# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABOUT THIS GUIDE</td>
<td>2</td>
</tr>
<tr>
<td>ORDERING &amp; PRINTING</td>
<td>2</td>
</tr>
<tr>
<td>PRINTING METHODS REFERENCE TABLE</td>
<td>3</td>
</tr>
<tr>
<td>CARD FEATURES &amp; SECURITY OPTIONS</td>
<td>4</td>
</tr>
<tr>
<td>DESIGN TIPS &amp; SUGGESTIONS</td>
<td>7</td>
</tr>
<tr>
<td>CREATING CARD ARTWORK</td>
<td>8</td>
</tr>
<tr>
<td>COLLATERAL</td>
<td>13</td>
</tr>
<tr>
<td>SMART CARD DIMENSIONS</td>
<td>14</td>
</tr>
<tr>
<td>CARD PUNCHING OPTIONS</td>
<td>14</td>
</tr>
<tr>
<td>MAGNETIC STRIPE STYLES</td>
<td>15</td>
</tr>
<tr>
<td>SIGNATURE PANELS</td>
<td>15</td>
</tr>
<tr>
<td>CONTACTLESS CARDS</td>
<td>15</td>
</tr>
<tr>
<td>CARDS WITH COUPONS</td>
<td>16</td>
</tr>
<tr>
<td>COMMONLY USED TERMS</td>
<td>17</td>
</tr>
<tr>
<td>ARTWORK &amp; FILE SETUP CHECKLIST</td>
<td>18</td>
</tr>
<tr>
<td>NOTES</td>
<td>19</td>
</tr>
</tbody>
</table>
ABOUT THIS GUIDE
Thank you for your interest in CardLogix. This guide is a reference you should follow when planning, designing and submitting artwork to CardLogix for your card order. It offers a basic overview for implementing card graphics that meet your design, security and cost requirements. The guide helps you match CardLogix capabilities to your unique needs and helps you identify and prioritize what you incorporate right from the start. The CardLogix Graphics and Security Printing Guide covers three main areas of card printing:

- **The Graphic Aspect of the card**: Text, Graphics, photography and other features that either must be on the card or might be added to improve the cards appearance, functionality, etc.

- **The Security Aspect of the card**: Graphic elements that help authenticate the card, enabling quick visual verification. These elements are expensive to replicate and difficult to copy, thereby reducing the risk of fraudulent card duplication.

- **Card Collateral**: Packaging for display or mailing that further enhances the graphic and/or security aspects of the card.

CardLogix knows that effective card graphics are an important element of a successful card program. In addition to providing this guide, we look forward to working closely with you on your design. This guide is not meant as an all-inclusive discussion of card printing, but rather a general overview to supplement your expertise and familiarize you with how CardLogix works.

ORDERING & PRINTING - GENERAL CARDLOGIX GUIDELINES

**Quotations**: Quotations are valid for fifteen days and are subject to a final review of artwork and specifications when the purchase order is received.

**Terms**: Standard terms are 50% of total order value is due to CardLogix when you place the order with the balance due at the time of shipment or Net 30 days upon approved credit application.

**Proofs**: CardLogix will supply a proof of your card or artwork to your specification(s). This proof will help you visualize how your printed card or collateral will appear and give you an opportunity to make any necessary changes or corrections. Colors on the overlay are indicative of color separations only and are not representative of the colors on your final card. An additional color-matching proof is available at a nominal charge.

**Shipments**: In accordance with the Printing Industries of America established trade customs, overruns or under-runs not to exceed 10% shall constitute acceptable delivery, and the excess or deficiency shall be charged or credited to the customer. Exact shipping quantities are available for a 5% premium over the standard price.

**Data Security**: We strongly recommend that card graphic files be protected when exchanged between your company and CardLogix. Electronic delivery should never be in the clear and should be shielded by simple measures like Pretty Good Privacy™ (PGP) software or password protected Zip files. When physically delivered, a secure courier can be used. These measures are recommended for all but the most low-value card program.
**Materials:** Standard card material used is a specific PVC (Poly-Vinyl Chloride) material that is compatible with our processes. Other card materials are available on special request and at additional cost.

