


DATACARD® MX1100™ CARD ISSUANCE SYSTEM

| System Specifications                          |   |
|--|---|
| System Controller                              | Intel Xeon E3-1275 3.6HGz; Memory 32 GB; Hard drive Minimum 1.2 terabyte SSD  |
| Security Software Capability                   | Microsoft Windows Embedded Standard 7 OS security access level control and input / export of encrypted and / or digitally signed data. Access and privileges are assigned by the administrator.   |
| Card Input/Output Trays                        | Up to 500 (0.03 in. thick) non-embossed cards per tray; 300 embossed cards per tray.  |
| Magnetic Stripe Encoding                       | Supports common ISO, AAMVA and JIS formats; High, low and JIS coercivity<br>Track Density: Standard encoding 75 and 210 bpi (bits per inch)<br>Custom encoding selections from 75 to 315 bpi  |
| Smart Card Personalization                     | Combination: Programming stations: 1 to 6<br>Full support as documented below for all protocols, frequencies and communication speeds<br><br>Contact: Programming stations: 1 to 11<br>Protocols supported: Full ISO 7816-3, T=0/T=1<br>Frequencies (clock speeds): 3.579 MHz, 4.915 MHz, 7.159 MHz and 9.830 MHz<br>Supports communication speeds as defined by ISO 7816-3 up to 230K bps<br><br>Contactless: Programming stations: 1 to 6; Full and top-half antenna supported<br>Protocols supported: ISO 14443 Type A, Type B, Philips MIFARE, Sony FeliCa<br>Frequencies (clock speeds): 13.56 MHz<br>Supports communication speeds of 106, 212, 424 and 847 Kbps  |
| Single-Step Color Printing                     | Resolution: 300 dpi<br>Text Formats: Scalable fonts, including TrueType fonts for Microsoft Windows operating systems<br>Image Formats: Certain versions or features of the following image formats may be supported: BMP, DCT (Datacard 9000 UltraGrafix monochrome image format), DCP, DPEG (Datacard 9000 color image format), GIF 87, GIF 89, JPEG, JPEG 2000, PCX, PNG, TGA and TIFF. For additional information contact your local sales representative.<br>Placement: Near edge-to-edge - 0.1 in. (2.54 mm) from card edge, chip or cutout<br>Cleaning Area: Entire front and back surface of the card in one pass. Located by the input trays   |
| Graphics Printing<br>Durable Graphics Printing | Resolution: 300 dpi (Graphics Printing), 600 dpi (Durable Graphics Printing)<br>Text Formats: Scalable fonts, including TrueType fonts for Microsoft Windows operating systems<br>Bar Code Formats: One-dimensional (1D): Code 39, Code 39 Extended, Code 39 HIBC, Codabar, NW7, EAN8, JAN8, EAN13, JAN13, UPCA, UPCE, Booklan, Interleaved 2 of 5, Code 128, EAN, UCC128, Code 93, MSI Plessey, Intelligent Mail (ID), QRCode<br>Two-dimensional (2D): PDF417 and Data Matrix<br>Image Formats: Certain versions or features of the following image formats may be supported: BMP, DCT (Datacard 9000 UltraGrafix® monochrome image format), DCP, DPEG (Datacard 9000 color image format), GIF 87, GIF 89, JPEG, JPEG 2000, PCX, PNG, TGA and TIFF. For additional information contact your local sales representative.<br>Placement: Near edge-to-edge - 0.1 in. (2.54 mm) from card edge, chip or cutout<br>Cleaning Area: Entire front and back surface of the card in one pass. Located by the printhead (Graphics Printing) and located in the input trays (Durable Graphics) |
| Laser 325                                      | Technology: Air cooled fiber laser; Class 1 Laser Product<br>Capabilities: Pixel engraving; text, photos, bar codes, and other digitized images; Vector engraving; text; Micro-engraving; Tilted image engraving; CLI (standard), MLI (option), 3D photo (option)<br>Resolution: Greater than 400 dpi; grayscale<br>Elements: Photos, alphanumeric text, vector text, bar codes, signature, fingerprint, black-and-white logos, graphic images, scrambled indicia, tilted images, ghost images, micro-engraving<br>Text Formats: Scalable fonts, including TrueType fonts for Microsoft® Windows® operating systems<br>Bar Code Formats: One-dimensional (1D): EAN13, Code 39, Code 128, Interleaved 2 of 5<br>Two-dimensional (2D): PDF417, Data Matrix, QR<br>Image formats: JPEG (.jpg),TIFF (.tif), Bitmap (.bmp), PNG (.png)   |
| Basic Topcoat                                  | Full edge-to-edge embossable topcoat. Available in clear and random or registered custom holographics   |
| DuraGard® Laminate                             | Placement within approximately 0.03 in. (0.081 cm) of card edges. Card-to-card placement tolerance of less than 0.032 in. Size/Thickness: 2.06 in. x 3.31 in. (5.23 cm x 8.41 cm); 1.0 mil thick  |
| Embossing Indent Printing                      | Capability: Up to 8 lines of embossing<br>Indent printing: Front, rear or both sides of the card<br>Print placement: Vertical: 0.16 in. (4 mm) to 1.46 in. (37.1 mm) from bottom edge of card to center line<br>Horizontal: 0.10 in. (2.5 mm) to 3.2 in. (83.2 mm) from left edge of card to center line<br>Fonts: 112-character wheel accommodates multiple fonts and special characters<br>Standard: OCR-A, OCR-B, Standard Gothic, Helvetica, Farrington, Katakana. Special, custom, secure fonts and international language characters  |
| Secure Indent                                  | Capabilities: Indent a single line or multiple lines<br>Fonts: 112-character indent wheel accommodates multiple fonts and special characters<br>Standard, outlined, pattern and custom characters including rotated character fonts (90°, 180°, or 270°) and shapes   |
| Topping  | Automatically determines and applies the appropriate topping area based on prior embossing in the same production run<br>Vertical: 1.54 in (39.1 mm) measured from bottom edge of the card to uppermost character edge and 0.095 in. (2.4 mm) measured from bottom edge of the card to lowermost edge<br>Horizontal: 3.08 in. (78.3 mm) measured from left edge of card to final character edge and 0.24 in. (6.1mm) measured from left edge of card to first character edge  |
| Pre-Printed Label Affixing                     | Label types supported: Preprinted labels (see Datacard specification document 530202-001)<br>Label Size: Minimum: Height: 0.625 in. (15.9 mm), Width: 1.0 in. (25.4 mm)<br>Maximum: Height: 1.0 in. (25.4 mm), Width: 3.0 in. (76.2 mm)<br>Label Placement: 1.0 in. (25.4 mm) from the bottom of the card<br>0.125 in. (3.175 mm) from the top of the card<br>0.10 in. (2.54 mm) from the right or left edge of the card  |
| Bar Code Scanning                              | Bar Code Formats: One-dimensional (1D): EAN12, Code 39, Code 128 and Interleaved 2 of 5<br>Two-dimensional (2D): PDF417 and Data Matrix<br>Minimum Height: One-dimensional (1D): either .25" or 0.15 x total length of code whichever is larger<br>Two-dimensional (2D): PDF417: minimum height is twice the length of code<br>Data Matrix: Minimum height is dependent on amount of data and size of elements.<br>Narrowest Width of Space/Bar in Bar Code: Code 39, code 128, Interleaved 2 of 5 0.005 in. (0.127 mm)<br>UPC 0.013 in. (0.330 mm); PDF417 0.0066 in. (0.167 mm); Data Matrix 0.015 in. (0.381 mm)   |
| Vision Verification Gen 2                      | Readable Elements: Basic support for many TrueType fonts for Microsoft® Windows® operating systems; printed and pre-printed graphics, laser, OCR-B (including ICAO MRZ standards for cards)*<br>Image Rotation Capabilities: Supports rotation at 90, 180 and 270 degrees<br>Minimum Verifiable Text Size: High-quality, lithographic printing - 0.06 in. (1.52mm)  |
| System Height & Depth                          | To top of module 50.1 in. (127.3 cm). Front to back 33.8 in (85.9 cm)   |
| Electrical Requirements                        | 230V, 50/60Hz, 15 Amps  |
| Operating Requirements                         | Room temperature: 65° to 80° F (18° to 27° C); Humidity: 35% to 85% (non-condensing)<br>See module datasheets for specific information  |
| Storage Requirements                           | Room temperature: 50° to 130° F (10° to 54° C); Humidity: 0% to 85% (non-condensing)  |



