

NEW



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EMV Banking Card Personalization System First with DoD Inkjet Technology

- 4x greater durability than thermal
- 50x less cost per card



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Eliminate thermal transfer costs for Banking Card Personalization

PERSOMASTER is the next generation mid-range personalization system for the cost-effective production of Flat EMV Credit and Debit Cards. The modular and highly flexible system incorporates the advantages of the DoD inkjet printing technology. DoD printing is the proven replacement for existing legacy technologies such as thermal or embossing/topping. Issuers and personalization bureaus benefit from more durable and long-lasting personalized cards at reduced costs.

Drop-on-demand printing has been approved by all major payment schemes including VISA, MasterCard and American Express.

The system can easily utilize existing software infrastructures and effectively handle short runs. The state-of-the-art machine and software design allows for quick changeover. PERSOMASTER is a perfect solution for personalization bureaus of any size.



Modularity

Powerful and flexible platform that can be easily configured with different system modules to handle specific applications.

Input

- Automatic card reloading for reduced manning
- Feeding process prevents scratching of card surfaces, processing of glossy cards possible
- Simple card handling

Magnetic Encoding

- Three-track HiCo and LoCo ISO encoding
- High precision encoding with the card in a static position



Chip Programming

- High-speed programming of contact, contactless or dual interface cards
- Scalable number of chip programming heads (up to 21)
- Industrial standard readers allow easy integration into existing customer infrastructure
- All heads are equipped with antennas and pins

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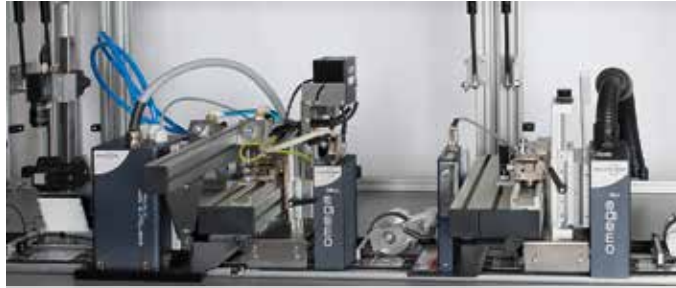
Reduce your EMV card personalization costs while improving durability and design flexibility

Your Competitive Edge

- Unprecedented flexibility for the design and positioning of personalized data
- High-resolution graphic personalization in black, white and color
- Up to 98% cost savings
- 4 times greater durability than thermal
- Simple integration in personalization workflow
- Perfectly integrates with EMV personalization software



Plasma Treatment



Drop-on-Demand Printing



Flipping and Buffer

Plasma Treatment

- Plasma unit for better adhesion and print quality on challenging substrates
- Treatment widths up to 54 mm (2.13 inches)

DoD Printing

- Robust deep black or opaque white graphical personalization
- Superior abrasion resistance and adhesion to a wide variety of card materials and surfaces
- High-resolution with up to 720 x 720 dpi for ultra-compact bar code printing
- Printing width covering full ID-1/CR-80 card format
- Atlantic Zeiser inks for high contrast and graphical resolution

UV Curing

- Ultra-fast UV curing
- Increased lifetime
- Eco-friendly

Print Verification

- Straightforward setup
- 100% OCR verification, 1D/2D bar code reading
- Card orientation verification
- Improved reading performance by fading out of difficult backgrounds

Label Application

- Highly accurate placement of labels
- Compact design
- High durability

Flipping & Buffer

- Allows inline processing of both card faces at full speed
- Reduced reject rates due to the buffer design allowing emptying of upstream modules during a downstream stop

Output/Stack Sorting

- Automatic change of magazines

Control PC and Data Management

- Intuitive User Interface
- Windows based
- Handles a wide variety of file formats

EMV Banking Personalization Software

- Independent solution supporting a wide variety of different personalization machine models from various vendors
- Supports a wide variety of chip vendors
- Handles both Global Platform and Proprietary EMV cards
- Offers one-step data preparation requiring less hardware using the same server hosting both data preparation and personalization
- Alternatively EMV data preparation in batch mode
- Modular architecture allows tailoring and scaling the solution to growing needs





ID Card Laboratory

Test laboratory accredited by DAkKS Deutsche Akkreditierungsstelle GmbH in accordance with the standard DIN EN ISO/IEC 17025 (2005). The accreditation is valid for the tests listed in the certificate.



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Statement

Tests on ID-1 cards (Fogra Report no. 27004-3) were successfully performed between 15th January 2013 and 12th February 2014 on behalf of the Atlantic Zeiser GmbH according to the standards ISO/IEC 10373-1 (2006)/Gematik specification, Part 3, V2.2.0 (2008) and DIN 32753-1 (1983).

