Industrial Card Personalization

HID

HID ELEMENT — The next evolution in secure ID and financial card personalization

High-Volume Versatility

Highly versatile, HID ELEMENT is ideal for a variety of high-volume applications for today's large organizations and service bureaus, including:

- **Government-to-Citizen (G2C) Issuance** — national IDs, driver's licenses, vehicle registration cards, border crossing cards, voter IDs and health cards

- **Government-to-Employee (G2E) and Corporate Enterprise Issuance** — employee photo IDs and badges

- **Commercial Issuance** — transit passes, retail cards and more

- **Financial Issuance** — credit cards, debit cards, pre-paid cards and more

A Whole New World of Possibilities in a Desktop

With the HID ELEMENT industrial card printer/encoder/laser engraver, HID Global delivers the most reliable, cost-effective, high-volume ID and financial card issuance available in the industry.

Desktop-based yet heavy-duty, HID ELEMENT is especially suited for the high-cycle requirements of large government ID card programs, financial institutions, laborious service bureaus and demanding large enterprises. Modular and scalable, HID ELEMENT offers high-resolution, UV inkjet printing, optional laser engraving and an array of encoding options to meet a broad range of credential program needs.

As easy-to-use as standard direct-to-card (DTC) and retransfer desktop printers but with the modularity, power and throughput speed to rival central issuance, HID ELEMENT opens up a whole new world of possibilities for credential issuance at the desktop.

Key Features:

- High-resolution, UV inkjet card printing
- Precision laser engraving
- Multiple encoding options
- High-capacity input/output of up to 1600 cards
- Unprecedented modularity in a desktop

A Better Investment

In a class by itself, HID ELEMENT delivers a lower cost per image compared to standard, ribbon-based desktop DTC or retransfer card printers — and a lower total cost of ownership (TCO) than feature-comparable central issuance systems.

With its high-capacity throughput, a single HID ELEMENT unit can replace several standard desktop card printers and eliminate the costs associated with wasted ribbon and film. Unlike ribbon-based printing that requires an entire set of ribbon panels (even if the card design does not utilize all panels), HID ELEMENT's inkjet Drop-on-Demand (DOD) printing ensures that only the precise amount of ink needed is used. This can result in a cost-per-card savings of up to 80% over standard desktop-based systems.

HID ELEMENT also exceeds central issuance alternatives at a fraction of the cost. Unlike these large, expensive, resource-heavy and high-touch systems, it does not require special facilities to accommodate nor a dedicated team to maintain. With its straightforward setup and ongoing ease of use, a single operator can easily manage multiple HID ELEMENT units — eliminating the need for costly annual maintenance contracts.

Only HID ELEMENT delivers the best of both worlds and makes for a better investment overall.

Create Dynamic ID and Financial Cards with UV inkjet

With six configurable ink channels and multiple options, HID ELEMENT gives you the power to create dynamic, visually rich, single- or dual-sided ID and financial cards like never before. HID ELEMENT supports full color or monochrome text and full color graphics printing. Choose from standard colors or leverage fluorescing ink and even exclusive, custom colors to bring distinctive card designs to life and bolster security.

HID ELEMENT UV inkjet printing also offers unique options that introduce new approaches to card security and durability not available elsewhere. Once color ink droplets have been applied, an optional clear ink can be layered over images and text for a low-cost durability option or to create color tactile effects.

ID and financial cards printed with HID ELEMENT do more than protect your organization — they reflect the value you place on your brand. With support for over-the-edge printing and the ability to print right up to the very edge of smart chips, HID ELEMENT guarantees robust, polished and professional looking finished credentials every time.

Sharper, Crisper Images and Text with Up to 1200 dpi

HID ELEMENT's high-resolution printing ranges from 600 dpi to 1200 dpi, delivering sharper images and the ability to precisely print small text, complex characters and crisply defined barcodes that rival even pre-printed cards.

With HID ELEMENT UV inkjet printing, precision nozzles apply thousands of microscopic ink droplets onto the card surface. These are applied in a specific sequence and at a uniform, high velocity ensuring accurate drop size and placement. Immediately upon printing, the ink is cured by exposure to strong UV light, causing ink components to cross-link into a solid within microseconds. As a result, card text and images dry virtually instantly — allowing for a very fast print process.

High frequency inkjet inherently promotes superior-quality images when printing at high speeds and results in ultra-high definition graphics and text on a wide variety of card surfaces spanning PVC, composite, polycarbonate and even metal core cards.

High-Yield, Easy-to-Use Ink Cartridges

High-yield, easy-to-use ink cartridges glide right in and snap into place effortlessly. Six configurable ink channels support full color or monochrome configurations with clear ink overlay options. High-security fluorescents and custom colors are also available via HID's custom product order (CPO) process.

