

DATASHEET

Entrust Sigma DS4 Instant Issuance System with Durable Graphics Module

HIGHLIGHTS

Next-Generation Financial Flat Card Printing with Durable Graphics Technology

Deliver the most capable payment card instantly with the new Durable Graphics Module for the Sigma DS4 Instant Issuance system. Building on the foundation of Sigma DS4's secure, simple, and smart financial issuance platform, the Durable Graphics Module introduces a world of possibilities when it comes to flat card personalization with its Durable Graphics printing technology.

Entrust's Durable Graphics Module technology has been used to personalize tens of millions of the most modern payment cards in circulation today. Now, instant issuance providers have the opportunity to leverage the unmatched durability and brilliance of Durable Graphics using the Durable Graphics Module with their new (or existing) fleet of Sigma DS4 systems.

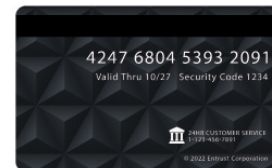
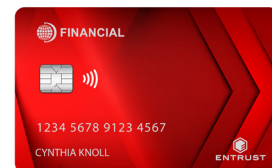
The Durable Graphics Module seamlessly integrates into existing Sigma DS4 systems and applies a unique, UV-curable, thermal transfer, monochrome graphics ribbon to pre-printed cardstock using 300x600 dpi printing technology. This bright, bold, and durable personalization option stands out in its clarity and toughness compared to other direct-to-card flat card personalization options available in the market.



Durable Graphics Module



Sigma DS4



Durable Graphics Printing

The dynamic Durable Graphics Module with Durable Graphics solution enables printing bold ink personalization (name, PAN, CVV) vertically or horizontally, and on the front or back of the card. This enables your financial institution to seamlessly evolve your card design as new formats become the norm.

The Durable Graphics Module delivers an unprecedented shift in the way the world instantly issues payment cards.

Key Features & Benefits

Sigma DS4 + Durable Graphics Module paired with Durable Graphics Module enhancement:

- Bright, bold white text printing (plus 3 other color options)
- Extended durability on card personalization (compared to other flat card perso options)
- Dynamic and flexible card designs (front, back; horizontal, vertical)



Integrates Seamlessly with The World's Most User-Friendly Financial Card Printer

- Intuitive printer dashboard lets you see printer status, order supplies, check cleaning status, update firmware, or contact help – all from your mobile device
- Seamless self-service lets you access how-to videos and other helpful resources by simply scanning a QR code on the LCD display
- Variable LED light ring lets you incorporate brand colors or other customization into your ambient environment
- Pre-loaded ribbon cassettes make switching ribbons easy
- Optional multi-hopper enables multiple card designs from a single printer
- Removable card cassettes make securing card stock overnight a breeze
- Secure Ribbon Scramble allows users to specify the card personalization fields that are to be securely printed, making defined personal data difficult to read from the used ribbon supply



Technical Specifications

Standard Features & Supplies	
Print technology	Dye sublimation / resin thermal transfer
Print capabilities	Single- or dual-sided near edge-to-edge, full-color, standard monochrome, and UV-curable monochrome printing
Print resolution	<ul style="list-style-type: none"> • Standard mode with Durable Graphics Module (DGM): 300 x 600, 300 x 1200 • Standard mode: 300 dots per inch (dpi) (300 X 600, 300 X 1200) standard text, bar code, and graphics printing • TrueMatch™ printing technology. Ability to conform to ICC color workflow.
Print speed	<ul style="list-style-type: none"> • Single-sided color ribbon (YMCKT): up to 250 cards per hour (cph) • Double-sided color ribbon (YMCKT-KT): up to 180 cards per hour (cph) • Double-sided monochrome ribbon (black): up to 500 cards per hour (cph) • 78 seconds to print color graphics and encode mag stripe • 1 minute if using DGM
Card capacity	Input hopper: 125 cards (based on 0.03in. card thickness) Output hopper: 25 cards Reject holding tray: 10 cards Front exception card slot
Card sizes	Thickness: 0.027 - 0.033 inches for DGM
Card materials	Card surface material and surface roughness can influence the print quality and durability of any thermal graphics printing. <ul style="list-style-type: none"> • For best results with durable graphics printing, use glossy PVC cards or glossy cards with PVC overlaminate • PVC cards or cards with PVC overlaminate having average surface roughness (Ra) of 20 micro-inches (0.5 micron) or less, are also found to be suitable for use • Other card types, such as PETG and varnished cards or cards with Ra greater than 20 micro-inches (0.5 micron) should be tested by the users for quality and durability before making their final selection
DGM (Durable Graphics Module)	Recommended for personalization (text). Good print = 5 point font; legible print = 4 point font.
Operating environment	Temperature: 60°F to 95°F (15°C to 35°C) Humidity: 20%-80% RH – non condensing
Magnetic stripe encoding	ISO 7811 three-track support (high- and low-coercivity) JIS Type II single-track option
Smart card personalization	<ul style="list-style-type: none"> • Contact and contactless smart card encoding: ISO 14443 A/B, ISO 15693, MIFARE, MIFARE PLUS, MIFARE DESFire EV1/EV2/EV3* • Single-wire connectivity Supports production of EMV® level-1 compliant card <p>*Compatibility with specific features of new card technologies should always be confirmed.</p>
Security features	<ul style="list-style-type: none"> • Software-activated lock to secure card stock, supplies, and reject card hopper • TLS/SSL encryption, supports AES-256 • Bolt-down ready • Secure cable lock (sold separately) • Concealed output hopper • Password-protected cabinet • Non-resettable card counter for auditing

