

Contactless Interface Micro680

To allow an easy integration of the contactless technology in new applications, Gemplus extends its contactless coupler range with a new ready to use and compact reader: the Micro680.

Thanks to its large experience in the development of contactless interfaces, Gemplus proposes a very compact and convenient short-range coupler. Concerning the digital aspect, it is equivalent to the GCI680. An integrated antenna fitted with ferrite allows normal operating condition nearest operations.

The Micro680 is a serial interface reader for GemEasy8000 and other Mifare® family products such as GemFlash300 or GemCombi/Gate.

Typical operating distance with GemEasy type contactless cards is 25 mm.

2 versions, various uses

The Micro680 is released in 2 versions: a packaged version for access control or desktop applications and the OEM version allowing an easy integration in various devices, such as portable terminals, vending machines, public telephones, parkmeters, reloading terminals...

High level operating system

The Micro680, like the GCI680, is microprocessor controlled and runs ROS680 firmware.

This provides an easy interface with applications through ISO 7816-4 APDU format commands.

Today, ROS680 already features combined commands allowing to perform an advanced sequence of elementary actions such as authentication and reading or writing of several blocks out of a single sector.

Micro680 will benefit from future ROS680 evolution that will support advanced commands for optimised electronic purse operations (backup management) and global system security schemes.

These ROS680 capabilities significantly reduce transaction processing time and make applications more efficient.

Modularity expands possibilities

Although it is very compact, the Micro680 has a modular design, allowing various options. It can even be available as a short range active antenna driven by a GCI680 or a Micro680.

Micro680 - Product Sheet

Very compact and convenient short-range coupler

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The processing features of this coupler are equivalent to those of the GCI680. An integrated antenna fitted with ferrite allows normal operation.

The Micro680 is a serial interface reader for **Error! Bookmark not defined.GemEasy8000** and other Mifare® family products, including GemFlash300 or **Error! Bookmark not defined.GemCombi™/Gate** for the future release of the operating system.

Typical operating distance with GemEasy8000 type contactless cards is 25 mm.

The Micro680 is currently available in Version 2.0. An OEM version includes several communication modes (RS485, RS232, TTL and Wiegand+Active Antenna). A future version with only RS232 will be developed in 1999.

High-Level Operating System

The Micro680, like the GCI680, is microprocessor controlled and runs ROS680 firmware.

This offers easy interface with applications through ISO 7816-4 APDU format commands.

ROS680 has combined commands allowing an advanced sequence of elementary actions to be executed (e.g., authentication and reading or writing of several blocks on a single sector).

Micro680 benefits from ROS680 upgrades with support for advanced commands (backup management and withdrawal management for electronic purse applications). This version of operating system supports the following cards:

- GemEasy8000
- **Error! Bookmark not defined.GemEasy300**

Modularity for Greater Potential

The Micro680 has a modular design, allowing various options to be implemented. It can even be used as a short-range active antenna driven by a GCI680 or a Micro680.

Technical specifications

Dimensions	50 x 70 x 22 mm
Power supply	7 to 12 VDC - max 120 mA (in working state)
Operating range	GemEasy8000: 0 to 25 mm MA8000: 0 to 15 mm
Antenna	Built-in ferrite antenna allowing metal mounting operation
Connectors	<ul style="list-style-type: none">• Power supply• RS485/RS232• Battery• Active antenna• Wiegand• TTL• Backup capacitor• Cable shield
EMC compliance	Fully compliant with CE regulations
Host interface	RS232, RS485, TTL, Wiegand (except version 1.03)
Baud rate	1.2 to 76.8 kbaud
User interface	Monitoring LED