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DATACARD® MX1100™ CARD ISSUANCE SYSTEM



KEY TECHNOLOGIES

- Magnetic Stripe Encoding
- Smart Card Personalization
- Single-Step Color Printing
- Graphics Printing
- Durable Graphics Printing

- Laser 325
- Basic Topcoat
- Datacard® DuraGard® Laminate
- Embossing/Indent Printing

- Secure Indent
- Topping
- Label Affixing

- Bar Code Scanning

- Vision Verification Gen 2

- Datacard® MXD110™ Card Delivery System

- Datacard®MXi111™ Envelope Insertion System

Affordable and secure centralized card issuance

Take your card program to the next level of efficiency for a minimal capital investment. The Datacard® MX1100™ card issuance system helps card issuers take an affordable first step into centralized card issuance. The system offers a unique combination of low cost-per-card and proven Datacard quality, reliability and ease-of-use for expanding card programs.

- A choice of pre-configured systems.** The MX1100 system is available in several value-priced fixed configurations — with or without smart card capabilities, allowing you the flexibility to choose the configuration that meets the specific needs of your card program.

- Proven design from a trusted partner.** Based on the industry leading Datacard® central issuance platforms, the MX1100 system consistently demonstrates superior productivity and security in incredibly demanding issuance environments worldwide. Multiple physical and logical security features reduce the risk of fraud and theft without slowing the issuance process.

- Metal card engraving.** The MX1100 system offers customers the ability to produce metal engraved cards or plastic financial cards within the same system, providing a productive solution that can serve as both a standard personalization system as well as a unique program differentiator. Metal cards provide a strong brand statement within high value or elite card programs. The MX1100 system can now service both plastic and metal card types. See Datacard® MX1100™ card issuance system for metal card personalization overview datasheet for more information.

- A complete card-to-envelope solution.** The Datacard® MXD110™ card delivery and Datacard® MXi111™ envelope insertion systems seamlessly integrate with the MX1100 system to enhance your overall card operations. In one automated process, you can affix cards and add marketing insertions into an envelope for a complete card-to-envelope solution.



KEY TECHNOLOGIES

Physical and Logical Security

The MX1100 system offers multiple lines of defense to help reduce the risk of fraud and theft. Logical safeguards protect cardholder and production data, while physical security features limit access to the system controller, card stock and supplies.

System Controller Software

Centralized controls and an intuitive interface allows operators to manage all system functions — data input, job setups, card layout design, production environment, error/remake management and audit/reconciliation management.

Magnetic Stripe Encoding

Write and verify up to three tracks of data simultaneously on ID-1 or mini-cards. Flexible mounting of encoding heads accommodate a wide range of encoding needs. The system provides read/lookup and read/verify functions to automate downstream personalization. It supports all ISO, AAMVA and JIS encoding formats with common coercivity requirements.

Smart Card Personalization

Personalize smart cards with a flexible, high-quality and secure system. The system architecture accomodates contact and contactless smart cards enabling issuers to accomodate many card types.

Laser 325

State-of-the-art fiber optic laser engraving technology delivers exceptional quality. It delivers variable-size photos, alphanumeric text, ID and 2D bar codes, micro-engraving, black-and-white logos and other graphical elements at greater than 400 dpi gray scale resolution. The system allows engraving of both the front and backside of the card and provides standard CLI and/or optional MLI or 3D tilted image engraving for enhanced visual security.

Single-Step Color Printing

Print full-color, 300 dpi photos, graphics, logos and images directly on the card using dye diffusion thermal transfer (D2T2) technology. The system allows for near edge-to-edge printing and provides a low-cost color output in a compact footprint. The single-step color printing package includes your choice of basic topcoat or DuraGard laminate.

Graphics Printing

Thermal technology enables card issuers to print 300 dpi monochrome, custom graphics, including text, logos and bar codes. Near edge-to-edge printing and precise placement tolerances deliver excellent results on PVC cards. Flexible configurations allow customers to print different colors on a single side, or print front and back graphics in a single pass.

Durable Graphics Printing Module

Personalize long-lasting, high-resolution 600 dpi monochrome graphics — such as text, logos, bar codes and other card elements — on PVC cards using thermal transfer UV-cured ribbon technology. Topcoat application is not required.

Basic Topcoat

Protect color or graphics printed images with a true edge-to-edge layer of clear or holographic topcoat. A variety of application rollers are available to meet card program needs.

DuraGard® Lamination

Issuers who require extended card durability and security can replace basic topcoat with DuraGard laminate — a polyester patch that offers extra protection. Laminate supplies are available in holographic and a variety of clear laminate sizes.

Secure Indenting

Adds tactile elements to national IDs, driver's licenses and other ID cards to help prevent fraud or alteration. The secure indent technology provides variable personalization and supports multiple fonts including a wide range of alpha numeric, special or custom characters. These indent characters can be positioned vertically or horizontally on the front, rear or both sides of the card.

KEY TECHNOLOGIES

Embossing/Indent Printing

Personalize cards using high-quality, ISO-compliant embossing and indent printing on front, back or both sides of cards. The unique design provides consistent character-to-character spacing, text height and alignment. Issuers can utilize multiple fonts and a wide range of characters, including Braille and security fonts.

