

# GCI 410

## The original Contact Smart Card Coupler



### Overview

The GCI410 is a modular, yet very compact coupler. It offers the simplest means of integrating a contact smart card reader into different types of electronic devices.

Built around the GemCore™ Original V1.10, this coupler allows larger systems to easily access all types of smart cards through an on-board or external smart card connector.

A Security Access Module (SAM) can also be connected to the board.

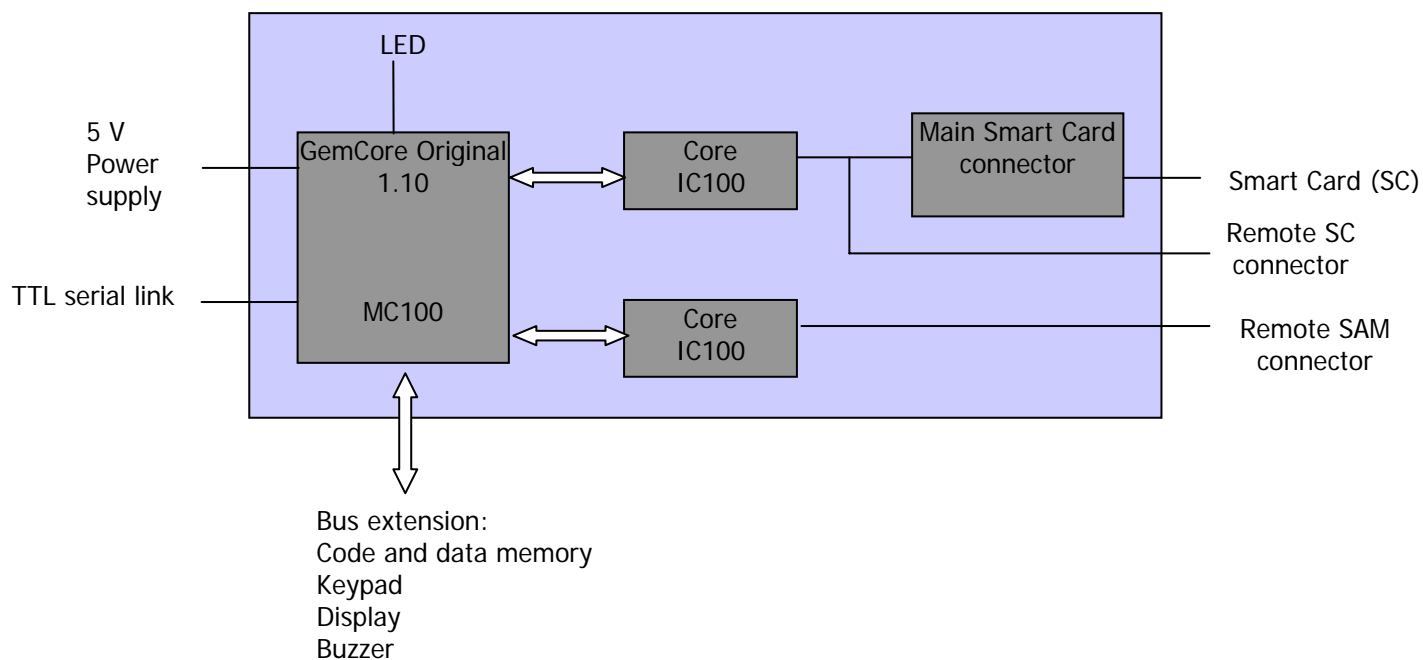
The interface with the host processor is a serial TTL link. The communication protocol is supplied as a C language source code library (GILK).

## Applications

GC1410 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
- Physical or logical access control devices
- Metering, Healthcare devices

## Product Architecture





## Technical Specifications

<b>Communication interface</b>	Smart Card	<ul style="list-style-type: none"> <li>• Access to all ISO 7816 microprocessor (T=0, T=1) and memory cards</li> <li>• Smart card communication speed: up to 115Kbds</li> </ul>
	Host	<ul style="list-style-type: none"> <li>• Asynchronous serial link with TTL level</li> <li>• Programmable transmission speed from 9.6 Kbps to 76.8 Kbps</li> <li>• GBP protocol thanks to GILK package (GBP C source code)</li> </ul>
<b>Power supply</b>	Consumption	<ul style="list-style-type: none"> <li>• 25 mA typical with no smart card powered</li> <li>• 100 mA max.</li> </ul>
	Coupler voltage	<ul style="list-style-type: none"> <li>• 5 V +/-5%</li> </ul>
	SC voltage	<ul style="list-style-type: none"> <li>• 3 V or 5 V</li> </ul>
<b>Operational conditions</b>	Storage T°	<ul style="list-style-type: none"> <li>• -40°C to +85°C</li> </ul>
	Operation T°	<ul style="list-style-type: none"> <li>• 0°C to +70°C</li> </ul>
	Humidity	<ul style="list-style-type: none"> <li>• 95 % at +40°C</li> </ul>
	Environment	<ul style="list-style-type: none"> <li>• IEC 68-2-1</li> <li>• IEC 68-2-2</li> <li>• IEC 68-2-14</li> </ul>
	Safety	<ul style="list-style-type: none"> <li>• Europe: EN60950</li> </ul>
<b>On-board smart card connector</b>		<ul style="list-style-type: none"> <li>• Manual insertion, ISO chip location</li> <li>• Landing technology with smart card presence detection</li> <li>• Guaranteed for 80,000 insertion cycles. See note.</li> </ul>
<b>Physical characteristics</b>	Dimensions	<ul style="list-style-type: none"> <li>• 45 mm x 80 mm x 20 mm</li> </ul>
	Weight	<ul style="list-style-type: none"> <li>• 100 g</li> </ul>
<b>Card protection</b>		<ul style="list-style-type: none"> <li>• Short circuit</li> <li>• Card removal when powered on</li> <li>• ESD: 4 KV on card pins, Human Body Model</li> </ul>

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 Mechanical Installation Guide.