

PRELIMINARY PRODUCT INFORMATION

iCLASS SE® Reader Module



iCLASS SE® READER MODULE

- **Supports Secure Identity Object (SIO)**– Multi-layer security that extends beyond the card technology, providing additional protection to identity data.
- **Field-Updatable Firmware** – Allows for feature enhancements in the field, extending the lifecycle of customer installations.
- **Trusted Identity Platform® (TIP™) Enabled** –Enables devices to become TIP nodes and benefit from the advantages of the comprehensive and secure TIP ecosystem.
- **Fast to Integrate** – Compatible with existing HID OEM modules and includes a Developer Tool Kit (DTK) that provides resources to facilitate fast and easy integration; extends access to HID Global's vast developer community.
- **Dual Frequency Support** – Allows straight forward migration by supporting low and high frequency credentials, including iCLASS®, HID Prox, Indala Prox, FeliCa™ MIFARE® Classic and MIFARE DESFire® EV1.

Other features:

- Field programmable, extending product lifecycle
- Hardware interfaces include Wiegand, Clock-and-Data, UART, or SPI
- Read secure data from iCLASS® and MIFARE credentials, as well as Sony FeliCa iDM and CEPAS CAN/CSN
- Host-driven commands enable read/write to secure areas of cards
- Flexible configuration fits a variety of applications
- EAL5+ certified secure element hardware for protection of keys and cryptographic operations to guard against security threats
- GSA APL device
- Ultra low power mode for battery-operated devices

The iCLASS SE® Reader Module is part of HID Global's next generation platform that goes beyond the traditional smart card model to offer a secure, standards based technology-independent and flexible identity data structure based on Secure Identity Object (SIO), a new portable and open credential methodology.

Building on the success of the existing OEM modules, including OEM50/OEM75, the iCLASS SE Reader Module enhances existing functionality with new SIO features that enable the use of NFC smartphones and other devices for mobile access while also providing increased levels of security.

HID's iCLASS SE Reader Module allows integrators to design third party solutions that support a full range of contactless card technologies, including iCLASS®, MIFARE® and HID Prox as well as integration into U.S. Government applications.

The reader board is also PIV II compliant with FIPS 201 certification and on the GSA Approved Product List (APL).

The iCLASS SE Reader Module's dual frequency capability allows the use of both high frequency and low frequency credentials with the same reader, providing a solution for mixed credential and credential migration applications.

Another key feature of the iCLASS SE Reader Module is the straightforward field upgrade support that allows firmware changes and feature upgrades in installed readers to extend the lifecycle of customer installations.

For quick and easy integration, HID Global also provides an iCLASS SE Reader Module Developer Tool Kit (DTK). The DTK provides the necessary tools, documentation and developer resources material to shorten integration cycles and speed time to market with finished products.

MORE SECURE, TRUST-BASED SECURITY

- Tamper Proof – EAL5+ certified Secure Element hardware provides tamper-proof protection of keys and cryptographic operations to guard against cloning and other breaches.
- Multi-layered security model with secure key management system, breach resistant technology and enhanced privacy protection.
- Operates under HID's TIP framework, which creates a secure and trusted boundary within which all cryptographic keys governing system security can be delivered with end-to-end privacy and integrity.

ENHANCED LIFECYCLE MANAGEMENT

- Field programmable and features open and configurable SIO's as well as a smart card technology migration path.

SIO PROCESSOR DEVELOPER TOOLKIT (DTK)

- Provides a complete set of resources, allowing the immediate start of development.
- Includes a development board, allowing easy access to all iCLASS SE® Reader Module interfaces, iCLASS SE Reader Modules in different form factors and test cards to speed the development process.
- A secure, online developer portal provides access to development documents, tools and utilities to accelerate the time to market.

SUPPORTS NEXT-GENERATION SIO CREDENTIALS

- Enables a new class of portable identity credentials that can be securely provisioned and safely embedded into both fixed and mobile devices using HID's TIP.



SPECIFICATIONS

Base Part Numbers	SE3200	SE3210
Dimensions	1.1" x 1.2" x 0.31" (28 x 30 x 8mm)	1.3" x 1.7" x 0.31" (33 x 43 x 8 mm)
Weight	0.28 oz (8 g)	0.34oz (9.7g)
Power Requirements	Supply voltage 3.5 to 10V (HF) Supply voltage 5 to 10V for HF & Prox	
Power Consumption	<120mA during card polling <10uA in ultra low power mode	
Operating Temperature	-13 to 149°F (-25 to +65°C)	
Storage Temperature	-49 to 185°F (-45 to +85°C)	
Contactless Smart Card Interface		
RF Transmit Frequency	13.56MHz +/- 50ppm	
Smart Card Technologies	ISO14443A/B ISO15693, FeliCa™, CEPAS	
Supported Credentials & IC's	MIFARE Classic®, MIFARE DESFire® 0.6, MIFARE DESFire® EV1, HID: iCLASS® Standard/SE/SR; PIV II, Secure Identity Object™ (SIO)	
Transmission Rate	Up to 848 kb/s (depending on IC & OS)	
Antenna Support	External antenna x 2 (1 x LF + 1 xHF)	
Contactless Prox Card Interface		
RF Transmit Frequency	125kHz +/-1kHz	
Supported Credentials	HID Prox, Indala Prox	
General Features		
I/O	Green LED/Card Present, Red LED, Buzzer, Data Hold, Reset	
Firmware Upgrade	Local or remote upgrade of firmware providing firmware upgrade and feature enhancement capability	
Connectors	1 x 30 Pin – General Purpose (Serial I/F, I/O and PSU) Solder pads also available	1 x 8 Pin – Serial I/F 1 x 9 - Pin I/O and PSU 1 x 4 Pin – Antenna 1 x 30 Pin – General Purpose (Serial I/F, I/O and PSU)
Hardware Interface	Wiegand, Clock-and-Data, UART, or SPI	
Global Certifications	UL Recognition (Recognized Component) to UL294 for the USA and CSA C22.2 No. 205 for Canada. CE, FCC 47 Part 15 modular approval, RoHS, WEEE	
Government Approvals	FIPS 201 PIV II with inclusion on GSA APL	

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