**Ink Colors:** CardLogix can match most Pantone® colors. Slight color variations may occur across a lot, due to variations in materials, inks, processes, heat, lamination, and other factors.

**CardLogix Rights To Promotion:** CardLogix reserves the right to use all products produced by us in our advertising and promotions unless otherwise directed in writing at the time of the order.

**Printing Methods Reference Table**

**About Printing Methods:** CardLogix employs several different printing methods when producing cards in order to balance card functionality with production efficiency. Each printing method introduces its own capabilities and limitations which should be considered when designing the look of your cards. The following table describes each printing method and highlights the most important factors for consideration.

<table>
<thead>
<tr>
<th>Printing Method</th>
<th>Features</th>
<th>Min. Order</th>
<th>Design Considerations</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithography</td>
<td>Four color process with optional Pantone® color matching. Full bleed available on both sides. Available with PVC clear overlay with mirror/mirror or mirror/matte finish.</td>
<td>1000</td>
<td>If card has a bleed in it's design, allow 1/8&quot; extra image all around. Do not round off corners. Do not position type within 1/16&quot; of the card edge. Metallic inks are considered a separate Pantone® color.</td>
<td>Lowest cost per card when ordered in high volumes.</td>
<td>Longer lead-time and lack of the ability to use variable data.</td>
</tr>
<tr>
<td>Screen Printing</td>
<td>Up to seven (7) colors. You can supply your own artwork as negatives or resolution independent computer files.</td>
<td>200</td>
<td>Provide trapping (.003&quot; - .004&quot;) on artistic elements with tight registration. Keep all meaningful elements at least 1/8&quot; from the card edge.</td>
<td>Cost effective for small to medium runs of 200 - 3000 cards.</td>
<td>Durability and cost.</td>
</tr>
<tr>
<td>Dye Sublimation</td>
<td>Typically used for serialization, photo I.D.’s, barcodes and other 1-off types of printed elements. Up to 13 colors, each applied in a single pass at 280 DPI. You can supply artwork as resolution independent computer files.</td>
<td>250</td>
<td>All images submitted must be the exact size of the intended print size on the card.</td>
<td>Allows for limited customization of each card. For fast turnaround of smaller runs.</td>
<td>Cost per card. Approximate Pantone® color matching, no bleeds, lower durability.</td>
</tr>
<tr>
<td>Lenticular</td>
<td>Motion graphics. When the card is tilted the image on the card appears to move. Artwork must be designed and submitted at 600 DPI or higher and at full output size.</td>
<td>50,000</td>
<td>Artwork design can be complex and costly as it requires multiple high resolution image files. Longer production times.</td>
<td>Customer “WOW” factor.</td>
<td>Graphic design complexity and production cost.</td>
</tr>
<tr>
<td>Guilloche/ Microprinting</td>
<td>Extremely fine, difficult to reproduce printing creates high physical security patterns so that the cards cannot be forged. Artwork must be submitted as resolution independent computer files.</td>
<td>25,000</td>
<td>Generating a guilloche will require special computer software or pre-fabricated engravings. Guilloche patterns look best when used as backgrounds or border patterns.</td>
<td>High security, difficult to reproduce.</td>
<td>Graphic design complexity.</td>
</tr>
</tbody>
</table>
CARD FEATURES & SECURITY OPTIONS
Many of the following options make fraudulent duplication more difficult, especially when options are combined. The added security of any printing option must be evaluated in terms of card functionality, distribution and total cost; with card applications varying in terms of card and program value, ranging from low-value discounts to very high-security access.

No single or combination of any options absolutely guarantee that a card will be fraud-proof, but by adding sophisticated graphic elements you can raise the bar for attackers and discourage counterfeiting.

