

HIGH SPEED STEERABLE MIRROR

DataMan 470 accessory for large field of view applications

The High Speed Steerable Mirror (HSSM) attached to the DataMan® 470 fixed-mount barcode reader provides a high-performance, cost-effective solution for large field of view applications. Previously, pallet scanning, aggregation, and large area scanning functions required expensive, high-resolution PC-vision, or two or more smart cameras to successfully read the high volume and variation of barcodes. HSSM provides this coverage and speed in a single compact form factor. It enables faster installation, lower maintenance costs, and increased productivity.



Solve large field of view applications

The high accuracy HSSM transforms 3MP and 5MP barcode readers to an effective resolution greater than a 50MP sensor. This makes the mirror ideal for large field of view applications which often have shorter working distances and high variability.



Pharmaceutical aggregation



Inbound pallet scanning

Deploy your application in 5 minutes

HSSM comes with a built-in web-based setup wizard allowing operators to deploy an application in 5 minutes or less. The user simply enters in their application specifications and the wizard automatically calculates the optimal scanning pattern. This ensures the highest read rates in the shortest cycle times.

An integrated laser aimer guides initial mounting and dynamically follows the steered field of view to provide real time feedback on the device scanning pattern.

The screenshot shows the 'Steerable Mirror Setup Wizard' interface. The left pane displays a 3D diagram of a target box with 'Y-dimension' and 'X-dimension' labels. The right pane, titled 'Target Specifications', contains the following settings:

- Scan which face of the target?**
☒ Top ☐ Side
- Scan target on a moving conveyor?**
☒ Yes ☐ No
- Conveyor Speed**
0.5
Range: 0 - 3.0 m/s
- Target Settings**
Max. Y-Dimension: 400
Range: 0 - 8000mm
Max. X-Dimension: 400
Range: 0 - 8000mm
- Code Settings**
Max. Code Height: 20
Range: 0 - 300mm
Max. Code Length: 80
Range: 0 - 300mm
Code Orientation: Ladder

Navigation buttons include 'Previous Step', 'Next', and 'Finish'.

Input your application specs in the Target Specifications Tab

The screenshot shows the 'Steerable Mirror Setup Wizard' interface, now on the 'Scanmap Validation' tab. The left pane displays a scanmap with three numbered regions (1, 2, 3) and a small 3D model of the device. Below the scanmap are three buttons: 'Calculate Scanmap', 'Capture Images', and 'Fit to View'. The right pane, titled 'Scanmap Validation', contains the following information:

- Target Specifications** (collapsed)
- Device Placement** (collapsed)
- Scanmap Validation** (expanded)
 - Review the generated scanmap before continuing. Trigger settings will be applied after this step.
 - Calculate Scanmap**: Solves the scanmap and shows it with the target on the viewer.
 - Capture Images**: Triggers the reader and projects all captured images onto the scanmap. Place a target in the field of view.
 - Acquisition Order**: Top-to-Bottom
 - Previous** button

Navigation buttons include 'Previous Step' and 'Finish'.

View the calculated scan map and field of view coverage in the Scanmap Validation Tab

Take advantage of the latest barcode reading technology

DataMan 470 is a premium fixed-mount barcode reader designed with multi-core processing power, HDR+ imaging technology, a high-resolution sensor, and advanced decoding algorithms. Take this latest technology to the next level by adding the High Speed Steerable Mirror.

SPECIFICATIONS

	DataMan 474 Variant	DataMan 475 Variant
Algorithms and Technologies	1DMax®, 2DMax®, Hotbars®, PowerGrid®	
Image Sensor Properties	Diagonal 8.9 mm; 3.45 µm square pixels	Diagonal 11.1 mm; 3.45 µm square pixels
Image Sensor Resolution	2048 x 1536	2448 x 2048
Electronic Shutter Speed	Min. exposure: 15 µs Max. exposure: 1000 µs with internal illumination/10000 µs with external illumination	
Max Acquisition	Up to 55 Hz	Up to 37 Hz
Lens Options	Liquid lens 16 mm, 24 mm, 35mm	Liquid lens 24mm, 35mm
Trigger and Tune Buttons	Yes; Quick Setup Intelligent Tuning	
Laser Aimer	Included	
Discrete Inputs	2 fixed + (*) opto-isolated	
Discrete Outputs	2 fixed + (*) opto-isolated	
*Other I/O Points	2 user-configurable	
Status Outputs	Beeper, 5 multifunctional LEDs, 10 LED bar array, 360 degree indicator	
Lighting	Various controllable external light options	
Communications	Ethernet and Serial	
Protocols	RS-232, TCP/IP, PROFINET, EtherNet/IP(TM), SLMP, Modbus TCP, NTP, SFTP, FTP, MRS Java Scripting enabled for custom protocols	
Power	24 VDC ±10%	
Power Consumption	24 VDC ±10%, 1.5 A maximum Supplied by LPS or NEC class 2 only	
Weight	718 g	
Dimensions	L: 184.8 mm, W: 67.7 mm, H: 77.1 mm	
Operating Temperature	0–57 °C (32–134.6 °F) ¹	
Storage Temperature	-20–80 °C (-4–176 °F)	
Operating and Storage Humidity	< 95% non-condensing	
Protection	IP67 with cables	
Angle of Deflection	-40 degrees to +40 degrees	
RoHS Certified	Yes	
Approvals (CE, UL, FCC)	Yes	

¹ In situations where the operating temperature exceeds 40 °C, an external heat sink is required.

COGNEX

Companies around the world rely on Cognex vision and barcode reading solutions to optimize quality, drive down costs and control traceability.

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