

## QUALITY ASSURANCE MODULE

The quality assurance module is an inline solution that allows card issuers to reduce costly manual quality inspections and increase production efficiencies. This module enables issuers to exceed accuracy requirements and decrease overall cost-per-card by verifying both optical and electronic elements of each card that passes through the system.

- Verifies embossing and indent characters, graphics and color printing, facial recognition through pattern matching, laser engraving, magnetic stripe data, and smart card data
- Reduces costly human errors during the production process by using electronic verification of personalization elements
- Gives issuers confidence that personalization features on every card are verified for integrity and quality
- Provides auditing and tracking to protect operations

### Quality Assurance Module Specifications

<b>Module Functionality</b>	<p>Reads and verifies optical (pre-printed and personalized elements) and electronic data elements including:</p> <ul style="list-style-type: none"> <li>• Embossing and indenting characters</li> <li>• Topping quality (requires camera kit for topping module)</li> <li>• Graphics, durable graphics, drop on demand, color printed images, and text</li> <li>• Facial recognition through pattern matching</li> <li>• Laser engraving</li> <li>• Magnetic stripe data</li> <li>• Smart card data (optional)</li> </ul>
<b>Readable Elements</b>	Basic support for many TrueType fonts for Microsoft® Windows® operating systems; printed and pre-printed graphics, color printing, laser, OCR-B (including ICAO MRZ standards for cards)*
<b>Capabilities</b>	<ul style="list-style-type: none"> <li>• Supports rotation at 90, 180, and 270 degrees</li> <li>• Analyzes front and back of the card</li> </ul>
<b>Text Placement</b>	<ul style="list-style-type: none"> <li>• All pre-printed characters must be at least 0.06 in. (1.52 mm) from top and bottom of card</li> <li>• All graphics and color printed elements need to follow the printing specifications as determined for each module</li> </ul>
<b>Minimum Verifiable Text Size</b>	<ul style="list-style-type: none"> <li>• High-quality, lithographic printing: 0.06 in. (1.52 mm)</li> <li>• High-quality color (D2T2) and graphics printing, laser engraved elements: 0.085 in. (2.16 mm)</li> </ul>
<b>Magnetic Stripe Verification</b>	<ul style="list-style-type: none"> <li>• Standard capability</li> <li>• Head positioned on top of card only</li> <li>• Supports ISO 2-track (IA) or a 2-track (IA) with JIS</li> <li>• Reads one track at a time during verification process</li> <li>• Supports high and low coercivity</li> </ul>
<b>Smart Card Verification Optional Features</b>	<p>Smart Card Rack Design:</p> <ul style="list-style-type: none"> <li>• Supports DATACARD and Smartware Nano couplers and heads                             <ul style="list-style-type: none"> <li>- Couplers: Up to 4</li> <li>- Heads: Up to 24 contact or up to 12 contactless heads (DATACARD and Smartware)</li> <li>- Up to 12 contact and 12 dual heads (DATACARD only)</li> </ul> </li> <li>• Module comes bundled with Adaptive Issuance™ Software</li> <li>• Smart card verification application is not included</li> </ul> <p>Smart Card Barrel Design:</p> <ul style="list-style-type: none"> <li>• Supports DATACARD UltraSmart couplers and heads                             <ul style="list-style-type: none"> <li>- Couplers: Up to 4</li> <li>- Heads: Up to 24 contact or up to 12 contactless heads (DATACARD and Smartware)</li> <li>- Up to 12 contact and 12 dual heads (DATACARD only)</li> </ul> </li> <li>• Module comes bundled with Adaptive Issuance™ Software</li> <li>• Smart card verification application is not included</li> </ul>
<b>Card Types Supported</b>	IICO/IEC 7810 Size: 30 mil (+/- 10%)
<b>Card Materials Supported</b>	See system level specifications; no further limitations

\*For more information, please contact a local sales representative



Quality Assurance Module Supported Systems				
Available Systems	MX9100™ System	MX8100™ System	MX6100™ System	MX2100™ System
Rated Speed	Not Available See the Quality Control Module data sheet	Up to 3,000 CPH (dependent on smart card verification time and number of elements being checked)	Up to 1,800 CPH (dependent on smart card verification time and number of elements being checked)	Up to 1,200 CPH (dependent on smart card verification time and number of elements being checked)
Allowed Quantity		Up to 1 module per system		
Module Configurations		See chart below		
System Considerations		<ul style="list-style-type: none"> <li>• Embossing and topping quality verification kit required for each topping module in the system</li> <li>• Topping kit cannot be ordered without the Quality Assurance Module</li> </ul>		

Quality Assurance Module Supported Configurations			
Configurations	Vision, Magnetic Stripe, and Smart Card Barrel	Vision, Magnetic Stripe, and Smart Card Rack	Vision, Magnetic Stripe, and Multi-Card Buffer
Available Systems	MX8100™ System MX6100™ System	MX6100™ System MX2100™ System	MX8100™ System MX6100™ System MX2100™ System
Weight	390.0 lbs (176.9 kg) plus 2.0 lbs (0.90 kg) per smart card coupler with 6 heads	301.0 lbs (136.5 kg) plus 1.5 lbs (0.68 kg) per smart card station	280.0 lbs (127.0 kg)
Module Dimensions	50.1 in. x 40.0 in. x 27.0 in. (127.3 cm x 101.6 cm x 68.6 cm)	50.1 in. x 30.0 in. x 27.0 in. (127.3 cm x 76.2 cm x 68.6 cm)	50.1 in. x 30.0 in. x 27.0 in. (127.3 cm x 76.2 cm x 68.6 cm)
Current Draw	1.70 Amps at 230V (when configured with 24 heads)	1.14 Amps at 230V (when configured with 11 stations)	0.79 Amps at 230V
Heat Output	Average of 1336 BTUs per hour (when configured with 24 heads)	Average of 882 BTUs per hour (when configured with 11 stations)	Average of 620 BTUs per hour

Learn more about the unmatched selection of innovative card personalization capabilities of the MX Series at [entrust.com](http://entrust.com).  
**Contact us today at [info@entrust.com](mailto:info@entrust.com)**

**CORPORATE HEADQUARTERS**  
Phone: +1 952 933 1223  
[entrust.com](http://entrust.com)  
[info@entrust.com](mailto:info@entrust.com)