Topping

Colored topping material increases readability of embossed characters. The system delivers consistent, high-quality topping, card after card — exceeding ISO standards.

Label Affixing

Increase production efficiency by affixing adhesive labels to cards for security, activation or promotional programs.

CONFIGURATIONS

The MX1100 offers flexible options with or without smartcard. Choose the configuration that meets your card production needs. For more information on the configuration options and their included technologies, refer to the **MX1100 Systems Configurations Overview Guide** available on PartnerPage

| BASE MX1100 CONFIGURATIONS |  | Target Applications  |
|----------------------------|--|--|
| DG                         | Durable Graphics                       | Financial Credit, Debit  |
| DGS                        | Durable Graphics<br>Smart Card Enabled | Financial Credit, Debit  |
| G                          | Graphics                               | Drivers License, Health-care, Gift Credit, Direct Mail, Membership |
| GS                         | Graphics<br>Smart Card Enabled         | National ID, Healthcare, Drivers License, Flat Credit, Gift        |
| E                          | Embossing                              | Financial Credit, Debit, Gift                                      |
| ES                         | Embossing<br>Smart Card Enabled        | EMV, Credit, Debit, Gift   |
| L                          | Laser                                  | National ID, Social Security                                       |
| LS                         | Laser<br>Smart Card Enabled            | Natioanl ID, Drivers License                                       |

Bar Code Scanning

For additional security, the system can read a variety of preprinted serial numbers, document control numbers and bar codes used to control and monitor secure card stocks providing an additional layer of fraud prevention.

Vision Verification Gen 2

Automate your quality process with the inline quality checking option. It verifies a wide variety of pre-printed and personalized elements on the front and/or back of cards to help reduce the chance of errors, improve data integrity and increase efficiency.

| METAL CARD MX1100 CONFIGURATIONS |  | Target Applications     |
|----------------------------------|--|-------------------------|
| ML                               | Metal Card                                 | Financial Credit, Debit |
| MLS                              | Metal Card<br>Smart Card Enabled           | Financial Credit, Debit |
| MLP                              | Metal & Plastic Card                       | Financial Credit, Debit |
| MLPS                             | Metal & Plastic Card<br>Smart Card Enabled | Financial Credit, Debit |

For more information on the Metal Card Configuration options, refer to the **MX1100 Metal Card Datasheet** availbale on PartnerPage.





DATACARD® MX1100™ CARD ISSUANCE SYSTEM FOR METAL CARD PERSONALIZATION

| System Specifications                                       |  |
|---|--|
| System Controller   | Intel Xeon Quad Core, 3.1 GHz; Memory 8.0 GB; Hard Drive 1 terabyte  |
| Security Software Capability                                | Microsoft Windows Embedded Standard 7 OS security access level control and input / export of encrypted and / or digitally signed data. Access and privileges are assigned by the administrator.  |
| Card Input/Output Trays (Metal)                             | Input Up to 30 cards (0.03in thick)/Output Up to 500 cards   |
| Card Input/Output Trays (Plastic)                           | Up to 500 cards (0.03in thick) non-embossed cards per tray; 300 embossed cards per tray  |
| Magnetic Stripe Encoding                                    | Supports common ISO, AAMVA and JIS formats; High, low and JIS coercivity.<br>Track Density: Standard encoding 75 and 210 bpi (bits per inch)<br>Custom encoding selections from 75 to 315 bpi  |
| Smart Card Personalization                                  | Combination: Contact programming stations: 1 to 11<br>Contactless programming stations: 1 to 6<br>Full support as documented below for all protocols, frequencies and communication speeds<br><br>Contact: Programming stations: 1 to 11<br>Protocols supported: Full ISO 7816-3, T=0/T=1<br>Frequencies (clock speeds): 3.579 MHz, 4.915 MHz, 7.159 MHz and 9.830 MHz<br>Supports communication speeds as defined by ISO 7816-3 up to 230K bps<br><br>Contactless: Programming stations: 1 to 6; Full and top-half antenna supported<br>Protocols supported: ISO 14443 Type A, Type B, Philips MIFARE, Sony FeliCa<br>Frequencies (clock speeds): 13.56 MHz<br>Supports communication speeds of 106, 212, 424 and 847 Kbps  |
| Graphics Printing (For use with plastic cards only)         | Resolution: 300 dpi<br>Text Formats: Scalable fonts, including TrueType fonts for Microsoft Windows operating systems<br>Bar Code Formats: One-dimensional (1D): Code 39, Code 39 Extended, Code 39 HIBC, Codabar, NW7, EAN8, JAN8, EAN13, JAN13, UPCA, UPCE, Booklan, Interleaved 2 of 5, Code 128, EAN_UCC128, Code 93, MSI Plessey, Intelligent Mail (ID)<br>Two-dimensional (2D): PDF417, Data Matrix, QR<br><br>Image Formats: Certain versions or features of the following image formats may be supported: BMP, DCT (Datacard 9000 Ultra Grafix monochrome image format), DCP, DPEG (Datacard 9000 color image format), GIF 87, GIF 89, JPEG, JPEG 2000, PCX, PNG, TGA and TIFF. For additional information contact your local sales representative.<br><br>Placement: Near edge-to-edge - 0.1 in. (2.54 mm) from card edge, chip or cutout<br>Cleaning Area: Entire front and back surface of the card in one pass |
| Laser 325   | Technology: Air cooled fiber laser; Class 1 Laser Product<br>Capabilities: Pixel engraving: text, photos, bar codes, and other digitized images; Vector engraving; text; Micro-engraving; Tilted image engraving; CLI (standard), MLI (option), 3D photo (option)<br><br>Resolution: Greater than 400 dpi; grayscale<br>Elements: Photos, alphanumeric text, vector text, bar codes, signature, fingerprint, black-and-white logos, graphic images, scrambled indicia, tilted images, ghost images, micro-engraving<br><br>Text Formats: Scalable fonts, including TrueType fonts for Microsoft Windows operating systems<br>Bar Code Formats: One-dimensional (1D): EAN13, Code 39, Code 128, Interleaved 2 of 5<br>Two-dimensional (2D): PDF417, Data Matrix, QR<br>Image formats:JPEG (.jpg),TIFF (.tif), Bitmap (.bmp), PNG (.png)   |
| Embossing Indent Printing (For use with plastic cards only) | Up to 8 lines of embossing<br>Indent printing: Front, rear or both sides of the card<br>Emboss and indent print placement<br>Vertical: 0.16 in. (4 mm) to 1.46 in. (37.1 mm) from bottom edge of card to center line<br>Horizontal: 0.10 in. (2.5 mm) to 3.2 in. (83.2 mm) from left edge of card to center line<br><br>Wide variety of characters and fonts:<br>112-character wheel accomodates multiple fonts and special characters<br>Standard fonts: OCR-A, OCR-B, Standard Gothic, Helvetica, Farrington, Katakana Special, custom, secure fonts and international language characters   |
| Topping (For use with plastic cards only)                   | Automatically determines the appropriate topping area based on prior embossing<br>Vertical: 1.54 in (39.1 mm) measured from bottom edge of the card to uppermost character edge and 0.095 in. (2.4 mm) measured from bottom edge of the card to lowermost character edge<br><br>Horizontal: 3.08 in. (78.3 mm) measured from left edge of card to final character edge and 0.24 in. (6.1 mm) measured from left edge of card to first character edge<br>Topping foil can only be applied to cards that are embossed in the same production run   |
| Label Affixing (For use with plastic cards only)            | Label Affixing Label types supported: Preprinted labels (see Datacard specification document 530202-001)<br><br>Label Size: Minimum: Height: 0.625 in. (15.9 mm), Width: 1.0 in. (25.4 mm)<br>Maximum: Height: 1.0 in. (25.4 mm), Width: 3.0 in. (76.2 mm)<br><br>Label Placement: 1.0 in. (25.4 mm) from the bottom of the card<br>0.125 in. (3.175 mm) from the top of the card<br>0.10 in. (2.54 mm) from the right or left edge of the card  |
| System Height   | To top of module 50.1 in. (127.3 cm)   |
| System Depth  | 33.8 in. (85.9 cm)   |
| Electrical Requirements                                     | 230V, 50/60Hz, 15 Amps   |
| Operating Requirements                                      | Room temperature: 65° to 80° F (18° to 27° C); Humidity: 20% to 85% (non-condensing)   |
| Storage Requirements  | Room temperature: 50° to 130° F (10° to 54° C); Humidity: 0% to 85% (non-condensing)   |

