: 5V +/- 10%

- **Power Consumption**
  - Suspend mode: 1mA

#### Smart Card Interface
- **PC Card**
  - 4Mhz precessor clock

- **PCMCIA**
  - Operating voltage: 5V +/- 10%

#### API
- **CCID - Chip Card Interface Device 1.0**
  - USB interface

- **PCMCIA Reader**
  - Microsoft CT-API (PC Twin, USB, Serial)

#### Standards / Certifications
- **VCCI, c-Tick, BSMI**
- **CE, FCC part 15 Class B**
- **Mondex ChipSafe Plus Purse 2 (PC Twin)**
- **EMV Terminal Level 1 version 4.0**
- **ISO/IEC 7812-2-3, EMV Cards**
- **ISO/IEC 7816 TA1 parameters (up to 300 Mbps, 9V, 9W with a 9W power mode)**
- **EMV Level 1 mechanically compliant**
- **Based on smart cards supported**

### Warranty
- **24 months**
- **100,000 smart card insertions**

### OEM
- **Reader and packaging personalization available**
- **Customized stickers, logo and colors at request**

### Weight and size

<table>
<thead>
<tr>
<th>Product</th>
<th>Weight (grams)</th>
<th>Dimensions (LWH mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC Pinpad</td>
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<td>64 x 16 x 8</td>
</tr>
<tr>
<td>PC Card</td>
<td>25</td>
<td>75 x 63 x 13</td>
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<tr>
<td>PC MCIMCA</td>
<td>105</td>
<td>85 x 54 x 5</td>
</tr>
<tr>
<td>PC Twin (USB)</td>
<td>292</td>
<td>121 x 79 x 49</td>
</tr>
<tr>
<td>PC Twin (Serial)</td>
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<td>105 x 70 x 12</td>
</tr>
<tr>
<td>PC Twin (PC)</td>
<td>45</td>
<td>75 x 63 x 13</td>
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Securing network access

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    - Floppy disk tray
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  - Simply by cable insertion
  - Innovative patented transparent design to highlight the card
  - Modular concept through accessories:
    - Stand
    - Floppy disk tray
    - Simplifies logistics and inventory

- **PC USB Reader**
  - Ultra-compact design
  - Robust metal casing
  - Ideal for laptop computers
  - PC Card type II and ExpressCard 54 format

- **PCMSIA Card Readers**
  - Compact and lightweight PCMSIA devices for laptop computers
  - PC Card type II and ExpressCard 54 format

- **USB Shell Token v2**
  - For Plug-in SIM card size
  - Portable device smaller than a house key

- **PC Pinpad Reader**
  - Secure Pin entry for enhanced security
  - Common criteria eAL3+ and tamper evident case by void security sticker

- **Desktop stand for vertical smart card insertion**
  - Displays key arteries for 3.5" and 5.25"

- **Floppy bay adaptor for 3.5" and 5.25"**

- **Accessories for PC Twin**
  - Desktop stand for vertical smart card insertion
  - Displays key arteries for 3.5" and 5.25"

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