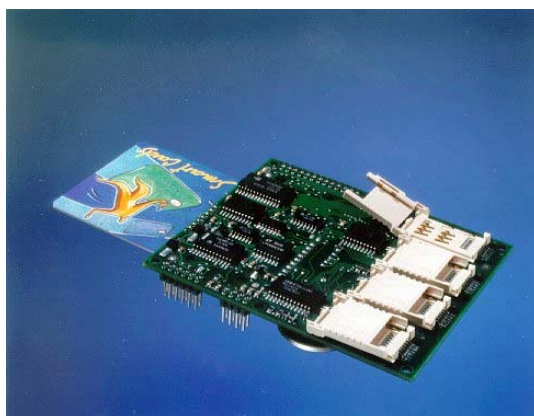


GCI500-MS

The Multi-SAM OEM Smart Card Reader



Overview

The **GCI500-MS coupler** is a modular, multi-SAM, yet very compact OEM Smart Card reader. Built around the GemCore™ Original V1.10 architecture, it is equipped with all the hardware and firmware components required for easy integration into larger systems and equipment.

The GemCore 500-MS4 integrates programmable memory. It can run embedded applications. Its electronic system manages the interface with one main Smart Card, four Security Access Modules (SAM) and a real-time clock.

Several external peripherals such as a display, a keyboard and a buzzer can readily be connected.

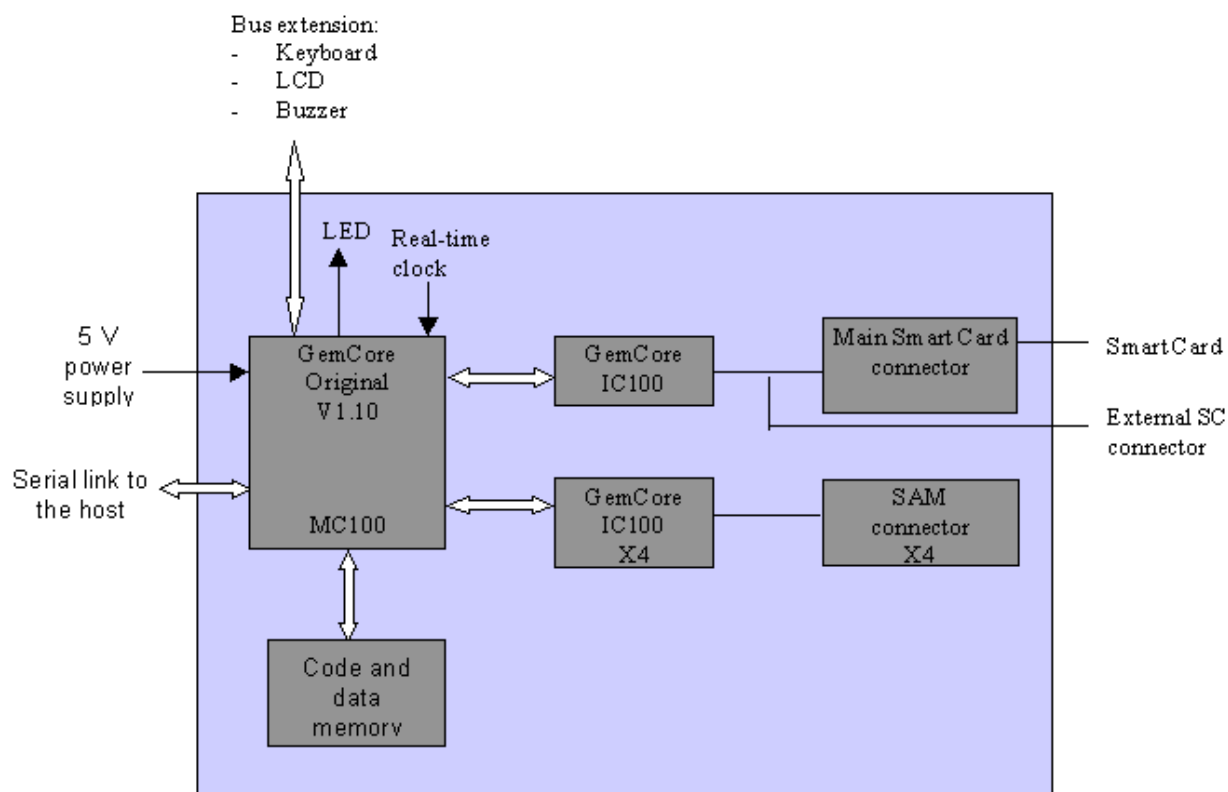
The GemCore 500-MS4 is thus perfectly designed for **integration into automated or vending machines**. It is especially well designed to meet the requirements of electronic-purse applications.

Applications

GC1500-MS is therefore a perfect multi-purpose device and meets the requirements of many applications:

- Payphones or screen-phones for all telecom applications
- Payment terminals for all payment or electronic purse applications
- Automatic vending machines
- Metering

Product Architecture





Technical Specifications

Architecture	On-board hardware features	<ul style="list-style-type: none"> • Code: 512KB Flash memory • Data: 512KB Flash memory • Static RAM: 8KB • 5 IC100 (SC electrical interfaces) • 1 main smart card and 4 connectors • Real-time clock with battery back-up (5 years life) • One LED • Connectors for bus extension, remote SC connector, power supply, link to the host
	Bus extension	<ul style="list-style-type: none"> • Keyboard (4x4 matrix keypad), 2x16 character display, 8 I/O and buzzer
Communication interface	Smart Card	<ul style="list-style-type: none"> • Access to all ISO 7816 microprocessor (T=0, T=1) and memory cards • Smart card communication speed: up to 115Kbds
	Host	<ul style="list-style-type: none"> • Asynchronous serial link with TTL level • Programmable transmission speed from 9.6 Kbps to 76.8 Kbps • GBP protocol thanks to GILK package (GBP C source code)
On-board smart card connector	Main Smart card	<ul style="list-style-type: none"> • Manual insertion, ISO chip location • Landing technology with smart card presence detection • Guaranteed for 80,000 insertion cycles. See note.
	SAM	<ul style="list-style-type: none"> • 4 plug-in connectors in ID-000 format
Power supply	Consumption	<ul style="list-style-type: none"> • 50 mA typical with no smart card powered • 150 mA max.
	Coupler voltage	<ul style="list-style-type: none"> • 5 V +/-5%
	SC voltage	<ul style="list-style-type: none"> • 3 V or 5 V
Operational conditions	Storage T°	<ul style="list-style-type: none"> • -40°C to +85°C
	Operation T°	<ul style="list-style-type: none"> • 0°C to +70°C
	Humidity	<ul style="list-style-type: none"> • 95 % at +40°C
	Environment	<ul style="list-style-type: none"> • Europe : 89/336/CEE guidelines • USA : FCC part 15 • RoHS
	Safety	<ul style="list-style-type: none"> • Europe: EN60950 • USA: UL1950
Physical characteristics	Dimensions	<ul style="list-style-type: none"> • 95 mm x 80 mm x 20 mm
	Weight	<ul style="list-style-type: none"> • 200 g

Note: Performance is given according to UTE C93-421 norm. The reliability of the connector depends on conditions of environment and use for which Gemalto is not responsible. For example, for access control, the use of an external high quality connector is recommended. Please refer to the Technical Specifications.