

MINI HAWK XI



Miniature Autofocus Ethernet Imager

The MINI Hawk Xi industrial imager packs high performance decoding into a compact package for easy setup and reliable reading in almost any automation environment. Aggressive X-Mode technology reads any barcode, 2D symbol, or direct part mark (DPM) with no configuration or setup required.

High performance, easy setup, and integrated Ethernet make the MINI Hawk Xi an ideal compact imager for any industrial application.

MINI Hawk Xi: At a Glance

- Decode speed and read range: Varies by model
- X-Mode Decoding Technology
- Autofocus
- Integrated Ethernet Connectivity
- 10 to 30 VDC

SXGA: High resolution imager

WVGA: High speed imager



ESP® Easy Setup Program: Single-point software provides quick and easy setup and configuration of all Microscan readers.



EZ Button: This performs reader setup and configuration with no computer required.



Visible Indicators: Include "good read" green flash, LEDs and symbol positioning tool.

For more information on this product, visit www.microscan.com.

Decode Any Symbol

The MINI Hawk Xi consistently reads damaged, distorted or otherwise challenging direct part marks with our patented decode algorithms.

X-Mode Technology

In addition to the most aggressive decoding available, X-Mode technology provides easy setup and deployment of the MINI Hawk Xi in any application.

Autofocus

For real time dynamic autofocus, position the symbol at the center of the field of view, and push the EZ button. The MINI Hawk Xi automatically adjusts focal distance and sets internal parameters to optimize the symbol.

Embedded Ethernet

Integrated Ethernet is included for industrial connectivity and high speed communication.

Compact and Lightweight

Miniature form factor fits easily in tight spaces, and is lightweight for mounting into robotic applications.

Application Examples

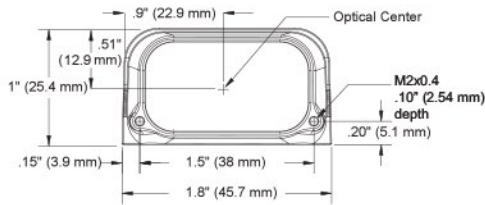
- Assembly line manufacturing
- Component tracking
- Automotive
 - Dot peen mark on power-train components
 - Laser marks on automotive electronics components
- Medical devices
 - Laser marks on components
- Electronics
 - Laser markings on printed circuits boards, flex circuits
- Semiconductors
 - Laser marks on packages and components

MINI Hawk Xi: Available Codes

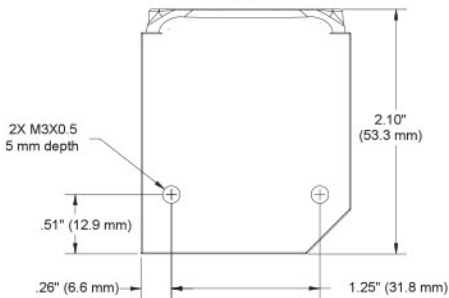
| | | |
|---------|--------------|--------------|
| Linear | All Standard | Postal Codes |
| | | |
| Stacked | MicroPDF | PDF417 |
| | | |
| | GS1 Databar | |
| 2D | Data Matrix | QR |
| | | |
| | Micro QR | Aztec |
| | | |

MINI HAWK XI SPECIFICATIONS AND OPTIONS

Front

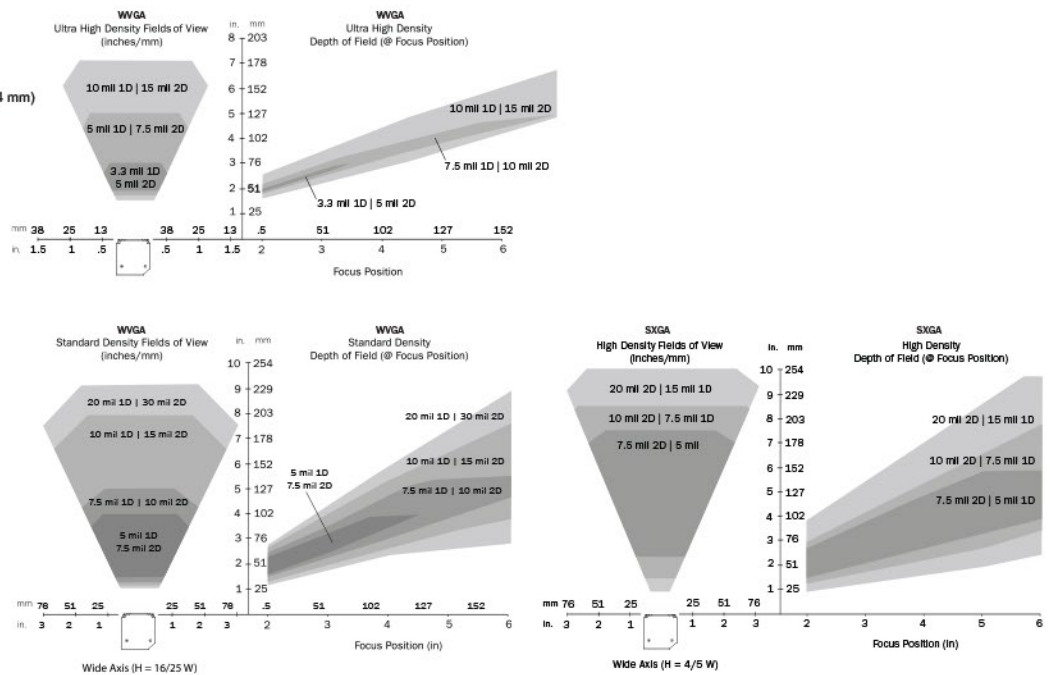


Base



Note: Nominal dimensions shown. Typical tolerances apply.

