1   GENERAL INFORMATION

1.1   Product description

The "GemPC Card" device is a compact smart card reader/writer, PC Card Type card format. It's plugged into the PC Card slot (PCMCIA Type II), of a laptop. Smart cards which can be used with the GemPC Card reader are: Reads from or writes to all ISO7816-1/2/3/4 class A, B and C (5V, 3V and 1.8V), all ISO TA1 parameters (up to 344 kbds) and extended APDU.

Typical applications are:
- Home-banking
- Electronic coupons/loyalty
- Internet access
- Secure download of content
- Computer access control
- Network security
- Personal identification
- Others…

The GemPC CARD is a product developed by the Gemplus Company.

For more information, see product's data sheet at section 1.6.

1.2   Related Submittal(s) / Grant(s)

All host equipment used in the test configuration are FCC granted, when relevant.

1.3   Tested System Details

The FCC IDs for all equipment, plus description of all cables used in the tested system (including inserted cards, which have grants) are :

See test report file : 3021-FCC

1.4   Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4-2000, CISPR22-1997+/A1:2000+/A2:2002 and EN55022:1998+/A1:2000+/A2:2003.
Radiated testing was performed at an antenna to EUT distance of 10 meters. During testing, all equipment's and cables were moved relative to each other in order to identify the worst case set-up.

1.5   Test facility

Tests have been performed on March 19th, 2004.

The test facility used to collect the radiated and conducted data is the **SMEE *Actions Mesures*** facility, located ZI des Blanchisseries, 38500 VOIRON, France. This test facility has been fully described in a report and accepted by FCC as compliant with the radiated and AC line conducted test site criteria in ANSI C63.4-1992 in a letter dated August 04, 1999 (registration number 94821).
This test facility has also been accredited by COFRAC (French accreditation authority for European Union test lab accreditation organization) according to NF EN ISO/IEC 17025, accreditation number 1-0844 as compliant with test site criteria and competence in 47 CFR Part 15/ANSI C63.4 and EN55022/CISPR22 norms for 89/336/EEC European EMC Directive application. All pertinent data for this test facility remains unchanged.

1.6   Data sheet of the product

GemPC Card

Engineering Samples Available

Compact Smart Card Reader/Writer Connects to the PC Card Type II port(PCMCIA)

1.6.1

Microsoft certification	PC Card Type II	Terminal level 1 approval for Gemcore Twin Pro IFM

GemPC Card Applications
A highly accessible, highly convenient solution.

GemPC Card compact smart card reader/writer, designed to plug into a standard PCMCIA Type II PC slot, is the ultimate smart card peripheral for laptop PC and mobile users. It is very simple to use and install. No technical knowledge is needed. If you seek for electronic commerce, home banking or e-purse facilities, secure computer access or any of a multitude of other applications, **GemPC Card** is the smartest answer. For the first time, a solution is available that offers impressive possibilities at an exceptional price.
They will open up many possibilities, including:

- Home-banking

- Electronic coupons/loyalty

- Internet access

- Secure download of content

- computer access control,

- Network security

- People identification

- and more…

GemPC Card Benefits

- **Strong and reliable casing**

  GemPC Card uses the patented GemPC400's robust steel case, fully compliant to PC Card type II specification, and already selected by major PC actors.

- **Increased Smart Card peformances:**

  GemPC Card is based on latest GemCore Pro one chip, supporting new ISO7816 class A, B and C (5V, 3V and 1.8V), all ISO7816 TA1 parameters (up to 344 kbds) and extended APDU.

- **EMV terminal level 1 certified**

- **Easy to install and maintain:**

  GemPC Card re-uses GemPC Serial's PC/SC drivers and GemCore Pro firmware which is already implemented in GemPC Series readers (GemPC Twin, GemPC Key, GemPC USB, GemPC Serial)

- **Sticker and packaging for easy custom branding**

One standard reference is available:

Model Name	Casing	Reference
GemPC Card	PC Card type II	HWP110628

PC-Link readers can now be ordered on Gemplus webstore : http://store.gemplus.com

Years of Gemplus technological experience, now available to all

GemPC Card is based on Gemplus? GemCore ® hardware and firmware, which means it can handle all types of ISO7816- compatible smart cards without compatibility problems. It is user-friendly, and operating or using it requires no technical expertise. **GemPC Card** will happily blend with all main environments (Windows ® 98, Windows ® 2000, Windows ® Xp, etc.), all types of card, and most makes of computer. It will readily adapt to new smart-card services, as they become available.

GemPC Card has successfully passed the **Microsoft Windows Hardware Quality Lab (WHQL)** test session and is eligible for the "Designed for Microsoft Windows" logo for both Windows 2000, Xp (Server 2003 under processing at printing time).

GemPC Card is based on the **Gemcore Twin Pro** IFM, which has received the **EMVCo** letter of approval (11607 0103 400 20 LGA) and is listed to support EMV Level 1 compliant 4.0 device in the EMVCo web site.

GemPC Card Technical Specifications

Feature	Description
Smart-card interface	• support ISO7816 Class A, B and C (5V, 3V, 1.8V) • support all ISO7816 TA1 parameters (up to 344 Kbds) • reads from and writes to all ISO 7816-1,2,3,4 microprocessor cards, T=0 and T=1. Memory cards support using "Memory Card API for GemCore Twin Pro" • Short circuit detection • smart card connector is 8 friction contacts - ISO location, guarantee for 100,000 insertion cycles - EMV level 1 mechanically compliant. • embossed smart cards are supported.
Host Interface	• PCMCIA Type II • Plug and Play • power supply thru PCMCIA port • operating voltage 5V +/- 10% • programmable transmission from 9600 to 115,200 bps
Power Consumption	• operating : 25 mA (maximum value)
Dimensions	• 85 x 54 x 5 mm (3.4 x 2.16 x 0.2 inches), PC Card Type II format.
Weight	• 29 grams
Operating/storage Temperature	• Operating : +0°C / +55°C • Storage : -20°C / +65°C
Electro-magnetic standards	• Europe: 89/336/CEE guideline • EN 55022: 1994 Class B • EN 50082-1: 1994 • EN 50081-1: 1992 • EN 61000-4-2: 1995

- EN 61000-4-3: 1997

- EN 61000-4-4: 1995

- Comply with EMC directive 89/336/EEC

- USA: FCC part 15 Class B

- Europe: EN60950

- IEC950: 1991, Am,3: 1995

Security levels	- USA: UL1950 third edition, dated July 28, 1995
	- Canada: CSA950
	- Comply with low voltage directive 73/23/EEC
	- ISO/IEC 7816-1,2,3,4: IC Cards with contacts
Standards/certifications	- EMVCo 4.0 terminal level 1 (EMV2000) for Gemcore Twin Pro IFM
	- Microsoft Windows Hardware Quality Labs (WHQL), Windows Logo Program WLP 2.0
Operating systems supported	- Windows NT4, 2000 and Xp
	- Windows 98, 98SE, Me and Server 2003 (June 2004)
	- Linux, Win CE 4.x, MacOS X (Q4 2004)
API's	- Microsoft PC/SC environment with associated drivers
	- Other environment (OCF, CT-API upon request)
OEM	- custom stickers for branding
Packaging	- each reader is packed in a crystal plastic box (91x63x8mm). Overall weight is 51 grams.