What’s At Stake - Budgeting For Card Graphics Security
Just as in the design of your card type and functionality, understanding the value of your card program is essential in setting the level of graphic security for your card. The most common mistake is to save incremental printing costs while leaving to chance the much higher cost of fraudulent card duplication. Things to consider when budgeting graphics include:

- Loss of customer confidence when security is breached
- Card content replacement cost: Value (points, currency), or secure access data (passwords).
- Associated costs: Programming, artwork, collateral, promotion
- Card distribution cost: Retail, mailing
- Card replacement cost, addition of design elements

CardLogix recommends establishing a high threshold of security that discourages attacks, rather than hedging on low security and luck.

Barcode Printing: The following barcode types are supported and can be printed directly on the card as an additional process. These barcodes can represent unique individual and card data i.e. serial numbers. This data can be correlated or extrapolated with data that is loaded in the chips (See serialization).

- Code 39 Plus
- HIBC Code 39 Plus
- Code 39
- Codabar
- EAN 13
- Code128 Func 1 & 2
- EAN8
- UPCA
- Code128
- Code128 Func 1
- Code128 Func 2

Card Punching & Die Cutting: Tether or badge holes can be made to accommodate clasps or lanyards. See page 14 for badge hole location and specifications. Custom punching of card shapes and drilling is also available; ask your CardLogix sales representative for details.

Foils & Overlays: Available in either metallic foil or polyester overlays to increase security. Metallized foil comes in roll form and can be any width or length. A small strip with text or an image stenciled out (of the foil) can be applied to a card for a unique edge-to-edge effect. Alternatively; foil can be cut, shaped, and placed onto any location on the card. Special tooling charges apply. Low-cost, opposing double stamp foils that create a ‘pseudo hologram’ are also available.
Hidden Barcodes & Barcode Masks: Infrared barcodes protect the authenticity of a card by providing a higher level of security to standard barcodes. Barcodes with no security can be easily scanned into a computer or replicated with a copy machine. Hidden barcodes require a special type of barcode reader, and they cannot be scanned or copied by conventional means.

Laser Engraving, Indenting & Ablation: Laser engraving and indenting can be applied to the card design. Laser Ablation is the process of removing or burning material from plastic in order to create an image, number, or machine readable barcode. This produces a physical characteristic that cannot be easily re-created, removed, or altered. A 10,000 card minimum order applies.

Lenticular Motion Graphics Printing: 3D or Motion graphics are available with a lenticular optical design. This option makes the image on a card appear to move when the card is viewed from different angles. Large minimum order quantities are required for this style of printing.

Magnetic Stripe: A magnetic-stripe for permanent on-card data storage. Available in 1, 2 or 3 track, low or high coercivity. A magnetic-stripe can be applied to contactless or contact smart cards as shown on pages 15 and 16. Custom magnetic-stripes are also available in an array of colors and can made as holograms as well.

Optical Variable Devices (O.V.D's) & Holograms: A holographic film or layer applied to each card. Holograms may have a 3-dimensional effect, color changing properties, etc. O.V.D's can either be embedded in the actual card during production or hot-stamped when the card is finished. Embedded O.V.D’s can be made to de-laminate (as an added security feature) when tampered with.

Proprietary Materials & Special Colored Interlayers: Proprietary materials are those manufactured for a specific company, product, or individual. Materials can be metallized foil, pvc/plastics, or specialty items. All proprietary materials are stored in our high security vault. Colored interlayers are layers of colored material sandwiched between two or more translucent layers of laminate that when viewed on the proper plane, change the most prevalent color of the card to the color of the interlayer material.

Scratch-Off Panels: Data that is printed on a card can be temporarily hidden by covering it up with a non-transparent, removable scratch off panel. This is often used to protect PINs and account numbers during mailing or on substrates that reveal a prize item after customer purchase.

