# Crescendo<sup>®</sup> 2300 Series

High Assurance Multi-protocol Authentication Smart Cards for Converged Physical and Logical Access

Crescendo enables organizations to secure access to networks, data and applications with user-friendly, quick-to-deploy and easy-to-manage multi-factor authentication. Choose from FIDO, PKI/PIV, OATH and a wide range of physical access technologies.



Crescendo provides organizations with seamless and secure employee authentication, ensuring that only authorized people can access sensitive information. It is a key element of a comprehensive credential and credential management solution, including:

- The Crescendo family of authenticators including smart cards and security keys (NFC, USB-A, USB-C)
- WorkforceID Digital Credential Manager - cloud-based, centralized PKI-credential lifecycle and device PIN management that strengthens security and streamlines administration
- A unified authentication back end that allows the use of different protocols for various use cases, with consistent rules and audit management

## CRESCENDO SMART CARDS SUPPORT:

**FIDO –** This emerging standard removes passwords from the Web, eliminating one of the major causes of breaches and security incidents. FIDO is the backbone of Microsoft Windows Hello Security Key, protecting access to Windows and Azure Active Directory.

**OATH** – This standard is widely used for one time password (OTP)based authentication for VPN to facilitate the transition from point solutions to a flexible platform for user authentication and trusted transactions.

**PKI:** Leveraging digital certificates and public key cryptography following the PIN standard, this technology is natively supported by Windows, macOS and Linux. It can be used for authentication, digital signature and encryption key protection.

### Physical Access Technologies -

With the ability to embed technologies like iCLASS SR<sup>®</sup>, Seos, MIFARE<sup>®</sup> DESFire<sup>®</sup>, MIFARE Classic and others, Crescendo products can be used as physical access badge. The security level and protection of the access credential depends on the specific combination of chosen PACS technology, reader and access control software.



# **KEY BENEFITS:**

- Converged Corporate Badge Use a single smart card as a photo ID for network, cloud authentication and physical access
- **High Assurance** Align with the recommendations of NIST SP 800-63 Digital Identity Guidelines, using devices that allow you to reach Authenticator Assurance Level 3
- Privacy and Data Security
   Ensured Adhere to regulations
   around trusted access to sensitive
   information such as GDPR, HIPAA,
   PCI-DSS, LBA, SOX, NERC-CIP and
   more
- Future-Proof Multi-Protocol Standards Support – Provide strong authentication by enabling the highest level of security standards such as FIDO, PKI, and OATH



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### **MULTI-PROTOCOL:**

- FIDO U2F and 2.0 Securely accesses online and cloud services such as Azure Active Directory, G Suite or Dropbox Business without preinstalled software
- **PKI –** Utilizes defense grade authentication
- OATH Leverages open universal authentication standard for One Time Password (OTP)

### CRESCENDO ECOSYSTEM BENEFITS:

- Flexible and compatible with WorkforceID<sup>™</sup> Authentication, DigitalPersona<sup>®</sup> and a variety of other third-party authentication solutions
- Can be used with HID's OMNIKEY® contact and contactless smart card readers, as well as a wide range of third-party NFC readers, to deliver a complete smart card-based security solution
- Compatible with public and private Certificate Authorities (CA), including HID's IdenTrust® CA, Microsoft CA and more

### ADDITIONAL PRODUCT FEATURES:

- Made of durable composite PET/PVC plastic that enables high-quality printing with recommended HID Secure Issuance card printers
- Available as white cards or with customer specific artwork with advanced security features to prevent visual counterfeiting
- Uses a FIPS 140-2 certified and EAL 5+ evaluated cryptographic module in a separate tamper-resistant device with limited attack surface

#### CRESCENDO CONFIGURATIONS:

- Standard profile, ready to use with predefined configuration supporting FIDO and PIV, ready for standalone use or centrally managed by WorkforceID Digital Credential Manager
- Securely managed profile, for issuance with HID's on-prem credential management solution, ActivID CMS, with different configurations available depending on specific customer needs

	Crescendo 2300 Contact/Contactless Interface	Crescendo 2300 Contactless Interface
Interface	ISO 7810 smart card size in contact and contactless interface configuration NFC up to 848kbps in the fastest ISO14443 transmission mode	ISO 7810 smart card size in contactless only interface configuration NFC up to 848kbps in the fastest ISO14443 transmission mode
Certification	FIDO2 certified product FIPS 140-2 Level 2 and Level 3	FIDO2 certified product
Physical Access	Seos HID or Indala Prox MIFARE DESFire EV1 MIFARE Classic	Seos HID or Indala Prox MIFARE DESFire EV1 iCLASS 32K SR
Security Services	Authentication FID02/WebAuthn and U2F PIV authentication - RSA 2048 and ECC p256 and ECC p384 Optional OATH HOTP and TOTP - SHA1 / SHA-256 / SHA-512 Signature PIV signature - RSA 2048 and ECC p256 and ECCp384 with X.509 certificates Optional OATH-OCRA Test Suites Encryption PIV Key Exchange - RSA 2048 and ECCp256 and ECC p384 with X.509 certificates Global Platform SCP03 with AES-128 data encryption	
Operating Conditions	EEPROM Size: 144KBytes EEPROM Endurance: 500,000 cycles EEPROM Data Retention: 25 years Storage Temperature: -25°C to +85°C	



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