DATACARD® MX1100™ CARD ISSUANCE SYSTEM FOR METAL CARD PERSONALIZATION



KEY TECHNOLOGIES

- Magnetic Stripe Encoding
- Smart Card Personalization
- Graphics Printing
- Laser 325
- Embossing/Indent Printing
- Topping
- Label Affixing

Affordable and secure centralized card issuance

Take your card program to the next level of efficiency for a minimal capital investment. The Datacard® MX1100™ card issuance system for metal card personalization helps card issuers take an affordable first step into metal card issuance.

- **A choice of pre-configured systems.** The MX1100 system with metal card personalization capabilities is available in several value-priced fixed configurations — with or without smart card capabilities allowing you the flexibility to choose the configuration that meets the specific needs of your card program.

- **Proven design from a trusted partner.** Based on the industry leading Datacard® central issuance platforms, the MX1100 system for metal card personalization consistently demonstrates superior productivity and security in incredibly demanding issuance environments worldwide.

- **Metal card engraving.** The MX1100 system offers customers the ability to produce metal engraved cards or plastic financial cards within the same system, providing a productive solution that can serve as both a standard personalization system as well as a unique program differentiator. Metal cards provide a strong brand statement within high value or elite card programs. The MX1100 system can now service both plastic and metal card types.



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KEY TECHNOLOGIES

Physical and Logical Security

The MX1100 system offers multiple lines of defense to help reduce the risk of fraud and theft. Logical safeguards protect cardholder and production data, while physical security features limit access to the system controller, card stock and supplies.

System Controller Software

Centralized controls and an intuitive interface allows operators to manage all system functions — data input, job setups, card layout design, production environment, error/remake management and audit/reconciliation management.

Magnetic Stripe Encoding

Write and verify up to three tracks of data simultaneously on ID-1 cards. Flexible mounting of encoding heads accommodate a wide range of encoding needs. The system provides read/lookup and read/verify functions to automate downstream personalization. It supports all ISO, AAMVA and JIS encoding formats with common coercivity requirements.

Smart Card Personalization

Personalize smart cards with a flexible, high-quality and secure system. The system architecture accomodates contact and contactless smart cards enabling issuers to accomodate many card types.

Laser 325

State-of-the-art fiber optic laser engraving technology delivers exceptional quality. It delivers variable-size photos, alphanumeric text, 1D and 2D bar codes, micro-engraving, black-and-white logos and other graphical elements at greater than 400 dpi gray scale resolution. The system allows engraving of both the front and backside of the card.

Graphics Printing (For use with plastic cards only)

Thermal technology enables card issuers to print 300 dpi monochrome, custom graphics, including text, logos and bar codes. Near edge-to-edge printing and precise placement tolerances deliver excellent results on PVC cards. Flexible configurations allow customers to print different colors on a single side, or print front and back graphics in a single pass. For use with plastic cards only.

Embossing/Indent Printing (For use with plastic cards only)

Personalize cards using high-quality, ISO-compliant embossing and indent printing on front, back or both sides of cards. The unique design provides consistent character-to-character spacing, text height and alignment. Issuers can utilize multiple fonts and a wide range of characters, including Braille and security fonts. For use with plastic cards only.

Topping (For use with plastic cards only)

Colored topping material increases readability of embossed characters. The system delivers consistent, high-quality topping, card after card — exceeding ISO standards. For use with plastic cards only.

Label Affixing (For use with plastic cards only)

Increase production efficiency by affixing adhesive labels to cards for security, activation or promotional programs. For use with plastic cards only.

MX1100 SYSTEM METAL CARD CONFIGURATIONS

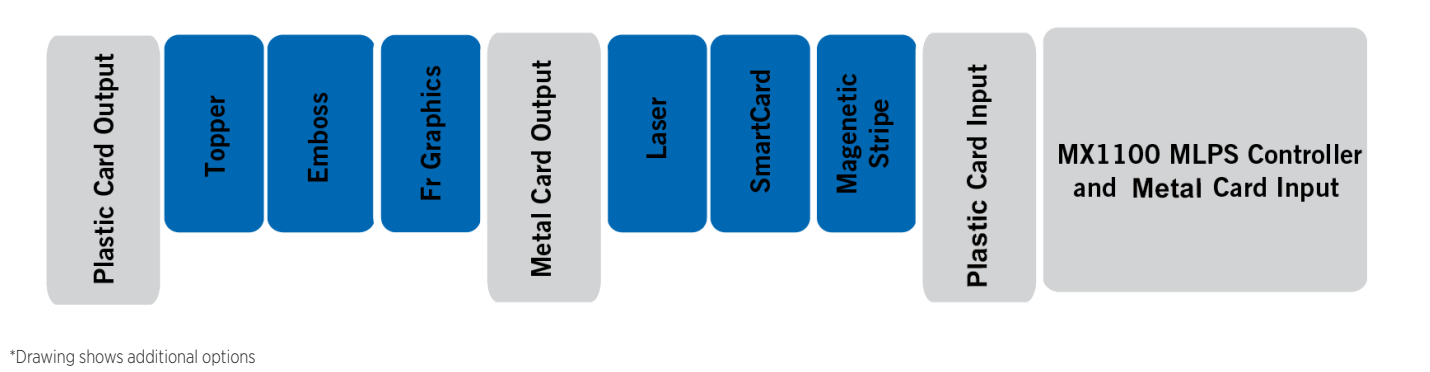
Requires RPQ opportunity submission for card analysis