Serialization & Variable Image Printing: The printing method used to apply serialization or other variable data to the printed card has a limited number of fonts/barcodes and colors to choose from. CardLogix has the ability to guarantee that no two cards will ever get the same serial number, unless specifically requested. Typically serialization programs are correlated with data that is inserted into the chip. This data is usually supplied to CardLogix as a database file or special instructions from the customer. The tables on the following page list which fonts and colors that can be specified. Keep in mind that this restriction applies ONLY to sequential serial numbers or other types of ‘one-up’ variable data objects that are printed on the card. Standardized text placement positions are available so check with your CardLogix sales representative.
Signature Panels: A writable panel for a user’s signature or other written data adding additional security. See page 15 for signature panel options and dimensions. Also available are tamper-evident, non-erasable or custom-printed versions.

Tipping & Embossing: Card embossing is available in the two American Banking Association-approved point sizes such as those found on a credit card, and one font style. “Tipping” color is applied to the embossed type for clarity; please specify either gold or silver.

Ultraviolet & Color Shifting Inks: Ultraviolet (UV) inks are available in an array of colors. UV ink is invisible in normal light, but when held underneath a black light the ink is clearly visible. Color shifting ink such as that found on the American $20.00 bill, can also be used. Either of these options can make your card very difficult to reproduce.

Colors and fonts available for serialization and variable image printing

<table>
<thead>
<tr>
<th>COLOR NAME</th>
<th>PANTONE® EQUIV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teal</td>
<td>PMS 322</td>
</tr>
<tr>
<td>Warm Red</td>
<td>PMS 214</td>
</tr>
<tr>
<td>Purple</td>
<td>PMS 266</td>
</tr>
<tr>
<td>Gold</td>
<td>PMS 872</td>
</tr>
<tr>
<td>Burgundy</td>
<td>PMS 201</td>
</tr>
<tr>
<td>Green</td>
<td>PMS 349</td>
</tr>
<tr>
<td>Royal Blue</td>
<td>PMS 287</td>
</tr>
<tr>
<td>Silver</td>
<td>PMS 877</td>
</tr>
<tr>
<td>Blue</td>
<td>PMS Process Cyan</td>
</tr>
<tr>
<td>Red</td>
<td>PMS 200</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AVAILABLE FONTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AvantGarde-Book</td>
</tr>
<tr>
<td>Bookman-Light</td>
</tr>
<tr>
<td>Bookman-Demi</td>
</tr>
<tr>
<td>Courier</td>
</tr>
<tr>
<td>Helvetica</td>
</tr>
<tr>
<td>NewCenturySchlbk-Roman</td>
</tr>
<tr>
<td>NewCenturySchlbk-Bold</td>
</tr>
<tr>
<td>NewCenturySchlbk-Italic</td>
</tr>
<tr>
<td>Palatino-Roman</td>
</tr>
<tr>
<td>Palatino-Bold</td>
</tr>
<tr>
<td>αβχδεφγ (Symbol font)</td>
</tr>
<tr>
<td>Times-Roman</td>
</tr>
<tr>
<td>Times-Bold</td>
</tr>
<tr>
<td>ZAPF CHANCERY</td>
</tr>
<tr>
<td>☀☀☀☀☀ (Zapf Dingbats)</td>
</tr>
</tbody>
</table>
DESIGN TIPS & SUGGESTIONS
(To clarify the following terms, refer to the Commonly Used Terms at the back of this guide).

Placement of Graphics On The Card: Position your graphics no closer than 1/8” to the card edge or edge of the module. Meaningful copy should be kept out of the area in which the module will be embedded, however background images should be continuous, running through the module area. (This recommendation is to compensate for the float that comes from sheet printing and cutting and/or the poor registration of one-up card printer mechanisms).

Edge Bleeds: Allowing your copy to run off the edge of the card or ‘bleeding’ must be reflected in your artwork file by providing a representation of the card-edge in relation to the artwork. This will ensure we position your copy correctly.

Fonts: When using fonts, you should convert the fonts to curves (or outlines), in your application program. This will allow them to print accurately and without substitution. Consult your design program’s documentation for instructions on how to convert fonts to curves or outlines. The exception to this rule is for serialization and variable image printing. Please see the section preceding this for more information.

