



Application Note #30

iCLASS[™] Tag

P/N 2060, 2061, 2062

Introduction to the *iCLASS* Tag:

The *iCLASS* Tag provides the convenience of HID's contactless 13.56 MHz read/write technology in a small disk-shaped transponder. Simply attach the adhesive-backed Tag to any nonmetallic card or device for an instant 13.56 MHz read/write contactless smart card credential.

Advantages of using the *iCLASS* Tag:

- Seamlessly upgrade from Wiegand, magnetic stripe, barium ferrite or proximity technologies by simply adhering the Tag to your existing access card*.
- Easily and cost-effectively turn a plastic ID badge or contact smart chip card into an *iCLASS* contactless 13.56 MHz read/write credential.
- Add contactless 13.56 MHz read/write access control capability to users' cell phones, PDAs and other similar nonmetallic devices.
- Experience the convenience of contactless 13.56 MHz read/write technology without the expense of rebadging.

Features:

- The *iCLASS* Tag easily attaches to all nonmetallic materials.
- Any existing HID format can be factory or field* programmed with HID's *iCLASS* Card Programmer into the secure HID access control application area.
- Attaches easily to cell phones, PDAs, and other non-metallic objects.
- RF programmable, 13.56MHz, customer specified numbers.
- Over 2^{144} unique codes available.

*Due to variations in cards and reading devices, HID does not claim that the *iCLASS* Tag will work in every situation. Functional and non-functional *iCLASS* Tags are available for compatibility testing with existing credential and reader technologies. Compatibility should be confirmed prior to ordering. Due to conflicts during anti-collision, *iCLASS* Tags should not be placed on existing 13.56 MHz technology cards.

Adhesive *iCLASS* Tag Considerations:

- If adhering the Tag to a magnetic stripe card, carefully place the tag so it will not interfere when sliding the magnetic stripe through the swipe reader.
- If adhering the Tag to a Wiegand card, carefully place the tag so it will not interfere with sliding the Wiegand load through the swipe reader.
- If adhering the Tag to a card with an embedded contact smart chip module, place the tag on the end of the card opposite the contact module.
- If adhering the Tag to a cellular telephone or PDA, verify that the location of the tag will not interfere with placing the device in its docking station or charger. Also, confirm the housing is not metal, as it will render the tag inoperative.
- The adhesive used is a 3M industrial strength adhesive. The Tag is intended to be adhered to an object only once. It is not designed to be easily removable and reused. Attempts to remove and reuse the tag will likely result in irreparable damage to the Tag.

Other Considerations When Using the *iCLASS* Tag:

- The *iCLASS* Tag is not for use on cards that use full insertion or tractor feed type readers.
- Do not adhere to metal surfaces. Metal shields the RF, making the Tag inoperative.

Specifications:

- **Data Storage:** Available in a 2Kbits (256 Bytes) or 16Kbits (2K Bytes) configuration.
- **Dimensions:** Diameter: 1.285" (3.264 cm); Thickness: 0.070" (0.178 cm)
- **Outer Shell Material:** Lexan
- **Operating Temperature:** -40° to 158° F (-40° to 70° C)
- **Weight:** 0.04 oz (1.18 g)

