

pivCLASS® Dual Interface Smart Cards



MULTI-FREQUENCY HIGH SECURITY SMART CARDS

- **Increased ROI** – Dual interface card for physical and logical access that supports standard iCLASS®, iCLASS SE® and iCLASS Seos™, as well as low frequency solutions for migration.
- **PKI-based smart card** – Standard-based solution for strong authentication, data confidentiality, digital signatures, secure remote access and desktop login.
- **Government certified for strong authentication** – Smart card that supports PIV specifications according to US NIST and FIPS 201 accreditation program (including support for PIV-I and CIV).
- **Interoperable** – Works with PIV-approved products including physical and logical access readers, card management systems, PIV middleware, and biometric capture products.
- **Technology-independent security** – Provides multi-layered security beyond the device technology with support for multiple SIOs in a single credential for individual protection of each application’s identity data.

pivCLASS smart cards include HID Global's Digital Identity Applets. The applet framework:

- Offers secure storage and protection for passwords, digital identity credentials, cryptographic functions, personal information and computer access.
- Provides additional services to offer a more comprehensive solution including one time password and securing the communication channel over the contactless interface.
- Delivers a flexible architecture to support new applications (plug in) during the card life span and secure post issuance requests.

HID Global's pivCLASS® Government Solutions portfolio delivers a comprehensive suite of products that enable organizations to issue FIPS 201-based smart cards and / or upgrade their existing physical access control system (PACS) to FIPS 201 compliance.

The pivCLASS credential is a dual interface smart card that addresses the growing demand for projects requiring FIPS 201 interoperability. As part of the pivCLASS portfolio, the card meets the specified US Government National Institute of Standards and Technology (NIST) security requirements for delivering a reliable verification system. This system protects cardholder data with a high assurance, public key infrastructure (PKI)-based solution.

The pivCLASS smart card is based on Personal Identity Verification (PIV) of US federal employees and contractors to meet the challenges defined by PIV for strong security and reliability.

It can be used for governments worldwide seeking a high security solution for a range of applications, including government-to-citizen ID programs, health care and other projects.

The versatile credential can also be offered as both a traditional PIV card for US Federal

Government employees, PIV Interoperable (PIV-I) for US Government contractors, or as PIV Interoperable (PIV-I) card for government use, or as a Commercial Identity Verification (CIV) card. CIV credentials are an ideal solution for private organizations that require highly secure access control for sensitive areas, including power stations as well as data storage, nuclear, water and petrochemical facilities and other critical infrastructures.

The pivCLASS smart card provides end users with one smart card for physical and logical access, eliminating the need to carry multiple credentials or remember multiple passwords or PINs. For logical access, the card can be used for secure login to computers and securing corporate networks, web-based applications and personal data (i.e. data at rest and dynamic data encryption with the off card application).

The credential also supports multi-technology biometrics as well as strong authentication for VPN access. For securing the exchange of sensitive documents, it provides high confidentiality with encryption of documents/emails.

TECHNOLOGY FEATURES:

- Dual interface capability: Single smart card chip with both a contact and a contactless interface, using shared memory and chip resources.
- Support ISO/IEC standards: 7810, 7816 for contact cards and contactless with 14443A for the dual interface chip, 14443B/15693 for iCLASS chip.
- Contactless communications with up to 848 kb/s in the fastest ISO 14443 transmission mode (T=CL communication protocol).
- Smart card chip integrates secure co-processor with high performance for cryptographic calculations with symmetric and asymmetric PKI keys.
- Large memory to support PIV application (and associated data model) as well as HID's Seos application running on the same chip.
- Standard-based environment with the same application controlling privileged access to contact and contactless interfaces using an active firewall (configurable).
- Flexible support for post-issuance requests (add, update or delete applications/data objects).
- Strong card body durability.
- Available with anti-counterfeiting features such as holograms, holographic foils OVI (optical variable ink) as well as magnetic stripe.

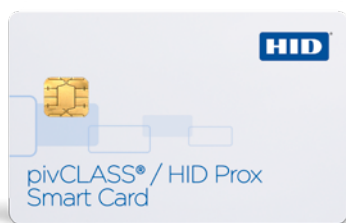
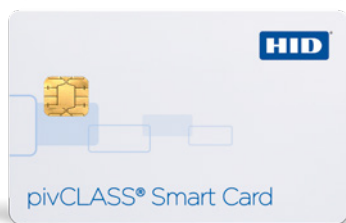
Secure Identity Object® (SIO)-enabled solution:

- Increased security: Ensures data authenticity and privacy through the multi-layered security of HID Global's SIO.
- SIO data binding: Inhibits data cloning by binding an object to a specific credential.
- Trusted Identity Platform™ (TIP™) Enabled – Provides trusted identity within a secure ecosystem of interoperable products.

Contactless Configurations (Available in three versions):

- PIV card configuration with support for ISO/IEC 7816 and 14443 to execute standard FIPS201 use cases.
- Prox-based card: PIV card with HID Proximity for streamlined migration to high security PIV solution.
- iCLASS®: Based configuration with iCLASS SE® / iCLASS Seos™ configurations to leverage SIO data model and extended security for protecting the contactless interface.

SPECIFICATIONS



Base Model Number	405000 (refer to How To Order Guide for Logical Access)
HID Product Compatibility	ActivClient 6.2, 4TRESS AAA Server 6.7, ActivID CMS 4.2, pivCLASS readers (RP, RMCK, RPCL...) and version onwards
Environment	JavaCard 3.0.1 and Global Platform 2.1.1
Cryptographic Capabilities	SHA, AES, RSA, ECC, DES and Triple DES with hardware accelerator
Supported Standard/Reference Specifications	FIPS201 with NIST SP 800-73-3 for the card edge and data model, SP800-131, SP800-78-2, SP800-85 conformant, NSA Suite B cryptographic algorithm support
Security Accreditations	FIPS140-2 Security Level 2 with the PIV applet loaded, security level 3 for the card without applets. Certificate #1793
Smart Card Readers	Compatible with PC/SC compliant reader
Baud Rate	230.4 kbps at 3.57 MHz for contact mode. 106-848 kbps (depending the contactless technology)
Typical Maximum Read Range	From the PIV interface: Around 2" (depending the reader in use)
Contactless Interface	13.56 MHz for traditional card 13.56 MHz + Prox 125 KHz 13.56 MHz + iCLASS 13.56 MHz (possible with HID SIO)
Card Construction	High reliability and durability construction to meet FIPS201 requirements
Dimensions	2.127" x 3.375" x 0.033" max (5.40 x 8.57 x 0.084 cm)
EEPROM Memory	144 K-Bytes
EEPROM Endurance	500,000 cycles for write/erase
EEPROM Retention	20 years
Operating Temperature Range [Celsius]	-25 to +65 degree Celsius
Security Countermeasures	Clock frequency, temperature, supply voltage and light sensors. Also includes Single Fault Injection (SFI) attack detection as well as protection against SPA/DPA, timing and fault attacks (DFA)
Supported Printers Technologies	Works with direct image or thermal transfer printers
Warranty	10 years

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