

Contactless Smart Card Reader with Keypad and Display



GemTAG xPad

- Contactless smart card reader
- 13.56MHz NFC technology
- Proprietary API, Keyboard Wedge
- USB connectivity
- Keypad, display and beeper

Product Overview

GemTAG xPad is a contactless smart card reader/writer with keypad and display. It is designed for secure authentication, cashless payment, online banking and more.

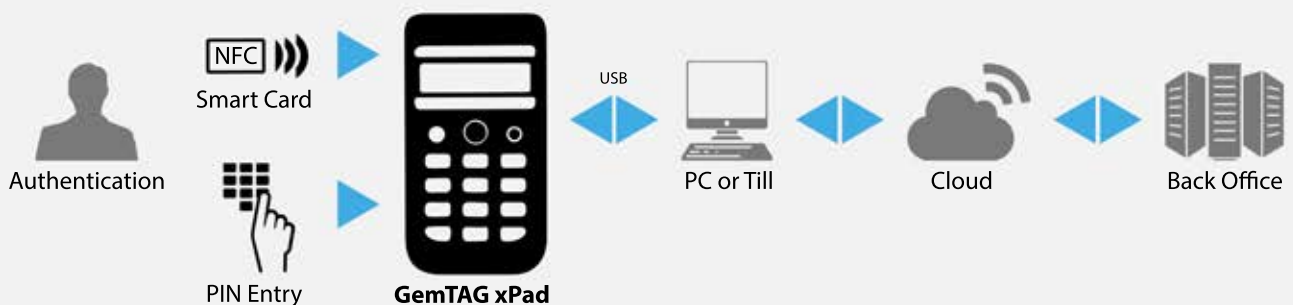
The reader supports wireless communication with smart cards and tags through 13.56 MHz NFC technology. It is compliant with a host of popular contactless smart card standards in use today, including Mifare, DESFire and FeliCa. It features a built-in keypad for PIN entry to enable two-factor authentication for added physical and logical security.

GemTAG xPad benefits from seamless plug-and-play functionality with Windows and other operating systems through the HID standard. The reader supports the proprietary G2K API, which introduces significant flexibility for custom development. The API grants complete control over the reader and simplifies the programming of complex solutions. Gemini 2000 offers extensive documentation and engineering support to clients implementing the reader for custom projects.

The design of GemTAG xPad is compact and ergonomic. Its 15-button keypad is comfortable for PIN entry and user interaction, while personalised messages are displayed on a clear two-line display. A built-in beeper adds audible interactivity. Customisation options for the device include bespoke case colour and logos to suit specific project needs.

GemTAG xPad is also available as an OEM module.

System Integration



Technology

Near Field Communication

GemTAG xPad is based on the CLRC663 IC. Its 13.56 MHz contactless smart card interface is compliant with ISO specifications 14443 Types A/B and 15693. The reader supports Mifare Classic, Mifare Light, Mifare Ultralight, Mifare 4K, DESFire, FeliCa, JCOP 30, JCOP 31, B' cards, picoPass tag, Innovision Jewel smart cards and more.

Gemini API

GemTAG xPad comes with the powerful G2K API. The DLL files supplied grant additional programming functionality that can be further extended and tailored for specific projects upon request. It is compatible with Windows and Linux, with other operating systems supported upon request.

HID

The device does not need drivers when used with Generic HID compliant operating systems such as Microsoft Windows 2000, XP, 2003, Vista, 7, 2008, where operation is plug-and-play. Support for other operating systems such as GNU/Linux, Mac OS, Solaris and FreeBSD is available with drivers. GemTAG xPad also supports **Keyboard Wedge** operation.

USB

USB interface supported, power supplied via the same interface.

Construction

Made from high impact ABS, the casing of xPad is robustly built for frequent daily use.

Colour options: white, black, custom upon request. The display frame can feature custom client copy or graphics.

GemTAG xPad is also available as an OEM module.



Specifications

PHYSICAL SPECIFICATIONS

Dimensions	120 x 65 x 16 mm
Weight	Approx. 125 g
Composition	High impact ABS
Colour	Black, blue, custom options
Customisation Options	Case colour, copy around screen frame
Status Indicators	Two line display, beeper
Keypad	15-button keypad

CONTACTLESS SMART CARD INTERFACE

Operating Frequency	13.56 MHz
Chipset	NXP CLRC663
Communication Standards	NFC ISO/IEC 18092, ISO/IEC 14443 (Type A and Type B)
Card Reading Distance	Up to 70mm
Transmission Speed	Up to 848Kbps

CONNECTIVITY

Host Interface	USB
Power Supply	Bus powered, optional external power supply
Transmission Speed	Up to 12 Mbps
Current Consumption	100mA

APPLICATION INTERFACE

Supported APIs	Gemini API, optional Keyboard Wedge
PC / SC Driver Support	Windows 2K, Server 2003/8, XP (32/64), Vista (32/64), Windows 7(32/64), 8, 10, Windows CE, Mac OS, Linux

OPERATING CONDITIONS

Operating Temperature	-20 to +80 °C
Non-Operating Temperature	-40 to +85 °C
Operating Humidity	0–95% non-condensing
Meantime Between Failure	500,000 hours

STANDARDS

Safety / Environmental	CE, RoHS, WEEE
Electromagnetic Compatibility	IEC 801-4, EN 61000-4-2, ENV 50140, ENV 50141, IETS 300330
Shock and Bump Immunity	IEC 68-2-27, Part 2, Test Ea Shock; IEC 68-2-29, Part 2, Test Eb Bump

Warranty

Two year manufacturer's warranty