

# Create highly secure ID cards



## When security counts, count on Zebra for highly secure card solutions

Security is a top priority today more than ever. Improve your organisation's security with Zebra's advanced security ID card solutions.

Combat card counterfeiting and unauthorised alterations and duplications with customisable security features offered through Zebra's pre-printed cards, True Secure™ laminates and Security-class card printers.

Start with a high-quality Zebra® plastic card containing your choice of pre-printed security features and built-in security materials. Using Zebra's Security-class on-demand card printers, encode magnetic stripes or radio-frequency identification (RFID) tags for proximity cards, or smart chips for data security in smart cards, and print variable text and vibrant ID photos. For higher card security and durability, add laminates embedded with additional **overt**, **covert** and **forensic** features.

Zebra card products give businesses enhanced security, increased productivity, improved quality, lower costs and better customer service. Choose from a broad range of full-colour or monochrome card printers. Options range from Ethernet connectivity, Gen 2 UHF RFID and magnetic-stripe encoding to lamination for higher security and card durability. There is a Zebra card printer to meet all your business needs.

**Overt visual security elements**, which are visible to the human eye, are easy to authenticate and very difficult to forge.

**Covert elements** require a device to make them visible to the human eye.

**Forensic elements** are microscopic and the most difficult for a counterfeiter to detect and replicate.

# 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.

**1 Guilloche pattern (overt)**

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

**2 Photo box (overt)**

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

**3 Clear window (overt)**

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

**4 Infrared ink printing (covert)**

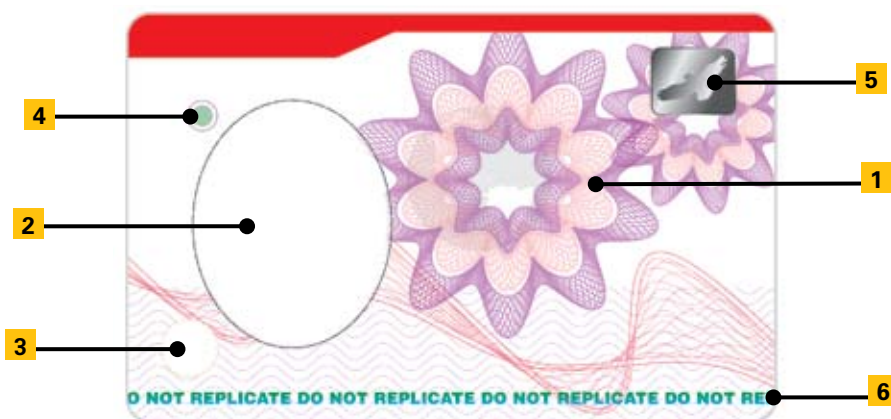
Uses special ink that reacts (fluoresces) when subjected to a specific frequency of laser light.

**5 2-D 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. 3-D holographic foil also available.

**6 Optical variable ink (OVI®) (overt)**

Optical variable ink is a high-security feature showing different colours as the angle of view changes. Optical variable ink can have a support printing by a dark colour shade to get a deep colour effect.



**7 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.

**8 Contact chip (overt)**

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

**9 Microtext printing (covert)**

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

**10 Magnetic stripe (overt)**

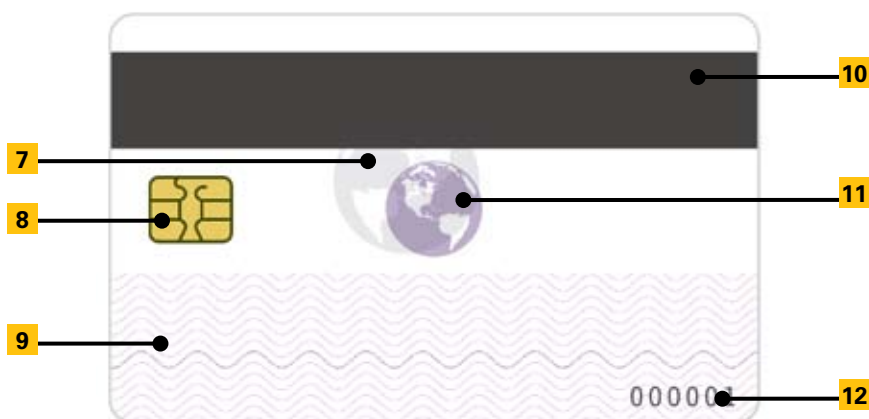
Magnetic band capable of storing data by modifying the magnetism of tiny iron-based particles.

**11 Black light-reactive ink printing (covert)**

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

**12 Serialisation (overt)**

Unique numbering printed on the card specified by the customer.



**Contactless chip (overt)**

An embedded microprocessor chip within the card layers that is read via radio signals rather than physical contact.



# 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.

**1 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 the laser.

**2 2-D/3-D holography (overt)**

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

**3 Microtext (covert)**

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

**4 Fine-line printing (overt)**

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

**5 Nanotext (forensic)**

Refers to text that requires magnification beyond a simple hand lens in order to be legible - a microscope is needed.