|                              | MX1100 (ML)  | MX1100 (MLS)           | MX1100 (MLP)         | MX1100 (MLPS)                    |
|------------------------------|--|------------------------|----------------------|----------------------------------|
|                              | Metal Card   | Metal Card, Smart Card | Metal & Plastic Card | Metal & Plastic Card, Smart Card |
| Base System                  | •  | •                      | •                    | •                                |
| Input Module (Metal Card)    | •  | •                      | •                    | •                                |
| Input Module (Plastic Card)  |  |                        | •                    | •                                |
| Magnetic Stripe              | Option   | Option                 | Option               | Option                           |
| Smart Card                   |  | •                      |                      | •                                |
| Laser 325                    | •  | •                      | •                    | •                                |
| Output Module (Metal Card)   | •  | •                      | •                    | •                                |
| Graphics Printing            |  |                        | Option               | Option                           |
| Embossing/Indent             |  |                        | •                    | •                                |
| Topping                      |  |                        | •                    | •                                |
| Label Affixing               |  |                        | Option               | Option                           |
| Output Module (Plastic Card) |  |                        | •                    | •                                |
| Card Devlivery               | Not a standard option. Please contact your regional sales manager.   |                        |                      |                                  |
| System Specifications        |  |                        |                      |                                  |
| Weight                       | 1,020 lbs (462.7 kg)   | 1,131 lbs (513.0 kg)   | 1,020 lbs (462.7 kg) | 1,131 lbs (513.0 kg)             |
| Current Draw                 | 4.27 Amps at 230V  | 5.01 Apms at 230V      | 4.27 Amps at 230V    | 5.01 Amps at 230V                |
| Heat                         | 3,993 BTUs per hour  | 4,559 BTUs per hour    | 3,993 BTUs per hour  | 4,559 BTUs per hour              |
| Rated Speed                  | Up to 600 cph, depending on card layout  |                        |                      |                                  |
| Operating System             | Microsoft Windows Embedded Standard 7  |                        |                      |                                  |
| Card Types Supported         | ISO/IEC 7810 ID-1 Size; 30 mil (±10%)  |                        |                      |                                  |
| Card Materials               | All card materials can be processed, including PVC, composite, polycarbonate, ABS, PET and PETG. Laser engraving recommended for metal core polycarbonate, composite or PVC with special layer. Limitations may exist for each personalization technology. |                        |                      |                                  |
| Agency Approvals             | FCC, UL, CUL and ROHS compliant  |                        |                      |                                  |

• = Part of base system configuration

MX1100 SYSTEM CONFIGURATION FOR METAL & PLASTIC CARDS

Requires RPQ opportunity submission for card analysis



\*Drawing shows additional options



# MX1100 System Configurations Overview Guide

**Configurations –The MX1100** system offers flexible options with or without smart card. Choose the configuration that meets your card production needs.

| Base MX1100 System Configurations | DG – Durable Graphics   | DGS – Durable Graphics Smart Card Enabled | G -Graphics   | GS – Graphics Smart Card Enabled                            | E -Embossing                  | ES – Embossing Smart Card Enabled | L- Laser                          | LS - Laser Smart Card Enabled     |
|-----------------------------------|---|---|---|---|-------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Target Applications               | Financial Credit & Debit  | Financial Credit & Debit                  | Drivers License, Healthcare, Gift Credit, Direct Mail, Membership | National ID, Healthcare, Drivers License, Flat Credit, Gift | Financial Credit, Debit, Gift | EMV, Credit, Debit, Gift          | National ID, Social Security      | National ID, Drivers License      |
| Base System                       | •   | •   | •   | •   | •                             | •                                 | •                                 | •                                 |
| Magnetic Stripe                   | Option  | Option                                    | Option  | Option  | Option                        | Option                            | Option                            | Option                            |
| Smart Card                        |   | •   |   | •   |                               | •                                 |                                   | •                                 |
| Durable Graphics                  | •   | •   |   |   |                               |                                   |                                   |                                   |
| Graphics 1                        | Option  | Option                                    | •   | •   | Option                        | Option                            | Option                            | Option                            |
| Graphics 2                        | Option  | Option                                    | Option  | Option  | Option                        | Option                            | Option                            | Option                            |
| Graphics 3                        |   |   | Option  | Option  | Option                        | Option                            | Option                            | Option                            |
| Laser 325                         |   |   |   |   |                               |                                   | •                                 | •                                 |
| Single-Step Color                 | Clr Pkg   | Clr Pkg                                   | Clr Pkg   | Clr Pkg   | Clr Pkg                       | Clr Pkg                           | Clr Pkg                           | Clr Pkg                           |
| Basic Topcoat                     | Clr Pkg   | Clr Pkg                                   | Clr Pkg   | Clr Pkg   | Clr Pkg                       | Clr Pkg                           | Clr Pkg                           | Clr Pkg                           |
| DuraGard                          | Replaces Basic Topcoat in Clr Pkg   | Replaces Basic Topcoat in Clr Pkg         | Replaces Basic Topcoat in Clr Pkg                                 | Replaces Basic Topcoat in Clr Pkg                           |                               |                                   | Replaces Basic Topcoat in Clr Pkg | Replaces Basic Topcoat in Clr Pkg |
| Embossing                         |   |   |   |   | •                             | •                                 | Braille Only                      | Braille Only                      |
| Topping                           |   |   |   |   | •                             | •                                 |                                   |                                   |
| Label Affixing                    | Option  | Option                                    | Option  | Option  | Option                        | Option                            | Option                            | Option                            |
| Bar Code Scanning                 | Option  | Option                                    | Option  | Option  | Option                        | Option                            | Option                            | Option                            |
| Vision Verification               | Option  | Option                                    | Option  | Option  | Option                        | Option                            | Option                            | Option                            |
| MXD110 System                     | Available   | Available                                 | Available   | Available   | Available                     | Available                         | Available                         | Available                         |
| MXI11 System                      | Available   | Available                                 | Available   | Available   | Available                     | Available                         | Available                         | Available                         |
| <b>System Specifications</b>      |   |   |   |   |                               |                                   |                                   |                                   |
| Weight                            | 903 lbs (410 kg)  | 1,014 lbs (464 kg)                        | 482 lbs (219 kg)  | 593 lbs (270 kg)  | 624 lbs (283 kg)              | 775 lbs (351 kg)                  | 555 lbs (252 kg)                  | 666 lbs (303 kg)                  |
| Current Draw                      | 4.32 Amps at 230V   | 5.06 Amps at 230V                         | 2.05 Amps at 230V   | 2.79 Amps at 230V   | 3.18 Amps at 230V             | 3.92 Amps at 230V                 | 2.52Amps at 230V                  | 3.26 Amps at 230V                 |
| Heat                              | 5,385 BTUs per hour   | 5,951 BTUs per hour                       | 1,338 BTUs per hour   | 1,904 BTUs per hour   | 2,375 BTUs per hour           | 2,941 BTUs per hour               | 2,152 BTUs per hour               | 2,718 BTUs per hour               |
| Rated Speed                       | Up to 600 cph   |   |   |   |                               |                                   |                                   |                                   |
| Operating System                  | Microsoft Windows Embedded Standard 7   |   |   |   |                               |                                   |                                   |                                   |
| Card Type Supported               | ISO/IEC 7810 ID-1 Size; 30 mil (±10%)   |   |   |   |                               |                                   |                                   |                                   |
| Card Materials                    | All card materials can be processed, including PVC, composite, polycarbonate, ABS, PET and PETG. Laser engraving recommended for polycarbonate, composite or PVC with special layer. Color printing recommended for PVC or PVC laminated cards. When combining laser and color card material must be tested for compatibility. Limitations may exist for each personalization technology. |   |   |   |                               |                                   |                                   |                                   |
| Agency Approvals                  | FCC, UL, CUL and ROHS compliant   |   |   |   |                               |                                   |                                   |                                   |