Laser Source Options

The highly versatile HID ELEMENT laser engraving system provides two laser source options to meet your specific credential program requirements. Choose from the standard 3W DPSS laser to maximize cost benefit or the optional 8W DPSS laser to enable faster throughput.

Secure, Versatile, Laser-Sharp Personalization

The most secure credentials are highly differentiated, employing multiple visual, digital and engraved elements. These ensure the accurate identification of each individual cardholder while establishing barriers to fraud and counterfeiting.

Leveraging the HID ELEMENT laser engraving system, unique identifying data or images are engraved into the card body for tamper-proof, highly durable personalization, making forgery and manipulation virtually impossible.

Beyond standard black marking and highly defined grayscale imaging, the HID ELEMENT laser engraving system can optionally be used in conjunction with the UV ink printing system — providing the ability to combine laser with color to accommodate even the most unique card designs.

Engrave Security Into Every Card

HID ELEMENT precision laser engraving enables the etching of multi-faceted security elements into identification cards. Laser-engraved data and images are permanent and secure. Any attempts to alter engraved information will destroy the integrity of the image, and tampering will be immediately evident — lending a whole new level of security to finished credentials.

The optional camera vision system ensures accurate placement and registration of data on the card surface, and reproduction is so precise that it even allows the engraving of microtext — microscopic type that cannot be read without a loupe or magnifying glass.

HID ELEMENT precision lasers can also perform lenticular personalization to produce multiple laser images (MLI) and changeable laser images (CLI), providing additional barriers against counterfeiting attempts via desktop printers.

Because laser engraving produces raised lettering, authenticity is easily verified with the touch of a finger, making it ideal for card issuance programs that bear an elevated risk of forgery or identity misrepresentation such as voter or worker registration cards, drivers' licenses and citizen identity permits.

Custom Microtext
Microscopic type of less than 1 point font size, readable only with a loupe, enables covert authentication.

MLI/CLI - Multiple/Changeable laser image
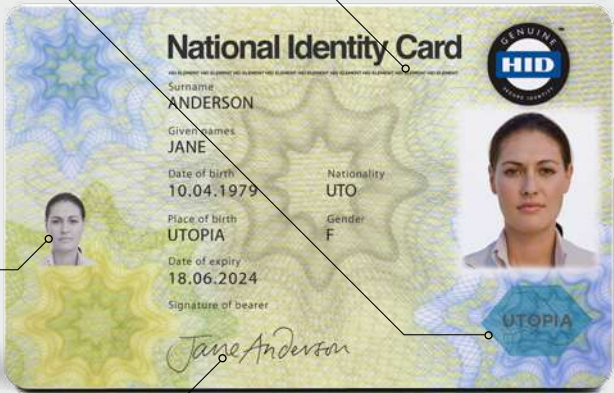Engraved images or data change with the viewing angle to permit convenient identity verification.

Sub-surface image
Laser engraving below the card's top surface, such as this ghost image, delivers the highest durability.

Tactile Surface Relief
Raised lettering provides evidence of authenticity at the touch of a finger.

National Identity Card

Surname
ANDERSON

Given names
JANE

Date of birth
10.04.1979

Nationality
UTO

Place of birth
UTOPIA

Gender
F

Date of expiry
18.06.2024

Signature of bearer
Jane Anderson

GENUINE HID

UTOPIA

Simplify Inline Personalization of Secure Credentials in a Single Step
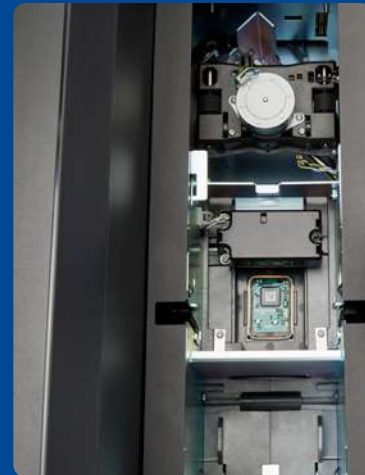
HID ELEMENT card encoding modules enable organizations to print and encode credentials in a one-step, inline process — saving both time and money when producing secure IDs and financial cards. Using inline card personalization, users have greater flexibility and end-to-end control over their card procurement, inventory management and card issuance processes.

HID ELEMENT card encoding modules also extend the value of UV ink printing or laser engraving systems by allowing organizations to create cards that are compatible not only with HID products but also with other card/physical access control systems and third-party applications. This technology-agnostic approach to card personalization offers organizations more flexibility in selecting access control systems and greater control over their credentials.

Offering a wide array of inline card encoding technologies, HID ELEMENT can meet the needs of virtually any secure credential issuance program. Further, because modules are fully field-upgradeable, encoding can be added or changed at any time to support new card personalization or evolving security needs as your requirements change over time.

