

NFC Contactless Smart Card Reader with Integrated SAM Slots



Orbit SAM

- ITSO and EMV Level 1 ready
- USB , RS232 and SPI connectivity
- Gemini 2000 API, optional PC / SC
- 4 LED indicators, 1 beeper
- UK manufacturing and support

Product Overview

Orbit SAM is a sophisticated contactless smart card reader/writer with two integrated SAM slots. It is designed for EMV contactless payments, ITSO smart ticketing, and the development of custom point of sale solutions. Employing 13.56 MHz NFC technology, the reader offers secure wireless communication with a host of popular smart cards standards, including Mifare, DESFire and FeliCa.

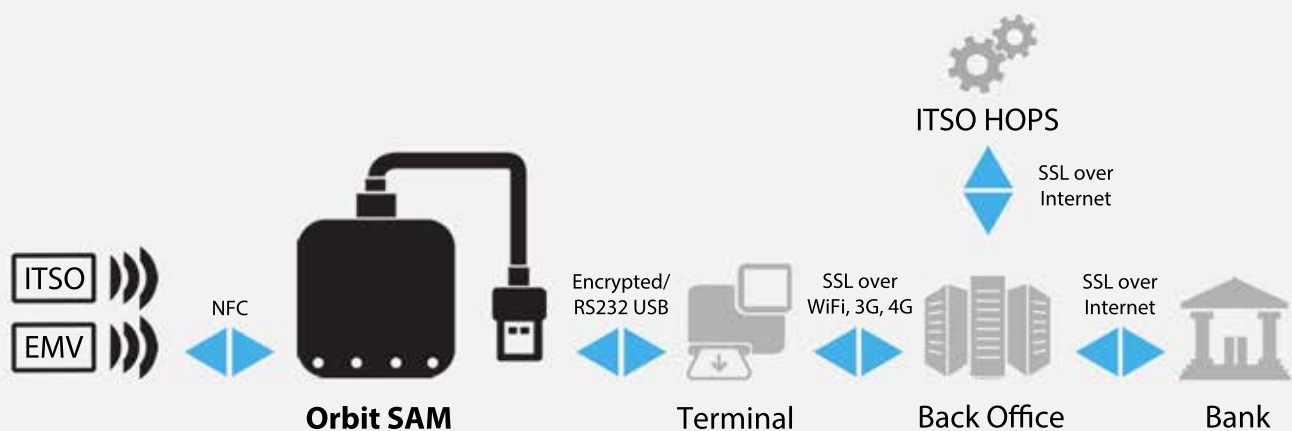
Orbit SAM supports Generic HID connectivity and the proprietary G2K API. The API provides significant flexibility for custom system development. It grants complete control over the reader and simplifies the programming of complex solutions.

As an ITSO-compliant device, Orbit SAM is a market proven solution that is popular with transport systems integrators. It provides NFC capabilities for smart ticketing and currently powers ITSO projects across the UK.

Orbit SAM is EMV ready, allowing businesses to integrate it into existing payment systems or for standalone contactless card acceptance. It is a fast, secure device that can take payment with a tap of a contactless credit card. Gemini 2000 offers consultancy and EMV certification services to support client projects.

Newly redesigned, the high impact plastic casing of Orbit SAM is contemporary and attractive. The device is also available as an OEM module, ready for integration into larger systems.

System Integration



Technology

Near Field Communication

Orbit SAM 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.

G2K API

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

USB, RS232 and SPI

For communication, Orbit SAM supports USB 2.0 interface and RS232 serial interface. As an OEM module, it also supports short-range SPI connection.

EMV and ITSO

The device meets a number of standards for electronic and physical security and functionality. It conforms to ITSO specification, ensuring seamless interoperability within smart ticketing schemes. Orbit SAM is also EMV Level 1 and 2 ready and can be deployed for contactless credit card acceptance in attended and unattended environments.

Construction

Made from high impact ABS, the casing of Orbit SAM is robustly built for frequent daily use. The smooth surface is easy to wipe and hygienic.

Colour options: white, black, custom upon request. The top lid can feature custom designs.

Orbit SAM is also available as an OEM module.



Specifications

PHYSICAL SPECIFICATIONS

Dimensions	85 x 85 x 20 mm (boxed), 70 x 75 x 15 mm (OEM module)
Weight	Approx. 80 g (boxed), 40 g (OEM module)
Composition	High impact ABS
Colour	White, black, custom colour upon request
Customisation Options	Colour and surface print, upon request
Status Indicators	4 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 & B)
Card Reading Distance	Up to 70mm
Transmission Speed	Up to 848Kbps

CONNECTIVITY

Host Interface	USB, RS232, SPI
Power Supply	Bus powered, optional external power supply
Transmission Speed	Up to 12 Mbps
Current Consumption	100mA

APPLICATION INTERFACE

Supported APIs	G2K, optional PC/SC
PC / SC Driver Support	Windows 2K, Server 2003/8, XP (32/64), Vista (32/64), Windows 7(32/64), 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, 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