1 GENERAL INFORMATION

1.1 Product description

The GemPC Serial-SL, Serial-SW, USB-SL & USB-SW devices are a smart card reader connected to a Personal Computer. Smart cards that can be used with the GemPC reader are ISO7816-1/2/3/4 compatible smart cards. It is introduced in the GemPC 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 GemPC (USB type) reader is connected to the USB Type A slot for communication with the Personal Computer, and is also powered, by USB port.

The GemPC (RS232 type) reader is connected to the serial slot for communication with the Personal Computer, and is powered, by keyboard port.

The GemPC is a product developed by the Gemplus company; Its part number is :

- For GemPC USB-SL: HWP108841
- For GemPC USB-SW: HWP108919
- For GemPC Serial-SL: HWP108927
- For GemPC Serial-SW: HWP108920

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
GemPC USB-SW PN:HWP108919 A* **(sn: none)**	**MES433GPC**	**Smart card reader**	**Shielded cable attached to product**
GemPC Serial-SW PN: HWP108920 A* **(sn: none)**	**MES433GPC**	**Smart card reader**	**Shielded cable attached to product**
GemSAFE ™ Entreprise	None	Smart card	none
HEWLETT PACKARD Vectra VLi8 pn:D7963A (sn: FR9402053)	Doc. Of Conf.	Personal computer	All data cables are shielded Power cable unshielded
HEWLETT PACKARD pn: D2846 (sn: JP74001000)	Doc. Of Conf.	21" color monitor	Shielded video cable with ferrite at each end
HEWLETT PACKARD pn: C4736-60101 (sn: LZA693024031)	JNZ201213	Mouse	Shielded cable
HEWLETT PACKARD pn: C4734-60111 (sn: M971168931)	GYUR38SK	Keyboard	Shielded cable
HEWLETT PACKARD 895CXI pn: C6410A (sn: MY9761915S)	Doc. Of Conf.	Parallel printer	HP C2950A shielded parallel cable
HEWLETT PACKARD deskjet500 pn: C2106A (sn: 3110S58792)	B94C2106X	Serial printer	HP 24542G shielded serial cable
TELEX (sn: 700.373.000A)	None	Microphone	Shielded cable
LABTEC LT100 pn: D8387A (sn: none)	None	Headset	Shielded cable
HEWLETT PACKARD 48GX [1] (sn: 83802369)	None	Graphic Calculator	Unshielded cable with ferrite

[1] : Used only with GemPC USB-SW setup

* : Equipment under test

1.4 Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4-1992, CISPR22-1997/A1:2000 and EN55022:1998/A1:2000.

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 April 14th, 2003.

The test facility used to collect all 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+2000) in a letter dated July 19, 2002 (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 SL & SW 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) • supports 3V and 5V cards
Communication	• programmable from 9,600 bauds to 115,200 bauds with the smart card
Power consumption	• Bus Powered Suspend Mode: 20 uA typical • Bus Powered Unconfigured Mode: 25 mA typical • Bus Powered Configured Mode: 25 mA typical • Bus Powered Operating Mode: 40 mA typical
Interface modes	• High Speed communication with the PC through USB port connection • Hubless
Power supply	• 5V maximum drawn from the USB port
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