**6 Circular kinetic effect (overt)**

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

**7 Optical variable ink (OVI) printing (overt)**

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

**8 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 the first image to the second image.

**9 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.

**10 Vertical & horizontal gradient holography (overt)**

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

**11 Pseudo colour (overt)**

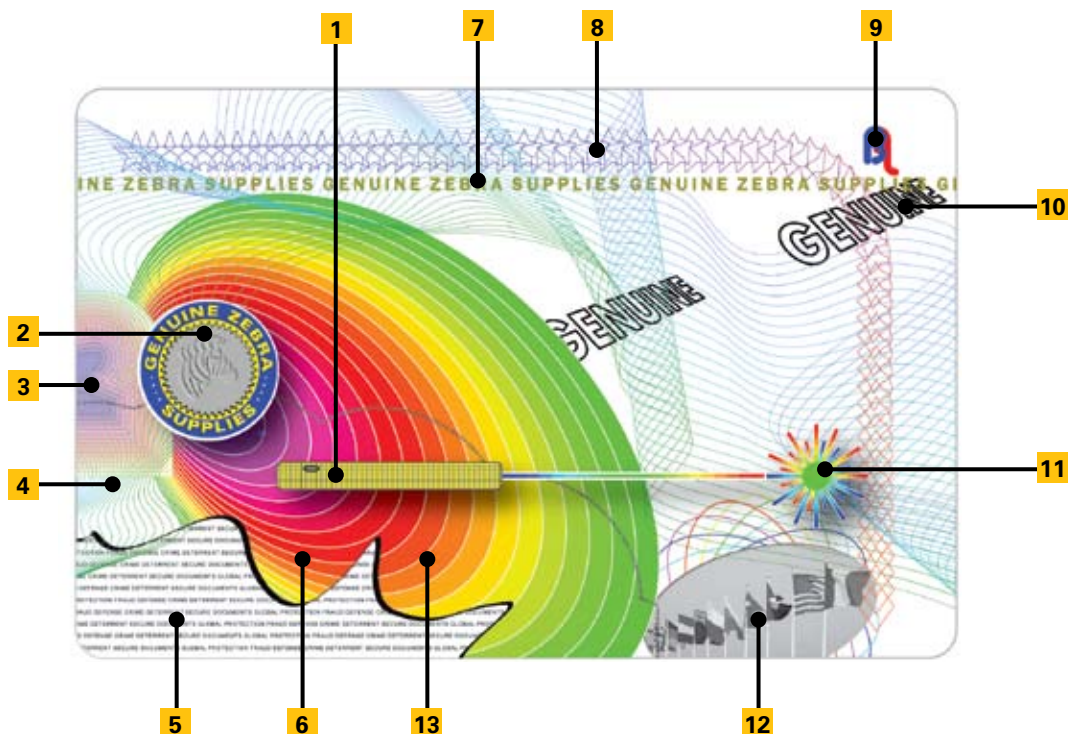
This holographic technique gives a result where the object that is originated appears in its true "natural" colouring. However, the colour is only apparent at a single fixed viewing angle. While you will see the image at any viewing angle, it will only be in its natural colouring at one viewing angle.

**12 Greyscale image effect (overt)**

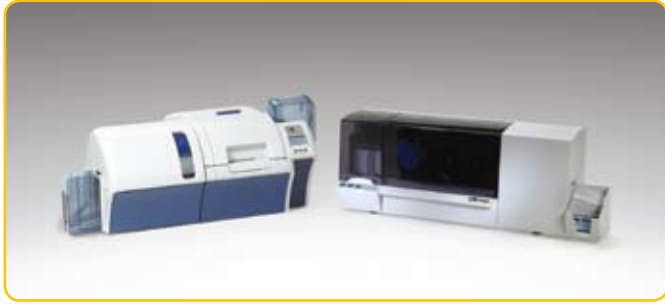
A holographic origination technique whereby the image appears in greyscale rather than in the traditional rainbow colours.

**13 Linear kinetic effect (overt)**

A holographic image effect where an image is only visible when viewed at a specific angle.



# Security card printers and supplies



## **P630i™ and P640i™ security card printers and ZXP Series 8™ retransfer card printer**

For high-volume high-security applications, choose Zebra's P640i or P630i card printers for dual-sided printing and one-pass dual-sided or single-sided lamination.

They provide the maximum amount of flexibility in protecting driving licences and other types of secure ID card.

The ZXP Series 8 retransfer printer achieves photo quality, over the edge printing for complete card coverage and offers advanced security features to secure the printing process and the cards during their lifetime.

### **Ideal for**

- Driving licences
- Government and military ID cards
- High-security access-control ID cards
- Law-enforcement and correctional-facility ID cards
- Airport personnel ID cards
- Applications requiring secure issuance of long-lasting, tamper-evident ID

The ZXP Series 8 Secure Issuance printer meets industry standards for secure issuance of financial cards. The printer ensures the highest levels of physical and logical security.

### **Ideal for**

- Bank-issued ATM and credit cards
- Pre-paid card for travel abroad



## **Optimise your printer performance with genuine Zebra supplies**

### **Print ribbons**

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

### **Overlay and laminate**

Zebra's True Secure secure varnish overlays and laminates are designed to combat card counterfeiting, alteration and duplication. These protective materials prolong card life by preventing image fading and dye-migration, and create a more durable card. They can also deter card forgery with the use of the security-featured holograms. 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 colours and detailed readable bar codes. For more secure applications, Zebra offers stock and custom security features.

### **Cleaning supplies**

Zebra offers a full line of cleaning supplies to properly maintain printer performance, extend card printer life and yield better quality card images.

Specifications subject to change without notice.

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