

# iCLASS® Wiegand Card

Combination Contactless Smart Card and Wiegand Swipe Card

PVC Cards 2040, 2041, 2042, 2043, 2044

Composite PVC/PET cards 2140, 2141, 2142, 2143, 2144



## ACCESS flexibility.

HID's iCLASS® 13.56 MHz read/write contactless smart card technology can be used for diverse applications such as access control, biometrics, cashless vending, public transportation, airline ticketing and customer loyalty programs. Multiple, securely separated files enable numerous applications and support future growth.

The iCLASS Wiegand Card integrates iCLASS 13.56 MHz contactless read/write smart card with Wiegand technology on a single card with the ability to add a magnetic stripe, barcode, and anti-counterfeiting features including custom artwork or a photo identification directly on the credential. You now have the ability to offer a one-card solution that combines existing Wiegand and newly integrated iCLASS technology as you transition from Wiegand to HID iCLASS technology readers for such diverse applications including access control, network log-on security, automotive vehicle identification, cashless vending, time and attendance, and biometric verification.. The iCLASS Wiegand Card is suitable for use with all Wiegand readers and most direct image printers and magnetic stripe readers that feature a nominal thickness of .037" or 0.94mm.

### Features:

- ▶ 13.56 MHz read/write contactless smart card technology provides high-speed, reliable communications with high data integrity.
- ▶ iCLASS technology ensures high security with mutual authentication, encrypted data transfer, and 64-bit diversified keys for read/write capabilities.
- ▶ Any existing HID format can be factory or field programmed into the secure HID access control application area.
- ▶ Available in 2k bit (256 Byte), 16k bit (2K Byte) or 32k bit (4K Byte) configurations.

### All 2k bit (256 Byte) iCLASS credentials have the following features:

- ▶ Available in two application area configuration only.
- ▶ Provides the HID standard access control application area and one other application area for user customization.
- ▶ Meets ISO 15693 standard for contactless communications.
- ▶ Provides a cost effective way to improve the security of your access control installation.

### All 16k bit (2k Byte) and 32k bit (4k Byte) iCLASS credentials have the following features:

- ▶ Sufficient read/write memory to store multiple biometric templates.
- ▶ 16k available in a two or sixteen application area configuration. 32k available with 16k memory configured in either 2 or 16 application areas, plus an additional 16k user configurable memory.
- ▶ Multiple securely separated files enable numerous applications, including the HID standard access control application, and support future growth.
- ▶ Meets ISO 15693 and I4443B for contactless communications.

## Features

### Read/write Functionality for Multi-functional Memory Applications

iCLASS® was specifically designed to make access control more powerful, more versatile, and more secure. All radio frequency data transmission between the tag and reader is encrypted using a secure algorithm. By using industry standard encryption techniques, iCLASS reduces the risk of compromised data or duplicated tag. For even higher security, the tag data may also be protected with DES or triple-DES encryption. Multiple securely separated application areas are each protected by 64-bit diversified read/write keys which allow complex applications and provide for future expansion.

Security mechanisms such as mutual authentication and encryption are efficiently combined with fast processing and data communication, resulting in transaction times of less than 100 milliseconds for a typical secure e-purse transaction.

### Proven, Reliable Technology

Offers extremely consistent read range. Unaffected by body shielding or variable environmental conditions.

### Long Life

Passive, no-battery design allows for an estimated minimum 100,000 reads.

### Durability

Strong, flexible, and resistant to cracking and breaking.

### Options

- Wiegand Strip
- Magnetic Stripe
- External Card Numbering (inkjet or laser)
- Vertical or horizontal slot punch
- Custom Artwork (text or graphics)

### Warranty

Lifetime Warranty. See complete warranty policy for details.

### Base Part Numbers

- Base Part Number:
- 2040 for 2k bit (256 Byte) card with 2 application areas
  - 2041 for 16k bit (2k Byte) card with 2 application areas
  - 2042 for 16k bit (2k Byte) card with 16 application areas
  - 2043 for 32k bit (4k Byte) 16k/2+16k/1.
  - 2044 for 32k bit (4k Byte) 16k/16 + 16k/1.

### Description

13.56 MHz contactless smart card and Wiegand technology

## Specifications

### Typical Maximum Read Range\*

R10 2.0"-3.0" (5.0 cm - 7.6 cm)  
R30/RW300 2.0" - 3.00" (5.0 cm - 7.6 cm)  
R40/RW400 2.5" - 4.5" (6.3 cm - 11.4 cm)  
RK40/RK400 1.5" - 2.5" (3.8 cm - 6.3 cm)

### Dimensions

2.127 x 3.375 x .040" Max (5.40 x 8.57 x .10 cm)

### Weight

0.22 oz (6.3 g)

### Card Construction

PVC laminate

### Operating Temperature

-40° to 158° F (-40° to 70° C)

### Operating Humidity

10-95% non-condensing

### Operating Frequency

13.56 MHz

### Transaction Time

<100 ms typical

### Data Retention

10 years

### Baud Rate

14443B mode - 106 kbps  
15693 read/write - 26 kbps

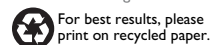
### Memory Type

EEPROM, read/write

### Multi-Application Memory

2k bit (256 Byte) card - 2 application areas  
16k bit (2k Byte) card - 16 application areas  
32k bit (4k Byte) card - 16k bits in 2 or 16 application areas plus  
16k bits user configurable.

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**ACCESS** experience.

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