

# Introducing **iCLASS™**

## Contactless Smart Card Technology

HID Corporation, the global leader in proximity and Wiegand cards and readers, is proud to introduce **iCLASS**, a new contactless smart card technology optimized for physical access control, IT secure authentication and other applications.

**iCLASS** smart cards and readers make access control more powerful, more versatile, and most importantly, offer enhanced security through encryption and mutual authentication. At the same time, **iCLASS** is user-friendly, delivering the convenience, affordability and reliability of proximity technology for which HID is known worldwide.

Imagine an affordable, single-card, contactless solution that allows you to not only read data securely and quickly, but also to securely write data to the card, for many applications. You have imagined **iCLASS**, by HID.

### **iCLASS Meets Industry Standards:**

The development team at the Identification Technology Group of ASSA ABLOY has utilized advanced semiconductor technology based on the 13.56 MHz frequency to meet numerous ISO standards. **iCLASS** readers can read data from cards compliant with the following standards:

- 15693 – read/write; 2Kbits (256Bytes) and 16Kbits (2KBytes) **iCLASS** credentials
- 14443A – read only; MIFARE® (serial number)
- 14443B2 – read/write; 16Kbits (2KBytes) **iCLASS** credentials

Meeting the standards above is important in smart card technology because they enable many equipment and application developers to work with this technology to create a broader range of uses for the card.

### **iCLASS Offers Advanced Security:**

**iCLASS** cards and readers offer several unique features that put them a step ahead of traditional radio frequency identification (RFID) technology. These features include:

- Encrypted data storage
- Mutual authentication
- Secure reading and writing of data
- User definable access keys

All radio frequency data transmission between the card and reader is encrypted using a secure algorithm. By using industry standard encryption techniques, **iCLASS** reduces the risk of compromised data or duplicated cards. For even higher security, card data may also be protected with DES or triple DES encryption.

# **iCLASS™** by

**Smart • Powerful • Trusted**



## The *iCLASS*™ Product Family:

To meet our customers' needs, *iCLASS* will consist of a product family:

### *iCLASS* Contactless Smart Card Readers:

The *iCLASS* reader family features crisp architectural styling with an elegantly curved faceplate. The high intensity, three-color light bar provides clear, visual feedback even in direct sunlight. Selectable, distinct tone sequences indicate status conditions.

You can confidently install *iCLASS* contactless smart card readers, knowing that the Wiegand output easily interfaces with most existing Wiegand protocol access control panels.

The *iCLASS* contactless smart card reader family will include:

- Read only readers
- Read/write readers
- Read/write keypad
- Read/write LCD terminal
- Biometric terminal

### *iCLASS* Contactless Smart Credentials:

The *iCLASS* credential family will include the most popular form factors of cards, tags and keys. HID will also offer multi-technology credentials: *iCLASS* Prox and *iCLASS* Wiegand. All *iCLASS* credentials will be available in either a 2Kbits (256Bytes) or 16 bits (2KBytes) configuration.

The *iCLASS* Tag and the *iCLASS* multi-technology credentials will help to support the upgrade of existing barium ferrite, barcode, magnetic stripe, Wiegand or proximity systems to *iCLASS* technology. By affixing the *iCLASS* Tag to an existing card or device (such as a PDA or cell phone), you can instantly have *iCLASS* technology. Multi-technology credentials allow users to carry a card with a photo ID and still experience the convenience of one card working on different types of readers.

### *iCLASS* OEM Modules:

The *iCLASS* OEM modules will allow third-party manufacturers to easily integrate the *iCLASS* technology into products manufactured by companies other than HID. End-users of *iCLASS* technology can use these third-party product offerings to help manage and control various environments. OEM modules allow those outside of the traditional physical security business to develop new applications for *iCLASS* technology.

### *iCLASS* Key Management:

Key management is made easy! All cards are shipped with unique diversified keys, and readers are shipped with compatible keys. All keys are derived from the HID Standard transport key. While cards and readers with Standard keys are interchangeable, the keys are highly secure, and cards can be made unique by ordering with Corporate 1000 formatting. Cards and readers with site-specific Custom keys are also optionally available from the factory, or the *iCLASS* CP400 programmer can be used to create site-specific keys and a reader configuration card, allowing the user to re-key cards and readers on-site. Custom keys provide the highest level of security, where cards and readers are uniquely matched to individual sites or customers, and are non-interchangeable.

## *iCLASS* Applications:

The *iCLASS* product family has been designed to meet our customers' expectations for a truly multi-application solution. Applications that might be used include:

- Access control
- Digital cash and vending
- Transit passes
- Time and attendance
- IT secure authentication
- Guard tour patrol
- Authorized access to office equipment
- Lighting and HVAC control and billing
- Equipment and material check-out
- Loyalty and membership programs

## Why *iCLASS*?

Other technologies that are based on the 13.56 MHz operating frequency, such as MIFARE®, were originally developed for use in the "transaction" market (i.e., transit and cashless vending). This has proved to be a limiting factor in the use of the technology in the access control market and other newer application areas.

*iCLASS* was specifically designed to make access control more powerful, more versatile, and more secure. All at an affordable price. This, combined with the ability to effectively manage the cost of new applications, results in a smart and powerful contactless solution.

As the leading supplier of contactless readers and cards to the access control market, why trust anyone but HID with your contactless smart card needs? Visit us to learn more about how *iCLASS* can help you to secure and manage your business, both today and tomorrow.

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