Building on the success of the flagship iCLASS standard for 13.56 MHz 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 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.

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.
- 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 2k bit, 16k bit or 32k bit with ability to add a magnetic stripe/barcode and anti-counterfeiting features (custom artwork and photo ID).

iCLASS SE® Card

Next-Generation High-Frequency Contactless Smart Card
PVC Cards 300X • Composite PVC/PET cards 305X

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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.
- Ordering Options – Magnetic stripe, external card numbering, custom artwork and contact smart chip module.
- 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

<table>
<thead>
<tr>
<th>Base Part Number</th>
<th>PVC</th>
<th>Composite</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000</td>
<td>3050</td>
<td>2k bit (256 Bytes) card</td>
<td></td>
</tr>
<tr>
<td>3001</td>
<td>3051</td>
<td>16k bit (2k Bytes) card with 2 application areas</td>
<td></td>
</tr>
<tr>
<td>3002</td>
<td>3052</td>
<td>16k bit (2k Bytes) card with 16 application areas</td>
<td></td>
</tr>
<tr>
<td>3003</td>
<td>3053</td>
<td>32k bit (4k Bytes) 16k/2+16k/1</td>
<td></td>
</tr>
<tr>
<td>3004</td>
<td>3054</td>
<td>32k bit (4k Bytes) 16k/16 + 16k/1</td>
<td></td>
</tr>
</tbody>
</table>

*Card Construction

Thin, flexible polyvinyl chloride (PVC) laminate, and Composite PVC/PET

Dimensions

2.127" x 3.375" x 0.033" max. (5.40 x 8.57 x 0.084 cm)

Weight

0.20 oz (5.7 g)

Operating Temperature

300X PVC Cards: -40 to 122°F (-40 to 50°C) 305X Composite Cards: -40 to 158°F (-40 to 70°C)

Operating Humidity

5-95% non-condensing

Operating Frequency

13.56 MHz

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

• R10 2.0-3.0" (5.0-76cm) • R30/RW300 2.0-3.3" (5.0-8.3cm) • R40/RW400 2.5-4.5" (6.3-11.4cm) • RW40/RW/K400 3.0-4.0" (76-101.6 cm) Dependent upon installation conditions

Options

External card numbering (inkjet or laser engraving) Vertical slot punch • Custom artwork (text or graphics)

Operates With

Any reader that can read iCLASS® SE™ technology

Warranty

Lifetime warranty. See complete warranty policy for details