Proofing: CardLogix will generate a proof-copy of your artwork which must be approved by you before production can begin. These proofs are for the purpose of graphic design, copy positioning and typographical accuracy and should not be considered a ‘color proof’.

Colors & Color Matching: Card designs that incorporate color photographs or rasterized images will be printed using a mixture of the four primary colors Cyan, Magenta, Yellow and Black (CMYK). If the card design also contains single color elements, such as a company logo, these too will be output in CMYK color unless specifically called out in the artwork using the Pantone color matching system and requested in writing at the time we quote your project.

Card Stock: Smart card stock is closer to 0.032” thick than 0.030”. CardLogix uses the thicker material per ISO specification for better-quality flatness of plastic under the module area. Our standard card plastic is white. Dark printed colors show scratches more than light colors. A photographic or light color patterned background hides these scratches best.

Card Insertion Instructions: CardLogix highly recommends the printing of directional elements to indicate to the user how to properly use the card; for example, arrows or triangles could be used to show the correct side and/or end of card to be inserted into a reader.

File Formats: It is always best to submit your graphic files to CardLogix in a vector image format as opposed to bitmap. Bitmapped or rasterized images typically do not print well.

Card Orientation: During production, CardLogix will align your artwork on the card in a standard “head-to-head” orientation as shown in the illustration below;
CREATING CARD ARTWORK

Implementing the best card and collateral graphics usually takes a dedicated resource or an outsourced advertising agency to create the type of files that should accompany the other investments you have in your card program. Graphics that are developed on a typical computer screen using low-end ‘Paint’ software or taken from a website rarely yield professional results when printed on a plastic card or a collateral piece.

The following section is designed to help your resource to produce the finest results. If your organization does not have resources readily available, CardLogix can help you through this process easily. Just call us to discuss your specific requirements.

About Graphic Files and Formats: There are two basic formats for graphic images, vector and raster. Vector images consist of sharp lines and curves and are defined by mathematical formula to the printing device. Examples of the vector image file formats are AI, EPS, and CDR. A raster image is comprised of colored squares called pixels. All scanners produce these types of files. When using raster or scanned images in your artwork we recommend a dpi of 600 dpi or greater as less than that will reproduce poorly. Examples of raster image file formats are BMP, TIFF, and JPEG. The images below demonstrate the difference between these two graphic file formats.

Raster images, commonly used when reproducing photographs

Vector images, commonly used when reproducing logos, type, or line-art

Vector Images are made up of lines and individual shape elements that are described to the printing device as a mathematical formula. Because of this there is no special dpi or size considerations and scaling the image has no effect on final output quality. Since ALL photographic or non-continuous tone images are inherently raster images, saving a scanned image of this type as an EPS file will not make it scalable and doing so can reduce it’s quality.

Raster Images are great for photos and complex imagery with shadows, fades and 3D effects however; they should not be used to produce sharp edges or angles such as those found in a type-face, company logo or line drawing. When raster image files are scaled in a graphics program there is a potential loss of quality, therefore all raster images need to be scanned in a size (dpi) to suit the intended output size. When scanning (rasterizing), photographs for use in a graphics program later-on, use the following formula to optimize the final output quality;

\[(\text{Desired final width of image} \div \text{original width of image}) \times 600 \text{ dpi} = \text{scan dpi}\]

Once the photograph has been scanned using this formula it can be placed or imported into your vector image graphics program and scaled to the pre-determined final output size without a loss of quality and within the tolerance of our 600 dpi submittal guideline. Failure to prepare raster images using this formula will produce image quality problems.
Setting Up Your File
The following is a simplified example of how to go about creating electronic artwork for use in production printing. CardLogix understands that no two projects are alike and that your card design may be more or less complex than what we discuss here. However, a complete graphics training course is beyond the scope of this guide. If you are still having trouble generating a beautiful card design, please don’t hesitate to consult with our staff for help.

