TECHNICAL SPECIFICATIONS

GemClub Memo

What is GemClub Memo?

GemClub-Memo is a 2 Kbits memory card that is unique on the market. It combines the benefit of:

- the T=0 communication protocol (standard for microprocessor cards)
- a memory organization optimized for loyalty, identity or vending applications.
- and embedded security features adapted for these applications.

Combining the benefits of the low cost Memory cards and the communication protocol of Microprocessor cards, the GemClub Memo is the most advanced technology on the Memory cards market.

Since 1998, GemClub Memo has been gaining the confidence of application developers around the wolrd. It's also the most proven and secure Memory technology on the smartcard market. With several million cards in the field and 100 live applications, GemClub Memo cards are used:

- As reward cards (loyalty, Voucher, Pre paid...)
- In public offering (transportation, driving license, health care, fleet cards)
- as "Electronic purse" (in closed payment schemes)
- for access control (logical or physical)

Thanks to the above unique features, GemClub Memo allows fast and secure application deployment, either at the point of sale or over the Internet.

Features

- The GemClub Memo complies with the international standards: ISO / IEC 7816-4 and PS/SC protocol (as the protocol of communication is ISO compliant (T=0), there is no need for specific or proprietary drivers)
- **GemClub-Memo Evaluation Kit 1.6** that is compatible with Windows 2000/Windows XP
- Easy to develop new applications, Easy to implement, Easy to use
- GemClub Memo is able to provide you with what you need in term of Data Storage capacity with level 3 security :
  - Free memory space protected by PIN
  - Structured Memory in two independent applications protected by their own PIN
  - Two independent applications protected by their own PIN and by an authentication Card / Reader.
- **In-house personalization** (outside Gemalto perso centers) is allowed, reducing the cost of inventory management and shortening delivery lead time.

- **At the Point of Sale (POS) terminal infrastructure**
  Thanks to the T= 0 protocol, the GemClub Memo can be accepted by any EMV terminal, opening the door to the banking infrastructure
- **Internet access**
  GemClub Memo is PS/SC compliant, allowing the use of any PS/SC reader without any modification of your application on the PC.
- **Interoperability & stability to protect your investment**
  GemClub Memo allows quick card rollout thanks to its interoperability with the international standards and with the existing infrastructure.
- **GemClub-Memo has 2 separate areas to manage 2 independent applications.**

GemClub Memo technical specifications

Memory size	2 kbits (256 bytes)
Communication protocol	ISO 7816-3 (T=0)
Power supply	3V/5V (PC/SC 1.0 compliant)
Communication speed	9,600 baud (at 3.57 MHz)
Security and reliability	- Issuer-specific code - Three passwords - Terminal-based security (card/terminal authentication) - Automatic transaction counters and backup of sensitive data, both card-managed