# MX1100 System Configurations Overview Guide - Metal Card

## Configurations for METAL CARD –

THE MX1100 system offers metal card options with or without smart card. Choose the metal card configurations that meets your card production needs.

| MX1100 System Metal Card Configurations | ML – Metal Card  | MLS – Metal Card Smart Card Enabled | MLP – Metal & Plastic Card | MLPS – Metal & Plastic Card Smart Card Enabled |
|---|--|-------------------------------------|----------------------------|--|
| Base System                             | •  | •                                   | •                          | •  |
| Input Module (Metal Card)               | •  | •                                   | •                          | •  |
| Input Module (Plastic Card)             |  |                                     | •                          | •  |
| Magnetic Stripe                         | Option   | Option                              | Option                     | Option   |
| Smart Card                              |  | •                                   |                            | •  |
| Laser 325                               | •  | •                                   | •                          | •  |
| Output Module (Metal Card)              | •  | •                                   | •                          | •  |
| Graphics Printing                       |  |                                     | Option                     | Option   |
| Embossing/Indent                        |  |                                     | Option                     | Option   |
| Topping                                 |  |                                     | Option                     | Option   |
| Label Affixing                          |  |                                     | Option                     | Option   |
| Output Module (Plastic Card)            |  |                                     | •                          | •  |
| <b>System Specifications</b>            |  |                                     |                            |  |
| Weight                                  | 555 lbs (252 kg)   | 666 lbs (303 kg)                    | 755 lbs (343 kg)           | 866 lbs (394 kg)                               |
| Current Draw                            | 2.52 Amps at 230V  | 3.26 Amps at 230V                   | 3.35 Amps at 230V          | 4.09 Amps at 230V                              |
| Heat                                    | 2,152 BTUs per hour  | 2,718 BTUs per hour                 | 2,768 BTUs per hour        | 3,334 BTUs per hour                            |
| Rated Speed                             | Up to 600 cph, depending on card layout  |                                     |                            |  |
| Operating System                        | Microsoft Windows Embedded Standard 7  |                                     |                            |  |
| Card Type Supported                     | ISO/IEC 7810 ID-1 Size; 30 mil (±10%)  |                                     |                            |  |
| Card Materials                          | All card materials can be processed, including PVC, composite, polycarbonate, ABS, PET and PETG. Laser engraving recommended for metal core polycarbonate, composite or PVC with special layer. Limitations may exist for each personalization technology. |                                     |                            |  |
| Agency Approvals                        | FCC, UL, CUL and ROHS compliant  |                                     |                            |  |



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# DATACARD® MX1100™ CARD ISSUANCE SYSTEM