If your artwork incorporates both raster and vector-type image elements such as a product photo with your company logo laying over the top of it, we have provided the following step-by-step file preparation guide. Keep in mind that this example assumes that you are designing artwork for a standard CR-80 smart card (defined later in this booklet).

1) Scan, and save the photograph as a 600 dpi TIFF file using the CMYK color mode. Scans that have been saved using the RGB color mode will reproduce poorly. If the photograph requires resizing, use the formula on the previous page to determine your scanner settings.

2) Open your graphics editing program and create a page that is 3.37” x 2.125” in size and create 2 layers.

3) Place or import and position your raster image file onto the first layer, then lock the layer. If the image object is intended to bleed or run off the card’s edge, be sure to represent this in your file by positioning the image element slightly larger than or running off the page size. Since the image element is typically a background, do not cut-out or adjust the image to allow for smart-chip module placement.

4) Type any text and/or draw your vector image objects on the second layer. Convert your fonts/type to curves or outlines and be careful to keep any meaningful copy away from the area where we will embed the smart-chip module (see the “Dimensions & Specifications” section later in this booklet). If specific colors need to be applied to any of these elements, say, to match a company logo, specify them in your file using your graphic program’s Pantone© color palette. Colors specified in RGB will reproduce poorly. (Make sure that these colors are noted in a read-me file when submitted).

5) Save/export the file as an EPS file for delivery to us. We will accept any disk form of medium and can also receive your artwork via a compressed (zip, SIT, etc.) email attachment. (Please refer to our comments on secure file transfer on page 4 for additional information.)
SMART CARD DIMENSIONS

CR-80 Card (8 pin module)

CR-80 Card (6 pin module)

CARD PUNCHING OPTIONS

Option #1 (GSM Punch)

Option #2 (Key chain Punch)

Option #3 (Landscape Badge)

Option #4 (Portrait Badge)
MAGNETIC STRIPE STYLES

Magnetic stripes are available in track 1, 2 and 3 configurations as shown in the dimensions drawing. Once you have chosen which configuration to use, please choose it’s placement on the card from the styles shown below.

Dimensions

Style #1
Mag-stripe/chip opposite sides of card

Style #2
Mag-stripe/chip opposite sides of card

Style #3
Mag-stripe/chip on same side of card

Style #4
Mag-stripe/chip on same side of card

SIGNATURE PANELS

NOTES

1) Signature panels can be placed on any area of the card provided it does not overlap any other card option element such as a badge punch-out.

2) Unless otherwise requested, the signature panel will be placed on the back of the card.

3) Optional tamper-evident & custom signature panels are available.
CONTACTLESS CARDS

Contactless cards are available offering a 13.56 MHz ISO 1443 contactless smart chip embedded in ISO 7816 and 7810 compliant white PVC. If your card uses a contactless smart chip, CardLogix requests that you specify which contactless card style you wish to use based on the following style guide. Landscape badge punching is not recommended with contact/contactless card combinations.

Style #1
(embedded contactless chip only)

Style #2
(embedded contactless chip w/ contact chip)

Style #3
(embedded contactless chip w/ contact chip on opposite side of card)

Style #4
(embedded contactless chip w/ magnetic stripe on opposite side of card)

Style #5
(embedded contactless chip w/ magnetic stripe)

Style #6
(embedded contactless chip w/ contact chip and magnetic stripe on opposite sides of card)

Style #7
(embedded contactless chip w/ magnetic stripe, contact chip on opposite side)

Style #8
(embedded contactless chip w/ contact chip, magnetic stripe on opposite side)

Style #9
(embedded contactless chip w/ contact chip and magnetic stripe on same side of card)
**COLLATERAL**
Printed pieces that carry the card, as well as associated flyers, brochures, etc. are created to coordinate with the card design and promote your card program. As card programs proliferate, collateral helps distinguish your card visually and adds impact to your program, as well as useful program information for your customer. We can help your program with many types of collateral. A few of the more popular types are illustrated here:

**Carrier Documents**
For mailing and distribution, the card or cards can be mounted on a literature piece or ‘carrier’ These are available with two types of folding and can be pre-printed with matching variable data on the carrier.

