

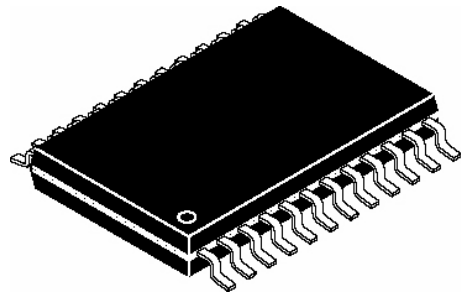


# Core Serial Lite

## The Ultimate Smart Card Reader Core

### Overview

**Core Serial Lite** is the ultimate step in the smart card reader architecture. Thanks to Gemplus know-how in silicon conception and to 15 years of experience in development of reader firmware, the GemCore technology now reaches the highest level of integration. Based on a single chip and a few discrete components, a GemCore-based smart card reader now features extremely small size and low energy consumption.



### Main advantages and benefits:

- Compliant with EMVCo specifications: the EMVCo Type Approval is easily obtained; Gemplus stays by your side.
- Reads any type of smart cards: EMV, ISO 7816, synchronous memory cards, 1.8 V / 3 V / 5 V cards: your reader is universal.
- Unique power saving and interfacing features for energy saving and design simplicity.
- Small size 24-pin package compatible with mobile objects.
- Cost effective thanks to the latest "one-chip" technology.



### Applications

Core Serial Lite is recommended for all the smart card applications such as payment, security, access control, metering, loyalty, identity, etc.

For example, it is particularly well suited for being integrated into:

- POS terminals and Pin pads
- Portable objects such as PDAs and mobile phones
- Set-top boxes
- Metering, ticketing, vending, payphones
- Web appliances, PC peripherals
- OEM smart card readers.



## Compliance with standards

- **ISO/IEC 7816-1, 2, 3, 4:** Integrated circuit cards with contacts
- **EMVCo Level 1:** EMV2000 specifications version 4.0
- **"CB":** Cartes Bancaires (France)
- **Other compliances:** ZKA, Mondex, Proton: contact Gemplus.

## Technical features

<b>Supported smart cards</b>	Asynchronous	<ul style="list-style-type: none"> <li>• Microprocessor cards</li> <li>• T=0, T=1 protocols</li> <li>• Transmission rate: 9.6 Kbps to 115 Kbps</li> </ul>
	Synchronous	<ul style="list-style-type: none"> <li>• Memory cards</li> <li>• Command Interpreter</li> </ul>
<b>Smart card electrical interface</b>	Smart card power supply	<ul style="list-style-type: none"> <li>• 1.8 V, 3 V or 5 V, 60 mA, supplied by the GemCore chip</li> <li>• Short circuit current limitation</li> <li>• Power up / power down control sequences</li> </ul>
	Smart card management	<ul style="list-style-type: none"> <li>• Card presence indication</li> <li>• Card insertion/extraction detection</li> </ul>
	ESD protection on card pins	<ul style="list-style-type: none"> <li>• 4 KV Human Body Model</li> </ul>
<b>GemCore chip power supply</b>	Voltage	<ul style="list-style-type: none"> <li>• 2.85 V to 5.4 V</li> </ul>
	Consumption	<ul style="list-style-type: none"> <li>• 8 mA at 3.0 V and 3.68 MHz</li> <li>• 150 ma max. with the smart card powered on</li> </ul>
	Power down mode	<ul style="list-style-type: none"> <li>• 20 <math>\mu</math>A to 100 <math>\mu</math>A power down current</li> <li>• Power down/power up by host command</li> <li>• Power up by card insertion</li> </ul>
<b>Host interface</b>	Serial asynchronous link	<ul style="list-style-type: none"> <li>• Adjustable voltage signal levels</li> <li>• Transmission rate: 9.6 Kbps to 115 Kbps</li> <li>• Format: 8 bits, no parity</li> </ul>
	Communication protocol	<ul style="list-style-type: none"> <li>• Gemplus Block Protocol (GBP)</li> <li>• GBP Interface Library source code</li> </ul>
<b>Other features</b>	One LED management	<ul style="list-style-type: none"> <li>• The LED is on when the smart card is powered on</li> </ul>
	Temperature range	<ul style="list-style-type: none"> <li>• Operating range: -40°C to +85°C</li> <li>• Storage: -65°C to +150°C</li> </ul>
	Packaging	<ul style="list-style-type: none"> <li>• 24 pins (SSOP24 type)</li> </ul>