1 GENERAL INFORMATION

1.1 Product description

This product is a smart card reader which can bear two names: either GCR412 or GemPC410-SL, each may be followed by symbol "/" together with additional numbers and letters. In the following of this report, the product will be named either GCR412 or GemPC410-SL.
The GCR412 device is a smart card reader connected to a Personal Computer. Smart cards which can be used with the GCR412 reader are: reads from or writes to ISO7816-1/2/3/4 memory and micro processor smart cards. The smart card is introduced in the GCR412 reader, and the Personal Computer manages applications; Typical applications are:

- Computer access control
- Electronic commerce
- Home banking facilities
- E-purse facilities
- Electronic smart card personalization
- Development of smart card application software
- Others…

The GCR412 reader is connected to the RS232 serial port for communication with the Personal Computer and is powered from keyboard's port,.

The GCR412 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 :

Trade Mark – Model Number (Serial number)	**FCC ID**	**Description**	**Cable description**
GCR412 * (sn: R011010001)	MES412GPC	Smart card reader	Shielded cable attached to product
Gemplus MPC0S64K	none	Smart card	none
HEWLETT PACKARD Vectra 515 series D4136A (sn: FR62365527)	B94VECTRA500T	Personal computer	All data cables are shielded Power cable unshielded
HEWLETT PACKARD D2846 (sn JP93143078)	Doc. Of Conf.	21" color monitor	Shielded video cable
HEWLETT PACKARD C4734-60101 (sn: M97060565)	GYUR38SK	Keyboard	Shielded cable
HEWLETT PACKARD C3751B (sn: LZA61209812)	DZL210582	Mouse	Shielded cable
HEWLETT PACKARD 48GX (sn: 3110S58792)	N/A	Serial calculator	HP 8120-6736 serial cable
HEWLETT PACKARD C6410A (sn: MY9761915S)	Doc. Of Conf.	Parallel printer	HP 24542D shielded parallel cable

*Equipment Under Test

1.4 Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4-1992, CISPR22-1993/A1:1995/A2:1996 and EN55022:1994/A1:1995/A2:1997.
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 February 23rd, 2001.
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), accreditation number 1-0844 as compliant with test site criteria and competence in 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 410 & GemPC 410-SL Product Sheet

GemPC 410-SL *Universal Smart Card Readers (connect to the serial port)* **GemPC 410**

A highly accessible, highly convenient solution.

Those compact card readers, designed to plug into a PC environment, are the ultimate smart card peripherals for a PC. They are also very simple to use and install. The user needs no technical knowledge. If you need electronic commerce, home banking or e-purse facilities, secure computer access or any of a multitude of other applications, the **GemPC 410** family 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:

- computer-access control,
- electronic commerce,
- home banking facilities,
- e-purse facilities,
- electronic smart-card personalization,
- development of smart-card application software,
- lots of other interesting and entertaining applications.

Small is beautiful

The **GemPC 410** products will handle the card interface, while your computer supports and manages the applications. Compatible with all major computers and operating systems, the GemPC 410 readers are powered from your computer's keyboard port, free of the constraints associated with other power-source options.
Two references are available :

	Casing	**Dimension**
GemPC 410	Tower	90 x 86 x 26 mm
GemPC 410-SL	Flat	70 x 98 x 15 mm

Years of Gemplus technological experience, now available to all

The **GemPC 410** readers are based on Gemplus's GemCore ® hardware and firmware, which means they can handle all types of ISO7816 compatible smart cards without compatibility problems. They are user-friendly, and operating or using them requires no technical expertise. The **GemPC 410** family will happily blend with all main environments (DOS, Windows® 3.x, Windows® 95, Windows® 98, Windows® NT4, Windows® 2000, OS/2®, etc.), all types of card, and most makes of computer. They will readily adapt to new smart-card services, as they become available.

GemPC 410 and GemPC 410-SL Features and Application Standards

Feature	Description
Smart-card interface	• reads from and writes to all ISO7816-1/2/3/4 memory and microprocessor smart cards (T=0, T=1) • the GemPC 410-SL does not handle synchronous cards • supports 3V and 5V cards
Communication	• programmable from 9,600 baud to 115,200 baud with the smart card • up to 38,400 baud for communication with PC
Power consumption	• average of 20 mA in operational mode
Interface modes	• Serial communication with the PC through RS232 connection • TLP224 and GBP (Gemplus Block Protocol)
Power supply	• 5V maximum
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
Security levels	• Europe: EN60950 • IEC950: 1991, Am,3: 1995 • USA: UL1950 third edition, dated july 28, 1995 • Canada: CSA950 • Comply with Low voltage directive 73/23/EEC