



HIGH SECURITY SMART CARD FOR LOGICAL AND PHYSICAL ACCESS

- **Enhanced security credential** - one card for physical and IT access featuring a cryptographic secure element
- **Broad range of applications** - allows access to computer, network or cloud, encryption, PKI based authentication, digital signing and more
- **Part of the HID Global ecosystem** - Integrated and tested with ActivID® ActivClient®, ActivID Credential Management System, HID PIV Express® and HID PIV Enterprise®
- **Easy migration** - Compatible with many major Physical Access Control Systems (PACS)
- **Versatile** - available in different options, including HID Seos®, FIPS 140-2 certification and FIPS201/PIV certification

CRESCENDO® FAMILY

- **Crescendo 1100** - hybrid card for deployments with focus on compatibility with traditional PACS technologies
- **Crescendo C1300** - dual interface card for future proof and advanced security installations based on HID Seos
- **Crescendo 144k FIPS** - hybrid card with United States National Institute of Standards and Technology NIST FIPS 140-2 certification
- **Crescendo PIV** - FIPS 201 certified card that provides the highest level of security and compliance



HID Global's Crescendo® is a family of credit card-sized smart cards designed to provide versatile and secure IT and physical access control. Crescendo leverages a state-of-the-art smart card platform technology to deliver a standards-based solution for strong authentication and data protection. Crescendo smart cards eliminate the need to carry multiple credentials or remember multiple passwords or PINs by providing a single card that acts as a container for multiple identifiers and authentication mechanisms associated to a single user.

Crescendo enables access to a broad range of applications like PKI-based authentication, digital signature and data encryption. Use cases also include secure login to workstations and laptops, web-based cloud applications or VPN gateways. The card can include digital certificates or generate one-time-password values.

The card is part of the HID ecosystem and leverages the ActivID Applet Suite. This applet suite offers secure storage and protection for cryptographic keys and their associated digital certificates,

as well as personal information. Crescendo can be used in stand-alone mode or centrally managed by ActivID Credential Management System. It works in combination with ActivClient middleware or HID Global's ActivID appliance.

Furthermore Crescendo is part of the HID PIV Express and HID PIV Enterprise solutions which help organizations improve their security posture, comply with mandates, and improve the user experience.

The card can be easily integrated with PACS systems. Crescendo can be combined with HID Seos or iCLASS as well as MIFARE Classic and DESFire EV1. For legacy installations, the card is available with HID Indala or Prox. The card can also provide multi-factor PKI authentication for physical access.

The technology is available in a variety of options, including the FIPS 140-2 certification for cryptography modules released by the National Institute of Standards and Technology (NIST).



LOGICAL AND PHYSICAL ACCESS SOLUTIONS

ADDITIONAL PRODUCT FEATURES:

- Available as hybrid or dual interface cards. SIM punch out option also available
- Supports ISO/IEC standards: 7810 for the card size, 7816 for contact interface and 14443 Type A for contactless interface
- Common Criteria EAL 5+ or FIPS 140-2 certified smart card chip
- Supports contactless with up to 848 kbps in the fastest ISO 14443 transmission mode
- Integrated cryptographic co-processor with high performance symmetric and asymmetric keys calculations
- Optimized platform design with automatic memory defragmentation and secure memory management
- Support customization (magnetic strip, custom artwork text or graphics: requires minimum volume quantity)
- Available with anti-counterfeiting features such as holograms, holographic foil, OVII (Optical Variable Ink)

SPECIFICATIONS

Base Model number	Crescendo 1300	Crescendo PIV	Crescendo 144K FIPS	Crescendo 1100
Product Compatibility				
Client Middleware	ActivID ActivClient or Windows Plug-and-Play Minidriver			
Management System	ActivID CMS (recommended) or third party systems that support PKCS#11			
Host Interface				
Platform	Java Card 3.0.1 Global Platform 2.2	Java Card 3.0.4 Global Platform 2.2		Java Card 2.2.2 Global Platform 2.1.1
PACS Technology Combinations	HID SEOS MIFARE Classic MIFARE DESFire EV1	FIPS 201 compliant * Optional HID Global SEOS	HID Global SEOS (with optional HID or Indala Prox) HID Global iCLASS (with optional HID or Indala Prox) MIFARE Classic (with optional HID or Indala Prox) MIFARE DESFire EV1 (optional HID or Indala Prox)	
Cryptographic Algorithms	AES-128, DES and Triple DES, RSA 1024 and 2048, ECC			
Smart Card Interface	Contact ISO 7816-3			
	Contactless ISO 14443 Type A			
Communication Speed	Contact up to 115,200 bps			
	Contactless up to 848 Kbps			
Dimensions	2.127" x 3.375" x 0.033" max (54 x 85,7 x 0,84 mm)			
Operating Conditions				
Card Construction	Composite PVC/PET			
EEPROM Size	144 KBytes		80 KBytes	
EEPROM Endurance	500,000 cycles			
EEPROM Data Retention	20 years			
Storage Temperature	-25°C to +85°C			
Compliance and Regulatory				
Security Measures	Clock frequency, temperature, supply voltage and light sensors Single Fault Injection (SFI) attack detection Differential Power Analysis DPA protection Timing and fault attacks prevention (DFA)			
Printer Compatibility	Direct to Card DTC or High Definition HDP reverse printing			
Security Evaluation and Certification	Common Criteria EAL 5+			
	NIST FIPS 140-2 Level 2			
	FIPS 201 APL in progress			
Ordering Information				
Warranty	5 years			

*with optional HID or Indala prox

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