

# Programmable NFC Smart Card Reader



## Orbit Classic

- Contactless smart card reader
- 13.56 MHz NFC technology
- Proprietary API or Keyboard Wedge
- USB connectivity
- Two LED indicators, beeper

# Product Overview

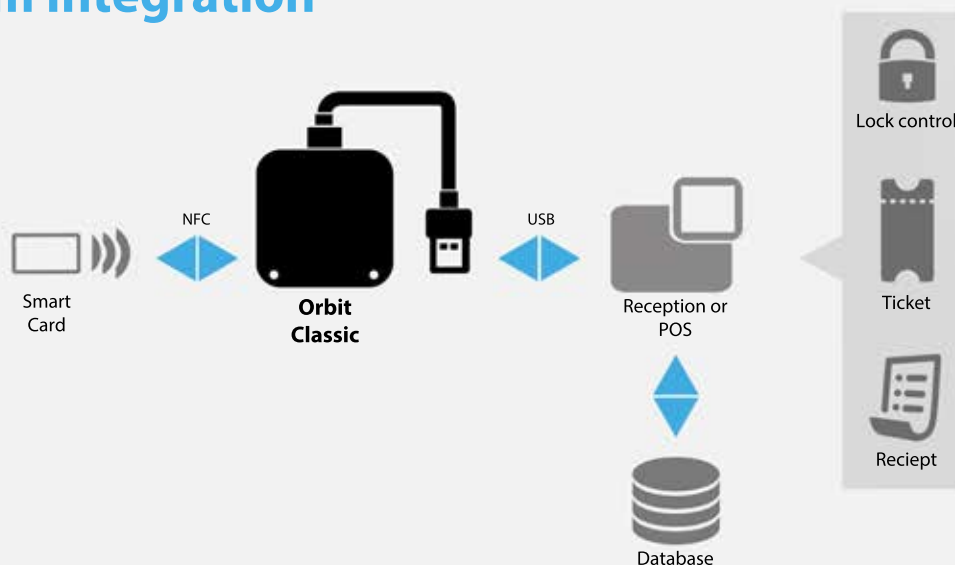
Orbit Classic is a contactless smart card reader/writer. It offers wireless communication with smart cards, fobs and wristbands through 13.56 MHz NFC technology. A versatile device, it is designed for authentication, access control, loyalty, cashless payments and other applications, as well as for the development of custom systems.

Orbit Classic is compliant with a host of popular smart card standards in use today, including Mifare, DESFire and FeliCa. It features a large card landing zone for enhanced ease of use and an extended card reading range thanks to its built-in oversized antenna.

The reader benefits from seamless plug-and-play functionality with Windows and other operating systems through the HID standard. It supports Keyboard Wedge functionality and 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 an SDK and engineering support to clients implementing the reader for custom projects.

Newly redesigned, the high impact plastic casing is contemporary and attractive. Orbit Classic's minimalist design fits well into any environment, from modern corporate offices to industrial sites. Robustly built, it is ideal for frequent daily use.

## System Integration



# Technology

## Near Field Communication

Orbit Classic is based on a 13.56 MHz contactless smartcard RFID interface that is compliant with ISO specifications 14443 A/B and 15693. It 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.

## 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.

## Keyboard Wedge

The reader can be loaded with Keyboard Wedge firmware to output smart card data as keystrokes.

## G2K API

Orbit Classic supports 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.

## USB

Orbit Classic supports USB for communication with a computer. It is powered via the same interface.

## Construction

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

Colour options: translucent black, custom upon request.

Orbit Classic is also available as an OEM module.



# Specifications

## PHYSICAL SPECIFICATIONS

Dimensions	85 x 85 x 20 mm (boxed), 70 x 75 x 15 (OEM module)
Weight	Approx. 76 g (boxed), 36 g (OEM module)
Composition	High impact ABS
Colour	White, black, custom options
Customisation Options	Colour and surface print, upon request
Status Indicators	2 LED indicators, beeper

## 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	G2K, Keyboard Wedge
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## 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, UL, 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