**Letter Fold Mailer**
Your card can be affixed to either the top or center portions of a folded letter for mailing.

**Z-Fold Mailer**

**Card Sleeves & Envelopes**
These carriers allow for additional text and graphics that help explain how to use the card/program and promote the program itself.

**Card Wallet Book (up to 28 pages).**

**Tyvek Envelope Style A**

**Tyvek Envelope Style B**

Sleeve designs can include wallet-like designs for that ‘just like cash’ feel or other concepts such as a passport (“Your ticket to savings”), role-play (Barbie, secret agent, etc.). Text space also gives you room for program tie-ins such as concert four dates, participating partner vendors, etc.
**Blister Packaging**
Retail or promotional collateral is often in the form of blister packing. The printed material and card is displayed via a clear plastic ‘blister’ cover that seals the card securely against a cardboard back, keeping it clean and protected. An optional punch-out window is available to allow for coordinating a SKU number or barcode for activation and inventory control purposes. (Please contact us for more information regarding card activation recommendations).

**Blister Pack Part #CLA-100**
Use this page as a guide when planning your card package design. The shaded area at the bottom right of the illustration is an optional punch out on the rear of the package, thus allowing a view of the back of the smart card itself.

All blisters are transparent allowing a front view of the package contents.

Printing can extend from edge to edge, with full bleeds and the area underneath the blister can be printed upon.
Other Standard Blister Pack Die Sizes

This easy to use chart represents the standard size cardboard back of your smart card packaging. A clear plastic ‘blister’ covering is then glued to the front of this back with your smart card inside to complete the package.

The backing can contain printed images or messages to promote the product and can also be punched, allowing a view of the back of the smart card itself.
CARDS WITH COUPONS

Coupons on cards are a proven method to increase the proposition of your card program. CardLogix offers removable coupons on our smart cards and/or magnetic stripe cards. Promotions combined with other card functionalities can off-set or replace the cost of the whole card adding to your bottom line.

Attracting new customers, these cards with coupons are achieving a 27% redemption rate and can be sold at an average of 40 cents each. They are designed to enhance the business of channel partners, in-house promotions, or the promotions of local businesses that have purchased coupon space. Coupons on smart cards can kick-start a sophisticated program where rechargeable coupons are reloaded into the chip after the initial labels are redeemed. Special offers and other benefits can be revealed after the coupon is peeled off. Hotels, Casinos, Conventions and sports venues can all profit from the cross marketing and promotional value of a CardLogix coupon card.
Photographs have been scanned at 600 dpi or greater and saved in a CMYK color formatted TIFF file.

Line-art elements have been drawn in a vector based image editing program such as Adobe Illustrator.

Typographic image elements have been converted to curves or outlines unless the element represents the positioning of variable data.

Spot colors have been specified using the Pantone® color matching system as well as noted in a readme file that accompanies your artwork.

Photographic, line-art, and security elements have been logically separated using layers and meaningful layer names.

Meaningful image elements do not overlap the card edge and have not been positioned where the smart-chip will be implanted.

Background image elements that bleed off of the edge of the card are shown in your artwork by allowing those elements to overlap a card outline.

Artwork files are collected together for submittal making sure to include a PDF or JPG file of your final artwork as a visual reference.

All files being submitted via email attachment have been compressed to a size not larger than 10 megabytes.

**ALWAYS TAKE THE PROPER SECURITY PRECAUTIONS WHEN DELIVERING YOUR ARTWORK. USE ENCRYPTED EMAIL OR A SECURE COURIER!**
COMMONLY USED TERMS

Adobe PostScript®
The industry-standard page-description language invented by Adobe printing documents that integrate text, graphics, images, and color. Built into printers from over 55 major manufacturers worldwide.