Secure Ribbon Scramble	<ul style="list-style-type: none"> • Printing with Secure Ribbon Scramble allows users to specify the card fields that are to be securely printed, making defined personal data difficult to read from the used ribbon supply • Software needed: IFI On-prem 6.10 or higher and IFIaaS 8.3 or higher • Available for UV monochrome ribbons (excluding cassette types) and standard black and white ribbons • Only recommended for personalization fields; not recommended for non-personalization information
LCD display languages	English, Spanish, German, Italian, and Japanese
Physical dimensions	Sigma DS4 + Durable Graphics Module: L 26.15 in x W 8.4 in x H 9.6 in <ul style="list-style-type: none"> • Sigma DS4 Multi-hopper + Durable Graphics Module: L 26.15 in x W 13.4 in x H 16.2 in • Sigma DS4-ES1 + Durable Graphics Module: L 35.5 in x W 14 in x H 19.75 in • Sigma DS4-ES1 Multi-hopper + Durable Graphics Module: L 35.5 in x W 14 in x H 27 in
Weight	Printer: 12.1 lbs Printer with DGM: 22.1 lbs Printer with DGM and Multi-Hopper: 40.9 lbs
Connectivity	Ethernet
Driver operating system support	Supported by Instant Financial Issuance Software 6.7 (On-prem) and 8.2 (as a Service)
Warranties	36 months

Optional Features & Supplies for the DS4 card printer with Durable Graphics Module

UV-curable monochrome ribbon kits and prefilled ribbon cassettes	<ul style="list-style-type: none"> • Black, white, silver metallic, and gold metallic • 2,500 images for simplex printing and 1,500 for duplex printing. Actual yield may vary depending on printed image size.
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Optional Features & Supplies when printing with DS4 card printer

Multi-hopper	Six-compartment hopper, 125-card capacity each (750 cards total)																
Color ribbons	<table> <tr> <td>YMCKT</td> <td>500 images</td> <td>ST-KT</td> <td>500 images</td> </tr> <tr> <td>YMCKT-KT</td> <td>350 images</td> <td>GT-KT</td> <td>500 images</td> </tr> <tr> <td>KTT</td> <td>750 images</td> <td>WTT</td> <td>650 images</td> </tr> <tr> <td>KT</td> <td>1,000 images</td> <td></td> <td></td> </tr> </table>	YMCKT	500 images	ST-KT	500 images	YMCKT-KT	350 images	GT-KT	500 images	KTT	750 images	WTT	650 images	KT	1,000 images		
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Monochrome ribbons	White, black, blue, red, green, silver matte, gold matte, silver metallic, and gold metallic: 2,500 images																

Color ribbon guide: Y=Yellow, M=Magenta, C=Cyan, K=Black, T=Topcoat, S=Silver matte, G=Gold matte, W=White

Supply yields: Panel ribbon yields stated are typically the maximum number of panel sets per roll. Monochrome ribbon yields stated as average printing of 2,500 images simplex. Actual yields may vary. Topping foil yield is typically the maximum achievable per roll. Indent ribbon yield varies depending on character size and number of characters printed per card.