



Enhance Card Security. Rely on Zebra's Secure Solutions.

In an era where security is more crucial than ever, Zebra's state-of-the-art security ID card solutions significantly enhance your organization's safety measures

Combat card counterfeiting, unauthorized modifications and duplication with Zebra's customizable security elements offered via pre-printed cards, True Secure™ laminates and Security-Class card printers. Begin with a high-grade Zebra® plastic card, customized with your selection of pre-printed and embedded security features.

Using Zebra's Security-Class card printers, encode magnetic stripes or radio-frequency identification (RFID) tags for proximity cards or smart chips for data security in smart cards. For an elevated level of card security and longevity, consider adding forensic features to your laminates such as **overt** or **covert** security features.

Zebra card products provide businesses enhanced security, increased productivity, improved quality, lower costs and better customer service.

Choose from a broad range of full colorcard printers. Options range from Ethernet connectivity, Gen 2 UHF RFID, contact, contactless and magnetic stripe encoding, to custom lamination for higher security and card durability. There is a Zebra card printer to meet any of your business needs.

Overt Visual Security Elements

Visible security elements are easy to verify and extremely difficult to counterfeit due to their overt nature.

Covert Elements

Covert elements necessitate a device to make them perceptible to the human eye.

Forensic Elements

Forensic elements are microscopic and are the most challenging for a counterfeiter to identify and duplicate.

Card Security Features

For secure applications, Zebra offers Composite cards that provide a greater average lifespan than most cards available on the market. Order your customised, genuine Zebra cards with your choice of overt, covert or forensic security features.

Guilloche Pattern (overt)

Highly complex, multiple-color design pattern generated by a mathematics formula. Virtually impossible to reproduce by copy machine or to re-create digitally.

Infrared Ink Printing (covert)

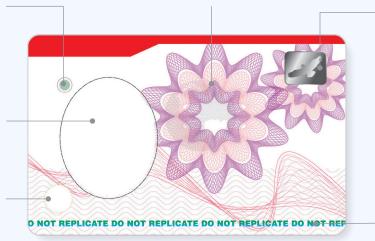
Uses special ink that reacts (fluoresces) when subjected to a specific frequency of laser light.

Photo Box (overt)

A portion of the card design specifically allocated for the digital imaging of the card recipient's photograph.

Clear Window (overt)

Card is constructed with a clear core material to deter any attempt to create a counterfeit card from common card stock.



2D Holographic Foil (overt)

Method of producing a two-dimensional image of an object by recording on a photographic plate or film the pattern of interference formed by a split laser beam, and then illuminating the pattern either with a laser or with ordinary light. 3D holographic foil also available.

Optical Variable Ink (OVI®)

Optical variable ink is a high security feature showing different colors as the angle of view changes. Optical Variable Ink can support printing with a dark a shade to get a luscious color effect.

Opacity Mark Printing

(covert)

An image is printed on the inner layers of the card material, making it visible only via the direct application of an intensely focused light source.

Contact Chip (overt)

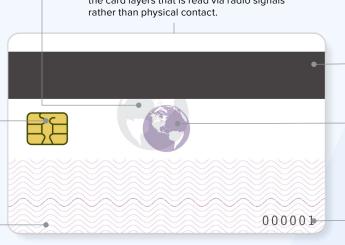
An embedded microchip within the card layers that allows for large amounts of data storage and management. Chip is protected by a contact "plate" available in gold or silver.

Micro Text Printing (overt)

Small text that is only visible with an 8x or 10x magnifying loop; typically has a predetermined misspelling or transposed character.

Contactless Chip (overt)

An embedded microprocessor chip within the card layers that is read via radio signals



Magnetic Stripe (overt)

Magnetic band capable of storing data by modifying the magnetism of tiny ironbased particles.

Black Light-Reactive Ink Printing (covert)

Uses ink that glows under an ultraviolet light. Available in red for added security.

Serialisation (covert)

Unique numbering printed on the card specified by the customer.

Lamination Security Features

Zebra True Secure advanced security laminates offer a multitude of secure features including unique holographic images, optical variable ink, morphing and more. Applied by Zebra Security-Class card printers, these protective materials provide increased durability and prolonged card life by preventing image fading and dye migration that can occur with normal card use.

Hidden Imagery/Laser Retrievable Image (covert)

This feature permits the authentication of a holographic image with the use of a laser by illuminating a hidden image that is concealed within the microstructure of the hologram and not visible to the naked eye until illuminated by a laser.

2D/3D Holography (overt)

This is a type of hologram that is made by putting a twodimensional holographic image in the foreground and putting a two-dimensional holographic background behind it to create the appearance of depth.