Select one or more HID ELEMENT card encoding modules to extend read/write capability for third-party applications such as physical access, time and attendance, and cashless vending, among others. With the HID ELEMENT programmer card encoding module, users can also create and program cards that are specifically compatible with HID physical access solutions. This can prove especially beneficial to organizations desiring to upgrade existing card populations for use with the higher security iCLASS SE® platform.

- Contactless encoding — supports low and high frequency credentials simultaneously, including iCLASS Seos®, HID Prox®, iCLASS SE® MIFARE Classic® and MIFARE® DESFire® EV1
- Contact encoding — integration is quick and easy, with unparalleled support and compatibility with ISO 7816 standards
- Standard magnetic stripe encoding — delivers ISO 7811, dual high- and low-coercivity compatibility
- Programmer encoding — affords users the ability to encode the HID Access Control Application area of either Genuine HID® or third-party credentials with ease
- Third-party encoding support — leverages Smartware® encoding technology for simultaneous contactless and contact encoding in a single, expedient pass

Flexible Encoding Options
Fully field-upgradeable and easy-to-install encoding can be added or changed at any time to support new card personalization or evolving security needs..

HID ELEMENT UV ink printing system with single input hopper and output stacker

HID ELEMENT UV ink printing system with multiple input hoppers and output stackers

HID ELEMENT laser engraving system with single input hopper and output stacker

HID ELEMENT UV ink printing and laser engraving systems with multiple input hoppers and output stackers

Simplicity at Your Fingertips

Simplicity and ease of use are at your fingertips with the large, 10-inch, full color, touch-screen display. The display is system-mounted and easily adjustable to accommodate operators whether they are sitting or standing. Easy-to-understand prompts display ink levels, general diagnostics, operational procedures, and walk users through initiation sequences for routine cleaning and maintenance. HID ELEMENT takes the complexity out of industrial card printing.

Unprecedented Modularity in a Desktop

HID Element breaks with convention and offers the flexibility to purchase UV inkjet printing and laser engraving systems either together or as separate, stand-alone units to meet unique card program requirements. HID ELEMENT also offers a host of optional modules to meet a variety of program requirements and scale throughput as needed. We match HID ELEMENT's design to suit your business needs.

Scalable Throughput

Select up to four lockable input hoppers and output stackers to scale production as needed. Each high-capacity input hopper and output stacker allows for up to 400 cards for a total of up to 1600 cards per HID ELEMENT unit — facilitating high-volume card throughput for continuous runs and maximum yields per shift.

Verify With Confidence

With the registration and verification capabilities of HID ELEMENT's optional camera systems and supporting software integration, all applied visual data and features can be cross-checked for accuracy and precise placement — ensuring credentials are printed and/or engraved as intended and are consistent over large batch runs. Cards that do not pass verification can be sent to a secured reject bin. Individual camera systems are available for both the HID ELEMENT UV ink printing and laser engraving systems.

Built for Industrial, Continuous Operation

HID ELEMENT revolutionizes industrial ID and financial card printing by combining high-volume, superior quality UV inkjet printing and laser engraving into a heavy-duty yet easily manageable desktop system. HID ELEMENT is an excellent option for organizations that need industrial speeds and volumes without the high cost and real estate of central issuance machines. It is also ideal for customers that still want the ease of use, portability and manageability of a desktop-based unit but have program requirements that cannot be met by current retransfer or DTC printers.

Designed for continuous operation, HID ELEMENT was built to produce millions of cards over the life of the system. Even if your volume needs dictate uninterrupted production 24 hours per day, seven days a week, 365 days per year — HID ELEMENT delivers.

At a fraction of the cost and size, multiple HID ELEMENT units can easily, and less expensively, replace a single central issuance machine to meet industrial volume needs while providing redundancy and risk management benefits not offered by these larger systems. Multiple machines mean that if one unit needs repair, the organization is still able to leverage other units to maintain 75% to 80% capacity for uninterrupted productivity; whereas, if a central issuance machine goes down, card printing operations cease altogether. Additional units can also be geographically dispersed at remote sites to support risk management initiatives.

A Solution for Every Need

In addition to HID ELEMENT's lower TCO and operational benefits, HID ELEMENT offers features that can accommodate the unique needs of specific industries. For example, tactile color effects and focused overlay durability are ideal for government-issued IDs, whereas the ability to easily run small individual batches of cards leveraging various print templates ("rainbow stacks") will appeal to both financial card producers and financial institutions alike.

With its reliable operation, minimal maintenance, highly configurable functionality, scalable throughput and lowest TCO in the industry — HID ELEMENT is the next evolution in superior quality, high-volume card personalization and issuance.

To find an integrator or HID Advantage Partner near you, visit **hidglobal.com**