The report contains the following tests:

Adhesion or blocking

Standard of test method and standard of requirement:
ISO/IEC 10373-1 (2006), ISO/IEC 7810 (2003)

Resistance to chemicals

Standard of test method and standard of requirement:
ISO/IEC 10373-1 (2006), ISO/IEC 7810 (2003)

Dynamic bending stress (4000 bendings)

Standard of test method and standard of requirement:
ISO/IEC 10373-1 (2006), ISO/IEC 7810 (2003)/ AMD1 (2009) 4000 bendings

Resistance to abrasion

Standard of test method and standard of requirement:
Gematik Specification, Part 3, V2.2.0 (2008), Gematik Specification, Part 3, V2.2.0 (2008)

Resistance to plasticizer

Standard of test method and standard of requirement:
Gematik Specification, Part 3, V2.2.0 (2008), Gematik Specification, Part 3, V2.2.0 (2008)

Varnish/ink adhesion (cross cut)

Standard of test method and standard of requirement:
According to ISO/IEC 10373-2:2006/ Fogra, According to ISO/IEC 7811-2: 2001/ Fogra

Unilateral dynamic bending stress

Standard of test method and standard of requirement:
DIN 32753-1 (1983), 8000 bendings, Fogra/Client

Note: The test results refer to the sample cards provided by the client and the applied ink coating.

Changes in the applied ink coating may affect test results.


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Visa-Allowed Printing Processes

- **Indent-printing.** Printed characters are pressed downward into the surface of the card
- **Laser-engraving.** Characters, numbers and letters are etched into plastic with a laser device
- **Thermal printing/hot stamping with a bonded laminate or topcoat covering the printed data.** Cardholder data is heat-transferred onto the plastic surface of the card, then covered with a protective and tamper-evident bonded laminate or topcoat
- **Drop on Demand (DOD).** Characters, numbers and letters are applied to the card and ultraviolet cured or bonded to the card body

Card Feature Requirements

As outlined in the requirements for Visa cards and Visa Electron Cards, certain card design features must be applied using a Visa-allowed embossing or printing process. The Visa-allowed processes for the application of these card features are specified below.

Embossed Account Number, Cardholder Name, and Expiration Date

- Standard embossing
- Flatback embossing
- Indent printing
- Thermal printing
- Laser engraving
- Drop on Demand printing

Card Verification Value 2 (CW2)

- Indent-printing
- Thermal printing with topcoat (only for CW2 applied to card body, not to signature panel)
- Laser-engraving
- Drop on Demand (DOD)

Four-Digit Bank Identification Number (BIN)

- Indent-printing
- Laser-engraving
- Thermal printing/hot stamping with a bonded, tamper-evident laminate or topcoat covering the printed data
- Drop on Demand (DOD)

All Visa cards can be issued unembossed. There are no restrictions as to which products can or can't be issued unembossed. This change was made within the past month and is reflected in the VPBS site.

MasterCard Personalization Techniques – Unembossed Specifications

The unembossed personalization technique is optional, and allows any MasterCard card program to print account information using flat characters. Cards printed using this techniques are sometimes referred to as flat cards.

The following unembossed methods may be used:

- Thermal printing (also known as ultragraphic printing) with a clear protective overlay.
- Indent printing through the laminate. Indent printing must be of sufficient depth to ensure a durable print, but must not deboss through the card front.
- Laser printing through the laminate.
- Drop on demand printing.

When using a clear protective overlay, the overlay must not be placed over the MasterCard Global Hologram or if present, the chip.



Excerpt of VISA "Product Brand Standards", taken from www.productbrandstandards.com on 16th October 2015

Excerpt out of an e-mail received by Atlantic Zeiser Germany from Visa Inc., 22nd September 2015

Excerpt of MasterCard "Card Design Standards", page 58, issued 22nd October 2015

Technical Specifications		PERSOMASTER	
Card Formats	ID-1/CR80 format according to ISO/IEC 7810	Thickness: 0.76 mm	30 mil
		Length: 85.6 mm	3.37 inches
		Width: 54 mm	2.13 inches
Production Speed	Up to 4200 cards/hr (depending on card material and/or application)		
Dimensions	Length: depending on configuration	Width: depending on configuration	Height: 1815 mm
			71.5 inches
Power Supply	400 VAC ± 5% / 50 Hz or 60 Hz / 3 phases + N + PE		
Power Consumption	Depending on configuration		
Ambient Temperature	15 – 30 °C		
Relative Humidity	40 – 60% at 25 °C – non-condensing		
Compressed Air Supply	6 bar positive air, clean and dry		
Air Consumption	Depending on configuration		
Exhaust	Depending on configuration		

Atlantic Zeiser provides excellent service and support

- Efficient preventive and corrective maintenance
- Fast emergency and extended service support
- Installation and start-up support
- Remote service support and hotline
- Customized and individual after-sales service concepts
- Tailor-made service contracts
- Professional training and workshops
- Worldwide service network with local service, parts and telephone support
- Consulting

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