

Gem Prox-PU Technical Specifications



6242 Ferris Square
San Diego, Ca 92121
858-622-2004

Contactless Card Interface

- Operating frequency: 13.56 MHz
- Compliance
 - Full ISO 14442 -1 to -4 compliant, embedded T=CL protocol Read/write the following smart cards:
 - ISO 14443 A, B, T=CL cards
 - Mifare cards (including DES Fire)
 - SR176, SR1X512 and SR1X4K chip based cards
 - Other cards on request
- Baud rate: 106 Kbps to 848 Kbps
- Up to 6 cm reading distance
- On-board antenna

Host Interface

- USB 2.0 and RS 232
- Gemplus Block Protocol (GBP)
- Baud rate: RS 232: 1.2 Kbps to 230 Kbps

SAM Interface

- 2 Security Access Modules (SAM)
- ISO 7816 -1 to -3, T=0, T=1 protocol compliant
- SAM power supply: +5 VDC +/-10%
- Baud rate: 9.6 Kbps to 115 Kbps

Power Supply

- Voltage: Powered by the USB link or +5 VDC +/- 10% in RS 232 link
- 300 mA current

Environment Requirements

- Operating Temperature: 0°C to +50°C (+32°F to +122°F)
- Storage: -20°C to +60°C (-4°F to +140°F)
- 0 – 93 % non-condensing humidity
- EMC: C89/336/CEE, FCC Part 15 Class B, VCCI Class B
- Index of Protection: IP23 (dust proof)
- Safety: UL 1950, cUL CS A 950, EN 60950
- MTBF: 400,000 H at +20 °C

Main Functions

- High level command set
- PayPass and Express Pay level 1 compliance
- ICAO and FIPS 201 / PIV specifications compliance
- Mifare Application Directory (MAD)
- Card insertion / removal detection
- E-purse command set
- Self test

Other Features

- 4 LED indicators (PayPass compliant)
- 1 buzzer
- 2 SAMs
- On-board antenna

USB PC/SC Driver

- Compliant with PC/SC specifications version 2.0
- Full Plug and Play
- Compliant with Windows 2000 and XP

USB VPC Driver (non PC/SC)

- For applications using a serial Virtual Port Com (VPC)
- Needed for the GemProx Dev Kit tools such as the GemProx Manager
- Implements the GBP protocol and the reader command set
- Compliant with Windows 2000 and XP

Other Tools

- Prox Development Kit
- C language source code API: GBP protocol and Essen Group ICAO e-passports
- Firmware download tools

Dimensions & Weight

- 135 mm (H) x 120 mm (W) x 30 mm (D)
- 233 g with stand

Connections and cable

- RS 232: RJ45 connector for serial link and power supply signal (cable not provided)
- USB: 1.5 m long cable with ferrite delivered with each product