Microtron®
Flexible electronic solutions

HID®

Multi-Technology iCLASS SE® / HID Prox Card
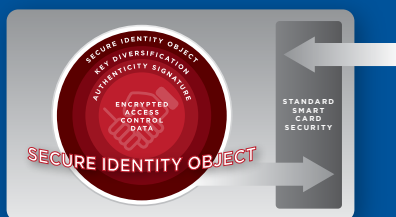
iCLASS SE® / HID Prox Card

NEXT-GENERATION (HIGH-FREQUENCY/LOW FREQUENCY) CONTACTLESS SMART CARDS

- **Supports Secure Identity Object™ (SIO)** – Multi-layered security beyond the card technology, providing added protection to identity data.
- **Trusted Identity Platform® (TIP™) enabled** – Provides trusted identity within a secure ecosystem of interoperable products.
- **Supports future growth** – iCLASS® 13.56 MHz read/write contactless smart card technology with multiple, securely separated files enables multiple applications for future growth.
- **Flexible configurations** – Available in iCLASS 2k, 16k or 32k bit, MIFARE CLASSIC 1KB or 4KB, and MIFARE DESFire EV1 8KB with ability to add a magnetic stripe/barcode and anti-counterfeit features (custom artwork and photo ID).
- **Ideal migration solution** – For use of both 13.56 MHz SIO-enabled (SE) smart card and 125 KHz HID Prox technologies.

HID Global SIOs deliver three key benefits: portability, security and extensibility.

- SIOs are defined using open standards that can support any piece of data, including data for access control, biometrics, PC logon, and many other applications.

SECURE IDENTITY OBJECT
SECURE IDENTITY OBJECT
KEY DIVERSIFICATION
AUTHENTICITY SIGNATURE
ENCRYPTED ACCESS CONTROL DATA
STANDARD SMART CARD SECURITY

Building on the success of the flagship iCLASS standard for 13.56 MHz (and 125 KHz HID Prox) contactless smart card technology, HID Global's new access control platform 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 HID portable credential methodology.

iCLASS SIO-Enabled (iCLASS SE) smart cards are part of the next-generation iCLASS SE access control platform and open ecosystem based on HID's Trusted Identity Platform (TIP) architecture for advanced applications, mobility and heightened security.

iCLASS was specifically designed to make access control more powerful, more versatile, and more secure, with encryption for all radio frequency data transmission between the credential and reader using a secure algorithm. iCLASS SE extends this technology by providing additional key diversification, authentication, encryption and portability for advanced security and performance.

HID's iCLASS SE 13.56 MHz read/write contactless smart card technology with HID Prox can be used for diverse applications such as physical access control, PC logon, biometric verification, time and attendance, cashless vending, public transportation, airline ticketing and customer loyalty programs.

MULTI-TECHNOLOGY ICLASS SE SMART CARD TECHNOLOGY FEATURES

- 13.56 MHz read/write contactless smart card technology for high-speed, reliable communications with high data integrity.
- Meets ISO 15693 for contactless communications.
- Proven Technology – Offers consistent read range not affected by body shielding or variable environmental conditions.
- Multiple securely separated application areas are each protected by 64-bit diversified read/write keys that allow complex applications and provide for future expansion.
- Durability – Passive, no-battery design allows for an estimated minimum 100,000 reads. Strong, flexible, and resistant to cracking and breaking.
- 125 KHz HID Prox with convenient read range and flexible format programming.
- Ordering Options – Magnetic stripe, external card numbering, custom artwork and contact smart chip module (embeddable card).
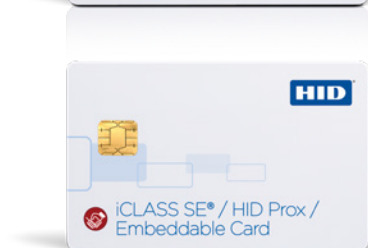- Photo ID Compatible – Print directly to the card with a direct image or thermal transfer printer.

HIGHER SECURITY

- Trusted Identity Platform (TIP) Enabled – Provides trusted identity within a secure ecosystem of interoperable products.
- Multi-Layered Security – Ensures data authenticity and privacy through the multi-layered security of HID's SIO.
- SIO Data Binding – Inhibits data cloning by binding an object to a specific credential.
- Mutual authentication, encrypted data transfer, and 64-bit diversified keys for read/write capabilities.
- Expanded iCLASS Elite™ Program – Extends private security by protecting uniquely keyed credentials, SIOs and programming update keys.

SPECIFICATIONS

	PVC	Composite	Technology
Base Part Number	3100	3150	2k bit (256 Byte) + HID Prox card
	3101	3151	16k bit (2k Byte) card with 2 application areas + HID Prox card
	3102	3152	16k bit (2k Byte) card with 16 application areas + HID Prox card
	3103	3153	32k bit (4k Byte) 16k/2+16k/1 + HID Prox card
	3104	3154	32k bit (4k Byte) 16k/16 + 16k/1 + HID Prox card
Configurations			Available in 2k bit (256 Byte), 16k bit (2K Byte) or 32k bit (4K Byte) configurations. All configurations are available with HID Prox
*Card Construction			Thin, flexible polyvinyl chloride (PVC) laminate, or Composite PVC/PET
Dimensions			2.127" x 3.375" x 0.033" max. (5.40 x 8.57 x 0.084 cm)
Weight			0.24oz (6.8 g)
Operating Temperature			PVC Cards: -40 to 122°F (-40 to 50°C) Composite Cards: -40 to 158°F (-40 to 70°C)
Operating Humidity			5-95% non-condensing
Operating Frequency			13.56 MHz for iCLASS, 125 KHz for HID Prox
Transaction Time			<100 ms typical
Baud Rate			15693 mode - 26 kbps
Memory Type			EEPROM, read/write
Multi-application Memory			2k bit (256 Bytes) card – 1 application area 16k bit (2k Bytes) card – 2 or 16 application areas 32k bit (4k Bytes) card – 16k bits in 2 or 16 application areas plus 16k bits user configurable
Write Endurance			Min. 100,000 cycles
Data Retention			10 years
Typical Maximum Read Range			**iCLASS SE:** • R10/RP10 2.0-3.0" (5.0-7.6cm) • R15/RP15 2.0-3.0" (5.0-7.6cm) • R30/RP30 3.0-3.5" (5.0-8.9cm) • R40/RP40 2.5-4.0" (6.3-10.1cm) • RK40/RPK40 3.0-4.0" (7.6-10.1cm) **Prox:** 1"-2" (2.5-5 cm) Dependent upon installation conditions
Options			Magnetic stripe External card numbering (inkjet or laser engraving) Vertical slot punch • Custom artwork (text or graphics)
Operates With			Any reader that can read iCLASS SE® and HID Prox® technologies
Warranty			Lifetime warranty. See complete warranty policy for details

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