READ RANGES (GRAPHS AND TABLES)



MECHANICAL

Height: 1" (25.4 mm) **Width:** 1.80" (45.7 mm)
Depth: 2.10" (53.3 mm) **Weight:** 3.2 oz. (91 g)

ENVIRONMENTAL

Enclosure: IP54 (category 2)
Humidity: up to 90% (non-condensing)
Operating Temperature: 0° to 40°C (32° to 104°F)
Storage Temperature: -50° to 75° C (-58° to 167°F)

CE MARK

EN 55024: 1998 ITE Immunity Standard
 EN 55022:98 ITE Disturbances

LIGHT SOURCE

Type: High output LEDs



LIGHT COLLECTION OPTIONS

Progressive scan, square pixel. Software adjustable shutter speed, electronic shutter
SXGA: 1280 by 1024 pixels
WVGA: 752 by 480 pixels

SYBLOGIES

2D Symbologies: Data Matrix (ECC 0-200), QR Code, Micro QR Code, Aztec Code
Stacked Symbologies: PDF417, Micro PDF417, GS1 Databar (Composite & Stacked)
Linear Barcodes: Code 39, Code 128, BC 412, I2 of 5, UPC/EAN, Codabar, Code 93, Pharmacode, PLANET, PostNet, Japanese Post, Australian Post, Royal Mail, Intelligent Mail, KIX

READ PARAMETERS

Pitch: ±30° **Skew:** ±30° **Tilt:** 360°
Decode Rate: Up to 60 decodes per second (HS model)
Focal Range: 1.3 to 9.3" (33 to 236 mm) (autofocus)

CONNECTOR

Dual Cable: 6 ft. Industrial Ethernet cable with RJ45 plug; and 3 ft. cable with M12 plug

INDICATORS

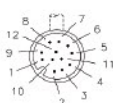
LEDs: Read Performance, Power, Read Status
Green Flash: Good read **Blue V:** Symbol locator
Beeper: Good read, match/mismatch, no read, serial command confirmation, on/off

| Narrow-bar-width | | Field of View (maximum) | Read Range (using autofocus) |
|---------------------------|------------------|-------------------------|--------------------------------|
| 1D | 2D | | |
| Ultra High Density | | | |
| .0033" (0.08 mm) | .005" (0.13 mm) | 1.6" (40 mm) | 1.9 to 4.4" (47 mm to 110 mm) |
| .0075" (0.19 mm) | .010" (0.25 mm) | 2.5" (64 mm) | 1.7 to 6.7" (42 mm to 170 mm) |
| .015" (0.38 mm) | .020" (0.38 mm) | 2.9" (74 mm) | 1.5 to 8.0" (38 mm to 203 mm) |
| Standard Density | | | |
| .005" (0.13 mm) | .0075" (0.19 mm) | 2.8" (72 mm) | 1.6 to 4.4" (41 mm to 112 mm) |
| .0075" (0.19 mm) | .010" (0.25 mm) | 3.8" (97 mm) | 1.5 to 6.2" (38 mm to 157 mm) |
| .010" (0.25 mm) | .015" (0.38 mm) | 4.7" (118 mm) | 1.4 to 7.6" (36 mm to 193 mm) |
| .020" (0.51 mm) | .030" (0.76 mm) | 6.2" (158 mm) | 1.3 to 10.0" (33 mm to 254 mm) |

WVGA units used for data provided in table. Subject to change. See User Manual for complete data.

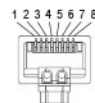
PIN ASSIGNMENTS

M12 12-Pin Plug:



| | |
|----|---------------|
| 9 | Host RxD |
| 10 | Host TxD |
| 2 | Power |
| 7 | Ground |
| 1 | Trigger |
| 8 | Input Common |
| 3 | Default |
| 4 | New Master |
| 5 | Output 1 |
| 11 | Output 2 |
| 6 | Output 3 |
| 12 | Output Common |

RJ45 Plug:



| | |
|---|--------|
| 1 | TX (+) |
| 2 | TX (-) |
| 3 | RX (+) |
| 4 | NC |
| 5 | NC |
| 6 | RX (-) |
| 7 | NC |
| 8 | NC |

COMMUNICATION PROTOCOLS

Standard Interface: Ethernet/IP, Ethernet TCP/IP, RS-232

ELECTRICAL

Power: 10-30 VDC, 200 mV p-p max. ripple, 132 mA @ 24 VDC (typ.)

DISCRETE I/O

Trigger Input, New Master: Bi-directional, optoisolated, 4.5-28V rated (10 mA at 28 VDC)
Outputs (1, 2, 3): Bi-directional, optoisolated, 1-28V rated, (I_{ce} <100 mA at 24 VDC, current limited by user)

QMS CERTIFICATION

www.microscan.com/quality

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 Performance data is determined using high quality Grade A symbols per ISO/IEC 15415 and ISO/IEC 15416 in a 25° C environment. For application-specific results, testing should be performed with symbols used in the actual application. Microscan Applications Engineering is available to assist with evaluations. Results may vary depending on symbol quality. **Warranty**—For current warranty information on this product, please visit www.microscan.com/warranty.

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