## System Specifications

|  |  |
|--|--|
| System Controller                              | Intel Xeon E3-1275 3.6GHz; Memory 32 GB; Hard drive Minimum 1.2 terabyte SSD   |
| Security Software Capability                   | Microsoft Windows Embedded Standard 7 OS security access level control and input / export of encrypted and / or digitally signed data. Access and privileges are assigned by the administrator.  |
| Card Input/Output Trays                        | Up to 500 (0.03 in. thick) non-embossed cards per tray; 300 embossed cards per tray.   |
| Magnetic Stripe Encoding                       | Supports common ISO, AAMVA and JIS formats; High, low and JIS coercivity<br>Track Density: Standard encoding 75 and 210 bpi (bits per inch)<br>Custom encoding selections from 75 to 315 bpi   |
| Smart Card Personalization                     | Combination: Programming stations: 1 to 6<br>Full support as documented below for all protocols, frequencies and communication speeds<br>Contact: Programming stations: 1 to 11<br>Protocols supported: Full ISO 7816-3, T=0/T=1<br>Frequencies (clock speeds): 3.579 MHz, 4.915 MHz, 7.159 MHz and 9.830 MHz<br>Supports communication speeds as defined by ISO 7816-3 up to 230K bps<br>Contactless: Programming stations: 1 to 6; Full and top-half antenna supported<br>Protocols supported: ISO 14443 Type A, Type B, Philips MIFARE, Sony FeliCa<br>Frequencies (clock speeds): 13.56 MHz<br>Supports communication speeds of 106, 212, 424 and 847 Kbps   |
| Single-Step Color Printing                     | Resolution: 300 dpi<br>Text Formats: Scalable fonts, including TrueType fonts for Microsoft Windows operating systems<br>Image Formats: Certain versions or features of the following image formats may be supported: BMP, DCT (Datacard 9000 UltraGrafix monochrome image format), DCP, JPEG (Datacard 9000 color image format), GIF 87, GIF 89, JPEG, JPEG 2000, PCX, PNG, TGA and TIFF. For additional information contact your local sales representative.<br>Placement: Near edge-to-edge - 0.1 in. (2.54 mm) from card edge, chip or cutout<br>Cleaning Area: Entire front and back surface of the card in one pass. Located by the input trays  |
| Graphics Printing<br>Durable Graphics Printing | Resolution: 300 dpi (Graphics Printing), 600 dpi (Durable Graphics Printing)<br>Text Formats: Scalable fonts, including TrueType fonts for Microsoft Windows operating systems<br>Bar Code Formats: One-dimensional (1D): Code 39, Code 39 Extended, Code 39 HIBC, Codabar, NW7, EAN8, JAN8, EAN13, JAN13, UPCA, UPCE, Bookland, Interleaved 2 of 5, Code 128, EAN_UCC128, Code 93, MSI Plessey, Intelligent Mail (ID), QRCode<br>Two-dimensional (2D): PDF417 and Data Matrix<br>Image Formats: Certain versions or features of the following image formats may be supported: BMP, DCT (Datacard 9000 UltraGrafix monochrome image format), DCP, JPEG (Datacard 9000 color image format), GIF 87, GIF 89, JPEG, JPEG 2000, PCX, PNG, TGA and TIFF. For additional information contact your local sales representative.<br>Placement: Near edge-to-edge - 0.1 in. (2.54 mm) from card edge, chip or cutout<br>Cleaning Area: Entire front and back surface of the card in one pass. Located by the printhead (Graphics Printing) and located in the input trays (Durable Graphics) |
| Laser 325                                      | Technology: Air cooled fiber laser; Class 1 Laser Product<br>Capabilities: Pixel engraving: text, photos, bar codes, and other digitized images; Vector engraving; text; Micro-engraving; Tilted image engraving; CLI (standard), MLI (option), 3D photo (option)<br>Resolution: Greater than 400 dpi; grayscale<br>Elements: Photos, alphanumeric text, vector text, bar codes, signature, fingerprint, black-and-white logos, graphic images, scrambled indicia, tilted images, ghost images, micro-engraving<br>Text Formats: Scalable fonts, including TrueType fonts for Microsoft® Windows® operating systems<br>Bar Code Formats: One-dimensional (1D): EAN13, Code 39, Code 128, Interleaved 2 of 5<br>Two-dimensional (2D): PDF417, Data Matrix, QR<br>Image formats: JPEG (.jpg), TIFF (.tif), Bitmap (.bmp), PNG (.png)   |
| Basic Topcoat                                  | Full edge-to-edge embossable topcoat. Available in clear and random or registered custom holographics  |
| DuraGard® Laminate                             | Placement within approximately 0.03 in. (0.081 cm) of card edges. Card-to-card placement tolerance of less than 0.032 in. Size/Thickness: 2.06 in. x 3.31 in. (5.23 cm x 8.41 cm); 1.0 mil thick   |
| Embossing Indent Printing                      | Capability: Up to 8 lines of embossing<br>Indent printing: Front, rear or both sides of the card<br>Print placement: Vertical: 0.16 in. (4 mm) to 1.46 in. (37.1 mm) from bottom edge of card to center line<br>Horizontal: 0.10 in. (2.5 mm) to 3.2 in. (83.2 mm) from left edge of card to center line<br>Fonts: 112-character wheel accommodates multiple fonts and special characters<br>Standard: OCR-A, OCR-B, Standard Gothic, Helvetica, Farrington, Katakana. Special, custom, secure fonts and international language characters   |
| Secure Indent                                  | Capabilities: Indent a single line or multiple lines<br>Fonts: 112-character indent wheel accommodates multiple fonts and special characters<br>Standard, outlined, pattern and custom characters including rotated character fonts (90°, 180°, or 270°) and shapes  |
| Topping  | Automatically determines and applies the appropriate topping area based on prior embossing in the same production run<br>Vertical: 1.54 in (39.1 mm) measured from bottom edge of the card to uppermost character edge and 0.095 in. (2.4 mm) measured from bottom edge of the card to lowermost edge<br>Horizontal: 3.08 in. (78.3 mm) measured from left edge of card to final character edge and 0.24 in. (6.1 mm) measured from left edge of card to first character edge  |
| Pre-Printed Label Affixing                     | Label types supported: Preprinted labels (see Datacard specification document 530202-001)<br>Label Size: Minimum: Height: 0.625 in. (15.9 mm), Width: 1.0 in. (25.4 mm)<br>Maximum: Height: 1.0 in. (25.4 mm), Width: 3.0 in. (76.2 mm)<br>Label Placement: 1.0 in. (25.4 mm) from the bottom of the card<br>0.125 in. (3.175 mm) from the top of the card<br>0.10 in. (2.54 mm) from the right or left edge of the card   |
| Bar Code Scanning                              | Bar Code Formats: One-dimensional (1D): EAN12, Code 39, Code 128 and Interleaved 2 of 5<br>Two-dimensional (2D): PDF417 and Data Matrix<br>Minimum Height: One-dimensional (1D): either .25" or 0.15 x total length of code whichever is larger<br>Two-dimensional (2D): PDF417: minimum height is twice the length of code<br>Data Matrix: Minimum height is dependent on amount of data and size of elements.<br>Narrowest Width of Space/Bar in Bar Code: Code 39, code 128, Interleaved 2 of 5 0.005 in. (0.127 mm)<br>UPC 0.013 in. (0.330 mm); PDF417 0.0066 in. (0.167 mm); Data Matrix 0.015 in. (0.381 mm)  |
| Vision Verification Gen 2                      | Readable Elements: Basic support for many TrueType fonts for Microsoft® Windows® operating systems; printed and pre-printed graphics, laser, OCR-B (including ICAO MRZ standards for cards)*<br>Image Rotation Capabilities: Supports rotation at 90, 180 and 270 degrees<br>Minimum Verifiable Text Size: High-quality, lithographic printing - 0.06 in. (1.52mm)   |
| System Height & Depth                          | To top of module 50.1 in. (127.3 cm). Front to back 33.8 in (85.9 cm)  |
| Electrical Requirements                        | 230V, 50/60Hz, 15 Amps   |
| Operating Requirements                         | Room temperature: 65° to 80° F (18° to 27° C); Humidity: 35% to 85% (non-condensing)<br>See module datasheets for specific information   |
| Storage Requirements                           | Room temperature: 50° to 130° F (10° to 54° C); Humidity: 0% to 85% (non-condensing)   |

# DATACARD® MX1100™ CARD ISSUANCE SYSTEM



## KEY TECHNOLOGIES

- Magnetic Stripe Encoding
- Smart Card Personalization
- Single-Step Color Printing
- Graphics Printing
- Durable Graphics Printing
- Laser 325
- Basic Topcoat
- Datacard® DuraGard® Laminate
- Embossing/Indent Printing
- Secure Indent
- Topping
- Label Affixing
- Bar Code Scanning
- Vision Verification Gen 2
- Datacard® MXD110™ Card Delivery System
- Datacard® MXi111™ Envelope Insertion System

## Affordable and secure centralized card issuance

Take your card program to the next level of efficiency for a minimal capital investment. The Datacard® MX1100™ card issuance system helps card issuers take an affordable first step into centralized card issuance. The system offers a unique combination of low cost-per-card and proven Datacard quality, reliability and ease-of-use for expanding card programs.