Micro-Text (covert)

Small text that is only legible when viewed with an 8x or 10x magnifying glass.

Fine Line Printing (overt)

The use of complex fine line designs that are sophisticated in detail. Typical to banknotes and often referred to as guilloche printing, these designs can be successfully incorporated into many types of holograms.

Nano-Text (forensic)

Refers to text that requires magnification beyond a simple eye loop and usually implies that a microscope is needed to decipher the text.

Circular Kinetic (overt)

The method of animating a holographic two-dimensional image so that the image radiates bands of color in a set pattern.

Optical Variable Ink (OVI) Printing (overt)

The printing of inks that have a noticeable color shift when the document is rotated either up and down or left to right.

Morphing (overt)

This holographic technique is demonstrated by a shift between two different images as the angle of viewing is rotated from left to right. The image shift is gradual from one image to a second image.

Two Channel Image/Flip Image (overt)

A holographic effect whereby an image has an instant change from one image to another as the hologram is rotated from left to right.

Vertical and Horizontal Gradient Holography (overt)

The method of animating a holographic two-dimensional image so that the image radiates bands of color in either the vertical or horizontal.

Pseudo Color (overt)

This technique in making holograms gives a result where the object that is originated appears in its true "natural" coloring. However, the color is only apparent at a single "fixed" viewing angle. While you will see the image at any viewing angle, it will only be in its natural coloring at one viewing angle.

Grayscale Image Effect

A holographic origination technique whereby the image appears in grayscale versus the traditional rainbow colors.

Linear Kinetic Effect (overt) A holographic image effect

where an image is only

specific angle.

visible when viewed at a

Zebra Card Printers



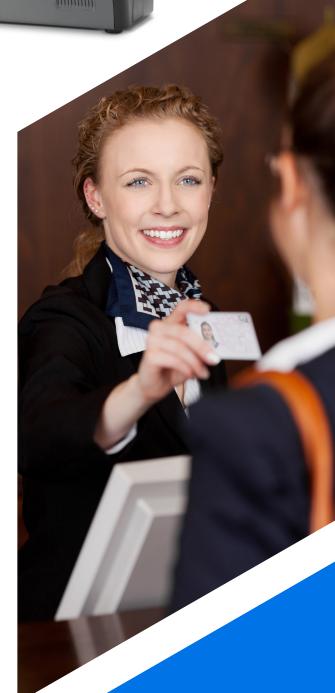
Depending on your application requirements, there are a range of secure laminates and specialty ribbons available across the Zebra Professional Card Printer range. This enables you to offer increased flexibility in secure ID card solutions.

Ideal for:

- Driver's Licenses
- Government and National ID Card Schemes
- Secure Access Control ID Cards
- · Law Enforcement and Correctional Facility ID Cards
- Airport Personnel ID Cards
- · Applications Requiring Secure Issuance of Long-Lasting, Tamper-Evident IDs
- Student ID Cards
- Public Transport
- Workforce Location Applications in the Supply Chain

Extend Your Security Options with Long-Range RFID

With a Zebra card printer, you can extend the range of contactless ID cards to as much as 30 feet-thanks to secure, long-range RFID ultrahigh-frequency (UHF) technology. Efficiently control and monitor access to high-security organizations and areas, manage people's locations, and relieve congestion by validating or counting people simultaneously.



Zebra Certified Supplies for Card PrintersRibbons, Cartridges and

Cards and Laminates

Print Ribbons

Zebra's True Colors® print ribbons deliver consistent, high-quality color reproduction for vibrant color photos, true-to-life flesh tones, and sharp monochrome resin barcodes and text. A patented overlay protects the card against dye-migration and abrasions.

For specialized printing on the ZC300 Series*, the YMCKLL ribbon delivers vibrant, full-color images (YMC), crisp black text or barcodes (K) and two layers of extra-thick protective overlay (LL), ensuring both excellent print quality and extended card longevity.

Laminate and Specialty Ribbons

Zebra's laminates and specialty ribbons are designed to combat card counterfeiting, alteration and duplication.

These materials prolong card life, enhance security, prevent image fading and dye-evaporation and create more durable cards. Zebra's patented linerless lamination dramatically reduces the cost of laminate material and is waste-free.

Plastic Cards

Zebra's premier plastic cards enhance the print quality and image sharpness needed for vivid colors and detailed, readable barcodes. For more secure applications, Zebra can offers custom security features.



Zebra's full line of dedicated cleaning solutions extend the life of your card printer's performance. Plus, regular card printer maintenance yields longer quality card imagery.



^{*} In North America the YMCKLL ribbon is only available on the ZC350.

