



**COMBINED LOGICAL AND PHYSICAL ACCESS CONTROL ON CONTACT/CONTACTLESS MULTI-TECHNOLOGY SMART CARD**

- **Out-of-the-box, Standards-Compliant Contact Smart Chip** – Supports hundreds of logical access applications from Microsoft® and others
- **Convenient and Cost Effective** – Available with the wide range of contactless technologies offered by HID Global for simplified card management
- **Pre-initialized with the Required On-card Applet** – Includes all required drivers and middleware
- **Simplified Deployment and Card Lifecycle Management** – naviGO™ software's self service functions reduce costs and simplify deployment and card lifecycle management

Crescendo® is a credit card-sized multi-technology smart card that enables logical and physical access control, providing out-of-the-box, standards-compliant support for hundreds of logical access applications, and also serving as an employee ID badge.

Crescendo cards contain powerful contact smart chips with cryptographic co-processors, based on the Java Card operating system, capable of performing advanced operations. To meet the needs of current physical access control customers, Crescendo can be customized with the contactless physical access control technologies you choose. By combining these two common functions on one card, Crescendo offers the lowest total cost of ownership (TCO) for a combined logical and physical access control solution.

An off-the-shelf solution, Crescendo allows a much faster turn time and lower minimum order quantity compared to many other contact smart card solutions. Also, because the cards are fully produced within HID Global, the ordering process is greatly simplified, eliminating the risk associated with working with multiple suppliers.

As part of the HID on the Desktop™ solution, Crescendo contact smart cards represent the highest level of network security, working with highly developed Public Key Infrastructures (PKI). The features of the standard Crescendo product are extended using naviGO Server software to provide a simple management solution for card PIN and PUK as well as emergency access functionality.

**CONTACTLESS TECHNOLOGIES SUPPORTED:**

- HID iCLASS®
- MIFARE™ Classic
- MIFARE DESFire™ EV1
- HID & Indala Prox
- Magnetic Stripe<sup>1</sup>
- Options and multi-technology combinations available on request

**MICROSOFT APPLICATIONS:**

- Windows® Domain Log-On
- Remote Desktop/RDP<sup>2</sup>
- Microsoft Forefront Identity Manager 2010
- Outlook
- Encrypted File System
- Internet Explorer
- Windows Certificate Authority

**OTHER APPLICATIONS<sup>3</sup>:**

- Single Sign-On
- Pre-Boot Authentication
- Firefox®, Netscape®
- VPN (SSL/IPSEC)
- Citrix®
- Smart Card Management Utility



**SPECIFICATIONS**

	C200 <sup>4</sup>	C700
	<b>OS SUPPORT</b>	
<b>Windows Vista™ / Windows 7 / Windows 8</b>	Yes (32 & 64 bit)	Yes (32 & 64 bit)
<b>Windows® 2000 / Windows XP</b>	Yes	Yes
<b>Windows® Server 2003 &amp; 2008</b>	Yes (32 & 64 bit)	Yes (32 & 64 bit)
<b>Windows® CE / Mobile</b>	No	Yes
<b>Mac® OS X, Linux®, Solaris, Unix</b>	No	Yes
	<b>STANDARDS SUPPORT</b>	
<b>ISO 7816 1-4</b>	Yes	Yes
<b>PCSC / CCID</b>	Yes	Yes
<b>CryptoAPI / MSCAPI</b>	Yes	Yes
<b>PKCS11</b>	No	Yes
<b>Base CSP</b>	Yes	No
<b>X.509 Certificates</b>	Yes	Yes
	<b>CONTACT SMART CHIP</b>	
<b>Java Card OS v2.2.2</b>	Yes	Yes
<b>Global Platform Specification 2.1.1</b>	Yes	Yes
<b>Crypto Co-Processor</b>	Yes	Yes
<b>Number of 1024 Bit Digital Certificates<sup>5</sup></b>	16	21
<b>Number of 2048 Bit Digital Certificates<sup>5</sup></b>	12	15
<b>EEPROM Storage</b>	64K	64K
<b>EEPROM Data Retention</b>	20 Years	20 Years

<sup>1</sup> The Magnetic stripe is ABA standard 3 track, high coercivity (4000 Oe), ISO 7811-6 compliant.

<sup>2</sup> Requires Windows 8, Windows 7, Windows Vista, or Windows XP

<sup>3</sup> Please review the "Crescendo Third Party Product Compatibility" document for a complete listing of applications and uses

<sup>4</sup> The Crescendo C200 credential solution has completed the Microsoft certification program for smart card minidrivers based on the v5 specifications

<sup>5</sup> Maximum number of certificates

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