- **A choice of pre-configured systems.** The MX1100 system is available in several value-priced fixed configurations — with or without smart card capabilities, allowing you the flexibility to choose the configuration that meets the specific needs of your card program.
- **Proven design from a trusted partner.** Based on the industry leading Datacard® central issuance platforms, the MX1100 system consistently demonstrates superior productivity and security in incredibly demanding issuance environments worldwide. Multiple physical and logical security features reduce the risk of fraud and theft without slowing the issuance process.
- **Metal card engraving.** The MX1100 system offers customers the ability to produce metal engraved cards or plastic financial cards within the same system, providing a productive solution that can serve as both a standard personalization system as well as a unique program differentiator. Metal cards provide a strong brand statement within high value or elite card programs. The MX1100 system can now service both plastic and metal card types. See Datacard® MX1100™ card issuance system for metal card personalization overview datasheet for more information.
- **A complete card-to-envelope solution.** The Datacard® MXD110™ card delivery and Datacard® MXi111™ envelope insertion systems seamlessly integrate with the MX1100 system to enhance your overall card operations. In one automated process, you can affix cards and add marketing insertions into an envelope for a complete card-to-envelope solution.

**Datacard®**



The MX1100 system is available in several value-priced, fixed configurations that are ideal for issuing highly secure national ID, driver's licenses, healthcare cards, membership, credit, debit, prepaid financial and metal core cards.

## KEY TECHNOLOGIES

### Physical and Logical Security

The MX1100 system offers multiple lines of defense to help reduce the risk of fraud and theft. Logical safeguards protect cardholder and production data, while physical security features limit access to the system controller, card stock and supplies.

### System Controller Software

Centralized controls and an intuitive interface allows operators to manage all system functions — data input, job setups, card layout design, production environment, error/remake management and audit/reconciliation management.

### Magnetic Stripe Encoding

Write and verify up to three tracks of data simultaneously on ID-1 or mini-cards. Flexible mounting of encoding heads accommodate a wide range of encoding needs. The system provides read/lookup and read/verify functions to automate downstream personalization. It supports all ISO, AAMVA and JIS encoding formats with common coercivity requirements.

### Smart Card Personalization

Personalize smart cards with a flexible, high-quality and secure system. The system architecture accommodates contact and contactless smart cards enabling issuers to accommodate many card types.

### Laser 325

State-of-the-art fiber optic laser engraving technology delivers exceptional quality. It delivers variable-size photos, alphanumeric text, 1D and 2D bar codes, micro-engraving, black-and-white logos and other graphical elements at greater than 400 dpi gray scale resolution. The system allows engraving of both the front and backside of the card and provides standard CLI and/or optional MLI or 3D tilted image engraving for enhanced visual security.

### Single-Step Color Printing

Print full-color, 300 dpi photos, graphics, logos and images directly on the card using dye diffusion thermal transfer (D2T2) technology. The system allows for near edge-to-edge printing and provides a low-cost color output in a compact footprint. The single-step color printing package includes your choice of basic topcoat or DuraGard laminate.

### Graphics Printing

Thermal technology enables card issuers to print 300 dpi monochrome, custom graphics, including text, logos and bar codes. Near edge-to-edge printing and precise placement tolerances deliver excellent results on PVC cards. Flexible configurations allow customers to print different colors on a single side, or print front and back graphics in a single pass.

### Durable Graphics Printing Module

Personalize long-lasting, high-resolution 600 dpi monochrome graphics — such as text, logos, bar codes and other card elements — on PVC cards using thermal transfer UV-cured ribbon technology. Topcoat application is not required.

### Basic Topcoat

Protect color or graphics printed images with a true edge-to-edge layer of clear or holographic topcoat. A variety of application rollers are available to meet card program needs.

### DuraGard® Lamination

Issuers who require extended card durability and security can replace basic topcoat with DuraGard laminate — a polyester patch that offers extra protection. Laminate supplies are available in holographic and a variety of clear laminate sizes.

### Secure Indenting

Adds tactile elements to national IDs, driver's licenses and other ID cards to help prevent fraud or alteration. The secure indent technology provides variable personalization and supports multiple fonts including a wide range of alpha numeric, special or custom characters. These indent characters can be positioned vertically or horizontally on the front, rear or both sides of the card.



## KEY TECHNOLOGIES

### Embossing/Indent Printing

Personalize cards using high-quality, ISO-compliant embossing and indent printing on front, back or both sides of cards. The unique design provides consistent character-to-character spacing, text height and alignment. Issuers can utilize multiple fonts and a wide range of characters, including Braille and security fonts.

### Topping

Colored topping material increases readability of embossed characters. The system delivers consistent, high-quality topping, card after card — exceeding ISO standards.

### Label Affixing

Increase production efficiency by affixing adhesive labels to cards for security, activation or promotional programs.

### Bar Code Scanning

For additional security, the system can read a variety of preprinted serial numbers, document control numbers and bar codes used to control and monitor secure card stocks providing an additional layer of fraud prevention.

### Vision Verification Gen 2

Automate your quality process with the inline quality checking option. It verifies a wide variety of pre-printed and personalized elements on the front and/or back of cards to help reduce the chance of errors, improve data integrity and increase efficiency.

## CONFIGURATIONS

The MX1100 offers flexible options with or without smartcard. Choose the configuration that meets your card production needs. For more information on the configuration options and their included technologies, refer to the **MX1100 Systems Configurations Overview Guide** available on PartnerPage

| BASE MX1100 CONFIGURATIONS |  | Target Applications  |
|----------------------------|--|--|
| DG                         | Durable Graphics                       | Financial Credit, Debit  |
| DGS                        | Durable Graphics<br>Smart Card Enabled | Financial Credit, Debit  |
| G                          | Graphics                               | Drivers License, Health-care, Gift Credit, Direct Mail, Membership |
| GS                         | Graphics<br>Smart Card Enabled         | National ID, Healthcare, Drivers License, Flat Credit, Gift        |
| E                          | Embossing                              | Financial Credit, Debit, Gift                                      |
| ES                         | Embossing<br>Smart Card Enabled        | EMV, Credit, Debit, Gift   |
| L                          | Laser                                  | National ID, Social Security                                       |
| LS                         | Laser<br>Smart Card Enabled            | Natioanl ID, Drivers License                                       |

| METAL CARD MX1100 CONFIGURATIONS |  | Target Applications     |
|----------------------------------|--|-------------------------|
| ML                               | Metal Card                                 | Financial Credit, Debit |
| MLS                              | Metal Card<br>Smart Card Enabled           | Financial Credit, Debit |
| MLP                              | Metal & Plastic Card                       | Financial Credit, Debit |
| MLPS                             | Metal & Plastic Card<br>Smart Card Enabled | Financial Credit, Debit |

For more information on the Metal Card Configuration options, refer to the **MX1100 Metal Card Datasheet** availbale on PartnerPage.