Adobe Type Manager® software is a font style which makes type appear sharp and clear for printing. Type I Fonts are Adobe's industry-standard outline font technology that enables type to be scaled to any size.

Bleed, Full Bleed
Printed colors which run all the way to the edge of a card or printed material are referred to as bleeds. We charge extra for bleeds since they require the printed image to actually be slightly larger than the final trim size (thereby using more plastic).

Blister Pack
The process of thermally molding plastic to a specific form or shape. Often the form is attached via a glue to a paper backing. (see page X for standard dimensions) clamshell (see sample layout) designs have no backing.

Cut lines
(Crop marks) Crop marks show where a card or collateral is to be cut.

CMYK
The abbreviation for Cyan, Magenta, Yellow and Black. The printing industry uses a percentage of each of these colors to reproduce photographic images in the printing process.

Digital Reprographics
Electronic source files are processed directly to the printing press or printing system, rather than through analog steps such as film imagesetting and platemaking.

Direct-to-Plate Printing
This process is often used for cardboard collateral material i.e. blister packs. The traditional offset printing process includes generating film, “burning plates”, and mounting the resulting plates on offset presses. Direct-to-plate printing eliminates the film imaging step by imaging directly on the plate material.

Dots Per Inch (DPI)
A measure of the resolution of a device. The higher the number, the sharper the type and images.

Dye Sublimation
A printing process used in plastic card printing. The ink is transferred on to the card via ribbon one color at a time. It is heated by a print head that sublimates each image into the top layer of a card. Typical resolution is 300 DPI.

Embossing
A process of forming the card or paper around type set characters or a steel rule die. Commonly used in the production of credit cards. CardLogix limits the character set to the American Bank Association formats.

Encapsulated PostScript (EPS)
A standard file format for importing and exporting PostScript language files among applications in a variety of heterogeneous environments.

Fonts
Typefaces in different styles that give documents personality. Common font technologies include the Windows True Type format and Adobe Postscript® outline fonts.

Laser Engraving
The process of cutting an image or character sequence into the surface of a card. This manufacturing process is capital-intensive, thereby reducing fraudulent reproduction.

Lithography or Offset Printing
The most common commercial printing technology in use today. Offset printing applies layers of ink on the page. For each layer, a reverse image of the page is placed on a roller in the printing press. Ink is applied to the non-image areas on the roller, so that as the roller presses against plastic moving through the press, the proper image is left on the card.

Pantone®
Pantone® Matching System: Often referred to as PMS, the Pantone® systems are the most popular color matching systems in the printing industry. Pantone, PMS and the Pantone Matching System are trademarks of Pantone, Inc.

Pixel
The smallest dot that can be produced on a computer screen.

Pre-Press
The steps required to turn a design into final form, ready for final printing on a printing press. Includes color correction, color trapping, imposition, color separation, proofing, and imagesetting.

Raster Image Processor (RIP)
The hardware and/or software that translates data from PostScript and other high-level languages into dots or pixels in a printer or imagesetter.

Resolution
The sharpness of text and graphics provided by any printer or output device, measured in dots per inch.

Screen Printing/Surface Printing
This type of printing is very common on short runs of cards and is used extensively on odd-shaped of uneven surface materials such as cardboard boxes and tee-shirts. Each color has a separate screen imaged on to it. The screen is then laid on top of the object to be printed and the ink is squeegeed through each screen one color at a time. The inks cannot blend well with this process. This type of card printing is not as durable as other methods. Typically resolution is 140 DPI.

Trapping
The process of creating an overlap between abutting colors to compensate for imprecision in the printing press.

TrueType Fonts
Scaleable typefaces for Windows and Macintosh software.

UltraGraphix®
A DataCard Corporation trademark for a single-color-per-pass dye sublimation printing process. CardLogix supports 12 individual colors and B&W barcoding. The maximum printing resolution on this device is 300 dpi.
Quality
CardLogix Corporation is absolutely committed to providing defect free products and services to our customers in partnership with equally committed suppliers and authorized dealers.